

TSB Identification: **DEN08FA101**
Nonscheduled 14 CFR Part 135: Air Taxi & Commuter
Accident occurred Sunday, June 08, 2008 in Huntsville, TX
Aircraft: Bell 407, registration: N416PH

September 16, 2008

Weather Documentation and Discussion

1. Weather Observations

Huntsville Municipal Airport (KUTS), Huntsville, Texas

Field elevation 363 feet msl, located 350 degrees at 6 nautical miles from the accident location

KUTS 080453Z AUTO 15007KT 090V180 10SM BKN014 27/23 A2998 RMK AO2
SLP146 T02670233
KUTS 080553Z AUTO 15010G16KT 100V170 10SM OVC014 27/23 A2997 RMK
AO2 SLP144 T02670233 10322 20267 403390250 50003
KUTS 080653Z AUTO VRB05KT 10SM BKN010 26/23 A2997 RMK AO2
CIG009V013 SLP144 T02610231
KUTS 080735Z AUTO VRB06KT 10SM SCT012 26/23 A2998 RMK AO2
KUTS 080753Z AUTO 16004KT 10SM CLR 26/23 A2998 RMK AO2 SLP145
T02610233
KUTS 080922Z AUTO 16004KT 4SM BR BKN019 26/23 A2997 RMK AO2

Lone Star Executive Airport (KCXO), Houston, Texas

Field elevation 245 feet msl, located 156 degrees at 18 nautical miles from the accident location

KCXO 080453Z AUTO 14007KT 10SM FEW020 26/24 A2998 RMK AO2 SLP149
T02610239 \$
KCXO 080553Z AUTO 13006KT 10SM SCT018 BKN027 BKN039 26/24 A2997
RMK AO2 SLP146 T02610239 \$
KCXO 080642Z AUTO 15006KT 10SM FEW020 SCT027 26/24 A2997 RMK AO2\$
KCXO 080653Z AUTO 13004KT 10SM SCT017 BKN025 BKN033 26/24 A2997
RMK AO2 SLP145 T02560239 \$
KCXO 080740Z AUTO 16006KT 10SM FEW017 26/23 A2997 RMK AO2 \$
KCXO 080753Z AUTO 15009KT 10SM CLR 26/23 A2997 RMK AO2 SLP144
T02560233 \$

David Wayne Hooks Memorial Airport (KDWH), Houston, Texas

Field elevation 152 feet msl, located 179 degrees at 35 nautical miles from the accident location

KDWH 080453Z 16004KT 10SM BKN021 BKN026 27/23 A2998 RMK AO2
SLP150 T02720228
KDWH 080613Z 16007KT 10SM BKN021 27/23 A2997 RMK AO2
KDWH 080728Z 16006KT 10SM BKN021 27/23 A2998 RMK AO2
KDWH 080848Z 15005KT 10SM BKN021 26/23 A2997 RMK AO2

George Bush Intercontinental/Houston Airport (KIAH), Houston, Texas
Field elevation 97 feet msl, located 165 degrees at 41 nautical miles from the accident location

KIAH 080553Z 15011KT 10SM FEW025 27/24 A2998
KIAH 080725Z 17007KT 10SM SCT020 SCT026 27/23 A2998 RMK AO2
KIAH 080753Z 16009KT 10SM FEW020 27/23 A2997

2. Weather Analysis charts

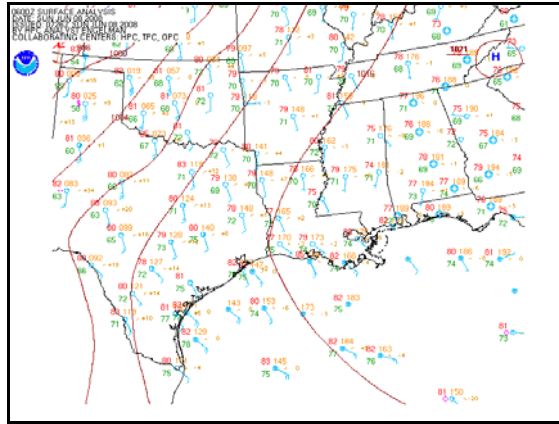


Figure 1. Surface chart for 0100 CDT June 8

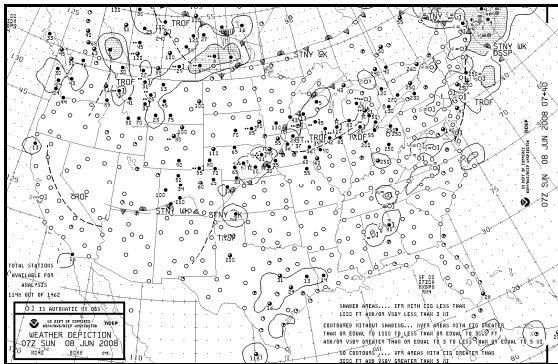


Figure 2. Weather Depiction chart for 0200 CDT June 8

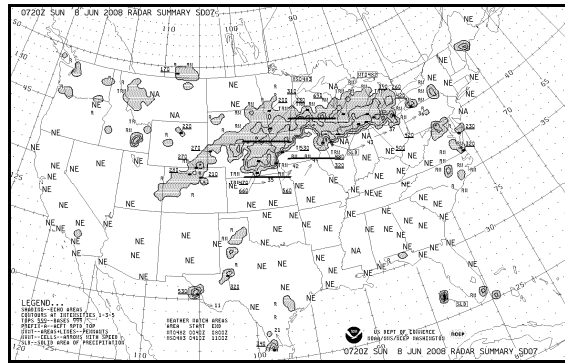


Figure 3. Radar Summary chart for 0220 CDT June 8

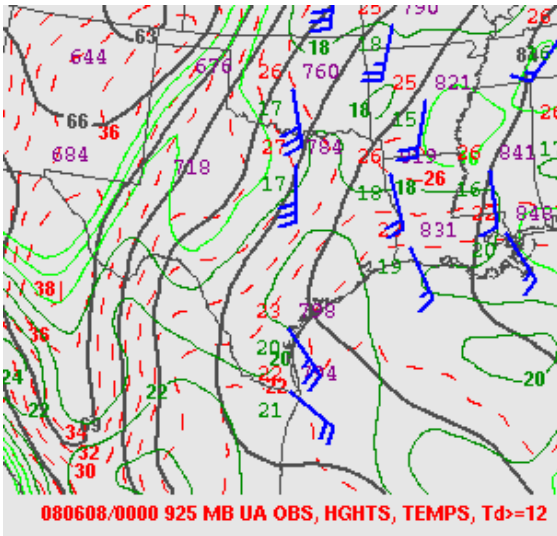


Figure 4. 925 millibar (about 2,500 feet msl) Analysis chart for 1900 CDT June 7

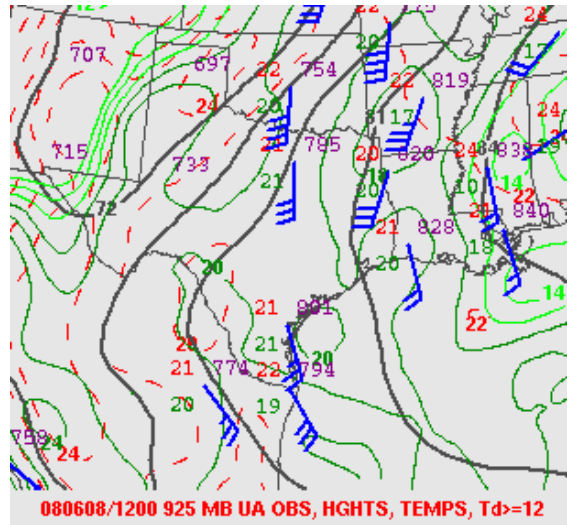


Figure 5. 925 millibar (about 2,500 feet msl) Analysis chart for 0700 CDT June 8

3. Terminal Aerodrome Forecasts (TAFs)

KIAH 080533Z 080606 14011KT P6SM SCT015
 TEMPO 0709 BKN015
 FM0900 14007KT P6SM FEW009 BKN015
 TEMPO 1114 BKN025
 FM1400 15010KT P6SM BKN025
 FM1600 15014KT P6SM SCT040 SCT250
 FM0200 15009KT P6SM FEW020 SCT250=

KUTS 080533Z 080606 14007KT P6SM BKN015
 FM1000 15005KT P6SM BKN011
 FM1500 16010KT P6SM SCT020
 FM1700 16011KT P6SM SCT040 SCT250
 FM0000 15008KT P6SM SCT250=

4. Pilot Reports

UBTX90 KWBC 080405 2008160 0405
 TX 080405
 SKF UA /OV SAT270010 /TM 0340 /FLUNKN /TP B733 /SK
 BKN038-TOP043=

5. Area Forecast (FA)

FAUS44 KPCI 080145 2008160 0142
 FA4W
 DFWC FA 080145
 SYNOPSIS AND VFR CLDS/WX
 SYNOPSIS VALID UNTIL 082000
 CLDS/WX VALID UNTIL 081400...OTLK VALID 081400-082000
 OK TX AR TN LA MS AL

SEE AIRMET SIERRA FOR IFR CONDS AND MTN OBSCN.
TS IMPLY SEV OR GTR TURB SEV ICE LLWS AND IFR CONDS.
NON MSL HGTS DENOTED BY AGL OR CIG.

.
SYNOPSIS...02Z STNR FNT WCNTL WI-LOW PRES NW IA-LOW PRES WCNTL
KS. DRYLINE SE CO-SERN NM-FAR W TX. HI PRES WRN SD. HI PRES NERN
TN. 12Z STNR FNT NCNTL WI-LOW PRES SERN MN-LOW PRES NCNTL KS-SW
KS-NERN NM-SCNTL CO. DRYLINE SW KS-ECNTL NM-FAR W TX. TROF FM
LOW PRES EXTRM SERN MB-LOW PRES EXTRM SCNTL SASK. HI PRES NERN
TN. 20Z TROF NCNTL MN-LOW PRES NCNTL ND-NERN MT-WRN SASK. STNR
FNT NCNTL LS-NW WI-LOW PRES NW IA-SW KS-LOW PRES WRN OK PNHDL-
NERN NM-SCNTL CO. DRYLINE WRN OK PNHDL-SERN NM-FAR W TX. HI PRES
RDG GA CSTL WTRS-CNTRL TX. HI PRES NERN TN.

.
NERN TX

SCT060. TIL 03Z ISOL -TSRA. CB TOP FL400. 08Z CIG BKN025 TOP 050.
OTLK...MVFR CIG BECMG VFR TSRA WND 18Z.

.
SERN TX

CSTLN...AGL SCT025 SCT050. 08Z CIG BKN025 TOP 050. ISOL -TSRA. CB
TOP FL370. OTLK...VFR.
RMNDR...SKC. 06Z AGL SCT020. 09Z CIG OVC010-015 TOP 040.
OTLK...VFR.

.
.....
6. AIRMETS

WAUS44 KKCI 080245 2008160 0238
WA4T
DFWT WA 080245
AIRMET TANGO FOR TURB VALID UNTIL 080900
. NO SGFNT TURB EXP OUTSIDE OF CNVTV ACT.
.....

WAUS44 KKCI 080245 2008160 0238
WA4Z
DFWZ WA 080245
AIRMET ZULU FOR ICE AND FRZLVL VALID UNTIL 080900
. NO SGFNT ICE EXP OUTSIDE OF CNVTV ACT.
. FRZLVL...RANGING FROM 145-ABV 160 ACRS AREA
160 ALG 20E TCC-40WNW AMA-LBL
160 ALG 20NW BNA-30SSW BNA-20ESE IGB-30NE MCB-50SSE BTR-
110WSW LEV
.....

WAUS44 KKCI 080245 2008160 0238
WA4S
DFWS WA 080245

AIRMET SIERRA FOR IFR VALID UNTIL 080900
 .
 NO SGFNT IFR EXP OUTSIDE OF CNVTV ACT.
 .
 OTLK VALID 0900-1500Z...IFR LA MS
 BOUNDED BY 40WSW SQS-30S IGB-20NNW SJI-30WSW MCB-40WSW SQS
 CIG BLW 010/VIS BLW 3SM BR. CONDS DVLPG 09Z-11Z ENDG 12Z-14Z.
 ...

7. Upper Air Data

20080608 nam12 MODEL SOUNDING					
GRID POINT 343.25 120.75					
LAT/LON: 30.63 -95.56					
06/08/2008 06Z					
PRES HPA	HGT (MSL) M	TEMP C	DEWP C	WDIR DEG	WSPD M/S
50.	20704.	-66.6	-91.8	94.1	10.1
100.	16654.	-75.3	-81.2	255.2	4.6
150.	14252.	-63.7	-74.9	293.9	8.8
200.	12437.	-52.1	-63.9	266.9	10.6
250.	10963.	-42.5	-49.2	259.6	5.1
300.	9708.	-34.5	-39.8	225.0	1.0
350.	8613.	-25.9	-54.0	163.5	3.6
400.	7632.	-18.1	-49.5	172.1	5.5
450.	6741.	-11.0	-42.1	171.2	7.1
500.	5924.	-5.2	-35.5	177.2	6.6
550.	5168.	0.6	-29.7	170.8	5.5
600.	4464.	5.6	-22.3	161.0	6.1
650.	3806.	9.4	-15.3	173.6	6.1
700.	3190.	12.0	-10.9	178.6	9.0
725.	2896.	13.9	-8.4	175.4	10.5
750.	2610.	15.6	-5.0	179.5	12.0
775.	2331.	15.8	-1.5	179.5	12.2
800.	2063.	14.6	0.1	176.2	12.3
825.	1802.	16.0	4.9	165.8	12.2
850.	1548.	17.7	9.8	158.9	13.1
875.	1299.	19.4	14.0	162.6	14.0
900.	1055.	20.9	17.5	165.6	14.4
925.	817.	22.3	20.8	168.5	14.3
950.	583.	23.6	23.3	163.5	13.6
975.	355.	25.0	24.3	157.3	9.6
1000.	130.	26.6	23.7	155.0	4.2

Figure 6. NAM model sounding for accident location for 0100 CDT June 8

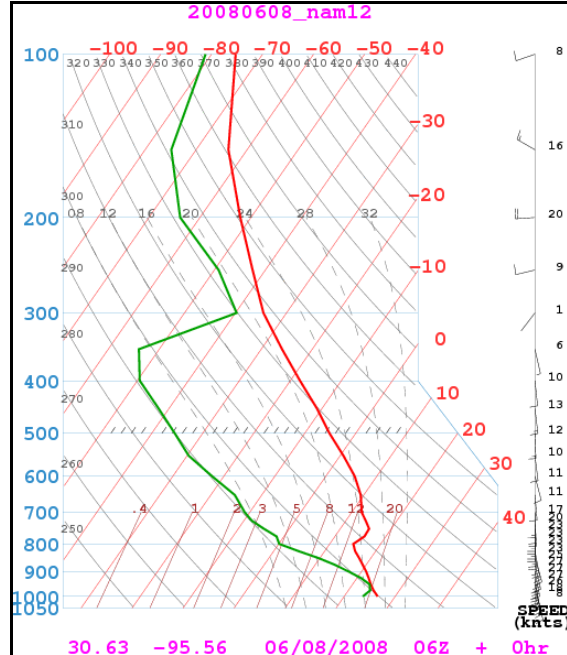


Figure 7. Skew t log p plot for the 0100 CDT June 8 data

8. Satellite (Infrared) Data

ENHANCEMENT COLOR	TEMPERATURE (C)	ESTD CLOUD TOPS (FT-MSL)
Green to Orange	23.5 to 17.0	1,900 to 5,500

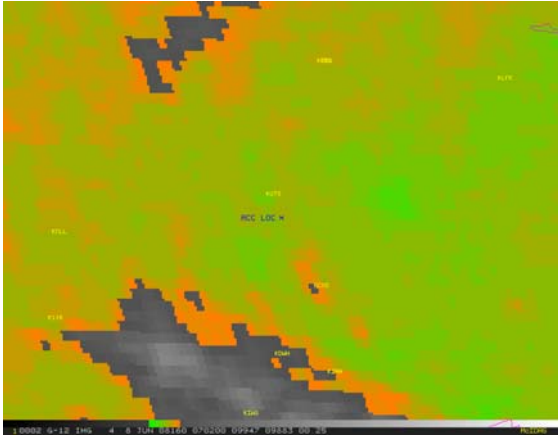


Figure 8. Infrared image for 0202 CDT June 8

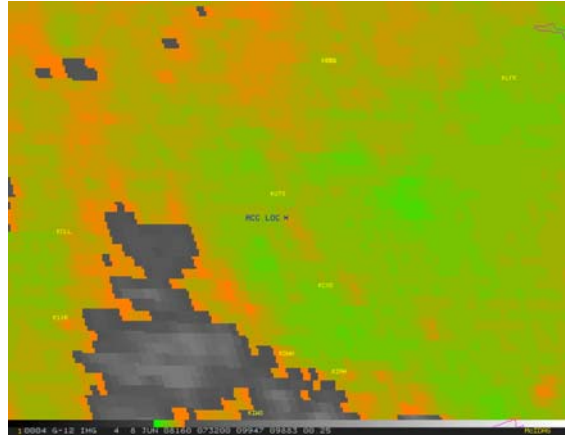


Figure 10. Infrared image for 0232 CDT June 8

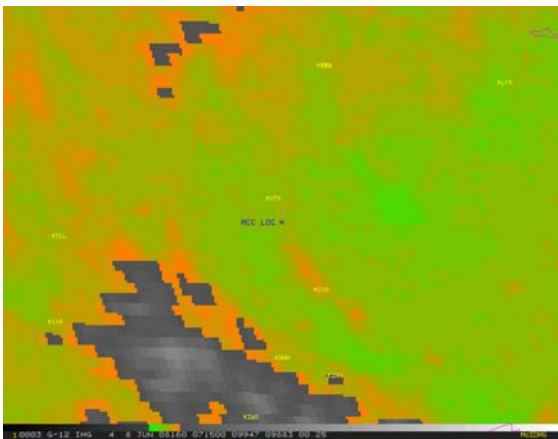


Figure 9. Infrared image for 0215 CDT June 8

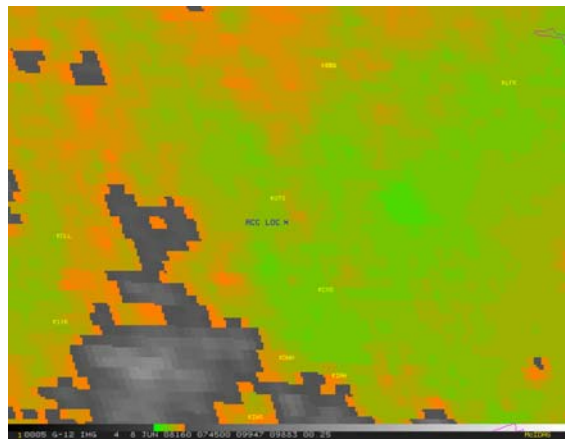


Figure 11. Infrared image for 0245 CDT June 8

9. Doppler Weather Radar Data

The Houston Weather Surveillance Radar-1988, Doppler (KHGX WSR-88D) was located at 161 degrees at 74 nautical miles from the accident location. At the lowest radar sweep angle of 0.50-degree, the radar beam was centered over the accident location at about 7,500 feet msl.



Figure 12. KHGX 0.50-degree Base Reflectivity product for 0245:44 CDT June 8



Figure 13. KHGX 0.50-degree Base Reflectivity product for 0250:41 CDT June 8