



Daily cruise report (05 February 2020)

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1. Objective

Today we are sailing to hunt the real deep Ring center and its boundary where intense submesoscale turbulence should envelope its core. While we were progressing with a very regular rhythm of uCTD and VMP, we gave rendezvous to the 4 Saildrones (3 funded by NASA, PI Chelle Gentemann, and 1 by NOAA, PI Dongxiao Zhang). We stayed in station with them for 5 hours and then left with a northeast course for our waypoint. The Saildrones are following us and they will meet us again there.

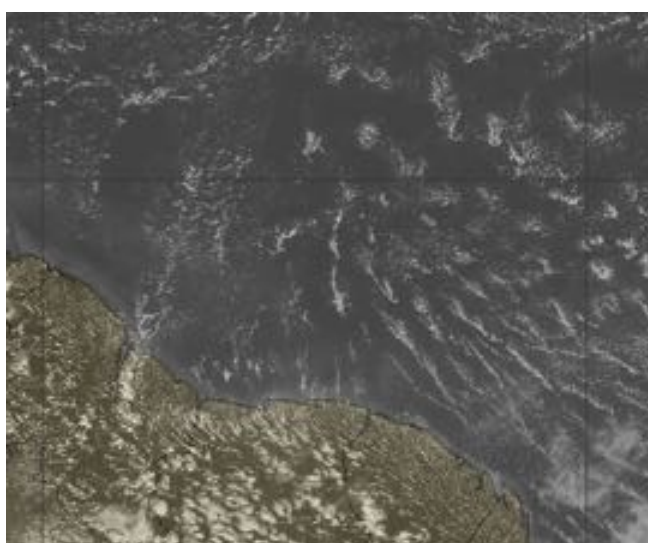
2. Synoptic Situation

Quite strong trade winds in dry atmosphere.

Sunny day with some isolated cumulus.

Easterly wind 20kt. The waves are about 5-6 feet.

Mesoscale cloud patterns (18utc): sugar to fish



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

Inter-calibration: Intercalibration but also complementation with the 4 NASA-NOAA Saildrones.

Autonomous systems deployed: 1 Argo floats

Overflights: No overflights. We are too far south.

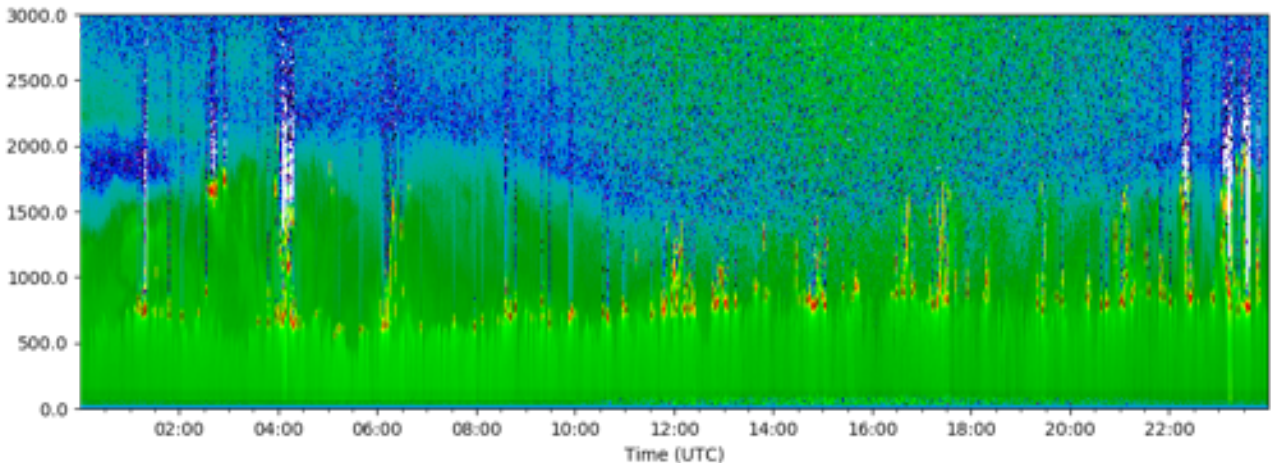
4. Instrument Status

All instruments seem to work well. Today Vaisala radiosounding reception was more stable.

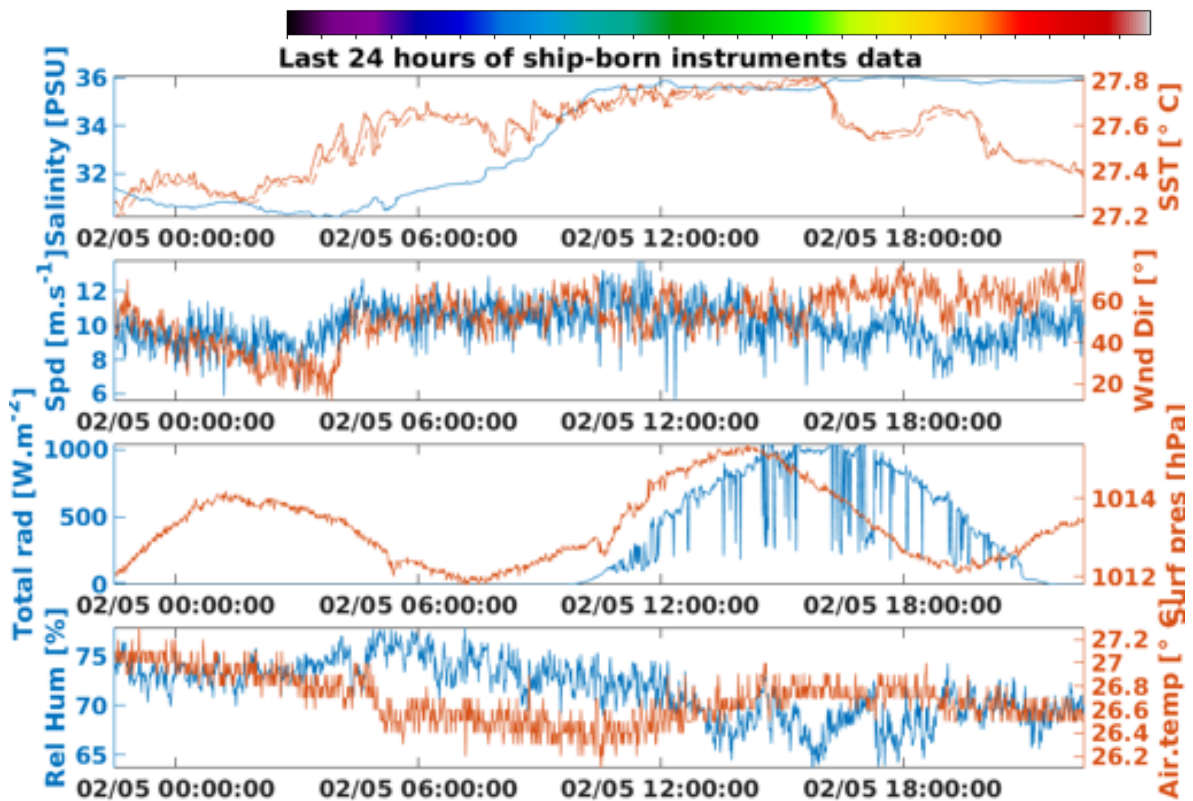
5. Outlook

We will sail north to the border of the deep Ring3 then, very likely, southeast (after examination of today's collected currentmeter data) with an intense survey of VMP, CTD and uCTD profiles.

6. Figures

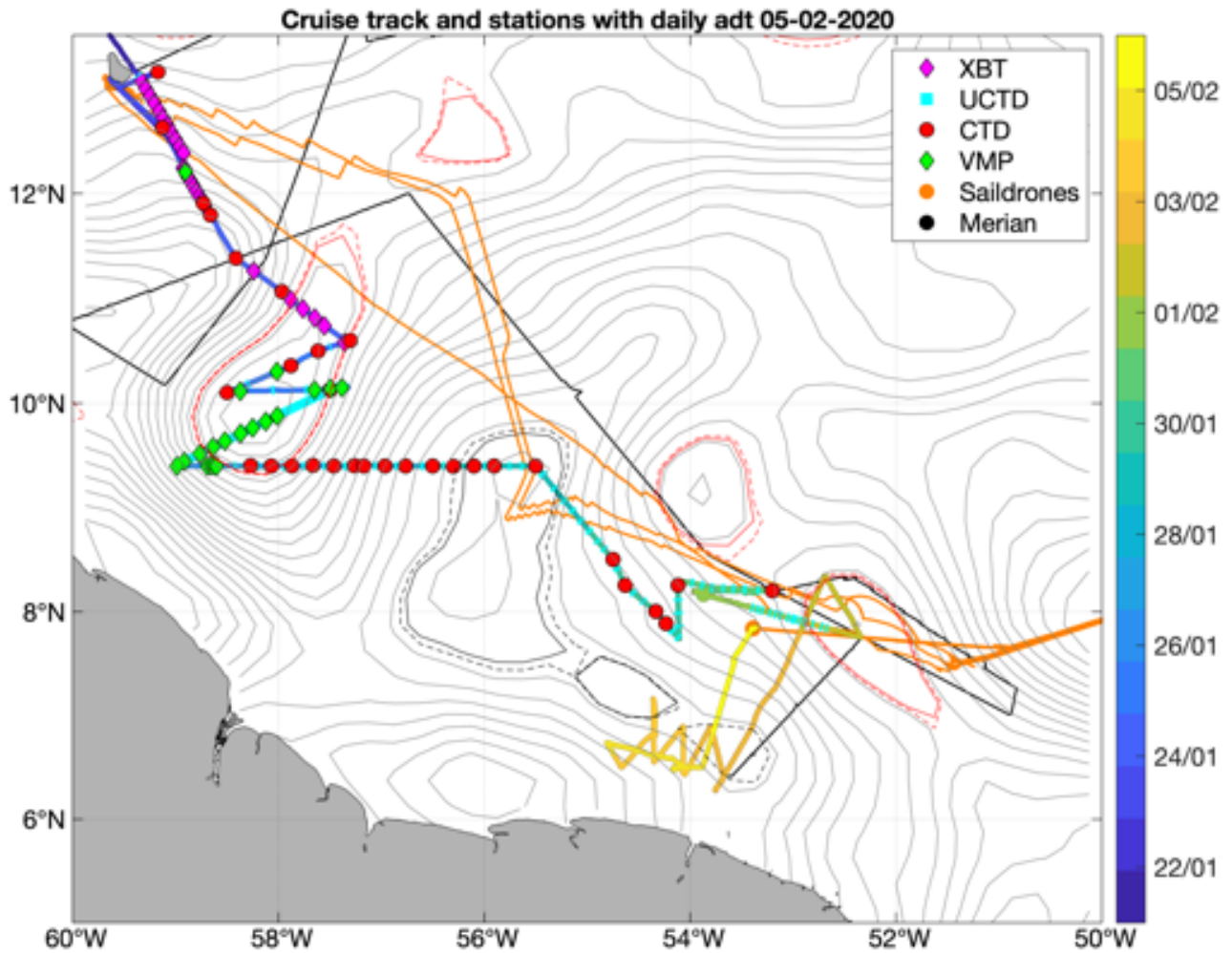


Celiometer R/V Atalante 5 February 2020





An open-ocean very rare encounter: the NASA and NOAA Saildrones



Our long journey and stations we accomplished up to now with, superimposed, that of the Maria S Merian and the four Saldrones we met. Superimposed are the contours of the satellite Absolute Dynamic Topography