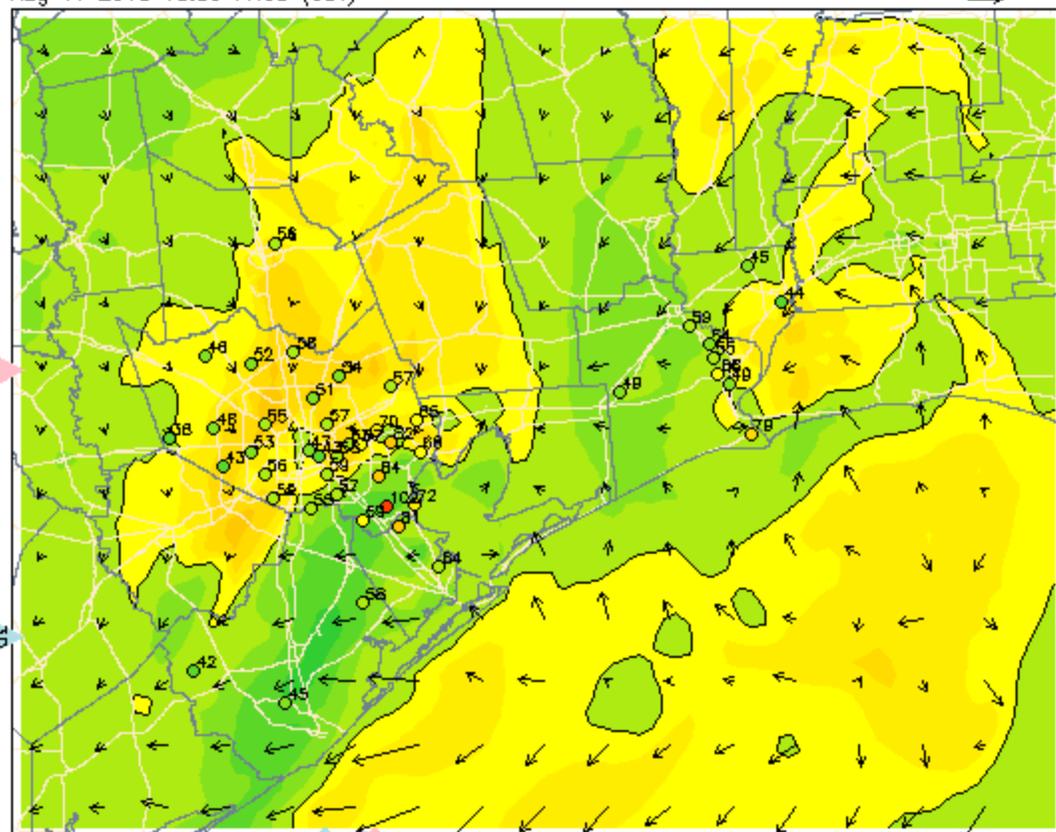
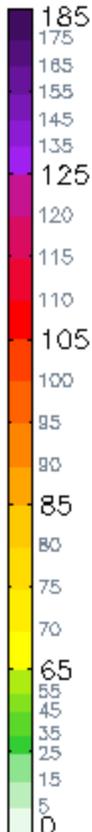


# Houston Ozone Model Forecasts

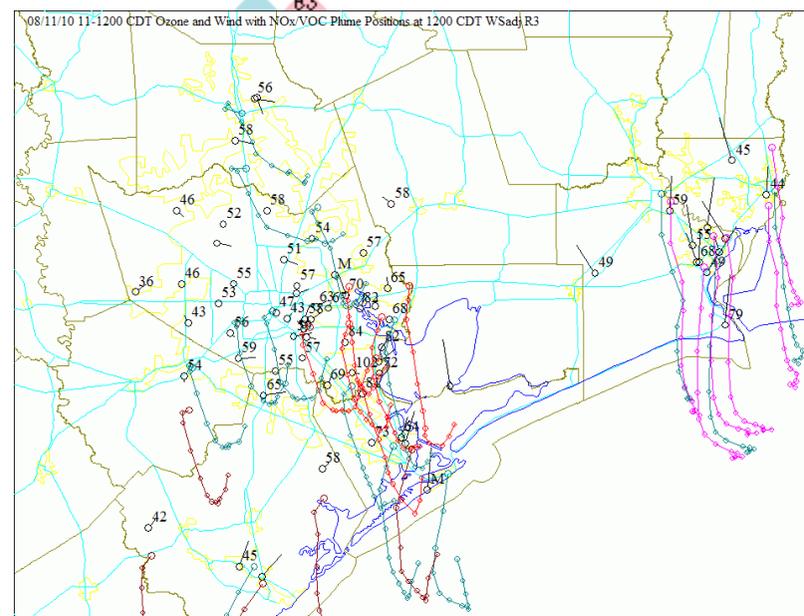
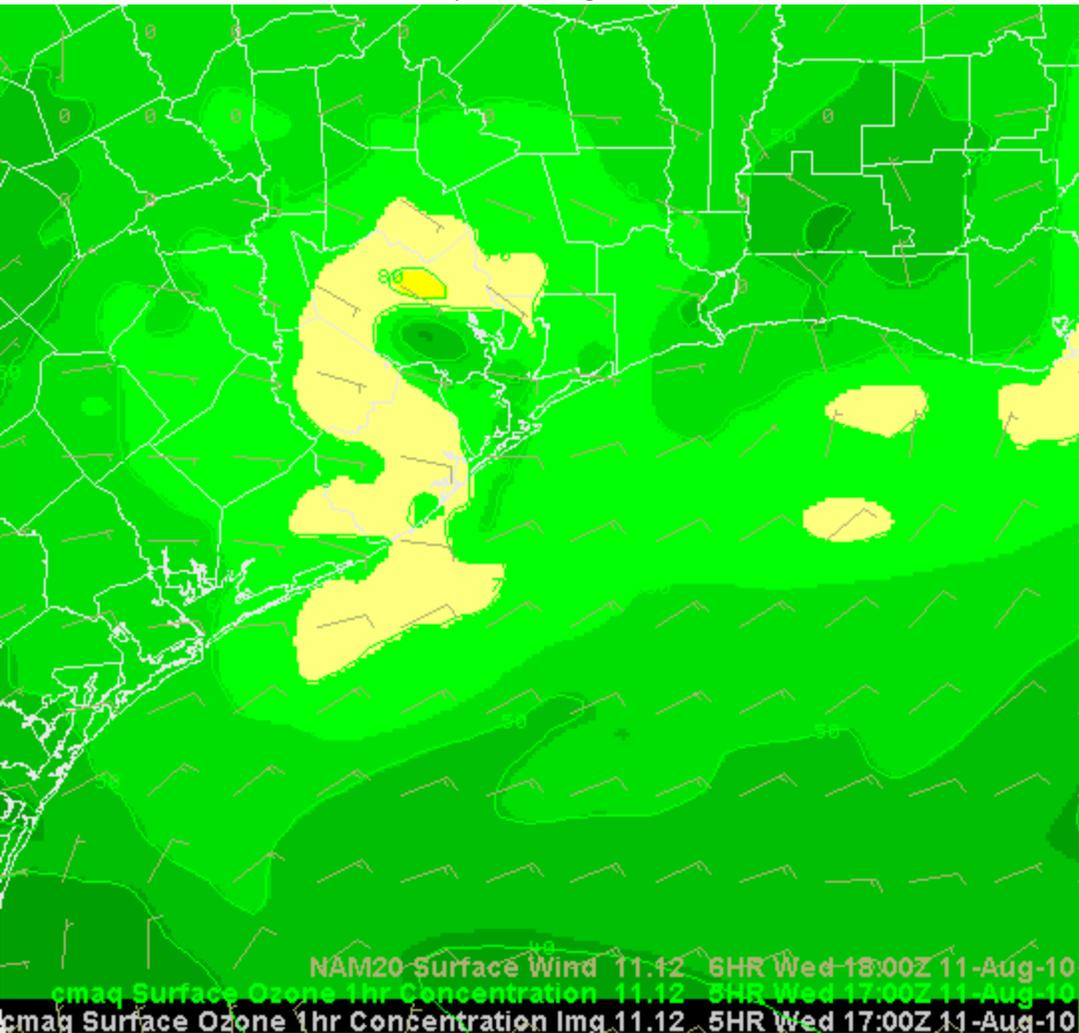
For August 11, 2010

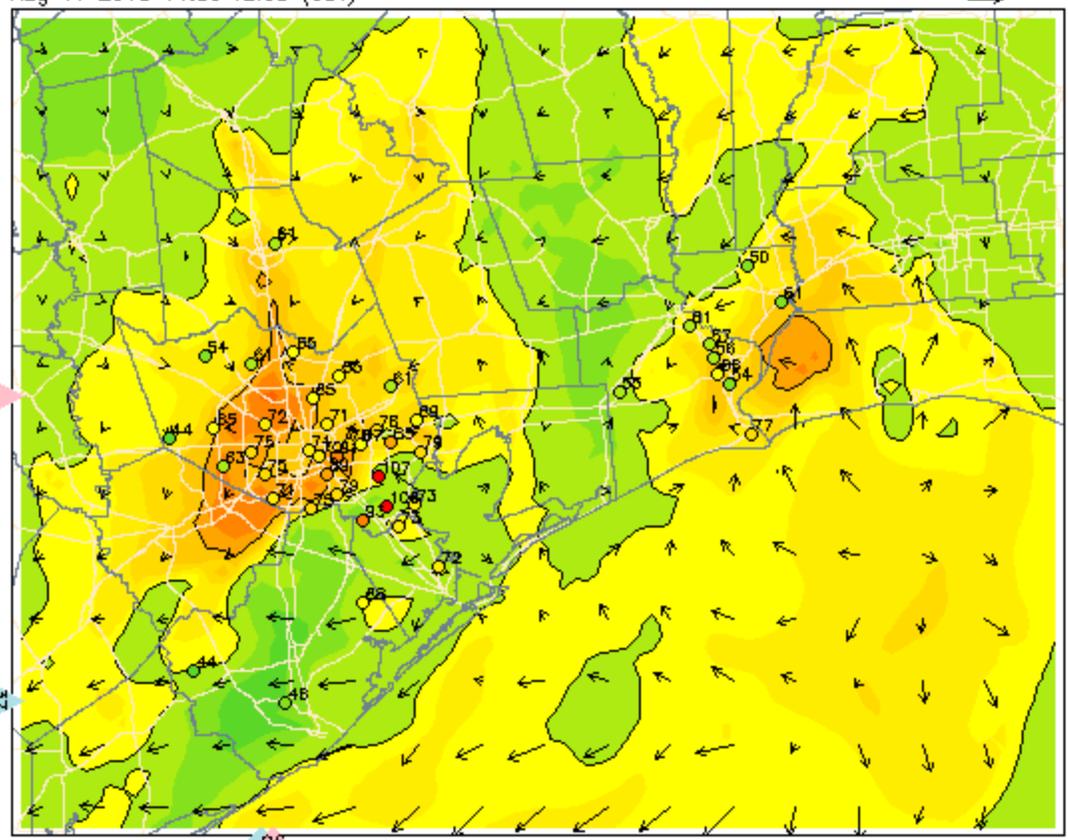
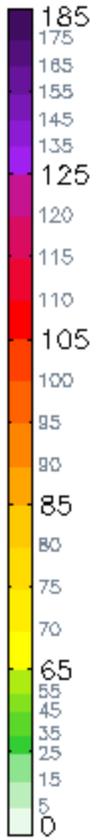
Prepared by Bryan Lambeth

TCEQ FOSD

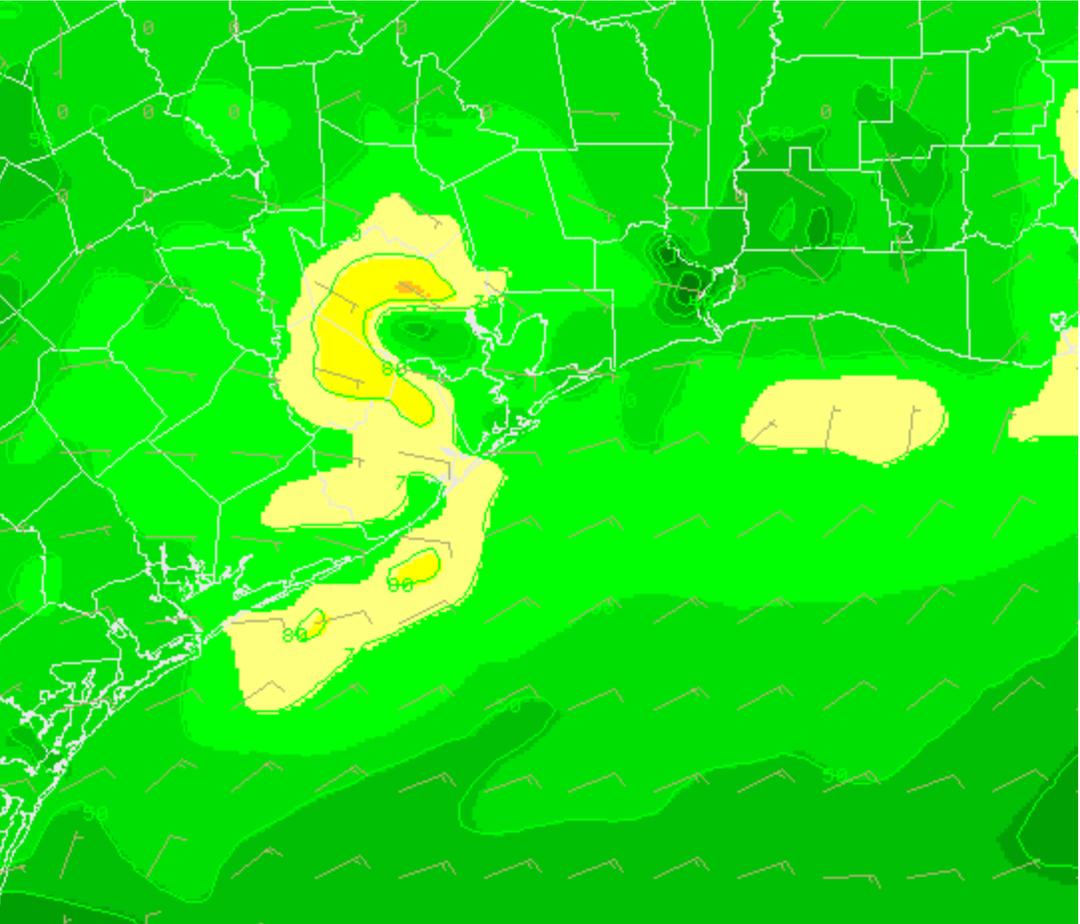


NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise

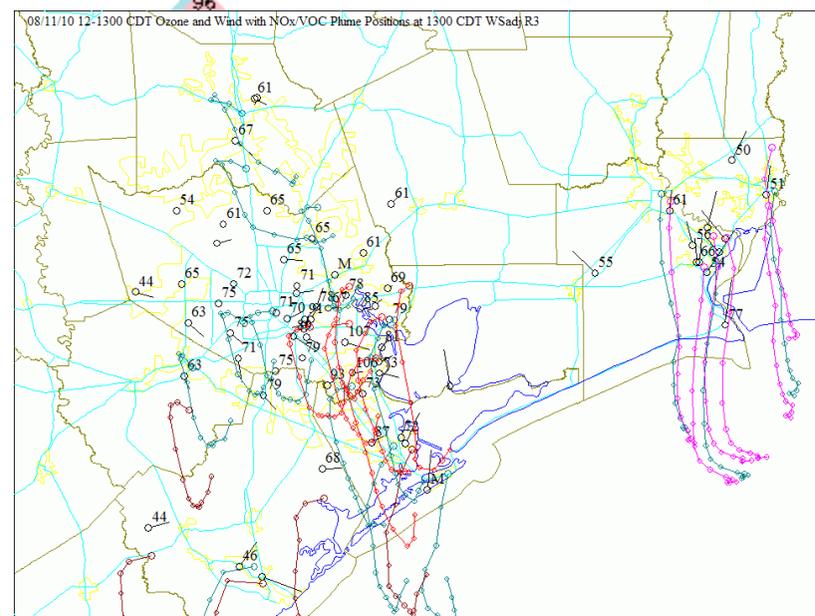


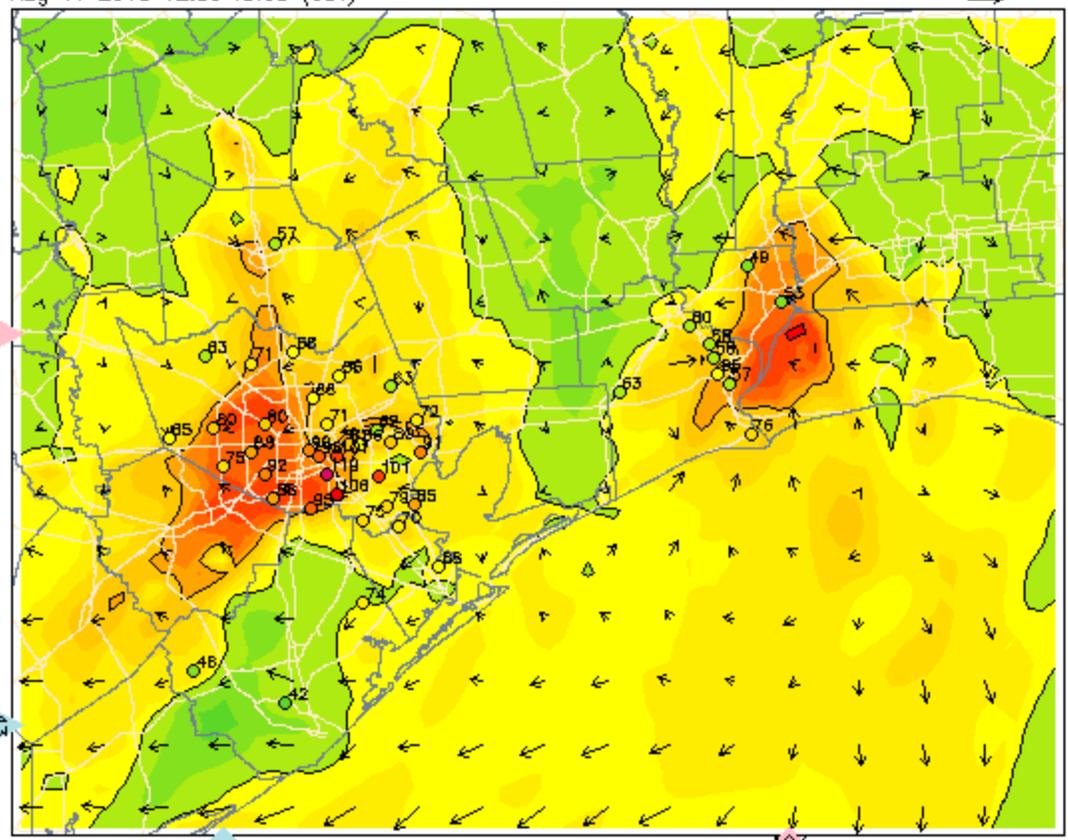
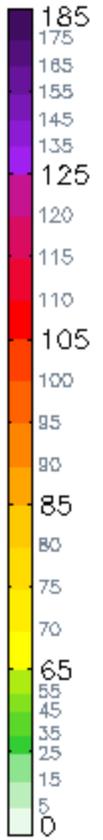


NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise



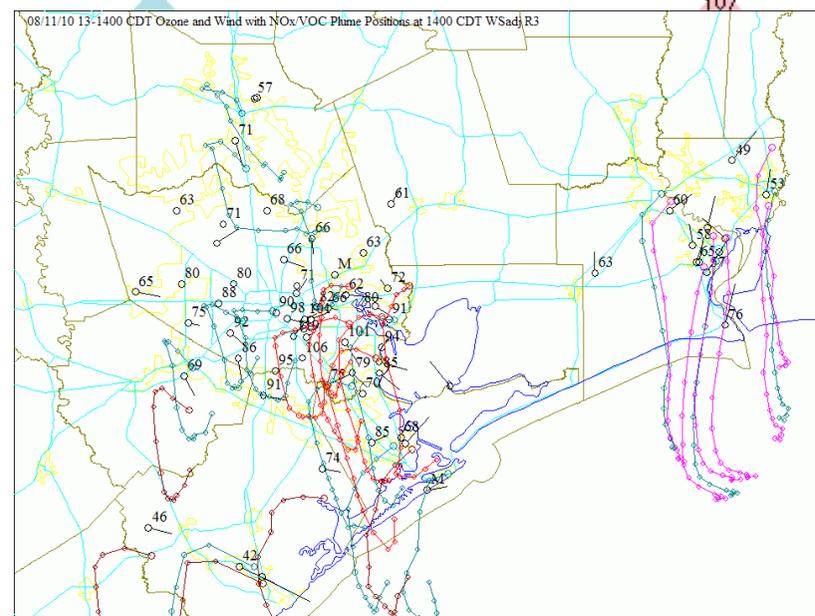
NAM20-Surface Wind 11.12 6HR Wed 18:00Z 11-Aug-10  
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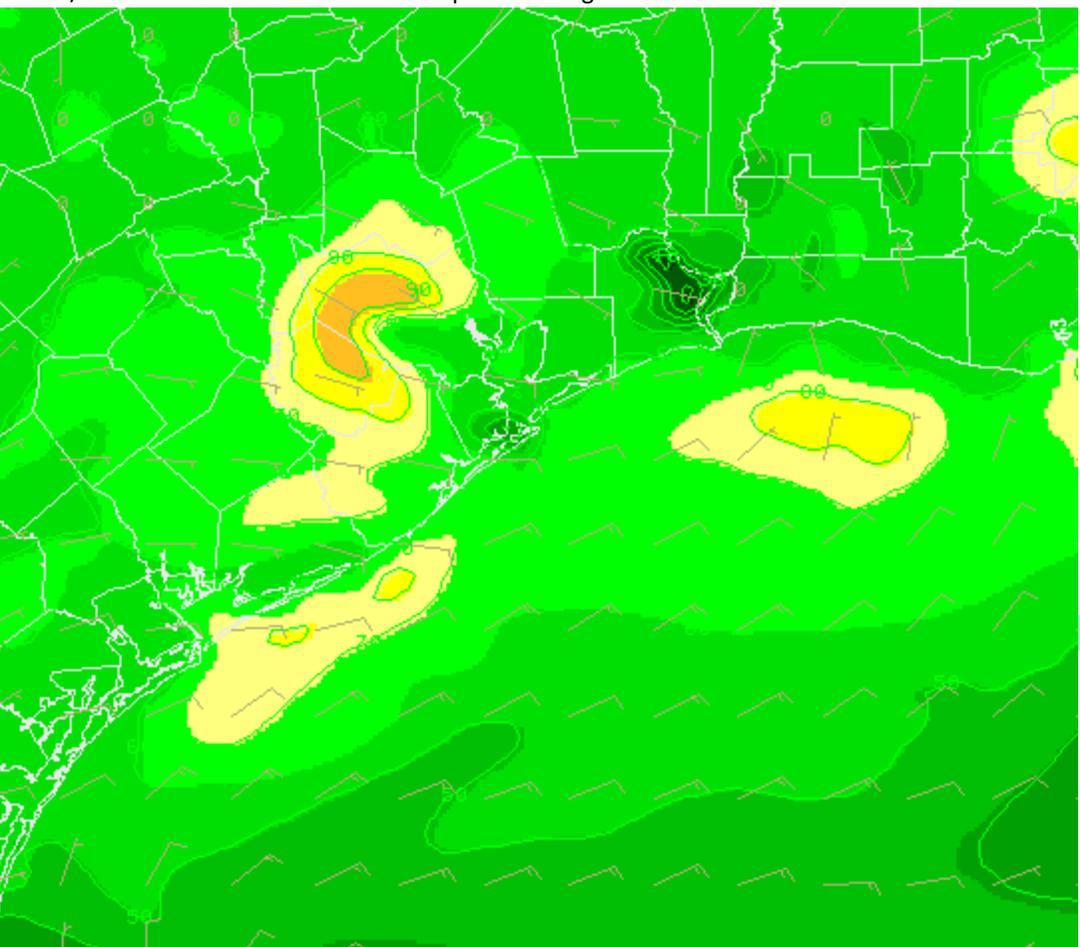


43

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NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise

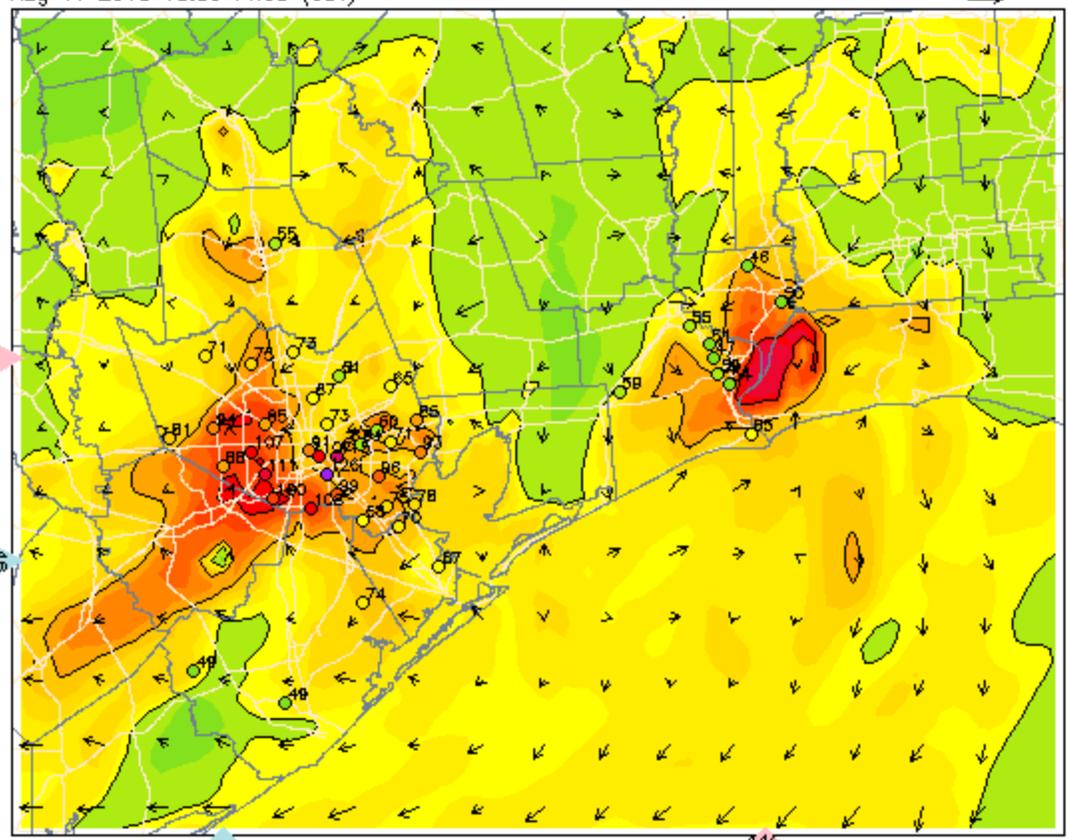
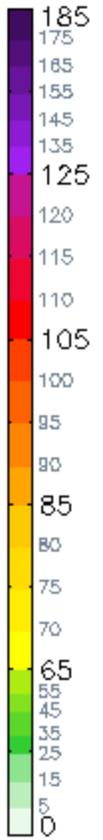


NAM20-Surface Wind 11.12 6HR Wed 18:00Z 11-Aug-10  
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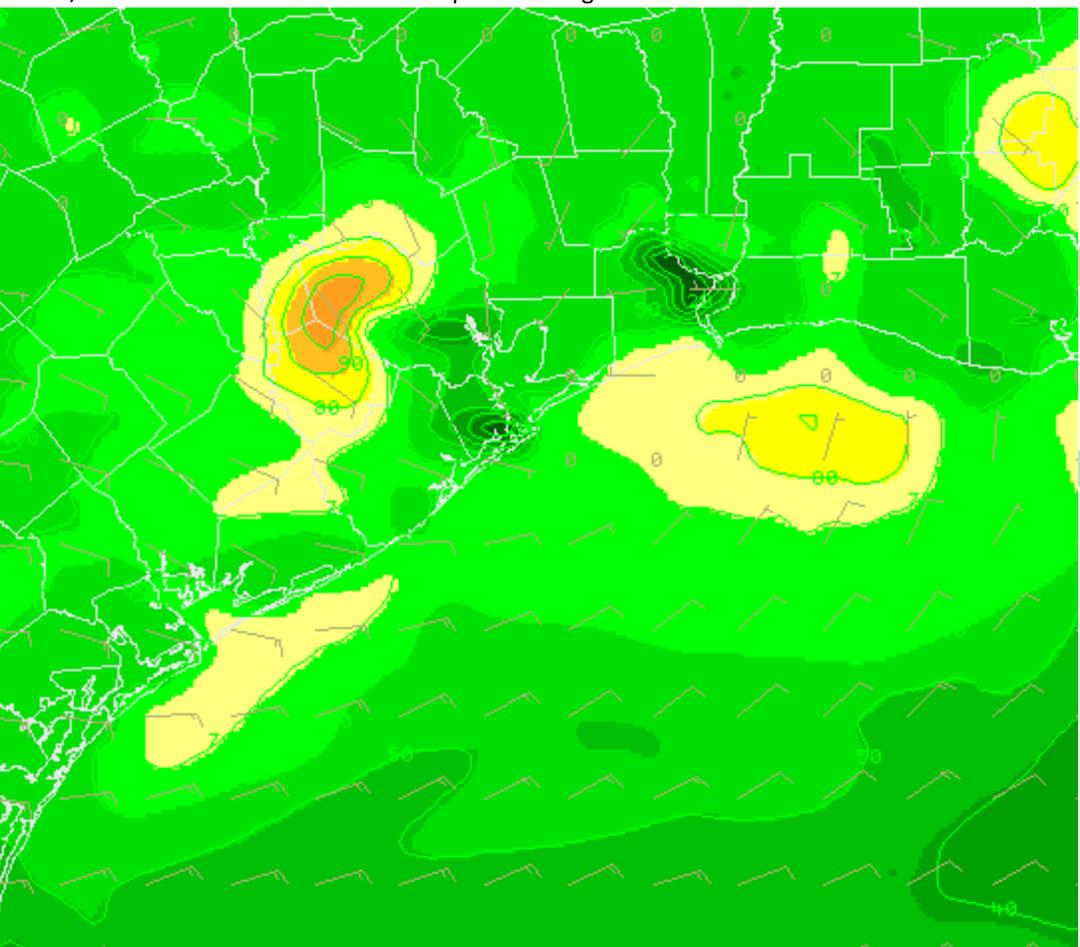
O<sub>3</sub>

5 m/s

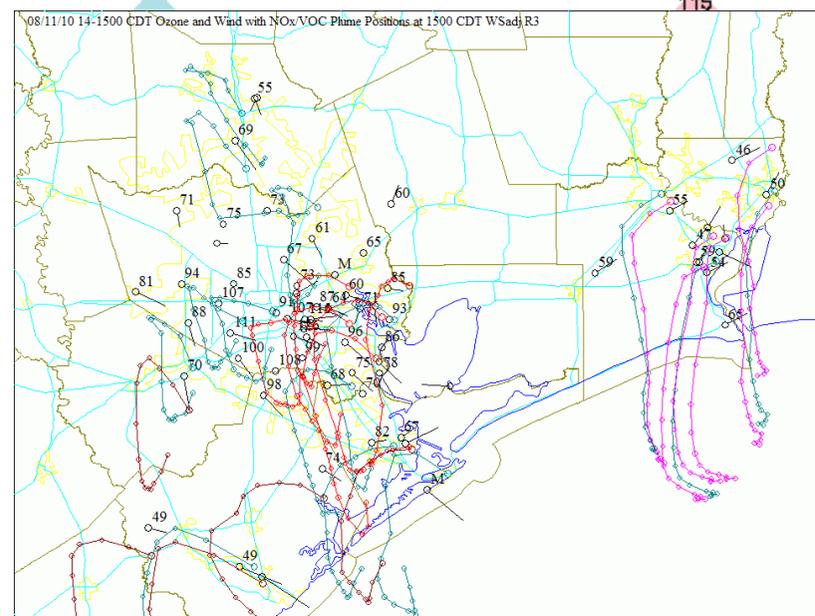
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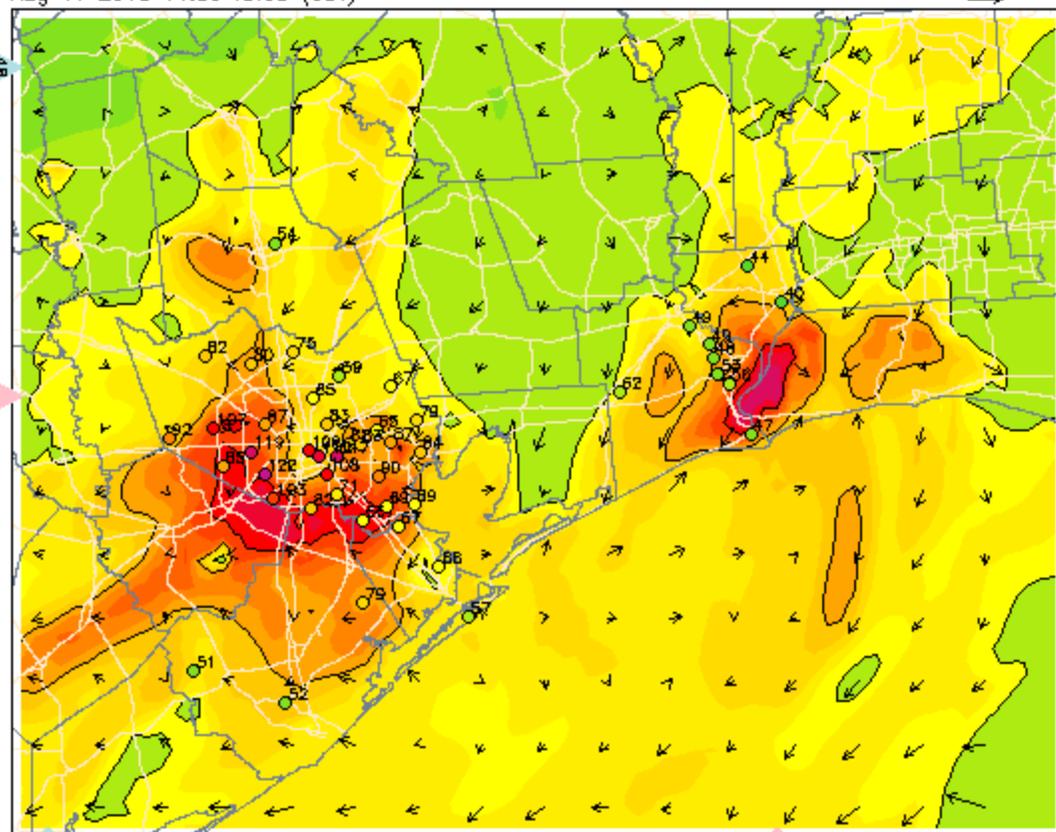
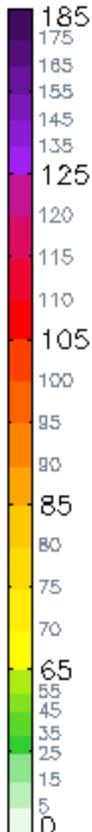


NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise

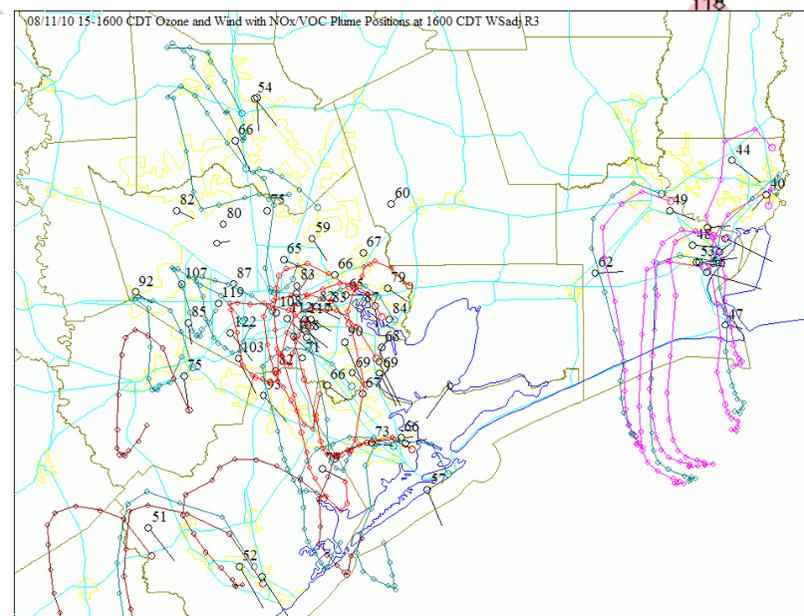
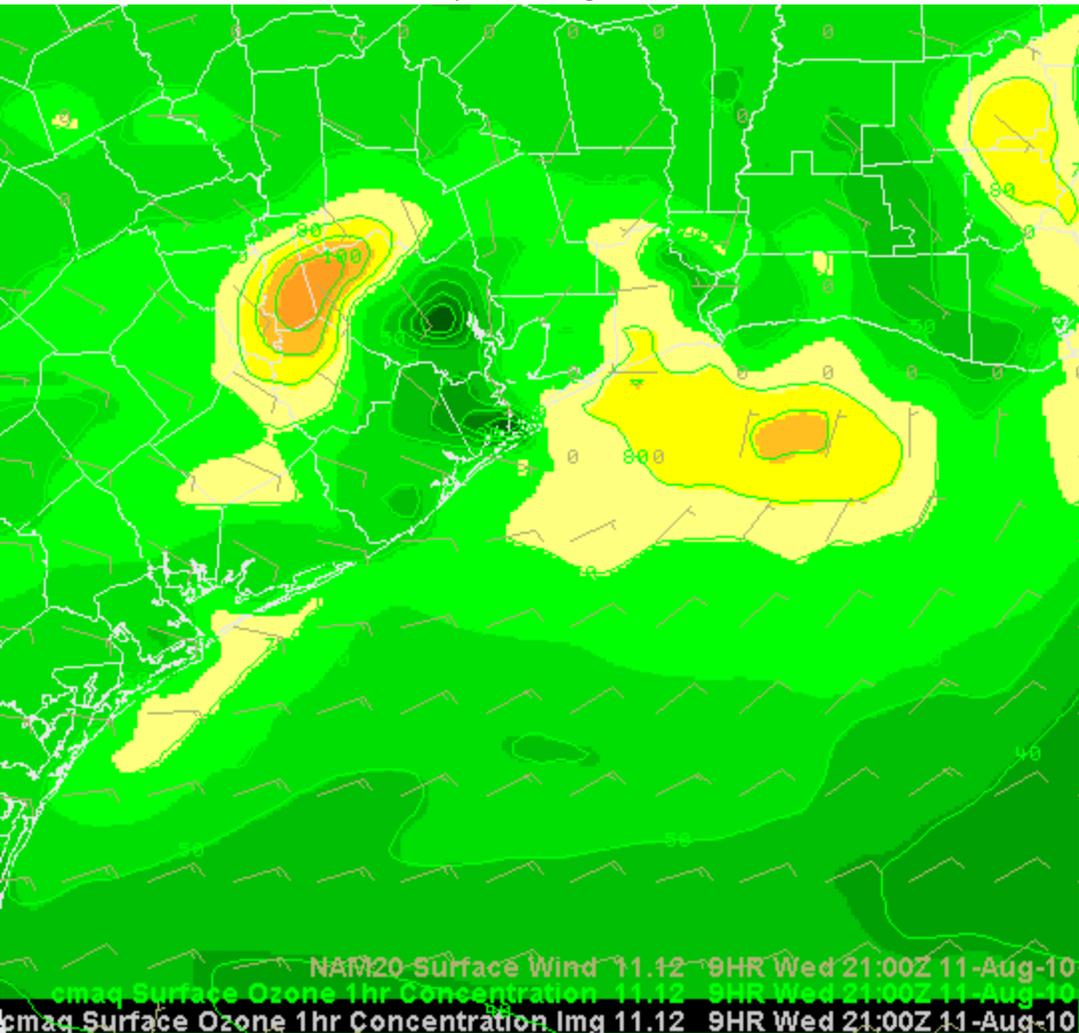


NAM20 Surface Wind 11.12 9HR Wed 21:00Z 11-Aug-10  
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 cmaq Surface Ozone 1hr Concentration 1mg 11.12 8HR Wed 20:00Z 11-Aug-10





NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise



UH-IMAQS

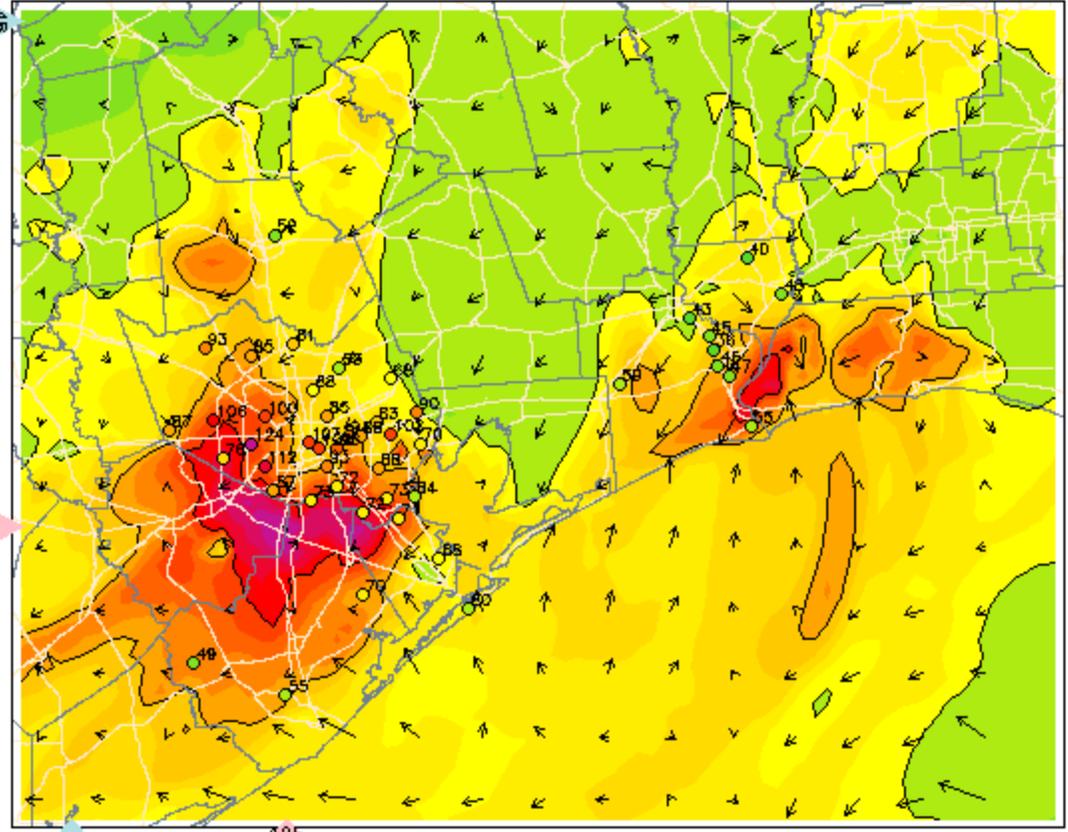
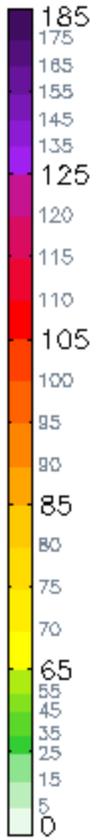
F1 20100810 Layer 1

Aug 11 2010 15:00-16:00 (CST)

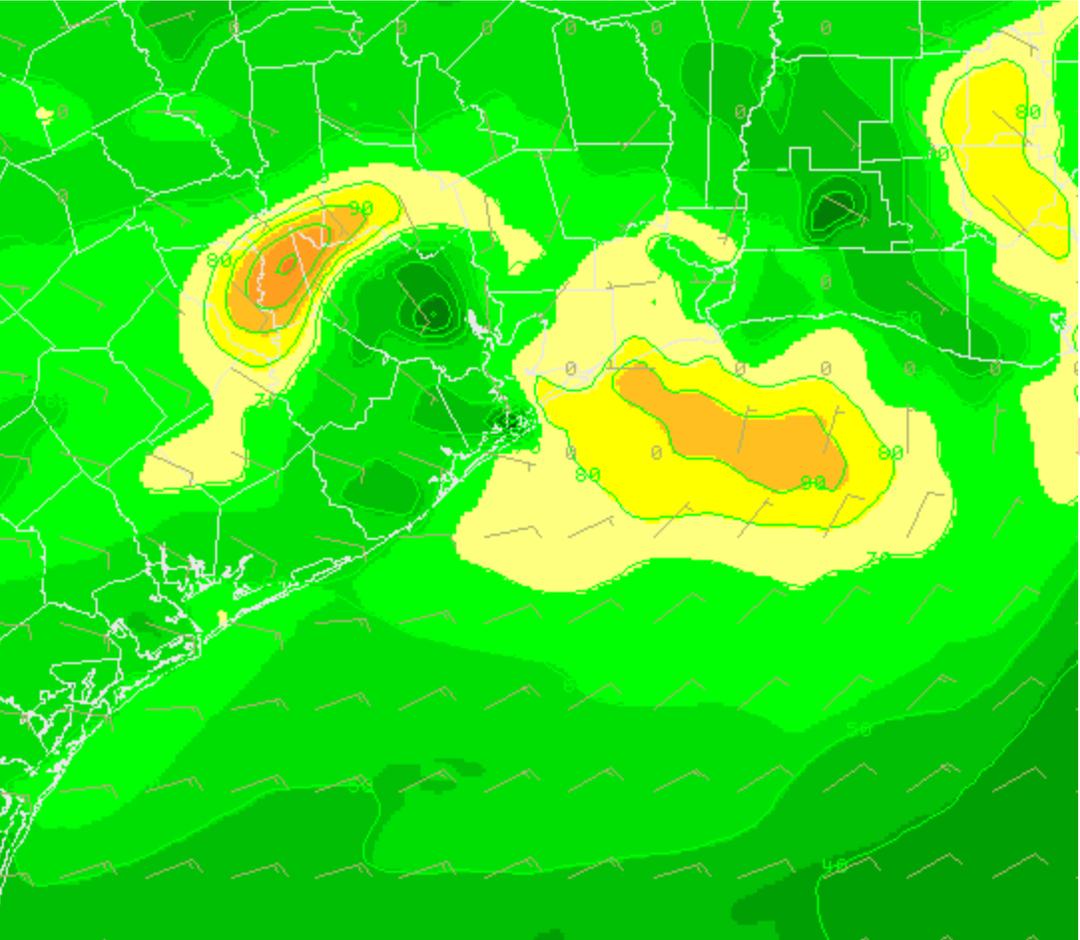
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5 m/s

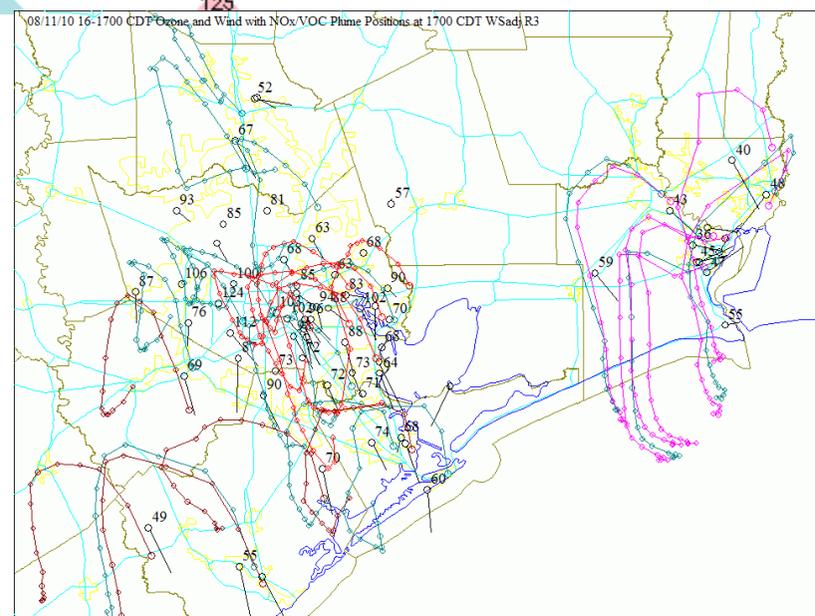
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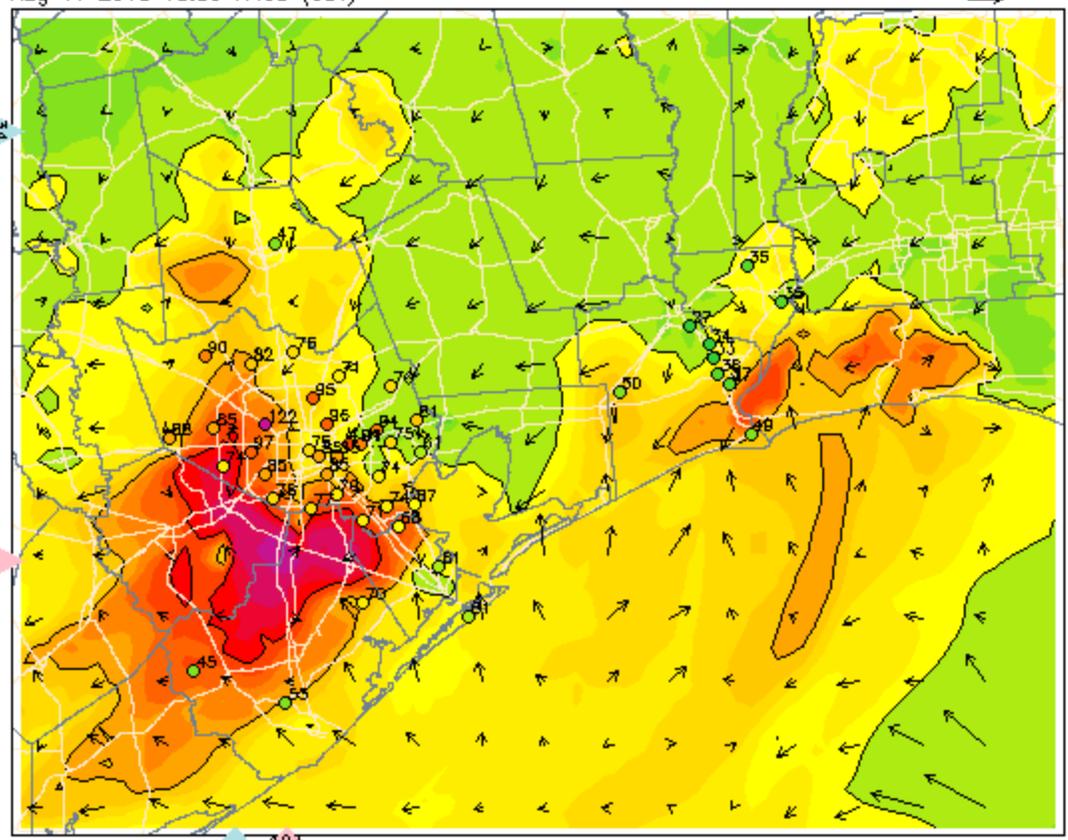
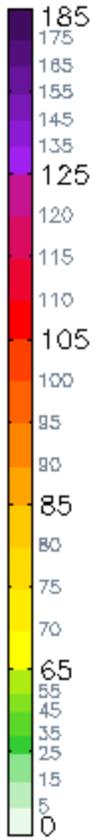


NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise

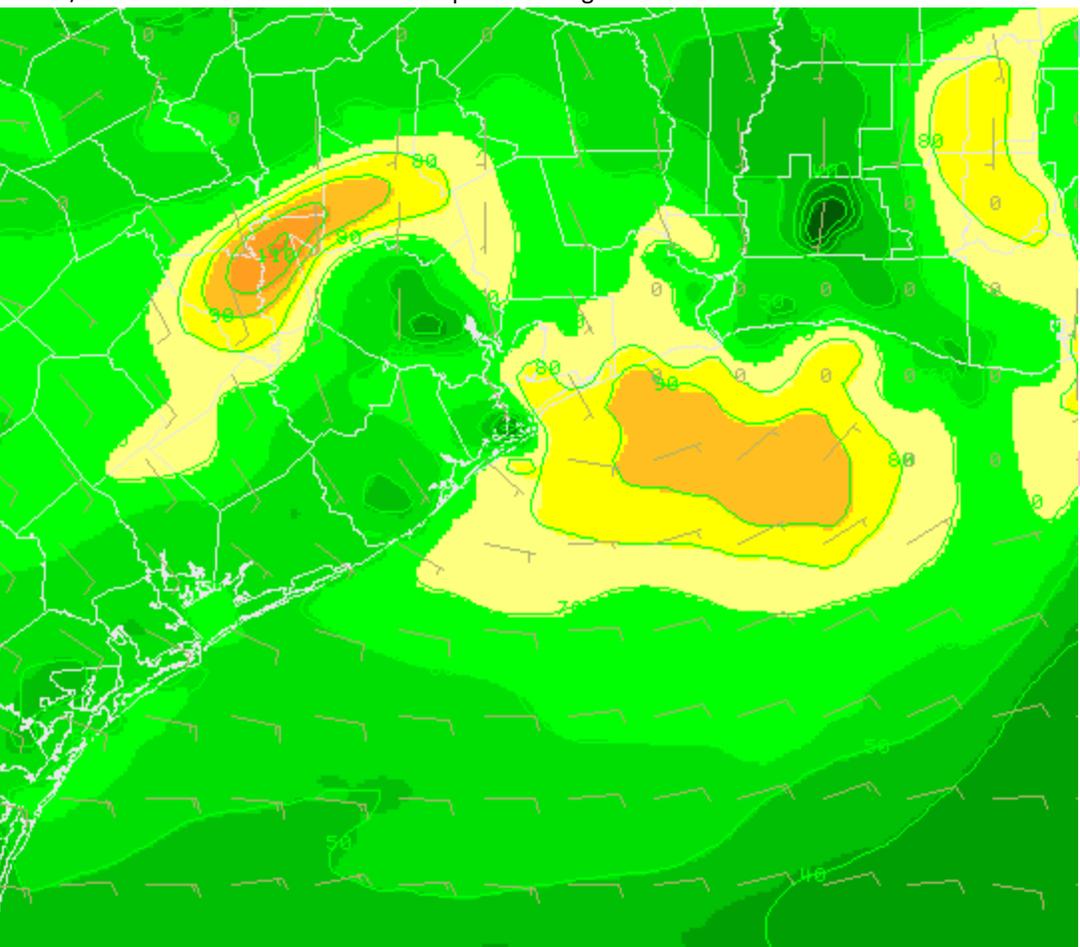


NAM20-Surface Wind 11.12 9HR Wed 21:00Z 11-Aug-10  
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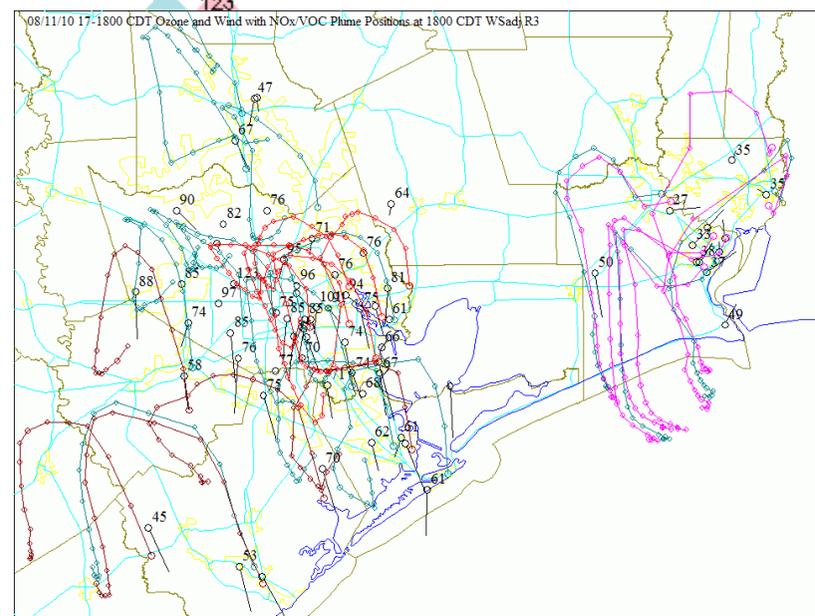


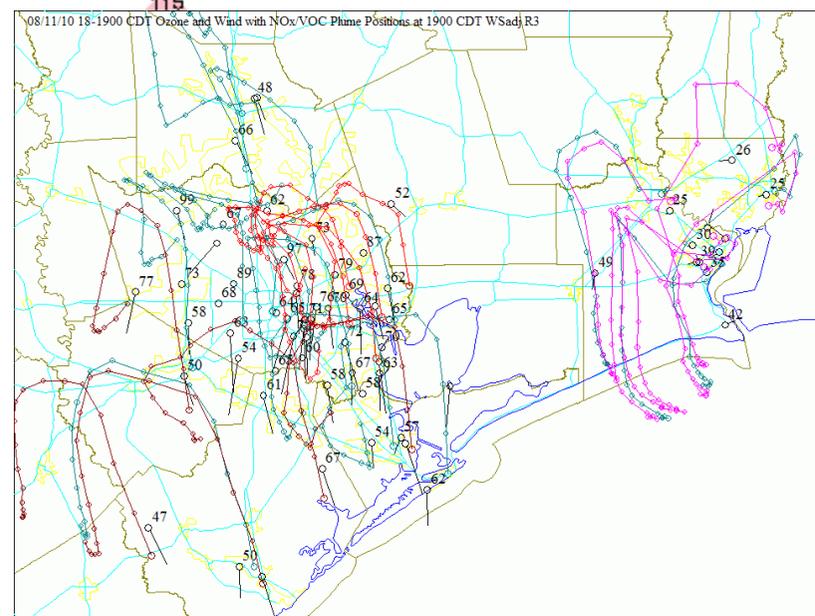
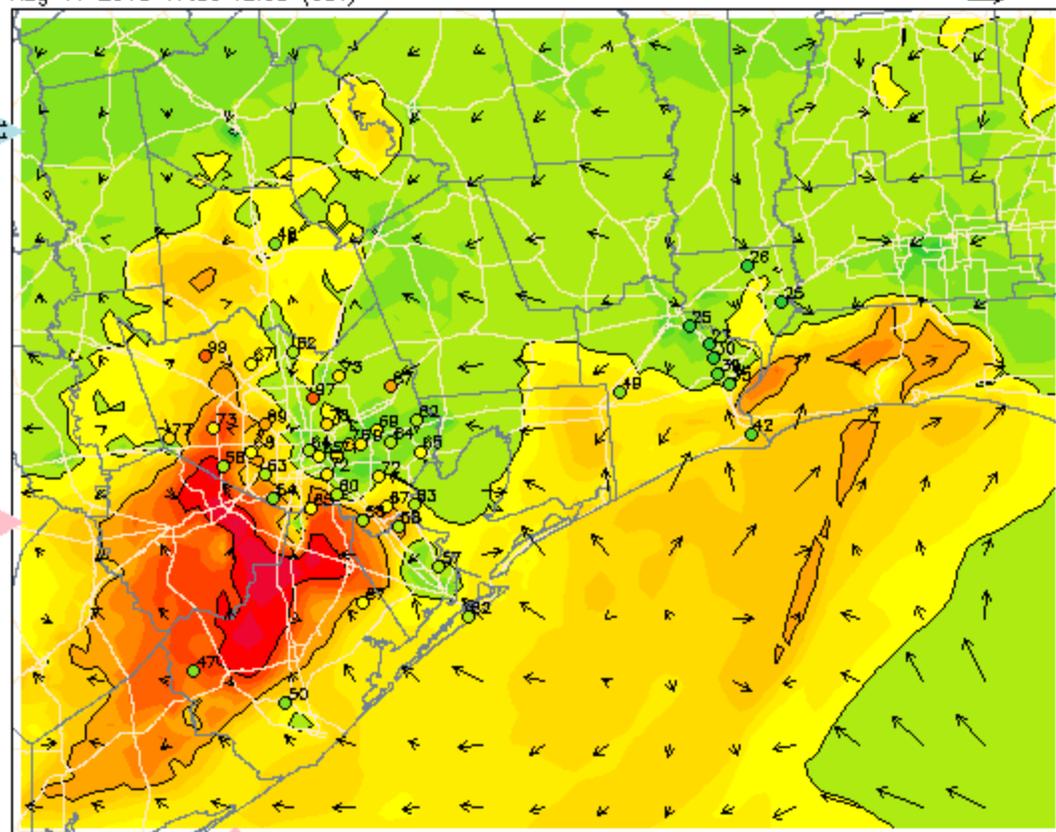
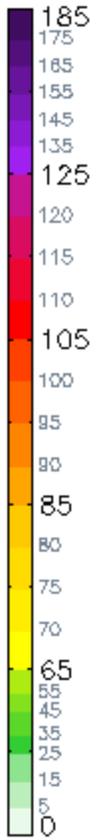


NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise

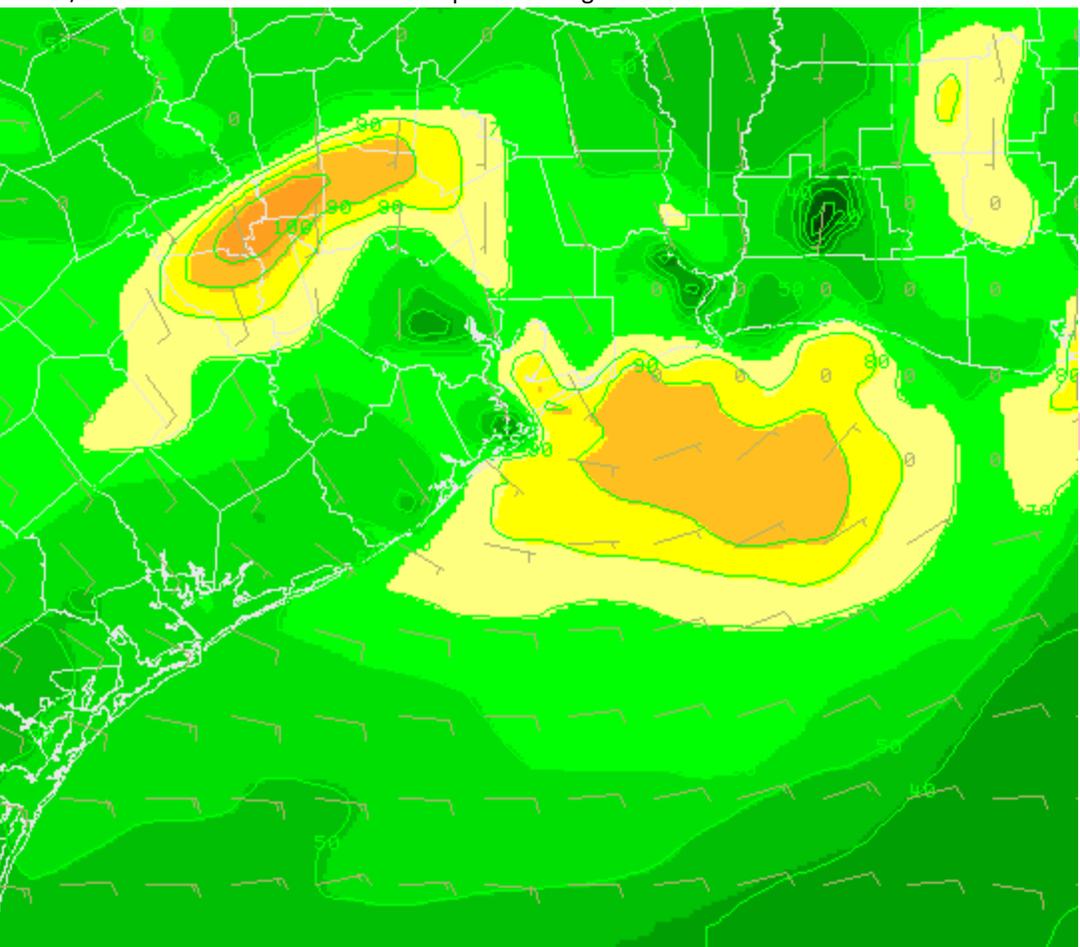


NAM20-Surface Wind 11.12 12HR Thu 00:00Z 12-Aug-10  
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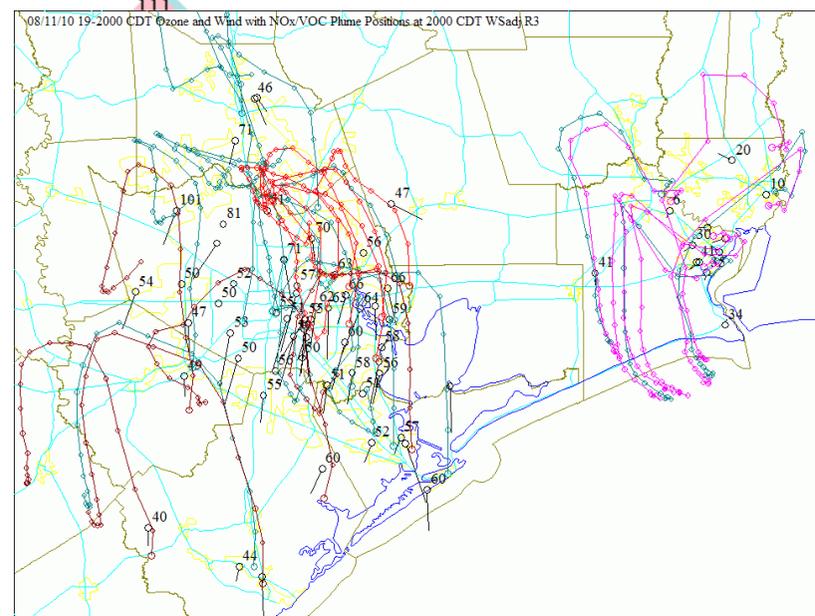
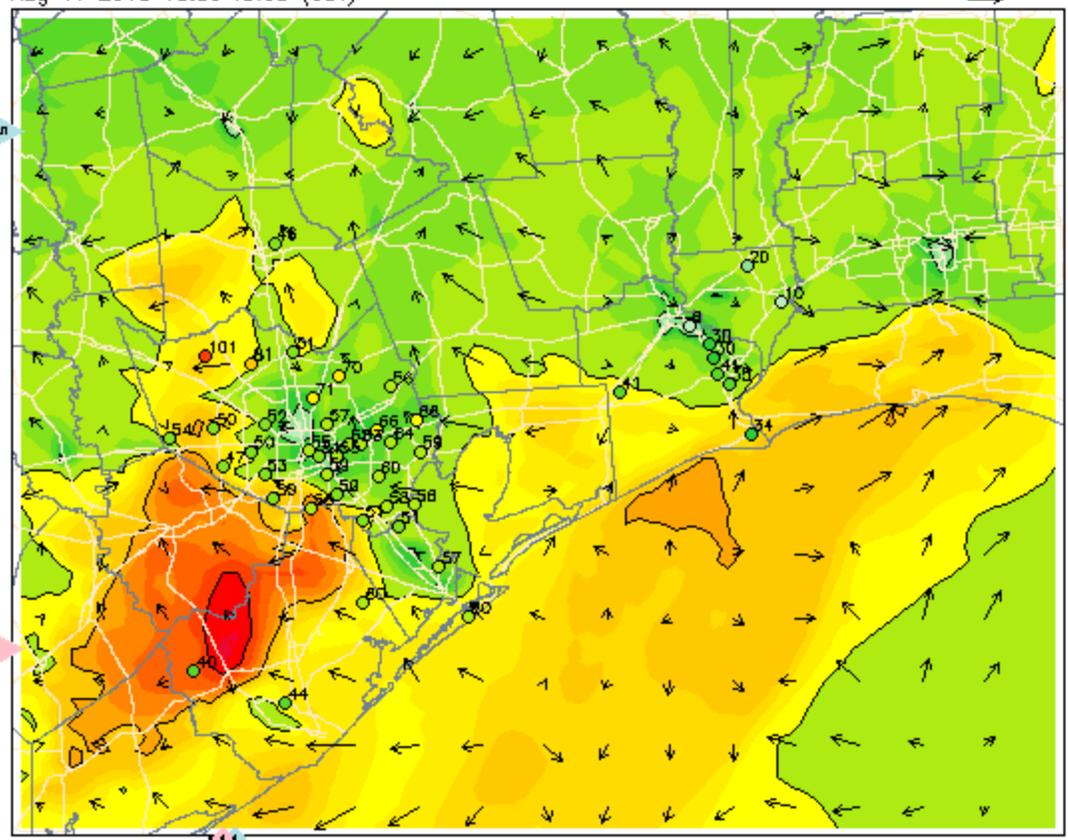
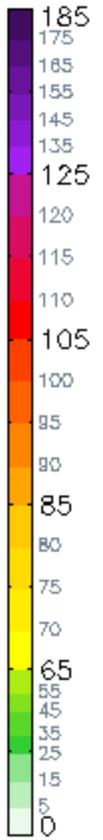




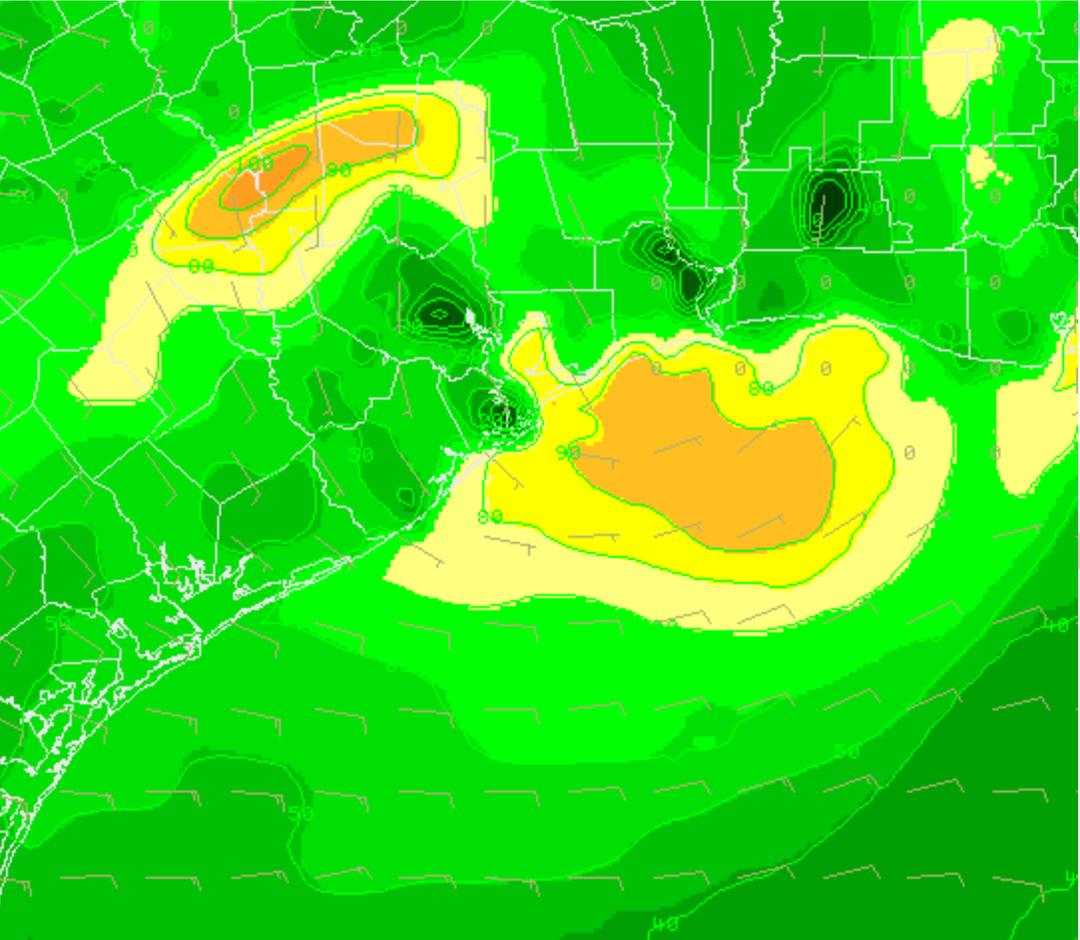
NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise



NAM20-Surface Wind 11.12 12HR Thu 00:00Z 12-Aug-10  
 cmaq Surface Ozone 1hr Concentration 11.12 12HR Thu 00:00Z 12-Aug-10  
 cmaq Surface Ozone 1hr Concentration 1mg 11.12 12HR Thu 00:00Z 12-Aug-10



NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise

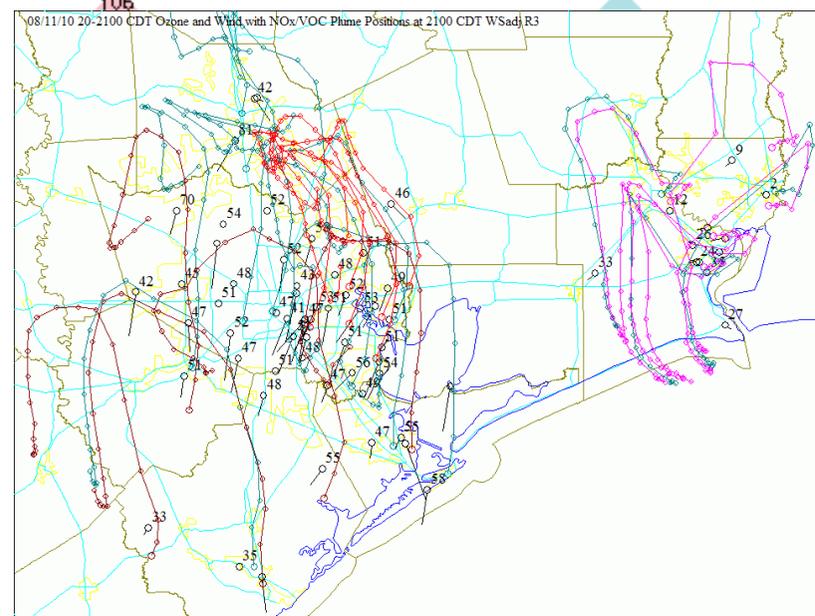
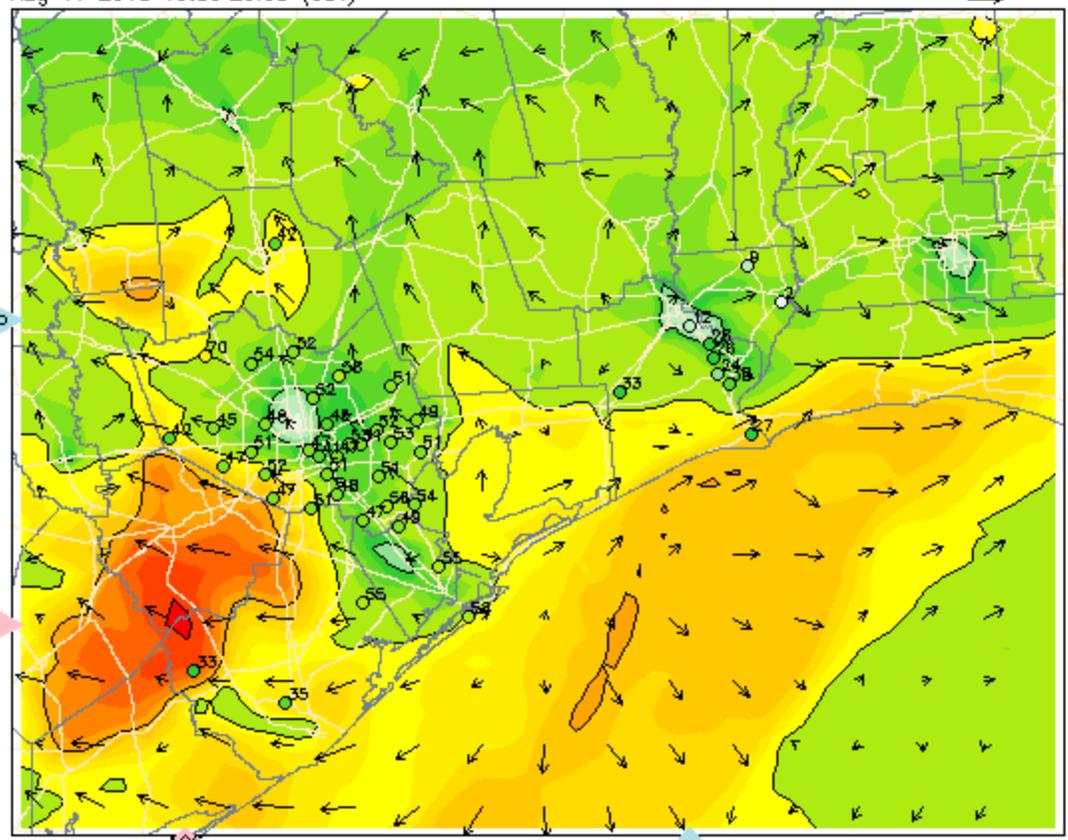
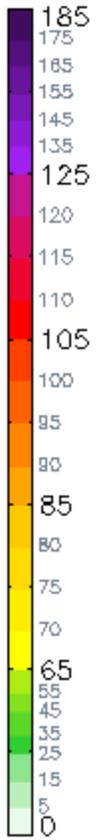


NAM20-Surface Wind 11.12 12HR Thu 00:00Z 12-Aug-10  
 cmaq Surface Ozone 1hr Concentration 11.12 13HR Thu 01:00Z 12-Aug-10  
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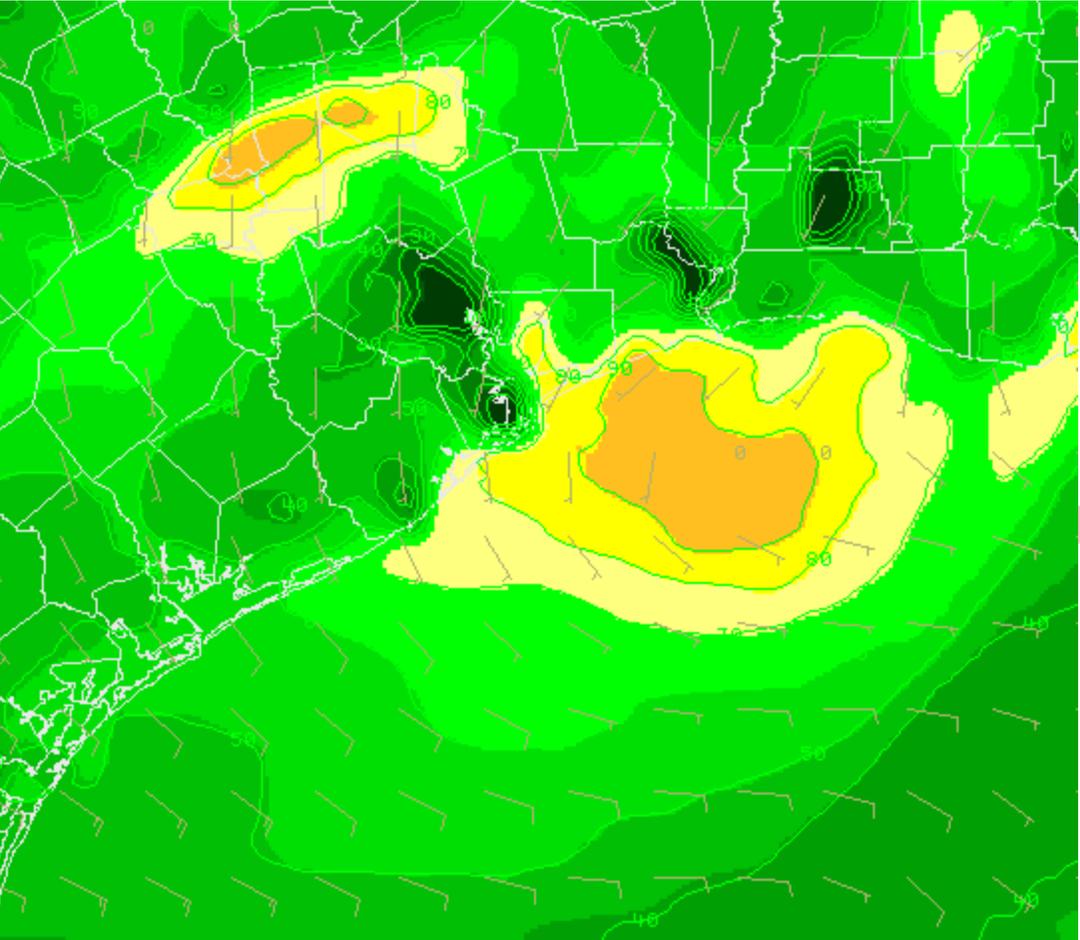
O<sub>3</sub>

5 m/s

(ppb)



NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise

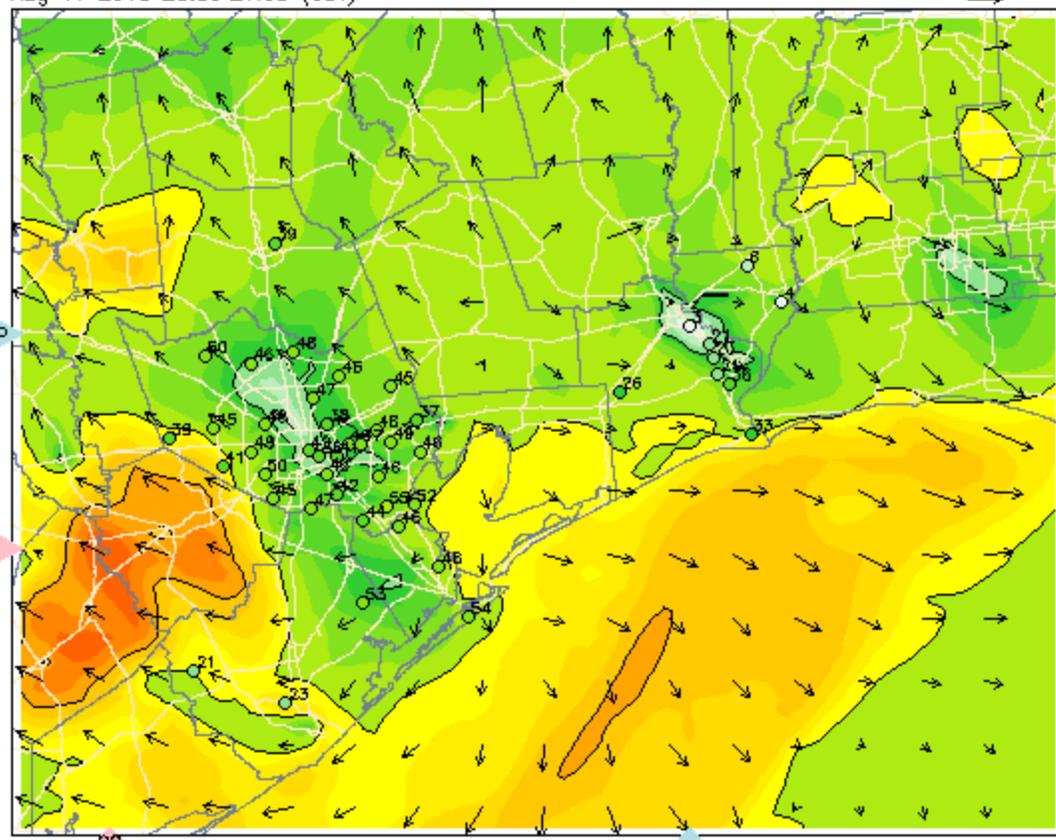
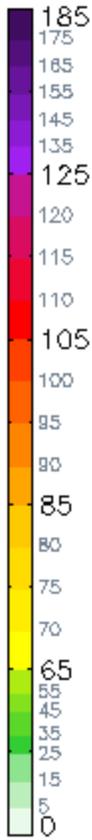


NAM20 Surface Wind 11.12.15HR Thu 03:00Z 12-Aug-10  
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 cmaq Surface Ozone 1hr Concentration 11.12.14HR Thu 02:00Z 12-Aug-10

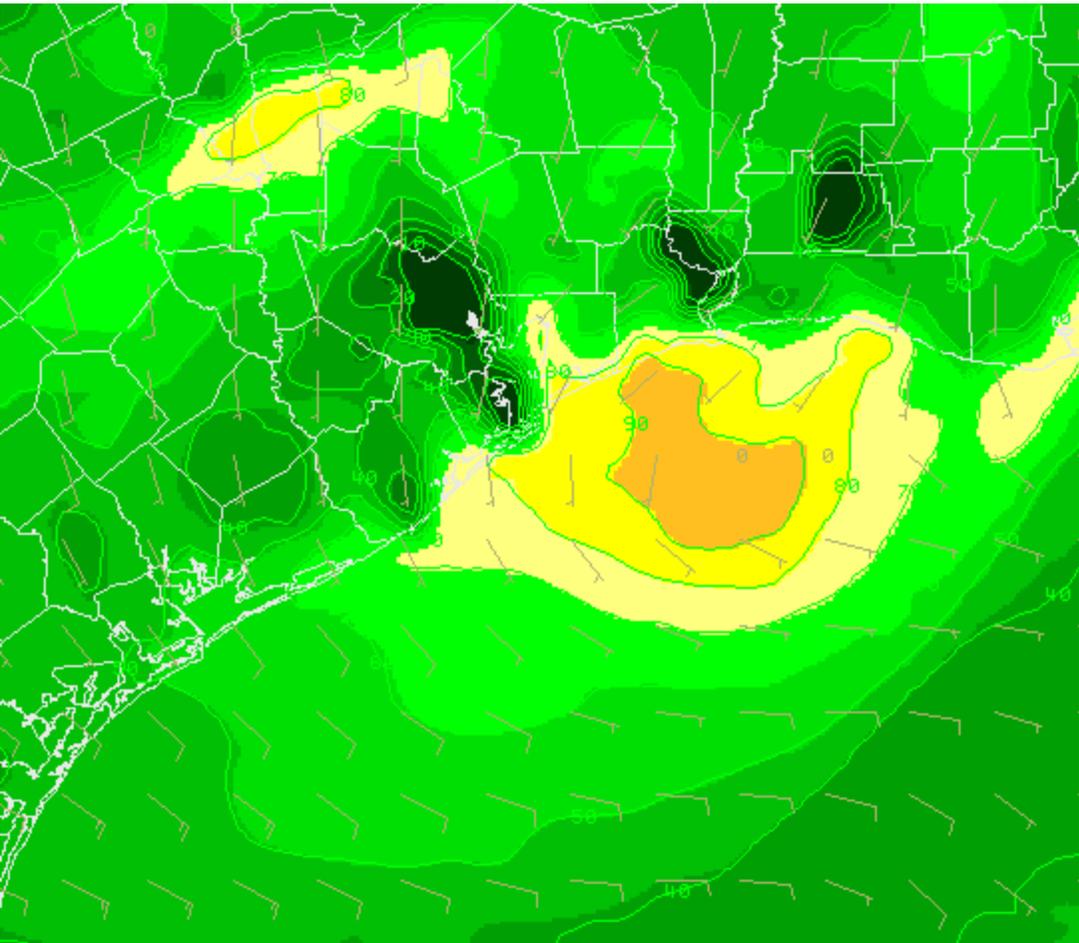
O<sub>3</sub>

5 m/s

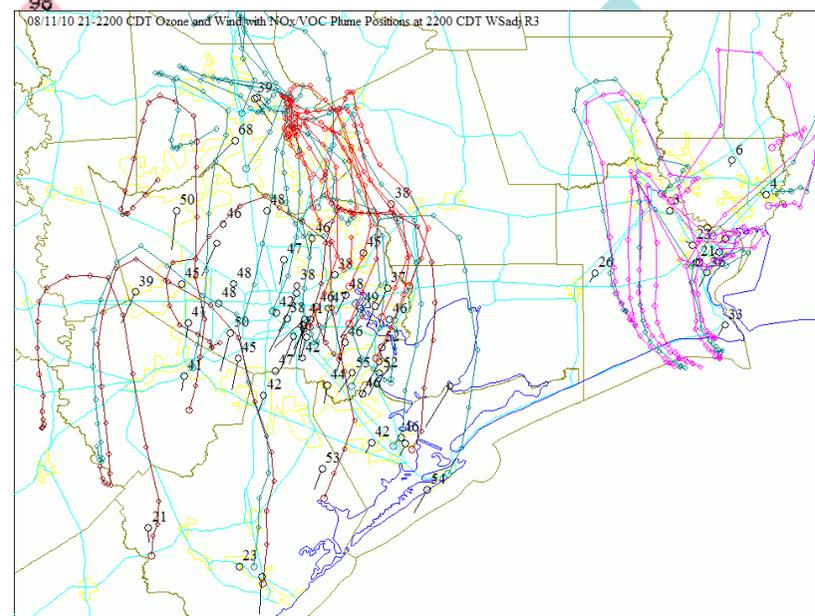
(ppb)



NOAA/EPA 1-hour ozone with NAM wind plotted using Metwise



NAM20-Surface Wind 11.12-15HR Thu 03:00Z 12-Aug-10  
 cmaq-Surface Ozone 1hr Concentration 11.12-15HR Thu 03:00Z 12-Aug-10  
 cmaq-Surface Ozone 1hr Concentration 1mg 11.12-15HR Thu 03:00Z 12-Aug-10



# Conclusions

- NAM winds matched reasonably well but started sea breeze too early
- NOAA model showed heavy net scavenging of ozone in areas where highest ozone formed, possibly because of excess model NO<sub>x</sub> emissions and/or inadequate model HRVOC emissions