

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

FLT ID: 971024H	FM: MCF	TO: MCF
FLT NO: 98-002	BLK IN: 20512	ATA: 20432
ETD: 1430Z	BLK OUT: 1430Z	RTD: 1441Z
ETE: 2130Z	BLK TIME: 6:21 6.4	FLT TIME: 6:02 6.0
SPONSOR ORG: HRD	PROGRAM: 1	PURPOSE: C-SCAT TEST

OAO PERSONNEL

AC PHILIPPSBORN, R	SYS ENG McMILLAN, S ✓
CP TACCART, B / TEBEST, R ✓	DATA SYS CARPENTER, D ✓
NAV RATHBUN, D ✓	RADAR
FE MOORE, B / WADE, S ✓	BT/ODW SMITH, J ✓
RADIO	CLD PHYS
FD CZY2YK, S ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
BLACK, P ✓	R-I	HRD
BLACK, M ✓	RADAR	HRD
SAVTCHENKO, A ✓	C-SCAT	HRD/U OF MIAMI
POPSTEFANIJA, I ✓	C-SCAT	QUADRANT
PAVLO, R ✓	REPORTER	QUADRANT
ALLEN, D ✓		
KEENE, D ✓		

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

DW #1 OUT TO LUNCH AT TAKEOFF
BALANCE DW#1 1509Z

151
ACTIVE

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

FLT ID: 971024H

TIME OFF: 1441Z

TIME ON: 2043Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1015.7	30.04	1012.7	29.93

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		
GRS	7	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

971024H

TIME	LAT	CON	TK	HD	TA	TD	WD	WS	PA	GA	PS	SP	REMARKS
144850	27 40	8220	271	267	10.4	10.4	207	27.7	2570	2700	738.2	1010.6	THRU 8K
151000	28 03	8343	301	295	-11.3	-12.6	258	44.4	6103	6287	465.2	995.5	LVL 20K
152200	28 30	8430	307	298	-10.9	-12.2	256	54.1	6107	6281	464.7	993.7	BUDY 42036
154307	28 47	8603					256	62.7					BUDY 42039
154620	28 57	8612	331	318	-8.7	-9.8	249	55.9	5576	5708	499.9	994.3	500 MB
155015	29 12	8622			-8.5	-10.5	258	57.7					IN PRECIP
155419	29 27	8631											DROP 1, NO WIND
155428	29 27	8632											DROP 2 DIED
160242	29 32	8708											TURN OUT OF CLOUD
160410	29 36	8712											DESCEND
160810	29 39	8648											IN CLOUD
160910	29 39	8643											IN PRECIP
161010	29 39	8637	89	93	4.2	4.2	247	36.8	3014	3106	699.5	1016.4	700 MB
161503	29 46	8615											DROP 3 > 6000
161515	29 46	8614	90	93	4.3	4.1							DROP 4
162240	29 29	8559	185	191	3.8	3.7	232	37.8	3016	3111	699.4	1011.0	OUT OF PRECIP
163400	28 48	8602	189	197	-3.8	-4.2	231	47.0	4272	4430	595.0	1013.0	BUDY 42039
1640	28 37	8624											CIRCLING
1647	28 51	8630	340	330	6.3	6.2	248	46.2	3026	3129	699.2	1009.1	700 MB
165730	29 08	8636	345										IN PRECIP
165730	29 30	8644											OUT OF PRECIP
1659	29 36	8647											CIRCLING - CLIMBING
170810	29 45	8646											500 MB
171410	29 28	8630	151	159	-8.6	-9.6	260	36.8	5579	5728	499.6	995.6	IN PRECIP
172045	29 01	8615											OUT OF PRECIP
172415	28 48	8601											BUDY 42039
173700	29 17	8513											PRECIP UNDER ANVIL
173930	29 27	8502			-12.9	-14.7	236	60.8	5567	5697			PRECIP TK 10 MI S A B Q
174340	29 20	8505											OUT OF PRECIP
175630	28 51	8551											OUT OF ANVIL
175950	28 45	8601											TURN NE BUDY - 42039
1806	28 58	8535											UNDER ANVIL
1813	28 28	8459											UNDER ANVIL
182200	29 10	8517	233	238	-9.2	-10.7	255	55.3	5574	5710	500.2	997.8	PRECIP TK 10 MI S A B Q
183330	28 46	8600	271	272									OUT OF PRECIP
183350	28 46	8602	270	270	-6.6	-7.5	268	53.3	5570	5703	500.4	991.4	BUDY 42039
184016	28 48	8602	44	36	-6.3	-7.1	270	53.3	5573	5331	500.0	990.6	DROP 5 DEAO
185340	29 10	8541	358		-7.7	-8.1	258	41.5					DROP 6
185939	28 14	8542											IN PRECIP
190230	29 30	8542											DROP 7
190450	29 19	8548											OUT OF PRECIP
1913	29 05	8548											IN PRECIP
192140	28 47	8540	352	346	5.5	5.3	241	43.4	3022	3136	697.8	1008.5	OUT OF PRECIP
1945													DESCEND
195250	29 26	8505	168	175	5.1	5.2	225	22.0	3011	3101	700.2	1009.4	700 MB
2000													IN PRECIP
2004													OUT OF PRECIP
201805	28 37	8442	123	132	-9.0	-10.1	254	48.0	5891	6080	478.2	997.2	CLIMB
202330	28 08	8350	138	145	-8.0	-8.9	256	27.9	5566	697.1	500.5	997.6	UNDER ANVIL
202810	27 51	8330	116	120									PRECIP CLEAR

C-SCAT TEST

Flight #1 H971024

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	3
Altitude (for vertical wind)	RA-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2974.CON

Notes:

Radar altimeter (RA-159) had a spike at 1441:25-1441:40 and was replaced by RA-2320. RA-159 was set to zero at landing (2042:55-2045:00).

Total temperature #1 (TT1) may be degraded due to heavy precipitation (1900:00-1904:30 and 1910:00-1916:00). TT1 spike was removed and patched 1914:00-1914:30.

Dewpoint #3 (DW3) may be degraded at times and exceeded ambient temperature due to heavy precipitation.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1015.7	1012.7
Corrected tower pressure	1017.3	1013.5

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

H971024

RENAV

152200	0.2, -0.1	28	30.2	-84	29.8
161600	0.8, 0.0	29	46.4	-86	10.7
165900	0.3, -0.2	29	36.0	-86	45.7
174200	0.6, 0.2	29	24.1	-84	52.1
182400	0.2, 0.1	29	5.2	-85	24.4
192100	0.2, 0.2	28	44.2	-85	40.2
201400	-0.3, 0.4	28	33.8	-84	38.7
205000	-0.6, 0.8	27	50.9	-82	29.6

RA-155 SPIKE @ TAKEOFF REPAIRED W/232 1441:25 - 1441:40 ✓

TTL PROBS WITH PRECIP 1551:00 - 1558:00.

BPR PROBS 1605:01 - 1609:00

APR PROBS 1615:01 - 1618:00

TTL PROBS WITH PRECIP 1714:00 - 1723:00

BPR PROBS 1714:30 - 1725:00

TTL PROBS IN PRECIP 1812:30 - 1816:00

TTI, TTL PROBS IN PRECIP 1900:00 - 1904:00

TTI, TTL PROBS IN PRECIP 1905:00 - 1917:30

TTL PROBS W/ PRECIP 2024:00 - 2031:30

BPR PROBS 2024:00 - 2027:00

APR, APR PROBS RE TO PRECIP 2023:00 - 2033:00

RA-259 SPIKE @ LANDING SET TO ZERO 2042:55 ✓

DWH SPIKE DUE TO BALANCING ~~REPAIRED~~ PATCHED + REMOVED 1507:30 - 1513:00 ✓

OWI SPIKE @ LANDING 2045:40 - 2050:00

TTI MAY BE DEGRADED DUE TO HEAVY PRECIP 1900:00 - 1904:30 ✓

1910:00 - 1916:00 ✓

TTI SPIKE REMOVED + PATCHED 1914:00 - 1914:30 ✓

TTI SPIKE @ LANDING

DW3 MAY BE DEGRADED @ TIMES DUE TO HEAVY PRECIP

GET SOUNDING DATA

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TITLE (MAX 21 CHARACTERS) -- EX HURRICANE PAINE
C-SCAT TEST
YYMMDDL FLT I.D.
971024H
HHMMSS START TIME -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
143001
HHMMSS END TIME 999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
205000
HHMMSS TAKE OFF TIME
144101
* NUMBER OF TAPES (I2) ...FOR STANDARD TAPE OUTPUT ONLY
1
* -----LOGICAL UNIT OF INPUT DATA (I1) 5, 8 OR 9 FOR TAPE DRIVE
9
* -----LOGICAL UNIT OF OUTPUT TAPE DRIVE (I1) [FOR STANDARD TAPE ONLY]
9
* -----LOGICAL UNIT OF PRINTER (I1)
6
* -----DATE OF PROGRAM (MMDY)
06094
* -----STATIC PRESSURE PROBE (I1)
* 1 = PSW (WINGTIP)
* 2 = PSF (CO-PILOT/FUSELAGE)
* 3 = FUTURE USE
2
* -----DYNAMIC PRESSURE PROBE (I1)
* 0 = PQW(WINGTIP)
* 1 = PQF1 (FUSELAGE 1281)
* 2 = PQF2 (FUSELAGE 1221)
* 3 =FUTURE US
1
* -----INE SELECTION (I1)
* 1 = INE 1
* 2 = INE 2
2
* -----ACCELEROMETER (I1) - USUALLY THE SAME AS YOUR INE SELECTION
2
* ----- TOTAL TEMPERATURE PROBE (I1) [1 OR 2]
1
* ----- DEWPONT TEMPERATURE PROBE (I1) [1 OR 2]
3
* -----ALTIMETER OPTION (I1) - FOR VERTICAL WIND COMPUTATION
* 0 = PRESSURE ALTITUDE (OVER LAND)
* 1 = RADAR ALTITUDE APN-159 (OVER WATER)
* 2 = RADAR ALTITUDE APN-232 (OVER WATER)
1
* -----PRINTOUT RATE SECONDS (I2)
10
* -----WINDSPEED/DIRECTION RUNNING AVERAGE TIME, SECONDS (I2)
10 ! FOR STANDARD TAPE OUTPUT ONLY
* -----TIME OPTION (I1)
* 1 = MICRO 29
* 2 = TIME BASED GENERATOR #1
* 3 = TIME BASED GENEATOR #2
1
* -----NAME OF CONSTANTS FILE EX CO3863.CON
CO2973.CON
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C-SCAT TEST FLIGHT

FLIGHT #1 H971024

TYPE OF DATA

SENSOR OR OPTION

INE	2
Accelerometer	2
Temperature probe	1
Dewpoint probe	3
Altitude change option (for vertical winds)	RA-159
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 99
Constants file	CO2973.CON

Notes:

No error checking was done. Only note is dewpoint #3 probs. Dewpoint #3 is the only that was operational. No other sensors were looked at and nothing was corrected.

This is a very rough draft. Final edition with rest of HRD flights.

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.

Stan Czyzyk - Flight Meteorologist (813) 828-3310 x3086

DATE : 10/24/97

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft N42RF ON 2051Z BLOCKTIME
OFF 1430Z 6.4

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: C-SCAT TEST FLIGHT

Hazardous Duty Pay is required for flight made on 10/24/97
(DATE)

Request based on INTENT TO FLY IN SEVERE WX

Personnel on board authorized Hazard Pay:

CZYZYK, S

McMILLAN, S

SMITH, J

CARPENTER, D

MOORE, B

WADE, S

KEENE, D

PILOT/FLIGHT DIRECTOR: 

APPROVED: _____

DISAPPROVED: _____

CHIEF, AOC FLIGHT OPERATIONS: _____

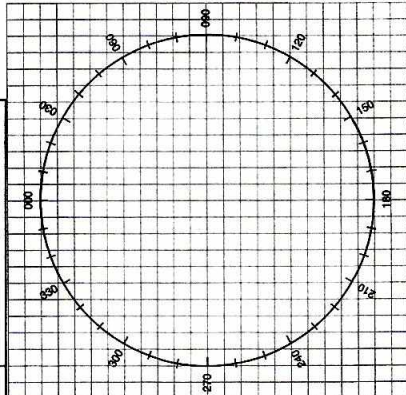
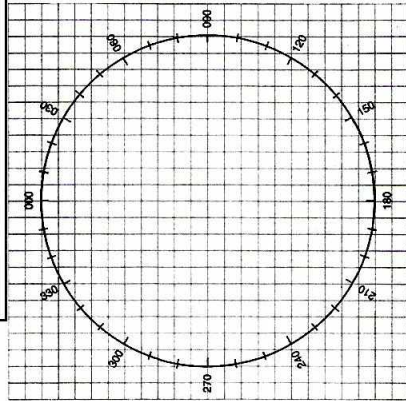
55/04

MISSION LOG

PAGE OF

OF

FREQ	ALT	HDG	OTHER
			2830N 8430W
			2847N 8600W
			NUN 190/60
			2900N 8500W
			PIE
			MILAK
150/110	20	42036	28.51 84.51
140/85	21	42039	28.78 86.04
215/75			



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

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

- HEADING _____ TRUE/MAG _____

- AT _____ KTS TRUE/INDICATED

FLIGHT LEVEL OR ALTITUDE _____
WE ARE A P-3 AIRCRAFT WITH
SO III S ON BOARD

- NATURE OF EMERGENCY

- ASSISTANCE DESIR

- PILOT INTENTIONS
- WE HAVE

[illegible]