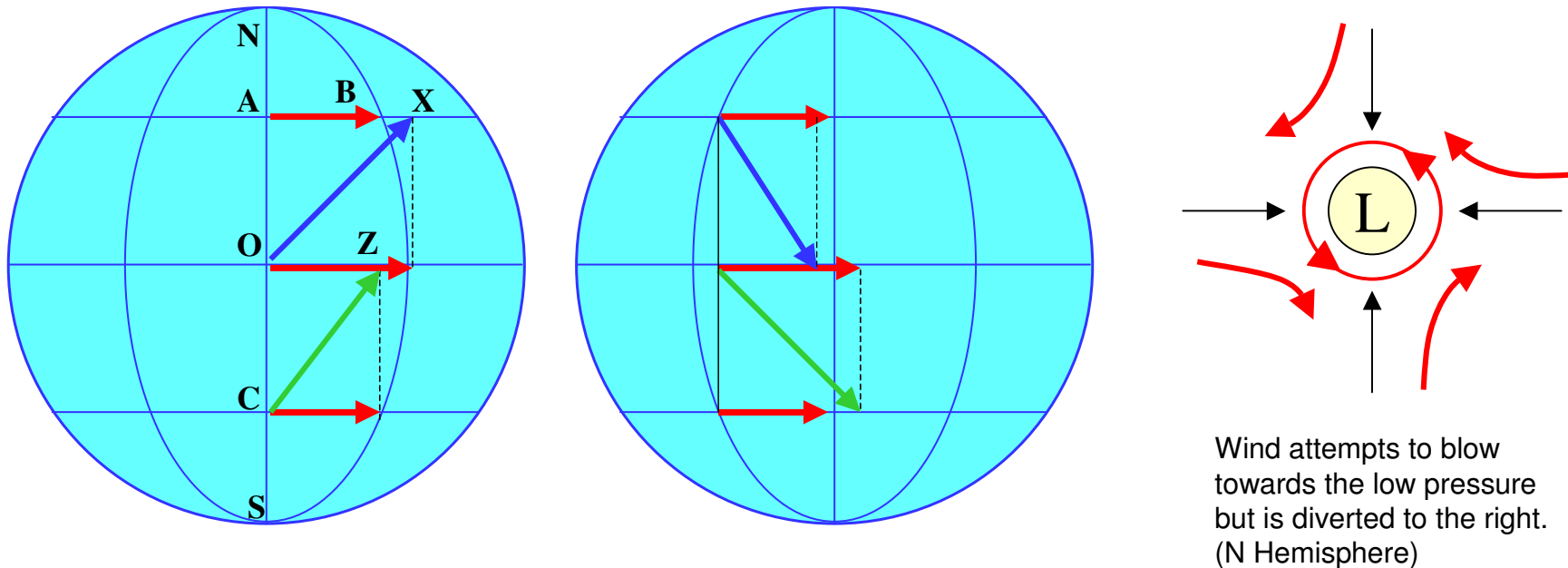




Coriolis Effect (*G-G Coriolis, French scientist, 1835*)

The earth makes one rotation per day, but the linear speed of a stationary object on the surface at the Equator is approximately 900 knots, while closer to the poles the speed of an object on the surface reduces eventually to zero.

If an object is propelled northwards from the equator, it is still also travelling east at 900 knots. It arrives at point X before a stationary object starting at A. It thus appears to be diverted to the RIGHT compared to A-B. This why an air mass which starts as a south wind will become a south west wind, and depressions rotate anticlockwise.

In the southern hemisphere, the north bound object starting at C arrives at Z after a stationary object starting at O. It thus appears to be diverted to the LEFT. Thus depressions in the S hemisphere rotate clockwise.

The right hand diagram shows a similar effect for objects travelling south.

Coriolis affects wind and tides; a north bound current will be deflected to the right in the N hemisphere.