

G-IV Flight Summary For Flight #03-027

Mission ID: 030221n

TIMES

BLOCK

1952Z

0312Z

←--- Block Out

Departure ---→

Arrival -----→

←----- Block In

FLIGHT

2004Z

0308Z

Block Time: 7.3 HRS

Flight Time: 7.1 HRS

Sponsor Org: NCEP
Program: Winter Storms '03

From/To: PHNL/PHNL
Purpose: WS #9, Track 55

Flight Directors: Paul Flaherty - (813) 828-3310 x 3094 - paul.flaherty@noaa.gov
Sean White (HRD) sean.r.white@noaa.gov
AOC Crew: Finke, Yates, Poston, Rotteveel, Brogan, Hill
Visitors: Warneke + Northway (NOAA Aeronomy Lab)

PRESSURE

	<u>Take off</u>	<u>Landing</u>
Aircraft (mb)	1019.3	1015.1
Wx Station (mb)	1017.6	1015.2

Total Number of GPS Dropwindsondes: 21 (1 bad)
Number of Flight Level Tapes Received: 1
Back up Data (i.e. CD/Lacie Hard Drive): Hard Drive

Mission Remarks:

First mission with high-resolution drops for NASA. Bad drops were backed up at drop points 8, 13, 16, and NASA's 4th drop between points 14+15. Continued problems with our tempdrops showing up on-line, but CARCAH not receiving them or receiving partial transmissions. F/D data log shut down shortly after drop 18. It started back up but would shut down when attempting to add to it. Therefore, log data ends at drop 18.

Changes to/from depend table:
None

Comments about aircraft sensors:

All sensors appear to have functioned properly with only minor spikes and deviations. These spikes and deviations were typically reflected in either the pitch, roll, or sideslip of the aircraft. Continuing to monitor dewpoint differences (still near 2 c at start of flight and 5 c at end of flight). IFT's were reminded and are still watching it.

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

AOCWFI

Flt ID: 030221 _n	From: PHNL	To: PHNL
Flt No: 03-027	Blk In: 0312z	ATA: 0308z
ETD: 20z	Blk Out: 1952z 7+20z	ATD: 2004z 7+04
ETE: 7.5	Blk Time: 7.3	Flt Time: 7.1
Sponsor Org: NCEP	Program: WINTER STORMS '03	Purpose: Flt #9 TRK #55

AOC Personnel

AC: FINKE	Sys Eng: BROGAN
CP: POSTON / YATES	Data Sys:
Nav:	Radar:
FE: ROTTEVELL	GPS/BT:
FD: FLAHERTY / WHITE	Cld Phys:
Avionics: HILL	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
WARNEKE		
NORTHWAY		

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #)

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

AOCWF2

Flt ID: 030221n Time Off: 2004 Z Time On: 0308 Z

A/C (Take Off)

Wx Station (Take Off)

A/C (Land)

Wx Station (Land)

Pressure

1019.3

A.30.05

1015.1

A 2998

Number

Data Disposition / Date / Quality

Flt Lvl Tapes

1

Radar Tapes

Cloud Physics Tapes

Video Tapes

AXBT

AXCP

AXCTD

Dropsondes

29

25 + 4

Video

Forward

Left Side

Right Side

Down

Remarks

Time On

Time Off

Rate

Remarks

{ 24 SONDES AXCP - 21 OBS (3 BAD)
{ 5 SONDES NASA - ONE BAD

N49RF AVAPS DropSonde Log

N49RF Project: Winter Storms '03 Flight ID 030221N

Mission: Track 55 Flight #: RF 09 System Status: OK

675
29
46
12
34

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status / Failure Reason	OOD ☒
1	020 615 003	1	2010	0	16	OSD		✓
2	991 515 171	1	2109	0	25	OSD		✓
3	014 335 057	1	2127	0	17	OSD		✓
4	013 968 097	1	2146	0	18	OSD		✓
5	022 615 257	1	2206	0.4	24	OSD		✓
6	014 335 047	1	2224	0	24	OSD		✓
7	014 415 003	1	2242	0.4	13	OSD		✓
8	993 915 080	2	2258	0	—	OSD	NO LAUNCH DETECT	✓
9	014 415 009	3	2259	0	18	OSD		✓
10	013 718 042	1	2314	0.5	19	OSD		✓
11	014 335 116	1	2334	0	23	OSD		✓
12	022 945 133	1	2356	0	19	OSD		✓
13	014 415 011	2	0006	0	14	OSD	CHARGE NASA	✓
14	014 415 023	1	0015	0	27	OSD		✓
15	022 615 283	2	0026	0	27	OSD	CHARGE NASA	✓
16	021 735 253	1	0036	0.4	—	OSD	NO WINDS	✓
17	021 925 249	3	0037	0	34	OSD		✓
18	021 925 145	2	0043	0.4	44	OSD	CHARGE NASA	✓
19	021 925 084	1	0051	0.4	52	OSD		✓
20	021 925 089	3	0059	0.6	80	OSD	CHARGE NASA ^{BAD WINDS}	✓
21	022 945 155	2	0103	0	19	OSD	CHARGE NASA	✓
22	014 415 027	4	0106	0	15	OSD		✓
23	021 925 007	1	0120	0.4	—	OSD	NO WINDS	✓
24	021 735 242	3	0123	0	25	OSD		✓
25	014 415 010	2	0135	0	14	OSD		✓
26	021 925 037	1	0149	0.6	32	OSD		✓
27	021 735 249	2	0203	0	23	OSD		✓
28	021 925 142	1	0217	0.4	23	OSD		✓
29	021 925 155	2	0230	0	37	OSD		✓
30								
31								
32								
33								

NWS + NASA

N49RF AOC GPS Dropwindsonde Log

Flight ID 030221n

Flight Director

FLAHERN / WHITE

Page of

Mission ID 20 WSC Storm FLT # 55

Drop #	Sonde ID#	Time (UTC)	Lat (°N)	Lon (°W)	Sfc Prs mb	WX Cond.	Comments	OB #	SatComm Failures	Send Time (UTC)
1	020615003	205002	2500	157.4	1019.2	FEW CU	KWBC 211620	1	—	2117
2	091515171	210852	2720	15650	1020.8	FEW CU	KWBC 213410	2	1	2136
3	014335057	212719	2900	15825	1021.9	FEW CU	KWBC 214607	3	—	2147
4	013968097	214626	3100	15559	1020.9	OVC C1	KWBC 220930	4	—	2213
5	022615257	220618	3300	15532	1019.6	OVC C1	KWBC 222350	5	—	2224
6	014335047	222454	3500	15504	1017.8	OVC C1	KWBC 224515	6	—	2245
7	014415003	224200	3700	15434	1014.0	BKN C1	KWBC 232501	7	—	2326
8	093915080	225405	3900	15403	—	—	NO DATA	—	—	—
9A	020445009	225928	3910	15358	1007.4	SCT CU	KWBC 232501	8	—	2327
9	013718042	231438	4100	15330	998.9	BKN AS BKN CU	KWBC 233900	9	—	2338
10	014335116	233454	4300	152.5	985.2	OVC C1	KWBC 235940	10	—	2359
11	020445133	235614	4500	15730	990.7	OVC C1	KWBC 001354	11	—	0014
12	014415023	001543	4700	15935	1001.6	BKN CU	KWBC 001740	12	—	—
13	021735253	003612	—	—	—	—	BAD SONDE	—	—	—
13A	02025029	003735	4100	16730	1007.1	SCT CU	KWBC 005829	13	—	0058
14	021925024	005109	3900	16103	1014.8	SCT CU	KWBC 011157	14	—	0112
15	014415027	010606	3700	16078	1018.5	SCT CU	KWBC 012609	15	—	0130
16	021925007	012013	—	—	—	WIND	—	—	—	—
KA	021735242	012340	2500	16214	1020.5	SCT CU	KWBC 014529	16	—	0144
17	021925010	013519	3300	15732	1020.1	SCT CU	KWBC 015612	17	1	0158
18	021925037	014944	3100	15930	1020.5	SCT CU	KWBC 022117	18	—	0220
19	021925049	020347	2900	15909	1020.9	SCT CU	KWBC 022348	19	—	0222
20	021925142	021718	2700	15839	1019.7	SCT CU	KWBC 023716	20	—	0238
21	021925155	023054	2500	15830	1019.1	SCT CU	KWBC 030056	21	—	0302

300 SONDE

300 SONDE

0533PT #7 w/ 4

7
11/12/13

NCEP

Flight ID _____ Flight Director _____ Page ____ of ____

Mission ID Storm[illegible]

#2 INFORMATION 25 NOV 1500 FT

10/10/20

WELLS

757 329

12874 629

John Murray

030221n.log	Latitude	Longitude	Press	Temp	DP	WD	WS	MSL Alt	G Alt	Head	Track	TAS	GS	V Vel	Event Comments
19:56:20	21 18.87N	157 55.40W	1019.3	28.0	17.3	54.2	8.6	18.9	18.9	231.5	233.8	0.4	8.9	-0.02	taxi
20:05:08	21 18.07N	157 54.64W	983.7	21.4	15.2	55.5	6.6	308.3	307.9	123.2	127.0	105.0	102.6	7.36	Takeoff
20:50:11	25 01.70N	157 13.63W	177.2	-60.8	-69.5	335.1	40.1	12764.5	12725.3	1.4	7.5	225.4	190.5	-0.21	Sonde Launch, Drop 1
21:08:58	27 00.10N	156 49.97W	177.1	-62.6	-71.5	346.6	26.5	12737.6	12700.4	6.3	10.1	225.0	200.4	0.46	Sonde Launch, Drop 2
21:27:22	29 00.49N	156 24.91W	177.3	-63.5	-71.4	341.3	23.7	12701.5	12666.4	6.2	10.4	225.6	204.7	0.09	Sonde Launch, Drop 3
21:46:27	31 00.27N	155 58.94W	177.4	-65.3	-73.0	334.3	38.0	12653.6	12620.7	4.0	11.0	224.0	192.4	0.06	Sonde Launch, Drop 4
22:06:30	33 01.51N	155 31.64W	177.5	-65.8	-72.6	319.5	44.0	12605.8	12575.3	1.1	11.2	224.0	194.1	0.53	Sonde Launch, Drop 5
22:24:53	35 00.11N	155 03.95W	177.4	-60.7	-71.2	298.8	39.4	12544.5	12516.3	0.3	11.0	227.1	211.9	-0.08	Sonde Launch, Drop 6
22:42:00	37 00.25N	154 33.94W	177.4	-52.4	-67.7	291.6	32.2	12437.7	12412.2	2.3	11.4	231.2	223.3	0.09	Sonde Launch, Drop 7
22:58:36	39 00.33N	154 02.93W	177.4	-49.6	-65.5	277.4	24.6	12360.7	12337.7	4.5	11.7	233.7	234.3	0.25	Sonde Launch, Drop 8
22:59:22	39 06.01N	154 01.41W	177.4	-50.2	-65.5	276.1	24.6	12361.8	12338.9	4.8	11.8	233.7	234.8	-0.28	Sonde Launch, Backup 8
23:14:38	41 00.14N	153 32.83W	177.3	-49.7	-64.9	257.8	22.4	12313.5	12293.0	340.7	347.5	235.8	234.6	-0.06	Sonde Launch, Drop 9
23:34:55	43 00.14N	155 25.09W	177.4	-45.7	-63.1	281.3	18.5	12265.3	12247.1	319.7	323.8	234.7	220.7	-0.31	Sonde Launch, Drop 10
23:56:17	44 52.48N	157 36.97W	177.3	-47.0	-63.1	292.2	15.5	12250.6	12234.6	240.8	239.5	234.1	224.4	-0.08	Sonde Launch, Drop 11
00:05:36	43 58.50N	158 35.38W	161.2	-50.4	-63.6	294.4	19.2	12887.6	12868.4	221.3	217.4	231.6	226.4	0.80	Sonde Launch, Drop Mel 1
00:15:45	42 59.64N	159 35.36W	161.2	-52.0	-64.2	287.8	23.0	12912.5	12892.0	220.8	216.6	231.3	222.8	-0.06	Sonde Launch, Drop 12
00:26:20	41 57.46N	160 36.08W	161.4	-50.9	-64.8	291.2	28.7	12959.0	12937.2	221.4	215.7	231.7	222.8	0.10	Sonde Launch, Drop mel 2
00:36:13	40 58.89N	161 27.95W	161.3	-54.9	-65.9	290.1	37.4	13009.5	12986.3	198.1	190.5	228.9	232.1	-0.15	Sonde Launch, Drop 13
00:37:37	40 48.03N	161 27.32W	161.3	-55.6	-66.2	293.4	39.7	13020.9	12997.4	176.5	169.6	228.1	247.8	0.12	Sonde Launch, Backup 13
00:43:41	39 59.63N	161 16.21W	161.3	-57.0	-67.4	298.6	40.1	13052.1	13027.5	176.4	169.9	228.1	251.0	-0.03	Sonde Launch, mel3
00:51:14	38 59.15N	161 02.80W	161.3	-58.2	-67.9	299.3	43.0	13091.0	13065.1	177.3	170.1	226.4	251.0	0.09	Sonde Launch, Drop 14
00:59:43	37 51.13N	160 48.38W	162.2	-61.1	-69.5	300.6	45.3	13124.1	13096.7	176.0	170.5	223.7	250.2	-0.63	Sonde Launch, Drop mel 4
01:03:37	37 19.84N	160 42.01W	161.1	-62.0	-70.2	302.3	43.2	13150.9	13122.8	177.8	170.7	226.3	252.6	0.09	Sonde Launch, Backup mel 4
01:06:06	36 59.85N	160 37.94W	161.2	-62.7	-70.4	306.3	44.1	13159.1	13130.6	177.5	170.8	224.9	254.2	-0.20	Sonde Launch, Drop 15
01:20:44	34 59.56N	160 13.90W	147.4	-65.8	-71.7	308.0	47.2	13770.2	13736.6	178.6	171.4	223.0	254.9	1.66	Sonde Launch, Drop 16
01:23:41	34 35.55N	160 09.42W	146.3	-66.2	-71.9	305.0	48.1	13826.2	13791.9	179.4	171.7	223.9	254.1	-0.06	Sonde Launch, Backup 16
01:35:24	32 59.07N	159 51.85W	146.3	-67.5	-73.0	311.1	49.2	13868.1	13831.7	178.2	171.5	223.3	258.4	0.28	Sonde Launch, Backup 17
01:49:44	30 59.59N	159 29.96W	146.3	-69.4	-73.7	316.6	51.1	13913.2	13874.3	177.4	171.2	221.4	261.6	-0.72	Sonde Launch, Drop 18

FD Log program shut down after drop 18 - all data after drop 18 lost

10 WSC \$1

20WSC

Winter Storms Reconnaissance Program (WSRP)

Track 55

Departure: Honolulu

Arrival: Honolulu

Note: All points designated as "Turns" are also drops. Aircraft Commanders may change drops to turns to ensure that Air Traffic Control reporting requirements are met.

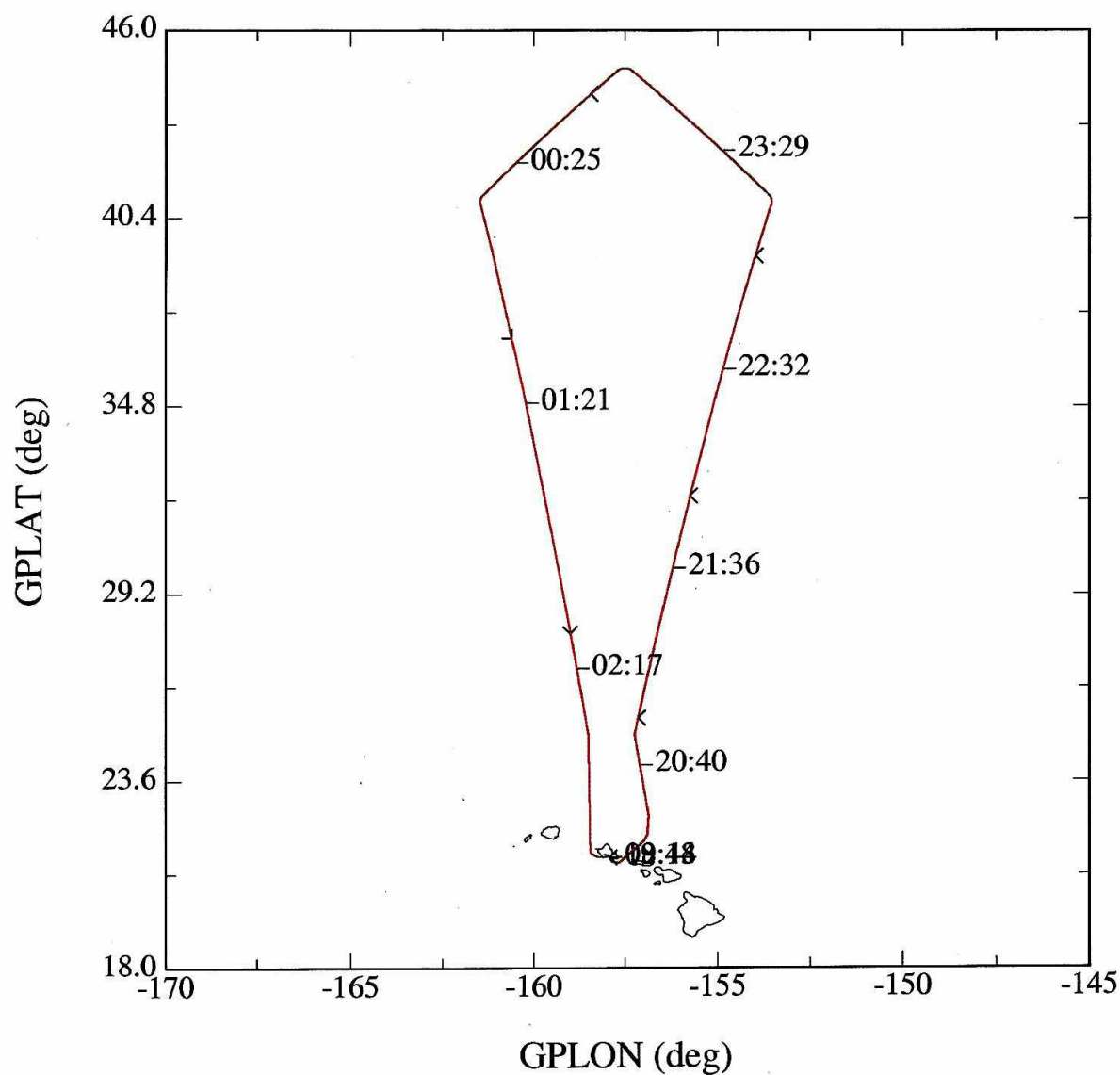
2 Turn 1 25 00N 158 30W
20 Drop 2 27 00N 158 49W
19 Drop 3 29 00N 159 09W
18 Drop 4 31 00N 159 30W
17 Drop 5 33 00N 159 52W
16 Drop 6 35 00N 160 14W
15 Drop 7 37 00N 160 38W
14 Drop 8 39 00N 161 03W
13 Turn 2 9 41 00N 161 30W
12 Drop 10 11 43 00N 159 35W
11 Turn 3 45 00N 157 30W
10 Drop 12 13 43 00N 155 25W
9 Turn 4 13 41 00N 153 30W
8 Drop 14 39 00N 154 03W
7 Drop 15 37 00N 154 34W
6 Drop 16 35 00N 155 04W
5 Drop 17 33 00N 155 32W
4 Drop 18 31 00N 155 59W
3 Drop 19 29 00N 156 25W
2 Drop 20 27 00N 156 50W
1 Turn 5 21 25 00N 157 14W

11-12
12-13
13-14
14-15

NO
TRANS
NASA
4 SONDES
FOR MEL

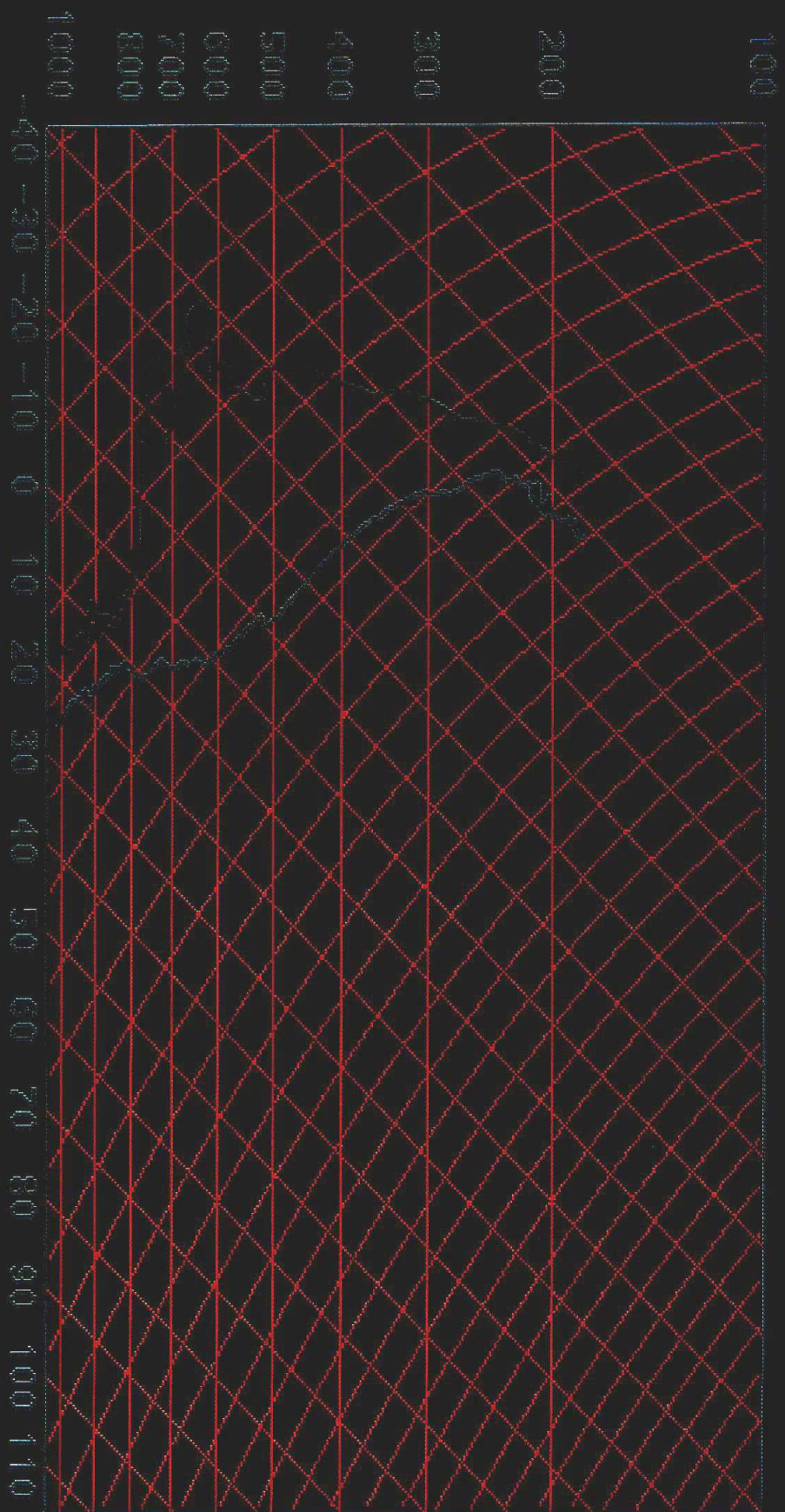
WinterStorms_2002, Flight #rf09

02/21/2003 UTC, 18:48:04-27:13:54



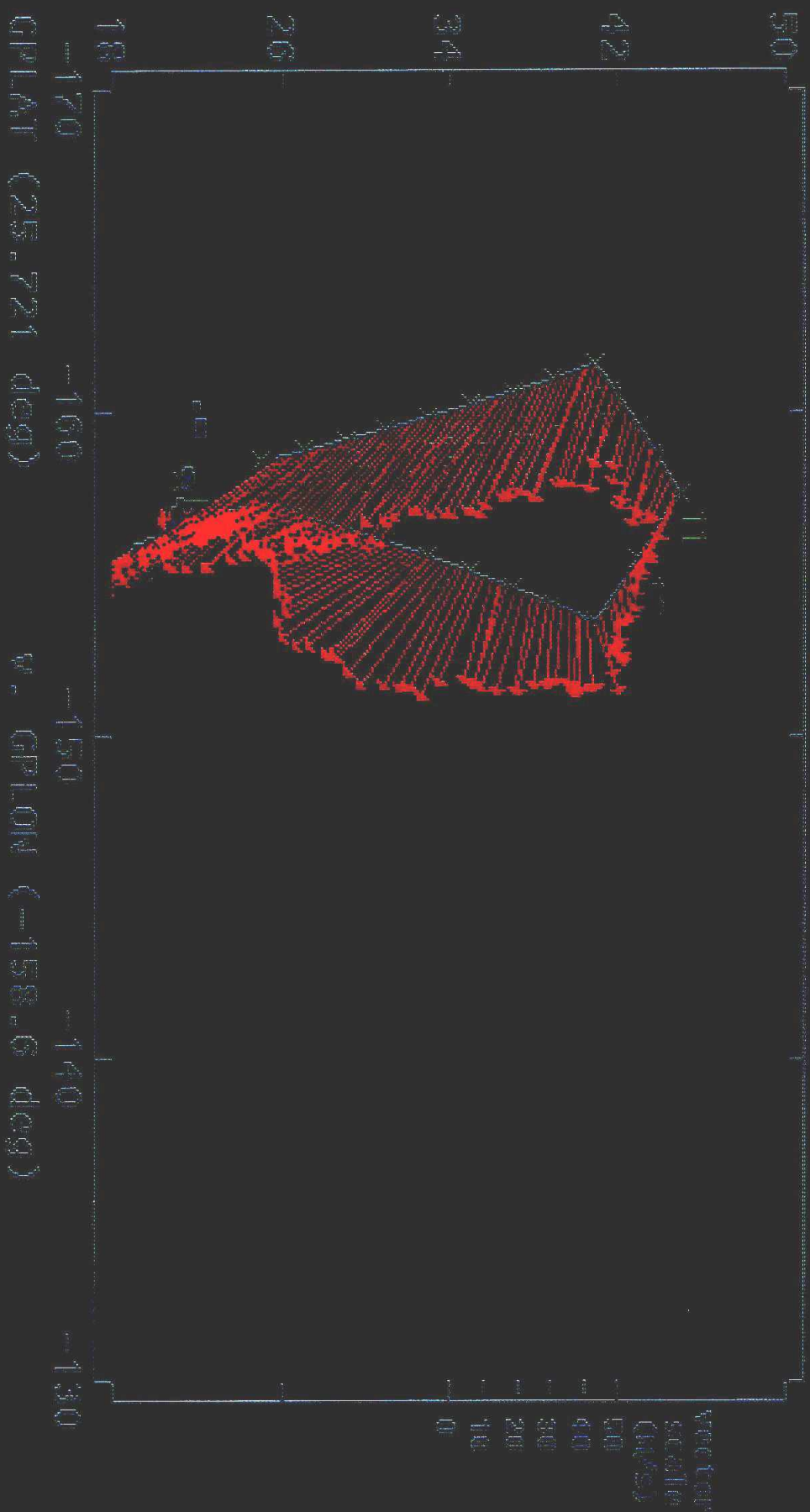
	mean	sigma	min	max
— GPLAT (deg), 1 s/sec	31.00	7.92	21.17	44.90
— GPLON (deg), 1 s/sec	-157.60	1.98	-161.47	-153.53

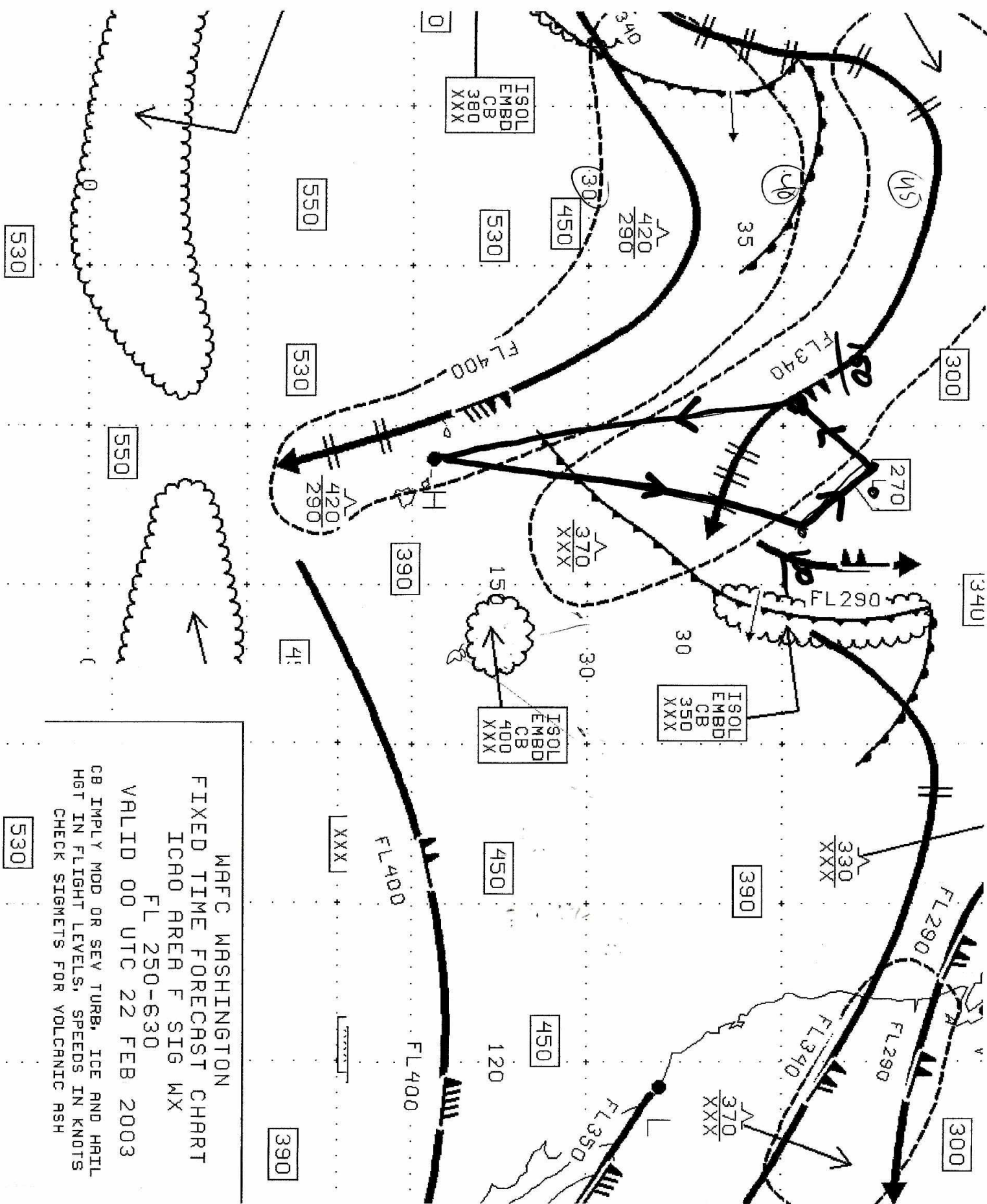
19:55:23 to 20:25:23



ATK (-57.14 C) V. PSK (180.01 mbar)
PRNO (-62.14 C) W. PSK (180.01 mbar)

20:15:38 to 02:26:03





MAFC WASHINGTON
 FIXED TIME FORECAST CHART
 ICAO AREA F SIG WX
 FL 250-630
 VALID 00 UTC 22 FEB 2003
 CB IMPLY MOD OR SEV TURB, ICE AND HAIL
 HGT IN FLIGHT LEVELS, SPEEDS IN KNOTS
 CHECK SIGMETS FOR VOLCANIC ASH