



THE RESEARCH VESSEL ICEBREAKER *NATHANIEL B. PALMER*

In 1992, the **308-foot** RVIB *Nathaniel B. Palmer* was built with icebreaking capability and delivered for use by the USAP for extended scientific missions in the Antarctic.

- The ship can carry **45** scientists and technicians and **22** crew members.
- The ship can break **3** feet of ice at **3** knots.
- Ship capabilities include coring, seismic, seafloor dredging, mooring operations, water column sampling, small boat ops, unmanned aerial systems, autonomous underwater vehicles and remotely operated vehicles.
- The ship sails an average of **240** days every year.



Photo Credit: Marissa Goerke

THE U.S. COAST GUARD CUTTER *POLAR STAR*

The USCGC *Polar Star* was built in 1976 and is the U.S.'s only active heavy icebreaker. Its home port is Seattle, Washington, and it is under the control of the U.S. Coast Guard Pacific Area and Defense Forces West.

- The ship is crewed by **140** members of the USCG.
- The ship undergoes a massive overhaul in the off-season (May to October) to keep it running smoothly.
- The ship can break **6** feet of ice at **3** knots and **21** feet of ice by backing and ramming.
- The USCGC *Polar Star* cuts a channel for cargo, refueling and research vessels to pass through and reach the pier at NSF McMurdo Station, part of an effort called Operation Deep Freeze, which was first named by Admiral Richard Byrd in 1955.



Photo Credit: Petty Officer 3rd Class Diolanda Caballero, U.S. Coast Guard

NSF PALMER STATION SMALL BOATING CAPABILITIES

NSF Palmer Station has several smaller boats which are used for science research support.

- A fleet of small boats facilitates researchers around NSF Palmer Station. The fleet includes **two** custom-built **30-foot** closed cockpit rigid hull inflatable boats (RHIBs), deployed in 2017, which expands the research perimeter around the station by **20** miles. Also available are **two 19-foot** open cockpit RHIBs, **two to four 22-foot** heavy-duty F580 Zodiacs, and **one 25-foot** aluminum landing craft.
- This fleet supports diving operations, island landing (for penguin research, weather sensors and seal census/tagging), whale tagging, net tows, water column sampling and seaglider recoveries.

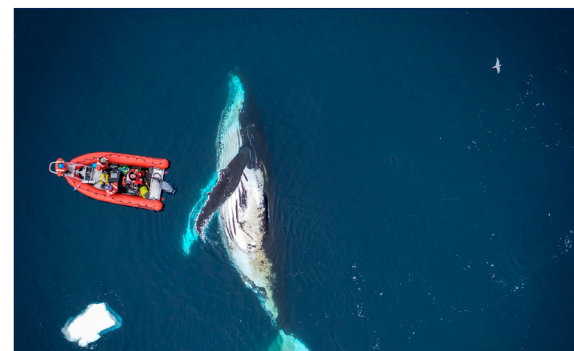


Photo Credit: Johnston Lab, Duke University
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