

# Wx-0121 (21.01.2020)

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## 1. Three day outlook: 21.-23.01.

Synopsis — Stationary front extends along 20N. Pre-frontal shearline extends from the east into Barbados. Shallow inversion at 850 hPa. Winds easterly at 12 to 20 kts, subtropical Jet aloft 60 to 90 kts.

Forecast — Increased possibly of shallow convection and showers as front propagates south. Winds will increase. Seas moderate to rough- wave 4 to 4.5 metres, swells every 14 to 15 sec from the north.

3-day outlook — Increase instability day one as front move over area. Front may 'wag' (oscillate north south) over period. Seas remain rough.

Air mass origin — During the next three days the air masses arriving in the layer 1000-900 hPa originate from the extratropics and are advected southward in the cold sector of an extratropical cyclone that was located in front of the US East Coast on Thursday (16.1.). On the 21.1. the advection is approximately isobaric, whereas on 22 and 23.1. the air masses descend by 700 hPa in 6 days. The air masses arriving in the layer 800-500 hPa descend from the jetstream following a meridional pathway. Above 500 hPa the air masses come from west.

## 2. Data for Flight Planning

Yesterday's conditions at various sites representative for noontime:

Field	BCO	CC	CW	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	600 m (±100m)				
CTH	max. 2 km				
Cirrus Top					
AOD					
LCL	690 m		600 m	540 m (±100m)	
PW	32.3 mm			29.9 mm*	
Sfc Wind	5.6 m/s			9.0 m/s	
3km Wind	3.7 m/s				
6km Wind	6.1 m/s				
9km Wind	20.4 m/s				
SST				26.82° C	
Inversion height	2500 m			800 m*	
Inversion strength	0.5 K, 5 g/kg			0 K, 4.5 g/kg*	
LTS	14.6 K			14.9 K*	
Cloud Patterns	mostly sugar	developing	developing	fish	n/a

CC: circle center, CW: circle west, BT: Boulevard des Tourbillons

\*NTAS sounding is from 6:45 LT.