

Flt ID: 020515H	From: KMRY	To: KMRY
Flt No: 02-54	Blk In: 0116	ATA: 0111
ETD: 1800 Z	Blk Out: 1759	ATD: 1814
ETE: 7400	Blk Time: 7.3	Flt Time: 7.0
Sponsor Org: NOAA/AL	Program: ITCT 2K2	Purpose: IOP 10

AOC Personnel

AC: TENNESEN, D ✓	Sys Eng: DELGADO, J ✓
CP: HALVERSON, H / SILAH, M ✓	Data Sys: Mc MILLAN, S ✓
Nav: NEWMAN, C ✓	Radar:
FE: FLOYD, D ✓	GPS/BT:
FD: SHEPHERD, T ✓	Cld Phys:
Avionics:	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
HÜBLER, G ✓	PI	NOAA / CIRES
NICKS, D ✓	Co-PI	↓
ORSINI, D ✓		
BROCK, C ✓		
deGOUW, J ✓		
ALVAREZ, R ✓		
NEUMAN, A ✓		↓
JAKOUBEK, R ✓	↓	NOAA

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

1500' TOPS

DP #1 Slow reaction time compared to 2+3 Switched TO DP2 primary ~ 2100

2119 Bol DP1 - Ran away, wouldn't stop heating

Flt ID: 020515H	Time Off: 1814	Time On: 0111
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	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	1008.3	29.95	100	29.95

	Number	Data Disposition / Date / Quality	
Flt Lvl Tapes	2	TR3	
Radar Tapes	0		
Cloud Physics Tapes	CD	G. Hübler	
Video Tapes	4	G. Hübler	
AXBT			
AXCP			
AXCTD			
Dropsondes			

Video					
	Forward	Left Side	Right Side	Down	Remarks
Time On					
Time Off					
Rate					

Remarks

1500 TOPS

ITCT 2k2

Flight #11 020515H

<u>Sensor or system</u>	<u>Number or Name</u>
INE	1
Accelerometer	1
Total Temperature Probe	1
Dew Point Probe	3
Altitude (for vertical wind)	Pressure Altitude
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2022.CON

Notes:

Takeoff: 1814Z

Land: 0111Z

The radar altimeter (APN-159) was replaced by the APN-232 due to spiking during takeoff (181301 - 181930) and landing 010630 - 011400).

Dewpointer #1 worked well for the first part of the flight but ceased to work during the latter half of the flight. Dewpointer #2 worked well during most of the flight but had three instances where it failed, i.e., it failed to warm sufficiently at low altitudes (~204200 - 204500, ~220500 - 220900, ~231300 - 231800).

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1008.3	1006.8
Corrected tower pressure	1014.2	1014.2

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

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _e	T _a	Press. Alt.	Geo. Alt.	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
183040	3613	12247	218	226	340	28.6	7.1	6.5	437	429	1015.3	966.2	63.9	Porpoise for Radiometer Work
183945	3548	12315	Climb	to	8500	feet								
184815	3526	12345	231	237	337	25.5	8.1	-13.5	2593	2691	1013.0	738.1	76.8	8500 PA
190220	3447	12440	226	231	342	23.4	7.6	-15.9	2591	2698	1015.1	738.4	76.4	8500 PA
191700	3401	12535	225	231	344	28.7	6.4	-20.8	3814	3994	1015.5	631.4	76.1	12500 PA ^{scr} BLO
194100	3245	12708	227	231	346	21.6	-3.1	-17.8	4424	4643	1017.0	583.0	76.0	14500 PA
200400	3125	12832	222	225	355	13.0	-10.8	-25.1	5635	5919	1017.5	495.9	70.5	18500 PA
201300	3111	12858	25	24	337	13.1	-8.4	-29.8	5244	5479	1017.5	528.7	81.0	Descending to 15500
201640	3127	12851	15	14	335	10.2	-5.3	-24.2	4711	4953	1019.3	561.4	76.1	15500 PA
202800	3208	12828	1	8500 PA	-	Getting clear	R to 32N							
203020	3158	12827	Spiral	Descent	to 500'									
204400	3203	12836	350	350	359	16.5	11.8	-4.3	60	143	1023.7	1005.6	76.2	500' RA
205455	3238	12826	Touch	300'	Climb	to 9500'								
210320	3306	12817	17	13	325	23.5	6.8	-32.9	2912	3069	1017.8	709.0	79.4	9500' PA
211150	3339	12805	014	012	329	14.4	9.2	-7.0	2289	2420	1019.3	767.0	80.2	7500' PA
211600	3355	12800	017	016	347	9.0	12.4	-14.4	1693	1801	1019.7	825.7	80.2	5500' PA
213000	3446	12741	017	013	308	23.6	-1.2	-29.7	4123	4317	1016.1	606.5	76.1	13500 PA
214215	3536	12723	017	013	317	24.8	-5.8	-13.6	4733	4947	1015.7	559.8	76.4	15500 PA
214645	3554	12715	Descent	to 9500 feet										
215300	3619	12706	017	012	306	24.1	3.5	-14.9	2917	3051	1019.3	708.5	79.1	95000 PA
215840	3641	12658	Descending	to 500'										
~220730			at 500'											
220915	3714	12645	018	014	340	22.0	9.6	-1.1	073	140	1021.8	1004.8	77.4	
221850	3744	12632	19	014	335	25.2	Climbing	to 7500'	after touching 300' RA					
222600	3804	12624	018	012	307	26.0	6.4	-14.7	2206	2306	1019.2	774.8	75.5	7500' PA
223450	3840	12611	017	012	Climb	to 11500								
223830	3853	12605	024	013	305	35.7	-1.4	-31.9	3516	3631	1017.4	657.2	74.7	11500 PA
224126	3903	12559	032	024	305	32.6	-0.8	-24.4	3243	3329	1018.4	686.4	76.7	Descent to 9500 PA
224546	3918	12547	034	027	310	36.9	-2.0	-17.1	3437	3578	1018.3	658.4	69.6	Climbing back to 11500
225420	3946	12522	033	029	315	14.9	4.7	-11.6	2284	2372	1018.8	767.2	73.8	7500 PA
230550	4022	12457	035	031	332	18.2	12.3	-12.9	1019	1074	1018.0	896.8	73.8	3500 PA
231150	4040	12434	034	030	332	18.0	Descending	to 501'						
2316			500'											
232830	4103	12408	168	171	323	21.6	9.5	5.6	38	77	1018.1	1001.0		300' TRIM 1000
234140	4011	12346	160	165	301	26.6	-6.8	-12.7	4476	4136	949.3	588.5	66.5	Touch 16500 DESCENT TO 7500
235320	3920	12325	160	160	345	34.9	6.3	-13.5	2303	1898	946.5	765.4	81.7	7500' PA
~20010														
003005	3645	12208	188	198	303	28.7	-23.2	-33.8	7174	7436	1014.1	405.4	71.0	at shoey spiral from 25000

Page 2 of 2

Form 4-75

[illegible]

Take off: 1814

020515H

TT #1

Land: 0111

TD #3

Time gap 175959 - 180015

INE/AZI #1

Pressure Act

RA159 replaced w/ RA232

181301 - 181930 T.O.

010630 - 011400 Land.

Linear (over)

INE 1

1)	183500	0.0	+0.2	36 0.8	122 59.0 ✓
	191500	-0.6	+0.3	34 7.2	125 27.3 ✓
	200000	-0.8	+0.5	31 38.3	128 18.2 ✓
	203000	-0.9	+0.7	31 59.9	128 25.9 ✓
5)	211500	-1.2	+1.0	33 51.1	128 1.3 ✓
	220000	-1.7	+1.4	36 44.9	126 56.1 ✓
	224000	-2.0	+1.9	38 58.3	126 2.7 ✓
	233000	-2.8	+2.3	40 57.2	124 8.8 ✓
	001000	-3.6	+2.9	38 10.7	122 53.5 ✓
10)	005000	-3.8	+3.5	36 39.8	122 9.5 ✓
11)	011400	-4.7	+3.9	36 35.4	121 51.1 ✓

1

6. NEXT POSITION

- PILOT INTENTIONS
WE HAVE _____ ENDURANCE REMAINING _____

[illegible]