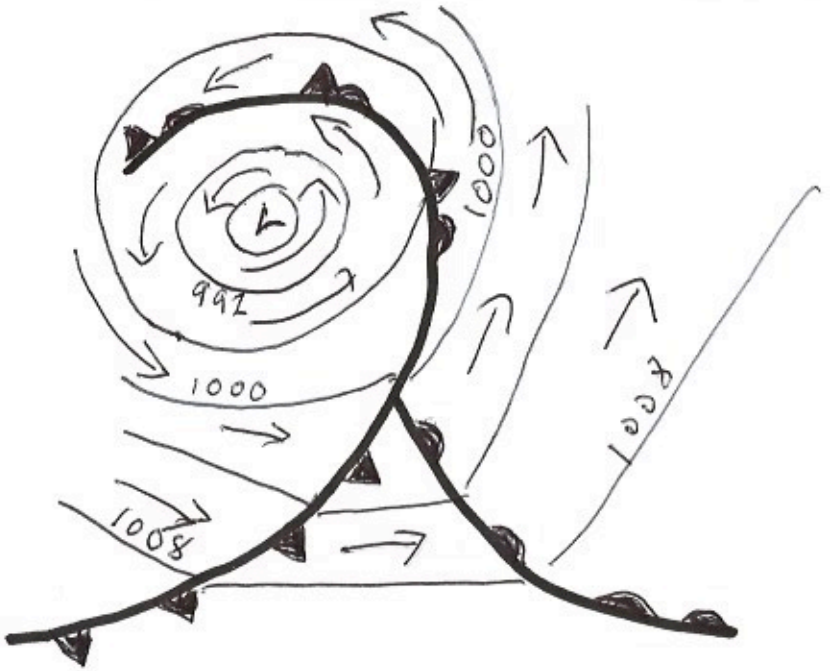
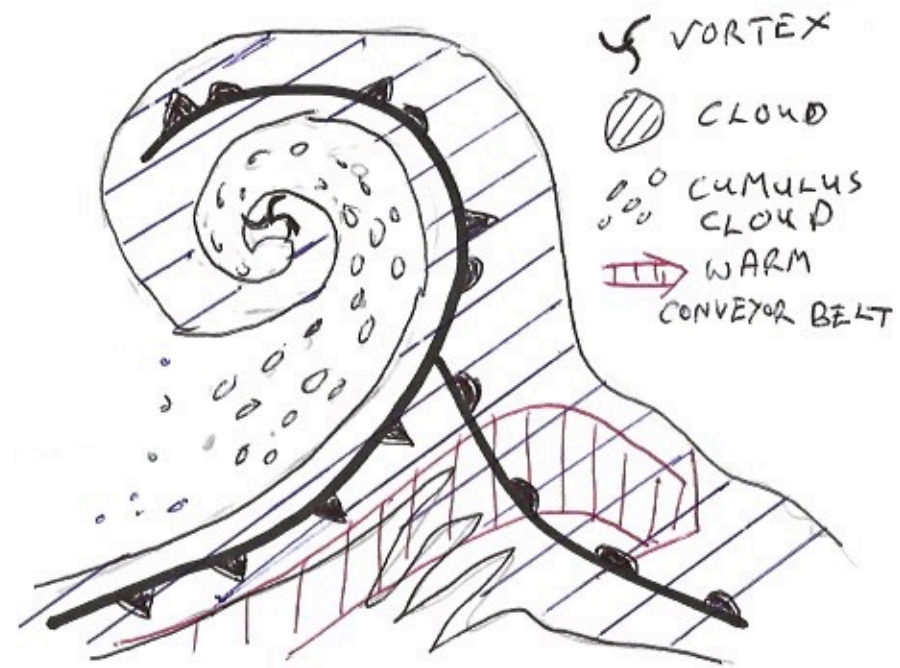
## OCCLUSION : PRESSURE, FRONTS AND WINDS




Most of the mid-latitude frontal depressions that reach the UK are at the occluding stage. We should pay more attention to occlusions and understand better how they from and the weather associated with them.
An occlusion begins when the faster moving more steeply inclined cold front catches up with the warm front and pushes a section of warm maritime tropical air aloft to form an occluded front. The length of the occluded front gradually increases as the warm sector of the depression reduces.
The depression is usually continuing to deepen at this stage. As the pressure falls the system intensifies and wind speed, cloud and rain increase. The low centre loses close association with the fronts.

## OCCLUSION : NEPHANALYSIS (CLOUDS AND FRONTS)




The associated satellite image illustrated by this nephanalysis map shows the cloud patterns that form in an occluding depression.
The warm frontal band of stratiform cloud and the narrower cold frontal band of cumulonimbus cloud are well defined. Between the two is an often banded zone of thinner stratus cloud in the warm sector associated with the so called warm conveyor belt.
The frontal cloud stretches north to follow the occluded front and spirals into a vortex of cloud associated with the centre of the low which no longer coincides with the fronts.
A clearer slot of maritime polar air spirals into the centre with its bands of cumulus cloud.