

Wx-0202 (02 Jan 2020)

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1. Three day outlook

Synopsis from 31.1.— Dry and stable conditions continue north of 11 N. A weak trough south of 11 N will propagate shallow moisture and chance of isolated brisk showers. Shallow cumulus clouds will dominate and dust haze increases.

Forecast from 31.1. — Chance of showers is 10%, any showers will be brief. Winds will be Easterly to East Southeasterly at 10 to 15 kts, occasionally 20 knts. Seas moderate, waves 2 to 3 metres, swells every 14 to 15 sec from the northeast.

3-day outlook from 31.1. – Slight strengthening of the Atlantic subtropical high with increase in dust haze. Winds will be brisk to breezy, dry and stable weather. Shallow cumulus clouds are expected to dominate.

air mass origin — According to the IFS forecast, air masses arriving in BB at 300-700 hPa (red and orange pts.) are advected by westerlies and partly originate from southwest on the 3.2. (link). On the 2.2.-3.2, the airmasses arriving at low levels (800-900 hPa, green pts.) originate from South America and recurve in the mid Atlantic into easterly winds. Similar to the air masses in the surface layer (900-1000 hPa, blue pts), they spent several days over the central North Atlantic before being transported westward to BB.

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				
CBH-LCL				
CTH				
Cirrus Top				
AOD				
PW	32.7 ± 1.5 mm	33.7 ± 0.6 mm*		29.4 ± 1.5 mm
Sfc Wind	4.5 m/s, 80°	8.8 m/s, 88°	5.6 m/s, 63°	10 m/s, 60° **
3km Wind	3.0 m/s, 104°	2.5 m/s, 132°		9.6 m/s, 82°
6km Wind	5.1 m/s, 107°	3.0 m/s, 101°		14.0 m/s, 59°
9km Wind	12.9 m/s, 293°	11.4 m/s, 310°		15.8 m/s, 297°
SST	-	27.3 °C	26.3 °C	27.7 °**
Inversion height	2.0 ± 0.05 km	2.0 ± 0.05 km*		1.6 ± 0.1 km**
EIS	2.9 ± 1.8 K	4.2 ± 0.6 K*		6.0 ± 1.2 K**
LTS	14.2 ± 1.7 K	15.9 ± 0.4 K*		16.3 ± 1.4 K**
Cloud Patterns	sugar	cold pool	sugar	sugar

CE: circle east, BT: Boulevard des Tourbillons

* from Meteor; ** from Atalante

3. Figures

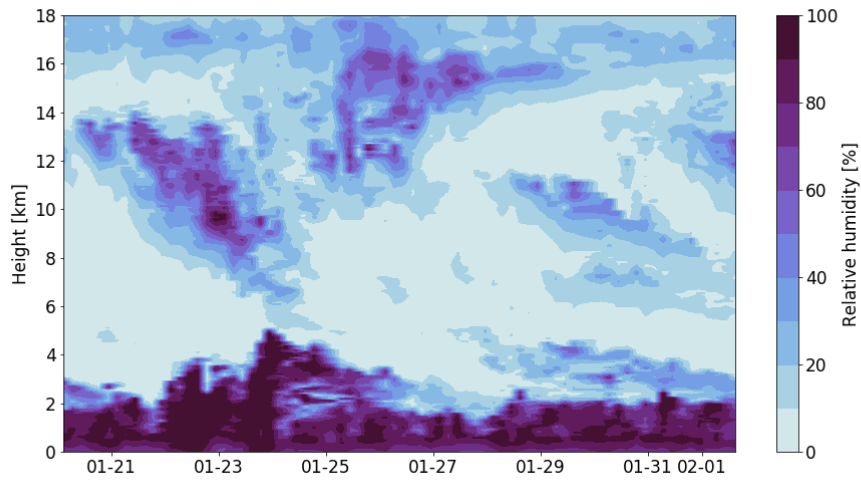


Figure 1: Soundings from BCO throughout EUREC⁴A.

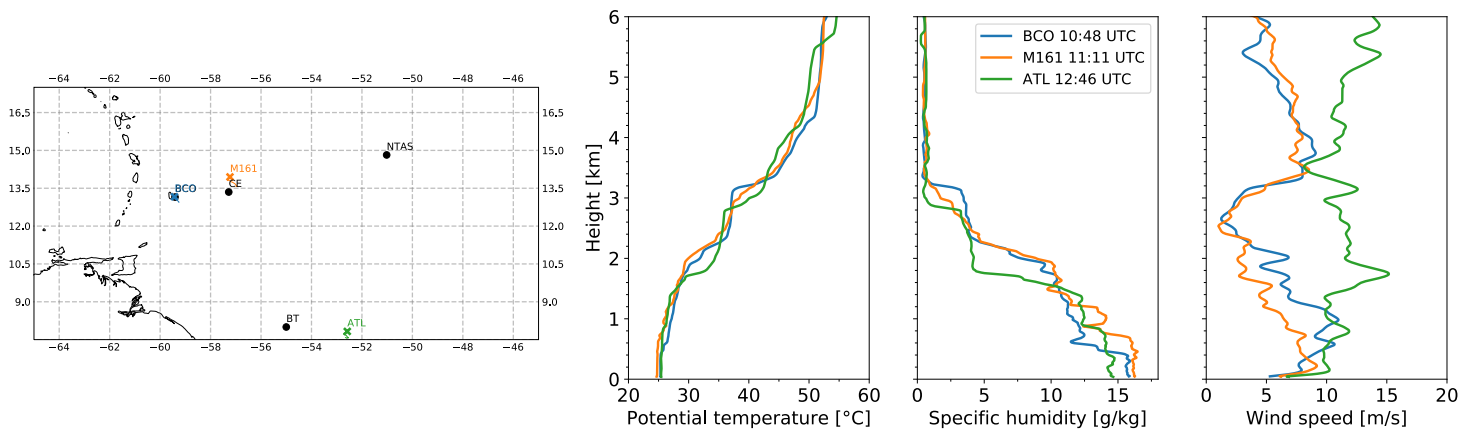


Figure 2: Soundings from three different stations.