

## 16. Icebreakers

Icebreakers are a special class of ships that are designed to break even thickest of the ice and make some of the most inhospitable paths accessible to the world, navigating through the ice-covered waters, especially in the Polar Regions. The significant features that make the ice-breakers different from other vessels are its strengthened hull to resist ice waters, a specially designed ice-clearing shape to make a path forward and extreme power to navigate through sea ice.



These vessels usually have dual roles, particularly in the Antarctic, where they function also as polar replenishment and supply vessels to the Antarctic research bases. Nuclear-powered icebreakers can force through the ice at speeds up to 10 knots and are usually refueled once every 5-7 years.



The power and intelligence of man created such magnificent floating vessels.