

ACCESS TO ALASKA

Port of Anchorage provides transport hub of roads, rails, air routes leading to previously inaccessible interior

BY E. L. ATKINSON

■ Rising above Knik Arm of Cook Inlet, discovered by British Captain James Cook in 1778, is the \$8,200,000 Port of Anchorage. The facility is the first significant seaport built on U. S. soil in some 25 years.

Its gantry cranes yawn in the mountain air crisping down from the Chugach Range. When one swings into action, its gulp is so huge that a 25-ton tractor is hoisted as though it were a ptarmigan feather.

Both civilian and military dignitaries attended the July 8, 1961 dedication ceremonies. Anchorage had come into its berth-right by providing a deep-water cargo terminal for civilian and defense needs.

Alaska's strategic position in national defense was foreseen by Secretary of State William H. Seward. In 1867, in an eloquent plea to purchase the far-north empire, Seward said:

"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."

His words bore grim fruition during World War II when Alaska became vital defense for the back door to the U. S.

In the cold war, Alaska is a strategic first line of defense. Aptly, slogan of the USAF in Alaska is "top cover for America."

As a result, Anchorage is Alaska's distribution center, fed by rail, land, air and water carriers who shuttle defense needs to the northland.

Just how this came to be is a patient progression of transportation.

From 1867 to 1942 ocean transport was chief means of reaching Alaska.

Towns along Alaska's 26,000-mile coastline were figuratively founded from decksides. But it was like a cat lapping cream from only the saucer's edge. To reach the interior took "Shanks's mare," dogteams and river boats. Something was done.

In 1915, the government began building the Alaska Railroad; in the 1940's, aircraft, "the covered wagons of Alaska," began to leap-frog the vast distances; in 1942, Army Engineers bulldozed the amazing Alaska Highway ("Alcan") through the Yukon-Alaskan wilderness. A marine fleet of barges, tankers and freighters churned the North Pacific.

In the post-war period Anchorage became the logical hub of this transportation wheel.

Today, Anchorage is the only North American stop of the North Polar airway connecting Europe and the Far East. Its International airport serves over a dozen domestic and intra-Alaska airlines.

Its Lake Hood boasts the largest concentration of floatplanes in the world. Merrill Field is headquarters for aircraft flying to "the bush."

A highway, north from Anchorage, junctions with the Alaska Highway. Southward, another leads to the Kenai Peninsula.

Headquarters of the 470-mile Alaska Railroad mainline are adjacent to Anchorage's tidelands.

These factors form a commercial distribution center for a vast area reaching to Fairbanks on the north, stretching westward to the Kuskokwim River.

In the post-war defense buildup, permanent military installations were built adjacent to Anchorage. These are Fort Richardson and Elmendorf AFB, HQ for USArmy, Alaska (USARAL) and of Alaskan Command and Alaskan Air Command, respectively.

These factors make Anchorage a distribution center for defense.

To the government-owned Alaska Railroad goes credit for founding the tent town on Knik Arm, now Alaska's largest city.



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THE ALASKA RAILROAD 40-ton gantry crane expedites unified defense transport service. Here, military-bound freight, in URB (Unit Rail Box) traveled by ocean freight to Seward, and was transhipped via rail to Anchorage. In the background is Fort Richardson, near Chugach Range.

In 1915, workmen arrived, unloaded supplies and tied up vessels at safe anchorage at Ship Creek. In time, first citizens voted a name for their town, and selected "Anchorage."

But it took 40-odd years to achieve the Port of Anchorage. Major market for Alaska's products had been at the end of a 700- to 2600-mile ocean haul. Development accented resources with a high unit value, such as canned salmon, furs and gold.

Pre-war freight rates were the highest under the American flag—for several reasons. The all-Alaska population in 1940 was only 72,524 persons. Supply lines were long; environmental conditions did not allow all year-around port operations at all points; there was largely a one-way haul, with ships carrying cargo north, but many returning empty.

The Alaska Railroad opened a corridor to interior Alaska and established a railbelt. Coal mines flourished, towns sprang up, the Matanuska Valley was colonized. The railroad hauled dredges to mining districts, brought groceries and other necessities.

The railroad was a life-line in World War II.

As Anchorage boomed in the military buildup, city planners visualized a deepwater cargo terminal to help reduce shipping costs. In 1946 a Port Commission was created.

Anchorage's previous deepwater pier, Ocean Dock, was, and is, operated by the U. S. Army. It receives military freight, principally POL products, all handled by civilian stevedores.

"The Ocean Dock, built in 1917, is small and functionally inadequate for the efficient handling of large volumes of civilian cargoes," said a spokesman for the Port Commission.

End of Costly Transshipments

Most Anchorage-bound cargo was shipped to Seward, then transhipped 114 miles by rail or truck at additional cost. Additionally, ocean freight came directly to Anchorage by commercial barge lines.

But the Port Commission pointed out that "the cost of barged cargoes, handled at small bulkhead terminals, is relatively high."

"The advantages of direct shipments to Anchorage in deep-draft vessels should make possible reduced shipping costs," according to the Port Commission.

The Port Commission acted. Feasibility studies indicated a Port potential. By 1956, Anchorage voters had authorized bond issues to build it.

Of the \$8,200,000 total fund, \$6,200,000 are in revenue bonds, and \$2,000,000 in general obligation bonds.

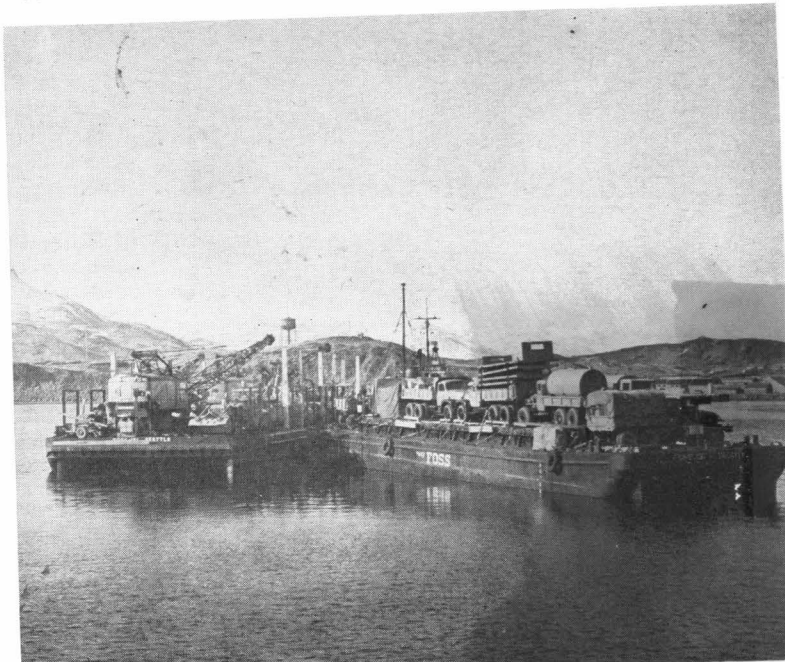
DeLong Corporation, New York, was successful bidder for construction of the Port facilities, and the Washington Iron Works, Seattle, for fabrication of dockside cargo cranes.

These Port facilities include a 600-foot long, 271-foot wide marginal wharf with a 150- by 350-foot transit shed. Four dockside traveling cranes, Alaska Railroad tracks, an access roadway and limited POL handling facilities are the mechanical accessories.

The rail tracks provide at outboard side of the wharf direct loading of cargo from ship-to-rail.

Pride of the gear for transfer of cargo between ships and wharf are two 40-ton cranes with 5-ton level-luffing jibs, and two 7½ ton level-luffing cranes built for high-speed operations.

Large amount of cargo is containerized. The two 40-ton cranes are used for handling of truck-trailers, and other heavy lifts. Or, their jibs can be used together with the bigger cranes for handling general cargo.



GIANT STURDY BARGES continue to ply north Pacific waters in transporting construction materials like these, used in the post-war defense buildup of Alaska. Through its multi-mode complex, defense material can be shipped to the remotest points via the Port of Anchorage.

Tidal variation at Anchorage is some 40 feet. Since ship's gear, used at most mainland ports, could be used only a few hours a day because of this variation, the use of high-speed electrical dockside cranes was deemed necessary.

The efficiency of these cranes should reduce turn-around time to about one-half of that at most other U. S. ports where similar cranes are not generally available.

The fully mechanized wharf can handle 2000 tons of general cargo per work day of two, ten-hour shifts.

Designing and building the port facilities called for solutions to some unusual problems of the Alaskan environment.

Thirty feet of water was provided alongside the wharf for berthing fully loaded ships at low tide. Set some 75 feet above harbor bottom, the wharf deck is equivalent in height to a seven-story building.

During the winter, ice floes, formed by fresh-water streams draining into Knik Arm, impinge against the wharf. Thus, foundations are built for higher loads than would be carried by most wharves, in an unique design, using cement- or sand-filled caisson-like steel piles.

Feasibility studies on Port operations, based on usage continued on page 50

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eight months of the year, estimated that an anticipated tonnage of 200,000 tons in the first year of operation could realize a net savings of \$19/ton over present shipping costs, or, more than \$3,000,000 per year savings for consignees-consumers.

During 1962, dockside contacts were made by 592 vessels, ranging from barges to the 630-foot long USS MANN, an MSTs troop transport.

In 1962, 97,464 tons of cargo were handled at the new Port. This includes 52,888 tons of POL and POL products in bulk and in barrels.

Some seven deepwater foreign vessels called, including Norwegian tankers, Danish reefers, and Japanese Maru class freighters. These landed foreign jet fuel (for foreign polar aircraft), frozen meats from New Zealand and nitrates, toys, cement and electronic equipment from Japan.

First year of operation, the Port had \$189,998 revenue, and the 1962 figure is estimated at \$257,500.

Year-around operation is feasible. Credit for proving this goes to the USNS MIZAR, a 2,486 ton auxiliary cargo ship with an icebreaker hull, operated by a civil service crew of 11 officers and 30 men in the MILITARY SEA TRANSPORTATION SERVICE.

During 1962 it called at the Port of Anchorage during each month of the calendar year.

And, speaking of the future, Anchorage City Manager Robert H. Oldland, recently said, "Ultimate potential of the Port of Anchorage and the role that it will play in the development of Alaska are both far beyond the initial steps and stages of current day operations."

In the port complex at Anchorage are terminal yards of the Dieselized Alaska Railroad, and tanker farms of several major U. S. oil firms.

The tidelands surge with transport activity as focal point for commercial tug-barge lines and freight and van lines.

Here, goods arrive direct from Portland-Puget Sound points, and move out via air, rail, and truck-trailers to interior Alaska and beyond.

The component commands Navy, Army and Air Force generate cargo and POL requirements for MSTs who procure the required sea transportation for Alaska-bound DOD materiel.

Bolts to Hot Dogs

"Everything from bolts to weinies is brought here for distribution to the military," said a spokesman for USARAL's Transportation Section at Fort Richardson.

In charge of military shore-to-shore transport is MSTs which carries on in Alaska its vital function for the Department of Defense.

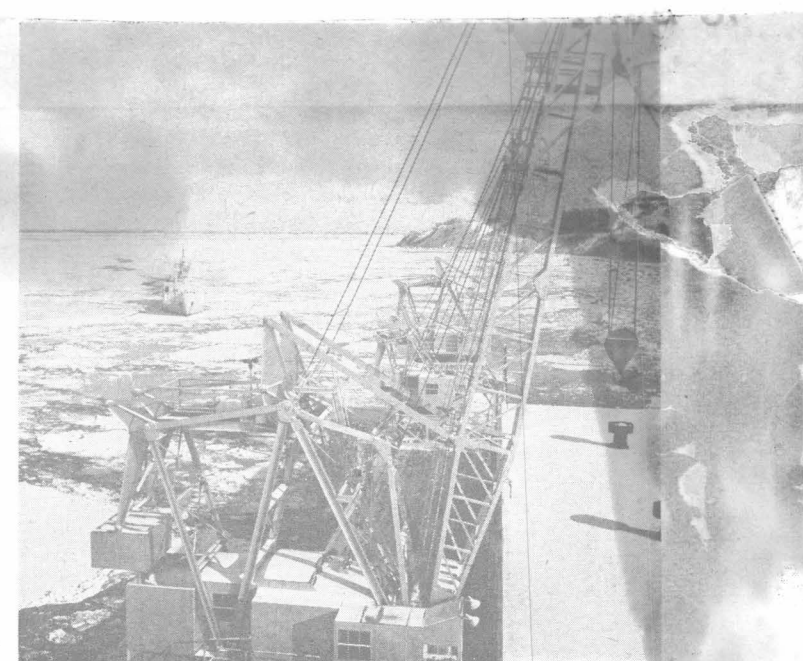
"Each year about 100 million gallons of POL products and 200,000 M/T of defense cargo (arriving at, or originating in the Alaska area) are monitored and coordinated by MSTSO, Anchorage," stated Lt. Commander N. P. Chokas, USN, commanding officer of the MSTs Office in Anchorage.

His operational area extends 565 miles south to Ketchikan, 1330 miles distant to Adak in the Aleutian Chain, and 1847 miles northward to the Arctic Ocean.

MSTs has logistical support from Commander-in-Chief, Alaska, and with ComAlSeaFrom/Com17thNavDist, at Kodiak, Alaska.

Coordination of air cargo, and airlift of authorized military personnel—into, and within Alaska—is done through Air Traffic Coordinating Offices for the Army and Air Force respectively, at MATS terminal located on Elmendorf AFB, Anchorage.

This multi-mile movement of personnel, materiel and cargo functions on a dollar/cost/mile basis.



USNS MIZAR approaches a Port of Anchorage facility on Knik Arm of Cook Inlet, proving year-round operations feasible. The ship is heading toward the high-speed gantry cranes that are a feature of the Port.

Air Force aircraft are used when needed. Commercial airlines serve each and all of the military services in Alaska. Some personnel and/or cargo is carried on MSTs vessels. Additionally, MSTs negotiates for use of commercial shipping, as needed, to meet total requirements. Indeed, commercial carriers account for bulk of over-all defense freight handled in the port and the adjacent military complex.

Commercial tankers berth at Ocean Dock, to bring POL for Alaskan defense installations.

Commercial barge lines use either the industry-operated wharfs, or the new Port facility, to bring both commercial defense bulk and containerized general cargo.

To date, commercial freighters call at the older, ice-free port of Seward, where the Alaska Railroad has a \$5,000,000 dock facility. Civilian-defense freight is transhipped by rail to Anchorage and beyond.

Additionally, there is a deepwater, ice-free satellite port on Prince William Sound at Whittier. In 1962, the Canadian National Railway inaugurated "seatrail" service—for commercial shipments only—between Prince Rupert, B. C., and Whittier, Alaska.

This heads for Anchorage, and beyond, via the Alaska Railroad.

Big Defense Installations

Alaska has many defense installations. In operation is one BMEWS site; the DEW-Line and AC&W sites; Army Forts Greely, Richardson and Wainwright; AFBases at Elmendorf and Eielson. Additionally, are day to day operations and training tests, such as USARAL's annual winter maneuver, in 1963 called TIMBER LINE.

This logistical maw relies on reliable transportation, furnished primarily by a Pacific coast merchant marine, linked with Alaska's commercial air and land network.

Military goods received at Seward and Anchorage include everything—from amphibious vehicles, ordnance, construction materials, special Arctic gear and clothing, privately-owned autos, to logistical materiel and supplies.

A partial analysis of the traffic tonnage freighted by the Alaska Railroad, to Anchorage and adjacent military bases, follows:

For the fiscal year July, 1961 to July, 1962 total traffic was 1,417,928 tons. Of this, USARAL received 675,941 tons, and commercial consignees, 741,987 tons.

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