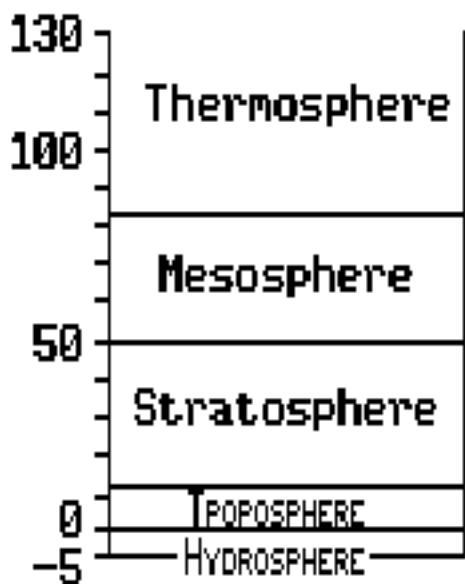
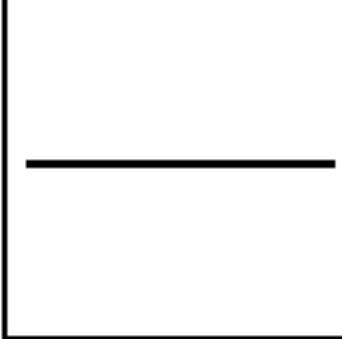


**Distance From Sea Level (kilometers)**



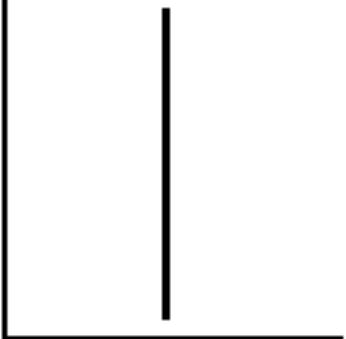
Density



The graph consists of a vertical y-axis and a horizontal x-axis. The y-axis is labeled 'Density' and has an upward-pointing arrow. The x-axis is labeled 'Temperature' and has a rightward-pointing arrow. A single horizontal line is drawn across the graph at a constant level on the y-axis, indicating that density is independent of temperature.

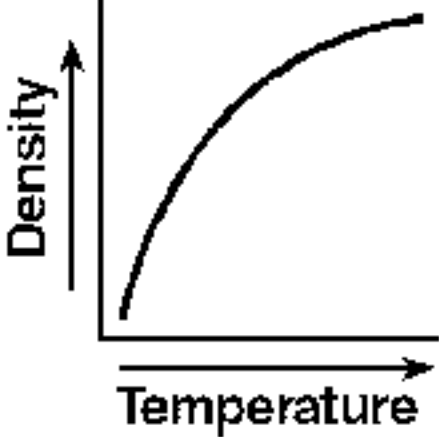
Temperature

Density



The graph consists of a vertical y-axis and a horizontal x-axis. The y-axis is labeled 'Density' and has an upward-pointing arrow. The x-axis is labeled 'Temperature' and has a rightward-pointing arrow. A single vertical line is drawn at a constant temperature value, extending from the x-axis to the top of the graph area.

Temperature

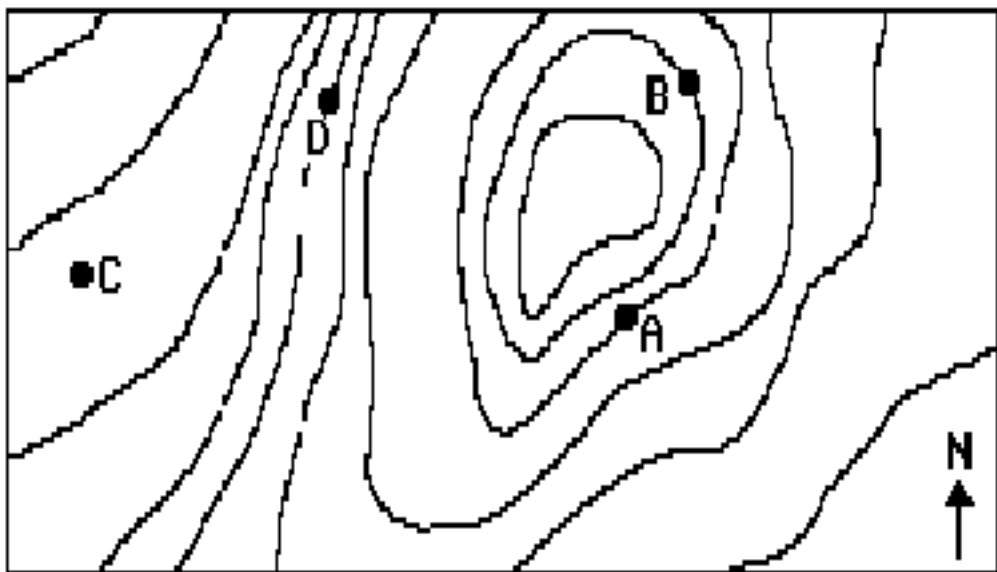


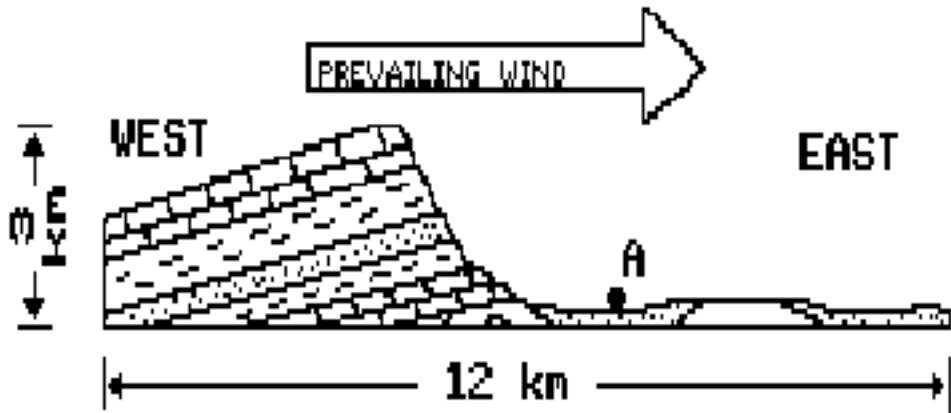
Density

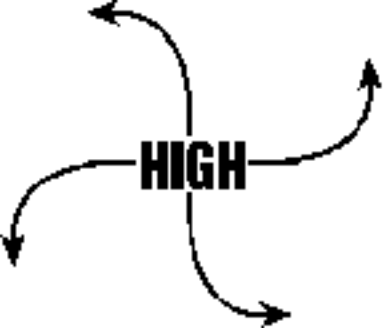


The graph illustrates the relationship between Density and Temperature. The y-axis is labeled 'Density' and the x-axis is labeled 'Temperature'. A smooth, continuous curve starts at a high density value for low temperatures and decreases as temperature increases, approaching the x-axis asymptotically. This represents an inverse relationship between the two variables.

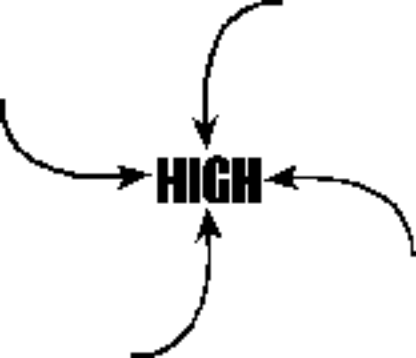
Temperature

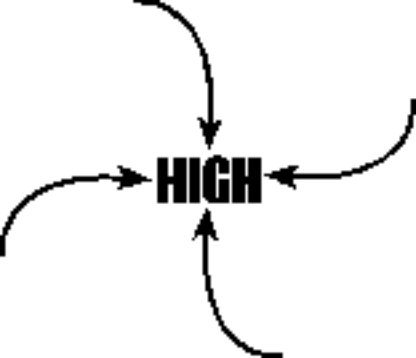


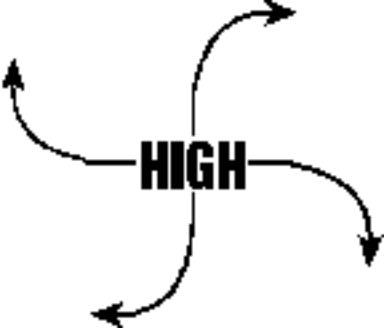












1,000mb

Plattsburgh

Lake Ontario

Glens Falls

**HIGH** 1,004 mb

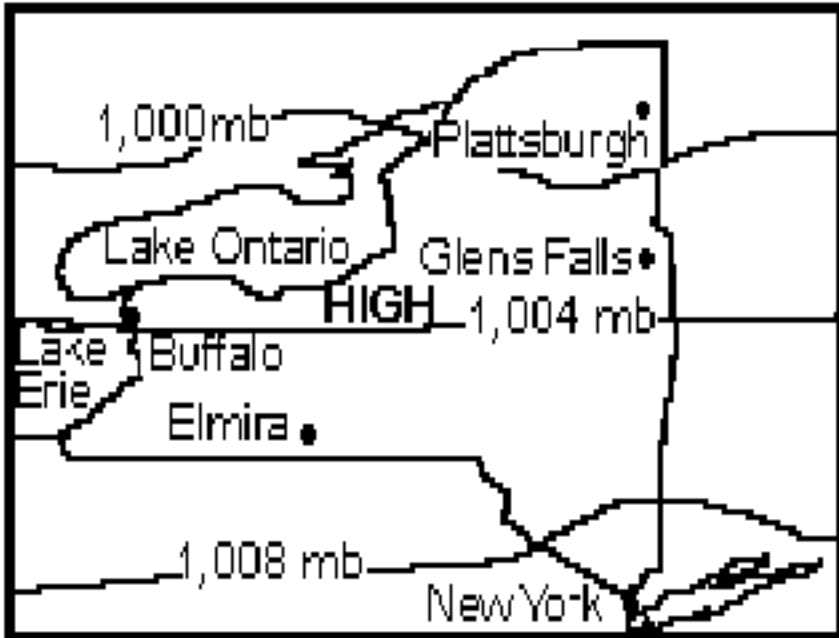
Lake  
Erie

Buffalo

Elmira

1,008 mb

New York



1,008 mb

Plattsburgh

Lake Ontario

Glens Falls

**HIGH**

Buffalo

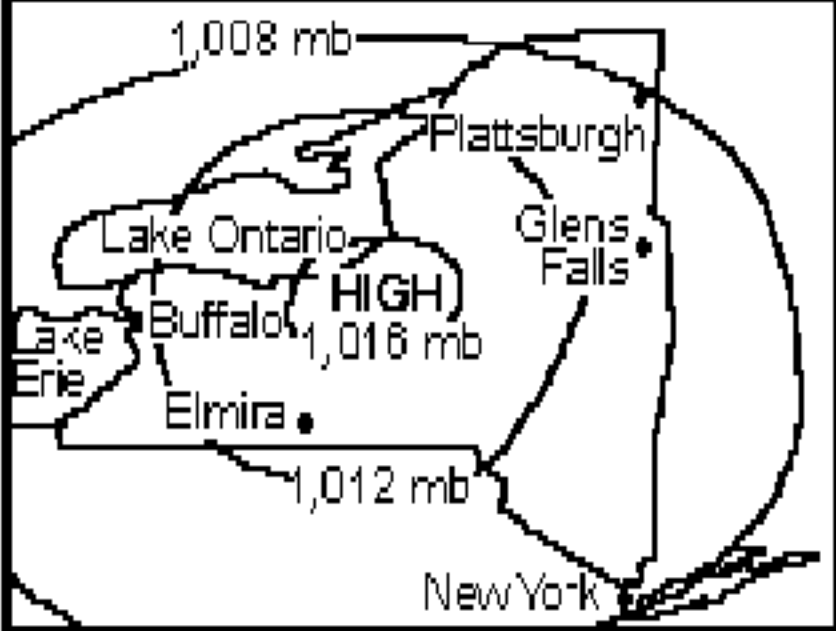
1,016 mb

Elmira

1,012 mb

New York

Lake Erie



1,016 mb

1,020 mb

Plattsburgh

1,024 mb

Lake Ontario

Glens Falls

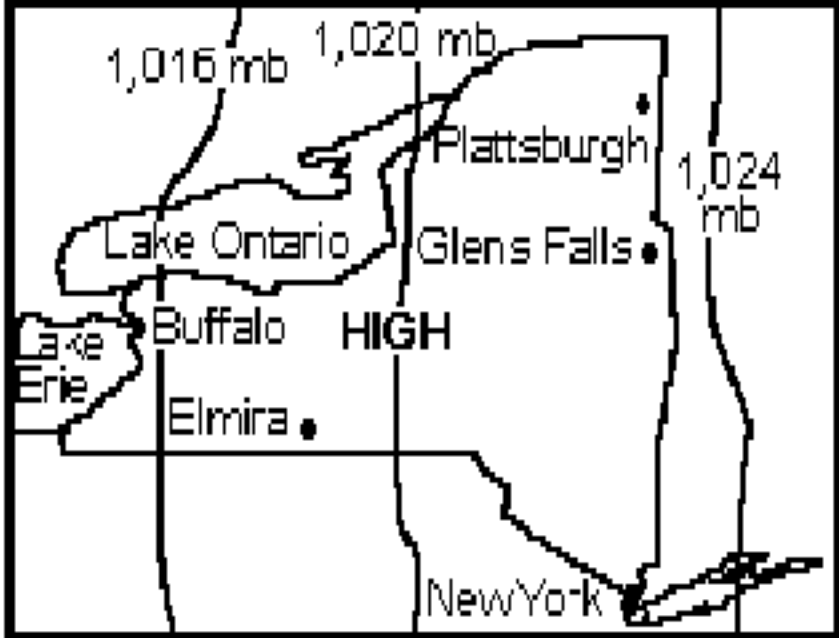
Buffalo

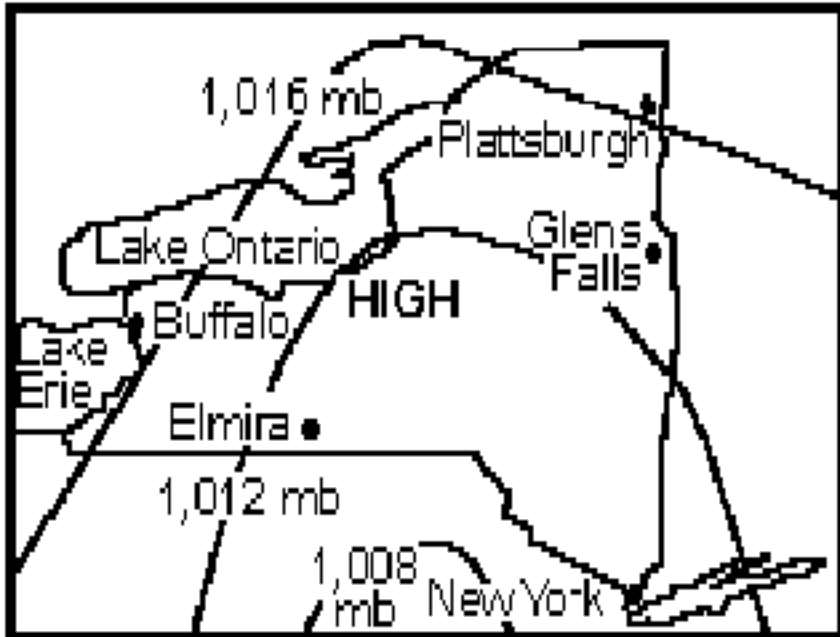
**HIGH**

Lake  
Erie

Elmira

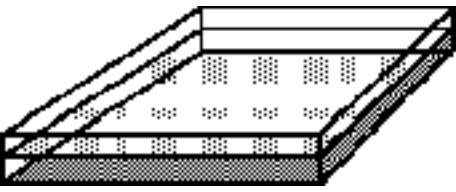
New York











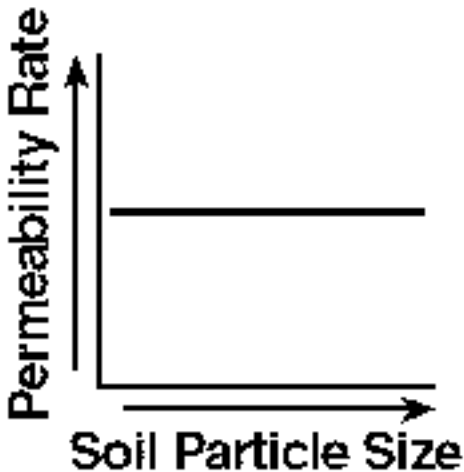


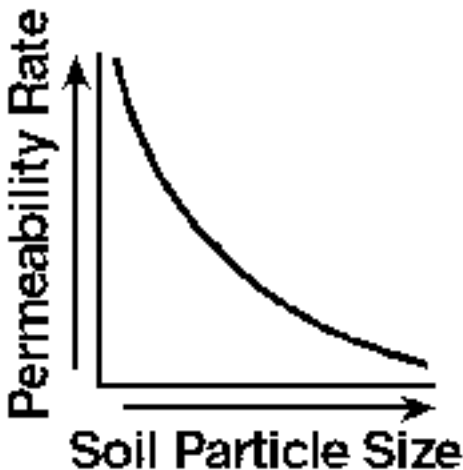
"Residents of this tiny community are being urged to evacuate."

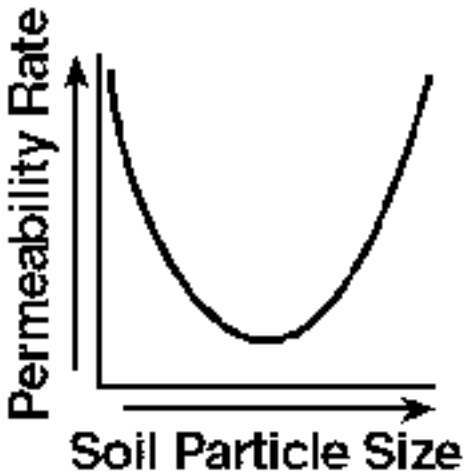
31  
2  
30

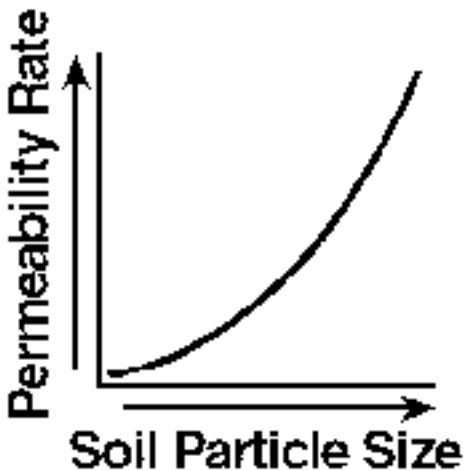


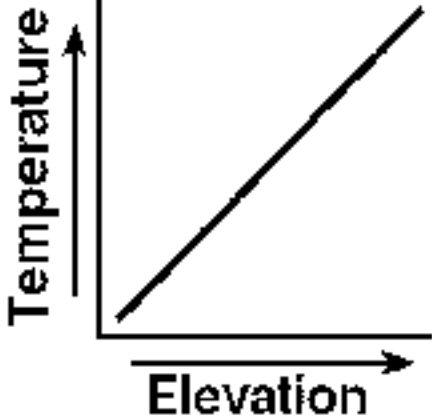
130  
-28  
.45



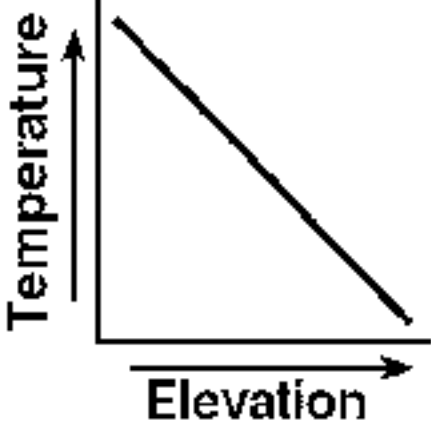


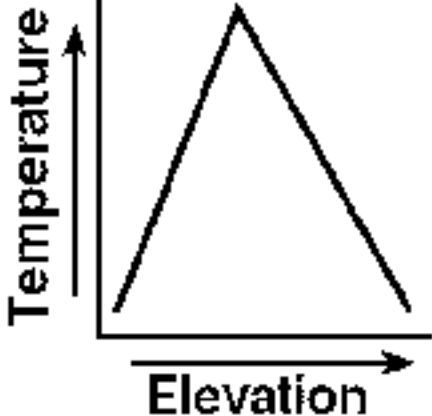


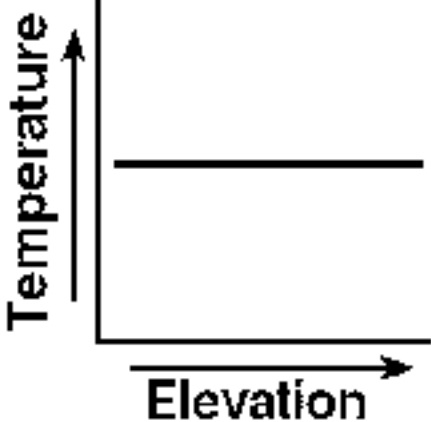


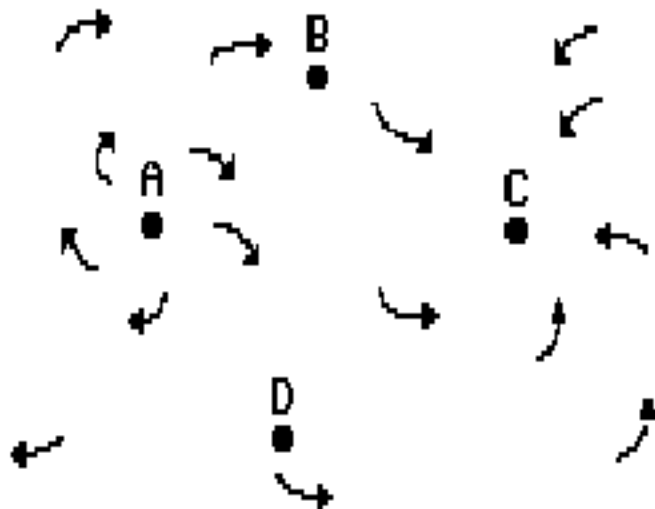


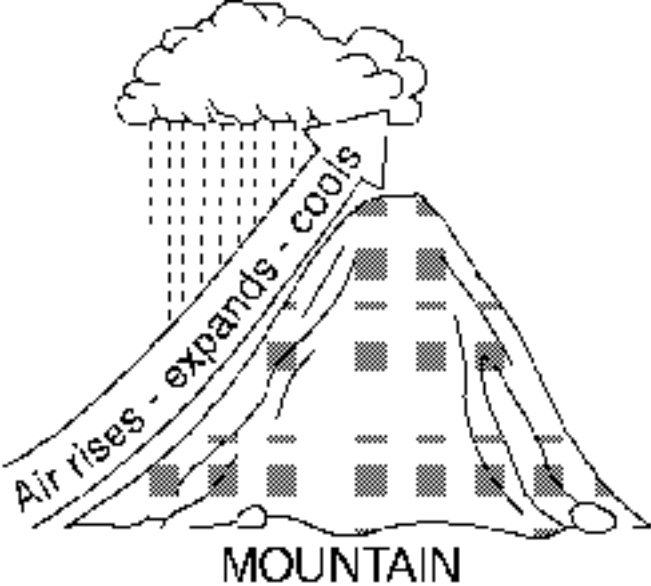


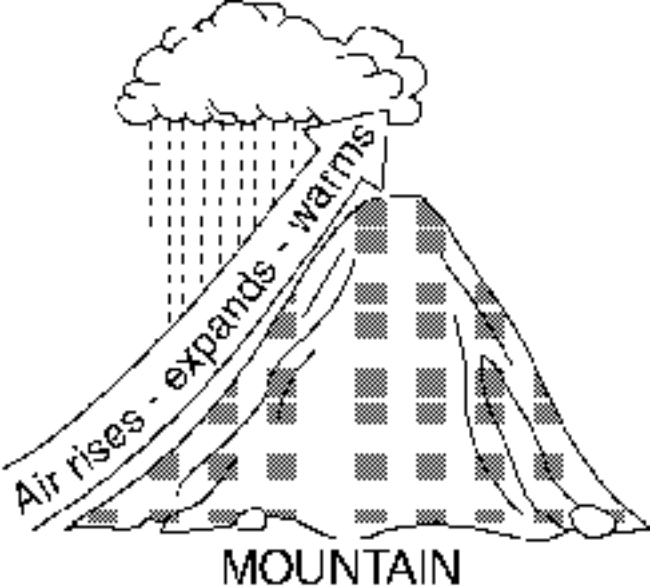


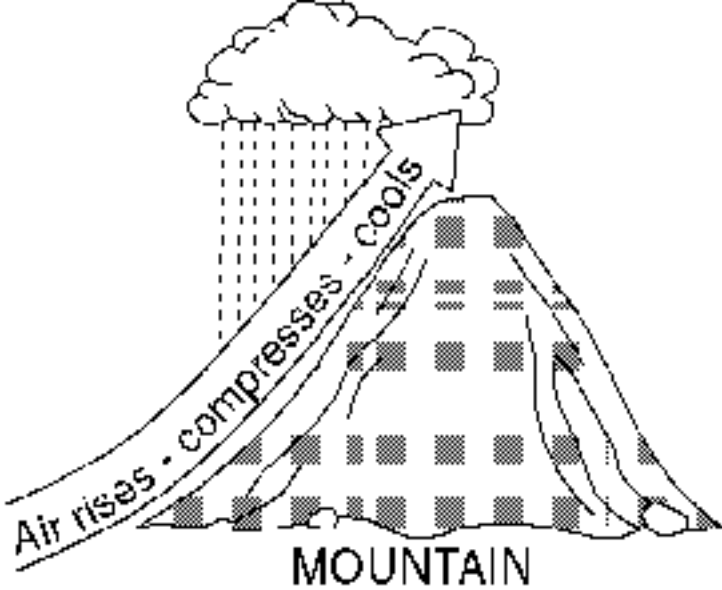


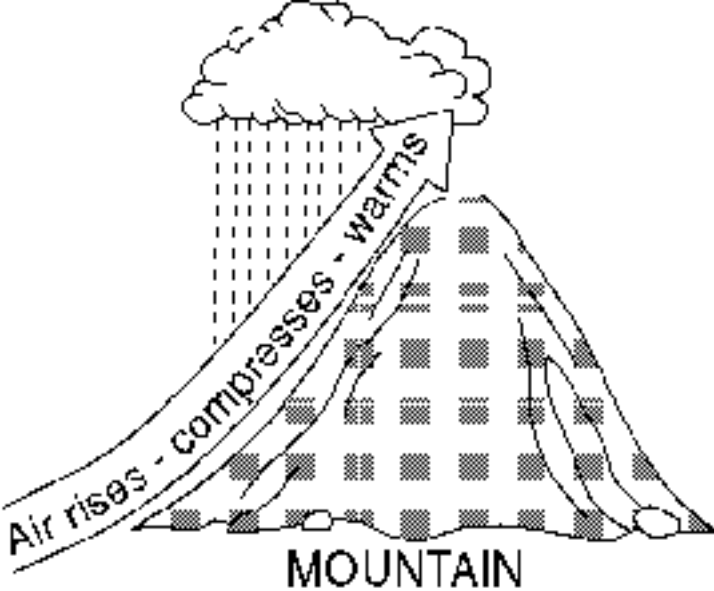




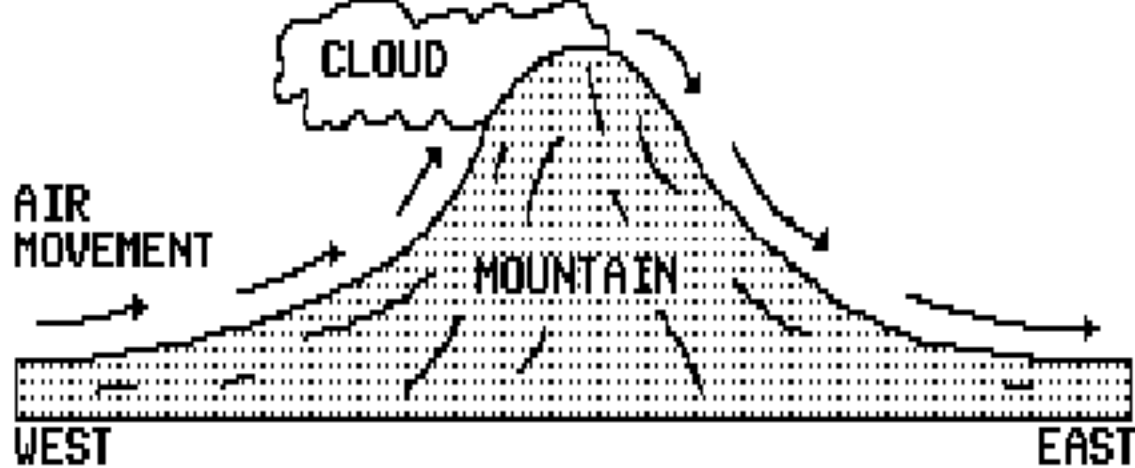


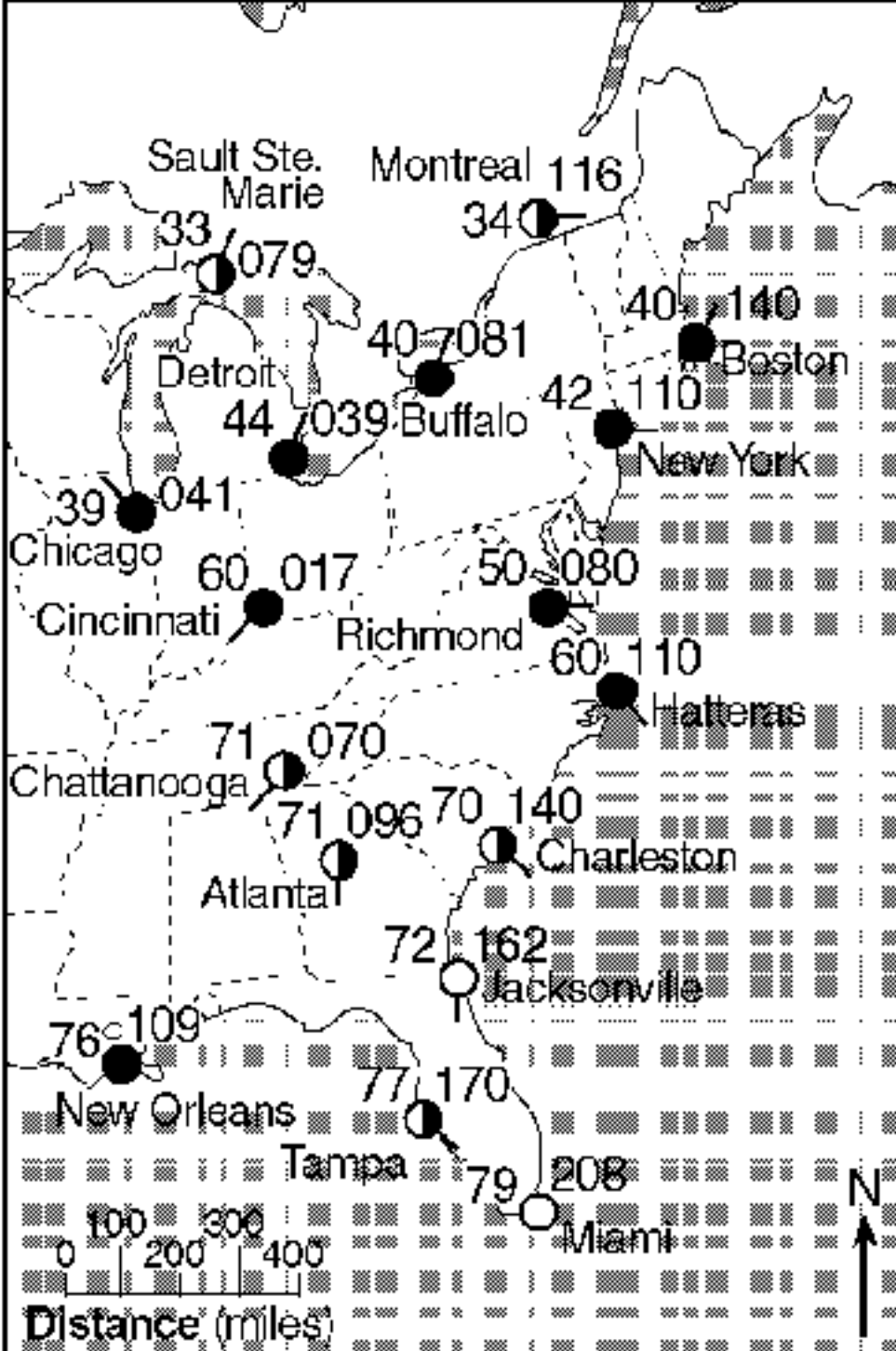








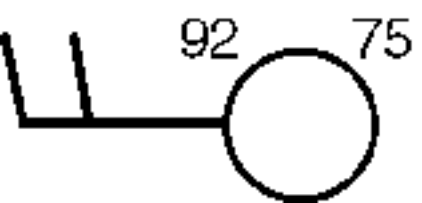




75

092





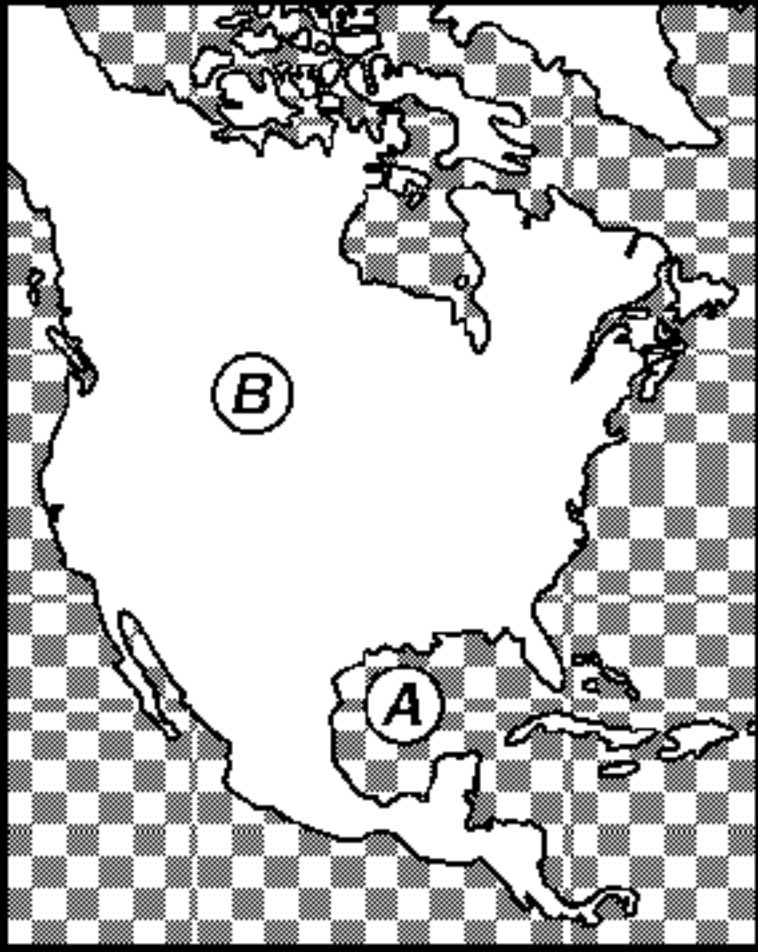


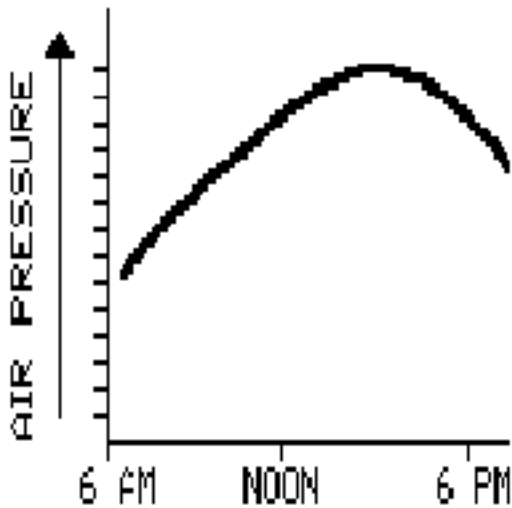


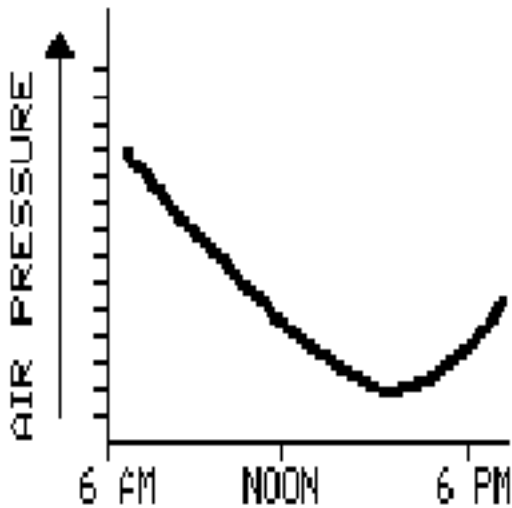


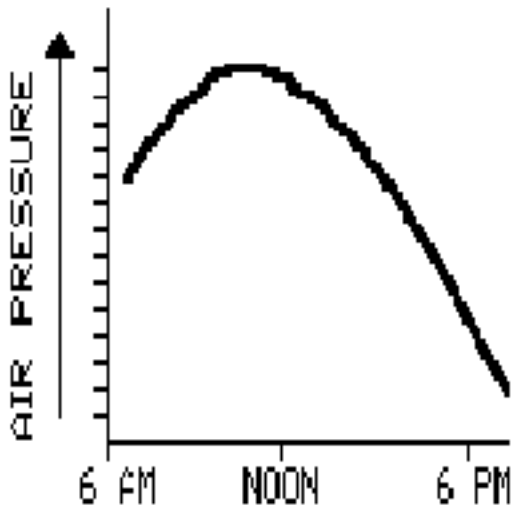


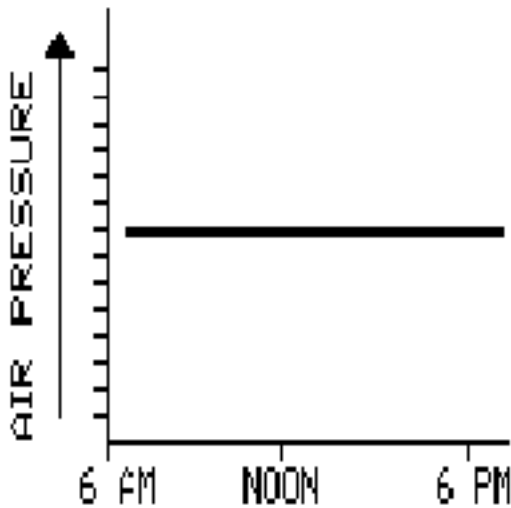


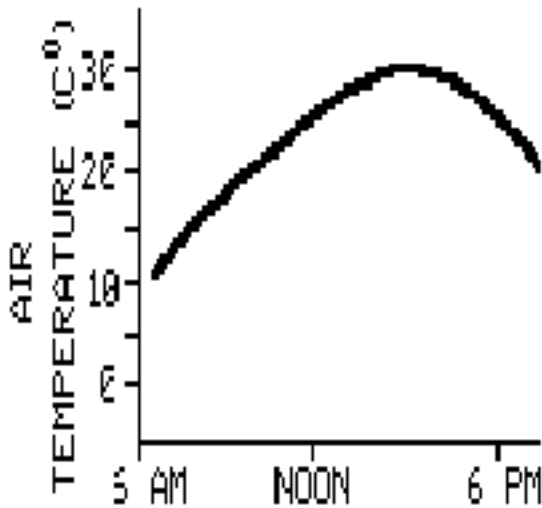












34

993

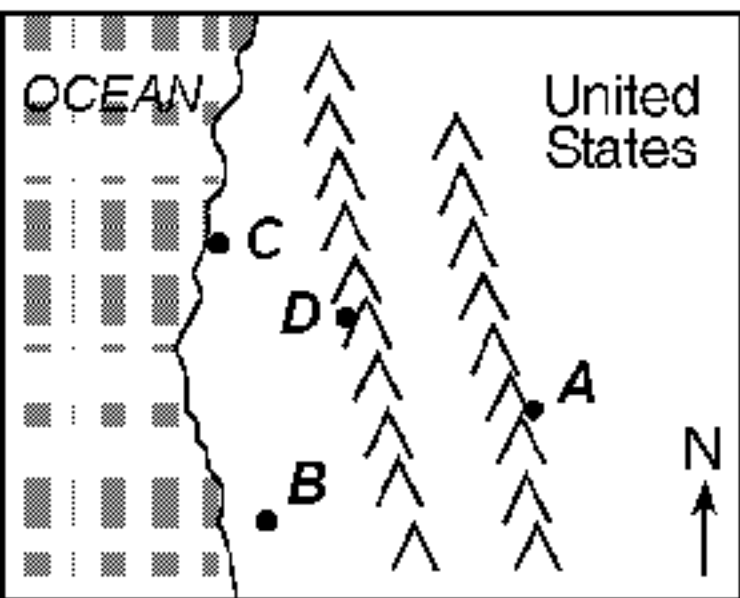


99

034



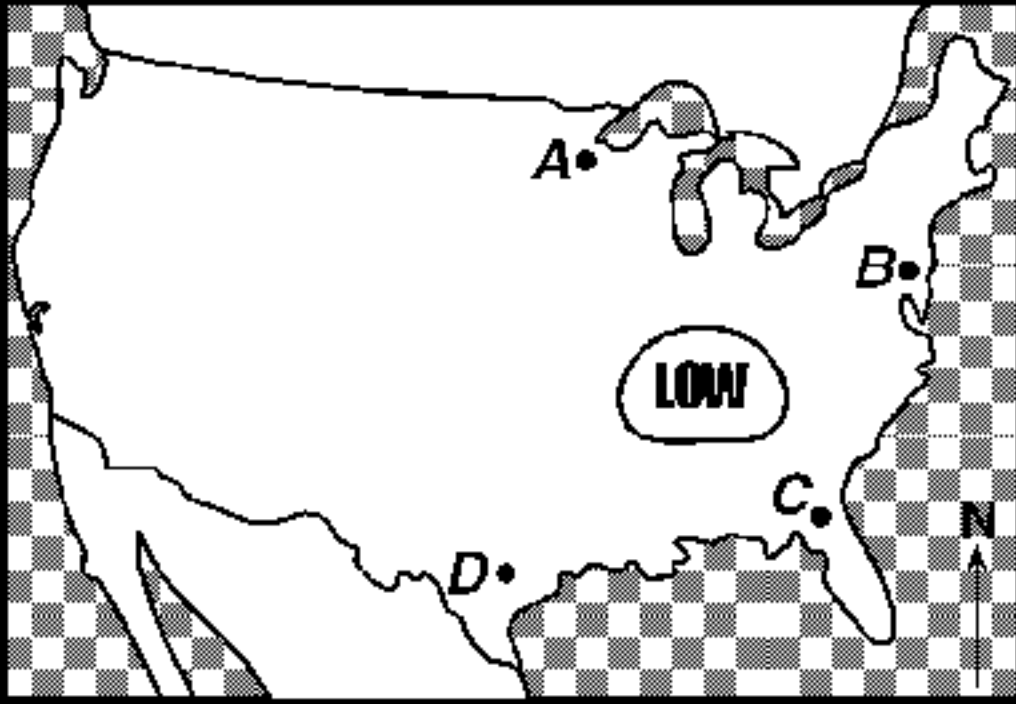




**KEY:**



**Mountains**



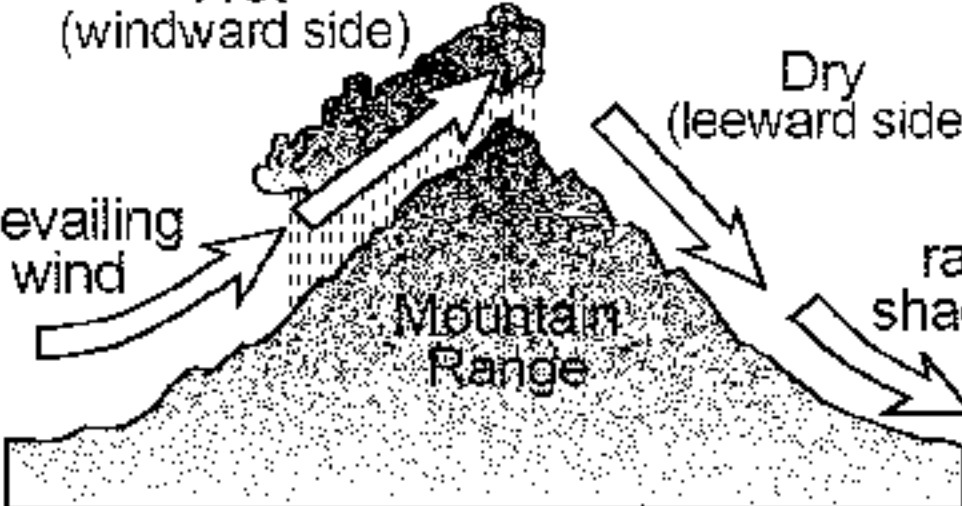
Wet  
(windward side)

Dry  
(leeward side)

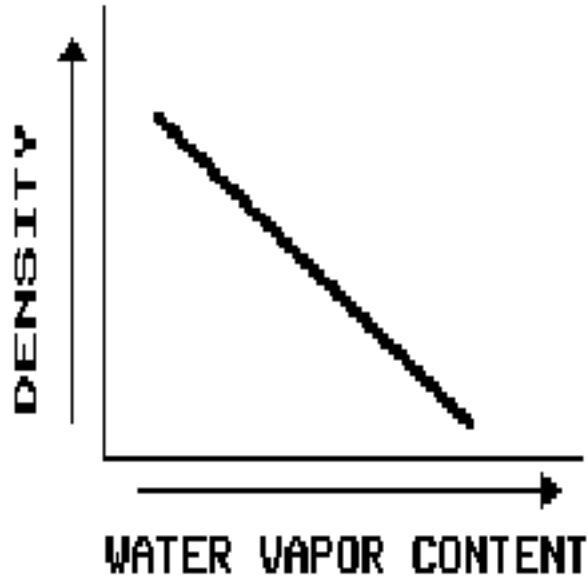
prevailing  
wind

rain  
shadow

Mountain  
Range



The diagram illustrates the Föhn effect. A mountain range is shown with a windward side on the left and a leeward side on the right. A thick arrow labeled 'prevailing wind' points from the left towards the mountain. On the windward side, the air is labeled 'Wet (windward side)' and is shown rising, cooling, and raining, indicated by vertical dashed lines. On the leeward side, the air is labeled 'Dry (leeward side)' and is shown descending, warming, and creating a 'rain shadow' area, indicated by a thick arrow pointing down and away from the mountain. The mountain range itself is labeled 'Mountain Range' in the center.



WINDWARD

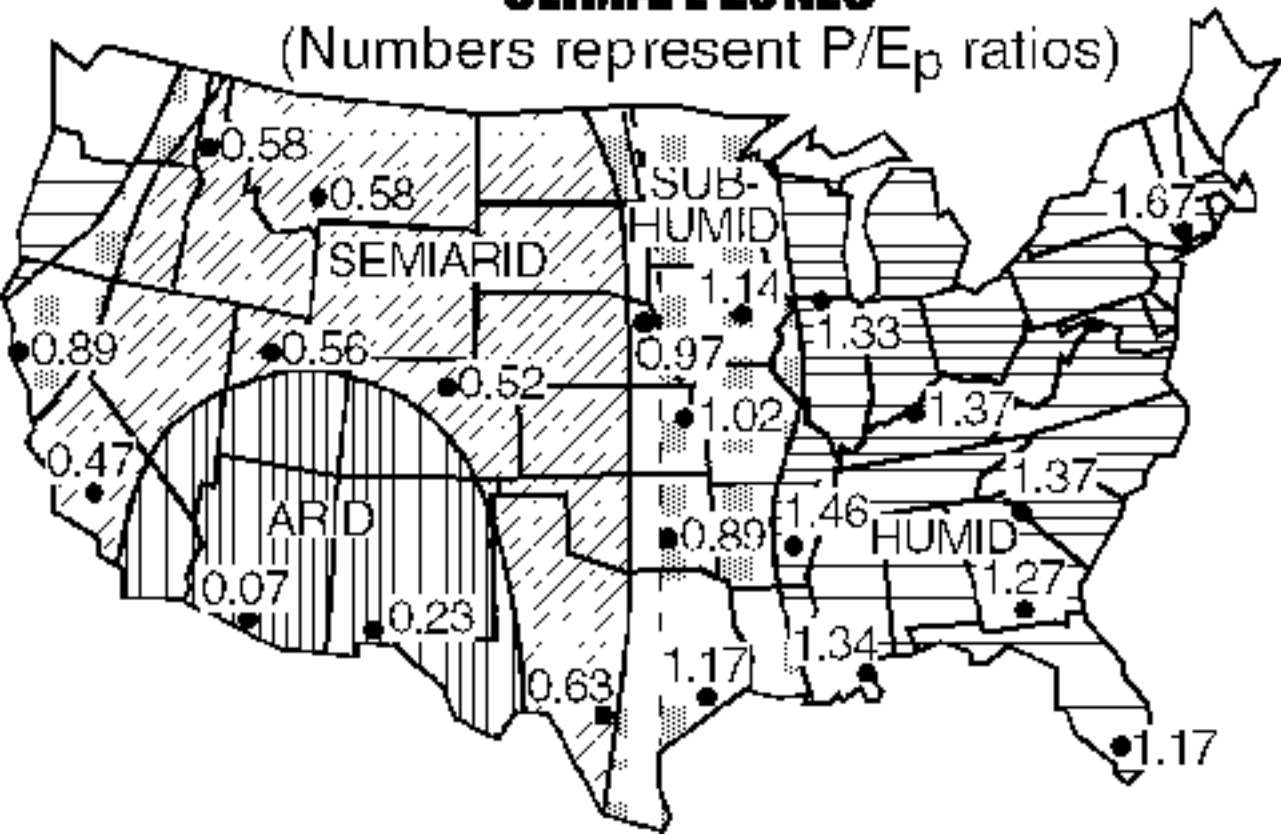
LEEWARD

MOUNTAIN  
(Side View)

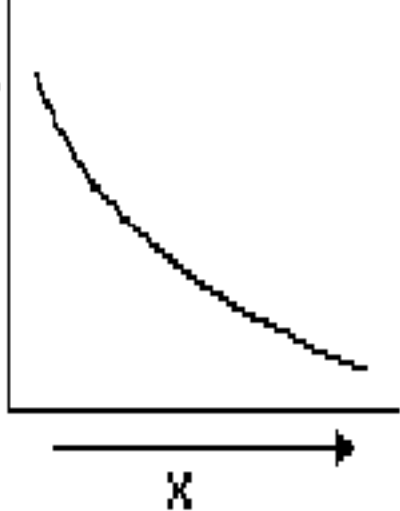


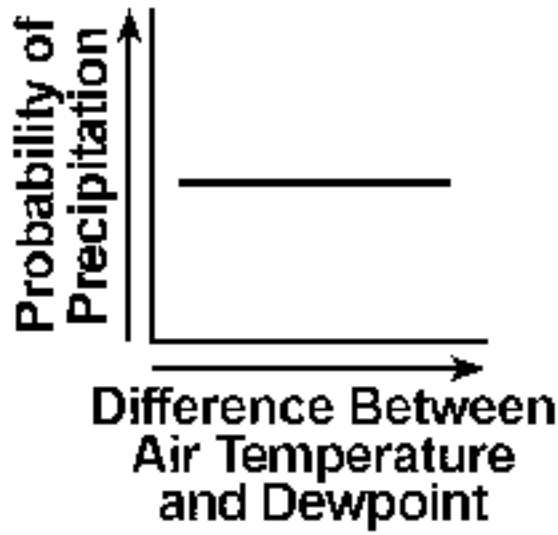
# CLIMATE ZONES

(Numbers represent  $P/E_p$  ratios)

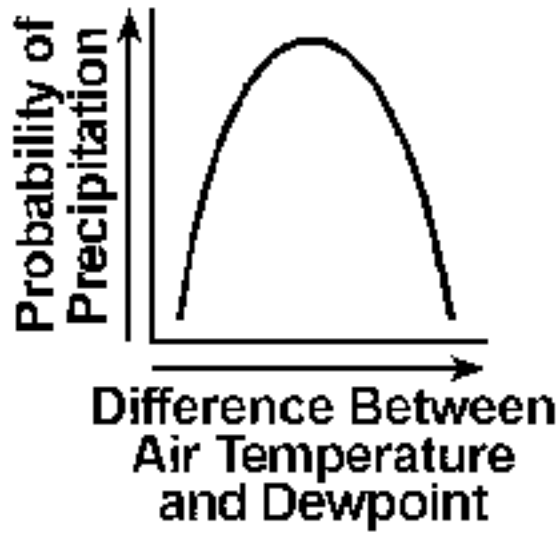


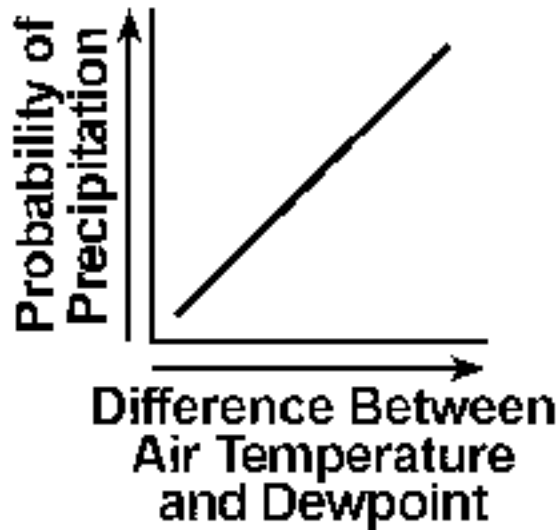
Rate of  
Evaporation

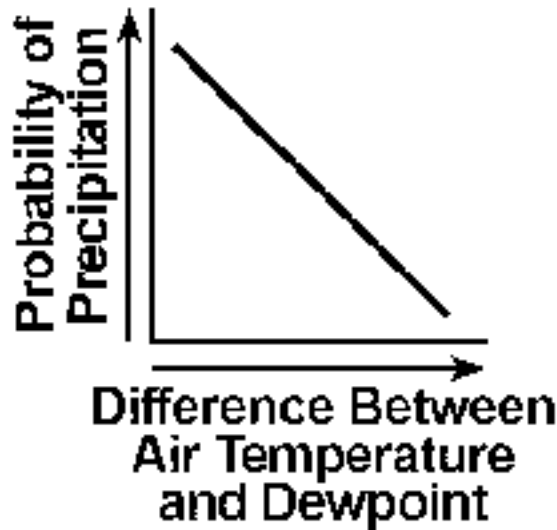




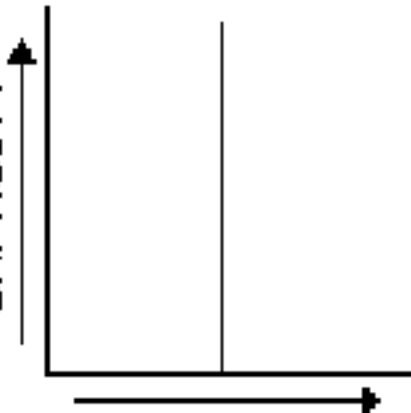




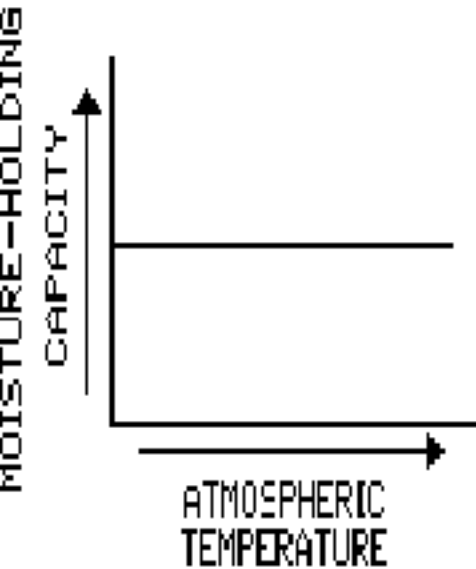




MOISTURE-HOLDING  
CAPACITY



ATMOSPHERIC  
TEMPERATURE



MOISTURE HOLDING  
CAPACITY



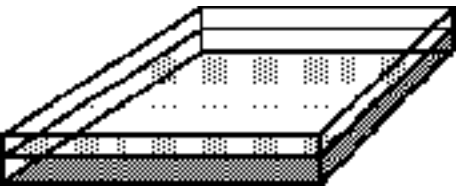
ATMOSPHERIC  
TEMPERATURE

MOISTURE-HOLDING

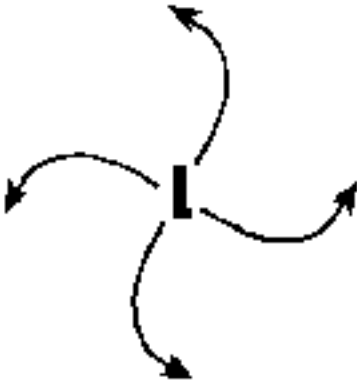
CAPACITY

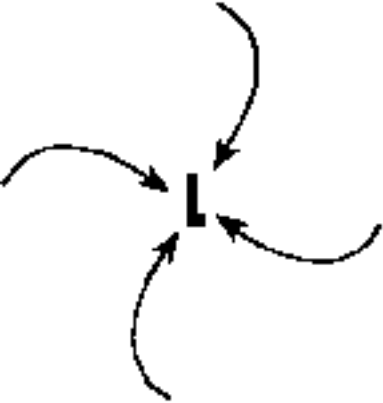
ATMOSPHERIC  
TEMPERATURE





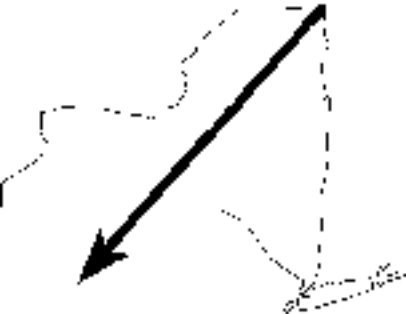


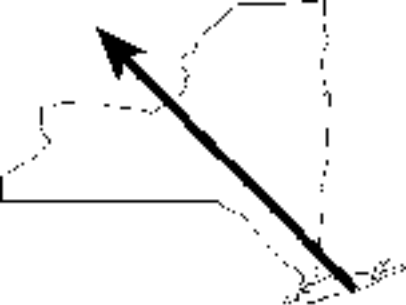


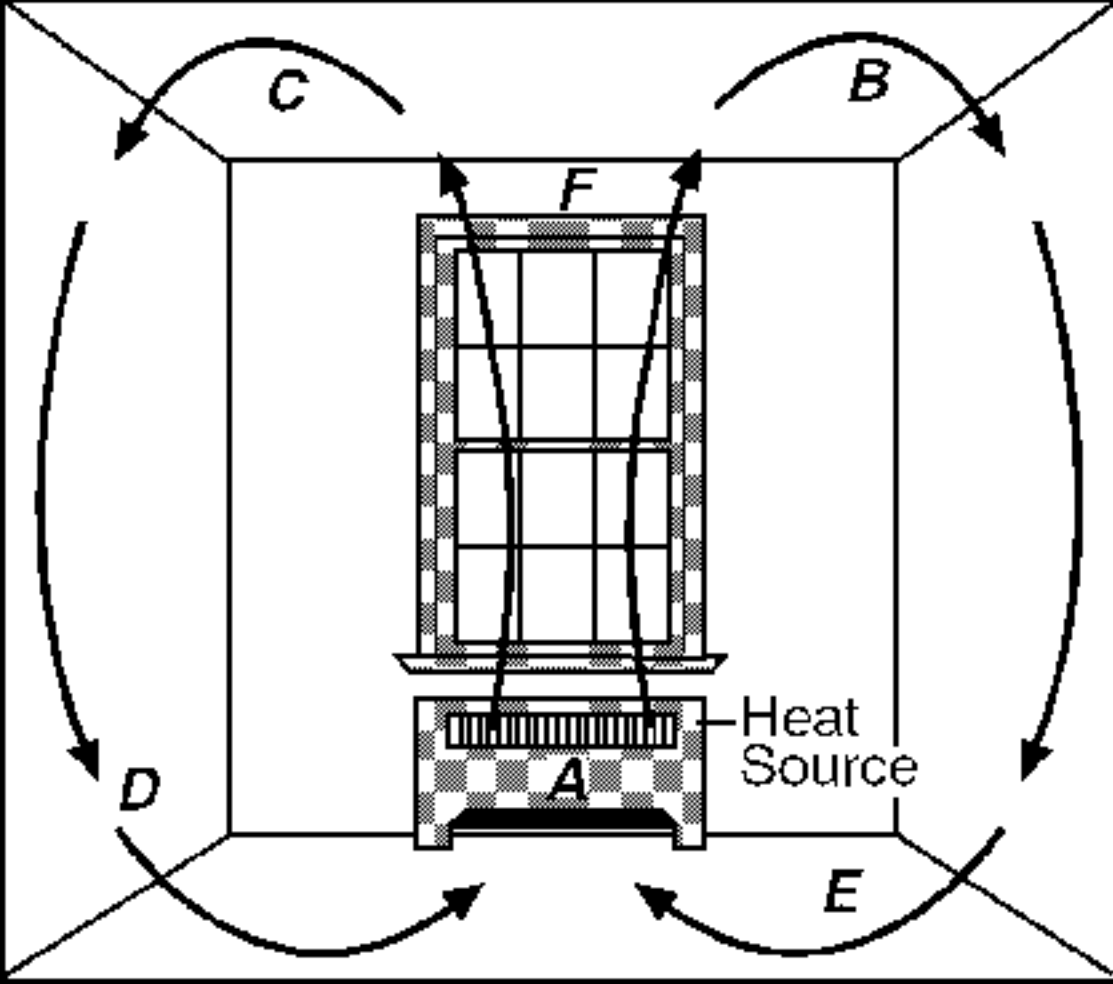
















$$\frac{1}{2}$$

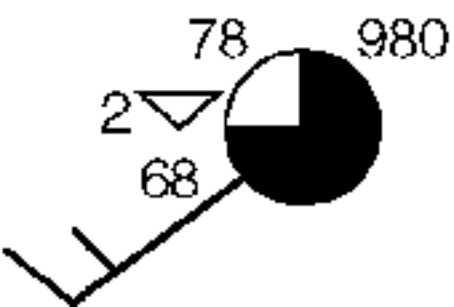
52



51



978



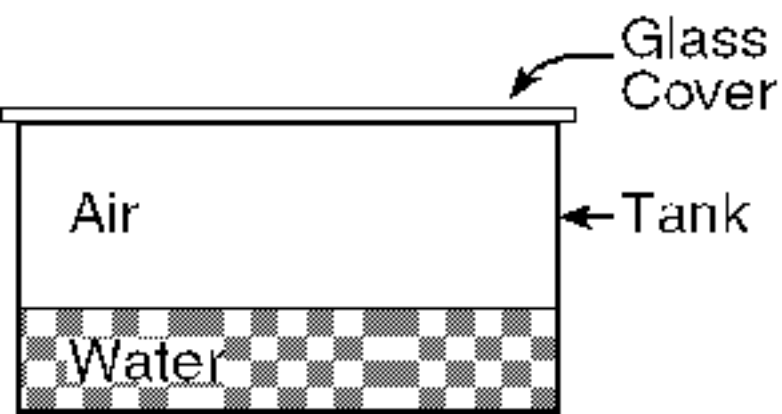
65

024

9

48





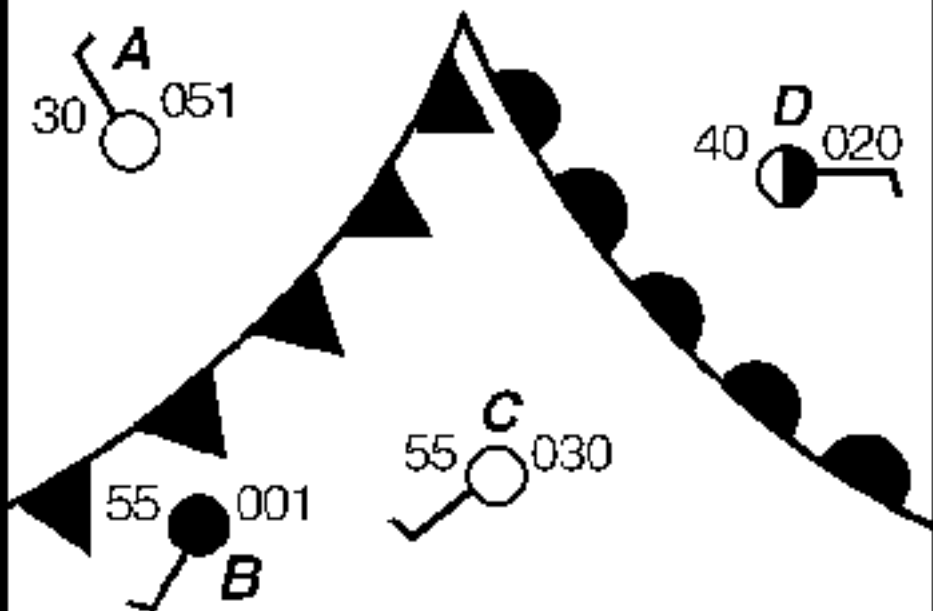
**LOW**

**A**  
30 051

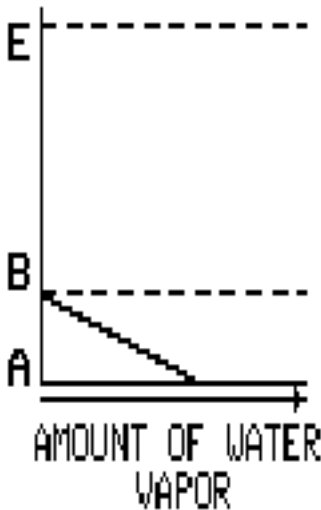
**D**  
40 020

**C**  
55 030

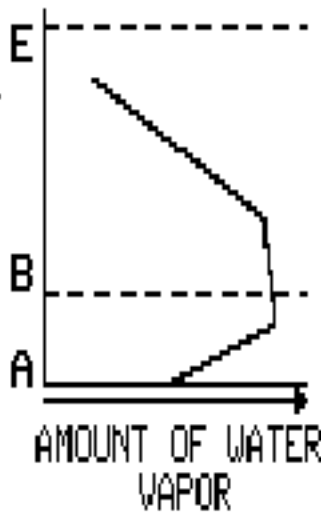
**B**  
55 001



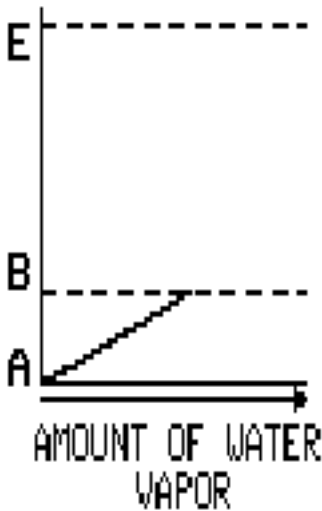
BALLOONS POSITIONS  
ABOVE SEA LEVEL



BALLOONS POSITIONS  
ABOVE SEA LEVEL

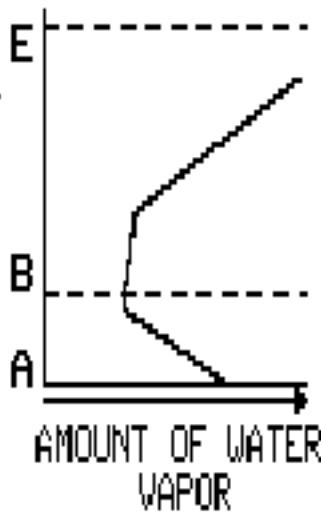


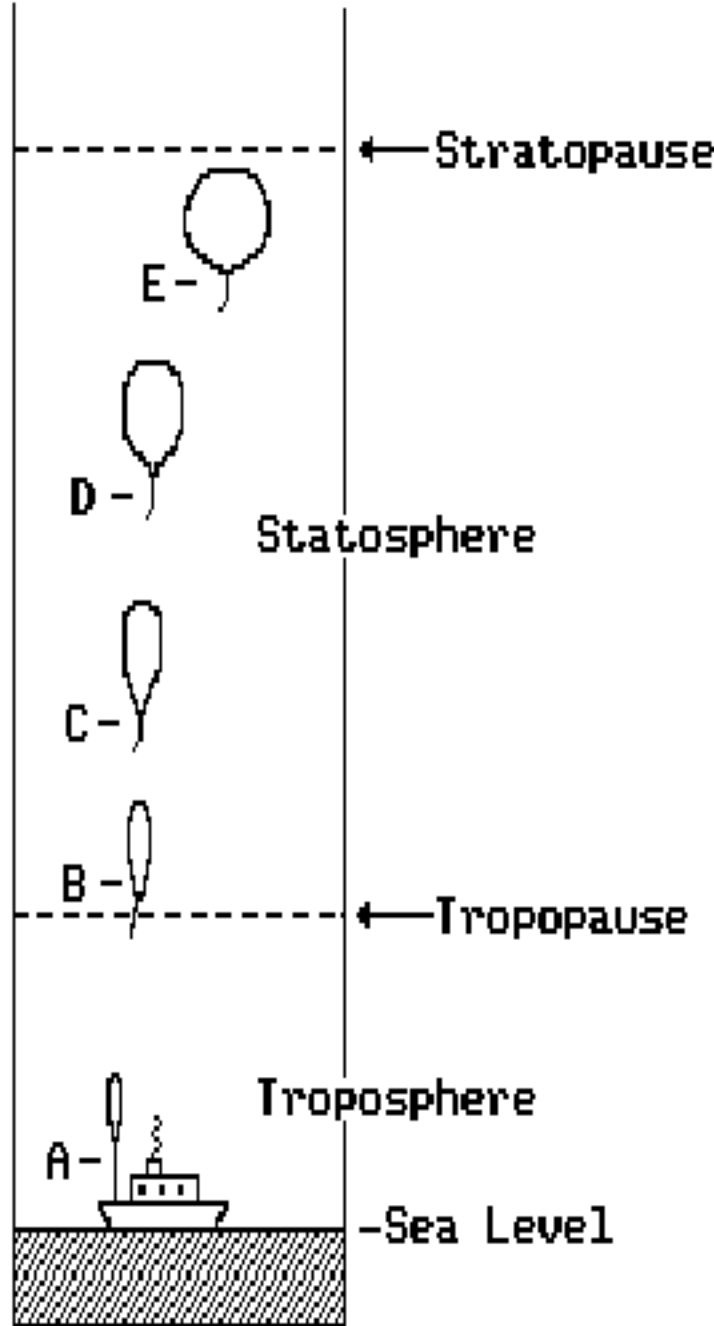
BALLOONS POSITIONS  
ABOVE SEA LEVEL

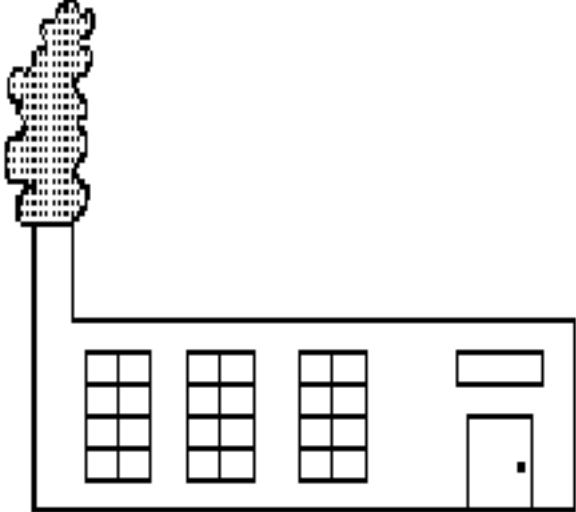


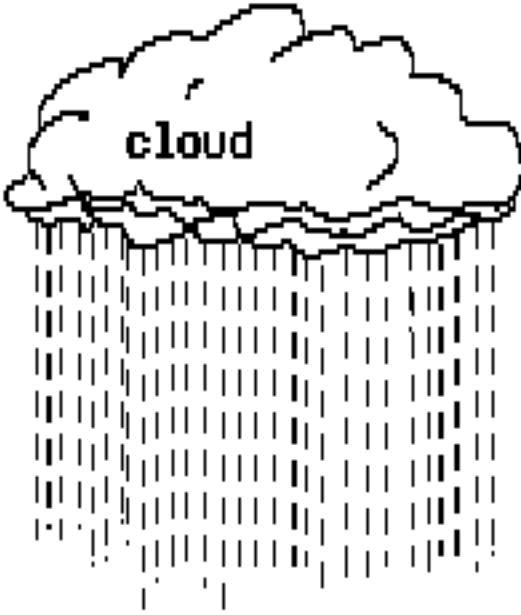


BALLOONS POSITIONS  
ABOVE SEA LEVEL

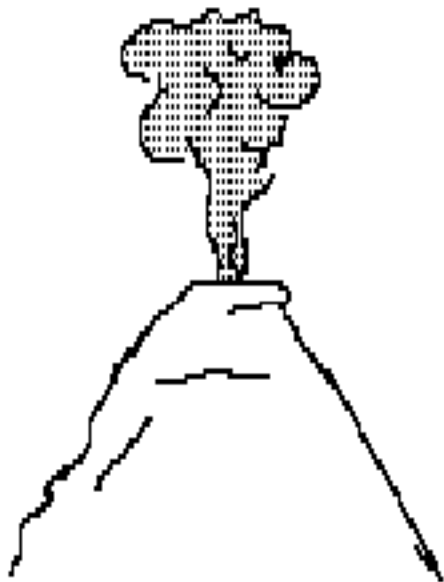




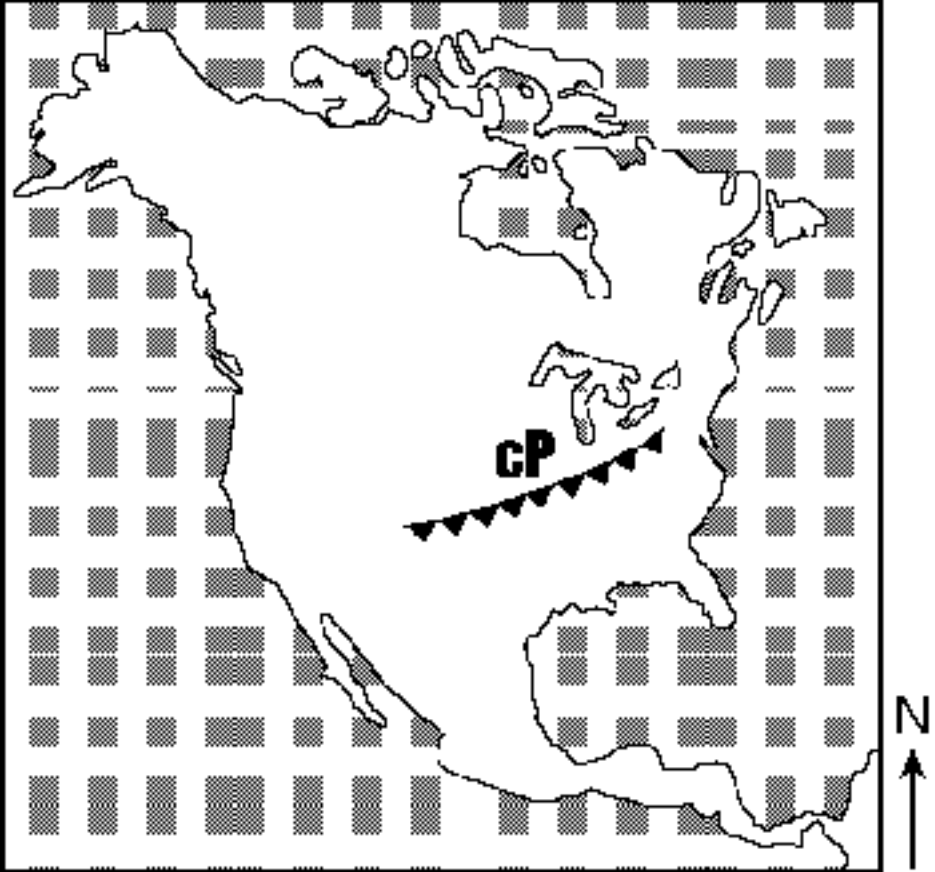


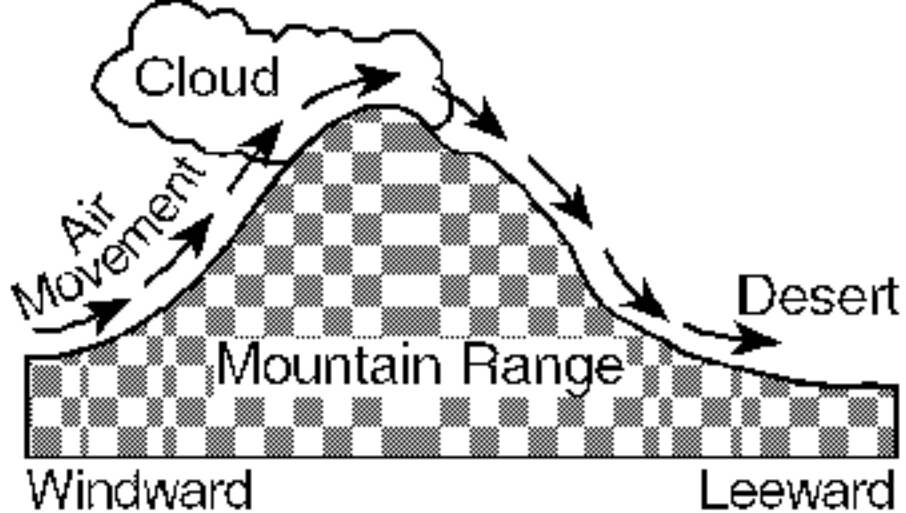
A pixelated black and white illustration of a cloud raining. The cloud is at the top, with the word "cloud" written inside it. Below the cloud, numerous vertical lines of varying lengths represent rain falling.

**cloud**











74

002

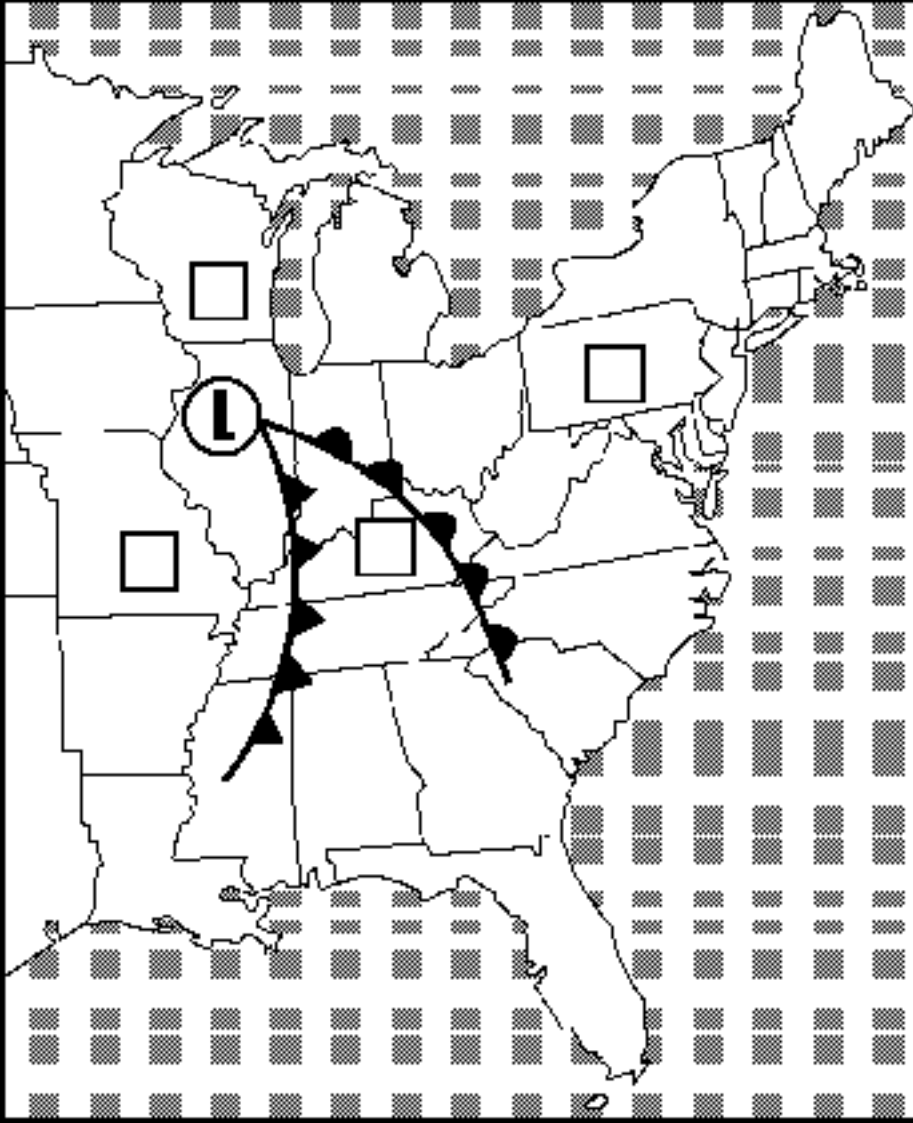
10

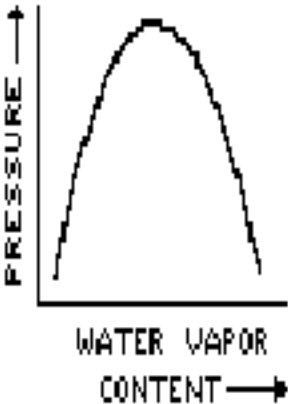
-31\

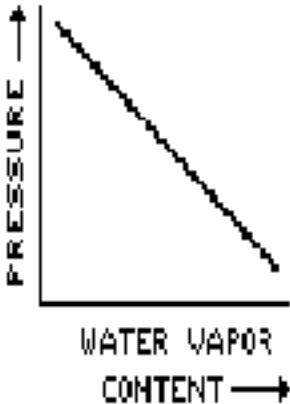
72

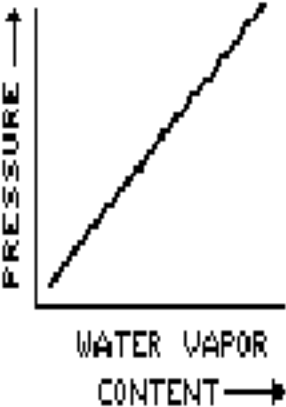
.50

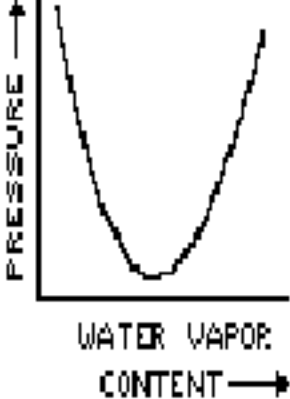


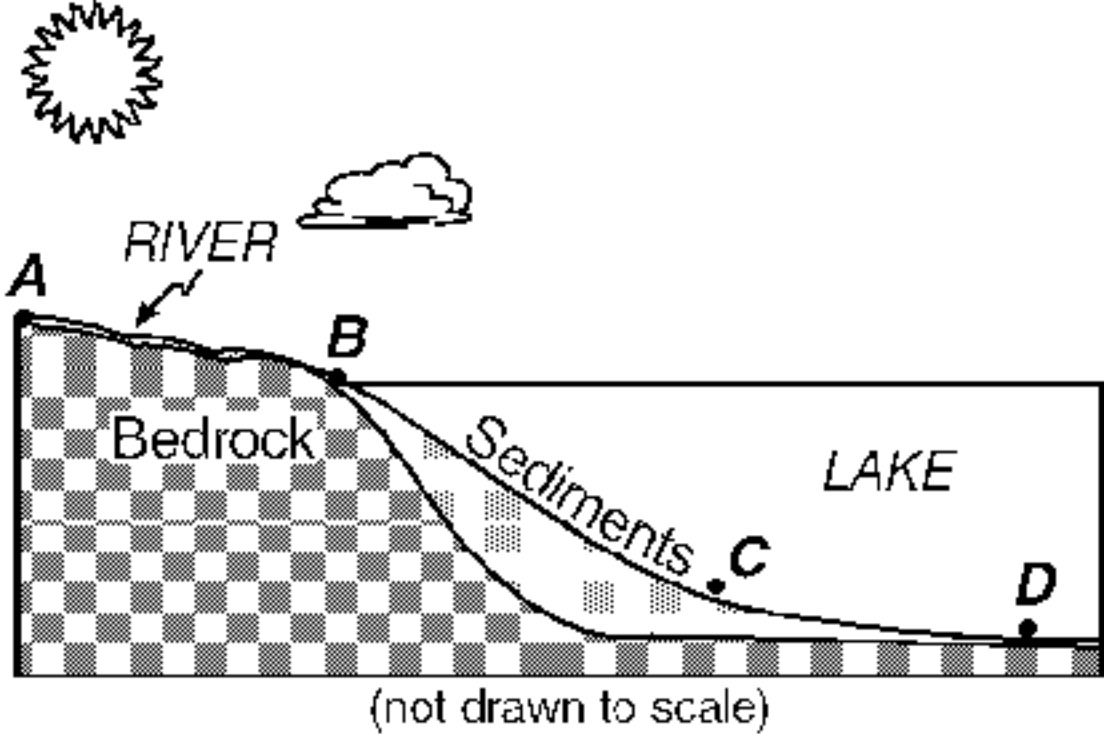


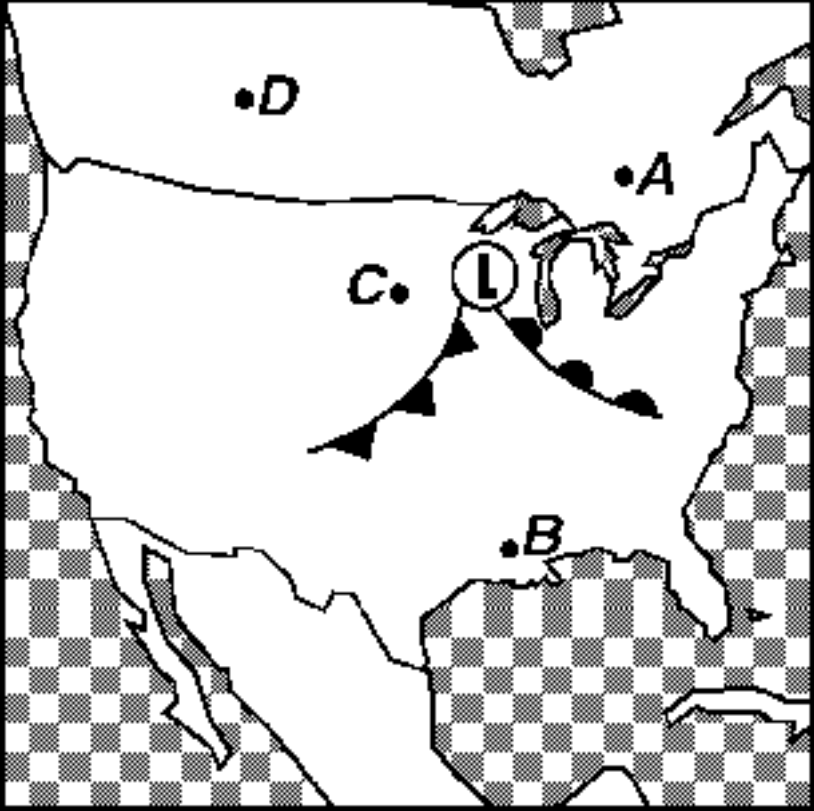




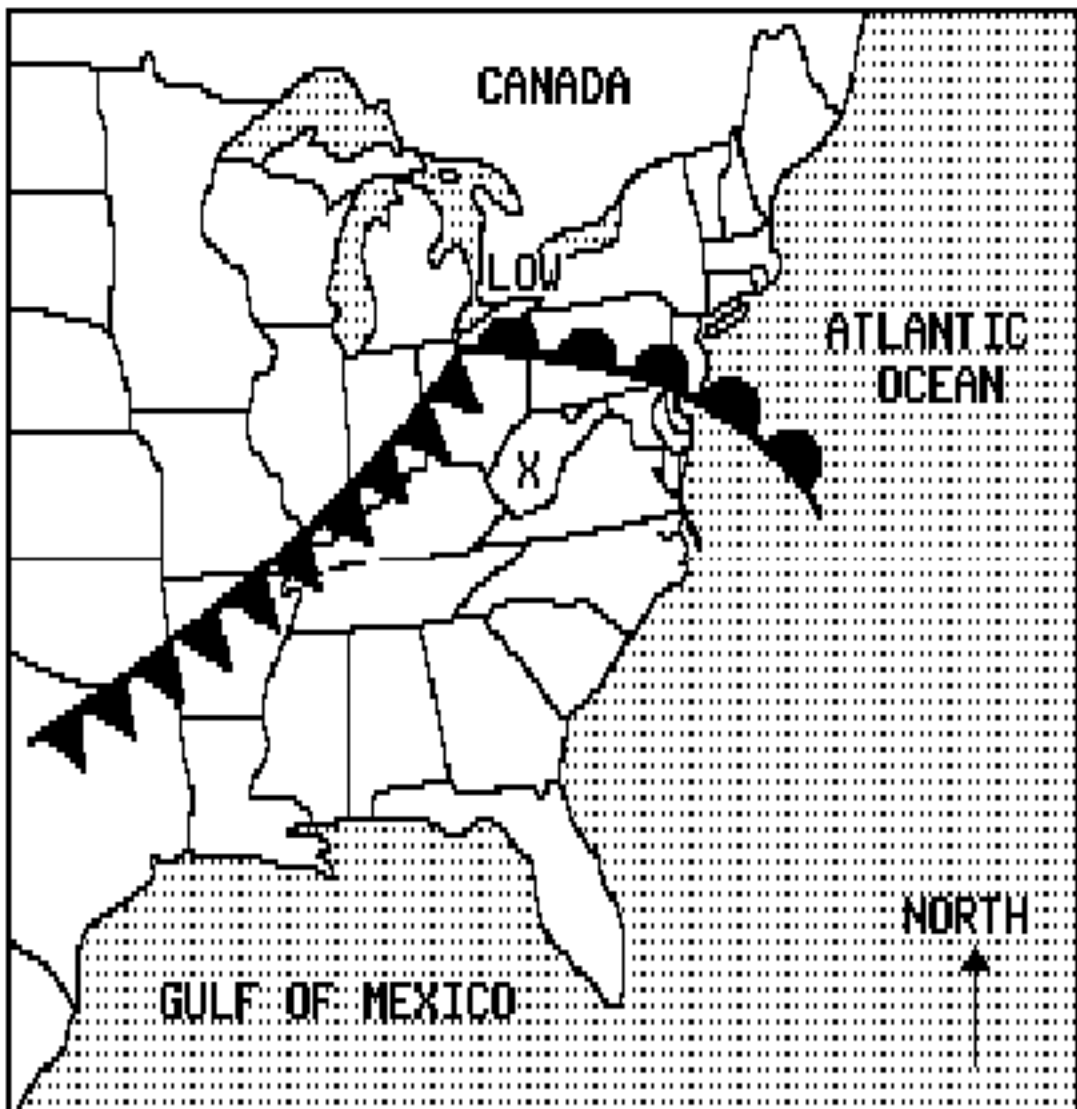




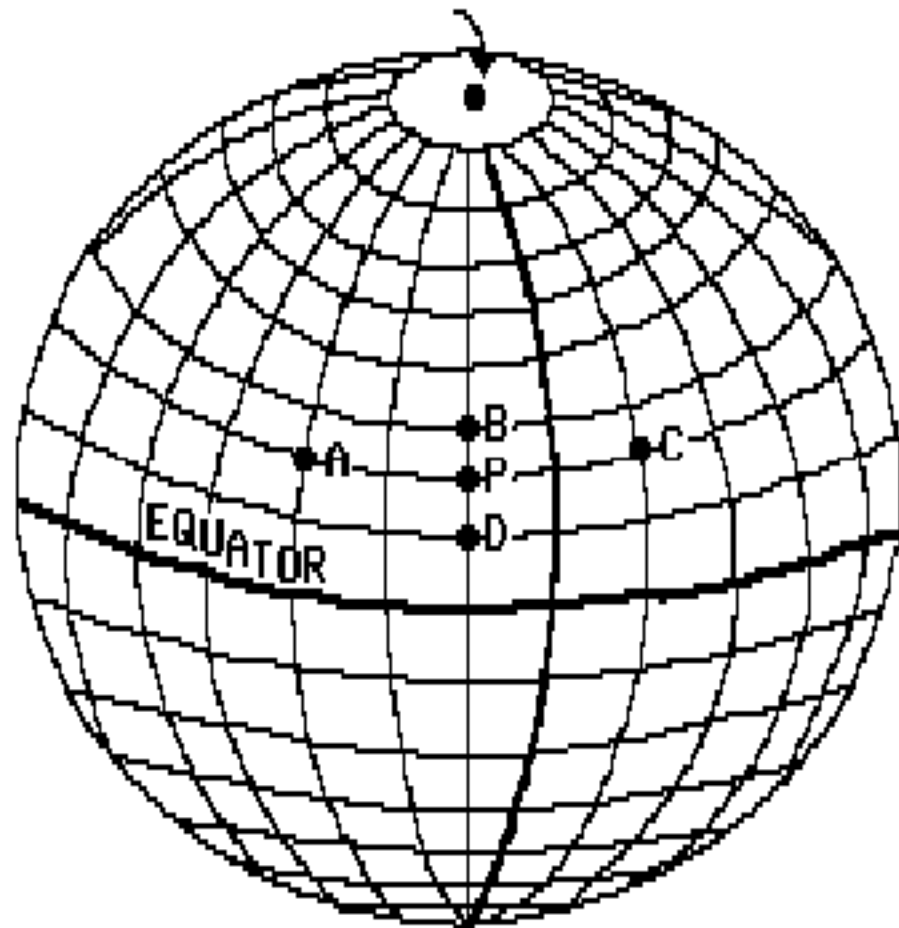


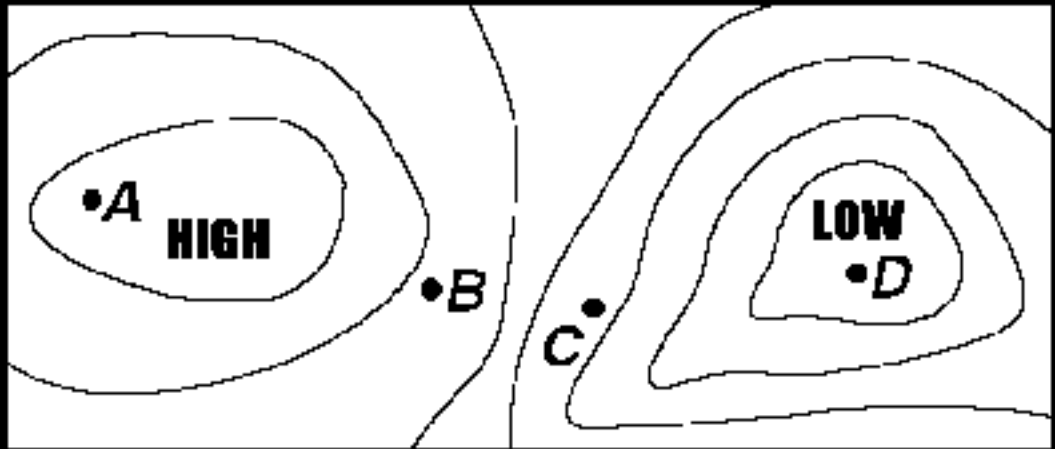


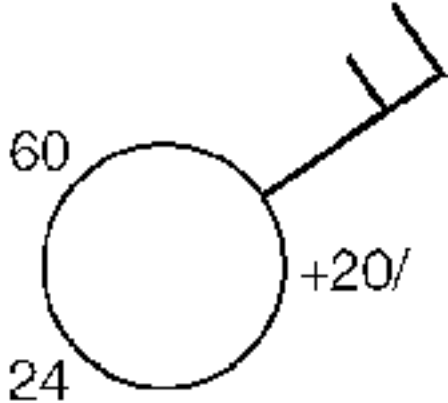


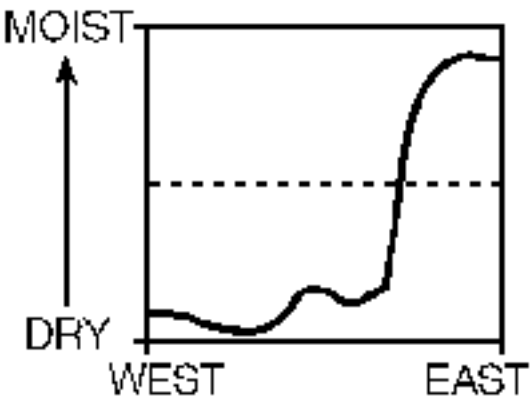


North Pole









MOIST

DRY

WEST

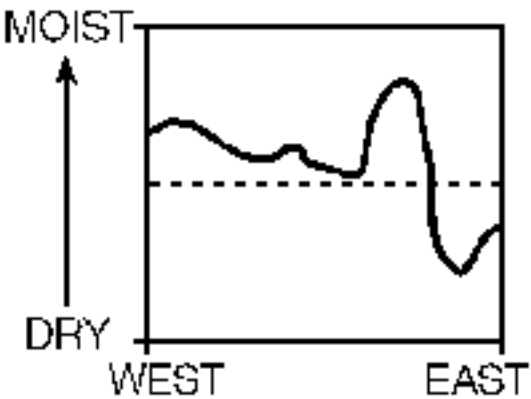
EAST

MOIST

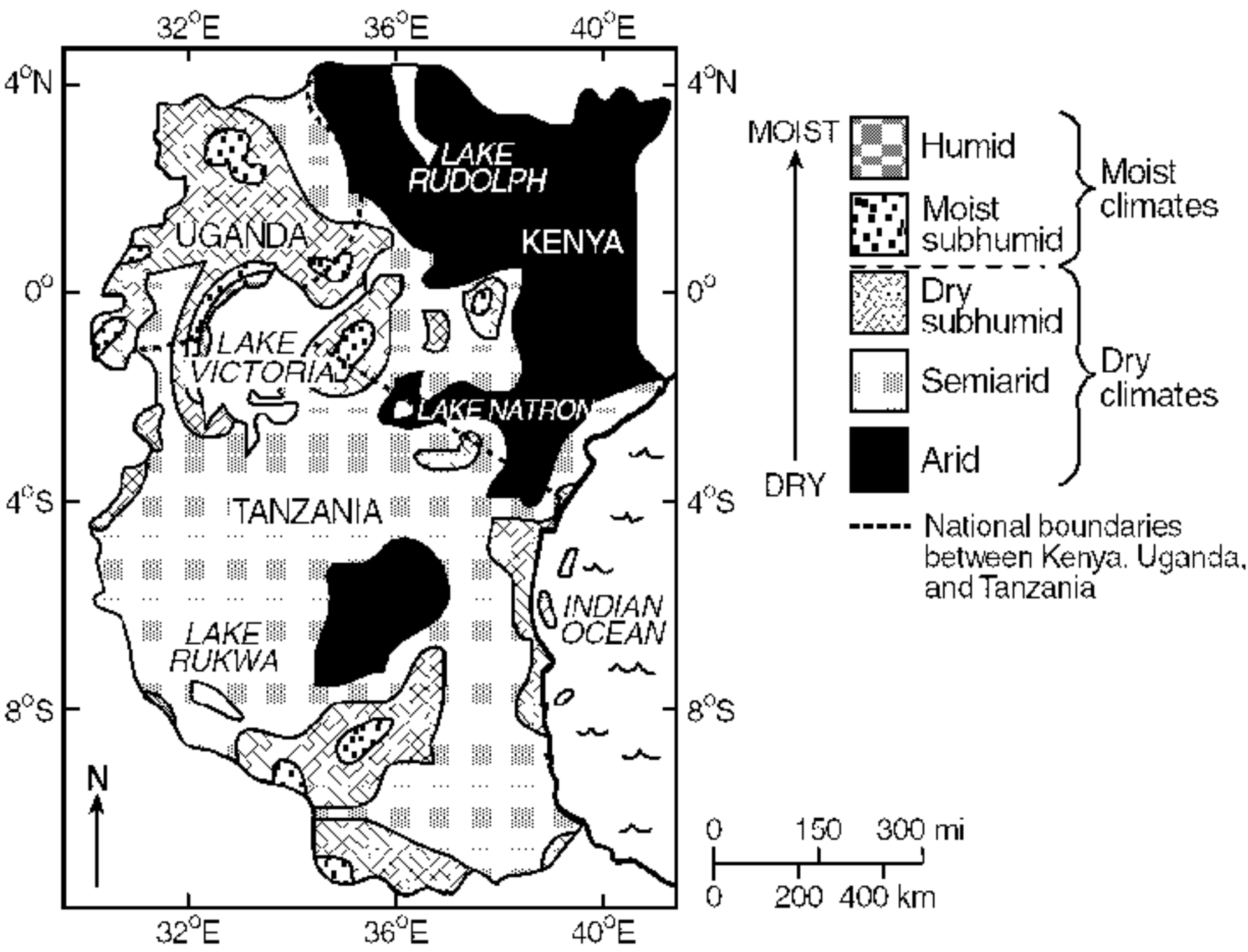
DRY

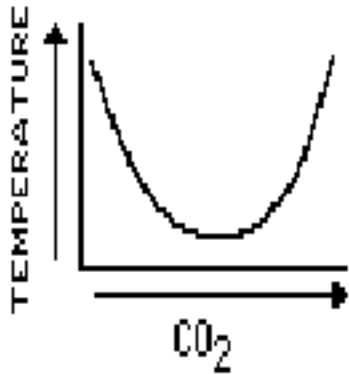
WEST

EAST

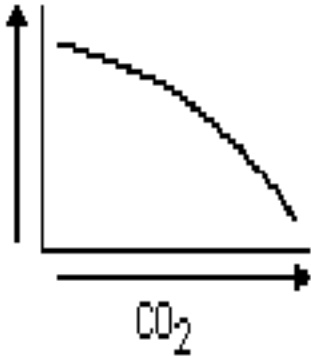


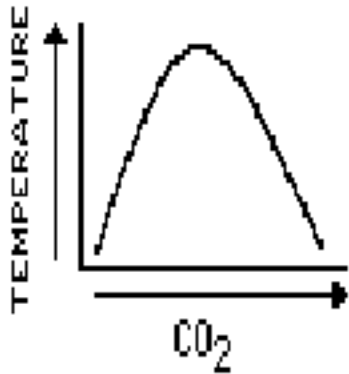




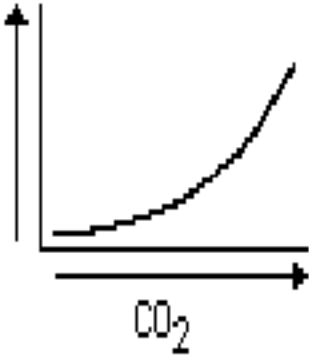


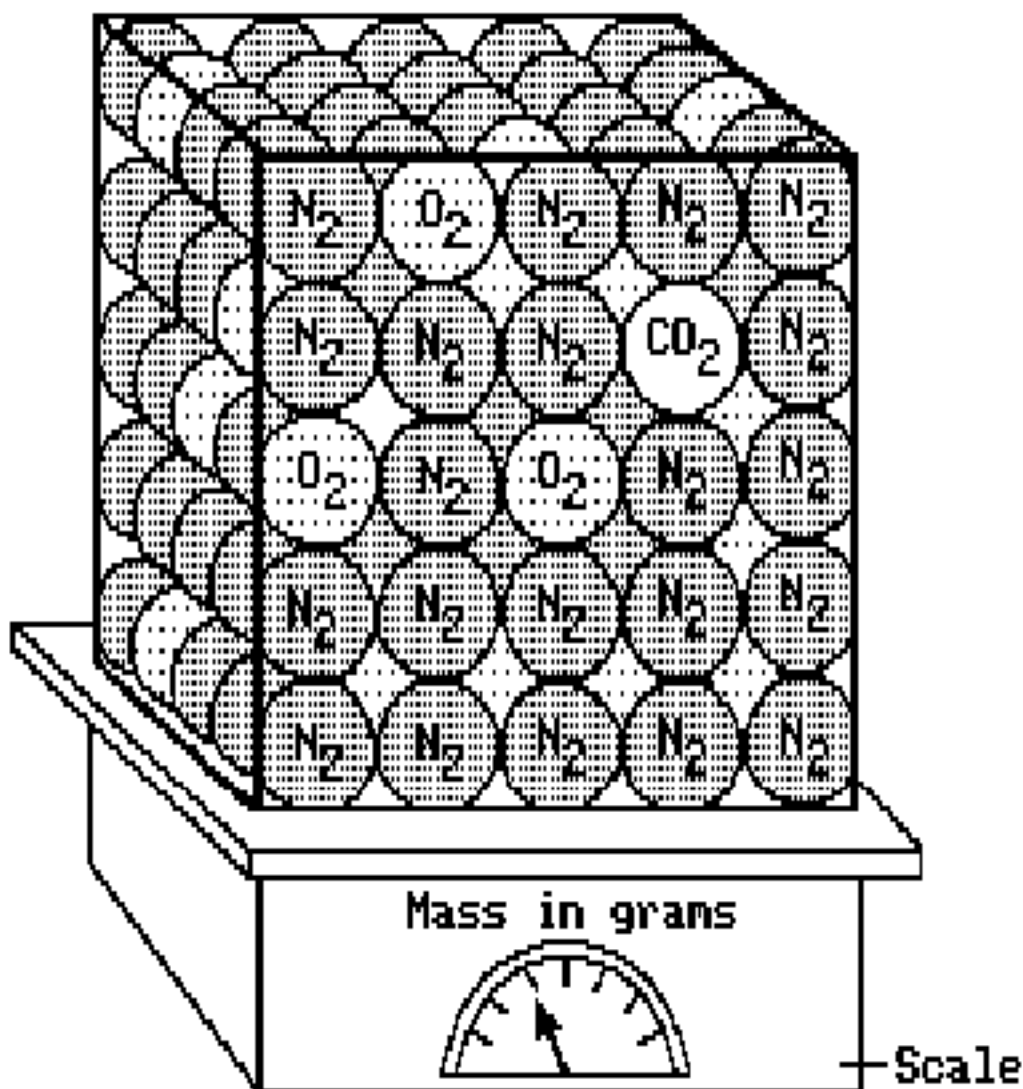
TEMPERATURE



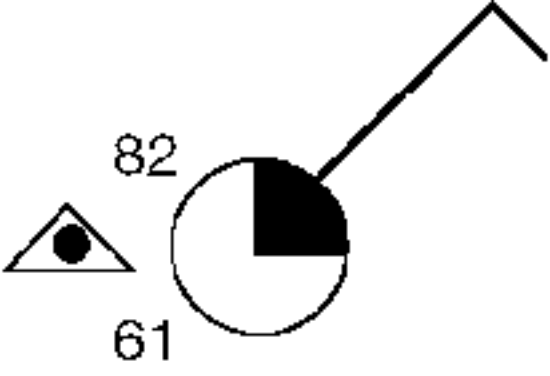


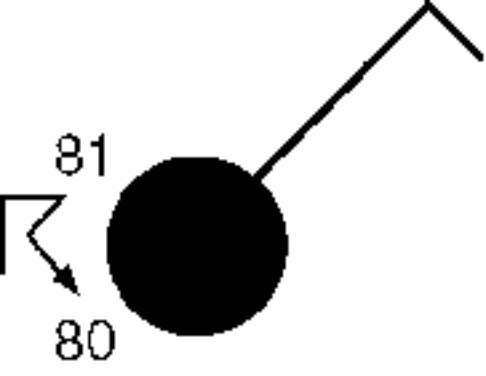
TEMPERATURE



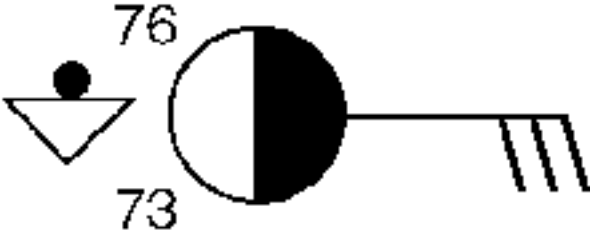


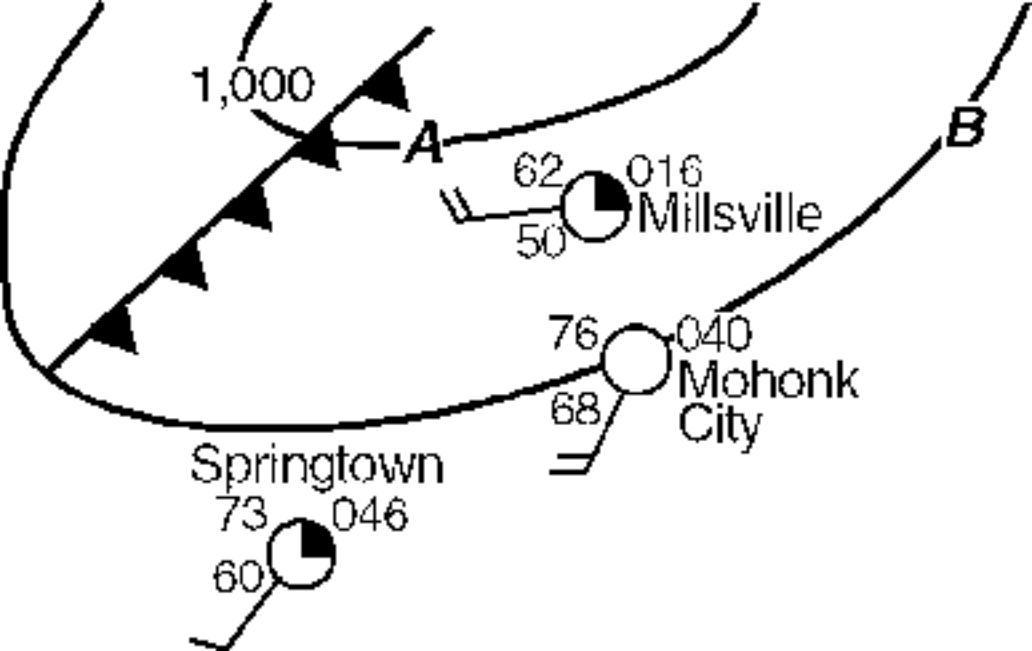
| MOLECULE SYMBOL                                                                     | GAS            | MASS |
|-------------------------------------------------------------------------------------|----------------|------|
|  | Nitrogen       | 28 g |
|  | Oxygen         | 32 g |
|  | Carbon Dioxide | 44 g |
|  | Water Vapor    | 18 g |

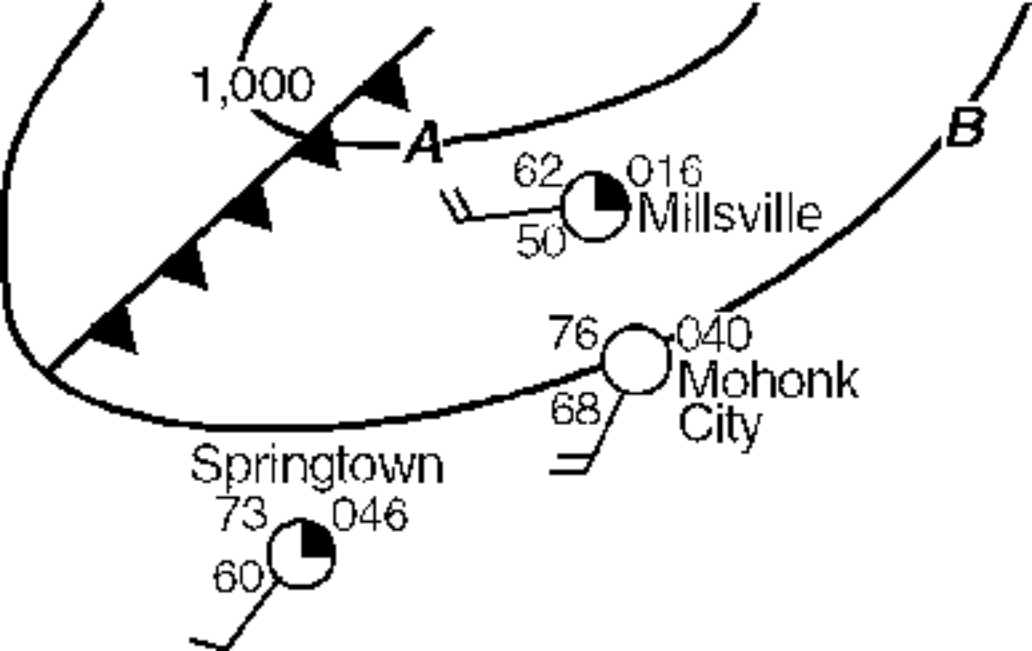


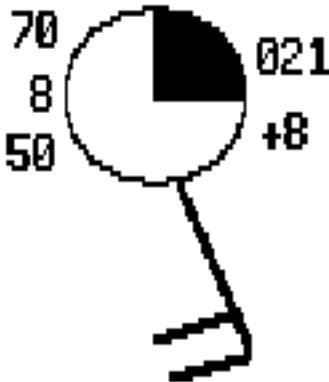


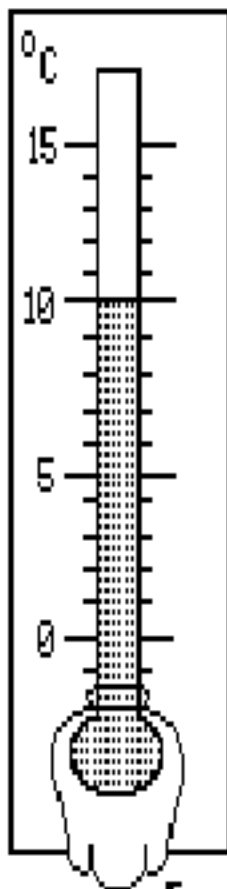
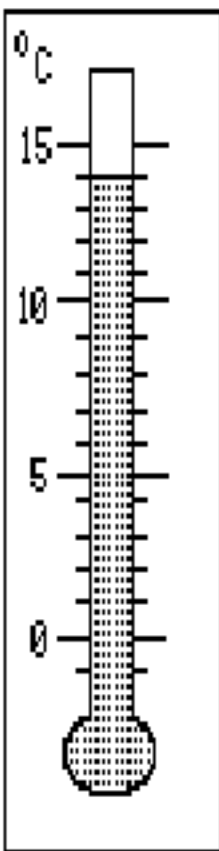




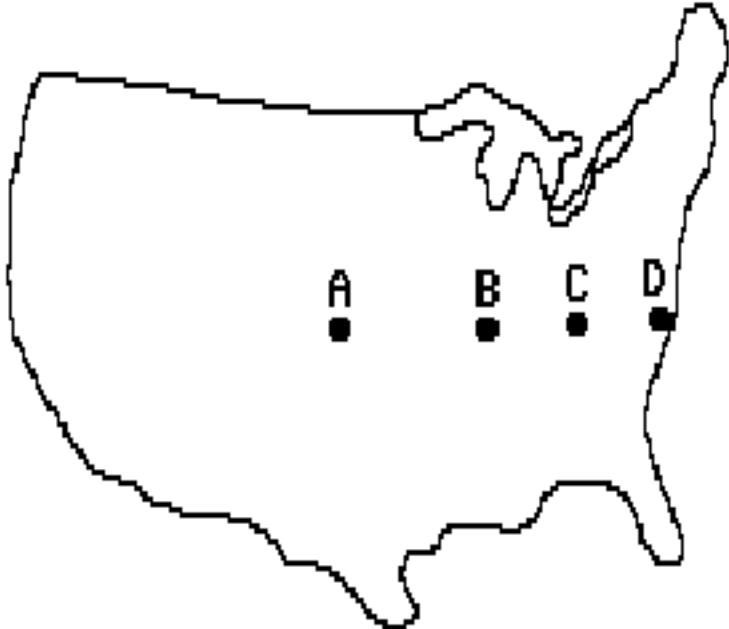




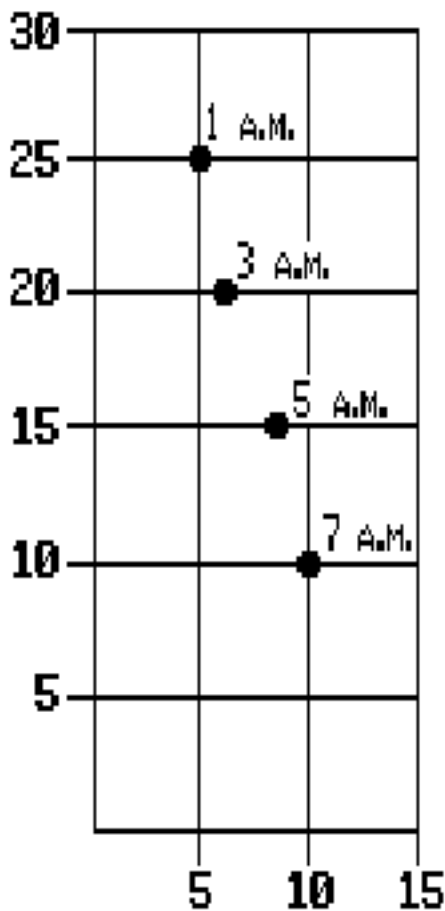




Wet Cloth



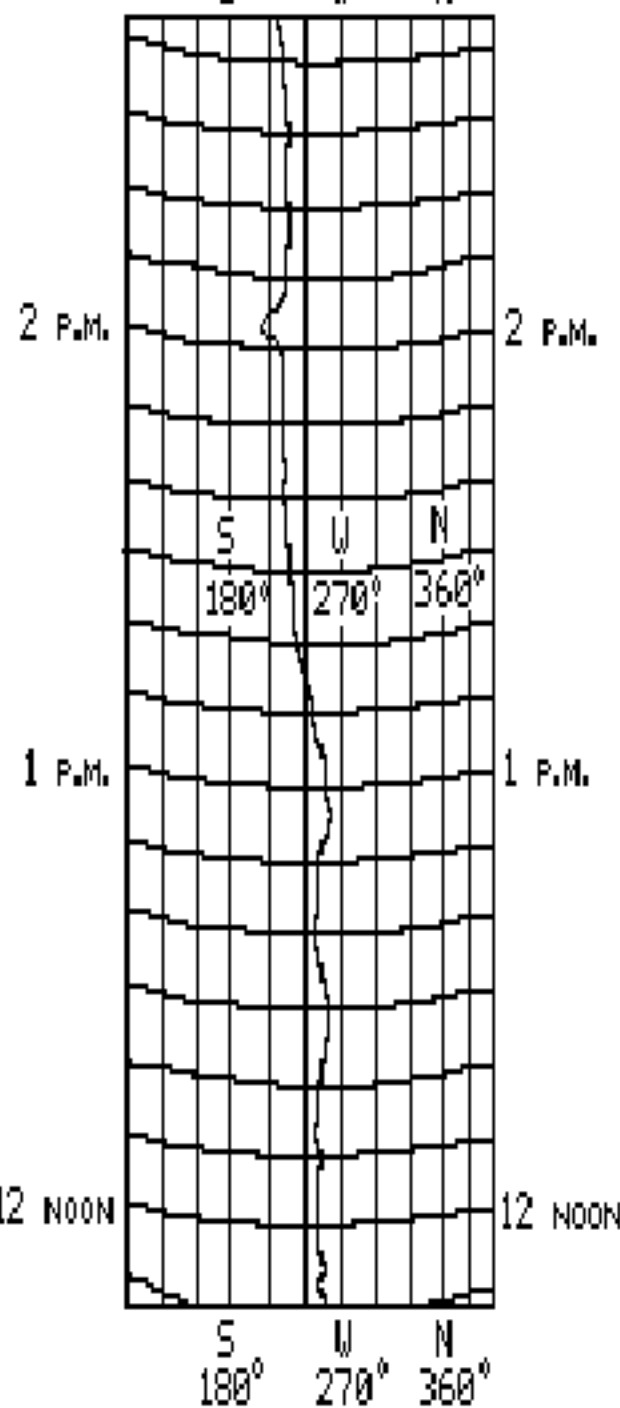
AIR TEMPERATURE ( $^{\circ}\text{C}$ )



DEWPOINT  
TEMPERATURE ( $^{\circ}\text{C}$ )

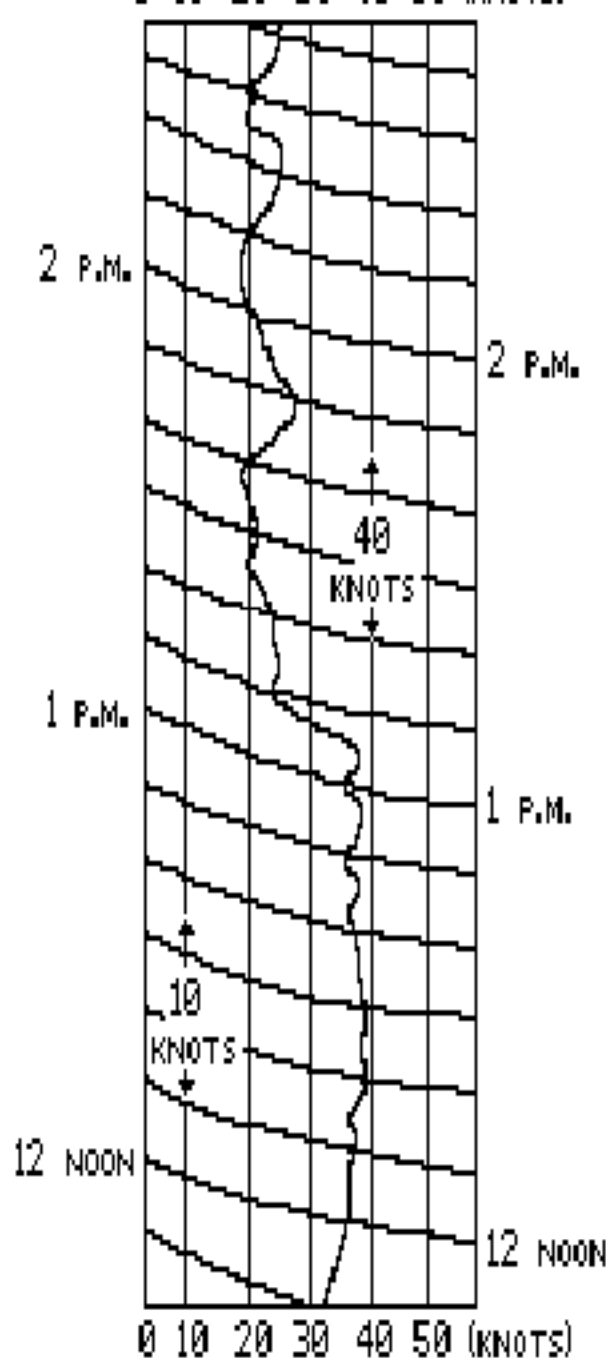
WIND DIRECTION  
(IN COMPASS DEGREES)

180° 270° 360°  
S W N



WINDSPEED  
(IN KNOTS)

0 10 20 30 40 50 (KNOTS)

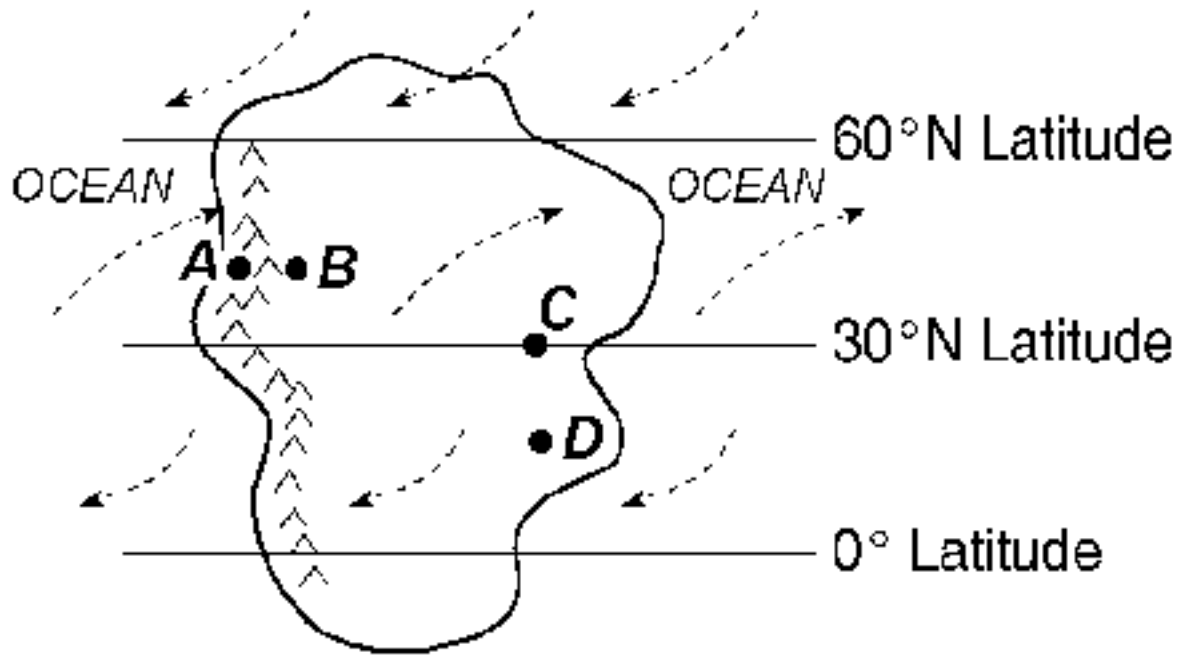




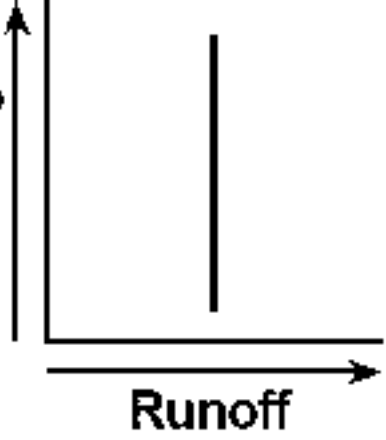
KEY:

-----➔ DIRECTION OF WIND IF THE EARTH DID NOT ROTATE

————➔ OBSERVED PATH OF WIND DUE TO EARTH'S ROTATION



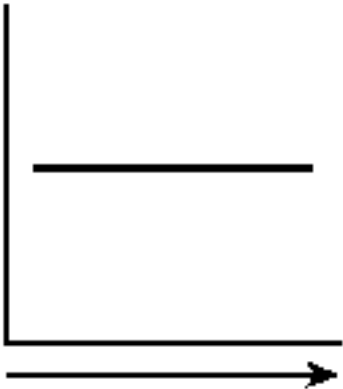
**Stream  
Discharge**



The image shows a coordinate system with a vertical axis labeled 'Stream Discharge' and a horizontal axis labeled 'Runoff'. A single vertical line is plotted, indicating that stream discharge is constant regardless of the runoff value.

**Runoff**

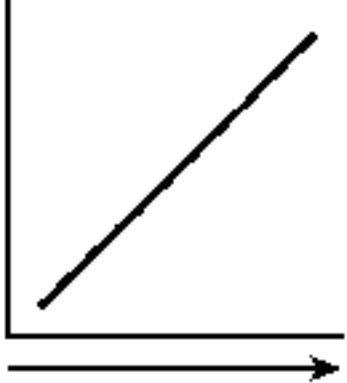
**Stream  
Discharge**



The graph consists of a vertical y-axis and a horizontal x-axis, both ending in arrows. The y-axis is labeled 'Stream Discharge' and the x-axis is labeled 'Runoff'. A single horizontal line is plotted at a constant height on the y-axis, extending across the width of the graph area.

**Runoff**

**Stream  
Discharge**

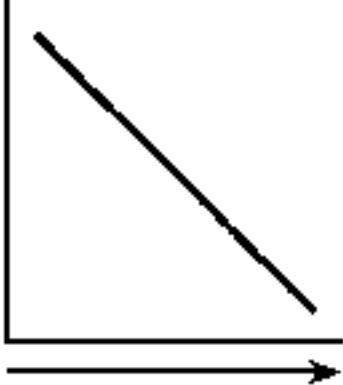


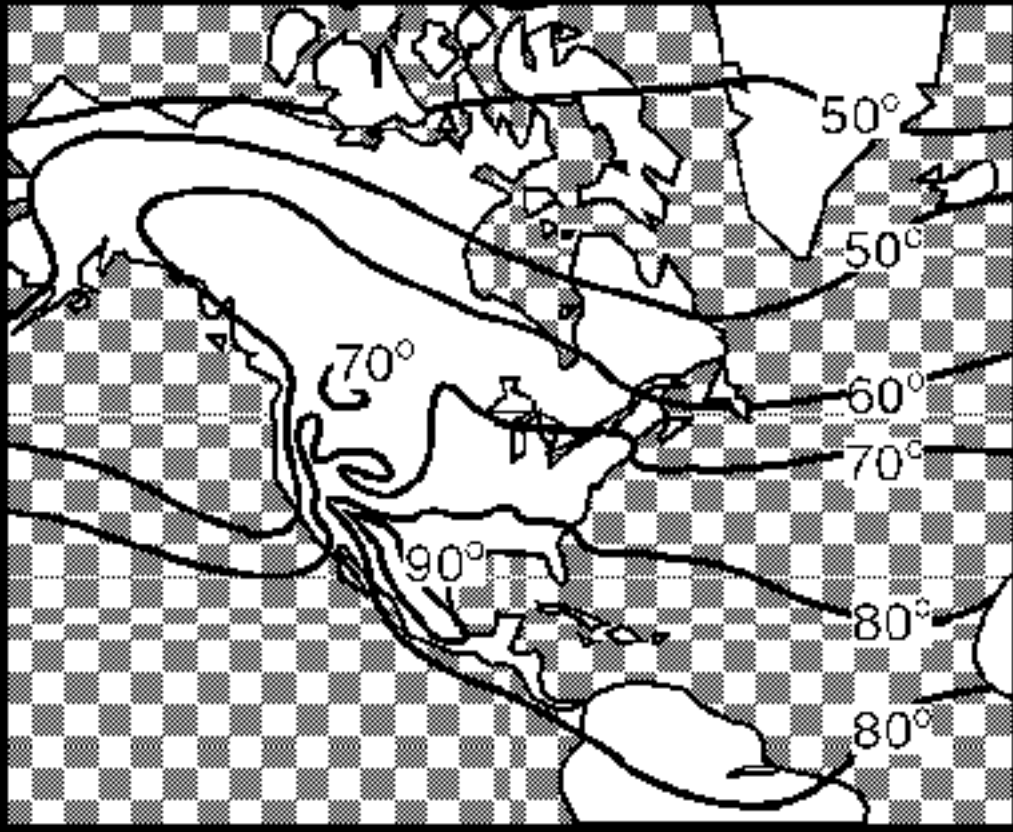
The graph consists of a vertical y-axis and a horizontal x-axis, both ending in arrows. A straight line with a positive slope starts from a point on the y-axis and extends upwards and to the right. There are approximately 10 small dots plotted along this line, indicating a strong positive linear correlation between the two variables.

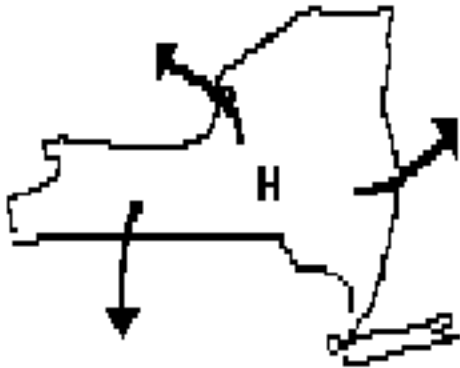
**Runoff**

**Stream  
Discharge**

**Runoff**

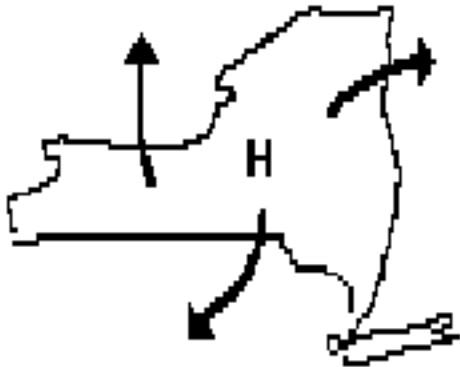


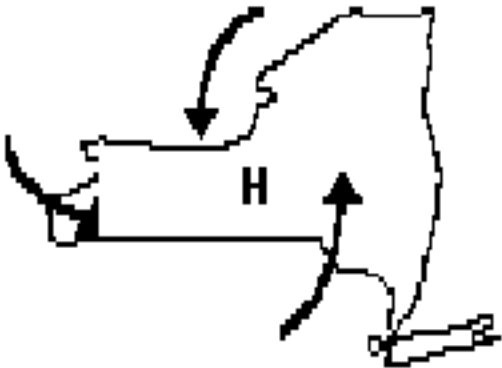




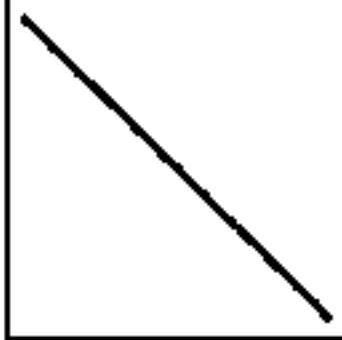








**Rate of  
Evaporation**



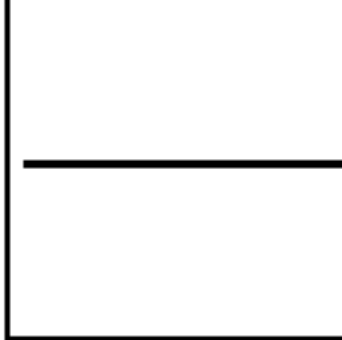
**Temperature**

**Rate of  
Evaporation**



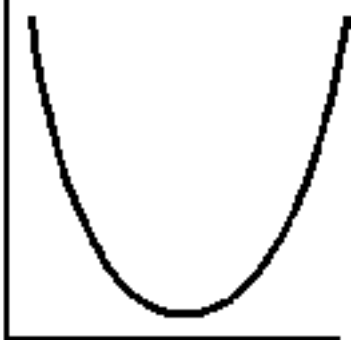
**Temperature**

**Rate of  
Evaporation**



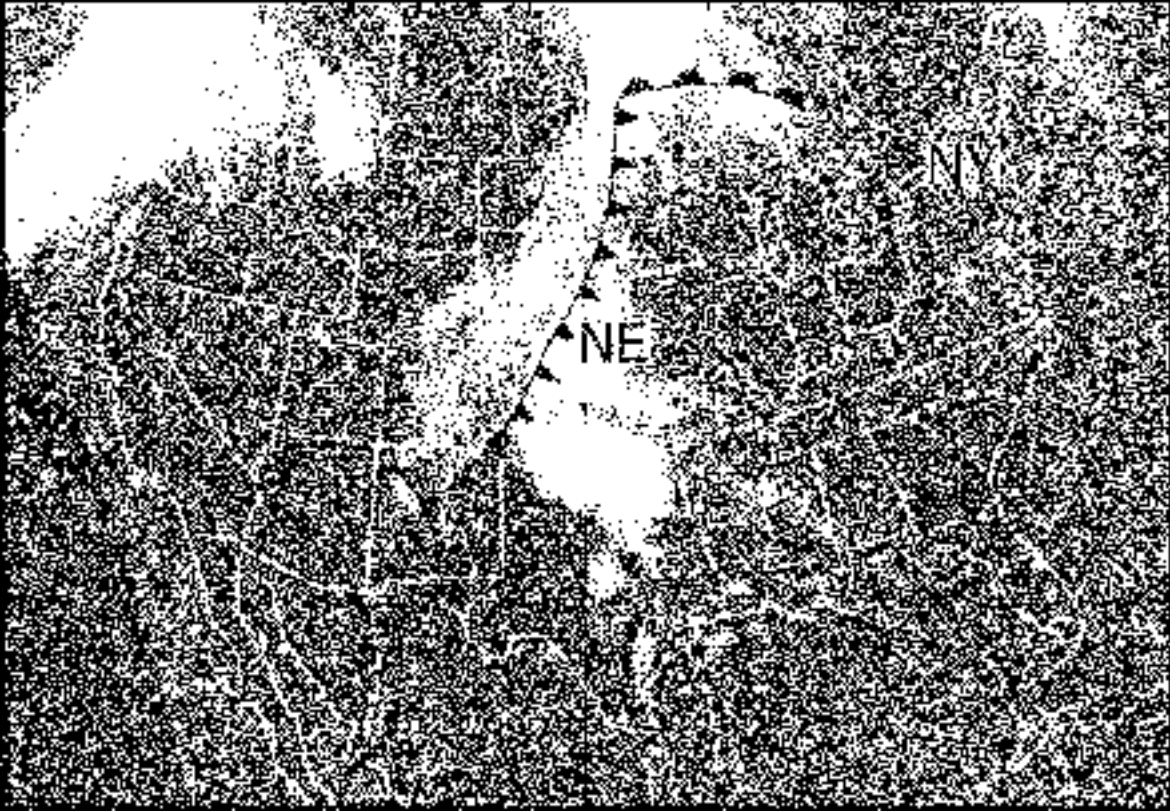
**Temperature**

**Rate of  
Evaporation**

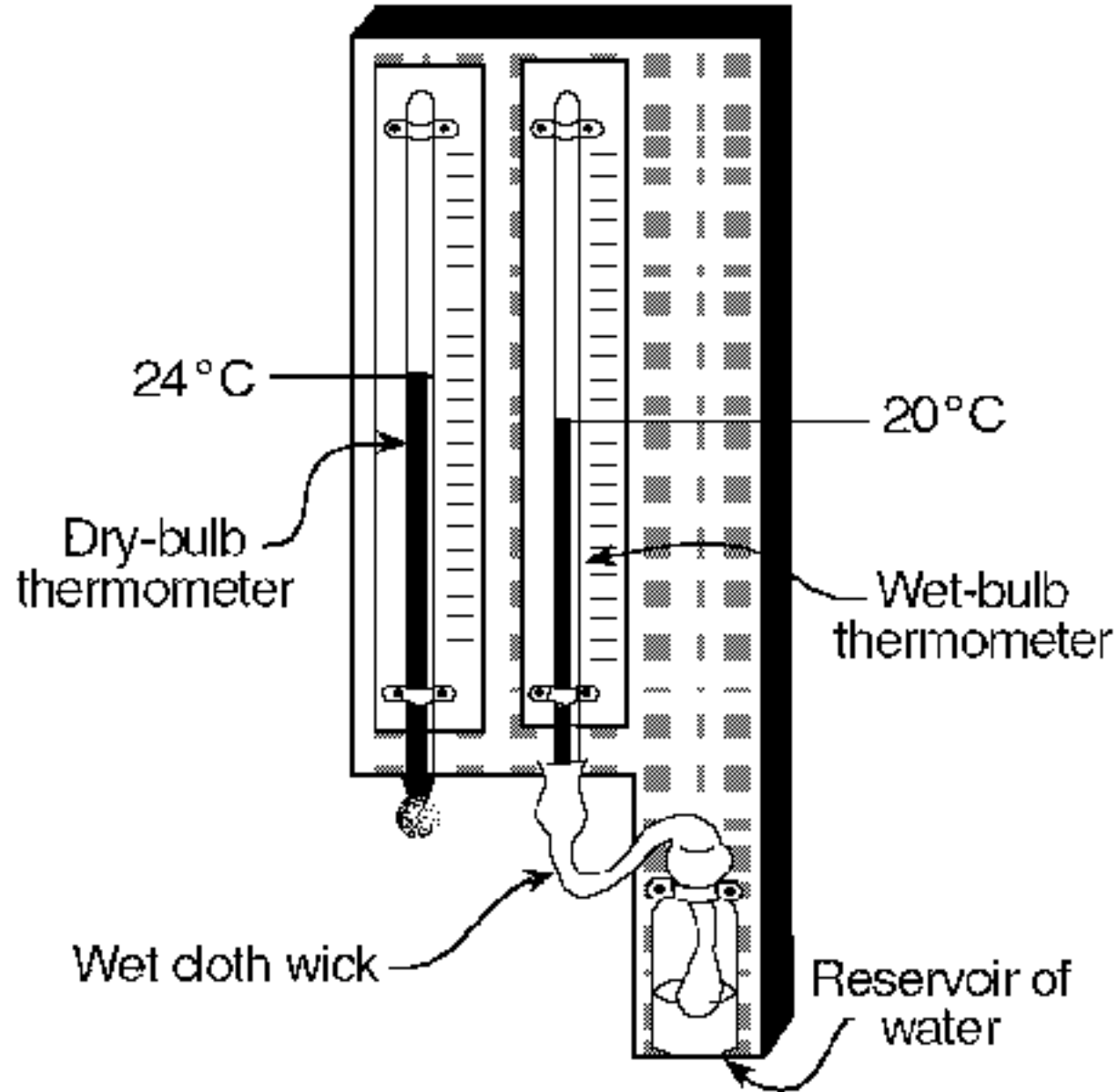


The graph shows a U-shaped curve on a coordinate system. The vertical axis is labeled 'Rate of Evaporation' and the horizontal axis is labeled 'Temperature'. The curve starts at a high value on the left, decreases to a minimum point, and then increases again on the right. The axes are represented by lines with arrows at their ends.

**Temperature**





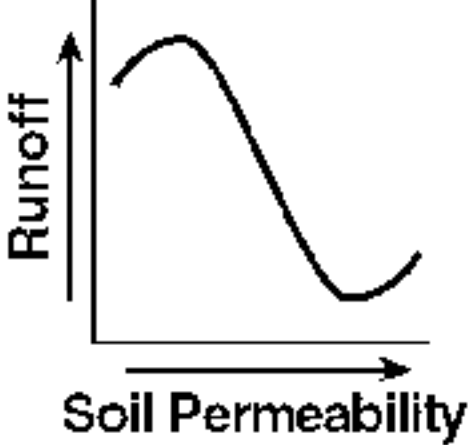


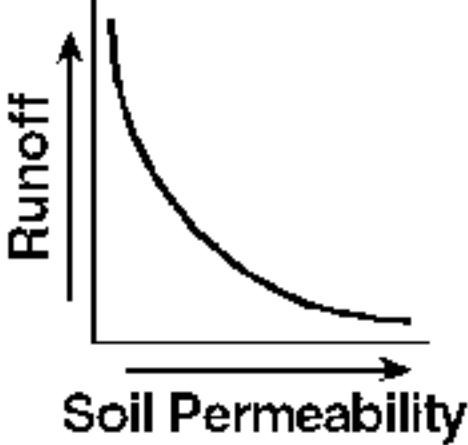
Runoff

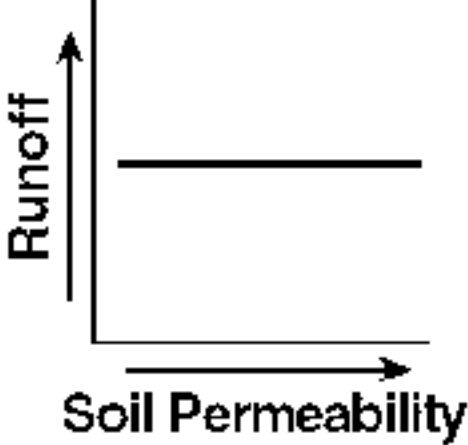


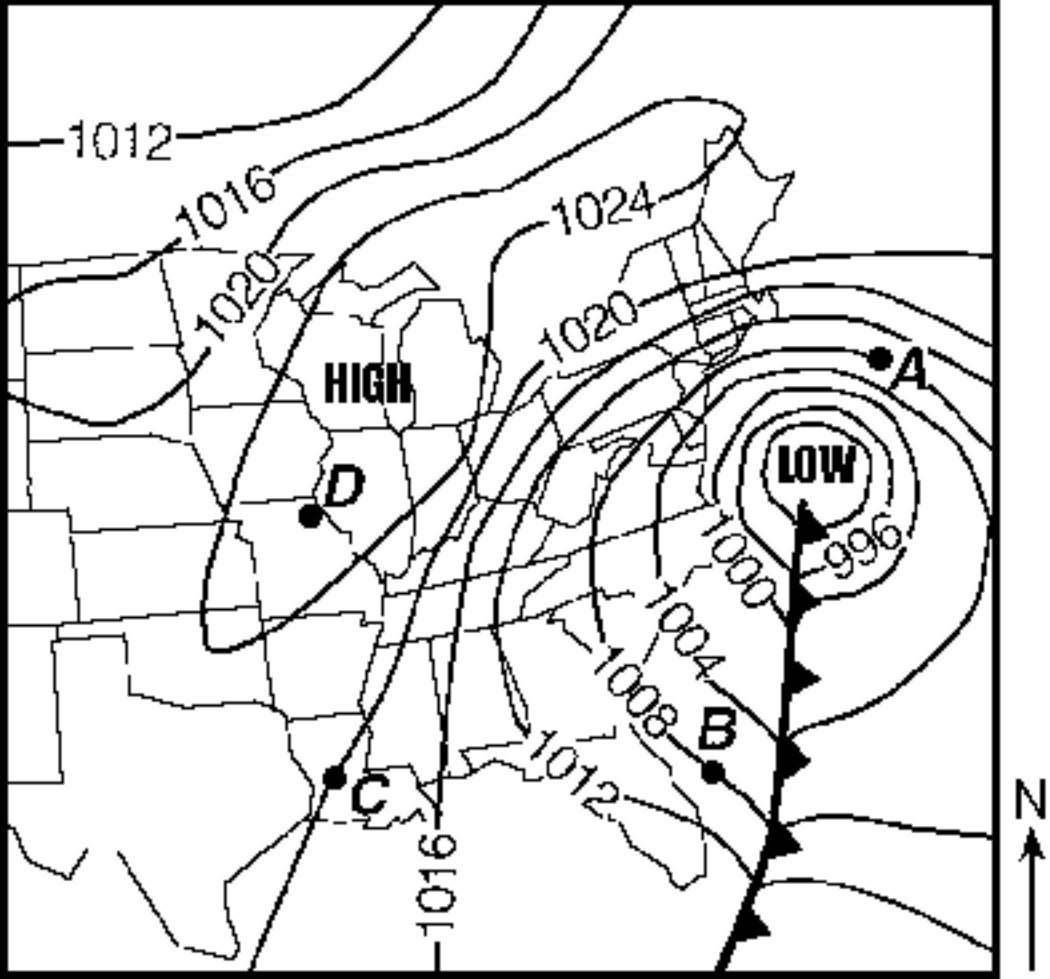
The graph illustrates a positive, non-linear relationship between soil permeability and runoff. The vertical axis, labeled 'Runoff', represents the amount of water flowing over the surface. The horizontal axis, labeled 'Soil Permeability', represents the soil's ability to absorb water. The curve begins at a low runoff level for low permeability and rises steeply as permeability increases, indicating that runoff increases at an accelerating rate as the soil becomes more permeable.

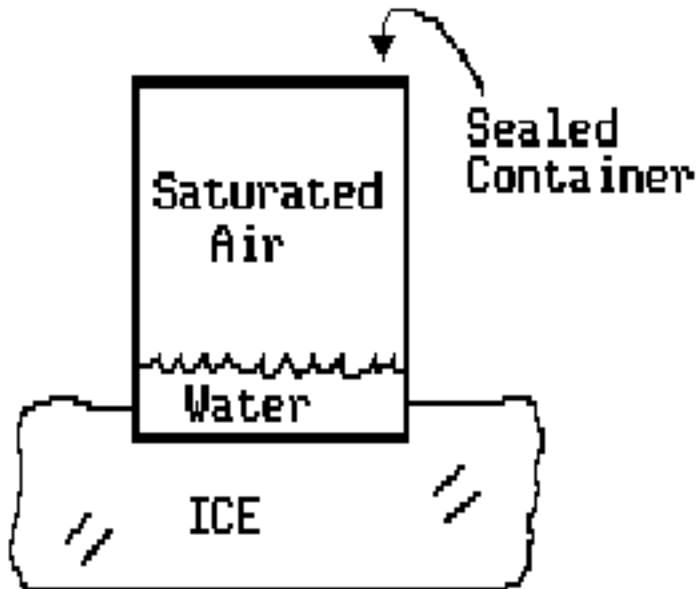
Soil Permeability

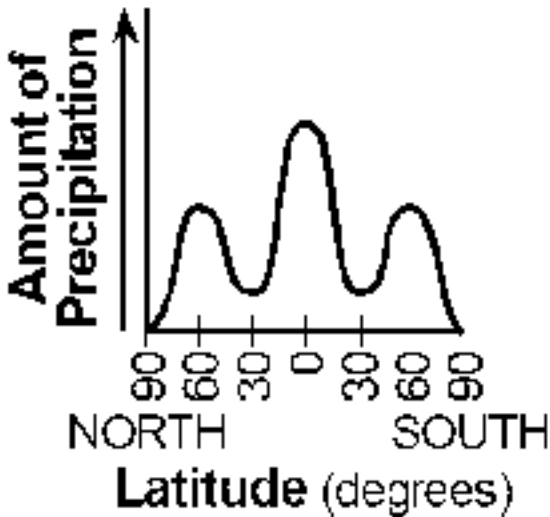




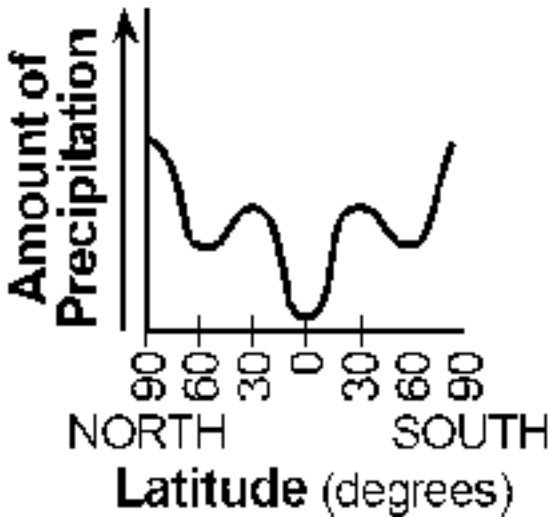


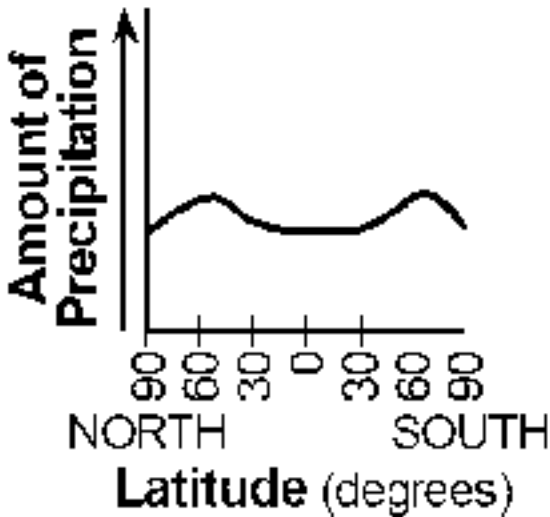


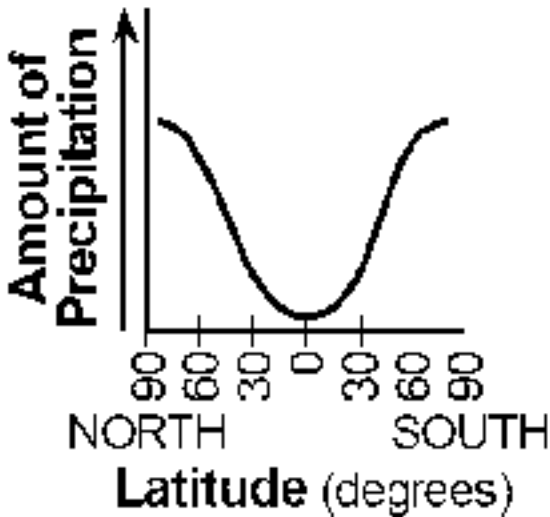


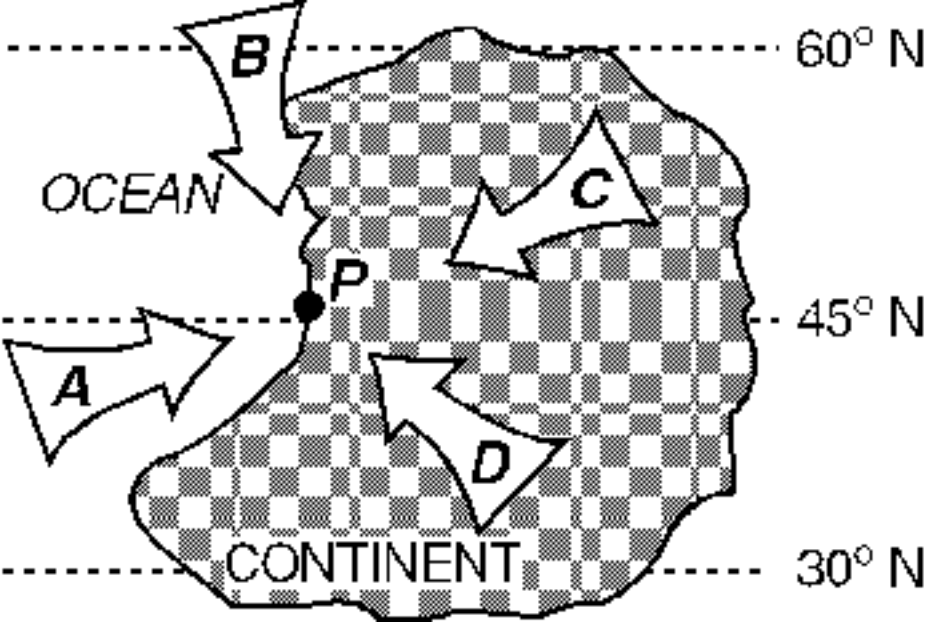






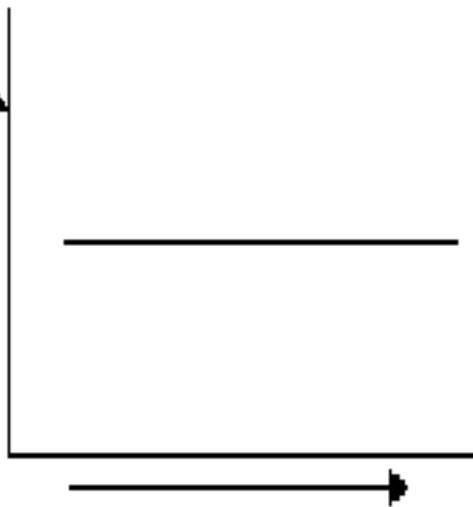


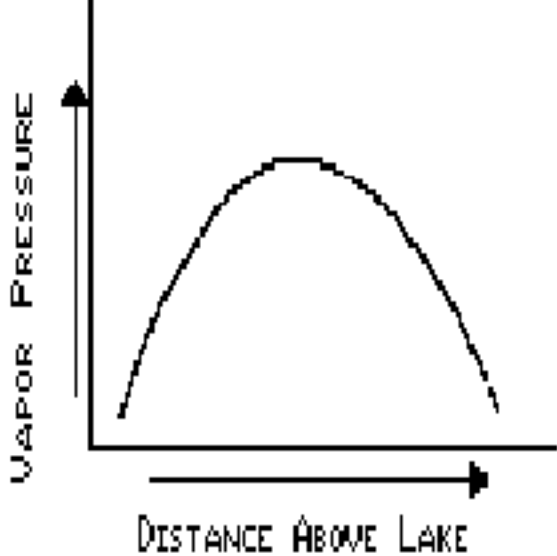




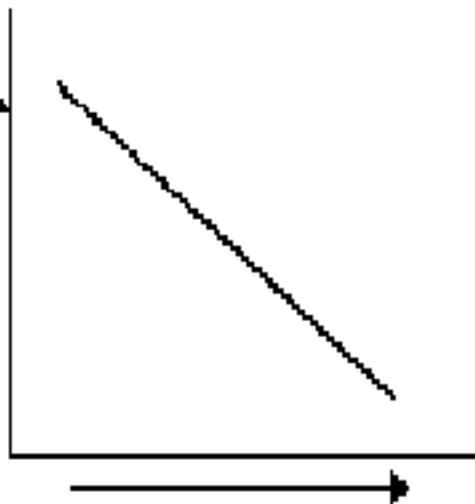
VAPOR PRESSURE

DISTANCE ABOVE LAKE

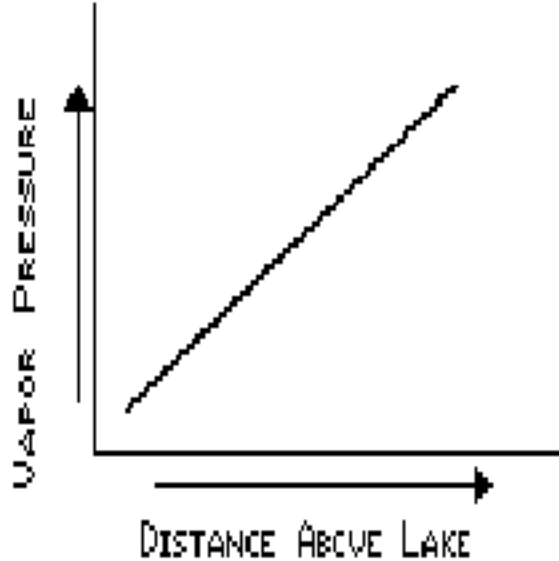




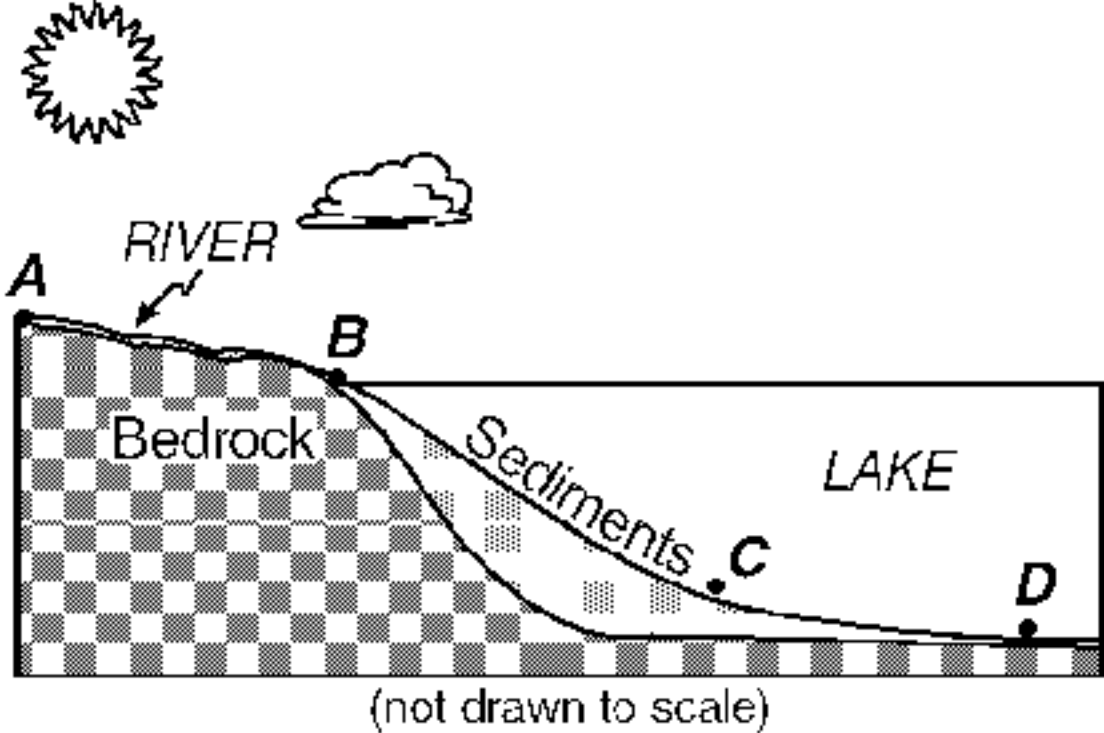
VAPOR PRESSURE



DISTANCE ABOVE LAKE







A ●

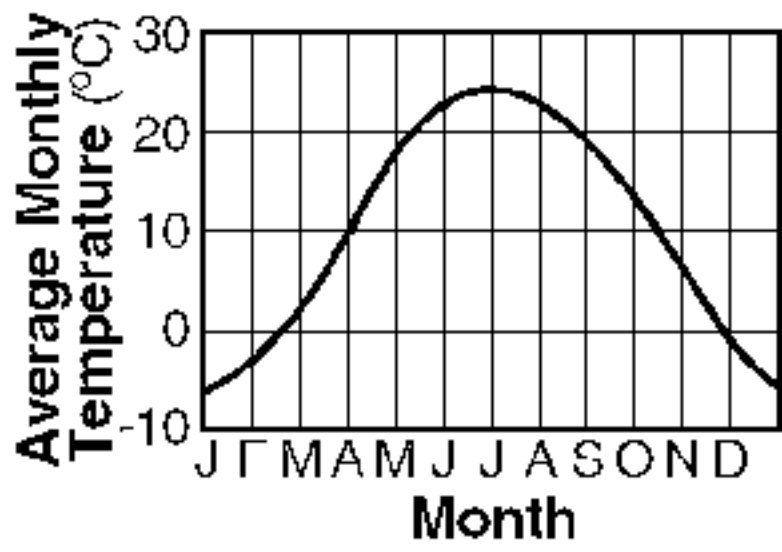
B ●

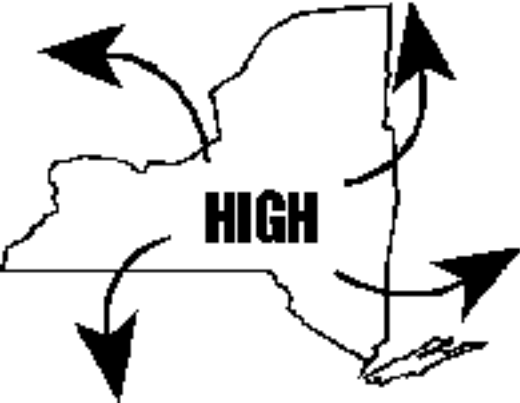
C ●

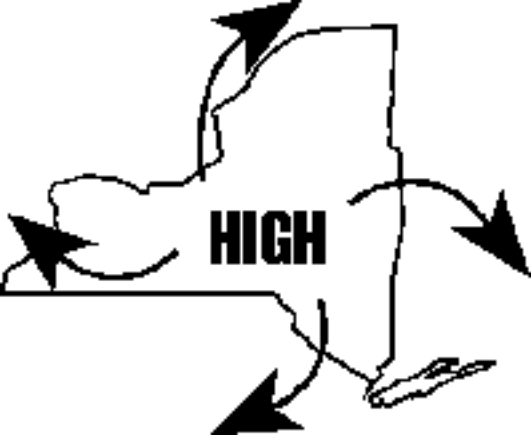
D ●

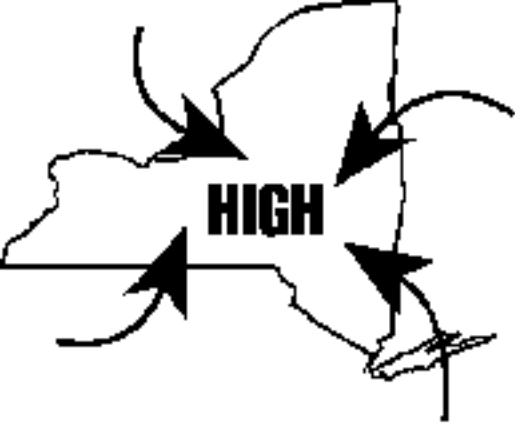


LAKE

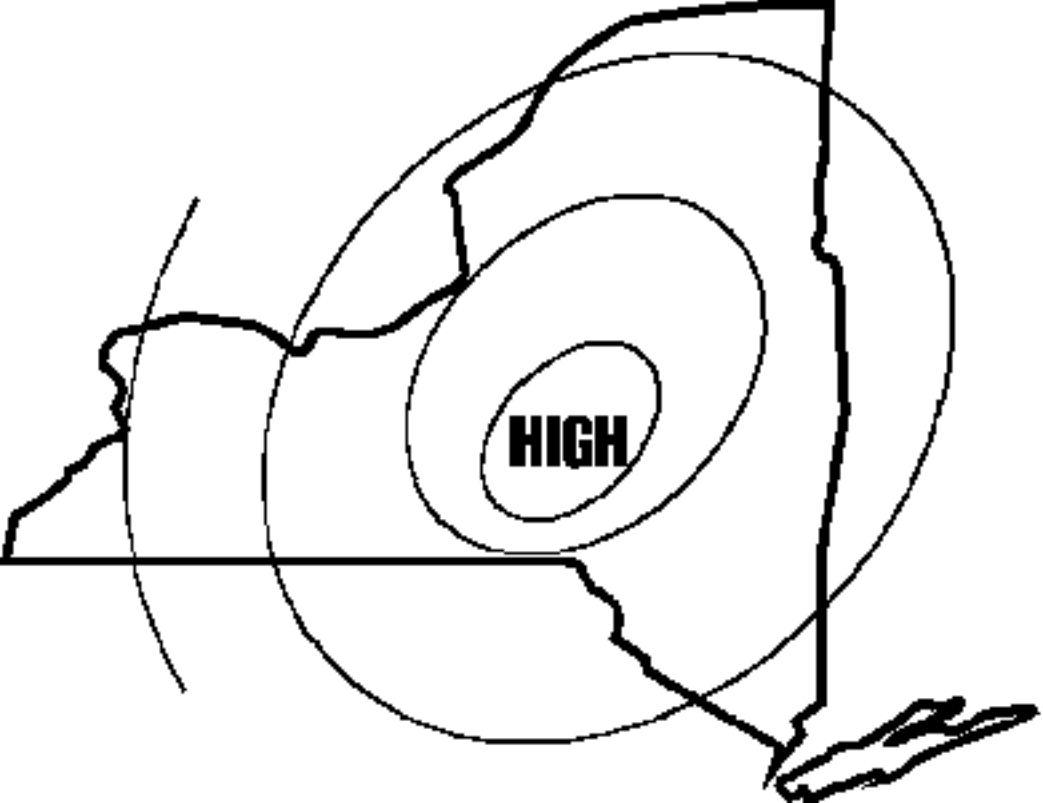




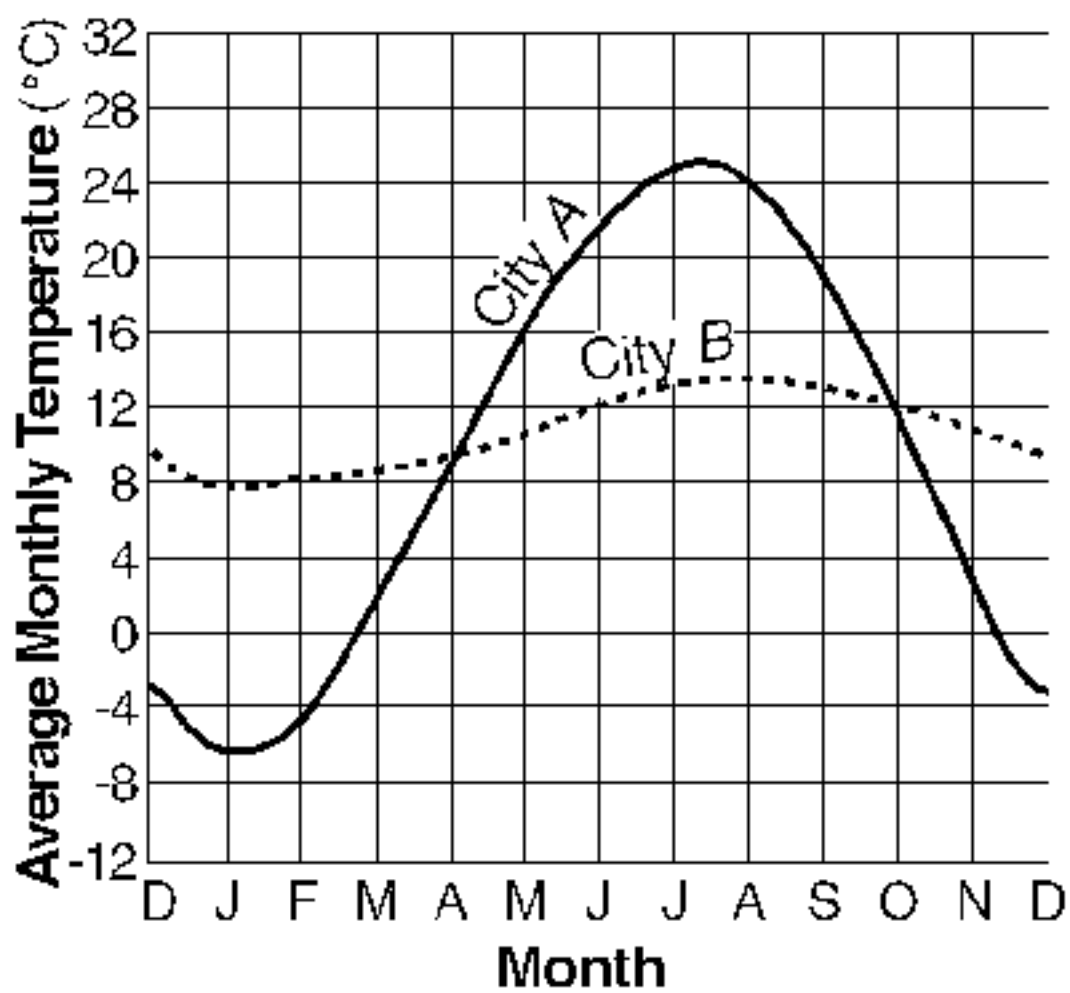






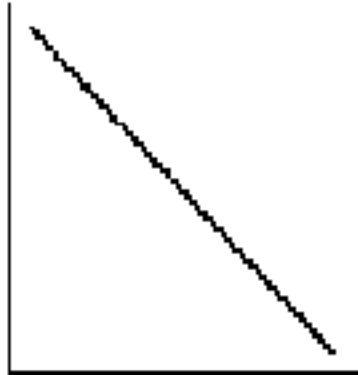






CHANCE OF  
PRECIPITATION

↑

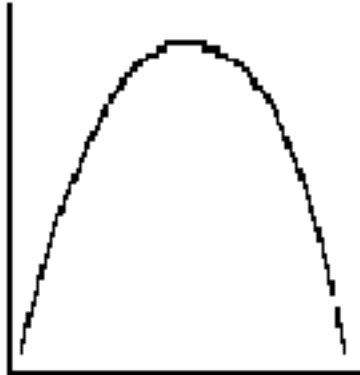


→

DROPLET SIZE

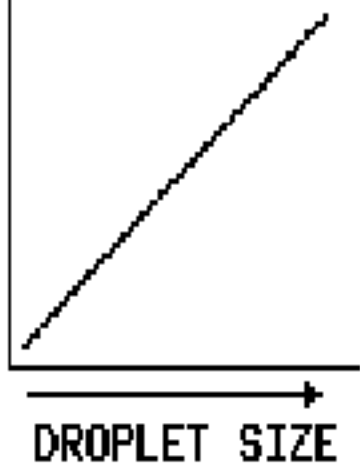
CHANCE OF

PRECIPITATION

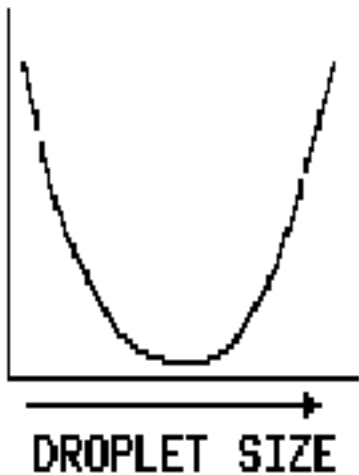


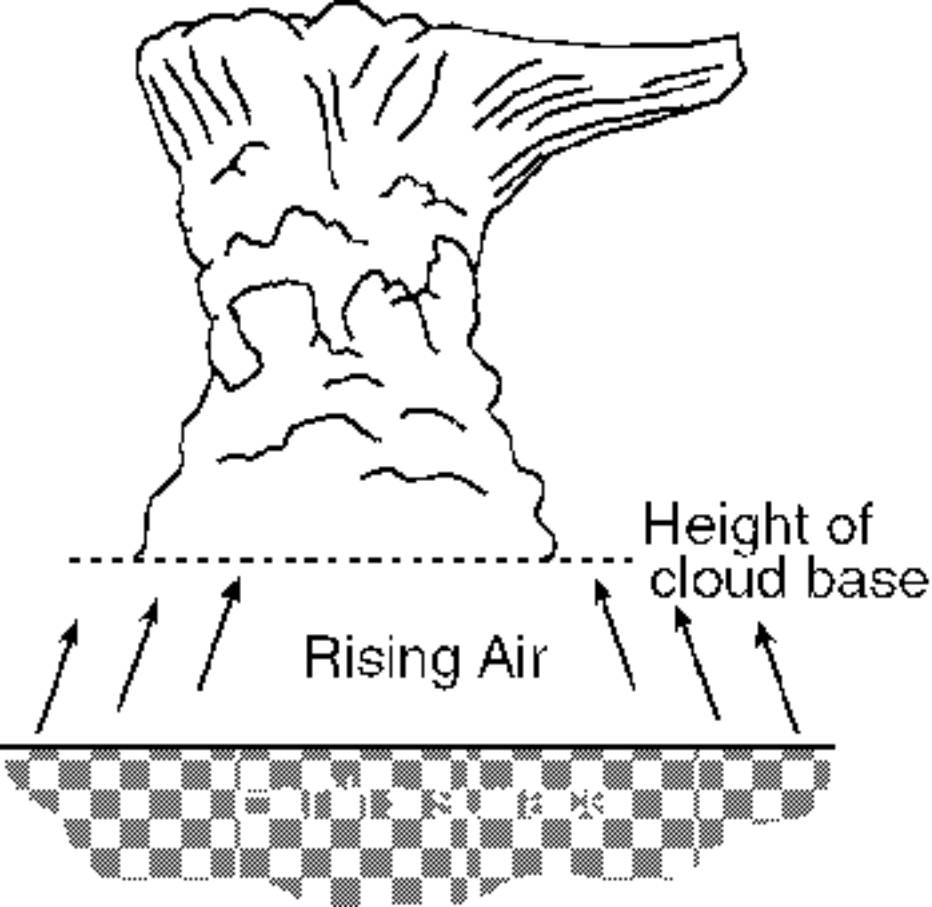
DROPLET SIZE

CHANCE OF  
PRECIPITATION



CHANCE OF  
PRECIPITATION





24

081



23

-18



**24**

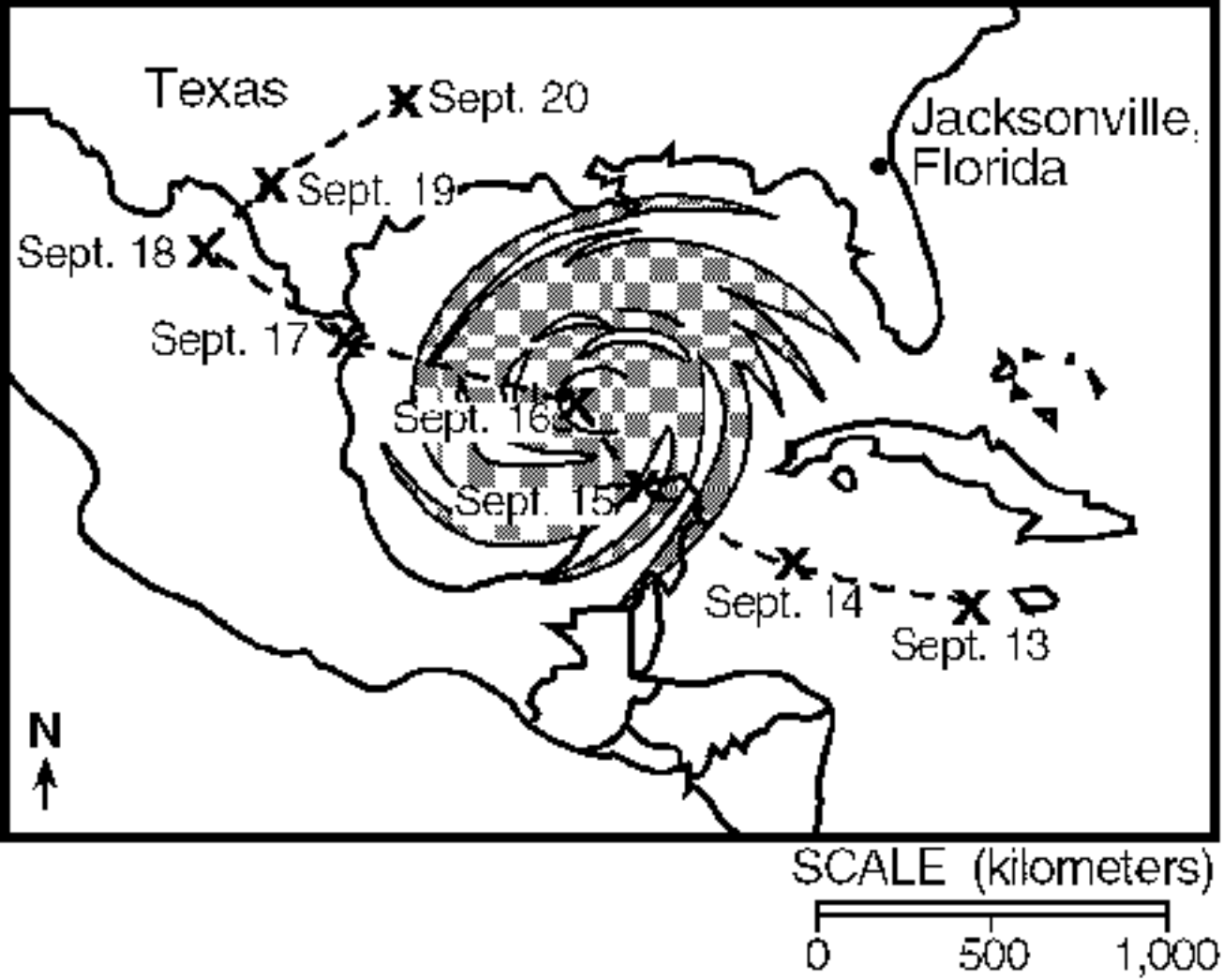
**164**

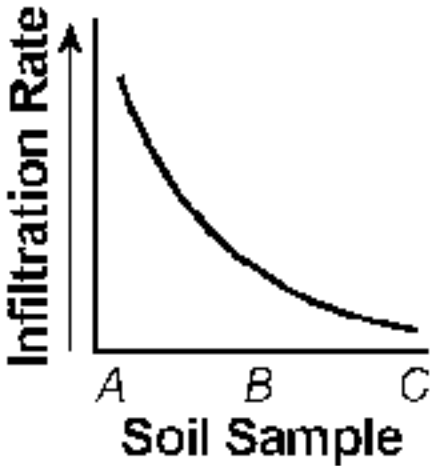
**+8**

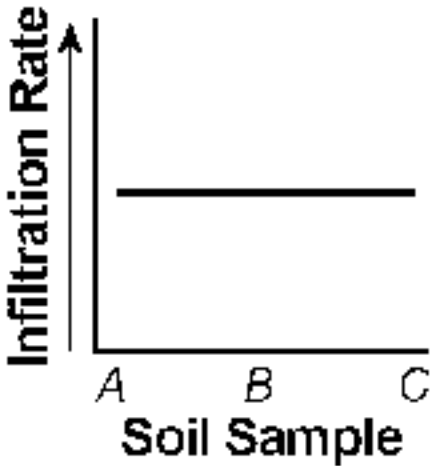
**16**

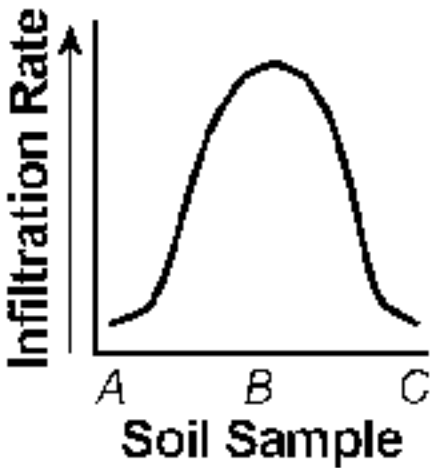


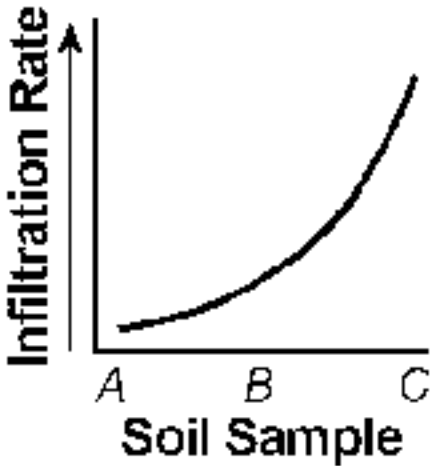


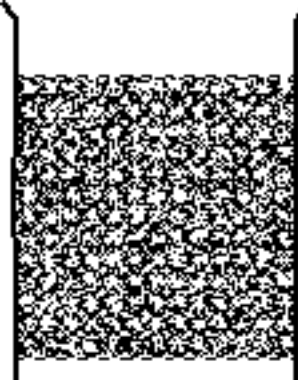












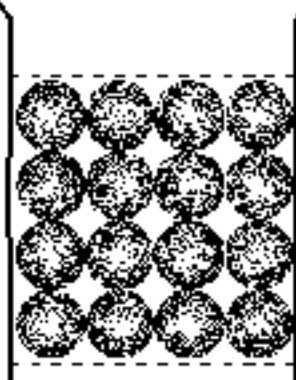
**A**

(0.10-cm  
diameter)



**B**

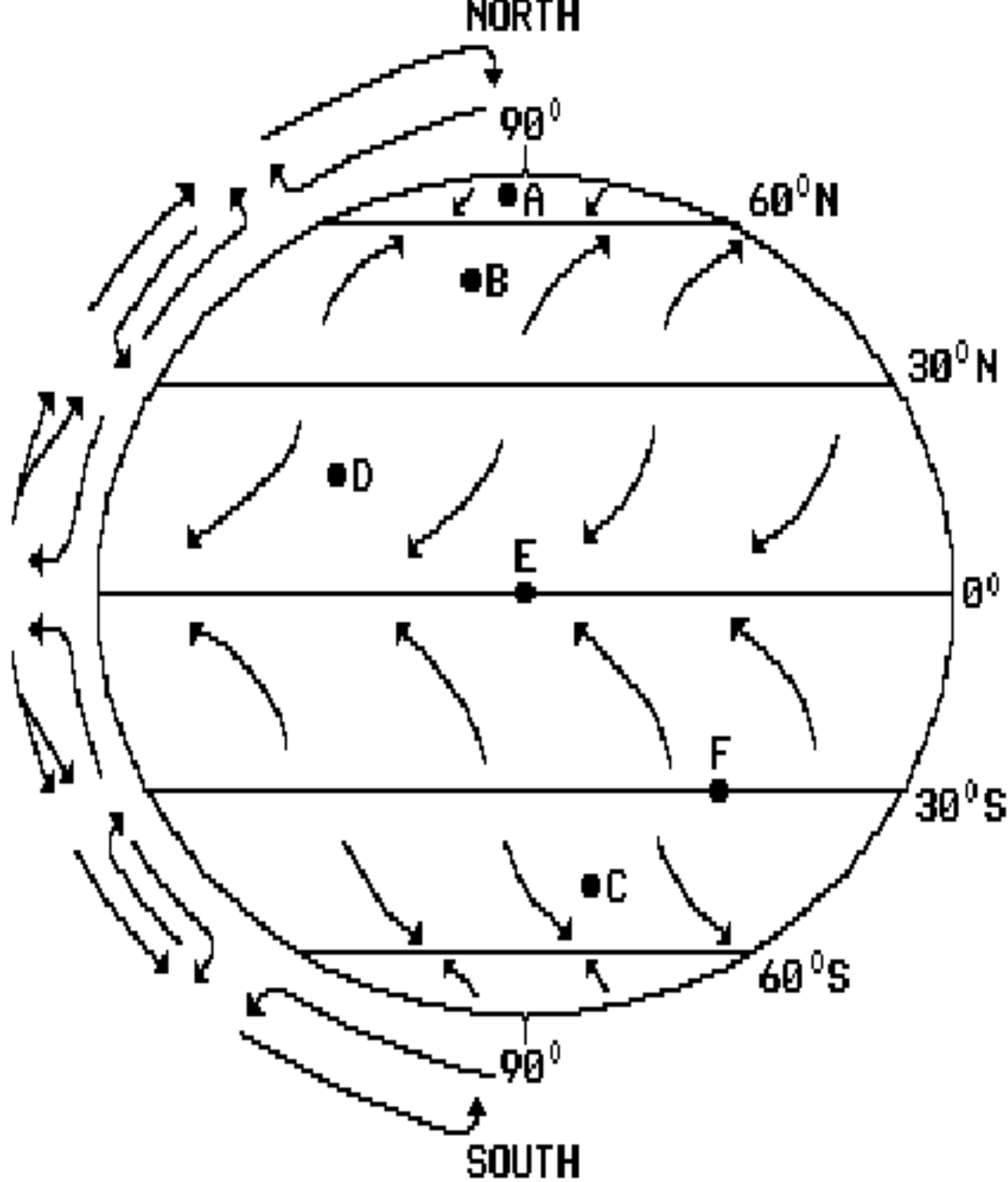
(0.40-cm  
diameter)



**C**

(0.70-cm  
diameter)

(not drawn to scale)



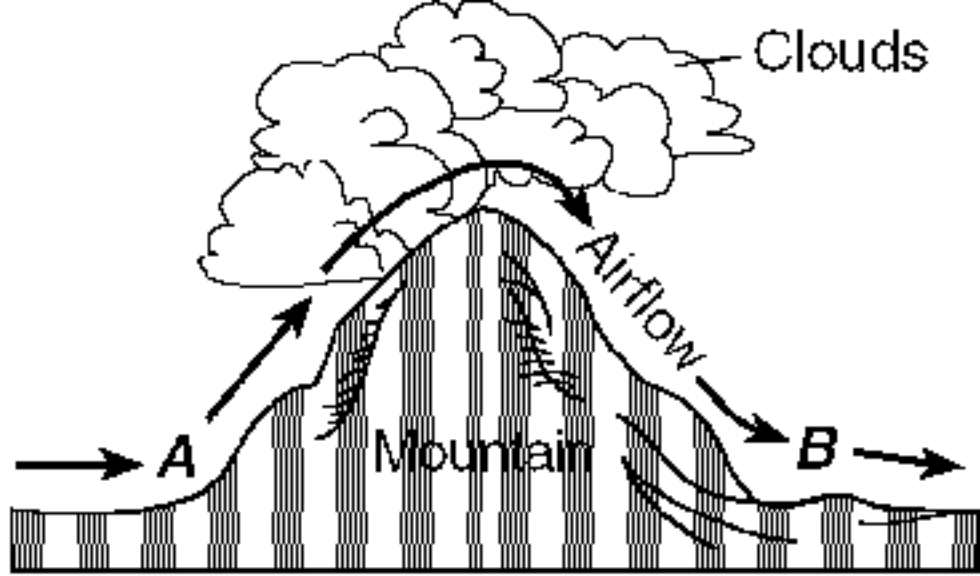


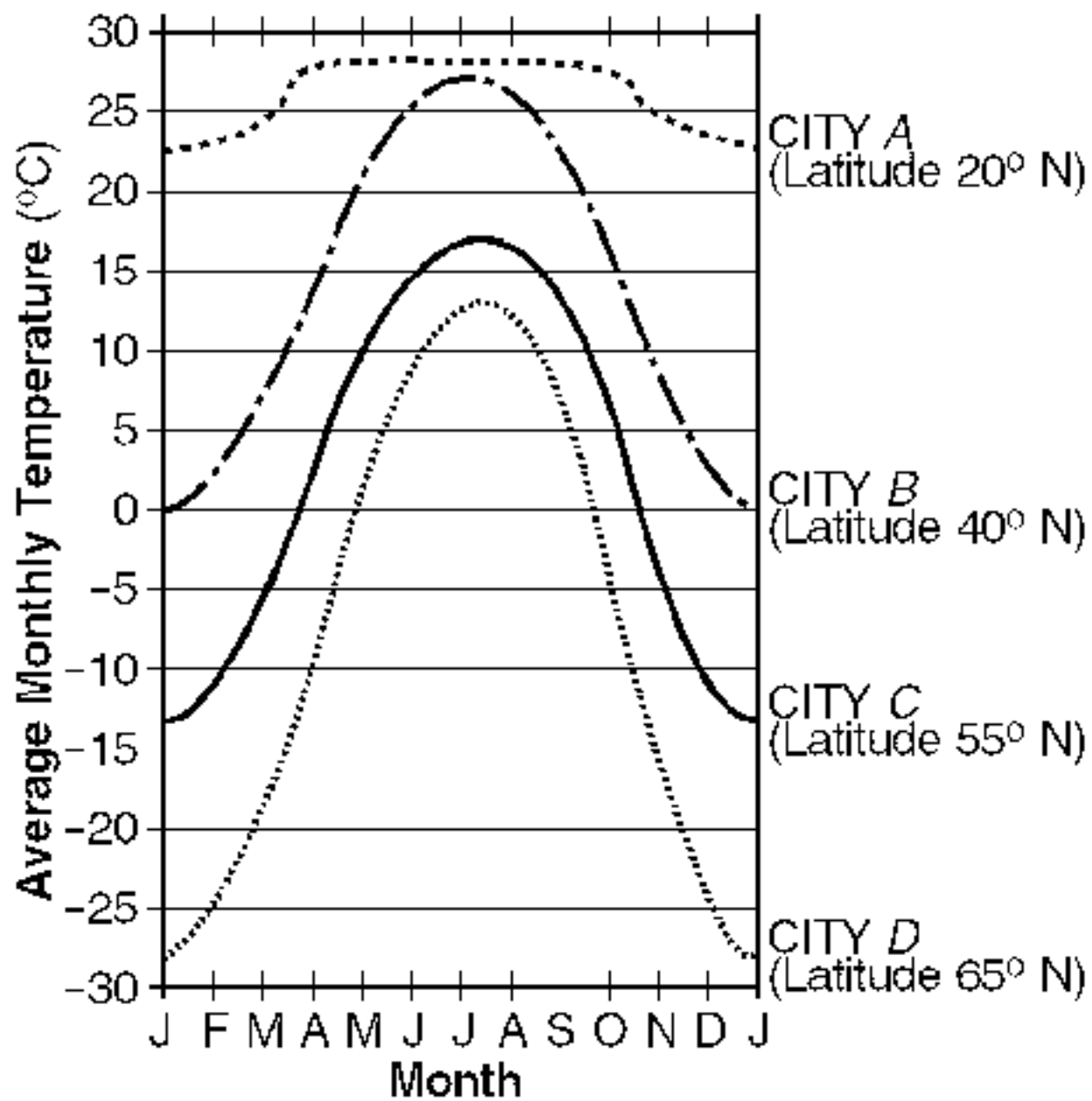


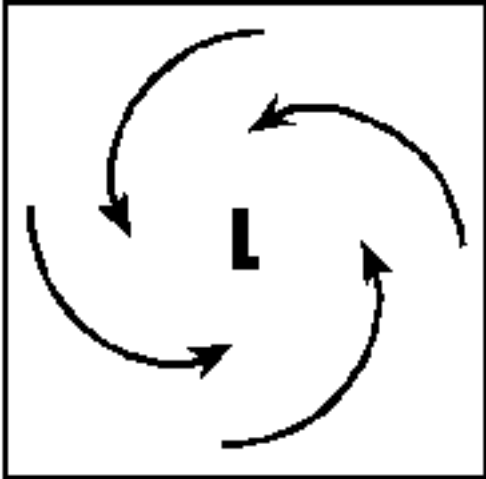




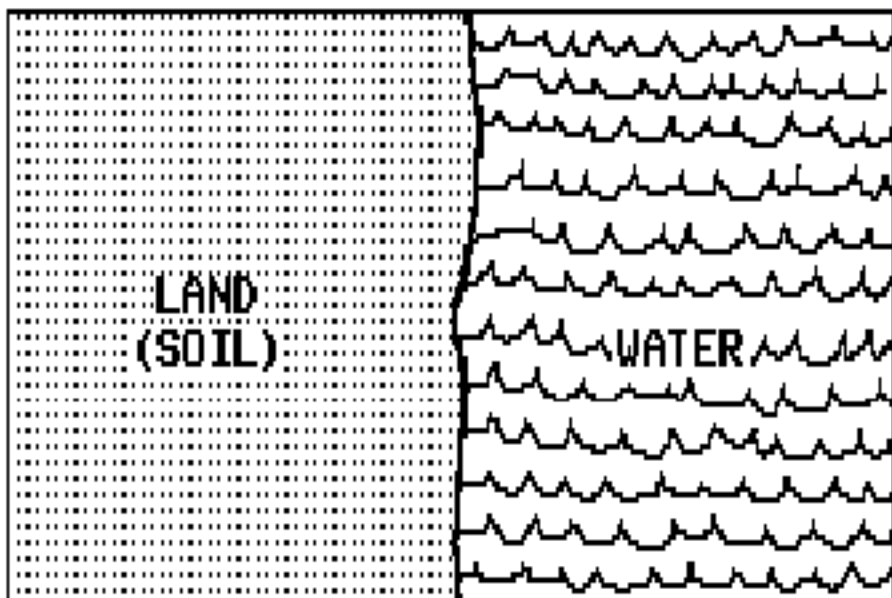








500 km

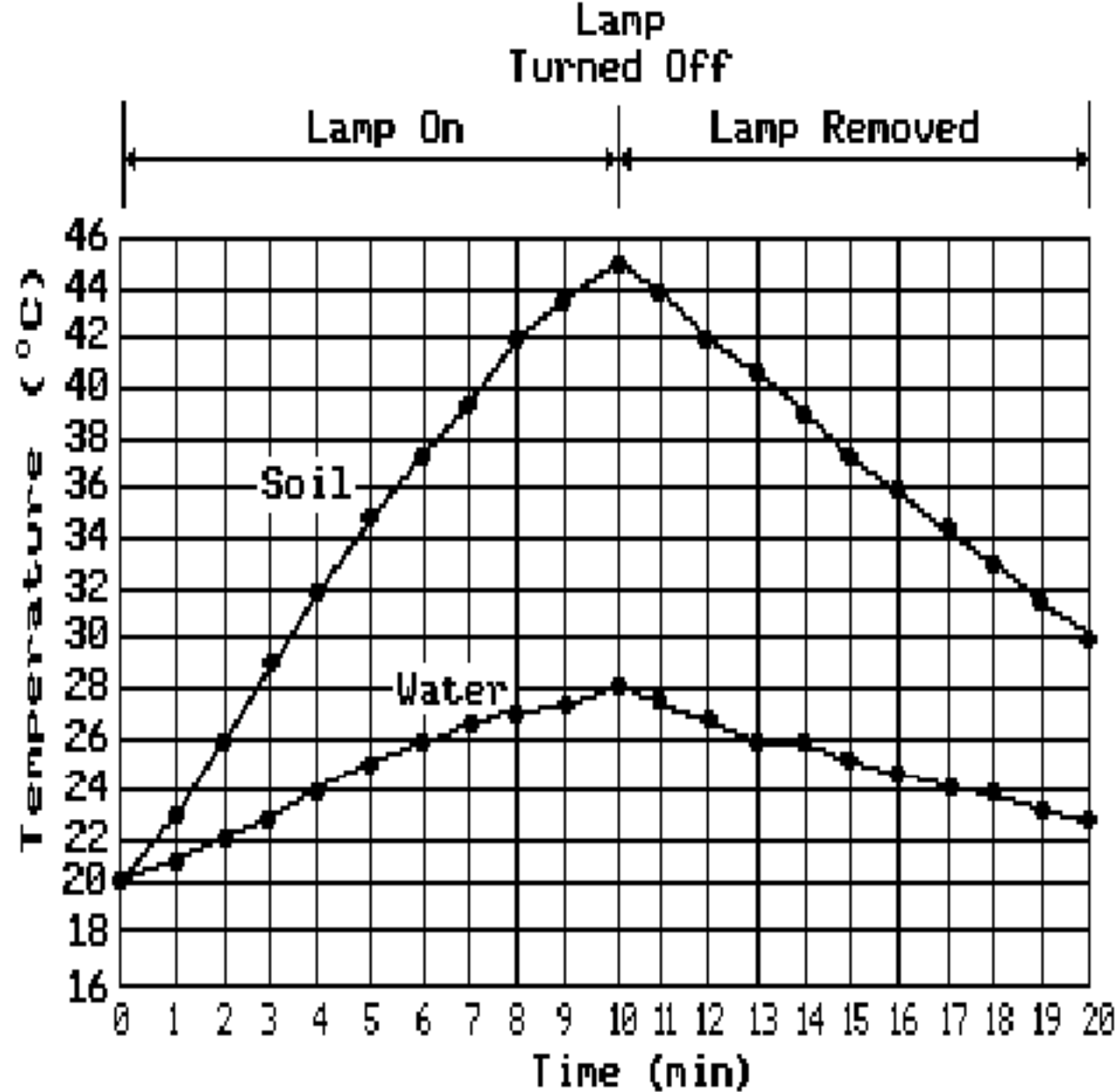
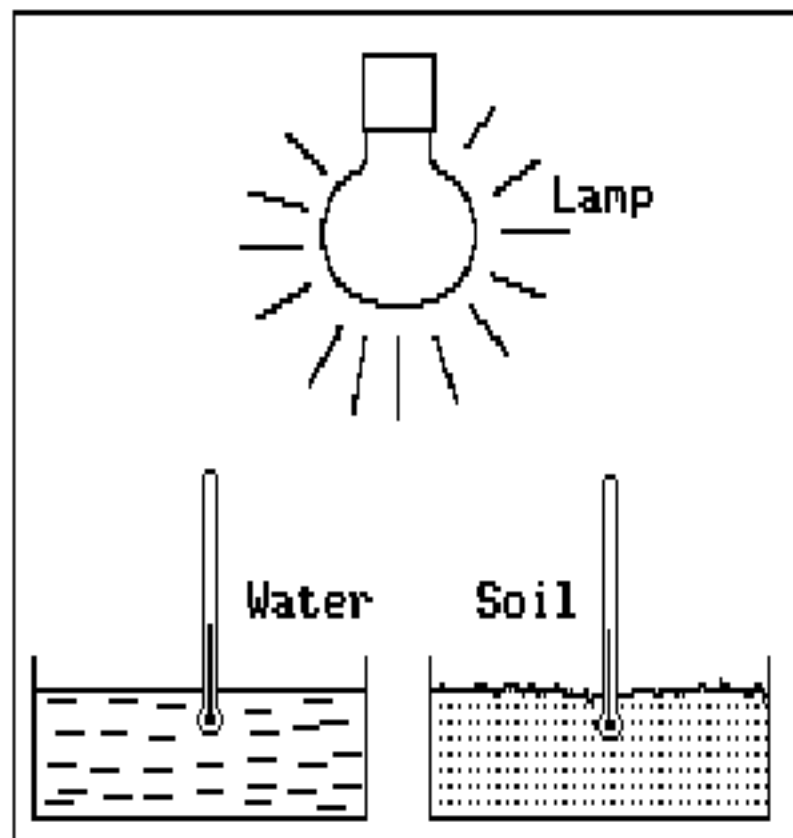


NORTH

0

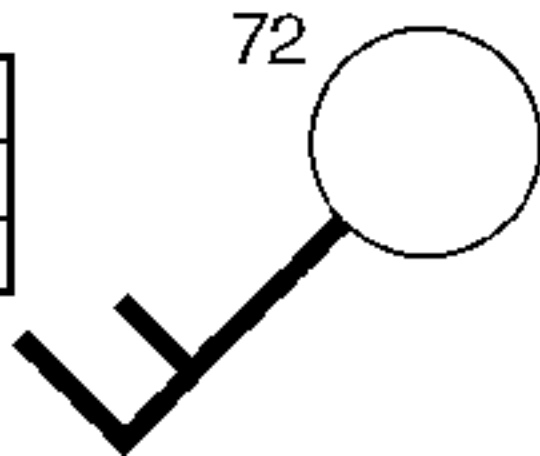
30

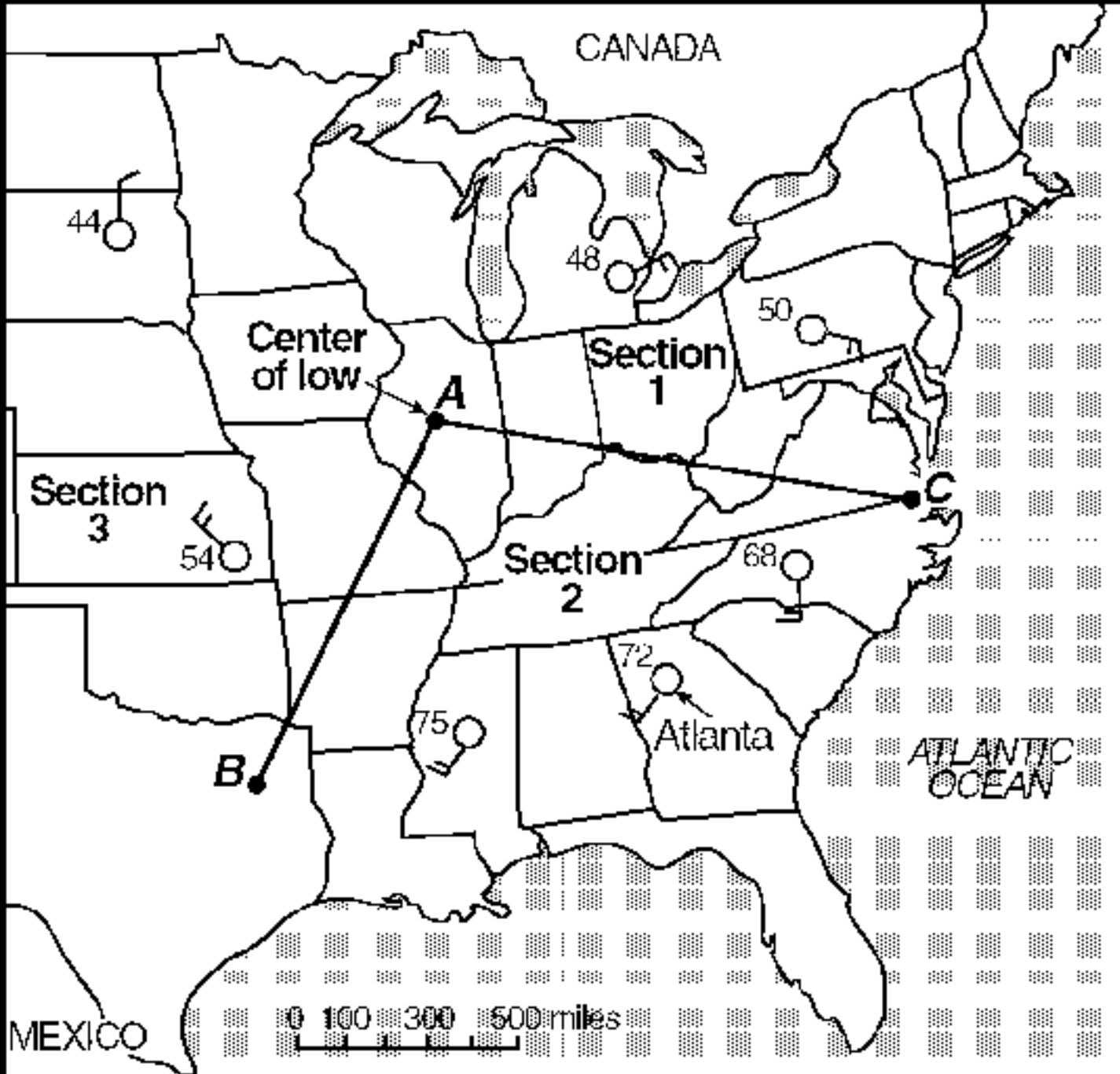
kilometers





|                       |                  |
|-----------------------|------------------|
| Visibility            | 6 miles          |
| Amount of cloud cover | 1/2 or 50%       |
| Air pressure          | 1001.1 millibars |

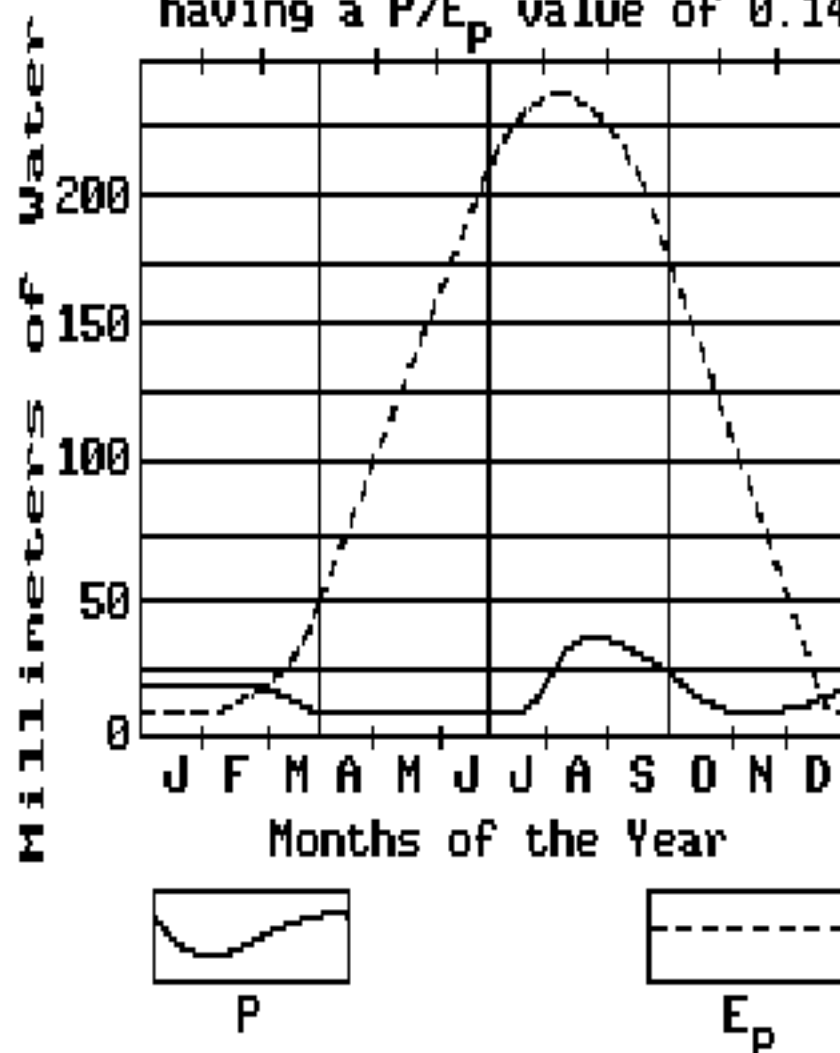


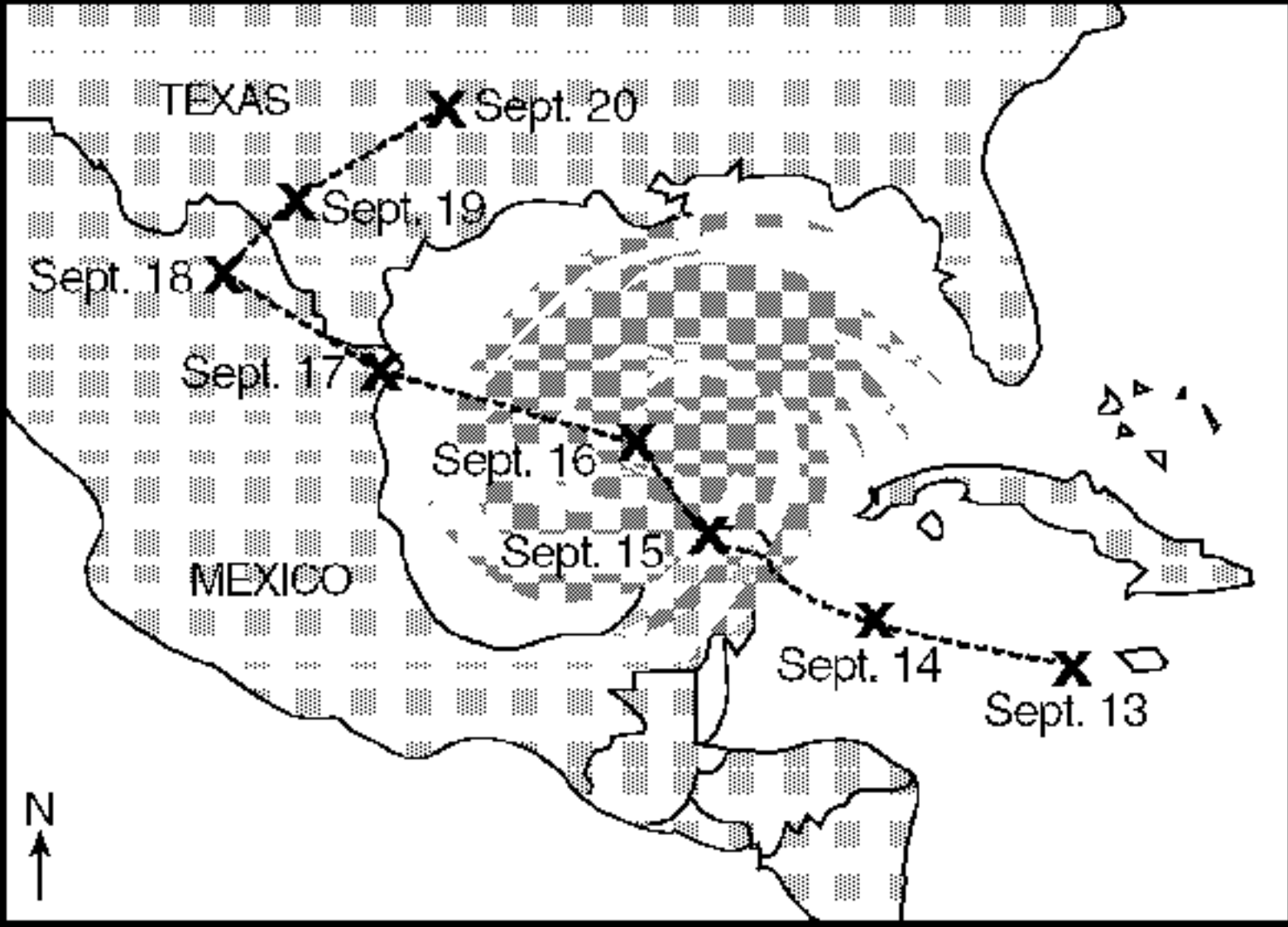


Climate Data for Certain U.S. Cities

| City | Total Annual<br>Precipitation<br>(in mm)<br>$P$ | Total Annual<br>Potential<br>Evapotranspiration<br>(in mm)<br>$E_p$ |
|------|-------------------------------------------------|---------------------------------------------------------------------|
| R    | 194                                             | 1340                                                                |
| S    | 291                                             | 434                                                                 |
| T    | 708                                             | 877                                                                 |
| X    | 825                                             | 621                                                                 |
| Z    | 859                                             | 1035                                                                |

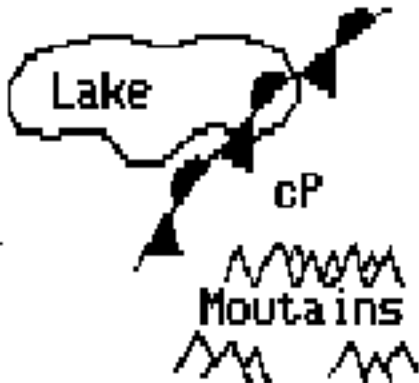
Water Budget for  
a Certain U.S. City  
having a  $P/E_p$  value of 0.14





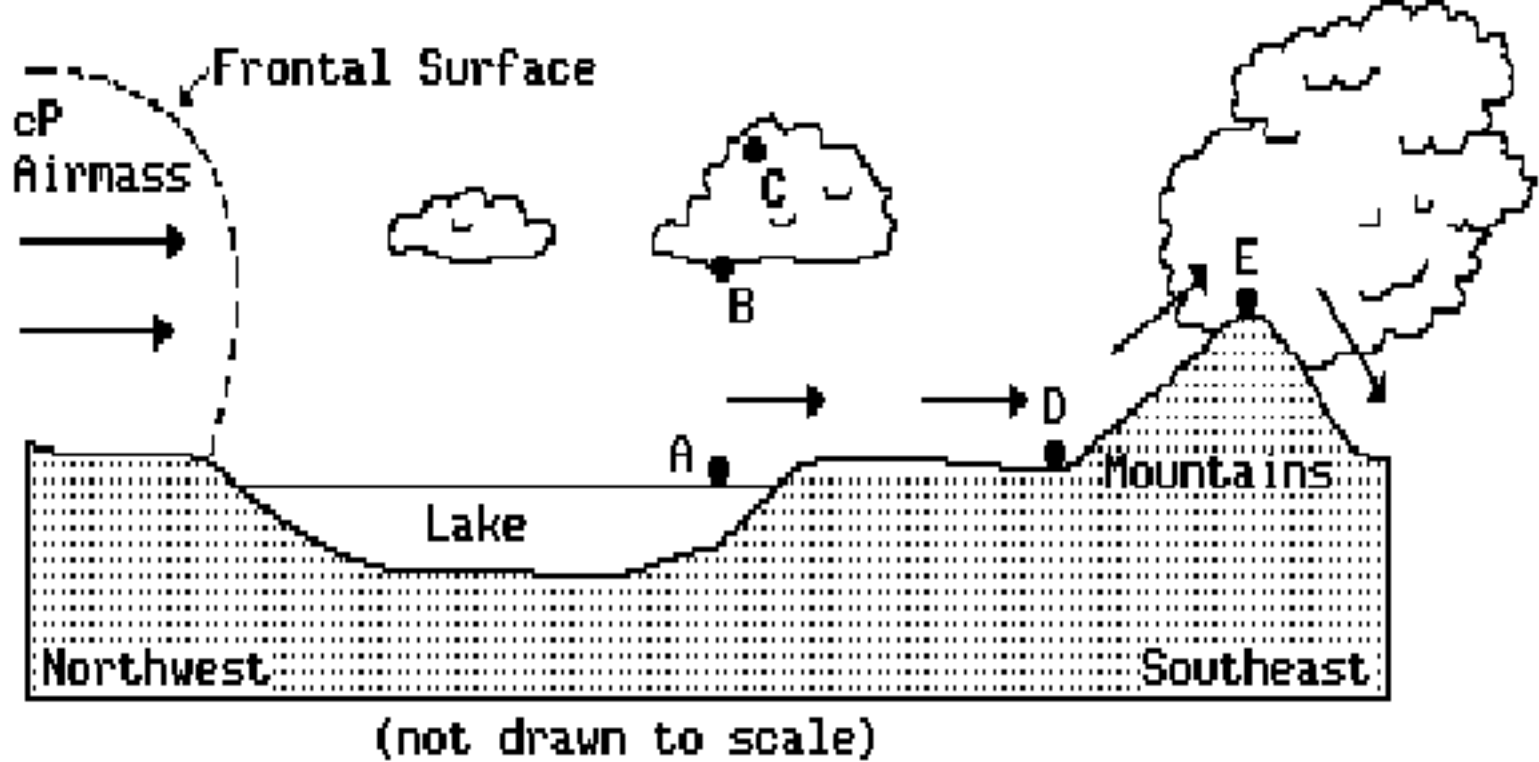




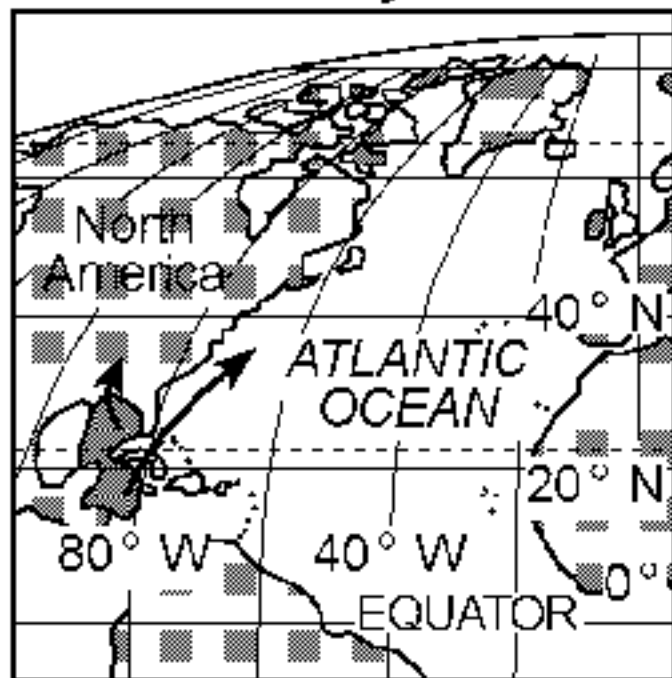




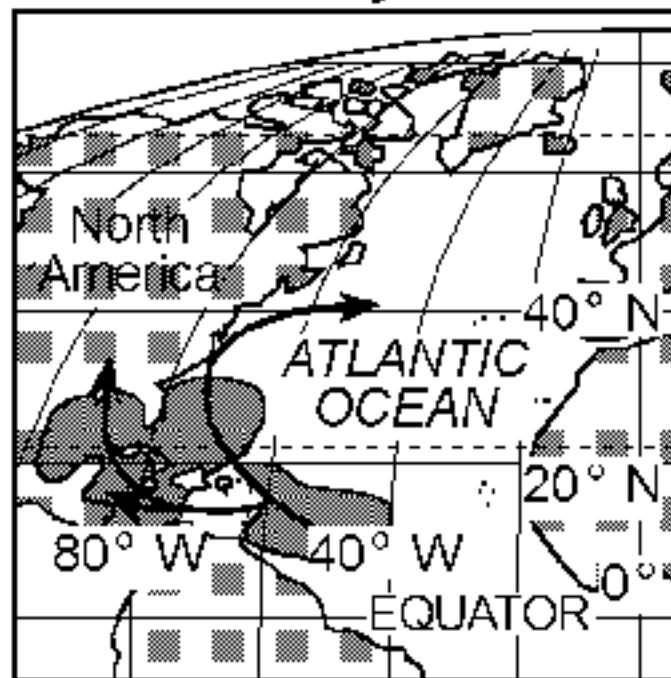




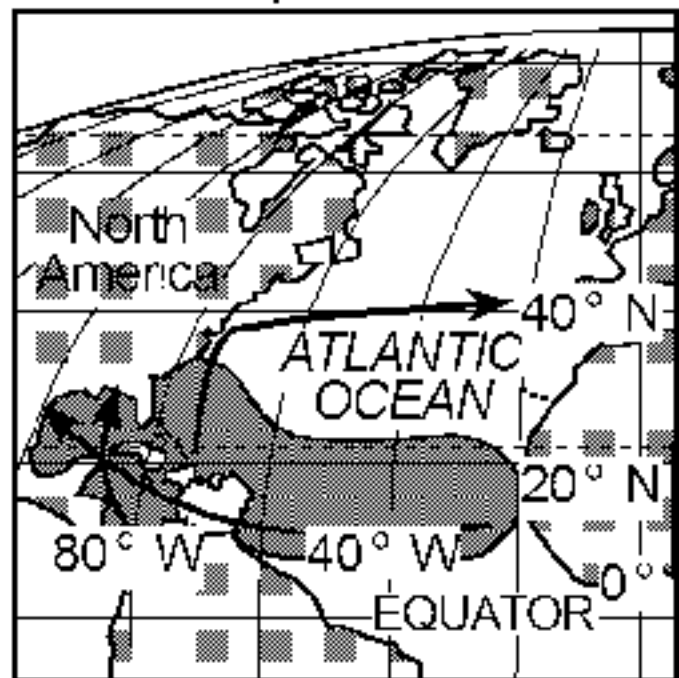
May



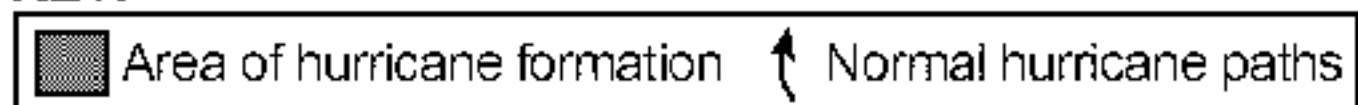
July

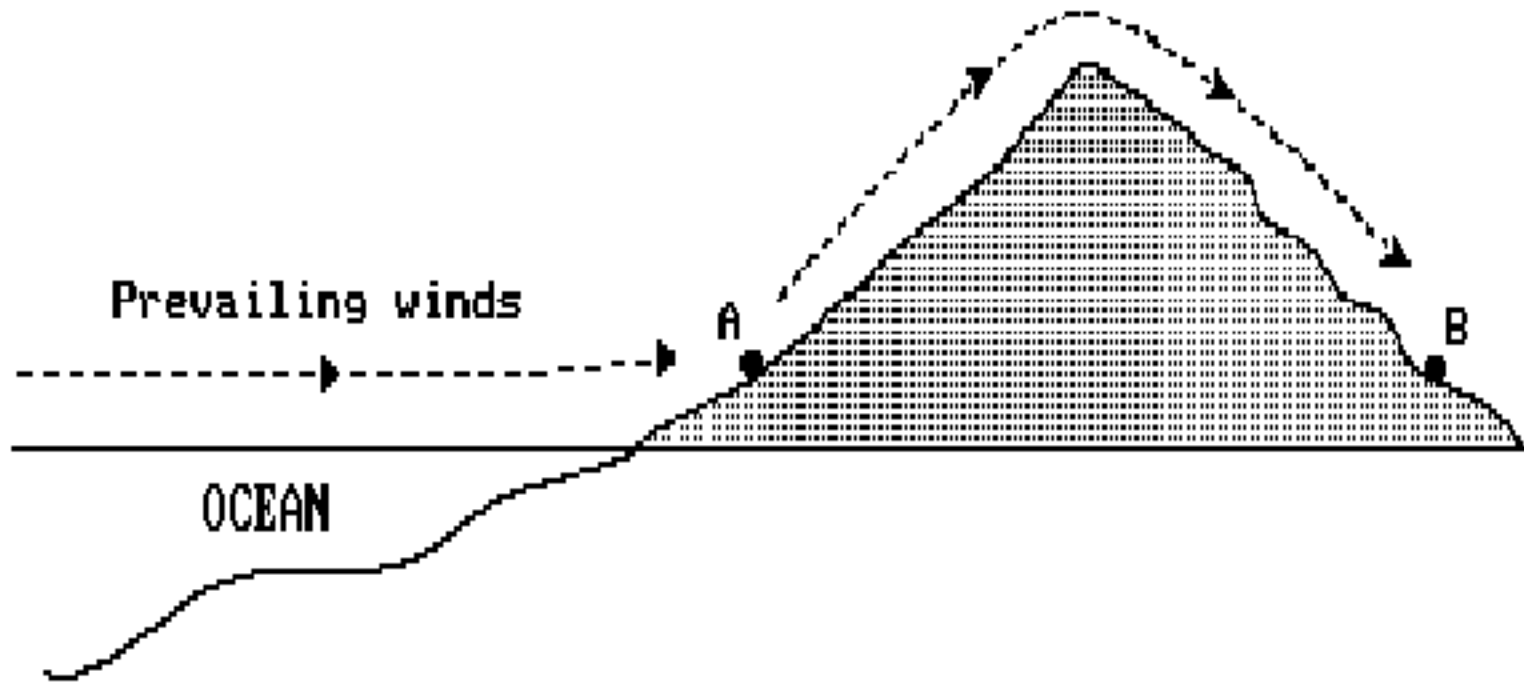


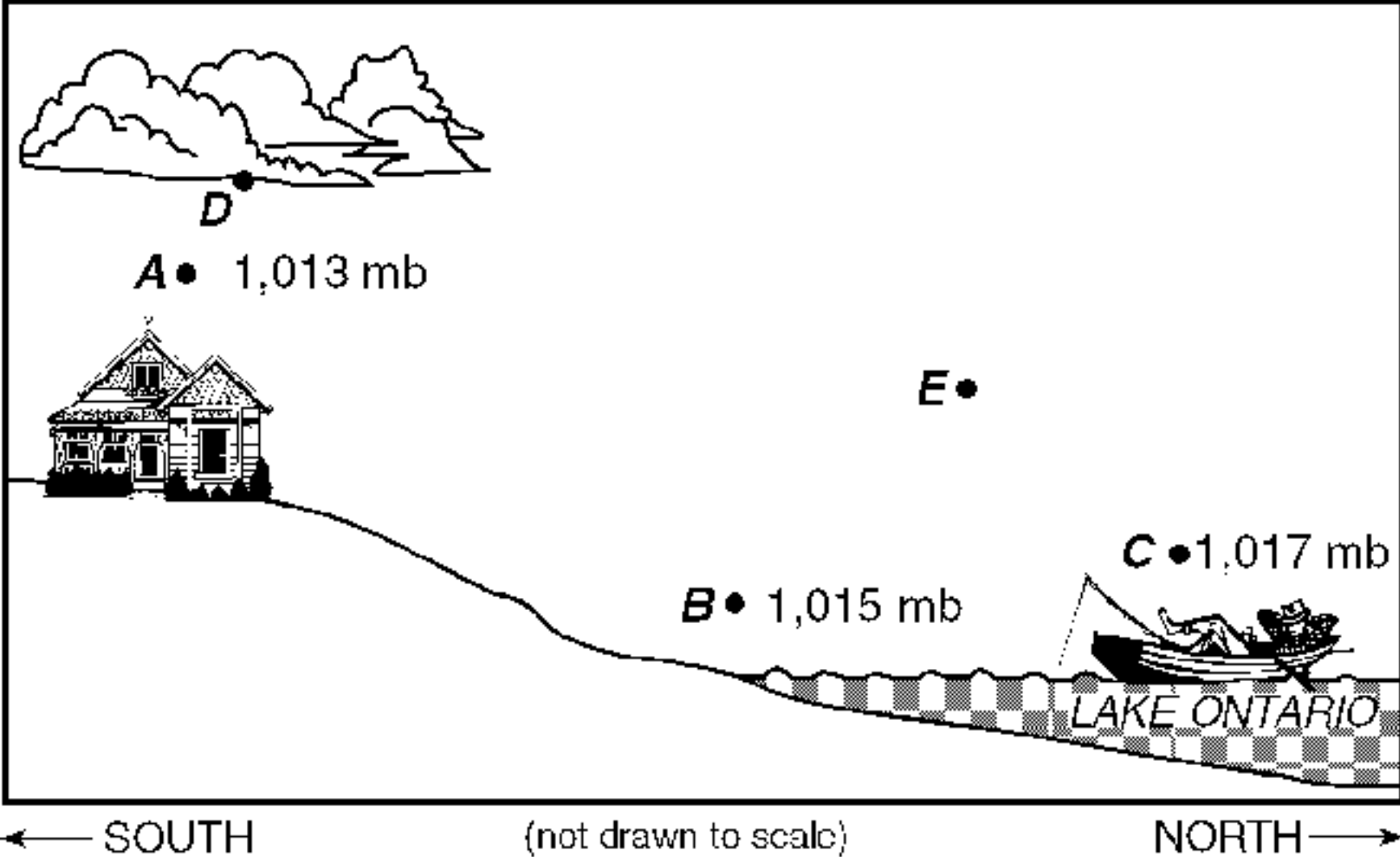
September

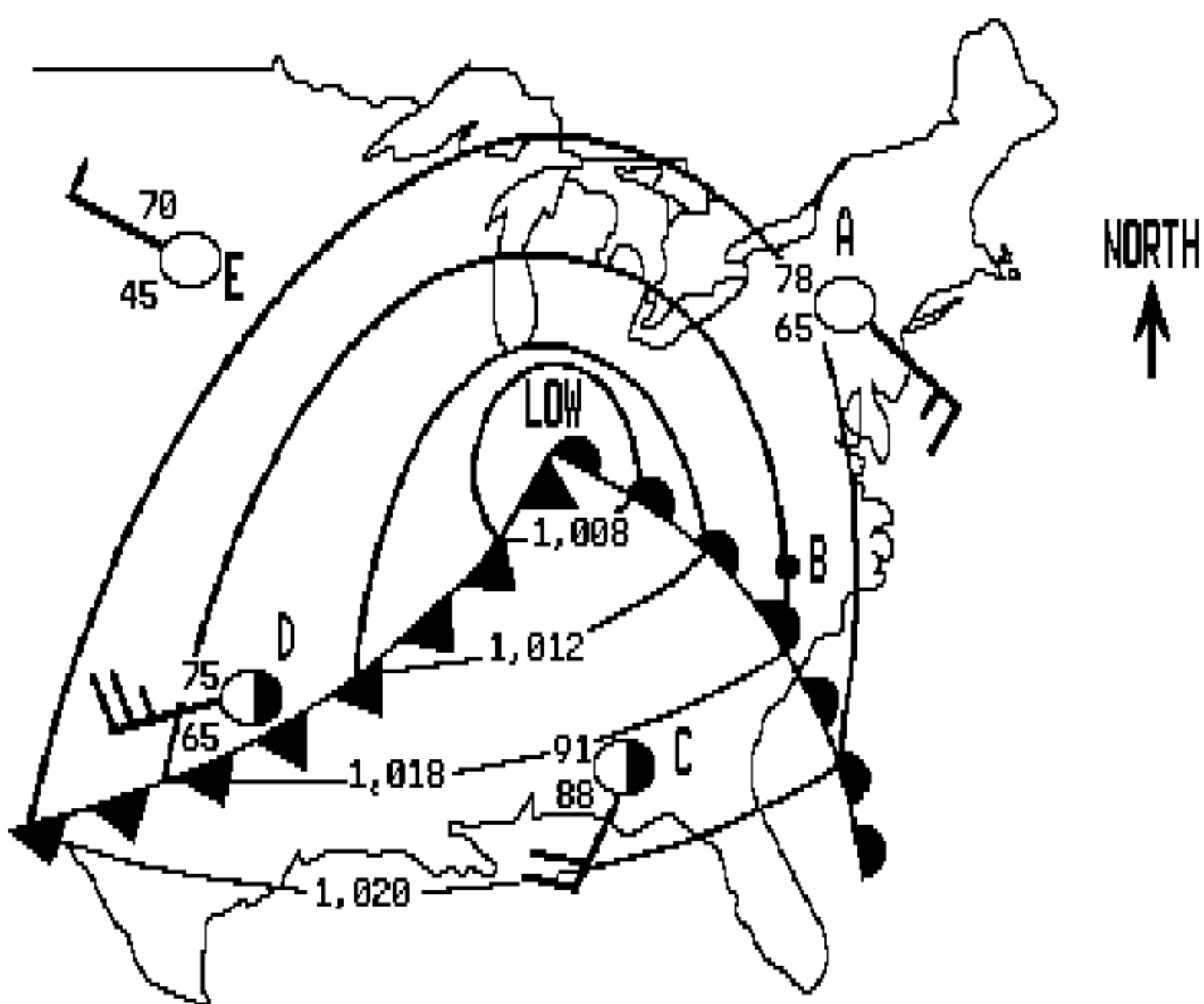


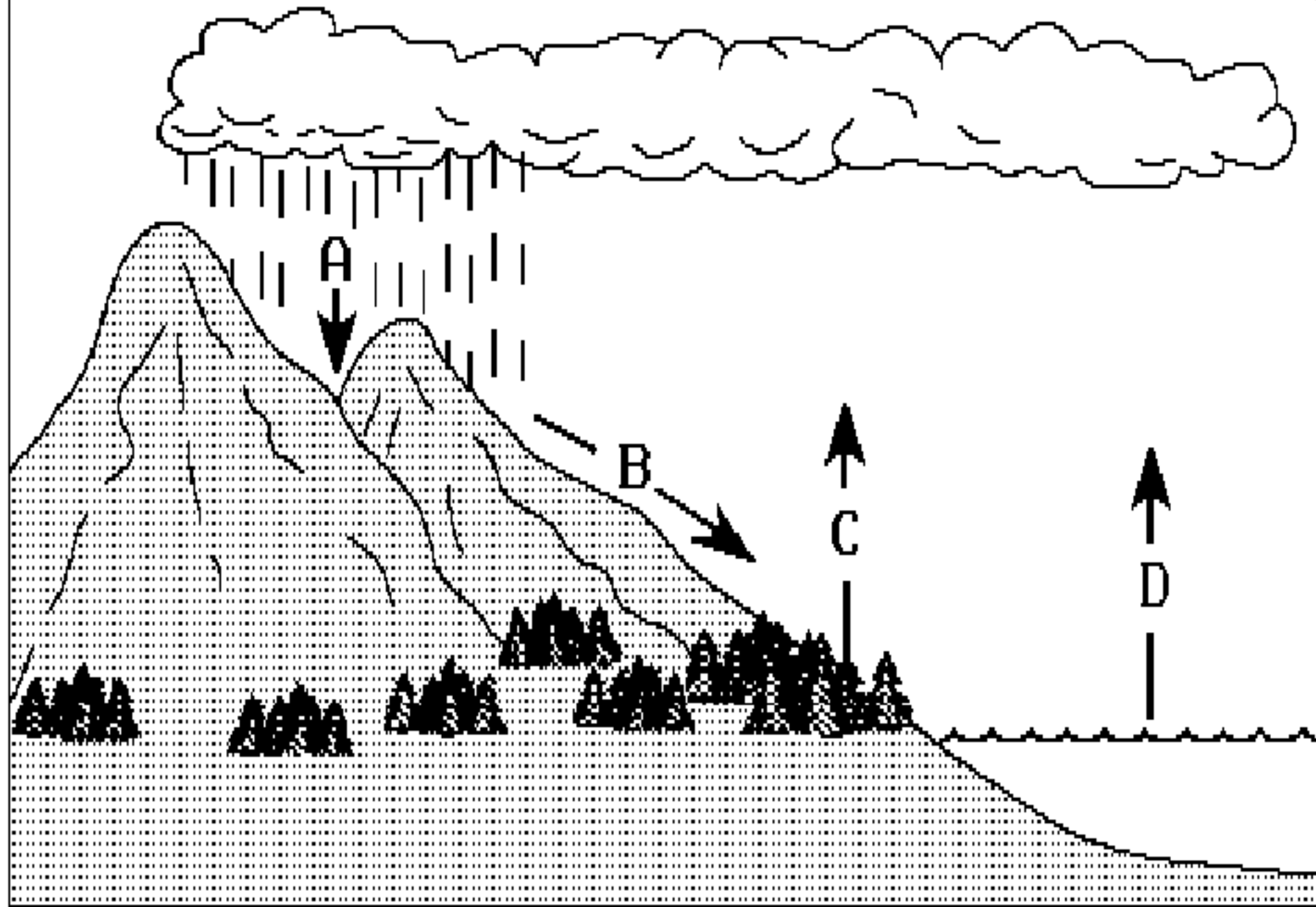
KEY:

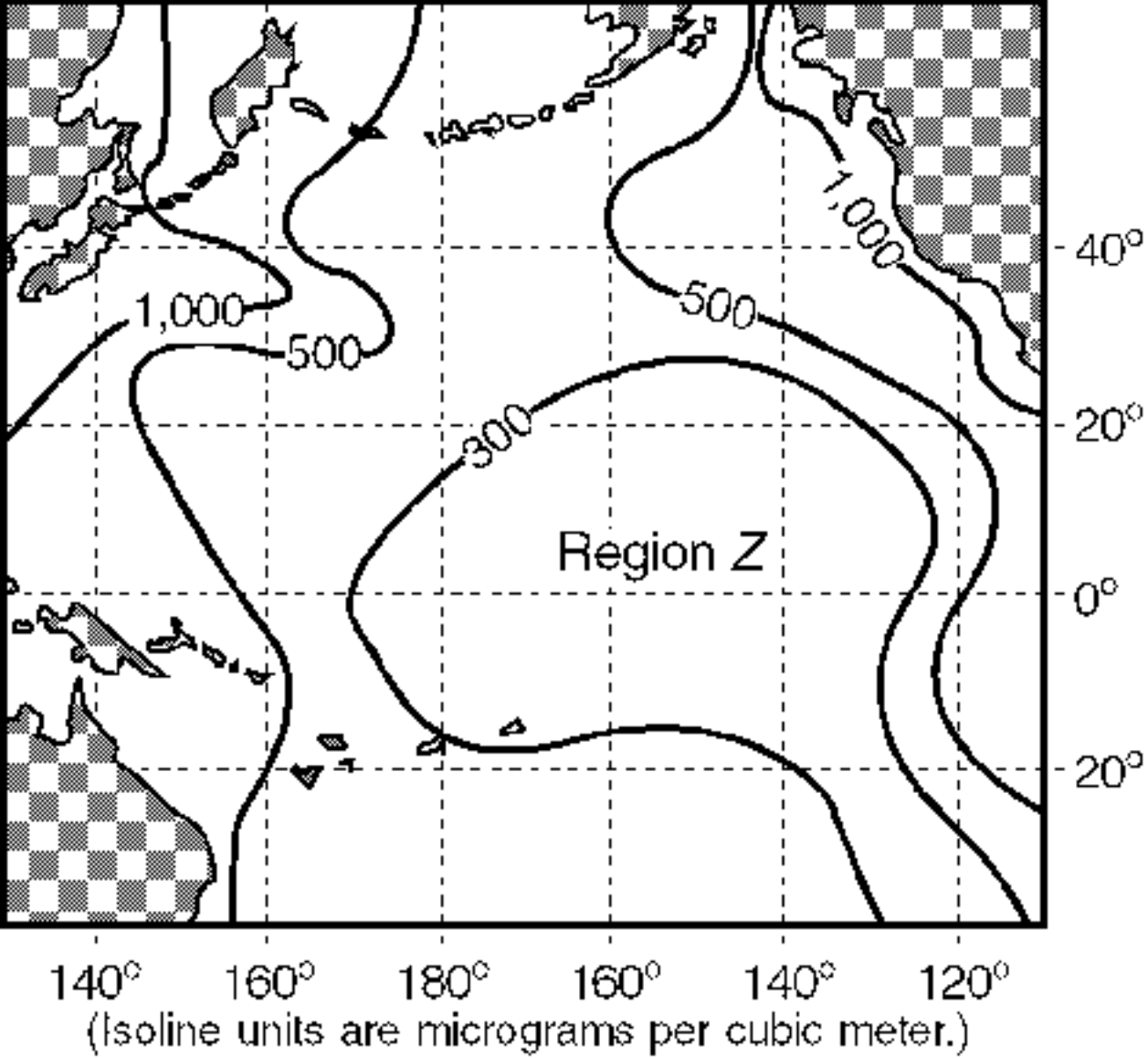






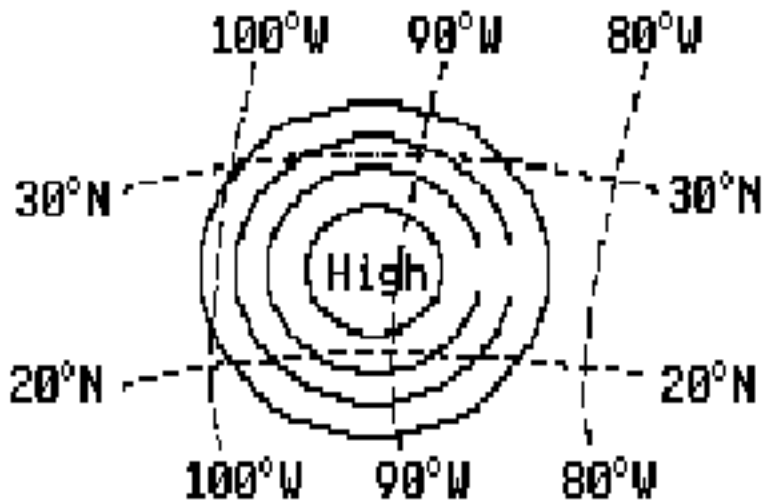


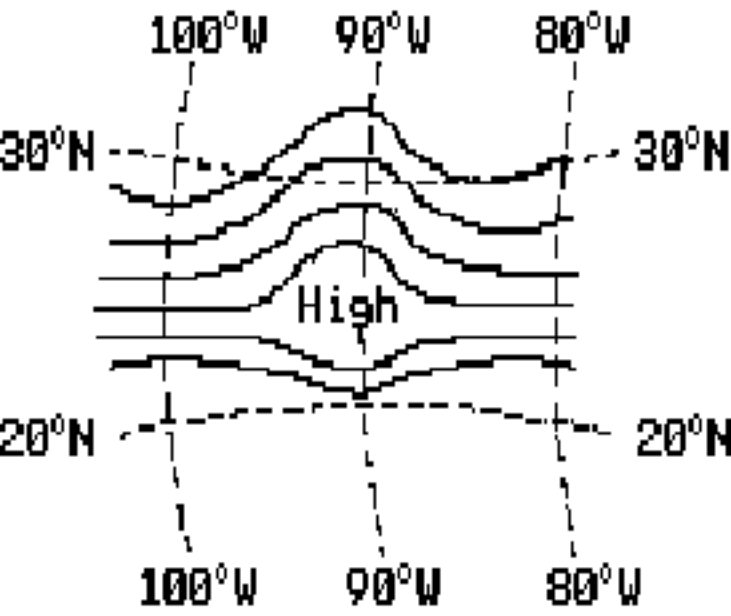


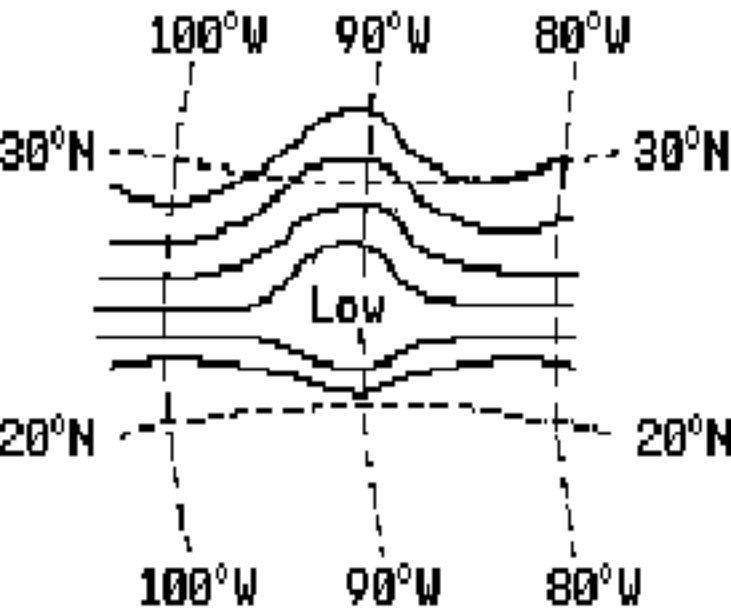


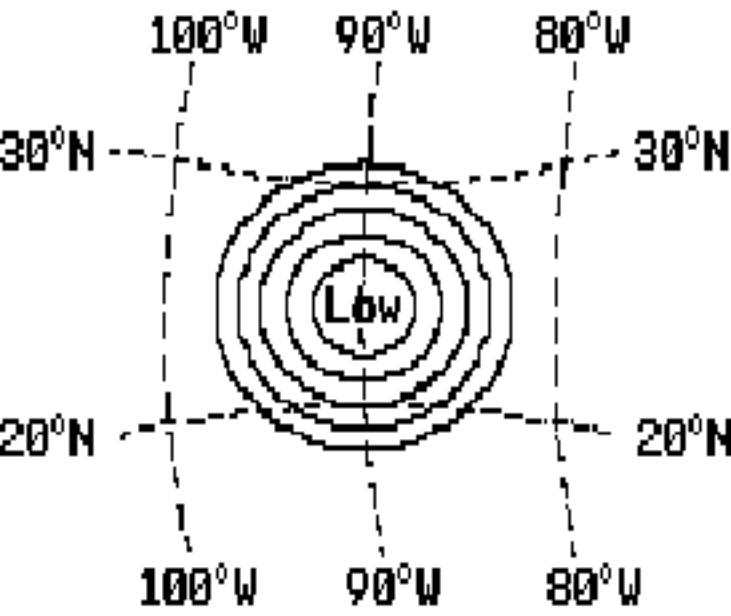
| Location | Annual<br>Average<br>Temperature | Latitude | Longitude |
|----------|----------------------------------|----------|-----------|
| <i>A</i> | 12°C                             | 44°15' N | 75°00' W  |
| <i>B</i> | -1°C                             | 44°15' N | 74°00' W  |

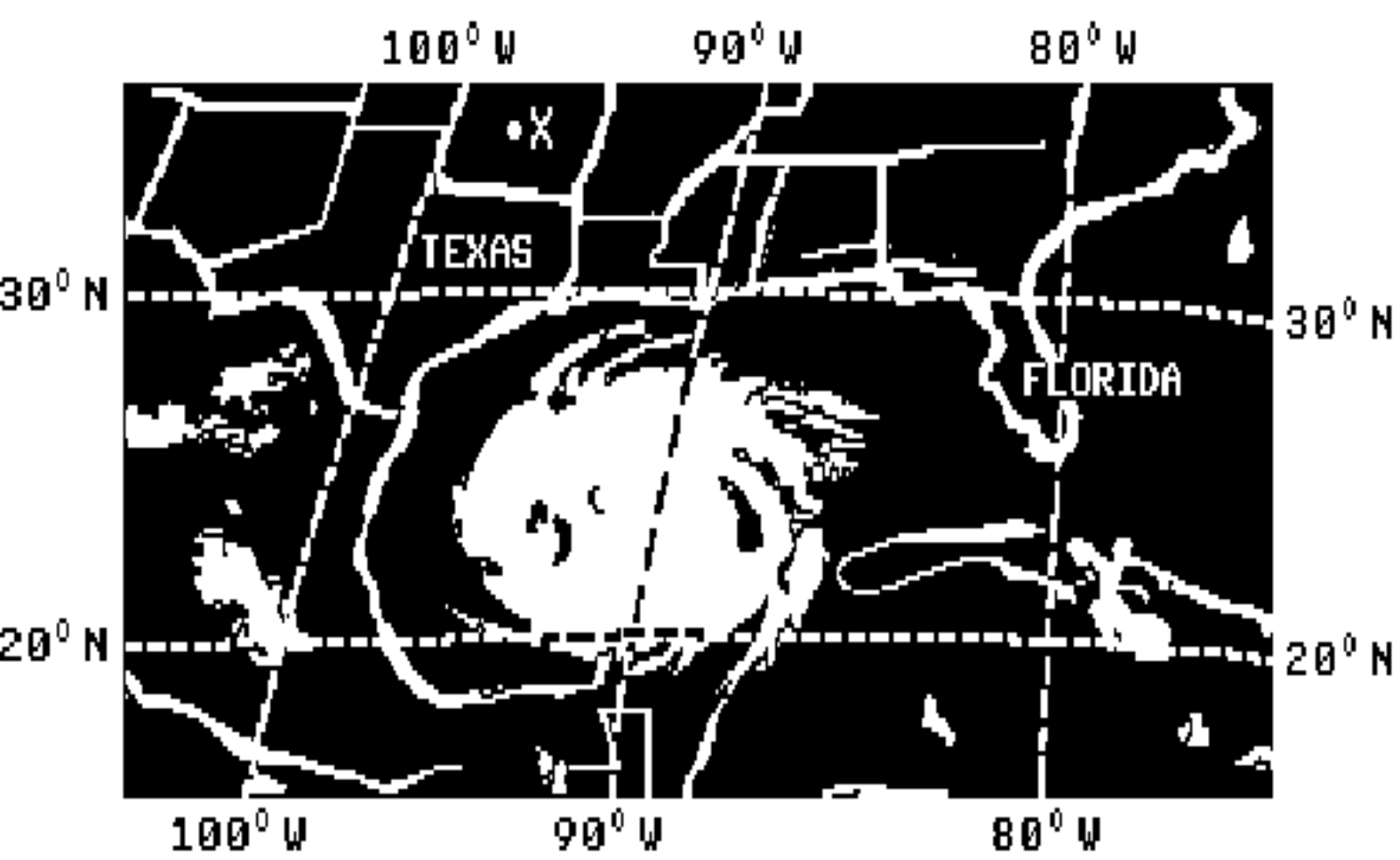


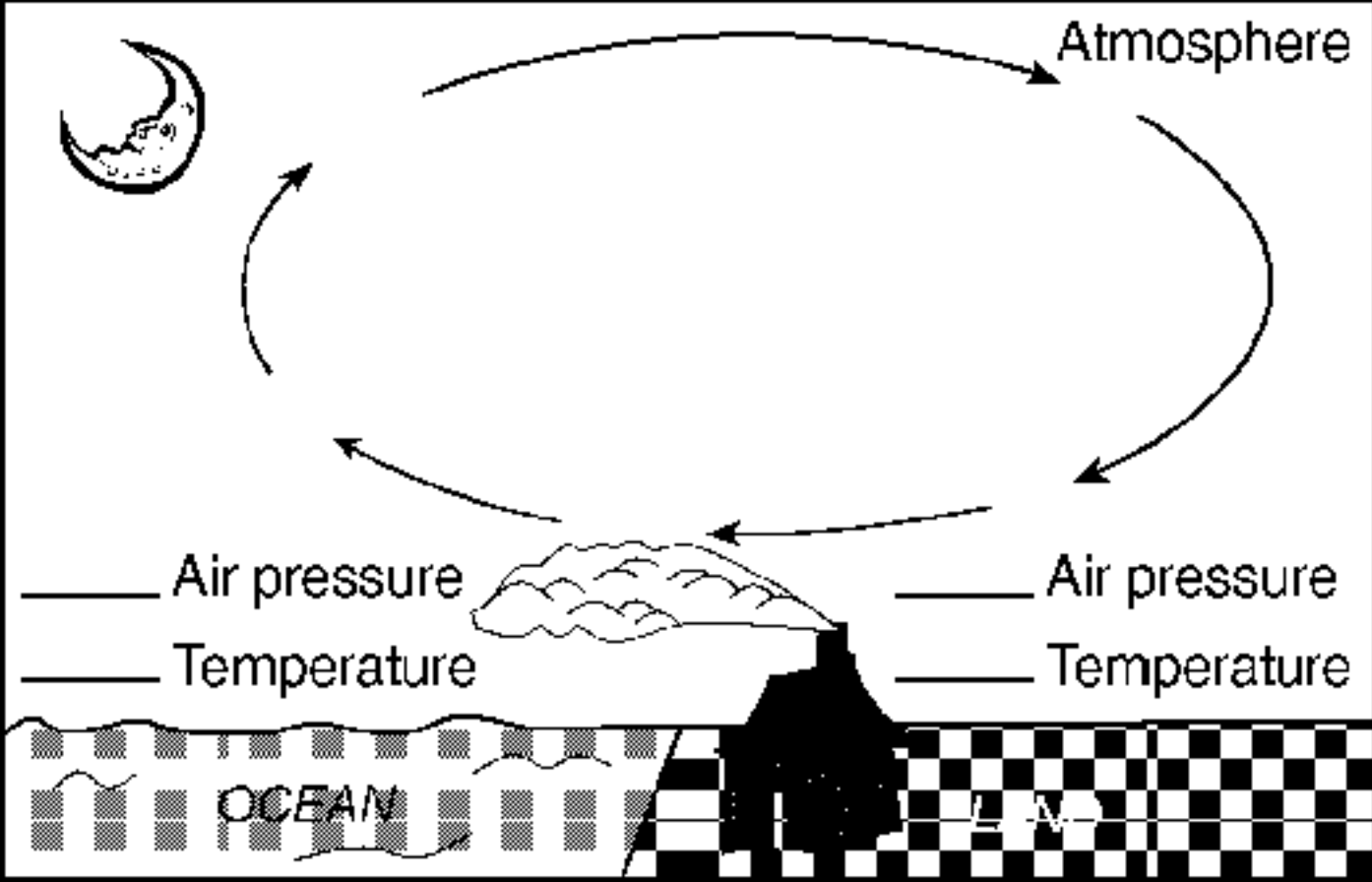


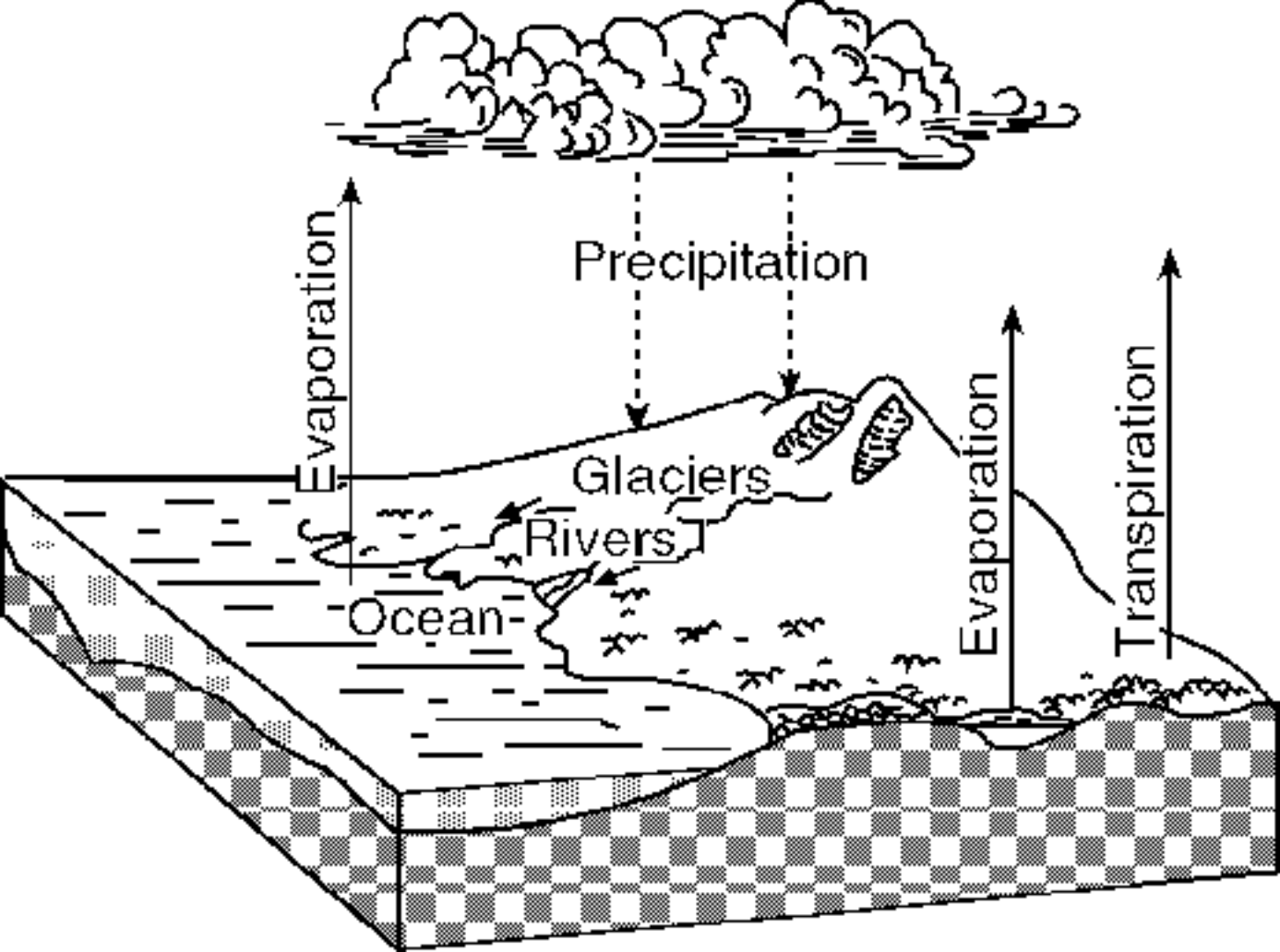












|          |                  |
|----------|------------------|
| <b>a</b> | rate of change = |
| <b>b</b> | rate of change = |
| <b>c</b> | rate of change = |

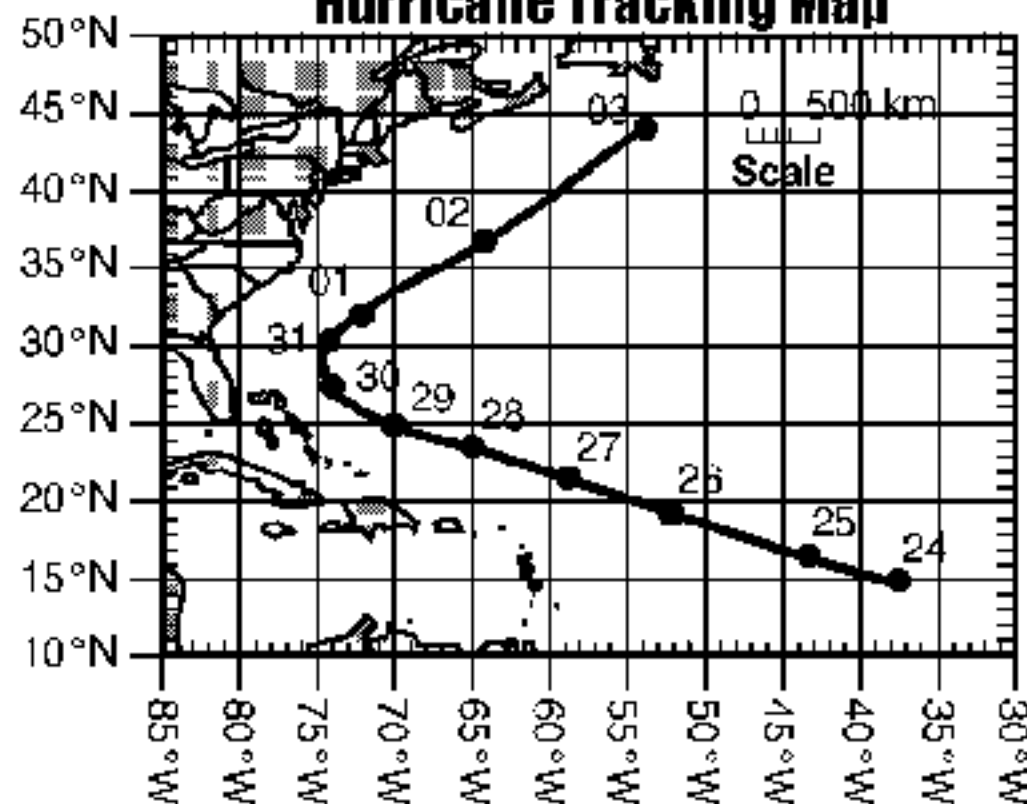


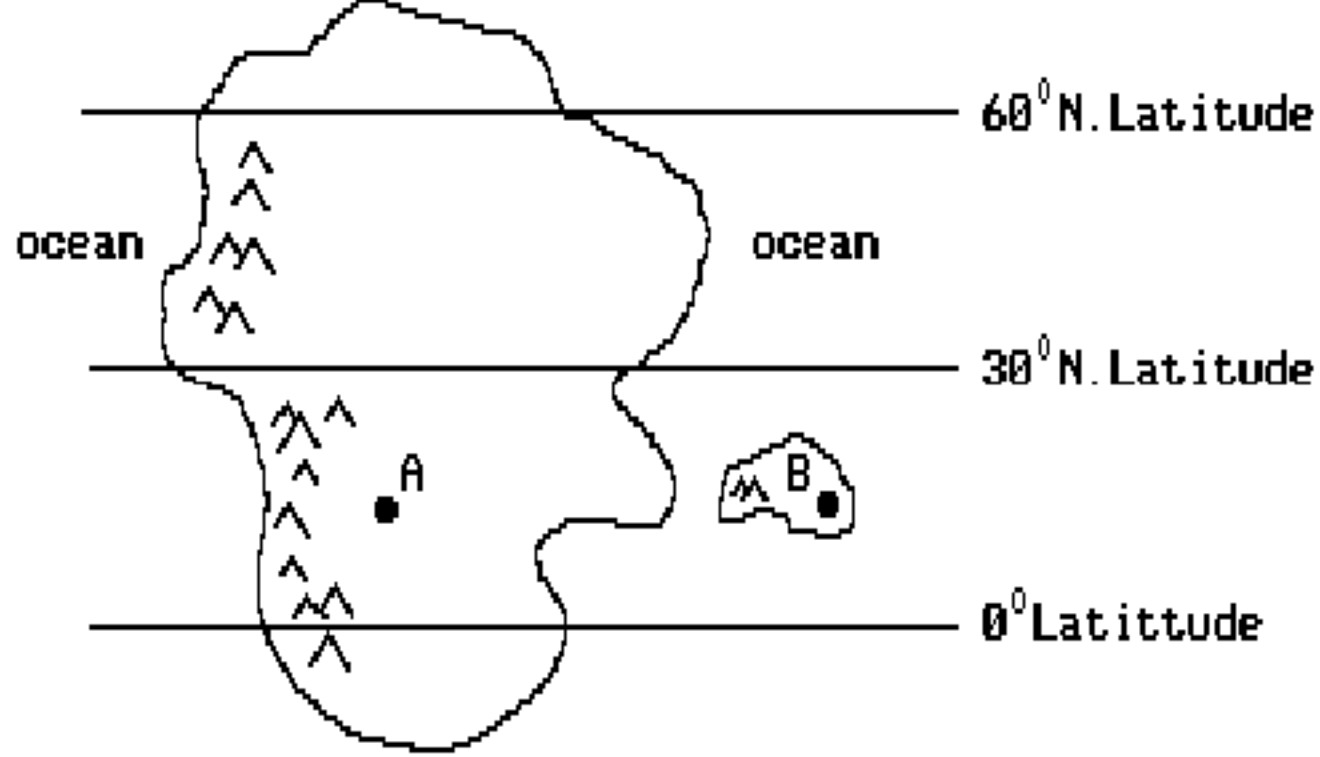
**Data Table I**

| Latitude<br>(°N) | Longitude<br>(°W) | Date     | Wind<br>Velocity<br>(knots) | Air<br>Pressure<br>(millibars) | Storm<br>Strength    |
|------------------|-------------------|----------|-----------------------------|--------------------------------|----------------------|
| 14               | 37                | Aug. 24  | 30                          | 1,006                          | Tropical depression  |
| 16               | 44                | Aug. 25  | 70                          | 987                            | Category-1 hurricane |
| 19               | 52                | Aug. 26  | 90                          | 970                            | Category-2 hurricane |
| 21               | 59                | Aug. 27  | 80                          | 997                            | Category-1 hurricane |
| 23               | 65                | Aug. 28  | 80                          | 988                            | Category-1 hurricane |
| 25               | 70                | Aug. 29  | 80                          | 988                            | Category-1 hurricane |
| 27               | 73                | Aug. 30  | 65                          | 988                            | Category-1 hurricane |
| 30               | 74                | Aug. 31  | 85                          | 976                            | Category-2 hurricane |
| 32               | 72                | Sept. 01 | 85                          | 968                            | Category-2 hurricane |
| 37               | 64                | Sept. 02 | 70                          | 975                            | Category-1 hurricane |
| 44               | 53                | Sept. 03 | 65                          | 955                            | Category-1 hurricane |

**Data Table II**

| Storm Strength Scale | Relative Strength                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------------------------|
| Tropical depression  | WEAKEST<br><br>STRONGEST |
| Tropical storm       |                                                                                                             |
| Category 1           |                                                                                                             |
| Category 2           |                                                                                                             |
| Category 3           |                                                                                                             |
| Category 4           |                                                                                                             |
| Category 5           |                                                                                                             |

**Hurricane Tracking Map**



Prevailing  
Wind Direction



Seattle

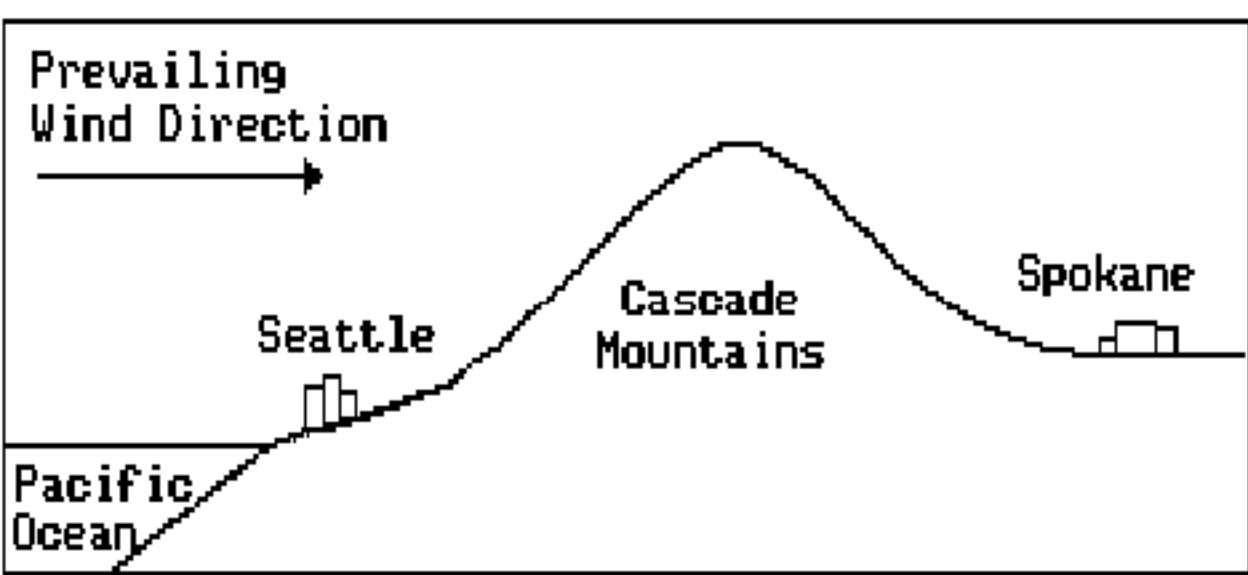


Cascade  
Mountains

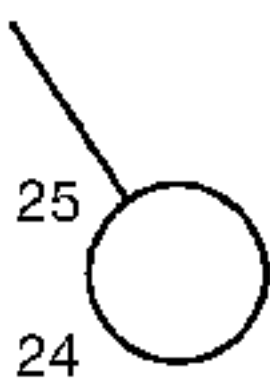
Spokane

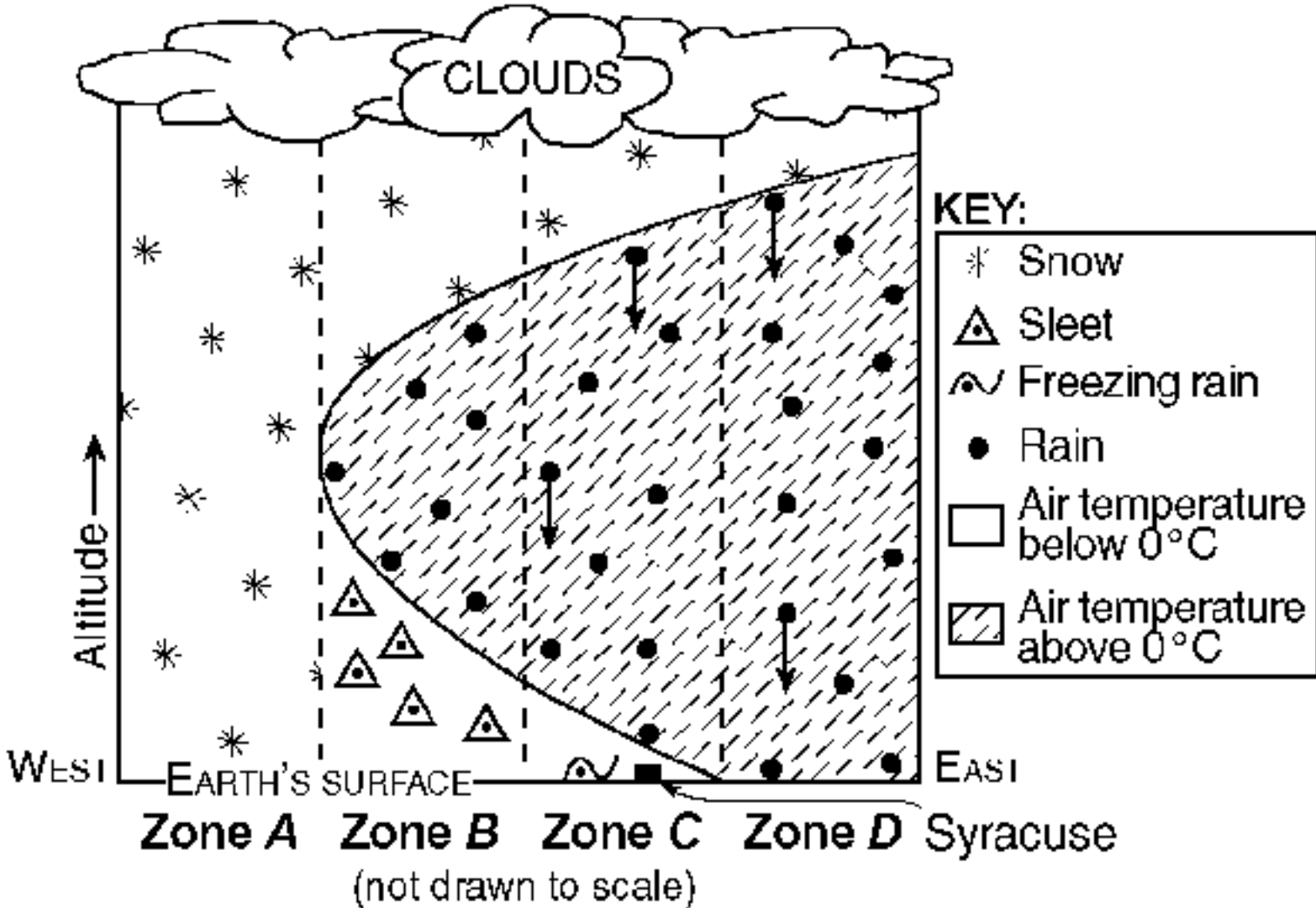


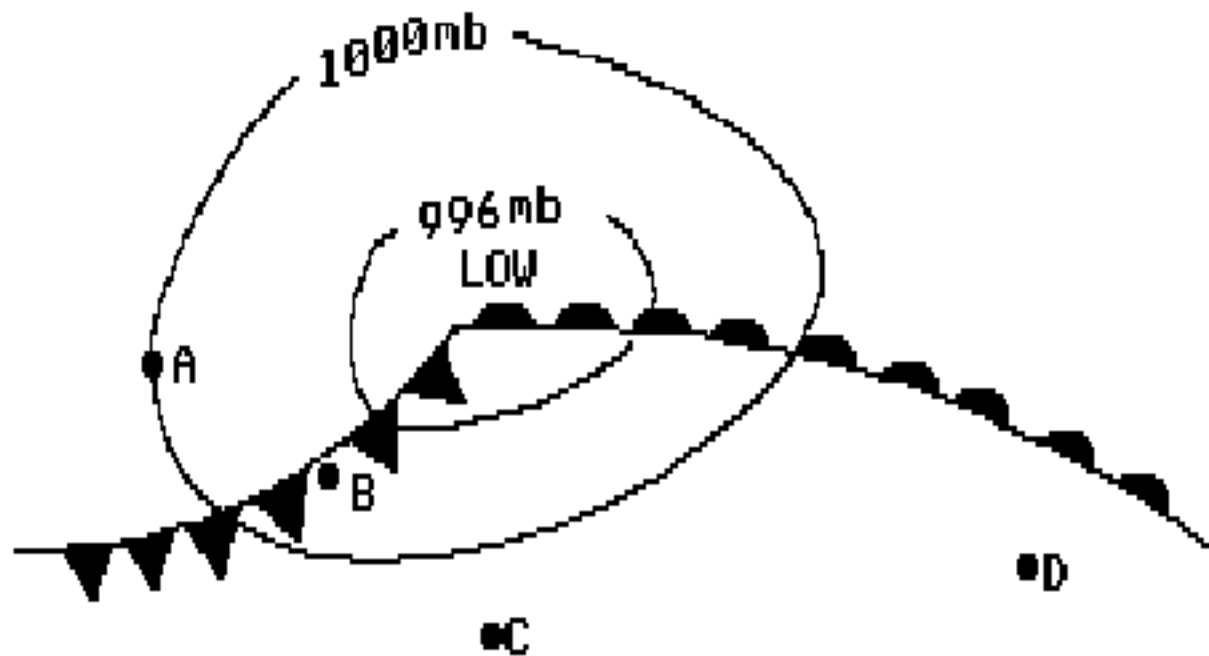
Pacific  
Ocean

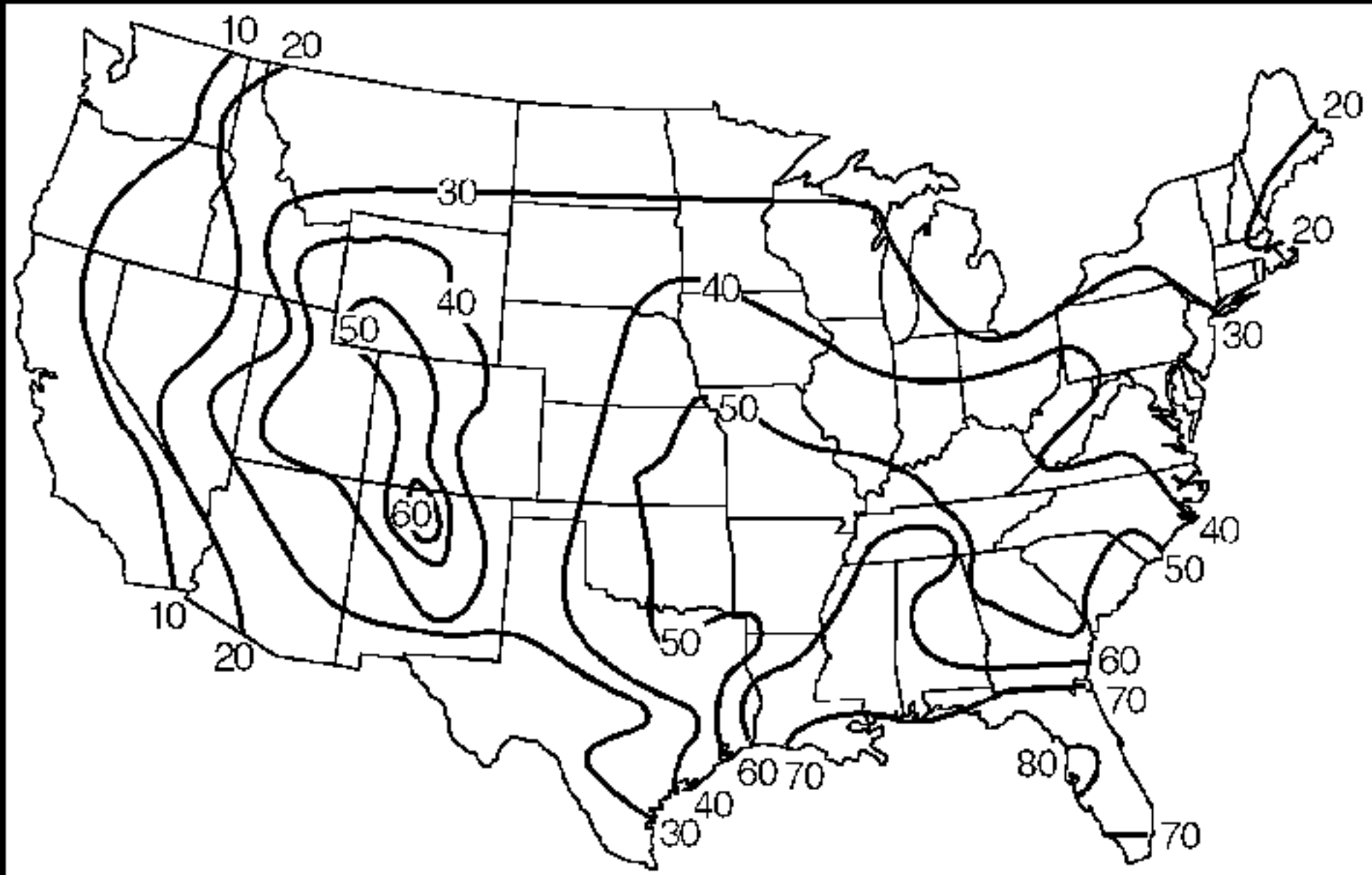


|                        |                          |
|------------------------|--------------------------|
| <b>Cloud cover</b>     | 100%                     |
| <b>Wind speed</b>      | 15 knots                 |
| <b>Present weather</b> | Freezing rain            |
| <b>Precipitation</b>   | 1.23 inches past 6 hours |
| <b>Visibility</b>      | 1 mile                   |





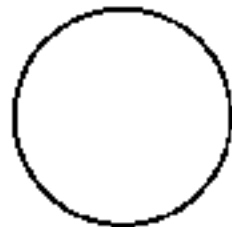




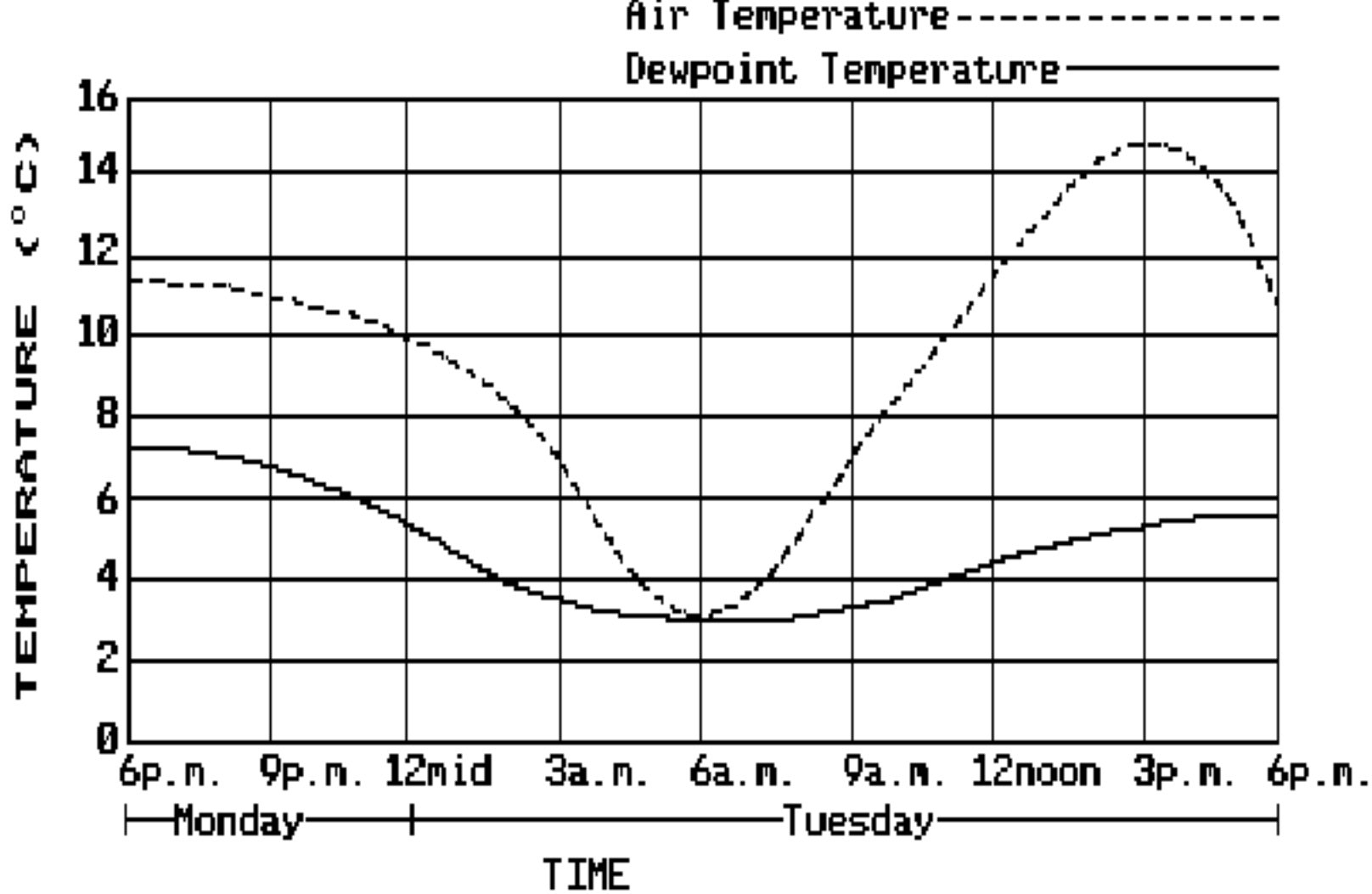
## DATA TABLE

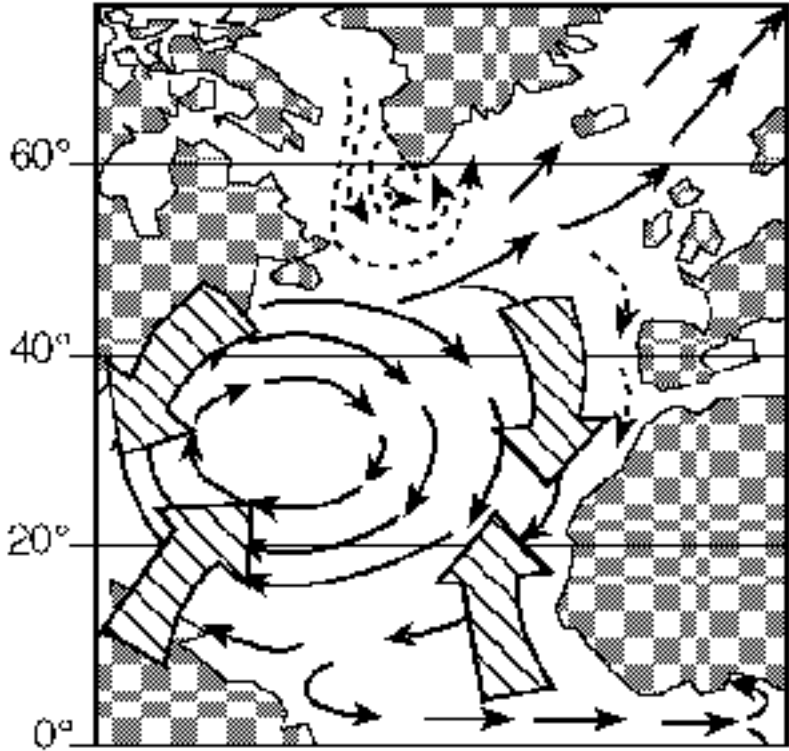
|                       |                 |
|-----------------------|-----------------|
| Air temperature       | 65° F           |
| Dewpoint              | 64° F           |
| Visibility            | 2 miles         |
| Present weather       | drizzle         |
| Wind direction        | from the west   |
| Wind speed            | 5 knots         |
| Amount of cloud cover | 100%            |
| Barometric pressure   | 996.2 millibars |

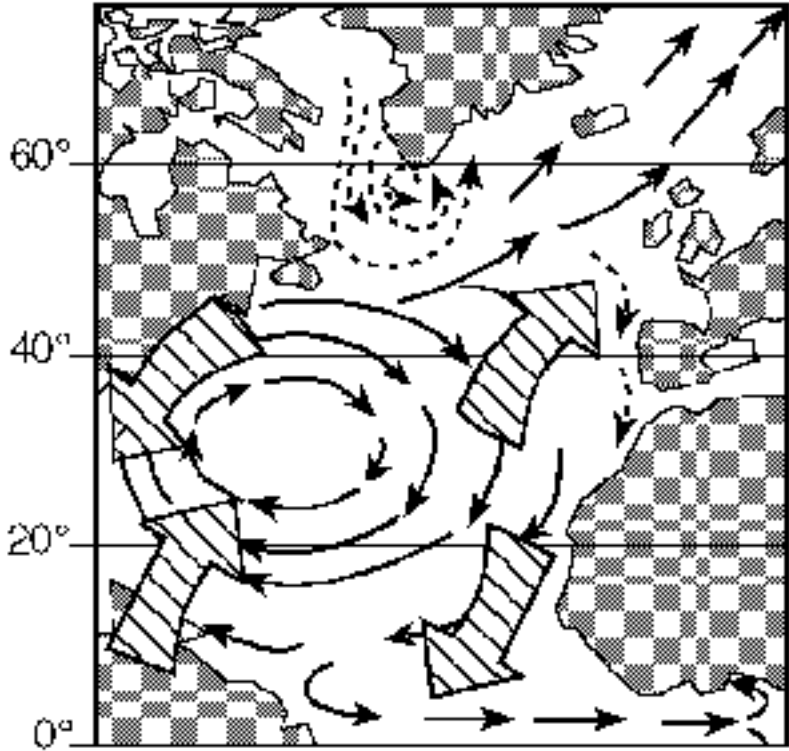
## STATION MODEL

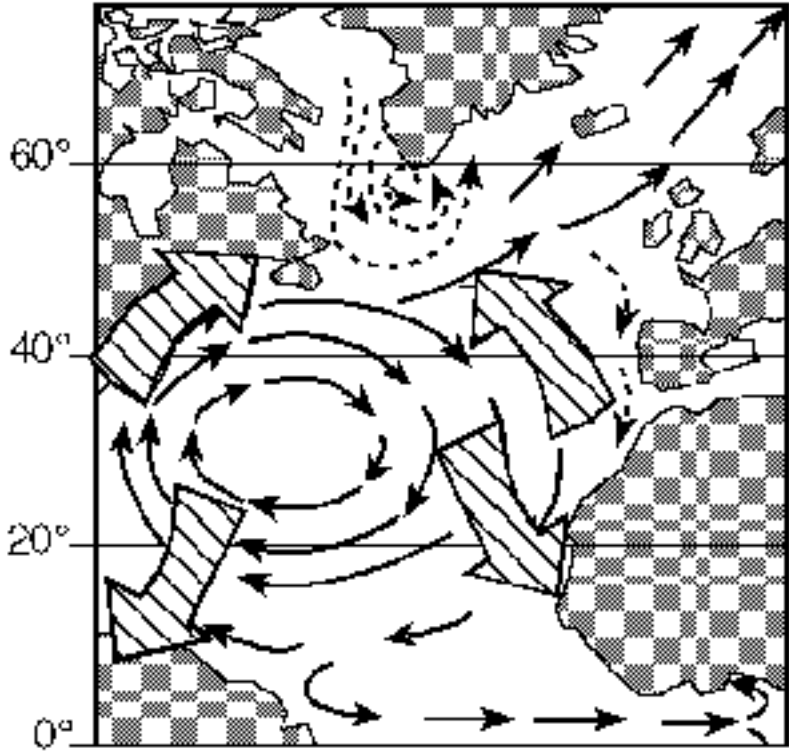


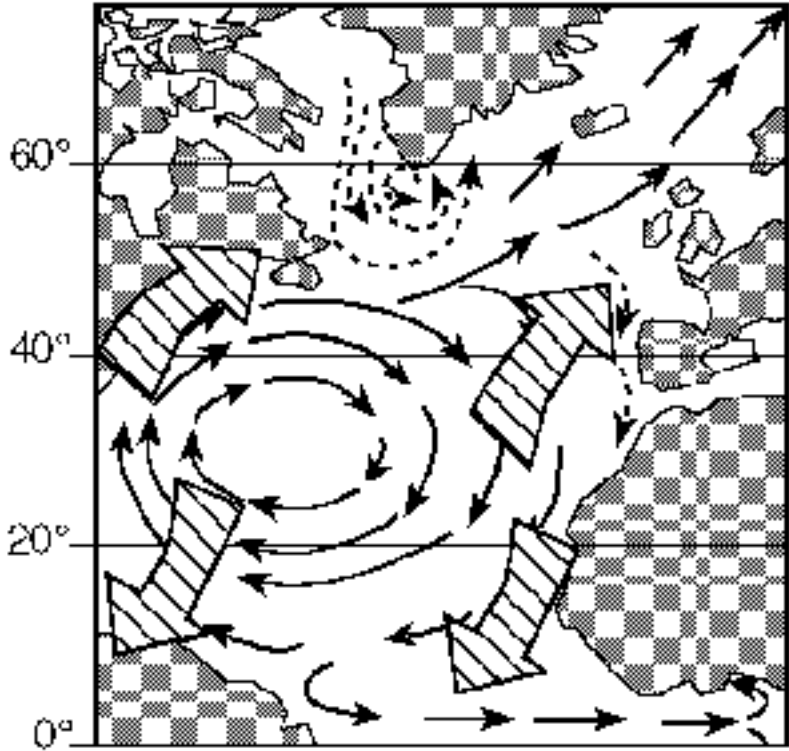










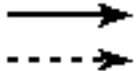


**KEY:**

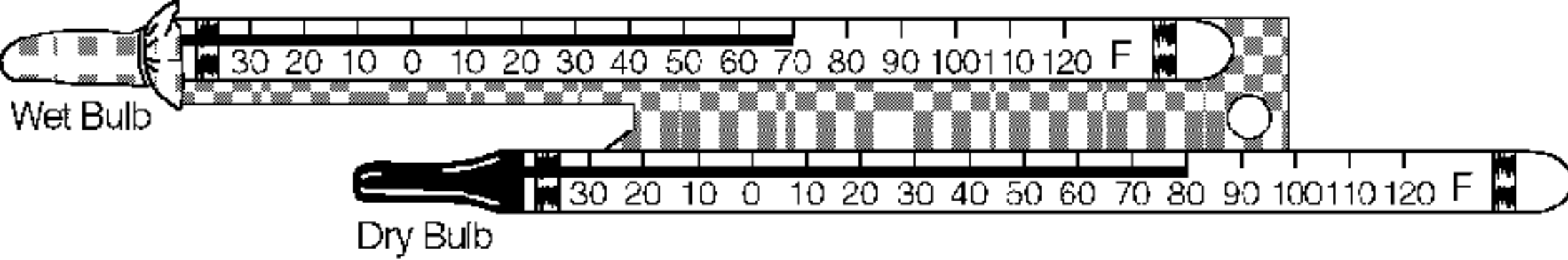
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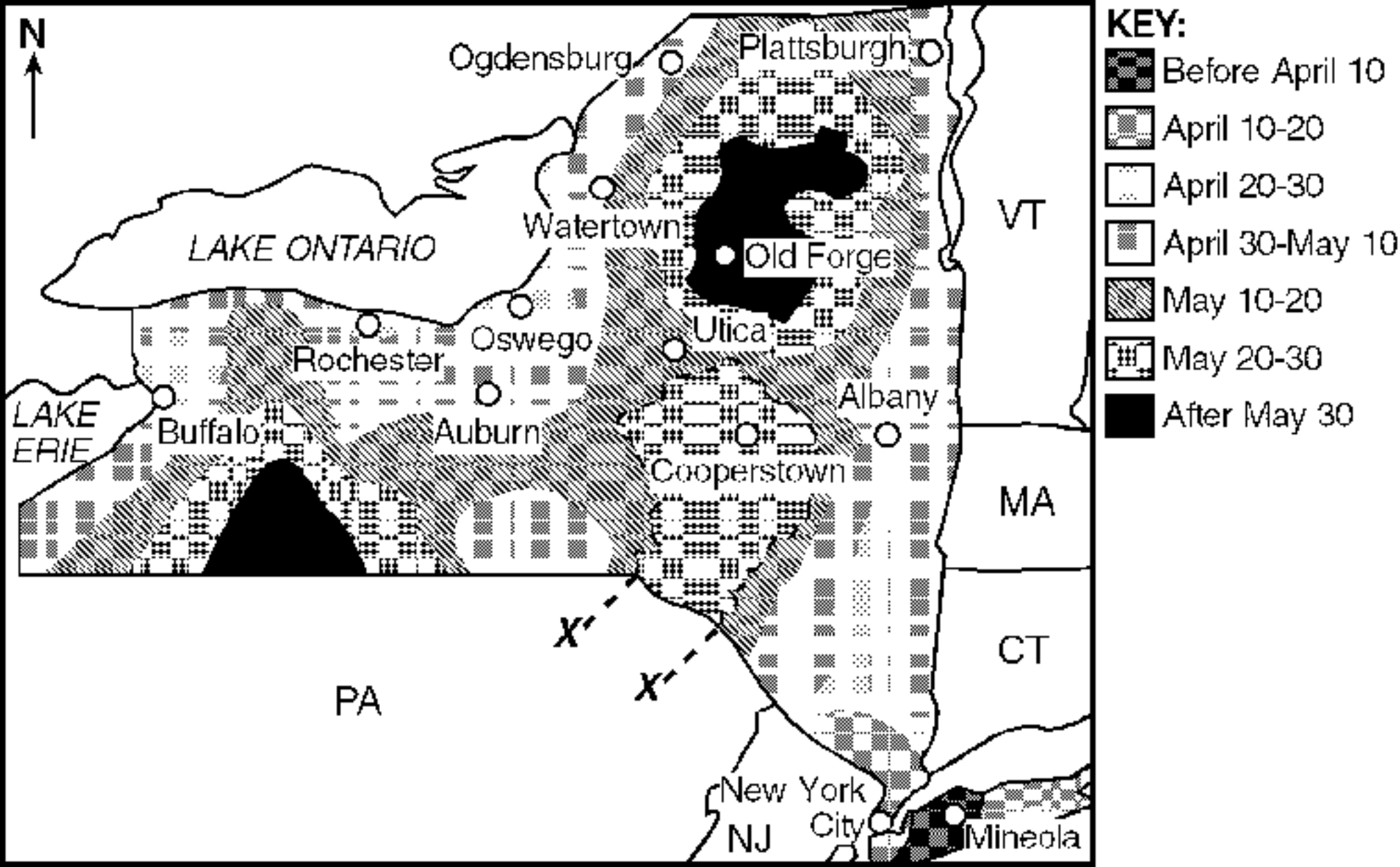


Direction of global winds

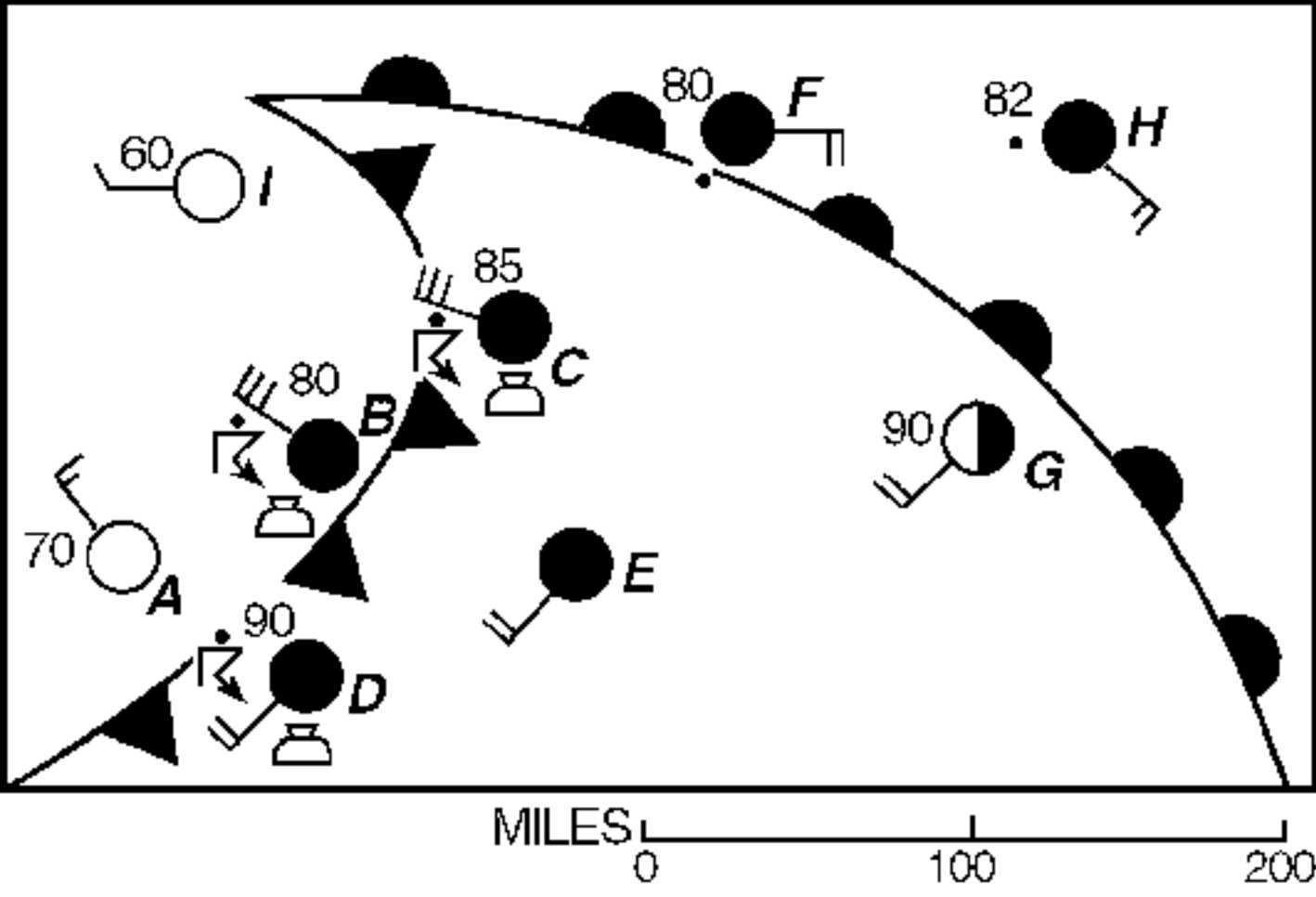


Direction of ocean currents











The diagram illustrates a frontal system. A horizontal line represents the boundary between two air masses. Above the line, the left side is labeled 'WARM AIR' and the right side is labeled 'COLD AIR'. The boundary line is jagged on the left and right ends, indicating the leading edges of the air masses. Below the horizontal line, three points are marked with vertical tick marks and labeled 'B', 'C', and 'D' from left to right. The 'WARM AIR' mass is depicted with a cloud icon on the left, and the 'COLD AIR' mass is depicted with a cloud icon on the right.

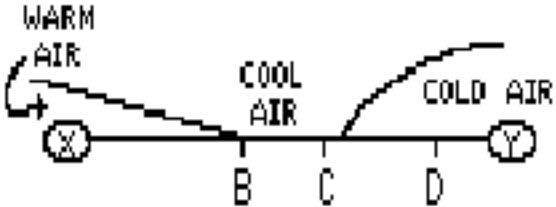
WARM  
AIR

COLD  
AIR

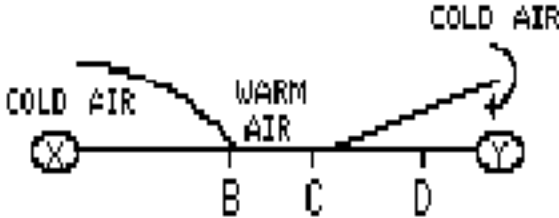
B

C

D







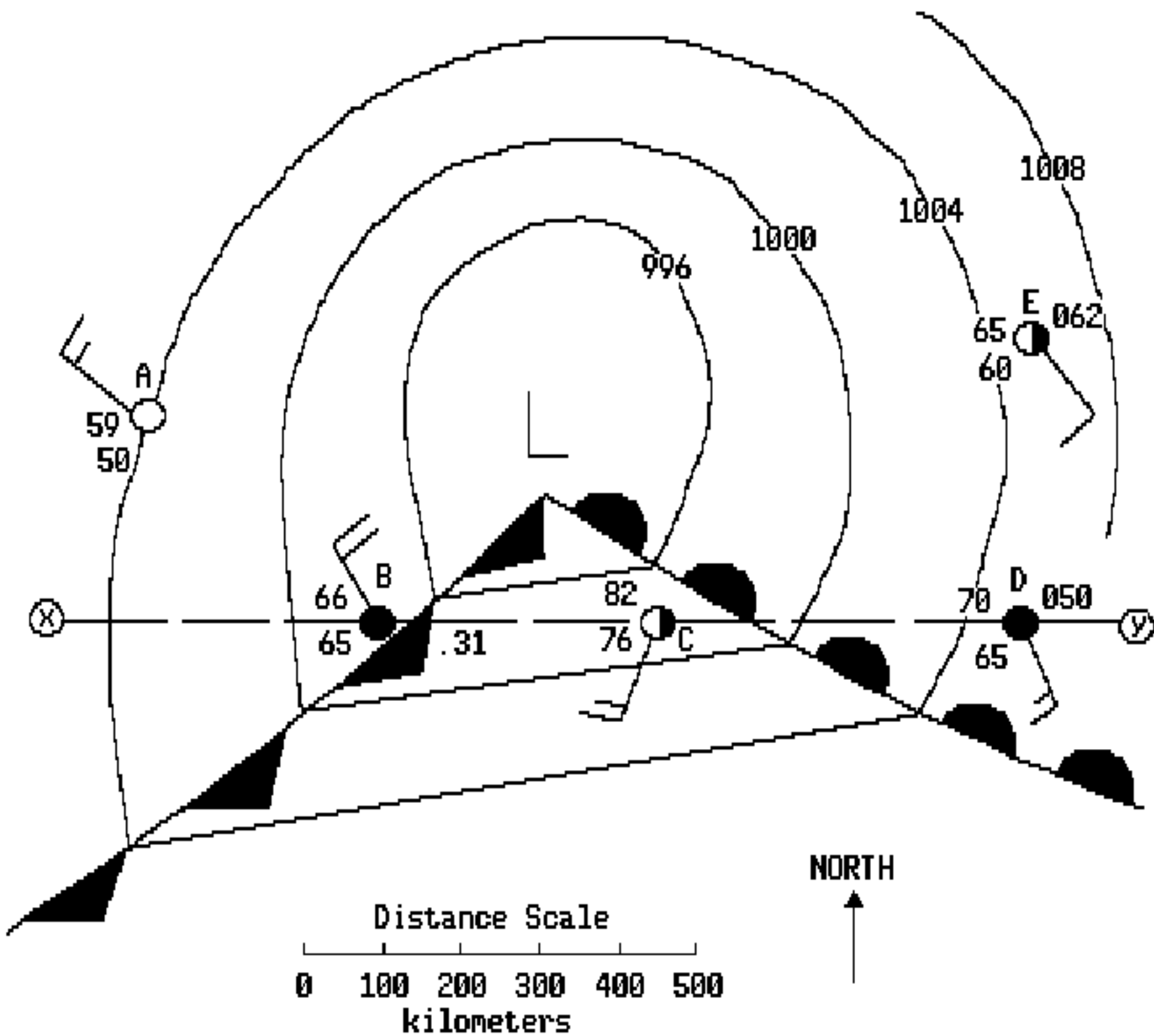


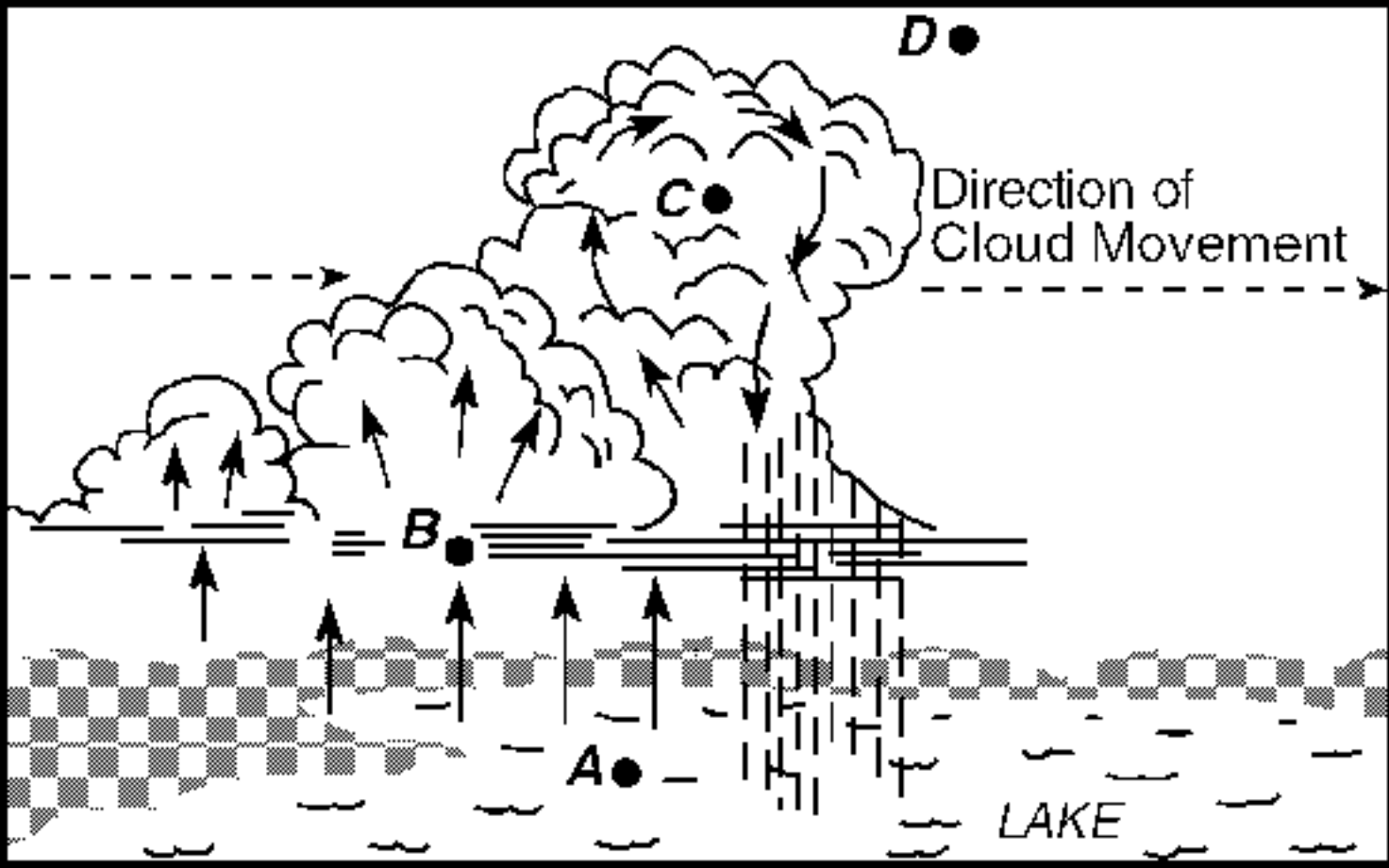












I WISH IT WOULD SNOW  
EIGHT FEET IN THE NEXT  
FIVE MINUTES SO THEY'D  
HAVE TO CLOSE SCHOOL.



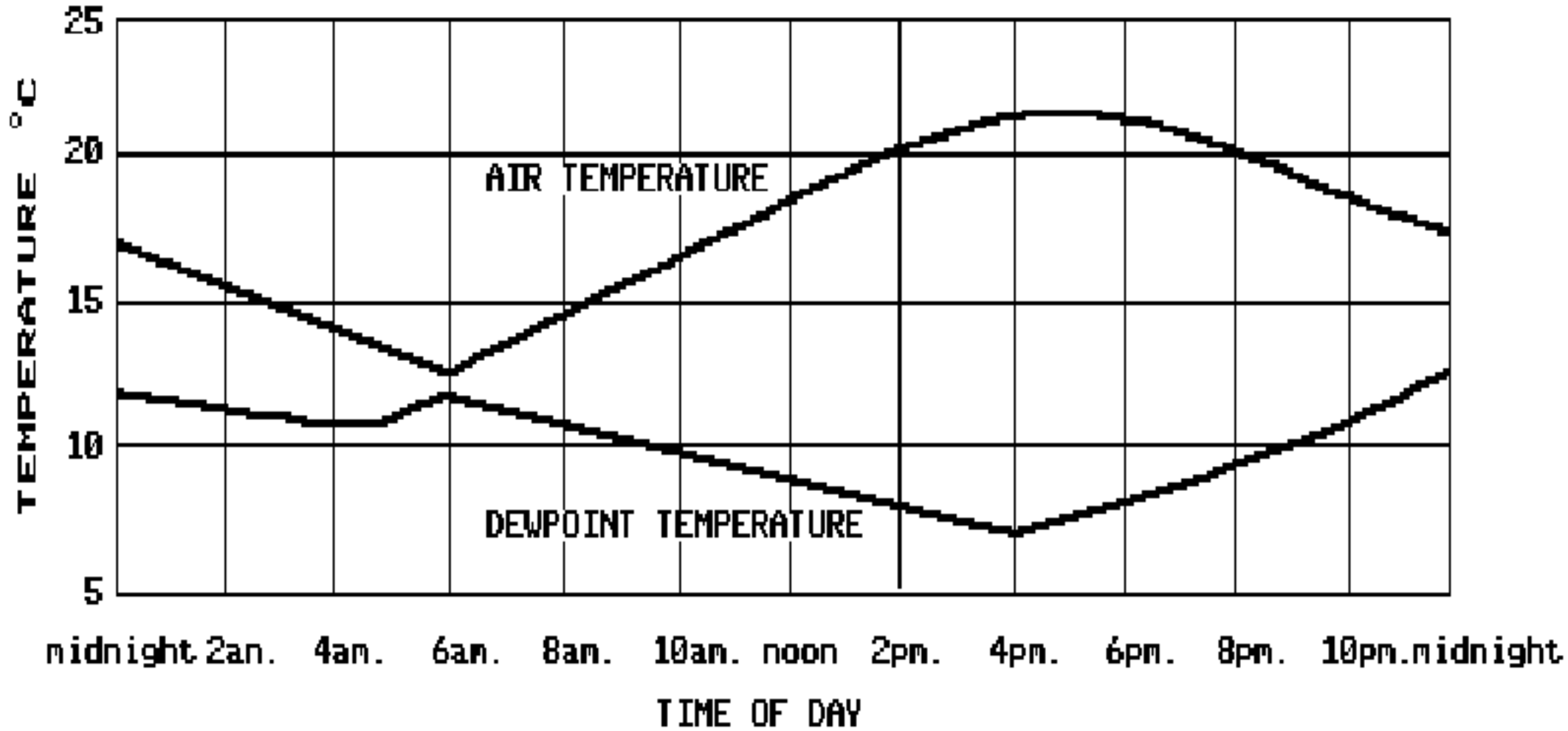
C'MON, SNOW! SNOW!  
SNOW SNOW SNOW SNOW  
SNOW SNOW SNOW!

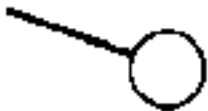
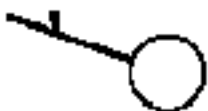


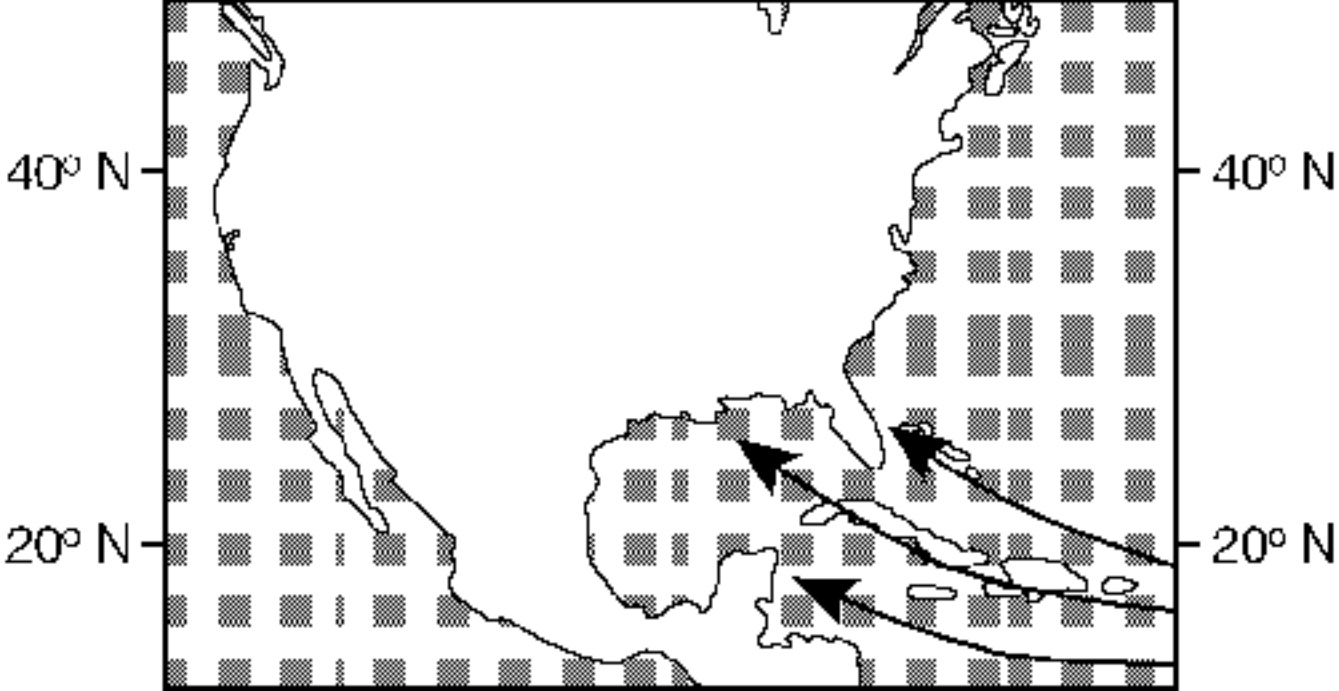
WATSON

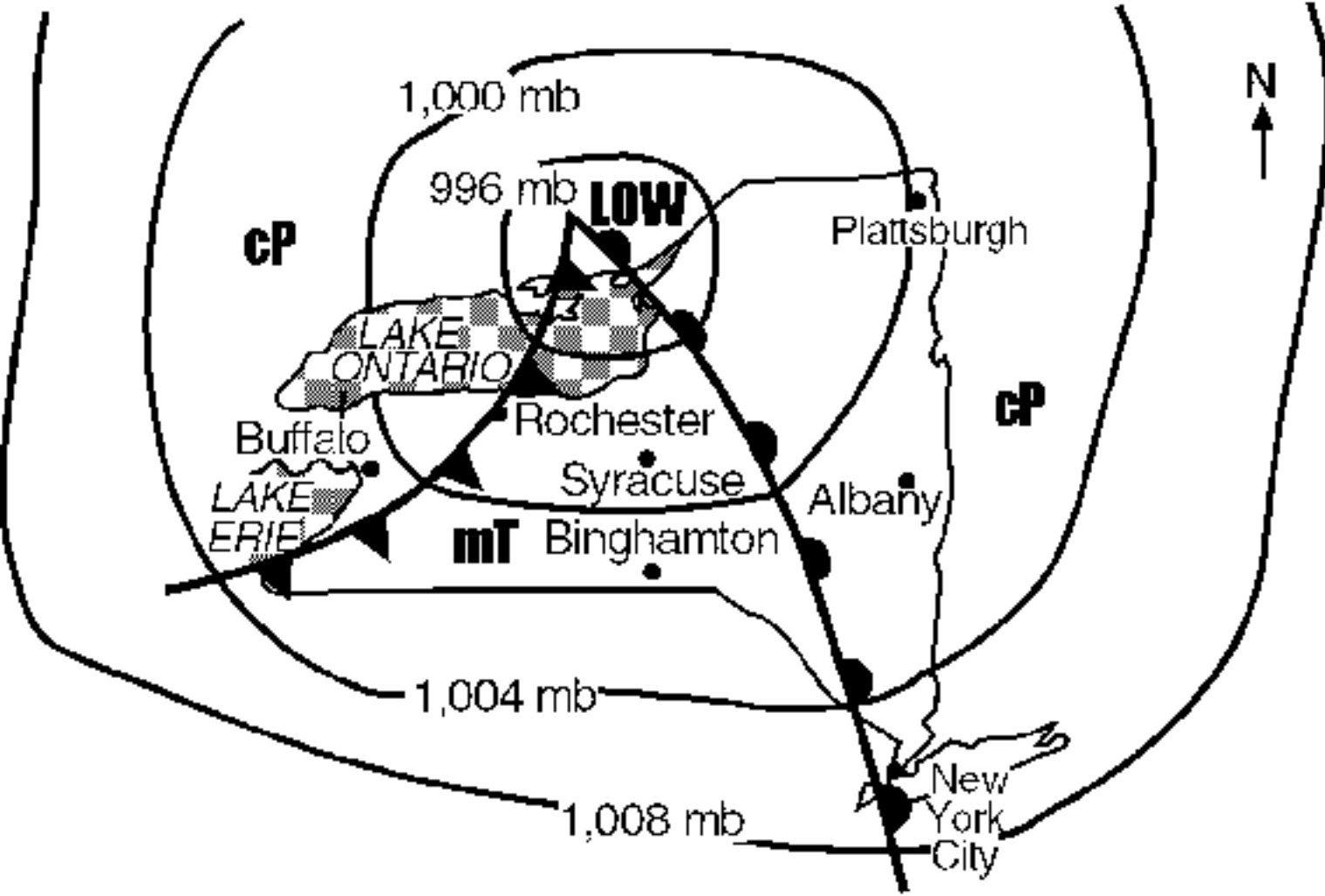
SO CLOSE...  
AND YET SO FAR.



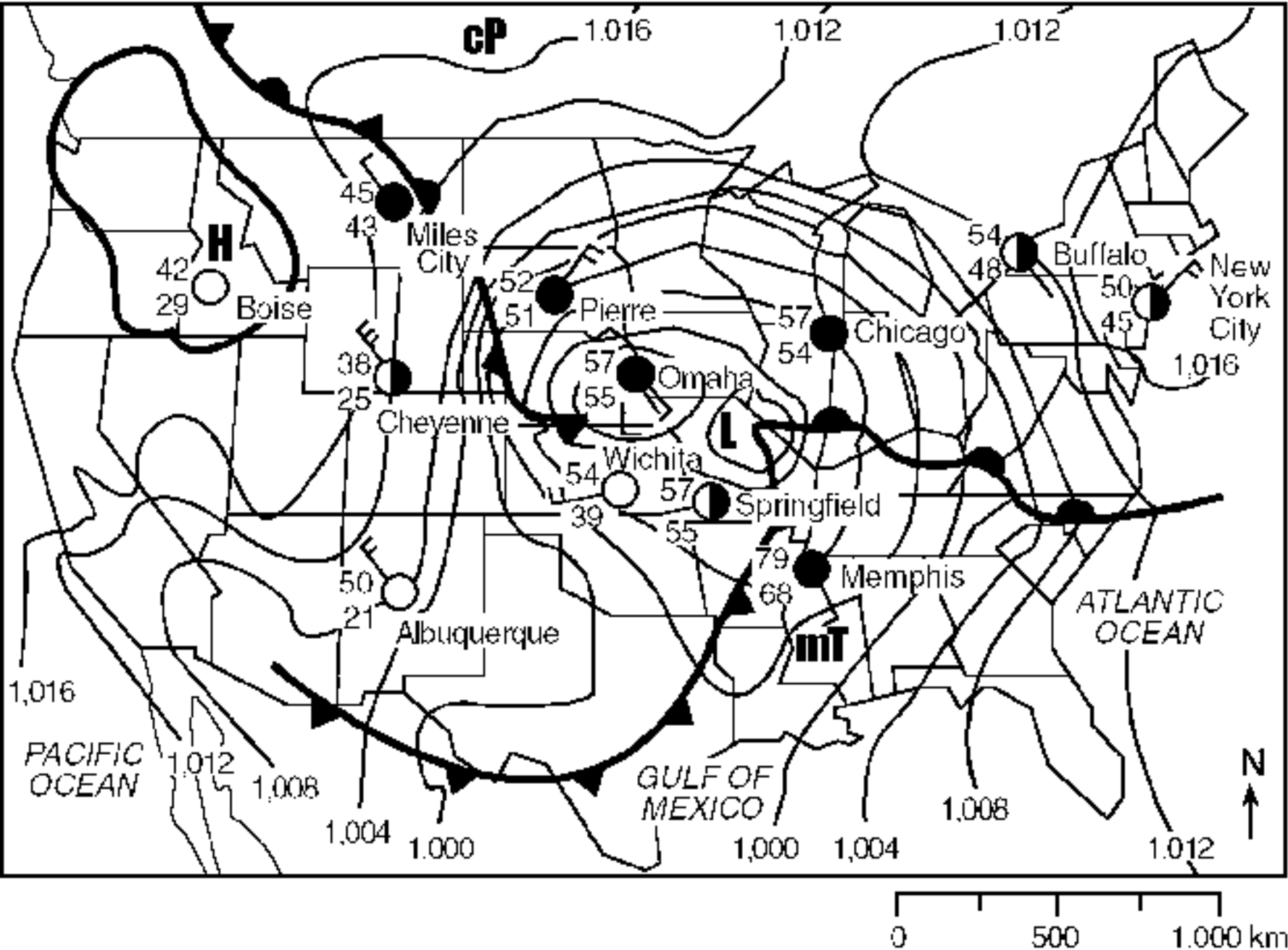


| Day       | Temperature<br>(°F) | Wind Speed,<br>Wind Direction,<br>Cloud Cover                                      | Barometric<br>Pressure<br>(mb) | Present<br>Weather |
|-----------|---------------------|------------------------------------------------------------------------------------|--------------------------------|--------------------|
| Monday    | 6                   |  | 1,028.0                        | Clear              |
| Tuesday   | 4                   |  | 1,029.0                        | Sunny              |
| Wednesday | 24                  |  | 1,017.0                        | Light snow         |
| Thursday  | 26                  |  | 1,011.0                        | Light snow         |











Prevailing  
winds

OCEAN

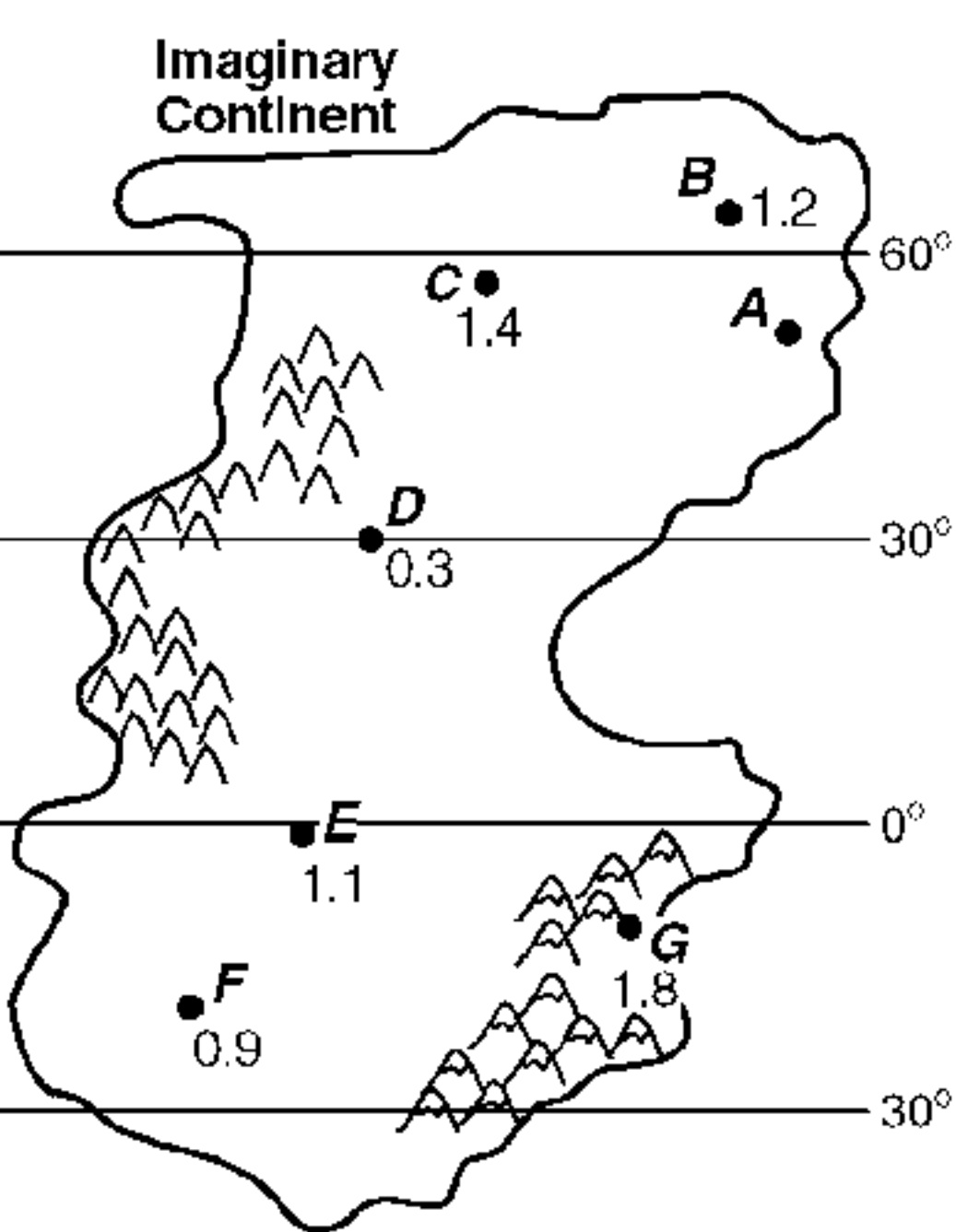




Prevailing  
winds

OCEAN



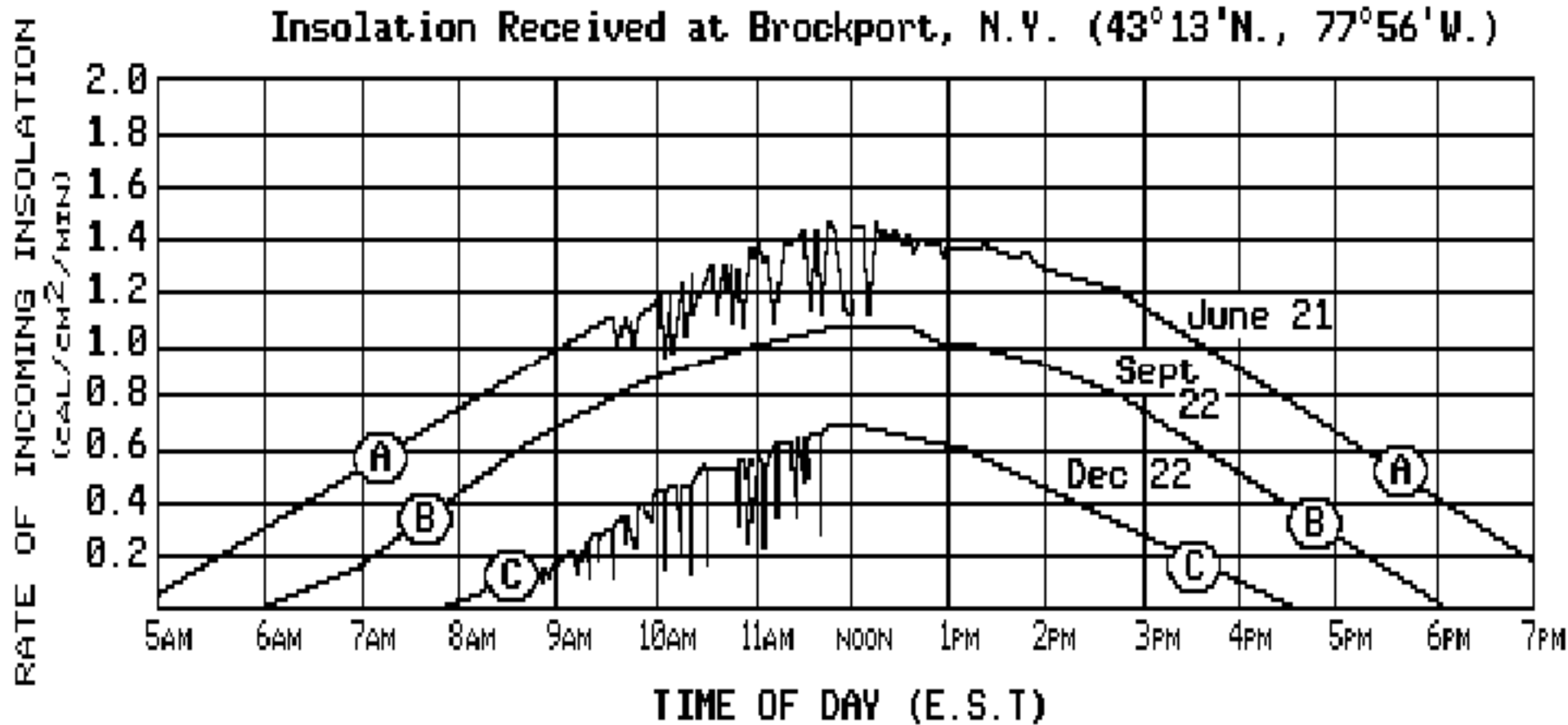


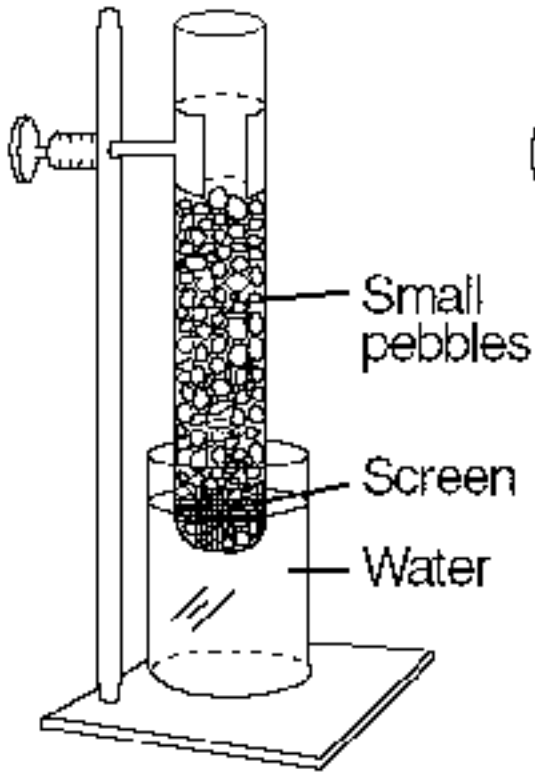
| Climate Ratio<br>(Yearly $P/E_p$ ) | Climate Type |
|------------------------------------|--------------|
| Less than 0.4                      | Arid         |
| 0.4-0.8                            | Semiarid     |
| 0.8-1.2                            | Subhumid     |
| Greater than 1.2                   | Humid        |

### WATER BUDGET DATA FOR LOCATION A (mm)

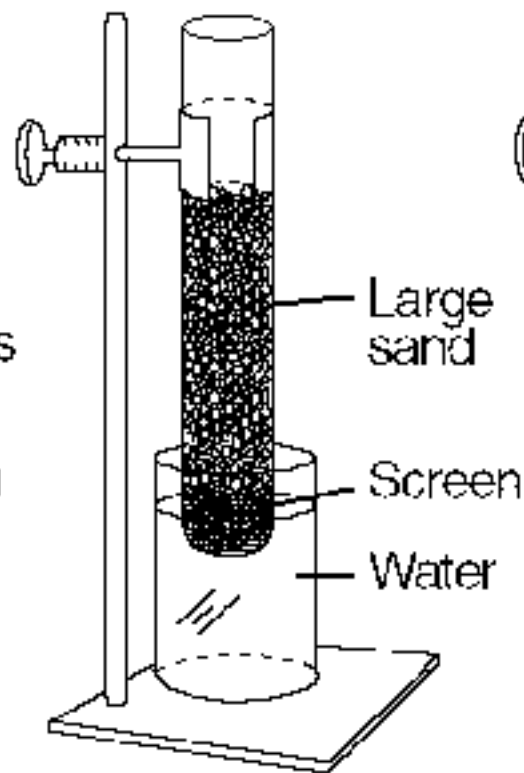
|               | Precipitation<br>(P) | Potential<br>Evapotranspiration<br>( $E_p$ ) |
|---------------|----------------------|----------------------------------------------|
| Jan.          | 68                   | 5                                            |
| Feb.          | 76                   | 10                                           |
| Mar.          | 89                   | 35                                           |
| Apr.          | 96                   | 60                                           |
| May           | 81                   | 85                                           |
| June          | 68                   | 155                                          |
| July          | 75                   | 170                                          |
| Aug.          | 71                   | 159                                          |
| Sept.         | 67                   | 82                                           |
| Oct.          | 65                   | 60                                           |
| Nov.          | 70                   | 34                                           |
| Dec.          | 63                   | 10                                           |
| <b>TOTALS</b> | <b>889</b>           | <b>865</b>                                   |

# Insolation Received at Brockport, N.Y. ( $43^{\circ}13'N.$ , $77^{\circ}56'W.$ )

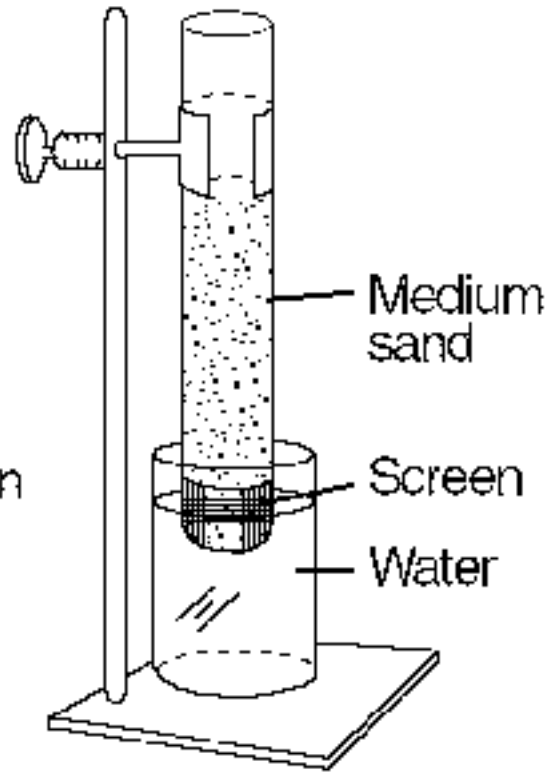




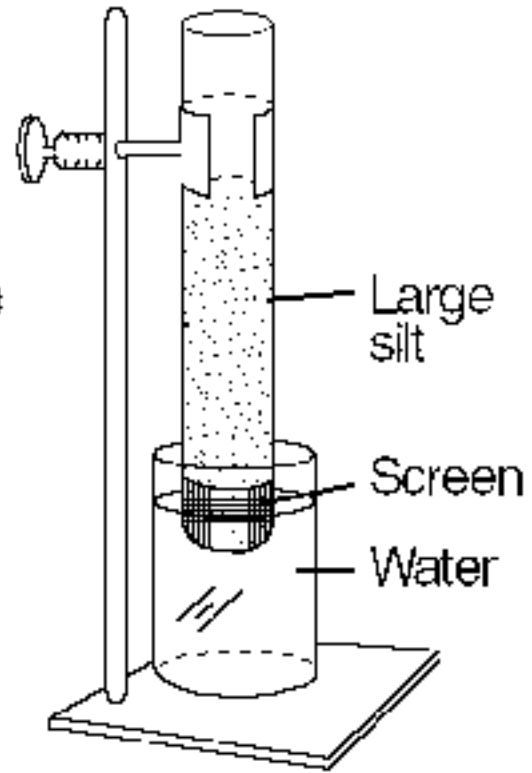
Column A



Column B

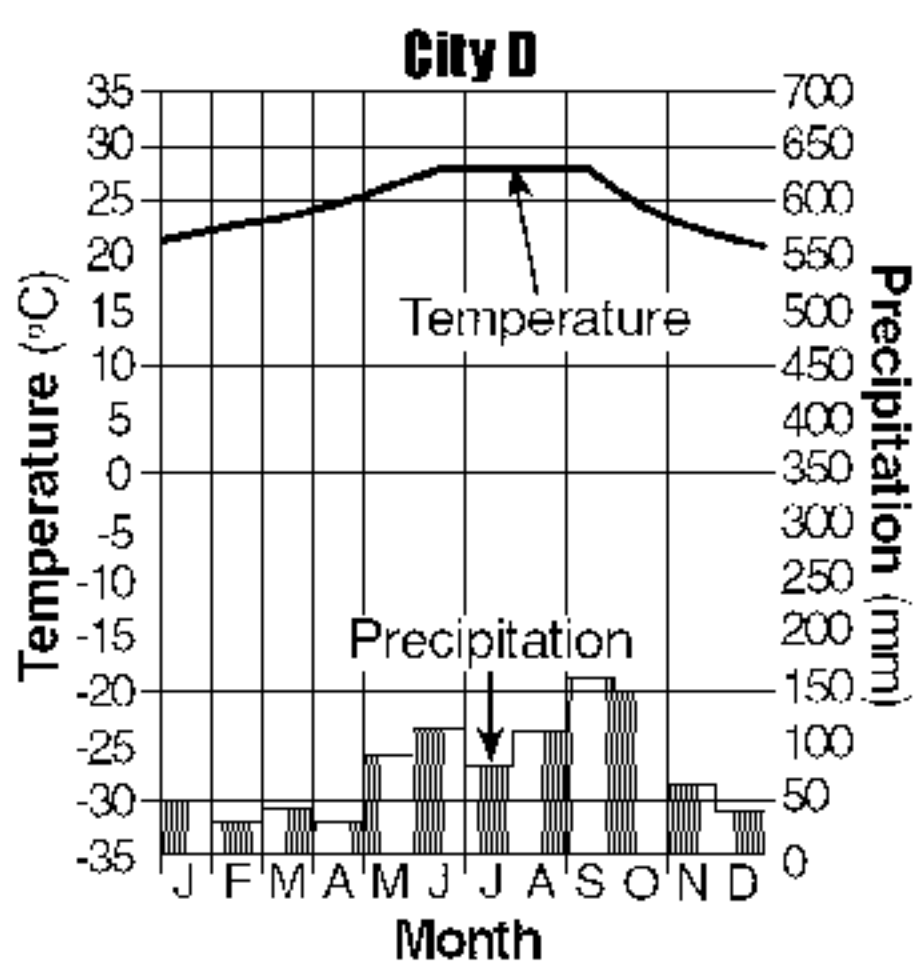
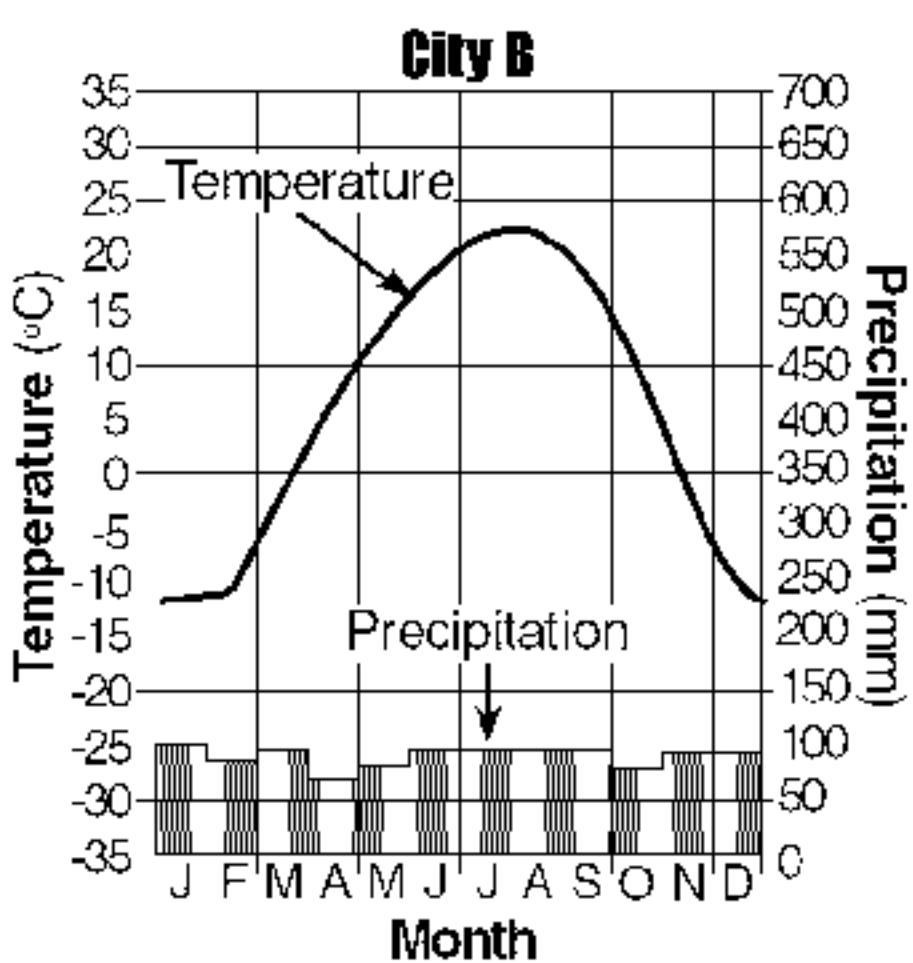
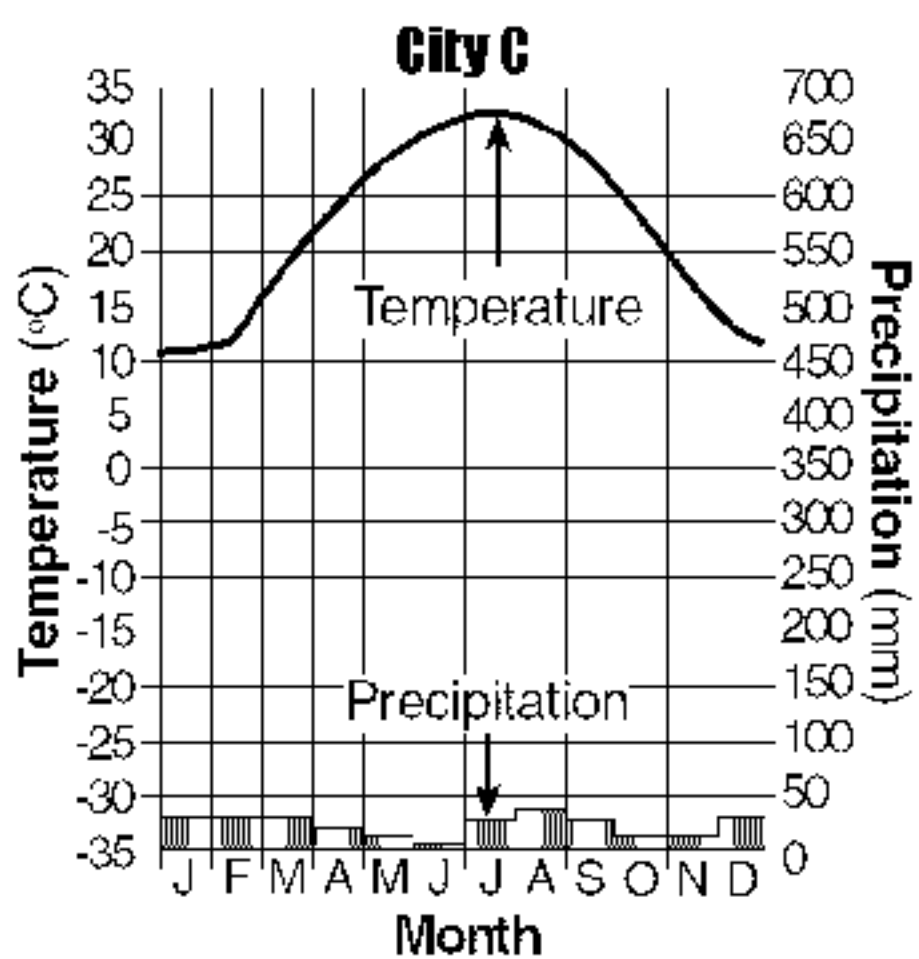
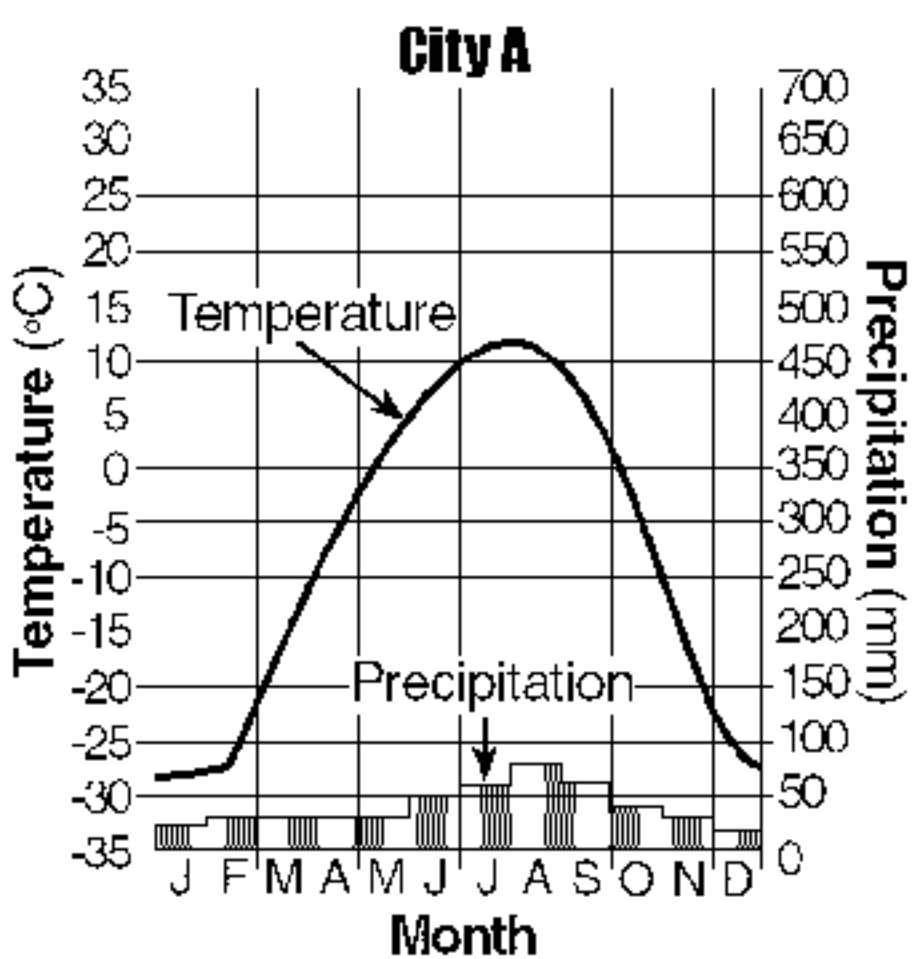


Column C

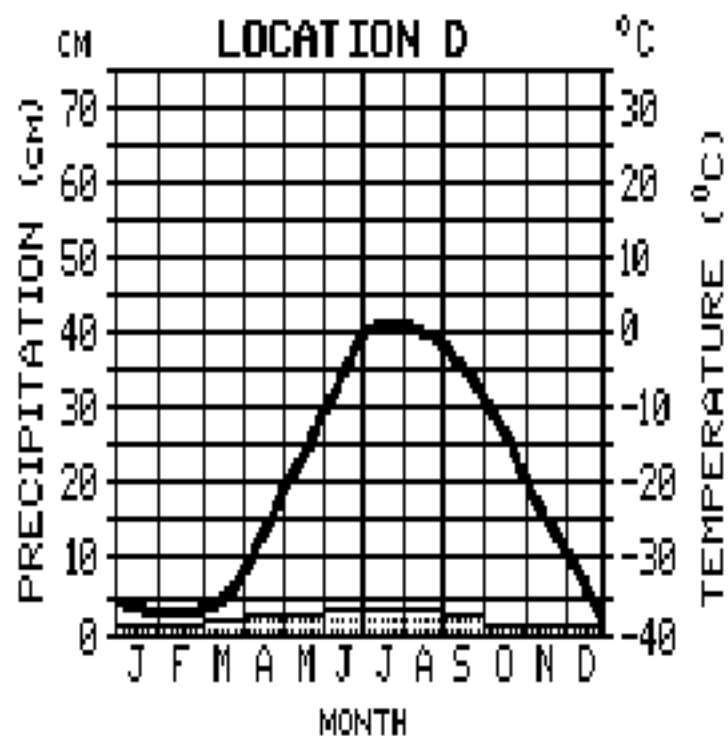
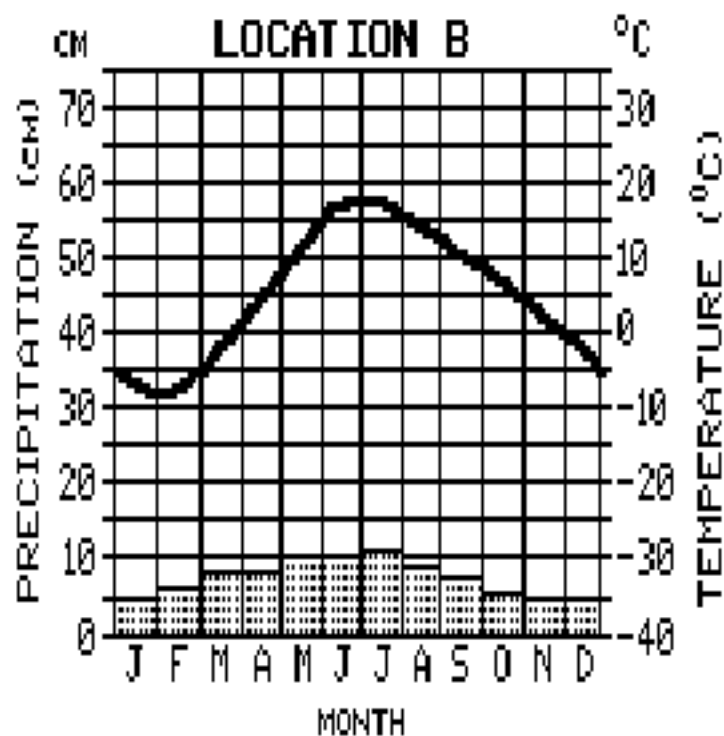
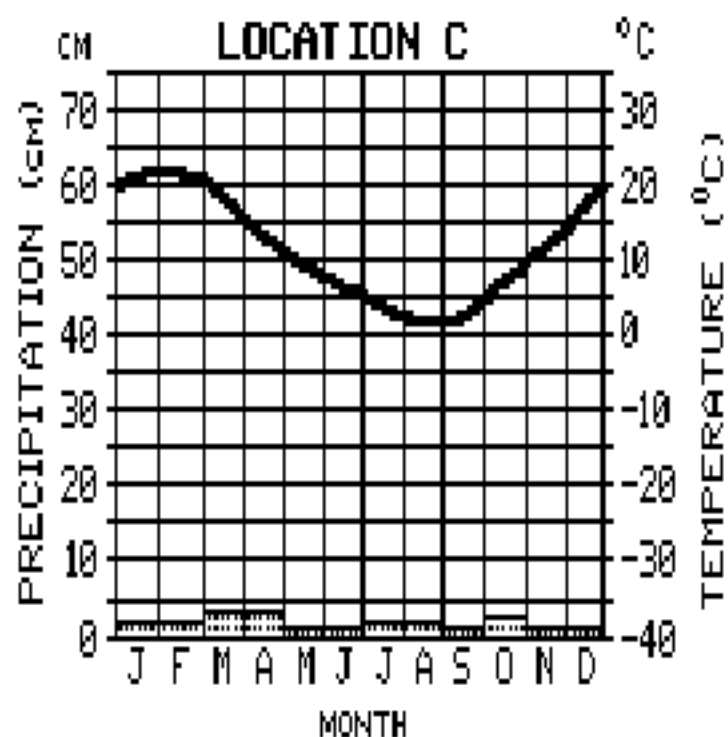
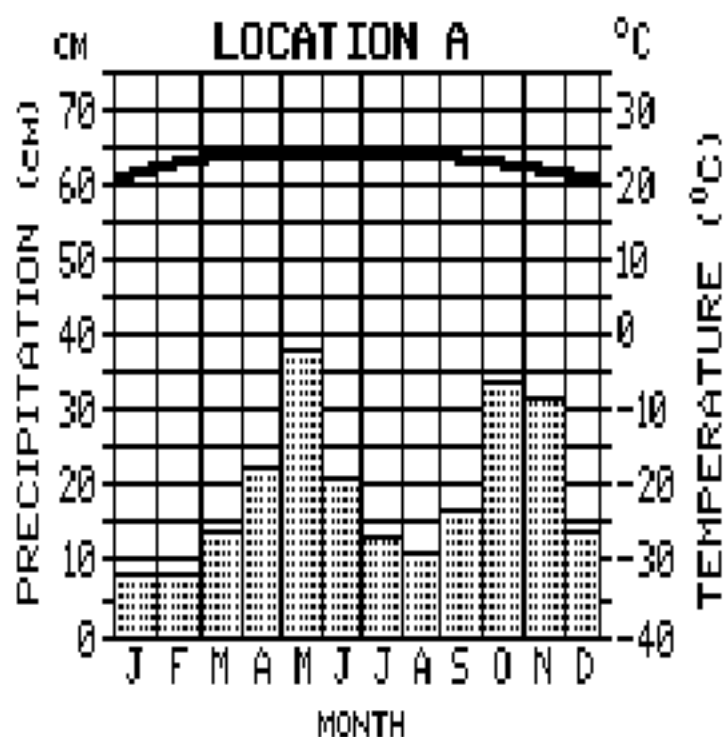


Column D



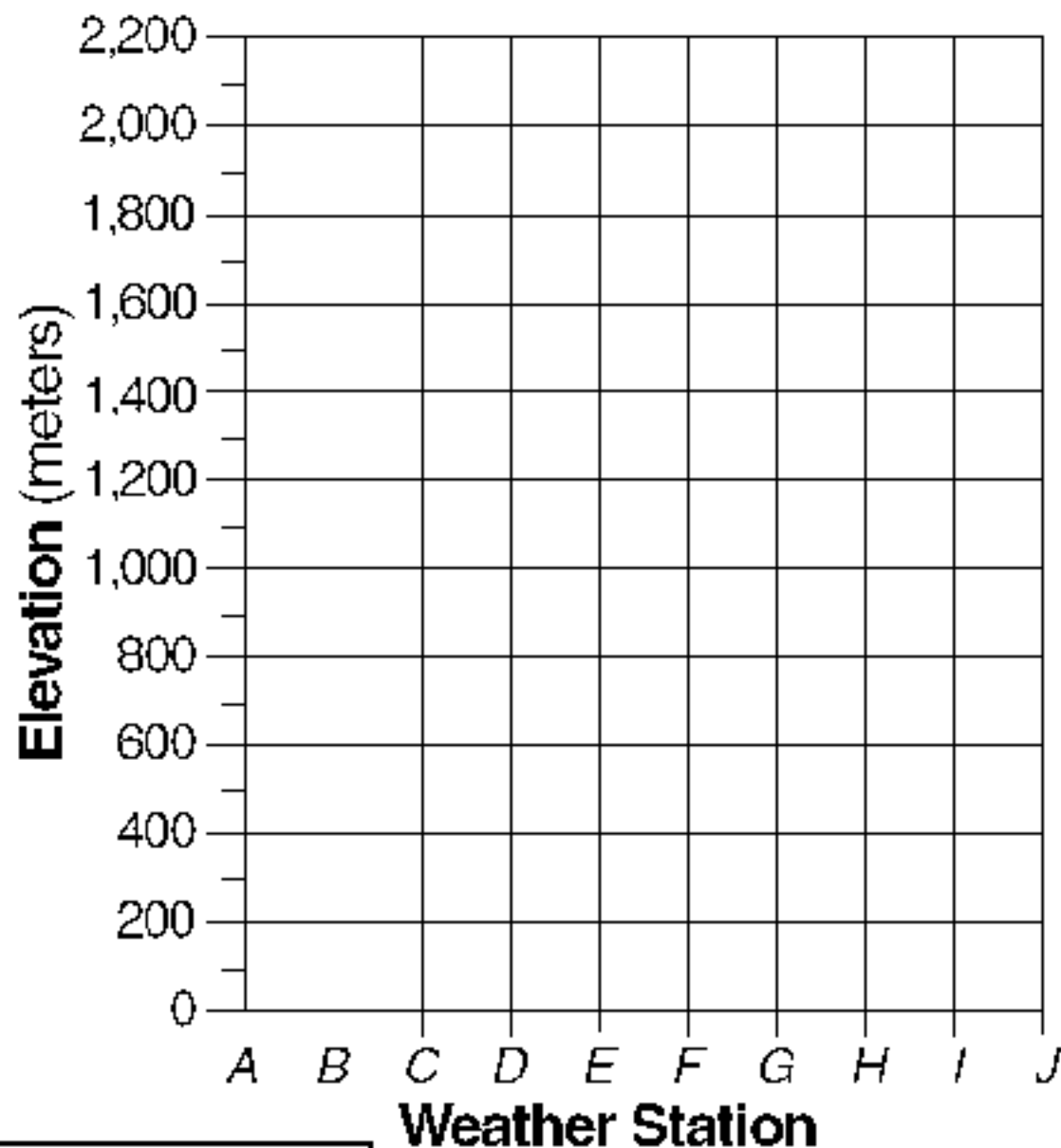


KEY:  Precipitation  Temperature



DATA TABLE

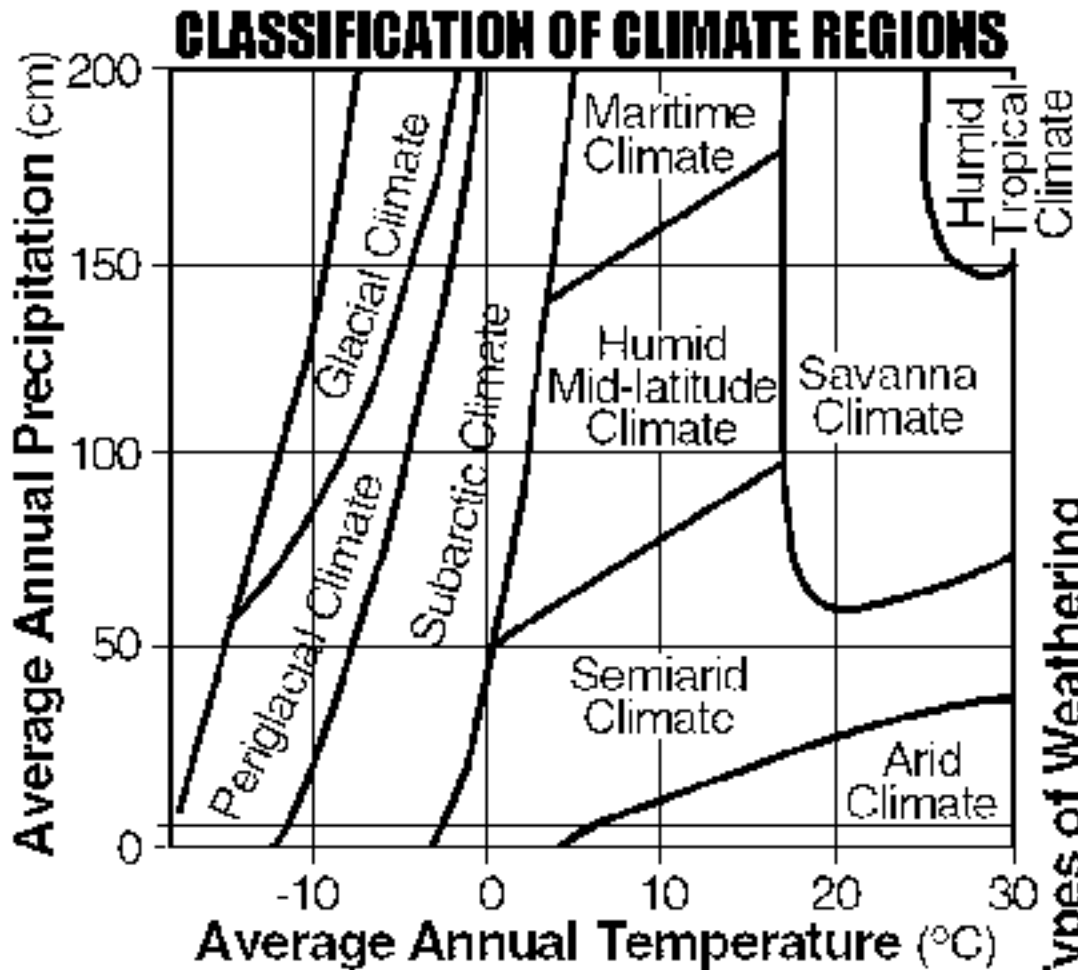
| Weather Station | Elevation (m) | Average Annual Precipitation (cm) |
|-----------------|---------------|-----------------------------------|
| <i>A</i>        | 1,350         | 20                                |
| <i>B</i>        | 1,400         | 24                                |
| <i>C</i>        | 1,500         | 50                                |
| <i>D</i>        | 1,740         | 90                                |
| <i>E</i>        | 2,200         | 170                               |
| <i>F</i>        | 1,500         | 140                               |
| <i>G</i>        | 800           | 122                               |
| <i>H</i>        | 420           | 60                                |
| <i>I</i>        | 300           | 40                                |
| <i>J</i>        | 0             | 65                                |



SYMBOL CHART

Key for Average Annual Precipitation

△ 0–25 cm    ■ 26–75 cm    ⊙ 76–127 cm    ✕ 128–170 cm



**Types of Weathering and Erosion**

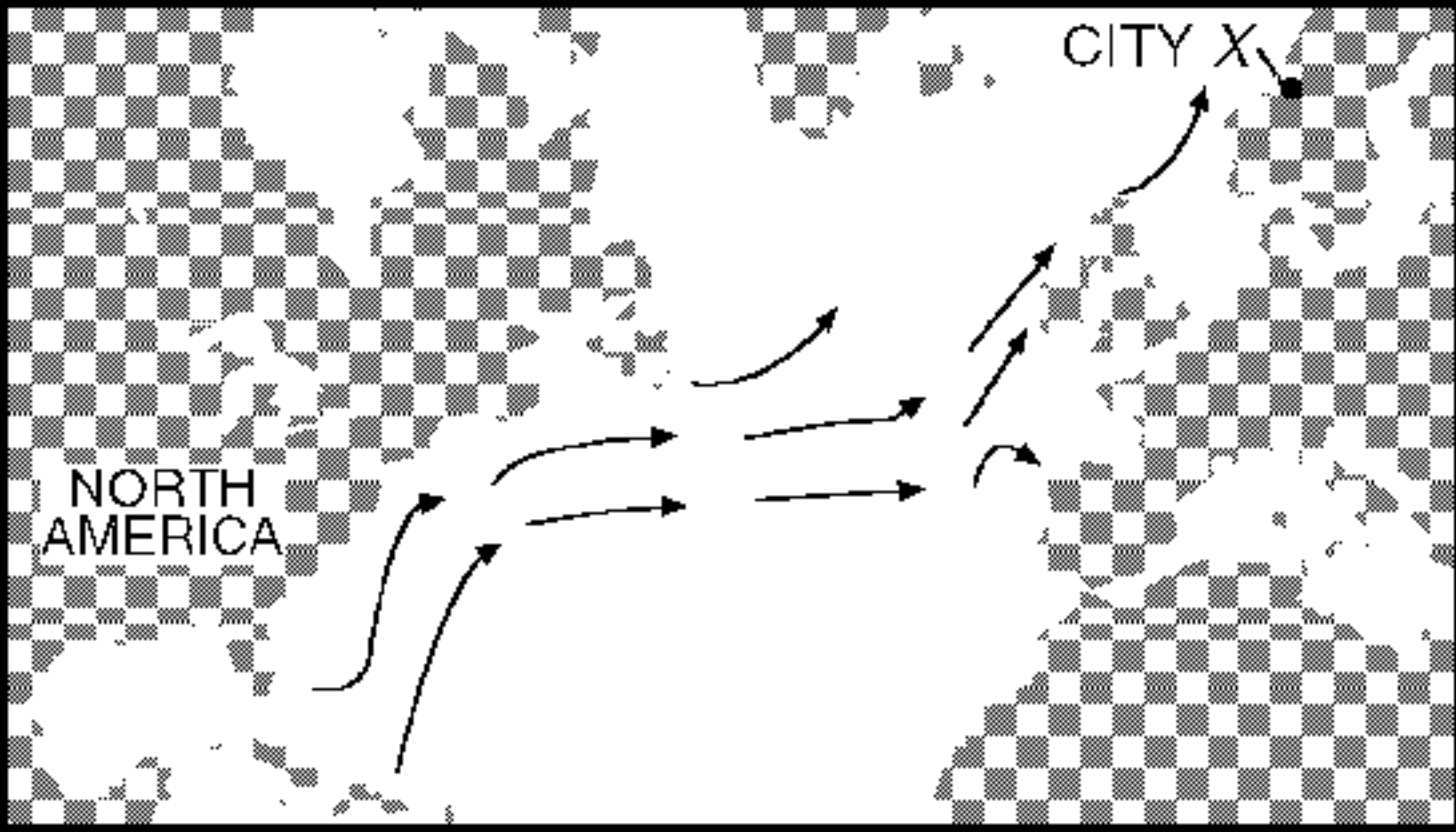
**LEVEL OF WEATHERING AND EROSION**  
Climate Regions

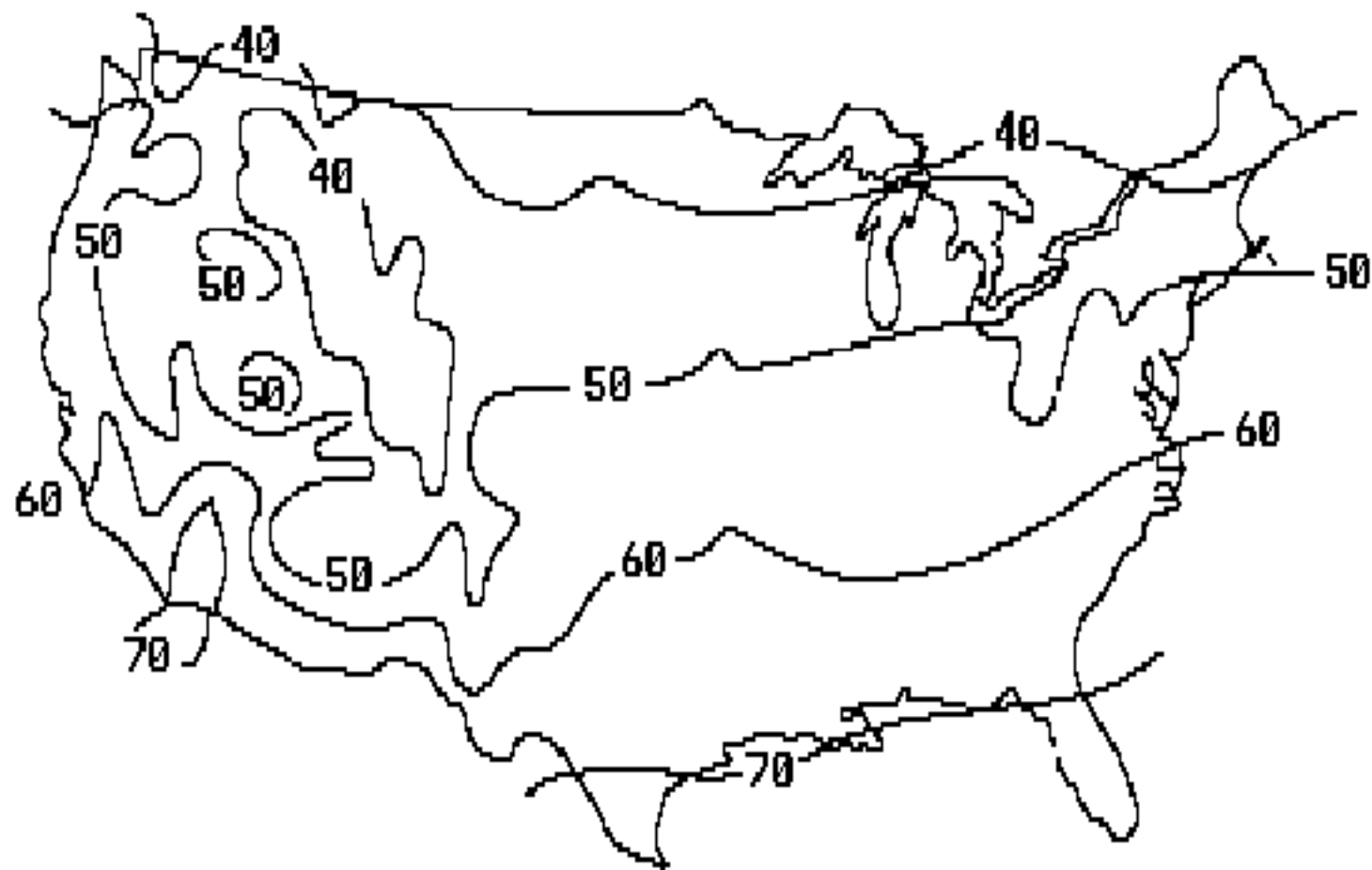
|                     | Glacial | Periglacial | Subarctic | Humid Mid-Latitude | Maritime | Humid Tropical | Savanna | Semiarid | Arid |
|---------------------|---------|-------------|-----------|--------------------|----------|----------------|---------|----------|------|
| Glacial Erosion     | 3       | 0           | 0         | 0                  | 0        | 0              | 0       | 0        | 0    |
| Frost Action        | 0       | 3           | 3         | 2                  | 2        | 0              | 0       | 1        | 1    |
| Wind Action         | 0       | 3           | 1         | 1                  | 0        | 0              | 1       | 2        | 3    |
| Stream Erosion      | 0       | 2           | 3         | 2                  | 2        | 1              | 1       | 1        | 0.5  |
| Chemical Weathering | 0       | 1           | 2         | 2                  | 3        | 3              | 3       | 2        | 2    |
| Slow Mass Movement  | 0       | 3           | 2         | 2                  | 3        | 1              | 1       | 1        | 0.5  |
| Rapid Mass Movement | 0       | 2           | 2         | 2                  | 3        | 3              | 2       | 2        | 2    |

**KEY:**

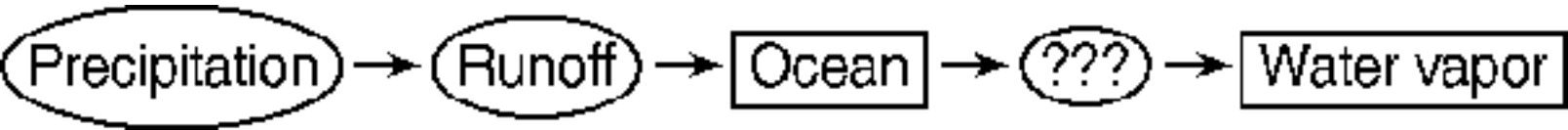
**Level of Weathering and Erosion**

3—HIGH 2—MODERATE 1—LOW 0—NONE

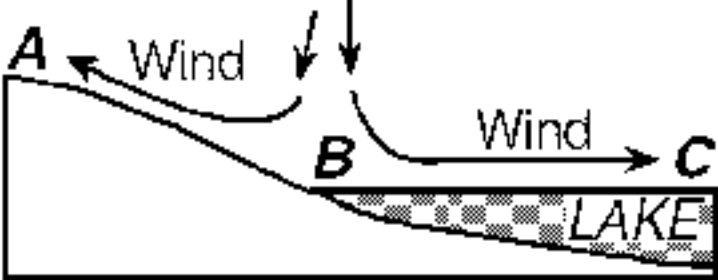


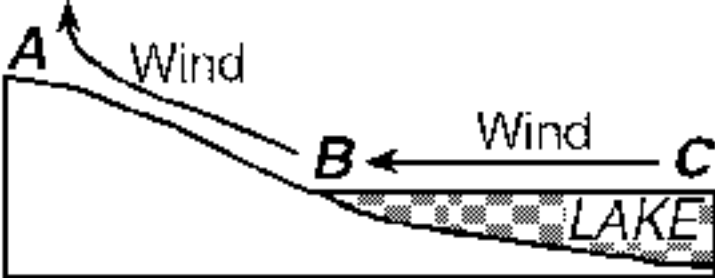


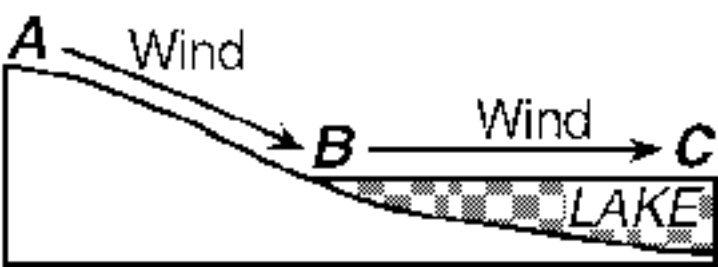
| Day       | Air Temperature<br>(° F) | Windspeed<br>(mph) | Relative Humidity<br>(%) |
|-----------|--------------------------|--------------------|--------------------------|
| Monday    | 40                       | 15                 | 60                       |
| Tuesday   | 65                       | 10                 | 75                       |
| Wednesday | 80                       | 20                 | 30                       |
| Thursday  | 85                       | 0                  | 95                       |

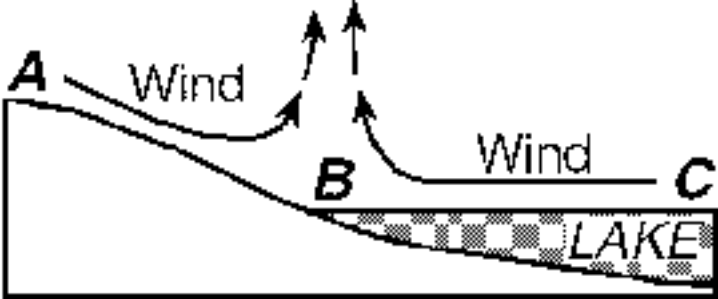


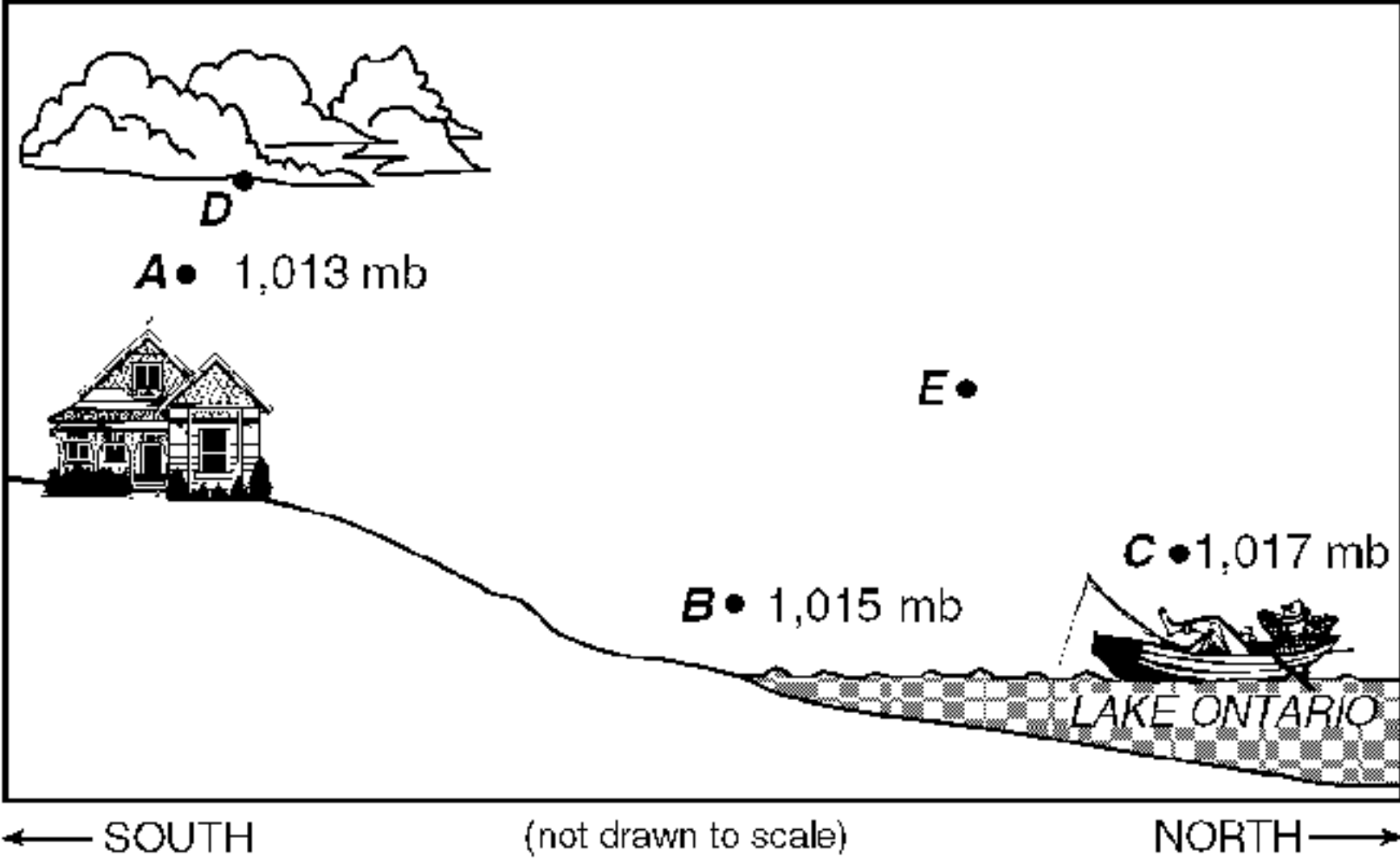


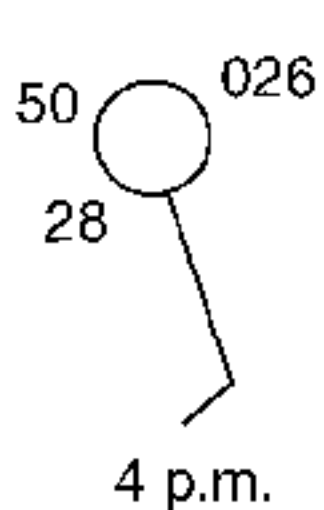
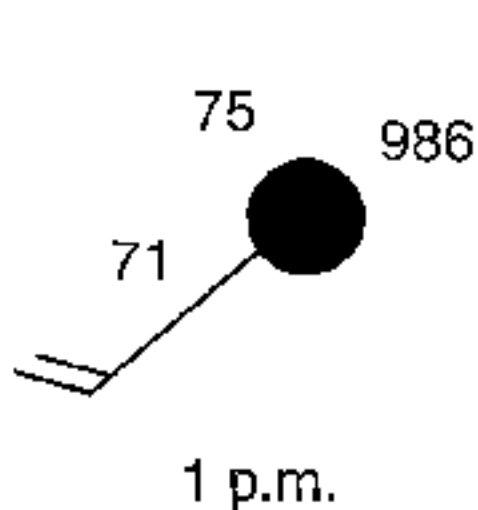
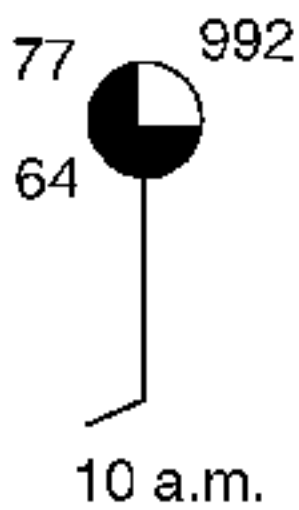
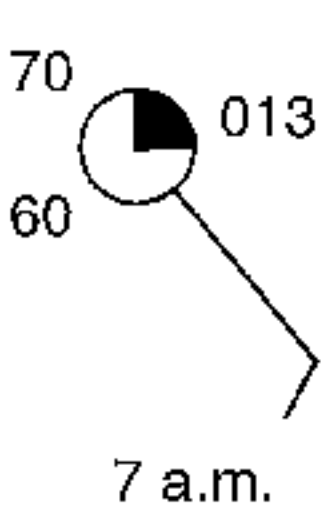


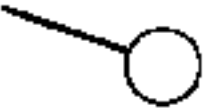
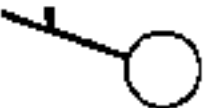


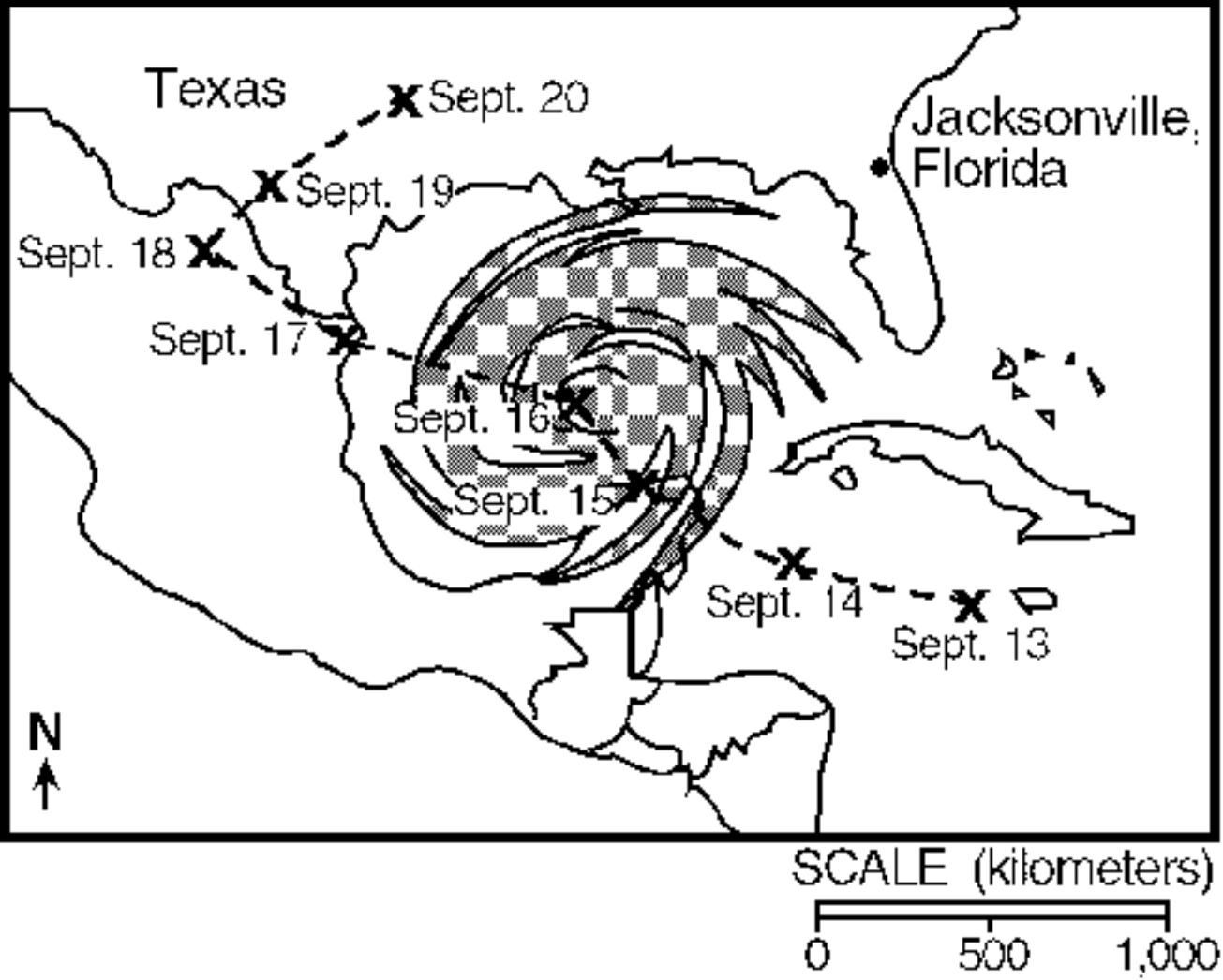




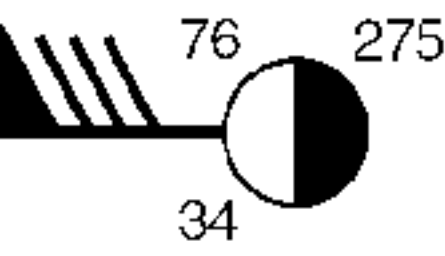


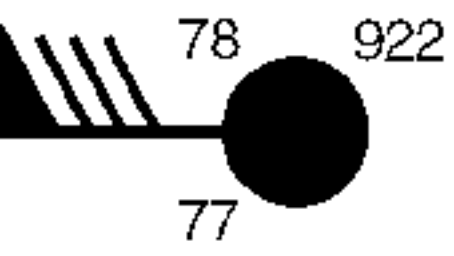


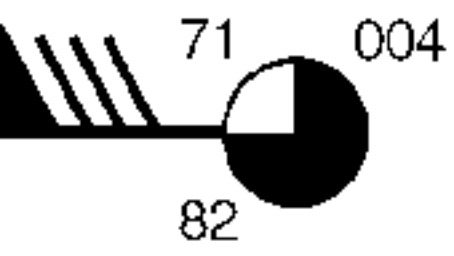
| Day       | Temperature<br>(°F) | Wind Speed,<br>Wind Direction,<br>Cloud Cover                                       | Barometric<br>Pressure<br>(mb) | Present<br>Weather |
|-----------|---------------------|-------------------------------------------------------------------------------------|--------------------------------|--------------------|
| Monday    | 6                   |   | 1,028.0                        | Clear              |
| Tuesday   | 4                   |   | 1,029.0                        | Sunny              |
| Wednesday | 24                  |   | 1,017.0                        | Light snow         |
| Thursday  | 26                  |  | 1,011.0                        | Light snow         |

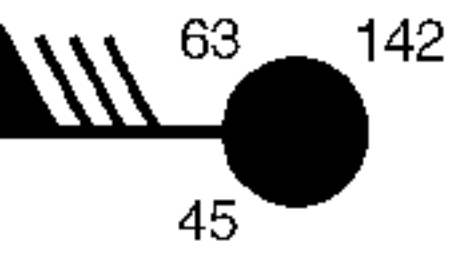


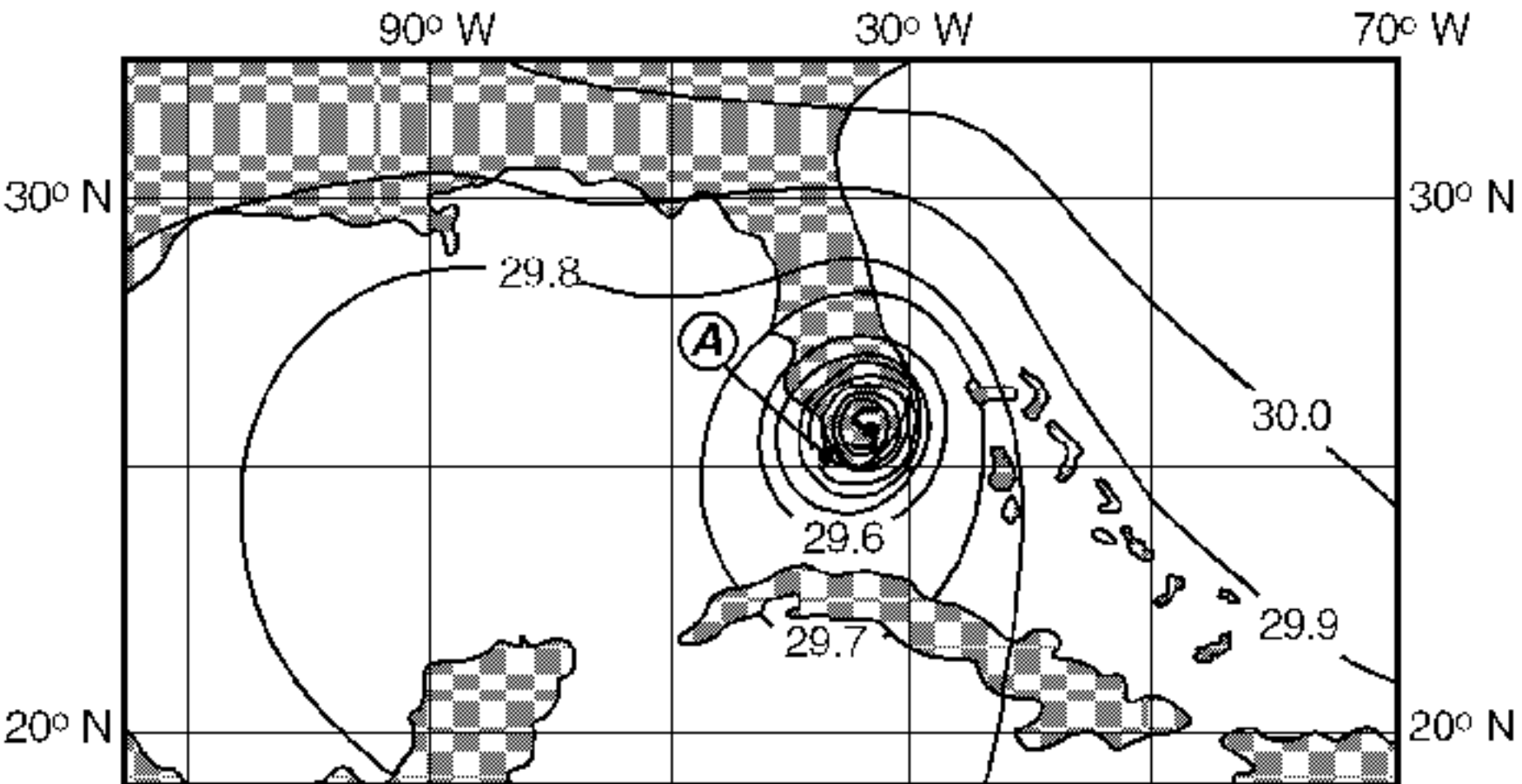






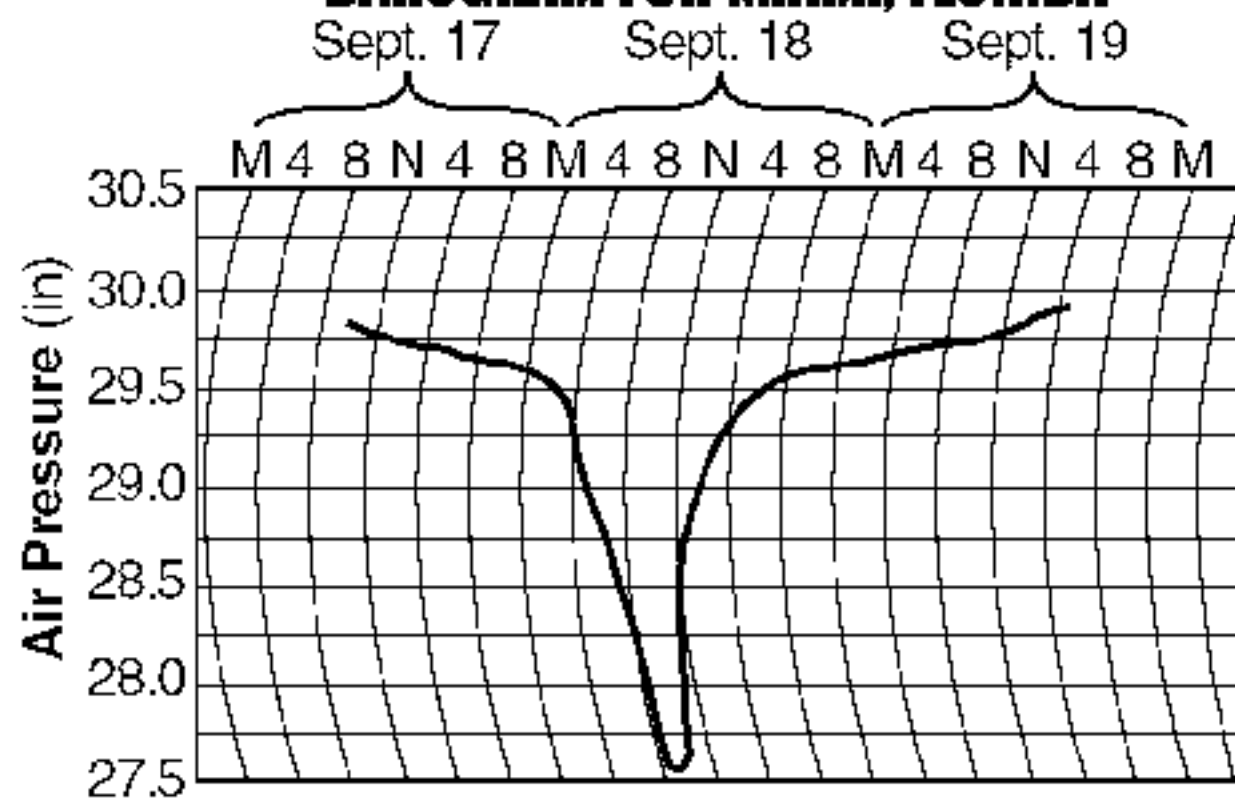


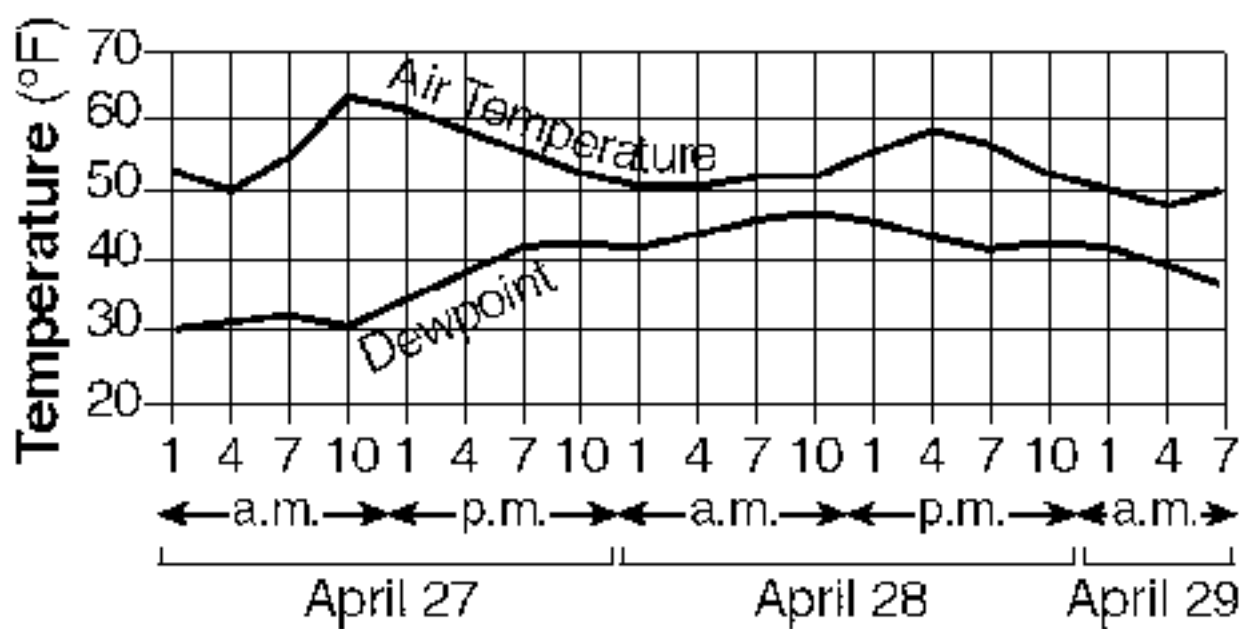


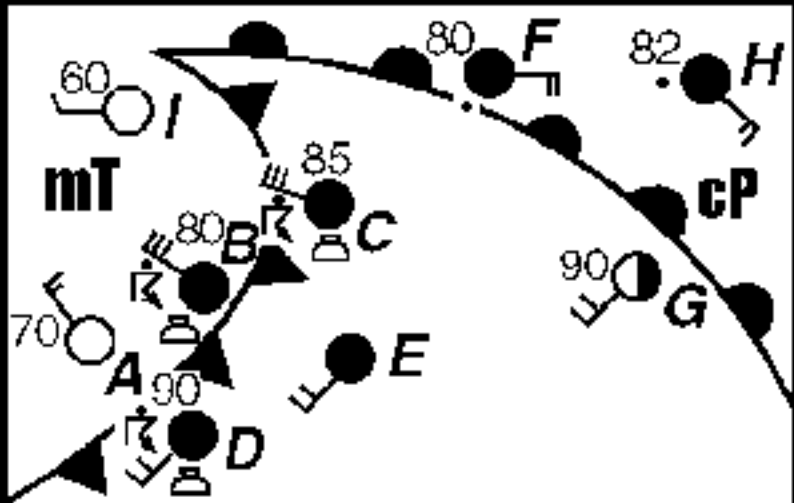


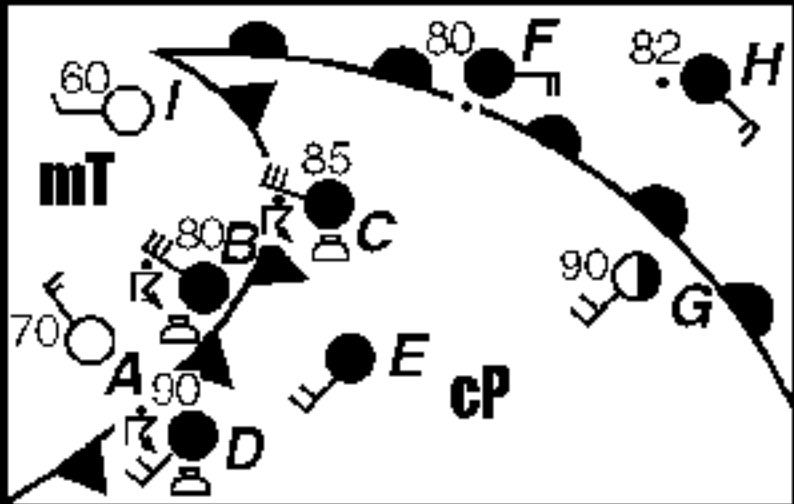
☉ = Hurricane center

### BAROGRAM FOR MIAMI, FLORIDA

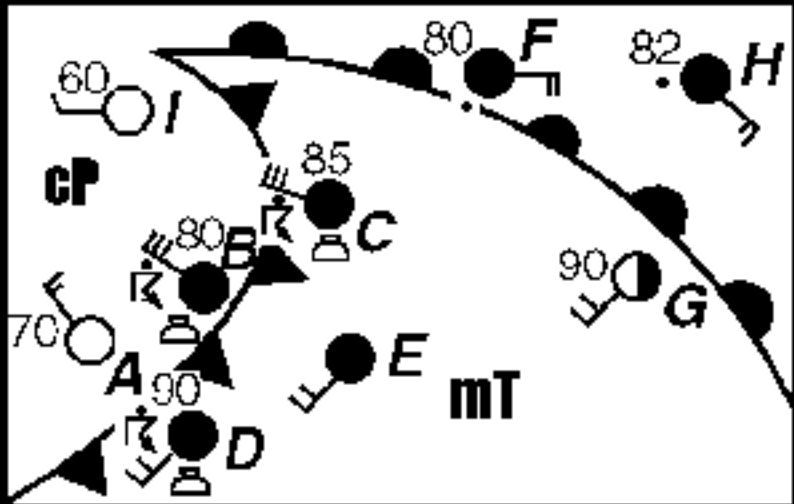


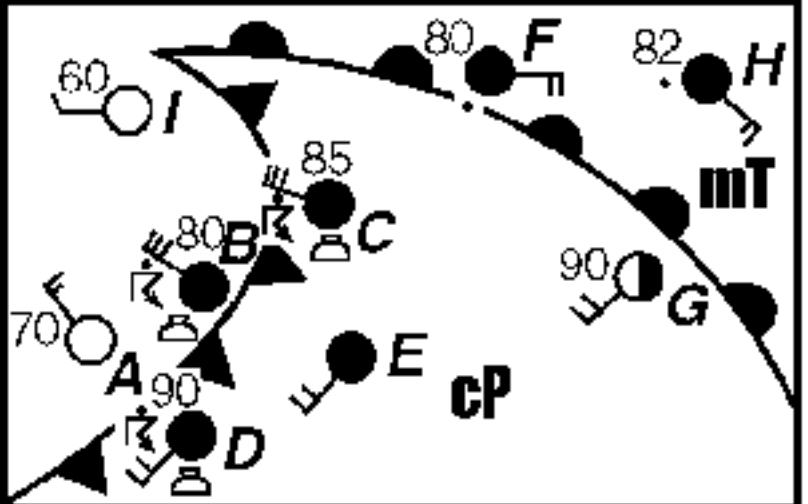


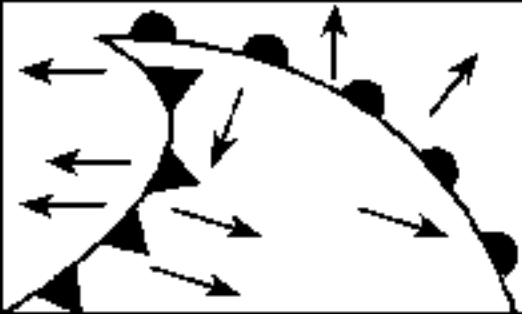


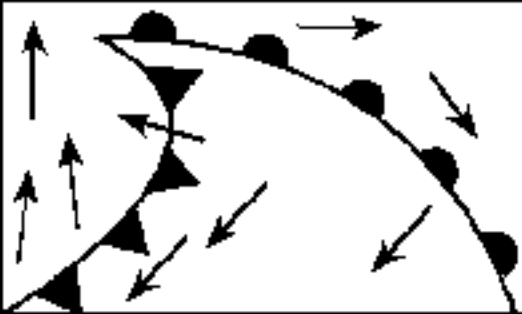




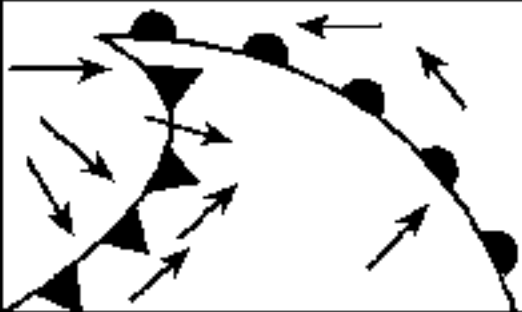


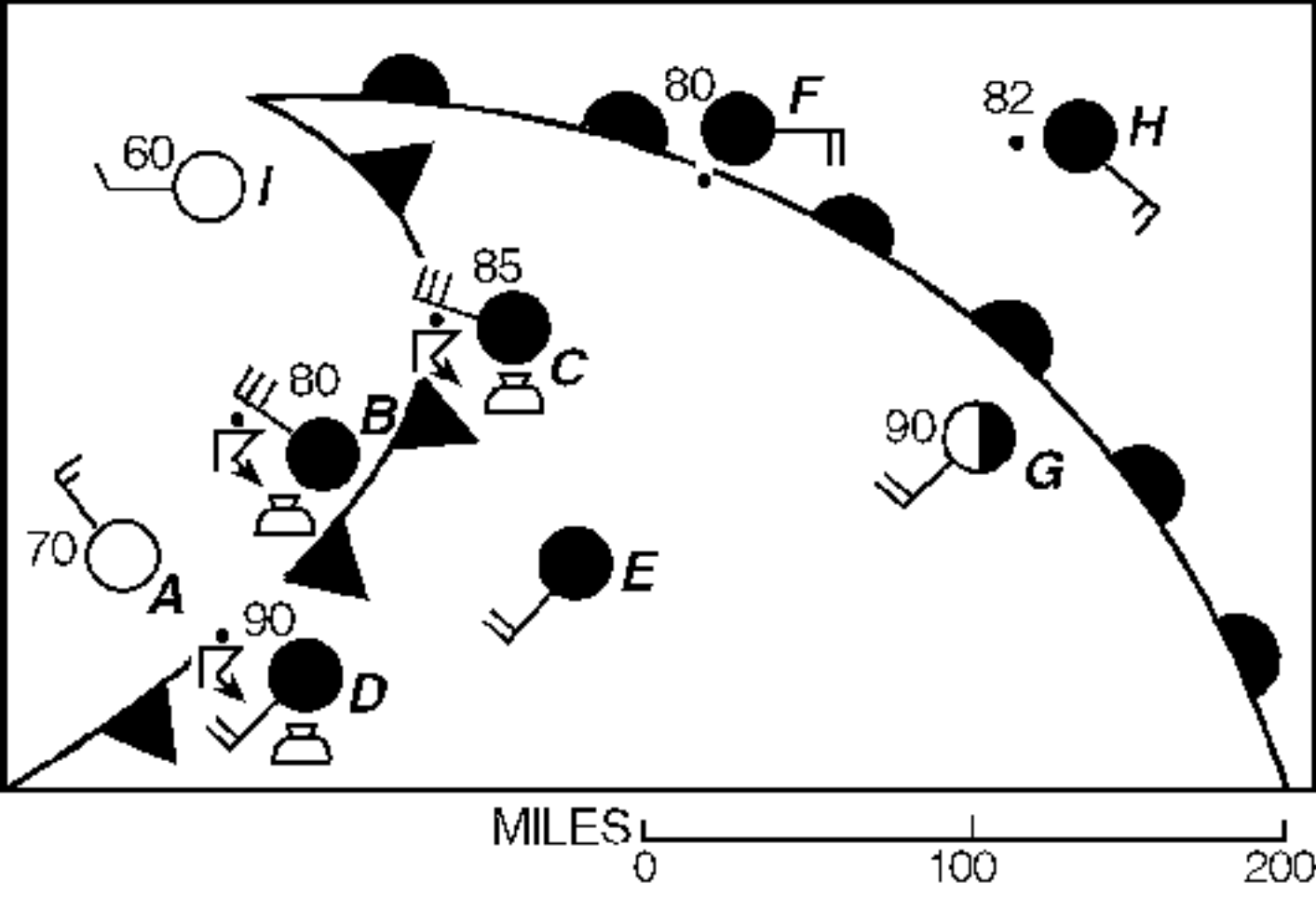


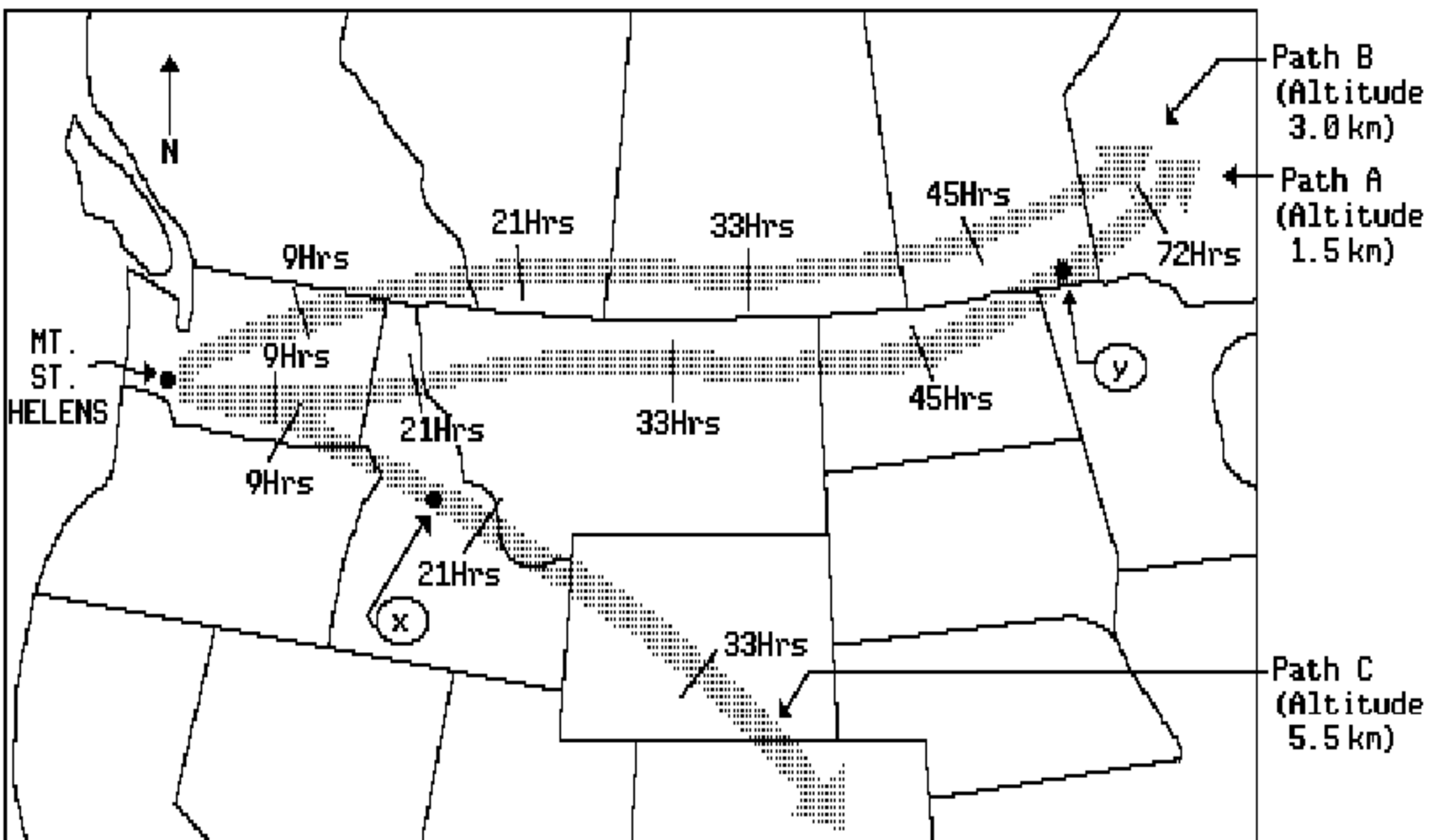








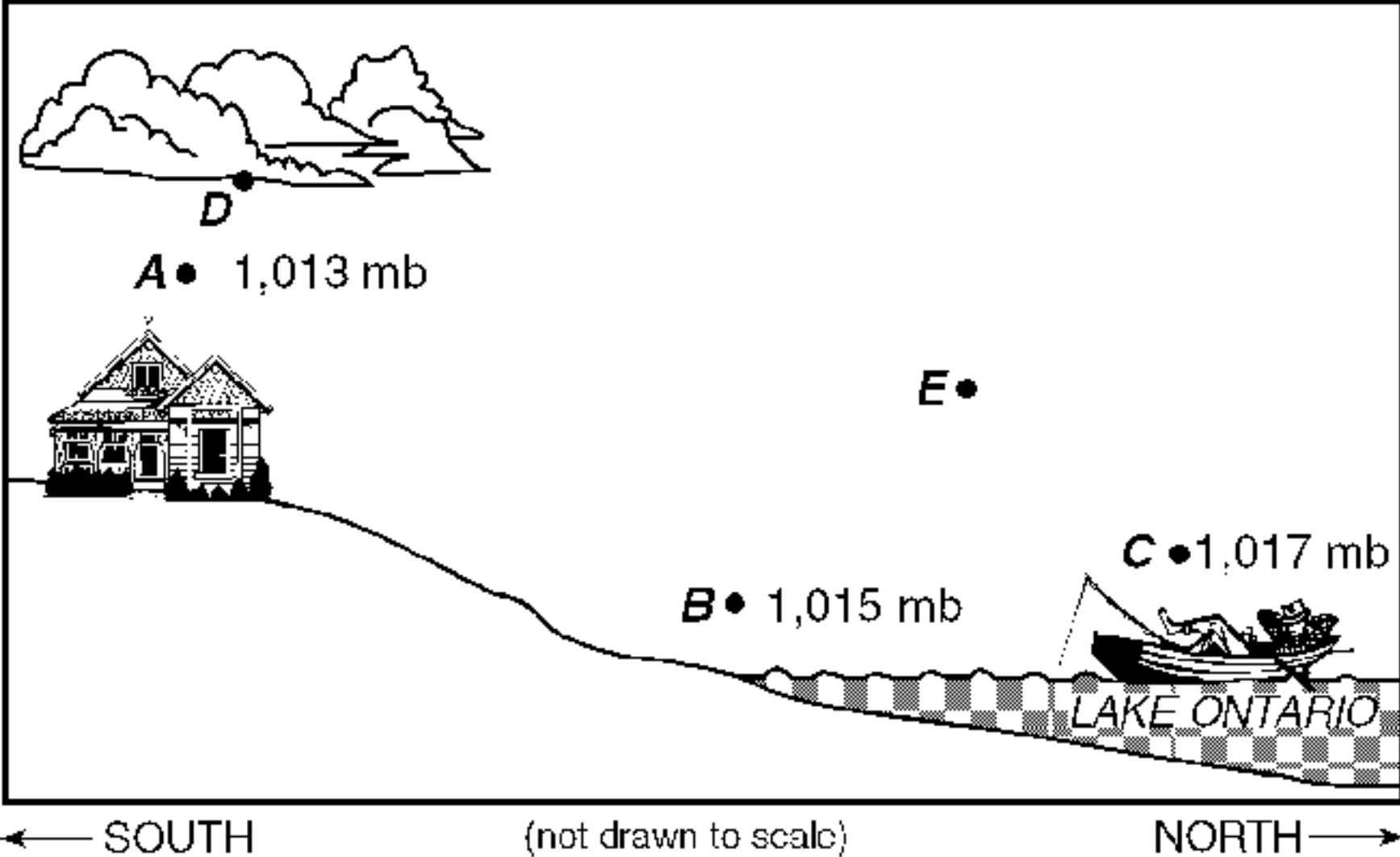




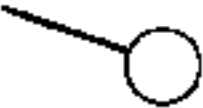
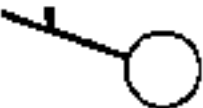
MAP SCALE

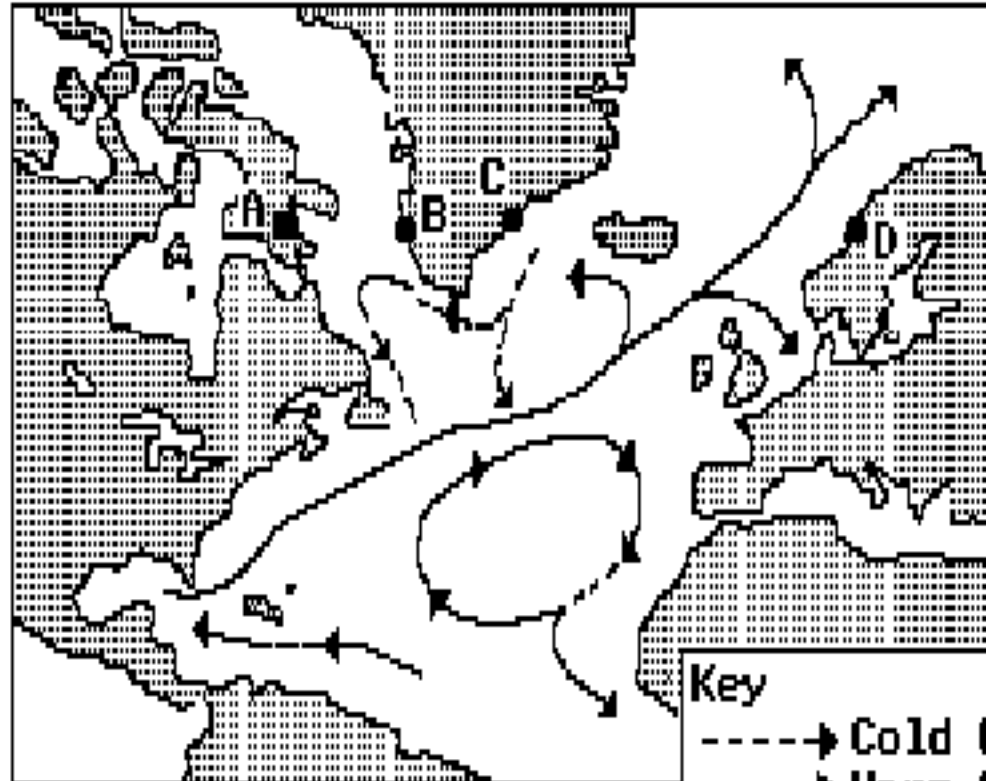
0 170 340 km





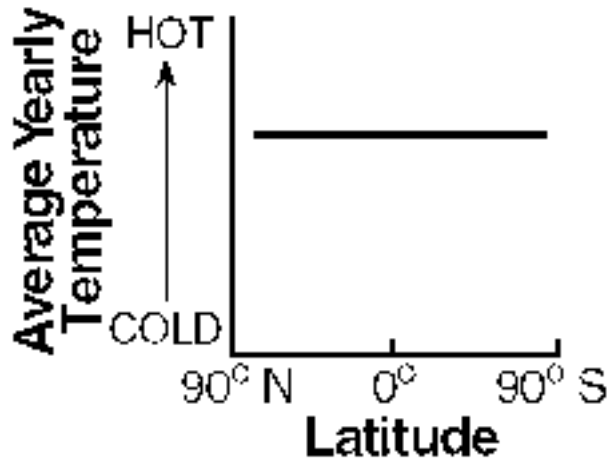


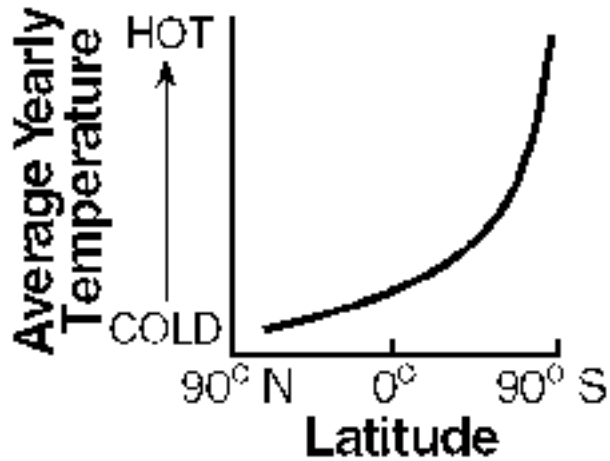
| Day       | Temperature<br>(°F) | Wind Speed,<br>Wind Direction,<br>Cloud Cover                                       | Barometric<br>Pressure<br>(mb) | Present<br>Weather |
|-----------|---------------------|-------------------------------------------------------------------------------------|--------------------------------|--------------------|
| Monday    | 6                   |   | 1,028.0                        | Clear              |
| Tuesday   | 4                   |   | 1,029.0                        | Sunny              |
| Wednesday | 24                  |   | 1,017.0                        | Light snow         |
| Thursday  | 26                  |  | 1,011.0                        | Light snow         |

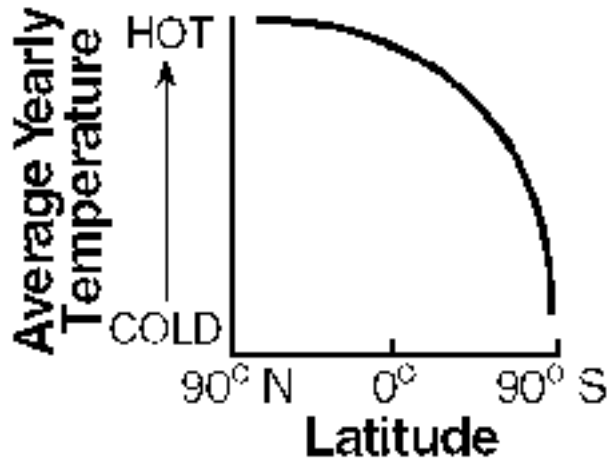


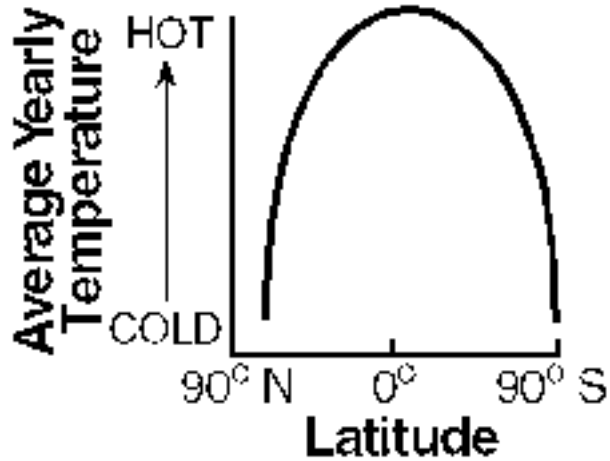
**Key**

- > Cold Ocean Current
- > Warm Ocean Current

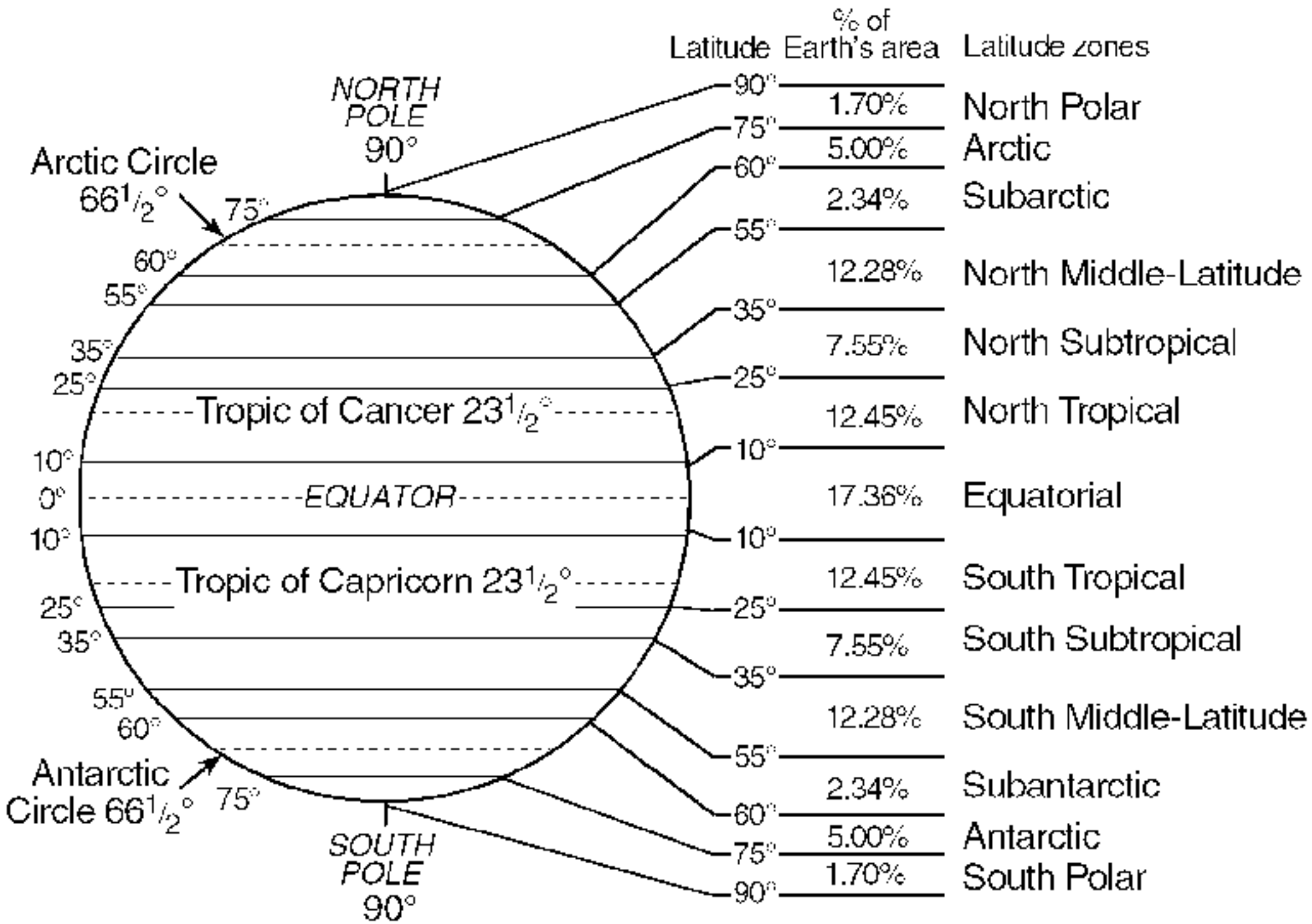








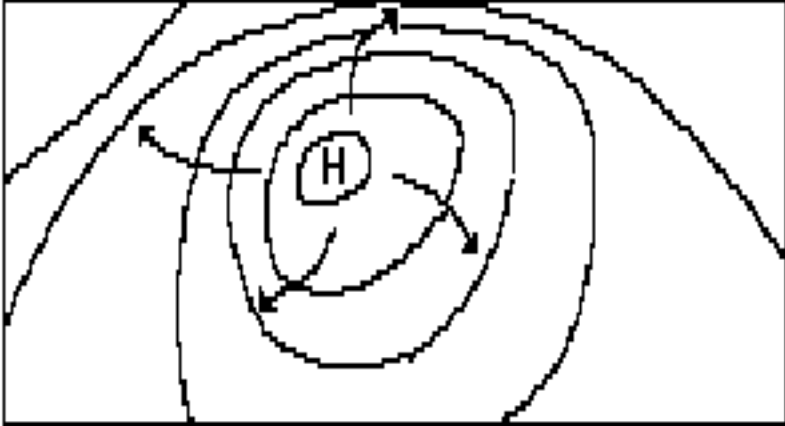


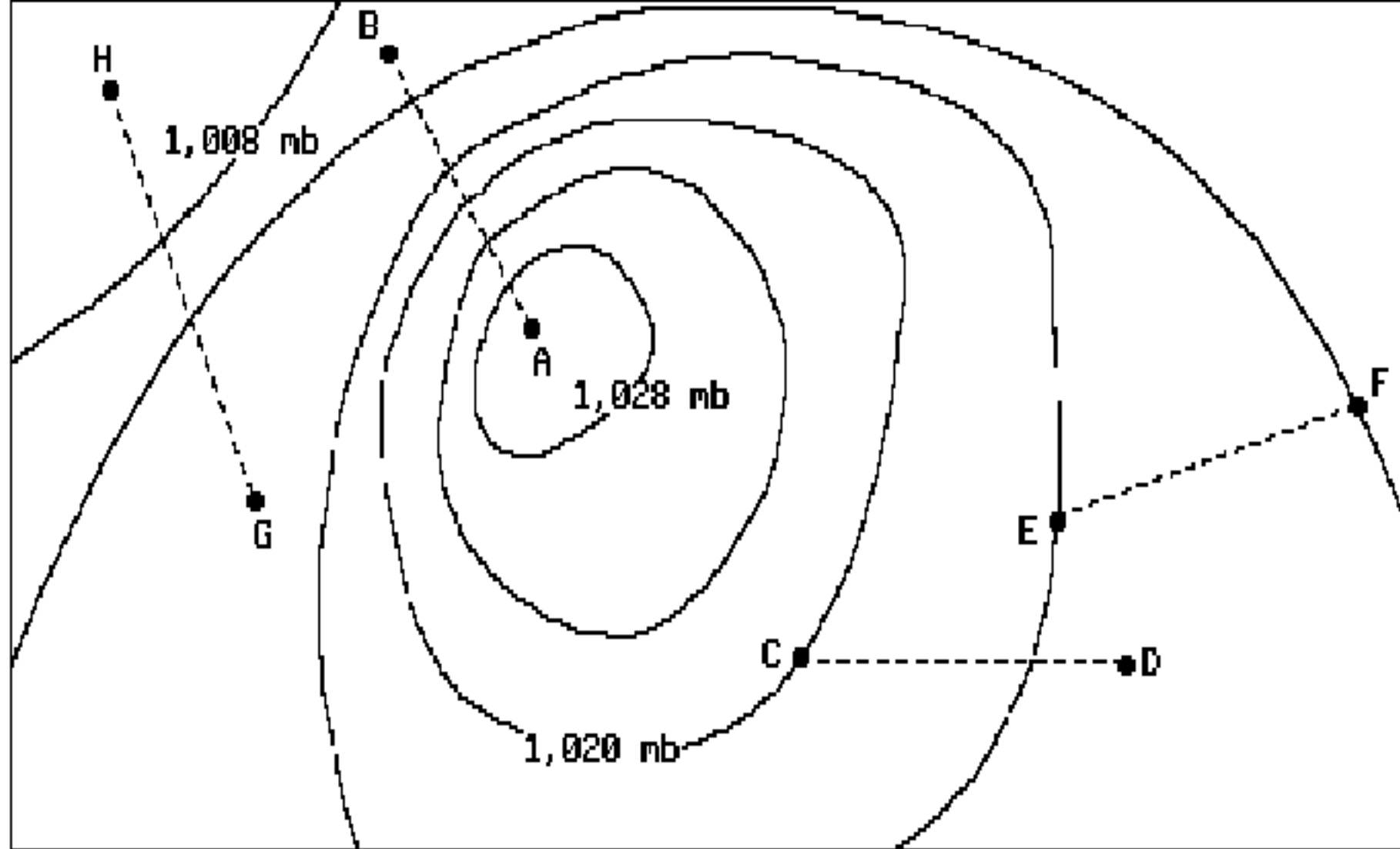


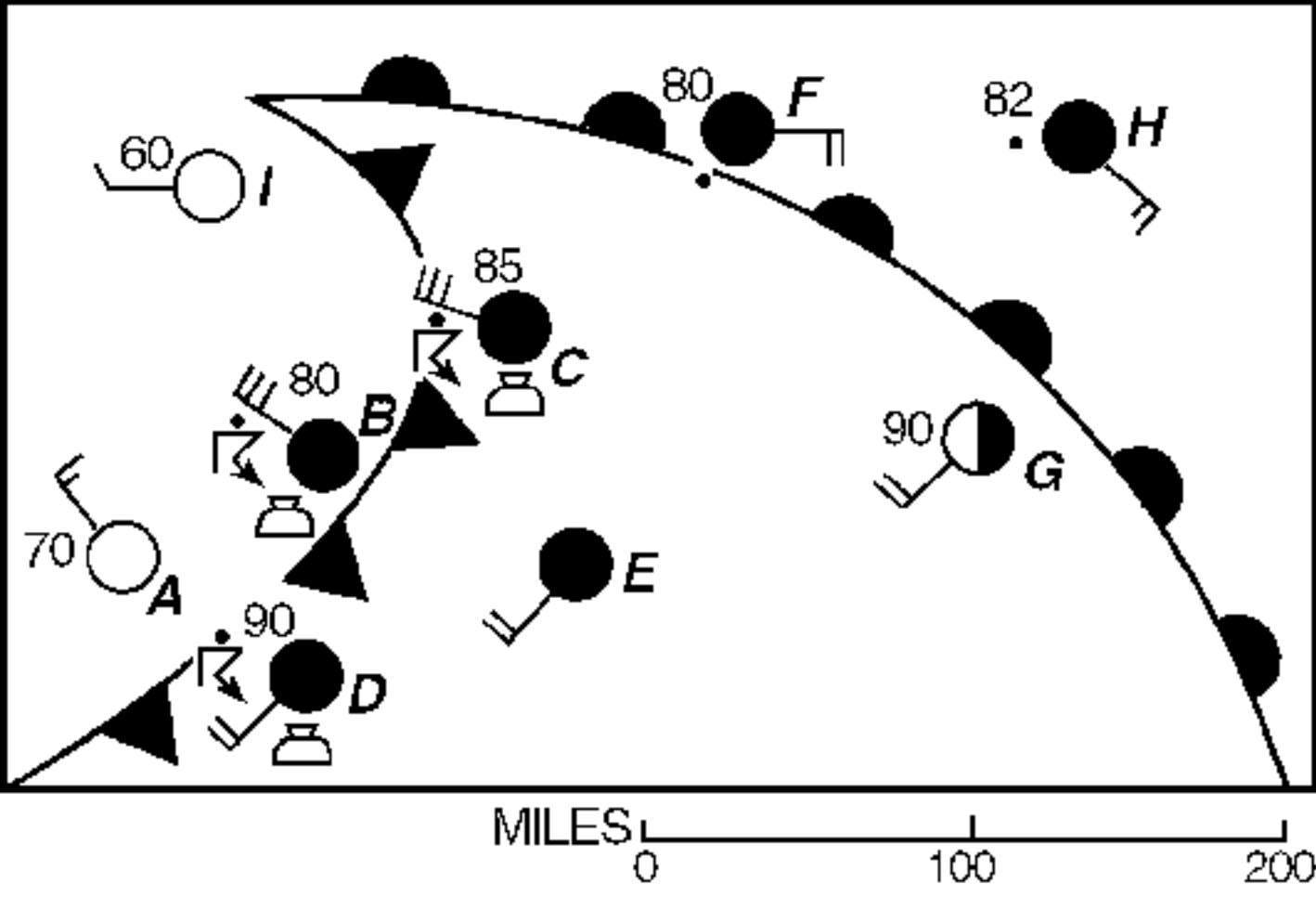


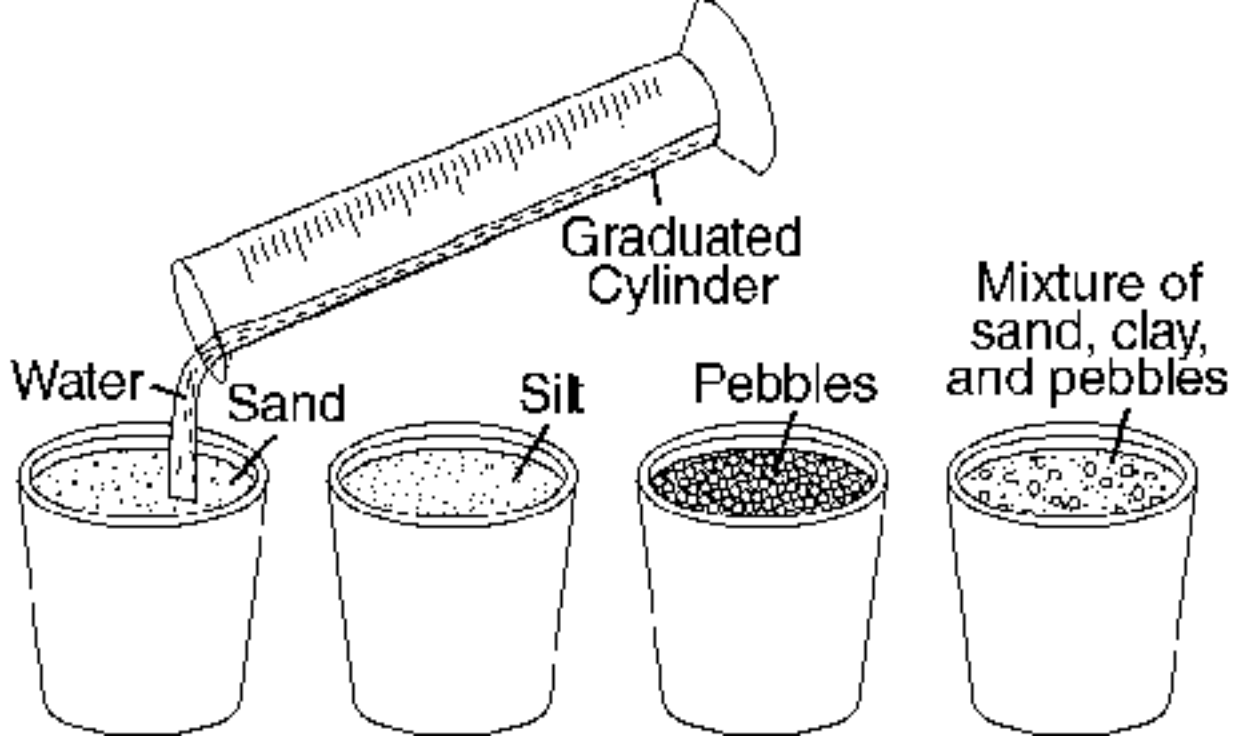




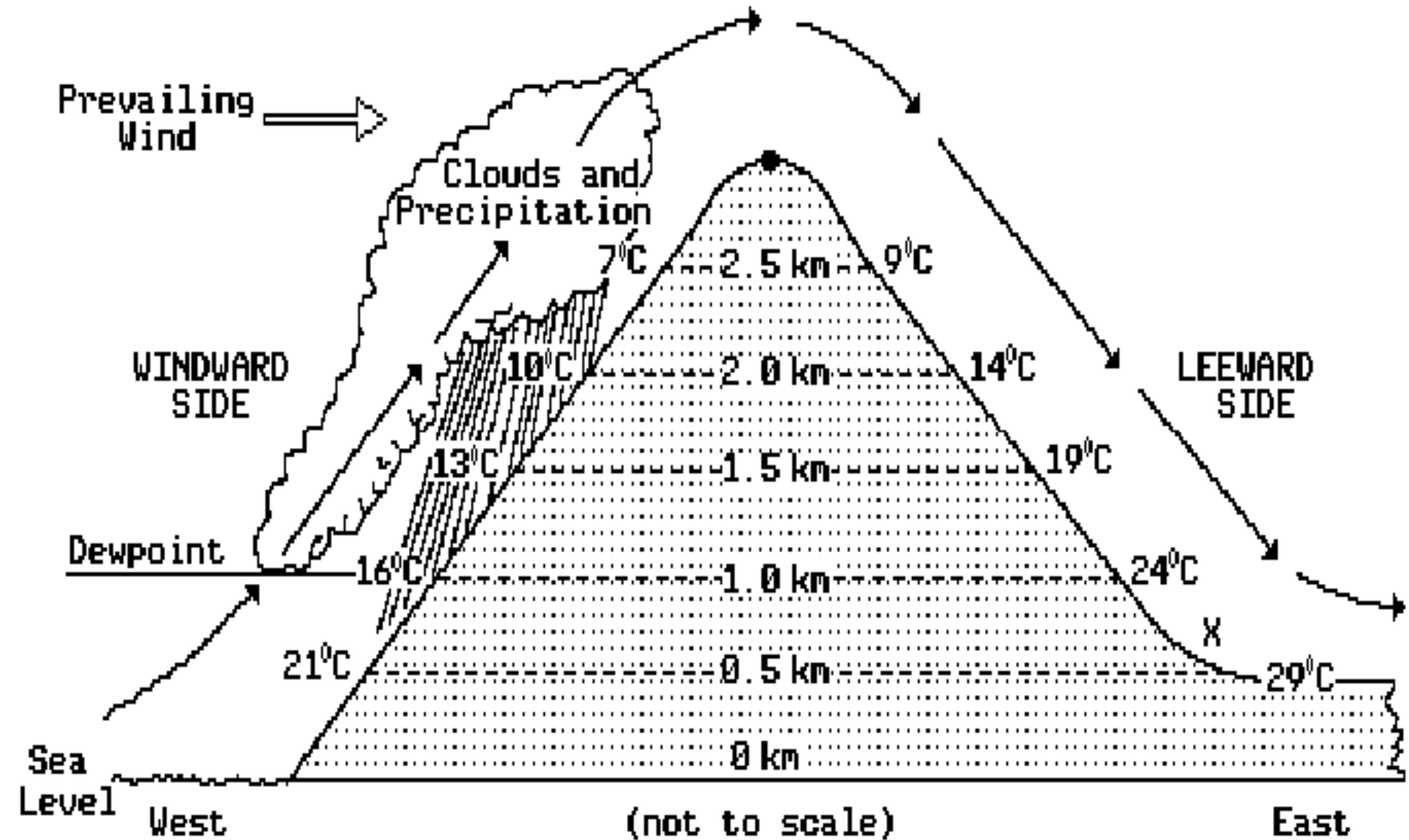




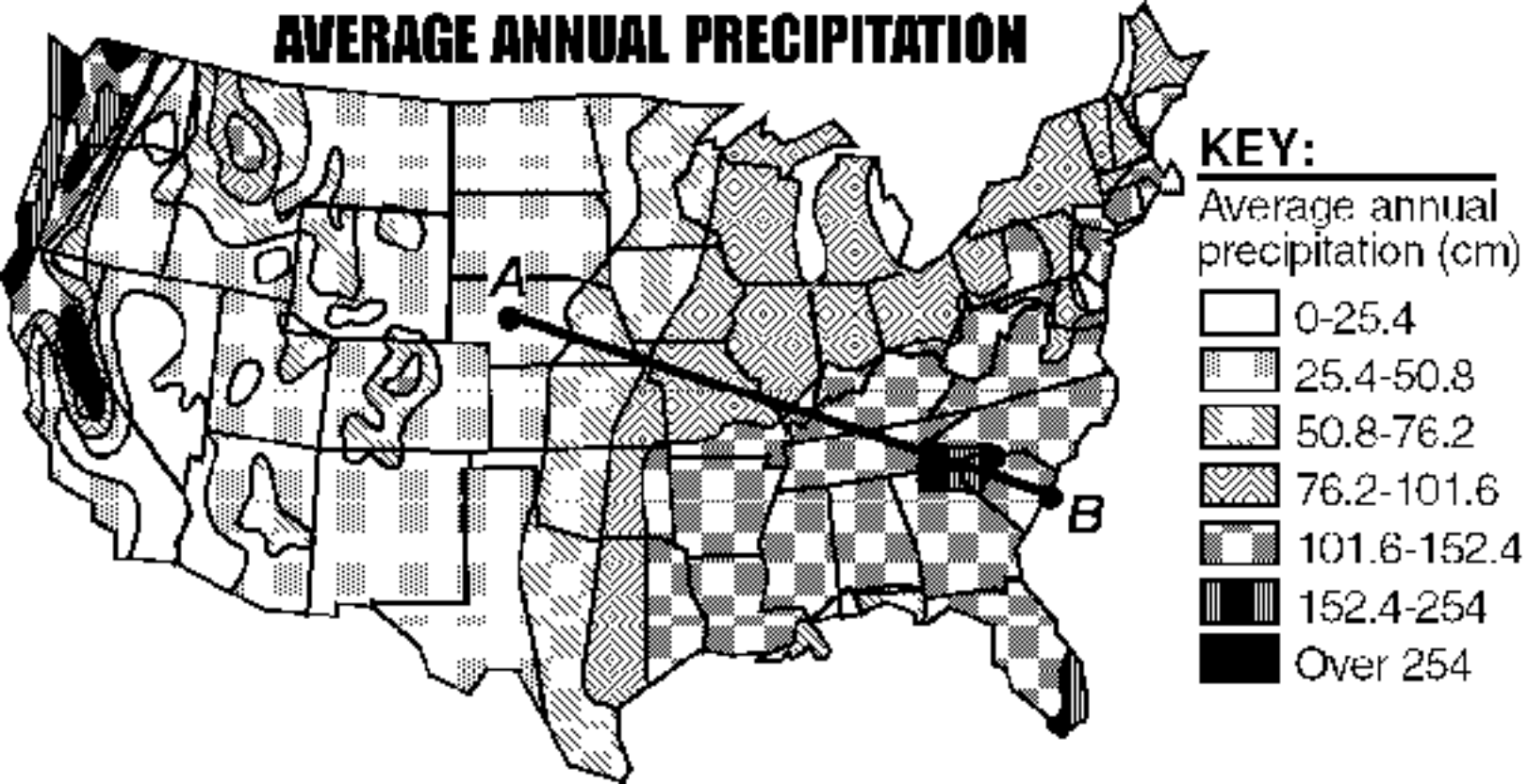


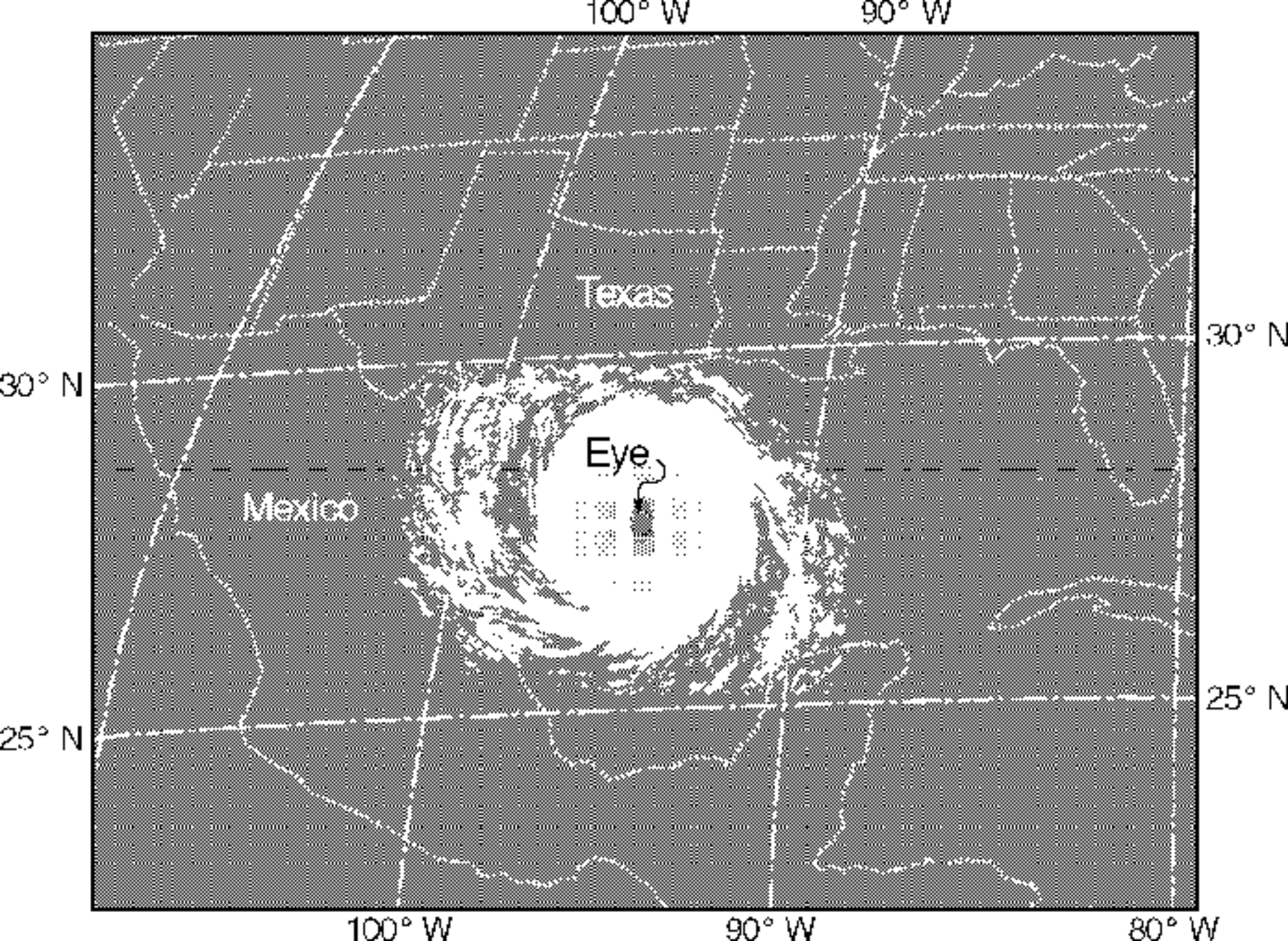


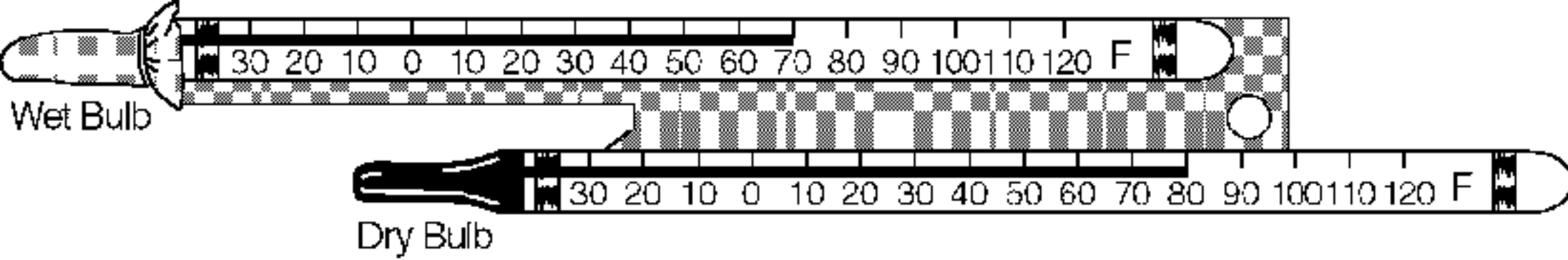




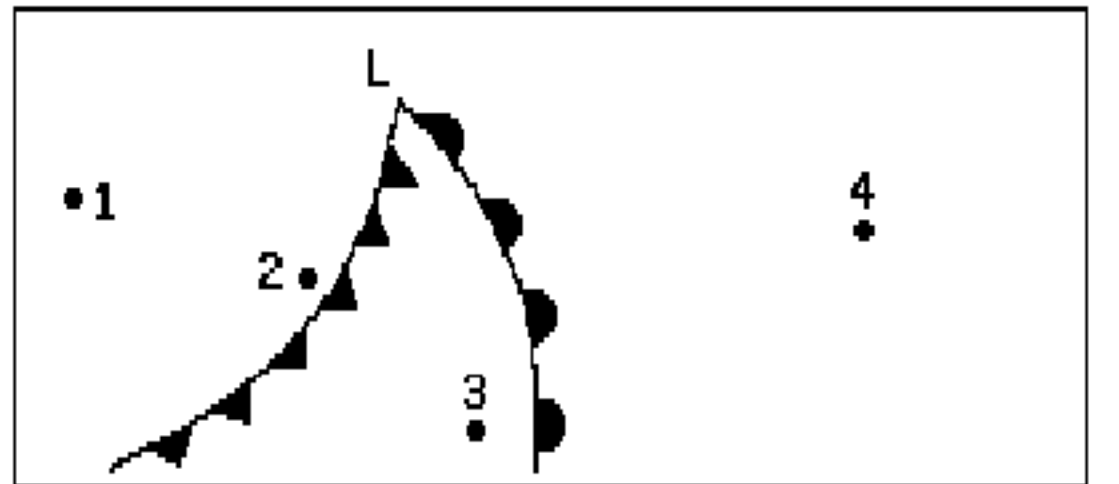
# AVERAGE ANNUAL PRECIPITATION



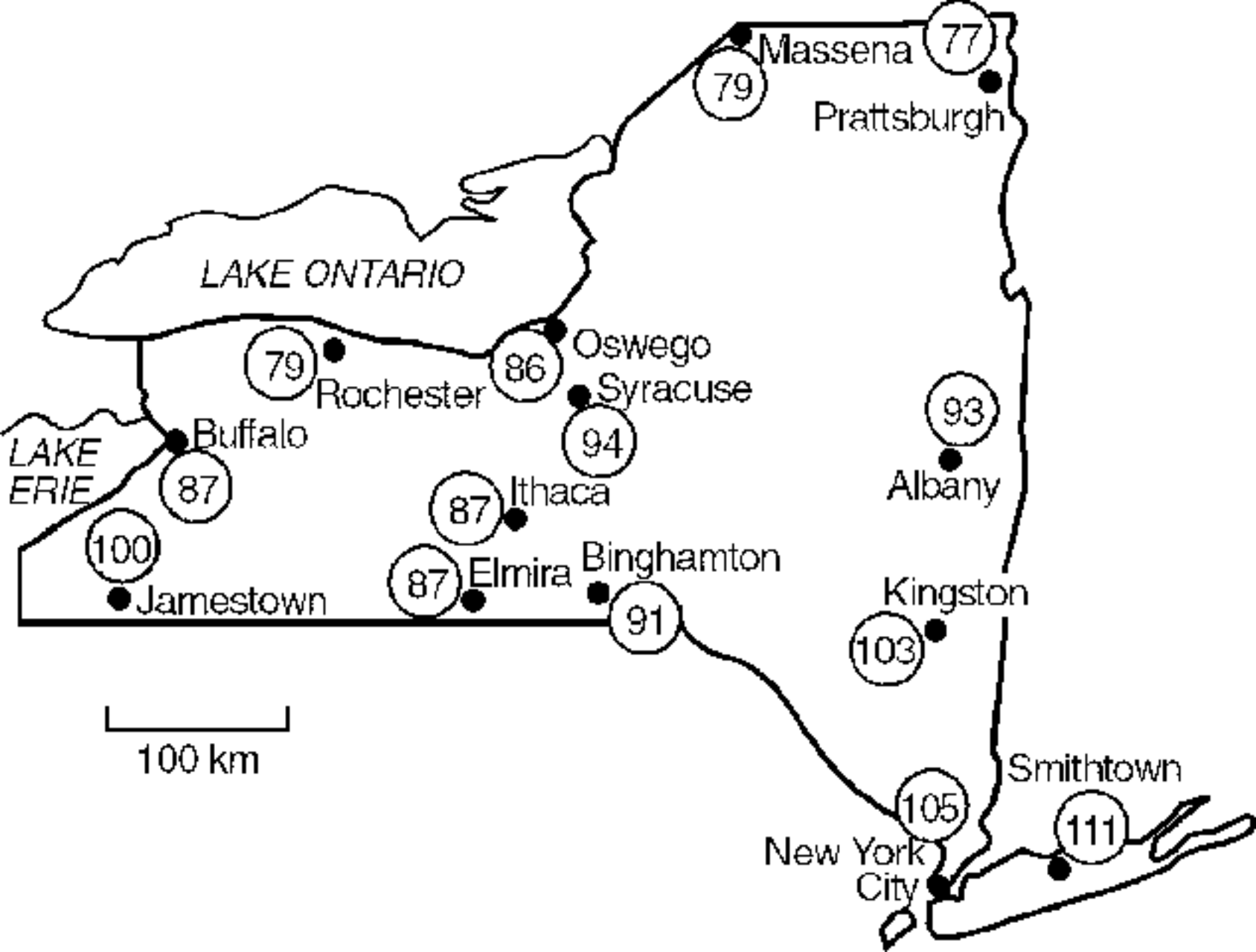




| Date                           | Nov.<br>9 | Nov.<br>10 | Nov.<br>11 | Nov.<br>12 | Nov.<br>13 | Nov.<br>14 | Nov.<br>15 |
|--------------------------------|-----------|------------|------------|------------|------------|------------|------------|
| Air<br>Temperature<br>(°C)     | 1         | 6          | 0          | -2         | -4         | 5          | 10         |
| Air<br>Pressure<br>(millibars) | 1024      | 998        | 1015       | 1021       | 1030       | 1013       | ?          |

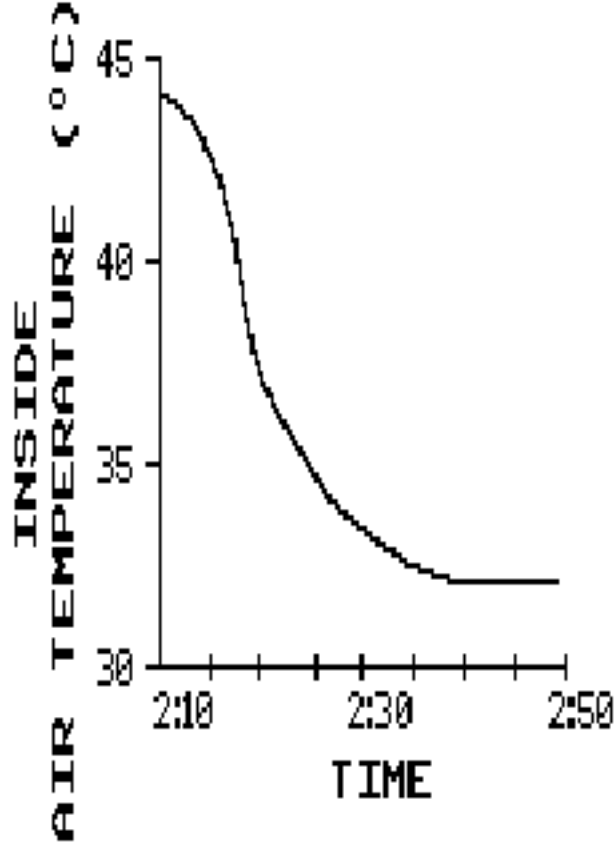


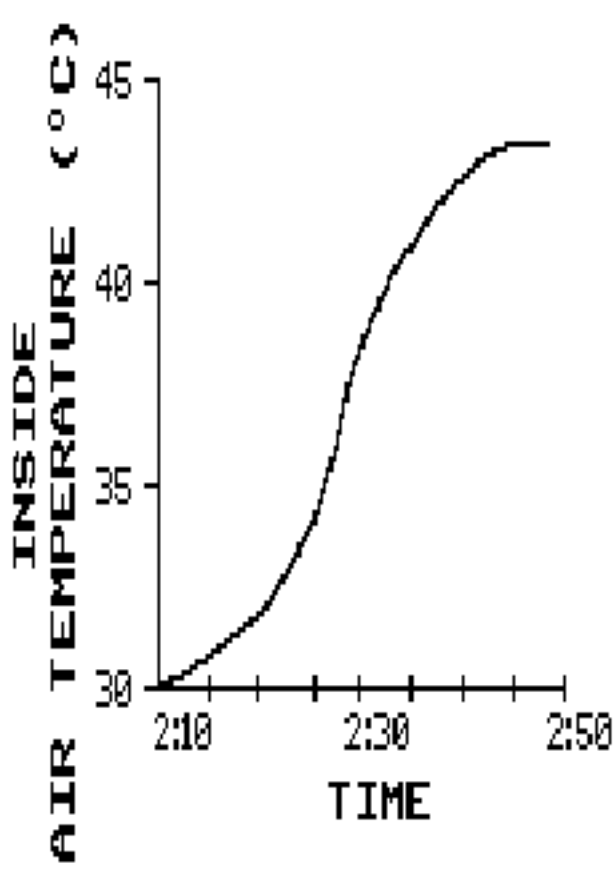
0 200 400 600  
Scale (kilometers)

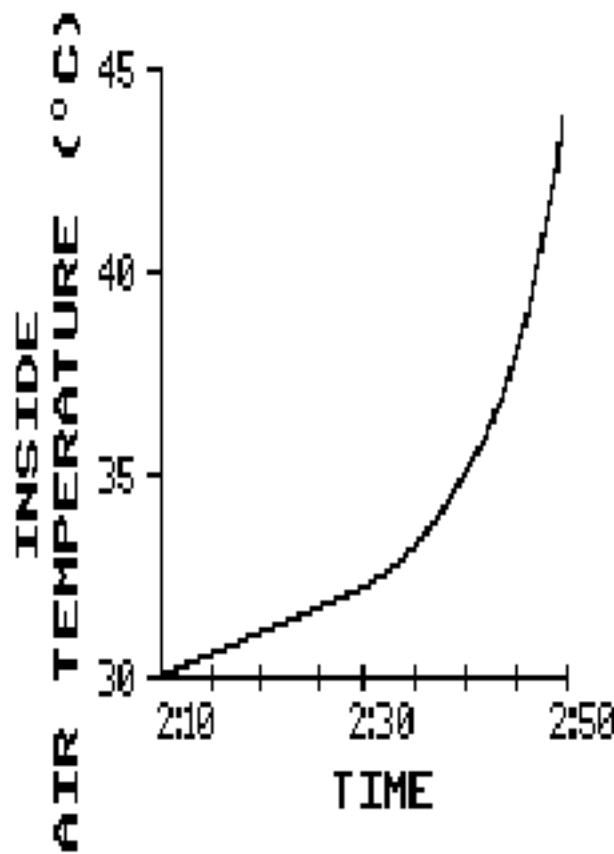


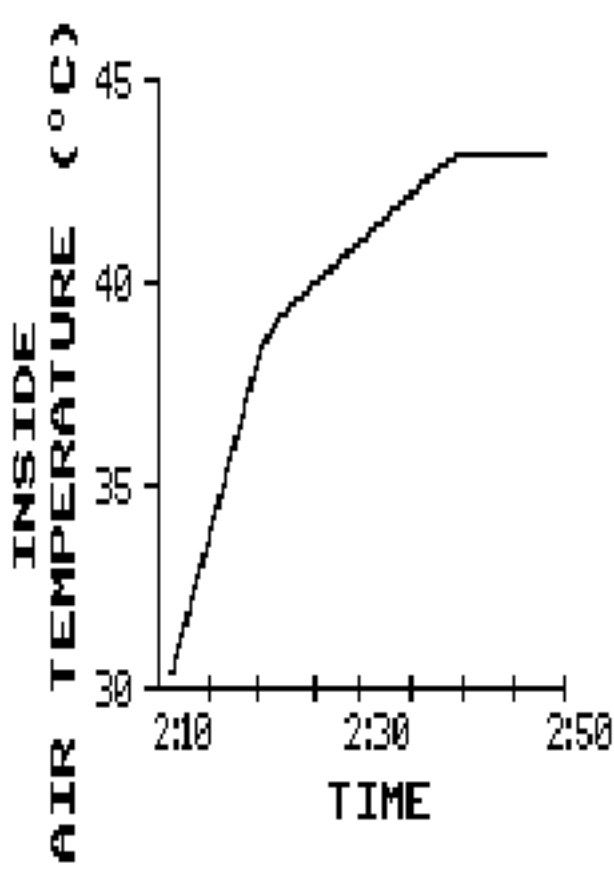
| Station | Elevation<br>(m) | Air Pressure<br>(mb) | Air Temperature<br>(°C) |
|---------|------------------|----------------------|-------------------------|
| 1       | SEA LEVEL        | 1,000                | 22                      |
| 2       | 200              | 980                  | 20                      |
| 3       | 400              | 960                  | 18                      |
| 4       | 600              | 940                  | 16                      |
| 5       | 800              | 920                  | 14                      |
| 6       | 1,000            | 900                  | 12                      |
| 7       | 1,200            | 880                  | 10                      |
| 8       | 1,400            | 860                  | 9                       |
| 9       | 1,600            | 840                  | 8                       |





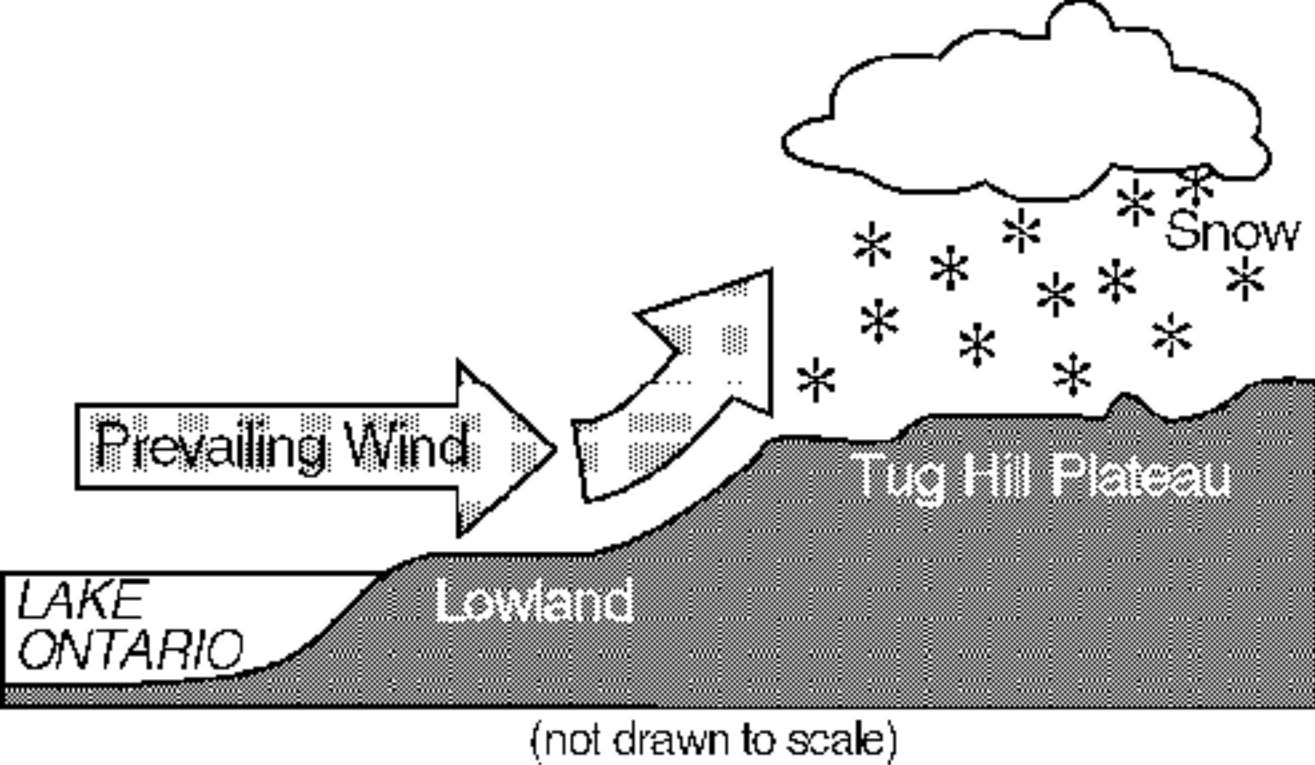


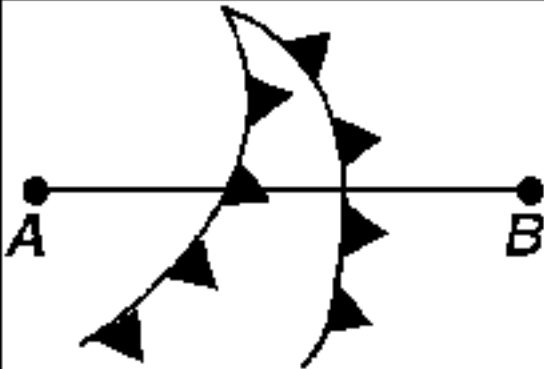




DATA TABLE

| Clock<br>Time (p.m.) | Air Temperature ( $^{\circ}\text{C}$ ) |        | Sky<br>Conditions |
|----------------------|----------------------------------------|--------|-------------------|
|                      | outside                                | inside |                   |
| 2:10                 | 24                                     | 30     | cloudy            |
| 2:15                 | 24                                     | 33     | cloudy            |
| 2:20                 | 24                                     | 38     | cloudy            |
| 2:25                 | 24                                     | 40     | cloudy            |
| 2:30                 | 24                                     | 41     | cloudy            |
| 2:35                 | 24                                     | 42     | sunny             |
| 2:40                 | 24                                     | 43     | cloudy            |
| 2:45                 | 24                                     | 43     | cloudy            |
| 2:50                 | 24                                     | 43     | cloudy            |

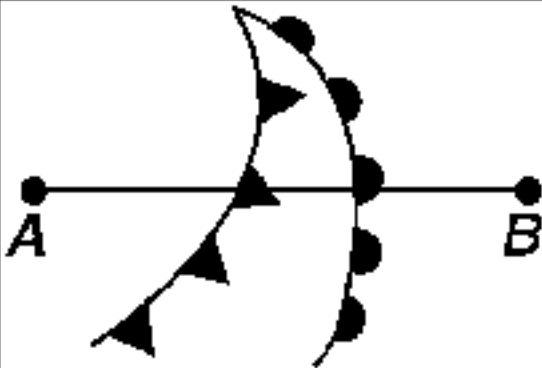


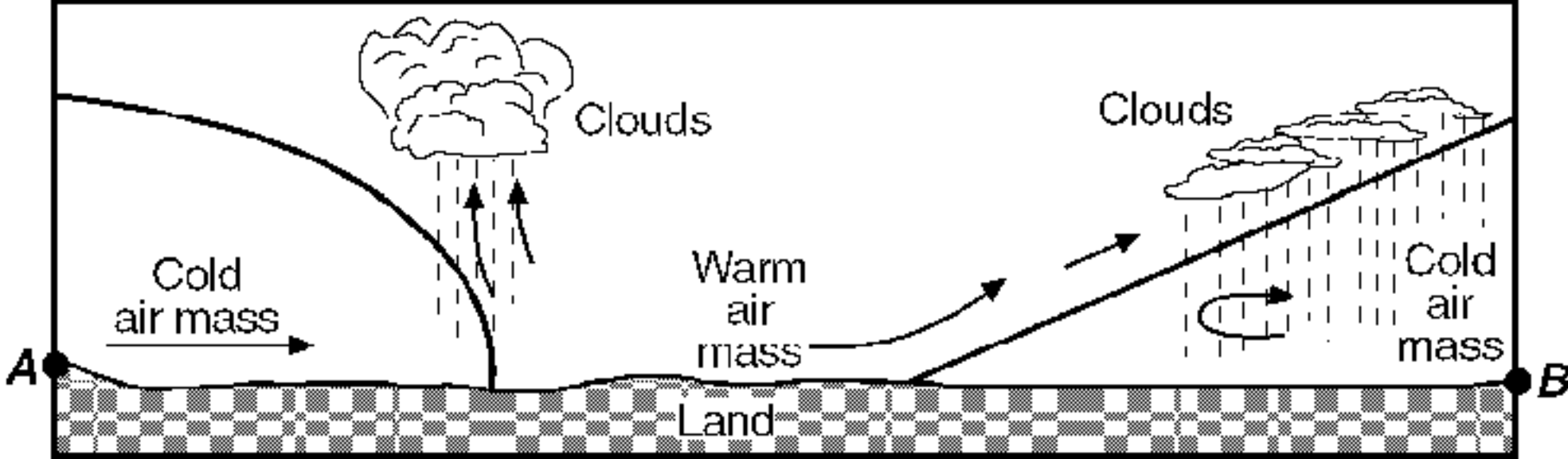




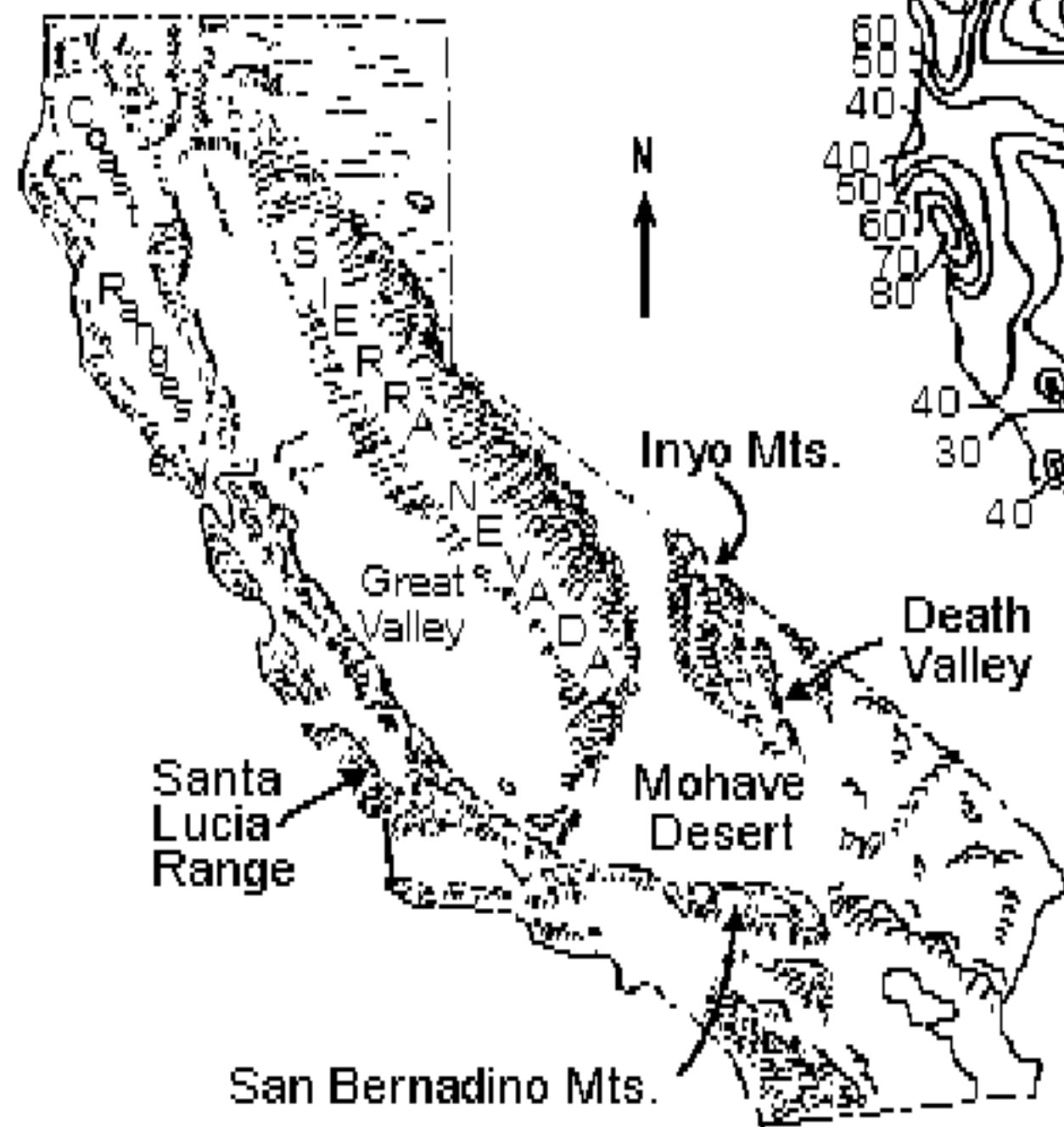




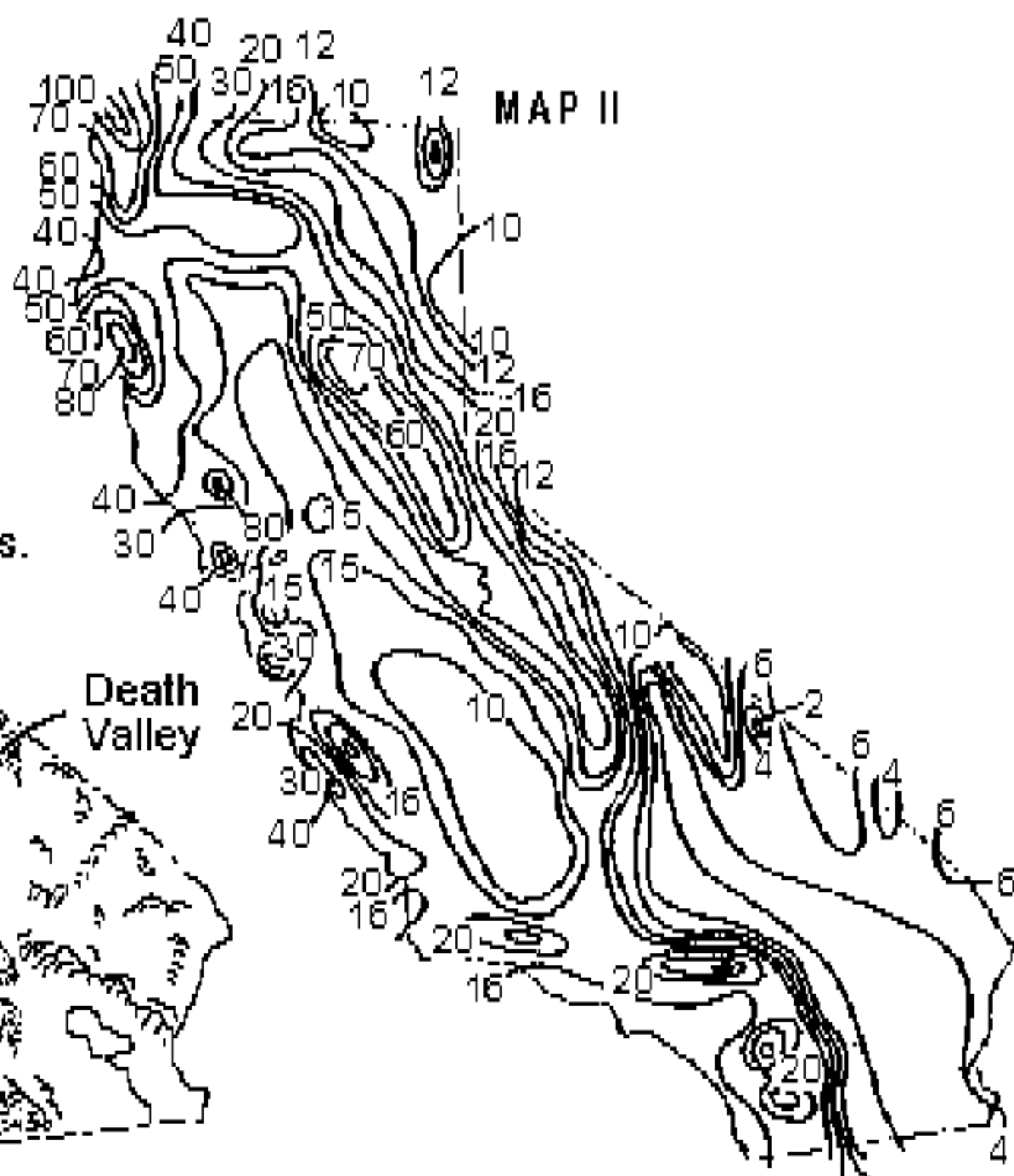


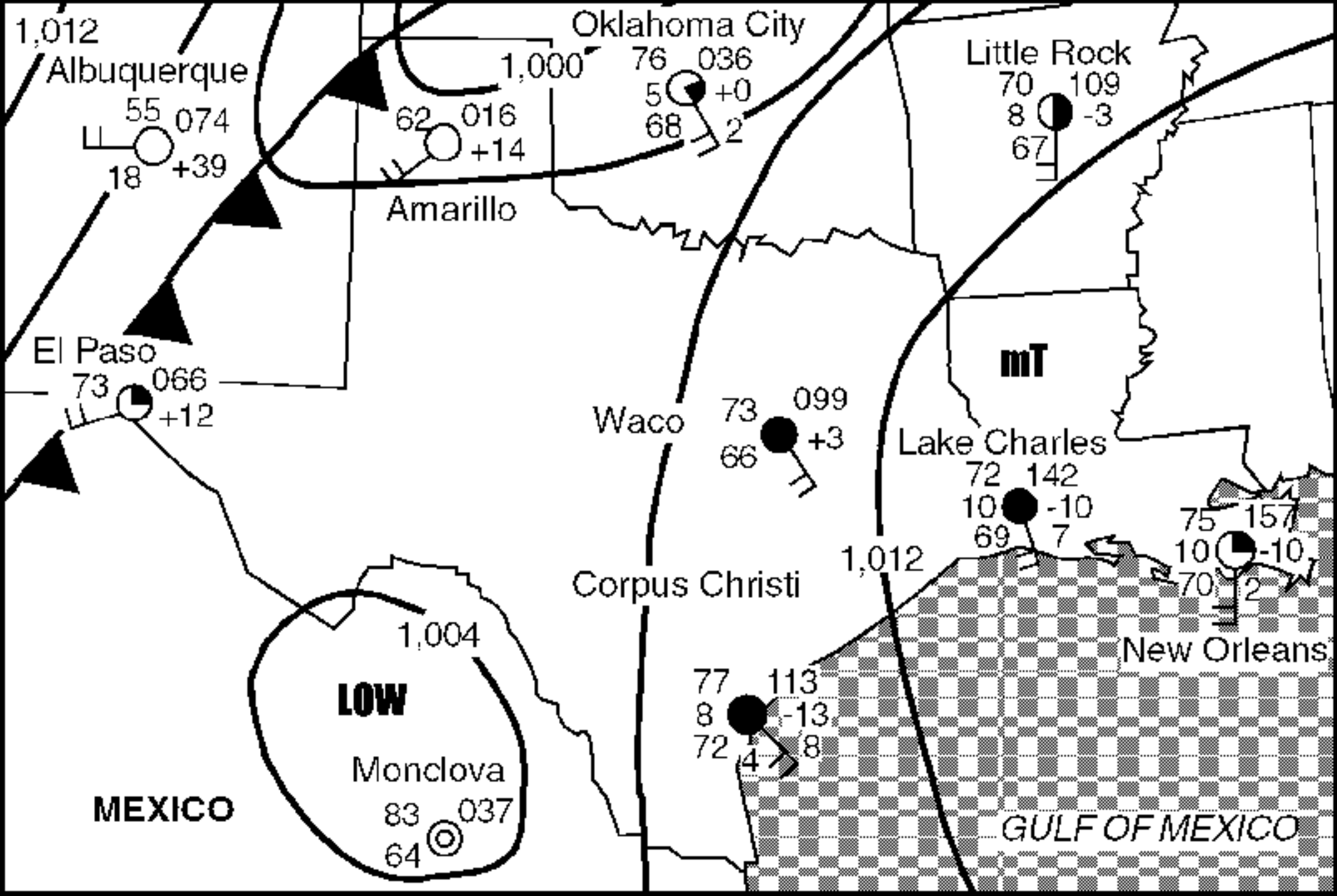


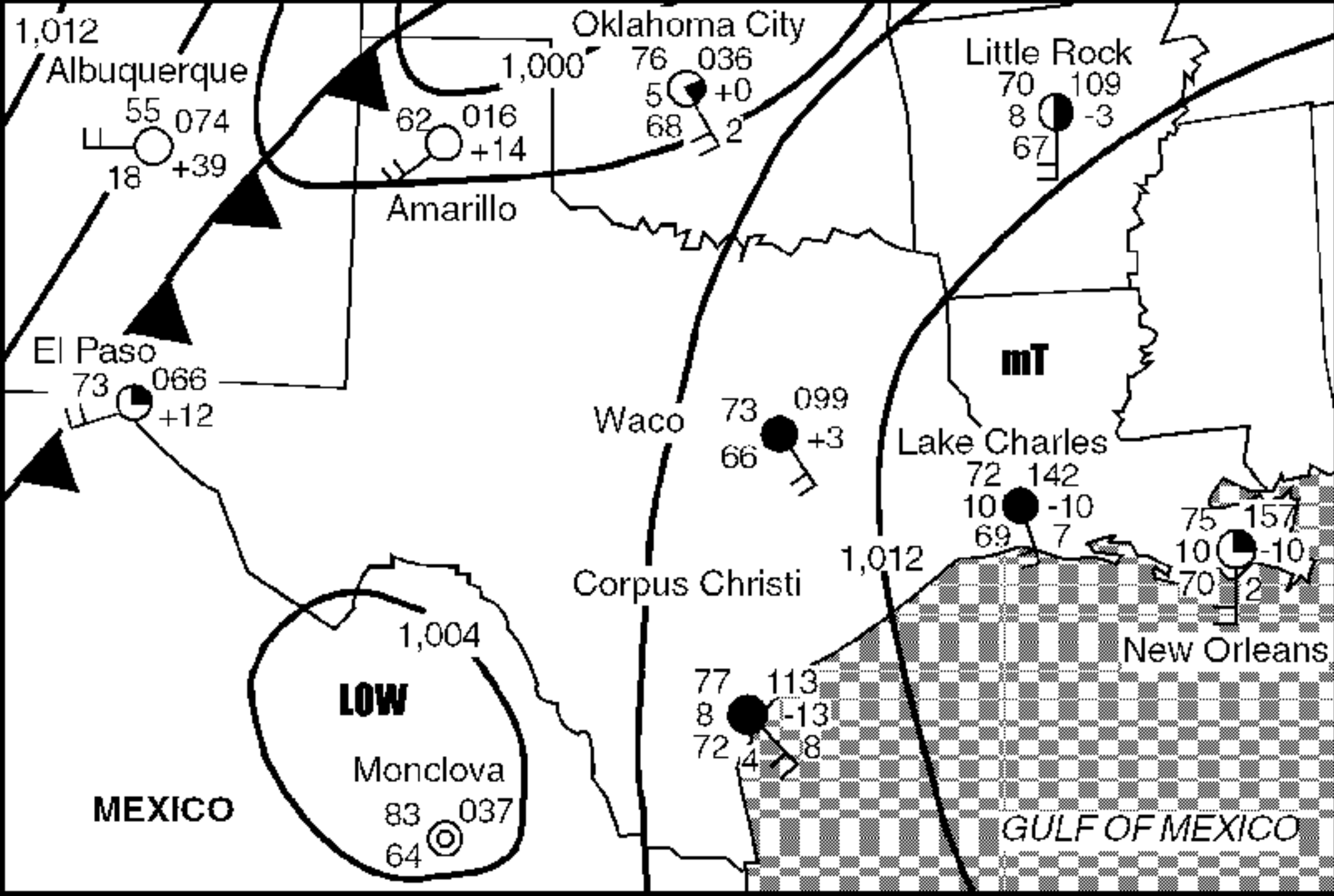
MAP I

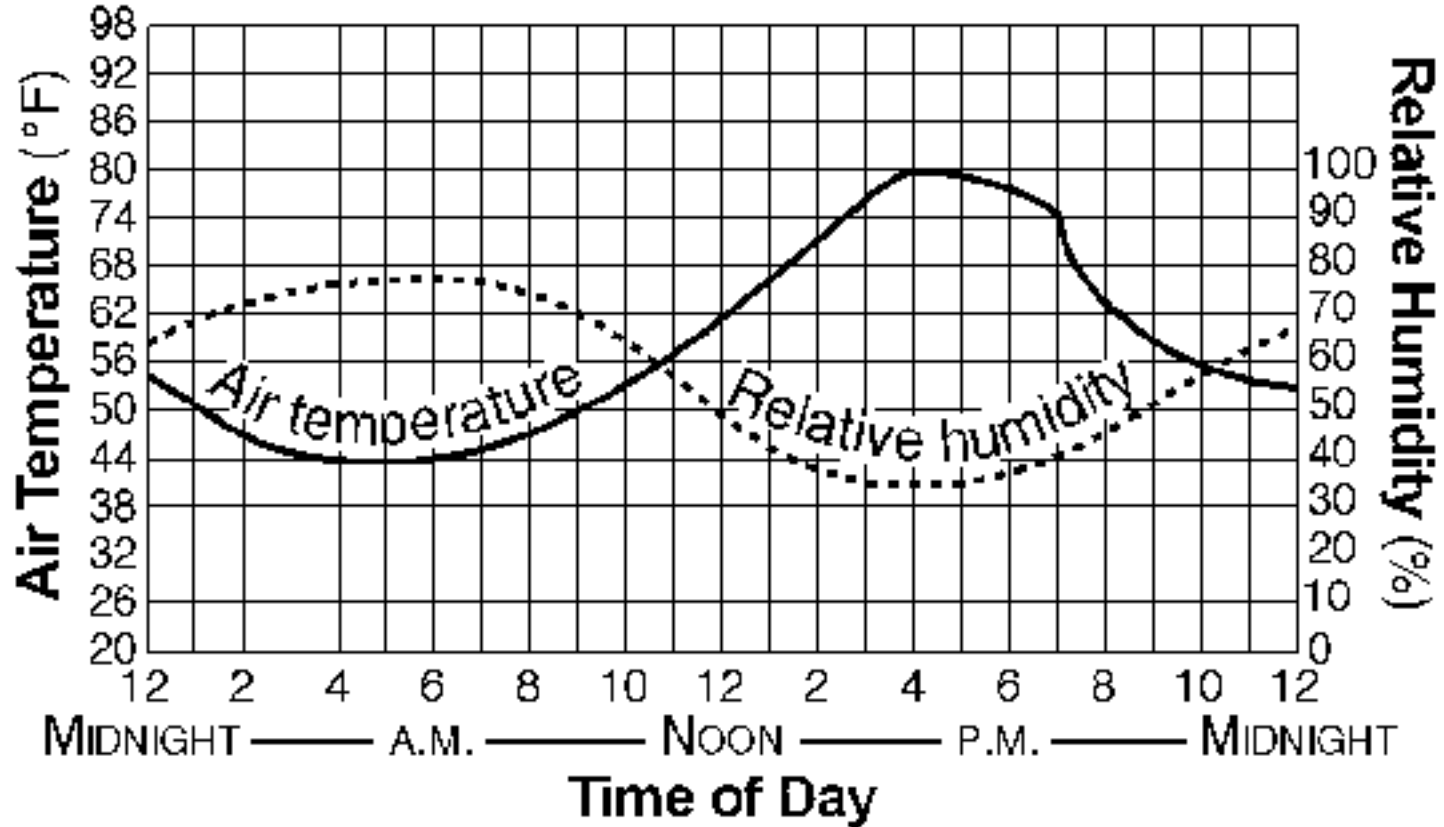


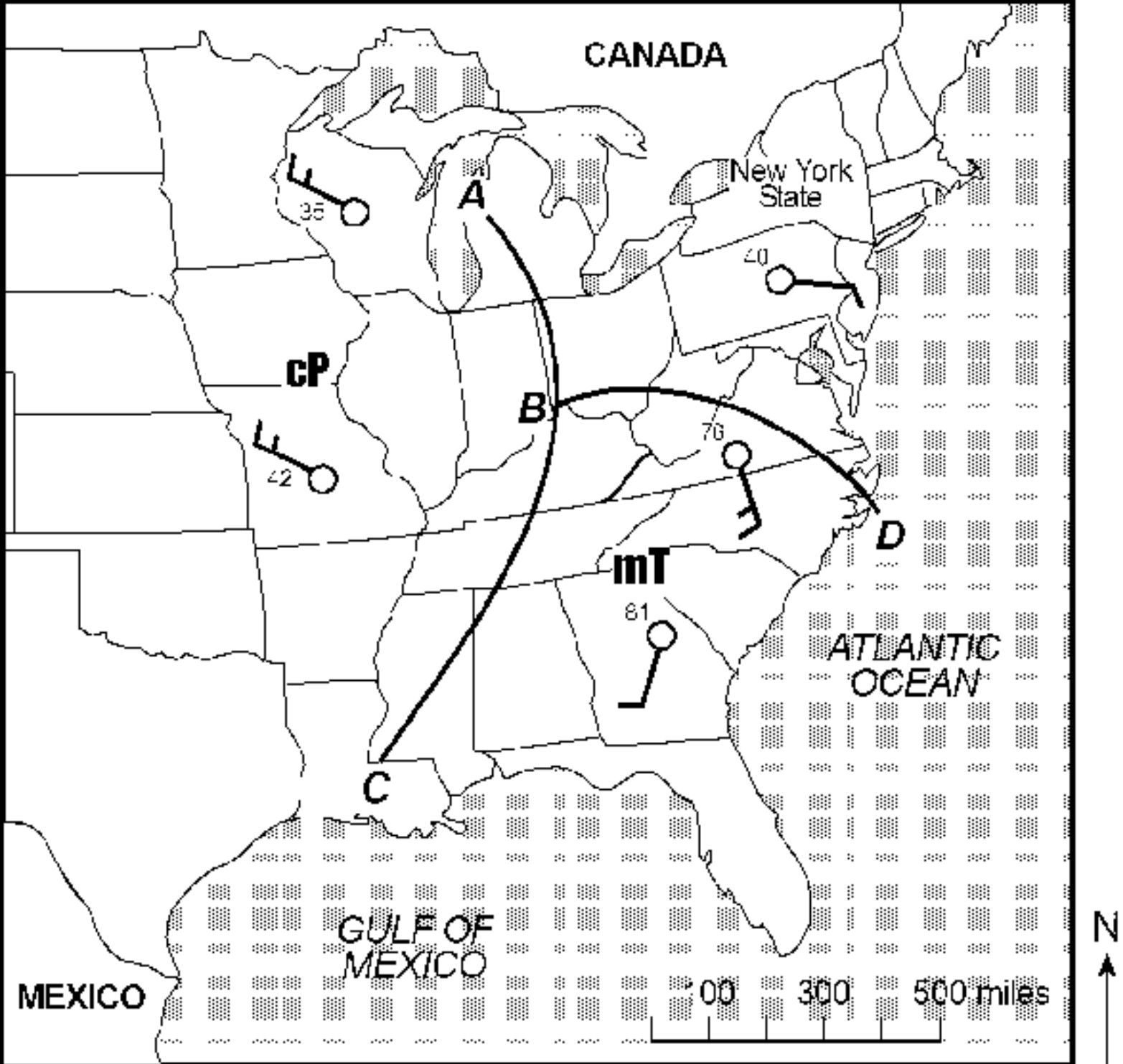
MAP II



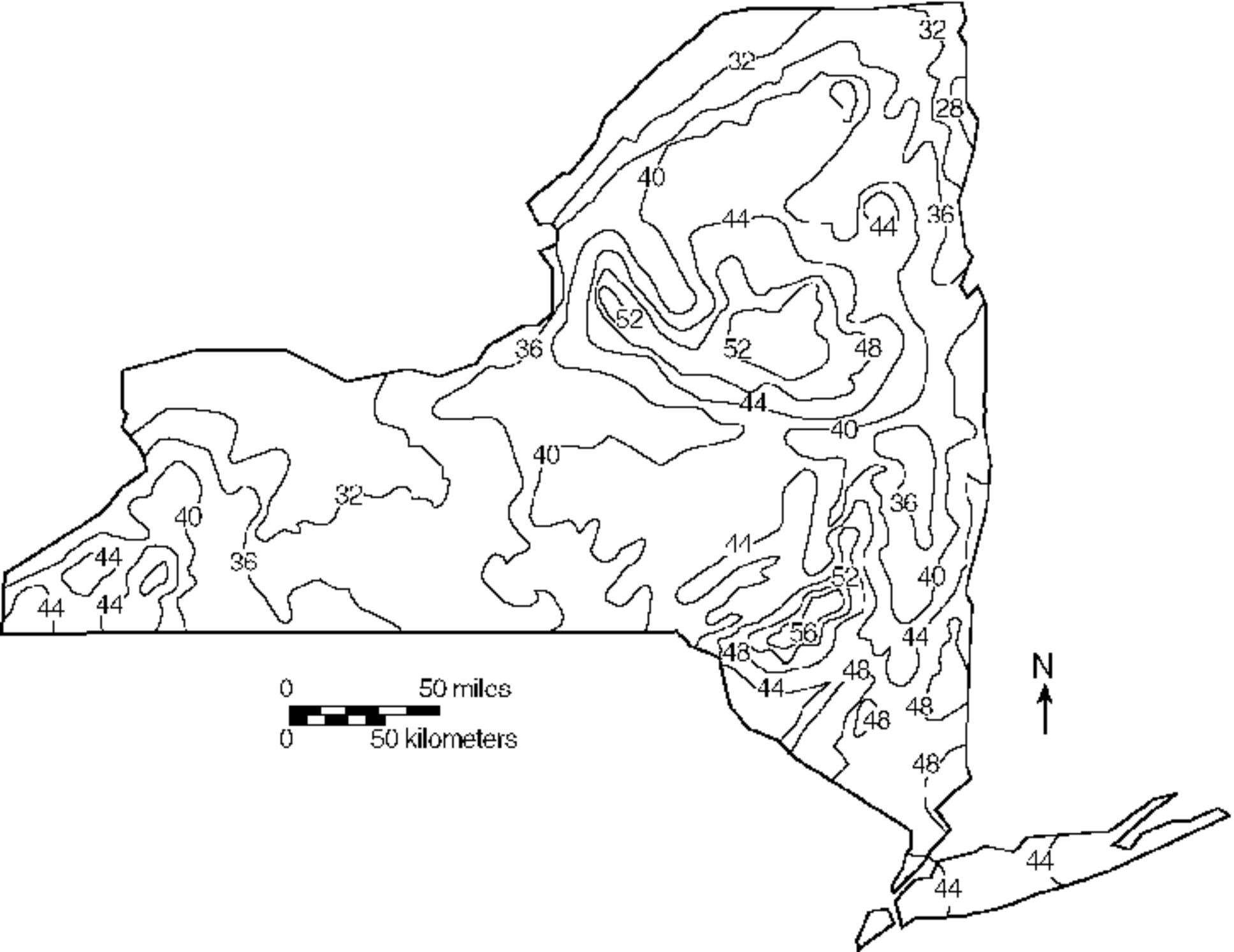


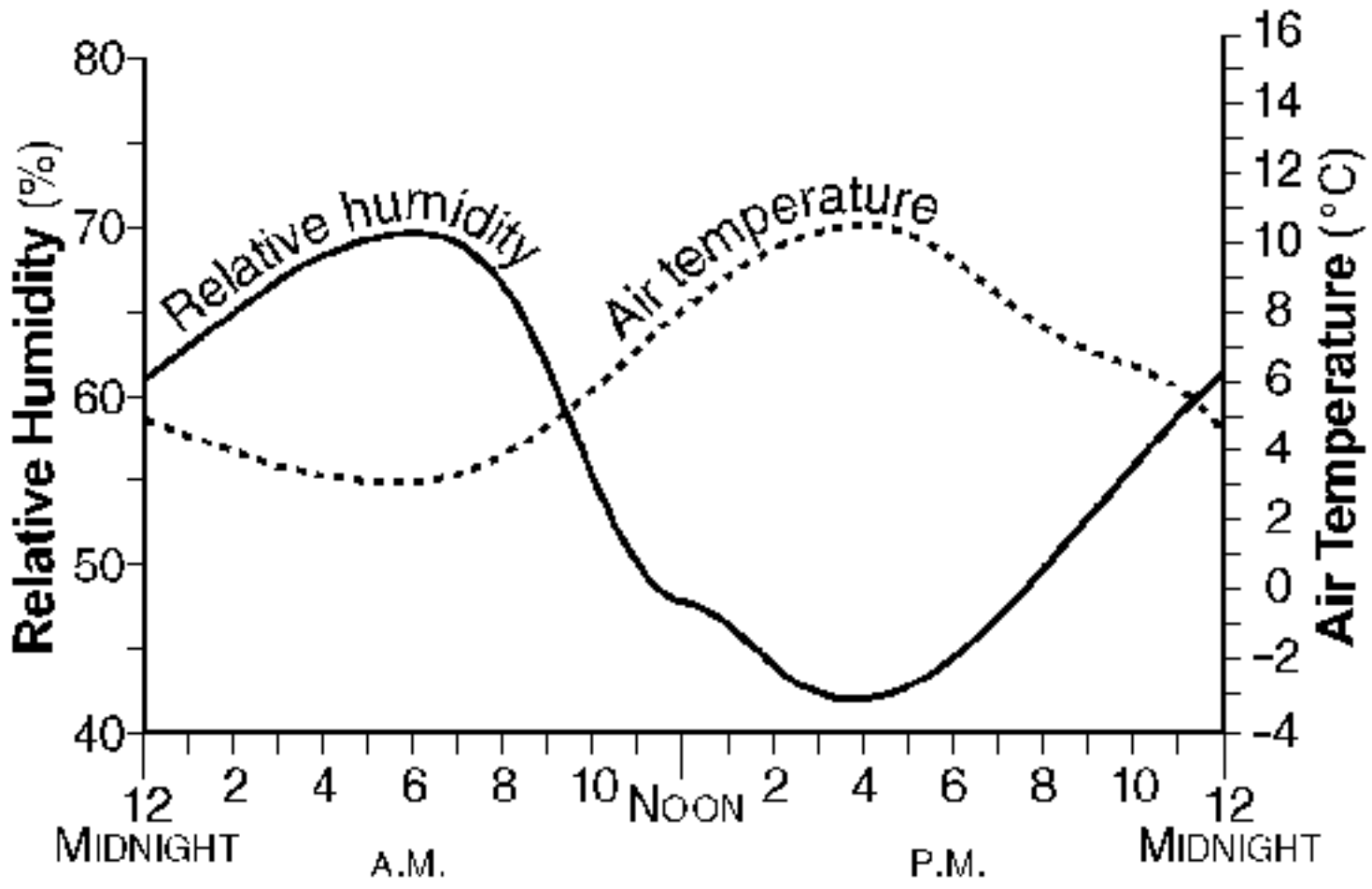




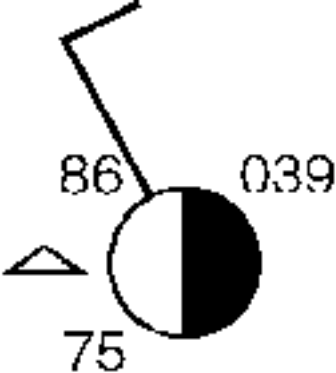








| Location | Dry-Bulb Temperature ( $^{\circ}\text{C}$ ) | Wet-Bulb Temperature ( $^{\circ}\text{C}$ ) |
|----------|---------------------------------------------|---------------------------------------------|
| <i>A</i> | 13                                          | 9                                           |
| <i>B</i> | 18                                          | 15                                          |
| <i>C</i> | 23                                          | 21                                          |
| <i>D</i> | 28                                          | 27                                          |



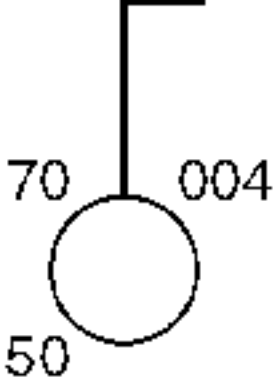
32

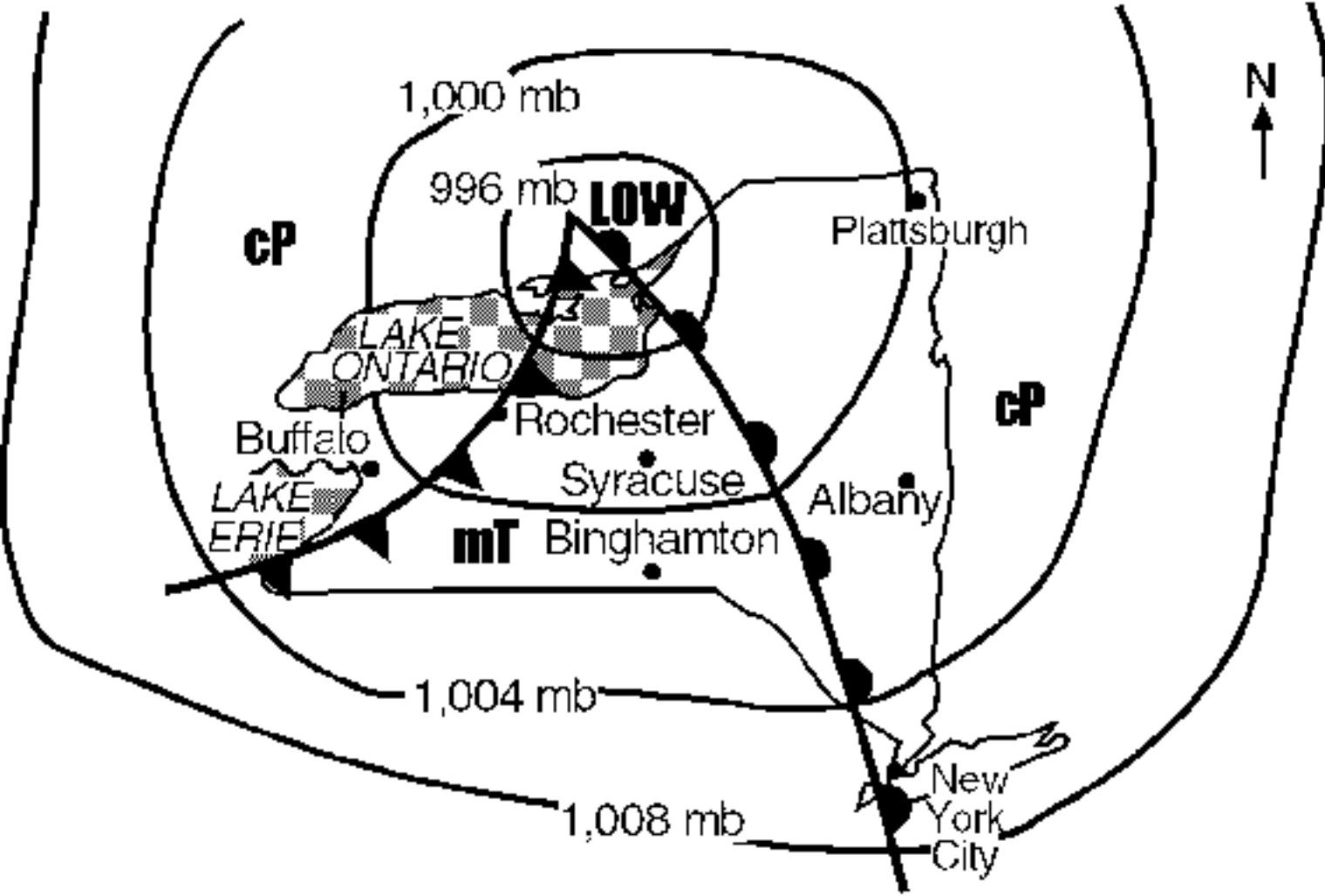
020

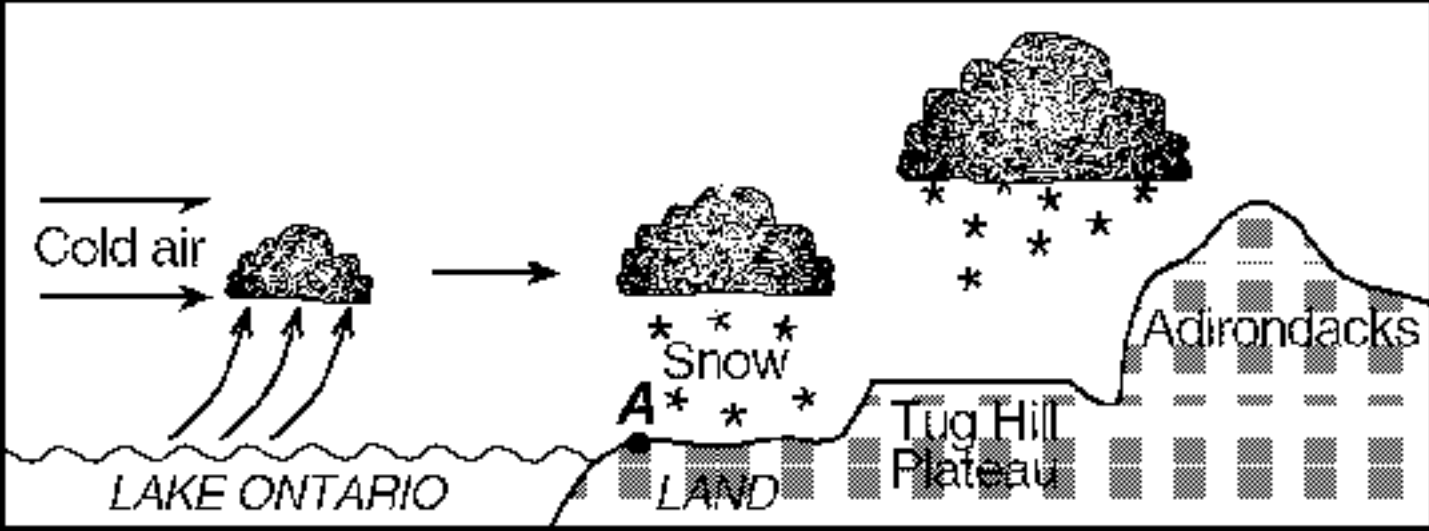
=

10









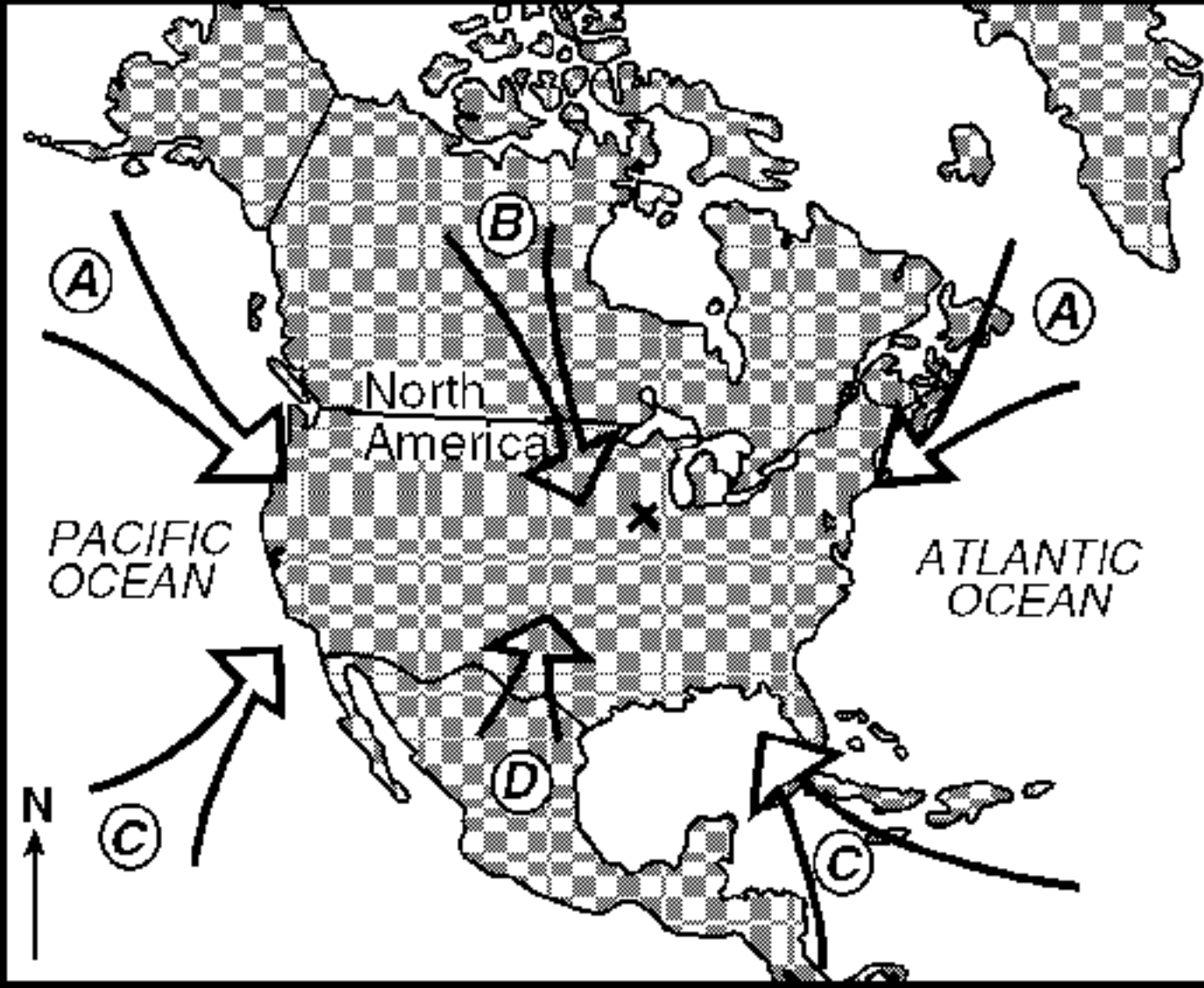


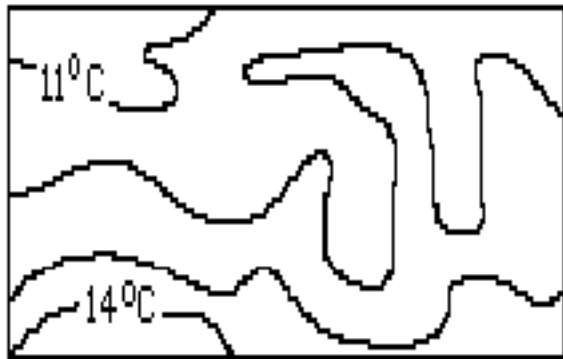




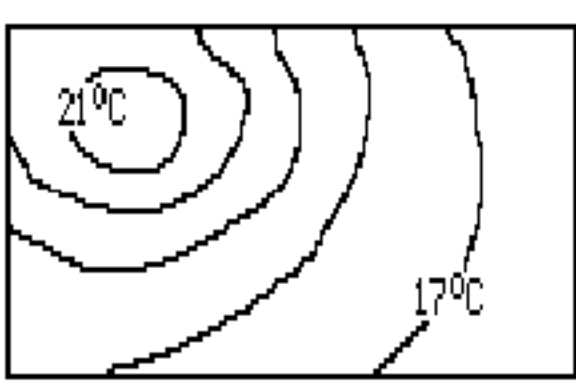




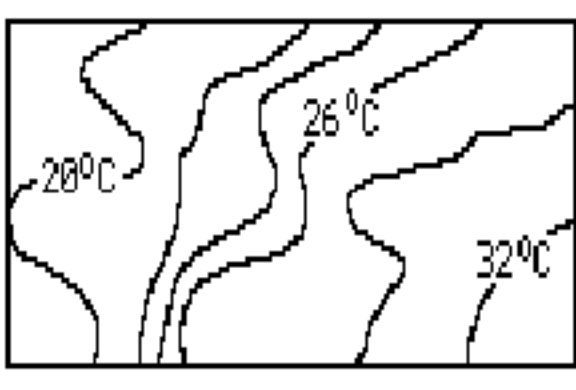


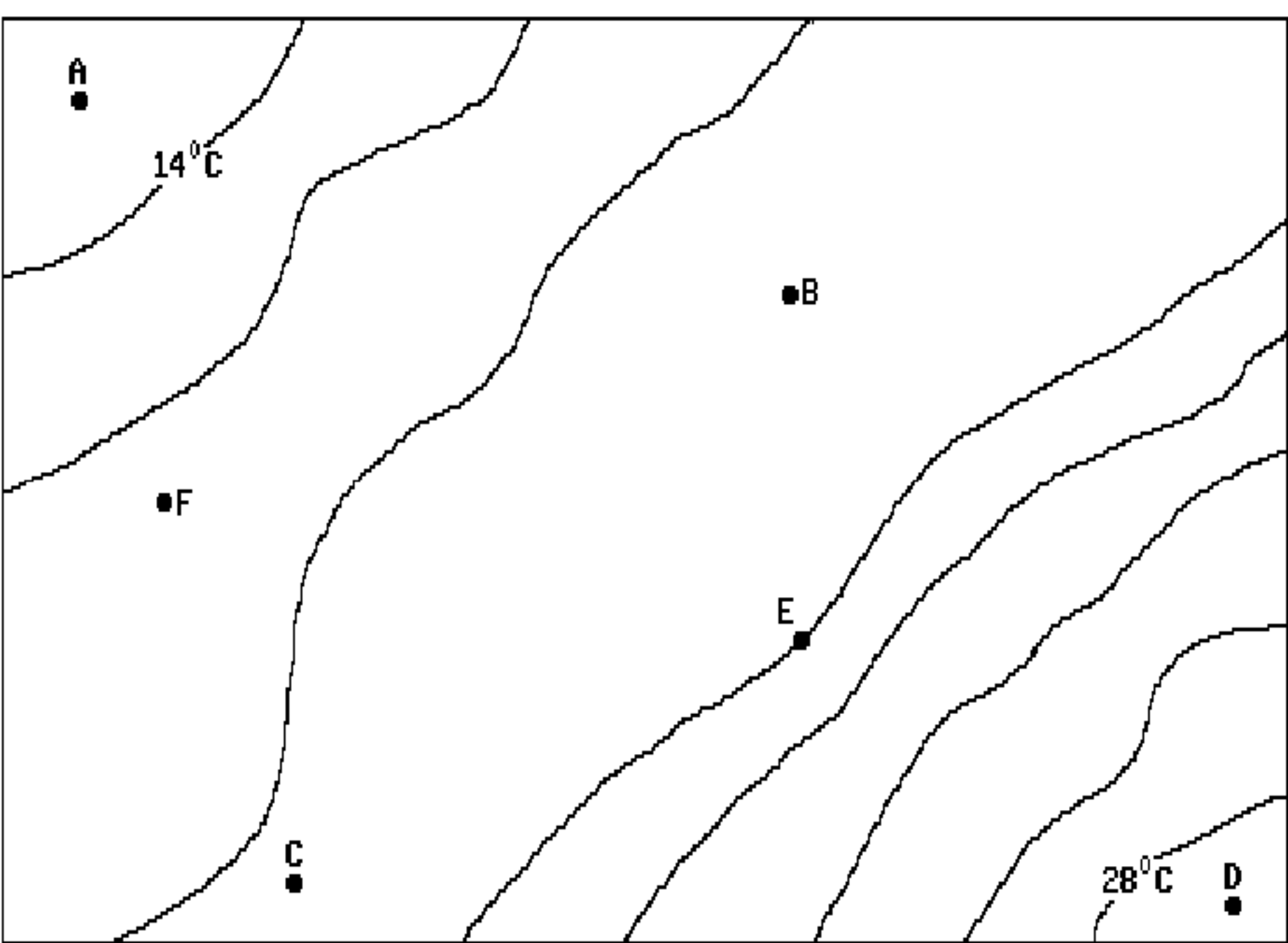












FRONTAL SURFACE



FRONTAL SURFACE

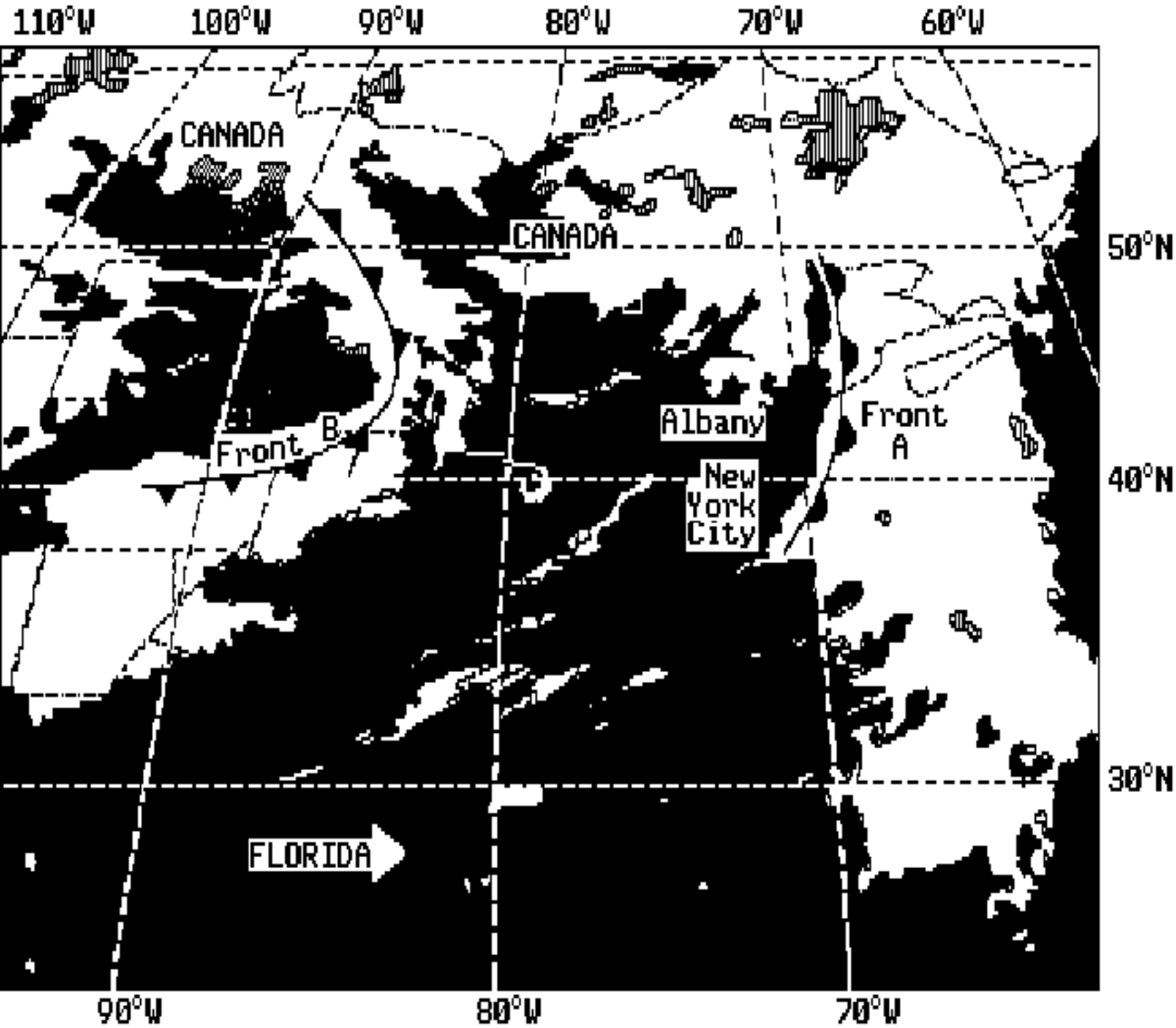


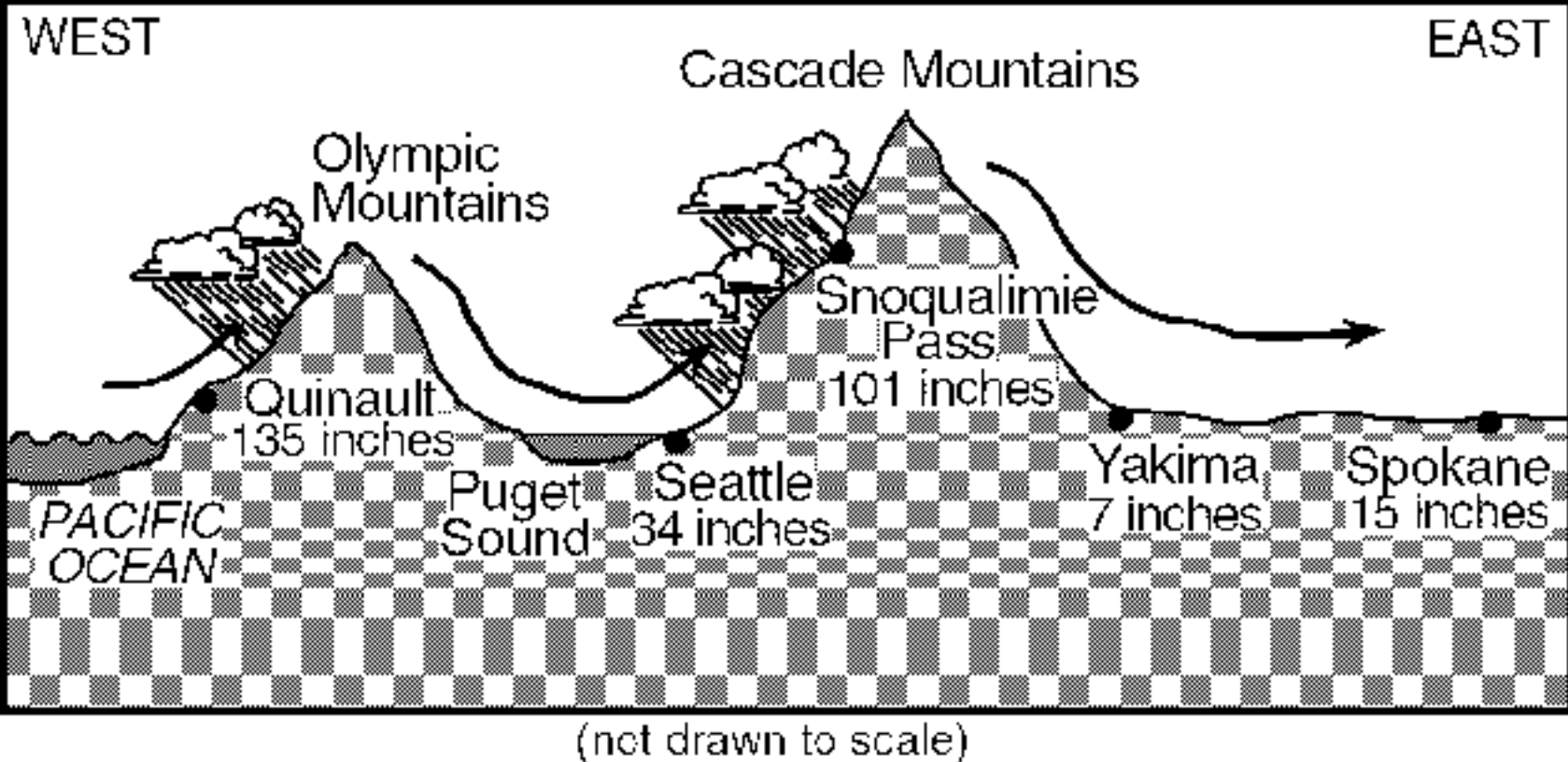
# FRONTAL SURFACE



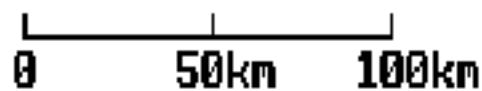
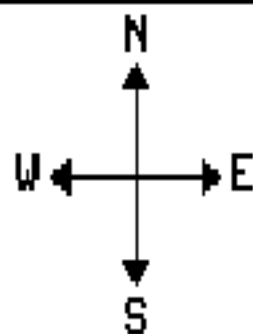
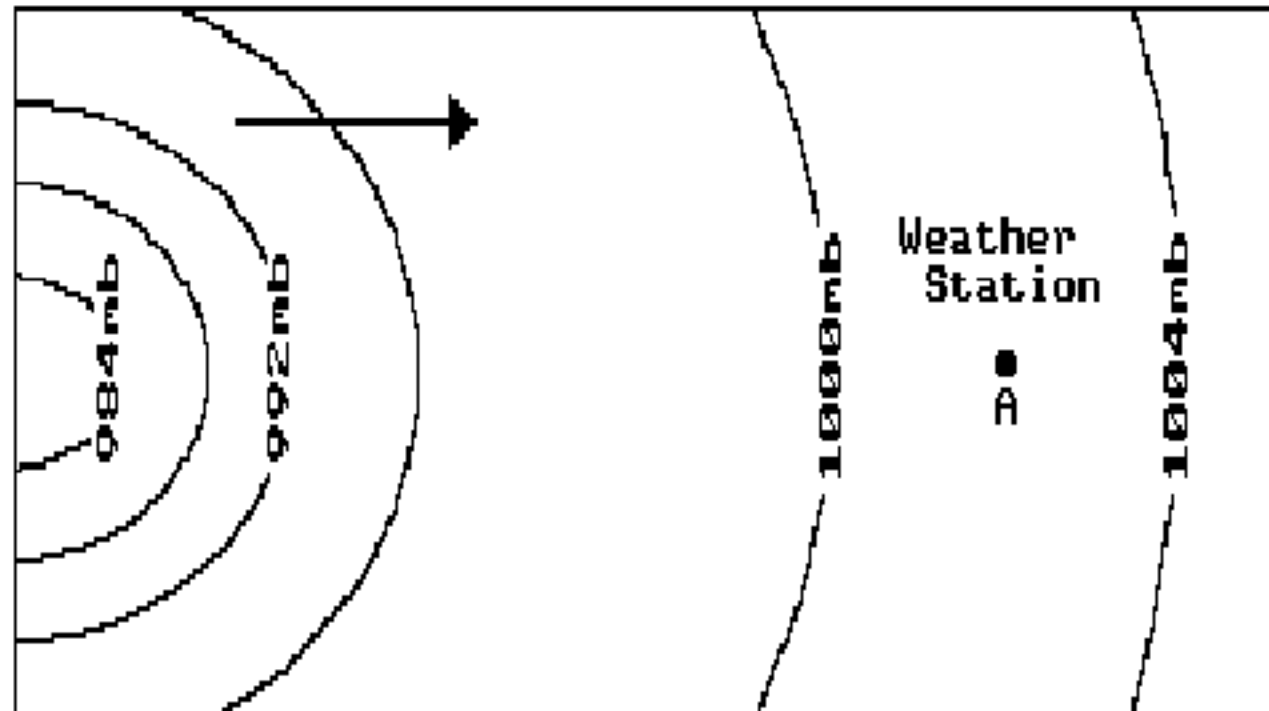
FRONTAL SURFACE

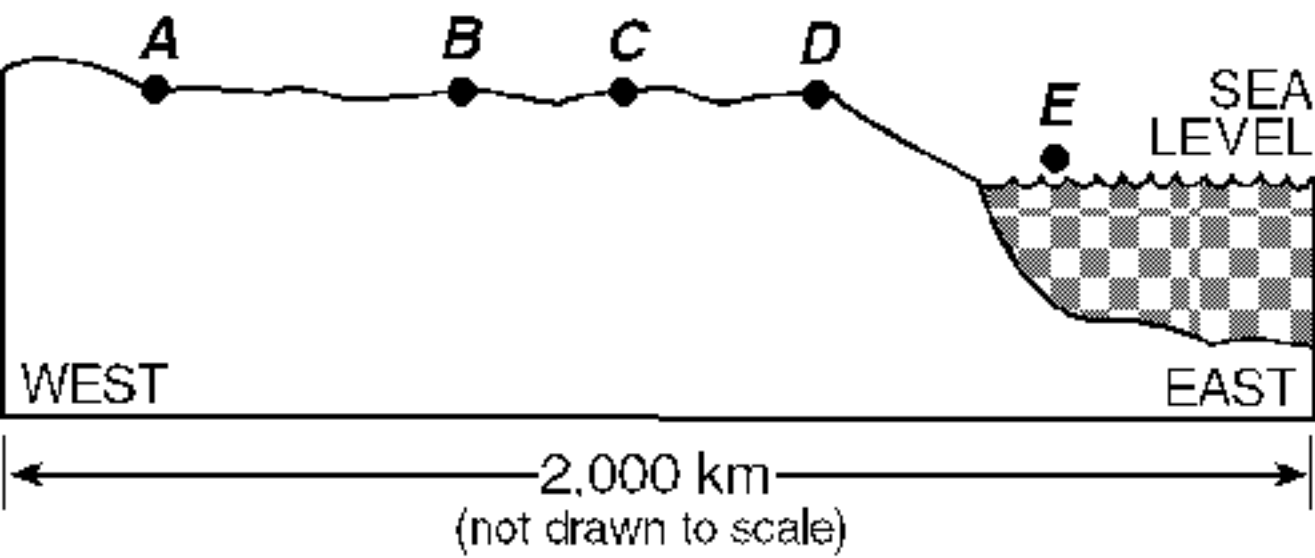


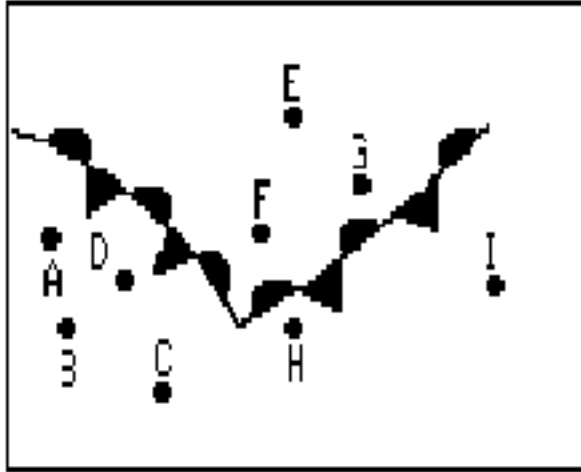


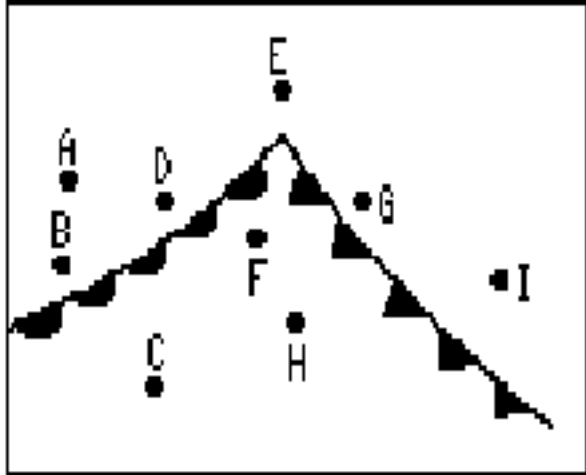




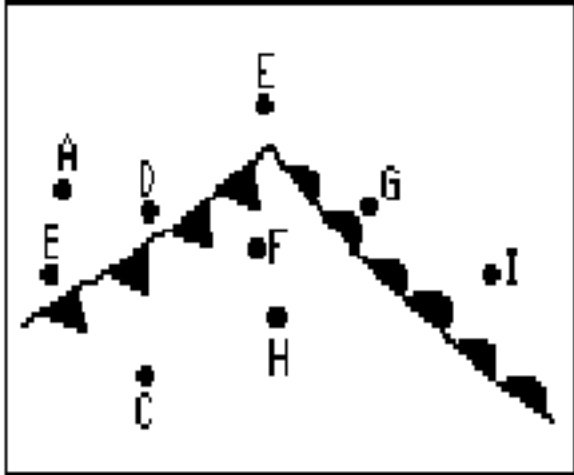


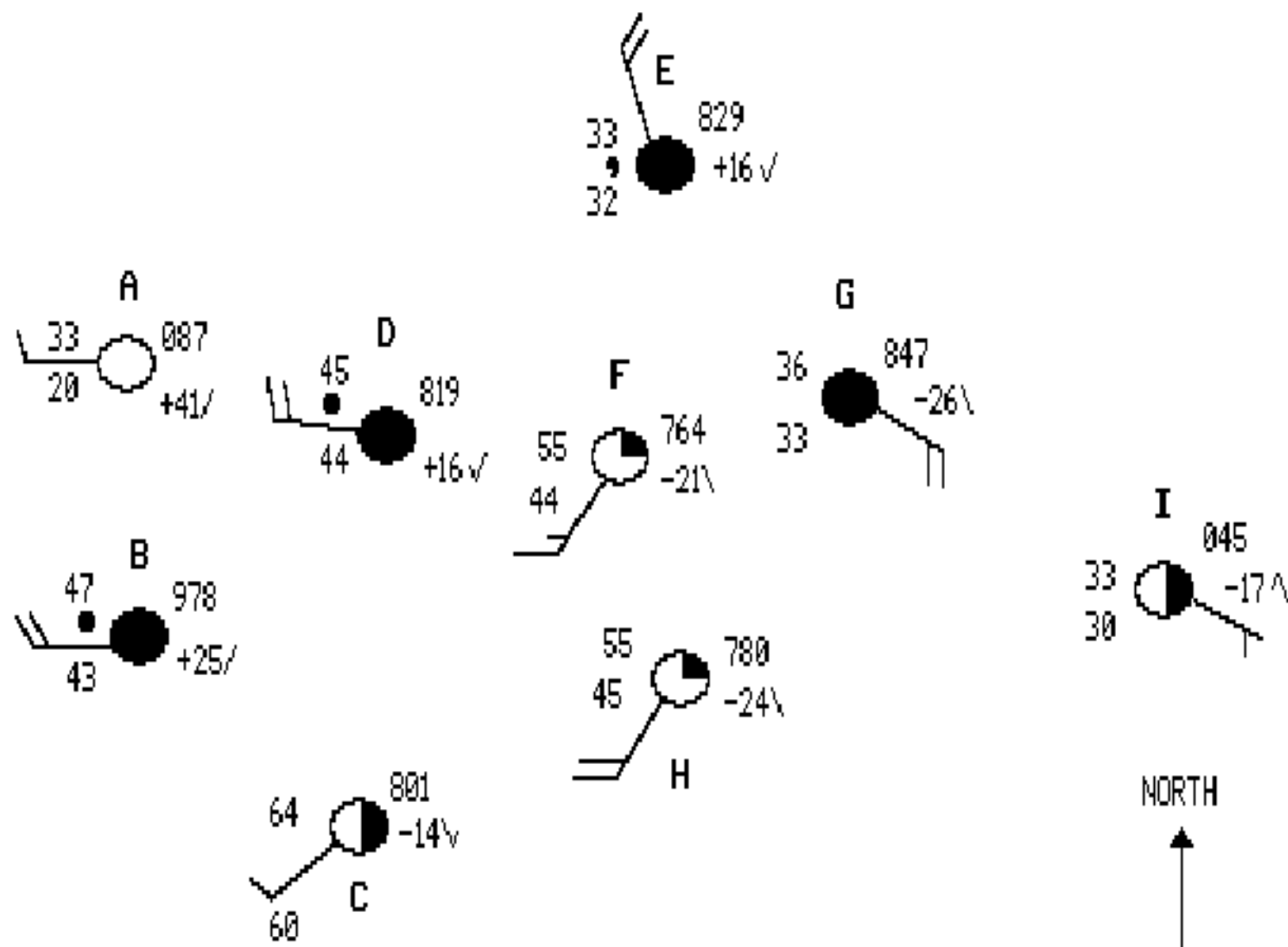






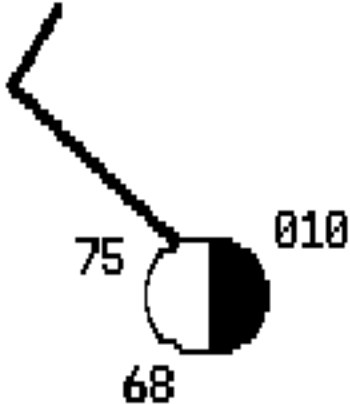






| Station | Elevation<br>(m) | Air Pressure<br>(mb) | Air Temperature<br>(°C) |
|---------|------------------|----------------------|-------------------------|
| 1       | SEA LEVEL        | 1,000                | 22                      |
| 2       | 200              | 980                  | 20                      |
| 3       | 400              | 960                  | 18                      |
| 4       | 600              | 940                  | 16                      |
| 5       | 800              | 920                  | 14                      |
| 6       | 1,000            | 900                  | 12                      |
| 7       | 1,200            | 880                  | 10                      |
| 8       | 1,400            | 860                  | 9                       |
| 9       | 1,600            | 840                  | 8                       |





68

064

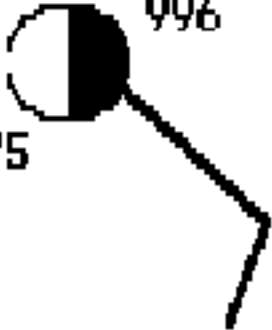
75

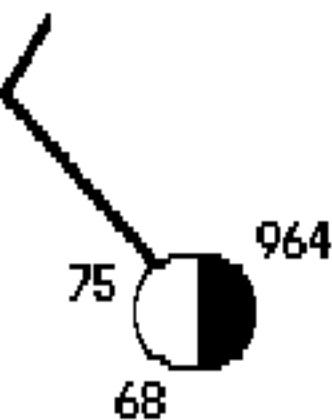


68

996

75

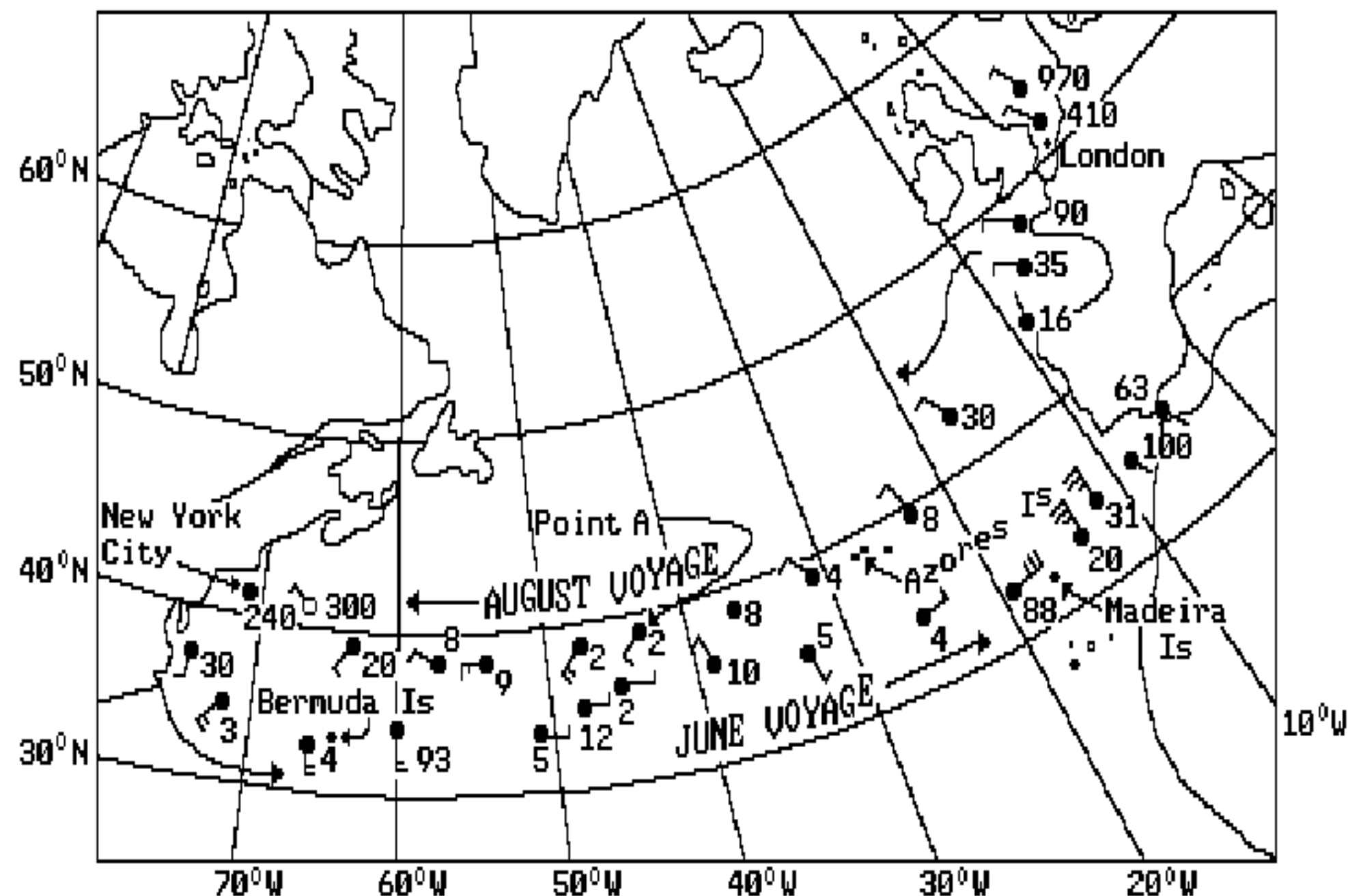




DATA TABLE

|                     | Temperature<br>(to nearest<br>degree) | Air<br>Pressure<br>(mb) | Dewpoint<br>(to nearest<br>degree) | Wind<br>Direction and<br>Speed (knots) |
|---------------------|---------------------------------------|-------------------------|------------------------------------|----------------------------------------|
| 9 a.m.<br>Monday    | 24°C (75°F)                           | 996.4                   | 20°C (68°F)                        | NW<br>10                               |
| 9 a.m.<br>Tuesday   | 20°C (68°F)                           | 962.4                   | 19°C (66°F)                        | SSE<br>25                              |
| 9 a.m.<br>Wednesday | 17°C (63°F)                           | 1013.8                  | 12°C (54°F)                        | W<br>15                                |
| 9 a.m.<br>Thursday  | 7°C (45°F)                            | 1020.2                  | -2°C (28°F)                        | N<br>10                                |

# CONDENSATION NUCLEI MAP



## KEY TO MAP SYMBOLS:



← wind velocity

← wind direction

4

number of condensation  
nuclei per  $\text{cm}^3$  ( $\times 10^2$ )

