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ALCOM

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The Alaskan Command (ALCOM) has the responsibility for defending an enormous sweep of rugged American northland which is steadily increasing in strategic importance because of its global position and its potentially enormous economic value to the well-being of the Nation.

ALCOM with its two component commands—the U.S. Army, Alaska, and the Alaskan Air Command—carries out its assigned defensive mission just 45 miles from the mainland of the Soviet Union. Although ALCOM, the oldest of the seven unified commands, has successfully carried out its mission for more than a quarter of a century, it remains one of the least understood of all the U.S. unified and specified commands.

The lack of understanding of the AL-COM mission stems from a number of reasons, among them a lack of appreciation for:

• Alaska's key location astride the Great Circle air routes;

 Alaska's geographical proximity to the Soviet Union;

• Alaska's value as an Arctic staging and cold weather training area for possible U.S. operations in the northern regions of the world; and

 Alaska's economic potential to alleviate our Nation's increasing need for petroleum and strategic minerals.

In considering Alaska's strategic importance, some words of the man who was responsible for its purchase from Czarist Russia in 1867 are relevant. Secretary of State William H. Seward said at that time: "If we would provide an adequate defense for the United States, we must have Greenland and Iceland to dominate the North Atlantic and Alaska to dominate the North Pacific."

General Billy Mitchell also expressed his feeling regarding Alaska's importance: "Alaska is the most strategic place in the world for aircraft, and this is true either for Europe, Asia or North America. I believe that in the future, he who holds Alaska will hold the world, and I think it is the most important strategic place in the world."

Few political or military strategists of early days agreed with these two renowned Americans. Today, however, the U.S. is gradually becoming increasingly aware of the special significance of Alaska's key location astride the world's polar air routes.

The rich oil and mineral discoveries in the state have focused more attention on the importance of the Arctic to the geopolitical-economic future of the free world. The Soviet Union, too, has vast Arctic resources and already is far advanced in developing them, compared with the United States. More than 4 million Soviets now live and work in Arctic settlements that lie further north than the latitude of Anchorage, Alaska's largest city. By contrast, the total population of all Alaska is approximately 340,000.

During the peak involvement of U.S. forces in Southeast Asia, the Military Airlift Command (MAC) recognized the significance of Great Circle routes as the shortest distance between points on the globe. MAC used Alaska as an enroute servicing stop for thousands of aircraft flying between the U.S. and Vietnam. The Alaska stop eliminated two mid-Pacific landings and resulted in considerable savings in flying time, personnel, maintenance and other support requirements.

Alaska's advantageous geographical position is well illustrated by some comparative mileages. Saigon is 1,300 miles closer to Dover, Delaware, by way of Alaska than through Hawaii, Eielson Air Force Base outside Fairbanks is 370 miles closer to Frankfurt, Germany, than Homestead Air Force Base, Florida. Thus, the stationing of forces in Alaska would seem to be an attractive compromise between the need for forward basing and the constraints of foreign deployment with respect to maintaining overseas rights and an unfavorable balance of payments. The advantage of being able to move deployment forces from Alaska to either Europe or Asia would provide a unique, flexible capability while maintaining bases on U.S. soil.

HISTORY

A background summary of Alaska's historical development serves as a proper preface to a review of ALCOM's present mission and its deployed forces.

The history of the military in Alaska is best illustrated by spotlighting three periods:



Lt. Gen. James C. Sherrill became the 11th commander in chief of the unified Alaskan Command (ALCOM) on August 1, 1972 after having served as vice commander of the Military Airlift Command at Scott Air Force Base, Illinois.

General Sherrill, a native of San Marcos, Texas, entered military service in October 1940. He received his pilot's wings in May 1941 and served as a flying instructor and aircraft maintenance officer until 1945.

He then went to Okinawa as a squadron commander and later became assistant chief of staff, 316th Bombardment Wing. After graduating from Southern Methodist University in Dallas, Texas, in 1946 he attended the Command and Staff School at Maxwell Air Force Base, Alabama.

This assignment was followed by a number of top-level posts at Headquarters, U.S. Air Force and the Joint Chiefs of Staff both in Washington, D.C. In 1960 he was assigned to the Military Air Transport Service, staying with that command until 1965 when he returned to the Joint Chiefs of Staff as Deputy Director of Logistics (Transportation) and Special Assistant for Strategic Mobility.

General Sherrill is a command pilot with more than 6,000 flying hours. He holds two awards of the Distinguished Service Medal and the Legion of Merit with one oak leaf cluster. Fort Mears, Alaska, burns following the Japanese attack on the base and at Dutch Harbor on June 3-4, 1942. Three days later Japanese troops landed on U.S. soil at Kiska and Attu in the Aleutians. Twentynine years later Emperor Hirohito met with President Nixon at Elmendorf Air Force Base, Alaska, (far right) marking the first time in history that an Emperor of Japan had set foot on foreign soil.

the pre-World War II period;
World War II and the immediate post-war years; and

• the Cold War and recent years.

Early disparaging references to Alaska as "Seward's Folly" and the "Frozen Icebox" created a prejudice from which the area has not fully recovered to this day. Consequently, Alaska remained for many years undeveloped and virtually unknown to most of the world.

From Alaska's purchase in 1867 until the start of World War II, the military had a prominent role in Alaskan history, but its strategic aspects were largely ignored. As it had done on the Western frontier, the military brought law and order to the Alaskan wilderness and administered justice until civil government could be established. Development was slow, the population remained sparse, and Alaskans continued to rely upon the military for many services.

It took the Japanese attack on Pearl Harbor to awaken Americans to Alaska's military importance. Previously, the appeals of Alaskans for defense and the warnings of visionaries such as General Billy Mitchell and General Frank Andrews had gone unheeded as events began to build toward World War II.

The only campaign of World War II conducted on American soil was fought in the Aleutian Islands during 1942-43. The battle for Attu in the Aleutians, in proportion to the number of troops engaged, was the second most costly American battle during World War II in the Pacific Theater—second only to Iwo Jima.

After World War II, Alaskan military strategists consequently were concerned with an amphibious threat from the U.S.S.R., and U.S. forces were deployed at installations along the Aleutians and mainland coastal areas.

It was in this environment that the Alaskan Command was established on January 1, 1947, with Army, Navy and Air Force elements. Its mission was and remains—to defend Alaska and to support other unified and specified commands in operations within or through Alaska.

By 1954, most ALCOM forces had been concentrated at bases in the Anchorage and Fairbanks areas. A capability was maintained to counter attacks on the state's periphery.

The threat faced by ALCOM in this period centered around the Soviet Union's development of an intercontinental ballistic missile system, and Alaska's location on the logical bomber route between the U.S.S.R. and the continental United States. To counter the Soviet threat, the distant early warning (DEW) line was built and fighter defenses were increased. With the advent of the Soviet intercontinental ballistic missiles (ICBM), the ballistic missile early warning system (BMEWS) site at Clear, Alaska, one of the three existing BMEWS sites, became operational in 1961.

In recent years, Alaska's location and proximity to the capitals of the northern hemisphere resulted in its becoming the aerial crossroads of the world. Currently, 33 international air carriers are exploiting the advantages of Great Circle routes, with some 4,400 flights a year across the polar regions of Alaska.

The prospects of a serious national energy crisis and Alaska's potential to partially alleviate it, by developing its enormous oil and natural gas resources, is focusing more interest than ever on the state's strategic value.

The estimated 50 billion barrel oil resource on Alaska's North Slope eventually may provide more than 25 percent of the oil reserves of the United States. These discoveries and impending development come at a time when foreign oil sources have proved unreliable.



The Prudhoe Bay oil reserve on Alaska's North Slope dramatically symbolizes the American Arctic's economic potential, but actually represents only a fraction of the state's total undeveloped petroleum and mineral wealth.

Besides oil and natural gas, Alaska contains tremendous untapped coal fields estimated at 130 billion short tons, spread over perhaps as much as 35,000 square miles. A 400-foot thick stratum of coal was discovered during Prudhoe Bay oil drilling explorations, symbolizing the extent of untapped minerals.

There also is a known huge quantity of mostly low-grade iron ore—estimated at a potential 6.6 billion metric tons in Alaska. There are mountains of copper ore—an estimated one-fifth of all U.S. copper resources—and undetermined but substantial amounts of other strategic minerals.

Having reviewed some of the numerous reasons for Alaska becoming steadily more important to the national defense effort, a detailed look at ALCOM's forces and their operations today is in order.

RESOURCES

ALCOM presently has two components: The United States Army, Alaska (USARAL) and the Alaskan Air Com-



mand (AAC). The Alaskan Sea Frontier, which was ALCOM's naval component, was disestablished on June 30, 1971, and in accordance with the Unified Command Plan, the seaward defense of Alaska became the responsibility of the Hawaiian Sea Frontier, an element of PACOM. The commander of the Third Fleet now holds responsibility for the seaward defense of the state.

USARAL, headquartered at Fort Richardson outside of Anchorage, is responsible for the initial ground defense of the state and participates in the air defense of Alaska. Headquarters USARAL is one of the seven headquarters identified in February by Department of the Army for gradual phase-out.

The major subordinate command under USARAL, the 172d Arctic Light Infantry Brigade, also headquartered at Fort Richardson, will be increased in strength to carry out Army functions in relation to ALCOM. The brigade is composed of three infantry battalions, an artillery battalion and a support battalion.

Providing airlift and aerial firepower, USARAL has a substantial helicopter and fixed-wing fleet including the CH-47 Chinook, the CH-54 Skycrane, OH-58 Kiowa, UH-1 Huey and the AH-1 Cobra gunships. USARAL provides one air defense battalion armed with the Nike Hercules missile as point defense for the Anchorage-Elmendorf Air Force Base— Fort Richardson complex.

The Army component also operates and maintains the Northern Warfare Training Center at Fort Greely, where active Army and National Guard personnel acquire the skills and techniques of northern operations, including mountain and glacier climbing. USARAL soldiers have the distinction of being the top United States experts on Army equipment, training and operations in the northern and mountainous regions of the world.

A unique organization is the Alaska National Guard Scouts. Two battalions of native Scouts, composed primarily of Eskimos and Indians, provide a combat capability not found within the active Army. Small detachments of these battalions are located along the western and northern periphery of the state in approximately 60 villages near the most likely areas of enemy lodgments. The scouts report ship and submarine sightings and comb the coast to collect material of potential intelligence value.

ALCOM's Air Force component, the Alaskan Air Command (AAC), is widelyknown as the "Top Cover for America." AAC's mission is to provide forces for early warning, for defense against air attack on the North American continent and for tactical operations in Alaska.

Two radar networks accomplish early warning and aircraft control. On the northern periphery are six Air Defense Command DEW line sites. On the west coast and in the interior are AAC's control centers, direction centers and surveillance stations which comprise the aircraft control and warning (AC&W) system.

The air defense force of the Alaskan Air Command consists of the 43d Tactical Fighter Squadron, equipped with F-4E Phantoms. ALCOM is extremely proud that the 43d was awarded the Hughes Trophy in 1972 in recognition of its selection as the best fighter interceptor squadron in the U.S. Air Force. The F-4s operate throughout Alaska from both forward and main bases. In addition to performing their interceptor role, the Phantoms also provide close firepower support to USARAL ground troops.

The bulk of tactical airlift within Alaska is performed by a squadron of C-130s, five of which are ski-equipped. This is the only C-130 unit in the Air Force with a ski capability.

AAC's search and rescue capability is carried out by long-range HC-130s and HH-3s. The HH-3's inflight refueling capability provides it the necessary range to operate over the vast Arctic expanses. The HH-3's primary role is providing logistical support to remote sites.

The Alaska Air National Guard assists airlift operations in the state with ski-equipped C-123 Providers.

OPPORTUNITIES

Variations in Alaskan terrain, temperature and climate present the command a unique opportunity to train forces for combat. This environment duplicates a major portion of the earth's surface in which these forces may be used.

Alaskan training areas provide the same challenges which would be faced in North Korea, the northern flank of the North Atlantic Treaty Organization (NATO) area, the Soviet Union and much of the Chinese mainland. The large maneuver areas available in the state, coupled with thousands of acres of public domain land, permit the conduct of large-scale exercises and cold weather training for ALCOM units and deployed units from other unified commands.

Current ALCOM planning includes training and practical cold weather construction experience for Reserve construction units, and the feasibility of establishing training sites with live-fire ranges for amphibious maneuvers in the state. Planning also calls for multibrigade size exercises to be conducted in Alaska starting in FY 1975. These forces will deploy to Alaska from the "Lower 48" to train with USARAL's light infantry brigade.

The acreage available for training at either Fort Wainwright (924,000 acres) or Fort Greely (743,000 acres) is about twice as much as the combined acreage of Forts Carson, Bragg, Dix, Ord and Lewis (445,600 acres).

The 1971 Native Land Claims Settlement Act will provide approximately 77,000 Alaskan natives \$962.5 million and 40 million acres. Every Indian, Eskimo or Aleut who can show one-quarter native blood lines eventually will receive about 500 acres of land and \$13,000 tax-free, either individually or as a member of a native corporation.

It is inevitable that defense of the Trans-Alaska oil pipeline will be an important part of ALCOM's future mission. The 790-mile, 48-inch line from Prudhoe Bay on the North Slope to the icefree southern terminal at Valdez will require an estimated three years to complete at a cost of 3¹/₂ to 4 billion dollars. Construction of the line was scheduled to start in early May this year.

Protection of the pipeline and related refinery and terminal development assumes paramount military importance in the light of the steadily worsening world energy crisis.

The line will be moving 2 million barrels of oil a day into Valdez, which is scheduled to have a 10-day storage ca-



of ALCOM's strategic location astride the world's polar air routes. The motto is officially registered with the Department of the Army's Institute of Heraldry, which provides heraldic services within the Department of Defense.

The motto first became associated with the Alaskan Command during its 25th anniversary celebration in June 1972. The silver anniversary theme was selected by the planning committee for the event. "Keystone of the North" had been suggested by Capt. Richard B. Risk, Jr., an anniversary committee member.

The motio complements symbolism depicted in the Alaskan Command emblem, a massive polar bear poised for action atop mountainous terrain against a midnight blue backdrop of Arctic sky. "Keystone," in the context of the motio, reflects ALCOM's strategie position in the northern hemisphere and represents the command's key role in defense of the North American continent. pacity of 20 million barrels. Plans call for an average of more than two supertanker departures daily for the "South 48" refineries. Hence, the maritime approaches to Valdez along with the port itself will be subject to enemy interdiction by air attack, mine-laying or submarine attack.

The need for naval forces capable of insuring the tankers' safe passage is vital in ALCOM's overall planning. At some future date, it may be possible that a reconsideration will take place for the reestablishment of an ALCOM naval component of both surface and air units.

Also seen as a vital part of ALCOM's mission of the future is the defense of a natural gas pipeline that is planned to be built starting in 1977, upon completion of the oil pipeline. This vital source of critical energy will become a lucrative target for those desirous of depriving the United States of its use.

International developments of the last two or three years have initiated a strategic change, characterizing this decade as a period of shifting values of overriding historic significance. The President's initiatives with Moscow and Peking have laid the foundation for a major evolution to which the military must be responsive.

Strategic views of past years are being overtaken by today's events, and the military must either move ahead or become ineffective. We in the military in Alaska are anticipating the requirements of the '70s in our planning for the security of Alaska.

In an important geographic sense, Alaskan military forces are at a focal point in United States, Soviet, Chinese and Japanese interests. Only in Alaska are Americans living within sight of the Soviet Union from U.S. sovereign soil and only in Alaska does the U.S. share contiguous seas and airspace with the U.S.S.R.

What does this mean to the Nation? It means that in Alaska and along its maritime approaches, without any buffer between the United States and Soviet territory, the U.S. holds a flank on the Soviet Union adjacent to that held by the Chinese. In the interplay of power between the three nations, new strategic concepts are bound to take form. The Alaskan Command intends to be a part of these concepts.



or many Alaskans, flying is as normal and natural a mode of travel as motoring is for other Americans. About one out of every 45 state residents is a licensed pilot. One out of every 95 is an aircraft owner.

Small aircraft fly over rugged terrain and vast expanses carrying businessmen, hunters, fishermen and charter pilots on commercial and recreational flights of many kinds. Accidents inevitably occur. The military forces in Alaska are frequently called upon to render assistance to the civilian populace. Statistics compiled over the last 12 years indicate Alaskan Command's (ALCOM) humanitarian assistance has been impressive.

In Alaska, many villages and homes are far from points of assistance when an emergency occurs. Because Alaska's 586,400 square miles stretch 3,000 miles from east to west, military search and rescue responsibilities have been divided between two agencies. Coastal waters are the responsibility of the commander of the 17th Coast Guard District at Juneau. Search and rescue (SAR) for most of inland Alaska is the responsibility of the Commander in Chief, Alaska.

The Alaskan Air Command (AAC), ALCOM's air component, operates the Rescue Coordination Center at Elmendorf AFB, coordinating all SAR activities around the clock. All available Air Force, Army and civilian aircraft are used when needed for search and rescue missions. C-130s and helicopters carry the brunt of the effort. Trained Army ground personnel assist in missions where and when aircraft cannot operate. A particularly important role is played by the Alaska Wing of the Civil Air Patrol, whose members fly about 42 percent of all missions.

From its establishment in October 1961 through September 1973, the Rescue Coordination Center controlled 4,978 rescue missions and 33,639 rescue sorties. Approximately 61,930 flying hours in search and rescue were logged. A total of 2,640 lives were saved and another 11,347 persons were provided rescue assistance during the 12-year period.

Alaska's longest and most intensive search was conducted in autumn 1972 for a lost light aircraft carrying Congressman Hale Boggs of Louisiana, Congressman Nick Begich of Alaska, Begich's aide and the charter pilot.

Military and civilian pilots logged more than 3,600 hours covering 325,000 square miles along the 500-mile route of the missing plane. In all, 1,030 sorties were flown during the fruitless 39day search before it was suspended. Not a single solid clue to the fate of the plane has been found to date.





A technician (right) inspects a line of 48-inch pipe which will be used to build a portion of the 790-mile Trans-Alaska Pipeline during the summer of 1974. Security along the pipeline will become a prime military responsibility once the line is completed. Above, members of the 4th Battalion, 23d Infantry, 172d Arctic Light Infantry Brigade, perform during a mobile assault training exercise.



The United States, with the strongest economic and and technological power base in the world, can roar globally but its power is neither constant nor infinite. National power waxes and wanes, and is a product not only of its physical components but of the intangibles of will and skills and national character.

More and more the future of our Nation will depend upon the proper matching of commitments to resources. The equation of national power is implacable. Its absolute imperative is simply stated, difficult in observance: the Nation's commitments must never exceed its resources. Where will these resources be found in the future? Many of them will be found in Alaska.

At Prudhoe Bay on Alaska's North Slope there is an identified petroleum resource underlying 220,000 acres of an estimated 15 to 20 billion barrels of recoverable oil and perhaps as much as 30 trillion cubic feet of recoverable natural gas. The Prudhoe discovery of March 1968 is considered to be the largest proven oil find ever made on the North American continent. Large as it is, the Prudhoe Bay discovery merely symbolizes the United States Arctic potential, representing only a fraction of the total undeveloped petroleum and mineral wealth of Alaska. Coal, copper, nickel, berylium and nearly every strategic mineral are known to exist in tremendous quantities in the state.

Mineral exploration previous to the 1970s consisted mainly of placer gold mining. Knowledge stopped at bedrock, where the potential for most mineral production is just beginning. As the easily found and cheaply recoverable minerals and fuels become increasingly depleted, new deposits and sources will be developed in more remote and unconventional areas and at greater depths. Alaska appears to be on the threshold of such a period of development, with consequent tremendous contributions to the Nation's maintenance of a power position and the welfare of its people.

PIPELINE SECURITY

Barring further delaying litigation by environmentally-oriented interests, construction of the Trans-Alaska Pipeline probably will begin by the summer of 1974. The single Prudhoe Bay oil field will be able to supply —at the maximum pipeline capacity of 2 million barrels a day—about 730 million barrels (12 percent) of the current 6 billion barrel annual U.S. consumption. Alaskan oil production would replace about half of the 1.5 billion barrels of foreign oil being imported annually and thus would trim about \$2.5 billion a year from the U.S. balance-of-payments deficit in money now being spent on foreign oil.

When the 790-mile, \$4 billion plus Trans-Alaska Pipeline is completed approximately three years after start of construction, its defense will become a prime military responsibility. Defense will center around three areas:

 Prudhoe Bay and the new 361-mile, two-lane gravel highway which will be constructed from the Yukon River, about 50 miles north of Fairbanks, to Prudhoe:

The Fairbanks area, where inevitably one or more petroleum refineries will be built and natural gas facilities installed to supply in-Alaska needs, together with associated storage/transport installations;

• The Valdez pipeline terminal and supertanker trans-shipment complex on the Valdez arm of Prince William Sound, an ice-free port.

RESOURCES ACCESSIBILITY

The Yukon River to Prudhoe Bay highway will become part of the State of Alaska highway system when pipeline construction has been completed. This highway along with the spur roads that will be built for servicing/surveillance/maintenance of the pipeline will provide arteries for the first time to the vast interior of Alaska in which are known to exist vast mineral reserves and other potential petroleum resources. Already identified as oil-potential regions are 20 other basins besides Prudhoe Bay.

MILITARY FUEL

Production of refined products in Fairbanks would mean that the military no longer would be dependent for petroleum supplies upon the long hauls from the "Lower 48." Therefore, military transportation costs for fuel should be substantially reduced. Because there would be a lesser reliance upon long hauls via barge. military pipeline, truck transports and railway tank cars, target opportunities available to aggressor forces would be fewer.

NAVAL RESPONSIBILITIES

Protection of the Valdez terminal/storage/transshipment complex by military forces will assume a high importance when Prudhoe Bay oil starts moving to market. Facilities at Valdez would seem to be especially vulnerable to aircraft-surface-subsurface mining operations, to sabotage by frogmen or commando-type demolition teams. Supertankers enroute to the Pacific Northwest or Southern California ports, at the rate of two or three a day, will be exposed along a lengthy route to possible enemy surveillance/attack. Command and control of the arriving and departing supertankers during all periods of daylight and darkness in all kinds of weather will require installation of modern, sophisticated radar equipment.

GROUND SABOTAGE

In a crisis or prewar confrontation with a potential aggressor, the Trans-Alaska Pipeline and North Slope production and Valdez terminal areas are susceptible

to destructive attacks by enemy saboteurs or sympathizers. Alveska Pipeline Service Company and its seven oil company owners have discussed the possibility of dissidents doing serious damage to the line. They have reached no conclusions yet about methods for preventing malicious damage although they do plan some kind of surveillance/policing system.

COMMUNICATIONS

RCA-Alascom will build an elaborate communications network to provide instant contact during supervision of the construction of the pipeline and for monitoring operations thereafter. This new network of microwave relay stations will provide new communications for the neighboring civilian communities, thereby reducing to some degree the present reliance by civilians on the military "white alice" network. Planned for the future by civilian enterprise is a series of satellite earth receiving stations along the entire length of the pipeline. These new civilian facilities will provide the most modern space age communications available anywhere in Alaska. Presently, the military owns and operates the majority of the communications system within Alaska.

PETROLEUM RESERVE

The United States has an important Alaskan petroleum "ace-in-the-hole." It is Navy Petroleum Reserve Number 4 encompassing the 23 million acres surrounding Barrow. Navy Pet 4 contains an estimated 33 billion barrels of oil, plus natural gas reserves running to trillions of cubic feet. Some military thinkers favor keeping Navy Pet 4's petroleum in storage in the ground, as it has been since the reservation was set aside in 1923, for use in some future crisis. Other military and government planners would begin develment there now, a task of such magnitude that it might last for 20 years. Should Prudhoe Bay oil be depleted in 20 years, as some estimates indicate, the Trans-Alaska Pipeline could be used to start delivering Navy Pet 4's stored energy to a world that might by that time regard it as a priceless resource.



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Growing and Modernizing with the Environment

n its many years of partnership for progress with Alaska, the United States Army, Alaska, (USARAL) has become an integral part of the 49th State. As Alaska has grown and modernized, so have the Army forces stationed within its borders streamlined their organization and operations.

The three Alaskan posts are considered as a single installation known as USARAL Post. The USARAL commanding general's staff administers USARAL Post which supports the 172d Arctic Light Infantry Brigade; 222d Aviation Battalion; 1st Battalion, 43d Air Defense Artillery; Northern Warfare Training Center; and two major tenant units, the U.S. Army Arctic Test Center and the U.S. Army Communications Command-Alaska.

The combat force for ground defense of the state is the 172d Brigade, which has elements at Forts Richardson and Wainwright. Most of the brigade's air mobility comes from the 222d Aviation Battalion which has units at those same posts.

In large military exercises, USARAL receives airlift support from the Alaskan Air Command and USAF organizations of active and Reserve components on temporary duty in Alaska from other states.

Soldiers, wearing skis and full combat gear, practice rappelling from a UH-1 Huey helicopter during a training exercise. The men are part of the Arctic light infantry brigade consisting of infantry, airborne and artillery units. The U.S. Army, Alaska, shares in the air defense of Alaska with its Nike Hercules missiles. These are the weapons of the 1st Battalion, 43d Air Defense Artillery, which has three missile sites in the point defense of the Anchorage-Fort Richardson-Elmendorf Air Force Base complex in south central Alaska. Although the manning of Nike sites was recently eliminated in the Continental U.S., the Nike Hercules battalion in Alaska is being maintained.

USARAL's all-seasons training program takes full advantage of the unique opportunities offered by Alaska to enable small units to operate independently far from garrison in what is called "dynamic arctic training." This method of instruction is valuable because it encourages individual initiative, imagination and resourcefulness. It enables young officers and noncommissioned officers to exercise leadership in the field and to develop teamwork as their men soldier together on difficult terrain and under extreme temperature conditions. The soldier trained in Alaska, where broad Arctic experience is gained, is considered expert in auroral operations-capable of performing his duties in any cold weather environment in the world.

In February 1974, Department of the Army announced that Headquarters USARAL would be inactivated along with six other Army headquarters worldwide. Army operations in Alaska will be carried out by the 172d Brigade which will be realigned under the command and control of the U.S. Forces Command, headquartered at Fort McPherson, Georgia.



The primary mission of the Alaskan Air Command (AAC) is to provide early warning against attack for the United States and Canada and to provide defense of Alaska from air and ground attack. AAC was created when the 11th Air Force was redesignated the Alaskan Air Command on December 21, 1945.

To accomplish the air defense mission, F-4E Phantom fighter aircraft, belonging to the 43d Tactical Fighter Squadron, stand constant alert at Elmendorf Air Force Base and forward operating locations around the state. The mach-2-plus Phantoms are considered the most versatile manned air weapon in the Air Force's inventory.

Elmendorf Air Force Base serves as headquarters for the unified Alaskan Command, Alaska NORAD (North American Air Defense Command) Region, and the Alaskan Air Command.

The 13,400-acre Elmendorf Air Force Base is named for Captain Hugh M. Elmendorf, an Air Force pilot killed in a plane crash in 1933. The installation today plays a vital role as the home base of fighters and transports which support remote stations throughout Alaska and Greenland.

The sprawling air base had its beginning in the summer of 1940 with the construction of a few field office buildings and the arrival of Army Air Corps Major Everett S. Davis, Major Davis



and two enlisted men landed at Anchorage's civilian Merrill Field in their B-10 bomber on August 9, 1940.

Today, Elmendorf is one of the Air Force's biggest bases. Its population, including dependents, is approximately 20,000. Almost 1,800 civilians work in the many functions on base.

Located immediately north of Anchorage, the installation is bordered on the west by the Knik arm of Cook inlet and commands a spectacular view of the Chugach Mountains to the east.

The Alaskan Air Command supports or operates installations ranging from Shemya Air Force Base at the western tip of the Aleutian Chain to Cape Lisburne Air Force Station in the northernmost part of the state.

The radar eyes of the command constantly search the skies for unexpected intruders. Thirteen aircraft control and warning (AC&W) squadrons are Huge detection radars stand above the Alaskan landscape at Clear Air Force Station, home of the 13th Missile Warning Squadron, part of the North American Air Defense Command (NORAD). At left, two Alaskan Air Command F-4E Phantoms fly a mission over the frozen northland.

scattered throughout the state. These stations provide instantaneous information for battle commanders both in Alaska and at the NORAD Combat Operations Center inside Colorado's Cheyenne Mountain.

Eielson Air Force Base, near Fairbanks, provides the Strategic Air Command (SAC) with a base of operation for KC-135 tankers. Eielson is also the home of the Air Training Command's Arctic Survival School. Each year, the "cool school" graduates about 800 students in 20 classes, taught during winter months. Students come from all branches of the military. In addition, commercial airline personnel and state police have received the specialized survival training.

Also based at Eielson is the 25th Tactical Air Support Squadron which provides forward air control support throughout Alaska with highly maneuverable 0-2 aircraft.

nsuring the readiness of Alaskan military forces is the responsibility of the Alaskan Command. This challenging task is accomplished through two joint training exercises each year—Ace Card (winter) and Ember Dawn (summer). The exercises involve personnel from ALCOM, the contiguous states, Canada and other foreign countries.

Ace Card VII, the most recent exercise conducted in Alaska, was held February 15-28, 1974. It involved approximately 5,000 men from the U.S. Army, Alaska, the Alaskan Air Command, Canada, Norway, U.S. Readiness Command, and U.S. Air Force Reserve and Air National Guard units from the "Lower 48." A 14-man Navy Seal team from the Inshore Warfare Command also participated.

Ace Card VII provided realistic training in an arctic environment. Temperatures dipped to as low as minus 57 degrees at the exercise site in the interior of Alaska.

Although the entire state of Alaska was considered part of the exercise training area, major activities were concentrated near Fort Greely, Eilson Air Force Base and Fort Wainwright near Fairbanks, and Galena Air Force Station on the Yukon River.

An airdrop of approximately 315 men climaxed the 17-day operation. Most of the paratroopers were members of combat units assigned to the 172d Arctic Light Infantry Brigade.

Airlift support for the drop was provided by C-130 Hercules aircraft assigned to the Alaskan Air Command, as well as Tactical Air Command and Air Force Reserve units from the contiguous states.

Airlift support rendered during the exercise totaled more than 400 sorties. Approximately 2,800 troops and 970 tons of equipment, food, fuel and other support items were airlifted in the deployment and tactical phases of the exercise.

In planning Ace Card VII, the exercise was carefully reviewed in the light of the energy crisis. Once the decision was made to go ahead with the exercise, every effort was made to reduce fuel usage where possible. One such conservation effort was realized by shipping approximately 300 troops via railroad rather than airlifting them back to their home bases.

Air Force Lt. Gen. James C. Sherrill, Commander in Chief, Alaska, recently lauded personnel of the command for their performance in Ace Card VII. He said, "ALCOM's component forces played a vital role in this large-scale arctic training effort and contributed greatly toward the successful accomplishment of our training objectives.

"The fact that an exercise of this magnitude was conducted under extreme

REALISM INSURES READINESS



arctic conditions without serious injury to personnel speaks well for the professionalism and ability of all participants."

Operations conducted during the twoweek exercise included a parachute assault, tactical fighter air support, airmobile operations, establishment and utilization of fuel caches, command and control communications, close air support, tactical air reconnaissance and auxiliary airfield tactical air traffic control, to mention a few.

Through winter and summer exercises of this nature, required because of the frequent turnover of personnel, the Alaskan Command hones a sharp defensive force, one capable of performing effectively in the unforgiving wilderness and temperature extremes of the northern Alaskan regions.



U.S. Army arctic infantrymen master the rugged terrain and weather in perfecting tactical skiing during the winter training exercise. At left, an Alaska Army National **Guard Scout** participates in a unified field training operation.

The Alaskan Command, from its inception, has supported numerous military and Federal agencies in the 49th State. These organizations range from the Military Sealift Command office in Anchorage, with a staff of six, to the Federal Aviation Administration office, employing 1,500 people.

The Military Airlift Command, Strategic Air Command, Army Material Command, the Navy's Arctic Research Laboratory at Point Barrow and naval operations on Fletcher's Ice Island, T-3, in the Arctic Ocean also receive ALCOM assistance.

Throughout Alaska's history, the civilian community also has been dependent upon the military for services and assistance that otherwise would not have been available.

From 1904 to 1962, the U.S. Army provided long-distance telephone and telegraph service for all of the state. After 1962, the Air Force maintained internal communications service for Alaskans. This service included telephone and telegraph messages, telegraphic money orders, wire service to newspapers, radio and television stations, and rural telephone service to some subscribers.

In 1971, a portion of the military communications system was sold to the Alaskan subsidiary of the Radio Corporation of America (RCA). Some military long-distance circuits are still leased to RCA pending development of additional private systems. Expanded satellite communications are already providing Alaska with an increasing number of live telecasts from the contiguous United States.

RCA presently operates satellite earth stations at Talkeetna and Juneau. The Department of Defense utilizes several automatic digital network (AUTODIN) circuits over the existing Telestar Canadian satellite system to the "Lower 48" states. The satellite system also is used for emergency communications.

The military forces over the years often have provided emergency power to isolated communities, have given medical advice and treatment, provided transportation when no other was available, and generally have done what had to be done in time of emergency.

When disaster strikes in Alaska, military relief is immediate. Three natural

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disasters in the last 10 years point out the military's support. At 5:36 p.m. on March 27, 1964 (Good Friday), the strongest earthquake ever recorded on the North American continent, an 8.6 intensity by the Richter scale, devastated Anchorage and south central Alaska. More than 100 homes were destroyed, 115 persons were killed and property damage totalled \$750 million. Alaskan Command forces responded to the emergency by providing law enforcement, heavy equipment, aircraft and manpower to assist Alaskans as they rebuilt.

In 1967, Fairbanks was inundated by the flooding Tanana River. Military airlift, medical aid and ground elements alleviated distress during this disaster. In 1969, more than 1,000 military men with aircraft, vehicles and earthmoving equipment helped Bureau of Land Management firefighters stop a forest blaze that ravaged 87,000 acres on the Kenai Peninsula. An 80-mile firebreak was built, and Army helicopters with water buckets were used to suppress the blaze.

Procedures have been established to speed *tsunami* (tidal wave) warnings to civilians by broadcasts over the Alaskan Forces Radio Network (AFRN). In some sections of Alaska, AFRN is the only radio service available.



Today, ALCOM personnel still assist Alaskans officially and individually in various ways. In the area of conservation, they work closely with the Department of Fish and Game in controlling hunting, transporting game to more habitable areas, improving animal environments and in stocking streams and lakes with fish.

It is inevitable that the military support of the civil sector will diminish as the state's economy grows. Alaska is outgrowing many of its military support needs, a fact which is a source of pride to the military community.

Military-Civilian Cooperation a Way of Life in Alaska





S everal thousand men, thousands of aircraft and tons of cargo and equipment transited Elmendorf Air Force Base and Anchorage during the United States' involvement in the war in Southeast Asia.

Southeast Asia hostilities had their greatest Alaskan impact on Elmendorf Air Force Base. From 1965 until mid-1973, approximately 46,000 Air Force C-141 transport flights passed through Elmendorf on their way to Southeast Asia. Additionally, C-5A cargo jets and other aircraft flew through Elmendorf enroute to the war zone.

During the peak of the traffic, from June 1967 to June 1970, the 602d Military Airlift Support Squadron at Elmendorf pumped 426,629,510 gallons of aircraft fuel—at all hours of the day and night and in every kind of weather.

The Vietnam war took two battalions of United States Army, Alaska, men from the state in 1965, during the U.S. buildup after the Gulf of Tonkin resolution put the Nation fully into the conflict.

The 4th Battalion of the 23d Infantry from Fort Richardson and the 4th Battalion of the Ninth Infantry from Fort Wainwright went to war in Vietnam as part of the 25th Infantry Division in 1966. Their departure initially left the U.S. Army, Alaska, with reduced infantry strength. However, two other units later filled the void.

Men from the 21st Munitions Maintenance Squadron at Elmendorf saw the fighting from close up on a smaller scale. Between May 1972 and mid-1973, about 45 men from the unit served during different periods at Ubon Royal Thai Air Base, Thailand. On temporary six-month duty, these men loaded F-4 Phantoms with everything from intercept missiles to one-ton, laser-guided "smart bombs."

Over a five-year period ending in 1971, Red Cross volunteers met every aircraft stopping at Elmendorf with war casualties aboard. The volunteers distributed reading material, souvenirs, refreshments —and cheer—to the wounded men. Red Cross volunteers greeted all 2,700 medivac flights, carrying 113,000 sick and wounded men during the five-year period. Medivac planes began flying through Travis Air Force Base, California, starting in September 1971, ending Elmendorf's involvement.

Anchorage International Airport served as one of the major refueling stops for commercial airliners flying military charters from the "Lower 48" states to the Southeast Asia war zone.

Four seasons and plenty of room at FORT GREELY



he U.S. Army's Arctic Test Center at Fort Greely, Alaska, helps determine the acceptability of many kinds of equipment into the military inventory.

Colonel Peter P. Petro is commander of the Arctic Test Center, as well as Fort Greely, which is about 90 miles south of Fairbanks.

The Defense Department first recognized the need for arctic testing after World War II. The United States at that time realized that it might some day have to fight in an arctic or subarctic area of the world. It also recognized that it was seriously lacking in either combat equipment or expertise necessary for the successful conduct of combat operations in northern environments.

The first military task forces instructed to assess arctic testing arrived in Alaska in 1946. A permanent Arctic Test Board was established in 1949. Various agencies created since that time have evolved into the present Arctic Test Center.

The Fort Greely center is under control of the Test and Evaluation Command (TECOM), one of three U.S. Army environmental testing agencies (arctic, tropic, desert) concerned with testing of equipment against a specific environment.

During hostilities in South Vietnam, the center's testing workload was considerably reduced, because of priorities elsewhere. Today, emphasis once again is on equipment performance in cold weather environments.

The Arctic Test Center's product is a complete test report. It becomes a key part of the Army's procurement decisions: Do we buy it, or not? The scope of the test report can be as narrow as a table of firing data at a specified temperature, or as broad as an expanded service test which requires "soldier-proofing" during field exercises as well as normal duty.

A wan winter sun lights Fort Greely, home of the U.S. Army Arctic Test Center. Fort Greely, which has one of the most severe winter climates in the world, is located about 90 miles south of Fairbanks. Many military men have preconceived ideas that "arctic" means subzero temperatures on a continuing basis. To company tank commanders or motorized forces commanders, the concept of every river being frozen, the ground being harder than concrete, rolling terrain with scant vegetation and natural bridges of glaciers would seem to indicate a world of almost unrestricted mobility.

However, thawing muskeg and tundra will grind armor operations to a halt in spring and summer months, making units virtually as roadbound as in many tropical areas. And the northern areas of Alaska have few roads useable on a yeararound basis.

Thus, the arctic is a total environment, a land of four seasons that can provide a challenge to tactics, materiel and equipment. Developers are being encouraged to conduct year-around testing at the Arctic Training Center.

The Fort Greely reservation provides adequate space to test a vehicle or the main gun of a battle tank. The reservation is a 600,000 acre complex with firing points having a maximum unobserved range of 50,000 meters. That's room enough to test artillery weapons and many Army long-range missiles. With virtually unrestricted airspace, air cavalry units can test any weapons system that can be mounted on a helicopter.

All vehicle tests are conducted on a year-around basis, with emphasis on Army-acceptable equipment being able to withstand the effects of all kinds of environment: temperate, desert, arctic and tropic.

Increasing testing emphasis is expected to be placed on items designed for every area in the world in which the Army might sometime find itself. When exposed to the elements at minus 50 degrees, 10-weight motor oil has the consistency of ice cream, plastic cases shatter when dropped, and the ability of batteries to take and retain a charge is drastically reduced. Soldiers cannot long survive without proper clothing and sleeping gear, and tires become flattened at the point of contact with the ground after remaining in position overnight.

The Arctic Test Center consistently answers the question, "Can a soldier use this piece of equipment and use it effectively to fight in the cold regions of the world?"

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