

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

FLT ID: 97010314	FM: MCF	TO: CYUT
FLT NO: 97-14	BLK IN: 2157/2NT	ATA: 2152
ETD: 1000 L	BLK OUT: 1515 ✓	RTD: 1526
ETE: 5+30	BLK TIME: 6.7	FLT TIME: 6+26
SPONSOR ORG: NOAA	PROGRAM: FASTEX	PURPOSE: Transit

OAO PERSONNEL

AC KENNEDY, P ✓	SYS ENG LYNCH, T ✓
CP KENUC, P ✓	DATA SYS McMILLAN, S ✓
NAV KOZAK, S ✓	RADAR BARR, J ✓
21 114 MORREY, R ✓ MOORE, B ✓	BT/ODW CARPENTER, D ✓
RADIO ROGERS, M ✓	CLD PHYS
FD WHITE, S	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
31 KINNEY, B ✓	MECH	AOC
SPECTOR, D ✓	SUPPLY	AOC
SHEPHERD, T ✓	ASS SCAT	NSSL

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

30.14 ✓ 1020.5 FOG 3/16 10L TOPS 450' MSC
 NO J-W or KING LW
 1646 changed date 1996 → 1992 Re-van setup
 Side-Rad (CO₂) reads to HIGH
 050/5 V10 Bln B00 SET 8000 -3 -5 29.65
 "M" 2100030/5 V10 Bln B00 OK 8000 -3 -5 29.66
 IFR 3/4 1915-2 29.65 ~ 1003.8

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

FLT ID: 98010314 TIME OFF: 1526Z TIME ON: 2152

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	<u>1020.4</u>	<u>1020.5</u>	<u>983.4</u>	<u>1003.8</u>

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	<u>Y</u>	<u>4 tape</u>	<u>Scan W-1</u>
FAST FLT LVL TAPES	<u>Y</u>		
RADAR TAPES	<u>Y</u>	<u>Scan W-1</u>	<u>Tom S-1</u>
DOPPLER TAPES	<u>Y</u>		
DDW CASSETTES	<u>N</u>		
HARD COPIES	<u>Y</u>	<u>30s rate</u>	<u>Tom S-1 Scan W-1</u>
AXBT	<u>N</u>		
AXCP	<u>N</u>		
DDW	<u>N</u>		

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON	<u>1525Z</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>2 Scan W-4</u>
OFF					
RATE	<u>12h</u>	<u>12h</u>	<u>12h</u>	<u>12h</u>	

REMARKS

GPS

GPS

FASTEX FLIGHT #1

FLIGHT #01 H970103

TYPE OF DATA

SENSOR OR OPTION

INE	1
Accelerometer	1
Temperature probe	1
Altitude change option (for vertical winds)	RA159
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 99
Constants file	CO2971.CON

Notes:

There were four time/data gaps: 1512:31 1513:00 1646:21
1646:30

There was no J-W liquid water data for the entire flight.

Downward spikes in radar altimeter data are a result of overflying land.

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	1020.4 mb	983.4 mb
Corrected tower pressure	1020.5 mb	1003.8 mb

Flight Meteorologist: Sean White, (813) 828-3310 ext. 3072

CI>

97010314

START: ~~1512:01~~
1520:01
END: 2156:00

radome_stape.ftn

In 551-554 } change 1996 to below

In 855-858 } 1997

IYR = Ibuff(3, IPAK or 1)

BAD BLOCKS

then

~~TEST~~ radome_stape.~~1~~
413

1512:31 1646:21,30

1513:00

IF (IYR.1996) THEN

IYR = 1997

Ibuff(3, 1 or IPAK) = IYR

END IF

then TEST Radome_pass1

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TITLE (MAX 21 CHARACTERS) -- EX HURRICANE PAINE
FASTEX TRANSIT
YYMMDDL FLT I.D.
970103H
HHMMSS START TIME -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
152001
HHMMSS END TIME 999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
215600
HHMMSS TAKE OFF TIME
152600
* NUMBER OF TAPES (I2) ...FOR STANDARD TAPE OUTPUT ONLY
01
* -----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
1
* -----ACCELEROMETER (I1) - USUALLY THE SAME AS YOUR INE SELECTION
1
* ----- TOTAL TEMPERATURE PROBE (I1) [1 OR 2]
1
* ----- DEWPOINT TEMPERATURE PROBE (I1) [1 OR 2]
1
* -----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)
30
* -----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
CO2971.CON
*****
CI>

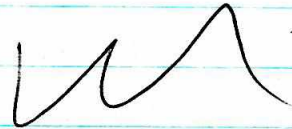
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960303H

KMCF - CYCT 47.6 52.7

~~2854N 7830W~~

~~3218N~~



#1	28.9	78.5	41010	16182
#2	32.3	75.2	41002	17132
#3	34.7	72.6	41001	17542
#4	38.5	70.7	44004	18452
#5	42.5	64.0	44142	19562

N42RF Analog Source & ADC Channel Assignments

FASTEX '97

19 December '96

Analog Source	Instrument	ADC Input	KCON	Analog Source	Instrument	ADC Input	KCON
00	J-W Liquid Water	00	251	48		48	299
01	Total Temperature #1	01	252	49		49	300
02	Total Temperature #2	02	253	50		50	301
03	Dewpoint #1 - General Eastern	03	254	51	Up Pyranometer 1 (Yellow)	51	302
05	Attack Pressure (AP)	04	255	52	Up Pyranometer 2 (Red)	52	303
06	Dynamic Attack Pressure (DAP)	05	256	53	Up Pyranometer 3 (Clear)	53	304
07	Sideslip Pressure (BP)	06	257	54	Up Pyrgeometer	54	305
08	Dynamic Sideslip Pressure (DBP)	07	258	55	Up Pyrgeometer Case Temp	55	306
15	PS1 - Wingtip Rosemount 1281	08	259	56	Up Pyrgeometer Dome Temp	56	307
04	PQ1 - Wingtip Rosemount 1281	09	260	57	Down Pyranometer 1 (Yellow)	57	308
10	Down PRT-5 Radiometer (SST)	10	261	58	Down Pyranometer 2 (Red)	58	309
		11	262	59	Down Pyranometer 3 (Clear)	59	310
09	Side PRT-5 Radiometer (CO2)	12	263	60	Down Pyrgeometer	60	311
13		13	264	61	Down Pyrgeometer Case Temp	61	312
12	Vertical Accelerometer #2	14	265	62	Down Pyrgeometer Dome Temp	62	313
11	Vertical Accelerometer #1	15	266	63	Up PRT-5 Radiometer	63	314
16	Radome Attack Pressure	16	267	64	B-3 SFMR Brightness at 4.54GHZ	64	315
17	Radome Sideslip Pressure	17	268	65	B-5 SFMR Brightness at 5.84GHZ	65	316
18	Radome Differential Pressure	18	269	66	B-7 SFMR Brightness at 6.94GHZ	66	317
19	Radome Impact Pressure	19	270	67	B-8 SFMR Brightness at 7.22GHZ	67	318
20		20	271	68	B-6 SFMR Brightness at 6.32GHZ	68	319
21		21	272	69	B-4 SFMR Brightness at 5.06GHZ	69	320
22		22	273	70	T-8 SFMR Noise Source Temp.	70	321
23		23	274	71	T-7 SFMR Ref load Temp.	71	322
24	AOC Dewpoint #2 Signal	24	275	72	T-6 SFMR Ant. Rgt. Feedbd. Tmp	72	323
25	AOC Dewpoint #2 Balance	25	276	73	T-5 SFMR Ant. Lft. Feedbd. Tmp.	73	324
26	AIR Lyman α Hygrometer	26	277	74		74	325
27	Dewpoint #3 - EG&G	27	278	75		75	326
		28	279	76		76	327
		29	280	77		77	328
		30	281	78		78	329
31	King Liquid Water	31	282			79	330
32	PS2 - CoPilot Rosemount 1281	32	283	00	Lyman Alpha Hygro [T5(140)]	00	
33	PQ2 - CoPilot Rosemount 1281	33	284	01	Dewpoint TD[T5(51)]	01	
34	PQ3 - CoPilot Rosemount 1221F	34	285			02	
35		35	286			03	
36		36	287			04	
37		37	288			05	
38		38	289			06	
39		39	290	07	Pressure Altitude 0 - 10,000m	07	
40		40	291	08	True Airspeed T5(102)	08	
41		41	292	09	Pitch Angle	09	
42		42	293	10	Static Pressure PS [T5(69)]	10	
43		43	294			11	
44		44	295			12	
45		45	296			13	
		46	297			14	
47	Cabin Pressure Rmnt 1201F	47	298			15	

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DAC

Note : All Outputs are 0 -10 VDC

DAF

RADOME FLOW ANGLE SYSTEM

Updated 2 December 1996

N42RF

	<u>Offset</u>	<u>Slope</u>
Rosemount 1221F2VL S/N 845 (Attack) -	-1.8808	6.8965
Rosemount 1221F1VL S/N 284 (Sideslip) -	0.0561	7.4796
Rosemount 1221F1AF S/N 658 (Dynamic) -	-0.1874	34.5047
Rosemount 1201F2A14A1A S/N 227 (Total) -	3.6518	206.7186

N43RF

Rosemount 1221F1VL S/N 285 (Attack) -	-0.9600	6.8997
Rosemount 1221F2VL S/N 879 (Sideslip) -	-0.0690	6.8914
Rosemount 1221F2AF S/N 862 (Dynamic) -	0.2783	17.2771
Rosemount 1201F2A14A1A S/N 260 (Total) -	-1.7652	206.8805

DEWPOINTERS

Updated 30 December 1996

N42RF

	<u>Offset</u>	<u>Slope</u>
General Eastern 1201 S/N 52724 w/ Sensor S/N 93602	-17.6944	11.0417
AOC #2 with Sensor S/N 1664	-0.5165	9.0582
EG&G 137 C/U S/N 392 w/ Sensor S/N 901 (NCAR)	-50.1139	20.0153

N43RF

General Eastern 1201 S/N 52723 w/ Sensor S/N 92616	-17.1603	11.2878
AOC #1 with Sensor S/N 842 10.0454	0.3919	
EG&G 137 C/U S/N w/ Sensor S/N (NCAR)	0.0000	0.0000

