

**NATIONAL WEATHER SERVICE INSTRUCTION 10-340**  
**AUGUST 1, 2007**

*Operations and Services*  
**MARINE AND COASTAL WEATHER SERVICES, NWSPD 10-3**  
**MARINE FORECASTER TRAINING**

---

**NOTICE:** This publication is available at: <http://www.nws.noaa.gov/directives/>.

---

**OPR:** OS21 (M.Tew)

**Certified by:** OS21 (T. Pierce)

**Type of Issuance:** Initial

---

**SUMMARY OF REVISIONS:** This is a new directive.

\_\_\_\_\_  
signed  
James E. Hoke  
Acting Director, Office of Climate,  
Water, and Weather Services

\_\_\_\_\_  
July 18, 2007  
Date

**Marine Forecaster Training**

Table of Contents: Page

- 1. Introduction .....2
  - 1.1 Mission Connection .....2
- 2. Marine Forecasters.....2
- 3. Baseline Marine Training .....2
  - 3.1 Initial Training .....3
  - 3.2 Continual Training .....3
- 4. Optional Training.....3

1. Introduction. This procedural instruction provides specifications for the training of National Weather Service (NWS) marine forecasters. The Meteorologists-in-Charge (MICs) and the appropriate Regional Headquarters, and National Center Branch Chiefs are responsible for ensuring marine weather forecasters are properly trained.

1.1 Mission Connection. Marine forecasts and warnings are core NWS products used by a wide variety of users and partners such as professional mariners, recreational boaters, the Armed Forces, the media, emergency managers, and the general public. They are used as tools for planning purposes to support and promote safe transportation and promote commerce across marine and Great Lakes waters. Advances in science and technology will offer opportunities to provide NWS forecasters with new tools to improve services and necessitates a commitment to continuous education and training of our workforce to use the tools effectively.

2. Marine Forecasters. NWS meteorologists producing, issuing or providing back-up service to any of the suite of core marine weather forecasts or marine advisories/warnings must be trained in the basic principles of marine weather, with special emphasis on forecasting of waves. Core marine products include Coastal Waters Forecasts, Offshore Forecasts, High Seas Forecasts, Nearshore Marine Forecasts (Great Lakes), Open Lake Forecasts (Great Lakes), Special Marine Warnings, and Marine Weather Statements.

3. Baseline Marine Training. Marine training modules produced by the Cooperative Program for Operational Meteorology, Education and Training (COMET) will provide the basic core resources for marine forecaster training. All NWS marine forecasters will complete the following COMET modules:

- (1) Wave Types and Characteristics
- (2) Wave Life Cycle I: Generation

- (3) Wave Life Cycle II: Propagation & Dispersion – (Optional for Great Lakes Weather Forecast Offices (WFOs))
- (4) Winds in the Marine Boundary Layer (MBL): A Forecaster’s Guide
- (5) Understanding Marine Customers

Note: COMET marine training modules can be accessed through the Marine and Coastal Weather Services page under training at <http://www.nws.noaa.gov/om/marine/marine.shtml>.

3.1 Initial Training. New marine forecasters with no previous experience forecasting in the marine environment will complete all baseline marine training modules (as specified in Section 3), along with any additional marine training requirements (if specified by regional supplements to this directive). Forecasters should complete the required training within six months of arrival on station.

3.2 Continual Training. Experienced marine forecasters should complete and periodically review the training materials indicated in Section 3 (Baseline Marine Training Modules), once every 3 to 5 years, as well as other available and relevant training materials. If required by the appropriate Regional Headquarters, National Centers, or by local WFOs (MIC discretion), more specific refresher training requirements may be defined.

4. Optional Training. All NWS marine forecasters should complete one or more of the following optional COMET modules:

- (1) Advances in Microwave Sensing: Ocean Wind Speed and Direction
- (2) Remote Sensing of Ocean Wind Speed and Direction: An Introduction to Scatterometry
- (3) Shallow Water Waves
- (4) Rip Currents: NWS Mission and Partnerships
- (5) Rip Currents: Nearshore Fundamentals
- (6) Rip Currents: Forecasting

Note: COMET marine training modules can be accessed through the Marine and Coastal Weather Services page under training at <http://www.nws.noaa.gov/om/marine/marine.shtml>.

Local NWS offices and National Centers may have local training requirements and/or resources which would further enhance marine forecaster training for their users. Forecasters are highly encouraged to pursue any additional marine-related training which would enhance their knowledge and skills.