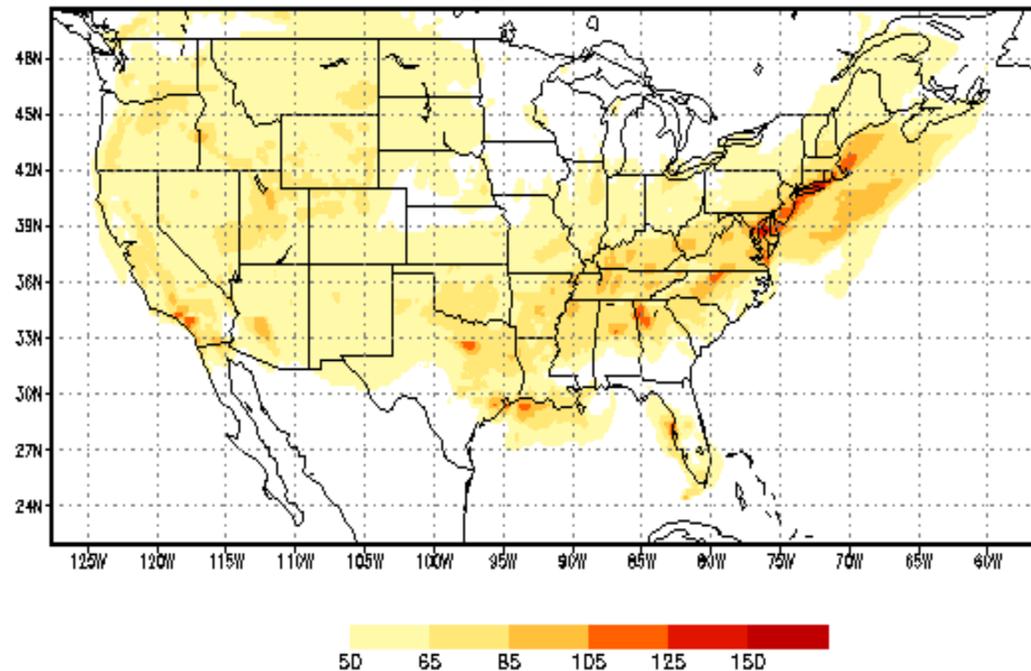




AQFG Activities Summary



25-48h 1h max sfc O3 (ppb) 48H VALID 12Z 06 AUG 2005



Paul Stokols
NWS Air Quality Outreach
September 7, 2005



FEEDBACK

Out of 60 Focus Group members, about a dozen (20%) provided routine feedback, including: CA-South Coast and SFO Bay; NM; LA; MS; FL; GA; NC; PA; NS; NB



COMMENTS JUNE 20 – JULY 3, 2005

06/20/05 - 06/26/05

Location: Raleigh

Forecaster: ncdaq

Comment: Impossible to get forecasted peaks using graphic. Tropical low went just east of NC 6/25-26. Big change in overall values of ozone across the nation between pre-June 24 runs and post-June 29 runs.

Location: Charlotte

Forecaster: ncdaq

Comment: Difficult to pick out a precise number on the given map. Tropical low went just east of NC 6/25-26.

06/27/05 - 07/03/05

Location: Albuquerque

Forecaster: abq, aq

Comment: Wildfire smoke event started June 29 and lasted through Sunday morning July 3rd.

Location: Saint John

Forecaster: steeves

Comment: Cool, damp week for the Maritimes. AQ values were below 50 ppbv.



COMMENTS JULY 4-10, 2005

Location: South Coast Air Basin

Forecaster: cassmassi

Comment: 1. Need higher resolution on the map output for the west coast. 2. Morning stratus deck is depicted as Ovc (burns off around 1000 LDT. 3. Very persistent pattern with only weak trof on 7/9-7/10. 4. Change expected on 7/11-12. 5. What is going on in the Rocky Mtns? Stratospheric injection due to convection? It sure isn't transport or local emissions or biogenics.

Location: Aylesford

Forecaster: steeves

Comment: Values for western NS were forecast to be in the fair category but clouds and showers moved in and AQ values were below 50. Miss for the CMAQ-ETA. For the days of the 7th through to the 10th no SQ values surpassed 50 ppbv. In addition the CMAQ-ETA forecast good AQ for those 4 days.



COMMENTS JULY 11-17, 2005



07/11/05 - 07/17/05

Location: Charlotte

Forecaster: ncdaq

Comment: TS Dennis and remnants to our west through most of week. Forecast peaks using time series.

Location: Saint john, NB 45.27N 66.06 W

Forecaster: steeves

Comment: A few stations east of the verification point had values of 50-60 for a 5 hour period from 15Z to 20Z. CMAQ predicted values below 50 for all New Brunswick and Nova Scotia.



COMMENTS JULY 18-24, 2005

Location: Aylesford, NS

Forecaster: steeves

Comment: Minor event picked up by the CMAQ model and handled well. Areas along the coastline in the presence of a marine inversion had values 20-30 ppbv less.

Location: MS Gulf Coast

Forecaster: MDEQ

Comment: At this time the forecast is updating too late for me to be able to use as a tool in forecasting. Sunday's forecast was over forecasted...maybe due to the higher temps. When high temps like >95 are forecasted does the model some what override other factors?

Location: PHL

Forecaster: wfryan

Comment: 7/20: offshore lobe of Code Red south of LI and east of NJ, this offshore high O3 recurs other days with 1x, also found in Chesapeake Bay. 7/19-20: very humid, Td > 70 F 7/22: Peak concentrations well forecast but too high in ozone along I-95 Corridor near center city PHL



COMMENTS JULY 25-31, 2005

Location: Raleigh
Forecaster: ncdag
Comment: Forecast peaks using time series.

Location: South Coast Air Basin
Forecaster: cassmassi
Comment: We have been looking at the 5X domain and the model simulations. The enhanced focus presentation that Bill Ryan has set up has been very informative. The model is generating reasonable ozone levels and the pattern is lining up for the most part based on my validation using key forecast stations. I have looked at selected NAM12 outputs for days when we have been under the monsoon with convection and it appears that the met model getting clouds into the area and adjusting the insolation input to the ozone model. The general transport algorithms are advecting the pollutant cloud in a reasonable trajectory on most days. I have noted that the model hasn't pushed too much ozone to the Coachella Valley, but I need to ask Bill if he can add a few additional air monitoring stations to the list for time series analysis. The model has been hot near some of the emissions source areas. It is rare when we over predict at Central LA and an in the San Gabriel Valley. I've noted this in the limited hi-resolution simulations that I've reviewed. As a consequence, I have some questions about the model setup and particularly the emissions and initial conditions.

Location: PHL
Forecaster: wfryan
Comment: lee trough present 7/25 and 7/26 7/26: Plume placement very good, peak in NJ, NNE of PHL 7/25-26: Very high ozone in the city center of PHL, no urban minimum found there. 7/28: Over-predicts, post-frontal air mass was cleaner than expected, PM concentrations fell rapidly post-frontal, a good indicator. 7/29: ozone higher than predicted with recirculation, clouds and rain forecast but remained south of forecast area. 7/30: weak cold front, sct/bkn cirrus, winds SE-NE, stationary front to south.



COMMENTS AUG 1-7, 2005

Location: South Dekalb

Forecaster: bmurphey

Comment: The 06z NOAA air quality forecast performed more accurately than the 12z model for the August 3rd forecast.

Location: South Coast Air Basin

Forecaster: cassmassi

Comment: Convection in the deserts and mountains throughout the forecast period.

Location: Charlotte

Forecaster: ncdag

Comment: 8/3-Clouds and isolated storms prevented 8hr O3 above 85 ppb. T-storm hit downtown Charlotte 5-6pm. 8/4,8/5 isolated convection Forecast peaks using time series.

Location: Raleigh

Forecaster: ncdag

Comment: 8/3-Clouds and isolated storms prevented 8hr O3 above 85 ppb. Scattered T-storms hit Triangle 2-3pm. Model generally close. Forecast peaks using time series.

Location: PHL

Forecaster: wfryan

Comment: 8/2: Location of peak forecast ozone, in south central NJ verified well with peak of 95 ppb at Ancora 8/3: Uncommon northerly flow sustained through day. Again spatial placement of plume good. Nacote Creek near ACY, forecast 110/95 (1h/8h), observed 103/90 8/4: some convection this day, extremely high 1h concentrations but low 8h. Function of thunderstorms or lower regional background? 8/6: Post-frontal, PA ozone data missing 8/7: PA ozone data missing. Forecast accurate but for wrong reason, peak concentrations in early morning forecast with rain by afternoon lowering concentrations. Rain not as widespread as forecast so observed concentrations had usual diurnal pattern with peak in afternoon.

Location: Albuquerque

Forecaster: abq_aq

Comment: East wind event Thursday turned into a spillover event late Thursday afternoon; may have been several frontal passages with this system - couldn't nail down a time for FROPA

Location: Saint John

Forecaster: steeves

Comment: On the 5th, near the Bay of Fundy values were in the upper 20's to low 30's due to the marine inversion. Inland and over higher terrain values peaked in the mid to upper 50's.



COMMENTS AUGUST 8-15, 2005



Location: South Dekalb

Forecaster: bmurphey

Comment: *There tends to be a significant difference in the forecast values between the 06z and 12z model runs of the Experimental Air Quality Forecast model. An example of this difference can be seen in the forecast for 8/10 & 8/11. Forecast for 8/10: 12z - 101 (1hr), 81 (8hr) 06z - 80 (1hr), 67 (8hr) Forecast for 8/11: 06z - 124 (1hr), 112 (8hr) 12z - High values also for 8/11 (orange)*

Location: PHL

Forecaster: wfryan

Comment: *8/8: forecast from NAM-12 had more sustained rain than occurred. 8/9: widespread rain through morning 8/11: slight overprediction but caught transition to higher ozone and predicted Code Orange. 8/12: extreme peak ozone located north of Baltimore. PHL forecast quite good except with respect to placement of Baltimore plume that affected SE portion of PHL forecast. 8/12 and 8/13: standard westerly transport cases*

Location: Pensacola

Forecaster: tammy

Comment: *Persistent upper level low has been in the area, as of the 8th, for the last two weeks. The rain for PNS to 8/9 is 4 inches short of the annual average.*

Location: St. John

Forecaster: steeves

Comment: *On the 9th there was a fair air quality day in southern New Brunswick which was advertised by the CMAQ-ETA. Peak values were in the mid to high 50's, with MOncton reporting 69 as an hourly high. However, near the coast with the marine inversion values were much lower. Again on the 10th low coastal stations reported good AQ however inland over NB values ranged into the mid 50's.*

Location: Aylesford

Forecaster: steeves

Comment: *Event on the 8-9th again was handled well by the CMAQ-ETA. On the 11th model showing area of fair to poor approaching southern NS but sliding southward...portions of SW NS had values into the 60's and 70's, with a peak of 74 at Keji. on the 13th model showed fair values entering NS but observed values were less than 50. A lot of mid-level cloud present and some precipitation.*



COMMENTS AUG 15-21, 2005



Location: PHL

Forecaster: wfryan

Comment: 8/15: Over-prediction, NAM-12 forecast few clouds, broken clouds and light rain observed. 8/17: High ozone forecast confined to Colliers Mills in central NJ, remainder of sites lower. SCT-BKN clouds observed. 8/20: back traj onshore at 500 m, W above similar on 8/21

Location: South Coast Air Basin

Forecaster: cassmassi

Comment: Unable to download simulations for August 18, 20, and 21 verification.

Location: Baton Rouge Area

Forecaster: ladeq

Comment: The following parameters have not been reported due to lack of data: Transport Aloft Direction, Convection, Frontal Passage, Upper Air Pattern. Also, please note that we were unable to access the website for several days, therefore we were unable to report anything for Friday 8/19 through Monday 8/22.



COMMENTS AUG 22-28, 2005

Location: San Fran Bay Area

Forecaster: kmalone@baaqmd.gov

Comment: My deadline for tomorrow's Air Quality prediction is 2000gmt. For the week of Aug 22-28 I only found one day when the chart was available for the next day (that was on August 23rd vt for the 24th). 1. Charts need to be available by 1900gmt If this is not possible, then save everyone the time/money and quit now. Anyway, either do it right or just forget it. I am sorry to sound so blunt -- I really appreciate the effort by everyone and this is the way to go in the longer term but with small scales, better resolution, and more timely output (see below). 2. Need a map just showing, at a minimum, CA and NV, but desire a map that extends from Monterey Bay northward to Pt Reyes and Eastward to Lake Tahoe -- the Bay Area has a lot of land/sea/bay/hill interfaces -- small scale details that, perhaps, this model is unable to resolve? I can't tell you if the model is doing well because I cannot see the distinction in the present map. 3. Need to colorize by every 10 ppb from 45 to 65, then every 5 ppb above 65ppb. 4. I really like the animation but the 8-hr max is all I really need from this model. I would rather just have a single text fcst that shows what my District 8-hr max is predicted to be. Get rid of everything else until you can give me a higher resolution display of the SF Bay Area. Take a look at MOS output -- something like that for 5-6 cities in the SF area is all I really need.

Location: Pensacola

Forecaster: tammy

Comment: Hurricane Katrina approaching at week's end.

Location: Albuquerque

Forecaster: abq_aq

Comment: On both Monday and Tuesday, convection developed northwest of Albuquerque. A gust front from the convection moved into the city between 330 and 400 PM both days.



COMMENTS AUG. 29- SEPT. 4, 2005



Location: Pensacola

Forecaster: tammy

Comment: Hurricane Katrina brought rainbands and coastal flooding 8/29 and continued through 8/30.



STATISTICS

<u>Location</u>	<u>#</u>	<u>Fcst (1hr)</u>	<u>Obs</u>	<u>Fcst (8hr)</u>	<u>Obs</u>
Albuquerque	39	na	na	49	56
Aylesford, NS	44*	na*	38	na	na
Baton Rouge	38	60	79	49	59
Charlotte	31	72	78	63	66
MS Gulf Coast	40	45	59	41	49
Pensacola	18	na	86	41	60
Philadelphia	28	90	89	80	74

***not all peak values given as discrete #s**



STATISTICS (Contd.)

<u>Location</u>	<u>#</u>	<u>Fcst (1hr)</u>	<u>Obs</u>	<u>Fcst (8hr)</u>	<u>Obs</u>
Raleigh	29	69	73	63	63
Saint John, NB	60*	na*	37	na	na
San Fran Bay	16	na	na	54	63
SoCal	46	97	120	79	100
South Dekalb	46	81	80	71	64
Total	347	53	72	64	67

****not all peak values given as discrete #s***