2015 NOAA Model Performance in Alabama

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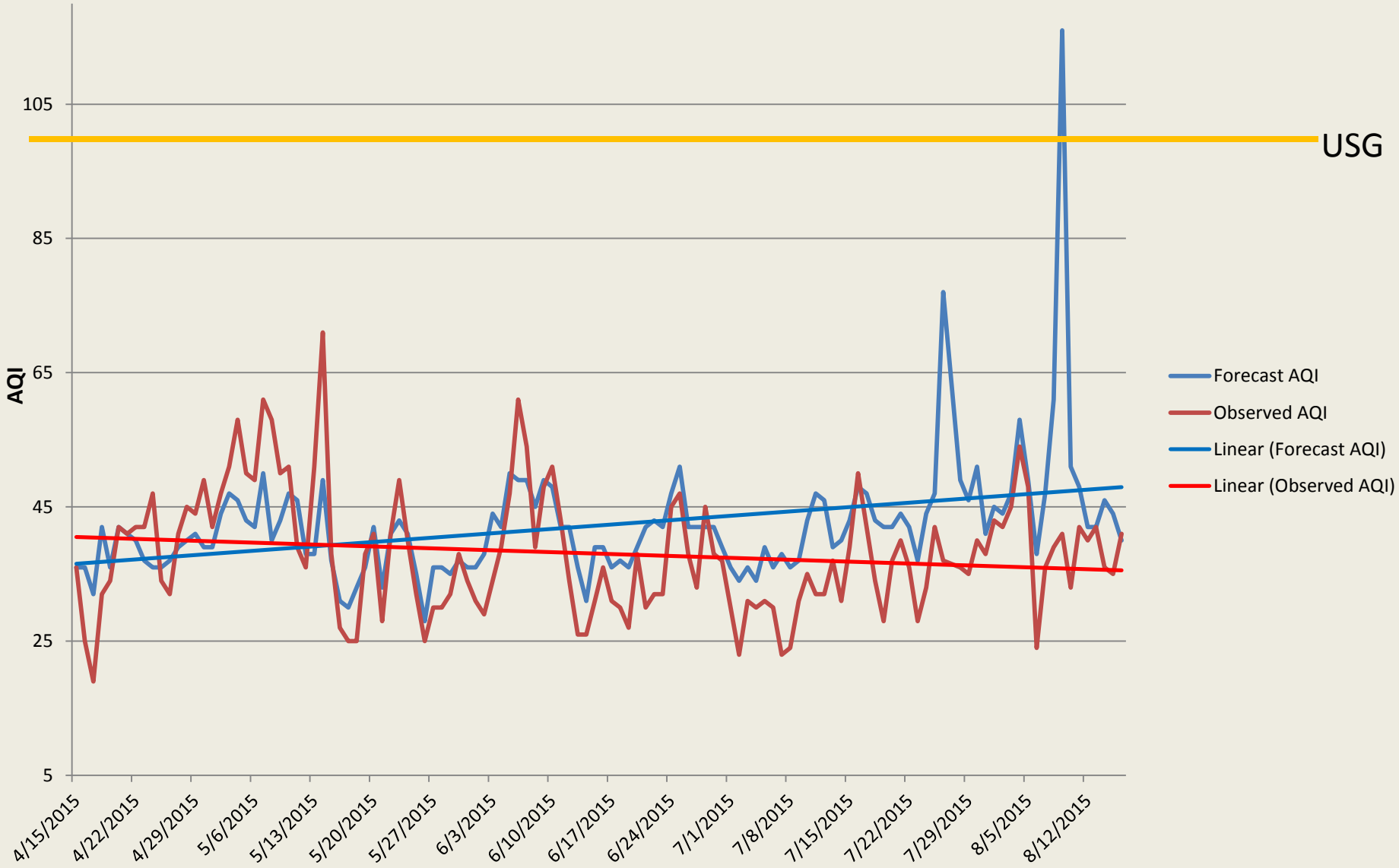
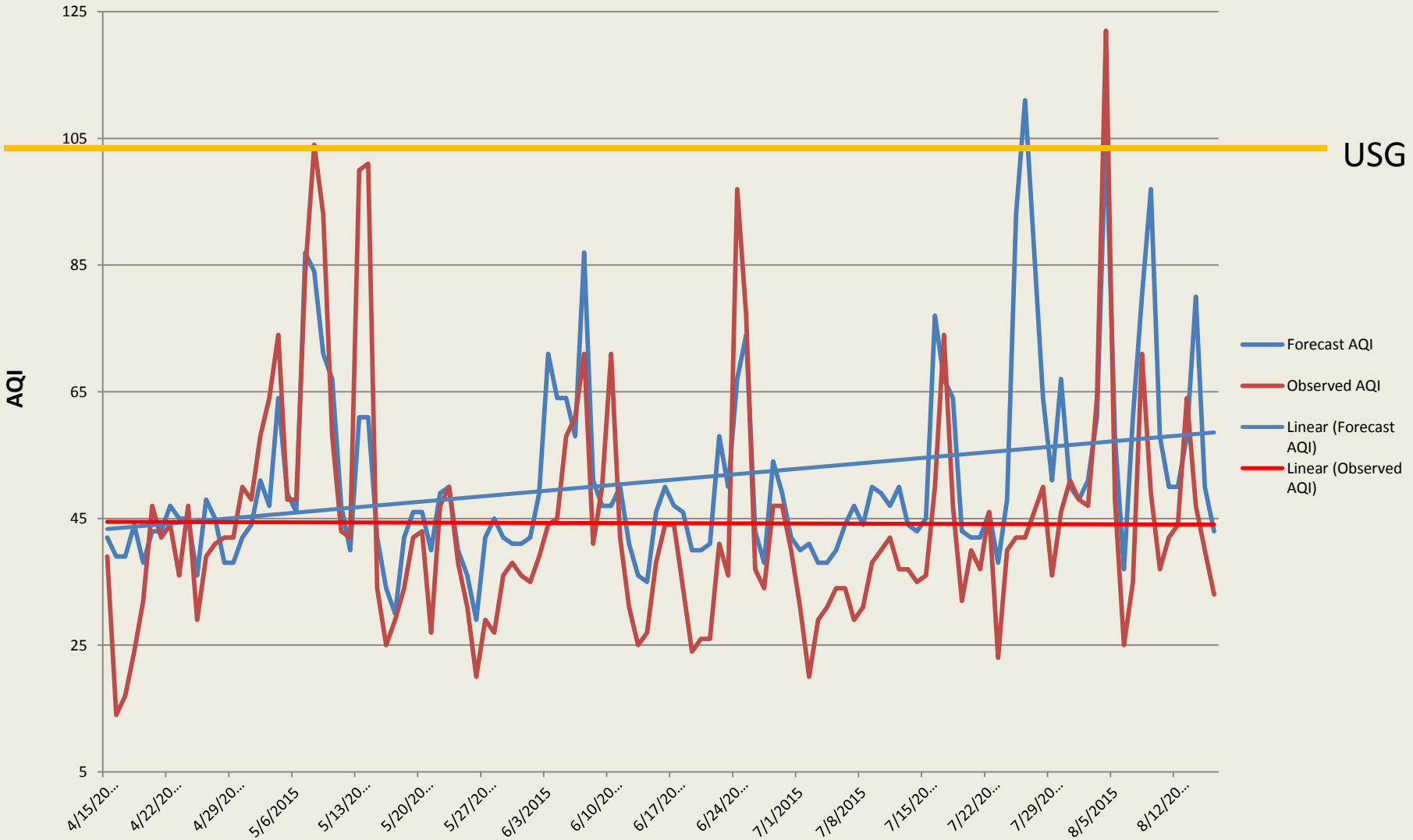
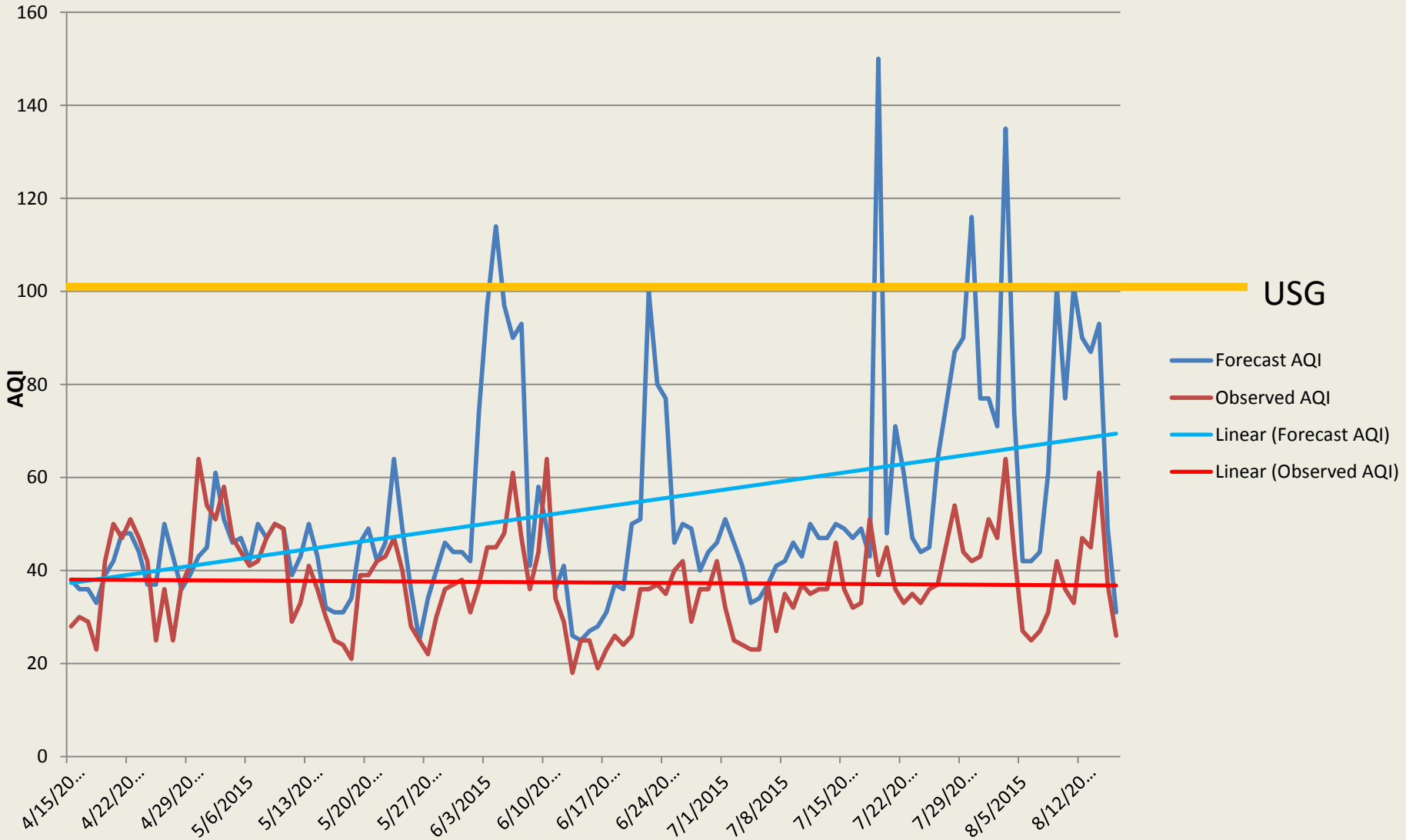
Huntsville Forecast vs. Observed



Birmingham Forecast vs. Observed



Mobile Forecast vs. Observed

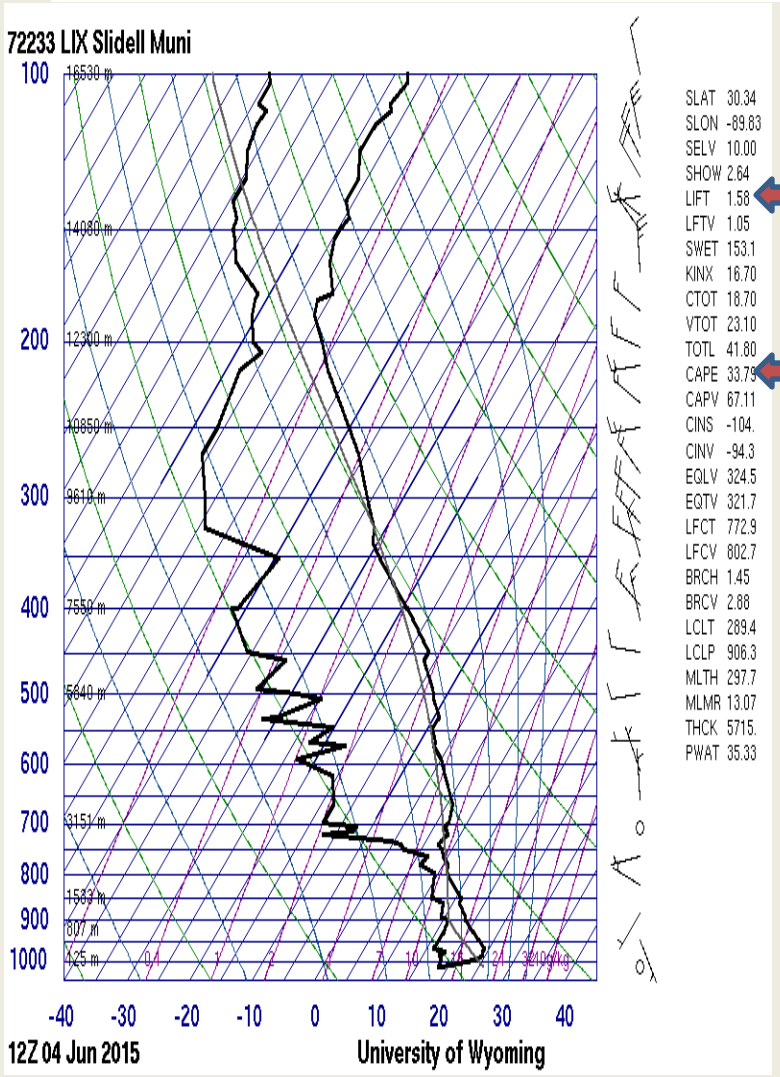


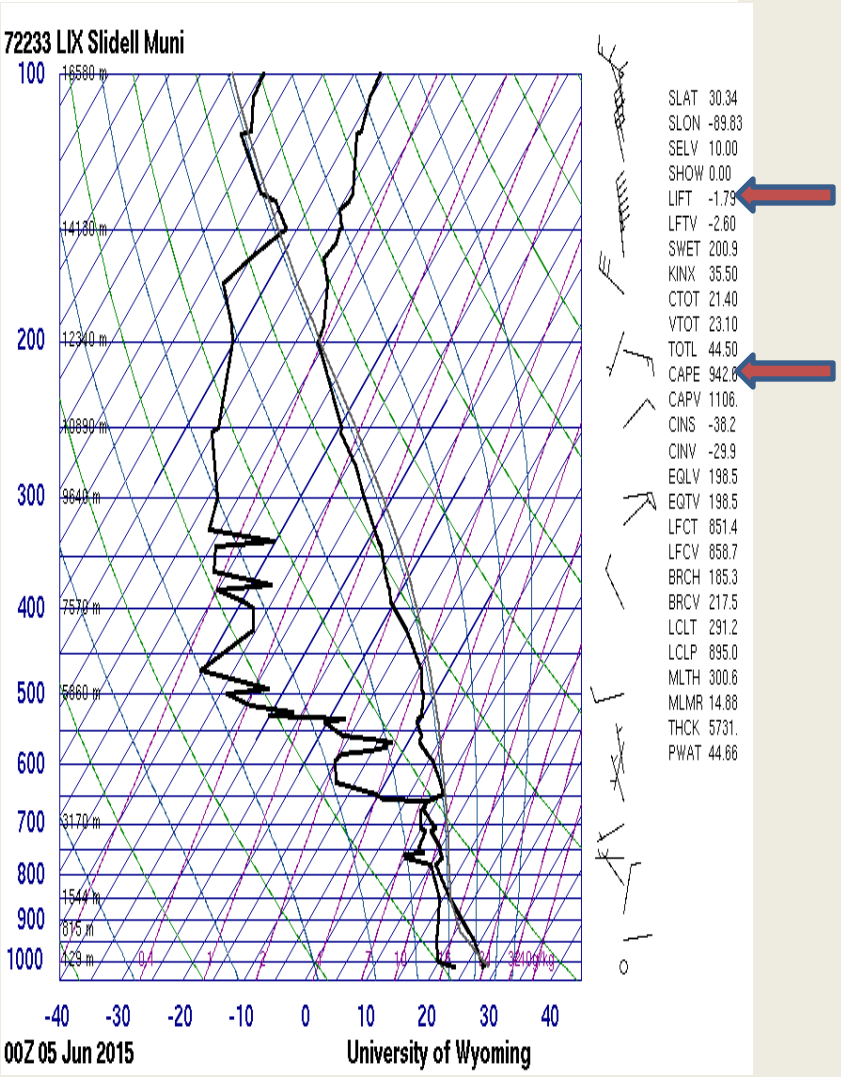
Model Statistics

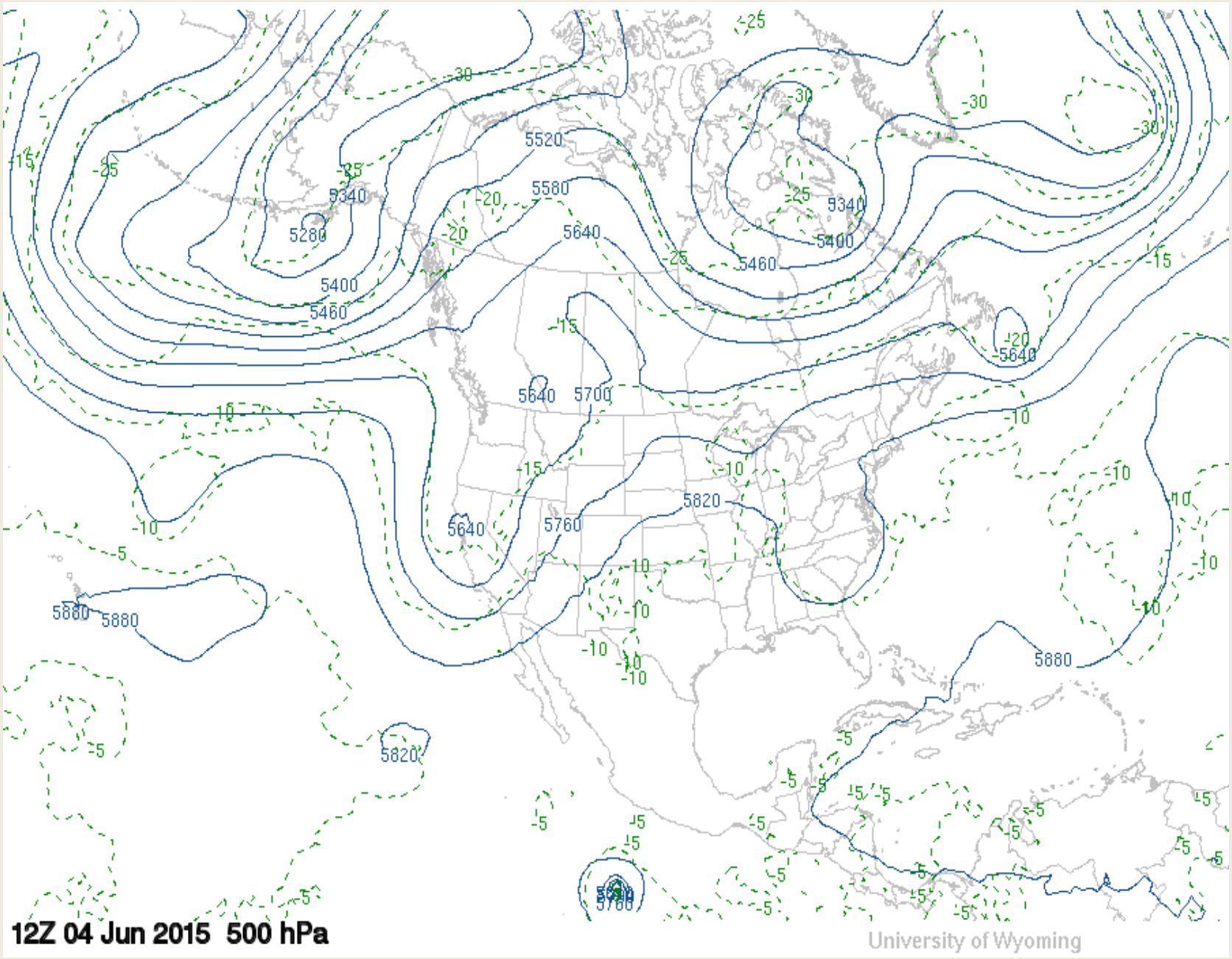
Forecast City	NOAA Model Percent Correct (Color Code)	NOAA Model Bias (AQI)	NOAA FAR
Huntsville	87%	0.64	100%
Birmingham	83%	1.71	50%
Mobile	74%	2.83	100%

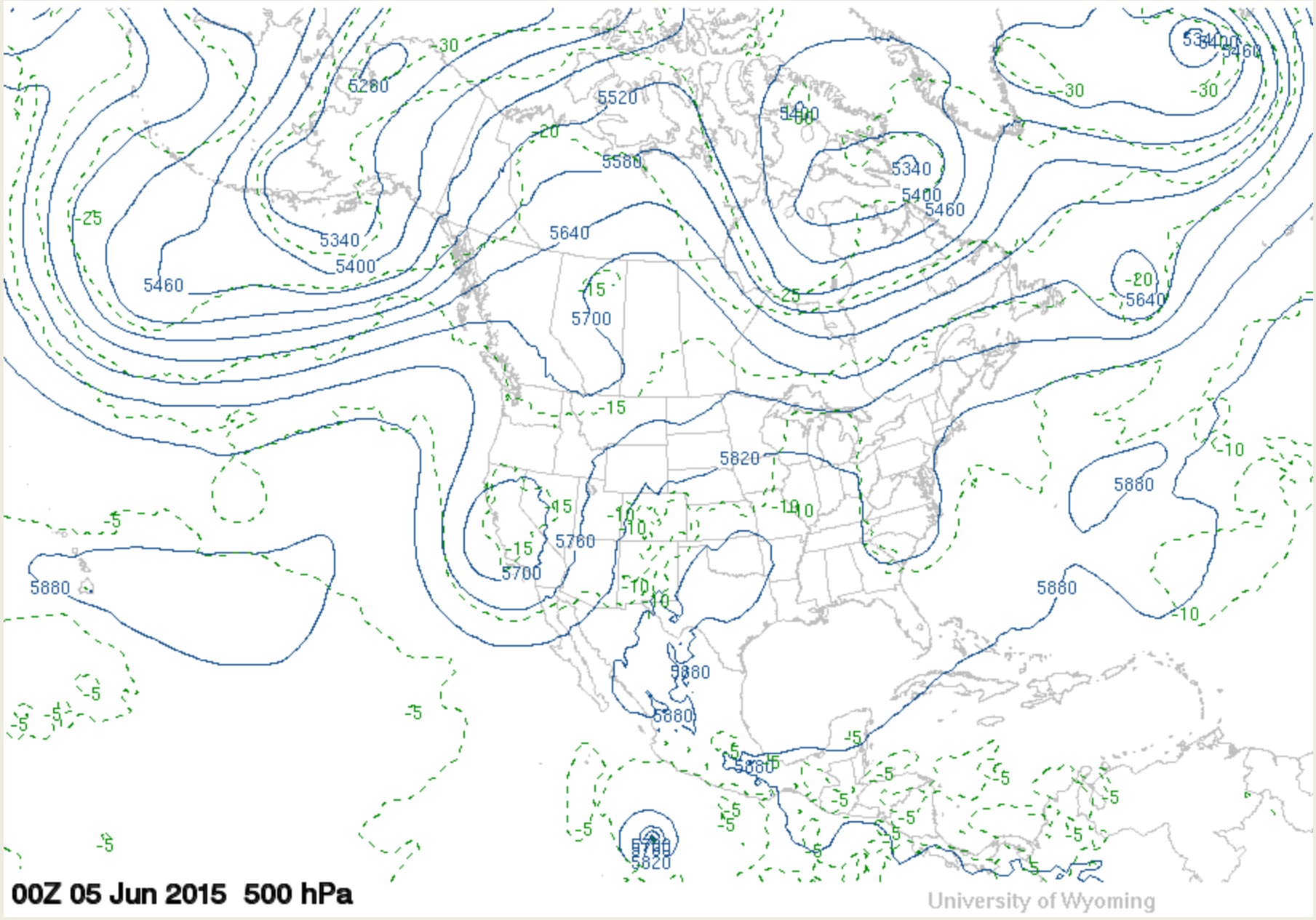
Case Study June 4, 2015
Mobile, Alabama

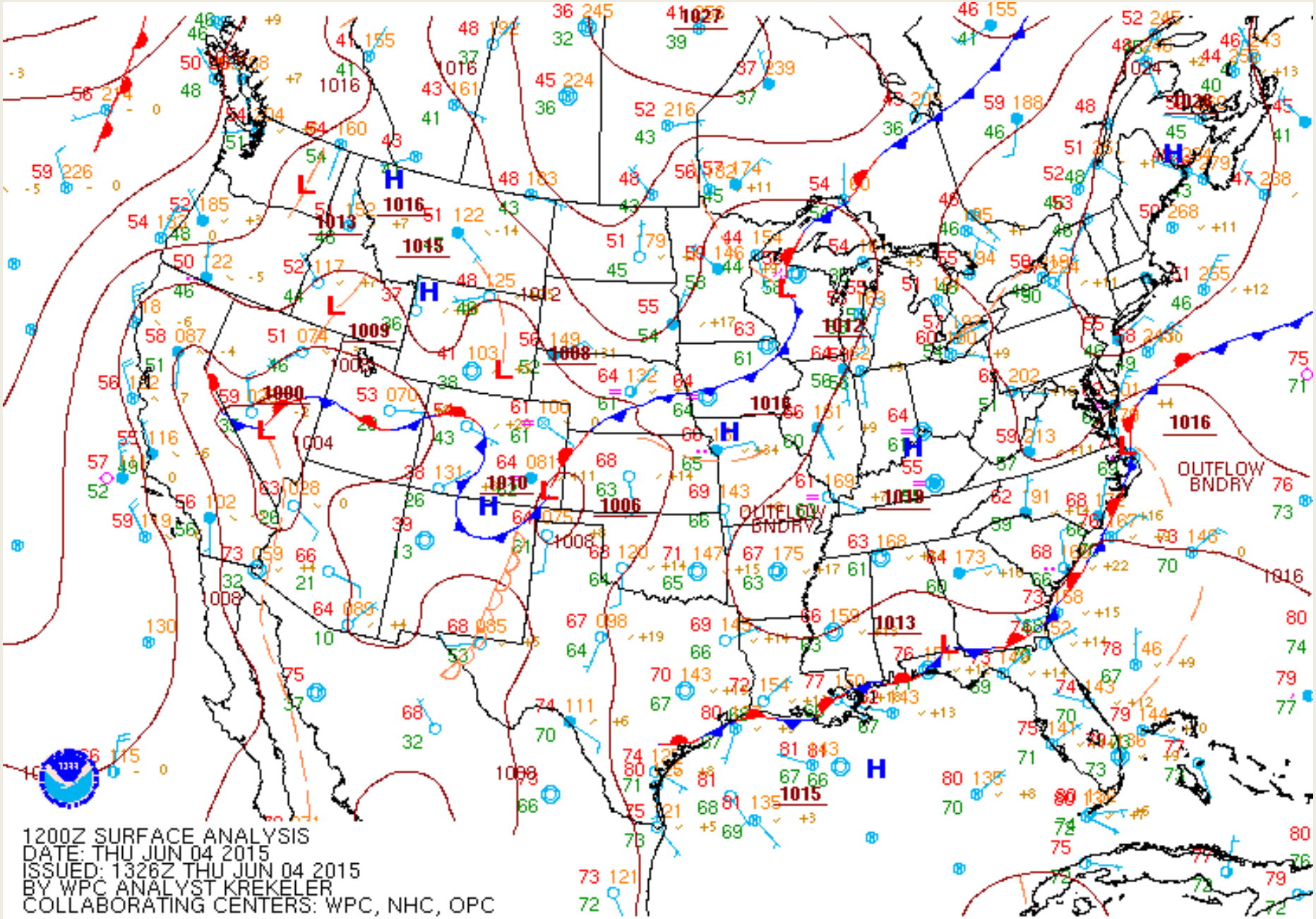
NOAA Forecast AQI for June 4 was 114

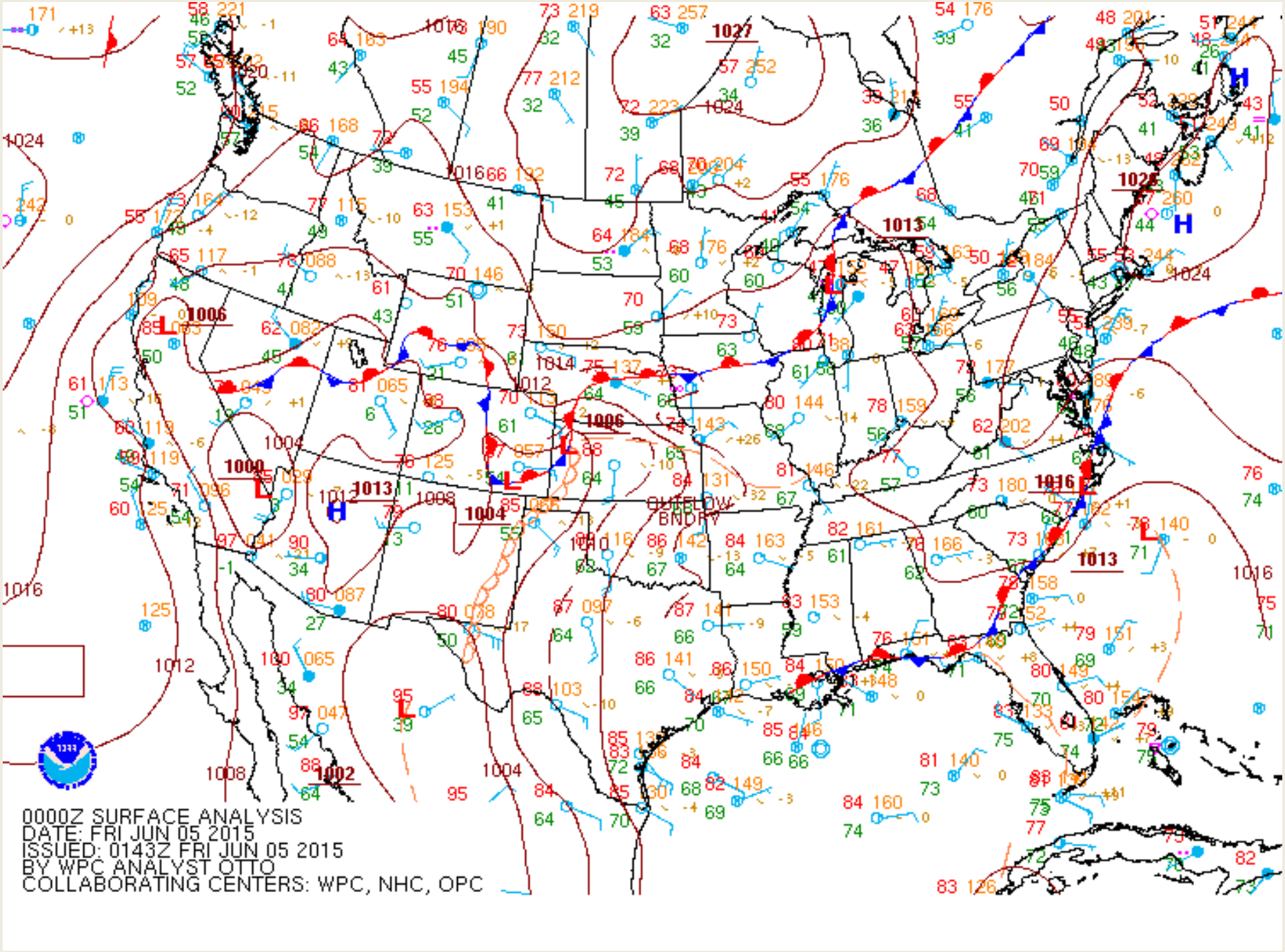


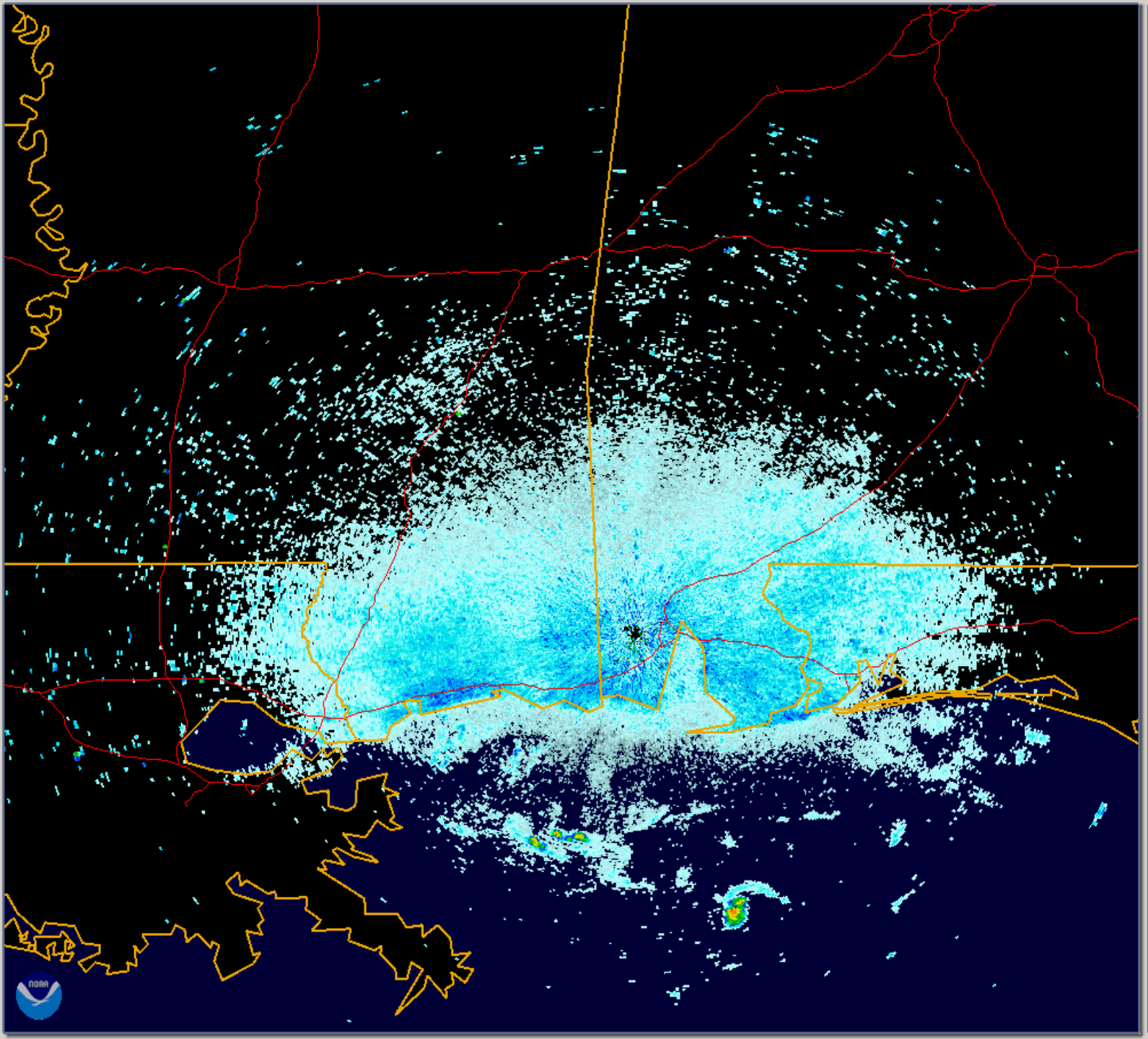



12Z 04 Jun 2015 500 hPa
University of Wyoming


00Z 05 Jun 2015 500 hPa
University of Wyoming


1200Z SURFACE ANALYSIS
DATE: THU JUN 04 2015
ISSUED: 1326Z THU JUN 04 2015
BY WPC ANALYST KREKELER
COLLABORATING CENTERS: WPC, NHC, OPC
OUTFLOW BNDRY
OUTFLOW BNDRY


0000Z SURFACE ANALYSIS
DATE: FRI JUN 05 2015
ISSUED: 0143Z FRI JUN 05 2015
BY WPC ANALYST OTTO
COLLABORATING CENTERS: WPC, NHC, OPC



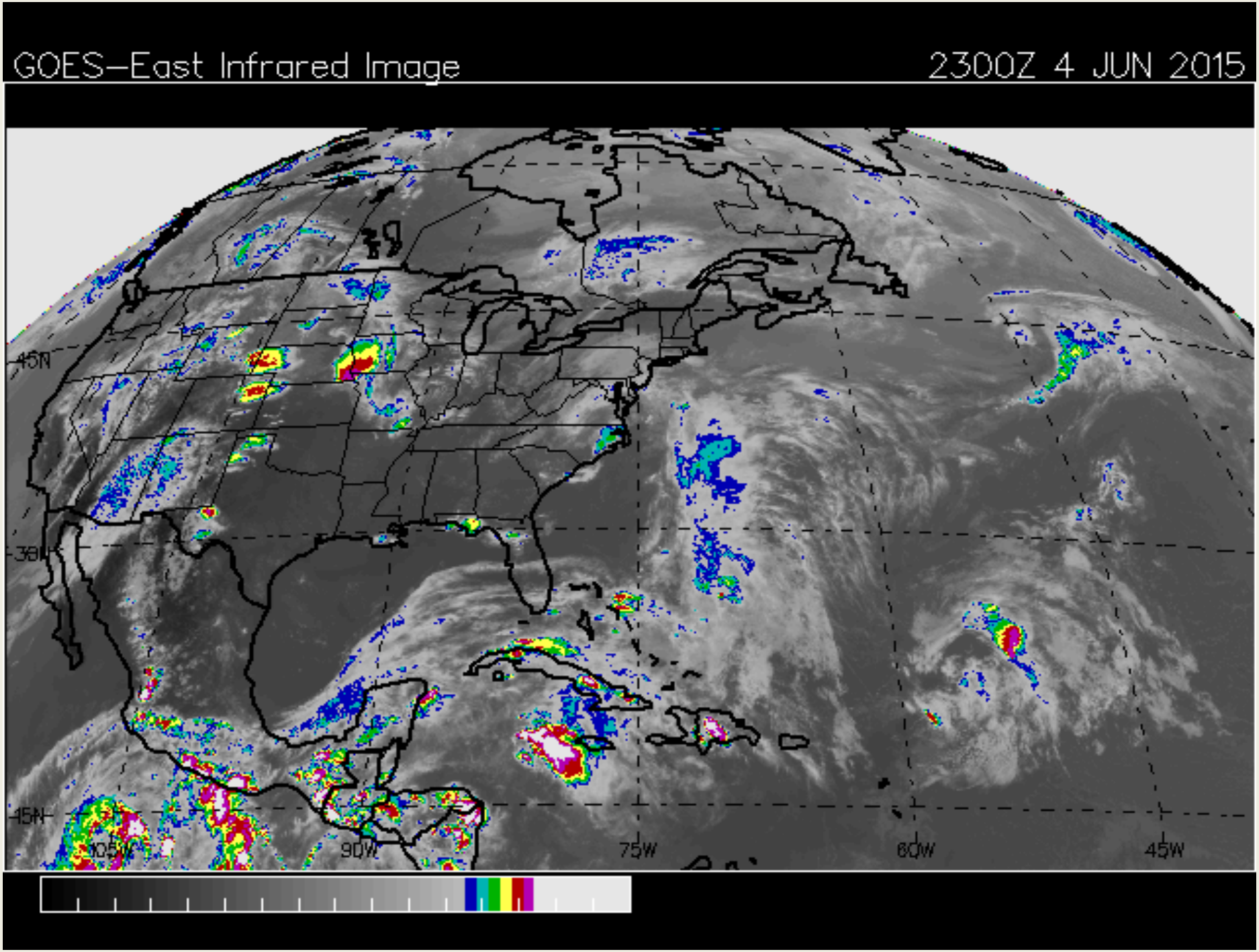
NEXRAD LEVEL-II
KMOB - MOBILE, AL
06/04/2015 12:04:55 GMT
LAT: 30/40/46 N
LON: 88/14/23 W
ELEV: 208 FT
VCP: 31

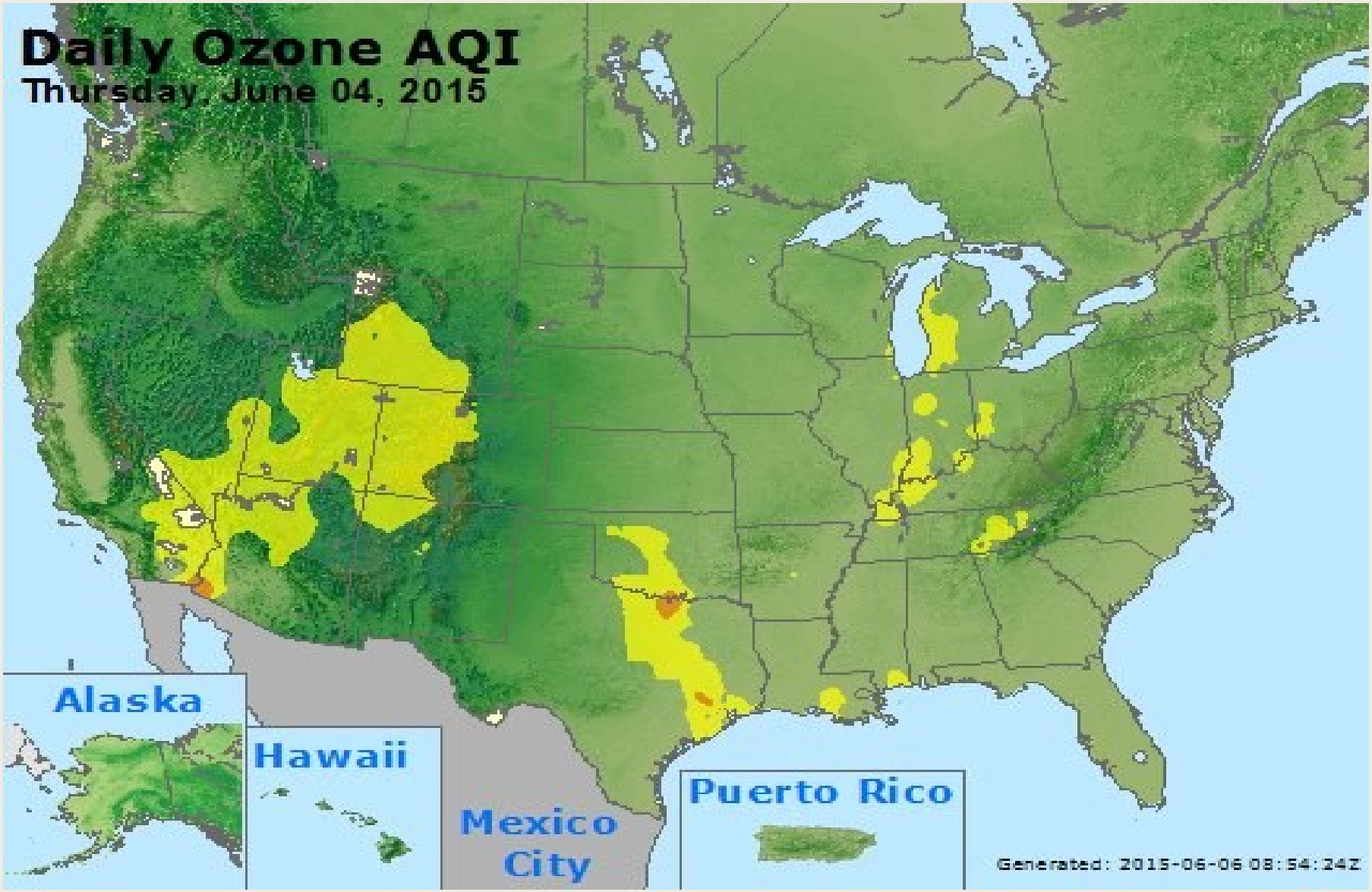
REFLECTIVITY
ELEV ANGLE: 0.58
SWEEP TIME: 12:05:12 GMT

Legend: dBZ

75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25

RF


GOES-East Infrared Image
2300Z 4 JUN 2015
45N
30N
15N
105W
90W
75W
60W
45W



Observed for June 4 was an AQI of *45*

Gulf Coast AQI 6/4-6/7/2015

Agency	City	Date	NOAA AQI	Observed AQI
Mississippi DEQ	Mississippi Gulf Coast	6/4/2015	116	64
Mississippi DEQ	Mississippi Gulf Coast	6/5/2015	104	58
Mississippi DEQ	Mississippi Gulf Coast	6/6/2015	137	47
Mississippi DEQ	Mississippi Gulf Coast	6/7/2015	109	50
Louisiana Department of Environmental Quality	New Orleans	6/4/2015	151	49
Louisiana Department of Environmental Quality	New Orleans	6/5/2015	150	67
Louisiana Department of Environmental Quality	New Orleans	6/6/2015	129	46
Louisiana Department of Environmental Quality	New Orleans	6/7/2015	142	47
Florida Dept. of Environmental Protection	Pensacola	6/4/2015	93	48
Florida Dept. of Environmental Protection	Pensacola	6/5/2015	87	43
Florida Dept. of Environmental Protection	Pensacola	6/6/2015	124	47
Florida Dept. of Environmental Protection	Pensacola	6/7/2015	137	43
Alabama Department of Environmental Management	Mobile	6/4/2015	114	45
Alabama Department of Environmental Management	Mobile	6/5/2015	97	48
Alabama Department of Environmental Management	Mobile	6/6/2015	90	61
Alabama Department of Environmental Management	Mobile	6/7/2015	93	47

Conclusions

- The NOAA model did a decent job of forecasting for Alabama over the summer of 2015.
- As you progress farther south in Alabama, the forecast tends to be less accurate as you approach the Gulf of Mexico.
- We believe there needs to be more emphasis placed on dew point and land/sea breeze interaction along the coast.