

S.W.I; BC; Smooth

The Weather Report and Forecast

by

THE weather is a very variable quantity, and every day there are quite a lot of facts about it, each of which some persons are anxious to know. The majority of these people would be best pleased if we were just to write a chatty little note telling them exactly what they want to know and no more.

But the requirements of different people are so varied that it would take a long time to cater to them all, and during most of that time the majority would be bored by details in which they were not interested. It is not possible for them to switch in only when the little bit they are interested in is coming through. Besides which, weather forecasting has not reached such a pitch of accuracy that the meteorologist, even at the best of times, can say exactly what is going to happen at all places.

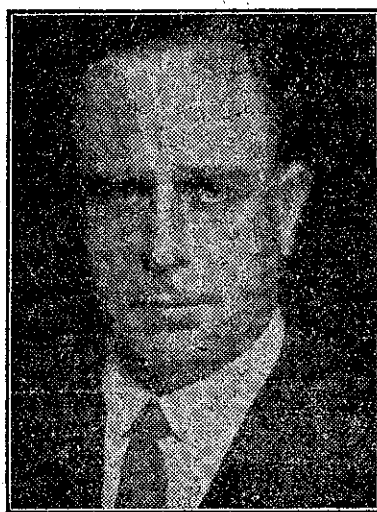
In order to get the report into reasonable compass, then, we have to make use of a certain number of technical terms and forecast only the general features of the weather.

When it comes to giving the weather at the various ports, a kind of shorthand has to be used. Even so, although ships' officers are urging us to include additional stations, city dwellers have lost patience by the time the five minutes devoted to the weather is up, and are dying to get back to their jazz. They, therefore, clamour for the station reports to be cut out.

The quickest way in which to convey an understanding of the situation to anyone with a knowledge of meteorology is to give him as much as is readily possible of the information which the meteorologist himself has received, and then to give the meteorologist deductions from it. And nowadays, it must be remembered, practically all ships' officers have a working knowledge of meteorology, all aviators should have it, and most children are beginning to get it.

MOST farmers have some idea of it, because the weather affects them so vitally. The report begins, therefore, with a brief description of the general situation. The best guide to the latter is the distribution of air pressure in all the surrounding regions. Air pressure is what the barometer measures. I have previously compared the variation of pressure from place to place with the variation in contour of a land surface.

A region of high pressure may be compared to a hill and one of low pressure to a valley, or a basin, according to its shape. The meteorologist calls the pressure hill or area of high pressure an anti-cyclone, and



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the low-pressure area a depression. Generally there is more or less of a ridge of high pressure extending from Southern Australia across to the north of New Zealand. Along this ridge, generally at a distance from each other of about 2000 miles, are larger elevations or anti-cyclones. Between two anti-cyclones is a saddle which leads on the south side to a pressure valley or depression.

Sometimes the valley has several branches, or the first depression is followed by secondary depressions. Now, the important thing to remember is that each of these pressure features has a characteristic system of wind and weather with it, and that they are practically always moving from west to east.

ANYWHERE near the centre of an anti-cyclone the weather is generally fine and winds light. As the anti-cyclone begins to move away eastward and the depression between it and the next anti-cyclone advances, the barometer falls and the wind commences to blow from the north-west, and the steeper the slope of pressure toward the depression, the stronger the wind will be. The sky soon clouds over and rain sets in. Usually it is

confined to districts with a westerly aspect, that is, those which meet the north-west winds directly.

When the barometer has reached its lowest there is a sudden change of the wind to south-west, the temperature falls, and the barometer usually starts to rise rapidly. The heaviest rains are near the trough-line of the depression or the bottom of the pressure valley, as we may term it.

The southerly winds bring most of the rain which falls in eastern districts and the nearer they are to south and the further from west, the better are the chances of rain in these districts. After a while, the next anti-cyclone begins to approach. The wind drops and the weather improves.

Occasionally, instead of the usual valley of low pressure opening to the south, which is our ordinary westerly depression, a cyclone may form in or wander into our neighbourhood. The cyclone is an area of low pressure of approximately circular form, with high-pressure all round. It may be likened to a basin in the mountains. Now, the rain is generally widespread and heavy round a cyclone, and since the winds usually blow from the north-east as it approaches, and from the south-east while it is passing, it brings its worst weather to the east coast. It is often, too, accompanied by fog.

The descriptions I have given are necessary very brief and general in character. As a matter of fact, no two depressions are quite alike. And the winds experienced during the passing (Continued on page 24.)

THE DAILY REPORT

Station.	Barometer, Inches.	Temp., F.	Wind, Direction, Force.	Weather.	Sea.
Cape Maria	2964	59	W.	6 B	R.
van Diemen	2957	56	W.S.W.	3 BCP	R.
Auckland	2952	58	Calm	BCM	R.
East Cape	2953	52	E.S.	2 CG	S.
Cape Egmont	2960	46	E.	5 O	R.
Farewell Spit	2973	47	S.S.E.	2 O	
Wellington	2968	45	S.W.	3 OMR	C.
Cape Campbell	2962	51	S.	2 BC	M.S.
Greymouth	2976	43	N.	4 C	M.S.
Akaroa	2975	43	S.E.	1 O	S.
Lighthouse	2983	37	S.	2 B	M.
Puysegur Pt.	2976	59	S.W.	2 B	
Chatham Is.	3015	—	S.	3 B	
Sydney					
Hobart					

Abbreviations.—R, Rough; S, Smooth; C, Considerable; M.S., Moderate Swell; M, Moderate.