Prominences.—The year 1944 has witnessed a further decline in all forms of solar activity.

The mean daily areas and numbers of calcium prominences as derived from Kodaikanal photographs are as follows:—

	Areas			*Numbers*		
	North	South	Total	North	South	Total
1944 January to June ...	0·98	1·13	2·11 sq. mins.	4·06	3·55	7·61
July to December ...	0·94	0·96	1·90 ,,	3·68	3·95	7·63

When compared with the previous year's figures, there is a decrease both in areas and numbers, the former being 23 per cent. and the latter about 20 per cent.

Both the areas and numbers show a southern preponderance. The distribution in areas and numbers show a maximum activity between 10°–15° and 35°–40° in the northern and 5°–10° and 45°–50° in the southern hemisphere.

Thirteen metallic prominences were observed during the year. Of these, 8 were in the northern and 5 in the southern hemisphere.

Eighteen displacements of the hydrogen *C* line in the chromosphere and prominences were observed during the year in the spectroscope. Of these, 11 were towards violet and 7 towards red.

SOLAR ACTIVITY—(*continued*)

Twenty-five displacements in prominences were observed with the spectrohelioscope as against 86 during the previous year. Of these, 14 were on the north and 11 on the south, while 13 were in the east limb and 12 in the west limb.

An eruptive prominence photographed on April 15 in the east limb, reached a maximum height of 4 minutes.

COMETS

During the year 1944 three new comets have been discovered and one periodic comet has been detected. A comet discovered by Berry at Dunedin on September 13 has not been included in the list as nothing further has been heard about it. The international situation is still responsible for a certain amount of delay in announcing discoveries and elements of orbits, when such have been computed.

Elements of the Orbits of Comets

Comet	T(U.T.)	ω	Ω	i
Schaumasse	1943 Dec. 1·457	° ′ ″ 50 59 07	° ′ ″ 86 44 28	° ′ ″ 12 00 01
Väisälä	1944 Dec. 27·814	238 46 00	28 53 00	16 42 00
Dutoit	1944 June 17·49027	257 00 39·6	22 22 55·0	18 45 08·4
van Gent	1944 July 17·67367	337 00 11·1	202 43 24·4	95 00 56·3

DOUBLE STARS

New Pairs.—Rossiter (*Publ. Obs. Univ. Michigan*, **9**, No. 1) has published his fifth list of new Southern Double Stars. Kuiper (*Ap. J.*, **97**, 275) gives 6 new binaries with large proper motion. Luyten (*Ap. J.*, **100**, 202) has a note on the double white dwarf LDS 275. Leonard (*P.A.S.P.*, **55**, 241) announces the duplicity of BD $-1°4043$. Joy and van Biesbroeck (*P.A.S.P.*, **56**, 123) give five new double stars among variables of the T Taur class and van Biesbroeck (*A.J.*, **51**, 61) gives a new companion to Wolf 1055 as the star of lowest known luminosity.

Measures.—Hirst (*M.N.*, **103**, 331) gives micrometer measures with the Cape 7-inch and Johannesburg 26½-inch refractors, Wesselink (*B.A.N.*, No. 341) photographic measures with the Yerkes 40-inch, and Brouwer and Jenkins (*A.J.*, **51**, 54) measures of Σ2398 on parallax plates with the same refractor.

Orbits.—Hirst (*M.N.*, **103**, 337 and 344) computes orbits for ADS 16497 and Melb. 4 AB, and gives a method of applying differential corrections. Campa (*Mem. Soc. Ast. Ital.*, **14**, No. 4) gives an orbit for ADS 7744, Gennaro (*Publ. Padova Obs.*, 66) for ADS 9494, Durham (*A.J.*, **50**, 165) for ADS 10087, and Alden (*A.J.*, **51**, 59), from measurements on parallax plates, for δ Aquilæ.

Miscellaneous.—van de Kamp and Strand (*A.J.*, **51**, 7 and 12) give notes on the astrometric study of unseen companions of single and double stars. Leonard (*P.A.S.P.*, **56**, 38, 85 and 202) determines the spectra of ADS 2894 and 12882. Wallenquist (*Arkiv Mat. Astr. Fys.*, **30**A, No. 8) publishes photometric observations of double stars. Schilt (*A.J.*, **51**, 189) gives some remarks about the mass ratios of *Castor* and 70 Ophiuchi.

W. H. VAN DEN BOS.

SOLAR ACTIVITY—(*continued*)

The mean daily area of hydrogen absorption markings (without foreshortening correction) was 1001·2 millionths of the Sun's visible hemisphere as against 1704 millionths during 1943, showing a marked decrease of 41 per cent. The distribution of areas in latitude shows a maximum activity between 40°–45° in the northern and between 45°–50° in the southern hemisphere. A. L. NARAYAN.