

Expedition SO287 – CONNECT

11.12.2021 - 11.01.2022

Las Palmas-Guayaquil

Weekly report No. 4

27.12.2021- 02.01.2022



At the Panama-Canal

Half an hour ago, at 5 o'clock board time (11 o'clock in Germany) we have turned off all recording and water and air pumping systems on board, as we have now arrived in the continental areas of Panama. Around eight o'clock we are at an anchorage in the roadstead, which is assigned to us. Then authorities come on board and at 12:30 board time the pilot is announced, who accompanies us to the Gatun lock. There we will be locked 30 m up....we are all very excited. According to German time we should be visible on the webcam of the Gatun lock today on 3.1. between 20:15 and 21:40 (<https://www.panoramablick.com/wetter-webcam/gatun-locks.html>). Thanks to the continued tireless efforts of Marcel, we are fortunate to be able to transit the Panama Canal during the day, although we were scheduled for night. RV SONNE will provide some ship spotters and photographers with a nice and unusual picture in the lock and in the canal, which is essentially passed through by container freighters.



Fig1: Position and direction of RV SONNE this morning (3.1.2022) at 5:30.

The last week was dominated by the transit through the Caribbean, after the last station (No. 32) in the Atlantic on December 28th. Since the research permits for all transited exclusive economic zones in the Caribbean were available, we were able to record water and air data in the Dominican Republic, Puerto Rico, Haiti, Jamaica, Colombia and Panama. The echo sounders continued to record zooplankton and currents, the water and air pumps ran, samples were taken, and the catamaran was also used to collect microplastics and *Sargassum*. Out here in the Caribbean, the *Sargassum* patches

that drifted past us very densely and in large numbers. They look like they belong here and the samples show that they are densely populated by many different fish and crustacean larvae. So Philippe thinks he has identified lobsters and Barracuda larvae. Even though this rich ecosystem causes so much misery on the beaches when it is beached to tens of tons of rotting material on the shores, releasing toxic gases and needing all the oxygen for its decomposition, it is a welcome refuge and nursery for many creatures at sea. We were also able to obtain on board the first and a comprehensive data set on halocarbon production from Sargassum. As expected, it produces brominated but also iodinated halocarbons, especially during daytime, and after evaluating the data, we will calculate at home how much -especially the strong blooms- Sargassum contributes to the transport of bromine into the stratosphere and what influence the emissions may have on the ozone content of the stratosphere. Meanwhile, Sigrid from Oslo has launched six successful ozone probes with the ARDITI team from Funchal. Of the 40 radiosondes now launched to measure atmospheric stratification, the one on New Year's Eve in Jamaican territory was special, as it carried the good wishes of the cruise participants into the Caribbean night sky (Fig.2).



Fig2.: Radiosonde launch on new year's eve

The New Year, which many of the international cruise participants spent for the first time at sea was welcomed at any hour, that one of those present wanted to toast his loved ones at home. At noon it began in the mess room, where Peihang from China, Riel from the Philippines and Hanif from Indonesia, welcomed the New Year in their national languages, had made rattles for us, with which we rattled neatly to "Auld lang syne" in Filipino version and a Chinese New Year song, to rattle prosperity and success for the New Year. At nineteen o'clock shipboard time toasts to loved ones at home followed for Germany, Spain, France and Albania, at twenty o'clock for Portugal, Great Britain and Senegal and at 00 o'clock shipboard time we all wished each other "A Happy New Year" after watching together "Dinner for One" in the hangar, a cult on New Year's Eve for us Germans, while Alice, David, Katherine and Lucy from Great Britain saw this British staged joke for the first time. When then at 00:50 the clocks on board were set back once again by one hour because of our journey to the west, we could count down ten minutes later for the 5th time: 10,9,8,7,6,5,4,3,2,1,..Happy New Year.

**Ein Frohes Neues Jahr
wünscht SO287-CONNECT
aus der Karibik**

Happy New Year

Manigong Bagong Taon

Selamat Tahun Baru

新年快乐

Godt Nyttår



Frohet Nieges Joar

Bonne Année

Urime Vitin e rri

Feliz Ano Novo

Feliz Año Nuevo

Urte Berri On

Dewenafí



Fig. 3: Group picture of the cruise participants of SO287-CONNECT and New Year's wishes of the cruise participants in their national languages and dialects.

On New Year's Day, classical music was being played on the stern and I was just there when the Emperor Waltz by Johann Strauss was playing and RV SONNE just changed course to the southwest to head for the Panama Canal. Now suddenly the wind and waves came from the side and the SONNE seemed to move joyfully to the waltz sounds..everything was in time..beautiful and unique.

Now it's almost breakfast time, where at seven o'clock there is always delicious fresh coffee, freshly baked rolls and a hot meal. Even after that, things continue for us, although we don't take any samples. But many samples can be processed in the next two days, equipment will be recalibrated and finally we can also use our centrifuge to obtain environmental DNA from the Atlantic samples, as the ship is now rocking and rolling much less under land than in the last two weeks.

With best regards, the SO287-Connect team - all safe and sound on board - will see you next week.

Birgit Quack

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