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GREENWICH
PHOTO-HELIOGRAPHIC RESULTS

1927

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RESULTS OF MEASURES

MADE AT THE

ROYAL OBSERVATORY, GREENWICH,

UNDER THE DIRECTION OF

SIR FRANK DYSON, K.B.E., M.A., LL.D., F.R.S.,
ASTRONOMER ROYAL,

OF

PHOTOGRAPHS OF THE SUN

TAKEN

AT GREENWICH, AT THE CAPE, AND IN INDIA

IN THE YEAR

1927

TOGETHER WITH CATALOGUES OF MAGNETIC STORMS AND SUNSPOTS FOR THE YEARS 1874-1927

Published by Order of the Board of Admiralty,
in Obedience to His Majesty's Command.

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GREENWICH PHOTO-HELIOGRAPHIC RESULTS, 1927.

INTRODUCTION.

§ 1. *Positions and Areas of Sun Spots and Faculæ for each Day in the Year* **1927**.

The photographs from which these measures were made were taken at the Royal Observatories of Greenwich or of the Cape, and at the Kodaikánal Observatory, Southern India.

The photographs of the Sun obtained at Greenwich were taken either with the Dallmeyer Photo-heliograph, of 4 inches aperture (stopped down to 2·9 inches) or the Thompson Photo-heliograph of 9 inches aperture (usually stopped down to 3 or 4 inches). The two instruments are worked in conjunction; the Dallmeyer Photo-heliograph is of most use in snatching a photograph in breaks on cloudy days, while the Thompson Photo-heliograph is best employed in intervals of good definition. The diameter of the Sun's image at the secondary focus in both instruments is 7½ inches at the earth's mean distance.

The photographs from the Cape Observatory were taken under the superintendence of His Majesty's Astronomer at the Cape, Dr. H. Spencer Jones, and those from Kodaikánal under the superintendence of the Director, Dr. T. Royds. At the Cape Observatory the instrument employed was a Dallmeyer Photo-heliograph giving an image of the Sun about 7½ inches in diameter; at Kodaikánal a Cooke photo-visual object-glass of 6 inches aperture was used, the image of the Sun being on about the same scale.

On February 28 a new enlarging lens, No. **110705**, working at F/2·4 was fitted to the 4-inch Photo-heliograph at Greenwich. This enlarging lens, which was supplied by Messrs. Ross, Ltd., is similar in design to the Ross lens, No. **108292**, fitted last year to the 9-inch Thompson Photo-heliograph. The radial distortion of lens No. **110705** has been measured and found negligible. Small corrections for radial distortion for lens No. **108292** are given on p. D III of the *Introduction* of the *Greenwich Photo-Heliographic Results*, **1926**.

(73) Wt. 12787—217/953. 185. 5/29. T.S. 66.

Photographs of the Sun were available for measurement upon each day in 1927, except July 9, those finally selected for measurement being supplied by the different observatories as under:

Greenwich	206
Cape	151
Kodaikánal	7
Total	364

The Director of the Mt. Wilson Observatory kindly lent for measurement a plate taken on July 9. The measures made from this plate have been included in these *Results*, thus preserving the continuity of the daily measures of spots and faculæ.

The names of those persons who measured the photographs for the year 1927 are as follows:

H. W. Newton	Hilda Jackson
H. Barton	S. Judd

At the principal focus of the Photo-heliographs, excepting that at Kodaikánal, two spider-lines are fixed by which the zero of position-angles on the photographs can be determined. These lines are inclined at an angle of 45° to the celestial equator in the Greenwich and Cape Photo-heliographs; in the Kodaikánal Photo-heliograph there is one wire fixed parallel to the equator.

The zero of position-angles for the Photo-heliographs has been determined by the measurement of plates which have been exposed twice, with an interval of about 100 seconds between the two exposures, the instrument being firmly clamped. Two images of the Sun, overlapping each other by about a fifth part of the Sun's diameter, were therefore produced upon the plates, and the exposures having been so given that the line joining the cusps passed approximately through the centre of the plates, the inclination of the wires of the photo-heliograph to this line was measured with the position-micrometer, and a small correction for the inclination of the Sun's path was then applied.

At Greenwich and the Cape, transits of the Sun were also taken over the two wires; the times of contact of the first and second limbs of the Sun with the two wires being noted. The ratio of the time taken by the Sun to pass over the NE—SW wire to that taken to pass over the SE—NW wire gives the tangent of the angle made by the Sun's path to the latter wire, the wires being assumed to be exactly at right angles to each other. From this angle, when corrected for the Sun's motion in declination, the correction for the zero of position of the wires can be inferred.

The following table gives the correction for zero of position thus determined by the two independent methods for the Greenwich and Cape Photo-heliographs.

Determination of the Zero of Position-Angles.

Month, 1927.	Greenwich, 4-inch.		Greenwich, 9-inch.		Cape.	
	Photographic.	Visual.	Photographic.	Visual.	Photographic.	Visual.
	° ′	° ′	° ′	° ′	° ′	° ′
January ..	—	+2 49 (2)	+2 14 (1)	+2 15 (3)	−0 36 (2)	−0 22 (5)
February ..	Instrument Dismounted.		+2 21 (1)	+2 16 (3)	−0 22 (2)	−0 23 (4)
March ..	—	+2 24 (3)	+2 19 (2)	+2 13 (2)	−0 25 (2)	−0 22 (4)
April ..	+2 18 (1)	+2 26 (3)	+2 28 (2)	+2 21 (3)	New Wires inserted Apr. 13	
May ..	+2 23 (1)	+2 26 (6)	+2 15 (1)	+2 20 (3)	−0 18 (2)	−0 21 (4)
June ..	—	+2 30 (3)	+2 16 (2)	+2 21 (1)	−0 09 (2)	−0 18 (5)
July ..	—	+2 23 (3)	+2 17 (1)	+2 20 (2)	−0 16 (2)	−0 17 (4)
August ..	+2 21 (1)	+2 29 (8)	+2 23 (1)	+2 22 (2)	−0 21 (2)	−0 17 (5)
September ..	+2 33 (3)	+2 29 (4)	+2 17 (2)	+2 18 (2)	−0 12 (2)	−0 19 (4)
October ..	+2 34 (2)	+2 30 (4)	—	+2 16 (1)	−0 25 (2)	−0 21 (4)
November ..	+2 30 (3)	+2 30 (3)	Instrument not used.		−0 30 (2)	−0 22 (5)
December ..	+2 22 (2)	+2 31 (3)	,,	,,	−0 30 (2)	−0 22 (4)

The suffixes indicate the number of zero plates or the number of sets of transits, usually 3 to a set.

The zero-corrections used during the year 1927 in the reduction of the photographs taken at Greenwich were as follows :

		°
4-inch Photo-heliograph—January 1–24	.. ..	+2·8
March to July	.. ..	+2·4
August to December	..	+2·5
(January 24 to February 28 instrument dismounted.)		
9-inch Photo-heliograph—January to March	.. ..	+2·25
April to August	.. ..	+2·35
September and October	..	+2·3

The zero-corrections used in the reductions of the photographs taken at the Cape Observatory were as follows :

	°
January 1 to April 13	−0·4
April 14 to September 30 ..	−0·3
October to December	−0·35

(New wires were inserted on April 13.)

The zero-corrections adopted during 1927 for the seven Kodaikánal photographs were :

Jan. 10, Apr. 10, 15, $+0^{\circ}\cdot3$. Sept. 6, 10, Oct. 2, Dec. 25, $0^{\circ}\cdot0$.

The measures of the photographs were made with a large position-micrometer constructed by Messrs. Troughton and Simms for the measurement of photographs of the Sun up to 12 inches in diameter. In this micrometer the photograph is held with its film-side uppermost on three pillars fixed on a circular plate, which can be turned through a small angle, about a pivot in its circumference, by means of a screw and antagonistic spring acting at the opposite extremity of the diameter. The pivot of this plate is mounted on the circumference of another circular plate, which can be turned by screw-action about a pivot in its circumference, 90° distant from that of the upper plate, this pivot being mounted on a circular plate with a position-circle which rotates about its centre. By this means small movements in two directions at right angles to each other can be readily given, and the photograph can be accurately centred with respect to the position-circle. When this has been done, a positive eyepiece, having at its focus a glass diaphragm ruled with cross-lines into squares, with sides of one-hundredth of an inch (for measurement of areas), is moved along a slide diametrically across the photograph, the diaphragm being nearly in contact with the photographic film, so that parallax is avoided. The distance of a spot or facula from the centre of the disc is read off by means of a scale and vernier to 1-250th of an inch (corresponding to 0·001 of the Sun's radius for photographs having a solar diameter of 8 inches). The position-angle is read off on the large position-circle which rotates with the photographic plate. The photograph is illuminated by diffused light reflected from white paper placed at an angle of 45° between the photograph and the plate below.

All photographs are measured independently by two persons, and the means taken.

In the case of large or complex groups of spots, the positions of the chief components are measured individually, and also for groups so near the east or west limbs of the Sun that the effects of foreshortening are appreciable. In other cases the position of the centre of a group is estimated in the micrometer. In this respect a difference has been made in the practice during years previous to 1916, where in this section components of groups are given separately and combined into groups in the Ledgers.

When required, corrections are applied to the measured distances and position-angles for differential refraction. The formula is given in the *Introduction* for 1909. It is seldom necessary, however, to apply this correction except to a few photographs taken at Greenwich in mid-winter.

The calculations of heliographic longitude and latitude are made by use of the formulæ given in " Researches on Solar Physics : Heliographical Positions and Areas of Sun Spots observed with the Kew Photo-heliograph during the years 1862 and 1863," by W. De La Rue, B. Stewart, and B. Loewy. *Phil. Trans.*, 1869. If r be the measured distance of a spot from the centre of the Sun's apparent disc, R the measured radius of the Sun on the photograph, (R) the tabular semi-diameter of the Sun in arc, and ρ, ρ' the angular distances of a spot from the centre of the apparent disc as viewed from the Sun's centre and from the Earth respectively, ρ is obtained from the equations :

$$\rho' = \frac{r}{R}(R) \; ; \text{ and } \sin(\rho+\rho') = \frac{r}{R}.$$

If D and ϕ are the heliographic latitudes of the Earth and the spot respectively referred to the Sun's equator, and l the heliographic longitude of the spot from the solar meridian passing through the centre of the disc, longitudes west of the centre being reckoned as positive, and χ the position-angle from the Sun's axis,

$$\sin \phi = \cos \rho \sin D + \sin \rho \cos D \cos \chi$$
$$\sin l = -\sin \chi \sin \rho \sec \phi.$$

The position-angle χ is found from the position-angle from the North Point by subtracting P, the position-angle of the N end of the Sun's axis, measured eastward from the North Point of the disc. The heliographic longitude of the spot is $l+L$, where L is the heliographic longitude of the centre of the disc. The three quantities P, D, and L for the time of the exposure of each photograph are derived from the Ephemeris for Physical Observations of the Sun given on p. 544 of the *Nautical Almanac* for 1927.

The inclination of the Sun's axis to the ecliptic is assumed to be 82°45′, the longitude of the ascending node of the Sun's equator on the ecliptic for 1927·0 to be 74°44′·5, and the period of the Sun's sidereal rotation to be 25·38 days ; the meridian which passed through the ascending node 1854 January 1, Greenwich Mean Noon, being taken as the zero meridian.

§ 2. *General Catalogue of Groups of Sun Spots for* 1927.

The Catalogue contains every group of spots which lasted for two or more days, and the group numbers are in continuation of those given in 1926 and previous years. Groups seen only once are not included, but appear in the Daily Results with a distinctive numeration.

During the year 1927, a number of groups of spots, noted in the Catalogue as " Revivals," have been tabulated in series in a table following the Catalogue. The respective groups of each series are in the same heliographic position, and are seen in

consecutive rotations but with definite breaks in their history between each rotation. The latter feature excludes them from being classed as " Recurrent " groups ; they differ from " Intermittent " groups in their being of long period intermittency. When a " Recurrent " series forms part of a " Revival " series, a reference is made in the last column of the table. Other groups which are given in detail in Ledger II are also indicated.

§ 3. *Ledgers of the Areas and Heliographic Positions of Groups of Sun Spots for* 1927.

Ledger I.—Recurrent Groups.—This Ledger supersedes the Catalogue of Recurrent Groups of Sun Spots given in years previous to 1916 of the *Greenwich Photo-Heliographic Results*, and the reference numbers of the series are in continuation of those given therein. The groups forming this Ledger have been abstracted from a general Ledger of all spot groups seen throughout the year, and were selected upon the following plan, reference being made to the General Catalogue :—If any spot group when first seen was 60° or more to the east of the Central Meridian, then the Catalogue, and, if necessary, the Daily Results also, were searched some fifteen or sixteen days earlier, to ascertain whether a spot group of similar heliographic longitude and latitude was then near the west limb of the Sun. Similarly, if any spot group when last seen was 60° or more to the west of the Central Meridian, then the Catalogue was searched some fifteen or sixteen days later, to ascertain whether a spot group of similar heliographic longitude and latitude was then near the east limb of the Sun. Both the search forward and the search backward have been made in the case of every spot group that was observed close to either the east or west limbs, in order that no possible case of identity might be overlooked. When there appeared to be a case of probable identity between spot groups observed in two consecutive rotations of the Sun, the character of the second group has been carefully compared with that of the first in each of the three elements—area, longitude, and latitude, before accepting it as a Recurrent Group.

Besides the Ledgers of the groups, there have been printed in a similar manner important components of the principal groups. This has been done in all cases where it appeared probable that an individual component lasted to the second or third rotation after its first appearance.

In deriving the proper motions of spots in longitude in Ledgers I and II, the formula adopted as representing the Sun's daily sidereal motion is $\xi = 14^\circ\cdot37 - 2^\circ\cdot60 \sin^2\phi$, where ϕ is the latitude of the spot. *See Greenwich Photo-Heliographic Results*, 1924, § 5.

Ledger II.—Non-Recurrent Groups.—This Ledger contains the most important of those groups which do not last to a second rotation. Individual components are also given after their respective groups, where they are large and distinctive.

§ 4. *Total Areas of Sun Spots and Faculæ for each day, and Mean Areas and Mean Heliographic Latitude of Sun Spots and Faculæ for each Rotation of the Sun, and for the year* 1927.

Particulars relating to this section are given in the headings on pages C 118, 122 and 123.

§ 5. *Comparison of Magnetic Storms and Sunspots derived from Greenwich Observations,* 1874–1927.

This section contains two Catalogues giving particulars of magnetic storms recorded at the Royal Observatory, Greenwich, from 1874 April to 1927 December. Comparative data of sunspots occurring at the times of the storms are also given. The material is discussed in *Monthly Notices* **89,** 84–92, 1928.

F. W. DYSON.

Royal Observatory, Greenwich,
1929, *January* 25.

ROYAL OBSERVATORY, GREENWICH.

Positions and Areas of Sun Spots and Faculæ

For each Day in the Year

1927

GREENWICH PHOTO-HELIOGRAPHIC RESULTS 1927

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

Col. 1. (1) Time when photograph was taken expressed in days and decimals of a day reckoning from midnight at commencement of year. (2) Place of observatory—Greenwich (G), Cape of Good Hope (C), Kodaikánal (K). (3) Date of photograph.

Col. 2. Number of Spot Group in order of appearance and in continuation of the Group-numbers given in previous years. Groups seen on one day only are distinguished by the number of the Rotation during which they were observed and by a letter given in the order of their appearance. When there is no number in the second column, it is to be understood that there is a Facula unaccompanied by a Spot.

Col. 3. Distance of Spot Group or Faculæ from Sun's centre in terms of the Sun's radius.

Col. 4. Position Angle of Spot Group or Faculæ measured from the North pole of the Sun's axis in the direction N., E., S., W., N.

Col. 5. Heliographic Longitude of the Spot Group derived from the measures.

Col. 6. Heliographic Latitude of the Spot Group similarly derived.

Col. 7. Area of Umbræ corrected for foreshortening in millionths of the Sun's visible hemisphere.

Col. 8. Area of Whole Spots composing the Group similarly expressed.

Col. 9. Area of each group of Faculæ similarly expressed. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively, north, south, preceding, following, concentric.

In line with the date of each day is given in brackets the position angle of the Sun's axis from the north point: the heliographic longitude and latitude of the centre of the disc: the total areas of Spots and Faculæ for the day.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
0·491		·924	249·6					383
		·839	259·4					43
	980d	·873	293·3	258·4	+18·5	11	31	75*c*
	10137	·730	257·9	247·3	−10·9	14	41	
	10133	·110	218·6	204·9	− 8·0	123	618	
	980e	·204	142·8	193·7	−12·4	0	2	
	10135	·468	63·4	175·9	+ 9·2	94	504	
G	10136	·951	69·1	131·4	+18·7	14	75	178*f*
		·837	76·2					102
		·872	66·4					170
		·910	119·7					320
		·924	52·4					55
		·961	102·4					172
		·971	77·4					168
Jan. 1			(+2·2)	(200·9)	(−3·1)	(256)	(1271)	(1666)
1·346		·970	252·0					204
		·941	290·9					128
		·917	246·4					83
		·776	293·6					149
	10137	·843	259·4	246·8	−10·6	12	42	75*c*
	10133	·273	251·5	204·7	− 8·0	68	587	
C	10135	·315	46·4	176·3	+ 9·4	59	467	
	10136	·874	66·4	132·1	+18·7	8	56	226*f*
	10138	·975	102·6	112·3	−13·0	55	214	389*p*
		·768	63·8					69
		·844	125·1					254
		·871	100·8					81
		·904	76·0					97
Jan. 2			(+1·8)	(189·6)	(−3·2)	(202)	(1366)	(1755)
2·426		·996	288·6					138
		·913	288·7					208
	10137	·951	260·7	247·4	− 9·8	9	24	166*s*
	10133	·492	259·4	204·5	− 8·0	86	641	
	10135	·223	353·8	176·8	+ 9·4	62	481	
G	10136	·751	61·3	131·5	+18·7	13	81	129*f*
	10138	·936	103·2	106·0	−13·5	139	1218	1168*c*
		·790	130·0					235
		·937	57·2					217
		·962	68·3					175
Jan. 3			(+1·3)	(175·4)	(−3·3)	(309)	(2445)	(2436)
1927.			°	°	°			
3·426		·965	287·4					141
		·822	297·6					359
	10133	·681	261·7	204·9	− 8·2	129	554	
	10135	·327	313·5	176·1	+ 9·7	83	624	
	10136	·610	52·3	131·7	+18·9	14	68	
G	10138	·823	103·9	107·2	−13·3	235	1191	582*c*
		·815	55·8					188
		·911	51·7					124
		·920	64·6					298
		·939	74·1					180
Jan. 4			(+0·8)	(162·2)	(−3·4)	(461)	(2437)	(1872)
4·412		·928	293·9					336
		·871	306·8					81
		·846	247·9					133
		·775	298·7					134
	10133	·824	262·4	204·6	− 8·2	77	445	658*sf*
	10135	·514	295·3	177·2	+ 9·6	64	399	
	10136	·477	38·1	131·2	+18·6	12	67	
	10139	·487	139·3	128·8	−24·8	2	17	
C	10138	·670	106·8	108·0	−13·8	144	1029	
	10140	·947	106·2	78·0	−16·4	29	203	354*c*
	10141	·963	81·3	75·7	+ 7·4	4	31	448*sf*
		·841	65·6					204
		·908	48·5					137
		·947	62·7					179
		·954	97·7					121
		·954	73·1					97
Jan. 5			(+0·3)	(149·2)	(−3·5)	(332)	(2191)	(2882)
5·544		·985	288·4					133
		·955	300·4					267
		·946	252·3					147
		·928	281·6					80
		·870	296·0					287
		·823	243·8					171
	10133	·947	262·4	205·7	− 8·4	100	536	1104*sf*
	10135	·719	287·0	178·3	+ 9·4	47	286	
G	10139	·373	173·3	131·5	−25·3	17	46	
	10136	·384	8·8	130·8	+18·5	12	49	
	10138	·480	112·2	107·2	−13·7	144	973	
	10140	·849	106·9	76·7	−16·3	81	399	372*c*
	10141	·872	79·6	74·7	+ 7·2	4	22	604*f*
		·852	70·9					119
		·862	98·2					126

Group 10133. 1926, Dec. 26—1927, Jan. 7. A very large regular spot followed by a companion which dissolves into a cluster and disappears after Jan. 2. The large spot which is elongated in the direction of the solar rotation is crossed by "bridges" from north to south on Jan. 1–3. The group is visible to the naked eye.

Group 10135. 1926, Dec. 28—1927, Jan. 8. A regular spot surrounded by a number of companions and followed at some distance by a small but comparatively long-lived spot. Between Jan. 4 and 5, the regular spot is considerably drawn out in the direction N.E. and S.W., and shows a rapid diminution before finally breaking up.

Group 10136. 1926, Dec. 31—1927, Jan. 12. Return of Group 10114. A small but stable regular spot.

Group 10137. 1927, Jan. 1–3. Two or three small spots.

Group 10138. Jan. 2–15. A revival rather than a return of Group 10115. A large, active stream predominated by a composite leader spot with a broad cleft in a North–South direction. The group is visible to the naked eye.

Group 10139. Jan. 5–11. A small stream.

Group 10140. Jan. 5–16. A compact stream of which the most stable member is the leading spot.

Group 10141. Jan. 5–11. Intermittent. On Jan. 5 and 6 a pair of small spots in the *p* part of a conspicuous area of faculæ in which Group 10143 develops on Jan. 7; on Jan. 11, a small spot is seen.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
5·544		·938	118·2					246
G.		·963	81·0					609
		·976	107·6					232
Jan. 6			(−0·2)	(134·3)	(−3·7)	(405)	(2311)	(4497)
6·445		·981	303·6					194
		·951	252·0					155
		·931	295·9					436
		·914	242·5					73
	10133	·993	263·1	205·8	− 7·3	90	419	785*sf*
	10135	·847	284·6	178·7	+10·2	20	170	598*f*
	10142	·467	250·2	149·1	−12·5	0	3	
	10139	·411	206·8	134·3	−25·1	21	76	
G	10136	·402	341·7	130·1	+18·5	12	62	
	10138	·289	127·3	108·9	−13·7	125	843	
	10140	·720	109·9	77·7	−16·9	52	375	278*c*
	10143	·851	80·9	65·1	+ 5·7	29	131	1015*f*
		·760	79·9					770
		·861	120·0					116
		·930	108·8					238
		·931	135·6					101
		·961	55·4					361
Jan. 7			(−0·7)	(122·5)	(−3·8)	(349)	(2079)	(5120)
7·505		·988	257·6					255
		·970	298·4					109
		·868	302·2					171
		·811	240·6					91
	10135	·951	281·5	179·3	+ 9·7	21	75	714*nf*
	10142	·658	254·6	149·0	−13·0	11	42	
	10139	·549	227·2	134·9	−25·3	18	100	
	10136	·515	316·8	130·2	+18·4	10	45	
	10138	·175	176·5	107·9	−13·9	120	838	
G	10140	·556	114·0	76·7	−16·4	59	347	
	10143	·700	76·6	65·4	+ 6·4	27	153	
	10144	·880	107·0	47·2	−16·8	6	18	238*sf*
		·806	111·0					126
		·808	77·4					432
		·877	133·7					166
		·916	119·8					79
		·928	49·9					250
		·983	99·8					160
Jan. 8			(−1·2)	(108·5)	(−3·9)	(272)	(1618)	(2791)
8·531		·960	283·5					347
		·938	296·5					107
		·926	243·5					140
		·795	298·3					105
	10142	·817	256·9	149·5	−12·9	15	53	115*c*
G	10139	·689	236·9	134·5	−25·1	18	80	
	10136	·660	304·1	130·0	+18·4	11	36	

G.M.T.	Group No.	Measures. Dist.	Measures. Pos Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
8·531	10138	·285	231·5	108·2	−14·1	79	737	
	10140	·379	126·3	76·5	−16·7	88	477	
	10143	·491	68·0	67·8	+ 7·0	45	288	
G	10144	·748	109·4	47·6	−17·0	5	10	189*f*
	10145	·875	49·3	43·5	+32·3	4	18	19*c*
		·836	42·1					198
		·945	100·2					252
		·951	47·7					260
		·954	69·7					157
Jan. 9			(−1·7)	(95·0)	(−4·0)	(265)	(1699)	(1889)
9·118		·978	282·6					132
		·955	247·0					133
		·877	282·8					135
		·862	297·6					316
	10142	·897	257·6	151·1	−12·9	9	36	156*f*
	10139	·770	240·1	134·7	−25·3	16	66	109*c*
	10136	·743	299·9	130·0	+18·7	15	38	
K	10138	·390	242·3	108·1	−14·2	133	739	
	10140	·294	139·8	75·9	−16·9	122	586	
	10143	·384	59·8	67·8	+ 7·2	63	365	
	10144	·653	111·8	48·1	−17·2	5	13	
	10145	·830	46·2	42·4	+32·1	5	14	370*c*
		·913	99·6					122
		·922	67·6					168
Jan. 10			(−2·0)	(87·3)	(−4·1)	(368)	(1857)	(1641)
10·511		·979	257·6					113
		·973	291·5					173
		·953	263·8					77
		·882	230·8					130
		·831	256·3					219
	10139	·927	244·3	136·2	−25·3	5	17	297*f*
G	10136	·901	293·2	129·7	+18·7	10	24	162*c*
	10138	·631	252·8	107·1	−14·0	116	906	
	10140	·247	212·7	76·8	−16·1	67	442	
	10141	·217	332·6	74·6	+ 6·9	1	6	
	10143	·206	3·2	68·2	+ 7·6	65	649	
		·945	112·7					340
Jan. 11			(−2·6)	(68·9)	(−4·2)	(264)	(2044)	(1511)
11·378		·952	244·4					288
		·937	235·7					118
		·935	284·1					111
		·891	256·3					391
		·876	303·5					206
	10136	·962	291·3	128·8	+19·1	3	23	149*n*
C	10138	·773	255·5	107·7	−13·9	98	693	346*p*
	10140	·385	236·9	77·0	−16·1	59	386	
	10146	·364	324·9	69·9	+13·1	9	25	

Group 10142. Jan. 7–10. A couple of small spots.
Group 10143. Jan. 7–17. A group of rapid increase and decrease in which the formation of the component spots is irregular. *See* note to Group 10141.
Group 10144. Jan. 8–10. A small, distinct spot in the *p* portion of an area of faculæ which originated with Group 10120.
Group 10145. Jan. 9–10. A small spot.
Group 10146. Jan. 12–13. Two or three small spots *n* Group 10143.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
11·378	10143	·288	318·7	68·6	+ 8·2	68	516	
C		·856	113·9					274
		·954	120·7					121
Jan. 12			(−3·1)	(57·5)	(−4·3)	(237)	(1643)	(2004)
12·333		·977	243·7					97
		·961	256·3					306
		·925	236·9					97
		·904	299·5					225
	10138	·888	255·8	107·5	−14·7	105	684	726*c*
	980f	·677	316·1	76·1	+25·3	1	9	
	10140	·541	245·8	75·8	−16·6	40	288	
C	10146	·515	304·1	70·7	+12·8	3	7	
	10143	·457	296·8	69·1	+ 7·9	42	285	
	10147	·895	109·4	341·7	−19·3	4	9	93*f*
	10148	·989	163·9	326·6	+25·0	69	305	506*c*
		·906	120·1					118
		·923	98·7					130
		·976	77·4					355
Jan. 13			(−3·5)	(44·9)	(−4·4)	(264)	(1587)	(2653)
13·337		·936	303·8					162
		·859	291·2					133
		·792	260·2					87
		·751	311·6					95
	10138	·963	255·6	106·4	−15·0	123	541	1083*c*
	980g	·966	294·0	103·2	+21·7	8	32	118*c*
	10140	·728	251·6	77·6	−16·4	37	233	
C	10143	·630	287·6	68·8	+ 7·4	44	248	
	910h	·237	333·0	37·9	+ 7·7	0	2	
	10147	·763	111·1	343·1	−18·9	10	21	102*c*
	10148	·939	61·6	326·5	+24·7	104	753	880*c*
		·872	103·2					123
		·917	76·7					327
		·963	111·0					445
Jan. 14			(−4·0)	(31·7)	(−4·5)	(326)	(1830)	(3555)
14·412		·931	293·1					88
		·877	302·5					156
	10138	·991	252·7	100·8	−17·8	14	123	649*c*
	10140	·878	253·9	78·9	−16·3	29	127	643*c*
	10143	·806	283·1	69·7	+ 7·5	27	119	944*c*
	10147	·610	115·1	342·1	−18·7	14	21	
	10148	·852	57·2	325·8	+24·6	114	925	889*c*
G	10149	·992	55·6	299·7	+33·2	65	237	129*n*
	10150	·976	103·6	299·6	−14·3	59	416	466*c*
		·801	74·5					197
		·902	110·1					462

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
14·412		·917	72·7					306
G		·975	118·5					429
		·982	64·1					140
Jan. 15			(−4·5)	(17·6)	(−4·6)	(322)	(1968)	(5498)
15·541		·957	299·1					111
		·831	249·1					58
	10140	·972	254·5	79·7	−16·2	19	90	642*f*
	10143	·946	279·6	72·6	+ 7·5	14	39	1312*f*
	10151	·541	340·4	14·3	+25·9	28	64	
	10147	·394	130·0	344·2	−19·0	4	12	
	10152	·600	67·8	328·6	+ 9·1	1	6	
G	10153	·632	63·3	327·5	+12·6	4	12	
	10148	·732	48·6	325·5	+25·1	112	961	460*f*
	10149	·949	52·6	298·6	+33·2	27	261	185*n*
	10150	·927	104·1	294·6	−14·8	109	799	93*c*
		·772	102·8					59
		·795	119·0					268
		·936	120·2					421
		·951	72·3					120
		·964	61·8					377
Jan. 16			(−5·0)	(2·7)	(−4·7)	(318)	(2244)	(4106)
16·348		·986	252·8					482
		·908	236·6					130
		·871	317·8					154
		·853	250·4					190
	10143	·989	279·1	71·2	+ 6·4	13	49	1010*nf*
	10151	·604	326·4	13·8	+25·6	20	90	
	10147	·280	151·6	344·0	−18·9	1	4	
	10153	·487	52·8	328·8	+12·7	10	51	
	10152	·455	60·3	328·6	+ 8·6	1	2	
C	10148	·636	39·9	325·5	+24·8	161	1023	
	10154	·732	111·0	306·2	−18·5	6	18	
	10149	·893	49·0	298·8	+33·0	42	251	200*n*
	10150	·844	104·8	294·5	−15·1	117	840	412*c*
		·729	120·0					115
		·884	67·4					78
		·888	122·7					546
		·911	58·5					582
		·960	108·6					231
Jan. 17			(−5·4)	(352·1)	(−4·8)	(371)	(2328)	(4130)
17·349		·961	280·7					336
C		·925	231·9					351

Group 10147. Jan. 13–18. One or two small spots.
Group 10148. Jan. 13–25. Return of Group 10131. A very large spot, seen with the naked eye, accompanied by small changing spots and penumbral markings. This spot, which is surrounded by considerable faculæ, is crossed by a "bridge" from Jan. 15 to 18.
Group 10149. Jan. 15–27. Return of Group 10125. A regular spot undergoing change after Jan. 22; on Jan. 25 an evanescent cluster of irregular spots has appeared closely following it.
Group 10150. Jan. 15–27. A large spot, tending to composite structure, followed by a partially-formed spot which has diminished to a dot by Jan. 27; occasional small attendants are present.
Group 10151. Jan. 16–19. A short-lived stream of small spots.
Group 10152. Jan. 16–20. A tiny spot *s* Group 10153; no spot is seen on Jan. 18 and 19.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
17·349		·916	311·4					332
		·905	248·6					306
C	10151	·703	315·0	12·2	+25·7	4	29	
	10147	·224	187·0	340·5	−17·7	1	4	
	10153	·347	28·7	329·1	+12·8	14	132	
	10148	·543	23·3	325·2	+25·0	162	1077	
	10154	·573	115·1	306·0	−18·1	2	12	
	10149	·815	42·7	297·8	+33·0	33	258	292*nf*
	10150	·696	105·8	295·4	−14·5	124	860	
	981a	·852	54·5	288·2	+26·6	4	10	534*c*
		·874	110·2					301
		·964	111·1					196
Jan. 18			(−5·9)	(338·9)	(−4·9)	(344)	(2382)	(2648)
18·320		·962	307·3					106
		·961	249·5					158
		·918	318·5					211
		·874	258·3					168
	10151	·802	307·3	10·9	+25·5	2	5	163*c*
	10153	·315	351·4	328·9	+13·1	22	124	
C	10148	·503	1·5	325·3	+25·1	132	1038	
	10149	·736	33·9	296·8	+33·2	44	250	130*c*
	10150	·514	110·1	296·3	−14·5	79	673	
		·803	48·9					166
		·873	113·5					190
		·949	99·7					248
		·960	69·9					304
Jan. 19			(−6·3)	(326·1)	(−5·0)	(279)	(2090)	(1844)
19·422		·960	311·3					121
		·921	258·2					259
		·913	300·8					495
		·905	323·7					237
	10148	·549	336·3	325·7	+25·1	195	1174	
	10153	·434	315·2	329·8	+13·1	30	95	
G	10152	·398	309·8	329·6	+ 9·8	1	5	
	10150	·291	124·4	297·3	−14·4	97	655	
	10149	·660	19·9	296·1	+33·3	46	228	
	10155	·842	97·1	254·1	− 8·7	4	16	248*c*
		·826	118·6					142
		·916	66·5					503
		·944	113·4					258
Jan. 20			(−6·8)	(311·6)	(−5·1)	(373)	(2173)	(2263)
20·316		·959	299·5					238
		·859	245·8					194
	10153	·584	301·4	330·5	+13·2	9	45	
	10148	·630	322·0	325·0	+25·0	154	989	
	10150	·179	161·4	296·4	−14·9	111	587	
	981b	·391	165·8	293·6	−27·3	2	4	
C	*981c*	·346	138·3	285·7	−19·9	2	4	

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
20·316	10149	·624	6·0	295·4	+33·0	42	243	
		·772	61·6					65
C		·858	113·4					160
		·902	64·4					85
		·970	97·0					127
Jan. 21			(−7·2)	(299·8)	(−5·2)	(320)	(1872)	(869)
21·322		·943	247·5					244
		·808	251·1					177
	10153	·744	293·5	331·0	+13·4	10	26	
	10148	·749	310·9	325·2	+25·2	119	941	
	10150	·239	224·7	296·6	−15·0	70	537	
C	10149	·633	349·3	294·6	+33·0	27	228	
	10155	·519	98·5	255·4	− 8·9	8	30	
	10156	·973	95·9	209·7	− 6·9	13	72	411
		·922	67·7					168
Jan. 22			(−7·7)	(286·6)	(−5·3)	(247)	(1834)	(1000)
22·459		·917	243·4					67
		·914	254·4					289
		·897	237·0					92
		·721	245·1					74
	10153	·884	288·6	331·1	+14·1	4	14	343*c*
	10148	·871	303·2	325·1	+25·3	128	834	738*c*
G	10157	·766	287·9	319·2	+10·0	20	46	48*c*
	981d	·635	291·0	308·3	+ 8·8	1	3	
	10150	·441	246·8	296·3	−14·9	98	470	
	10149	·694	332·9	293·7	+33·0	43	233	
	10155	·282	104·4	255·6	− 9·2	2	7	
	10156	·882	94·8	209·5	− 6·8	25	95	890*sf*
		·888	60·7					279
		·934	113·0					104
Jan. 23			(−8·2)	(271·6)	(−5·4)	(321)	(1702)	(2924)
23·368		·968	254·1					186
		·952	285·8					279
		·838	251·0					240
	981e	·964	243·8	334·6	−26·6	11	39	176*nf*
	10148	·942	299·0	324·8	+25·0	87	695	888*c*
	10157	·892	284·6	320·7	+10·4	14	65	97*c*
C	10150	·615	253·4	296·9	−14·4	49	472	
	10149	·763	323·3	292·5	+33·1	25	215	
	10156	·759	95·0	210·1	− 7·4	19	75	779*sf*
		·853	55·4					110
		·947	67·8					129
		·965	78·8					239
Jan. 24			(−8·6)	(259·6)	(−5·4)	(205)	(1561)	(3123)
24·332		·908	251·8					336
		·878	282·5					99
C		·828	301·6					188

Group 10153. Jan. 16–23. A small stream *s* Group 10148.
Group 10154. Jan. 17–18. A pair of tiny spots *sp* Group 10153.
Group 10155. Jan. 20–23. A short stream of a few spots not seen on Jan. 21.
Group 10156. Jan. 22–Feb. 1. Return of Group 10133. A small regular spot, with one or two companions, diminishing to a dot. The group is followed by conspicuous faculæ in the rear of which Group 10162 appears.
Group 10157. Jan. 23–25. A few small spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
24·332		·784	238·6					143
	10148	·987	296·2	323·8	+24·6	58	409	817*f*
	10157	·969	282·2	321·1	+10·4	8	38	255*nf*
C	10150	·765	255·2	296·7	−14·8	58	443	150*c*
	10149	·848	316·4	291·7	+34·0	39	454	240*c*
	10156	·601	94·3	210·0	− 7·0	12	68	153*sf*
		·856	50·8					102
		·873	106·7					151
		·912	63·8					102
		·924	76·7					286
Jan. 25			(−9·0)	(247·0)	(−5·5)	(175)	(1412)	(3022)
25·341		·964	281·0					109
		·962	247·5					304
		·904	297·3					220
		·834	237·5					257
		·818	308·2					136
	10150	·893	256·5	297·2	−14·5	39	322	404*c*
C	10149	·923	309·2	291·8	+32·8	39	226	528*c*
	10158	·156	231·5	240·8	−11·1	3	9	
	10156	·401	95·3	210·1	− 7·2	12	81	
		·835	57·2					91
		·899	73·9					262
		·943	113·6					250
		·978	63·8					75
Jan. 26			(−9·5)	(233·7)	(−5·6)	(93)	(638)	(2636)
26·465		·954	293·8					205
		·922	302·6					170
		·911	237·8					348
		·788	249·0					218
	10150	·975	256·0	296·9	−14·9	40	289	1001*c*
	10149	·977	306·0	289·8	+33·3	35	288	714*nf*
	10158	·378	254·6	240·6	−11·0	2	2	
G	10156	·148	102·1	210·5	− 7·4	13	48	
	10159	·976	106·0	140·7	−16·8	14	50	387*c*
	10160	·992	78·4	137·7	+10·7	34	229	261*n*
		·795	68·2					194
		·873	115·0					340
		·919	55·1					158
		·957	67·3					213
Jan. 27			(−10·0)	(218·9)	(−5·7)	(138)	(906)	(4209)
1927.			°	°	°			
27·322		·979	254·3					535
		·959	304·1					155
		·931	238·7					128
		·873	249·9					162
	10161	·829	290·8	260·3	+13·6	4	7	89*c*
	10158	·591	258·9	243·7	−11·2	8	21	
	10156	·062	244·3	210·8	− 7·4	11	57	
C	10162	·204	108·5	196·3	− 9·4	10	55	
	981f	·494	55·6	183·2	+10·9	1	5	
	10159	·900	105·6	143·1	−16·5	20	81	206*c*
	10160	·958	76·5	136·2	+11·1	52	311	350*c*
		·818	117·5					95
		·917	67·1					145
		·949	117·9					133
Jan. 28			(−10·3)	(207·6)	(−5·8)	(106)	(537)	(1998)
28·534		·949	248·3					135
		·903	261·7					210
		·852	295·9					123
		·851	242·8					106
	10161	·954	286·3	261·8	+13·6	15	74	209*nf*
	10158	·782	260·4	243·2	−11·1	3	10	112*c*
	981g	·504	305·7	216·2	+11·7	2	5	
	10156	·330	261·7	210·8	− 8·3	11	38	
	10162	·104	234·9	196·5	− 9·3	24	127	
G	10163	·255	140·1	181·8	−17·0	2	5	
	10159	·756	106·5	142·8	−16·3	38	291	223*f*
	10160	·857	72·9	135·1	+11·4	65	296	359*c*
	10166	·976	116·6	113·1	−27·2	53	284	495*c*
	10164	·962	101·5	116·8	−12·7	20	148	} 888*c*
	10165	·980	104·8	112·2	−15·7	43	246	
		·856	61·2					320
		·859	116·9					156
		·922	126·3					165
Jan. 29			(−10·9)	(191·6)	(−5·9)	(276)	(1524)	(3501)
29·489		·983	285·6					104
		·967	260·3					145
		·947	241·7					116
		·945	293·6					91
		·874	259·0					84
G	10167	·817	265·0	233·9	− 7·5	3	9	

Group 10158. Jan. 26–29. Two or three very small spots.
Group 10159. Jan. 27–Feb. 8. A large stream commencing as a pair of small spots at the east limb on Jan. 27; the leader, which predominates throughout, has grown rapidly to a large spot on Jan. 30, but a portion breaks away on the following day. The remainder of the stream is made up of a train of rapidly changing spots.
Group 10160. Jan. 27–Feb. 8. A regular spot with a few small followers until Feb. 4.
Group 10161. Jan. 28–29. A dot becoming a small regular spot by the following day.
Group 10162. Jan. 28–Feb. 3. A small stream.
Group 10163. Jan. 29–Feb. 5. A stream of spots developing rapidly and soon declining. A pair of spots form the rear of the stream.
Group 10164. Jan. 29–Feb. 7. A diminutive stream of a few spots, *np* Group 10165 in the same general area of faculæ.
Group 10165. Jan. 29–Feb. 11. Return of Group 10138. A regular spot which increases and becomes elongated in a longitudinal direction; on Feb. 8 it is divided into two parts by a narrow "bridge" which crosses the entire spot north to south. There are a few small companions at first following at some distance in dense faculæ, and later adjacent to the spot.
Group 10166. Jan. 29–Feb. 10. A fair sized spot followed by a cluster. The former divides into several portions after Jan. 31.
Group 10167. Jan. 30–31. A pair of small spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
29·489	10156	·549	265·5	212·4	− 7·4	13	31	
	10162	·312	258·0	196·9	− 9·3	12	64	
G	10163	·205	202·6	183·7	−16·7	15	103	
	10159	·597	109·1	143·2	−16·1	87	633	
	10160	·728	68·7	135·5	+11·0	36	252	80c
	10166	·921	117·4	112·1	−27·5	40	540	533c
	10164	·871	101·2	118·1	−12·7	34	121	1182c
	10165	·922	104·9	111·3	−16·0	59	326	
		·863	54·7					126
		·966	64·9					277
Jan. 30			(−11·3)	(179·0)	(−5·9)	(299)	(2079)	(2738)
30·415		·966	259·3					·82
		·892	294·2					99
		·797	306·1					67
	10167	·932	263·9	235·8	− 7·8	15	49	158c
	10156	·712	265·3	212·3	− 7·6	6	20	
	10162	·486	261·9	195·8	− 9·1	9	34	
	10163	·339	236·7	183·9	−16·4	100	481	
	10159	·419	114·9	143·7	−15·7	80	615	
G	10160	·579	61·5	135·7	+10·9	34	222	
	10164	·750	101·5	118·2	−12·5	17	81	
	10166	·833	119·3	112·0	−27·6	74	516	232c
	10165	·830	105·3	110·6	−16·0	84	430	956c
	10168	·976	63·7	93·7	+24·0	9	34	223f
		·895	50·4					215
		·971	80·5					154
		·974	105·1					280
Jan. 31			(−11·7)	(166·8)	(−6·0)	(428)	(2482)	(2466)
31·410		·984	262·3					225
		·929	285·7					202
		·918	225·0					103
		·889	300·9					252
	10156	·850	264·9	212·1	− 7·5	4	8	554c
	10162	·675	263·2	196·3	− 9·1	3	15	238p
	10163	·524	247·4	183·9	−16·9	141	808	
	10159	·243	134·3	143·3	−15·7	126	671	
	10160	·415	46·3	136·0	+10·8	35	198	
G	10164	·579	103·3	118·6	−12·7	19	76	
	10166	·706	123·3	112·2	−27·4	59	394	
	10165	·685	107·0	110·9	−16·0	70	339	624c
	10168	·925	60·7	91·8	+24·1	14	53	236c
	10169	·966	62·9	83·4	+24·1	25	144	259c
		·823	54·7					266
		·919	147·5					54

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
31·410		·923	104·8					473
G		·954	79·1					886
Feb. 1			(−12·1)	(153·7)	(−6·1)	(496)	(2706)	(4372)
32·354		·953	297·7					191
		·930	261·4					693
		·904	309·3					110
		·836	299·7					81
		·831	260·9					438
		·767	287·9					182
	10163	·679	252·1	183·5	−16·6	111	665	
	10159	·168	193·1	143·5	−15·5	132	522	
	10160	·303	16·7	136·2	+10·7	35	188	
	10164	·382	107·3	119·5	+12·1	12	51	
C	10166	·569	131·8	112·8	−27·6	45	265	
	10165	·524	110·9	110·8	−16·0	68	408	
	10168	·834	55·9	92·4	+23·9	14	36	230c
	10169	·900	59·5	83·4	+24·0	19	112	295c
	10170	·974	72·9	66·9	+15·0	27	113	378c
	10171	·995	80·3	58·4	+ 9·0	38	144	60c
		·842	107·7					628
		·883	66·3					68
		·897	77·5					1121
		·943	95·6					87
		·985	100·7					118
Feb. 2			(−12·5)	(141·3)	(−6·1)	(501)	(2504)	(4680)
33·359		·979	260·9					355
		·949	248·3					50
		·930	305·7					149
		·884	285·1					247
		·861	298·7					171
	10162	·951	261·5	200·6	−10·0	6	21	377f
	10163	·822	253·6	183·4	−17·1	94	585	163c
	10159	·310	236·4	143·6	−15·8	78	554	
	10160	·327	336·8	135·6	+11·3	37	180	
	981h	·237	155·3	122·1	−18·5	2	4	
	10164	·181	126·1	119·5	−12·2	9	37	
	10166	·438	147·7	112·8	−27·6	26	145	
	10165	·346	121·3	110·2	−16·3	71	474	
C	10172	·605	37·5	104·6	+22·9	3	5	
	10168	·723	47·7	92·4	+24·0	15	26	
	10169	·799	54·1	83·4	+23·5	7	42	
	10170	·900	70·1	67·1	+14·9	27	136	516c
	10171	·941	78·4	59·5	+ 8·7	19	118	148c
	10173	·990	104·1	45·1	−14·8	14	117	

Group 10168. Jan. 31–Feb. 7. A close pair of small spots of which only one remains after Feb. 4. The group closely precedes No. 10169.
Group 10169. Feb. 1–10. A spot with companions diminishing rapidly on Feb. 6 and 7, nothing is visible, but on the two following days a tiny ephemeral spot marks the place.
Group 10170. Feb. 2–13. A complex group. At first a regular spot with a few small companions. On Feb. 5, irregularly-shaped spots originate immediately in front, and the regular spot becomes absorbed in a larger spot of composite structure which forms rapidly. The group has a brief maximum and is disappearing rapidly as the west limb is approached.
Group 10171. Feb. 2–14. A small regular spot, stable for its size.
Group 10172. Feb. 3–5. One or two tiny spots.
Group 10173. Feb. 3–15. Two spots 7° apart in longitude near the east limb; the leader increases very considerably; the follower becomes an unstable cluster. The faculæ seen surrounding the group at the west limb are small considering the size of the spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
33·359		·780	73·7					526
		·815	94·1					46
C		·817	107·7					127
		·937	102·1					275
		·940	114·1					86
		·953	125·0					121
		·985	78·9					310
Feb. 3			(−12·9)	(128·1)	(−6·2)	(408)	(2444)	(3667)
34·424		·988	259·5					410
		·962	282·7					292
		·947	293·2					259
		·844	289·1					312
	10163	·932	253·7	183·4	−17·5	70	505	557*c*
	10159	·526	251·7	145·1	−14·9	74	508	
	10160	·478	306·7	137·0	+10·8	32	175	
	10164	·137	213·9	118·6	−12·8	7	26	
	10166	·372	175·1	112·0	−28·0	23	100	
	10165	·182	159·1	110·2	−16·0	64	429	
	10172	·512	17·9	104·3	+22·8	2	12	
G	10168	·615	33·5	92·2	+24·9	7	28	
	10169	·685	45·5	82·1	+23·3	6	15	
	10170	·792	65·3	66·2	+15·1	35	190	485*f*
	10171	·833	74·8	59·8	+ 9·0	12	109	227*nf*
	10174	·929	76·9	47·7	+ 9·7	0	8	559*c*
	10173	·952	103·7	41·2	−15·0	76	610	402*c*
	981i	·981	81·1	36·6	+ 7·4	0	10	130*sf*
		·846	101·7					281
		·917	124·3					94
		·938	114·7					109
		·956	62·1					116
Feb. 4			(−13·3)	(114·1)	(−6·3)	(408)	(2725)	(4233)
35·435		·935	286·9					270
		·916	300·1					138
		·864	244·0					154
	10163	·971	252·6	178·0	−18·4	35	209	345*p*
	10159	·715	256·4	146·4	−14·1	59	328	
	10160	·646	295·3	137·1	+10·9	25	172	
	10164	·287	245·1	116·2	−13·0	7	43	
	10166	·420	206·7	113·1	−28·1	16	82	
	10165	·235	222·7	110·3	−16·1	70	501	
	10172	·485	353·5	104·2	+22·4	1	2	
	10168	·524	13·7	93·0	+24·2	5	9	
	981j	·227	111·4	88·4	−10·9	0	2	
G	10169	·547	29·7	83·8	+22·2	1	4	
	10170	·633	56·4	67·9	+15·2	43	410	
	10171	·685	69·3	60·5	+ 9·2	18	103	
	10175	·706	101·7	55·9	−12·7	9	51	
	10176	·735	75·9	55·2	+ 5·9	9	16	
	10174	·813	73·8	48·7	+ 9·3	0	8	386*nf*

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
35·435	10173	·856	104·1	41·6	−15·3	112	594	443*c*
		·878	59·2					112
G		·912	79·1					136
		·928	128·7					121
		·985	73·4					214
Feb. 5			(−13·7)	(100·8)	(−6·3)	(410)	(2534)	(2319)
36·507		·932	243·5					141
		·895	293·5					215
	10159	·872	257·8	147·7	−13·8	56	273	627*sf*
	10166	·806	288·7	137·4	+11·0	25	185	106*nf*
	10164	·526	253·9	117·8	−13·8	5	15	
	10166	·566	227·3	114·6	−28·2	13	24	
	10165	·429	245·3	110·4	−16·1	58	472	
	981k	·595	325·6	108·0	+23·3	2	6	
	10168	·522	348·5	93·1	+24·3	1	4	
G	*981l*	·223	163·3	82·7	−18·7	1	5	
	10170	·468	40·6	68·4	+14·7	61	524	
	10171	·501	58·2	61·1	+ 9·4	8	86	
	10176	·537	67·2	56·8	+ 6·4	10	40	
	10175	·512	104·7	56·2	−13·0	13	38	
	10174	·651	69·0	48·9	+ 8·4	3	9	
	10173	·698	105·1	42·5	−15·1	95	777	176*c*
	10177	·960	73·4	15·4	+13·9	4	21	359*n*
		·930	46·3					169
Feb. 6			(−14·1)	(86·6)	(−6·4)	(355)	(2479)	(1793)
37·309		·968	242·2					125
		·953	292·8					346
		·881	306·1					111
	10159	·945	258·0	147·7	−13·4	32	211	1036*sf*
	10160	·896	285·8	137·3	+11·1	19	152	206*nf*
	10164	·727	259·0	122·8	−12·4	3	6	
	10166	·661	234·5	113·4	−27·6	14	61	
	10165	·564	250·4	109·6	−16·2	70	549	
	10168	·571	332·5	92·8	+24·1	2	8	
C	10170	·389	19·5	68·4	+15·1	65	530	
	10171	·369	42·2	61·6	+ 9·6	18	96	
	10176	·368	53·3	58·9	+ 6·5	9	31	
	10175	·351	109·9	56·4	−12·8	6	34	
	10173	·556	107·0	42·9	−14·7	109	860	
	10178	·614	95·2	38·1	− 8·2	8	45	
	10177	·902	71·0	14·8	+14·0	5	15	362*n*
		·900	41·9					157
		·974	74·9					69
Feb. 7			(−14·4)	(76·1)	(−6·4)	(360)	(2598)	(2412)
38·347		·982	293·4					54
		·940	300·0					129
		·919	238·2					160
C		·851	255·8					413

Group 10174. Feb. 4–8. One or two very small spots, not seen on Feb. 7, *f* Group 10171.
Group 10175. Feb. 5–10. An unstable cluster, *p* Group 10173. The rear part only of the disturbance is represented by a spot on Feb. 10.
Group 10176. Feb. 5–14. An unstable stream with a brief maximum about Feb. 10.
Group 10177. Feb. 6–11. One or two spots near the southern boundary of a moderately large area of faculæ. No spots are seen on Feb. 9.
Group 10178. Feb. 7–15. A long stream of unimportant spots, *n* Group 10173.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1927.			°	°	°			
38·347		·840	304·4					136
	10159	·994	257·3	147·2	−13·3	35	198	963*sf*
	10160	·974	283·2	137·4	+11·2	17	106	267*nf*
	10166	·803	239·3	113·8	−28·3	7	51	109*f*
	10165	·737	253·8	109·7	−16·3	62	459	
	10179	·746	312·6	99·6	+25·1	16	68	
	10169	·605	330·8	81·4	+25·7	3	8	
	10170	·384	344·7	68·4	+15·2	44	439	
C	10171	·275	0·9	62·1	+ 9·4	11	88	
	10176	·220	8·3	60·6	+ 6·0	15	66	
	10175	·157	138·6	56·3	−13·2	9	40	
	10174	·321	40·0	50·4	+ 7·8	1	4	
	981m	·417	38·0	47·2	+12·8	1	4	
	10173	·365	115·4	42·5	−15·1	78	752	
	10178	·394	95·8	39·2	− 8·2	21	59	
	10177	·784	67·6	14·5	+13·0	6	14	374*n*
	10180	·988	116·6	339·5	−27·2	41	154	61*c*
		·868	37·0					102
		·971	72·7					109
Feb. 8			(−14·8)	(62·4)	(−6·5)	(367)	(2510)	(2877)
39·354		·897	294·7					142
		·871	315·6					42
		·776	311·0					235
	10166	·905	241·6	113·8	−28·4	13	55	395*f*
	10165	·867	255·1	109·7	−16·2	51	390	1187*c*
	10179	·857	303·4	100·6	+24·0	24	69	254*c*
	10169	·697	314·4	82·0	+23·6	1	4	
	10170	·505	316·3	70·3	+15·2	48	364	
	10171	·356	320·2	62·5	+ 9·4	18	78	
	10176	·289	315·2	61·0	+ 5·3	45	226	
C	10175	·150	224·2	55·3	−12·7	2	13	
	10173	·176	144·4	43·1	−14·7	109	670	
	10178	·195	98·3	38·0	− 8·1	26	134	
	10180	·938	116·8	338·9	−27·4	19	127	420*f*
		·858	34·0					113
		·868	98·7					47
		·905	70·4					160
		·931	40·4					51
		·938	104·5					97
		·956	92·8					64
		·977	72·0					69
		·987	65·0					64
Feb. 9			(−15·2)	(49·2)	(−6·6)	(356)	(2130)	(3340)
40·426		·951	291·5					77
		·897	306·2					191
		·798	289·2					547
		·784	252·8					164
	10166	·973	242·0	113·0	−28·7	9	32	272*f*
G	10165	·960	254·8	109·7	−16·4	46	433	1322*c*
	10179	·950	297·8	101·5	+23·8	24	95	249*c*

G.M.T.	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1927.			°	°	°			
40·426	10169	·814	309·0	79·6	+26·1	2	8	162*s*
	10170	·655	303·0	69·6	+15·4	32	288	
	10171	·531	300·0	62·7	+ 9·5	18	61	
	10176	·497	293·4	62·2	+ 5·5	60	324	
G	10175	·252	246·0	48·6	−12·2	2	10	
	10173	·198	222·6	42·9	−14·9	102	590	
	10178	·086	253·1	39·7	− 8·0	22	157	
	10177	·471	36·2	18·3	+16·0	3	5	
	10180	·849	118·4	337·9	−27·5	16	128	580*f*
		·833	68·6					54
		·868	84·3					26
		·870	92·8					28
		·924	36·8					70
		·927	100·6					42
		·952	75·8					167
		·954	63·2					690
		·968	109·6					178
Feb. 10			(−15·6)	(35·0)	(−6·6)	(336)	(2131)	(4819)
41·357		·969	239·5					127
		·927	302·3					366
		·912	284·3					502
		·879	254·1					321
		·758	281·0					195
	10165	·992	255·3	106·8	−15·4	8	50	678*sf*
	10170	·784	295·4	69·8	+15·1	35	342	325*c*
	10171	·684	291·9	62·7	+ 9·7	12	37	
C	10176	·657	286·5	61·9	+ 5·6	38	283	
	10173	·365	245·5	42·8	−15·0	77	543	
	10178	·285	264·1	39·4	− 8·1	18	124	
	10177	·384	10·3	18·7	+15·4	0	2	
	10180	·740	121·9	337·7	−27·8	8	107	310*f*
		·901	71·7					116
		·915	57·3					562
		·931	106·9					158
Feb. 11			(−15·9)	(22·8)	(−6·7)	(196)	(1488)	(3660)
42·341		·974	281·3					406
		·969	298·2					372
		·945	253·6					566
		·876	279·7					264
		·809	301·0					149
		·749	256·7					88
	10170	·895	290·1	69·9	+14·7	29	243	581*c*
	10176	·817	281·9	63·1	+ 5·7	34	207	105*c*
	10171	·826	286·9	62·9	+ 9·9	11	63	84*nf*
	10173	·561	254·3	43·5	−14·3	76	519	
C	10178	·506	266·5	40·3	− 7·6	38	193	
	10181	·558	55·0	342·0	+12·7	2	5	
	10180	·609	128·3	337·2	−27·8	20	108	
	10182	·890	103·3	306·4	−14·9	2	4	110*c*

Group 10179. Feb. 8–10. A few spots in stream formation.
Group 10180. Feb. 8–20. A regular spot followed by a long train of faculæ in which a small companion appears on Feb. 12.
Group 10181. Feb. 12–18. One or more small unstable spots.
Group 10182. Feb. 12–14. Small spots, *p* Group 10183.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
42·341	10183	·948	102·5	297·6	−13·9	26	172	561*sf*
		·779	65·1					76
		·829	111·4					166
C		·856	52·1					828
		·913	91·7					77
		·925	116·7					152
		·934	63·7					117
Feb. 12			(−16·3)	(9·8)	(−6·7)	(238)	(1514)	(4702)
43·542		·982	277·0					155
		·939	294·7					311
		·881	257·8					268
		·850	288·0					345
	10170	·798	286·2	69·6	+14·2	18	78	553*c*
	10171	·949	283·0	63·6	+10·0	6	50	
	10176	·940	278·3	62·7	+ 5·3	25	151	422*c*
	10173	·762	257·3	43·8	−14·1	112	519	
	10178	·744	265·7	42·3	− 7·8	44	152	241*c*
G	10180	·452	144·7	336·9	−28·1	20	113	
	982a	·574	93·3	318·8	− 7·5	1	3	
	10182	·756	105·4	304·9	−16·1	5	11	112*c*
	10183	·838	102·3	296·7	−14·0	34	146	617*sf*
	10184	·991	55·1	278·0	+33·2	14	79	171*p*
		·748	43·1					486
		·796	117·3					266
		·894	47·9					204
		·901	63·8					148
		·935	75·1					270
		·936	121·3					347
Feb. 13			(−16·7)	(354·0)	(−6·8)	(279)	(1302)	(4916)
44·335		·970	292·8					164
		·944	255·4					351
		·936	284·2					472
		·885	292·8					95
	10171	·990	281·3	63·8	+10·1	14	58	76*c*
	10176	·985	277·0	62·6	+ 5·6	11	79	466*f*
	10173	·863	258·2	43·7	−13·6	109	460	540*sf*
	10178	·852	265·5	42·3	− 7·4	35	174	208*c*
C	10181	·334	7·0	341·2	+12·5	1	5	
	10180	·380	164·0	336·8	−28·1	19	98	
	10182	·608	107·9	306·7	−16·1	3	24	
	10183	·728	103·0	296·8	−14·1	25	140	354*sf*
	10184	·962	52·6	278·0	+33·1	16	34	426*p*
	10185	·975	69·9	269·8	+17·8	4	9	362*c*
		·856	72·3					235
		·892	122·6					317
Feb. 14			(−17·0)	(343·6)	(−6·8)	(237)	(1081)	(4066)
1927.			°	°	°			
45·328		·976	281·5					153
		·965	288·8					113
		·940	234·9					123
		·922	308·1					196
		·859	322·1					165
		·758	296·9					122
	10178	·953	264·5	43·3	− 7·3	31	178	377*c*
	10173	·949	257·9	42·9	−13·6	100	465	445*sf*
C	10181	·400	327·5	343·2	+13·0	3	30	
	10180	·373	193·5	336·1	−27·9	17	103	
	10183	·566	104·3	296·3	−13·7	21	122	
	10186	·701	67·3	289·5	+10·5	21	145	
	10184	·908	48·3	276·5	+33·3	11	25	661*c*
		·824	124·1					146
		·905	66·1					309
		·948	74·3					116
Feb. 15			(−17·3)	(330·5)	(−6·8)	(204)	(1068)	(2926)
46·506		·992	263·3					260
		·986	252·9					634
		·900	315·7					146
		·898	290·5					390
	10181	·583	303·1	344·9	+12·5	13	37	
	10180	·489	221·1	336·3	−28·0	13	92	
	10183	·341	112·1	296·1	−13·9	21	140	
	10186	·510	57·2	289·3	+ 9·8	35	267	
C	10184	·802	40·1	277·4	+32·3	17	60	432*c*
	10187	·977	77·1	239·2	+11·0	30	156	386*c*
		·792	59·7					366
		·861	70·1					79
		·928	42·8					311
Feb. 16			(−17·7)	(315·0)	(−6·9)	(129)	(752)	(3004)
47·315			287·2					329
		·953	314·1					167
		·950	295·4	346·7	+13·2	3	18	
	10181	·730	231·4	335·9	−27·7	14	89	
	10180	·596	342·8	315·7	+27·6	3	6	
	982b	·594	130·2	295·6	−13·9	27	134	
C	10183	·192	42·6	288·9	+ 9·8	32	191	
	10186	·388	32·7	275·6	+32·9	14	43	260*c*
	10184	·748	49·6	271·9	+19·6	0	6	
	10185	·665	75·0	238·1	+11·2	41	177	536*c*
	10187	·931	32·9					301
		·872	97·2					90
Feb. 17		·927	(−18·0)	(304·3)	(−6·9)	(134)	(664)	(1683)

Group 10183. Feb. 12–24. Return of Group 10150. A stable, regular spot with one or two attendants on Feb. 18 to 21.
Group 10184. Feb. 13–21. Return of Group 10149. Third appearance. A small but distinct and persistent spot with two companions preceding it on Feb. 16 and one on Feb. 17.
Group 10185. Feb. 14–17. One small spot seen only on Feb. 14 and 17.
Group 10186. Feb. 15–23. A moderate-sized unstable stream. This develops suddenly between Feb. 14–15 amongst a small but well defined area of faculæ seen near the east limb on Feb. 13.
Group 10187. Feb. 16–23. A pair of small clusters becoming widely separated in longitude. No spots are seen on Feb. 22.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
48·498		·948	317·1					150
	10181	·883	289·4	347·5	+13·4	2	4	236c
	10180	·759	239·0	336·0	−27·8	14	74	
	10183	·166	221·2	295·2	−14·1	21	141	
	10186	·288	358·7	289·2	+ 9·7	25	131	
G	10184	·675	18·2	274·3	+33·0	9	29	
	10187	·797	70·2	239·2	+11·1	29	103	291c
		·754	96·3					95
		·788	27·2					175
		·937	98·1					396
		·959	107·0					271
Feb. 18			(−18·4)	(288·8)	(−7·0)	(100)	(482)	(1614)
49·517		·922	289·3					215
		·890	273·5					35
		·800	289·9					99
		·800	310·8					564
	10180	·873	241·9	335·6	−27·8	11	70	206f
	982c	·536	252·2	307·1	−15·4	0	2	
	10183	·350	248·9	294·9	−13·8	36	165	
	10186	·383	319·4	289·9	+10·0	14	51	
G	10184	·645	2·5	273·4	+33·0	10	20	
	10187	·655	63·7	238·7	+11·2	12	45	
	10188	·610	96·9	237·6	− 9·8	20	66	
	10189	·682	100·2	232·2	−11·9	4	9	
		·862	100·9					445
		·953	63·5					98
		·963	102·1					395
		·964	114·9					289
Feb. 19			(−18·7)	(275·3)	(−7·0)	(107)	(428)	(2346)
50·362		·933	287·4					170
		·876	306·4					860
		·813	294·0					105
	10180	·945	242·9	336·0	−27·8	7	51	346f
	10183	·510	254·4	294·5	−13·9	30	173	
	10186	·520	303·6	290·2	+10·4	8	37	
	10184	·656	348·5	273·1	+33·0	11	14	
	10188	·430	98·6	238·7	−10·0	26	167	
C	10187	·536	55·4	237·6	+11·4	12	58	
	10189	·530	101·8	232·3	−12·2	10	26	
		·786	101·4					251
		·897	116·4					186
		·904	58·0					161
		·936	104·4					329
		·960	74·7					208
		·978	116·0					242
		·989	105·8					197
Feb. 20			(−19·0)	(264·2)	(−7·0)	(104)	(526)	(3055)

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
51·437		·941	302·9					520
		·936	289·7					167
		·932	240·3					271
		·876	314·1					100
		·868	251·9					270
		·780	240·5					69
	10183	·705	256·9	294·9	−14·2	19	139	
	10186	·690	294·0	289·8	+10·8	6	33	
	10184	·715	332·9	272·7	+32·9	4	9	
	10188	·175	109·5	240·4	−10·4	40	265	
G	10187	·368	32·1	238·5	+11·1	5	28	
	10189	·322	106·4	231·7	−11·9	2	7	
	982d	·815	66·7	199·6	+14·3	3	8	176f
	10190	·896	115·5	184·2	−25·9	4	14	341f
	10191	·956	74·8	179·5	+12·2	22	87	445f
		·790	117·4					87
		·833	103·3					340
		·924	106·1					362
		·931	52·9					111
		·951	65·1					200
Feb. 21			(−19·3)	(250·0)	(−7·1)	(105)	(590)	(3459)
52·483		·980	299·8					199
		·939	248·4					338
		·835	312·2					112
		·813	287·8					291
		·804	324·4					135
		·788	338·4					96
C	10183	·841	257·5	294·0	−14·3	17	126	237sf
	10188	·095	226·9	240·3	−10·8	37	340	
	10192	·611	62·7	202·9	+10·3	3	15	
	10190	·796	118·0	184·8	−26·4	6	15	144c
	10191	·866	71·1	179·5	+12·5	9	47	392f
		·827	107·8					198
		·889	59·6					51
Feb. 22			(−19·6)	(236·3)	(−7·1)	(72)	(543)	(2193)
53·418		·950	243·9					267
		·911	307·7					240
		·910	295·8					161
		·884	318·5					346
		·858	331·1					200
		·811	237·0					314
		·787	300·3					194
	10183	·937	257·3	294·4	−14·4	24	141	529sf
	10186	·954	285·2	294·1	+12·1	7	15	816f
G	10188	·299	255·7	241·1	−11·0	47	262	
	10187	·383	328·8	235·7	+12·1	3	8	
	10193	·304	109·5	207·0	−12·6	3	13	

Group 10188. Feb. 19–27. A short-lived stream.
Group 10189. Feb. 19–21. Two or three small spots appearing in the rear of Group 10188.
Group 10190. Feb. 21–24. One or two small spots.
Group 10191. Feb. 21–Mar. 4. A double spot leading an area of faculæ in which tiny spots are seen on Feb. 24–25. On Feb. 26 a cluster of spots originates next to the leader.
Group 10192. Feb. 22–25. A few very unstable spots.
Group 10193. Feb. 23–25. A disturbed region marked by faculæ in which two or three scattered spots are seen.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
53·418	10192	·476	51·8	201·7	+10·5	3	5	
	10190	·669	121·1	184·7	−25·7	1	5	
G	10191	·749	66·0	179·7	+12·7	17	60	679*f*
	10194	·959	102·7	149·5	−14·2	7	23	553*c*
		·925	117·6					192
		·938	74·1					212
Feb. 23			(−19·9)	(224·0)	(−7·1)	(112)	(532)	(4703)
54·360		·985	283·8					482
		·951	304·2					164
		·939	314·1					302
		·898	236·2					242
		·895	295·5					166
		·892	326·4					106
	10183	·987	256·4	293·5	−14·5	12	118	390*sf*
	10188	·479	259·8	240·2	−11·1	27	176	
C	10193	·094	174·9	211·1	−12·5	2	9	
	10192	·321	20·8	205·0	+10·7	7	25	
	10190	·582	126·7	180·3	−26·4	2	7	
	10191	·616	58·6	179·1	+12·7	13	58	
	10194	·880	102·2	149·4	−14·1	0	4	530*c*
	10195	·944	109·0	139·8	−20·2	12	33	321*c*
	10196	·988	106·9	129·0	−17·8	41	176	271*c*
		·948	70·0					291
Feb. 24			(−20·2)	(211·6)	(−7·1)	(116)	(606)	(3265)
55·357		·987	250·9					261
		·973	308·1					219
		·947	318·2					148
		·945	292·0					193
		·939	235·7					271
	10188	·684	261·0	241·8	−11·4	18	124	
	10193	·313	258·8	216·5	−10·3	1	7	
	10192	·328	338·0	205·5	+10·5	6	23	
C	10197	·256	148·9	190·4	−19·8	1	3	
	10198	·332	129·9	182·8	−19·1	0	2	
	10191	·479	46·2	177·7	+12·6	15	78	
	10195	·847	108·3	140·2	−19·3	2	16	353*c*
	10196	·934	106·0	128·4	−17·5	29	207	626*f*
	10199	·938	114·2	127·7	−25·1	6	27	126*c*
		·763	103·6					263
		·902	70·6					147
		·916	59·6					137
Feb. 25			(−20·4)	(198·4)	(−7·2)	(78)	(487)	(2744)
56·442		·898	241·7					103
		·852	288·5					367
G	10188	·882	261·5	246·5	−10·9	27	123	326*c*

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
56·442	*982e*	·196	261·7	195·4	− 8·7	1	5	
	10197	·235	205·5	190·2	−19·4	1	2	
	10198	·207	177·5	183·6	−19·1	2	5	
	10191	·347	10·5	180·4	+12·7	17	101	
	10195	·707	108·1	139·4	−17·8	5	21	
G	10199	·819	115·4	129·7	−24·8	6	19	131*c*
	10196	·828	106·6	127·9	−17·8	23	201	389*f*
		·773	64·3					152
		·845	125·5					101
		·887	58·0					214
		·946	119·7					375
		·956	102·9					601
		·990	62·3					89
Feb. 26			(−20·7)	(184·1)	(−7·2)	(82)	(477)	(2848)
57·405		·932	285·2					335
		·756	260·4					179
	10188	·965	262·0	246·9	− 9·6	24	85	678*f*
	10200	·670	293·6	209·8	+ 9·9	2	6	
	10201	·423	241·9	194·4	−18·1	5	8	
	10202	·393	212·4	184·9	−26·3	7	32	
	10191	·371	336·4	180·1	+12·7	25	125	
	10195	·541	111·2	139·6	−17·4	1	4	
	10199	·683	118·8	130·4	−24·6	3	9	
C	10196	·693	108·4	127·9	−17·9	27	195	
	10203	·953	64·8	103·8	+21·3	3	21	276*c*
		·767	46·4					167
		·857	106·8					760
		·894	127·8					90
		·925	116·6					432
		·946	58·1					228
		·964	99·4					87
		·978	80·8					176
		·985	108·6					96
Feb. 27			(−21·0)	(171·4)	(−7·2)	(97)	(485)	(3504)
58·500		·984	258·8					299
		·981	284·4					174
		·966	240·5					63
		·947	249·5					100
		·897	295·8					97
		·846	304·4					71
		·826	258·4					506
		·786	291·0					126
G	10201	·617	248·7	194·2	−18·7	3	8	
	10202	·541	231·1	184·9	−26·2	2	21	
	10191	·519	310·1	180·9	+12·9	24	197	

Group 10194. Feb. 23–24. A small spot, *see* Group 10195.
Group 10195. Feb. 24–Mar. 3. One or two small spots not seen on Feb. 28 and Mar. 2. Groups 10194 and 95 are surrounded by a fairly large area of faculæ which evidently originated with Group 10159.
Group 10196. Feb. 24–Mar. 9. A stable regular spot.
Group 10197. Feb. 25–26. A very small faint spot.
Group 10198. Feb. 25–26. A very small faint spot.
Group 10199. Feb. 25–Mar. 3. A small intermittent spot not seen on Mar. 1 and 2.
Group 10200. Feb. 27–Mar. 2. A dot on Feb. 27; another on Mar. 1; on Mar. 2, two spots are developing near the west limb.
Group 10201. Feb. 27–28. One small spot on Feb. 27, a pair on Feb. 28.
Group 10202. Feb. 27–28. A few small ephemeral spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
58·500	*982f*	·412	319·2	172·9	+11·2	2	7	
	10199	·509	128·0	130·9	−24·7	1	2	
	10204	·453	104·8	130·4	−13·1	2	17	
	10196	·509	113·3	127·7	−17·9	28	164	
G	10203	·860	60·0	104·2	+21·2	4	11	184*f*
		·761	123·5					200
		·775	107·6					283
		·879	98·9					95
		·879	52·3					357
		·882	117·8					342
		·938	75·1					698
		·944	107·7					170
		·966	60·3					156
Feb. 28			(−21·3)	(157·0)	(−7·2)	(66)	(427)	(3921)
59·418		·927	258·1					304
		·921	300·1					105
		·787	258·7					284
	10200	·925	284·4	210·3	+10·4	3	12	115*nf*
	10191	·659	299·0	181·0	+12·8	23	86	
	10195	·267	152·2	137·3	−20·7	1	5	
	10204	·257	116·0	131·2	−13·4	1	4	
	10196	·340	124·1	127·8	−17·8	35	170	
	10203	·798	55·9	99·8	+21·5	10	20	62*c*
G	10205	·851	54·0	95·4	+25·4	7	12	35*c*
		·770	118·9					179
		·817	72·8					226
		·856	107·7					168
		·914	57·6					101
		·943	74·0					363
		·956	99·6					139
		·970	57·7					242
		·973	83·3					149
Mar. 1			(−21·5)	(144·9)	(−7·2)	(80)	(309)	(2472)
60·369		·967	256·6					330
		·906	285·4					138
		·885	257·0					297
		·777	241·8					288
		·765	254·9					181
	10200	·977	282·2	208·2	+10·3	35	186	386*c*
	10191	·781	292·6	179·9	+12·6	10	36	459*c*
	10196	·200	157·2	127·8	−17·8	30	162	
	982g	·345	161·6	125·5	−26·2	0	3	
	10203	·698	49·8	97·7	+20·9	15	36	
C	10205	·749	46·2	95·7	+25·5	7	18	
		·794	62·0					289
		·799	74·7					142
		·833	51·0					183
		·854	95·4					143
		·917	105·5					146

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
60·369		·919	53·0					203
C		·924	80·8					276
		·936	67·4					344
		·978	95·6					343
Mar. 2			(−21·8)	(132·4)	(−7·2)	(97)	(441)	(4148)
61·395		·965	307·4					32
		·913	253·2					430
		·888	243·4					329
	10191	·893	288·1	179·1	+12·6	7	19	526*nf*
	10206	·422	241·4	141·8	−18·3	2	7	
	10195	·385	228·8	137·0	−21·5	0	5	
	10199	·334	208·5	128·9	−24·1	2	16	
	10196	·234	218·6	127·7	−17·6	31	147	
	10203	·573	32·6	99·5	+22·0	24	122	
	10205	·629	32·8	96·9	+25·1	3	6	
C	10207	·977	79·0	42·9	+ 9·1	10	60	218*c*
	10208	·966	102·8	42·8	−14·2	53	310	148*c*
		·730	96·6					180
		·788	47·8					209
		·815	62·6					157
		·875	105·6					133
		·891	77·6					199
		·916	94·2					635
		·931	60·5					275
		·967	110·2					228
Mar. 3			(−22·0)	(118·9)	(−7·2)	(132)	(692)	(3699)
62·341		·953	253·7					231
		·947	244·9					380
	10191	·966	285·3	179·0	+12·7	4	17	571*nf*
	10206	·625	251·3	144·5	−17·2	11	85	
	10196	·393	241·6	127·6	−17·5	33	161	
	10203	·487	9·3	101·6	+21·4	24	113	
	10205	·549	15·5	97·1	+24·7	2	5	
C	10207	·907	76·2	43·4	+ 9·2	16	48	304*f*
	10208	·890	102·2	42·9	−14·1	53	300	133*c*
	10209	·904	110·5	41·1	−21·6	5	10	206*c*
		·775	58·2					136
		·799	72·8					121
		·830	94·5					498
		·918	56·5					148
		·929	67·7					115
Mar. 4			(−22·3)	(106·4)	(−7·2)	(148)	(739)	(2843)
63·343		·981	286·7					244
		·979	246·0					247
		·888	251·9					244
		·824	294·9					217
		·783	311·9					121
C	10206	·776	253·5	144·2	−17·3	17	81	

Group 10203. Feb. 27–Mar. 9. A moderate disturbance represented at first by very small spots: then by a regular spot with a distant follower, and later, at the west limb, by other spots of unstable character in a long stretch of faculæ.
Group 10204. Feb. 28–Mar. 1. A few tiny spots *n.p.* Group 10196.
Group 10205. Mar. 1–4. A small spot, *n* Group 10203 with a companion on Mar. 2.
Group 10206. Mar. 3–6. A small group.
Group 10207. Mar. 3–8. A single small spot.
Group 10208. Mar. 3–15. Return of Group 10173. A regular spot with a "bridge" across it from Mar. 6.
Group 10209. Mar. 4–14. An unstable cluster of very small spots, *s* Group 10208.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
63·343	10196	·575	249·2	127·4	−17·8	26	139	
	10203	·499	341·3	103·0	+20·9	16	105	
C	10207	·794	72·3	43·4	+ 9·3	9	20	141*f*
	10208	·771	102·6	42·5	−14·3	41	275	80*c*
	10209	·796	111·1	40·7	−21·1	9	46	165*c*
		·797	61·5					97
		·856	48·9					104
		·973	73·9					343
Mar. 5			(−22·5)	(93·2)	(−7·3)	(118)	(666)	(2003)
64·460		·925	292·5					222
	10206	·920	254·7	146·2	−16·9	11	30	274*c*
	10196	·751	252·5	127·1	−17·9	36	153	
	982h	·518	235·6	106·2	−23·5	0	4	
	10203	·595	320·5	102·3	+20·6	16	134	
G	10210	·671	52·7	44·5	+17·9	12	29	
	10207	·624	65·1	43·7	+ 9·2	6	25	
	10208	·592	104·8	42·4	−14·6	45	250	
	10209	·637	114·5	40·3	−21·0	6	20	
		·896	71·1					221
		·980	68·1					37
Mar. 6			(−22·7)	(78·5)	(−7·3)	(132)	(645)	(754)
65·411		·959	250·5					393
		·950	290·7					171
		·946	303·5					131
		·837	295·6					22
		·763	318·4					223
	10196	·870	253·3	127·0	−18·0	30	161	462*c*
	10211	·784	282·1	116·1	+ 4·9	2	7	74*c*
C	10212	·724	250·1	112·0	−19·3	10	27	
	10203	·702	310·3	100·9	+21·0	20	107	
	10210	·541	40·8	44·3	+17·4	20	64	
	10207	·464	54·1	43·7	+ 9·1	5	14	
	10208	·417	109·3	42·1	−14·5	52	232	
	10209	·503	122·3	38·8	−22·0	10	38	
		·812	66·1					219
		·927	65·3					54
Mar. 7			(−22·9)	(66·0)	(−7·2)	(149)	(650)	(1749)
66·391		·851	309·9					245
	10196	·953	253·4	126·6	−18·0	22	135	368*c*
	982i	·937	291·0	121·9	+16·8	6	21	79*c*
	10211	·920	278·6	118·8	+ 4·9	16	49	118*c*
	10212	·854	251·6	112·1	−19·4	4	10	207*c*
	10203	·797	306·8	97·0	+23·3	37	110	177*c*
	982j	·670	327·0	77·3	+27·6	1	3	
G	10207	·320	28·8	44·2	+ 9·1	4	8	
	10210	·448	20·6	43·6	+17·6	17	46	
	10208	·228	124·6	42·0	−14·5	38	236	
	10209	·349	140·0	39·1	−22·5	13	59	
1927.			°	°	°			
66·391	10213	·467	101·1	25·3	−11·4	4	11	
G		·944	48·2					69
		·970	79·4					97
Mar. 8			(−23·2)	(53·1)	(−7·2)	(162)	(688)	(1360)
67·348		·978	289·8					110
		·941	260·9					88
		·940	305·6					244
		·908	238·4					216
		·821	280·6					215
		·811	294·8					256
		·810	313·0					137
	10196	·994	252·6	126·0	−18·0	26	162	168*f*
	10211	·976	276·6	116·9	+ 4·8	9	20	155*p*
	10212	·944	251·5	112·3	−19·8	6	14	271*f*
	10214	·870	249·6	101·3	−21·2	28	91	320*c*
C	10203	·885	301·2	95·8	+23·3	14	44	370*c*
	10210	·421	350·6	44·6	+17·3	9	41	
	10208	·130	190·2	41·9	−14·5	36	221	
	10209	·284	172·4	38·2	−23·5	5	19	
	10213	·251	102·0	26·1	−10·0	2	5	
	10215	·792	109·8	348·3	−20·0	3	7	
		·910	76·4					149
		·916	42·6					145
		·950	121·5					245
		·953	110·9					106
		·980	63·9					185
Mar. 9			(−23·4)	(40·5)	(−7·2)	(138)	(624)	(3380)
68·341		·960	297·6					311
		·927	260·8					128
		·924	282·8					307
		·911	239·2					143
		·901	295·2					283
		·888	307·0					145
		·842	249·4					149
		·769	296·5					211
	10214	·960	249·4	102·6	−21·8	22	99	453*c*
	10210	·488	327·7	43·2	+17·3	2	10	
C	10208	·270	241·2	41·5	−14·4	38	222	
	10209	·332	220·0	40·6	−21·7	5	25	
	10213	·110	115·6	21·6	− 9·9	0	4	
	10216	·668	58·8	351·4	+14·4	6	20	
	10215	·635	113·6	349·2	−20·4	8	19	
		·920	120·6					258
		·926	60·0					204
		·938	41·0					117
		·955	106·8					222
		·981	60·6					217
Mar. 10			(−23·6)	(27·4)	(−7·2)	(81)	(399)	(3148)

Group 10210. Mar. 6–12. A stream of small unstable spots.
Group 10211. Mar. 7–9. A very small group.
Group 10212. Mar. 7–9. A small spot with companions on Mar. 7.
Group 10213. Mar. 8–10. Small ephemeral spots, two are seen on Mar. 8 and one on Mar. 9 and 10.
Group 10214. Mar. 9–10. A tiny stream of a few spots.
Group 10215. Mar. 9–13. A small short-lived stream.
Group 10216. Mar. 10–18. A stream of rapid rise and decline with a regular spot as leader until Mar. 16, when a companion spot appears in front of it.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
69·482		·975	259·6					73
		·966	296·5					258
		·951	248·8					203
		·950	238·0					52
		·949	284·4					283
		·916	307·5					41
		·888	263·8					83
		·843	282·8					110
		·835	252·6					50
		·822	301·2					224
	10210	·658	307·0	45·6	+17·3	6	29	
	10208	·490	253·5	41·2	−14·2	38	193	
G	10209	·496	237·5	39·0	−21·8	5	13	
	10216	·504	44·6	351·0	+14·3	49	250	
	10215	·425	121·5	349·8	−19·4	7	24	
	10217	·987	98·8	290·7	− 9·8	39	212	204c
		·813	107·3					75
		·827	53·2					135
		·859	67·9					32
		·867	32·4					44
		·889	122·6					119
		·928	111·3					335
		·933	57·6					421
		·968	74·5					180
Mar. 11			(−23·8)	(12·3)	(−7·2)	(144)	(721)	(2922)
70·437		·966	261·7					84
		·958	250·5					114
		·938	293·5					408
		·866	282·8					282
		·807	266·6					276
	10210	·775	300·1	44·3	+17·8	7	19	173c
	10208	·661	256·9	41·1	−14·0	36	187	
G	10216	·388	21·2	351·4	+13·9	41	249	
	10215	·260	144·8	350·6	−19·3	19	50	
	10217	·931	97·4	290·5	− 9·5	35	219	612sf
		·837	110·2					279
		·850	52·2					370
		·919	71·0					331
		·935	46·8					85
		·948	114·6					271
Mar. 12			(−24·0)	(359·7)	(−7·2)	(138)	(724)	(3285)
71·370		·961	298·9					145
		·945	282·5					98
		·926	252·1					164
		·911	265·4					264
		·881	294·2					209
C		·848	283·5					40
		·847	308·7					104
		·758	244·3					90

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
71·370	10209	·815	252·0	42·2	−18·8	3	15	49c
	10208	·801	258·3	41·1	−13·7	36	192	53c
C	10216	·375	349·9	351·4	+14·4	46	198	
	10215	·208	196·7	351·1	−18·7	7	24	
	10217	·834	96·3	290·6	− 9·3	32	221	277sf
	10218	·985	57·5	273·7	+30·2	62	169	135c
	10219	·991	72·3	268·0	+16·4	14	108	
		·766	244·5					183
		·805	68·7					100
		·888	42·7					121
		·909	112·4					167
		·966	122·3					103
Mar. 13			(−24·1)	(347·5)	(−7·2)	(200)	(927)	(2302)
72·421		·952	265·5					122
		·951	290·3					277
		·946	280·1					131
		·895	304·7					120
		·892	246·2					332
	10209	·920	251·9	41·4	−19·4	5	28	155c
	10208	·917	258·3	40·8	−13·5	27	157	130s
C	10216	·472	318·3	352·4	+13·7	35	201	
	10220	·755	58·1	291·3	+18·2	7	27	
	10217	·678	95·9	290·7	− 9·3	33	179	381sf
	10219	·934	69·7	268·1	+16·0	23	131	163f
	10218	·975	53·9	264·3	+32·8	128	1323	798c
	10221	·980	99·0	254·3	−10·3	27	169	547c
		·826	119·7					61
		·942	127·0					184
Mar. 14			(+24·3)	(333·6)	(−7·2)	(285)	(2215)	(3401)
73·392		·981	283·1					60
		·968	251·9					104
		·965	246·2					239
		·925	263·9					72
		·912	235·3					85
		·891	293·7					215
	10208	·980	257·9	40·4	−13·3	22	130	100s
G	10216	·616	304·1	352·4	+14·0	35	166	
	10220	·615	47·8	292·3	+18·0	8	47	
	10217	·497	95·6	290·9	− 9·0	35	192	
	10218	·931	50·6	262·3	+32·7	157	1429	782c
	10219	·845	65·9	267·6	+16·0	20	130	} 152c
	10222	·895	70·9	260·6	+13·5	2	10	
	10221	·911	97·3	254·6	− 9·6	45	222	462c
		·964	75·3					102
Mar. 15			(−24·5)	(320·8)	(−7·2)	(324)	(2326)	(2373)
74·392		·966	258·6					38
		·953	286·9					161
G	10216	·783	295·4	354·4	+14·8	32	141	263c

Group 10217. Mar. 11–23. A regular spot diminishing rapidly as the west limb is approached. Small companions are present on Mar. 19–20.
Group 10218. Mar. 13–26. A large and unusually long stream in high latitude. The head of the stream is represented by a stable regular spot, whilst the rear portion is made up of a large cluster of rapidly changing components. The region of this group has been active since mid-December, 1926. *See* Group 10125 *et seq.*
Group 10219. Mar. 13–25. A stable regular spot.
Group 10220. Mar. 14–23. An irregular stream of imperfectly formed spots.
Group 10221. Mar. 14–23. Two clusters of spots decreasing rapidly. The nucleus of the larger spot of the preceding cluster is all that remains after Mar. 21.
Group 10222. Mar. 15–16. A tiny spot, *sf* Group 10219, in the same area of faculæ.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
74·392	10220	·479	30·4	292·9	+17·4	20	83	
	10217	·285	97·8	291·1	− 9·0	34	183	
	10218	·859	44·6	262·0	+32·7	178	1373	600c
G	10219	·721	59·2	267·6	+16·2	25	133	} 137c
	10222	·783	66·2	260·3	+13·7	2	3	
	10221	·788	96·2	255·3	− 9·2	48	269	536c
	10223	·989	99·8	225·3	−10·7	7	30	313c
		·929	71·6					222
		·960	45·4					187
Mar. 16			(−24·6)	(307·6)	(−7·1)	(346)	(2215)	(2457)
75·393		·798	250·8					70
	10216	·907	289·6	356·1	+14·4	26	151	466c
	10220	·412	2·4	293·4	+17·1	39	174	
	10217	·065	123·4	291·3	− 9·1	38	171	
	10219	·583	48·6	267·4	+16·3	20	142	
G	10218	·675	36·1	261·6	+32·8	132	1118	
	10221	·615	95·6	256·3	− 9·0	19	177	
	10224	·835	98·2	237·4	−10·7	6	32	99c
	10223	·926	98·1	226·1	−10·1	12	34	525f
		·982	111·0					91
		·984	80·2					211
Mar. 17			(−24·8)	(294·4)	(−7·1)	(292)	(1999)	(1462)
76·539		·925	250·7					129
	10216	·982	286·3	355·8	+14·4	20	67	361f
	10217	·211	259·0	291·4	− 9·3	18	137	
	10220	·465	335·1	291·1	+17·9	55	230	
	10219	·446	26·5	267·4	+16·4	22	134	
	10218	·679	22·2	261·7	+32·1	120	858	
	10221	·382	97·4	256·8	− 9·4	16	73	
G	10224	·664	98·4	237·5	−10·9	28	88	
	10223	·795	97·4	226·3	−10·1	6	15	290sf
		·796	310·5					148
		·893	62·6					61
		·905	109·4					107
		·937	78·2					295
		·941	98·0					70
Mar. 18			(−25·0)	(279·3)	(−7·1)	(285)	(1602)	(1461)
77·333		·986	285·2					164
		·976	250·4					67
		·894	307·7					264
		·793	312·3					408
	983a	·814	295·1	318·7	+15·7	3	8	22c
	10217	·384	262·1	291·5	− 9·6	26	129	
	10220	·544	318·9	290·8	+17·5	38	298	
	10219	·403	4·2	267·1	+16·5	21	131	
C	10218	·641	11·2	260·5	+31·8	128	947	
	10221	·247	105·1	254·9	−10·6	12	51	
	10224	·515	99·5	237·9	−11·0	46	230	
	10223	·676	97·1	226·1	−10·0	1	4	
		·803	108·1					108
		·858	74·3					394
		·895	101·2					180

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
77·333		·964	110·5					220
C		·978	76·0					40
Mar. 19			(−25·1)	(268·9)	(−7·1)	(275)	(1798)	(1867)
78·424		·957	300·6					149
		·931	290·0					84
		·914	238·4					129
		·882	307·3					347
	10217	·601	263·2	291·6	− 9·7	17	78	
	10220	·689	305·1	290·6	+17·6	45	253	
	10219	·451	331·6	267·4	+16·4	22	123	
	10218	·645	353·2	259·7	+32·7	112	941	
G	10221	·067	217·4	256·9	−10·1	15	35	
	10224	·285	105·6	238·3	−11·1	53	216	
	10225	·558	100·0	220·5	−11·4	1	2	
		·853	106·8					87
		·939	72·2					127
		·944	117·8					324
		·949	106·3					166
		·987	76·2					100
Mar. 20			(−25·2)	(254·5)	(−7·0)	(265)	(1648)	(1513)
79·399		·939	304·3					396
		·875	248·8					249
	983b	·922	262·3	309·4	− 9·8	0	5	19c
	10217	·770	263·5	292·2	− 9·4	10	62	
	10220	·802	298·2	289·3	+17·6	44	201	416p
	10219	·568	312·6	267·3	+16·3	21	132	
	10218	·689	338·2	259·3	+32·9	115	929	
G	10221	·251	253·9	255·7	−10·8	7	20	
	10224	·084	157·0	239·7	−11·4	33	213	
	10225	·379	103·9	219·6	−11·7	0	4	
	10226	·527	63·9	213·2	+ 7·2	12	18	
		·836	69·7					130
		·858	105·6					75
		·881	119·3					273
		·935	69·7					189
Mar. 21			(−25·3)	(241·6)	(−7·0)	(242)	(1584)	(1747)
80·330		·978	261·5					132
		·971	301·6					244
		·954	237·6					125
		·918	254·6					244
		·909	245·4					212
		·865	304·0					150
	10217	·886	263·1	292·1	− 9·3	10	18	316f
	10220	·902	294·3	289·1	+18·4	23	64	881sp
	10227	·790	246·0	280·8	−23·2	3	7	168c
C	10219	·699	301·9	267·3	+16·1	27	146	
	10218	·756	326·6	259·0	+33·0	101	714	691c
	10221	·413	260·7	253·7	−10·2	5	16	
	10224	·190	246·6	239·5	−11·2	32	154	
	10226	·342	45·7	215·1	+ 6·9	3	12	
	10228	·454	48·8	209·0	+10·8	0	5	
		·764	103·9					151

Group 10223. Mar. 16–19. A small spot which has broken up on Mar. 18.
Group 10224. Mar. 17–26. A stream of changing spots.
Group 10225. Mar. 20–21. A very small spot.
Group 10226. Mar. 21–27. Intermittent. A pair of small spots on Mar. 21; a row of four tiny markings on Mar. 22, a tiny spot on Mar. 27.
Group 10227. Mar. 22–23. A pair of very small spots.
Group 10228. Mar. 22–23. A couple of faint markings.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
80·330		·799	119·5					252
C		·881	66·6					331
		·922	104·2					166
Mar. 22			(+25·4)	(229·3)	(−7·0)	(204)	(1136)	(4063)
81·322		·963	248·0					179
		·924	303·9					126
	10217	·968	262·3	292·4	− 9·2	4	22	401*sf*
	10220	·970	291·4	288·6	+18·7	18	97	398*c*
	10227	·906	248·3	281·7	−22·5	5	23	176*c*
	10219	·826	295·1	267·3	+16·2	19	119	119*f*
	10218	·834	316·7	258·8	+32·3	93	540	812*c*
C	10221	·659	262·7	257·7	−10·0	3	6	
	10224	·413	257·4	240·5	−11·5	30	148	
	10228	·337	21·6	209·1	+11·4	4	8	
	10229	·762	105·0	166·6	−15·8	7	21	158*nf*
		·891	42·6					59
		·893	110·0					90
		·956	69·0					165
		·959	112·6					151
Mar. 23			(−25·6)	(216·3)	(−6·9)	(183)	(984)	(2834)
82·434		·980	259·3					76
		·975	251·3					283
		·965	298·7					58
		·951	243·5					77
		·878	235·3					64
		·871	224·6					85
		·840	327·4					77
		·814	261·2					426
G	10219	·934	290·3	267·2	+16·1	18	97	142*f*
	10218	·928	309·2	259·8	+32·3	79	443	804*c*
	10224	·627	359·9	240·5	−11·7	20	68	
	983c	·446	336·7	212·2	+17·3	8	27	
	10229	·565	108·9	167·9	−16·3	16	40	
	10230	·945	76·3	132·8	+10·5	11	27	194*f*
		·886	67·1					82
		·934	108·3					380
		·934	58·3					106
Mar. 24			(−25·7)	(201·6)	(−6·9)	(152)	(702)	(2854)
83·531		·929	320·0					88
		·924	233·7					199
		·912	260·0					824
		·887	288·6					118
		·866	338·0					64
	10219	·992	287·3	267·3	+16·1	27	99	165*f*
	10218	·985	303·7	260·8	+31·6	84	408	979*c*
	10224	·791	259·7	239·7	−12·3	7	25	322*c*
	10231	·142	253·8	195·0	− 9·0	11	49	
G	10229	·332	120·8	169·9	−16·3	5	8	

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
83·531	10230	·835	72·8	133·1	+10·3	8	28	156*f*
		·825	109·0					416
		·895	82·0					147
G		·957	94·7					143
		·958	59·9					144
		·961	118·5					110
		·973	108·2					211
Mar. 25			(−25·8)	(187·1)	(−6·8)	(142)	(617)	(4086)
84·472		·972	258·7					508
		·953	235·7					209
		·942	288·5					65
		·934	314·5					55
		·743	260·9					164
	10218	·997	304·7	254·3	+33·6	24	134	256*nf*
	10224	·899	259·3	239·3	−12·5	5	12	323*c*
	10231	·329	261·3	193·9	− 9·3	8	30	
G	10229	·183	156·4	170·3	−16·4	0	4	
	10230	·704	67·5	133·5	+10·5	6	13	
		·766	110·9					204
		·875	60·9					73
		·919	120·1					62
		·940	108·7					273
		·962	87·7					88
		·974	64·7					326
		·980	77·9					135
Mar. 26			(−25·9)	(174·7)	(−6·8)	(43)	(193)	(2741)
85·377		·979	282·7					62
		·955	246·0					71
		·934	260·2					712
	10226	·818	284·2	215·7	+ 7·5	3	8	448*sp*
	10232	·685	298·8	200·8	+13·9	9	18	
	10231	·518	263·4	194·1	− 9·2	13	50	
	983d	·450	303·2	185·0	+ 7·9	1	5	
C	10229	·213	198·6	166·9	−18·4	0	2	
	10230	·562	59·0	133·5	+10·8	8	21	
	10233	·812	109·3	108·6	−19·6	8	17	140*c*
		·903	110·5					250
		·926	61·7					597
		·933	118·4					119
		·933	75·5					447
		·983	97·6					162
Mar. 27			(−26·0)	(162·8)	(−6·8)	(42)	(121)	(3008)
86·400		·965	316·6					62
		·958	261·2					361
		·917	284·4					389
		·842	253·4					183
G	10232	·828	293·3	201·1	+15·0	0	4	66*s*
	10231	·704	263·4	194·2	− 9·4	9	23	

Group 10229. Mar. 23–28. A small group; on Mar. 25–27 one spot only is seen.
Group 10230. Mar. 24–29. A small but distinct spot with a companion on Mar. 27.
Group 10231. Mar. 25–29. A small group.
Group 10232. Mar. 27–28. A pair of small spots on Mar. 27 of which one component remains on Mar. 28.
Group 10233. Mar. 27–28. A wide pair of spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
86·400	10229	·398	241·9	170·7	−17·0	2	10	
	10230	·398	42·1	133·6	+10·7	2	7	
G	10233	·662	110·5	108·6	−18·5	3	9	
		·850	56·0					312
		·858	68·2					386
		·888	113·7					394
		·918	96·5					153
		·962	56·4					178
		·962	72·7					135
Mar. 28			(−26·0)	(149·3)	(−6·7)	(16)	(53)	(2619)
87·330		·975	283·2					362
		·958	249·8					105
		·930	259·2					82
		·923	288·7					126
		·842	250·3					131
		·811	292·5					157
	10231	·838	263·5	194·2	−9·1	0	4	183c
	10230	·301	15·7	132·3	+10·1	2	5	
C	10234	·930	113·5	68·0	−24·3	3	12	108f
	10235	·994	73·1	55·8	+15·9	18	97	
		·786	61·7					106
		·793	48·3					175
		·799	95·9					130
		·910	66·5					195
		·926	51·7					242
		·953	84·6					124
		·956	98·1					202
Mar. 29			(−26·1)	(137·0)	(−6·7)	(23)	(118)	(2428)
88·490		·960	261·0					125
		·946	250·2					108
		·917	288·3					143
		·862	240·3					147
		·859	254·4					75
		·847	291·0					195
	10236	·312	190·9	125·4	−24·3	5	20	
G	10235	·934	69·8	56·1	+16·1	25	86	254f
		·826	95·4					210
		·827	115·2					101
		·867	60·3					128
		·917	100·0					269
		·951	61·8					141
		·976	104·6					250
Mar. 30			(−26·2)	(121·7)	(−6·6)	(30)	(106)	(2146)
89·427		·972	251·0					75
G		·937	286·8					235
1927.			°	°	°			
89·427		·909	239·4					171
		·867	254·6					160
	10236	·409	214·8	124·4	−25·9	0	5	
	10237	·345	27·8	100·0	+11·2	1	5	
	10234	·736	121·4	64·6	−27·3	0	3	
	10238	·798	102·6	56·2	−14·0	0	3	
G	10235	·845	66·2	56·0	+16·0	29	120	26f
	10239	·994	77·2	27·5	+11·9	40	193	262f
		·852	94·4					80
		·881	54·2					88
		·925	104·6					159
		·931	79·0					90
		·953	116·7					137
		·992	106·1					126
Mar. 31			(−26·2)	(109·4)	(−6·6)	(70)	(329)	(1609)
90·635		·949	239·3					132
		·903	254·1					243
	10236	·575	237·9	125·3	−23·3	21	39	
	10237	·320	336·6	100·8	+10·5	2	8	
	10240	·660	44·8	63·3	+22·3	5	12	
	10238	·603	104·7	56·6	−14·0	20	67	
	10235	·688	58·1	56·1	+16·1	15	107	
G	10239	·946	75·1	24·6	+11·8	149	688	424c
	10241	·933	114·5	24·0	−25·1	12	42	80c
	10242	·954	106·1	20·0	−17·2	0	7	334p
		·815	64·5					88
		·850	60·7					282
		·855	118·6					148
		·890	106·3					97
Apr. 1			(−26·3)	(93·4)	(6·5)	(224)	(970)	(1828)
91·411		·952	253·7					90
		·909	292·1					58
		·875	244·8					50
	10236	·707	243·9	126·6	−22·8	45	203	
	10243	·269	238·9	96·9	−14·2	2	11	
	10240	·577	34·7	62·5	+22·1	4	11	
G	10238	·453	108·7	57·0	−14·2	25	63	
	10235	·575	49·3	56·3	+16·1	16	87	
	10241	·848	115·7	25·9	−25·1	25	84	92c
	10239	·885	72·4	23·7	+12·1	115	735	428c
	10242	·884	106·4	20·7	−17·5	2	4	160n
	10244	·971	74·1	9·5	+18·7	23	90	205f
		·783	121·4					106
Apr. 2			(−26·3)	(83·2)	(−6·5)	(257)	(1288)	(1189)

Group 10234. Mar. 29–31. A small spot not seen on Mar. 30.
Group 10235. Mar. 29–Apr. 7. A decreasing regular spot.
Group 10236. Mar. 30–Apr. 5. A stream of normal type.
Group 10237. Mar. 31–Apr. 1. A very small spot on Mar. 31, a cluster on Apr. 1.
Group 10238. Mar. 31–Apr. 7. A stream of minor importance.
Group 10239. Mar. 31–Apr. 12. A large irregular stream of spots showing considerable changes. The leader is the largest spot and tends to composite structure.
Group 10240. Apr. 1–9. One or two small faint spots becoming more definite after Apr. 4.
Group 10241. Apr. 1–6. A small stream of brief duration; the rear portion having disappeared by Apr. 3.
Group 10242. Apr. 1–2. A very small spot preceded by faculæ.
Group 10243. Apr. 2–7. A diminutive stream on Apr. 2 which is reduced to one small spot on Apr. 3. On Apr. 5 a larger stream begins to form.
Group 10244. Apr. 2–9. A regular spot, followed by faculæ and preceded by Group 10239; on Apr. 9 it is represented by a cluster of tiny spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1927.			°	°	°			
92·375		·959	300·8					171
		·958	262·1					105
		·928	245·5					246
		·885	288·3					229
		·862	256·6					85
	10236	·834	246·5	126·5	−23·1	93	454	291*c*
	10245	·806	294·6	119·8	+15·5	3	8	32*f*
	10243	·441	250·3	95·8	−14·3	2	7	
C	10240	·488	14·3	63·1	+21·8	5	11	
	10238	·247	124·8	58·5	−14·3	14	57	
	10235	·447	31·6	56·5	+16·1	13	90	
	10241	·715	119·3	27·1	−25·1	17	65	109*f*
	10239	·772	68·3	23·5	+12·2	131	904	814*f*
	10244	·895	70·9	10·1	+13·9	24	160	430*f*
		·744	107·8					139
		·966	110·5					144
Apr. 3			(−26·3)	(70·5)	(−6·4)	(302)	(1756)	(2795)
93·374		·962	241·8					86
		·961	285·2					156
		·911	303·0					152
		·907	253·6					237
		·786	302·4					305
		·774	318·2					142
	10236	·929	246·9	126·1	−23·8	136	784	308*c*
C	10245	·906	288·9	119·2	+14·1	5	15	128*c*
	10240	·479	352·1	61·4	+22·0	1	4	
	10238	·149	202·3	60·6	−14·2	8	25	
	10235	·379	2·0	56·5	+15·8	17	83	
	10241	·571	126·0	27·1	−25·5	15	37	
	10239	·628	61·0	23·2	+12·5	107	915	
	10244	·777	67·0	10·2	+13·4	21	134	512*f*
		·900	112·8					113
Apr. 4			(−26·4)	(57·3)	(−6·3)	(310)	(1997)	(2139)
94·534		·983	286·1					165
		·882	286·3					151
		·871	275·0					116
		·865	298·8					356
		·859	312·3					86
		·855	249·2					154
	10236	·979	245·2	121·7	−25·5	56	401	297*c*
	10243	·826	258·1	97·9	−13·4	24	78	42*c*
G	10240	·588	322·7	64·5	+22·0	19	43	
	10238	·319	243·7	59·1	−14·1	4	16	
	10235	·455	326·8	57·0	+16·2	17	67	
	10241	·405	143·2	26·6	−24·9	4	5	
	10239	·429	43·4	24·5	+12·1	155	811	
	10244	·604	57·4	10·6	+13·5	20	103	
	10246	·982	104·6	321·9	−15·5	61	232	212*c*
		·843	64·4					86

G.M.T.	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1927.			°	°	°			
Apr. 5			(−26·4)	(42·0)	(−6·3)	(360)	(1756)	(1665)
95·503		·961	274·8					110
		·957	237·2					83
		·940	251·6					258
		·937	284·6					94
		·933	294·4					310
		·880	307·7					231
		·866	242·4					128
		·805	262·1					71
	10243	·926	257·8	97·6	−13·6	26	157	133*c*
G	10240	·702	311·3	63·9	+22·5	19	93	
	10238	·536	253·2	61·0	−14·1	4	10	
	10235	·587	309·6	57·2	+16·4	11	61	
	10241	·330	173·2	26·7	−25·2	1	2	
	10239	·337	15·1	24·1	+12·7	121	835	
	10244	·456	42·1	10·9	+13·8	12	77	
	10246	·929	103·5	320·3	−14·8	48	328	388*c*
	10247	·975	102·6	311·2	−13·6	15	60	198*c*
	10248	·986	106·2	307·8	−16·9	103	460	170*c*
		·946	38·8					135
		·957	121·8					56
Apr. 6			(−26·4)	(29·2)	(−6·2)	(360)	(2083)	(2365)
96·375		·959	246·0					305
		·952	288·4					246
		·927	302·5					226
		·919	262·6					97
		·835	290·8					197
	10243	·980	257·0	97·1	−13·9	32	130	298*c*
	10240	·806	303·8	63·9	+22·3	18	37	178*c*
	10238	·664	255·7	59·1	−14·1	6	15	
	10235	·708	300·4	57·0	+16·1	6	18	
	10239	·338	340·5	24·3	+12·3	106	697	
	10244	·354	17·8	11·3	+13·5	12	49	
C	10249	·300	21·8	11·2	+10·0	7	29	
	10246	·841	103·6	320·2	−14·8	41	354	395*c*
	983c	·917	82·5	312·2	+ 4·3	0	5	79*c*
	10247	·912	102·7	311·4	−14·1	5	27	109*c*
	10248	·934	106·0	308·0	−17·2	129	479	432*c*
	10250	·994	75·7	295·9	+13·4	57	145	320*np*
		·868	123·2					88
		·895	43·4					78
		·913	57·9					260
		·963	115·2					121
Apr. 7			(−26·4)	(17·7)	(−6·2)	(419)	(1985)	(3429)
97·398		·973	260·6					94
		·972	300·6					130
G		·968	246·8					78
		·955	233·3					229

Group 10245. Apr. 3–4. A dot accompanied by another on Apr. 4.
Group 10246. Apr. 5–17. An unusual group, of which the origin occurs on the invisible hemisphere—a pair of regular spots slowly approaching one another. The leader is further from the sun's equator and begins to diminish rapidly after Apr. 10.
Group 10247. Apr. 6–16. A few small spots lying between Groups 10246 and 10248. No spots are seen on Apr. 9–11.
Group 10248. Apr. 6–18. A large complex stream of spots in continual change. Group 10246, 47, 48 and 52 closely follow one another.
Group 10249. Apr. 7–9. A few small spots, s Group 10244.
Group 10250. Apr. 7–19. A variable group.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
97·398		·930	287·4					209
		·882	275·6					112
		·850	244·6					115
		·841	258·6					296
		·816	293·8					138
	10240	·893	299·7	61·4	+23·0	7	12	413c
	10251	·677	285·8	45·0	+ 6·0	3	6	
	10239	·469	311·2	25·3	+12·2	92	546	
	10249	·306	333·5	12·1	+ 9·8	9	27	
G	10244	·352	339·9	11·3	+13·1	11	47	
	10246	·698	105·3	320·2	−15·0	56	358	
	10247	·802	102·8	310·7	−13·9	3	15	90c
	10248	·836	106·4	307·4	−17·0	111	507	441c
	10250	·942	73·6	296·3	+13·2	19	72	620n
	10252	·966	114·7	288·2	−25·4	8	13	246n
		·810	79·2					128
		·815	127·2					124
		·819	50·2					166
		·899	67·8					281
		·919	54·6					330
		·942	124·6					62
		·955	101·1					257
Apr. 8			(−26·4)	(4·2)	(−6·1)	(319)	(1603)	(4559)
98·337		·963	283·3					128
		·941	274·3					96
		·932	241·8					120
		·925	259·5					455
		·876	293·6					294
		·820	281·5					67
		·793	306·4					198
		·780	252·3					149
	10240	·961	296·0	61·3	+22·9	7	55	295c
	10239	·618	299·0	25·3	+12·4	71	539	
	10249	·438	308·6	12·1	+10·2	5	17	
C	10244	·446	316·6	10·1	+13·1	7	30	
	10253	·422	329·2	4·7	+15·3	4	11	
	10246	·545	107·0	319·4	−14·2	55	312	
	10248	·705	108·2	307·5	−17·0	99	545	
	10250	·853	70·3	296·4	+13·3	23	123	619c
	10252	·877	112·6	290·7	−22·6	4	27	205c
		·867	52·2					346
		·892	102·8					385
		·949	75·1					75
		·960	113·4					116
Apr. 9			(−26·4)	(351·8)	(−6·0)	(275)	(1659)	(3548)
99·118		·958	255·9					115
		·942	290·5					391
K		·914	278·8					71

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
99·118		·876	300·2					225
		·859	254·3					252
		·732	244·4					205
	10239	·736	293·4	25·1	+12·7	111	697	
	10253	·523	313·2	4·7	+15·4	5	19	
	10246	·394	112·7	319·6	−14·3	48	318	
K	10248	·579	111·5	307·3	−17·2	119	550	
	10250	·763	66·0	295·8	+13·9	33	170	354nf
	10252	·795	115·1	290·0	−23·5	21	79	151c
	10254	·986	96·8	260·8	− 7·7	23	96	370p
		·799	49·6					294
		·834	103·4					272
		·908	116·2					191
		·968	59·8					114
		·971	71·0					94
Apr. 10			(−26·4)	(341·5)	(−6·0)	(360)	(1929)	(3099)
100·373		·968	295·8					131
		·965	254·8					160
		·866	246·0					397
		·856	304·3					139
	10251	·988	276·0	45·2	+ 5·0	28	126	170c
	10239	·891	288·2	25·1	+13·2	71	453	1082c
	10253	·710	298·3	5·1	+15·1	6	16	
	10246	·161	147·5	319·8	−13·6	48	214	
G	10248	·344	125·2	307·9	−17·0	103	538	
	10250	·579	55·0	295·7	+14·2	30	212	
	10252	·601	121·2	291·1	−23·0	19	78	
	10254	·897	95·2	260·9	− 7·3	22	83	197c
	10255	·939	103·4	254·4	−14·6	6	19	242c
	10256	·987	55·1	250·3	+32·9	82	426	442n
	10257	·956	94·8	251·7	− 6·3	7	30	229n
		·881	67·8					160
		·963	123·1					82
Apr. 11			(−26·4)	(324·9)	(−5·9)	(422)	(2195)	(3431)
101·390		·940	247·4					389
		·938	300·5					127
		·819	293·2					107
	10239	·968	285·5	24·7	+13·4	38	541	909c
	10246	·193	226·5	319·7	−13·4	34	159	
	10247	·138	194·8	313·6	−13·4	18	63	
	10248	·210	164·9	308·2	−17·5	130	568	
	10250	·425	38·7	295·7	+13·7	28	84	
G	10252	·409	133·3	292·9	−21·7	11	62	
	10254	·765	94·5	261·5	− 7·2	15	67	123c
	10255	·843	104·2	253·9	−15·1	20	155	185c
	10257	·865	93·7	251·5	− 6·1	9	27	201c
	10256	·942	52·1	249·6	+32·8	85	428	1086c

Group 10251. Apr. 8–11. On Apr. 8 a pair of tiny spots; on Apr. 9 and 10, only small faculæ are visible. On Apr. 11 a larger pair of spots have formed.
Group 10252. Apr. 8–18. A small group comprising later a small regular spot with an occasional attendant *f* Group 10248.
Group 10253. Apr. 9–11. A very small group, *f* Group 10244.
Group 10254. Apr. 10–18. A small regular spot disappearing after Apr. 14; afterwards, one or two very small spots are seen near its place.
Group 10255. Apr. 11–22. A small spot on Apr. 11, developing into a short irregular stream, composed of two parallel and intermingling streams.
Group 10256. Apr. 11–21. Return of Group 10218. A small but stable regular spot followed by a train of companions in diminishing numbers. A large patch of faculæ accompanies the group.
Group 10257. Apr. 11–18. A few unstable spots, *n* Group 10255.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
101·390	10258	·954	76·9	240·8	+10·6	57	278	384c
G	10259	·993	71·0	230·9	+18·0	0	28	53f
		·936	125·1					188
		·954	102·7					410
Apr. 12			(−26·3)	(311·5)	(−5·8)	(445)	(2460)	(4162)
102·380		·981	285·5					718
		·978	268·9					73
		·971	245·8					182
		·901	227·9					128
		·878	291·7					306
	10246	·385	248·9	320·0	−13·2	28	114	
	10247	·305	238·0	313·8	−14·8	11	56	
	10248	·249	210·3	306·0	−18·0	123	691	
	10250	·343	9·7	295·0	+14·0	12	50	
	10252	·285	162·0	293·0	−21·3	9	41	
	10254	·595	94·5	261·8	− 7·2	11	33	
G	10255	·707	105·4	253·7	−14·8	22	104	
	10257	·713	91·3	252·9	− 4·9	3	11	
	10256	·871	47·1	249·3	+32·7	50	237	1144c
	10258	·869	73·7	240·4	+11·1	30	180	455c
	10259	·943	68·7	231·2	+17·9	13	92	502f
		·841	128·1					154
		·860	100·7					364
		·891	61·1					93
		·925	116·5					151
		·951	129·9					136
		·973	80·1					200
Apr. 13			(−26·3)	(298·4)	(−5·7)	(312)	(1609)	(4606)
103·438		·964	287·3					318
		·954	265·4					115
		·930	244·6					95
	10260	·619	249·7	321·7	−16·9	3	12	
	10246	·581	255·4	319·6	−13·1	24	100	
	10247	·494	248·2	312·8	−15·5	4	20	
	10248	·410	236·2	305·5	−18·5	111	703	
	10261	·456	318·8	302·5	+14·5	0	2	
	10250	·370	337·2	293·0	+14·2	30	166	
C	10252	·310	206·2	292·9	−21·7	10	27	
	10254	·382	96·6	262·1	− 7·8	2	19	
	10257	·509	91·5	253·9	− 5·7	5	15	
	10255	·526	110·1	253·8	−15·3	39	234	
	10256	·768	39·6	249·6	+31·5	40	179	984f
	10258	·729	69·8	240·6	+10·5	27	99	334c
	10259	·841	65·0	231·7	+17·4	12	52	405f
		·919	78·2					319
		·961	118·5					163
Apr. 14			(−26·2)	(284·5)	(−5·7)	(307)	(1628)	(2733)
104·115		·935	268·6					72
K	10246	·703	257·4	320·0	−12·8	19	67	
1927.			°	°	°			
104·115	10247	·631	252·5	313·9	−15·3	5	24	
	10248	·529	244·0	305·4	−18·2	130	718	
	10261	·561	306·7	303·1	+14·5	10	37	
	10250	·457	318·2	293·8	+14·5	25	134	
	10252	·395	225·6	293·1	−21·3	8	22	
	10254	·252	91·6	260·9	− 5·8	2	6	
	10255	·400	115·2	253·6	−15·0	43	300	
K	10256	·685	30·4	251·7	+31·0	29	126	
	10257	·412	91·4	251·2	− 5·7	2	13	
	10262	·572	103·0	240·9	−12·0	14	37	
	10258	·622	65·1	240·6	+10·5	28	78	
	10259	·764	60·9	231·1	+17·8	12	46	335f
		·821	77·0					280
		·827	38·8					375
		·900	118·8					195
Apr. 15			(−26·2)	(275·5)	(−5·6)	(327)	(1608)	(1257)
105·337		·928	247·7					132
		·904	304·9					140
	10260	·881	256·7	321·4	−14·3	4	16	} 206c
	10246	·859	259·1	318·8	−12·1	11	38	
	10247	·809	256·7	313·4	−14·0	8	34	194c
	10248	·725	249·7	305·0	−18·4	73	524	
	10261	·726	296·1	301·6	+14·5	3	6	
	10250	·640	299·8	294·2	+13·9	48	333	
	10252	·584	238·8	291·9	−22·2	8	26	
	10254	·030	98·1	257·7	− 5·7	1	6	
C	10255	·186	152·5	254·3	−14·9	43	277	
	10256	·610	11·7	251·1	+31·1	17	104	
	10262	·322	112·3	241·7	−12·2	60	334	
	10258	·412	49·1	241·0	+10·4	10	39	
	10259	·596	49·2	231·2	+18·0	6	19	
		·818	25·3					208
		·905	109·9					166
		·953	98·1					65
		·956	72·0					166
Apr. 16			(−26·1)	(259·4)	(−5·5)	(292)	(1756)	(1277)
106·422		·890	301·6					207
		·890	287·6					110
	10246	·958	258·5	318·8	−12·5	15	38	749f
	10248	·866	252·5	305·0	−17·9	68	408	728c
	10250	·805	291·9	295·2	+14·0	43	269	321c
	10252	·757	246·0	292·9	−21·6	8	21	
	10255	·240	226·3	255·3	−14·8	43	258	
	10257	·154	265·3	253·8	− 6·0	1	11	
G	10256	·593	350·1	251·7	+30·2	19	94	
	10262	·125	160·8	242·6	−12·1	125	669	
	10258	·303	20·8	238·7	+11·0	6	31	
	10259	·469	32·4	229·7	+18·1	5	21	
		·843	98·2					58
		·912	72·9					195
		·961	112·2					230

Group 10258. Apr. 12–19. A stream decreasing rapidly.
Group 10259. Apr. 12–18. A small regular spot disappearing as a cluster.
Group 10260. Apr. 14–16. One tiny spot, *s* Group 10246, not seen on Apr. 15.
Group 10261. Apr. 14–16. A very small group, *p* Group 10250.
Group 10262. Apr. 15–24. A stream of rapid growth. The leader spot passes through unusual changes as a small spot on Apr. 15, a pair of spots on Apr. 16, a composite spot on Apr. 17, and a regular spot on Apr. 19.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
106·422		·986	106·1					64
G		·989	81·3					66
Apr. 17			(−26·1)	(245·0)	(−5·4)	(333)	(1820)	(2728)
107·436		·984	257·2					233
		·970	285·0					135
		·956	239·3					143
		·946	300·0					164
		·863	259·0					175
		·844	302·9					94
	10248	·965	254·0	307·1	−16·8	37	266	747*f*
	10250	·924	286·6	296·9	+13·1	40	239	597*c*
	10252	·880	248·6	293·0	−21·3	4	7	231*f*
	10254	·529	267·8	263·6	− 5·6	2	11	
G	10255	·452	247·0	257·1	−14·9	43	204	
	10257	·397	264·8	255·1	− 6·9	4	12	
	10256	·643	337·2	248·6	+31·1	17	65	
	10262	·222	240·8	243·0	−11·4	121	633	
	10258	·358	328·0	242·9	+12·4	2	5	
	10259	·412	8·6	228·0	+18·7	2	12	
	10263	·969	80·2	157·3	+ 8·1	18	80	159*f*
		·862	67·9					110
		·888	114·4					213
		·923	104·5					196
Apr. 18			(−26·0)	(231·7)	(−5·3)	(290)	(1534)	(3197)
108·430		·983	248·8					356
		·950	299·8					149
		·927	257·8					143
		·925	245·7					204
	10250	·985	284·7	296·7	+13·5	31	130	445*c*
	10255	·648	252·1	258·1	−15·5	49	291	
G	10256	·731	324·2	248·6	+31·8	11	42	
	10258	·501	300·1	244·5	+ 9·8	1	4	
	10262	·420	252·3	242·5	−12·1	109	561	
	10264	·800	107·8	165·8	−17·3	0	6	153*f*
	10263	·893	77·5	156·8	+ 8·7	14	100	258*f*
		·804	116·6					97
Apr. 19			(−25·9)	(218·5)	(−5·2)	(215)	(1134)	(1805)
109·347		·950	247·0					425
		·909	260·6					232
		·908	305·6					133
		·898	292·6					114
G		·791	267·4					281
	984a	·996	296·3	287·8	+25·5	21	96	199*f*
	10255	·794	254·4	258·7	−15·5	44	221	197*c*
	10256	·818	313·2	249·9	+30·3	8	14	1039*f*
	10262	·599	257·2	242·9	−11·8	104	551	
	10263	·786	75·0	156·5	+ 8·4	20	83	126*c*

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
109·347	10265	·974	109·6	128·7	−20·2	15	117	245*n*
G		·954	77·9					92
		·975	118·6					88
Apr. 20			(−25·8)	(206·4)	(−5·2)	(212)	(1082)	(3171)
110·373		·948	241·6					121
		·941	289·4					114
		·936	300·1					181
		·920	265·9					624
		·878	335·5					98
		·777	289·3					374
	10255	·922	255·5	260·4	−15·4	26	120	589*c*
	10256	·908	304·9	250·7	+28·6	5	13	1381*f*
G	10262	·765	258·7	242·8	−11·9	90	569	
	10266	·616	40·3	167·3	+23·3	11	30	
	10264	·514	117·7	164·4	−18·4	2	8	
	10263	·625	69·7	156·7	+ 8·3	13	54	
	10265	·900	110·1	128·9	−20·2	15	124	443*n*
		·917	57·3				0	97
		·926	70·9					88
		·950	117·4					423
Apr. 21			(−25·7)	(192·9)	(−5·1)	(162)	(918)	(4533)
111·480		·968	266·4					404
		·941	247·3					80
		·930	310·4					1188
		·895	286·5					522
		·874	329·6					92
		·871	230·8					135
		·806	299·6					320
	10255	·981	258·1	257·7	−12·6	5	10	438*sf*
G	10262	·894	259·4	241·9	−11·7	70	502	464*s*
	10267	·098	90·9	172·7	− 5·1	5	18	
	10266	·517	20·4	167·0	+24·0	18	117	
	10263	·430	58·6	156·6	+ 8·2	8	30	
	10265	·775	112·3	128·6	−20·3	14	73	126*n*
	10268	·961	106·2	103·9	−16·9	23	71	624*c*
		·866	118·8					388
		·918	84·5					210
		·944	69·0					185
		·954	55·0					80
Apr. 22			(−25·6)	(178·3)	(−5·0)	(143)	(821)	(5256)
112·366		·962	309·0					653
		·958	284·1					385
		·945	239·8					101
		·893	296·3					308
		·882	226·5					160
		·840	283·9					175
G	10262	·969	259·1	242·5	−11·7	94	490	578*s*

Group 10263. Apr. 18–24. A partially-formed regular spot with an occasional companion.
Group 10264. Apr. 19–21. A tiny spot on Apr. 19, a pair on Apr. 21.
Group 10265. Apr. 20–May 1. Return of Group 10236. A regular spot disappearing slowly. There are tiny followers on Apr. 28.
Group 10266. Apr. 21–28. A partially formed regular spot with a few small followers.
Group 10267. Apr. 22–26. Intermittent. A few tiny spots in a stream on Apr. 22. A single spot on Apr. 23 and 26.
Group 10268. Apr. 22–May 3. Numerous small spots in a broad stream. The leader is the only spot which can be traced for longer than a day or two. A revival rather than a return of Group 10243.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
112·366	10267	·088	264·7	171·5	− 5·3	1	2	
	10266	·483	0·0	166·5	+23·8	31	174	
	10263	·294	38·7	155·8	+ 8·4	11	23	
G	10265	·645	116·4	128·6	−20·5	14	79	
	10269	·687	128·3	128·6	−29·0	0	3	
	10268	·902	105·1	102·0	−15·7	25	133	860c
		·796	122·7					156
		·865	79·9					133
		·928	65·1					432
Apr. 23			(−25·5)	(166·5)	(−4·9)	(176)	(904)	(3941)
113·356		·982	309·2					287
		·974	281·5					384
		·931	231·0					155
		·930	283·7					126
	10262	·990	259·6	235·8	−11·0	31	226	
	10266	·512	338·2	165·4	+23·6	20	131	
C	10263	·233	347·7	156·4	+ 8·3	2	11	
	10269	·541	139·0	129·8	−28·4	1	6	
	10265	·485	125·4	128·6	−20·6	13	63	
	10268	·782	106·8	102·5	−16·1	22	143	256c
		·894	58·4					225
		·925	70·0					121
Apr. 24			(−25·4)	(153·5)	(−4·8)	(89)	(580)	(1554)
114·362		·894	243·3					162
	10266	·619	320·1	165·9	+24·0	23	152	
	10265	·335	145·7	128·6	−20·6	12	77	
	10268	·610	111·3	104·0	−16·6	62	343	
	10270	·970	105·7	63·8	−16·3	0	8	245c
G	10271	·986	85·1	60·5	+ 4·0	38	190	·173c
		·866	52·9					465
		·881	102·4					160
		·921	90·9					91
		·930	68·9					308
Apr. 25			(−25·3)	(140·2)	(−4·7)	(135)	(770)	(1604)
115·363		·954	242·3					148
		·922	290·7					129
	10272	·922	261·8	194·2	− 9·3	32	156	165c
	10267	·736	266·3	174·3	− 5·9	5	10	
	10266	·733	309·1	165·2	+23·8	9	66	
	10273	·096	232·1	131·3	− 8·0	5	17	
G	10265	·278	185·2	128·4	−20·6	10	49	
	10268	·435	118·3	103·5	−16·1	46	291	
	10274	·814	60·1	78·0	+20·9	21	87	117c
	10270	·899	106·2	62·9	−16·6	0	8	223f
	10271	·925	83·8	59·9	+ 3·9	40	216	575f

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
115·363		·804	102·7					109
		·901	70·2					128
G		·952	60·7					137
Apr. 26			(−25·1)	(126·9)	(−4·6)	(168)	(900)	(1731)
116·360		·972	291·6					117
		·900	290·5					122
		·874	266·0					91
		·812	249·1					94
	10272	·988	260·4	195·2	−10·1	61	421	262c
	10266	·843	302·6	164·7	+24·2	8	45	92n
	10273	·332	256·2	132·8	− 8·8	4	7	
	10265	·359	219·8	127·9	−20·3	10	45	
	10268	·279	137·8	102·6	−16·3	45	271	
C	10274	·682	53·0	78·4	+20·5	18	154	
	10271	·810	81·8	60·6	+ 4·0	45	223	462f
	10275	·886	111·1	51·9	−20·7	0	4	149f
		·803	105·0					120
		·833	69·0					90
		·885	57·2					148
		·946	68·0					169
		·954	99·3					66
		·983	78·0					149
		·984	115·6					110
Apr. 27			(−25·0)	(113·8)	(−4·5)	(191)	(1170)	(2241)
117·445		·971	265·6					121
		·968	286·3					98
		·916	251·6					235
		·865	284·8					201
	10266	·936	297·7	164·3	+24·0	3	6	193c
	10273	·558	260·6	133·1	− 8·9	2	11	
	10265	·519	235·0	126·4	−21·2	12	36	
G	10268	·205	193·4	102·2	−15·8	44	266	
	10274	·536	39·0	78·4	+20·4	19	53	
	10271	·636	78·0	61·0	+ 4·1	56	237	378f
	10275	·779	113·6	49·7	−21·0	2	3	303n
		·797	52·2					130
		·903	63·2					194
		·939	116·5					243
		·944	75·4					726
Apr. 28			(−24·8)	(99·4)	(−4·4)	(138)	(612)	(2822)
118·372		·973	297·7					107
		·956	250·7					220
G		·949	264·0					124

Group 10269. Apr. 23–24. A very small spot, s Group 10265.
Group 10270. Apr. 25–26. One small spot.
Group 10271. Apr. 25–May 5. A regular spot becoming markedly elongated on Apr. 29 before dividing into two parts on Apr. 30, of which the larger and preceding part outlives the other.
Group 10272. Apr. 26–27. A pair of spots appearing suddenly on Apr. 26 near the west limb.
Group 10273. Apr. 26–28. One or two small spots.
Group 10274. Apr. 26–30. A short-lived stream of which the leader alone remains on Apr. 30.
Group 10275. Apr. 27–May 7. A very small spot, in a region marked by faculæ, developing into a long variable stream. On May 3, this consists of four regular spots, one at the head, a pair in the middle and one at the end of the stream.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
118·372		·942	283·1					265
		·925	236·5					176
		·904	295·5					104
		·846	251·1					105
	10265	·677	244·1	127·5	−20·4	10	16	
	10268	·340	237·9	104·4	−14·5	30	120	
G	10274	·436	16·3	79·7	+20·4	14	43	
	10271	·456	72·5	61·5	+ 4·0	34	217	
	984b	·484	111·5	59·7	−14·0	1	5	
	10275	·636	118·3	50·5	−21·0	12	41	
		·798	57·4					168
		·836	122·5					144
		·887	72·1					807
		·927	113·9					214
Apr. 29			(−24·7)	(87·2)	(−4·3)	(101)	(442)	(2434)
119·413		·935	288·5					120
		·857	262·3					112
		·795	233·8					351
	10265	·820	247·8	127·3	−20·5	6	20	349*c*
	10268	·548	249·7	105·3	−14·5	14	97	
G	10274	·440	343·1	81·2	+20·6	5	13	
	10271	·241	54·9	62·1	+ 3·8	26	179	
	10275	·442	128·6	51·9	−19·9	11	91	
		·799	64·1					691
		·865	117·7					256
		·954	74·9					313
Apr. 30			(−24·5)	(73·4)	(−4·2)	(62)	(400)	(2192)
120·385		·960	259·8					111
		·891	235·9					184
	10265	·920	249·1	127·2	−20·8	6	18	311*c*
	10268	·730	254·5	106·9	−14·1	10	59	
G	10271	·146	347·9	62·4	+ 4·1	32	138	
	10275	·299	154·2	52·7	−19·6	39	210	
		·903	70·1					83
		·924	100·1					86
		·985	100·3					90
May 1			(−24·3)	(60·6)	(−4·1)	(87)	(425)	(865)
121·353		·943	243·6					318
		·826	300·3					76
	10268	·853	256·2	106·1	−13·8	15	65	520*sf*
	10271	·296	299·6	62·7	+ 4·5	19	89	
G	10275	·274	197·2	52·7	−19·1	56	279	
	10276	·981	79·2	330·2	+ 9·7	28	126	234*c*
		·814	67·3					93
		·912	101·7					96
		·984	103·6					173
May 2			(−24·2)	(47·8)	(−4·0)	(118)	(559)	(1510)
1927.			°	°	°			
122·349		·989	244·6					518
		·938	291·2					200
		·887	305·5					182
	10268	·950	256·6	106·5	−13·9	7	31	1191*sf*
G	10271	·500	286·2	63·3	+ 4·6	16	76	
	10275	·407	230·2	53·8	−18·7	98	465	
	10277	·848	105·7	337·0	−15·3	13	40	224*c*
	10276	·908	77·6	330·8	+ 9·5	11	54	320*c*
		·944	105·9					447
May 3			(−24·0)	(34·6)	(−3·9)	(145)	(666)	(3082)
123·373		·969	289·6					64
		·965	249·5					594
		·961	300·4					200
		·877	297·8					151
	10271	·680	281·2	62·9	+ 4·7	16	63	
	10275	·584	242·7	54·2	−18·7	104	515	
	10278	·431	335·6	31·9	+19·3	4	19	
G	10277	·695	108·4	338·1	−15·4	36	151	
	10276	·783	75·2	331·3	+ 9·1	13	47	168*nf*
	10279	·837	94·8	324·3	− 6·1	6	10	41*c*
		·853	107·2					382
		·950	108·2					482
		·953	59·0					93
		·968	76·2					267
May 4			(−23·8)	(21·1)	(−3·8)	(179)	(805)	(2442)
124·453		·987	261·4					61
		·960	293·6					231
		·952	282·1					138
		·906	262·6					138
	10271	·852	278·3	64·4	+ 5·0	5	13	452*f*
	10275	·761	249·4	55·1	−17·9	84	512	409*p*
	10278	·546	321·4	28·2	+21·7	12	43	
	10277	·503	114·6	338·6	−15·3	43	314	
G	10276	·642	69·4	329·3	+10·1	9	41	
	10279	·661	98·2	325·6	− 8·2	36	147	
	10280	·724	107·2	321·3	−15·0	0	4	
		·809	108·6					404
		·870	54·0					165
		·916	72·2					514
		·919	112·7					541
		·941	61·4					172
May 5			(−23·6)	(6·8)	(−3·7)	(189)	(1074)	(3225)
125·397		·945	263·6					163
		·910	288·5					183
		·868	300·4					298
		·858	277·2					449
	10275	·876	251·7	54·9	−17·8	40	291	671*c*
G	10278	·670	309·4	28·1	+22·1	15	70	

Group 10276. May 2–7. A diminishing spot with followers on May 3 and 5.
Group 10277. May 3–12. A stream undergoing marked changes. The preceding spots last the longest.
Group 10278. May 4–8. A small short-lived group.
Group 10279. May 4–13. A group of stream type with its axis considerably inclined to the sun's equator.
Group 10280. May 5–8. A tiny spot, not seen on May 6, in faculæ *f* Group 10277.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
125·397	10281	·359	11·4	350·1	+16·9	5	27	
	10282	·194	130·6	345·7	−10·8	7	21	
G	10277	·332	128·7	338·8	−15·4	55	407	
	10276	·450	58·4	331·5	+10·3	3	4	
	10279	·471	101·6	326·6	− 8·6	33	182	
		·904	113·6					433
		·908	55·1					240
		·948	96·6					239
		·951	133·2					66
		·966	61·8					481
		·970	72·2					160
		·997	69·7					1040
May 6			(−23·4)	(354·3)	(−3·6)	(158)	(1002)	(4423)
126·336		·937	274·4					288
		·923	283·2					101
		·919	294·6					190
		·787	288·5					207
	10275	·957	252·2	55·0	−18·1	22	230	460*c*
	10278	·790	301·8	28·2	+22·1	10	49	74*c*
	10281	·386	337·8	350·7	+17·4	19	90	
	10282	·162	210·4	346·7	−11·5	4	18	
	10277	·208	165·3	338·8	−15·1	73	360	
C	10276	·337	40·7	329·0	+11·3	2	15	
	10279	·260	108·2	327·5	− 8·0	32	148	
	10280	·395	122·1	321·7	−15·4	1	4	
		·823	116·6					78
		·828	66·6					277
		·872	102·5					157
		·875	52·9					195
		·941	62·1					220
		·962	96·0					193
		·970	106·3					279
May 7			(−23·2)	(341·9)	(−3·5)	(163)	(914)	(2719)
127·397		·982	247·7					233
		·976	274·3					214
		·972	290·5					132
		·934	315·8					15
		·909	285·2					275
	10278	·896	297·9	27·0	+23·0	2	10	190*c*
	10283	·558	261·7	1·6	− 7·4	5	19	
	10281	·519	311·1	351·9	+16·7	10	68	
	10277	·276	224·7	339·4	−14·6	56	317	
	10279	·074	180·1	328·0	− 7·7	31	137	
G	*985a*	·131	168·9	326·4	−10·7	1	4	

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
127·397	10280	·211	144·0	320·6	−13·2	1	5	
	10284	·969	99·5	252·1	−10·0	10	28	391*s*
		·819	57·6					167
G		·864	96·3					257
		·921	106·7					339
		·958	57·1					58
		·980	75·3					101
May 8			(−22·9)	(327·9)	(−3·4)	(116)	(588)	(2372)
128·428		·961	283·7					280
		·942	295·0					259
	10285	·870	242·1	12·7	−25·8	27	96	79*c*
	10283	·737	262·7	1·6	− 7·6	7	20	
	10281	·698	298·1	354·1	+16·6	10	35	
	10277	·489	246·1	341·7	−14·3	52	237	
	10286	·469	231·5	337·2	−19·9	3	8	
	10279	·284	254·3	330·2	− 7·5	22	83	
	10287	·647	59·1	279·0	+16·7	3	6	
G	10288	·743	62·4	270·7	+17·7	5	13	
	10284	·883	99·1	252·4	− 9·6	5	29	207*s*
	10289	·963	101·2	239·9	−11·7	52	243	494*c*
		·779	95·9					197
		·798	109·4					262
		·909	52·0					134
		·940	75·3					255
		·947	112·5					122
		·966	56·9					300
May 9			(−22·7)	(314·3)	(−3·3)	(186)	(770)	(2589)
129·360		·976	291·0					191
	10285	·947	243·6	12·4	−26·0	42	145	164*c*
	10283	·870	263·5	2·3	− 7·2	4	22	86*c*
	10281	·842	291·9	356·2	+16·4	4	12	79*nf*
	10277	·686	251·5	344·1	−15·0	40	193	
	10286	·627	241·4	337·6	−20·1	12	29	
	10279	·503	260·3	331·8	− 7·6	15	82	
	10287	·476	44·5	281·6	+16·8	26	110	
C	10288	·611	54·1	270·6	+18·2	24	95	
	10284	·755	100·1	253·1	− 9·7	3	14	98*s*
	10289	·883	101·9	240·1	−11·9	40	224	220*c*
	10290	·964	68·7	229·8	+19·5	21	94	281*c*
		·816	53·0					92
		·864	72·1					210
		·913	53·3					221
		·967	77·1					108
		·973	54·5					104
May 10			(−22·5)	(301·9)	(−3·2)	(231)	(1020)	(1854)

Group 10281. May 6–12. A short-lived group.
Group 10282. May 6–7. A small ephemeral group, *p* Group 10277.
Group 10283. May 8–10. A pair of small spots.
Group 10284. May 8–14. A small spot.
Group 10285. May 9–11. A group appearing 3 days before passing round the west limb.
Group 10286. May 9–11. A small group subordinate to Group 10277.
Group 10287. May 9–18. A very large group of rapid development consisting after May 11 of two large spots. The group is visible to the naked eye.
Group 10288. May 9–18. A stream of smallish unstable spots, *f* Group 10287.
Group 10289. May 9–19. Return of Group 10262. An imperfectly-formed regular spot with a close companion and another farther away. The group decreases rapidly.
Group 10290. May 10–13. A small group with arrested development.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
130·375		·966	263·6					171
	10285	·992	243·5	11·9	−26·7	69	329	167*n*
	10281	·949	288·1	358·1	+16·1	3	14	287*nf*
	10277	·840	253·4	345·0	−15·6	23	135	265*c*
	10286	·772	245·7	337·0	−20·5	9	21	86*c*
	10279	·711	262·3	333·6	− 7·7	6	75	
	10291	·617	326·8	310·9	+28·1	14	33	
	10287	·358	14·9	283·0	+17·0	87	436	
	10292	·407	146·1	274·3	−22·6	3	10	
	10288	·459	38·8	271·0	+17·9	23	152	
G	10284	·578	102·5	253·7	− 9·7	3	11	
	10289	·763	103·1	239·3	−11·9	43	189	167*c*
	10290	·893	66·5	228·6	+19·3	25	122	253*c*
	10293	·998	100·3	201·9	−10·5	0	213	
		·773	68·6					141
		·848	115·5					106
		·851	48·3					240
		·896	76·1					147
		·949	51·5					408
		·961	61·9					112
May 11			(−22·3)	(288·5)	(−3·1)	(308)	(1740)	(2550)
131·571		·906	247·7					154
		·852	284·6					211
		·758	250·2					164
	10281	·990	287·4	353·1	+16·7	17	31	206*nf*
	10277	·950	254·6	344·4	−15·5	18	89	442*c*
	10279	·881	263·4	334·4	− 7·2	15	71	214*f*
	10291	·748	313·4	310·8	+28·6	4	12	
	10287	·394	330·7	284·3	+17·2	154	887	
G	10292	·337	188·4	275·7	−22·3	5	24	
	10288	·360	1·5	272·1	+18·1	29	124	
	10284	·334	111·0	254·3	− 9·6	3	5	
	10289	·558	107·0	239·8	−11·8	38	174	
	10290	·759	61·0	228·1	+19·4	14	36	80*c*
	10293	·940	99·8	202·7	−10·2	39	197	332*f*
		·878	45·3					217
		·919	120·6					81
		·920	133·6					92
May 12			(−22·0)	(272·7)	(−2·9)	(336)	(1650)	(2193)
132·358		·966	254·0					466
		·940	282·6					233
		·866	253·0					276
		·828	309·2					100
	10279	·945	263·2	333·2	− 7·4	17	47	226*c*
	10287	·484	314·3	283·4	+17·0	163	1000	
	10292	·403	211·2	275·3	−22·9	4	12	
	10288	·400	336·2	272·1	+18·5	17	128	
C	10284	·220	132·0	252·7	−11·2	2	7	
	10289	·412	111·4	239·4	−11·2	20	96	
	10290	·668	55·6	226·6	+19·8	3	12	
	10293	·863	100·4	202·9	−10·4	22	181	385*f*
		·808	41·2					234

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
132·358		·868	123·5					78
C		·944	42·7					134
May 13			(−21·8)	(262·3)	(−2·9)	(248)	(1483)	(2132)
133·361		·983	283·2					120
		·922	255·7					680
		·898	304·4					102
		·850	288·9					319
		·822	239·8					423
		·811	300·7					177
	10287	·629	301·4	283·0	+16·8	207	1378	
	10292	·527	225·0	273·0	−24·3	1	4	
	10288	·489	318·1	269·1	+18·7	5	31	
G	10284	·176	191·1	251·0	−12·6	0	3	
	10289	·216	132·3	239·7	−11·0	12	81	
	10293	·728	101·7	202·8	−10·3	25	185	515*f*
		·770	34·1					238
		·813	139·5					163
		·899	38·0					133
		·939	139·3					91
		·945	66·9					119
		·969	107·3					189
May 14			(−21·5)	(249·0)	(−2·7)	(250)	(1682)	(3269)
134·468		·969	256·8					98
		·933	297·9					129
		·912	286·2					215
		·908	244·2					263
		·843	306·8					164
	10287	·790	293·7	283·3	+16·7	253	1419	268*c*
C	10288	·648	304·5	268·7	+19·3	3	12	
	10289	·177	215·2	240·3	−10·9	9	41	
	10293	·537	105·0	202·7	−10·1	34	173	
	10294	·968	103·2	158·8	−13·5	25	150	211*c*
		·930	114·3					135
		·952	74·6					100
May 15			(−21·2)	(234·4)	(−2·6)	(324)	(1795)	(1583)
135·355		·970	290·8					113
		·945	247·4					252
		·944	301·3					194
		·844	303·6					58
		·796	242·6					256
	985b	·976	285·2	298·7	+14·2	20	95	221*c*
	985c	·953	254·0	294·7	−16·0	0	11	190*c*
	10287	·887	290·5	282·8	+16·9	282	1503	421*c*
C	10288	·759	297·6	267·8	+18·7	10	81	
	10289	·345	242·9	240·9	−11·4	11	19	
	10293	·367	112·9	202·7	−10·5	21	163	
	10294	·894	104·4	159·8	−14·0	38	191	209*c*
		·859	118·8					76
		·941	61·6					72
		·981	98·8					78
May 16			(−21·0)	(222·7)	(−2·5)	(382)	(2063)	(2140)

Group 10291. May 11–12. A small ephemeral cluster.
Group 10292. May 11–14. A few faint isolated spots.
Group 10293. May 11–20. Probable return of Group 10272. A regular spot breaking up on May 17 and disappearing quickly.
Group 10294. May 15–26. A regular spot with a follower which has disappeared by May 21.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
136·362		·942	299·9					240
		·928	246·1					257
		·847	266·5					80
		·823	251·1					200
	10287	·964	288·1	282·1	+16·7	304	1493	489*c*
	985d	·930	260·2	277·5	−10·0	0	12	103*c*
G	10288	·883	292·9	268·3	+18·8	15	89	217*c*
	10289	·538	253·2	240·8	−11·0	8	14	
	985e	·266	243·3	223·2	− 9·1	1	6	
	10293	·178	140·3	202·7	−10·2	23	93	
	10295	·599	131·7	179·7	−25·5	1	8	
	10294	·770	105·5	159·8	−13·4	25	167	120*c*
	10296	·824	62·1	158·2	+21·1	8	36	36*c*
	10297	·908	98·4	144·3	− 8·6	6	48	100*c*
		·950	108·5					161
May 17			(−20·7)	(209·3)	(−2·4)	(391)	(1966)	(2003)
137·350		·958	263·4					177
		·956	298·2					84
		·954	242·1					108
		·929	252·9					244
		·896	306·8					97
		·827	258·0					160
		·777	290·8					117
		·776	318·5					171
	10287	·994	286·0	278·8	+15·6	119	421	236*f*
	10288	·956	290·8	267·1	+19·1	8	45	194*nf*
	10289	·716	257·0	241·4	−10·8	4	6	
G	*985f*	·684	248·1	237·6	−16·4	3	6	
	10298	·540	314·9	220·3	+20·2	14	24	
	10293	·179	218·5	202·8	−10·5	15	47	
	10295	·478	142·8	177·9	−24·5	26	68	
	10294	·613	109·4	159·9	−13·6	28	152	
	10296	·677	55·3	159·9	+20·7	6	10	
	10297	·791	99·1	144·3	− 8·6	22	49	83*c*
	10299	·976	86·6	119·3	+ 2·8	11	32	208*c*
		·857	108·2					99
		·962	115·2					266
May 18			(−20·4)	(196·3)	(−2·3)	(256)	(860)	(2244)
138·452		·958	256·5					282
		·951	305·3					66
		·904	288·1					159
G		·870	307·4					150
		·829	320·7					92
	10289	·868	258·9	241·5	−10·7	2	5	536*s*

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
138·452	10298	·690	302·7	219·7	+20·1	27	69	
	10293	·380	247·1	202·5	−10·5	3	6	
	985g	·283	246·3	196·8	− 8·6	0	3	
	10295	·381	171·1	178·0	−24·2	21	54	
G	10296	·509	41·5	160·7	+20·3	5	8	
	10294	·415	118·7	159·8	−13·5	18	95	
	10297	·621	101·0	143·8	− 8·5	43	100	
	10299	·899	85·8	118·1	+ 2·8	18	57	121*c*
	985h	·950	99·5	110·6	− 9·7	0	3	152*c*
		·870	115·7					248
		·970	116·1					147
		·989	106·5					82
May 19			(−20·1)	(181·7)	(−2·2)	(137)	(400)	(2035)
139·432		·962	285·6					157
		·950	304·8					270
		·948	254·7					453
		·887	287·3					122
		·857	317·6					164
	10298	·828	295·4	221·0	+19·5	24	93	123*c*
	10293	·564	254·8	202·1	−10·2	1	5	
	10295	·404	201·3	177·9	−24·0	50	245	
G	10296	·399	17·1	161·5	+20·4	4	5	
	10294	·247	143·0	159·9	−13·3	22	75	
	10297	·425	105·4	144·3	− 8·3	65	224	
	10299	·785	84·4	117·4	+ 3·1	9	31	
	10300	·949	103·2	97·4	−13·1	0	8	74*f*
		·785	119·1					110
		·864	103·4					162
		·909	66·8					157
		·958	101·5					373
May 20			(−19·8)	(168·7)	(−2·0)	(175)	(686)	(2165)
140·362		·988	254·9					268
		·981	304·3					169
		·957	246·7					95
		·916	259·6					89
		·913	311·5					230
		·878	324·1					121
	10298	·940	291·7	224·2	+19·6	19	144	398*c*
	10295	·495	221·7	177·3	−23·4	23	153	
C	10294	·218	198·1	160·4	−13·8	9	37	
	10297	·223	120·1	145·4	− 8·6	62	277	
	10299	·639	82·7	117·2	+ 3·2	8	22	
	10300	·857	104·3	98·1	−13·2	15	36	109*c*
	10301	·981	99·9	77·6	−10·1	23	113	226*f*
		·868	110·7					179
		·875	63·7					219

Group 10295. May 17–23. A group of unstable spots with axis considerably inclined to the equator.
Group 10296. May 17–20. A small spot with a companion on May 17.
Group 10297. May 17–27. A stream in which the following spot is at first larger and more stable than the leader.
Group 10298. May 18–22. A small stream.
Group 10299. May 18–24. A diminutive stream of which the following spot remains alone on and after May 20.
Group 10300. May 20–24. A very small group.
Group 10301. May 21–June 1. A regular spot followed by a cluster which has died out by May 29.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
140·362		·944	116·9					242
C		·960	57·6					216
May 21			(−19·5)	(156·4)	(−1·9)	(159)	(782)	(2561)
141·553		·963	307·5					176
		·948	229·5					105
		·927	318·9					90
		·837	257·7					394
	10298	·996	289·6	224·3	+19·3	27	96	242*f*
	10302	·836	239·7	193·9	−26·0	6	23	56*c*
	10295	·671	235·5	177·7	−23·7	11	64	
	10294	·382	236·7	159·8	−13·8	9	45	
G	10297	·173	232·7	148·6	− 7·8	64	247	
	10299	·411	77·4	117·1	+ 3·4	8	13	
	10300	·694	106·7	97·9	−12·8	14	38	
	10301	·892	100·6	78·0	−10·3	32	131	271*c*
	10303	·985	73·8	61·9	+15·5	14	25	90*f*
	10304	·988	80·9	60·3	+ 8·7	0	16	268*s*
		·837	121·1					146
		·893	55·0					176
		·921	67·0					92
		·972	110·2					309
May 22			(−19·1)	(140·7)	(−1·8)	(185)	(698)	(2415)
142·351		·973	310·5					72
		·923	259·0					529
		·923	222·8					74
	10302	·910	241·5	193·1	−26·4	11	27	160*c*
	10295	·786	240·6	178·4	−23·8	9	41	91*c*
	10294	·527	246·5	159·8	−13·5	11	46	
	10297	·343	250·2	149·0	− 8·3	61	275	
	10299	·244	68·6	117·0	+ 3·4	5	9	
	10300	·561	110·4	97·6	−12·7	5	14	
G	10305	·737	126·5	88·5	−27·2	5	29	
	10301	·798	101·1	77·7	− 9·8	33	179	443*c*
	10304	·935	79·8	61·7	+ 8·9	0	13	627*s*
	10303	·942	72·6	60·3	+15·7	13	37	328*c*
		·817	48·8					157
		·877	60·8					94
		·922	38·9					180
		·938	110·2					522
		·956	51·3					123
May 23			(−18·8)	(130·1)	(−1·7)	(153)	(670)	(3400)
143·354		·973	256·3					296
		·888	214·8					19
		·880	243·8					233
	10302	·969	243·3	191·3	−26·2	26	173	271*c*
C	*985i*	·927	283·7	183·6	+12·0	5	17	84*c*
1927.			°	°	°			
143·354	10294	·694	252·3	159·4	−13·3	12	31	
	10297	·536	256·3	148·5	− 8·6	52	256	
	985j	·150	311·5	123·2	+ 4·1	0	2	
	10299	·083	355·8	117·2	+ 3·1	5	7	
C	10300	·390	120·7	96·8	−12·9	0	1	
	10305	·608	135·5	88·3	−27·0	14	41	
	10301	·658	104·3	76·5	−10·5	28	194	
	10306	·829	118·7	64·0	−24·4	4	8	
	10303	·841	70·3	61·7	+15·5	8	47	239*f*
	10307	·970	110·9	41·6	−20·6	0	14	186*c*
		·849	112·0					337
		·856	81·6					505
		·923	112·1					347
		·950	47·1					71
		·961	62·5					99
		·973	76·6					181
May 24			(−18·5)	(116·8)	(−1·6)	(154)	(791)	(2868)
144·400		·987	282·5					67
		·960	291·1					99
		·957	245·6					197
		·946	219·4					20
	10294	·844	255·0	159·7	−13·4	8	20	178*s*
	10297	·722	259·2	148·7	− 8·8	40	233	
C	10308	·139	175·0	102·3	− 9·4	10	34	
	10305	·459	154·7	90·5	−25·9	4	7	
	10301	·451	111·3	77·8	−10·7	21	115	
	10306	·688	125·2	65·0	−24·5	21	62	
	10303	·719	66·3	60·0	+15·7	16	42	
	10307	·908	112·8	39·4	−21·2	13	59	271*c*
	10309	·983	109·8	23·9	−19·8	48	239	381*f*
		·827	114·4					256
		·923	70·2					303
May 25			(−18·2)	(103·0)	(−1·5)	(181)	(811)	(1772)
145·360	10294	·942	256·3	160·2	−13·4	7	13	258*s*
	10297	·882	260·6	151·8	− 8·9	34	188	342*c*
	10308	·240	232·4	101·4	− 9·7	29	134	
	10305	·414	181·2	90·9	−25·7	1	3	
	10301	·254	130·8	79·1	−10·8	33	103	
	985k	·425	72·8	66·3	+ 6·0	0	3	
G	10306	·566	134·9	64·2	−24·6	5	40	
	10304	·521	68·8	60·9	+ 9·7	3	8	
	10303	·562	58·6	60·5	+15·8	11	26	
	10307	·792	115·6	40·7	−20·8	43	200	265*c*
	10309	·927	110·6	23·5	−19·6	42	268	623*f*
		·851	67·4					347
		·961	64·0					202
May 26			(−17·8)	(90·3)	(−1·3)	(208)	(986)	(2037)

Group 10302. May 22–24. A small group near the west limb.
Group 10303. May 22–29. A small stream.
Group 10304. May 22–26. Intermittent tiny spots in faculæ adjoining Group 10303. No spots are seen on May 24 and 25.
Group 10305. May 23–26. A small stream of which only one spot remains on May 25 and 26.
Group 10306. May 24–29. A stream of small faint spots.
Group 10307. May 24–June 4. A stream growing from a small spot in faculæ at the east limb on May 24. The leader, which is a regular spot, is the sole survivor after May 30.
Group 10308. May 25–30. A short-lived stream in which the follower is the largest and longest-lived spot.
Group 10309. May 25–June 6. A regular spot with occasional small companions.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
146·358		·934	302·9					99
		·928	249·5					178
	10297	·973	260·7	153·5	− 9·3	34	173	497*c*
	10308	·425	250·1	100·9	− 9·4	33	207	
	10301	·179	188·2	78·6	−11·4	17	122	
	10306	·439	154·7	65·3	−24·5	7	31	
C	10303	·395	42·7	61·0	+15·7	7	22	
	10307	·619	122·1	43·3	−20·1	28	178	
	10309	·826	113·5	23·7	−19·9	40	238	680*f*
		·886	61·8					240
		·952	120·1					259
		·975	72·4					124
May 27			(−17·5)	(77·1)	(−1·2)	(166)	(971)	(2077)
147·400		·987	262·1					239
		·969	250·8					189
		·880	244·4					241
		·848	276·3					192
		·836	233·1					176
	10308	·633	256·9	101·8	− 9·1	30	125	
	10301	·323	236·2	79·1	−11·4	19	101	
	10306	·402	185·1	65·5	−24·6	3	28	
G	10303	·290	8·0	60·9	+15·5	4	9	
	10307	·450	134·9	43·6	−19·4	30	178	
	10309	·690	117·9	23·1	−19·6	41	238	259*f*
		·806	61·9					344
		·884	123·5					349
		·908	71·7					129
		·955	107·9					377
		·961	66·1					234
May 28			(−17·1)	(63·3)	(−1·1)	(127)	(679)	(2729)
148·389		·936	244·8					287
		·927	275·2					211
		·881	289·5					148
		·771	246·2					125
	10308	·793	259·2	102·1	− 9·1	19	90	311*p*
	10301	·523	249·4	80·0	−11·4	12	76	
	10306	·475	213·1	66·7	−24·3	0	8	
	10303	·347	326·0	61·8	+15·7	1	3	
G	*8951*	·328	186·5	52·5	−19·9	3	17	
	10307	·322	165·2	45·2	−19·1	38	201	
	10309	·534	126·3	23·2	−19·3	40	253	
		·790	128·0					268
		·880	64·8					237
		·907	108·0					732
		·943	153·9					50
		·952	80·5					92
May 29			(−16·8)	(50·2)	(−1·0)	(113)	(648)	(2461)

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
149·361		·959	248·5					118
		·926	237·1					141
		·880	248·5					187
		·876	292·5					144
		·867	306·2					214
		·799	234·0					215
C	10308	·917	259·9	103·5	− 9·6	9	22	309*c*
	10301	·695	254·2	80·3	−11·5	14	66	
	10307	·335	204·3	45·7	−18·6	32	146	
	10309	·389	142·5	23·0	−18·7	39	190	
		·816	107·2					315
		·953	110·2					191
May 30			(−16·5)	(37·4)	(−0·9)	(94)	(424)	(1834)
150·461		·982	260·1					365
		·967	251·0					176
		·964	301·7					148
		·964	290·1					178
		·896	238·6					345
		·887	304·7					369
		·723	238·9					304
G	10301	·853	257·0	80·5	−11·4	13	39	296*f*
	10307	·482	230·5	45·8	−18·4	17	112	
	10309	·315	180·9	23·1	−19·0	47	227	
		·887	113·1					508
		·945	99·7					207
		·958	76·0					490
May 31			(−16·1)	(22·8)	(−0·7)	(77)	(378)	(3386)
151·359		·964	247·7					209
		·959	294·9					97
		·953	234·6					129
		·941	306·1					131
		·911	277·7					136
		·819	241·2					231
		·803	295·5					252
C		·775	279·5					453
	10301	·944	258·3	81·1	−11·2	8	41	214*f*
	10307	·621	240·7	45·5	−18·1	13	116	
	10309	·379	212·7	23·4	−19·1	32	207	
		·775	113·2					151
		·918	73·7					605
		·962	110·2					113
June 1			(−15·7)	(10·9)	(−0·6)	(53)	(364)	(2721)
152·415		·961	258·5					211
G		·926	246·0					448

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
152·415		·903	278·0					603
		·881	293·2					239
G	10307	·779	247·1	45·6	−17·9	14	97	492c
	10309	·540	233·3	24·1	−19·1	30	164	
	986a	·390	155·5	347·0	−21·2	4	10	
	10310	·965	72·3	283·2	+16·8	140	973	739c
		·824	69·5					552
		·883	118·3					181
		·911	49·3					77
		·951	94·3					117
		·981	59·3					103
June 2			(−15·3)	(356·9)	(−0·5)	(188)	(1244)	(3762)
153·562		·968	249·0					402
		·961	289·9					262
		·960	277·6					282
		·916	318·9					84
		·893	296·2					100
		·838	284·7					217
	10307	·912	250·3	45·9	−18·1	6	50	299sf
G	10309	·720	243·2	24·5	−19·2	30	151	
	986b	·585	62·9	309·3	+15·0	0	3	
	10310	·865	70·1	283·8	+16·9	141	1066	826f
		·844	98·5					111
		·925	56·3					88
		·944	96·8					120
		·953	109·5					204
June 3			(−14·9)	(341·8)	(−0·4)	(177)	(1270)	(2995)
154·355		·920	289·1					215
		·803	304·2					161
	10307	·972	251·4	46·8	−18·1	0	15	375sf
	10309	·823	247·0	24·3	−18·9	20	135	311f
G	10311	·185	215·9	337·6	− 8·9	1	5	
	10310	·772	67·5	283·3	+17·0	136	1258	763f
		·884	110·0					230
		·938	59·2					267
		·961	74·0					89
		·965	103·8					128
June 4			(−14·6)	(331·3)	(−0·3)	(157)	(1413)	(2539)
155·418		·986	248·4					254
		·972	288·6					167
		·930	319·2					130
		·872	291·2					158
		·858	304·9					133
G		·811	230·2					204

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
155·418	10309	·932	249·8	24·4	−18·7	19	94	416sf
	10311	·393	247·8	338·7	− 8·6	1	5	
G	10310	·614	61·5	283·0	+16·9	158	1094	
	10312	·773	66·6	269·2	+17·8	0	5	109f
	10313	·859	73·0	259·4	+14·5	5	14	111c
		·866	105·6					186
		·945	43·2					214
		·968	68·6					269
		·969	103·6					446
June 5			(−14·2)	(317·2)	(−0·1)	(183)	(1212)	(2797)
156·427		·950	294·0					198
		·890	233·4					311
	10309	·988	251·6	24·2	−18·2	0	28	310sf
	986c	·304	335·3	311·4	+16·0	0	6	
	10314	·443	137·6	285·5	−19·0	3	6	
	10310	·446	50·5	282·9	+16·4	191	1249	
	10312	·616	62·2	269·3	+16·6	3	9	
G	10313	·727	69·2	259·3	+14·9	26	64	
		·899	52·9					129
		·908	104·1					544
		·921	65·8					116
		·958	74·6					165
		·972	56·8					142
		·986	68·7					79
June 6			(−13·8)	(303·8)	(0·0)	(223)	(1362)	(1994)
157·344		·974	245·2					171
		·968	295·6					169
		·929	233·0					248
		·867	294·8					136
		·842	250·3					218
	10314	·343	160·0	284·6	−18·6	11	5	
	10310	·322	27·8	282·7	+16·6	138	1112	
C	10312	·439	49·3	270·5	+16·7	3	5	
	10313	·565	61·9	260·7	+15·4	34	212	
		·829	104·4					281
		·892	115·8					169
		·895	73·0					138
		·924	56·4					204
		·956	67·2					208
June 7			(−13·4)	(291·7)	(+0·1)	(176)	(1334)	(1942)
158·474		·951	293·2					139
		·940	250·6					249
		·797	242·6					154
	10311	·886	260·0	338·5	− 8·7	5	25	204c
	10314	·348	203·7	285·2	−18·4	5	14	
	10310	·293	346·1	281·0	+16·6	282	1562	
G	10312	·324	19·8	270·2	+17·8	5	14	

Group 10310. June 2–14. Return of Group 10287. A very large spot followed closely by one of irregular outline which coalesces temporarily with it on June 8. By this date another spot has formed behind, thus completing a stream 10° in length between the centres of the first and last spots. The large leader spot is crossed by a "bridge," *n* to *s*, from June 2 to 9. The group has decreased considerably by the time it passes around the west limb.

Group 10311. June 4–8. Intermittent. A very small spot on June 4 and 5; a pair on June 8.

Group 10312. June 5–10. Small spots, not seen on June 9, in the wake of Group 10310.

Group 10313. June 5–13. A short stream or cluster with one conspicuous component on June 8.

Group 10314. June 6–13. A small group with a sudden but brief maximum on June 10, when a regular spot has appeared as the leader.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
158·474	10313	·364	43·9	261·7	+15·3	25	174	
		·828	50·8					126
		·858	65·4					255
G		·901	124·2					83
		·935	101·0					261
		·954	79·6					413
		·957	54·4					58
June 8			(—13·0)	(276·8)	(+0·2)	(322)	(1789)	(1942)
159·348		·964	259·9					133
		·959	252·2					99
		·907	283·7					139
		·862	247·2					181
		·768	284·4					133
	10314	·458	224·8	285·0	—18·5	8	25	
	10310	·379	320·2	279·9	+17·2	235	1460	
C	10313	·271	12·5	261·7	+15·7	12	87	
		·765	59·9					79
		·831	101·8					105
		·875	77·7					233
		·933	102·4					273
		·934	52·2					119
		·954	115·5					241
June 9			(—12·6)	(265·2)	(+0·4)	(255)	(1572)	(1735)
160·406		·958	249·4					361
		·911	284·0					362
		·906	257·1					133
		·845	241·4					255
		·803	293·0					280
	10314	·644	239·1	286·8	—18·8	30	135	
	10310	·556	300·8	281·0	+16·9	190	1239	
	10312	·451	319·6	269·3	+20·5	1	4	
G	10313	·325	326·2	262·0	+16·1	12	47	
	986d	·207	143·0	244·0	— 9·0	1	7	
		·743	75·4					354
		·831	105·0					219
		·857	46·5					193
		·883	120·7					302
		·919	58·8					92
		·961	109·7					161
June 10			(—12·2)	(251·2)	(+0·5)	(234)	(1432)	(2712)
161·494		·968	286·3					323
		·959	240·7					80
		·926	241·6					240
		·905	290·3					319
	10314	·800	245·7	287·0	—18·8	24	119	98*c*
	10310	·725	292·9	280·8	+16·7	125	989	418*f*
G	10313	·491	301·9	262·3	+15·5	12	37	

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
161·494	10315	·976	98·5	159·8	— 8·2	20	92	139*f*
G		·839	125·9					163
		·914	116·1					167
June 11			(—11·7)	(236·8)	(+0·6)	(181)	(1237)	(1947)
162·461		·957	246·3					109
		·956	288·9					346
		·932	236·3					99
	10314	·899	248·5	285·9	—18·9	12	52	236*c*
	10310	·854	289·2	281·1	+16·6	96	734	871*c*
	10313	·646	293·2	261·8	+15·2	6	15	
G	10316	·367	168·7	219·6	—20·3	3	12	
	10317	·822	121·4	173·6	—24·8	14	32	54*c*
	10315	·906	99·3	159·6	— 8·1	19	129	458*f*
	10318	·974	116·3	149·2	—25·3	10	53	150*c*
		·848	109·9					75
		·927	70·5					84
June 12			(—11·3)	(224·0)	(+0·7)	(160)	(1027)	(2482)
163·348		·968	225·1					125
		·840	245·7					173
		·831	305·7					106
	10314	·970	250·1	286·8	—19·1	10	75	365*f*
	10310	·938	287·5	281·0	+16·7	116	678	1282*c*
G	10313	·793	287·9	263·2	+14·6	4	7	199*nf*
	10316	·376	205·7	222·1	—18·9	3	8	
	10319	·277	328·8	220·7	+14·4	7	36	
	10317	·725	127·5	172·8	—25·5	8	35	
	10315	·798	100·4	160·0	— 7·8	15	103	479*f*
	10318	·918	118·5	149·1	—25·5	14	47	305*n*
June 13			(—10·9)	(212·2)	(+0·8)	(177)	(989)	(3034)
164·418		·950	248·5					211
		·904	299·7					154
		·890	288·6					250
		·866	253·8					91
	10310	·994	286·7	281·6	+16·7	103	451	844*f*
	10319	·452	298·9	222·0	+13·5	1	4	
	10316	·516	227·7	221·8	—19·3	13	37	
	10320	·399	322·1	213·1	+19·2	1	3	
	10317	·574	139·5	173·9	—24·9	11	39	
G	10315	·628	103·4	160·2	— 7·5	20	97	248*f*
	10318	·829	122·7	147·4	—25·9	12	22	97*n*
		·929	120·5					98
		·926	84·9					60
		·934	110·5					95
		·942	75·1					219
June 14			(—10·5)	(198·1)	(+1·0)	(161)	(653)	(2367)

Group 10315. June 11–23. Probable return of Group 10297. A stable regular spot.
Group 10316. June 12–15. A small group.
Group 10317. June 12–19. A small sparse stream.
Group 10318. June 12–19. A small, distinct and persistent spot with a distant companion on June 12–14.
Group 10319. June 13–14. A small evanescent cluster of which one spot is left on June 14.
Group 10320. June 14–16. One tiny spot each day.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
165·389		·965	300·1					137
		·964	286·6					220
		·953	253·7					156
		·818	240·7					206
		·811	255·0					273
	10316	·668	239·5	222·5	−18·9	7	31	
	10320	·619	303·1	218·7	+20·6	3	7	
G	10317	·474	159·2	174·5	−25·1	8	26	
	10315	·445	109·1	160·2	− 7·4	13	113	
	10318	·679	130·0	150·3	−24·9	6	22	
		·824	84·3					97
		·852	73·9					256
		·939	118·1					264
		·947	103·7					302
June 15			(−10·1)	(185·2)	(+1·1)	(37)	(199)	(1911)
166·386		·922	249·9					188
		·912	259·3					165
		·871	289·9					274
		·852	306·7					103
		·766	242·3					270
	10320	·763	296·9	218·6	+21·0	2	7	189c
	10317	·447	187·1	175·5	−25·0	5	10	
C	10315	·244	127·3	160·8	− 7·3	17	103	
	10318	·553	142·7	150·4	−24·9	8	16	
		·884	107·5					420
		·889	124·9					68
		·933	69·8					78
		·982	102·3					186
June 16			(−9·7)	(172·0)	(+1·2)	(32)	(136)	(1941)
167·347		·979	249·8					120
		·973	259·4					134
		·916	285·7					70
		·894	306·6					151
		·884	246·4					139
		·875	294·2					268
	10317	·506	207·8	174·4	−25·2	4	16	
C	10315	·149	190·8	160·9	− 7·1	16	107	
	10318	·459	162·3	150·5	−24·5	5	10	
	10321	·939	100·9	90·2	− 9·7	10	46	310c
		·770	109·0					203
		·808	126·0					95
		·893	112·5					119
		·947	84·9					88
		·970	111·8					91
June 17			(−9·2)	(159·3)	(+1·3)	(35)	(179)	(1788)
168·411		·964	284·6					85
		·963	292·6					285
G		·961	247·1					113
1927.			°	°	°			
168·411		·957	304·6					196
		·890	258·0					180
		·865	281·8					148
	10317	·625	227·4	175·2	−23·7	1	7	
	10315	·316	241·4	161·4	− 7·4	20	101	
G	10318	·441	191·4	150·7	−24·1	5	10	
	10321	·825	103·2	90·8	−10·0	8	58	174c
		·938	56·6					196
		·941	83·4					168
		·951	74·9					74
		·955	123·1					68
		·963	101·1					218
June 18			(−8·8)	(145·2)	(+1·4)	(34)	(176)	(1905)
169·514		·950	280·5					182
		·947	256·7					219
		·913	243·3					111
		·906	310·9					85
	10317	·780	237·5	176·3	−23·6	2	7	
	10315	·532	253·8	161·4	− 7·1	14	99	
	10318	·529	215·9	150·3	−23·8	3	8	
	10322	·637	114·5	94·1	−13·9	1	10	
G	10321	·649	106·3	91·6	− 9·2	9	21	
	10323	·979	97·9	52·9	− 7·5	25	85	107c
		·877	102·1					146
		·892	82·9					201
		·901	55·1					182
		·945	104·8					294
		·949	72·3					137
		·950	116·5					289
June 19			(−8·3)	(130·6)	(+1·6)	(54)	(230)	(1953)
170·362		·962	244·5					115
		·945	309·5					207
		·902	289·9					53
		·873	241·2					98
		·860	255·3					67
	10315	·684	257·4	161·5	− 7·3	22	112	
	10322	·479	122·9	95·1	−13·5	4	22	
	10321	·488	112·6	92·4	− 9·3	4	15	
G	10323	·917	98·7	53·6	− 7·2	29	172	259c
		·770	76·7					152
		·868	67·6					73
		·876	106·2					201
		·882	81·9					149
		·905	119·0					585
		·959	73·1					71
		·959	63·1					87
June 20			(−7·9)	(119·4)	(+1·7)	(59)	(321)	(2117)

Group 10321. June 17–28. A revival rather than a return of Group 10301. A small cluster showing an increase of activity on June 23. Group 10322 is in the same disturbed area.
Group 10322. June 19–26. A few unstable spots near Group 10321; nothing is seen on June 21.
Group 10323. June 19–30. A pair of spots of which the follower is the larger and longer-lived.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
171·388		·953	257·9					150
		·922	241·3					205
		·875	249·9					82
	10315	·835	259·9	161·6	− 7·4	21	104	56c
	10321	·292	136·9	94·1	−10·5	4	21	
	10323	·806	100·7	53·0	− 7·5	30	217	202c
G		·802	126·3					129
		·817	114·1					69
		·881	79·7					72
		·917	113·9					148
		·947	68·4					194
		·982	81·3					106
		·988	112·3					151
June 21			(−7·5)	(105·8)	(+1·8)	(55)	(342)	(1564)
172·367		·970	242·9					91
		·952	249·5					127
		·850	240·8					123
	10315	·937	261·0	161·7	− 7·7	23	121	221sf
	10324	·545	203·4	107·0	−28·0	3	11	
	10322	·275	190·3	95·8	−13·7	3	12	
C	10321	·208	188·2	94·6	−10·0	8	26	
	10323	·649	103·8	53·6	− 7·4	46	276	
		·816	116·2					126
		·843	55·2					94
		·940	80·8					393
		·948	62·7					112
		·953	113·4					222
June 22			(−7·0)	(92·9)	(+1·9)	(83)	(446)	(1509)
173·355		·920	242·7					110
	10315	·991	262·0	161·5	− 7·7	18	108	161sf
	10324	·627	214·9	103·9	−29·0	6	26	
	10322	·396	225·9	96·8	−14·0	1	3	
	10321	·334	230·9	95·0	−10·2	11	80	
G	10323	·468	110·2	53·6	− 7·5	58	280	
	10325	·913	103·6	17·7	−11·5	2	11	58f
		·849	118·8					247
		·850	80·8					302
		·922	62·3					161
June 23			(−6·6)	(79·8)	(+2·0)	(96)	(508)	(1039)
174·373		·918	275·6					85
		·889	242·6					122
		·880	287·3					235
	10324	·740	226·6	104·0	−28·8	11	54	
	10322	·571	241·1	97·2	−14·2	11	27	
	10321	·521	246·7	95·2	−10·0	13	117	
	10323	·278	126·7	53·4	− 7·5	36	245	
C	10326	·384	116·9	46·2	− 8·0	3	12	
	10325	·797	106·3	15·1	−11·6	11	30	77f
1927.			°	°	°			
174·373		·794	121·6					213
		·879	58·1					153
C		·949	123·1					141
		·950	108·1					186
		·979	66·7					108
June 24			(−6·1)	(66·3)	(+2·1)	(85)	(485)	(1320)
175·353		·953	284·7					82
		·903	254·3					126
		·882	245·1					116
	10324	·838	232·1	102·6	−29·5	10	46	87c
	10322	·746	247·6	98·7	−14·9	7	19	
	10321	·699	253·2	95·9	−10·0	11	67	
	10323	·177	175·6	52·5	− 7·9	29	171	
	986e	·378	5·9	50·9	+24·1	1	11	
G	10326	·231	147·7	46·2	− 9·0	4	9	
	10327	·527	78·3	22·0	+ 8·0	1	5	
	10325	·668	109·5	13·6	−11·1	1	6	
	10328	·973	98·1	337·3	− 7·4	30	273	225c
	10329	·980	109·4	336·5	−18·5	22	57	109f
		·881	108·7					144
		·918	127·9					167
		·922	64·4					118
June 25			(−5·7	(53·3)	(+2·2)	(116)	(664)	(1174)
176·542		·966	251·6					130
	10324	·932	236·8	101·2	−29·6	3	7	280p
	10322	·884	252·6	97·8	−14·1	4	15	116c
	10321	·874	257·2	97·3	−10·0	9	16	174f
	10323	·309	234·0	52·2	− 8·1	14	99	
	10326	·238	214·2	45·3	− 8·9	3	7	
	10330	·347	351·8	40·7	+22·4	8	22	
G	10327	·281	68·8	22·3	+ 8·1	3	5	
	10331	·503	47·8	14·0	+21·8	3	7	
	10328	·871	99·7	337·9	− 7·2	67	307	169c
	10329	·899	111·9	336·3	−18·4	32	88	310f
	10332	·972	98·6	321·9	− 7·8	16	50	412s
		·812	134·2					167
		·824	61·0					142
		·975	78·4					102
June 26			(−5·2)	(37·6)	(+2·4)	(162)	(623)	(2002)
177·450		·972	238·0					215
	10321	·936	255·5	93·6	−12·6	14	26	568c
	10323	·470	247·4	51·5	− 8·1	10	73	
	10326	·401	240·0	46·1	− 9·1	0	6	
	10330	·417	322·0	41·5	+21·5	29	173	
	10327	·113	25·6	22·8	+ 8·3	9	45	
G	10331	·374	26·2	15·4	+22·0	17	66	
	10328	·742	101·9	338·8	− 7·1	75	448	353c

Group 10324. June 22–26. A small short-lived stream.
Group 10325. June 23–25. One very small spot.
Group 10326. June 24–28. A few tiny spots, *f* Group 10323.
Group 10327. June 25–30. A very small spot which grows and becomes elongated before dividing up on June 28.
Group 10328. June 25–July 6. A stream in which the leader becomes unusually large compared with the other spots. Between June 30 and July 1 the leader annexes a spot immediately following it. A pronounced "bridge" remains across the compound spot until July 4.
Group 10329. June 25–July 1. A spot breaking up into a cluster on June 29.
Group 10330. June 26–July 2. A pair of spots appearing suddenly; the follower has broken up into a cluster on June 29, whilst the leader continues as a small regular spot.
Group 10331. June 26–July 4. At first a pair of spots which split up; between June 29 and July 1 the group reforms as another pair of rather larger spots.
Group 10332. June 26–July 3. A few faint spots in faculæ, *f* Group 10328.

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1927.			°	°	°			
177·450	10329	·797	115·6	336·5	−18·5	11	75	363*f*
G	10332	·913	100·0	320·6	− 8·0	11	37	574*s*
		·918	77·8					344
		·952	117·2					288
June 27			(−4·8)	(25·6)	(+2·5)	(176)	(949)	(2705)
178·565		·913	304·8					173
		·898	255·4					110
		·892	279·2					208
		·841	315·6					80
		·822	232·0					191
	10321	·996	258·3	94·9	−11·4	23	103	450*c*
	10323	·675	254·7	51·8	− 8·2	12	44	
	10326	·634	253·5	48·5	− 8·3	3	6	
	10330	·580	304·7	41·5	+21·5	36	223	
G	10327	·233	294·4	23·1	+ 8·0	7	28	
	10331	·344	346·4	15·8	+22·1	21	80	
	10328	·543	107·0	339·4	− 6·9	69	402	
	10329	·631	123·0	337·2	−17·9	17	71	
	10333	·696	71·1	328·0	+14·9	1	6	
	10332	·771	102·7	321·6	− 8·0	5	11	207*c*
	10334	·958	112·7	299·9	−20·9	31	143	229*f*
		·795	74·9					161
		·936	75·3					146
		·952	64·2					74
June 28			(−4·2)	(10·8)	(+2·6)	(225)	(1117)	(2029)
179·529		·957	278·8					173
		·939	304·7					170
		·906	248·0					126
		·892	237·0					204
		·862	282·2					376
	10323	·818	257·6	51·8	− 8·5	12	70	408*p*
	10330	·730	297·4	42·1	+21·5	25	179	
	10327	·436	283·6	23·3	+ 8·3	5	14	
C	10331	·431	320·8	15·1	+22·0	13	51	
	10328	·356	116·9	339·5	− 6·7	73	372	
	10329	·489	135·8	337·2	−17·9	10	39	
	10333	·522	65·4	328·8	+14·8	0	3	
	10332	·594	106·8	323·2	− 7·7	6	11	
	10334	·886	116·0	299·5	−21·4	19	136	178*c*
	10335	·973	74·6	281·5	+15·6	99	617	786*c*
		·839	74·0					144
		·940	85·7					104
		·959	117·2					237
June 29			(−3·8)	(358·1)	(+2·7)	(262)	(1492)	(2906)
180·338		·971	301·4					148
		·956	244·8					296
		·947	284·6					306
C		·947	270·0					146

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
180·338		·872	258·0					80
	10323	·908	258·4	51·4	− 9·3	13	42	339*p*
	10330	·839	294·0	42·6	+21·5	19	128	131*c*
C	10327	·599	280·0	23·7	+ 8·1	1	6	
	10331	·535	309·0	13·8	+22·1	9	56	
	10328	·205	140·8	339·8	− 6·3	78	485	
	10329	·402	152·8	336·2	−18·1	8	23	
	10332	·442	114·0	323·4	− 7·8	10	16	
	10334	·796	119·0	299·4	−20·7	15	69	110*c*
	10335	·920	74·0	280·8	+15·8	98	625	1047*c*
		·936	112·4					166
June 30			(−3·4)	(347·3)	(+2·8)	(251)	(1450)	(2769)
181·575		·967	259·1					124
		·943	249·5					86
		·816	279·2					248
	10330	·949	291·9	42·1	+21·7	37	113	280*c*
	10331	·726	298·7	14·4	+22·5	51	189	
	10328	·229	224·6	340·3	− 6·5	134	832	
	10329	·370	198·1	337·9	−17·6	3	5	
G	10332	·212	158·3	326·5	− 8·5	5	22	
	10334	·640	129·5	299·1	−21·5	9	21	
	10335	·782	72·7	280·5	+15·3	108	706	1006*c*
		·945	107·3					88
		·960	59·3					72
		·979	79·3					209
		·983	99·8					231
July 1			(−2·9)	(331·0)	(+2·9)	(347)	(1888)	(2344)
182·317		·928	239·9					196
		·881	280·2					261
		·843	244·2					87
	10330	·990	291·3	43·3	+21·5	31	123	290*f*
	10331	·827	296·3	14·8	+23·3	57	239	209*c*
	10336	·560	311·6	348·5	+24·4	8	22	
C	10328	·368	242·9	340·4	− 6·8	135	811	
	10332	·212	200·7	325·5	− 8·4	3	16	
	10334	·517	140·1	300·5	−20·5	1	4	
	10335	·667	70·4	280·7	+15·2	100	636	407*f*
	10337	·952	100·0	250·0	− 8·6	14	26	455*f*
		·885	109·5					109
		·955	78·5					206
July 2			(−2·5)	(321·2)	(+3·0)	(349)	(1877)	(2220)
183·415		·970	278·2					343
		·962	244·0					171
	10331	·942	294·2	16·2	+23·8	40	220	560*c*
	10336	·715	301·6	348·4	+24·3	16	84	
	10328	·587	253·5	341·0	− 7·0	149	833	
C	10332	·436	245·0	330·0	− 7·7	1	5	
	10334	·426	162·8	298·9	−20·9	3	8	

Group 10333. June 28–29. One tiny spot.
Group 10334. June 28–July 3. A moderate-sized spot, breaking up after June 28.
Group 10335. June 29–July 11. Return of Group 10310. Third appearance. A pair of fairly large regular spots in a large area of faculæ. The smaller and more northern spot slowly decreases, but the other increases, first by the development of an extension following it and later, on July 5, by a nebulous growth preceding it. The long composite spot which results is breaking up near the west limb. Earlier there is a small distant companion and a cluster of faint spots in the accompanying faculæ.
Group 10336. July 2–5. A small stream.
Group 10337. July 2–5. A small but definite spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
183·415	10335	·483	62·6	280·3	+15·5	107	625	
	10337	·844	102·2	250·3	− 8·6	10	17	695*f*
		·886	77·6					85
C		·959	116·2					188
		·970	72·8					182
July 3			(−2·0)	(306·6)	(+3·1)	(326)	(1792)	(2224)
184·359		·886	227·8					141
		·878	252·8					137
	10331	·993	294·4	17·8	+24·6	37	167	639*sf*
	10336	·831	297·6	347·9	+24·5	16	61	168*c*
	10328	·744	258·0	341·0	− 6·7	139	738	
	10335	·321	48·6	279·7	+15·3	109	663	
C	10337	·707	105·8	250·8	− 8·7	6	13	251*f*
	10338	·976	99·7	217·5	− 8·7	24	51	498*f*
		·862	116·6					267
		·885	71·2					158
		·963	60·3					75
		·967	70·6					79
		·978	78·0					54
July 4			(−1·6)	(294·1)	(+3·2)	(331)	(1693)	(2467)
185·356		·961	252·7					184
		·952	231·7					193
		·828	243·1					174
	10336	·936	294·3	349·6	+23·9	13	32	206*c*
	10328	·878	260·3	341·3	− 6·8	109	687	369*c*
	10335	·203	3·5	280·2	+14·9	118	759	
	987a	·286	49·5	268·0	+13·9	1	3	
G	10337	·533	112·7	251·2	− 8·9	3	5	
	987b	·827	69·1	226·3	+19·1	6	11	105*c*
	10338	·905	101·7	217·3	− 9·1	25	77	298*c*
		·912	77·5					105
		·915	53·2					85
		·954	61·9					151
July 5			(−1·1)	(280·9)	(+3·3)	(275)	(1574)	(1870)
186·462		·982	293·6					176
		·923	247·4					326
		·876	257·7					303
		·839	278·2					82
		·783	290·9					82
C	10328	·971	262·0	341·7	− 6·9	77	626	710*c*
	10335	·309	309·6	280·5	+14·7	115	763	
	10338	·771	104·8	217·5	− 9·0	11	43	85*c*
		·863	60·7					88
		·943	113·1					127
		·957	98·0					116
July 6			(−0·6)	(266·3)	(+3·5)	(203)	(1432)	(2095)
1927.			°	°	°			
187·580		·976	260·3					529
		·972	246·7					107
		·919	283·3					319
		·918	256·3					109
		·904	242·3					80
G		·800	233·9					220
	10335	·510	292·4	280·5	+14·3	133	813	
	10338	·578	109·3	218·2	− 8·0	18	41	
		·915	101·9					170
		·948	53·5					126
		·979	113·3					77
July 7			(−0·1)	(251·5)	(+3·6)	(151)	(854)	(1737)
188·381		·969	258·6					82
		·965	284·7					164
		·884	241·2					183
		·858	285·8					156
	10335	·652	287·9	280·5	+14·4	122	763	
G	10338	·432	117·3	218·2	− 8·0	17	51	
	10339	·973	97·6	165·1	− 6·5	15	83	124*c*
		·845	100·4					107
		·928	51·8					80
		·936	113·0					97
July 8			(+0·2)	(240·9)	(+3·7)	(154)	(897)	(993)
189·571		·965	286·8					177
		·917	240·6					274
	10335	·827	285·2	280·6	+14·7	98	593	786*c*
	987c	·225	352·6	226·9	+16·7	3	6	
	10338	·233	156·8	219·9	− 8·6	24	80	
	10340	·837	120·6	174·0	−22·8	11	24	105*c*
Mt. W.	10339	·881	99·8	164·5	− 6·7	12	30	129*c*
	987d	·965	65·8	150·5	+24·3	2	6	170*c*
		·914	118·4					187
		·954	105·0					218
July 9			(+0·8)	(225·2)	(+3·8)	(150)	(739)	(2046)
190·415		·845	245·0					75
	10335	·916	284·4	280·3	+14·8	96	459	744*nf*
	10338	·232	208·7	220·4	− 7·8	12	41	
	10340	·731	126·3	174·5	−22·5	7	20	
G	10339	·766	101·4	165·2	− 6·1	7	16	75*sf*
		·911	64·2					61
		·913	109·6					105
July 10			(+1·2)	(214·0)	(+3·9)	(122)	(536)	(1060)
191·392		·968	257·6					98
		·921	247·9					169
		·908	300·4					211
G		·793	251·9					147

Group 10338. July 4–11. A long stream of few spots, the most stable being at the rear.
Group 10339. July 8–12. Return of Group 10315; third appearance. A very small regular spot.
Group 10340. July 9–12. A spot with a very small companion on July 12.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
191·392	10335	·979	283·9	279·8	+14·4	33	490	1073*nf*
G	10338	·381	238·2	220·1	−7·7	7	22	
	10340	·603	137·4	175·0	−22·6	3	9	
	10339	·610	105·2	165·0	−6·0	9	17	
		·824	63·0					61
		·842	112·4					74
July 11			(+1·6)	(201·1)	(+4·0)	(52)	(538)	(1833)
192·339		·970	288·1					822
		·953	251·8					129
		·884	278·6					114
		·861	256·8					232
		·794	243·0					232
C	10341	·556	283·0	221·8	+10·6	7	17	
	10340	·501	151·6	173·7	−22·1	3	9	
	10339	·430	112·6	165·1	−5·7	5	10	
		·884	112·0					125
		·966	109·6					112
July 12			(+2·0)	(188·5)	(+4·1)	(15)	(36)	(1766)
193·594		·942	256·3					150
		·912	304·7					41
		·911	243·4					108
		·783	257·8					76
C	10341	·791	281·0	224·0	+11·2	7	15	
	10342	·964	104·2	99·0	−12·5	30	239	450*c*
		·875	114·7					74
		·961	122·9					101
July 13			(+2·6)	(171·9)	(+4·2)	(37)	(254)	(1000)
194·420		·977	249·0					260
		·939	287·4					98
		·913	237·2					150
		·859	257·8					307
C	10341	·882	280·2	223·0	+11·0	7	28	125*c*
	987e	·563	137·2	137·0	−20·4	3	5	
	10342	·899	105·9	99·0	−12·2	36	209	417*c*
		·901	125·2					168
July 14			(+3·0)	(161·0)	(+4·3)	(46)	(242)	(1525)
195·626		·966	280·7					242
		·949	260·2					397
		·895	295·3					167
	10343	·286	48·8	132·2	+15·1	12	32	
G	10342	·759	110·5	98·5	−12·4	33	216	290*c*
	10344	·968	121·9	74·7	−29·3	18	41	164*f*
		·812	129·9					117
1927.			°	°	°			
195·626		·932	82·7					173
July 15			(+3·5)	(145·0)	(+4·4)	(63)	(289)	(1550)
196·374		·986	260·2					146
		·953	290·1					184
	10345	·760	250·2	181·8	−11·8	12	59	
	10343	·192	16·2	131·9	+15·1	19	85	
C	10342	·642	115·6	98·9	−12·5	33	182	
	10344	·937	124·8	72·3	−30·3	14	47	209*c*
		·784	132·4					130
		·854	79·8					103
		·966	77·3					129
July 16			(+3·8)	(135·1)	(+4·5)	(78)	(373)	(901)
197·396		·834	242·9					106
	10345	·884	254·5	181·7	−11·4	19	108	190*c*
	10343	·251	317·5	131·7	+15·2	17	103	
C	10342	·471	127·1	99·1	−12·2	56	251	
	10344	·858	129·9	72·0	−30·4	10	35	155*c*
		·868	78·7					199
		·945	118·3					163
		·969	69·9					235
July 17			(+4·3)	(121·6)	(+4·6)	(102)	(497)	(1048)
198·343		·987	260·3					106
		·918	245·1					102
		·874	308·5					99
		·840	258·2					96
	10345	·965	256·3	182·2	−11·9	23	70	233*c*
	10343	·395	298·8	130·0	+15·3	14	33	
	10342	·336	150·2	99·3	−12·2	46	302	
G	10344	·782	136·3	70·3	−30·7	6	11	135*c*
		·768	77·6					72
		·820	102·9					124
		·853	123·9					164
		·908	67·3					394
		·959	111·7					101
July 18			(+4·7)	(109·1)	(+4·7)	(89)	(416)	(1626)
199·418		·980	250·9					101
		·943	307·0					50
		·941	261·5					200
		·904	250·3					154
	10342	·299	195·1	99·3	−12·0	35	185	
G	10346	·982	66·6	15·0	+23·8	41	130	156*f*
		·872	62·1					174
		·916	78·4					169
		·933	48·8					56
		·954	130·6					105
July 19			(+5·2)	(94·8)	(+4·7)	(76)	(315)	(1165)

Group 10341. July 12–14. One or two small spots.
Group 10342. July 13–24. Return of Group 10321. A regular spot disappearing rapidly after July 18. Companion spots are numerous about July 18 and after July 20 when they form a subsidiary stream southwards.
Group 10343. July 15–18. A pair of spots.
Group 10344. July 15–18. A pair of spots.
Group 10345. July 16–18. A small group.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
200·354		·950	254·6					107
		·915	247·0					84
		·849	239·0					85
		·769	286·4					141
	10342	·404	225·0	99·4	−11·9	23	167	
	987f	·633	144·6	58·4	−26·6	3	6	
C	10347	·534	115·1	53·3	− 8·9	3	9	
	10346	·930	66·6	14·3	+23·5	36	171	340*f*
		·849	78·4					96
		·915	134·6					50
		·964	57·2					126
July 20			(+5·6)	(82·5)	(+4·8)	(65)	(353)	(1029)
201·401		·920	242·7					156
		·890	284·9					118
	10342	·582	240·8	99·8	−12·2	31	127	
	10347	·331	133·5	54·6	− 8·3	14	38	
C	10346	·829	64·4	14·0	+23·8	28	161	287*f*
	10348	·998	98·7	343·2	− 8·3	81	397	227*p*
		·945	107·5					178
		·966	70·2					395
July 21			(+6·1)	(68·6)	(+4·9)	(154)	(723)	(1361)
202·379		·964	248·7					170
		·958	285·1					158
		·883	245·3					145
	987g	·880	258·8	116·0	− 7·4	2	7	118*n*
	10342	·748	246·7	100·5	−13·7	38	133	
	10347	·235	173·5	54·2	− 8·5	28	93	
G	10346	·700	60·5	14·1	+23·8	26	138	
	10348	·956	100·1	344·0	− 8·1	92	554	644*c*
		·839	110·1					157
		·911	66·9					316
		·951	109·9					219
July 22			(+6·5)	(55·7)	(+5·0)	(186)	(925)	(1927)
203·363		·937	244·5					168
		·887	229·5					135
	10342	·879	250·3	101·2	−14·6	41	133	359*c*
	10347	·301	219·7	53·7	− 8·9	31	110	
	10346	·554	52·9	13·8	+24·0	28	127	
	10348	·870	102·3	343·7	− 8·0	97	513	724*f*
G		·760	114·7					97
		·797	102·0					103
		·812	56·0					253
		·923	113·3					310
		·945	131·5					156
July 23			(+6·9)	(42·6)	(+5·1)	(197)	(883)	(2305)
1927.			°	°	°			
204·294		·951	235·1					152
	10342	·957	252·9	101·1	−14·7	21	79	572*c*
	10349	·542	279·9	63·0	+ 9·7	11	63	
	10347	·451	239·5	53·3	− 8·4	10	94	
	10346	·420	38·7	13·7	+24·0	20	124	
C	10348	·750	105·0	343·5	− 7·7	107	575	422*f*
		·790	63·9					100
		·836	117·5					155
		·916	132·6					145
		·923	75·5					116
July 24			(+7·3)	(30·3)	(+5·2)	(169)	(935)	(1662)
205·375		·965	252·5					173
		·882	230·7					132
		·838	284·3					66
	10349	·737	278·3	63·5	+ 9·7	37	147	
	10347	·645	250·3	53·7	− 8·3	18	53	
	987h	·515	224·2	37·9	−16·7	6	16	
G	10346	·324	7·8	13·3	+23·9	25	112	
	10348	·576	111·7	343·4	− 7·8	101	553	
		·714	125·8					89
		·898	74·7					116
		·943	123·1					118
		·961	86·0					60
July 25			(+7·7)	(16·0)	(+5·3)	(187)	(881)	(754)
206·461		·946	254·6					131
		·928	229·9					165
		·890	242·0					74
	10349	·887	278·2	64·4	+ 9·8	15	73	228*c*
	10347	·809	255·3	53·8	− 8·5	35	146	183*c*
C	10346	·366	330·6	13·0	+23·8	15	114	
	10348	·388	126·0	343·3	− 8·0	109	476	
		·833	72·8					92
		·938	118·6					123
		·951	76·7					325
		·971	66·4					162
July 26			(+8·2)	(1·7)	(+5·4)	(174)	(809)	(1483)
207·558		·948	235·5					99
		·937	288·1					65
		·835	290·8					51
		·821	245·3					60
	10349	·974	278·9	64·4	+ 9·9	11	54	361*c*
	10347	·929	258·5	53·9	− 8·6	43	150	390*c*
G	10346	·512	309·5	12·6	+23·8	21	118	
	10350	·257	311·7	358·5	+15·1	14	33	
	10348	·247	163·5	343·1	− 8·3	101	473	
	988a	·495	143·2	329·0	−18·1	6	10	

Group 10346. July 19–Aug. 1. Return of Group 10331. A stable regular spot.
Group 10347. July 20–27. A stream of unstable spots.
Group 10348. July 21–Aug. 2. Return of Group 10328. A very large regular spot seen with the naked eye.
Group 10349. July 24–27. A cluster.
Group 10350. July 27–30. A sparse stream of which only one spot remains on July 29 and 30.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
207·558	10351	·954	99·4	275·6	− 7·8	11	64	153*sf*
		·829	74·3					143
G		·829	122·8					77
		·935	73·4					605
		·961	116·9					182
July 27			(+8·7)	(347·1)	(+5·4)	(207)	(902)	(2186)
208·401		·982	279·2					70
		·980	259·8					497
		·942	305·0					118
		·918	248·6					115
		·910	293·0					131
	10346	·640	301·8	12·4	+24·1	22	119	
G	10350	·409	296·4	358·3	+15·5	10	28	
	10348	·269	207·1	343·1	− 8·3	103	467	
	10351	·877	101·3	276·1	− 7·2	16	40	193*sf*
		·835	71·8					310 }
		·919	69·4					490 }
		·932	120·8					181
		·940	111·2					126
		·974	98·7					89
July 28			(+9·0)	(336·0)	(+5·5)	(151)	(654)	(2320)
209·351		·975	250·6					126
		·965	284·4					137
		·949	293·1					187
		·925	309·2					155
		·923	257·6					94
		·899	277·4					181
	10346	·770	296·7	12·0	+24·0	21	89	
	10350	·630	287·4	1·8	+15·2	3	7	
	10348	·411	234·0	343·0	− 8·6	94	463	
G	*9886*	·430	325·6	339·0	+26·1	3	9	
	10351	·754	104·4	276·2	− 7·0	11	68	143*sf*
		·721	69·8					238
		·844	68·8					669
		·860	124·4					221
		·883	113·9					140
		·911	104·2					233
		·980	101·4					180
July 29			(+9·4)	(323·4)	(+5·6)	(132)	(636)	(2704)
210·345		·958	281·4					126
		·843	249·4					95
	10346	·880	294·3	11·5	+24·1	26	109	290*c*
	10350	·786	285·4	2·0	+15·6	2	6	
	10348	·584	246·4	342·9	− 8·7	95	436	
G	10351	·590	110·2	276·5	− 7·0	13	33	

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
210·345	10352	·973	98·3	234·7	− 6·7	11	30	439*c*
		·729	65·6					477
G		·926	105·8					240
		·938	75·0					114
		·966	114·8					122
July 30			(+9·8)	(310·3)	(+5·7)	(147)	(614)	(1903)
211·408		·946	253·3					192
		·872	283·1					93
		·865	252·5					227
		·849	293·5					172
		·760	241·7					105
	10346	·960	293·3	10·6	+23·9	25	69	318*c*
	10348	·754	252·8	342·8	− 9·0	115	470	
G	10353	·346	287·5	315·8	+11·3	5	17	
	10351	·396	122·5	276·6	− 6·9	5	14	
	10352	·905	99·5	232·6	− 6·0	15	38	516*c*
		·788	107·6					152
		·903	75·3					232
		·921	119·1					239
		·976	99·4					128
July 31			(+10·3)	(296·2)	(+5·7)	(165)	(608)	(2374)
212·381		·960	256·6					199
		·959	283·5					137
		·908	293·5					106
		·878	244·2					270
		·820	300·5					177
	10346	·996	293·0	9·6	+23·3	0	37	173*f*
	10348	·883	256·4	343·5	− 9·1	103	467	552*nf*
C	10354	·617	294·4	319·8	+19·4	1	4	
	10353	·558	281·0	317·2	+11·0	19	119	
	10351	·247	152·9	276·9	− 6·9	3	5	
	10352	·743	102·6	236·9	− 5·3	4	7	203*f*
	10355	·958	110·2	213·1	−17·5	12	51	195*c*
		·830	76·5					125
		·913	102·0					115
		·936	121·6					126
		·940	72·2					131
Aug. 1			(+10·6)	(283·4)	(+5·8)	(142)	(690)	(2509)
213·350		·943	228·7					152
		·938	245·7					289
		·921	294·8					268
	10348	·962	258·7	343·1	− 9·1	99	466	903*nf*
	10354	·771	292·8	320·0	+21·2	16	36	
	10353	·738	279·2	318·2	+10·8	24	100	
G	10356	·389	286·8	292·8	+11·9	2	5	
	10357	·407	153·2	259·6	−15·4	6	13	

Group 10351. July 27–Aug. 1. A small regular spot disappearing as a very small marking on Aug. 1.
Group 10352. July 30–Aug. 8. A disturbed area continuing to produce small unstable spots.
Group 10353. July 31–Aug. 4. A short stream or cluster.
Group 10354. Aug. 1–4. A group increasing as it rounds the west limb.
Group 10355. Aug. 1–6. A stream of few spots of which the follower is the largest and longest-lived.
Group 10356. Aug. 2–6. A very small but persistent spot; companions have appeared on Aug. 6.
Group 10357. Aug. 2–9. A fairly large irregular stream, which commences as a pair of spots on Aug. 2, and which has disappeared temporarily on Aug. 3.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1927.			°	°	°			
213·350	10352	·622	108·3	234·2	− 6·5	6	15	
	10355	·875	113·4	213·5	−17·2	14	42	210c
G		·807	103·8					81
		·917	60·6					165
		·961	103·2					101
Aug. 2			(+11·0)	(270·5)	(+5·9)	(167)	(677)	(2169)
214·362		·978	295·7					162
		·973	250·6					170
		·967	246·6					52
		·903	253·8					58
	10354	·883	290·2	319·3	+20·6	29	145	176c
G	10353	·868	279·1	317·7	+10·8	9	37	122c
	10356	·605	281·8	294·3	+11·9	3	4	
	10352	·465	119·8	233·3	− 7·8	4	17	
	10355	·767	117·8	212·3	−16·7	43	112	123c
		·911	108·3					143
Aug. 3			(+11·4)	(257·2)	(+6·0)	(88)	(315)	(1006)
215·366		·842	234·6					74
	10354	·970	289·6	320·8	+20·4	75	380	442c
	10353	·966	279·5	319·5	+10·7	10	17	256nf
	10356	·786	281·0	295·9	+12·4	4	13	
	10357	·462	219·6	261·6	−15·1	9	52	
	10352	·260	147·6	235·9	− 6·7	4	14	
G	10355	·642	126·0	211·1	−17·1	15	91	
		·770	113·1					86
		·903	110·4					106
		·942	121·4					101
		·964	97·5					63
Aug. 4			(+11·8)	(243·9)	(+6·0)	(117)	(567)	(1128)
216·517		·955	289·8					95
		·939	239·9					115
		·938	254·9					39
		·807	292·1					323
G	10356	·900	280·9	293·3	+12·5	6	16	128c
	10357	·620	236·5	260·9	−14·8	64	322	
	10355	·490	143·3	210·9	−17·2	12	45	
		·875	99·3					118
Aug. 5			(+12·3)	(228·7)	(+6·1)	(82)	(383)	(818)
217·348		·923	286·2					237
		·877	256·2					177
		·870	294·3					242
		·818	308·0					79
		·785	288·2					242
G	10356	·975	281·1	295·6	+12·1	20	51	144c
	10357	·735	243·2	260·3	−14·8	79	367	
	10352	·372	238·2	236·1	− 5·4	16	59	

G.M.T.	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1927.			°	°	°			
217·348	10355	·436	163·2	210·1	−18·4	8	25	
		·969	72·8					100
Aug. 6			(+12·6)	(217·7)	(+6·2)	(123)	(502)	(1221)
218·448		·973	282·1					205
		·961	294·0					250
		·956	259·6					193
		·942	304·8					118
G		·931	238·6					149
		·872	290·4					319
	10357	·861	249·0	259·1	−14·5	58	211	292c
	10352	·563	251·1	235·3	− 5·3	8	28	
		·964	97·4					148
		·965	111·3					150
Aug. 7			(+13·0)	(203·1)	(+6·2)	(66)	(239)	(1824)
219·560		·951	241·1					74
		·935	292·0					292
		·863	305·7					78
		·829	240·2					92
	10357	·955	252·4	258·5	−14·7	21	111	295c
G	10352	·775	258·0	237·8	− 5·2	4	11	
	10358	·997	104·2	104·8	−13·5	31	128	384p
		·857	116·6					84
		·866	99·8					67
		·964	111·2					63
Aug. 8			(+13·4)	(188·4)	(+6·3)	(56)	(250)	(1429)
220·352		·951	294·1					182
		·866	258·9					339
		·884	241·8					109
	10357	·986	254·3	256·0	−14·2	15	41	375p
G	10358	·980	104·7	101·5	−13·0	84	479	476p
		·784	102·0					58
		·807	121·7					73
		·953	116·7					111
Aug. 9			(+13·7)	(177·9)	(+6·3)	(99)	(520)	(1723)
221·390		·972	247·8					182
		·958	262·1					392
		·928	230·5					76
		·911	284·3					150
G		·876	254·5					141
		·803	241·7					155
	10358	·910	107·9	101·6	−13·2	73	475	948c
		·894	121·1					101
Aug. 10			(+14·1)	(164·2)	(+6·4)	(73)	(475)	(2145)
222·561		·955	258·5					227
		·925	246·8					371
		·847	299·2					138

Group 10358. Aug. 8–20. Return or revival of Group 10342. Two spots, widely separated, which become two clusters. On Aug. 17, one tiny spot remains, but a slight revival takes place on the following days.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
222·561	10359	·640	116·0	113·0	−11·0	15	51	
	10358	·778	112·5	101·4	−12·9	48	324	515*f*
G		·911	81·3					158
		·941	128·5					117
		·962	104·9					266
		·975	81·1					212
Aug. 11			(+14·5)	(148·7)	(+6·5)	(63)	(375)	(2004)
223·392		·974	249·4					237
		·936	287·0					230
		·877	300·8					129
		·873	248·6					121
G	10359	·509	125·6	112·9	−11·2	10	29	
	10358	·643	118·6	102·6	−12·6	37	172	
		·901	108·5					272
		·932	81·4					273
		·963	99·0					242
Aug. 12			(+14·8)	(137·8)	(+6·5)	(47)	(201)	(1504)
224·360		·961	287·8					101
		·950	251·8					245
	988c	·820	271·5	180·2	+ 5·0	4	14	53*f*
	10359	·358	144·0	112·7	−10·3	44	190	
G	10358	·488	131·2	103·0	−12·6	33	128	
	988d	·811	111·2	74·3	−12·9	0	8	271*p*
		·837	81·0					249
		·922	102·1					395
		·935	117·4					190
Aug. 13			(+15·2)	(125·0)	(+6·6)	(81)	(340)	(1504)
225·383		·913	272·5					56
		·866	256·7					50
	10359	·291	186·9	113·4	−10·1	80	606	
	10358	·358	158·1	103·6	−12·8	14	50	
G	10360	·741	105·4	65·6	− 6·8	4	19	
	10361	·949	111·5	43·5	−17·9	8	22	201*f*
		·839	105·1					187
		·899	108·8					123
Aug. 14			(+15·5)	(111·4)	(+6·6)	(106)	(697)	(617)
226·430		·983	273·5					56
		·954	245·1					82
	10359	·390	223·3	113·3	−10·0	172	962	
G	10358	·340	197·3	103·5	−12·2	6	23	
	10360	·539	113·3	67·8	− 6·5	8	27	
	10361	·854	115·7	43·9	−17·8	32	198	194*c*
	10362	·972	80·4	20·4	+10·9	4	19	194*c*
Aug. 15			(+15·9)	(97·6)	(+6·7)	(222)	(1229)	(526)
1927.			°	°	°			
227·377	*988e*	·883	255·4	144·9	− 9·6	5	10	63*n*
	10359	·538	239·6	113·1	− 9·8	183	1140	
	10358	·424	219·5	101·1	−12·6	3	10	
G	10360	·368	128·2	68·2	− 6·7	8	25	
	10361	·736	121·8	44·2	−17·8	56	295	
	10362	·905	81·0	19·8	+11·0	16	48	264*c*
		·952	71·5					129
		·971	104·5					187
Aug. 16			(+16·2)	(85·1)	(+6·7)	(271)	(1528)	(643)
228·406		·973	259·0					87
		·900	246·2					187
	10359	·705	248·6	113·1	− 9·9	214	1331	
	10358	·590	237·4	102·0	−12·7	0	3	
	10360	·243	169·4	68·9	− 7·1	11	32	
G	10361	·582	133·4	45·3	−17·5	53	280	
	10362	·768	81·2	21·0	+11·0	25	65	164*c*
		·876	71·6					145
		·906	61·5					154
		·919	109·4					186
		·975	102·6					141
		·985	92·9					135
Aug. 17			(+16·6)	(71·5)	(+6·7)	(303)	(1711)	(1199)
229·467		·956	244·3					381
	10359	·850	253·7	113·2	−10·0	158	1351	895*c*
	10358	·722	245·0	99·5	−12·7	10	48	
	10360	·298	219·0	68·3	− 6·7	33	131	
	10361	·453	153·9	45·5	−17·2	38	194	
G	10362	·580	80·7	22·0	+11·0	19	75	
	10363	·964	102·4	344·9	−10·0	76	437	932*c*
		·817	113·7					283
		·902	82·5					84
		·951	65·3					226
		·965	115·9					235
Aug. 18			(+16·9)	(57·5)	(+6·8)	(334)	(2236)	(3036)
230·594	10359	·953	257·3	113·0	− 9·9	178	1469	1160*c*
	10358	·883	251·6	101·6	−12·7	22	102	332*sf*
	10360	·516	244·9	70·5	− 6·5	13	66	
	10361	·404	188·7	46·2	−16·7	28	170	
	988f	·277	53·9	29·2	+16·0	1	4	
G	10362	·319	75·9	24·3	+10·9	14	34	
	10363	·872	105·7	344·3	−10·1	83	451	754*c*
	10364	·972	71·9	324·8	+19·1	4	10	454*f*
		·852	65·9					119
		·912	121·0					248
		·981	100·6					116
Aug. 19			(+17·3)	(42·6)	(+6·8)	(343)	(2306)	(3183)

Group 10359. Aug. 11–20. A big composite spot developing rapidly (especially between Aug. 13 and 14) from a few tiny spots, *p* Group 10358.
Group 10360. Aug. 14–20. A stream of unstable spots.
Group 10361. Aug. 14–24. A regular spot with a train of small companions which have disappeared by Aug. 21.
Group 10362. Aug. 15–27. A pair of smallish spots which separate widely in longitude. Between Aug. 20 and 21 new spots have appeared, altering entirely the character of the group, which then becomes a fairly large stream.
Group 10363. Aug. 18–30. Return of Group 10348. Third appearance. A large regular spot.
Group 10364. Aug. 19–22. Possible return of Group 10354. A very small spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1927.			°	°	°			
231·359		·971	241·9					82
	10359	·991	258·5	113·1	−10·3	123	1213	460*sf*
	10358	·957	254·3	103·1	−12·8	10	71	416*sf*
	10360	·649	250·5	70·4	− 7·0	9	35	
	988g	·430	229·4	51·8	− 9·7	1	2	
	10361	·460	212·0	47·1	−16·2	28	150	
C	10362	·123	57·3	26·3	+10·7	9	17	
	10363	·777	108·8	344·4	− 9·9	78	467	212*f*
	10364	·926	72·1	323·9	+19·1	3	5	319*nf*
		·888	124·0					121
		·925	78·1					198
		·939	101·5					65
Aug. 20			(+17·5)	(32·5)	(+6·9)	(261)	(1960)	(1873)
232·482		·972	253·1					291
		·953	229·7					44
		·827	256·5					154
	10361	·604	232·2	47·2	−15·7	28	157	
	10362	·126	307·3	23·4	+11·2	44	155	
	10363	·606	116·7	344·4	−10·0	82	454	
C	10364	·830	71·4	321·4	+19·2	2	6	344*nf*
		·810	107·7					133
		·826	79·6					158
		·962	100·6					61
		·964	113·9					41
		·970	80·7					135
Aug. 21			(+17·9)	(17·6)	(+6·9)	(156)	(772)	(1361)
233·387		·922	259·9					306
		·919	292·0					72
		·895	276·2					114
		·829	250·5					142
	10361	·736	240·7	47·4	−15·8	17	125	
	10362	·313	284·0	23·6	+11·0	65	350	
	10363	·460	128·4	344·3	−10·0	90	456	
G	10364	·709	70·4	321·0	+18·7	0	4	
	10365	·782	66·1	315·0	+23·0	4	7	231*n*
	988h	·957	104·6	294·9	−11·7	3	12	158*nf*
	10366	·994	107·7	284·7	−16·6	70	479	287*c*
		·889	81·4					123
		·890	129·4					74
		·945	121·4					110
		·971	76·5					150
Aug. 22			(+18·2)	(5·7)	(+7·0)	(249)	(1433)	(1767)
234·380		·980	261·5					140
		·963	278·7					75
		·920	255·9					137
		·917	288·1					71
G	10361	·859	246·7	47·4	−15·9	22	144	180*sf*
	10362	·528	279·1	24·4	+10·8	48	480	

G.M.T.	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1927.			°	°	°			
234·380	10363	·324	154·1	344·3	−10·0	85	416	
	10366	·961	109·9	281·9	−16·9	101	503	334*c*
		·742	81·5					67
G		·854	106·6					69
		·901	77·5					169
		·956	67·1					161
Aug. 23			(+18·5)	(352·5)	(+7·0)	(256)	(1543)	(1403)
235·334		·960	258·0					99
	989a	·951	285·0	52·8	+16·4	6	29	70*c*
	10361	·942	250·5	47·0	−15·7	26	112	339*sf*
	10362	·698	278·1	24·4	+10·7	66	459	
C	10363	·299	195·2	344·4	− 9·7	60	422	
	10365	·487	54·0	314·7	+23·0	0	4	
	10366	·875	113·2	283·1	−16·4	74	688	346*c*
		·859	80·4					151
		·860	66·6					206
		·963	65·2					359
		·965	109·8					293
Aug. 24			(+18·8)	(339·9)	(+7·0)	(232)	(1714)	(1863)
236·616		·970	249·0					162
	10362	·881	278·3	25·3	+10·7	91	534	287*c*
	10363	·461	232·8	344·8	− 9·6	64	433	
	10366	·723	120·9	282·9	−16·3	102	721	
G		·869	115·0					228
		·872	64·5					189
		·958	97·4					110
Aug. 25			(+19·2)	(323·0)	(+7·1)	(257)	(1688)	(976)
237·326		·852	247·8					138
	10362	·940	279·4	24·3	+11·2	84	420	478*c*
	10363	·579	242·2	344·8	− 9·6	65	386	
	10367	·128	60·9	307·1	+10·6	2	8	
C	10366	·633	127·0	282·0	−16·3	96	735	
		·840	111·7					107
		·856	65·2					289
		·866	123·4					159
		·936	98·5					140
Aug. 26			(+19·4)	(313·6)	(+7·1)	(247)	(1549)	(1311)
238·356		·931	253·3					209
	10362	·982	280·5	20·1	+11·6	5	23	606*c*
	10363	·743	250·3	345·0	− 9·5	64	334	317*c*
	10367	·167	289·7	309·2	+10·3	3	5	
	10366	·495	143·3	282·1	−16·5	90	784	
	10368	·590	130·3	272·2	−16·1	1	4	
G	10369	·988	107·9	221·8	−16·3	28	101	187*c*
		·814	101·5					108
		·913	115·1					116

Group 10365. Aug. 22–24. A pair of tiny spots on Aug. 22 ; one dot on Aug. 24.
Group 10366. Aug. 22–Sept. 3. A large regular spot closely followed by a composite one with which it merges on Aug. 28 and 29. A large complex spot results, but this breaks up, and by Aug. 31 the group resembles its former appearance about Aug. 26.
Group 10367. Aug. 26–29. One or two small spots.
Group 10368. Aug. 27–29. A tiny spot, *f* Group 10366.
Group 10369. Aug.–27–Sept. 8. A double spot close to which a short stream develops after Aug. 29.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
238·356		·928	103·1					106
G		·928	74·5					90
Aug. 27			(+19·7)	(300·0)	(+7·1)	(191)	(1251)	(1739)
239·546		·971	252·3					139
	10363	·890	255·7	345·0	− 9·3	47	291	384c
	10367	·412	279·7	308·6	+10·5	8	30	
	10366	·401	177·0	283·1	−16·4	110	829	
G	10368	·440	154·4	272·9	−16·3	0	3	
	10369	·915	111·5	222·0	−16·4	17	86	300f
		·966	101·1					181
		·971	71·8					92
Aug. 28			(+20·0)	(284·3)	(+7·1)	(182)	(1239)	(1096)
240·348		·954	291·4					74
		·928	238·8					145
		·876	302·1					112
		·807	288·1					153
	10363	·955	258·2	344·6	− 9·0	80	354	808c
	10367	·568	280·3	308·4	+11·7	3	9	
G	10366	·425	200·4	282·5	−16·4	101	870	
	10368	·410	176·3	272·1	−16·9	1	5	
	10369	·831	115·3	222·3	−16·4	22	70	444f
	10370	·988	84·0	192·2	+ 7·0	6	16	66c
		·913	71·8					96
		·917	104·6					239
Aug. 29			(+20·2)	(273·7)	(+7·1)	(213)	(1324)	(2137)
241·332		·978	270·7					94
		·977	240·3					205
		·906	253·7					91
		·885	286·1					291
		·793	297·1					183
	10363	·997	260·7	344·8	− 8·6	79	433	522f
C	*989b*	·592	281·7	297·0	+12·7	1	4	
	10366	·529	222·6	282·5	−16·1	79	644	
	10369	·717	121·3	221·2	−16·3	22	81	200sf
	10370	·930	85·3	192·0	+ 7·0	3	5	197f
	10371	·979	105·2	184·9	−13·2	10	38	305c
		·827	109·4					99
Aug. 30			(+20·5)	(260·7)	(+7·2)	(194)	(1205)	(2187)
242·564		·965	228·0					94
		·936	292·1					228
		·837	279·8					78
	10366	·697	237·4	282·0	−16·3	100	622	
G	*989c*	·676	228·5	277·0	−20·5	0	3	
	10369	·554	133·4	219·8	−15·7	32	136	
1927.			°	°	°			
242·564	10371	·919	108·0	180·7	−13·4	58	254	257c
G		·817	87·0					68
		·868	115·7					73
Aug. 31			(+20·8)	(244·4)	(+7·2)	(190)	(1015)	(798)
243·346		·967	293·4					344
		·958	302·7					84
		·958	244·1					84
		·923	279·2					172
		·919	232·6					168
C		·830	254·0					75
	10366	·801	243·6	282·2	−16·1	81	509	396c
	10369	·454	147·9	219·7	−15·5	36	153	
	10371	·840	111·6	180·8	−13·8	65	321	303c
		·969	111·2					88
Sept. 1			(+21·0)	(234·1)	(+7·2)	(182)	(983)	(1714)
244·379		·988	257·8					129
		·948	234·7					167
		·937	284·4					245
		·914	260·1					138
		·844	296·5					232
G		·834	280·1					224
		·818	244·5					218
	10366	·915	249·3	282·9	−15·5	73	478	874sf
	10369	·382	178·5	219·8	−15·1	44	237	
	10371	·668	118·6	182·1	−13·6	59	395	
		·834	111·3					45
Sept. 2			(+21·3)	(220·4)	(+7·2)	(176)	(1110)	(2272)
245·329		·961	263·1					71
		·951	285·6					114
		·928	274·9					74
		·927	295·7					147
		·925	248·5					179
C		·862	245·3					113
		·858	302·7					134
		·855	287·1					107
	10366	·978	252·3	282·9	−15·5	52	324	627sf
	10369	·429	207·8	219·8	−15·2	50	239	
	10371	·544	129·7	182·5	−13·8	59	315	
Sept. 3			(+21·5)	(207·9)	(+7·2)	(161)	(878)	(1566)
246·380		·964	248·4					266
		·961	296·0					165
		·958	284·6					122
		·935	236·2					93
		·918	305·7					78
C		·918	258·6					78
		·859	296·2					194
	10369	·545	226·6	218·1	−15·4	35	254	

Group 10370. Aug. 29–30. One very small spot.
Group 10371. Aug. 30–Sept. 9. A group of stream type in which the leader is at first complex. The increasing separation between leader and follower is marked.
Group 10372. Sept. 4–16. Return of Group 10359. A regular spot with companions both preceding and following. A very large area of faculæ accompanies the group.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
246·380	10371	·408	152·0	182·7	−13·9	31	276	
	10372	·980	101·4	117·3	− 9·6	76	312	827*s*
C		·872	121·7					90
		·967	120·4					77
Sept. 4			(+21·8)	(194·0)	(+7·2)	(142)	(842)	(1990)
247·329		·987	256·7					133
		·966	239·0					118
		·959	305·2					155
		·953	288·1					199
		·933	296·2					259
C		·917	260·8					97
		·886	281·3					138
		·867	244·1					107
	10369	·684	237·6	218·2	−15·7	38	195	
	10371	·361	184·0	183·0	−13·8	38	194	
	10372	·919	103·5	116·9	− 9·3	45	371	2282*s*
		·976	59·8					41
Sept. 5			(+22·0)	(181·5)	(+7·2)	(121)	(760)	(3529)
248·116		·962	262·7					67
		·946	298·6					144
		·942	245·9					98
K	10369	·788	242·7	217·8	−16·3	21	105	247*c*
	10371	·415	211·4	183·9	−13·7	31	149	
	10372	·837	106·2	116·8	− 9·3	54	392	1635*sf*
Sept. 6			(+22·2)	(171·1)	(+7·2)	(106)	(646)	(2191)
249·412		·960	272·6					32
		·938	236·5					154
		·846	250·5					210
	10369	·927	248·9	218·2	−16·4	32	115	527*c*
	10371	·598	234·9	184·1	−13·8	18	113	
G	10372	·649	114·3	117·3	− 9·7	58	380	
	10373	·938	70·3	83·3	+20·9	10	29	166*c*
		·852	114·3					622
		·960	99·4					111
Sept. 7			(+22·5)	(154·0)	(+7·2)	(118)	(637)	(1822)
250·354		·943	255·9					84
		·908	288·5					67
		·848	297·5					64
	10369	·979	251·5	216·8	−16·4	12	34	279*c*
G	10371	·748	244·8	185·4	−13·3	19	83	
	10372	·499	124·5	116·9	− 9·7	83	429	
	10374	·749	119·7	99·0	−16·4	5	24	212*f*

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
250·354	10373	·820	70·1	86·4	+20·4	4	8	99*f*
G		·915	100·6					172
		·970	75·9					101
Sept. 8			(+22·7)	(141·5)	(+7·3)	(123)	(578)	(1078)
251·371		·958	289·3					71
		·955	242·0					45
	10371	·880	250·9	186·5	−12·9	9	24	670*sf*
	10372	·341	147·1	117·3	− 9·4	60	329	
	10375	·476	129·9	106·4	−11·0	3	9	
G	10374	·601	130·2	99·6	−16·3	6	39	
	10376	·824	104·4	74·7	− 7·5	8	24	207*p*
	10377	·950	113·3	60·6	−19·4	0	14	99*c*
		·922	104·7					168
		·926	75·9					83
Sept. 9			(+22·9)	(128·1)	(+7·3)	(86)	(439)	(1343)
252·110		·919	249·9					539
	10372	·289	177·9	117·7	− 9·5	43	232	
	10375	·380	147·1	106·2	−11·5	0	9	
	10374	·492	142·5	100·2	−16·1	5	29	
K	10376	·710	107·5	75·5	− 7·0	21	83	
	10377	·883	116·7	61·7	−19·5	2	11	119*c*
		·863	107·1					225
		·956	103·9					77
		·957	111·4					221
Sept. 10			(+23·1)	(118·3)	(+7·2)	(71)	(364)	(1181)
253·415		·977	252·9					207
		·934	237·8					131
	989d	·875	292·3	162·4	+23·0	5	11	72*c*
	10378	·715	286·3	146·6	+16·6	11	45	
	10372	·395	223·4	117·0	− 9·7	52	229	
	10375	·341	196·3	106·7	−11·8	3	5	
G	10374	·397	179·9	101·0	−16·1	1	4	
	10376	·497	117·9	75·0	− 6·9	10	40	
	10379	·662	116·9	64·2	−11·7	7	34	
	10377	·731	124·7	61·8	−19·0	39	179	
		·910	114·3					156
		·927	59·5					90
		·943	78·9					653
Sept. 11			(+23·3)	(101·1)	(+7·2)	(128)	(547)	(1309)
254·350		·949	292·1					99
	10378	·842	285·1	146·6	+16·6	8	25	130*f*
G	10372	·547	240·1	117·4	− 9·5	46	267	

Group 10373. Sept. 7–8. One or two very small spots.
Group 10374. Sept. 8–12. A spot in considerable faculæ adjoining that belonging to Group 10372.
Group 10375. Sept. 9–11. A cluster of tiny spots situated between Groups 10372 and 10374.
Group 10376. Sept. 9–12. An unstable spot.
Group 10377. Sept. 9–20. A very large stream of normal type, showing rapid development from two or three tiny spots near the east limb on Sept. 9.
Group 10378. Sept. 11–12. A small evanescent group.
Group 10379. Sept. 11–20. A very large stream, *n* Group 10377, with which it is nearly synchronous in its development. By Sept. 17 the stream consists of a very large leader spot and a train or cluster of companions.
Group 10380. Sept. 12–22. A stream with the largest and most stable spot at the rear.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
254·350	*989c*	·445	268·1	115·2	+ 5·6	3	5	
	10374	·424	207·3	100·4	−15·0	3	8	
	10376	·347	134·3	74·4	− 6·9	11	61	
G	10379	·484	129·5	66·5	−11·2	23	98	
	10377	·591	135·7	63·1	−18·5	113	575	
	10380	·970	103·1	14·9	−10·8	18	55	236*c*
		·788	120·5					168
		·859	79·5					592
		·968	70·3					98
Sept. 12			(+23·5)	(88·8)	(+7·2)	(225)	(1094)	(1323)
255·583		·950	284·8					156
		·865	258·0					121
		·754	232·8					210
	10372	·740	250·6	117·3	− 9·1	33	188	269*sp*
	10379	·326	161·6	66·5	−10·8	76	407	
	10377	·467	158·3	62·1	−18·5	187	1045	
	10381	·415	37·2	56·3	+26·2	2	6	
C	10382	·654	127·2	39·6	−17·2	6	15	
	10383	·646	82·0	32·1	+10·7	1	6	
	10380	·877	106·9	14·0	−11·0	30	160	206*c*
	10384	·967	68·9	355·9	+22·1	52	278	349*c*
		·850	72·6					120
		·965	94·3					117
		·967	103·2					137
Sept. 13			(+23·8)	(72·5)	(+7·2)	(387)	(2105)	(1685)
256·376		·977	287·4					113
		·950	242·7					147
		·929	261·3					193
		·815	239·5					561
	10372	·847	254·5	117·5	− 9·0	33	206	667*s*
	10379	·325	197·5	67·7	−10·8	129	604	
	10377	·446	180·3	62·1	−19·2	219	1191	
C	10381	·352	15·7	55·9	+26·9	5	14	
	10382	·541	139·6	40·5	−17·5	5	13	
	10380	·788	110·5	13·4	−11·2	32	188	176*c*
	10384	·910	69·1	355·9	+21·9	37	289	500*nf*
		·886	118·9					106
		·925	93·9					264
		·949	106·0					424
		·978	75·5					155
Sept. 14			(+23·9)	(62·0)	(+7·2)	(460)	(2505)	(3306)
257·324		·936	244·6					465
		·902	236·9					132
C		·828	248·7					325
1927.			°	°	°			
257·324	10372	·939	257·6	117·5	− 9·0	39	203	847*s*
	10379	·455	226·3	69·0	−11·5	169	964	
	10377	·488	206·0	62·5	−18·9	211	1231	
	10381	·342	343·3	55·8	+26·2	2	6	
	10382	·439	164·9	42·6	−17·8	5	10	
C	10383	·300	70·3	32·7	+12·7	2	16	
	10380	·634	116·9	14·5	−10·8	26	151	
	10384	·819	67·5	354·8	+22·5	47	286	262*c*
	10385	·890	110·9	350·4	−14·8	4	14	382*nf*
	10386	·969	101·4	335·6	− 9·1	18	54	270*c*
		·867	95·3					265
		·937	76·1					118
Sept. 15			(+24·1)	(49·5)	(+7·2)	(523)	(2935)	(3066)
258·372		·971	238·1					146
		·907	292·4					39
		·887	249·7					284
	10372	·992	260·3	116·9	− 8·6	34	153	541*sf*
	989f	·962	284·9	110·9	+16·3	16	79	154*c*
	10379	·633	242·4	70·4	−11·1	161	1074	
	10377	·605	222·8	61·5	−19·7	193	1134	
	10382	·462	201·7	46·0	−18·2	5	15	
	10387	·370	192·4	40·4	−13·9	2	4	
	10380	·466	130·9	14·8	−11·0	15	54	
C	10384	·666	65·1	355·3	+21·8	28	220	
	10386	·882	104·2	336·0	− 8·9	14	67	93*c*
	10388	·960	105·7	324·5	−12·8	32	86	367*c*
		·770	107·5					69
		·779	117·4					79
		·864	75·9					186
		·924	122·8					108
		·937	63·7					100
Sept. 16			(+24·3)	(35·7)	(+7·2)	(500)	(2886)	(2166)
259·461		·973	254·0					394
		·962	245·4					223
		·893	291·6					119
	10379	·786	250·1	69·9	−10·8	202	1275	304*p*
	10377	·737	235·3	61·1	−19·3	192	1042	
	10382	·590	224·8	47·2	−18·2	3	7	
	10387	·493	221·1	40·8	−15·0	3	8	
	10380	·323	161·6	15·4	−10·6	14	45	
G	10384	·494	57·2	354·8	+21·9	41	221	
	10385	·626	124·7	349·3	−14·7	1	3	
	10386	·747	108·8	335·8	− 8·9	11	49	
	10388	·876	109·5	323·5	−13·2	28	176	395*c*
		·843	72·5					341
		·938	53·2					97
		·946	65·1					222
Sept. 17			(+24·4)	(21·3)	(+7·2)	(495)	(2826)	(2095)

Group 10381. Sept. 13–15. One or two small spots.
Group 10382. Sept. 13–17. A pair of very small spots of which the leader alone remains on Sept. 16.
Group 10383. Sept. 13–15. A faint spot not seen on Sept. 14.
Group 10384. Sept. 13–25. A regular spot, somewhat broken in appearance on Sept. 14 and 15. There are occasional tiny companions.
Group 10385. Sept. 15–17. One small spot, not seen on Sept. 16, marking the southern boundary of a fairly large patch of faculæ.
Group 10386. Sept. 15–22. A small regular spot dying away as a pair of dots. Possibly a return of Group 10363.
Group 10387. Sept. 16–17. A small spot.
Group 10388. Sept. 16–25. A decreasing regular spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position Long.	Position Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
260·425		·968	290·5					110
		·929	268·0					60
	10379	·901	253·8	70·3	−11·2	213	1380	437*c*
	10377	·856	242·0	61·7	−19·5	201	959	182*c*
	10380	·324	194·4	13·3	−11·1	6	29	
G	10384	·347	41·0	354·5	+22·0	50	244	
	10386	·592	115·8	336·1	− 8·9	9	31	
	10388	·761	114·0	323·2	−13·0	25	136	103*f*
		·895	98·6					92
		·898	63·6					152
Sept. 18			(+24·6)	(8·6)	(+7·1)	(504)	(2779)	(1136)
261·316		·842	298·3					77
		·774	241·8					113
	10379	·965	256·4	69·4	−11·1	194	1459	594*c*
	10377	·932	245·9	61·0	−19·3	123	964	347*c*
	10380	·419	223·9	13·9	−10·7	12	48	
	990a	·373	173·9	354·5	−14·5	2	14	
	10384	·264	9·9	354·0	+22·1	40	192	
	10386	·438	128·3	336·5	− 9·0	6	20	
C	10388	·633	120·9	323·1	−13·0	26	147	
		·948	73·2					153
		·953	121·3					126
		·961	108·5					312
Sept. 19			(+24·7)	(356·8)	(+7·1)	(403)	(2844)	(1722)
262·441		·942	297·7					91
		·888	245·9					210
	10379	·997	257·5	65·6	−11·8	55	214	305*c*
	10377	·988	249·1	59·6	−19·3	96	612	189*sf*
	10380	·602	241·4	14·3	−10·7	8	30	
	10384	·328	323·7	354·0	+22·2	45	210	
C	10386	·293	163·3	337·0	− 9·1	2	6	
	10388	·471	136·5	322·7	−13·2	24	145	
	10389	·448	78·7	315·4	+11·4	6	17	
	10390	·878	108·4	283·6	−12·4	4	27	505*sf*
	10391	·938	76·9	271·3	+14·7	6	31	307*c*
		·939	126·2					79
		·955	63·9					153
Sept. 20			(+24·9)	(341·9)	(+7·1)	(246)	(1292)	(1839)
263·313		·979	296·7					62
		·955	250·0					212
		·926	239·2					101
		·893	279·6					399

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
263·313		·775	286·2					90
	10380	·735	248·6	14·3	−10·4	3	15	223*nf*
	990b	·403	233·0	359·2	− 7·3	2	7	
C	10384	·463	306·6	354·0	+22·5	42	230	
	10388	·363	158·8	322·7	−12·7	28	133	
	10389	·243	72·0	316·8	+11·2	2	6	
	10390	·788	112·1	282·2	−12·5	7	36	280*sf*
	10391	·868	76·4	269·7	+15·3	11	35	275*c*
		·875	62·3					147
		·947	111·3					136
		·962	63·0					166
Sept. 21			(+25·0)	(330·4)	(+7·1)	(95)	(462)	(2091)
264·633		·958	282·3					519
	10380	·902	254·2	14·9	−11·0	5	10	455*c*
	10384	·674	295·9	353·8	+22·4	33	224	
	10386	·486	237·6	337·4	− 8·6	0	2	
	10392	·403	312·0	331·8	+22·3	12	37	
	10393	·453	217·2	329·4	−14·4	0	3	
	10388	·375	206·2	322·7	−12·7	19	102	
G	10394	·107	44·3	308·6	+11·4	1	8	
	10391	·618	74·6	275·1	+15·0	6	11	
	10395	·971	110·8	240·4	−18·2	45	308	395*f*
		·851	68·2					68
		·889	119·2					121
		·924	60·2					93
		·955	127·2					105
Sept. 22			(+25·2)	(313·0)	(+7·0)	(121)	(705)	(1756)
265·409		·963	256·1					410
		·942	289·2					165
		·870	247·7					159
		·831	262·1					90
		·731	255·1					164
	10384	·785	293·2	353·9	+22·5	43	186	
	10392	·531	301·6	331·9	+22·2	27	218	
G	10393	·588	233·2	331·8	−14·4	6	22	
	10388	·471	225·5	322·8	−12·6	10	73	
	10394	·143	303·3	309·8	+11·5	11	66	
	10396	·048	104·7	300·1	+ 6·3	1	5	
	10391	·517	72·1	271·9	+17·6	2	7	
	10395	·919	113·3	240·4	−18·1	37	310	310*c*
		·832	61·1					111
		·975	103·9					148
Sept. 23			(+25·3)	(302·8)	(+7·0)	(137)	(887)	(1557)
266·393		·915	279·0					105
		·892	252·0					308
G		·886	265·8					228

Group 10389. Sept. 20–21. A pair of small spots on Sept. 20; one only on Sept. 21.
Group 10390. Sept. 20–21. A small spot on Sept. 20, joined by a companion on the next day.
Group 10391. Sept. 20–25. Some very small unstable spots in stream formation.
Group 10392. Sept. 22–27. A short-lived stream showing rapid change.
Group 10393. Sept. 22–27. A variable stream appearing in front of Group 10388 when that group is disappearing.
Group 10394. Sept. 22–27. A small stream.
Group 10395. Sept. 22–Oct. 4. A regular spot with companions on and after Sept. 28; one of these is considerable on Oct. 2.
Group 10396. Sept. 23–27. A very small stream, only one spot being seen on Sept. 23, 26 and 27.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
266·393		·769	253·6					119
	10384	·894	291·6	353·6	+22·4	34	184	314*nf*
	10392	·680	295·2	331·2	+22·1	45	241	
	10393	·725	241·8	331·0	−14·8	29	135	
	10388	·618	239·8	322·8	−12·2	10	54	
	10394	·356	283·7	310·4	+11·4	14	71	
G	10396	·173	264·6	299·7	+ 6·0	7	23	
	10391	·387	66·6	268·3	+15·3	5	16	
	990c	·520	121·4	263·2	− 9·4	2	9	
	10395	·817	117·9	240·6	−17·9	40	273	258*nf*
		·947	110·9					242
		·959	73·0					59
Sept. 24			(+25·4)	(289·8)	(+7·0)	(186)	(1006)	(1633)
267·436		·961	253·3					326
		·947	268·6					200
		·923	236·7					86
		·907	298·8					132
		·904	281·9					99
		·890	256·9					166
	10384	·970	291·1	353·3	+22·1	44	208	330*nf*
	10393	·856	247·5	330·8	−15·1	63	250	} 424*c*
	10388	·763	247·9	322·1	−11·8	7	38	
G	10392	·815	291·9	330·3	+21·8	34	162	135*c*
	10394	·565	279·1	310·5	+10·9	12	43	
	10396	·405	269·3	299·9	+ 6·1	10	38	
	10391	·247	53·2	264·2	+15·3	1	6	
	10395	·685	125·9	240·5	−17·9	49	250	
		·805	115·9					211
		·817	73·1					62
		·926	115·0					293
		·941	74·1					131
		·984	101·5					123
Sept. 25			(+25·5)	(276·0)	(+7·0)	(220)	(995)	(2718)
268·343		·970	268·2					99
		·965	296·0					211
		·959	259·2					202
		·852	250·8					223
	10393	·933	250·8	329·7	−15·1	49	245	633*c*
	10392	·903	291·6	329·1	+22·4	16	93	374*c*
	10394	·723	278·4	310·6	+10·8	9	31	
	10396	·615	271·8	301·2	+ 6·5	4	6	
G	10395	·564	137·2	240·4	−18·1	50	252	
	10397	·711	70·9	219·2	+18·4	6	24	
	10398	·973	126·8	195·3	−33·4	9	19	232*f*
		·854	119·4					234
		·867	74·2					130
		·957	59·7					77
		·958	104·4					463
Sept. 26			(+25·6)	(264·1)	(+6·9)	(143)	(670)	(2878)
1927.			°	°	°			
269·415		·952	253·8					180
		·848	253·7					88
		·831	298·8					189
	10392	·972	291·5	327·8	+22·5	15	38	235*c*
	10393	·985	251·3	327·0	−17·0	37	118	440*nf*
	10394	·881	279·1	312·2	+11·2	9	26	176*c*
	10396	·791	273·1	302·4	+ 6·7	3	7	124*c*
	10399	·829	238·2	298·9	−21·3	4	16	77*c*
G	10395	·455	158·5	239·8	−18·2	40	246	
	10397	·509	66·1	220·7	+17·9	5	10	
	990d	·703	125·5	212·9	−18·5	6	22	
	10398	·922	130·7	193·3	−33·3	5	12	389*f*
	10400	·878	105·9	191·0	−10·4	7	14	357*c*
		·924	110·5					302
		·956	99·9					82
Sept. 27			(+25·7)	(249·9)	(+6·9)	(131)	(509)	(2639)
270·385		·949	290·4					140
		·947	279·7					223
		·913	261·4					136
		·896	304·2					305
		·878	273·4					167
		·835	225·2					131
		·790	241·0					235
G	10399	·910	242·6	297·1	−21·4	2	8	105*p*
	10395	·426	186·0	239·8	−18·2	44	270	
	10397	·333	53·2	220·9	+18·0	4	8	
	10400	·743	112·5	192·8	−11·6	8	59	149*c*
	10398	·852	136·4	192·6	−33·3	2	4	290*f*
		·856	115·4					155
		·956	77·0					55
Sept. 28			(+25·8)	(237·1)	(+6·8)	(60)	(349)	(2091)
271·364		·985	246·5					155
		·971	296·6					135
		·965	305·9					103
		·958	276·3					206
		·908	230·1					130
		·890	246·2					359
C	10395	·492	210·8	239·5	−18·4	40	257	
	10397	·204	16·4	220·7	+18·0	2	6	
	990c	·400	53·9	203·7	+20·2	4	20	
	10398	·776	144·3	191·5	−33·3	2	7	237*f*
		·889	77·2					99
		·957	65·7					82
Sept. 29			(+25·9)	(224·2)	(+6·8)	(48)	(290)	(1506)

Group 10397. Sept. 20–29. A tiny stream on Sept. 26 of which the leader survives on the following days.
Group 10398. Sept. 26–29. A small spot followed by faculæ in high southern latitude.
Group 10399. Sept. 27–28. A very small group.
Group 10400. Sept. 27–30. Two or three small unstable spots not seen on Sept. 29.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
272·358		·952	252·0					325,
		·952	232·2					79
		·853	298·3					127
		·823	285·4					227
	10395	·612	227·8	239·5	−18·3	51	234	
G	10400	·398	142·0	196·7	−11·7	2	17	
	10401	·803	68·4	158·1	+21·3	7	18	143*f*
		·762	150·2					146
		·974	102·0					204
Sept. 30			(+26·0)	(211·1)	(+6·7)	(60)	(269)	(1251)
273·313		·959	249·3					122
		·933	285·5					257
		·914	297·9					182
	10395	·737	237·5	239·2	−18·2	45	256	
C	10401	·647	63·9	159·9	+21·8	1	6	
	10402	·978	100·3	122·1	− 8·6	21	56	222*f*
	10403	·981	74·3	118·6	+16·6	5	38	168*c*
		·933	108·3					225
Oct. 1			(+26·1)	(198·5)	(+6·7)	(72)	(356)	(1176)
274·110		·963	257·4					75
		·959	285·1					115
		·945	298·1					62
	10395	·839	243·0	239·6	−18·2	56	320	503
K	10402	·927	102·7	121·8	− 9·1	11	77	218*f*
	10403	·930	74·7	118·8	+16·6	11	55	225*f*
	10404	·998	74·9	100·5	+15·4	29	184	
		·864	112·4					226
		·953	114·5					303
Oct. 2			(+26·1)	(187·9)	(+6·7)	(107)	(636)	(1727)
275·388		·769	244·4					122
	10395	·955	248·0	240·1	−18·7	37	304	522*f*
	10405	·121	312·4	176·3	+11·2	2	18	
	10402	·783	107·2	122·1	− 9·0	14	66	134*f*
	10403	·788	74·3	119·1	+16·4	3	7	132*f*
G	10404	·941	74·9	100·1	+16·4	52	298	248*c*
		·852	121·8					360
		·930	106·1					296
		·936	118·3					203
Oct. 3			(+26·2)	(171·1)	(+6·6)	(108)	(693)	(2017)
1927.			°	°	°			
276·394		·960	298·8					70
		·871	245·6					185
		·868	288·4					112
	10395	·997	250·6	240·6	−18·7	55	378	320*f*
	990f	·916	280·8	224·7	+12·5	2	5	68*f*
	10405	·342	282·8	177·5	+10·4	14	53	
G	10401	·273	354·1	159·5	+22·2	2	7	
	10402	·632	113·2	121·9	− 9·1	12	63	
	10404	·865	73·5	97·7	+17·5	68	390	243*c*
	10406	·996	102·0	74·6	−11·2	48	176	262*p*
		·844	110·4					290
		·865	125·2					375
		·947	115·3					154
Oct. 4			(+26·2)	(157·8)	(+6·5)	(201)	(1072)	(2079)
277·433		·982	281·5					70
		·951	245·7					214
		·934	287·3					68
		·829	215·5					143
		·816	249·3					134
	10405	·557	278·4	178·0	+10·1	11	35	
G	10401	·371	317·6	159·7	+22·1	7	35	
	10402	·456	124·5	121·8	− 8·9	10	58	
	10404	·750	71·3	95·9	+18·2	69	432	
	10406	·958	103·7	72·8	−11·1	69	337	383*c*
	10407	·993	108·8	63·6	−17·7	53	326	439*c*
		·863	118·3					121
Oct. 5			(+26·3)	(144·1)	(+6·5)	(219)	(1223)	(1572)
278·464		·926	252·9					233
		·920	288·9					117
		·892	224·1					240
	10405	·746	276·5	178·9	+ 9·1	7	17	
	10401	·538	302·3	159·8	+22·3	2	13	
	10402	·301	150·8	122·0	− 8·9	9	41	
G	*990g*	·468	159·2	120·4	−19·5	1	4	
	10404	·596	66·9	95·3	+18·8	71	373	
	10406	·864	107·1	73·4	−11·2	61	382	589*c*
	10407	·942	111·7	63·8	−17·9	53	287	416*c*
		·989	80·0					72
Oct. 6			(+26·3)	(130·5)	(+6·4)	(204)	(1117)	(1667)

Group 10401. Sept. 30–Oct. 6. Intermittent. A very small group not seen on Oct. 2 and 3.
Group 10402. Oct. 1–10. Return of Group 10372. Third appearance. A small regular spot disappearing as a close pair of dots. On Oct. 7, Group 10408 develops closely preceding it.
Group 10403. Oct. 1–3. A single short-lived spot.
Group 10404. Oct. 2–15. A stream undergoing much change. The leader is at first a regular spot but divides into a cluster. The follower becomes increasingly composite in character and also divides, lengthening out into a stream of unstable spots.
Group 10405. Oct. 3–8. A small group.
Group 10406. Oct. 4–15. Return of Group 10379. A spot, somewhat complex in structure, which splits up into a cluster on Oct. 9 and so disappears. Meanwhile, another cluster appears in front and develops rapidly into a regular spot with a larger composite companion. This revival of activity soon diminishes, after a brief maximum about Oct. 10.
Group 10407. Oct. 5–17. Return of Group 10377. A spot with double umbra which has separated into two distinct parts by Oct. 9. The larger and southern portion continues as a regular spot, whilst the other part speedily diminishes.
Group 10408. Oct. 7–11. A small stream appearing in front of Group 10402.
Group 10409. Oct. 7–8. A faint spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
279·627		·952	253·2					126
		·947	229·7					205
	10405	·874	278·9	176·4	+10·9	9	18	79c
	10408	·334	220·5	127·7	− 8·4	12	28	
	10402	·285	203·9	121·8	− 8·7	7	25	
	10409	·350	157·5	107·3	−12·4	2	11	
G	10404	·407	56·9	94·1	+18·8	66	365	
	10406	·712	113·2	73·4	−11·5	53	312	
	10407	·837	117·0	63·5	−18·4	39	306	269c
	10410	·934	80·5	45·5	+11·1	6	12	182s
	10411	·968	74·1	38·6	+16·9	8	25	291c
		·941	120·6					340
Oct. 7			(+26·3)	(115·1)	(+6·4)	(202)	(1102)	(1492)
280·403		·973	229·2					143
		·965	295·5					62
		·796	293·0					91
	10405	·939	280·2	175·3	+11·7	6	13	175c
	10408	·474	230·0	129·0	− 8·3	21	81	
	10402	·386	228·2	121·8	− 8·9	7	24	
	990h	·263	194·4	108·7	− 8·4	2	4	
	10409	·319	185·8	106·8	−12·1	2	5	
G	10404	·282	38·6	94·2	+18·8	55	407	
	10406	·580	122·0	74·8	−12·4	70	363	
	10407	·750	121·7	62·8	−18·5	30	280	285f
	10410	·858	80·4	45·4	+11·5	2	4	171c
	10411	·910	73·9	39·0	+17·1	11	32	243c
		·893	124·6					354
		·946	114·8					163
		·964	74·4					124
		·973	100·6					245
Oct. 8			(+26·4)	(104·9)	(+6·3)	(206)	(1213)	(2056)
281·424		·962	282·2					88
		·929	291·8					83
	10408	·666	249·8	130·4	− 8·4	15	62	
	10402	·560	243·6	121·8	− 9·0	5	16	
	990i	·321	212·6	101·5	− 9·4	1	2	
	10404	·217	348·0	94·1	+18·5	36	309	
	10406	·414	141·4	76·1	−12·7	83	524	
G	10407	·618	132·2	62·6	−19·0	37	245	
	10411	·799	72·6	38·5	+17·6	7	20	170c
	10412	·957	102·4	20·1	− 9·9	12	53	559c
		·805	130·5					145
		·888	119·6					67
		·919	73·4					200
Oct. 9			(+26·4)	(91·4)	(+6·3)	(196)	(1231)	(1312)
282·435		·961	292·4					99
		·890	281·6					73
G		·857	245·9					149

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
282·435		·740	238·1					151
	10408	·828	255·4	132·0	− 8·4	24	85	149c
	10402	·725	251·2	121·9	− 9·0	5	8	
	990j	·643	219·2	104·5	−24·3	1	3	
	10404	·319	315·0	91·8	+19·0	49	291	
	10406	·326	176·8	77·0	−12·7	94	553	
G	*990k*	·409	174·6	75·8	−17·7	2	10	
	10413	·335	152·7	69·1	−11·1	2	14	
	10407	·503	148·5	62·0	−19·4	31	211	
	10414	·675	134·0	46·5	−22·6	6	18	
	10411	·654	69·1	38·2	+18·2	3	9	
	10412	·854	104·9	21·6	− 9·3	50	219	373c
	10415	·997	68·8	351·2	+21·5	55	134	
		·904	69·9					90
		·961	89·3					138
		·969	105·4					133
Oct. 10			(+26·4)	(78·1)	(+6·2)	(322)	(1555)	(1355)
283·510		·947	249·1					222
		·858	243·8					383
		·821	230·6					151
		·812	284·4					85
	10408	·948	258·9	133·8	− 8·5	14	56	303f
	10404	·501	298·0	91·7	+19·0	36	211	
	10406	·383	215·1	76·9	−12·2	60	351	
	10416	·272	212·4	72·3	− 7·2	1	2	
	10413	·314	197·6	69·4	−11·2	0	10	
G	*990l*	·247	196·1	67·8	− 7·6	0	1	
	10407	·437	174·6	61·4	−19·6	25	169	
	10414	·575	146·7	43·9	−22·0	2	4	
	10412	·685	109·9	23·4	− 8·8	54	275	
	10415	·954	69·6	350·7	+21·2	33	134	284nf
		·901	95·2					183
		·912	83·8					188
		·931	108·7					420
		·986	100·9					164
Oct. 11			(+26·4)	(63·9)	(+6·1)	(225)	(1213)	(2383)
284·344		·960	259·4					260
		·939	244·7					328
		·922	284·8					111
		·915	215·9					139
		·868	234·6					130
		·846	250·5					131
	10404	·644	293·2	91·6	+19·4	20	100	
C	10406	·509	233·4	77·5	−12·1	30	224	

Group 10410. Oct. 7–13. Intermittent. A very small spot seen only on Oct. 7, 8 and 13.
Group 10411. Oct. 7–10. A wide pair of small spots.
Group 10412. Oct. 9–19. An irregular stream, developing from a few small spots near the east limb on Oct. 9, in a disturbed region marked already by bright faculæ. On Oct. 11 a large spot is forming as the leader; on Oct. 12 this is dividing into two of which the leading spot becomes nearly circular. None of the other components, which are numerous on some days, are large or stable.
Group 10413. Oct. 10–12. A cluster of tiny spots. *f* Group 10406.
Group 10414. Oct. 10–11. A tiny ephemeral stream.
Group 10415. Oct. 10–23. Return of Group 10384. A regular spot slowly diminishing.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
284·344	10416	·415	236·4	73·2	− 7·5	2	17	
	10413	·413	220·2	68·7	−12·4	2	12	
	10407	·452	197·7	61·2	−19·3	23	134	
	10412	·539	116·8	23·9	− 8·7	37	417	
C	10415	·884	69·2	350·8	+21·2	21	124	223*n*
		·787	109·6					92
		·879	84·0					72
		·885	94·6					93
		·888	105·8					94
		·948	78·5					74
		·969	104·1					269
Oct. 12			(+26·4)	(52·9)	(+6·1)	(135)	(1028)	(2016)
285·492		·969	287·4					107
		·959	254·1					284
		·958	241·0					243
		·884	247·4					120
		·869	234·0					113
	10404	·813	289·6	91·8	+19·3	11	52	263*c*
	10406	·688	245·0	77·3	−12·2	30	237	
	10407	·562	220·5	60·5	−19·6	23	130	
	10410	·170	306·3	45·8	+11·7	1	5	
C	10412	·342	139·4	24·8	− 9·1	56	343	
	10415	·747	67·3	350·5	+20·9	39	150	170*f*
		·847	110·6					222
		·919	56·8					123
		·945	123·4					72
		·952	66·9					87
		·955	111·7					305
		·957	75·8					139
		·970	101·4					131
		·984	82·8					90
Oct. 13			(+26·4)	(37·8)	(+6·0)	(160)	(917)	(2469)
286·507		·969	252·1					374
		·935	240·6					185
		·933	265·1					67
		·909	257·0					137
	10404	·928	287·6	93·0	+18·5	15	106	742*c*
	10406	·850	251·4	79·8	−12·4	33	229	785*c*
	10407	·699	233·2	60·8	−19·9	34	158	
G	10412	·261	183·0	25·2	− 9·1	41	291	
	10417	·571	136·0	359·7	−18·8	5	16	
	10415	·593	62·4	350·3	+20·8	22	143	
	990m	·923	82·5	316·7	+ 9·2	0	5	216*nf*
		·853	77·6					59
		·883	116·4					364

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
286·507		·921	104·2					163
G		·939	66·4					63
Oct. 14			(+26·4)	(24·4)	(+5·9)	(150)	(948)	(3155)
287·440		·960	241·2					136
		·926	274·8					115
	10404	·985	287·9	93·3	+18·6	25	113	474*c*
	10406	·946	254·7	81·0	−12·4	30	161	1404*f*
	10407	·815	240·1	60·7	−20·1	27	140	477*c*
	990n	·604	258·5	48·3	− 2·2	3	8	
	10412	·339	221·5	25·2	− 9·0	40	249	
G	10417	·473	154·7	359·8	−19·6	4	6	
	10415	·438	52·9	350·3	+20·7	27	141	
		·824	106·9					81
		·842	81·1					122
		·951	57·3					229
		·954	109·3					144
		·967	36·7					21
Oct. 15			(+26·3)	(12·1)	(+5·8)	(156)	(818)	(3203)
288·367		·962	256·1					742
		·836	232·1					167
	10407	·906	244·7	60·3	−20·0	15	124	333*c*
	10412	·498	240·5	25·8	− 8·9	31	175	
C	10415	·307	30·6	350·3	+21·0	29	138	
	10418	·990	97·7	279·1	− 6·7	14	58	207*c*
		·886	56·8					111
		·954	110·5					161
Oct. 16			(+26·3)	(359·9)	(+5·8)	(89)	(495)	(1721)
289·403		·971	261·9					90
		·920	236·3					375
		·854	282·1					252
	10407	·976	247·7	60·2	−20·2	25	110	368*c*
	10412	·674	249·0	25·7	− 9·6	43	212	
	10415	·272	346·6	350·1	+21·0	22	142	
	991a	·757	124·1	304·2	−20·9	5	14	
G	10418	·934	99·3	278·4	− 6·5	6	21	} 451*c*
	10419	·944	103·1	277·3	−10·4	33	140	
		·904	111·8					269
		·926	123·5					145
		·947	72·7					256
Oct. 17			(+26·3)	(346·2)	(+5·7)	(134)	(639)	(2206)
290·443		·966	278·5					160
		·942	240·3					351
G		·889	285·8					329

Group 10416. Oct. 11–12. A very small outlying group to No. 10406.
Group 10417. Oct. 14–15. A very small but definite spot with faint companions on Oct. 14.
Group 10418. Oct. 16–22. A small definite spot, *n* Group 10419 in the same patch of faculæ.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
290·443	10412	·825	254·7	26·0	− 9·3	32	155	804*c*
	10415	·390	314·4	349·8	+21·1	23	144	
	10418	·823	102·0	278·6	− 6·5	13	28	}448*c*
G	10419	·834	106·3	278·3	−10·3	·40	263	
	10420	·934	79·1	263·0	+12·1	0	12	209*f*
		·856	69·2					132
		·860	126·1					103
		·861	115·8					104
		·933	58·8					127
Oct. 18			(+26·2)	(332·5)	(+5·6)	(108)	(602)	(2767)
291·480		·972	244·2					138
		·916	285·0					284
	10412	·922	257·8	24·4	− 9·0	29	131	974*c*
	991b	·671	275·4	1·0	+ 7·7	3	6	
	10415	·561	300·1	350·0	+21·0	33	143	
	991c	·580	183·6	343·5	−29·7	5	13	
G	10418	·669	106·1	278·7	− 6·5	6	16	
	10419	·692	111·4	278·0	−10·4	25	232	
	10420	·828	78·8	262·8	+12·4	4	8	152*f*
	10421	·995	109·8	237·2	−19·0	62	273	282*c*
		·903	57·8					152
		·951	80·0					112
Oct. 19			(+26·2)	(318·8)	(+5·5)	(167)	(822)	(2094)
292·547		·969	256·3					372
		·951	287·8					77
		·853	247·5					167
		·843	265·3					118
	10415	·727	293·3	350·0	+20·5	23	110	
G	10418	·472	114·9	279·3	− 6·5	7	17	
	10419	·538	119·1	276·3	−10·4	49	209	
	10421	·945	111·9	237·2	−18·6	27	262	453*c*
		·894	80·1					69
		·959	119·5					230
Oct. 20			(+26·1)	(304·7)	(+5·4)	(106)	(598)	(1486)
293·413		·907	251·2					130
		·906	272·8					71
		·798	270·0					82
		·785	249·8					102
	10415	·841	291·0	350·0	+20·5	17	109	101*f*
G	10422	·704	218·3	323·0	−28·8	18	67	
	10423	·254	225·8	303·8	− 4·9	18	70	
	10418	·309	132·2	280·0	− 6·7	5	12	

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
293·413	10419	·393	133·6	276·6	−10·5	44	157	
G	10421	·870	115·4	237·3	−18·9	37	327	369*f*
		·907	122·8					254
Oct. 21			(+26·0)	(293·3)	(+5·4)	(139)	(742)	(1109)
294·311		·964	251·2					272
		·957	280·1					111
		·951	267·7					166
		·891	252·4					223
	10415	·929	290·0	349·9	+20·5	15	87	134*f*
	10424	·731	252·2	326·0	− 9·1	1	7	
C	10422	·793	226·6	322·4	−28·9	7	32	
	10423	·423	246·6	304·2	− 4·8	34	163	
	10418	·202	175·8	280·5	− 6·3	1	5	
	10419	·282	167·2	277·8	−10·6	42	157	
	10421	·767	119·8	237·0	−18·5	25	327	275*f*
		·828	125·9					119
		·956	114·4					144
Oct. 22			(+26·0)	(281·4)	(+5·3)	(125)	(778)	(1444)
295·417		·972	265·9					125
		·953	252·1					346
		·911	241·8					72
		·907	301·3					81
		·887	233·1					162
	10415	·989	289·9	349·4	+20·4	30	197	202*f*
C	10424	·857	254·6	323·8	−10·3	36	125	74*c*
	10423	·647	256·6	305·9	− 4·6	82	384	
	10419	·341	215·9	278·6	−10·9	19	123	
	10421	·621	129·3	236·5	−18·6	42	268	
		·871	121·8					316
		·921	107·8					178
Oct. 23			(+25·9)	(266·9)	(+5·2)	(209)	(1097)	(1556)
296·395		·964	246·6					130
		·962	292·5					111
		·957	237·0					105
		·869	284·4					99
	10424	·947	256·3	323·5	−11·2	48	203	259*c*
	10423	·792	259·7	305·3	− 4·9	97	584	123*c*
G	10419	·501	237·4	279·4	−11·0	25	85	
	991d	·379	193·9	259·4	−16·4	10	24	
	10421	·494	144·4	236·4	−18·7	35	321	

Group 10419. Oct. 17–28. A stream of smallish spots of which the leader is the most stable.
Group 10420. Oct. 18–19. One small spot followed by a patch of faculæ.
Group 10421. Oct. 19–31. Return of Group 10395. A regular spot developing a double umbra on Oct. 24 and splitting completely into two within the following three days.
Group 10422. Oct. 21–22. A pair of smallish spots.
Group 10423. Oct. 21–26. A stream which grows quickly and is led by a regular spot.
Group 10424. Oct. 22–25. A small stream in which the follower is the largest spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
296·395		·827	113·0					113
G		·952	77·0					219
		·956	110·6					148
Oct. 24			(+25·8)	(254·0)	(+5·1)	(215)	(1217)	(1307)
297·314		·933	245·9					66
		·892	278·5					72
		·865	303·9					118
	10424	·992	257·7	323·2	−11·5	15	84	249*c*
	10423	·916	261·9	307·3	− 5·3	64	519	396*c*
C	10419	·649	246·5	279·1	−11·0	22	98	
	10421	·414	166·8	236·2	−18·7	33	276	
	10425	·966	68·0	166·3	+22·5	8	49	402*c*
		·717	115·1					92
		·863	78·3					208
		·895	111·1					124
Oct. 25			(+25·7)	(241·9)	(+5·0)	(142)	(1026)	(1727)
298·342		·968	278·8					76
		·889	241·6					105
	10423	·989	263·9	308·9	− 5·2	56	252	198*c*
C	10419	·809	252·6	280·0	−11·0	13	48	
	10421	·417	198·4	236·2	−18·4	26	241	
	10425	·891	67·0	165·8	+22·6	10	31	395*f*
		·948	100·4					74
Oct. 26			(+25·6)	(228·3)	(+4·9)	(105)	(572)	(848)
299·346		·953	240·8					158
		·825	290·0					110
	10419	·917	255·4	279·7	−11·3	11	30	303*f*
	10421	·518	220·6	235·8	−18·5	21	151	
C	10425	·778	64·8	165·7	+22·5	3	13	286*c*
		·858	102·0					87
		·953	71·5					168
		·966	99·4					89
Oct. 27			(+25·4)	(215·1)	(+4·8)	(35)	(194)	(1201)
300·325		·970	265·5					79
		·963	246·5					119
		·903	286·9					153
		·876	247·9					115
	10419	·981	257·5	279·5	−11·2	5	23	375*f*
C	10421	·653	234·4	236·0	−18·4	17	105	
	10425	·603	60·1	168·1	+21·3	1	6	
		·823	70·3					85
		·919	104·4					257
		·971	72·1					80
Oct. 28			(+25·3)	(202·1)	(+4·7)	(23)	(134)	(1263)
1927.			°	°	°			
301·399		·965	286·8					158
		·908	299·8					151
		·873	249·8					108
		·823	230·0					203
	991e	·982	251·4	264·7	−17·2	5	23	93*f*
	10421	·792	242·0	235·7	−18·7	21	75	203*f*
	991f	·508	206·4	202·1	−22·5	3	5	
G	10426	·350	179·4	187·8	−15·8	2	6	
	10427	·996	73·4	101·9	+17·0	21	138	165*p*
		·827	105·5					171
		·851	115·8					94
		·925	70·8					148
		·943	103·0					147
		·951	115·8					253
Oct. 29			(+25·2)	(188·0)	(+4·6)	(52)	(247)	(1894)
302·577		·956	252·9					166
		·940	300·9					128
		·920	236·8					194
	10421	·917	247·2	235·4	−18·8	11	27	219*f*
	10426	·413	216·2	187·0	−15·0	10	29	
	10428	·196	307·2	181·5	+11·2	2	9	
G	10429	·226	328·6	179·4	+15·5	4	18	
	10427	·942	74·0	101·8	+16·6	26	188	409*nf*
	10430	·994	72·6	87·7	+17·8	40	281	341*nf*
		·824	105·6					87
		·856	120·8					170
		·929	106·2					147
		·942	119·6					178
Oct. 30			(+25·0)	(172·4)	(+4·5)	(93)	(552)	(2039)
303·526		·958	240·4					189
		·858	244·0					203
	10421	·976	250·3	234·9	−18·1	9	29	296*f*
	10426	·550	233·7	187·1	−15·0	20	51	
	10428	·389	288·4	181·4	+11·1	10	43	
	10429	·385	303·8	178·9	+16·5	18	76	
G	10425	·308	342·7	165·5	+21·4	2	12	
	991g	·422	38·0	143·5	+23·6	2	5	
	10427	·844	73·3	102·7	+16·4	19	155	574*nf*
	10430	·948	72·6	88·2	+17·9	48	191	519*nf*
		·858	124·8					395
		·886	112·0					216
		·951	101·4					299
Oct. 31			(+24·8)	(159·9)	(+4·4)	(128)	(562)	(2691)
304·430		·988	250·9					69
		·970	281·2					44
		·944	242·7					83
G		·836	249·5					76

Group 10425. Oct. 25–31. A spot which has faded by Oct. 29; on Oct. 31 faint markings are seen near its place.
Group 10426. Oct. 29–Nov. 2. A small stream.
Group 10427. Oct. 29–Nov. 7. With Group 10430, a return of Group 10404. A spot rapidly diminishing; small companions appear after Nov. 3.
Group 10428. Oct. 30–Nov. 4. A small stream synchronous in its development with that of the adjacent Group 10429.
Group 10429. Oct. 30–Nov. 4. A small stream.
Group 10430. Oct. 30–Nov. 8. With Group 10427, a return of Group 10404. A spot, with double umbra, diminishing rapidly after Nov. 5. Tiny companions appear on and after Nov. 5.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
304·430	10426	·683	242·3	186·6	−15·1	8	39	
	10428	·566	284·1	181·9	+11·5	19	56	
G	10429	·523	296·9	177·1	+17·4	17	38	
	10427	·717	71·4	103·1	+16·2	13	56	
	10431	·762	108·3	100·7	−10·8	14	33	64*c*
	10430	·867	71·9	88·3	+17·8	22	194	367*p*
		·817	129·3					110
		·901	105·5					238
		·974	113·4					119
Nov. 1			(+24·7)	(148·0)	(+4·3)	(93)	(416)	(1170)
305·339		·954	239·7					134
		·930	252·9					159
	10426	·787	247·7	184·6	−14·6	3	7	75*p*
	10428	·733	281·7	182·9	+11·4	9	36	
	10429	·684	290·5	177·9	+17·0	9	27	
	10427	·563	67·1	103·5	+16·2	5	13	
C	10431	·620	114·0	100·9	−11·1	17	47	
	10430	·750	70·3	88·4	+17·5	20	168	163*n*
		·808	107·5					163
		·928	104·0					286
		·934	116·5					243
		·981	81·0					55
Nov. 2			(+24·5)	(136·0)	(+4·2)	(63)	(298)	(1278)
306·332		·979	255·1					130
		·908	252·2					113
	10428	·857	281·4	181·8	+11·9	4	9	88*p*
	10429	·829	286·8	178·4	+16·1	4	5	71*c*
	10427	·382	55·7	103·8	+16·3	2	7	
	10431	·457	124·8	100·5	−11·2	10	36	
C	10430	·597	65·6	88·3	+17·6	32	141	
		·803	107·0					85
		·805	121·6					81
		·907	119·3					151
		·927	108·2					146
		·929	80·6					138
		·963	71·8					117
Nov. 3			(+24·4)	(122·9)	(+4·1)	(52)	(198)	(1120)
307·397		·973	253·2					83
		·877	222·2					124
		·820	295·8					277
G	10428	·957	280·8	182·2	+11·5	3	12	144*c*
	10429	·933	285·6	177·8	+16·0	0	5	186*n*
	10427	·224	19·2	104·5	+16·1	7	28	
	10431	·311	147·2	99·1	−11·2	5	7	

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
307·397	10430	·413	55·0	88·2	+17·4	19	106	
		·791	111·6					110
		·801	123·3					214
G		·804	80·2					70
		·915	72·8					122
		·939	120·0					204
		·957	104·2					335
Nov. 4			(+24·2)	(108·9)	(+4·0)	(34)	(158)	(1869)
308·398		·982	286·2					181
		·966	228·0					125
		·908	294·6					349
		·897	223·8					111
	10432	·671	299·2	134·7	+22·1	29	84	
	10427	·266	326·2	104·5	+16·6	7	32	
G	10430	·269	26·2	88·6	+17·8	16	106	
		·810	124·4					177
		·892	105·6					482
		·894	69·2					231
		·940	121·7					153
		·964	104·3					405
Nov. 5			(+24·0)	(95·7)	(+3·9)	(52)	(222)	(2214)
309·371		·965	293·4					329
		·859	256·5					135
	10432	·806	294·5	134·9	+21·8	13	79	06*c*
	10427	·413	302·1	104·2	+16·1	7	28	
	10430	·258	340·6	88·0	+17·8	16	58	
C	10433	·867	103·6	24·3	− 9·8	13	34	386*sf*
		·758	110·3					220
		·909	69·2					102
		·954	91·5					71
		·970	82·2					129
		·981	107·2					98
Nov. 6			(+23·8)	(82·9)	(+3·8)	(49)	(199)	(1576)
310·342		·923	262·6					179
		·908	250·8					177
		·814	237·8					132
	10432	·913	292·0	135·4	+21·6	5	23	139*c*
	10427	·599	292·2	105·2	+16·1	2	8	
	991h	·550	302·8	99·6	+20·5	2	4	
C	10430	·390	310·2	88·3	+18·0	6	17	
	991i	·604	116·0	36·5	−12·2	1	3	
	10433	·744	106·8	24·0	− 9·8	10	27	146*f*
		·884	83·4					102
		·915	94·3					111
		·947	107·6					182
		·963	84·6					137
Nov. 7			(+23·6)	(70·1)	(+3·7)	(26)	(82)	(1305)

Group 10431. Nov. 1–4. A pair of spots.
Group 10432. Nov. 5–7. A small evanescent group.
Group 10433. Nov. 6–16. A very big group (visible to the naked eye) growing from two or three tiny spots on Nov. 6–7 in a patch of bright faculæ belonging to Group 10412 of the previous rotation. Between Nov. 8 and 10 there is a great increase and, after a brief maximum, a rapid decrease follows. On Nov. 11 the group consists of a very large composite spot followed closely by another of about half the size. These change and then break up within a few days.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
311·331		·967	292·0					131
		·954	258·4					148
		·896	239·4					156
		·888	284·5					69
		·844	252·4					124
		·805	231·4					117
C	10430	·560	297·8	88·3	+18·2	1	4	
	10433	·537	112·1	26·9	− 8·5	17	91	
		·880	112·2					111
		·884	78·8					86
		·888	91·8					87
		·942	67·0					141
		·948	104·6					166
Nov. 8			(+23·4)	(57·0)	(+3·6)	(18)	(95)	(1336)
312·554		·962	242·3					223
		·936	254·5					186
		·888	233·0					150
		·872	290·9					324
		·753	246·8					236
		·741	301·3					92
	10434	·535	243·5	69·9	−10·7	12	45	
	10433	·291	136·1	29·2	− 8·6	73	472	
C.	10435	·543	81·3	8·3	+ 7·7	4	12	
	10436	·845	105·3	345·0	−10·9	8	20	84*c*
	10437	·956	75·0	327·9	+15·4	15	29	182*f*
	10438	·989	96·4	320·1	− 5·8	56	331	161*p*
		·842	65·9					128
		·852	112·3					143
		·955	112·0					113
		·957	102·7					153
Nov. 9			(+23·1)	(40·9)	(+3·5)	(168)	(909)	(2175)
313·354		·957	253·1					119
		·945	235·5					133
		·935	291·4					382
		·856	250·7					123
		·796	296·3					94
	10434	·703	251·1	72·8	−10·7	5	23	
	10433	·214	169·9	28·2	− 8·7	142	1104	
G	10435	·389	78·2	7·9	+ 7·7	7	22	
	10436	·729	109·3	346·0	−11·5	3	7	
	10437	·898	74·9	326·8	+15·0	10	27	84*f*
	10438	·960	97·1	317·4	− 5·8	75	510	246*c*
	10439	·969	84·8	314·7	+ 5·9	22	52	200*nf*
		·875	104·3					68
		·978	111·5					129
Nov. 10			(+22·9)	(30·4)	(+3·4)	(264)	(1745)	(1578)
1927.			°	°	°			
314·442		·949	252·3					234
		·928	294·1					509
		·908	264·3					135
		·874	240·5					190
	10434	·828	253·9	70·0	−11·4	4	16	273*p*
	10433	·303	226·3	28·7	− 8·8	185	1343	
G	10435	·148	53·7	9·1	+ 8·3	7	22	
	10436	·545	116·3	346·3	−11·1	8	21	
	10438	·852	98·8	318·4	− 5·7	67	481	771*c*
	10439	·904	82·9	311·3	+ 7·8	41	158	} 490*c*
	10440	·954	83·5	303·5	+ 7·2	15	39	
	10441	·982	111·5	299·2	−20·4	5	23	290*p*
		·764	72·1					118
		·928	113·1					394
Nov. 11			(+22·7)	(16·0)	(+3·3)	(332)	(2103)	(3404)
315·428		·958	293·4					120
		·930	267·2					113
		·918	241·5					218
	10434	·938	256·6	71·3	−11·4	6	13	289*c*
	10433	·473	244·8	28·5	− 8·7	130	1274	
	10435	·140	309·3	9·3	+ 8·2	5	22	
	10436	·368	134·5	347·5	−11·9	4	9	
G	10438	·712	101·6	318·7	− 6·0	67	446	353*f*
	10439	·785	82·6	311·4	+ 7·8	53	178	} 204*c*
	10440	·867	83·6	303·0	+ 7·1	15	46	
		·836	117·4					248
		·912	105·4					304
		·947	100·4					228
		·990	75·4					223
Nov. 12			(+22·4)	(3·0)	(+3·1)	(280)	(1988)	(2300)
316·547		·974	255·7					141
		·941	243·1					191
		·929	280·1					220
		·871	255·3					159
		·803	231·4					199
		·798	249·6					281
	10433	·673	253·1	28·8	− 9·0	174	1271	
G	10435	·348	287·3	7·9	+ 8·7	5	58	
	10436	·258	177·7	347·7	−11·8	3	9	
	10438	·508	106·8	319·2	− 5·8	66	451	
	10439	·599	80·7	311·8	+ 7·9	19	81	
	10440	·709	83·3	303·3	+ 6·8	12	40	
	10441	·801	121·1	300·6	−22·4	1	6	489*c*

Group 10434. Nov. 9–12. One or two small spots.
Group 10435. Nov. 9–14. A stream of faint unstable spots.
Group 10436. Nov. 9–13. A tiny group.
Group 10437. Nov. 9–10. One small spot.
Group 10438. Nov. 9–21. Return of Group 10423. A large spot with composite umbra followed and sometimes preceded by numerous small companions. The group is accompanied with conspicuous faculæ.
Group 10439. Nov. 10–22. Scattered spots condensing into a stream on Nov. 15, with the largest component at the rear. The stream has disappeared by Nov. 20, but a spot is seen on Nov. 22 in its place.
Group 10440. Nov. 11–19. A spot closely following Group 10439, and, perhaps, originating with it.
Group 10441. Nov. 11–17. Intermittent. A small spot, in bright faculæ, not seen on Nov. 12 and 15.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
316·547	10442	·935	75·4	279·2	+14·7	3	13	456*f*
	10443	·955	113·5	278·4	−21·3	2	22	206*f*
G		·856	104·5					157
		·915	53·3					129
		·947	122·1					117
		·960	104·1					192
Nov. 13			(+22·1)	(348·3)	(+3·0)	(285)	(1951)	(2937)
317·459		·971	280·1					133
		·939	245·1					88
		·912	254·8					348
		·893	289·9					168
		·893	235·7					132
	10433	·815	257·4	29·5	− 8·5	147	1123	427*c*
	10435	·566	280·3	10·3	+ 8·2	2	5	
	10438	·331	118·1	319·2	− 6·1	79	484	
G	10439	·414	75·3	312·4	+ 8·6	29	192	
	10444	·582	133·5	309·4	−21·0	2	16	
	10440	·542	82·7	303·6	+ 6·4	10	37	
	10441	·695	123·8	298·3	−20·4	1	6	
	10443	·876	116·9	279·2	−21·7	7	11	160*f*
		·868	108·7					109
		·875	74·5					512
		·949	61·5					96
		·951	109·4					201
Nov. 14			(+21·7)	(336·2)	(+2·9)	(277)	(1874)	(2374)
318·537		·980	255·0					167
		·943	237·2					120
		·941	286·2					110
	10433	·931	259·1	29·6	− 9·1	125	862	520*c*
	10438	·163	162·4	319·2	− 6·1	68	522	
C	10439	·204	58·7	311·9	+ 8·8	33	270	
	10440	·319	78·2	303·8	+ 6·4	7	23	
		·744	117·5					121
		·766	68·9					82
		·891	110·6					140
Nov. 15			(+21·6)	(322·0)	(+2·8)	(233)	(1677)	(1260)
319·398		·961	294·4					97
		·848	277·2					148
	10433	·985	259·8	29·9	− 9·5	117	661	544*c*
	10445	·790	248·3	359·9	−15·2	2	7	
G	10438	·218	223·4	319·2	− 6·4	95	456	
	10439	·102	354·1	311·2	+ 8·5	33	201	

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
319·398	10444	·407	179·5	310·4	−21·2	2	13	
G	10440	·133	61·9	303·9	+ 6·3	12	18	
	10441	·444	151·1	297·4	−20·2	1	2	
	10443	·645	125·5	276·8	−19·7	14	44	
	992a	·611	68·1	274·8	+15·3	1	4	
	10446	·968	78·9	235·1	+11·4	39	141	246*c*
		·926	57·4					85
		·934	108·8					204
Nov. 16			(+21·4)	(310·6)	(+2·7)	(316)	(1547)	(1324)
320·404		·984	255·5					90
		·969	265·8					173
		·959	277·5					160
		·944	292·1					92
		·933	253·7					114
	10445	·890	250·4	358·0	−16·1	4	10	128*f*
	10438	·409	247·6	319·7	− 6·5	54	390	
G	10439	·255	294·0	311·0	+ 8·5	18	88	
	10440	·134	298·6	304·2	+ 6·3	9	11	
	10441	·381	180·6	297·6	−19·7	2	5	
	10442	·342	51·8	281·3	+14·7	2	6	
	10443	·482	141·5	278·9	−19·6	22	84	
	10446	·881	77·7	236·0	+12·1	54	262	232*c*
		·922	110·5					293
		·938	123·0					140
Nov. 17			(+21·1)	(297·4)	(+2·6)	(165)	(856)	(1422)
321·434		·919	269·0					110
		·897	241·6					97
		·890	291·1					107
		·869	302·5					76
	10445	·960	251·2	355·7	−17·3	23	69	164*f*
	10438	·611	255·8	320·2	− 6·7	47	412	
	10439	·457	284·8	310·2	+ 8·8	12	46	
	10447	·403	245·6	305·4	− 7·4	2	12	
G	10440	·360	281·3	304·5	+ 6·3	4	7	
	10442	·212	6·4	282·4	+14·5	2	13	
	10443	·377	168·0	279·1	−19·1	24	113	
	10448	·444	108·0	258·8	− 5·7	2	5	
	10446	·753	76·7	235·6	+11·6	73	396	87*c*
		·815	116·0					98
		·880	127·8					109
		·935	114·7					97
		·972	105·2					182
Nov. 18			(+20·8)	(283·8)	(+2·4)	(189)	(1073)	(1127)

Group 10442. Nov. 13–22. Feeble but persistent activity shown by a patch of bright faculæ and one or more tiny spots not seen on Nov. 14, 15 and 16.
Group 10443. Nov. 13–24. At first, one small spot which has disappeared on Nov. 15. A regular spot then develops and is followed by a few tiny spots until Nov. 18.
Group 10444. Nov. 14–16. A small cluster not present on Nov. 15.
Group 10445. Nov. 16–19. A small group.
Group 10446. Nov. 16–27. A stream of variable spots, the leader being by far the largest component and showing interesting changes from day to day.
Group 10447. Nov. 18–20. A small spot on Nov. 18; a pair on Nov. 20, in faculæ, *f* Group 10438.
Group 10448. Nov. 18–26. A stream in which the rearmost spot becomes the chief component.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
322·346		·951	289·8					61
		·945	244·4					91
		·935	299·5					104
		·857	241·9					72
		·727	239·0					62
	10445	·995	251·5	354·6	−18·1	19	110	128*nf*
	10438	·758	259·9	320·2	− 6·1	46	340	119*p*
	10439	·652	281·8	311·9	+ 9·4	6	15	
C	10440	·548	278·1	304·7	+ 6·4	2	5	
	10442	·275	325·3	281·1	+15·3	2	9	
	10443	·396	198·9	279·6	−19·6	9	70	
	10448	·314	116·2	255·4	− 5·7	3	17	
	10446	·600	73·8	236·0	+11·5	46	327	
	10449	·933	106·5	204·6	−14·4	14	59	138*c*
		·847	130·1					75
		·853	117·8					65
		·914	77·9					46
Nov. 19			(+20·5)	(271·8)	(+2·3)	(147)	(952)	(961)
323·358		·978	298·2					49
		·943	285·5					126
		·932	246·4					121
		·817	242·6					425
		·795	278·3					411
	10438	·886	261·9	320·2	− 6·1	38	301	962*c*
	10447	·763	259·0	307·3	− 6·9	2	7	99*c*
C	10442	·432	299·4	281·3	+14·2	7	34	
	10443	·498	221·6	279·0	−19·8	12	63	
	10448	·142	173·3	257·6	− 5·9	5	18	
	10446	·391	67·0	237·1	+10·8	49	280	
	10449	·837	108·7	203·8	−14·2	59	258	233*c*
		·915	125·0					92
		·945	79·0					154
		·957	104·8					80
Nov. 20			(+20·2)	(258·5)	(+2·2)	(172)	(961)	(2752)
324·342		·920	277·5					563
		·884	244·6					328
	10438	·970	263·5	320·9	− 5·8	26	141	600*f*
	10442	·604	290·9	280·9	+14·1	3	6	
	10443	·633	234·7	278·6	−19·6	11	45	
C	10448	·238	234·7	256·7	− 5·8	26	115	
	10446	·208	41·0	237·5	+11·1	40	251	
	10449	·710	112·3	203·1	−14·0	39	273	
		·850	78·1					101
		·873	107·3					54
		·948	69·5					82
Nov. 21			(+19·9)	(245·5)	(+2·1)	(145)	(831)	(1728)
1927.			°	°	°			
325·310		·968	261·9					333
		·947	246·6					410
		·881	256·2					89
	10439	·975	279·1	309·7	+ 9·3	4	24	495*c*
	10442	·777	287·7	282·5	+14·8	3	13	138*c*
C	10443	·760	242·4	278·0	−19·2	7	29	
	10448	·431	251·6	256·9	− 6·0	24	106	
	10446	·188	328·1	238·5	+11·1	33	249	
	10449	·554	119·6	203·0	−14·1	32	233	
		·948	63·6					132
Nov. 22			(+19·6)	(232·7)	(+1·9)	(103)	(654)	(1597)
326·330		·979	246·5					180
		·949	259·6					127
		·872	253·5					108
		·840	285·8					323
	10443	·880	246·8	278·1	−19·3	4	14	230*f*
	10448	·627	258·4	257·3	− 5·9	28	135	
C	10446	·372	297·5	238·9	+11·5	40	290	
	10450	·265	56·2	206·4	+10·2	2	9	
	10449	·400	133·3	201·9	−14·1	33	207	
	10451	·551	123·0	190·7	−15·8	41	106	
		·893	62·5					323
		·960	69·7					56
Nov. 23			(+19·2)	(219·3)	(+1·8)	(148)	(761)	(1347)
327·330		·960	303·9					120
		·957	256·8					128
		·927	286·7					393
	10443	·960	249·7	278·0	−18·9	7	11	230*sf*
	10448	·783	261·5	257·0	− 5·5	24	138	122*c*
	10446	·555	288·5	238·5	+11·5	26	209	
	10450	·154	9·7	204·6	+10·4	0	3	
C	10449	·281	165·5	202·0	−14·1	26	152	
	10451	·393	141·1	191·3	−16·1	83	401	
	10452	·427	49·1	186·4	+17·8	5	14	
	10453	·984	107·3	127·6	−16·7	5	16	107*sf*
		·865	69·4					84
		·905	110·5					74
		·960	67·9					79
		·966	100·7					129
Nov. 24			(+18·9)	(206·1)	(+1·7)	(176)	(944)	(1466)
328·346		·962	287·7					108
		·918	253·5					128
	10448	·902	263·2	256·6	− 5·5	26	160	317*c*
C	10446	·735	284·4	239·1	+11·6	31	190	
	10449	·317	210·8	202·3	−14·2	19	84	

Group 10449. Nov. 19–27. A pair of irregular spots which do not separate in longitude to the usual extent.
Group 10450. Nov. 23–24. A pair of small spots on Nov. 23, of which one is left on the next day.
Group 10451. Nov. 23–Dec. 1. A large stream of normal type in which the leader becomes large and composite after Nov. 27, and a cluster of spots between it and the follower is of considerable extent.
Group 10452. Nov. 24–25. A few tiny spots on Nov. 24; only one remains on Nov. 25.
Group 10453. Nov. 24–27. A small spot with a distant follower on Nov. 26.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
328·346	10451	·298	174·4	191·0	−15·5	117	669	
	10452	·315	28·4	183·7	+17·6	2	7	
	10453	·914	108·2	128·4	−15·9	7	26	164*sf*
C		·861	64·9					94
		·900	101·3					92
		·965	117·9					100
		·974	102·6					148
		·976	71·2					86
Nov. 25			(+18·6)	(192·7)	(+1·6)	(202)	(1136)	(1237)
329·512		·951	250·6					131
		·845	231·3					166
		·826	247·9					168
	10448	·975	264·2	254·1	− 5·3	24	77	158*p*
	10446	·896	282·1	240·5	+11·5	31	197	347*f*
	10449	·496	237·2	202·8	−14·2	17	86	
G	10451	·377	216·8	190·9	−16·1	150	860	
	10453	·796	112·6	127·5	−16·8	7	21	137*c*
		·757	104·4					128
		·858	76·9					115
		·889	104·2					188
		·926	118·8					204
		·942	69·0					344
		·971	84·9					125
Nov. 26			(+18·2)	(177·4)	(+1·5)	(229)	(1241)	(2211)
330·369		·935	301·1					58
		·926	251·6					117
		·888	240·8					115
		·878	229·4					110
	10446	·967	282·0	241·1	+11·9	29	168	417*f*
	10449	·637	246·0	202·8	−13·9	14	44	
	10451	·477	232·4	189·1	−15·7	107	887	
C	10453	·636	117·8	130·4	−16·1	3	5	
	10454	·908	85·4	101·1	+ 4·8	5	7	334*f*
		·849	123·2					135
		·908	67·3					563
		·939	96·4					122
		·943	112·3					110
		·956	121·2					207
		·970	104·6					120
Nov. 27			(+17·8)	(166·1)	(+1·3)	(158)	(1111)	(2417)
331·329		·983	281·8					271
		·976	250·6					86
		·965	238·9					120
		·885	236·9					125
		·821	249·7					157
	10451	·646	242·7	190·0	−16·2	121	957	
	10454	·785	85·3	101·9	+ 4·4	2	6	162*f*
C		·783	64·2					221
		·857	113·9					85
		·885	124·9					158

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
331·329		·905	104·9					99
C		·925	66·7					413
		·956	97·5					89
		·959	115·2					103
Nov. 28			(+17·5)	(153·4)	(+1·2)	(123)	(963)	(2089)
332·300		·949	239·4					166
		·939	280·1					60
		·909	252·9					424
		·868	228·5					81
		·749	293·4					71
	10451	·794	248·7	190·7	−16·0	129	1041	318*c*
C	10455	·299	155·9	133·4	−14·7	15	59	
		·803	106·2					120
		·825	130·3					153
		·845	63·3					394
		·943	115·3					157
		·950	103·9					141
Nov. 29			(+17·1)	(140·6)	(+1·1)	(144)	(1100)	(2085)
333·322		·974	254·8					193
	10451	·905	251·5	190·3	−16·2	126	1093	656*c*
	992b	·897	288·8	189·7	+17·2	0	7	182*f*
	10456	·453	246·0	151·9	− 9·6	2	4	
C	10455	·285	202·6	133·7	−14·2	27	108	
		·840	103·6					199
		·903	119·2					256
		·925	76·0					83
		·979	101·7					153
Nov. 30			(+16·8)	(127·2)	(+1·0)	(155)	(1212)	(1722)
334·341		·961	288·1					232
	10451	·976	253·2	190·1	−16·2	124	1136	582*c*
	10456	·655	253·8	153·2	− 9·8	3	5	
	10455	·419	231·9	133·5	−14·1	21	113	
C	10457	·449	214·0	129·2	−20·4	1	4	
		·808	72·1					89
		·851	122·6					105
		·931	99·4					378
		·931	69·0					110
Dec. 1			(+16·4)	(113·7)	(+0·8)	(149)	(1258)	(1496)
335·452		·983	253·3					67
		·851	300·3					171
		·831	258·1					61
	10455	·607	244·4	133·2	−14·5	11	50	
	10457	·509	229·7	123·2	−18·5	2	10	
C	10458	·434	117·1	76·1	−10·7	3	26	
	10459	·971	81·8	23·2	+ 8·1	8	35	231*f*
		·850	101·7					429
		·926	72·1					134
		·964	100·5					628
Dec. 2			(+15·9)	(99·1)	(+0·7)	(24)	(121)	(1721)

Group 10454. Nov. 27–28. A single small spot.
Group 10455. Nov. 29–Dec. 3. A short stream or cluster with the chief spot at the rear.
Group 10456. Nov. 30–Dec. 1. A small but definite spot.
Group 10457. Dec. 1–2. One small spot seen each day, differing in longitude by 6° but probably related to one another.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
336·318		·936	297·2					244
		·882	260·0					138
	10455	·738	250·0	133·2	−14·2	6	19	127*c*
	10458	·284	134·2	75·8	−10·8	2	7	
	992c	·727	108·4	42·9	−12·8	3	14	
C	10459	·905	81·2	23·3	+ 8·2	9	20	232*f*
		·866	101·7					1029
		·902	63·1					78
		·906	124·4					129
		·961	99·8					713
Dec. 3			(+15·6)	(87·7)	(+0·6)	(20)	(60)	(2690)
337·393		·965	294·9					88
		·954	262·2					87
		·884	253·6					135
	10460	·608	126·2	42·0	−20·6	3	11	
	10459	·766	79·8	24·1	+ 8·0	6	13	130*f*
C		·715	97·9					143
		·755	118·5					161
		·862	98·4					374
		·946	107·5					199
		·947	86·1					114
Dec. 4			(+15·2)	(73·5)	(+0·4)	(9)	(24)	(1431)
338·478		·969	255·0					223
		·941	292·6					120
		·885	254·2					203
		·848	237·5					193
		·806	292·3					236
	10460	·455	143·9	42·6	−21·2	27	165	
G	10459	·589	76·5	24·0	+ 8·1	2	8	
	10461	·718	106·1	14·7	−11·2	6	25	
	10462	·995	71·1	335·5	+18·8	19	115	
		·860	108·0					293
		·916	87·0					128
		·945	101·7					180
		·964	117·4					179
Dec. 5			(+14·7)	(59·2)	(+0·3)	(54)	(313)	(1755)
339·456		·934	255·0					179
		·915	289·7					293
		·889	238·8					257
		·808	304·5					299
	10460	·374	170·5	42·5	−21·3	35	187	
	10461	·558	110·4	14·2	−11·0	17	101	
G	10462	·950	70·3	335·7	+18·7	27	120	459*c*
1927.			°	°	°			
339·456	10463	·972	100·6	330·4	−10·3	27	136	304*c*
		·860	104·2					283
		·873	115·3					253
G		·954	123·8					98
		·954	58·9					107
		·974	79·1					187
Dec. 6			(+14·3)	(46·3)	(+0·2)	(106)	(544)	(2719)
340·311		·960	254·9					104
		·948	289·1					229
		·942	241·8					243
		·917	278·4					162
		·890	270·7					46
		·871	300·2					304
		·849	299·4					135
		·848	231·5					119
		·836	255·4					131
C	10460	·390	197·4	42·2	−21·7	28	89	
	10461	·372	121·2	16·2	−11·0	14	69	
	10462	·882	67·8	335·2	+19·5	27	109	247*c*
	10463	·913	100·6	329·7	− 9·6	51	156	944*c*
		·837	113·9					135
		·895	56·8					118
		·925	123·4					69
		·956	78·9					471
		·983	109·8					112
Dec. 7			(+14·0)	(35·0)	(+0·1)	(120)	(423)	(3569)
341·314		·970	270·7					51
		·956	278·0					124
		·949	288·7					232
		·922	236·9					131
		·919	253·6					134
		·906	298·1					328
		·883	265·2					90
		·816	255·8					142
C	10464	·495	250·6	49·9	− 9·6	2	12	
	10460	·484	220·6	41·5	−21·6	10	31	
	992d	·307	199·0	27·8	−16·9	1	4	
	10461	·204	157·0	17·2	−10·9	28	87	
	10462	·767	64·6	334·8	+19·1	22	70	167*c*
	10463	·788	101·8	330·6	− 9·3	40	215	335*c*
	10465	·991	84·8	299·8	+ 5·2	47	191	
		·821	44·9					92
		·901	79·0					544

Group 10458. Dec. 2–3. A small spot.
Group 10459. Dec. 2–5. A small spot.
Group 10460. Dec. 4–11. A stream of variable spots.
Group 10461. Dec. 5–15. At first a small stream which suddenly expands after Dec. 8 and becomes a very large complex stream. The largest spot is at the rear to begin with, but one fully as big as forms in front on Dec. 12.
Group 10462. Dec. 5–13. A small stream represented later by one or two evanescent and widely separated spots.
Group 10463. Dec. 6–17. Return or revival of Group 10438. A stream in which the spots are in two clusters at each extremity; the leading spots last the longest.
Group 10464. Dec. 8–11. A small group.
Group 10465. Dec. 8–20. A regular spot breaking up after Dec. 17.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927			°	°	°			
341·314		·927	98·2					294
C		·938	110·2					157
		·976	118·8					144
Dec. 8			(+13·6)	(21·8)	(−0·1)	(150)	(610)	(2965)
342·358		·985	256·3					133
		·962	233·2					153
		·953	267·1					77
		·951	295·5					197
		·886	258·1					91
		·881	242·3					100
	10464	·681	254·5	49·8	−10·3	9	44	
	10460	·634	234·3	41·5	−21·5	3	14	
	10461	·226	212·7	15·2	−10·7	53	235	
C	10462	·593	55·5	337·0	+19·8	13	29	
	10463	·610	104·8	331·6	− 8·7	37	143	
	10465	·933	84·5	299·5	+ 5·2	37	215	240*f*
		·810	78·3					325
		·831	100·9					189
		·843	118·9					254
		·923	70·1					83
		·953	112·7					104
Dec. 9			(+13·1)	(8·1)	(−0·2)	(152)	(680)	(1946)
343·331		·978	298·9					99
		·971	258·9					121
		·967	277·1					131
		·957	249·5					107
		·902	239·1					175
		·878	285·5					87
	10464	·829	257·3	50·5	−10·7	12	68	148*c*
C	10460	·785	244·5	44·0	−19·9	5	24	119*c*
	10461	·374	241·3	14·7	−10·6	82	567	
	10463	·430	110·3	331·3	− 8·9	22	69	
	10462	·521	49·3	330·6	+19·5	2	6	
	10465	·823	83·2	300·4	+ 5·4	37	189	198*f*
		·819	124·9					101
		·902	114·0					127
		·949	72·8					149
Dec. 10			(+12·7)	(355·3)	(−0·3)	(160)	(923)	(1562)
344·445		·966	285·8					122
		·965	240·7					179
		·878	260·8					348
		·778	260·4					184
		·775	245·0					151
	10464	·933	257·8	48·9	−11·5	5	23	312*c*
	10460	·914	249·4	45·1	−19·0	21	46	206*f*
	10461	·599	251·6	15·9	−11·2	129	828	
C	10462	·354	3·5	339·3	+20·1	2	4	
	10463	·205	134·9	332·2	− 8·8	10	52	
	10465	·648	80·8	300·8	+ 5·5	27	167	
		·845	116·9					102
		·865	73·0					178
		·887	105·4					73
		·940	52·2					107
		·959	99·2					258
Dec. 11			(+12·2)	(340·6)	(−0·5)	(194)	(1120)	(2220)
1927			°	°	°			
345·389		·966	249·6					192
		·963	262·6					194
		·880	263·3					208
		·868	247·4					122
		·859	231·9					61
		·858	288·3					72
C	10461	·769	255·2	17·3	−11·7	153	1135	
	10463	·179	224·8	335·4	− 7·8	9	35	
	10462	·329	348·4	332·5	+18·1	2	11	
	10466	·358	62·8	309·4	+ 8·8	4	11	
	10465	·472	78·0	300·6	+ 5·1	24	178	
		·818	117·1					54
		·898	100·4					202
		·960	77·1					104
Dec. 12			(+11·8)	(328·1)	(−0·6)	(192)	(1370)	(1209)
346·326		·976	287·5					142
		·957	267·7					197
		·954	251·2					214
		·934	238·9					140
		·931	280·8					108
		·869	268·8					127
		·842	291·6					39
	10461	·883	257·4	17·1	−11·4	141	1429	750*c*
C	10463	·342	248·4	334·4	− 7·8	10	32	
	10462	·426	317·7	333·2	+17·6	3	7	
	10467	·173	354·4	325·6	+ 9·1	0	3	
	10468	·257	166·2	312·2	−15·1	2	4	
	10466	·210	24·9	310·7	+10·3	2	4	
	10465	·276	68·3	300·9	+ 5·2	27	162	
		·804	100·2					177
		·925	111·8					88
		·957	74·3					252
Dec. 13			(+11·4)	(315·8)	(−0·7)	(185)	(1641)	(2234)
347·320		·977	245·6					136
		·952	266·4					171
	10461	·969	257·4	18·0	−12·4	177	1203	641*c*
C	10463	·564	257·0	336·2	− 7·9	8	16	
	10468	·287	209·4	311·1	−15·2	2	7	
	10465	·102	15·0	301·2	+ 4·8	37	177	
		·893	73·5					314
Dec. 14			(+11·0)	(302·7)	(−0·8)	(224)	(1403)	(1262)
348·313		·904	284·9					79
		·889	257·3					91
		·734	298·6					139
	10461	·985	255·5	9·3	−14·4	65	344	649*c*
	10463	·737	260·3	336·6	− 7·8	6	19	
	10465	·223	296·5	301·1	+ 4·7	26	154	
C	*993a*	·941	72·7	220·8	+15·8	6	12	133*f*
		·726	69·4					68
		·829	73·5					113
		·931	122·1					113
		·952	58·5					61
		·967	107·3					89
		·975	80·9					71
Dec. 15			(+10·5)	(289·6)	(−1·0)	(103)	(529)	(1606)

Group 10466. Dec. 12–13. A pair of small spots on Dec. 12, one of which remains on Dec. 13.
Group 10467. Dec. 13–17. Intermittent. One very small spot seen only on Dec. 13 and 17 in a region well marked by faculæ on the latter date.
Group 10468. Dec. 13–14. One small spot on Dec. 13, with a companion on the following day.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927			°	°	°			
349·443		·967	258·3					166
		·884	291·5					293
		·774	284·1					145
	10463	·885	262·6	336·6	− 7·1	4	18	442*f*
	10465	·456	282·5	301·2	+ 4·6	27	139	
G		·859	69·2					126
		·897	109·7					146
		·926	126·7					85
		·972	72·1					113
		·982	104·6					290
Dec. 16			(+10·0)	(274·7)	(−1·1)	(31)	(157)	(1806)
350·446		·955	291·1					352
		·940	304·1					94
		·838	247·1					157
	10463	·967	263·2	336·5	− 6·8	12	37	416*f*
G	10467	·867	285·2	320·2	+12·5	2	11	370*s*
	10465	·647	278·6	301·3	+ 4·6	24	131	
		·804	113·9					94
		·938	106·9					509
		·954	70·5					107
Dec. 17			(+9·5)	(261·5)	(−1·2)	(38)	(179)	(2099)
351·481		·938	260·8					160
		·936	280·2					242
		·924	248·4					98
		·839	238·9					118
G	10465	·810	276·9	301·5	+ 4·8	24	114	84*c*
		·856	109·1					674
		·863	66·8					106
		·976	106·0					97
Dec. 18			(+9·0)	(247·9)	(−1·3)	(24)	(114)	(1579)
352·513		·971	284·6					133
		·945	245·6					130
		·906	259·5					96
		·834	243·2					94
	10465	·927	257·7	301·8	+ 4·7	22	114	150*f*
G	10469	·373	40·0	220·0	+15·1	2	7	
		·785	111·2					121
		·898	105·0					78
		·960	78·3					106
Dec. 19			(+8·6)	(234·3)	(−1·5)	(24)	(121)	(908)
353·309		·975	241·5					130
		·906	244·2					87
		·896	288·8					90
	10465	·973	274·4	300·0	+ 3·9	0	17	126*f*
C	10469	·294	15·4	219·2	+14·8	7	24	
		·895	75·8					89

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927			°	°	°			
353·309		·932	65·6					86
C		·978	75·6					89
Dec. 20			(+8·2)	(223·8)	(−1·6)	(7)	(41)	(697)
354·342		·948	285·9					171
		·938	242·3					196
		·881	260·1					155
C	10469	·333	329·3	220·3	+14·9	11	61	
	10470	·930	99·2	142·1	− 9·1	5	11	185*f*
		·911	74·1					127
		·942	109·7					148
		·968	95·9					104
Dec. 21			(+7·7)	(210·2)	(−1·7)	(16)	(72)	(1086)
355·317		·967	260·9					162
		·963	289·3					115
		·871	258·9					202
		·846	284·5					78
		·747	295·0					167
	10469	·477	305·5	220·8	+14·4	12	65	
	10471	·209	154·0	191·9	−12·6	0	2	
	10470	·817	99·7	142·9	− 8·9	0	4	113*f*
C		·773	68·3					95
		·870	114·1					75
		·887	96·0					86
		·945	105·6					121
		·952	66·5					74
		·966	73·5					72
Dec. 22			(+7·3)	(197·3)	(−1·8)	(12)	(71)	(1360)
356·317		·948	257·1					124
		·934	307·2					87
		·867	291·0					158
	10469	·643	296·9	220·5	+15·2	38	173	
C	10472	·373	339·8	192·0	+18·4	2	7	
	10471	·219	216·4	191·8	−12·1	4	19	
	10473	·516	50·1	159·8	+17·4	1	4	
		·873	65·6					91
		·893	104·6					105
		·951	70·8					169
Dec. 23			(+6·8)	(184·2)	(−2·0)	(45)	(203)	(734)
357·308		·966	249·9					87
		·933	286·9					390
	10469	·790	290·7	220·8	+14·8	29	113	169*c*
	993b	·558	248·1	203·2	−13·7	5	13	
	10471	·389	242·1	191·6	−12·4	35	173	
C	10472	·470	318·1	190·3	+18·4	1	5	
	10474	·222	204·3	176·5	−13·7	7	19	
	10473	·404	29·2	159·2	+18·5	8	12	
	10475	·663	72·7	131·3	+ 9·7	5	14	

Group 10469. Dec. 19–26. A stream of smallish spots originating with a small spot on Dec. 19.
Group 10470. Dec. 21–22. A very small spot.
Group 10471. Dec. 22–27. A widely separated pair of spots with rapid rise and decline. The place of this group is marked by faculæ which can be traced to Group 10451 of the previous rotation.
Group 10472. Dec. 23–24. A pair of small faint spots on Dec. 23, of which one remains on Dec. 24.
Group 10473. Dec. 23–25. A wide pair of small spots.
Group 10474. Dec. 24–29. A stream of rapid rise and decline, following Group 10471.
Group 10475. Dec. 24—1928, Jan. 2. A couple of small spots developing suddenly between Dec. 25 and 26 into a long stream with a regular spot as leader. This leader has grown to a large spot on Dec. 29, but by the following day it has split into two which, together with the other spots of the stream, are disappearing as they pass out of sight round the west limb.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
357·308		·865	69·2					241
C		·910	121·7					188
		·948	63·1					71
Dec. 24			(+6·3)	(171·1)	(−2·1)	(90)	(349)	(1146)
358·141		·974	280·5					87
		·972	288·7					84
	10469	·894	287·9	221·6	+14·9	20	98	324c
	10471	·549	250·1	191·9	−12·6	31	166	
	10474	·339	233·7	176·4	13·7	32	119	
	10473	·353	359·9	160·2	+18·4	0	9	
K	10475	·515	65·9	131·7	+10·1	11	36	
		·766	66·0					177
		·878	63·5					204
		·883	118·8					195
		·962	63·9					342
Dec. 25			(+5·9)	(160·1)	(−2·2)	(94)	(428)	(1413)
359·432		·949	250·1					232
		·939	235·7					145
		·878	256·5					110
		·832	246·8					104
	10469	·979	288·1	219·9	+17·2	10	31	491s
	10471	·757	255·2	191·5	−12·7	16	112	214c
	10474	·584	251·5	177·5	−12·5	23	110	
	993c	·258	38·9	133·7	+ 9·3	1	7	
C	10475	·356	41·3	129·2	+13·2	46	244	
		·803	128·5					79
		·811	69·8					91
		·892	51·2					134
		·934	62·9					233
		·972	98·1					111
Dec. 26			(+5·3)	(143·1)	(−2·3)	(96)	(504)	(1944)
360·553		·899	292·7					144
		·779	245·1					125
	10471	·905	256·9	192·9	−12·9	15	68	655s
	10474	·782	257·1	179·3	−11·6	10	67	158sf
	10475	·266	348·7	131·4	+12·5	70	369	
C	10476	·958	105·4	55·2	−15·5	22	131	405f
		·862	56·7					170
		·920	99·2					154
		·950	72·7					66
		·962	118·0					106
		·985	95·8					71
Dec. 27			(+4·7)	(128·4)	(−2·5)	(117)	(635)	(2054)
361·433		·966	244·7					88
		·956	288·5					134
		·944	253·1					490
C		·907	298·1					95

G.M.T.	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1927.			°	°	°			
361·433	10474	·891	258·5	179·6	−11·4	14	69	149sf
	10475	·357	317·1	131·2	+12·6	80	422	
C	10476	·877	105·9	56·1	−15·2	26	135	557f
	10477	·988	98·1	35·7	− 8·4	92	408	475c
		·815	99·9					136
		·834	131·1					61
		·873	67·7					69
		·907	122·3					119
Dec. 28			(+4·3)	(116·8)	(−2·6)	(212)	(1034)	(2373)
362·468		·992	256·0					149
		·961	248·6					209
		·951	292·6					131
		·866	292·8					117
	10474	·973	258·8	179·7	−11·5	13	55	250sf
	10475	·536	297·7	132·0	+12·0	131	696	
G	10476	·748	108·1	55·8	−15·2	29	161	297f
	10477	·941	98·3	33·0	− 8·7	120	663	806c
		·909	74·2					115
		·921	112·2					159
		·936	125·8					144
Dec. 29			(+3·8)	(103·1)	(−2·7)	(293)	(1575)	(2377)
363·453		·942	291·1					165
	10475	·706	290·5	132·6	+12·2	85	706	
	10478	·549	251·7	122·3	−12·3	8	26	
	10476	·591	112·2	55·8	−15·1	35	147	
G	10477	·848	98·6	32·4	− 8·7	137	643	249c
		·875	114·7					156
		·953	103·5					567
		·959	78·8					270
Dec. 30			(+3·3)	(90·2)	(−2·8)	(265)	(1522)	(1407)
364·464		·952	286·4					121
		·920	251·6					95
		·911	260·0					65
	10475	·842	286·4	132·4	+12·1	76	434	347c
	10478	·707	255·9	121·2	−11·9	3	11	
	993d	·299	104·1	60·0	− 6·9	1	5	
	10476	·408	123·0	56·2	−15·5	40	229	
	10477	·698	99·6	33·0	− 8·7	122	574	
G	10479	·987	98·6	356·1	− 8·9	12	39	
		·792	116·0					127
		·840	91·0					129
		·862	104·4					601
		·872	76·6					228
		·915	115·4					145
		·928	125·6					120
		·967	88·6					75
Dec. 31			(+2·8)	(76·9)	(−2·9)	(254)	(1292)	(2053)

Group 10476. Dec. 27—1928, Jan. 7. An unusual group. A medium-sized regular spot which contracts considerably between Dec. 31 and Jan. 1 and then slowly diminishes to a dot by Jan. 7. Meanwhile, great activity is observed in the immediate region southwards of this spot. On Dec. 31 an increasing number of small spots make their appearance, and from some of these a fairly large composite spot emerges by Jan. 3 due south of the original regular spot with which it almost coalesces. This new spot is, however, unstable, and the whole disturbance, except for the surrounding faculæ is dying out by the time the west limb is reached.

Group 10477. Dec. 28—1928, Jan. 9. A large regular spot, both preceded and followed by small companions until Jan. 6.

Group 10478. Dec. 30—1928, Jan. 2. One or two very small spots.

Group 10479. Dec. 31—1928, Jan. 9. A small regular spot slowly diminishing.

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ROYAL OBSERVATORY, GREENWICH.

General Catalogue of Groups of Sun Spots

for the Year

1927

GREENWICH PHOTO-HELIOGRAPHIC RESULTS 1927

GENERAL CATALOGUE of GROUPS of SUN SPOTS for the YEAR 1927.

Groups of Sun Spots, lasting for two or more days, are numbered in the *first* column in continuation of the Group-numbers given in 1926 and the previous years. Groups seen only once are not included in this Catalogue.

The *second* column gives the Greenwich Mean time of the central meridian passage of each group as deduced from its mean longitude (given in the *tenth* column). For those groups, which are in existence at the time of the central meridian passage of their longitude, the time is given to $0^d{\cdot}01$, corresponding to $0^\circ{\cdot}13$ of solar longitude. In other cases, in which groups disappear before or appear after the central meridian, the deduced time is given to $0^d{\cdot}1$.

The *third* column gives the duration of each group in days. Intermittent Groups, *i.e.*, groups which are not seen upon the photographs of every day between their first and last appearances, are indicated by a fraction, the numerator of which represents the number of days on which they are actually observed; the denominator being the interval in days between the extreme limits of observation.

The *fifth* and *seventh* columns, headed "Longitude from Central Meridian," give, for the days on which each Group was first and last seen respectively, the heliographic longitude from the meridian passing through the centre of the Sun's disc at the observation; longitudes west of the centre being reckoned as positive.

The Mean Areas for Umbræ and Whole Spots entered in the *eighth* and *ninth* columns are corrected for the effect of foreshortening and are expressed in millionths of the Sun's visible hemisphere.

The *tenth* and *eleventh* columns give the mean heliographic position of the group in longitude and latitude respectively.

The *twelfth* column gives reference to all Groups contained in Ledgers I. and II.; for a Group in Ledger I. both its recurrent series number and its order in the series are also given.

With reference to the identification both of Recurrent and Revival Groups, it should be noted that longitudes are based on the ephemeris given in the *Nautical Almanac*, assuming a solar rotation period, constant at all latitudes. After an interval of one rotation, recurring groups will, therefore, show in general—apart from any proper motion they may have of their own—apparent drifts in longitude varying in amount according to their respective latitudes. The following table derived from the formula $\xi = 14^\circ{\cdot}37 - 2^\circ{\cdot}60 \sin^2\phi$ gives the apparent drift in longitude appropriate to corresponding latitudes after an interval of 27 days.

Latitude.	Drift *forwards.*	Latitude.	Drift *backwards.*
0°	5°	20°	3°
5°	4·5	25°	7·5
10°	3	30°	12·5
15°	0·5	35°	18

GENERAL CATALOGUE of SUN SPOTS.

No. of Group.	Time of Central Meridian Passage.	Duration in Days.	First Seen. Date.	First Seen. Longitude from Central Meridian.	Last Seen. Date.	Last Seen. Longitude from Central Meridian.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Position of Group. Longitude.	Mean Position of Group. Latitude.	Reference to Ledger.
	1926–27.		1927.	°	1927.	°			°	°	
10137	Dec. 29·0	3	Jan. 1	+46·4	Jan. 3	+72·0	11	36	247·2	−10·4	
8	Jan. 8·58	14	2	−77·3	15	+83·2	130	866	107·5	−14·0	I. 1014 (1)
9	6·61	7	5	−20·4	11	+67·3	14	57	133·6	−25·2	II.
10140	10·88	12	5	−71·2	16	+77·0	57	329	77·3	−16·4	II.
1	11·05	3/7	5	−75·7	11	+ 5·7	1	8	75·0	+ 7·2	
2	5·4	4	7	+26·6	10	+63·8	9	33	149·7	−12·8	
3	11·52	11	7	−57·4	17	+79·1	39	258	68·8	+ 7·2	II.
4	13·1	3	8	−61·3	10	−39·2	5	14	47·6	−17·0	
5	13·5	2	9	−51·5	10	−44·9	4	16	43·0	+32·2	
6	11·4	2	12	+12·4	13	+25·8	6	16	70·3	+13·0	
7	18·07	6	13	−63·2	18	+ 1·6	6	12	342·6	−18·8	
8	19·38	13	13	−78·3	25	+76·8	123	856	325·4	+25·0	I. 1012 (2)
9	21·67	13	15	−77·9	27	+70·9	39	259	295·2	+33·2	I. 1011 (2)
10150	21·59	13	15	−78·0	27	+78·0	83	579	296·3	−14·7	I. 1015 (1)
1	15·8	4	16	+11·6	19	+44·8	13	47	12·8	+25·7	
2	19·2	3/5	16	−34·1	20	+18·0	1	4	328·9	+ 9·2	
3	19·06	8	16	−35·2	23	+59·5	13	62	329·6	+13·1	II.
4	21·2	2	17	−45·9	18	−32·9	4	15	306·1	−18·3	
5	24·7	3/4	20	−57·5	23	−16·0	3	13	255·0	− 8·9	
6	28·08	11	22	−76·9	Feb. 1	+58·4	13	54	210·8	− 7·4	I. 1013 (2)
7	19·8	3	23	+47·6	Jan. 25	+74·1	14	50	320·3	+10·3	
8	25·7	4	26	+ 7·1	29	+51·6	4	10	242·1	−11·1	
9	Feb. 2·13	13	27	−78·2	Feb. 8	+84·8	66	395	144·2	−15·4	I. 1016 (1)
10160	2·73	13	27	−81·2	8	+75·0	34	203	136·4	+11·0	II.
1	Jan. 24·3	2	28	+52·7	Jan. 29	+70·2	10	40	261·0	+13·6	
2	29·12	6/7	28	−11·3	Feb. 3	+72·5	9	45	197·1	− 9·4	
3	30·16	8	29	− 9·8	5	+77·2	76	450	183·4	−16·9	II.
4	Feb. 4·08	10	29	−74·8	7	+46·7	13	60	118·6	−12·7	II.
5	4·70	14	29	−79·4	11	+84·0	63	419	110·4	−16·1	I. 1014 (2)
6	4·51	13	29	−78·5	10	+78·0	30	196	113·0	−27·9	II.
7	Jan. 26·4	2	30	+54·9	Jan. 31	+69·0	9	29	234·8	− 7·6	
8	Feb. 6·08	8	31	−73·1	Feb. 7	+16·7	8	25	92·7	+24·2	II.
9	6·8	8/10	Feb. 1	−70·3	10	+44·6	6	34	82·4	+24·1	II.
10170	7·87	12	2	−74·4	13	+75·6	39	305	68·5	+15·0	II.
1	8·40	13	2	−82·9	14	+80·2	14	81	61·7	+ 9·4	II.
2	5·16	3	3	−23·5	5	+ 3·5	2	6	104·4	+22·7	
3	9·84	13	3	−83·0	15	+72·4	96	613	42·8	−14·6	I. 1017 (1)
4	9·4	4/5	4	−66·4	8	−12·0	1	6	48·9	+ 8·8	
5	8·93	6	5	−44·9	10	+13·6	7	32	54·8	−12·8	
6	8·49	10	5	−45·6	14	+79·0	26	142	60·5	+ 5·8	II.
7	11·8	5/6	6	−71·2	11	− 4·1	3	9	16·3	+14·5	
8	10·03	9	7	−38·0	15	+72·8	27	135	40·3	− 7·8	II.
9	5·5	3	8	+37·2	10	+66·5	21	77	100·6	+24·3	
10180	14·85	13	8	−82·9	20	+71·8	15	105	336·8	−27·8	II.
1	14·28	6/7	12	−27·8	18	+58·7	3	14	344·2	+12·9	
2	17·2	3	12	−63·4	14	−36·9	3	13	306·0	−15·7	
3	17·98	13	12	−72·2	24	+81·9	25	143	295·6	−14·0	I. 1015 (2)
4	19·51	9	13	−76·0	21	+22·7	12	35	275·4	+33·0	I. 1011 (3)
5	19·9	2/4	14	−73·8	17	−32·4	1	4	270·8	+18·7	
6	18·40	8/9	15	−41·0	23	+70·1	16	97	290·1	+10·4	II.
7	22·3	7/8	16	−75·8	23	+11·7	16	72	238·1	+11·3	II.
8	22·09	9	19	−37·7	27	+75·5	29	179	241·5	−10·6	II.
9	22·8	3	19	−43·1	21	−18·3	5	14	232·1	−12·0	

GENERAL CATALOGUE of SUN SPOTS—*continued.*

No. of Group.	Time of Central Meridian Passage.	Duration in Days.	First Seen. Date.	First Seen. Longitude from Central Meridian.	Last Seen. Date.	Last Seen. Longitude from Central Meridian.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Position of Group. Longitude.	Mean Position of Group. Latitude.	Reference to Ledger.
	1927.		1927.	°	1927.	°			°	°	
10190	Feb. 26·5	4	Feb. 21	−65·8	Feb. 24	−31·3	3	10	183·5	−26·1	
1	26·78	12	21	−70·5	Mar. 4	+72·6	15	76	179·7	+12·6	II.
2	24·95	4	22	−33·4	Feb. 25	+ 7·1	5	17	203·8	+10·5	
3	24·36	3	23	−17·0	25	+18·1	2	10	211·5	−11·8	
4	Mar. 1·1	2	23	−74·5	24	−62·2	4	14	149·4	−14·2	} I. 1016 (2)
5	1·90	6/8	24	−71·8	Mar. 3	+18·1	3	10	138·9	−19·5	
6	2·73	14	24	−82·6	9	+85·5	29	166	127·6	−17·8	II.
7	Feb. 25·97	2	25	− 8·0	Feb. 26	+ 6·1	1	2	190·3	−19·6	
8	26·5	2	25	−15·6	26	− 0·5	1	4	183·2	−19·1	
9	Mar. 2·6	5/7	25	−70·7	Mar. 3	+10·0	3	10	129·5	−24·7	
10200	Feb. 24·5	3/4	27	+38·4	2	+75·8	10	51	209·4	+10·2	
1	25·7	2	27	+23·0	Feb. 28	+37·2	4	8	194·3	−18·4	
2	26·4	2	27	+13·5	28	+27·9	4	26	184·9	−26·2	
3	Mar. 4·79	11	27	−67·6	Mar. 9	+55·3	17	75	100·5	+21·6	II.
4	2·5	2	28	−26·6	1	−13·7	2	10	130·8	−13·2	
5	5·1	4	Mar. 1	−49·5	4	− 9·3	5	10	96·3	+25·2	
6	1·5	4	3	+22·9	6	+67·7	10	51	144·2	−17·4	
7	9·1	6	3	−76·0	8	− 8·9	8	29	43·6	+ 9·2	II.
8	9·25	13	3	−76·1	15	+79·6	40	223	41·8	−14·1	I. 1017 (2)
9	9·37	10/11	4	−65·3	14	+67·8	6	25	40·1	−21·3	II.
10210	9·06	7	6	−34·0	12	+44·6	10	34	44·3	+17·5	II.
1	3·5	3	7	+50·1	9	+76·4	9	25	117·3	+ 4·9	
2	3·9	3	7	+46·0	9	+71·8	7	17	112·1	−19·5	
3	10·6	3	8	−27·8	10	− 5·8	2	7	24·3	−10·4	
4	4·7	2	9	+60·8	10	+75·2	25	95	102·0	−21·5	
5	13·19	5	9	−52·2	13	+ 3·6	9	25	349·8	−19·6	
6	12·95	9	10	−36·0	18	+76·5	32	160	352·9	+14·3	II.
7	17·63	13	11	−81·6	23	+76·1	24	134	291·4	− 9·3	II.
8	19·94	14	13	−73·8	26	+79·6	119	919	260·8	+32·5	I. 1018 (1)
9	19·44	13	13	−79·5	25	+80·2	21	125	267·5	+16·2	II.
10220	17·66	10	14	−42·3	23	+72·3	30	147	290·9	+17·8	II.
1	20·34	10	14	−79·3	23	+41·4	20	104	255·6	− 9·9	II.
2	20·0	2	15	−60·2	16	−47·3	2	6	260·4	+13·6	
3	22·6	4	16	−82·3	19	−42·8	6	21	226·0	−10·2	
4	21·75	10	17	−57·0	26	+64·6	26	119	237·0	−11·4	II.
5	23·0	2	20	−34·0	21	−22·0	0	3	220·0	−11·6	
6	23·4	3/7	21	−28·4	27	+52·9	3	5	214·7	+ 7·2	
7	18·4	2	22	+51·5	23	+65·4	4	15	281·2	−22·8	
8	23·9	2	22	−20·3	23	− 7·2	2	6	209·0	+11·1	
9	26·93	6	23	−49·7	28	+21·4	5	14	168·7	−16·7	
10230	29·6	6	24	−68·8	29	− 4·7	6	17	133·1	+10·5	II.
1	25·0	5	25	+ 7·9	29	+57·2	8	31	194·3	− 9·2	
2	24·5	2	27	+38·0	28	+51·8	4	11	201·0	+14·4	
3	31·5	2	27	−54·2	28	−40·7	6	13	108·6	−19·0	
4	April 3·7	2/3	29	−69·0	31	−44·8	1	5	66·3	−25·8	
5	4·44	10	29	−81·2	April 7	+39·3	17	80	56·5	+16·1	II.
6	Mar. 30·2	7	30	+ 3·7	5	+79·7	50	251	125·7	−23·9	I. 1019 (1)
7	April 1·11	2	31	− 9·4	1	+ 7·4	2	6	100·4	+10·8	
8	4·28	8	31	−53·2	7	+41·4	10	32	58·5	−14·1	II.
9	6·86	13	31	−81·9	12	+73·2	107	697	24·4	+12·5	II.

GENERAL CATALOGUE of SUN SPOTS—*continued.*

No. of Group.	Time of Central Meridian Passage.	Duration in Days.	First Seen. Date.	First Seen. Longitude from Central Meridian.	Last Seen. Date.	Last Seen. Longitude from Central Meridian.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Position of Group. Longitude.	Mean Position of Group. Latitude.	Reference to Ledger.
	1927.		1927.	°	1927.	°			°	°	
10240	April 3·96	9	April 1	−30·1	April 9	+69·5	9	31	62·8	+22·3	II.
1	6·7	6	1	−69·4	6	− 2·5	12	39	26·2	−25·2	II.
2	7·2	2	1	−73·4	2	−62·5	1	6	20·4	−17·4	
3	1·4	5/6	2	+13·7	7	+79·4	14	64	97·1	−13·9	II.
4	7·92	8	2	−73·7	9	+18·3	16	86	10·5	+13·5	II.
5	Mar. 30·7	2	3	+49·3	4	+61·9	4	12	119·5	+14·8	
6	April 11·76	13	5	−80·1	17	+73·8	36	200	319·7	−13·6	II.
7	12·31	8/11	6	−78·0	16	+54·0	6	27	312·6	−14·3	II.
8	12·75	13	6	−81·4	18	+75·4	103	541	306·7	−17·6	II.
9	7·83	3	7	− 6·5	9	+20·3	7	24	11·8	+10·0	
10250	13·61	13	7	−81·8	19	+78·2	30	165	295·4	+13·8	II.
1	5·3	2/4	8	+40·8	11	+80·3	8	33	45·1	+ 5·5	
2	13·88	11	8	−76·0	18	+61·3	10	37	291·8	−22·3	II.
3	8·3	3	9	+12·9	11	+40·2	5	15	4·8	+15·3	
4	16·20	8/9	10	−80·7	18	+31·9	7	28	261·2	− 6·7	II.
5	16·60	12	11	−70·5	22	+79·4	32	183	255·9	−14·9	II.
6	17·04	11	11	−74·6	21	+57·8	33	157	250·1	+31·3	I. 1018 (2)
7	16·8	7/8	11	−73·2	18	+23·4	4	15	252·9	− 5·9	II.
8	17·71	8	12	−70·7	19	+26·0	20	89	241·2	+10·8	II.
9	18·5	7	12	−80·6	18	− 3·7	8	40	230·5	+18·0	II.
10260	11·6	2/3	14	+37·2	16	+62·0	2	9	321·6	−15·6	
1	13·1	3	14	+18·0	16	+42·2	4	15	302·4	+14·5	
2	17·64	10	15	−34·6	24	+82·3	88	483	242·3	−11·9	I. 1020 (1)
3	24·12	7	18	−74·4	24	+ 2·9	12	54	156·6	+ 8·3	II.
4	23·5	2/3	19	−52·7	21	−28·5	1	5	165·1	−17·8	
5	26·28	12	20	−77·7	May 1	+66·6	11	60	128·1	−20·5	I. 1019 (2)
6	23·42	8	21	−25·6	April 28	+64·9	15	90	165·8	+23·8	II.
7	22·89	3/5	22	− 5·6	26	+47·4	2	6	172·8	− 5·4	
8	28·09	12	22	−74·4	May 3	+71·9	29	157	104·2	−15·4	II.
9	26·2	2	23	−37·9	April 24	−23·7	0	4	129·2	−28·7	
10270	May 1·2	2	25	−76·4	26	−64·0	0	8	63·4	−16·4	
1	1·28	11	25	−79·7	May 5	+57·6	30	149	61·9	+ 4·2	II.
2	April 21·2	2	26	+67·3	April 27	+81·4	46	288	194·7	− 9·7	I. 1021 (1)
3	25·9	3	26	+ 4·4	28	+33·7	4	12	132·4	− 8·6	
4	29·98	5	26	−48·9	30	+ 7·8	15	70	79·1	+20·6	II.
5	May 1·96	11	27	−61·9	May 7	+73·1	43	240	52·9	−19·3	II.
6	8·2	6	May 2	−77·6	7	−12·9	11	48	330·4	+10·0	II.
7	7·44	10	3	−57·6	12	+71·7	41	224	340·6	−15·2	II.
8	3·8	5	4	+10·8	8	+59·1	9	38	28·7	+21·6	
9	8·27	10	4	−56·8	13	+70·9	21	98	329·5	− 7·6	II.
10280	8·9	3/4	5	−45·5	8	− 7·3	0	3	321·2	−14·5	
1	6·46	7	6	− 4·2	12	+80·4	8	41	353·5	+16·7	II.
2	7·00	2	6	− 8·6	7	+ 4·8	6	20	346·2	−11·2	
3	5·8	3	8	+33·7	10	+60·4	5	20	1·8	− 7·4	
4	14·07	7	8	−75·8	14	+ 2·0	4	14	252·8	−10·3	II.
5	5·0	3	9	+58·4	11	+83·4	34	120	12·6	−25·9	
6	7·7	3	9	+20·9	11	+48·5	8	19	337·3	−20·2	
7	11·83	10	9	−35·3	18	+82·5	164	915	282·5	+16·9	I. 1022 (1)
8	12·79	10	9	−43·6	18	+70·8	14	77	269·8	+18·5	II.
9	15·02	11	9	−74·4	19	+59·8	22	99	240·3	−11·3	I. 1020 (2)

GENERAL CATALOGUE of SUN SPOTS—*continued.*

No. of Group.	Time of Central Meridian Passage.	Duration in Days.	First Seen.		Last Seen.		Mean Area Corrected for Foreshortening.		Mean Position of Group.		Reference to Ledger.
			Date.	Longitude from Central Meridian.	Date.	Longitude from Central Meridian.	Umbræ.	Whole Spots.	Longitude.	Latitude.	
	1927.		1927.	°	1927.	°			°	°	
10290	May 15·9	4	May 10	−72·1	May 13	−35·7	26	66	228·3	+19·5	
1	9·7	2	11	+22·4	12	+38·1	9	22	310·8	+28·4	
2	12·43	4	11	−14·2	14	+24·0	3	12	274·6	−23·0	
3	17·87	10	11	−86·6	20	+33·4	20	117	202·7	−10·3	I. 1021 (2)
4	21·18	12	15	−75·6	26	+69·9	18	85	159·8	−13·5	II.
5	19·72	7	17	−29·6	23	+48·3	20	90	178·1	−24·2	II.
6	21·1	4	17	−51·1	20	− 7·2	6	15	160·1	+20·6	
7	22·04	11	17	−65·0	27	+76·4	44	188	147·5	− 8·6	I. 1023 (1)
8	16·5	5	18	+24·0	22	+83·6	21	82	221·3	+19·8	
9	24·30	7	18	−77·0	24	+ 0·4	9	24	117·6	+ 3·1	II.
10300	25·8	5	20	−71·3	24	−20·6	7	19	97·6	−12·9	
1	27·23	12	21	−78·8	June 1	+70·2	21	106	78·9	−10·9	II.
2	18·6	3	22	+53·2	May 24	+74·5	14	74	192·8	−26·2	
3	28·57	8	22	−78·8	29	+11·6	9	26	61·0	+15·6	II.
4	28·6	3/5	22	−80·4	26	−29·4	1	5	61·3	+ 9·3	
5	26·42	4	23	−41·6	26	+ 0·6	6	20	89·6	−26·4	
6	28·26	6	24	−52·8	29	+16·5	7	29	65·1	−24·5	II.
7	29·70	12	24	−75·2	June 4	+75·5	11	114	44·1	−19·2	II.
8	25·48	6	25	− 0·7	May 30	+61·1	22	102	102·0	− 9·4	II.
9	31·40	13	25	−79·1	June 6	+80·4	36	200	23·7	−19·2	II.
10310	June 8·08	13	June 2	−73·7	14	+83·5	162	1118	282·0	+16·8	I. 1022 (2)
1	3·8	3/5	4	+ 6·3	8	+61·7	1	7	338·3	− 8·7	
2	9·0	5/6	5	−48·0	10	+18·1	2	6	269·7	+17·9	
3	9·64	9	5	−57·8	13	+51·0	15	73	261·3	+15·2	II.
4	7·79	8	6	−18·3	13	+74·6	12	54	285·8	−18·8	II.
5	17·24	13	11	−77·0	23	+81·7	18	107	160·8	− 7·5	I. 1023 (2)
6	12·64	4	12	− 4·4	15	+37·3	7	22	221·5	−19·4	
7	16·20	8	12	−50·4	19	+45·7	7	22	174·5	−24·7	II.
8	18·07	8	12	−74·8	19	+19·7	8	24	149·7	−24·9	II.
9	12·7	2	13	+ 8·5	14	+23·9	4	20	221·4	+14·0	
10320	13·0	3	14	+15·0	16	+46·6	2	6	216·8	+20·3	
1	22·30	12	17	−69·1	28	+84·1	9	45	93·7	−10·1	I. 1024 (1)
2	22·09	7/8	19	−36·5	26	+60·2	4	14	96·5	−14·0	II.
3	25·41	12	19	−77·7	30	+64·1	26	148	52·6	− 7·9	II.
4	21·5	5	22	+14·1	26	+63·6	6	29	103·7	−29·0	
5	28·2	3	23	−62·1	25	−39·7	5	16	15·5	−11·4	
6	25·87	5	24	−20·1	28	+37·7	3	8	46·5	− 8·7	
7	27·65	6	25	−31·3	30	+36·4	4	17	22·9	+ 8·1	II.
8	30·90	12	25	−76·0	July 6	+75·4	95	568	339·9	− 6·9	I. 1025 (1)
9	July 1·13	7	25	−76·8	1	+ 6·9	15	51	336·8	−18·1	II.
10330	June 26·2	7	26	+ 3·1	2	+82·1	26	140	41·8	+21·7	II.
1	28·25	9	26	−23·6	4	+83·7	26	113	14·9	+22·4	I. 1026 (1)
2	July 2·09	8	26	−75·7	3	+23·4	7	21	324·1	− 8·0	II.
3	1·8	2	28	−42·8	June 29	−29·3	0	4	328·4	+14·8	
4	3·9	6	28	−70·9	July 3	− 7·7	13	63	299·6	−21·0	II.
5	5·38	13	29	−76·6	11	+78·7	103	655	280·4	+15·0	I. 1022 (3)
6	June 30·2	4	July 2	+27·3	5	+68·7	13	50	348·6	+24·3	
7	July 7·7	4	2	−71·2	5	−29·7	8	15	250·6	− 8·7	
8	10·06	8	4	−76·6	11	+19·0	17	51	218·6	− 8·4	II.
9	14·1	5	8	−75·8	12	−23·4	10	31	165·0	− 6·2	I. 1023 (3)

GENERAL CATALOGUE of SUN SPOTS—*continued.*

No. of Group.	Time of Central Meridian Passage.	Duration in Days.	First Seen. Date.	First Seen. Longitude from Central Meridian.	Last Seen. Date.	Last Seen. Longitude from Central Meridian.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Position of Group. Longitude.	Mean Position of Group. Latitude.	Reference to Ledger.
	1927.		1927.	°	1927.	°			°	°	
10340	July 13·4	4	July 9	−51·2	July 12	−14·8	6	15	174·3	−22·5	
1	9·7	3	12	+33·3	14	+62·0	7	20	222·9	+10·9	
2	19·06	12	13	−72·9	24	+70·8	35	185	99·6	−12·8	I. 1024 (2)
3	16·65	4	15	−12·8	18	+20·9	15	63	131·4	+15·2	
4	21·1	4	15	−70·3	18	−38·8	12	34	72·3	−30·2	
5	12·8	3	16	+46·7	18	+73·1	18	79	181·9	−11·7	
6	25·59	14	19	−79·8	Aug. 1	+86·2	26	122	13·1	+23·9	I. 1026 (2)
7	22·52	8	20	−29·2	July 27	+66·8	23	87	53·8	− 8·6	II.
8	27·85	13	21	−85·4	Aug. 2	+72·6	101	493	343·3	− 8·4	I. 1025 (2)
9	21·8	4	24	+32·7	July 27	+77·3	18	84	63·8	+ 9·8	
10350	26·6	4	27	+11·4	30	+51·7	7	18	0·2	+15·4	
1	Aug. 1·9	6	27	−71·5	Aug. 1	− 6·5	10	37	276·3	− 7·1	II.
2	5·0	9/10	30	−75·6	8	+49·4	7	22	235·2	− 6·1	II.
3	July 29·8	5	31	+19·6	4	+75·6	13	58	317·7	+10·9	
4	29·6	4	Aug. 1	+36·4	4	+76·9	30	141	320·0	+20·4	I. 1027 (1)
5	Aug. 6·8	6	1	−70·3	6	− 7·6	17	61	211·8	−17·4	II.
6	July 31·5	5	2	+22·3	6	+77·9	7	18	294·4	+12·2	
7	Aug. 3·1	7/8	2	−10·9	9	+78·1	34	154	260·0	−14·9	II.
8	15·09	13	8	−83·6	20	+70·6	28	157	102·0	−12·7	I. 1024 (3)
9	14·26	10	11	−35·7	20	+80·6	117	792	113·1	−10·2	I. 1028 (1)
10360	17·64	7	14	−45·8	20	+37·9	12	48	68·5	− 6·8	II.
1	19·34	11	14	−67·9	24	+67·1	31	168	45·9	−16·8	II.
2	21·05	13	15	−77·2	27	+80·1	40	221	23·3	+10·9	II.
3	23·98	13	18	−72·6	30	+84·1	73	408	344·6	− 9·7	I. 1025 (3)
4	25·6	4	19	−77·7	22	−44·7	2	6	322·8	+19·0	I. 1027 (2)
5	26·2	2/3	22	−50·7	24	−25·2	1	4	314·8	+23·0	
6	28·68	13	22	−81·0	Sept. 3	+75·0	88	642	282·5	−16·2	II.
7	26·72	4	26	− 6·5	Aug. 29	+34·7	4	13	308·3	+10·8	
8	29·4	3	27	−27·4	29	− 1·6	1	4	272·4	−16·4	
9	Sept. 2·44	13	27	−78·2	Sept. 8	+75·3	30	139	219·6	−15·9	II.
10370	4·5	2	29	−81·5	Aug. 30	−68·7	4	11	192·1	+ 7·0	
1	5·19	11	30	−75·8	Sept. 9	+58·4	36	197	183·3	−13·6	II.
2	10·19	13	Sept. 4	−76·7	16	+81·2	52	295	117·2	− 9·4	I. 1028 (2)
3	12·6	2	7	−70·7	8	−55·1	7	18	84·8	+20·6	
4	11·49	5	8	−42·5	12	+11·6	4	21	100·0	−16·0	
5	11·01	3	9	−21·7	11	+ 5·6	2	8	106·4	−11·4	
6	13·4	4	9	−53·4	12	−14·4	12	52	74·9	− 7·1	
7	14·41	12	9	−67·5	20	+77·7	131	746	61·6	−19·2	I. 1029 (1)
8	8·0	2	11	+45·5	12	+57·8	10	35	146·6	+16·6	
9	13·91	10	11	−36·9	20	+83·7	130	811	68·2	−11·1	I. 1030 (1)
10380	17·99	11	12	−73·9	22	+61·9	15	71	14·3	−10·8	II.
1	14·83	3	13	−16·2	15	+ 6·3	3	9	56·0	+26·4	
2	15·80	5	13	−32·9	17	+25·9	5	12	43·2	−17·8	
3	16·6	2/3	13	−40·4	15	−16·8	1	7	32·4	+11·7	
4	19·49	13	13	−76·6	25	+77·3	41	229	354·4	+22·2	I. 1031 (1)
5	19·8	2/3	15	−59·1	17	−32·0	2	6	349·8	−14·8	
6	20·86	7/8	15	−73·9	22	+24·4	8	29	336·3	− 8·9	I. 1025 (4)
7	16·0	2	16	+ 4·7	17	+19·5	3	6	40·6	−14·4	
8	21·88	10	16	−71·2	25	+46·1	21	109	323·0	−12·7	II.
9	22·4	2	20	−26·5	21	−13·6	4	12	316·1	+11·3	

GENERAL CATALOGUE of SUN-SPOTS—*continued.*

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	1927.		1927.	°	1927.	°			°	°	
10390	Sept. 24·9	2	Sept. 20	−58·3	Sept. 21	−48·2	6	32	282·9	−12·4	
1	25·9	6	20	−70·6	25	−11·8	5	18	270·1	+15·5	
2	21·3	6	22	+18·8	27	+77·9	25	131	330·4	+22·2	II.
3	21·3	6	22	+16·4	27	+77·1	29	131	330·5	−14·8	II.
4	22·83	6	22	− 4·4	27	+62·3	9	41	310·4	+11·2	
5	28·17	13	22	−72·6	Oct. 4	+82·8	44	257	240·0	−18·2	I. 1032 (1)
6	23·57	5	23	− 2·7	Sept. 27	+52·5	5	16	300·7	+ 6·3	
7	29·7	4	26	−44·9	29	− 3·5	4	12	220·4	+18·1	
8	Oct. 1·7	4	26	−68·8	29	−32·7	4	10	193·2	−33·3	
9	Sept. 23·8	2	27	+49·0	28	+60·0	3	12	298·0	−21·4	
10400	Oct. 1·7	3/4	27	−58·9	30	−14·4	4	22	193·5	−11·2	
1	4·27	5/7	30	−53·0	Oct. 6	+29·3	3	11	159·4	+21·9	
2	7·11	10	Oct. 1	−76·4	10	+43·8	10	43	121·9	− 8·9	I. 1028 (3)
3	7·3	3	1	−79·9	3	−52·0	6	33	118·8	+16·5	
4	9·21	14	2	−87·4	15	+81·2	46	278	94·3	+18·5	I. 1033 (1)
5	2·9	6	3	+ 5·2	8	+70·4	8	26	177·1	+10·6	
6	10·56	12	4	−83·2	15	+68·9	56	334	76·4	−12·1	I. 1030 (2)
7	11·68	13	5	−80·5	17	+74·0	30	191	61·6	−19·3	I. 1029 (2)
8	6·5	5	7	+12·6	11	+69·9	17	62	130·6	− 8·4	
9	8·24	2	7	− 7·8	8	+ 3·8	2	8	107·0	−12·2	
10410	12·9	3/7	7	−69·6	13	+ 8·0	1	3	45·6	+11·4	
1	13·4	4	7	−76·5	10	−39·9	7	22	38·6	+17·4	
2	14·52	11	9	−71·3	19	+65·6	39	229	24·2	− 9·2	II.
3	11·12	3	10	− 9·0	12	+15·8	1	12	69·1	−11·6	
4	12·9	2	10	−31·6	11	−20·0	4	11	45·2	−22·8	
5	17·10	14	10	−86·9	23	+82·5	25	130	350·2	+20·9	I. 1031 (2)
6	10·8	2	11	+ 8·4	12	+20·3	2	10	72·8	− 7·4	
7	16·4	2	14	−24·7	15	−12·3	4	11	359·8	−19·2	
8	22·5	7	16	−80·8	22	− 0·9	6	16	279·2	− 6·5	II.
9	22·54	12	17	−68·9	28	+77·4	27	130	278·4	−10·8	II.
10420	23·7	2	18	−69·5	19	−56·0	2	10	262·9	+12·2	
1	25·75	13	19	−81·6	31	+75·0	25	201	236·0	−18·6	I. 1032 (2)
2	19·2	2	21	+29·7	22	+41·0	12	50	322·7	−28·8	
3	20·5	6	21	+10·5	26	+80·6	59	344	305·3	− 4·9	I. 1034 (1)
4	19·1	4	22	+44·6	25	+81·3	28	112	324·4	−10·2	
5	31·04	5/7	25	−75·6	31	+ 5·6	3	16	166·3	+22·1	
6	29·50	5	29	− 0·2	Nov. 2	+48·6	9	26	186·6	−15·1	
7	Nov. 4·79	10	29	−86·1	7	+35·1	10	57	103·7	+16·3	I. 1033 (2)
8	Oct. 29·9	6	30	+ 9·1	4	+73·3	8	28	182·0	+11·4	II.
9	30·1	6	30	+ 7·0	4	+68·9	9	28	178·2	+16·4	
10430	Nov. 5·96	10	30	−84·7	8	+31·3	20	109	88·3	+17·8	I. 1033 (2)
1	5·0	4	Nov. 1	−47·3	4	− 9·8	11	31	100·3	−11·1	
2	2·4	3	5	+39·0	7	+65·3	16	62	135·0	+21·8	
3	10·53	11	6	−58·6	16	+79·3	103	751	28·0	− 9·0	II.
4	7·3	4	9	+29·0	12	+68·3	7	24	71·0	−11·0	
5	11·99	6	9	−32·6	14	+34·1	5	23	8·8	+ 8·1	
6	13·7	5	9	−55·9	13	− 0·6	5	13	346·5	−14·4	
7	15·1	2	9	−73·0	10	−63·6	12	28	327·4	+15·2	
8	15·74	13	9	−80·8	21	+75·4	61	411	319·4	− 6·1	I. 1034 (2)
9	16·35	11/13	10	−75·7	22	+77·0	21	104	311·3	+ 8·5	II.

GENERAL CATALOGUE of SUN SPOTS—*continued.*

No. of Group.	Time of Central Meridian Passage.	Duration in Days.	First Seen. Date.	First Seen. Longitude from Central Meridian.	Last Seen. Date.	Last Seen. Longitude from Central Meridian.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Position of Group. Longitude.	Mean Position of Group. Latitude.	Reference to Ledger.
	1927–28.		1927.	°	1927–28.	°			°	°	
10440	Nov. 16·92	9	Nov. 11	−72·5	Nov. 19	+32·9	9	25	303·8	+ 6·6	II.
1	17·31	5/7	11	−76·8	17	+ 0·2	1	6	298·6	−20·6	
2	18·63	7/10	13	−69·1	22	+49·8	2	9	281·2	+14·6	II.
3	18·84	11/12	13	−69·9	24	+71·9	10	42	278·5	−19·8	II.
4	16·5	2/3	14	−26·8	16	− 0·2	1	10	309·9	−21·1	
5	12·8	4	16	+49·3	19	+82·8	10	29	357·9	−16·2	
6	21·92	12	16	−75·5	27	+75·0	41	247	237·8	+11·5	II.
7	16·7	2/3	18	+21·6	20	+48·8	1	6	306·4	− 7·2	
8	20·49	9	18	−25·0	26	+76·7	18	86	256·7	− 5·7	II.
9	24·57	9	19	−67·2	27	+36·7	28	155	202·9	−14·1	II.
10450	24·4	2	23	−12·9	24	− 1·5	1	6	205·5	+10·3	
1	25·52	9	23	−28·6	Dec. 1	+76·4	111	795	190·5	−16·0	II.
2	25·9	2	24	−19·7	Nov. 25	− 9·0	4	10	185·0	+17·7	
3	30·2	4	24	−78·5	27	−35·7	5	17	128·5	−16·4	
4	Dec. 2·3	2	27	−65·0	28	−51·5	4	6	101·5	+ 4·6	
5	Nov. 29·85	5	29	− 7·2	Dec. 3	+45·5	16	70	133·4	−14·4	
6	28·4	2	30	+24·7	1	+39·5	3	4	152·6	− 9·7	
7	30·4	2	Dec. 1	+15·5	2	+24·1	2	7	126·2	−19·4	
8	Dec. 4·2	2	2	−23·0	3	−11·9	2	16	76·0	−10·8	
9	8·2	4	·2	−75·9	5	−35·2	6	19	23·6	+ 8·1	
10460	6·73	8	4	−31·5	11	+64·5	16	71	42·7	−20·8	II.
1	8·75	11	5	−44·5	15	+79·7	80	568	16·0	−11·2	I. 1035 (1)*
2	11·88	9	5	−83·7	13	+17·4	12	44	334·8	+19·0	II.
3	11·98	12	6	−75·9	17	+75·0	20	77	333·5	− 8·4	I. 1034 (3)
4	6·2	4	8	+28·1	11	+68·3	7	37	49·8	−10·5	
5	14·46	13	8	−82·0	20	+76·2	26	146	300·8	+ 4·9	II.
6	13·76	2	12	+18·7	13	− 5·1	3	8	310·0	+ 9·6	
7	12·8	2/5	13	+ 9·8	17	+58·7	0	3	322·9	+10·8	
8	13·64	2	13	− 3·6	14	+ 8·4	2	6	311·6	−15·2	
9	20·56	8	19	−14·3	26	+76·8	17	77	220·5	+14·9	II.
10470	26·5	2	21	−68·1	22	−54·4	2	8	142·5	− 9·0	
1	22·72	6	22	− 5·4	27	+64·5	17	90	191·9	−12·6	II.
2	22·8	2	23	+ 7·8	24	+19·2	2	6	191·2	+18·4	
3	25·17	3	23	−24·4	25	+ 0·1	3	8	159·7	+18·1	
4	23·8	6	24	+ 5·4	29	+76·6	16	73	178·2	−12·4	II.
5	27·31	10	24	−39·8	Jan. 2	+76·0	58	347	131·5	+12·0	II.
6	Jan. 2·03	12	27	−73·2	7	+69·3	46	256	56·2	−16·3	II.
7	3·77	13	28	−81·1	9	+76·3	102	506	33·2	− 8·5	I. 1035 (2)*
8	Dec. 28·0	4	30	+32·1	2	+67·6	5	19	121·9	−12·2	
9	Jan. 6·63	10	31	−80·8	9	+38·6	10	50	355·7	− 9·2	II.

* *See* Ledger I. for 1928.

GENERAL CATALOGUE of SUN SPOTS—*continued.*

REVIVAL GROUPS of SUN SPOTS, 1927.

Groups of spots occupying the same heliographic position in consecutive rotations of the sun but with definite breaks in their history are termed "Revivals." Such groups have been abstracted from the preceding Catalogue and are grouped in series in the following table. When a "Recurrent" series forms part of a "Revival" series, a reference is given in the last column of the table. Groups which are given in detail in Ledger II. are also indicated.

Reference No.	Group No.	Central Meridian Passage.	No. of Rotation.	Duration.	First Seen.		Last Seen.		Mean Area.	Mean Position.		Reference to Ledger.
					Date.	Longitude from C.M.	Date.	Longitude from C.M.		Longitude.	Latitude.	
		1926–27.			1926–27.	°	1926–27.	°		°	°	
1	10125	Dec. 23·75	980	12	Dec. 18	−66	Dec. 29	+70	347	316	+33	I. 1011
	10149	Jan. 21·67	981	13	Jan. 15	−78	Jan. 27	+71	259	295	+33	
	10184	Feb. 19·51	982	9	Feb. 13	−76	Feb. 21	+23	35	275	+33	
	10218	Mar. 19·94	983	14	Mar. 13	−74	Mar. 26	+80	919	261	+32	I. 1018
	10256	Apr. 17·04	984	11	Apr. 11	−75	Apr. 21	+58	157	250	+31	
2	10137	Dec. 29·0	980	3	Jan. 1	+46	Jan. 3	+72	36	247	−10	
	10155	Jan. 24·7	981	3/4	Jan. 20	−58	Jan. 23	−16	13	255	− 9	
3	10146	Jan. 11·4	980	2	Jan. 12	+12	Jan. 13	+26	16	70	+13	
	10170	Feb. 7·87	981	12	Feb. 2	−74	Feb. 13	+76	305	69	+15	II.
4	10144	Jan. 13·1	980	3	Jan. 8	−61	Jan. 10	−39	14	48	−17	
	10173	Feb. 9·84	981	13	Feb. 3	−83	Feb. 15	+72	613	43	−15	I. 1017
	10208	Mar. 9·25	982	13	Mar. 3	−76	Mar. 15	+80	223	42	−14	
5	10154	Jan. 21·2	981	2	Jan. 17	−46	Jan. 18	−33	15	306	−18	
	10182	Feb. 17·2	982	3	Feb. 12	−63	Feb. 14	−37	13	306	−16	
6	10163	Jan. 30·16	981	8	Jan. 29	−10	Feb. 5	+77	450	183	−17	II.
	10198	Feb. 26·5	982	2	Feb. 25	−16	Feb. 26	− 1	4	183	−19	
7	10167	Jan. 26·4	981	2	Jan. 30	+55	Jan. 31	+69	29	235	− 8	
	10188	Feb. 22·09	982	9	Feb. 19	−38	Feb. 27	+76	179	242	−11	II.
	10221	Mar. 20·34	983	10	Mar. 14	−79	Mar. 23	+41	104	256	−10	II.
	10254	Apr. 16·27	984	8/9	Apr. 10	−81	Apr. 18	+32	28	261	− 7	II.
8	10172	Feb. 5·16	981	3	Feb. 3	−24	Feb. 5	+ 4	6	104	+23	
	10179	Feb. 5·5	981	3	Feb. 8	+37	Feb. 10	+67	77	101	+24	
	10203	Mar. 4·79	982	11	Feb. 27	−68	Mar. 9	+55	75	101	+22	II.
9	10181	Feb. 14·28	982	6/7	Feb. 12	−28	Feb. 18	+59	14	344	+13	
	10216	Mar. 12·95	983	9	Mar. 10	−36	Mar. 18	+77	160	353	+14	II.
10	10185	Feb. 19·9	982	2/4	Feb. 14	−74	Feb. 17	−32	4	271	+19	
	10219	Mar. 19·44	983	13	Mar. 13	−80	Mar. 25	+80	125	267	+16	II.

* This is a continuation of Series No. 27, 1926.

GENERAL CATALOGUE of SUN SPOTS.

REVIVAL GROUPS of SUN SPOTS—*continued.*

Reference No.	Group No.	Central Meridian Passage.	No. of Rotation.	Duration.	First Seen. Date.	First Seen. Longitude from C.M.	Last Seen. Date.	Last Seen. Longitude from C.M.	Mean Area.	Mean Position. Longitude.	Mean Position. Latitude.	Reference to Ledger.
		1927.			1927.	°	1927.	°		°	°	
11	10189	Feb. 22·8	982	3	Feb. 19	−43	Feb. 21	−18	14	232	−12	
	10224	Mar. 21·75	983	10	Mar. 17	−57	Mar. 26	+65	119	237	−11	II.
	10262	Apr. 17·64	984	10	Apr. 15	−35	Apr. 24	+82	483	242	−12	I. 1020
	10289	May 15·02	985	11	May 9	−74	May 19	+60	99	240	−11	
12	10193	Feb. 24·36	982	3	Feb. 23	−17	Feb. 25	+18	10	212	−12	
	10225	Mar. 23·0	983	2	Mar. 20	−34	Mar. 21	−22	3	220	−12	
13	10199	Mar. 2·6	982	5/7	Feb. 25	−71	Mar. 3	+10	10	130	−25	
	10236	Mar. 30·2	983	7	Mar. 30	+ 4	Apr. 5	+80	251	126	−24	I. 1019
	10265	Apr. 26·28	984	12	Apr. 20	−78	May 1	+67	60	128	−21	
14	10200	Feb. 24·5	982	3/4	Feb. 27	+38	Mar. 2	+76	51	209	+10	
	10226	Mar. 23·4	983	3/7	Mar. 21	−28	Mar. 27	+53	5	215	+ 7	
	10228	Mar. 23·9	983	2	Mar. 22	−20	Mar. 23	− 7	6	209	+11	
15	10212	Mar. 3·9	982	3	Mar. 7	+46	Mar. 9	+72	17	112	−20	
	10233	Mar. 31·5	983	2	Mar 27	−54	Mar. 28	−41	13	109	−19	
16	10229	Mar. 26·93	983	6	Mar. 23	−50	Mar. 28	+21	14	169	−17	
	10264	Apr. 23·5	984	2/3	Apr. 19	−53	Apr. 21	−29	5	165	−18	
17	10231	Mar. 25·0	983	5	Mar. 25	+ 8	Mar. 29	+57	31	194	− 9	
	10272	Apr. 21·2	984	2	Apr. 26	+67	Apr. 27	+81	288	195	−10	I. 1021
	10293	May 17·87	985	10	May 11	−87	May 20	+33	117	203	−10	
18	10238	Apr. 4·28	983	8	Mar. 31	−53	Apr. 7	+41	32	59	−14	II.
	10270	May 1·2	984	2	Apr. 25	−76	Apr. 26	−64	8	63	−16	
19	10243	Apr. 1·4	983	5/6	Apr. 2	+14	Apr. 7	+79	64	97	−14	II.
	10268	Apr. 28·09	984	12	Apr. 22	−74	May 3	+72	157	104	−15	II.
	10300	May 25·8	985	5	May 20	−71	May 24	−21	19	98	−13	
	10321	June 22·30	986	12	June 17	−69	June 28	+84	45	94	−10	
	10342	July 19·06	987	12	July 13	−73	July 24	+71	185	100	−13	I. 1024
	10358	Aug. 15·09	988	13	Aug. 8	−84	Aug. 20	+71	157	102	−13	
	10375	Sept. 11·01	989	3	Sept. 9	−22	Sept. 11	+ 6	8	106	−11	
	10409	Oct. 8·24	990	2	Oct. 7	− 8	Oct. 8	+ 4	8	107	−12	
	10431	Nov. 5·0	991	4	Nov. 1	−47	Nov. 4	−10	31	100	−11	
20	10246	Apr. 11·76	984	13	Apr. 5	−80	Apr. 17	+74	200	320	−14	II.
	10280	May 8·9	985	3/4	May 5	−46	May 8	− 7	3	321	−15	
21	10259	Apr. 18·5	984	7	Apr. 12	−81	Apr. 18	− 4	40	230	+18	II.
	10290	May 15·9	985	4	May 10	−72	May 13	−36	66	228	+19	
	10298	May 16·5	985	5	May 18	+24	May 22	+84	82	221	+20	
	10320	June 13·0	986	3	June 14	+15	June 16	+47	6	217	+20	
22	10279	May 8·27	985	10	May 4	−57	May 13	+71	98	330	− 8	II.
	10311	June 3·8	986	3/5	June 4	+ 6	June 8	+62	7	338	− 9	
	10328	June 30·90	987	12	June 25	−76	July 6	+75	568	340	− 7	
	10348	July 27·85	988	13	July 21	−85	Aug. 2	+73	493	343	− 8	I. 1025
	10363	Aug. 23·98	989	13	Aug. 18	−73	Aug. 30	+84	408	345	−10	
	10386	Sept. 20·86	990	7/8	Sept. 15	−74	Sept. 22	+24	29	336	− 9	
23	10288	May 12·79	985	10	May 9	−44	May 18	+71	77	270	+18	II.
	10312	June 9·0	986	5/6	June 5	−48	June 10	+18	6	270	+18	

GENERAL CATALOGUE of SUN SPOTS.

REVIVAL GROUPS OF SUN SPOTS—*continued.*

Reference No.	Group No.	Central Meridian Passage.	No. of Rotation.	Duration.	First Seen. Date.	First Seen. Longitude from C.M.	Last Seen. Date.	Last Seen. Longitude from C.M.	Mean Area.	Mean Position. Longitude.	Mean Position. Latitude.	Reference to Ledger.
		1927.			1927.	°	1927.	°		°	°	
24	10295	May 19·72	985	7	May 17	−30	May 23	+48	90	178	−24	II.
	10317	June 16·20	986	8	June 12	−50	June 19	+46	22	175	−25	II.
	10340	July 13·4	987	4	July 9	−51	July 12	−15	15	174	−22	
25	10323	June 25·41	986	12	June 19	−78	June 30	+64	148	53	− 8	} II.
	10326	June 25·87	986	5	June 24	−20	June 28	+38	8	46	− 9	
	10347	July 22·52	987	8	July 20	−29	July 27	+67	87	54	− 9	II.
26	10360	Aug. 17·64	988	7	Aug. 14	−46	Aug. 20	+38	48	69	− 7	II.
	10376	Sept. 13·4	989	4	Sept. 9	−53	Sept. 12	−14	52	75	− 7	
	10416	Oct. 10·8	990	2	Oct. 11	+ 8	Oct. 12	+20	10	73	− 7	
27	10361	Aug. 19·34	988	11	Aug. 14	−68	Aug. 24	+67	168	46	−17	II.
	10382	Sept. 15·80	989	5	Sept. 13	−33	Sept. 17	+26	12	43	−18	
28	10362	Aug. 21·05	988	13	Aug. 15	−77	Aug. 27	+80	221	23	+11	II.
	10383	Sept. 16·6	989	2/3	Sept. 13	−40	Sept. 15	−17	7	32	+12	
29	10367	Aug. 26·72	989	4	Aug. 26	− 7	Aug. 29	+35	13	308	+11	
	10394	Sept. 22·83	990	6	Sept. 22	− 4	Sept. 27	+62	41	310	+11	
30	10379	Sept. 13·91	989	10	Sept. 11	−37	Sept. 20	+84	811	68	−11	} I. 1030
	10406	Oct. 10·56	990	12	Oct. 4	−83	Oct. 15	+69	334	76	−12	
	10434	Nov. 7·3	991	4	Nov. 9	+29	Nov. 12	+68	24	71	−11	
	10458	Dec. 4·2	992	2	Dec. 2	−23	Dec. 3	−12	16	76	−11	
31	10380	Sept. 17·99	989	11	Sept. 12	−74	Sept. 22	+62	71	14	−11	II.
	10412	Oct. 14·52	990	11	Oct. 9	−71	Oct. 19	+66	229	24	− 9	II.
	10433	Nov. 10·53	991	11	Nov. 6	−59	Nov. 16	+79	751	28	− 9	II.
32	10388	Sept. 21·88	990	10	Sept. 16	−71	Sept. 25	+46	109	323	−13	II.
	10424	Oct. 19·1	991	4	Oct. 22	+45	Oct. 25	+81	112	324	−10	
33	10405	Oct. 2·9	990	6	Oct. 3	+ 5	Oct. 8	+70	26	177	+11	
	10428	Oct. 29·9	991	6	Oct. 30	+ 9	Nov. 4	+73	28	182	+11	II.
34	10417	Oct. 16·4	991	2	Oct. 14	−25	Oct. 15	−12	11	0	−19	
	10445	Nov. 12·8	992	4	Nov. 16	+49	Nov. 19	+83	29	358	−16	
35	10426	Oct. 29·50	991	5	Oct. 29	0	Nov. 2	+49	26	187	−15	
	10451	Nov. 25·52	992	9	Nov. 23	−29	Dec. 1	+76	795	190	−16	II.
	10471	Dec. 22·72	993	6	Dec. 22	− 5	Dec. 27	+65	90	192	−13	II.
36	10429	Oct. 30·1	991	6	Oct. 30	+ 7	Nov. 4	+69	28	178	+16	
	10452	Nov. 25·9	992	2	Nov. 24	−20	Nov. 25	− 9	10	185	+18	
	10472	Dec. 22·8	993	2	Dec. 23	+ 8	Dec. 24	+19	6	191	+18	
37	10439	Nov. 16·35	992	11/13	Nov. 10	−76	Nov. 22	+77	104	311	+ 9	} II.
	10440	Nov. 16·92	992	9	Nov. 11	−73	Nov. 19	+33	25	304	+ 7	II.
	10466	Dec. 13·76	993	2	Dec. 12	+19	Dec. 13	− 5	8	310	+10	

ROYAL OBSERVATORY, GREENWICH.

Ledgers of Groups of Sun Spots

for the Year

1927

Ledger I.—Recurrent Groups

GREENWICH PHOTO-HELIOGRAPHIC RESULTS 1927

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927.

The Greenwich Mean Time at which the photograph was taken is expressed in the *first* column by the Day of the Year and decimal of a day reckoned from Greenwich Mean Midnight.

The place where the photograph was taken is also indicated in the *first* column. A photograph taken at Greenwich is indicated by the letter G, and those taken at the Cape and Kodaikanal by the letters C and K respectively.

The Projected Area of the Umbræ and Whole Spots, given in the *second* and *third* columns, is the area as it is measured on the photograph, uncorrected for the effect of foreshortening, and expressed in millionths of the Sun's apparent disc.

The area corrected for foreshortening given in the *fourth* and *fifth* columns is expressed in millionths of the Sun's visible hemisphere.

The longitude given in the *sixth* column is based on the ephemeris given in the *Nautical Almanac*, assuming a daily sidereal motion of 14°·18, due to the Sun's rotation, constant at all latitudes; this corresponds to Carrington's assumed rotation period of 25·38 days.

The proper motion given in the *seventh* column is derived from the difference of longitude thus computed from the measured positions on any given day and the first day on which the group of spots or single spot is visible, after the correction for the motion appropriate to the latitude has been applied according to the formula, $\xi = 14^\circ{\cdot}37 - 2^\circ{\cdot}60 \sin^2\phi$.

A *plus* sign indicates a motion forwards; a *minus* sign a motion backwards relative to the position on the first day.

The remaining columns correspond to those with similar headings in the preceding Section.

When a group is 80° or more from the Sun's central meridian, the measures for that day are not included in taking the mean area, longitude, and latitude of the group. In such cases of close proximity to the Sun's limb, the addition of brackets denotes that only part of the group is visible.

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927.

No. 1011. Latitude +33°·0.

Group 10125 in Rotation 980.
" 10149 " " 981.
" 10184 " " 982.

Group 10125.—1926, December 18–29. A large regular spot with small followers.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°
14·493 G	32	198	47	292	319·7	0·0	+32·1	−65·6
13·330 C	42	344	43	351	321·1	+1·9	+32·2	−53·1
12·429 G	99	478	78	379	319·9	+1·3	+32·8	−39·9
11·429 G	121	572	84	396	318·4	+0·4	+32·6	−28·2
10·348 C	126	640	80	404	318·0	+0·5	+32·7	−16·5
9·361 C	95	547	58	335	316·7	−0·2	+33·0	− 4·4
8·445 G	86	624	53	386	315·7	−0·5	+33·0	+ 8·8
7·347 C	84	526	54	341	314·6	−1·1	+33·2	+19·6
6·365 C	86	491	63	357	313·9	−1·2	+33·2	+32·3
5·342 C	50	370	44	326	313·4	−1·2	+33·3	+44·7
4·331 C	48	288	55	331	312·4	−1·6	+33·0	+56·7
3·446 G	30	141	56	265	310·5	−2·8	+33·0	+69·5
Means ...	...	...	60	347	316·2	...	+32·8	...

Group 10149.—1927, January 15–27. A regular spot undergoing change after January 22. On January 25, an evanescent cluster of irregular spots has appeared closely following it.

14·412 G	17	62	65	237	299·7	−3·8	+33·2	−77·9
15·541 G	17	166	27	261	298·6	−4·2	+33·2	−64·1
16·348 C	38	228	42	251	298·8	−3·6	+33·0	−53·3
17·349 C	38	300	33	258	297·8	−4·0	+33·0	−41·1
18·320 C	59	338	44	250	296·8	−4·4	+33·2	−29·3
19·422 G	69	346	46	228	296·1	−4·5	+33·3	−15·5
20·316 C	65	380	42	243	295·4	−4·7	+33·0	− 4·4
21·322 C	42	357	27	228	294·6	−4·9	+33·0	+ 8·0
22·459 G	62	338	43	233	293·7	−5·1	+33·0	+22·1
23·368 C	32	279	25	215	292·5	−5·8	+33·1	+32·9
24·332 C	42	483	39	454	291·7	−6·0	+34·0	+44·7
25·341 C	30	175	39	226	291·8	−5·3	+32·8	+58·1
26·465 G	15	125	35	288	289·8	−6·7	+33·3	+70·9
Means ...	...	...	39	259	295·2	...	+33·2	...

Group 10184.—February 13–21. A small but distinct and persistent spot, with two companions preceding it on February 16 and one on February 17.

43·542 G	4	22	14	79	278·0	−8·5	+33·2	−76·0
44·335 C	9	19	16	34	278·0	−8·1	+33·1	−65·6
45·328 C	9	21	11	25	276·5	−9·0	+33·3	−54·0
46·506 C	21	72	17	60	277·4	−7·4	+32·3	−37·6
47·315 C	19	57	14	43	275·6	−8·8	+32·9	−28·7
48·498 G	13	43	9	29	274·3	−9·4	+33·0	−14·5
49·517 G	15	30	10	20	273·4	−9·7	+33·0	− 1·9
50·362 C	17	21	11	14	273·1	−9·5	+33·0	+ 8·9
51·437 G	6	13	4	9	272·7	−9·3	+32·9	+22·7
Means ...	...	...	12	35	275·4	...	+33·0	...

No. 1012. Latitude +24°·8.

Group 10131 in Rotation 980.
" 10148 " " 981.

Group 10131.—1926, December 23–29. A few very small spots showing an increase when nearing the west limb.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°
9·361 C	4	17	2	10	325·0	0·0	+24·6	+ 3·9
8·445 G	6	30	4	18	326·0	+1·3	+25·1	+19·1
7·347 C	4	30	3	20	327·7	+3·2	+24·4	+32·7
6·365 C	11	21	9	17	329·6	+5·4	+24·5	+48·0
5·342 C	21	67	22	71	325·8	+1·9	+25·0	+57·1
4·331 C	29	109	55	207	327·6	+3·9	+24·5	+71·9
3·446 G	6	24	(24	98	321·9	...	+24·3)	+80·9
Means ...	...	...	16	57	327·0	...	+24·7	...

Group 10148.—1927, January 13–25. A very large spot visible to the naked eye, accompanied by small changing spots and penumbral markings. The large spot is crossed by a "bridge" from January 15 to 18. The group is surrounded by conspicuous faculæ.

12·333 C	21	93	69	305	326·6	+7·2	+25·0	−78·3
13·337 C	72	523	104	753	326·5	+7·4	+24·7	−65·2
14·412 G	120	974	114	925	325·8	+7·0	+24·6	−51·8
15·541 G	153	1316	112	961	325·5	+7·0	+25·1	−37·2
16·348 C	247	1574	161	1023	325·5	+7·2	+24·8	−26·6
17·349 C	274	1825	162	1077	325·2	+7·1	+25·0	−13·7
18·320 C	228	1789	132	1038	325·3	+7·5	+25·1	− 0·8
19·422 G	325	1957	195	1174	325·7	+8·2	+25·1	+14·1
20·316 C	241	1545	154	989	325·0	+7·7	+25·0	+25·2
21·322 C	158	1255	119	941	325·2	+8·2	+25·2	+38·6
22·459 G	127	826	128	834	325·1	+8·4	+25·3	+53·5
23·368 C	59	473	87	695	324·8	+8·4	+25·0	+65·2
24·332 C	19	135	58	409	323·8	+7·6	+24·6	+76·8
Means ...	...	...	123	856	325·4	...	+25·0	...

No. 1013. Latitude −7°·7.

Group 10133 in Rotation 980.
" 10156 " " 981.

Group 10133.—1926, December 26–1927, January 7. A very large regular spot followed by a companion which dissolves into a cluster and disappears after January 2. The large spot, which is elongated in the direction of the solar rotation is crossed by "bridges" from north to south on January 1–3. The group is visible to the naked-eye.

6·365 C	25	175	59	411	203·7	0·0	− 8·0	−77·9
5·342 C	90	467	111	573	202·8	−1·0	− 8·0	−65·9
4·331 C	147	838	121	694	203·1	−0·9	− 8·0	−52·6
3·446 G	133	1112	82	692	203·4	−0·7	− 7·9	−37·6
2·531 G	199	1177	108	646	203·2	−1·1	− 7·9	−23·5
1·506 G	152	1008	78	515	204·3	−0·1	− 7·9	− 9·6
0·491 G	245	1235	123	618	204·9	+0·3	− 8·0	+ 4·0
1·346 C	126	1129	68	587	204·7	0·0	− 8·0	+15·1
2·426 G	151	1124	86	641	204·5	−0·3	− 8·0	+29·1

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. **1013**, Group 10133—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
3·426 G	189	815	129	554	204·9	−0·1	− 8·2	+42·7
4·412 C	87	506	77	445	204·6	−0·6	− 8·2	+55·4
5·544 G	65	348	100	536	205·7	+0·4	− 8·4	+71·4
6·445 G	22	103	90	419	205·8	+0·4	− 7·3	+83·3
Means ...	...	...	95	576	204·2	...	− 8·0	...

Group 10156.—1927, January 22–February 1. A small regular spot, with one or two companion spots, diminishing to a dot. The spot is followed by conspicuous faculæ in the rear of which Group 10162 appears.

21·322 C	6	34	13	72	209·7	+2·1	− 6·9	−76·9
22·459 G	24	90	25	95	209·5	+1·8	− 6·8	−62·1
23·368 C	25	97	19	75	210·1	+2·2	− 7·4	−49·5
24·332 C	19	110	12	68	210·0	+2·0	− 7·0	−37·0
25·341 C	21	148	12	81	210·1	+2·0	− 7·2	−23·6
26·465 G	26	95	13	48	210·5	+2·2	− 7·4	− 8·4
27·322 C	21	114	11	57	210·8	+2·4	− 7·4	+ 3·2
28·534 G	21	73	11	38	210·8	+2·2	− 8·3	+19·2
29·489 G	22	52	13	31	212·4	+3·7	− 7·4	+33·4
30·415 G	9	28	6	20	212·3	+3·4	− 7·6	+45·5
31·410 G	4	9	4	8	212·1	+3·1	− 7·5	+58·4
Means ...	...	...	13	54	210·8	...	− 7·4	...

No. **1014**. Latitude −15°·0.

Group 10138 in Rotation 980.
,, 10165 ,, ,, 981.

Group 10138.—January 2–15. A large active stream predominated by a composite leader spot, *a*, with a broad cleft crossing in a N—S direction. The group is visible to the naked eye.

1·346 C	25	97	(55	214	112·3	...	−13·0)	−77·3
2·426 G	102	877	139	1218	106·0	0·0	−13·5	−69·4
3·426 G	261	1334	235	1191	107·2	+1·2	−13·3	−55·0
4·412 C	209	1502	144	1029	108·0	+2·0	−13·8	−41·2
5·544 G	253	1708	144	973	107·2	+1·2	−13·7	−27·1
6·445 G	239	1604	125	843	108·9	+2·8	−13·7	−13·6
7·505 G	235	1642	120	838	107·9	+1·8	−13·9	− 0·6
8·531 G	148	1400	79	737	108·2	+2·1	−14·1	+13·2
9·118 K	245	1365	133	739	108·1	+2·0	−14·2	+20·8
10·511 G	178	1400	116	906	107·1	+1·0	−14·0	+38·2
11·378 C	125	872	98	693	107·7	+1·6	−13·9	+50·2
12·333 C	98	623	105	684	107·5	+1·3	−14·7	+62·6
13·337 C	63	291	123	541	106·4	+0·2	−15·0	+74·7
14·412 G	4	34	(14	123	100·8	...	−17·8)	+83·2
Means ...	...	...	130	866	107·5	...	−14·0	...

No. **1014**, Group 10138—*continued.*
Spot *a*.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
1·346 C	25	97	55	214	112·3	...	−13·0	−77·3
2·426 G	69	578	81	682	110·4	0·0	−12·9	−65·0
3·426 G	153	826	124	669	110·8	+0·4	−12·7	−51·4
4·412 C	135	943	88	613	110·8	+0·4	−13·3	−38·4
5·544 G	172	1131	95	622	110·5	+0·1	−13·2	−23·8
6·445 G	153	1135	79	590	111·0	+0·5	−13·5	−11·5
7·505 G	184	1160	94	592	110·7	+0·2	−13·3	+ 2·2
8·531 G	122	886	65	470	111·0	+0·5	−13·7	+16·0
9·118 K	169	786	93	432	111·5	+1·0	−13·7	+24·2
10·511 G	98	685	67	466	111·2	+0·7	−14·1	+42·3
11·378 C	68	530	58	450	111·2	+0·7	−14·1	+53·7
12·333 C	42	333	52	410	111·2	+0·6	−14·0	+66·3
13·337 C	27	93	66	229	110·7	+0·1	−13·8	+79·0

Group 10165.—January 29–February 11.—A regular spot (possibly *a* of Group 10138) which increases and becomes elongated in a longitudinal direction. On February 8, it is divided into two parts by a narrow "bridge" which crosses the entire spot N. to S. There are a few small companions, at first following at some distance in dense faculæ, and later, adjacent to the spot.

28·534 G	17	99	43	246	112·2	+1·4	−15·7	−79·4
29·489 G	45	247	59	326	111·3	+0·5	−16·0	−67·7
30·415 G	74	387	84	430	110·6	−0·3	−16·0	−56·2
31·410 G	103	497	70	339	110·9	0·0	−16·0	−42·8
32·354 C	114	687	68	408	110·8	−0·1	−16·0	−30·5
33·359 C	135	893	71	474	110·2	−0·7	−16·3	−17·9
34·424 G	125	842	64	429	110·2	−0·7	−16·0	− 3·9
35·435 G	136	982	70	501	110·3	−0·6	−16·1	+ 9·5
36·507 G	106	858	58	472	110·4	−0·6	−16·1	+23·8
37·309 C	115	901	70	549	109·6	−1·4	−16·2	+33·5
38·347 C	84	621	62	459	109·7	−1·3	−16·3	+47·3
39·354 C	51	390	51	390	109·7	−1·3	−16·2	+60·5
40·426 G	26	246	46	433	109·7	−1·3	−16·4	+74·7
41·357 C	2	13	(8	50	106·8	...	−15·4)	+84·0
Means ...	...	...	63	419	110·4	...	−16·1	...

No. **1015**. Latitude −14°·4.
Group 10150 in Rotation 981.
,, 10183 ,, ,, 982.

Group 10150.—January 15–27. A large spot, *a*, tending to composite structure, followed by a partially-formed spot, *b*, which has diminished to a very small nucleus by January 27. Occasional small attendant spots are present.

14·412 G	26	185	(59	416	299·6	...	−14·3)	−78·0
15·541 G	90	609	109	799	294·6	0·0	−14·8	−68·1
16·348 C	131	901	117	840	294·5	−0·1	−15·1	−57·6
17·349 C	184	1232	124	860	295·4	+0·7	−14·5	−43·5
18·320 C	137	1146	79	673	296·3	+1·6	−14·5	−29·8
19·422 G	183	1238	97	655	297·3	+2·6	−14·4	−14·3
20·316 C	219	1152	111	587	296·4	+1·7	−14·9	− 3·4
21·322 C	135	1038	70	537	296·6	+1·8	−15·0	+10·0
22·459 G	174	837	98	470	296·3	+1·5	−14·9	+24·7
23·368 C	76	738	49	472	296·9	+2·1	−14·4	+37·3

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927.—*continued.*

No. **1015**, Group 10150—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
24·332 C	74	571	58	443	296·7	+1·8	−14·8	+49·7
25·341 C	36	289	39	322	297·2	+2·3	−14·5	+63·5
26·465 G	17	114	40	289	296·9	+2·0	−14·9	+78·0
Means ...	...	...	83	579	296·3	...	−14·7	...
Spot *a*.								
14·412 G	26	185	59	416	299·6	0·0	−14·3	−78·0
15·541 G	73	400	80	440	299·5	−0·1	−14·1	−63·2
16·348 C	89	494	72	400	300·2	+0·5	−14·2	−51·9
17·349 C	131	658	85	428	300·0	+0·3	−14·2	−38·9
18·320 C	110	701	62	393	299·7	0·0	−14·1	−26·4
19·422 G	138	860	72	447	299·5	−0·2	−14·1	−12·1
20·316 C	177	857	90	437	299·3	−0·5	−14·1	− 0·5
21·322 C	114	785	59	408	299·4	−0·4	−14·3	+12·8
22·459 G	129	662	74	377	299·2	−0·6	−14·6	+27·6
23·368 C	63	618	41	402	298·5	−1·4	−14·5	+38·9
24·332 C	57	447	46	358	298·4	−1·5	−14·8	+51·4
25·341 C	30	257	34	293	298·3	−1·6	−14·6	+64·6
26·465 G	13	103	35	274	299·3	...	−14·8	+80·4
Spot *b*.								
15·541 G	17	209	29	359	288·7	0·0	−15·7	−74·0
16·348 C	42	407	45	440	289·4	+0·7	−16·0	−62·7
17·349 C	38	490	29	377	289·8	+1·0	−15·5	−49·1
18·320 C	27	445	17	280	289·9	+1·1	−15·4	−36·2
19·422 G	45	378	25	208	289·7	+0·9	−15·7	−21·9
20·316 C	42	295	21	150	290·2	+1·4	−15·2	− 9·6
21·322 C	21	253	11	129	290·2	+1·3	−15·0	+ 3·6
22·459 G	32	140	17	74	290·0	+1·1	−15·0	+18·4
23·368 C	13	120	8	70	289·5	+0·6	−14·4	+29·9
24·332 C	13	103	9	70	289·6	+0·6	−14·7	+42·6
25·341 C	6	32	5	29	290·6	+1·6	−15·0	+56·9
26·465 G	4	11	5	15	288·3	−0·7	−15·7	+69·4

Group 10183.—February 12–24. A stable regular spot (*a* of Group 10150) with one or two attendants on February 18 to 21.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
42·341 C	17	111	26	172	297·6	−2·8	−13·9	−72·2
43·542 G	37	160	34	146	296·7	−3·7	−14·0	−57·3
44·335 C	34	192	25	140	296·8	−3·7	−14·1	−46·8
45·328 C	34	200	21	122	296·3	−4·2	−13·7	−34·2
46·506 C	40	264	21	140	296·1	−4·4	−13·9	−18·9
47·315 C	53	262	27	134	295·6	−5·0	−13·9	− 8·7
48·498 G	41	276	21	141	295·2	−5·4	−14·1	+ 6·4
49·517 G	67	311	36	165	294·9	−5·7	−13·8	+19·5
50·362 C	52	298	30	173	294·5	−6·1	−13·9	+30·3

No. **1015**, Group 10183—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
51·437 G	28	199	19	139	294·9	−5·8	−14·2	+44·9
52·483 C	19	137	17	126	294·0	−6·7	−14·3	+57·7
53·418 G	17	100	24	141	294·4	−6·3	−14·4	+70·4
54·360 C	4	39	12	118	293·5	...	−14·5	+81·9
Means ...	...	...	25	143	295·6	...	−14·0	...

No. **1016.** Latitude −16°·1.

Group 10159 in Rotation 981.
" 10194 & 95 " 982.

Group 10159.—January 27–February 8. A large stream commencing as a pair of small spots at the east limb on January 27. The leader, *a*, which predominates throughout, has grown rapidly to a large spot on January 30, but a portion breaks away on the following day. The remainder of the stream is made up of a train of rapidly changing spots.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
26·465 G	6	20	14	50	140·7	0·0	−16·8	−78·2
27·322 C	17	70	20	81	143·1	+2·4	−16·5	−64·5
28·534 G	50	378	38	291	142·8	+2·1	−16·3	−48·8
29·489 G	140	1014	87	633	143·2	+2·5	−16·1	−35·8
30·415 G	146	1112	80	615	143·7	+3·0	−15·7	−23·1
31·410 G	244	1300	126	671	143·3	+2·6	−15·7	−10·4
32·354 C	260	1024	132	522	143·5	+2·9	−15·5	+ 2·2
33·359 C	148	1052	78	554	143·6	+3·0	−15·8	+15·5
34·424 G	126	860	74	508	145·1	+4·5	−14·9	+31·0
35·435 G	82	458	59	328	146·4	+5·8	−14·1	+45·6
36·507 G	56	272	56	273	147·7	+7·1	−13·8	+61·1
37·309 C	21	140	32	211	147·7	+7·1	−13·4	+71·6
38·347 C	8	45	35	198	147·2	...	−13·3	+84·8
Means ...	...	...	66	395	144·2	...	−15·4	...
Spot *a*.								
26·465 G	4	11	8	22	142·4	0·0	−17·0	−76·5
27·322 C	13	57	14	63	144·1	+1·7	−16·8	−63·5
28·534 G	39	275	29	206	143·6	+1·2	−16·1	−48·0
29·489 G	99	722	60	440	144·3	+1·9	−15·5	−34·7
30·415 G	99	755	53	408	145·2	+2·8	−14·8	−21·6
31·410 G	110	549	56	280	146·5	+4·1	−14·0	− 7·2
32·354 C	114	475	58	242	146·8	+4·5	−13·9	+ 5·5
33·359 C	85	596	45	316	147·2	+4·9	−13·7	+19·1
34·424 G	78	523	46	314	147·5	+5·2	−13·8	+33·4
35·435 G	69	333	50	243	147·7	+5·4	−13·7	+46·9
36·507 G	50	253	51	256	147·7	+5·4	−13·3	+61·1
37·309 C	21	140	32	211	147·7	+5·4	−13·4	+71·6
38·347 C	8	45	35	198	147·2	...	−13·3	+84·8

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. 1016—*continued.*

Group 10194.—February 23–24. A small spot, probably *a* of Group 10159.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°
53·418 G	4	13	7	23	149·5	+7·3	−14·2	−74·5
54·360 C	0	4	0	4	149·4	+7·3	−14·1	−62·2
Means ...	...	...	4	14	149·4	...	−14·2	...

Group 10195.—February 24–March 3. One or two small spots not seen on February 28 and March 2. Groups 10194 and 95 are surrounded by a fairly large area of faculæ which evidently originated with Group 10159.

54·360 C	8	22	12	33	139·8	−0·6	−20·2	−71·8
55·357 C	2	17	2	16	140·2	−0·2	−19·3	−58·2
56·442 G	7	30	5	21	139·4	−1·0	−17·8	−44·7
57·405 C	2	6	1	4	139·6	−0·8	−17·4	−31·8
58·500 G	0	0	0	0	...	...	...	...
59·418 G	2	9	1	5	137·3	−3·1	−20·7	− 7·6
60·369 C	0	0	0	0	...	...	...	...
61·395 C	0	9	0	5	137·0	−3·4	−21·5	+18·1
Means ...	...	...	3	10	138·9	...	−19·5	...

No. 1017. Latitude −14°·4.

Group 10173 in Rotation 981.
,, 10208 ,, ,, 982.

Group 10173.—February 3–15. Two spots 7° apart in longitude near the east limb; the leader, *a*, increases very considerably; the follower becomes an unstable cluster. The faculæ seen surrounding the group at the west limb are small considering the size of the spots.

33·359 C	4	34	(14	117	45·1	...	−14·8)	−83·0
34·424 G	47	384	76	610	41·2	0·0	−15·0	−72·9
35·435 G	115	610	112	594	41·6	+0·4	−15·3	−59·2
36·507 G	138	1100	95	777	42·5	+1·2	−15·1	−44·1
37·309 C	180	1414	109	860	42·9	+1·6	−14·7	−33·2
38·347 C	146	1397	78	752	42·5	+1·2	−15·1	−19·9
39·354 C	212	1308	109	670	43·1	+1·8	−14·7	− 6·1
40·426 G	201	1158	102	590	42·9	+1·5	−14·9	+ 7·9
41·357 C	143	1010	77	543	42·8	+1·4	−15·0	+20·0
42·341 C	128	869	76	519	43·5	+2·1	−14·3	+33·7
43·542 G	145	674	112	519	43·8	+2·3	−14·1	+49·8
44·335 C	111	469	109	460	43·7	+2·2	−13·6	+60·1
45·328 C	64	296	100	465	42·9	+1·4	−13·6	+72·4
Means ...	...	...	96	613	42·8	...	−14·6	...

Spot *a*.

33·359 C	4	34	14	117	45·1	...	−14·8	−83·0
34·424 G	30	257	42	357	44·2	0·0	−14·6	−69·9
35·435 G	65	363	58	323	44·6	+0·4	−14·4	−56·2
36·507 G	112	696	75	466	44·6	+0·3	−14·3	−42·0
37·309 C	129	903	76	533	44·4	+0·1	−14·4	−31·7

No. 1017, Group 10173—*continued.*

Spot *a*—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°
38·347 C	125	1020	66	541	44·2	−0·1	−14·5	−18·2
39·354 C	170	1056	87	539	44·3	0·0	−14·4	− 4·9
40·426 G	173	942	88	480	44·1	−0·3	−14·4	+ 9·1
41·357 C	124	882	67	476	43·8	−0·6	−14·4	+21·0
42·341 C	119	784	71	470	43·6	−0·8	−14·1	+33·8
43·542 G	145	674	112	519	43·8	−0·7	−14·1	+49·8
44·335 C	111	469	109	460	43·7	−0·8	−13·6	+60·1
45·328 C	64	296	100	465	42·9	−1·6	−13·6	+72·4

Group 10208.—March 3–15. A regular spot, *a* of Group 10173, with a "bridge" across it from March 6.

61·395 C	28	163	53	310	42·8	−2·2	−14·2	−76·1
62·341 C	49	275	53	300	42·9	−2·1	−14·1	−63·5
63·343 C	52	353	41	275	42·5	−2·5	−14·3	−50·7
64·460 G	72	403	45	250	42·4	−2·7	−14·6	−36·1
65·411 C	95	421	52	232	42·1	−3·0	−14·5	−23·9
66·391 G	74	462	38	236	42·0	−3·1	−14·5	−11·1
67·348 C	73	443	36	221	41·9	−3·3	−14·5	+ 1·4
68·341 C	73	428	38	222	41·5	−3·7	−14·4	+14·1
69·482 G	66	339	38	193	41·2	−4·0	−14·2	+28·9
70·437 G	55	283	36	187	41·1	−4·1	−14·0	+41·4
71·370 C	43	231	36	192	41·1	−4·3	−13·7	+53·6
72·421 C	22	127	27	157	40·8	−4·5	−13·5	+67·2
73·392 G	9	53	22	130	40·4	−4·9	−13·3	+79·6
Means ...	...	...	40	223	41·8	...	−14·1	...

No. 1018. Latitude +31°·9.

Group 10218 in Rotation 983.
,, 10256 ,, ,, 984.

Group 10218.—March 13–26. A large and unusually long stream in high latitude. The head of the stream is represented by a stable regular spot, *a*, whilst the rear portion is made up of a large cluster of rapidly changing components. The region of this group has been active since mid-December, 1926, *see* Recurrent Series No. 1011.

71·370 C	22	60	(62	169	273·7	...	+30·2)	−73·8
72·421 C	67	599	128	1323	264·3	0·0	+32·8	−69·3
73·392 G	118	1051	157	1429	262·3	−1·5	+32·7	−58·5
74·392 G	190	1414	178	1373	262·0	−1·2	+32·7	−45·6
75·393 G	171	1419	132	1118	261·6	−1·1	+32·8	−32·8
76·539 G	176	1252	120	858	261·7	−0·4	+32·1	−17·6
77·333 C	197	1439	128	947	260·5	−1·2	+31·8	− 8·4
78·424 G	171	1430	112	941	259·7	−1·4	+32·7	+ 5·2
79·399 G	165	1337	115	929	259·3	−1·3	+32·9	+17·7
80·330 C	130	936	101	714	259·0	−1·1	+33·0	+29·7
81·322 C	102	591	93	540	258·8	−0·7	+32·3	+42·5
82·434 G	57	332	79	443	259·8	+0·9	+32·3	+58·2
83·531 G	24	141	84	408	260·8	+2·4	+31·6	+73·7
84·472 G	4	22	(24	134	254·3	...	+33·6)	+79·6
Means ...	...	...	119	919	260·8	...	+32·5	...

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. **1018**, Group 10218—*continued.*

Spot *a*.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
71·370 C	22	60	62	169	273·7	0·0	+30·2	−73·8
72·421 C	37	184	50	248	273·7	+0·6	+29·9	−59·9
73·392 G	35	258	34	248	273·2	+0·6	+29·8	−47·6
74·392 G	62	321	48	250	272·5	+0·4	+29·9	−35·1
75·393 G	70	370	48	252	271·9	+0·4	+29·7	−22·5
76·539 G	66	429	42	270	271·1	+0·2	+29·5	− 8·2
77·333 C	73	426	45	264	270·3	−0·2	+29·6	+ 1·4
78·424 G	59	356	38	232	269·8	−0·1	+29·6	+15·3
79·399 G	68	334	48	237	269·1	−0·3	+29·5	+27·5
80·330 C	52	276	43	226	268·4	−0·5	+29·6	+39·1
81·322 C	30	174	31	181	267·4	−1·0	+29·6	+51·1
82·434 G	22	103	38	175	267·4	−0·4	+29·8	+65·8
83·531 G	11	40	59	213	267·0	−0·2	+29·9	+79·9

Group 10256.—April 11–21. A small but stable regular spot, *a*, followed by a train of companions in diminishing numbers. A large patch of faculæ accompanies the group.

100·373 G	29	143	82	426	250·3	+1·0	+32·9	−74·6
101·390 G	56	286	85	428	249·6	+0·8	+32·8	−61·9
102·380 G	49	232	50	237	249·3	+1·1	+32·7	−49·1
103·438 C	51	231	40	179	249·6	+1·9	+31·5	−34·9
104·115 K	42	183	29	126	251·7	+4·4	+31·0	−23·8
105·337 C	28	167	17	104	251·1	+4·4	+31·1	− 8·3
106·422 G	31	152	19	94	251·7	+5·6	+30·2	+ 6·7
107·436 G	26	98	17	65	248·6	+3·1	+31·1	+16·9
108·430 G	15	56	11	42	248·6	+3·6	+31·8	+30·1
109·347 G	9	17	8	14	249·9	+5·4	+30·3	+43·5
110·373 G	4	11	5	13	250·7	+6·8	+28·6	+57·8
Means ...	...	...	33	157	250·1	...	+31·3	...

Spot *a*. (Probably *a* of Group 10218.)

100·373 G	11	40	20	72	257·4	−0·7	+30·0	−67·5
101·390 G	18	103	21	117	256·3	−1·3	+30·1	−55·2
102·380 G	18	94	15	81	255·4	−1·7	+30·4	−43·0
103·438 C	24	114	17	81	254·9	−1·6	+29·5	−29·6
104·115 K	25	116	17	77	254·3	−1·8	+29·8	−21·2
105·337 C	22	123	13	75	253·7	−1·8	+29·3	− 5·7
106·422 G	22	130	13	79	253·2	−1·7	+29·1	+ 8·2
107·436 G	18	72	12	47	252·5	−1·8	+29·1	+20·8
108·430 G	11	34	8	25	251·8	−2·0	+29·1	+33·3
109·347 G	9	13	8	11	251·2	−2·1	+29·0	+44·8
110·373 G	4	11	5	13	250·7	−2·1	+28·6	+57·8

No. **1019**. Latitude −21°·6.

Group 10236 in Rotation 983.
,, 10265 ,, ,, 984.

Group 10236.—March 30–April 5. A stream of normal type. *a* is the leader spot.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
88·490 G	9	38	5	20	125·4	0·0	−24·3	+ 3·7
89·427 G	0	9	0	5	124·4	−0·8	−25·9	+15·0
90·635 G	33	64	21	39	125·3	+0·2	−23·3	+31·9
91·411 G	64	288	45	203	126·6	+1·7	−22·8	+43·4
92·375 C	105	505	93	454	126·5	+1·7	−23·1	+56·0
93·374 C	99	583	136	784	126·1	+1·5	−23·8	+68·8
94·534 G	20	161	(56	401	121·7	...	−25·5)	+79·7
Means ...	...	...	50	251	125·7	...	−23·9	...

Spot *a*.

91·411 G	42	186	30	134	127·9	0·0	−22·1	+44·7
92·375 C	39	235	37	226	129·3	+1·6	−22·0	+58·8
93·374 C	44	228	72	372	130·5	+2·9	−22·1	+73·2

Group 10265.—April 20–May 1. A regular spot (probably *a* of Group 10236) disappearing slowly. There are tiny followers on April 28.

109·347 G	7	54	15	117	128·7	+3·7	−20·2	−77·7
110·373 G	13	109	15	124	128·9	+4·1	−20·2	−64·0
111·480 G	18	92	14	73	128·6	+3·9	−20·3	−49·7
112·366 G	22	121	14	79	128·6	+4·1	−20·5	−37·9
113·356 C	22	111	13	63	128·6	+4·2	−20·6	−24·9
114·362 G	22	146	12	77	128·6	+4·4	−20·6	−11·6
115·363 G	20	94	10	49	128·4	+4·4	−20·6	+ 1·5
116·360 C	18	84	10	45	127·9	+4·0	−20·3	+14·1
117·445 G	20	61	12	36	126·4	+2·7	−21·2	+27·0
118·372 G	14	23	10	16	127·5	+4·0	−20·4	+40·3
119·413 G	7	23	6	20	127·3	+3·9	−20·5	+53·9
120·385 G	5	14	6	18	127·2	+4·0	−20·8	+66·6
Means ...	...	...	11	60	128·1	...	−20·5	...

No. **1020**. Latitude −11°·6.

Group 10262 in Rotation 984.
,, 10289 ,, ,, 985.

Group 10262.—April 15–24. A stream of rapid growth. The leader spot, *a*, passes through unusual changes as a small spot on April 15, a pair of spots on April 16, a composite spot on April 17, and a regular spot on April 19.

104·115 K	24	60	14	37	240·9	0·0	−12·0	−34·6
105·337 C	114	633	60	334	241·7	+0·7	−12·2	−17·7
106·422 G	248	1330	125	669	242·6	+1·5	−12·1	− 2·4
107·436 G	235	1228	121	633	243·0	+1·8	−11·4	+11·3
108·430 G	197	1015	109	561	242·5	+1·2	−12·1	+24·0
109·347 G	165	880	104	551	242·9	+1·6	−11·8	+36·5

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. **1020**, Group 10262—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
110·373 G	114	718	90	596	242·8	+1·4	−11·9	+49·9
111·480 G	58	430	70	502	241·9	+0·4	−11·7	+63·6
112·366 G	44	231	94	490	242·5	+0·9	−11·7	+76·0
113·356 C	9	66	(31	226	235·8	...	−11·0)	+82·3
Means ...	...	...	88	483	242·3	...	−11·9	...
Spot *a*.								
104·115 K	12	33	7	20	242·0	0·0	−11·3	−33·5
105·337 C	79	400	41	208	243·3	+1·2	−11·8	−16·1
106·422 G	152	900	76	450	244·6	+2·4	−11·6	− 0·4
107·436 G	123	632	64	329	246·0	+3·7	−11·0	+14·3
108·430 G	116	533	66	304	246·4	+4·0	−11·4	+27·9
109·347 G	101	486	67	321	246·9	+4·5	−11·8	+40·5
110·373 G	67	446	57	379	247·0	+4·5	−11·9	+54·1
111·480 G	36	228	49	310	247·4	+4·8	−11·7	+69·1
112·366 G	22	112	62	316	247·1	...	−11·9	+80·6
Spot *b*.								
104·115 K	12	27	7	17	239·8	0·0	−12·8	−35·7
105·337 C	35	233	19	126	238·8	−1·1	−12·9	−20·6
106·422 G	96	430	49	219	238·6	−1·4	−13·1	− 6·4
107·436 G	83	466	42	238	237·6	−2·5	−12·4	+ 5·9
108·430 G	72	437	38	232	236·9	−3·3	−11·9	+18·4
109·347 G	60	363	35	211	236·9	−3·3	−11·8	+30·5
110·373 G	47	272	33	190	236·9	−3·4	−11·9	+44·0
111·480 G	22	202	21	192	237·1	−3·3	−11·7	+58·8
112·366 G	22	119	32	174	237·0	−3·5	−11·3	+70·5
113·356 C	9	66	31	226	235·8	...	−11·0	+82·3

Group 10289.—May 9–19. An imperfectly-formed regular spot (*b* of Group 10262) with a close companion, and another *a* farther away. The group decreases rapidly.

128·428 G	28	133	52	243	239·9	−2·0	−11·7	−74·4
129·360 C	38	214	40	224	240·1	−1·8	−11·9	−61·8
130·375 G	55	244	43	189	239·3	−2·7	−11·9	−49·2
131·571 G	63	286	38	174	239·8	−2·3	−11·8	−32·9
132·358 C	36	174	20	96	239·4	−2·8	−11·2	−22·9
133·361 G	23	158	12	81	239·7	−2·6	−11·0	− 9·3
134·468 C	18	80	9	41	240·3	−2·1	−10·9	+ 5·9
135·355 C	20	36	11	19	240·9	−1·6	−11·4	+18·2
136·362 G	14	23	8	14	240·8	−1·7	−11·0	+31·5
137·350 G	5	9	4	6	241·4	−1·2	−10·8	+45·1
138·452 G	2	5	2	5	241·5	−1·2	−10·7	+59·8
Means ...	...	...	22	99	240·3	...	−11·3	...

No. **1021**. Latitude −10°·2.

Group 10272 in Rotation 984.
,, 10293 ,, ,, 985.

Group 10272.—April 26–27. A pair of spots appearing suddenly on April 26 near the west limb.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°
115·363 G	25	121	32	156	194·2	0·0	− 9·3	+67·3
116·360 C	18	115	61	421	195·2	....	−10·1	+81·4
Means ...	...	...	46	288	194·7	...	− 9·7	...

Group 10293.—May 11–20. A regular spot breaking up on May 17 and disappearing quickly.

130·375 G	0	29	(0	213	201·9	...	−10·5)	−86·6
131·571 G	27	136	39	197	202·7	+6·7	−10·2	−70·0
132·358 C	22	185	22	181	202·9	+6·8	−10·4	−59·4
133·361 G	34	254	25	185	202·8	+6·6	−10·3	−46·2
134·468 C	58	294	34	173	202·7	+6·4	−10·1	−31·7
135·355 C	38	301	21	163	202·7	+6·3	−10·5	−20·0
136·362 G	45	182	23	93	202·7	+6·2	−10·2	− 6·6
137·350 G	30	93	15	47	202·8	+6·2	−10·5	+ 6·5
138·452 G	5	11	3	6	202·5	+5·8	−10·5	+20·8
139·432 G	2	9	1	5	202·1	+5·3	−10·2	+33·4
Means ...	...	...	20	117	202·7	...	−10·3	...

No. **1022**. Latitude +16°·2.

Group 10287 in Rotation 985.
,, 10310 ,, ,, 986.
,, 10335 ,, ,, 987.

Group 10287.—May 9–18. A very large group of rapid development, consisting after May 11 of two large spots, *a* and *b*. The group is visible to the naked eye.

128·428 G	5	9	3	6	279·0	0·0	+16·7	−35·3
129·360 C	45	194	26	110	281·6	+2·6	+16·8	−20·3
130·375 G	163	813	87	436	283·0	+4·0	+17·0	− 5·5
131·571 G	282	1627	154	887	284·3	+5·3	+17·2	+11·6
132·358 C	286	1755	163	1000	283·4	+4·4	+17·0	+21·1
133·361 G	321	2134	207	1378	283·0	+4·1	+16·8	+34·0
134·468 C	315	1752	253	1419	283·3	+4·4	+16·7	+48·9
135·355 C	261	1401	282	1503	282·8	+3·9	+16·9	+60·1
136·362 G	168	806	304	1493	282·1	+3·2	+16·7	+72·8
137·350 G	27	96	(119	421	278·8	...	+15·6)	+82·5
Means ...	...	...	164	915	282·5	...	+16·9	...

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. **1022**, Group 10287—*continued.*

Spot *a*.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
129·360 C	16	58	9	32	285·4	0·0	+18·0	−16·5
130·375 G	59	298	31	158	286·5	+1·1	+17·6	− 2·0
131·571 G	173	869	95	478	286·6	+1·2	+17·5	+13·9
132·358 C	161	892	93	517	286·1	+0·7	+17·5	+23·8
133·361 G	172	1103	115	739	285·7	+0·3	+17·2	+36·7
134·468 C	143	963	122	819	285·3	0·0	+17·2	+50·9
135·355 C	152	754	176	875	285·1	−0·2	+17·2	+62·4
136·362 G	77	438	161	915	284·0	−1·3	+17·0	+74·7

Spot *b*.

130·375 G	86	384	46	207	281·4	0·0	+16·7	− 7·1
131·571 G	109	758	59	409	280·8	−0·6	+16·6	+ 8·1
132·358 C	125	863	70	483	280·4	−1·0	+16·6	+18·1
133·361 G	149	1031	92	639	280·3	−1·1	+16·3	+31·3
134·468 C	172	789	131	600	279·7	−1·7	+16·2	+45·3
135·355 C	109	647	106	628	279·5	−1·8	+16·0	+56·8
136·362 G	91	368	143	578	279·2	−2·1	+16·1	+69·9
137·350 G	27	96	119	421	278·8	...	+15·6	+82·5

Group 10310.—June 2–14. A very large spot (*a* of Group 10287) followed closely by one of irregular outline which coalesces temporarily with it on June 8. By this date, another spot has formed behind it, thus completing a stream 10° in length between the centres of the first and last spots. The large leader spot, *a*, is crossed by a "bridge" *n* to *s* from June 2 to 9. The group has decreased considerably by the time it passes around the west limb.

152·415 G	75	515	140	973	283·2	+4·5	+16·8	−73·7
153·562 G	141	1065	141	1066	283·8	+5·1	+16·9	−58·0
154·355 G	173	1594	136	1258	283·3	+4·6	+17·0	−48·0
155·418 G	249	1719	158	1094	283·0	+4·3	+16·9	−34·2
156·427 G	344	2237	191	1249	282·9	+4·2	+16·4	−20·9
157·344 C	259	2090	138	1112	282·7	+4·0	+16·6	− 9·0
158·474 G	542	3004	282	1562	281·0	+2·4	+16·6	+ 4·2
159·348 C	434	2696	235	1460	279·9	+1·3	+17·2	+14·7
160·406 G	316	2070	190	1239	281·0	+2·4	+16·9	+29·8
161·494 G	174	1370	125	989	280·8	+2·2	+16·7	+44·0
162·461 G	100	765	96	734	281·1	+2·5	+16·6	+57·1
163·348 G	78	469	116	678	281·0	+2·4	+16·7	+68·8
164·418 G	25	105	(103	451	281·6	...	+16·7)	+83·5
Means ...	...	...	162	1118	282·0	...	+16·8	...

Spot *a* (*a* of Group 10287).

152·415 G	57	406	98	698	284·8	−0·3	+16·7	−72·1
153·562 G	109	809	106	785	284·5	−0·6	+16·6	−57·3
154·355 G	132	1172	102	902	284·1	−1·0	+16·7	−47·2
155·418 G	160	1085	99	673	284·1	−1·0	+16·6	−33·1
156·427 G	253	1341	139	738	284·0	−1·1	+16·3	−19·8
157·344 C	192	1390	102	737	284·0	−1·1	+16·3	− 7·7
158·474 G	202	1186	105	617	284·2	−0·9	+16·2	+ 7·4

No. **1022**, Group 10310—*continued.*

Spot *a*—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
159·348 C	183	1040	101	572	284·1	−0·9	+16·3	+18·9
160·406 G	150	889	93	550	284·2	−0·8	+16·1	+33·0
161·494 G	87	637	66	484	283·8	−1·2	+16·1	+47·0
162·461 G	55	412	56	420	283·6	−1·4	+16·4	+59·6
163·348 G	55	275	87	435	283·2	−1·8	+16·4	+71·0

Group 10335.—June 29–July 11. A pair of fairly large regular spots in a large area of faculæ. The smaller, and more northern spot, *a*, slowly decreases, but the other, a_1, increases, first by the development of an extension following it and later, on July 5, by a nebulous growth preceding it. The long composite spot which results is breaking up near the west limb. Earlier there is a small distant companion, *c*, and a cluster of faint spots in the accompanying faculæ.

179·529 C	46	289	99	617	281·5	+3·1	+15·6	−76·6
180·338 C	75	475	98	625	280·8	+2·4	+15·8	−66·5
181·575 G	133	863	108	706	280·5	+2·1	+15·3	−50·5
182·317 C	148	946	100	636	280·7	+2·3	+15·2	−40·5
183·415 C	188	1090	107	625	280·3	+2·0	+15·5	−26·3
184·359 C	204	1250	109	663	279·7	+1·4	+15·3	−14·4
185·356 G	230	1481	118	759	280·2	+1·9	+14·9	− 0·7
186·462 C	220	1465	115	763	280·5	+2·2	+14·7	+14·2
187·580 G	230	1399	133	813	280·5	+2·2	+14·3	+29·0
188·381 G	184	1154	122	763	280·5	+2·2	+14·4	+39·6
189·571 *	112	682	98	593	280·6	+2·3	+14·7	+55·4
190·415 G	78	373	96	459	280·3	+2·0	+14·8	+66·3
191·392 G	14	204	33	490	279·8	+1·6	+14·4	+78·7
Means ...	...	...	103	655	280·4	...	+15·0	...

Spot *a*.

179·529 C	14	106	27	205	283·0	0·0	+17·1	−75·1
180·338 C	25	154	29	180	282·9	−0·1	+17·6	−64·4
181·575 G	37	246	28	189	282·5	−0·5	+17·4	−48·5
182·317 C	43	231	28	152	282·3	−0·7	+17·5	−38·9
183·415 C	63	249	36	142	281·8	−1·2	+17·5	−24·8
184·359 C	50	263	27	139	281·7	−1·2	+17·4	−12·4
185·356 G	46	262	24	136	281·5	−1·4	+17·2	+ 0·6
186·462 C	34	170	18	90	281·7	−1·2	+16·7	+15·4
187·580 G	21	106	12	63	282·0	−0·9	+16·8	+30·5
188·381 G	14	60	10	41	282·1	−0·8	+16·7	+41·2
189·571 *	3	9	3	8	282·3	−0·6	+17·0	+57·1

Spot a_1.

179·529 C	32	183	72	412	280·7	0·0	+14·4	−77·4
180·338 C	45	285	57	359	280·9	+0·2	+14·7	−66·4
181·575 G	87	534	70	427	280·5	−0·2	+14·5	−50·5
182·317 C	93	669	62	448	280·1	−0·6	+14·6	−41·1
183·415 C	113	780	64	445	279·8	−0·9	+14·6	−26·8
184·359 C	145	903	77	479	279·7	−0·9	+14·4	−14·4
185·356 G	175	1168	89	596	279·9	−0·7	+14·4	− 1·0

* Mt. Wilson.

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. **1022,** Group 10335—*continued.*

Spot a_1—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
186·462 C	181	1279	94	665	280·3	−0·3	+14·3	+14·0
187·580 G	209	1293	121	750	280·5	−0·1	+14·2	+29·0
188·381 G	168	1089	111	719	280·4	−0·2	+14·2	+39·5
189·571 *	106	667	92	580	280·6	0·0	+14·7	+55·4
190·415 G	78	373	96	459	280·3	−0·3	+14·8	+66·3
191·392 G	14	204	33	490	279·8	−0·8	+14·4	+78·7

Spot *c.*

180·338 C	5	36	12	86	269·0	0·0	+15·1	−78·3
181·575 G	9	83	10	90	268·4	−0·6	+14·9	−62·6
182·317 C	7	23	6	19	268·8	−0·2	+14·7	−52·4
183·415 C	5	34	3	22	268·3	−0·7	+14·7	−38·3

No. **1023.** Latitude −7°·7.

Group 10297 in Rotation 985.
" 10315 " " 986.
" 10339 " " 987.

Group 10297.—May 17–27. A stream in which the following spot, *b*, is at first larger and more stable than the leader, *a*.

136·362 G	5	41	6	48	144·3	0·0	− 8·6	−65·0
137·350 G	26	60	22	49	144·3	−0·1	− 8·6	−52·0
138·452 G	68	156	43	100	143·8	−0·8	− 8·5	−37·9
139·432 G	118	406	65	224	144·3	−0·4	− 8·3	−24·4
140·362 C	119	536	62	277	145·4	+0·5	− 8·6	−11·0
141·553 G	126	488	64	247	148·6	+3·6	− 7·8	+ 7·9
142·351 G	114	515	61	275	149·0	+3·8	− 8·3	+18·9
143·354 C	89	429	52	256	148·5	+3·2	− 8·6	+31·7
144·400 C	55	318	40	233	148·7	+3·2	− 8·8	+45·7
145·360 G	32	176	34	188	151·8	+6·2	− 8·9	+61·5
146·358 C	17	81	34	173	153·5	+7·8	− 9·3	+76·4
Means ...	...	...	44	188	147·5	...	− 8·6	...

Spot *a.*

137·350 G	5	14	4	11	146·8	0·0	− 7·9	−49·5
138·452 G	16	21	10	13	146·8	−0·2	− 7·7	−34·9
139·432 G	36	128	19	69	147·4	+0·3	− 7·4	−21·3
140·362 C	54	164	28	84	148·6	+1·4	− 6·9	− 7·8
141·553 G	71	283	36	144	150·2	+2·8	− 7·2	+ 9·5
142·351 G	57	342	31	185	151·2	+3·7	− 7·9	+21·1
143·354 C	45	242	28	150	152·4	+4·7	− 8·8	+35·6
144·400 C	22	170	17	134	153·6	+5·8	− 9·0	+50·6
145·360 G	18	119	21	137	154·5	+6·6	− 9·0	+64·2
146·358 C	13	72	29	162	154·6	+6·5	− 9·1	+77·5

No. **1023,** Group 10297—*continued.*

Spot *b.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
136·362 G	5	18	6	22	143·0	0·0	− 8·7	−66·3
137·350 G	16	32	14	27	142·4	−0·7	− 8·8	−53·9
138·452 G	34	96	22	62	142·4	−0·9	− 8·9	−39·3
139·432 G	55	196	31	110	142·7	−0·7	− 8·6	−26·0
140·362 C	47	287	24	149	142·8	−0·8	− 8·5	−13·6
141·553 G	41	150	21	75	143·2	−0·5	− 8·6	+ 2·5
142·351 G	48	137	25	71	143·3	−0·6	− 8·3	+13·2
143·354 C	29	116	16	65	143·8	−0·2	− 8·2	+27·0
144·400 C	22	85	15	56	143·3	−0·8	− 8·0	+40·3
145·360 G	9	43	8	37	143·9	−0·4	− 7·9	+53·6
146·358 C	4	9	5	11	143·7	−0·7	− 7·5	+66·6

Group 10315.—June 11–23. A stable regular spot, *a* of Group 10297.

161·494 G	9	41	20	92	159·8	+ 9·5	− 8·2	−77·0
162·461 G	16	110	19	129	159·6	+ 9·2	− 8·1	−64·4
163·348 G	18	124	15	103	160·0	+ 9·5	− 7·8	−52·2
164·418 G	32	151	20	97	160·2	+ 9·5	− 7·5	−37·9
165·389 G	23	201	13	113	160·2	+ 9·4	− 7·4	−25·0
166·386 C	32	199	17	103	160·8	+ 9·8	− 7·3	−11·2
167·347 C	32	210	16	107	160·9	+ 9·8	− 7·1	+ 1·6
168·411 G	37	190	20	101	161·4	+10·2	− 7·4	+16·2
169·514 G	23	167	14	99	161·4	+10·0	− 7·1	+30·8
170·362 G	32	165	22	112	161·5	+10·0	− 7·3	+42·1
171·388 G	23	115	21	104	161·6	+ 9·9	− 7·4	+55·8
172·367 C	16	86	23	121	161·7	+ 9·9	− 7·7	+68·8
173·355 G	5	30	18	108	161·5	...	− 7·7	+81·7
Means ...	...	...	18	107	160·8	...	− 7·5	...

Group 10339.—July 8–12. A very small regular spot, *a* of Group 10297.

188·381 G	7	39	15	83	165·1	+11·0	− 6·5	−75·8
189·571 *	12	29	12	30	164·5	+10·2	− 6·7	−60·7
190·415 G	9	21	7	16	165·2	+10·8	− 6·1	−48·8
191·392 G	14	27	9	17	165·0	+10·5	− 6·0	−36·1
192·339 C	9	18	5	10	165·1	+10·4	− 5·7	−23·4
Means ...	...	...	10	31	165·0	...	− 6·2	...

No. **1024.** Latitude −11°·9.

Group 10321 in Rotation 986.
" 10342 " " 987.
" 10358 " " 988.

Group 10321.—June 17–28. A small cluster showing an increase of activity on June 23. Group 10322 is in the same disturbed area. A revival of Group 10300.

167·347 C	7	32	10	46	90·2	0·0	− 9·7	−69·1
168·411 G	9	66	8	58	90·8	+0·5	−10·0	−54·4
169·514 G	14	32	9	21	91·6	+1·2	− 9·2	−39·0
170·362 G	4	15	4	15	92·4	+2·0	− 9·3	−27·0
171·388 G	7	41	4	21	94·1	+3·6	−10·5	−11·7

* Mt. Wilson.

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. **1024**, Group 10321—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°	°
172·367 C	16	50	8	26	94·6	+4·0	−10·0	+ 1·7
173·355 G	21	151	11	80	95·0	+4·3	−10·2	+15·2
174·373 C	23	201	13	117	95·2	+4·4	−10·0	+28·9
175·353 G	16	96	11	67	95·9	+5·1	−10·0	+42·6
176·542 G	9	16	9	16	97·3	+6·4	−10·0	+59·7
177·450 G	10	18	14	26	93·6	+2·6	−12·6	+68·0
178·565 G	4	18	(23	103	94·9	...	−11·4)	+84·1
Means ...	...	...	9	45	93·7	...	−10·1	...

Group 10342.—July 13–24. A regular spot, disappearing rapidly after July 18. Companion spots are numerous about July 18 and after July 20, when they form a subsidiary stream southwards.

193·594 C	16	129	30	239	99·0	+6·7	−12·5	−72·9
194·420 C	32	185	36	209	99·0	+6·7	−12·2	−62·0
195·626 G	42	281	33	216	98·5	+6·1	−12·4	−46·5
196·374 C	50	280	33	182	98·9	+6·4	−12·5	−36·2
197·396 C	98	439	56	251	99·1	+6·5	−12·2	−22·5
198·343 G	86	571	46	302	99·3	+6·7	−12·2	− 9·8
199·418 G	67	355	35	185	99·3	+6·6	−12·0	+ 4·5
200·354 C	41	303	23	167	99·4	+6·6	−11·9	+16·9
201·401 C	50	205	31	127	99·8	+6·9	−12·2	+31·2
202·379 G	50	176	38	133	100·5	+7·5	−13·7	+44·8
203·363 G	39	126	41	133	101·2	+8·1	−14·6	+58·6
204·294 C	12	44	21	79	101·1	+8·0	−14·7	+70·8
Means ...	...	...	35	185	99·6	...	−12·8	...

Group 10358.—August 8–20. Two spots, *a* and *b*, widely separated which become two clusters. On August 17, one tiny spot remains, but a slight revival takes place on the following days.

219·560 G	5	21	(31	128	104·8	...	−13·5)	−83·6
220·352 G	32	189	84	479	101·5	+7·1	−13·0	−76·4
221·390 G	62	397	73	475	101·6	+7·1	−13·2	−62·6
222·561 G	63	406	48	324	101·4	+6·8	−12·9	−47·3
223·392 G	57	260	37	172	102·6	+8·0	−12·6	−35·2
224·360 G	57	221	33	128	103·0	+8·3	−12·6	−22·0
225·383 G	26	94	14	50	103·6	+8·8	−12·8	− 7·8
226·430 G	10	44	6	23	103·5	+8·6	−12·2	+ 5·9
227·377 G	5	18	3	10	101·1	+6·2	−12·6	+16·0
228·406 G	0	5	0	3	102·0	+7·0	−12·7	+30·5
229·467 G	14	66	10	48	99·5	+4·4	−12·7	+42·0
230·594 G	21	96	22	102	101·6	+6·4	−12·7	+59·0
231·359 C	6	40	10	71	103·1	+7·8	−12·8	+70·6
Means ...	...	...	28	157	102·0	...	−12·7	...

No. **1024**, Group 10358—*continued.*

Spot *a*.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°
219·560 G	5	21	31	128	104·8	0·0	−13·5	−83·6
220·352 G	18	116	33	215	105·7	+0·8	−13·1	−72·2
221·390 G	32	187	31	181	108·0	+3·1	−12·2	−56·2
222·561 G	36	173	25	121	108·1	+3·1	−11·9	−40·6
223·392 G	27	123	16	75	108·3	+3·2	−11·5	−29·5
224·360 G	30	105	17	58	107·9	+2·7	−11·5	−17·1
225·383 G	14	46	7	24	107·1	+1·8	−12·0	− 4·3
226·430 G	5	23	3	12	106·9	+1·6	−11·8	+ 9·3

Spot *b*.

220·352 G	14	73	51	264	97·6	0·0	−13·2	−80·3
221·390 G	30	210	42	294	97·6	−0·1	−13·8	−66·6
222·561 G	27	233	23	203	97·1	−0·7	−13·6	−51·6
223·392 G	30	137	21	97	96·9	−0·9	−13·8	−40·9
224·360 G	27	116	16	70	98·2	+0·3	−13·7	−26·8

No. **1025**. Latitude −8°·5.

Group 10328 in Rotation 987.
" 10348 " " 988.
" 10363 " " 989.
" 10386 " " 990.

Group 10328.—June 25–July 6. A stream in which the leader, *a*, becomes unusually large compared with the other spots. Between June 30 and July 1, *a* annexes a spot immediately following it. A pronounced "bridge" remains across the compound spot until July 4.

175·353 G	14	128	30	273	337·3	0·0	− 7·4	−76·0
176·542 G	67	301	67	307	337·9	+0·4	− 7·2	−59·7
177·450 G	99	591	75	448	338·8	+1·2	− 7·1	−46·8
178·565 G	117	672	69	402	339·4	+1·7	− 6·9	−31·4
179·529 C	137	694	73	372	339·5	+1·6	− 6·7	−18·6
180·338 C	154	949	78	485	339·8	+1·8	− 6·3	− 7·5
181·575 G	260	1612	134	832	340·3	+2·2	− 6·5	+ 9·3
182·317 C	253	1518	135	811	340·4	+2·2	− 6·8	+19·2
183·415 C	245	1360	149	833	341·0	+2·6	− 7·0	+34·4
184·359 C	186	994	139	738	341·0	+2·5	− 6·7	+46·9
185·356 G	106	667	109	687	341·3	+2·7	− 6·8	+60·4
186·462 C	37	294	77	626	341·7	+2·9	− 6·9	+75·4
Means ...	...	...	95	568	339·9	...	− 6·9	...

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. **1025**, Group 10328—*continued.*

Spot *a*.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
175·353 G	14	128	30	273	337·3	0·0	−7·4	−76·0
176·542 G	51	191	41	183	339·6	+2·1	− 7·0	−58·0
177·450 G	46	266	33	189	341·0	+3·4	− 7·2	−44·6
178·565 G	64	329	37	191	341·8	+4·1	− 7·1	−29·0
179·529 C	63	348	33	184	342·2	+4·3	− 6·9	−15·9
180·338 C	77	384	39	196	342·1	+4·1	− 6·6	− 5·2
181·575 G	156	971	81	505	341·8	+3·7	− 6·5	+10·8
182·317 C	140	834	76	450	342·0	+3·8	− 6·6	+20·8
183·415 C	145	732	91	461	342·5	+4·1	− 6·7	+35·9
184·359 C	114	558	88	430	342·5	+4·0	− 6·7	+48·4
185·356 G	69	414	74	443	342·2	+3·6	− 7·2	+61·3
186·462 C	32	276	69	599	342·5	+3·7	− 6·8	+76·2

Group 10348.—July 21–August 2. A very large regular spot (*a* of Group 10328) seen with the naked eye.

201·401 C	11	54	81	397	343·2	...	− 8·3	−85·4
202·379 G	55	330	92	554	344·0	+3·1	− 8·1	−71·7
203·363 G	96	508	97	513	343·7	+2·7	− 8·0	−58·9
204·294 C	142	766	107	575	343·5	+2·3	− 7·7	−46·8
205·375 G	165	907	101	553	343·4	+2·1	− 7·8	−32·6
206·461 C	201	881	109	476	343·3	+1·9	− 8·0	−18·4
207·558 G	195	909	101	473	343·1	+1·5	− 8·3	− 4·0
208·401 G	199	898	102	467	343·1	+1·4	− 8·3	+ 7·1
209·351 G	171	841	94	463	343·0	+1·2	− 8·6	+19·6
210·345 G	156	714	95	436	342·9	+0·9	− 8·7	+32·6
211·408 G	151	618	115	470	342·8	+0·7	− 9·0	+46·6
212·381 C	97	441	103	467	343·5	+1·3	− 9·1	+60·1
213·350 G	55	259	99	466	343·1	+0·7	− 9·1	+72·6
Means ...	...	...	101	493	343·3	...	− 8·4	...

Group 10363.—Aug. 18–30. A large regular spot—*a* of Group 10328.

229·467 G	41	236	76	437	344·9	+0·4	−10·0	−72·6
230·594 G	82	447	83	451	344·3	−0·3	−10·1	−58·3
231·359 C	99	591	78	467	344·4	−0·4	− 9·9	−48·1
232·482 C	130	721	82	454	344·4	−0·5	−10·0	−33·2
233·387 G	160	814	90	456	344·3	−0·7	−10·0	−21·4
234·380 G	160	784	85	416	344·3	−0·9	−10·0	− 8·2
235·334 C	116	812	60	422	344·4	−0·9	− 9·7	+ 4·5
236·616 G	114	773	64	433	344·8	−0·7	− 9·6	+21·8
237·326 C	107	633	65	386	344·8	−0·8	− 9·6	+31·2
238·356 G	87	451	64	334	345·0	−0·7	− 9·5	+45·0
239·546 G	43	268	47	291	345·0	−0·9	− 9·3	+60·7
240·348 G	47	209	80	354	344·6	−1·4	− 9·0	+70·9
241·332 C	13	71	79	433	344·8	...	− 8·6	+84·1
Means ...	...	...	73	408	344·6	...	− 9·7	...

No. **1025**—*continued.*

Group 10386.—September 15–22. A small regular spot dying away as a pair of dots—identity with *a* of Group 10328 uncertain.

d					°	°	°	°
257·324 C	9	27	18	54	335·6	−12·6	− 9·1	−73·9
258·372 C	13	64	14	67	336·0	−12·3	− 8·9	−59·7
259·461 G	14	65	11	49	335·8	−12·7	− 8·9	−45·5
260·425 G	14	50	9	31	336·1	−12·5	− 8·9	−32·5
261·316 C	11	35	6	20	336·5	−12·2	− 9·0	−20·3
262·441 C	4	11	2	6	337·0	−11·9	− 9·1	− 4·9
263·313 C	0	0	0	0	...	...	...	...
264·633 G	0	4	0	2	337·4	−11·8	− 8·6	+24·4
Means ...	...	...	8	29	336·3	...	− 8·9	...

No. **1026**. Latitude +23°·4.

Group 10331 in Rotation 986.
,, 10346 ,, ,, 987.

Group 10331.—June 26–July 4. At first a pair of spots which split up; between June 29 and July 1, the group reforms as another pair of rather larger spots.

176·542 G	5	12	3	7	14·0	0·0	+21·8	−23·6
177·450 G	30	123	17	66	15·4	+1·6	+22·0	−10·2
178·565 G	39	149	21	80	15·8	+2·2	+22·1	+ 5·0
179·529 C	23	93	13	51	15·1	+1·8	+22·0	+17·0
180·338 C	16	95	9	56	13·8	+0·6	+22·1	+26·5
181·575 G	69	257	51	189	14·4	+1·5	+25·5	+43·4
182·317 C	64	267	57	239	14·8	+2·1	+23·3	+53·6
183·415 C	27	147	40	220	16·2	+3·7	+23·8	+69·6
184·359 C	9	41	37	167	17·8	...	+24·6	+83·7
Means ...	...	...	26	113	14·9	...	+22·4	...

Group 10346.—July 19–August 1. A stable regular spot.

199·418 G	16	50	41	130	15·0	+6·0	+23·8	−79·8
200·354 C	27	127	36	171	14·3	+5·6	+23·5	−68·2
201·401 C	32	181	28	161	14·0	+5·5	+23·8	−54·6
202·379 G	37	197	26	138	14·1	+5·8	+23·8	−41·6
203·363 G	46	211	28	127	13·8	+5·7	+24·0	−28·8
204·294 C	36	226	20	124	13·7	+5·8	+24·0	−16·6
205·375 G	48	211	25	112	13·3	+5·6	+23·9	− 2·7
206·461 C	27	212	15	114	13·0	+5·6	+23·8	+11·3
207·558 G	37	204	21	118	12·6	+5·4	+23·8	+25·5
208·401 G	34	183	22	119	12·4	+5·4	+24·1	+36·4
209·351 G	27	114	21	89	12·0	+5·2	+24·0	+48·6
210·345 G	25	105	26	109	11·5	+4·9	+24·1	+61·2
211·408 G	14	39	25	69	10·6	+4·3	+23·9	+74·4
212·381 C	0	7	0	37	9·6	...	+23·3	+86·2
Means ...	...	...	26	122	13·1	...	+23·9	...

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. 1027. Latitude +19°·7.

Group 10354 in Rotation 988.
,, 10364 ,, ,, 989.

Group 10354.—August 1–4. A group increasing as it rounds the west limb.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
212·381 C	2	7	1	4	319·8	0·0	+19·4	+36·4
213·350 G	21	46	16	36	320·0	+0·3	+21·2	+49·5
214·362 G	27	137	29	145	319·3	−0·3	+20·6	+62·1
215·366 G	37	188	75	380	320·8	+1·3	+20·4	+76·9
Means ...	...	...	30	141	320·0	...	+20·4	...

Group 10364.—August 19–22. A very small spot.

230·594 G	2	5	4	10	324·8	+6·9	+19·1	−77·7
231·359 C	2	4	3	5	323·9	+6·1	+19·1	−68·6
232·482 C	2	7	2	6	321·4	+3·7	+19·2	−56·2
233·387 G	0	5	0	4	321·0	+3·4	+18·7	−44·7
Means ...	...	...	2	6	322·8	...	+19·0	...

No. 1028. Latitude −9°·5.

Group 10359 in Rotation 988.
,, 10372 ,, ,, 989.
,, 10402 ,, ,, 990.

Group 10359.—August 11–20. A big composite spot developing rapidly, especially between August 13 and 14, from a few tiny spots *p* Group 10358.

222·561 G	23	78	15	51	113·0	0·0	−11·0	−35·7
223·392 G	18	50	10	29	112·9	−0·2	−11·2	−24·9
224·360 G	82	351	44	190	112·7	−0·5	−10·3	−12·3
225·383 G	153	1165	80	606	113·4	+0·1	−10·1	+ 2·0
226·430 G	319	1782	172	962	113·3	−0·2	−10·0	+15·7
227·377 G	310	1931	183	1140	113·1	−0·5	− 9·8	+28·0
228·406 G	306	1902	214	1331	113·1	−0·6	− 9·9	+41·6
229·467 G	168	1437	158	1351	113·2	−0·6	−10·0	+55·7
230·594 G	109	901	178	1469	113·0	−1·0	− 9·9	+70·4
231·359 C	34	336	123	1213	113·1	...	−10·3	+80·6
Means ...	...	...	117	792	113·1	...	−10·2	...

Group 10372.—September 4–16. A regular spot with companions both preceding and following. A very large area of faculæ accompanies the group.

246·380 C	31	127	76	312	117·3	+1·5	− 9·6	−76·7
247·329 C	36	293	45	371	116·9	+0·9	− 9·3	−64·6
248·116 K	59	431	54	392	116·8	+0·7	− 9·3	−54·3
249·412 G	88	572	58	380	117·3	+1·1	− 9·7	−36·7
250·354 G	145	748	83	429	116·9	+0·6	− 9·7	−24·6
251·371 G	113	621	60	329	117·3	+0·9	− 9·4	−10·8
252·110 K	83	447	43	232	117·7	+1·2	− 9·5	− 0·6
253·415 G	95	422	52	229	117·0	+0·3	− 9·7	+15·9

No. 1028, Group 10372—*continued.*

254·350 G	77	444	46	267	117·4	+0·6	− 9·5	+28·6
255·583 C	44	254	33	188	117·3	+0·4	− 9·1	+44·8
256·376 C	35	221	33	206	117·5	+0·5	− 9·0	+55·5
257·324 C	27	141	39	203	117·5	+0·4	− 9·0	+68·0
258·372 C	9	40	34	153	116·9	...	− 8·6	+81·2
Means ...	...	...	52	295	117·2	...	− 9·4	...

Group 10402.—October 1–10. A small regular spot disappearing as a close pair of dots. On October 7, Group 10408 develops closely preceding it.

273·313 C	9	24	21	56	122·1	+3·1	− 8·6	−76·4
274·110 K	8	58	11	77	121·8	+2·7	− 9·1	−66·1
275·388 G	18	83	14	66	122·1	+2·8	− 9·0	−49·0
276·394 G	18	98	12	63	121·9	+2·5	− 9·1	−35·9
277·433 G	18	103	10	58	121·8	+2·3	− 8·9	−22·3
278·464 G	18	78	9	41	122·0	+2·3	− 8·9	− 8·5
279·627 G	13	49	7	25	121·8	+2·0	− 8·7	+ 6·7
280·403 G	13	44	7	24	121·8	+1·9	− 8·9	+16·9
281·424 G	9	27	5	16	121·8	+1·8	− 9·0	+30·4
282·435 G	7	11	5	8	121·9	+1·8	− 9·0	+43·8
Means ...	...	...	10	43	121·9	...	− 8·9	...

No. 1029. Latitude −19°·2.

Group 10377 in Rotation 989.
,, 10407 ,, ,, 990.

Group 10377.—September 9–20. A very large stream of normal type showing rapid development from two or three tiny spots near the east limb on September 9. *a* and *b* are the leader and follower respectively.

251·371 G	0	9	0	14	60·6	0·0	−19·4	−67·5
252·110 K	2	10	2	11	61·7	+1·2	−19·5	−56·6
253·415 G	53	242	39	179	61·8	+1·4	−19·0	−39·3
254·350 G	182	926	113	575	63·1	−2·8	−18·5	−25·7
255·583 C	329	1836	187	1045	62·1	+1·9	−18·5	−10·4
256·376 C	391	2128	219	1191	62·1	+2·0	−19·2	+ 0·1
257·324 C	367	2143	211	1231	62·5	+2·4	−18·9	+13·0
258·372 C	307	1807	193	1134	61·5	+1·5	−19·7	+25·8
259·461 G	255	1387	192	1042	61·1	+1·2	−19·3	+39·8
260·425 G	204	981	201	959	61·7	+1·9	−19·5	+53·1
261·316 C	92	695	123	964	61·0	+1·3	−19·3	+64·2
262·441 C	27	193	96	614	59·6	0·0	−19·3	+77·7
Means ...	...	...	131	746	61·6	...	−19·2	...

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. 1029, Group 10377—*continued.*

Spot *a*.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°	°
253·415 G	27	131	19	93	63·4	0·0	−18·5	−37·7
254·350 G	102	497	61	298	65·6	+2·3	−18·2	−23·2
255·583 C	164	862	92	483	66·7	+3·5	−17·9	− 5·8
256·376 C	192	964	106	530	67·4	+4·3	−17·9	+ 5·4
257·324 C	203	992	118	575	67·5	+4·5	−18·1	+18·0
258·372 C	146	751	95	488	67·1	+4·1	−18·2	+31·4
259·461 G	119	612	96	496	67·4	+4·5	−18·0	+46·1
260·425 G	112	504	122	549	66·9	+4·1	−18·0	+58·3
261·316 C	35	330	58	548	65·3	+2·6	−17·9	+68·5
262·441 C	9	46	55	281	64·7	...	−17·3	+82·8

Spot *b*.

253·415 G	16	72	12	56	58·4	0·0	−19·8	−42·7
254·350 G	66	375	43	244	58·5	+0·2	−19·7	−30·3
255·583 C	141	866	82	502	57·6	−0·6	−19·9	−14·9
256·376 C	177	1056	101	602	57·6	−0·5	−20·4	− 4·4
257·324 C	137	1052	78	600	57·4	−0·6	−20·7	+ 7·9
258·372 C	141	919	86	561	56·5	−1·4	−21·3	+20·8
259·461 G	122	725	85	508	56·6	−1·3	−21·2	+35·3
260·425 G	92	477	79	410	56·1	−1·7	−21·2	+47·5
261·316 C	57	365	65	416	55·4	−2·3	−21·2	+58·6
262·441 C	18	147	41	331	55·2	−2·4	−21·0	+73·3

Group 10407.—October 5–17. A spot with double umbra (*a* of Group 10377) which has separated into two distinct parts by October 9. The larger and southern portion continues as a regular spot, whilst the other part speedily diminishes.

277·433 G	13	80	53	326	63·6	...	−17·7	−80·5
278·464 G	36	195	53	287	63·8	+2·7	−17·9	−66·7
279·627 G	44	337	39	306	63·5	+2·5	−18·4	−51·6
280·403 G	40	373	30	280	62·8	+1·9	−18·5	−42·1
281·424 G	58	389	37	245	62·6	+1·8	−19·0	−28·8
282·435 G	53	364	31	211	62·0	+1·2	−19·4	−16·1
283·510 G	44	302	25	169	61·4	+0·7	−19·6	− 2·5
284·344 C	41	239	23	134	61·2	+0·6	−19·3	+ 8·3
285·492 C	39	217	23	130	60·5	0·0	−19·6	+22·7
286·507 G	49	225	34	158	60·8	+0·4	−19·9	+36·4
287·440 G	31	163	27	140	60·7	+0·4	−20·1	+48·6
288·367 C	13	106	15	124	60·3	+0·1	−20·0	+60·4
289·403 G	11	49	25	110	60·2	+0·1	−20·2	+74·0
Means ...	...	...	30	191	61·6	...	−19·3	...

No. 1030. Latitude −11°·6.

Group 10379 in Rotation 989.
,, 10406 ,, ,, 990.

Group 10379.—September 11–20. A very large stream *n* Group 10377 with which it is nearly synchronous in its development. By September 17 the stream consists of a very large leader spot, *a*, and a train or cluster of companions.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°
253·415 G	11	50	7	34	64·2	0·0	−11·7	−36·9
254·350 G	41	172	23	98	66·5	+2·2	−11·2	−22·3
255·583 C	141	765	76	407	66·5	+2·1	−10·8	− 6·0
256·376 C	241	1128	129	604	67·7	+3·3	−10·8	+ 5·7
257·324 C	303	1731	169	964	69·0	+4·5	−11·5	+19·5
258·372 C	248	1673	161	1074	70·4	+5·8	−11·1	+34·7
259·461 G	243	1579	202	1275	69·9	+5·2	−10·8	+48·6
260·425 G	176	1208	213	1380	70·3	+5·5	−11·2	+61·7
261·316 C	92	775	194	1459	69·4	+4·5	−11·1	+72·6
262·441 C	9	35	(55	214	65·6	...	−11·8)	+83·7
Means ...	...	...	130	811	68·2	...	−11·1	...

Spot *a*.

255·583 C	35	236	19	125	71·5	0·0	−12·0	− 1·5
256·376 C	126	588	68	318	71·5	−0·1	−11·8	+ 9·5
257·324 C	164	906	93	516	72·2	+0·5	−11·7	+22·7
258·372 C	159	979	107	656	72·9	+1·2	−11·6	+37·2
259·461 G	180	875	157	761	73·3	+1·5	−11·2	+52·0
260·425 G	122	594	160	778	73·9	+2·0	−11·5	+65·3
261·316 C	57	317	144	799	73·3	+1·5	−11·5	+76·7

Group 10406.—October 4–15. A spot, somewhat complex in structure, which splits up into a cluster on October 9 and so disappears. Meanwhile another cluster appears in front, and develops rapidly into a regular spot with a large composite companion. This revival of activity soon diminishes after a brief maximum about October 10.

276·394 G	9	33	(48	176	74·6	...	−11·2)	−83·2
277·433 G	40	196	69	337	72·8	−0·6	−11·1	−70·0
278·464 G	62	386	61	382	73·4	0·0	−11·2	−57·1
279·627 G	75	440	53	312	73·4	−0·1	−11·5	−41·7
280·403 G	114	593	70	363	74·8	+1·2	−12·4	−30·1
281·424 G	151	952	83	524	76·1	+2·4	−12·7	−15·3
282·435 G	178	1043	94	553	77·0	+3·2	−12·7	− 1·1
283·510 G	111	650	60	351	76·9	+3·0	−12·2	+13·0
284·344 C	52	386	30	224	77·5	+3·5	−12·1	+24·6
285·492 C	43	343	30	237	77·3	+3·3	−12·2	+39·5
286·507 G	35	243	33	229	79·8	+5·7	−12·4	+55·4
287·440 G	20	106	30	161	81·0	+6·8	−12·4	+68·9
Means ...	...	...	56	334	76·4	...	−12·1	...

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. 1031. Latitude +21°·5.

Group 10384 in Rotation 990.
" 10415 " " 991.

Group 10384.—September 13–25. A regular spot, somewhat broken in appearance on September 14 and 15. There are occasional tiny companions.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.		Latitude.	Long. from C.M.
d					°	°	°	°
255·583 C	27	144	52	278	355·9	0·0	+22·1	−76·6
256·376 C	31	243	37	289	355·9	+0·1	+21·9	−66·1
257·324 C	54	334	47	286	354·8	−0·8	+22·5	−54·7
258·372 C	41	327	28	220	355·3	−0·2	+21·8	−40·4
259·461 G	72	388	41	221	354·8	−0·5	+21·9	−26·5
260·425 G	95	461	50	244	354·5	−0·6	+22·0	−14·1
261·316 C	77	370	40	192	354·0	−1·0	+22·1	− 2·8
262·441 C	84	396	45	210	354·0	−0·9	+22·2	+12·1
263·313 C	75	411	42	230	354·0	−0·7	+22·5	+23·6
264·633 G	49	329	33	224	353·8	−0·7	+22·4	+40·8
265·409 G	54	233	43	186	353·9	−0·4	+22·5	+51·1
266·393 G	31	166	34	184	353·6	−0·6	+22·4	+63·8
267·436 G	22	103	44	208	353·3	−0·7	+22·1	+77·3
Means ...	...	...	41	229	354·4	...	+22·2	...

Group 10415.—October 10–23. A regular spot.

282·435 G	9	22	55	134	351·2	...	+21·5	−86·9
283·510 G	20	82	33	134	350·7	−0·8	+21·2	−73·2
284·344 C	20	117	21	124	350·8	−0·5	+21·2	−62·1
285·492 C	52	200	39	150	350·5	−0·6	+20·9	−47·3
286·507 G	35	230	22	143	350·3	−0·7	+20·8	−34·1
287·440 G	48	251	27	141	350·3	−0·5	+20·7	−21·8
288·367 C	54	260	29	138	350·3	−0·4	+21·0	− 9·5
289·403 G	42	274	22	142	350·1	−0·4	+21·0	+ 3·9
290·443 G	42	267	23	144	349·8	−0·6	+21·1	+17·3
291·480 G	55	238	33	143	350·0	−0·2	+21·0	+31·2
292·547 G	31	150	23	110	350·0	0·0	+20·5	+45·3
293·413 G	18	118	17	109	350·0	+0·1	+20·5	+56·7
294·311 C	11	65	15	87	349·9	+0·2	+20·5	+68·5
295·417 C	9	60	30	197	349·4	...	+20·4	+82·5
Means ...	...	...	25	130	350·2	...	+20·9	...

No. 1032. Latitude −18°·4.

Group 10395 in Rotation 990.
" 10421 " " 991.

Group 10395.—September 22–October 4. A regular spot with companions on and after September 28; one of these is considerable on October 2.

264·633 G	22	150	45	308	240·4	0·0	−18·2	−72·6
265·409 G	29	246	37	310	240·4	+0·1	−18·1	−62·4
266·393 G	47	318	40	273	240·6	+0·4	−17·9	−49·2
267·436 G	72	367	49	250	240·5	+0·4	−17·9	−35·5
268·343 G	83	421	50	252	240·4	+0·3	−18·1	−23·7
269·415 G	71	439	40	246	239·8	−0·3	−18·2	−10·1
270·385 G	80	491	44	270	239·8	−0·2	−18·2	+ 2·7

No. 1032, Group 10395—*continued.*

d					°	°	°	°
271·364 C	70	451	40	257	239·5	−0·4	−18·4	+15·3
272·358 G	81	372	51	234	239·5	−0·4	−18·3	+28·4
273·313 C	61	346	45	256	239·2	−0·6	−18·2	+40·7
274·110 K	62	352	56	320	239·6	−0·1	−18·2	+51·7
275·388 G	22	183	37	304	240·1	+0·4	−18·7	+69·0
276·394 G	9	62	55	378	240·6	...	−18·7	+82·8
Means ...	...	...	44	257	240·0	...	−18·2	...

Group 10421.—October 19–31. A regular spot developing a double umbra on October 24 and splitting completely into two within the following three days.

291·480 G	13	57	62	273	237·2	...	−19·0	−81·6
292·547 G	18	174	27	262	237·2	−1·3	−18·6	−67·5
293·413 G	37	324	37	327	237·3	−1·1	−18·9	−56·0
294·311 C	32	419	25	327	237·0	−1·4	−18·5	−44·4
295·417 C	65	419	42	268	236·5	−1·8	−18·6	−30·4
296·395 G	62	563	35	321	236·4	−1·8	−18·7	−17·6
297·314 C	60	501	33	276	236·2	−1·9	−18·7	− 5·7
298·342 C	48	438	26	241	236·2	−1·9	−18·4	+ 7·9
299·346 C	37	260	21	151	235·8	−2·2	−18·5	+20·7
300·325 C	26	159	17	105	236·0	−1·9	−18·4	+33·9
301·399 G	26	92	21	75	235·7	−2·2	−18·7	+47·7
302·577 G	9	22	11	27	235·4	−2·4	−18·8	+63·0
303·526 G	4	13	9	29	234·9	−2·8	−18·1	+75·0
Means ...	...	...	25	201	236·0	...	−18·6	...

No. 1033. Latitude +17°·8.

Group 10404 in Rotation 990.
" 10427 & 30 " 991.

Group 10404.—October 2–15. A stream undergoing much change. The leader, *a*, is at first a regular spot but it divides into a cluster. The follower, *b*, becomes increasingly composite in character and also divides, lengthening out into a stream of unstable spots.

274·110 K	4	25	(29	184	100·5	...	+15·4)	−87·4
275·388 G	33	196	52	298	100·1	0·0	+16·4	−71·0
276·394 G	67	383	68	390	97·7	−2·3	+17·5	−60·1
277·433 G	89	569	69	432	95·9	−4·1	+18·2	−48·2
278·464 G	113	593	71	373	95·3	−4·6	+18·8	−35·2
279·627 G	120	664	66	365	94·1	−5·8	+18·8	−21·0
280·403 G	106	775	55	407	94·2	−5·6	+18·8	−10·7
281·424 G	69	604	36	309	94·1	−5·7	+18·5	+ 2·7
282·435 G	93	548	49	291	91·8	−7·9	+19·0	+13·7
283·510 G	62	364	36	211	91·7	−8·0	+19·0	+27·8
284·344 C	30	154	20	100	91·6	−8·0	+19·4	+38·7
285·492 C	13	61	11	52	91·8	−7·8	+19·3	+54·0
286·507 G	11	80	15	106	93·0	−6·5	+18·5	+68·6
287·440 G	9	40	(25	113	93·3	...	+18·6)	+81·2
Means ...	...	...	46	278	94·3	...	+18·5	...

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. **1033**, Group 10404—*continued.*

Spot *a.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
274·110 K	4	25	29	184	100·5	...	+15·4	−87·4
275·388 G	22	152	30	207	101·6	0·0	+15·4	−69·5
276·394 G	33	198	29	176	101·4	−0·1	+15·6	−56·4
277·433 G	31	243	21	165	101·2	−0·3	+16·0	−42·9
278·464 G	38	189	22	110	101·1	−0·3	+16·2	−29·4
279·627 G	36	162	19	84	101·1	−0·3	+16·4	−14·0
280·403 G	22	142	11	72	101·3	0·0	+16·6	− 3·6
281·424 G	13	53	7	28	101·2	−0·1	+16·6	+ 9·8
282·435 G	4	22	2	12	100·0	−1·2	+16·0	+22·9

Spot *b.*

275·388 G	9	40	19	85	93·3	0·0	+19·1	−77·8
276·394 G	27	165	32	195	92·1	−1·1	+19·8	−65·7
277·433 G	58	326	48	267	91·7	−1·5	+20·4	−52·4
278·464 G	75	404	49	263	92·1	−1·0	+20·1	−38·4
279·627 G	80	484	45	271	91·6	−1·5	+19·8	−23·5
280·403 G	80	613	42	325	92·0	−1·0	+19·6	−12·9
281·424 G	56	551	29	281	92·1	−0·9	+19·3	+ 0·7
282·435 G	89	526	47	279	91·7	−1·2	+19·1	+13·6
283·510 G	62	364	36	211	91·7	−1·2	+19·0	+27·8
284·344 C	30	154	20	100	91·6	−1·2	+19·4	+38·7
285·492 C	13	61	11	52	91·8	−1·0	+19·3	+54·0
286·507 G	11	80	15	106	93·0	+0·3	+18·5	+68·6
287·440 G	9	40	25	113	93·3	...	+18·6	+81·2

Group 10427.—October 29–November 7. A spot rapidly diminishing; small companions appear after Nov. 3.

301·399 G	4	26	21	138	101·9	...	+17·0	−86·1
302·577 G	18	128	26	188	101·8	+3·1	+16·6	−70·6
303·526 G	20	167	19	155	102·7	+4·1	+16·4	−57·2
304·430 G	18	79	13	56	103·1	+4·5	+16·2	−44·9
305·339 C	9	22	5	13	103·5	+5·0	+16·2	−32·5
306·332 C	4	13	2	7	103·8	+5·3	+16·3	−19·1
307·397 G	13	55	7	28	104·5	+6·1	+16·1	− 4·4
308·398 G	13	61	7	32	104·5	+6·2	+16·6	+ 8·8
309·371 C	13	51	7	28	104·2	+5·9	+16·1	+21·3
310·342 C	4	13	2	8	105·2	+7·0	+16·1	+35·1
Means ...	...	...	10	57	103·7	...	+16·3	...

Group 10430.—October 30–November 8. A spot with double umbra and diminishing rapidly after November 5. Tiny companions appear on and after November 5.

302·577 G	9	64	40	281	87·7	...	+17·8	−84·7
303·526 G	31	123	48	191	88·2	−10·4	+17·9	−71·7
304·430 G	22	194	22	194	88·3	−10·3	+17·8	−59·7
305·339 C	26	224	20	168	88·4	−10·1	+17·5	−47·6
306·332 C	51	227	32	141	88·3	−10·2	+17·6	−34·6

No. **1033**, Group 10430—*continued.*

d					°	°	°	°
307·397 G	35	193	19	106	88·2	−10·2	+17·4	−20·7
308·398 G	31	204	16	106	88·6	− 9·8	+17·8	− 7·1
309·371 C	30	111	16	58	88·0	−10·3	+17·8	+ 5·1
310·342 C	11	32	6	17	88·3	− 9·9	+18·0	+18·2
311·331 C	2	6	1	4	88·3	− 9·9	+18·2	+31·3
Means ...	...	...	20	109	88·3	...	+17·8	...

No. **1034**. Latitude −6°·8.

Group 10423 in Rotation 991.
" 10438 " " 992.
" 10463 " " 993.

Group 10423.—October 21–26. A stream which grows quickly and is led by a regular spot *a.*

293·413 G	35	134	18	70	303·8	0·0	− 4·9	+10·5
294·311 C	60	294	34	163	304·2	+0·3	− 4·8	+22·8
295·417 C	124	585	82	384	305·9	+1·8	− 4·6	+39·0
296·395 G	115	700	97	584	305·3	+1·0	− 4·9	+51·3
297·314 C	51	426	64	519	307·3	+2·9	− 5·3	+65·4
298·342 C	18	78	(56	252	308·9	...	− 5·2)	+80·6
Means ...	...	...	59	344	305·3	...	− 4·9	...

Spot *a.*

294·311 C	30	121	17	68	306·4	0·0	− 3·7	+25·0
295·417 C	76	311	52	211	308·4	+1·8	− 4·1	+41·5
296·395 G	62	348	56	313	309·4	+2·7	− 5·1	+55·4
297·314 C	32	242	44	329	309·7	+2·8	− 5·4	+67·8
298·342 C	9	43	40	189	311·4	...	− 5·2	+83·1

Group 10438.—November 9–21. A large spot, *a* (possibly *a* of Group 10423), with composite umbra, followed and sometimes preceded by numerous small companions. The group is accompanied by conspicuous faculæ.

312·554 C	17	101	(56	331	320·1	...	− 5·8)	−80·8
313·354 G	42	289	75	510	317·4	+10·5	− 5·8	−73·0
314·442 G	70	504	67	481	318·4	+11·4	− 5·7	−57·6
315·428 G	94	633	67	446	318·7	+11·5	− 6·0	−44·3
316·547 G	114	772	66	451	319·2	+11·8	− 5·8	−29·1
317·459 G	148	906	79	484	319·2	+11·7	− 6·1	−17·0
318·537 C	134	1023	68	522	319·2	+11·5	− 6·1	− 2·8
319·398 G	188	894	95	456	319·2	+11·4	− 6·4	+ 8·6
320·404 G	98	711	54	390	319·7	+11·7	− 6·5	+22·3
321·434 G	74	654	47	412	320·2	+12·1	− 6·7	+36·4
322·346 C	60	447	46	340	320·2	+11·9	− 6·1	+48·4
323·358 C	36	281	38	301	320·2	+11·8	− 6·1	+61·7
324·342 C	13	70	26	141	320·9	+12·3	− 5·8	+75·4
Means ...	...	...	61	411	319·4	...	− 6·1	...

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

No. **1034**, Group 10438—*continued.*

Spot *a*.

Date. G.M.T. Place.	Projected Area		Corrected Area		Longitude and Proper Motion.		Latitude.	Long. from C.M.
	Umbræ	Whole Spots.	Umbræ	Whole Spots.				
d					°	°	°	°
312·554 C	17	101	56	331	320·1	...	− 5·8	−80·8
313·354 G	33	238	55	395	318·4	+ 9·1	− 5·9	−72·0
314·442 G	57	412	53	383	319·1	+ 9·6	− 6·0	−56·9
315·428 G	85	602	60	421	319·6	+10·0	− 6·1	−43·4
316·547 G	92	602	53	349	319·9	+10·1	− 5·9	−28·4
317·459 G	102	562	54	298	320·0	+10·0	− 6·3	−16·2
318·537 C	98	651	50	332	319·9	+ 9·8	− 6·3	− 2·1
319·398 G	144	724	73	369	319·8	+ 9·5	− 6·4	+ 9·2
320·404 G	76	571	42	314	319·9	+ 9·5	− 6·4	+22·5
321·434 G	74	654	47	412	320·2	+ 9·6	− 6·7	+36·4
322·346 C	60	447	46	340	320·2	+ 9·5	− 6·1	+48·4
323·358 C	34	271	36	290	320·2	+ 9·3	− 6·1	+61·7
324·342 C	13	70	26	141	320·9	+ 9·9	− 5·8	+75·4

No. **1034**—*continued.*

Group 10463.—December 6–17. A stream in which the spots are in two clusters at each extremity; the leading spots last the longest.

Date. G.M.T. Place.	Projected Area		Corrected Area		Longitude and Proper Motion.		Latitude.	Long. from C.M.
	Umbræ	Whole Spots.	Umbræ	Whole Spots.				
d					°	°	°	°
339·456 G	13	65	27	136	330·4	+19·5	−10·3	−75·9
340·311 C	40	206	51	156	329·7	+18·7	− 9·6	−65·3
341·314 C	49	263	40	215	330·6	+19·4	− 9·3	−51·2
342·358 C	57	223	37	143	331·6	+20·3	− 8·7	−36·5
343·331 C	38	123	22	69	331·3	+19·8	− 8·9	−24·0
344·445 C	19	100	10	52	332·2	+20·5	− 8·8	− 8·4
345·389 C	17	68	9	35	335·4	+23·6	− 7·8	+ 7·3
346·326 C	19	61	10	32	334·4	+22·5	− 7·8	+18·6
347·320 C	13	27	8	16	336·2	+24·1	− 7·9	+33·5
348·313 C	8	25	6	19	336·6	+24·3	− 7·8	+47·0
349·443 G	4	17	4	18	336·6	+24·2	− 7·1	+61·9
350·446 G	6	19	12	37	336·5	+23·9	− 6·8	+75·0
Means ...	...	...	20	77	333·5	...	− 8·4	...

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ROYAL OBSERVATORY, GREENWICH.

Ledgers of Groups of Sun Spots

for the Year

1927

Ledger II.—Non-Recurrent Groups

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927.

The Greenwich Mean Time at which the photograph was taken is expressed in the *first* column by the Day of the Year and decimal of a day, reckoned from Greenwich Mean Midnight.

The place where the photograph was taken is also indicated in the *first* column. A photograph taken at Greenwich is indicated by the letter G, and those taken at the Cape and Kodaikánal by the letters C and K, respectively.

The projected Area of the Umbræ and Whole Spots, given in the *second* and *third* columns, is the area as it is measured on the photograph, uncorrected for the effect of foreshortening, and expressed in millionths of the Sun's apparent disc.

The area corrected for foreshortening given in the *fourth* and *fifth* columns is expressed in millionths of the Sun's visible hemisphere.

The longitude given in the *sixth* column is based on the ephemeris given in the *Nautical Almanac*, assuming a daily sidereal motion of $14^\circ{\cdot}18$, due to the Sun's rotation, constant at all latitudes ; this corresponds to Carrington's assumed rotation period of 25·38 days.

The proper motion given in the *seventh* column is derived from the difference of longitude thus computed from the measured positions on any given day and the first day on which the group of spots or single spot is visible, after the correction for the motion appropriate to the latitude has been applied according to the formula, $\xi = 14^\circ{\cdot}37 - 2^\circ{\cdot}60 \sin^2\phi$.

A *plus* sign indicates a motion forwards, a *minus* sign a motion backwards relative to the position on the first day.

The remaining columns correspond to those with similar headings in the preceding Section.

When a group is 80° or more from the Sun's central meridian, the measures for that day are not included in taking the mean area, longitude and latitude of the group. In such cases of close proximity to the Sun's limb, the addition of brackets denotes that only part of the group is visible.

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927.

Group 10139.

January 5–11. A smallish stream.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
4·412 C	4	30	2	17	128·8	0·0	−24·8	−20·4
5·544 G	32	86	17	46	131·5	+3·0	−25·3	− 2·8
6·445 G	37	138	21	76	134·3	+6·1	−25·1	+11·8
7·505 G	30	167	18	100	134·9	+7·0	−25·3	+26·4
8·531 G	26	116	18	80	134·5	+6·9	−25·1	+39·4
9·118 K	20	84	16	66	134·7	+7·2	−25·3	+47·4
10·511 G	4	13	5	17	136·2	+9·1	−25·3	+67·3
Means ...	...	...	14	57	133·6	...	−25·2	...

Group 10140.

January 5–16. A compact stream of which the most stable member is the leading spot, *a*.

4·412 C	19	131	29	203	78·0	0·0	−16·4	−71·2
5·544 G	84	421	81	399	76·7	−1·3	−16·3	−57·6
6·445 G	71	522	52	375	77·7	−0·3	−16·9	−44·8
7·505 G	98	575	59	347	76·7	−1·2	−16·4	−31·8
8·531 G	162	881	88	477	76·5	−1·4	−16·7	−18·5
9·118 K	234	1121	122	586	75·9	−2·0	−16·9	−11·4
10·511 G	129	851	67	442	76·8	−1·1	−16·1	+ 7·9
11·378 C	109	709	59	386	77·0	−0·9	−16·1	+19·5
12·333 C	67	483	40	288	75·8	−2·1	−16·6	+30·9
13·337 C	51	321	37	233	77·6	−0·2	−16·4	+45·9
14·412 G	28	122	29	127	78·9	+1·1	−16·3	+61·3
15·541 G	9	43	19	90	79·7	+1·9	−16·2	+77·0
Means ...	...	...	57	329	77·3	...	−16·4	...

Spot *a*.

4·412 C	17	118	25	177	78·6	0·0	−16·3	−70·6
5·544 G	41	292	37	266	78·1	−0·5	−16·0	−56·2
6·445 G	47	417	33	292	78·9	+0·3	−16·4	−43·6
7·505 G	66	417	39	246	78·9	+0·4	−15·9	−29·6
8·531 G	81	381	43	202	79·2	+0·7	−16·1	−15·8
9·118 K	94	412	49	214	79·5	+1·0	−16·1	− 7·8
10·511 G	51	278	27	145	79·6	+1·1	−16·0	+10·7
11·378 C	46	270	25	149	79·4	+0·9	−16·0	+21·9
12·333 C	25	196	16	122	79·2	+0·7	−16·1	+34·3
13·337 C	34	194	26	147	79·9	+1·5	−16·5	+48·2
14·412 G	22	105	24	112	79·9	+1·5	−16·5	+62·3
15·541 G	9	43	19	90	79·7	+1·3	−16·2	+77·0

Group 10143.

January 7–17. A group of rapid rise and decay in which the component spots develop irregularly.

6·445 G	30	138	29	131	65·1	0·0	+ 5·7	−57·4
7·505 G	39	218	27	153	65·4	+0·1	+ 6·4	−43·1
8·531 G	78	497	45	288	67·8	+2·4	+ 7·0	−27·2
9·118 K	116	671	63	365	67·8	+2·3	+ 7·2	−19·5

Group 10143—*continued*.

10·511 G	126	1274	65	649	68·2	+2·5	+ 7·6	− 0·7
11·378 C	131	991	68	516	68·6	+2·8	+ 8·2	+11·1
12·333 C	74	506	42	285	69·1	+3·1	+ 7·9	+24·2
13·337 C	68	387	44	248	68·8	+2·7	+ 7·4	+37·1
14·412 G	33	140	27	119	69·7	+3·4	+ 7·5	+52·1
15·541 G	9	26	14	39	72·6	+6·1	+ 7·5	+69·9
16·348 C	4	15	13	49	71·2	+4·6	+ 6·4	+79·1
Means ...	...	...	39	258	68·8	...	+ 7·2	...

Group 10153.

January 16–23. A small stream *s* Group 10148.

15·541 G	6	19	4	12	327·5	0·0	+12·6	−35·2
16·348 C	17	89	10	51	328·8	+1·3	+12·7	−23·3
17·349 C	27	249	14	132	329·1	+1·5	+12·8	− 9·8
18·320 C	42	234	22	124	328·9	+1·2	+13·1	+ 2·8
19·422 G	54	172	30	95	329·8	+2·1	+13·1	+18·2
20·316 C	15	74	9	45	330·5	+2·7	+13·2	+30·7
21·322 C	13	34	10	26	331·0	+3·2	+13·4	+44·4
22·459 G	4	13	4	14	331·1	+3·2	+14·1	+59·5
Means ...	...	...	13	62	329·6	...	+13·1	...

Group 10160.

January 27–February 8. A regular spot, *a*, with a few small followers until February 4.

26·465 G	9	60	34	229	137·7	...	+10·7	−81·2
27·322 C	29	178	52	311	136·2	0·0	+11·1	−71·4
28·534 G	65	303	65	296	135·1	−1·2	+11·4	−56·5
29·489 G	50	348	36	252	135·5	−0·9	+11·0	−43·5
30·415 G	56	361	34	222	135·7	−0·8	+10·9	−31·1
31·410 G	63	359	35	198	136·0	−0·6	+10·8	−17·7
32·354 C	66	361	35	188	136·2	−0·5	+10·7	− 5·1
33·359 C	70	339	37	180	135·6	−1·2	+11·3	+ 7·5
34·424 G	56	307	32	175	137·0	+0·1	+10·8	+22·9
35·435 G	39	264	25	172	137·1	+0·1	+10·9	+36·3
36·507 G	30	220	25	185	137·4	+0·3	+11·0	+50·8
37·309 C	17	136	19	152	137·3	+0·2	+11·1	+61·2
38·347 C	8	49	17	106	137·4	+0·2	+11·2	+75·0
Means ...	...	...	34	203	136·4	...	+11·0	...

Spot *a*.

26·465 G	9	60	34	229	137·7	...	+10·7	−81·2
27·322 C	25	165	42	277	136·5	0·0	+11·0	−71·1
28·534 G	43	226	40	210	136·3	−0·3	+10·7	−55·3
29·489 G	41	305	29	217	136·3	−0·4	+10·7	−42·7
30·415 G	43	292	26	178	136·3	−0·5	+10·7	−30·5
31·410 G	54	333	30	183	136·4	−0·5	+10·7	−17·3

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10160, Spot *a*—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
32·354 C	53	331	28	172	136·5	−0·5	+10·7	− 4·8
33·359 C	55	301	29	160	136·7	−0·4	+11·1	+ 8·6
34·424 G	52	298	30	170	137·0	−0·2	+10·6	+22·9
35·435 G	39	264	25	172	137·1	−0·2	+10·9	+36·3
36·507 G	30	220	25	185	137·4	0·0	+11·0	+50·8
37·309 C	17	136	19	152	137·3	−0·1	+11·1	+61·2
38·347 C	8	49	17	106	137·4	−0·1	+11·2	+75·0

Group 10163.

January 29–February 5. A stream of spots developing rapidly and soon declining. *a* is the leader ; *b* is a pair of spots which form the rear of the stream.

28·534 G	4	9	2	5	181·8	0·0	−17·0	− 9·8
29·489 G	30	202	15	103	183·7	+1·9	−16·7	+ 4·7
30·415 G	186	899	100	481	183·9	+2·2	−16·4	+17·1
31·410 G	240	1370	141	808	183·9	+2·2	−16·9	+30·2
32·354 C	162	971	111	665	183·5	+1·8	−16·6	+42·2
33·359 C	108	666	94	585	183·4	+1·7	−17·1	+55·3
34·424 G	52	369	70	505	183·4	+1·8	−17·5	+69·3
35·435 G	17	102	(35	209	178·0	...	−18·4)	+77·2
Means ...	...	...	76	450	183·4	...	−16·9	...

Spot *a*.

30·415 G	65	353	35	191	187·9	0·0	−16·1	+21·1
31·410 G	73	488	45	303	189·6	+1·7	−16·1	+35·9
32·354 C	59	352	44	264	189·7	+1·9	−16·3	+48·4
33·359 C	28	216	29	227	190·2	+2·4	−16·4	+62·1
34·424 G	13	99	25	194	190·6	+2·8	−16·6	+76·5

Spot *b*.

30·415 G	67	310	36	164	181·2	0·0	−17·4	+14·4
31·410 G	143	657	82	374	180·1	−1·1	−17·8	+26·4
32·354 C	78	483	50	309	178·6	−2·5	−17·7	+37·3
33·359 C	55	362	43	298	178·1	−3·0	−17·8	+50·0
34·424 G	35	246	39	276	178·1	−3·0	−18·4	+64·0
35·435 G	17	102	35	209	178·0	−3·1	−18·4	+77·2

Group 10164.

January 29–February 7. A diminutive stream of a few spots *np* Group 10165 in the same general area of faculæ.

28·534 G	11	82	20	148	116·8	0·0	−12·7	−74·8
29·489 G	34	120	34	121	118·1	+1·2	−12·7	−60·9
30·415 G	22	108	17	81	118·2	+1·3	−12·5	−48·6
31·410 G	30	125	19	76	118·6	+1·6	−12·7	−35·1
32·354 C	23	95	12	51	119·5	+2·5	−12·1	−21·8
33·359 C	17	72	9	37	119·5	+2·4	−12·2	− 8·6

Group 10164—*continued.*

d					°	°	°	°
34·424 G	13	52	7	26	118·6	+1·4	−12·8	+ 4·5
35·435 G	13	82	7	43	116·2	−1·0	−13·0	+15·4
36·507 G	9	26	5	15	117·8	+0·5	−13·8	+31·2
37·309 C	4	8	3	6	122·8	+5·4	−12·4	+46·7
Means ..	...	...	13	60	118·6	...	−12·7	...

Group 10166.

January 29–February 10. A fair-sized spot, *a*, followed by a cluster. *a* divides into several portions after January 31.

28·534 G	23	127	53	284	113·1	0·0	−27·2	−78·5
29·489 G	31	424	40	540	112·1	−0·6	−27·5	−66·9
30·415 G	82	572	74	516	112·0	−0·4	−27·6	−54·8
31·410 G	82	563	59	394	112·2	+0·2	−27·4	−41·5
32·354 C	75	437	45	265	112·8	+1·1	−27·6	−28·5
33·359 C	46	262	26	145	112·8	+1·5	−27·6	−15·3
34·424 G	43	186	23	100	112·0	+1·1	−28·0	− 2·1
35·435 G	30	149	16	82	113·1	+2·6	−28·1	+12·3
36·507 G	22	39	13	24	114·6	+4·5	−28·2	+28·0
37·309 C	21	93	14	61	113·4	+3·6	−27·6	+37·3
38·347 C	8	61	7	51	113·8	+4·4	−28·3	+51·4
39·354 C	11	47	13	55	113·8	+4·8	−28·4	+64·6
40·426 G	4	15	9	32	113·0	+4·4	−28·7	+78·0
Means ...	...	...	30	196	113·0	...	−27·9	...

Spot *a*.

28·534 G	17	97	33	187	115·4	0·0	−26·7	−76·2
29·489 G	22	284	26	329	114·8	−0·2	−26·8	−64·2
30·415 G	56	387	48	329	114·6	−0·1	−26·9	−52·2
31·410 G	48	438	33	298	114·2	−0·1	−27·0	−39·5
32·354 C	64	382	38	229	113·9	−0·1	−27·6	−27·4
33·359 C	38	220	21	121	114·3	+0·7	−27·7	−13·8
34·424 G	30	134	16	72	114·5	+1·3	−28·0	+ 0·4
35·435 G	26	127	14	70	114·8	+2·0	−28·3	+14·0
36·507 G	22	39	13	24	114·6	+2·2	−28·2	+28·0
37·309 C	21	93	14	61	113·4	+1·3	−27·6	+37·3
38·347 C	8	61	7	51	113·8	+2·1	−28·3	+51·4
39·354 C	11	47	13	55	113·8	+2·5	−28·4	+64·6
40·426 G	4	15	9	32	113·0	+2·1	−28·7	+78·0

Group 10168.

January 31–February 7. A close pair of small spots of which only one remains after February 4. The group closely precedes Group 10169.

30·415 G	15	60	9	34	93·7	0·0	+24·0	−73·1
31·410 G	11	41	14	53	91·8	−1·7	+24·1	−61·9
32·354 C	15	40	14	36	92·4	−0·8	+23·9	−48·9
33·359 C	21	36	15	26	92·4	−0·6	+24·0	−35·7

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued*.

Group 10168—*continued*.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
34·424 G	11	43	7	28	92·2	−0·5	+24·9	−21·9
35·435 G	9	15	5	9	93·0	+0·5	+24·2	− 7·8
36·507 G	2	6	1	4	93·1	+0·9	+24·3	+ 6·5
37·309 C	4	13	2	8	92·8	+0·8	+24·1	+16·7
Means ...	...	...	8	25	92·7	...	+24·2	...

Group 10169.

February 1–10. A spot with companions, diminishing rapidly; on February 6 and 7 nothing is visible, but on the two following days a tiny ephemeral spot marks its place.

31·410 G	13	76	25	144	83·4	0·0	+24·1	−70·3
32·354 C	17	98	19	112	83·4	+0·2	+24·0	−57·9
33·359 C	8	51	7	42	83·4	+0·5	+23·5	−44·7
34·424 G	9	22	6	15	82·1	−0·6	+23·3	−32·0
35·435 G	2	6	1	4	83·8	+1·4	+22·2	−17·0
36·507 G	0	0	0	0	...	...	...	...
37·309 C	0	0	0	0	...	...	...	...
38·347 C	4	13	3	8	81·4	−0·3	+25·7	+19·0
39·354 C	2	6	1	4	82·0	+0·5	+23·6	+32·8
40·426 G	2	9	2	8	79·6	−1·6	+26·1	+44·6
Means ...	...	...	6	34	82·4	...	+24·1	...

Group 10170.

February 2–13. A complex group. At first a regular spot with a few small companions; on February 5, irregularly shaped spots originate immediately in front, and the regular spot becomes absorbed in a larger spot of composite structure which forms rapidly. The group has a brief maximum and is disappearing rapidly as the west limb is approached.

32·354 C	13	53	27	113	66·9	0·0	+15·0	−74·4
33·359 C	23	118	27	136	67·1	+0·2	+14·9	−61·0
34·424 G	43	231	35	190	66·2	−0·7	+15·1	−47·9
35·435 G	67	641	43	410	67·9	+1·0	+15·2	−32·9
36·507 G	108	926	61	524	68·4	+1·4	+14·7	−18·2
37·309 C	119	981	65	530	68·4	+1·4	+15·1	− 7·7
38·347 C	80	810	44	439	68·4	+1·4	+15·2	+ 6·0
39·354 C	83	628	48	364	70·3	+3·3	+15·2	+21·1
40·426 G	48	436	32	288	69·6	+2·6	+15·4	+34·6
41·357 C	43	428	35	342	69·8	+2·8	+15·1	+47·0
42·341 C	26	219	29	243	69·9	+2·8	+14·7	+60·1
43·542 G	8	33	18	78	69·6	+2·5	+14·2	+75·6
Means ...	...	...	39	305	68·5	...	+15·0	...

Group 10171.

February 2–14. A small regular spot, stable for its size.

d					°	°	°	°
32·354 C	8	30	38	144	58·4	...	+ 9·0	−82·9
33·359 C	13	81	19	118	59·5	0·0	+ 8·7	−68·6
34·424 G	13	121	12	109	59·8	+0·2	+ 9·0	−54·3
35·435 G	26	151	18	103	60·5	+0·7	+ 9·2	−40·3
36·507 G	13	149	8	86	61·1	+1·2	+ 9·4	−25·5
37·309 C	34	178	18	96	61·6	+1·6	+ 9·6	−14·5
38·347 C	21	170	11	88	62·1	+2·0	+ 9·4	− 0·3
39·354 C	34	148	18	78	62·5	+2·3	+ 9·4	+13·3
40·426 G	30	104	18	61	62·7	+2·3	+ 9·5	+27·7
41·357 C	17	55	12	37	62·7	+2·2	+ 9·7	+39·9
42·341 C	13	72	11	63	62·9	+2·3	+ 9·9	+53·1
43·542 G	4	32	6	50	63·6	+2·9	+10·0	+69·6
44·335 C	4	17	14	58	63·8	+3·0	+10·1	+80·2
Means ...	...	...	14	81	61·7	...	+ 9·4	...

Group 10176.

February 5–14. An unstable stream with a brief maximum about February 10.

35·435 G	13	22	9	16	55·2	0·0	+ 5·9	−45·6
36·507 G	17	67	10	40	56·8	+1·4	+ 6·4	−29·8
37·309 C	17	57	9	31	58·9	+3·4	+ 6·5	−17·2
38·347 C	30	129	15	66	60·6	+4·9	+ 6·0	− 1·8
39·354 C	87	436	45	226	61·0	+5·2	+ 5·3	+11·8
40·426 G	104	559	60	324	62·2	+6·2	+ 5·5	+27·2
41·357 C	58	426	38	283	61·9	+5·7	+ 5·6	+39·1
42·341 C	40	241	34	207	63·1	+6·8	+ 5·7	+53·3
43·542 G	17	104	25	151	62·7	+6·2	+ 5·3	+68·7
44·335 C	4	28	11	79	62·6	+5·9	+ 5·6	+79·0
Means ...	...	...	26	142	60·5	...	+ 5·8	...

Group 10178.

February 7–15. A long stream of unimportant spots *n* Group 10173.

37·309 C	13	72	8	45	38·1	0·0	− 8·2	−38·0
38·347 C	38	110	21	59	39·2	+1·0	− 8·2	−23·2
39·354 C	51	263	26	134	38·0	−0·4	− 8·1	−11·2
40·426 G	43	313	22	157	39·7	+1·2	− 8·0	+ 4·7
41·357 C	34	239	18	124	39·4	+0·7	− 8·1	+16·6
42·341 C	66	332	38	193	40·3	+1·5	− 7·6	+30·5
43·542 G	58	201	44	152	42·3	+3·3	− 7·8	+48·3
44·335 C	36	179	35	174	42·3	+3·2	− 7·4	+58·7
45·328 C	19	109	31	178	43·3	+4·1	− 7·3	+72·8
Means ...	...	...	27	135	40·3	...	− 7·8	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10180.

February 8–20. A regular spot followed by a long train of faculæ in which a small companion appears on February 12.

Date. G.M.T. Place.	Projected Area: Umbræ	Projected Area: Whole Spots.	Corrected Area: Umbræ	Corrected Area: Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
38·347 C	13	49	41	154	339·5	...	−27·2	−82·9
39·354 C	13	89	19	127	338·9	0·0	−27·4	−70·3
40·426 G	17	136	16	128	337·9	−0·6	−27·5	−57·1
41·357 C	11	145	8	107	337·7	−0·4	−27·8	−45·1
42·341 C	30	170	20	108	337·2	−0·6	−27·8	−32·6
43·542 G	35	201	20	113	336·9	−0·4	−28·1	−17·1
44·335 C	34	181	19	98	336·8	−0·2	−28·1	− 6·8
45·328 C	32	190	17	103	336·1	−0·5	−27·9	+ 5·6
46·506 C	23	162	13	92	336·3	+0·1	−28·0	+21·3
47·315 C	23	143	14	89	335·9	0·0	−27·7	+31·6
48·498 G	19	97	14	74	336·0	+0·5	−27·8	+47·2
49·517 G	11	69	11	70	335·6	+0·5	−27·8	+60·3
50·362 C	4	34	7	51	336·0	+1·2	−27·8	+71·8
Means ...	...	...	15	105	336·8	...	−27·8	...

Group 10186.

February 15–23. A moderate-sized, unstable stream. This develops suddenly between February 14 and 15 amongst a small but well-defined area of faculæ seen near the east limb on February 13.

45·328 C	30	207	21	145	289·5	0·0	+10·5	−41·0
46·506 C	60	460	35	267	289·3	−0·3	+ 9·8	−25·7
47·315 C	60	354	32	191	288·9	−0·8	+ 9·8	−15·4
48·498 G	48	251	25	131	289·2	−0·6	+ 9·7	+ 0·4
49·517 G	26	95	14	51	289·9	0·0	+10·0	+14·6
50·362 C	13	64	8	37	290·2	+0·2	+10·4	+26·0
51·437 G	9	48	6	33	289·8	−0·3	+10·8	+39·8
52·483 C	0	0	0	0	...	...	...	...
53·418 G	4	9	7	15	294·1	+3·8	+12·1	+70·1
Means ...	...	...	16	97	290·1	...	+10·4	...

Group 10187.

February 16–23. A pair of small clusters becoming widely separated in longitude. No spots are seen on February 22.

46·506 C	13	68	30	156	239·2	0·0	+11·0	−75·8
47·315 C	30	128	41	177	238·1	−1·2	+11·2	−66·2
48·498 G	34	123	29	103	239·2	−0·2	+11·1	−49·6
49·517 G	19	69	12	45	238·7	−0·8	+11·2	−36·6
50·362 C	20	98	12	58	237·6	−1·9	+11·4	−26·6
51·437 G	8	52	5	28	238·5	−1·1	+11·1	−11·5
52·483 C	0	0	0	0	...	...	...	...
53·418 G	4	15	3	8	235·7	−4·1	+12·1	+11·7
Means ...	...	...	16	72	238·1	...	+11·3	...

Group 10188.

February 19–27. A short-lived stream.

49·517 G	32	104	20	66	237·6	0·0	− 9·8	−37·7
50·362 C	47	304	26	167	238·7	+1·0	−10·0	−25·5
51·437 G	78	520	40	265	240·4	+2·6	−10·4	− 9·6
52·483 C	75	680	37	340	240·3	+2·4	−10·8	+ 4·0
53·418 G	89	499	47	262	241·1	+3·1	−11·0	+17·1
54·360 C	49	309	27	176	240·2	+2·1	−11·1	+28·6
55·357 C	26	182	18	124	241·8	+3·6	−11·4	+43·4
56·442 G	26	117	27	123	246·5	+8·2	−10·9	+62·4
57·405 C	13	45	24	85	246·9	+8·5	− 9·6	+75·5
Means ...	...	...	29	179	241·5	...	−10·6	...

Group 10191.

February 21–March 4. A double spot leading an area of faculæ in which tiny spots are seen on February 24–25. On February 26, a cluster of spots originates next to the leader.

51·437 G	13	52	22	87	179·5	0·0	+12·2	−70·5
52·483 C	9	47	9	47	179·5	−0·1	+12·5	−56·8
53·418 G	22	80	17	60	179·7	+0·1	+12·7	−44·3
54·360 C	21	92	13	58	179·1	−0·6	+12·7	−32·5
55·357 C	25	137	15	78	177·7	−2·1	+12·6	−20·7
56·442 G	33	191	17	101	180·4	+0·6	+12·7	− 3·7
57·405 C	47	231	25	125	180·1	+0·2	+12·7	+ 8·7
58·500 G	41	339	24	197	180·9	+0·9	+12·9	+23·9
59·418 G	35	131	23	86	181·0	+1·0	+12·8	+36·1
60·369 C	13	44	10	36	179·9	−0·2	+12·6	+47·5
61·395 C	6	17	7	19	179·1	−1·1	+12·6	+60·2
62·341 C	2	9	4	17	179·0	−1·2	+12·7	+72·6
Means ...	...	...	15	76	179·7	...	+12·6	...

Group 10196.

February 24–March 9. A stable regular spot.

54·360 C	13	56	41	176	129·0	...	−17·8	−82·6
55·357 C	21	150	29	207	128·4	0·0	−17·5	−70·0
56·442 G	26	226	23	201	127·9	−0·4	−17·8	−56·2
57·405 C	39	282	27	195	127·9	−0·4	−17·9	−43·5
58·500 G	48	282	28	164	127·7	−0·5	−17·9	−29·3
59·418 G	66	320	35	170	127·8	−0·4	−17·8	−17·1
60·369 C	58	317	30	162	127·8	−0·3	−17·8	− 4·6
61·395 C	60	288	31	147	127·7	−0·4	−17·6	+ 8·8
62·341 C	62	297	33	161	127·6	−0·4	−17·5	+21·2
63·343 C	43	228	26	139	127·4	−0·6	−17·8	+34·2
64·460 G	48	204	36	153	127·1	−0·8	−17·9	+48·6
65·411 C	30	159	30	161	127·0	−0·9	−18·0	+61·0
66·391 G	13	83	22	135	126·6	−1·2	−18·0	+73·5
67·348 C	6	37	26	162	126·0	−1·8	−18·0	+85·5
Means ...	...	...	29	166	127·6	...	−17·8	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10203.

February 27–March 9. A moderate disturbance represented at first by very small spots, then by a regular spot with a distant follower, and later, at the west limb, by other spots of unstable character in a long stretch of faculæ.

Date. G.M.T. Place.	Projected Area: Umbræ	Projected Area: Whole Spots.	Corrected Area: Umbræ	Corrected Area: Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
57·405 C	2	13	3	21	103·8	0·0	+21·3	−67·6
58·500 G	4	11	4	11	104·2	+0·6	+21·2	−52·8
59·418 G	11	25	10	20	99·8	−3·7	+21·5	−45·1
60·369 C	21	51	15	36	97·7	−5·6	+20·9	−34·7
61·395 C	39	200	24	122	99·5	−3·7	+22·0	−19·4
62·341 C	43	198	24	113	101·6	−1·4	+21·4	− 4·8
63·343 C	28	181	16	105	103·0	+0·2	+20·9	+ 9·8
64·460 G	26	213	16	134	102·3	−0·4	+20·6	+23·8
65·411 C	28	151	20	107	100·9	−1·6	+21·0	+34·9
66·391 G	44	131	37	110	97·0	−5·3	+23·3	+43·9
67·348 C	13	39	14	44	95·8	−6·4	+23·3	+55·3
Means ...	...	...	17	75	100·5	...	+21·6	...

Group 10207.

March 3–8. A single small spot.

61·395 C	4	26	10	60	42·9	0·0	+ 9·1	−76·0
62·341 C	13	41	16	48	43·4	+0·4	+ 9·2	−63·0
63·343 C	11	24	9	20	43·4	+0·3	+ 9·3	−49·8
64·460 G	9	39	6	25	43·7	+0·4	+ 9·2	−34·8
65·411 C	9	24	5	14	43·7	+0·3	+ 9·1	−22·3
66·391 G	7	15	4	8	44·2	+0·7	+ 9·1	− 8·9
Means ...	...	...	8	29	43·6	...	+ 9·2	...

Group 10209.

March 4–14. An unstable cluster of very small spots *s* Group 10208.

62·341 C	4	9	5	10	41·1	0·0	−21·6	−65·3
63·343 C	11	56	9	46	40·7	−0·2	−21·1	−52·5
64·460 G	9	31	6	20	40·3	−0·5	−21·0	−38·2
65·411 C	17	65	10	38	38·8	−1·8	−22·0	−27·2
66·391 G	24	112	13	59	39·1	−1·4	−22·5	−14·0
67·348 C	9	37	5	19	38·2	−2·1	−23·5	− 2·3
68·341 C	9	48	5	25	40·6	+0·4	−21·7	+13·2
69·482 G	9	22	5	13	39·0	−1·0	−21·8	+26·7
70·437 G	0	0	0	0	...	...	...	...
71·370 C	4	17	3	15	42·2	+2·5	−18·8	+54·7
72·421 C	4	22	5	28	41·4	+1·8	−19·4	+67·8
Means ...	...	...	6	25	40·1	...	−21·3	...

Group 10210.

March 6–12. A stream of small unstable spots.

d					°	°	°	°
64·460 G	18	44	12	29	44·5	0·0	+17·9	−34·0
65·411 C	34	108	20	64	44·3	−0·2	+17·4	−21·7
66·391 G	31	83	17	46	43·6	−0·8	+17·6	− 9·5
67·348 C	17	75	9	41	44·6	+0·2	+17·3	+ 4·1
68·341 C	4	17	2	10	43·2	−1·1	+17·3	+15·8
69·482 G	9	44	6	29	45·6	+1·3	+17·3	+33·3
70·437 G	9	24	7	19	44·3	+0·1	+17·8	+44·6
Means ...	...	...	10	34	44·3	...	+17·5	...

Group 10216.

March 10–18. A stream of rapid rise and decline with a regular spot, *a*, as leader until March 16 when a companion spot appears in front of it.

68·341 C	9	30	6	20	351·4	0·0	+14·4	−36·0
69·482 G	85	431	49	250	351·0	−0·4	+14·3	−21·3
70·437 G	76	455	41	249	351·4	−0·1	+13·9	− 8·3
71·370 C	86	367	46	198	351·4	−0·1	+14·4	+ 3·9
72·421 C	61	353	35	201	352·4	+0·9	+13·7	+18·8
73·392 G	55	260	35	166	352·4	+0·8	+14·0	+31·6
74·392 G	40	176	32	141	354·4	+2·8	+14·8	+46·8
75·393 G	22	128	26	151	356·1	+4·5	+14·4	+61·7
76·539 G	8	26	20	67	355·8	+4·1	+14·4	+76·5
Means ...	...	...	32	160	352·9	...	+14·3	...

Spot *a*.

68·341 C	9	30	6	20	351·4	0·0	+14·4	−36·0
69·482 G	35	197	20	112	352·8	+1·4	+13·8	−10·5
70·437 G	37	175	20	95	354·1	+2·6	+13·5	− 5·6
71·370 C	41	145	22	78	354·7	+3·2	+13·9	+ 7·2
72·421 C	22	125	13	73	355·4	+3·9	+13·5	+21·8
73·392 G	18	107	12	71	355·8	+4·2	+13·5	+35·0
74·392 G	13	77	10	63	356·2	+4·6	+13·6	+48·6
75·393 G	9	51	11	61	356·6	+5·0	+13·6	+62·2
76·539 G	4	13	11	36	356·5	+4·8	+13·8	+77·2

Group 10217.

March 11–23. A regular spot diminishing rapidly as the west limb is approached. Small companions are present on March 19–20.

69·482 G	13	70	39	212	290·7	...	− 9·8	−81·6
70·437 G	26	162	35	219	290·5	0·0	− 9·5	−69·2
71·370 C	35	246	32	221	290·6	0·0	− 9·3	−56·9
72·421 C	48	264	33	179	290·7	0·0	− 9·3	−42·9
73·392 G	61	331	35	192	290·9	0·0	− 9·0	−29·9
74·392 G	66	352	34	183	291·1	+0·1	− 9·0	−16·5
75·393 G	75	341	38	171	291·3	+0·2	− 9·1	− 3·1

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10217—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.		Latitude.	Long. from C.M.
d					°	°	°	°
76·539 G	35	268	18	137	291·4	+0·2	− 9·3	+12·1
77·333 C	47	239	26	129	291·5	+0·2	− 9·6	+22·6
78·424 G	28	124	17	78	291·6	+0·1	− 9·7	+37·1
79·399 G	13	79	10	62	292·2	+0·6	− 9·4	+50·6
80·330 C	9	17	10	18	292·1	+0·4	− 9·3	+62·8
81·322 C	2	11	4	22	292·4	+0·6	− 9·2	+76·1
Means ...	...	...	24	134	291·4	...	− 9·3	...

Group 10219.

March 13–25. A stable regular spot.

71·370 C	4	30	14	108	268·0	0·0	+16·4	−79·5
72·421 C	17	95	23	131	268·1	+0·1	+16·0	−65·5
73·392 G	22	140	20	130	267·6	−0·4	+16·0	−53·2
74·392 G	35	185	25	133	267·6	−0·4	+16·2	−40·0
75·393 G	33	233	20	142	267·4	−0·6	+16·3	−27·0
76·539 G	40	240	22	134	267·4	−0·5	+16·4	−11·9
77·333 C	39	238	21	131	267·1	−0·8	+16·5	− 1·8
78·424 G	40	220	22	123	267·4	−0·5	+16·4	+12·9
79·399 G	35	216	21	132	267·3	−0·6	+16·3	+25·7
80·330 C	39	208	27	146	267·3	−0·6	+16·1	+38·0
81·322 C	22	135	19	119	267·3	−0·6	+16·2	+51·0
82·434 G	13	70	18	97	267·2	−0·7	+16·1	+65·6
83·531 G	7	26	27	99	267·3	−0·5	+16·1	+80·2
Means ...	...	...	21	125	267·5	...	+16·2	...

Group 10220.

March 14–23. An irregular stream of imperfectly formed spots.

72·421 C	9	35	7	27	291·3	0·0	+18·2	−42·3
73·392 G	13	74	8	47	292·3	+1·1	+18·0	−28·5
74·392 G	35	145	20	83	292·9	+1·7	+17·4	−14·7
75·393 G	70	317	39	174	293·4	+2·3	+17·1	− 1·0
76·539 G	99	411	55	230	291·1	0·0	+17·9	+11·8
77·333 C	65	505	38	298	290·8	−0·2	+17·5	+21·9
78·424 G	66	367	45	253	290·6	−0·4	+17·6	+36·1
79·399 G	53	242	44	201	289·3	−1·6	+17·6	+47·7
80·330 C	20	56	23	64	289·1	−1·8	+18·4	+59·8
81·322 C	9	48	18	97	288·6	−2·2	+18·7	+72·3
Means ...	...	...	30	147	290·9	...	+17·8	...

Group 10221.

March 14–23. Two clusters of spots decreasing rapidly. The nucleus of the larger spot of the preceding cluster is all that remains after March 21.

72·421 C	11	69	27	169	254·3	0·0	−10·3	−79·3
73·392 G	35	182	45	222	254·6	+0·2	− 9·6	−66·2
74·392 G	59	330	48	269	255·3	+0·8	− 9·2	−52·3
75·393 G	30	278	19	177	256·3	+1·7	− 9·0	−38·1

Group 10221—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.		Latitude.	Long. from C.M.
d					°	°	°	°
76·539 G	29	136	16	73	256·8	+2·0	− 9·4	−22·5
77·333 C	24	99	12	51	254·9	0·0	−10·6	−14·0
78·424 G	30	69	15	35	256·9	+1·9	−10·1	+ 2·4
79·399 G	13	38	7	20	255·7	+0·6	−10·8	+14·1
80·330 C	9	30	5	16	253·7	−1·5	−10·2	+24·4
81·322 C	4	9	3	6	257·7	+2·4	−10·0	+41·4
Means ...	...	...	20	104	255·6	...	− 9·9	...

Group 10224.

March 17–26. A stream of changing spots.

75·393 G	7	35	6	32	237·4	0·0	−10·7	−57·0
76·539 G	42	132	28	88	237·5	0·0	−10·9	−41·8
77·333 C	80	397	46	230	237·9	+0·3	−11·0	−31·0
78·424 G	101	412	53	216	238·3	+0·6	−11·1	−16·2
79·399 G	66	426	33	213	239·7	+1·9	−11·4	− 1·9
80·330 C	63	299	32	154	239·5	+1·7	−11·2	+10·2
81·322 C	54	269	30	148	240·5	+2·6	−11·5	+24·2
82·434 G	33	106	20	68	240·5	+2·5	−11·7	+38·9
83·531 G	9	31	7	25	239·7	+1·6	−12·3	+52·6
84·472 G	4	11	5	12	239·3	+1·1	−12·5	+64·6
Means ...	...	...	26	119	237·0	...	−11·4	...

Group 10230.

March 24–29. A small but distinct spot with a companion on March 27.

82·434 G	7	18	11	27	132·8	0·0	+10·5	−68·8
83·531 G	9	31	8	28	133·1	+0·2	+10·3	−54·0
84·472 G	9	18	6	13	133·5	+0·5	+10·5	−41·2
85·377 C	13	35	8	21	133·5	+0·4	+10·8	−29·3
86·400 G	4	13	2	7	133·6	+0·4	+10·7	−15·7
87·330 C	4	9	2	5	132·3	−1·0	+10·1	− 4·7
Means ...	...	...	6	17	133·1	...	+10·5	...

Group 10235.

March 29–April 7. A decreasing regular spot.

87·330 C	4	22	18	97	55·8	...	+15·9	−81·2
88·490 G	18	62	25	86	56·1	0·0	+16·1	−65·6
89·427 G	31	129	29	120	56·0	−0·1	+16·0	−53·4
90·635 G	22	155	15	107	56·1	0·0	+16·1	−37·3
91·411 G	27	142	16	87	56·3	+0·2	+16·1	−26·9
92·375 C	24	161	13	90	56·5	+0·4	+16·1	−14·0
93·374 C	31	153	17	83	56·5	+0·4	+15·8	− 0·8
94·534 G	31	120	17	67	57·0	+1·0	+16·2	+15·0
95·503 G	18	98	11	61	57·2	+1·2	+16·4	+28·0
96·375 C	9	26	6	18	57·0	+1·0	+16·1	+39·3
Means ...	...	...	17	80	56·5	...	+16·1	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued*.

Group 10238.

March 31–April 7. A stream of minor importance.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°	°
89·427 G	0	4	0	3	56·2	0·0	−14·0	−53·2
90·635 G	31	107	20	67	56·6	+0·4	−14·0	−36·8
91·411 G	44	113	25	63	57·0	+0·7	−14·2	−26·2
92·375 C	26	109	14	57	58·5	+2·2	−14·3	−12·0
93·374 C	15	48	8	25	60·6	+4·3	−14·2	+ 3·3
94·534 G	8	31	4	16	59·1	+2·7	−14·1	+17·1
95·503 G	8	18	4	10	61·0	+4·6	−14·1	+31·8
96·375 C	9	22	6	15	59·1	+2·6	−14·1	+41·4
Means ...	...	...	10	32	58·5	...	−14·1	...

Group 10239.

March 31–April 12. A large irregular stream of spots showing considerable changes. The leader, *a*, is the largest spot and tends to composite structure.

89·427 G	9	44	(40	193	27·5	...	+11·9)	−81·9
90·635 G	93	444	149	688	24·6	0·0	+11·8	− 68·8
91·411 G	106	690	115	735	23·7	−1·0	+12·1	−59·5
92·375 C	166	1144	131	904	23·5	−1·2	+12·2	−47·0
93·374 C	169	1421	107	915	23·2	−1·6	+12·5	−34·1
94·534 G	277	1453	155	811	24·5	−0·4	+12·1	−17·5
95·503 G	225	1557	121	835	24·1	−0·5	+12·7	− 5·1
96·375 C	202	1313	106	697	24·3	−0·7	+12·3	+ 6·6
97·398 G	162	966	92	546	25·3	+0·2	+12·2	+21·1
98·337 C	114	855	71	539	25·3	+0·2	+12·4	+33·5
99·118 K	152	953	111	697	25·1	−0·1	+12·7	+43·6
100·373 G	66	419	71	453	25·1	−0·2	+13·2	+60·2
101·390 G	20	275	38	541	24·7	−0·6	+13·4	+73·2
Means ...	...	...	107	697	24·4	...	+12·5	...

Spot *a*.

89·427 G	9	44	40	193	27·5	...	+11·9	−81·9
90·635 G	49	282	69	398	26·2	0·0	+11·8	−67·2
91·411 G	44	337	43	327	26·7	+0·4	+11·6	−56·5
92·375 C	70	427	51	312	27·2	+0·9	+11·4	−43·3
93·374 C	83	466	51	284	27·1	+0·7	+11·0	−30·2
94·534 G	124	511	67	276	26·9	+0·4	+11·1	−15·1
95·503 G	120	813	64	431	27·0	+0·5	+11·5	− 2·2
96·375 C	112	769	59	408	26·9	+0·3	+11·4	+ 9·2
97·398 G	93	551	53	314	27·0	+0·3	+11·7	+22·8
98·337 C	66	482	42	308	26·7	0·0	+12·0	+34·9
99·118 K	96	587	72	440	26·4	−0·4	+12·4	+44·9
100·373 G	66	419	71	453	25·1	−1·8	+13·2	+60·2
101·390 G	18	268	36	533	25·0	−1·9	+13·4	+73·5

Group 10240.

April 1–9. One or two small faint spots becoming more definite after April 4.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°
90·635 G	7	18	5	12	63·3	0·0	+22·3	−30·1
91·411 G	7	18	4	11	62·5	−0·7	+22·1	−20·7
92·375 C	9	20	5	11	63·1	+0·1	+21·8	− 7·4
93·374 C	2	7	1	4	61·4	−1·4	+22·0	+ 4·1
94·534 G	31	69	19	43	64·5	+1·9	+22·0	+22·5
95·503 G	27	133	19	93	63·9	+1·5	+22·5	+34·7
96·375 C	22	44	18	37	63·9	+1·7	+22·3	+46·2
97·398 G	7	11	7	12	61·4	−0·6	+23·0	+57·2
98·337 C	4	31	7	55	61·3	−0·6	+22·9	+69·5
Means ...	...	...	9	31	62·8	...	+22·3	...

Group 10241.

April 1–6. A small stream of brief duration, the rear portion having disappeared by April 3.

90·635 G	9	31	12	42	24·0	0·0	−25·1	−69·4
91·411 G	27	89	25	84	25·9	+2·1	−25·1	−57·3
92·375 C	24	92	17	65	27·1	+3·6	−25·1	−43·4
93·374 C	24	61	15	37	27·1	+3·9	−25·5	−30·2
94·534 G	7	9	4	5	26·6	+3·7	−24·9	−15·4
95·503 G	2	4	1	2	26·7	+4·1	−25·2	− 2·5
Means ...	...	...	12	39	26·2	...	−25·2	...

Group 10243.

April 2–7. A diminutive stream on April 2 of which one component remains on April 3. On April 5 a larger stream begins to form.

91·411 G	4	22	2	11	96·9	0·0	−14·2	+13·7
92·375 C	4	13	2	7	95·8	−1·1	−14·3	+25·3
93·374 C	0	0	0	0	...	...	...	...
94·534 G	27	89	24	78	97·9	+0·9	−13·4	+55·9
95·503 G	20	120	26	157	97·6	+0·5	−13·6	+68·4
96·375 C	13	53	32	130	97·1	0·0	−13·9	+79·4
Means ...	...	...	14	64	97·1	...	−13·9	...

Group 10244.

April 2–9. A regular spot, followed by faculæ and preceded by Group 10239; on April 9 it is represented by a cluster of tiny spots.

91·411 G	11	44	23	90	9·5	0·0	+13·7	−73·7
92·375 C	22	144	24	160	10·1	+0·6	+13·9	−60·4
93·374 C	26	169	21	134	10·2	+0·6	+13·4	−47·1
94·534 G	31	164	20	103	10·6	+1·0	+13·5	−31·4
95·503 G	22	138	12	77	10·9	+1·2	+13·8	−18·3
96·375 C	22	92	12	49	11·3	+1·6	+13·5	− 6·4
97·398 G	20	89	11	47	11·3	+1·5	+13·1	+ 7·1
98·337 C	13	53	7	30	10·1	+0·3	+13·1	+18·3
Means ...	...	...	16	86	10·5	...	+13·5	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10246.

April 5–17. An unusual group of which the origin occurs on the invisible hemisphere. A pair of regular spots, *a* and a_1, slowly approaching one another. The leader, *a*, is further from the sun's equator and begins to diminish rapidly after April 10.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
94·534 G	22	82	61	232	321·9	...	−15·5	−80·1
95·503 G	36	240	48	328	320·3	0·0	−14·8	−68·9
96·375 C	44	383	41	354	320·2	−0·1	−14·8	−57·5
97·398 G	80	510	56	358	320·2	−0·2	−15·0	−44·0
98·337 C	92	524	55	312	319·4	−1·0	−14·2	−32·4
99·118 K	87	583	48	318	319·6	−0·9	−14·3	−21·9
100·373 G	94	419	48	214	319·8	−0·7	−13·6	− 5·1
101·390 G	67	312	34	159	319·7	−0·9	−13·4	+ 8·2
102·380 G	51	210	28	114	320·0	−0·6	−13·2	+21·6
103·438 C	40	163	24	100	319·6	−1·1	−13·1	+35·1
104·115 K	27	96	19	67	320·0	−0·7	−12·8	+44·5
105·337 C	11	39	11	38	318·8	−2·0	−12·1	+59·4
106·422 G	9	22	15	38	318·8	−2·0	−12·5	+73·8
Means ...	...	...	36	200	319·7	...	−13·6	...

Spot *a*.

94·534 G	20	73	50	184	322·2	0·0	−15·7	−79·8
95·503 G	27	160	34	202	321·8	−0·4	−15·7	−67·4
96·375 C	22	219	19	193	321·9	−0·4	−15·7	−55·8
97·398 G	44	306	30	211	321·2	−1·1	−15·7	−43·0
98·337 C	39	226	23	133	321·1	−1·3	−15·4	−30·7
99·118 K	37	254	20	137	321·2	−1·2	−15·5	−20·3
100·373 G	38	147	19	75	321·4	−1·1	−15·0	− 3·5
101·390 G	20	80	10	41	321·5	−1·0	−14·8	+10·0
102·380 G	18	47	10	26	321·4	−1·2	−14·5	+23·0
103·438 C	18	40	11	25	321·4	−1·2	−14·4	+36·9
104·115 K	10	25	7	18	321·6	−1·0	−14·1	+46·1
105·337 C	4	15	4	16	321·4	−1·3	−14·3	+62·0
106·422 G	9	22	15	38	318·8	−3·9	−12·5	+73·8

Spot a_1.

95·503 G	9	80	14	126	316·9	0·0	−12·9	−72·3
96·375 C	22	164	21	161	317·9	+1·0	−13·2	−59·8
97·398 G	36	204	26	147	318·3	+1·3	−13·5	−45·9
98·337 C	53	298	32	179	318·3	+1·3	−13·4	−33·5
99·118 K	50	329	28	181	318·6	+1·5	−13·4	−22·9
100·373 G	56	272	29	139	319·2	+2·1	−13·0	− 5·7
101·390 G	47	232	24	118	319·3	+2·1	−12·8	+ 7·8
102·380 G	33	163	18	88	319·2	+2·0	−12·7	+20·8
103·438 C	22	123	13	75	319·2	+1·9	−12·7	+34·7
104·115 K	17	71	12	49	319·5	+2·2	−12·2	+44·0
105·337 C	9	35	9	34	319·2	+1·8	−12·4	+59·8
106·422 G	9	22	15	38	318·8	+1·4	−12·5	+73·8

Group 10247.

April 6–16. A few small spots lying between Group 10246 and 48. No spots are seen on April 9–11.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
95·503 G	7	27	15	60	311·2	0·0	−13·6	−78·0
96·375 C	4	22	5	27	311·4	+0·2	−14·1	−66·3
97·398 G	4	18	3	15	310·7	−0·5	−13·9	−53·5
98·337 C	0	0	0	0	...	...	...	...
99·118 K	0	0	0	0	...	...	...	...
100·373 G	0	0	0	0	...	...	...	...
101·390 G	36	125	18	63	313·6	+2·2	−13·4	+ 2·1
102·380 G	22	107	11	56	313·8	+2·4	−14·8	+15·4
103·438 C	7	35	4	20	312·8	+1·4	−15·5	+28·3
104·115 K	8	37	5	24	313·9	+2·4	−15·3	+38·4
105·337 C	9	40	8	34	313·4	+1·9	−14·0	+54·0
Means ...	...	...	6	27	312·6	...	−14·3	...

Group 10248.

April 6–18. A large complex stream of spots in continual change. Groups 10246, 47, 48, and 52, closely follow one another.

95·503 G	35	151	103	460	307·8	...	−16·9	−81·4
96·375 C	88	337	129	479	308·0	0·0	−17·2	−69·7
97·398 G	125	562	111	507	307·4	−0·6	−17·0	−56·8
98·337 C	141	766	99	545	307·5	−0·4	−17·0	−44·3
99·118 K	196	899	119	550	307·3	−0·6	−17·2	−34·2
100·373 G	194	1010	103	538	307·9	+0·1	−17·0	−17·0
101·390 G	252	1110	130	568	308·2	+0·4	−17·5	− 3·3
102·380 G	237	1318	123	691	306·0	−1·7	−18·0	+ 7·6
103·438 C	202	1276	111	703	305·5	−2·2	−18·5	+21·0
104·115 K	220	1223	130	718	305·4	−2·2	−18·2	+29·9
105·337 C	101	717	73	524	305·0	−2·6	−18·4	+45·6
106·422 G	67	400	68	408	305·0	−2·5	−17·9	+60·0
107·436 G	20	143	37	266	307·1	−0·4	−16·8	+75·4
Means ...	...	...	103	541	306·7	...	−17·6	...

Group 10250.

April 7–19. A variable group.

96·375 C	13	33	57	145	295·9	...	+13·4	−81·8
97·398 G	13	49	19	72	296·3	0·0	+13·2	−67·9
98·337 C	24	129	23	123	296·4	+0·1	+13·3	−55·4
99·118 K	42	219	33	170	295·8	−0·6	+13·9	−45·7
100·373 G	49	348	30	212	295·7	−0·7	+14·2	−29·2
101·390 G	51	152	28	84	295·7	−0·8	+13·7	−15·8
102·380 G	22	94	12	50	295·0	−1·5	+14·0	− 3·4
103·438 C	55	308	30	166	293·0	−3·6	+14·2	+ 8·5
104·115 K	46	252	25	134	293·8	−2·8	+14·5	+18·3
105·337 C	72	509	48	333	294·2	−2·4	+13·9	+34·8
106·422 G	52	321	43	269	295·2	−1·5	+14·0	+50·2
107·436 G	31	182	40	239	296·9	+0·2	+13·1	+65·2
108·430 G	9	40	31	130	296·7	−0·1	+13·5	+78·2
Means ...	...	...	30	165	295·4	...	+13·8	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued*.

Group 10252.

April 8–18. A small group, comprising later a small regular spot with an occasional attendant, *f*, Group 10248.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
97·398 G	4	7	8	13	288·2	0·0	−25·4	−76·0
98·337 C	4	26	4	27	290·7	+2·7	−22·6	−61·1
99·118 K	25	96	21	79	290·0	+2·1	−23·5	−51·5
100·373 G	31	125	19	78	291·1	+3·4	−23·0	−33·8
101·390 G	20	112	11	62	292·9	+5·4	−21·7	−18·6
102·380 G	18	78	9	41	293·0	+5·7	−21·3	− 5·4
103·438 C	18	51	10	27	292·9	+5·8	−21·7	+ 8·4
104·115 K	15	40	8	22	293·1	+6·1	−21·3	+17·6
105·337 C	13	42	8	26	291·9	+5·2	−22·2	+32·5
106·422 G	11	27	8	21	292·9	+6·4	−21·6	+47·9
107·436 G	4	7	4	7	293·0	+6·6	−21·3	+61·3
Means ...	...	...	10	37	291·8	...	−22·3	...

Group 10254.

April 10–18. A small regular spot disappearing after April 14; afterwards one or two very small spots are seen near its place.

99·118 K	8	33	23	96	260·8	...	− 7·7	−80·7
100·373 G	20	74	22	83	260·9	0·0	− 7·3	−64·0
101·390 G	20	87	15	67	261·5	+0·4	− 7·2	−50·0
102·380 G	18	54	11	33	261·8	+0·6	− 7·2	−36·6
103·438 C	4	35	2	19	262·1	+0·7	− 7·8	−22·4
104·115 K	4	12	2	6	260·9	−0·6	− 5·8	−14·6
105·337 C	2	11	1	6	257·7	−4·0	− 5·7	− 1·7
106·422 G	0	0	0	0	...	...	...	...
107·436 G	4	18	2	11	263·6	+1·6	− 5·6	+31·9
Means ...	...	...	7	28	261·2	...	− 6·7	...

Group 10255.

April 11–22. A small spot on April 11 developing into a short irregular stream composed of two parallel and intermingling streams.

100·373 G	4	13	6	19	254·4	0·0	−14·6	−70·5
101·390 G	22	169	20	155	253·9	−0·5	−15·1	−57·6
102·380 G	31	149	22	104	253·7	−0·7	−14·8	−44·7
103·438 C	66	396	39	234	253·8	−0·7	−15·3	−30·7
104·115 K	79	545	43	300	253·6	−0·9	−15·0	−21·9
105·337 C	84	543	43	277	254·3	−0·2	−14·9	− 5·1
106·422 G	85	506	43	258	255·3	+0·8	−14·8	+10·3
107·436 G	76	365	43	204	257·1	+2·6	−14·9	+25·4
108·430 G	76	448	49	291	258·1	+3·6	−15·5	+39·6
109·347 G	54	269	44	221	258·7	+4·1	−15·5	+52·3
110·373 G	20	94	26	120	260·4	+5·8	−15·4	+67·5
111·480 G	2	4	5	10	257·7	+3·1	−12·6	+79·4
Means ...	...	...	32	183	255·9	...	−14·9	...

Group 10257.

April 11–18. A few unstable spots *n* Group 10255.

d					°	°	°	°
100·373 G	4	18	7	30	251·7	0·0	− 6·3	−73·2
101·390 G	9	27	9	27	251·5	−0·4	− 6·1	−60·0
102·380 G	4	16	3	11	252·9	+0·9	− 4·9	−45·5
103·438 C	9	26	5	15	253·9	+1·7	− 5·7	−30·6
104·115 K	4	23	2	13	251·2	−1·1	− 5·7	−24·3
105·337 C	0	0	0	0	...	...	...	...
106·422 G	2	22	1	11	253·8	+1·1	− 6·0	+ 8·8
107·436 G	7	22	4	12	255·1	+2·2	− 6·9	+23·4
Means ...	...	...	4	15	252·9	...	− 5·9	...

Group 10258.

April 12–19. A stream decreasing rapidly.

101·390 G	33	163	57	278	240·8	0·0	+10·6	−70·7
102·380 G	29	179	30	180	240·4	−0·5	+11·1	−58·0
103·438 C	37	134	27	99	240·6	−0·4	+10·5	−43·9
104·115 K	44	121	28	78	240·6	−0·5	+10·5	−34·9
105·337 C	18	70	10	39	241·0	−0·2	+10·4	−18·4
106·422 G	11	58	6	31	238·7	−2·6	+11·0	− 6·3
107·436 G	4	9	2	5	242·9	+1·5	+12·4	+11·2
108·430 G	2	7	1	4	244·5	+3·0	+ 9·8	+26·0
Means ...	...	...	20	89	241·2	...	+10·8	...

Group 10259.

April 12–18. A small regular spot disappearing as a cluster.

101·390 G	0	7	0	28	230·9	...	+18·0	−80·6
102·380 G	9	62	13	92	231·2	0·0	+17·9	−67·2
103·438 C	13	57	12	52	231·7	+0·6	+17·4	−52·8
104·115 K	15	60	12	46	231·1	0·0	+17·8	−44·4
105·337 C	9	31	6	19	231·2	+0·2	+18·0	−28·2
106·422 G	9	36	5	21	229·7	−1·3	+18·1	−15·3
107·436 G	4	22	2	12	228·0	−2·9	+18·7	− 3·7
Means ...	...	...	8	40	230·5	...	+18·0	...

Group 10263.

April 18–24. A partially-formed regular spot with an occasional companion.

107·436 G	9	40	18	80	157·3	0·0	+ 8·1	−74·4
108·430 G	13	90	14	100	156·8	−0·6	+ 8·7	−61·7
109·347 G	24	103	20	83	156·5	−1·1	+ 8·4	−49·9
110·373 G	20	85	13	54	156·7	−1·0	+ 8·3	−36·2
111·480 G	13	54	8	30	156·6	−1·3	+ 8·2	−21·7
112·366 G	22	45	11	23	155·8	−2·2	+ 8·4	−10·7
113·356 C	4	22	2	11	156·4	−1·7	+ 8·3	+ 2·9
Means ...	...	...	12	54	156·6	...	+ 8·3	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10266.

April 21–28. A partially-formed regular spot with a few small followers.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
110·373 G	18	47	11	30	167·3	0·0	+23·3	−25·6
111·480 G	31	202	18	117	167·0	0·0	+24·0	−11·3
112·366 G	54	305	31	174	166·5	−0·3	+23·8	0·0
113·356 C	35	225	20	131	165·4	−1·2	+23·6	+11·9
114·362 G	36	237	23	152	165·9	−0·5	+24·0	+25·7
115·363 G	13	90	9	66	165·2	−0·9	+23·8	+38·3
116·360 C	9	49	8	45	164·7	−1·2	+24·2	+50·9
117·445 G	1	4	3	6	164·3	−1·4	+24·0	+64·9
Means ...	...	...	15	90	165·8	...	+23·8	...

Group 10268.

April 22–May 3. Numerous small spots in a broad stream. The leader, *a*, is the only spot which can be traced for longer than a day or two. A revival rather than a return of Group 10243.

111·480 G	13	40	23	71	103·9	0·0	−16·9	−74·4
112·366 G	22	116	25	133	102·0	−1·9	−15·7	−64·5
113·356 C	27	179	22	143	102·5	−1·4	−16·1	−51·0
114·362 G	98	540	62	343	104·0	+0·1	−16·6	−36·2
115·363 G	83	524	46	291	103·5	−0·4	−16·1	−23·4
116·360 C	86	520	45	271	102·6	−1·3	−16·3	−11·2
117·445 G	85	519	44	266	102·2	−1·7	−15·8	+ 2·8
118·372 G	55	226	30	120	104·4	+0·5	−14·5	+17·2
119·413 G	23	163	14	97	105·3	+1·3	−14·5	+31·9
120·385 G	14	81	10	59	106·9	+2·9	−14·1	+46·3
121·353 G	15	68	15	65	106·1	+2·1	−13·8	+58·3
122·349 G	4	20	7	31	106·5	+2·5	−13·9	+71·9
Means ...	...	...	29	157	104·2	...	−15·4	...

Spot *a*.

114·362 G	31	148	19	90	106·2	0·0	−14·7	−34·0
115·363 G	25	161	14	87	106·7	+0·5	−14·6	−20·2
116·360 C	27	129	14	66	107·1	+0·9	−14·4	− 6·7
117·445 G	18	115	9	59	107·2	+1·0	−14·4	+ 7·8
118·372 G	25	108	14	58	107·3	+1·1	−14·3	+20·1
119·413 G	16	81	10	49	107·1	+0·9	−14·1	+33·7
120·385 G	14	81	10	59	106·9	+0·7	−14·1	+46·3
121·353 G	11	45	11	44	106·9	+0·7	−13·5	+59·1
122·349 G	4	11	7	18	107·5	+1·2	−13·4	+72·9

Group 10271.

April 25–May 5. A regular spot becoming markedly elongated on April 29 before dividing into two parts on April 30, of which the larger and preceding part outlives the other.

114·362 G	13	65	38	190	60·5	0·0	+ 4·0	−79·7
115·363 G	31	166	40	216	59·9	−0·8	+ 3·9	−67·0
116·360 C	53	262	45	223	60·6	−0·3	+ 4·0	−53·2

Group 10271—*continued.*

d					°	°	°	°
117·445 G	86	365	56	237	61·0	0·0	+ 4·1	−38·4
118·372 G	61	387	34	217	61·5	+0·3	+ 4·0	−25·7
119·413 G	50	344	26	179	62·1	+0·7	+ 3·8	−11·3
120·385 G	63	270	32	138	62·4	+0·8	+ 4·1	+ 1·8
121·353 G	36	172	19	89	62·7	+1·0	+ 4·5	+14·9
122·349 G	27	131	16	76	63·3	+1·4	+ 4·6	+28·7
123·373 G	23	92	16	63	62·9	+0·8	+ 4·7	+41·8
124·453 G	5	14	5	13	64·4	+2·1	+ 5·0	+57·6
Means ...	...	...	30	149	61·9	...	+ 4·2	...

Group 10274.

April 26–30. A short-lived stream of which the leader alone remains on April 30.

115·363 G	25	101	21	87	78·0	0·0	+20·9	−48·9
116·360 C	27	226	18	154	78·4	+0·5	+20·5	−35·4
117·445 G	32	90	19	53	78·4	+0·7	+20·4	−21·0
118·372 G	25	77	14	43	79·7	+2·1	+20·4	− 7·5
119·413 G	9	23	5	13	81·2	+3·7	+20·6	+ 7·8
Means ...	...	...	15	70	79·1	...	+20·6	...

Group 10275.

April 27–May 7. A very small spot, in a region marked by faculæ, developing into a long variable stream, which on May 3 consists of four regular spots, one, *a*, at the head; a pair, *c*, in the middle, and one, *b*, at the end of the stream.

116·360 C	0	4	0	4	51·9	0·0	−20·7	−61·9
117·445 G	2	4	2	3	49·7	−2·1	−21·0	−49·7
118·372 G	18	63	12	41	50·5	−1·2	−21·0	−36·7
119·413 G	20	162	11	91	51·9	+0·3	−19·9	−21·5
120·385 G	75	401	39	210	52·7	+1·2	−19·6	− 7·9
121·353 G	109	538	56	279	52·7	+1·3	−19·1	+ 4·9
122·349 G	178	847	98	465	53·8	+2·5	−18·7	+19·2
123·373 G	170	836	104	515	54·2	+3·0	−18·7	+33·1
124·453 G	110	665	84	512	55·1	+4·0	−17·9	+48·3
125·397 G	38	278	40	291	54·9	+3·8	−17·8	+60·6
126·336 C	13	135	22	230	55·0	+4·0	−18·1	+73·1
Means ...	...	...	43	240	52·9	...	−19·3	...

Spot *a*.

121·353 G	14	50	7	26	56·5	0·0	−17·3	+ 8·7
122·349 G	38	183	21	102	57·8	+1·4	−17·0	+23·2
123·373 G	57	253	36	162	58·1	+1·8	−16·8	+37·0
124·453 G	38	253	31	205	57·8	+1·6	−17·0	+51·0
125·397 G	18	106	20	119	57·6	+1·5	−17·2	+63·3

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10275—*continued.*

Spot *c.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
121·353 G	72	316	37	164	53·3	0·0	−18·7	+ 5·5
122·349 G	90	452	50	249	53·7	+0·5	−18·4	+19·1
123·373 G	81	443	49	270	53·9	+0·8	−19·0	+32·8
124·453 G	54	362	41	272	54·0	+1·0	−18·4	+47·2
125·397 G	20	172	20	172	53·7	+0·8	−18·1	+59·4

Spot *b.*

121·353 G	23	172	12	89	49·0	0·0	−21·0	+ 1·2
122·349 G	41	167	22	90	48·4	−0·5	−21·8	+13·8
123·373 G	32	140	19	83	47·8	−1·0	−22·0	+26·7
124·453 G	18	50	12	35	47·6	−1·1	−22·7	+40·8

Group 10276.

May 2–7. A diminishing spot with followers on May 3 and 5.

121·353 G	11	50	28	126	330·2	0·0	+ 9·7	−77·6
122·349 G	9	45	11	54	330·8	+0·5	+ 9·5	−63·8
123·373 G	16	59	13	47	331·3	+0·9	+ 9·1	−49·8
124·453 G	14	63	9	41	329·3	−1·2	+10·1	−37·5
125·397 G	5	7	3	4	331·5	+0·9	+10·3	−22·8
126·336 C	4	29	2	15	329·0	−1·8	+11·3	−12·9
Means ...	...	...	11	48	330·4	...	+10·0	...

Group 10277.

May 3–12. A stream undergoing marked changes. The preceding spots last the longest.

122·349 G	14	43	13	40	337·0	0·0	−15·3	−57·6
123·373 G	52	219	36	151	338·1	+1·1	−15·4	−43·0
124·453 G	74	544	43	314	338·6	+1·6	−15·3	−28·2
125·397 G	104	764	55	407	338·8	+1·8	−15·4	−15·5
126·336 C	142	702	73	360	338·8	+1·8	−15·1	− 3·1
127·397 G	109	615	56	317	339·4	+2·3	−14·6	+12·5
128·428 G	90	413	52	237	341·7	+4·6	−14·3	+27·4
129·360 C	58	279	40	193	344·1	+7·0	−15·0	+42·2
130·375 G	25	147	23	135	345·0	+7·9	−15·6	+56·5
131·571 G	11	55	18	89	344·4	+7·3	−15·5	+71·7
Means ...	...	...	41	224	340·6	...	−15·2	...

Group 10279.

May 4–13. A group of stream type with its axis considerably inclined to the sun's equator.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
123·373 G	6	11	6	10	324·3	0·0	− 6·1	−56·8
124·453 G	54	222	36	147	325·6	+1·1	− 8·2	−41·2
125·397 G	59	321	33	182	326·6	+2·0	− 8·6	−27·7
126·336 C	63	286	32	148	327·5	+2·8	− 8·0	−14·4
127·397 G	61	272	31	137	328·0	+3·1	− 7·7	+ 0·1
128·428 G	41	158	22	83	330·2	+5·2	− 7·5	+15·9
129·360 C	27	143	15	82	331·8	+6·6	− 7·6	+29·9
130·375 G	9	107	6	75	333·6	+8·3	− 7·7	+45·1
131·571 G	14	68	15	71	334·4	+8·9	− 7·2	+61·7
132·358 C	11	31	17	47	333·2	+7·6	− 7·4	+70·9
Means ...	...	...	21	98	329·5	...	− 7·6	...

Spot *a.*

123·373 G	4	7	4	6	324·7	0·0	− 6·3	−56·4
124·453 G	29	136	19	88	326·8	+1·9	− 9·1	−40·0
125·397 G	36	199	20	111	328·2	+3·2	− 9·6	−26·1
126·336 C	36	182	18	93	329·3	+4·2	− 9·4	−12·6
127·397 G	32	165	16	83	330·4	+5·1	− 9·0	+ 2·5
128·428 G	32	131	17	69	331·7	+6·3	− 8·1	+17·4
129·360 C	18	116	10	67	332·7	+7·1	− 7·7	+30·8
130·375 G	9	102	6	72	333·9	+8·2	− 7·5	+45·4
131·571 G	14	68	15	71	334·4	+8·5	− 7·2	+61·7

Spot *b.*

123·373 G	2	4	2	4	323·6	0·0	− 5·7	−57·5
124·453 G	25	86	17	59	323·4	−0·4	− 5·9	−43·4
125·397 G	23	122	13	71	323·8	−0·1	− 6·1	−30·5
126·336 C	27	104	14	55	324·1	+0·1	− 5·9	−17·8
127·397 G	27	102	14	51	324·2	0·0	− 5·6	− 3·7
128·428 G	9	27	5	14	324·6	+0·3	− 5·6	+10·3
129·360 C	7	18	4	10	324·5	0·0	− 5·2	+22·6

Group 10281.

May 6–12. A short-lived group.

125·397 G	9	50	5	27	350·1	0·0	+16·9	− 4·2
126·336 C	36	167	19	90	350·7	+0·6	+17·4	+ 8·8
127·397 G	18	118	10	68	351·9	+1·8	+16·7	+24·0
128·428 G	14	50	10	35	354·1	+4·1	+16·6	+39·8
129·360 C	4	13	4	12	356·2	+6·2	+16·4	+54·3
130·375 G	2	9	3	14	358·1	+8·1	+16·1	+69·6
131·571 G	5	9	(17	31	353·1	...	+16·7)	+80·4
Means ...	...	...	8	41	353·5	...	+16·7	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10284.

May 8–14. A small spot.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°	°
127·397 G	5	14	10	28	252·1	0·0	−10·0	−75·8
128·428 G	5	27	5	29	252·4	+0·2	− 9·6	−61·9
129·360 C	4	18	3	14	253·1	+0·8	− 9·7	−48·8
130·375 G	5	18	3	11	253·7	+1·3	− 9·7	−34·8
131·571 G	5	9	3	5	254·3	+1·8	− 9·6	−18·4
132·358 C	4	13	2	7	252·7	+0·1	−11·2	− 9·6
133·361 G	0	5	0	3	251·0	−1·7	−12·6	+ 2·0
Means ...	...	...	4	14	252·8	...	−10·3	...

Group 10288.

May 9–18. A stream of smallish unstable spots, *f*, Group 10287.

18·4282 G	7	18	5	13	270·7	0·0	+17·7	−43·6
129·360 C	36	149	24	95	270·6	0·0	+18·2	−31·3
130·375 G	41	271	23	152	271·0	+0·4	+17·9	−17·5
131·571 G	54	229	29	124	272·1	+1·6	+18·1	− 0·6
132·358 C	31	232	17	128	272·1	+1·7	+18·5	+ 9·8
133·361 G	9	54	5	31	269·1	−1·2	+18·7	+20·1
134·468 C	4	18	3	12	268·7	−1·6	+19·3	+34·3
135·355 C	13	107	10	81	267·8	−2·4	+18·7	+45·1
136·362 G	14	84	15	89	268·3	−1·8	+18·8	+59·0
137·350 G	5	27	8	45	267·1	−3·0	+19·1	+70·8
Means ...	...	...	14	77	269·8	...	+18·5	...

Group 10294.

May 15–26. A regular spot with a follower which has disappeared by May 21.

134·468 C	13	76	25	150	158·8	0·0	−13·5	−75·6
135·355 C	34	171	38	191	159·8	+1·0	−14·0	−62·9
136·362 G	32	213	25	167	159·8	+0·9	−13·4	−49·5
137·350 G	43	241	28	152	159·9	+1·0	−13·6	−36·4
138·452 G	34	174	18	95	159·8	+0·8	−13·5	−21·9
139·432 G	41	144	22	75	159·9	+0·9	−13·3	− 8·8
140·362 C	18	72	9	37	160·4	+1·3	−13·8	+ 4·0
141·553 G	16	84	9	45	159·8	+0·7	−13·8	+19·1
142·351 G	18	78	11	46	159·8	+0·6	−13·5	+29·7
143·354 C	18	45	12	31	159·4	+0·2	−13·3	+42·6
144·400 C	9	22	8	20	159·7	+0·4	−13·4	+56·7
145·360 G	5	9	7	13	160·2	+0·9	−13·4	+69·9
Means ...	...	...	18	85	159·8	...	−13·5	...

Group 10295.

May 17–23. A group of unstable spots with axis considerably inclined to the equator.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°
136·362 G	2	13	1	8	179·7	0·0	−25·5	−29·6
137·350 G	46	119	26	68	177·9	−1·6	−24·5	−18·4
138·452 G	39	100	21	54	178·0	−1·2	−24·2	− 3·7
139·432 G	91	445	50	245	177·9	−1·0	−24·0	+ 9·2
140·362 C	40	269	23	153	177·3	−1·4	−23·4	+20·9
141·553 G	16	96	11	64	177·7	−0·7	−23·7	+37·0
142·351 G	11	50	9	41	178·4	+0·2	−23·8	+48·3
Means ...	...	...	20	90	178·1	...	−24·2	...

Group 10299.

May 18–24. A diminutive stream of which the following spot remains alone on and after May 20.

137·350 G	5	14	11	32	119·3	0·0	+ 2·8	−77·0
138·452 G	16	50	18	57	118·1	−1·4	+ 2·8	−63·6
139·432 G	11	39	9	31	117·4	−2·3	+ 3·1	−51·3
140·362 C	13	34	8	22	117·2	−2·7	+ 3·2	−39·2
141·553 G	14	23	8	13	117·1	−3·0	+ 3·4	−23·6
142·351 G	9	18	5	9	117·0	−3·2	+ 3·4	−13·1
143·354 C	9	13	5	7	117·2	−3·2	+ 3·1	+ 0·4
Means ...	...	...	9	24	117·6	...	+ 3·1	...

Group 10301.

May 21–June 1. A regular spot, *a*, followed by a cluster which has died out by May 29.

140·362 C	9	45	23	113	77·6	0·0	−10·1	−78·8
141·553 G	28	118	32	131	78·0	+0·3	−10·3	−62·7
142·351 G	38	214	33	179	77·7	−0·1	− 9·8	−52·4
143·354 C	42	291	28	194	76·5	−1·4	−10·5	−40·3
144·400 C	38	208	21	115	77·8	−0·2	−10·7	−25·2
145·360 G	64	192	33	103	79·1	+1·0	−10·8	−11·2
146·358 C	33	238	17	122	78·6	+0·4	−11·4	+ 1·5
147·400 G	36	191	19	101	79·1	+0·8	−11·4	+15·8
148·389 G	21	128	12	76	80·0	+1·6	−11·4	+29·8
149·361 C	20	95	14	66	80·3	+1·8	−11·5	+42·9
150·461 G	14	41	13	39	80·5	+1·9	−11·4	+57·7
151·359 C	5	27	8	41	81·1	+2·4	−11·2	+70·2
Means ...	...	...	21	106	78·9	...	−10·9	...

Spot *a*.

140·362 C	9	45	23	113	77·6	0·0	−10·1	−78·8
141·553 G	23	109	25	118	78·4	+0·7	−10·3	−62·3
142·351 G	27	164	22	131	79·0	+1·2	−10·1	−51·1
143·354 C	29	195	19	125	79·1	+1·2	−10·5	−37·7
144·400 C	31	179	17	98	79·1	+1·1	−10·8	−23·9
145·360 G	64	192	33	100	79·1	+1·0	−10·8	−11·2

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10301—*continued.*
Spot *a*—*continued.*

Date. G.M.T. Place.	Projected Area: Umbræ	Projected Area: Whole Spots.	Corrected Area: Umbræ	Corrected Area: Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
146·358 C	31	211	16	108	79·3	+1·1	−11·2	+ 2·2
147·400 G	36	177	19	94	79·5	+1·2	−11·3	+16·2
148·389 G	21	128	12	76	80·0	+1·6	−11·4	+29·8
149·361 C	20	95	14	66	80·3	+1·8	−11·5	+42·9
150·461 G	14	41	13	39	80·5	+1·9	−11·4	+57·7
151·359 C	5	27	8	41	81·1	+2·4	−11·2	+70·2

Group 10303.

May 22–29. A small stream.

141·553 G	5	9	14	25	61·9	0·0	+15·5	−78·8
142·351 G	9	25	13	37	60·3	−1·6	+15·7	−69·8
143·354 C	9	51	8	47	61·7	−0·2	+15·5	−55·1
144·400 C	22	58	16	42	60·0	−1·9	+15·7	−43·0
145·360 G	18	43	11	26	60·5	−1·4	+15·8	−29·8
146·358 C	13	40	7	22	61·0	−0·9	+15·7	−16·1
147·400 G	7	18	4	9	60·9	−1·0	+15·5	− 2·4
148·389 G	2	5	1	3	61·8	−0·1	+15·7	+11·6
Means ...	...	...	9	26	61·0	...	+15·6	...

Group 10306.

May 24–29. A stream of small faint spots.

143·354 C	4	9	4	8	64·0	0·0	−24·4	−52·8
144·400 C	31	90	21	62	65·0	+1·3	−24·5	−38·0
145·360 G	9	66	5	40	64·2	+0·7	−24·6	−26·1
146·358 C	13	56	7	31	65·3	+2·1	−24·5	−11·8
147·400 G	5	50	3	28	65·5	+2·5	−24·6	+ 2·2
148·389 G	0	14	0	8	66·7	+4·0	−24·3	+16·5
Means ...	...	...	7	29	65·1	...	−24·5	...

Group 10307.

May 24–June 4. A stream growing from a small spot, *a*, in faculæ at the east limb on May 24. *a* becomes a regular spot and is the sole survivor after May 30.

143·354 C	0	7	0	14	41·6	0·0	−20·6	−75·2
144·400 C	11	49	13	59	39·4	−2·1	−21·2	−63·6
145·360 G	53	242	43	200	40·7	−0·7	−20·8	−49·6
146·358 C	44	280	28	178	43·3	+2·0	−20·1	−33·8
147·400 G	54	318	30	178	43·6	+2·4	−19·4	−19·7
148·389 G	71	378	38	201	45·2	+4·1	−19·1	− 5·0
149·361 C	61	275	32	146	45·7	+4·6	−18·6	+ 8·3
150·461 G	30	196	17	112	45·8	+4·8	−18·4	+23·0
151·359 C	20	182	13	116	45·5	+4·6	−18·1	+34·6
152·415 G	18	123	14	97	45·6	+4·8	−17·9	+48·7
153·562 G	5	41	6	50	45·9	+5·2	−18·1	+64·1
154·355 G	0	7	0	15	46·8	+6·2	−18·1	+75·5
Means ...	...	...	11	114	44·1	...	−19·2	...

Group 10307—*continued.*
Spot *a*.

Date. G.M.T. Place.	Projected Area: Umbræ	Projected Area: Whole Spots.	Corrected Area: Umbræ	Corrected Area: Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
143·354 C	0	7	0	14	41·6	0·0	−20·6	−75·2
144·400 C	7	18	8	20	41·5	0·0	−20·7	−61·5
145·360 G	32	123	25	95	43·6	+2·2	−20·2	−46·7
146·358 C	31	213	19	132	44·7	+3·4	−19·8	−32·4
147·400 G	36	232	20	128	45·2	+4·0	−19·1	−18·1
148·389 G	64	337	34	179	45·6	+4·5	−18·8	− 4·6
149·361 C	59	266	31	141	45·7	+4·6	−18·6	+ 8·3
150·461 G	30	196	17	112	45·8	+4·8	−18·4	+23·0
151·359 C	20	182	13	116	45·5	+4·6	−18·1	+34·6
152·415 G	18	123	14	97	45·6	+4·8	−17·9	+48·7
153·562 G	5	41	6	50	45·9	+5·2	−18·1	+64·1
154·355 G	0	7	0	15	46·8	+6·2	−18·1	+75·5

Group 10308.

May 25–30. A short-lived stream in which the follower is the largest and longest-lived spot.

144·400 C	20	67	10	34	102·3	0·0	− 9·4	− 0·7
145·360 G	57	262	29	134	101·4	−1·0	− 9·7	+11·1
146·358 C	58	372	33	207	100·9	−1·6	− 9·4	+23·8
147·400 G	46	195	30	125	101·8	−0·9	− 9·1	+38·5
148·389 G	23	109	19	90	102·1	−0·7	− 9·1	+51·9
149·361 C	7	18	9	22	103·5	+0·6	− 9·6	+61·1
Means ...	...	...	22	102	102·0	...	− 9·4	...

Group 10309.

May 25–June 6. A regular spot with occasional small companions.

144·400 C	18	90	48	239	23·9	0·0	−19·8	−79·1
145·360 G	32	203	42	268	23·5	−0·3	−19·6	−66·8
146·358 C	45	271	40	238	23·7	0·0	−19·9	−53·4
147·400 G	59	345	41	238	23·1	−0·5	−19·6	−40·2
148·389 G	68	429	40	253	23·2	−0·3	−19·3	−27·0
149·361 C	72	351	39	190	23·0	−0·4	−18·7	−14·4
150·461 G	89	429	47	227	23·1	−0·2	−19·0	+ 0·3
151·359 C	59	383	32	207	23·4	+0·1	−19·1	+12·5
152·415 G	50	278	30	164	24·1	+0·9	−19·1	+27·2
153·562 G	41	210	30	151	24·5	+1·4	−19·2	+42·7
154·355 G	23	153	20	135	24·3	+1·3	−18·9	+53·0
155·418 G	14	69	19	94	24·4	+1·5	−18·7	+67·2
156·427 G	0	9	0	28	24·2	+1·4	−18·2	+80·4
Means ...	...	...	36	200	23·7	...	−19·2	...

Group 10313.

June 5–13. A short stream or cluster with one conspicuous component on June 8.

155·418 G	5	14	5	14	259·4	0·0	+14·5	−57·8
156·427 G	36	87	26	64	259·3	−0·1	+14·9	−44·5
157·344 C	57	353	34	212	260·7	+1·3	+15·4	−31·0
158·474 G	46	321	25	174	261·7	+2·3	+15·3	−15·1

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10313—*continued.*

Date. G.M.T. Place.	Projected Area: Umbræ	Projected Area: Whole Spots.	Corrected Area: Umbræ	Corrected Area: Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
159·348 C	12	87	12	87	261·7	+2·3	+15·7	− 3·5
160·406 G	23	89	12	47	262·0	+2·5	+16·1	+10·8
161·494 G	21	64	12	37	262·3	+2·8	+15·5	+25·5
162·461 G	9	23	6	15	261·8	+2·3	+15·2	+37·8
163·348 G	5	9	4	7	263·2	+3·7	+14·6	+51·0
Means ...	...	...	15	73	261·3	...	+15·2	...

Group 10314.

June 6–13. A small group with a sudden but brief maximum on June 10, when a regular spot has appeared as the leader.

156·427 G	5	11	3	6	285·5	0·0	−19·0	−18·3
157·344 C	2	9	1	5	284·6	−0·8	−18·6	− 7·1
158·474 G	9	27	5	14	285·2	−0·1	−18·4	+ 8·4
159·348 C	14	45	8	25	285·0	−0·3	−18·5	+19·8
160·406 G	46	207	30	135	286·8	+1·6	−18·8	+35·6
161·494 G	28	142	24	119	287·0	+1·9	−18·8	+50·2
162·461 G	11	46	12	52	285·9	+0·9	−18·9	+61·9
163·348 G	5	37	10	75	286·8	+1·9	−19·1	+74·6
Means ...	...	...	12	54	285·8	...	−18·8	...

Group 10317.

June 12–19. A small sparse stream.

162·461 G	16	37	14	32	173·6	0·0	−24·8	−50·4
163·348 G	11	48	8	35	172·8	−0·6	−25·5	−39·4
164·418 G	18	64	11	39	173·9	+0·8	−24·9	−24·2
165·389 G	14	46	8	26	174·5	+1·7	−25·1	−10·7
166·386 C	9	18	5	10	175·5	+2·9	−25·0	+ 3·5
167·347 C	7	27	4	16	174·4	+2·1	−25·2	+15·1
168·411 G	2	11	1	7	175·2	+3·2	−23·7	+30·0
169·514 G	2	9	2	7	176·3	+4·6	−23·6	+45·7
Means ...	...	...	7	22	174·5	...	−24·7	...

Group 10318.

June 12–19. A small, distinct, and persistent spot with a distant companion on June 12–14.

162·461 G	5	23	10	53	149·2	0·0	−25·3	−74·8
163·348 G	11	36	14	47	149·1	+0·1	−25·5	−63·1
164·418 G	14	25	12	22	147·4	−1·3	−25·9	−50·7
165·389 G	9	32	6	22	150·3	+1·9	−24·9	−34·9
166·386 C	14	27	8	16	150·4	+2·3	−24·9	−21·6
167·347 C	9	18	5	10	150·5	+2·6	−24·5	− 8·8
168·411 G	9	18	5	10	150·7	+3·1	−24·1	+ 5·5
169·514 G	5	14	3	8	150·3	+3·0	−23·8	+19·7
Means ...	...	...	8	24	149·7	...	−24·9	...

Group 10322.

June 19–26. A few unstable spots near Group 10321; nothing is seen on June 21.

Date. G.M.T. Place.	Projected Area: Umbræ	Projected Area: Whole Spots.	Corrected Area: Umbræ	Corrected Area: Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
169·514 G	2	16	1	10	94·1	0·0	−13·9	−36·5
170·362 G	7	39	4	22	95·1	+1·0	−13·5	−24·3
171·388 G	0	0	0	0	...	...	...	...
172·367 C	5	23	3	12	95·8	+1·6	−13·7	+ 2·9
173·355 G	2	5	1	3	96·8	+2·6	−14·0	+17·0
174·373 C	18	45	11	27	97·2	+2·9	−14·2	+30·9
175·353 G	9	25	7	19	98·7	+4·4	−14·9	+45·4
176·542 G	4	14	4	15	97·8	+3·4	−14·1	+60·2
Means ...	...	...	4	14	96·5	...	−14·0	...

Group 10323.

June 19–30. A pair of spots, *a* and *b*, of which the follower, *b*, is the larger and longer-lived.

169·514 G	10	34	25	85	52·9	0·0	− 7·5	−77·7
170·362 G	23	139	29	172	53·6	+0·6	− 7·2	−65·8
171·388 G	36	259	30	217	53·0	−0·2	− 7·5	−52·8
172·367 C	70	418	46	276	53·6	+0·3	− 7·4	−39·3
173·355 G	103	495	58	280	53·6	+0·2	− 7·5	−26·2
174·373 C	68	468	36	245	53·4	−0·2	− 7·5	−12·9
175·353 G	58	335	29	171	52·5	−1·2	− 7·9	− 0·8
176·542 G	26	189	14	99	52·2	−1·7	− 8·1	+14·6
177·450 G	18	128	10	73	51·5	−2·5	− 8·1	+25·9
178·565 G	18	64	12	44	51·8	−2·4	− 8·2	+41·0
179·529 C	14	81	12	70	51·8	−2·5	− 8·5	+53·7
180·338 C	11	36	13	42	51·4	−3·0	− 9·3	+64·1
Means ...	...	...	26	148	52·6	...	− 7·9	...

Spot *a*.

169·514 G	5	18	10	36	55·3	0·0	− 7·1	−75·3
170·362 G	14	82	16	92	56·3	+0·9	− 6·9	−63·1
171·388 G	11	96	8	74	57·0	+1·4	− 6·9	−48·8
172·367 C	27	127	17	79	58·3	+2·6	− 7·1	−34·6
173·355 G	34	188	18	102	58·7	+2·9	− 7·7	−21·1
174·373 C	23	163	12	83	58·8	+2·8	− 7·8	− 7·5
175·353 G	14	37	7	19	58·9	+2·8	− 7·9	+ 5·6
176·542 G	5	14	3	8	59·3	+3·0	− 8·0	+21·7

Spot *b*.

169·514 G	5	16	15	49	50·4	...	− 7·4	−80·2
170·362 G	9	57	13	80	50·5	0·0	− 7·5	−68·9
171·388 G	25	163	22	143	51·0	+0·4	− 7·6	−54·8
172·367 C	41	271	28	184	51·4	+0·6	− 7·5	−41·5
173·355 G	69	307	40	178	51·4	+0·5	− 7·5	−28·4
174·373 C	24	162	45	305	51·1	0·0	− 7·6	−15·2

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10323—*continued.*

Spot *b*—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
175·353 G	44	298	22	152	51·2	0·0	− 7·9	− 2·1
176·542 G	21	175	11	91	51·1	−0·3	− 7·9	−13·5
177·450 G	18	128	10	73	51·5	0·0	− 8·1	+25·9
178·565 G	18	64	12	44	51·8	+0·2	− 8·2	+41·0
179·529 C	14	81	12	70	51·8	0·0	− 8·5	+53·7
180·338 C	11	36	13	42	51·4	−0·5	− 9·3	+64·1

Group 10327.

June 25–30. A very small spot which grows and becomes elongated before dividing up on June 28.

175·353 G	2	9	1	5	22·0	0·0	+ 8·0	−31·3
176·542 G	5	9	3	5	22·3	+0·1	+ 8·1	−15·3
177·450 G	18	89	9	45	22·8	+0·5	+ 8·3	− 2·8
178·565 G	14	55	7	28	23·1	+0·7	+ 8·0	+12·3
179·529 C	9	25	5	14	23·3	+0·7	+ 8·3	+25·2
180·338 C	2	9	1	6	23·7	+1·0	+ 8·1	+36·4
Means ...	...	...	4	17	22·9	...	+ 8·1	...

Group 10329.

June 25–July 1. A spot breaking up into a cluster on June 29.

175·353 G	9	23	22	57	336·5	0·0	−18·5	−76·8
176·542 G	28	78	32	88	336·3	−0·1	−18·4	−61·3
177·450 G	14	92	11	75	336·5	+0·1	−18·5	−49·1
178·565 G	27	111	17	71	337·2	+0·9	−17·9	−33·6
179·529 C	18	68	10	39	337·2	+1·0	−17·9	−20·9
180·338 C	14	41	8	23	336·2	0·0	−18·1	−11·1
181·575 G	5	9	3	5	337·9	+1·8	−17·6	+ 6·9
Means ...	...	...	15	51	336·8	...	−18·1	...

Group 10330.

June 26–July 2. A pair of spots appearing suddenly; the follower, *b*, has broken up into a cluster on June 29, whilst the leader, *a*, continues as a small regular spot.

176·542 G	14	42	8	22	40·7	0·0	+22·4	+ 3·1
177·450 G	52	314	29	173	41·5	+0·9	+21·5	+15·9
178·565 G	60	364	36	223	41·5	+1·1	+21·5	+30·7
179·529 C	34	244	25	179	42·1	+1·9	+21·5	+44·0
180·338 C	21	138	19	128	42·6	+2·5	+21·5	+55·3
181·575 G	23	69	37	113	42·1	+2·2	+21·7	+71·1
182·317 C	9	36	31	123	43·3	+3·6	+21·5	+82·1
Means ...	...	...	26	140	41·8	...	+21·7	...

Group 10330—*continued.*

Spot *a.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
176·542 G	9	28	5	15	41·9	0·0	+22·1	+ 4·3
177·450 G	34	190	19	105	42·9	+1·1	+21·0	+17·3
178·565 G	28	221	17	137	43·2	+1·6	+20·7	+32·4
179·529 C	20	163	15	122	43·6	+2·2	+20·9	+45·5
180·338 C	16	118	15	111	43·8	+2·5	+21·2	+56·5
181·575 G	16	55	28	95	44·0	+2·9	+21·4	+73·0
182·317 C	9	36	31	123	43·3	+2·4	+21·5	+82·1

Spot *b.*

176·542 G	5	14	3	7	38·4	0·0	+23·0	+ 0·8
177·450 G	18	124	10	68	39·0	+0·7	+22·4	+13·4
178·565 G	32	143	19	86	38·9	+0·8	+22·6	+28·1
179·529 C	14	81	10	57	38·6	+0·7	+22·6	+40·5
180·338 C	5	20	4	17	38·2	+0·4	+22·8	+50·9
181·575 G	7	14	9	18	37·6	0·0	+22·4	+66·6

Group 10332.

June 26–July 3. A few faint spots in faculæ, *f*, Group 10328.

176·542 G	7	23	16	50	321·9	0·0	− 7·8	−75·7
177·450 G	9	30	11	37	320·6	−1·4	− 8·0	−65·0
178·565 G	7	14	5	11	321·6	−0·6	− 8·0	−49·2
179·529 C	10	18	6	11	323·2	+0·9	− 7·7	−34·9
180·338 C	17	29	10	16	323·4	+1·0	− 7·8	−23·0
181·575 G	9	44	5	22	326·5	+3·9	− 8·5	− 4·5
182·317 C	5	32	3	16	325·5	+2·8	− 8·4	+ 4·3
183·415 C	2	9	1	5	330·0	+7·1	− 7·7	+23·4
Means ...	...	...	7	21	324·1	...	− 8·0	...

Group 10334.

June 28–July 3. A moderate-sized spot breaking up after June 28.

178·565 G	18	83	31	143	299·9	0·0	−20·9	−70·9
179·529 C	18	127	19	136	299·5	−0·3	−21·4	−58·6
180·338 C	18	84	15	69	299·4	−0·2	−20·7	−47·9
181·575 G	14	32	9	21	299·1	−0·4	−21·5	−31·9
182·317 C	2	7	1	4	300·5	+1·1	−20·5	−20·7
183·415 C	5	14	3	8	298·9	−0·3	−20·9	− 7·7
Means ...	...	...	13	63	299·6	...	−21·0	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Date. G.M.T. Place.	Projected Area		Corrected Area		Longitude and Proper. Motion.	Latitude.	Long. from C.M.
	Umbræ	Whole Spots.	Umbræ	Whole Spots.			
Group 10338. July 4–11. A long stream of few spots, the most stable spot, *b*, being at the rear.							
d					°	°	°
184·359 C	10	23	24	51	217·5	0·0	− 8·7	−76·6
185·356 G	21	64	25	77	217·3	−0·3	− 9·1	−63·6
186·462 C	14	54	11	43	217·5	−0·3	− 9·0	−48·8
187·580 G	29	67	18	41	218·2	+0·3	− 8·0	−33·3
188·381 G	30	93	17	51	218·2	+0·2	− 8·0	−22·7
189·571 *	48	156	24	80	219·9	+1·7	− 8·6	− 5·3
190·415 G	23	79	12	41	220·4	+2·1	− 7·8	+ 6·4
191·392 G	12	39	7	22	220·1	+1·7	− 7·7	+19·0
Means ...	...	...	17	51	218·6	...	− 8·4	...
Spot *b*.								
184·359 C	5	9	16	30	213·7	...	−10·6	−80·4
185·356 G	9	32	12	44	213·5	0·0	−10·5	−67·4
186·462 C	9	36	8	31	213·9	+0·3	−10·4	−52·4
187·580 G	18	35	12	23	214·6	+0·8	− 9·6	−36·9
188·381 G	12	37	7	21	214·0	+0·1	− 9·7	−26·9
189·571 *	24	47	12	24	214·0	−0·1	− 9·9	−11·2
190·415 G	14	28	7	14	214·1	−0·1	− 9·2	+ 0·1
191·392 G	5	9	3	5	214·4	+0·1	− 9·1	+13·3
Group 10347. July 20–27. A stream of unstable spots.								
200·354 C	5	16	3	9	53·3	0·0	− 8·9	−29·2
201·401 C	27	72	14	38	54·6	+1·2	− 8·3	−14·0
202·379 G	55	183	28	93	54·2	+0·6	− 8·5	− 1·5
203·363 G	60	211	31	110	53·7	0·0	− 8·9	+11·1
204·294 C	18	167	10	94	53·3	−0·5	− 8·4	+23·0
205·375 G	27	82	18	53	53·7	−0·3	− 8·3	+37·7
206·461 C	41	172	35	146	53·8	−0·3	− 8·5	+52·1
207·558 G	32	112	43	150	53·9	−0·4	− 8·6	+66·8
Means ...	...	...	23	87	53·8	...	− 8·6	...
Group 10351. July 27–August 1. A small regular spot, disappearing as a very small marking on August 1.								
207·558 G	7	39	11	64	275·6	0·0	− 7·8	−71·5
208·401 G	16	39	16	40	276·1	+0·4	− 7·2	−59·9
209·351 G	14	89	11	68	276·2	+0·3	− 7·0	−47·2
210·345 G	21	53	13	33	276·5	+0·5	− 7·0	−33·8
211·408 G	9	25	5	14	276·6	+0·4	− 6·9	−19·6
212·381 C	5	9	3	5	276·9	+0·6	− 6·9	− 6·5
Means ...	...	...	10	37	276·3	...	− 7·1	...

Date. G.M.T. Place.	Projected Area		Corrected Area		Longitude and Proper Motion.	Latitude.	Long. from C.M.
	Umbræ	Whole Spots.	Umbræ	Whole Spots.			
Group 10352. July 30–August 8. A disturbed area continuing to produce small unstable spots.							
d					°	°	°
210·345 G	5	14	11	30	234·7	0·0	− 6·7	−75·6
211·408 G	12	32	15	38	232·6	−2·3	− 6·0	−63·6
212·381 C	5	9	4	7	236·9	+1·9	− 5·3	−46·5
213·350 G	9	23	6	15	234·2	−1·0	− 6·5	−36·3
214·362 G	7	30	4	17	233·3	−2·0	− 7·8	−23·9
215·366 G	7	26	4	14	235·9	+0·4	− 6·7	− 8·0
216·517 G	0	0	0	0	...	...	...	...
217·348 G	30	110	16	59	236·1	+0·3	− 5·4	+18·4
218·448 G	14	46	8	28	235·3	−0·7	− 5·3	+32·2
219·560 G	5	14	4	11	237·8	+1·6	− 5·2	+49·4
Means ...	...	...	7	22	235·2	...	− 6·1	...
Group 10355. August 1–6. A stream of few spots of which the follower is the largest and longest lived.								
212·381 C	7	30	12	51	213·1	0·0	−17·5	−70·3
213·350 G	14	41	14	42	213·5	+0·4	−17·2	−57·0
214·362 G	55	144	43	112	212·3	−0·7	−16·7	−44·9
215·366 G	23	140	15	91	211·1	−1·9	−17·1	−32·8
216·517 G	21	78	12	45	210·9	−2·0	−17·2	−17·8
217·348 G	14	45	8	25	210·1	−2·8	−18·4	− 7·6
Means ...	...	...	17	61	211·8	...	−17·4	...
Group 10357. August 2–9. A fairly large irregular stream which commences as a pair of spots on August 2 and which has disappeared temporarily on August 3.								
213·350 G	11	23	6	13	259·6	0·0	−15·4	−10·9
214·362 G	0	0	0	0	...	...	...	...
215·366 G	16	92	9	52	261·6	+2·0	−15·1	+17·7
216·517 G	101	508	64	322	260·9	+1·2	−14·8	+32·2
217·348 G	106	499	79	367	260·3	+0·6	−14·8	+42·6
218·448 G	57	212	58	211	259·1	−0·6	−14·5	+56·0
219·560 G	14	66	21	111	258·5	−1·2	−14·7	+70·1
220·352 G	5	14	(15	41	256·0	...	−14·2)	+78·1
Means ...	...	...	34	154	260·0	...	−14·9	...
Group 10360. August 14–20. A stream of unstable spots.								
225·383 G	5	25	4	19	65·6	0·0	− 6·8	−45·8
226·430 G	14	46	8	27	67·8	+2·0	− 6·5	−29·8
227·377 G	14	46	8	25	68·2	+2·3	− 6·7	−16·9
228·406 G	21	62	11	32	68·9	+2·8	− 7·1	− 2·6
229·467 G	64	252	33	131	68·3	+2·1	− 6·7	+10·8
230·594 G	23	114	13	66	70·5	+4·1	− 6·5	+27·9
231·359 C	13	54	9	35	70·4	+3·9	− 7·0	+37·9
Means ...	...	...	12	48	68·5	...	− 6·8	...

* Mt. Wilson.

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10361.

August 14–24. A regular spot, *a*, with a train of small companions which have disappeared by August 21.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
225·383 G	5	14	8	22	43·5	0·0	−17·9	−67·9
226·430 G	32	205	32	198	43·9	+0·4	−17·8	−53·7
227·377 G	75	397	56	295	44·2	+0·8	−17·8	−40·9
228·406 G	85	451	53	280	45·3	+1·9	−17·5	−26·2
229·467 G	68	343	38	194	45·5	+2·1	−17·2	−12·0
230·594 G	51	308	28	170	46·2	+2·8	−16·7	+ 3·6
231·359 C	51	268	28	150	47·1	+3·8	−16·2	+14·6
232·482 C	45	249	28	157	47·2	+3·9	−15·7	+29·6
233·387 G	23	169	17	125	47·4	+4·1	−15·8	+41·7
234·380 G	23	148	22	144	47·4	+4·2	−15·9	+54·9
235·334 C	18	76	26	112	47·0	+3·8	−15·7	+67·1
Means ...	...	...	31	168	45·9	...	−16·8	...

Spot *a*.

225·383 G	5	14	8	22	43·5	0·0	−17·9	−67·9
226·430 G	18	141	17	130	45·2	+1·7	−17·9	−52·4
227·377 G	50	269	36	194	45·7	+2·3	−17·8	−39·4
228·406 G	62	328	38	261	46·6	+3·2	−17·5	−24·9
229·467 G	54	252	30	141	47·2	+3·8	−16·9	−10·3
230·594 G	46	278	25	153	47·3	+3·9	−16·4	+ 4·7
231·359 C	49	264	27	148	47·1	+3·8	−16·2	+14·6
232·482 C	45	249	28	157	47·2	+3·9	−15·7	+29·6
233·387 G	23	169	17	125	47·4	+4·1	−15·8	+41·7
234·380 G	23	148	22	144	47·4	+4·2	−15·9	+54·9
235·334 C	18	76	26	112	47·0	+3·8	−15·7	+67·1

Group 10362.

August 15–27. A pair of smallish spots which separate widely in longitude. Between August 20 and 21, new spots have appeared altering entirely the character of the group which becomes a fairly large stream.

226·430 G	2	9	4	19	20·4	0·0	+10·9	−77·2
227·377 G	14	41	16	48	19·8	−0·7	+11·0	−65·3
228·406 G	32	82	25	65	21·0	+0·4	+11·0	−50·5
229·467 G	31	121	19	75	22·0	+1·3	+11·0	−35·5
230·594 G	27	63	14	34	24·3	+3·5	+10·9	−18·3
231·359 C	17	33	9	17	26·3	+5·4	+10·7	− 6·2
232·482 C	85	307	44	155	23·4	+2·4	+11·2	+ 5·8
233·387 G	123	661	65	350	23·6	+2·5	+11·0	+17·9
234·380 G	82	814	48	480	24·4	+3·2	+10·8	+31·9
235·334 C	94	656	66	459	24·4	+3·1	+10·7	+44·5
236·616 G	86	506	91	534	25·3	+3·9	+10·7	+62·3
237·326 C	55	286	84	420	24·3	+2·8	+11·2	+70·7
238·356 G	2	9	(5	23	20·1	...	+11·6)	+80·1
Means ...	...	...	40	221	23·3	...	+10·9	...

Group 10366.

August 22–September 3. A large regular spot, *a*, closely followed by a composite one with which it merges on August 28 and 29. A large complex spot, a_1, results, but this breaks up, and by August 31 the group resembles its former appearance about August 26.

d					°	°	°	°
233·387 G	16	109	(70	479	284·7	...	−16·6)	−81·0
234·380 G	60	296	101	503	281·9	0·0	−16·9	−70·6
235·334 C	72	656	74	688	283·1	+1·2	−16·4	−56·8
236·616 G	141	989	102	721	282·9	+1·0	−16·3	−40·1
237·326 C	149	1131	96	735	282·0	+0·1	−16·3	−31·6
238·356 G	157	1365	90	784	282·1	+0·2	−16·5	−17·5
239·546 G	200	1507	110	829	283·1	+1·3	−16·4	− 1·2
240·348 G	184	1582	101	870	282·5	+0·7	−16·4	+ 8·8
241·332 C	136	1101	79	644	282·5	+0·7	−16·1	+21·8
242·564 G	143	890	100	622	282·0	+0·2	−16·3	+37·6
243·346 C	98	613	81	509	282·2	+0·4	−16·1	+48·1
244·379 G	59	389	73	478	282·9	+1·1	−15·5	+62·5
245·329 C	22	138	52	324	282·9	+1·1	−15·5	+75·0
Means ...	...	...	88	642	282·5	...	−16·2	...

Spot $a - a_1$.

233·387 G	16	109	70	479	284·7	...	−16·6	−81·0
234·380 G	46	214	74	342	284·0	0·0	−16·7	−68·5
235·334 C	54	366	54	366	284·1	+0·1	−16·4	−55·8
236·616 G	98	524	70	372	284·1	+0·1	−16·1	−38·9
237·326 C	109	573	69	361	283·7	−0·3	−16·2	−29·9
238·356 G	98	759	56	433	283·7	−0·3	−16·3	−16·3
239·546 G	200	1507	110	829	283·1	−0·8	−16·4	− 1·2
240·348 G	184	1582	101	870	282·5	−1·4	−16·4	+ 8·8
241·332 C	58	535	34	316	284·1	+0·2	−15·7	+23·4
242·564 G	75	418	54	301	284·4	+0·5	−15·8	+40·0
243·346 C	98	613	81	509	282·2	−1·7	−16·1	+48·1
244·379 G	59	389	73	478	282·9	−1·0	−15·5	+62·5
245·329 C	22	138	52	324	282·9	−1·0	−15·5	+75·0

Group 10369.

August 27–September 8. A double spot close to which a short stream develops after August 29.

238·356 G	9	32	28	101	221·8	0·0	−16·3	−78·2
239·546 G	14	70	17	86	222·0	+0·2	−16·4	−62·3
240·348 G	25	79	22	70	222·3	+0·5	−16·4	−51·4
241·332 C	31	114	22	81	221·2	−0·6	−16·3	−39·5
242·564 G	54	227	32	136	219·8	−2·0	−15·7	−24·6
243·346 C	64	271	36	153	219·7	−2·1	−15·5	−14·4
244·379 G	81	439	44	237	219·8	−2·0	−15·1	− 0·6
245·329 C	91	426	50	239	219·8	−2·0	−15·2	+11·9
246·380 C	60	427	35	254	218·1	−3·7	−15·4	+24·1

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10369—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
247·329 C	56	284	38	195	218·2	−3·6	−15·7	+36·7
248·116 K	25	130	21	105	217·8	−4·0	−16·3	+46·7
249·412 G	23	88	32	115	218·2	−3·5	−16·4	+64·2
250·354 G	5	14	12	34	216·8	−4·9	−16·4	+75·3
Means ...	...	...	30	139	219·6	...	−15·9	...

Group 10371.

August 30–September 9. A group of stream type in which the leader, *a*, is at first complex. The increasing separation between leader, *a*, and follower, *b*, is marked.

241·332 C	4	16	10	38	184·9	0·0	−13·2	−75·8
242·564 G	47	200	58	254	180·7	−4·3	−13·4	−63·7
243·346 C	71	346	65	321	180·8	−4·2	−13·8	−53·3
244·379 G	84	567	59	395	182·1	−2·9	−13·6	−38·3
245·329 C	98	519	59	315	182·5	−2·6	−13·8	−25·4
246·380 C	56	502	31	276	182·7	−2·4	−13·9	−11·3
247·329 C	72	359	38	194	183·0	−2·2	−13·8	+ 1·5
248·116 K	56	268	31	149	183·9	−1·3	−13·7	+12·8
249·412 G	29	181	18	113	184·1	−1·2	−13·8	+30·1
250·354 G	25	109	19	83	185·4	+0·1	−13·3	+43·9
251·371 G	9	23	9	24	186·5	+1·1	−12·9	+58·4
Means ...	...	...	36	197	183·3	...	−13·6	...

Spot *a*.

241·332 C	4	16	10	38	184·9	0·0	−13·2	−75·8
242·564 G	20	68	22	76	184·0	−1·0	−13·1	−60·4
243·346 C	24	111	20	92	184·9	−0·1	−13·1	−49·2
244·379 G	34	271	22	176	185·4	+0·4	−12·9	−35·0
245·329 C	49	235	28	136	186·2	+1·1	−13·2	−21·7
246·380 C	29	244	16	132	186·9	+1·8	−12·9	− 7·1
247·329 C	36	204	19	110	186·9	+1·7	−13·2	+ 5·4
248·116 K	29	176	16	99	187·0	+1·8	−13·2	+15·9
249·412 G	18	127	12	81	187·0	+1·7	−13·2	+33·0
250·354 G	18	93	14	72	186·8	+1·5	−12·8	+45·3
251·371 G	9	23	9	24	186·5	+1·1	−12·9	+58·4

Spot *b*.

242·564 G	27	132	36	178	179·0	0·0	−13·8	−65·4
243·346 C	40	213	39	209	178·4	−0·6	−14·4	−55·7
244·379 G	50	296	37	219	178·1	−1·0	−14·6	−42·3
245·329 C	49	284	31	179	177·9	−1·2	−14·8	−30·0
246·380 C	27	258	15	144	178·0	−1·2	−14·7	−16·0
247·329 C	36	155	19	84	177·8	−1·4	−14·7	− 3·7
248·116 K	27	92	15	50	178·0	−1·3	−14·9	+ 6·9
249·412 G	11	54	6	32	178·4	−0·9	−15·0	+24·4
250·354 G	7	16	5	11	178·7	−0·7	−15·0	+37·2

Group 10380.

September 12–22. A stream with the largest and most stable spot at the rear.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
254·350 G	9	27	18	55	14·9	0·0	−10·8	−73·9
255·583 C	29	155	30	160	14·0	−1·0	−11·0	−58·5
256·376 C	40	232	32	188	13·4	−1·7	−11·2	−48·6
257·324 C	40	232	26	151	14·5	−0·7	−10·8	−35·0
258·372 C	27	97	15	54	14·8	−0·5	−11·0	−20·9
259·461 G	25	86	14	45	15·4	0·0	−10·6	− 5·9
260·425 G	11	54	6	29	13·3	−2·2	−11·1	+ 4·7
261·316 C	22	88	12	48	13·9	−1·7	−10·7	+17·1
262·441 C	13	48	8	30	14·3	−1·4	−10·7	+32·4
263·313 C	4	20	3	15	14·3	−1·5	−10·4	+43·9
264·633 G	4	9	5	10	14·9	−1·0	−11·0	+61·9
Means ...	...	...	15	71	14·3	...	−10·8	...

Group 10388.

September 16–25. A decreasing regular spot.

258·372 C	18	49	32	86	324·5	0·0	−12·8	−71·2
259·461 G	27	171	28	176	323·5	−1·1	−13·2	−57·8
260·425 G	32	176	25	136	323·2	−1·4	−13·0	−45·4
261·316 C	40	229	26	147	323·1	−1·6	−13·0	−33·7
262·441 C	42	255	24	145	322·7	−2·3	−13·2	−19·2
263·313 C	51	246	28	133	322·7	−2·1	−12·7	− 7·7
264·633 G	36	188	19	102	322·7	−2·2	−12·7	+ 9·7
265·409 G	18	128	10	73	322·8	−2·1	−12·6	+20·0
266·393 G	16	85	10	54	322·8	−2·2	−12·2	+33·0
267·436 G	9	49	7	38	322·1	−3·0	−11·8	+46·1
Means ...	...	...	21	109	323·0	...	−12·7	...

Group 10392.

September 22–27. A short-lived stream showing rapid change.

264·633 G	22	67	12	37	331·8	0·0	+22·3	+18·8
265·409 G	45	367	27	218	331·9	+0·2	+22·2	+29·1
266·393 G	65	354	45	241	331·2	−0·3	+22·1	+41·4
267·436 G	40	188	34	162	330·3	−1·0	+21·8	+54·3
268·343 G	13	81	16	93	329·1	−2·0	+22·4	+65·0
269·415 G	7	18	15	38	327·8	−3·1	+22·5	+77·9
Means ...	...	...	25	131	330·4	...	+22·2	...

Group 10393.

September 22–27. A variable stream appearing in front of Group 10388 when that group is disappearing.

264·633 G	0	4	0	3	329·4	0·0	−14·4	+16·4
265·409 G	9	36	6	22	331·8	+2·4	−14·4	+29·0
266·393 G	40	188	29	135	331·0	+1·6	−14·8	+41·2
267·436 G	65	256	63	250	330·8	+1·3	−15·1	+54·8
268·343 G	36	179	49	245	329·7	+0·2	−15·1	+65·6
269·415 G	13	42	(37	118	327·0	...	−17·0)	+77·1
Means ...	...	...	29	131	330·5	...	−14·8	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10412.

October 9–19. An irregular stream, developing from a few small spots near the east limb on October 9, in a disturbed region marked already by bright faculæ.

Date. G.M.T. Place.	Projected Area: Umbræ	Projected Area: Whole Spots.	Corrected Area: Umbræ	Corrected Area: Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
281·424 G	7	31	12	53	20·1	0·0	− 9·9	−71·3
282·435 G	53	231	50	219	21·6	+1·4	− 9·3	−56·5
283·510 G	80	404	54	275	23·4	+3·0	− 8·8	−40·5
284·344 C	63	707	37	417	23·9	+3·4	− 8·7	−29·0
285·492 C	104	644	56	343	24·8	+4·2	− 9·1	−13·0
286·507 G	77	559	41	291	25·2	+4·5	− 9·1	+ 0·8
287·440 G	75	468	40	249	25·2	+4·4	− 9·0	+13·1
288·367 C	54	304	31	175	25·8	+4·9	− 8·9	+25·9
289·403 G	62	314	43	212	25·7	+4·6	− 9·6	+39·5
290·443 G	36	174	32	155	26·0	+4·8	− 9·3	+53·5
291·480 G	20	94	29	131	24·4	+3·1	− 9·0	+65·6
Means ...	...	...	39	229	24·2	...	− 9·2	...

Group 10418.

October 16–22. A small definite spot, *n* Group 10419 in the same patch of faculæ.

288·367 C	4	17	14	58	279·1	...	− 6·7	−80·8
289·403 G	4	15	6	21	278·4	0·0	− 6·5	−67·8
290·443 G	15	31	13	28	278·6	0·0	− 6·5	−53·9
291·480 G	9	24	6	16	278·7	0·0	− 6·5	−40·1
292·547 G	13	29	7	17	279·3	+0·4	− 6·5	−25·4
293·413 G	9	22	5	12	280·0	+1·0	− 6·7	−13·3
294·311 C	2	9	1	5	280·5	+1·3	− 6·3	− 0·9
Means ...	...	...	6	16	279·2	...	− 6·5	...

Group 10419.

October 17–28. A stream of smallish spots of which the leader, *a*, is the most stable.

289·403 G	22	93	33	140	277·3	0·0	−10·4	−68·9
290·443 G	44	292	40	263	278·3	+0·9	−10·3	−54·2
291·480 G	35	337	25	232	278·0	+0·5	−10·4	−40·8
292·547 G	84	356	49	209	276·3	−1·3	−10·4	−28·4
293·413 G	81	289	44	157	276·6	−1·1	−10·5	−16·7
294·311 C	82	303	42	157	277·8	0·0	−10·6	− 3·6
295·417 C	36	231	19	123	278·6	+0·7	−10·9	+11·7
296·395 G	44	147	25	85	279·4	+1·4	−11·0	+25·4
297·314 C	33	149	22	98	279·1	+1·0	−11·0	+37·2
298·342 C	15	56	13	48	280·0	+1·8	−11·0	+51·7
299·346 C	9	24	11	30	279·7	+1·4	−11·3	+64·6
300·325 C	2	9	5	23	279·5	+1·1	−11·2	+77·4
Means ...	...	...	27	130	278·4	...	−10·8	...

Group 10419—*continued.*

Spot *a*.

d					°	°	°	°
290·443 G	20	106	17	91	280·2	0·0	−10·0	−52·3
291·480 G	24	167	16	110	280·7	+0·4	−10·3	−38·1
292·547 G	31	97	18	55	280·9	+0·5	−10·7	−23·8
293·413 G	24	96	13	51	281·1	+0·6	−10·9	−12·2
294·311 C	43	156	22	81	280·7	+0·1	−10·7	− 0·7
295·417 C	19	138	10	75	280·8	+0·1	−11·0	+13·9
296·395 G	33	125	19	73	280·8	0·0	−11·2	+26·8
297·314 C	24	104	16	70	280·4	−0·5	−11·2	+38·5
298·342 C	15	56	13	48	280·0	−1·0	−11·0	+51·7
299·346 C	9	24	11	30	279·7	−1·4	−11·3	+64·6
300·325 C	2	9	5	23	279·5	−1·7	−11·2	+77·4

Group 10428.

October 30–November 4. A small stream synchronous in its development with that of the adjacent Group 10429.

302·577 G	4	18	2	9	181·5	0·0	+11·2	+ 9·1
303·526 G	18	79	10	43	181·4	−0·2	+11·1	+21·5
304·430 G	31	92	19	56	181·9	+0·2	+11·5	+33·9
305·339 C	13	49	9	36	182·9	+1·2	+11·4	+46·9
306·332 C	4	9	4	9	181·8	0·0	+11·9	+58·9
307·397 G	2	7	3	12	182·2	+0·3	+11·5	+73·3
Means ...	...	...	8	28	182·0	...	+11·4	...

Group 10433.

November 6–16. A very big group (visible to the naked-eye) growing from two or three tiny spots on November 6–7 in a patch of bright faculæ belonging to Group 10412 of the previous rotation. Between November 8 and 10 there is a great increase, and after a brief maximum a rapid decrease follows. On November 11 the group consists of a very large composite spot followed closely by another of about half the size. These change and then break up within a few days.

309·371 C	13	34	13	34	24·3	0·0	− 9·8	−58·6
310·342 C	13	36	10	27	24·0	−0·4	− 9·8	−46·1
311·331 C	28	154	17	91	26·9	+2·4	− 8·5	−30·1
312·554 C	139	899	73	472	29·2	+4·5	− 8·6	−11·7
313·354 G	279	2164	142	1104	28·2	+3·4	− 8·7	− 2·2
314·442 G	350	2551	185	1343	28·7	+3·8	− 8·8	+12·7
315·428 G	229	2241	130	1274	28·5	+3·4	− 8·7	+25·5
316·547 G	256	1873	174	1271	28·8	+3·6	− 9·0	+40·5
317·459 G	172	1316	147	1123	29·5	+4·2	− 8·5	+53·3
318·537 C	91	636	125	862	29·6	+4·1	− 9·1	+67·6
319·398 G	39	229	117	661	29·9	+4·3	− 9·5	+79·3
Means ...	...	...	103	751	28·0	...	− 9·0	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10439.

November 10–22. Scattered spots condensing into a stream on November 15 with the largest component at the rear. The stream has disappeared by November 20, but a spot is seen on November 22 in its place.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
313·354 G	11	26	(22	52	314·7	...	+ 5·9)	−75·7
314·442 G	35	134	41	158	311·3	0·0	+ 7·8	−64·7
315·428 G	65	222	53	178	311·4	0·0	+ 7·8	−51·6
316·547 G	31	131	19	81	311·8	+0·2	+ 7·9	−36·5
317·459 G	52	349	29	192	312·4	+0·7	+ 8·6	−23·8
318·537 C	64	530	33	270	311·9	+0·1	+ 8·8	−10·0
319·398 G	65	401	33	201	311·2	−0·8	+ 8·5	+ 0·6
320·404 G	35	172	18	88	311·0	−1·1	+ 8·5	+13·6
321·434 G	22	83	12	46	310·2	−2·0	+ 8·8	+26·4
322·346 C	9	23	6	15	311·9	−0·5	+ 9·4	+40·1
323·358 C	0	0	0	0	...	...	...	...
324·342 C	0	0	0	0	...	...	...	...
325·310 C	2	11	4	24	309·7	−3·0	+ 9·3	+77·0
Means ...	...	...	21	104	311·3	...	+ 8·5	...

Group 10440.

November 11–19. A spot closely following Group 10439 and perhaps originating with it.

314·442 G	9	24	15	39	303·5	0·0	+ 7·2	−72·5
315·428 G	15	46	15	46	303·0	−0·7	+ 7·1	−60·0
316·547 G	17	57	12	40	303·3	−0·5	+ 6·8	−45·0
317·459 G	17	63	10	37	303·6	−0·4	+ 6·4	−32·6
318·537 C	13	43	7	23	303·8	−0·3	+ 6·4	−18·2
319·398 G	24	35	12	18	303·9	−0·4	+ 6·3	− 6·7
320·404 G	17	22	9	11	304·2	−0·2	+ 6·3	+ 6·8
321·434 G	7	13	4	7	304·5	−0·1	+ 6·3	+20·7
322·346 C	4	9	2	5	304·7	0·0	+ 6·4	+32·9
Means ...	...	...	9	25	303·8	...	+ 6·6	...

Group 10442.

November 13–22. Feeble but persistent activity shown by a patch of bright faculæ and one or more tiny spots not seen on November 14, 15 and 16.

316·547 G	2	9	3	13	279·2	0·0	+14·7	−69·1
317·459 G	0	0	0	0	...	...	...	...
318·537 C	0	0	0	0	...	...	...	...
319·398 G	0	0	0	0	...	...	...	...
320·404 G	4	11	2	6	281·3	+2·0	+14·7	−16·1
321·434 G	4	26	2	13	282·4	+3·1	+14·5	− 1·4
322·346 C	4	17	2	9	281·1	+1·8	+15·3	+ 9·3
323·358 C	13	62	7	34	281·3	+1·9	+14·2	+22·8
324·342 C	4	9	3	6	280·9	+1·5	+14·1	+35·4
325·310 C	4	17	3	13	282·5	+3·1	+14·8	+49·8
Means ...	...	...	2	9	281·2	...	+14·6	...

Group 10443.

November 13–24. At first one small spot which has disappeared on November 15. A regular spot then develops and is followed by a few tiny spots until November 18.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
316·547 G	1	13	2	22	278·4	0·0	−21·3	−69·9
317·459 G	7	11	7	11	279·2	+0·9	−21·7	−57·0
318·537 C	0	0	0	0	...	...	...	...
319·398 G	22	68	14	44	276·8	−1·3	−19·7	−33·8
320·404 G	39	148	22	84	278·9	+0·9	−19·6	−18·5
321·434 G	44	209	24	113	279·1	+1·2	−19·1	− 4·7
322·346 C	17	128	9	70	279·6	+1·8	−19·6	+ 7·8
323·358 C	21	109	12	63	279·0	+1·3	−19·8	+20·5
324·342 C	17	70	11	45	278·6	+1·0	−19·6	+33·1
325·310 C	9	38	7	29	278·0	+0·5	−19·2	+45·3
326·330 C	4	13	4	14	278·1	+0·8	−19·3	+58·8
327·330 C	4	6	7	11	278·0	+0·8	−18·9	+71·9
Means ...	...	...	10	42	278·5	...	−19·8	...

Group 10446.

November 16–27. A stream of variable spots, the leader being by far the largest component and showing interesting changes from day to day.

319·398 G	20	72	39	141	235·1	0·0	+11·4	−75·5
320·404 G	50	246	54	262	236·0	+0·8	+12·1	−61·4
321·434 G	96	521	73	396	235·6	+0·3	+11·6	−48·2
322·346 C	72	522	46	327	236·0	+0·6	+11·5	−35·8
323·358 C	90	517	49	280	237·1	+1·7	+10·8	−21·4
324·342 C	79	490	40	251	237·5	+2·0	+11·1	− 8·0
325·310 C	64	488	33	249	238·5	+2·9	+11·1	+ 5·8
326·330 C	75	539	40	290	238·9	+3·2	+11·5	+19·6
327·330 C	43	345	26	209	238·5	+2·7	+11·5	+32·4
328·346 C	42	258	31	190	239·1	+3·2	+11·6	+46·4
329·512 G	28	176	31	197	240·5	+4·5	+11·5	+63·1
330·369 C	15	87	29	168	241·1	+5·0	+11·9	+75·0
Means ...	...	...	41	247	237·8	...	+11·5	...

Group 10448.

November 18–26. A stream in which the rearmost spot becomes the chief component.

321·434 G	4	9	2	5	258·8	0·0	− 5·7	−25·0
322·346 C	6	32	3	17	255·4	−3·5	− 5·7	−16·4
323·358 C	9	36	5	18	257·6	−1·5	− 5·9	− 0·9
324·342 C	51	226	26	115	256·7	−2·6	− 5·8	+11·2
325·310 C	43	192	24	106	256·9	−2·5	− 6·0	+24·2
326·330 C	45	211	28	135	257·3	−2·3	− 5·9	+38·0
327·330 C	30	173	24	138	257·0	−2·8	− 5·5	+50·9
328·346 G	22	140	26	160	256·6	−3·4	− 5·5	+63·9
329·512 C	11	35	24	77	254·1	−6·0	− 5·3	+76·7
Means ...	...	...	18	86	256·7	...	− 5·7	...

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10449.

November 19–27. A pair of irregular spots which do not separate in longitude to the usual extent.

Date. G.M.T. Place.	Projected Area: Umbræ	Projected Area: Whole Spots.	Corrected Area: Umbræ	Corrected Area: Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
322·346 C	10	43	14	59	204·6	0·0	−14·4	−67·2
323·358 C	64	281	59	258	203·8	−0·8	−14·2	−54·7
324·342 C	54	383	39	273	203·1	−1·6	−14·0	−42·4
325·310 C	53	388	32	233	203·0	−1·7	−14·1	−29·7
326·330 C	60	379	33	207	201·9	−2·8	−14·1	−17·4
327·330 C	49	293	26	152	202·0	−2·8	−14·1	− 4·1
328·346 C	36	161	19	84	202·3	−2·5	−14·2	+ 9·6
329·512 G	30	148	17	86	202·8	−2·1	−14·2	+25·4
330·369 C	21	68	14	44	202·8	−2·1	−13·9	+36·7
Means ...	...	...	28	155	202·9	...	−14·1	...

Group 10451.

November 23–December 1. A large stream of normal type in which the leader, *a*, becomes large and composite after Nov. 27, and a cluster of spots between it and the follower, *b*, is of considerable size.

326·330 C	68	177	41	106	190·7	0·0	−15·8	−28·6
327·330 C	151	735	83	401	191·3	+0·6	−16·1	−14·8
328·346 C	224	1279	117	669	191·0	+0·3	−15·5	− 1·7
329·512 G	280	1596	150	860	190·9	+0·2	−16·1	+13·5
330·369 C	188	1546	107	887	189·1	−1·6	−15·7	+23·0
331·329 C	185	1461	121	957	190·0	−0·7	−16·2	+36·6
332·300 C	161	1274	129	1041	190·7	0·0	−16·0	+50·1
333·322 C	114	933	126	1093	190·3	−0·4	−16·2	+63·1
334·341 C	55	505	124	1136	190·1	−0·5	−16·2	+76·4
Means ...	...	...	111	795	190·5	...	−16·0	...

Spot *a*.

326·330 C	15	34	9	20	194·0	0·0	−16·0	−25·3
327·330 C	38	298	21	161	194·6	+0·6	−16·1	−11·5
328·346 C	94	601	49	313	194·7	+0·7	−16·0	+ 2·0
329·512 G	124	699	68	384	194·8	+0·8	−16·4	+17·4
330·369 C	55	615	33	369	194·5	+0·5	−16·2	+28·4
331·329 C	81	721	56	497	193·9	−0·1	−16·3	+40·5
332·300 C	68	725	59	631	193·5	−0·5	−16·1	+52·9
333·322 C	38	524	49	676	193·0	−1·0	−16·2	+65·8

Spot *b*.

328·346 C	64	354	34	188	185·5	0·0	−15·5	− 7·2
329·512 G	61	326	32	173	185·0	−0·5	−16·4	+ 7·6
330·369 C	55	363	30	200	184·2	−1·3	−16·6	+18·1
331·329 C	47	299	29	182	183·7	−1·8	−16·7	+30·3
332·300 C	25	163	18	117	183·3	−2·2	−16·9	+42·7
333·322 C	21	87	20	82	182·9	−2·6	−17·5	+55·7

Group 10460.

December 4–11. A stream of variable spots.

d					°	°	°	°
337·393 C	4	17	3	11	42·0	0·0	−20·6	−31·5
338·478 G	48	294	27	165	42·6	+0·7	−21·2	−16·6
339·456 G	65	346	35	187	42·5	+0·8	−21·3	− 3·8
340·311 C	51	165	28	89	42·2	+0·6	−21·7	+ 7·2
341·314 C	17	55	10	31	41·5	0·0	−21·6	+19·7
342·358 C	4	21	3	14	41·5	+0·2	−21·5	+33·4
343·331 C	6	30	5	24	44·0	+2·8	−19·9	+48·7
344·445 C	17	38	21	46	45·1	+4·1	−19·0	+64·5
Means	...	...	16	71	42·7	...	−20·8	...

Group 10462.

December 5–13. A small stream represented later by one or two evanescent and widely separated spots.

338·478 G	4	24	19	115	335·5	..	+18·8	−83·7
339·456 G	15	69	27	120	335·7	0·0	+18·7	−70·6
340·311 C	26	101	27	109	335·2	−0·4	+19·5	−59·8
341·314 C	28	89	22	70	334·8	−0·7	+19·1	−47·0
342·358 C	21	47	13	29	337·0	+1·5	+19·8	−31·1
343·331 C	4	11	2	6	330·6	−4·8	+19·5	−24·7
344·445 C	4	8	2	4	339·3	+4·0	+20·1	− 1·3
345·389 C	4	21	2	11	332·5	−2·7	+18·1	+ 4·4
346·326 C	6	14	3	7	333·2	−1·9	+17·6	+17·4
Means ...	...	...	12	44	334·8	...	+19·0	...

Group 10465.

December 8–20. A regular spot breaking up after December 17.

341·314 C	13	53	47	191	299·8	...	+ 5·2	−82·0
342·358 C	27	157	37	215	299·5	0·0	+ 5·2	−68·6
343·331 C	42	215	37	189	300·4	+0·7	+ 5·4	−54·9
344·445 C	42	257	27	167	300·8	+0·9	+ 5·5	−39·8
345·389 C	42	312	24	178	300·6	+0·6	+ 5·1	−27·5
346·326 C	51	312	27	162	300·9	+0·7	+ 5·2	−14·9
347·320 C	74	354	37	177	301·2	+0·9	+ 4·8	− 1·5
348·313 C	51	302	26	154	301·1	+0·6	+ 4·7	+11·5
349·443 G	48	248	27	139	301·2	+0·5	+ 4·6	+26·5
350·446 G	37	201	24	131	301·3	+0·4	+ 4·6	+39·8
351·481 G	28	134	24	114	301·5	+0·4	+ 4·8	+53·6
352·513 G	17	86	22	114	301·8	+0·6	+ 4·7	+67·5
353·309 C	0	8	0	17	300·0	−1·4	+ 3·9	+76·2
Means ...	...	...	26	146	300·8	...	+ 4·9	...

Group 10469.

December 19–26. A stream of smallish spots originating with a small spot on December 19.

352·513 G	4	13	2	7	220·0	0·0	+15·1	−14·3
353·309 C	13	46	7	24	219·2	−0·8	+14·8	− 4·6
354·342 C	21	116	11	61	220·3	+0·3	+14·9	+10·1

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1927—*continued.*

Group 10469—*continued.*

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°
355·317 C	21	114	12	65	220·8	+0·7	+14·4	+23·5
356·317 C	59	266	38	173	220·5	+0·4	+15·2	+36·3
357·308 C	36	139	29	113	220·8	+0·7	+14·8	+49·7
358·141 K	18	88	20	98	221·6	+1·5	+14·9	+61·5
359·432 C	4	13	(10	31	219·9	...	+17·2)	+76·8
Means ...	...	...	17	77	220·5	...	+14·9	...

Group 10471.

December 22–27. A widely separated pair of spots with rapid rise and decline. The place of this group is marked by faculæ which can be traced to Group 10451 of the previous rotation.

355·317 C	0	4	0	2	191·9	0·0	−12·6	− 5·4
356·317 C	8	38	4	19	191·8	−0·2	−12·1	+ 7·6
357·308 C	65	321	35	173	191·6	−0·4	−12·4	+20·5
358·141 K	52	276	31	166	191·9	−0·2	−12·6	+31·8
359·432 C	21	148	16	112	191·5	−0·7	−12·7	+48·4
360·553 C	13	59	15	68	192·9	+0·3	−12·9	+64·5
Means ...	...	...	17	90	191·9	...	−12·6	...

Group 10474.

December 24–29. A stream of rapid rise and decline following Group 10471.

357·308 C	13	38	7	19	176·5	0·0	−13·7	+ 5·4
358·141 K	60	226	32	119	176·4	−0·2	−13·7	+16·3
359·432 C	38	181	23	110	177·5	+0·9	−12·5	+34·4
360·553 C	13	84	10	67	179·3	+2·6	−11·6	+50·9
361·433 C	13	63	14	69	179·6	+2·8	−11·4	+62·8
362·468 G	6	26	13	55	179·7	+2·8	−11·5	+76·6
Means ...	...	...	16	73	178·2	...	−12·4	...

Group 10475.

December 24–1928, January 2. A couple of small spots developing suddenly between December 25 and 26 into a long stream with a regular spot as leader. This leader has grown to a large spot on December 29, but the following day it has split into two, which together with the other spots of the stream are disappearing as they pass out of sight round the west limb.

357·308 C	8	21	5	14	131·3	0·0	+ 9·7	−39·8
358·141 K	18	60	11	36	131·7	+0·3	+10·1	−28·4
359·432 C	85	455	46	244	129·2	−2·3	+13·2	−13·9
360·553 C	133	709	70	369	131·4	−0·1	+12·5	+ 3·0
361·433 C	151	788	80	422	131·2	−0·4	+12·6	+14·4
362·468 G	221	1176	131	696	132·0	+0·3	+12·0	+28·9
363·453 G	121	1007	85	706	132·6	+0·8	+12·2	+42·4
364·464 G	82	471	76	434	132·4	+0·5	+12·1	+55·5
365·464 G	47	254	67	366	132·3	+0·4	+12·5	+68·6
366·117 K	4	76	12	179	131·1	−0·9	+13·3	+76·0
Means ...	...	...	58	347	131·5	...	+12·0	...

Group 10476.

December 27–1928, January 7. An unusual group. A medium-sized regular spot, *a*, which contracts considerably between December 31 and January 1 and then slowly diminishes to a dot by January 7. Meanwhile great activity is observed in the immediate region southwards of *a*. On December 31, an increasing number of small spots make their appearance, and from some of these a fairly large composite spot emerges by January 3 due south of *a* with which it almost coalesces. This new spot is unstable, however, and the whole disturbance, except for the surrounding faculæ, is dying out by the time the west limb is reached.

Date. G.M.T. Place.	Projected Area Umbræ	Projected Area Whole Spots.	Corrected Area Umbræ	Corrected Area Whole Spots.	Longitude and Proper Motion.	Latitude.	Long. from C.M.
d					°	°	°	°	°
360·553 C	13	76	22	131	55·2	0·0	−15·5	−73·2
361·433 C	25	131	26	135	56·1	+0·9	−15·2	−60·7
362·468 G	39	215	29	161	55·8	+0·6	−15·2	−47·3
363·453 G	56	237	35	147	55·8	+0·6	−15·1	−34·4
364·464 G	73	417	40	229	56·2	+1·1	−15·5	−20·7
365·464 G	99	555	51	289	57·0	+1·9	−16·4	− 6·7
366·117 K	116	636	59	326	56·1	+1·0	−16·8	+ 1·0
367·542 C	167	1031	92	569	56·1	+1·0	−17·3	+19·8
368·494 C	102	786	61	474	56·1	+1·0	−17·5	+32·3
369·495 G	92	370	69	278	57·7	+2·6	−17·3	+47·1
370·451 C	34	223	33	216	56·6	+1·5	−17·3	+58·6
371·315 C	21	84	30	121	55·9	+0·9	−16·8	+69·3
Means ...	...	...	46	256	56·2	...	−16·3	...

Spot *a*.

360·553 C	13	76	22	131	55·2	0·0	−15·5	−73·2
361·433 C	25	131	26	135	56·1	+0·9	−15·2	−60·7
362·468 G	39	215	29	161	55·8	+0·6	−15·2	−47·3
363·453 G	56	237	35	147	55·8	+0·6	−15·1	−34·4
364·464 G	49	258	27	142	55·9	+0·8	−15·0	−21·0
365·464 G	24	138	12	72	55·5	+0·4	−14·8	− 8·2
366·117 K	24	110	12	56	55·6	+0·5	−14·9	+ 0·5
367·542 C	15	114	8	62	55·4	+0·3	−15·0	+19·1
368·494 C	13	55	7	33	55·7	+0·6	−15·1	+31·9
369·495 G	15	52	11	37	55·8	+0·7	−15·2	+45·2
370·451 C	13	29	12	27	55·6	+0·5	−15·2	+57·6
371·315 C	4	13	5	18	55·3	+0·3	−15·0	+68·7

Group 10479.

December 31–1928, January 9. A small regular spot slowly diminishing.

364·464 G	4	13	12	39	356·1	...	− 8·9	−80·8
365·464 G	15	52	20	70	355·2	0·0	− 9·2	−68·5
366·117 K	16	84	16	84	355·1	−0·2	− 9·3	−60·0
367·542 C	25	114	17	76	355·2	−0·3	− 9·5	−41·1
368·494 C	13	95	7	54	355·2	−0·4	− 9·3	−28·6
369·495 G	24	105	12	55	355·5	−0·2	− 9·3	−15·1
370·451 C	13	97	7	49	355·9	+0·1	− 9·3	− 2·1
371·315 C	13	63	7	32	356·1	+0·2	− 9·0	+ 9·5
372·457 G	9	39	5	21	356·4	+0·3	− 9·0	+24·8
373·495 G	4	9	3	6	356·5	+0·3	− 8·9	+38·6
Means ...	...	...	10	50	355·7	...	− 9·2	...

ROYAL OBSERVATORY, GREENWICH.

Total Areas of Sun Spots and Faculæ

Projected and Corrected for Foreshortening
for each Day, and

Mean Areas and Mean Heliographic Latitude of Sun Spots and Faculæ

for each Rotation of the Sun
and for the Year

1927

TOTAL AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927.

The Greenwich Mean Time at which the photograph was taken is expressed by the month, day of month, and decimal of a day, reckoned from Greenwich Mean Midnight.

The place where the photograph was taken is indicated in the second column. A photograph taken at Greenwich is indicated by the letter G, and those taken at the Cape and Kodaikánal, by the letters C and K respectively.

The Projected Area is the area as it is measured on the photograph, uncorrected for the effect of foreshortening and expressed in millionths of the Sun's apparent disc.

The Area Corrected for Foreshortening is expressed in millionths of the Sun's visible hemisphere.

Greenwich Mean Time.		Place.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1927.	d							
January	1·491	G	452	2259	1287	256	1271	1666
	2·346	C	290	2221	1464	202	1366	1755
	3·426	G	379	3066	1940	309	2445	2436
	4·426	G	629	3437	1849	461	2437	1872
	5·412	C	454	2996	2509	332	2191	2882
	6·544	G	525	3072	3619	405	2311	4497
	7·445	G	443	2806	4538	349	2079	5120
	8·505	G	455	2807	2342	272	1618	2791
	9·531	G	458	3040	1474	265	1699	1889
	10·118	K	635	3102	1525	368	1857	1641
	11·511	G	448	3507	1192	264	2044	1511
	12·378	C	384	2631	1788	237	1643	2004
	13·333	C	272	1739	1906	264	1587	2653
	14·337	C	271	1570	2660	326	1830	3555
	15·412	G	250	1551	4540	322	1968	5498
	16·541	G	341	2318	3473	318	2244	4106
	17·348	C	481	2987	3281	371	2328	4130
	18·349	C	539	3686	2299	344	2382	2648
	19·320	C	468	3513	1562	279	2090	1844
	20·422	G	637	3739	1886	373	2173	2263
	21·316	C	548	3167	723	320	1872	869
	22·322	C	367	2769	729	247	1834	1000
	23·459	G	423	2188	2820	321	1702	2924
	24·368	C	211	1667	2355	205	1561	3123
	25·332	C	158	1318	2639	175	1412	3022
	26·341	C	93	629	2271	93	638	2636
	27·465	G	77	418	2924	138	906	4209
	28·322	C	105	520	1341	106	537	1998
	29·534	G	255	1392	2856	276	1524	3501
	30·489	G	378	2538	2112	299	2079	2738
	31·415	G	605	3578	2030	428	2482	2466
February	1·410	G	794	4362	3901	496	2706	4372
	2·354	C	753	3796	4090	501	2504	4680
	3·359	C	605	3633	3027	408	2444	3667
	4·424	G	542	3449	3176	408	2725	4233
	5·435	G	564	3572	1854	410	2534	2319
	6·507	G	537	3780	1790	355	2479	1793
	7·309	C	560	4070	1994	360	2598	2412
1927.	d							
February	8·347	C	490	3656	2211	367	2510	2877
	9·354	C	573	3412	3051	356	2130	3340
	10·426	G	498	3064	3837	336	2131	4819
	11·357	C	308	2320	3073	196	1488	3660
	12·341	C	326	2027	3897	238	1514	4702
	13·542	G	316	1438	4435	279	1302	4916
	14·335	C	240	1136	3276	237	1081	4066
	15·328	C	194	1078	2379	204	1068	2926
	16·506	C	178	1086	2234	129	752	3004
	17·315	C	193	988	1434	134	664	1683
	18·498	G	157	794	1459	100	482	1614
	19·517	G	176	695	2133	107	428	2346
	20·362	C	170	862	2576	104	526	3055
	21·437	G	154	919	2764	105	590	3459
	22·483	C	112	904	2114	72	543	2193
	23·418	G	152	756	4274	112	532	4703
	24·360	C	115	599	2240	116	606	3265
	25·357	C	93	571	2007	78	487	2744
	26·442	G	107	608	2545	82	477	2848
	27·405	C	131	672	2882	97	485	3504
	28·500	G	111	727	3405	66	427	3921
March	1·418	G	121	514	2147	80	309	2472
	2·369	C	116	523	3678	97	441	4148
	3·395	C	149	754	3250	132	692	3699
	4·341	C	194	971	2387	148	739	2843
	5·343	C	167	945	1680	118	666	2003
	6·460	G	191	965	624	132	645	754
	7·411	C	228	974	1585	149	650	1749
	8·391	G	224	975	1188	162	688	1360
	9·348	C	162	757	2722	138	624	3380
	10·341	C	121	618	2400	81	399	3148
	11·482	G	195	950	2214	144	721	2922
	12·437	G	203	1020	2833	138	724	3285
	13·370	C	207	999	2105	200	927	2302
	14·421	C	239	1564	2495	285	2215	3401
	15·392	G	315	2100	1789	324	2326	2373
	16·392	G	429	2615	2205	346	2215	2457
	17·393	G	417	2777	1120	292	1999	1462

TOTAL AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927—*continued*.

Greenwich Mean Time.		Place.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1927.	d							
March	18·539	G	436	2483	1211	285	1602	1461
	19·333	C	458	2932	1681	275	1798	1867
	20·424	G	438	2626	1121	265	1648	1513
	21·399	G	365	2380	1641	242	1584	1747
	22·330	C	280	1586	3883	204	1136	4063
	23·322	C	213	1126	2465	183	984	2834
	24·434	G	149	640	2272	152	702	2854
	25·531	G	80	341	3108	142	617	4086
	26·472	G	32	115	1888	43	193	2741
	27·377	C	63	190	2416	42	121	3008
	28·400	G	25	81	2224	16	53	2619
	29·330	C	10	44	2033	23	118	2428
	30·490	G	27	100	1747	30	106	2146
	31·427	G	42	199	1238	70	329	1609
April	1·635	G	199	839	1496	224	970	1828
	2·411	G	292	1410	1025	257	1288	1189
	3·375	C	384	2197	2700	302	1756	2795
	4·374	C	344	2286	2001	310	1997	2139
	5·534	G	454	2178	1285	360	1756	1665
	6·503	G	400	2486	1681	360	2083	2365
	7·375	C	439	2384	2573	419	1985	3429
	8·398	G	437	2272	3834	319	1603	4559
	9·337	C	408	2435	3077	275	1659	3548
	10·118	K	518	2816	2852	360	1929	3099
	11·373	G	509	2631	2771	422	2195	3431
	12·390	G	586	2825	3037	445	2460	4162
	13·380	G	490	2499	3514	312	1609	4606
	14·438	C	506	2734	2604	307	1628	2733
	15·115	K	545	2714	1356	327	1608	1257
	16·337	C	469	2826	1162	292	1756	1277
	17·422	G	525	2874	2365	333	1820	2728
	18·436	G	420	2134	2473	290	1534	3197
	19·430	G	312	1663	1196	215	1134	1805
	20·347	G	263	1341	2945	212	1082	3171
	21·373	G	193	1077	4101	162	918	4533
	22·480	G	144	858	4094	143	821	5256
	23·366	G	166	826	2978	176	904	3941
	24·356	C	99	614	1101	89	580	1554
	25·362	G	169	992	1254	135	770	1604
	26·363	G	213	1150	1296	168	900	1731
	27·360	C	218	1273	1751	191	1170	2241
	28·445	G	233	1061	2456	138	612	2822
	29·372	G	175	885	2055	101	442	2434
	30·413	G	109	715	2324	62	400	2192
May	1·385	G	157	766	673	87	425	865
	2·353	G	171	828	1285	118	559	1510
	3·349	G	232	1086	2231	145	666	3082
	4·373	G	274	1251	1756	179	805	2442
	5·453	G	277	1585	2998	189	1074	3225
	6·397	G	252	1565	3256	158	1002	4423
	7·336	C	280	1422	2239	163	914	2719
	8·397	G	208	1076	1630	116	588	2372

Greenwich Mean Time.		Place.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1927.	d							
May	9·428	G	231	944	1956	186	770	2589
	10·360	C	272	1220	1476	231	1020	1854
	11·375	G	380	1932	2239	308	1740	2550
	12·571	G	493	2528	1901	336	1650	2193
	13·358	C	401	2430	1752	248	1483	2132
	14·361	G	389	2612	3195	250	1682	3269
	15·468	C	408	2220	1331	324	1795	1583
	16·355	C	375	2065	1709	382	2063	2140
	17·362	G	291	1423	1625	391	1966	2003
	18·350	G	224	723	1690	256	860	2244
	19·452	G	212	617	1694	137	400	2035
	20·432	G	297	1162	1667	175	686	2165
	21·362	C	228	1093	1773	159	782	2561
	22·553	G	238	921	1827	185	698	2415
	23·351	G	224	994	2631	153	670	3400
	24·354	C	210	1016	2239	154	791	2868
	25·400	C	211	915	1280	181	811	1772
	26·360	G	277	1222	1739	208	986	2037
	27·358	C	223	1338	1677	166	971	2077
	28·400	G	207	1117	2350	127	679	2729
	29·389	G	190	1095	2278	113	648	2461
	30·361	C	160	739	1700	94	424	1834
	31·461	G	133	666	2741	77	378	3386
June	1·359	C	84	592	2524	53	364	2721
	2·415	G	150	934	3227	188	1244	3762
	3·562	G	187	1321	2317	177	1270	2995
	4·355	G	198	1763	2387	157	1413	2539
	5·418	G	270	1818	2108	183	1212	2797
	6·427	G	390	2369	1468	223	1362	1994
	7·344	C	323	2461	1599	176	1334	1942
	8·474	G	611	3402	1578	322	1789	1942
	9·348	C	471	2908	1480	255	1572	1735
	10·406	G	389	2387	2611	234	1432	2712
	11·494	G	232	1617	1764	181	1237	1947
	12·461	G	162	1027	2143	160	1027	2482
	13·348	G	147	806	2622	177	989	3034
	14·418	G	116	421	1755	161	653	2367
	15·389	G	62	336	1606	37	199	1911
	16·386	C	57	253	1849	32	136	1941
	17·347	C	55	287	1517	35	179	1788
	18·411	G	57	285	1355	34	176	1905
	19·514	G	56	272	1422	54	230	1953
	20·362	G	69	370	1830	59	321	2117
	21·388	G	66	415	1275	55	342	1564
	22·367	C	112	595	1204	83	446	1509
	23·355	G	142	731	953	96	508	1039
	24·373	C	142	846	1157	85	485	1320
	25·353	G	130	714	856	116	664	1174
	26·542	G	172	703	1577	162	623	2002
	27·450	G	250	1396	2325	176	949	2705
	28·565	G	311	1548	1616	225	1117	2029
	29·529	C	309	1644	2278	262	1492	2906
	30·338	C	328	1856	1980	251	1450	2769

TOTAL AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927—*continued.*

Greenwich Mean Time.		Place.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1927.	d							
July	1·575	G	513	2886	1965	347	1888	2344
	2·317	C	504	2858	1880	349	1877	2220
	3·415	C	501	2756	1570	326	1792	2224
	4·359	C	436	2394	1844	331	1693	2467
	5·356	G	380	2261	1590	275	1574	1870
	6·462	C	271	1813	1605	203	1432	2095
	7·580	G	259	1466	1211	151	854	1737
	8·381	G	221	1286	775	154	897	993
	9·571	Mt. Wilson	191	909	1820	150	739	2046
	10·415	G	119	501	1006	122	536	1060
	11·392	G	45	284	1473	52	538	1833
	12·339	C	25	63	1291	15	36	1766
	13·594	C	25	147	721	37	254	1000
	14·420	C	44	221	1231	46	242	1525
	15·626	G	74	364	1221	63	289	1550
	16·374	C	112	558	656	78	373	901
	17·396	C	160	779	882	102	497	1048
	18·343	G	131	681	1433	89	416	1626
	19·418	G	83	405	832	76	315	1165
	20·354	C	78	455	849	65	353	1029
	21·401	C	120	512	953	154	723	1361
	22·379	G	199	893	1420	186	925	1927
	23·363	G	241	1056	2134	197	883	2305
	24·294	C	226	1309	1468	169	935	1662
	25·375	G	301	1426	634	187	881	754
	26·461	C	283	1333	1189	174	809	1483
	27·558	G	313	1371	1610	207	902	2186
	28·401	G	267	1170	1684	151	654	2320
	29·351	G	222	1071	2465	132	636	2704
	30·345	G	209	893	1673	147	614	1903
	31·408	G	195	746	2072	165	608	2374
August	1·381	C	148	702	2238	142	690	2509
	2·350	G	147	536	1668	167	677	2169
	3·362	G	103	355	791	88	315	1006
	4·366	G	93	471	770	117	567	1128
	5·517	G	127	600	659	82	383	818
	6·348	G	159	677	1104	123	502	1221
	7·448	G	71	258	1304	66	239	1824
	8·560	G	24	101	966	56	250	1429
	9·352	G	37	203	1221	99	520	1723
	10·390	G	62	397	1806	73	475	2145
	11·561	G	86	484	1646	63	375	2004
	12·392	G	75	310	1089	47	201	1504
	13·360	G	144	597	1326	81	340	1504
	14·383	G	189	1298	524	106	697	617
	15·430	G	377	2086	356	222	1229	526
	16·377	G	423	2442	456	271	1528	643
	17·406	G	444	2502	943	303	1711	1199
	18·467	G	386	2455	2409	334	2236	3036
	19·594	G	317	1941	2454	343	2306	3183
	20·359	C	224	1330	1317	261	1960	1873
	21·482	C	262	1284	1147	156	772	1361
	22·387	G	329	1774	1382	249	1433	1767
	23·380	G	325	2042	1078	256	1543	1403

Greenwich Mean Time.		Place.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1927.	d							
August	24·334	C	304	2225	1429	232	1714	1863
	25·616	G	341	2268	855	257	1688	976
	26·326	C	315	2066	1202	247	1549	1311
	27·356	G	262	1873	1231	191	1251	1739
	28·546	G	271	1904	816	182	1239	1096
	29·348	G	265	1898	1704	213	1324	2137
	30·332	C	188	1313	1558	194	1205	2187
	31·564	G	244	1322	667	190	1015	798
September	1·346	C	233	1230	1491	182	983	1714
	2·379	G	224	1395	1967	176	1110	2272
	3·329	C	211	1083	1069	161	878	1566
	4·380	C	147	1056	1250	142	842	1990
	5·329	C	164	936	2535	121	760	3529
	6·116	K	140	829	2021	106	646	2191
	7·412	G	147	861	1590	118	637	1822
	8·354	G	187	912	894	123	578	1078
	9·371	G	145	759	1279	86	439	1343
	10·110	K	122	641	943	71	364	1181
	11·415	G	205	872	897	128	547	1309
	12·350	G	348	1734	1202	225	1094	1323
	13·583	C	585	3196	1455	387	2105	1685
	14·376	C	756	4001	2840	460	2505	3306
	15·324	C	821	4681	2417	523	2935	3066
	16·372	C	685	4135	1551	500	2886	2166
	17·461	G	648	3706	1734	495	2826	2095
	18·425	G	432	2930	1031	504	2779	1136
	19·316	C	338	2218	1268	403	2844	1722
	20·441	C	198	1017	1228	246	1292	1839
	21·313	C	158	780	1922	95	462	2091
	22·633	G	144	785	1165	121	705	1756
	23·409	G	183	1162	1243	137	887	1557
	24·393	G	252	1335	1504	186	1006	1633
	25·436	G	248	1115	2253	220	995	2718
	26·343	G	165	776	2087	143	670	2878
	27·415	G	137	625	2026	131	509	2639
	28·385	G	102	598	1973	60	349	2091
	29·364	C	83	508	1138	48	290	1506
	30·358	G	94	425	1084	60	269	1251
October	1·313	C	74	394	727	72	356	1176
	2·110	K	82	476	1483	107	636	1727
	3·388	G	81	507	1797	108	693	2017
	4·394	G	136	693	1745	201	1072	2079
	5·433	G	191	1071	1063	219	1223	1572
	6·464	G	244	1303	1332	204	1117	1667
	7·627	G	295	1603	1095	202	1102	1492
	8·403	G	332	1980	1680	206	1213	2056
	9·424	G	327	2124	1116	196	1231	1312
	10·435	G	442	2403	1261	322	1555	1355
	11·510	G	332	1869	1915	225	1213	2383
	12·344	C	196	1655	1560	135	1028	2016
	13·492	C	253	1474	1864	160	917	2469

TOTAL AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1927—*continued.*

Greenwich Mean Time.	Place.	Projected Area.			Area Corrected for Foreshortening.		
		Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1927. d							
October 14·507	G	216	1368	2693	150	948	3155
15·440	G	194	1052	2645	156	818	3203
16·367	C	125	687	1162	89	495	1721
17·403	G	148	763	1620	134	639	2206
18·443	G	137	773	2620	108	602	2767
19·480	G	149	790	1643	167	822	2094
20·547	G	146	709	1059	106	598	1486
21·413	G	206	983	1109	139	742	1109
22·311	C	198	1138	1195	125	778	1444
23·417	C	271	1425	1211	209	1097	1556
24·395	G	270	1586	964	215	1217	1307
25·314	C	152	1124	1317	142	1026	1727
26·342	C	90	600	623	105	572	848
27·346	C	50	301	1081	35	194	1201
28·325	C	30	177	872	23	134	1263
29·399	G	40	147	1767	52	247	1894
30·577	G	65	320	1467	93	552	2039
31·526	G	147	640	2292	128	562	2691
November 1·430	G	131	530	1033	93	416	1170
2·339	C	91	416	1112	63	298	1278
3·332	C	80	319	922	52	198	1120
4·397	G	59	272	1607	34	158	1869
5·398	G	88	390	1709	52	222	2214
6·371	C	71	290	1327	49	199	1576
7·342	C	38	110	1122	26	82	1305
8·331	C	30	160	1105	18	95	1336
9·554	C	201	1136	1876	168	909	2175
10·354	G	365	2585	1108	264	1745	1578
11·442	G	496	3319	2887	332	2103	3404
12·428	G	423	3212	2013	280	1988	2300
13·547	G	437	2988	2537	285	1951	2937
14·459	G	406	2689	2156	277	1874	2374
15·537	C	302	2232	1080	233	1677	1260
16·398	G	368	1742	839	316	1547	1324
17·404	G	251	1328	1032	165	856	1422
18·434	G	264	1565	946	189	1073	1127
19·346	C	186	1244	848	147	952	961
20·358	C	235	1295	2714	172	961	2752
21·342	C	218	1248	1427	145	831	1728
22·310	C	175	1134	1011	103	654	1597

Greenwich Mean Time.	Place.	Projected Area.			Area Corrected for Foreshortening.		
		Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1927. d							
November 23·330	C	256	1336	1170	148	761	1347
24·330	C	288	1590	1043	176	944	1466
25·346	C	334	1872	895	202	1136	1237
26·512	G	357	1981	1957	229	1241	2211
27·369	C	232	1715	1855	158	1111	2417
28·329	C	187	1469	1709	123	963	2089
29·300	C	189	1388	2020	144	1100	2085
30·322	C	169	1155	1461	155	1212	1722
December 1·341	C	99	725	1026	149	1258	1496
2·452	C	31	161	1259	24	121	1721
3·318	C	24	74	2279	20	60	2690
4·393	C	12	34	1386	9	24	1431
5·478	G	65	366	1492	54	313	1755
6·456	G	121	648	2117	106	544	2719
7·311	C	142	599	2899	120	423	3569
8·314	C	168	659	2590	150	610	2965
9·358	C	224	968	1639	152	680	1946
10·331	C	255	1510	1306	160	923	1562
11·445	C	293	1739	1884	194	1120	2220
12·389	C	271	1880	967	192	1370	1209
13·326	C	220	1747	1788	185	1641	2234
14·320	C	166	971	883	224	1403	1262
15·313	C	86	457	1108	103	529	1606
16·443	G	52	265	1517	31	157	1806
17·446	G	45	231	1642	38	179	2099
18·481	G	28	134	1452	24	114	1579
19·513	G	21	99	764	24	121	908
20·309	C	13	54	468	7	41	697
21·342	C	25	124	777	16	72	1086
22·317	C	21	122	1215	12	71	1360
23·317	C	73	323	591	45	203	734
24·308	C	147	569	989	90	349	1146
25·141	K	148	668	1180	94	428	1413
26·432	C	150	810	1523	96	504	1944
27·553	C	172	928	1676	117	635	2054
28·433	C	216	1094	1810	212	1034	2373
29·468	G	349	1873	1864	293	1575	2377
30·453	G	338	1978	1056	265	1522	1407
31·464	G	341	1750	1989	254	1292	2053

MEAN AREAS of SUN SPOTS and FACULÆ for each ROTATION of the SUN, from 1926 December 20 to 1928 January 5.

The Mean Areas have been formed by taking the means of the Areas for each day of observation throughout each Rotation of the Sun, the Projected Areas being the Areas as measured on the photographs and expressed in millionths of the Sun's apparent disc, and the Areas Corrected for Foreshortening being expressed in millionths of the Sun's visible hemisphere.

The Rotations adopted in the following table (which is in continuation of those for the years 1873–1926 printed in the Greenwich Observations for 1884 and succeeding years) correspond to the synodic rotation of the Sun, and the commencement of each is defined by the coincidence of the assumed prime meridian with the central meridian, the assumed prime meridian being that meridian which passed through the ascending node at mean noon on January 1, 1854, and the assumed period of the Sun's sidereal rotation being 25·38 days. The numeration of the rotations is in continuation of Carrington's series (*Observations of Solar Spots made at Redhill* by R. C. Carrington, F.R.S.), No. 1 being the rotation commencing 1853 November 9. The dates of commencement of the rotations are given in Greenwich Mean Time, reckoning from midnight.

No. of Rotation.	Date of Commencement of each Rotation.			No. of Days on which Photographs were taken.	Mean of Daily Areas.					
					Projected.			Corrected for Foreshortening.		
					Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
980	1926	December	20·41	28	370	2259	2337	285	1700	2807
981	1927	January	16·75	27	441	2787	2508	311	1973	3046
982		February	13·09	27	165	844	2446	126	631	2916
983		March	12·42	28	263	1499	2074	218	1244	2508
984		April	8·72	27	310	1647	2285	218	1165	2757
985		May	5·97	27	263	1320	2004	197	993	2464
986		June	2·18	27	197	1185	1763	142	848	2119
987		June	29·38	28	221	1183	1354	165	882	1702
988		July	26·59	27	201	1039	1373	158	845	1729
989		August	22·82	27	323	1921	1434	240	1387	1788
990		September	19·07	27	204	1160	1588	167	941	1976
991		October	16·36	28	153	889	1422	118	668	1738
992		November	12·66	27	213	1267	1607	154	921	1939
993		December	9·97	27	203	1095	1367	146	801	1665

MEAN AREAS of SUN SPOTS and FACULÆ for the YEAR 1927.

The Mean Projected Areas are expressed in millionths of the Sun's apparent disc.

The Mean Areas Corrected for Foreshortening are expressed in millionths of the Sun's visible hemisphere.

Year.	No. of Days on which Photographs were taken.	Mean of Daily Areas.					
		Projected.			Corrected for Foreshortening.		
		Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1927	365	248	1417	1812	186	1058	2212

MEAN HELIOGRAPHIC LATITUDE of SUN SPOTS for each ROTATION of the SUN, from 1926 December 20 to 1928 January 5.

The numbers given in the accompanying table have been formed as follows :—

The Heliographic Latitude of each Spot for each day has been multiplied by its Area (corrected for foreshortening), and the sum of the products, for Spots North of the Equator, has been divided by the sum of the corresponding Areas to form Mean Heliographic Latitude of Spotted Area North of Equator ; similarly for Spots South of the Equator. In forming the Mean Heliographic Latitude of entire Spotted Area, the algebraic sum of the products for Spots North and South of the Equator has been divided by the sum of the Areas ; and for the Mean Distance from the Equator for all Spots, the numerical sum of the products, without regard to the sign of the latitude, has been similarly divided.

The Mean Areas have been formed by dividing the sum of the Daily Areas (corrected for foreshortening) by the number of days of observation for each Rotation of the Sun, and are expressed in millionths of the Sun's visible hemisphere.

No. of Rotation.	Date of Commencement of each Rotation.	No. of Days on which Photographs were taken.	Spots North of the Equator.		Spots South of the Equator.		Mean Heliographic Latitude of entire Spotted Area.	Mean Distance from Equator of all Spots.
			Mean of Daily Areas.	Mean Heliographic Latitude.	Mean of Daily Areas.	Mean Heliographic Latitude.		
				°		°	°	°
980	1926 December 20·41	28	725	17·32	975	13·93	− 0·61	15·38
981	1927 January 16·75	27	789	20·31	1185	16·17	− 1·60	17·83
982	February 13·09	27	189	14·47	441	15·40	− 6·42	15·12
983	March 12·42	28	864	22·67	380	15·11	+11·12	20·36
984	April 8·72	27	396	15·69	769	15·34	− 4·80	15·46
985	May 5·97	27	414	16·91	579	14·52	− 1·42	15·52
986	June 2·18	27	567	16·88	282	11·59	+ 7·42	15·12
987	June 29·38	28	425	16·75	457	8·97	+ 3·42	12·72
988	July 26·59	27	90	16·36	755	11·04	− 8·12	11·61
989	August 22·82	27	141	15·82	1246	14·17	−11·12	14·34
990	September 19·07	27	283	19·09	657	14·60	− 4·45	15·96
991	October 16·36	28	152	16·93	515	10·48	− 4·23	11·95
992	November 12·66	27	191	10·99	730	12·17	− 7·37	11·93
993	December 9·97	27	222	10·66	579	11·85	− 5·62	11·52

MEAN HELIOGRAPHIC LATITUDE of SUN SPOTS for the YEAR 1927.

Year.	No. of Days on which Photographs were taken.	Spots North of the Equator.		Spots South of the Equator.		Mean Heliographic Latitude of entire Spotted Area.	Mean Distance from Equator of all Spots.
		Mean of Daily Areas.	Mean Heliographic Latitude.	Mean of Daily Areas.	Mean Heliographic Latitude.		
			°		°	°	°
1927	365	379	17·75	679	13·54	− 2·33	15·05

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ROYAL OBSERVATORY, GREENWICH.

Comparison of Magnetic Storms and Sunspots

DERIVED FROM GREENWICH OBSERVATIONS

1874-1927

GREENWICH PHOTO-HELIOGRAPHIC RESULTS 1927

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COMPARISON OF MAGNETIC STORMS AND SUNSPOTS

DERIVED FROM GREENWICH OBSERVATIONS, 1874 to 1927

The Greenwich observations contain the material for a comparison to be made over an interval of more than 50 years between magnetic storms and sunspots.

For the purposes of a comparison, the original magnetograph sheets* were first examined for every day from 1874 April 17 (the date at which regular solar observations were commenced), to 1927 December, and two lists were prepared containing :—

(1) The greater magnetic storms, for which the ranges were equal to or greater than 60′ in Declination or 300γ in Horizontal Force (or North Force for the years 1916 to 1925) or Vertical Force.

(2) The lesser magnetic storms, for which the range in D was between 30′ and 60′, or that for H (or N) or V between 150γ and 300γ. This second list includes a few storms which exceeded by a small amount the limit for the greater storms in one element only and that by virtue of a single swing, such storms not having been included in the first list.

The number of storms listed is 60 greater storms and 343 smaller storms, of which details are given in Catalogues I and II respectively.

The *Greenwich Photo-heliographic Results* were also examined from 1874 to 1927 and lists were prepared comprising :—

(*a*) The spot of largest mean area within 4 days (53° of solar longitude) of the sun's central meridian at the time of commencement of each storm.

(*b*) The spot of largest mean area between 4 and 6 days (53°–79° of longitude) east or west of the central meridian at the time of commencement of each storm.

Furthermore, a list of magnetically "quiet" days was compiled from the De Bilt circulars, by selecting the two days in each month of smallest total character figure over the period 1914 to 1924 inclusive, *i.e.*, over one complete sunspot cycle. For

* The traces registered at Abinger, Surrey, were used from 1926 January onwards.

each of these days at noon, a tabulation was made as in (*a*) and (*b*) of the group of spots of largest mean area within 4 days of the central meridian and between 4 and 6 days east or west of the central meridian.

The results of the comparison have been given in *Monthly Notices* **89,** 84–92, 1928, and include a table of results identical* with Table I given below. In this table, column 1, gives the limits of magnitude of the storms divided into groups according to their intensity. In the case of the 343 smaller storms given in Catalogue II, the intensity of each storm was taken as being represented by the mean of the ranges in D, H (or N), and V. Of the 60 greater storms given in

TABLE I.

Average Areas of Largest Sun Spots at Time of Commencement of Magnetic Storms.

Limits of Storm.	Spots near Centre of Disc 53° E. to 53° W.		Spots near Sun's Limbs 53° to 79° E. and W.		Number of Storms.
	Average Area.	Relative Values.	Average Area.	Relative Values.	
"Quiet Days" ..	244	1·0	167	1·0	264 (Quiet Days.)
<120γ	260	1·1	181	1·1	42
120–150γ	282	1·2	165	1·0	122
150–180γ	318	1·3	211	1·3	91
180–210γ	390	1·6	302	1·8	52
>210γ	462	1·9	189	1·1	36
Great Storms ..	691	2·8	251	1·5	43
Very Great Storms..	1,116	4·6	181	1·1	17

(Areas are corrected for Foreshortening.)

Catalogue I, 43 form a group designated "Great Storms"; and the remaining 17 storms, consisting of those known to possess ranges equal to or greater than 90′ in D or 500γ in either other element, constitute a further group designated "Very Great Storms." The averages of the mean areas of the spots (selected as explained

* Apart from some small computational errors which have now been corrected. The effect of these corrections is trivial; in one case one of the relative values, is increased by 0·1.

above in (*a*) and (*b*)) for each group are given in columns 2 and 4. The areas in these columns are not directly comparable, as those in the central zone refer to a zone of 106° of heliographic longitude and those near the limb to a zone of 52° heliographic longitude. Columns 3 and 5 give, however, the relative values of the numbers tabulated in columns 2 and 4, the result for " quiet " days being taken as unity in each case.

Table II shows the annual distribution of the storms listed in Catalogues I and II. Against each month is written down the total number of storms occurring in that month throughout the period 1875 January to 1927 December. It has been pointed out by several authors that the times of greatest frequency coincide with those at which the heliographic latitude of the earth is numerically greatest.

TABLE II.

Annual Distribution of Magnetic Storms, 1875–1927.

Month.	Number.	Month.	Number.
January ..	33	July ..	19
February ..	35	August ..	31
March ..	43	September ..	45
April ..	33	October ..	50
May ..	34	November ..	36
June ..	23	December ..	20

The particulars of the magnetic storms which have been discussed are given in the two following Catalogues. Catalogue I contains the greater storms for which the range in $D \geq 60'$, or in H (or N) or $V \geq 300\gamma$. Column 1 gives a reference number in order of occurrence ; Column 2, the year ; Column 3, the duration of the storm, in civil reckoning ; Column 4, the Greenwich Mean Time (midnight $= 0^h$) of the commencement of the storm given to the nearest tenth of a day. Those storms which commenced with the characteristic rapid movement, known as a " sudden commencement," are denoted by the letters " S.C." Columns 5, 6 and 7 give the measured ranges in D, H (or N for the years 1916–25), and V respectively. The ranges in D are given in minutes of arc; for the other elements the unit is one gamma. The sign > denotes that the trace passed off the recording sheet.

Columns 8–11 give particulars, abstracted from the Ledgers of the *Greenwich Photo-heliographic Results*, of the group of spots of largest mean area within 4 days—53° of solar longitude—of the sun's central meridian at the time of commencement of each storm. Column 8 gives the Greenwich number of the group; Column 9, the mean area, corrected for foreshortening and expressed in millionths of the sun's hemisphere; Column 10, gives the heliographic distance of the group from the centre of the disc at the time of central meridian passage, *i.e.*, the latitude of the group *minus* the heliographic latitude of the earth at the time. The last column gives the Greenwich Mean Time (midnight $= 0^h$) to the nearest tenth of a day of the central meridian passage of the group; this was usually computed from the two tabulated longitudes of the group measured when nearest the central meridian.

Catalogue II contains those storms with ranges between 30′ and 60′ in D, or between 150γ and 300γ in either H (or N) or V. The tabulation and headings are the same as in Catalogue I, except that an extra column (Col. 8) is added, giving the mean value of the three ranges of D, H (or N), and V, the range of D being converted into force for this purpose.

CATALOGUE I.—CATALOGUE of the GREATER MAGNETIC STORMS RECORDED at the ROYAL OBSERVATORY, GREENWICH, from 1874 APRIL to 1927 DECEMBER.

Magnetic Storm.							Largest Group of Sunspots within 4 Days of the Central Meridian at time of Commencement.			
				Ranges.						
Reference No.	Year.	Date of Storm.	Time of Commencement.	Declination.	Horizontal Force.*	Vertical Force.	Group Number.	Mean Area.	Heliographic Distance from centre of disc at C.M.P.	Time of Central Meridian Passage.
1	1874	Oct. 3—4	Oct. 3·6 S.C.	57′	>237γ	325γ	127	984	−20°	Oct. 4·5
2	1880	Aug. 12—14	Aug. 12·5 S.C.	66	>300	385	343	273	+18	Aug. 14·0
3	1881	Jan. 31	Jan. 31·0	75	330	365	412	418	− 7	Jan. 30·0
4	1881	Sept. 12—13	Sept. 12·5	65	335	345	566	519	+ 7	Sept. 10·0
5	1882	April 17	Apr. 17·0 S.C.	> 59	>455	>1040	729	1744	−23	Apr. 19·1
6	1882	Apr. 20	Apr. 20·2 S.C.	> 68	>300	>340	729	1744	−23	Apr. 19·1
7	1882	June 24	June 24·5 S.C.	50	325	236	781	86	+13	June 22·5
8	1882	Aug. 4—5	Aug. 4·7 S.C.	36	335	262	808	350	−18	Aug. 1·5
9 {	1882	Nov. 17—18	Nov. 17·4 S.C.	115	>565	>1060	885	1711	+17	Nov. 18·9
	1882	Nov. 20	Nov. 20·0	85	>1090	>1040	885	1711	+17	Nov. 18·9
10	1883	Apr. 3—5	Apr. 3·4 S.C.	58	192	315	987	536	+20	Apr. 3·3
11	1883	Sept. 16—17	Sept. 16·1 S.C.	52	345	>240	1114	920	−29	Sept. 13·9
12	1884	July 2— 4	July 2·8 S.C.	41	330	294	1419	428	−16	July 2·1
13	1885	Mar. 15—16	Mar. 15·4 S.C.	54	170	370	1622	232	+13	Mar. 16·2
14	1885	May 25—26	May 25·6 S.C.	31	360	125	1672	516	+15	May 24·3
15	1886	Mar. 30—31	Mar. 30·3 S.C.	73	>335	286	1860	487	−10	Mar. 30·8
16	1891	May 13—16	May 13·3 S.C.	52	340	>330	2211	231	−22	May 10·7
17	1892	Feb. 13—14	Feb. 13·2 S.C.	> 73	>540	>635	2421	2402	−22	Feb. 11·9
18	1892	Mar. 6—7	Mar. 6·4 S.C.	49	>290	325	..	0	..	..
19	1892	Mar. 11—13	Mar. 11·9 S.C.	74	296	375	2440	386	−21	Mar. 10·6
20	1892	Apr. 25—27	Apr. 25·6	58½	390	395	2486	560	+15	Apr. 23·9
21	1892	May 18—19	May 18·4 S.C.	75	299	480	2515	742	−12	May 16·7
22	1892	June 27	June 27·2 S.C.	36	305	>315	2567	337	+ 9	June 25·0
23	1892	July 12—14	July 12·7 S.C.	34½	520	285	2581	1591	+ 7	July 10·2
24	1892	July 16—17	July 16·5 S.C.	89	590	370	2583	829	−35	July 14·1
25	1892	Aug. 12—13	Aug. 12·5 S.C.	75	540	405	2615	277	−37	Aug. 11·5
26	1893	Aug. 18	Aug. 18·0 S.C.	34	248	>345	3135	309	−26	Aug. 21·9
27	1894	Feb. 22—24	Feb. 22·9 S.C.	52	>262	390	3412	1208	−25	Feb. 22·5
28	1894	Feb. 25—26	Feb. 25·3 S.C.	74	400	>272	3412	1208	−25	Feb. 22·5
29	1894	Feb. 28—Mar. 1	Feb. 28·6 S.C.	49	340	>229	3413	205	−19	Feb. 25·2
30	1894	Mar. 30—31	Mar. 30·7	57	325	470	3464	926	+28	Apr. 2·5
31	1894	July 20—21	July 20·3 S.C.	63	690	>520	3624	553	−17	July 17·2
32	1894	Aug. 20	Aug. 20·1 S.C.	66	>445	>530	3668	1246	0	Aug. 17·2
33	1894	Sept. 14—15	Sept. 14·0 S.C.	40	299	430	3701	430	−22	Sept. 12·3
34	1894	Nov. 13—14	Nov. 13·6 S.C.	50	350	500	3793	147	−25	Nov. 10·5
35	1898	Mar. 15—16	Mar. 15·0 S.C.	83	>345	>520	4702	970	− 6	Mar. 11·5
36	1898	Sept. 9	Sept. 9·5 S.C.	57	>365	480	4781	1556	−19	Sept. 9·2
37	1900	May 5	May 5·1 S.C.	30½	208	370	4924	137	− 3	May 2·5
38	1903	Oct. 31—Nov. 1	Oct. 31·3 S.C.	119	1175	1440	5098	466	−24	Oct. 31·8
39	1903	Dec. 13—14	Dec. 13·5 S.C.	60	>136	>355	5129	307	+20	Dec. 14·1
40	1907	Feb. 9—10	Feb. 9·6 S.C.	95	>225	>460	6108	1619	−10	Feb. 12·4
41	1908	Sept. 11—12	Sept. 11·9 S.C.	84	>355	>445	6520 & 22†	701	+ 6	Sept. 10·0
42	1908	Sept. 29—30	Sept. 29·6 S.C.	65	400	380	6533	399	+ 3	Sept. 26·8
43	1909	Jan. 3—4	Jan. 3·5 S.C.	71	>118	151	6591	641	+12	Jan. 3·2
44	1909	May 14—15	May 14·2 S.C.	50	430	>355	6669	681	−13	May 13·8
45	1909	Sept. 25	Sept. 25·5 S.C.	193	1710	>1080	6728	605	−12	Sept. 23·8
46	1915	June 17—18	June 17·1 S.C.	71	>375	>295	7304	767	+16	June 21·0
47	1917	Aug. 9—10	Aug. 9·2 S.C.	55	315	225	8181	2389	+ 9	Aug. 10·1
48	1917	Aug. 13—15	Aug. 13·6 S.C.	40½	380	335	8181	2389	+ 9	Aug. 10·1
49	1918	Aug. 15—16	Aug. 15·7 S.C.	30	370	157	8631	933	+ 3	Aug. 16·7

* For the years 1916 to 1925 inclusive, North Force was registered in place of Horizontal Force.

† From the photographs it is evident that these two groups are an entity.

CATALOGUE I.—CATALOGUE of the GREATER MAGNETIC STORMS RECORDED at the ROYAL OBSERVATORY, GREENWICH, from 1874 APRIL to 1927 DECEMBER—*continued.*

Magnetic Storm.							Largest Group of Sunspots within 4 Days of the Central Meridian at time of Commencement.			
				Ranges.						
Reference No.	Year.	Date of Storm.	Time of Commencement.	Declination.	Horizontal Force.*	Vertical Force.	Group Number.	Mean Area.	Heliographic Distance from centre of disc at C.M.P.	Time of Central Meridian Passage.
50	1919	Aug. 11—12	Aug. 11·3 S.C.	58′	>360γ	>720γ	8994	543	−13°	Aug. 9·2
51	1920	Mar. 4—5	Mar. 4·5 S.C.	64	240	282	9136	157	+23	Mar. 7·6
52	1920	Mar. 22—23	Mar. 22·4 S.C.	86	730	>490	9143	1966	+ 2	Mar. 21·6
53	1921	May 13—17	May 13·6 S.C.	>100	>740	>460	9334	1324	+ 3	May 14·7
54	1926	Jan. 26—27	Jan. 26·7 S.C.	62	>420	>203	9861	3285	+26	Jan. 24·5
55	1926	Feb. 23—25	Feb. 23·7	60	305	>203	9884	403	+19	Feb. 20·7
56	1926	Apr. 14—15	Apr. 14·6 S.C.	60	455	>203	9923	193	−24	Apr. 18·4
57	1926	Oct. 13—16	Oct. 13·8 S.C.	111	>430	>580	10062	986	+12	Oct. 11·1
58	1927	July 21—22	July 21·9 S.C.	60	315	335	10342	185	−17	July 19·1
59	1927	Aug. 19—21	Aug. 19·5	> 73	170	205	10362	221	+ 4	Aug. 20·9
60	1927	Oct. 12	Oct. 12·4 S.C.	55½	>350	230	10406	334	−19	Oct. 10·5

* For the years 1916 to 1925 inclusive, North Force was registered in place of Horizontal Force.

CATALOGUE II.—CATALOGUE of the SMALLER MAGNETIC STORMS RECORDED at the ROYAL OBSERVATORY, GREENWICH, from 1874 APRIL to 1927 DECEMBER.

Magnetic Storm.								Largest Group of Sunspots within 4 Days of the Central Meridian at Time of Commencement.			
				Ranges.							
Reference No.	Year.	Date of Storm.	Time of Commencement.	Declination.	Horizontal Force.	Vertical Force.	Mean.	Group Number.	Mean Area.	Heliographic Distance from Centre of Disc at C.M.P.	Time of Central Meridian Passage.
1	1875	Feb. 26—27	Feb. 26·5 S.C.	51	180γ	269γ	239γ	145	648	+26°	Feb. 24·6
2	1875	May 6—7	May 6·6 S.C.	30½	142	150	151	..	0	..	..
3	1876	Feb. 19—20	Feb. 19·2 S.C.	49½	219	190	223	196	557	− 6	Feb. 16·7
4	1876	Mar. 25—26	Mar. 25·0 S.C.	35½	96	166	149	204	352	+22	Mar. 25·1
5	1876	Nov. 10—11	Nov. 10·9	31½	68	104	112	(227)	(28)	(−9)	(Nov. 14·1) †
6	1876	Dec. 10—11	Dec. 10·0 S.C.	31½	100	67	111	..	(0)	..	.. †
7	1877	Jan. 6—7	Jan. 6·6 S.C.	33½	150	77	134	231*	58	+11	Jan. 9·9
8	1877	May 28—29	May 28·8 S.C.	39	173	206	194	..	0	..	..
9	1878	Jan. 24	Jan. 24·0 S.C.	30	105	62	108	266	115	+13	Jan. 22·8
10	1878	May 14—15	May 14·3 S.C.	26	159	128	141	..	0	..	..
11	1878	June 3—4	June 3·3 S.C.	43	173	196	198	272	198	+ 9	May 31·8
12	1880	Mar. 17—18	Mar. 17·5	34	128	116	141	316	53	− 9	Mar. 18·9
13	1880	Aug. 18—20	Aug. 18·6 S.C.	27	164	200	169	348	462	+16	Aug. 17·5
14	1880	Sept. 15—17	Sept. 15·0	28	158	195	167	357	699	−24	Sept. 11·2
15	1880	Oct. 25—28	Oct. 25·4	31	69	93	108	382A	299	−26	Oct. 25·4
16	1880	Nov. 3—4	Nov. 3·0	31½	113	179	152	385	61	−21	Nov. 3·7
17	1881	Nov. 8—10	Nov. 8·5	34	147	149	158	598	101	+11	Nov. 8·0
18	1882	Jan. 19—20	Jan. 19·7	36	122	139	150	650	131	+20	Jan. 17·8
19	1882	Feb. 1—3	Feb. 1·5	40½	140	162	172	658	272	+22	Jan. 30·7
20	1882	Feb. 20	Feb. 20·2	42	176	105	167	672	234	−12	Feb. 18·0
21	1882	July 31—Aug. 1	July 31·0 S.C.	36	192	165	182	808	350	−18	Aug. 1·5
22	1882	Sept. 11—13	Sept. 11·9 S.C.	22½	214	No Trace	166	835	31	+ 4	Sept. 15·2
23	1882	Oct. 2—3	Oct. 2·4 S.C.	59	248	No Trace	279	846	984	−28	Sept. 30·6
24	1882	Oct. 5—6	Oct. 5·8	34½	226	193	200	848	529	−29	Oct. 1·8
25	1882	Nov. 12—15	Nov. 12·0 S.C.	54	220	262	255	876	740	−22	Nov. 9·9
26	1882	Dec. 20—22	Dec. 20·6	34	174	124	159	913	100	+12	Dec. 19·9
27	1883	Feb. 1—4	Feb. 1·2	35	156	97	146	955	184	−17	Feb. 4·6
28	1883	Feb. 24—25	Feb. 24·6 S.C.	64	282	230	283	971	93	− 5	Feb. 26·7
29	1883	Feb. 27—Mar. 3	Feb. 27·6	33½	120	139	145	971	93	− 5	Feb. 26·7
30	1883	Mar. 26—30	Mar. 26·8	31½	131	143	147	984	251	−17	Mar. 25·7
31	1883	Apr. 24—26	Apr. 24·6	40	231	116	186	1008	134	+12	Apr. 27·7
32	1883	May 20—23	May 20·7	27½	176	135	152	1033	36	−20	May 16·8
33	1883	July 8—12	July 8·5	39	202	75	161	1066	490	−26	July 9·5
34	1883	Oct. 5—6	Oct. 5·5	41	235	140	197	1130	189	−13	Oct. 7·8
35	1883	Oct. 16—17	Oct. 16·7 S.C.	31	127	108	132	1144	1121	−15	Oct. 18·6
36	1883	Nov. 1—3	Nov. 1·7	37½	180	140	173	1156	402	−14	Oct. 31·6
37	1883	Nov. 22—23	Nov. 22·1 S.C.	34	154	168	166	1181	624	+16	Nov. 19·8
38	1884	Feb. 23—24	Feb. 23·6	32	114	77	120	1288	284	+21	Feb. 21·5
39	1884	Feb. 29—Mar. 3	Feb. 29·7 S.C.	30½	138	114	138	1301	458	+18	Mar. 2·8
40	1884	Apr. 24—25	Apr. 24·4 S.C.	31	139	98	134	1371	867	− 7	Apr. 27·7
41	1884	Oct. 1—3	Oct. 1·9 S.C.	31	197	164	175	1497	283	−20	Sept. 30·3
42	1884	Nov. 2—4	Nov. 2·5	44	227	230	230	1526	131	+ 6	Nov. 2·3
43	1885	Jan. 22	Jan. 22·1	40½	141	103	153	1573	515	− 1	Jan. 18·7
44	1885	May 10	May 10·3 S.C.	15	164	64	102	1661	284	+18	May 7·3
45	1885	May 13—14	May 13·3 S.C.	41	243	156	205	1662	130	+ 7	May 9·4
46	1885	June 24—26	June 24·9 S.C.	31	222	188	191	1706	1321	+ 9	June 21·5
47	1886	Mar. 19—20	Mar. 19·8	33	182	67	141	1857	24	− 6	Mar. 16·0
48	1886	Apr. 11—21	Apr. 11·6 S.C.	32	161	142	157	1867	23	−19	Apr. 13·6
49	1886	May 8—15	May 3·6	44	212	191	212	1880	763	+12	May 8·2
50	1886	June 29—July 3	June 29·6	30½	176	108	148	..	0	..	..

† No photograph available for 1876 Nov. 10 and Dec. 10.

CATALOGUE II.—CATALOGUE of the SMALLER MAGNETIC STORMS RECORDED at the ROYAL OBSERVATORY, GREENWICH, from 1874 APRIL to 1927 DECEMBER.—*continued.*

Magnetic Storm.								Largest Group of Sunspots within 4 Days of the Central Meridian at Time of Commencement.			
				Ranges.							
Reference No.	Year.	Date of Storm.	Time of Commencement.	Declination.	Horizontal Force.	Vertical Force.	Mean.	Group Number.	Mean Area.	Heliographic Distance from Centre of Disc at C.M.P.	Time of Central Meridian Passage.
				′						°	
51	1886	July 27—28	July 27·6	47	243γ	272γ	255γ	1912	163	+11	July 31·0
52	1886	Sept. 7—15	Sept. 7·6	25	190	111	144	1920	196	+ 5	Sept. 4·7
53	1886	Oct. 6—11	Oct. 6·5	41½	141	146	169	1930	72	−22	Oct. 5·1
54	1886	Nov. 2—6	Nov. 2·7	35	139	108	144	..	0	..	..
55	1886	Nov. 29—Dec. 3	Nov. 29·6	36	103	78	124	..	0	..	..
56	1887	Sept. 25—28	Sept. 25·7	47	169	210	209	..	0	..	..
57	1887	Nov. 21—22	Nov. 21·4	42	171	68	154	..	0	..	..
58	1888	Jan. 13	Jan. 13·5	44	176	95	168	2029	128	−5	Jan. 16·7
59	1888	Jan. 23—24	Jan. 23·5	37	131	135	154	2031	53	−5	Jan. 22·9
60	1888	Apr. 11—14	Apr. 11·2	34	146	104	143	..	0	..	..
61	1888	May 20—21	May 20·4 S.C.	29	168	161	161	2052	443	−6	May 17·9
62	1888	June 3—6	(Loss of trace.)	31	115	147	142	..	0	..	..
63	1888	Oct. 30—Nov. 1	Oct. 30·8 S.C.	41	126	37	127	..	0	..	..
64	1889	Mar. 17—18	Mar. 17·8	35	114	67	122	..	0	..	..
65	1889	July 17	July 17·2 S.C.	24½	270	60	153	2092	318	−13	July 18·8
66	1889	Sept. 8—11	Sept. 8·8	23	151	75	116	..	0	..	..
67	1889	Oct. 5—8	Oct. 5·7	31	97	68	110	..	0	..	..
68	1889	Nov. 1—3	Nov. 1·2	24	177	166	157	..	0	..	..
69	1889	Nov. 26—29	Nov. 26·6	53	140	61	161	..	0	..	..
70	1890	Nov. 7—8	Nov. 7·9	33½	138	99	138	..	0	..	..
71	1891	Feb. 11—15	Feb. 11·8	26	161	121	140	2179	216	+22	Feb. 12·0
72	1891	Mar. 2—6	Mar. 2·1 S.C.	36	168	179	179	2186	74	+32	Feb. 26·1
73	1891	Mar. 31—Apr. 2	Mar. 31·6 S.C.	27	161	148	151	2195	237	+26	Apr. 4·5
74	1891	Apr. 7—9	Apr. 7·6 S.C.	37½	141	108	149	2195	237	+26	Apr. 4·5
75	1891	Apr. 12—13	Apr. 12·5	34½	178	128	163	2198	51	−10	Apr. 10·9
76	1891	Sept. 8—12	Sept. 8·7	36	147	177	172	2294	366	+19	Sept. 7·0
77	1891	Sept. 27—29	Sept. 27·8	34½	142	92	139	2306	269	+17	Sept. 30·4
78	1891	Oct. 8	Oct. 8·5 S.C.	30½	85	41	96	2315	516	−21	Oct. 8·0
79	1891	Oct. 23—26	Oct. 23·8	29	164	77	132	2325	228	+12	Oct. 19·8
80	1891	Nov. 19—22	Nov. 19·9	41	140	92	150	2349	681	−22	Nov. 21·6
81	1891	Dec. 7	Dec. 7·0	23½	164	176	155	2360	43	−17	Dec. 8·7
82	1892	Jan. 4—6	Jan. 4·8 S.C.	45	207	145	197	2376	434	+25	Jan. 4·6
83	1892	Feb. 20—21	Feb. 20·8 S.C.	30½	132	84	126	2429	404	+24	Feb. 19·4
84	1892	Feb. 26—27	Feb. 26·0	32	127	74	124	2434	185	+32	Feb. 25·5
85	1892	Feb. 29—Mar. 5	Feb. 29·9	41	251	178	216	..	0	..	..
86	1892	Mar. 24—26	Mar. 24·8	28	155	121	142	2454	478	+35	Mar. 27·2
87	1892	Apr. 30—May 3	Apr. 30·9	45	178	231	216	2496	323	−22	May 3·9
88	1892	May 19	May 19·6 S.C.	14	156	52	94	2515	742	−12	May 16·8
89	1892	June 2—3	June 2·6	41	292	193	234	2534	1000	−18	May 30·1
90	1892	July 26—29	July 26·0 S.C.	29½	191	176	175	2596	63	−26	July 22·6
91	1892	Aug. 3—5	Aug. 3·6 S.C.	25½	197	148	160	2611	654	+ 3	Aug. 5·6
92	1892	Oct. 17—20	Oct. 17·5	31½	162	96	142	2694	139	−18	Oct. 14·4
93	1892	Nov. 4—5	Nov. 4·1 S.C.	47	200	228	226	2716	691	−33	Nov. 1·2
94	1892	Dec. 4—6	Dec. 4·8 S.C.	37½	282	>296	>259	2757	291	+17	Dec. 3·7
95	1893	Feb. 4—5	Feb. 4·8	37½	180	151	177	2831	84	+31	Feb. 1·2
96	1893	Apr. 26	Apr. 26·7 S.C.	29	245	60	153	2931	386	+26	Apr. 23·1
97	1893	June 9—11	June 9·5 S.C.	23½	178	69	124	3005	247	−13	June 11·8
98	1893	June 18—20	June 18·3 S.C.	22½	193	99	137	3015	408	−21	June 14·5
99	1893	July 15—16	July 15·9	47	214	176	214	3067	398	+12	July 14·3
100	1893	Aug. 6—8	Aug. 6·2 S.C.	27	278	162	195	3106	1594	−24	Aug. 7·5

CATALOGUE II.—CATALOGUE of the SMALLER MAGNETIC STORMS RECORDED at the ROYAL OBSERVATORY, GREENWICH, from 1874 APRIL to 1927 DECEMBER—*continued.*

Magnetic Storm.								Largest Group of Sunspots within 4 Days of the Central Meridian at Time of Commencement.			
				Ranges.							
Reference No.	Year.	Date of Storm.	Time of Commencement.	Declination.	Horizontal Force.	Vertical Force.	Mean.	Group Number.	Mean Area.	Heliographic Distance from Centre of Disc at C.M.P.	Time of Central Meridian Passage.
101	1893	Sept. 26—27	Sept. 26·5	30½′	159γ	104γ	142γ	3203	313	+ 6°	Sept. 30·4
102	1893	Sept. 29—30	Sept. 29·6 S.C.	33	164	81	140	3206	598	+ 1	Sept. 28·7
103	1893	Nov. 1—3	Nov. 1·6	41½	164	175	187	3258	72	− 5	Oct. 29·1
104	1894	Jan. 3—4	Jan. 3·7	37	152	85	145	3325	346	− 4	Dec. 31·3
105	1894	Jan. 11—12	Jan. 11·8 S.C.	27	184	40	123	3345	232	−10	Jan. 9·2
106	1894	Feb. 20—21	Feb. 20·8 S.C.	38	236	157	199	3412	1208	−25	Feb. 22·5
107	1894	Apr. 17—18	Apr. 17·5	43	176	189	198	3486	270	− 8	Apr. 20·8
108	1894	May 13—17	May 13·5	25	192	93	139	3518	1101	−12	May 15·8
109	1894	June 8—11	June 8·9 S.C.	31	241	233	213	3559	391	−18	June 11·7
110	1894	July 1—3	July 1·9 S.C.	38	156	47	135	3590	155	−15	June 28·4
111	1894	Sept. 18—23	Sept. 18·6	27	146	179	156	3720	136	−16	Sept. 19·0
112	1894	Oct. 16—20	Oct. 16·1	32	100	80	117	3744	67	+16	Oct. 13·3
113	1895	Feb. 9—10	Feb. 9·6	36	162	132	162	3892	434	+21	Feb. 8·4
114	1895	Mar. 8—10	Mar. 8·6	32	99	68	113	3934	223	+19	Mar. 12·5
115	1895	Mar. 13—18	Mar. 13·5	36	180	136	169	3934	223	+19	Mar. 12·5
116	1895	Apr. 10—14	Apr. 10·6	30½	173	140	159	3970	144	+11	Apr. 7·6
117	1895	May 10	May 10·3 S.C.	29	162	66	128	4005	260	−11	May 8·5
118	1895	Oct. 12—17	Oct. 12·5	36	189	132	171	4195	23	−23	Oct. 12·3
119	1895	Nov. 9—13	Nov. 9·5	41	184	155	186	..	0	..	..
120	1895	Dec. 7—9	Dec. 7·3 S.C.	33	131	73	127	4238	83	−15	Dec. 11·2
121	1896	Jan. 2—8	Jan. 2·9	37½	155	72	142	4262	199	+15	Jan. 2·2
122	1896	Jan. 29—Feb. 5	Jan. 29·8	30½	152	93	136	4279	150	−13	Jan. 31·1
123	1896	Feb. 28	Feb. 28·5	43½	215	119	189	4296	574	− 7	Feb. 25·7
124	1896	May 2—4	May 2·5	46	232	313	264	4348	114	− 8	Apr. 30·9
125	1896	May 17—18	May 17·7	26½	162	144	149	4355	42	− 5	May 20·5
126	1896	Aug. 1—3	Aug. 1·5	24½	188	73	131	4405	72	−14	Aug. 1·4
127	1896	Sept. 17—18	Sept. 17·8 S.C.	35	252	132	190	4428	1731	+ 6	Sept. 16·7
128	1896	Sept. 20	Sept. 20·1	39	163	82	151	4428	1731	+ 6	Sept. 16·7
129	1896	Oct. 8—13	Oct. 8·5	35½	198	167	185	..	0	..	..
130	1896	Nov. 5—9	Nov. 5·8	35½	164	112	155	4456	710	−19	Nov. 8·7
131	1896	Dec. 3—5	Dec. 3·7	50	126	111	168	4472	238	+ 9	Dec. 4·8
132	1897	Jan. 1—3	Jan. 1·8	40	161	192	189	4491	133	− 9	Jan. 4·4
133	1897	Apr. 1—2	Apr. 1·8	27	184	106	145	4554	131	+11	Apr. 3·2
134	1897	Apr. 19—21	Apr. 19·7 S.C.	32½	177	174	175	4567	153	+11	Apr. 16·3
135	1897	Apr. 23—25	Apr. 23·3 S.C.	29	184	93	144	..	0	..	..
136	1897	Dec. 10—11	Dec. 10·9	46	139	139	175	4665	886	+13	Dec. 13·3
137	1897	Dec. 20—21	Dec. 20·5	47½	234	170	219	4670	43	+ 5	Dec. 20·9
138	1898	Oct. 25—26	Oct. 25·7	32	111	62	115	4801	614	+11	Oct. 28·7
139	1899	Feb. 11—13	Feb. 11·9	44	165	119	173	..	0	..	..
140	1899	Mar. 21—22	Mar. 21·7	32	147	98	139	4845	438	− 2	Mar. 21·0
141	1899	May 15—16	May 15·0 S.C.	30½	103	64	110	4856	21	− 6	May 17·5
142	1899	June 29—30	June 29·8 S.C.	37	171	131	167	4863	440	+ 3	June 29·4
143	1899	Oct. 23—24	Oct. 23·6	35	95	56	113	..	0	..	..
144	1900	Mar. 12—14	Mar. 12·9	27½	172	230	183	..	0	..	..
145	1901	May 10	May 10·3 S.C.	32	132	55	120	..	0	..	..
146	1902	Apr. 10—11	Apr. 10·4 S.C.	28½	178	41	124	..	0	..	..
147	1902	Aug. 21—22	Aug. 21·6	32	88	58	106	..	0	..	..
148	1903	Apr. 6	Apr. 6·0 S.C.	26	188	122	150	5017	416	−14	Apr. 8·7
149	1903	Apr. 9	Apr. 9·0	18	152	24	91	5017	416	−14	Apr. 8·7
150	1903	Oct. 12—14	Oct. 12·4	40	187	176	193	5093	1726	−27	Oct. 11·6

CATALOGUE II.—CATALOGUE of the SMALLER MAGNETIC STORMS RECORDED at the ROYAL OBSERVATORY, GREENWICH, from 1874 APRIL to 1927 DECEMBER—*continued.*

Magnetic Storm.								Largest Group of Sunspots within 4 Days of the Central Meridian at Time of Commencement.			
				Ranges.							
Reference No.	Year.	Date of Storm.	Time of Commencement.	Declination.	Horizontal Force.	Vertical Force.	Mean.	Group Number.	Mean Area.	Heliographic Distance from Centre of Disc at C.M.P.	Time of Central Meridian Passage.
151	1903	Dec. 30—Jan. 1	Dec. 30·1 S.C.	37	84γ	99γ	127γ	5140	99	−18°	Jan. 2·8
152	1904	June 15—16	June 15·5	32	216	153	180	5252	78	−18	June 19·4
153	1904	Oct. 21—22	Oct. 21·6	31	149	102	139	5331	116	−28	Oct. 20·5
154	1905	Jan. 5—6	Jan. 5·6	32	123	61	119	5416	77	−14	Jan. 8·3
155	1905	Feb. 3—4	Feb. 3·1 S.C.	47	250	83	195	5441	2500	− 9	Feb. 4·2
156	1905	Mar. 2—3	Mar. 2·6 S.C.	29	202	99	152	5471	934	−10	Mar. 3·5
157	1905	Apr. 1—6	Apr. 1·1 S.C.	38½	247	84	180	5489	406	− 9	Mar. 31·2
158	1905	June 9	June 9·6	11	164	38	87	5550	123	−17	June 12·9
159	1905	June 22—23	June 22·5	17	156	52	100	5564	724	+ 4	June 25·8
160	1905	July 5—9	July 5·9 S.C.	25½	156	113	135	5577	154	−16	July 7·8
161	1905	July 23—24	July 23·4 S.C.	13½	159	62	98	5595	230	+ 3	July 22·7
162	1905	Aug. 2—4	Aug. 2·0 S.C.	19½	157	75	112	5607	173	+10	Aug. 5·8
163	1905	Aug. 28—Sept. 1	Aug. 28·6	21	150	66	110	5638	181	+ 9	Aug. 30·2
164	1905	Nov. 12—13	Nov. 12·3 S.C.	46	220	141	203	5706	721	+ 3	Nov. 13·3
165	1905	Nov. 15—17	Nov. 15·6 S.C.	60	280	176	260	5706	721	+ 3	Nov. 13·3
166	1906	Feb. 24—26	Feb. 24·5	49	142	133	180	5803	234	+20	Feb. 22·6
167	1906	May 15	May 15·2	20	151	84	114	5869	545	+17	May 15·9
168	1906	June 1—4	June 1·8 S.C.	18	155	73	108	5871	528	+13	May 28·9
169	1906	July 11—12	July 11·6	29½	222	78	153	5908	124	+15	July 10·3
170	1906	July 29—31	July 29·8 S.C.	15½	156	44	95	5933	901	−21	July 30·4
171	1906	Aug. 7—8	Aug. 7·6	22	173	87	126	..	0	..	..
172	1906	Sept. 22—23	Sept. 22·7	32	208	164	181	5969	82	−26	Sept. 20·6
173	1906	Dec. 21—23	Dec. 21·8	43½	149	118	167	6046	848	−15	Dec. 18·6
174	1907	Jan. 14—15	Jan. 14·8 S.C.	36	209	40	148	6076	553	− 9	Jan. 14·8
175	1907	Feb. 7—9	Feb. 7·3 S.C.	28	151	86	129	6103	650	− 7	Feb. 10·0
176	1907	Mar. 10—11	Mar. 10·2 S.C.	31	96	98	120	6140	572	− 9	Mar. 11·5
177	1907	Mar. 11—12	Mar. 11·7 S.C.	38½	112	123	148	6140	572	− 9	Mar. 11·5
178	1907	Mar. 21—22	Mar. 21·6 S.C.	33	164	106	149	6150	133	+15	Mar. 19·6
179	1907	Apr. 15—16	Apr. 15·9	17	151	61	101	6168	282	− 4	Apr. 13·0
180	1907	May 18—20	May 18·6 S.C.	25	170	102	136	6187	72	−10	May 15·1
181	1907	July 10—11	July 10·6 S.C.	27	200	106	151	6211	379	0	July 7·1
182	1907	Sept. 10—13	Sept. 10·1 S.C.	38½	125	103	145	6252	312	−13	Sept. 12·3
183	1907	Nov. 21	Nov. 21·4 S.C.	32	117	126	139	6308	118	−12	Nov. 20·0
184	1908	Mar. 1—5	Mar. 1·5	33½	134	89	135	..	0	..	..
185	1908	Mar. 26—Apr. 1	Mar. 26·5	46	> 172	192	> 204	..	0	..	..
186	1908	May 25—26	May 25·8	27	204	131	160	6439	12	−21	May 27·3
187	1908	July 15—17	July 15·6	25½	170	67	125	6480	117	−19	July 13·6
188	1908	Aug. 9	Aug. 9·0 S.C.	28	215	105	157	6494	512	−13	Aug. 7·6
189	1908	Aug. 12—14	Aug. 12·6 S.C.	25	170	69	125	..	0	..	..
190	1908	Aug. 19	Aug. 19·0 S.C.	25½	156	145	146	6503	205	−22	Aug. 19·9
191	1908	Sept. 4—6	Sept. 4·8	34	257	177	206	6517	324	−14	Sept. 3·3
192	1908	Sept. 9—11	Sept. 9·5	23	175	73	124	6519	494	−13	Sept. 9·0
193	1908	Oct. 12—14	Oct. 12·5	34	106	122	137	6547	26	0	Oct. 13·4
194	1908	Oct. 31—Nov. 1	Oct. 31·3 S.C.	27	175	46	122	6558	54	+ 9	Nov. 3·2
195	1908	Nov. 7—11	Nov. 7·8	32	138	145	152	6564	622	+ 8	Nov. 11·3
196	1908	Nov. 17—18	Nov. 17·0 S.C.	36	149	201	181	6569	337	+ 9	Nov. 19·1
197	1908	Dec. 4—6	Dec. 4·5	32½	143	88	135	6577	596	+12	Dec. 8·3
198	1909	Jan. 1—2	Jan. 1·5 S.C.	30	149	174	162	6591	641	+12	Jan. 3·2
199	1909	Jan. 29—Feb. 1	Jan. 29·5	44½	238	153	210	6607	489	− 4	Jan. 29·4
200	1909	Mar. 19	Mar. 19·5	45½	185	294	241	6641	55	− 5	Mar. 16·1

CATALOGUE II.—CATALOGUE of the SMALLER MAGNETIC STORMS RECORDED at the ROYAL OBSERVATORY, GREENWICH, from 1874 APRIL to 1927 DECEMBER—*continued*.

Magnetic Storm.								Largest Group of Sunspots within 4 Days of the Central Meridian at Time of Commencement.			
				Ranges.							
Reference No.	Year.	Date of Storm.	Time of Commencement.	Declination.	Horizontal Force. / North Force.*	Vertical Force.	Mean.	Group Number.	Mean Area.	Heliographic Distance from Centre of Disc at C.M.P.	Time of Central Meridian Passage.
201	1909	Mar. 27—29	Mar. 27·7	37′	195γ	186γ	193γ	6642	704	+18°	Mar. 24·6
202	1909	May 18—19	May 18·2 S.C.	31	254	196	206	6670	44	+15	May 18·4
203	1909	Aug. 28—Sept. 1	Aug. 28·7 S.C.	25½	157	79	124	..	0	..	..
204	1909	Sept. 21—22	Sept. 21·5 S.C.	30½	140	122	142	6728	605	−12	Sept. 23·8
205	1909	Sept. 30	Sept. 30·2 S.C.	31	265	196	209	6732	19	− 3	Sept. 30·8
206	1909	Oct. 18—19	Oct. 18·7	41	173	196	197	6746	125	−11	Oct. 20·7
207	1909	Oct. 23	Oct. 23·0 S.C.	25	133	232	167	6746	125	−11	Oct. 20·7
208	1909	Oct. 24—25	Oct. 24·5	34½	124	72	127	6746	125	−11	Oct. 20·7
209	1909	Nov. 30—Dec. 2	Nov. 30·1	31	205	76	149	6774	742	+12	Nov. 27·8
210	1910	Mar. 27—29	Mar. 27·8	51	297	272	281	6828	110	+22	Mar. 29·7
211	1910	Mar. 30—Apr. 2	Mar. 30·8	28½	166	136	152	6828	110	+22	Mar. 29·7
212	1910	June 20—22	June 20·1	38½	276	81	188	..	0	..	..
213	1910	Aug. 21—22	Aug. 21·5	24½	212	147	164	..	0	..	..
214	1910	Aug. 28—30	Aug. 28·6	23½	164	100	130	..	0	..	..
215	1910	Sept. 29	Sept. 29·5	46	177	100	175	6894	717	−21	Oct. 3·0
216	1910	Oct. 5—6	Oct. 5·8	32½	129	81	129	6894	717	−21	Oct. 3·0
217	1910	Oct. 19—22	Oct. 19·3 S.C.	32	84	51	103	6897	509	0	Oct. 21·8
218	1910	Oct. 25—28	Oct. 25·5	29½	154	109	141	6897	509	0	Oct. 21·8
219	1910	Dec. 28—30	Dec. 28·5	35	100	55	115	..	0	..	..
220	1911	Jan. 24—27	Jan. 24·5	37	142	75	139	..	0	..	..
221	1911	Feb. 21—24	Feb. 21·5	35	205	96	163	..	0	..	..
222	1911	Mar. 20—29	Mar. 20·0 S.C.	33½	131	90	134	..	0	..	..
223	1911	Apr. 8—9	Apr. 8·8	38½	158	113	160	6940	144	− 2	Apr. 9·3
224	1911	May 14—16	May 14·7	18	151	95	114	..	0	..	..
225	1911	Oct. 10—11	Oct. 10·7	47	137	132	174	..	0	..	..
226	1912	Aug. 5—6	Aug. 5·7	19	173	91	122	..	0	..	..
227	1912	Sept. 17—18	Sept. 17·6	43½	160	63	153	6999	108	−15	Sept. 15·3
228	1912	Oct. 14—16	Oct. 14·7	32	114	53	113	..	0	..	..
229	1914	Apr. 6—7	Apr. 6·3 S.C.	32½	146	120	147	7030	425	+34	Apr. 5·3
230	1915	Sept. 22—30	Sept. 22·5	32½	151	129	152	7445	52	+15	Sept. 24·1
231	1915	Oct. 14—16	Oct. 14·6	34	118	133	145	7467	326	+ 3	Oct. 13·6
232	1915	Oct. 22—26	Oct. 22·5	47½	160	142	186	7475	516	−20	Oct. 20·1
233	1915	Oct. 31—Nov. 1	Oct. 31·8	36½	148	83	142	7488	229	+16	Oct. 30·1
234	1915	Nov. 5—6	Nov. 5·6 S.C.	46½	235	121	202	7492	131	−25	Nov. 2·3
235	1915	Nov. 15—22	Nov. 15·8	38	125	109	146	7517	114	+10	Nov. 19·4
236	1915	Dec. 6—7	Dec. 6·5	47½	207	116	193	7550	46	+20	Dec. 8·2
237	1916	Jan. 10—13	Jan. 10·6	37	198	48	148	7595	236	+16	Jan. 12·0
238	1916	Mar. 9—10	Mar. 9·3	39	187	253	216	7650	524	−10	Mar. 7·9
239	1916	Mar. 16—21	Mar. 16·8	31	165	127	153	7664	47	+43	Mar. 14·4
240	1916	Mar. 29—Apr. 1	Mar. 29·2	31	136	103	135	7671	558	+21	Mar. 26·3
241	1916	Apr. 25—27	Apr. 25·2	28	172	171	164	7702	298	−22	Apr. 26·6
242	1916	Apr. 27—29	Apr. 27·6 S.C.	28	183	148	160	7702	298	−22	Apr. 26·6
243	1916	May 21—25	May 21·0 S.C.	34	153	115	150	7725	54	+16	May 23·3
244	1916	Aug. 22—24	Aug. 22·8 S.C.	42	229	No trace	228	7800	41	+ 2	Aug. 19·9
245	1916	Aug. 26—27	Aug. 26·8 S.C.	29	239	258	218	8411	1	+ 6	Aug. 30·2
246	1916	Sept. 2—5	Sept. 2·9	31	172	86	141	7811	20	+ 5	Aug. 31·0
247	1916	Sept. 30—Oct. 2	Sept. 30·5	33	172	97	149	7839	10	+16	Sept. 30·0
248	1916	Oct. 5—14	Oct. 5·5	49	192	227	227	7844	72	−29	Oct. 4·0
249	1916	Nov. 3—9	Nov. 3·4	35½	156	60	136	7864	112	+11	Nov. 3·4
250	1916	Nov. 11—13	Nov. 11·8	20	152	30	96	7871	250	+ 6	Nov. 8·8

* From 1916 January to 1925 December inclusive, North Force was registered in place of Horizontal Force.

CATALOGUE II.—CATALOGUE of the SMALLER MAGNETIC STORMS RECORDED at the ROYAL OBSERVATORY GREENWICH, from 1874 APRIL to 1927 DECEMBER—*continued.*

Magnetic Storm.								Largest Group of Sunspots within 4 Days of the Central Meridian at Time of Commencement.			
				Ranges.							
Reference No.	Year.	Date of Storm.	Time of Commencement.	Declination.	North Force.	Vertical Force.	Mean.	Group Number.	Mean Area.	Heliographic Distance from Centre of Disc at C.M.P.	Time of Central Meridian Passage.
251	1917	Jan. 4—5	Jan. 4·2 S.C.	45′	170 γ	250 γ	221 γ	7926	1396	+18°	Jan. 3·6
252	1917	Feb. 15—16	Feb. 15·6 S.C.	37½	134	160	165	7990	182	−11	Feb. 17·0
253	1917	June 23—25	June 23·0	33	143	93	138	8124	419	+11	June 23·4
254	1917	July 31—Aug. 1	July 31·5	28½	153	168	158	8171	373	−20	July 28·7
255	1917	Aug. 20—23	Aug. 20·3 S.C.	46	235	280	254	8207	671	−30	Aug. 18·9
256	1917	Aug. 25—26	Aug. 25·7	30½	161	111	145	8215	493	−24	Aug. 27·1
257	1917	Sept. 5	Sept. 5·3 S.C.	33	164	74	138	8228	312	−22	Sept. 4·9
258	1917	Sept. 29—Oct. 6	Sept. 29·5	31	125	81	124	8270	363	−24	Oct. 1·0
259	1917	Oct. 28—Nov. 1	Oct. 28·4	30	165	80	135	8296	276	−26	Oct. 25·1
260	1917	Dec. 16—17	Dec. 16·3 S.C.	59	175	262	251	8352	408	−12	Dec. 16·5
261	1918	Jan. 29—Feb. 1	Jan. 29·5	45	171	103	172	8421	144	−12	Jan. 26·9
262	1918	Feb. 9—15	Feb. 9·8	36	192	93	159	8428	101	− 2	Feb. 12·7
263	1918	Mar. 7—9	Mar. 7·9 S.C.	45	180	231	218	8446	73	− 5	Mar. 4·2
264	1918	Apr. 10—12	Apr. 10·9 S.C.	27½	137	165	150	8486	120	+22	Apr. 9·7
265	1918	May 16—21	May 16·8	41	184	202	202	8528	128	−19	May 17·5
266	1918	June 9—12	June 9·7	23½	181	155	154	8549	282	+17	June 5·8
267	1918	Sept. 16—23	Sept. 16·0	37	190	143	177	8676	631	−19	Sept. 14·8
268	1918	Oct. 15—20	Oct. 15·5	34½	177	219	194	8709	635	+10	Oct. 17·7
269	1918	Nov. 10—17	Nov. 10·5	37½	130	92	141	8732	90	+ 5	Nov. 6·9
270	1918	Nov. 24	Nov. 24·5	30½	87	33	95	8756	663	−11	Nov. 26·9
271	1918	Nov. 29—Dec. 1	Nov. 29·8	37	175	96	157	8756	663	−11	Nov. 26·9
272	1918	Dec. 7—11	Dec. 7·8	44½	168	163	190	8765	179	−14	Dec. 4·0
273	1918	Dec. 25—26	Dec. 25·2 S.C.	43	181	212	208	8775	575	− 6	Dec. 23·7
274	1919	Jan. 3—7	Jan. 3·8 S.C.	38	155	125	161	8788	82	− 9	Dec. 30·8
275	1919	Jan. 16—23	Jan. 16·5	31½	149	73	130	8798	205	− 3	Jan. 17·0
276	1919	Jan. 31—Feb. 5	Jan. 31·4 S.C.	38½	105	44	119	8817	120	+30	Jan. 29·3
277	1919	Feb. 13—16	Feb. 13·5	32	158	58	129	8833	982	+16	Feb. 14·5
278	1919	Feb. 21—24	Feb. 21·0	36	167	91	150	8834	147	+ 2	Feb. 21·1
279	1919	Feb. 27—Mar. 6	Feb. 27·8	31	152	121	146	8842	235	+14	Mar. 2·7
280	1919	Mar. 19—23	Mar. 19·8	37	179	134	171	8855	444	+24	Mar. 16·3
281	1919	Mar. 27—31	Mar. 27·5	34	128	96	136	8862	451	−13	Mar. 29·5
282	1919	May 1—3	May 1·9 S.C.	44	275	183	231	8890	362	−15	May 3·3
283	1919	Aug. 18—20	Aug. 18·9	21½	188	78	127	9005	1099	− 2	Aug. 19·5
284	1919	Sept. 18—21	Sept. 18·9	38½	175	212	198	9034	6	−18	Sept. 19·9
285	1919	Oct. 1—3	Oct. 1·7 S.C.	36½	225	188	203	9041	283	−15	Oct. 1·9
286	1919	Oct. 4—6	Oct. 4·2 S.C.	42	210	245	227	9041	283	−15	Oct. 1·9
287	1919	Oct. 28—29	Oct. 28·2	31	124	121	137	9059	138	−19	Oct. 30·3
288	1919	Nov. 16—18	Nov. 16·5	31	93	35	98	9068	29	+ 2	Nov. 18·0
289	1919	Dec. 14—16	Dec. 14·2	33	215	73	155	9083	223	+ 5	Dec. 15·1
290	1920	Feb. 16—18	Feb. 16·4	39	158	60	142	9119	258	+11	Feb. 13·9
291	1920	Feb. 24—25	Feb. 24·4	30½	149	180	164	9128	147	+23	Feb. 22·4
292	1920	Apr. 15—16	Apr. 15·0	33	129	139	148	9157	542	− 1	Apr. 16·9
293	1920	May 13—16	May 13·0 S.C.	20½	156	78	115	9178	199	+18	May 9·3
294	1920	June 9—11	June 9·6	21	186	107	135	9193	251	+13	June 12·0
295	1920	Sept. 3—5	Sept. 3·2	25	197	98	143	9227	1114	−21	Sept. 2·9
296	1920	Sept. 22—23	Sept. 22·1 S.C.	36	126	84	134	..	0	..	..
297	1920	Sept. 28—29	Sept. 28·5	46	190	139	192	9235	532	−18	Sept. 28·6
298	1921	May 19—21	May 19·8 S.C.	53	228	77	197	9338	10	− 6	May 16·0
299	1921	Sept. 2	Sept. 2·1	27½	156	106	137	..	0	..	..
300	1921	Oct. 7—9	Oct. 7·8	28½	190	78	140	..	0	..	..

CATALOGUE II.—CATALOGUE of the SMALLER MAGNETIC STORMS RECORDED at the ROYAL OBSERVATORY, GREENWICH, from 1874 APRIL to 1927 DECEMBER—*continued.*

Magnetic Storm.								Largest Group of Sunspots within 4 Days of the Central Meridian at Time of Commencement.			
				Ranges.							
Reference No.	Year.	Date of Storm.	Time of Commencement.	Declination.	North Force* / Horizontal Force.	Vertical Force.	Mean.	Group Number.	Mean Area.	Heliographic Distance from Centre of Disc at C.M.P.	Time of Central Meridian Passage.
301	1921	Nov. 16—18	Nov. 16·3	34′	129γ	71γ	128γ	9399	457	+10°	Nov. 18·3
302	1922	Jan. 8—10	Jan. 8·7	36	162	No Trace	178	9412	33	+11	Jan. 10·1
303	1922	Jan. 24—26	Jan. 24·5	32	163	99	145	..	0	..	..
304	1922	Mar. 12—14	Mar. 12·5	30½	160	86	136	9432	566	+ 2	Mar. 12·1
305	1922	Apr. 8—10	Apr. 8·5	21½	158	72	115	..	0	..	..
306	1922	Sept. 7—9	Sept. 7·3	29	155	88	133	*922a*	3	—18	Sept. 7·8
307	1922	Sept. 14—15	Sept. 14·0	38	196	153	184	..	0	..	..
308	1922	Oct. 4—9	Oct. 4·8	27½	181	160	163	..	0	..	..
309	1922	Oct. 30—Nov. 3	Oct. 30·8	34	159	68	136	..	0	..	..
310	1923	Mar. 24—27	Mar. 24·5	48	228	146	210	9492	27	+13	Mar. 21·2
311	1923	Sept. 26—28	Sept. 26·1	36	154	148	165	9511	168	—24	Sept. 30·0
312	1923	Oct. 14—18	Oct. 14·9	35½	181	161	177	9513	78	— 2	Oct. 14·8
313	1924	Jan. 29—30	Jan. 29·6	41	135	214	190	..	0	...	...
314	1924	June 9—11	June 9·6 S.C.	35	172	188	183	..	0	..	..
315	1924	Oct. 23—25	Oct. 23·0	24½	157	78	122	9576	495	+17	Oct. 19·9
316	1925	June 22—25	June 22·7	31	165	113	148	9673	43	—30	June 20·1
317	1925	Sept. 1—2	Sept. 1·7 S.C.	33½	186	85	150	9708	240	+16	Aug. 29·0
318	1925	Sept. 21	Sept. 21·1 S.C.	16	181	62	110	9741	331	—20	Sept. 23·1
319	1925	Oct. 8—12	Oct. 8·8	31	208	57	144	9751	54	+14	Oct. 7·6
320	1925	Oct. 23—24	Oct. 23·4	35½	172	142	168	9760	815	—25	Oct. 20·5
321	1925	Nov. 8—11	Nov. 8·8	30½	94	87	115	9778	50	—19	Nov. 11·4
322	1925	Dec. 27—29	Dec. 27·6 S.C.	29	154	86	132	9830	2587	+25	Dec. 28·6
323	1926	Jan. 12—16	Jan. 12·8	29	182	67	135	9842	229	+29	Jan. 13·4
324	1926	Jan. 22—23	Jan. 22·6 S.C.	33	177	159	171	9861	3285	+26	Jan. 24·5
325	1926	Mar. 5—6	Mar. 5·4 S.C.	53	229	> 149	> 221	9885	1579	—21	Mar. 3·9
326	1926	Mar. 9—12	Mar. 9·5	45	162	160	188	9891	342	+29	Mar. 10·0
327	1926	Mar. 17—23	Mar. 17·9	24½	167	110	136	9899	401	—13	Mar. 18·6
328	1926	Apr. 5—10	Apr. 5·8	22	153	55	109	9914	81	— 3	Apr. 5·0
329	1926	May 3—13	May 3·9 S.C.	32	167	130	157	9938	872	—16	May 5·9
330	1926	June 1—2	June 1·5 S.C.	41	302	> 106	> 210	9964	242	—16	June 4·3
331	1926	Sept. 14—17	Sept. 14·4	30½	166	No Trace	165	10040	251	+12	Sept. 16·3
332	1926	Sept. 19—22	Sept. 19·6	53	297	276	286	10041	1881	+17	Sept. 19·7
333	1926	Oct. 24—25	Oct. 24·1	32	156	112	147	10072	169	—21	Oct. 22·4
334	1927	Jan. 4—6	Jan. 4·8	32½	112	32	107	10138	866	—10	Jan. 8·5
335	1927	Jan. 7—8	Jan. 7·3	31	151	84	134	10138	866	—10	Jan. 8·5
336	1927	Mar. 26—28	Mar. 26·0	36	112	94	133	10231	31	— 2	Mar. 25·0
337	1927	Apr. 9	Apr. 9·3	30½	108	96	123	10239	697	+19	Apr. 6·9
338	1927	Apr. 14—15	Apr. 14·0 S.C.	52½	113	161	186	10248	541	—12	Apr. 12·8
339	1927	May 3—5	May 3·5	54	148	142	194	10275	240	—15	May 2·0
340	1927	May 27—29	May 27·2 S.C.	31	71	72	103	10307	114	—18	May 29·7
341	1927	Aug. 29—Sept. 1	Aug. 29·0 S.C.	30½	96	84	115	10366	642	—24	Aug. 28·7
342	1927	Oct. 22—24	Oct. 22·3 S.C.	48	298	110	222	10423	344	—10	Oct. 20·5
343	1927	Dec. 13—14	Dec. 13·5	30½	129	72	122	10465	146	+ 6	Dec. 14·4

* From 1916 January to 1925 December inclusive, North Force was registered in place of Horizontal Force.

Printed under the Authority of His Majesty's Stationery Office
By JAS. TRUSCOTT & SON, LTD., Suffolk Lane, E.C. 4.

GREENWICH
PHOTO-HELIOGRAPHIC RESULTS

1927