APPENDIX G

Meteorological Data Files

Stage 1 Input file:

```
**MDNR APCP METEOROLOGICAL PROCESSING
**SO2 SIP
**STAGE 1 EXTRACTION OF SURFACE AND UPPER AIR DATA 2-19-2014
**KANSAS CITY DOWNTOWN AIRPORT FOR SURFACE- CALL SIGN KMKC
**KANSAS CITY DOWNTOWN AIRPORT - STATION IDENTIFIER 13988 LAT/LONG 39.1208 -94.5969
**ISHD TD 3505 DATA
**TOPEKA KANSAS AIRPORT FOR UPPER AIR-KTOP
**TOPEKA KANSAS AIRPORT 13996 LAT/LONG 39.073 -95.626
**TD 6201 DATA FROM NCDC FILE FORMAT TYPE 6201FB FOR Fixed Block
JOB
MESSAGES  .\Stage_1\KMKC.MSG
REPORT    .\Stage_1\KMKC.RPT
SURFACE
DATA      .\Raw_Data\13988-0812.dat ISHD
EXTRACT   .\Stage_1\KMKC.DSK
QAOUT     .\Stage_1\KMKC_QAOUT.DSK
LOCATION  13988 94.59W  39.12N  6 231
XDATES    08/01/01  TO 12/12/31
UPPERAIR
DATA      .\Raw_Data\13996-0812.fsl FSL
EXTRACT   .\Stage_1\UA_KTOP.DSK
QAOUT     .\Stage_1\UA_KTOP_QA.DSK
XDATES     08/01/01  TO 12/12/31
LOCATION 13996 95.62W  39.07N  6
```

Stage 2 Input File:

```
**MDNR APCP METEOROLOGICAL PROCESSING  MDNR MERGE 02-19-14
**STAGE 2 MERGE SURFACE & UPPER AIR DATA
**KANSAS CITY DOWNTOWN AIRPORT and TOPEKA KANSAS Upper Air Indicator-KMKC KTOP
**TD 3505-ISHD & 6201 DATA FROM NCDC FILE FORMAT TYPE
JOB
   REPORT   .\MERGE\JACK-AERMIN-MERGE-08-12.rpt
   MESSAGES .\MERGE\JACK-AERMIN-MERGE-08-12.msg
SURFACE
   QAOUT     .\STAGE_1\KMKC.DSK
   ASOS1MIN  .\AERMINUTE\KMKC_1min_01-2008_12-2012.dat
UPPERAIR
   QAOUT     .\STAGE_1\UA_KTOP.DSK
MERGE
   OUTPUT    .\MERGE\JACK_Aerminute_08_12.DSK
XDATES    08/01/01 TO 12/12/31
```

Stage 3 Input Files (for each year):

2008

```
**MDNR APCP METEOROLOGICAL PROCESSING
**KMKC SURFACE, KTOP UPPER AIR
**TD 3505-ISHD & 6201 DATA FROM NCDC FILE FORMAT TYPE
JOB
   REPORT .\STAGE_3\JACK08_Aerminute.rpt
   MESSAGES  .\STAGE_3\JACK08_Aerminute.msg
METPREP
   DATA     .\Merge\JACK_AERMINUTE_08_12.dsk
   METHOD REFLEVEL SUBNWS
   NWS_HGT   WIND 7.92
   THRESH_1MIN 0.5
   OUTPUT    .\STAGE_3\JACK08_Aerminute.sfc
   PROFILE   .\STAGE_3\JACK08_Aerminute.pfl
   AERSURF   .\Airport_AERSURFACE\WET\KMKC_WET.out
   XDATES    08/01/01 TO 08/12/31
MODEL AERMOD
```

2009

```
**MDNR APCP METEOROLOGICAL PROCESSING
**KMKC SURFACE, KTOP UPPER AIR
**TD 3505-ISHD & 6201 DATA FROM NCDC FILE FORMAT TYPE
JOB
   REPORT .\STAGE_3\JACK09_Aerminute.rpt
   MESSAGES  .\STAGE_3\JACK09_Aerminute.msg
METPREP
   DATA     .\Merge\JACK_AERMINUTE_08_12.dsk
   METHOD REFLEVEL SUBNWS
   NWS_HGT   WIND 7.92
   THRESH_1MIN 0.5
   OUTPUT    .\STAGE_3\JACK09_Aerminute.sfc
   PROFILE   .\STAGE_3\JACK09_Aerminute.pfl
   AERSURF   .\Airport_AERSURFACE\WET\KMKC_WET.out
   XDATES    09/01/01 TO 09/12/31
MODEL AERMOD
```

2010

```
**MDNR APCP METEOROLOGICAL PROCESSING SO2 SIP 2-19-14
**KMKC SURFACE, KTOP UPPER AIR
**TD 3505-ISHD & 6201 DATA FROM NCDC FILE FORMAT TYPE
JOB
   REPORT .\STAGE_3\JACK10_Aerminute.rpt
   MESSAGES  .\STAGE_3\JACK10_Aerminute.msg
METPREP
```

```
   DATA     .\Merge\JACK_AERMINUTE_08_12.dsk
   METHOD REFLEVEL SUBNWS
   NWS_HGT   WIND 7.92
   THRESH_1MIN 0.5
   OUTPUT    .\STAGE_3\JACK10_Aerminute.sfc
   PROFILE   .\STAGE_3\JACK10_Aerminute.pfl
   AERSURF   .\Airport_AERSURFACE\WET\KMKC_WET.out
   XDATES    10/01/01 TO 10/12/31
MODEL AERMOD
```

2011

```
**MDNR APCP METEOROLOGICAL PROCESSING SO2 SIP 2-19-14
**KMKC SURFACE, KTOP UPPER AIR
**TD 3505-ISHD & 6201 DATA FROM NCDC FILE FORMAT TYPE
JOB
   REPORT .\STAGE_3\JACK11_Aerminute.rpt
   MESSAGES  .\STAGE_3\JACK11_Aerminute.msg
METPREP
   DATA     .\Merge\JACK_AERMINUTE_08_12.dsk
   METHOD REFLEVEL SUBNWS
    NWS_HGT   WIND 7.92
   THRESH_1MIN 0.5
    OUTPUT    .\STAGE_3\JACK11_Aerminute.sfc
   PROFILE   .\STAGE_3\JACK11_Aerminute.pfl
   AERSURF   .\Airport_AERSURFACE\DRY\KMKC_DRY.out
   XDATES    11/01/01 TO 11/12/31
MODEL AERMOD
```

2012

```
**MDNR APCP METEOROLOGICAL PROCESSING SO2 SIP 2-19-14
**KMKC SURFACE, KTOP UPPER AIR
**TD 3505-ISHD & 6201 DATA FROM NCDC FILE FORMAT TYPE
JOB
   REPORT .\STAGE_3\JACK12_Aerminute.rpt
   MESSAGES  .\STAGE_3\JACK12_Aerminute.msg
METPREP
   DATA     .\Merge\JACK_AERMINUTE_08_12.dsk
   METHOD REFLEVEL SUBNWS
    NWS_HGT   WIND 7.92
   THRESH_1MIN 0.5
   OUTPUT    .\STAGE_3\JACK12_Aerminute.sfc
   PROFILE   .\STAGE_3\JACK12_Aerminute.pfl
   AERSURF   .\Airport_AERSURFACE\DRY\KMKC_DRY.out
   XDATES    12/01/01 TO 12/12/31
MODEL AERMOD
```

AERMINUTE INPUT FILE

```
** KANSAS CITY DOWNTOWN AIRPORT (KMKC)
** Data available as of 01-30-14: 01-01-2008 -> 12-31-2012
STARTEND 01 2008 12 2012
** Sonic Anemometer commissioned 09-13-2006
IFWGROUP Y 09 13 2006
** Files to be read in
DATAFILE STARTING
.\Raw_Data\64050KMKC200801.dat
.\Raw_Data\64050KMKC200802.dat
.\Raw_Data\64050KMKC200803.dat
.\Raw_Data\64050KMKC200804.dat
.\Raw_Data\64050KMKC200805.dat
.\Raw_Data\64050KMKC200806.dat
.\Raw_Data\64050KMKC200807.dat
.\Raw_Data\64050KMKC200808.dat
.\Raw_Data\64050KMKC200809.dat
.\Raw_Data\64050KMKC200810.dat
.\Raw_Data\64050KMKC200811.dat
.\Raw_Data\64050KMKC200812.dat

.\Raw_Data\64050KMKC200901.dat
.\Raw_Data\64050KMKC200902.dat
.\Raw_Data\64050KMKC200903.dat
.\Raw_Data\64050KMKC200904.dat
.\Raw_Data\64050KMKC200905.dat
.\Raw_Data\64050KMKC200906.dat
.\Raw_Data\64050KMKC200907.dat
.\Raw_Data\64050KMKC200908.dat
.\Raw_Data\64050KMKC200909.dat
.\Raw_Data\64050KMKC200910.dat
.\Raw_Data\64050KMKC200911.dat
.\Raw_Data\64050KMKC200912.dat

.\Raw_Data\64050KMKC201001.dat
.\Raw_Data\64050KMKC201002.dat
.\Raw_Data\64050KMKC201003.dat
.\Raw_Data\64050KMKC201004.dat
.\Raw_Data\64050KMKC201005.dat
.\Raw_Data\64050KMKC201006.dat
.\Raw_Data\64050KMKC201007.dat
.\Raw_Data\64050KMKC201008.dat
.\Raw_Data\64050KMKC201009.dat
.\Raw_Data\64050KMKC201010.dat
.\Raw_Data\64050KMKC201011.dat
.\Raw_Data\64050KMKC201012.dat

.\Raw_Data\64050KMKC201101.dat
```

.\Raw_Data\64050KMKC201102.dat
.\Raw_Data\64050KMKC201103.dat
.\Raw_Data\64050KMKC201104.dat
.\Raw_Data\64050KMKC201105.dat
.\Raw_Data\64050KMKC201106.dat
.\Raw_Data\64050KMKC201107.dat
.\Raw_Data\64050KMKC201108.dat
.\Raw_Data\64050KMKC201109.dat
.\Raw_Data\64050KMKC201110.dat
.\Raw_Data\64050KMKC201111.dat
.\Raw_Data\64050KMKC201112.dat

.\Raw_Data\64050KMKC201201.dat
.\Raw_Data\64050KMKC201202.dat
.\Raw_Data\64050KMKC201203.dat
.\Raw_Data\64050KMKC201204.dat
.\Raw_Data\64050KMKC201205.dat
.\Raw_Data\64050KMKC201206.dat
.\Raw_Data\64050KMKC201207.dat
.\Raw_Data\64050KMKC201208.dat
.\Raw_Data\64050KMKC201209.dat
.\Raw_Data\64050KMKC201210.dat
.\Raw_Data\64050KMKC201211.dat
.\Raw_Data\64050KMKC201212.dat

DATAFILE FINISHED
OUTFILES STARTING
HOURFILE .\KMKC_1min_01-2008_12-2012.dat
SUMMFILE .\2008_2012_Minute_Summary_KMKC.csv
OUTFILES FINISHED

Excerpts* (first day) of Final Processed Meteorological Data used in AERMOD:

*Full files available in digital format upon request.

Surface File (.sfc)

39.12N 94.59W UA_ID: 13996 SF_ID: 13988 OS_ID: VERSION: 14134
THRESH_1MIN = 0.50 m/s; CCVR_Sub TEMP_Sub
8 1 1 1 1 -16.9 0.292 -9.000 -9.000 -999. 378. 130.9 0.0160 0.66 1.00 4.75 323.0 7.9
271.4 2.0 0 0.00 63. 1000. 10 ADJ-A1 NoSubs
8 1 1 1 2 -12.8 0.220 -9.000 -9.000 -999. 249. 74.3 0.0180 0.66 1.00 3.64 284.0 7.9 271.4
2.0 0 0.00 66. 1001. 10 ADJ-A1 NoSubs
8 1 1 1 3 -17.6 0.302 -9.000 -9.000 -999. 399. 139.9 0.0300 0.66 1.00 4.43 266.0 7.9
270.4 2.0 0 0.00 62. 1001. 10 ADJ-A1 NoSubs

8 1 1 1 4 -25.5 0.366 -9.000 -9.000 -999. 532. 172.5 0.0180 0.66 1.00 5.79 292.0 7.9
269.9 2.0 0 0.00 65. 1002. 9 ADJ-A1 NoSubs
8 1 1 1 5 -50.6 0.493 -9.000 -9.000 -999. 830. 211.4 0.0160 0.66 1.00 7.88 319.0 7.9
268.8 2.0 0 0.00 59. 1002. 5 ADJ-A1 NoSubs
8 1 1 1 6 -54.9 0.463 -9.000 -9.000 -999. 758. 161.9 0.0160 0.66 1.00 7.47 315.0 7.9
266.4 2.0 0 0.00 56. 1004. 0 ADJ-A1 NoSubs
8 1 1 1 7 -44.0 0.369 -9.000 -9.000 -999. 546. 102.8 0.0160 0.66 1.00 6.09 307.0 7.9
265.9 2.0 0 0.00 56. 1006. 0 ADJ-A1 NoSubs
8 1 1 1 8 -35.9 0.315 -9.000 -9.000 -999. 426. 78.1 0.0160 0.66 1.00 5.29 306.0 7.9 265.4
2.0 0 0.00 56. 1006. 3 ADJ-A1 NoSubs
8 1 1 1 9 -9.6 0.295 -9.000 -9.000 -999. 384. 239.5 0.0180 0.66 0.45 4.61 298.0 7.9 265.9
2.0 0 0.00 56. 1007. 9 ADJ-A1 NoSubs
8 1 1 1 10 28.5 0.413 0.735 0.005 500. 638. -222.9 0.0160 0.66 0.29 6.29 300.0 7.9
267.0 2.0 0 0.00 56. 1007. 3 ADJ-A1 NoSubs
8 1 1 1 11 53.7 0.508 1.032 0.005 736. 867. -218.7 0.0160 0.66 0.23 7.72 300.0 7.9
267.0 2.0 0 0.00 54. 1008. 0 ADJ-A1 NoSubs
8 1 1 1 12 76.5 0.512 1.265 0.005 952. 880. -157.9 0.0180 0.66 0.21 7.59 299.0 7.9
267.5 2.0 0 0.00 50. 1008. 3 ADJ-A1 NoSubs
8 1 1 1 13 37.9 0.538 1.013 0.005 988. 947. -370.6 0.0160 0.66 0.21 8.25 306.0 7.9
267.5 2.0 0 0.00 50. 1008. 9 ADJ-A1 NoSubs
8 1 1 1 14 13.3 0.578 0.718 0.005 1001. 1053. -1303.2 0.0160 0.66 0.22 8.93 309.0 7.9
267.5 2.0 0 0.00 52. 1008. 10 ADJ-A1 NoSubs
8 1 1 1 15 23.3 0.462 0.872 0.005 1021. 766. -379.8 0.0160 0.66 0.24 7.08 317.0 7.9
267.5 2.0 0 0.00 52. 1008. 9 ADJ-A1 NoSubs
8 1 1 1 16 18.6 0.386 0.813 0.005 1036. 580. -277.2 0.0160 0.66 0.32 5.89 316.0 7.9
266.4 2.0 0 0.00 56. 1009. 3 ADJ-A1 NoSubs
8 1 1 1 17 -32.6 0.345 -9.000 -9.000 -999. 487. 113.0 0.0160 0.66 0.53 5.65 310.0 7.9
266.4 2.0 0 0.00 54. 1010. 0 ADJ-A1 NoSubs
8 1 1 1 18 -19.7 0.277 -9.000 -9.000 -999. 352. 97.1 0.0160 0.66 1.00 4.58 311.0 7.9
265.9 2.0 0 0.00 56. 1010. 9 ADJ-A1 NoSubs
8 1 1 1 19 -18.7 0.312 -9.000 -9.000 -999. 418. 146.0 0.0230 0.66 1.00 4.77 336.0 7.9
264.9 2.0 0 0.00 58. 1011. 10 ADJ-A1 NoSubs
8 1 1 1 20 -52.9 0.439 -9.000 -9.000 -999. 697. 144.1 0.0160 0.66 1.00 7.11 325.0 7.9
264.2 2.0 0 0.00 58. 1011. 0 ADJ-A1 NoSubs
8 1 1 1 21 -58.8 0.486 -9.000 -9.000 -999. 812. 175.8 0.0160 0.66 1.00 7.81 320.0 7.9
263.1 2.0 0 0.00 56. 1012. 0 ADJ-A1 NoSubs
8 1 1 1 22 -40.5 0.334 -9.000 -9.000 -999. 481. 82.9 0.0160 0.66 1.00 5.58 316.0 7.9
262.5 2.0 0 0.00 55. 1012. 0 ADJ-A1 NoSubs
8 1 1 1 23 -38.5 0.317 -9.000 -9.000 -999. 429. 74.7 0.0160 0.66 1.00 5.34 310.0 7.9
262.5 2.0 0 0.00 58. 1012. 0 ADJ-A1 NoSubs
8 1 1 1 24 -35.5 0.292 -9.000 -9.000 -999. 379. 63.3 0.0160 0.66 1.00 4.99 308.0 7.9
262.0 2.0 0 0.00 61. 1013. 0 ADJ-A1 NoSubs

Profile File (.pfl)

8	1	1	1	7.9	1	323.0	4.75	-1.70	99.00	99.00
8	1	1	2	7.9	1	284.0	3.64	-1.70	99.00	99.00
8	1	1	3	7.9	1	266.0	4.43	-2.80	99.00	99.00
8	1	1	4	7.9	1	292.0	5.79	-3.30	99.00	99.00
8	1	1	5	7.9	1	319.0	7.88	-4.40	99.00	99.00
8	1	1	6	7.9	1	315.0	7.47	-6.70	99.00	99.00
8	1	1	7	7.9	1	307.0	6.09	-7.20	99.00	99.00
8	1	1	8	7.9	1	306.0	5.29	-7.80	99.00	99.00
8	1	1	9	7.9	1	298.0	4.61	-7.20	99.00	99.00
8	1	1	10	7.9	1	300.0	6.29	-6.10	99.00	99.00
8	1	1	11	7.9	1	300.0	7.72	-6.10	99.00	99.00
8	1	1	12	7.9	1	299.0	7.59	-5.60	99.00	99.00
8	1	1	13	7.9	1	306.0	8.25	-5.60	99.00	99.00
8	1	1	14	7.9	1	309.0	8.93	-5.60	99.00	99.00
8	1	1	15	7.9	1	317.0	7.08	-5.60	99.00	99.00
8	1	1	16	7.9	1	316.0	5.89	-6.70	99.00	99.00
8	1	1	17	7.9	1	310.0	5.65	-6.70	99.00	99.00
8	1	1	18	7.9	1	311.0	4.58	-7.20	99.00	99.00
8	1	1	19	7.9	1	336.0	4.77	-8.30	99.00	99.00
8	1	1	20	7.9	1	325.0	7.11	-8.90	99.00	99.00
8	1	1	21	7.9	1	320.0	7.81	-10.00	99.00	99.00
8	1	1	22	7.9	1	316.0	5.58	-10.60	99.00	99.00
8	1	1	23	7.9	1	310.0	5.34	-10.60	99.00	99.00
8	1	1	24	7.9	1	308.0	4.99	-11.10	99.00	99.00