

1.4 Hurricane WRF: 2018 operational implementation and community support.

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The Hurricane WRF model (HWRF) is one of the NOAA/NCEP's operational tropical cyclone guidance models, providing real-time forecasting for all global tropical cyclones with its main customers including the National Hurricane Center, Central Pacific Hurricane Center, and Joint Typhoon Warning Center. HWRF is built within the WRF infrastructure, and it uses the WRF-NMM dynamic core. It is a sophisticated, high-resolution, air-sea coupled forecast system designed to resolve inner-core features of hurricanes and to improve our understanding of multi-scale, spatial-temporal interactions between the storm and large-scale environment, as well as air-sea interaction processes. In addition to the update of the real-time performance of the FY2017 HWRF, the upgrades and configuration for the FY2018 operational HWRF implementation will be reported, including the system and framework enhancements, data assimilation improvements, as well as physics advancements. Additionally, an overview of the HWRF community support that is provided by the Developmental Testbed Center will be discussed.