

Hurricane 1999

Hurricane Floyd - Synoptic Flow #2

Flight #8: 990912H

<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 1724:01-1732:15. A spike also occurred at landing and RA159 was replaced by RA232 (0248:30-0256:00).

Dewpoint (DW1) was replaced by DW2 from 1724:01-1846:00 and 2155:41-0046:43. Dewpoint (DW1) exceeded ambient temperature (AT2) several times due to heavy precipitation.

Total temperature (TT2) had a spike and was replaced by TT1 from 0101:30-0105:00 with an offset of +0.12 and from 0202:00-0206:30 with an offset of +0.15.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1017.0	1009.2
Corrected tower pressure	1018.3	1011.5

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

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.1 OAOWF1 FILE

FLT ID: 990912H	FM: TXKE	TO: TISX
FLT NO: 99-021	BLK IN: 0056Z	ATA: 0251Z
ETD: 1830Z	DLK OUT: 1723Z	RTD: 1729Z
ETE: 0300Z	BLK TIME: 9:33 9.6	FLT TIME: 9:22 9.4
SPONSOR ORG: NOAA	PROGRAM: NHC	PURPOSE: SYN FLOW. FLOWD

OAO PERSONNEL

AC TAGGART, B ✓	SYS ENG MLMILLAN, S
CP TENNESEN, D / OMARA, T ✓	DATA SYS ROLES, JV
NAV NEWMAN, C ✓	RADAR
FE BAST, G / TORREY, R ✓	DT/ODW PRADAS, C
RADIO	CLD PHYS
FD CZ424K, S ✓	DOPPLER CARRY, J ✓

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
BLACK, M -	PI	HRD
BLACK, B -	SCIENTIST	"
WILHORN, E -	"	"
DODGE, P -	"	"
CARSWELL, J -	SCAT/SMFR	UMASS

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

2. PENETRATION

6 2208Z 6 2255Z
 23 21 23 22
 68 20 68 25

2

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

FLT ID: 990912H TIME OFF: 1729Z TIME ON: 0251Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1017.0	30.07	1009.2	29.89

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		
AXCP		
ODW		
GPS	33	15HRD

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

990912H

TIME	LAT	LONG	TK	HD	TX	TD	WD	WS	PA	GA	PS	SP	REMARKS
175545	30 56	63 41	150	151	-2.0	-10.6	157	6.9	489.7	5198	547.7	1013.2	LEVEL 16 KRA
181108	29 56	63 01	151	151	-2.3	-22.6	115	10.0	4896	5189	547.8	1014.0	DROP #1
184828	27 30	61 29	181	180	-3.7	-9.7	124	10.9	5067	5359	535.7	1013.6	DROP #2
1859	26 42	61 30											CLIMB
191950	25 12	61 30											CLIMB
192255	25 00	61 33	270	267	-5.6	-13.0	131	28.7	5243	5528	523.0	1012.2	DROP #3
194203	25 00	63 16	269	267	-3.4	-4.5	130	29.1	5240	5516	523.0	1005.5	DROP #4
194330													IN CLOUD
200124	25 03	65 03	334	337	-3.8	-13.8	137	41.1	5243	5496	523.0	1004.6	DROP #5
202514	27 00	65 45	341	348	-3.7	-6.1	114	37.8	5331	5616	516.7	1005.5	DROP #6
205229	28 58	66 37	202	195	-4.1	-14.4	96	27.8	5458	5772	507.9	1008.2	DROP #7
211401	27 20	67 20	200	194	-4.2	-6.5	90	37.6	5460	5750	507.9	1005.1	DROP #8
213548	25 29	68 07	202	194	-2.9	-9.2	71	55.5	5463	5711	507.2	997.1	DROP #9 BAD
213630													RECEIVED
214400	25 02	68 14											DROP #10
2150													IN CLOUD (NORTH)
215440	24 16	68 14	180	161	3.8	3.7	91	84.4	4225	4251	598.7	984.1	DROP #11
220310													DROP #12
220317													DROP #13
220331													DROP #14
2208	23 21	68 20											DROP #15
221712	22 42	68 20	180	196	3.8	4.1	273	64.7	4231		597.6	984.2	DROP #16
221744	22 40	68 20											DROP #17
223948	23 27	67 15	269	256	3.8	2.5	166	62.5	4188	4251	601.4	989.1	DROP #18
225240	23 24	68 26											DROP #19
2255	23 22	68 25											EYE
230348													DROP #20
230810													DROP #21
230425													DROP #22
2320	23 22	68 27											DROP #23
231438	23 19	68 45											DROP #24
231446													DROP #25
232024	23 11	69 47	147	140	2.6	3.2	1	59.0	4382	4465	586.2	989.2	DROP #26
000350	20 51	68 11											CLIMB
001008	20 29	67 50	56	56	-4.8	-12.0	247	33.2	5623	5894			DROP #27
001210	20 31	67 46											DROP #28
004724	22 00	64 57	92	97	-7.9	-16.4	189	24.3	5806	6114	484.5	1007.9	DROP #29
004912	22 00	64 49											DROP #30
010747	22 00	63 15	89	92	-6.6	-17.5	176	9.9	5801	6133	484.5	1006.7	DROP #31
013002	21 56	61 27	201	199	-7.1	-8.2	120	12.9	5806	6142	484.5	1008.8	DROP #32
020548	21 37	63 16	219	217	-7.2	-9.0	163	12.8	5806	6132	484.5	1007.8	DROP #33

NORTH HEMISPHERE
INTERLON

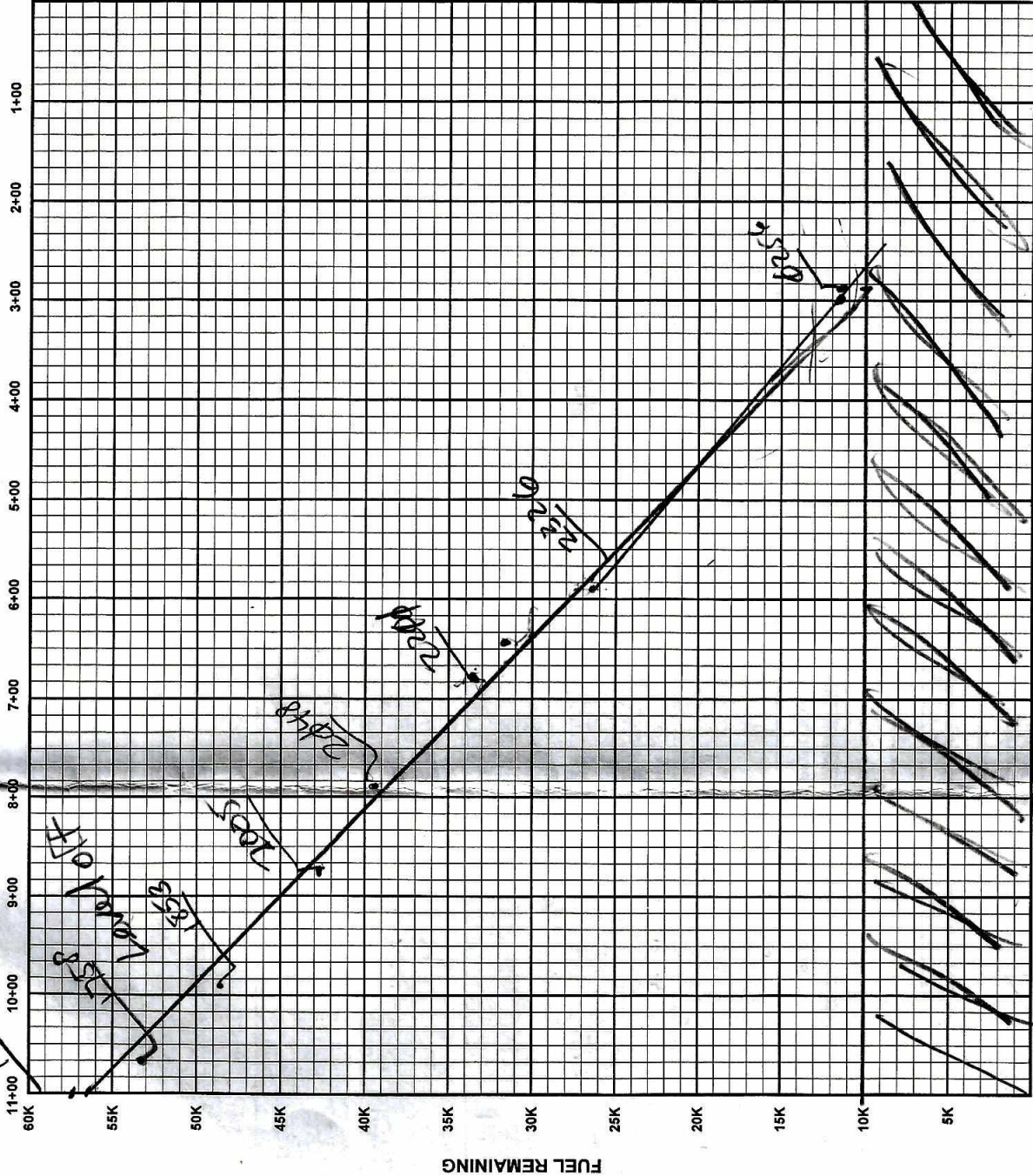


**U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AIRCRAFT OPERATIONS CENTER**

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RANGE CONTROL GRAPH

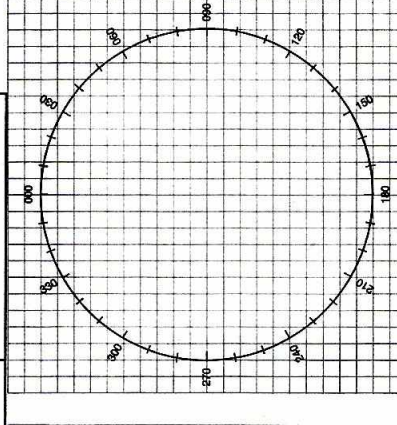
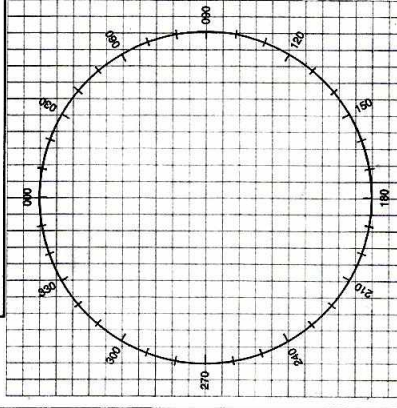
TIME REMAINING



FREQ	ALT	HGD	CLEARANCES
			OTHER
			N _A "
			8 08' 1"
			1 φ
			25 26.4' + 9'
			2700 0002
			2000 0002
			2000 0002
			gts
			gts

[illegible]

MISSION LOG PAGE ____ OF ____



POSITION REPORT

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

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

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 _____

- HEADING _____ TRUE/MAG _____

-AI _____ KIS TRUE/INDICATED
EIGHT LEVEL OR ABOVE

- FLIGHT LEVEL OR ALTITUDE _____
- WE ARE A B 3 AIRCRAFT WITH
SQUADRON BOARD

- WE ARE A F-3 AIRCRAFT
- NATURE OF EMERGENCY

- ASSISTANCE DESIGN

- PILOT INTENTIONS

[illegible]

N42RF AVAPS DropSonde Log

N42RF Project: HURRICANE Floyd Flight ID: 990912H

Mission: Floyd Flight #: 2 System Status: OK

Drop #	Sonde Serial Number	Time (Z)	Chn #	Press. offset	Winds time	Operator Init.	Comments Drop Status	BAD ☒	GOOD ☒
1	990 838 032	1811	1	0.1	34	JCPB			✓
2	990 838 028	1848	2	-1.1	25	JCPB			✓
3	990 838 026	1923	1	-0.9	18	JCPB			✓
4	990 935 046	1942	2	-0.9	30	JCPB			✓
5	991 018 007	2001	1	0.0	22	JCPB			✓
6	990 935 041	2025	2	0.4	21	JCPB			✓
7	992 615 063	2052	1	0.0	27	JCPB			✓
8	992 615 061	2114	2	0.0	21	JCPB			✓
9	990 838 031	2135	1	↑	21	JCPB	Fast Fall	✓	
10	991 018 064	2144	1		never	JCPB	No Winds 5/6 blinked on/off	✓	
11	991 435 009	2154	2		17	↑			✓
12	992 515 733	2203	1		60				✓
13	992 645 006	2203	3		90				✓
	992 515 754	2203	4		35				✓
15	992 515 734	2208	2		56				✓
16	992 515 755	2217	1		26				✓
17	992 515 753	2219	3		35				✓
18	990 415 135	2239	1		19				✓
19	992 645 007	2250	1		20				✓
20	992 515 761	225?	2		40				✓
21	992 455 499	2205	1		24		Late Launch Detect	✓	
22	992 515 757	2205	3		36				✓
23	992 455 397	2205	4		18				✓
24	992 615 013	2314	1		21				✓
25	992 615 005	2314	2		21				✓
26	992 515 766	2330	1		12		Late Launch Detect	✓	
27	990 935 172	0011	2				No Launch Detect	✓	
28	990 935 165	0012	1		21				✓
29	992 455 321	0047	1		90		LATE WINDS	✓	
30	992 515 774	0049	2		70		LATE WINDS	✓	
	992 455 396	0107	1		41				✓
	992 455 317	0130	1	*	47	*			✓
33	992 455 398	0205		↓	60	↓			✓

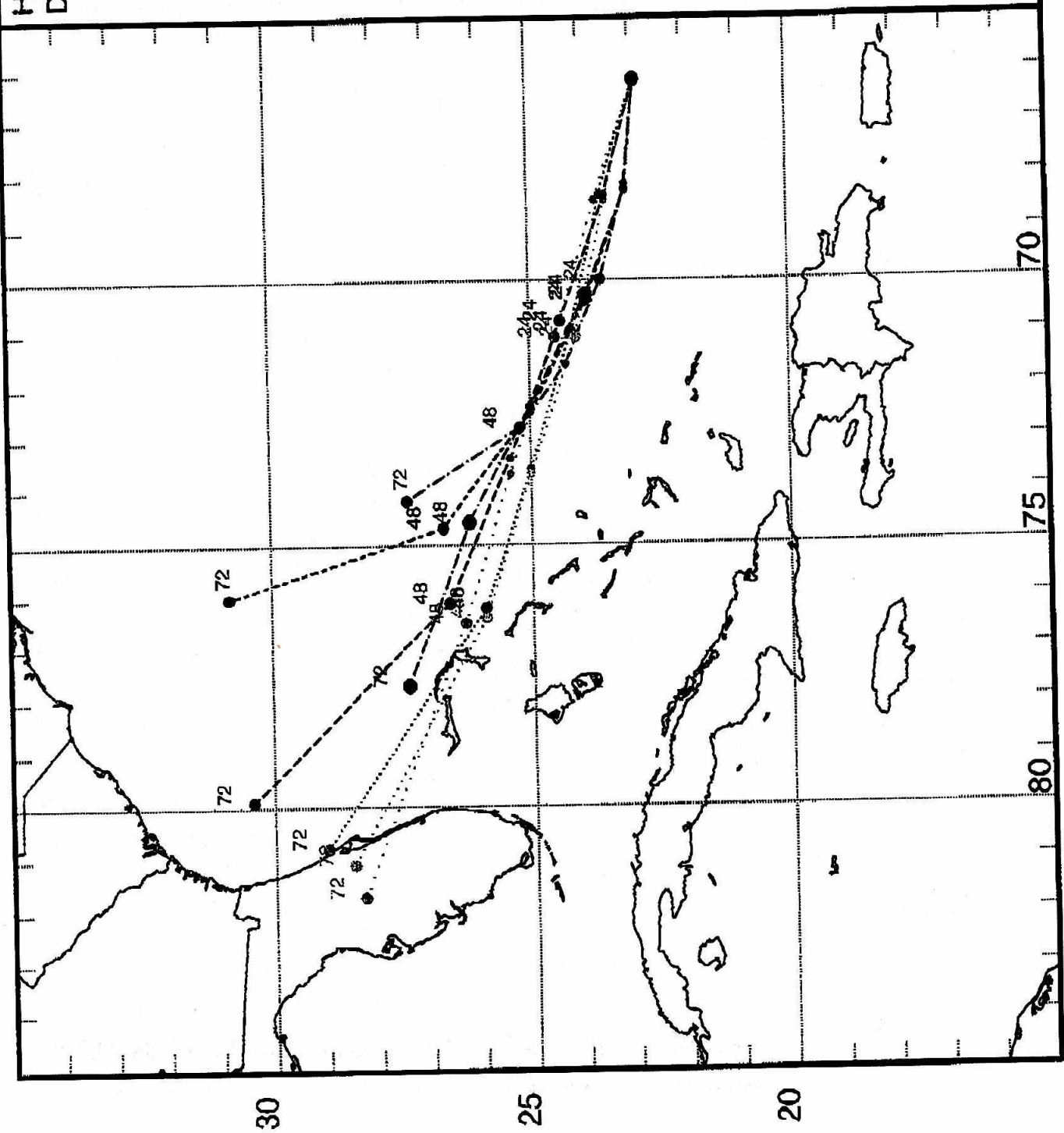
HURRICANE RESEARCH
DIVISION AOML/NOAA

FLOYD

9/12/99 12 UTC

- BAMD
- BAMM
- BAMS
- LBAR
- A90E
- CLIP
- A98E

PLOTTED AT LOCAL TIME
11:44:16 12-SEP-99

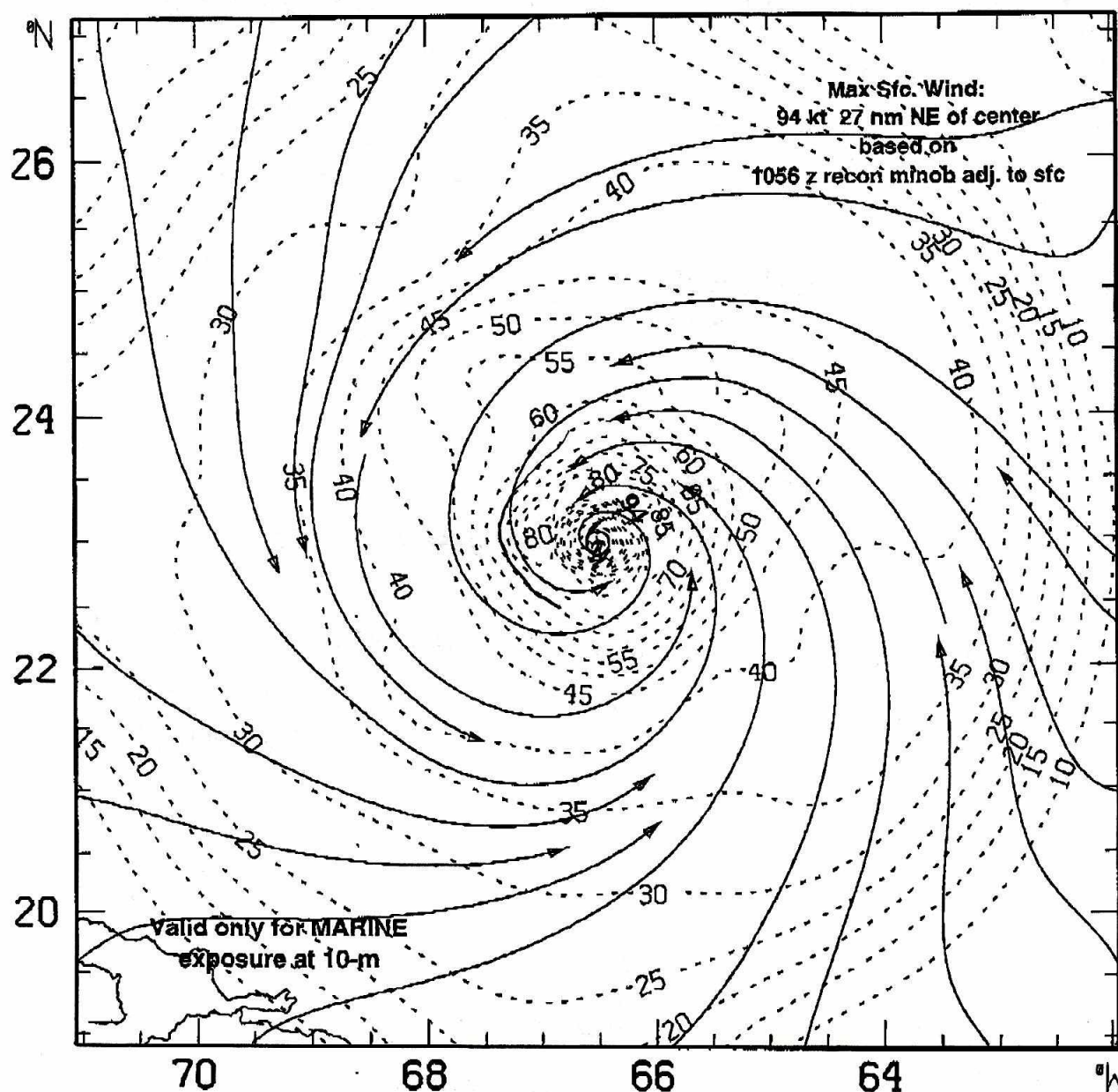


ATTENTION: HURRICANE SPECIALISTS**Hurricane Floyd 1330 UTC 12 Sept. 1999****Max. 1-min sustained surface winds (kt) for marine exposure**

Analysis based on US AFRES C-130 Recon. winds at 700 mb adj. to sfc: 0633 -1138 z.

One ship at 1200z, 6 GPS sondes sfc. obs.: 0607, 0738, 0746, 0913, 0920, 1105 z;

1330 z position extrapolated from 1105 z wind center fix using 275° @ 11 kt, mslp = 955 mb.



Experimental research product of :

NOAA / AOML / Hurricane Research Division