

## Book Reviews

### Cloud types for observers (HMSO), £9.50.

The unification of cloud definitions and classifications occurred in 1930 when the *International Atlas of Clouds and States of the Sky* was produced. In 1956 the WMO prepared the *International Cloud Atlas* for the purpose of 'meeting the day-to-day needs of the mass of meteorological observers at surface stations'. Nothing much has changed in over 50 years. The question is, should it continue unchanged? A good case could be made for change so that the state of the sky is reported in a way that is more in keeping with present day forecaster knowledge and forecasting methods. Until this happens, if ever, we are stuck with an archaic system.

A big problem confronting anyone attempting a new book dealing with cloud recognition is that the subject is circumscribed by WMO classifications, definitions and etc. It is rather difficult to come up with anything really original. The best that can be done is to try and improve upon what has gone before. This effort by the British Meteorological Office has succeeded, at least in some respects.

First of all, it looks good. It is eye-catching and extremely well produced. The dramatic front and back cover photographs should encourage people to pick it up. This is an important 'plus', for the making of a skilful observer requires, among other things, ongoing reference to whatever textbooks are available. This one would be much more likely to be put to regular use than would, for instance, the *WMO International Cloud Atlas*. Another advantage of this book is that it is built to last, even if it is used in the rain, as a keen observer may feel the need to do. Praise be to plastics. So much for the outside, what about the contents?

The photographs are certainly very good, both as artistic pieces and as examples of the different cloud types. The British Meteorological Office was fortunate in having so many highly skilled contributors (15 in the general section). The fact that all of the photographs used in a number of Bureau of Meteorology publications, e.g. *Observing the Weather*, were produced by the one person (G. E. Tralaggan) is a testimony to his talent, for they are equally as good as in the UK product.

Deciding, what cloud is that? is easy when the classic features are apparent, as is the case with the photographs in this publication. The hard part for most observers is when the state of the sky is not clear cut. A text should be detailed enough for an observer to gain a basic understanding of how clouds form and disperse. *Cloud Types for Observers* does not give this information. For example, in referring to C<sub>L</sub> 4, it says, 'This type of stratocumulus most often forms when the upper parts of cumulus clouds, that

had been gaining height are no longer able to do so, begin to spread out horizontally'. Similarly, in the description of C<sub>M</sub> 6, the upward growth of cumulus cloud is 'arrested'. (Pages 4 and 17.) Surely some mention of 'stability' would have been appropriate. The British Meteorological Office produced, *A Course in Elementary Meteorology* back in 1962, within which is a very good chapter on clouds. An abstract of this, fitted in the vacant spaces beside the photographs, would have greatly enhanced the value of this book.

If one had to nominate the most important criticism of the text it would be that there are too many differences between the United Kingdom and Australian practices and descriptions for it to be recommended to local observers. The heights at which the base of low clouds form over the British Isles is much lower than they generally form over Australian stations. The figures given as 'usual' heights could be very misleading.

Sometimes the only feature that can be used to identify a cloud is the type and intensity of precipitation observed. A few of the UK views on this subject are a little difficult to accept, e.g. in the book it is stated that considerable amounts of rain may fall from stratocumulus along coastal and mountain areas. We would opt for nimbostratus when the precipitation is anything but of weak intensity, so would WMO.

Even though clouds still come along in the same shapes, sizes and colours as they ever did, there will always be a use for better and brighter information about them. *Cloud Types for Observers* will, no doubt, be put to very good use by UK observers. Its value at other places, such as Australia, would be far less.

A. K. Day

### The Weather Book by Ralph Hardy, Peter Wright, John Gribbin and John Kington (Michael Joseph Limited, London, 1982), hardbound, 224 pages, £12.95.

It should be said from the outset that *The Weather Book* is of the coffee-table genre but this should not discourage anyone from reading it. It has a rather shallow Foreword by Nigel Calder, which in no way sets the scene for this quite superb book. If the reader wishes to take a sneak preview, I would recommend a study of the front cover rather than the Foreword. The front cover has a pastoral scene photographed at the height of each of the four seasons; it simply,

but beautifully, illustrates the wonderful variety and character of weather.

*The Weather Book* is written by three meteorologists; Wright, Hardy and Kington, all with practical experience including forecasting, and Gribbin, who has a more general scientific background. This has given a depth, balance and authority, which I have not seen surpassed in a book aimed at the popular meteorological market. They have produced an extremely comprehensive text without a single equation, but still with a conciseness and breadth that even an extremely well-read meteorologist would have difficulty in faulting.

The book has a large format with some 224 pages illustrated with superb colour photos, historical prints, and delightfully executed and informative line drawings. The illustrations are to be found on virtually every page and seem to, quite amazingly, offer a variety of subject matter which probably will surprise even the most enthusiastic meteorologist. In this respect, the book is well worth a good browse, just to look at the pictures.

It is more than just a picture book however. It systematically works its way through virtually all areas of meteorology. The opening chapter sets the scene in a conventional way by examining the underlying physics, chemistry and related aspects of the atmosphere. Then follows a chapter divided into 11 sections, each covering broadly classified natural phenomena; rain, snow, clouds, wind, and so on. A small symbol conveniently identifies each section for quick reference and each section stands on its

own. Although they occupy only a few pages each, they are remarkably comprehensively covered.

Next follows a section on the world's weather, covering the earth's climate and climate zones, the impact of weather on man and related topics. At this time of great interest in the World Climate Program, this chapter is most timely. A chapter on the changing climate follows, it covers climatic fluctuations from prehistoric times to the present day, the types of climate and climate change and attempts to assess future climate trends. In this rather controversial field the book presents an extremely readable and balanced view.

The final chapter is on forecasting. Initially, I was surprised to find that the great bulk of this chapter covered the historical aspects of weather forecasting. Modern forecasting practices, that which we would consider the pinnacle in meteorological development, are confined to a few pages at the end. In retrospect, however, I would think most readers will find this a very valid approach. Weather forecasting is not really as modern a pursuit of mankind as we may think, but has a very long history, and this book certainly highlights that.

The book is rounded off by a short but comprehensive glossary and a very complete index.

Overall, this must be one of the finest general, popular books on meteorology yet produced and is one which I would strongly recommend for anyone's library, be they professional meteorologist, or lay-person with only a passing interest in the weather.

**R. R. Brook**