



**Support Scientist – Coupling Wave to
Weather Operational Systems**
NOAA Environmental Modeling Center (EMC)
College Park, MD

I.M. Systems Group, Inc. (IMSG), (<http://www.imsig.com/>), a Federal Government Contractor, is seeking to fill a position for a Support Scientist to work at NOAA's National Centers for Environmental Prediction's (NCEP) Environmental Modeling Center (EMC), located in College Park, MD. The successful candidate will support NCEP's EMC with developing algorithms for coupling WAVEWATCH III (a third generation wind wave spectral model) with other numerical weather prediction systems. The candidate will also provide support to the development of a new framework for scripting, and to the code sharing server and procedures connecting NCEP's development work to a group of external collaborators.

Job Duties:

The candidate will perform the functions of the job in a high-quality, independent and collaborative way, assisting in managing projects, and developing and applying innovative methods for the primary work areas below.

The candidate will work with scientists at EMC to develop advanced algorithms for runtime coupling of numerical weather prediction models used operationally at NCEP, and transitioning the resulting system to operate within NOAA's supercomputing environment. The specific activities will include:

- Support the existing inline scheme coupling the WAVEWATCH III model to NCEP's Global Weather Forecasting System (GFS), within the Climate Forecast System (CFS),
- Support the efforts to incorporate the WAVEWATCH III model in the NEMS (NOAA Environmental Modeling System) framework to couple with other NCEP Earth System models. The NEMS framework is based on the Earth Systems Modeling Framework (ESMF).
- Provide scripting support
- Transition systems into the operational environment at the NCEP supercomputers,
- Support the management of code changes within a shared code development environment (currently using the Subversion management system).

Required Skills:

Education and Experience:

- A graduate degree in Physical Oceanography, Coastal and/or Ocean Engineering, or a closely- related physical or applied mathematical science, with at least 5 years of experience in the area of computational modeling.

Knowledge, Skills and Abilities:

- Experience with coupled model systems and working with third generation wind wave models
- Experience with code development in FORTRAN 90, scripting in Linux/Unix shell environments, Matlab and Python,

- Experience with running complex jobs, and processing large amounts of observed and modelled output data.

Desired Skills:

- Experience in using mainframe supercomputers and/or workstations in a FORTRAN/UNIX environment, using statistical and display tools,
- Strong computational skills
- Proven ability to work well in a team environment,
- Relevant peer-reviewed publications.
- Good written and oral communication skills.

To Apply:

Please submit your resume, the contact information for three (3) references, and a cover letter explaining how your qualifications meet the requirements of the position to: jobs@img.com with the following subject heading: **NOA1524 Support Scientist: Coupling Wave to Weather Operational Systems.**

IMSG offers an outstanding overall Benefit Package including company paid leave, medical, dental, vision, and 401K. Please indicate your timeline of availability and preferred salary level for consideration.

IMSG is an Equal Opportunity Employer and Veteran Friendly.