Expedition Log for IODP Expedition 313
New Jersey Shallow Shelf

Week 6 – 10th June

Hans-Joachim Wallrabe-Adams and Colin Graham explain how data collected during the expediton are managed.

As described in previous expedition logs, many individual cores (224 cores from the first hole) are being collected by drilling deep into the sediments beneath the New Jersey shelf. Once the cores are recovered from the borehole, they are examined, described, sampled and measured on board the drilling platform. All the resulting information is compiled and stored for further use – this is called Data Management.

The primary information for each core is the length of the core run (the top depth and bottom depth of the core run) and the length of the core material recovered from the core run. This information is necessary to relate all samples and measurements made on the core material to a definite depth in the borehole and later to a geological age and / or formation.

Photo 1. Measuring the core in 1.5m sections prior to entry into the DIS. (*J Gafeira©ECORD/IODP)*

When was the core recovered and how long was it? Which samples have been taken from the core? Who are the samples for? What measurements have been made on the core and on the samples? What are the results of the measurements? Where are the results? These are questions that can be answered by managing the collected information in a database – the Drilling Information System (DIS).

The DIS runs on a computer in the IT container on the platform, called a server. There are two servers, one is a back-up of the other, so that if the primary server stops working the other one can take over running the data management services. Client computers in each of the other containers where the core is being curated, sampled and measured, feed information to the data

management servers via a local network. In addition to the data stored in the database, all documents related to the expedition – operational logs, drill logs, diagrams, reports, digital images and other types of information are stored in a file system on the servers. Automatic backup procedures are scheduled to prevent loss of data and replication between the servers. Personal computers can also be connected to this network so that they can access and share data with other scientists on board. There are several backup devices, printers, scanners and a digital camera linked to the network also.

Photo 2. The inside of the IT container. The two servers are located in the back below the table *(H.-J. Wallrabe-Adams©ECORD/IODP)*

Photo 3. ECORD staff using the IT "Office". From top left to right: Susanne Stadler (Micobiologist), Carl Peters (ESO core curator), Dave Wallis (ESO electronics engineer) *(H.-J. Wallrabe-Adams©ECORD/IODP)*

Beside all the computing and data management tasks and equipment, the IT container is also used for small meetings, to send emails, to store stationery and office supplies, cables, connectors and other IT spare parts. It is also a good place to drink coffee and chat!

Entry to the container of black magic and data management!
(S. Stadler©ECORD/IODP)