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# SOME ANTARCTIC BASICS

## Antarctica

This continent is the highest, driest, coldest, windiest, and emptiest place on earth. An ice sheet covers more than 99% of Antarctica. At its thickest point, it is 4,776 m (nearly 3 mi.) deep. Antarctica holds approximately 90% of all the world's ice (by volume) and 70% of all the world's fresh water. There are many penguins and abundant sea life along the coast – but there is little life in the interior, and there are no indigenous people.

## Temperatures

The mean annual temperature at South Pole Station is minus 49°C (-56°F). Temperatures at McMurdo Station may reach as high as 8°C (46°F) in summer, while at South Pole Station, the record high summer temperature of -12.3°C. (9.9°F) was recorded in December 2011. Palmer Station's summer temperatures will reach above 4°C (40°F).

## Daylight and Darkness

The area above 66.5 degrees south latitude experiences one long day and one long night each year – with several weeks of sunrise and sunset in between. There are spectacular displays of aurora australis (southern lights) during the winter darkness.

## Ownership

No nation owns Antarctica. The Antarctic Treaty, which has been recognized by 53 countries, reserves the area south of 60 degrees south latitude as a zone for the peaceful conduct of research. Treaty nations coordinate and cooperate to maximize research results and minimize logistics requirements.

## Size and Distance

The continent is roughly 14 million sq. km. (5.4 million sq. mi.). For comparison, the U.S. is 9.36 million sq. km. (3.6 million sq. mi.). The sea ice around Antarctica varies from 4 million sq. km. (1 million sq. mi.) in summer to 20 million sq. km. (7.7 million sq. mi.) in winter. The distance from Washington, D.C., to McMurdo Station is approximately 14,830 km. (9,200 mi.).

## Science

Antarctica provides excellent conditions for scientific research on global climate change, ozone depletion, UV radiation, earth sciences, glaciology, astronomy, oceanic and atmospheric circulation, marine ecosystems, meteorite studies, and biology, among others.

## History

The existence of the continent of Antarctica was only a hypothesis until it was first sighted in 1820-21. Sealers set foot briefly on the Peninsula in 1821, but no one set foot on East Antarctica until 1895. The South Pole was first reached in 1911, and a year-round research station was established there in 1956. Antarctica's history is full of extraordinary stories of heroism and survival.