Name _____ *Date* _____ *Period* _____

STATION MODELS

- To convert from millibars to "station model code" take the last three numbers.
  - For example 1234.5 turns into 345.
- To convert from "station model code" to millibars, do the following:
  - If the value is "500" or higher, put a 9 in front of it and add the decimal for the last digit.
  - If the value is lower than "500", put a 10 in front of it and add the decimal for the last digit.

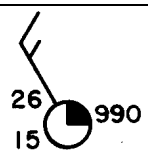
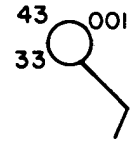
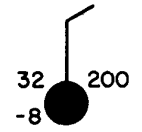
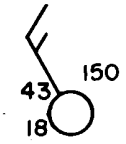
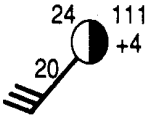
	Millibars	"Station Model"
1	1028.0	
2	1008.4	
3	992.2	
4	976.6	
5	994.8	
6	1000.1	
7	1008.2	
8	987.1	
9	988.8	
10	1022.2	

	Millibars	"Station Model"
11		281
12		206
13		080
14		168
15		800
16		888
17		165
18		768
19		000
20		987

Name _____ *Date* _____ *Period* _____

STATION MODELS

Decode the following Station Models and answer the questions below:

	Temp (°F)	Dew Point (°F)	Air Pressure (mb)	Cloud Coverage (%)	Wind Speed (knots)	Wind Direction (from _ to _)	Pressure System (H or L)
A 							
B 							
C 							
D 							
E 							

1. Which station has the greatest chance of precipitation?

2. How do you know?

3. What is the relationship between air pressure and weather conditions?

Name _____ *Date* _____ *Period* _____

STATION MODELS

Draw the station models for the following:

STATION #1:

temperature	30° F
dew point	29° F
wind speed	10 knots
wind direction	from the NW
air pressure	1012.0 mb
cloud coverage	clear
precipitation	light snowfall

STATION #2:

temperature	54° F
dew point	41° F
wind speed	15 knots
wind direction	from the E
air pressure	1013.2 mb
cloud coverage	25% of the sky
precipitation	none

STATION #3:

temperature	78° F
dew point	78° F
wind speed	no wind
air pressure	986.4 mb
cloud coverage	overcast
precipitation	thunderstorms and ½ inch of rain in last 6 hours

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STATION #4:

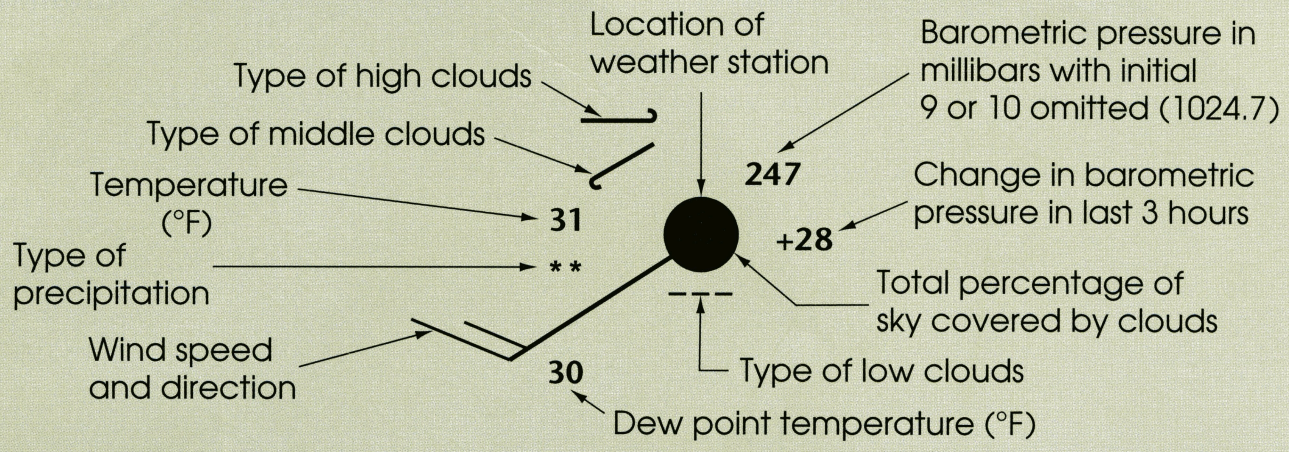
temperature	15° F
dew point	15° F
wind speed	35 knots
wind direction	to the SW
air pressure	1006.5 mb
cloud coverage	overcast
precipitation	heavy snowfall

STATION #5:

temperature	22° F
dew point	18° F
wind speed	none
air pressure	1021.0 mb
cloud coverage	clear
precipitation	none

Weather Map Symbols

Sample Plotted Report at Each Station



Symbols Used in Plotting Report

Precipitation

- Fog
- Snow
- Rain
- Thunder-storm
- Drizzle
- Showers

Wind speed and direction

- 0 calm
- 1–2 knots
- 3–7 knots
- 8–12 knots
- 13–17 knots
- 18–22 knots
- 23–27 knots
- 48–52 knots

1 knot = 1.852 km/h

Sky coverage

- No cover
- 1/10 or less
- 2/10 to 3/10
- 4/10
- 1/2
- 6/10
- 7/10
- Overcast with openings
- Complete overcast

Some types of high clouds

- Scattered cirrus
- Dense cirrus in patches
- Veil of cirrus covering entire sky
- Cirrus not covering entire sky

Some types of middle clouds

- Thin altostratus layer
- Thick altostratus layer
- Thin altostratus in patches
- Thin altostratus in bands

Some types of low clouds

- Cumulus of fair weather
- Stratocumulus
- Fractocumulus of bad weather
- Stratus of fair weather

Fronts and pressure systems

- (H) or High (L) or Low — Center of high- or low-pressure system
- Cold front
- Warm front
- Occluded front
- Stationary front