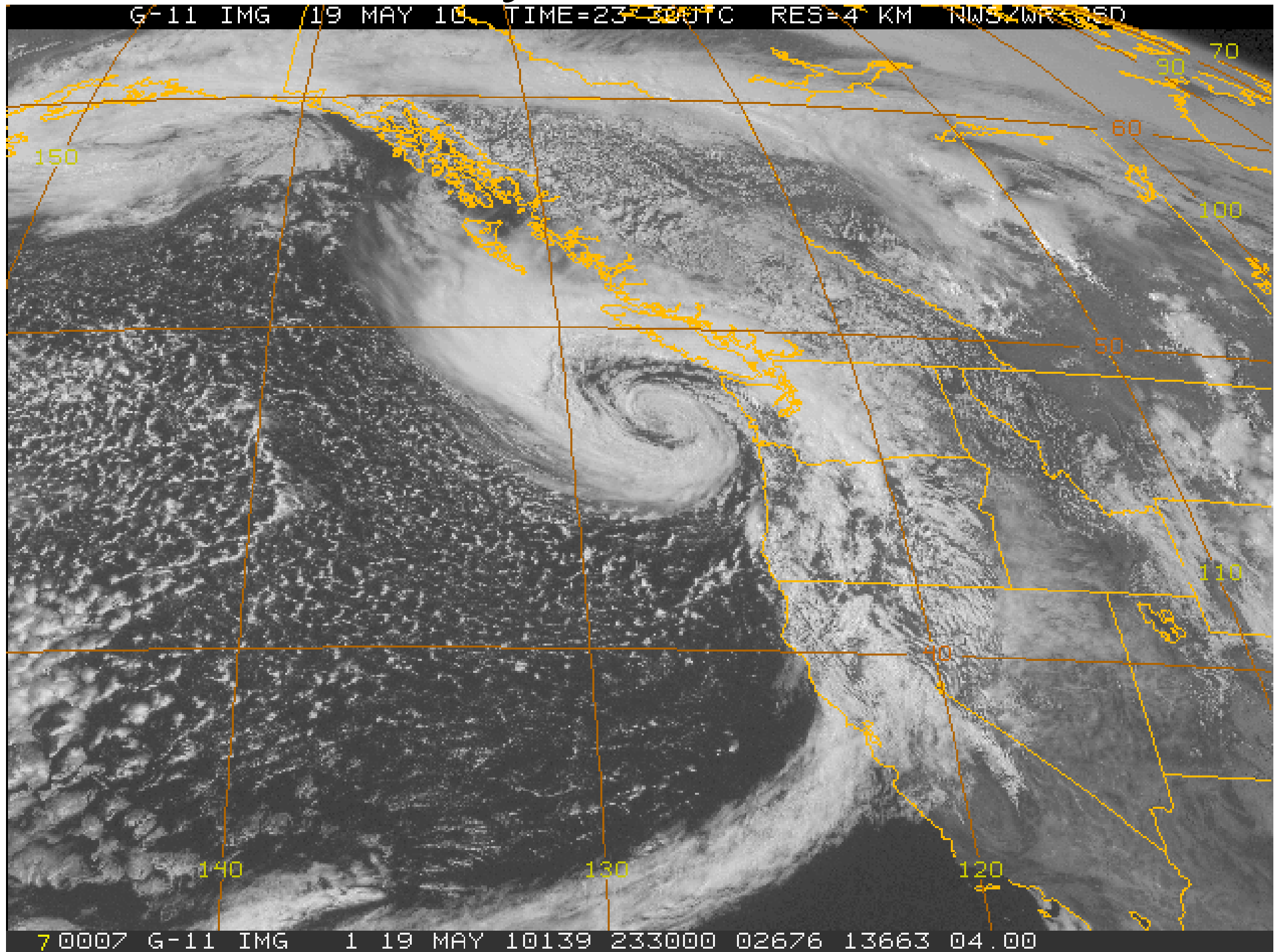


# Air Masses, Fronts and Storms

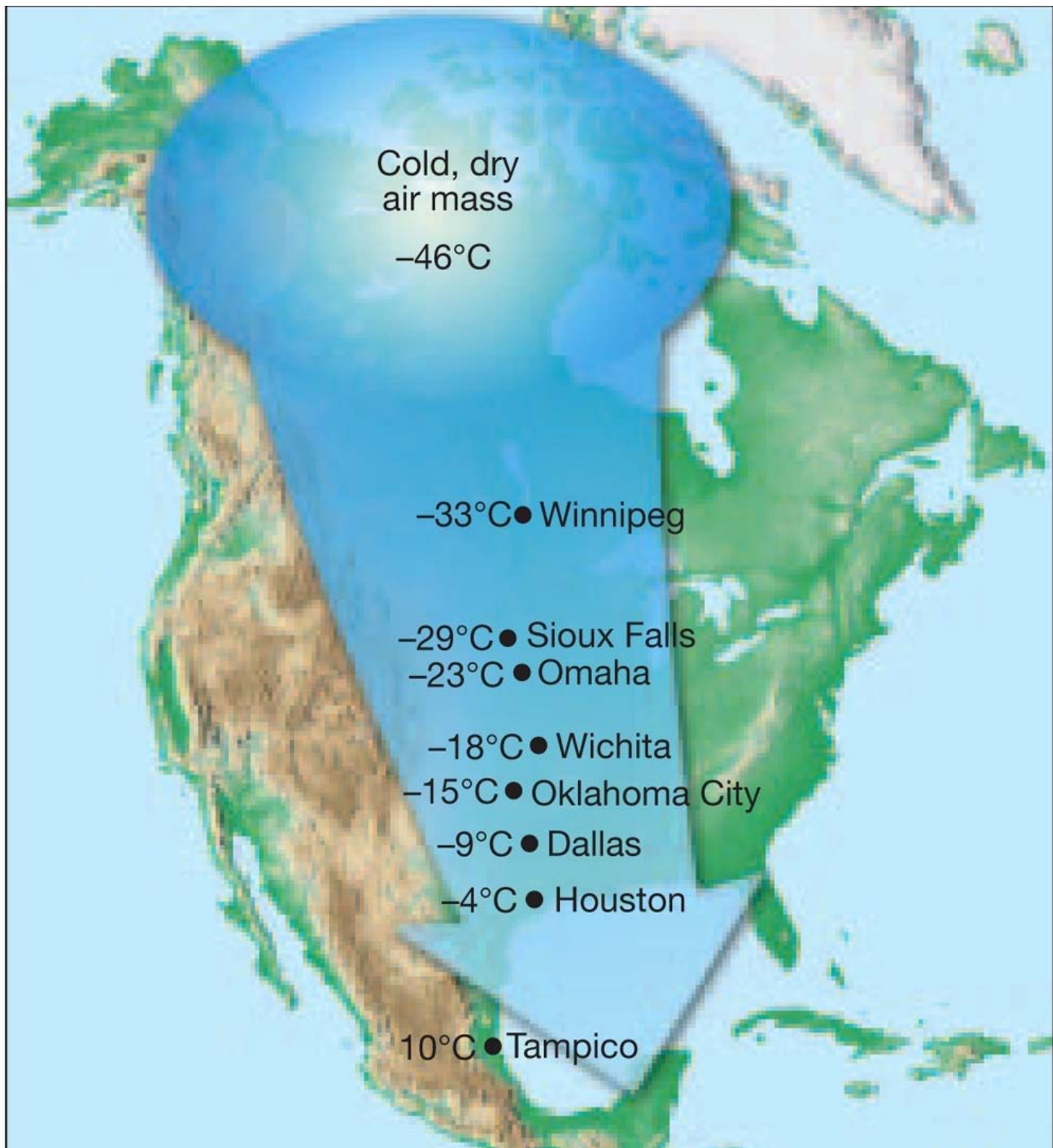
[CLICK HERE  
FOR 9/PAGE  
TO PRINT](#)



# May 19, 2010







Cold, dry  
air mass

-46°C

-33°C ● Winnipeg

-29°C ● Sioux Falls

-23°C ● Omaha

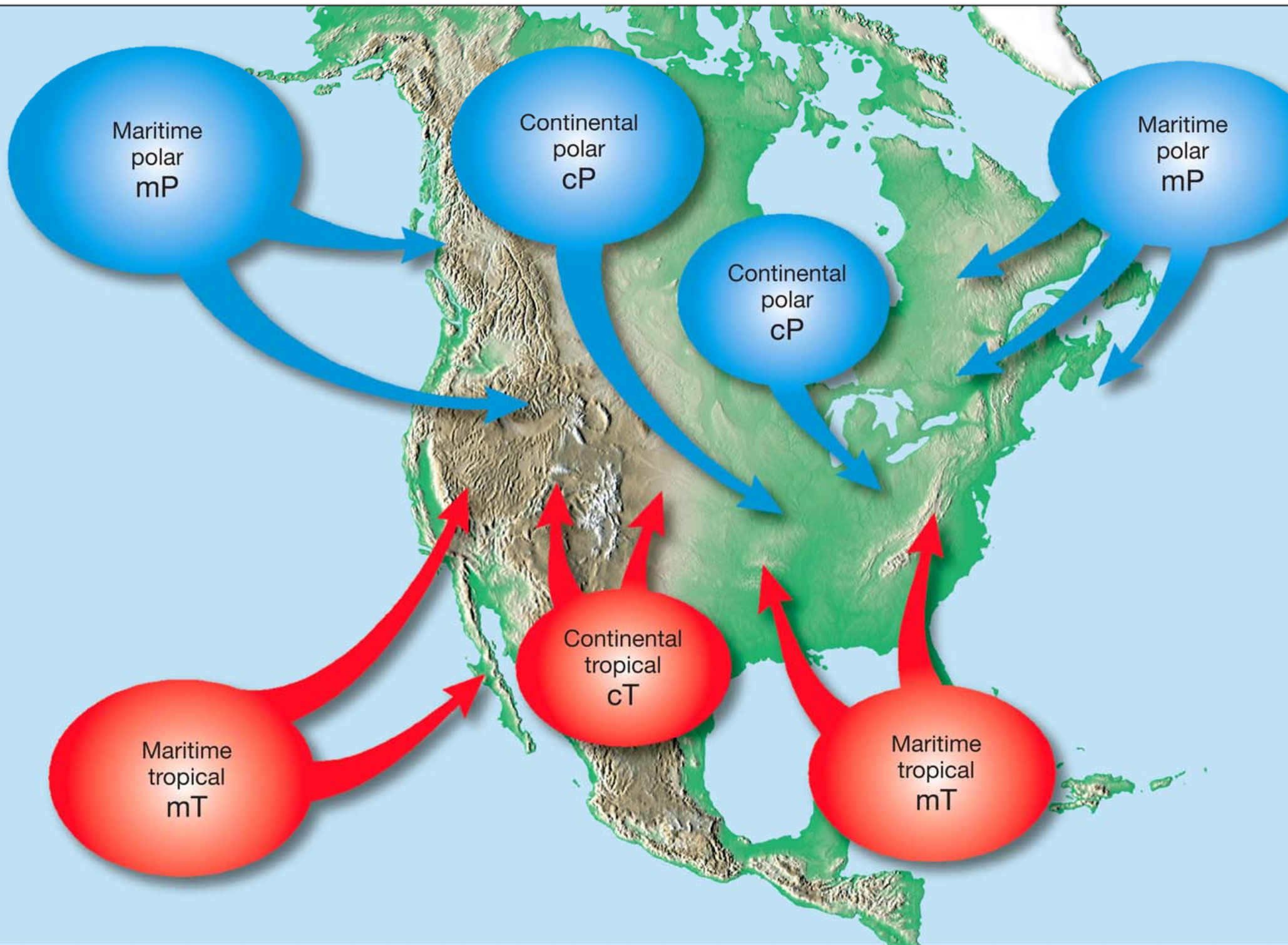
-18°C ● Wichita

-15°C ● Oklahoma City

-9°C ● Dallas

-4°C ● Houston

10°C ● Tampico







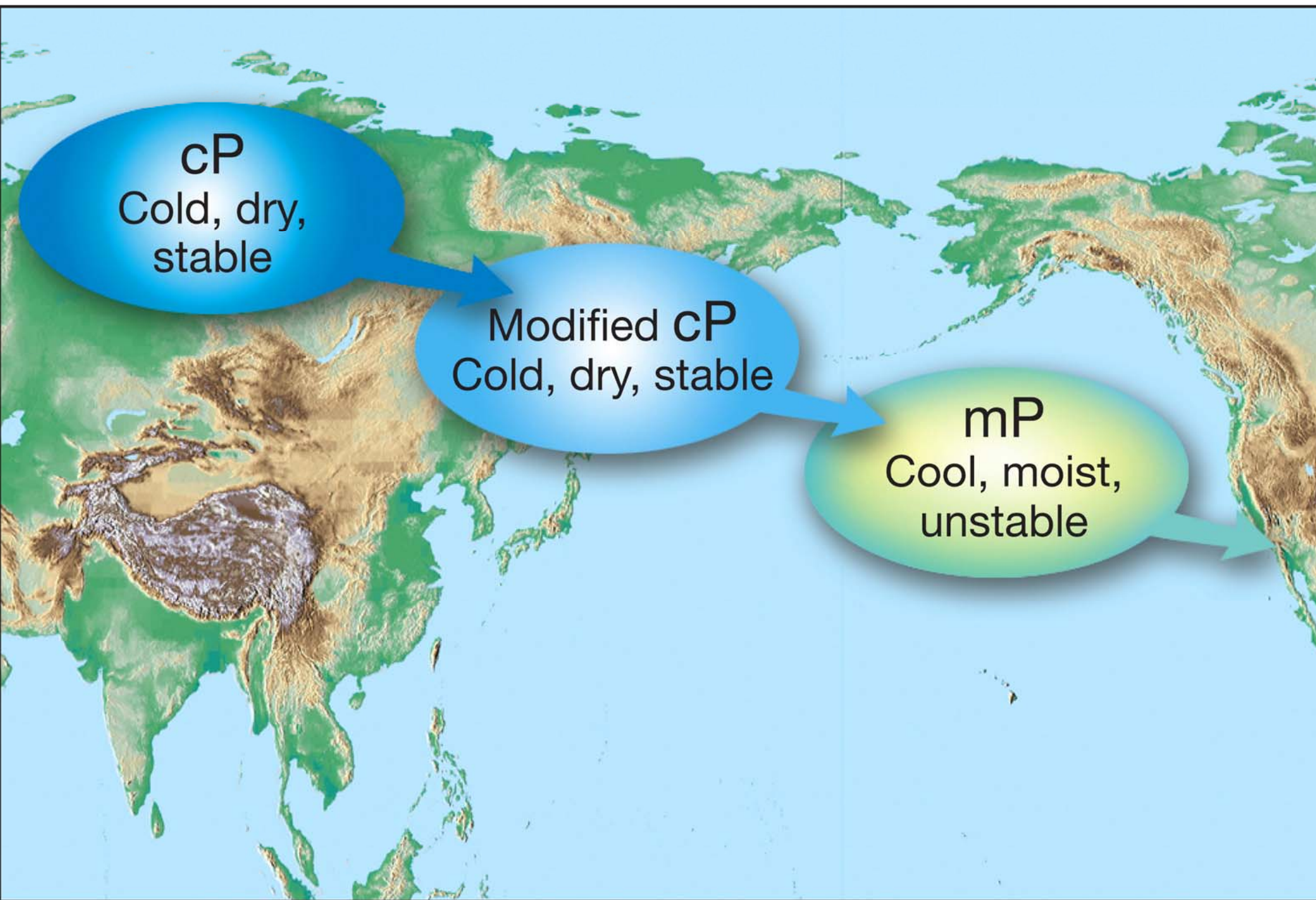
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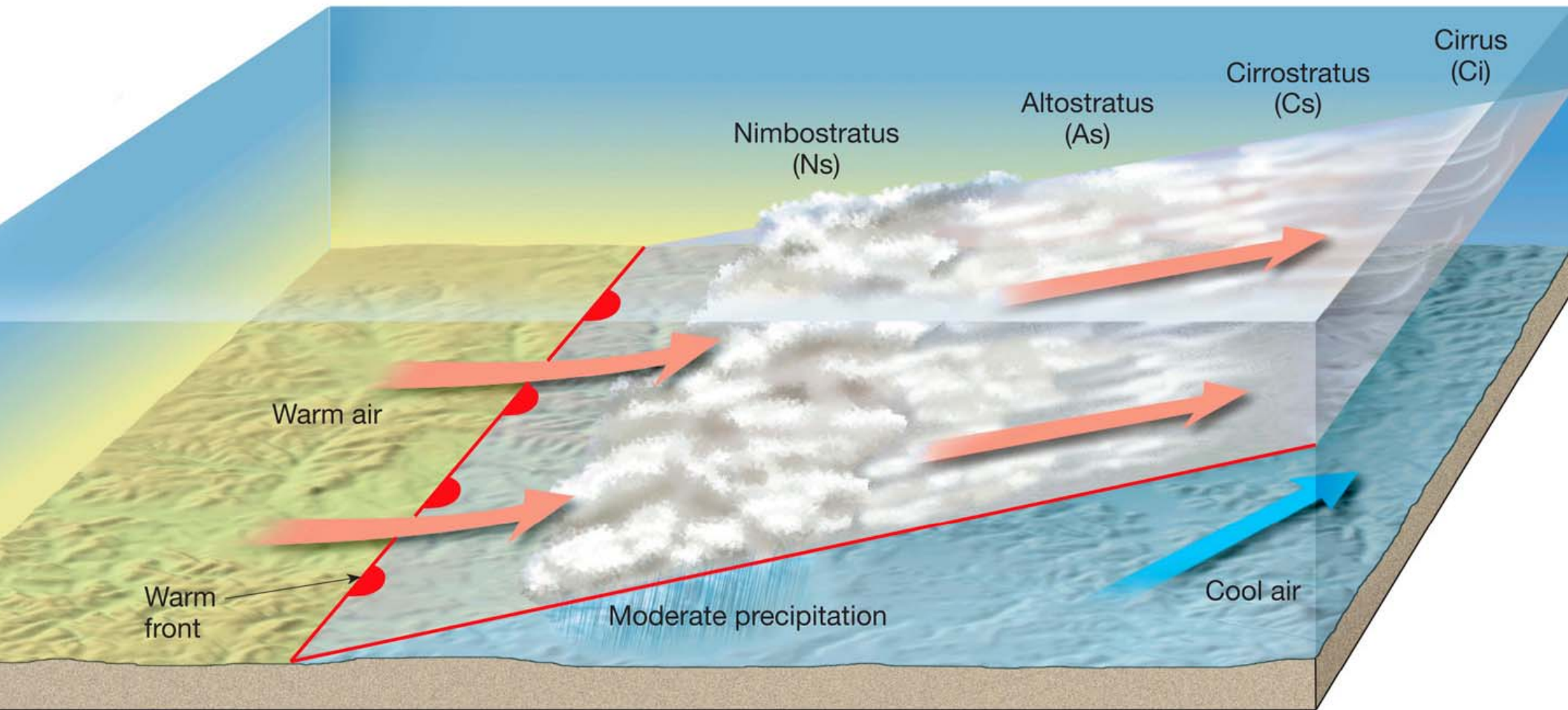




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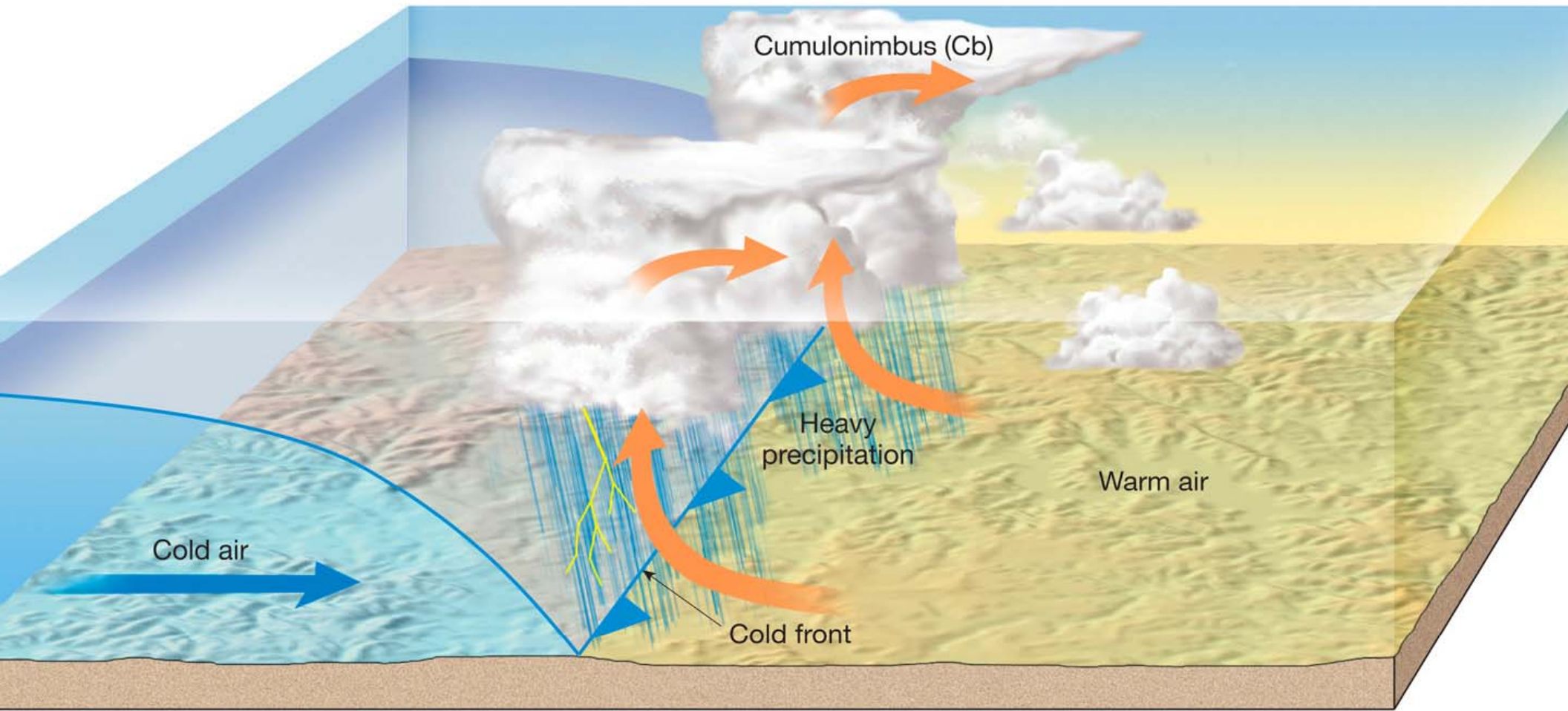




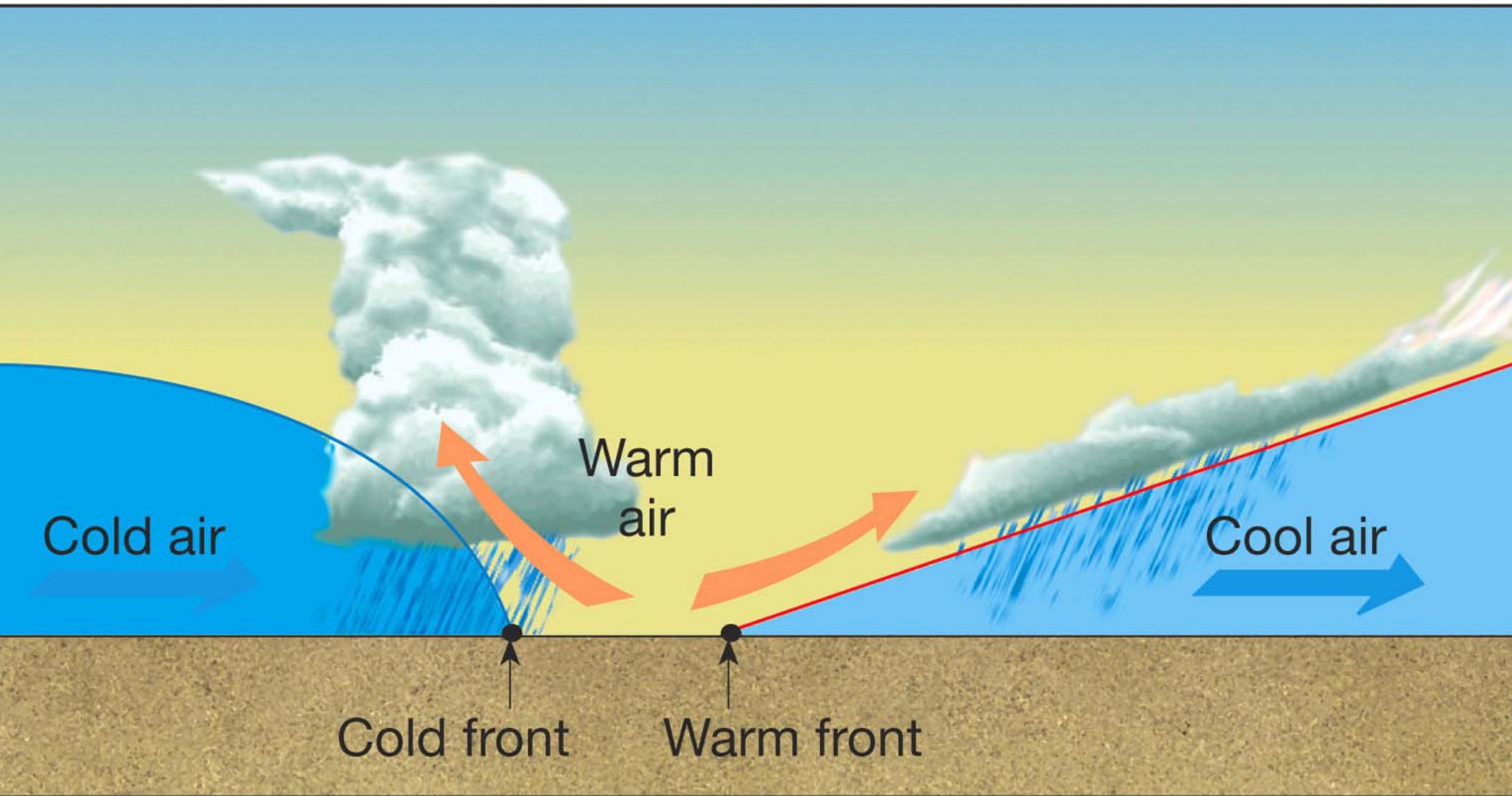


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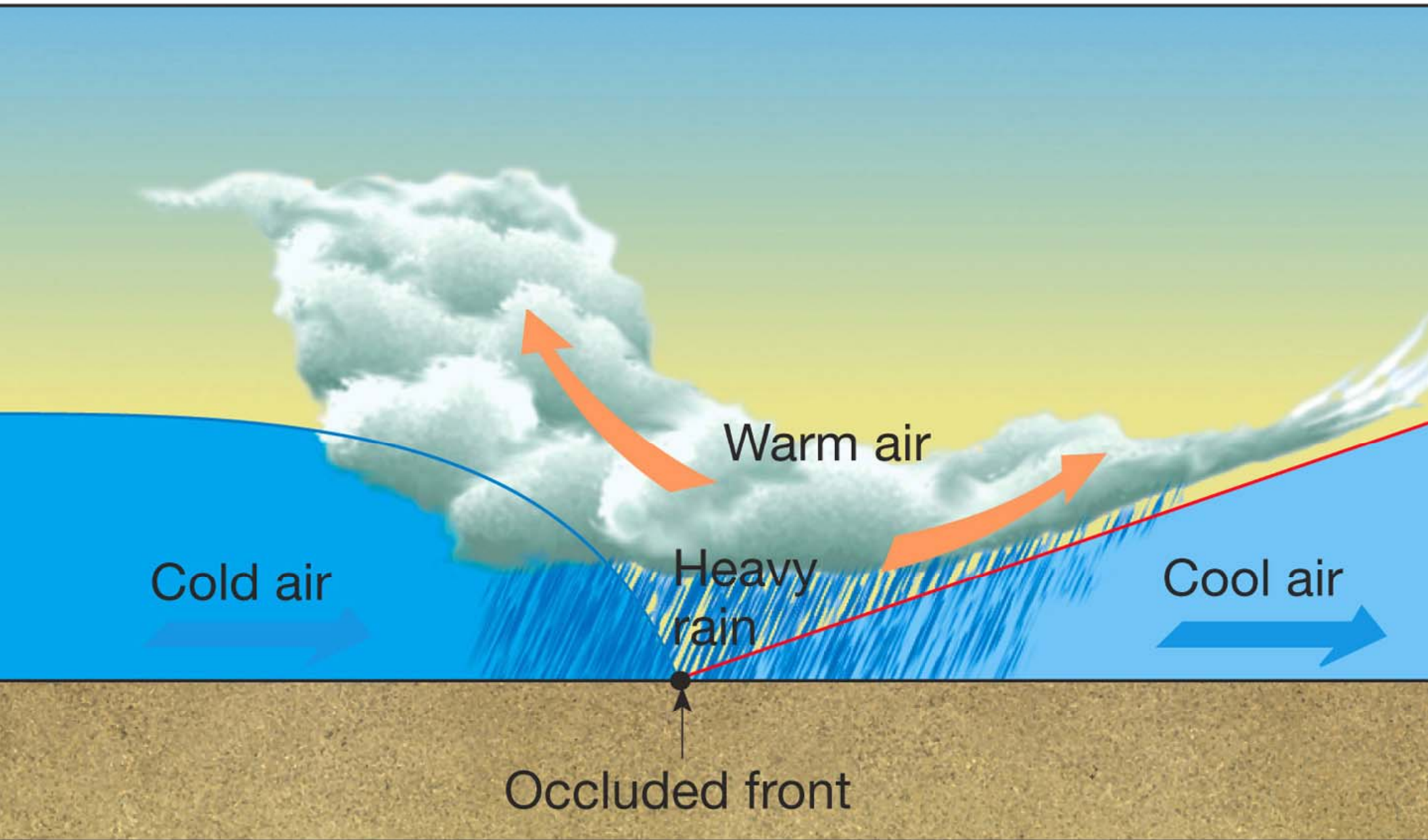


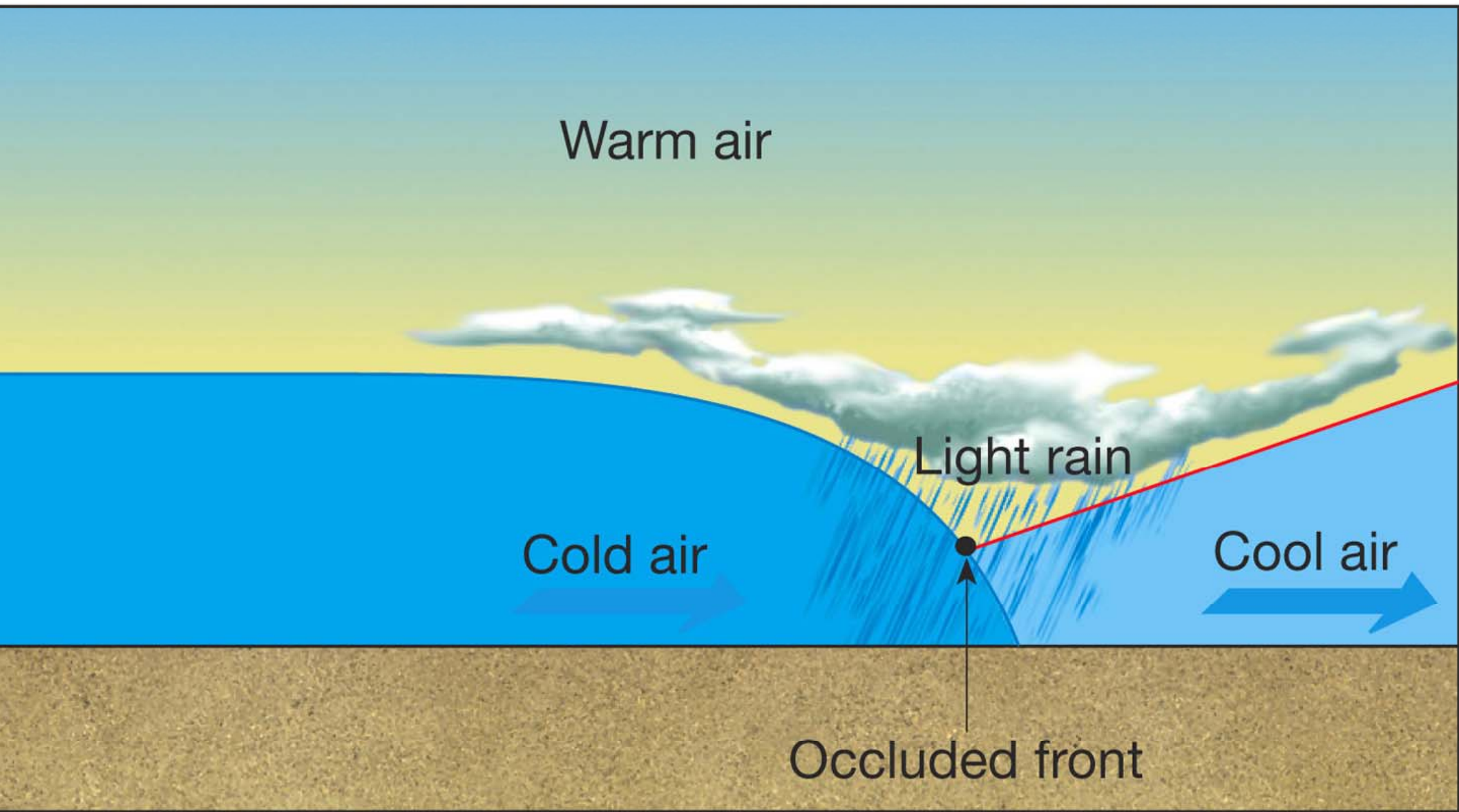
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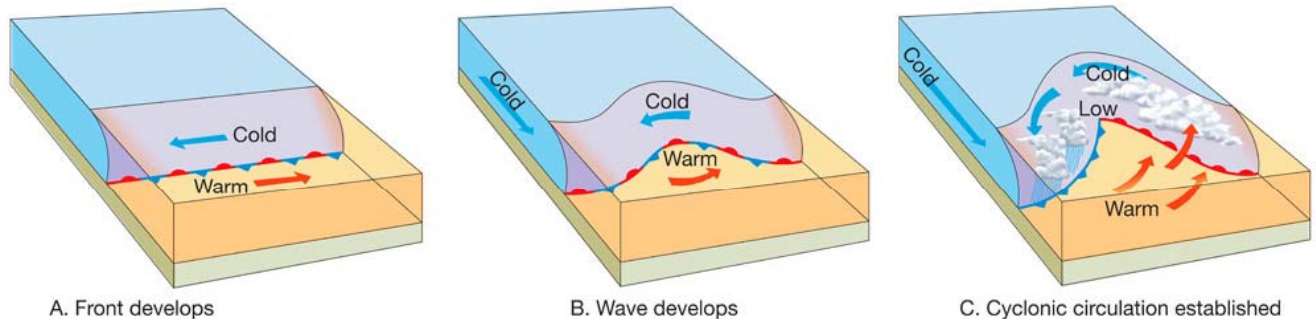




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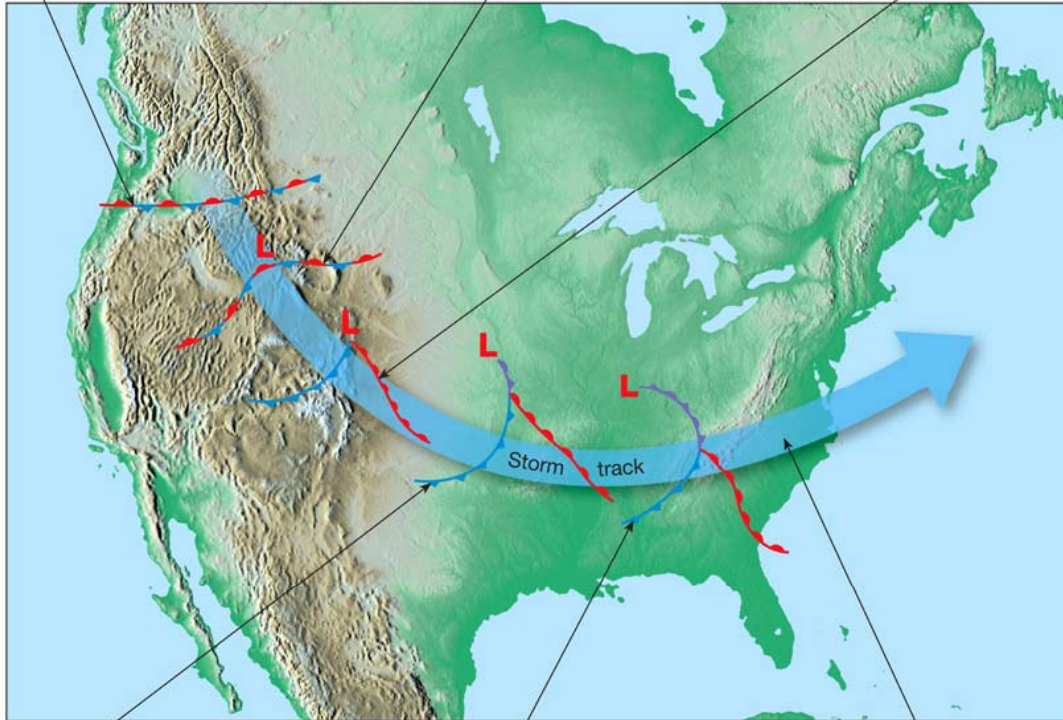
# Development of Mid-latitude Cyclone



A. Front develops

B. Wave develops

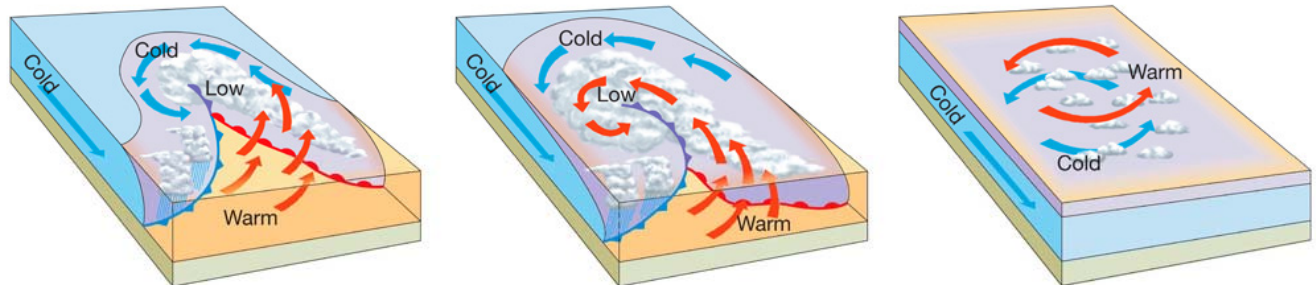
C. Cyclonic circulation established

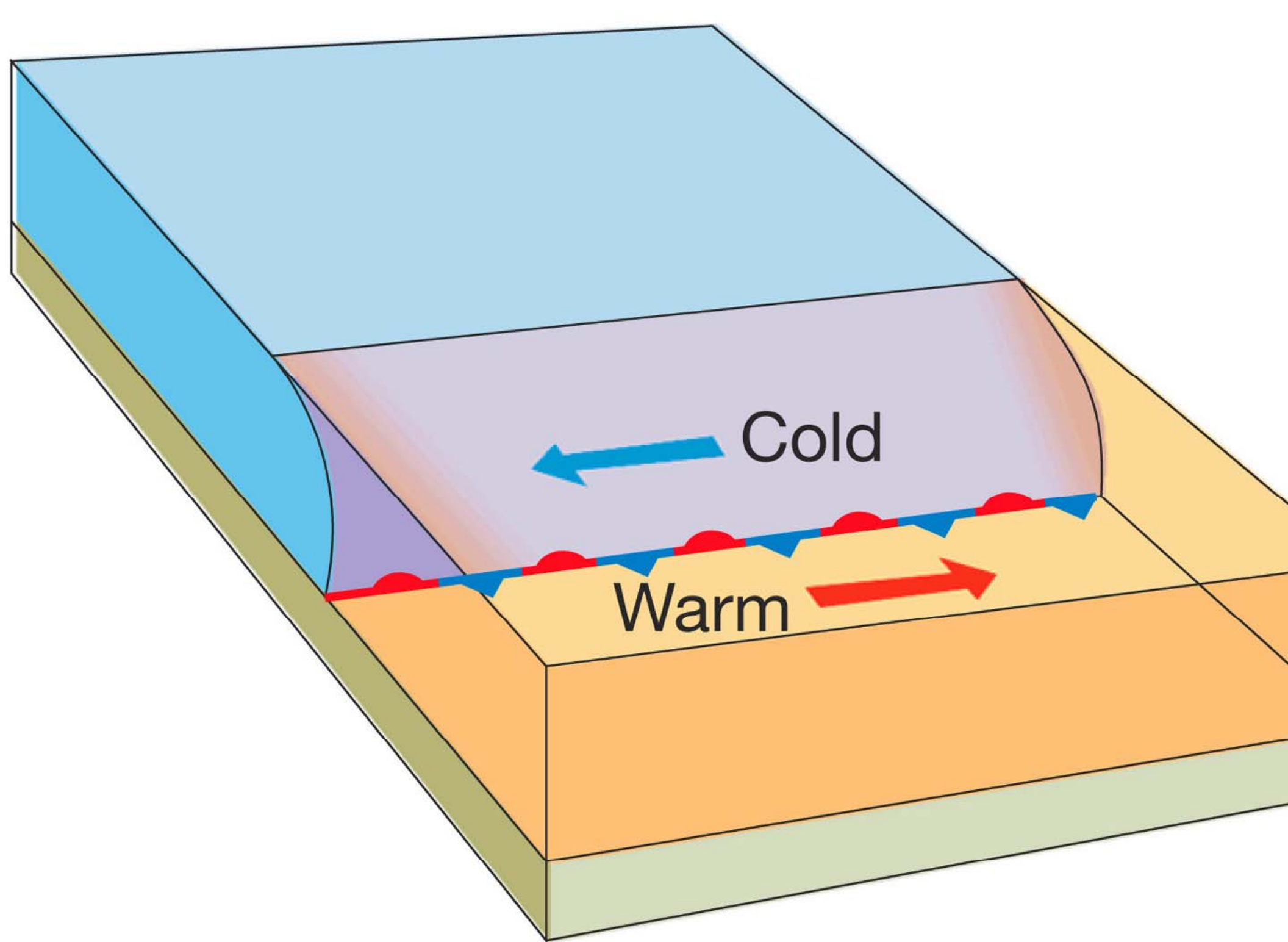


D. Occlusion begins

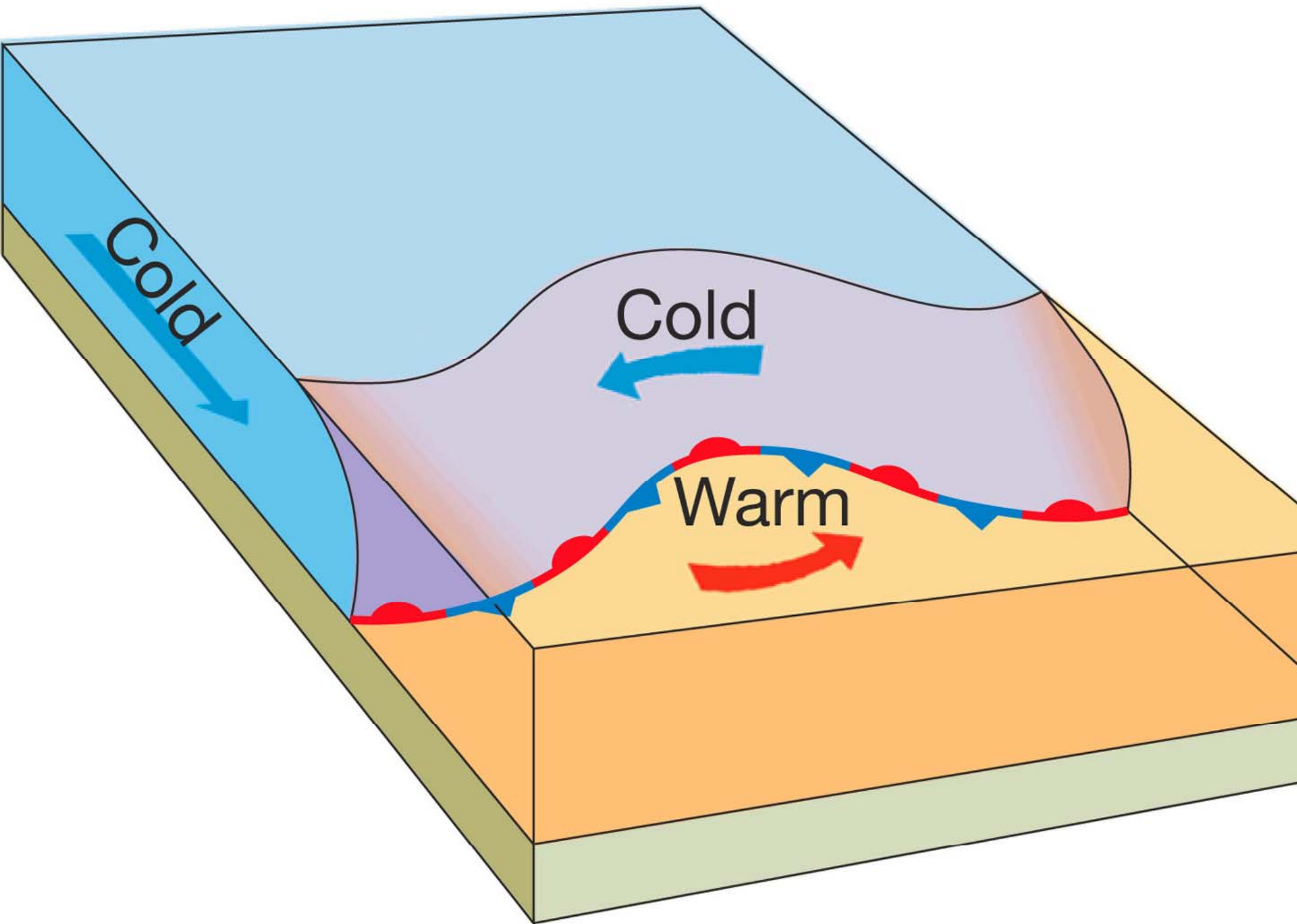
E. Occluded front developed

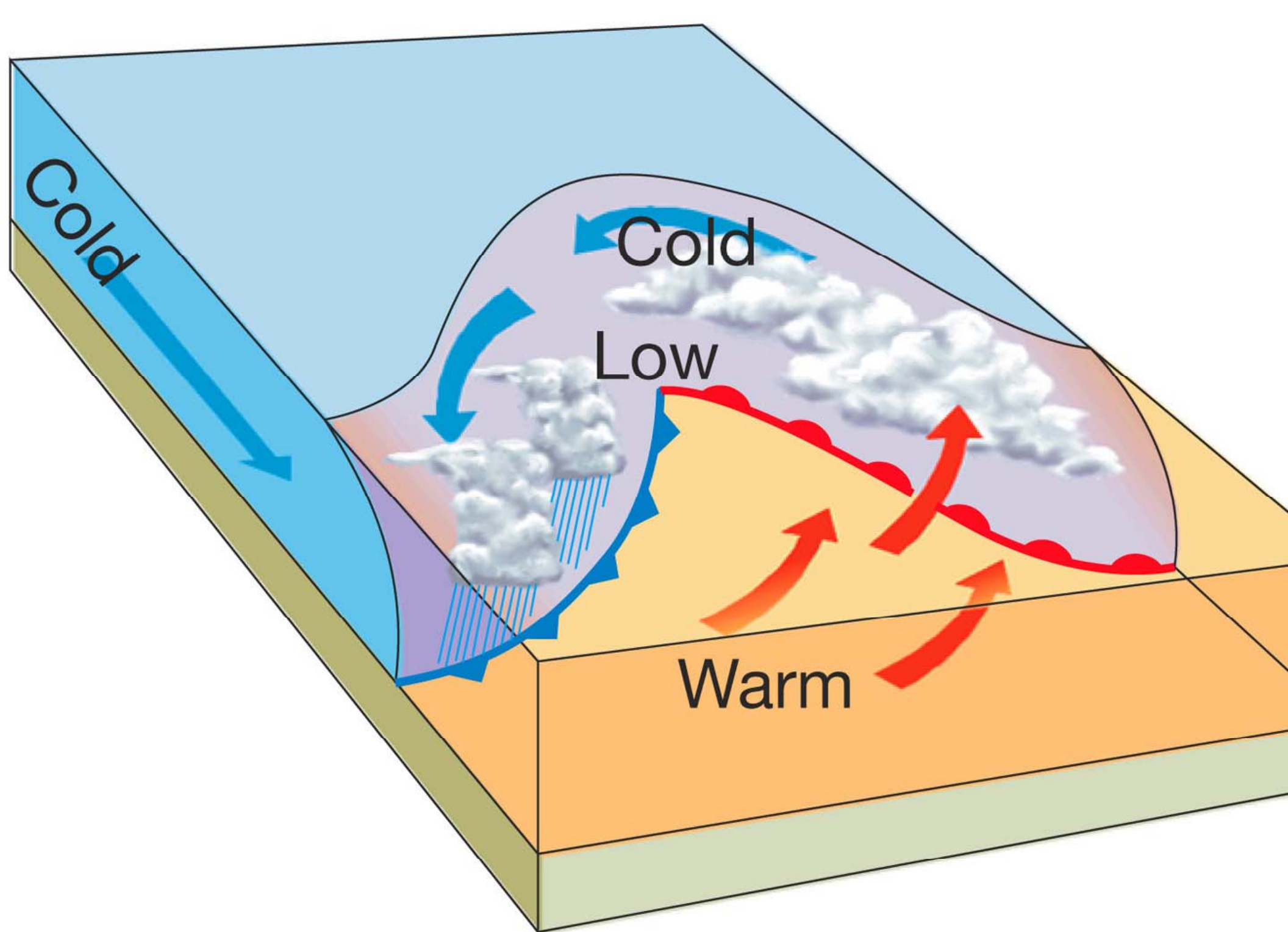
F. Cyclone dissipates



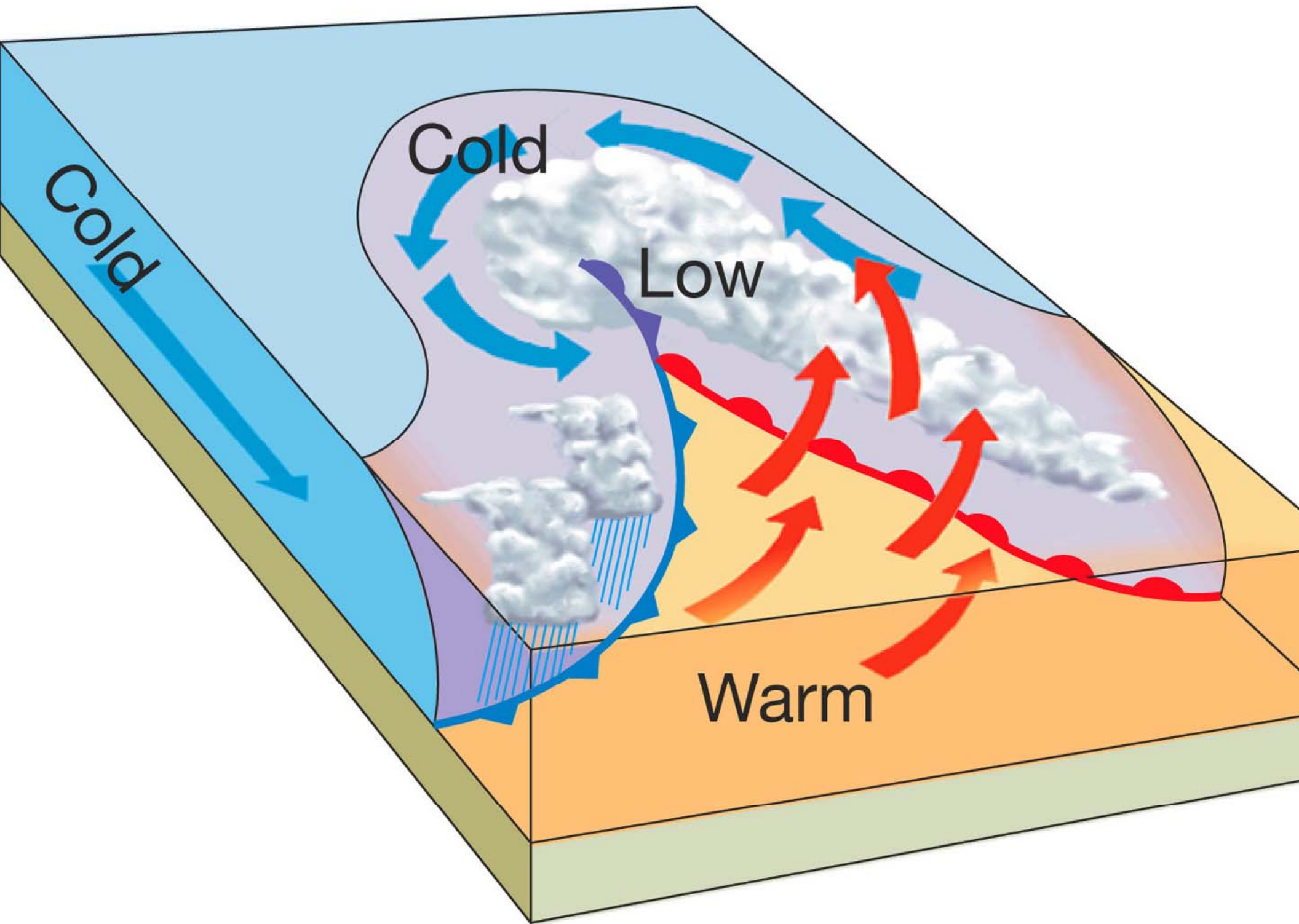


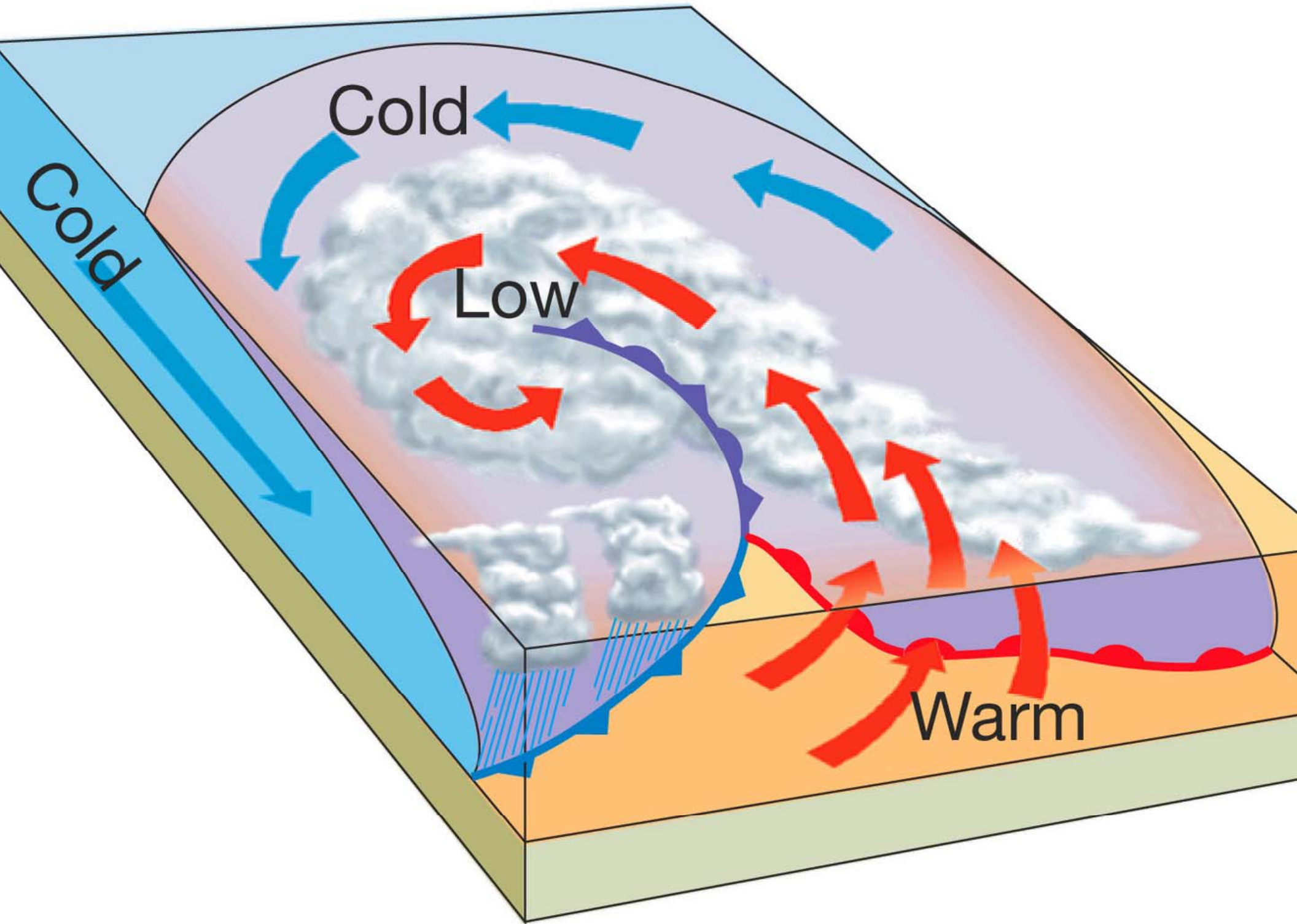




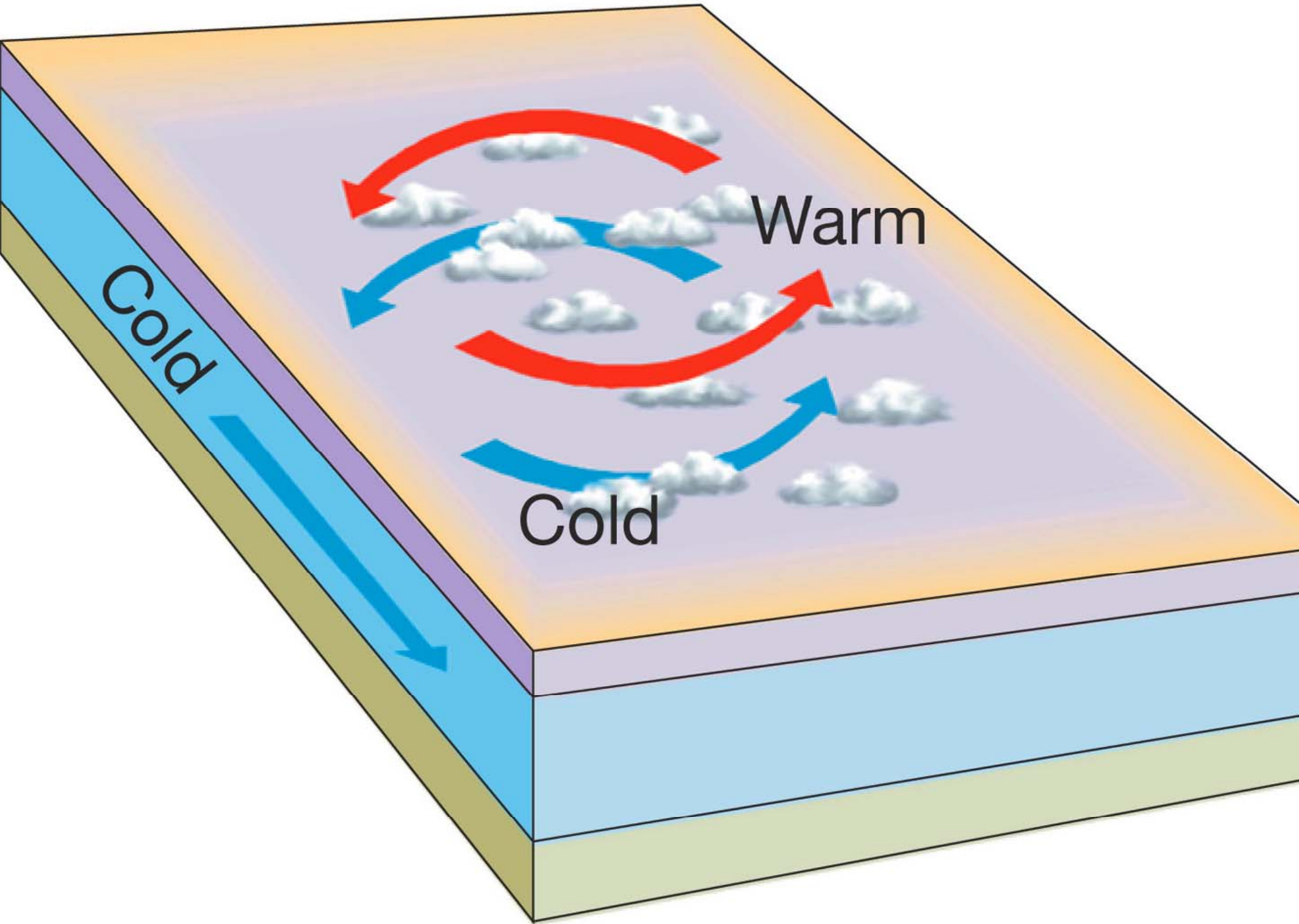




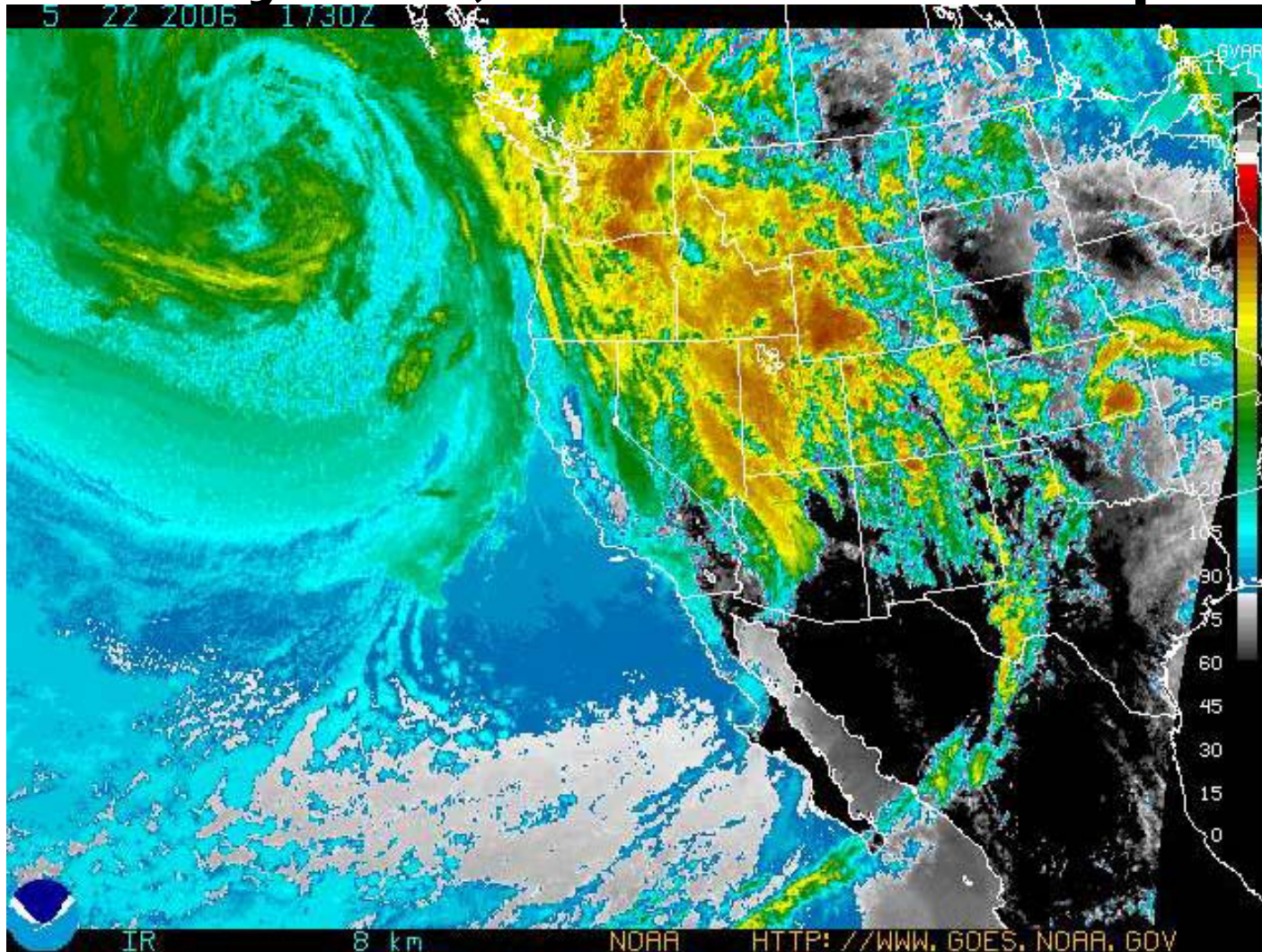








# May 22, 2006 IR map

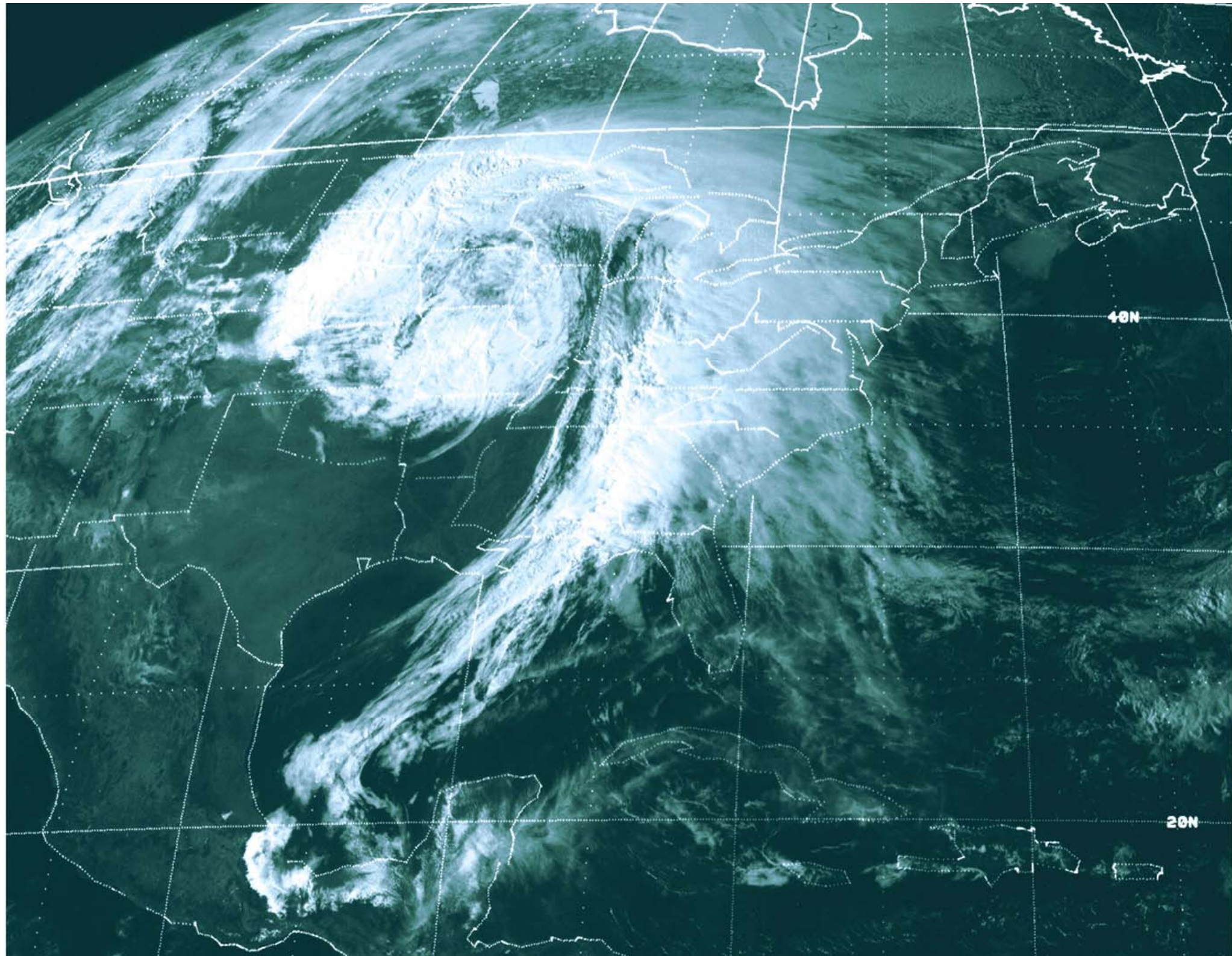


- Link to water vapor animation at right

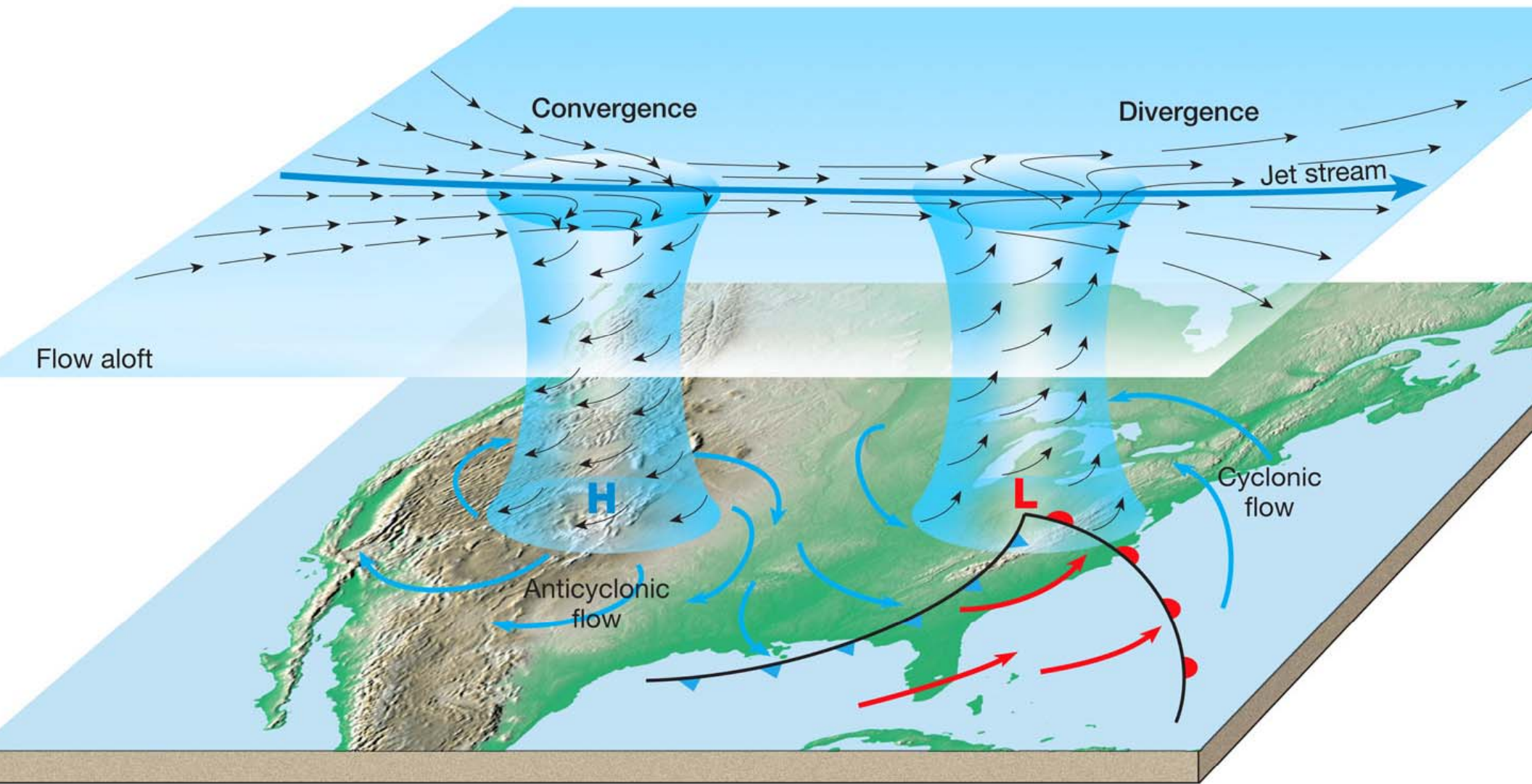
<http://www.goes.noaa.gov/WCIR3.html>

<http://www.goes.noaa.gov/GSSLOOPS/wcvs.html>



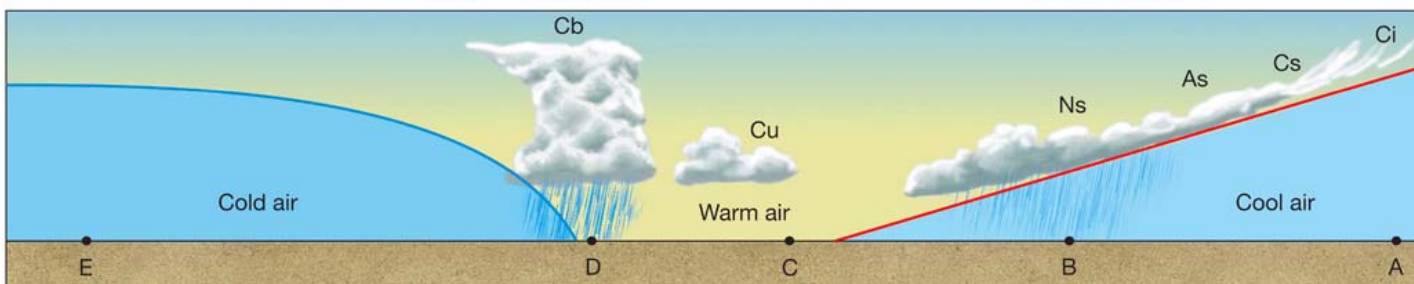
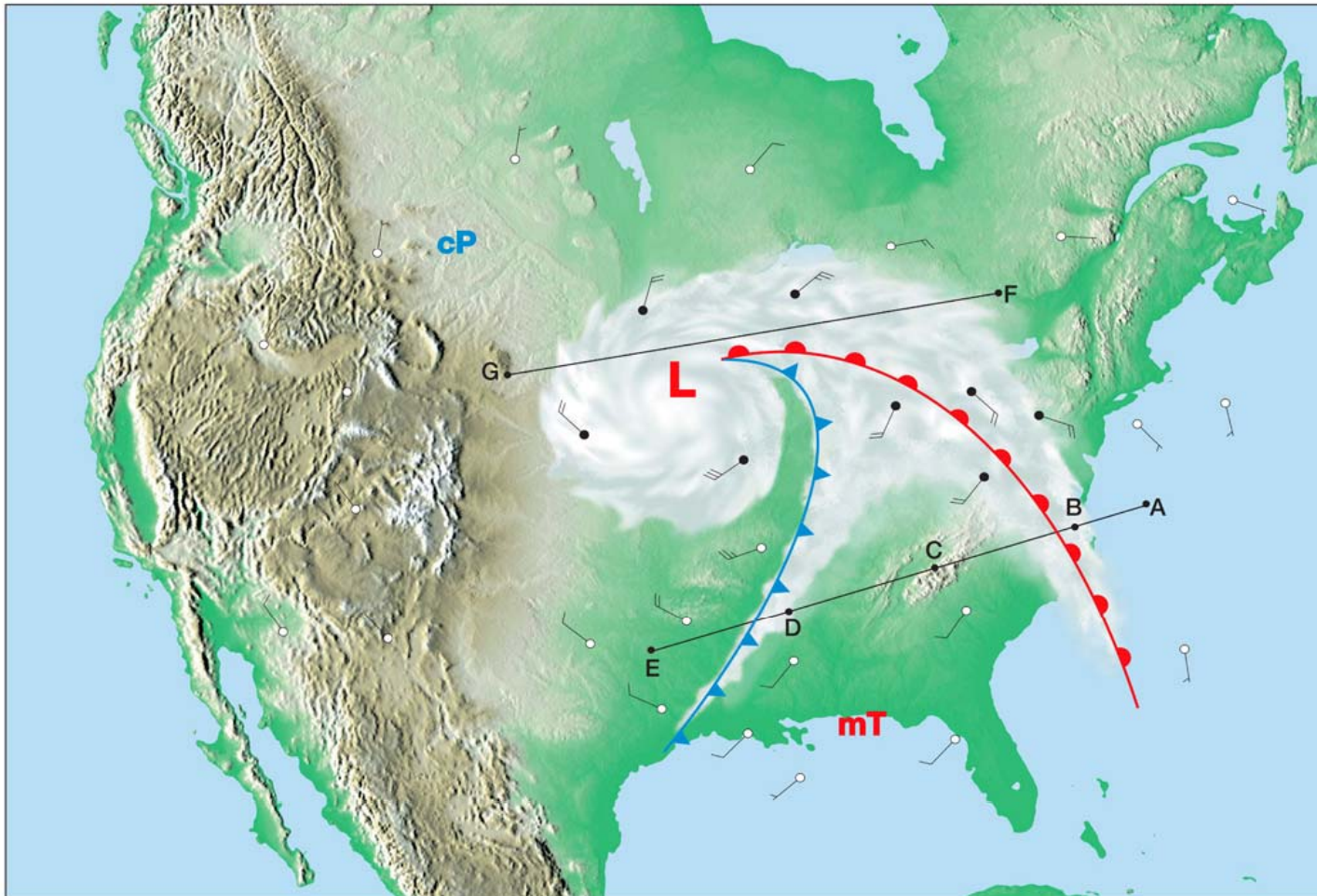
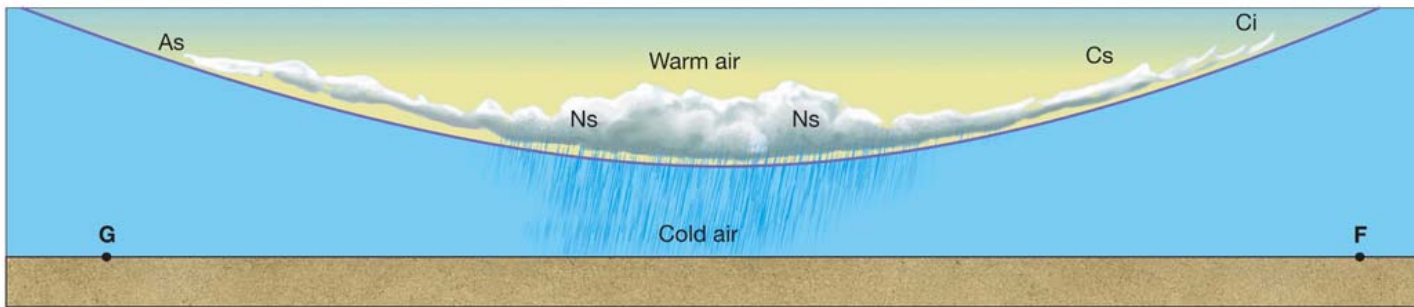






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# NATIONAL HURRICANE CENTER

TROPICAL PREDICTION

NATIONAL UNIVERSITY OF OCEANOGRAPHY



STORM	DATE	WIND	DEATHS
ALMA	08-11	60	0
BORIS	08-11	60	0
CRISTINA	08-11	60	0
EDUARD	08-11	60	0
FRANCO	08-11	60	0
GABRIELA	08-11	60	0
HENRI	08-11	60	0
ISIDORE	08-11	60	0
JULIO	08-11	60	0
KEVIN	08-11	60	0
LOUIS	08-11	60	0
MARIA	08-11	60	0
MICHELLE	08-11	60	0
OSCAR	08-11	60	0
RICARDO	08-11	60	0
SARAH	08-11	60	0
TOMAS	08-11	60	0
VICTOR	08-11	60	0





<http://www.goes.noaa.gov/GSSLOOPS/ecwv.html>

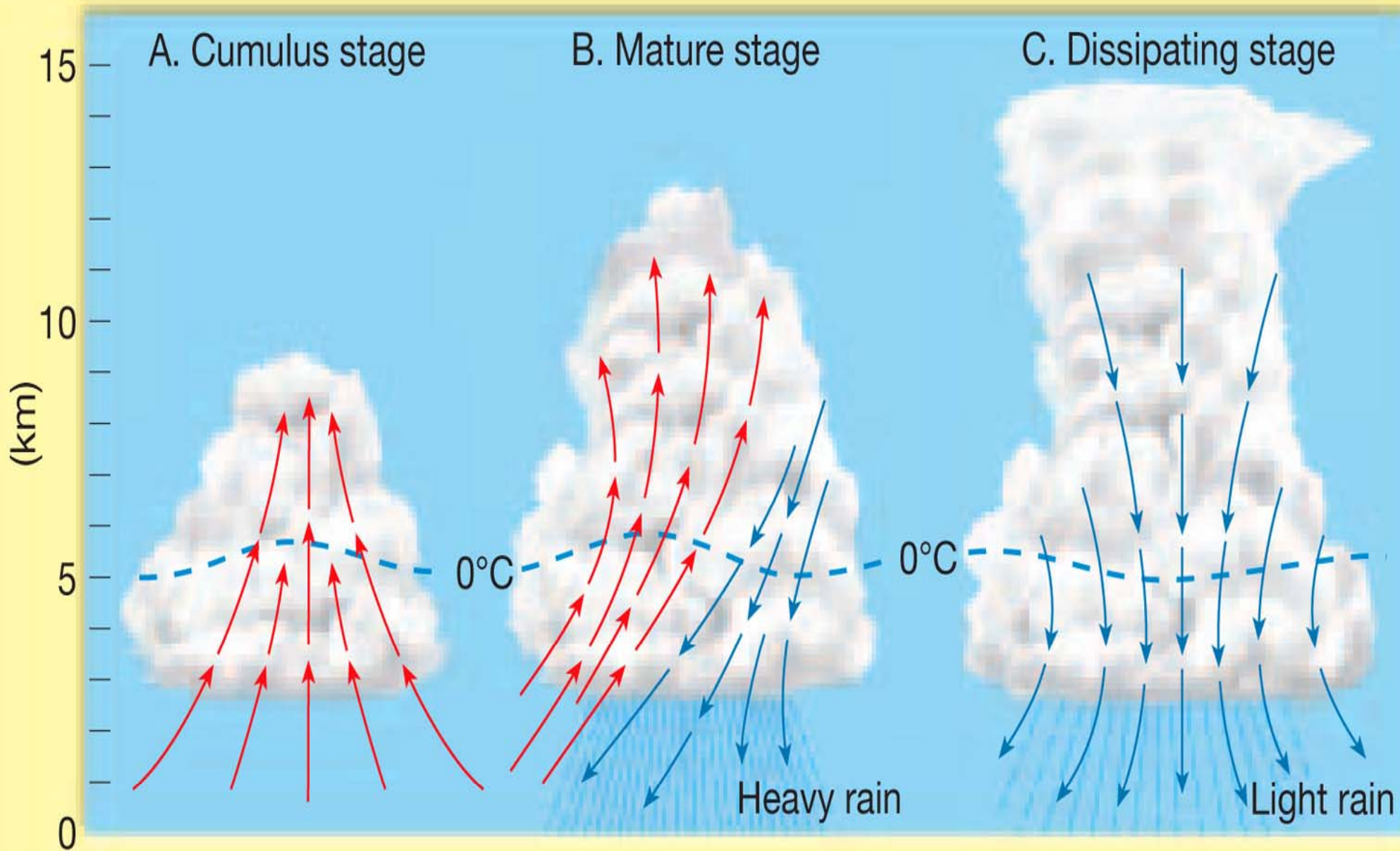




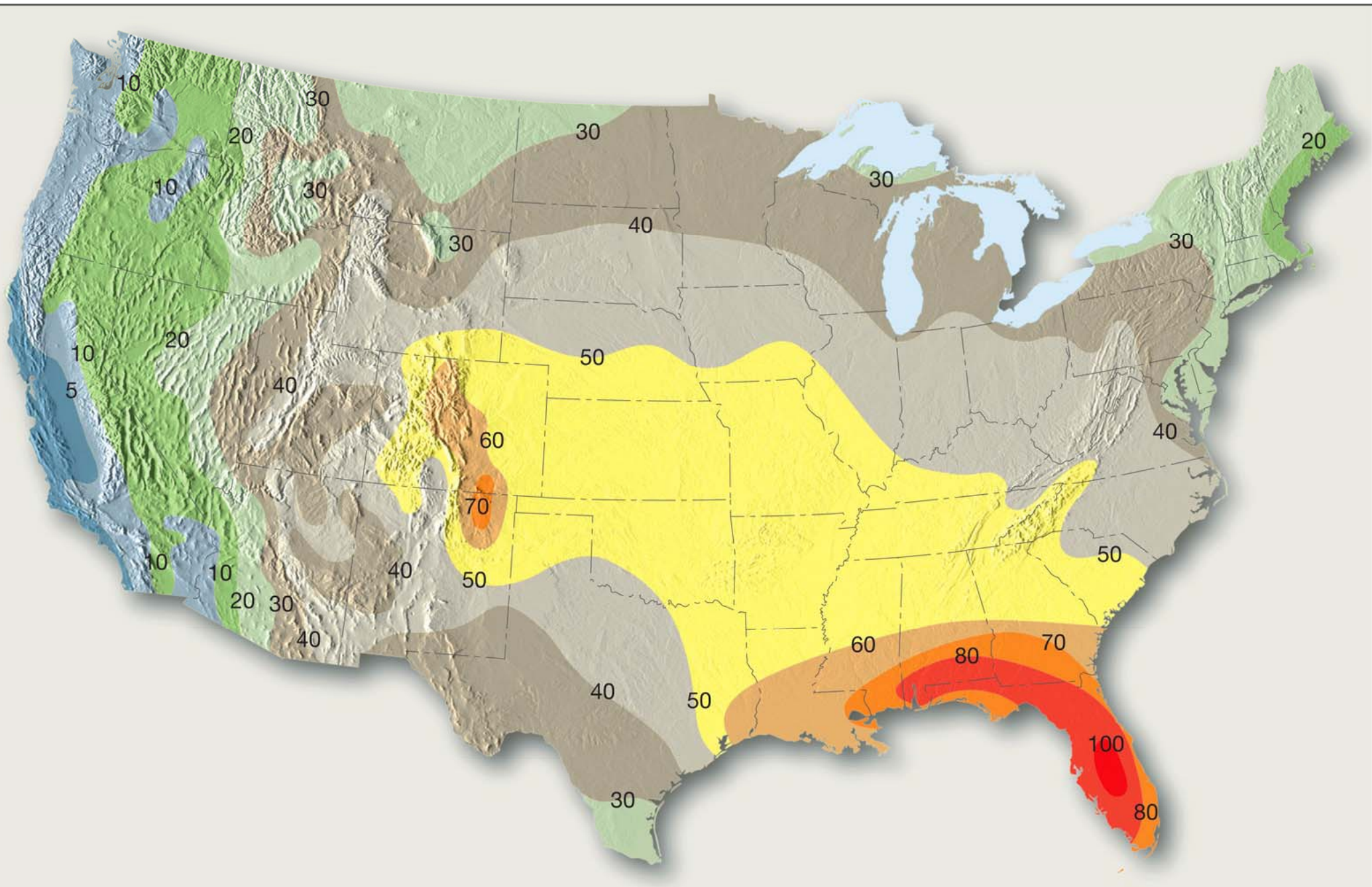










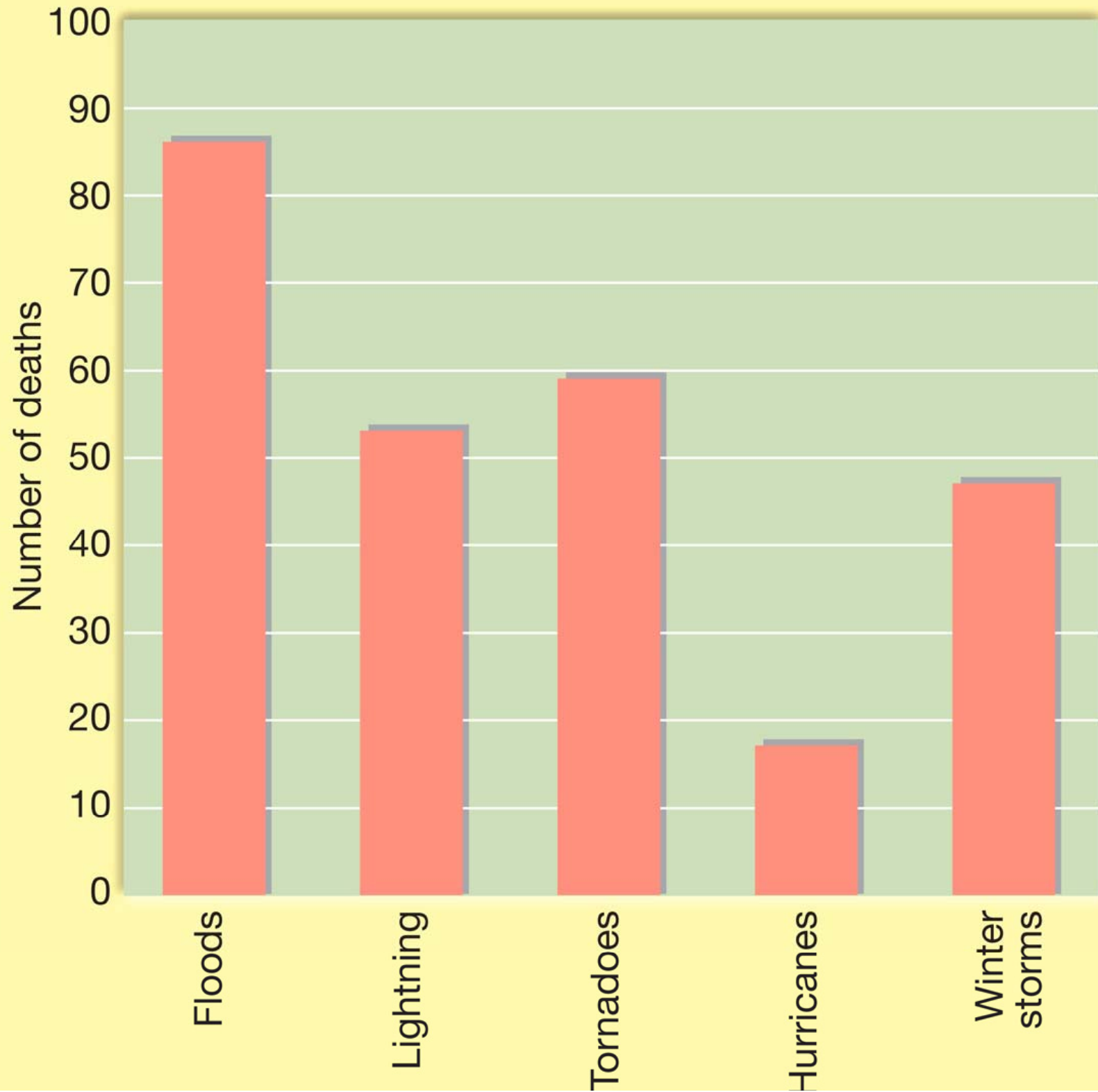


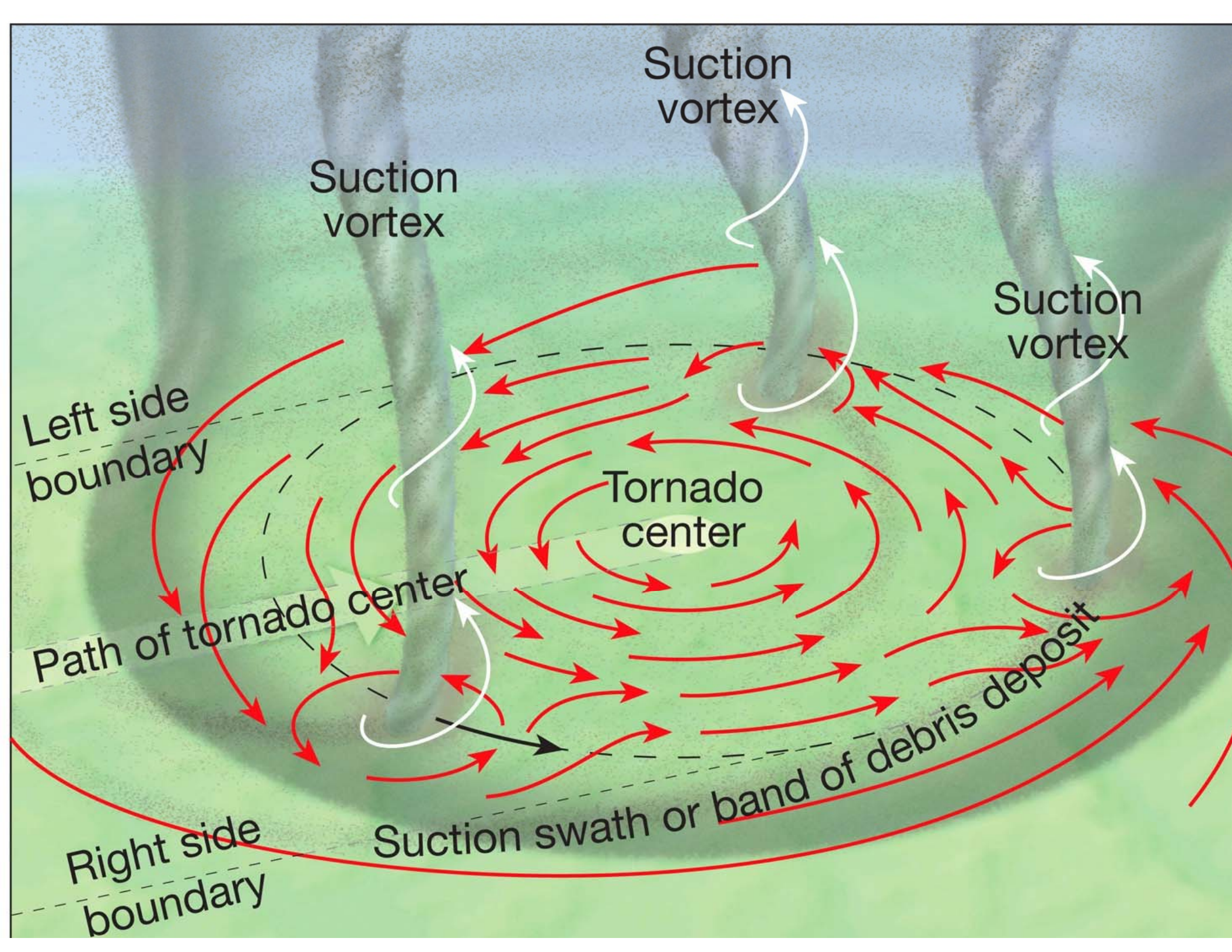
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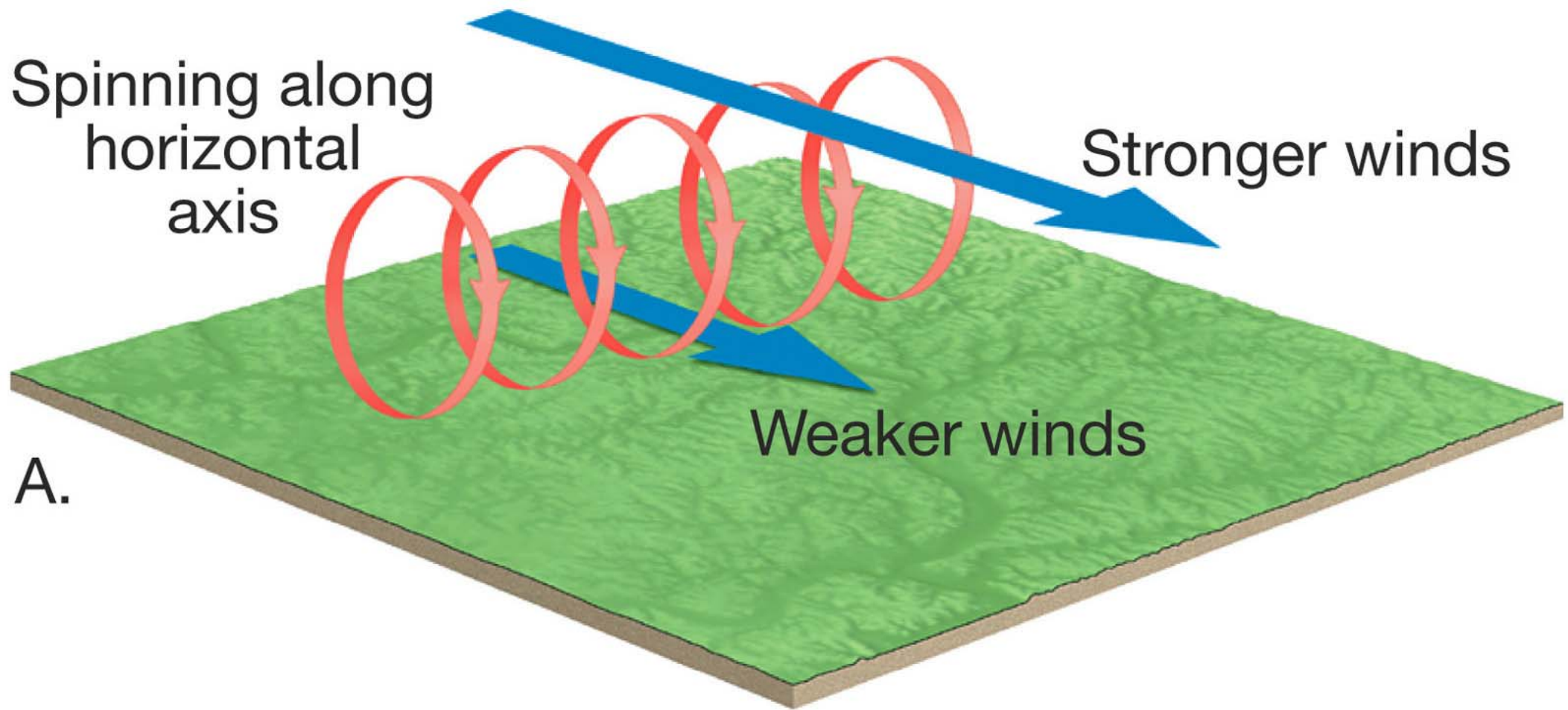






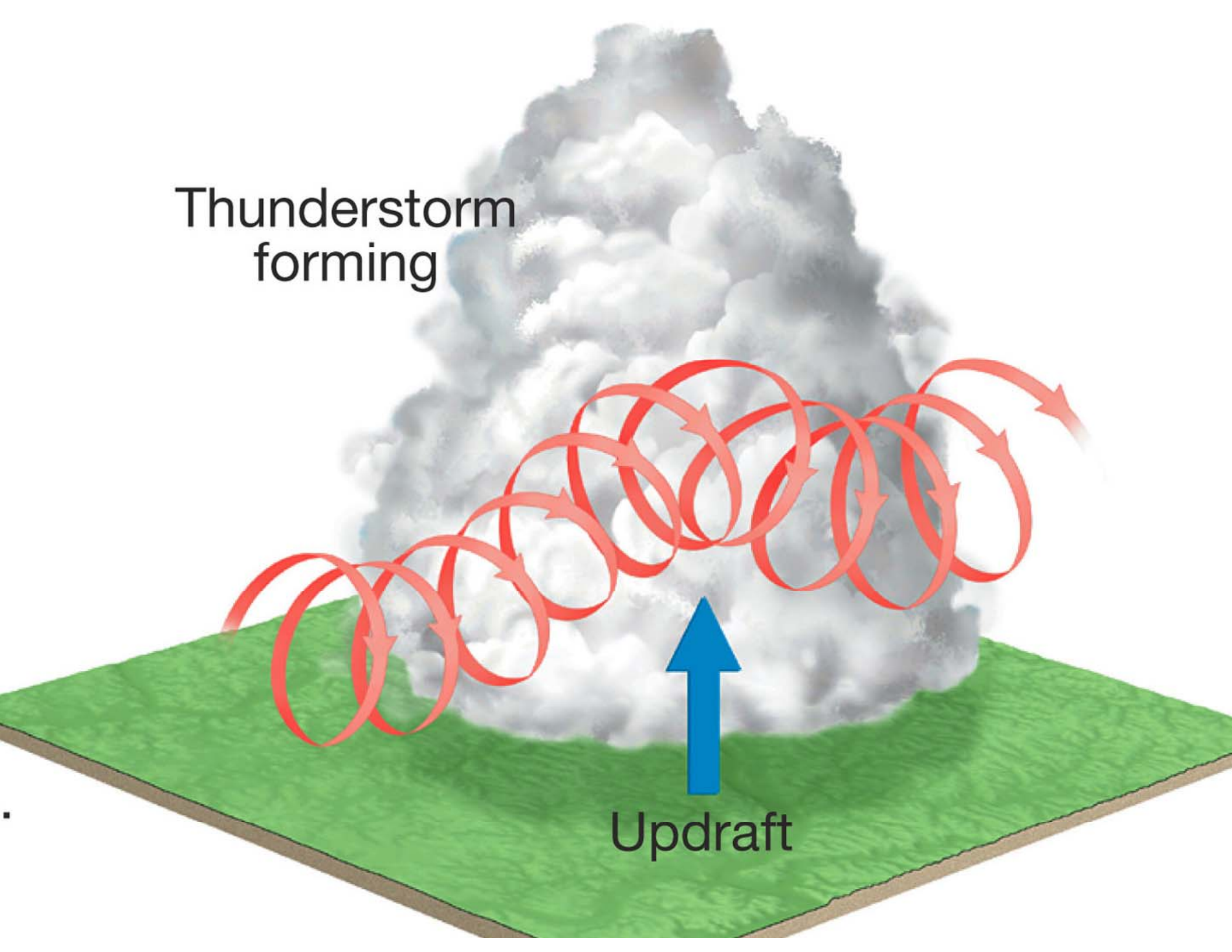






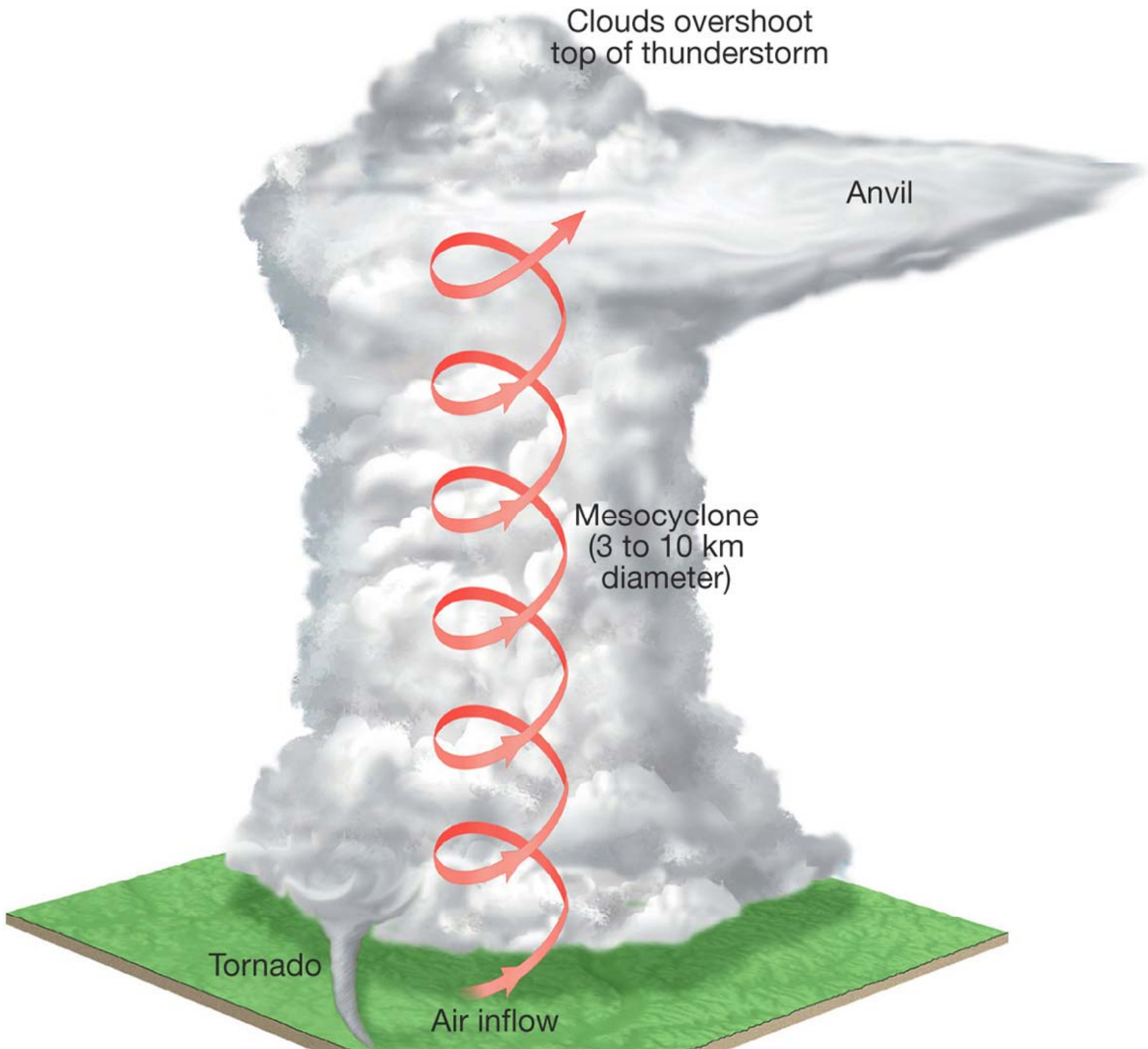
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Thunderstorm  
forming



Updraft





Clouds overshoot top of thunderstorm

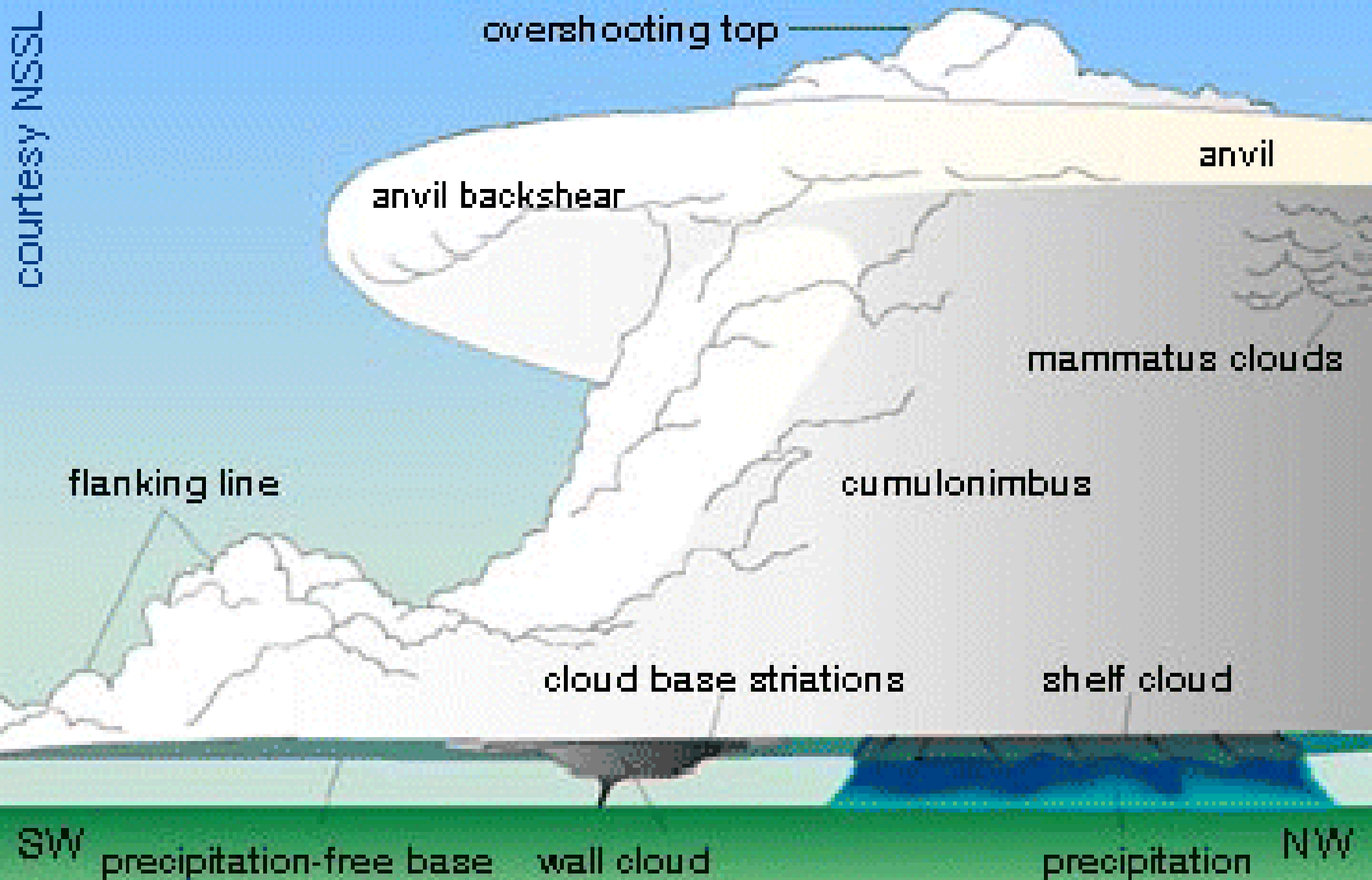
Anvil

Mesocyclone  
(3 to 10 km diameter)

Tornado

Air inflow

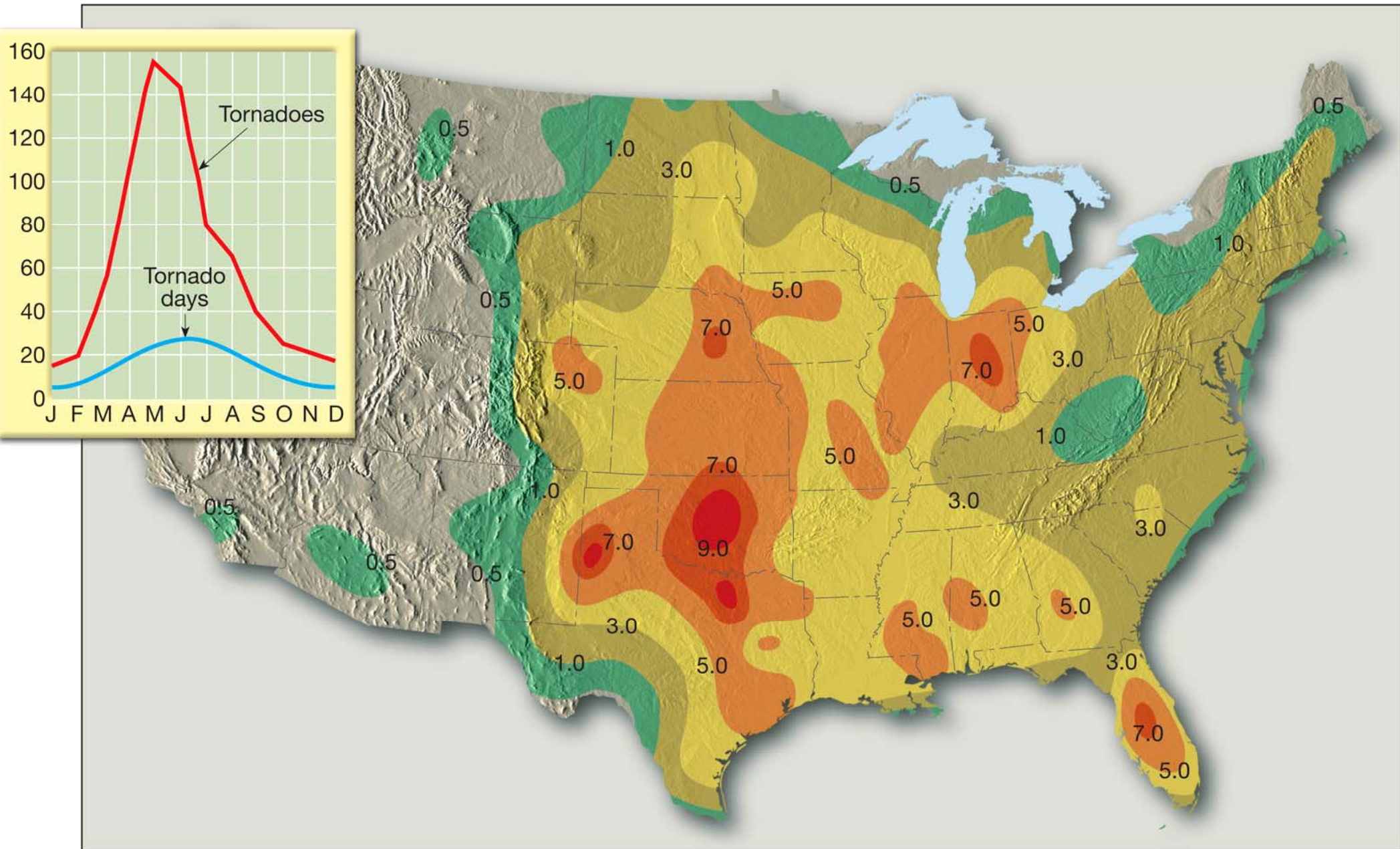
courtesy NSSL



**Idealized view of a "classic" supercell, looking west**





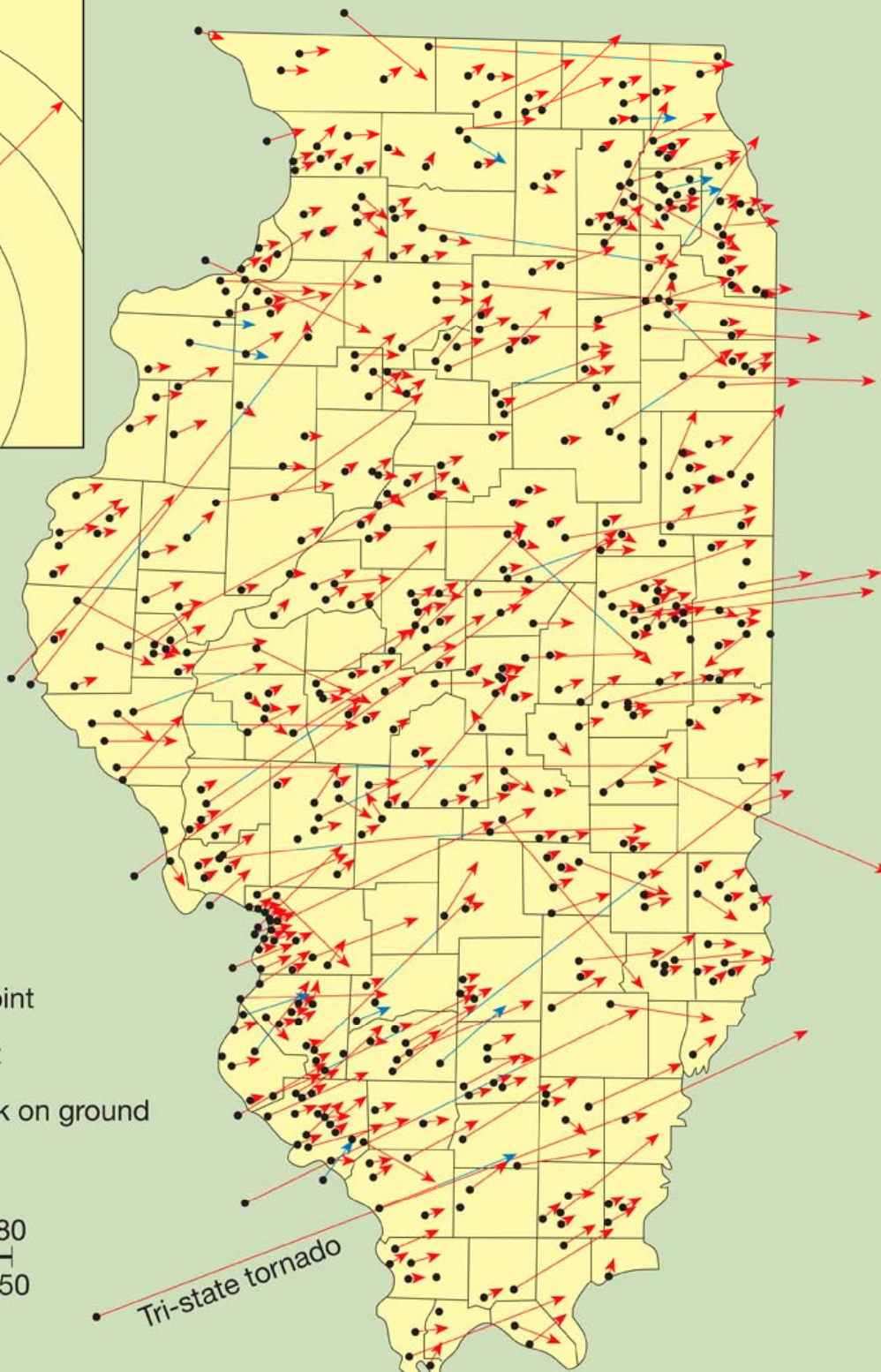
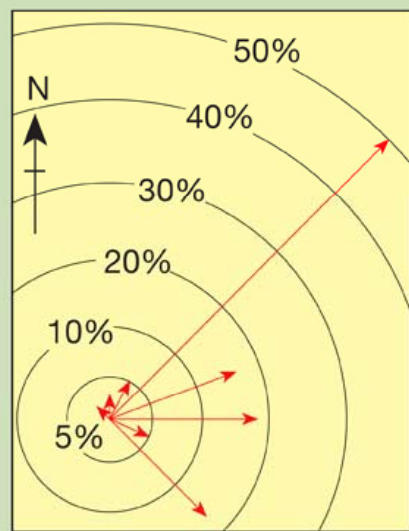


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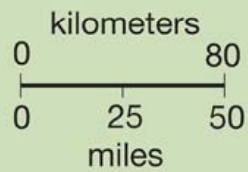








- Beginning point
- Tornado aloft
- Tornado track on ground



Tri-state tornado







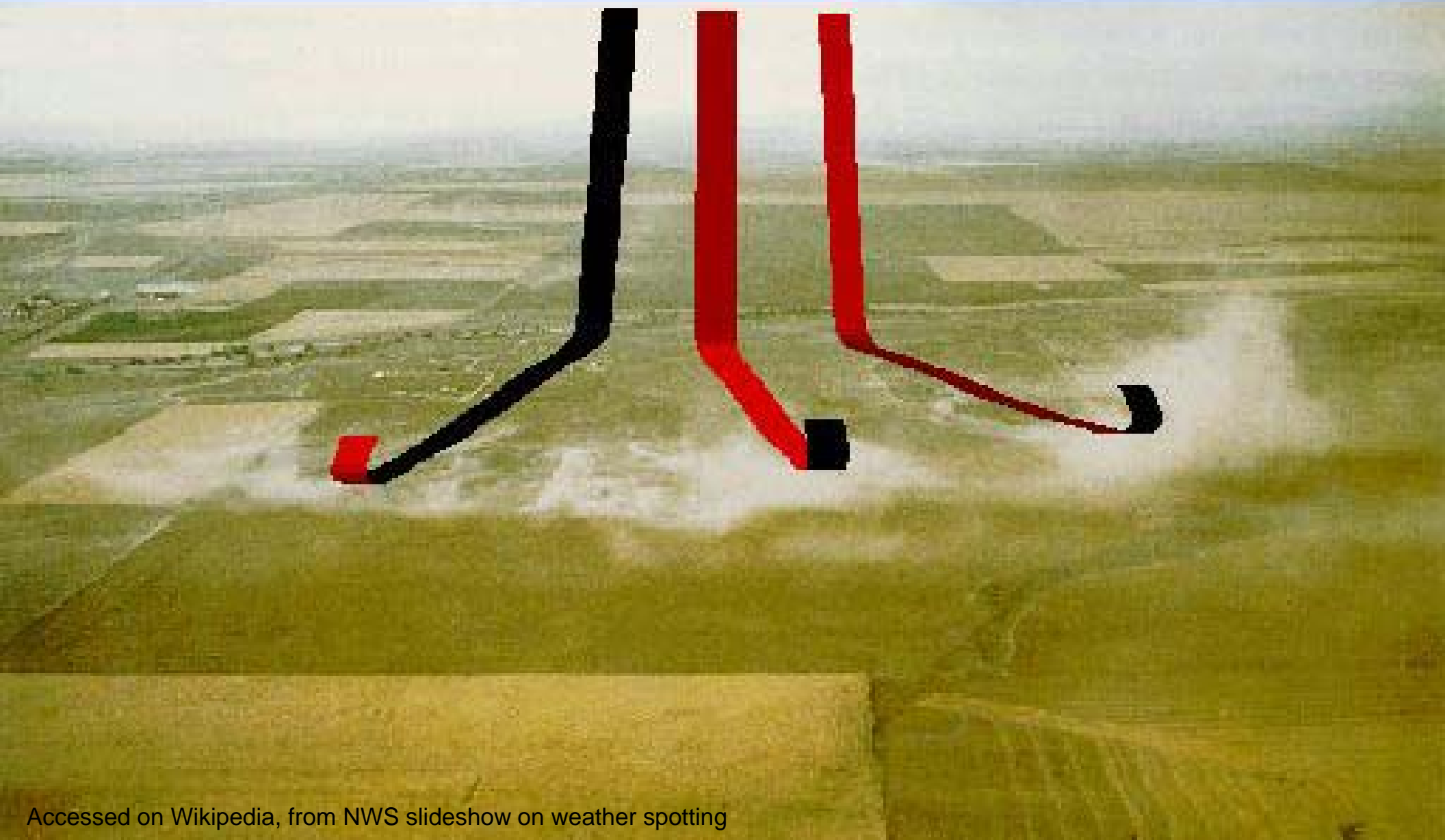








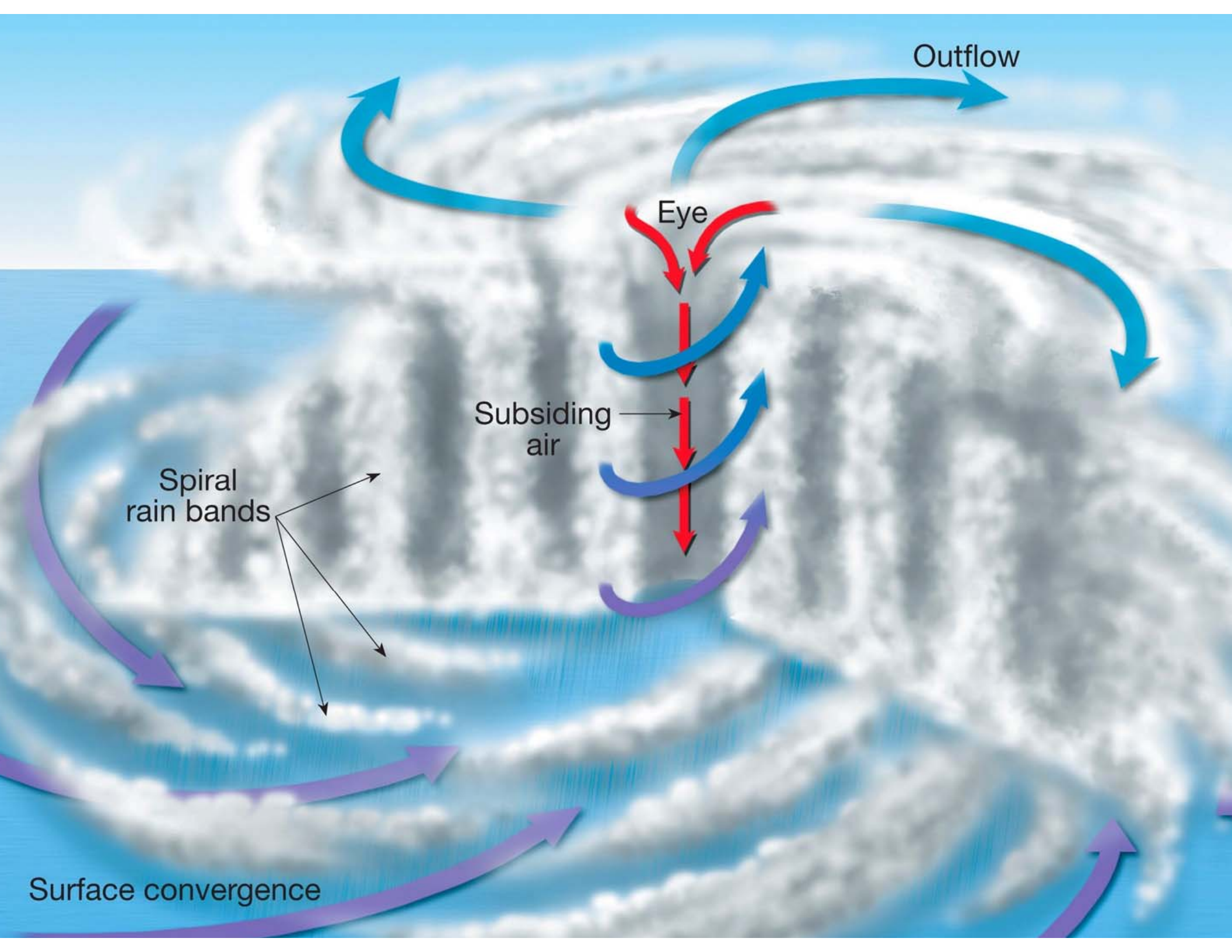
# Microburst - Dry





Tropical  
cyclone:  
Hurricane  
Katrina—  
satellite  
image





Outflow

Eye

Subsiding  
air

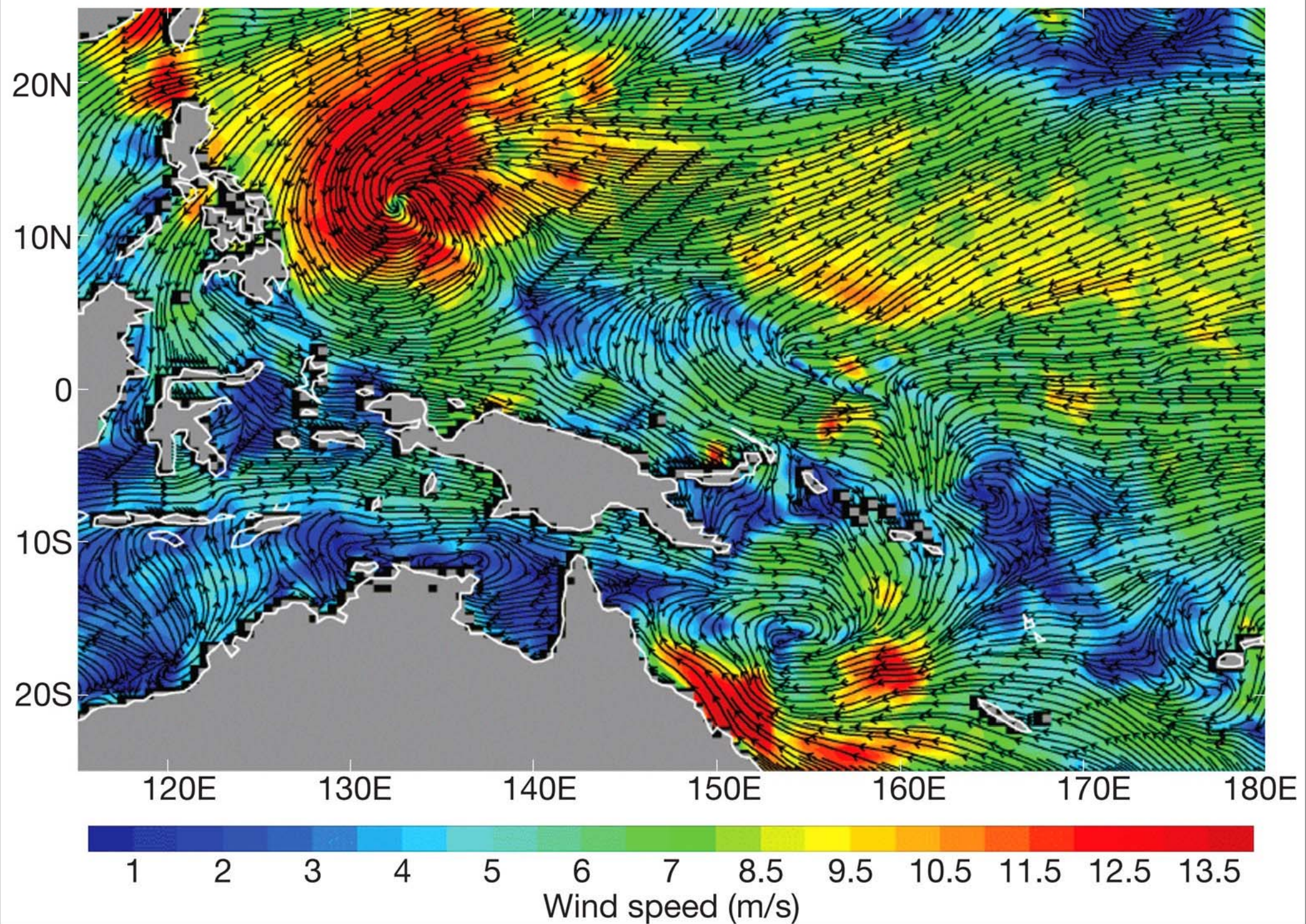
Spiral  
rain bands

Surface convergence

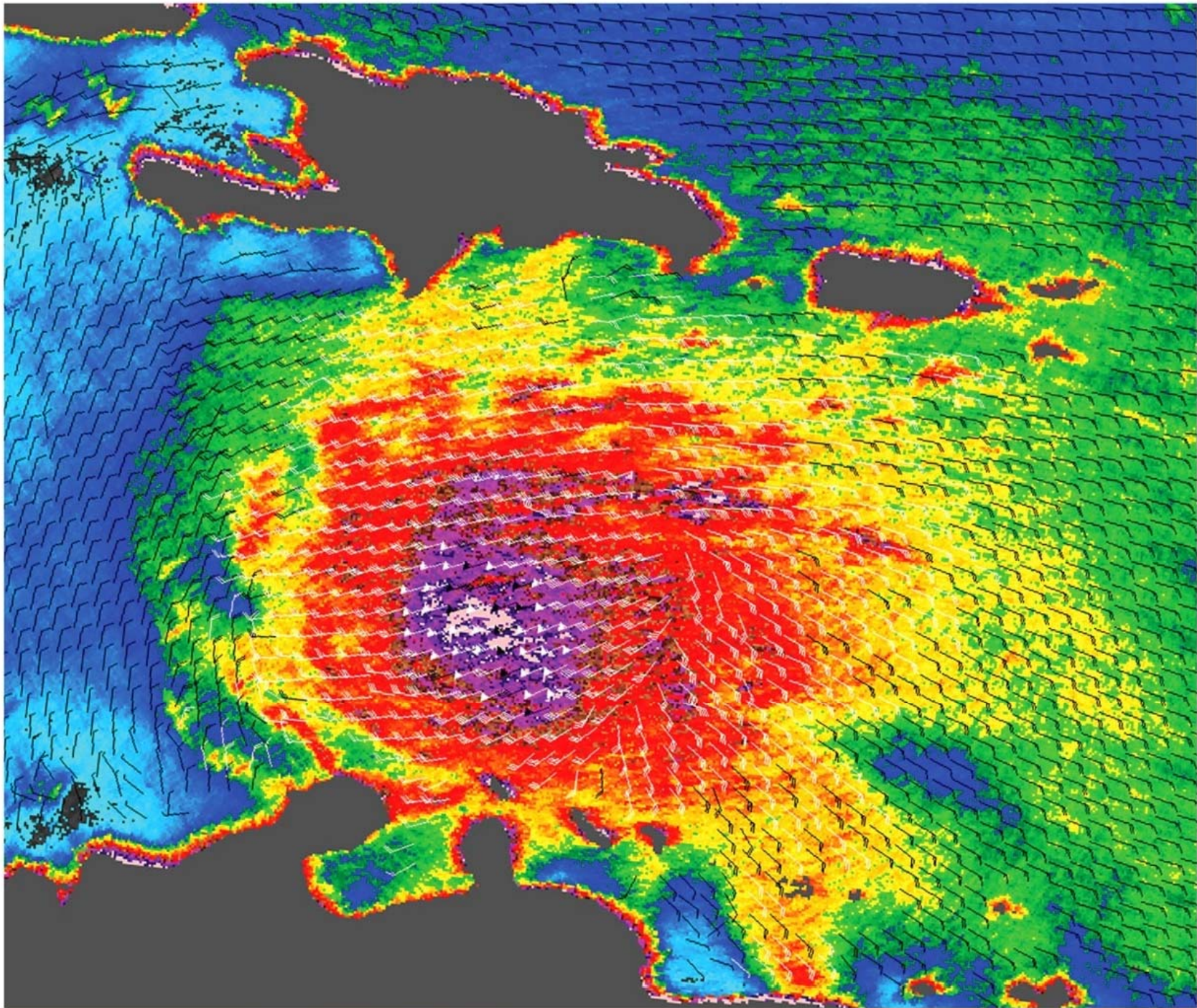










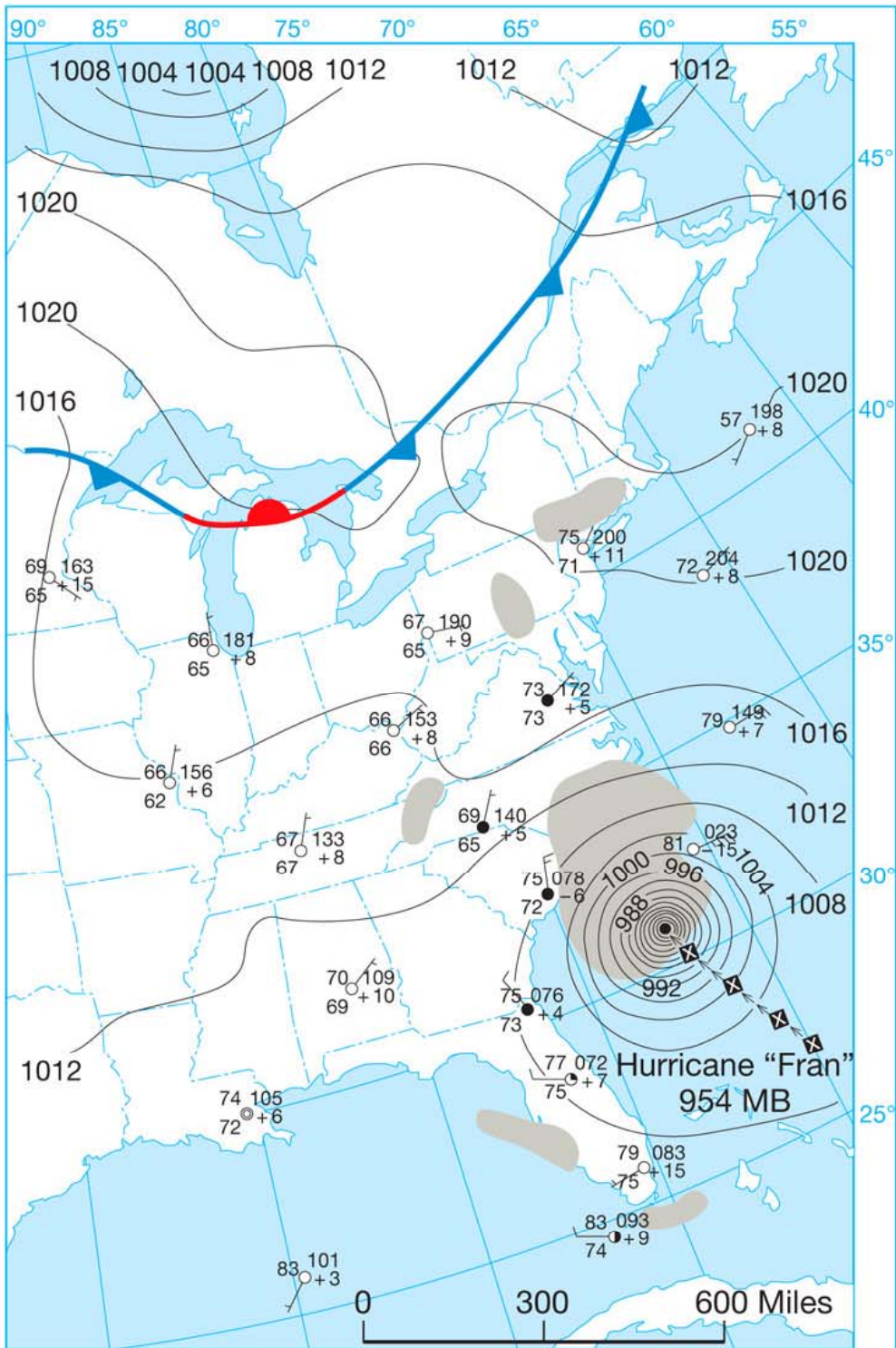


Wind speed (knots)

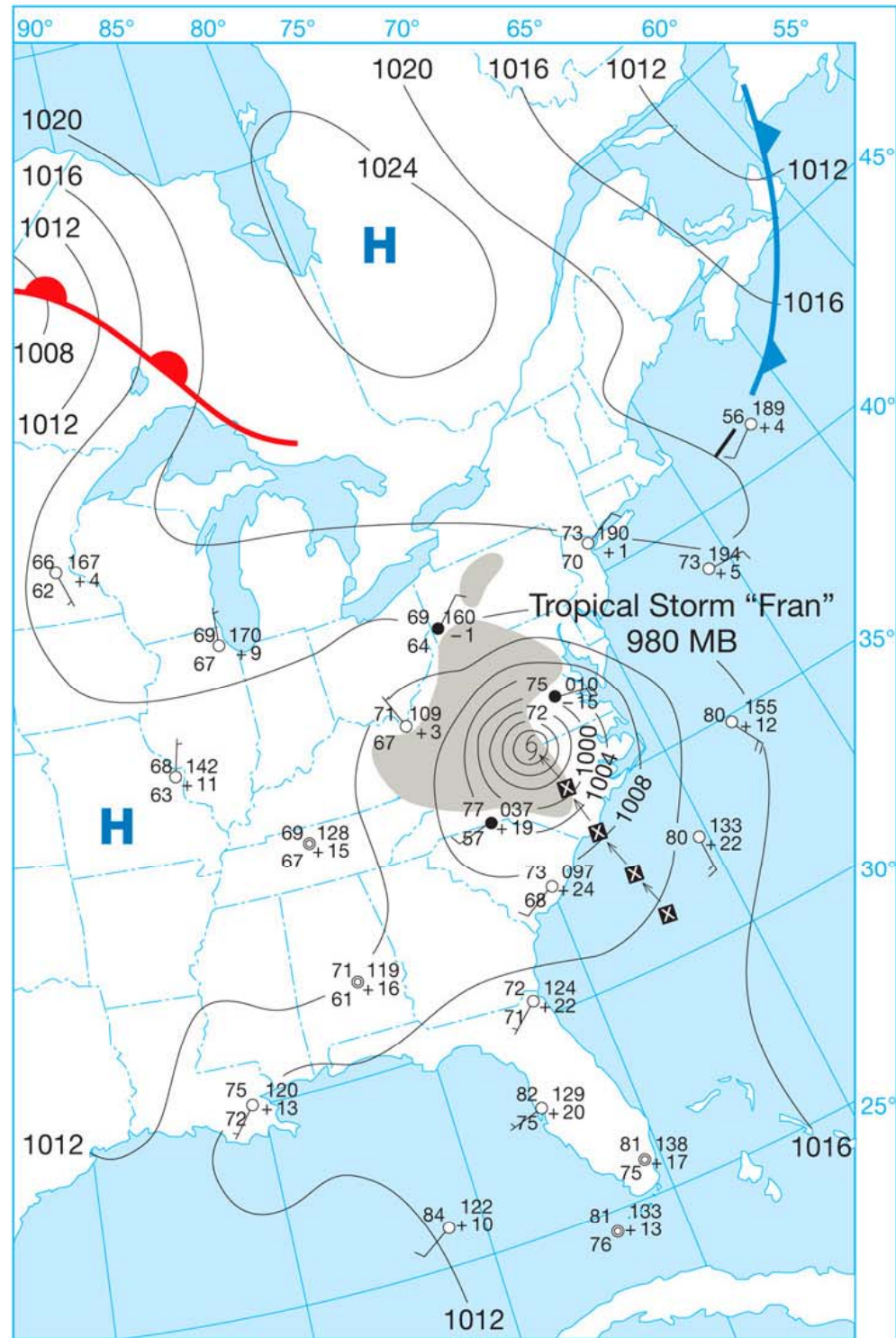








Thursday, September 5, 1996



Friday, September 6, 1996

# Path of Katrina





