

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

FLT ID: 980322H	FM: KMR4	TO: KMR4
FLT NO: 98-041	BLK IN: 0636Z	ATA: 0628Z
ETD: 2100Z	BLK OUT: 2048Z	ATD: 2059Z
ETE: 0700Z	BLK TIME: 9.48 9.8	FLT TIME: 9.29 9.5
SPONSOR ORG:	PROGRAM: CALJET	PURPOSE: IOP24

OAO PERSONNEL

AC PHILIPPSBORN, R ✓	SYS ENG MCMILLAN, R ✓
CP KENUL, P ✓	DATA SYS
NAV WHITE, S ✓	RADAR
FE MOORE, B	DT/ODW CARPENTER, D ✓
RADIO ROLES, J ✓	CLD PHYS
FD C2424K, S ✓	DOPPLER BROWN, Z ✓

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
RALPH, M ✓	P.I.	ETL
SHEPHERD, T ✓	SCIENTIST	NSSL
MILLER, D ✓	"	NPS
FOREWOOD, B ✓	"	PERAKA
BIGORNIA, B ✓	MEDIA	ARMY AIR CORPS ENG. SF
CAPPON, Sally ✓	"	SANTA BARBARA
WOOD, Len ✓	"	"

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

2129Z SOLANCE PW#1
2131Z " PW#2

TTL FROZE UP AT 1 POINT

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

FLT ID: 980322H

TIME OFF: 2059Z

TIME ON: 0628Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE		30.10	1010.2	30.06

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES		
FAST FLT LVL TAPES		
RADAR TAPES		
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES		
AXBT	15	
AXCP		
ODW		
6PS	15	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

63

TIME	LAT	LONG	TK	HD	TA	TD	WD	WS	PA	GA	AS	SP	REMARKS
211919	36 49	123 19	275	269	-11.0	-16.5	227	47.0	4976	5169	541.0	1018.9	DROP 1
212800	36 52	123 56	274	267	-13.8	-24.8	234	61.5	5804	6009	484.7	1013.1	LEVEL 19K 21K ABOVE
214813	36 56	125 30	272	266	-14.8	-17.0	242	59.1	5801	5976	484.9	1012.2	DROP 2
2142									IN + OUT OF CLOUDS				REC02
2211													REC03
221912	37 01	128 01	269	262	-14.6	-19.2	234	64.6	5800	5931	484.8	1007.2	DROP 3
2242	37 03	129 47											REC04
224458	37 02	130 00	262	249	-15.9	-19.8	217	90.7	5796	5883	484.9	1007.7	DROP 4
2254~													LEVEL 20K
2312	37 02	132 00											
231552	37 02	132 18	271	251	-21.7	-39.7	216	109.9	6398	6417	446.7	1001.2	DROP 5 LEVEL 21K
233921	37 00	133 58	269	250	-23.5	-42.9	216	115.6	6395	6355	446.9	999.0	DROP 6
2344	36 53	134 14											REC06
000300	36 20	135 12	240	232	-26.4	-28.3	216	97.5	6428	6363	444.6	1003.8	DROP 7
0012													REC07
002320	35 47	136 25	242	233	-28.8	-31.1	211	105.3	6402	6299	446.2	1007.2	DROP 8
004600	35 12	137 44	242	242	-25.6	-52.3	237	74.0	BEHIND ALL MOUNTAINS IN CLEAR				DROP 9 - TURN
0044													REC08
010625	34 23	136 00	119	143	-22.3	-41.7	222	118.4	6397	6380	446.7	996.7	DROP 10 CLOUDS 21K ABOVE
0110													REC09
012923	34 14	137 51	131	153	-19.6	-24.2	215	104.0	6395	6456	446.8	999.5	DROP 11
014154	33 35	133 01	132	152	-19.7	-47.6	223	99.2	6393	6501	447.0	990.0	DROP 12
0143													REC010
014651	33 21	132 40	131	153	-17.8	-47.4	223	103.2	6394	6524	446.9	1002.0	DROP 13
015744	32 46	131 54	134	153	-17.3	-31.8	237	94.0	6416	6583	445.5	1005.8	DROP 14
020201	31 59	131 02	132	149	-0.8	-41.8	233	79.2	6418	6623	445.6	1010.6	DROP 15
0212													REC011
0248													REC012
025500	32 15	134 12	298	278	-17.0	-47.7	225	101.2	JUST BEHIND CONVA LINE				SPIRAL DESCENT
030630	32 18	134 08	99	99	13.4	11.3	282	23.4	347	311	972.2	1008.4	LEVEL 1K
030745	32 17	134 00	100	101	17.5	13.8	285	21.5	332	294	974.2	1008.6	BT 1
031020	32 15	133 48			15.0	15.2	242	26.4					WSH FT
031330	32 14	133 35	96	101	15.6	14.0	242	32.7	336	300	973.5	1008.4	BT 2
0316													REC013
031920	32 12	133 08	92	101	14.6	13.7	227	38.1	332	293	974.1	1008.5	BT 3
032454	32 10	132 43	94	101	14.6	14.2	236	35.5	375	305	972.5	1009.1	BT 4
033010	32 09	132 18	92	98	15.4	13.6	240	32.5	321	293	975.3	1009.4	BT 5
0335	32 08	131 58									4600	1444	1K POP 0.05
033545~	32 07	131 51	92	99									BT 6
034101	32 06	131 27	94	99	15.7	14.8	244	29.7	313	293	976.2	1010.3	BT 7
034445	32 05	131 10			17.4	15.0	206	46.9					WASH FT + JUMP
034625	32 05	131 21	94	109	17.3	14.3	204	47.7	314	295	976.2	1010.5	BT 8
0349													REC014
035150	32 04	130 38	102	114	17.3	15.2	203	41.3	314	302	976.1	1011.3	BT 9
035709	32 03	130 14	94	103	17.0								BAD BT 10 CLIMB 7K
040500	32 06	130 20	259	254	11.7	-2.1	229	43.8	2066	2116	788.4	1009.5	LEVEL 7K
043035	32 03	131 54							BEHIND MAIN CONVA				IN PRECIP SPIRAL DESCENT
043800	32 06	131 45	091	096	15.3	15.3	227	24.9	321	303	975.6	1010.7	LEVEL 1K
044353	32 07	131 17	030	027	15.7	15.4	232	35.0	315	298	976.0	1010.9	BT 11 BAD
044545	32 19	131 13	030	027	15.4	15.8	233	33.6	315	299			BT 12
045101	32 31	131 00	068	091	15.3	15.1	235	33.5	313	294	976.2	1010.5	BT 13
045638	32 29	130 34	070	080	17.0	15.4	206	46.4	317	300	1654		BT 14
050156	32 57	130 18	030	028	15.2	14.0	220	54.8					BT 15
050450													CLIMB

CALJET

Flight #25 H980322 IOP #24

DATA TYPE

SENSOR or OPTION

INE	1
Accelerometer	1
Temperature Probe	1
Altitude (for vertical wind)	RA-159
Static Pressure	Fuselage
Dynamic Pressure	Fuselage
Dewpoint Probe	2
Constants file:	CO2984.con

Notes:

The fast response total temperature probe was onboard and functional for this flight.

There were several upward spikes in the radar altimeter (RA-159) data. These spikes occurred during the following time periods:

1912:30-1913:00, 1916:30-1917:00, 1920:00-1921:00, 2015:00-2016:00, 2019:30-2020:30, 2023:30-2024:00, 2029:00-2029:30, 2033:00-2034:00, 2045:00-2045:30, 2046:30-2047:00, 2053:00-2054:00, 2055:30-2056:30, 2057:30-2058:00, 2059:00-2100:00, 2108:30-2109:00, 2120:30-2121:00, 2138:00-2139:00, 2142:30-2143:00, 2146:30-2147:00, 2217:30-2218:00, 2303:00-2304:00, 2309:00-2309:30, 2310:30-2311:00, 2312:00-2313:00(2), 2326:00-2326:30, 2334:30-2335:00, 2339:00-2339:30, 0015:00-0015:30, 0019:00-0020:00(2), 0028:30-0029:30, 0031:30-0032:00, 0048:30-0049:00, 0106:30-0107:00, 0112:00-0112:30, 0130:00-0131:30(2), 0135:00-0136:00, 0205:00-0206:00, 0209:00-0209:30, 0237:30-0238:00, 0244:30-0245:00, 0427:30-0428:30(2), and 0437:30-0438:00.

All spikes were removed and patched over.

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

There was a spike in the radar altimeter (RA-159) at takeoff and was replaced by RA-232 (1904:00-1908:55). There was a spike in RA-159 at landing and was replaced by RA-232 (0446:10-0447:01). RA-159 was set to zero after landing (0447:01-0452:00).

Dewpointer #2 (DW2) had a spike due to balancing and was replaced by DW3 with an offset of -8.0.

Dewpoint exceeded ambient temperature on a few occasions due to heavy precipitation.

Aircraft inertial 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 wind speeds, respectively, derived from Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1011.6mb	1011.3mb
Corrected tower pressure	1019.0mb	1019.6mb

Flight Meteorologist: Stan Czyzyk, (813) 828-3310 ext. 3086

980322A

RENAV

TIME GAP 0628:01
0629:30

12

213300, -0.1, -0.2 36 53.4 -124 19.4
223500, -0.5, 0.3 37 4.8 -129 15.2
234100, -0.8, 0.6 36 57.7 -134 3.9
002600, -0.7, 0.8 35 43.3 -136 33.7
013100, -0.5, 1.0 34 9.1 -133 44.9
021000, -1.4, 1.8 32 2.5 -131 6.0
025000, -0.7, 1.4 32 6.0 -133 51.2
030700, -0.9, 1.6 32 17.2 -134 4.6
035600, -1.4, 2.0 32 2.8 -130 20.2
045900, -2.1, 2.4 32 45.3 -130 25.6
054100, -2.5, 1.4 34 52.1 -126 28.7
063600, -3.6, 2.7 36 35.3 -121 51.4

RA-159 SPIKE & TAKEOFF REPAIR w/232 (2054) ✓ 2044:30 - 2110:07

RA-159 SPIKES 2114:30-2115:00, 2142:00-2142:30, 2146:00-2146:30,
2154:00-2154:30, 2156:00-2158:30(3), 2207:00-2207:30, 2213:00-2213:30,
2220:00-2221:00, 2233:30-2234:30, 2235:00-2236:00, 2242:30-2243:00,
2304:00-2304:30, 2334:30-2335:30, 0009:30-0010:00, 0015:30-0016:00,
0037:00-0037:30, 0101:00-0101:30, 0103:00-0103:30, 0105:00-0105:30,
0115:30-0116:00, 0117:30-0118:00, 0129:00-0129:30, 0133:00-0134:00(2),
0148:30-0149:30(2), 0150:30-0151:00, 0218:00-0218:30, 0235:00-0235:30
0254:00-0254:30, 0302:30-0303:00, 0305:00-0305:30, 0324:00-0324:30
0336:30-0337:00, 0354:00-0354:30, 0418:00-0419:00, 0424:30-0425:00,
0430:00-0430:30, 0550:00-0550:30, 0553:00-0553:30

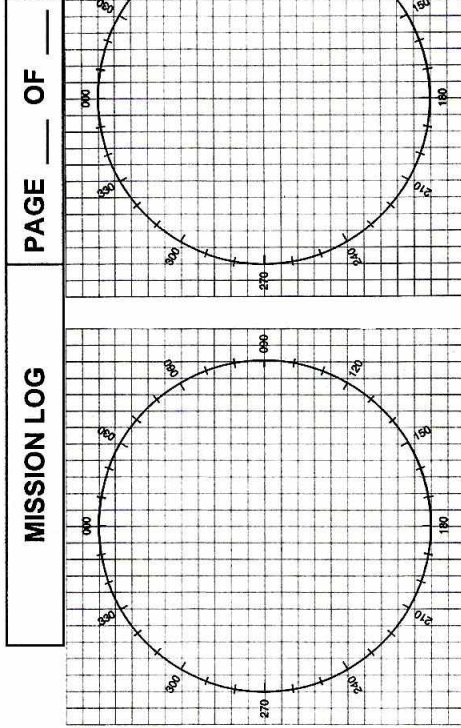
TTL GOES OUT 2211:30-2226:00, 0123:00-0137:00, 0149:00-0218:00

APR, BRR 6:00 OUT 0611:00-0636:00

RA-159 SPIKE & LANDING REPAIR w/232 (0633) ✓ 0627:40-0636:00

BALANCE OUT 2128:30-2130:43 REPAIR w/DW2

CLEARANCES				OTHER	
FREQ	ALT	HDG			
133.37	18-23			21N 130W	
				F-18D-220	
				130W rpt	
				level F-18D rpt	
				0547 13/12	
				20.06	



- 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 243.0 VHF/VOICE 121.5 MF/VOICE 2182 KHZ HF/CW 8364 KHZ 500 KHZ

MAYDAY, MAYDAY, MAYDAY

THIS IS NOAA, NOAA, NOAA, NOAA

POSITION: N/S E/W AT Z

HEADING: TRUE/MAG KTS TRUE/INDICATED

AT: 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	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
2043																				ENUG
2048																				TAXI
2058	✓	36 14.7 121 50.0	36 14.7 121 50.0	0	36 15.0 121 50.0	0														TOFF
2133	✓	36 53.4 124 20.6	36 53.4 124 20.6	-0.4	36 53.6 124 20.8	-0.2				223	234	235	65	1496	282	1			2330	Cruise
2235	✓	33 05.0 124 16.1	33 05.5 124 16.6	-0.5	33 05.5 124 16.0	-0.5				282	242	220	80	1490	293	1			2332	✓
2341	✓	36 53.3 134 04.6	36 53.7 134 05.1	-0.4	36 58.1 134 04.1	-0.8				235	172	215	120	1220	286	2			0000	→ #2
0026	✓	35 43.4 136 33.4	35 44.5 136 34.5	-1.1	35 44.1 136 33.2	-0.2				210	196	222	83	1210	273	2				
0131	✓	34 08.9 133 44.6	34 10.9 133 45.5	-2.0	34 09.2 133 43.5	-0.4				172	256	212	98	1210	282					→ #3
0210	✓	32 02.5 131 05.9	32 05.5 131 06.9	-3.1	32 03.8 131 04.0	-1.3														→ #4
0250	✓	32 15.9 134 15.1	32 18.3 134 16.2	-3.4	32 18.2 134 13.8	-0.8														CIRCLE DESCEAD
0307	✓	32 17.1 134 14.1	32 20.5 134 05.3	-3.6	32 18.0 134 02.5	-0.9				078	248	285	25	1001	230	6				→ #6
0356	✓	32 62.2 130 19.8	32 60.6 130 20.3	-3.9	32 04.4 130 17.8	-1.5				094	227	201	46	1001	215					
0459	✓	32 45.4 130 25.5	32 47.7 130 25.9	-4.5	32 47.6 130 23.0	-2.2				070	220	220	56	2001	213					→ 54024
0541	✓	34 51.2 126 25.3	34 50.0 126 26.8	-2.2	34 53.5 126 28.5	-2.2				062	380	236	79	1250	229					→ 54024
0628																				LND
0630		36 35.3 121 51.4	36 38.1 121 51.4	-1.8	36 38.3 121 48.3	-3.6														STD

4.5 9.8