

FLT ID: N990814	FM: PHNL	TO: PHNL
FLT NO: 99-039	BLK IN: 0229Z	RTA: 0226Z
ETD: 1800Z	BLK OUT: 1751Z	RTD: 1807Z
ETE:	BLK TIME: 8:38	FLT TIME: 8:19
SPONSOR ORG: NAC/CPHC	PROGRAM: HURR. SURVEILL	PURPOSE: H. DORA

0AO PERSONNEL

AC FINKE ✓	SYS ENG GOLDSTEIN
CP McCann, YATES	DATA SYS HORN BROOK
NAV	RADAR
FE	BT/ODW HILL ✓
RADIO	CLD PHYS
FD AMIANO ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
BLACK, M ✓	HAPS	NR1
DAIDA, SEAN ✓	OBS	U-H
DRNDORFF, CRAIG ✓	OBS	U-H
JACKSON, RICHARD ✓	OBS	NWS HAWAII, TECH (PR)

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)

MIKE BLACK THINKS ~~PR~~ Amb Temp is ~ 1°C too cold

2328 chh WZ

2332 look at storm

2345Z

2349Z

U.S. DEPT. COMM./NOAA/ORA - DATA SECTION WORK FORM NO.2 OROWF2 FILE

FLT ID: *N990814* TIME OFF: *1807Z* TIME ON: *0226Z*

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	<i>01017.0</i>	<i>30.03</i>	<i>1014.0</i>	<i>29.97</i>

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

FAST FLT LVL TAPES

RADAR TAPES

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

AXBT

AXCP

ODW GPS

29

26 good ; 3 bad

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

0153Z
29
19

24
19

N990814

165440

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	GA	PS			
184316	2358	15457	68	69	236	13	-61.3	-66.6	12590	13162	174.5	20	Good	DROP 82.3
185000	2400	15403	90	92	219	13	-65.9	-70.9	13125	13705	159.9	46	ABV CLD	78.6
185954	2400	15242	90	90	246	12	-66.5	-73.1	13124	13712	160.0	28	Good	DROP 77.3
191639	2400	15024	90	90	197	6	-65.8	-73.3	13120	13726	160.0	28	Good	DROP 80.0
193340	2400	14806	90	89	197	4	-65.7	-73.3	13119	13733	160.1	28	Good	DROP 79.7
194700	2400	14620	90	90	179	5	-65.5	-73.0	13120	13743	160.1	40	ABV CLD	80.6
195055	2400	14548	90	90	189	4	-65.5	-73.0	13117	13742	160.1	51	Good	DROP 80.4
200809	2355	14333	142	144	172	3	-65.6	-72.9	13119	13735	160.1	33	Good	DROP 81.2
203234	2101	14337	245	246	68	5	-65.3	-73.1	13116	13732	160.1	28	Good	DROP 80.8
204549	2100	14520	270	270	11	1.0	-65.1	-73.3	13113	13737	160.3	28	Good	DROP 80.2
205955	2100	14710	270	268	196	5	-64.5	-73.1	13112	13731	160.3	28	Good	DROP 80.7
211416	2053	14859	200	196	171	8	-65.0	-72.7	13118	13726	160.1	40	Good	DROP 80.5
212559	1930	14900	180	177	132	10	-64.7	-72.3	13115	13724	160.1	40	Good	DROP 80.8
213841	1802	14853	120	115	102	13	-64.2	-73.0	13121	13725	160.1	40	Good	DROP 80.6
214600	1800	14861	90	89	89	19	-63.5	-68.9	13118	13721	160.2	50	IN CLD	79.5
215555	1800	14650	90	90	110	14	-63.6	-65.8	13113	13729	160.2	50	Good	DROP 82.3
221348	1800	14446	90	89	99	14	-63.9	-71.4	13110	13720	160.4	20	NO W	DROP 80.1
221647	1800	14418	89	88	90	14	-63.8	-71.7	13110	13730	160.3	20	Good	DROP 80.3
223156	1754	14231	154	152	98	11	-65.3	-72.8	13111	13721	160.3	45	Good	DROP 80.2
224733	1600	14230	186	175	86	12	-65.7	-73.2	13110	13704	160.3	51	Good	DROP 80.9
230408	1401	14238	248	249	76	9	-64.7	-72.5	13114	13694	160.3	66	Good	DROP 79.8
231800	1400	14425	270	270	42	10	-68.4	-73.7	13682	14271	145.5	45	ABV CLD	
232234	1400	14500	270	270	30	9	-69.4	-73.9	13681	14276	145.5	45	Good	DROP 71.6
234455	1521	14649											EYE DROP	
234857	1516	14707											EYE DROP	
235159	1456	14713											IN BAND	
000054	1400	14740	266	269	32	10	-70	-70					BAD REP	
000229	1400	14752	270	271	26	11	-70.1	-70.4	13695	14275	145.1	40	Good	DROP
001909	1407	14959	337	342	57	17	-69.5	-71.4	13676	14281	145.6	23	Good	DROP 71.7
003513	1600	15002	332	334	68	18	-68.4	-69.2	13668	14296	145.8	23	Good	DROP 74.3
005730	1802	15159	345	347	112	10	-69.4	-71.2	13669	14307	145.8	23	Good	DROP 72.5
011348	2000	15200	0	0	105	3	-69.5	-71.0	13671	14308	145.7	23	Good	DROP
013055	2159	15212	268	262	212	12	-69.4	-72.5	13670	14307	145.8	40	Good	DROP 72.2
015700	2139	15526	263	259	204	11	-64.5	-73.4	13040	13633	163.9		ABV CLD	92.7

N49RF Hurricane 99 / AVAPS DropSonde Log

N49RF Project: Hurricane 99 Flight ID: 990814W

Mission: Dora Flight #: 2 System Status: O.K.

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status/ Failure Reason	GOOD ☒
1	984 325 295	1	1843	+ .6	20	YH		✓
2	984 325 286	2	1900	+ .5	46	YH		✓
3	984 325 293	3	1916	0	28	YH		✓
4	984 325 203	4	1933	0	28	YH		✓
5	984 325 281	5	1950	0	44	JWH		✓
6	984 325 453	1	2008	0	51	YH	Comments say #5 drop	✓
7	984 325 287	2	2032	+ .5	33	YH		✓
8	984 325 289	3	2045	0	20	YH		✓
9	984 325 196	1	2059	0	22	YH		✓
10	984 325 004	2	2114	0	26	ASG		✓
11	990 415 001	3	2126	+0.7	17	ASG		✓
12	984 325 197	4	2138	0	18	ASG		✓
13	984 325 053	1	2155	+0.6	23	ASG		✓
14	984 325 428	2	2213	+0.5	-	ASG	NO WINDS + C-7 SAT LOCKED BUT NO GALS	✓
15	984 325 150	3	2216	0	25	ASG		✓
16	984 325 209	4	2231	0	34	ASG		✓
17	984 325 257	1	2247	0	47	ASG		✓
18	984 325 279	3	2304	0	54	ASG		✓
19	984 325 288	4	2322	0	36	ASG		✓
20	984 325 300	1	2344	0	20	JWH	Near eye	✓
21	984 325 304	5	2349	0	30	ASG	EYE DROP	✓
22	984 325 562	3	2352	+0.8	20	JWH	SYS LOCKUP?	✓
23	984 325 205	4	0001	0	-	JWH	SYS LOCKUP?	✓
24	984 325 190	6	0002	0	25	ASG		✓
25	990 215 006	7	0019	+0.5	23	ASG		✓
26	984 325 260	5	0035	0	28	JWH		✓
27	984 325 263	6	0057	0	22	JWH		✓
28	984 325 201	7	0114	0	38	JWH	Winds data terminated early in the drop	✓
29	984 325 264	5	0131	0	21	JWH		✓
30								
31								
32								
33								

CHARGE 3 SONDES TO HRD!! DROPS 20, 21, 22

N49RF Hurricane 99 / AVAPS DropSonde Log

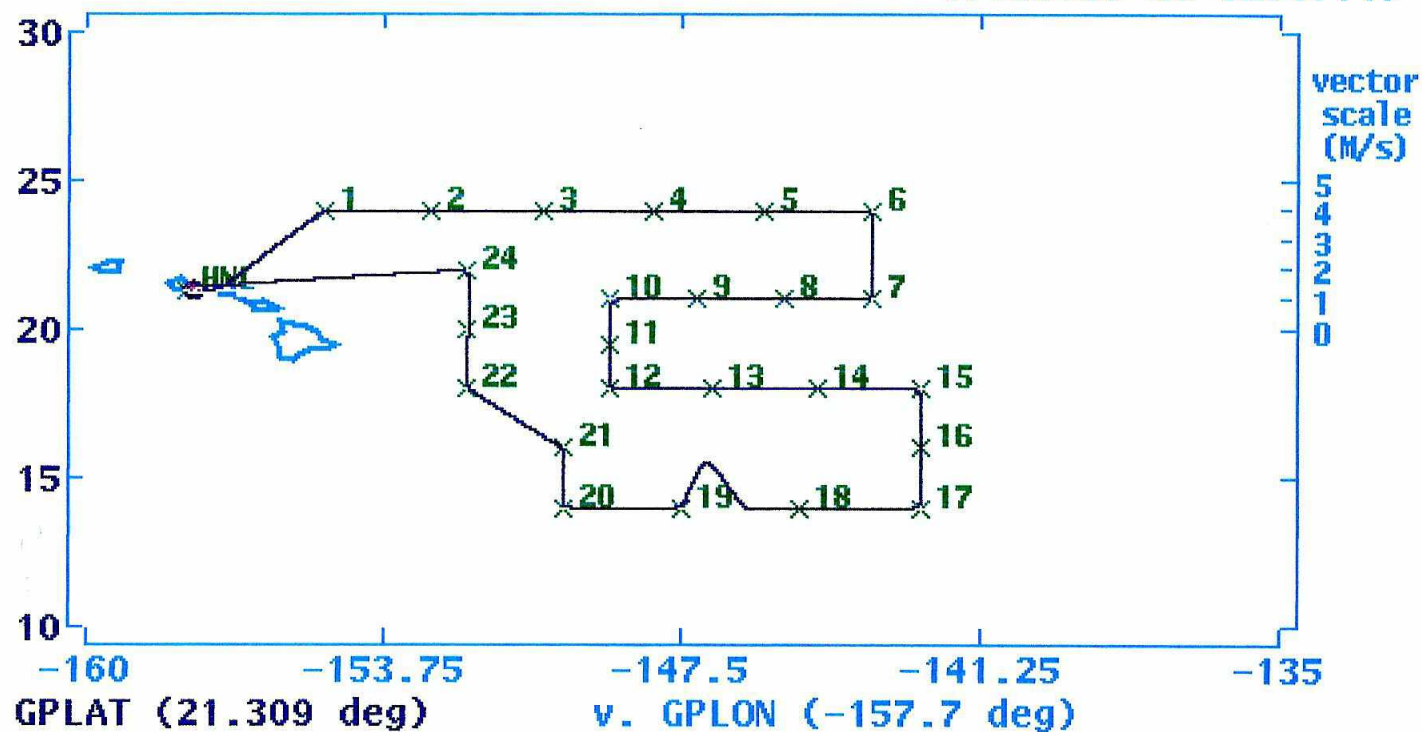
N49RF Project: Hurricane 99 Flight ID: 990814N

Mission: Data Flight #: 2 System Status: O.K.

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status/ Failure Reason	GOOD ☒
1	984 325 295	1	1843	+ .6	20	YH		✓
2	984 325 286	2	1900	+ .5	46	YH		✓
3	984 325 293	3	1916	0	28	YH		✓
4	984 325 203	4	1933	0	28	YH		✓
5	984 325 281	5	1950	0	44	JWH		✓
6	984 325 453	1	2008	0	51	YH	Comments say #5 drop	✓
7	984 325 287	2	2032	+ .5	33	YH		✓
8	984 325 289	3	2045	0	20	YH		✓
9	984 325 196	1	2059	0	22	YH		✓
10	984 325 004	2	2114	0	26	ASG		✓
11	990 415 001	3	2126	+0.7	17	ASG		✓
12	984 325 197	4	2138	0	18	ASG		✓
13	984 325 053	1	2155	+0.6	23	ASG		✓
14	984 325 428	2	2213	+0.5	—	ASG	NO WINDS - 6-7 SAT LOCKED BUT NO CALL	✓
15	984 325 150	3	2216	0	25	ASG		✓
16	984 325 209	4	2231	0	34	ASG		✓
17	984 325 257	1	2247	0	47	ASG		✓
18	984 325 279	3	2304	0	54	ASG		✓
19	984 325 288	4	2322	0	36	ASG		✓
20	984 325 300	1	2344	0	20	JWH	Near eye	✓
21	984 325 304	5	2349	0	30	ASG	EYE DROP	✓
22	984 325 562	3	2352	+0.8	20	JWH	SYS LOCKUP?	✓
23	984 325 205	4	0001	0	—	JWH	SYS LOCKUP?	✓
24	984 325 190	6	0002	0	25	ASG		✓
25	990 215 006	7	0019	+0.5	23	ASG		✓
26	984 325 260	5	0035	0	28	JWH		✓
27	984 325 263	6	0057	0	22	JWH		✓
28	984 325 201	7	0114	0	38	JWH	Winds data terminated early in the drop	✓
29	984 325 264	5	0131	0	21	JWH		✓
30								
31								
32								
33								

CHARGE 3 SONDES TO HRD!! DROPS 20, 21, 22

'JCPB1' (winds@eiaer) Proj. 430 Flt 2 Aug-15-99 02:17:17
17:39:39 to 02:17:17



To: M@H@C [<janag@oar31.oar.noaa.gov>]
From: Sean R. White@AOC1@NOAA
Cc: A. Barry Damiano@AOC1@NOAA, Alan S. Goldstein@AOC1@NOAA, Bob W. Maxson@AOC2@NOAA, Bob X. McCann@AOC@NOAA, Carl E. Newman@AOC2@NOAA, Delores Clark@MHub@NWS, Evelyn Fields@nc@NOAA, Frank C Lepore@MHub@NWS, Frank Marks@MHub@OAR, Garner R. Yates@AOC2@NOAA, Hugh Willoughby@MHub@OAR, Jack R. Parrish@AOC1@NOAA, James Franklin@MHub@NWS, Jeanne G Kouhestani@MHub@HDQ, Jim D. DuGranrut@AOC1@NOAA, Jim D. McFadden@AOCx4@NOAA, Lori Sumner@AOC@NOAA, Mark P. Moran@AOC@NOAA, Mark S. Finke@AOC2@NOAA, Michael L Black@MHub@OAR, Stanley Czyzyk@AOC1@NOAA
Subject: re: CNN
Attachment: BEYOND.RTF
Date: 8/19/99 7:36 AM

Jana,

I am not sure when the CNN piece aired, but I do know that Jim Hill was the correspondent and Traci Tamura was the Producer. Delores Clark or Jeanne Kouhestani may have a copy of the piece?

Also, the Director of the Aircraft Operations Center (Captain Donald D. Winter) has been directed by higher authority NOT to release any other media statements/press releases expounding on the "hurricane penetration" by the NOAA G-IV. Basically, NOAA does not want the general public to get the wrong impression about the mission and purpose of the aircraft. The "exploring and investigation" of the aircrafts limitations are not for public release.

If you have further questions please call.

CDR Sean White
G-IV Project Manager
Aircraft Operations Center
813.828.3310 ext.3072

From: "Goldman, Jana" <janag@oar31.oar.noaa.gov>, on 8/18/1999 4:27 PM:

Hi --

I'm the public affairs officer for NOAA's office of oceanic and atmospheric research -- which AOML falls under. I got an e-mail about a possible CNN story over the weekend about a flight into Hurricane Dora's eye.

Do you know the name of the reporter who did this, or when it was broadcast?

thanx

jana

Jana Goldman
NOAA Research Public Affairs
Office of Oceanic and Atmospheric Research
1315 East-West Highway
SSMC3 Room 11508
Silver Spring, MD 20910
Voice: (301) 713-2483 ext 181
Fax: (301) 713-4020
Internet: janag@oar31.oar.noaa.gov

G4 Hurricane Surveillance

N990814 Hurricane Dora (Central Pacific)

<u>DATA TYPE</u>	<u>SENSOR or OPTION</u>
INE	VEW_PITR, VNS_PITR
Accelerometer	ACINS_PITR
Temperature Probe	AT1
Altitude (for vertical wind)	PALT
Static Pressure	PS1M
Dynamic Pressure	QC1M
Dewpoint Probe	DPRC

Notes:

There were no time gaps.

During eye penetration of Dora, both dewpoint sensor values were warmer than the ambient temperatures.

No dynamic corrections were applied to the measured static and dynamic pressures. Thus wind direction and wind speed may not be representative of actual flight level conditions.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1017.0mb	1014.0mb
Corrected tower pressure	1016.6mb	1014.6mb

Flight Meteorologist: A. Barry Damiano, (813) 828-3310 ext. 3073

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: DORA

Prepared by the Hurricane Research Division at 05:00:49 PM on 08/13/99.
 File: /home/franklin/flight_tracks/990814n.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 14/1800Z

=====

DROP LOCATIONS

#	LAT (d m)	LON (d m)	RAD/AZM (nm/dg)	TIME (h:mm)
T1 1	24 00	153 00		0:41
2	24 00	153 42		0:58
3	24 00	150 24		1:15
4	24 00	148 06		1:32
5	24 00	145 48		1:50
T2 6	24 00	143 30		2:07
T3 7	21 00	143 30		2:31
8	21 00	143 20		2:45
9	21 00	147 10		2:59
T4 10	21 00	149 00		3:13
11	19 30	149 00		3:25
T5 12	18 00	149 00		3:38
13	18 00	146 50		3:54
14	18 00	144 40		4:11
T6 15	18 00	142 30		4:28
16	16 00	142 30		4:44
T7 17	14 00	142 30		5:01
18	14 00	145 00		5:20
19	14 00	147 20		5:40
T8 20	14 00	150 00		6:00
T9 21	16 00	150 00		6:16
T10 22	18 00	152 00		6:39
23	20 00	152 00		6:55
T11 24	22 00	152 00		7:12

31
19

3000

002

080/17 hkt 22

OB 5 out 20422

1915 10 OB OUT

1930 obs 2 out

Latest storm info

Next Teal HK

⑦ 1951 hr 3 Tomorrow AM

Call 19502 062

⑩
⑪

15.6 144.3 35 14/15Z

15.2 146.3 14/21Z

70 KTS

HD 335
155

OB 6

2110

ASIC about

⑮

1418

1530 15-20 156 14 14

155
14

②25

85 233220

1514

14616

975

14 11
85

1462

=====

HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: DORA

Prepared by the Hurricane Research Division at 05:00:49 PM on 08/13/99.
File: /home/franklin/flight_tracks/990814n.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 14/1800Z

=====

TRACK DISTANCE TABLE

#	LAT (d m)	LON (d/m)	RAD/AZM (nm/dg)	LEG (nm)	TOTAL (nm)	TIME (h:mm)
0	21 18	157 54		0.	0.	0:00
1✓	24 00	155 00		228.	228.	0:41
2✓	24 00	143 30		631.	860.	2:07
3✓	21 00	143 30		180.	1040.	2:31
4✓	21 00	149 00		309.	1349.	3:13
5✓	18 00	149 00		180.	1529.	3:38
6✓	18 00	142 30		372.	1901.	4:28
7✓	14 00	142 30		240.	2141.	5:01
8✓	14 00	150 00		437.	2578.	6:00
9✓	16 00	150 00		120.	2699.	6:16
10✓	18 00	152 00		166.	2865.	6:39
11	22 00	152 00		240.	3105.	7:12
12	21 18	157 54		332.	3438.	8:07

AP msg
pwr
ENN

1-837-656-4254

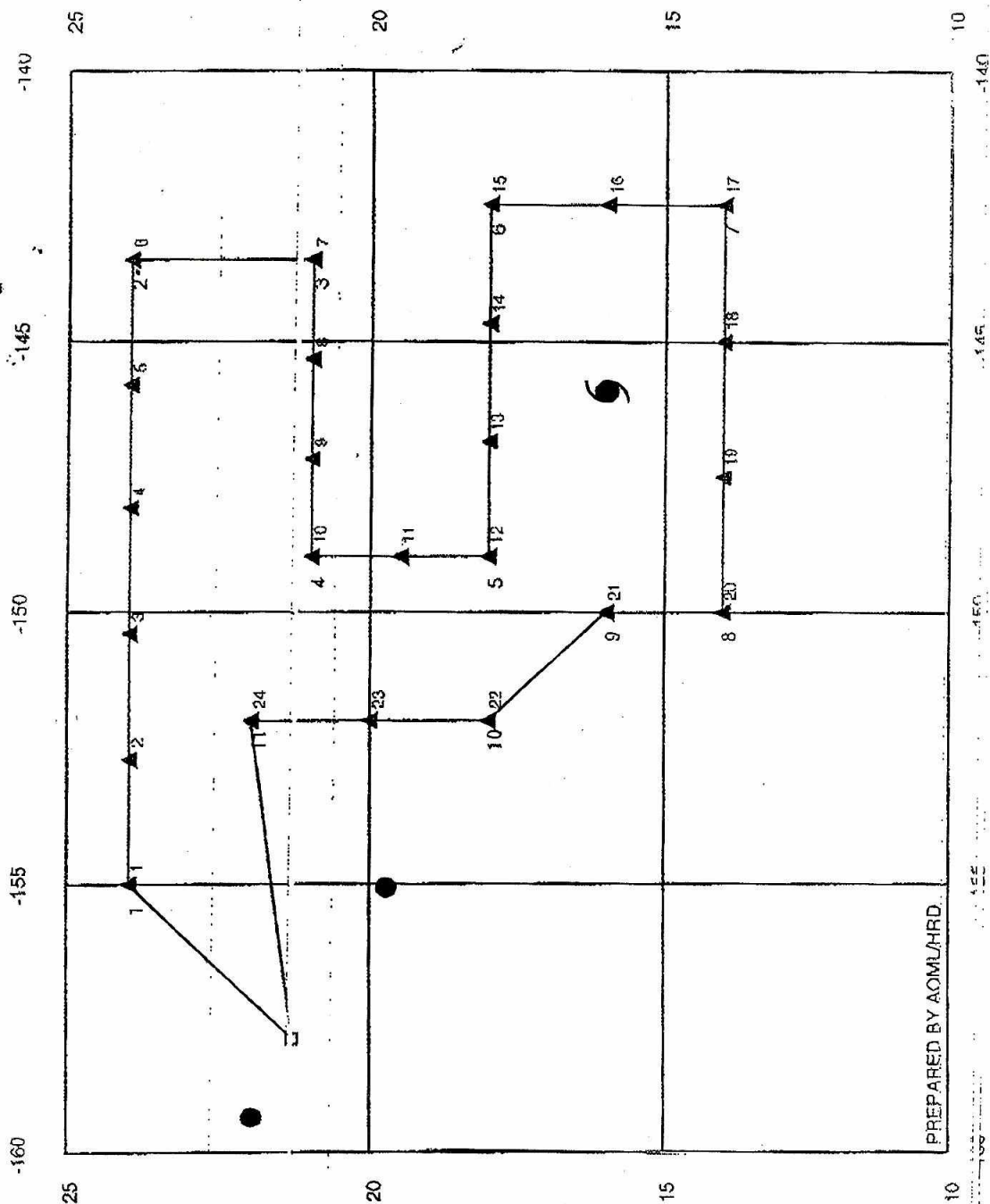
FLIGHT TRACKS DORA

990814n.fik

RAWINSONDES 9907

- Regular
- 12Z only
- 00Z only
- Infrequent
- Infrequent - 00Z
- Infrequent - 12Z

▲ DROP LOCATIONS



NOAA/AOC/SED N49RF Flight Performance log

N49RF Project: Hurricane 99 Project No. 430 Flight No. 2 Flight ID: 990814N
 SED Crew: Hornbrook, Hill, Goldstein Mission: DORA
 Pre-Flight: 1700 Z Take-Off: 1806 Z Landing: 0226 Z

SYSTEM			Pre-Flight Check	In-Flight	Post-Flight	
N A V	IRS #1		✓			
	IRS #2		✓			
	IRS #3					
	GPS Honeywell #1		✓			
	GPS Honeywell #2		✓			
	GPS Collins		✓		Off? ☐	
Nose Radar -Collins					Off? ☐	
T E M P		Time	Temp °C		Time	Temp °C
	Temp #1	1713	26.8		0233	29.8
	Temp #2	1713	28.7			29.3
	Temp #3	1713	25.7			28.3
	Temp #4	1713	30.7			30.2
	DP Left	1713	19.1	Cal. Time:		17.3
	DP Right	1713	20.1	Cal. Time:		17.6
P R E S	Attack Angle (ADCAOA)		✓			
	Slip Angle (BPx/DxPx)		✓			
	Differential (PQ1/PQ2)		✓			
	Absolute (PS1/PS2)		✓			
	Check Radome Press. Lines ☒		Date: 7/13/99			
S Y S T E M	DOWN PRT-5 ⇨ Open? ☐		N/A		Closed? ☐	N/A
	MADS (WINDS/DISCWIN)		(1)		# DATs: 1	
	MADS Printer ⇨ Paper? ☒		CH		Printer Power off? ☒	
	MADS Cal. Date: 7/16/99		QC time: 1749		QC time: 0230	
	WINDS ⇨ NET BCAST ☒		MSG			
	HAPS System / Time set? ☒		JH		# Msg.: 26 # Fail: 12	
	AVAPS System / Time set? ☒		CH			
	AVAPS Printer ⇨ Paper? ☒		CH			
	Exterior Walk Around ☒		✓ CH			
	Inspect DropSonde Chute Bolts		✓ CH			
M I S C	Satcom (Flight Phone) ☒		✓		Off CB? ☐	
	Call COMSAT? ☒ (*292#)		✓			
	FCU/UPS/CB		CB's Checked? ☐		UPS off? ☒	
	AVAPS Sondes		# On Board: 61	# Dropped: 29	# Good: 26	
	AXBT		# On Board: 0	# Dropped:	# Good:	
	APN-232					
	Modem Power On? ☒		CH			

1	DAT Tape #1	On: 1748	Type:	Off: 0231
2	DAT Tape #2	On:	Type:	Off:
Comments:				

Please Note Any Discrepancies

[illegible]