



**NOA1763 Support Scientist –  
Space Weather  
NOAA/NCEP  
College Park, MD/Boulder, CO**

I.M. Systems Group, Inc. (IMSG), [www.imsig.com](http://www.imsig.com) a Federal Government Contractor is seeking to fill a full-time position supporting the National Centers for Environmental Prediction (NCEP). The contractor will support the Environmental Modeling Center (EMC) located in College Park, MD and the Space Weather Prediction Center (SWPC) located in Boulder, Colorado. The duty station for this position will be at EMC in College Park, MD.

**Basic job function:**

This position will support the mission at SWPC/EMC to deliver an operational coupled Whole Atmosphere - Ionosphere-Plasmasphere-Electrodynamics (WAM-IPE) model and products in the near future. This job encompasses the development, maintenance, and management of the WAM-IPE system code on the NCEP supercomputers.

The job may require travel to Boulder, CO, several times a year. Access to NCEP computers will require either Green Card or US citizenship.

**Duties/Responsibilities**

- Under the direction of the WAM-IPE project manager and project scientist, develop, upgrade, and maintain the WAM and IPE codes and make it available for runs-on-demand.
- Represent the interests of space weather applications of WAM and IPE at EMC.
- Coordinate and ensure compatibility of development of WAM and WAM data assimilation system with those of the EMC Global weather forecast model and data assimilation system.
- Run the model code for tests, evaluation, and validation.
- Maintain version control of the code.
- Develop and run post-processing analyses for evaluation of model output.
- Develop and run scientific visualization package.
- Assist in development of the operational WAM and WAM Data Assimilation Systems.
- Participate in model validation activities.

**Required skills:**

**Education and Experience:**

- Ph.D. or Masters in physics, computer science, meteorology or a related discipline, with 2-4 years of model development experience.

### **Knowledge, Skills and Abilities:**

- Working knowledge of weather and/or space weather models.
- Programming and Code Development:
  - Experience working with a variety of operating systems and environments including Windows and Linux.
  - Experience in development of parallel codes in FORTRAN is required.
  - Experience with debugging, performance analysis, benchmarking, and tuning of complex numerical model codes.
  - Familiarity with and knowledge of scalable parallel techniques and programming, such as MPI, OpenMP, and/or GPU.
  - Ability to clearly document and maintain version control of codes
- Understanding of validation and verification techniques for model performance assessment.
- Ability to establish good working relationships with the programmers and scientists who develop the models.
- Good verbal and written communication skills

### **Desired skills:**

- Proficiency in variety of computer languages and visualization packages
- Knowledge of advanced data assimilation techniques
- Knowledge and experience of various modeling infrastructures like ESMF, NUOPC etc.
- Knowledge of physics and dynamics of the upper atmosphere and space weather

Please note U.S. citizenship or green card is required for the position.

### **To Apply:**

Please apply directly to our career portal or website: [www.msg.com](http://www.msg.com) or <https://careers-msg.icims.com> **(NOA1763- Support Scientist-Space Weather)**. Include your resume, three references with contact information and a cover letter explaining how your qualifications meet the requirements of the position. Please indicate your timeline of availability and preferred salary level for consideration.

MSG offers an outstanding overall Benefits Package including company paid leave, medical dental, vision, and 401K. MSG is an Equal Opportunity Employer and Veteran Friendly.

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