

Forecast Models in OK-FIRE

The unique forecast products in OK-FIRE (dynamic maps, charts, and tables) are based on a numerical forecast computer model called the North American Model (NAM) which predicts out to 84 hours in the future. This model is run operationally by the National Weather Service (NWS) in Camp Springs, Maryland. The model is run four times per day for initialization times of 00Z, 06Z, 12Z, and 18Z (Greenwich Mean Time).

00Z =	6 p.m. CST (of the day before) = 7 p.m. CDT (of the day before)
06Z =	midnight CST = 1 a.m. CDT
12Z =	6 a.m. CST = 7 a.m. CDT
18Z =	12 noon CST = 1 p.m. CDT

North American Model (NAM)

In OK-FIRE we update the forecast products (weather, fire danger, and smoke dispersion) every 6 hours, using the 00Z, 06Z, 12Z, and 18Z runs of the NAM.

Note that there is a considerable delay time until a given forecast update becomes available on OK-FIRE. For example, the entire 84-hour output from a given forecast run does not even become available for us to download until about 3 hours after the initialization time. Then internally, at our Mesonet headquarters in Norman, the weather forecast portion becomes available about 20 minutes later and the fire danger output based on that forecast becomes available about another 20 minutes later. Note that the weather, fire danger, and dispersion forecasts are not released to the web site until ALL have been completed (the fire model taking the most time). Thus, on the average, updated forecasts will become available about 3 hours and 40 minutes after the initialization time of the forecast run. In practice, this means:

<u>Forecast Run</u>	<u>Time Updated Forecasts Available on OK-FIRE</u>
00Z	10 p.m. CST (11 p.m. CDT)
06Z	4 a.m. CST (5 a.m. CDT)
12Z	10 a.m. CST (11 a.m. CDT)
18Z	4 p.m. CST (5 p.m. CDT)

Note that the current run of the NAM model being used is shown in orange in the upper right portion of the OK-FIRE web site, along with the expected time of the next update. If the current time is close to the next forecast update time and you need to make a decision, it would be wise to wait until the next update as newer forecasts are typically more accurate.

Forecast based on 2008-09-22 12Z NAM; NEXT forecast update expected 5 pm CDT

Other Forecasts

As no forecast model is perfect, OK-FIRE offers you links to other forecasts. In particular, you are strongly encouraged to consult the National Weather Service (NWS) forecasts from the office serving your geographical area. There are four offices listed in OK-FIRE: Tulsa, Norman, Shreveport, and Amarillo. In particular, go to “National Weather Service” or “NWS Prescription Planner” in the WEATHER/Forecasts section of the web site. Check for consistencies with the NAM or discrepancies. The forecasters in these offices check a large number of model forecasts, including the NAM, and together with their experience offer their best forecast, which at times may conflict with the NAM. In particular, compare the wind speed, direction, relative humidity, and precipitation predictions with the NAM.

In the “National Weather Service” section, when you go to the home page of a particular NWS office, click on the geographical site of interest on the map which is displayed. This will take you to a 7-day text forecast for the area in question. If you scroll down to the bottom of that page, in the lower right you’ll find a box entitled “Additional Forecasts & Information”. To get a site-specific hourly graph of the predicted weather conditions, click on “Hourly Weather Graph”. To get a site-specific hourly table of the predicted weather conditions, click on “Tabular Forecast”.

Additional Forecasts & Information	
Zone Area Forecast for Lincoln County, OK	
Forecast Discussion	Air Quality Forecasts
Printable Forecast	Text Only Forecast
Hourly Weather Graph	Tabular Forecast
International System of Units	About Point Forecasts
Interactive Forecast Map	Fire Weather Forecasts
Local Climatology	Hazardous Weather Outlook
GraphiCast	Area Weather Conditions
7-day Forecast	Storm Data
Past Weather Information	Rivers and Lakes AHPS
Hydrology Page	Original Home Page
Enhanced Weather Page	NWS Norman Home

Also note that you can access these graph and tabular forecast products directly for the Mesonet site location selected on the home page of OK-FIRE. These direct links appear in the “National Weather Service” section as “NWS Forecast Chart” and “NWS Forecast Table” followed by the name of the Mesonet station to which they pertain.

OK-FIRE also has links to other NWS forecast models as well as to US Forest Service operational centers running the MM5 model, which is run locally in-house at each location. These links can be found in the WEATHER/Forecasts section, in the FIRE/Fire Weather Forecasts section, and in the SMOKE/Forecast Boundary Layer Conditions section.

In addition, you can find extended forecasts in the Weather/Forecasts/ Extended Forecasts section of the web site. Outlooks for the next 6-10 days, 8-14 days, 30 and 90 days, and beyond that are available.