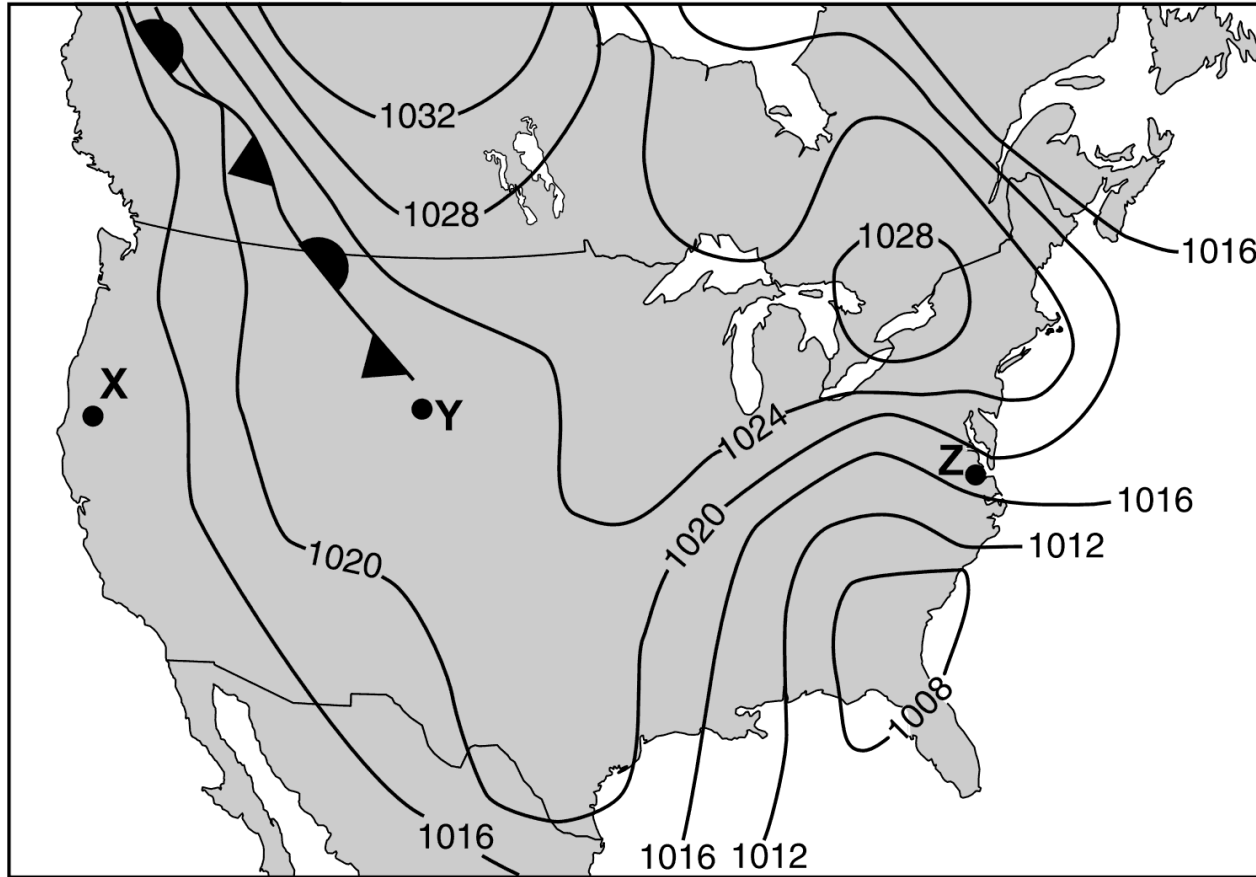


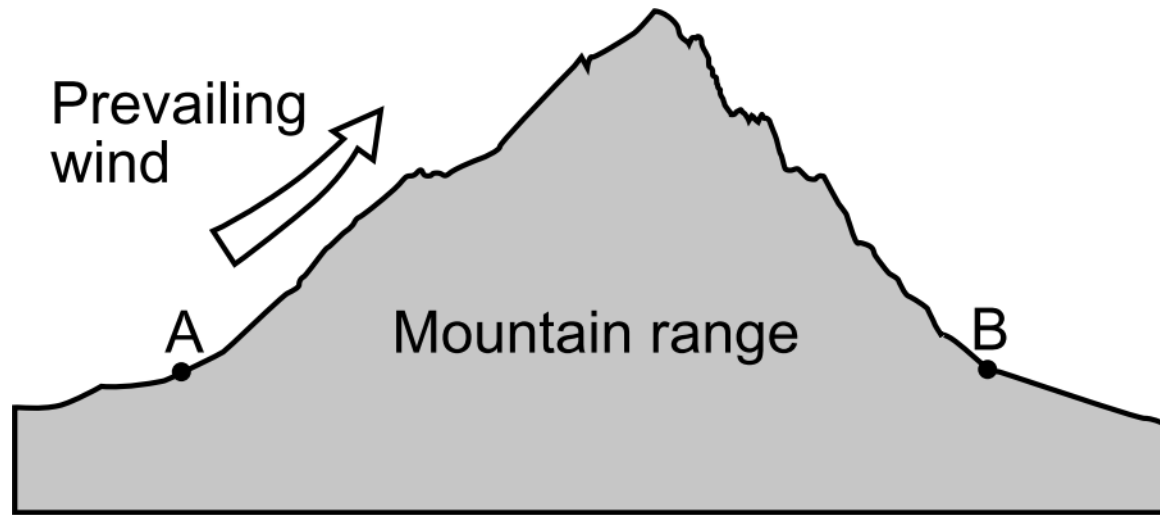
Base your answers to the following questions on the map below and on your knowledge of Earth science. The map shows typical weather systems over North America. Letters X, Y, and Z represent locations on the map. The isobars on the map are measured in millibars (mb).



Which type of front extends northwest from location Y?

- Ⓐ warm front      Ⓑ cold front      Ⓒ occluded front      Ⓓ stationary front

The cross section below represents a mountain range. Points *A* and *B* represent locations on Earth's surface.



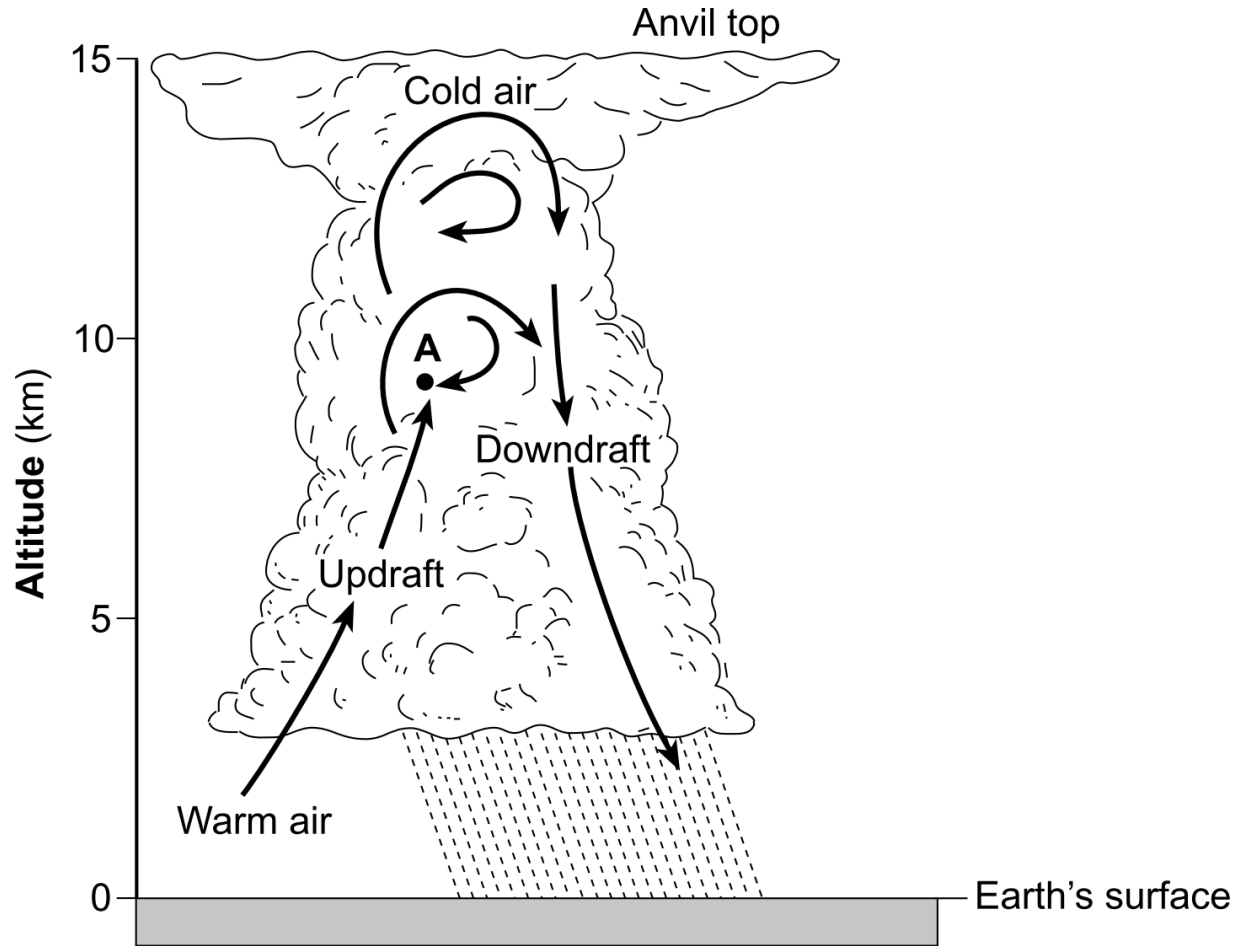
Compared to the climate of location *A*, the climate of location *B* is most likely

- Ⓐ cooler and wetter
- Ⓑ cooler and drier
- Ⓒ warmer and wetter
- Ⓓ warmer and drier

As altitude increases in the troposphere and stratosphere, the air temperature

- Ⓐ decreases in the troposphere and increases in the stratosphere
- Ⓑ decreases in both the troposphere and stratosphere
- Ⓒ increases in the troposphere and decreases in the stratosphere
- Ⓓ increases in both the troposphere and stratosphere

Base your answers to the following questions on the diagram below and on your knowledge of Earth science. The arrows in the diagram show air movement in a thunderstorm cloud. Point A represents a location in the atmosphere.



In which temperature zone of the atmosphere is point A located?

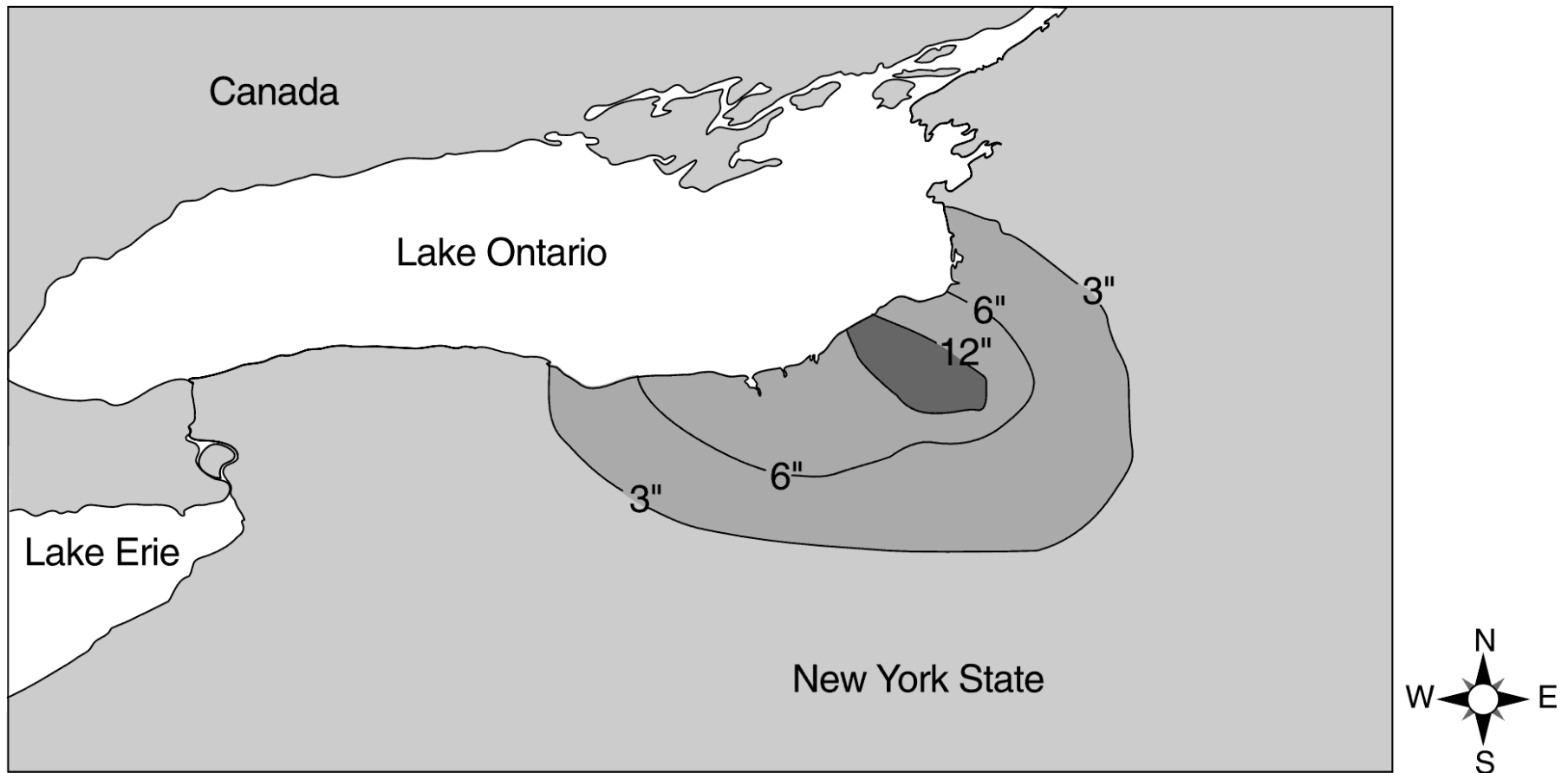
- Ⓐ thermosphere      Ⓑ mesosphere      Ⓒ stratosphere      Ⓓ troposphere



In the United States, most tornadoes are classified as intense

- Ⓐ low-pressure funnel clouds that spin clockwise
- Ⓑ low-pressure funnel clouds that spin counter-clockwise
- Ⓒ high-pressure funnel clouds that spin clockwise
- Ⓓ high-pressure funnel clouds that spin counterclockwise

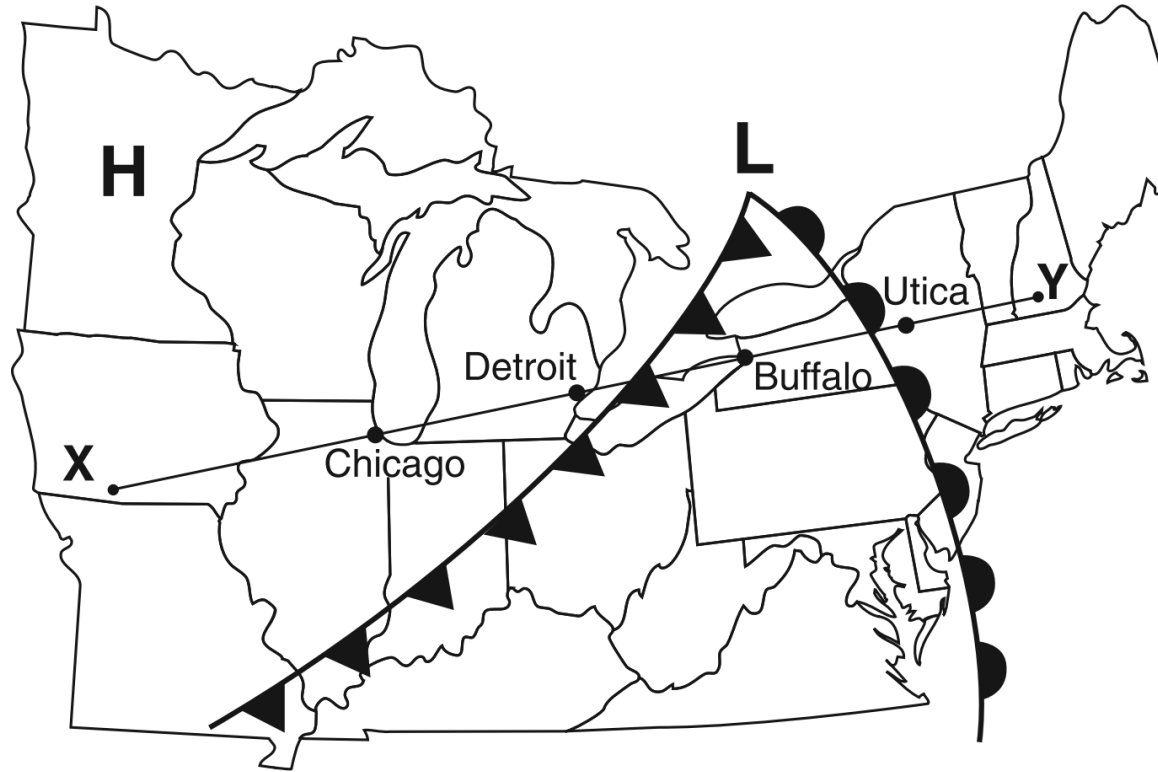
The isolines on the map below show snowfall totals from a lake-effect storm that affected a portion of New York State.



The surface winds that produced this storm came from which direction?

- Ⓐ northwest      Ⓑ northeast      Ⓒ southeast      Ⓓ southwest

Base your answers to the following questions on the weather map below, which shows a high-pressure center (H) and a low-pressure center (L), with two fronts extending from the low-pressure center. Points X and Y are locations on the map connected by a reference line.

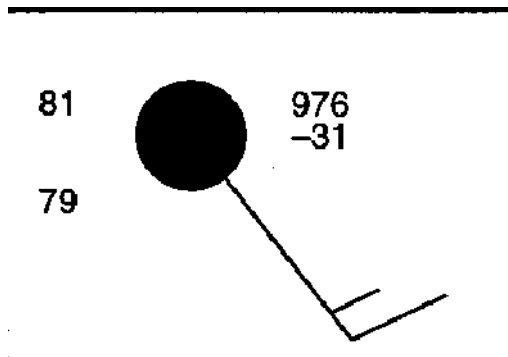


Which type of front is located between Buffalo and Detroit?

- (A) stationary                      (B) warm                      (C) occluded                      (D) cold



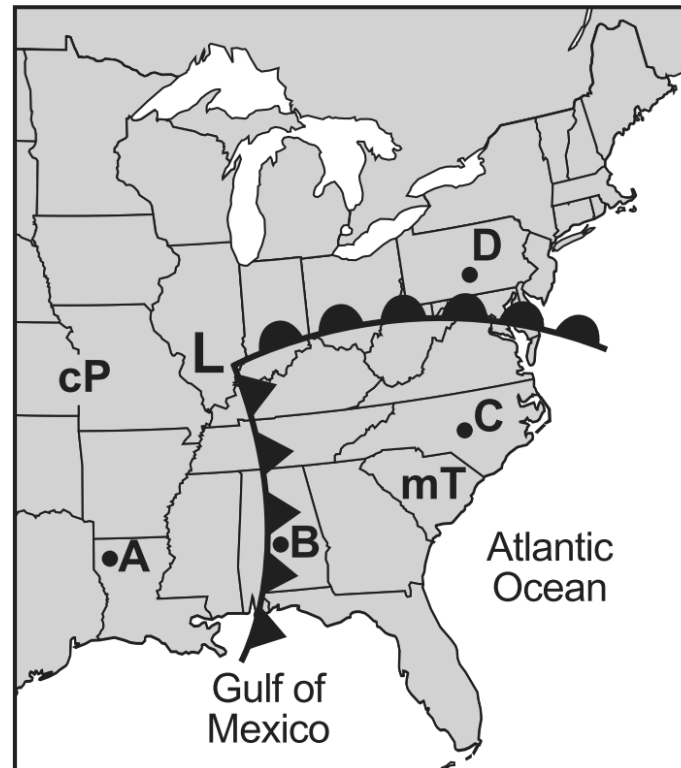
A weather station model for a location in New York State is shown below



The air mass over this location is best described as

- Ⓐ cold with low humidity and high air pressure
- Ⓑ cold with high humidity and low air pressure
- Ⓒ warm with high humidity and low air pressure
- Ⓓ warm with low humidity and high air pressure

Base your answers to the following questions on the weather map below and on your knowledge of Earth science. The map shows a low-pressure system with two fronts extending from its center (L). Points A, B, C, and D represent locations on Earth's surface. Two different air masses are labeled.



Which locations are most likely experiencing precipitation?

- Ⓐ A and B      Ⓑ B and C      Ⓒ C and D      Ⓓ D and B