

Flt ID: 020505H	From: KMRY	To: KMRY
Flt No: 02-48	Blk In: 0108	ATA: 0105
ETD: 1830	Blk Out: 1817	ATD: 1831
ETE: 7+00	Blk Time: 6.9	Flt Time: 6.6
Sponsor Org: NOAA / AL	Program: ITCT 2K2	Purpose: IOP 4

AOC Personnel

AC: TENNESEN, D ✓	Sys Eng: DELGADO, J ✓
CP: SILAH, M ✓ / HALVERSON, H	Data Sys: McMILLAN, 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	
BROCK, C ✓		
WARNEKE, C ✓		
HOLLOWAY, J ✓		
MARCHBANKS, R ✓		
TANNER, D ✓		
ORSINI, D ✓		

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

APN 159 on at ~ 1833

Bal DP1 194

Bal DP2 1942

2340 UPDATE INE 2; >10nm error

2468	2465
1817	1831
651	634

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

AOCWE2

Flt ID:

020505H

Time Off:

1831

Time On:

0105

A/C (Take Off)

Wx Station (Take Off)

A/C (Land)

Wx Station (Land)

Pressure

1013.1

30.11

1012.3

30.07

Number

Data Disposition / Date / Quality

Flt Lvl Tapes

2

Radar Tapes

/

Cloud Physics Tapes

1 CD

Video Tapes

4

AXB T

AXCP

AXCTD

Dropsondes

Video

Forward

Left Side

Right Side

Down

Remarks

Time On

Time Off

Rate

Remarks

ITCT 2k2

Flight #5 020505H

<u>Sensor or system</u>	<u>Number or Name</u>
INE	1
Accelerometer	1
Total Temperature Probe	1
Dew Point Probe	1
Altitude (for vertical wind)	Radar Altitude APN-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2022.CON

Notes:

Takeoff: 1831Z

Land: 0105Z

There was a time gap from 183330 to 183345.

The radar altimeter (APN-159) was replaced by the APN-232 due to spiking during takeoff (182801 - 183830) and landing (004300 - 010800).

Dewpointer # 1 had a balancing spike that was removed and patched from 194127 to 194308.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1013.1	1012.3
Corrected tower pressure	1019.6	1018.3

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 _d	Press. Alt.	Geo. Alt.	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
184300	3705	12222	331	333	352	17.9	3.1	-20.2	3016	3149	1018.6	699.6	72.1	10000 PA SCT BLO HZ
185810	3755	12255	335	334	322	14.3	2.3	-18.5	3015	3149	1020.2	699.5	70.8	
190300	3812	12306		Begin climb			TD	13K						
190700	3824	12315	335	333	312	26.9	-4.3	-22.8	3915	4073	1020.8	623.3	67.2	13000 PA CLR BLO/ABV
191740	3900	12339	332	331	308	19.5	-4.5	-16.9	3917	3680	996.2	623.1	72.9	OVR LAND SCT BLO/ABV
192700	3932	12400		DESCEND to 12000					TO look for layer					
193304	3952	12414		Climb to					16000 MSL					
193820	4009	12426	332	330	294	21.9	-8.0	-30.8	4802	4975	1015.5	554.6	68.9	SCT BLO/Ci AB 16000 PA
195200	4058	12500		Climb to					FL200					P2
200120	4136	12500	359	353	295	37.2	-18.6	-33.2	6096	6285	1018.4	465.8	68.7	20000 PA 20700 RA
201320	4227	12500	001	352	295	50.8	-19.4	-29.8	6095	6265	1017.8	465.7	69.6	BKN BLO Ci ABV
201835	4250	12500		DESCEND to					16000					
202435	4313	12500	359	349	293	51.6	-10.2	-17.8	4778	4888	1012.8	556.4	68.7	16000
203630	4400	12500	at P3			90L	270R	DESCEND to 13000						
204100	4358	12458	189	200	293	48.4	-5.1	-13.0	3861	3933	1012.4	627.7	72.2	13000
204500	4341	12500		Climbing 300 feet										
204600	4336	12500		Climb 200 feet more										
205700	4247	12500	181	196	302	41.9	-2.6	-19.1	3854	3956	1012.3	628.2	68.1	13000 PA BKN BLO
210120	4227	12500	182	187	314	29.4	-3.7	-18.8	3704↓	3789↓	1015.7	644.3↑	68.0	Descending to 10K
210600	4208	125	181	187	306	28.6	-0.9	-11.9	2954	3047	1019.4	705.6	71.6	10000 PA SCT BLO
212526	4059	12458		in a spiral descent to 600 feet										(L) TURN
213160	4102	12453	TRACKING 330 TO get out of A/C											
213210	4106	12451	Spiral up to MAX ALTITUDE											(R) TURN
215540	4038	12454	169	174	301	31.8	-21.1	-37.7	6394	6617	1022.7	446.8	69.2	21000 PA
220825	3935	12438	168	172	302	18.3	-19.5↑	-44.6	6168↓	6350↓	1020.3	476.8	67.2	Descend to 16K
221425	3908	12431		Descending looking for layer										
221830	3850	12426		Climbing back to 15000										
222200	3835	12422	169	172	319	23.1	-6.6	-21.3	4540	4725	1018.3	574.4	70.3	15000 PA
222745	3808	12415	168	171	312	19.7	-8.9	-22.6	4851	5045	1018.5	551.2	66.9	16000 PA
223200	3749	12410		Climb to max altitude										
224350	3659	12356	170	171	337	15.4	-25.5	-38.4	7036	7303	1026.5	408.5	67.9	23000 PA
225801	3548	12339		Touch 16000 then climb to 18000										
230100	3536	12336	168	169	327	16.4	-12.7	-37.4	5487	5712	1019.2	506.0	64.8	18000 PA
232200	3359	12312	170	170	356	26.9	-25.7	-42.9	7032	7302	1027.8	408.7	65.4	23000 PA
233220	3305	12259		at P3 turning to P1 and descending to 17000'										
234450	3411	12300	000	001	002	15.1	-11↓	-24.7	3813↑	4027↑	1019.0	622.2↓	69.7	Climbing
235830	3446	12300	000	358	307	14.3	-11.2	-39.5	5331	5554	1018.6	516.6	66.1	17500 PA
001330	3551	12300	000	359	327	10.3	-25.4	-38.9	7031	7297	1026.7	408.9	66.5	23000 PA

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Form 413-50

[illegible]

T.O 1831

020505H

TT # 1

Land 0105

DP # 1

Time gap 183330 - 183345

DP # 3 spike(s) (?) Rapid oscillation

205520 - 205525

DP # 1 Bal spike

194127 - 194308

Normal 18-38

INE/AZI # 1

Radar Act

Replan RA159 w/RA232

182801 - 183830 T.O.

004300 - 010800

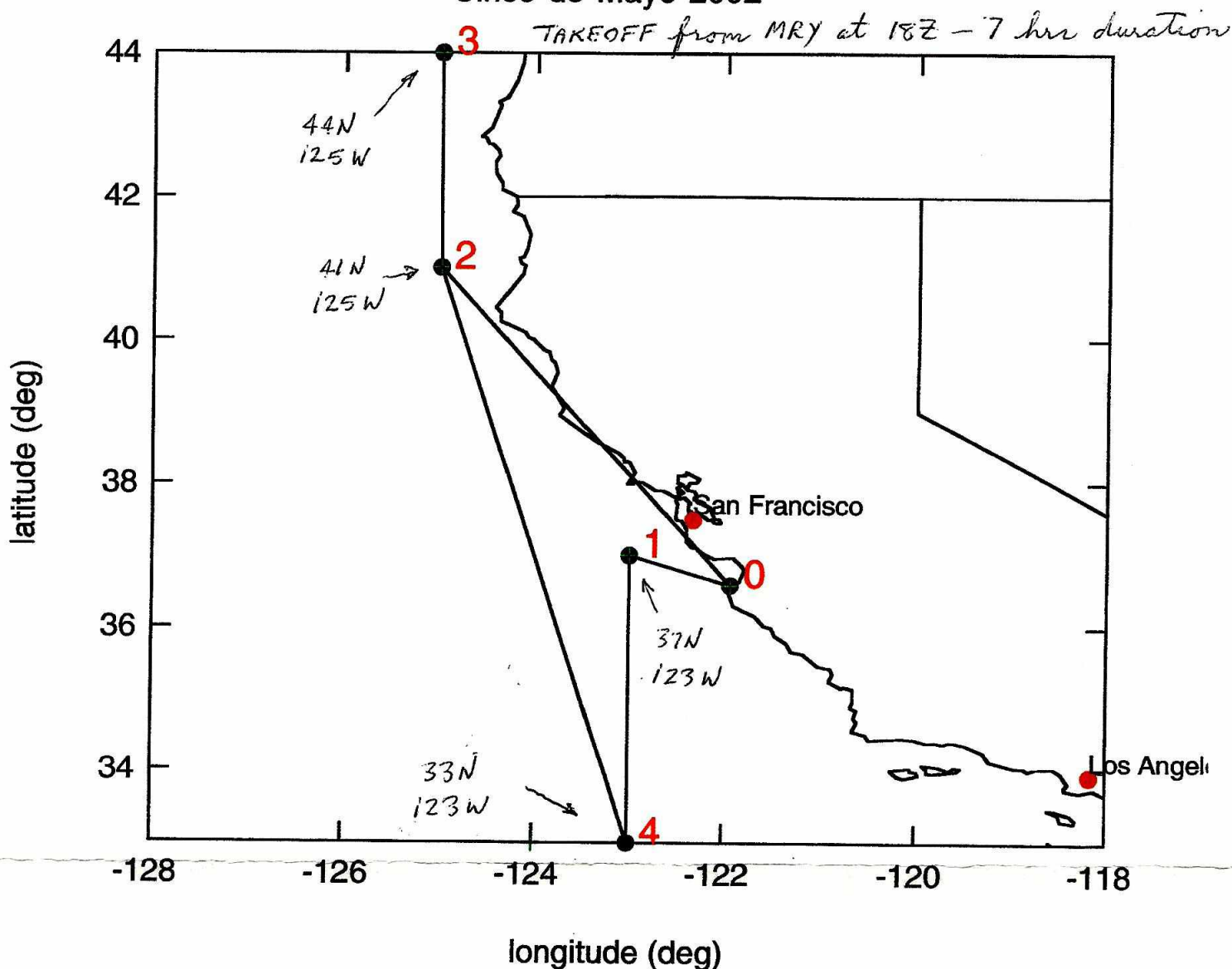
RENAV(OVER)

INE #1

1) 185800	-0.1	+0.4	37 54.9	122 54.2 ✓
194000	-0.5	+0.8	40 14.5	124 29.6 ✓
202000	-0.1	+1.6	42 55.0	124 59.6 ✓
210000	0.0	+1.7	42 33.8	124 59.9 ✓
5) 214500	+1.0	+1.2	41 1.9	124 44.2 ✓
223000	+1.1	+1.3	37 58.7	124 12.0 ✓
231500	+2.6	0.0	34 30.9	123 19.0 ✓
235000	+2.9	+0.3	34 11.5	-123 0.3 ✓
003500	+4.2	+0.3	36 57.3	122 55.2 ✓
10) 010800	+5.1	-0.1	36 35.5	121 51.0 ✓

010613
010620

NOAA 42 FLIGHT MISSION PROFILE
AIR CHEMISTRY MISSION for
Cinco de Mayo 2002



Head to 41 N, 126 W (Pt. 2)

In route to Pt. 2 ~10 kft, 13 kft, 16 kft, (approx 30 min each)

At Pt. 2 climb to 20 kft, head to Pt. 3, after 25 min descend to 16 kft

Pt 3 to Pt 2 at 13 kft and 10 kft (about 25 min each)

At Pt 2 descend to 600 ft

At Pt. 2 spiral to 20 kft

Pt 2 to Pt 4 climb to 23 kft, identify layers and stay in layer otherwise vary altitude between 16 kft and 26 kft stay level for extended periods (about 20 min) in between altitude changes.

Spiral descent at Pt. 1 (37N, 123 W) Standard Profile Point NW of Monterey

Return to Monterey.

TAKEOFF → SHOEY → 41N 125W → 44N 125W → 41N 125W
→ 33N 123W → SNS 270070 → SHOEY → MRY

813 226 3189

904 504 4192

PAGE OF

6. NEXT POSITION

- PILOT INTENTIONS
- WE HAVE

[illegible]