A REPORT on the meteorological service of Australia for the year 1922–1923 has been submitted to the Parliament of the Commonwealth by Mr. H. A. Hunt, the Commonwealth Meteorologist. The report deals with the Central Weather Bureau at Melbourne and with the Weather Bureaux at Sydney, Brisbane, Adelaide, Perth, and Hobart. At the Central Weather Bureau at Melbourne, reports are received daily from a large number of stations, embracing the adjacent islands, and from stations in New Zealand. By the aid of these reports, the South Pacific Islands are warned when cyclonic conditions are developing. The data are also used for the ordinary storm-warning service for the protection of the Queensland and New South Wales coasts and of shipping traversing the waters eastwards from Australia. Rainfall maps showing the total rainfall for each month for several stations are published on the first day of the following month. Aviation forecasts are regularly issued, and the Aviation School at Point Cook is informed whenever easterly gales are expected ; the latter seems an admirable precaution. Ocean forecasts and storm-warnings, in addition to being distributed to coast stations, are broadcasted to ships at sea. The prevailing conditions of the weather round the coast are also supplied to radio stations. A careful analysis is made of the forecasts ; on the average of fourteen years, the official forecasts verified for the States and for the Commonwealth as a whole reaches 87 per cent. There are 484 climatological and 5912 rainfall stations distributed throughout the Commonwealth and the adjacent territories.

Our Astronomical Column.

NEW COMETS.—Still another comet, 1925 *c*, has to be added to the list of discoveries. It was discovered by Mr. Orkisz in Russia on April 4, and was observed by Mr. Möller, at Copenhagen, on April 5^d 2^h $52 \cdot 7^m$ G.M.T. in R.A. 22^h 26^m $45 \cdot 13^s$, N. Decl. $16°$ $37'$ $19''$. The motion in R.A. is small : that in declination is about $1°$ daily northward. The magnitude is 8. The comet is in Pegasus, and must be looked for in the east just before dawn.

Both Schain's and Reid's Comets were observed by Dr. Steavenson as follows :

Comet.	G.M.T.	R.A. 1925·0.	Decl. 1925·0.
Schain	Apr. 2d 1h 55·6m	11h 31m 26·1s	+ 2° 27′ 37″
,,	,, 3 22 42·8	11 28 11·0	+ 2 35 49
Reid	,, 2 1 6·4	13 21 47·7	22 22 49
,,	,, 4 0 40·9	13 19 32·7	− 22 53 54

The following orbit of Schain's Comet is by Dr. A. C. D. Crommelin. It is still subject to appreciable correction, but is much nearer the truth than Kobold's orbit, which made perihelion occur in November 1924.

$$T \quad 1925 \text{ Nov. } 2 \cdot 58 \text{ G.M.T.}$$
$$\left. \begin{array}{l} \omega \quad 216° \ 35 \cdot 5' \\ \Omega \quad 357 \ 30 \cdot 6 \\ i \quad 146 \ \ 6 \cdot 9 \end{array} \right\} 1925 \cdot 0$$
$$\log q \quad 0 \cdot 59512.$$

The perihelion distance is the second greatest on record, being exceeded by that of the comet of 1729 alone.

EPHEMERIS FOR 0h GREENWICH.

	R.A.	N. Decl.	log *r*.	log Δ.
April 11	11h 16m 4s	3° 6′	0·6351	0·5355
,, 19	11 3 24	3 36	0·6323	0·5438
,, 27	10 51 56	3 59	0·6296	0·5546

The comet should be in sight for two years or more. It is at present not far from the orbit of Jupiter.

The following orbit of Reid's Comet is by Mr. Möller and Miss Vinter-Hansen, of Copenhagen Observatory. Almost identical elements were found by Mr. G. Merton.

$$T = 1925 \text{ July } 22 \cdot 951 \text{ G.M.T.}$$
$$\left. \begin{array}{l} \omega = 244° \ 19 \cdot 8' \\ \Omega = \ \ 7 \ \ 41 \cdot 6 \\ i = \ 30 \ \ 14 \cdot 8 \end{array} \right\} 1925 \cdot 0$$
$$\log q = 0 \cdot 29608.$$

EPHEMERIS FOR 0h GREENWICH.

	R.A.	S. Decl.	log *r*.	log Δ.
April 10	13h 12m 35s	24° 25′	0·3693	0·1345
,, 14	13 7 26	25 25		
,, 18	13 2 6	26 23	0·3601	0·1194
,, 22	12 56 39	27 19		
,, 26	12 51 12	28 12	0·3513	0·1099

The comet is fairly bright, with a distinct nucleus, but is too low down for convenient observation in England.

SPECTROSCOPIC PARALLAXES OF 520 STARS OF TYPES F TO M.—Mr. W. B. Rimmer in vol. 64 of the R.A.S. Memoirs gives a full discussion of the absolute magnitudes and parallaxes of 520 stars from observations at the Norman Lockyer Observatory, Sidmouth. The curves connecting strength of lines with absolute magnitude were deduced from (1) moving-cluster parallaxes, (2) parallactic motion, (3) trigonometrical data ; the last fails for the distant stars of high luminosity.

Special attention was given to the exact spectral type of the stars, published results being revised in several cases. Comparison of results is made with those of the Dominion Observatory, Victoria, B.C., the agreement being satisfactory.

On the whole the new parallaxes slightly exceed the trigonometrical ones, but the mean difference is only about 0·002″. The parallax of Polaris is given as 0·014″, in good agreement with the value 0·016″ obtained from the law connecting luminosity with period in Cepheids. That of Betelgeuse is also 0·014″, which is near the mean of other determinations. For α Centauri and 61 Cygni the values found were 0·770″ and 0·300″, but these are more a check on the graduation of the curves than of the parallaxes themselves.

THE OLD BABYLONIAN VENUS TABLETS.—A note in these columns more than a year ago described Dr. Fotheringham's work in dating these tablets, which are an important source for early chronology. Father Kugler was the first to deal with the problem, and fixed on the dates −1800 to −1780 for the series of observations contained in the tablets. Dr. Fotheringham made the dates 120 years earlier (they must be shifted by multiples of 8 years, owing to the fact that both Venus and the moon nearly repeat their positions relatively to the sun after this period). Dr. C. Schoch has lately been visiting Dr. Fotheringham at Oxford, and has just published a pamphlet entitled "Ammizaduga," which makes a further alteration in the dates, making them −1856 to −1836. One difficulty in the research is the question of intercalary months, with regard to which Ammizaduga appears to have changed the system. Light is thrown on them by study of the tablets relating to the harvests of dates and barley, as these give an indication of the position reached by the sun. It is claimed that, taking all the circumstances into account, the dates now adopted are the only ones that satisfy all the data. The mean dates of Nisan 1 reduced to Julian reckoning are given as follows :

Year		Nisan 1 =	
0		Apr. 7, 15 days after equinox.	
,, −1000	,,	Mar. 30, 1 day before equinox.	
,, −2000	,,	Mar. 29, 9 days	,, ,,
,, −3000	,,	Apr. 1, 14 ,,	,, ,,