

**The Cold War Years**  
**1946-1991**  
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**Wide Open On Top**

The late 1940s represented a period of transition from the World War II Japanese threat in the North Pacific region to the threat posed by Soviet bombers. Alaska became an air theater of operations and the senior commanders were assigned from the ranks of Air Force generals.<sup>1</sup>

The Soviets had developed a four engine powered long range bomber capable of delivering nuclear weapons to Northwestern United States targets on one-way flights from Arctic staging bases near Alaska. The bomber's range could be extended farther by capturing forward bases in Alaska. It resulted in the construction of an extensive aircraft control and warning system with radar stations located on Alaska's periphery and interior, later augmented by the Alaska Segment of the Distant Early Warning (DEW) Line. Fighter interceptors, based out of Elmendorf AFB and Ladd AFB, were maintained on 15-minute alert at forward bases at King Salmon and Galena. The main bases provided command and control, logistics support and housed the ground forces.<sup>2</sup>

While the emphasis during World War II had been on perimeter defenses, the forces were now concentrated around the main bases of Elmendorf AFB and Fort Richardson, Ladd AFB (later Fort Wainwright) and Eielson AFB, and the Navy base on Kodiak Island. The military mission in Alaska centered on maintaining a deterrence against Soviet aggression and, providing a training environment for Arctic and cold region warfare.<sup>3</sup>

Studies were made to determine the best type of defense for Alaska and the nation. They resulted in the construction of an extensive air defense system. Since troop strengths in Alaska, particularly Army, were not sufficient to defend the territory, plans were formulated to augment them with forces deployed from U.S. bases. The concept was exercised on a routine basis.<sup>4</sup>

**Economic Impact**

The Korean War and the heating up of the Cold War following the Soviet Union detonation of an atomic device August 29, 1949, followed by a hydrogen device August 12, 1953, and the development of more capable jet bombers during the early 1950s, increased military spending as the U.S. rearmed for a possible conflict. Many believed that World War III would break out and be fought with hundreds of nuclear armed bombers. Military spending, which had remained flat during the immediate post World War II years, went from \$13.0 billion in fiscal year (FY) 1950 to \$50.4 billion in FY-1953.<sup>5</sup>

Alaska benefited. The Alaska District, U.S. Army Corps of Engineers, referred to the 1950s as the “Feverish Fifties.” The military embarked on a major construction program. Contractors built two major installations, Fort Richardson and Eielson AFB, plus the forward bases at Galena, King Salmon and Shemya AFB, and radar and communications stations. Major improvements were made to Elmendorf AFB and Ladd AFB.<sup>6</sup>

The military became the biggest employer in Alaska. Between 1947 and 1957, it spent \$1.2 billion dollars on military construction projects in Alaska. Of the estimated \$500 million Alaska economy during the mid-1950s, approximately \$350 million came from the military. At the same time, the military population went from 25,000 in 1947 to a peak of 48,000 in 1957 while the civilian population shot up from 83,000 to 180,000.<sup>7</sup>

Some believed that the economic and population boost provided by the military laid the ground work for Statehood.<sup>8</sup>

## **Air Defense**

Work on the Aircraft Control and Warning System began in March 1950 to replace a temporary system of radars left over from World War II.<sup>9</sup> The first ten stations came on line in September 1951.<sup>10</sup> The system later expanded to 18 by mid 1958. It consisted of coastal surveillance stations that provided early warning and the interior air control and warning stations that guided forward deployed fighter interceptors to bomber targets.<sup>11</sup>

The Air Force in 1953 recommended an early warning system of radar stations be built across northern Alaska and Canada roughly along the 69th parallel, approximately 200 miles above the Arctic Circle. It became later known as the Distant Early Warning, or DEW Line.<sup>12</sup> The prototype DEW Line station underwent testing on Barter Island. The Air Force awarded a contract on July 13, 1955 to build the DEW Line.<sup>13</sup>

The Air Force declared the project completed July 13, 1957. It was the outer perimeter of a three tiered system that provided advance warning of bomber attacks over the polar region. The other two included the Pine Tree and Mid-Canadian radar lines. It was integrated into the Aircraft Control and Warning System. It became operational July 31, 1957.<sup>14</sup>

The DEW Line, consisting of seven sites in Alaska and twenty-two in Canada, stretched over 3,000 miles from Lisburne on Alaska’s northwest coast to Cape Dyer on the east coast of Canada’s Baffin Island. Four more stations were later added across Greenland. Coverage was extended to the eastern Aleutians in 1958 when three stations on the Alaska Peninsula and three in the eastern Aleutians became operational.<sup>15</sup>

The widely scattered and isolated radar sites required reliable communications for passing data and voice information. High Frequency communications had proven unreliable and tests of other means were unsatisfactory. Construction of the White Alice Communications System consisting of state of the art tropospheric scatter, distinguished by their large billboard antennas, and a system of microwave sites began July 1955.<sup>16</sup> The Air Force accepted the system on March 26, 1958. The system of 33 communication sites had taken three years and \$150 million to build. Some 3,500 people had worked on it. The network covered 3,000 route miles and provided 170,000 telephone circuit miles and 50,000 telegraph circuit miles. It connected with the Alaska Communication System in Anchorage and Fairbanks.<sup>17</sup>

The system was later expanded into the Aleutians to Shemya AFB and to connect the Clear Ballistic Early Warning System radar to the NORAD command center near Colorado Springs, CO.<sup>18</sup>

The radar and communications system supported the interception of Soviet bombers flying off the coast of Alaska. Fighter interceptor squadrons stood 15-minute alert at Elmendorf and Eielson Air Force Bases and at forward bases near Galena and King Salmon. They provided the first line of defense.<sup>19</sup>

Anti-aircraft gun emplacements, later replaced by missiles, provided a final line of defense of the main base complexes with their troop concentrations; headquarters; and command, control, communications and intelligence collection facilities. Advances in Soviet bomber technology rendered the guns obsolete and ineffective. The Alaskan Command issued a program in October 1954 to position Nike Hercules batteries near Anchorage and Fairbanks to defend the nearby military bases.<sup>20</sup> Three sites near Anchorage and four near Fairbanks became operational in early 1959.<sup>21</sup>

### **Forward Basing of Bombers**

The Air Force decided in the late 1940s to develop Eielson AFB into a forward bomber base and lengthened its runway to 14,500 feet to accommodate the heavy bombers of the time. Because of the extreme low temperatures, the Air Force elected not to permanently base bombers on Eielson. Instead, crews would deploy to Eielson on training missions; and in the event of heightened tensions, bombers would be deployed on alert to Eielson, ready to strike Soviet targets and then land at European or Middle East bases.<sup>22</sup>

Later, bombers were permanently based on Elmendorf AFB on rotation in 1960. The rotation ended in 1965, ending the operational deployment of bombers to Alaska.<sup>23</sup>

### **Cold War Impact on Alaska Natives**

The Cold War in Alaska had a major impact on Native Alaskans and their environment. The Soviet Union imposed the so called "Ice Curtain" in January 1947 when it ended an agreement that allowed Eskimos to move freely between Alaska and

Siberia.<sup>24</sup> The restrictions ended in June 1988 with the Alaska Airlines Friendship flight to Provideniya.<sup>25</sup>

Many of the Cold War facilities were built near Native communities, in one case requiring the relocation of the village of Kaktovik on Barter Island to make room for an airfield. The construction and operations of the remote stations left a legacy of hazardous contamination and unsightly facilities and debris. The problems were not addressed until the environmental and social movements of the 1960s and 1970s prompted actions by the military beginning in 1980s to clean up and restore the environment. Later, in the late 1990s, the military established a direct relationship with Alaska's Native people to address past wrongs.

The Cold War also had a positive impact by providing training and employment in remote areas that would not have otherwise been available. It also facilitated the extension of modern communications to remote communities. The annual re-supply of the remote radar and communication sites also provided an opportunity to ship goods to nearby villages. Finally, the formation of two Army National Guard Scout battalions with their system of village armories in interior and western Alaska provided economic and educational opportunities. Three Native leaders, who got their start in the Guard, would later become general officers and Alaskan leaders. Others rose to prominence from Guard beginnings.<sup>26</sup>

## **Retrenchment**

The Soviet Union launched *Sputnik* October 4, 1957, issuing in the intercontinental ballistic age. The Soviets switched to using missiles to deliver nuclear warheads and relegated bombers to secondary importance.<sup>27</sup> It resulted in a massive reduction in air defense forces in Alaska that included the closure of Ladd AFB. The number of interceptor squadrons was reduced from six to one and resulted in the shuttering of three aircraft control and warning radar stations. The Vietnam War also took its toll.

The Nineteen Sixties were marked by military economic austerity and support of others. The latter included refueling and servicing transport aircraft on the Great Circle Route to the Far East. The Whittier Pipeline was built to support the effort.<sup>28</sup>

With the discovery of oil in the Swanson River area on the Kenai Peninsula in 1957, Alaska's economy began shifting from military spending to resource extraction, primarily oil.<sup>29</sup>

Further reductions in force continued in 1969 with the closure of the Aleutian DEW Line Segment and two Aircraft Control and Warning Radar stations and the inactivation of the remaining fighter interceptor squadron.<sup>30</sup>

The early 1970s saw major reductions in Army forces in Alaska. The Army lost 5,000 of its positions with the inactivation of one of its two infantry brigades and a Nike-Hercules regiment. The Nike missile batteries defending Fort Wainwright and Eielson AFB were shut down in 1971. A number of smaller units were inactivated.<sup>31</sup> The sites defending Fort Richardson and Elmendorf AFB were closed in 1979.<sup>32</sup>

### **Ballistic Missile Early Warning**

The Soviet development of an intercontinental ballistic missile (ICBM) in the late 1950s proved a game changer. The nuclear warhead tipped ICBM could reach targets in North America more quickly than bombers and its speed and high altitude approach from space rendered conventional anti-aircraft defenses obsolete. The North American Air Defense Command ordered a study in 1958 to determine the best defense against missiles.<sup>33</sup>

It resulted in the building of three Ballistic Missile Early Warning Systems (BMEWS) radar stations at Clear, Alaska; Thule, Greenland; and Flyindale Moor, England, that provided early warning of a Soviet missile attack and time for a counter launch; and, hopefully, for those in the target areas time to seek shelter.<sup>34</sup> The Clear BMEWS station became operational in 1961.<sup>35</sup>

### **Intelligence Collection and Surveillance**

Alaska, because of its location adjacent to the Soviet Union, provided a place from which intelligence and surveillance flights could be launched and Soviet space and missile development monitored. Beginning in the late 1940s, reconnaissance flights were flown near and over the Soviet Far East from bases in Alaska. A reconnaissance flight out of Eielson AFB in October 1952 revealed that the Soviets had constructed forward bomber fighter bases near Alaska. The success of the U.S. flight led to a change in national policy permitting over flights of the Soviet Union and the development of the Lockheed U-2.<sup>36</sup>

The U-2 flights continued on a routine basis from various locations, including Eielson AFB where the Central Intelligence Agency established a detachment in June 1957, until the shoot down of Francis Gary Powers on May 1, 1960 put an end to the over flights. By then, the U.S. was switching to satellites to obtain overhead photographs and other intelligence.<sup>37</sup>

The Air Force continued to maintain a strategic reconnaissance force on Eielson AFB to gain intelligence on the Soviet Union with flights along the periphery. It included a U-2 detachment. One U-2 flight to monitor Soviet nuclear testing resulted in an international incident in the middle of the Cuban Nuclear Crisis. The pilot, lost, unwittingly overflew the Chukotsky Peninsula October 27, 1964, before reestablishing his position and making an emergency landing at Kotzebue. The incident resulted in the exchange of terse messages between President Kennedy and Premier Khrushchev.<sup>38</sup>

Air Force and Navy bases in the Aleutians on Adak and Shemya also played a major role in the Cold War.

The Air Force transferred Davis AFB on Adak to the Navy in 1950, who developed it into an anti-submarine warfare and Soviet surface ship surveillance base. By the late 1980s, there were 6,000 Navy personnel on the base. With the end of the Cold War, the Navy closed the base 1997.<sup>39</sup>

Work began in the late 1950s on developing Shemya AFB into a base for tracking and collecting data on Soviet missile and space development. The base was strategically located near the Kamchatka Peninsula, the terminal range for missiles launched from western Russian. The Air Force maintained a powerful Cobra Dane surveillance and tracking radar and a flight of strategic reconnaissance aircraft there.<sup>40</sup> The Air Force downsized the base in the early 1990s following the end of the Cold War and renamed it Eareckson Air Force Station in honor of the late Col William O. Eareckson, hero of the Aleutian Campaign, in 1993. The Air Force retained the Cobra Dane radar to monitor Russian activities.<sup>41</sup>

### **Statehood and the Eisenhower Line**

President Eisenhower, in his capacity as U.S. Army Chief of Staff, had visited Alaska in August 1947. He became convinced that the western and northwestern part of the territory, about half of Alaska's land, should be set aside for military defense. It became an issue during the statehood debates. The President was reluctant to grant statehood due to the number of sensitive installations in the area, in addition to the belief Alaska had no means of supporting itself without Federal dollars. The military was more ambivalent. The so-called National Defense Line, commonly referred to as the Eisenhower Line, was established in 1958. It separated the bulk of the urban population from the sparsely populated rural area with a largely Alaska Native population.<sup>42</sup> Territorial Governor Ernest Gruening said that while the line had been the price of statehood, demanded by President Eisenhower, it proved an empty gesture. Nobody paid attention to it.<sup>43</sup>

### **Earthquake**

The Good Friday Earthquake measuring 8.6 on the Richter scale struck south central Alaska on March 27, 1964, at 5:36PM, killing 115 people and causing property damage in excess of \$750 million. The major shaking lasted two to three minutes. The military responded in the immediate aftermath by establishing an emergency center, providing search and rescue support, dispatching aircraft to assess damages, flying passenger and cargo flights, and providing security to guard the stricken areas. In the following days, it provided airlift support for critical cargo.<sup>44</sup>

The earthquake also, according to a *Washington Star* story, damaged a number of Nike Hercules missiles at Site Point and their nuclear warheads. The Department of Defense released a statement that no fires had occurred and there had been no nuclear leakage.<sup>45</sup>

## **Modernization**

Forces in Alaska underwent modernization as well as reductions during the 1970s and 1980s. The Army received more capable helicopters and used them to transport and support its forces. Prior to that, it had been largely dependent of track vehicles.<sup>46</sup>

The Air Force replaced its 1950 vintage Aircraft Control and Warning radars with state of the art solid circuit radars that provided both search and height finding capabilities. The new system of radars became operational during 1984-85. It enabled a massive reduction in manpower required by the older radars. Contractors assumed the responsibilities operating and maintaining the radars.<sup>47</sup> The Air Force also implemented the Joint Surveillance/Regional Operations Control Center system that made joint use of the military and Federal Aviation Administration radars controlled by a fully automatic computer system. It became operational in 1983.<sup>48</sup>

Rounding out the air defense modernization was the arrival of the F-15 Eagle air superiority fighter in 1982 followed by the E-3 Airborne Warning and Control aircraft in 1986 completed the modernization of the air defense forces.<sup>49</sup>

The modernization resulted in a dramatic increase in Soviet bomber intercepts off the coast of Alaska. The first one had occurred in 1961. The intercepts between that year and 1988 averaged from one to eighteen per year. In 1987, the number of intercepts climbed to thirty-three, and then began declining with the approach of the end of the Cold War, dropping to fifteen in 1991.<sup>50</sup>

Alaska marked the end of the Cold War on August 19, 1991, when two Soviet fighters and a transport en-route to an air show had to turn back during a refueling stop on Elmendorf AFB after learning of the failed hardliner coup in Moscow.<sup>51</sup>

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<sup>1</sup>Thomas A. Sturm, *Air Defense of Alaska, 1940-1957*, Continental Air Defense Command Historical Reference Paper No. 2, 15 Apr 1957, p. 8.

<sup>2</sup>Hist, ALCOM, Jan 1952-Jun 1956, pp. 28-33.

<sup>3</sup>Sturm, *Air Defense of Alaska*, p. 8.

<sup>4</sup>Ira Chart, PhD, *Development of Aircraft Control and Warning in Alaska*, Historical Div, Office of the Executive, AAC, Aug 1953, pp. 9-10.

<sup>5</sup>Amos A. Jordan and William J. Taylor, Jr., *American National Security, Policy and Process*, Johns Hopkins University Press, Baltimore, MD, 1981, pp. 62 and 64.

<sup>6</sup>Lyman L. Woodman, *Duty Station Northwest, The U.S. Army in Alaska and Western Canada, 1867-1987*, Vol. III, Alaska Historical Society, Anchorage AK, 1996, p. 67.

<sup>7</sup>Terrence Cole, Paper, "Blinded by Riches: The Permanent Funding Problem and the Prudhoe Bay Effect," prepared for Understanding Alaska Program at the Institute of Social and Economic Research, University of Alaska-Anchorage, Jan 2004.

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- <sup>8</sup>Ibid.
- <sup>9</sup>Chart, *Development of Aircraft Control and Warning in Alaska*, p. 41.
- <sup>10</sup>Sturm, *Air Defense of Alaska*, pp. 17-20.
- <sup>11</sup>Leona B. Miller, Hist., Alaskan Air Command, Jan-Jun 1958, pp. 60-61.
- <sup>12</sup>David F. Winkler, *Searching the Skies, The Legacy of the United States Cold War Defense Radar Program*, U.S. Army Construction Engineering Research Laboratory, Champaign, IL, 1997, under contract to the Air Combat Command, pp. 27-29.
- <sup>13</sup>Chart, Hist, AAC, Jul-Dec 1955, pp. 173-174.
- <sup>14</sup>Daniel L. Haulman, *One Hundred Years of Flight, USAF Chronology of Significant Air and Space Events, 1903-2002*, Air Force History and Museums Program, Air University Press, Maxwell AFB, AL, 2003, p. 81.
- <sup>15</sup>Miller, Hist., AAC, Jul-Dec 1960, pp. 265-267.
- <sup>16</sup>Chart, Hist, AAC, Jan-Jun 1955, pp. 6-9
- <sup>17</sup>Brochure, *The White Alice Network Acceptance Ceremony March 26, 1958*; Miller, Hist, AAC, Jan-Jun 1958, pp. 85-86.
- <sup>18</sup>Miller, Hist., AAC, Jul-Dec 1960, pp. 292-293.
- <sup>19</sup>Carl Posey, "The Thin Aluminum Line: Supersonic Airplanes and a Screen of Radar Stood Ready During the Cold War to Avert the End of the World," *Air & Space Smithsonian*, Jan 2007.
- <sup>20</sup>Hist, ALCOM, Jan 1952-Jun 1956, pp. 43-44.
- <sup>21</sup>Hist, ALCOM, 1959, Appendix 3.
- <sup>22</sup>Norman S. Leach, *Broken Arrow America's First Lost Nuclear Weapon*, Red Deer Press, Calgary AB, 2008, pp. 77-78
- <sup>23</sup>Weidman, Hist, AAC, Jan-Jun 1966, pp. 130-132.
- <sup>24</sup>Hist, ALCOM, Jan 1952-Jun 1956, p. 14.
- <sup>25</sup>"Thaw in the Ice Curtain," *Time Magazine*, Jun 27, 1988.
- <sup>26</sup>John Haile Cloe, ALCOM Historian, *Native Alaska-Military Relations, 1867 to Current*, Mar 2006.
- <sup>27</sup>Haulman, *One Hundred Years of Flight*, p. 81.
- <sup>28</sup>Weidman, Hist., AAC, Jul 1968-Jun 1969, p. 4-13.
- <sup>29</sup>Terrence Cole, Paper, "Blinded by Riches
- <sup>30</sup>News Release, AAC Public Affairs Office, "Inactivation and Redesignated Remote Stations," 30 Sep 1969; ; Hist, 21COMPW, Jul-Dec 1969, pp. 2-4
- <sup>31</sup>Woodman, *Duty Station Northwest*, Vol. III, pp. 161-162; Homsher, Hist, ALCOM, 1971, p. 4.
- <sup>32</sup>John H.Cloe, Hist., AAC, 1979, p. 226.
- <sup>33</sup>Chart, Hist., AAC, 1958.
- <sup>34</sup>USAF Fact Sheet, "Alaskan NORAD Region," 1969.
- <sup>35</sup>Miller, Hist, AAC, 1961, p. 484.
- <sup>36</sup>Donald E. Hillman with R. Cargill Hall, "Over Flight," *Air Power History*, Spring 1996.
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- <sup>39</sup>TSgt James Frank, Hist, Alaskan Command, 1997, pp. 15-16.
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- <sup>41</sup>Cloe, Hist., 11AF, 1993, p. 7.
- <sup>42</sup>John S. Whitehead, *Completing the Union, Alaska, Hawaii, and the Battle for Statehood*, University of New Mexico Press, Albuquerque, NM, 2004, pp. 277-278, 281 and 342.
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- <sup>44</sup>Report, ALCOM, "Operation Helping Hand, the Armed Forces React to Earthquake Disaster," not dated.
- <sup>45</sup>"Missiles in Alaska Damaged by Quake," *The New York Times*, Apr 5, 1964.
- <sup>46</sup>Woodman, *Duty Station Northwest*, Vol. III, pp. 156-166.



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<sup>47</sup>Cloe, Hist, AAC, 1985, p. 166.

<sup>48</sup>Cloe, Hist, AAC, 1983, p. 272.

<sup>49</sup>Cloe, Hist., AAC, 1982, pp. 262-263; Hist., AAC, 1986, pp. 183-185.

<sup>50</sup>TSgt. William J. Allen, Senior Enlisted Historian, Eleventh Air Force, *Hunting the Soviet Bear: A Study of Soviet Aircraft Intercepts Near Alaska 1961-1991.*, Jul 7, 1992.

<sup>51</sup>Cloe, Hist, 11AF, 1991, pp. 186-187.