Marine Weather Quiz SADDLEBACK COLLEGE
Instructor-Mark Howe

Quiz #1 [Chapt. 1-4]

1. Define *adiabatic* cooling.

2. What are the only two weather warnings [almost] ever displayed in Dana Point Harbor and what do they signify?

3. Name and briefly describe [3 words or less] the three basic cloud types.

4. What is the typical weather pattern for Dana Harbor?

5. Diagram the Coriolis force/effect on a cyclonic depression in the Northern Hemisphere.

6. What are the two types of barometer and how does each determine air pressure?
   a.

   b.

7. What national agency has control of the weather service?

8. What is the source water for an *"El Nino"* condition?

9. What appears to be the immediate cause for an *"El Nino"* condition to form?

10. State the 4 local weather patterns with their characteristic wind directions.

11. Diagram the temperature/pressure/humidity relationship.

12. What kind of humidity are we using in #11 above?

13. a. What defines the dew point?

    b. How is dew point normally given?

14. Under what relationship between air and water temperature should there be the greatest evaporation from the ocean and why?

15. What does the reading on a mercury barometer mean?

16. What is standard atmospheric pressure in millibars? In mm of Hg? In inches?

17 - 21. Diagram and name the major currents in the No. Pacific Ocean, including the local counterpart of the *"El Nino"*. Mark each current as to whether it is warm or cool.

22. Compare/contrast ***Stable*** vs. ***Unstable*** conditions as pertains to weather.

23. Generally how do seasonal weather patterns move?

24. What is meant by "Pressure Gradient" and how do isobar lines show this?

25. If you put your back to the wind, how can you figure where a nearby low pressure cell is located?