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Japan Agency for Marine-Earth Science and Technology
Nihon Yusen Kabushiki Kaisha

JAMSTEC and NYK Team up for Deploying Profiling Floats -A First for Japanese Private Sector in the International Argo Project-

The Japan Agency for Marine Earth-Science and Technology(JAMSTEC) and Nippon Yusen Kabushiki Kaisha (NYK) have signed an agreement to cooperate in the deployment of scientific floats on November 19, to enhance a global oceanographic observation network, known as Argo. [Argo*](#) is an international project to deploy over 3,000 profiling floats (called Argo floats) in the global ocean. The data collected are used extensively and vital for research into climate change, global warming, and forecasting ocean currents for fisheries and maritime industries.

Japan has deployed Argo floats with the cooperation of vessels passing through designated areas and operated by Japanese public institutions such as universities, fisheries colleges and high schools, the Fisheries Agency, the Meteorological Agency, and the Coast Guard of Japan. NYK is the first Japanese private sector to lend a hand in the deployment. Using an extensive fleet of vessels that ply the world's oceans, NYK will deploy Argo floats primarily in the Pacific Ocean. This will allow for steady deployments of floats in ocean areas less accessible to the Japanese public vessels, thus contributing greatly to the advancement of climate change studies.

Scope of cooperation

For the areas that NYK vessels travel through but are scarcely visited by the cooperating ships in the Pacific Ocean ([Map](#)), JAMSTEC analyzes the ocean data and chooses the locations for float deployment. Upon request by JAMSTEC, NYK will confirm the availability of scheduled vessels for the area capable of deploying floats.

Expected Results

In some areas of the Pacific Ocean, there are fewer observations, because of infrequent visits by the cooperating ships that place floats. The dispersion of the floats by ocean currents also adds to the sparsity. Steady deployments of the floats in such areas will enhance a network of real-time observations. The wide and dense coverage of the Argo observing system will reduce the uncertainty surrounding the global heat and freshwater transports, a key factor in understanding the mechanism of climate change and the improvement of its predictability; which will further facilitate research into global environmental change and its mitigation.

* Argo Project

Started in 2000, Argo is an international scientific project supported by the World Meteorological Organization (WMO), UNESCO's Intergovernmental Oceanographic Commission (IOC), and institutions in 30 countries including EU. The aim of the project is to establish a real-time global observing system by deploying free-drifting profiling floats. The Argo floats drift up and down between a depth of 2,000 meters to the surface, measuring the temperature and salinity of the ocean. The goal of the Argo project is to operate over 3,000 Argo floats spaced about 300-km apart in the world's oceans. This will allow for the collection of real-time data at an interval of three latitudinal and longitudinal degrees.

Map

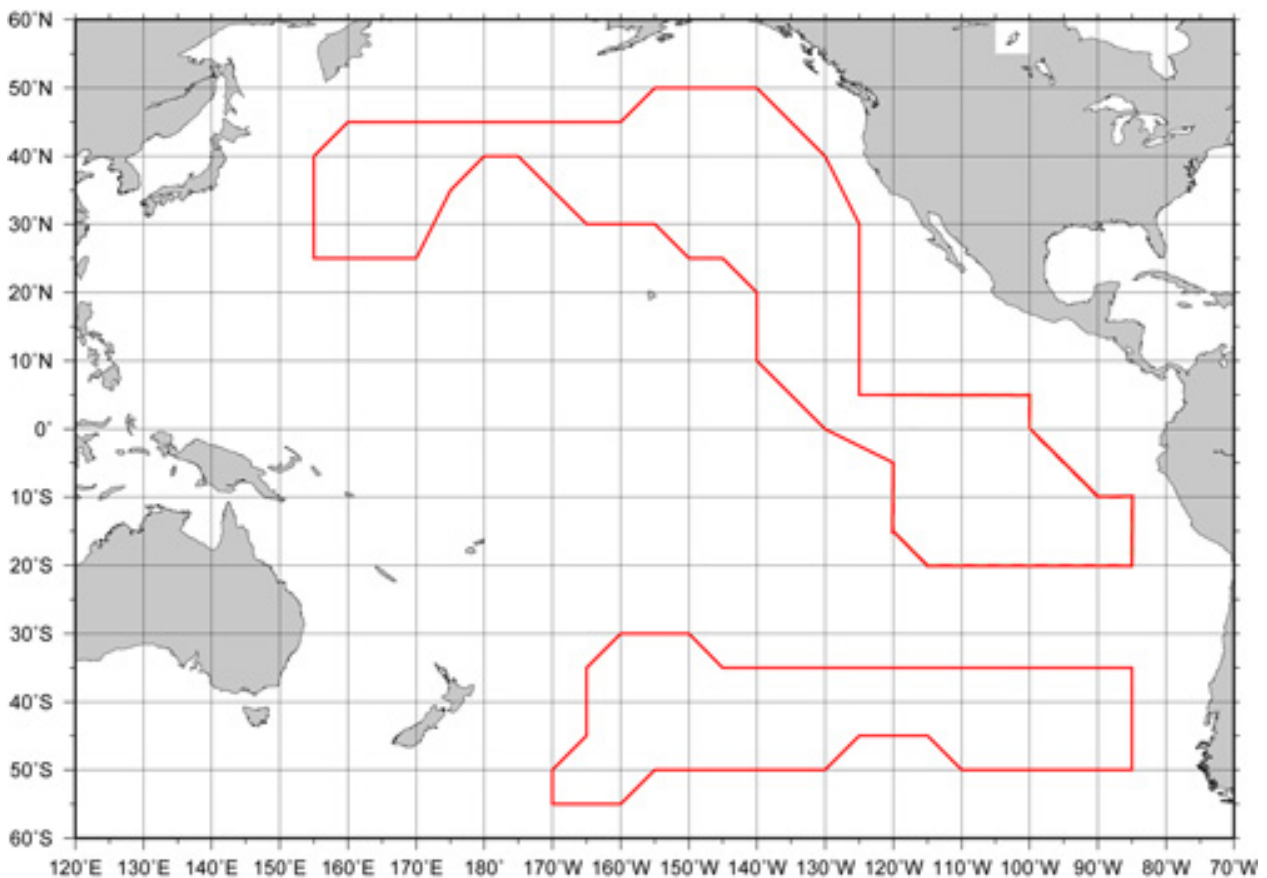


Figure 1: Planned deployment area

<References>

- JAPAN Argo
http://www.jamstec.go.jp/J-ARGO/overview/overview_1.html
- Argo JAMSTEC
http://www.jamstec.go.jp/ARGO/argo_web/argo/index.html

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