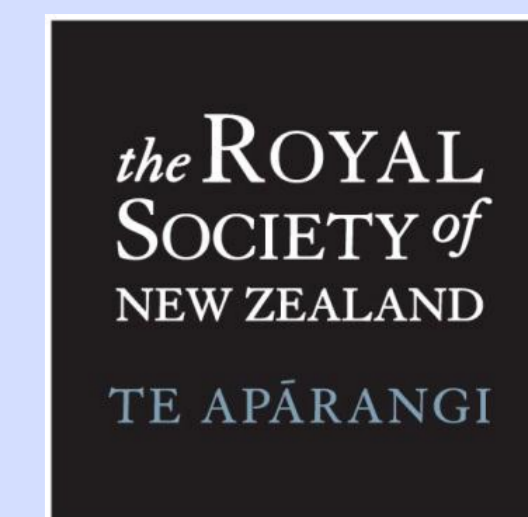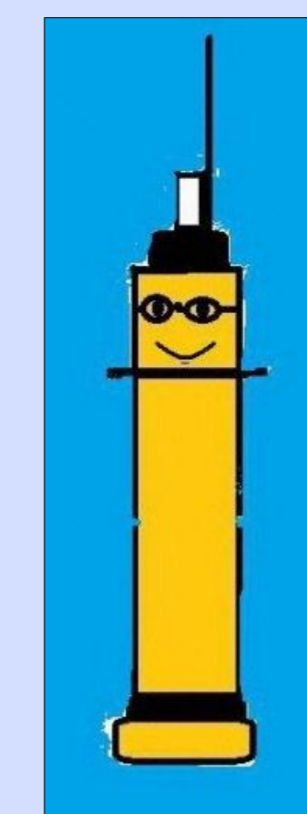# Argo Floats
Measuring the ocean
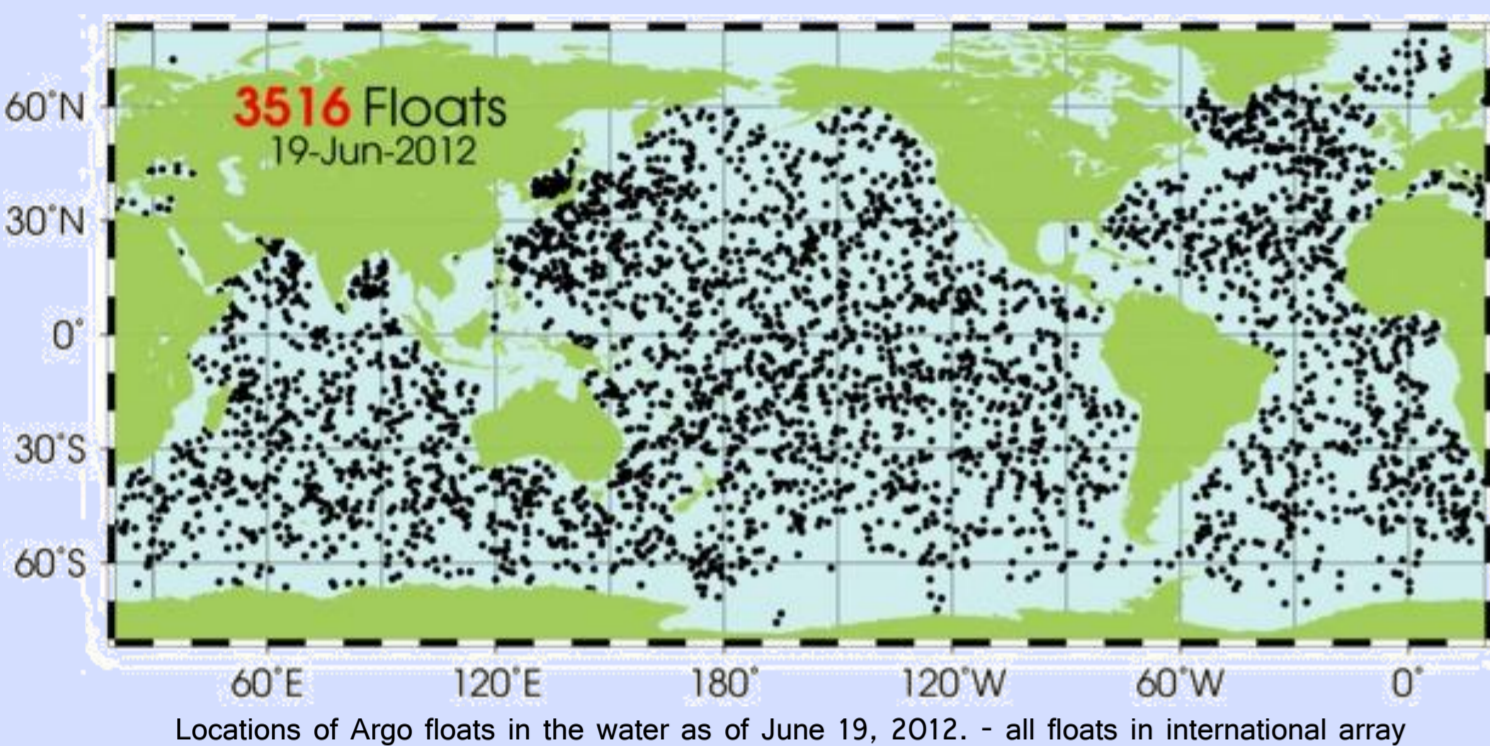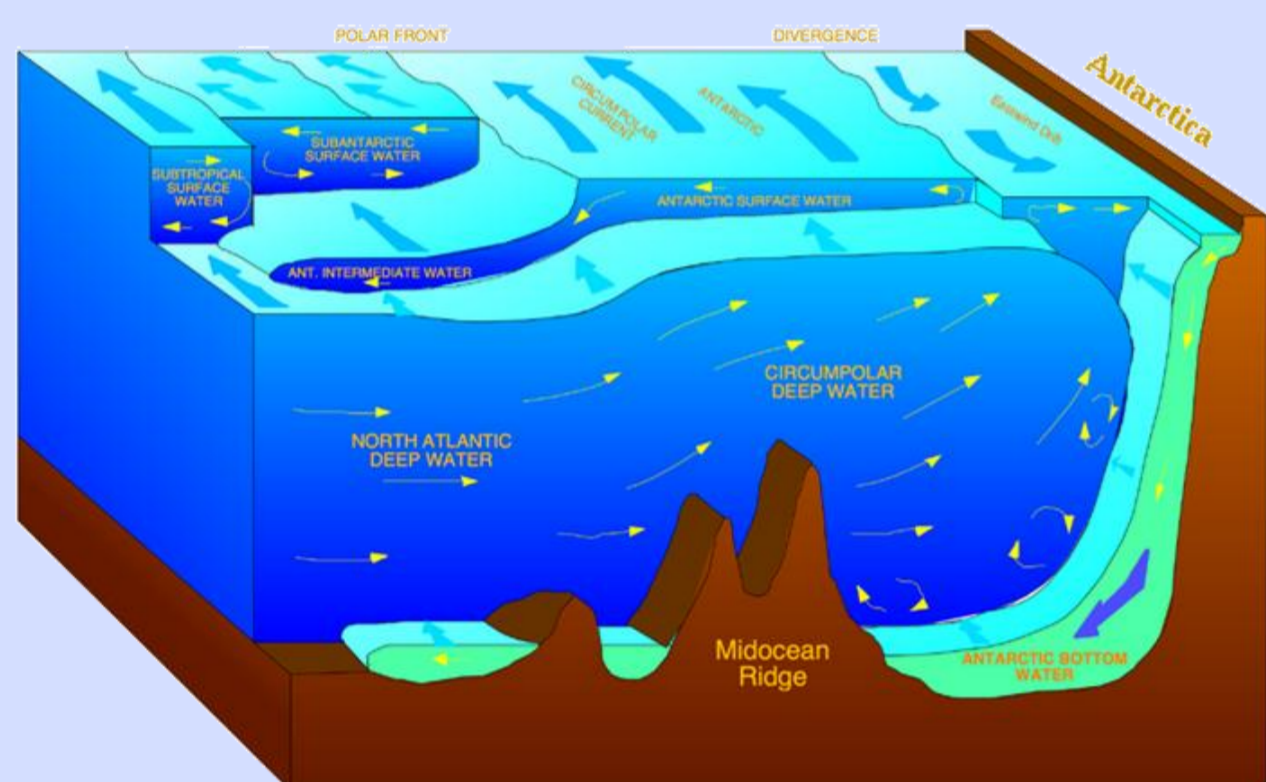
Project Objectives:
Develop knowledge and understanding of
- Argo Float technology and how it is used to gather ocean data
- Argo Float data and how they are used to understand ocean currents
- The Southern Ocean south of New Zealand
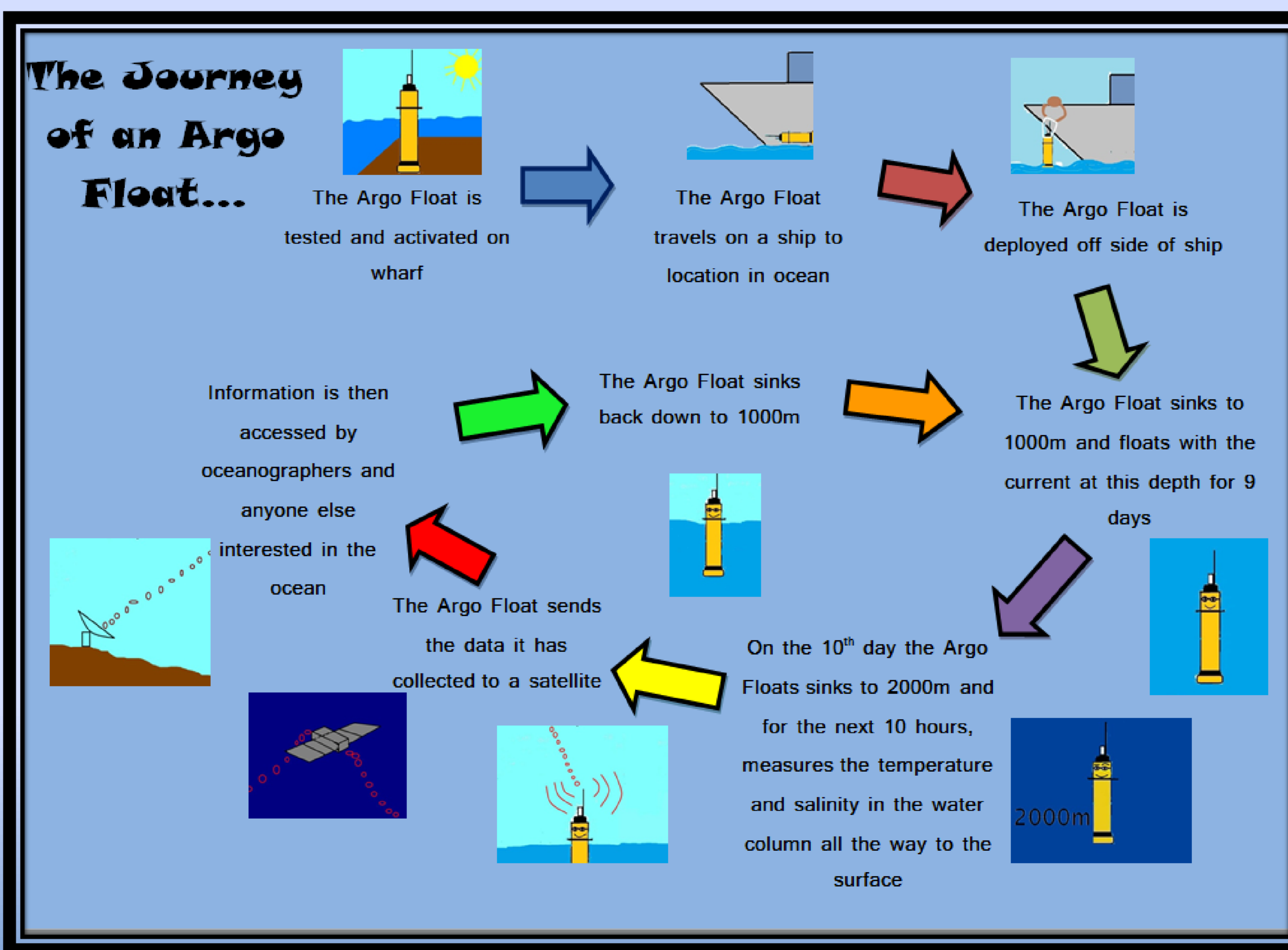

3516 Floats
19-Jun-2012

Locations of Argo floats in the water as of June 19, 2012. - all floats in international array
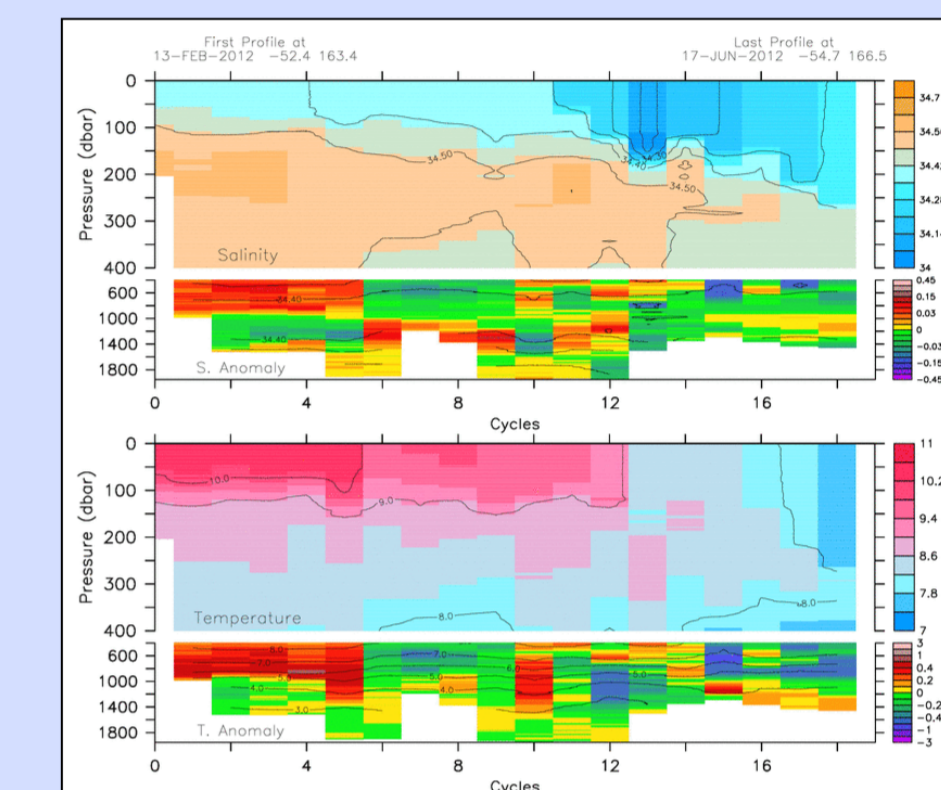

Southern Ocean Cross Section. Wikimedia Commons: Hannes Grobe

The Southern Ocean acts like a pump house for the other major oceans, drawing surface waters south towards the Antarctic Circumpolar Current (ACC), where they are modified and re-exported north as intermediate waters (500 – 1500 m depth) and bottom waters (> 4000 m depth).

Argo Floats are a very cool technology to measure temperature and salinity in our oceans. We need this information to help us with climate, weather, and ocean research.

The Journey of an Argo Float...

The Argo Float is tested and activated on wharf

The Argo Float travels on a ship to location in ocean

The Argo Float is deployed off side of ship

The Argo Float sinks to 1000m and floats with the current at this depth for 9 days

The Argo Float sinks back down to 1000m

On the 10th day the Argo Floats sinks to 2000m and for the next 10 hours, measures the temperature and salinity in the water column all the way to the surface

2000m

The Argo Float sends the data it has collected to a satellite

Information is then accessed by oceanographers and anyone else interested in the ocean

Argo data gives oceanographers and climate scientists a comprehensive ocean data set.

Graphs showing salinity and temperature of WMO 5903879 in the Southern Ocean http://sio-argo.ucsd.edu/

Argo data are easy to access and are truly global. They bring more awareness of how our oceans work and keep a watch on major temperature and salinity anomalies and changes in ocean circulation. Argo data also aid the monitoring of environmental conditions that affect fish stocks and biological productivity.

Carol Brieseman
Primary Science Teacher Fellow 2012
The New Zealand Science, Mathematics and Technology Teacher Fellowship Scheme is funded by the New Zealand Government and administered by the Royal Society of New Zealand.

Blogs and Wiki

Sea_breeze@Niwa blog about time at Niwa

'Our Far South' Argo blog

Way Down South Educational wiki

NIWA
Taihoro Nukurangi