

PORT of ALASKA IN ANCHORAGE

The Logistical and Economic Advantages of Alaska's Primary Inbound Port

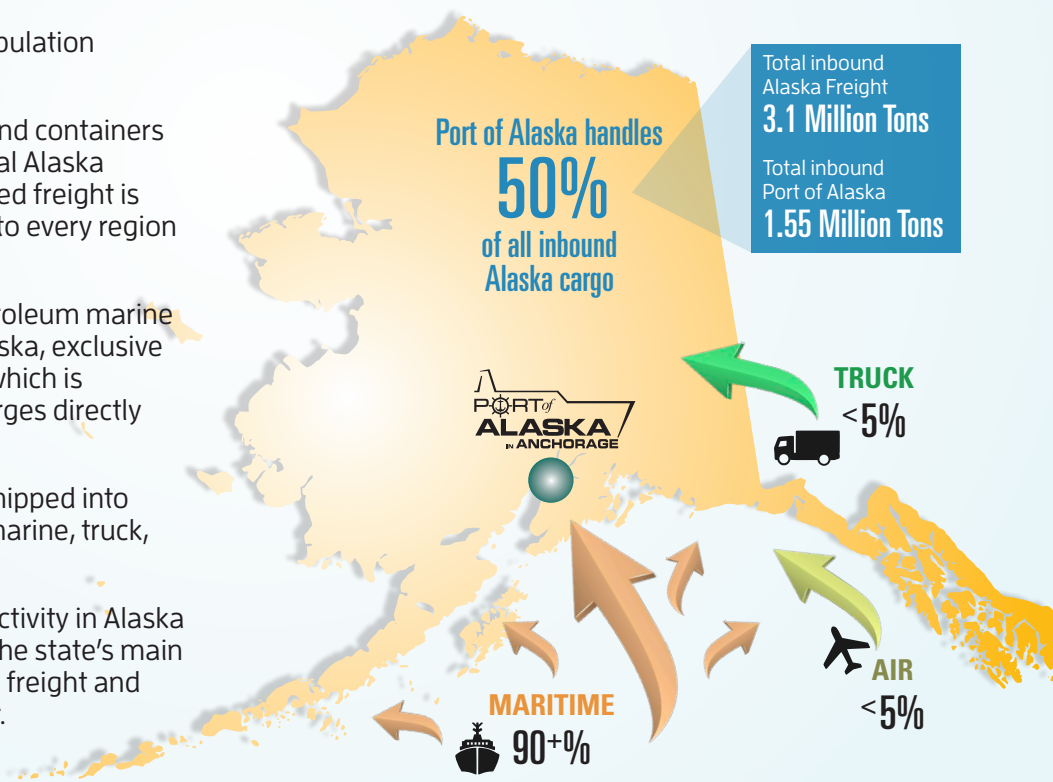
Port of Alaska (PoA) serves three critical functions. 1) It is Alaska's key cargo gateway, benefiting virtually every segment of Alaska's economy. 2) PoA is critical national defense infrastructure, playing an essential role in Department of

Defense missions in Alaska and around the world. 3) PoA provides a resilient transportation lifeline that supports routine movement of consumer goods, industrial development and disaster recovery.

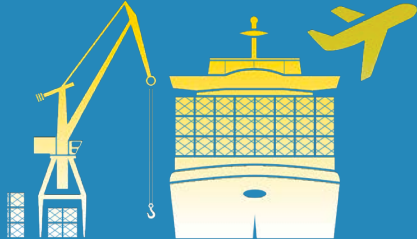
PoA freight, by the numbers . . .

- 90%** Percent of Alaska's population served by PoA.
- 80%** Percent of total vans and containers shipped to Southcentral Alaska ports. This containerized freight is eventually distributed to every region of the state.
- 75%** Percent of all non-petroleum marine cargo shipped into Alaska, exclusive of Southeast Alaska (which is primarily served by barges directly from Puget Sound).
- 50%** Percent of all freight shipped into Alaska by all modes (marine, truck, and air).
- \$14 billion** Value of commercial activity in Alaska supported by PoA, as the state's main inbound containerized freight and fuel distribution center.

Alaska Inbound Freight Profile, 2019 Non-Petroleum



Port modernization will ensure that PoA continues to provide the most efficient, reliable, and timely service possible to distributors and consumers. Relying on other ports would, over the long-term, cost Alaskans billions of dollars in increased freight costs.



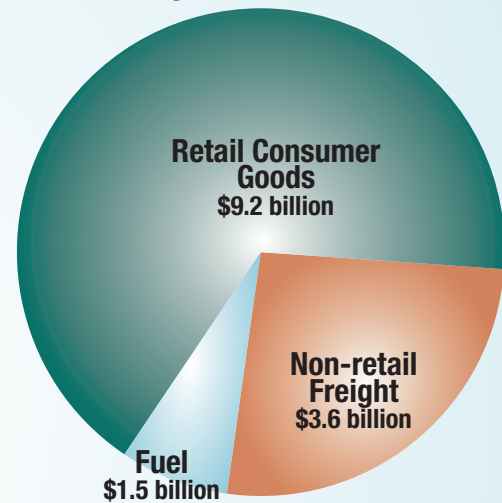
Economic Impacts

Alaska's economy relies on efficient, reliable, and cost-competitive port operations. PoA sustains billions of dollars of commercial activity in Alaska, playing an essential role in the movement of goods and materials from suppliers to customers.

Port of Alaska links more than **\$14 billion worth of commercial activity in Alaska**, including containerized freight, petroleum products and cement.

- ✦ **\$7.1 billion** in consumer goods cross the dock at PoA annually, supporting an estimated **\$9.2 billion in total retail sales activity across Alaska**.
- ✦ Other non-retail freight valued at \$2.9 billion at the dock supports **\$3.6 billion in statewide economic activity**. This cargo includes supplies, materials, and equipment used in food service, manufacturing, construction, and oil and gas industry activity.
- ✦ **\$1.5 billion in fuel crosses the docks** or through the valve yard at PoA. As described below, this fuel supports Ted Stevens Anchorage International Airport (ANC) and military operations.

Economic Activity Supported by PoA, 2019



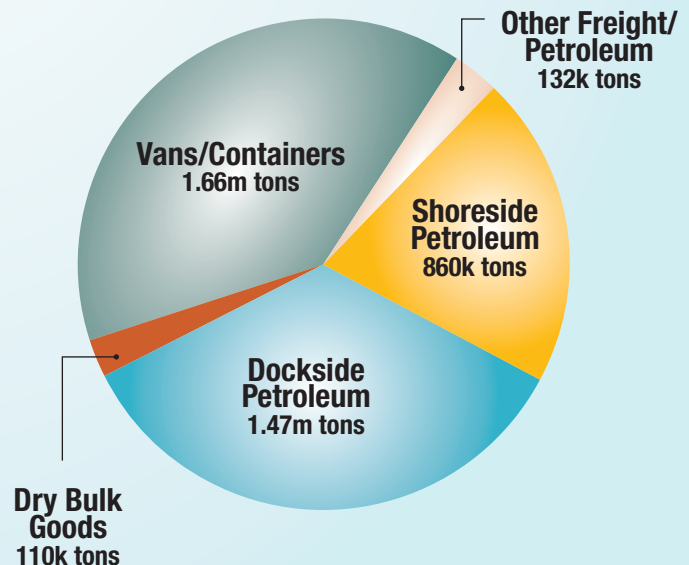
Port of Alaska Freight

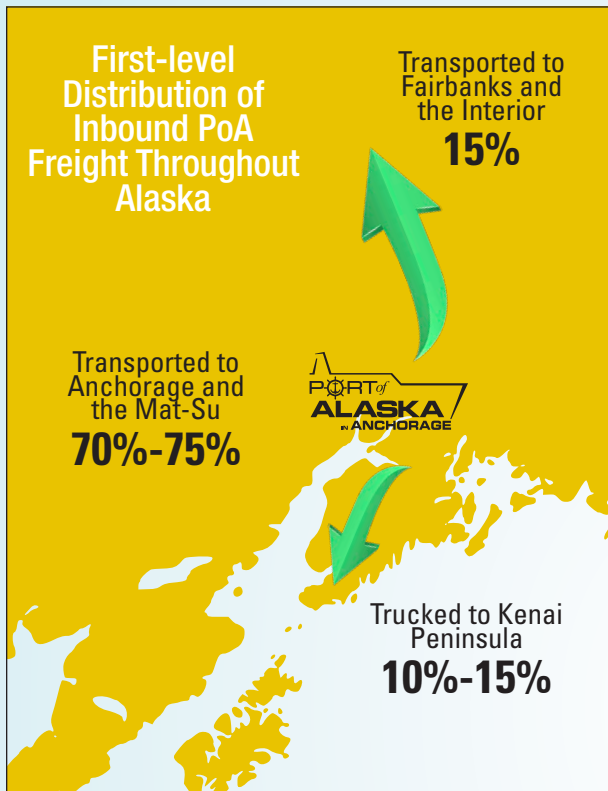
PoA is the focal point from which freight is dispersed throughout Alaska. PoA handles **five times more in-bound marine cargo** than all other Southcentral Alaska ports combined, totaling **4.3 million tons in 2019**.

- ✦ **1.66 million tons of van and container freight**, including 1.49 million tons of in-bound freight and 170,000 tons outbound.
- ✦ **1.47 million tons of refined petroleum products**, with another 870,000 tons of refined petroleum products flowing through port facilities via pipeline.
- ✦ **110,000 tons of bulk dry freight**, mainly cement, that is used all across Alaska.

Private investment at POA includes 60,000 tons (3,000 truckloads) of Portland cement storage capacity and 3.1 million barrels of fuel storage capacity. Other port assets include 60 acres of cargo laydown yard.

Port of Alaska Tonnage, 2019





Freight that moves through PoA is distributed all across the state, to **660,000 Alaskans in more than 150 communities.**

Between **70% and 75% of freight moving into the state through PoA stays in the Anchorage/Mat-Su area.** Seasonal barge service, airfreight and bypass mail are used to distribute PoA freight to remote roadless communities in Western Alaska.

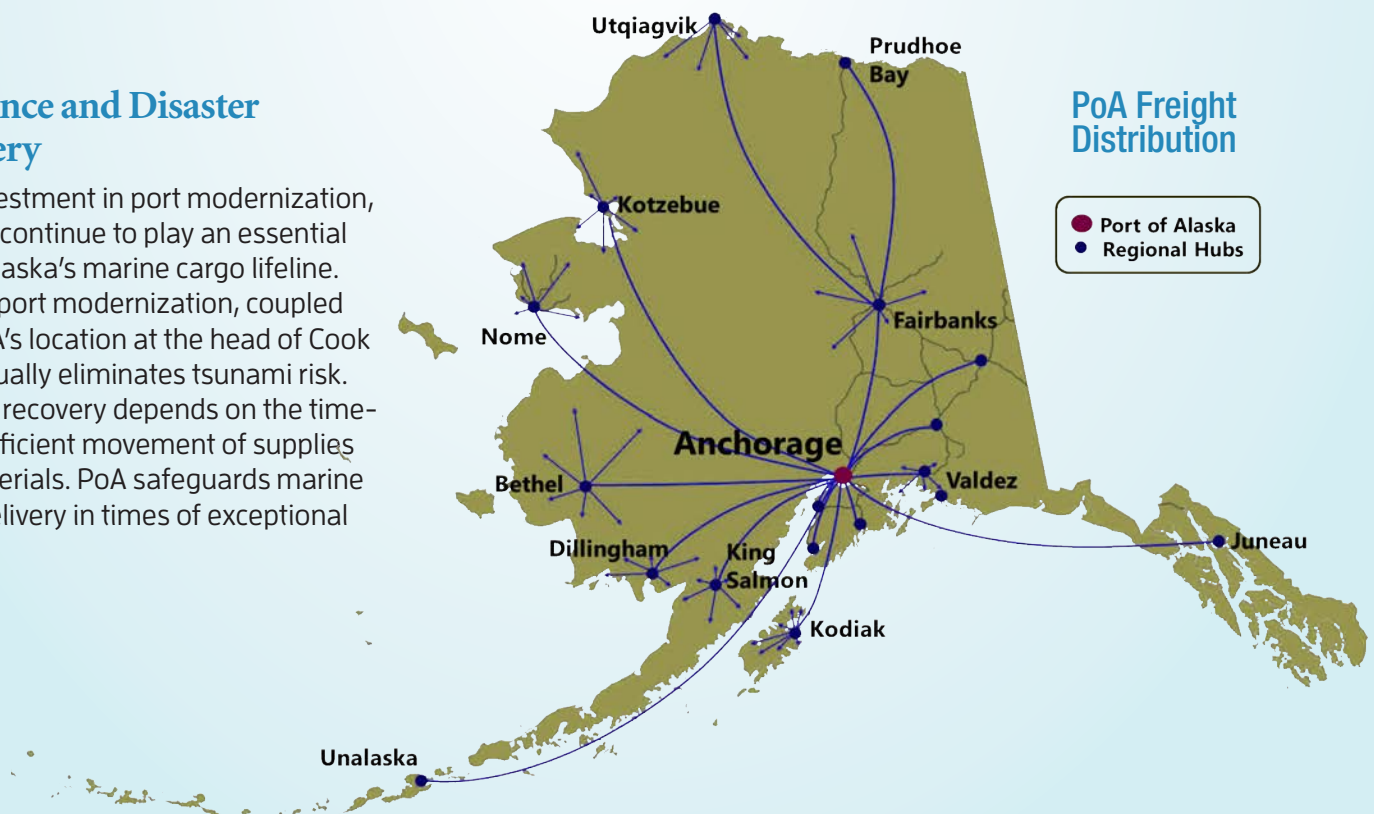
Approximately **15% of PoA's inbound freight is moved to Fairbanks,** where a portion is sent by airfreight or bypass mail to remote Interior and Northern communities.

Kodiak and Dutch Harbor have frequent scheduled container-ership service that **would not be economically sustainable if not for a PoA connection.** After serving PoA, container ships travel west mainly to take advantage of seafood shipping opportunities and to deliver consumer goods to Kodiak and Dutch Harbor.

Southeast Alaska has PoA connections. Virtually all aviation gasoline shipped into Southeast moves through PoA. Additionally, some consumer goods moving through PoA are airfreighted to Juneau retailers.

Resilience and Disaster Recovery

With investment in port modernization, PoA will continue to play an essential role in Alaska's marine cargo lifeline. Further, port modernization, coupled with PoA's location at the head of Cook Inlet virtually eliminates tsunami risk. Disaster recovery depends on the timely and efficient movement of supplies and materials. PoA safeguards marine cargo delivery in times of exceptional need.



Supporting National Defense and Airport Operations

PoA provides essential support to the nation and key components of regional and statewide economies.

National Defense

PoA is **one of the nation's 17 "Commercial Strategic Seaports."** PoA is directly connected by secure haul road and fuel pipeline to Joint Base Elmendorf Richardson (JBER). Port of Alaska supports military operations in Alaska, the Arctic, and across the Pacific Rim.

PoA provides port capacity to handle sudden, large movements of military assets during a national emergency or surge deployment.

Jet fuel used by JBER is transferred by a pipeline running from fuel storage tanks at PoA to the military base.

PoA supports major troop deployments from Alaska bases via rail and road connections.

Most provisions consumed at Alaska's large military bases pass through PoA, **supporting 19,000 active duty personnel and 26,000 dependents in Alaska.**

PoA provides high economic value to the military by supporting routine base operations and maintaining capability to support urgent, short-notice, troop and equipment deployment during times of crisis. PoA has saved the Department of Defense millions of dollars in avoided construction and maintenance for its own port facilities. Supplying JBER and other bases or deploying troops and equipment through other Southcentral ports would significantly slow transport time and increase costs.



Airport Support

PoA accounts for almost half the jet fuel consumed at ANC, the second busiest air cargo hub in the United States, and fifth busiest in the world.

Some **5.8 million passengers and 3 million tons of air cargo passed through ANC in 2019.** Economic activity connected to the airport includes more than 15,000 jobs.

About 90% of the air cargo moving through ANC is either trans-shipped (with final destinations outside Alaska) or "in transit", meaning planes flying between Asia and the continental United States are stopping in Anchorage to refuel. **These stops generate millions of dollars annually** for the airport through landing fees and fuel flowage fees. Refueling in Anchorage instead of flying non-stop allows freighters to carry more freight. Long-haul airfreight companies are sensitive to jet fuel prices. Increasing prices or supply disruption through PoA would reduce refueling stops in Anchorage.

Petroleum and Construction-related Benefits

PoA plays a key role in Alaska's refined petroleum product transportation infrastructure.

PoA handled 700 million gallons of refined petroleum products in 2019, including products moving through the valve yard and over the dock. That was more than 39% of all refined product consumed in Alaska that year.

Approximately **440 million gallons of petroleum product arrives inbound at PoA annually** (mainly jet fuel). No other port in the region has the storage capacity (now at 131 million gallons) or pipeline infrastructure to handle this volume of product. **An additional 260 million gallons** moves each year through the port's pipeline and storage facilities.

Fuel flowing through **PoA is part of a complex distribution network** serving Southcentral and Interior Alaska communities and military bases. High- and low-sulfur diesel, unleaded gasoline and jet fuels are regularly delivered to PoA via pipeline, tankers and barges from the refineries in Nikiski and Valdez.

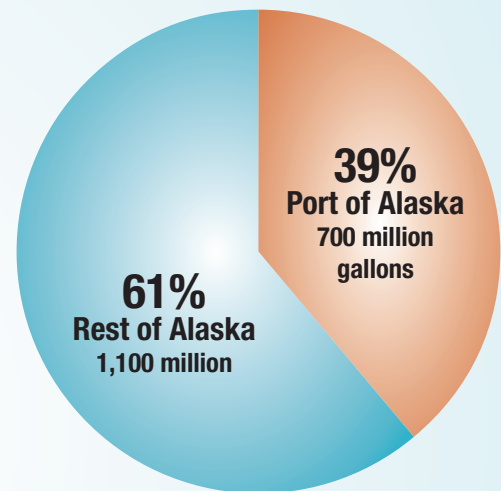
PoA serves other important fuel-related purposes. **Methanol staged at PoA is used on the North Slope as an antifreeze for wells and pipelines.** Virtually all aviation gas moving into Southcentral is barged to PoA from the Lower 48.

Fuel is distributed from PoA storage facilities by truck throughout Southcentral Alaska's road system and by pipeline to JBER and the airport. Petroleum products are also shipped via truck or rail car to the Interior and North Slope.

Construction

TOTE and Matson ships deliver a wide range of construction supplies to Alaska via PoA, but the port's cement handling and storage capacity is particularly important to the construction industry. Depending on the season and needs of large construction projects, **some 80% of the cement used in Alaska crosses the PoA dock.** This cement is used in all forms of residential, commercial, and industrial construction in Alaska, including public and private projects, and the specialized needs of the oil and mining industries. Construction is a \$3 billion industry in Alaska and in 2019 generated 16,380 jobs with \$1.3 billion in total annual wages.

PoA Share of Alaska Refined Petroleum Product Distribution, 2019



Economic Advantages of PoA

PoA's Strategic Position

Four criteria are key to a port's potential economic value to the communities and businesses it serves:

- ✦ Proximity to population centers
- ✦ Intermodal transportation connections
- ✦ Freight handling infrastructure
- ✦ Availability of necessary workforce

Port of Alaska is ideally located to meet Alaska's needs:

- ✦ 40% of Alaska's population resides within 100 miles of the port.
- ✦ More than half (54%) of the state's population is within an hour's drive of PoA.
- ✦ Three-quarters of Alaska's population is connected to PoA by road.

PoA's on-property intermodal connectivity includes truck, train and fuel pipeline. **Alaska's principal air cargo hub is less than eight miles away from and within sight of PoA.**

PoA offers **Alaska's most efficient, reliable and timely freight container handling capacity.** The port has gantry cranes for lift-on/lift-off (LO/LO) and ramps for roll-on/roll-off (RO/RO) operations, along with more than 60 acres of laydown yard.

Anchorage provides the large labor force needed for efficient port operations. Typically, more than 400 workers are engaged in some aspect of port operations, peaking at nearly 600 workers on busy ship days.

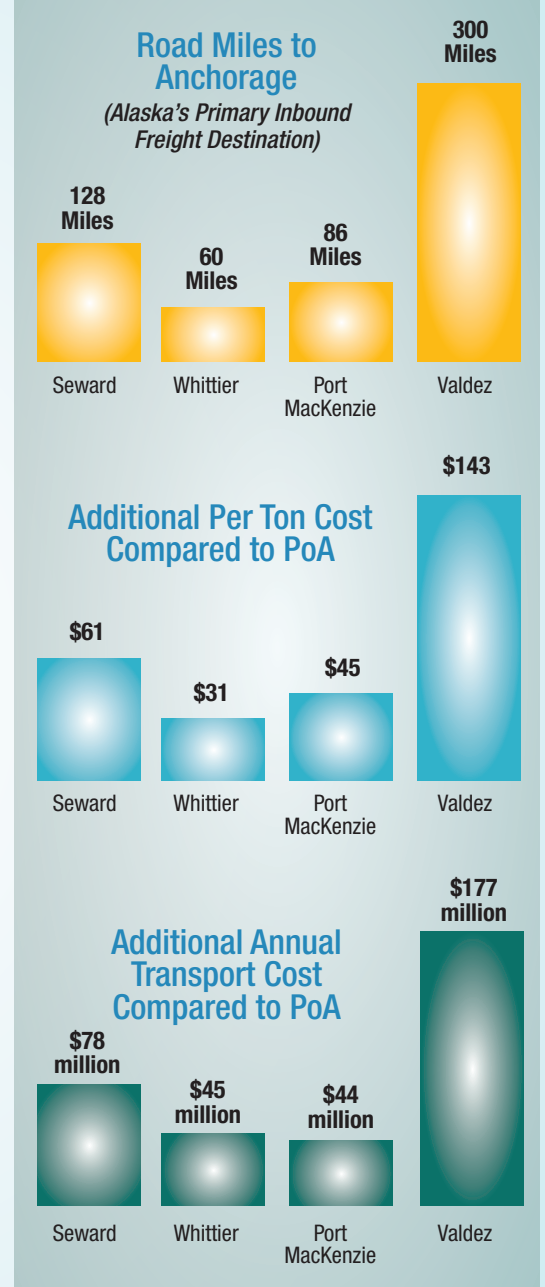
Value of Port Proximity

Simple analysis of trucking costs illustrates the importance of a port's proximity to consumers. If PoA was unavailable, and Seward had to serve as the state's primary inbound port, trucking freight the 128 miles from Seward to Anchorage **would add about 3 cents per pound to total shipping costs.** Multiplied by all the van and container tonnage that now moves through PoA, that 3-cent increase translates into **an annual cost of \$78 million.***

If PoA were to gradually or suddenly become inoperable, Seward and other ports would likely be used to fill the gap, though all **at substantially increased cost.**

If it were possible to move all inbound containers through Whittier, **costs would rise \$45 million annually,** based on increased trucking distance alone. Moving all container traffic through Valdez would have an annual cost of **\$177 million.** Though Port MacKenzie was conceived as a bulk commodity export facility, the cost differential for in-bound freight would be **\$44 million** annually. These figures include only drive time costs, not the cost of upgrades needed at these other ports to handle the volume of freight that now moves through PoA.

If Port of Alaska needed to be replaced with other ports . . .



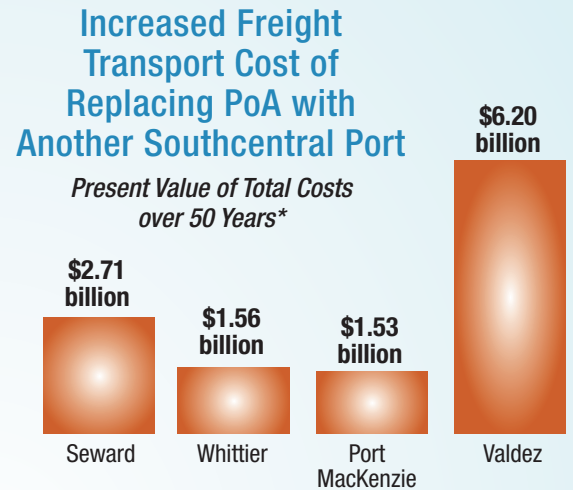
*This analysis is based on the simplifying assumption that all freight would be trucked from Seward. If PoA was unavailable, some Anchorage-bound freight would be carried via trailer/container on flat car. However, with the relatively short distance to Anchorage, rail shipping costs overall would likely be similar to trucking. Rail is superior to trucking when transporting large tonnages over long distances. Trucking is superior over shorter distances and particularly for time-sensitive goods.

PoA's Long-term Benefits

PoA's proximity advantages are clear: it would cost shippers, consumers, and taxpayers billions of additional dollars to use other ports over the long term.

PoA's proximity advantages are clear: it would cost shippers, consumers, and taxpayers billions of additional dollars to use other ports over the long term. A public investment of \$1 billion in PoA modernization that adds at least 50 years of port life would result in transport freight cost savings totaling \$2.7 billion, compared to relying entirely on Seward. **That investment in port modernization would pay for itself more than twice in the form of avoided freight costs.** Because they are closer to Anchorage, Whittier and Port MacKenzie have lower cost differentials than Seward; however, the value of avoided future costs still totals more than \$1.5 billion. **These avoided costs do not include the infrastructure and facility upgrades that would be required to make other ports capable of handling the freight that now goes through PoA.**

Relying on other ports would also require major investment in highway improvements. Moving more than 100,000 vans and containers each year would add heavy traffic to an already busy Seward Highway, impacting public safety and convenience (PoA truck traffic totals more than 300,000 trips annually). Carrying more freight via rail from rail barge ports would



*Excludes cost of required port redevelopment, road improvements, service delays, increased highway traffic, and other costs.

result in longer traffic delays at crossings and the Whittier tunnel. Barge service also means slower delivery (containership travel from Puget Sound to Anchorage takes 66 hours, while barges require six to nine days).

Recent private investments also demonstrate PoA's economic advantages. Private businesses have confidence in PoA's future and have invested millions of dollars in port facilities. The cost to develop fuel and other storage facilities elsewhere would be immense.



PoA Activity in 2020

Port operations have not been interrupted by the COVID-19 pandemic, but shifts in global shipping patterns are evident in port volumes.

One side-effect of the pandemic was to temporarily halt nearly all trans-Pacific passenger jet travel. Normally, about half the air cargo flown between the United States and Asia that typically bypasses Anchorage is carried in the bellies of passenger planes. As passenger planes were grounded due to the pandemic, this cargo shifted to dedicated air cargo flights, many of which refuel in Anchorage. **Air cargo volume was up 14.5% in the second quarter of 2020, compared to the same period in 2019.** This pushed airport fuel demand higher and increased the volume of fuel moving inbound through PoA. Other market forces were also increasing the volume of fuel through the port, includ-

ing Alaska buyers taking advantage of very low global fuel prices and topping off storage tanks. For the first eight months of 2020, 1.3 million tons of fuel moved over the dock at PoA, 41% more than the same period in 2019. The demand for fuel at the airport and through PoA will moderate as trans-Pacific air passenger travel recovers.

Container traffic arriving at PoA year-to-date through August 2020 was 2% below the same period in 2019. Given the pandemic-related damage done to Alaska's economy, a far greater decline might have been expected. This slight decline in overall tonnage disguises shifts in the type of freight moved, reflecting increased grocery store sales, decreased restaurant demand, and an overall decline in supplies needed to support Alaska's visitor industry. Longer-term, trends in container traffic will reflect the health of the Alaska economy. Full recovery from the pandemic-induced recession may require several years.

Big Picture

PoA is closely tied to **more than \$14 billion in economic activity in Alaska**, not including the value associated with the port's role in supporting national security and providing disaster recovery infrastructure.

Critical public infrastructure requires ongoing investment to ensure safe, reliable and efficient operations. As docks and other port facilities near the end of their design lives, more substantial investment is required to update and replace aging facilities.

Other Southcentral ports cannot individually or together replace PoA's ability to reliably and economically meet Alaska's inbound freight needs.