Flight Scientist Report
Friday 5/14/2021 ACTIVATE RF64

Flight Type: Statistical Survey Flight
Flight Route: ATLC ATLC 3430N07030W ZIBUT ATLC
Special Notes: seemed to be two layers of clouds (low and mid-level). As the remote sensors pick up on the mid-level cloud, the Falcon probed both layers rather than just the lower layer.

King Air
Pilot report (Jamison): 2-ship cooperative flight with the HU-25; routing ATLC-ZIBUT-3430N07030W-ZIBUT ATLC, FL280. 4x dropsondes deployed, ZIBUT, turn point, 1/2 way back to ZIBUT, ATLC. Winds at altitude ~ 90 kts from the west; maintained reasonable proximity with HU-25 by delaying takeoff 7 min after HU-25 takeoff. Commenced descent out of FL280 at ATLC. Exceptionally clear visibility at altitude.

3.5 hours

Flight scientist report (Harper): This was the second flight of the day with a similar flight plan to the morning’s flight with a slight modification to the outbound leg being further toward the southeast. The UC12 took off shortly after the HU25 staying coincident throughout the outbound legs. Similar conditions to the morning flight with no observed cirrus and weak aerosol layer (possibly dust) near the UC12 altitude, but cloud tops had a higher variability from 5kft to 13kft.

- 4 sondes were dropped:
  - 1st sonde: 1min before turn at ZIBUT on the outbound leg
  - 2nd sonde: 1min before turnaround at furthest point.
  - 3rd sonde: ½ way between furthest point and ZIBUT on the return leg.
  - 4th sonde: between ATLC and TURRET (as close to the coast as possible) on the return to base.

- No instrument issues with HSRL2, RSP, or AVAPS.

Falcon
Pilot report ():

Flight scientist report (Crosbie): Similar conditions to the flight earlier in the day. The flight track was shifted a bit to the southwest of the previous end point. MBL was very low in the clear region again. The
second (upper) deck of cloud was less extensive during this flight so the focus was shifted to the lower level.
14 May 2021 Afternoon ACTIVATE Flight
Pure liquid clouds with precipitation mode and pure drizzle.

NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 64, 19:01 UTC May 14, 2021