

Wx-0125 (25 Jan 2020)

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1. Three day outlook

Synopsis – Shearline dissipated and remnant clouds east and south of Barbados. Dry air advection in mid and upper levels. Slack pressure gradient contributing to decreasing wind speeds 10 to 15 kts from the east southeast. Subtropical Jet aloft 50 to 80 kts.

Forecast – Shallow clouds, and slight chance of showers toward afternoon over Barbados, clearing tonight. Seas moderate - waves 2 to 3.5 metres, swells every 14 to 15 sec from the north and northeast.

3-day outlook – A pre-frontal trough is expected to move into the vicinity of Barbados by mid Saturday, inducing instability. A few showers expected. Seas projected to be moderate to rough Saturday into Sunday.

Air mass origin — According to the IFS forecast, we expect airmasses at upper levels (300-500hPa, red and orange pts.) to be advected by westerlies for the 25.-26.1. On the 27.1. part of these airmasses (500-700hPa, orange pts.) exit the westerly jet approx. 7d before arrival at BCO, take a detour east of BB, eventually arrive at BCO as southeasterlies (link). At lower levels (700-900hPa, yellow and green pts.) northeasterlies are prognosed for the next three days. The airmasses in the surface layer (1000-900hPa, blue pts.) are advected from the east. Overall the advection of airmasses slows down and the airmasses originate from lower latitudes than during the past 3 days (see link vs. link).

2. Data for Flight Planning

Yesterday's conditions at various sites representative for local noontime:

Field	BCO	CC	CE	NTAS	BT
Lat	13°09'46"	13°17'	13°21'	14°49'	08°00'
Lon	59°25'44"	57°54'	57°17'	51°01'	55°00'
CBH	550 m		560 m		
CTH	1.5-4.0 km	3.5-4.5 km	3.5-4.5 km	3.5-4.5 km	1.0-2.0 km
Cirrus Top	n/a	n/a	n/a	n/a	13 km
AOD		0.045			
LCL	540 m				
PW	40.7 mm	27.0 mm*			
Sfc Wind	3.5 m/s, 120°	6.1 m/s, 94°*		6.5 m/s, 112°	
3km Wind	2.1 m/s, 106°				
6km Wind	11.1 m/s, 328°				
9km Wind	19.8 m/s, 312°				
SST	-	27.5 °C*		26.4 °C	27.8 °C**
Inversion height	1.4 km / 4 km				
EIS	2.6 K				
LTS	13.6 K				
Cloud Patterns	sugar/gravel	mixed	mixed	fish	sugar

CC: circle center, CE: circle east, BT: Boulevard des Tourbillons

* Meteor, 16-20 UTC; ** Atalante, 16-20 UTC