

U.S. DEPT. COMM./NOAA/DAO - DATA SECTION WORK FORM NO.1 OROWF1 FILE

FLT ID: 960613H	FM: MCF	TO: BKF
FLT NO: 96-027	BLK IN: 2227	ATA: 2219
ETD: 1600Z	BLK OUT: 1559:30	RTD: 1611:40
ETE: 2220Z	BLK TIME: 16.5	FLT TIME: 6+08
SPONSOR ORG: NOAA	PROGRAM: STERAO-A	PURPOSE: Rad, Arvo, 02

DAO PERSONNEL

AC KENNEDY ✓	SYS ENG MCMILLAN ✓
CP KENUL ✓	DATA SYS
NAV KOSAK ✓	RADAR
FE TORREY ✓	BT/ODW
ROBTO KINNEY ✓	CLD PHYS
FD WHITE ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
HÜBLER, GERHARD ✓		NOAA/CIRES/AC
GOLDMAN, PAUL ✓		NOAA/AC
SHERIDAN, PATRICK ✓		NOAA/CIRES/CHAC
RYERSON, TOM ✓		NO / AC
FRIED, ALAN ✓		NCAR/ACD
WILLIAMS, JONATHAN ✓		NOAA/CIRES/AC
HOLLOWAY, JOHN ✓		11
JOBSON, TOM ✓		11

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

~~RECCO x2~~
~~VTX = 1~~
~~ODW = 1~~

CONSTANTS

RAQ0 = 0
 RAQ1 = 34.50(42)

Cly 2110Z
 to 0.2758

TTBADO = 0.275(4)

30.09 ~ 1018.7 150/06

Fvy repeater @ 1650

BZ - Stevie

LF in up

Hole in A/c

3010 ~ 1019.2

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.2 DROWF2 FIL

FLT ID: 9606BH

TIME OFF: 1611

TIME ON: 2219

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1017.6	1018.7		1019.2

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	Y	
FAST FLT LVL TAPES	XY	
RADAR TAPES	Y	DWN @ 1952Z / RT ↓
DOPPLER TAPES	N	
ODW CASSETTES	XY	
HARD COPIES	Y	
AXBT	N	
AXCP	N	
ODW	N	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON	Y	Y	Y	Y
OFF				
RATE	Cont.			→

REMARKS

960617H
13

start - ~~2104160001~~
end - ~~0423:09~~
222516
00

INEL to GAS

170000	0.0	-0.1
180000	-0.4	+0.1
190000	0.0	-0.3
200000	-0.6	-0.3
210000	-1.1	+0.7
222500	-1.5	+1.1

| INE 1 |
AV 2

BAD BLOCK

1748:25

48:30

1956:08

56:10

2203:48

2204:00

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TITLE (MAX 21 CHARACTERS) -- EX HURRICANE PAINE
STERAO FLIGHT 1
YYMMDDL FLT I.D.
960613H
HHMMSS START TIME -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
160801
HHMMSS END TIME 999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
222500
HHMMSS TAKE OFF TIME
161140
* 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 (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
2
* ----- TOTAL TEMPERATURE PROBE (I1) [1 OR 2]
1
* ----- DEWPONT 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)
0
* -----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
CO2963.CON
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N42RF Analog Source & ADC Channel Assignments

OZONE '96

June 7, 1996

Analog Source	Instrument	ADC Input	KCON	Analog Source	Instrument	ADC Input	KCON
00	J-W Liquid Water	00	151			48	199
01	Total Temperature #1	01	152			49	200
02	Total Temperature #2	02	153			50	201
03	Dewpoint #1 - General Eastern	03	154	51	Up Pyranometer 1 (Yellow)	51	202
05	Attack Pressure (AP)	04	155	52	Up Pyranometer 2 (Red)	52	203
06	Dynamic Attack Pressure (DAP)	05	156	53	Up Pyranometer 3 (Clear)	53	204
07	Sideslip Pressure (BP)	06	157	54	Up Pyrgeometer	54	205
08	Dynamic Sideslip Pressure (DBP)	07	158	55	Up Pyrgeometer Case Temp	55	206
15	PS1 - Wingtip Rosemount 1281	08	159	56	Up Pyrgeometer Dome Temp	56	207
04	PQ1 - Wingtip Rosemount 1281	09	160	57	Down Pyranometer 1 (Yellow)	57	208
10	Down PRT-5 Radiometer (SST)	10	161	58	Down Pyranometer 2 (Red)	58	209
		11	162	59	Down Pyranometer 3 (Clear)	59	210
09	Side PRT-5 Radiometer (CO2)	12	163	60	Down Pyrgeometer	60	211
13	ASASP Humidity	13	164	61	Down Pyrgeometer Case Temp	61	212
12	Vertical Accelerometer #2	14	165	62	Down Pyrgeometer Dome Temp	62	213
11	Vertical Accelerometer #1	15	166	63	Up PRT-5 Radiometer	63	214
16	Radome Attack Pressure	16	167			64	215
17	Radome Sideslip Pressure	17	168			65	216
18	Radome Differential Pressure	18	169			66	217
19	Radome Impact Pressure	19	170			67	218
20	Total Temp #3 (Starboard)	20	171			68	219
		21	172			69	220
		22	173			70	221
		23	174			71	222
24	Dewpoint #2 - AOC : Signal	24	175			72	223
25	Dewpoint #2 - AOC : Balance	25	176			73	224
26	AIR Lyman α Hygrometer	26	177			74	225
27	Dewpoint #3 - EG&G	27	178			75	226
		28	179			76	227
		29	180			77	228
		30	181			78	229
		31	182			79	230
32	PS2 - CoPilot Rosemount 1281	32	183	00	Lyman Alpha Hygro [T5(140)]	00	
33	PQ2 - CoPilot Rosemount 1281	33	184	01	Dewpoint TD [T5(51)]	01	
34	PQ3 - CoPilot Rosemount 1221F	34	185	02	ASASP Humidity [T5(150)]	02	
35	Nephelometer Pressure	35	186	03	Neph Green σ SP 550 [T5(146)]	03	
36	Nephelometer Temperature	36	187	04	Neph Green σ BSP 550 [T5(147)]	04	
37	Nephelometer Blue σ SP	37	188	05	Neph σ AP 550 CLAP [T5(149)]	05	
38	Nephelometer Green σ SP	38	189	06	CN Concentration [T5(148)]	06	
39	Nephelometer Red σ SP	39	190	07	Pressure Altitude (0 - 10,000 m)	07	
40	Nephelometer Blue σ BSP	40	191	08	True Airspeed (0 - 500 kts)	08	
41	Nephelometer Green σ BSP	41	192	09	Pitch Angle [T5(42)]	09	
42	Nephelometer Red σ BSP	42	193	10	Static Pressure PS [T5(69)]	10	
43	CN Concentration	43	194			11	
44	Nephelometer σ AP 550 CLAP	44	195			12	
		45	196			13	
		46	197			14	
47	Cabin Pressure Rmnt 1201F	47	198			15	

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DAC

Note : All outputs are 0 - 10 VDC

DAF

**N42RF and N43RF
Calibration Coefficients for 1996**

FLOW ANGLE TRANSDUCERS

14 March 1996

N42RF		<u>Offset</u>	<u>Slope</u>
Rosemount 1221F2AF7B1B	S/N 832 (DAP) -	0.1496	17.2120
Rosemount 1221F2AF7B1B	S/N 833 (DBP) -	-1.4593	17.2282
Rosemount 1221F2VL7B1B	S/N 823 (AP) -	-0.0301	6.8837
Rosemount 1221F2VL7B1B	S/N 844 (BP) -	-0.2211	6.8830

N43RF		<u>Offset</u>	<u>Slope</u>
Rosemount 1221F2AF7B1B	S/N 842 (DAP) -	0.0577	17.2422
Rosemount 1221F2AF7B1B	S/N 861 (DBP) -	0.1973	17.1582
Rosemount 1221F2VL7B1B	S/N 877 (AP) -	0.0175	6.8855
Rosemount 1221F2VL7B1B	S/N 878 (BP) -	-0.0153	6.8903

Rosemount 1221 Spares (varify pressure range before installing)

Rosemount 1221F2AF7B1B	S/N 860	-0.7044	17.2764
Rosemount 1221F2AF7B1B	S/N 2317	0.1292	6.9181
Rosemount 1221F2AF7B1B	S/N 2321	0.2647	6.9301

CO-PILOT SYSTEM TRANSDUCERS

N42RF

		<u>Offset</u>	<u>Slope</u>
Rosemount 1221F1AF1B1B S/N 286 (PQ3 or PQF2)	-	0.1204	34.5156
Rosemount 1281 S/N 165 (PQ) (PQ2 or PQF1)	-	0.7598	16.5229
Rosemount 1281 S/N 165 (PS) (PS2 or PSF)	-	249.6483	79.9634

N43RF

		<u>Offset</u>	<u>Slope</u>
Rosemount 1221F1AF1B1B S/N 287 (PQ3 or PQF2)	-	-1.8024	34.5672
Rosemount 1281 S/N 161 (PQ) (PQ2 or PQF1)	-	0.0232	16.5160
Rosemount 1281 S/N 161 (PS) (PS2 or PSF)	-	249.7322	79.9845

PS/PQ WINGTIP TRANSDUCERS

N42RF

				<u>Offset</u>	<u>Slope</u>
Rosemount 1281	S/N 164	(PQ)	-	0.0308	16.5020
(PQ1 or PQW)					
Rosemount 1281	S/N 164	(PS)	-	247.4228	80.0478
(PS1 or PSW)					

N43RF

				<u>Offset</u>	<u>Slope</u>
Rosemount 1281	S/N 160	(PQ)	-	-0.2006	16.5032
(PQ1 or PQW)					
Rosemount 1281	S/N 160	(PS)	-	251.6719	79.9541
(PS1 or PSW)					

Rosemount 1281 Spares

				<u>Offset</u>	<u>Slope</u>
Rosemount 1281	S/N 162	(PQ)	-	1.0743	16.5191
Rosemount 1281	S/N 162	(PS)	-	250.4940	79.9590
Rosemount 1281	S/N 163	(PQ)	-	-3.7855	16.5924
Rosemount 1281	S/N 163	(PS)	-	250.5745	79.9906

ODW CABIN PRESSURE TRANSDUCERS

N42RF

				<u>Offset</u>	<u>Slope</u>
Rosemount	1201FA1A1ASC18	S/N 189	-	565.4025	96.2177

N43RF

Rosemount	1201FA1A1ASC18	S/N 177	-	573.3540	95.1893
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SHOP SYSTEM

Rosemount	1201FA1A1ASC18	S/N 173	-	562.5174	96.1670
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Rosemount 1201FA1A1ASC18 Spares

Rosemount	1201FA1A1ASC18	S/N 175	-	569.7935	96.1664
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Rosemount	1201FA1A1ASC18	S/N 188	-	571.6361	96.1168
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Rosemount	1201FA1A1ASC18	S/N 190	-	569.2255	96.4247
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RADOME FLOW ANGLE SYSTEM

N42RF

					<u>Offset</u>	<u>Slope</u>
Rosemount	1221F2VL	S/N 845	(Attack)	-	0.0083	6.8849
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

Special Purpose Transducers

	<u>Offset</u>	<u>Slope</u>
Rosemount 1281 Ps S/N 163 - (used w/divider for Balloon Fly-by)	250.53	160.11
Rosemount 1221F2VL7A1A S/N 176 - (+/- 15 volts, owned by C. Friehe)	-0.1053	13.777
Rosemount 1221F2VL7A1A S/N 177 - (+/- 15 volts, owned by C. Friehe)	-0.1159	13.791

(S/N 176 and 177 MODEL 1221F2VL7A1A Last Calibrated April 94)

PRT-5 Radiometers

(Updated 12 June 1996)

N42RF

CO₂ Radiometer - S/N 650

9.9760, 7.2851(X), -0.1603(X²), 0.0127(X³)

SST Radiometer - S/N 648 (down-looking)

9.8719, 9.1994(X), -0.4708(X²), 0.0481(X³)

SST Radiometer - S/N 588 (up-looking)

5.1958, 8.9294(X), -0.4222(X²), 0.0277(X³)

N43RF

CO₂ Radiometer - S/N

0.0000, 0.0000(X), -0.0000(X²), 0.0000(X³)

SST Radiometer - S/N (down-looking)

0.0000, 0.0000(X), -0.0000(X²), 0.0000(X³)

SST Radiometer - S/N (up-looking)

0.0000, 0.0000(X), -0.0000(X²), 0.0000(X³)

SPARES

SST Radiometer - S/N

CO₂ Radiometer - S/N

Total Temp Probe Calibration Constants

TOTAL TEMP PROBES

(Updated 12 June 1996)

N42RF

		<u>Offset</u>	<u>Slope</u>
TT1 (Fwd)	S/N A7775 w/ AMP #152	0.1195	6.9652
TT2 (Aft)	S/N 58172 w/ AMP #12	-0.0202	12.0733
TT3 (Radome)	S/N 3092 w/ AMP #123 (w/ Housing S/N 12625)	0.2758	4.9732

N43RF

TT1 (Fwd)	S/N 31416 w/ AMP #11	-0.5022	12.1059
TT2 (Aft)	S/N A7665 w/ AMP #151	-0.1537	7.0250
TT3 (Radome)	S/N 3093 w/ AMP #124 (W/ Housing S/N 66977)	0.6150	4.9728

SPARE

Rosemount 102CH2AF	S/N 58173 w/AMP #1	-0.3292	12.0127
Rosemount 102CP2AF	S/N A7868 w/AMP #137	-0.0759	6.9770

DEWPOINTERS

(Updated 12 June 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 484 w/ Sensor S/N 1673 (NCAR)	-52.0164	20.2114

N43RF

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

CLEARANCES

FREQ	ALT	HDG	OTHER
			24MP 050
			1100 10,000
			119.7 290.3
			210
			3006 211,000
			11,000 5,000
			42

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

- 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 DESIR

- PILOT INTENTIONS

[illegible]