

Flight Scientist Report
Saturday 05/21/2022 ACTIVATE RF159

Flight Type: Statistical Survey Flight
Flight Route: Bermuda via KLF1 ATLC ZIBUT DASER TXKF
Special Notes: Flight from LaRC to Bermuda

King Air

Pilot report (Slover):

ACTIVATE science collection enroute to Bermuda via KLF1 ATLC ZIBUT DASER TXKF at FL280, flown as planned. Some cirrus clouds at altitude, but not significant enough to decrease altitude for small periods.

Flight scientist report (Seaman):

RF159

5/21/2022 Flight 1 of 2

Takeoff: 1209 utc

Flight path: KLF1 ATLC ZIBUT DASER TXKF

Ops Notes:

Nominal trip to Bermuda.

Instrument notes:

RSP and AVAPS operated nominally. Hsrl was fully functional but was showing a new issue with periodically losing power on LEMS for 532 and 1064 nm.

Science notes:

Heavily layered structure throughout flight. Fog near US coast.

Sonde drops:

- 1) Zibut
- 2) 25% to TXKF
- 3) 50% to TXKF
- 4) 75% to TXKF

5) 60 Nm from Bermuda TXKF

Falcon

Pilot report (Thorson):
Science

Flight scientist report ():

Winstead:

12:18:47 Wet neph internal RH > 100 %

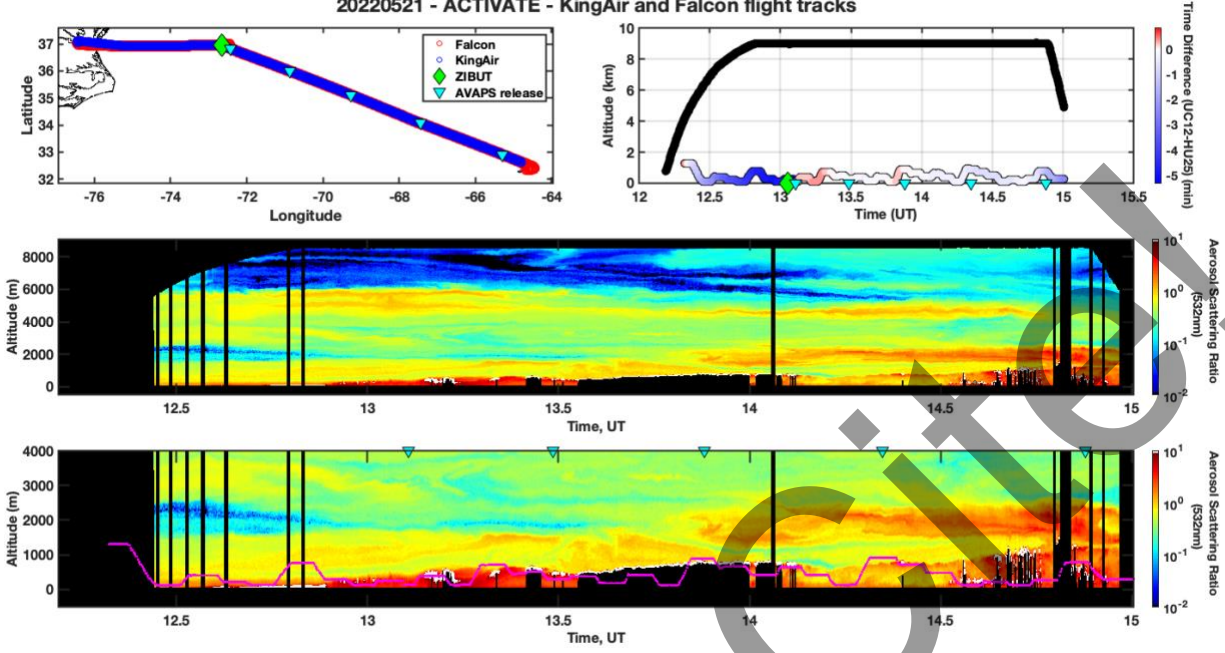
12:37:00 Humidifying flow off & wet neph RH >100%

12:44:00 Humidifying flow back on & wet neph RH <100%; Having trouble maintaining target RH so making adjustments.

13:15:00 Humidifying flow off & wet neph RH back over 100%; Changing operating parameters

14:59:45 Humidifier & WCM off in preparation for landing

20220521 - ACTIVATE - KingAir and Falcon flight tracks



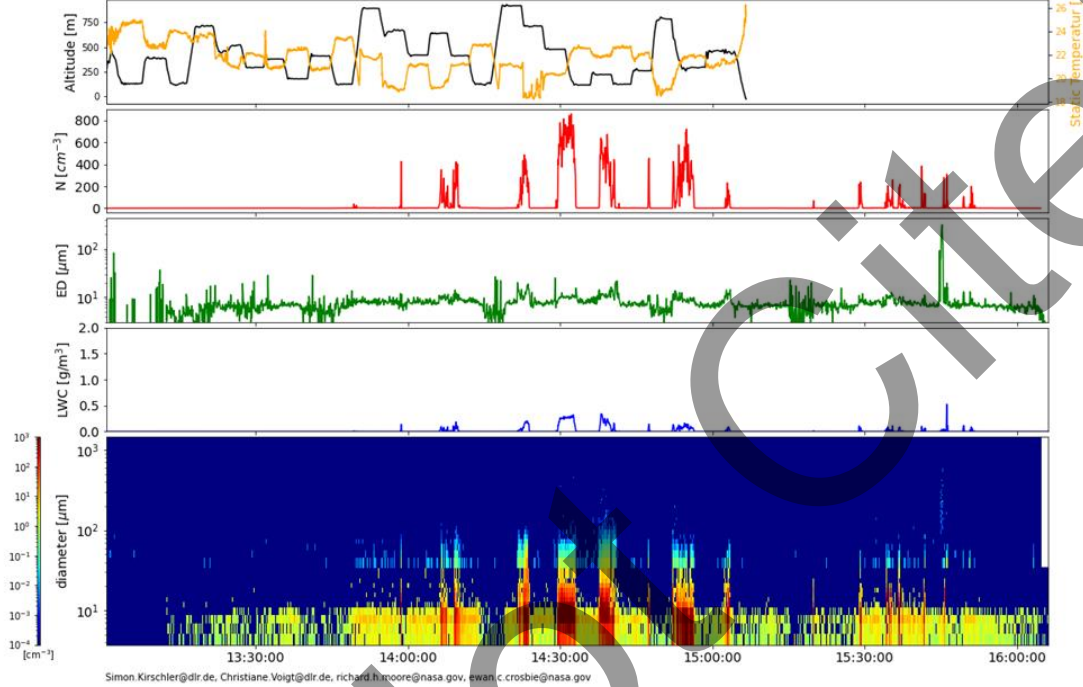
Quicklook ACTIVATE Cloud Probes (FCDP & 2DS) Quicklook

preliminary data, only for quicklook use

Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie



Cloud Probes (FCDP & 2DS) Quicklook 21/05/2022 13:00:30-16:06:10

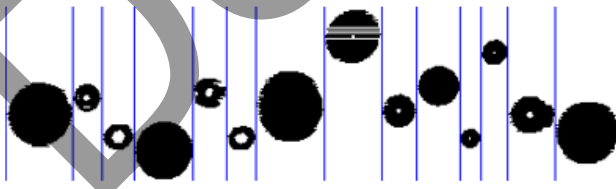
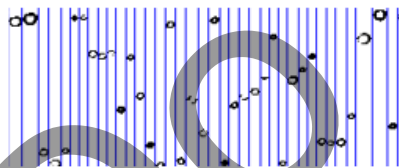
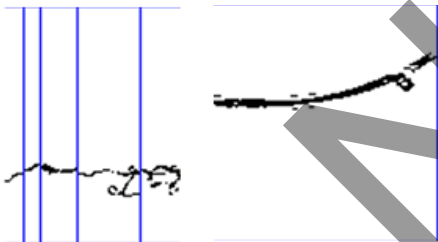
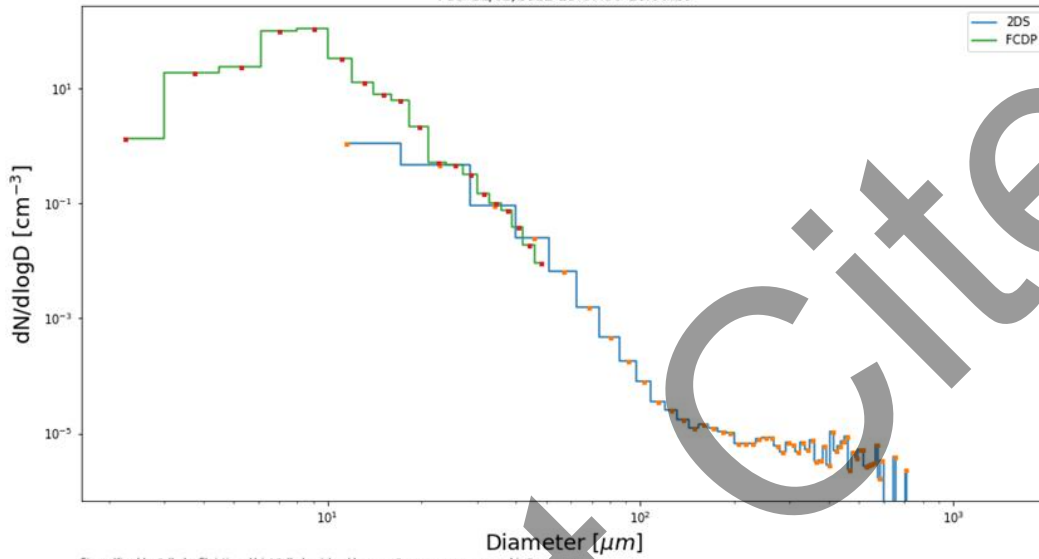


PSD ACTIVATE

preliminary data, only for quicklook use
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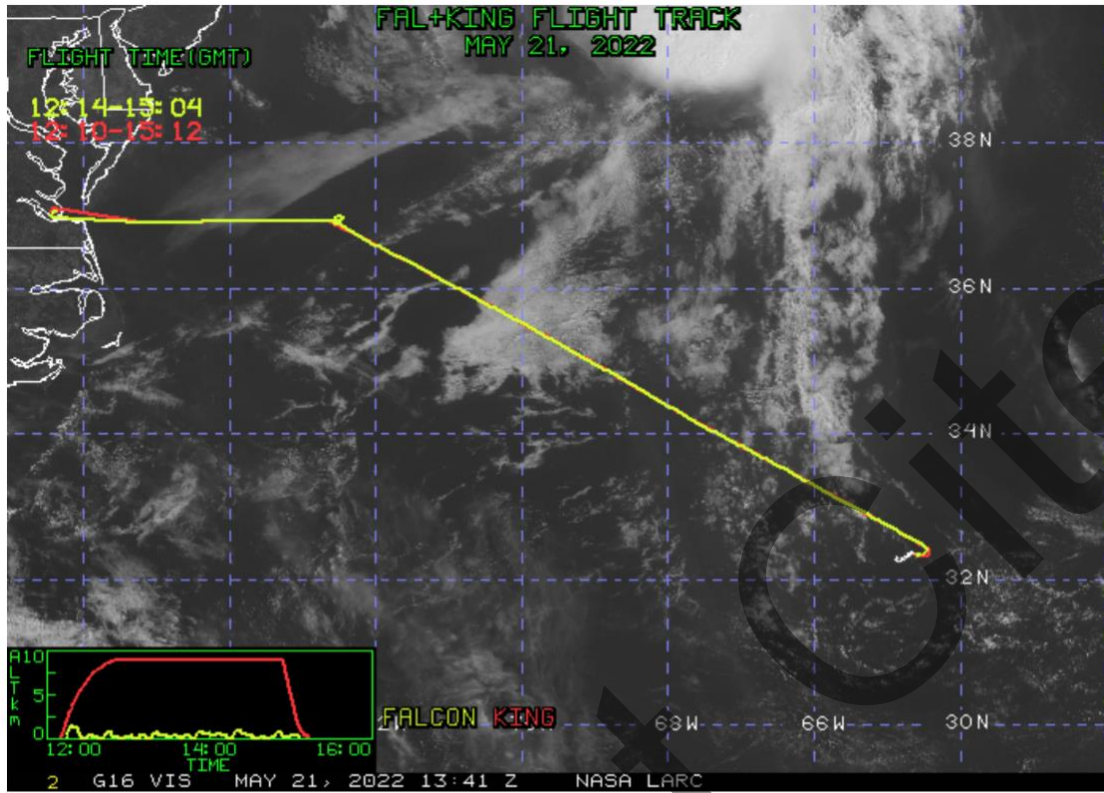
PSD 21/05/2022 13:00:30-16:06:10



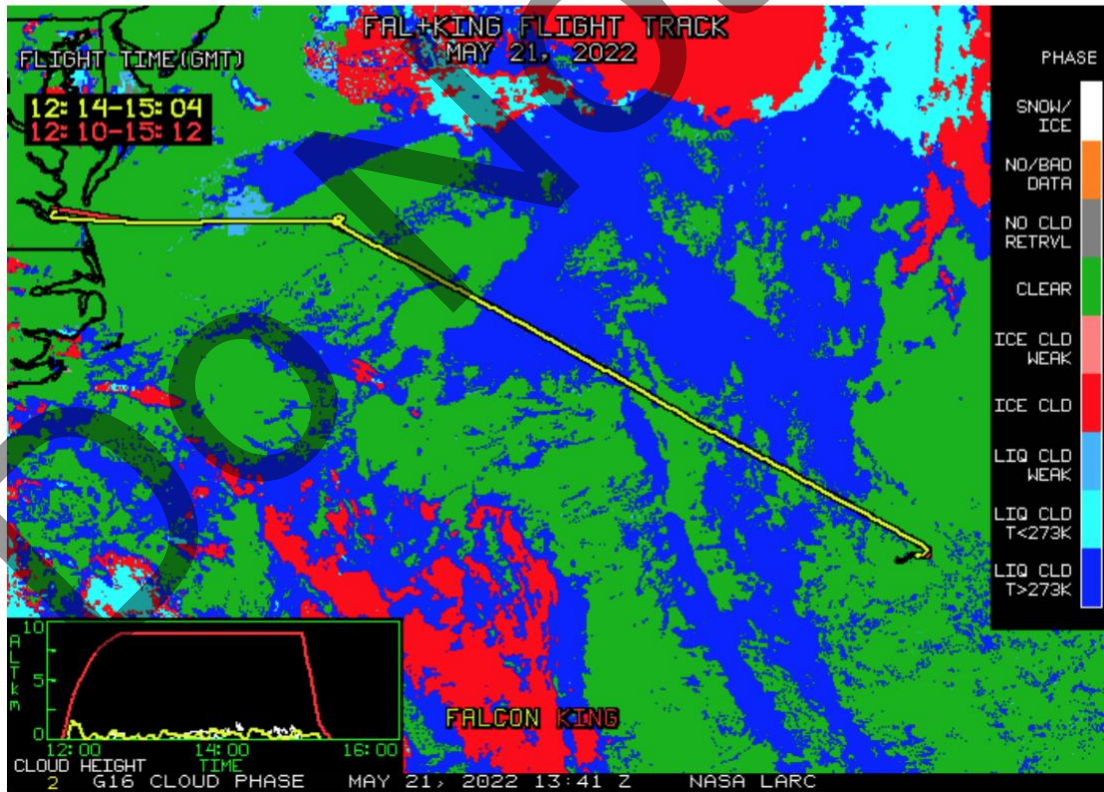
Only pure liquid clouds with Precip and large Bioaerosol.

NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 159, 13:41 UTC May 21, 2022

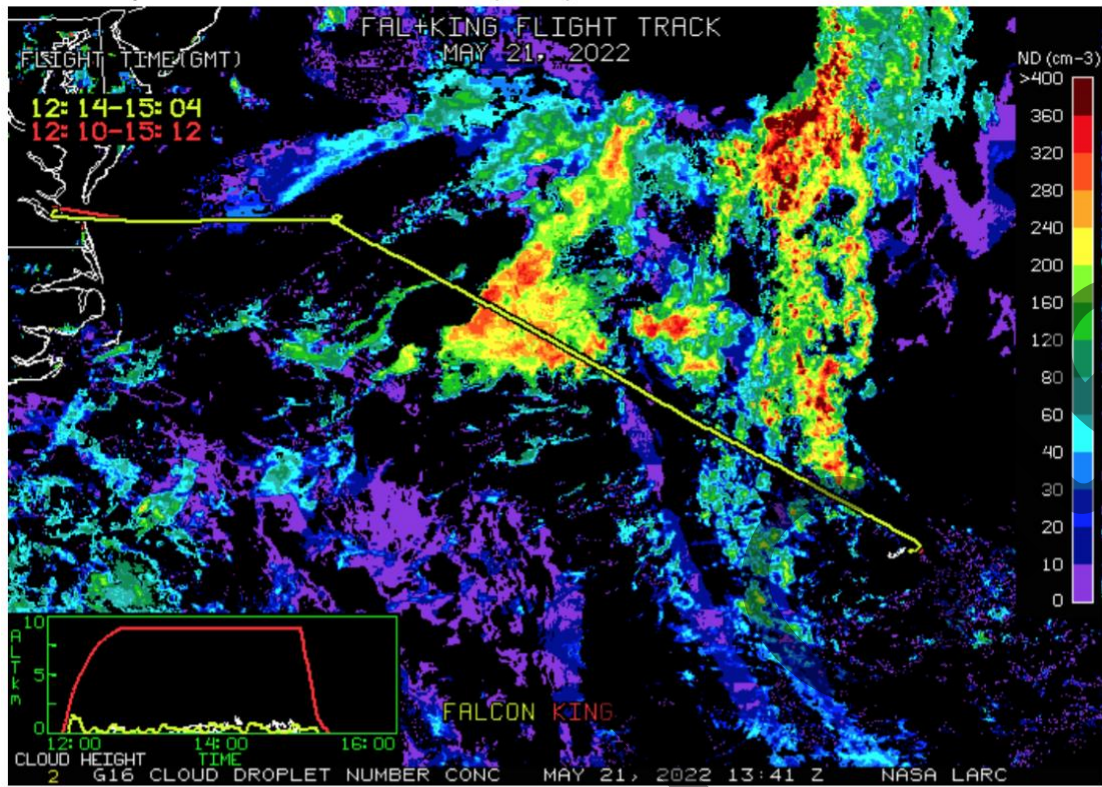
Visible Image



Cloud Phase



Cloud Droplet Number Concentration (cm-3)



Cloud-Top Height (Kft-ASL)

