

FLT ID: H980605	FM: KOKC	TO: KOKC
FLT NO: 98-057	BLK IN: 1100Z	ATA: 1052Z
ETD: 0130Z	BLK OUT: 0128Z	ATD: 0140Z
ETE:	BLK TIME: 9:32	FLT TIME: 9:12
SPONSOR ORG: NSSL/NSF	PROGRAM: MEAPRS	PURPOSE: LINE OF THUNDERSTORMS IN SE OKLAHOMA

OAO PERSONNEL

AC KENNEDY ✓	SYS ENG
CP TENNENSEN / KENUL ✓	DATA SYS McMILLAN ✓
NAV RATHBUN ✓	RADAR DELGADO ✓
FE TORREY ✓	BT/ODW CARPENTER ✓
RADIO ROGERS ✓	CLD PHYS
FD DAMIANO ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
ZIEGLER ✓	PI	NSSL
SHEPHERD ✓	ASST. PI	{
SCHUUR ✓	PMS	✓
BIGGERSTAFF ✓	PMS	TEXAS A+M
TAWA ✓	MEDIA	LA TIMES
GROOM ✓	MEDIA	BBC
LONEY ✓	OBS	TEXAS A+M
SEO ✓	OBS	TEXAS A+M

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)

J.W not working from T/O ^{0221Z} King Broke at 0458Z
 0441 DW1 check TT2 tied up 0753.00Z
 0503 DW1 check

U.S. DEPT. COMM./NOAA/ORD - DATA SECTION WORK FORM NO.2 DROWF2 FILE

FLT ID: 4980605 TIME OFF: 0140Z TIME ON: 1052Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	960.2	29.71	966.7	29.89

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

2

FAST FLT LVL TAPES

RADAR TAPES

1

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

PMS

3

AXBT

AXCP

ODW

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

H980605

F 25 mph

0577

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	GA	SP	PS			PO
014400	3526	9725	104	108	246	16	19.4	17.8	1607	1244	960.0	827.7	IN CLD		59.7
015900	3540	9607	81	84	253	56	-1.8	-12.4	4590	4560	984.4	569.0	ARU CLD		
020900	3514	9516	132	141	260	50	-2.5	-6.0	4630	4652	988.9	567.7			79.2
021600	3451	9450	124	130	248	24	6.0	-1.6	3601	3533	958.5	649.1			73.0
022700	3437	9354	172	180	273	24	6.0	1.9	3597	3508	979.7	694.1			73.0
024000	3349	9417	221	223	254	14	10.1	6.7	3074	3108	995.9	694.5			79.0
024900	start leg at 10 K PA														
025100	3340	9438	19	17	243	21	9.4	6.5	3076	3109	996.5	694.7	leg		74.5
030000	end leg														
031200	3501	9352	33	27	250	41	10.2	4.8	3064	3003	987.3	695.4	line		73.2
031500	over call														
032600	3533	9304	30	26	256	30	9.5	7.0	3066	2814	967.3	695.2	line		72.8
033800	3600	9221	354	346	284	25	18.6	3.2	3065	2878	967.3	695.4	line		68.4
035700	3603	9325	220	230	272	54	2.5	-8.2	4131	3625	932.4	606.1	line		70.0
042600	3442	9404	95	102	244	50	.1	1.4	4130	3855	964.5	608.7	line		77.0
044000	3521	9325	49	47	253	41	-1.8	-3	4129	4196	999.1	606.1	line		72.8
045400	3547	9229	229	240	279	60	-4.8	-3.7	4570	4335	962.1	571.6	line		69.8
050700	3510	9310	165	176	276	52	-3.6	-2.1	4576	4649	997.8	571.7	line		77.7
052100	3447	9251	22	18	239	34	-6.4	-4.8	5497	5449	968.7	503.5	line		65.6
053400	3519	9256	45	43	241	45	-7.4	-7.3	5600	5672	988.6	498.2	line		78.2
054500	3547	9221	229	231	232	52	-9.1	-6.8	5589	5462	982.0	499.0	line		72.2
060000	jet max														
060400	3452	9325	209	220	277	59	-7.6	-17.1	5600	5633	979.9	498.3			76.7
061500	3501	9318	30	20	272	62	-7.8	-19.5	5600	5666	991.8	498.2			75.7
061800	3516	9308	jet max												
070600	start leg			020	12.5 K										
071330	pull														
072100	end leg														
072530	start leg			200	14.5 K										
073300	pull														
074030	end leg														
074600	start leg			020	18 K										
075330	pull														
080130	end leg														
080500	start leg			200	20 K										
081230	pull														
082030	end leg														
082600	start leg			020	22 K										
083330	pull														
084130	end leg														
084140	spiral descent														
090700	end descent														
093000	3555	9131	267	269	280	38	-6.0	-34.4	4955	4959	989.1	543.5			72.4
095800	3546	9342	263	264	267	42	-6.0	-32.0	4929	4607	960.1	545.3			74.4
102100	3533	9529	261	263	266	44	-7.0	-29.0	4931	4949	990.2	545.2			75.7

MEAPRS

Flight #04 H980605 IOP #04 (Thunderstorms in SE OK/AR)

<u>DATA TYPE</u>	<u>SENSOR or OPTION</u>
INE	2
Accelerometer	2
Temperature Probe	1
Altitude (for vertical wind)	Pressure Altitude
Static Pressure	Fuselage
Dynamic Pressure	Fuselage
Dewpoint Probe	1
Constants file:	CO2987.con

Notes:

There were no data/time gaps.

The RA232 radar altimeter was used in extrapolating surface pressure from flight level.

Downward spikes in radar altimeter data are a result of overflying land.

Sensors did not operated optimally. Numerous problems with total temperature 1, the King liquid water probe, and dewpoint sensor 1.

Because of wet-bulbing/icing conditions of total temperature probe 1, the values of total temperature 1 were replaced with the values of total temperature 2 during the following time period:

062621Z - 075251Z

From 0759Z - 0843Z both total temperature probes were not working optimally due to icing conditions.

Dewpoint sensor 1 had spikes removed and patched over during the following time periods:

025400Z - 025900Z
032600Z - 032900Z
033100Z - 033300Z

Also because of icing conditions the values of dewpoint sensor 1 were replaced with the values of dewpoint sensor 2 during the following time periods:

031325Z - 031425Z
061307Z - 061548Z
062319Z - 090848Z

Dewpoint temperature was warmer than ambient temperature throughout the flight especially during the following time periods:

024920Z - 025910Z
045350Z - 060020Z
075300Z - 085110Z

The fuselage static pressure sensor, PSF, produced erroneous data from 054400Z - 055400Z. The erroneous data was removed and patched over.

The King liquid water probe stopped working at 0458Z.

The Johnson-Williams liquid water probe was working but an offset of +2 must be applied to the data.

Aircraft inertial 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 wind speeds, respectively, derived from Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	960.2mb	966.7mb
Corrected tower pressure	961.0mb	966.2mb

Flight Meteorologist: A. Barry Damiano, (813) 828-3310 ext. 3073

1000

1000

[illegible]