

Table 1. MONTHS DURING WHICH THE MEAN ZONAL WIND COMPONENT AT CHRISTMAS ISLAND CHANGED SIGN

| Level | From east to west | From west to east | From east to west |
|--------|-------------------------|-----------------------------|--------------------------|
| 10 mb. | | (Oct. 1957)- (Nov. 1957) | |
| 20 mb. | Oct. 1956- Nov. 1956 | (Dec. 1957)- (Jan. 1958) | |
| 25 mb. | Dec. 1956- Jan. 1957 | Mar. 1958- Apr. 1958 | Apr. 1959- May 1959 |
| 30 mb. | Feb. 1957- Mar. 1957 | Apr. 1958- May 1958 | May 1959- June 1959 |
| 40 mb. | Apr. 1957- May 1957 | June 1958- July 1958 | June 1959- July 1959 |
| 50 mb. | Apr. 1957- May 1957 | June 1958- July 1958 | July 1959- Aug. 1959 |
| 60 mb. | May 1957- June 1957 | Sept. 1958- Oct. 1958 | Aug. 1959- Sept. 1959 |

Table 1 shows the months during which the mean zonal wind component at levels above 60 mb. at Christmas Island changed from easterly to westerly or vice versa. (The two bracketed entries are based on the maximum winds reported, as insufficient data were available to give monthly mean values.) It will be seen that, as was found by Vizeze², the change in wind direction occurs first in the higher stratosphere and then gradually descends. The one

occasion when it was possible to detect the change at 10 mb. suggests that it takes almost a year before the change in wind direction at 10 mb. reaches 60 mb. When the change in wind direction occurs at 25 mb. it is some 6 months later before the corresponding change occurs at 60 mb. The curves in Fig. 2 show that the amplitude of the fluctuation decreases downwards.

From such investigations as have been possible with the data available there was no detectable connexion between these events in the equatorial stratosphere and events in the equatorial troposphere. If adequate data are available, it is hoped to determine the extent to which the fluctuation extends north and south of the equator. Results so far obtained suggest that within 10° the fluctuation still exists but with decreased amplitude.

This communication is published by permission of the Director General of the Meteorological Office, and the subject is discussed in detail in a paper which will be published elsewhere.

¹ McCreary, F. E., Pearl Harbor Joint Task Force Seven Met. Center, *Tech. Paper 11* (1959).

² Vizeze, W., Los Angeles, University of California, Inst. Geophys. Contract No. AF 19 (804)-2134 Final Rep., 57 (1958).

³ Ebdon, R. A., *Quart. J. Roy. Met. Soc.*, **86**, 540 (1960).

NEWS and VIEWS

Mineralogy and Petrology at Cambridge :

Prof. C. E. Tilley, F.R.S.

PROF. C. E. TILLEY is retiring from the professorship of mineralogy and petrology in the University of Cambridge at the end of the present academical year. On the retirement of Prof. Hutchinson and of Dr. Harker in 1931, the professorship of mineralogy and the readership in petrology were combined in a new chair of mineralogy and petrology, of which Prof. Tilley was the first holder. During his tenure of thirty years he has not only been exceptionally active in research, but also has been the leader in building a department of world-wide influence in its field. In addition to teaching and research in mineralogy and petrology, the Department has contributed much to the teaching of crystallography and to the crystallographic study of minerals. Prof. Tilley has played a full part in university life, having served on the Board of Research Studies, the General Board and the Council of the Senate. He was also for many years chairman of the Faculty Board of Physics and Chemistry, and was vice-master of Emmanuel College from 1952 until 1958.

Prof. W. A. Deer

PROF. W. A. DEER, who has been appointed to succeed Prof. Tilley, has held the chair of geology in the University of Manchester for eleven years. He has brought into existence there a thriving research school, the distinctive feature of which is the application of modern physico-chemical techniques to the solution of geological problems. In 1953, together with Prof. L. R. Wager, of the University of Oxford, he led a geological expedition to East Greenland, continuing investigations which had been interrupted by the Second World War. He has since directed various mineralogical researches on the rocks of the Cape Edvard Holm area, most of them still unpublished, but all of the high standard that has always

characterized his work. Of recent years, he has spent much time writing a new book on rock-forming minerals in association with two members of the Manchester staff, Dr. R. A. Howie and Dr. J. Zussman. Active as he has been in geological work, Prof. Deer has found time to play an ever-increasing part in general university affairs. He has been chairman of the Executive Committee of the General Board of Faculties, and of the Science and Technology Section, and has served on committees too numerous to mention here. Particular reference should, however, be made to his work in the implementation of the extensive building programme on which the University of Manchester is now engaged.

British Drop Forging Research Association :

Mr. P. H. R. Lane

MR. P. H. R. LANE, head of the Members' Service Department of the British Welding Research Association, has been appointed the first director of research of the Drop Forging Research Association. Mr. Lane was educated at Alleyn's School, Dulwich, and Strand School, Elm Park. He obtained an honours degree in metallurgy at the University of London and afterwards joined the staff of the British Welding Research Association. He was first engaged in metallurgical work on the weldability of low-alloy high-tensile steels. In 1950, he transferred to the engineering section to work on the design of pressure vessels and pipe-line components, and for five years was in charge of the department dealing with this work. During this period he was also associated with work on the brittle fracture of steel plates and on the fatigue strength of welded components. In 1957, he returned to metallurgical work as deputy chief metallurgist of the Association, in charge of all ferrous metallurgical investigations. In 1959, he was appointed to the new position of head of the Members' Service Department, which is responsible for all contacts with the