



Jason and The ARGO FLOATS

The oceans control and regulate the world's climate and influence our weather conditions. Knowing the temperature and salinity levels of the ocean is crucial in better understanding climate change, the role of our oceans on our climate and assisting decision-makers in making informed decisions.

Argo is an international project to observe the world's oceans using marine robots also called autonomous profiling floats.

As of January 2019, there are approximately 4,000 Argo floats taking measurements in the ocean.

The floats are deployed at sea from a vessel and immediately sink to a depth of roughly 1,500m, which is known as the float's "parking depth." Each float operates on a ten-day cycle, and having drifted at 1,500m for nine days the float then descends to a depth of 2,000m.

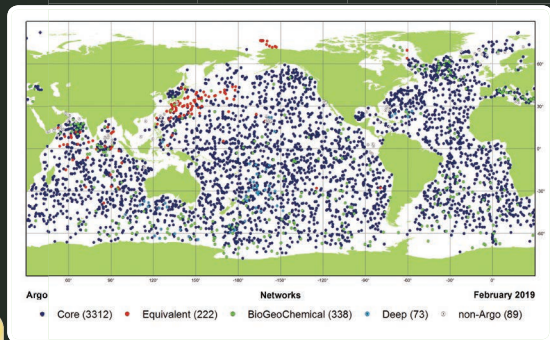
Once at 2,000m the float then ascends towards the surface, taking measurements of temperature and salinity at various depths on its way. The ascent can take around six hours! Once at the surface, the float transmits its data to a satellite, which in-turn sends the data back to shore while the float returns to its parking depth and starts a new cycle.

Argo Floats have a lifespan of around 4 years (or approximately 150 cycles) and the data they collect is invaluable. The global fleet of floats produces about 100,000 data profiles annually, helping complement surface water temperatures recorded by satellites.

In 2015, Ireland joined the European-Argo Research Consortium, through the Department of Agriculture, Food and the Marine with the Marine Institute managing the National Argo programme. Over the last 10 years, the Marine Institute has deployed 20 Argo Floats in the North Atlantic, with a sustained deployment of three Argo floats per year since 2015. The Marine Institute's participation in Euro-Argo places Ireland at the centre of global efforts to model, mitigate and adapt to the potential impacts of climate change.

Did you know?

The name Argo was chosen because the project complements the Jason satellite mission, which collects data on sea level changes, extreme weather events and climate change. In Greek mythology, Jason and the Argonauts sailed on a magical ship called the Argo in search of the Golden Fleece (a symbol of nobility and excellence in ancient Greece).



Source: argo.jcommops.org

