



DEFENDING ATTACK FROM THE NORTH: **Alaska's Forward Operating Bases During the Cold War**

Photo: Eleventh Air Force History Office Archives



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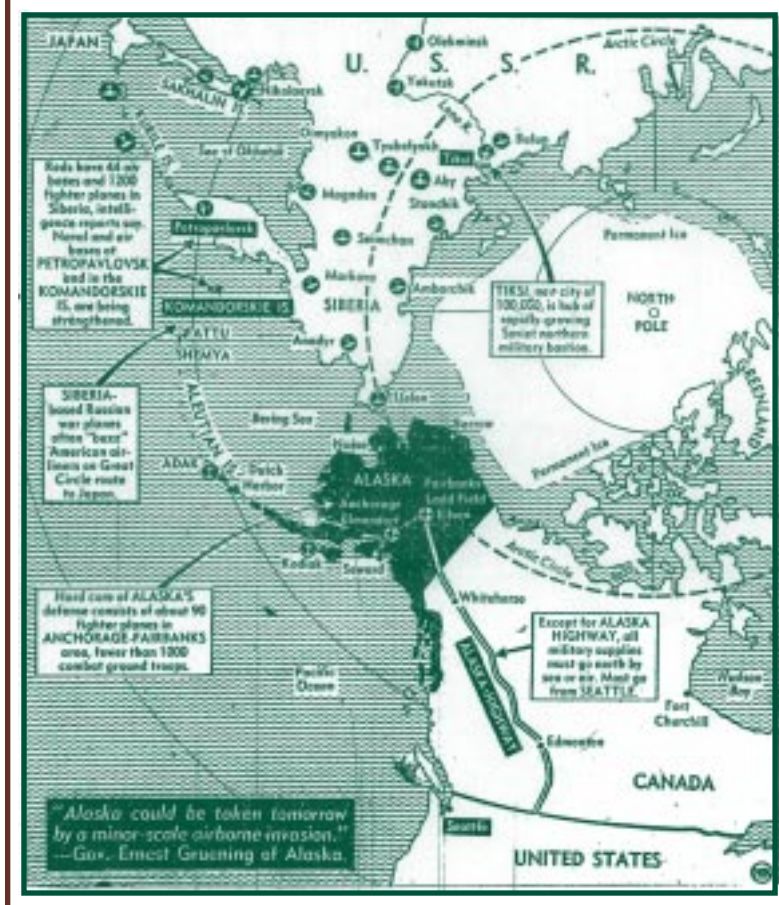
The Alaskan forward operating bases (FOBs) played a significant role in the United States' strategic air defense in the early Cold War. Because the Alaskan FOBs were located close to the Soviet Union, and more importantly, close to Soviet bases used for bomber operations, the fighters stationed there could and did intercept the major share of Soviet aircraft that ventured into American airspace. This booklet presents the history of the FOBs and was compiled from a variety of sources, including recently declassified military histories and interviews with veterans and long-time contractors at the installations.

The Soviet Threat in the 1950s

Soon after World War II, the military emphasis for U.S. forces in Alaska shifted from countering a threat from the western Pacific to countering a threat from the Arctic north. The Soviet Union, which lacked access to foreign bases within bombing distance of North America, established numerous airfields in northern Siberia beginning in 1945. Because those airfields were one thousand miles closer to the heartland of the United States than any other potential military base in the U.S.S.R. and because Soviet bombers lacked adequate range to attack from other bases, the Siberian bases represented the most significant threat of Soviet attack on North America.

U.S. military leaders perceived North America as "Wide Open on Top," and in February 1946, the Army Air Force Chief of Staff, General Carl Spaatz, enunciated what became known as the polar concept, which placed air defense priority with the "polar approaches, namely the North Atlantic and Alaska."

Must Watch Both North and West



This map created and published by the 49th Star newspaper illustrates the location of Soviet airfields in 1950, and reflects the general concern of Alaskans regarding the potential for Soviet attack.

Brief History of the Development of Alaska's Air Defenses

At the end of World War II, arctic air defense units and equipment – aircraft, radar, and anti-aircraft artillery forces – were sparse. Not only was there a shortage of equipment and troops, but the available World War II vintage equipment was of questionable utility, particularly in the Alaskan theater.

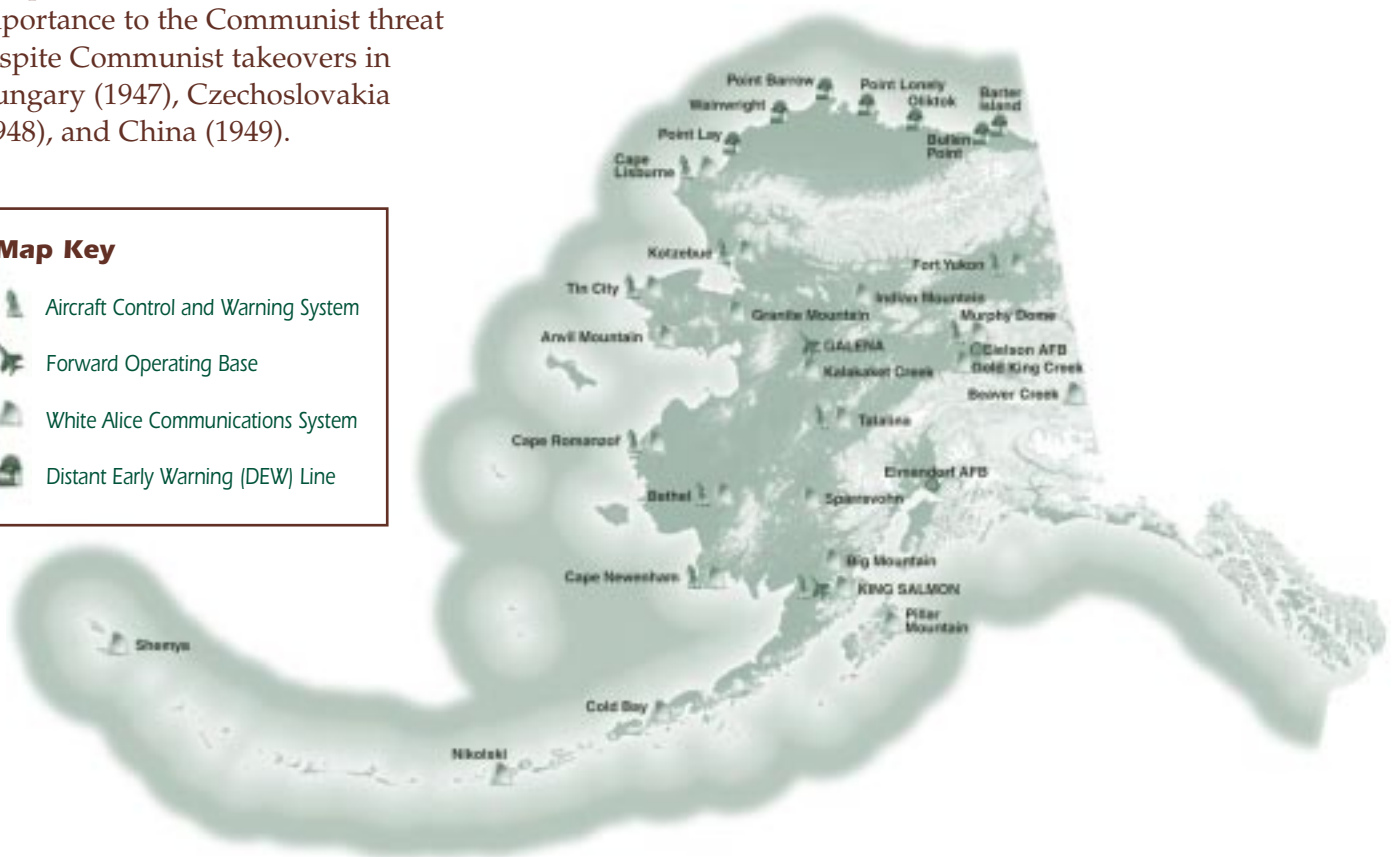
Beginning in 1946, military leaders had initiated various studies and advanced several proposals to upgrade Alaskan and North American air defenses, but Congress was reluctant to commit funding for air defenses because of concerns about the adequacy of radar technology and shifting funding from the military's higher priority of improving the strike capabilities of U.S. bombers. Furthermore, U.S. political leaders were slow to attach importance to the Communist threat despite Communist takeovers in Hungary (1947), Czechoslovakia (1948), and China (1949).

The outbreak of the Korean War in 1950 provided the impetus for investment in Alaska's air defenses, and the military began construction of a radar network in 1951 and an advanced communications system in 1957. Facilities at the forward operating bases (FOBs) were upgraded; modern facilities were constructed; and new, advanced aircraft were deployed in the region.

By the end of the 1950s, Alaska's air defense infrastructure was well developed in scope and depth, providing early warning and interception for the territory (state in 1959) itself, for the United States, and for North America (see map).

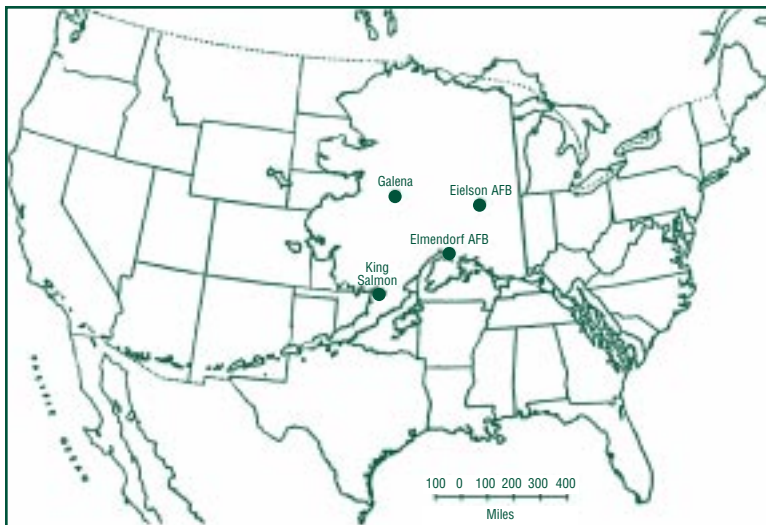
Map Key

-  Aircraft Control and Warning System
-  Forward Operating Base
-  White Alice Communications System
-  Distant Early Warning (DEW) Line



Alaska's Unique Setting

The Alaskan territory's special characteristics, including its harsh climate, great distances, and proximity to the Soviet Union, defined the development of FOBs in Alaska. Not only did equipment, such as aircraft, need to be suitable for these conditions, but the Air Force also had to consider logistical support of remote installations. Much of the undeveloped lands in Alaska could not be accessed by means traditional in the continental United States; supplies had to be shipped via air or water in most cases because roads and rail lines were either inadequate or, in most cases, nonexistent.



Delivering Supplies: Mona Lisa and Cool Barge

The Department of Defense began a coordinated effort for resupply of the remote Alaskan air defense sites, including the FOBs, in 1951. Because the sites were so remote, King Salmon and Galena required 13-month supply levels. The annual resupply started in Seattle and involved all branches of the service: the Air Force procured supplies and oversaw their loading onto Navy barges; the Navy carried the cargoes to the sites; the Army loaded them onto smaller barges and transported them to the beach; and finally on-site Air Force personnel unloaded the cargoes and transported them to storage areas. Initially handled entirely by the military, many aspects of the resupply mission were contracted with commercial entities after 1957.

Signaling the importance of the resupply mission, in 1953 the Alaska Air Command requested and received a special code name "Mona Lisa" for the program. In 1967, the Air Force renamed the mission "Cool Barge."



Photo: Eleventh Air Force History Office Archives

Life at the FOBs

The FOBs were unified by mission but not by layout or building design. Although they did contain a number of similar buildings that supported like functions (e.g., alert hangars, fuel storage, dormitories, dining halls, etc.), unlike many of the other Cold War-era military installations in Alaska, the FOBs were constructed gradually throughout the Cold War period and did not follow standard plans. With more than 70 buildings at King Salmon and more than 50 at Galena, the FOBs were among the largest of the remote Alaskan installations and resembled more traditional bases found in the continental United States.

Despite the remote locations, many recreational opportunities were available at the FOBs. Facilities included an indoor gym with basketball courts, movie theater, photo laboratory, and bowling alley. Other features were airmen, non-commissioned officer, and officer clubs with pool and ping pong tables. Books and (later) videos were available from the library, and card and board games were widespread. In the warmer months, King Salmon provided many outdoor recreational opportunities, including salmon fishing, softball, target shooting, hiking, and hunting. These outdoor amenities were available in a more limited extent at Galena as well.



In the early years, airmen were bunked two to a room; in later years, individual rooms were standard.

Photo: D. Halstead
(pictured)



Despite limited access to perishable items, most veterans reported the food at the FOBs to be very good.

Photo: A. Biron

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IGHTER-INTERCEPTOR AIRCRAFT



In the early years (1948-1953), the FOBs operated with an assortment of aircraft that all proved inadequate for operations in Alaska. These aircraft, which included the F-80 "Shooting Star" shown here, at Elmendorf AFB, had limited ranges (less than 1,000 miles) and had problems operating at night, in cold weather, and at high altitude.



In 1957, the F-89 was replaced by the F-106 "Delta Dart," the first all-weather supersonic fighter. The F-106 was much faster than the F-89, but it was also more expensive because of its limited range of 1,000 miles. The first sightings of Soviet aircraft were recorded by the F-106.



From 1954-1957, the Alaskan FOBs were equipped with the F-89 "Scorpion," the first U.S. jet designed specifically for all-weather operations. Because it was equipped with ground-controlled radar, it also had better tracking capabilities. However, its limited range (1,370 miles) and subsonic maximum speed of 636 mph made it inadequate as a long-range interceptor necessary for Alaska's vast airspace.



The F-106 "Delta Dart" was deployed to Alaska from 1963-1970. The F-106 was basically a supersonic fighter (1,500 mph), range (1,500 miles), and it continued to be used as well.

1948-
1953

1954-
1957

1957

During the 46 years of fighter-interceptor operations in Alaska, several types of aircraft were deployed to the region. The success of the FOB mission was tied in large part to the performance and capabilities of the aircraft.



The single-seat Convair F-102 "Delta" was a supersonic fighter-interceptor. The F-102 was deployed to Alaska in 1963, but it did not perform well in Alaska's high-altitude environment. It had a range of 1,000 miles. However, the first intercepts were made by F-102s.



The F-4E "Phantom II" was deployed to Alaska in 1970. The F-4E had a maximum speed exceeding mach 2, a range of 2,300 miles, and a combat ceiling of 71,000 feet. This high-powered aircraft was responsible for increasing the number of intercepts of Soviet aircraft despite a reduction in interceptor squadrons.



The F-15 "Eagle" replaced the F-4E in FOB operations in Alaska. The F-15 had greatly improved maneuverability, speed, and range over the F-4E and was the most effective interceptor used during the Cold War.



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Photographer: MSgt Dave Nolan
Source: Air Force Link
(www.af.mil/photos)

All photos: 11 AF/HO, except noted

1963-1970

1970

1982

FOB Mission

Aircraft were deployed at King Salmon as early as 1948 and at Galena in 1951. However, because of limitations in aircraft, shortages of personnel, and inadequacies in the radar detection network, the FOBs were not regularly used for interception until the mid-1950s. Between 1958 and 1961, at least 16 unsuccessful intercepts were initiated against Soviet bombers flying in the Alaskan theater. The first successful interception (i.e., interceptor aircraft were deployed and made contact with the intruding aircraft) of a Soviet aircraft (Tu-16 bomber) in the Alaskan theater was made by F-102s operating from Galena in December 1961. The first intercept of a Soviet bomber by a U.S. aircraft from King Salmon occurred in September 1965.

Milestones for Interceptions of Soviet Aircraft over Alaska during the Cold War

Date	Event
5 December 1961	Two F-102s on alert at Galena intercepted two Tu-16 Badgers off the northwestern coast of Alaska in the Bering Sea. This was the first recorded intercept of a Soviet aircraft in the Alaskan theater.
14 March 1963	Two Soviet aircraft penetrated 30 miles into American airspace over the southwestern corner of Alaska. Two F-102s from King Salmon were scrambled but were recalled because of low fuel when they were within 20 miles of the Soviet aircraft. News of this encounter prompted Alaskan Governor William Egan to declare Alaska's defense "totally inadequate to meet the Communist threat."
2 September 1965	Two F-102s intercepted a Tu-16 Badger in the first successful intercept launched from King Salmon.
19 May 1968	Two F-102s from Galena intercepted an AN-24 Coke off the western coast of Alaska. This was the first time a Soviet aircraft was intercepted in U.S. airspace.
18 May 1972	An F-4 intercepted an AN-24 Coke over the Chukchi Sea. This represented the first intercept by an F-4.
27 February 1974	Two F-4s out of Galena intercepted an AN-24 Coke. On route to its home base, the Soviet craft ran into bad weather and fuel problems and was forced to land on St. Lawrence Island. A U.S. C-130 flew from Elmendorf to assist the stranded Soviet crew. This incident represented the first time a Soviet aircraft had landed on American soil since World War II.
28 November 1982	An E-3 Sentry aircraft directed two F-15s out of Shemya to intercept two Tu-95 Bears. This was the first time a Sentry had been used in an intercept mission, and it was the first intercept flown from Shemya.
14 June 1983	Two F-15s controlled by the Regional Operations Control Center (ROCC) at Elmendorf intercepted two Tu-16 Badgers. This was the first "live" intercept controlled by the ROCC.
5 April 1985	First long-range intercept made possible by aerial refueling.
17 September 1985	The first multiple intercept involving planes from Galena and King Salmon occurred. After intercepting two Tu-95 Bears over the Bering Sea, the King Salmon-based pilots were directed by an E-3 Sentry to intercept two other Tu-95 Bears in the North Pacific Ocean.
10 September 1986	Longest intercept took place with planes scrambled from Elmendorf to intercept two Tu-95s 340 nautical miles northeast of Point Barrow.
29 May 1987	First inter-service intercept of Soviet aircraft near Alaska with two Air Force F-15s flying from King Salmon and two Navy F-14s flying from Adak Naval Air Station.

When an unidentified aircraft was detected by radar in Alaskan airspace, its location and direction were radioed to an Air Defense Direction Center, which relayed the information to a FOB. There, fighter-interceptors immediately deployed to intercept the intruder. The increasing numbers of successful interceptions beginning in the early 1960s and continuing throughout the Cold War proved the effectiveness of air defense operations.

The fighter-interceptors were always scrambled with “full loads” that included cannon shells, bombs, and (later) missiles. The fighters scrambled to the scene to identify the intruder plane and determine its intentions. An intercept does not mean that the pilots fired on the enemy plane, rather that they checked it out and were prepared for hostility once they made contact. For the most part, when the U.S. interceptors made contact, the Soviet plane retreated to Soviet airspace. The planes did occasionally exchange fire, but no fatalities were recorded during intercept missions in Alaska.



Radar operations were integral to the FOB Mission.

Photo: A. Biron



Specially designed alert hangars housed pilots and aircraft on alert missions.

Photo: Eleventh Air Force History Office Archives



GALENA

The town of Galena was established in the early 1900s as a supply and transshipment point for nearby lead ore mines. The development of the air base there prompted significant growth in the community beginning in the 1950s and peaking in the early 1990s with a community population of over 800 persons.

The Civil Aeronautics Authority (CAA) (later the Federal Aviation Administration or FAA) constructed a small airfield in Galena late in 1941 to serve as a transportation hub for west-central Alaska. The CAA completed the airfield in 1942. Shortly after completion, the airfield was expanded by the Army to serve the Lend-Lease transfer of American aircraft to the Soviet Union during World War II.

At the end of World War II, the Army declared the airfield surplus, and the CAA resumed control of the facility. In 1951, the Air Force negotiated with the CAA for joint use of Galena Airport for military use as an FOB, replacing Marks AFB near Nome in Alaska Air Command's fighter-interceptor plans.

In 1951-1952, the Air Force constructed a radar site, initially known as Galena II and named Campion after its completion in 1954. The site was located 9 miles from Galena Air Base and was part of the Aircraft Control and Warning (AC&W) system. The radar site established administrative and tactical communications with Galena Air Base. Radar data from Campion and 18 other radar warning sites were used to scramble and direct fighter interceptors. Campion operated until 1983, when the Alaska Air Command abandoned the installation and sited an AN/FPS-117 minimally attended radar at Galena, where it could be more easily maintained.

Between 1954 and 1959, the Air Force initiated significant upgrades to the World War II-era facilities at Galena, including upgrades to the runway, improvements to fuel storage and delivery systems, and construction of perma-

nent, modern facilities to support additional personnel. From the mid-1950s to the end of the Cold War, 200-300 military personnel were stationed at Galena.

Approximately one-third of Galena's facilities were constructed during the late 1950s. Construction slowed dramatically in the 1960s and 1970s;

several shops and recreational facilities were added to the base, but existing facilities were minimally maintained.

By 1980, many of the facilities at Galena were in serious disrepair. Between 1979 and 1989, the Air Force renovated several buildings and constructed 17 new facilities, including a modern consolidated building and headquarters building.

In October 1993, the Air Force withdrew all permanent military personnel and aircraft from Galena. The Air Force reverted facilities to standby status and hired a contractor to maintain the runway and a small number of Air Force facilities on a standby basis.



KING SALMON

The community of King Salmon grew with the development of the Air Force installation and other government services. Before 1960, the U.S. Census Bureau reported no residents in King Salmon, although nearby fishing villages, including Naknek and South Naknek, had been permanently occupied since the late 1800s. The presence of government facilities, including the airport, fueled the growth of the salmon fishing industry in King Salmon, with approximately 30,000 people now passing through the airport each year, primarily to fish in the area.

The CAA constructed an airport and associated facilities at King Salmon in 1931. In 1941, the CAA transferred the facility to the U.S. Army, and the Army constructed new buildings to support its World War II efforts. Construction on what was then called Naknek Army Air Base lasted from July 1942 to September 1943, with improvements continuing into 1944. As a satellite for the main Army Air Force Base at Elmendorf, Naknek was a fuel and rest stop for aircraft on the route to the Aleutians.

The airfield also supported the Lend-Lease program. After the war, the base was deactivated and transferred back to the CAA for use as Bristol Bay Airfield. The military returned as a tenant in mid-1948 when the Air Force began to use the airfield as an FOB.

The airfield was renamed King Salmon Air Station in 1954 and is now known as King Salmon Airport.

In 1950, King Salmon became one of the original ten aircraft warning radar installations. The radar became operational in November 1951. In March 1953, the base was converted into an air defense direction center.

Five years later, it became a North American Air Defense Command (NORAD) Control Center responsible for air defense for the southern sector of the Alaska NORAD Region.

In 1959, the land was transferred from the CAA to the new State of Alaska. The Air Force retained its lease with the state, and the installation continued to grow. In 1969, after the other southern NORAD Control Center closed, King Salmon assumed control responsibility for all AC&W installations in the southern Alaska Air Command sector, which resulted in continued use and expansion of the base.

Beginning in the late 1970s, the Air Force significantly reduced the number of personnel at King Salmon. First, in 1977, most base support functions were transferred to a civilian contractor. In 1983, the original AC&W radar was upgraded to minimally attended radar, which required no on-site personnel to operate.

In 1994, the Air Force withdrew all permanent military personnel and aircraft from King Salmon Airport as part of post-Cold War reductions throughout the Air Force and converted the installation to a contingency field maintained by a civilian contractor. The radar continues to operate unmanned.





United States Air Force, Pacific Air Forces, 11th Air Force, 611th Air Support Group.



This booklet was prepared by Argonne National Laboratory for Environmental Planning (Cultural Resources), 611th Civil Engineer Squadron, Pacific Air Forces, U.S. Air Force. For further information, contact Ms. Karlene Leeper at (907) 552-5057.

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