

AROBEX

Mission #4

Flight #4 000301H

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	2
Dew Point Probe	1
Altitude (for vertical wind)	RA-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2002.CON

Notes:

Takeoff: 0055Z

Land: 0727Z

FAST data was only recorded for approximately the first half of the flight (reason unknown).

Radar altitude (RA-159) was replaced by RA-232 prior to and during takeoff due to spikes (0053:01-0058:44). The RA-159 had 35 spikes that were removed and patched (0107:00-0107:20, 0112:30-0112:50, 0132:20-0132:40, 0136:10-0136:40, 0138:45-0139:15, 0142:45-0143:15, 0145:15-0145:45, 0203:15-0203:45, 0209:30-0210:00, 0212:20-0212:50, 0215:25-0215:55, 0217:45-0218:15, 0220:00-0220:30, 0229:00-0230:00(2), 0237:25-0237:55, 0240:50-0241:20, 0244:10-0244:40, 0245:55-0246:25, 0302:40-0303:00, 0310:30-0311:00, 0344:40-0345:00, 0344:10-0344:40, 0346:00-0346:10, 0401:30-0402:00, 0407:10-0407:40, 0409:40-0410:10, 0416:40-0417:10, 0438:10-0438:40, 0439:40-0440:40(2), 0441:40-0442:10, 0459:20-0459:50, 0502:20-0502:30, 0518:20-0518:50). The RA-159 was replaced by the RA-232 plus an 11 meter offset (RA-159 was placed in standby mode for communication reasons) between 0528:07-0537:35. The RA-159 had four spikes that were removed and patched (0606:30-0606:50, 0611:50-0612:20, 0612:30-0613:00, 0614:30-0614:50). The RA-159 was replaced by the RA-232 plus a 59 meter offset (communications) between 0617:38-0627:19. The RA-159 had eleven spikes removed and patched (0632:45-0650:20, 0634:20-0634:50, 0639:30-0640:00, 0644:30-0644:50, 0649:50-0650:20, 0650:50-0651:20, 0655:45-0656:15, 0700:40-0701:00, 0715:30-0715:50, 0719:40-0720:00, 0726:40-0726:55). The RA-159 was replaced by the RA-232 prior to and during landing due to spikes (0726:55-0730:00).

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	988.5 mb	989.7 mb
Corrected tower pressure	992.2 mb	994.2 mb

The aircraft INE 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 speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm.
It is recommended that these values be used for vertical wind analysis.

Flight Director: Tom Shepherd, (813) 828-3310 ext. 3053

Flt ID: 000301H	From: PANc	To: PANc
Flt No.: 00-28	Blk In: 0735	ATA: 0727Z
ETD: 0100	Blk Out: 0045	ATD: 0055Z
ETE: 0800	Blk Time: 06:50 6.8	Flt Time: 07:32 6.5
Sponsor Org: NESDIS	Program: AROBEX	Purpose: Coordinated Radar Sat. overpass

AOC Personnel

AC: Kenel, P	Sys Eng: McMillan, S.
CP: Jaggart, B. ✓	Data Sys: Hornbrook, C. ✓
Nav: Newman, C. ✓	Radar:
FE: Moore, B. ✓	GPS/BT: Carpenter, D. ✓
Avionics: Rogers, M. ✓	Cld Phys:
FD: Shepherd, J. / Czyz, S.	

Participating Scientists/Visitors/AOC

Name (Last, First)	Activity on Aircraft	Affiliation
Chang, P. ✓	PI	NESDIS
Carroll, J. ✓	Ku-CScat Scientist	UMass
Connor, L. ✓	Scientist	UCAR/NESDIS
Castells, A. ✓	Scientist	UMASS
RZEWUSKI, Aimee ✓	News Report	KTVA Channel 11
Placie, Jordan ✓	News Report	KTVA Channel 11
NEYMAN, LINNAE ✓	Observer	NOAA/NWS

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

08 54 35N 154 10W

LF shut down @ 0229 to prevent CSCAT interference

0530 APN 159 STBY for phone

0537 159 ON

0550 TAKE TA radar ↓

0618 APN 159 STBY

0627 APN 159 ON

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

AOCWF2

Flt ID: 0003014		Time Off: 0055Z		Time On: 0727	
	A/C (Take Off)	Wx Stn (Take Off)	A/C (Land)	Wx Stn (Land)	
Pressure	988.5	29.36	989.7	29.36	
	Number	Data Disposition/Date/Quality			
Slow/Fast Flt Lvl Tapes	2				
Radar Tapes	1				
Cloud Physics Tapes					
Video Tapes	2				
Flt Lvl Data Printout	2	1 copy → Paul Chang			
AXBT					
AXCP					
AXCTD					
GPS	20				
Video					
	Forward	Left Side	Right Side	Down	Remarks
Time On					
Time Off					
Rate					
Remarks					

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

Form 413-50

Time	Lat	Lon	Trk	Hdg	Ta	Td	WD	WS	PA	GA	PS	SP	Remarks
010200	6102	15034	220	214	-19.1	-23.2	119	29.8	3350	3048	670.4	994.6	LEVEL 10K RAD
012846	5930	15224	186	180	-17.6	-44.8	110	30.2	3350	3028	670.5	989.1	DROP #1 NO WIND
013023	5924	15235	187	181	-18.4	-32.1	107	31.9	3351	3028	670.7	991.1	DROP #2
014330	5834	15300	226	222	-16.2	-55.0	95	26.4	3349	3008	670.5	984.4	DROP #3
020245	5734	15456	23	228	-17.2	-46.8	90	24.4	3349	3040	666.3	983.9	DROP #4
020917	5715	15539	231	228	-16.2	-17.2	76	27.4	3400	3031	666.3	985.9	DROP #5
022510													ENTRY - DESC to 5K
024550	5440	15635	190	185	-7.6	-8.5	51	34.6	1865	1491	808.4	975.6	DROP 6 @ 5K
025640	5406	15645	190	186	-7.0	-8.2	45	38.0	1863	1472	808.6	973.0	DROP 7
0306113	5346	15651	191	186	-6.4	-7.6	45	45.1	1865	1464	808.3	971.4	DROP 8
032510	5344	15705	74	69	-7.1	-8.2	39	47.5	1916	1521	803.3	972.7	Ci OUTH BKN BLD
033332	5352	15618	75	71	-6.8	-8.3	47	48.6	1917	1515	803.2	971.9	DROP 9
034104	5359	15531	74	71	-6.6	-8.0	53	49.9	1915	1511	803.4	971.3	DROP 10
034932	5409	15442	72	70	-6.0	-8.1	59	47.0	1916	1511	803.2	970.8	DROP 11 LOST WIND
035344	5413	15417	71	71	-6.3	-7.8	66	42.5	1917	1511	803.2	971.1	DROP 12
035827	5419	15350	70	71	-6.4	-7.6	66	36.4	1916	1514	803.2	971.4	DROP 13
040353	5425	15320	70	71	-6.1	-7.3	68	35.3	1912	1513	803.7	971.3	14
040705	5429	15305	70	71	-6.0	-7.0	70	31.4	1914	1516	803.5	971.8	DROP 15
041508	5439	15218	68	71	-5.7	-7.0	85	26.2	1914	1522	803.5	972.1	16 No Wind
041625	5440	15211	68	71	-5.8	-7.0	85	27.4	1915	1523	803.5	972.4	17 No Wind
041921	5444	15205	68	71	-6.0	-7.1	84	25.8	1913	1525	803.6	972.8	18
042435	5451	15125	67	70	-6.2	-6.9	89	27.1	1913	1529	803.6	973.5	19
045155	5430	15310	250	251	-5.9	-6.9	72	38.4	1913	1518	803.6	972.1	Returning along drop trk
045854	5470	15400	249	251	-6.2	-7.2	65	47.1	1913	1515	803.6	971.8	DROP 20 Last one over center pt
052845	5335	15723			-7.7	-8.7	29	43.9					CLIMB HOME
054025	5421	15653	24	28	-14.4	-15.9	64	27.7	3360	2961	669.5	976.1	LVL FL110
060330	5550	15553	24	28	-25.4	-28.3	80	15.4	5365	4943	514.4	976.4	LVL FL170
064846	5905	15234	31	38	-24.8	-31.6	109	31.4	5362	5010	514.5	983.1	LVL FL170
070230	6003	15130	32	36	-18.2	-50.5	88	20.4	4235	3788	601.5	977.4	Descent -> PAUC

INS PERFORMANCE		INS 1	INS 2
BEGIN ALIGN TIME		0000	0000
ALIGN STATUS (0-5)		0	
END NAV TIME		0730	0730
START NAV TIME		0100	0100
DELTA T		6.5	6.5

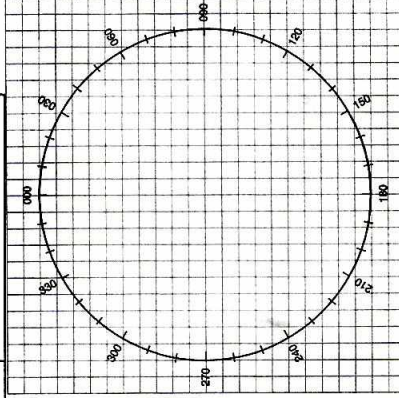
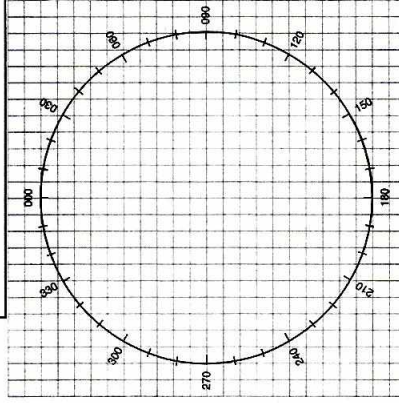
TERMINAL ERRORS		
	INS 1	INS 2
DELTA LAT	+5	+6
DELTA LON	-3.0	+2.3
RGS	2	3
RADIAL ERROR	1	1

[illegible]

MISSION LOG PAGE ____ OF ____

PAGE _____ **OF** _____

FREQ	ALT	HDG	OTHER
			54 44 5351
			151 59 15621
			54 29 N
			153 07
			54 13 N
			154 21 W



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

**MAYDAY, MAYDAY, MAYDAY
THIS IS 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 _____

- NATURE OF EMERGENCY
- ASSISTANCE DESIRED

- ASSISTANCE DESIRED
- PILOT INTENTIONS

[illegible]

PAGE OF

FIX TYPES
(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

[illegible]

N42RF AVAPS DROP LOG

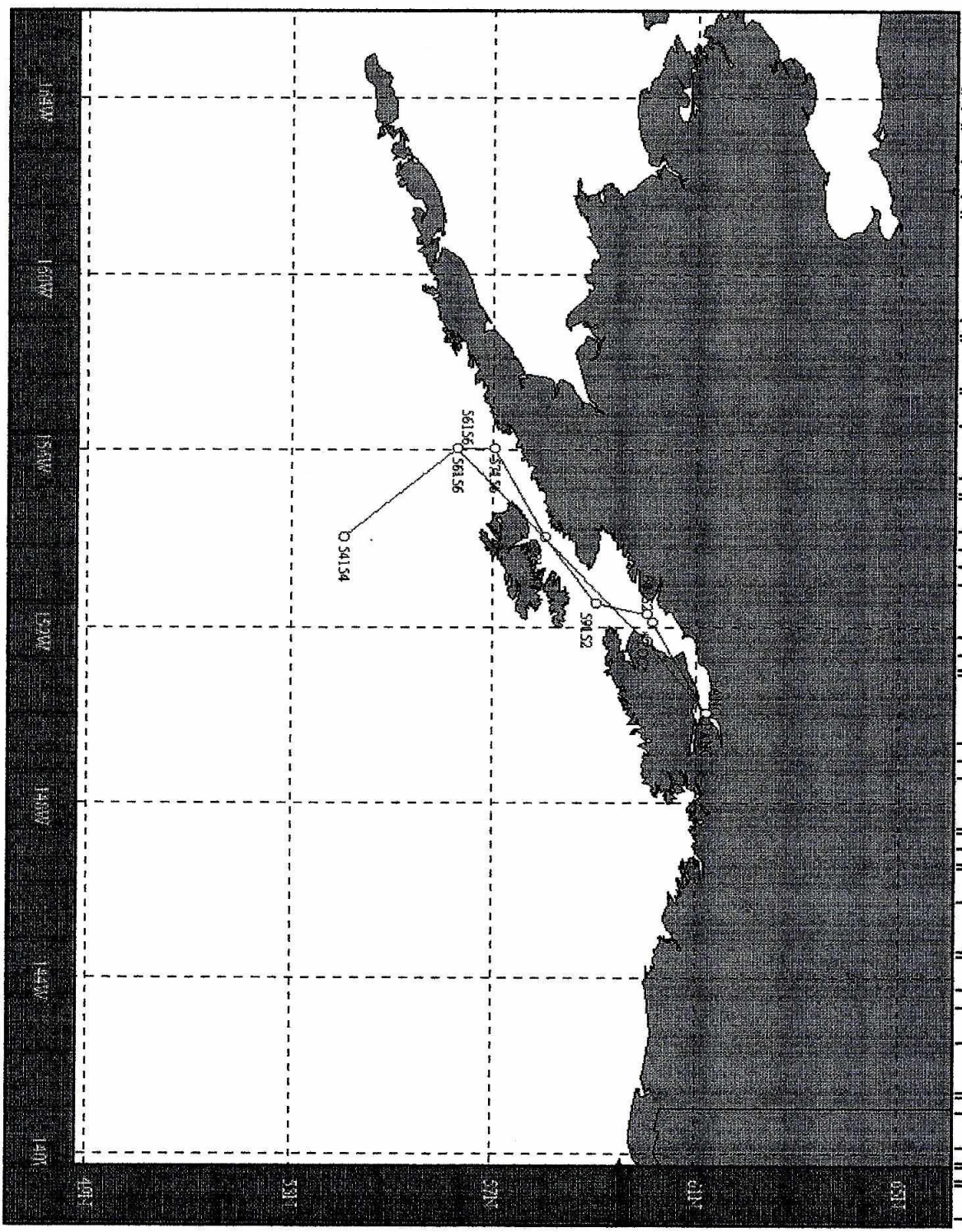
Mission :

Flight ID : 0003017

Landing :

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Comments
1	993 925 147	1	0	0128		DWC	No winds
2	993 948 061	2	0	0130	26		Good Drop
3	993 818 048	3	-1.8	0143	24		Good Drop
4	994 325 137	1	0	0202	22		Good Drop
5	994 015 062	2	-1.6	0209	41		Good Drop
6	993 925 301	1	0	0248	20		Good Drop
7	993 215 262	2	0	0256	29		Good Drop
8	993 215 284	1	0	0301	28		Good Drop
9	993 915 013	2	0	0333	12		Good Drop
10	993 818 044	1	0	0340	21		Good Drop
11	983 310 057	2	0	0349	38		Lost winds
12	972 400 002	1	-1.6	0353	26		Good Drop
13	984 925 105	2	0	0358	36		Good Drop
14	972 440 011	1	-1.3	0403	25		Bad Temp+RH+r
15	972 440 047	2	-1.2	0406	15		Good Drop
16	984 715 142	1	0	0415			No winds
17	984 715 256	2	0	0416			No winds
18	981 715 076	3	0	0419	21		Good Drop
19	974 530 017	1	-1.1	0424	23		Good Drop
20	974 150 018	1	-1.2	0458	30		Good Drop
	984 715 241	2	0				

የግብርና ሚኒስቴር የግብርና ሚኒስቴር የግብርና ሚኒስቴር የግብርና ሚኒስቴር



የግብርና ሚኒስቴር የግብርና ሚኒስቴር የግብርና ሚኒስቴር የግብርና ሚኒስቴር