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Department of Meteorology

Meteorology Department Publications

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2001

## Department Summary

Monterey, California; Naval Postgraduate School

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## DEPARTMENT SUMMARY

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### **OVERVIEW:**

The Department of Meteorology was founded in 1946 and throughout its history has had one of the leading meteorology programs in the country. The objective of the curricula is to provide students with a sound understanding of the science of meteorology and to develop the technical expertise to provide and utilize meteorological data and models in support of all aspects of weather-department operations.

### **CURRICULA SERVED:**

- Meteorology
- Meteorology and Physical Oceanography

### **DEGREES GRANTED:**

- Master of Science in Meteorology
- Master of Science in Meteorology and Physical Oceanography
- Doctor of Philosophy in Meteorology

### **RESEARCH THRUSTS:**

- Synoptic, Mesoscale, and Coastal Meteorology:  
Distinguished Professor Russell Elsberry, Associate Professor Wendell Nuss, Professor Carlyle Wash, Research Assistant Professor Douglas Miller
- Numerical Weather Prediction (NWP):  
Professor Roger Williams, Research Associate Hway-Jen Chen, Research Assistant Professor Elizabeth Ritchie, Research Assistant Professor Douglas Miller
- Environmental Analysis and Visualization:  
Research Associate Mary Jordan
- Air-Sea Interactions:  
Professor Kenneth Davidson, Professor Robert Haney, Research Associate Paul Frederickson
- Satellite and Ground Based Remote Sensing:  
Professor Phillip Durkee, Research Associate Kurt Nielsen
- Tropical Meteorology:  
Professor Chih-Pei Chang, Research Associate Professor Lester Carr, Research Associate Hway-Chen, Research Associate Professor Patrick Harr, Research Assistant Professor Elizabeth Ritchie
- Tropical Cyclone Motion:  
Distinguished Professor Russell Elsberry, Research Associate Professor Lester Carr, Research Associate Professor Patrick Harr
- Boundary Layer Meteorology:  
Professor Kenneth Davidson, Assistant Professor Qing Wang, Research Fellow Ioannis Kalogiros
- Climate Dynamics:  
Professor Chih-Pei Chang, Professor Roger Williams, Research Associate Hway-Jen Chen, Senior Lecturer Tom Murphee
- Atmospheric Factors in EM/EO Propagation:  
Professor Kenneth Davidson, Research Associate Professor Peter Guest, Research Associate Paul Frederickson
- Polar Meteorology:  
Research Associate Professor Peter Guest

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### RESEARCH FACILITIES:

#### **IDEA Laboratory**

- The Interactive Digital Environmental Analysis (IDEA) laboratory has Silicon Graphics workstations specifically designed and funded for instruction. The lab computers analyze and display real-time satellite data and numerical model output.

#### **Tactical Laboratory**

- The Tactical Lab operates an SMQ-11 DMSP satellite receiver that collects and processes classified environmental data and runs military tactical decision aids used to support operations.

#### **Synoptic Analysis and Forecasting Laboratory**

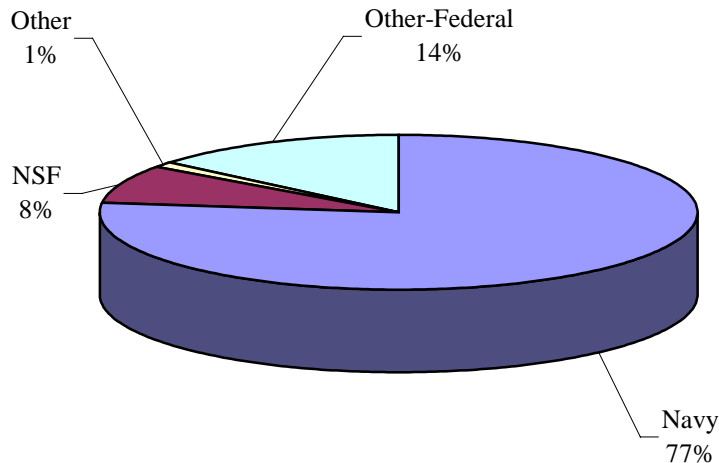
- The Synoptic Analysis and Forecasting Lab uses a suite of computers and advanced display devices to provide local and global real-time meteorological data and numerical products for instruction and research in operational weather forecasting.

#### **Measurements Laboratory**

- The Measurements Lab provides information from a special near-coastal observation site at Fort Ord in support of instruction and research in boundary layer and coastal meteorology. Present instrumentation includes two radar wind profilers, an automatic surface weather station, and rawinsonde systems.

### RESEARCH PROGRAM-FY2000:

The Naval Postgraduate School's research program exceeded \$43 million in FY2000. Over 93% of the Naval Postgraduate School Research Program is externally funded. A profile of the external research sponsors for the Department of Meteorology is provided below along with the size of the FY2000 externally funded program.



**Size of Program: \$2358K**