

Daily Debrief 7/15/2016

Media Day & Formation Flying with the B200

Saturday's Activities – C-130

- C-130 is in the hangar where there will be access for the science team between 8:30 and noon tomorrow. At 1pm the plane will be pulled out the hangar to perform ground maintenance run for AC
 - The plan tomorrow is to have maintenance fix the fan and install the towels/plastic around the leak above the CPL instrument.
 - At 1pm the flight crew pull the plane out and run engines to ensure the air conditioning system is functional again.
 - There will be an afternoon weather brief at 4:30
 - No flights this weekend, next earliest flight is Monday
 - Calendar invite has been sent out
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Sunday

DOWN DAY

Monday

- AC planned to be delivered at 0800, 40 minutes to set up,
 - Potentially takeoff: 11am
 - Team is to provide inputs for manifest (attached above)
 - Plan to fuel for 8 hours
 - Ken to provide an updated plan Saturday 7/16/2016 to Jim
 - Plan on stormy profile
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C-130 Report for 7/15/2016

- Aircraft – flight station – good
- The flight went well today. No water issues on the MFL instrument. They did elect not to turn their instrument on during the flight.
- There was a minor water leak on the CPL side of the plane (see IMG 0931). The experimenter was not concerned but did ask that we look into reducing the water if possible. When I stuck my hand under the leak it was dripping at about 1 drop every 5 minutes. This appears to be normal condensation build up on the duct under the insulation (was exiting the duct insulation where the two pieces of insulation come together in the area of the strings in IMG 1095). Plan is to wrap this area with towels and plastic to reduce future discharges.
- There is a fan in the ducting just forward of this joint (red area in bottom left corner of IMG 1095) and the fan appeared to be working intermittently.
- Hygrometer continues to be problematic at high altitude

B-200 Report for 7/15/2016

- Aircraft is in good status
- Wind speed, dynamic and static pressure issue – will work the issue on Monday. Note: If GSE is available, work may be performed on the aircraft Saturday – Greg Slover working

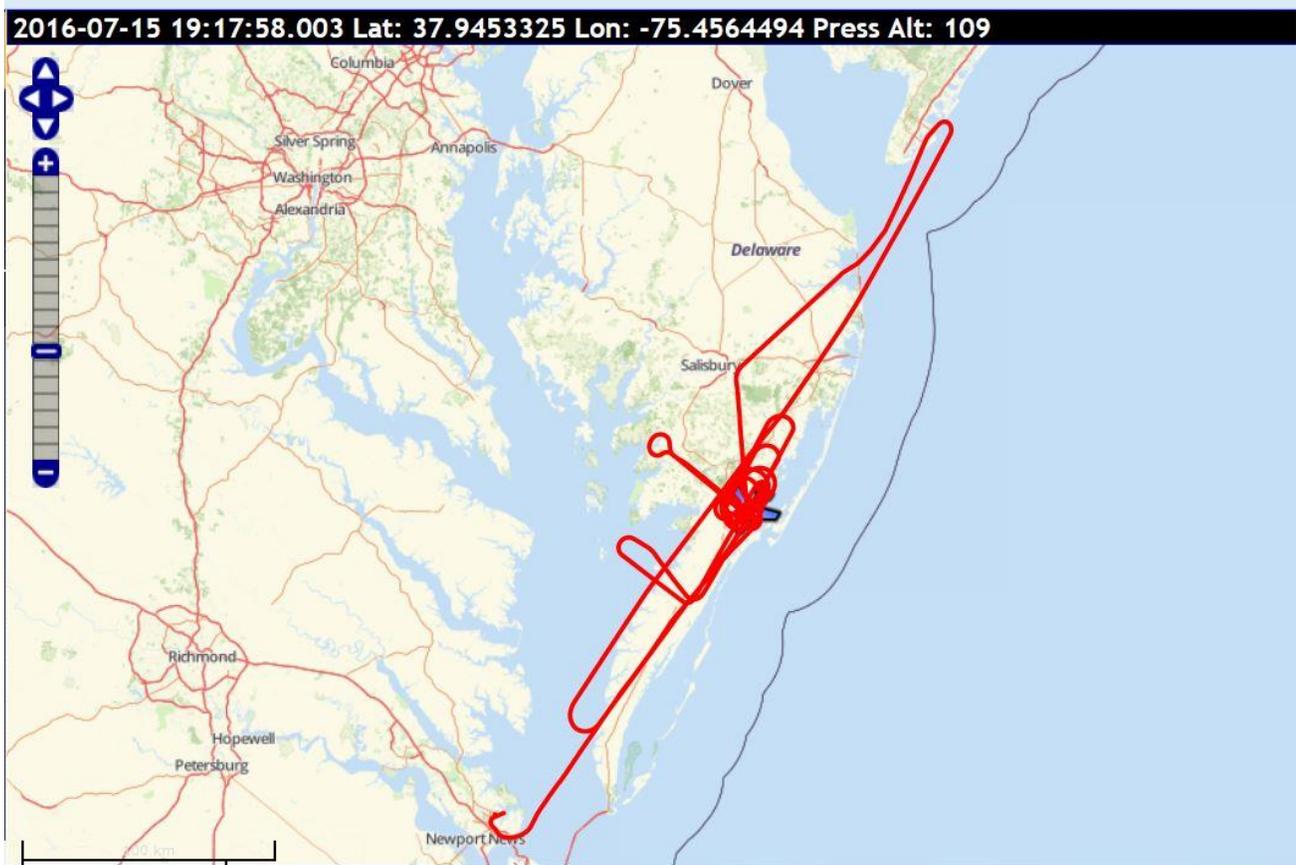
- Flaks will be ready for shipping out – Byron will work this Monday



IMG 0931



IMG 1095



Landing.JPG



IMG 0929

B200 Track File and Sequence – Greg Slover

All, here's a track file of today's King Air's inter-comparison flight today.

<http://www.foreflight.com/s/track/1468599794-90AEBFC4-EE19-45D9-AB69-787AA2525838/>

Our sequence went as follows:

- Takeoff KLF1 at 1245L
- Climb to 17.5K and orbit near CCV (Cape Charles).
- Rejoin with NASA 436 at 16.5K

- Researcher request to sample first inter-comparison at 15.5K MSL, 10 min accomplished NE bound from CCV to Wallops
 - Descend to 12.5K MSL on same heading and sample 10 more minutes NE bound until abeam Cape May
 - Separated formation at 13.5K MSL and sampled for two minutes
 - Climbed to FL280 until overhead Accomack County airport, KFMV
 - Spiral descent within 5 nm of KFMV until a low approach over the runway
 - Climb out from KFMV and return to KLFJ at 3K MSL
 - Land at KLFJ at 1503L
 - Duration = 2.3 hrs
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Short report on July 15 C-130 & B-200 joint flight from C-130 – Bing Lin

Today after Media Day activity, ACT-America team has successfully conducted the C-130 and B-200 joint flight. The two aircraft jointly flew two 10-minute flight segments (see attached photo): one at 16.5 kft altitude and the other one at 12.5 kft. Inter-comparison of the measurements from the two aircraft is on the way.

For C-130 it took off at 12:28 pm and landed at 3:18pm, with a total flight time about 3 hours. All instruments onboard except MFLI participated the joint experiment. MFLI did not have enough warm-up time after the media time, so, did not operate during the flight. The entire flight shortened. Generally all instruments performed well, except the hygrometer that still had problems on super-saturation. Radar altimeter was working.

During early flight segments, some scattered clouds were reported. Most of the time clouds were above the aircraft. Also, significant amounts of aerosols were found by CPL. Picarro found elevated layer of CO₂, CH₄ and CO in the atmosphere. For wind measurements, L-shaped flight had been done twice. Also, wind data from both clockwise and counterclockwise circles were collected at low level (1kft) around WFF. These wind measurement experiments provide wind cal/val data for wind instrumentation.

One major point: there was still some water dripping (cf attached photo), likely from air condition system, although it was not as bad as last time. There were no damages to instruments. WFF ground crew will test and check this water leaking tomorrow.

Thank-you below from Joe Atkinson about the media day today.

Hello all:

I just wanted to send out a big thank you to everyone who helped make this morning's ACT-America event a success. I know it took a big effort to get the C-130 down here today. Thing is, it was worth it. We had a solid turnout from media and lots of curious employees who really seemed to enjoy exploring the inside of the C-130 and learning more about the campaign. It was great for folks to see things firsthand and talk to the people doing the actual work.

And it was just an excellent way to build awareness of the great airborne science work we're doing. Can't wait to see some of the coverage.

I know there were *lots* of folks involved in making things happen who I didn't copy — I just don't know the names of everyone involved. So please forward this along to anyone I missed.

Thanks again!

I look forward to seeing some of you in the field a couple of weeks from now in Lincoln!

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Weather Brief – Brian Gaudet

The Wx briefing file is located on the Google Drive Link:

Folder NAME: July2016_Campaign

<https://drive.google.com/folderview?id=0B9cGPcwIS9gcOTFYUXZ4X0gxTXc&usp=sharing>

Filename: 20160715_1722_weather_briefing

A similar PDF has been also uploaded on LaRC site:

Link:

<http://www-air.larc.nasa.gov/missions/ACT-America/reports.2016/index.html>

Please look for "Forecast" column under 'Daily Reports'.

Filename:

2016-07-15_Forecast_20160715_1722_weather_briefing.pptx.pdf

EOM