



# Operation IceBridge

Sea Ice

## **Sea Ice Transitions**

*Crew aboard NASA's DC-8 captured this view of sea ice during a 2009 Operation IceBridge flight in Antarctica. A thick ice floe (lower-right) transitions to thinner, more vulnerable types of sea ice including pancake ice (left).*

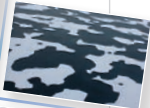
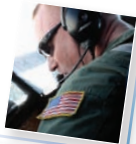
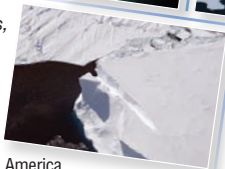
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## Operation IceBridge

*An airborne mission monitoring Earth's ice sheets, glaciers, and sea ice*



## Sea Ice

- Sea ice covers about 9.7 million square miles of the planet, about the area of North America.
- Antarctic sea ice has expanded northward by about 1 percent (about 39,000 square miles) per decade since the late 1970s.
- In the Arctic, thicker multiyear ice has been declining in recent years, becoming thinner, younger, and more vulnerable to increasing summer melt.
- Instruments on satellites and aircraft use laser or radar instruments to measure elevation of the ice sheets and thickness of the sea ice.

National Aeronautics and Space Administration

**NASA's Cryospheric Science Program**

[www.nasa.gov/icebridge](http://www.nasa.gov/icebridge)

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