

Wx-0131 (31 Jan 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 around 10%, any showers will be brief. Winds are expected to pick up slightly. Easterly to East Southeasterly at 10 to 15 kts.

Seas moderate — waves 2 to 3 metres, swells every 14 to 15 sec from the northeast.

3-day outlook – Slight strengthening of the Atlantic subtropical high will maintain light to brisk winds, dry and stable weather. Shallow cumulus clouds are expected to dominate.

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 | | | | |
| CTH | | | | |
| CC | | | | |
| Cirrus Top | | | | |
| AOD | | | | |
| PW | 33.9 ± 1.8 mm | 32.1 ± 3.3 mm* | | 43.0 ± 1.3 mm** |
| Sfc Wind | 4.5 m/s, 90° | 8 m/s, 85° | 7.8 m/s, 105° | |
| 3km Wind | 2.1 m/s, 215° | 2.2 m/s, 113° | | 9.8 m/s, 79° |
| 6km Wind | 4.9 m/s, 111° | 4.3 m/s, 80° | | 12.8 m/s, 79° |
| 9km Wind | 11.7 m/s, 279° | 11.9 m/s, 283° | | 14.0 m/s, 293° |
| SST | - | 27.4 °C | 26.2 °C | |
| Inversion height | 2.1 ± 0.05 km | 2.0 ± 0.1 km* | | 2.1 ± 0.05 km** |
| EIS | 2.9 ± 1.3 K | 4.0 ± 0.6 K* | | 4.2 ± 0.7 K** |
| LTS | 14.2 ± 0.8 K | 15.3 ± 0.6 K* | | 15.6 ± 0.7 K** |
| Cloud Patterns | sugar | sugar | sugar | mixed |

CE: circle east, BT: Boulevard des Tourbillons

*from Meteor (2:45 - 10:45 UTC)

** from Atalante (2:45 - 14:45 UTC)

3. Model forecast

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

| Field | UK MET | OBS CE |
|---------------|-------------------------|----------------|
| LCL | 530 m | |
| CTH | 2 km | |
| Cirrus Top | 16 km (broken) | |
| PW | 34.3 mm | 32.1 ± 3.3 mm* |
| Sfc wind | 7 m/s, 98° | 8 m/s, 85° |
| Cloud pattern | sugar turning to gravel | sugar |

Forecast for today at 57°30'W and 13°30' N:

| Field | UK MET |
|---------------|---------------------|
| LCL | 600 m |
| CTH | 2 km |
| Cirrus Top | no cirrus (locally) |
| PW | 36.0 mm |
| Sfc wind | 8 m/s, 96° |
| SST | sugar |
| Cloud pattern | |

4. Figures

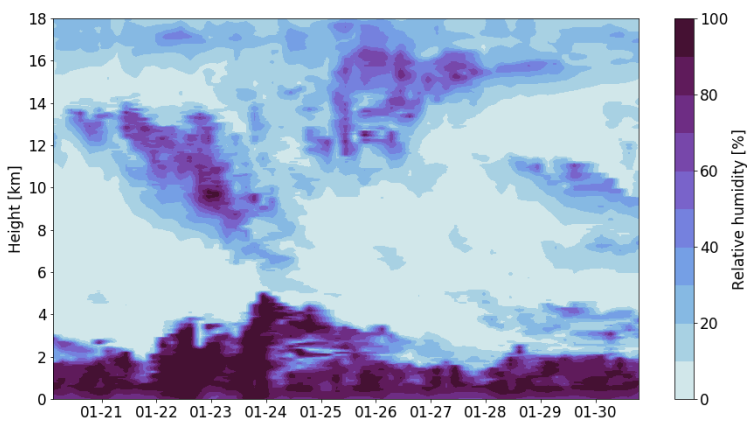


Figure 1: Soundings from BCO throughout EUREC4A.

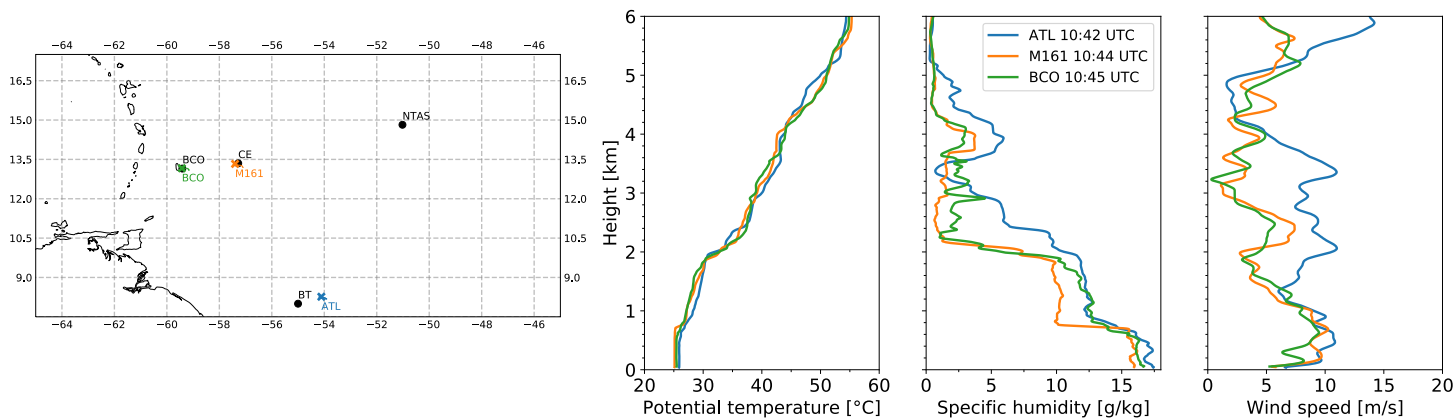


Figure 2: Soundings from three different stations.