Dry Run Lessons Learned
DFRC Aug. 29- Sep. 23, 2011

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Guidelines

• Planning and discussion at 8am PDT
  – Used Web-Ex (essential)
  – Met forecast (rotation set by J. Halverson) with on-line written reports
  – Discussion of possible targets
  – Work-up of hypothetical flight plans
  – Discussion of schedule & review of whether the plane could have actually flown as per the previous day’s plan
  – Written report by the Mission Scientist of the day
• Schedule updated daily w/r to conditions at WFF (flight planning spreadsheet)
• Flight rules (very useful)
Flight Rules

- Alert – 48hr prior to flight. Includes a detailed flight plan (12pm EDT)
- Go-no-go – no later than 20hr prior to flight *(before pre-flight)
- Cancelation – T-4hr (72hr preflight limit)
- Flight duration: <26hr
- Daylight takeoff & landing (civil twilight: 9/1 0604-1959, 9/30 0630-1913)
- Down day: 1 hard down day in an 11-day period
- Crew: 3 air crews, TO/land from GHMOF. Flight controlled from DFRC GHOC
- AC turnaround: 48hr turnaround for 1 AC.
- Wx: Winds < 15kts (cross), 30 (head), 25kts (tail). No lightning within 5nm, min. RVR 1 mile, no standing water on runway
- Chase aircraft requires 2500 ft ceiling (10AM & 2PM TAFS)
- In-flight Wx: No Cbs within 25 nm. Above FL500 – no lightning within 25NM in where cloud tops are reported at FL500 or higher. Maintain at least 10kft vertical separation from reported lightning if cloud tops are below FL500. No over-flight of cumulus tops higher than FL500, No flight into fcst or reported icing. No flight into fcst or reported moderate or severe turb
- Dropsondes over water
Lessons Learned

• We did not fly as often as we desired & might not have used all of our flight hours because of low ceilings and rain.
• We need to strategically call hard down days – a flight can happen 2 days after a hard down day.
• Better to alert for flight and then cancel than to miss an opportunity.
• Should have pilot participation (or on call for questions) in planning meetings
• Overland flights are problematic. Safety to determine acceptable areas
• A submission of 3 flight plans 48hr prior is OK, but should down-select to 1 within 24hr. Need dropsonde plan with each flight plan – can be altered with FAA permission
Lessons Learned (continued)

• Should have WFF fcst participation in weather discussions (e.g., fcst severe Wx/precip/low clouds at landing could lead to a flight cancellation)

• Labor – Sufficient to schedule/assign the in-field mission scientist and forecasters 2-3 days in advance. They should plan to support the deployment for a minimum of one week, with a minimum one full work day overlap with their replacement(s).

• Tools: WebEx, Compass, Flight Planner (need to train up a few more persons)
Things for 2012

• Dry run did not include coordination with other aircraft and CARCAH notification or Tri-Agency Webinar brief and objectives. How will these factors adjust our flights?
• Dry run did not include the reality of PMOF work running in parallel with fcst meeting and flight planning. Do we have enough staff and can we adequately coordinate?
# Daily Schedule

<table>
<thead>
<tr>
<th>Time (Local)</th>
<th>Daily HS3 Activity</th>
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<tbody>
<tr>
<td>09:00</td>
<td>Mission Forecaster Presentation</td>
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<tr>
<td>10:00</td>
<td>Inter-agency coordination meeting</td>
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<tr>
<td>11:00-13:00</td>
<td>Flight planning</td>
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<tr>
<td>12:00</td>
<td>Dual-Agency Webinar brief and objectives (optional)</td>
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<td>13:00</td>
<td>Alerts for next several days out and Go /No go decision for tomorrow (~48hr for GH)</td>
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<th>GH</th>
<th>P-3</th>
<th>G-IV</th>
<th>C-130</th>
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<tbody>
<tr>
<td>Decision</td>
<td>48hr</td>
<td>24hr</td>
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<tr>
<td>Preflight Brief</td>
<td>T-4</td>
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<tr>
<td>No-go call</td>
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<td>Power On</td>
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<td>Doors Close</td>
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<td>Takeoff</td>
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<tr>
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<td>Debrief</td>
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