Weather (student contribution to Wishees web site)

Weather is the changes in atmospheric conditions around us over a short period of time. Scientists use measurements of these atmospheric conditions in order to measure ozone levels. There are many ways in which weather can be measured such as temperature using a thermometer in degrees centigrade. Another way to detect the ozone level is to measure atmospheric pressure. Atmospheric pressure is a measure of the force exerted on a surface by the column of air directly above it. It is measured with a barometer in millibars.(Mb). Wind speed can also be used to detect ozone levels. An anemometer measures wind speed in mph, the most common of which is a windmill. Three cups are fixed to a central shaft and the stronger the wind blows the faster the windmill rotates. All of the above measures carry the advantage of being easy to use and generate a clear, reliable set of data from around the world. In relation to determining ozone layer concentrations, data from all three of these measurements tells us about the movement of air masses and thus the ozone within that air mass. One final way of determining ozone concentrations is measuring the intensity of sunlight. This is done by using a Campbell Stokes Recorder which is a glass ball that concentrates solar energy onto a thick piece of card. Solar intensity is more difficult to measure than the others and there are fewer locations worldwide where data can be collected. However, this method does have the advantage of giving a direct ozone concentration recording and also a measurement of UV intensity on the earth's surface. It therefore makes a useful additional measure to the methods described above.