



NOAA1652 – Support Scientist – Capitalizing on NWS Investment in AWIPS2 Graphical Forecast Editor (GFE) to Improve Efficiency and Utilization for Ocean Weather Warnings and Forecasts

*NOAA/National Weather Service Ocean Prediction Center
College Park, MD*

I.M. Systems Group, Inc. (IMSG), www.imsig.com (<http://www.imsig.com/>), a Federal Government Contractor, is seeking to fill a position for a Support Scientist to work at the Ocean Prediction Center of NOAA's National Centers for Environmental Prediction (NCEP) in College Park, MD. The candidate will work within the Ocean Application Branch of the Ocean Prediction Center (OPC). The OPC is one of the service centers that make up the National Centers for Environmental Prediction and is responsible for weather warnings and forecasts for the offshore and high seas waters of the north Atlantic and Pacific oceans.

The AWIPS II GFE has the potential to be the principal forecast production tool of the OPC and the two other offices with high seas forecast responsibility (NHC and WFO Honolulu). Producing basin-scale grids under the present software configuration will take a significant amount of time on a daily basis. As part of the next step in migration, the OPC is proposing to: a) data mine the smart tools developed and used by the coastal WFOs and implement those tools deemed applicable to OPC; b) partner with the Australian Bureau of Meteorology to share GFE capabilities, define needs, and efficiently improve marine weather services; c) develop tools to improve efficiency and consistency across borders of responsibility; d) improve gridded verification by utilizing non-standard data sets such as satellite ocean winds from scatterometers and wave heights from altimeters; e) extend the use of the Near Shore Wave Prediction System to include input from OPC generated ocean basin scale wind grids; and f) engage the two US Navy Fleet Weather Centers at Norfolk and San Diego to discuss their use of GFE in their operations and potential technical and forecast collaboration.

Exploiting the capabilities of GFE for marine hazards will help to build the necessary facets of the forecast process in preparation for probabilistic based hazards. Specifically, the steps outlined in this proposal build a verification capability and utilization of satellite based observations of wind and waves, two of the facets of FACETS.

Capitalizing on the benefits of GFE and the digital database in OPC operations requires the following steps over the course of the next five years:

- addition of a meteorologist developer position at the OPC Ocean Applications Branch [estimated Q2 FY17];
- training of the new meteorologist developer at the OPC [estimated Q2FY17];
- developer data mines the smart tools developed and used by coastal WFOs and BoM and prioritizes continuous implementation into operations [Q3FY17];
- examine applications for surface and sea state analyses for scientific integrity and to gain workflow efficiencies [Q4FY17];
- development of other scientifically appropriate tools to improve forecaster efficiency and forecast consistency Q1FY18]

Required skills:

- This position requires a B.S. or M.S. in atmospheric science, with a strong background in generating or manipulating data for application.

- The position also requires experience with scripting in python, working within the Linux operating system, and an understanding of grid production methods.
- The candidate must also possess the capability to work as part of a small collaborative team with good written and oral communication skills.

Desired Skills:

- Experience working in support of an operational environment, within the requirements for configuration and code management.
- Knowledge of Python, scripting in Linux, and the development of meteorological applications utilizing gridded data sets.
- Knowledge of air sea interaction challenges, operational oceanography, and marine meteorology.

Please include information on your current U.S. citizenship or current visa status.

- Green Card holder preferred.

To Apply:

Please submit your resume, the contact information for three (3) references, your salary requirements and a cover letter explaining how your qualifications meet the requirements of the position to <https://careers-imsf.icims.com> with the following subject line: **NOA1652 Support Scientist – OPC AWIPS2 support**