

Wx-0207 (07 Feb 2020)

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1. Three day outlook

Synopsis – A dry and stable atmosphere will dominate over the next day or two. Shallow cumulus clouds will dominate.

Forecast – Chance of showers....15%....any showers will be isolated and brief. Winds will remain brisk ...ENE to Easterly at 15 to 20 kts.

Seas moderate - waves 7 to 10 feet, swells every 9 to 12 sec from the northeast.

3-day outlook – Atlantic ridge remains steady maintaining brisk winds, dry and stable weather...shallow cumulus clouds are expected to dominate. An upper level trough just east of the islands could induce only a few showers.

Air Mass Origin- According to the IFS forecast, the airmasses arriving in all tropospheric layers above BB in the next three days come from the extratropics. The descent of the airmasses arriving in the cloud and subcloud layer (1000-800 hPa) is expected to be of 400-700 hPa within 6 days. The subsidence of the extratropical airmasses towards BB is favoured by the persistent and zonally elongated anticyclone that has been present over the subtropical North Atlantic since 4 February.

2. Data for Flight Planning

Yesterday's conditions at various sites represented by daily mean and standard deviation:

FIELD	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		763 ± 73 m		800 ± 30 m *
CBH-LCL		40 ± 60 m		
CTH	0 - 0.8 km ***	0 - 0.8 km ***	0.8 - 1.6 km ***	0 - 0.8 km ***
CIRRUS TOP	-	-	-	-
AOD	0.18 ***	0.20 ***	0.10 ***	0.20 ***
PW (MM)	29.3 ± 3 mm	28.2 ± 3 mm **		28.2 ± 1.6 mm *
SFC WIND		10.6 m/s ; 82 ° **	10.8 m/s, 68 °	
3KM WIND	10.6 m/s, 77°	10.3 m/s, 68° **		10.7 m/s ; 76.2 ° *
6KM WIND	7.5 m/s, 32°	7.5 m/s, 27° **		5.3 m/s ; 327 ° *
9KM WIND	9.1 m/s, 336°	8.1 m/s, 349° **		10.1 m/s ; 305 ° *
SST		27.3 °C **	26.1 °C	
INVERSION HEIGHT	2.1 ± 0.2 km	2.0 ± 0.1 km **		2.04 ± 0.46 km *
EIS	2.2 ± 0.3 K	2.2 ± 0.2 K **		4.0 ± 1.1 K *
LTS	13.2 ± 0.7 K	13.1 ± 0.5 K **		14.6 ± 0.8 K *
CLOUD PATTERNS	Gravelly sugar	Gravelly sugar	gravel → sugar	sugar

*Data from Atalante soundings **Data from METEOR soundings ***Data from MODIS on Terra

CE: circle east, BT: Boulevard des Tourbillons

3. Model forecast

Comparison of yesterday's conditions to one-day forecasts for 57° 30 'W and 13° 30 ' N:

FIELD	AROME	HARMONIE	UK MET	OBS CE
LCL	900 m			763 ± 73 m
INVERSION HEIGHT	2500 m			
CIRRUS TOP PW	no cirrus			
SFC WIND	10.1 m/s			
CLOUD PATTERNS	sugar	gravel / small flower	sugar	Gravelly sugar

4. Figures

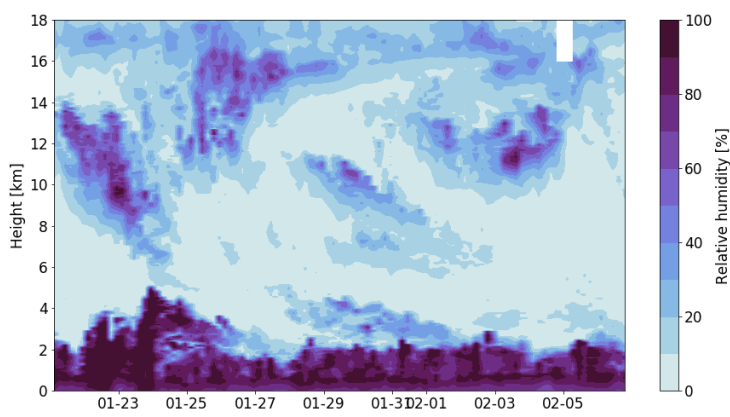


Figure 1: Soundings from BCO throughout EUREC⁴A.

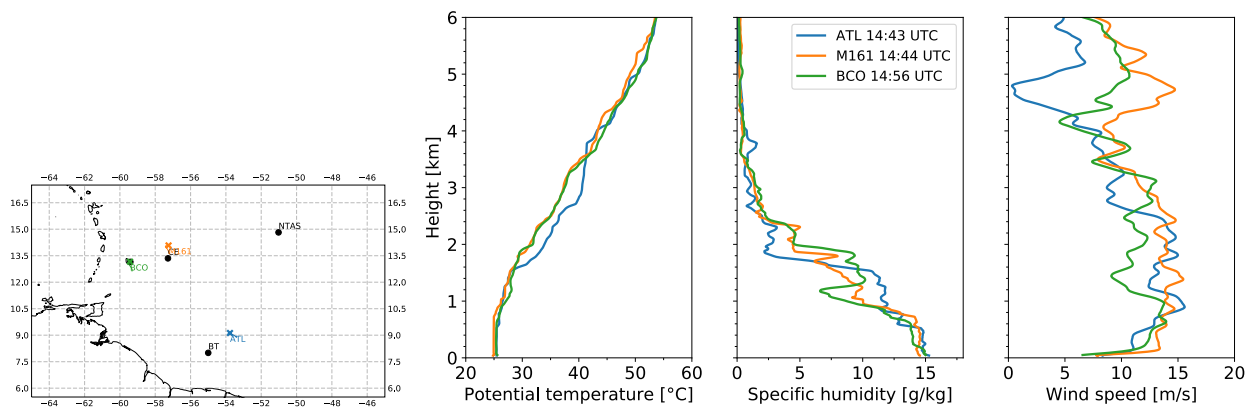


Figure 2: Soundings from four different stations.