

Flight Scientist Report  
Saturday 06/11/2022 ACTIVATE RF172

Flight Type: Statistical Survey Flight  
Flight Route:  
Special Notes:

### **King Air**

Pilot report (Slover):

ACTIVATE statistical survey flight to the south of Bermuda and return with overflight of Falcon spiral point close to island. There was a research power system malfunction where a power interruption required all research equipment to be shut down and restarted. Most systems were recovered in 10 minutes, but dropsonde computer had a card without power. Eventual recovery obtained after about 30 min.

Flight scientist report (Shingler):

TXKF TUDIE 3156N06611W 2800N06630W TRYEB 3215N06500W 3212N06445W TXKF  
Started out with a very shallow boundary layer and a layer of dust from 3-5kft. We had a research power glitch along the money leg and it took about 10-15 minutes to recover HSRL and about 30 minutes to recover AVAPS. Research equipment was not fully operational until the turn at the furthest point. Along the return the dust layer was present again from 4-6kft. Shallow boundary layer less than 500 ft passing ROOFE.

4 sondes dropped  
Turn point  
1/3 along return  
2/3 along return  
Spiral (Tudor hill)

### **Falcon**

Pilot report (Baxley):

ACTIVATE coordinated HU-25 and UC-12 flight; Baxley/Elder, Crosbie/Winstead TXKF - ADEM - TRYEB - 2900N/06930W - TRYEB - 3215N/06500W - TXKF Deviated from flight plan at direction of research team to find desired weather. Spiral at Tudor Hill up to ~14,000' MSL. No anomalies noted.

Flight scientist report ():

Winstead:

12:25:30 LAS recording started 30 seconds after takeoff

12:26:30 Virus filters A & B - ON

12:25:00 Virus filter A – OFF

12:43:00 Virus filter A – ON

12:58:48 Wet neph RH < 100% after climbing to 5000 ft

13:03:00 Neph zeroed

13:11:30 Virus filter A – OFF

13:20:45 Virus filter A – ON

13:28:00 Wet neph reading < dry neph. May be because of dust

13:30:25 Virus filter A -OFF

13:32:00 Virus filter A – ON; Humidifier RH active control on

13:35:40 Virus filter A – OFF

13:54:15 Virus filter A – ON

13:58:45 Virus filter A – OFF

14:01:45 Virus filter A – ON

14:14:30 Wet neph reading < dry probably because of dust

14:32:45 Virus filter A – OFF

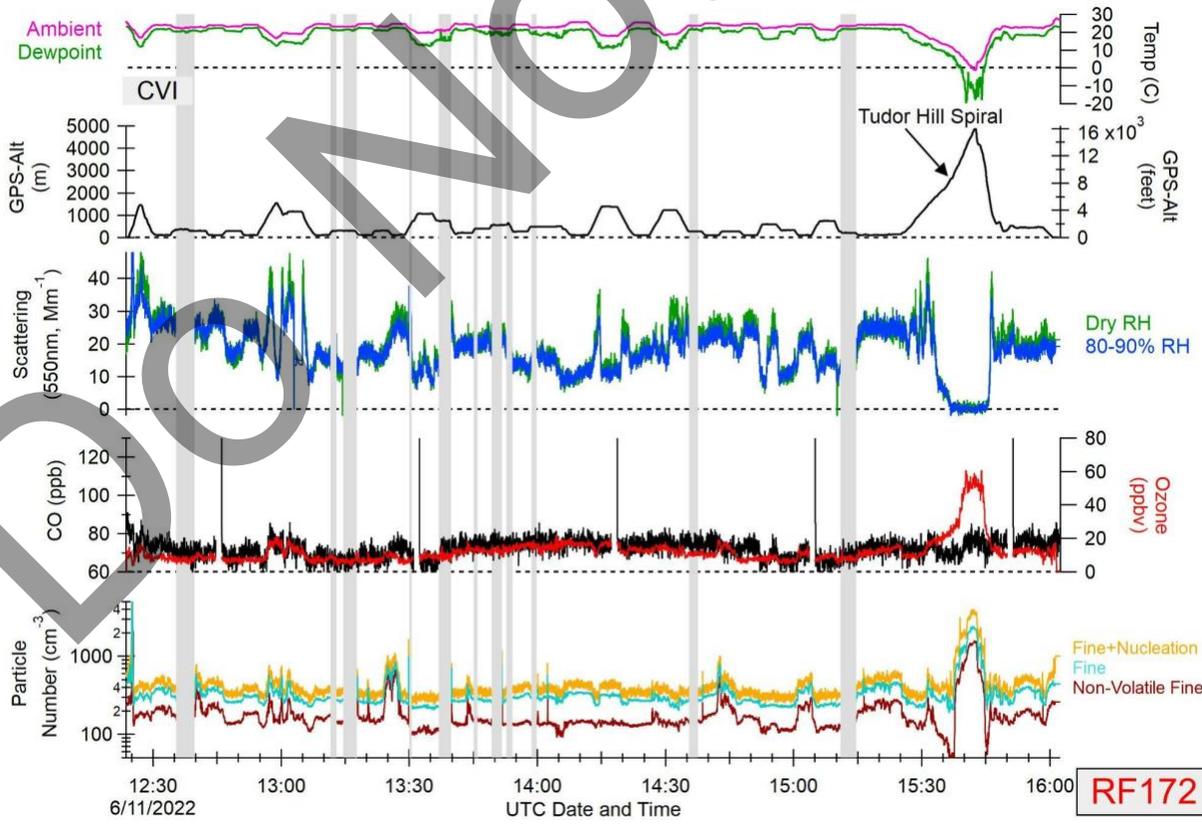
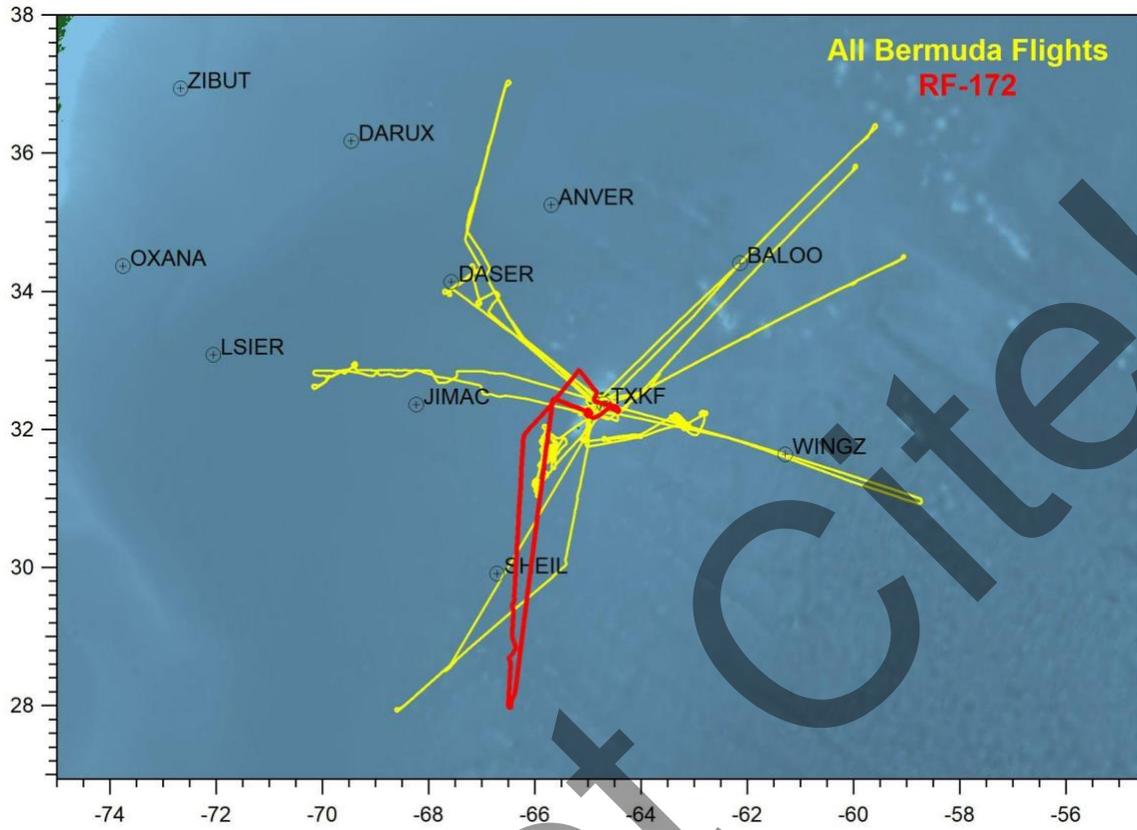
14:39:30 Virus filter A – ON

15:09:00 Virus filter A – OFF

15:15:00 Virus filter A – ON

15:23:40 Start spiral up at Bermuda coast

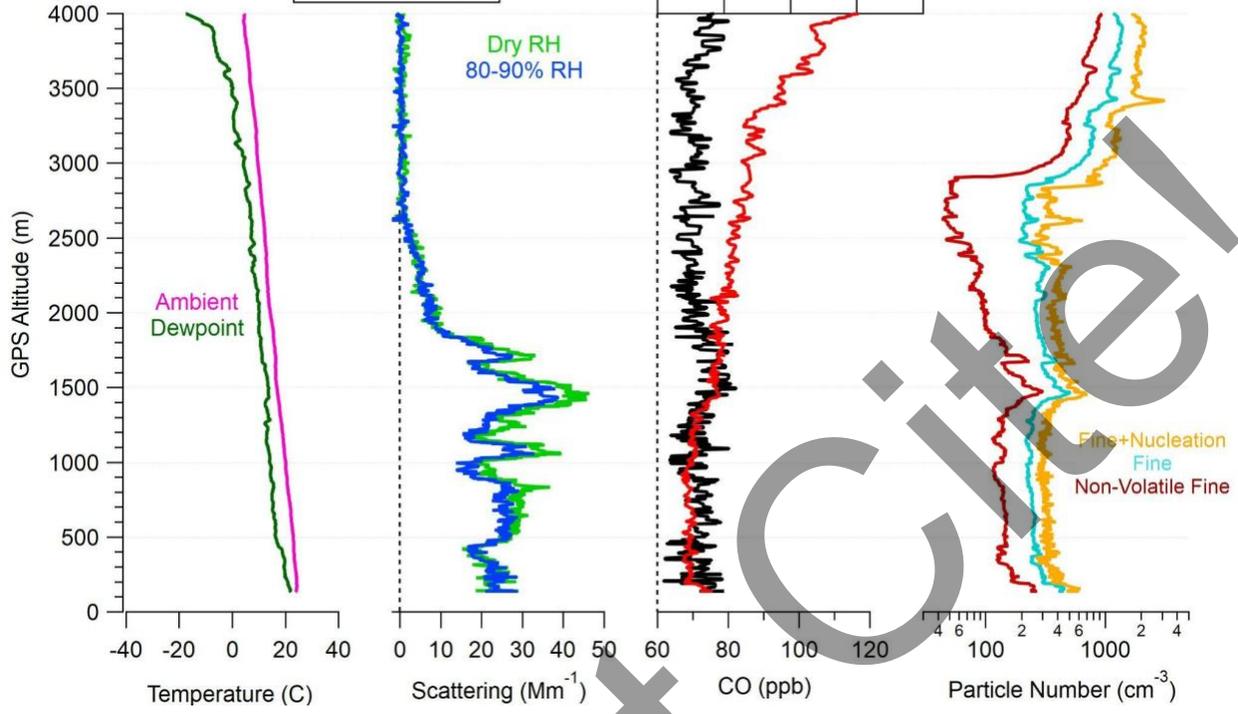
15:45:30 Filters A & B off and WCM & humidifier turned off



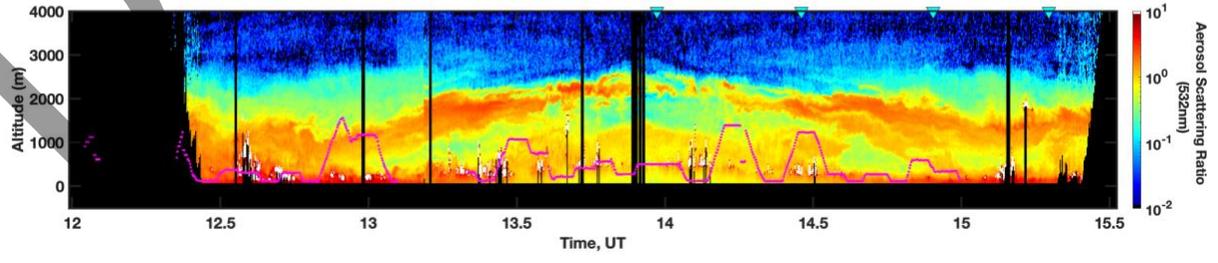
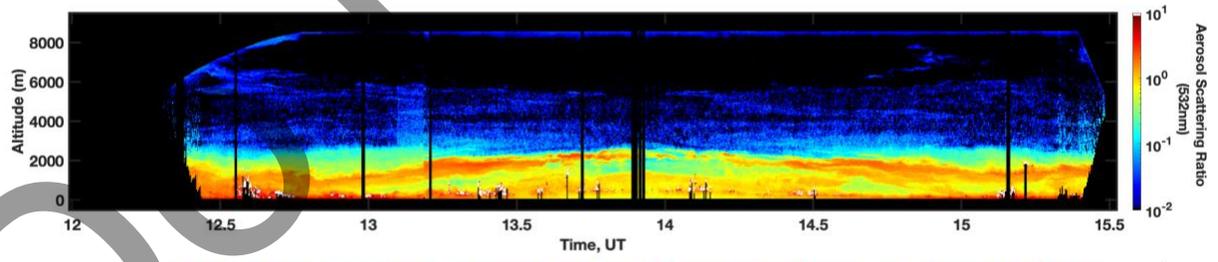
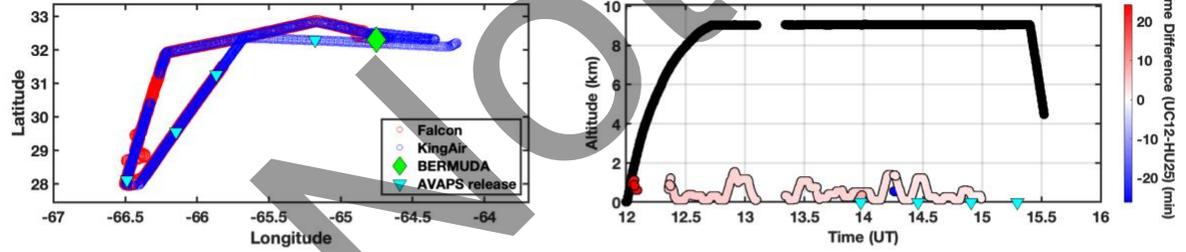
# Tudor Hill Spiral

6/11/2022  
15:24 - 15:42 UTC

RF172



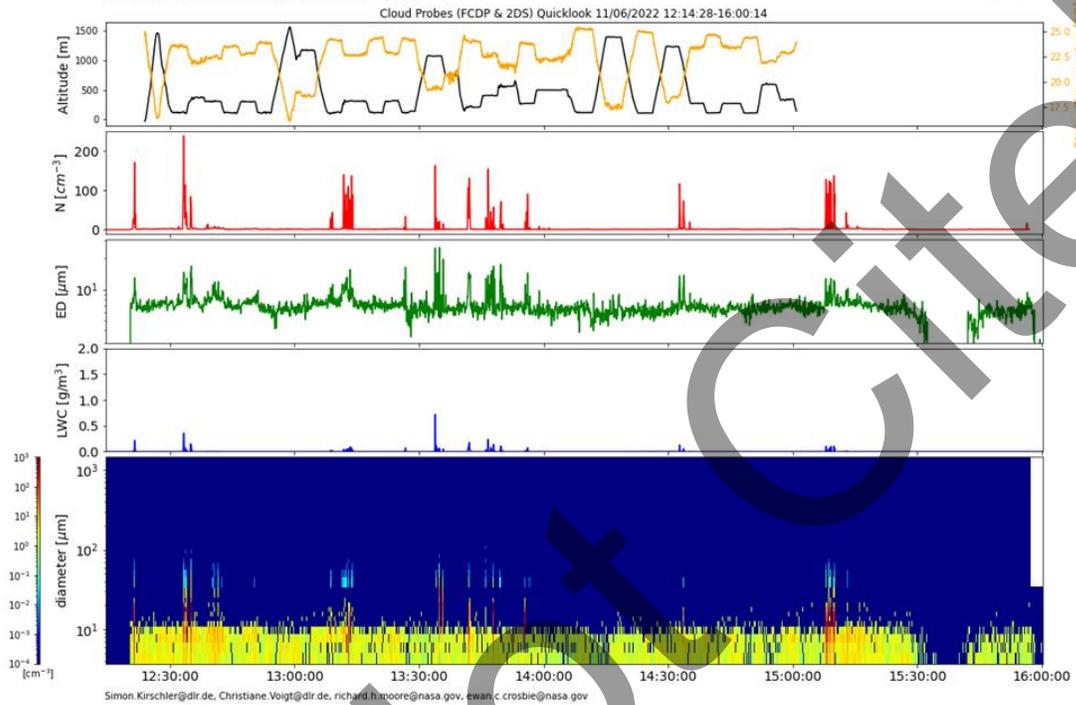
## 20220611 - ACTIVATE - KingAir and Falcon flight tracks



# Quicklook ACTIVATE Cloud Probes (FCDP & 2DS) Quicklook

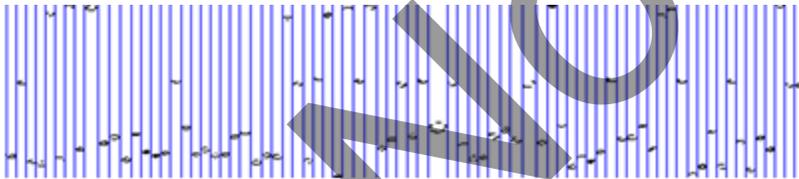
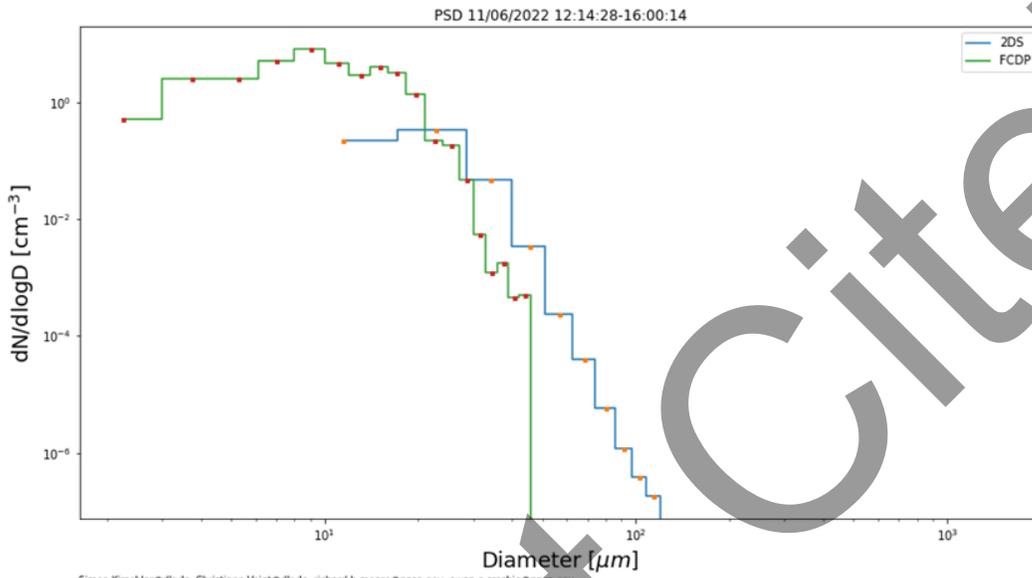
preliminary data, only for quicklook use

Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie



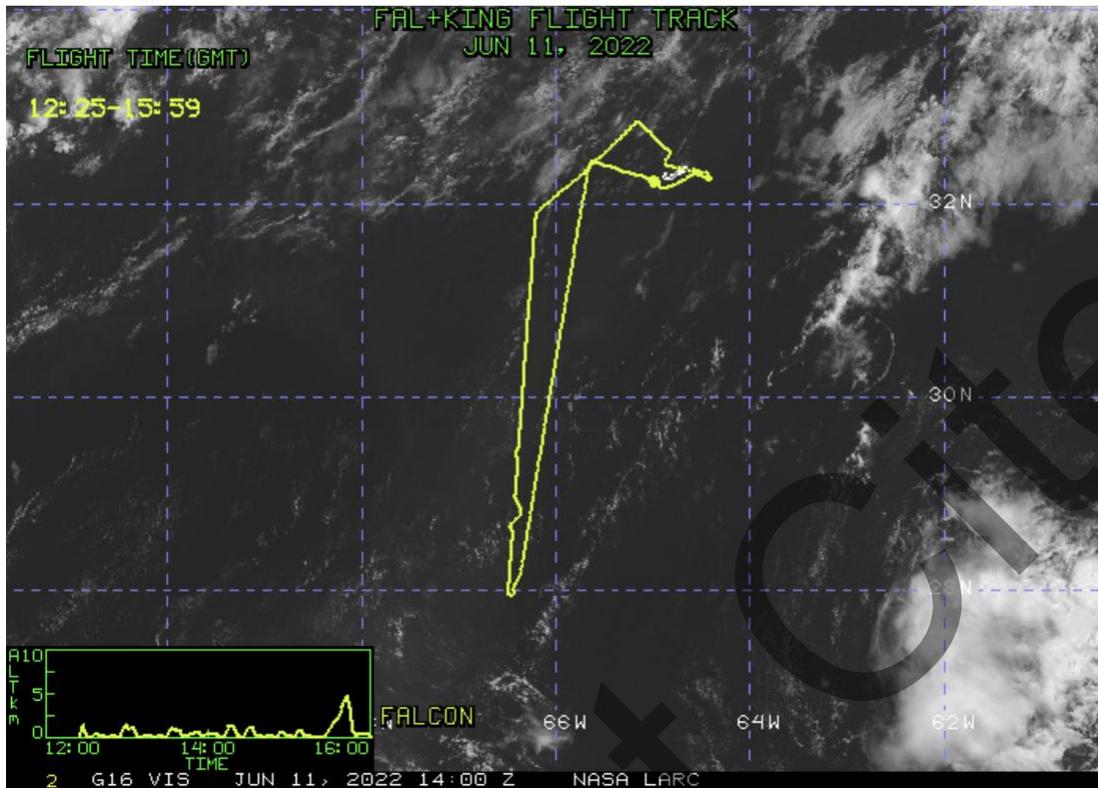
# PSD ACTIVATE

preliminary data, only for quicklook use  
Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie

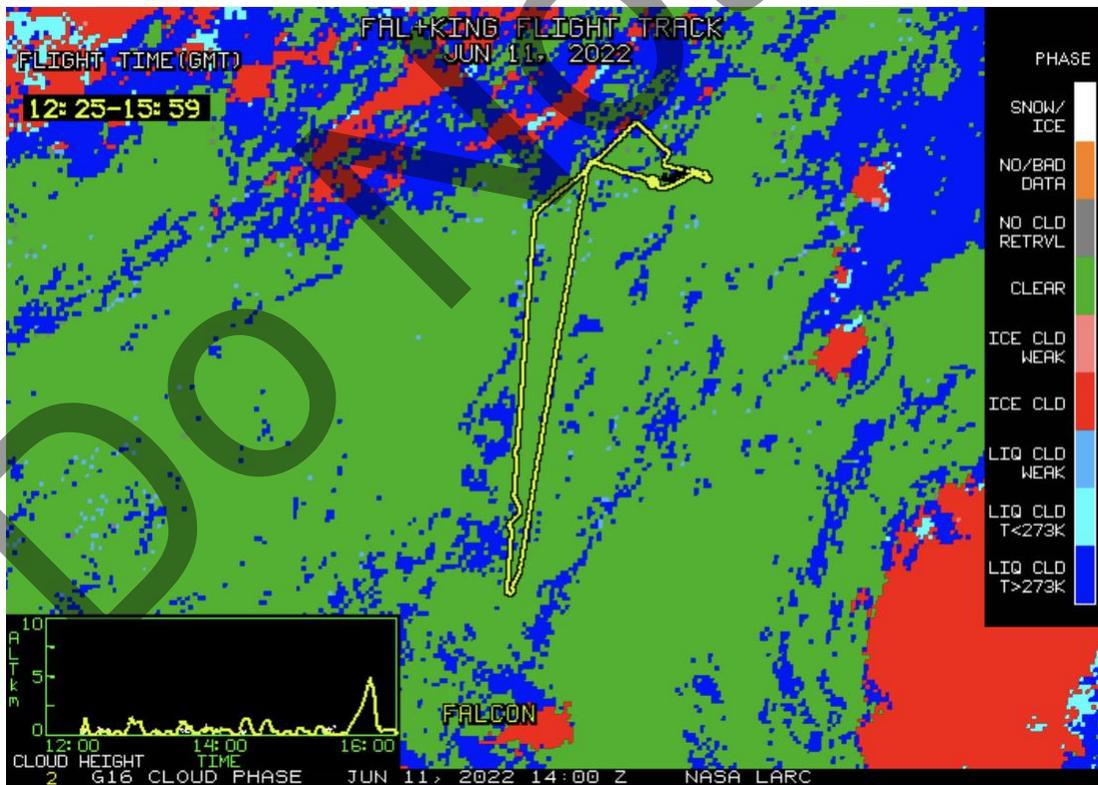


Only pure liquid clouds without Precip.

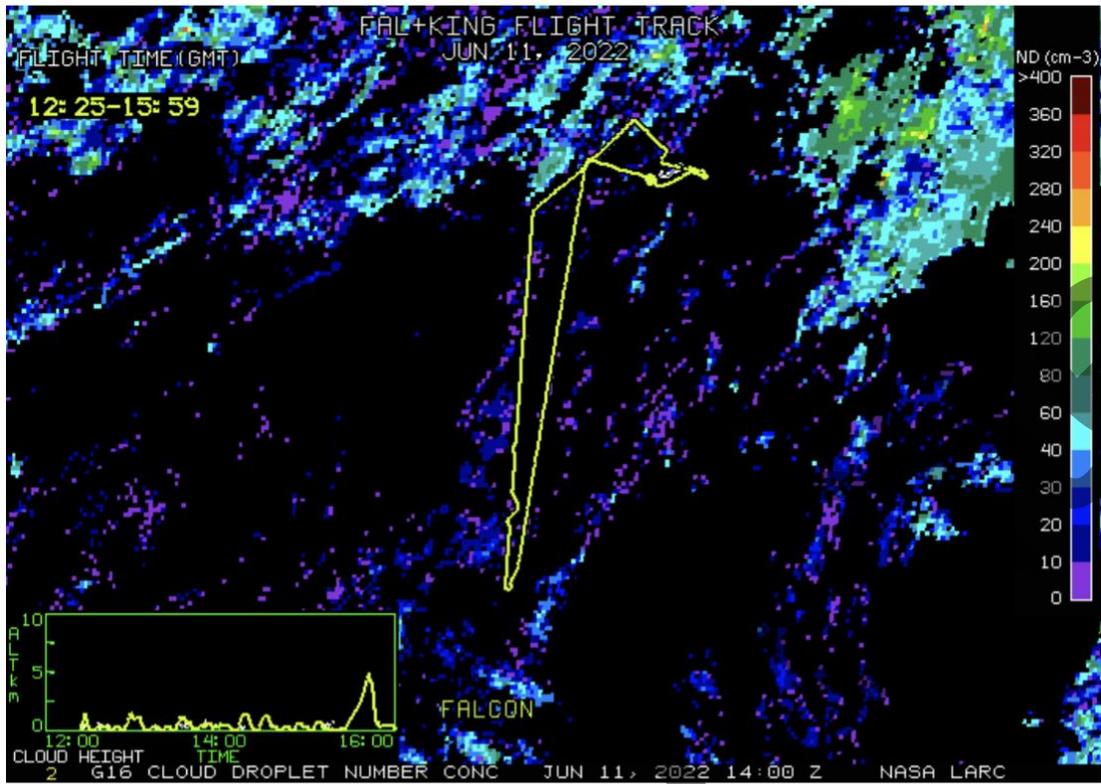
Visible Image



Cloud Phase



Cloud Droplet Number Concentration (cm-3)



Cloud-Top Height (Kft-ASL)

