

The bow of the vessel has the characteristic sloping forefoot of icebreakers, which acts to slide the bow of the ship up onto ice too heavy to break by the forward motion of the ship alone. By the motion of backing and ramming the vessel breaks ice. When beset in ice, which may be caused by static friction, the use of wing tanks and heeling pumps allows the transfer of 220 tons of water in land  $\frac{1}{2}$  minutes, producing a ten degree list. In addition ballast can be shifted between the fore and aft peak tanks to assist in breaking out of ice. In the stern of the ship is a notch which was heavily padded and used for towing. It was believed that the best method for leading a vessel through heavy ice was towing, and by placing the stern of the towed vessel in the notch, the possibility of the tow running down the icebreaker should it be stopped by striking an unusually heavy piece of ice, would be eliminated. Vessels are now escorted through the ice with a safe distance maintained to allow adequate stopping room for the escorted vessel.

In her first escort duty to ANTARCTICA, BURTON ISLAND participated in OPERATION HIGH JUMP in 1947, along with the NORTHWIND. She provided ice escort for an aircraft carrier, seaplane tender, and two cargo vessels into the McMurdo sea area. Since that time she has made numerous voyages to both polar regions. In December of 1965 the U.S. NAVY decommissioned the BURTON ISLAND and turned it over to the U.S. COAST GUARD for commissioning 15 December 1965. In 1975 the BURTON ISLAND was scheduled for decommissioning, however she was extended on active duty which led to five additional polar deployments before decommissioning on 9 May 1978. In January of 1977 the BURTON ISLAND and NORTHWIND once again met in the ANTARCTIC celebrating 30 years each of polar exploration.

Deep Freeze 78 marks the 31st and final year of polar deployments under the U.S. COAST GUARD ENSIGN, the future holds possibly another deployment to the Arctic under another agency for further scientific work.

Today, in the mind of each man who has walked these decks, a remembrance will remain; a thought of days gone by, when he was part of BURTON ISLAND.

