

## MARINE WEATHER COURSE FOR FISHERMEN (Draft 2: 6/12)

Goal: The purpose of this training is to provide information and skills so that weather principles for weather forecasting can be applied to severe weather avoidance.

Objectives: After successful completion of the course, the participant should be able to:

1. Compare the difference between weather vs. climate.
2. Determine how wind and waves are created and how this can be effective in predicting weather.
3. State the significance of synoptic times for new data (00, 06, 12, 18 Greenwich mean time).
4. Compare new GRIB (gridded binary model predictions) weather data vs. manual forecasts.
5. State the importance of combining forecasts with observations and local knowledge of weather patterns.
6. Determine at least three methods of obtaining a weather outlook including sea conditions.
7. Determine how the speed of weather changes wind directions and shifts pressure patterns, and how pressure changes/differences create wind.
8. Demonstrate ability to read and use a barometer and an anemometer to provide information to determine probable weather.
9. Determine the optimal mode of receiving weather information: VHF; HF/SSB; weatherfax; sat phones; cell phone; PCs (and tablets!) for relevant fishery region.
10. Identify at least four weather sources (Marine Weather Services Charts, planning vs underway, online and radio)

Main internet links (primary sources of live data):

<http://www.opc.ncep.noaa.gov> = Ocean Prediction Center

<http://www.ndbc.noaa.gov> = National Data Buoy Center

<http://www.nhc.noaa.gov> = National Hurricane Center

11. Calculate the wind speed from the sea state using the Beaufort scale.
12. Identify at least two features of squalls, fronts and storms.
13. List at least six shipboard observations to judge timing of official forecasts (changes in wind speed and direction, barometric pressure, clouds, precipitation and sea state).
14. State at least two characteristics, including wind speed, for each of the following four types of weather: Small craft advisory, gale, storm, and hurricane.
15. Identify three ways decision making affects risk taking in weather
16. Identify at least five different types of clouds and attendant local weather
17. Identify three local indicators of weather (e.g. sundogs, clouds over mountains, lightning, water spouts, etc.)
18. Identify maximum operating weather conditions for different loading conditions

Note: Regional curriculum issue would include icing at high latitudes, hurricane awareness in the Gulf, etc.