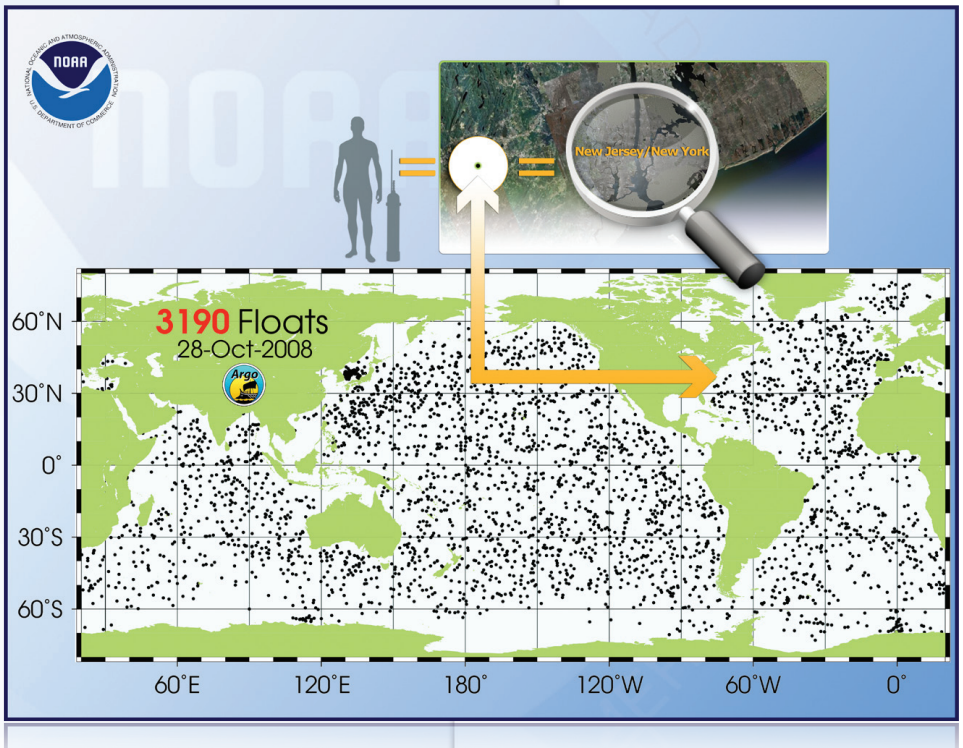
# Argo's "Robotic Oceanographers" Take the Ocean's Vital Signs

**Scientists agree that sea levels are rising as a result of global climate change. Knowing how quickly and how high sea level will rise will help policy makers better protect coastal communities from the threat of inundation. Argo floats are collecting data that may help answer these questions.**

## *Impacts*

### A worldwide picture of ocean characteristics for industry use and climate forecasting

Ocean observations are critical for coastal management, shipping, offshore industry and climate forecasting. NOAA researchers lead ocean observations through an innovative use of "robotic oceanographers" that measure ocean temperature, salinity, and currents. Called the Argo array, NOAA initiated its contribution to this international effort in 2000 by pledging to participate in the deployment of 3,000 free-drifting floats around the globe.




Unlike satellites which cannot "see" below the ocean surface, Argo floats spend most of their life collecting data from the surface to a depth beneath the surface of up to 2,000 meters.

Accurate climate forecasts depend on improving ocean observations within the upper layers of the ocean. Satellites relay Argo data to land-based receiving stations. From there, the data are made available within 24 hours for operational forecast centers and with more rigorous quality control within five months for scientists.

The array, which is sponsored by OAR's Climate Program Office, is a major component of the Global Ocean Observing System (GOOS).OAR's Atlantic Oceanographic and Meteorological Laboratory (AOML) is a U.S. Argo data center. AOML also has been active in Argo capacity building efforts for Atlantic nations, including 12 West African countries, as well as Korea and China. OAR's Pacific Marine Environmental Laboratory in Seattle calibrates Argo floats before deployment and monitors quality control.

*Image: Map of Argo float locations. NOAA has contributed nearly half of the Argo floats to a growing worldwide network.*

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http://www.esrl.noaa.gov/csd/2006