

Aeronomy Lab Clouds and Radiation Virginia Convection

Flight #4: 000525H

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	1
Altitude (for vertical wind)	RA-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2993.CON

Notes:

Dewpoint (DW1) was not functioning properly and was replaced by DW2 from 1621:12-1655:27. Dewpoint exceeded ambient temperature several times due to heavy precipitation.

Radar altitude (RA-159) was replaced by RA-232 prior to takeoff due to spikes (1330:01-1341:45). Dips in the radar altimeter are due to flying over high terrain. RA-159 was replaced by RA-232 due to RA-159 failure from 1613:49-1951:41. RA-159 was replaced by RA-232 just prior to landing due to spikes (2116:52-2125:00).

Total temperature (TT1) had several spikes removed and patched (1623:01-1624:00, 1625:01-1626:00, 1628:31-1629:30, 1634:31-1635:30, 1739:01-1740:00, 1741:01-1742:00, 1744:01-1745:00, 1750:30-1751:30 (2), and 1802:01-1803:00). TT1 was replaced by TT2 due to spikes from 1804:17-1814:00 with an offset of -0.69, 1823:00-1832:41 with an offset of -0.70, 1833:29-1842:01 with an offset of -0.55 and 1854:12-1907:53 with an offset of -0.65).

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1016.0	1013.5
Corrected tower pressure	1016.3	1014.6

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 Meteorologist: Stan Czyzyk, (813) 828-3310 ext. 3086

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

AOCWF1

Flt ID: 000525H	From: KMCF	To: KMCF
Flt No.: 00-52	Blk In: 2130Z	ATA: 2121Z
ETD: 1300Z	Blk Out: 1300Z	ATD: 1337Z
ETE: 2130Z	Blk Time: 8:30 8.5	Flt Time: 7:44 7.7
Sponsor Org: ETL	Program: FLORIDA BAY	Purpose: CLOUD OPTICS

AOC Personnel

AC: KENUL, P	Sys Eng: HORN BROOK, C ✓
CP: O'MARA, T ✓	Data Sys: CARPENTER, D ✓
Nav: NEWMAN, C	Radar:
FE: BASTI, G ✓	GPS/BT:
Avionics:	Cld Phys:
FD: CZYZYK, S ✓ / SNEEDHERD, T ✓	

Participating Scientists/Visitors/AOC

Name (Last, First)	Activity on Aircraft	Affiliation
Soloman, S ✓	PI	ETL
DANIEL, J ✓	Co-PI	"
PORTMANN, B ✓	Co-PI	"
FALLS, M ✓	Co-PI	"

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

36N 85W RA-159 RA05 most of flight
 36.0/15 HCH

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AOCWF2

Flt ID:

000525H

Time Off:

1337z

Time On:

2122z

A/C (Take Off)

Wx Stn (Take Off)

A/C (Land)

Wx Stn (Land)

Pressure

1016.0

30.01

1013.5

29.96

Number

Data Disposition/Date/Quality

Slow/Fast Flt Lvl Tapes

2

Radar Tapes

2

Cloud Physics Tapes

2

Video Tapes

AXBT

AXCP

AXCTD

Dropsondes

Video

Forward

Left Side

Right Side

Down

Remarks

Time On

Time Off

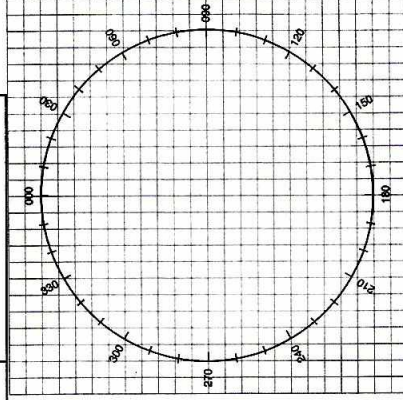
Rate

Remarks

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _a	T _d	Press. Alt.	Geo. Alt.	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
1340-														CLOUD BASE 1500 FT
140230	2848	8256	321	322	-4.8	-12.7	189	4.7	4876	5152	1017.8	541.2		LEVEL 16K
145200	3246	8251	342	338	-4.7	-11.1	259	24.9	4879	5040	1004.6	549.0		LEVEL 16K SETCUBLO
151200	3425	8235												IN + OUT CLOUD
1517														CLIMB
154935	3525	8017	252	256	-11.2	-14.2	267	62.0	5803	5869	985.9	484.6		BEGIN LEG 16K
155435	3519	8037												END LEG
155910	3523	8019												BEGIN LEG 18K
160330	3526	7949												END LEG
160830	3522	8003	256	259	-5.6	-6.3	270	63.0	4933	4949	990.5	545.2		BEGIN LEG 16K
161255	3519	8020												END LEG
161730	3521	8002	84	82	-1.8	-4.4	277	73.7	4311	3053	854.0	591.8		BEGIN LEG 14K
162105	3522	7938												END LEG
162445	3519	7944	259	263	-7.7	-1.7	273	64.8	3091	3058	890.6	692.3		BEGIN LEG 10K
163100	3514	8007												END LEG
163415	3515	8002	81	78	-14.3	-5.0	286	41.9	2191	3638				BEGIN LEG 7K
163930														END LEG
173935	3630	7603	46	37	18.8	11.4	255	23.5	986	966	1006.1	900.2		LEG 3K
174605	3650	7541												CLIMB
1800-	3636	7532	48	44	13.1	6.5	249	48.5	2222	2252	1004.3	773.3		BEGIN LEG 7K
180845	3655	7452												DESCEND
181215	3646	7454	220	224	19.0	3.3	301	10.7	995	973	1006.2	899.3		LEG 3K
183350	3644	7516												LEG 7K END
183455	3650	7523	301	292	4.1	5.7	251	45.0	3084	3142	1004.6	693.2		BEGIN 10K
184030														END
1843-														15K CLIMB
1845														STATIC DISCH
1849														DESCEND
185545	3646	7501	299	299	13.4	13.2	296	20.0	976	961	1008.3	901.5		LEVEL 3K
195640	3359	7845	227	234	-11.1	-25.3	277	49.4	6110	6350	1002.4	464.2		20K PA
203030	3144	8043	208	212	-10.2	-34.8	266	20.1	6110	6380	1002.4	464.2		-
210000	3921	8200	200	203	-10.7	-26.5	287	15.5	6110	6382				DESCEND

[illegible]

POSITION REPORT



6. NEXT POSITION

- PILOT INTENTIONS

[illegible]