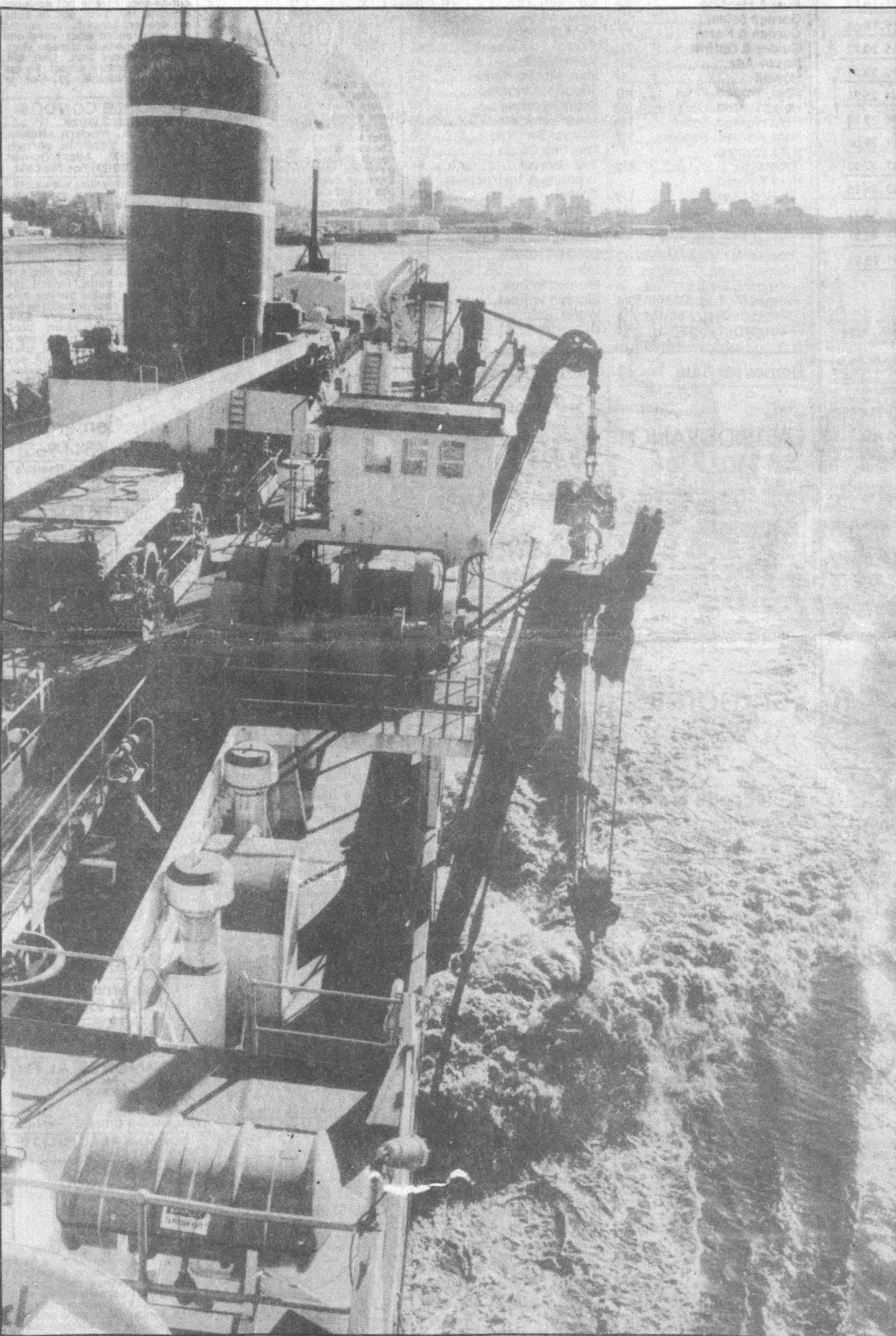


Alice Puster of The Times

The Biddle, foreground, aids a contract dredge in silt removal at Port of Anchorage



Stern view of commercial port and Anchorage skyline



Drag arms scoop silt in Anchorage harbor

Dredge battles high seas enroute to Anchorage

by Deb David
Times Writer

Since Capt. James Kimokeo steered the hopper dredge Biddle into the Port of Anchorage Sept. 19, he has seen 28-foot swells, two inches of snow and elusive, powdery silt.

The huge ship and Kimokeo conquered the stormy Gulf of Alaska seas, and the snow was a short-lived threat. The Biddle crew still is trying to figure out how to retain the inlet's fine silt in its dredging mechanism.

"The trip from Portland was pretty nasty," Kimokeo said. "Those 28-foot swells were rough. It was the roughest water I've been through with the Biddle."

Both the captain and the dredge have seen worse days. Kimokeo tells of a near-disaster in the dredge Davidson.

"It was out of Newport (Ore.) and all I could see was white water ahead of me," Kimokeo said. "It was coming up and breaking over the deck. There was nothing to do but keep going."

"The Davidson was a smaller dredge," the captain added. "But that's when you have more harrowing experiences."

"On a boat like this (the Biddle) you have a lot of maneuvering room; you have time to correct your mistakes. On a small one when you make a mistake, you're in trouble."

A water mark high in the Biddle's pump room attests to a high seas collision with another ship in 1977.

The trip to the Port of Anchorage has been comparatively calm. The Biddle and her crew left Portland Sept. 15 and moored at the port four days later.

"We lost about eight hours on account of the storm," the captain said. "We had to steer off course to get out of the heavy seas."

The Corps called the dredge Anchorage to assist in annual maintenance dredging because of an unusually large volume of silt in the Inlet. The Biddle is a supplement to normal operations.

Besides the problems created by the heavy volume of silt, the extreme fineness of the silt which the Biddle is charged with dredging has baffled the crew.

"Grains of salt and sugar are a lot bigger than this," Kimokeo said, holding up a jar of Cook Inlet silt for inspection. "It looks just like tal-

cum powder.

"This is the first time we've run into material like this. We've been trying to retain it, but we can't."

Kimokeo said the ship's drag heads (digging mechanisms) had to be modified. Rake-like prongs were attached in an effort to contain the silt.

In another effort to improve efficiency, Kimokeo said the dredge's pumps were slowed to about 140 RPM's.

"Under normal conditions, the pumps would choke with mud or clay at 200 RPM's," he said. "Out here, we've cut down the RPM's as much as possible to reduce water agitation."

"If the water gets too stirred up, it pushes the material over the sides."

Kimokeo said he doesn't know how efficiently the Biddle is operating. A Corps survey crew was cruising around the Inlet Wednesday checking that out.

A hopper dredge works similar to a vacuum cleaner. Dragarms with dragheads extend from the side of the ship's hull. They are lowered to the channel bottom and pulled across the area to be dredged.

Pumps create suction and the material is drawn into the arms and deposited into hopper bins beneath the vessel.

When the bins are full, the dredge sails to a designated deposit area where the material is emptied through hopper doors in the bottom of the hull.

The Biddle, the largest type of dredge owned by the Corps, can hold 3,000 cubic yards of dredged material, Kimokeo said. It has the capacity to pump 50,000 cubic yards per day.

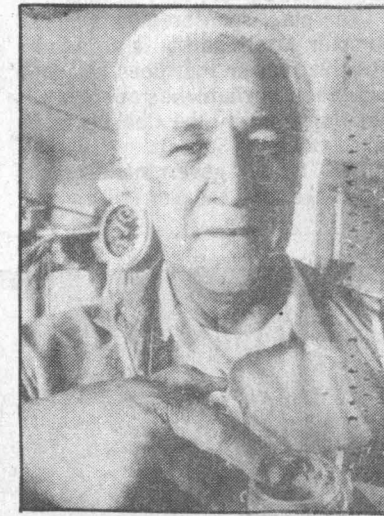
Kimokeo is used to traveling wherever the Biddle is needed.

He said the ship was the first to enter the Columbia River in Oregon after Mount St. Helens erupted last year. The Biddle arrived the day after the volcanic eruption.

He said the volcanic ash the Biddle was scooping up is similar to the material he's finding in the Inlet.

"Except there was only a fine layer on top," Kimokeo said. "After you got through that there was sand and silt."

The Biddle was built in 1947 and usually is used in the Portland District dredging the mouth of the Co-



CAPT. JAMES KIMOKEO
Relates harrowing tales

lumbia River. The boat also is used at other points along the west coast and in Hawaii.

Kimokeo first got involved with dredge boats in Hawaii, his homeland. He worked construction jobs before that.

"They hired me off the docks in Hawaii," he said. "In those days the captain could hire and fire from the ship. He didn't have to go through the Personnel Office."

Kimokeo started out as a deck hand on the Davidson. It took him twelve years to climb to captain.

He went through all the steps: deck hand, bin tender, drag tender, third mate, second mate and chief mate. After 12 years on dredges, he acquired his master's license and became Capt. Kimokeo.

Corps calls in hopper dredge to remove silt

The Port of Anchorage always silts up after summer, requiring maintenance dredging before winter, but this year three times the normal amount of material reportedly accumulated at the port.

The Corps of Engineers said if it is not removed before winter, container ships entering the port could become grounded.

It called in one of its huge hopper dredges to help the dredging contractor with unusually large amounts of silt. However, the hopper dredge Biddle, has had trouble scooping up the material because it is so powdery.

The Corps does not know why siltation is extra heavy this year, nor why the silt is so fine. Two theories have been thrown out, however.

"The extremely dry spring and the heavy rains in late summer could have caused extra heavy silt to move down the rivers," said Pat Richardson, Corps public relations officer.

"Another theory is that the currents and shoaling patterns in the Inlet are changing," she said. "At this point, we don't know if it will happen next year or not."

The Biddle was called from the Portland district to remove the excess, which is estimated at 500,000 cubic yards of silt.

The dredging contractor that does yearly maintenance dredging at the port is removing in excess of 250,000 cubic yards. The contractor uses a bucket dredge, while the Biddle is a hopper dredge.

This is the second time the Biddle has been relayed to Cook Inlet. In 1975 the dredge removed one million cubic yards of material from a shoal west of Point Woronzof.

The Point Woronzof project was authorized by Congress to facilitate the shipment of equipment during construction of the Trans-Alaska Oil Pipeline.