

Flt ID: 010217N	From: P140L	To: P140L
Flt No.: 01-20	Blk In: 0404	ATA: 0402
ETD: 21Z	Blk Out: 2047	ATD: 2058
ETE: 7+	Blk Time: 7:17 (7.3)	Flt Time: 7:04 (7.1)
Sponsor Org: ETL/FSL	Program: SCAT-CAT	Purpose:

AOC Personnel

AC: McCann 3.00 ✓	Sys Eng: Hill ✓
CP: Finke/Kates ✓	Data Sys: Hornbrook ✓
Nav:	Radar:
FE: Kitson	GPS/RT: Smith ✓
Avionics:	Cld Phys:
FD: Parrish ✓	

Participating Scientists/Visitors/AOC

Name (Last, First)	Activity on Aircraft	Affiliation
Shapiro, M. ✓	P.I.	ETL
Leighton, P. ✓	HAPS	HAD
Goldenberg, S. ✓	HAPS	HAD

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

1953Z
080112-22Z
25/16
30.16

3354 gallons
Recco point bal 2132Z.

Fly SCAT-CAT between 38D 156 30W & 42D 151W. Recco point bal 2132Z.

Mission - Dropped 17 SCAT-CAT sondes, 3 for recco (1000, 3 SCAT failed).

High resolution log 14 drops 3 min apart, from 41K.

Then flew stack at 33K, 35K, 37K. Encountered some mod turbulence where speeds were 30 knots, at 33, 35K ft.

Dropped 3 prototype sondes at end of stack, 1 good, 2 lost telemetry.

0353Z
070113 40/10
30.08 1016.8
24/16 24/13

H.D.

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

Form 413-50

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _a	T _d	Press. Alt.	Geo. Alt.	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
2047							26.3	12.6	-55			1019.8		Black Cat
205830	2117	15754	155	150	81	11	14.4	11.9	1056	1016		886	81	↑
2105	2128	15732	9.0	6.7	311	5.9	-6.1	-26.7	4760	4075		564	158	↑
2111	2208	15728	4	2	336	20	-21.3	-36.2	7615	7280		392	150	↑
2202	2731	15707	2	356	332	47	-60.7	-66.9	12888	12549		176	88	-41K
2236	3059	15656	3	352	315	56	-58.8	-66.4	12780	12547		176	88	
224543	3200	15652	3	351	310	58	-58	-66	12743	12542		176	88	Drop 1 ^{Drop 1 to 1000 ft}
230535	3400	15645	3	348	312	70	-58	-66	12639	12546		176	88	Drop 2 ^{Drop 2 to 1000 ft}
232609	3600	15637	27	346	301	74	-57	-66	12538	12545				Drop 3 ^{Drop 3 to 1000 ft}
2331	3630	15635	26	346	299	71	-57	-66						Drop 4 ^{Drop 4 to 1000 ft}
233512	3700	15634	27	348	299	63	-54	-65						Drop 5 ^{Drop 5 to 1000 ft}
234030	3730	15632	28	351	309	55	-54	-64	12447	12541				Drop 6 ^{Drop 6 to 1000 ft}
2345	3759	15628	2	2	309	52	-56	-64						Drop 7
2348	3815	15610			305	52	-56	-65						Drop 8
2351	3831	15550			304	52	-54	-65						Drop 9 ^{Drop 9 to 1000 ft}
2354	3846	15530			306	53	-53	-65	12358	12540		176	82	Drop 10
2357	3902	15509			301	51	-51	-64						Drop 11
0000	3918	15449			301	55								Drop 12 ^{Drop 12 to 1000 ft}
0003	3934	15426	46	32	299	57	-47	-61	12286	12539		176.4	83	Drop 13
0006	3950	15405			308	49	-47.7	-60.5						Drop 14
0009	4005	15344	46	55	309	45	-48	-60.7	12263	12539				Drop 15
0012	4021	15323			306	45	-49	-61	12247	12537		176	82	Drop 16
0015	4037	15302	47	37	298	40	-47	-61	12240	12540		176	83	Drop 17
0018	4053	15238	47	38	297	39	-46	-61	12232	12543				Drop 18
0021	4109	15215	47		299	37	-46	-60	12214	12540				Drop 19 ^{Drop 19 to 1000 ft}
0024	4124	15152			298	30	-46	-59	12204	12545				Drop 20 ^{Drop 20 to 1000 ft}
0029	4116	15206	227	236	300	38	-45	-59	9648	10116		259.4	123	-33K
003630	4040	15257	227	239	307	48	-45.7	-59.6	9735	10114		259.6	122	
004715	3949	15407	226	246	316	78	-49	-61	9830	10114				Exp. Drop 1
005215	3925	15440	226	250	317	92	-50.6	-62.3	9870	10117				
0100	3854	15446	27	7	323	85	-51.6	-62.8	10514	10726		236	109.9	-35K
0109	3941	15412	28	9	319	76	-53	-64	10456	10728		236	111	
011710	4020	15325	47	31	317	64	-50.9	-62.5	10399	10728		236	109.5	End 35K ^{End 35K to 1000 ft}
012145	4027	15332	214	225	306	45	-50.3	-63.1	11020	11339		243	99	↑ 37K
0130	3941	15419	226	239	313	53	-53.7	-63.1	11088	11341		214	98	
013718	3924	15446	225	239	317	56	-54.9	-64.1	11112	11338		214.3	100	Exp. Drop 1
014725	3814	15611	222	242	308	59	-52	-64	11520	11646				
014835	3809	15619												Exp. Drop 2
020407	3606	15657	183	193	313	53	-59	-65.5	12564	12535		176.5	88.5	Exp. Drop 3

N49RF Winter 01 / AVAPS DropSonde Log

N49RF Project: Winter Storms/SCATCAT 2001 Flight ID: 010217N

Mission: SCATCAT Flight #: 9 System Status: Good

Drop #	Sonde Serial Number	Ch #	Time (Zulu)	Press offset	Winds time	Operator	NWS	SCAT	SSMIS	PJET	PROTO	Comments / Drop Status/ Failure Reason	GOOD ✓
1	985145008	1	2245	.3	—	JH	✓					No Launch Detect; No telemetry upon launch.	
2	983410131	1	2305	0	29	JH	✓						✓
3	985145007	1	2326	.5	24	JH	✓						✓
4	990415285	2	2331	.4	28	JH		✓					✓
5	990148036	3	2335	0	28	JH		✓					✓
6	990415259	7	2340	.7	—	JAS		✓				Winds? No Winds	✓
7	990435411	1	2345	.3	22	JH		✓					✓
8	990415283	2	2347	.7	11	JH		✓					✓
9	990148037	8	2350	.5		JAS		✓				Winds?	✓
10	990435508	3	2354	0	22	JH		✓					✓
11	990415256	5	2357	.9	23	JAS		✓					✓
12	985145009	6	0000	.4	24	JAS		✓					✓
13	990935057											Failed, Prep No Launch	
14	990148041	1	0003	.7	—	JH	✓					winds? None	B
15	990148043	2	0006	.6	16	JH		✓					✓
16	990415257	8	0009	.8	120	JAS		✓				wind? Late @ 120 SECS	✓
17	990148038	3	0012	.8	28	JH		✓					✓
18	985035234	5	0015	.4	14	JAS		✓					✓
19	990148042											Failed Prep! No Launch	
20	990415258	7	0018	.8	28	JAS	✓						✓
21	993948004	1	0021	0	—	JH	✓					Winds? None	✓
22	985035232	2	0024	0	31	JH	✓						✓
23													✓
24	00345361	1/50133	0	245	JS							✓ EARMON GPS-NCAR	✓
25	001048017	1/50148	0	0	JS							✓ WINDS LOST just after launch	
26	001048013	2/50204	0	0	JS							✓ Poor Telem then telem failed	
27													
28													
29													
30													
31													
32													
33													

16/20

NOTE: BAD GPS SATELLITE REPORTED POST FLIGHT

2/17

- ① 32N 156 52W
② 34N 156 45W
③ 36N 156 38W
④ 37N 156 34W

⑤	38N	156	30W
⑦	42N	156	30W
⑥	42N	151	00W
⑧	38N	151	00W

②① 36 30N 156 36W

②① 37 30N 156 32W

3359

gal

01-20

11

NOAA 49

413

148

17 February 2001

- Takeoff PHNL at 2000Z FL 410
- route : ZIGIE direct ³⁸36N 15630W
- request hold in box: ³⁸~~36~~N 15630W ⁴²~~36~~N 15630W
~~42~~N 151W ³⁸~~36~~N 151W
- for ^{2hrs 10mi} 2 hrs
- BLOCK FLIGHT LEVEL 330-430
- APPROXIMATE ZULU TIME FOR HOLD ~~2200-0130~~
2205-0045
2315-0145
- DEPART HOLD AT ³⁸~~36~~N 15630W
- ROUTE BACK direct ZIGIE DIRECT PHNL
- REQUEST FL 430 FOR ROUTE BACK

NOAA ~~49~~ SCATCAT 4


396-

Gordon

36 137

33 146

31 133

25 145

NOAA/AOC/SED N49RE Flight Performance log

Project Name: WS2001 Project No. 101 Flight No. r409 Flight ID: 010217NSED Crew: Hornbrook, Hill, Smith Mission: Scat CatPre-Flight: 2010 Z Take-Off: 2057 Z Landing: 0419 Z

SYSTEM				Pre-Flight Check		In-Flight		Post-Flight Check	
N A V	IRS #1			<u>OK</u>		<u>OK</u>			
	IRS #2			<u>OK</u>		<u>OK</u>			
	GPS Honeywell #1			<u>OK</u>		<u>OK</u>			
	GPS Honeywell #2			<u>OK</u>		<u>OK</u>			
	GPS Collins			<u>OK</u>		<u>OK</u>		Off? ☒	
	Nose Radar - Collins			<u>OK</u>		<u>OK</u>		Off? ☒	
T E M P		Time	Temp °C					Time	Temp °C
	Temp #1	<u>2032</u>	<u>25.6</u>	<u>OK</u>	<u>0017</u>	<u>-47.12</u>			
	Temp #2		<u>27.4</u>			<u>-45.95</u>			
	Temp #3		<u>25.0</u>			<u>-45.39</u>			
	Temp #4		<u>29.4</u>			<u>-44.34</u>			
	DP Left		<u>12.0</u>			Cal. Time: <u>2132/-63</u>			
	DP Right	<u>↓</u>	<u>13.4</u>	<u>OK</u>		Cal. Time: <u>2132/-65</u>			
P	Attack Angle (ADCAOA)			<u>OK</u>		<u>OK</u>			
R	Slip Angle (BPx/DxPx)			<u>OK</u>		<u>OK</u>			
E	Differential (QC1/QC2)			<u>OK</u>		<u>OK</u>			
S	Absolute (PS1/PS2)			<u>OK</u>		<u>OK</u>			
S	Check Radome Press. Lines ☒	Date: <u>2/10/01</u>							
S	Down Port ⇨ Open? ☒							Closed? ☒ <u>NA</u>	
Y	MADS (WINDS/DISCWIN)			<u>OK</u>				# DATs: <u>1</u>	
S	MADS Printer1 ON⇨Paper? ☒			<u>OK</u>				Printer Power off? ☒	
T	MADS Printer2 ON⇨Paper? ☒			<u>OK</u>				Printer Power off? ☒	
E	HAPS System / Time set? ☒			<u>Paul</u>				# Msg.: <u>5</u> # Fail: <u>3</u>	
M	AVAPS System			<u>SS</u>					
S	MADS Cal Date: <u>1/18/01</u>	QC Time: <u>2036</u>			Cal? ☐ Initial:			QC Time: <u>0402</u>	
	Exterior Walk Around ☒			<u>JS</u>					
	Inspect DropSonde Chute Bolts			<u>OK</u>					
M I S C	Satcom (Flight Phone) ☒			<u>JS</u>				Off CB? ☒	
	Call COMSAT? ☒ (*292#)			<u>JS</u>					
	FCU/UPS/CB	CB's Checked? ☒	<u>JS</u>					UPS off? ☒	
	AVAPS Sondes	# On Board: <u>48</u>		# Dropped: <u>20</u>				# Good: <u>15</u>	
	APN-232 Altimeter		<u>OK</u>						
C	Modem Power On? ☒			<u>JS</u>					
	Additional Instrumentation: AL Ozone Data System and Inlet Probe	Inlet Cap Removed? ☒		<u>After Takeoff</u>		Computer OFF? ☒			
L1 400Hz CB ON? ☒			Pump ON? ☒ <u>2057</u>		L1 60Hz IP CB OFF? ☒				
Probe Temp >= 40C? ☒			<u>Before Landing</u>		L1 400Hz CB OFF? ☒				
After Engine Start			Pump OFF? ☐		Inlet Cap In place? ☐				
L1 60 Hz IP CB ON? ☒			Data xfer to zip disk? ☐						
Computer ON? ☒									
I	DAT Tape #1	On: <u>2034</u>	Type: <u>60</u>	Off: <u>0404</u>					
	Comments:								

Please Note Any Discrepancies

Item No.	Zulu Time	Problem Description & Observations	Emp. Initials
1	2139	Check Ozone 38° + 41° Pumps O.K.	YH
2	2210	Check Ozone 38° + 41° Pumps O.K.	YH
3	2240	check Ozone 38° + 37° Pumps O.K.	YH
4	2314	Check Ozone 39° + 39° Pumps O.K.	YH
5	2339	Check Ozone 39° + 39° Pump O.K.	YH
6	0016	Check Ozone 34° + 36° Pumps O.K.	YH
7	0046	No - Check Ozone Seet Belt	YH
8	0116	No - Check Ozone Seet Belt	YH
9	0148	Check Ozone 38° + 40° Pumps O.K.	YH
10	0227	Check Ozone 40° + 42° Pumps O.K.	YH
11	0250	Check Ozone 45° + 47° Pumps O.K.	YH
12	0317	Check Ozone 34° + 35° Pumps O.K.	YH
1	0238	AFT DSM offline - Bus Error, Program Counter: 0x00005BFE STATUS Reg: 0x3004, Access Address: 0x00005BFB, Special STAT: 0x0106, Task 0x3AD570 "T1"	