



Dear Representative,

On behalf of the National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) National Centers for Environmental Prediction (NCEP) Environmental Modeling Center (EMC) Regional Air Quality Modeling team, I am writing to offer strong support for the proposal titled **“Implement the DeepCTM to Enhance the Performance of the National Air Quality Forecast Capability.”**

Dr. Jia Xing’s proposal is well-aligned with NOAA’s mission to advance air quality forecasting at high resolutions by employing innovative techniques to improve the simulation of air quality processes, enhance model performance, and refine air quality forecast products. In response to the increasing demand for cutting-edge solutions, EMC is committed to closely collaborating with Dr. Jia Xing should this proposal be funded. It is important to note that this collaboration will not require funding support from the proposal for activities at EMC.

Our collaborative efforts may include the following:

- Providing updates and guidance on the use of NOAA’s Unified Forecast System (UFS)-based online air quality prediction system.
- Offering essential operational forecast model inputs and outputs to apply the proposed machine learning techniques for refining NAQFC forecast products.
- Contributing to the preparation and submission of publications and conference presentations to disseminate project results.

These joint activities between EMC and the University of Tennessee, Knoxville, will significantly enhance the capabilities of NOAA’s UFS-AQM online systems, leading to substantial improvements in NAQFC forecast products. These advancements will further strengthen the utility of our forecasts in providing critical air quality guidance to the public.

We are excited about the opportunity to collaborate with the University of Tennessee on developing a machine learning model to further refine NAQFC forecast products, and we encourage the proposal’s consideration for funding.

Sincerely,

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National Air Quality Forecasting Capability
National Oceanic and Atmospheric Administration
National Weather Service / National Centers for Environmental Prediction
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