

Lab: Exercises in the Reading, Coding, and Recording of Atmospheric [Weather] Data

I. Coding and Decoding of Barometric Pressure Readings

Code the following pressure readings:

989.2 mb = _____

1029.8 mb = _____

968.0 mb = _____

1001.1 mb = _____

1028.2 mb = _____

999.9 mb = _____

976.0 mb = _____

Decode the following pressure codes:

102 = _____

916 = _____

007 = _____

444 = _____

316 = _____

749 = _____

II. Determining Dew Point Temperature and Relative Humidity

Determine the Dew Point and Relative Humidity from the following:

Location A:

Dry-Bulb Temperature: 26°C

Wet Bulb Temperature: 18°C

Dew Point Temperature = _____

Relative Humidity = _____

Location B:

Dry-Bulb Temperature: 10°C

Wet Bulb Temperature: 1°C

Dew Point Temperature = _____

Relative Humidity = _____

Location C:

Dry-Bulb Temperature: -6°C

Wet Bulb Temperature: -8°C

Dew Point Temperature = _____

Relative Humidity = _____

Location D:

Dry-Bulb Temperature: 20°C

Wet Bulb Temperature: 20°C

Dew Point Temperature = _____

Relative Humidity = _____

Location E:

Dry-Bulb Temperature: 28°C

Wet Bulb Temperature: 18°C

Dew Point Temperature = _____

Relative Humidity = _____

III. Constructing a Weather Station Model

Construct a Weather Station Model on the figure provided from the following:

Location 1:

Air Temperature: 36°F

Dew Point Temperature: 28°F

Barometric Pressure: 1015.3 mb

Visibility: 7 miles

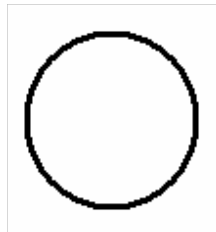
Present Weather: Clear

Precipitation [Last Six Hours]: 0.2 inches

Barometric Trend [Last Three Hours]: Rise of 5.8 mb

Wind: NW at 20 knots

Cloud Cover: 0%



Location 2:

Air Temperature: 81°F

Dew Point Temperature: 81°F

Barometric Pressure: 922.1 mb

Visibility: 0.25 miles

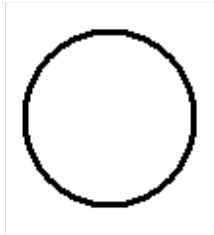
Present Weather: Thunderstorms

Precipitation [Last Six Hours]: 1.5 inches

Barometric Trend [Last Three Hours]: Fall of 7.3 mb

Wind: SE at 35 knots

Cloud Cover: 100%



Location 3:

Air Temperature: 26°F

Dew Point Temperature: 25°F

Barometric Pressure: 997.4 mb

Visibility: 0.50 miles

Present Weather: Snow

Precipitation [Last Six Hours]: 8.0 inches

Barometric Trend [Last Three Hours]: Fall of 7.3 mb

Wind: NE at 25 knots

Cloud Cover 75%

