

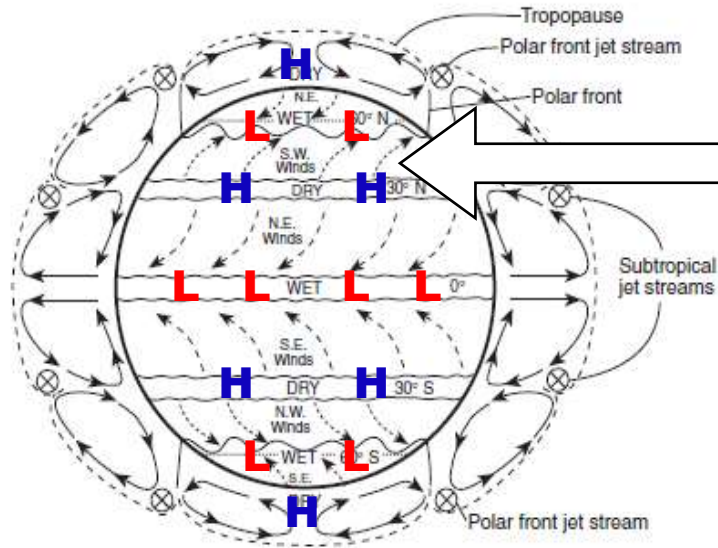
# Topic: Atmospheric Variables

Aim: How do global winds move the weather?

## Planetary Wind and Moisture Belts in the Troposphere

The drawing on the right shows the locations of the belts near the time of an equinox. The locations shift somewhat with the changing latitude of the Sun's vertical ray. In the Northern Hemisphere, the belts shift northward in the summer and southward in the winter.

(Not drawn to scale)



In the U.S., the prevailing westerlies move weather from the SW → NE

recall

notes

1. What causes the Earth's Planetary Wind Belts?

Planetary winds are also known as the **global winds** or **prevailing winds**

Global winds are caused by the unequal heating of the Earth

which creates pressure belts at specific latitudes.

2. What are jet streams?

Fast moving, narrow air currents in the upper troposphere

that help push weather from the west to the east across the U.S.

3. What causes the deflection (bending) of the winds?  
(and ocean currents ...)

The Coriolis Effect caused by the Earth's rotation causes wind to deflect (bend).

In the Northern Hemisphere winds bend to the **RIGHT** of the expected path.

In the Southern Hemisphere winds bend to the **LEFT** of the expected path.