



Daily cruise report (25 January 2020)

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1. Objective

Today we reentered in the northern edge of NB Ring 2 and deployed various autonomous instruments. In particular the OCARINA & PICCOLO platforms (pictures below) that measure parameters to assess air-sea fluxes of heat and momentum while drifting autonomously. We also deployed our SeaExplorer glider who will be swimming for a 18 days long mission across eddies. We tested the Vertical MicroProfiler (VMP).

All instruments measuring continuously, the observations at stations and the autonomous platforms deployed seem to work well.

We continued the regular atmospheric radiosounding at the regular four hours interval, however there have been some problems in setting on the Vaisala banc and a correct reception for some of these. Tomorrow we will connect the Vaisala system to the GPS antenna of the ship which is probably better located to capture the radiosonde signal.

2. Synoptic Situation

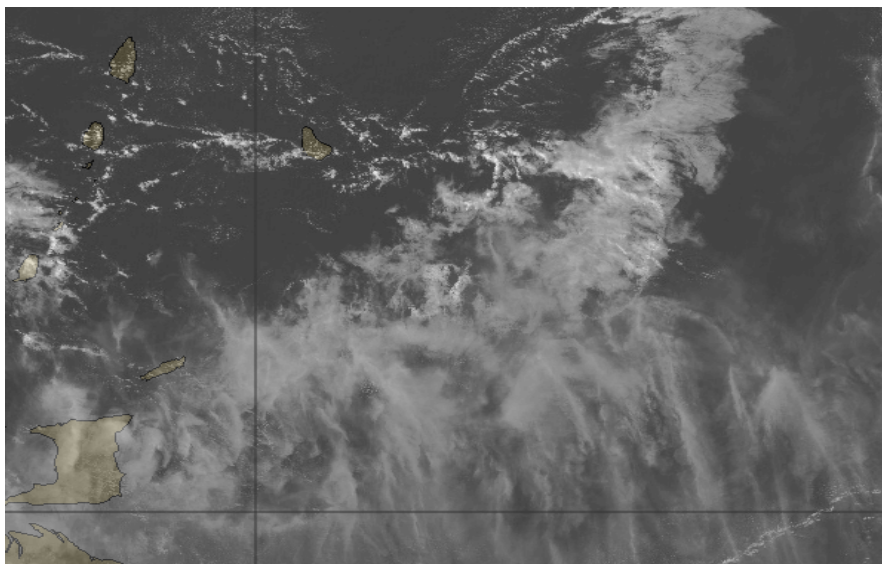
Dry air with moderate trade winds. Probably more wetter weather since tomorrow afternoon.

Fair weather with mostly high clouds.

Easterly wind 15kt, decrease 10kt on the afternoon. The waves are about 2-3 feet.

Mesoscale cloud patterns (18utc): difficult to define because of the high clouds.

Some isolated sargassums.



Cloud observations : 01/25/20

Time (local)	Coverage	Types	remarks
0800	4/8 High	Ci	
	0/8 Mid	-	
	2/8 Low	Cu	
1200	7/8 High	Ci	
	1/8 Mid	Ac	
	1/8 Low	Cu	
1600	7/8 High	Ci	
	3/8 Mid	Ac	
	1/8 Low	Cu	

3. Cruise-day Elements

Inter-calibration: No intercalibration today.

Stations:

Date	Approx Local Time	Operation	Latitude	Longitude
25/01	00:30	CTD #9 cast	10°06'N	58°30'W
25/01	02:00	Take eastern leg to waypoint	10°07.8'N	57°30'W
25/01	02:45	Radiosounding		
25/01	03:00	uCTD		
25/01	04:00	XBT (SIPPICAN)		
25/01	05:00	uCTD		
25/01	06:00	XBT (SIPPICAN)		
25/01	06:45	Radiosounding		
25/01	07:00	uCTD		
25/01	08:00	XBT (SIPPICAN)		
25/01	09:00	uCTD		
25/01	10:00	CTD #10 cast	10°07.8'N	57°30'W
25/01	10:45	Radiosounding		
25/01	11:30	Deployment OCARINA & PICCOLO		
25/01	12:30	Glider Kraken		
25/01	13:30	NOAA Drifter Deployment	10°07.8'N	57°30'W
25/01	14:45	Radiosounding		
25/01	17:00	Recovery OCARINA & PICCOLO		
25/01	17:45	NOAA Drifter Deployment	10°07.8'N	57°30'W
25/01	17:45	Test VMP (Jacky)	10°07.8'N	57°30'W
25/01	18:45	Radiosounding		
25/01	19:00	Take a southwestward leg to waypoint, speed: 8 kts	9° 24'N	59°W
25/01		Continuous uCTD at 8 kts		

Autonomous systems deployed: We have deployed and recovered after 7 hours OCARINA & PICCOLO, we have deployed our SeaExplorer Glider and one NOAA drifter.

Overflights: No overflights. We are too far south.

4. Instrument Status

Everything works well.

5. Outlook

Tonight we are sailing southwestward, till 9° 24'N 59°W to cross in the way inn and out an intense filament with a strong SST signal (see Figure). In the way out we will sample the crossfrontal structure with intense MeteoModem radiosounding in parallel to high-resolution ocean observations.

6. Figures

