

**STATION MODEL WIND DIRECTION LAB**

NAME \_\_\_\_\_/21

Weather stations all around the US report wind speed and direction into a database that everyone can access.

Using your knowledge of isobars and air movement in low and high pressure systems, label the map with a red L and a blue H. (2pts) Check out this website: <http://hint.fm/wind/>

1. Where is there nice weather?  
\_\_\_\_\_

2. Where is there precipitation occurring?  
\_\_\_\_\_

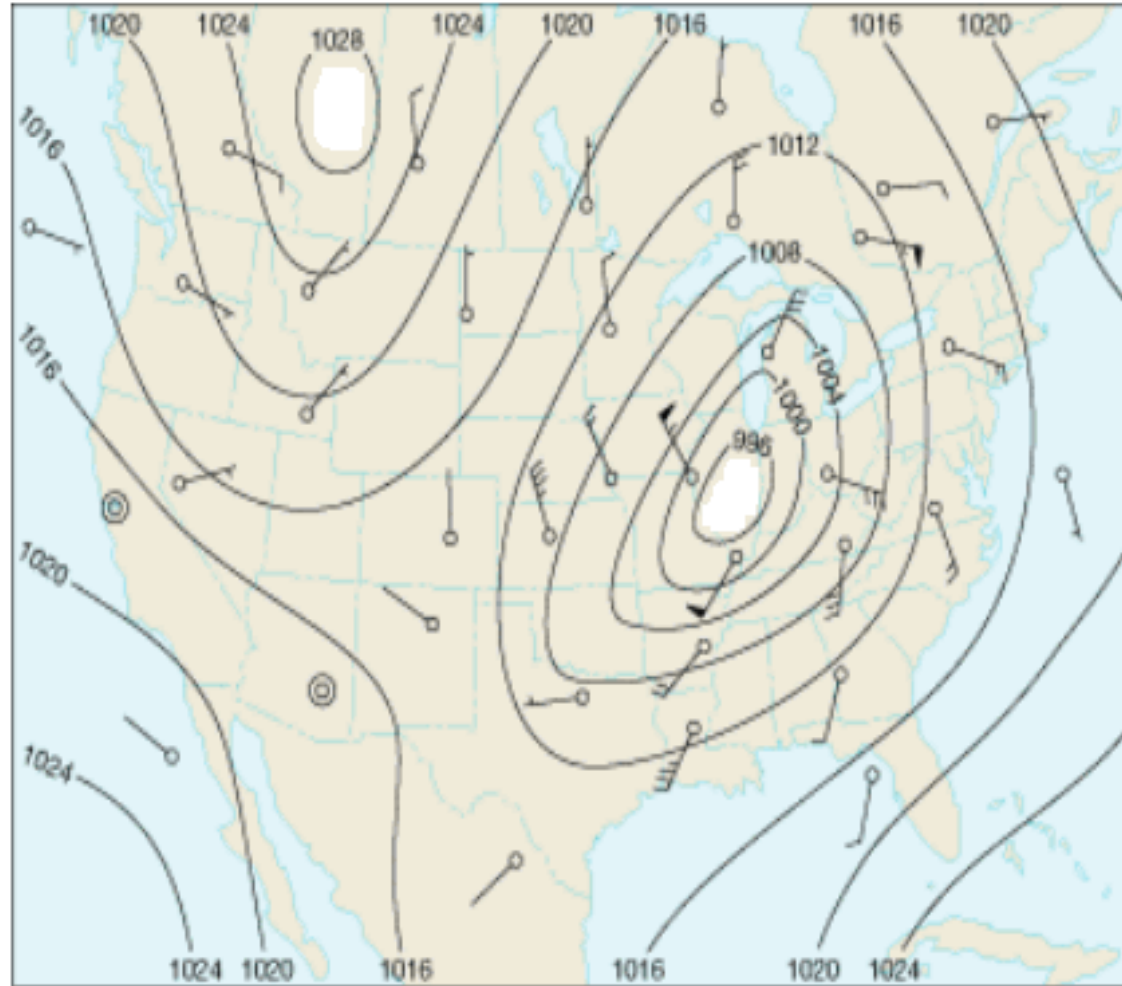
3. Who is experiencing higher winds, Michigan or California?  
\_\_\_\_\_

4. How fast are the Michigan winds?  
\_\_\_\_\_

5. Where is the wind coming from at the Mackinaw bridge? (what direction?)  
\_\_\_\_\_

6. What does a double circle mean?  
\_\_\_\_\_

7. What do they do to the "tail" of the station model to show faster wind speeds?  
\_\_\_\_\_



ff	Miles per hour
☉	Calm
—	1-2
—	3-8
— —	9-14
— — —	15-20
— — — —	21-25
— — — — —	26-31
— — — — — —	32-37
— — — — — — —	38-43
— — — — — — — —	44-49
— — — — — — — — —	50-54
— — — — — — — — — —	55-60
— — — — — — — — — — —	61-66
— — — — — — — — — — — —	67-71
— — — — — — — — — — — — —	72-77
— — — — — — — — — — — — — —	78-83
— — — — — — — — — — — — — — —	84-89
— — — — — — — — — — — — — — — —	119-123

8. Where would we see clouds on this map? (do clouds form during warm rising air, or cold sinking air?)  
\_\_\_\_\_

# STATION MODEL CLOUD COVER LAB

NAME \_\_\_\_\_

Study the weather map symbol chart, paying close attention to the cloud cover symbols. Now, using the map to the right, answer the following questions.

1. Which states are experiencing a lot of cloud cover?  
\_\_\_\_\_
2. Is cloud cover associated with nice, dry weather or rainy, wet weather?  
\_\_\_\_\_
3. Look at the wind directions. Which state seems to have most of the wind pointed toward it?  
\_\_\_\_\_
4. When all this wind arrives at the central location (and hits all the other wind), where will the air move next?  
\_\_\_\_\_
5. Over which state(s) is there a low pressure system?  
\_\_\_\_\_
6. Over which state(s) is there an anticyclone?  
\_\_\_\_\_
7. What type of air mass would create the 71 degree weather in Tennessee?  
\_\_\_\_\_
8. What type of air mass would create the 38 degree weather in South Dakota?  
\_\_\_\_\_
9. When there is a big difference between the temperature and the dewpoint, the air is generally more dry. When the temperature and dew point are closer, rain can fall easily (with a small temperature drop) Which 2 states are experiencing precipitation right now?  
\_\_\_\_\_
10. Is it rain or snow in these 2 states?  
\_\_\_\_\_
11. Which state is very far from the possibility of rain?  
\_\_\_\_\_

