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 form 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).

Mission ID

2509A IVAN

Lead Project Scientist Check List

Date _____ **Aircraft** 43 **Flight ID** 040912I

A. Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	Gamache / Dodge	Flight Director	TOM SHEPHERD
Radar	GAMACHE	Pilots	R. Tebeest H. Halverson
Workstation	P. Leighton	Navigator	P. Segal, D.
Cloud Physics X		Systems Engineer	J. Smith
Photographer/Observer /Guests		Data Technician	D. San Soucie
Dropwindsonde	Leighton / Dodge	Electronics Technician	T. Lynch
~~AXBT/AXCP~~ N4 Times: J.M Wilson		Other	J. Dana: Actg DOC Gen Counsel T. Kassinger Ass Secty Comm

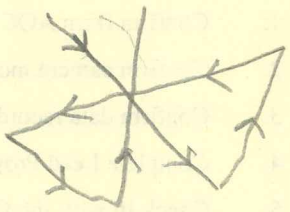
FLIGHT
J. Klippel
R. _____

B. Take-off and Landing Locations:

Take-Off: 09003 Location: MacDill

Landing: 1720 Location: "

Number of Eye Penetrations: 3



C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

D. Mission Briefing: Tasked Mission for NHC to get SFMR winds. Butterfly pattern designed to optimize SRA data in RF Quadrant, 3 dpop sequences on inbound eyewall, 1 drop out bound eyewall. Will test UBLOCK sondes on 2nd inbound leg.

IP 21°23' 82°54'

040912I (1) GIVAN SFMR mission

1016 crossing over CUBA

1028 desc to 8000' as we appr IP

1033 ~~IP~~ at altitude

1841 - turn at IP 25.4 82.8C

104246 TS SND #1 SFMR 18 m/s GOOD

~~1102~~ 17.8 m/s Bouncing SPLASH 18°31' 81°12' TS ▽ fix

110929 SND H FORCE SFMR 34 m/s

1102 Bouncing in outer RB ~90 nmi from G 34 m/s

1120 111 KT flt level in NW SPLASH 31.4 m/s

1122:133 KTS in outer wind max

112840 3 snd seq SFMR 48 - I WAS LATE, SFMR got up to ~~48~~ 53 m/s

113012 ctr mark 18°42' 81°08' 920 mb (TEAL got 81°30') (BUT MAYBE 84.05

1132 SE eyewall sonde SFMR 51 (got up to 53 m/s)

1138 Outer Eyewall SFMR 47 m/s TEAL 35 exiting G

1144 HF sonde BUT IT IS A DUD NLD

1145 sonde SFMR 30 m/s 17.89, 80.54] HF ~ 55 nmi SE of G

SPLASH 30 m/s

1156 TS sonde SE 17.34 80.16 SFMR 17

(Then SFMR winds back up to 20 for ~ 2 min)

040992I ②

1159 17'17 80'01 turn to head up to the next point.

1231 19.49 79.13 in strong band NE 125 nmi from 9 and still have 30 m/s SFMR
some discuss about JW reading too low ~5 g/kg w (J/Gamache expected) 2-3 g/kg

1236 SFMR 17 m/s 142 nmi from 9 19'82 78.92
turn to head back for pass #2

123950 NE TS snd SFMR 17 m/s 19'81 79'10'
124414 HF (late) SFMR had 44 – but in rain ~~but~~ so maybe I got snookered – oh well flt level is 69 KTS. ANYWAY we are loitering while Jeff S loads new software into AVAPS. Then we'll do VBLOCK SEQ. (only 3 available)
1301 Bouncing a bit in NE RB's

1305: 111 KT
1307: 3 VBLOCK SNDS in "outer" wind max
18.97 80.83
1313 ~~ep~~ inner eyewall only had ~110 KT flt level – so TS was right about outer being stronger
1315 TS 9 hunting
1316 CTR ~922 mb extrap 18°49' 81°22'
1323 Outer Eyewall SND 18°36' 81°55'

1328 HF SND (SFMR 30 m/s) 60 mi SW from eye.

040912 I (3)

134545 SONDE for TS RADIUS SFMR 16 m/s
FLT LVL 35 KTS
17.99° 83.40°
17.4 m/s SPLASH

Note: JS will use REV E sondes on last eyewall passes

135753 turn 17.33 83.59 to track 136

1412: Paul & Jeff tried a couple of times to retransmit UBLOCK snds to whstn but no success.

1415 16°30' 82°25' TURN for S→N leg

1418 TS drop 16.66 82.32 SFMR 18 m/s

1420: 18°59' 81°30' RADAR FIX

144157 HF SND (Smod) 18.26 81.78 SFMR 34

1446 3 drop leg in outer eyewall (south) 124 KTS
IF these are good drops they correlate the maxima

1452 CTR: 18°56' 81°38' 922

1455 N inner eyewall but I jumped the gun at 100 KT, flt level went to 113... maybe I hit MAX

145954: Outer Eyewall Broad area of flt level > 120 KTS
SFMR > 51 m/s

1505 45 miles N to S SFMR > 40, flt level > 110 KTS

0409 12I (4) T/O

151047 HF snd SFMR 33 m/s FLT LVL 8Zkft

1535 21.52 80.70 Turn to track 270.

153814 LAST drop SFMR 22 m/s. I decided to go ahead and drop as our track of 270 and Flt level wind dir of 94°, 51 kts might have us in > TS winds anyway.

1553 turn 21.56, 82.31 To RTB

LAND at MacDill:

1720 Land at MacDill

IVAN 12 H1 16:00 — 22:00 ?

Ivan 12.trk

40080
41340 } I
47700

52700 AF 14
56800 AF 16:20
65160 AF? 18:06. 9 comp1 1755 _ 1815 ???
72480 ?. 20:08
300

IVAN 12±1 11:00 - 17:20
Ivan 12.trk

9 1130 comp1 1118 _ 1138

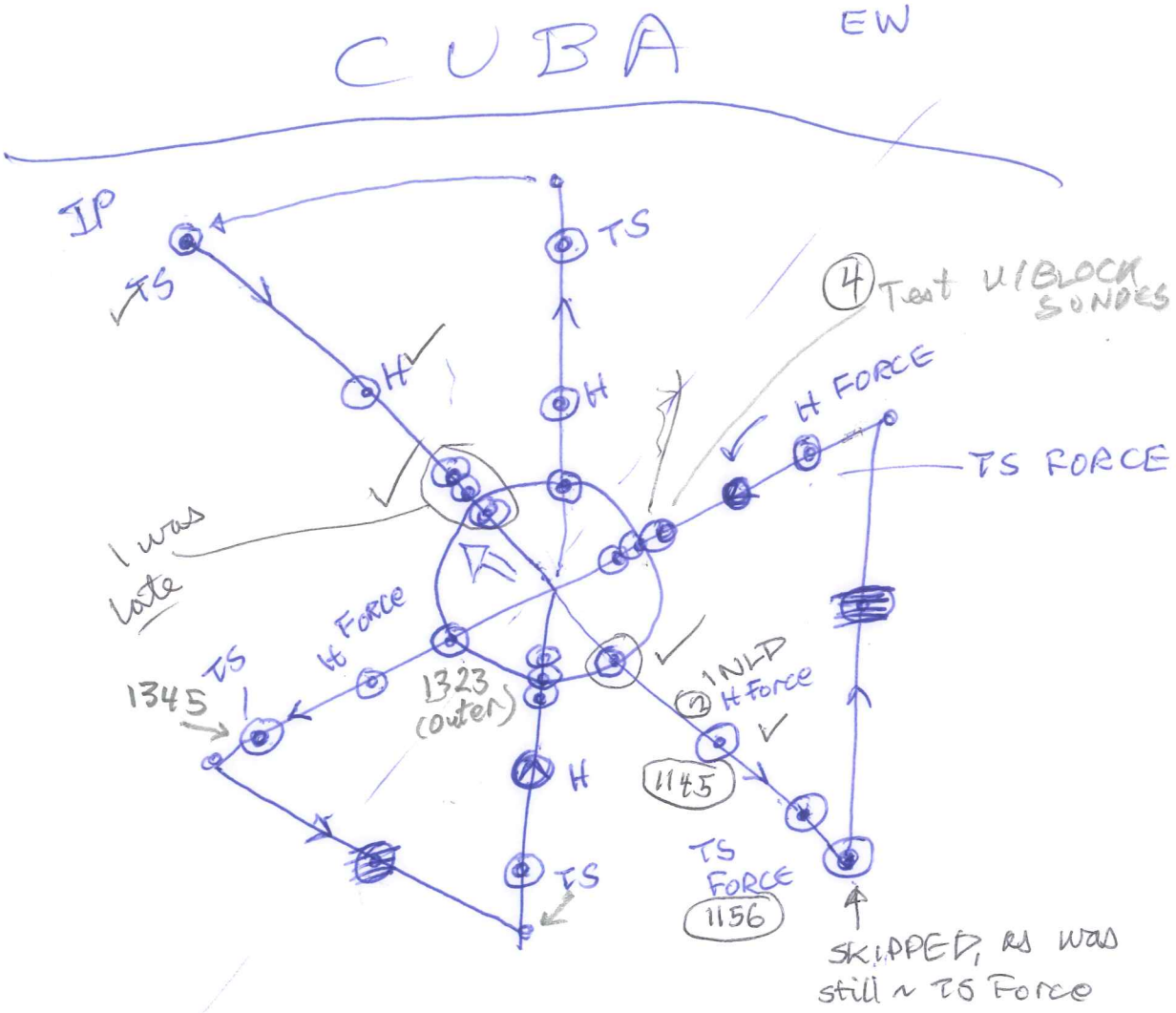
9 1316 comp2 1304 _ 1324

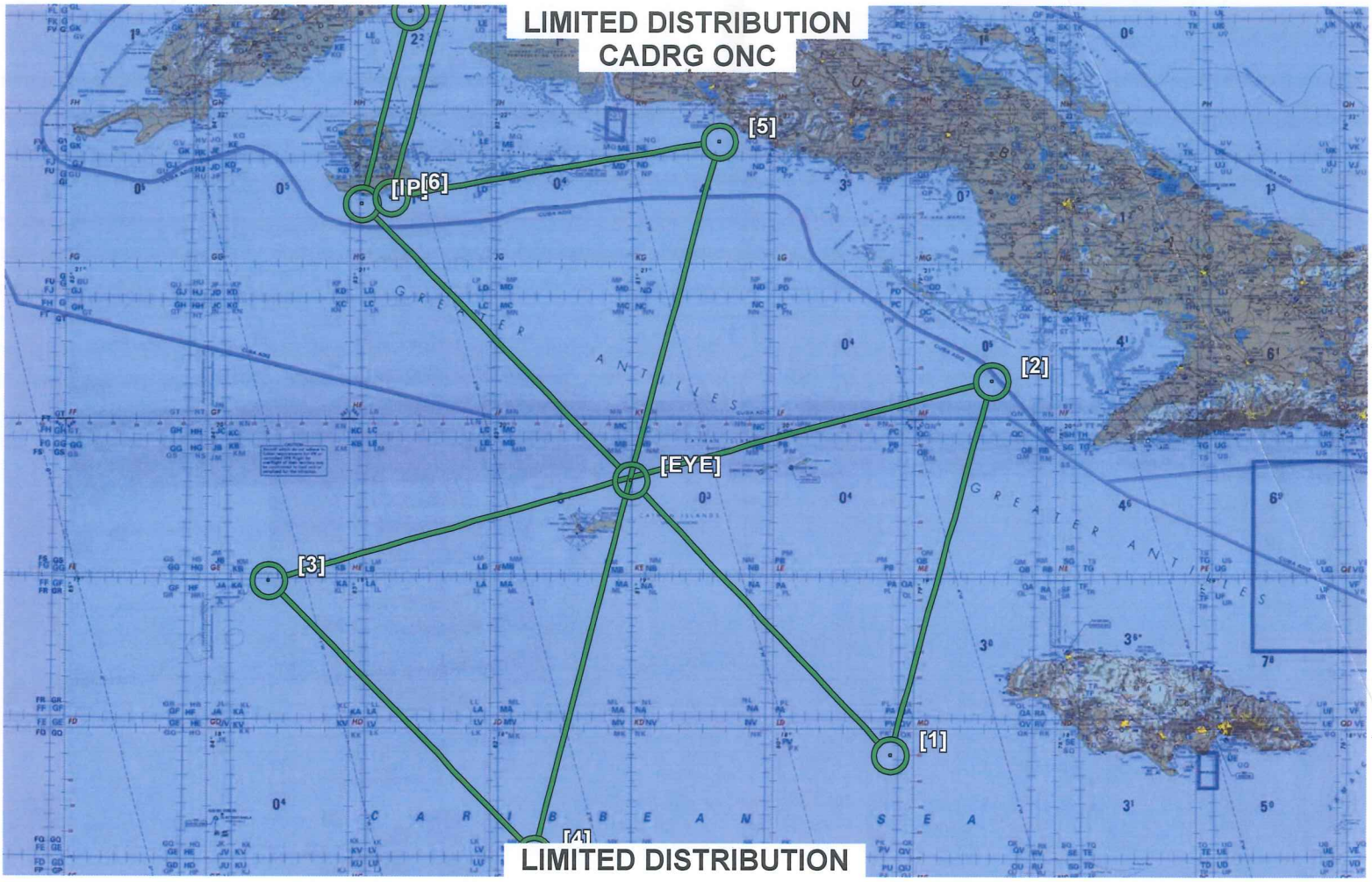
9 1452 comp3 1440 _ 1500

0409121

1015 we are crossing over C33 [redacted] m/s H = Horricane Force

17m/s TS = TROPICAL Storm force

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