

Hurricane 1999

Hurricane Floyd - Landfall

Flight #10: 990916H

<u>Sensor or system</u>	<u>Number or Name</u>
INE	1
Accelerometer	1
Temperature Probe	2
Dew Point Probe	1
Altitude (for vertical wind)	RA-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2991.CON

Notes:

The radar altimeter (RA159) had a spike at takeoff and was replaced by RA232 from 0312:01-0319:07. A spike also occurred at landing and RA159 was replaced by RA232 (1125:26-1137:00).

Dewpoint (DW1) exceeded ambient temperature (AT2) several times due to heavy precipitation.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1006.8	1009.1
Corrected tower pressure	1007.8	1009.1

The aircraft INE positions were renavigated with respect to GPS.

SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm.
It is recommended that these values be used for vertical wind analysis.

Flight Meteorologist: Stan Czyzyk, (813) 828-3310 ext. 3086

FLT ID: 990915H	FM: KTA	TO: KACF
FLT NO: 99-023	BLK IN: 1143Z	ATA: 1133Z
ETD: 0300Z	DLK OUT: 0310Z	RTD: 0317Z
ETE: 1200Z	BLK TIME: 8.33 8.6	FLT TIME: 8.16 8.3
SPONSOR ORG: NOAA	PROGRAM: HRO WINDS @ LANDFALL	PURPOSE: HURR FLOYD

OAO PERSONNEL

AC TAGGART, D	SYS ENG PRADASI, C
CP TENNESSEN, D / OMARA, T ✓	DATA SYS McMILLAN, S ✓
NAV NEWMAN, C ✓	RADAR
FE BOST. G ✓ / TORREY, R ✓	BT/ODW ROLES, J ✓
RADIO ROBERS, M ✓	CLD PHYS
FD CZYZYK, S ✓	DOPPLER YOUNG, D ✓

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
HOUSTON, S ✓	P.I.	AND
LEIGHTON, P ✓	SCIENTIST	"
DODGE, P ✓	"	"
CROXFORD, M ✓	"	"
CARSWELL, J ✓	CSCAT / KUSCAT	U OF ALABAMA
CAPELLA, C ✓	MEDIA	UMASS
		USOTODAY

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

7 PENETRATIONS

7

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.2 OAOWF2

FLT ID: 990915H

TIME OFF: 0317Z

TIME ON: 1133Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1006.8	29.76	1009.1	29.80

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	2	
FAST FLT LVL TAPES		
RADAR TAPES		
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES	1	
AXBT	9	
AXCP		
ODW		
GPS	30	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

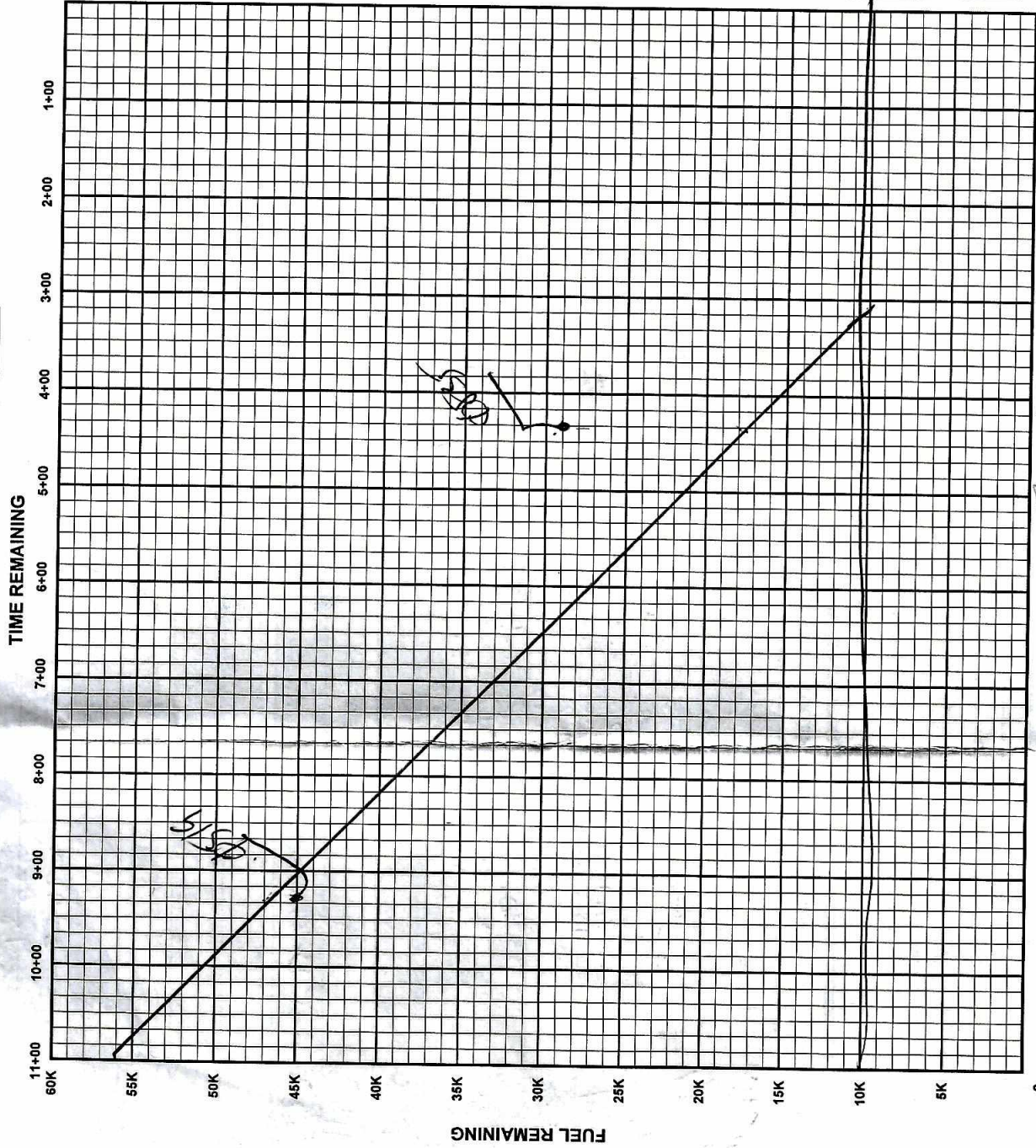
Time	Lat	Lon	TK	HD	TR	TD	WD	WS	PA	GR	PS	SP	REMARKS
04132													15 PA
0420	3136	8008	53	37	10.0	10.2	343	76.5	2462	2427	750.1	996.4	DESCEND
044109	3231	7907	49	39	14.8	18.0	317	48.3	2536	2413	743.4	980.8	LEVEL 81C PA
045328	3307	7904	71	58	13.9	13.0	353	52.5	2576	2414	739.6	976.6	DROP #1
050230	3317	7825											BT1 NO 600
0505	3326	7810											BT2 + DROP #2
0514	3352	7739	42	67	13.8	14.6	146	97.1	2648	2422	733.1	969.7	DROP #3
0514													
0514													
0514													DROP #4
052210	3414	7715	44	62	14.6	13.8	151	76.0	2566	2466	741.3	980.6	BT3
053331	3439	7656	227	211	14.3	12.6	144	73.1	2535	2459	743.5	985.7	BT4
053952	3425	7720	235	218	14.1	14.3	145	73.7	2538	2415	743.3	980.6	DROP #5
054546	3410	7738	210	192	14.3	14.8	133	85.2	2518	2316	744.9	972.1	DROP #6
055244	3350	7752	244	237	16.6	16.6	16.3						DROP #7
055													DROP #8
0556	3342	7806											
060619	3353	7815	253	228									DROP #9
061117	3343	7841	230	240	14.3	13.4	13	60.1					DROP #10
061210	3340	7845											DROP #11
061443	3332	7856											DROP #12
0630	3351	7759											DROP #13
063806	3329	7735											DROP #14
064050	3320	7727			18.0	10.1	225	97.3					BT5
064446	3318	7707	400	122	13.9	13.2	205	94.3	2604	2452	737.2	986.9	DROP #15
065230	3311	7632	356	13.3	13.3	206	86.1	2560	2454	741.2	983.2		DROP #16
070042	3402	7631	0	0	13.7	13.5	183	88.4	2557	2438	741.4	981.5	BT6 NO 6000
071007	3437	7833	260	243	14.3	13.6	168	73.9	2521	2416	744.9	987.2	BT7 NO 6000
072214	3426	7729	230	207	13.5	13.7	143	94.6					DROP #17
07285	3424	7732	220	202	14.1	13.9	139	75.0					DROP #18
0729	3411	7748											DROP #19
073955	3376	7729											
075129	3315	7633											DROP #20
075145	3316	7333	1	351	13.8	13.1	216	82.7	2525	2422	744.5	983.7	DROP #21
080842	3437	7631	269	250	14.2	12.5	172	87.2	2565	2421	740.8	979.1	BT8
081909	3429	7719	252	238	17.2	12.1	155	55.4					DROP #22
082711	3426	7727	240	233	16.6	16.4	166	33.3					DROP #23
0823	3420	7737											DROP #24
083722	3327	7732	105	115	14.5	12.5	248	68.2	2598	2468	737.8	979.0	DROP #25
084851	3317	7633	354	344	13.5	13.2	227	76.3	2516	2424	745.4	985.2	BT9
090447	3437	7639	258	236	14.9	12.7	183	98.0	2588	2365	741.3	973.2	DROP #26
090903	3438	7658	269	249	15.1	11.9	176	82.3	2675	2418	730.5	962.9	DROP #27 ENT
091200	3436	7712											DROP #28
0916	3427	7728											
092213	3411	7745	221	232	16.5	9.7	294	69.7	2746	2547	724.0	968.0	DROP #29
092350	3406	7749	211	222	15.6	10.1	295	65.1	2749	2572	723.9	970.4	DROP #30
0940	3441	7726											
101950	3230	7907											BUOY + CLIMB

ϕ_{300}, ϕ_{316}

16 SEP 57

REMARKS
FLX 0343Z
33 03N
78 18W

RANGE CONTROL GRAPH



ENROUTE FUEL	
ENROUTE TIME	
ENROUTE FUEL (6K 5K45K RULE)	
RESERVE AT DESTINATION	
REQUIRED RAMP	
ACTUAL RAMP FUEL	

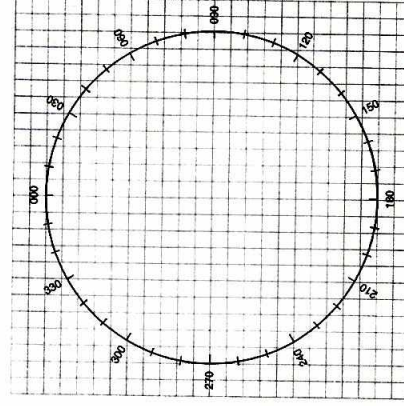
TACTICAL (OFFSTA TO DESTINATION)		
	4 ENG	3 ENG
DISTANCE (OFFSTA TO DEST)		
ENROUTE TIME (OFFSTA TO DEST)		
BURN RATE (LBS/HR)	4500	5500
ENROUTE FUEL REQUIRED		
RESERVE AT DESTINATION		
FUEL AT OFFSTA		

POINT OF SAFE RETURN		
	4 ENG	3 ENG
ETP DISTANCE (TO DEPARTURE)		
ENROUTE TIME (TO DEPARTURE)		
BURN RATE (LBS/HR)	4500	5500
FUEL REQUIRED		
RESERVE AT DEPARTURE		
PSR FUEL		

CEX - TRUE BEARING METHOD				
COMPASS TYPE	INS1	INS2	WET	
MCH (READING)				
- MTH (SEXTANT)				
CE				
- VAR				
DEV				

CEX - ERB METHOD				
COMPASS TYPE	INS1	INS2	WET	
MERB (DIAL.000)				
+ ZN				
= MTH				
MCH (READING)				
CE				
- VAR				
= DEV				

CEX SIGHT	
GMT	
GHA	
CORR	
GHA	
LONG $\pm$ W -E	
EXACT LHA	
LAT	
BODY	
DEC	
HC / D	
CORR	
HC	
Z	
ZN	



WIND FACTOR		
WINDSPEED	HEADWIND	TAILWIND
10	1.03	.97
20	1.06	.94
30	1.10	.92
40	1.14	.89
50	1.18	.87
60	1.22	.85

	200	250	300	350
PRESS ALT				
10,000	1.0	1.0	.99	.99
20,000	.99	.98	.97	.97
30,000	.97	.96	.95	.94
40,000	.96	.94	.92	.90

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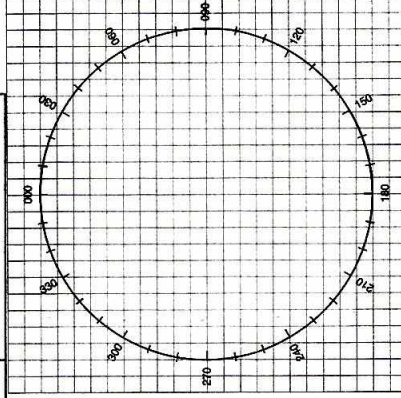
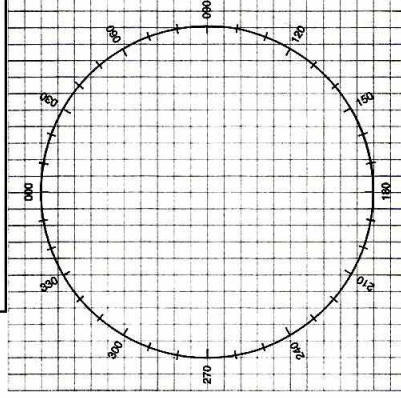
ETP = .5(TOTAL DISTANCE x OUTBOUND WIND FACTOR)

NC

[illegible]

MISSION LOG

PAGE OF



POSITION REPORT

1. POSITION
 2. TIME
 3. ALTITUDE
 4. NEXT POSITION
 5. ETA
 6. NEXT POSITION

EMERGENCY MESSAGE

TRANSMIT THE FOLLOWING MESSAGE TO ANY AGENCY ON THE AIR-GROUND FREQUENCY IN USE. IF UNABLE TO ESTABLISH COMMS, ATTEMPT CONTACT ON ANY OF THE FOLLOWING EMERGENCY FREQUENCIES:

UHF/VOICE	VHF/VOICE	MF/VOICE	HF/CW	MF/CW
243.0	121.5	2182 KHZ	8364 KHZ	500 KHZ

MAYDAY. MAYDAY. MAYDAY.

THIS IS NOAA _____, NOAA _____, NOAA _____

- POSITION _____ N/S _____
E/W AT _____ Z _____

- HEADING _____ TRUE/MAG _____

- AT _____ KTS TRUE/INDICATED

- FLIGHT LEVEL OR ALTITUDE _____

- WE ARE A P-3 AIRCRAFT

- NATURE OF EMERGENCY

- ASSISTANCE DESIN

PILOT INTENTIONS

[illegible]

N42RF AVAPS DropSonde Log

N42RF Project: FLOYD LAND FALL

Flight ID: 990916H

Mission: Floy #4

Flight #: 4

System Status: OK

Drop #	Sonde Serial Number	Time (Z)	Chn #	Press. offset	Winds time	Operator Init.	Comments Drop Status	BAD ☒	GOOD ☒
1	991845 148	0441	2	Ø	21	JCPB			✓
2	990 935 168	0502	3	Ø	69	JCPB	LATE WINDS	✓	
3	991 435 107	0514	2	Ø	21	JCPB			✓
4	991 515 138	0514	4	Ø	24	JCPB			✓
5	991 845 159	0533	2	0.5	25	JCPB			✓
6	991 515 166	0540	2	Ø	29	JCPB			✓
7	990 935 144	0547	4	Ø	70	JCPB			✓
8	990 935 054	0552	4	Ø	29	JCPB			✓
9	990 935 114	0606	2	Ø	25	JCPB			✓
10	990 935 050	0611	4	Ø	—	JCPB	NO LAUNCH DETECT	✓	
11	991 515 241	0612	2	Ø	29	JCPB			✓
12	990 935 146	0614	1	Ø	23	JCPB			✓
13	990 935 145	0638	2	Ø	41	JCPB			✓
	990 415 360	0640	4	Ø	18	JCPB			✓
15	990 415 375	0644	1	Ø	21	JCPB			✓
16	990 935 048	0710	2	Ø	34	JCPB			✓
17	990 935 143	0722	4	Ø	4	JCPB	NO LAUNCH DETECT	✓	
18	992 455 395	0722	2	Ø	41	JCPB			✓
19	990 935 117	0739	2	Ø	—	JCPB	NO WINDS	✓	
20	990 935 112	0751	4	Ø	10	JCPB			✓
21	990 845 100	0808	2	Ø	51	JCPB			✓
22	990 935 116	0819	2	Ø	12	JCPB			✓
23	990 935 214	0821	4	Ø	26	JCPB			✓
24	990 935 135	0837	3	↓	26	MER			✓
25	991 515 191	0905	1	↓	30	↓			✓
26	991 515 194	0909	2	↓	15	↓	WINDS INT	✓	
27	990 935 215	0912	3	↓	20	↓			✓
28	990 415 352	0922	4	↓	20	↓			✓
29	991 018 021	0924	1	↓	33	↓			✓
30	990 415 350								
31									
32									
33									