

WEATHER SYSTEMS

Name

DEPRESSIONS are systems of **L** pressure (because air is tending to rise). They form over the **A** ocean where warm, humid air from the **Tr** meets **C** air from the pole. When they meet, the warmer tropical air is **L** dense so tends to be forced **A** above the colder, **D** polar air. The tropical air (the warm **S**) forms a wedge which moves east towards Western **Eu** and Britain, while the boundary between the warm and cold air is called a **F**. The leading boundary of this sector is called the **W** front, and the rear boundary the **C** front. Along the fronts, air is forced to **R**, thereby **Ex**, **C** until **D** point temperature is reached at the **C** level. Condensation on **A** forms clouds and **R** above this level.

* The approach of the warm front brings high level **C** clouds, followed by increasingly deep and **L** level stratus clouds which tends to bring an extended period of **St** rainfall (6-10 hours) and **A** south-west winds.

* The warm sector brings **W** temperatures, broken **C**, **L** rainfall and **Li** winds.

* The cold front brings **C** temperatures, **S** winds from the **N**-west and **Cum** clouds that can bring a **S** period of more **Int** rainfall (often a **Th** storm).

* The whole system takes about **A** hours to pass.

Because the cold front moves faster than the **W** front, it eventually **Ca** it up, forcing the warm sector entirely off the **Gr**. This is called an **Oc** (or an **Oc** front).

ANTICYCLONES are **H** pressure systems (ie:- air is tends to **S**). Descending air contracts, **W**, its relative humidity **F** and any clouds tend to **Ev**. The weather brings **F** clouds, **Cl** skies, **L** rainfall, **M** sunshine, and light **W**. The clear skies in summer cause hot weather (long period of day **L**) while in winter, the long **N** allow heat to escape (cold ground surfaces then cause radiation **F** and **Fro** to develop). In summer, the clear skies cause mist and **D**. Fog is made worse in an anticyclone because urban **P** are trapped in the lower layers of the atmosphere by the **De** air. Air quality can be very **P** and fog mixed with smoke has been named **S**, and is particularly common in cities with badly controlled industry or with surrounding **Hi** which trap air in the city (like **Mex** city, Rome, Los **A** and **Ath** (also London before the **Cl** Air Act in the 1950's). An anticyclone is much more **A** than a depression, and can remain stationary for several **D** or, in extreme cases several **W**.