

FLT ID: 990202N	FM: P140L	TO: K666 (Spokane)
FLT NO: 99-17	BLK IN: 0330	ATA: 0324
ETD: 202	BLK OUT: 1953	ATD: 2005
ETE: 7.5	BLK TIME: 7:37 (7.6)	FLT TIME: 7:19 (7.3)
SPONSOR ORG: NCEP	PROGRAM: WSA-99	PURPOSE: Research #6

80

47 33.9 117 37.0 OAO PERSONNEL

AC Maxson ✓	SYS ENG Prodas-Bergnes ✓
CP McCann / Finter ✓	DATA SYS Hornbrook ✓
NAV	RADAR Carpenter ✓
FE Kitson	BT/ODW Smith ✓
RADIO White ✓	CLD PHYS
FD Parrish ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
Shapiro, M. ✓		
Goldenberg, S. ✓		

ATIS 47
 19532
 07/16
 22/18
 30.15
 24/15
 1019.8
 70/9.2
 LIMA
 01562
 260/24 632
 3/-1
 29.72

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

Flg 24 Dpp Patton - end up in Spokane,
 Dropped 16 NCEP
 7 ETL (1.5 Fz, 10d) ..
 23 Total

260/11.
 4/-1.2
 924 mb

SPokane AIRWAYS 122.95
 ATIS Out 1021
 T.O. 1019.8
 Land 1006.4

475
150

990202N WSA #6

Time	LAT	WID	TK	WD	WS	GA	PA	TA	TD		Drop #	USER	CH	WX
1953	21 19.3	157 54.8					-62	25	15.6					
200630	21 16	157 52.5	~	29	21.5	1402	1320	11.7	9.9	↑				Block
202330	22 38	157 25	004	83	5	9982	9720	-45	-54	↑				
2034	23 54	157 19	004	340	14	12539	12248	-53	-63	↑				
205755	26 40	157 50	349	323	13	12881	12581	-54.7	-66.6					
211700	28 54	158 20	349	297	17	12860	12590	-55	-67		1	NCEP	1	CLR
213629	31 15	158 50	348	277	21.5	12838	12586	-56	-68		2	NCEP	2	SCF SC
215554	33 35	159 25	348	257	34	12773	12557	-59	-69		3	NCEP	3	CLR
221513	35 54	160 00	350	267	32	12720	12557	-53	-67		4	NCEP	4	CLDVC, SCF AC/SC
223439	38 15	160 30	345	261	35	12641	12560	-54	-66		5	NCEP	5	DVC CH, AC
225425	40 30	161 15	347	265	37	12530	12554	-54.9	-68		6	NCEP	6	CLR
231517	43 00	161 55	~	260	38	12429	12559	-49	-64		7	NCEP	7	CLR
233503	44 50	158 54	51	274	39	12325	12554	-44	-60		8	NCEP	5	SCF SC
235349	46 30	155 49	55	264	41	12257	12553	-43.8	-61		9	NCEP	4	SCF SC 270/50
001229	48 00	152 28	55	255	32	12205	12548	-45	-62.7		10	NCEP	5	SCF SC, AC
003104	49 30	149 05	59	237	41.3	12180	12551	-47	-63		11	NCEP	5	DVC AC, SC
003750	50 01	147 41	59.2	244	49	12158	12553	-47	-63		12	NCEP	6	11 BDRH
004330	50 27	146 32	61	248	45	12169	12554	-47	-62.4		M1	MEL	1	BRW SC
005103	50 58	145	~	245	38.7	12177	12553	-45.4	-61.9		M2	MEL	7	DVC SC
010120	50 30	142 50	112	243	47	12328	12650	-48.6	-61.7		13	NCEP	5	DVC AC, SC?
011130	49 55	140 43	116	262	43	12899	13139	-51.6	-63.8		M3	MEL	6	DVC AC
011816	49 28	139 23	117	256	39	12925	13132	-49.7	-63		14	NCEP	7	DVC AS
012523	48 59	137 59	118	261	42.3	12961	13132	-51.4	-63.7		M5	MEL	5	DVC AS
013240	48 30	136 40	114	264	38	13001	13132	-51.9	-64.8		M6	MEL	6	DVC AS
014019	48 02	135 09	115	268	38.9	13028	13133	-53.6	-65.6		15	NCEP	7	DVC AS
014809	47 32	133 37	116	270	42.3	13050	13130	-53.6	-66.1		M7	MEL	5	DVC AS
015608	47 00	132 07	111	278	41.8	13084	13133	-53.3	-66.5		M8	MEL	1	DVC CS, DVC 51/50
0212	46 11	129 20	112.2	293	48	13097	13133	-56.9	-68.2		16	NCEP	6	DVC AS
0225	45 35	126 25	68.7	309	45	13120	13136	-57.5	-67.9					
0253	46 51	121 14	72	300	39	13017	13127	-49	-64	↓				
030645	47 22	118 36	74	315	50	13065	13200	-20	-48	↓	538	ms		
031430	47 39	117 40	63	279	26	1503	1596	-6.2	-9.4	↓	835			
0330	47 37.6	117 31.4					764	3.1	-2.1		924	Block 10		

NOAA/AOC/SED N49RF Flight Performance log

N49RF Project: Winter Storms 99 Project No. 425 Flight No. 7 Flight ID: 990202N
 SED Crew: JAS, DC, CH, JCPB Mission: Honolulu → Spokane
 Pre-Flight: 1800 Z Take-Off: 2004 Z Landing: 0325 Z

SYSTEM				Pre-Flight Check	In-Flight	Post-Flight	
N A V	IRS #1			✓ JCPB			
	IRS #2			✓			
	IRS #3			✓			
	GPS Honeywell #1			✓			
	GPS Honeywell #2			✓			
	GPS Collins			✓		Off? ☒	
	Nose Radar -Collins			DWC		Off? ☒	
		Time	Temp °C	JCPB		Time	Temp °C
	Temp #1	1906	22.22	✓		0328	4.28
T	Temp #2		21.95	✓			3.13
E	Temp #3		22.56	✓			4.38
M	Temp #4		22.19	✓			2.97
P	DP Left		17.5	✓	Cal. Time:		-2.282
	DP Right	↓	17.1	✓	Cal. Time:	↓	-2.241
P	Attack Angle (ADCAOA)			✓ JCPB			
R	Slip Angle (BP/DBP)			✓			
E	Differential (PQ1/PQ2)			✓			
S	Absolute (PS1/PS2)			1020.9/1021.3			
S	Check Radome Press. Lines ☒			Date: 990122			
S	DOWN PRT-5 ⇨ Open? ☐			N/I		Closed? ☒	
Y	MADS (WINDS/DISCWIN)			✓ JCPB		# DATs: 1	
S	MADS Printer ⇨ Paper? ☒			DWC		Printer Power off? ☒	
T	MADS Cal. Date: 990202			QC time: 1948		QC time: 0328	
E	WINDS ⇨ NET BCAST ☒			JCPB			
M	HAPS System / Time set? ☒			JAS		# Msg.: 16 # Fail: 3	
S	AVAPS System / Time set? ☒			JAS			
	AVAPS Printer ⇨ Paper? ☒			DWC			
	Exterior Walk Around ☒			JAS			
	Inspect DropSonde Chute Bolts			DC			
	Satcom (Flight Phone) ☒			JAS		Off CB? ☒	
	Call COMSAT? ☒ (*292#)			DWC			
M	FCU/UPS/CB			CB's Checked? ☒ DWC		UPS off? ☒	
I	AVAPS Sondes			# On Board: 196 + 12 Mejs	# Dropped: 25	# Good: 21	
S	AXBT			# On Board: —	# Dropped: —	# Good: —	
C	APN-232			✓ JCPB			
	Modem Power On? ☒			DWC			

1	DAT Tape #1	On: 1946	Type: V60	Off: 0332
2	DAT Tape #2	On: —	Type: —	Off: —
Comments: <u>AVAPS CH #8 HARD DOWN</u>				

N49RF Winter Storms 99 / AVAPS DropSonde Log

N49RF Project: WINTER Storms 99

Flight ID: 990202N

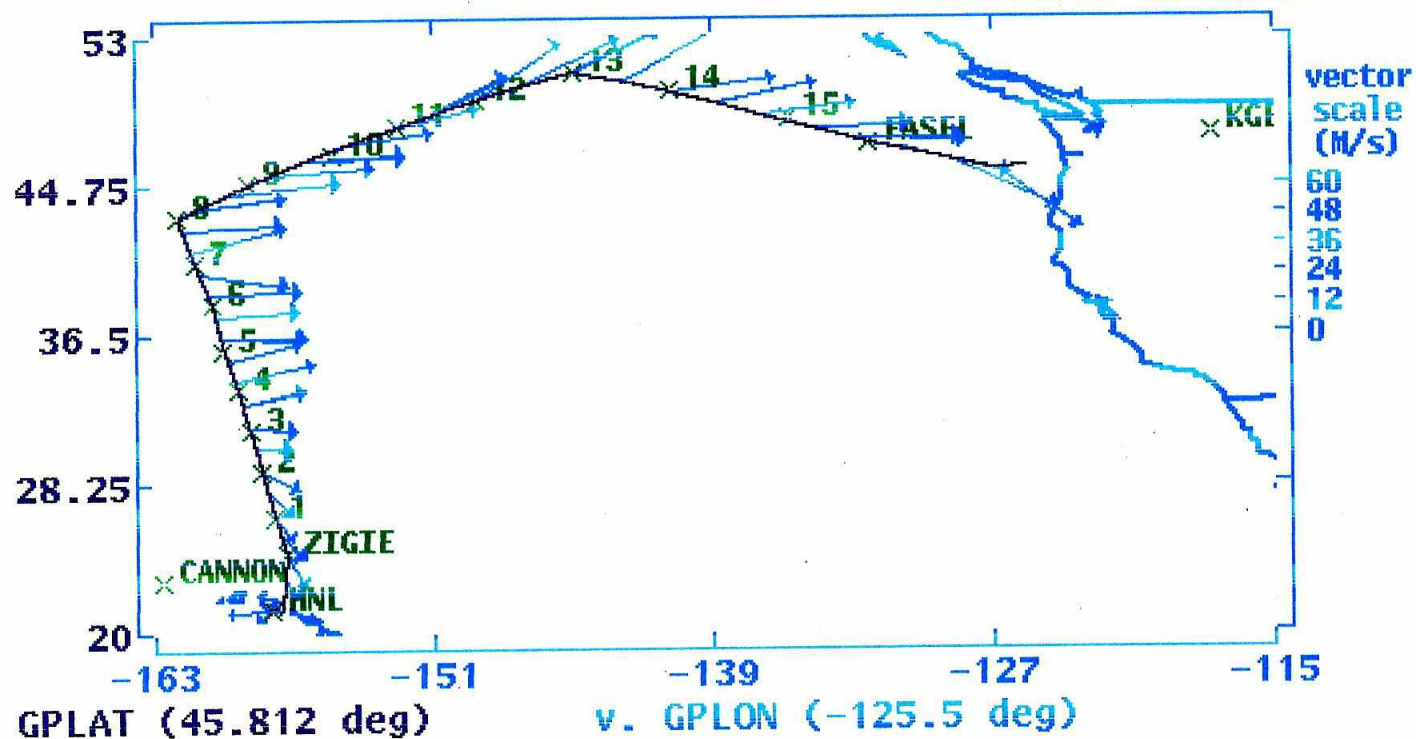
Mission: 60

Flight #: 7

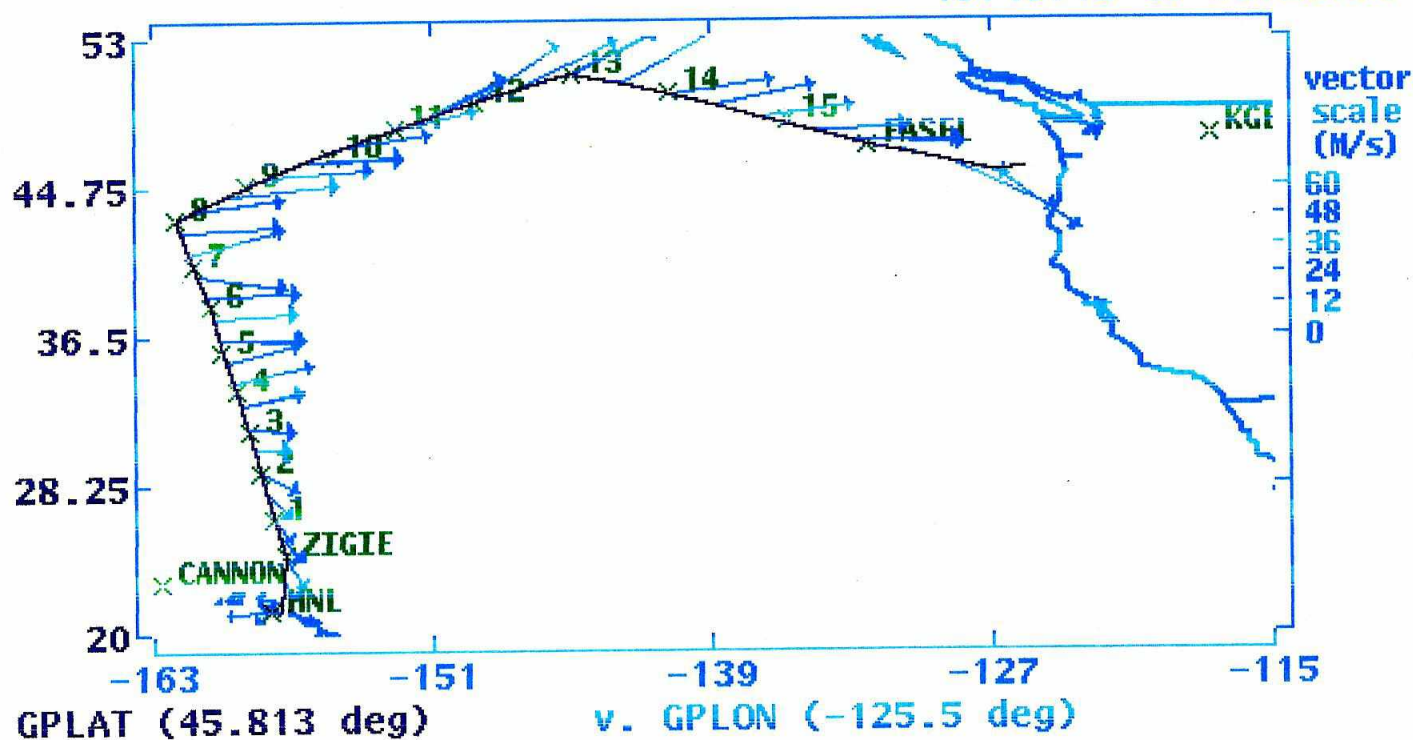
System Status: Chn #8 dead

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status/ Failure Reason	GOOD ☒
1	983 620 634	1	2057	.4	22	gph/aur	OK	✓
2	983 310 065	2	2117	.5	23		OK	✓
3	983 310 047	3	2136	.5	22		OK	✓
4	983 720 802	4	2155	.4	23		OK	✓
5	983 620 566	5	2215	0	23		OK	✓
6	983 620 665	6	2234	.5	48		OK	✓
7	983 620 567	7	2254	0	29		OK	✓
8	983 720 804	5	2315	.8	25			✓
9	983 720 803	6	2335	1	26			✓
10	983 410 025	7	2353	.4	19			✓
11	983 620 615	5	0012	0	31			✓
12	983 410 096	6	0031	.4	33			✓
m 13	973 410 249	1	0037	0	19		Lost wins	
m 14	983 310 084	7	0043	0	18			✓
15	983 620 667	5	0051	0	17			✓
m 16	973 410 254	6	0101	0	33			✓
17	983 720 801	7	0111	.6	26			✓
m 18	973 410 061	5	0118	0	21			✓
m 19	973 410 015	6	0125	-.5	20			✓
20	983 310 126	7	0132	.4	25			
m 21	983 310 050	5	0140	0	24			
m 22	964 910 081	1	0148	0			Lost Telemetry/no winds	
23	983 340 058	6	0156	0	36			
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								

'wint strm ftrk' (winds@eider) Proj. 425 Flt Feb-03-99 02:29:19:49:13 to 02:29:32



'wint strm ftrk' (winds@eider) Proj. 425 Flt Feb-03-99 02:29:19:49:13 to 02:29:34



Winter Storm Reconnaissance (Mission 6)
990202N N49RF 2 Feb 1999

<u>DATA TYPE</u>	<u>SENSOR or OPTION</u>
INE	VEW_PITR, VNS_PITR
Accelerometer	ACINS_PITR
Temperature Probe	AT1
Altitude (for vertical winds)	PALT
Static Pressure	PS1M
Dynamic Pressure	QC1M
Dewpoint Probe	DPRC

Notes:

23 dropsondes launched, 1.5 failures.

There were numerous downward spikes in the APN-232 radar altimeter data between 2055Z and 2110Z.

Temperature probe drop-outs were noted between 023310z-023348z.

	Take Off	Land
Corrected Tower Pressure	1021.0	1006.4
Aircraft Static Pressure	1019.8.0	

Flight Director: Jack Parrish, (813) 828-3310, Ex 3077

NOAA G-IV

POC: Sean White - 813.833.3275

DEPARTURE

CALL SIGN

NOAA49

DATE 02 FEB 99

TAIL NUMBER

N49RF

TIME 2000Z

ALTITUDE

FL410-450

AIRSPEED

Mach 0.77 (450KTAS)

NCEP DROP LOCATIONS indicated by a drop number.

#	LAT(N)/LONG(W) (degrees and minutes)	DIST(NM)	ETE	ETA Date/Zulu Time
	Honolulu (PHNL)	---	---	02/2000 Takeoff time
	ZIGIE (24 19/157 17)	260	0+35	02/2035
1	26 40/157 50	143	0+20	02/2055
2	28 55/158 20	143	0+20	02/2115
3	31 15/158 50	143	0+20	02/2135
4	33 35/159 25	143	0+20	02/2155
5	35 55/160 00	143	0+20	02/2215
6	38 15/160 30	143	0+20	02/2235
7	40 30/161 15	143	0+20	02/2255
8	43 00/162 00	143	0+20	02/2315
9	44 50/158 55	168	0+20	02/2335
10	46 30/155 50	168	0+20	02/2355
11	48 00/152 30	168	0+20	03/0015
12	49 30/149 05	168	0+20	03/0035
	2 additional dropsondes			
13	51 00/145 00	168	0+20	03/0055
	2 additional dropsondes			
14	49 55/140 45	180	0+20	03/0115
	2 additional dropsondes			
15	48 30/136 40	180	0+20	03/0135
	2 additional dropsondes			
16	FASEL (47 00/132 08)	180	0+20	03/0155
	Spokane (KGEG)	595	1+25	03/0320
	Cumulative	3379	7+20	

→ 50 01.3 147 44
50 31.4 146 22

→ 50 39.7 143 35

50 18 142 10

→ 49 28.4 139 24

49 00 138 02

→ 48 02 135 10

47 31.9 133 39

NOAA G-IV POC: Sean White - 813.833.3275

DEPARTURE

CALL SIGN	NOAA49	DATE	29 JAN 99
TAIL NUMBER	N49RF	TIME	2000Z
ALTITUDE	FL410-450		
AIRSPEED	Mach 0.77 (450KTAS)		

NCEP DROP LOCATIONS indicated by a drop number.

#	LAT(N)/LONG(W) (degrees and minutes)	DIST(NM)	ETE	ETA Date/Zulu Time
	Honolulu (PHNL)	---	---	29/2000 Takeoff time
	ZIGIE (24 19/157 17)	260	0+35	29/2035
1	25 40/155 00	160	0+20	29/2055
2	27 10/152 30	155	0+20	29/2115
3	28 25/150 00	155	0+20	29/2135
	1 additional dropsonde			
4	29 40/147 20	155	0+20	29/2155
	1 additional dropsonde			
5	30 50/144 50	155	0+20	29/2215
	1 additional dropsonde			
6	32 00/142 00	155	0+20	29/2235
	5 additional dropsondes			
7	33 45/143 15	120	0+20	29/2255
	5 additional dropsondes			
8	35 25/144 30	120	0+20	29/2315
	5 additional dropsondes			
9	37 05/145 45	120	0+20	29/2335
	5 additional dropsondes			
10	38 50/147 10	120	0+20	29/2355
	5 additional dropsondes			
11	40 25/148 30	120	0+20	30/0015
	5 additional dropsondes			
12	42 00/150 00	120	0+20	30/0035
	3 additional dropsondes			
13	39 25/151 05	160	0+20	30/0055
	3 additional dropsondes			
14	36 55/152 05	160	0+20	30/0115
	3 additional dropsondes			
15	34 20/153 00	160	0+20	30/0135
	1 additional dropsonde			
16	31 50/153 50	160	0+20	30/0155
17	29 15/154 40	160	0+20	30/0215
	ZURIC (26 02/155 35)	190	0+25	30/0240
	Honolulu (PHNL)	311	0+50	30/0330
	Cumulative	3216	7+30	