

Product Description Document (PDD)
Experimental Monterey 3-km WRF_ARW Model Output

Part I – Mission Connection

- a. Product Description – The Experimental Monterey WRF_ARW is run locally at the WFO Monterey and gives hourly output out to 36 hours. The high resolution model is used for operational forecasting and research in the San Francisco and Monterey Bay Areas of Central California. Model output graphics, generated by GEMPAK software, are posted for 3 hourly forecast time steps to the WFO Monterey web page. The fields include temperatures, dew point, relative humidity, wind, precipitation, sea level pressure, and cloud water.
- b. Purpose – The high resolution model output can be used for operational forecasting and research in 11 counties defined by the Monterey Weather Forecast Office's CWA. We expect to use the model qualitatively to help refine phenomena related to terrain such as cloud cover, temperature, winds and orographically forced precipitation. This model should give some clues about how complex terrain can affect local weather in Central California.
- c. Audience – The main audience is the NWS and other government agencies, mainly related to aviation. Other users may include local media, the general public and private weather forecasting companies and researchers.
- d. Presentation Format – The Monterey WRF_ARW model output is displayable on a web page with static images in 3 hourly forecast time steps out to 36 hours.
- e. Feedback Method/Period – We would encourage any and all feedback from Internet users through email to W-mtr.Webmaster@noaa.gov. We will then take the feedback and address any changes needed to the model parameters and/or the web page.

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Part II – Technical Description

The WRF_ARW is controlled and run locally with WRF_EMS software at the WFO Monterey. The model domain is centered over the San Francisco Bay Area and also includes the Monterey Bay Area. The model has configurations that can be modified. The current configurations can be found in <http://www.wrh.noaa.gov/mtr/mtrwrfdoc.php>. The technical limitations of this product are inherent in the parameterizations of the mesoscale model. GEMPAK is used to create readily accessible, useable, and understandable GIF images from the model output to display on the webpage at <http://www.wrh.noaa.gov/mtr/mtrwrf.php>. Currently any Internet browser that opens gif images is all that is required. The model is run twice a day out to 36 hours. The latest web graphics are usually posted to the web page around 06Z and 18Z (11 pm and 11 am PDT).