

Flt ID: 020422H	From: KMCF	To: KMRY VIA KLP
Flt No: 02-043/044	Blk In: ELP 2202 MRY 0224	ATA: ELP 2158 MRY 0217
ETD: 1515	Blk Out: MCF 1600 ELP 2257	ATD: MCF 1612 ELP 2306
ETE:	Blk Time: 6.0 3.5	Flt Time: 5.8 3.2
Sponsor Org: NOAA/AL	Program: ITCT 2K2	Purpose: FERRY MISSION OVER HOU

AOC Personnel

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

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
Hübner, G ✓		NOAA/CIRES
NEUMAN, A ✓		↓
RYERSON, G ✓		NOAA
SULLIVAN, A ✓		GA. TECH
BROCK, C ✓		NOAA/CIRES
WARNEKE, C ✓		↓
HUEY, G ✓		GA TECH

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

Lyman - Alpha T.U. @ T.O.
 Drills
 Fire of UNKNOWN origin
 IMMEDIATE Ditch
 Toxic Gas release
 SEEING SPIRITS on PQ ~1757

2574
 2257
 327

SUPERIOR AVIATION
 915-779-2831
 maybe "MONICA"
 OR "ENRIQUE"

RE-ALIGN INERTIALS @ 2203

LOST (R) EDC ~ 0040 - Cabin pressure ↓ - closed venturi @ ~ 0055 and began
 to recover cabin press.

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

AOCW2

Flt ID: 02042214 Time Off: MCF 1612 / ELP 2306 Time On: ELP 2158 / MRY 0217

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	MCF 1018.1 ELP 878.3	MCF 30.08 ELP 29.97	ELP 878.4 MRY 1007.1	ELP 30.00 MRY 29.98

	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	42 32 74 69	0217 1007.1
300/6 10 21		

ITCT 2k2

Flight #1 020422H

<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: 1612Z

Land: 0217Z

The flight from KMCF to KMRY had an intervening mission in the Houston, TX area between ~1842Z and 1950Z. The aircraft landed (2158Z) at KERP enroute. No scientific instruments were turned off during this time; however, both inertials were realigned with the Collins GPS system at 2203Z after the aircraft blocked in a KERP. The aircraft departed KERP at 2306Z.

There were no data gaps during the flight.

The radar altimeter (APN-159) was replaced by the APN-232 due to spiking during takeoff (160901 - 162200), during the refueling stop at KERP (214300 - 231730) and landing at KMRY (020230 - 022000).

The Total Temp #1 sensor appeared to stop working (flat lined at ~30° C) from 021158 - 022000. It was replaced by the Total Temp 2 sensor and a -0.8° C was applied.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1018.1 KMCF	878.4 KERP
Corrected tower pressure	1018.6	1015.9
Aircraft static pressure	878.3 KERP	1015.2 KMRY
Corrected tower pressure	1014.9	1015.2

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 resectively, 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
163810	2743	8356	279	280	267	4.4	6.7	-12.3	3610	3840	1015.5	648.4	84.1	12000 PA SET BLO
170250	2804	8600	287	287	244	7.6	6.7	-7.0	3610	3838	1014.9	648.4	86.5	12000 PA SET BLO/HZ
174550	2859	8927	286	285	258	20.7	4.5	-9.7	3922	4157	1013.8	622.7	85.2	13000 PA SET BLO/HZ CC AB
175910	2910	9031	271	271	257	20.3	2.2	-13.0	4222	4471	1013.9	598.8	79.1	14000 PA SET BLO/HZ CC AB
184200	2915	9407	270	271	290	2.3	12.2	-1.0	2118↓	225↓	1012.3	790.1↑	82.5	Descend to PT 1
185320	2926	9451	268	267	140	5.8	21.3	19.5	430	470	1015.9	962.7	41.4	P1
185810	2920	9505			157	6.5								P3
190315	2919	9518	211	211	160	6.5	23.2	19.7	429	466	1014.7	962.5	42.4	Just past P4 HAZE
191300	2902	9534	321	320	174	11.2	22.8	19.1	424	465	1015.3	962.7	42.3	Hdg to P6 HAZE
191700	2910	9544	G	G	174	8.5	24.2	17.9	425	456	1013.9	962.9	40.4	P6
193340	2840	9618	268	269	140	8.3	23.4	16.6	429	457	1014.7	962.9	39.6	P8
194235	2841	9648	G	G	145	14.5	23.7	19.3	428	442	1012.8	962.5	42.1	P9
194900	2826	9659	G	G	126	17.4	23.2	19.4	425	439	1012.5	962.2	37.7	P10
195040	2828	9704		Climb										
202400	2959	9902	312	309	262	25.0	-10.0	-16.1	5485	5195	955.3	506.1	78.8	
205755	3056	10142	282	280	253	26.4	-10.8	-13.0	5484	4994	933.6	506.2	72.0	OVR BLO/ABV FL180
213020	3127	10420	287	284	247	29.3	-11.1	-17.3	5488	4504	880.6	506.1	82.0	OVR DAVIS Mtn OVR ABV
LAND in EL PASO														
233045	3203	10869	282	280	247	27.4	-11.0	-24.8	5512	4353	864.1	504.2	80.1	18K PA BRN ABV
234615	3219	10930	284	281	242	27.3	-10.9	-35.0	5514	4602	888.6	504.2	78.7	
004030	3333	11410	274	273	265	29.9	-6.5	-24.4	4916	4798	977.2	546.3	88.6	Altimeter 29.86 16000 PA
012400	3442	11812	303	300	223	14.7	-6.7	-40.0	4636↓	4076↓	933.6↑	569.1	102.8	Descend to 14K
014200	3525	11935	303	303	133	8.6	-4.9	-32.4	4276	4324	1003.8	594.6	97.3	HAZE 14K PA
015640	3611	12051	309	308	169	9.7	0.0	-25	3615↑	3218↑	958.4	652.2↑	97.4	Descending

1:11

TH 11

Set 2400

16000

2. per
1.5 min
26300

TH 11

020422H

TD # 3

FLIGHT 160900 - 022000

TT # 1

TIME gap 160809 - 160830

INE # 1

AZI # 1

TT # 1 Sub TT # 2, TT # 1 appeared to quit working, flat lined at $\approx 30^{\circ}\text{C}$
021158 - 022000 offset -0.8

Touch down KEMP 215731

RESET inertials after

T.O. KEMP 230555

~~3~~ blocking at ≈ 220500

Replace RA159 with RA232 ✓

160901 - 162200 T.O. KMRY ✓

214300 - 215800 Land KEMP ✓

230300 - 231730 T.O. KEMP ✓

020230 - 022000 Land KMRY ✓

> Replace 159 $\approx$ 232
while on ground

214300 - 231730

RENAV (OVER)

1) 164000	-0.3	+0.2	27 44.5	84 4.5	✓
174000	-0.7	+0.5	28 52.5	88 59.1	—
185500	-1.5	+0.6	29 26.1	94 55.4	—
194000	-2.0	+1.6	28 40.8	96 38.8	—
5) 201500	-1.9	+1.1	29 32.5	98 25.5	—
210000	-2.7	+2.8	30 57.9	101 51.9	—
215800	-2.4	+3.3	31 44.8	106 23.1	—
232000	0.0	-0.1	31 53.5	107 15.1	✓
000000	-0.1	0.0	32 33.8	110 41.0	—
0) 004500	+0.1	+0.1	33 34.3	114 33.6	—
012000	+0.3	+0.2	34 30.3	117 38.9	—
020000	+0.1	+0.1	36 21.3	121 5.6	—
13) 022000	+0.8	+0.1	36 35.3	121 50.8	—

Point	lat_coast_deg	lat_coast_min	lng_coast_deg	lng_coast_min	name_coast	dist_coast_km	integ_coast_km
0	27	51	82	31	Tampa	0	0
1	29	27	94	50	down over Galveston Bay	1214	1214
2	29	27	94	59	1500 ft AGL downwind of TX C	15	1229
3	29	20	95	5		16	1245
4	29	20	95	17	downwind of Chocolate	19	1264
5	28	55	95	35	downwind of Freeport	55	1319
6	29	10	95	39		29	1348
7	29	10	95	49	downwind of Sweeny	16	1364
8	28	40	96	15		70	1433
9	28	40	96	48	downwind of Union Carbide	54	1487
10	28	25	96	58		32	1519
11	36	35	121	56	Monterey	2502	4021

3150
10917

29.98

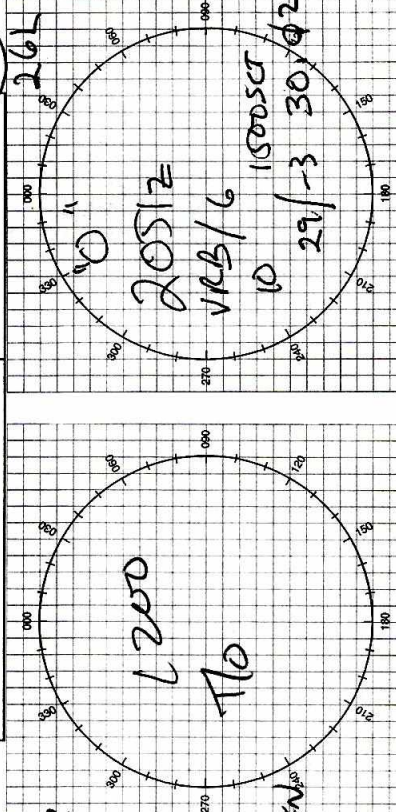
28-128R 1219 28013 14 Cur

22

CLEARANCES			
FREQ	ALT	HDG	OTHER
508 Flight			132.7 Hov ABEM Level
604 Block			
7.5 Block			WXR@ Houston
			10 12000 10
			Course 26000 SET 40000kts
			140110
			500' BUN 2000-3000 SET

MISSION LOG

PAGE 22 OF



POSITION REPORT	
1. POSITION	
2. TIME	
3. ALTITUDE	
4. NEXT POSITION	
5. ETA	
6. NEXT POSITION	

EMERGENCY

TRANSMIT THE FOLLOWING MESSAGE TO ANY FREQUENCY IN USE. IF UNABLE TO ESTABLISH ANY OF THE FOLLOWING EMERGENCY FREQUENCIES

UHFVOICE VHFVOICE MFVOICE HF/CW
243.0 121.5 2182 KHZ 8384 KHZ 500 KHZ

MAYDAY, MAYDAY, MAYDAY
THIS IS NOAA _____ NOAA _____
- POSITION 28 27 N 87 16 W 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 _____
- ASSISTANCE DESIRED _____
- PILOT INTENTIONS _____
- WE HAVE _____ ENDURANCE REMAINING

TIME	FIX TYPE	POSITION	INS 1 POSITION	KERR	INS 2 POSITION	KERR	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
1100																				20.08 TAXI 51.9K
1612																				78FF
1630	Δ	27 31.9 83 30.6	27 40.1 83 30.5	-1.2 +1.1	27 39.8 83 30.6	+1.1 0	2W	279	0	279	270	269	003	12K	273					5650 925° TIT 43.2 5450 165/00
1730	Δ	28 37.5 88 00	28 38.1 88 00	-1.6 0	28 37.5 88 00	-1.6 +1.2	0	285	2R	287	266	246	15	13K	279					36.8K
1835	Δ	29 14.9 93 34	29 16.8 93 35.4	-1.9 +1.3	29 15.4 93 33.6	-1.5 +1.4														31.6K
1939	Δ	28 40.9 96 36.1	28 42.8 96 34.6	-1.9 +1.5	28 40.9 96 34.4	+1.7 +1.5		280	3R	283	272	234	26	18K	289					25.8K
2044	Δ	30 40.2 100 17.8	30 42.2 100 15.2	-2.0 +2.6	30 39.7 100 15.3	+2.5 +1.7		285	2R	287	275	248	23	18K	294					5100 21.3 925 TIT
2131	Δ	31 29.5 104 28.8	31 32.4 104 27.1	-2.9 +1.7	31 29.5 104 27.1	+1.7 +1.7														LAND ELP
2158																				Check 19.6K
2202																				2957 TAXI 82.3
2257																				2200 5000
2306																				17.2K
2331	Δ	3204.5 108 15.5	3204.5 108 15.6		3204.4 108 15.8			280	3R	283	263	245	26	18K						
00049	Δ	33 40.0 114 57.2	33 40.0 114 57.2	0	33 40.4 114 57.8	-1.4 -1.6		289	3R	292	277	255	28	16K						
0142	Δ	35 26.1 119 37.6	35 26.2 119 37.7	-1.1 -1.1	35 27.2 119 38.4	-1.1 -1.8		303		303	308	121	9	14K						