

Maria S Merian 0118 (18 January 2020)

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1. Objective

Start at 00:00 with underway sampling ocean/atmosphere as is operational steaming outside 3nm Barbados toward off BCO site where Meteor is stationary. A test CTD will be done off BCO (750m WD). Then a 0.5nm distance parallel track for Merian and Meteor heading into low level could flow. On Merian further atmosphere/ocean instrumentation is set up and tested during the day. Plan is to fill T1 cloudkite and to test the launch. The Moving Vessel Profiler is prepared and will be launched whenever possible. Microstructure sonde will be made ready, glider preparation for Halo circle under preparation. ARTHUS Raman Lidar and W-Band radar preparation. Eventually coordinated radio sondes launch (BCO; Meteor).

2. Synoptic Situation

Qualitative and quantitative description of weather and sea-state, and how it changed (or not) over the 24 hour period.

Sargassum spotted (no samples taken)

Field	Quantity	Notes
RH		
Tair		
Wind		
SST		
Salinity		
Precipitable water		
CN		
Dust		
Trade Inversion		
Cloud Obs (low/mid/high)		
Cloud Obs (low/mid/high)		

3. Cruise-day Elements

Approx. Time (local)	Operation	Latitude	Longitude	Cast	comm
07:00	CTD#1	13° 10.20'N	59° 22.25'W		
10:30	Stellmanöver / Alarm				
	Parallel cruise with Meteor Tests/prep. (incl. MVP; Cloudkite)	13° 18.25' N	59° 06.90'W		Heading wind direction 65°
13:00	Daily Meeting (Conference room)				
	Continue Parallel course with Meteor				

Inter-calibration: from 4:00 to 08:00 off BCO (intercalibration could be possible for respective devices); Coordinated leg with Meteor

CTD Stations: CTD#1 80m ML-base; SST 27°C; SSS max >65m with 37

Overflights: no

4. Instrument Status

Operational:

Ocean – ADCP 38 & 75kHz; TSG; X-Band Radar

Atmosphere – Halo Wind Lidar; Distrometer;

In preparation:

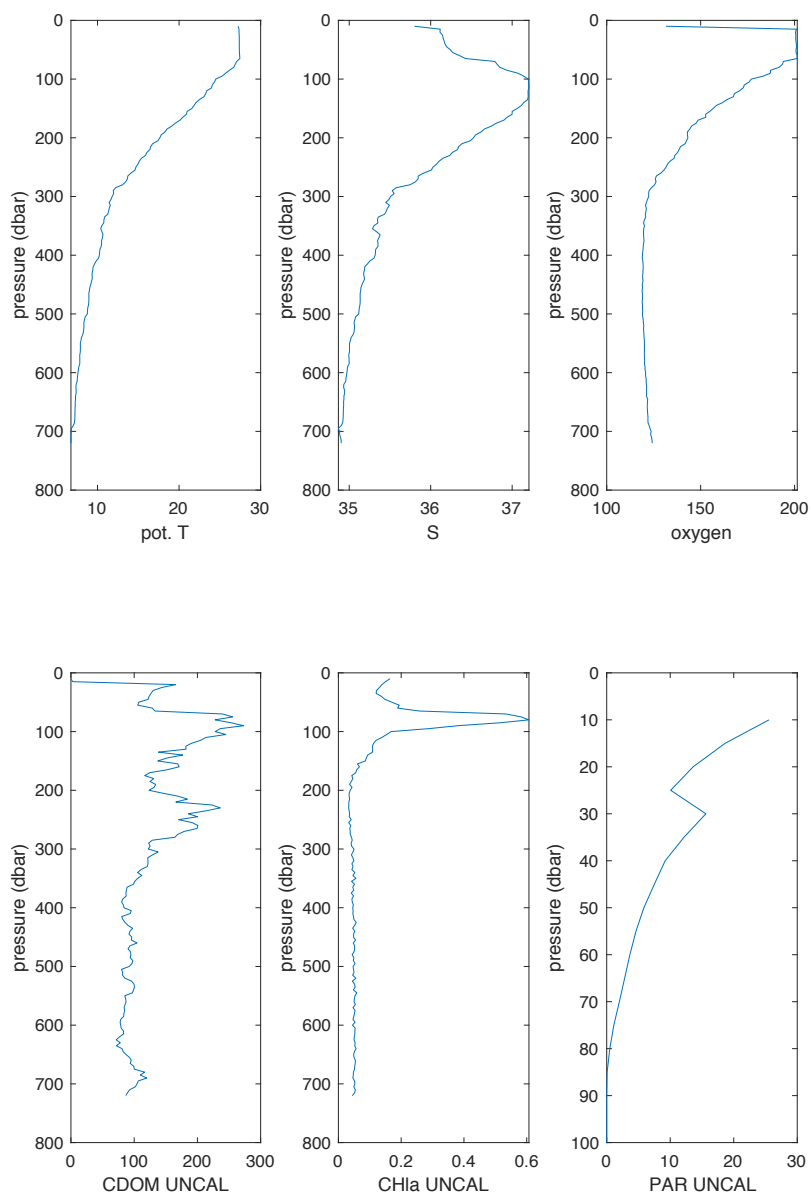
Ocean – Ferrybox pCO₂; glider, MVP; uCTD, Microstructure

Atmosphere – Cloudkite; ARTHUS Raman Lidar; W-Band Lidar,

5. Outlook

Good

6. Figures



Selected profiles from CTD cast #1