Argo Floats Video Answers

Wednesday 18 June

1. Regular and Deep Argo Floats

You are in a small storage room off the main working deck on the *RV Tangaroa.* Your expert today is Nathalie Zilberman from the Scripps Institute of Oceanography.

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1. Why is Nathalie on this voyage?
    - Answer: Because Nathalie works for the Scripps Institute of Oceanography (who built the Argo Floats that will be deployed on this voyage), she is here to make sure they are deployed the right way and everything goes smoothly.
2. What do Argo Floats measure?
    - Answer: temperature, salinity and depth
3. Why can't we open the box and see an Argo Float?
    - Answer: Because they have an Iridium antenna that is very fragile, the box is left on when the Argo Float is deployed to protect the antenna.
4. Why were the Argo Floats shifted out on to the deck?
    - So they were in a 'clear-sky' area on the ship so the engineer at Scripps (in the USA) could 'talk' to the Argo Floats via a satellite connection and make sure that everything is working before deployment tomorrow.

Next step learning: Write down three questions about ocean currents and try to find their answers.

2. The CTD

Today there was a test of an important piece of equipment called a CTD. It took most of the day to prepare and was finally lifted off the deck and lowered by cable 2,000m into the ocean. You are with oceanographer Esmee van Wijk in a lab just off the *Tangaroa's* main deck.

1. Who does Esmee work for and where?
    - Answer: CSIRO in Australia
2. What does CTD stand for and what does it measure?
    - Answer: Conductivity, Temperature, and Depth. It measures conductivity (which is used to calculate salinity or saltiness), temperature and depth.
3. What two things can we learn from these measurements?
    - Answer: How the water masses move around the oceans and how this is changing over time.
4. Whereabouts in the ocean is the salinity very stable (doesn't change much)?
    - Answer: Near the bottom between 4,000-6,000m
5. What went wrong today?
    - Answer: The bottles didn't close.

Next step learning: Find out where the very deep oceans are. Where are the deepest parts close to New Zealand?