Call notes, 5/12/15

Participants: J. Doyle, J. Moskaitis, W. Komaromi, J. Cossuth, A. Reinecke, D. Ryglicki, G. Tripoli, M. Bell, Russ Elsberry, P. Williams, E. Hendricks, B. Creasy, C. Helms, D. Cecil, N. Laudier, R. Ferek, X. Pu, D. Herndon, P. Black, B. Sanabia, C. Velden, J. Dunion, L. Harrison, M. Beaubien (I'm sure I missed some others).

Upcoming events:

- May 26: TCI call @ 1 pm Pacific time
- May 29: PATs training with Bob Creasey @ 1pm Pacific time
- June 24: Test flight at Ellington. Moved from June 10
- Instrument frequency deconfliction call will be arranged sometime in late May
- Training on MTS TBD, likely late June. If you want to follow MTS and familiarize yourself with the system, DC-8 is doing flights around Iceland in the coming days.
- Decision on whether or not to use HRD flight planning software to be made in the near future

Reminders:

- If you haven't already, fill out TCI staffing Doodle polls ASAP, or email J. Doyle.
- Input for ops plan due on 5/15. Goal is to have final draft assembled by 6/1.
- Google Doc regarding field catalog input coming out later this week. Please fill this out.

Flight Modules

- Generic flight patterns presented (out-and-back, alpha, butterfly) for 5.5 h WB-57 flights assuming 360 kt aircraft speed. These are pre-defined in PATs as starting points for flight plan development.
- Specific flight patterns presented for 5.5 h / 360 kt WB-57 flights for a few past cases (Ana, Earl, Gustav, Bertha). These patterns were developed to show the scope of the potential flight pattern relative to the TC and its outflow features. AMV plots for Earl, Gustav, and Bertha are pre-loaded into PATs to facilitate further flight pattern experimentation for these cases.
- Instrument and aircraft performance considerations for flight planning. HIRAD prefers straight, level flight over winds of 30 kt or greater. Swath width is 40-50 km, so out-and-back or lawnmower leg spacing of 40 km would give overlapping coverage. For HDSS, test flight in June will help define any issues in transmitting data from sonde to plane while plane is turning. Input from aircraft folks is needed to better understand how turns are made, typical ascent/descent time to/from cruising altitude, and any other aircraft issues that would be relevant to flight track and drop planning.
- Can we fly over Cuba? – should be able to fly over commercial flight path, although risk of last-min denial by Cuban ATC exists. Could plan for 2 different flight paths.
- Need to decide on optimal turns: 45/90/135 degrees? Smaller turns save time but might not be optimal for sampling features of interest.

HDSS update:

- Sondes are launched from DC-8 flying around Iceland.
- Working on pushing drop data to MTS, more automation needed.
- Dave Emmitt dropped 5 sondes w/o help from Yankee team.
- 90-100 more drops planned.
- P. Black comments on noisiness in wind data (Lee looking into it) and slow response of RH sensor (inherent to sensor)
- Data dropouts during turning maneuvers should be less of an issue for us since WB-57 HDSS system equipped with 4 antenna; should always have at least 2 antenna in line of site with dropsonde.
- We can release up to 10 sondes per minute (1 per km) which could potentially provide unprecedented coverage in core / eyewall.
- Can release from ~53 kft after a half hr, can reach ~60 kft about midway through flight after some fuel has burned off.

Other Items:

- N. Laudier updating action item spreadsheet
- J. Dunion: CARCAH needs input by 1000 EDT. Working on format for input with CARCAH.
- B. Creasey: Working with NASA on output format for mission planning software.
- J. Dunion: X-chat. Can we make special room for TCI?
- J. Dunion: We can make WB-57 latest plan available to other groups via MTS.
- If SHOUT extends into October, TCI could stay at Wallops with SHOUT, but most likely TCI will use virtual ops in October. If we cannot use Wallops in Oct, TCI flights would likely be out of Ellington.
- S. Williams: Will work to set up Ready Talk for use in future calls.
- R. Ferek: Resources available for roughly 3 cases of ~3 flights each. If we have used the resources and a fantastic case comes up, additional resources likely can be found.
- Natalie: develop repository of flight plans with corresponding science objectives.