

The Four p.m. REPORT

The Weather Man

Unravels those puzzling
"B's" and "OD's" and
Tells you what the
Forecast Means

in

PLAIN ENGLISH

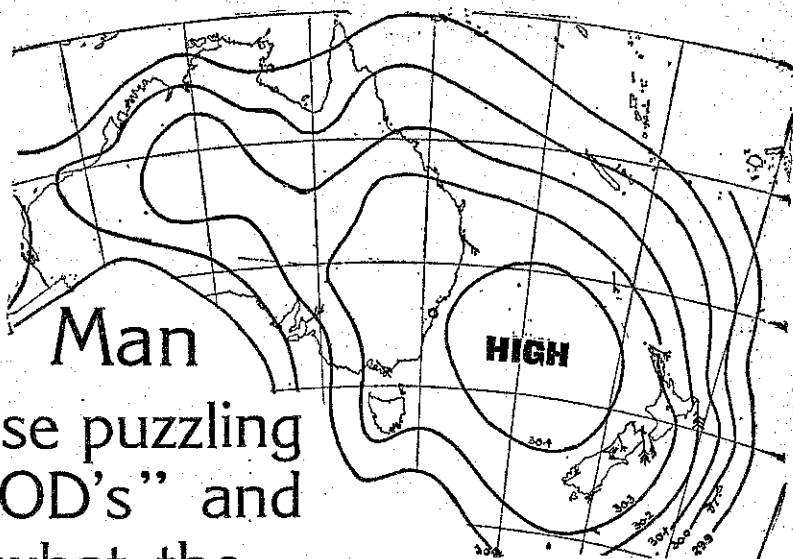


We are still frequently asked the meaning of such terms as "cyclone" and "anticyclone." Even the expressions "districts with a westerly aspect" and "milder temperatures" appear to cause some difficulty, although it seems to us that there should be no ambiguity about them.

It must be confessed that our forecasts are expressed in somewhat stilted and technical language. No doubt some of the stiltedness is due to the fact that after preparing forecasts day-in, day-out, on Sundays, week-days, and holidays, for a number of years in succession, one loses the first freshness of one's interest in the weather as a subject of conversation and is liable to sink into routine modes of expression. But far more important than this is the fact that the number of words we can use is strictly limited. Our reports have to be telegraphed to different parts of the country, and that takes time and costs money. Consequently, in our efforts to try to get the maximum amount of information into the smallest compass, we have to use technical and semi-technical terms and a condensed style. In this respect we are at a disadvantage as compared with the local weather prophets who flourish in some of our cities. These gentlemen have the benefit of our reports, they are able to issue their forecasts some hours later than we, and, with the support of a local paper, are able to spread themselves of a large area of print.

I will try, then to describe some of the more important processes and principles of weather forecasting, and in doing so elucidate a number of technical terms. Weather forecasts are based on a knowledge of conditions in the surrounding air on all sides, and the greater the area over which we know the weather conditions and the greater the detail of our information, the better we are pleased. The reports come to us by telegraph, cable and wireless message. In New Zealand we receive, in addition to local messages, reports from about a dozen places in Australia, from Lord Howe Island in the North Tasman Sea, from Norfolk and Chatham Islands, and from a varying number of ships at sea.

As the reports come in they are written on to maps which are specially prepared for the purpose. The direction and speed of the wind is shown by arrows which, as they are drawn on the map, fly with the wind. The point of the arrow lies in the position on the map cor-



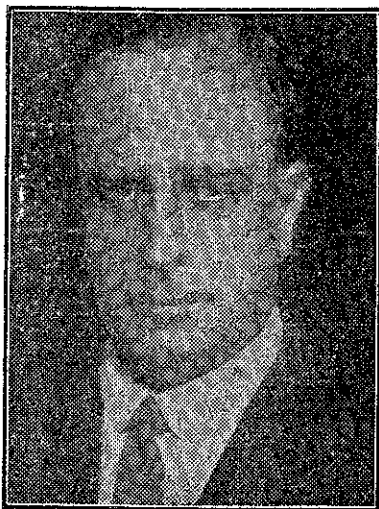
responding to the place from which the report comes. The barometer reading, or air pressure, at sea level, the temperature, and the weather are also shown on the map. The next thing is to draw the isobars, or lines of equal pressure. The isobar for 30.0 inches, for instance, passes through all points at which the pressure is 30.0

inches. On one side of it barometers would read higher than 30.0 inches, and on the other lower. Isobars are drawn for each tenth of an inch.

When they are drawn, it will be found that they do not run haphazardly over the map, but are fairly regular and tend to curve round certain areas on the chart where the pressure is higher or lower than its surroundings. These areas are usually marked "High" or "Low" on the map, and, indeed, some weather services speak of them as "Highs" and "Lows." In describing and defining isobars, they are often compared with contour lines, or lines of equal height on an ordinary map. According to this analogy an area of high pressure would correspond with a mountain, a mountain, it is true, of huge extent and of gentle slopes. The low pressure area would correspond with a valley or depression in the surrounding country.

An anticyclone is, then, merely one of these pressure mountains, while for the low-pressure areas meteorologists use the same term "depression" as used when referring to low-lying land areas.

Now, a very pronounced feature of the average condition of the atmosphere in the Southern Hemisphere is a continuous ridge of high-pressure surrounding the globe in sub-tropical latitudes, with a corresponding valley or trough of low pressure in the sixties of latitude, or just north of the Antarctic Circle. There is thus a downward slope of pressure over New Zealand from north to south. This slope is not a uniform slope, however, but is seamed with valleys or broken by basins of low pressure. The valleys open to the south into the great trough in sub-Antarctic regions and are widest at their southern ends. The isobars consequently take the shape on the map of inverted V's. Depressions of this kind are, therefore, sometimes called V-depressions. (Continued on page 2.)



—S. P. Andrew, photo

This is what DOCTOR KIDSON told 2YA Listeners