

Brown-0119 (19 January 2020)

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1. Objective

Spent the day at 14°21'44" N and 53°W to be in position for the HALO overflight and to pick up SWIFTS on Jan 22nd. Continuous atmospheric sampling with bow into the wind. Radiosondes every 4 hours. Conducting hand held CTDs every two hours while at this station to assess mixed layer diurnal cycles.

2. Synoptic Situation

Winds increased over the course of the day from 12 to 17 kts. Cloudy and rainy in the morning with partial clearing in the afternoon. White caps with a sea state of 5 to 7. No sargassum observed.

Field	Quantity	Notes
RH	86.8, 5.0	18 m asl
Tair	25.5, 0.65	18 m asl
Wind	8.1, 1.3 m/s	18 m asl
SST	26.9, 0.05	5 m bsl
Salinity	35.3, 0.03	5 m bsl
Precipitable water		
CN	150, 25	18 m asl
CCN	110, 20 @ 0.3%	
Dust	No indicator	
Trade Inversion		

Cloud Observations: 01/19/20

Local Time (UTC -4)	Ship's Position	Coverage	Types	Codes	Remarks
0800	14°20'N 053°00'W	0/8 High	n/a		
		2/8 Mid	Ac	C _M 3	
		5/8 Low	Cu, Sc	C _L 2, C _L 4	
1200	14°20'N 053°00'W	0/8 High	n/a		
		2/8 Mid	Ac	C _M 3	
		6/8 Low	Cu, Sc	C _L 2, C _L 4	Precip South
1600	14°20'N 053°00'W	0/8 High	n/a		
		1/8 Mid	As	C _M 1	
		1/8 Low	Cu, St	C _L 1, C _L 5	

3. Cruise-day Elements

Element	Position [°N, °W]	Time [UTC]	Notes
HALO overflight	14° 21' 44', 53°		
CTD Casts	14° 21' 44', 53°	Every two hours	Handheld to 100 m

CTD Stations: Handheld casts every two hours starting at 00:00 UTC to 100 m.

Overflights: HALO directly overhead.

4. Instrument Status

Cloud radar, microwave radiometer, and Picarro isotope instrument are not operational.

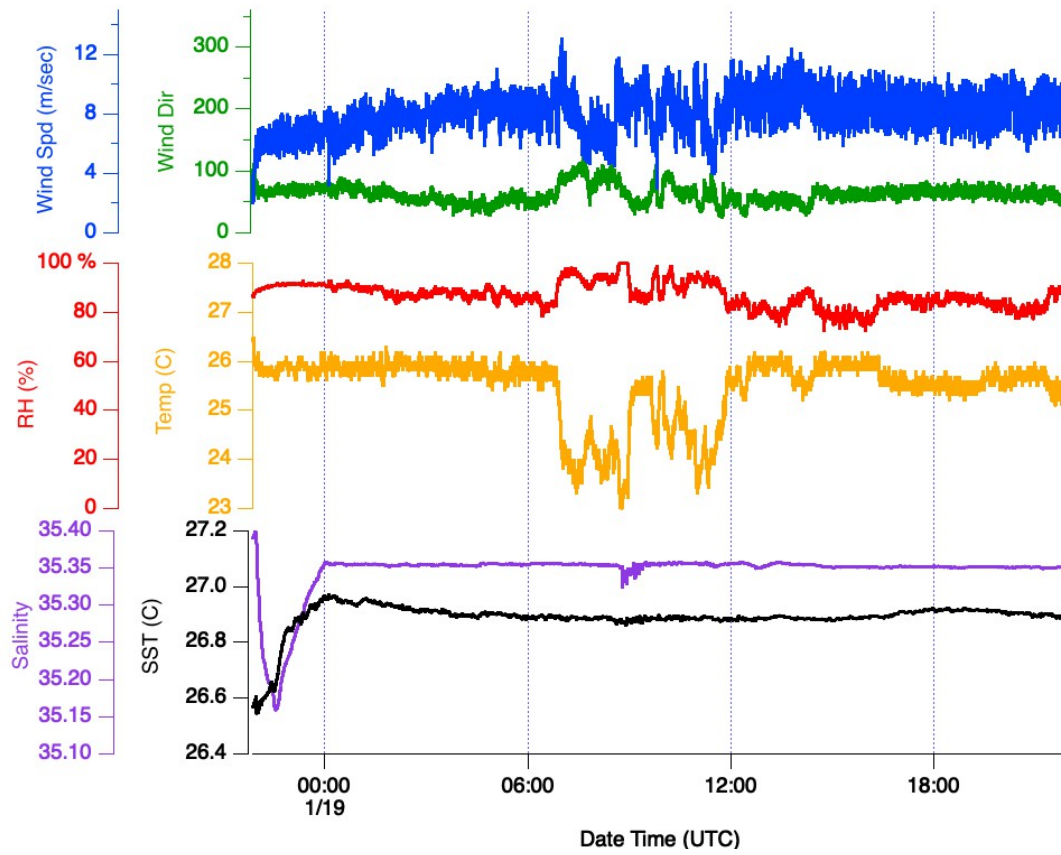
5. Outlook

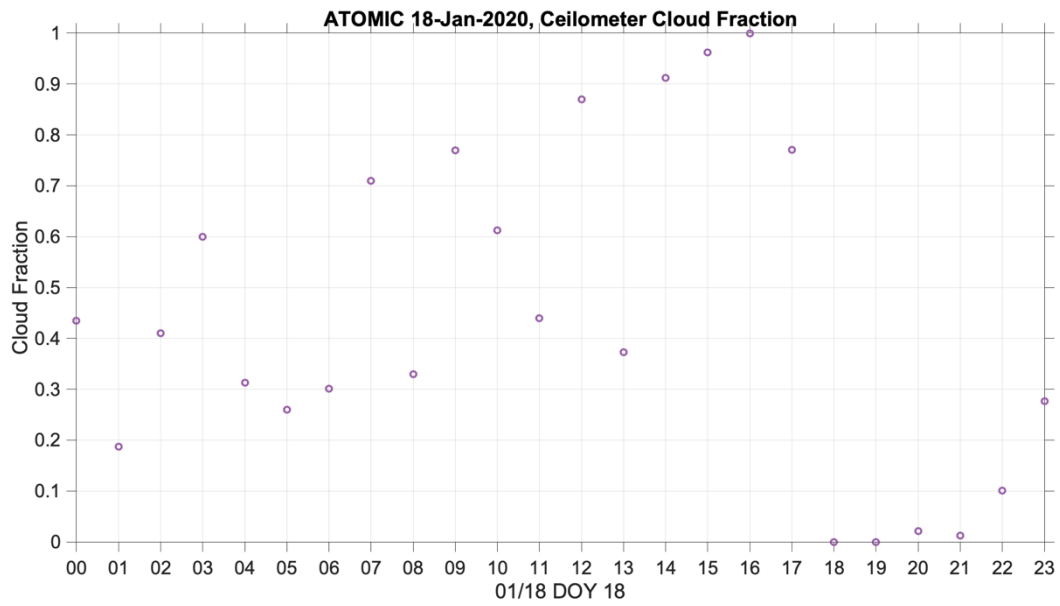
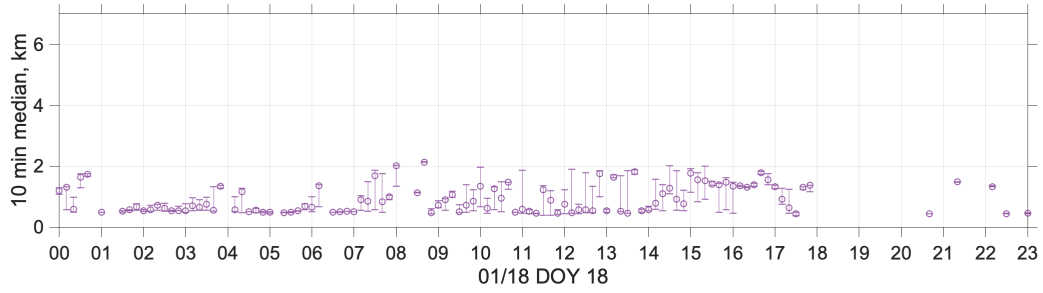
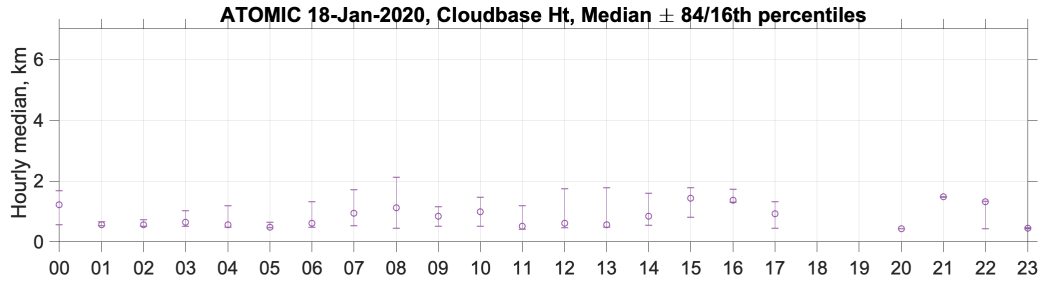
We will stay at this station (14°21'44"N and 53°W) until Wednesday Jan. 22nd allowing for three full diurnal cycles of atmospheric sampling, every four hour radiosonde launches, and every two hour handheld CTD casts. On Jan. 22nd we will pick up the 6 SWIFTS before heading to Bridgetown. We plan to sit 20 nm upwind of BCO on Jan 24.

6. Figures

Today's track:

Stationary at 14°21'44"N and 53°W.





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