

Lead Project Scientist

Preflight

- _____ 1. Participate in general mission briefing.
- _____ 2. Determine specific mission and flight requirements for assigned aircraft.
- _____ 3. Determine from field program director whether aircraft has operational fix responsibility and discuss with AOC flight director/meteorologist unless briefed otherwise by field program director.
- _____ 4. Contact HRD members of crew to:
 - a. Assure availability for mission.
 - b. Review field program safety checklist
 - c. Arrange ground transportation schedule when deployed.
 - d. Determine equipment status.
- _____ 5. Meet with AOC flight director and navigator at least 3 hours before take-off for initial briefing.
- _____ 5. Meet with AOC flight crew at least 2 hours before take-off for crew briefing. Provide copies of flight requirements and provide a formal briefing for the flight director, navigator, and pilots.
- _____ 6. Report status of aircraft, systems, necessary on-board supplies and crews to appropriate HRD operations center (MGOC in Miami).
- _____ 7. Before take-off, brief the on-board GPS dropsonde operator on times and positions of drop times.
- _____ 7. Make sure each HRD flight crew members have life vests
- _____ 7. Perform a headset operation check with all HRD flight crew members. Make sure everyone can hear and speak using the headset.
- _____ 8. Collect "mess" fee (\$2.00) from all on-board HRD flight crew members.

In-Flight

- _____ 1. Confirm from AOC flight director that satellite data link is operative (information).
- _____ 2. Confirm camera mode of operation.
- _____ 3. Confirm data recording rate.
- _____ 4. Complete Lead Project Scientist Form.
- _____ 5. Check in with the flight director to make sure the mission is going as planned (i.e. turns are made when they are supposed to be made).

Post flight

- _____ 1. Debrief scientific crew.
- _____ 2. Report landing time, aircraft, crew, and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to MGOC.
- _____ 3. Gather completed forms for mission and turn in at the appropriate operations center. [Note: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]
- _____ 4. Obtain a copy of the 10-s flight listing from the AOC flight director. Turn in with completed forms.
- _____ 5. Obtain a copy of the radar DAT tapes. Turn in with completed forms.
- _____ 6. Obtain a copy of the all VHS videos from aircraft cameras (3-4 approx.). Turn in with completed forms.
- _____ 7. Obtain a copy of CD with all flight data. Turn in with completed forms.
- _____ 8. Determine next mission status, if any, and brief crews as necessary.
- _____ 9. Notify MGOC as to where you can be contacted and arrange for any further coordination required.
- _____ 10. Prepare written mission summary using Mission Summary form (due to Field Program Director a week after the flight).

Lead Project Scientist Check List

Storm or Project 6 Dennis Experiment name Post LANDFALL
 Date 10 July 2005 Aircraft 42 Flight ID 050710H

A. Participants:

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>P. DODGE</u>	Flight Director	<u>PAUL FLEHERTY</u>
Radar	<u>P. LEIGHTON</u>	Pilots	<u>P. Kennedy, B. Choi, M. SILAH</u>
Workstation		Navigator	
Cloud Physics		Systems Engineer	<u>STEVE WAPE</u>
Photographer/Observer	<u>R. ROGERS</u>	Data Technician	<u>SEAN McMILLAN</u> <u>MARK ROGERS</u>
/Guests		Electronics Technician	<u>JOHN HILL</u>
Dropwindsonde	<u>S. MURILLO</u>	Other	<u>Joe KRIFFEL, Roc (ground)</u>
AXBT/AXCP			

B. Take-off and Landing Times and Locations:

Take-Off: 1853 UTC Location: JAX NAS

Landing: 0216 UTC Location: " "

Number of Eye Penetrations: 4

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
	<u>29° 50'</u>	<u>86° 55'</u>		

D. Mission Briefing:

FLY Coastal Run, targeting tower teams

SFMR

E. —Equipment Status (Up ↑, Down ↓, Not Available —, Not Used O)

Equipment	Pre-Flight	In-Flight	Post-Flight	# DATs / Cds /Expendables/ Printouts
Radar/LF				
Doppler Radar/TA	↑	↑	↑	
Cloud Physics	O	O	O	
Data System	↑	↑ (-one screen)	↑	
GPS sondes	↑	↑	↑	
AXBT/AXCP	O	O	O	
Ozone instrument	?	?	?	
Workstation	↑	↑	↑	
Videography				

REMARKS:

STATION ONLY ONE SCREEN AT LPS STN.
~~DISCOVERED~~ FIXED. LATE IN FLIGHT main data window
display out - so harder to get w/pd

radars froze numerous times, but was
rebooted quickly each time.

several of the "sobre tierra" sondes
had NO LAUNCH DETECTS. Others did
not have winds all the way to sfc.

Lead Project Scientist Event Log

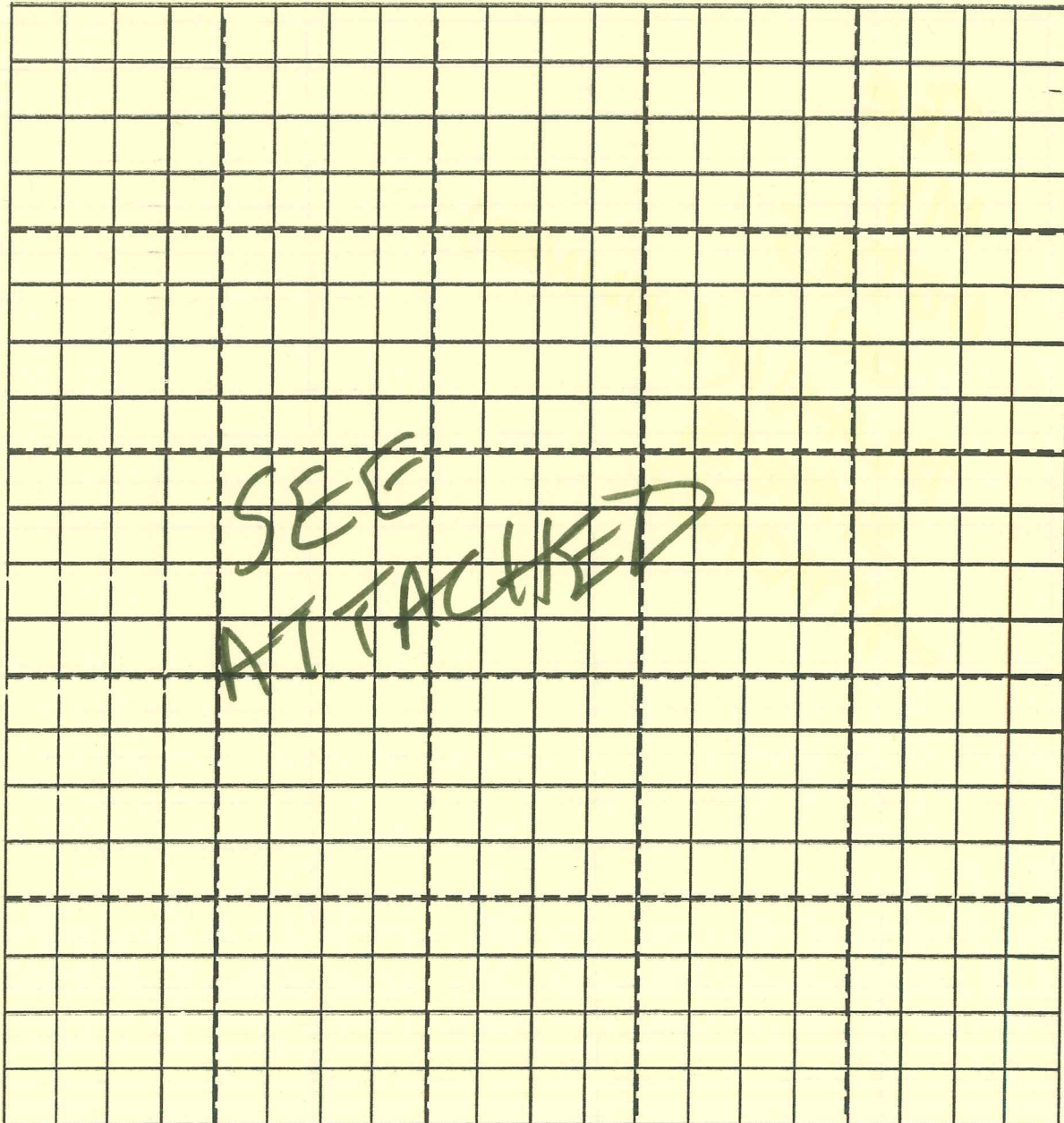
Date _____ Flight _____ LPS _____

[illegible]

Observer's Flight Track Worksheet

Date _____ Flight _____ Observer _____

Latitude (°)



Longitude (°)

① ~~076~~ 050710

T/O:

1923 could not contact TEAL so we are going to 14,000' now - instead of later

1929 SMFR showing GALE force - but didn't have land ready

~~1936~~ 1937 $\frac{1}{2}$ SONDE #1 29.65 84.32 SMFR 22 m/s
GOOD 35 KTS SFC 45 KTS SFC

1948 14 52 KTS SMFR GOOD SND #2 (then SMFR winds back down to 20 m/s!)
1950 24 ~~turn~~ 29.52' 85.10' turn to follow coast

2002 30° 08' 86° 07' FLT level only 66 KTS SMFR 48 KTS
not much wind for a cat 4 storm

2005 SND #3, first of sequence - at T3 Tower
SFC

2011  SHAPE to the eyewall

2012 21 SND #4 30° 13' 86° 54' NO WINDS NLD
SMFR 50 KTS
decided to wait until next point
eye completely empty south side

2016 37 SND #5 30° 10' 87° 12' NLD

② 050710H

202119 SND#6 GOOD launch detected

WE ARE AT GALE FORCE WINDS

STORM IS EITHER VERY COMPACT OR RAPIDLY DECAYING

FLT Level 28 KTS, SPMR 48 KTS

202752 SND#7 - ~~W~~ so we dropped to

see if it is gradient or funky SPMR

2152

90° or 89°

203642 SND#8 30°09' 80°76' near
through ^{H2007} 6 then we are turning to head ENE

2045 tracking 65° → 6, still only 35 KT FLT LVL

2053 flt level 60 KTS

2055 - WSW eyewall 78 KTS flt level
ENE u 82°9 u broad area

2104 we are in MOB EVX dual Doppler Lobe

210827 SND#9 31°06' 86°07' FLT Level ~65
(OVER LAND to NE) (SND HAD VERY FEW WINDS) KTS

2119 turn to head WNW to get to N Pt for

pass ~~so~~ N-S we'll drop 3 sondes inbound, incl CTR

2127 bouncing a bit

2149 - in heavier rain/snow

2150 at 32°39.5' 88°09' turning
sharply to head 8

3) 050700H

215240 SND #10 32°32' 88°19' @
FLT Level 52 KTS

2159 adjust to track 180°

2201 FLT level winds down to 30 KTS 70 nmi N of G

2204~~5~~ SND #11 31°45' 88°26'
Just outside rainband

2210 30mi to eyewall and FLT level on the NW side 41 KTS
TRACKING 135°

221601 47 SND #12 NW EYEWALL DROP
and Paul Hunting CR for Vortex Message

2219 marked center and drop 24 KTS 310°

2220: 31°36' 87°33'

2221 radars ↓ 66 KTS this side of storm

2235 at Gale Force Wind radius

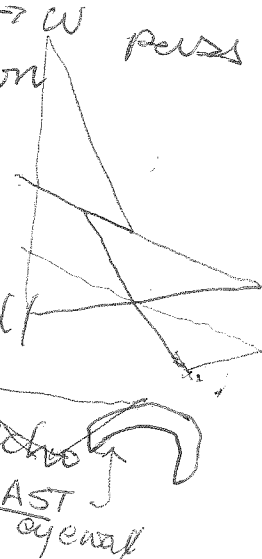
2300 We are heading 270 to do ~~180~~ E → W pass
then N-S pass to finish. | main data window down

2302 radars ↓ briefly

2309 in clear after passing thru E eyewall

2312 31°31' 87°32' in center of radar
which agrees well with Paul's center

2316 passing just S of intense echo in EAST eyewall



050710H (4)

2319:

34041 turn at 31.25° 89.85°
to head SE to point S of G for final pass

0069 we are headed N towards Mobile Bay
G is ~80 nmi of us

0024 - radars down again

0032 radars down

0036 36 31.96 , 87.67

N eyewall
SONDG #15

radars back up then also.

004

004732 32.58 87.04
last sonde

NLD

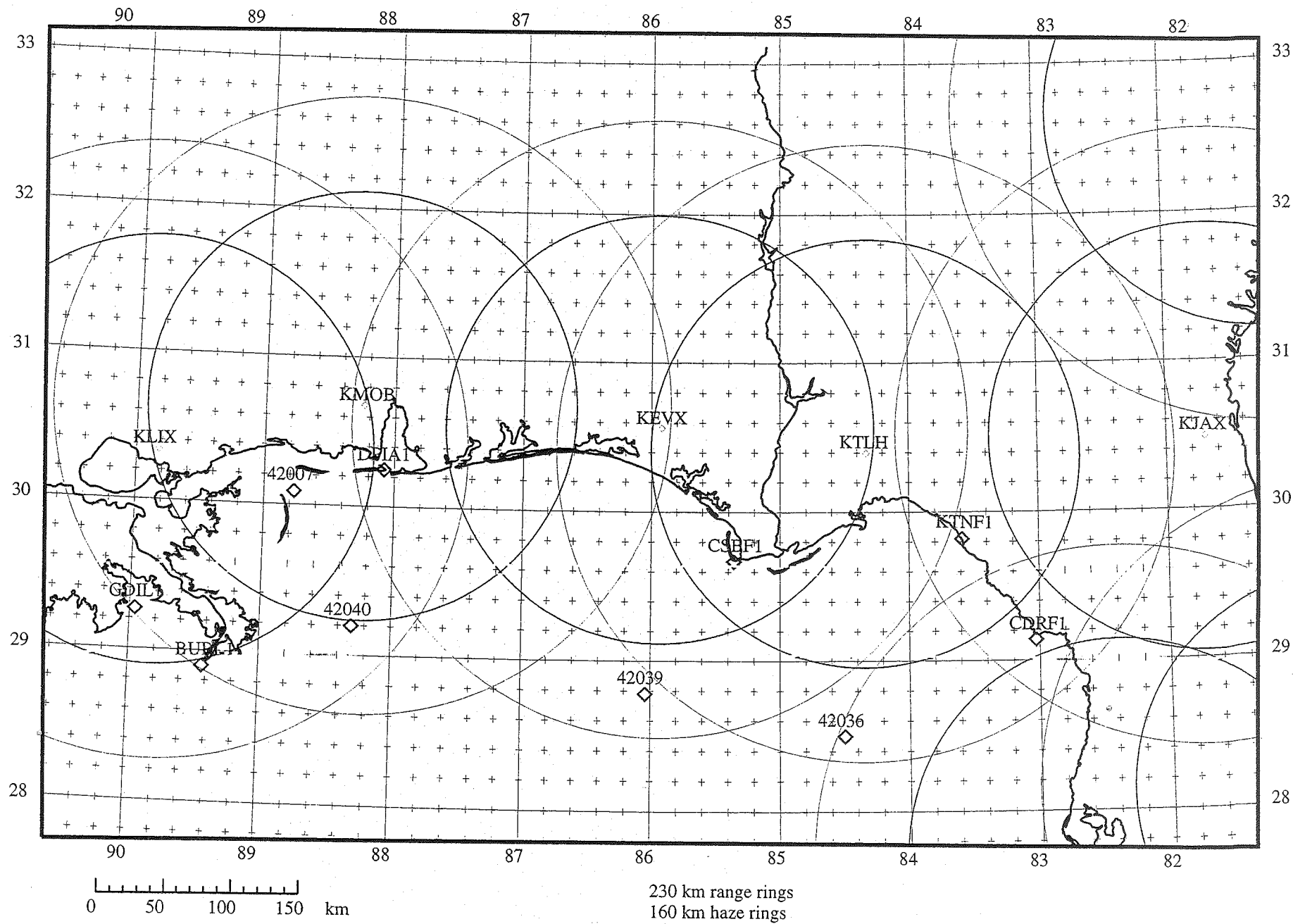
0051.41

34.54

86.74

LAST SONDE

mob_evx_tlh_map.ps Center Lat: 30.50 Lon: -86.00



Center Lat: 30.50 Lon: -86.00

