DEFINITIONS

Atmospheric Pressure. The pressure of the atmosphere at any point due to the weight of the overlying air.

Isobars. Areas of like pressure are joined by lines called isobars (from Greek *isos* [same] and *baros* [weight]).

Low Pressure Areas. Low pressure areas (often called lows, cyclones, or depressions) are areas of relatively lower pressure, with the lowest pressure in the centre.

High Pressure Areas. High pressure areas (often called anti-cyclones) are areas of relatively higher pressure, with the highest pressure in the centre.

Continental Air Mass. Air mass will be dry as it formed over land.

Maritime Air Mass. Air mass will be moist as it formed over water.

Arctic Air Mass. Air mass will be cold as it formed over the Arctic.

Polar Air Mass. Air mass will be cool as it formed over the Polar region.

Tropical Air Mass. Air mass will be warm as it formed over the Tropical region.

Wind. The horizontal movement of air within the atmosphere.

Pressure Gradient. The rate of change of pressure over a given distance measured at right angles to the isobars.

Sea Breeze. Occurs during the day when the land heats up more rapidly than the water.

Land Breeze. Occurs at night when the land cools down faster than the water.

Diurnal Variation. This is due to the heating processes which occur during the day, creating vertical currents and pressure gradients. At night, when the heating processes cease, the vertical currents diminish and the pressure gradients become shallower.

Coriolis Force. The rotation of the earth causes a deflection to the right (in the northern hemisphere). Coriolis Force also explains why air moves clockwise around a high, and counter-clockwise around a low pressure system.

Veering and Backing. Veering is a change in wind direction clockwise relative to the cardinal points of a compass while backing is a change in wind direction counter-clockwise caused by friction with the earth’s surface.

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