

Flight Scientist Report
Wednesday 01/26/2022 ACTIVATE RF112

Flight Type: Statistical Survey Flight
Flight Route: KLFJ JAMIE RADDZ ZIZZI FISSH LYNUS ISLES
Special Notes: Second of two flights on this day.

King Air

Pilot report (Coldsnow):

Flight flown as briefed. King Air remained synched with Falcon throughout the flight (within 10 min) until 40 NM from ZIZZI on the return leg. There were no observed clouds at low altitude from ZIZZI to 40 NM out. King Air experienced intermittent cirrus clouds from 30 NM before LYNUS to 30 NM after LYNUS. There were period of time when the RSP shutter was closed during encounters with cirrus clouds. Researcher requested to stay at FL280. Winds at flight level 280 were out of the SW at 100-135 Knots. Three dropsonds were released on this flight. All data collection from the sonds were nominal.

Flight scientist report (Harper):

Takeoff: 18:08utc

Cloud conditions: thin cirrus above at takeoff but cleared within 10min.

Thin Cirrus at B200 altitude at waypoint LYNUS during outbound leg. Cirrus was slightly below aircraft for most of return leg. Cirrus cleared out some time past LYNUS.

B200/HU25 coordination:

Outbound Leg: B200 ahead by 5min

Inbound Leg: B200 ahead by less than 5min after turnaround point. Slowly decreasing until HU25 passed the B200 at approx halfway between SW return leg between ISLES and LYNUS.

HU25 10min ahead at B200 turn at LYNUS.

HU25 15min ahead at HU25 turn at ZIZZI.

Sonde 1: 19:05:13utc at waypoint LYNUS

Sonde 2: 19:24:41utc at waypoint ISLES

Sonde 3: 20:46:52utc near coast before turn at ZIZZI.

Landing: 21:47utc

Instrument Status:

HSRL2: no issues

AVAPS: no issues

RSP: no issues with operation but shutter was not closed when we first encountered thin cirrus during outbound leg.

Satcom: no issues

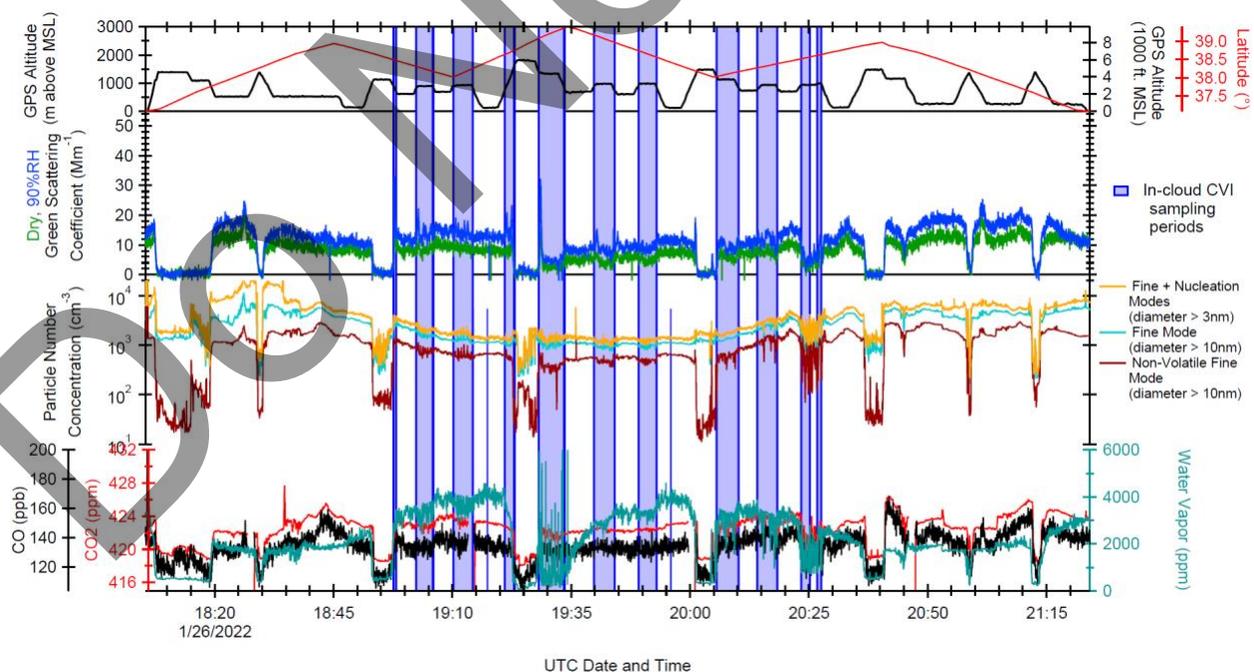
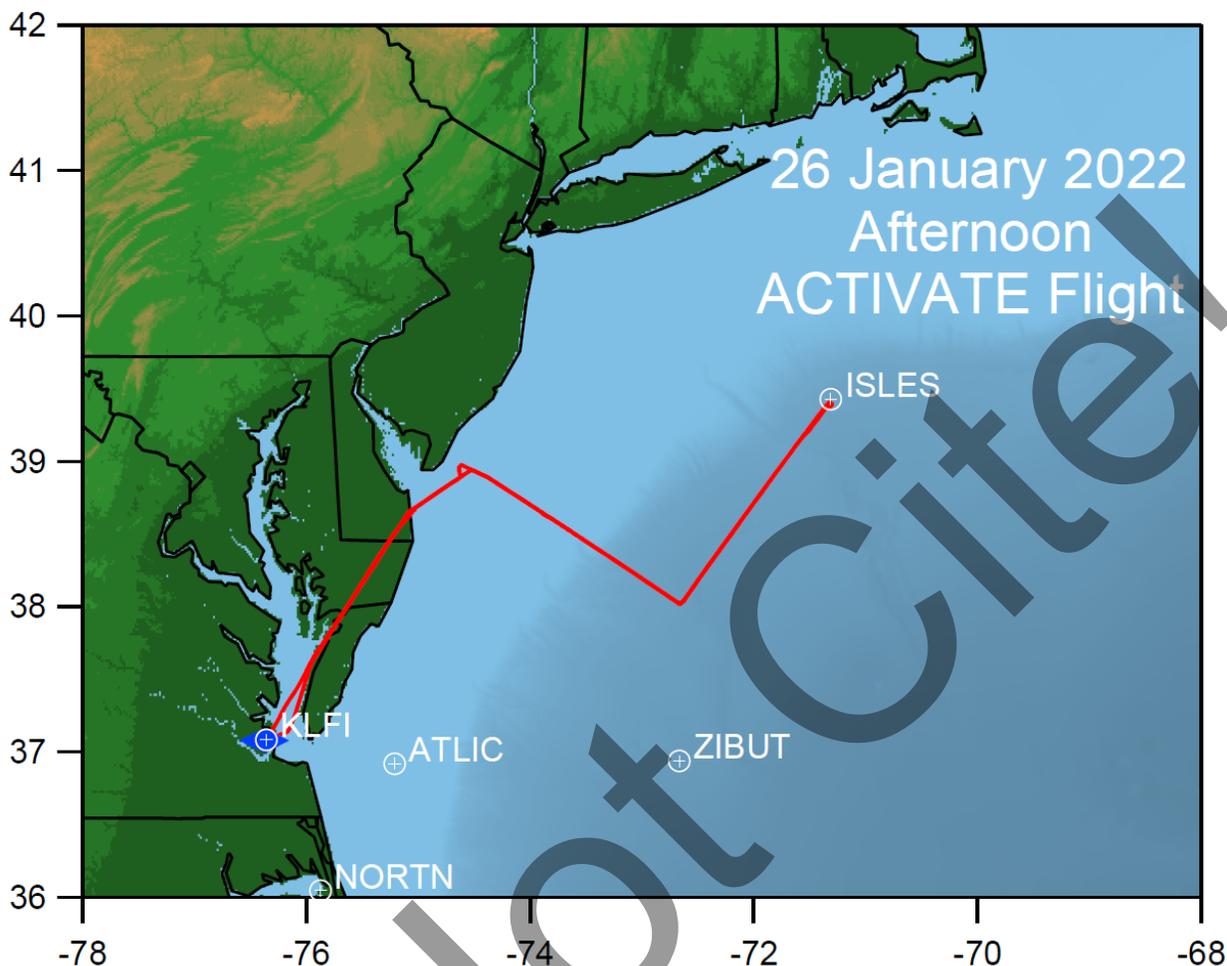
Falcon

Pilot report (Slover):

Flight flown from KLFJ JAMIE RADDZ ZIZZI FISSH LYNUS ISLES and return along same path. Good statistical survey with tops of clouds about 5500' MSL and bottoms about 2000' MSL.

Flight scientist report (Crosbie):

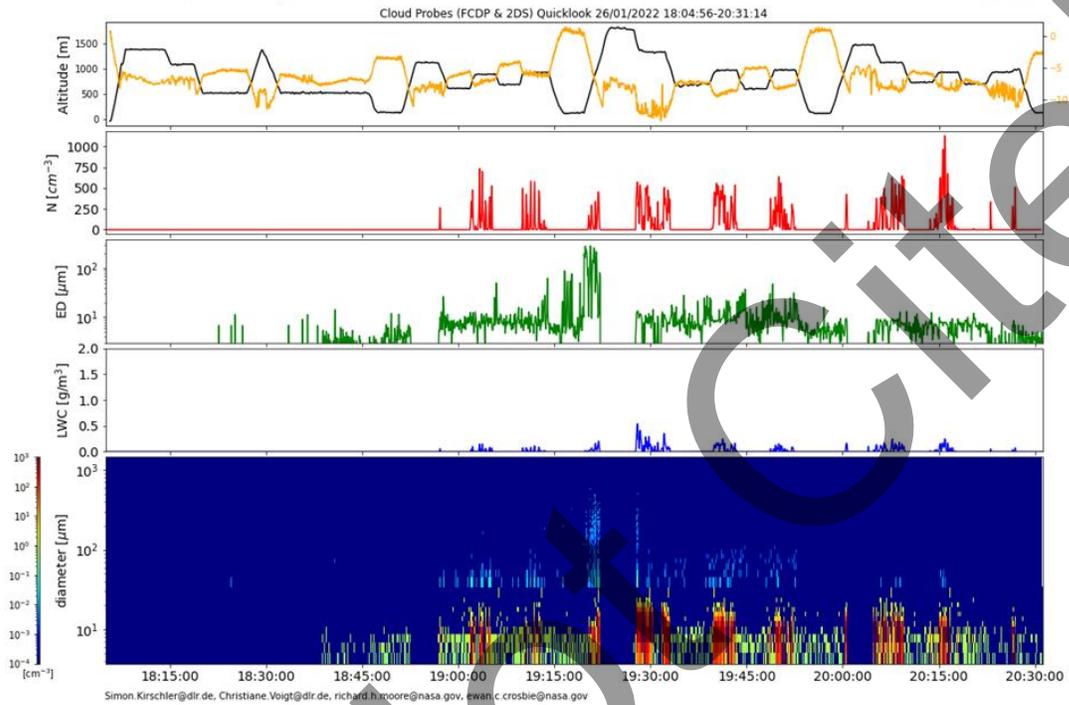
Stat survey Delaware Bay – SE then NE. Markedly different conditions observed above cloud top during this flight although it is not clear whether this was because the layer affecting the morning had moved or whether it was the change in the location of the afternoon flight. Much dryer conditions in the lower FT than the morning. MBL clouds were quite similar but with less moisture/coverage.



Quicklook ACTIVATE Cloud Probes (FCDP & 2DS) Quicklook

preliminary data, only for quicklook use

Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie

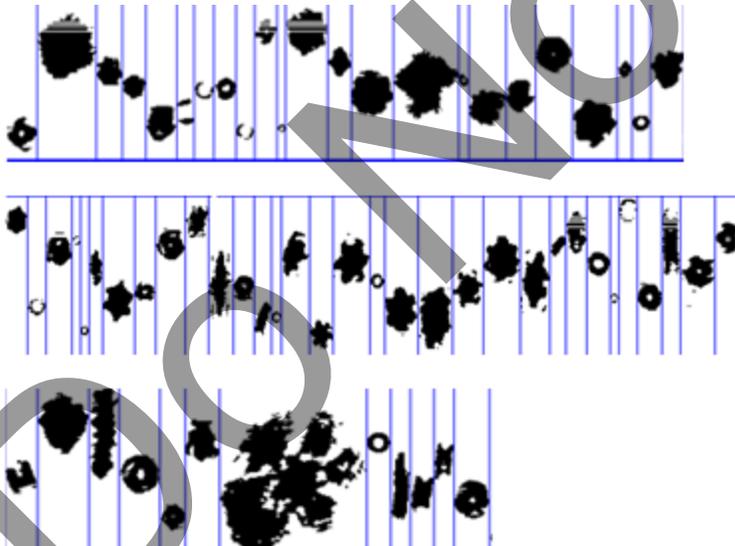
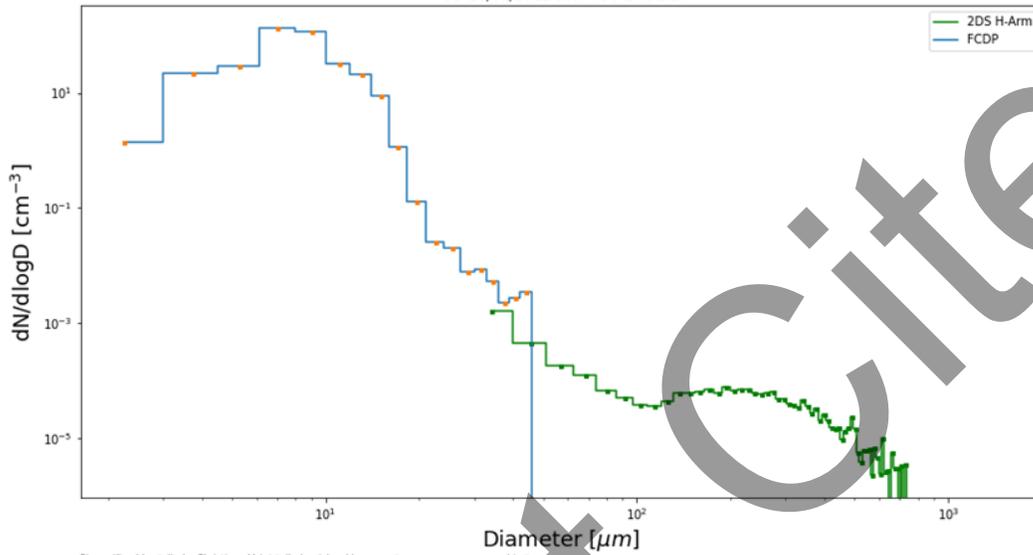


PSD ACTIVATE

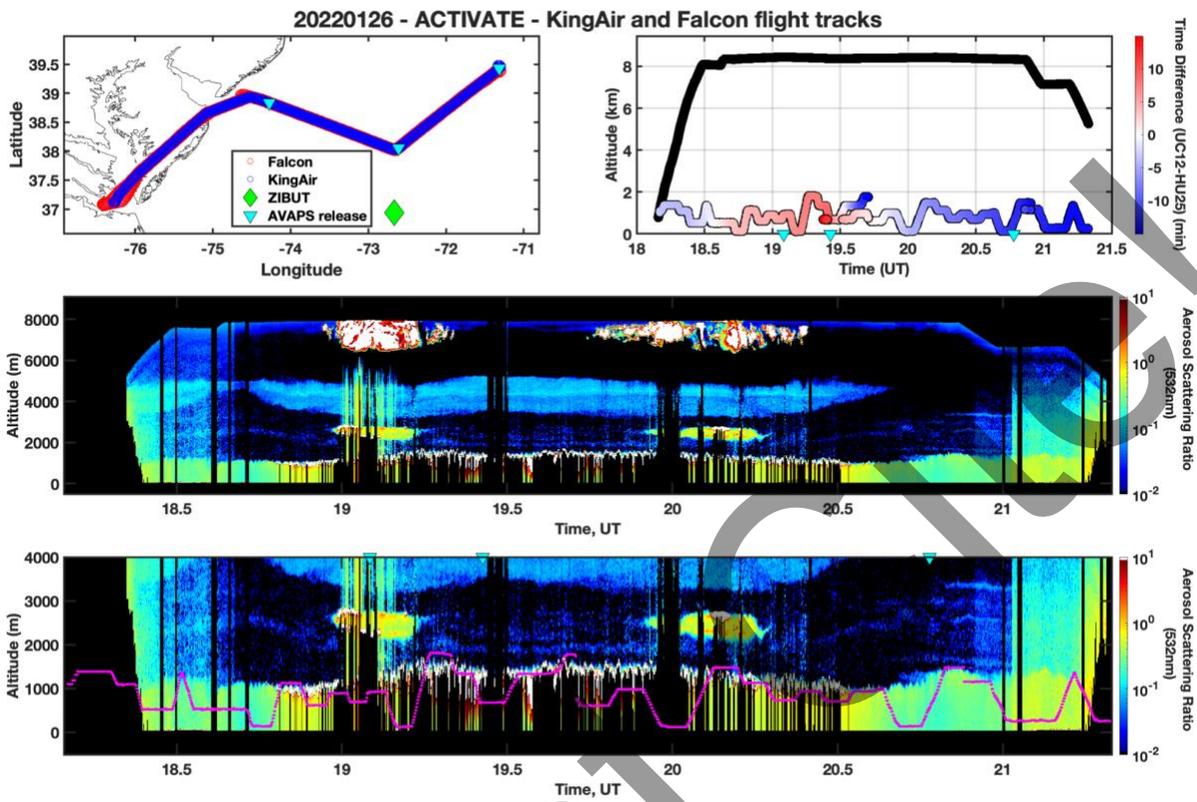
preliminary data, only for quicklook use
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PSD 26/01/2022 18:04:56-20:31:14

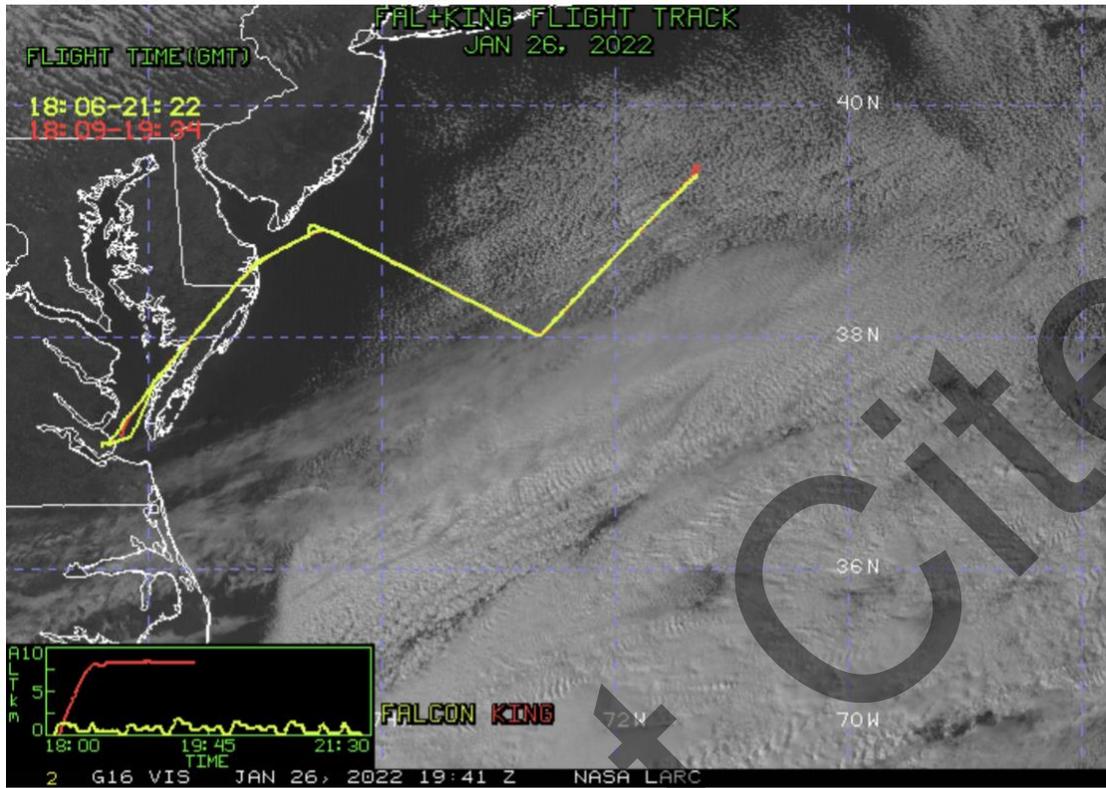


Mixed Phase clouds with only ice
Precip.

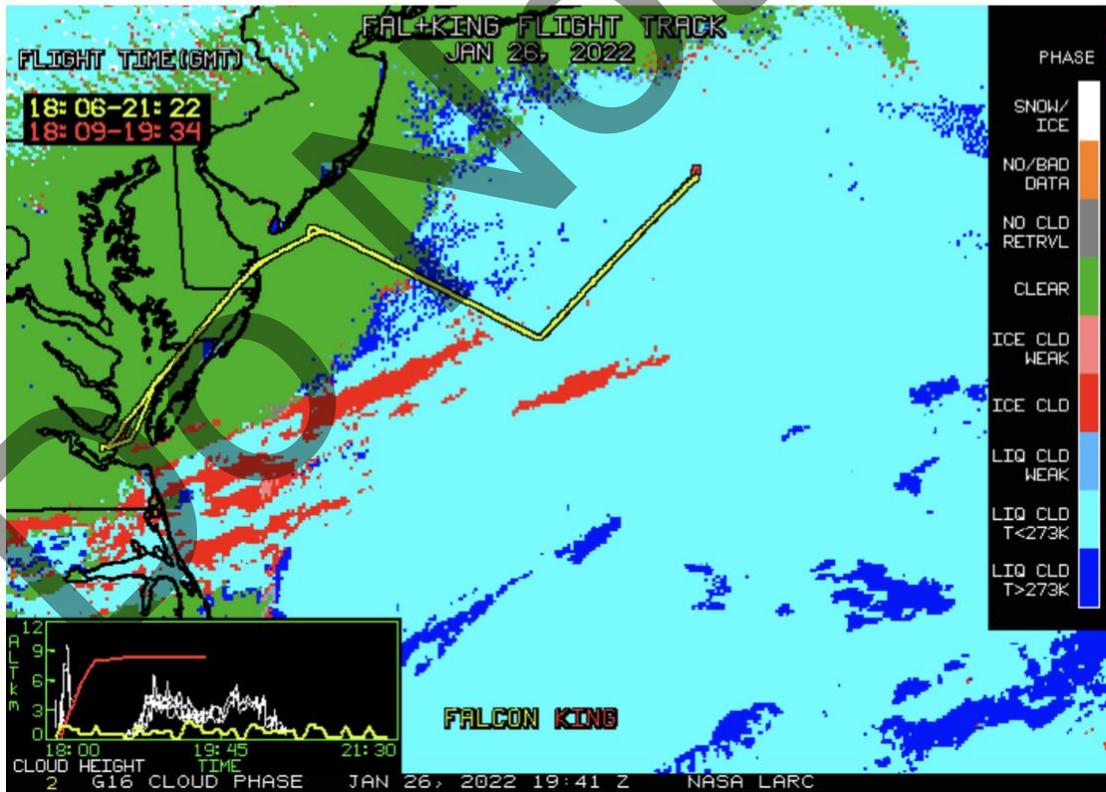


NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 112, 19:41 UTC Jan 26, 2022

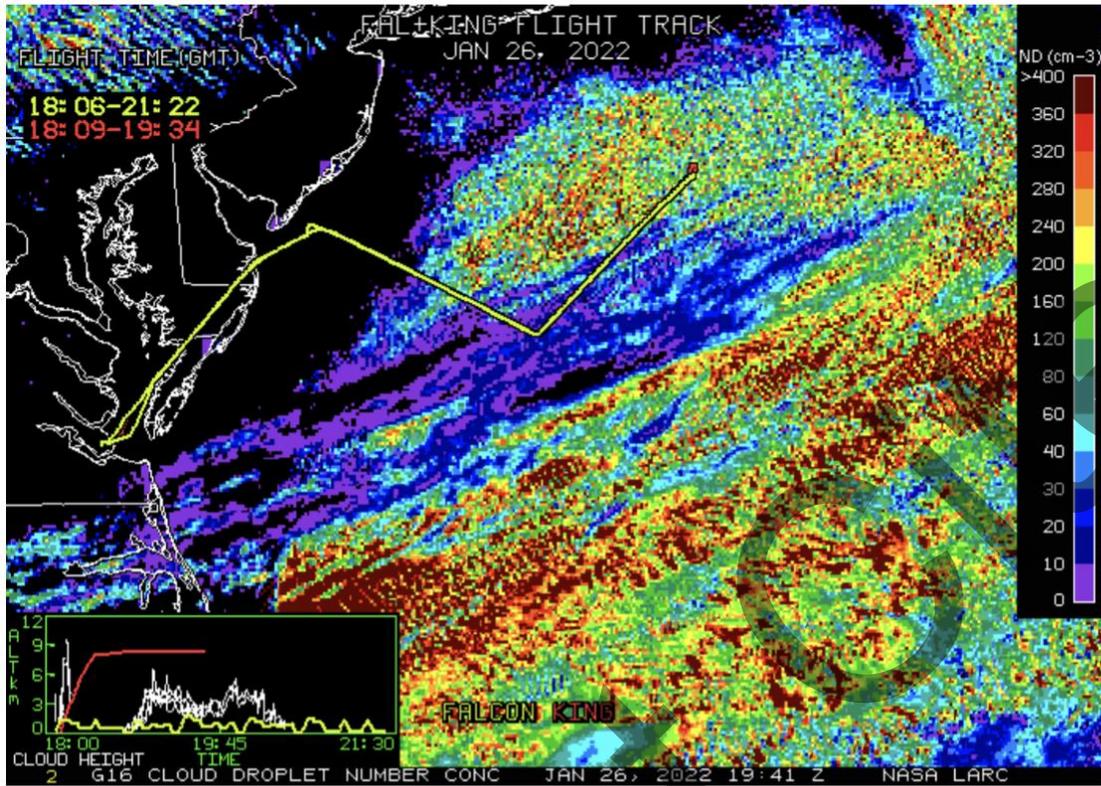
Visible Image



Cloud Phase



Cloud Droplet Number Concentration (cm-3)



Cloud-Top Height (Kft-ASL)

