A GENTRO DELENIONES CENTE To: Fit ID: From: 30912 SV Blk In: ATA: FIt No: 03 2 2 ATD: Blk Out: ETD: 15002 ス **Blk Time:** Flt Time: ETE: 6.8 7+00 Program: CB4AST Purpose: Sponsor Org: HRD ISABEL HESTER URR CORAN O/GERENKSOFINE Sys Eng: AC: ONG, EBEEST Data Svs: CP: STRONG, TENNESEN Radar: Nav: NEWMAN GPS/BT: FE: Smint, MALALLI HELA FD: Cld Phys: LAHER AMUNO Avion ics: SANS DOUC Car Perterior and the selection of the selection Affiliation Name (Last, First) Activity on Aircraft 「おいない BLACK,  $R\Gamma$ KADAR HALL 2004RS SCRIPS VIS SCI LASWELL site − .... HRID RATAR ULTOW - <u>12- -</u> 17. 42 RENCH ARL ls SCI VIS SC MONTGOMERY GLO STATE Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #) 787 1709 KING WW MAY BEINOP DELTA FREQ 289 IP 22.0 22 24/6157 FOR SONDES 2041 640 BARANCED TO 2 2029 (2 1917 TDZ READING TOD HIGH -T.L. NOTIFIED 2236/6225 Nase 1032 IN 22.0 / 60,4 935mb 43 1709 22 24/6157 934mb THS 303 CS 308 AF 1853 2232 16219 932mb 43 1957 2236/6225

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## NOAA P-3 N43RF CBLAST- HURRICANE ISABEL INVESTIGATION FLIGHT 1



## Flight ID: 030912I

Sensor or system INE Accelerometer Temperature Probe Dew Point Probe Altitude (for vertical wind) Static Pressure Dynamic Pressure Time Source Constants File

Number or Name
1
1
1
2 (EdgeTech)
Radar Altimeter 159
Rosemount Fuselage
Rosemount Fuselage 1281
Micro 99
CO3033.CON

Notes:

There were several time/data gaps during this flight which occurred during the times 165241-165250, 212841-212850, 213151-213210, 213131-213140, 213031-213040, 213001-213010, and 213321-213340.

RA-232 was substituted for RA-159 from 150301-150641(take-off), 174853-180040, and 215709-221000 (landing) due to spiking. Roll2 was substituted for Roll1 from 220159-220327 due to spiking. Due to a large PQAF (Dynamic Attack Pressure) - PQF1 (Dynamic Pressure) separation caused by low-level flying, PQF1 was substituted into PQAF with an offset of 2.1 to minimize this difference from 180315-192244.

All other instruments worked optimally during the flight. However, several times during the flight, the dewpoint temperature exceeded the ambient temperature resulting in a RH >> 100%. This was likely due to heavy rain (as reflected in the J-W Liquid Water Sensor data), a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dewpoint sensor as it tried to remove excess moisture. For times where the RH% was consistently greater than 120%, corrections were made to the dewpoint data (164730-174040, 191930-205800).

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.

	Takeoff	Landing
Aircraft Static Pressure	1012.9 mb	1010.5 mb
Corrected Tower Pressure	1012.2 mb	1010.5 mb

Flight Director:

Paul Flaherty (813) 828-3310 ext. 3094

7. DAM MANC	6 NEWMAN NAVIGATOR	5. LAHERT	A BLACK STATION 1	3. FLIGHT ENGINEER	2 COPILOT COPILOT	1. STRONG	FD FD B1 B2 B2 Station 2	NAV NAV	•	NOAA AIRCI	•
PROJECT SEAT	PROJECT SEAT	12. LYNCH STATION 4	STATION 3	10. KUGERS STATION 3	9. ULHORN STATION 2	8 FRENCH	9 Station 3 10 11 Station 4 12 N 1 1 1 1 1 1 1 1 1 1 1 1 1	Station   Station	Flight ID D309 13 J	RAFT OPERAT	840 - 50
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D	ATE	SCHE	DULED RX TIME	AIRCRAFT NUMBER	FLIGHT D	DIRECTOR,									
	13SEP03		NA	NUJRF	F	AHERTY									
WX	MISSION IDENTIFIER	NO.	AAS UN 13A	DB NUMBER/											
V	VORTEX DATA MESSAGE														
A	13/170	ØZ	DATE and TIME of	FIX		3									
R	22_DEG24MIN	<b>N</b> S	LATITUDE of FIX	LATITUDE of FIX											
Ľ	G( DEG S7 MIN	WE	LONGITUDE of FIX												
С	N/M MB N/A	М	MINIMUM HEIGHT	of STANDARD LEVEL											
D	NA	кт	ESTIMATE of MAXI	MUM SURFACE WIND O	BSERVED										
E	TUTADEG ROTA	-NM	BEARING and RANG	GE FROM CENTER of MA	XIMUM SUR	ACE WIND									
F	27 DEG 130	КТ	MAXIMUM FLIGHT	LEVEL WIND NEAR CEN	TER										
G	29 2 DEG 25	NM	BEARING and RANC	SE FROM CENTER OF M	AXIMUM FLIC	HT LEVEL WIND									
н	NIA	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAP- OLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.												
1	I 7 C / 3618M MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE														
J.	12 C/ Y03	ЭМ	MAXIMUM FLIGHT I	LEVEL TEMP / PRESSURI	E ALTITUDE IN	ISIDE EYE									
К	12 CINA	C	DEWPOINT TEMP /	SEA SURFACE TEMP IN	SIDE EYE										
L	CLOSEDWA	ru	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.												
	NUD		EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190-17 -												
м	210		170 to 350. Transmit diameter in nautical miles. <i>Examples</i> : C8= Circular eye 8 miles in diameter. E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. C08-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.												
	· /		FIX DETERMINED BY	/ FIX LEVEL. FIX DETER	MINED BY: 1-	Penetration; 2-Radar;									
N	12345/N/A		3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center indicate both surface and flight level centers ONLY when same): 0-Sur												
			1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other												
0	LII	NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY												
Р	REMARKS		2	<del></del>											
	MAX FL W	IND	130 KT NW	QUAD (+03 7	دم										

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NSTRUCTIONS: Items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled intermediate) fixes.

D.	DATE		DULED RX TIME	AIRCRAFT NUMBER	AIRCRAFT NUMBER FLIGHT									
wx	MISSION IDENTIFIER	L			OB NUMBER									
V	ORTEX DATA MES	SAG	Ξ.											
Α	13 / 191	-7 z	DATE and TIME of FIX											
R	TODEG 36 MIN	👌 S	LATITUDE of FIX											
	62 DEG Z5MIN	Ø E	LONGITUDE of FIX	LONGITUDE of FIX										
С	WA MB NLA	М	MINIMUM HEIGHT	of STANDARD LEVEL										
D	NO	КТ	ESTIMATE of MAXIN	MUM SURFACE WIND O	BSERVED									
E	MADEGNA	NM	BEARING and RANG	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND										
F	167 DEG 147	KT	MAXIMUM FLIGHT	LEVEL WIND NEAR CEN	ITER									
G	DEG	NM	<b>BEARING and RANG</b>	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND										
Н	NLA	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAP- OLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS											
I .	8 c /	М	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE											
J .	1201406	М	MAXIMUM FLIGHT I	EVEL TEMP / PRESSUR	E ALTITUDE II	NSIDE EYE								
К	13 C/ W/A	1c	DEWPOINT_TEMP / SEA SURFACE_TEMP INSIDE EYE											
L	Closed wa	Ŋ	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.											
M	C-45		EYE SHAPE/ORIENTA E - Elliptical. Transmit of 170 to 350. Transmit dia E09/15/5=Elliptical eye, 5 NM. CO8-14=Concent	TION/DIAMETER: Code rientation of the major axis meter in nautical miles. <i>Exc</i> major axis 090-270, length o ric eye, diameter inner eye 8	e eye shape as: ( in tens of degre <i>amples</i> : C8= Circ of major axis 15 3 NM, outer eye	C - Circular; CO - Concentric; es, i.e., 01-010 to 190; 17 - cular eye 8 miles in diameter. NM, length of minor axis 14 NM.								
N	12345 /NA	,	FIX DETERMINED BY 3-Wind; 4-Pressure; 5 indicate both surface 1-1500 ft; 9-925mb; 8 NA-Other	/ FIX LEVEL. FIX DETER -Temperature. FIX LEV and flight level center -850mb; 7-700mb; 5-50	MINED BY: 1- EL (Indicate s rs ONLY when 00mb; 4-400n	Penetration; 2-Radar; urface center if visible; same): 0-Surface; nb; 3-300mb; 2-200mb;								
C	1/1	NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY											
P	REMARKS MAX FL W	IND_	47 KT NE	QUAD 1950 z	- - -									

NSTRUCTIONS: Items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled intermediate) fixes.

	EMERGENCY MESSAGE	MIT THE FOLLOWING MESSAGE TO ANY AGENCY ON THE AIR-GROUND ENCY IN USE. IF UNABLE TO ESTABLISH COMMS, ATTEMPT CONTACT ON	THE FOLLOWING EMERGENCY FREQUENCIES:	OICE VHFVOICE MF/VOICE HF/CW MF/CW 121.5 2182 KHZ 8364 KHZ 500 KHZ	AY, MAYDAY S NOAA NOAA NOAA		DING TRUE/MAG KTS TRUE/INDICATED	HT LEVEL OR ALTITUDE	STANCE DESIRED TINTENTIONS 4AVEENDURANCE REMAINING	NST TIME ETA REMARKS	TAK 52.9K	J.J.			2 kr	AT SURFAU		(25 × 20)			ONN?	Choik				
		FREQUI	ANY OF	0HF/V 243.0	MAYD. THIS IS	ISO4 -	- HEAL	- FLIG - WE A - NATU	- ASSI - PILO - WE H	NEXT D PT D			40	×		60KH										
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