

RV SONNE - SO295 "NoduleMonitoring-2"

31.10. - 23.12.2022, Port Hueneme - Port Hueneme (USA)



1st Weekly Report (28.10. - 06.11.2022)

Most scientist already had arrived in the Hotel at Port Hueneme (Fig.1) in evening of October 28. The Port is located about 70 km west to Los Angeles and RV SONNE did arrive there on October 26.

In the morning of October 29 scientists were transferred from the hotel on board and during the day some scientists who arrived on that day were brought directly to the vessel.



Fig. 1: view of Port Hueneme from RV SONNE.

Due to the infection prevention measures in place, all crew and scientist were tested for SARS-CoV-2 on arrival at the vessel with antigen tests and strong hygiene rules were followed strictly.

Scientists started unpacking the containers, bringing out the boxes and equipment (Fig. 2) and building up the laboratories until November 31, the day at which we left Port Hueneme. Some of the sampling gear needed to be assembled. Specifically, the mobilization of heavy equipment, like the ROV and AUV and a heavy winch needed for the recovery and deployment of the moorings had to be done in the harbor, as moving these instruments at sea is very dangerous for crew and equipment.



*Fig.2: Left: The Multicorer is lifted with the crane and transported to its position on deck.
Right: ROV KIEL 6000 is assembled and tested.*

On October 30 and 31 we started with the first scientific meetings to discuss the distribution of labs and the planned distribution of samples from the different gears. A first safety drill was performed in adjusted form due to the hygiene rules in place.

We departed from Port Hueneme with some delay, but without any issues, in the evening of October 31 in direction to Ensenada (Mexico).

We started with scientific meetings using an internal Audioconference system, which proved to be an effective tool to keep up the necessary exchange while avoiding direct contacts in larger groups.

On November 1 at 12:00 we reached Ensenada and stayed in the roads, where we welcomed four additional crew members and some fresh provisions. In the afternoon, around 16:00 we left Ensenada heading to the first working area in the Clarion Clipperton Zone.

On November 3rd we stopped the vessel in international waters for three hours to perform some necessary tests with the remotely operated vehicle (ROV) (Fig.3) and the autonomous underwater vehicle (AUV). Both instruments went to water and all tests were accomplished satisfactorily.

An internal web conference and chat system was installed and tested for the communication between scientists and also for meetings with bridge and crew. The system worked very well and was used for a detailed discussion regarding the operation of the scientific gear.

We arrived in the first working area in the afternoon of November 6 around 17:30. As our first activity we deployed the transponders needed for the accurate navigation of the AUV. The station work will start with an AUV deployment. The mission will be to map and photograph the seafloor in the BGR contractor area that was impacted 1.5 years ago by the manganese nodule collector prototype PATANIA II. This information will be crucial to quantify the extent of the impacted area and the intensity of the disturbance. Also the data will be important in planning the station work during the coming days.

All scientist and crew are highly motivated and looking forward to the first days of scientific work.

Greetings on behalf of all cruise participants,

Pedro Martinez Arbizu
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&

Felix Janssen
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