

FLT ID: H980118	FM: KMRV	TO: KMRV
FLT NO: 98-015	BLK IN: 0206Z	ATA: 0158Z
ETD: 1800Z	BLK OUT: 1822Z	ATD: 1830Z
ETE:	BLK TIME: 1822Z 7:44	FLT TIME: 1830Z 7:28
SPONSOR ORG: NRL	PROGRAM: CALJET	PURPOSE: TOP 1 PRE-FRONTAL

DAO PERSONNEL

AC: McKim	SYS ENG: LYNCH ✓
CP: TAGGART	DATA SYS: /
NAV: KOZAK ✓	RADAR: BARR ✓
FE: WADE	BT/ODW: CARPENTER ✓
RADIO: ROGERS	CLD PHYS:
FD: DAMIANO ✓	DOPPLER:

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
31 RALPH ✓	PI	NRL
JORGENSEN ✓	ASST. PI	NSSL
KINGSMILL ✓		
PERRSON ✓	ASST. PI	
SHEPHERD ✓	RADAR	NSSL
BARTELS ✓	GPS	NSSL
HALLETT ✓	PMS	DRI
47 KINGSMILL		

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

F/O delayed because of change to flt plan.
 183144Z DATA SYS GLITCH .. BOTH RADARS UP+DOWN
 183441. ~~data~~ Data sys up

X 0047Z
 1000 13 29.84
 12

U.S. DEPT. COMM./NOAA/ORA - DATA SECTION WORK FORM NO.2 ORWF2 FILE

FLT ID: H980118 TIME OFF: 1830Z TIME ON: 0158Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1006.6	29.93	1002.4	29.84

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	1	
FAST FLT LVL TAPES		
RADAR TAPES	2	
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES		
PMS	2	
AXBT	10	
AXCP		
ODW GPS	2	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

H980118

2800
2347

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	RA	SP	PS		PG
184200	3702	12228	306	294	210	49	5.6	1.3	1838	1828	1012	812	INCLD	70.9
185000	3717	12259	283	276	194	24	8.9	9.9						
185125	3718	12506	286	283	243	28	9.4	10.0	512	490	1011.5	957.6	XBT	71.3
185357	3720	12315	74	75	246	19	10.4	11.2	348	327	1010.8	971.3	XBT	68.9
194400	3838	12258	346	348	203	65	-18.3	-18.0	5486	5245	—	505.9	ICE	60.9
200100	SK run over LAND					Start	3.5	3.8						
200600	end SK leg													
200930	6500 ft leg													
202700	3840	12300	181	195	221	81	-5.3	-5.6	5387	3364	—	667.4	ICE	63.2
203100	DOWN TO 5500													
203420	Start 5500 leg over water													
203500	3759	12301	358	353	229	29	3.0	-2.4	1723	1679	1008.4	823.0	BTNCLD	81.8
203900	end 5500 leg													
205630	start 3000 ft run													
210000	3730	12314	313	308	212	21	13	10.7	142	90	1007.4	996.8	CLDABV	76.4
210600	end 3000 ft run													
210647	3736	12323	124	180	228	24	11.2	9.7	349	304	1008.1	972.0	XBT	67.6
210918	3737	12315	129	136	226	26	18.3	10.1	349	308	1008.1	972.2	XBT	70.7
211249	3723	12303	129	136	232	25							XBT	
211400	end 1000 ft run													
211500	start 1500 ft run													
212041	3733	12323											XBT	
212110	end 1500 ft run													
212230	start 3000 K run													
212810	end 3K run													
214435	3712	12405	264	253	222	88	-26.5	-46.7	6092	6024	1009.0	465.8	GPS	77.7
215203	Sound splash													
215440	3707	12451	262	256	227	55	-29.8	-33.4	6091	5983	1016.2	466.0	GPS	77.0
220100	3703	12521	258	255	237	50	-31.6	-34.1	6092	5964	1018.3	465.8	ABVCLD	78.6
220200	start descent to 300 ft													
222630	start 250 ft run													
222700	3716	12547	4	358	259	26	12.0	4.4	125	68	1006.6	998.5	XBT	63.1
223338	3738	12544	7	359	252	31	12.1	4.5	117	58	1006.5	999.1	XBT	62.3
224125	3804	12540											XBT	
224330	start 500 ft run													
224800	3757	12542	181	188	260	24	11.0	3.6	220	161	1006.4	998.0	CLDABV	74.4
225100	3743	12542	180	189	257	30	11.2	3.9	219	161	1006.2	998.4	XBT	61.5
225830	end 500 ft run													
230030	start 1300 ft run													
231050	end 1300 ft run													
231300	start 2600 ft run													
231900	3731	12542	178	190	278	41	4.8	.3	898	746	1008.7	915.6	RWT	72.9
232300	end 2600 ft run													
234600	3808	12348	64	74	199	55	-23.2	-31.3	5210	5104	1011.2	525.3	INCLD	66.6
000500	start 1000 ft run to crest													
000600	3825	12312	19	15	283	75	8.9	4.3	372	322	1007.8	969.5	RVDCLD	78.5
000700	end 1000 ft run													
001000	end 4000 ft run													
001300	start 8000 ft													
001800	3840	12301	19	13	239	47	-4.6	-10.4	2508	2154	—	745.7	INCLD	71.5
002800	3830	12310	199	202	207	66	-21.9	-26.6	4930	4598	—	345.3	INCLD	66.2

H980118

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	GA	SP	PS	start by	PR
004115	3815	12323	318	315	261	16	11.7	5.9	119	64	1006.7	999.0	CUR	61.8
005115	end 200 ft leg													
005256	3841	12345	141	148	263	22	11.3	5.1	208	152	1006.4	988.3	start 500	62.7
010250	end 500 ft leg													
010410	3814	12321	320	315	253	24	7.9	4.3	568	518	1008.4	947.6	start 1600	56.4
011200	3833	12340	321	314	257	26	7.9	2.6	567	517	1007.8	947.0	—	55.5
011410	end 1600 ft leg													
011600	3834	12344	139	146	265	25	3.4	0.3	1061	1006	1008.4	892.2	start 3200	66.8
012200	3818	12325	140	146	275	25	3.7	-1.2	1064	1004	1008.9	892.0	—	60.6
012600	end 3200 ft													
014000	3725	12234	167	177	250	40	-3.0	-6.5	2187	2146	1011.4	776.6	—	77.5

CALJET

Flight #02 H980118 IOP # 1

DATA TYPE

SENSOR or OPTION

INE	1
Accelerometer	1
Temperature Probe	1
Altitude (for vertical wind)	Pressure Altitude (PA)
Static Pressure	Fuselage
Dynamic Pressure	Fuselage
Dewpoint Probe	1
Constants file:	CO2981.con

Notes:

There were two data gaps: From take-off til 183441Z
 183926Z - 183950Z

Sensors operated optimally. Although from 184500Z - 194620Z dewpoint temperature was warmer than ambient temperature due to wet-bulbing of the total temperature probe.

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

Aircraft inertial positions were re-navigated 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	1006.6mb	1002.4mb
Corrected tower pressure	1007.0mb	1003.0mb

Flight Meteorologist: A. Barry Damiano, (813) 828-3310 ext. 3073

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TITLE (MAX 21 CHARACTERS) -- EX  HURRICANE PAINE
CALJET IOP #1
YYMMDDL  FLT I.D.
980118H
HHMMSS START TIME  -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
183441
HHMMSS END TIME      999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
020300
HHMMSS TAKE OFF TIME
183000
* NUMBER OF TAPES (I2) ...FOR STANDARD TAPE OUTPUT ONLY
2
* -----LOGICAL UNIT OF INPUT DATA (I1)  5, 8 OR 9 FOR TAPE DRIVE
8
* -----LOGICAL UNIT OF OUTPUT TAPE DRIVE (I1) [FOR STANDARD TAPE ONLY]
8
* -----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
* ----- 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)
20
* -----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
CO2981.CON
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REG. N 42RF
CALLSIGN NAA42

P-3
U.S. GOVERNMENT

TRUE AIRSPEED 280

ALTITUDE 055 BLOCK 100 EXCEPT AS NOTED BELOW

ROUTE	ETE	TOTAL TIME	ALTITUDE
MR4 - PT. A.	0+45	0+45	FL 200
PT A - PT B	1+00	1+45	055 B 100
PT B - PTC	1+30	3+15	055 B 100
PTC - PTD	1+00	4+15	055 B 100
PTD - PTE	1+30	5+45	055 TO F250 TO 055
PTE - PTC	1+30	7+15	MCCA TO 055 B 100
PTC - MR4	0+45	8+00	F 190

PT A - CLUKK ($36^{\circ}05'N$ $124^{\circ}50.07'W$)

PT B, C, D, - TO BE DETERMINE ALONG COLD FRONT - FLUX STACKS

PT E - SANTA ROSA VOR (STS)

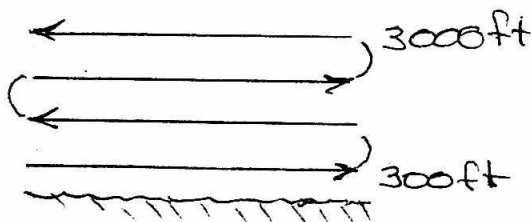
NOTE: AT PT B, C, D, DELAYS AS AIRCRAFT CLIMBS & DESCENDS (TIME FACTORED IN ABOVE CHART).

AIRCRAFT COMMANDER GUARANTEES ROUTE OF FLIGHT COMPLIANCE AND
POSITIVE CONTROL WHEN IN APPROPRIATE AIRSPACE.

G. C. McKim
G. C. McKim

PTS B, C, D
FLUX STACKS

4 - 10 minute legs



DATE : 1/19/98
TO : Chief, AOC Flight Operations
FROM : Pilot/Flight Director, Aircraft ON 0206Z BLOCKTIME
SUBJECT: Hazardous Duty N42RF OFF 1822Z 7:44

PURPOSE OF FLIGHT: CALJET PROJECT

Hazardous Duty Pay is required for flight made on 1/18/98
(DATE)

Request based on FLYING THROUGH FRONTAL
BANDS OFF/ON SHORE

Personnel on board authorized Hazard Pay:

<u>WADE</u>	
<u>DAMIANO</u>	
<u>BARR</u>	
<u>LYNCH</u>	
<u>CARPENTER</u>	
<u>ROGERS</u>	

PILOT/FLIGHT DIRECTOR: A. Barry Damiano

APPROVED: _____

DISAPPROVED: _____

CHIEF, AOC FLIGHT OPERATIONS: _____

STB 3201 20 38 14 12320 18515 29512 SRG 12315 314' 32415 32415

CLEARANCES			
FREQ	ALT	HDG	OTHER
			127.4
			D → 10 min SW
			3838 103
			5800' 2500
			5116 70C
			5116 1000
			1000 1000

MISSION LOG

POSITION REPORT

1. POSITION

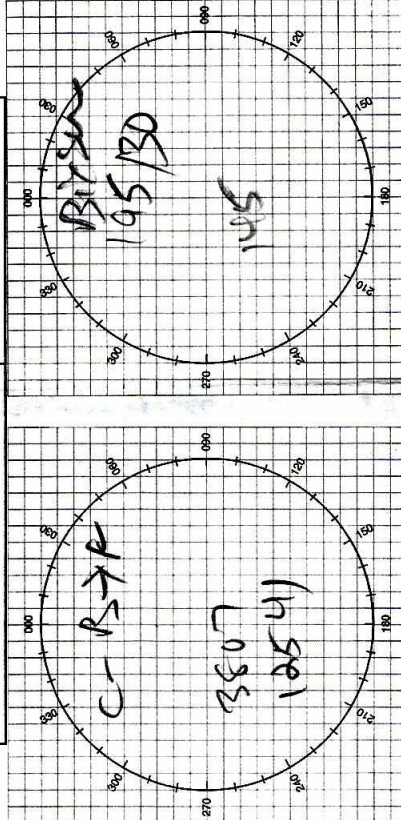
2. TIME

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 243.0 121.5 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	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
1817	VS	3635.3N 1815.1W																		6.1 Chocks
1823																				
1830																				
2003	GR	3811.9N 1825.9W	3811.9N 1825.9W	+4	3811.9N 1825.9W	+4		105	6L	183	208	230	25	11K	283					Post
2110	GR	3730.5N 1831.3W	3730.5N 1831.3W	+4	3730.5N 1831.3W	+4		138	6L	129	208	230	25	1000	285					Post
2155	GR	3711.3N 1831.3W	3711.3N 1831.3W	+3	3711.3N 1831.3W	+3		153	11R	264	214	223	91	20K	288					Sand Arup
2200	GR	3706.9N 1831.3W	3706.9N 1831.3W	+3	3706.9N 1831.3W	+3		156	6L	282	236	224	57	20K	283					Sand Arup
2200	GR	3718.2N 1831.3W	3718.2N 1831.3W	+8	3718.2N 1831.3W	+8		353	7R	210	210	260	24	1300	204					Post
2233	GR	3818.0N 1831.3W	3818.0N 1831.3W	+21	3818.0N 1831.3W	+21		091	7L	081	261	210	61	234	234					
2259																				
2205	VS	3655.3N 1815.1W	3655.3N 1815.1W	+31	3655.3N 1815.1W	+31														Chocks 100

2912 14 23020 1/2 1500