

Do weather systems turn clockwise or anticlockwise?

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The main force which causes air masses to turn is called the Coriolis force. It is due to the equatorial regions moving faster than the polar regions as the earth rotates.

The net result of the Coriolis force is that in the southern hemisphere, winds around low pressure systems or cyclones move clockwise and winds around high pressure systems or anticyclones move anticlockwise. (An intense cyclone is called a 'tropical cyclone' or sometimes a 'hurricane' or 'typhoon'.)

In the northern hemisphere they go the other way round, so if you are reading material written in England or the USA you need to remember that they will talk about these things going the opposite way to the way they go in Australia.

The strength of the force depends on the latitude. The Coriolis force is zero at the equator and at its maximum at the poles. It imposes a turning rate of one revolution per day, the same as the time for the earth to rotate.

Because the Coriolis force is zero at the equator, there are no rotating storms (cyclones or anticyclones) near the equator, between 5°N and 5°S, although of course there is other severe weather. Because of the one-day rotation time, storms or weather phenomena which turn faster than one revolution per day, such as tornadoes or dust devils, are the result of larger air masses mixing and these can turn in either direction depending on the forces which gave rise to them.

Knowing which way the major air masses are turning is useful for looking at the synoptic maps because the positions of the highs and lows can give a guide to the general direction of the winds in your area and knowing which way the wind is

coming from gives you an idea of the expected weather.

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