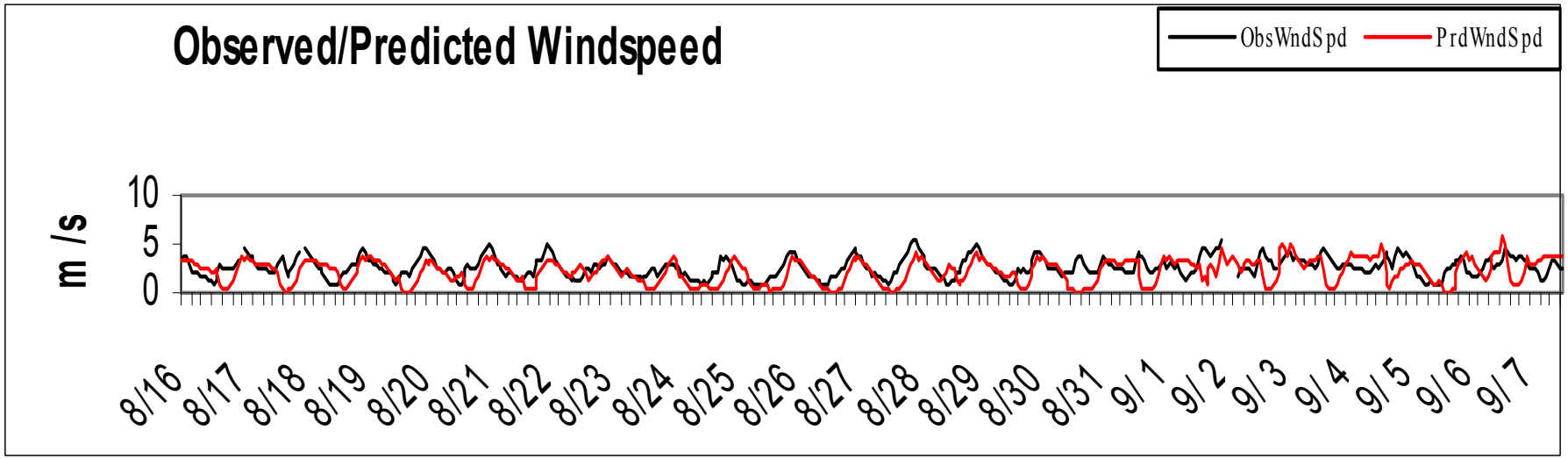
Appendix C

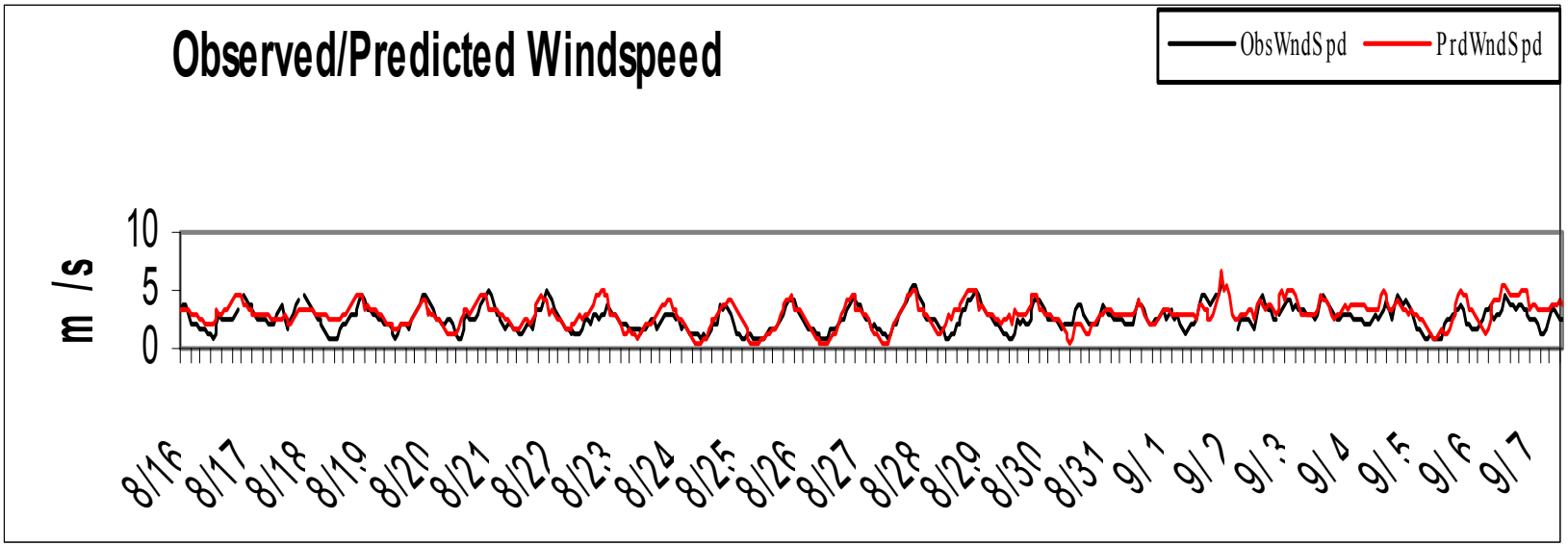
Phase 2 HGB Mid Course Review
Meteorological Model Performance Evaluation:
Sample Graphics

Prepared by the
Technical Support Section
Technical Analysis Division
TCEQ
April, 2004

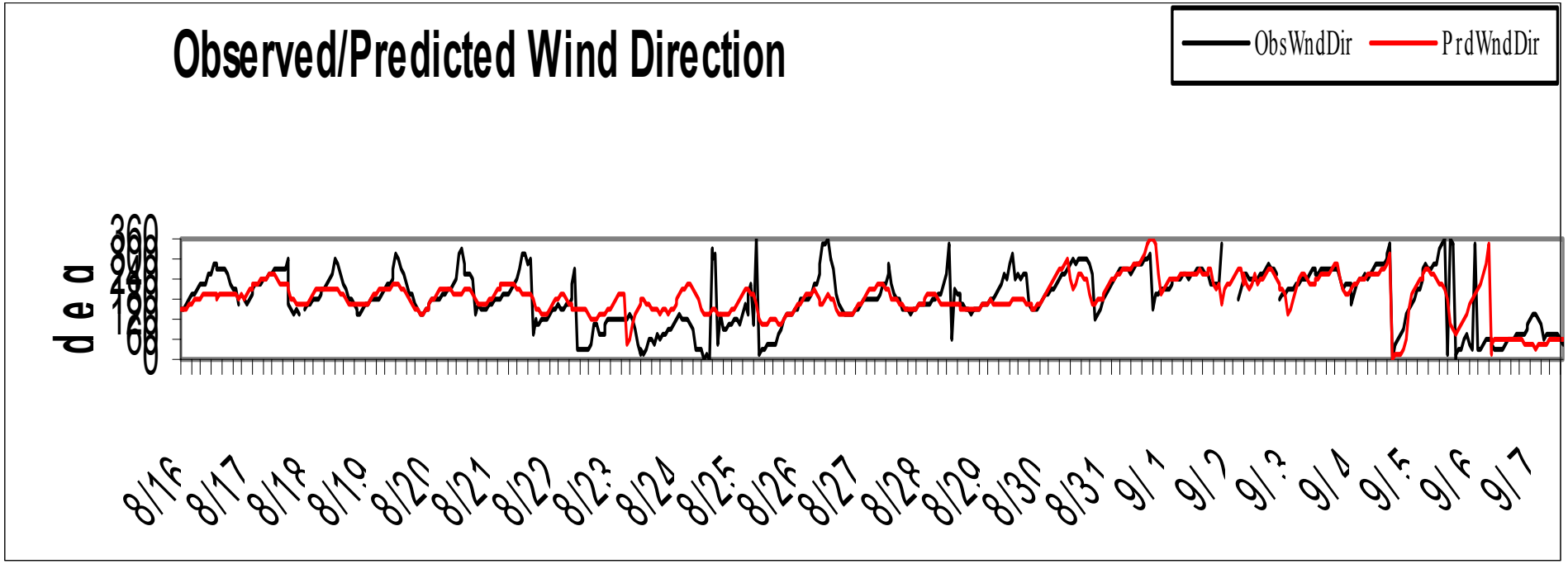
ATMET Statistics
Experiment 2



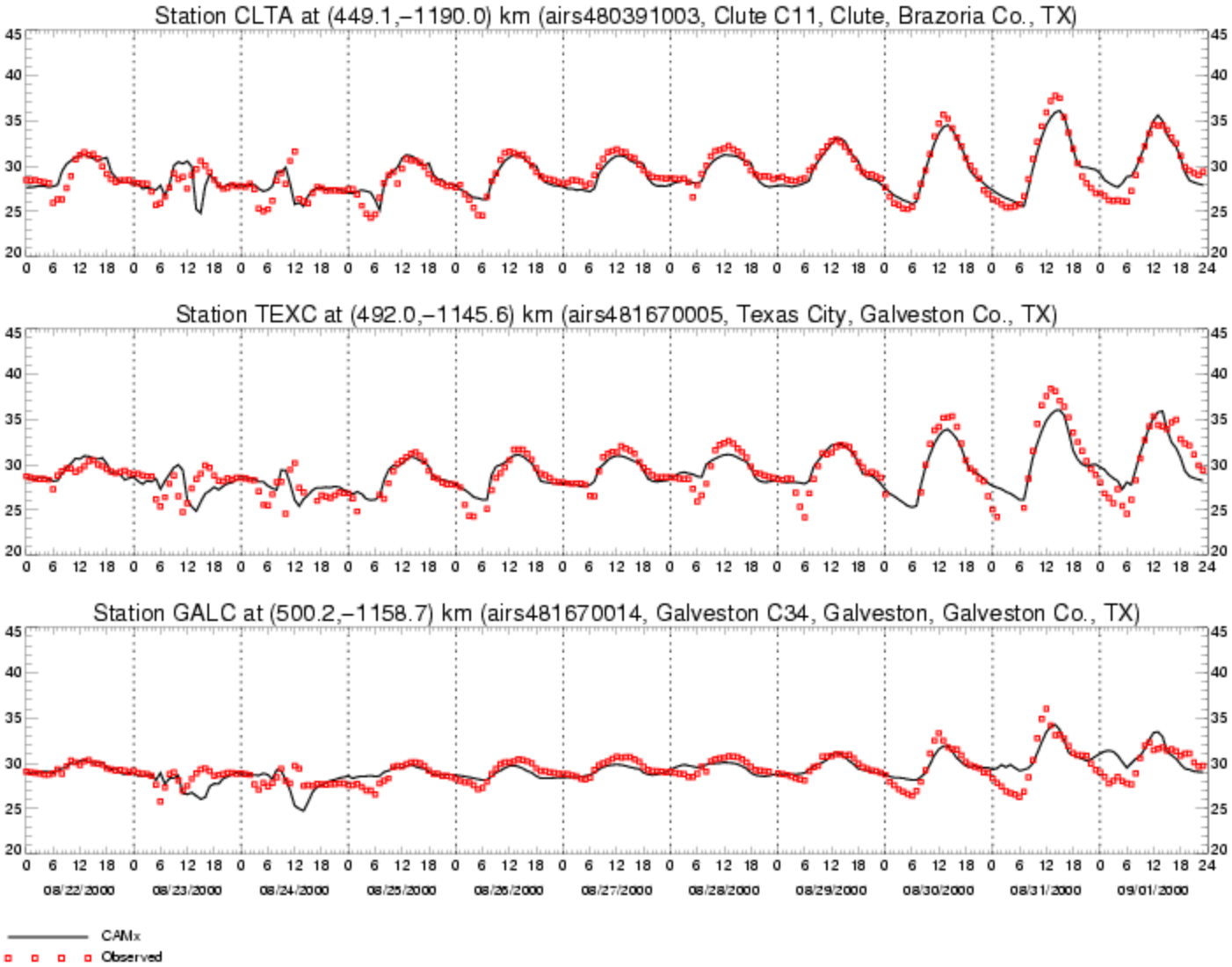
ATMET Statistics
Experiment 3



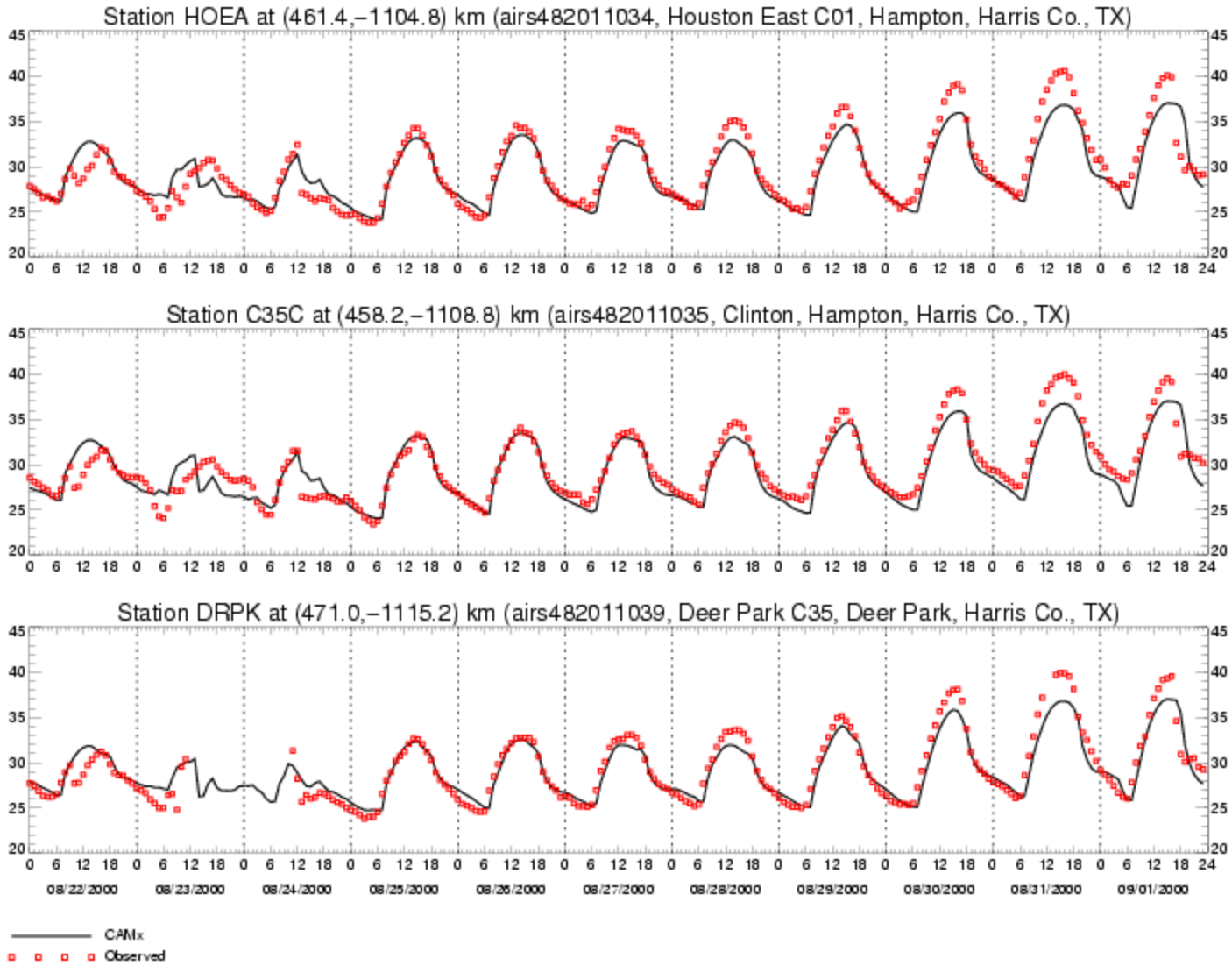
ATMET Statistics
Experiment 3



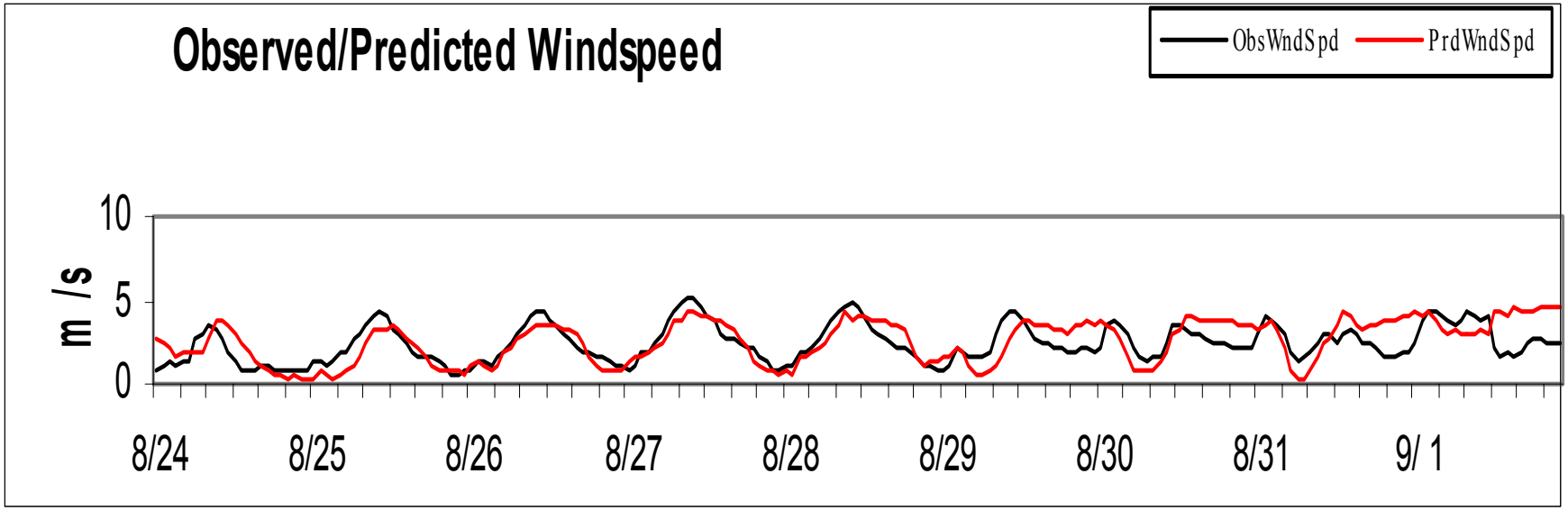
Temperature (°C) at Layer 1 (08/22/2000–09/01/2000)
CAMx Horizontal Wind



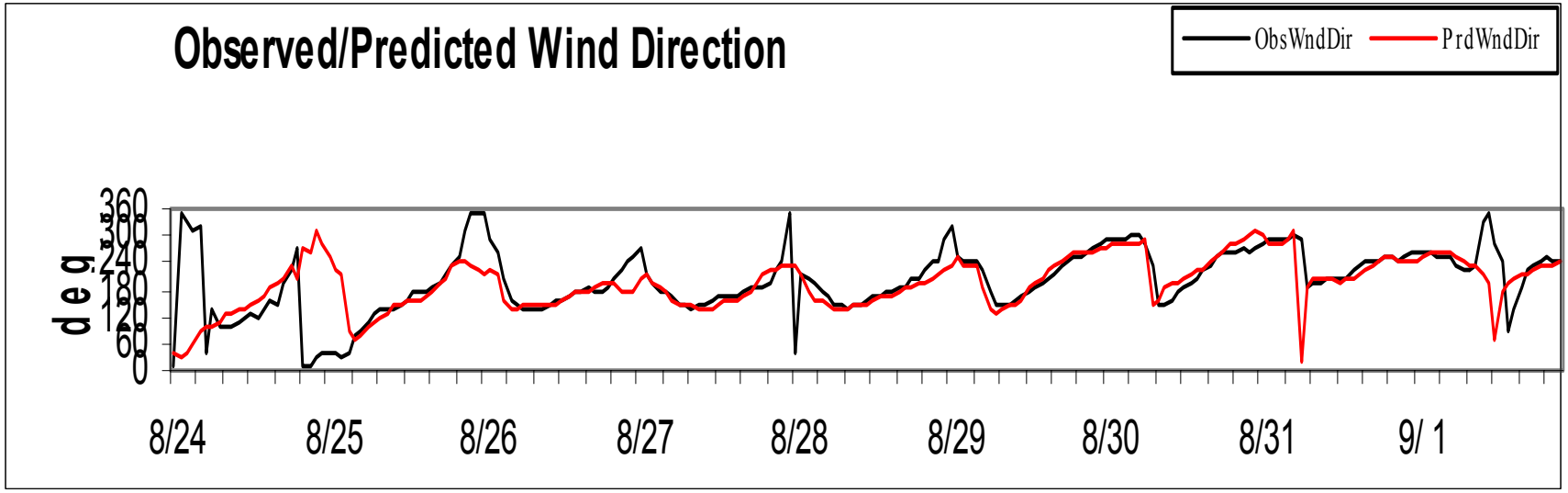
Temperature (°C) at Layer 1 (08/22/2000–09/01/2000)
CAMx Horizontal Wind

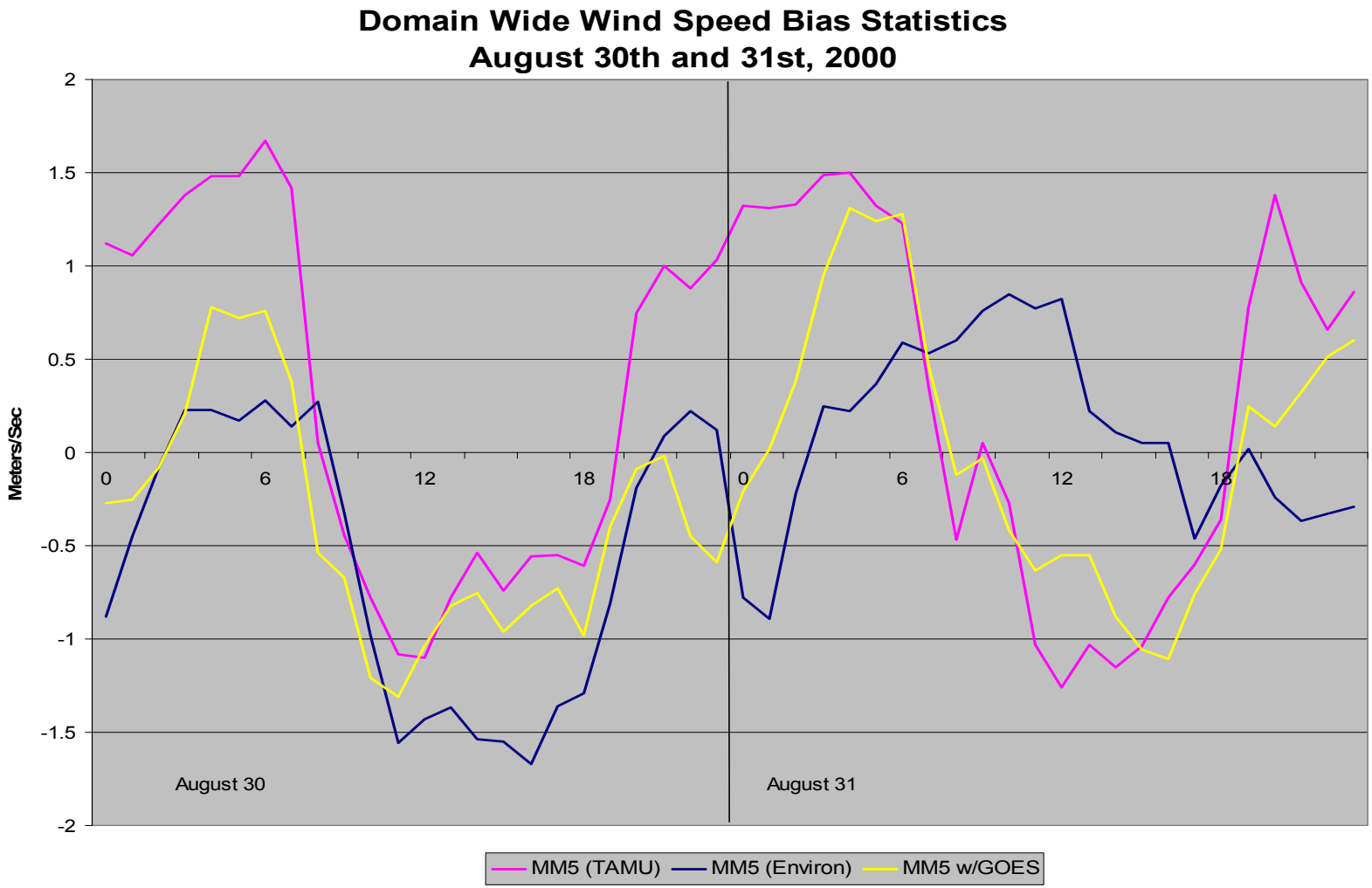


TAMU GOES MM5

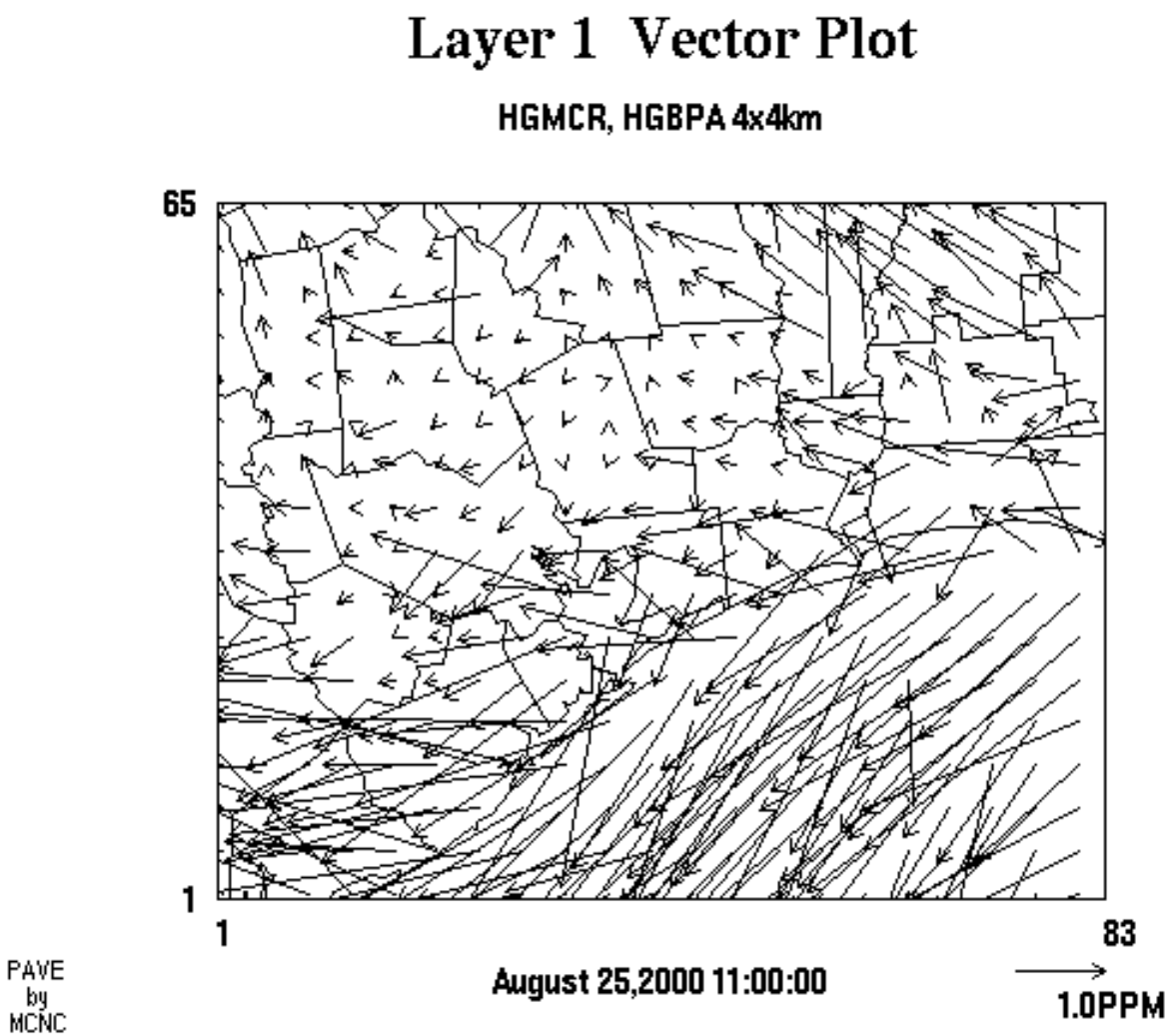


TAMU GOES MM5

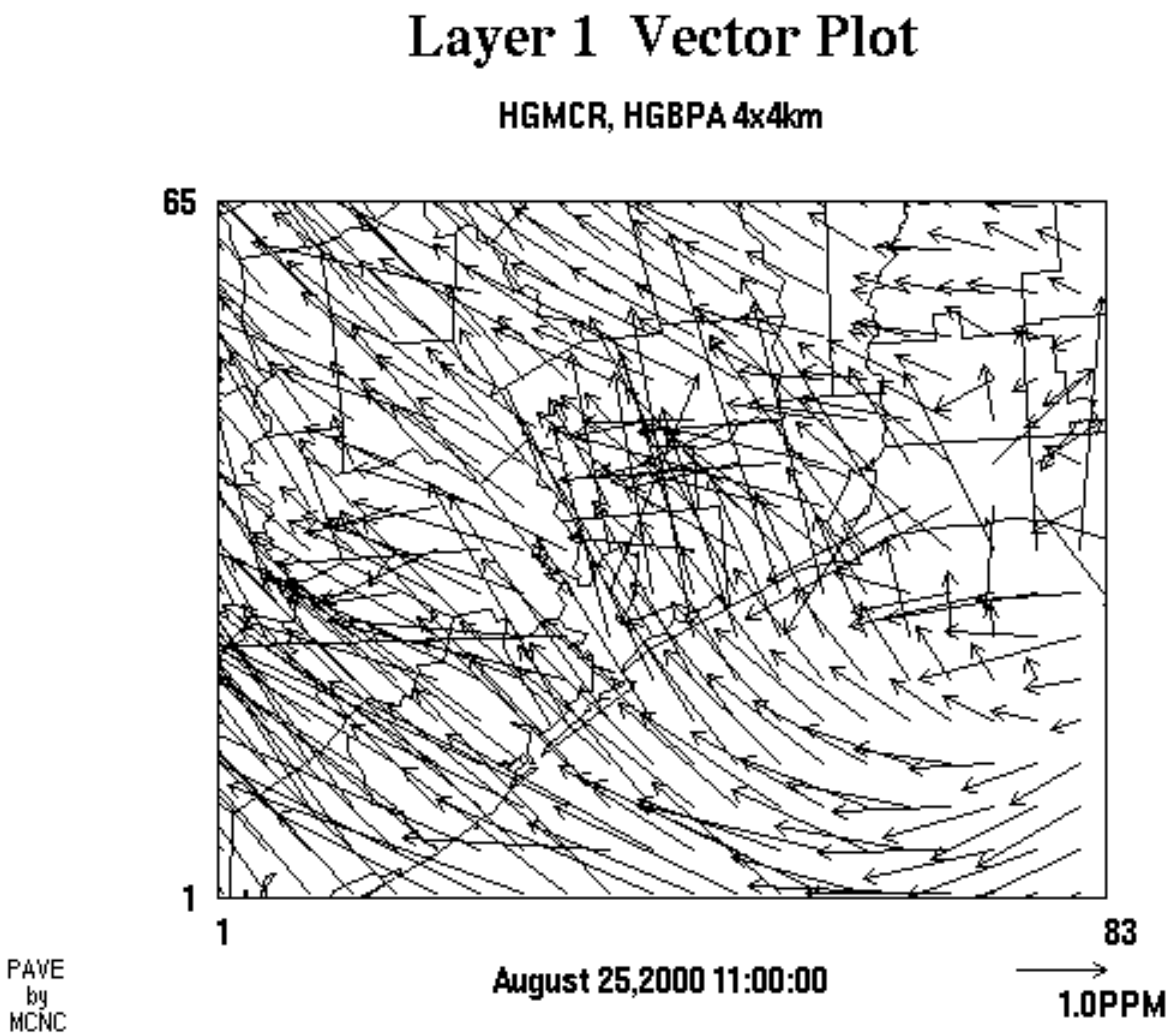



Domain Wide Wind Speed Bias Statistics
August 30th and 31st, 2000
Meters/Sec
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
0
6
12
18
0
6
12
18
August 30
August 31
MM5 (TAMU)
MM5 (Environ)
MM5 w/GOES

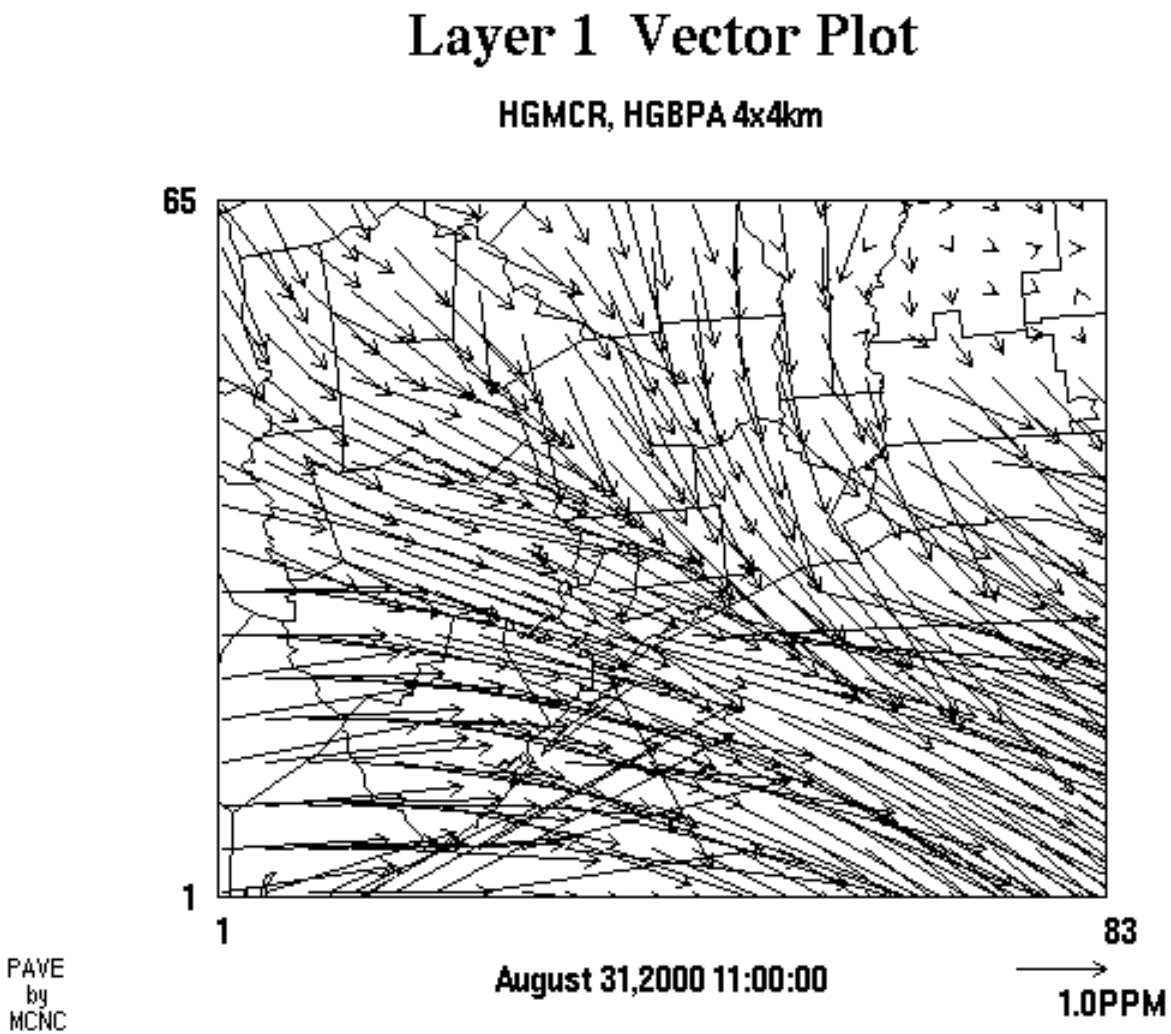
TAMU GOES MM5



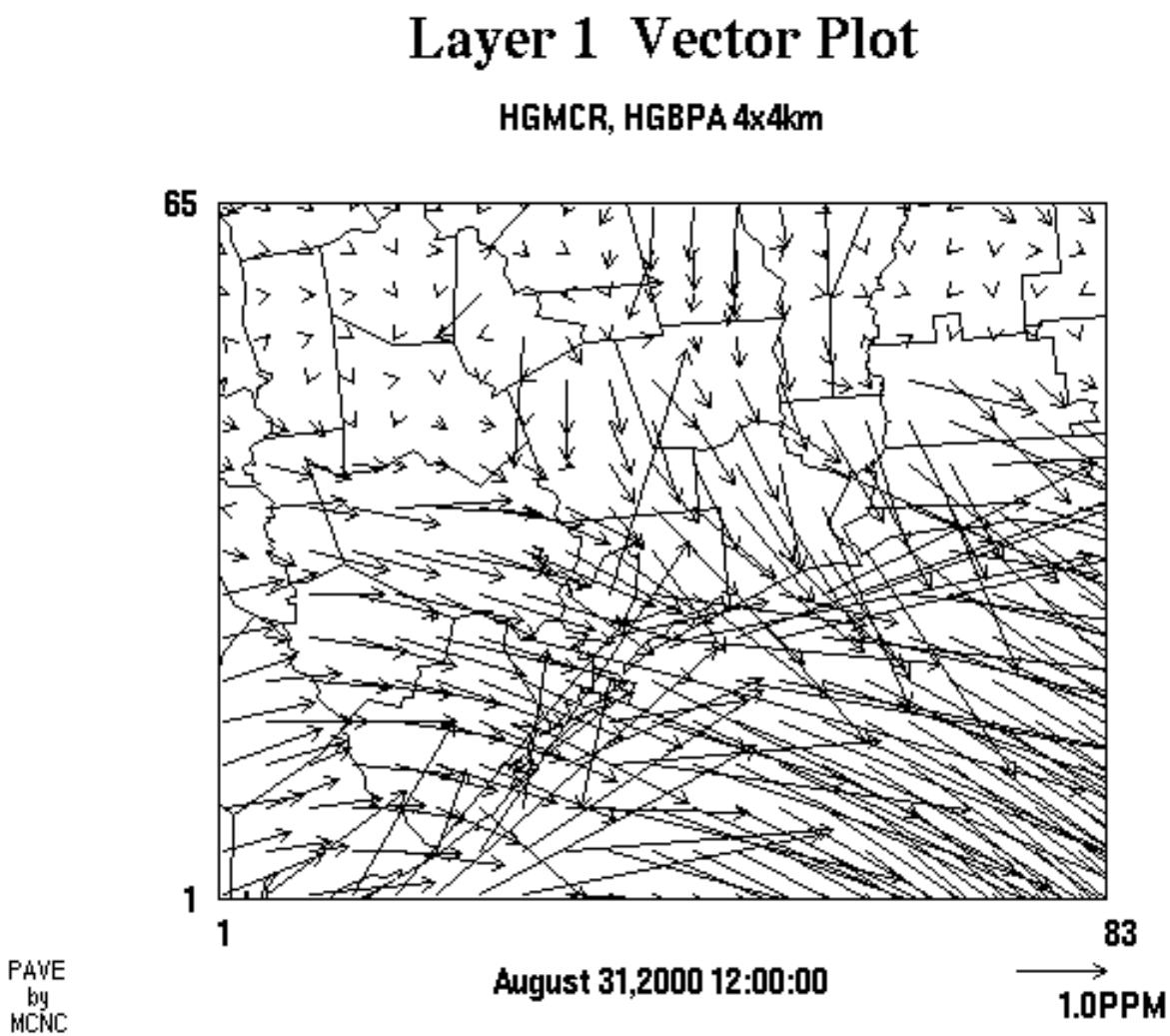
ATMET MM5


Layer 1 Vector Plot
HGMCR, HGBPA 4x4km
65
1
1
83
August 25,2000 11:00:00
1.0PPM
PAVE
by
MCNC

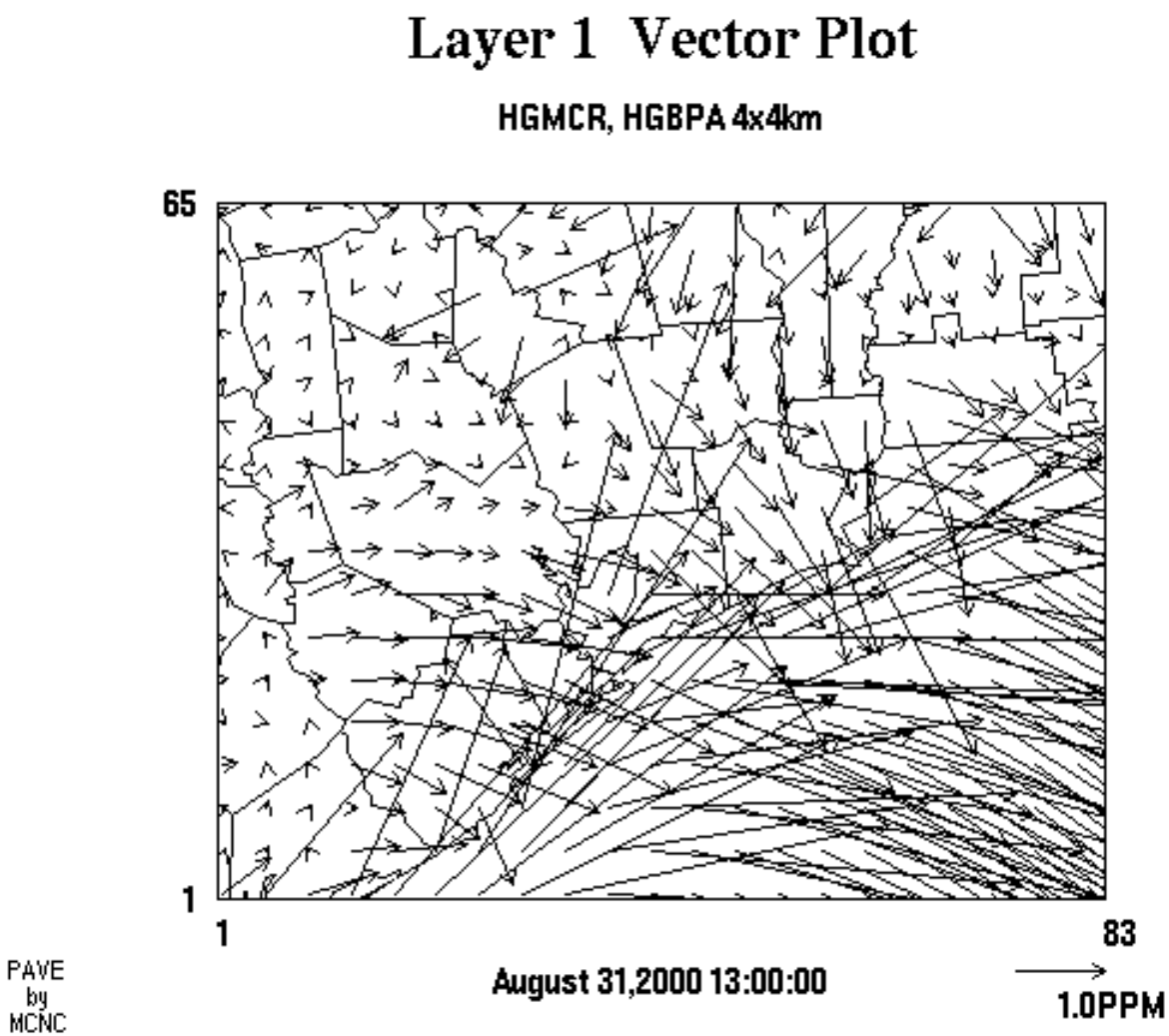
TAMU GOES MM5

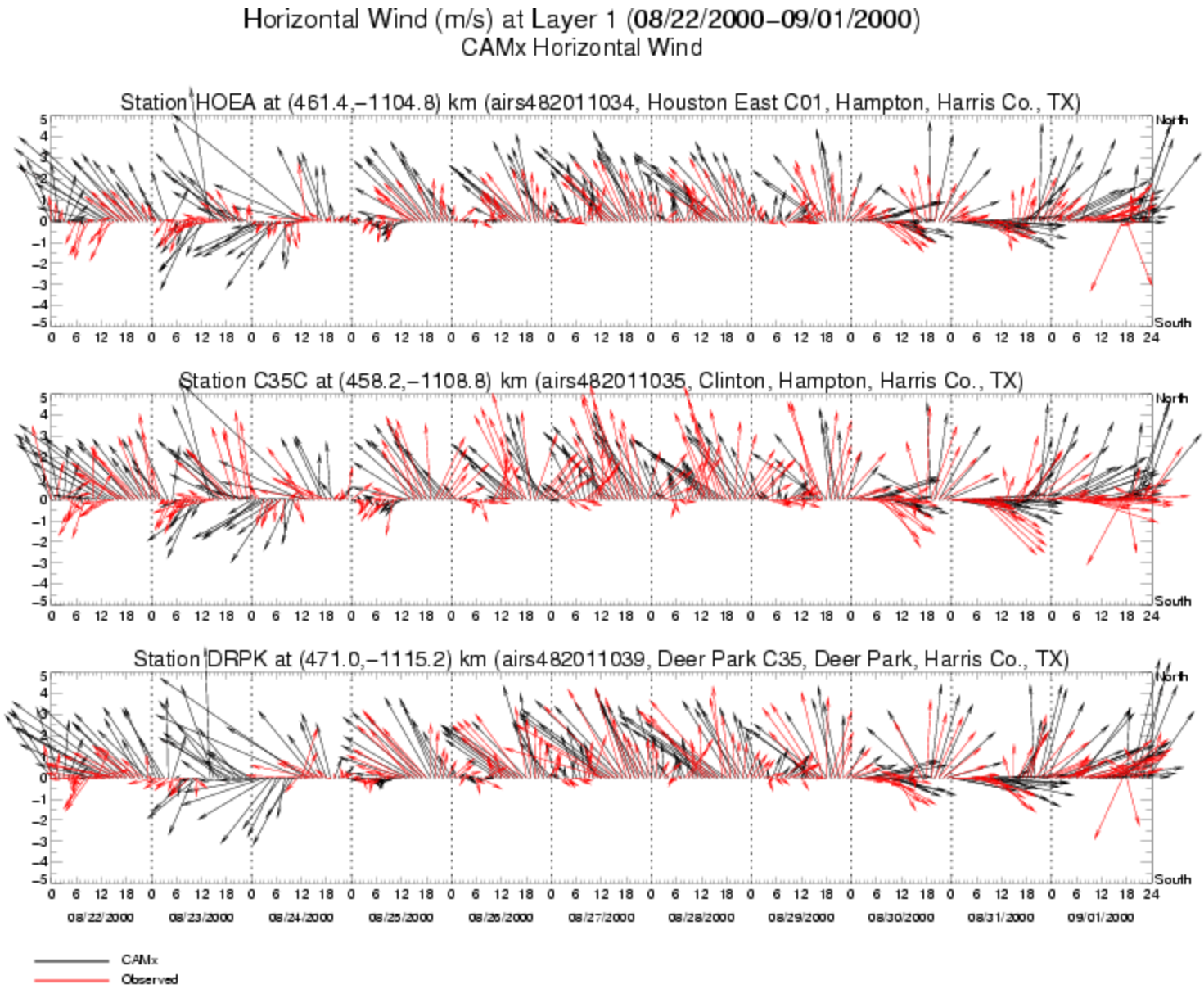


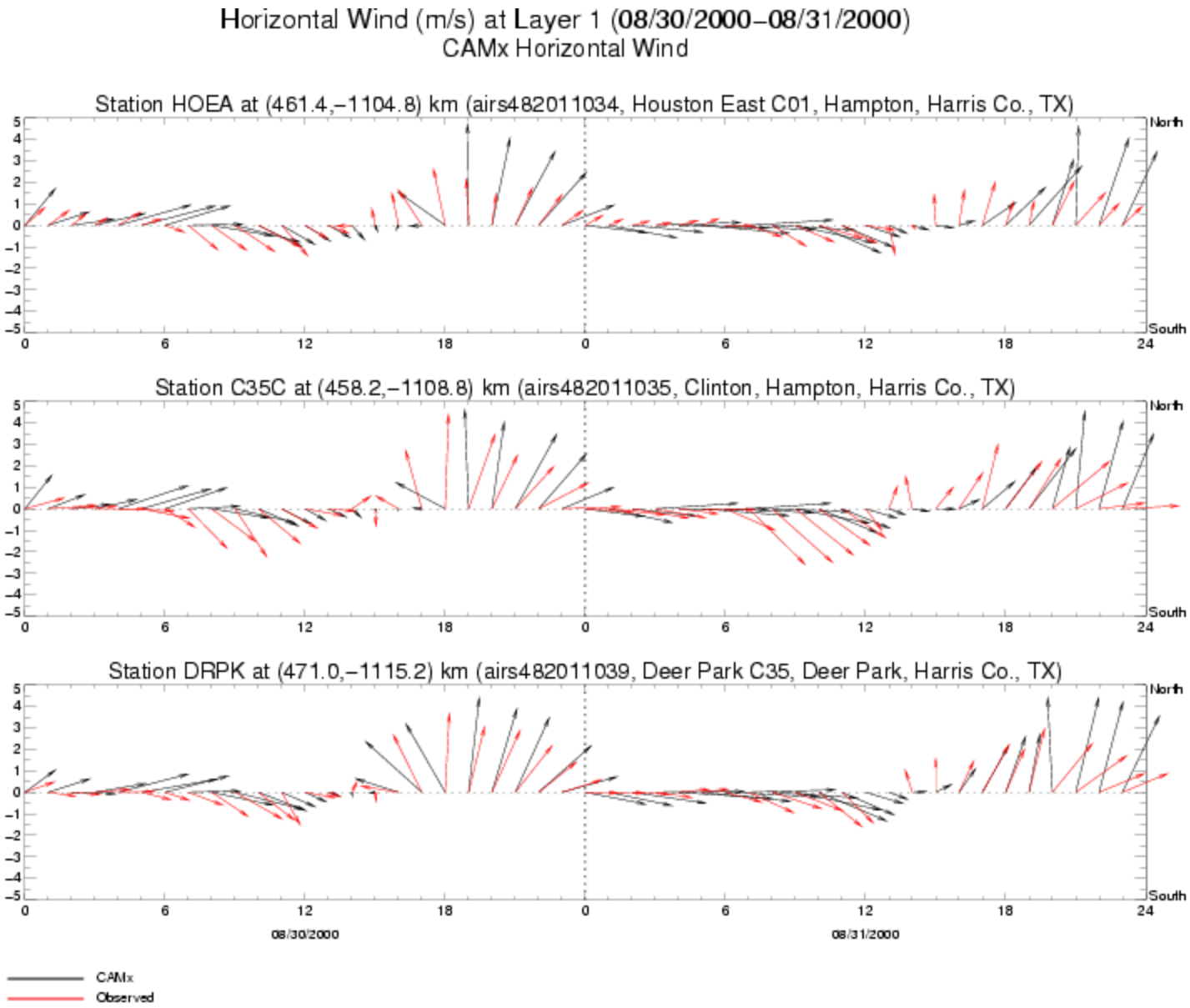
TAMU GOES MM5

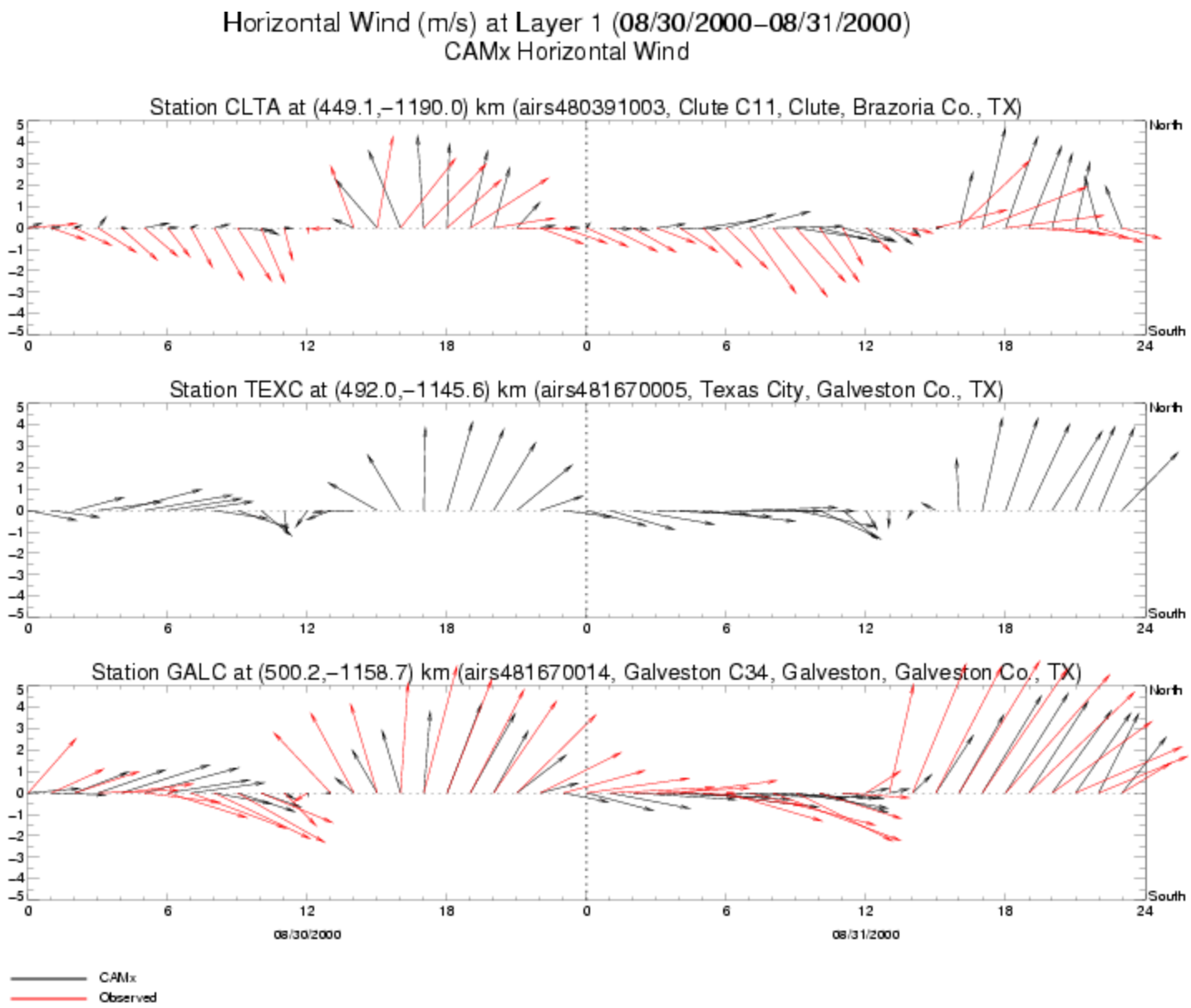


TAMU GOES MM5

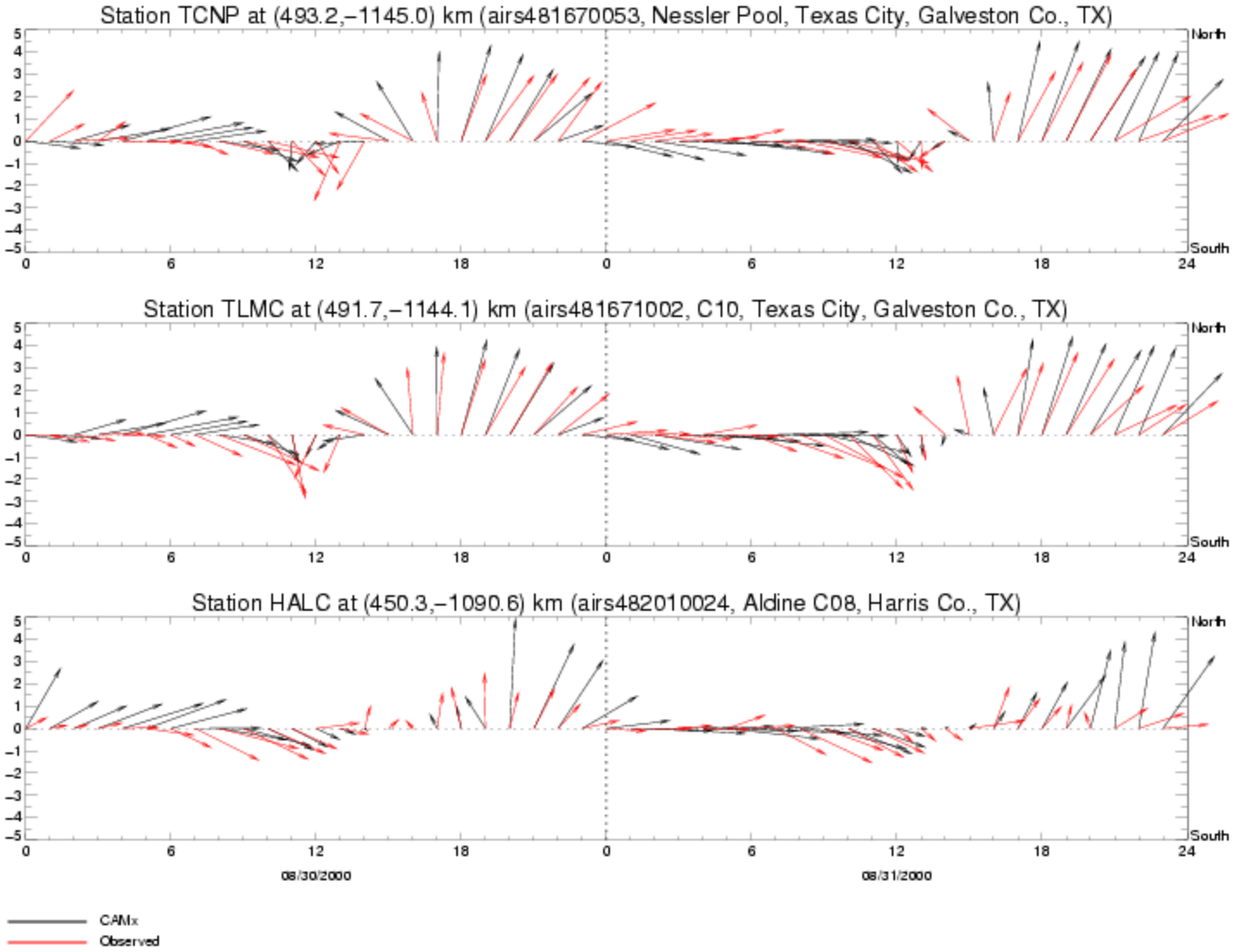


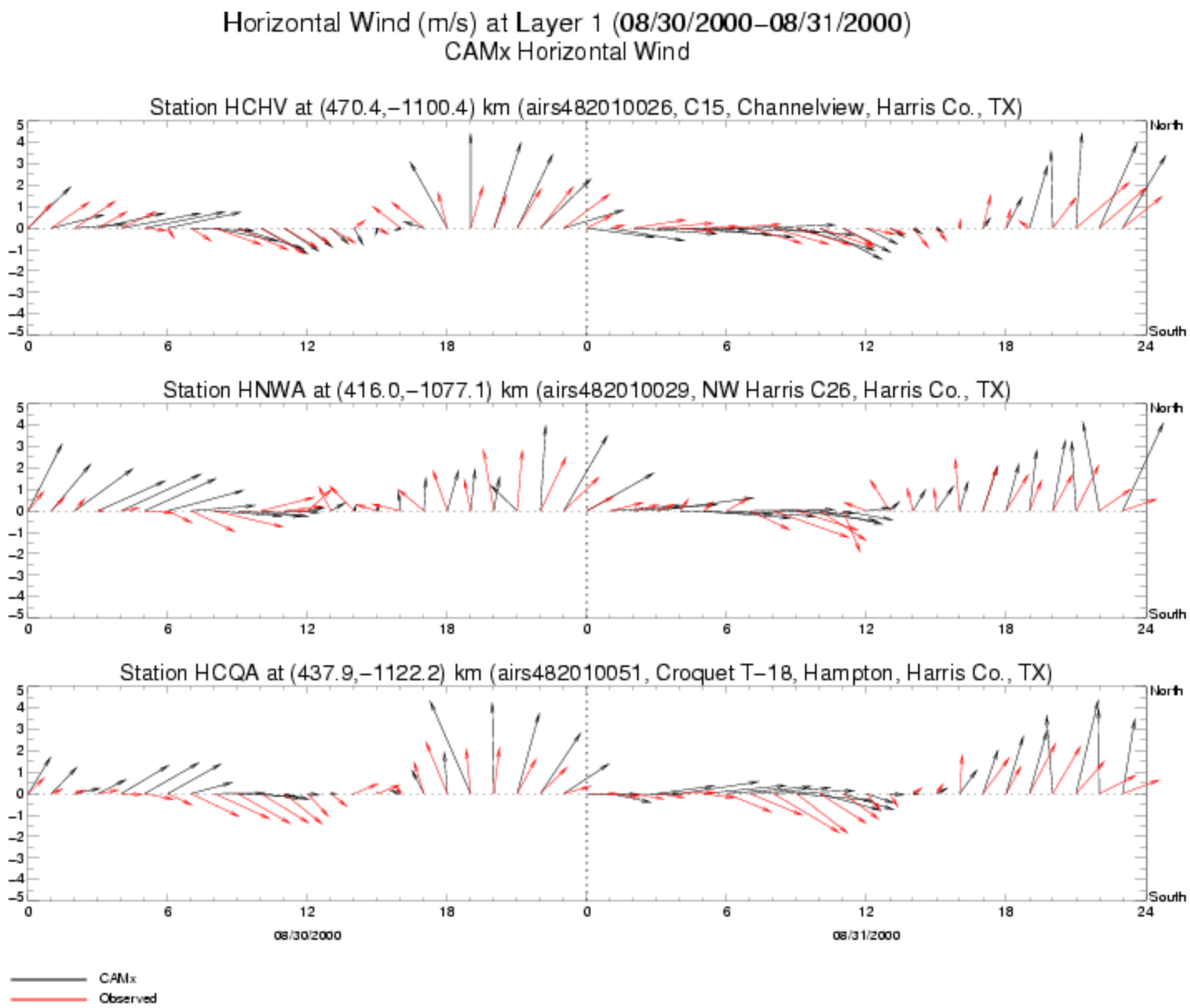

Horizontal Wind (m/s) at Layer 1 (08/22/2000–09/01/2000)
CAMx Horizontal Wind
Station HOEA at (461.4,–1104.8) km (airs482011034, Houston East C01, Hampton, Harris Co., TX)
Station C35C at (458.2,–1108.8) km (airs482011035, Clinton, Hampton, Harris Co., TX)
Station DRPK at (471.0,–1115.2) km (airs482011039, Deer Park C35, Deer Park, Harris Co., TX)
North
South
08/22/2000
08/23/2000
08/24/2000
08/25/2000
08/26/2000
08/27/2000
08/28/2000
08/29/2000
08/30/2000
08/31/2000
09/01/2000
CAMx
Observed

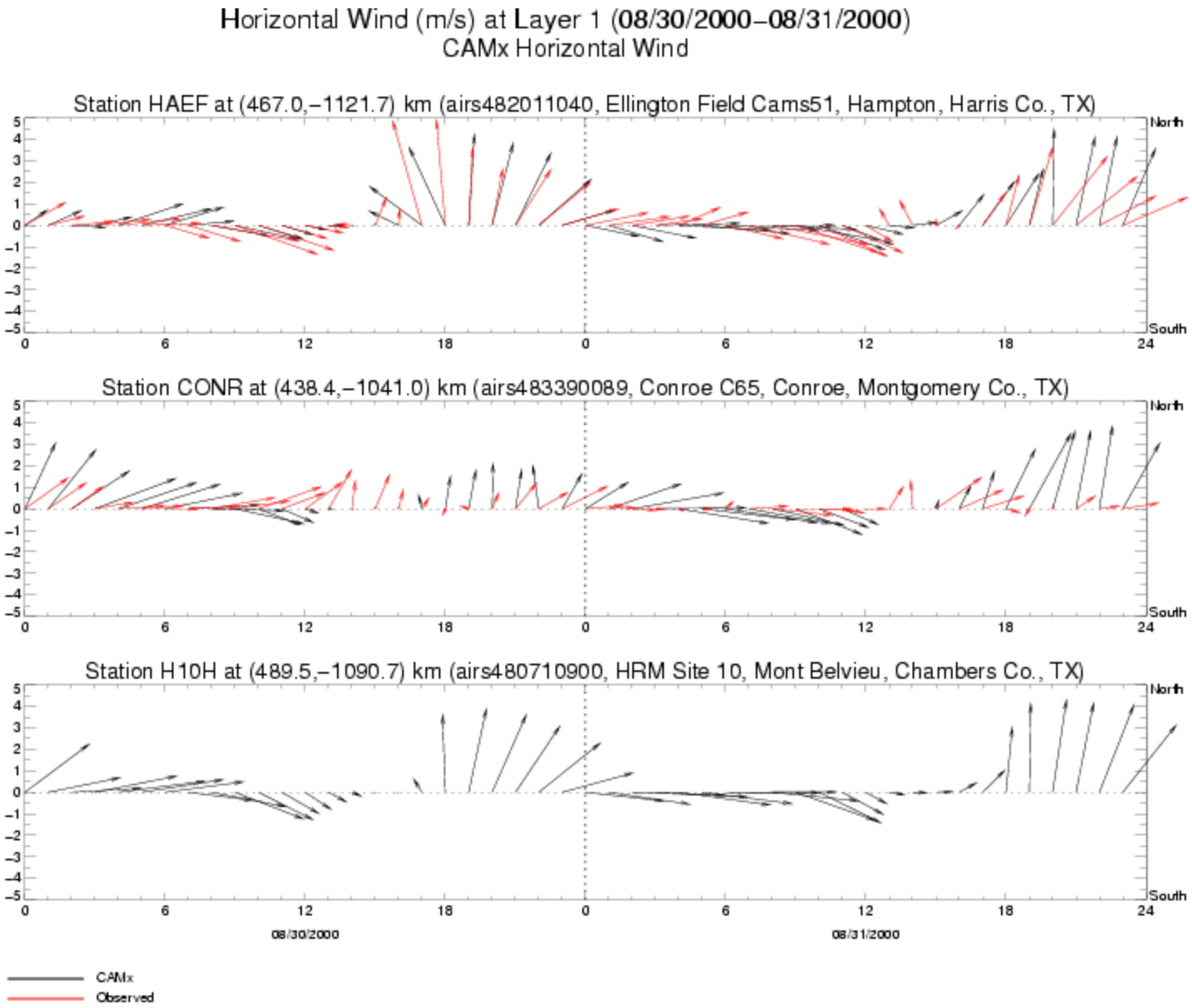

Horizontal Wind (m/s) at Layer 1 (08/30/2000–08/31/2000)
CAMx Horizontal Wind
Station HOEA at (461.4,–1104.8) km (airs482011034, Houston East C01, Hampton, Harris Co., TX)
Station C35C at (458.2,–1108.8) km (airs482011035, Clinton, Hampton, Harris Co., TX)
Station DRPK at (471.0,–1115.2) km (airs482011039, Deer Park C35, Deer Park, Harris Co., TX)
North
South
08/30/2000
08/31/2000
CAMx
Observed


Horizontal Wind (m/s) at Layer 1 (08/30/2000–08/31/2000)
CAMx Horizontal Wind
Station CLTA at (449.1,–1190.0) km (airs480391003, Clute C11, Clute, Brazoria Co., TX)
Station TEXC at (492.0,–1145.6) km (airs481670005, Texas City, Galveston Co., TX)
Station GALC at (500.2,–1158.7) km (airs481670014, Galveston C34, Galveston, Galveston Co., TX)
North
South
08/30/2000
08/31/2000
CAMx
Observed

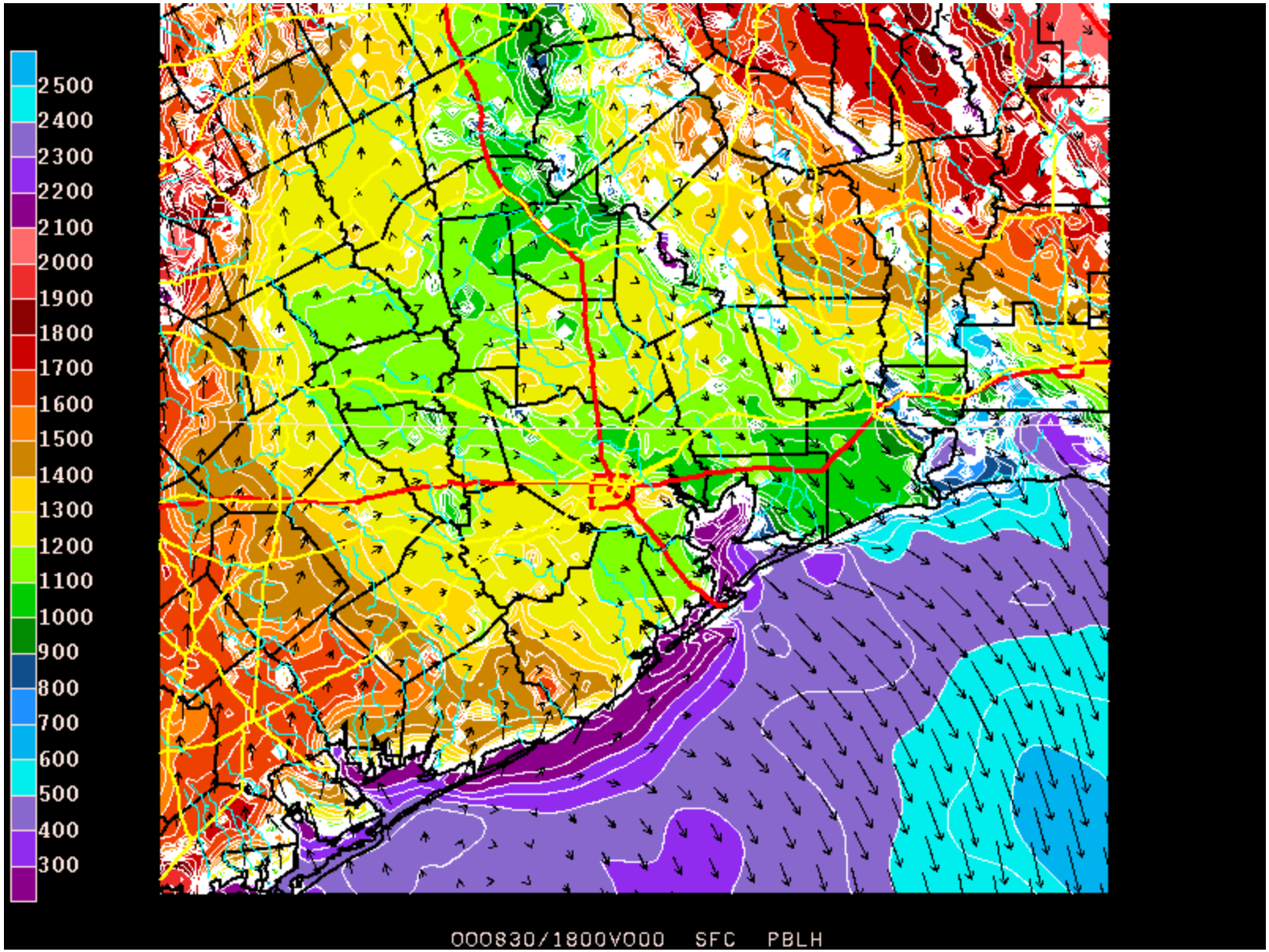
Horizontal Wind (m/s) at Layer 1 (08/30/2000–08/31/2000)
CAMx Horizontal Wind



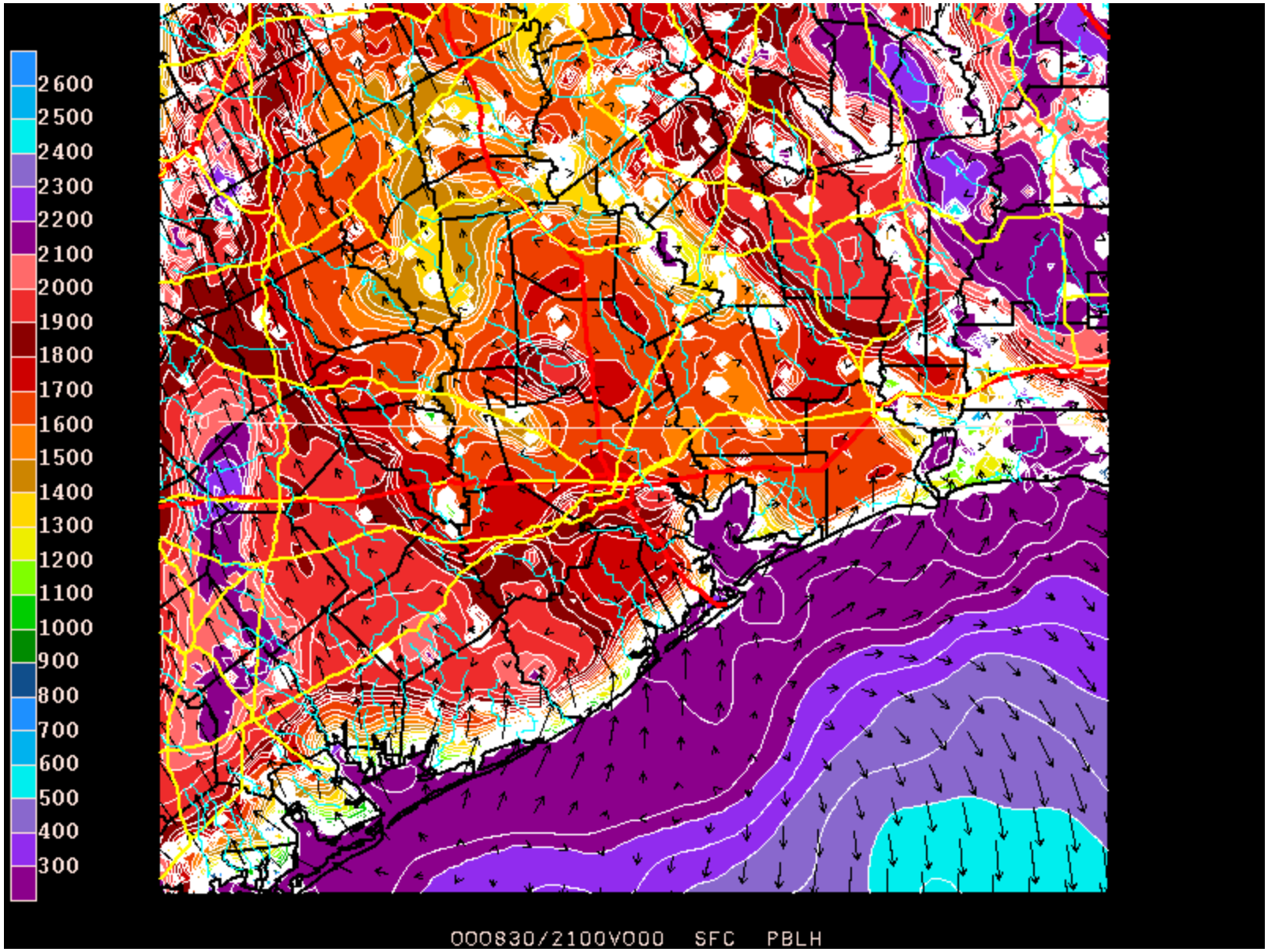

Horizontal Wind (m/s) at Layer 1 (08/30/2000–08/31/2000)
CAMx Horizontal Wind
Station HCHV at (470.4,–1100.4) km (airs482010026, C15, Channelview, Harris Co., TX)
Station HNWA at (416.0,–1077.1) km (airs482010029, NW Harris C26, Harris Co., TX)
Station HCQA at (437.9,–1122.2) km (airs482010051, Croquet T–18, Hampton, Harris Co., TX)
North
South
08/30/2000
08/31/2000
CAMx
Observed


Horizontal Wind (m/s) at Layer 1 (08/30/2000–08/31/2000)
CAMx Horizontal Wind
Station HAEF at (467.0,–1121.7) km (airs482011040, Ellington Field Cams51, Hampton, Harris Co., TX)
Station CONR at (438.4,–1041.0) km (airs483390089, Conroe C65, Conroe, Montgomery Co., TX)
Station H10H at (489.5,–1090.7) km (airs480710900, HRM Site 10, Mont Belvieu, Chambers Co., TX)
North
South
08/30/2000
08/31/2000
CAMx
Observed

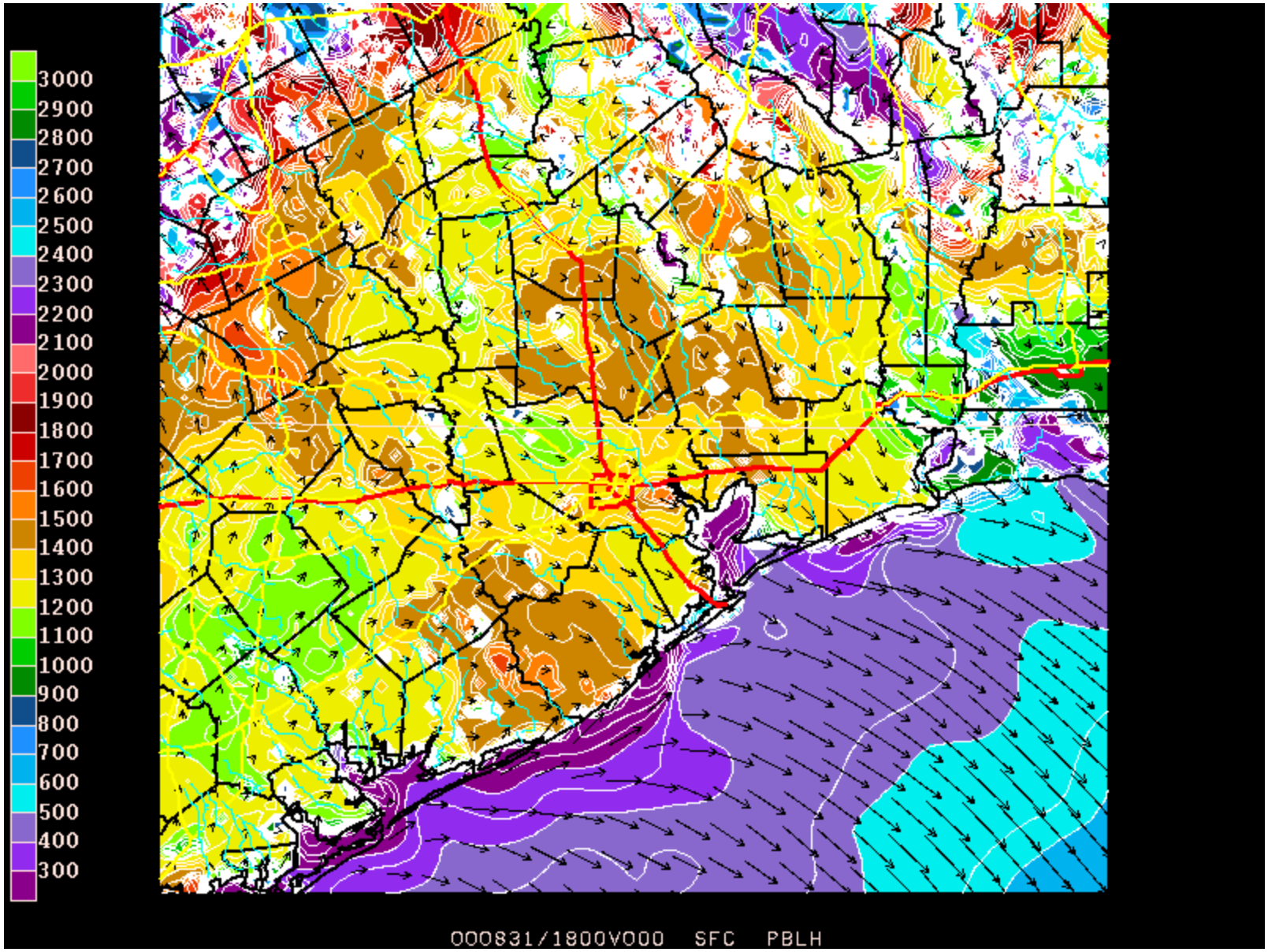
GOES MM5 PBL Height
August 30 12 PM CST



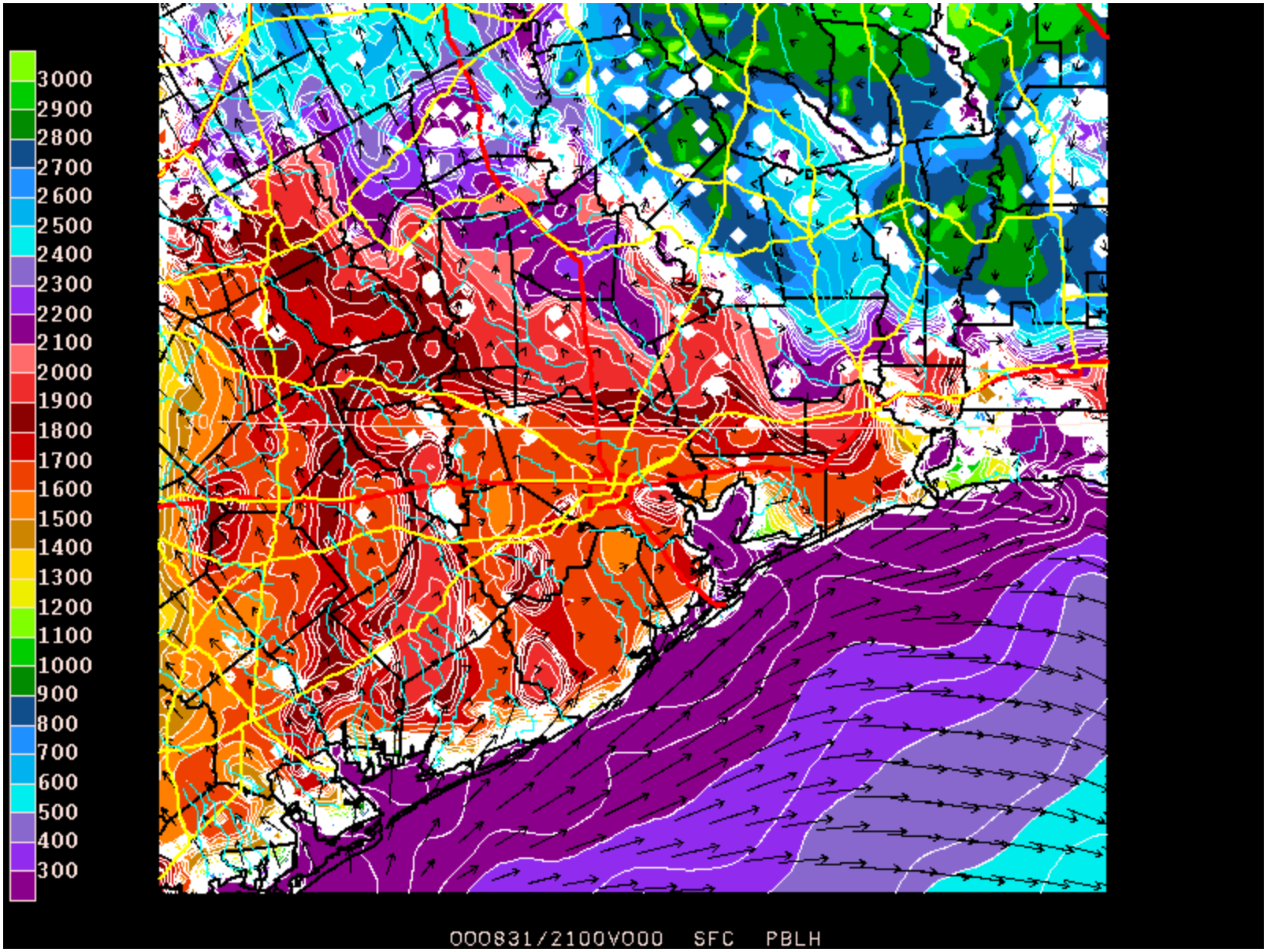
GOES MM5 PBL Height
August 30 3 PM CST



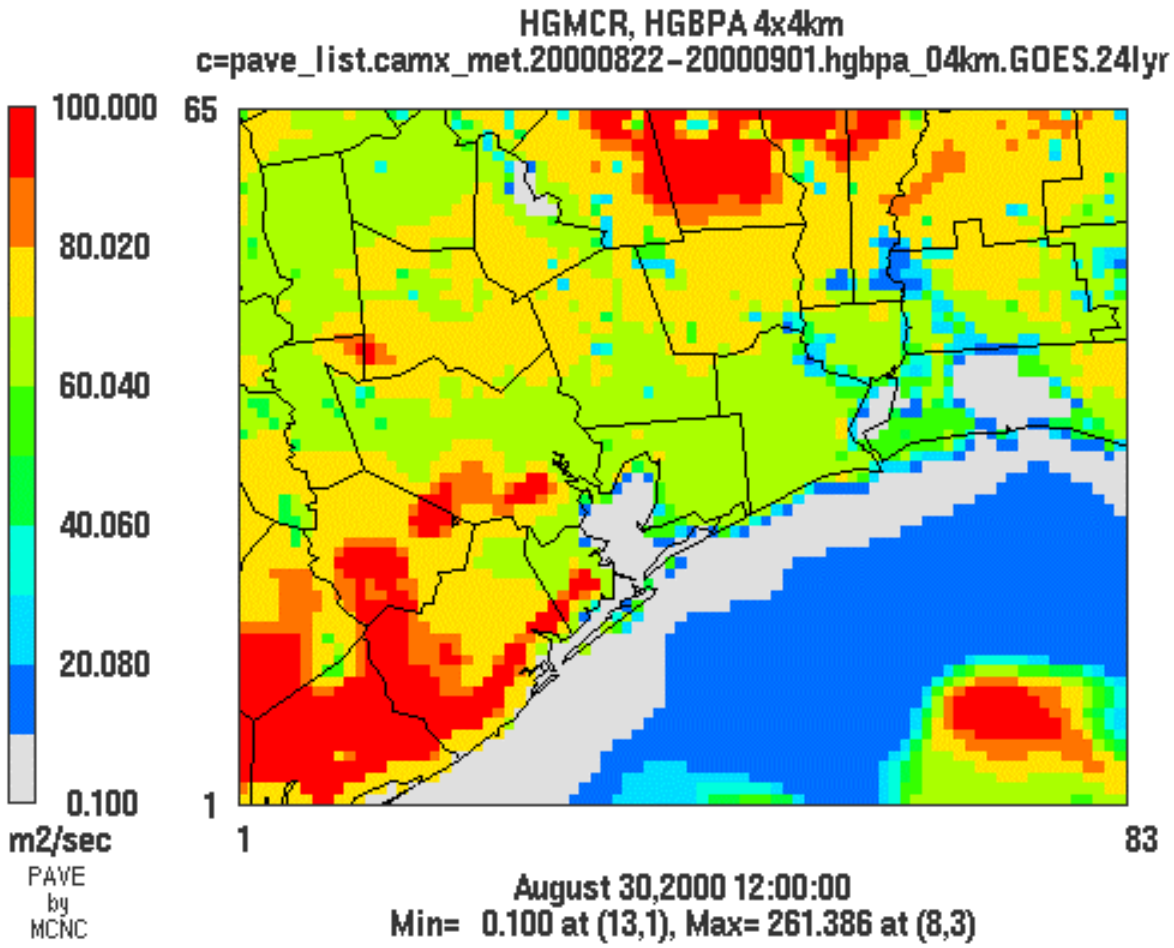
GOES MM5 PBL Height
August 31 12 PM CST



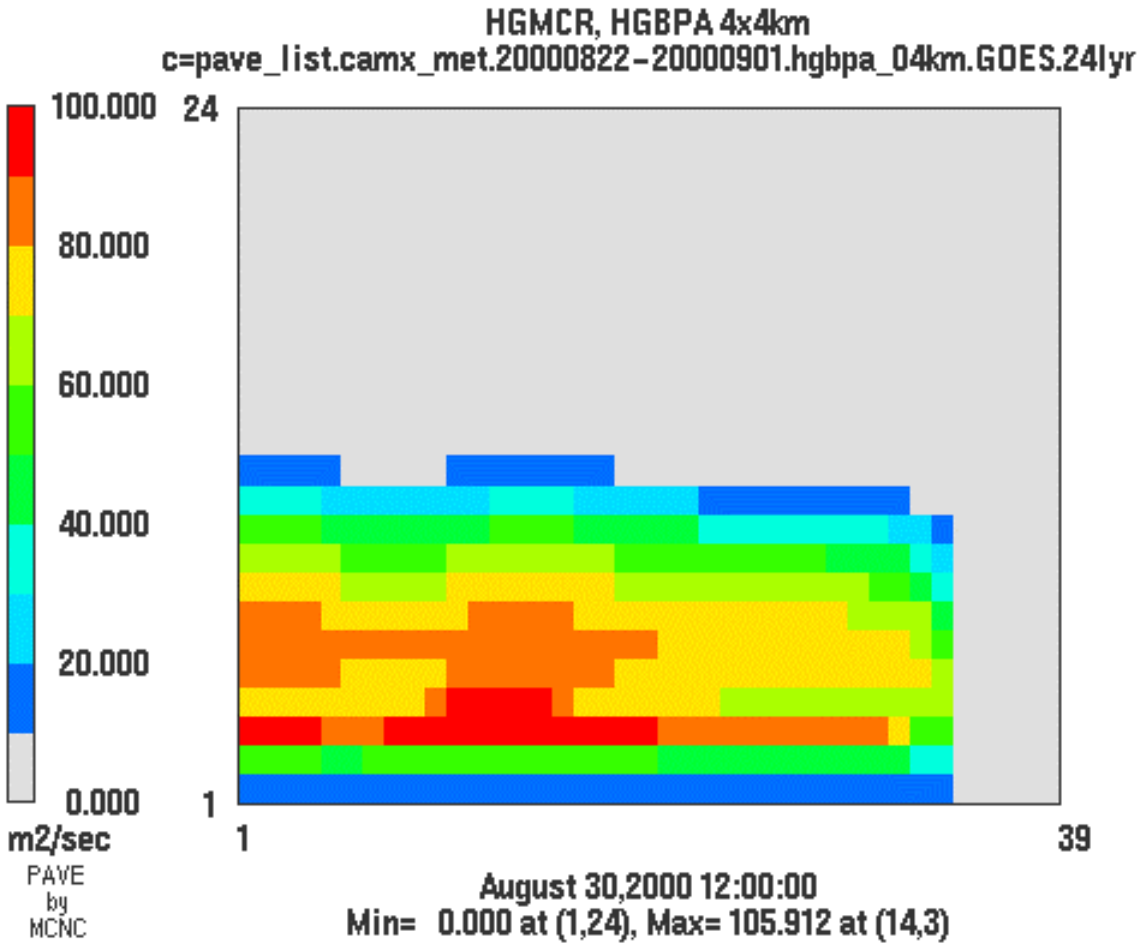
GOES MM5 PBL Height
August 31 3 PM CST



Layer 4 KVc


HGMCR, HGBPA 4x4km
c=pave_list.camx_met.20000822-20000901.hgbpa_04km.GOES.24lyr
100.000
80.020
60.040
40.060
20.080
0.100
m2/sec
65
1
1
83
PAVE
by
MCNC
August 30,2000 12:00:00
Min= 0.100 at (13,1), Max= 261.386 at (8,3)

Row 24 KVc


HGMCR, HGBPA 4x4km
c=pave_list.camx_met.20000822-20000901.hgbpa_04km.GOES.24lyr
100.000
80.000
60.000
40.000
20.000
0.000
m2/sec
24
1
1
39
PAVE
by
MCNC
August 30,2000 12:00:00
Min= 0.000 at (1,24), Max= 105.912 at (14,3)