

Flight Scientist Report  
Monday 03/07/2022 ACTIVATE RF135

Flight Type: Statistical Survey Flight

Flight Route: KLF I OXANA 3215N07225W OXANA ECG KLF I

Special Notes: First of two flights. Area south of Oxana was good for low-cloud characterization. A goal for today was to compare this and the next flight to study diurnal evolution of Marine Boundary Layer characteristics. Note that the King Air had a maintenance issue for the 2<sup>nd</sup> flight on this day.

### King Air

Pilot report (Sandeen):

Flown as briefed, ECG OXANA 3215N07225W OXANA ECG, except that direct KLF I was requested passing MQI (between OXANA and EGC). Direct routing allowed a much more expeditious recovery to runway 26 (5-10 minute flight time saved). HU-25 also deviated from planned route on return, and flight path was not coincident on return but was relatively close. Return route was closer than typical flight as Air Traffic Control usually routes King Air to the West for sequencing, creating significant differences in flight path. Aircraft were within 10 minutes the entire sortie. 3 dropsondes (OXANA, end point, and 12 nm offshore). No issues. No clouds encountered at altitude. Winds generally 20-40 knots from Southwest. No issues with instruments noted. UC-12 had to shutter laser when NASA426 passed directly underneath 3-4000 ft below. Aircrew: Sandeen/Coldsnow/Shingler

Flight scientist report (Shingler):

KLF I ECG OXANA 3215N07225W OXANA ECG KLF I

On the way out, looks to be high aerosol loading the the BL which extended up to approx 5kft with areas of elevated depol near the top of the residual layer. Once we transitioned off the coast part way out to OXANA, the MBL started to grow with in the BL and convection started to form (messy scattered shallow cu with mixed bases/tops). Near the end of the track the residual layer became a bit more stable with tops right at 4kft. On the return things look very similar to the way out.

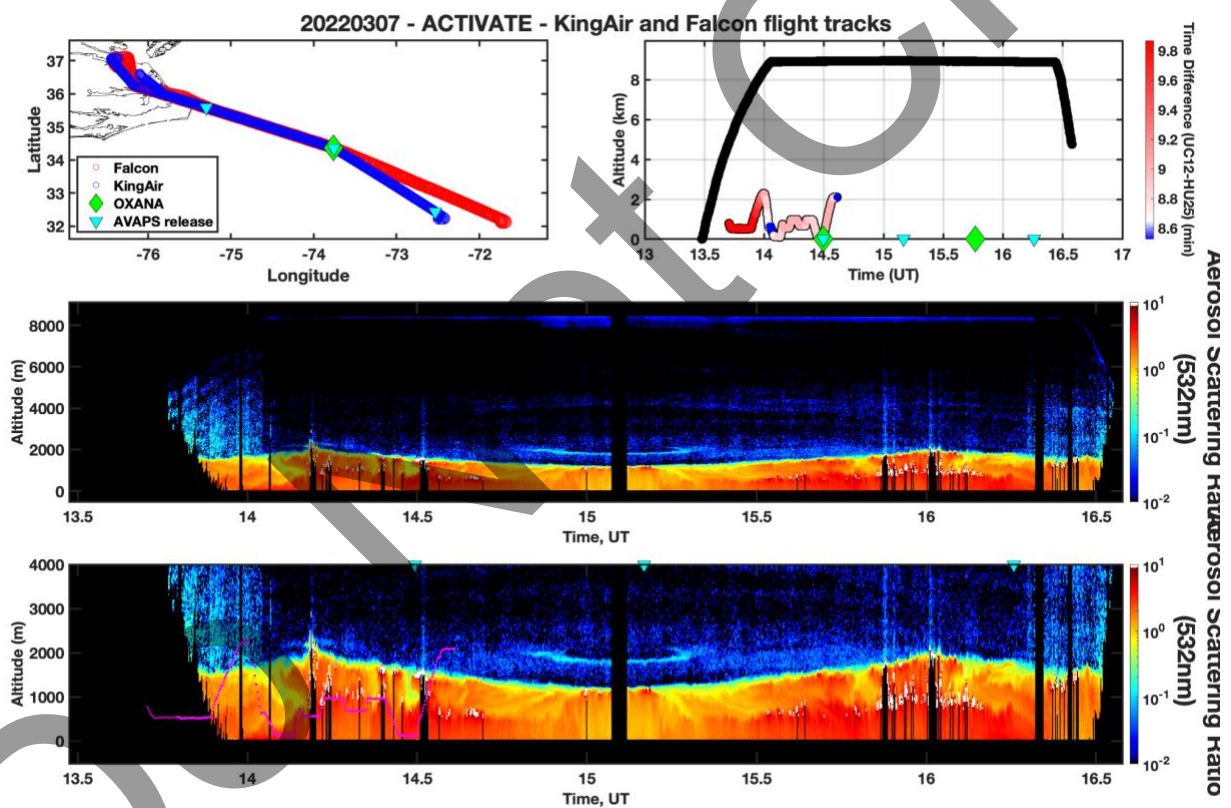
3 SONDES  
OXANA  
TURN  
COAST

## Falcon

Pilot report (Baxley):

HU-25 coordinated flight with UC-12; P-3 same route of flight 3 hours later Baxley/Elder, Ziemba/Windstead KLF I OXANA 3215N07225W OXANA ECG KLF I Weather as expected, flight flown as briefed. No known issues.

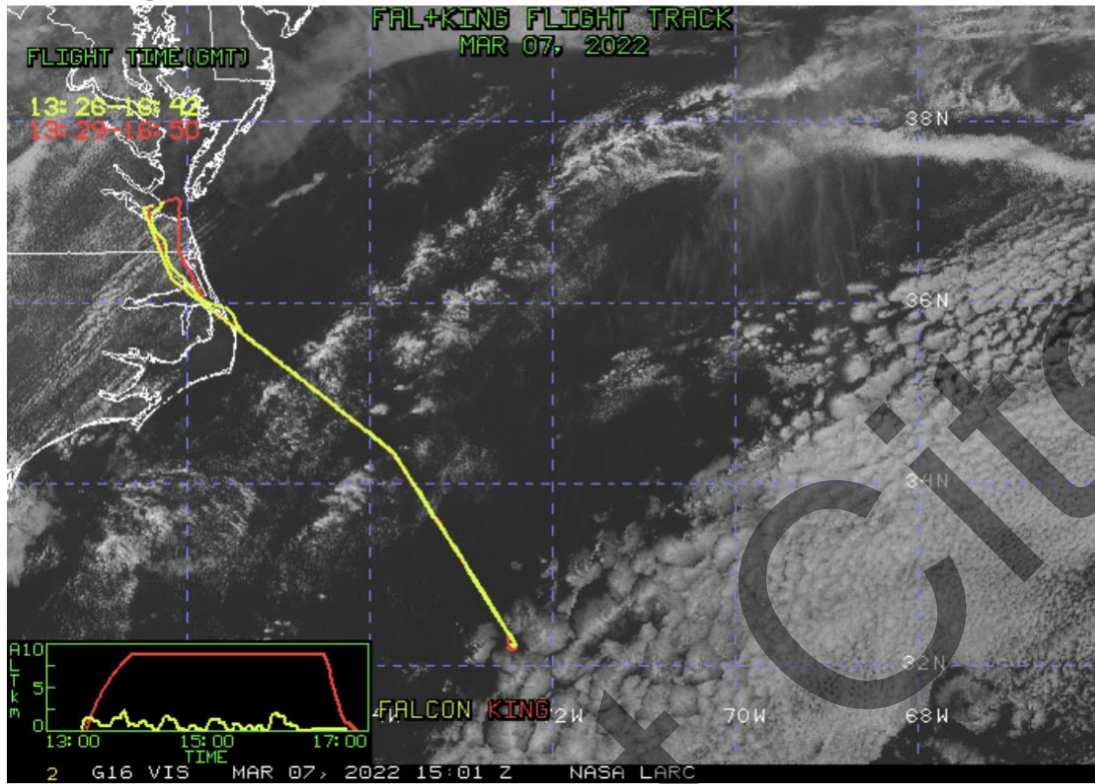
Flight scientist report ():



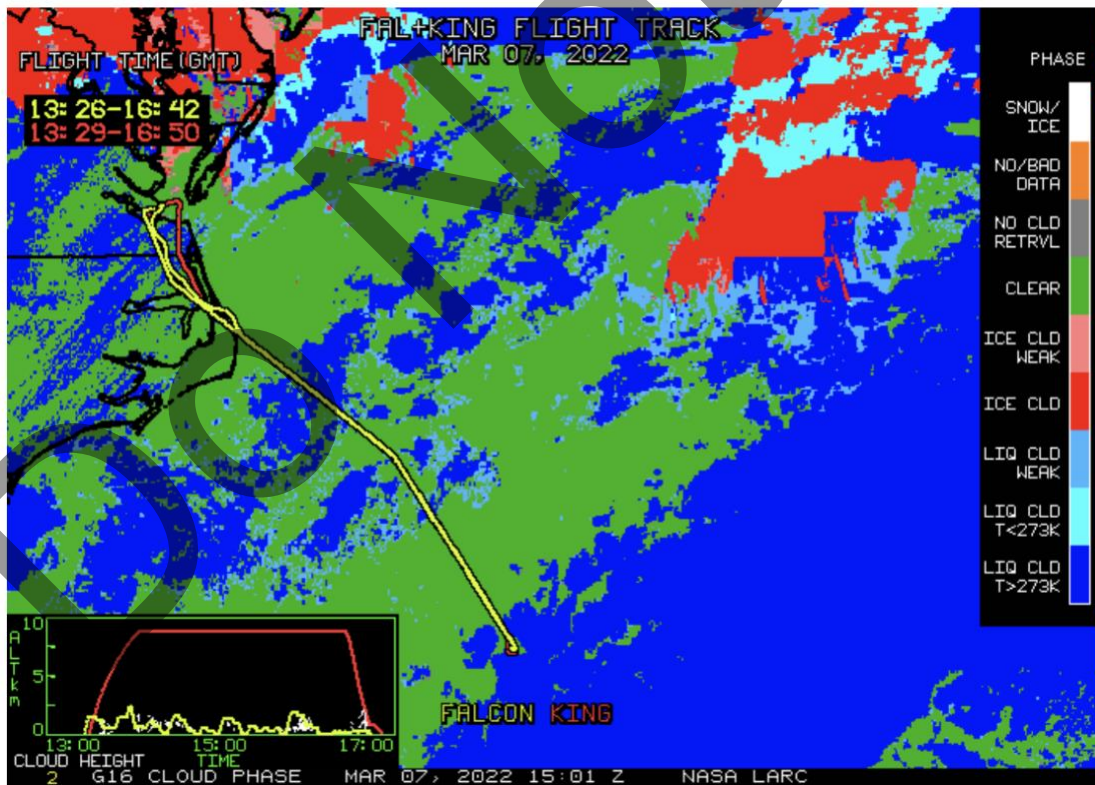
NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 135, 15:01 UTC Mar 07, 2022

Do Not Cite!

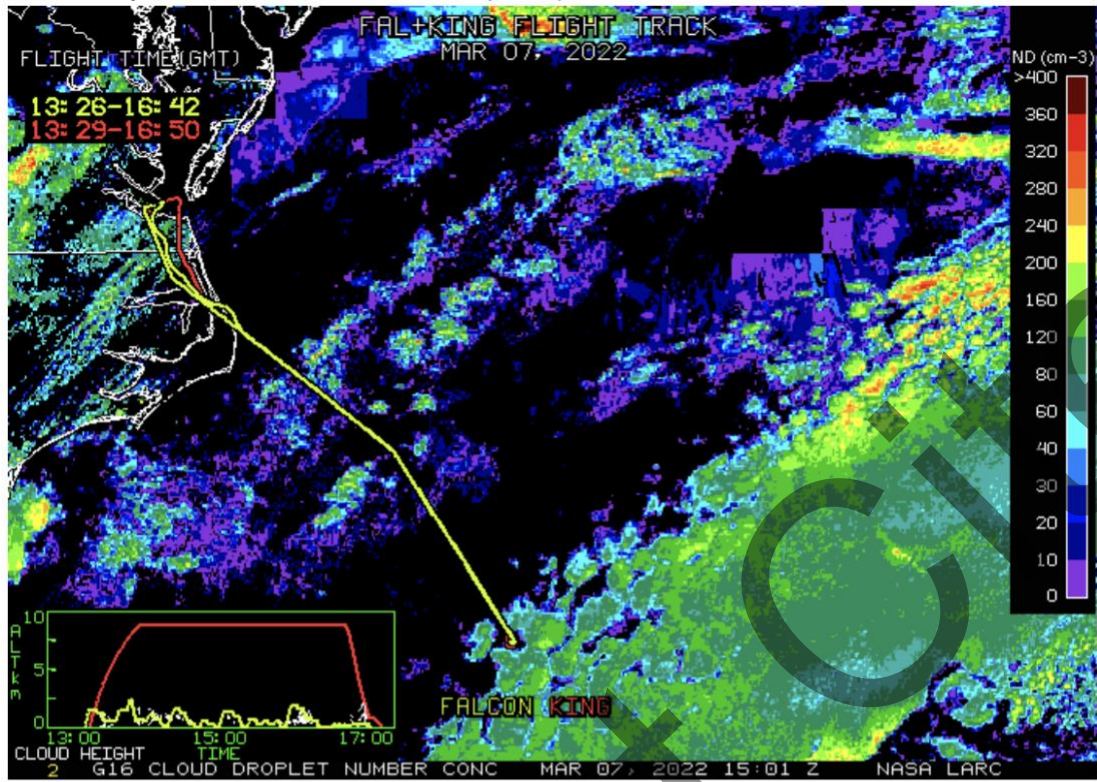
Visible Image



Cloud Phase



Cloud Droplet Number Concentration (cm-3)



Cloud-Top Height (Kft-ASL)

