

## **SO264 SONNE-EMPEROR**

Weekly Report No. 1 (June 29 – July 1, 2018)

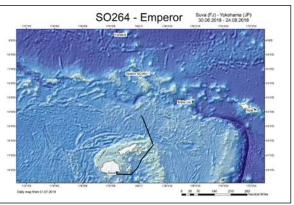
The expedition SO264 with RV SONNE into the North Pacific is the central activity of the BMBF joint project SONNE-EMPEROR of GEOMAR (Kiel) and AWI (Bremerhaven). The subject of this project is the Plio/Pleistocene to Holocene development of the pelagic North Pacific from the surface to depth and its role for the global carbon budget and the Earth's climate.

The starting point of the SO264 was the port city of Suva on the southeastern coast of Fiji's largest island, Viti Levu. On June 29, 2018 at 8:00 a.m., the 38 participants from 11 nations were brought to RV SONNE by the ship's agent. The eight containers sent in advance were already uploaded. The day in port served to prepare the ship for the 54-day lasting journey, including fueling and provisioning. All work was completed in time, so RV SONNE released the lines on June 30, 2018 at 9:30 a.m., accompanied by fresh winds of ~8 Bft, and started its more than 3000 nautical miles long way to the working area of the Emperor Seamout Chain. This very long, approximately 12 days lasting transit became necessary to transfer the ship from the tropical region to the subsequent study areas in the North Pacific.

Although our project-related marine-geological studies will focus on areas north of 30°N, we will use this gigantic transect covering tropical to subarctic climate zones as a unique opportunity to accomplish "en passent" water sampling for nutrient and isotope measurements. For microplankton and organic matter sampling, we will further deploy plankton nets and carry out water filtration studies. Tomorrow, on Monday, July 2, 2018, we will begin the first station work at 6:00 in the morning.



RV SONNE in the port of Suva



Bathymetry around Fiji with SO264 cruise track

With water temperatures of 28°C and air temperatures of only 26°C, we currently set up the laboratories and discuss future sampling protocols. All participants are well, enjoy the extremely pleasant atmosphere aboard RV SONNE, and send best wishes to all relatives at home.

For all cruise participants Dirk Nürnberg