

NASA DC-8 GRIP Campaign Lessons Learned



Frank Cutler
DC-8 Project Manager
frank.w.cutler@nasa.gov
(cell) 661 810 6944



- **Instrument integration period**

1. Aircraft maintenance crew staff rotation during upload period was disruptive
2. Important to hold daily science team/aircraft team meeting to stay on top of schedule and issues

- **Flight activities**

1. Continuing to change flight plan waypoints up to within one hour of departure was very disruptive to flight preparations
 - Suggest locking waypoints down at 3 hours prior to takeoff time and then making real-time changes after takeoff (which occurred in any case)
2. Science team is empowered to make requests for cooperative flight between other aircraft and satellites
 - Allow flight crews to work timing and navigation activities to accomplish



•Deployment locations

1. Ft Lauderdale

- Excellent services provided by SheltAir
- Unable to use DESC contact fuel vendor due to ramp and parking agreements
 - Solved with sole source fuel purchase agreement with SheltAir
- Embassy Suites Hotel accommodations were very good
- Excellent shopping/restaurants within walking distance

2. St Croix

- Bohlke International Airways, Inc. provided prompt aircraft services
 - Issue in not being able to provide air conditioning cart as promised
 - DESC contract fuel was available
- Very rough runway surface created high wear rate on tires



- **Crew Change during deployment**

- Assure adequate cross briefing between in coming/out going crews and science teams

- One possibility is to have at least one-day overlap between outgoing crew and incoming crew (same for mission and platform scientists), and to make a special effort in communication with the incoming folks.



•Diplomatic clearances

1. Cuba:

- Letter that ESPO received from Cuba was ambiguous regarding whether it specifically included flight over land or just the international corridors
- Require 72 hour notification prior to over flight
- Miami Air Route Traffic Control Center Cuba specialists gave detailed filing instructions to the flight crew and also provided the 72 notification to Cuba. [Jim McGrath jim.mcgrath@faa.gov tel: 305 716 1592; Hank Tracy hank.tracy@faa.gov]



•Diplomatic clearances

1. Venezuela:

- The State Department chose not to put forward a request to Venezuela
- Team assumed we would have access to international airspace controlled by Venezuela, but not sovereign airspace
- DC-8 and a NOAA G-IV aircraft were flying in Venezuelan controlled international airspace and asked to leave



•**St. Croix Landing After Hurricane Earl Passing**

- Regarding flight safety it was found that the aviation sources (airport tower, field FBO) were the ones to rely on
- Between RTMM and Xchat Ft Lauderdale had unprecedented sources and quantities of information but lacked the real-time in situ information
- Recommend aircraft team communicate back to science team ASAP the locally observed weather and planned actions
 - Resources like Xchat or Iridium phone would provide a reasonable communications link