



Marine Meteorology Division

Striving to better understand the environment so the Navy can better simulate it, better predict it, and help the warfighter make better decisions

AT A GLANCE

Who are we?

A member of the Naval Research Enterprise and Team Monterey consisting of 75 civil servants and a total of 120 on-site employees. Our team is a mixture of meteorologists, physicists, mathematicians, and physical scientists. NRL is a working capital fund, and the Division successfully competes for funding of approximately \$30M annually.

What makes us unique?

We are the DoD's only program in numerical weather prediction, and the only atmospheric science research group in the Nation that covers basic atmospheric science through to operational transition. The Division proactively partners with academia and industry to identify, adopt, harden, and operationalize science and technology that complements our own portfolio.

What is our impact?

Division scientists publish in the world's top journals, and are members of national and international scientific committees and advisory boards. In addition, we provide the Nation with its only protected, Information Assured numerical weather prediction models and related systems to be run operationally by and for the Navy.

Point of Contact

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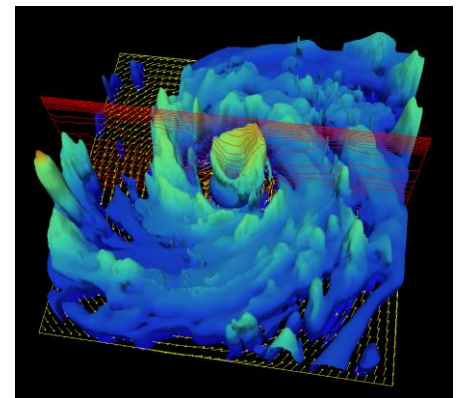


The U.S. Naval Research Laboratory's Marine Meteorology Division conducts the Nation's only full-spectrum research program in the atmospheric sciences and the only Department of Defense program in numerical weather prediction. The Division performs the basic and applied research that underpins the Navy's operational numerical weather prediction systems, and then develops and transitions those numerical weather prediction systems for use in real-time operations. The Division also researches how the environment impacts Navy sensors and weapon systems (e.g. ship-board radars, directed energy systems) as well as automated decision guidance systems, such as piracy interdiction, submarine water space, combined mission/logistics planning, and weather impacts on autonomous surveillance assets.

Located in Monterey, California, the Division is adjacent to the Fleet Numerical Meteorology and Oceanography Command (FNMOC) - the Navy's operational numerical weather and ocean prediction production center. This co-location enables a tight relationship between the organizations which enables our researchers to respond quickly to Fleet needs and efficiently transition new capabilities. The Division also partners effectively with the Naval Postgraduate School, collaborating with NPS students for research and their warfare area expertise.

External partners for enhanced impact

The Division's reputation for excellent science enables building relationships with the best university researchers and industry partners in the country. This allows us to identify and harvest scientific and technological expertise that complements our own expertise. We can then assess the new science/technology, implement it in a protected, secure manner, and ultimately transition it to Navy operations. This approach allows the Division to have an impact that far exceeds its small footprint.



Simulation of TC Isabel using the Navy's Tropical Cyclone prediction system.