

Maria S Merian 0131 (31 January 2020)

Johannes Karstensen (Chief Scientist)

1. Objective

Continue frontal survey with LATALANTE. Launch cloud kite with sensor package. Continue MSS, uCTD, MVP. Every 4 h radiosounding (likewise on Latalante but 2h shifted). Glider ifm03 has a leak and is drifting. No emergency recovery (too far off) but recovery when steaming north for the tradewind alley survey period (6.2.-12.2). Stopped negotiation process for entering Guyana EEZ.

2. Synoptic Situation

No report

3. Cruise-day Elements

Approx. Time (local)	Operation	Latitude	Longitude	Comm
15:30	Merian/LAtalante dynamical front survey of pancake & deep eddy Ocean/atmosphere exchange	same pos. (08° 12.00'N/53° 12.00'W) Waypoints: 08°12'N/54°00'W (50nm) 07°45'N/52°20'W (120nm)		5kn
03:30	CTD# 48 – Time critical!	At position		600m
	CTD# 49	same pos.		200m
	CTD# 50	same pos.		350m
	MSS casts (3)	same pos.		250m
	Atalante/Merian survey continued			
13:00	Daily Meeting (Conference room)			
	Atalante/Merian survey continued			
14:30	Cloudkite launch			
	Atalante/Merian survey continued			

Inter-calibration: nwith LAtalante

CTD Stations: see table

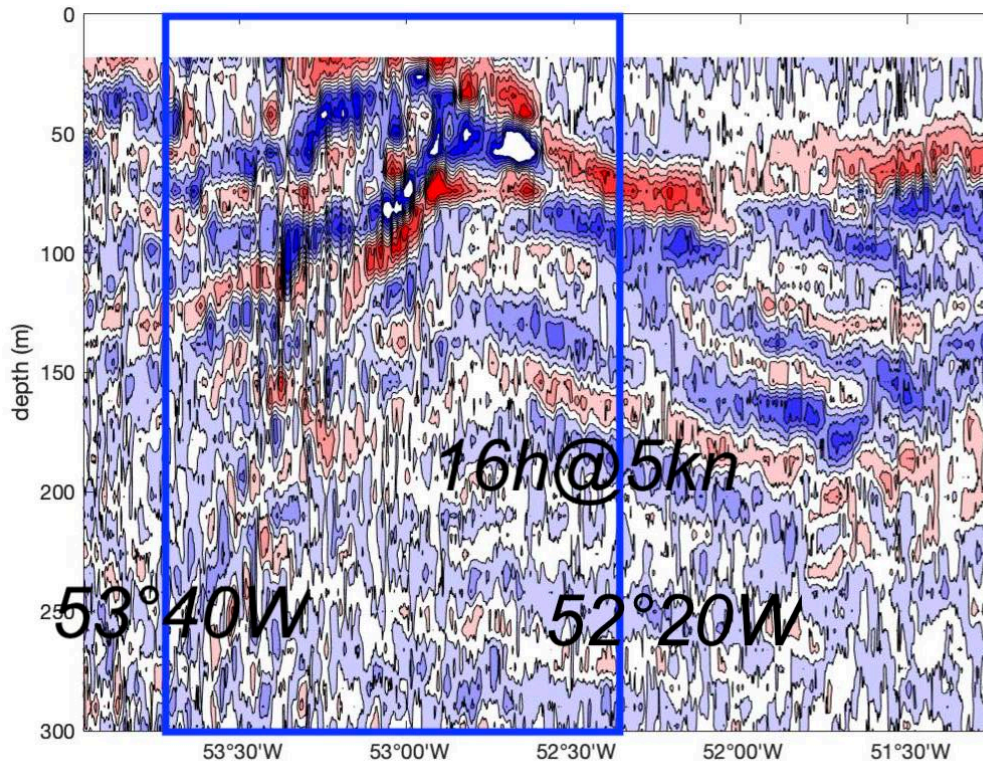
Overflights: no

4. Instrument Status

Operational:

Ocean – ADCP 38 & 75kHz; TSG; X-Band Radar; Underway O2, Chl-a (spectrometer); Incubation (PP; filtration); Nutrient/lab analysis; CTD/O2 +rosette; Moving vessel profiler; Microstructure sonde; Ferrybox pCO2; MIMS (O2/Ar, DSMS), underway CTD

Glider ifm09; ifm 03; ifm12 (see <https://gliderweb.geomar.de/> -> swarm 12;



Near interial internal wave field from box car filtered ADCP section data. The area of joint Merian/Atalante operations is indicated.

