

Hurricane Danielle

VME

Flight #7 H980829

<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	CO2989.CON

Notes:

The radar altimeter (RA159) had a spike at takeoff and was replaced by RA232 from 1832:01-1835:26. A dip in RA159 was replaced by RAGPS from 1837:20-1837:30. Several spikes in RA159 were removed and patched throughout the flight (0225:31-0226:00, 0111:01-0112:00 and 0206:01-00206:30). A spike also occurred at landing and was replaced by RA232 (0335:48-0342:00).

Dynamic attack pressure (DAP) and dynamic slip pressure (DBP) had over-exaggerated readings due to possible leak in line during and shortly after times of precipitation. During these times frames, both DAP and DBP were replaced by PQF1 (dynamic pressure) with the appropriate offset. DAP replacements: 2005:53-2141:58 offset (-0.9), 2220:28-2248:03 offset (-0.75), 2350:00-0026:03 offset (-0.9), and 0035:06-0203:48 offset (-0.9). DBP replacements: 2005:50-2011:00 offset (+5.5), 2022:14-2029:38 offset (+5.4), 2035:50-2150:26 offset (+5.3), 2220:00-2341:40 offset (5.0) and 2359:00-0201:15 offset (+5.5).

Total temperature (TT2) had several spikes that were replaced by TT1 or TT3 with offsets: 2059:30-2100:30 offset TT1+0.55, 2120:35-2121:05 offset TT1+0.55, 2230:10-2230:30 offset TT1+0.45, 2326:50-2327:10 offset TT3+2.5, and 0036:48-0037:11 offset TT1+0.55.

Dewpointer #1 (DW1) had a spike due to overheating removed and patched 0325:00-0327:00. DW1 may be erroneous due to sensor freezing 0317:00-0325:00. Dewpoint temperature (DW1) exceeded ambient temperature (AT2) several times due to heavy precipitation.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1014.9	1015.2
Corrected tower pressure	1015.2	n/a

The aircraft INE positions were re-navigated 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 OAO WF 1 FILE

FLT ID: 980829H	FM: KMGF / KOPF	TO: KOPF / KOPF
FLT NO: 98-072	BLK IN: 1459Z / 0348Z	ATA: 1456Z / 0340Z
ETD: 1400Z / 1830Z	BLK OUT: 1352Z / 1828Z	RTD: 1404Z / 1835Z
ETE: 1500Z / 0400Z	BLK TIME: 10.25 10.4	FLT TIME: 9.58 10.0
SPONSOR ORG: HRD	PROGRAM:	PURPOSE: VME. HVAR. DANIELLE

OAO PERSONNEL

AC PHILIPPSBOAN, R ✓	SYS ENG McMillan, S ✓
CP TENNESON, D / Omparo, T ✓	DATA SYS
NAV RATHBUN, D -	RADAR BARR, J ✓
FE BAST, G / TORREY, R	BT/ODW SMITH, J ✓
RADIO ROGERS, M ✓	CLD PHYS
FD CZYZYK, J ✓	DOPPLER CURRY, J / McFadden, J ✓

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
GAMACHE, J ✓		HRD
BLACK, M ✓		"
DODGE, P ✓		"
WILLOUGHBY ✓		"
GALL, B -		NCAR
SMITH, R ✓		GERMANY U OF MUNICH
HARRISON, C ✓		FOX NEWS
POUTIVS, C ✓		FOX NEWS

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)
 1419Z BALANCE DW#1
 25.5N 71.0W
 WX04A DANIELLE 20-22Z FIX
 TEAL29 @ 2330Z (JOHN TALBOT) OUT ST. CROIX (SK)
 TTZ 1 DEGREE WARM
 10 PENETRATIONS

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

FLT ID: 9808284 TIME OFF: 1404Z/1835Z TIME ON: 1456Z/0341Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1016.0/1014.9	31.03/29.98		30.01/9

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	2	
FAST FLT LVL TAPES		
RADAR TAPES		
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES		1
AXDT	16	
AXCP		
ODW		
GPS	24	20 km TTRD

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

24 DROPS - 22 GOOD

N42RF AVAPS DropSonde Log

N42RF Project: HURRICANE 98 Flight ID: 980829H

Mission: Danielle Flight #: VME #1 System Status:

Drop #	Sonde Serial Number	Time (Z)	Chn #	Press. offset	Winds time	Operator Init.	Comments Drop Status	BAD <input type="checkbox"/>	GOOD <input type="checkbox"/>
1	982430031	2043	1	0.5	27	JAS	1m Ribbon Removed ^{checked} Fluffed		<input checked="" type="checkbox"/>
2	982430154	2115	2	0.9	✓	JAS			<input checked="" type="checkbox"/>
3	982430071	2129	3	1.0	✓	JAS			<input checked="" type="checkbox"/>
4	982430069	2129	4	0.8	✓	JAS	?		<input checked="" type="checkbox"/>
5	981950007	2138	1	0.5	36	JAS			<input checked="" type="checkbox"/>
6	981950073	2139	2	.3	✓	JAS			<input checked="" type="checkbox"/>
7	981950024	2148	3	1.3	58	JAS			<input checked="" type="checkbox"/>
8	981950066	2226	4	0.8	✓	JAS	AVAPS		<input checked="" type="checkbox"/>
9	981950016	2228	1	0.5	30	JAS	27.3		<input checked="" type="checkbox"/>
10	981950034	2256	2	0.7	✓	JAS			<input checked="" type="checkbox"/>
11	981950001	2304	3	0.7?	✓	JAS			<input checked="" type="checkbox"/>
12	982010033	2307	4	0.6?	✓	JAS			<input checked="" type="checkbox"/>
13	982430177	2308	1	0.7	✓	JAS			<input checked="" type="checkbox"/>
	981810039	2332	2	? 0.4	60	JAS			<input checked="" type="checkbox"/>
15	982430157	0001	3	0.3	35	JAS			<input checked="" type="checkbox"/>
16	982010036	0006	4	0.4	28	JAS			<input checked="" type="checkbox"/>
17	982430024	0006	1	0	23	JAS			<input checked="" type="checkbox"/>
18	981810036	0038	2	0.5	93	JAS			<input checked="" type="checkbox"/>
19	982430178	0054	3	0.5	✓	JAS			<input checked="" type="checkbox"/>
20	981750004	0105	4	0.3	72	JAS			<input checked="" type="checkbox"/>
21	98201059	0107	1	0	58	JAS			<input checked="" type="checkbox"/>
22	981750009	0141	2	0.6	115	JAS	Fast Fall - Some Winds	<input checked="" type="checkbox"/>	
23	982430095	0142	3	-0.1	72	JAS		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
24	981950005	0159	4	0.5		JAS	lost telem shortly after launch		
25									
26									
27									
28									
29									
30									
31	AVAPS NOTE: SMALL TRIANGLES AT PRESS OFFSET HARD TO DO IN TURBULANCE								
32									
33									

VAISALA P111A used for press. offset s/n N3630079 ^{→STM}

-85 -80 -75 -70 -65

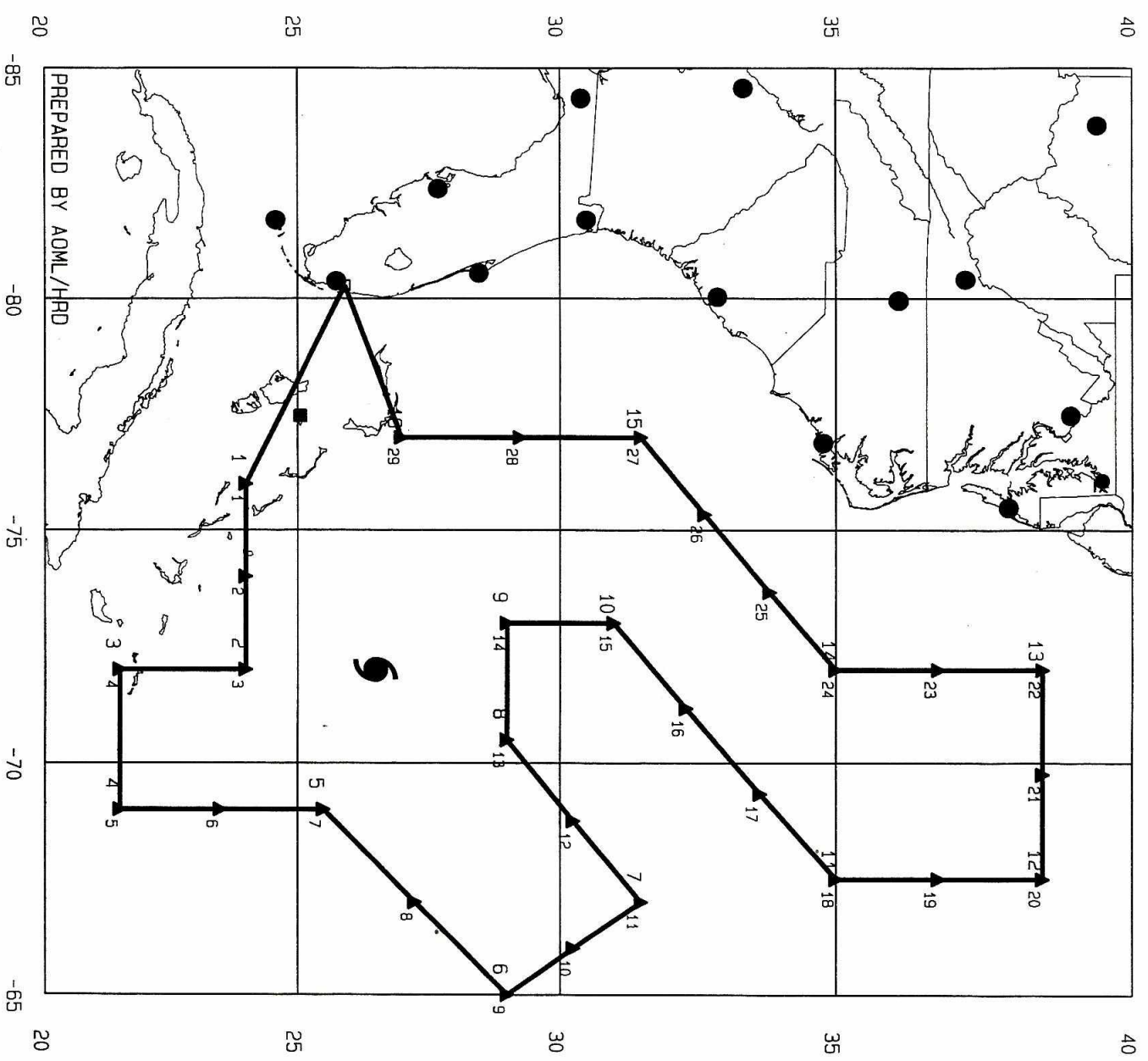
FLIGHT TRACKS DANIELLE

980829np .ftk

RAWINSONDES 9807

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

▲ DROP LOCATIONS

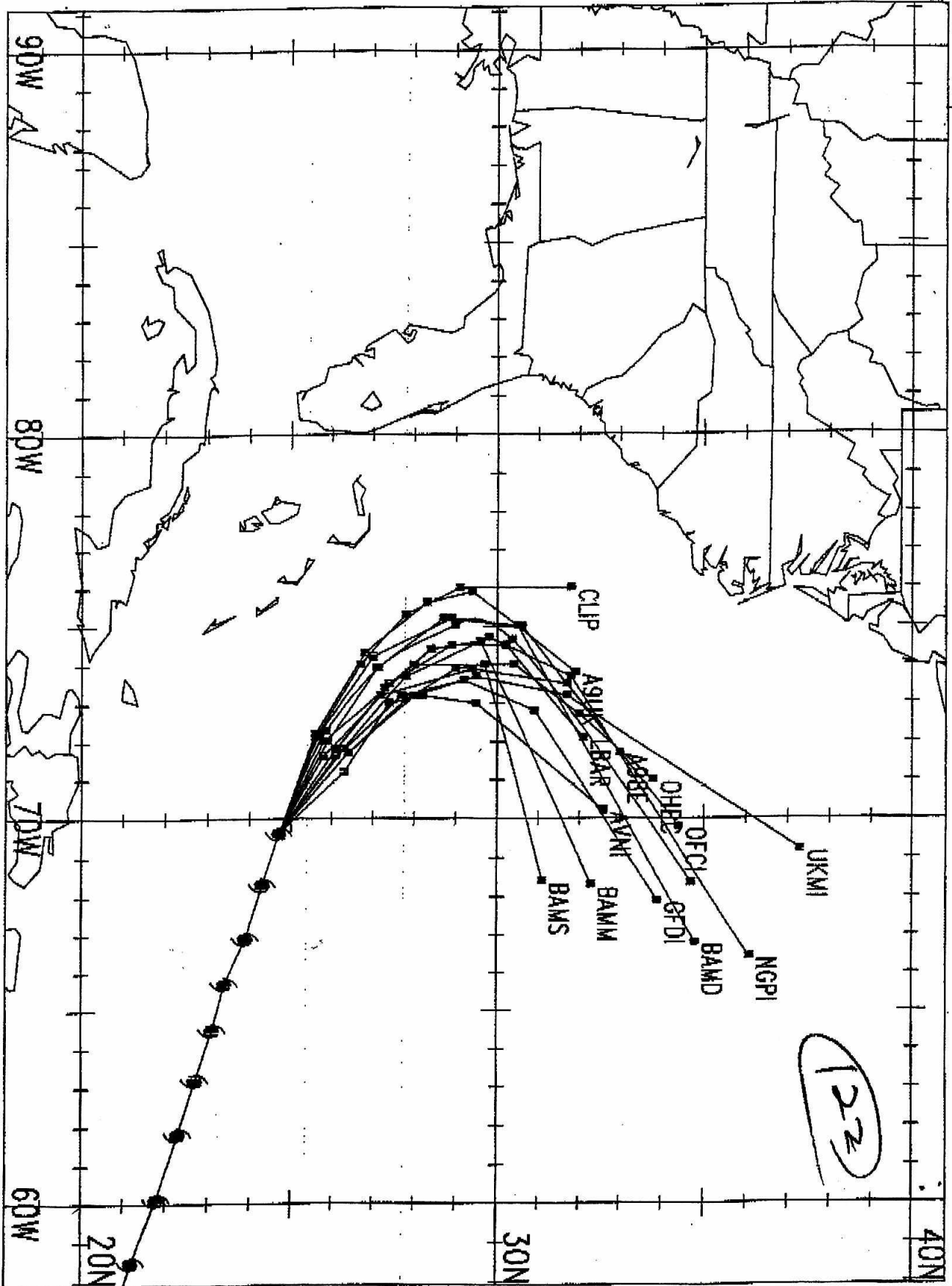


PREPARED BY AQML/HRD

29/1200Z

DANTELE

AL0498

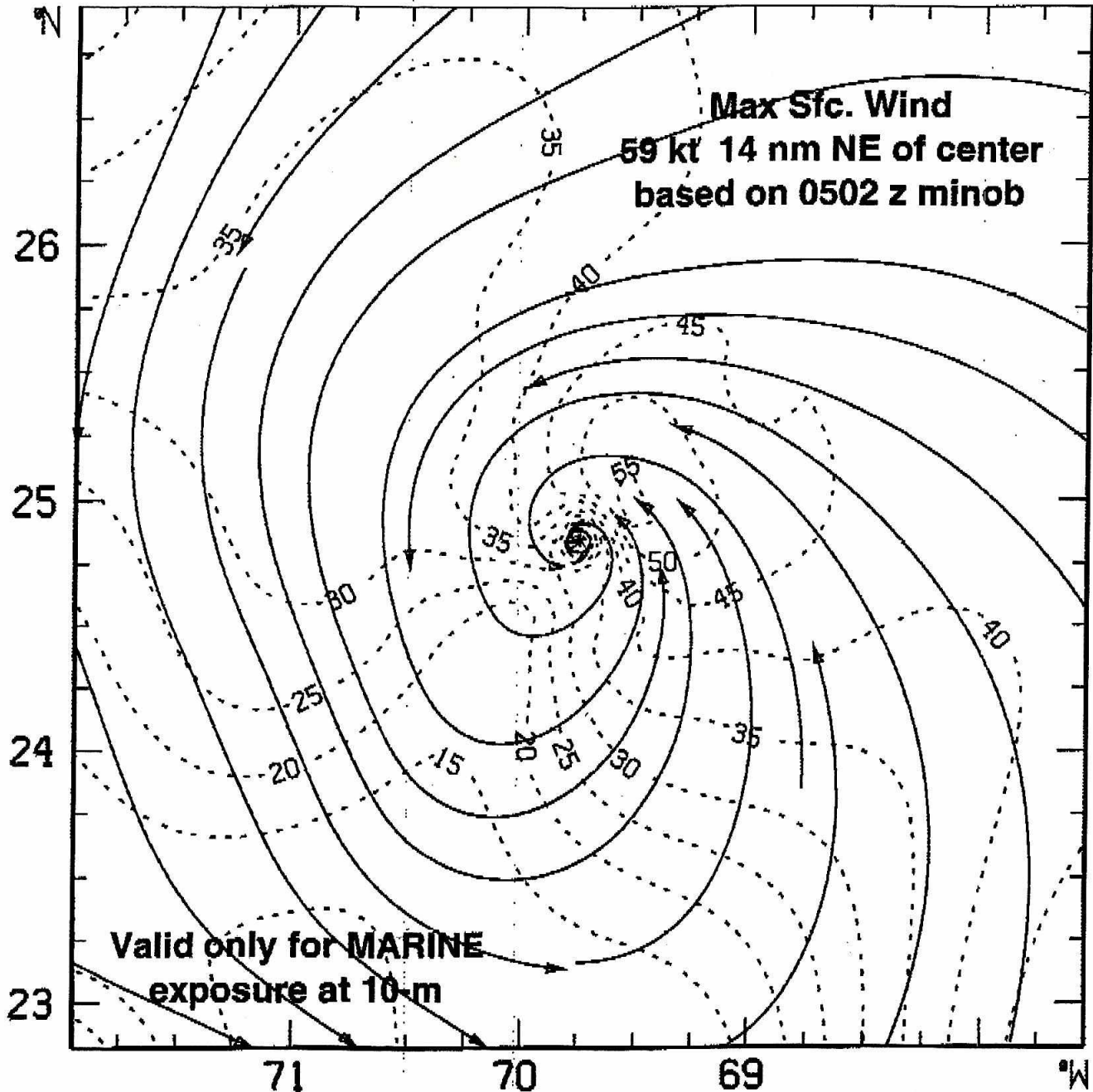


ATTENTION: HURRICANE SPECIALISTS

Hurricane Danielle 1330 UTC 29 August 1998 **Max. 1-min sustained surface winds (kt) for marine exposure**

Analysis based on AFRC C-130 Recon data 850 mb sfc adjusted: 0430 - 1247 z;
ships from 06 - 12 z;

1330 z position extrapolated from 1142 z fix using 300 deg @ 12 kt



Experimental research product of :

NOAA / AOML / Hurricane Research Division