

weather bulletin

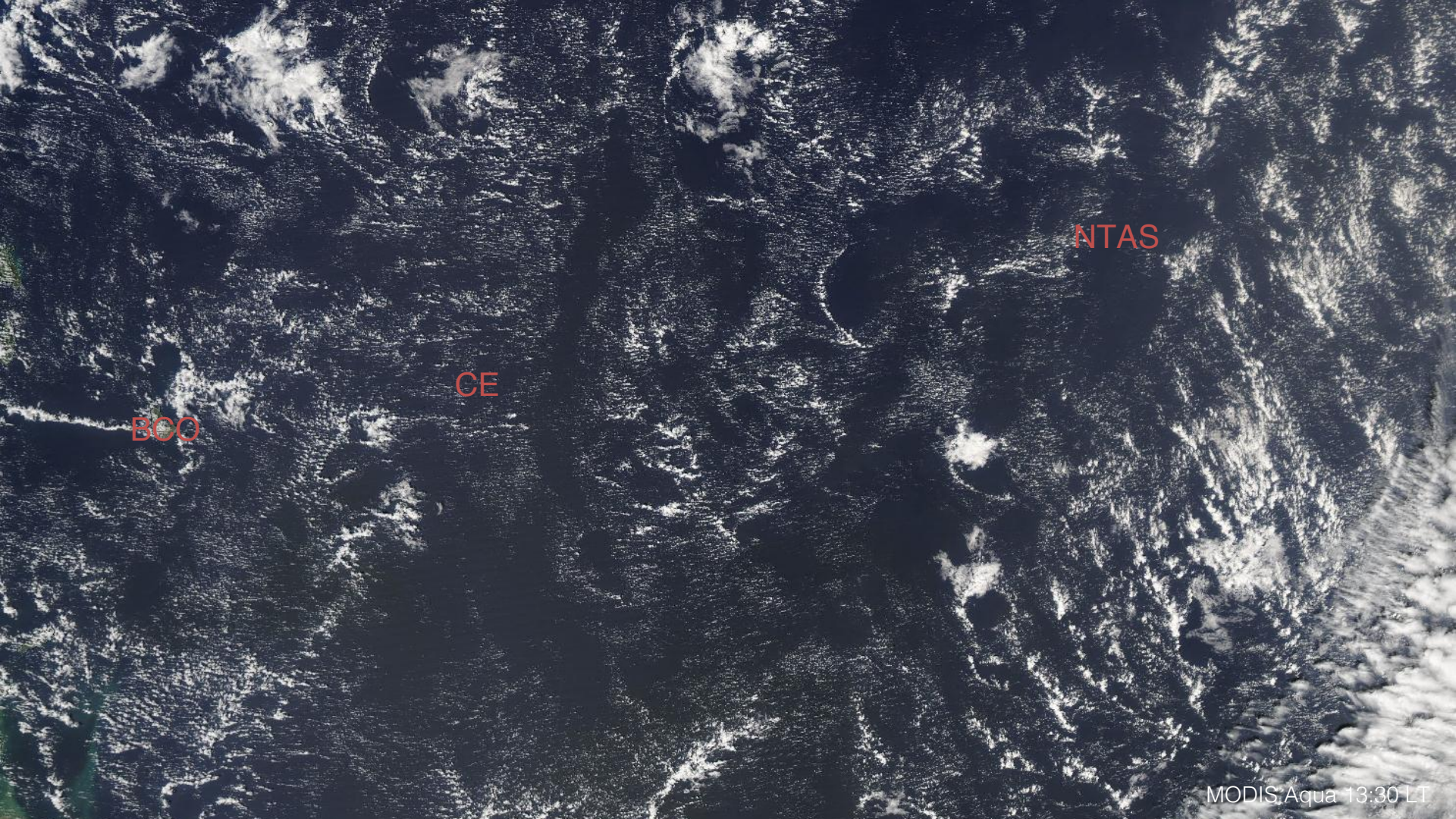
situation on 09.02.2020



NTAS

CE

BCO



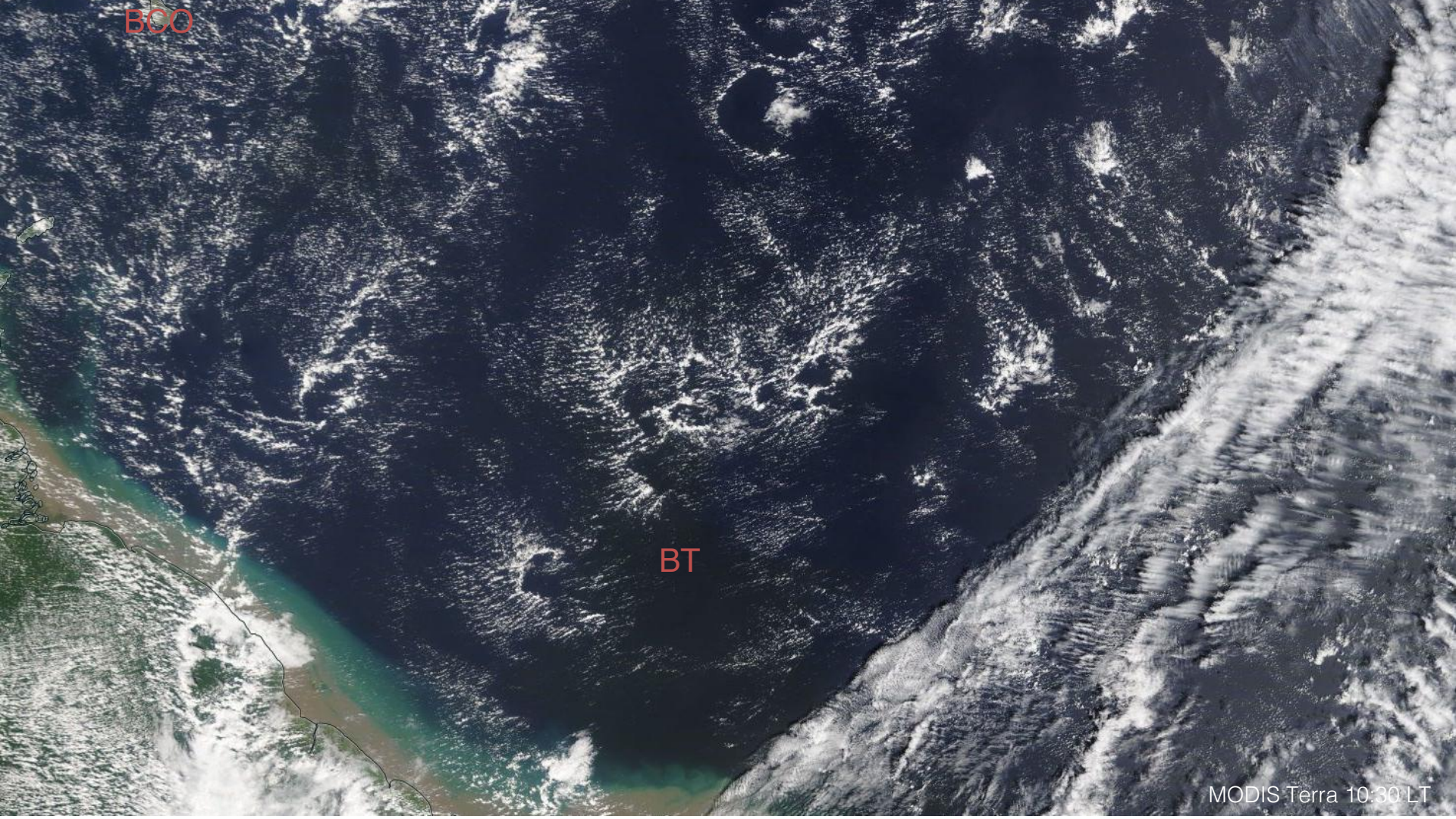
BCO

GE

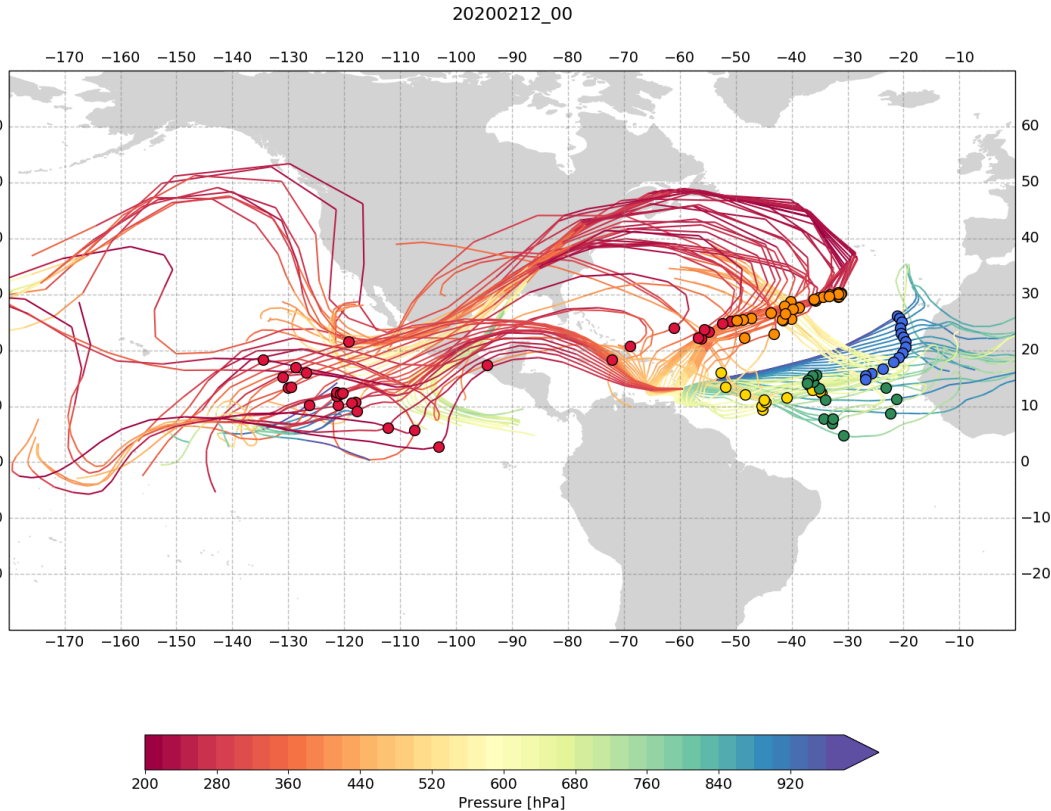
NTAS

BOO

BT

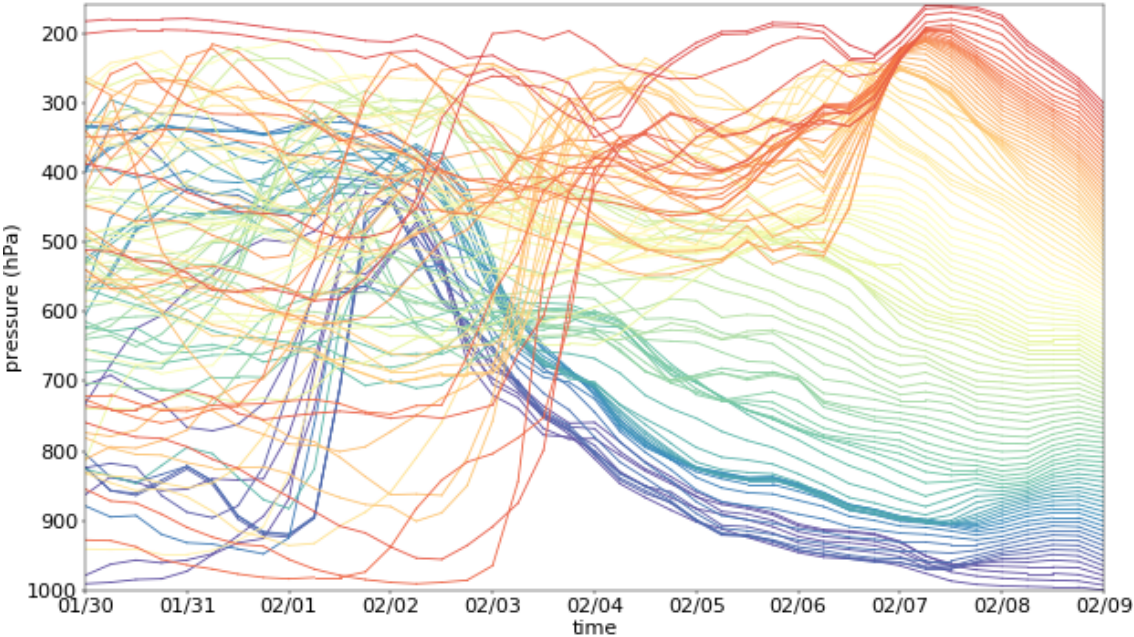


air mass origin



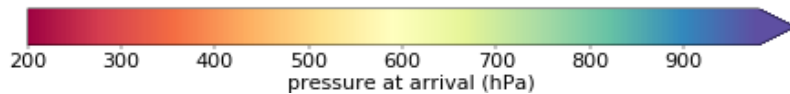
air mass origin

20200209_00



— The ETH Isoteam —

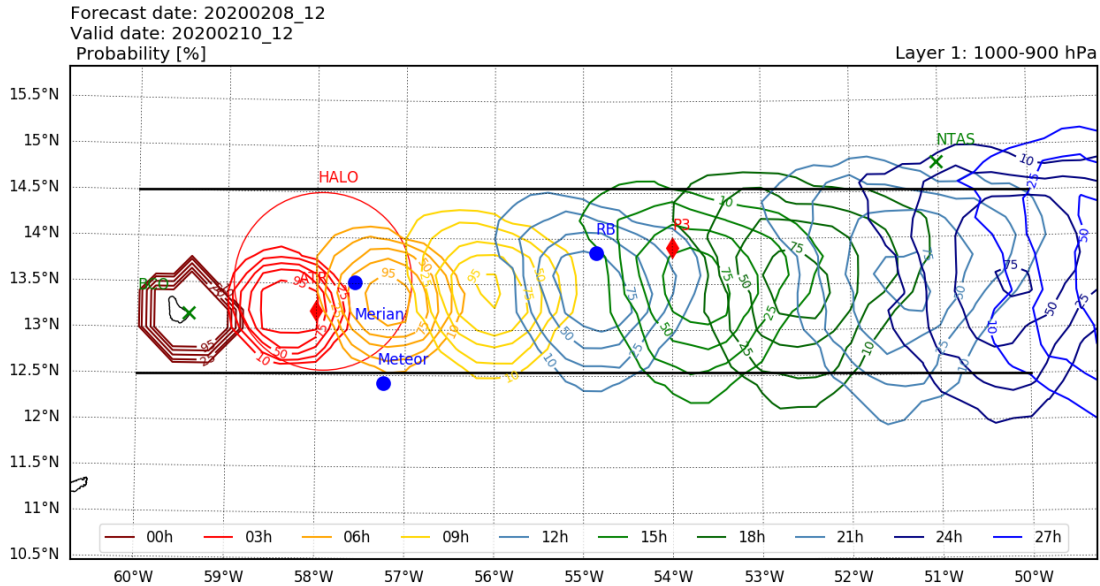
Some upper-level air parcels (red and orange pts) rise from tropical boundary layer before recurving within the jet stream and sinking back into the tropics.



air mass origin

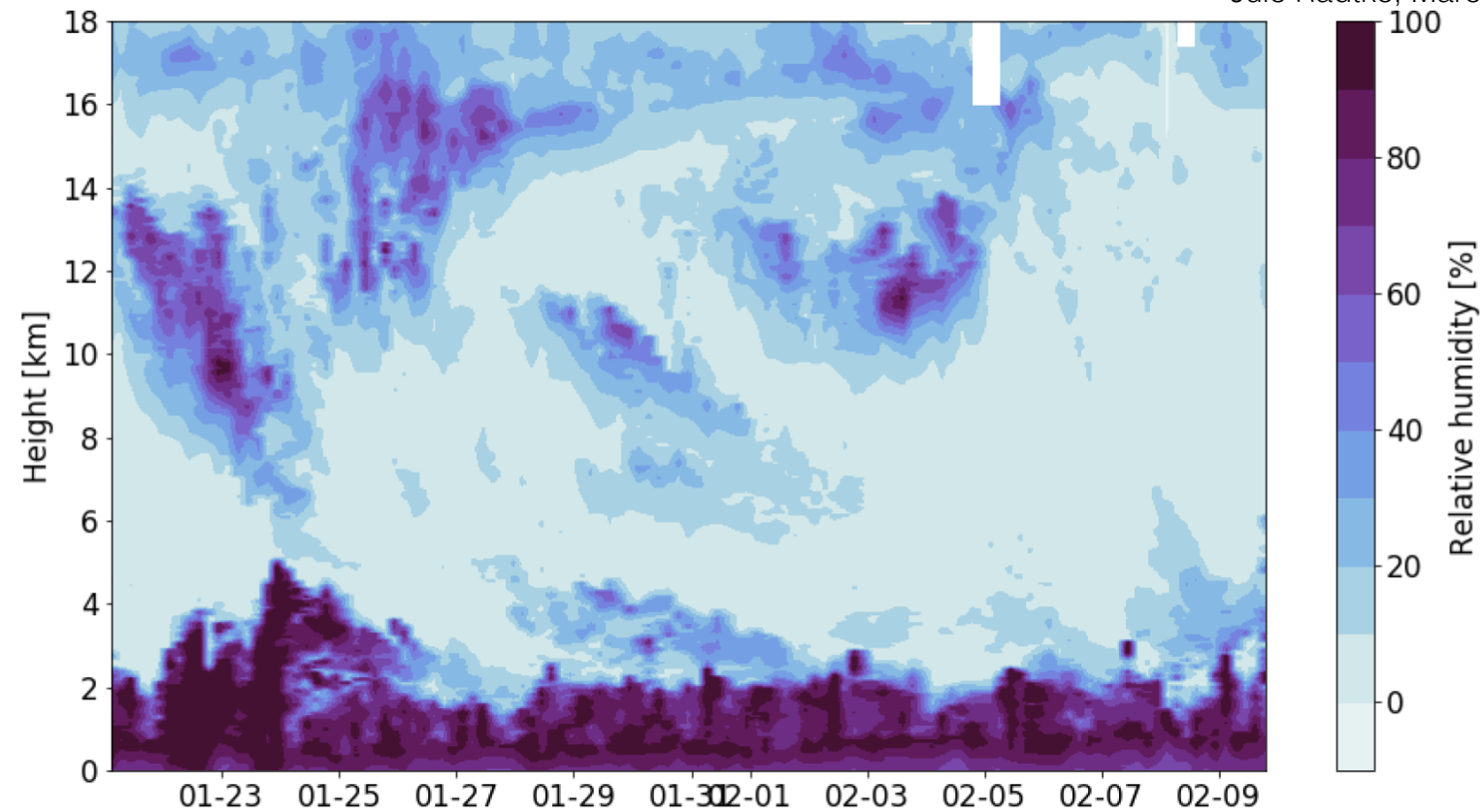
— The ETH Isoteam —

Due to the zonal (easterly) advection at low levels (1000-900hPa), the airmasses move in the center of the Tradewind Alley and will most likely pass south of the NTAS buoy 18-24h before arrival at the BCO.



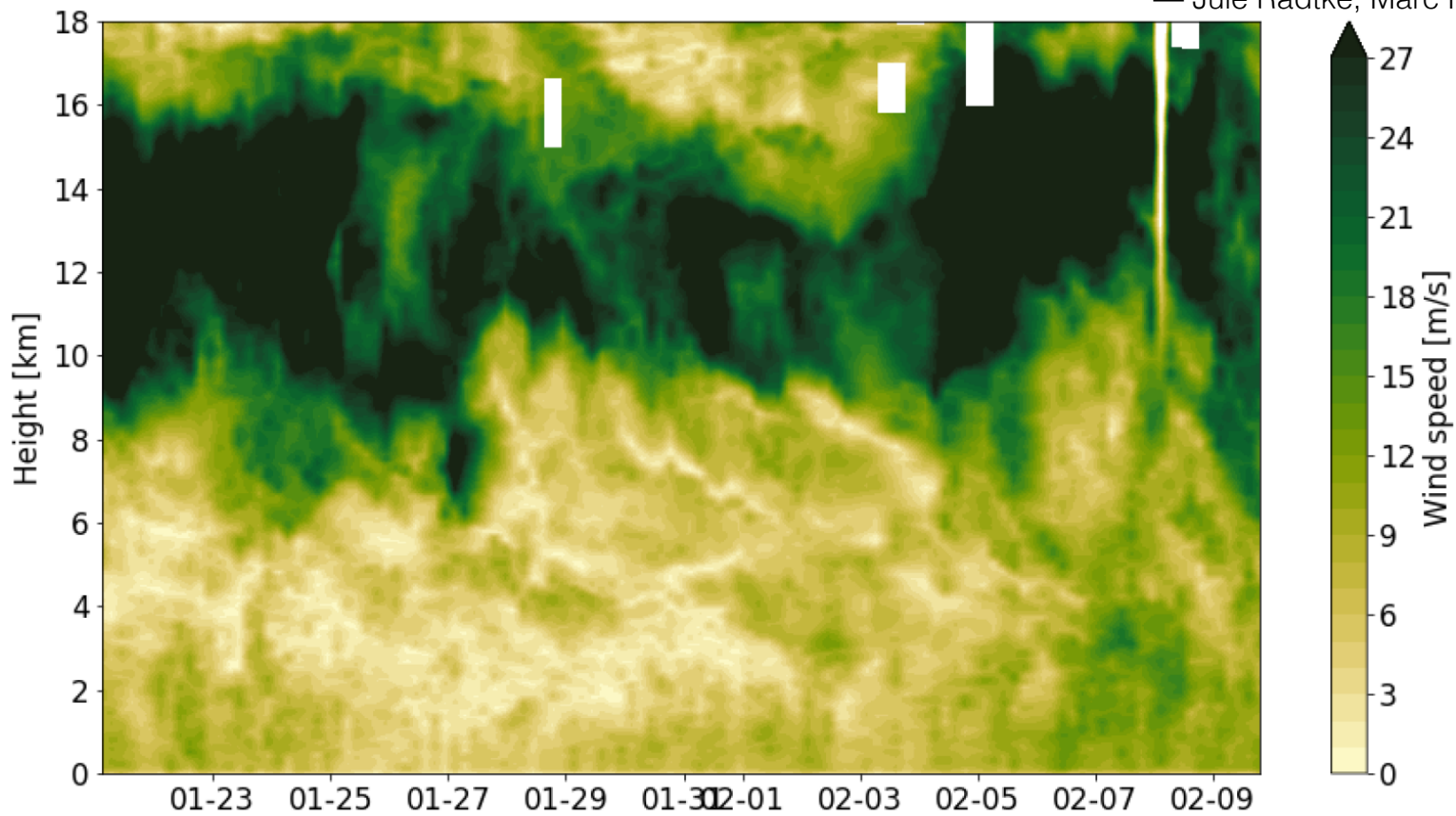
RH from BCO soundings

— Jule Radtke, Marc Prange —



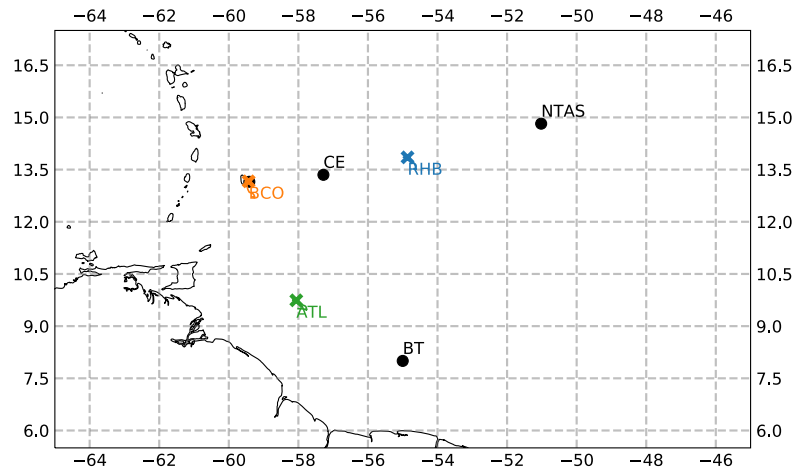
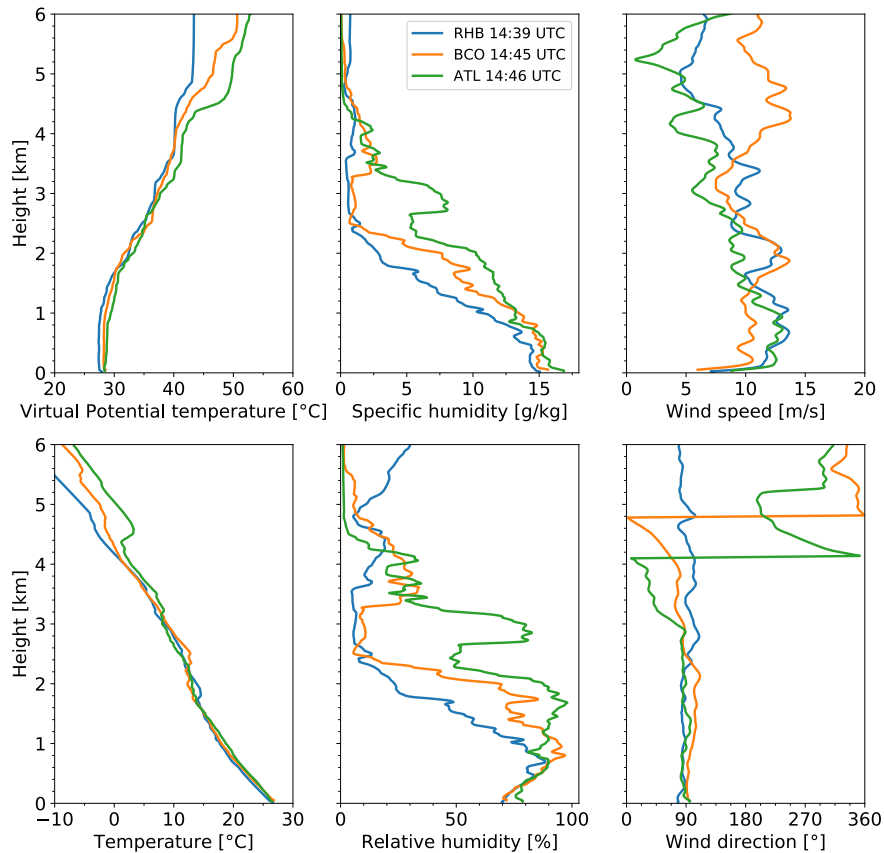
Windspeed from BCO soundings

— Jule Radtke, Marc Prange —



Soundings

— Jule Radtke, Marc Prange —



EUREC⁴A observations

	BCO	CE	NTAS	BT
Lat	13°09'46"	13°21'	14°49'	08°00'
Lon	59°25'44"	57°17'	51°01'	55°00'
LCL				
CBH-LCL				
CTH	0.8 - 1.6 KM **	4.0 - 4.8 KM **	1.6 - 2.3 KM **	0 - 0.8 KM **
Cirrus Top	-	-	-	-
AOD	0.2 **	0.34 ± 0.1 ****	0.5 **	0.6 ± 0.02***
PW	32.1 ± 4 MM		29.5 ± 3 mm *	33.3 ± 4.0 mm ***
Sfc Wind				
3km Wind	7.9 M/S, 80°		8.4 m/s, 93 ° *	7.8 m/s ; 80 ° ***
6km Wind	10.5 M/S, 343°		3.8 m/s, 70° *	6.5 m/s ; 318 ° ***
9km Wind	20.3, 346°		16.9 m/s, 302° *	20.5 m/s ; 265 ° ***
SST				
Inversion height	2.1 ± 0.15 KM		2 ± 0.1 km *	2.5 ± 0.3 km ***
EIS	1.9 ± 1 K		1.9 ± 0.8 K *	1.2 ± 0.3 K ***
LTS	12.7 ± 1.1 K		12.9 ± 0.7 K *	12.4 ± 0.4 K ***
Cloud Patterns	Sugar streets with isolated chimneys	Sugar streets with isolated chimneys	Empty cold pools	Gravel/clear

* from Ron Brown (between CE and NTAS)

*** from Atalante

** from MODIS on Terra

**** from Meteor

model forecasts

Forecast for yesterday (09.2)
based on the 08 Feb 0z
forecast:

	AROME	HARMONIE	UK MET +	OBS CE
LCL			600 m	
Inversion height			2500 m	
Cirrus Top			no cirrus	No cirrus
PW			32 mm	
Sfc Wind			10 m/s, 90 deg	
Cloud Patterns			gravel (localised)	

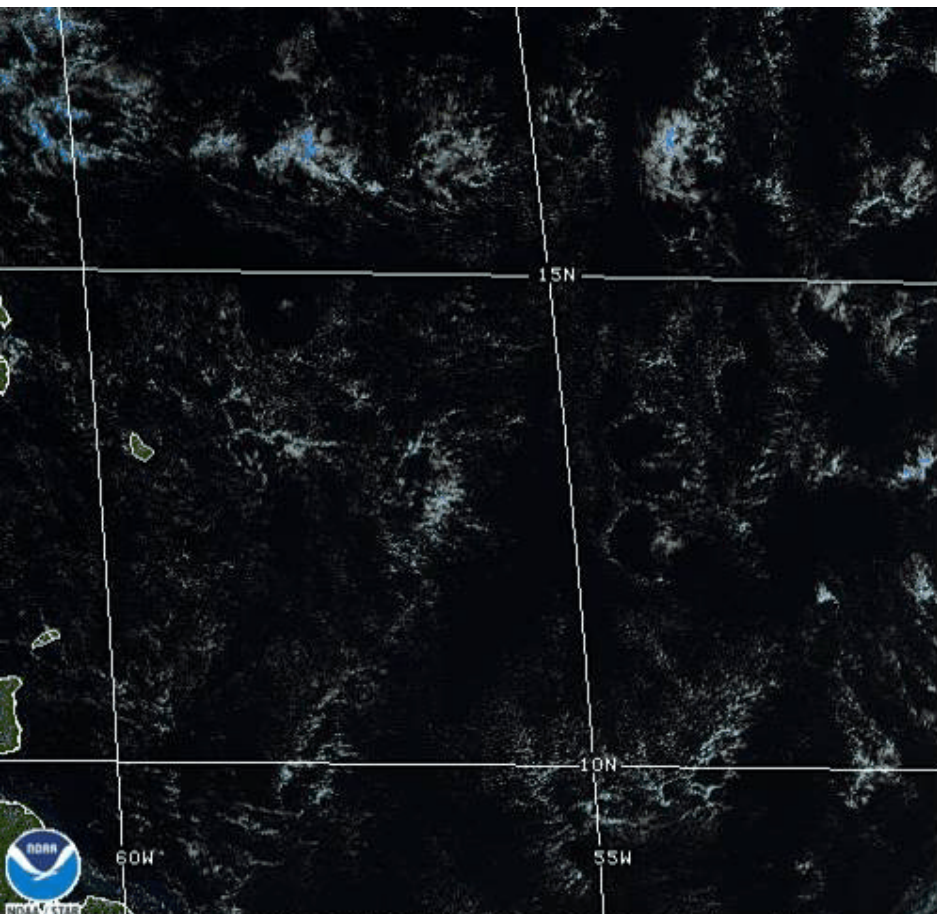
Forecast for today (10.2) based
on the 09 Feb 0z forecast:

	AROME	HARMONIE	UK MET +
LCL			
Inversion height			
Cirrus Top			
PW			
Sfc Wind			
Cloud Patterns			

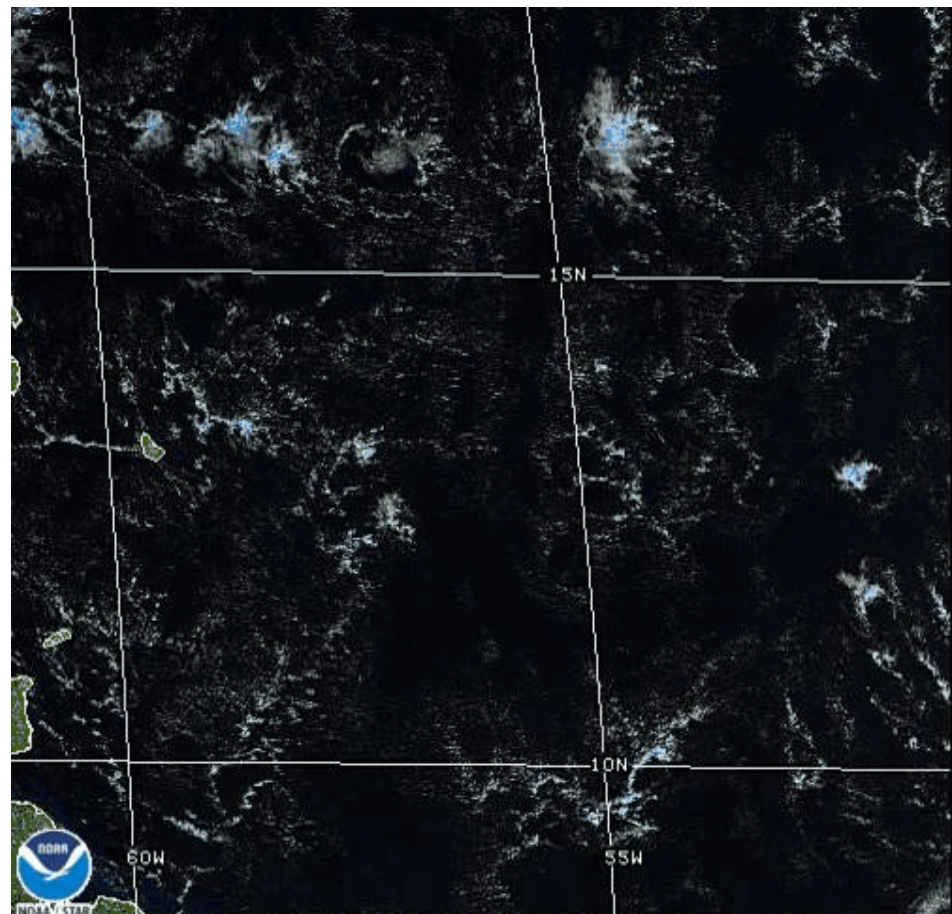
Yesterday's clouds: isolated chimneys at 500 mb?



GOES Mesoscale loops – 14Z (left) and 16Z (right)

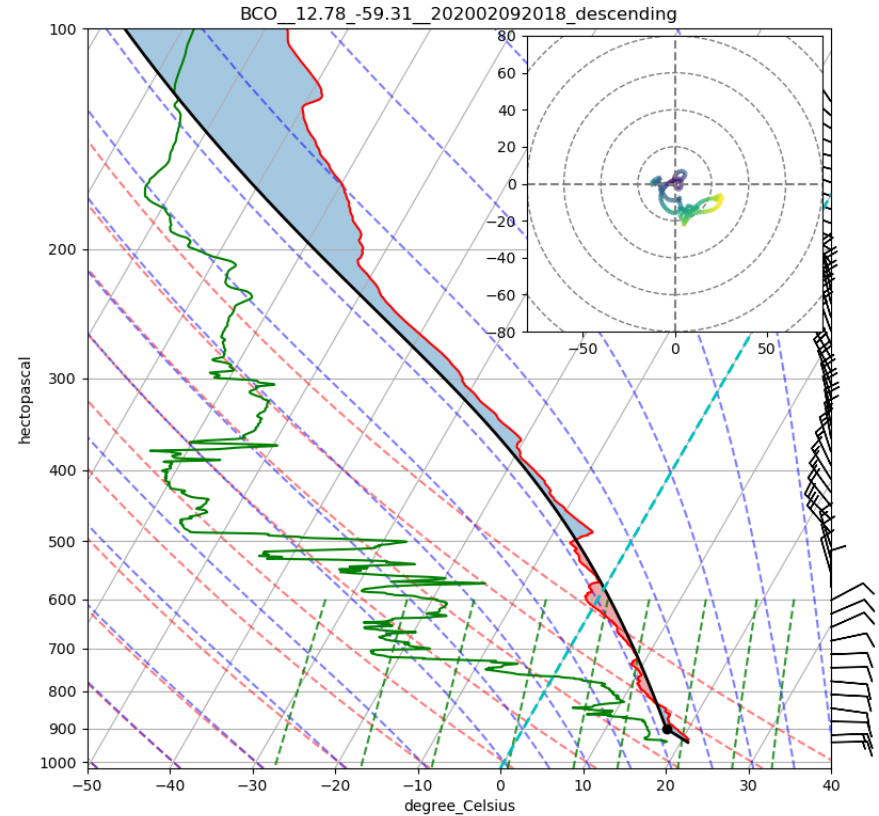
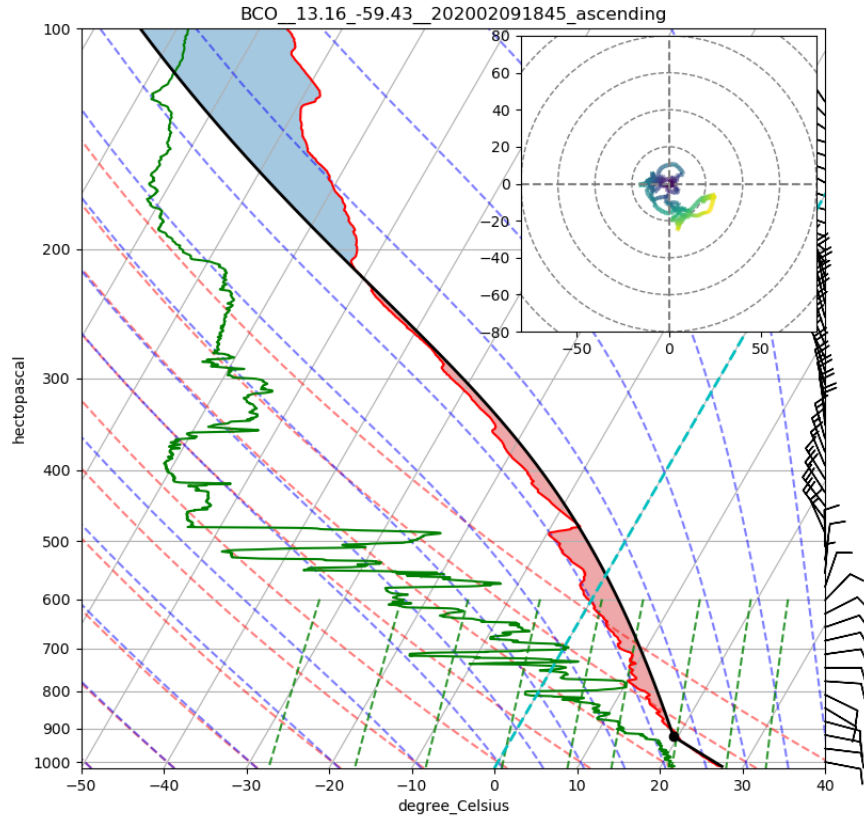


09 Feb 2020 14:08Z NESDIS/STAR GOES-East DayLandCloud

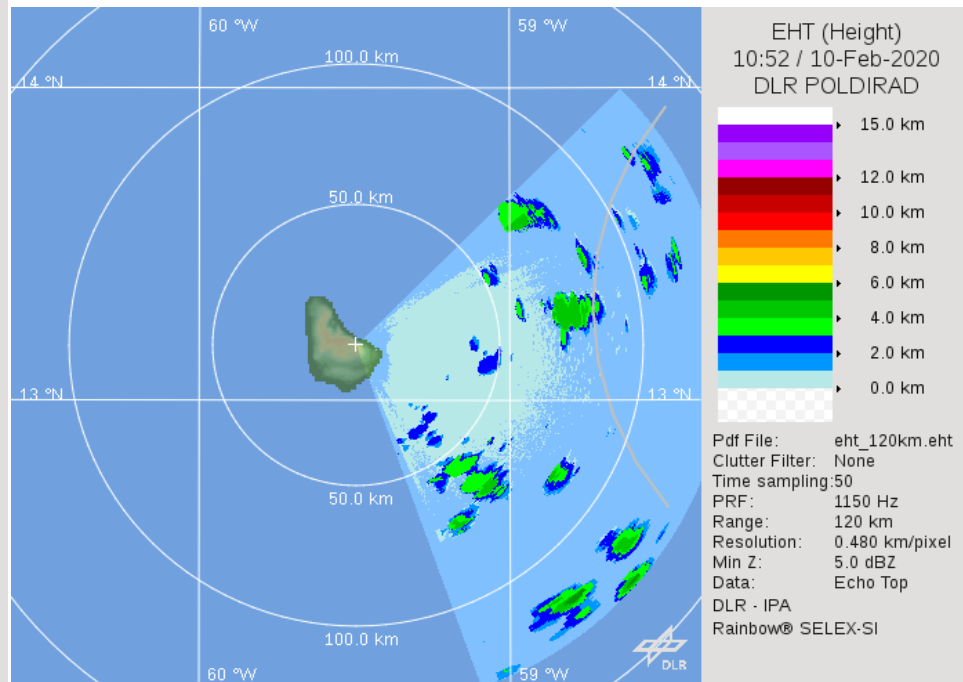
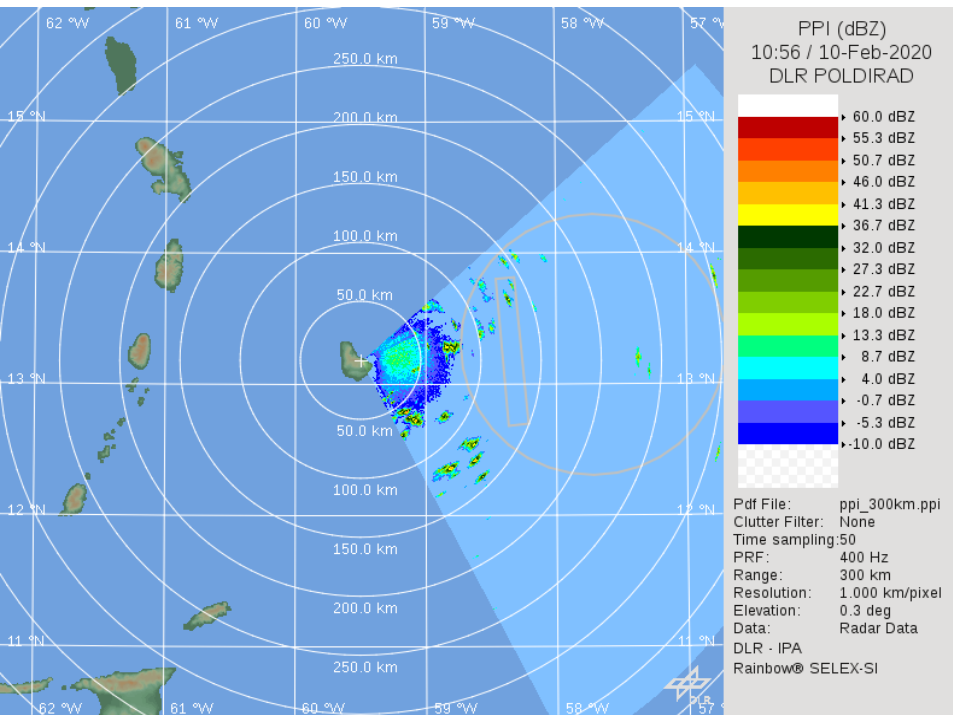


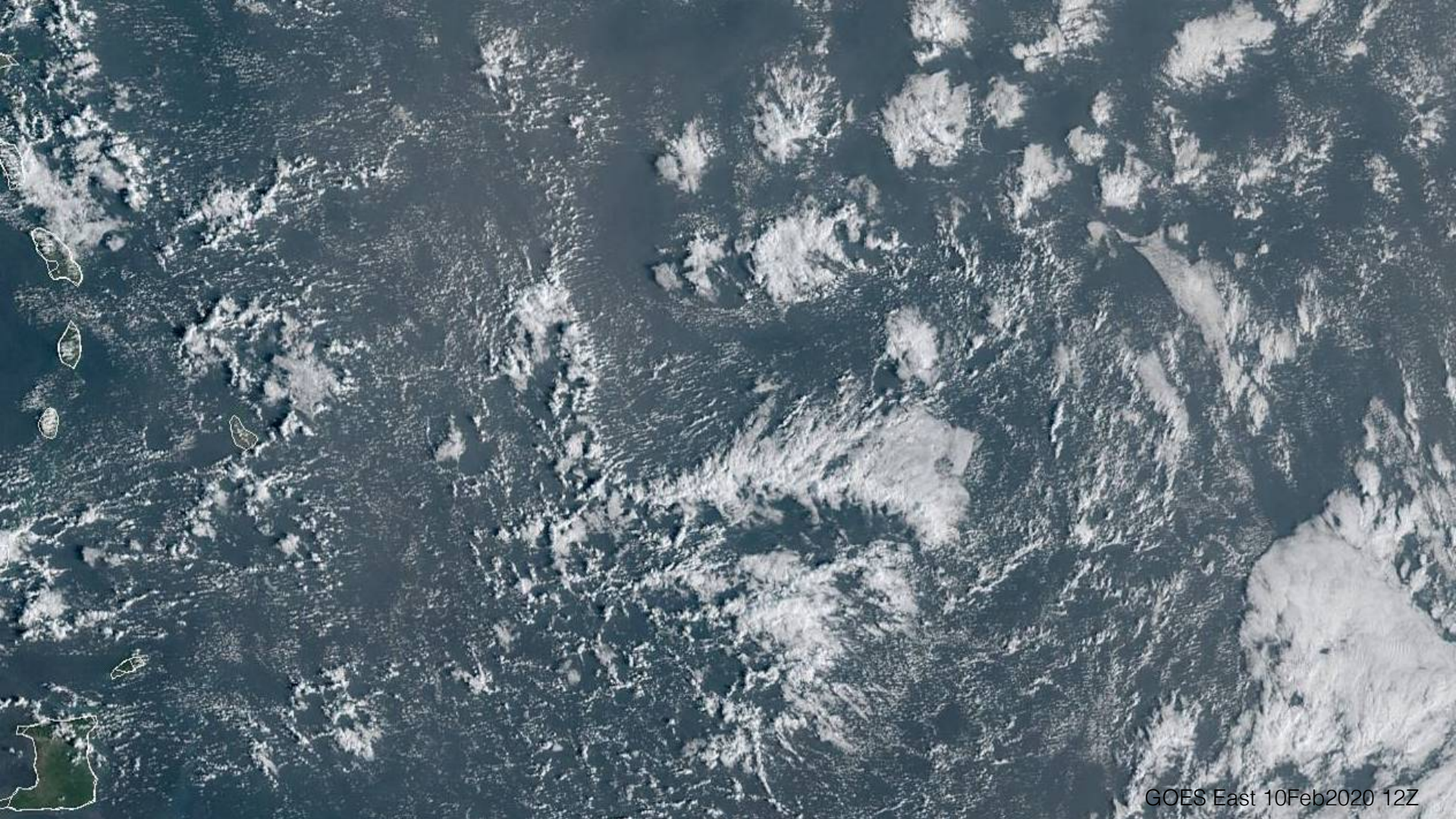
09 Feb 2020 16:07Z NESDIS/STAR GOES-East DayLandCloud

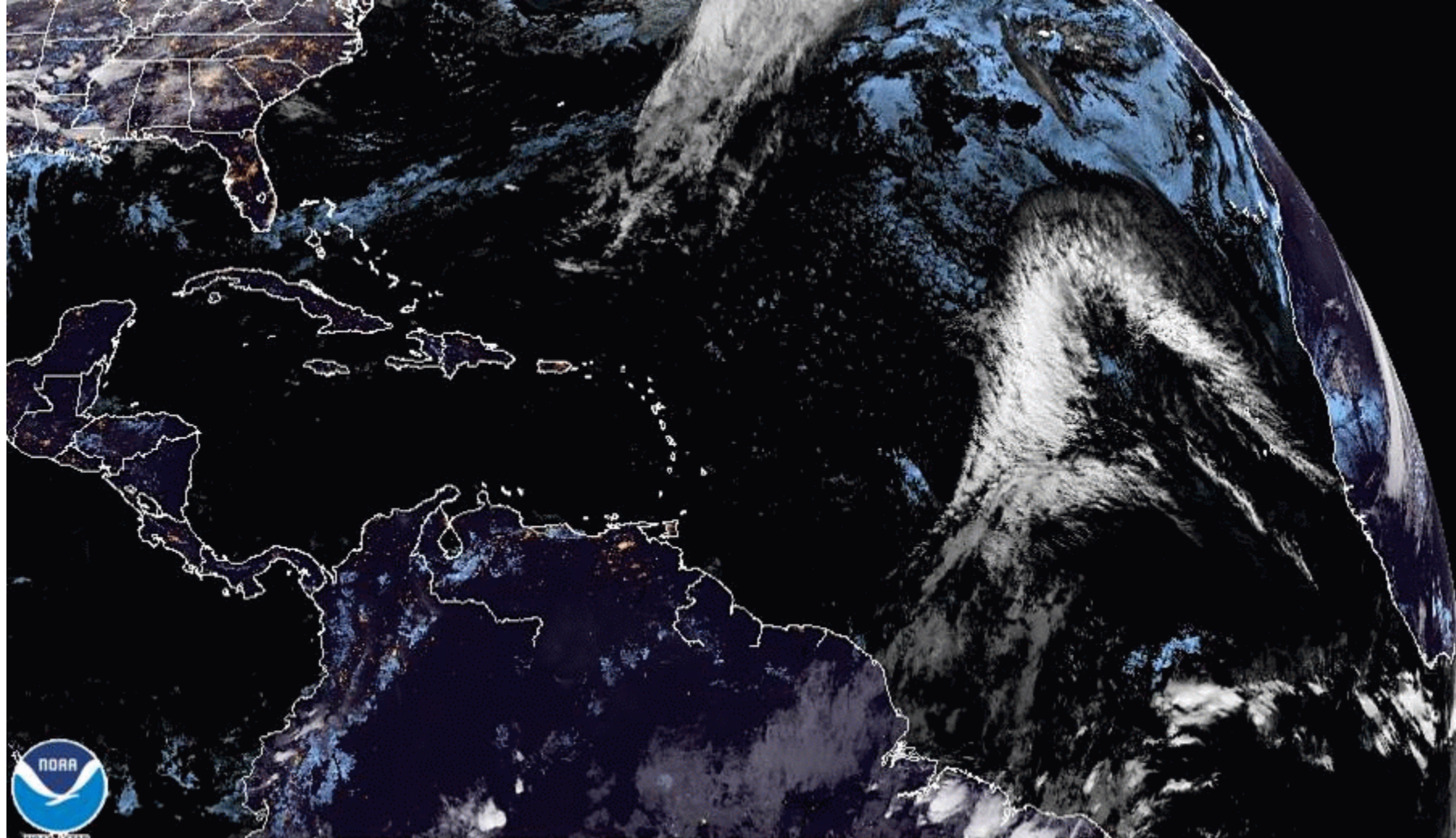
Soundings late in the day from Barbados (where is the trade inversion?)



Poldirad quicklooks from this morning







10 Feb 2020 03:20Z NESDIS/STAR GOES-East GEOCOLOR