Flight Scientist Report Thursday 05/05/2022 ACTIVATE RF151

Flight Type: Statistical Survey Flight Flight Route: KPVD SKOWL YAHOO LACKS 3915N06715W ZIBUT ATLIC KLFI Special Notes: Second of two flights back from Providence, Rhode Island to LaRC.

## King Air

Pilot report (Coldsnow):

Flight was flown as briefed (KPVD SKOWL YAHOO LACKS 3915N/06715W ZIBUT ATLIC KLFI) with a minor tweak between 3915N/06715W ZIBUT (the point SHOKR was added as a request from ATC to put the flight plan in their system). Winds at altitude were generally westerly at 30-90 knots. There were no known issues with instrumentation and 4 dropsonds were dropped. All sonds were nominal. Timing was within 10 minutes with the exception of 20 NM before 3915N/06715W to 20 NM after.

Flight scientist report (Harper):

UC12 takeoff: 17:10utc

No instrument issues.

Aircraft sync: within10min most of flight.

Sonde 1: 17:58utc 5min before waypoint LACKS

Sonde 2: time unknown at turn toward south

Sonde 3: 18:58utc at halfway point of southerly leg.

Sonde 4: 19:46utc at ZIBUT

UC12 landed 20:40 utc

## <u>Falcon</u>

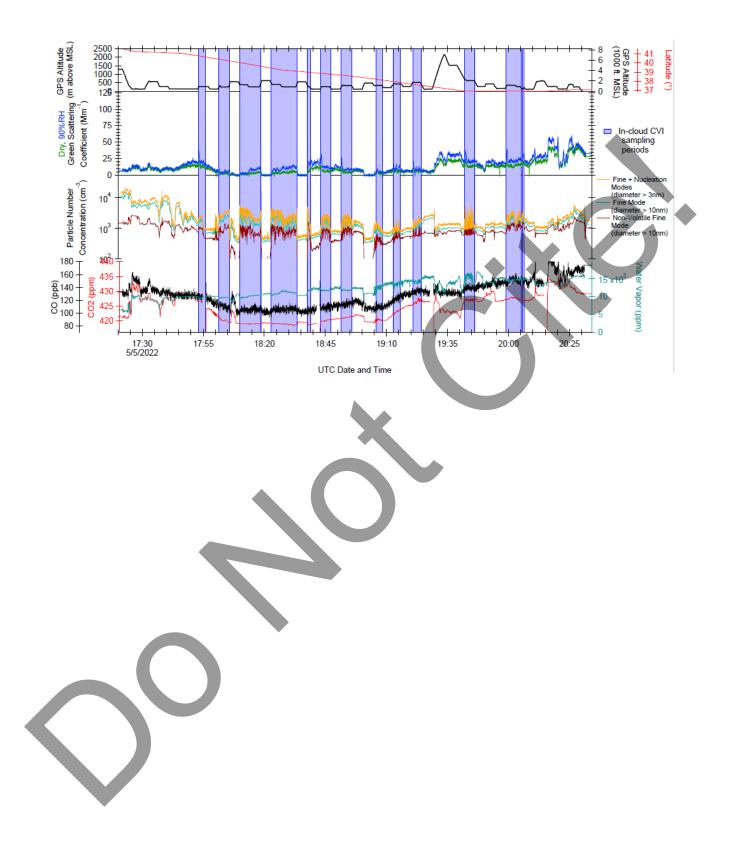
Pilot report (Baxley):

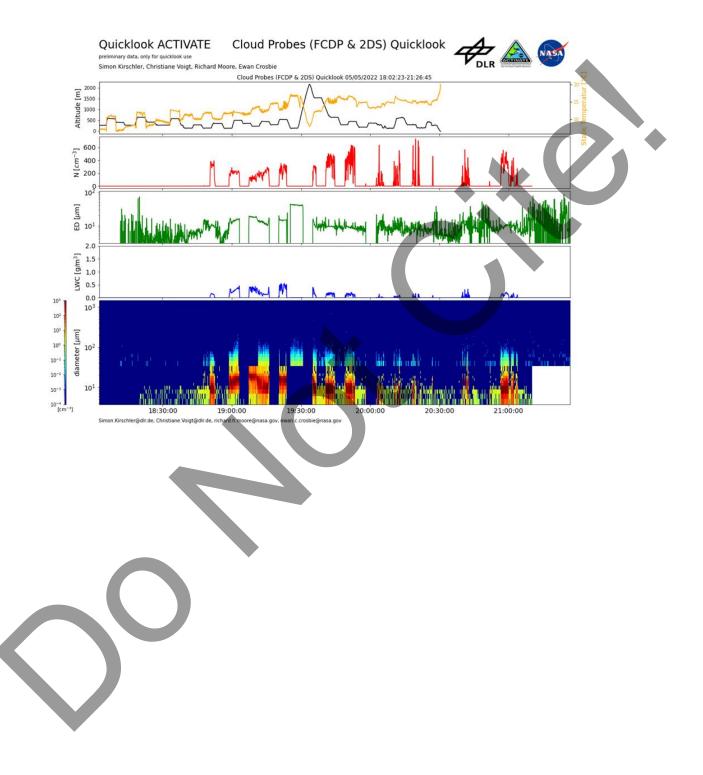
Baxley/Elder, Crosbie/Winstead KPVD SKOWL YAHOO LACKS 3915N06715W ZIBUT ATLIC KLFI - Prior to takeoff, SHOKR was added to the route just prior to ZIBUT Weather as expected, route flown as briefed, no unexpected events or anomalies.

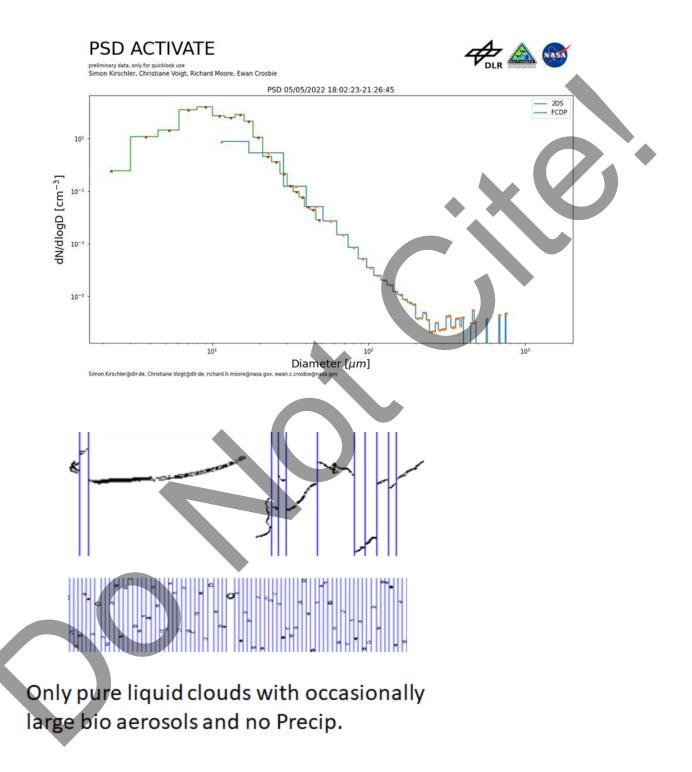
Flight scientist report (Crosbie):

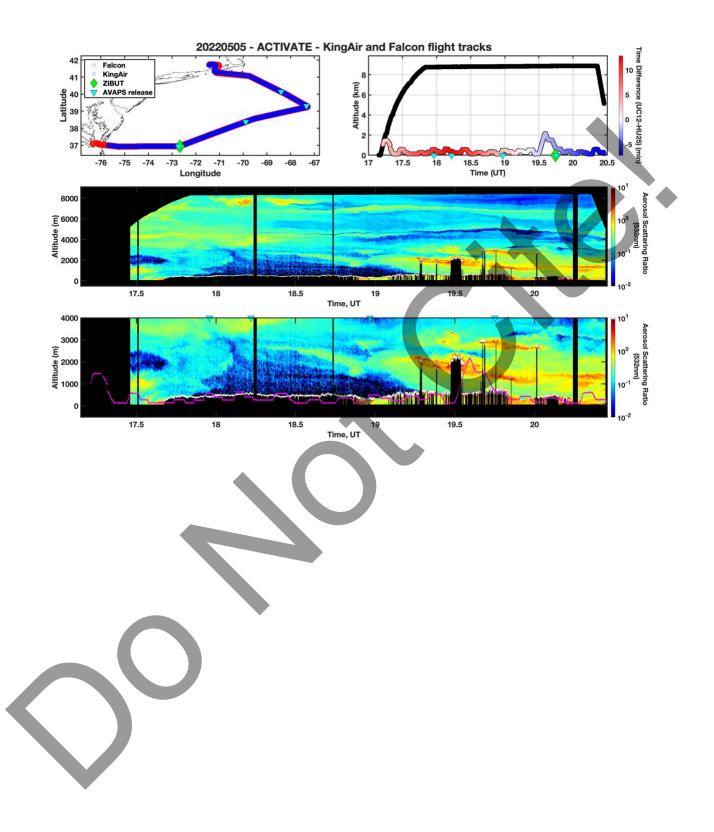
Return from Providence. Similar cloud conditions throughout the return flight. The cloud was not quite as extensive and thick at the northern extent, with some breaks in the cloud near SHOKR which aided sampling in cloud-free conditions. Near ZIBUT similar Cu coverage prevailed with some clear areas on the route in from ZIBUT.



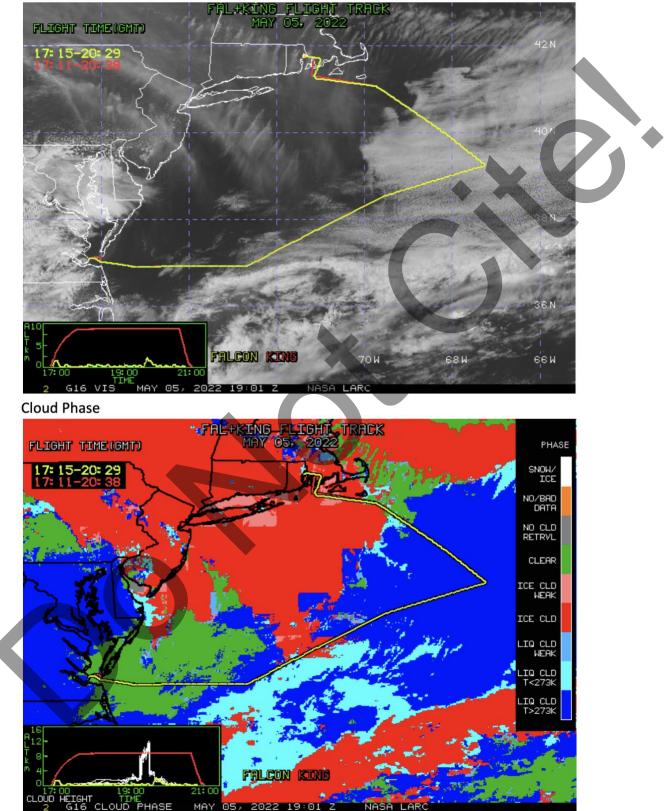


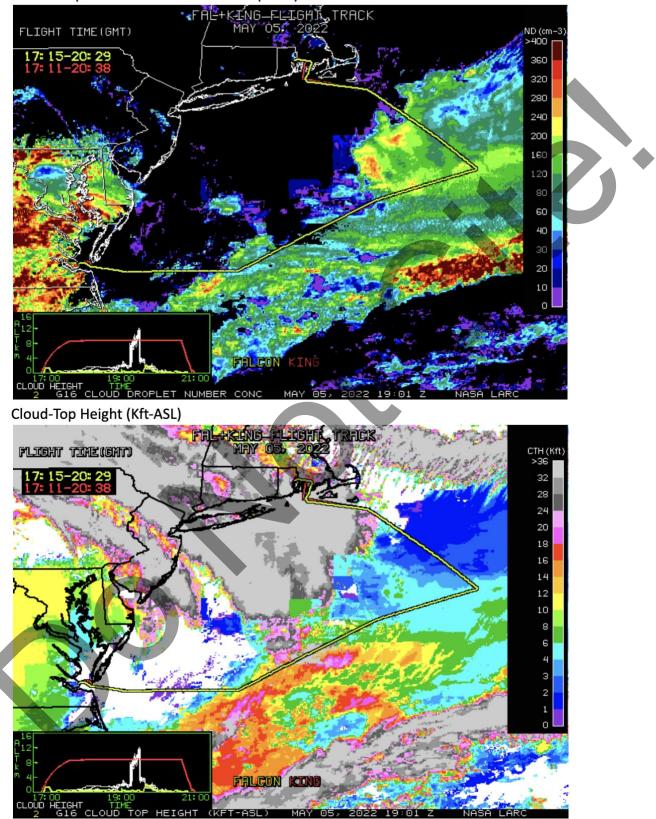






NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 151, 19:01 UTC May 05, 2022 Visible Image





## Cloud Droplet Number Concentration (cm-3)