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

FLT ID: 971002H	FM: CYYT	TO: CYYT
FLT NO: 98-01	BLK IN: 2136Z	ATA: 2128Z
ETD: 1245Z	BLK OUT: 1233Z	ATD: 1244Z
ETE: 2115Z	BLK TIME: 9:03 9.1	FLT TIME: 8:44 8.7
SPONSOR ORG: NOAA/AL	PROGRAM: NARE/OZONE	PURPOSE: FERRY HOME

OAO PERSONNEL

AC MCKIM, G	SYS ENG MCMILLAN, S ✓
CP TAGGART, B	DATA SYS MCNAMARA, R ✓
NAV RATHBUN, D	RADAR
FE TORREY, R, BAST, G	BT/ODW
RADIO	CLD PHYS
FD CZYZYK, S ✓	DOPPLER MCWHIRTER, D ✓

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
HUBLER, G ✓		
HUEY, G		
RYERSON, T ✓		
FRIED, A ✓		
KUSTER, B ✓		
STROUD, C ✓		
PARRISH, D ✓		

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

RA-15 OUT AT TAKEOFF

DW#3. PROBS, MIRROR CLEANED WORKING AGAIN 1309Z 27 52 82 30

LYMAN ALPHA DIED 1315Z, UP AGAIN 1325Z

EVERYTHING IS FROZEN 1320Z -

59

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

FLT ID: 971002H TIME OFF: 1244Z TIME ON: 2128Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	995.4	29.87	1010.8	29.88

	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		

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON					
OFF					
RATE					

REMARKS

3 Form 413-50
- 63

~~971002H~~ 971002H

TIME	LAT	LON	TK	HD	TA	TD	WD	WS	RA	GA	RS	SP	REMARKS
124400													
124445	4735	5241									TAK	EOFA	THROUGH FOG/CLO
124825	4724	5248	209	206	12.7	10.1	178	25.8	1243	NA	872.6	NA	CLOUD TOP 15000
1259													LEVEL 4K
130513	4637	5332	217	212	15.0	14.6	172	27.4	908	906	909.0	1010.1	↓ DESCEND
130612													ALL CAPE PINE
1323													CLIMB IN CLO
133010	4620	5518	257	246	-7.5	-10.1	209	69.1	4889	4909	548.4	992.9	LEVEL 16K CLOU
1333												IN+OUT	IN CLOUD + SNOW
140650	4545	5822	251	237	-11.1	-11.6	196	88.5	4957	4890	543.3	990.3	STILL ICING
1410000	4541	5838											IN CLEAR
141900													CLIMB
142340	4525	5943	258	248	-17.5	-38.1	210	66.0	5798	5693	485.0	987.2	LEVEL 19K
143445	4517	6044											DESEND
143845	4511	6104	244	238	-11.5	-30.2	213	64.7	4965	4804	542.7	982.3	LEVEL 16K
144640	4457	6141											DESCEND
145005	4453	6201	256	251	-6.6	-46.1	223	97.6	3723	3599	638.9	994.1	LEVEL 12K
150450	4436	6315											DESCEND
150920	4431	6337	253	252	-8.2	-13.4	250	26.8	2480	2361	748.6	1005.6	LEVEL 8K
151815	4420	6419											DESCEND
152210	4415	6438	251	253	-1.7	-4.0	270	24.5	1234	1117	873.8	1003.6	LEVEL 4K (CL
153410	4401	6531											DESCEND
153640	4357	6542	247	249	6.3	-0.5	289	15.0	251	186	982.6	1005.8	1K LEVEL
154325	4345	6609											300 FT AIR
154940	4323	6617											CLIMB
155130	4317	6620	198	204	2.5	-1.2	283	20.0	645	625	938.1	1013.0	LEVEL 2K
160210	4240	6637											CLIMB
160845	4217	6647	199	204	0.4	-10.8	270	19.0	2450	2406	LEVEL	8K	CLOUD LAYER 4K
161700	4147	6600											↓ DESCEND
162110	4132	6709	206	203	4.0	-0.4	305	14.6	633	637	939.5	1015.4	LEVEL 2K
163705	4039	6735											↓ DESEND
163940	4037	6743	216	220	9.3	-1.3	295	17.7	69	92	1005.1	1016.2	LEVEL 300
164715	4008	6800											↑ CLIMB
164915	4002	6804	203	207	4.8	-1.7	303	21.6	617	640	940.9	1017.3	LEVEL 2K
170000	3925	6823											↑ CLIMB
1702													CLOUD LAYER 4-5K
170435	3911	6834	234	241	2.6	-12.2	284	34.9	2467	2464	750.8	1010.1	LEVEL 8K
171725	3841	6922											DESCEND ↓
172105													CLOUD TOP 4500
													CLOUD BASE 3800
172430	3826	6949	236	239	7.9	3.0	320	14.8	624	653	941.3	1018.0	LEVEL 2K
173500													DESCEND
173710	3750	7026	212	215	13.6	4.8	341	11.0	49	91	1007.7	1018.3	LEVEL 300 FT
174710	3719	7050											CLIMB
174915	3713	7054	211	214	8.9	4.0	355	13.5	633	673	939.5	1018.5	LEVEL 2K
180500	3624	7135											DESCEND
180815	3614	7143	208	210	17.8	8.7	358	11.8	51	84	1007.0	1017.7	LEVEL 300 FT
181735	3545	7207											CLIMB
181950	3539	7213	219	220	13.0	6.8	19	11.2	610	657	941.7	1017.9	LEVEL 2K
183315	3458	7250											DESEND
183515	3452	7255											300 ↑
184240	3426	7310	206	207	7.8	-32.7	347	3.4	2455	2528	751.1	1012.2	LEVEL 8K
1851													IN+OUT CLOU
190215	3322	7400											CLIMB
191100	3257	7430	227	229	-6.6	-32.6	255	11.6	4899	5001	547.6	1012.1	LEVEL 16K

971002H

TIME	LAT	LON	TK	HP	TA	TD	WD	WS	PA	GA	PS	SP	REMARKS
191730	32 38	74 54	224	226									CLIMB
192430	32 25	75 06	218	220	-15.0	-28.0	224	34.1	6106	6239	464.9	1001.6	LEVEL 20K
192725	32 05	75 24											CLIMB
193102													IN + OUT CLOUD CIRRUS
193200	31 51	75 39	221	220	-25.7	-31.0	213	44.9	7333	7475	391.9	1002.5	LEVEL 24K
1935													IN CLEAR
201200	29 45	78 08	233	236	-23.3	-39.8	263	26.2	7322	7446	392.3	994.2	CLEAR ALL AROUND
201940	29 27	78 44											DESCEND
203500	28 52	79 41	227	228	18.2	11.8	24	5.5	929	964	806.5	1012.9	LEVEL 3K
203915	28 42	79 55	229	231	25.4	18.8	16	12.7	98	92	1002.0	1012.3	LEVEL 300 FT
204501	28 27	80 14											CLIMB
204430													BUOY
205240	28 11	80 40											OVERBOARD

FERRY TO TAMPA

Flight #13 H971002

Sensor or system	Number or Name
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	2
Altitude (for vertical wind)	RA-232
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2974.CON

Notes:

Dips in radar altimeter were due to overflying land (1243:00-1309:00 and 1521:00-1543:00).

There were two (2) time gaps 2106:21-2106:30 and 2107:01-2116:40.

Dewpointer #2 (DW2) was frozen 1535:59-1605:00 and 1618:45-1721:00 and was replaced by DW1. DW1 was frozen intermittently (1228:00-1243:00).

Dewpoint exceeded ambient temperature due to heavy precipitation.

Lyman Alpha Hygrometer was frozen 1320:00-1415:00 due to icing.

Heavy icing 1300:00-1410:00 may have degraded some of the instrumentation.

	Takeoff	Landing
Aircraft static pressure	995.4	1010.8
Corrected tower pressure	1011.5	1011.9

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

```
TITLE (MAX 21 CHARACTERS) -- EX  HURRICANE PAINE
FERRY TO TAMPA
YYMMDDL  FLT I.D.
971002H
HHMMSS START TIME    -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
124001
HHMMSS END TIME      999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
213300
HHMMSS TAKE OFF TIME
124400
* NUMBER OF TAPES (I2) ...FOR STANDARD TAPE OUTPUT ONLY
13
* -------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 (MMDDY)
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]
2
* ---------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)
2
* ---------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
CO2974.CON
*****************************************************************
```

971002A

KRNAV

SMALL TIME GLITCH FIXED
NO DATA LOSS

132600,	-0.2, 0.1	46 22.8	-54 57.3	1953:42
141800,	0.0, 0.2	45 30.5	-59 15.3	44
151000,	0.1, 0.5	44 29.7	-63 40.5	45
155700,	0.1, 0.6	42 58.5	-66 28.2	46
164500,	0.4, 0.2	40 15.2	-67 54.9	48
173100,	0.7, 0.4	38 8.0	-70 8.8	50
181500,	1.2, -0.4	35 52.6	-71 59.0	52
191200,	1.8, -0.5	32 54.0	-74 33.8	54
200400,	2.8, -1.3	30 7.8	-77 32.1	55
205500,	3.7, -1.9	28 7.4	-80 48.0	56
213600,	3.9, -1.5	27 50.9	-82 29.6	57
				58
				59
				1954: 00
				2106:20

BAD BLOCK
2106:21
2106:30
2107:01
2116:40

RA-159 BLOCK
RA-212 HAS DIPS DUE TO OVERFLYING LAND 1243:00 - 1309:00 ✓
1521:00 - 1543:00 ✓

OW2 (1+3) ICED MAY BE ERRONEOUS 1325:00 - 1412:00
OW2 FROZEN REPLACE w/OW1 1535:59 - 1605:00 ✓
1618:45 - 1726:00 ✓

BPR FROZEN 1325:00 - 1523:00
APR FROZEN 1325:00 - 1523:00
HEAVY ICING 1300:00 - 1410:00 ✓

LW DEO 1320 - 1415 ✓

DATE : 10/2/97

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft N42RF ON 2136 BLOCKTIME
OFF 1233 9.1

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: NARE/OZONE

Hazardous Duty Pay is required for flight made on 10/2/97 (DATE)

Request based on HAZARDOUS GASES/CHEMICALS ONBOARD

Personnel on board authorized Hazard Pay:

CZYZYK, S	
MCWHIRTER, D	
MCNAMARA, R	
MCMILLAN, S	
TORREY, R	
BAST, G	

PILOT/FLIGHT DIRECTOR: [signature]

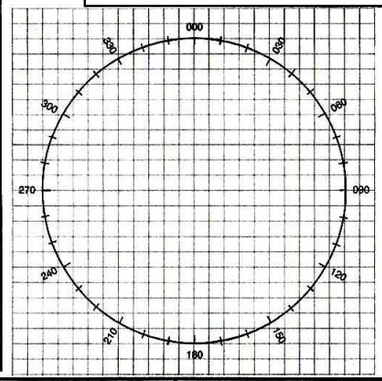
APPROVED: _____ DISAPPROVED: _____

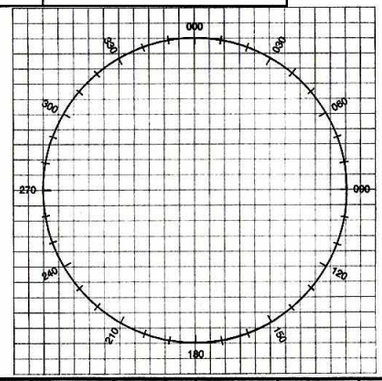
CHIEF, AOC FLIGHT OPERATIONS: _____

CLEARANCES			
FREQ	ALT	HDG	OTHER
			HOBE MT. BOUNDING
			V441
			LAKELAND APP MCF

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 WITH _____ SOULS ON BOARD
- NATURE OF EMERGENCY
- ASSISTANCE DESIRED
- PILOT INTENTIONS
- WE HAVE _____ ENDURANCE REMAINING

TIME	FIX TYPE	POSITION GPS	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
1230Z																					ENGINE START
1233																					TAXI
1243																					TAKEOFF
1326	FM1	4622.6 5458.7	4622.1 5458.8	+.5 -.1	4622.7 5458.7	-.1 Ø			246	11R	257	213	191	49	16K	233					
1418		4530.7 5914.5	4530.1 5914.8	+.6 -.3	4530.7 5914.5	Ø Ø			244	10R	254	227	190	47	16K	251					
1510		4429.7 6340.5	4428.3 6340.9	+1.4 -.4	4429.6 6340.1	+.1 +.4			252	Ø	252	214	253	6	8K	221					
1557		4256.6 6629.1	4254.8 6629.3	+1.8 -.2	4256.5 6628.5	+.1 +.6			264	5L	199	221	295	21	2K	220					
1645		4013.5 6756.Ø	4Ø13.7 6757.6	+2.8 -1.6	4Ø13.Ø 6755.9	+.5 +.1			213	5L	208	211	279	21	3ØØ	220					
1731		3807.8 7009.Ø	3804.1 7010.4	+3.7 -1.4	3807.1 7008.6	+.7 +.4			221	4L	217	215	259	15	21K	219					
1815		3553.5 7158.2	3549.1 7201.Ø	+4.4 -2.8	3552.2 7158.7	+1.3 -.5			221	2L	219	217	277	7	300	221					
1912		3253.2 7434.9	3247.6 7438.3	+5.6 -3.4	3251.3 7435.4	+1.9 -.5			229	2L	227	263	Ø12	21	16K	245					
2004		3ØØ5.6 7735.3	2959.2 7739.6	+6.4 -4.3	3ØØ2.7 7736.7	+2.9 -1.4			235	4L	231	294	Ø12	29	FL24Ø	273					
2025		2807.4 8048.5	2805.6 8053.6	+6.8 -5.1	2804.Ø 8050.5	+3.4 -2.Ø			267	1L	266	221	23Ø	6	2K	225					
2125		2751.6 8230.7	2744.1 8236.Ø	+7.5 -5.3	2747.7 8232.5	+3.9 -1.8															LAND
2136																					BLOCK IN