

Flt ID: 020508H	From: KMRY	To: KMRY
Flt No: 02-50	Blk In: 0034	ATA: 0029
ETD: 1700	Blk Out: 1718	ATD: 1733
ETE: 7400	Blk Time: 7.3	Flt Time: 6.9
Sponsor Org: NOAA / AL	Program: ITCT 2K2	Purpose: IOP6

AOC Personnel

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

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
HÜBLER, G ✓	PI	NOAA / CIRES
TRAINER, M ✓	PI	NOAA / AL
NICKS, D ✓	Co-PI	NOAA / CIRES
BROCK, C ✓	↓	↓
WARNEKE, C ✓		
WARRNER, D		
DONNELLY, S ✓		
SULLIVAN, A ✓		
HUEY, G ✓	↓	NCAR
		GA TECH
		↓

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

Lost Collins GPS ~ 2025; second GPS rcvr plugged in - thinks it is in Tampa

Collins back up ~ 2106

2389
1733
656

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

AOCWF-2

Flt ID: 020508H	Time Off: 1733	Time On: 0029
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	AVC (Take Off)	Wx Station (Take Off)	AVC (Land)	Wx Station (Land)
Pressure	1012.4	30.06	1010.7	30.04

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes		
Radar Tapes		
Cloud Physics Tapes		
Video Tapes		
AXBT		
AXCP		
AXCTD		
Dropsondes		

Video

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

Remarks

ITCT 2k2

Flight #7 020508H

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
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: 1733Z

Land: 0029Z

There were no time gaps during the flight. All sensors appeared to work very well.

The radar altimeter (APN-159) was replaced by the APN-232 due to spiking during takeoff (173001 - 173700) and landing (001100 - 003200).

	<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!!!

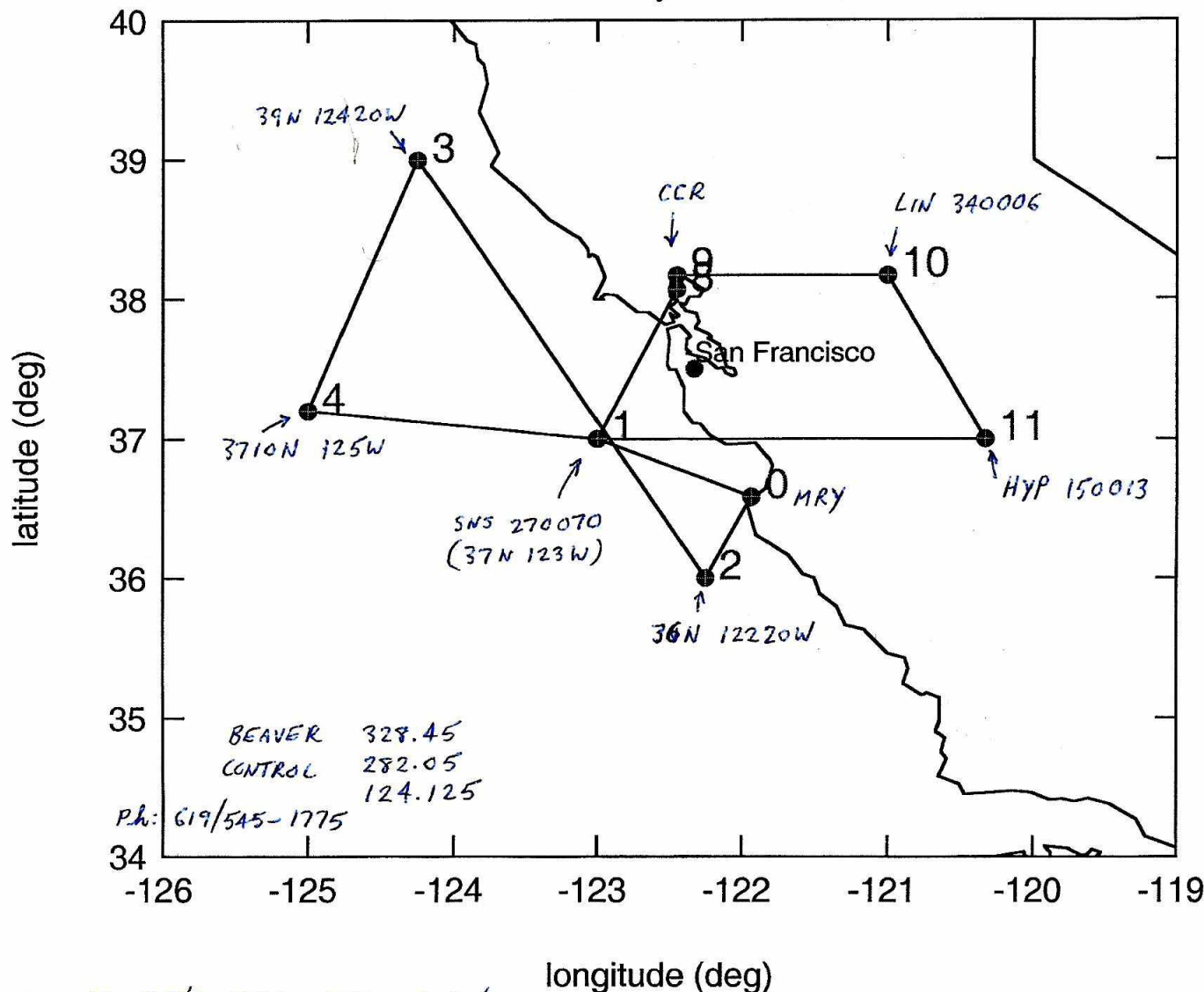
Locations 80, 81, and 82 of record five on the standard tape contain vertical ground, vertical air, and vertical speeds respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

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
175040	3625	12237	220	226	331	23.2	7.6	-41.4	2094	2170	1016.6	785.8	68.7	7000 PA
181409	3609	12300	-	-	330	18.8	8.7	7.5	199	243	1019.1	989.6	72.5	800 RA ^{Ship} 3616.3
														Circling & Tracking ship "New Spirit Panama" Ship TRK 300 spd 16 KTS
183555	3615	12309	-	-	327	17.8	8.8	7.0	188	235	1019.4	990.7	65.5	8 nm radius 500'
185115	3617	12309	050	047	323	17.7	9.7	7.3	095	145	1019.4	1001.5	66.12	8 nm radius 500'
190850	3620	12300	140	141	325	22.8	10.3	7.9	043	091	1019.1	1009.1	70.4	8 nm Radius 300'
192310	3619	12304	119	118	320	23.6	8.9	7.4	193	237	1019.1	991.1	74.6	800' HDG for X sect
193710	3557	12248	269	274	323	20.1	9.9	7.9	099	147	1019.3	1001.5	68.3	500'
194940	3551	12259	090	087	317	20.9	9.9	7.9	100	150	1019.5	1001.3	71.5	500'
200240	3546	12213	270	273	321	15.3	10.0	8.3	101	142	1018.4	1001.1	71.7	500'
201450	3541	12251	089	086	321	20.1	10.0	7.8	101	148	1019.1	1001.3	69.8	500'
203120	3539	12137	183	187	330	18.9	9.5	8.3	096	135	1018.1	1001.4	69.1	500' using INE 1
210320	3530	12148	089	086	319	17.7	9.6	8.4	128	165	1018.0	997.4	70.6	
210900	3525	12137	265	269	318	15.7	9.6	8.5	130	165	1017.8	998.0	69.7	500' INE 1
212600	3534	12238	355	353	321	15.9	8.3	6.4	311	352	1018.7	976.4	72.8	1200'
~2136														Climb 200' up to 1500'
215210	3657	12247	355	353	333	23.0	9.0	6.8	182	220	1018.1	991.7	73.9	750' RA
210220	3730	12251												Descend to touch 300 then climb to 1000'
221610	3803	12223	268	268	236	11.3	17.6	0.2	459	484	1015.1	959.0	43.8	
221800	3800	12227												Circling Chevron Refinery X2
223600	3803	12223												Finish Chevron site
224430	3757	12200	002	002	198	7.7	15.3	-4.1	813	790	1009.6	925.3	41.5	Going by Shell refinery
225930	3806	12155	184	188	250	10.9	18.4	-3.4	461	479	1014.0	944.2	40.0	
230655	3758	12145	002	359	295	14.7	19.2	-6.5	467	463	1012.5	959.3	47.3	LAST North Leg past refinery
234000	3703	12024	241	249	356	12.1	18.3	-3.0	89	813	1010.1	907.0	63.3	Climbing PT 11
000130	3645	12201												Begin Spiral descent from 25000'
002050	3646	12150												to touch 300' & climb to 1500 for landing

CALL SIGN
NOAA 42 AIR CHEMISTRY MISSION for
Ship Plume Study, Refinery emissions, Central Valley
8 May 2002

P3
ORION



IFR NOAA42 P3/1 240 172 10,000'

1RY-SHOEY → 36N 12220W → 39N 12420W → 3710N 125W → 37N 123W → SAN → CCR → LIN 340006
→ HYP 150013 → SNS 270070 → SHOBY → MRY 7+00 ETE 8+30 FUEL ONFILE: M

The first 4 hrs will be dedicated to ship plume studies. D. TENNESEN, (6) 813-828-4361, WA.

Nominal altitude 10 kft to spot ship, then descent into marine PBL for ship plume study.

After plume study revisit Oakland refineries.

Pt. 9 to Pt. 10 to Pt. 11 tour of the Central Valley to characterize aerosol composition in Central California.

Option to follow the San Francisco and refineries plumes into the Central Valley. Include traffic cone to determine the PBL on occasion.

Return to Pt. 1 for usual profile before return to Monterey.

020508H

TT #1

T.O. 1733

TD #3

Land 0029

INE/AZI # 2

No time gaps

GPS lost during flight - switched receiver

202230 - 210600

Replace APN 159 w/ APN 232

173001 - 173700 T.O

001100 - 003200

Renav (over)

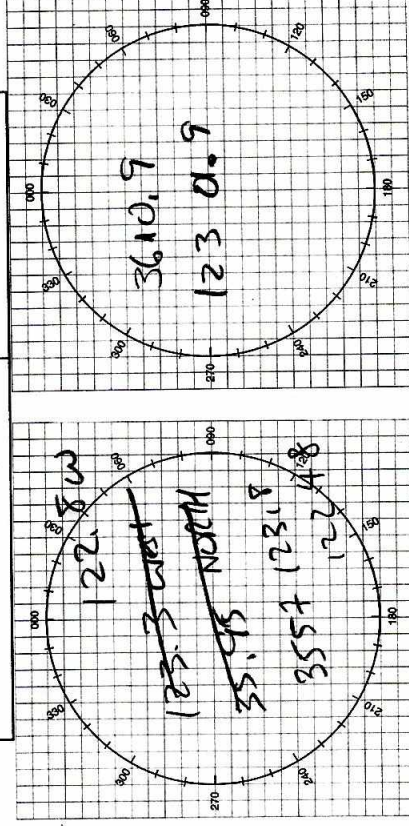
1)	174500	+0.3	-0.1	36 43.0	122 19.8	✓
	182000	+0.2	+0.3	36 8.8	123 0.2	✓
	190000	-0.2	-0.1	36 3.1	123 2.4	✓
	195500	-0.3	+0.5	35 50.9	122 34.7	✓
5)	202230	-0.6	-0.1	35 41.0	122 17.3	✓
	210600	-0.3	+0.3	35 30.2	121 37.6	✓
	213500	-0.9	+0.2	36 3.0	122 40.6	✓
	221500	-1.0	+0.2	38 3.7	122 25.0	✓
	230500	-1.5	+0.7	37 55.3	121 48.9	✓
10)	234500	-1.3	+0.3	36 58.3	120 45.4	✓
	002000	-1.9	+0.8	36 45.3	122 1.6	✓
12)	003200	-2.4	+0.8	36 35.4	121 51.1	✓

PAGE _____ **OF** _____

- WE HAVE _____ ENDURANCE REMAINING

PAGE _____ OF _____

6. NEXT POSITION

[illegible]