GREENWICH

PHOTO-HELIOGRAPHIC

RESULTS.

1918.

RESULTS OF MEASURES

MADE AT THE

ROYAL OBSERVATORY, GREENWICH

UNDER THE DIRECTION OF

SIR FRANK DYSON, 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

1918.

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GREENWICH PHOTO-HELIOGRAPHIC RESULTS, 1918.

INTRODUCTION.

§ 1. *Positions and Areas of Sun Spots and Faculæ for each Day in the Year* 1918.

The photographs from which these measures were made were taken at the Royal Observatories of Greenwich or of the Cape ; at the Kodaikánal Observatory, Southern India ; or at Dehra Dûn, North-West Provinces, India.

The photographs of the Sun obtained at Greenwich were taken with the Dallmeyer Photoheliograph, of 4 inches aperture, usually stopped down to 2·9 inches, giving a solar image of about 10-centimetre radius.

The photographs from the Cape Observatory were taken under the superintendence of Mr. S. S. Hough, His Majesty's Astronomer at the Cape, and those from Kodaikánal under the superintendence of Mr. John Evershed, Director of that Observatory. The photographs from Dehra Dûn, which have been forwarded by the Solar Physics Committee to fill the gaps in the combined series, were taken under the superintendence of the Deputy Surveyor-General, Trigonometrical Survey of India. At three of the observatories the instrument employed was a Dallmeyer Photoheliograph giving an image of the Sun about 10 centimetres in radius ; at Kodaikánal a Cooke photo-visual object-glass of 6 inches aperture was used, the image of the Sun being on about the same 10-centimetre scale.

Photographs of the Sun were available for measurement upon each day in 1918, except for November 24, those finally selected for measurement being supplied by the different observatories as under :—

Greenwich	136
Cape	217
Kodaikánal	1
Dehra Dûn	10
Total	364

The names of those persons who measured the photographs for the year 1918 are as follows :—

Annie S. D. Maunder	H. W. Newton
F. Jeffries	E. Martin

At the principal focus of the Photoheliographs 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 respectively perpendicular and parallel to the equator in the Photoheliographs at the Cape and at Dehra Dûn, but are inclined to it at an angle of about 45° in that at Greenwich. In the Kodaikánal Photoheliograph there is one wire fixed parallel to the equator.

The zero of position-angles for the Greenwich, Cape, and Kodaikánal Photoheliographs 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 photoheliograph to this line was measured with the position-micrometer, and a small correction for the inclination of the Sun's path was then applied. The following tables give the correction for zero of position for the mean of the two wires as thus determined for the Greenwich and Cape Photoheliographs.

The zero-correction used throughout the year 1918 in the reduction of the photographs taken at Greenwich was $+ 2°{\cdot}7$.

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

Jan. 1 to March 31, $+ 0°{\cdot}2$; April 1 to Sept. 30, $+ 0°{\cdot}25$; Oct. 1 to Dec. 31, $+ 0°{\cdot}2$.

DALLMEYER PHOTOHELIOGRAPH, GREENWICH.

Date. Greenwich Civil Time.		Correction for Zero.	Date. Greenwich Civil Time.		Correction for Zero.
	d h	° ′		d h	° ′
1918 January	21. 11	+ 2 49	1918 July	31. 9	+ 2 36
,,	21. 11	+ 2 45	,,	31. 9	+ 2 30
March	6. 13	+ 2 58	August	29. 9	+ 2 46
,,	6. 13	+ 2 49	,,	29. 10	+ 2 39
May	27. 10	+ 2 46	October	4. 11	+ 2 38
,,	27. 11	+ 2 46	,,	4. 12	+ 2 53
June	3. 9	+ 2 36	November	5. 10	+ 2 30
,,	3. 10	+ 2 35	,,	16. 11	+ 2 39
July	2. 9	+ 2 32	,,	16. 11	+ 2 35
,,	2. 9	+ 2 51			

DALLMEYER PHOTOHELIOGRAPH, CAPE OF GOOD HOPE.

Date. Greenwich Civil Time.		Correction for Zero.	Date. Greenwich Civil Time.		Correction for Zero.
	d h	° ′		d h	° ′
1918 January	7. 8	+ 0 6	1918 July	8. 10	+ 0 26
,,	22. 10	+ 0 5	,,	23. 10	+ 0 12
February	6. 8	+ 0 5	August	7. 11	+ 0 22
March	9. 8	+ 0 22	,,	22. 9	+ 0 11
,,	24. 9	+ 0 13	September	10. 10	+ 0 4
April	8. 10	+ 0 19	,,	25. 8	+ 0 19
,,	23. 9	+ 0 21	October	15. 8	+ 0 17
May	29. 10	+ 0 7	November	1. 8	+ 0 12
June	21. 10	+ 0 15	December	3. 8	+ 0 11
			,,	17. 10	+ 0 12

The wire frame was removed for cleaning on November 14.

The zero-correction adopted during 1918 for the Kodaikánal photographs was $+0°\cdot1$.

The adjustment of the wires in the Dehra Dûn Photoheliograph was usually tested by stopping the driving clock immediately after a photograph had been taken and making a second exposure some two minutes after the first, a portion of a second image of the Sun, just intersecting the first, being thus obtained upon the plate.

The zero-correction adopted during 1918 for the Dehra Dûn photographs was—$0°\cdot8$.

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 Sun 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 Photoheliograph 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. 520 of the *Nautical Almanac* for 1918.

The inclination of the Sun's axis to the ecliptic is assumed to be 82° 45′, the longitude of the ascending node for 1918·0 to be 74° 37′·0, 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* 1918.

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 1917 and previous years. Groups seen only once are not included, but appear in the Daily Results with a distinctive numeration.

During the year 1918, a number of groups of spots have been noted in the Catalogue as "Revivals." These 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* 1918.

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 both the east and 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. In cases where the evidence appeared to render probable the continued existence of the spot, it has been numbered in the Ledger, and where there has been some uncertainty a note has been added. If, on the other hand, the evidence appeared to go in the other direction, but was not quite decisive, the series has been printed in the Ledger but a separate number has not been given it. It has been distinguished by the number of the preceding series, placed in brackets and marked with an asterisk. In cases where a well-defined series has been recorded, there have sometimes been included in brackets spot groups undoubtedly belonging to the same general disturbance, but for which the evidence of continuity was not sufficient.

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.

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* 1918.

Particulars relating to this section are given in the headings on pages D 146-7.

F. W. DYSON.

Royal Observatory, Greenwich,
1922 *October* 2.

ROYAL OBSERVATORY, GREENWICH.

POSITIONS AND AREAS

OF

SUN SPOTS AND FACULÆ.

FOR EACH DAY IN THE YEAR

1918.

GREENWICH PHOTO-HELIOGRAPHIC RESULTS, 1918.

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POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

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), Dehra Dûn (D). (3) Date of photograph (Civil reckoning).

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.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918			°	°	°				1918			°	°	°			
0·421		·968	252·0					329	1·350	8374	·986	272·9	93·9	+ 2·3	23	304	382*f*
		·937	306·5					155		8382	·985	282·9	92·9	+12·1	0	17	197*f*
		·869	247·2					58		8377	·662	262·1	55·2	− 7·7	77	478	
		·860	298·4					168		8378	·626	286·0	51·2	+ 7·4	27	188	
	8374	·931	273·3	94·4	+ 1·9	69	484	452*f*		*8591*	·485	299·9	39·3	+11·0	0	4	
	8375	·924	260·5	93·7	− 9·9	13	76	129*f*		8384	·213	213·6	20·9	−13·3	0	5	
	8382	·934	284·3	93·7	+12·1	8	23	460*s*	C	8383	·233	353·4	15·6	+10·2	41	222	
	8377	·485	259·6	54·8	− 7·7	84	546			8386	·495	124·8	348·6	−19·2	14	34	
C	8378	·460	293·4	51·3	+ 7·7	39	189			8387	·924	81·5	307·3	+ 6·6	106	590	407*nf*
	8384	·192	149·3	20·5	−12·5	3	7				·785	67·5					54
	8383	·300	42·2	14·5	+ 9·7	37	263				·823	51·1					51
	8386	·607	118·7	352·0	−19·5	3	9				·942	69·1					73
	8387	·984	82·5	307·1	+ 6·8	125	624	139*c*	Jan. 2			(+1·7)	(14·0)	(−3·2)	(296)	(1904)	(1920)
		·873	72·1					176									
		·907	54·3					124									
		·920	115·3					73	2·338		·983	292·4					112
		·939	106·0					114			·953	282·0					129
Jan. 1			(+2·1)	(26·2)	(−3·1)	(381)	(2221)	(2377)			·916	265·5					239
											·905	298·7					109
											·864	245·2					67
										8377	·814	263·0	55·4	− 7·7	78	443	200*c*
1·350		·975	301·9					82	C	8378	·780	282·2	51·0	+ 7·4	26	169	157*c*
		·947	246·7					112		8383	·326	314·8	14·5	+10·0	32	241	
		·940	294·1					155		8386	·342	146·2	349·4	−19·7	5	30	
C		·857	286·3					70		8387	·816	79·6	307·3	+ 6·6	105	619	65*c*
		·848	299·8					74			·852	66·4					40
		·823	265·3					129			·927	79·4					471
	8375	·985	260·3	94·2	−10·2	8	62	134*f*	Jan. 3			(+1·2)	(1·0)	(−3·3)	(246)	(1502)	(1589)

Group 8374, 1917, Dec. 21–1918, Jan 2. A very large regular spot with a small companion to the *s*. From Dec. 24–28, a nebulous cluster of very small spots follows the principal spot.

Group 8375, Dec. 21–Jan. 2. A close pair of spots which coalesce to form a regular spot by Dec. 23. A few very small markings follow the spot on Dec. 27.

Group 8377, Dec. 24–Jan. 5. Revival in region of Group 8344. A large stream of normal type, but in which the leader becomes exceptionally large and the rear spot correspondingly small. The umbra of the leading spot is crossed by "bridges" from Dec. 27–31.

Group 8378, Dec. 24–Jan. 5. Return or revival of Group 8340; on the same meridian as Group 8377. A regular spot slowly contracting. There are a few companions from Dec. 29–Jan. 3.

Group 8382, Dec. 27–Jan. 2. A stream of small spots, *n* Group 8374, of which the last becomes prominent on Dec. 29, but is soon disappearing.

Group 8383, Dec. 27–Jan. 8. A regular spot with a short train of small followers until Jan. 5.

Group 8384, Dec. 28–Jan. 2. A wide pair of very small spots, of which the following is alone visible after Dec. 31.

Group 8386, Jan. 1–6. A short stream of very small spots.

Group 8387, Jan. 1–13. Return of Group 8354. Two large regular spots. The preceding one is the smaller and is gradually disappearing whilst its umbra becomes composite.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918			°	°	°				1918			°	°	°			
3·352		·952	297·3					135	6·349		·968	258·3					92
		·908	251·0					93			·954	246·3					77
		·860	306·3					193			·936	315·3					45
	8377	·929	263·1	55·9	− 7·7	65	434	306*c*		8383	·930	282·3	15·2	+ 9·9	46	208	285*f*
	8378	·900	279·5	50·8	+ 6·9	22	150	388*c*		8388	·806	261·7	1·8	− 8·9	2	5	64*f*
	8383	·507	297·5	14·7	+10·4	37	246			8387	·178	1·7	307·9	+ 6·4	111	654	
C	8388	·209	237·1	357·8	− 9·9	10	54		C	8389	·667	76·5	267·7	+ 6·0	17	106	
	8386	·281	188·9	350·2	−19·6	10	40			8390	·802	69·5	257·7	+13·9	63	418	343*c*
	8387	·662	76·1	307·5	+ 6·4	122	662			8392	·984	107·7	228·2	−18·0	9	46	266*c*
	8389	·984	83·0	268·6	+ 6·3	10	109				·921	108·7					121
		·830	76·2					523			·929	80·1					71
		·846	98·1					54			·949	99·9					165
		·935	72·3					101	Jan. 7			(−0·7)	(308·2)	(−3·8)	(248)	(1437)	(1529)
Jan. 4			(+0·7)	(347·6)	(−3·5)	(276)	(1695)	(1793)									
4·361		·984	286·3					101	7·358		·906	261·4					136
		·956	299·4					116			·861	229·9					20
		·947	250·5					146			·826	247·6					112
		·943	310·8					141		8383	·990	280·8	15·6	+10·1	45	202	389*c*
		·784	257·6					55		8387	·287	308·8	307·8	+ 6·6	101	593	
	8377	·990	262·8	56·4	− 7·7	51	360	294*f*		8391	·208	343·7	298·3	+ 7·5	0	12	
	8378	·976	278·1	50·9	+ 7·1	31	214	263*nf*	C	8389	·487	70·0	267·6	+ 6·1	15	93	
C	8383	·682	289·0	15·2	+10·1	28	261			8390	·670	63·4	256·8	+14·2	68	400	193*f*
	8388	·419	255·0	358·5	− 9·5	7	60			8392	·929	107·7	226·8	−17·8	17	172	332*c*
	8386	·374	223·8	350·2	−19·0	6	70				·828	107·7					141
	8387	·485	69·6	307·3	+ 6·5	117	644				·849	75·2					35
	8389	·925	81·6	267·6	+ 6·4	16	105	126*nf*			·855	96·0					86
	8390	·979	74·7	257·7	+14·1	37	259	121*c*			·973	78·4					202
		·744	75·2					71	Jan. 8			(−1·2)	(294·9)	(−3·9)	(246)	(1472)	(1646)
		·848	67·6					89									
Jan. 5			(+0·2)	(334·4)	(−3·6)	(293)	(1973)	(1523)									
									8·347		·972	260·7					115
											·929	232·1					35
5·564		·958	278·4					45			·917	249·4					157
		·946	313·3					96		8387	·472	291·9	307·9	+ 6·5	98	598	
		·919	258·4					113		*860b*	·258	323·3	290·8	+ 8·0	0	4	
		·911	244·4					76		8389	·305	54·9	267·4	+ 6·2	11	114	
	8383	·854	284·4	15·5	+10·2	36	199	316*f*	C	8390	·515	53·2	256·8	+14·3	66	368	
	8388	·660	260·0	359·5	− 9·4	4	15			8392	·835	109·1	226·0	−18·1	34	348	233*c*
	8386	·563	238·6	349·2	−20·2	5	17				·920	75·3					226
C	8387	·259	46·4	307·7	+ 6·5	104	659				·957	83·5					178
	8391	·405	58·8	298·1	+ 8·5	1	3				·978	104·7					136
	860a	·543	61·0	289·6	+12·0	1	4				·991	116·4					152
	8389	·790	79·0	267·4	+ 6·3	17	96	57*nf*	Jan. 9			(−1·7)	(281·9)	(− 4·0)	(209)	(1432)	(1232)
	8390	·894	72·2	257·4	+14·1	77	440	498*c*									
		·973	102·8					158									
		·983	81·4					56	9·499		·984	249·7					55
Jan. 6			(−0·4)	(318·5)	(−3·7)	(245)	(1433)	(1415)			·918	278·9					25

Group 8388, Jan. 4–7. A small short lived stream.
Group 8389, Jan. 4–13. Return of Group 8353. A small regular spot with two very small followers on Jan. 10.
Group 8390, Jan. 5–18. An active and a very long stream of spots with a regular spot as leader, which at first is the largest component. By Jan. 13 a larger spot has developed in the middle of the stream, whilst a small cluster at the rear has condensed to a single spot by Jan. 15.
Group 8391, Jan. 6–8. A tiny spot not seen on Jan. 7; two are seen on Jan. 8.
Group 8392, Jan. 7–18. A large cluster of partially formed spots, followed by a spot which has become of regular type by Jan. 12. The group is disappearing rapidly after Jan. 14, one component of the cluster alone remaining on Jan. 18.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918			°	°	°				1918			°	°	°			
9·499		·888	289·5					91	12·464		·884	258·3					84
		·875	308·3					50		8387	·986	278·1	307·1	+ 7·2	76	418	402*nf*
	8387	·676	284·3	307·8	+ 6·5	99	510			8396	·972	239·5	304·1	−30·6	0	13	85*p*
	8389	·175	354·3	267·7	+ 5·9	19	96			8389	·664	284·1	267·9	+ 5·9	3	13	
	8390	·341	26·7	257·7	+13·6	74	312			8390	·546	306·1	254·7	+14·8	104	682	
	8392	·667	112·9	226·6	−18·1	41	328			8392	·219	177·7	227·2	−17·0	56	475	
G	8393	·928	117·8	199·5	−27·2	3	15	202*c*	C	8397	·316	65·3	211·1	+ 3·3	7	51	
	8394	·923	98·3	199·3	− 9·3	0	6	180*f*		8398	·921	116·3	161·4	−25·8	5	14	41*c*
		·827	68·7					48			·800	92·9					48
		·864	79·1					226			·856	52·7					51
		·891	106·3					97			·884	101·9					135
		·926	63·3					46			·924	65·6					422
		·969	107·2					127			·939	110·1					130
		·984	70·3					55	Jan. 13			(−3·7)	(227·7)	(−4·4)	(251)	(1666)	(1398)
Jan. 10			(−2·3)	(266·7)	(−4·1)	(236)	(1267)	(1202)									
									13·349		·978	293·7					56
10·550		·972	287·6					73			·976	280·9					313
		·954	304·3					66			·943	254·5					110
		·918	244·0					86			·877	290·3					141
	8387	·829	280·8	307·7	+ 6·5	95	486	162*c*			·792	280·5					52
	8389	·310	304·3	267·8	+ 5·9	12	78			8390	·682·	297·0	254·8	+14·4	87	651	
	8390	·323	341·8	258·7	+13·6	59	254			8395	·428	248·6	240·0	−13·0	1	3	
G	8395	·303	122·2	237·7	−13·4	2	4			8392	·295	220·3	227·5	−17·4	55	343	
	8392	·492	119·4	226·3	−17·7	69	582			8397	·167	32·8	210·8	+ 3·6	3	28	
	8394	·795	98·4	200·3	− 9·3	0	4	192*f*	C	8399	·631	47·0	186·4	+21·5	26	70	
	8393	·832	120·2	199·1	−27·2	8	22	214*c*		8398	·820	117·6	162·9	−25·0	2	7	100*f*
		·770	110·3					66		8400	·986	104·9	135·1	−15·4	73	1086	260*c*
		·900	108·4					164		8401	·990	95·9	134·0	− 6·4	10	89	48*p*
		·931	67·7					154			·774	53·7					58
		·975	96·8					53			·776	103·5					130
Jan. 11			(−2·8)	(252·9)	(−4·3)	(245)	(1430)	(1230)			·874	59·3					151
											·898	68·5					47
											·910	109·8					94
											·958	57·3					64
11·353		·904	292·8					43	Jan. 14			(−4·1)	(216·0)	(−4·5)	(257)	(2277)	(1624)
	8387	·917	279·4	307·7	+ 6·9	82	506	158*c*									
	8396	·912	237·2	306·2	−31·5	2	16	56*c*									
	8389	·463	292·2	267·7	+ 6·1	7	39										
	8390	·393	325·1	255·7	+14·5	72	389		14·310		·949	287·6					116
	8395	·164	156·1	238·4	−12·9	1	7				·924	253·6					61
	8392	·337	131·6	227·1	−17·0	57	429				·873	280·4					135
C	8393	·715	123·9	200·8	−26·7	3	8	62*f*		8390	·812	292·2	254·1	+14·9	135	698	520*c*
	860c	·733	105·5	195·7	−14·2	0	2	59*f*		8392	·460	242·7	228·4	−16·3	26	189	
		·875	63·9					76	C	8397	·194	318·7	210·6	+ 3·8	13	42	
		·949	99·9					91		8399	·525	32·0	185·9	+22·0	38	98	
		·976	112·6					47		8398	·688	122·2	163·5	−25·0	0	3	77*f*
		·978	68·0					125		8400	·943	105·2	132·5	−15·9	119	1704	586*c*
Jan. 12			(−3·2)	(242·3)	(−4·3)	(224)	(1396)	(717)		8401	·952	97·2	130·9	− 8·3	20	117	163*c*

Group 8393, Jan. 10–12. Two small and widely separated spots, of which one only remains on Jan. 12. Group 8394, Jan. 10–11. A very small spot.
Group 8395, Jan. 11–14. One or two very small spots *p* Group 8392; none are seen on Jan. 13.
Group 8396, Jan. 12–13. A pair of very small spots in isolated faculæ. Group 8397, Jan. 13–18. A group of very small spots.
Group 8398, Jan. 13–15. Two very small spots on Jan. 13; one only on the following two days.
Group 8399, Jan. 14–22. Revival of Group 8360. A few small spots on Jan. 14, which rapidly develop and become a stream of normal type. Excepting the leader, a regular spot, the stream soon dies out, but it is represented by conspicuous faculæ at the west limb.
Group 8400, Jan. 14–26. Return of Group 8379. A very large group consisting of two large composite components, which at first practically form a single spot of great extent. The following component is, however, soon disappearing, whilst the leading spot, having also diminished, is last seen at the west limb as a spot nearly of regular type. Group 8401, Jan. 14–26. Return of Group 8366. A small but stable regular spot, followed by a small cluster until Jan. 20, and then by a single small spot until Jan. 23. On the same meridian as Groups 8400, 8402, and 8404.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
14·310	8402	·975	71·6	128·4	+16·8	20	137	320*f*
		·691	52·9					83
		·797	54·0					112
		·828	110·4					113
C		·924	52·2					81
		·943	80·2					78
		·958	115·0					181
Jan. 15			(−4·6)	(203·3)	(−4·6)	(371)	(2988)	(2626)
15·314		·976	253·2					83
		·969	277·2					137
		·877	245·6					65
		·753	256·3					64
	8390	·916	288·8	253·7	+15·1	118	907	878*c*
	8392	·645	250·3	229·2	−16·2	10	116	
	8397	·402	290·6	212·2	+ 3·7	20	76	
C	8399	·452	7·2	186·6	+21·8	50	294	
	8400	·846	106·0	132·5	−16·0	149	1572	461*c*
	8401	·857	97·0	131·0	− 8·5	34	178	123*c*
	8402	·920	68·8	126·3	+17·4	32	205	927*c*
	8403	·976	85·4	113·3	+ 3·4	0	11	74*n*
		·851	76·8					80
		·879	115·8					198
		·955	102·4					473
Jan. 16			(−5·0)	(190·1)	(−4·7)	(413)	(3359)	(3563)
16·353		·954	247·3					77
		·907	256·7					131
		·901	269·6					60
		·891	300·1					121
		·842	241·7					34
		·714	291·9					112
	8390	·982	286·3	253·4	+14·9	96	695	360*c*
	8392	·822	254·1	231·4	−15·8	11	57	316*f*
	8397	·608	282·9	212·7	+ 3·9	7	15	
	860d	·613	302·3	208·7	+15·0	3	9	
	8399	·477	338·1	187·4	+21·4	51	385	
	8400	·705	107·7	132·3	−15·9	139	1362	45*c*
C	8401	·699	96·4	132·1	− 7·9	28	162	27*c*
	8404	·761	118·8	129·3	−24·8	0	2	70*c*
	8402	·802	64·7	127·2	+16·8	36	199	188*c*
	8405	·843	98·0	118·9	− 9·3	0	2	33*s*
	8403	·899	83·6	113·1	+ 3·6	0	5	35*n*
	8406	·987	87·1	96·1	+ 2·0	27	161	·221*p*
		·885	103·1					248
		·906	58·9					154
		·947	122·4					89
		·960	108·9					176

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
16·353		·973	76·1					168
		·979	98·5					50
Jan. 17			(−5·5)	(176·4)	(− 4·8)	(398)	(3054)	(2715)
17·344		·978	293·7					110
		·972	257·6					98
		·971	267·4					119
		·904	303·2					80
		·813	290·0					157
	8390	·994	286·2	245·2	+15·4	31	158	159*f*
	8392	·931	254·9	232·2	−15·8	7	32	747*sf*
	8397	·782	278·5	214·0	+ 3·6	3	10	89*c*
	8399	·577	320·2	186·7	+21·7	58	354	
	8407	·510	43·0	142·1	+17·2	4	16	
	8400	·539	111·4	132·1	−15·5	114	1272	
	8401	·535	97·4	131·1	− 8·0	23	136	
	8404	·619	124·3	129·4	−24·4	0	11	
C	8402	·667	57·6	127·5	+16·9	33	179	60*c*
	8405	·691	101·2	119·9	−11·3	0	3	47*f*
	8406	·920	85·6	97·0	+ 2·0	19	106	260*c*
		·806	105·9					58
		·806	79·7					53
		·838	53·8					211
		·849	68·0					74
		·876	110·6					131
		·899	98·4					71
		·920	75·4					252
		·941	117·2					108
		·947	57·6					72
		·958	102·0					81
Jan. 18			(−6·0)	(163·4)	(− 4·9)	(292)	(2277)	(3037)
18·329		·964	251·8					751
		·956	303·6					79
		·921	223·6					67
		·911	287·4					342
		·881	278·9					177
		·793	241·4					234
	8399	·711	307·6	187·6	+21·7	38	281	
C	*860e*	·491	321·8	168·9	+17·9	0	2	
	8407	·399	19·6	142·4	+17·1	12	49	
	8400	·349	121·2	132·5	−15·1	152	1224	
	8401	·326	99·7	131·6	− 7·9	34	125	
	8402	·529	45·8	127·1	+17·0	25	154	
	8406	·809	83·5	97·0	+ 2·3	25	115	186*f*
		·709	47·0					105
		·780	108·4					46
		·798	124·1					61

Group 8402, Jan. 15–27. Return of Group 8369. A regular spot, followed at some distance by a small companion until Jan. 21, when for two days a small cluster takes its place. Another companion has appeared on Jan. 26.
Group 8403, Jan. 16–17. A very small spot.
Group 8404, Jan. 17–18. A very small spot *s* Group 8400.
Group 8405, Jan. 17–18. A very small spot *f* Group 8401.
Group 8406, Jan. 17–23. Return of Group 8374. A small regular spot rapidly disappearing after Jan. 21.
Group 8407, Jan. 18–25. Intermittent. A pair of small spots which separate considerably. The following spot remains on Jan. 22, but has disappeared by Jan. 23. A spot near the leader's position appears on Jan. 24 and 25.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
18·329		·817	70·2					114	21·351		·974	243·9					91
		·880	56·2					104			·973	253·2					89
		·898	105·0					107			·887	294·5					96
C		·930	118·3					78			·857	305·0					127
		·934	71·8					146			·840	258·5					117
		·954	92·8					69			·745	244·8					40
Jan. 19			(−6·4)	(150·4)	(− 5·0)	(286)	(1950)	(2666)		8399	·992	292·6	190·3	+21·5	11	149	607*nf*
										8407	·604	309·6	139·8	+18·0	4	18	
										8401	·386	264·4	133·3	− 7·0	10	69	
19·485		·973	278·6					258		8400	·404	244·6	132·7	−14·9	87	971	
		·930	249·9					135	C	8402	·457	325·4	126·2	+16·9	18	142	
		·889	257·7					211		*860f*	·213	239·4	121·3	−11·3	0	3	
		·855	239·9					223		8411	·147	22·2	107·4	+ 2·5	14	58	
		·808	249·8					76		8412	·217	151·1	104·4	−16·2	3	19	
	8399	·855	299·0	188·5	+21·4	27	270	299*e*		8406	·265	59·2	97·5	+ 2·6	6	30	
	8407	·406	341·2	143·0	+17·4	9	30			8410	·417	58·4	89·7	+ 7·7	4	11	
	8408	·292	180·4	135·3	−22·0	1	19			8409	·773	96·6	59·9	− 8·5	25	245	104*f*
	8400	·181	167·0	132·8	−15·2	106	1088				·806	62·9					84
C	8401	·079	132·1	131·8	− 8·2	15	109				·812	76·2					207
	8402	·395	18·2	127·8	+16·8	26	188				·908	72·2					280
	8406	·627	79·6	97·2	+ 2·5	11	85				·969	56·6					84
	8409	·970	97·2	58·9	− 8·2	36	293	170*f*	Jan. 22			(−7·8)	(110·6)	(−5·3)	(182)	(1715)	(1926)
		·831	92·2					75									
		·840	120·9					34									
		·884	70·8					84	22·373		·956	280·1					116
		·951	106·6					110			·949	295·6					232
		·955	63·0					43			·931	257·0					121
		·961	75·0					83			·873	246·9					183
Jan. 20			(−7·0)	(135·2)	(−5·1)	(231)	(2082)	(1801)			·803	295·4					79
											·747	245·9					71
										8408	·641	241·7	134·5	−21·9	1	3	
20·456		·961	265·1					96		8401	·595	265·7	133·8	− 6·9	13	75	
		·939	242·2					150		8400	·594	251·9	132·8	−15·0	108	754	
		·933	253·7					170		8402	·582	309·3	125·2	+16·8	14	139	
		·791	297·7					88	C	8411	·225	309·4	107·2	+ 2·8	18	80	
		·747	310·0					63		8412	·196	199·3	101·0	−15·9	18	77	
	8399	·952	294·1	190·8	+21·1	22	120	622*e*		8406	·147	357·3	97·6	+ 3·0	3	8	
	8407	·500	319·0	142·4	+17·1	2	13			8410	·264	27·9	90·1	+ 8·0	11	39	
	8408	·364	216·6	135·9	−22·0	0	5			8409	·606	97·0	59·9	− 8·5	16	154	
	8401	·192	257·0	133·2	− 7·6	21	87			8413	·982	78·2	19·6	+10·5	10	142	89*f*
G	8400	·249	225·2	132·9	−15·2	95	1011				·741	64·9					78
	8402	·380	347·0	127·5	+16·4	21	123				·854	69·6					66
	8406	·444	73·6	97·3	+ 2·5	16	107				·896	78·7					59
	8410	·579	69·8	89·3	+ 7·1	2	6				·928	54·5					182
	8409	·887	96·5	59·7	− 8·2	45	236	208*f*			·934	112·2					124
		·812	67·8					42	Jan. 23			(−8·3)	(97·2)	(−5·4)	(212)	(1471)	(1400)
		·871	108·2					95									
		·909	60·3					94									
		·919	74·8					330	23·479		·922	249·4					127
Jan. 21			(−7·4)	(122·4)	(−5·2)	(224)	(1708)	(1958)			·858	264·6					52

Group 8408, Jan. 20–23. One or two very small spots, *s* Group 8400, not seen on Jan. 22.
Group 8409, Jan. 20–Feb. 1. Return of Group 8377. A regular spot diminishing to a mere dot at the west limb.
Group 8410, Jan. 21–29. Some small spots generally arranged in a stream.
Group 8411, Jan. 22–25. A small stream of spots of short duration.
Group 8412, Jan. 22–29. Revival of Group 8372. On Jan. 21 some faint spots, which develop very considerably within a few days to form a large group. The leader spot is regular and is followed by a large cluster undergoing much change.
Group 8413, Jan. 23–Feb. 2. Return of Group 8383. A small regular spot gradually diminishing. Two small companions appear on Jan. 29 and 30.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
23·479		·738	242·0					44	25·344	8416	·549	53·6	31·1	+13·9	4	23	
	8407	·920	290·0	146·4	+16·0	1	10	128*c*		8415	·567	120·6	26·6	−21·5	4	48	
	8401	·785	265·0	134·4	− 7·4	18	61	30*c*	C	8413	·665	67·2	19·7	+10·5	19	114	
	8400	·781	254·6	133·7	−15·5	89	733	118*c*		8417	·812	99·4	3·6	−10·9	5	25	49*c*
	8402	·759	297·0	127·2	+16·2	11	103	115*c*			·901	41·5					36
	8411	·442	286·6	107·6	+ 2·3	3	16		Jan. 26			(−9·6)	(58·1)	(−5·6)	(245)	(2103)	(2060)
G	8412	·387	238·8	102·7	−16·7	62	385										
	8410	·264	334·8	89·1	+ 8·3	11	59										
	8414	·355	20·3	75·3	+13·9	1	2		26·450		·993	254·5					346
	8409	·389	99·7	59·9	− 8·8	18	139				·973	243·2					147
	8413	·908	75·9	19·3	+10·3	18	146	112*f*			·961	300·9					184
		·831	50·4					61			·955	255·9					141
		·877	113·2					41			·953	293·1					186
		·939	49·0					92			·882	274·5					184
		·944	96·4					73			·858	243·1					67
Jan. 24			(−8·8)	(82·6)	(−5·5)	232	(1654)	993			·841	289·3					108
										8402	·994	287·5	124·9	+16·6	0	65	187*f*
										8412	·844	254·0	101·1	−16·5	107	1042	295*c*
24·319		·957	248·9					90		*860h*	·807	278·7	96·4	+ 3·6	1	3	46*c*
		·849	243·8					179	C	8410	·724	285·7	87·9	+ 7·2	14	35	
		·778	310·4					83		*860i*	·442	235·7	66·2	−19·6	2	7	
		·723	256·3					68		8409	·284	259·3	59·8	− 8·5	10	70	
	8407	·971	288·2	145·2	+16·2	8	18	176*c*		8418	·309	3·3	42·5	+12·2	0	2	
	8401	·891	265·2	134·8	− 6·8	17	76	94*s*		8416	·364	28·7	33·2	+12·9	2	6	
	8400	·883	255·9	133·8	−15·0	56	662	607*c*		8415	·379	135·4	27·0	−21·1	16	58	
	8402	·857	293·1	126·7	+16·5	16	93	181*c*		8413	·478	55·6	20·0	+10·4	14	104	
C	8411	·597	281·6	107·3	+ 2·4	1	3			8417	·615	100·4	5·6	−10·9	1	4	
	8412	·528	247·0	102·0	−16·7	91	711				·790	28·1					47
	8410	·390	308·5	89·5	+ 8·8	10	66				·909	74·0					44
	8414	·351	346·6	76·4	+14·4	0	2				·934	106·3					73
	8409	·208	105·1	59·9	− 8·5	19	125				·964	68·7					98
	8415	·716	114·3	27·4	−21·1	18	64		Jan. 27			(−10·1)	(43·5)	(− 5·7)	(167)	(1396)	(2153)
	8413	·814	72·7	19·5	+10·6	21	119	101*f*									
		·868	95·9					58									
		·905	46·3					92	27·528		·950	284·2					55
Jan. 25			(−9·1)	(−71·6)	(−5·5)	(257)	(1939)	(1729)			·938	264·6					50
											·935	275·3					110
											·906	242·7					53
25·344		·925	244·6					344		8412	·944	254·0	100·6	−17·0	116	1036	481*c*
		·884	305·8					140		8410	·875	281·1	88·9	+ 6·8	18	66	113*c*
		·875	298·0					142	G	8409	·508	262·2	59·8	− 8·9	13	49	
		·794	280·6					113		8415	·260	172·7	27·3	−20·7	28	148	
	8401	·972	264·7	134·8	− 6·4	8	54	262*f*		8413	·317	29·5	20·2	+10·2	9	87	
	8400	·969	255·9	134·6	−15·0	44	569	634*c*		8417,	·419	103·7	4·9	−11·0	8	26	
C	8402	·940	290·0	125·0	+16·5	8	84	231*c*		8419	·989	80·9	308·9	+ 8·1	30	216	105*p*
	860g	·818	256·3	113·0	−14·4	0	3	109*c*			·890	63·1					75
	8412	·701	252·7	102·1	−16·1	136	1051		Jan. 28			(−10·5)	(29·3)	(− 5·8)	(222)	(1628)	(1042)
	8410	·556	294·0	88·8	+ 8·2	6	37										
	8414	·441	321·2	74·6	+14·7	1	7										
	8409	·060	217·0	60·2	− 8·3	10	88		28·476		·961	244·5					89

Group 8414, Jan. 24–26. A single small spot.
Group 8415, Jan. 25–Feb. 3. A short stream of insignificant spots until Jan. 28, when the group becomes prominent as a stream of normal type, but in which the rear component attains little importance.
Group 8416, Jan. 26–27. A diminutive stream.
Group 8417, Jan. 26–Feb. 4. A stream of spots of which the only important member is the leader
Group 8418, Jan. 27–Feb. 1. Intermittent. A very small spot *p* Group 8413; not seen Jan. 28–30.
Group 8419, Jan. 28–Feb. 9. Return of Group 8387. Third apparition. A stable regular spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
28·476		·939	302·7					65	30·496		·924	64·8					71
		·906	288·0					58			·940	105·6					102
		·905	266·7					86	Jan. 31			(−11·8)	(350·2)	(−6·0)	(183)	(925)	(1102)
	8412	·984	253·0	97·6	−17·7	42	312	231*c*									
	8410	·959	279·3	89·0	+ 7·1	8	22	322*c*									
	8420	·762	293·7	62·5	+13·7	12	42										
	8409	·685	263·0	60·1	− 9·1	12	23		31·313		·979	285·9					127
G	8421	·591	247·7	51·7	−17·7	18	65				·943	261·7					86
	8415	·322	216·0	28·4	−20·8	38	192				·887	305·7					68
	8413	·281	347·6	20·3	+ 9·9	5	51				·862	316·7					52
	8417	·190	118·9	7·1	−11·0	18	102			8409	·985	262·4	60·1	− 8·5	0	8	68*c*
	8419	·939	79·0	308·4	+ 8·2	48	266	221*p*		8421	·927	251·9	48·0	−19·0	24	203	186*c*
	8422	·978	120·5	297·9	−31·0	18	118	158*c*		8418	·904	288·8	41·2	+14·1	2	7	93*c*
		·818	61·0					64	C	8415	·802	251·7	32·6	−18·3	12	105	119*f*
		·918	56·3					80		8413	·692	292·1	20·0	+10·4	3	8	
Jan. 29			(−10·9)	(16·8)	(−5·9)	(219)	(1193)	(1374)		8417	·492	259·9	8·9	−10·3	7	37	
										8419	·567	65·7	308·2	+ 8·2	41	256	
										8422	·740	128·5	296·6	−31·9	34	147	85*c*
										8423	·992	75·3	258·9	+13·6	31	153	275*p*
29·484		·978	282·4					59			·896	107·3					101
		·942	241·3					66			·981	115·7					60
		·896	253·1					60	Feb. 1			(−12·1)	(339·5)	(−6·1)	(154)	(924)	(1320)
	8420	·891	288·6	63·7	+13·6	31	139	157*c*									
	8409	·831	263·3	60·0	− 8·8	3	18	96*s*									
	8421	·756	251·3	52·2	−18·0	13	106	26*c*									
G	8415	·481	239·3	29·5	−19·5	46	249		32·341		·975	286·5					106
	8413	·392	314·3	20·1	+10·2	5	17				·947	297·9					123
	8417	·113	223·3	8·1	−10·5	29	147				·905	311·9					74
	8419	·838	76·3	308·5	+ 8·1	41	275	50*c*			·869	323·4					58
	8422	·924	120·9	296·7	−30·6	29	221	191*c*		8421	·983	251·1	46·5	−19·6	13	234	199*c*
		·926	77·7					227		8415	·923	253·3	33·8	−17·7	15	99	397*f*
		·990	105·5					48	C	8413	·835	286·5	20·1	+10·2	1	5	114*c*
Jan 30			(−11·3)	(3·6)	(−5·9)	(197)	(1172)	(980)		8417	·716	262·1	11·8	− 9·9	3	17	76*f*
										8419	·392	51·4	307·9	+ 8·3	28	198	
										8422	·637	134·8	293·9	−31·8	10	98	
										8424	·700	107·3	281·9	−16·4	0	7	
30·496		·962	252·0					36		8423	·943	73·2	257·9	+13·6	10	181	1051*c*
		·940	276·6					94			·929	116·1					114
		·921	295·4					51	Feb. 2			(−12·5)	(325·9)	(−6·1)	(80)	(839)	(2312)
		·892	259·6					71									
	8420	·972	285·2	64·4	+13·2	21	147	165*c*									
	8409	·936	262·6	60·0	− 9·1	1	17	106*p*									
	8421	·857	251·8	49·2	−18·6	31	112	83*c*	33·368		·986	296·3					76
	8418	·823	290·5	42·3	+13·0	2	11	47*c*			·954	307·0					95
G	8415	·683	248·8	32·3	−18·8	34	152				·906	316·5					56
	8413	·557	298·3	20·0	+10·1	2	8				·900	285·3					93
	8417	·348	257·8	10·3	− 9·9	17	80		C	8415	·985	253·5	33·6	−17·3	8	82	270*f*
	8419	·698	71·8	308·3	+ 8·1	40	260			8417	·878	263·5	14·1	− 8·7	4	19	239*f*
	8422	·828	124·2	297·0	−31·4	35	138	118*c*		8425	·393	243·7	333·8	−15·7	6	15	
		·825	74·8					158		8419	·263	16·7	308·0	+ 8·3	31	199	

Group 8420, Jan. 29–31. A small regular spot with a pair of small followers.
Group 8421, Jan. 29–Feb. 2. A short stream of which the last component is a regular spot.
Group 8422, Jan. 29–Feb. 7. Return of Group 8396. Two composite spots gradually dying away. There are occasional very small companions.
Group 8423, Feb. 1–9. Return of Group 8390. A spot with composite umbra; after dividing on Feb. 7 it soon disappears.
Group 8424, Feb. 2–4. A very small spot on Feb. 2; nothing on Feb. 3; a small pair on Feb. 4.
Group 8425, Feb. 3–5. Two or three very small spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
33·368	8422	·498	148·3	294·7	−30·9	5	50		36·309		·678	109·9					72
	8423	·845	69·3	258·1	+13·8	16	121	217*c*			·820	114·3					124
		·844	115·9					99			·831	67·3					142
C		·922	69·1					353	C		·894	80·2					200
		·966	105·5					211			·936	104·2					223
Feb. 3			(−12·9)	(312·4)	(−6·2)	(70)	(486)	(1709)			·948	115·9					82
									Feb. 6			(−14·1)	(273·7)	(− 6·4)	(39)	(327)	(1163)
34·377		·989	249·0					167									
		·979	283·3					115	37·491		·961	289·2					51
		·963	313·9					53			·948	296·4					82
	8417	·959	261·1	13·2	−10·3	3	10	393*c*			·948	255·0					115
	8425	·517	253·1	329·6	−14·1	3	13				·872	279·2					128
	8419	·293	328·5	308·0	+ 8·2	36	202			8419	·785	285·6	307·7	+ 8·0	25	182	92*c*
	8422	·435	170·9	294·5	−31·6	8	28			8422	·690	227·9	295·4	−32·7	0	5	86*c*
C	8424	·363	121·9	280·4	−17·0	1	3			8426	·394	344·2	264·5	+15·7	2	11	
	8426	·626	56·5	266·5	+14·8	1	13			8423	·337	0·2	258·1	+13·0	14	61	
	8423	·714	63·6	258·1	+13·8	12	104	75*c*	C	8427	·913	72·0	195·1	+13·5	6	13	167*f*
		·825	64·0					345		8428	·926	96·9	189·9	− 8·8	1	8	108*f*
		·909	107·9					328			·837	104·8					164
		·933	63·3					79			·855	115·6					117
		·971	112·7					195			·926	108·4					97
		·972	74·9					184			·943	118·4					62
Feb. 4			(−13·3)	(299·1)	(− 6·3)	(64)	(373)	(1934)			·946	64·0					354
											·966	82·3					61
									Feb. 7			(−14·6)	(258·1)	(− 6·5)	(48)	(280)	(1684)
35·385		·979	258·4					166									
		·854	243·0					46									
	8425	·683	256·1	328·8	−14·1	2	5	77*p*	38·452		·954	277·3					115
	8419	·443	302·7	307·9	+ 8·0	26	188				·942	240·3					66
	8422	·451	196·9	294·7	−31·7	8	36				·792	234·0					110
	8426	·508	43·2	264·8	+15·8	4	23			8419	·900	281·9	308·0	+ 7·7	32	174	178*f*
C	8423	·560	54·8	258·0	+13·3	10	110			*861a*	·407	254·1	269·0	−12·3	1	7	
		·759	107·0					93		8423	·391	326·6	258·2	+12·7	13	29	
		·773	55·8					70		*861b*	·808	61·9	197·1	+18·0	0	4	81*c*
		·899	112·2					432		8427	·822	68·1	193·9	+13·8	1	5	105*f*
		·914	71·2					110	G	8428	·815	96·8	190·6	− 9·3	2	6	86*f*
		·949	82·2					126			·866	110·6					79
		·976	73·7					95			·868	79·3					55
Feb. 5			(−13·8)	(285·9)	(−6·3)	(50)	(362)	(1215)			·874	120·1					66
											·906	133·7					47
											·915	60·2					269
36·309		·932	285·9					101			·934	100·5					55
		·882	296·9					89			·951	74·4					88
		·840	257·2					74			·984	110·3					123
	8419	·606	291·8	308·2	+ 7·7	24	168		Feb. 8			(−14·9)	(245·5)	(−6·5)	(49)	(225)	(1523)
C	8422	·521	210·7	292·0	−32·6	3	19										
	8426	·399	18·9	266·0	+15·8	0	18										
	8423	·420	38·5	258·2	+13·0	9	92		39·340		·871	237·5					279
	8427	·987	75·3	195·0	+13·3	3	30	56*n*			·810	250·1					36

Group 8426, Feb. 4–7. A few very small spots *p* Group 8423.
Group 8427, Feb. 6–17. Intermittent. One or two spots which have disappeared by Feb. 9. A small regular spot then appears followed for a few days by small companions.
Group 8428, Feb. 7–18. An irregular stream of spots seen to develop from a single small spot on Feb. 7. The middle of the stream is noticeable on Feb. 11–12, but later the leader, now a small regular spot, is the only important component.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
39·340	8419	·968	280·1	307·8	+ 8·0	27	186	287*f*
	8423	·522	308·9	258·3	+13·0	2	10	
	861c	·279	54·3	220·7	+ 2·9	1	4	
	8428	·714	95·3	188·1	— 8·4	8	24	50*c*
	8429	·950	110·5	161·1	−21·4	2	6	319*f*
C		·734	112·6					62
		·834	54·2					191
		·916	65·3					162
		·926	99·7					55
		·984	70·2					140
Feb. 9			(−15·3)	(233·8)	(— 6·6)	(40)	(230)	(1581)
40·378		·977	281·3					269
		·932	237·5					332
		·861	251·4					99
		·770	296·2					79
	861d	·366	118·7	200·6	−16·3	0	3	
	8427	·519	48·6	196·5	+14·0	2	6	
	8428	·535	94·1	187·7	— 7·7	14	42	
C	8429	·867	111·5	160·0	−21·9	0	11	206*c*
	8430	·996	103·5	133·9	−14·0	11	32	106*p*
		·755	48·7					65
		·811	62·5					59
		·830	101·3					47
		·931	56·3					78
		·951	68·2					298
		·955	96·7					88
Feb. 10			(−15·7)	(220·1)	(— 6·6)	(27)	(94)	(1726)
41·434		·975	238·0					223
		·956	252·3					124
		·876	291·6					284
		·744	301·7					100
	8427	·377	23·2	197·4	+13·6	3	25	
	8428	·323	97·0	187·4	— 8·5	43	256	
	8431	·696	55·8	169·2	+17·7	3	15	
C	8432	·861	61·6	152·5	+ 20·2	0	3	256*f*
	8430	·943	102·4	134·9	−13·9	6	25	305*c*
	8433	·990	86·4	124·9	+ 2·7	59	528	242*c*
		·767	114·3					207
		·860	51·4					86
		·864	96·6					110
		·943	94·4					110
		·973	71·5					328
Feb. 11			(−16·0)	(206·2)	(— 6·7)	(114)	(852)	(2375)
42·313		·934	288·7					221
		·839	297·5					140
	8427	·357	349·4	198·5	+13·8	12	70	
	861e	·441	352·9	197·9	+19·2	1	7	
	8428	·109	107·3	188·6	— 8·5	49	246	
	8431	·585	45·9	168·5	+18·0	12	58	
C	8432	·755	55·3	153·3	+20·4	1	3	160*f*
	8430	·860	101·9	134·8	−13·6	1	14	175*c*
	8433	·944	83·9	124·6	+ 3·4	59	708	123*c*
		·856	93·2					97
		·932	68·4					246
		·950	114·5					134
Feb. 12			(−16·3)	(194·6)	(— 6·7)	(135)	(1106)	(1296)
43·359		·977	287·8					127
		·934	294·0					199
		·897	303·1					66
		·823	253·7					169
	8427	·457	319·6	198·6	+13·8	20	99	
	8428	·149	258·5	189·4	— 8·4	43	219	
	8431	·467	27·1	168·0	+17·8	6	30	
C	8430	·741	100·5	132·9	−12·4	3	23	
	8433	·839	81·5	124·9	+ 3·3	80	857	235*c*
	8434	·953	105·0	107·7	−16·2	24	205	280*c*
		·831	63·7					204
		·870	103·3					113
		·873	116·6					147
		·956	63·3					188
		·974	84·7					132
Feb. 13			(−16·7)	(180·9)	(— 6·8)	(176)	(1433)	(1860)
44·322		·955	294·4					98
		·922	253·0					191
		·850	291·3					100
		·815	244·8					78
		·787	299·8					56
	8427	·600	304·4	198·7	+13·9	21	84	
	8428	·381	263·4	190·6	— 8·8	24	151	
	8431	·411	359·2	168·5	+17·4	1	35	
C	8430	·583	99·1	132·5	−10·8	11	95	
	8435	·721	56·8	129·0	+18·0	1	11	67*f*
	8433	·704	78·0	124·8	+ 3·5	79	958	
	8434	·870	105·0	107·3	−16·4	23	162	340*f*
		·891	62·2					162
		·898	81·2					145
		·932	54·6					94
		·970	80·6					107
Feb. 14			(−17·0)	(168·2)	(−6·8)	(160)	(1496)	(1438)

Group 8429, Feb. 9–10. A very small spot.
Group 8430, Feb. 10–22. Return or revival of Group 8400. A disturbed area, containing a few small spots generally arranged as a short stream.
Group 8431, Feb. 11–15. Two very small clusters of spots, the leading one alone remaining on Feb. 15.
Group 8432, Feb. 11–18. Intermittent. A very small spot on Feb. 11–12; nothing is then seen until Feb. 16, when one or two small spots appear.
Group 8433, Feb. 11–23. A large and irregular stream. The components, excepting the leader which becomes regular, are of indefinite form and unstable in character.
Group 8434, Feb. 13–21. Return of Group 8412. A pair of small regular spots which dissolve into a cluster after Feb. 17.
Group 8435, Feb. 14–17. A very small spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
45·593		·954	256·3					82
		·939	290·0					65
		·907	243·7					118
		·899	278·5					96
		·765	306·4					58
	8427	·779	293·1	198·6	+13·1	9	52	
	8428	·652	264·1	192·3	− 9·1	22	105	
	8431	·498	319·9	170·8	+15·9	1	4	
	861f	·355	128·9	134·4	−19·4	1	6	
G	8430	·331	104·4	132·4	−11·2	7	28	
	8435	·533	40·5	130·2	+17·4	1	4	
	8433	·479	69·6	124·8	+ 3·3	148	844	
	8434	·698	106·9	107·4	−16·7	30	168	89*f*
	8436	·943	60·6	86·8	+24·8	1	12	117*f*
		·752	57·3					57
		·836	48·9					50
		·864	76·0					84
		·982	109·9					26
Feb. 15			(−17·5)	(151·4)	(−6·9)	(220)	(1223)	(842)
46·169		·972	254·4					113
		·949	277·8					122
		·945	242·8					187
		·940	287·9					62
		·859	257·5					172
		·833	301·2					232
	8427	·858	289·9	199·6	+13·1	6	25	89*n*
	8428	·755	264·3	193·2	− 8·8	12	84	119*c*
	8437	·297	218·9	155·3	−20·1	1	3	
	8432	·485	348·3	149·9	+21·4	1	3	
	8430	·170	113·6	134·8	−10·6	3	26	
D	8435	·471	28·7	130·2	+17·6	0	6	
	8433	·375	62·3	124·6	+ 3·5	140	908	
	8434	·598	108·5	107·8	−16·5	32	156	
	8436	·920	59·2	83·6	+24·8	10	102	275*c*
		·795	112·9					247
		·824	48·2					123
		·951	96·3					86
		·956	110·9					136
		·966	76·9					163
		·977	59·3					345
Feb. 16			(−17·7)	(143·9)	(−6·9)	(205)	(1313)	(2471)
47·493		·964	253·0					83
		·934	296·8					235
		·871	249·3					56
G	8427	·967	285·7	199·1	+13·2	12	46	67*n*
	8428	·904	263·5	191·5	− 8·8	9	32	284*c*

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918			°	°	°			
47·493	8437	·510	240·7	154·6	−20·5	0	. 6	
	8432	·600	319·5	150·9	+20·8	8	37	
	8430	·180	253·5	136·4	− 9·7	4	42	
	8435	·408	350·2	130·5	+16·7	3	10	
	8433	·183	9·1	124·7	+ 3·5	176	1008	
	8434	·352	119·9	107·9	−16·6	20	96	
G	8436	·810	52·3	81·6	+24·8	0	6	89*p*
	8438	·807	110·0	72·8	−20·1	2	8	85*f*
	8439	·989	108·9	43·4	−19·6	36	161	73*c*
		·868	97·7					60
		·897	68·7					73
		·900	53·5					200
		·952	106·7					121
Feb. 17			(−18·1)	(126·4)	(−6·9)	(270)	(1452)	(1426)
48·474		·983	293·1					93
		·949	250·5					71
		·919	237·3					69
		·905	304·4					52
		·879	292·5					140
	8428	·965	263·9	188·8	− 7·7	11	40	204*c*
	8432	·730	306·3	152·1	+20·1	0	3	129*p*
	8430	·374	260·9	135·4	− 9·9	7	51	
G	8433	·268	312·0	125·0	+ 3·4	145	923	
	861g	·527	345·5	121·7	+23·6	1	6	
	8434	·193	151·5	108·0	−16·8	12	41	
	8436	·664	41·2	85·1	+23·7	1	3	53*f*
	8438	·670	113·3	72·5	−20·7	2	11	
	8439	·934	108·9	43·6	−20·1	26	179	93*c*
		·816	49·5					172
		·864	107·3					109
		·944	72·7					53
Feb. 18			(−18·5)	(113·5)	(−7·0)	(205)	(1257)	(1238)
49·342		·995	263·5					129
		·982	241·5					31
		·950	290·1					160
		·931	261·1					50
		·826	245·5					183
		·822	300·7					352
C	8430	·561	262·5	136·3	− 9·9	3	17	
	8433	·449	293·6	126·4	+ 3·9	104	802	
	8434	·187	210·2	107·7	−16·2	10	33	
	8438	·483	120·1	75·8	−20·3	2	7	
	8439	·853	109·3	43·4	−20·1	23	140	158*c*
		·723	40·3					168
		·753	108·8					101
		·859	67·7					93

Group 8436, Feb. 15–21. Intermittent. A disturbed area shown by faculæ and a few unstable spots. None are seen on Feb. 19.
Group 8437, Feb. 16–17. One or two minute spots.
Group 8438, Feb. 17–23. Intermittent. A few small unstable spots not seen on Feb. 21.
Group 8439, Feb. 17–Mar. 1. Return of Group 8421. A regular spot slowly diminishing. Occasional very small companions form and disappear near it.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918			°	°	°			
49·342		·957	61·3					63
		·964	109·0					314
C		·972	98·2					67
		·976	73·5					72
Feb. 19			(−18·7)	(102·1)	(−7·0)	(142)	(999)	(1941)
50·366		·944	307·5					144
		·918	295·4					685
		·915	247·6					295
		·864	263·7					143
		·763	302·2					164
		·757	251·3					101
	8430	·726	262·4	135·4	−10·3	12	55	59*c*
	8433	·635	285·3	126·3	+ 4·2	82	647	
C	8434	·369	240·5	108·1	−17·1	8	21	
	8436	·541	8·6	83·5	+25·1	0	5	
	8438	·310	138·4	76·0	−20·2	2	7	
	8611h	·629	27·5	69·6	+27·2	1	6	
	8439	·727	110·8	42·5	−19·8	26	164	47*f*
		·914	73·2					65
		·924	111·0					199
		·946	98·2					185
Feb. 20			(−19·0)	(88·6)	(−7·0)	(131)	(905)	(2087)
51·461		·984	292·1					110
		·963	245·4					73
		·957	258·2					43
		·899	293·8					113
		·877	251·9					67
	8430	·881	262·4	136·4	−10·0	12	70	96*c*
	8433	·804	280·4	126·4	+ 4·0	79	541	104*c*
G	8434	·548	250·4	106·7	−16·6	4	28	
	8436	·535	346·7	81·9	+24·2	1	5	
	8439	·553	116·4	42·5	−20·2	26	160	
	8440	·982	81·0	356·5	+ 7·4	21	114	126*f*
		·822	114·7					65
		·836	96·9					45
		·906	103·4					53
		·983	110·2					80
Feb. 21			(−19·4)	(74·2)	(−7·1)	(143)	(918)	(975)
52·337		·954	253·0					118
		·951	292·0					227
		·901	299·5					73
		·847	247·6					299
C		·811	310·6					114
		·702	252·8					53
52·337	8430	·955	262·0	136·0	− 9·7	2	26	228*c*
	8433	·908	278·0	126·6	+ 4·2	73	404	706*c*
	8438	·310	225·2	76·0	−19·5	0	2	
	8441	·376	346·9	67·6	+14·3	2	6	
C	8439	·404	125·2	42·1	−20·1	25	164	
	8440	·954	78·6	351·8	+ 8·6	57	399	133*c*
		·845	102·8					40
		·944	110·6					184
Feb. 22			(−19·6)	(62·6)	(−7·1)	(159)	(1001)	(2175)
53·330		·977	292·9					85
		·948	251·0					174
		·918	298·7					221
		·912	241·0					116
		·894	307·1					131
		·829	253·1					257
		·723	316·9					146
C	8433	·978	275·3	126·7	+ 3·6	37	362	828*c*
	8438	·458	238·1	74·0	−20·4	3	14	
	8441	·480	319·3	68·4	+14·5	5	24	
	8442	·239	178·1	49·1	−20·8	1	6	
	8439	·257	150·8	42·0	−19·9	23	150	
	861i	·741	106·7	1·8	−17·1	1	8	
	8440	·863	75·7	352·1	+ 8·5	76	495	178*c*
		·863	111·1					121
Feb. 23			(−19·9)	(49·6)	(−7·1)	(146)	(1059	(2257)
54·438		·989	271·4					105
		·970	296·8					226
		·969	280·6					66
		·939	237·6					50
		·921	252·6					381
		·870	285·1					89
		·845	305·6					144
G		·786	246·2					45
		·732	318·0					120
	8442	·382	227·2	52·5	−21·8	0	3	
	8439	·253	206·6	41·9	−20·1	10	111	
	8440	·715	71·1	352·0	+ 8·1	74	468	
		·754	114·2					42
		·947	81·2					131
Feb. 24			(−20·2)	(35·0)	(−7·1)	(84)	(582)	(1399)
55·521		·960	280·0					88
		·956	252·0					237
		·933	269·5					52
G		·933	300·8					193

Group 8440, Feb. 21–Mar. 5. Two regular spots, widely separated, but in the same area of faculæ. The following one has broken up by Mar. 1.
Group 8441, Feb. 22–23. A diminutive stream.
Group 8442, Feb. 23–24. One or two very small spots *p* Group 8439.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
55·521		·889	241·0					59	58·561	8439	·866	250·6	41·0	−20·4	12	43	78*s*
		·848	308·2					118		8445	·891	289·6	40·2	+13·8	2	15	77*c*
		·827	250·6					53		8440	·341	320·0	353·4	+ 8·0	42	263	
	8439	·411	235·2	41·7	−20·2	17	91			8444	·590	68·0	307·3	+ 6·7	25	127	
	8443	·419	26·6	9·6	+14·8	13	39		C	8446	·751	100·9	291·6	−12·9	35	130	155*sf*
G	8440	·528	62·1	352·7	+ 7·8	59	439				·879	123·6					128
	861j	·592	120·6	347·1	−23·5	0	4				·886	94·3					75
	8444	·963	80·4	307·8	+ 7·2	15	121	101*c*			·944	79·6					153
		·841	77·2					64			·964	69·6					118
		·913	117·6					48	Feb. 28			(−21·4)	(340·6)	(−7·2)	(116)	(578)	(940)
Feb. 25			(−20·6)	(20·7)	(−7·2)	(104)	(694)	(1013)									
									59·390		·987	250·8					82
56·357		·976	298·7					169			·874	290·3					44
		·973	249·8					92			·838	251·7					54
		·909	284·0					121			·762	245·8					50
		·908	303·9					132			·752	298·1					57
		·908	250·9					107		8445	·962	286·6	41·1	+13·7	0	9	132*n*
		·886	291·6					114		8439	·940	250·9	40·8	−20·4	6	23	105*c*
		·848	261·0					55	C	8440	·479	301·2	354·0	+ 7·7	41	223	
C	8445	·652	301·2	44·6	+13·8	2	13			8444	·446	58·8	307·2	+ 6·6	19	126	
	8439	·555	243·4	41·5	−20·5	16	69			8446	·609	101·7	292·2	−12·8	28	122	
	861k	·380	323·6	22·9	+10·7	0	3				·805	127·8					63
	8443	·379	356·7	11·0	+15·0	9	46				·877	77·4					94
	8440	·391	48·6	352·5	+ 8·1	48	431				·906	65·8					106
	8444	·897	78·2	307·7	+ 7·2	24	150	126*c*			·962	70·2					126
	8446	·978	102·0	290·7	−13·3	9	102	392*s*	Mar. 1			(−21·6)	(329·7)	(−7·2)	(94)	(503)	(913)
		·905	116·2					56									
Feb. 26			(−20·8)	(9·7)	(−7·2)	(108)	(814)	(1364)									
									60·491		·920	264·9					44
											·889	246·7					54
57·371		·979	251·7					168			·859	293·0					48
		·973	284·7					204		8440	·702	287·5	357·4	+ 6·9	23	172	
		·967	300·1					176		8444	·273	30·0	307·3	+ 6·5	29	133	
		·954	262·5					131	G	8446	·390	105·5	292·6	−12·7	16	88	
		·917	293·8					117			·775	69·1					88
		·851	250·1					162			·894	67·7					83
	8445	·807	293·1	46·0	+13·8	2	7	71*c*			·938	104·3					50
C	8439	·716	248·5	41·4	−20·4	9	51		Mar. 2			(−21·9)	(315·2)	(−7·2)	(68)	(393)	(367)
	8443	·458	324·9	12·1	+15·0	3	8										
	8440	·270	11·7	353·1	+ 8·0	45	291										
	8444	·777	74·9	307·4	+ 6·9	20	137	89*c*	61·369		·978	262·8					101
	8446	·901	101·3	291·3	−13·3	15	94	480*sf*			·953	247·4					122
		·865	115·8					48			·942	289·9					94
		·955	122·3					156			·921	257·9					41
		·967	94·3					62	C	8447	·862	250·4	3·6	−20·5	1	4	90*sf*
Feb. 27			(−21·1)	(356·3)	(−7·2)	(94)	(588)	(1864)		8440	·829	283·3	357·8	+ 6·8	17	114	212*c*
										8444	·245	345·1	307·3	+ 6·4	24	118	
										8446	·210	118·7	292·9	−12·9	18	117	
58·561		·953	251·8					156		8448	·969	84·9	228·8	+ 3·1	2	8	212*p*

Group 8443, Feb. 25–27. An irregular stream of small spots of short duration.
Group 8444, Feb. 25–Mar. 9. Return of Group 8419; fourth apparition. A stable regular spot.
Group 8445, Feb. 26–Mar. 1. A few very small scattered spots.
Group 8446, Feb. 26–Mar. 9. A close pair of small regular spots which have coalesced by Mar. 3. The resultant spot diminishes rapidly.
Group 8447, Mar. 3–5. A small group forming near the west limb.
Group 8448, Mar. 3–4. A very small spot. *See 861c* in previous rotation.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
61·369		·855	105·1					57	64·400		·938	111·6					92
		·908	60·1					177			·961	66·6					96
		·947	96·1					42	Mar. 6			(−22·8)	(263·7)	(−7·3)	(32)	(190)	(815)
C		·951	113·5					86									
		·953	102·5					52									
		·955	73·1					106	65·396		·941	277·8					95
Mar. 3.			(−22·1)	(303·7)	(−7·2)	(62)	(361)	(1392)			·857	253·5					20
										8451	·880	265·3	312·6	− 7·6	9	40	56*c*
										8444	·848	282·2	306·9	+ 6·3	11	99	84*c*
62·398		·874	248·6					98		8446	·673	260·4	293·1	−11·9	6	19	
	8447	·952	250·5	3·5	−20·8	23	161	163*c*		8449	·508	270·8	281·2	− 5·9	2	12	
	8440	·931	280·4	357·2	+ 6·9	17	84	348*c*	C	8450	·772	94·4	199·8	− 8·0	6	11	98*f*
	8444	·371	308·5	307·0	+ 6·4	19	119				·808	62·2					63
	8446	·105	208·3	293·0	−12·5	12	79				·848	112·4					55
C	8448	·884	82·3	229·0	+ 3·3	2	13	160*p*			·898	61·7					146
		·886	56·5					57			·946	101·7					147
		·897	71·1					78			·952	79·2					130
		·948	116·3					84			·985	113·2					90
		·967	80·9					62	Mar. 7			(−23·0)	(250·6)	(− 7·3)	(34)	(181)	(984)
Mar. 4			(−22·3)	(290·1)	(− 7·2)	(73)	(456)	(1050)									
									66·505		·945	254·5					72
63·360		·931	292·6					58			·853	245·2					71
		·908	247·5					57		8451	·976	263·4	314·0	− 8·0	45	244	161*c*
		·761	286·5					49		8444	·952	279·2	306·8	+ 6·4	24	114	147*c*
	8447	·985	249·9	359·4	−21·1	0	40	128*c*		8446	·838	260·8	293·4	−11·6	3	13	122*sf*
	8440	·978	279·1	353·9	+ 7·2	3	65	230*c*		8450	·569	94·4	201·2	− 8·4	5	12	
	8444	·539	294·2	306·9	+ 6·4	18	114		C	8452	·811	104·6	181·5	−16·0	2	13	
	8446	·279	251·1	293·0	−12·2	11	59			8453	·987	69·6	158·5	+18·6	31	315	148*c*
C	8449	·071	282·7	281·4	− 6·4	3	9				·788	53·9					66
		·754	81·0					73			·857	77·1					57
		·899	117·6					115			·903	65·6					62
		·910	83·0					64	Mar. 8			(−23·2)	(236·0)	(−7·2)	(110)	(711)	(906)
		·924	63·7					76									
		·952	106·3					129									
		·959	95·7					261	67·436		·821	287·4					65
		·983	70·3					114			·793	300·8					70
Mar. 5.			(−22·5)	(277·4)	(−7·3)	(35)	(287)	(1354)		8444	·995	277·0	306·9	+ 6·1	0	57	59*f*
										8446	·934	260·2	293·4	−11·6	3	11	206*sf*
										862a	·206	337·9	228·1	+ 3·8	0	1	
64·400		·973	247·2					45		*862b*	·222	145·1	216·1	−17·6	1	3	
		·883	281·5					96	G	8450	·367	95·6	202·1	− 8·8	11	17	
	8444	·715	286·4	307·2	+ 6·4	16	111	28*p*		8454	·618	115·1	187·0	−21·0	3	8	
	8446	·494	258·4	293·2	−12·1	7	45			8452	·686	105·6	180·5	−15·9	10	32	
	8449	·309	273·4	281·7	− 5·9	4	19			8453	·934	67·0	159·0	+18·4	102	585	251*c*
C	8450	·903	95·3	198·7	− 8·0	5	15	212*f*			·916	113·0					74
		·833	120·5					48			·924	97·3					84
		·856	109·3					92			·970	103·0					162
		·915	67·8					106	Mar. 9			(−23·4)	(223·7)	(−7·2)	(130)	(714)	(971)

Group 8449, Mar. 5 - 7. A pair of very small spots.
Group 8450, Mar. 6 -12. Revival near Group 8428. A small spot with a faint companion on Mar. 12.
Group 8451, Mar. 7 - 8. A stream, apparently of normal type, forming at the west limb.
Group 8452, Mar. 8 -12. A few small unstable spots in a short stream.
Group 8453, Mar. 8 -20. A large irregular stream, composed at first of a regular spot followed by two companions. These latter coalesce to form a composite spot which grows considerably, and after becoming more irregular in shape, finally splits into two components by Mar. 19. A spot, of regular type at its maximum development, forms the end of the stream from Mar. 11–18.
Group 8454, Mar. 9 -15. A few small unstable spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
68·349		·949	253·7					143	70·346	8452	·160	155·5	181·5	−15·6	1	11	
		·932	265·8					37		8462	·271	20·5	179·9	+ 7·4	25	55	
		·906	282·6					113		8453	·599	46·2	158·4	+18·1	114	687	
		·877	296·8					83		8455	·621	110·8	147·8	−18·4	14	39	
	8450	·164	100·4	202·4	− 8·8	5	22			8460	·703	71·1	143·4	+ 7·8	5	30	50*c*
	8454	·490	119·8	184·8	−20·5	1	5			8456	·751	81·0	137·7	+ 1·9	2	7	93*f*
	8452	·520	108·4	181·0	−15·6	2	15		C		·831	68·8					91
C	8453	·844	62·6	159·6	+18·3	72	541	139*c*			·876	81·1					221
	8455	·892	106·8	147·9	−18·2	1	8	94*c*			·893	60·8					47
	8456	·969	85·4	136·7	+ 2·6	4	24	145*f*			·895	105·8					48
		·832	115·4					82			·902	94·4					68
		·903	100·6					117			·903	116·5					99
		·943	68·2					135			·974	81·4					104
		·972	78·3					157	Mar. 12			(−24·0)	(185·4)	(− 7·2)	(179)	(913)	(1162)
Mar. 10			(23·6)	(211·7)	(− 7·2)	(85)	(615)	(1245)									
									71·347		·957	294·6					95
											·918	252·7					47
69·551		·963	280·9					55			·898	289·4					73
		958	289·9					105		*862d*	·965	259·4	247·8	−12·1	14	30	114*c*
		·861	304·6					114		*862e*	·942	301·7	235·7	+26·5	1	6	111*c*
	8457	·665	300·8	231·8	+14·1	1	3			8461	·602	328·3	192·4	+24·0	10	41	
	8458	·450	260·1	222·6	−10·8	2	5			8454	·361	229·2	189·1	−20·5	3	27	
	8450	·130	256·8	203·2	− 8·8	4	14			8462	·300	330·3	180·8	+ 7·9	50	360	
	8459	·314	164·2	190·5	−24·7	1	5			8453	·485	28·2	158·3	+18·2	146	813	
	8454	·301	140·8	184·2	−20·5	0	19		C	8455	·454	117·2	147·1	−18·5	12	49	
	8452	·316	117·0	179·0	−15·1	0	3			8460	·530	62·2	144·1	+ 8·0	8	30	
	8453	·701	54·8	159·1	+18·1	108	565			8456	·592	78·1	136·9	+ 1·2	2	8	
G	8455	·759	108·6	146·7	−18·7	28	94	47*c*			·784	77·3					121
	862c	·835	62·6	144·8	+18·1	2	10	57*p*			·881	81·4					57
	8460	·815	75·4	143·4	+ 7·4	5	18	39*c*			·881	118·8					45
	8456	·859	83·3	137·5	+ 2·0	4	11	154*f*			·919	106·5					244
		·789	102·5					36			·954	78·6					85
		·892	74·2					155			·961	61·9					115
		·911	66·7					97			·978	110·4					115
		·944	103·8					45	Mar. 13			(−24·2)	(172·2)	(− 7·2)	(246)	(1364)	(1222)
		·947	82·7					209									
		·955	113·7					50									
Mar. 11			(−23·8)	(195·9)	(−7·2)	(155)	(747)	(1163)	72·466		·982	298·8					52
											·972	285·4					63
											·948	254·4					47
70·346		·971	303·2					88		8461	·740	311·0	194·7	+23·3	1	3	
		·947	291·6					83		8454	·523	242·4	186·8	−20·2	9	35	
		·881	301·8					124	G	8462	·469	302·0	181·0	+ 7·7	56	335	
	8457	·787	295·2	232·6	+14·7	2	3	46*f*		8453	·429	358·4	158·1	+18·1	159	886	
	8458	·571	266·5	220·4	− 8·0	0	2			8460	·305	33·5	147·7	+ 7·6	2	11	
	8450	·293	265·3	202·5	− 8·3	1	6			8455	·308	137·8	144·7	−20·1	1	9	
C	8461	·531	347·7	192·5	+24·0	9	37			*862f*	·455	47·7	137·4	+11·0	0	6	
	8459	·312	196·9	191·1	−24·4	2	10			8463	·617	60·8	124·2	+11·5	0	12	
	8454	·229	186·0	186·9	−20·3	4	26				·827	109·8					80

Group 8455, Mar. 10–16. A short stream of spots which have nearly died out by Mar. 14.
Group 8456, Mar. 10–15. Return of Group 8433. A very small spot not seen on Mar. 14.
Group 8457, Mar. 11–12. A minute spot.
Group 8458, Mar. 11–12. A very small spot.
Group 8459, Mar. 11–12. One or two very small spots *sp* Group 8454.
Group 8460, Mar. 11–21. A small stream of feeble but sustained activity.
Group 8461, Mar. 12–17. A short stream, almost disappearing on Mar. 14 but re-forming on Mar. 16 with a regular spot as leader.
Group 8462, Mar. 12–18. Two small spots on Mar. 12 developing rapidly into a regular spot, followed by a cluster of small companions which die out at the west limb.
Group 8463, Mar. 14–20. A disturbed area, *f* Group 8460, containing a few small unstable spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
72·466		·879	59·6					79	75·496		·931	250·3					212
		·924	52·7					92			·909	305·6					64
G		·943	113·6					120		8461	·991	295·2	195·7	+23·7	16	135	192*c*
		·976	80·4					216		8462	·913	282·2	181·6	+ 8·0	42	287	155*c*
		·978	63·8					106		8453	·740	303·8	157·9	+18·9	135	1109	
Mar. 14			(−24·4)	(157·4)	(− 7·2)	(228)	(1297)	(855)		8460	·550	294·6	147·6	+ 7·1	13	50	
										862g	·560	310·3	143·6	+14·8	3	15	
									C	*862h*	·419	301·4	138·5	+ 6·0	0	9	
73·411		·899	294·4					45		8463	·375	317·8	132·2	+ 9·2	3	15	
		·877	254·1					73		8464	·433	68·1	93·9	+ 2·8	31	141	
		·870	265·7					102			·713	47·6					69
		·870	242·7					92			·885	112·2					63
		·807	289·5					60			·912	52·4					111
		·768	264·0					59			·957	71·4					111
	8461	·829	306·6	192·0	+24·8	6	31	104*c*			·965	112·3					102
	8454	·698	248·7	188·6	−19·9	2	7	43*c*	Mar. 17			(−24·8)	(117·5)	(−7·1)	(243)	(1761)	(1131)
	8462	·629	291·3	181·1	+ 7·4	68	404										
	8453	·477	332·7	158·3	+18·0	147	933										
G	8460	·256	344·4	149·0	+ 7·1	3	8		76·503		·976	250·1					182
	8455	·225	175·4	143·9	−20·0	1	12				·867	306·2					65
	8456	·246	47·5	134·6	+ 2·5	1	2			8462	·979	279·9	180·9	+ 8·1	39	258	203*s*
	8463	·390	45·7	128·7	+ 8·9	10	24			8453	·850	297·5	156·9	+18·7	140	973	534*c*
	8464	·792	80·5	93·7	+ 3·1	2	5	14*c*		8465	·736	259·3	151·8	−12·7	5	25	
		·819	50·3					88		8460	·706	288·3	146·6	+ 7·5	23	78	
		·906	78·5					314	C	8463	·524	300·7	131·2	+ 9·1	4	19	
		·906	111·7					71		8464	·222	41·1	95·8	+ 2·5	35	156	
		·933	101·5					77			·857	47·6					83
		·937	60·4					107			·888	113·7					129
Mar. 15			(−24·5)	(145·0)	(− 7·1)	(240)	(1426)	(1249)			·906	68·5					108
											·993	114·4					45
									Mar. 18			(−25·0)	(104·2)	(−7·1)	(246)	(1509)	(1349)
74·534		·972	289·2					84									
		·953	247·1					57									
		·951	264·3					122	77·357		·932	301·7					73
		·858	249·6					117			·740	248·3					52
	8461	·945	297·8	195·5	+23·3	38	213	338*c*		8453	·929	294·1	156·8	+19·2	81	924	754*c*
	8462	·798	284·8	181·1	+ 7·3	66	388	94*c*		8465	·845	260·5	151·1	−11·9	19	98	178*c*
	8453	·612	312·7	158·4	+18·2	171	1187			8460	·824	284·9	146·3	+ 8·0	19	100	121*c*
G	8460	·385	308·3	147·8	+ 7·0	0	16			8463	·676	292·2	132·2	+ 9·3	5	9	45*p*
	8455	·308	224·0	143·3	−19·7	0	5			*862i*	·551	258·1	126·4	−12·4	1	4	
	8463	·272	358·2	130·7	+ 8·6	5	35			8464	·196	339·1	97·0	+ 3·4	20	143	
	8464	·605	76·0	94·4	+ 2·6	5	23		C	8466	·253	344·7	96·8	+ 6·9	4	20	
		·785	74·6					69		*862j*	·239	35·5	85·0	+ 4·2	1	18	
		·821	57·0					49		*862k*	·953	113·7	19·4	−24·7	0	8	39*c*
		·826	54·7					102		8467	·972	73·5	19·3	+14·1	6	94	133*c*
		·951	111·1					106		8468	·984	107·1	11·8	−18·0	20	205	240*c*
Mar. 16			(−24·7)	(130·2)	(−7·1)	(285)	(1867)	(1138)			·768	41·1					51
											·792	113·5					40
											·816	63·2					83
75·496		·953	262·4					52	Mar. 19			(−25·1)	(93·0)	(−7·1)	(176)	(1623)	(1809)

Group 8464, Mar. 15–23. Two spots on Mar. 15, which multiply and form a stream of unstable character.
Group 8465, Mar. 18–21. A small group forming near the west limb.
Group 8466, Mar. 19–20. A small stream *n* Group 8464.
Group 8467, Mar. 19–23. A spot, at the east limb on Mar. 19, which is disappearing on the succeeding days.
Group 8468, Mar. 19–31. A group consisting of a stable regular spot, *n* of which numerous small companions appear arranged as a stream. These have died out by Mar. 29, at the same time that the regular spot is also disappearing.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
78·405		·963	246·9					66	80·413		·837	73·5					123
		·929	290·4					109	G		·954	103·5					38
		·882	248·0					139			·957	64·7					31
		·878	287·3					116	Mar. 22			(−25·5)	(52·7)	(−6·9)	(71)	(357)	(1271)
		·846	276·4					123									
		·842	299·5					108									
	8453	·983	290·3	155·3	+18·4	97	625	450*c*	81·393		·939	282·1					138
	8460	·947	280·1	148·9	+ 7·2	5	84	215*c*			·939	268·4					73
	8465	·933	259·1	148·8	−12·7	17	85	249*c*			·926	295·3					173
G.	8463	·806	286·3	130·5	+ 8·7	0	3	128*c*			·919	239·2					115
	8469	·354	257·7	99·7	−10·9	1	5				·905	307·2					147
	8464	·361	297·5	97·8	+ 2·9	20	107				·903	252·4					105
	8466	·390	306·3	97·6	+ 6·6	9	25				·839	287·9					27
	8467	·885	69·9	20·4	+14·1	15	71	101*f*			·772	311·9					87
	8468	·918	107·3	11·8	−18·6	33	218				·745	287·8					42
	8470	·970	108·4	1·9	−19·5	30	168	202*c*		8464	·881	278·1	100·5	+ 3·8	2	11	236*f*
		·918	106·6					330		8469	·866	260·9	100·3	−11·3	8	31	86*c*
		·974	80·4					54	G.	*8621*	·501	232·0	65·3	−24·1	1	8	
Mar. 20			(−25·3)	(79·2)	(−7·0)	(227)	(1391)	(2390)		*862m*	·387	254·2	62·1	−12·4	2	2	
										8467	·479	43·8	19·9	+13·6	1	7	
										8468	·506	113·3	10·7	−17·6	42	222	
79·419		·964	249·8					104		8471	·609	88·6	2·3	− 4·6	1	4	
		·961	286·7					181		8470	·636	112·0	1·3	−19·2	18	114	56*f*
		·945	273·5					192		8472	·851	103·8	341·0	−15·3	8	18	35*c*
		·897	280·3					290		8473	·979	93·6	321·4	− 5·0	50	226	206*c*
	8465	·987	258·0	147·7	−13·0	3	24	85*sf*			·727	66·7					155
	8460	·987	278·1	145·3	+ 6·8	3	18	239*c*			·914	63·0					44
	8464	·536	286·2	96·7	+ 2·6	17	50				·942	78·8					112
G.	8467	·758	64·5	21·1	+14·1	7	20	61*f*	Mar. 23			(−25·6)	(39·8)	(−6·9)	(133)	(643)	(1837)
	8468	·809	108·2	11·7	−18·8	32	164	215*c*									
	8470	·892	108·3	2·1	−19·5	13	124	280*sf*									
	8471	·908	92·7	0·6	− 4·5	2	11	44*f*	82·364		·966	237·9					82
		·897	51·6					57			·963	255·3					53
		·932	77·6					146			·961	303·2					163
		·936	68·4					57			·938	283·6					102
Mar. 21			(−25·4)	(65·8)	(−7·0)	(77)	(411)	(1951)			·937	276·1					406
											·894	252·3					84
											·883	231·0					46
80·413		·956	269·1					69			·871	303·5					142
		·949	279·3					272			·870	284·1					104
		·877	242·1					47	C.		·855	243·7					135
		·851	299·9					111		8469	·956	260·7	100·7	−10·9	12	28	144*c*
		·818	312·9					114		8468	·328	125·7	10·8	−17·7	38	237	
		·816	251·3					26		8470	·466	117·5	1·3	−18·6	16	105	
	8469	·719	260·9	98·9	−11·3	1	13			8474	·718	113·9	342·2	−21·8	4	17	
G.	8464	·735	280·7	98·8	+ 3·1	6	21			8472	·740	104·1	339·2	−15·0	13	51	
	8467	·626	57·3	20·0	+13·9	5	12			8473	·913	91·9	321·0	− 4·5	46	278	348*f*
	8468	·679	109·7	10·6	−18·3	31	190	61*c*			·870	76·1					72
	8470	·782	109·1	1·4	−19·2	22	107	345*f*			·989	80·1					59
	8471	·782	90·8	1·2	− 5·0	6	14	34*c*	Mar. 24			(−25·7)	(27·0)	(−6·9)	(129)	(716)	(1940)

Group 8469, Mar. 20–24. A very small spot on Mar. 20, not seen the next day; a pair of spots afterwards.
Group 8470, Mar. 20–31. Return of Group 8447. A regular spot *f* Group 8468, with a few very small followers until Mar. 23.
Group 8471, Mar. 21–23. A small spot with a companion on Mar. 22.
Group 8472, Mar. 23–31. A pair of small spots near the east limb; the leader becomes a cluster and then a composite spot; the follower shows a more extensive development as a regular spot. Both disappear rather rapidly.
Group 8473, Mar. 23–Apr. 4. Possible return of Group 8451. A stable regular spot with a few small companions after Mar. 27.
Group 8474, Mar. 24–29. A small but distinct spot *sp* Group 8472.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
83·358		·994	258·9					132	86·372		·951	288·5					114
		·990	276·0					165			·937	248·0					147
		·939	301·1					145		8468	·599	247·5	9·7	−18·7	20	124	
		·927	252·8					129		8470	·485	243·3	1·2	−18·6	11	56	
		·926	278·7					228		8474	·333	211·4	344·9	−23·0	3	7	
		·919	289·6					102	C	8472	·158	209·1	338·6	−14·6	40	256	
		·919	242·9					136		8473	·226	80·6	321·2	− 4·4	43	254	
		·867	263·2					92		8475	·514	64·3	306·4	+ 6·9	0	6	
		·822	313·2					99		8476	·982	103·9	253·8	−14·9	8	39	91*c*
C	8468	·192	163·0	10·4	−17·3	46	267				·942	67·3					79
	8470	·297	134·9	1·0	−18·6	14	98		Mar. 28			(−26·1)	(334·1)	(−6·7)	(125)	(742)	(431)
	8474	·561	120·2	342·4	−22·1	10	29										
	8472	·582	106·2	338·6	−14·9	36	280										
	8473	·794	90·6	321·2	− 4·6	44	231	321*f*									
	8475	·932	79·1	306·6	+ 7·6	7	33	145*c*	87·394		·974	247·5					95
		·742	70·1					201			·939	266·2					32
		·850	74·9					51			·873	291·3					66
		·961	102·3					126		8468	·749	250·1	8·6	−19·2	13	60	272*p*
		·973	110·0					151		8470	·658	249·5	0·9	−18·4	5	26	
Mar. 25			(−25·8)	(13·8)	(−6·8)	(157)	(938)	(2223)		8474	·480	232·7	345·0	−23·0	1	4	
									C	8472	·320	245·1	337·9	−14·1	42	164	
										8477	·348	187·7	323·6	−26·8	1	5	
84·434		·967	243·3					69		8473	·042	343·3	321·3	− 4·4	44	242	
		·883	311·5					110		8475	·370	45·9	305·1	+ 8·5	0	5	
		·878	297·8					69		8476	·914	103·1	253·9	−14·7	9	13	301*f*
		·850	245·3					53			·831	62·3					63
	8468	·270	224·7	11·1	−17·7	31	216				·925	63·2					64
	8470	·208	186·3	1·1	−18·6	14	90		Mar. 29			(−26·1)	(320·6)	(−6·7)	(115)	(519)	(893)
G	8474	·378	139·5	344·3	−23·2	4	15										
	8472	·375	113·3	338·9	−14·9	60	439										
	8473	·623	89·1	321·2	− 4·7	55	264										
	8475	·821	76·5	306·4	+ 7·0	12	44	45*c*	88·403		·984	234·7					47
	863a	·899	107·0	295·1	−18·2	2	9	45*f*			·960	288·4					153
		·883	103·3					75			·913	243·6					92
Mar. 26			(−25·9)	(359·7)	(−6·8)	(178)	(1077)	(466)			·911	270·6					65
											·846	288·3					81
											·787	242·8					49
85·369		·960	302·6					192		8468	·875	251·4	8·6	−19·5	10	74	366*c*
		·950	250·0					164		8470	·805	251·9	0·9	−18·5	3	18	106*c*
		·879	293·5					85	C	8472	·511	253·4	337·5	−14·1	18	98	
		·825	246·4					144		8477	·428	212·8	322·4	−27·4	20	87	
	8468	·440	242·6	11·4	−17·8	26	169			8473	·243	278·6	321·2	− 4·4	37	257	
C	8470	·312	227·4	1·3	−18·8	13	71			8476	·802	103·6	253·8	−14·8	7	13	311*f*
	8474	·285	172·1	344·9	−23·1	3	17				·933	110·8					52
	8472	·198	135·2	339·0	−14·8	58	353				·937	60·2					154
	8473	·439	85·5	321·4	− 4·2	59	252				·955	47·6					81
	8475	·686	72·0	306·4	+ 7·1	3	29				·983	75·4					130
		·936	78·6					84			·996	86·4					202
Mar. 27			(−26·0)	(347·3)	(−6·8)	(162)	(891)	(669)	Mar. 30			(−26·2)	(307·3)	(−6·6)	(95)	(547)	(1889)

Group 8475, Mar. 25–29. Possible return of Group 8444 ; fifth apparition. Perhaps a revival only. Two or three small faint spots.
Group 8476, Mar. 28–Apr. 8. A small spot *f* which a stream is developing on Mar. 31 in the same faculous area. The component spots, however, are small and also unstable, and the group, though persistent, is generally insignificant.
Group 8477, Mar. 29–Apr. 3. A small distinct spot followed by a small cluster which disappears on Apr. 1.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
89·435		·938	243·2					44	91·366	8479	·804	68·2	218·3	+13·2	141	775	214*c*
		·900	286·2					87		8480	·809	104·5	214·0	−15·5	9	31	97*f*
		·820	243·2					44		8482	·921	66·7	205·3	+18·5	14	64	138*c*
	8468	·960	251·6	8·5	−19·5	14	39	253*c*		8483	·994	82·5	185·5	+ 6·6	35	140	65*c*
	8470	·915	252·7	0·5	−18·5	1	9	224*f*			·716	80·4					40
	8472	·698	256·1	337·9	−14·4	9	36		G		·822	93·5					89
	8477	·562	229·0	322·1	−27·4	11	43				·918	122·5					51
	8473	·471	272·7	321·7	− 4·5	48	247				·948	99·2					71
	8478	·335	161·3	286·9	−25·0	4	21				·953	112·5					75
G	8476	·712	103·6	248·3	−14·3	29	102				·979	62·5					74
	8479	·978	75·2	218·0	+13·0	123	806	344*c*	Apr. 2			(−26·3)	(268·2)	(−6·4)	(272)	(1405)	(1389)
	8480	·979	104·3	214·4	−15·3	0	26	187*c*									
		·885	54·8					79									
		·892	71·2					67	92·351		·978	255·4					103
		·899	44·8					49			·963	210·0					49
		·949	85·1					279			·949	295·0					119
		·967	54·2					48			·936	282·4					130
		·975	96·9					80			·912	256·6					59
Mar. 31			(−26·2)	(293·7)	(−6·6)	(239)	(1329)	(1785)			·817	297·8					56
										8477	·953	245·7	328·3	−25·0	3	15	103*f*
										8473	·919	268·2	322·0	− 4·2	55	249	216*f*
90·668		·977	251·5					163		8478	·619	239·8	290·7	−23·3	26	102	
		·931	246·3					124		8481	·097	209·4	258·0	−11·3	0	12	
		·908	285·7					40		8476	·153	152·2	251·0	−14·1	7	48	
		·874	257·1					130	C	8479	·658	61·3	218·9	+13·3	129	800	
	8477	·767	241·3	325·7	−26·0	7	17	44*c*		8480	·658	106·6	214·5	−15·6	5	19	65*f*
	8473	·705	271·1	322·2	− 3·9	59	316			8482	·810	62·1	206·5	+18·0	34	147	161*c*
	863b	·688	255·3	320·7	−14·8	1	6			8483	·944	80·6	185·8	+ 6·6	34	147	180*c*
	8478	·356	210·6	288·8	−24·1	21	45				·786	122·8					62
	8481	·346	107·7	257·8	−12·1	3	12				·849	98·2					92
G	8476	·484	108·1	249·2	−14·4	26	97				·853	111·5					83
	8479	·880	71·1	218·8	+13·3	130	907	260*c*			·906	114·7					83
	8480	·886	104·1	214·5	−15·5	13	44	221*c*			·930	58·6					111
		·807	38·4					65			·938	106·6					102
		·818	82·1					127			·986	70·6					50
		·830	49·3					41	Apr. 3			(−26·4)	(255·2)	(−6·4)	(293)	(1539)	(1824)
		·910	93·1					104									
		·948	53·1					40									
		·971	69·3					94	93·366		·974	256·9					59
Apr. 1			(−26·3)	(277·4)	(−6·5)	(260)	(1444)	(1453)			·970	242·7					121
											·967	280·4					64
											·895	281·2					72
91·366		·954	247·7					59			·828	255·5					68
		·942	256·9					188	C	8473	·982	267·2	321·1	− 3·9	44	241	231*f*
		·929	281·6					75		8478	·768	245·0	290·8	−23·1	31	141	75*c*
	8477	·867	244·5	327·8	−25·2	4	10	72*f*		8481	·263	251·6	256·5	−10·8	5	24	
G	8473	·806	269·5	321·9	− 4·2	55	259	81*c*		8484	·558	348·6	248·9	+26·8	1	7	
	8478	·453	228·3	289·7	−23·4	8	69			8476	·171	224·6	248·9	−13·2	14	72	
	8481	·185	123·8	259·2	−12·2	0	4			8485	·286	57·0	228·0	+ 2·8	0	6	
	8476	·328	117·3	250·7	−14·7	6	53			8479	·501	49·6	218·8	+13·1	109	792	

Group 8478, Mar. 31–Apr. 7. A small stream of little importance until Apr. 4, when a well-defined regular spot is forming as the leader.
Group 8479, Mar. 31–Apr. 11. A large stream of normal type. The leader becomes very large and elongated by Apr. 6, after which a portion separates from the *f* side. Meanwhile the rear component of the stream, at first a regular spot, is disappearing as a cluster.
Group 8480, Mar. 31–Apr. 5. A small double spot fading out. A small companion follows on Apr. 4.
Group 8481, Apr. 1–8. A feeble stream of spots *np* Group 8476.
Group 8482, Apr. 2–11. A stream of spots in continual change *f* Group 8479. The end portion of the group has dispersed by Apr. 9.
Group 8483, Apr. 2–14. Return of Group 8462. A regular spot rapidly disappearing after Apr. 10. There are a few small followers on Apr. 8–10.
Group 8484, Apr. 4–9. Intermittent. A pair of minute spots on Apr. 4. On Apr. 6, a stream of normal type is developing in their place.
Group 8485, Apr. 4–6. A very small spot seen only on Apr. 4 and 6.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
93·366	8480	·497	110·5	213·0	−15·5	6	16	
	8482	·685	54·7	205·9	+18·2	35	168	
	8483	·847	78·0	185·5	+ 6·6	29	135	146*f*
	8486	·980	71·4	166·1	+16·8	5	30	282*c*
		·806	55·7					177
		·860	106·4					43
C		·886	54·7					88
		·935	67·3					83
		·970	98·8					109
		·980	81·0					121
		·982	66·2					98
		·985	105·4					152
Apr. 4			(−26·4)	(241·8)	(−6·3)	(279)	(1632)	(1989)
94·358		·962	278·6					88
		·917	256·4					95
		·849	235·2					31
	8478	·889	248·0	291·5	−22·4	58	330	221*c*
	8481	·486	259·0	257·6	−10·8	9	45	
	8476	·395	248·5	250·9	−14·1	10	46	
	8487	·176	29·8	223·7	+ 2·5	0	5	
	8479	·366	24·4	219·8	+13·2	129	736	
	8480	·290	122·7	214·1	−15·0	1	6	
C	8482	·544	41·2	206·6	+18·3	31	162	
	8483	·711	74·0	185·4	+ 6·7	21	139	98*f*
	8486	·917	68·8	165·8	+16·5	21	95	215*c*
		·811	49·8					60
		·898	98·9					118
		·939	105·2					209
		·946	63·8					309
		·948	78·5					508
		·979	68·2					302
		·986	79·8					161
Apr. 5			(−26·4)	(228·7)	(−6·3)	(280)	(1564)	(2415)
95·328		·973	259·6					70
		·920	286·6					48
		·866	296·2					44
	8478	·966	249·0	292·0	−21·8	37	304	361*c*
	8481	·688	261·2	259·5	−10·5	0	27	
C	8476	·559	254·2	249·4	−13·9	15	50	
	8484	·715	319·2	247·5	+27·4	16	72	
	8485	·267	305·8	228·4	+ 2·9	0	4	
	8487	·215	317·1	224·3	+ 2·9	0	4	
	8479	·363	343·6	221·9	+14·1	112	758	
	8482	·447	20·1	206·6	+18·6	9	73	

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918			°	°	°			
95·328	8483	·542	67·6	185·7	+ 6·6	19	115	
	8486	·794	63·8	168·1	+16·4	27	170	362*c*
	8488	·935	70·4	149·9	+15·8	1	31	139*f*
		·763	101·0					55
C		·838	106·2					85
		·844	76·2					346
		·919	64·6					571
		·922	108·2					70
		·927	76·4					158
		·963	86·2					190
Apr. 6			(−26·4)	(215·9)	(−6·2)	(236)	(1608)	(2499)
96·555		·919	297·4					52
	8478	·991	244·8	283·7	−25·7	0	36	248*c*
	8481	·846	261·2	257·8	−10·7	5	25	218*c*
	8476	·764	257·2	249·6	−13·7	21	66	189*c*
	8484	·852	307·0	249·3	+26·9	38	248	128*c*
	8487	·446	290·2	224·4	+ 3·3	0	3	
	8479	·511	310·2	223·3	+13·6	122	666	
	863c	·227	220·0	208·4	−16·0	0	4	
	8482	·435	341·0	208·2	+18·1	34	143	
	8483	·321	47·8	185·9	+ 6·4	16	120	
G	8486	·598	51·6	170·6	+16·5	30	165	
	863d	·786	73·9	150·1	+ 8·6	0	3	106*c*
	8488	·808	65·4	150·1	+15·7	35	214	241*c*
		·764	54·9					110
		·808	108·9					69
		·846	76·8					105
		·846	84·9					105
		·859	60·4					178
		·915	71·0					82
		·936	82·9					176
		·992	89·8					92
Apr. 7			(−26·4)	(199·7)	(− 6·1)	(301)	(1693)	(2099)
97·377	8481	·951	261·8	261·4	− 9·7	0	17	289*c*
	8476	·870	257·8	249·7	−13·6	16	42	357*c*
	8484	·920	303·7	248·4	+27·7	43	377	206*c*
	8479	·646	299·0	224·2	+13·3	92	598	
	8482	·525	321·6	208·9	+18·4	26	148	
	8483	·226	13·8	185·8	+ 6·5	21	113	
C	8486	·475	37·4	171·5	+16·2	24	140	
	8488	·698	59·6	150·3	+15·9	36	193	77*c*
	8489	·955	88·7	116·4	− 0·6	6	62	218*nf*
		·766	53·0					101
		·818	70·4					66

Group 8486, Apr. 4–15. With Group 8488, a return or revival of Group 8453. A regular spot with a few small scattered followers. The group is followed by extensive areas of faculæ, in which Group 8488 appears.

Group 8487, Apr. 5–7. A very small spot.

Group 8488, Apr. 6–15. A revival in the region of Group 8453. A spot at the east limb developing into a stream of normal type. The leader alone remains after Apr. 13, excepting an ephemeral companion on Apr. 15.

Group 8489, Apr. 8–19. An equatorial stream, consisting at first of a composite spot as leader, and an unstable train which soon dies out. The leader, which remains alone on Apr. 15, passes to the regular type of spot and then diminishes rapidly.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
97·377		·865	80·2					126	100·312	8479	·973	285·4	224·6	+13·5	40	356	780*f*
		·879	90·6					46		8482	·902	294·6	210·2	+19·2	15	57	186*f*
C		·934	97·1					52		8483	·622	288·0	186·5	+ 6·3	15	79	
		·971	78·5					113		8486	·511	314·8	172·1	+15·6	25	134	
Apr. 8			(−26·4)	(188·9)	(−6·1)	(264)	(1690)	(1651)		8488	·368	359·4	150·3	+15·6	14	71	
										8490	·556	59·4	121·0	+11·2	15	61	
										863e	·629	49·8	119·7	+18·8	1	3	
98·366		·987	259·8					82	C	8489	·547	81·8	117·5	− 0·5	31	149	
		·951	248·2					106		*863f*	·726	70·9	106·2	+ 9·5	0	3	40*c*
		·945	257·4					290		8491	·945	66·1	83·2	+20·2	0	14	249*f*
		·890	309·2					84			·763	80·9					110
		·791	279·2					88			·847	123·6					41
	8484	·974	299·9	247·8	+27·4	65	401	239*c*			·848	106·5					52
	8479	·792	291·8	224·7	+13·1	72	471	240*c*			·853	54·7					67
	8482	·661	307·1	209·4	+18·4	11	59				·869	74·8					132
	8483	·270	321·5	185·5	+ 6·2	20	112				·910	83·8					52
C	8486	·383	13·4	170·5	+15·8	29	145				·929	53·0					80
	8488	·561	50·8	149·1	+15·3	28	161				·948	103·8					43
	8490	·838	72·6	121·4	+11·0	6	19	75*c*	Apr. 11			(−26·4)	(150·1)	(−5·9)	(156)	(927)	(2467)
	8489	·861	87·2	116·7	− 0·7	14	121	211*c*									
		·867	57·9					71									
		·955	103·6					100	101·403		·969	264·5					82
		·956	78·4					101			·969	288·6					153
		·960	84·8					241			·959	253·5					106
		·964	66·4					105			·920	295·3					97
Apr. 9			(−26·4)	(175·8)	(−6·0)	(245)	(1489)	(2033)			·882	303·2					86
											·865	260·4					46
										8483	·789	282·3	186·3	+ 6·0	14	66	98*c*
99·377		·990	255·8					130	G	8486	·677	300·2	172·9	+15·3	25	145	
		·901	276·7					100		8488	·446	322·5	152·0	+15·0	11	44	
		·782	252·3					79		8490	·379	41·3	121·0	+10·8	23	100	
	8479	·905	287·6	224·7	+13·2	72	358	276*c*		8489	·288	75·4	119·6	− 1·5	23	114	
	8482	·797	299·1	209·7	+18·8	13	96	70*c*		8492	·593	74·1	101·0	+ 4·5	0	5	
	8483	·447	296·9	186·0	+ 6·2	10	92			8493	·612	109·4	98·9	−16·4	1	4	
	8486	·399	337·0	171·8	+15·6	20	124			8491	·844	61·8	83·6	+19·9	0	8	193*f*
C	8488	·418	29·2	150·3	+15·6	24	121				·910	103·7					67
	8489	·735	84·3	115·7	+ 0·1	44	235	84*c*			·962	111·7					74
		·880	79·9					177	Apr. 12			(−26·3)	(135·7)	(−5·8)	(97)	(486)	(1002)
		·897	69·0					62									
		·919	106·6					151									
		·945	58·6					107	102·392		·964	262·4					117
		·958	77·8					141			·957	297·9					187
Apr. 10			(−26·4)	(162·5)	(−5·9)	(183)	(1026)	(1377)			·944	235·7					69
											·909	244·6					105
									C		·879	252·3					62
100·312		·956	276·2					166			·728	308·1					48
		·899	261·9					112		8483	·904	279·9	186·1	+ 6·4	8	44	187*f*
C		·886	271·2					76		8486	·812	294·7	172·7	+16·2	20	112	99*c*
		·878	253·5					188		8488	·594	306·1	152·5	+15·5	8	32	
		·782	309·7					93		8494	·526	236·1	150·7	−22·1	1	6	

Group 8490, Apr. 9–18. A pair of small spots not seen on Apr. 10. A stream then forms in their place on Apr. 11, but the component spots are very unstable.
Group 8491, Apr. 11–12. A small spot.
Group 8492, Apr. 12–20. A group of small and very faint spots until Apr. 17, when larger components are appearing.
Group 8493, Apr. 12–20. A small spot on Apr. 12 developing into a small regular spot followed by a train. The group is very unstable, however, and is represented latterly by a cluster of a few spots.
Group 8494, Apr. 13–15. Two or three small spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918			°	°	°			
102·392	*863g*	·545	315·1	146·4	+17·4	0	2	
	8490	·289	10·0	119·8	+10·8	19	92	
	8489	·092	33·9	119·8	− 1·3	25	103	
	8495	·139	141·9	117·7	−11·9	2	8	
	8492	·398	63·7	101·8	+ 4·8	0	4	
	8493	·403	115·5	100·7	−15·3	24	87	
C	*863h*	·566	62·4	92·2	+10·2	1	5	
		·775	101·4					92
		·791	55·3					232
		·879	111·9					69
		·960	57·0					77
		·976	110·9					54
Apr. 13			(−26·3)	(122·7)	(−5·7)	(108)	(495)	(1398)
103·093		·943	247·9					115
		·831	257·7					79
		·767	288·3					218
		·755	308·6					153
		·725	251·1					117
	8483	·963	278·3	186·6	+ 6·4	4	26	122*f*
	8486	·892	291·6	173·0	+16·3	20	108	396*nf*
	8488	·704	299·0	153·0	+15·5	6	27	65*c*
D	8494	·633	240·1	149·8	−23·0	1	11	
	8489	·141	303·1	120·2	− 1·2	17	123	
	8490	·305	338·6	119·9	+10·7	19	114	
	8495	·137	214·7	118·0	−12·1	0	9	
	8493	·277	129·1	100·6	−15·6	28	150	
	8492	·288	60·8	98·9	+ 2·5	2	15	
		·934	54·1					84
		·946	112·1					68
		·946	66·3					109
Apr. 14			(−26·3)	(113·4)	(−5·7)	(97)	(583)	(1526)
104·331		·942	258·4					122
		·922	305·8					91
		·900	283·4					288
		·876	298·3					295
		·874	254·8					61
		·801	306·6					91
	8486	·984	288·8	174·2	+17·3	11	74	660*f*
C	*863i*	·920	249·6	164·3	−21·0	3	6	76*c*
	8488	·842	292·6	150·7	+15·6	9	24	116*c*
	8494	·789	245·4	147·9	−22·7	2	11	134*c*
	8496	·777	282·3	146·6	+ 5·9	2	9	59*c*
	8489	·418	279·4	121·3	− 1·2	10	109	
	8490	·480	304·1	120·8	+10·4	26	167	
	8493	·185	199·7	100·8	−15·6	23	79	
	8492	·145	343·2	99·5	+ 2·3	2	8	

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
104·331	8497	·382	105·0	75·1	−10·8	21	58	
		·825	147·8					53
		·851	64·5					78
		·886	106·2					59
C		·899	48·6					69
		·901	114·5					81
		·968	102·6					86
		·986	109·8					99
Apr. 15			(−26·2)	(97·1)	(−5·6)	(109)	(545)	(2518)
105·381		·990	293·3					168
		·985	281·7					200
		·976	249·5					99
		·972	255·3					79
		·945	284·3					142
		·923	292·7					539
		·899	249·4					124
		·790	284·7					53
C	8496	·904	279·1	146·8	+ 5·8	5	30	109*c*
	8489	·628	274·9	121·8	− 1·2	17	139	
	8490	·656	293·2	120·9	+10·5	33	179	
	8493	·349	239·4	101·3	−15·4	10	34	
	8492	·328	294·9	100·5	+ 2·6	13	65	
	8497	·159	122·2	75·4	−10·3	9	35	
		·814	116·1					47
		·882	101·9					63
		·936	109·3					147
Apr. 16			(−26·1)	(83·2)	(−5·5)	(87)	(482)	(1770)
106·327		·973	277·5					258
		·968	248·4					108
		·966	296·5					167
		·963	287·4					212
		·956	266·5					74
		·896	277·1					178
C	8489	·783	272·6	122·0	− 1·4	12	120	148*c*
	8490	·798	287·4	121·2	+10·4	22	40	145*c*
	8492	·543	284·1	102·4	+ 3·0	24	121	
	8493	·474	246·1	97·4	−15·9	8	31	
	8497	·127	224·9	75·9	−10·5	11	27	
		·845	110·6					113
		·961	113·7					195
Apr. 17			(−26·1)	(70·7)	(−5·4)	(77)	(339)	(1598)
107·532		·906	260·1					116
C	8489	·918	270·9	121·2	− 1·3	16	52	201*c*
	8490	·913	284·1	118·8	+10·5	2	5	310*c*

Group 8495, Apr. 13–14. Two very small spots on the same meridian as Groups 8489 and 8490.
Group 8496, Apr. 15–16. Three small spots.
Group 8497, Apr. 15–18. A diminutive stream of normal type.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
107·532	8492	·741	278·6	101·8	+ 2·8	58	224	308*c*
	8493	·664	251·4	95·6	−16·2	22	58	
C	8497	·384	256·4	77·0	−10·1	1	2	
		·871	116·5					78
Apr. 18			(−26·0)	(54·8)	(−5·3)	(99)	(341)	(1013)
108·358		·973	281·9					175
		·966	257·3					87
		·848	284·0					48
	8489	·979	269·7	121·9	− 1·4	5	34	162*c*
	8492	·848	276·2	101·2	+ 2·5	33	187	204*c*
G	8493	·790	253·1	95·7	−16·5	12	28	91*c*
	8498	·286	180·3	44·0	−21·8	21	84	
	8499	·384	108·2	22·1	−11·7	38	168	
	8500	·979	94·6	325·5	− 5·6	29	161	65*c*
		·936	72·7					64
		·938	83·1					103
Apr. 19			(−25·9)	(43·9)	(−5·2)	(138)	(662)	(999)
109·358		·988	275·0					148
		·942	301·0					146
		·925	286·2					143
		·836	297·9					75
	8492	·954	274·2	102·7	+ 2·5	23	97	502*c*
	8493	·921	255·8	98·1	−15·0	1	5	317*c*
C	8498	·367	217·2	44·5	−21·9	38	136	
	8499	·162	126·8	23·2	−10·6	39	219	
	8500	·907	94·0	325·5	− 5·8	18	125	114*n*
		·858	82·0					59
		·905	72·0					115
		·925	116·6					49
		·970	99·4					95
Apr. 20			(−25·8)	(30·7)	(−5·1)	(119)	(582)	(1763)
110·371		·986	274·1					193
		·984	281·3					90
		·975	254·3					243
		·931	293·7					127
		·870	299·3					100
		·865	260·5					81
	863j	·931	255·4	86·1	−15·3	10	24	66*c*
C	8498	·526	235·8	45·1	−21·5	18	88	
	8499	·154	230·5	24·2	−10·5	28	168	
	8500	·783	93·3	325·7	− 5·7	20	128	52*nf*
		·883	99·6					47
		·957	115·3					224
		·971	104·6					68

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
110·371		·991	113·1					220
Apr. 21			(−25·7)	(17·3)	(−5·0)	(76)	(408)	(1511)
111·380		·989	291·2					98
		·985	251·8					87
		·953	296·0					81
		·932	258·9					132
		·903	236·2					101
		·902	249·8					70
C	8498	·695	243·9	46·0	−21·5	12	41	
	8499	·356	251·9	24·1	−11·0	33	224	
	8500	·624	92·8	325·4	− 5·6	15	131	
	8501	·962	111·6	289·4	−22·1	29	209	486*c*
		·889	116·2					418
		·913	107·0					134
Apr. 22			(−25·6)	(4·0)	(−5·0)	(89)	(605)	(1607)
112·367		·979	257·1					79
		·895	294·4					73
	8498	·850	247·7	48·3	−21·4	12	28	127*c*
	8499	·561	257·9	24·7	−10·8	21	165	
C	8500	·429	92·7	325·5	− 5·5	19	100	
	8501	·883	112·5	289·4	−22·1	21	129	375*c*
	8502	·979	98·3	272·3	− 9·1	79	365	199*c*
		·780	121·7					155
		·785	108·7					66
Apr. 23			(−25·5)	(350·9)	(−4·9)	(152)	(787)	(1074)
113·335		·944	290·0					58
	8498	·956	248·6	51·5	−21·8	5	13	230*f*
	8499	·737	260·4	25·6	−10·3	16	118	
	8500	·220	93·6	325·5	− 5·5	17	120	
	864a	·420	44·6	320·7	+12·7	0	2	
	8503	·656	124·2	301·4	−25·4	0	2	22*c*
C	8501	·775	116·0	289·2	−23·0	34	176	100*c*
	8502	·906	97·6	273·0	− 8·9	67	365	250*f*
		·906	102·0					71
		·914	67·8					81
		·959	81·0					87
		·961	118·0					39
Apr. 24			(−25·4)	(338·2)	(−4·8)	(139)	(796)	(938)
114·439		·974	248·6					89
		·909	247·0					56
G		·760	246·1					72
	8499	·887	261·4	26·3	− 9·8	14	83	171*f*

Group 8498, Apr. 19–24. Two spots which separate considerably in longitude. The leader is left on Apr. 24.
Group 8499, Apr. 19–26. A regular spot, forming a cluster on Apr. 19 and followed by a cluster of small spots until Apr. 24.
Group 8500, Apr. 19–30. Return of Group 8473; third apparition. A stable regular spot slowly contracting.
Group 8501, Apr. 22–May 4. Return of Group 8478. A small regular spot *p* by a few small companions. These grow and others appear, one in particular to the *s* becoming conspicuous for a few days. The group is now an extended cluster. The spots are very small and faint on Apr. 30, but renewed activity is shown near the west limb.
Group 8502, Apr. 23–May 5. A large regular spot, with a small distant follower on Apr. 26 and a small close companion cluster on Apr. 27 and 29.
Group 8503, Apr. 24–27. A wide area of disturbance, *sp* Group 8501, in which three small spots appear successively in increasing latitude. Nothing is seen on Apr. 26.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
114·439	8500	·044	246·4	325·9	− 5·7	11	103	
	8503	·532	140·2	300·9	−28·3	0	6	
	8501	·609	123·4	290·1	−23·4	41	196	
	8504	·750	102·4	275·2	−12·4	4	23	19*c*
	8502	·772	97·8	273·1	− 9·0	73	347	186*f*
G	8505	·867	118·3	265·1	−26·8	0	2	48*c*
	8506	·980	97·6	244·8	− 8·4	0	22	133*f*
	8507	·992	62·4	244·4	+26·5	42	149	73*c*
		·866	79·6					108
		·926	103·6					325
Apr. 25			(−25·2)	(323·6)	(−4·7)	(185)	(931)	(1280)
115·405		·876	246·9					119
	8499	·967	261·3	26·3	− 9·6	14	156	293*sf*
	8500	·263	266·5	326·0	− 5·3	10	73	
	8501	·469	134·3	289·5	−23·3	20	114	
	8504	·566	105·0	276·9	−12·2	1	4	
C	8502	·612	98·8	273·2	− 9·1	72	375	
	8506	·912	96·9	244·9	− 8·2	4	10	266*f*
	8507	·948	60·0	244·4	+26·5	14	93	226*f*
	8508	·997	75·7	227·1	+13·8	49	171	216*np*
		·843	103·3					351
		·976	83·4					94
Apr. 26			(−25·1)	(310·8)	(−4·6)	(184)	(996)	(1565)
116·461		·993	258·6					126
		·953	250·0					160
		·832	237·3					126
	8500	·494	266·7	326·5	− 5·5	15	85	
	864b	·342	195·7	302·7	−23·7	0	13	
	8503	·436	187·8	300·8	−30·0	0	11	
	8501	·392	160·5	288·6	−26·1	52	236	
	8504	·380	115·6	276·3	−13·6	12	39	
	8502	·406	102·4	273·3	− 9·1	75	361	
G	8505	·609	128·6	265·1	−26·1	0	1	
	8507	·866	55·7	244·0	+26·5	17	85	240*c*
	8506	·803	95·6	243·5	− 7·2	0	7	144*f*
	8508	·953	73·8	226·6	+13·9	23	196	379*c*
	8509	·989	70·8	216·7	+18·2	0	75	312*s*
		·721	106·5					134
		·891	81·2					85
		·934	92·1					121
		·946	105·4					119
		·959	53·9					153
Apr. 27			(−25·0)	(296·9)	(−4·5)	(194)	(1109)	(2099)
117·385		·928	244·7					140

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
117·385	8500	·672	266·8	326·9	− 5·4	15	69	
	8510	·545	257·6	317·3	−10·4	10	26	
	8501	·370	187·0	287·6	−25·8	35	132	
	8504	·198	134·5	276·4	−12·3	4	10	
	8502	·208	112·9	273·6	− 8·9	69	397	
	8505	·482	141·4	265·2	−26·1	3	13	
	8507	·771	49·9	243·7	+26·4	8	98	56*c*
C	8508	·871	70·8	226·8	+14·3	36	274	245*c*
	8509	·937	68·1	218·3	+18·7	12	38	432*s*
		·710	99·6					59
		·781	80·4					31
		·816	105·0					43
		·893	49·1					109
		·907	81·6					65
		·911	98·2					132
		·942	108·5					122
Apr. 28.			(−24·8)	(284·7)	(−4·4)	(192)	(1057)	(1434)
118·382		·960	239·2					127
		·902	287·1					166
		·900	245·7					120
	8500	·824	266·5	327·0	− 5·3	6	52	90*c*
	8510	·729	259·7	318·1	−10·5	7	85	20*c*
	8501	·448	217·0	288·7	−25·0	16	151	
	8502	·082	204·9	273·5	− 8·5	69	399	
C	8505	·382	164·7	265·1	−25·8	2	9	
	8507	·661	40·1	243·2	+26·5	14	67	
	864c	·576	105·7	237·0	−12·5	1	7	
	8508	·744	66·1	227·0	+14·5	48	254	100*c*
	8509	·841	65·1	218·3	+18·1	6	33	303*s*
		·789	41·3					80
		·820	110·9					125
Apr. 29			(−24·7)	(271·5)	(−4·3)	(169)	(1057)	(1131)
119·365		·968	278·5					153
		·951	293·7					70
		·887	275·6					53
		·737	238·0					132
	8500	·932	266·3	327·3	− 5·0	12	73	100*f*
	8510	·861	260·1	317·9	−10·6	30	96	117*c*
	8501	·586	233·1	289·3	−24·1	16	61	
C	8502	·272	253·5	273·7	− 8·5	57	346	
	8505	·386	196·9	265·6	−25·8	2	13	
	8511	·164	200·1	261·8	−13·0	1	3	
	8507	·571	25·9	242·3	+26.8	13	42	
	8508	·598	59·2	226·6	+14·2	44	262	
	8509	·720	59·6	217·9	+18·1	6	17	107*c*
	8512	·996	111·5	172·4	−21·8	37	192	

Group 8504, Apr. 25–28. A cluster of small spots *s* Group 8502 in the same disturbed area.
Group 8505, Apr. 25–30. Two or three very small but persistent spots, not seen on Apr. 26. Group 8506, Apr. 25–27. A very small spot.
Group 8507, Apr. 25–May 5. Return of Group 8484. A small regular spot just disappearing. A small cluster occupies its place after May 1.
Group 8508, Apr. 26–May 7. Return of Group 8479. A regular spot *n* of which a cluster forms and becomes of considerable extent by May 2. Meanwhile the primary spot has developed a triple umbra, after which it soon breaks up and disappears with the cluster.
Group 8509, Apr. 27–May 1. Two small spots *nf* Group 8508 in the same general area of faculæ. One alone remains after Apr. 29.
Group 8510, Apr. 28–May 1. Two small centres of activity, represented on Apr. 28 and May 1 by spots, and on Apr. 29 and 30 by small clusters.
Group 8511, Apr. 30–May 3. A group of a few small spots *f* Group 8502.
Group 8512, Apr. 30–May 12. A small regular spot slowly diminishing to a mere dot. From May 3–8 it is followed by small evanescent companions.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
119·365		·927	116·9					81	122·355		·802	72·8					129
		·933	65·3					84			·920	59·8					91
C		·991	69·1					116	C		·957	106·8					75
Apr. 30			(−24·5)	(258·5)	(−4·2)	(218)	(1105)	(1013)			·987	96·6					91
											·989	85·8					164
									May 3			(−24·0)	(219·0)	(−3·9)	(433)	(2614)	(2790)
120·350		·846	241·7					186									
	8510	·966	260·8	320·8	− 9·9	18	47	316*c*									
	864d	·919	243·5	311·3	−25·8	0	4	123*c*	123·453		·872	244·4					58
	8501	·712	238·3	287·3	−25·0	16	95	104*c*			·794	256·7					64
	8502	·478	259·6	273·8	− 8·5	63	361			8501	·988	247·3	286·1	−23·0	20	171	343*c*
	8511	·314	241·7	261·9	−12·5	10	21			8502	·939	262·1	274·4	− 8·8	55	333	295*f*
C	8513	·332	338·5	252·7	+13·9	3	10			8513	·789	289·3	254·0	+12·6	91	385	46*c*
	8507	·523	5·9	242·1	+27·1	12	28			8507	·723	314·1	239·9	+27·0	0	35	
	8508	·453	43·0	226·9	+15·3	50	313			8508	·500	311·2	227·3	+15·6	38	205	
	8509	·581	50·1	217·6	+18·2	5	10			8514	·621	49·7	174·2	+20·3	21	64	
	8512	·957	111·1	172·3	−21·4	19	143	373*f*		8512	·600	121·4	171·2	−21·4	15	78	
		·951	67·5					346	G	8515	·817	70·1	152·3	+13·8	43	239	97*c*
		·967	78·5					247		8517	·879	68·3	146·0	+17·0	0	37	175*c*
May 1			(−24·3)	(245·5)	(−4·1)	(196)	(1032)	(1695)		8516	·949	70·2	135·2	+17·5	121	786	187*c*
										8518	·956	85·7	132·0	+ 2·9	3	17	360*c*
121·403		·949	245·1					349			·854	54·8					74
	8501	·857	245·1	289·1	−23·3	53	191	397*c*			·918	96·7					85
	8502	·676	261·8	273·9	− 8·5	55	313				·924	62·4					114
	8511	·515	252·9	261·6	−12·1	5	20				·945	121·4					32
	8513	·482	306·6	254·8	+13·0	32	121				·974	96·1					78
	8507	·558	344·9	241·0	+28·5	7	29		May 4			(−23·7)	(204·4)	(−3·8)	(407)	(2350)	(2008)
C	8508	·362	10·8	227·5	+16·8	72	438										
	864e	·370	35·8	218·7	+13·5	0	8										
	8514	·887	62·6	173·6	+22·0	38	139	345*c*	124·131		·930	242·4					113
	8512	·869	112·1	172·1	−21·1	20	111	400*f*			·832	256·0					262
	8515	·986	75·3	152·8	+13·7	38	260	233*c*			·768	322·2					114
		·898	76·1					226		8502	·983	261·6	275·1	− 8·9	85	412	327*f*
		·968	62·7					86		8513	·873	287·1	254·2	+12·9	40	367	253*c*
May 2			(−24·1)	(231·5)	(−4·0)	(320)	(1630)	(2036)		8507	·808	309·0	240·6	+27·9	8	60	118*c*
										8508	·608	302·9	227·5	+16·1	33	152	
										8514	·514	39·4	175·3	+19·9	10	46	
122·355		·982	241·6					130		8512	·500	128·5	170·8	−21·4	12	78	
	8501	·944	246·8	289·4	−23·1	63	342	836*c*	D	8515	·730	67·2	151·8	+13·7	54	288	207*c*
	8502	·820	262·4	274·0	− 8·5	54	308	122*c*		8517	·805	66·6	145·4	+16·2	0	48	320*c*
	8511	·720	256·1	264·6	−12·7	4	27			8516	·891	67·7	135·7	+17·8	126	650	555*c*
	8513	·633	295·2	254·8	+12·4	59	312			8518	·897	85·3	132·3	+ 2·5	7	22	659*c*
	8507	·616	328·0	240·6	+27·7	1	28			8519	·994	89·2	112·0	+ 0·4	31	149	146*c*
	8508	·378	338·0	227·5	+16·5	63	437				·848	95·8					158
	8514	·784	58·4	173·3	+21·5	29	171	108*c*			·869	59·6					258
C	8512	·756	115·0	171·8	−21·3	15	95	300*f*			·928	77·3					178
	8515	·933	73·6	152·1	+13·7	36	309	152*c*			·935	97·5					257
	8516	·986	71·8	140·7	+17·1	85	420	592*c*			·993	118·1					81
	8517	·969	71·0	145·6	+17·3	24	165		May 5			(−23·6)	(195·5)	(− 3·7)	(406)	(2272)	(4006)

Group 8513, May 1–6. A stream of normal type developing in the usual manner from a pair of small spots seen on May 1.
Group 8514, May 2–10. Two spots gradually moving apart and becoming smaller. Only the leader remains after May 7.
Group 8515, May 2–13. Revival near Group 8488. An ill-formed regular spot disappearing very rapidly after May 10. Numerous small attendants appear from May 6–11.
Group 8516, May 3–15. A large regular spot with a long and sparse train which gradually disappears.
Group 8517, May 3–5. A group of small spots between Groups 8515 and 8516.
Group 8518, May 4–6. A small spot just disappearing.
Group 8519, May 5–14. Revival near Group 8489. A small regular spot disappearing quickly after May 10. A few small spots form an occasional train.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918			°	°	°			
125·487		·957	255·1					133	127·499	8512	·453	224·3	170·9	−22·0	11	38	
		·923	302·3					115		8515	·301	359·5	151·2	+14·0	35	259	
		·896	259·7					100		8516	·415	32·0	137·7	+17·2	105	564	
		·871	312·9					95		*864f*	·395	72·5	128·9	+ 3·6	0	8	
		·698	305·1					66		8519	·571	85·3	116·5	− 0·1	11	68	
	8513	·980	284·0	254·8	+12·8	31	283	269*c*	C	8520	·763	109·4	102·5	−16·8	7	23	134*c*
	8508	·798	292·8	227·2	+15·6	17	68	214*c*		8521	·847	57·9	99·1	+24·6	6	10	265*f*
	8514	·387	6·6	174·9	+18·9	12	49			8523	·856	80·3	93·1	+ 6·5	10	43	171*c*
	8512	·326	159·5	170·6	−21·2	13	66				·733	127·1					57
C	8515	·520	55·1	151·6	+14·0	43	258				·946	98·0					128
	8516	·732	61·5	135·4	+17·7	112	699	231*c*	May 8			(−22·9)	(151·0)	(−3·4)	(191)	(1023)	(1576)
	8518	·704	82·5	133·5	+ 2·6	3	9	121*f*									
	8519	·905	88·3	113·1	0·0	21	57	229*c*									
	8520	·962	106·4	103·2	−16·7	9	64	173*c*	128·409		·988	287·1					151
	8521	·986	64·1	100·3	+24·7	12	26	74*s*			·977	294·7					104
		·803	98·5					120			·969	247·9					84
		·928	84·9					362			·912	250·2					54
		·937	119·5					94			·831	299·1					60
May 6			(−23·3)	(177·6)	(−3·6)	(273)	(1579)	(2396)		8514	·702	299·9	178·5	+18·0	1	6	
										8512	·590	237·7	171·1	−21·1	5	14	
126·370		·978	296·5					209		8515	·363	326·3	150·8	+14·4	35	289	
		·953	259·9					99	C	8516	·357	1·6	138·3	+17·7	77	527	
		·926	304·9					203		8522	·131	12·9	137·2	+ 4·2	1	4	
		·896	277·3					81		8519	·380	83·7	116·8	− 0·7	8	36	
		·883	268·9					76		8520	·593	113·8	104·6	−16·5	7	21	
		·820	298·7					131		8521	·747	51·9	98·6	+25·0	3	12	162*f*
		·803	262·3					83		8523	·715	76·9	94·5	+ 7·0	12	28	63*c*
	8508	·917	289·0	230·0	+15·8	4	27	460*c*			·859	99·3					109
	8514	·419	335·7	176·4	+18·9	8	22				·937	57·7					79
	8512	·318	194·7	170·8	−21·4	15	75				·980	111·3					138
C	8515	·387	39·3	151·3	+14·0	39	269		May 9			(−22·7)	(138·9)	(−3·2)	(149)	(937)	(1004)
	8522	·501	74·9	137·0	+ 4·4	2	6										
	8516	·590	53·6	136·3	+17·5	102	641										
	8519	·781	87·1	114·8	+ 0·1	14	75	170*c*	129·386		·922	295·3					106
	8520	·909	106·5	100·8	−16·5	8	59	339*c*			·765	274·9					80
	8521	·943	62·1	99·5	+24·8	13	30	369*f*			·755	291·5					174
		·839	82·9					333		8514	·825	297·0	177·3	+20·0	2	8	320*c*
		·864	121·7					181		8512	·737	243·9	171·0	−21·1	6	17	45*c*
		·957	83·5					425		8515	·504	305·5	150·9	+14·1	39	223	
		·982	99·2					85		8516	·406	331·0	138·0	+17·7	104	564	
May 7			(−23·1)	(165·9)	(−3·5)	(205)	(1204)	(3244)	G	8519	·185	79·1	115·6	− 1·0	10	63	
										8524	·249	63·6	113·2	+ 3·3	0	8	
										8520	·444	121·9	103·0	−16·4	12	40	
127·499		·963	287·5					511		8523	·508	72·5	97·0	+ 6·0	0	10	
		·962	305·7					106		8525	·751	69·9	79·9	+12·7	12	39	30*c*
		·933	295·9					62		8526	·763	103·7	76·8	−12·4	5	11	36*c*
C		·931	263·1					76			·735	47·1					152
		·928	247·3					66			·908	112·3					165
	8514	·568	308·9	178·5	+17·8	6	10		May 10			(−22·5)	(126·0)	(−3·1)	(190)	(983)	(1108)

Group 8520, May 6–16. Revival near Group 8493. Two or three small spots, developing later into a short stream which gradually disperses.
Group 8521, May 6–9. A small spot with a train of faculæ.
Group 8522, May 7–9. A very small spot not seen on May 8.
Group 8523, May 8–10. A pair of small spots of which the following has dispersed by May 10.
Group 8524, May 10–13. A few very faint spots *nf* Group 8519; none are seen on May 11.
Group 8525, May 10–11. Two spots on May 10; one only on May 11.
Group 8526, May 10–11. Revival of Group 8497. A small spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
130·496		·908	293·4					264	132·597	8524	·506	278·6	113·4	+ 1·9	0	3	
		·885	258·6					156		8520	·405	232·6	103·1	−16·8	28	137	
		·853	284·1					198		*864j*	·277	329·0	91·8	+10·9	2	6	
		·781	243·4					50		*864k*	·131	159·8	80·9	− 9·8	1	4	
	8512	·877	247·6	171·3	−21·0	2	9	169*f*	G	8527	·284	100·8	67·3	− 5·8	20	67	
	8515	·685	294·2	151·2	+13·9	30	166			8528	·817	115·1	30·8	−21·9	55	266	191*c*
	8516	·559	307·6	138·8	+17·2	79	479				·841	104·0					110
	8519	·120	284·0	118·0	− 1·3	8	14				·863	60·2					56
	8520	·285	148·8	102·5	−17·0	14	57				·922	106·7					60
G	*864g*	·354	44·1	96·8	+11·8	5	11		May 13			(−21·6)	(83·5)	(−2·8)	(193)	(1002)	(1751)
	8525	·575	62·4	79·9	+12·8	1	7										
	8526	·585	107·2	76·5	−12·4	1	6										
		·792	118·0					51									
		·895	113·4					115	133·463		·986	284·2					321
		·917	71·0					45			·940	297·4					249
		·982	66·2					80			·914	278·3					344
		·990	112·0					178			·883	263·6					139
		·992	101·2					118			·844	274·6					170
May 11			(−22·2)	(111·3)	(−3·0)	(140)	(749)	(1424)			·802	259·5					56
										8516	·937	289·4	139·4	+17·1	80	437	774*f*
										864l	·764	275·6	121·5	+ 2·5	2	8	
131·393		·971	291·9					240		8519	·735	270·8	119·2	− 1·2	1	3	
		·956	257·0					94		8520	·566	244·2	104·1	−16·5	18	89	
		·941	282·2					180	G	*864m*	·434	3·2	70·6	+22·9	2	6	
		·887	245·2					77		8527	·101	123·4	67·3	− 5·8	20	80	
		·882	300·9					76		8528	·696	119·2	31·4	−21·8	48	174	92*f*
	8512	·953	249·0	171·5	−20·9	0	7	206*f*		8529	·987	78·4	352·3	+11·0	0	88	197*p*
	8515	·816	289·2	151·8	+13·8	11	64	}		8530	·989	83·4	351·2	+ 6·1	3	23	113*c*
	864h	·772	295·2	146·3	+17·1	0	3	} 133*c*			·763	56·6					69
	8516	·692	299·0	138·7	+17·3	72	417				·854	105·0					45
C	8519	·324	274·2	118·3	− 1·4	7	15				·927	115·0					103
	864i	·438	319·0	116·9	+16·5	2	7				·927	43·2					44
	8524	·234	286·6	112·4	+ 1·0	0	14				·984	99·2					258
	8520	·245	190·8	102·2	−16·8	23	63		May 14			(−21·4)	(72·1)	(−2·7)	(174)	(908)	(2974)
	8527	·532	95·5	67·5	− 5·4	14	54										
	8528	·951	113·0	28·1	−22·7	26	115	187*c*									
		·939	63·6					96									
		·946	102·2					102	134·349		·974	296·9					156
May 12			(−22·0)	(99·5)	(−2·9)	(155)	(759)	(1391)			·954	276·2					402
											·916	260·1					274
											·873	282·5					97
											·799	272·4					426
132·597		·974	246·4					148		8516	·988	287·6	140·0	+16·9	72	362	578*f*
		·957	296·0					61	C	8520	·693	247·9	102·4	−17·1	10	47	145*c*
		·936	306·4					80		8527	·137	247·5	67·7	− 5·5	9	59	
		·875	299·3					150		8528	·566	126·8	31·3	−21·9	21	143	
G		·836	278·5					189		8529	·937	77·4	352·1	+10·8	6	37	394*c*
	8515	·942	285·1	152·3	+13·2	0	6	330*c*		8530	·936	83·4	351·6	+ 5·2	11	38	85*c*
	8516	·856	292·1	139·4	+17·2	81	500	376*c*			·944	99·5					468
	8519	·583	271·8	119·0	− 1·2	6	13		May 15			(−21·2)	(60·4)	(−2·6)	(129)	(686)	(3025)

Group 8527, May 12–17. A stream of small faint spots in continual change.
Group 8528, May 12–21. A stream of normal type seen developing from the east limb. The leader spot is the only member left after May 18, but two or three small spots appear preceding it on the following days.
Group 8529, May 14–23. A small spot near which companions appear, first to make a short stream and then a cluster.
Group 8530, May 14–19. A small but definite spot with an attendant on May 15.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
135·344		·976	290·3					277	138·450		·978	249·5					117
		·971	281·5					70			·971	258·8					115
		·969	258·8					44			·967	295·7					120
		·893	272·8					469			·928	309·0					104
		·788	309·9					168			·894	265·4					335
		·756	280·7					128			·839	243·4					117
	8520	·814	250·3	100·4	−17·4	6	15	479*c*	C	8528	·552	232·5	34·1	−21·4	21	95	
C	8527	·374	263·1	69·0	− 4·9	12	68			8529	·319	45·4	352·8	+10·8	19	74	
	8528	·417	143·4	31·7	−21·9	24	162			8530	·292	63·3	351·0	+ 5·5	0	4	
	8529	·831	75·4	352·5	+10·7	10	36	266*c*		8531	·435	54·8	344·8	+12·5	0	3	
	8530	·845	81·8	350·2	+ 5·5	11	37	79*c*			·866	121·6					139
		·865	100·1					366			·938	115·3					289
		·906	117·3					111			·984	117·0					230
		·949	80·5					71	May 19			(−20·0)	(6·1)	(−2·1)	(40)	(176)	(1566)
		·980	98·5					165									
May 16			(−20·9)	(47·2)	(−2·5)	(63)	(318)	(2693)									
	•								139·416		·968	264·5					194
											·920	243·1					72
136·351		·972	271·8					305		8528	·699	239·8	33·8	−22·0	18	62	49*c*
		·943	240·0					50		*865a*	·438	304·9	14·8	+12·6	0	2	
		·934	252·0					433		8529	·222	0·5	353·2	+10·8	14	36	
		·888	277·6					205	G	8531	·278	28·3	345·6	+12·1	0	9	
	864n	·910	301·4	94·4	+27·1	1	13	156*f*		8532	·976	99·3	276·0	− 9·5	32	189	133*f*
	8527	·593	265·4	70·1	− 4·7	6	27				·769	124·9					61
C	8528	·337	174·1	31·8	−21·8	23	122				·885	117·7					392
	8529	·684	72·2	352·6	+10·2	16	70	61*f*			·960	119·9					368
	8530	·698	79·4	350·5	+ 5·6	9	14				·976	103·9					117
		·768	101·6					183	May 20			(−19·7)	(353·3)	(−2·0)	(64)	(298)	(1386)
		·872	77·0					51									
		·910	99·4					193									
		·981	116·0					141	140·381		·983	245·4					82
May 17			(−20·6)	(33·9)	(−2·4)	(55)	(246)	(1778)		8528	·824	244·6	33·7	−21·8	7	29	75*c*
										8529	·295	313·4	353·1	+ 9·8	33	117	
										8532	·906	99·8	275·9	− 9·7	26	178	121*c*
137·385		·984	251·5					244	G	8533	·916	104·1	274·8	−13·6	0	10	113*c*
		·968	276·4					267			·758	120·6					106
		·926	302·1					212			·899	121·8					148
		·924	250·5					48			·991	76·6					94
		·878	285·7					49	May 21			(−19·4)	(340·6)	(−1·9)	(66)	(334)	(739)
		·870	258·7					185									
		·760	265·5					209									
G	8528	·390	210·0	32·3	−21·8	21	116		141·409		·912	257·0					81
	8529	·505	64·5	352·7	+10·5	31	127				·888	244·9					218
	8530	·509	75·1	350·7	+ 5·5	8	14			8534	·668	246·7	6·7	−16·6	3	10	
		·819	100·1					77		8529	·493	295·3	353·8	+10·5	9	58	
		·901	60·5					35		*865b*	·645	122·7	291·4	−21·8	1	10	
		·910	49·5					50	C	8535	·597	102·4	291·0	− 8·8	4	24	
		·925	117·5					177		8532	·783	100·2	275·9	− 9·1	22	162	175*c*
		·987	111·7					94		8533	·844	103·9	270·1	−12·7	27	67	87*c*
May 18			(−20·3)	(20·2)	(−2·2)	(60)	(257)	(1647)			·834	124·9					146

Group 8531, May 19-20. A small spot *f* Group 8529.
Group 8532, May 20–June 1. Return of Group 8502. A circular spot slowly contracting.
Group 8533, May 21–June 1. Revival of Group 8504. An insignificant stream of small spots until May 27, when it shows great and sudden activity. A large regular spot, as the most stable member forms from an irregular spot at the head of the stream; the other components are in continual change. The group is situated immediately *sf* Group 8532.
Group 8534, May 22–23. A single small spot.
Group 8535, May 22–25. Three very small spots on May 22; one only on the following days.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
141·409		·931	103·5					76
		·944	74·7					219
May 22			(−19·1)	(327·0)	(−1·8)	(66)	(331)	(1002)
142·433		·954	245·9					146
		·884	285·7					45
	8534	·821	250·9	7·2	−16·5	3	9	35*f*
	8529	·670	287·6	353·7	+10·4	7	29	
	8535	·408	111·2	290·8	− 9·9	1	3	
G	8532	·622	102·6	275·6	− 9·1	29	174	
	8533	·690	107·6	271·1	−13·2	17	52	
		·843	104·9					29
		·849	74·1					108
		·964	76·3					117
May 23			(−18·8)	(313·4)	(−1·6)	(57)	(267)	(480)
143·435		·985	247·8					158
		·955	282·8					111
		·928	240·8					66
		·908	252·0					92
		·824	283·9					172
		·794	255·4					60
	8536	·825	246·4	353·6	−20·1	2	6	39*c*
	8535	·161	135·0	293·6	− 8·0	2	5	
C	8532	·435	107·5	275·5	− 8·8	33	161	
	8533	·493	115·4	273·1	−13·6	14	62	
	8537	·577	119·4	268·5	−17·7	5	19	
		·858	99·6					60
		·880	74·2					99
		·944	57·6					101
		·952	94·3					90
		·965	71·2					137
May 24			(−18·4)	(300·2)	(−1·5)	(56)	(253)	(1185)
144·399		·977	253·3					154
		·915	282·1					482
		·908	256·3					172
	8536	·927	248·0	354·0	−20·8	9	20	92*f*
	8538	·807	257·1	340·5	−11·2	8	25	83*c*
	8535	·166	227·6	294·5	− 7·7	0	2	
C	8532	·244	122·3	275·4	− 8·8	23	151	
	8533	·321	130·3	272·9	−13·3	23	102	
	8537	·435	132·2	267·7	−18·3	1	5	
	8539	·532	112·1	257·2	−12·7	1	8	
	8540	·579	67·5	254·4	+11·6	2	6	
	8541	·976	86·8	210·3	+ 2·8	0	5	90*f*
		·770	70·8					140

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
144·399		·869	56·9					101
		·876	71·3					144
C		·939	67·9					161
		·950	54·5					150
		·971	100·1					70
May 25			(−18·1)	(287·4)	(−1·4)	(67)	(324)	(1839)
145·428		·978	256.4					146
		·978	249·6					52
		·967	282·6					237
		·881	289·5					88
		·857	258·2					54
		·787	251·6					41
	8538	·933	258·6	342·3	−11·0	5	21	83
	865c	·784	251·8	324·0	−15·0	0	7	
	8532	·134	192·2	275·4	− 8·8	23	141	
	8533	·202	172·0	272·2	−12·7	19	114	
C	8537	·310	154·9	265·8	−17·5	1	4	
	8540	·392	56·2	254·5	+11·3	2	6	
	8542	·602	66·8	239·4	+12·6	12	46	
	865d	·668	114·0	234·4	−16·8	2	16	
	8541	·889	86·1	211·4	+ 2·8	2	5	51*f*
		·739	66·2					75
		·870	51·8					119
		·873	65·0					103
		·962	51·0					70
		·987	70·5					170
May 26			(−17·8)	(273·8)	(−1·3)	(66)	(360)	(1289)
146·377		·987	258·8					176
		·955	250·2					86
		·929	257·8					225
		·756	234·3					72
	8543	·847	240·1	315·5	−25·6	2	4	73*c*
	8532	·273	241·5	275·2	− 8·6	26	172	
G	8533	·269	222·6	271·9	−12·5	105	465	
	8540	·223	11·1	258·7	+11·4	0	3	
	8542	·433	56·4	239·6	+12·7	1	8	
		·805	57·9					57
		·920	50·7					86
		·940	69·4					152
		·954	98·9					138
May 27			(−17·5)	(261·2)	(−1·2)	(134)	(652)	(1065)
147·420		·978	255·9					122
G		·838	240·5					134
		·734	237·1					73

Group 8536, May 24–25. A small spot.
Group 8537, May 24–26. One or two very small spots *sf* Group 8533.
Group 8538, May 25–26. A small cluster.
Group 8539, May 25–June 1. Intermittent. A disturbed area, *f* Group 8533, in which a few small spots appear occasionally.
Group 8540, May 25–28. A small isolated group of a few scattered spots.
Group 8541, May 25–June 3. A very small faint but persistent group of a few spots.
Group 8542, May 26–29. One or two evanescent spots not seen on June 28.
Group 8543, May 27–28. A small spot seen near the west limb.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
147·420	8543	·952	244·3	317·9	−24·7	3	6	150*c*
	8532	·479	254·1	275·0	− 8·4	24	144	
	8533	·462	243·9	272·4	−12·5	108	672	
	8539	·276	217·5	257·3	−13·6	0	8	
	8540	·241	319·4	256·5	+ 9·5	3	8	
G	8541	·584	83·6	212·0	+ 2·9	6	30	
	865e	·825	65·8	194·8	+19·1	2	4	89*c*
		·855	99·7					85
		·880	46·3					77
		·938	109·3					150
		·949	69·0					411
		·953	79·4					282
		·973	115·7					89
May 28			(−17·1)	(247·4)	(− 1·0)	(146)	(872)	(1662)
148·375		·964	241·5					98
		·870	243·4					255
		·844	276·3					54
		·822	252·9					77
		·822	232·1					164
	8532	·654	258·1	274·9	− 8·4	25	141	
	8533	·639	251·1	272·9	−12·6	145	864	
	8539	·408	236·6	255·2	−13·8	0	3	
	8542	·268	330·1	242·6	+12·5	0	2	
G	8544	·262	355·3	236·1	+14·2	1	5	
	8541	·411	80·9	210·9	+ 2·9	8	30	
	8545	·750	114·1	188·8	−18·3	15	50	36*c*
	8546	·941	66·9	166·7	+21·4	0	31	117*f*
	8547	·960	74·3	162·1	+14·8	0	9	622*f*
		·730	101·5					53
		·861	109·7					165
		·874	64·9					547
		·887	77·0					574
		·946	116·3					135
May 29			(−16·7)	(234·8)	(− 0·9)	(194)	(1135)	(2897)
149·346		·941	244·9					413
		·935	274·8					81
		·929	256·7					119
		·899	238·2					202
G		·825	231·2					162
	8532	·803	260·2	274·8	− 8·3	22	130	90*s*
	8533	·793	254·7	273·3	−12·5	129	1019	244*c*
	865f	·461	241·9	246·5	−13·2	0	4	
	8544	·377	313·6	238·2	+14·2	10	31	

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
149·346	8541	·209	72·8	210·4	+ 2·8	3	15	
	8545	·590	123·0	190·4	−19·3	34	135	
	8546	·832	63·0	169·2	+21·7	4	21	96*c*
	8548	·863	120·0	165·9	−26·0	9	30	67*c*
	8547	·887	72·2	161·0	+15·3	18	78	762*c*
	8549	·993	72·8	139·7	+16·9	57	281	192*p*
G		·734	59·3					58
		·745	73·2					75
		·941	61·0					146
		·951	72·3					219
		·987	85·4					255
		·989	97·2					75
May 30			(−16·4)	(221·9)	(− 0·8)	(286)	(1744)	(3256)
150·352		·987	273·8					142
		·980	241·8					246
		·927	237·4					222
		·888	229·2					51
		·783	286·2					92
	8532	·920	261·0	275·1	− 8·5	22	131	106*f*
	8533	·912	255·9	273·6	−13·1	215	1192	356*c*
	8539	·761	251·2	256·5	−14·7	2	5	24*c*
	8544	·553	298·2	238·7	+14·5	16	60	
	8541	·107	304·9	213·6	+ 2·8	1	4	
	8545	·433	141·2	191·9	−20·3	51	219	
	8550	·587	122·2	177·1	−18·8	2	9	
G	8546	·703	56·8	169·4	+22·0	2	16	56*c*
	8548	·761	124·6	164·6	−26·1	20	115	
	8547	·762	69·4	161·2	+15·0	16	70	319*c*
	8551	·754	100·8	160·3	− 8·5	7	21	
	8552	·923	86·7	141·5	+ 2·8	3	9	297*c*
	8553	·924	98·8	141·4	− 8·4	1	8	132*c*
	8549	·948	71·2	138·6	+17·5	62	361	459*c*
	8554	·943	99·0	138·5	− 8·7	1	9	75*c*
		·849	59·8					70
		·888	70·2					272
		·936	58·4					111
		·977	79·9					156
May 31			(−16·0)	(208·6)	(−0·7)	(421)	(2229)	(3186)
151·425		·964	240·3					137
		·903	284·2					205
G	8532	·987	261·4	274·8	− 8·5	18	170	767*c*
	8533	·983	257·5	273·6	−12·3	273	918	
	8539	·895	253·8	256·9	−14·7	0	4	80*c*

Group 8544, May 29–June 3. Two small centres of feeble activity, at which two larger spots appear near the west limb.
Group 8545, May 29–June 7. Two very small clusters on May 29, which become a stream with a leader as the only important component. This at first is regular, but after developing a composite umbra, it breaks in two portions whilst dying out.
Group 8546, May 29–June 4. Some small unstable spots. Group 8547, May 29–June 7. A wide area containing very unstable and scattered spots.
Group 8548, May 30–June 6. A small group of the "stream" type in continual change. Group 8549, May 30–June 12. Return of Group 8516. A stable regular spot followed by a small companion. Northwards there is also a small spot which gradually disappears.
Group 8550, May 31–June 2. A very small spot. Group 8551, May 31–June 7. A small stream passing rapidly through its development. The leading spot is alone represented on June 5 and 7, nothing being visible on June 6. Group 8552, May 31–June 9. A short irregular stream of spots in continual change forming near the east limb. The axis of the group is at first considerably inclined to the equator.
Group 8553, May 31–June 9. A short stream developing at the east limb. None of the spots are stable, and the character of the stream continually changes.
Group 8554, May 31–June 8. A small spot, *f* Group 8553, which grows and becomes regular for two days before breaking up.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
151·425	8544	·729	292·0	238·7	+15·3	16	58		153·377		·912	301·4					96
	8541	·329	279·0	213·3	+ 2·3	7	23				·852	259·9					55
	8545	·347	172·2	191·5	−20·6	81	355				·841	313·7					92
	8550	·424	136·2	176·5	−18·3	0	5				·826	293·0					78
	8548	·619	133·3	164·6	−25·5	17	95				·776	304·1					54
	8546	·599	52·6	163·9	+20·8	4	18			8544	·941	286·7	237·7	+15·6	60	235	340*c*
	8551	·572	103·0	160·3	− 7·9	40	237			8541	·753	274·9	217·1	+ 3·5	1	5	26*f*
G	8547	·637	62·6	158·4	+16·5	16	74			8545	·500	226·1	191·1	−20·5	49	301	
	8552	·801	84·8	141·5	+ 3·8	25	76	46*c*		8556	·416	193·2	174·5	−24·1	0	4	
	8553	·808	99·8	141·1	− 8·2	12	28	39*c*		8546	·381	6·7	165·9	+21·8	8	63	
	8554	·846	100·6	137·2	− 9·3	20	53	34*c*		8548	·429	171·3	164·5	−25·3	57	221	
	8549	·862	69·0	137·0	+17·7	69	393	299*c*		8557	·253	27·1	161·8	+12·7	0	24	
	8555	·919	79·8	128·3	+ 9·1	14	66	242*c*		8551	·189	130·3	160·3	− 7·3	35	114	
		·792	70·7					134	G	8547	·365	31·3	157·2	+17·8	11	75	
		·934	59·4					51		8558	·489	57·3	143·5	+15·0	13	63	
		·942	100·4					62		8552	·450	80·9	142·3	+ 3·8	24	147	
		·952	91·6					76		8553	·475	102·9	141·0	− 6·4	30	218	
		·968	85·6					114		8549	·598	58·9	136·2	+17·7	77	364	
		·969	108·0					115		8554	·557	107·7	136·1	− 9·9	22	137	
June 1			(−15·6)	(194·4)	(−0·6)	(612)	(2573)	(2401)		8555	·620	74·7	131·5	+ 9·1	9	16	
										8559	·886	76·0	107·2	+12·2	0	5	181*f*
											·827	83·6					88
152·446		·972	280·0					199			·829	111·0					84
		·969	255·2					157			·919	67·9					53
	8544	·854	288·1	237·9	+15·1	37	126	410*c*			·932	109·5					107
	8541	·571	275·4	215·4	+ 2·8	6	26				·937	84·9					125
	8545	·382	206·2	191·2	−20·3	72	344		June 3			(−14·9)	(168·6)	(−0·3)	(396)	(1992)	(1379)
	8550	·310	176·0	179·6	−18·3	4	8										
	8556	·402	170·3	176·7	−23·7	2	5										
	8548	·493	148·6	164·5	−25·1	51	222		154·380		·976	301·6					115
	8546	·468	38·7	162·7	+21·0	9	18				·975	285·3					137
	8557	·376	55·2	162·6	+12·0	1	4				·931	259·5					113
	8551	·371	109·9	160·4	− 7·6	39	171				·892	306·9					123
	8547	·515	51·6	155·9	+18·3	7	45				·890	294·7					129
	8558	·633	66·1	144·5	+13·8	1	1				·870	273·9					193
G	8552	·635	83·0	141·9	+ 4·2	51	163			8545	·653	237·5	191·2	−20·7	44	225	
	8553	·646	99·3	141·2	− 6·3	43	98			8546	·443	329·9	169·1	+22·3	2	7	
	865g	·667	104·0	140·1	− 9·6	5	9			8548	·457	198·7	164·6	−25·7	12	95	
	8554	·708	103·6	136·8	− 9·9	21	153			8551	·156	224·3	161·6	− 6·6	12	28	
	8549	·734	65·0	136·8	+17·7	72	351	383*c*		8547	·366	343·7	161·6	+20·3	9	30	
	8555	·800	77·7	128·7	+ 9·6	17	48	163*c*	C	8558	·315	35·8	144·4	+14·5	29	118	
	8559	·954	77·6	109·1	+11·7	3	13	224*f*		8552	·240	72·1	142·1	+ 4·0	14	64	
		·843	91·8					63		8553	·270	114·5	141·0	− 6·6	19	121	
		·890	57·4					35		8549	·434	45·1	136·6	+17·6	73	323	
		·891	84·7					189		8554	·372	117·0	135·7	− 9·9	14	77	
		·900	110·1					263		8555	·428	66·5	131·9	+ 9·6	7	15	
		·927	92·8					69		8559	·743	74·5	108·6	+11·3	6	23	139*f*
		·966	86·0					120			·828	84·1					181
		·969	109·9					111			·841	113·7					217
June 2			(−15·2)	(180·9)	(−0·4)	(441)	(1805)	(2386)			·929	75·8					158

Group 8555, June 1–8. A very small stream on June 1 and 2; only the leader is left on the following days. Nothing is seen on June 7.
Group 8556, June 2–3. Two or three minute spots between Groups 8545 and 48.
Group 8557, June 2–3. A very small spot.
Group 8558, June 2–11. A group developing from a very small spot on June 2, immediately *p* Group 8549. A regular spot, generally with composite umbra, is the chief member. There are a few followers, but these soon disappear.
Group 8559, June 2–10. Intermittent. A few very small, faint, but persistent spots; none are seen on June 8 and 9.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
154·380		·932	109·9					169	156·392	8562	·880	73·6	68·3	+14·4	2	11	71*c*
		·959	58·7					176			·844	52·7					88
June 4			(−14·5)	(155·3)	(−0·2)	(241)	(1126)	(1850)	G		·859	99·9					81
											·967	119·5					46
									June 6			(−13·7)	(128·7)	(0·0)	(250)	(1140)	(1709)
155·342		·960	287·3					169									
		·954	273·2					231									
		·925	298·1					87	157·118		·960	292·2					90
		·911	309·7					182			·955	259·9					101
		·844	280·5					58			·864	283·9					161
		·826	292·1					74			·857	295·9					441
	8545	·779	243·3	190·4	−20·5	17	142				·803	237·9					242
	8560	·577	237·1	173·1	−18·3	2	12			8545	·949	247·9	189·0	−20·8	6	25	507*c*
	8548	·568	220·5	166·6	−25·5	7	24			8551	·664	259·7	160·1	− 6·7	2	7	
	8551	·356	254·1	162·6	− 5·7	3	17			8547	·661	299·5	156·4	+18·9	1	5	
	8547	·428	314·9	161·0	+17·4	1	4		K	8552	·453	276·5	145·8	+ 3·1	14	105	
	8558	·255	351·1	144·9	+14·4	49	236			8558	·495	299·5	145·4	+14·2	57	291	
C	8552	·064	326·1	144·6	+ 2·9	9	33			8553	·404	250·1	141·5	− 7·7	19	151	
	8553	·117	174·0	141·9	− 6·8	26	169			8549	·410	317·1	136·0	+17·5	39	256	
	8549	·317	17·5	136·9	+17·4	51	290			8554	·331	237·9	135·6	− 9·9	1	7	
	8554	·207	142·5	135·3	− 9·6	14	52			8559	·291	36·3	108·9	+13·6	0	5	
	8555	·246	45·6	132·4	+ 9·7	3	5			*865j*	·420	139·8	102·6	−18·5	1	4	
	8559	·601	68·4	107·8	+12·7	1	8			8561	·549	118·3	89·2	−15·0	1	8	
	8561	·814	107·3	89·6	−14·0	2	8	65*f*		8562	·806	71·2	67·1	+15·0	15	84	112*c*
		·798	114·3					56	June 7			(−13·3)	(119·1)	(+0·1)	(156)	(948)	(1654)
		·847	74·9					100									
		·918	55·3					113									
		·924	97·3					174									
		·925	77·1					73	158·406		·957	282·3					241
June 5			(−14·1)	(142·6)	(−0·1)	(185)	(1000)	(1382)			·937	292·1					430
											·917	241·5					280
											·904	302·2					116
											·869	289·1					588
156·392		·923	290·8					115			·861	261·5					123
		·849	260·1					84			·838	239·2					53
		·767	298·5					352			·793	302·5					95
		·765	282·4					154			·722	254·5					60
	865h	·942	258·7	198·5	−10·6	0	1	81*f*		8560	·952	249·9	172·7	−18·9	0	11	120*c*
	8545	·893	247·1	189·8	−20·3	19	106	571*f*	G	8552	·707	274·0	146·7	+ 3·1	15	45	
	8548	·689	231·0	165·0	−25·6	2	7	66*c*		8558	·707	289·8	145·1	+14·1	24	243	124*c*
	8547	·557	304·9	157·4	+18·5	5	33			8553	·669	258·9	143·2	− 7·1	5	44	
	8552	·285	281·5	144·9	+ 3·3	36	92			8554	·613	256·3	138·8	− 8·1	4	8	
	8558	·364	312·5	144·7	+14·2	80	381			8549	·609	298·7	135·8	+17·1	32	243	
G	8553	·248	239·9	141·1	− 7·1	33	175			8555	·543	287·7	133·5	+ 9·7	1	5	
	8549	·323	336·1	136·5	+17·1	57	280			*865k*	·445	217·7	118·8	−20·2	0	7	
	8554	·199	213·9	135·1	− 9·4	5	13			8562	·640	65·3	65·0	+15·6	21	59	
	8555	·179	337·3	132·7	+ 9·4	1	5				·902	102·6					67
	8559	·406	58·3	108·1	+12·2	2	10				·937	117·5					104
	865i	·644	72·7	90·1	+11·0	2	4				·945	109·7					190
	8561	·680	112·3	88·2	−14·9	6	22		June 8			(−12·9)	(102·0)	(+0·3)	(102)	(665)	(2591)

Group 8560, June 5–8. One very small spot seen only on June 5 and 8.
Group 8561, June 5–7. A few very small spots.
Group 8562, June 6–15. A small group showing little activity until June 10, when an extended stream suddenly appears. The component spots, however, are small and soon begin to disappear.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
159·323		·961	242·1					216	162·380		·979	281·9					190
		·951	262·7					262			·954	272·2					120
		·948	286·9					651			·933	252·2					116
		·934	301·1					94			·898	273·5					128
		·841	300·6					77			·871	285·1					114
		·734	255·9					61	C.		·828	244·9					40
		·648	304·7					44		8549	·998	286·7	135·9	+16·8	0	191	409*nf*
	8552	·850	273·4	147·9	+ 3·1	11	37	234*c*		8562	·410	301·3	70·5	+13·0	9	56	
G.	8558	·836	286·1	145·4	+13·6	38	257	359*c*			·885	105·1					157
	8553	·817	260·7	144·1	− 7·4	2	3	287*c*			·899	150·0					51
	8549	·752	292·7	136·3	+17·1	34	243	77*f*			·960	103·9					158
	865l	·328	312·2	104·3	+13·0	2	4		June 12			(−11·3)	(49·5)	(+0·8)	(9)	(247)	(1483)
	8562	·494	57·1	64·5	+15·9	5	15										
		·830	111·4					159									
		·884	60·3					72									
		·923	112·2					271	163·163		·960	272·1					60
June 9			(−12·5)	(89·9)	(+0·4)	(92)	(559)	(2864)			·908	283·5					120
											·905	249·6					106
									D.		·784	249·9					82
										8562	·512	299·7	66·4	+15·3	5	20	
160·485		·944	273·7					276		8563	·978	70·5	321·9	+19·2	0	35	
		·938	260·9					420			·825	104·4					45
		·887	257·9					101	June 13			(−10·9)	(39·1)	(+0·8)	(5)	(55)	(413)
		·820	283·9					164									
	8558	·946	283·9	144·9	+13·3	32	187	465*c*									
	8549	·891	289·1	136·1	+17·1	31	174	284*f*									
G	8559	·593	292·2	108·7	+13·3	1	10		164·535		·954	252·1					203
	8562	·263	22·3	68·6	+14·5	37	136				·945	278·8					77
		·689	120·1					47			·899	241·2					102
		·793	114·7					69	C.	8562	·752	287·7	68·3	+13·9	5	22	129*c*
		·888	118·9					68		8563	·883	69·4	320·4	+18·6	12	59	420*nf*
		·934	78·4					94			·958	116·2					146
June 10			(−12·1)	(74·5)	(+0·5)	(101)	(507)	(1988)	June 14			(−10·4)	(20·9)	(+1·0)	(17)	(81)	(1077)
161·455		·988	262·6					280	165·413		·888	261·0					60
		·967	257·8					203		8562	·865	286·0	68·2	+14·4	2	11	486*c*
		·930	282·3					325		*865n*	·435	209·8	22·6	−21·1	1	4	
		·916	270·6					103	C.	8563	·778	66·8	320·5	+18·6	14	52	247*nf*
		·828	250·8					168			·935	123·6					101
		·745	287·5					71			·938	103·6					73
G.	8558	·994	283·3	145·2	+13·3	53	246	190*n*			·954	113·6					167
	8549	·968	287·4	136·5	+17·0	37	202	628*nf*	June 15			(−10·0)	(9·3)	(+1·1)	(17)	(67)	(1134)
	865m	·819	274·7	116·4	+ 4·2	2	3	103*c*									
	8562	·275	333·7	68·9	+14·8	22	69										
		·838	74·9					124	166·373		·946	286·2					464
		·938	76·7					90			·887	234·4					55
		·952	104·8					203	C	8563	·636	61·3	320·7	+18·6	15	35	62*nf*
June 11			(−11·7)	(61·7)	(+0·6)	(114)	(520)	(2488)		8564	·980	102·5	278·8	−12·0	2	15	805*s*

Group 8563, June 13–20. A small regular spot slowly disappearing. A few very small followers appear on June 18.
Group 8564, June 16–19. Return of Group 8533. A small spot, not seen on June 17, in a large area of faculæ.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
166·373		·891	117·2					148	169·422		·964	70·8					244
		·929	104·7					114	June 19			(−8·2)	(316·2)	(+1·6)	(27)	(107)	(1176)
C.		·956	71·2					57									
		·957	118·4					182									
June 16			(−9·6)	(356·6)	(+1·2)	(17)	(50)	(1887)	170·380		·959	245·6					165
											·891	284·5					161
											·755	248·6					64
167·526		·981	286·9					86		8566	·595	249·0	337·9	−10·8	7	16	
		·836	245·1					108		8563	·405	319·2	319·8	+19·4	1	3	
	8563	·455	47·5	320·6	+19·2	6	17			8569	·270	188·7	306·0	−13·7	11	41	
	8565	·823	105·4	287·4	−11·8	3	25	541*f*	G	8567	·029	323·4	304·6	+ 3·1	2	15	
C		·811	120·9					134		8565	·397	129·8	285·4	−13·0	18	74	
		·916	126·7					118		8568	·819	97·4	249·2	− 5·0	26	63	119*c*
		·942	105·4					598			·807	76·5					142
		·969	121·3					157			·898	70·2					244
		·972	78·9					107			·958	62·5					64
June 17			(−9·1)	(341·3)	(+1·4)	(9)	(42)	(1849)	June 20			(−7·8)	(303·6)	(+ 1·7)	(65)	(212)	(959)
168·394		·976	254·4					90	171·374		·966	215·1					76
		·903	247·3					123			·962	281·8					122
		·790	242·5					87			·910	250·8					101
	866b	·305	311·3	343·4	+13·0	1	4				·866	283·0					61
	8563	·353	29·0	319·5	+19·3	5	29		C	8570	·655	315·8	321·9	+29·5	8	15	
	8565	·703	109·1	287·3	−12·1	3	40	88*c*		8569	·388	228·9	307·8	−13·0	12	36	
C	8564	·804	112·5	279·2	−16·9	2	9	232*c*		8565	·259	166·6	286·9	−12·7	14	97	
		·822	126·3					143		8568	·669	99·3	249·1	− 4·9	15	73	
		·867	106·1					497			·809	68·2					82
		·898	77·5					134	June 21			(−7·4)	(290·4)	(+ 1·8)	(49)	(221)	(442)
		·948	125·6					166									
		·953	110·1					174									
		·983	77·3					181	172·388		·892	256·7					140
June 18			(−8·7)	(329·9)	(+1·5)	(11)	(82)	(1915)			·868	233·4					116
										866d	·766	249·5	324·6	−14·2	5	32	36*c*
										8570	·760	307·9	320·2	+29·1	6	32	
169·422		·958	249·2					100	G	8569	·570	242·9	308·3	−13·4	3	30	
		·922	245·4					122		8565	·293	208·5	285·1	−13·0	10	64	
		·779	282·6					96		8568	·459	103·9	250·6	− 4·7	28	111	
	8566	·414	237·8	337·0	−11·3	1	3			*866c*	·949	103·1	206·5	−11·8	0	8	117*f*
	8563	·308	347·7	320·2	+19·0	1	3				·941	58·7					69
	866c	·350	11·6	311·9	+21·5	1	4		June 22			(−6·9)	(277·0)	(+1·9)	(52)	(277)	(478)
	8567	·205	82·7	304·5	+ 3·1	4	11										
	8565	·538	116·6	286·8	−12·5	6	56										
G	8564	·636	116·2	280·1	−15·0	0	3		173·463		·910	234·5					88
	8568	·922	95·8	249·5	− 4·7	14	27	150*f*			·898	252·7					84
		·727	137·0					69			·835	301·6					123
		·736	111·2					132	G		·823	291·5					84
		·843	116·6					58		8569	·745	250·0	308·6	−13·3	6	33	61*c*
		·853	129·6					60		8571	·476	277·2	291·0	+ 5·2	0	6	
		·918	77·4					145		8565	·514	238·7	289·5	−13·6	15	68	

Group 8565, June 17–26. A small unstable stream *p* Group 8564 in the same general area of disturbance.
Group 8566, June 19–20. A very small evanescent group.
Group 8567, June 19–20. Two small ephemeral spots.
Group 8568, June 19–26. A small stream forming near the east limb with only one component, the leader, of any importance.
Group 8569, June 20–23. A small short-lived stream.
Group 8570, June 21–22. One small spot on June 2; a pair on the next day.
Group 8571, June 23–26. A small double spot not seen on June 24. A small cluster then appears.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
173·463	8568	·225	121·1	251·7	− 4·6	7	62	
		·860	105·8					31
		·902	59·0					67
G		·938	69·5					67
		·969	115·5					115
		·984	78·3					101
June 23			(−6·4)	(262·8)	(+2·1)	(28)	(169)	(821)
174·571		·978	255·1					162
		·939	290·8					183
		·917	298·6					150
		·880	253·8					236
		·867	272·3					47
G	8565	·722	248·6	291·7	−13·6	12	88	34*c*
	8568	·126	200·0	250·6	− 4·6	13	95	
		·909	116·7					201
		·927	76·2					244
		·955	65·0					184
		·990	113·4					72
June 24			(−6·0)	(248·1)	(+2·2)	(25)	(183)	(1513)
175·438		·955	254·8					88
		·954	295·0					95
		·936	274·0					66
		·926	245·8					97
		·854	238·0					90
		·739	249·0					70
	8571	·840	274·6	293·6	+ 5·1	37	122	53*c*
	8565	·849	252·0	292·7	−13·9	16	65	175*c*
	8568	·279	246·1	251·4	− 4·2	7	27	
G	*866f*	·280	358·4	237·1	+18·4	0	4	
		·830	120·0					113
		·848	73·6					124
		·893	46·8					46
		·901	63·4					169
		·938	116·5					219
		·940	100·4					54
		·940	78·0					145
		·960	68·4					148
		·994	99·6					114
June 25			(−5·6)	(236·6)	(+2·3)	(60)	(218)	(1866)
176·588		·956	243·9					101
		·892	242·3					145
G		·885	253·2					384
		·878	230·0					110
		·789	248·7					308

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
176·588	8571	·957	273·5	294·4	+ 4·0	28	117	216*c*
	8565	·960	255·7	293·9	−13·0	31	152	442*c*
	8568	·486	254·1	249·3	− 5·5	1	2	
	866g	·483	291·7	248·6	+12·4	1	5	
	8572	·979	111·9	145·2	−20·8	17	79	184*c*
		·782	62·6					236
G		·819	76·6					156
		·854	119·6					150
		·893	67·1					227
		·924	117·7					95
		·935	87·3					121
		·938	100·7					212
		·967	75·7					569
June 26			(−5·1)	(221·4)	(+2·4)	(78)	(355)	(3656)
177·394		·992	273·9					153
		·964	232·1					115
		·962	254·1					448
		·950	244·0					161
		·889	251·9					269
		·852	282·1					59
		·850	235·9					85
	8572	·916	113·3	147·3	−20·1	7	31	111*f*
C	8573	·976	73·3	133·3	+16·8	18	94	104*c*
	8574	·979	81·3	132·4	+ 9·1	19	101	541*c*
		·787	64·0					83
		·858	103·7					143
		·875	121·0					93
		·908	74·2					413
		·921	85·9					86
		·955	104·3					131
		·972	65·3					48
June 27			(−4·7)	(210·7)	(+2·5)	(44)	(226)	(3043)
178·359		·959	263·2					59
		·958	252·9					389
		·934	236·7					171
		·931	283·3					92
		·792	261·3					112
	866h	·855	282·1	256·3	+11·7	0	5	84*c*
C	8572	·810	116·5	147·8	−19·5	7	59	131*f*
	8575	·795	84·5	145·4	+ 6·0	5	28	56*c*
	8573	·913	72·5	132·5	+17·1	24	103	96*c*
	8574	·912	81·1	132·3	+ 9·2	19	284	396*c*
	8576	·987	79·9	117·1	+10·4	6	115	239*c*
		·805	71·9					139
		·876	105·9					75

Group 8572, June 26–July 5. A small but definite spot slowly disappearing. Two distant followers appear on June 30.
Group 8573, June 27–July 9. Return of Group 8549; third apparition. A stable regular spot.
Group 8574, June 27–July 8. A spot, approximately of regular formation, accompanied by a small cluster *sf* until July 4.
Group 8575, June 28–July 7. Revival of Group 8552. A stream of normal type developing in the usual manner *sp* Group 8574.
Group 8576, June 28–July 1. A small double spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
178·359		·930	62·9					84	181·386	8572	·385	159·3	149·7	−18·0	10	21	
		·958	69·7					146		8575	·165	74·1	148·8	+ 5·5	33	160	
C		·958	81·9					194		8579	·254	38·4	148·6	+14·4	0	3	
		·975	104·2					62		8580	·314	83·8	139·7	+ 4·8	2	16	
June 28			(−4·3)	(197·9)	(+2·6)	(61)	(594)	(2525)		8574	·424	75·5	133·5	+ 8·8	39	142	
										8573	·486	59·9	132·0	+16·8	23	111	
										8577	·569	82·0	123·5	+ 7·0	1	5	
179·370		·964	234·2					91	G	8576	·691	76·3	114·8	+11·6	0	10	
		·924	280·8					197		8581	·903	76·7	93·6	+13·3	19	95	476*c*
		·910	263·0					208		8582	·973	79·3	81·2	+11·0	48	196	341*c*
		·834	291·8					107			·823	75·3					98
	866i	·351	31·8	173·3	+19·9	1	4				·846	85·3					88
	8572	·665	122·0	148·3	−18·4	10	17				·870	101·9					59
C	8575	·619	84·3	146·5	+ 5·6	16	45				·914	115·5					96
	8574	·791	80·8	132·6	+ 8·9	15	220	102*c*	July 1			(−2·9)	(157·9)	(+3·0)	(180)	(786)	(1228)
	8573	·800	71·0	132·6	+16·7	22	120	63*c*									
	8577	·882	83·1	122·8	+ 7·4	0	3	163*c*									
	8576	·926	79·8	116·9	+10·5	0	47	180*c*	182·496		·980	306·6					57
		·884	68·2					144			·951	238·8					37
		·980	77·6					153		*866l*	·302	212·6	152·7	−11·6	1	5	
June 29			(−3·8)	(184·6)	(+2·7)	(64)	(456)	(1408)		8575	·140	288·9	150·8	+ 5·7	34	214	
										8572	·374	197·4	149·9	−17·7	5	9	
										8580	·054	39·4	141·2	+ 5·5	2	7	
180·421		·972	262·9					121		8574	·194	57·6	133·7	+ 9·0	28	137	
		·969	279·3					94	C	8573	·303	38·6	131·9	+16·7	15	100	
		·928	289·6					161		8577	·326	69·3	125·3	+ 9·6	1	3	
		·892	251·7					52		8583	·407	64·9	121·1	+12·7	19	72	
		·822	234·9					32		8581	·756	76·6	94·6	+12·1	17	36	109*c*
	8578	·073	202·3	172·2	− 1·0	1	2			8582	·892	79·2	80·2	+11·0	40	350	217*c*
	866j	·323	121·9	154·6	− 7·0	0	2				·935	110·1					78
	8572	·519	134·3	147·6	−18·5	9	25				·965	72·4					128
	8579	·429	63·1	147·5	+13·8	2	9				·988	82·4					98
	8575	·403	82·6	147·0	+ 5·6	27	107		July 2			(−2·4)	(143·2)	(+3·1)	(162)	(933)	(724)
G	8580	·526	85·5	139·0	+ 4·8	1	4										
	8574	·611	79·1	133·4	+ 8·9	32	215										
	8573	·645	67·1	132·4	+16·8	18	107		183·360		·930	299·6					107
	8577	·734	82·8	123·6	+ 7·2	1	9	42*c*		8584	·669	252·2	171·8	− 9·3	3	14	
	8576	·808	79·3	117·0	+10·3	8	25	216*c*		8575	·345	277·0	151·8	+ 5·4	38	223	
	8581	·970	78·5	94·6	+11·9	9	44	303*c*		8572	·469	219·6	150·0	−18·0	5	10	
		·771	65·1					103		8574	·115	338·5	134·2	+ 9·3	22	96	
		·910	77·8					188		8573	·232	0·2	131·7	+16·5	16	105	
		·942	85·9					147		8583	·233	47·4	121·7	+12·2	30	173	
		·949	111·9					132	C	*866m*	·312	65·4	115·1	+10·5	0	3	
		·957	100·5					99		8581	·637	76·6	92·8	+11·0	27	86	
June 30			(−3·3)	(170·6)	(+2·9)	(108)	(549)	(1690)		8582	·780	78·2	80·9	+11·2	59	358	93*c*
										8585	·977	105·6	55·6	−14·5	44	281	298*f*
										8586	·973	75·7	55·0	+14·7	17	209	160*c*
181·386		·912	300·5					70			·906	71·4					172
	8578	·240	249·9	170·9	− 1·8	3	14				·936	82·3					111
	866k	·451	167·0	151·6	−23·0	2	13		July 3			(−2·0)	(131·8)	(+3·2)	(261)	(1558)	(941)

Group 8577, June 29–July 2. A few very small spots *sf* Group 8574 in the same area of faculæ. Group 8578, June 30–July 1. One or two very small spots.
Group 8579, June 30–July 7. Intermittent. A very small spot seen only on June 30 and July 1; nothing is then seen until July 6, when two larger spots appear. Group 8580, June 30–July 7. Intermittent. One or two small spots not seen on July 3 to 5.
Group 8581, June 30–July 10. A group, forming at the east limb, seen generally as two extensive clusters of small unstable spots.
Group 8582, July 1–13. A large stream of normal type. The leader, a large regular spot, is always the most conspicuous part of the stream, but the following portion is a cluster of some extent for a few days after July 4.
Group 8583, July 2–10. A small irregular cluster which lengthens to a stream. The leading spot alone shows stability.
Group 8584, July 3–5. A pair of very small spots of which the more northern remains on July 5.
Group 8585, July 3–14. A large spot of regular type in a dense area of faculæ, with a few very small followers until July 9.
Group 8586, July 3–14. A regular spot followed by a few very small spots, those on July 9–11 being distant. On the same meridian as Group 8585.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
184·385		·931	240·1					121
		·926	249·3					118
		·905	286·5					245
		·812	267·2					49
		·800	296·3					227
		·771	281·5					87
	8584	·826	256·0	172·4	− 9·6	2	6	55*c*
	8660n	·834	234·9	167·7	−26·5	0	4	94*c*
	8575	·551	274·3	151·5	+ 5·1	37	201	
	8572	·618	234·2	149·9	−18·3	3	5	
	8574	·291	292·1	134·0	+ 9·4	19	99	
G	8573	·318	316·3	131·4	+16·5	19	88	
	8583	·171	337·5	122·0	+12·4	50	253	
	8660	·334	67·1	100·0	+10·5	0	3	
	8581	·454	72·1	92·2	+11·0	49	211	
	8582	·614	75·7	81·0	+11·3	88	474	
	8585	·903	107·7	55·8	−14·4	63	344	550*c*
	8586	·897	74·9	54·7	+15·0	43	231	410*c*
		·790	70·2					77
		·838	82·7					63
		·923	119·3					54
		·984	105·9					77
July 4			(−1·5)	(118·2)	(+ 3·3)	(373)	(1919)	(2227)
185·382		·969	287·0					157
		·925	268·0					73
		·896	279·8					184
		·892	290·8					187
		·891	298·8					117
	8584	·936	259·8	173·4	− 8·3	4	21	286*s*
	8575	·739	273·8	152·6	+ 5·1	23	156	
	8572	·760	242·2	149·9	−18·3	1	4	55*c*
C	8574	·497	283·6	134·2	+ 9·7	25	105	
	8573	·486	298·3	131·4	+16·3	19	90	
	8583	·333	299·6	122·2	+12·7	16	113	
	8581	·256	55·0	92·7	+11·7	39	245	
	8582	·438	70·2	80·2	+11·6	94	677	
	8585	·791	111·2	55·6	−14·4	45	314	173*f*
	8586	·783	73·1	54·2	+15·3	30	185	132*nf*
		·934	110·2					77
July 5			(−1·0)	(105·0)	(+ 3·4)	(296)	(1910)	(1441)
186·536		·977	241·1					78
		·975	296·7					124
		·974	284·3					87
C		·920	256·7					113
		·880	291·9					94
		·873	244·0					133
	8575	·901	273·7	153·9	+ 4·9	9	88	202*c*
1918.			°	°	°			
186·536	8579	·866	284·2	149·4	+14·1	6	28	86*c*
	8580	·756	272·6	138·7	+ 4·2	0	7	43*n*
	8574	·707	280·2	134·4	+ 9·7	14	99	
	8573	·683	290·3	131·4	+16·3	18	101	
	8583	·570	287·9	123·4	+13·0	11	35	
	8581	·140	339·3	92·6	+11·0	18	145	
C	8582	·206	46·7	80·9	+11·6	78	577	
	8585	·625	118·7	55·3	−14·5	51	300	
	8586	·615	69·1	53·3	+15·4	27	178	
		·8c6	115·5					81
		·923	113·3					80
		·961	80·9					60
July 6			(−0·5)	(89·7)	(+ 3·5)	(232)	(1558)	(1181)
187·376		·972	257·1					117
		·960	291·5					100
		·941	246·9					206
		·894	254·1					57
	8575	·967	274·5	153·9	+ 5·3	12	66	315*f*
	8579	·953	283·5	151·1	+13·9	0	16	219*f*
	8580	·886	274·5	141·0	+ 5·6	6	20	129*c*
C	8574	·827	279·3	134·3	+ 9·7	9	56	149*s*
	8573	·797	287·8	130·6	+16·2	8	95	53*s*
	8583	·712	284·6	123·4	+12·9	16	85	
	8581	·294	299·1	93·7	+11·6	15	125	
	8582	·143	342·5	81·1	+11·3	90	630	
	8585	·491	129·0	55·5	−14·6	26	258	
	8586	·470	63·3	52·9	+15·3	30	170	
	8587	·713	117·1	37·4	−16·2	0	7	
		·888	114·9					79
July 7			(−0·1)	(78·6)	(+ 3·6)	(212)	(1528)	(1424)
188·388		·987	283·7					258
		·981	247·7					129
		·969	275·1					281
		·960	255·7					139
		·893	296·7					143
		·881	263·1					83
		·852	251·3					59
	8574	·935	278·9	134·5	+ 9·6	8	25	227*s*
	8573	·911	286·1	130·7	+16·2	10	80	114*nf*
C	8583	·850	282·3	123·2	+12·4	22	80	494*s*
	8588	·586	271·5	101·0	+ 3·9	1	5	
	8581	·534	286·1	96·6	+11·6	1	16	
	8582	·318	295·8	82·1	+11·5	101	621	
	8585	·352	152·5	55·6	−14·5	49	282	
	8586	·295	44·8	52·8	+15·6	20	118	

Group 8587, July 7–9. Two or three very small spots.
Group 8588, July 8–11. A small group forming towards the west limb.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
188·388	8587	·563	127·5	37·5	—16·8	1	10	
C		·848	115·7					53
		·978	101·5					127
July 8			(+0·3)	(65·2)	(+3·7)	(213)	(1237)	(2107)
189·387		·971	276·8					281
		·944	296·0					159
		·936	256·8					147
		·879	269·8					87
		·851	295·5					95
		·836	221·6					72
		·755	281·8					104
	8573	·978	285·6	130·3	+16·0	5	33	162*nf*
	8583	·939	280·9	122·0	+11·6	12	68	410*c*
	8588	·754	272·4	100·9	+ 4·3	1	6	
G	8581	·648	287·7	91·4	+14·3	0	10	
	8582	·521	286·0	82·6	+11·6	97	480	
	8589	·466	224·2	71·7	—15·9	0	2	
	8585	·320	191·2	55·7	—14·4	50	257	
	8586	·203	357·6	52·5	+15·4	19	127	
	8587	·386	149·4	40·3	—15·6	1	8	
	8590	·580	131·8	24·9	—19·2	1	12	
	8591	·529	120·2	24·3	—12·0	6	39	
	8592	·977	102·3	335·6	—11·1	14	76	137*sf*
		·905	103·0					61
July 9			(+0·8)	(52·0)	(+3·8)	(206)	(1118)	(1715)
190·476		·966	294·6					89
		·936	267·0					29
		·910	247·9					94
		·877	280·3					222
	8583	·994	280·9	121·7	+11·3	0	26	217*f*
	8588	·901	273·2	101·8	+ 4·6	26	90	153*c*
	8581	·810	285·2	91·3	+14·5	2	8	221*c*
	8582	·725	281·5	83·8	+11·0	96	405	
G	8589	·653	238·5	73·0	—16·7	12	47	
	8585	·437	223·1	55·5	—14·8	45	248	
	8586	·316	309·9	52·1	+15·4	16	98	
	8591	·351	142·0	24·9	—12·2	36	146	
	8590	·452	151·5	24·4	—19·5	1	3	
	8593	·549	129·5	11·4	—16·8	1	8	
	866p	·771	105·3	348·9	— 9·1	3	9	38*c*
	8592	·897	104·5	335·5	—11·2	9	63	391*sf*
		·957	72·1					117
July 10			(+1·3)	(37·6)	(+3·9)	(247)	(1151)	(1571)
191·303		·967	267·5					69
		·961	279·7					191
		·960	245·4					60
		·957	256·3					58
		·912	284·1					357
	8588	·962	272·8	100·7	+ 3·8	5	31	261*p*
	8582	·839	280·5	83·7	+10·9	44	429	245*c*
D	8589	·776	243·8	72·3	—16·9	12	51	72*c*
	8585	·564	235·9	55·4	—14·8	34	208	
	8586	·467	296·9	52·1	+15·8	11	76	
	8591	·278	174·5	25·0	—12·0	38	216	
	8593	·461	145·3	10·6	—18·3	1	8	
	8592	·805	106·4	335·0	—10·6	7	31	183*sf*
	8594	·973	89·3	310·1	+ 1·6	2	13	67*c*
		·906	68·4					119
July 11			(+1·7)	(26·6)	(+ 4·0)	(154)	(1063)	(1682)
192·390		·980	284·3					143
		·830	290·1					108
	8582	·951	280·3	84·4	+11·0	46	337	679*c*
	8589	·903	248·1	73·6	—17·7	18	75	226*c*
	8585	·728	245·1	55·1	—14·8	34	221	
	8586	·661	289·2	52·4	+15·6	13	53	
	8591	·357	218·0	25·1	—12·2	41	175	
G	8593	·373	181·3	12·7	—17·7	1	8	
	8592	·637	112·3	335·5	—10·7	12	26	
	8594	·879	90·7	310·9	+ 1·3	7	17	82*c*
	8595	·938	86·9	302·5	+ 4·4	4	13	568*c*
		·795	67·3					78
		·869	110·2					53
		·900	63·9					84
		·952	102·5					153
July 12			(+2·1)	(12·2)	(+4·1)	(176)	(925)	(2174)
193·406		·928	287·8					112
		·861	257·1					41
	8582	·995	281·2	83·6	+11·6	0	134	206*f*
	8589	·969	250·4	72·0	—17·8	0	18	211*c*
	8585	·857	249·8	54·9	—14·8	48	231	432*sf*
	8586	·810	286·6	52·4	+15·8	13	37	202*nf*
G	8591	·544	240·2	27·5	—11·9	27	136	
	8596	·536	223·5	21·7	—18·9	2	6	
	8593	·441	201·6	8·7	—19·9	1	3	
	867a	·171	39·2	352·5	+11·8	0	2	
	8597	·254	150·8	351·6	— 8·5	1	7	
	8592	·463	122·5	335·5	—10·5	7	17	

Group 8589, July 9–13. A small stream developing from a minute spot seen on July 9. Group 8590, July 9–10. One or two very small spots.
Group 8591, July 9–16. A few small spots becoming a stream, roughly of normal type. The group quickly passes through the usual phases of development.
Group 8592, July 9–16. Revival of Group 8566. A small regular spot just disappearing. Group 8593, July 10–18. A disturbed area shown at first by one or two scattered evanescent spots. On July 15, a group of the "stream" type has suddenly appeared, but it is apparently dispersing when last seen at the west limb.
Group 8594, July 11–16. Revival of Group 8567. A small spot not seen on July 13. A spot has appeared the following day preceded by a companion which remains alone on July 17. Group 8595, July 12–19. An unstable stream of small spots which have all disappeared by July 18. A small spot reappears temporarily on July 19. Group 8596, July 13–16. One or two very small spots not seen on July 14.
Group 8597, July 13–20. A large irregular stream, rapidly appearing from two small nuclei on July 13, near the central meridian. The two leading spots coalesce to make a large regular spot, whilst at the rear of the stream a large composite component, which has formed from a cluster, is diminishing.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
193·406	8595	·842	87·8	301·5	+ 4·2	20	47	674*c*
	8598	·897	107·2	297·3	−13·3	7	16	437*c*
G		·737	91·6					62
		·937	117·6					97
July 13			(+2·6)	(358·8)	(+4·2)	(126)	(654)	(2474)
194·385	8585	·949	252·8	55·2	−14·8	24	188	641*f*
	8586	·920	285·8	52·8	+16·2	10	30	261*nf*
	8591	·730	249·7	30·0	−11·6	10	62	
	8593	·550	231·4	12·3	−16·2	0	4	
	8597	·254	208·2	352·8	− 8·5	13	85	
	8592	·309	144·4	335·3	−10·2	5	10	
C	8594	·625	94·0	307·4	+ 0·9	0	10	
	8595	·682	88·9	302·9	+ 3·9	7	57	68*c*
	8598	·803	111·0	295·4	−13·9	6	24	133*c*
		·882	123·4					112
		·964	80·0					135
		·969	109·2					247
July 14			(+3·0)	(345·8)	(+4·3)	(75)	(470)	(1597)
195·576		·979	287·6					254
		·976	251·6					130
		·927	242·8					96
	8591	·880	254·6	29·8	−11·4	8	33	314*sf*
	8596	·824	243·5	21·1	−18·8	5	37	85*c*
	8593	·735	239·7	11·9	−18·5	46	200	
	867b	·403	257·2	353·1	− 1·1	1	3	
	8597	·440	238·4	352·3	− 9·2	74	316	
	8592	·270	200·2	335·5	−10·2	5	10	
	8594	·342	96·8	310·3	+ 1·8	5	9	
	8595	·480	88·8	301·5	+ 4·4	12	47	
G	8598	·664	117·7	292·9	−14·4	1	11	
	867c	·692	101·0	287·4	− 4·3	1	3	
	8599	·954	83·3	257·5	+ 7·7	113	407	241*c*
	8600	·987	85·0	249·2	+ 5·7	0	65	154*c*
		·830	76·8					85
		·835	123·2					171
		·867	110·2					158
		·899	71·6					107
		·935	94·8					132
		·942	108·8					178
		·969	71·6					147
July 15			(+3·6)	(330·1)	(+4·4)	(271)	(1141)	(2252)
196·383		·830	279·5					75
	8591	·951	256·7	29·8	−11·1	5	23	415*sf*
	8596	·909	245·7	20·9	−19·8	5	6	143*n*

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
196·383	8593	·839	244·7	12·2	−18·3	25	217	200*c*
	8597	·565	245·9	350·8	− 9·4	166	618	
	867d	·304	289·3	336·3	+10·1	1	2	
	8592	·370	226·3	335·1	−10·4	1	3	
	8594	·153	109·4	311·1	+ 1·6	1	8	
	8595	·275	90·9	303·5	+ 4·1	5	26	
G	8598	·447	131·5	299·4	−13·0	2	8	
	867e	·394	98·7	296·6	+ 0·7	1	4	
	867f	·786	115·8	271·9	−16·9	0	2	72*c*
	8599	·882	83·9	257·5	+ 7·4	73	457	227*c*
	8600	·942	85·7	248·9	+ 5·5	12	47	345*c*
		·846	98·0					103
		·877	110·5					109
		·906	122·9					111
		·908	72·6					112
		·928	99·8					105
July 16			(+3·9)	(319·4)	(+4·5)	(297)	(1421)	(2017)
197·514		·989	256·4					259
		·950	263·6					109
	8593	·942	248·3	11·7	−18·6	26	146	538*c*
	8597	·758	253·0	351·5	− 9·6	135	774	97*c*
	8595	·103	101·4	298·6	+ 3·4	0	5	
	867g	·566	117·6	273·8	−11·2	2	4	
G	8599	·732	83·6	257·4	+ 7·8	108	466	94*c*
	8600	·822	86·6	249·1	+ 5·4	13	60	243*c*
	8601	·959	104·2	232·7	−12·2	34	178	357*c*
		·658	123·2					70
		·727	113·4					61
		·782	103·2					143
		·792	126·4					95
		·890	125·6					126
		·932	71·1					101
July 17			(+4·4)	(304·4)	(+4·6)	(318)	(1633)	(2293)
198·388	8593	·974	248·2	6·8	−19·9	4	20	171*nf*
	8597	·872	255·7	351·7	− 9·9	108	741	311*c*
	8599	·583	83·2	257·3	+ 7·8	92	488	
C	8600	·693	86·8	249·0	+ 5·5	3	14	
	8601	·889	106·7	232·5	−12·4	26	289	364*c*
		·964	74·8					152
July 18			(+4·8)	(292·9)	(+4·7)	(233)	(1552)	(998)
199·375		·834	250·6					102
	8597	·960	257·9	352·0	−10·1	96	595	357*c*
C	8602	·775	283·5	330·4	+13·5	10	41	
	8595	·361	269·6	300·9	+ 4·4	0	5	

Group 8598, July 13–16. Return or revival of Group 8565. An area of disturbance shown by faculæ and a few scattered unstable spots.
Group 8599, July 15–27. A large regular spot with a few very small companions. From July 21–24, a small portion of the large spot becomes separated and appears as a close companion to it.
Group 8600, July 15–25. A small, faint, but persistent cluster of small spots *f* Group 8599. These two groups are probably related to each other, although there is a definite separation of the faculæ surrounding each of them.
Group 8601, July 17–28. A group in continual change. At first, two small regular spots with a few small followers. These multiply, as the regular spots are disappearing, and form a very extensive and irregular stream of tiny components. Two or three larger spots then appear, whilst the minor members of the stream die out.
Group 8602, July 19–21. A pair of regular spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
199·357	8599	·386	80·8	257·3	+ 8·0	83	485	
	8600	·495	88·3	250·2	+ 5·0	3	15	
C	8601	·766	110·8	232·8	−12·5	40	162	77*c*
	8603	·874	74·4	219·0	+15·9	13	68	55*c*
		·973	77·3					85
July 19			(+5·2)	(279·8)	(+4·8)	(245)	(1371)	(676)
200·447		·945	257·7					128
		·907	248·7					106
		·906	224·5					73
		·846	290·1					53
	8597	·992	257·7	346·9	−11·5	8	107	388*c*
	8602	·905	282·9	330·6	+13·8	41	261	78*c*
C	8599	·158	67·5	257·2	+ 8·3	89	493	
	8600	·329	77·7	246·7	+ 8·7	7	19	
	8601	·610	118·6	232·4	−12·8	34	196	
	8603	·733	71·9	219·2	+16·5	12	69	
		·911	76·7					95
		·969	70·5					80
July 20			(+5·7)	(265·6)	(+4·9)	(191)	(1145)	(1001)
201·401		·979	251·9					122
		·944	289·9					76
		·777	273·1					81
	8602	·973	283·1	330·1	+13·8	51	337	115*c*
	8607h	·854	271·5	311·6	+ 3·9	3	14	44*c*
	8607i	·809	249·9	304·0	−13·0	0	4	73*c*
	8604	·342	206·1	261·8	−12·9	3	10	
	8605	·226	329·3	259·9	+16·2	4	9	
	8599	·092	310·5	257·0	+ 8·4	81	508	
C	8600	·113	55·5	247·6	+ 8·7	4	23	
	8601	·462	131·5	232·3	−13·1	36	170	
	8603	·583	68·5	218·7	+16·5	28	137	
		·893	71·3					131
		·937	77·2					103
		·963	110·7					62
		·970	103·7					137
		·979	119·2					96
		·986	70·5					131
July 21			(+6·1)	(253·0)	(+5·0)	(210)	(1212)	(1171)
202·440		·982	290·2					52
		·919	294·7					64
		·900	272·6					360
		·900	253·4					168
		·825	236·7					75
C	8604	·495	231·6	262·7	−13·3	14	30	
	8605	·387	301·4	259·3	+16·2	32	128	

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
202·440	8599	·309	282·1	257·0	+ 8·5	71	482	
	8600	·151	282·1	247·8	+ 6·7	0	4	
	8601	·350	156·0	231·0	−13·5	35	187	
	8603	·390	58·9	219·0	+16·2	40	207	
	8606	·964	108·3	167·2	−16·1	11	63	211*f*
		·784	71·5					86
C		·905	106·0					144
		·920	123·2					107
		·920	75·4					164
		·940	64·0					164
		·975	86·8					225
July 22			(+6·6)	(239·3)	(+5·0)	(203)	(1101)	(1820)
203·428		·966	255·2					203
		·949	273·2					319
		·903	237·8					169
		·881	247·9					94
		·834	227·9					21
		·774	242·8					71
	8604	·664	244·7	264·0	−12·4	5	14	
	8605	·590	289·4	261·3	+15·4	20	120	
	8599	·512	278·2	256·9	+ 8·5	86	436	
	8600	·332	276·8	245·5	+ 7·1	1	8	
C	8601	·326	195·0	231·2	−13·2	32	234	
	8603	·219	32·3	219·3	+15·7	48	276	
	8607	·802	126·0	180·9	−24·5	4	10	80*s*
	8606	·883	112·0	167·7	−16·7	19	105	294*f*
		·826	73·4					114
		·881	62·2					143
		·914	87·1					379
		·914	119·8					55
		·941	48·9					58
		·961	76·5					101
July 23			(+7·0)	(226·2)	(+5·1)	(215)	(1203)	(2101)
204·347		·946	253·9					184
		·935	238·7					220
		·857	245·5					187
	8604	·806	250·1	264·7	−12·6	1	7	82*f*
	8605	·732	286·9	260·5	+15·9	14	77	93*c*
	8599	·679	277·2	256·8	+ 8·8	68	434	
	8600	·539	271·6	246·6	+ 5·2	0	10	
G	8601	·428	220·2	230·5	−14·0	83	368	
	8603	·212	331·5	220·0	+15·8	91	473	
	8608	·319	61·0	197·4	+13·8	0	14	
	8607	·685	135·9	182·4	−25·0	11	29	
	8606	·783	116·0	166·9	−16·5	25	155	67*c*
	8609	·783	86·7	162·4	+ 5·8	6	26	92*c*
	8610	·965	82·7	138·9	+ 8·4	0	4	436*c*

Group 8603, July 19–30. A small stream forming at the east limb and showing considerable extension after July 23. Though larger spots appear, they are very unstable and change rapidly. A small regular spot as leader, and a large irregular spot as the rear component of the stream can be identified however for several days.
Group 8604, July 21–24. One or two small spots.
Group 8605, July 21–26. Two very small spots which are the nuclei for two small clusters. The *f* cluster disappears after July 24.
Group 8606, July 22–Aug. 1. A small regular spot *f* which a train of very small spots appears. On July 28, Group 8616 develops just southwards in the same general area of facule.
Group 8607, July 23–30. A small group, generally as a few small spots in a short stream.
Group 8608, July 24–25. Two or three very faint spots. Group 8609, July 24–28. Two small spots, the *f* one alone remaining on July 28.
Group 8610, July 24–Aug. 2. Return or revival of Group 8574. An area of faculæ in which a few very small spots are seen.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
204·347		·811	58·7					81	206·379	8609	·431	85·1	161·7	+ 7·0	8	23	
		·882	112·9					117		8610	·743	85·6	139·1	+ 6·9	1	15	
		·884	86·9					89		8611	·940	84·3	117·0	+ 7·2	0	10	118*c*
		·888	76·4					97			·859	83·5					230
G		·891	100·0					114	C		·880	73·1					124
		·937	67·8					97			·889	97·5					67
		·959	90·4					146			·904	61·7					99
		·960	110·2					111			·987	84·5					136
		·968	99·8					135	July 26			(+8·3)	(187·2)	(+5·4)	(251)	(1576)	(1670)
July 24			(+7·4)	(214·0)	(+5·2)	(299)	(1597)	(2348)									
									207·523		·979	287·7					151
205·367		·979	241·6					77			·968	274·3					196
		·953	287·1					37			·893	288·3					69
		·940	247·4					220		8599	·996	278·3	257·4	+ 8·8	64	388	142*f*
		·906	264·6					74		8601	·901	250·5	233·3	−14·9	53	151	793*c*
		·890	252·4					217		8603	·753	287·0	220·5	+16·3	109	736	438*c*
		·870	232·1					69		8607	·540	198·1	182·7	−25·4	17	46	
	8605	·880	283·0	262·3	+13·9	9	29	390*nf*		8606	·389	172·9	169·1	−17·1	22	96	
	8599	·830	277·1	256·7	+ 8·8	90	382	180*c*		8609	·181	81·5	161·7	+ 6·9	5	11	
	8600	·735	271·6	247·8	+ 4·7	0	3	119*p*		8610	·539	84·6	139·4	+ 7·5	3	30	
	8601	·583	236·6	230·5	−14·1	68	320		G	*867k*	·595	99·7	136·2	− 1·2	1	4	
	8603	·366	301·4	219·4	+15·9	151	818			*867l*	·689	67·7	129·7	+19·2	2	7	
	8608	·148	11·8	198·7	+13·6	0	2			8612	·729	73·0	125·7	+16·1	9	20	54*c*
G	8607	·568	152·0	183·5	−24·9	5	20			8611	·804	86·7	118·4	+ 5·9	11	31	102*c*
	8606	·636	124·6	167·5	−16·7	38	181			8613	·891	85·9	108·9	+ 6·1	29	96	247*c*
	8609	·625	86·4	161·8	+ 6·4	15	31			8614	·938	84·1	102·0	+ 7·4	0	13	121*c*
	8610	·871	83·6	139·7	+ 8·2	2	6	499*c*		8615	·995	79·9	87·0	+10·6	10	134	52*p*
	867j	·960	82·9	126·4	+ 8·3	3	9	418*c*			·742	83·3					97
		·747	88·2					43			·806	64·5					114
		·779	118·9					66			·888	64·3					91
		·833	70·9					76			·959	118·0					45
		·886	91·5					197	July 27			(+8·7)	(172·0)	(+5·5)	(335)	(1763)	(2712)
		·889	110·1					136									
		·954	65·2					95									
		·960	75·4					313									
July 25			(+7·8)	(200·5)	(+5·3)	(381)	(1801)	(3226)	208·398	8601	·972	254·0	234·6	−14·1	21	144	630*sf*
										8603	·868	286·1	220·9	+16·7	79	704	349*c*
										867m	·564	229·5	187·0	−16·5	3	10	
										8607	·609	213·6	182·3	−25·3	9	50	
206·379		·953	245·6					91		8606	·404	198·2	168·0	−17·0	20	115	
		·951	255·7					163		8616	·460	188·7	164·8	−21·4	4	25	
		·883	274·2					156		8609	·036	344·8	161·0	+ 7·4	1	12	
	8605	·965	282·8	262·6	+13·8	6	62	333*nf*		8610	·359	82·9	139·5	+ 7·7	2	9	
	8599	·939	277·4	257·4	+ 8·8	88	415	153*c*	C	8617	·453	53·5	137·7	+20·7	8	30	
C	8601	·756	245·5	232·3	−14·4	40	209			8612	·580	69·7	126·1	+16·2	36	130	
	8603	·557	292·0	219·8	+16·4	79	650			8611	·656	87·7	119·5	+ 5·7	4	20	
	8607	·522	169·6	181·2	−25·4	5	59			8613	·789	86·5	108·3	+ 6·1	28	111	41*c*
	8606	·486	139·3	168·0	−16·5	24	133			8614	·853	83·4	101·8	+ 8·5	6	17	142*c*

Group 8611 July 26–28. Two or three very small spots.
Group 8612 July 27–Aug. 6. Revival of Group 8573. A long stream growing from two very small spots seen on July 27. It is composed of a regular spot and a broad train of small unstable followers. On Aug. 1 another regular spot has appeared immediately *f* the leader with which it coalesces by Aug. 2. Meanwhile, a spot at the rear of the stream is becoming more conspicuous.
Group 8613 July 27–Aug. 7. Return or revival of Group 8588. A small cluster for a few days with considerable development near the central meridian, when the group becomes an irregular stream. A large irregular spot is the chief component, and this has formed from the original cluster, the *p* components being entirely of new formation. Group 8614 July 27–31. One or two small spots *f* Group 8613.
Group 8615 July 27–Aug. 9. Return of Group 8582. A stable regular spot with occasional very small companions.
Group 8616 July 28–Aug. 2. Two spot centres, represented generally by small clusters, appearing just *s* of Group 8606 in the same area of faculæ. The preceding one is alone left after July 31. Group 8617 July 28–31. A small group *np* Group 8612.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.	
1918.			°	°	°				1918.			°	°	°				
208·398	8615	·961	80·5	86·1	+10·7	30	113	257*c*	210·424		·963	107·0					106	
C		·898	121·3					32	G		·975	71·1					93	
		·949	68·3					88	July 30			(+9·9)	(133·6)	(+5·7)	(203)	(807)	(1611)	
July 28			(+9·1)	(160·5)	(+5·5)	(251)	(1490)	(1539)										
									211·411		·979	281·3					55	
209·410		·988	253·6					265			·919	238·2					436	
		·919	231·2					100			·912	285·3					292	
		·806	282·7					123			·866	253·7					203	
	8603	·954	285·5	220·3	+16·5	161	727	1587*c*			·852	221·1					60	
	867n	·623	288·7	184·8	+15·9	3	14				·796	292·7					168	
	8607	·718	226·5	182·0	−25·0	2	16	89*c*			·687	270·2					217	
	867o	·577	245·5	179·1	−9 ·1	1	4			*867e*	·736	280·3	168·1	+11·5	1	3	62*p*	
	867p	·502	228·1	169·7	−14·3	1	4			8606	·794	241·4	167·7	−18·4	13	33	} 323*c*	
	8606	·517	221·6	168·1	−17·4	19	92			8616	·796	237·3	166·5	−21·4	16	63		
	8616	·539	213·4	165·6	−21·4	20	65			8610	·340	271·1	140·5	+ 5·8	1	16		
	867q	·179	338·1	151·0	+15·1	0	3		G	8617	·382	315·2	137·3	+21·2	2	4		
	8610	·145	77·3	138·9	+ 7·4	3	15			*867w*	·281	251·6	136·0	+ 0·5	0	5		
G	8617	·320	32·3	136·6	+21·1	8	21			8612	·234	324·5	128·7	+16·7	65	231		
	867r	·237	69·3	134·1	+10·2	3	16			8613	·182	93·1	110·1	+ 5·1	45	178		
	8612	·378	60·5	127·2	+15·9	48	251			8614	·304	86·3	102·9	+ 6·6	1	4		
	867s	·388	86·0	124·3	+ 6·7	1	4			8618	·444	137·0	102·5	−13·4	1	4		
	867t	·604	110·7	112·5	− 7·7	1	5			8615	·567	80·3	86·1	+10·2	14	112		
	8613	·630	86·9	108·0	+ 6·3	22	87				·785	119·8					231	
	8614	·707	83·5	102·0	+ 8·5	5	11				·809	70·5					71	
	8615	·872	81·3	86·1	+10·3	16	116	328*n*			·929	72·5					169	
		·813	124·3					58			·935	112·0					256	
		·911	119·1					70	July 31			(+10·3)	(120·6)	(+5·8)	(159)	(653)	(2543)	
		·954	73·5					215										
		·956	110·5					264										
July 29			(+9·5)	(147·1)	(+5·6)	(314)	(1451)	(3099)	212·446		·973	240·7					224	
											·970	287·6					147	
											·945	256·6					127	
210·424		·911	285·8					120			·886	280·1					78	
		·822	245·5					82			·885	289·3					157	
		·800	286·9					252			·848	273·8					276	
	8603	·988	288·7	215·7	+19·3	28	110	183*c*			·847	299·6					87	
	8607	·817	231·9	179·2	−26·2	2	7	299*c*			·812	264·2					93	
	8606	·671	234·8	168·7	−18·0	13	60			8606	·918	247·7	169·8	−17·8	2	5	} 710*c*	
	8616	·664	227·3	165·2	−21·9	32	90			8616	·923	243·9	169·6	−21·4	8	36		
	8610	·114	280·5	140·1	+ 6·9	0	9			8610	·551	272·3	140·4	+ 6·1	3	20		
	8617	·285	342·9	138·7	+21·4	10	21		G	8612	·424	298·3	129·8	+16·9	80	425		
G	8612	·208	24·9	128·4	+16·5	58	200			*867x*	·445	238·2	129·3	− 8·1	7	16		
	8613	·411	89·2	109·3	+ 5·5	35	152			*867y*	·200	275·4	118·4	+ 6·8	3	17		
	8618	·583	121·6	103·1	−12·8	4	19			8613	·056	252·4	110·0	+ 4·8	62	360		
	8614	·520	83·9	102·3	+ 8·0	1	8			*867z*	·102	14·5	105·4	+11·5	0	4		
	8615	·739	81·1	85·9	+10·4	16	120	88*f*		8615	·359	76·2	86·2	+10·3	17	112		
	867u	·890	122·7	77·7	−25·5	4	11	46*c*		8619	·983	112·0	30·8	−20·3	82	410	278*c*	
		·882	73·3					115			·814	69·8					77	
		·889	113·5					227			·877	114·4					233	

Group 8618 July 30 Aug. 2. A very small cluster not seen on Aug. 1.

Group 8619 Aug. 1–13. A large stream, differing from the normal type in that the composite spot at the rear dies out before the irregular cluster of spots intermediate between it and the leader. One member of the cluster, a small regular spot, remains with the leader, whilst the other components of the stream disappear.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
212·446		·901	80·2					93	215·422		·953	272·6					282
G		·918	68·7					105			·925	293·5					82
		·944	103·3					141			·883	257·2					122
Aug. 1			(+10·8)	(106·9)	(+5·8)	(264)	(1405)	(2826)			·866	276·1					446
											·788	298·1					89
										867z[1]	·980	249·5	143·0	−18·6	0	20	91
213·384		·959	281·3					89		8612	·891	286·7	130·8	+17·5	214	1025	657*c*
		·955	289·1					131	G	8613	·716	271·3	113·2	+ 5·2	114	680	104*c*
		·936	272·1					307		8615	·324	284·3	86·0	+10·2	18	111	
		·928	298·4					128		8622	·589	138·6	43·0	−20·7	1	6	
		·905	244·7					97		8619	·730	123·7	27·6	−19·2	150	915	299*f*
		·886	256·9					66		*867z*[7]	·665	76·6	26·0	+13·3	1	5	
		·854	285·1					48		8621	·868	119·7	13·3	−22·0	73	400	583*c*
		·801	238·1					46		8623	·940	102·9	359·3	− 9·9	22	115	365*f*
	8616	·981	246·9	169·9	−21·3	18	66	466*f*		*867z*[6]	·963	83·9	352·8	+ 7·5	0	11	147*f*
	8610	·729	271·9	141·3	+ 5·5	1	12	51*c*	Aug. 4			(+11·9)	(67·5)	(+6·0)	(593)	(3288)	(3267)
	8612	·607	291·3	130·7	+17·5	80	566										
C	8613	·291	267·8	111·4	+ 5·0	79	462										
	867z[1]	·471	209·1	108·4	−18·5	1	6										
	8618	·367	206·5	104·1	−13·3	1	3		216·367		·973	259·1					119
	867z[2]	·130	296·8	101·2	+ 9·2	0	20				·955	276·5					224
	8615	·163	61·9	86·1	+10·2	18	107			8612	·972	286·7	132·5	+17·6	68	969	1008*c*
	8620	·236	48·5	84·0	+14·8	2	13			8613	·849	272·8	113·3	+ 5·7	53	570	164*c*
	8619	·929	114·3	30·4	−20·0	90	548	248*c*		8615	·518	280·1	86·2	+10·4	16	134	
	8621	·992	112·1	14·7	−21·0	31	241	350*c*	C	*867z*[7]	·230	4·1	54·1	+19·2	1	4	
		·780	120·4					77		8619	·606	133·5	27·6	−19·2	103	788	
		·879	104·8					82		8621	·764	125·5	13·2	−21·8	54	260	187*c*
		·955	79·2					46		8623	·840	105·5	0·1	− 9·5	23	67	359*f*
Aug. 2			(+11·1)	(94·5)	(+5·9)	(321)	(2044)	(2232)		8624	·988	77·0	333·1	+13·8	28	170	189*p*
											·891	84·3					92
									Aug. 5			(+12·3)	(55·1)	(+6·1)	(346)	(2962)	(2342)
214·375		·978	249·3					157									
		·972	270·6					117									
		·968	296·7					104									
		·948	284·4					70	217·615		·942	299·0					116
		·910	248·9					114			·939	251·6					84
		·871	271·9					256			·910	278·8					125
		·776	253·5					40			·778	290·0					54
		·774	276·3					66		8612	·996	286·4	125·0	+16·9	0	181	321*c*
C	8612	·768	287·9	131·3	+17·5	113	808	128*p*		8613	·971	274·5	115·1	+ 5·8	58	434	558*c*
	867z[3]	·637	282·3	120·8	+12·4	1	6			8615	·738	278·8	86·3	+10·7	19	104	76*n*
	8613	·501	269·3	111·5	+ 4·9	108	643		G	8619	·469	157·8	27·8	−19·6	91	592	
	8620	·203	332·4	87·0	+16·2	0	2			8621	·594	140·0	14·5	−21·4	29	210	
	8615	·111	312·5	86·1	+10·2	17	101			8623	·661	112·6	0·5	− 9·9	13	69	133*f*
	8622	·697	127·8	45·6	−20·4	0	5			8624	·902	77·5	333·7	+13·9	17	78	335*c*
	8619	·848	117·3	28·6	−19·2	99	743	399*c*			·899	111·2					154
	8621	·948	114·9	14·3	−21·2	27	167	994*c*			·971	87·9					182
	8623	·995	100·7	358·7	− 9·9	38	144	65*c*			·975	99·6					104
Aug. 3			(+11·5)	(81·4)	(+6·0)	(403)	(2619)	(2510)	Aug. 6			(+12·8)	(38·6)	(+6·2)	(227)	(1668)	(2242)

Group 8620, Aug. 2–3. Two or three small scattered spots *n* Group 8615.
Group 8621, Aug. 2–13. Return or revival of Group 8593. A group *f* Group 8619, in a conspicuous area of faculæ coterminous with that surrounding the latter group. Two partially formed regular spots, coalescing to make an indefinite and unstable spot, which soon breaks up and so dies out. There is a small follower from Aug. 4 to Aug. 7.
Group 8622, Aug. 3–4. One or two very small spots.
Group 8623, Aug. 3–9. Return of Group 8597. A small but stable regular spot, breaking into two portions on Aug. 9 and then disappearing.
Group 8624, Aug. 5–12. Return of Group 8602. A small regular spot with occasional companions.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
218·432	8613	·985	275·0	108·2	+ 6·0	6	113	521*c*
	8615	·845	278·5	85·8	+10·5	12	99	73*n*
	8619	·439	180·9	28·2	−19·8	64	363	
	8621	·514	154·5	14·1	−21·4	10	151	
	8623	·528	120·3	0·4	− 9·9	11	50	
C	8624	·805	77·1	334·0	+14·0	8	71	108*nf*
		·864	115·9					89
		·910	88·6					140
		·931	102·6					107
		·978	86·8					237
		·986	102·9					213
Aug. 7			(+13·1)	(27·8)	(+6·2)	(111)	(847)	(1488)
219·422		·909	247·6					106
		·853	290·1					60
	8615	·943	278·9	85·8	+10·5	27	121	173*n*
	8625	·560	249·7	46·4	− 5·8	6	21	
	8619	·495	205·9	28·0	−20·2	61	415	
	8621	·473	178·9	14·1	−21·8	19	105	
	8623	·370	138·5	0·4	− 9·9	7	30	
G	8624	·655	76·1	334·0	+13·8	14	77	
	8626	·978	74·5	295·6	+16·5	19	143	223*f*
	8627	·989	102·9	295·1	−11·6	18	72	132*e*
		·798	89·3					78
		·839	107·3					53
		·915	87·5					220
		·918	106·9					177
Aug. 8			(+13·5)	(+14·7)	(+6·3)	(171)	(984)	(1222)
220·172		·929	252·7					122
		·892	290·2					169
		·835	240·6					82
	8615	·987	279·4	86·1	+10·2	18	76	148*n*
	8625	·705	254·9	47·7	− 6·0	7	21	
	8619	·583	220·6	28·5	−20·4	55	398	
	8621	·500	197·9	14·2	−22·1	13	71	
	8623	·292	164·2	0·1	− 9·9	5	18	
D	8624	·524	72·8	333·7	+14·3	17	62	
	8626	·932	74·4	295·3	+16·8	31	131	150*e*
	8627	·951	103·8	294·7	−11·0	13	40	207*e*
	8628	·978	72·4	285·6	+18·5	2	16	279*e*
		·837	109·8					201
		·861	87·1					256
		·942	131·8					75
		·961	114·5					120
Aug. 9			(+13·8)	(4·7)	(+6·3)	(161)	(833)	(1809)

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
221·394		·939	248·9					91
		·850	256·5					74
	8629	·862	244·1	43·2	−18·4	2	8	38*e*
	8619	·738	234·8	28·5	−20·2	55	329	234*e*
	8621	·620	221·3	14·7	−21·9	18	31	
	8624	·274	60·8	334·4	+13·8	13	60	
	8630	·705	117·2	308·5	−13·9	2	5	61*f*
G	8627	·818	108·2	296·5	−10·9	10	32	99*e*
	8626	·798	74·2	295·6	+16·5	29	169	79*e*
	8628	·883	72·6	286·2	+18·3	6	17	255*e*
	8631	·975	80·5	270·7	+10·7	20	157	265*e*
		·902	119·7					126
		·932	108·5					86
		·965	120·8					118
		·975	72·6					175
Aug. 10			(+14·2)	(348·6)	(+6·4)	(155)	(808)	(1701)
222·608		·963	259·2					86
		·895	253·2					93
	8629	·957	248·2	42·0	−18·6	10	32	149*e*
	8619	·879	242·5	28·6	−20·3	55	284	552*e*
	8621	·772	233·6	14·6	−22·4	6	19	148*p*
	8624	·128	344·8	334·5	+13·6	7	21	
	8630	·485	130·2	310·3	−12·2	1	4	
G	8626	·607	72·0	295·7	+16·0	41	172	
	8628	·734	71·0	285·7	+18·3	9	19	28*e*
	8632	·791	103·3	281·9	− 6·3	5	18	25*e*
	8631	·932	83·0	263·2	+ 8·9	103	676	780*e*
		·907	113·8					112
		·914	125·8					102
		·916	73·6					239
		·951	104·0					101
Aug. 11			(+14·6)	(332·5)	(+6·5)	(237)	(1245)	(2415)
223·507		·966	254·9					89
		·934	295·8					87
		·864	276·2					73
		·791	235·4					382
	8629	·994	250·8	41·7	−18·2	18	53	97*f*
	8619	·950	245·7	28·1	−20·6	48	265	547*e*
	8621	·869	239·6	14·7	−22·4	4	19	541*p*
G	8633	·688	251·4	1·7	− 7·7	1	11	
	8624	·260	299·6	334·1	+13·6	0	7	
	8630	·360	149·4	310·0	−11·6	20	51	
	868*a*	·285	110·6	305·3	+ 0·6	1	4	
	8626	·450	66·6	295·3	+16·2	31	162	
	8628	·595	68·2	285·3	+18·0	3	13	
	8632	·658	107·2	281·7	− 6·2	8	9	

Group 8625, Aug. 8–9. A pair of very small spots. Group 8626, Aug. 8–17. A regular spot breaking up suddenly after Aug. 13.
Group 8627, Aug. 8–10. Revival of Group 8598. A very small cluster. Group 8628, Aug. 9–15. A very small spot *f* Group 8626 with which it is probably related. A tiny ephemeral stream appears on Aug. 15. Group 8629, Aug. 10–12. Revival of Group 8622. A small group appearing near the west limb.
Group 8630, Aug. 10–19. A disturbed area shown at first by one or two very small spots and later by a sparse stream, with maximum development on the central meridian. Nothing is seen on Aug. 17 and only one small spot on Aug. 18–19.
Group 8631, Aug. 10–23. Return of Group 8599 showing a great revival of activity. A very large stream, some 15° in length, composed of two regular spots and numerous small unstable spots between them. The leader shows the greater development of the two, and becomes firstly double and then composite. The follower at the same time shows a double nucleus and is gradually diminishing. Larger attendant spots tend to form, but they break up within a few days. Group 8632, Aug. 11–12. A very small spot with a companion preceding it on Aug. 11.
Group 8633, Aug. 12–14. A cluster of minute spots on Aug. 12; a very small spot on the two following days.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
223·507	8631	·840	83·0	263·2	+ 9·3	165	758	712*c*	226·397		·968	247·4					245
	8634	·940	70·8	249·9	+20·2	3	13	57*c*			·928	277·2					125
	8635	·987	105·5	242·2	−14·1	27	133				·786	282·6					89
G		·812	73·4					81		8630	·574	237·7	312·1	−11·9	12	41	
		·870	107·0					85		8626	·249	311·6	293·6	+16·0	8	36	
		·883	69·6					94		8628	·204	341·9	286·3	+17·8	5	14	
		·978	105·2					174		*868c*	·293	59·4	267·4	+15·0	0	14	
Aug. 12			(+15·0)	(320·7)	(+6·5)	(329)	(1498)	(3019)	G	8631	·299	79·6	265·3	+ 9·5	160	1029	
										8637	·504	90·5	252·2	+ 5·5	1	8	
										8635	·721	116·8	241·1	−13·9	42	211	135*c*
224·368		·879	239·5					381		8639	·832	111·4	229·8	−13·6	2	4	147*c*
		·816	247·2					131		8640	·816	77·1	227·5	+14·4	40	162	142*c*
	8619	·989	247·8	27·4	−20·6	51	282	214*c*			·827	89·1					64
	8621	·941	243·0	14·4	−22·7	3	10	646*np*			·884	116·6					77
	8633	·828	256·7	3·4	− 7·1	4	12	164*s*			·904	72·0					496
	8636	·792	239·0	355·2	−19·5	5	33	79*c*	Aug. 15			(+16·0)	(282·5)	(+6·7)	(270)	(1519)	(1733)
	8630	·316	182·1	310·0	−11·7	25	147										
	8626	·294	55·5	294·8	+15·9	23	152										
	868b	·416	137·3	292·6	−11·3	1	4		227·429		·898	247·5					177
G	8628	·444	63·1	284·9	+17·6	2	9				·884	283·1					177
	8631	·710	83·7	263·8	+ 9·1	134	910	721*c*			·831	271·9					121
	8637	·829	85·3	253·1	+ 7·6	2	6	121*s*		8630	·720	246·2	311·0	−11·9	4	25	168*c*
	8634	·846	71·1	251·4	+19·5	6	21	95*np*		8626	·439	294·1	293·4	+16·4	4	11	
	8635	·937	107·9	242·6	−14·2	22	122	738*c*		8641	·257	353·3	270·6	+21·4	1	5	
	8638	·936	74·2	239·1	+17·1	1	3	46*c*		8631	·083	51·7	264·9	+ 9·5	171	1038	
	8639	·979	105·4	233·3	−13·6	4	45	285*p*		8642	·255	51·1	257·0	+15·7	0	8	
	8640	·989	76·4	226·7	+14·4	7	36	322*c*		8634	·413	50·7	248·8	+21·4	1	8	
		·873	121·3					112	G	8635	·573	125·7	240·3	−13·6	50	277	
Aug. 13			(+15·3)	(309·3)	(+6·6)	(290)	(1792)	(4055)		8638	·508	70·7	239·1	+15·5	3	7	
										8639	·680	117·4	230·7	−13·0	2	22	128*c*
										8640	·664	75·4	227·4	+14·7	25	98	55*c*
225·445		·991	249·2					303		*868d*	·729	87·8	221·9	+ 6·2	1	6	27*c*
		·968	243·7					308			·797	71·5					248
		·935	233·2					124			·908	76·7					130
	8633	·925	259·6	1·2	− 7·0	3	9	270*s*			·975	72·9					126
	8636	·915	245·2	356·6	−19·5	4	18	194*f*			·984	113·5					71
	8630	·420	221·9	311·6	−11·9	7	51		Aug. 16			(+16·3)	(268·8)	(+6·7)	(262)	(1505)	(1428)
	8626	·167	5·4	294·1	+16·1	13	71										
G	8628	·218	37·8	287·0	+16·4	1	2										
	8631	·514	83·5	264·0	+ 9·0	126	848		228·357		·983	249·0					104
	8637	·653	86·4	254·1	+ 7·4	0	3				·967	283·8					108
	8634	·704	68·0	251·2	+20·1	1	3				·930	272·8					113
	8635	·832	111·6	242·4	−13·8	29	160	504*c*			·871	251·9					226
	8639	·900	108·6	233·9	−13·6	1	9	602*f*			·813	272·1					95
	8640	·924	77·0	226·8	+14·5	21	80	495*c*		8626	·610	288·0	293·6	+16·2	0	3	
		·970	72·2					390	C	8641	·336	321·2	269·6	+21·8	2	7	
Aug. 14			(+15·6)	(295·0)	(+6·6)	(206)	(1254)	(3190)		8631	·176	287·0	266·4	+ 9·7	136	1189	
										8642	·139	358·2	256·9	+14·7	5	22	
										8637	·076	103·7	252·4	+ 5·8	0	1	
226·397		·971	258·0					213		8635	·431	142·6	241·1	−13·3	51	332	

Group 8634, Aug. 12–16. Two very small spots on Aug. 12 and 13. A single spot on Aug. 14 and 16.
Group 8635, Aug. 12–23. Return or revival of Group 8601. A small regular spot *f* which two others develop together with smaller companions to make a close cluster. Group 8636, Aug. 13–14. A very small cluster on Aug. 13; a single spot on the following day.
Group 8637, Aug. 13–17. A very small outlying spot to Group 8631, not seen on Aug. 16.
Group 8638, Aug. 13–16. A very small spot seen only on Aug. 13 and 16.
Group 8639, Aug. 13–22. With Group 8635, a return of Group 8601. A few very small spots, which increase for a few days and form an indefinite stream. No spots are seen on Aug. 21. This group closely follows Group 8635 in the same general area of faculæ, and the separation into two groups is somewhat arbitrary. Group 8640, Aug. 13–21. Return of Group 8603. A small indefinite group.
Group 8641, Aug. 16–21. One small spot on Aug. 16 and 17; two on Aug. 18, the leader being of regular type and alone remaining on Aug. 21.
Group 8642, Aug. 16–17. A very small group *nf* Group 8631.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
228·357	8639	·499	133·7	234·9	−13·8	19	91	
	8640	·501	71·4	227·3	+15·1	5	45	
	8643	·998	108·3	172·7	−17·7	74	331	33*p*
C		·915	71·7					90
		·950	116·4					79
		·980	122·7					96
		·985	72·4					87
Aug. 17			(+16·6)	(256·6)	(+6·8)	(292)	(2021)	(1031)
229·396		·990	275·3					103
		·941	228·4					82
		·931	274·7					136
		·870	270·5					124
		·841	250·8					155
		·793	238·4					83
	8630	·945	253·7	311·1	−13·0	3	15	395*c*
	868e	·760	287·6	292·1	+17·7	2	10	92*c*
	868f	·645	287·8	282·5	+16·6	1	5	
	8641	·516	302·0	270·8	+21·8	22	123	
	8631	·425	277·8	268·0	+ 9·5	157	1182	
C	8644	·185	301·6	252·0	+12·2	5	20	
	8635	·348	177·2	241·8	−13·5	37	261	
	8639	·384	159·6	234·9	−14·3	7	72	
	8640	·318	59·0	226·4	+15·9	2	11	
	8645	·416	61·6	220·3	+17·7	1	9	
	8643	·959	111·0	172·8	−17·9	106	631	394*c*
	8646	·996	109·4	160·8	−18·5	37	144	164*c*
		·851	120·0					69
		·922	71·0					157
		·925	125·2					138
		·946	86·2					255
Aug. 18			(+17·0)	(242·8)	(+6·8)	(380)	(2483)	(2347)
230·358		·944	271·1					133
		·925	255·1					143
		·888	237·8					112
		·884	286·3					117
		·806	286·9					114
		·805	222·8					79
	8630	·990	255·9	309·7	−12·7	0	21	173*sf*
G	8641	·672	295·3	270·8	+21·9	15	110	
	8631	·619	276·3	268·4	+ 9·2	170	1123	
	8644	·391	284·9	252·7	+12·1	6	45	
	8635	·407	210·1	242·2	−13·8	39	195	
	8639	·365	191·9	234·5	−13·9	5	71	
	8640	·179	25·5	225·5	+16·2	2	20	
	8645	·262	38·1	220·3	+18·6	2	11	

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
230·358	8647	·540	115·5	200·8	− 7·4	1	3	
	8643	·882	114·9	173·0	−18·1	102	577	496*c*
	8646	·962	111·9	159·7	−18·9	29	189	1204*c*
	8648	·995	83·1	145·3	+ 7·6	10	81	221*s*
G		·822	72·2					109
		·852	87·7					129
		·878	127·7					103
		·933	63·6					115
		·958	73·8					162
Aug. 19			(+17·3)	(230·1)	(+6·9)	(381)	(2446)	(3410)
231·359		·978	256·6					117
		·966	287·0					192
		·950	243·7					115
		·928	232·3					89
		·924	285·2					152
		·858	240·5					54
	8641	·829	291·7	272·7	+21·8	16	77	77*c*
	8631	·786	276·9	269·1	+ 9·6	161	997	300*c*
	8644	·609	280·3	254·5	+11·7	10	53	
	8635	·544	230·7	242·5	−13·9	34	188	
	8639	·480	221·0	235·8	−14·6	2	12	
	8649	·313	285·3	234·7	+11·3	4	23	
	8640	·223	312·2	226·7	+15·3	3	27	
C	8645	·235	348·8	219·7	+20·2	1	5	
	8647	·378	130·6	200·1	− 7·6	4	22	
	8643	·766	121·2	173·4	−18·3	103	515	226*c*
	8646	·880	115·0	160·1	−18·1	18	101	603*s*
	8650	·908	88·4	151·6	+ 4·4	1	7	} 429*c*
	8648	·942	84·2	146·1	+ 7·7	16	66	
	8651	·990	74·0	133·7	+16·8	89	645	207*c*
	8652	·996	84·6	131·5	+ 6·0	21	117	184*n*
		·809	134·3					110
		·854	60·6					69
		·870	73·8					119
		·932	96·4					91
		·946	130·8					170
		·948	106·3					113
Aug. 20			(+17·6)	(216·9)	(+6·9)	(483)	(2855)	(3417)
232·327		·979	285·9					82
		·960	209·9					39
		·935	233·3					78
C		·922	221·7					64
		·913	244·1					88
		·880	251·9					87
	8641	·935	290·5	274·2	+21·6	3	11	255*f*

Group 8643, Aug. 17 29. A return or more probably a revival of Groups 8606 and 8616. A large regular spot with a small and imperfectly-formed companion *nf*. After Aug. 22, the larger spot shows signs of disruption, and by Aug. 26 it has separated into two close regular components.

Group 8644, Aug. 18 23. At first a faint stream of small spots appearing behind Group 8631. A small spot at the rear develops considerably after Aug. 20, whilst the *p* spots disappear. Group 8645, Aug. 18 20. A few very small faint spots. Group 8646, Aug. 18 25. A small diminishing regular spot with a few small followers. Groups 8643 and 8646 are situated in the same general area of facular of considerable extent.

Group 8647, Aug. 19 27. A small stream of normal type. Group 8648, Aug. 19 24. Revival of Group 8610. A small spot.

Group 8649, Aug. 20 23. A few very small spots. Group 8650, Aug. 20 21. A very small spot in the same disturbed area as Group 8648.

Group 8651, Aug. 20 Sept. 2. Return of Group 8612. A very large and nearly regular spot with double nucleus. A division of the spot tends to take place near the more northern and smaller nucleus, but the actual separation into two components does not occur until Sept. 1. Numerous ill-defined companions usually surround the spot. Group 8652, Aug. 20 Sept. 1. Two regular spots. The more northern is originally part of a composite spot, which later dissolves into a cluster before disappearing.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
232·327	8631	·897	277·3	268·4	+ 9·5	85	815	822*c*
	8644	·743	280·1	252·3	+12·1	44	223	158*c*
	8635	·676	240·5	241·3	−13·9	17	171	181*p*
	8649	·539	278·5	236·8	+10·4	5	31	
	8640	·398	295·5	226·0	+16·2	0	5	
	8647	·252	171·5	202·0	− 7·4	21	72	
	8643	·642	130·2	173·0	−18·6	98	544	
C	8646	·788	120·3	158·4	−18·6	24	69	505*s*
	8650	·806	93·2	150·7	+ 1·5	0	3	108*c*
	8648	·844	85·4	146·2	+ 7·6	14	49	239*c*
	8651	·936	74·8	133·9	+16·6	99	626	494*c*
	8652	·965	84·7	128·9	+ 6·9	58	525	378*c*
		·910	116·0					113
		·911	87·7					202
		·917	134·6					91
		·972	69·6					280
Aug. 21			(+17·9)	(204·1)	(+6·9)	(468)	(3144)	(4264)
233·408		·971	290·7					160
		·885	291·1					128
	8631	·978	278·2	268·6	+ 9·4	138	635	715*c*
	8644	·886	279·7	252·7	+11·9	38	347	333*c*
	8635	·820	247·8	241·0	−13·7	16	109	364*c*
	8649	·732	277·7	237·1	+10·4	7	23	42*c*
	8639	·743	243·3	232·9	−14·4	3	9	78*c*
	8647	·336	221·6	202·7	− 7·7	25	104	
G	8643	·506	148·0	173·4	−18·6	111	531	
	8646	·653	129·6	157·9	−18·6	11	51	
	8648	·682	87·1	146·6	+ 7·1	7	22	81*f*
	8653	·857	108·5	133·9	−11·9	2	13	82*c*
	8651	·828	74·4	133·6	+16·8	133	711	683*f*
	8654	·840	95·1	133·2	− 0·4	2	4	104*p*
	8652	·868	86·3	129·3	+ 6·6	96	535	447*c*
		·909	67·7					336
		·961	88·1					685
Aug. 22			(+18·3)	(189·8)	(+7·0)	(589)	(3094)	(4238)
234·369		·960	288·8					148
		·859	247·8					238
		·793	238·8					59
		·768	278·1					87
	8631	·992	277·9	260·6	+ 8·6	41	231	} 436*c*
C	8644	·963	280·4	252·3	+11·9	37	212	
	8635	·934	251·8	243·1	−14·2	12	47	369*c*
	8649	·858	277·9	236·6	+10·4	1	14	87*n*
	8647	·496	239·6	202·6	− 8·2	37	171	
	8643	·439	171·8	173·3	−18·6	77	463	
	8646	·539	143·0	157·1	−18·9	2	21	

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
234·369	8655	·355	85·0	156·3	+ 8·3	1	4	
	8648	·504	87·0	146·7	+ 7·5	6	12	
	8656	·601	91·0	140·2	+ 5·0	0	11	
	8654	·677	98·4	135·2	− 0·4	5	20	
	8653	·725	113·5	134·5	−11·6	13	46	57*c*
C	8651	·698	72·8	133·1	+17·0	95	664	107*f*
	8652	·745	87·4	128·8	+ 6·6	62	504	86*c*
		·839	67·9					152
		·882	89·4					562
		·903	116·9					58
		·940	103·4					65
Aug. 23			(+18·6)	(177·1)	(+7·0)	(389)	(2420)	(2511)
235·394		·986	256·5					166
		·952	251·5					741
		·915	244·3					135
		·903	281·5					445
		·874	271·7					139
		·776	288·7					479
	8647	·675	248·2	202·7	− 9·1	36	207	
	8643	·468	200·5	173·4	−18·9	77	418	
	8646	·478	163·9	155·4	−20·3	3	16	
G	8655	·200	80·8	152·0	+ 8·7	2	8	
	8648	·289	88·3	146·6	+ 7·4	4	11	
	8653	·535	125·3	137·1	−11·7	9	20	
	8654	·473	104·5	136·4	− 0·6	9	26	
	8651	·517	69·6	133·3	+16·4	108	736	
	8652	·561	90·1	129·3	+ 5·8	87	433	
	8657	·967	80·7	87·4	+10·8	2	19	64*np*
		·756	91·5					182
		·864	85·5					88
Aug. 24			(+18·9)	(163·5)	(+7·0)	(337)	(1894)	(2439)
236·371		·990	253·8					209
		·969	282·9					177
		·964	271·6					83
		·888	289·6					205
	8647	·829	254·5	204·3	− 8·5	24	146	
	8643	·564	220·4	173·2	−18·9	73	398	
	8646	·453	196·4	158·3	−18·6	0	3	
C	*868g*	·116	167·1	149·1	+ 0·7	1	4	
	8656	·148	101·0	142·2	+ 5·4	0	6	
	8654	·252	121·0	138·2	− 0·4	7	22	
	8653	·407	143·8	136·4	−12·2	4	16	
	8651	·338	59·5	133·0	+16·6	96	757	
	8652	·360	92·6	129·5	+ 5·7	54	358	
	8657	·893	81·6	86·8	+10·7	0	9	57*np*
		·859	108·4					54

Group 8653, Aug. 22–26. A small unstable stream of few spots.
Group 8654, Aug. 22–28. A small equatorial group, seen firstly as a pair of spots and latterly as a small stream.
Group 8655, Aug. 23–24. One very small spot on each day.
Group 8656, Aug. 23–25. One very small spot not seen on Aug. 24.
Group 8657, Aug. 24–30. Return of Group 8615; third apparition. A small but persistent spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
236·371		·931	71·0					120	239·363	*868h*	·126	306·8	117·0	+11·4	1	4	
		·995	95·2					91		8657	·419	80·8	86·4	+10·2	3	7	
Aug. 25			(+19·2)	(150·6)	(+7·1)	(259)	(1719)	(996)	C	8659	·964	69·9	35·3	+21·1	6	31	213*sf*
											·741	104·2					107
											·917	116·4					325
237·349		·962	288·6					250			·974	107·4					228
		·867	240·6					95	Aug. 28			(+20·0)	(111·1)	(+7·1)	(207)	(1459)	(1882)
		·855	284·0					75									
		·810	226·8					81									
	8647	·946	258·8	207·1	− 8·1	15	76	274*sf*	240·365		·965	290·0					115
	8643	·700	233·2	173·9	−19·0	72	436	67*c*			·963	274·5					112
	8654	·119	199·4	140·0	+ 0·7	15	47				·908	243·5					388
C	8653	·342	174·4	135·7	−12·7	0	9				·878	293·6					104
	8651	·186	27·1	132·7	+16·5	109	790				·835	274·9					80
	8652	·141	102·4	129·8	+ 5·3	59	325			8643	·980	249·3	173·0	−18·6	30	344	205*sf*
	8658	·353	96·0	117·2	+ 4·6	1	10			8651	·577	286·6	132·7	+15·3	82	708	
	8657	·773	81·9	86·7	+10·8	2	10	69*f*	C	8652	·551	267·7	131·3	+ 4·7	32	135	
		·884	74·2					106		8658	·389	268·5	120·8	+ 6·0	1	9	
		·958	97·8					346		8657	·208	72·1	86·3	+10·6	2	7	
Aug. 26		.	(+19·4)	(137·7)	(+7·1)	(273)	(1703)	(1363)		8659	·886	69·7	35·1	+21·2	2	19	94*f*
										8660	·966	113·5	27·0	−20·5	17	38	281*c*
											·838	121·2					132
238·362		·952	243·3					98			·909	111·6					152
		·952	283·0					105									
		·905	231·8					103	Aug. 29			(+20·3)	(97·9)	(+7·1)	(166)	(1260)	(1663)
		·848	286·5					84									
		·778	271·7					66									
		·664	225·1					112	241·511		·970	245·9					220
	8647	·996	260·9	207·8	− 8·3	0	149	255*sf*			·942	285·6					91
C	8643	·821	241·0	173·5	−18·9	59	383	287*c*			·940	300·3					45
	8654	·292	248·9	140·0	+ 0·8	9	41				·930	274·4					112
	8651	·217	318·0	133·0	+16·2	95	724				·894	238·1					58
	8652	·107	253·3	130·2	+ 5·3	39	228				·845	269·6					233
	8657	·611	81·9	86·5	+10·5	3	9				·833	250·7					66
		·877	99·6					333	G	8651	·759	284·6	132·2	+15·7	95	632	55*c*
		·971	112·1					326		8652	·748	269·5	131·1	+ 4·5	35	136	58*c*
Aug. 27			(+19·7)	(124·3)	(+7·1)	(205)	(1534)	(1769)		8657	·090	316·1	86·3	+10·9	0	5	
										8659	·753	67·6	34·5	+21·5	4	20	81*f*
										8660	·883	117·9	26·5	−20·5	10	57	474*f*
239·363		·972	238·3					140			·720	129·4					94
		·970	286·4					123			·773	115·4					57
		·879	262·4					70			·970	100·5					125
		·879	274·1					110	Aug. 30			(+20·6)	(82·7)	(+7·2)	(144)	(850)	(1769)
		·877	287·4					103									
C		·803	237·8					217									
	8643	·917	245·9	173·0	−18·7	61	405	246*f*	242·358		·980	265·3					138
	8654	·528	259·9	142·3	+ 0·7	5	16				·977	275·5					166
	8651	·393	294·2	132·9	+15·9	90	784		C		·974	243·2					180
	8652	·339	263·4	130·8	+ 4·4	40	205				·930	269·8					180
	8658	·173	263·0	121·0	+ 5·8	1	7				·928	253·0					172

Group 8658, Aug. 26–29. A few very small spots *f* Group 8652; nothing is seen on Aug. 27.
Group 8659, Aug. 28–30. A small double spot.
Group 8660, Aug. 29–Sept. 3. Return of Group 8619. A small spot dissolving into a cluster on Sept. 2.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots	Faculæ.
1918.			°	°	°				1918.			°	°	°			
242·358		·773	296·6					251	245·387		·970	273·0					158
		·733	268·0					53			·879	260·2					81
	8651	·869	284·2	132·4	+15·9	90	616	421*c*		8661	·687	271·6	75·0	+ 6·3	6	43	
	8652	·864	270·6	131·3	+ 4·2	23	76	112*f*		8663	·312	191·7	35·2	−10·5	15	41	
	868i	·719	244·3	113·0	−12·7	2	15			8666	·257	6·7	29·7	+21·9	1	2	
C	8661	·057	257·8	74·7	+ 6·5	2	7		G	8660	·482	166·2	24·5	−20·7	2	8	
	8662	·323	23·0	63·6	+24·4	2	11			8665	·879	119·5	336·3	−21·6	11	69	139*c*
	8663	·663	115·4	34·1	−10·8	9	31				·889	87·4					135
	8660	·795	112·4	26·0	−20·2	14	48	551*f*			·890	49·8					62
		·908	102·3					98			·962	105·0					374
		·954	118·9					236	Sept. 3			(+21·6)	(31·5)	(+7·2)	(35)	(163)	(949)
Aug. 31			(+20·8)	(71·5)	(+7·2)	(142)	(804)	(2558)									
									246·386		·953	263·0					81
243·388		·964	253·8					113			·918	281·0					98
		·903	292·3					243			·872	286·1					95
		·855	270·5					186			·838	273·6					106
		·848	250·8					41			·801	260·6					106
	8651	·954	284·7	131·5	+16·2	60	515	304*c*			·743	297·2					37
	8652	·957	272·9	131·2	+ 4·9	7	46	245*c*		8663	·432	226·4	36·8	−10·4	6	37	
	8661	·270	267·7	73·6	+ 6·3	4	26		C	8665	·774	125·6	335·9	−21·4	9	69	74*c*
	8662	·312	343·3	63·5	+24·4	2	9			*868j*	·818	87·7	323·3	+ 6·0	2	6	60*n*
C	8663	·495	127·3	34·4	−10·8	13	74			8667	·987	106·7	300·2	−15·0	0	21	114*c*
	8660	·667	131·7	26·0	−20·2	9	31				·878	120·6					75
	8664	·616	63·0	21·8	+22·0	2	7				·888	108·1					414
	8665	·995	113·1	337·4	−22·0	0	125				·919	92·1					118
		·776	124·9					92			·982	71·0					57
		·811	109·9					52			·984	61·0					44
		·881	124·0					99	Sept. 4			(+21·8)	(18·3)	(+7·2)	(17)	(133)	(1479)
		·923	113·3					143									
Sept. 1			(+21·1)	(57·9)	(+7·2)	(97)	(833)	(1518)									
									247·558		·952	274·5					118
											·946	284·5					150
244·428		·994	271·2					193			·929	262·7					168
		·951	273·0					408			·875	294·7					80
		·948	296·8					163			·841	241·1					163
		·931	256·1					82		8663	·642	243·7	38·6	−10·7	2	11	
	8651	·997	286·1	131·2	+16·5	17	235	318*f*		8665	·640	137·2	335·1	−21·5	9	58	
	8661	·513	270·0	75·1	+ 6·2	2	15		G	8667	·906	109·8	301·4	−14·5	16	55	193*c*
	8662	·439	312·4	64·9	+23·9	1	4			8668	·924	79·3	294·7	+12·6	5	26	120*nf*
	8663	·349	152·5	34·8	−10·8	14	61				·784	114·5					183
C	8666	·332	41·2	30·7	+21·4	1	3				·908	100·9					86
	8660	·539	146·1	25·7	−19·6	6	16				·913	71·6					114
	8664	·448	53·6	21·4	+22·0	2	10				·922	60·5					87
	8665	·953	115·6	336·7	−21·7	10	60	128*c*			·923	145·1					61
		·786	132·6					81	Sept. 5			(+22·1)	(2·9)	(+7·2)	(32)	(150)	(1523)
		·842	119·4					92									
		·894	75·8					34									
		·944	86·0					58	248·346		·982	275·2					101
Sept. 2			(+21·4)	(44·2)	(+7·2)	(53)	(404)	(1557)	C		·976	264·9					124

Group 8661, Aug. 31–Sept. 3. A short stream of very small faint spots.
Group 8662, Aug. 31–Sept. 2. A pair of very small spots.
Group 8663, Aug. 31–Sept. 5. A small stream of unstable spots.
Group 8664, Sept. 1–2. Two very small spots on Sept. 1; one only on Sept. 2.
Group 8665, Sept. 1–12. A small regular spot, with very small companions from Sept. 5–8.
Group 8666, Sept. 2–3. A minute spot.
Group 8667, Sept. 4–10. A small cluster.
Group 8668, Sept. 5–14. Two small spots which later are the nuclei for small clusters.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
248·346		·912	243·9					322
		·790	234·9					108
		·762	248·4					77
	869a	·552	220·8	14·7	−18·0	4	23	
C	8665	·549	149·5	335·2	−21·3	10	48	
	8667	·833	112·7	300·2	−14·4	33	106	64*c*
	8668	·856	79·0	293·1	+13·1	8	32	84*c*
	8669	·980	79·7	273·0	+11·6	17	130	177*s*
		·868	70·1					89
		·967	67·9					118
Sept. 6			(+22·3)	(352·5)	(+7·2)	(72)	(339)	(1264)
249·338		·966	247·7					211
		·879	252·7					167
		·801	293·1					87
		·750	232·5					316
	869b	·877	244·9	35·8	−17·9	2	14	144*c*
	8665	·496	169·7	333·9	−21·8	5	42	
	8667	·702	119·9	300·5	−14·8	23	138	
	8668	·744	78·7	291·1	+13·3	11	89	36*c*
C	8669	·911	80·7	273·1	+11·5	19	112	138*c*
	8670	·969	83·1	263·2	+ 8·5	8	70	330*c*
		·914	68·4					128
		·925	91·3					101
		·935	126·1					61
		·951	107·5					45
		·957	56·5					29
		·988	86·5					88
Sept. 7			(+22·5)	(339·4)	(+7·3)	(68)	(465)	(1881)
250·377		·972	247·2					186
		·960	255·0					195
		·903	290·8					95
		·891	280·2					54
		·874	240·8					487
		·781	229·6					94
	8671	·796	295·2	17·6	+24·3	5	19	27*c*
	8665	·505	195·7	334·0	−21·7	8	23	
	8667	·565	130·8	299·4	−15·0	7	49	
C	8668	·559	76·9	291·7	+13·4	14	104	
	8669	·797	81·4	272·4	+11·3	14	77	90*s*
	8670	·885	84·1	262·9	+ 8·6	13	50	183*f*
	8672	·910	78·3	259·3	+13·6	9	59	157*c*
		·804	67·4					98
		·840	93·0					80
		·895	110·4					49
		·919	70·4					42
		·948	94·6					68
1918.			°	°	°			
250·377		·974	104·6					601
Sept. 8			(+22·8)	(325·6)	(+7·3)	(70)	(381)	(2506)
251·373		·969	290·4					113
		·946	244·4					582
		·851	252·9					108
		·846	235·5					168
		·729	233·6					68
	8671	·897	293·6	16·7	+24·3	10	56	91*c*
	8665	·585	215·1	333·7	−21·8	4	15	
	8673	·346	201·6	319·9	−11·6	1	9	
	8674	·579	166·1	303·6	−26·9	10	41	
G	8667	·452	148·6	298·4	−15·6	2	7	
	8668	·384	72·6	290·5	+13·3	11	50	
	8669	·642	81·6	272·4	+10·9	10	70	
	8670	·758	85·2	262·9	+ 8·3	14	35	65*c*
	8672	·771	79·0	261·7	+13·1	11	61	189*c*
		·881	78·8					142
		·902	107·6					500
		·969	85·0					217
		·970	108·5					261
Sept. 9			(+23·0)	(312·5)	(+7·2)	(73)	(344)	(2504)
252·416		·984	248·3					170
		·974	293·6					124
		·963	259·0					143
		·914	239·3					328
	8665	·707	228·7	333·5	−21·8	6	9	
	8673	·505	229·4	321·7	−12·5	0	3	
	8674	·565	186·6	302·9	−26·8	29	124	
	8667	·409	181·4	299·3	−16·9	1	7	
	8668	·205	54·4	288·9	+13·9	4	37	
G	8669	·453	79·9	271·8	+11·0	12	58	
	869c	·512	94·7	268·1	+ 3·9	2	4	
	8670	·580	86·1	263·1	+ 8·1	11	25	
	8672	·636	78·5	259·1	+12·8	9	59	
	8675	·793	110·4	249·6	−11·3	0	3	203*s*
	8676	·879	107·8	240·1	−11·9	4	8	361*s*
		·889	88·8					90
		·915	78·2					146
		·948	110·6					184
		·980	70·1					89
Sept. 10			(+23·2)	(298·7)	(+7·2)	(78)	(337)	(1838)
253·414		·950	243·7					180
	8665	·823	236·8	333·3	−22·0	4	8	112*c*
G	*869d*	·617	253·6	321·8	− 4·2	6	18	

Group 8669, Sept. 6–14. With Group 8670, a return of Group 8631. A small regular spot gradually dying out. A near companion is seen to the *n* until Sept. 8.
Group 8670, Sept. 7–14. With Group 8669, a return of Group 8631. Two small spots *f* Group 8669. On Sept. 11 two larger spots appear for a few days.
Group 8671, Sept. 8–9. A small isolated group seen near the west limb. Group 8672, Sept. 8–14. Return of Group 8644. An unstable group of small spots generally arranged as a stream. This group is in the same general area of facular as Group 8670. Note that these two groups with Group 8669 disappear simultaneously.
Group 8673, Sept. 9–10. Two very small spots. Group 8674, Sept. 9–15. Two diminutive clusters, the following one becoming a short-lived regular spot, whilst the other soon disappears. Group 8675, Sept. 10–18. An area of faculæ, in which a few small and usually very faint spots form and disappear.
Group 8676, Sept. 10–21. Revival of Groups 8635 and 8639. A remarkable group. A small spot on Sept. 10, in the northern portion of a faculous area, developing into a large irregular cluster. Just past the central meridian, the northern portion condenses to a large composite spot, which later becomes of nearly regular formation. Meanwhile a nucleus in the *sf* part of the cluster is becoming a regular spot, and the group becomes of the "stream" type, with an axis considerably inclined to the solar equator.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
253·414	8674	·611	203·7	301·4	−27·0	23	146	
	8668	·130	331·4	289·2	+13·7	5	30	
	8669	·253	73·5	271·3	+11·1	9	34	
	869e	·370	95·0	263·9	+ 4·9	0	4	
	8670	·370	78·2	263·9	+11·1	27	125	
	8672	·472	77·1	257·5	+12·4	14	32	
G	8675	·641	116·9	250·0	−11·0	1	5	
	8676	·752	113·8	240·9	−12·5	19	87	161*s*
	869f	·794	79·4	232·6	+12·8	1	2	67*f*
		·839	70·2					85
		·864	128·7					71
		·874	116·2					158
		·927	71·1					129
		·956	101·0					69
		·969	64·4					143
Sept. 11			(+23·4)	(285·5)	(+7·2)	(109)	(491)	(1175)
254·444		·929	285·0					76
		·797	245·0					127
		·782	255·2					70
	8665	·919	242·0	332·8	−22·1	0	4	147*c*
	8674	·693	217·1	299·8	−27·1	19	110	
	8668	·313	292·0	289·2	+13·6	2	12	
	8669	·068	12·8	271·0	+11·0	6	20	
	869g	·247	14·6	268·1	+21·0	0	4	
	8670	·144	59·2	264·7	+11·3	18	74	
G	8672	·287	72·2	255·8	+11·9	6	21	
	8675	·474	138·6	253·1	−13·9	2	8	
	8676	·608	121·6	240·0	−12·4	38	272	
		·722	122·5					104
		·810	123·9					110
		·869	67·2					197
		·893	59·1					52
		·910	103·4					111
		·961	77·1					110
Sept. 12			(+23·6)	(271·9)	(+7·2)	(91)	(525)	(1104)
255·378		·947	241·2					111
		·898	257·0					181
		·877	248·3					192
	8677	·739	240·8	301·5	−15·8	10	51	121*c*
	8674	·778	226·2	298·5	−27·0	11	70	200*p*
G	8668	·501	284·7	289·4	+13·6	0	3	
	8669	·203	291·6	270·6	+11·3	5	17	
	8670	·099	311·2	263·9	+10·9	8	65	
	8672	·120	41·8	254·9	+12·2	2	11	
	8675	·399	162·4	252·5	−15·1	1	10	
	8676	·468	134·8	239·8	−12·4	72	422	

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
255·378	8678	·658	111·2	221·5	− 8·0	1	5	
		·855	105·4					64
G		·930	74·4					182
		·939	89·2					75
Sept. 13			(+23·8)	(259·6)	(+7·2)	(110)	(654)	(1126)
256·485		·964	277·6					72
		·864	256·1					65
		·783	280·1					70
	869h	·960	255·6	316·4	−11·6	4	7	133*c*
	8677	·874	246·7	301·6	−16·3	32	289	148*c*
	8674	·889	234·2	299·0	−27·2	9	15	116*np*
	8668	·706	281·4	290·1	+13·1	0	4	46*c*
	8669	·441	281·2	271·1	+11·4	0	7	
	8670	·368	285·0	266·2	+12·2	8	15	
C	8672	·168	300·3	253·5	+12·0	2	11	
	8675	·363	197·2	251·3	−13·0	1	6	
	8676	·341	167·1	240·6	−12·1	82	473	
	8678	·424	120·0	223·5	− 5·5	2	12	
		·865	72·4					60
		·927	128·4					66
		·932	83·6					203
		·951	70·0					88
		·954	109·6					444
		·958	119·4					162
Sept. 14			(+24·0)	(245·0)	(+7·2)	(140)	(839)	(1673)
257·503		·886	291·8					59
		·878	281·9					263
	8677	·961	251·3	302·4	−15·7	34	277	383*c*
	8674	·958	238·1	298·3	−27·8	0	10	186*np*
	8675	·474	222·5	250·8	−13·5	2	8	
	8676	·371	209·1	242·2	−11·8	98	673	
	8679	·982	71·5	150·9	+19·5	16	137	124*c*
C		·825	85·7					106
		·844	70·2					76
		·871	124·1					144
		·875	114·0					227
		·936	72·5					262
		·943	115·1					334
		·947	124·4					119
		·964	86·9					518
Sept. 15			(+24·1)	(231·6)	(+7·2)	(150)	(1105)	(2801)
258·404		·991	241·6					69
		·956	281·1					195
C		·814	270·3					81

Group 8677, Sept. 13–16. Two regular spots forming near the west limb.
Group 8678, Sept. 13–14. Two or three minute spots.
Group 8679, Sept. 15–22. A small regular spot breaking up on Sept. 19.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
258·404		·739	280·3					70
	8677	·989	251·6	298·1	−16·9	20	56	229*c*
	8675	·603	233·8	249·8	−14·6	11	62	
	8676	·495	228·2	241·8	−12·5	94	838	
	8679	·931	71·7	150·1	+19·6	18	171	142*c*
		·772	122·7					120
C		·858	74·4					102
		·869	117·6					220
		·888	88·5					297
		·915	59·7					114
		·917	131·5					102
		·944	88·8					264
		·956	118·1					269
		·977	87·3					115
		·989	74·9					253
Sept. 16			(+24·3)	(219·7)	(+7·2)	(143)	(1127)	(2642)
259·358		·977	285·1					83
		·924	268·1					226
		·914	246·8					176
		·906	292·5					163
		·847	280·9					335
		·823	245·9					104
	8675	·738	243·0	249·7	−14·2	12	42	178*c*
	8676	·644	239·1	241·6	−13·4	143	1066	
	869i	·341	253·4	226·1	+ 1·3	2	16	
G	8679	·840	71·5	149·7	+19·4	18	142	138*c*
	8680	·969	75·5	130·3	+15·8	48	271	240*p*
	8681	·995	100·5	124·5	− 9·6	19	134	273*c*
		·756	89·8					173
		·792	129·3					228
		·852	90·1					244
		·878	121·7					343
		·945	113·1					163
		·961	88·7					283
		·978	67·5					219
Sept. 17			(+24·5)	(207·1)	(+7·2)	(242)	(1671)	(3569)
260·418		·943	279·6					579
		·867	280·0					288
	8675	·870	249·2	249·9	−14·2	5	12	820*c*
	8676	·795	246·4	241·4	−14·0	134	1086	400*c*
	8679	·696	70·3	149·5	+18·7	15	96	
G	*869j*	·719	87·1	147·0	+ 7·0	1	3	
	8680	·882	76·0	130·6	+15·7	34	233	508*c*
	8681	·939	102·4	125·1	− 9·0	31	165	416*c*
	8682	·988	98·6	113·4	− 7·2	28	161	241*sf*
		·773	128·8					168

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
260·418		·856	89·4					223
		·886	127·4					121
G		·911	68·8					222
		·942	63·3					151
		·942	87·6					401
Sept. 18			(+24·6)	(193·1)	(+7·1)	(248)	(1756)	(4538)
261·385		·968	251·8					112
		·950	280·0					130
		·829	275·0					51
		·809	231·9					57
		·756	286·4					55
	8676	·903	250·2	241·4	−14·5	163	1109	551*c*
G	8679	·539	66·4	149·0	+18·5	13	50	
	8680	·763	75·2	130·5	+15·9	42	246	80*f*
	8681	·838	105·4	125·7	− 8·8	23	159	90*c*
	8682	·927	101·2	114·0	− 7·5	18	111	135*c*
		·834	91·8					106
		·856	64·6					158
		·884	83·8					82
Sept. 19			(+24·8)	(180·3)	(+7·1)	(259)	(1675)	(1607)
262·369		·946	273·9					109
		·897	237·5					115
		·882	284·5					151
	8676	·977	254·1	242·4	−13·7	219	907	544*c*
	8679	·357	55·1	149·4	+18·6	8	33	
G	8680	·611	73·7	130·0	+15·6	34	220	
	8681	·706	110·3	125·4	− 8·8	35	172	48*c*
	8683	·749	85·2	118·5	+ 8·3	50	185	35*c*
	8682	·822	104·5	114·1	− 7·7	17	125	114*s*
		·808	62·3					69
		·889	102·9					95
Sept. 20			(+24·9)	(167·3)	(+7·1)	(363)	(1642)	(1280)
263·370		·956	242·5					102
		·941	285·2					128
		·821	294·1					90
	8676	·996	253·7	236·4	−15·3	93	379	327*c*
	869k	·111	310·7	159·0	+11·3	2	7	
	8679	·213	13·1	151·2	+19·0	5	12	
	869l	·287	57·7	139·6	+15·6	0	4	
C	*869m*	·442	139·1	136·9	−12·7	1	3	
	8680	·419	67·8	130·5	+15·6	36	268	
	8681	·537	118·7	125·8	− 8·7	16	149	
	8683	·552	85·1	120·5	+ 8·6	64	350	

Group 8680, Sept. 17–29. Return of Group 8651; third apparition. A stable regular spot slowly contracting. After Sept. 20, several ill-defined and unstable spots appear just north and west of it, attaining a maximum on Sept. 22.
Group 8681, Sept. 17–26. A regular spot with small attendants.
Group 8682, Sept. 18–30. A small regular spot, *f* which a train of small attendants appears after Sept. 22.
Group 8683, Sept. 20–30. A large group of the "stream" type developing rapidly. The leader is large and regular. The rear portion of the stream is usually represented by a cluster. Two companion spots form close to the leader near the west limb.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
263·370	8682	·675	109·5	114·3	− 7·6	15	106		266·385	8683	·143	282·2	122·4	+ 8·7	98	543	
		·771	106·3					64		8682	·250	171·9	112·3	− 7·3	27	149	
C		·900	105·9					150		8685	·363	148·0	103·0	−11·0	3	6	
		·929	67·2					133	G	8684	·761	107·2	67·2	− 8·3	3	21	89*f*
Sept. 21			(+25·1)	(154·1)	(+7·1)	(232)	(1278)	(994)			·875	116·5					116
											·946	109·8					109
									Sept. 24			(+25·4)	(114·3)	(+7·0)	(191)	(1030)	(1120)
264·172		·985	288·1					102									
		·931	291·2					150									
		·931	257·1					82	267·346		·958	248·1					170
		·877	298·6					103			·954	274·8					162
	8679	·251	326·4	151·9	+18·9	3	9				·944	291·6					148
	8680	·273	52·4	130·5	+16·4	64	413				·930	234·0					111
D	8681	·402	131·3	125·8	− 8·6	20	128				·878	242·4					103
	8683	·365	82·9	122·1	+ 9·1	98	460				·873	256·0					62
	8682	·543	115·3	114·0	− 7·2	12	87				·842	288·8					76
	8684	·979	99·6	66·7	− 7·9	14	50	197*f*			·828	230·2					74
		·928	100·2					66			·825	272·6					126
		·930	67·1					97		8680	·493	288·6	130·4	+15·0	27	185	
		·934	89·0					76		8681	·502	238·7	127·2	− 8·8	4	48	
Sept. 22			(+25·2)	(143·5)	(+7·0)	(211)	(1147)	(873)	C	8683	·377	275·7	123·8	+ 8·5	55	408	
										869q	·274	296·8	116·1	+13·8	0	9	
										8682	·310	218·2	112·7	− 7·3	25	125	
265·395		·963	294·7					93		*869r*	·386	198·8	109·0	−14·5	4	8	
		·901	246·8					88		8685	·307	183·3	102·6	−10·9	7	25	
		·847	289·1					58		8684	·610	113·3	67·3	− 8·3	4	8	
		·834	266·1					93			·766	122·2					59
		·799	240·1					222			·817	109·5					57
		·733	228·1					139			·910	117·8					71
	869n	·927	282·1	196·1	+13·8	0	5	99*c*			·929	105·6					51
G	8680	·160	342·7	130·2	+15·7	37	248				·974	102·8					167
	8681	·274	176·3	126·4	− 8·8	19	128				·976	114·0					88
	869o	·288	161·6	122·1	− 8·8	0	5		Sept. 25			(+25·6)	(101·6)	(+6·9)	(126)	(816)	(1525)
	8683	·097	71·8	122·1	+ 8·7	95	489										
	8682	·353	133·7	112·5	− 7·3	20	133										
	8685	·514	125·9	102·4	−11·1	0	2		268·352		·976	240·8					234
	8684	·885	103·5	67·1	− 8·5	5	24	243*f*			·959	267·5					153
		·954	112·7					161			·949	289·1					107
Sept. 23			(+25·3)	(127·4)	(+7·0)	(176)	(1034)	(1196)			·939	277·6					230
											·932	241·1					277
											·892	271·5					157
266·385		·982	282·7					80			·865	235·5					54
		·925	269·6					94	C	*869s*	·822	284·1	143·9	+15·5	2	6	161*nf*
		·921	243·3					234		8680	·677	284·4	130·8	+14·8	32	205	
		·877	227·8					105		8681	·667	247·9	126·9	− 9·1	2	16	
G		·851	242·1					180		8683	·597	274·3	125·1	+ 8·1	53	309	
		·756	227·8					113		8682	·495	241·0	114·1	− 7·6	10	66	
	869p	·384	233·2	132·3	− 6·6	1	4			8685	·384	218·1	102·2	−10·8	1	13	
	8680	·310	298·6	130·6	+15·3	38	205			8686	·217	89·7	75·7	+ 6·8	1	7	
	8681	·337	218·0	126·4	− 8·5	21	102			8684	·433	126·3	67·7	− 8·3	4	8	

Group 8684, Sept. 22–26. A small spot.
Group 8685, Sept. 23–26. A short stream of very small spots *sf* Group 8682.
Group 8686, Sept. 26–Oct. 3. Revival of Group 8661. One small spot on Sept. 26, developing on the succeeding days into a short-lived stream, the following spot being last seen.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
268·352	8687	·841	110·9	34·6	−13·4	0	9	91*c*
		·806	122·4					51
		·906	106·4					239
C		·944	66·1					106
		·955	117·6					375
		·959	98·7					77
Sept. 26			(+25·7)	(88·3)	(+6·9)	(105)	(639)	(2312)
269·400		·952	273·0					82
		·948	234·9					119
		·937	286·8					217
		·911	303·0					67
		·878	269·5					138
		·794	251·0					202
		·774	297·8					154
		·771	263·7					80
	8680	·829	283·2	130·9	+14·8	44	186	240*c*
	8683	·757	273·9	123·9	+ 7·4	77	434	82*c*
	8682	·664	250·8	113·5	− 7·2	15	106	
	869l	·420	311·2	94·4	+22·4	4	21	
G	8686	·053	262·2	77·5	+ 6·5	12	41	
	869n	·169	129·4	67·0	+ 0·7	0	3	
	8688	·521	143·8	55·7	−18·3	3	15	
	8687	·639	117·6	39·3	−11·6	37	193	
	8689	·782	79·2	22·8	+12·7	2	6	29*c*
	8690	·970	81·9	357·9	+ 9·6	54	253	239*c*
		·773	109·8					88
		·773	125·2					48
		·863	102·2					71
		·882	120·6					226
		·904	59·1					72
		·962	116·2					110
		·986	71·2					120
Sept. 27			(+25·8)	(74·5)	(+6·9)	(248)	(1258)	(2384)
270·377		·963	274·5					187
		·897	254·9					597
		·884	294·5					325
		·875	265·9					269
		·828	285·1					196
		·780	301·2					164
G	8680	·924	283·6	129·8	+15·1	20	163	371*c*
	8683	·880	274·7	123·5	+ 7·4	64	431	362*c*
	8682	·806	255·8	113·4	− 7·2	20	125	154*c*
	8691	·640	280·7	101·4	+12·1	70	351	
	8686	·264	269·7	76·9	+ 6·5	33	123	
	8688	·440	170·3	57·1	−18·9	7	17	
	8687	·481	128·6	39·3	−11·2	113	553	

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918			°	°	°			
270·377	8689	·621	77·7	23·3	+13·0	1	2	
	8690	·890	82·2	358·3	+10·0	22	174	388*c*
G		·784	123·0					270
		·922	117·7					288
		·938	69·3					528
Sept. 28			(+25·9)	(61·6)	(+6·8)	(350)	(1939)	(4099)
271·372		·955	267·3					110
		·949	294·2					181
		·885	298·2					118
		·879	290·0					57
		·825	248·3					62
	8680	·984	284·1	129·4	+15·0	14	123	108*f*
	8683	·961	275·9	122·8	+ 7·5	75	547	516*f*
	869p	·960	255·1	119·9	−12·2	5	19	253*c*
	8682	·921	259·3	114·0	− 7·0	14	88	282*sf*
	8691	·807	280·5	102·7	+12·5	51	402	65*c*
C	8686	·511	270·1	79·3	+ 5·9	27	123	
	8688	·465	200·7	58·5	−18·9	2	7	
	869o	·456	168·3	42·9	−19·7	0	6	
	8687	·334	152·3	39·5	−10·4	126	718	
	8689	·426	73·2	23·8	+13·3	1	4	
	8690	·769	82·3	357·9	+10·2	24	114	65*c*
	8692	·795	74·1	355·7	+16·8	2	11	74*f*
		·810	121·7					70
		·886	64·6					135
		·903	123·1					163
		·932	75·7					135
Sept. 29			(+25·9)	(48·5)	(+6·8)	(341)	(2162)	(2394)
272·386		·983	285·4					130
		·979	239·8					91
		·976	295·3					160
		·926	296·0					115
		·891	253·3					108
		·857	292·3					58
	8683	·996	277·0	120·6	+ 7·6	0	149	248*f*
	8682	·980	260·8	112·2	− 7·5	6	113	394*c*
	8691	·924	280·6	103·2	+12·3	53	587	208*c*
	8686	·676	272·0	77·7	+ 6·3	17	101	
C	8688	·576	221·0	58·6	−19·5	5	19	
	8687	·300	194·2	39·4	−10·2	113	926	
	8690	·599	82·2	358·2	+10·0	14	54	
	8692	·640	72·4	355·8	+16·3	15	45	
		·792	62·2					107
		·812	130·0					102
		·838	75·1					105
		·935	99·7					83

Group 8687, Sept. 26 Oct. 5. Revival of Group 8663. A very large stream of spots developing rapidly. The leader, though at first composite, is the most stable member. The rear portion of the stream is represented by a large double spot in rapid change. Following this a few other spots form to make an extended stream 11° in length, which is seen to be diminishing as the west limb is approached. The axis of the group is inclined to the solar equator.

Group 8688, Sept. 27 Oct. 1. A very small cluster.

Group 8689, Sept. 27 Oct. 1. A very small spot not seen on Sept. 30. It reappears temporarily with a companion on Oct. 1.

Group 8690, Sept. 27 Oct. 3. A long stream of spots just dying out.

Group 8691, Sept. 28 Oct. 1. A cluster of three spots with very small companions. The middle spots disappear suddenly after Sept. 29.

Group 8692, Sept. 29 Oct. 4. Two or three very small spots. None are seen on Oct. 3.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918			°	°	°				1918.			°	°	°			
272·386		·951	130·3					70	275·526	8690	·087	334·2	355·9	+11·0	1	4	
C		·952	120·1					132		8694	·307	52·0	339·1	+17·2	4	9	
		·962	109·4					295		8696	·628	131·4	324·0	−18·7	27	93	
Sept. 30			(+26·0)	(35·1)	(+6·7)	(223)	(1994)	(2406)		8693	·736	115·5	310·7	−13·6	12	33	46*c*
									G		·839	120·8					158
											·846	85·8					114
273·426		·949	290·9					129			·847	73·6					100
		·894	255·0					85			·877	96·6					90
		·747	251·1					61			·961	75·4					90
	8691	·991	281·2	104·6	+12·1	42	442	293*c*	Oct. 3			(+26·2)	(353·7)	(+6·6)	(227)	(1388)	(1350)
	8686	·842	272·5	78·9	+ 5·7	14	66	189*c*									
	8688	·685	232·5	56·4	−19·2	2	6										
	8687	·419	225·5	39·0	−10·6	163	992										
G	8689	·116	350·2	22·6	+13·3	3	5		276·410		·982	247·7					80
	8690	·400	80·1	357·9	+10·1	4	15				·896	241·9					68
	8692	·450	66·9	356·0	+16·2	10	18				·770	223·5					84
	8693	·960	105·7	310·1	−13·0	9	25	208*c*			·738	238·3					121
		·871	125·5					68		8695	·980	274·9	60·8	+ 6·1	47	184	203*f*
		·877	112·3					338		8687	·869	253·6	39·9	−10·7	97	834	672*c*
		·921	91·9					79		8692	·299	308·9	356·0	+17·1	1	5	
Oct. 1			(+26·1)	(21·4)	(+6·7)	(247)	(1569)	(1450)	G	8694	·187	12·6	339·6	+17·0	4	6	
										8696	·503	146·3	325·0	−18·4	12	36	
										8693	·596	122·7	311·1	−13·2	6	12	
274·356		·990	292·6					75		8697	·990	78·8	259·4	+11·9	14	117	176*c*
		·976	255·2					50			·891	90·2					34
		·923	263·6					35			·904	68·7					78
		·917	288·8					74			·941	78·9					285
		·900	302·8					68			·987	105·3					218
		·870	255·4					78	Oct. 4			(+26·3)	(342·0)	(+6·5)	(181)	(1194)	(2019)
		·845	241·0					86									
		·798	274·6					59									
	8686	·911	275·3	75·0	+ 7·5	6	24	223*p*									
C	8687	·568	240·0	39·0	−10·7	140	1082		277·355		·968	245·2					74
	8690	·200	71·0	358·1	+10·2	2	15				·904	242·2					51
	8692	·288	52·5	355·4	+16·5	5	18				·881	277·9					68
	8694	·559	66·7	336·5	+18·3	2	13				·835	249·1					108
	8693	·884	108·4	309·9	−12·9	4	15	311*f*			·834	232·7					108
		·810	118·4					173		8687	·955	257·5	40·5	− 9·9	85	772	822*c*
		·820	96·0					48		8694	·248	320·1	339·1	+17·4	2	9	
		·937	76·6					69		8696	·412	174·5	327·1	−17·7	7	16	
		·949	84·4					94	C	8693	·468	132·5	308·9	−12·3	1	12	
		·976	93·8					67		8698	·406	119·5	308·8	− 5·4	1	7	
Oct. 2			(+26·2)	(9·1)	(+6·6)	(159)	(1167)	(1510)		8699	·736	110·6	285·3	− 9·7	15	44	
										8697	·931	79·3	260·3	+12·3	20	121	432*f*
										8700	·989	105·1	250·2	−13·8	0	32	248*c*
275·526		·963	258·7					93			·871	65·1					83
		·947	246·4					245			·875	78·3					241
	8686	·985	277·8	74·3	+ 8·8	0	11	124*s*			·948	107·9					507
G	8695	·941	274·0	64·1	+ 6·0	39	210	119*c*			·960	94·6					114
	8687	·756	249·0	39·6	−11·0	144	1028	171*c*	Oct. 5			(+26·3)	(329·5)	(+6·5)	(131)	(1013)	(2856)

Group 8693, Oct. 1–10. Return of Group 8677. A small spot at first; later a very small cluster which has disappeared by Oct. 7. A very small spot again appears from Oct. 8–10.
Group 8694, Oct. 2–10. One or two small spots at first; later, a short stream.
Group 8695, Oct. 3–4. A group of the "stream" type appearing suddenly at the west limb.
Group 8696, Oct. 3–7. A small spot followed by a very small cluster for the first two days.
Group 8697, Oct. 4–11. Revival in region of Groups 8670 and 8672. A regular spot gradually disappearing, followed by an extended area of faculæ.
Group 8698, Oct. 5–6. Two small spots.
Group 8699, Oct. 5–9. A short-lived diminutive stream of very small spots.
Group 8700, Oct. 5–12. Return of Group 8676. A few small faint spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
278·482		·993	256·1					334	280·348	8702	·175	214·6	295·8	− 2·0	21	55	
		·935	249·7					206		8703	·105	227·4	294·5	+ 2·3	27	75	
		·921	281·9					104		8699	·305	175·1	288·6	−11·3	2	11	
		·919	237·1					168		8701	·041	82·1	287·8	+ 6·6	20	55	
	8694	·428	298·4	337·9	+17·6	16	70			8704	·486	99·8	261·6	+ 0·8	3	21	
	8696	·462	207·7	327·7	−17·8	6	12			8697	·502	75·5	260·4	+12·7	10	52	
	8693	·367	169·3	310·7	−14·7	0	7			8700	·717	115·0	248·5	−12·9	2	16	86*c*
	8698	·233	155·5	309·2	− 5·8	5	25		C	8705	·988	72·6	207·9	+18·0	6	35	79*c*
	870a	·351	114·8	296·2	− 2·4	2	11				·795	75·0					71
G	8701	·439	91·4	288·7	+ 5·1	1	3				·815	106·2					89
	8699	·572	118·1	284·0	−10·1	4	13				·861	116·6					416
	8697	·811	79·4	260·2	+12·4	24	108	408*f*			·875	125·6					135
	8700	·939	104·7	247·0	−11·3	9	76	602*c*			·881	69·4					68
		·845	112·6					351			·935	101·4					99
		·865	97·4					151			·962	119·8					167
		·944	85·3					76	Oct. 8			(+26·4)	(290·1)	(+6·3)	(100)	(402)	(2379)
		·972	118·5					75									
		·979	111·1					146									
Oct. 6			(+26·3)	(314·7)	(+6·4)	(67)	(325)	(2621)	281·343		·973	280·7					162
											·964	240·8					111
											·915	295·0					107
279·533		·975	242·6					135			·814	239·0					75
		·893	239·5					224		8694	·883	285·4	339·3	+16·5	10	38	197*c*
		·844	277·8					237		8693	·634	237·4	310·3	−14·7	1	5	
		·768	296·0					104		8703	·328	257·2	295·5	+ 1·7	64	391	
	8694	·614	291·0	337·7	+17·8	21	144			8702	·349	245·4	295·3	− 2·5	16	67	
	8696	·594	227·4	328·1	−18·0	5	11			8701	·222	271·5	289·7	+ 6·4	9	50	
	870b	·569	206·4	316·9	−24·3	4	10		C	8699	·331	207·0	285·7	−11·0	0	8	
G	8701	·230	91·2	287·5	+ 6·0	9	48			8704	·273	109·5	262·1	+ 0·8	11	27	
	8699	·388	142·8	287·0	−11·7	4	31			8697	·301	66·9	260·5	+12·7	5	31	
	8697	·652	78·2	269·1	+12·5	13	109	138*f*		8700	·562	123·4	248·3	−12·5	0	6	
	8700	·833	109·0	247·4	−11·9	2	14	282*c*		*870c*	·806	103·3	224·9	− 6·9	1	4	74*f*
		·729	119·8					112		8705	·932	73·2	207·5	+17·9	4	12	143*f*
		·906	125·2					137			·731	125·4					183
		·908	76·6					132			·817	123·4					122
		·928	113·8					352			·921	122·2					104
		·965	102·1					115			·957	63·1					65
Oct. 7			(+26·4)	(300·8)	(+6·4)	(58)	(367)	(1968)	Oct. 9			(+26·4)	(276·9)	(+6·2)	(121)	(639)	(1343)
280·348		·953	247·6					88	282·163		·951	295·6					123
		·950	301·8					103			·913	254·3					140
		·943	238·9					129			·896	245·0					190
		·926	278·8					400			·867	285·7					44
		·870	235·9					110		8694	·943	286·6	337·4	+17·7	0	6	405*c*
C		·843	296·6					121	D	8693	·757	244·3	310·8	−14·7	2	8	75*c*
		·804	223·4					50		8702	·527	254·0	296·4	− 3·0	7	27	
		·696	235·6					106		8703	·502	263·1	295·9	+ 2·0	85	530	
	8694	·748	287·6	338·2	+17·3	9	78	62*c*		8701	·418	271·6	290·8	+ 6·3	8	28	
	8693	·482	225·5	310·7	−13·8	0	4			8704	·103	147·2	263·0	+ 1·2	9	18	

Group 8701, Oct. 6–13. A stream of small unstable spots.
Group 8702, Oct. 8–11. A small short-lived stream of small spots *sp* Group 8703.
Group 8703, Oct. 8–13. A group of spots, forming *sp* Group 8701, passing in a few days through the development of the normal type of "stream."
Group 8704, Oct. 8–11. A very small short-lived stream.
Group 8705, Oct. 8–11. A very small spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918			°	°	°			
282·163	8697	·154	38·4	260·5	+13·0	6	22		284·354	8710	·862	112·1	181·4	−15·6	2	7	220*c*
	8700	·419	131·3	247·5	−10·2	0	10			8709	·936	74·5	167·2	+16·5	62	421	148*c*
	8705	·852	72·6	207·5	+18·0	3	10	146*f*			·831	81·2					63
D		·715	105·2					70			·887	67·0					81
		·733	130·0					125			·931	94·2					139
		·844	128·0					117	C		·936	121·4					99
		·925	62·6					86			·958	83·8					177
Oct. 10			(+26·4)	(266·1)	(+6·2)	(120)	(659)	(1521)			·962	67·4					88
											·963	107·8					90
											·986	119·5					111
283·449		·972	248·2					328	Oct. 12			(+26·4)	(237·2)	(+6·0)	(144)	(1004)	(2047)
		·962	285·0					85									
		·901	251·5					321									
		·861	239·2					180									
	8703	·736	265·6	296·1	+ 0·9	61	459		285·438		·982	247·4					93
	8702	·722	259·4	294·2	− 3·3	3	5				·958	264·2					139
	8701	·656	273·5	290·2	+ 6·9	28	71				·932	255·1					117
	870d	·579	254·6	283·0	− 3·7	1	2				·923	285·6					66
	8704	·235	247·8	261·6	+ 0·9	0	3				·895	263·8					57
	8697	·234	302·4	260·8	+13·1	1	6				·724	283·5					227
	8706	·140	299·0	256·2	+ 9·9	14	42			8703	·965	268·3	297·3	0·0	46	317	341*c*
	8700	·283	174·1	247·4	−10·2	2	18			8701	·929	275·8	291·5	+ 7·6	25	106	216*c*
G	8707	·250	36·2	240·2	+17·6	3	5			8707	·316	316·4	236·2	+19·0	2	5	
	8708	·458	117·2	225·0	− 6·4	1	1		G	8711	·192	201·2	226·9	− 4·2	1	9	
	8705	·717	69·3	204·1	+18·9	0	1	100*c*		8712	·488	179·2	222·5	−23·1	30	64	
	8709	·987	74·2	167·1	+16·5	24	188	181*c*		8709	·833	74·2	166·4	+16·5	102	582	128*c*
		·806	59·0					94		*870e*	·940	122·6	159·5	−27·9	7	39	240*c*
		·879	82·4					116		8713	·964	72·0	147·4	+18·9	2	7	249*c*
		·881	92·8					81			·856	84·6					141
		·883	67·5					135			·859	126·3					59
		·953	111·0					499			·889	63·6					82
		·957	81·6					129			·931	111·6					158
		·961	67·3					99			·942	89·6					134
		·967	120·8					89	Oct. 13			(+26·4)	(229·9)	(+6·0)	(215)	(1129)	(2447)
		·974	93·2					167									
Oct. 11			(+26·4)	(249·1)	(+6·1)	(138)	(801)	(2604)	286·454		·981	276·4					136
											·923	266·6					49
											·861	284·4					160
284·354		·975	263·2					95			·831	246·5					125
		·967	251·8					147			·808	269·4					68
		·932	243·0					125		8712	·524	201·1	221·3	−23·3	4	54	
		·876	262·7					83		8709	·683	72·0	167·0	+16·5	91	805	
		·823	251·2					57	C	8714	·857	95·4	151·1	− 1·5	0	4	33*f*
		·776	261·7					39		8713	·904	71·6	144·5	+19·1	0	5	127*c*
C	8703	·868	266·8	297·0	+ 0·3	53	375	207*c*			·861	130·0					96
	8701	·809	274·6	291·4	+ 7·2	16	105	78*c*			·920	120·2					110
	8706	·356	281·8	257·8	+ 9·8	10	30				·953	78·2					142
	8700	·346	213·1	248·2	−10·9	0	34				·966	100·0					93
	8707	·212	359·6	237·3	+18·2	1	11				·969	112·1					119
	8708	·315	135·8	224·5	− 7·2	0	21		Oct. 14			(+26·4)	(209·5)	(+5·9)	(95)	(868)	(1258)

Group 8706, Oct. 11–12. An ephemeral stream of small spots. Group 8707, Oct. 11–13. One or two very small spots.
Group 8708, Oct. 11–12. One small spot on Oct. 11; three on the following days.
Group 8709, Oct. 11–23. A very composite spot seen at the east limb preceded by a companion. Both grow, the composite spot in particular, and the group lengthens out into a large stream. The leader becomes of regular type, whilst the composite spot splits up into unstable components. The whole group is seen to be diminishing rapidly towards the west limb.
Group 8710, Oct. 12–21. Intermittent. A disturbed area shown by faculæ and a small spot on Oct. 12. Nothing is then seen until the appearance of a small spot on Oct. 16. On Oct. 18, a very small stream has formed, somewhat preceding it in longitude, but of this only one spot remains after Oct. 19.
Group 8711, Oct. 13–18. Intermittent. One or two very small spots not seen on Oct. 14, 16, and 17. Group 8712, Oct. 13–15. Two small spots.
Group 8713, Oct. 13–14. One very small spot. Group 8714, Oct. 14–19. A few very small spots not seen on Oct. 18.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918			°	°	°			
287·340		·945	283·2					272
		·939	293·4					81
		·920	248·8					369
		·907	270·8					77
		·896	258·4					110
		·876	283·3					134
		·834	250·4					254
		·796	281·2					128
		·736	231·4					233
	8711	·522	248·0	226·8	— 6·2	0	3	
	870f	·467	270·2	225·6	+ 5·2	4	17	
	8712	·615	220·0	223·1	—22·7	1	10	
	8709	·526	68·1	167·4	+16·2	118	763	
C	8714	·727	98·2	152·0	— 1·9	1	3	50*f*
	8715	·943	84·4	127·0	+ 7·2	13	56	242*c*
		·783	133·8					126
		·789	70·0					92
		·873	89·4					94
		·875	125·4					129
		·898	76·0					103
		·904	135·0					63
		·911	114·4					143
		·920	101·2					184
		·953	64·8					194
		·969	75·8					141
		·983	97·4					215
Oct. 15			(+26·4)	(197·8)	(+5·8)	(137)	(852)	(3434)
288·411		·976	261·7					110
		·975	250·9					323
		·967	281·7					220
		·921	254·2					290
		·919	281·1					229
		·893	270·1					96
		·858	256·5					111
		·841	236·8					408
		·795	286·2					66
		·731	228·1					67
C	*870g*	·498	232·1	207·3	—12·5	4	9	
	8710	·369	176·3	182·3	—15·9	1	4	
	8709	·330	55·3	167·4	+16·2	111	785	
	8714	·557	101·5	150·7	— 1·5	1	9	
	8716	·806	120·1	136·0	—20·0	0	6	116*c*
	8715	·832	85·3	127·3	+ 7·1	9	71	387*f*
	8717	·959	79·6	109·6	+11·6	59	298	169*f*
	8718	·965	72·3	108·1	+18·6	8	71	217*f*
		·744	76·1					77
		·758	132·5					99
		·815	104·0					102
288·411		·886	66·8					174
		·919	124·9					62
C		·932	101·3					302
		·958	62·2					112
Oct. 16			(+26·3)	(183·7)	(+5·7)	(193)	(1253)	(3737)
289·439		·981	281·5					186
		·967	256·9					207
		·925	235·0					125
		·921	244·3					484
		·877	286·1					136
		·854	260·1					82
		·841	234·9					178
		·811	270·8					65
	8710	·412	209·0	182·0	—15·4	1	2	
G	8709	·193	17·3	166·7	+16·2	138	781	
	8714	·347	107·3	150·8	— 0·5	2	6	
	8715	·677	85·9	127·4	+ 6·9	18	80	188*f*
	8717	·868	80·1	109·6	+11·4	61	294	306*f*
	8718	·902	72·3	105·5	+18·3	27	149	325*c*
		·786	95·5					99
		·800	64·3					177
		·829	104·5					285
		·933	60·9					167
		·982	84·7					316
Oct. 17			(+26·3)	(170·1)	(+5·7)	(247)	(1312)	(3326)
290·334		·965	240·6					188
		·961	252·2					173
		·940	289·4					110
		·923	273·2					84
		·908	239·2					116
	8711	·957	263·2	230·5	— 4·8	3	8	90*f*
	8710	·567	234·0	186·5	—14·4	10	31	
	8709	·221	322·9	166·2	+15·6	102	719	
C	8716	·546	139·4	136·3	—19·2	0	4	
	8715	·512	86·4	127·5	+ 6·6	12	59	
	8717	·751	80·0	109·6	+11·2	48	280	215*f*
	8718	·796	71·5	105·9	+18·0	23	110	251*c*
	8719	·978	85·9	80·3	+ 5·1	36	226	604*c*
		·837	56·2					65
		·952	68·6					148
Oct. 18			(+26·2)	(158·3)	(+5·6)	(234)	(1437)	(2044)
291·523		·972	240 5					180
		·924	266·5					117
G		·920	251·1					115

Group 8715, Oct. 15–24. Return of Group 8683. A small regular spot.
Group 8716, Oct. 16–20. Intermittent. A small spot seen only on Oct. 16, 18 and 20.
Group 8717, Oct. 16–27. Return of Group 8691. A regular spot, stable until Oct. 23, after which it divides into three portions. There are generally some very small attendant spots.
Group 8718, Oct. 16–24. A small regular spot followed by a few small scattered and unstable companions.
Group 8719, Oct. 18–29. A large extended cluster of spots with maximum development near the central meridian. The most stable component is a small regular spot in front.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
291·523		·861	286·1					269	293·334	*870h*	·432	89·3	93·2	+ 5·0	7	25	
		·807	301·1					128		8719	·606	88·5	81·5	+ 5·2	40	237	
	8710	·737	244·9	186·0	−14·2	7	23			8720	·733	86·6	71·6	+ 6·1	29	157	134*f*
	8709	·434	295·7	166·6	+15·8	128	908		C	8721	·790	116·7	71·4	−17·1	62	352	334*c*
	8714	·173	221·0	149·2	− 2·0	2	14			8722	·959	100·7	46·7	− 8·6	7	28	383*c*
	8715	·258	86·0	127·8	+ 6·4	17	59				·973	107·0					230
G	8717	·545	78·6	109·9	+10·8	59	320		Oct. 21			(+26·0)	(118·8)	(+5·3)	(321)	(1843)	(2276)
	8718	·596	67·5	107·5	+17·7	8	58										
	8719	·878	86·9	81·2	+ 5·3	53	280	516*c*									
	8720	·946	85·7	71·5	+ 5·8	23	196	600*f*									
	8721	·966	109·6	70·5	−17·3	51	367	614*c*	294·426		·979	253·1					142
		·854	69·5					121			·958	243·9					148
		·886	98·3					131			·952	296·9					122
Oct. 19			(+26·1)	(142·7)	(+5·5)	(348)	(2225)	(2791)			·923	264·1					146
											·907	275·7					101
											·894	231·2					168
											·817	239·7					83
292·364		·948	286·2					108			·765	222·0					75
		·906	298·5					82		8709	·886	285·0	166·9	+15·7	55	367	653*c*
		·818	275·5					74	C	8715	·399	274·7	128·9	+ 6·6	14	24	
		·807	236·7					77		8717	·126	313·7	109·7	+10·2	62	322	
	8710	·840	249·0	185·5	−14·4	7	14	112*c*		8718	·220	352·3	106·2	+17·7	15	50	
	8709	·592	288·9	166·9	+15·6	119	693			8719	·395	89·1	81·1	+ 5·1	75	358	
	8716	·425	189·1	135·7	−19·3	0	5			8720	·548	86·7	71·2	+ 6·1	30	131	
C	8715	·068	74·7	127·8	+ 6·4	12	60			8721	·647	124·9	70·8	−17·4	54	363	69*f*
	8717	·378	74·9	109·9	+10·7	57	309			8722	·861	103·1	46·6	− 8·5	3	14	194*c*
	8718	·444	60·9	107·7	+17·4	11	44				·871	110·2					87
	8719	·775	87·7	80·8	+ 5·2	42	227	64*c*			·934	109·7					186
	8720	·862	86·1	71·9	+ 6·1	31	177	338*f*	Oct. 22			(+25·9)	(104·4)	(+5·2)	(308)	(1629)	(2174)
	8721	·897	112·0	71·4	−17·0	67	374	594*c*									
		·985	97·5					197									
Oct. 20			(+26·1)	(131·6)	(+5·4)	(346)	(1903)	(1646)									
									295·463		·909	246·9					108
											·903	233·8					302
											·874	298·8					181
293·334		·964	297·8					109			·868	264·0					116
		·925	277·4					112			·846	286·4					300
		·905	264·2					88			·734	243·0					140
		·890	242·4					142			·728	282·4					133
		·881	293·8					73			·722	262·2					80
		·876	230·6					100	G	8709	·952	284·9	163·3	+15·7	19	151	470*c*
		·793	258·4					75		8715	·602	274·2	127·7	+ 6·7	8	13	
C		·781	227·8					86		8717	·333	285·2	109·7	+ 9·9	63	324	
		·761	272·4					59		8718	·318	311·4	105·1	+17·1	15	41	
		·672	212·9					72		8723	·232	12·1	87·8	+18·3	11	35	
	8710	·935	252·2	185·5	−14·5	4	18	140*c*		8719	·147	86·9	82·3	+ 5·6	75	448	
	8709	·738	287·0	165·9	+16·1	90	605	139*p*		8720	·334	86·3	71·2	+ 6·1	25	159	
	8715	·166	278·0	128·3	+ 6·6	8	49			8721	·510	138·4	70·0	−17·4	67	409	
	8717	·180	59·5	109·8	+10·5	61	322			8722	·722	107·2	46·7	− 8·5	4	7	131*f*
	8718	·292	45·1	106·4	+17·0	13	50			8724	·985	110·2	13·3	−18·8	28	149	141*c*

Group 8720, Oct. 19–28. Return of Group 8695. A spot with composite umbra behind which an unstable train of small companions appears after Oct. 20.
Group 8721, Oct. 19–31. A stable regular spot, followed on some days by one or two isolated spots and at times by a small cluster.
Group 8722, Oct. 21–30. Return of Group 8687. Intermittent. A disturbed area shown by faculæ and a very small spot, not seen on Oct. 25, 26 and 29.
Group 8723, Oct. 23–26. A pair of small spots, one only being seen on Oct. 26.
Group 8724, Oct. 23–Nov. 4. A regular spot with a small companion which outlives it by a few days.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
295·463	8725	·993	68·2	6·3	+22·2	41	265	74*p*
		·776	118·0					148
G		·901	109·0					230
		·918	118·7					82
Oct. 23			(+25·8)	(90·7)	(+5·2)	(356)	(2001)	(2636)
296·506		·991	285·0					292
		·979	276·9					48
		·968	252·0					78
		·967	266·7					108
		·946	237·5					169
		·919	290·7					159
		·910	279·2					108
		·876	248·2					114
		·872	264·5					122
		·813	284·7					94
		·773	260·9					90
		·698	288·5					81
G	*870i*	·872	232·7	129·0	−28·7	1	2	26*c*
	8715	·775	274·3	127·8	+ 6·6	2	6	43*f*
	8717	·542	279·9	109·5	+ 9·6	60	327	
	8718	·515	294·5	106·1	+16·8	3	7	
	8723	·285	321·0	87·7	+17·7	17	75	
	8719	·101	274·0	82·7	+ 5·5	75	374	
	8720	·092	76·5	71·8	+ 6·3	23	90	
	8721	·401	162·9	69·8	−17·4	53	366	
	8722	·545	114·8	47·0	− 8·8	1	5	
	8724	·926	112·2	12·6	−18·3	29	160	41*c*
	8725	·942	68·1	6·3	+22·3	50	287	200*f*
		·855	113·5					102
		·943	82·5					149
Oct. 24			(+25·7)	(76·9)	(+5·1)	(314)	(1699)	(2398)
297·375		·972	292·0					123
		·972	271·8					102
		·959	241·8					282
		·936	283·4					220
		·901	262·2					234
		·853	274·0					277
		·826	299·4					171
C		·808	287·2					118
	8717	·699	278·6	109·8	+ 9·6	58	325	
	8723	·428	302·2	87·8	+17·7	9	37	
	8719	·299	271·2	82·9	+ 5·1	79	384	
	8720	·103	283·5	71·3	+ 6·4	20	103	
	8721	·392	192·5	70·6	−17·4	64	338	
	8724	·845	115·8	12·3	−18·6	30	165	376*f*
	8725	·868	67·2	5·9	+22·2	51	259	207*f*

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
207·375		·950	56·8					77
		·967	118·6					199
C		·969	75·1					183
		·970	82·7					273
Oct. 25			(+25·6)	(65·5)	(+5·0)	(311)	(1611)	(2842)
298·464		·949	273·2					325
		·928	259·5					235
		·908	295·9					322
		·780	289·2					485
	8717	·855	277·6	110·0	+ 9·1	44	269	435*c*
	8723	·627	292·7	88·4	+17·9	6	10	
	8719	·518	271·5	82·3	+ 5·0	56	306	
	8720	·346	276·1	71·3	+ 6·6	12	54	
G	8721	·493	219·7	70·3	−17·6	50	293	
	870j	·300	143·9	40·8	− 9·1	1	3	
	8724	·711	122·0	11·8	−18·3	31	159	161*f*
	8725	·738	63·9	5·5	+22·4	45	266	270*f*
	8726	·973	104·5	336·3	−12·8	23	180	361*c*
		·855	123·0					300
		·880	75·5					147
		·937	118·7					121
		·946	70·5					199
Oct. 26			(+25·5)	(51·1)	(+4·9)	(268)	(1540)	(3361)
299·371		·975	266·2					60
		·957	298·8					100
		·935	255·4					89
		·886	288·4					317
	8717	·952	277·8	111·6	+ 8·9	27	190	270*c*
	8719	·689	271·8	82·6	+ 4·7	44	257	97*p*
	8720	·548	275·2	72·3	+ 6·9	10	32	
C	8721	·625	233·3	70·7	−17·8	51	285	
	8722	·297	212·9	48·5	− 9·6	0	6	
	8724	·583	131·3	11·7	−18·3	22	124	
	8725	·609	58·8	5·0	+22·4	42	285	79*f*
	8726	·909	106·8	336·0	−13·0	33	321	161*c*
		·788	73·4					66
		·888	68·2					93
		·974	105·0					82
Oct. 27			(+25·4)	(39·1)	(+4·8)	(229)	(1500)	(1414)
300·460		·987	275·5					176
		·959	287·1					306
G		·934	301·3					55
		·862	291·7					187

Group 8725, Oct. 23–Nov. 5. A stable regular spot.
Group 8726, Oct. 26–Nov. 6. Two indefinite spots at the east limb. The leader tends to the regular type and remains stable; the follower soon breaks up and disappears, at the same time that a few spots are forming between them. These in turn die out, leaving the leader alone on Nov. 4.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
300·460		·790	307·8					49	303·382		·983	274·2					170
	8719	·845	272·0	82·4	+ 4·2	42	130	727*c*			·929	260·0					331
	8720	·743	273·3	72·8	+ 5·5	1	4	109*c*			·863	248·6					179
	8721	·769	241·9	70·1	−17·9	48	300	101*c*		8721	·995	251·4	68·5	−18·0	29	115	251*f*
	8722	·471	239·3	48·9	− 9·6	1	2			8729	·628	284·2	24·7	+12·3	10	41	
	8724	·448	149·8	11·1	−18·1	26	171			8724	·545	226·4	10·7	−18·0	19	81	
G	8725	·444	46·3	4·6	+22·1	49	286			8725	·428	318·8	4·0	+22·9	43	263	
	8726	·761	111·6	338·4	−13·0	30	157	75*c*		*8711a*	·481	208·8	0·6	−20·6	0	6	
	8727	·988	90·4	304·0	+ 0·4	22	113	60*p*	C	8726	·319	164·4	341·3	−13·4	41	213	
	8728	·997	82·7	298·8	+ 7·7	31	250	25*p*		8727	·671	94·1	304·5	+ 0·5	21	104	66*f*
		·882	113·7					117		8728	·730	83·2	299·5	+ 8·0	34	228	120*f*
		·886	95·3					70			·851	107·8					153
		·941	106·5					162			·937	71·2					197
Oct. 28			(+25·3)	(24·8)	(+4·7)	(250)	(1413)	(2219)			·945	80·8					147
											·963	93·5					99
											·983	106·6					173
301·372		·952	288·7					147	Oct. 31			(+24·8)	(346·3)	(+4·4)	(197)	(1051)	(1886)
		·947	301·6					66									
		·904	257·0					87									
		·854	298·5					61	304·357		·987	263·4					115
		·824	273·5					156			·961	257·6					152
	8719	·944	273·1	83·6	+ 4·5	12	67	526*c*			·927	249·1					191
	8721	·876	246·9	70·3	−17·7	49	279	258*f*			·837	244·1					88
	8724	·386	175·8	11·1	−18·0	20	137			8729	·780	281·3	24·5	+11·5	6	14	43*c*
C	8725	·338	23·7	4·4	+22·5	44	258			*8711b*	·742	285·3	20·8	+14·2	0	1	
	8726	·615	118·1	339·1	−13·0	24	131			8724	·678	236·4	9·8	−18·6	12	34	
	8727	·935	91·3	303·9	+ 0·4	18	104	224*f*		8725	·569	305·5	3·5	+23·0	32	223	
	8728	·959	83·4	299·1	+ 7·7	38	244	325*c*	C	8726	·339	205·3	341·9	−13·5	30	185	
		·771	117·9					92		8727	·494	96·5	304·1	+ 0·5	21	98	
		·861	108·9					73		8728	·568	82·0	298·9	+ 8·1	24	194	
		·957	115·1					100			·870	81·5					82
		·979	100·9					103			·901	69·5					343
Oct. 29			(+25·1)	(12·8)	(+4·6)	(205)	(1220)	(2218)			·940	108·5					381
											·977	81·5					87
											·980	104·4					239
302·589		·949	273·8					262			·986	72·7					41
		·919	239·6					94	Nov. 1			(+24·7)	(333·4)	(+4·3)	(125)	(749)	(1762)
		·818	242·3					55									
		·727	241·9					66									
	8721	·968	250·3	69·6	−17·7	45	274	299*f*	305·301		·980	253·5					118
	8722	·793	256·4	47·6	− 7·9	1	3	263*p*			·903	281·7					74
	8724	·446	211·0	10·6	−18·0	21	104				·897	251·4					84
C	8725	·335	339·8	3·9	+22·7	43	234				·743	230·1					112
	8726	·396	138·3	341·1	−12·8	36	151			8724	·794	243·9	9·2	−17·6	3	13	92*f*
	8727	·798	92·6	304·0	+ 0·7	20	108	129*f*	C	8725	·709	299·0	3·3	+23·2	33	205	
	8728	·843	83·4	299·2	+ 8·0	32	214	282*f*		8726	·470	233·1	343·5	−12·4	18	117	
		·878	118·4					73		8727	·291	101·7	304·5	+ 0·7	16	109	
		·927	104·0					185		8728	·379	78·4	299·1	+ 8·3	28	162	
		·957	71·0					138			·848	71·3					117
Oct. 30			(+25·0)	(356·7)	(+4·5)	(198)	(1088)	(1846)			·858	111·1					292

Group 8727, Oct. 28–Nov. 9. Return of Group 8703. A regular spot slowly disappearing.
Group 8728, Oct. 28–Nov. 8. Return of Group 8701. A regular spot which has dissolved into a cluster of small components by Nov. 5.
Group 8729, Oct. 31–Nov. 1. A small cluster.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
305·301		·925	106·9					294	308·446	8725	·989	293·2	1·5	+23·4	49	223	137*c*
C		·934	76·7					275		8726	·928	255·0	345·8	−12·3	11	52	251*f*
		·941	92·3					102		8727	·431	263·3	304·7	+ 0·7	16	85	
Nov. 2			(+24·5)	(321·0)	(+4·2)	(98)	(606)	(1560)	G	8728	·334	286·3	298·4	+ 9·1	7	31	
										8730	·467	96·9	252·0	+ 0·2	2	10	
											·748	124·9					98
											·846	124·3					243
306·375		·978	282·1					63			·944	123·5					143
		·964	259·9					139	Nov. 5			(+23·9)	(279·5)	(+3·9)	(85)	(401)	(1564)
		·863	236·5					200									
		·842	278·5					104									
		·746	225·5					52									
		·738	299·7					104	309·205		·955	291·2					153
	8724	·911	248·7	9·4	−17·4	4	18	188*sf*			·927	308·4					61
	8725	·844	295·1	2·9	+23·3	31	193	125*c*			·867	245·6					151
C	8726	·664	246·5	345·2	−12·1	20	121			8726	·977	256·3	345·8	−12·5	0	28	374*f*
	8727	·070	146·2	304·6	+ 0·7	15	94			8731	·713	238·5	309·3	−18·9	12	38	
	8728	·156	60·9	298·9	+ 8·4	15	82		D	8727	·589	266·1	305·3	+ 0·8	17	84	
	871c	·903	87·3	242·4	+ 3·3	3	9	114*f*		8728	·475	281·7	297·5	+ 8·8	5	27	
		·729	118·9					71		8730	·316	98·9	251·4	+ 0·8	6	15	
		·821	109·6					159			·758	129·4					222
		·881	74·9					169			·895	124·1					234
		·942	106·8					260	Nov. 6			(+23·8)	(269·5)	(+3·8)	(40)	(192)	(1195)
		·965	117·3					222									
Nov. 3			(+24·3)	(306·8)	(+4·1)	(88)	(517)	(1970)									
									310·355		·990	254·7					72
											·936	250·1					134
307·426		·938	239·9					295			·900	289·9					67
		·931	280·5					101		8731	·851	244·7	308·7	−19·2	20	147	91*c*
		·854	235·7					76		8727	·779	267·9	305·2	+ 0·7	20	77	
		·852	299·5					233		8728	·686	279·7	297·4	+ 9·3	0	3	
		·825	285·5					133		*871c*	·637	291·4	292·3	+16·3	3	19	
	8724	·979	250·8	8·9	−17·8	0	12	183*sf*	C	8730	·064	190·7	255·0	+ 0·1	2	6	
	8725	·937	293·5	2·1	+23·4	41	227	159*c*			·863	98·7					63
G	8726	·818	252·1	345·5	−12·1	21	106	196*sf*			·905	78·1					130
	871d	·720	245·7	335·3	−14·2	1	5	45*c*			·927	106·2					169
	8727	·212	254·9	304·7	+ 0·7	18	108				·950	116·7					126
	8728	·124	307·5	298·6	+ 8·3	15	48				·967	91·7					124
		·807	108·5					93			·973	81·7					126
		·894	119·4					486			·978	70·1					578
		·904	73·9					64	Nov. 7			(+23·5)	(254·3)	(+3·7)	(45)	(252)	(1680)
Nov. 4			(+24·1)	(292·9)	(+4·0)	(96)	(506)	(2064)									
									311·308		·780	288·1					73
308·446		·952	295·4					203		8731	·929	247·9	307·1	−18·9	35	186	325*c*
		·935	284·5					132	C	8727	·898	268·9	305·4	+ 0·7	12	45	106*f*
G		·922	239·4					142		8728	·808	277·7	295·6	+ 8·3	0	6	304*c*
		·851	249·7					215		*871f*	·523	262·7	272·9	− 0·7	2	7	

Group 8730, Nov. 5–9. A few small spots on the solar equator.
Group 8731, Nov. 6–9. A cluster of small spots.
Group 8732, Nov. 8–12. A small stream, quickly forming and soon dispersing.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures. Dist.	Measures. Pos. Angle.	Position. Long.	Position. Lat.	Area. Umbræ.	Area. Whole Spots.	Area. Faculæ.
1918.			°	°	°			
311·308	*871g*	·472	311·7	264·0	+21·5	2	11	
	8732	·347	286·5	261·4	+ 9·1	4	10	
	8730	·208	261·1	253·6	+ 1·7	3	15	
	871h	·496	9·5	236·2	+32·7	1	4	
		·803	77·1					66
C		·816	111·1					120
		·920	81·1					105
		·922	93·1					198
		·924	69·9					525
		·926	116·7					176
		·969	76·1					277
Nov. 8			(+23·3)	(241·8)	(+3·6)	(59)	(284)	(2275)
312·420		·929	278·0					509
		·920	286·7					214
		·903	253·1					172
	8731	·989	249·3	306·6	−19·9	13	85	197*c*
	8727	·979	269·6	305·2	+ 0·4	12	48	165*f*
	8732	·562	279·7	261·0	+ 8·2	34	174	
	8730	·500	264·1	256·8	0·0	1	3	
	8733	·202	299·7	237·3	+ 9·1	13	59	
G	8734	·919	86·3	160·4	+ 4·7	1	9	83*f*
		·815	66·8					439
		·823	122·3					119
		·831	93·7					151
		·882	109·4					79
		·894	75·4					322
		·925	124·1					136
		·926	61·3					242
Nov. 9			(+23·1)	(227·1)	(+3·4)	(74)	(378)	(2828)
313·408		·983	278·6					229
		·980	287·0					106
		·956	251·7					198
		·878	285·0					145
		·862	267·7					94
		·813	294·3					118
		·807	247·5					449
	8732	·737	278·7	261·4	+ 8·6	25	159	78*c*
C	8733	·428	284·9	238·8	+ 9·3	20	64	
	8734	·795	85·5	161·5	+ 5·5	4	11	51*f*
		·769	75·9					195
		·810	129·0					105
		·877	73·1					110
		·913	60·7					162
		·938	121·7					245
		·970	93·7					129
		·978	78·3					214
1918.			°	°	°			
313·408		·979	101·0					77
Nov. 10			(+22·9)	(214·1)	(+3·3)	(49)	(234)	(2705)
314·380		·957	295·1					54
		·956	285·6					180
		·947	267·6					74
		·891	250·0					489
		·885	264·1					29
		·880	289·9					128
	8732	·859	278·4	260·4	+ 8·8	14	70	192*c*
	8735	·846	271·7	259·0	+ 3·1	0	4	107*s*
	8733	·631	280·5	240·1	+ 9·1	9	40	
	8736	·319	149·7	191·8	−12·7	0	5	
C	8737	·541	57·4	172·5	+19·7	1	6	
	8734	·631	84·2	162·3	+ 6·1	3	6	
	8738	·902	104·5	138·5	−11·6	0	6	149*c*
	8739	·978	76·7	123·2	+13·6	12	42	202*f*
		·809	118·2					50
		·849	130·1					66
		·880	95·4					73
		·916	76·6					177
		·931	120·7					86
		·952	87·8					224
Nov. 11			(+22·6)	(201·3)	(+3·2)	(39)	(179)	(2280)
315·436		·965	288·3					103
		·958	252·4					499
		·857	289·5					118
	8735	·954	272·0	259·7	+ 2·8	13	80	148*s*
	8732	·953	277·8	259·7	+ 8·4	7	36	178*c*
	8733	·814	277·8	241·6	+ 8·2	4	23	97*c*
	8734	·451	83·8	160·6	+ 5·5	2	8	
G	8738	·788	105·5	137·0	−10·2	6	15	56*f*
	8739	·920	75·8	120·6	+14·2	86	423	459*c*
		·826	78·4					106
		·829	124·9					67
		·871	87·0					141
		·955	60·7					133
		·955	83·9					506
Nov. 12			(+22·4)	(187·3)	(+3·1)	(118)	(585)	(2611)
316·475		·989	271·7					66
		·958	291·0					86
		·955	254·7					95
G		·875	240·0					221
		·864	288·3					69
		·823	227·2					70

Group 8733, Nov. 9–13. A small group seen first as a cluster and later as a short stream, of which only the preceding member is left on Nov. 13.
Group 8734, Nov. 9–14. A very small spot with a companion on Nov. 12. Both have disappeared on Nov. 13, but a cluster of small spots has taken their place on Nov. 14. Group 8735, Nov. 11–12. A spot forming near the west limb *s* of Group 8732.
Group 8736, Nov. 11–14. A very small spot seen only on Nov. 11 and 14. Group 8737, Nov. 11–17. Revival of Group 8709. A large area of faculæ, seen at the east limb and later at the west limb, in which a few very small spots appear. Nothing is seen on Nov. 12, 13, and 15.
Group 8738, Nov. 11–22. At first, a few ephemeral spots not seen on Nov. 14. After Nov. 16, a stream develops with slight differences from the normal type.
Group 8739, Nov. 11–23. Two spots developing near the east limb with numerous very small companions. The leader becomes very large and is of composite formation. After Nov. 17 it practically separates into two portions. The follower, though tending to the regular type of spot, soon begins to diminish and is last seen as a tiny spot on Nov. 21.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
316·475	8733	·936	277·1	243·0	+ 7·7	1	3	130*f*	319·470	8737	·624	297·9	169·7	+19·1	3	17	
	8738	·609	110·9	138·5	−10·0	1	4			8738	·237	200·3	139·0	−10·2	2	12	
	8740	·689	70·5	131·4	+15·5	5	16			8740	·222	14·7	130·9	+15·0	1	6	
	8739	·806	74·1	120·5	+14·5	96	656	165*c*		8739	·294	48·1	121·2	+13·8	102	698	
G	8741	·957	83·1	100·5	+ 7·4	7	12	278*c*		8741	·545	85·5	101·3	+ 4·7	1	11	
	8742	·988	82·5	92·5	+ 7·9	72	400	190*c*		8747	·573	90·9	99·4	+ 1·6	4	12	
		·860	83·9					286	G	8742	·661	81·5	93·1	+ 7·5	93	490	248*f*
		·904	58·3					116		8743	·762	100·8	85·5	− 6·5	29	163	85*c*
		·957	71·1					93		8748	·878	101·5	73·9	− 8·8	2	11	418*p*
Nov. 13			(+22·1)	(176·3)	(+3·0)	(182)	(1091)	(1865)		8744	·900	72·7	70·6	+16·7	23	112	459*nf*
										8749	·900	81·9	70·2	+ 8·4	7	16	358*f*
										8745	·918	110·4	70·0	−17·5	31	181	232*c*
317·406		·967	257·3					114		8746	·926	96·6	67·0	− 5·1	25	90	801*c*
		·966	279·3					224		8750	·989	110·7	54·5	−20·0	19	252	131*c*
		·939	243·3					292			·876	89·3					67
		·874	230·3					125			·925	119·0					130
	8736	·570	240·4	191·9	−13·8	1	5		Nov. 16			(+21·3)	(134·2)	(+2·6)	(342)	(2071)	(3112)
	8737	·346	337·1	169·7	+21·4	2	7										
	8734	·064	341·9	162·5	+ 6·4	8	38										
C	8740	·524	63·4	132·4	+16·0	4	12		320·342		·957	256·6					58
	8739	·668	71·5	120·8	+14·4	105	621				·927	284·4					91
	8741	·870	82·4	101·1	+ 8·0	2	10	89*c*			·860	241·2					165
	8742	·936	82·3	92·0	+ 8·2	92	499	701*c*			·803	265·8					115
	8743	·973	96·9	85·4	− 6·0	14	96	273*c*			·800	282·4					71
		·870	70·5					151		8737	·745	293·2	168·8	+18·7	1	3	293*p*
		·878	55·1					123		8738	·360	232·6	139·5	−10·2	37	97	
		·967	59·7					102		8739	·204	8·3	121·0	+14·1	90	566	
Nov. 14			(+21·9)	(161·4)	(+2·9)	(228)	(1288)	(2194)		8751	·278	149·0	114·3	−11·3	7	11	
										8747	·390	92·7	99·9	+ 1·2	2	6	
									C	8742	·500	78·8	93·2	+ 7·7	92	429	
318·462		·961	239·4					165		8743	·617	103·8	85·8	− 6·4	21	114	
		·881	230·8					60		8748	·752	103·2	75·2	− 8·2	7	41	88*c*
	8711	·350	303·8	164·8	+ 13·9	0	6			8744	·802	71·0	70·6	+16·6	11	54	366*nf*
	8738	·229	140·8	139·0	− 7·4	1	4			8749	·794	81·4	70·4	+ 8·3	7	19	402*f*
	8739	·478	65·0	121·0	+14·1	107	606			8745	·830	112·8	69·6	−17·3	20	140	258*f*
	8742	·822	82·4	92·3	+ 7·8	106	532	566*c*		8746	·834	98·0	66·9	− 5·3	14	59	880*f*
G	8743	·885	98·6	86·0	− 6·3	21	105	322*c*		8750	·960	111·8	51·3	−20·1	51	282	513*c*
	8744	·975	73·4	70·3	+16·8	18	86	63*c*			·858	122·3					155
	8745	·982	108·4	70·0	−17·4	23	189	199*c*			·948	51·6					99
	8746	·989	95·6	66·5	− 5·1	0	59	230*c*			·991	105·0					155
		·952	98·8					274	Nov. 17			(+21·0)	(122·7)	(+2·5)	(360)	(1821)	(3709)
		·970	83·5					263									
		·982	67·8					285									
Nov. 15			(+21·6)	(147·4)	(+2·8)	(276)	(1587)	(2427)	321·352		·960	246·1					197
											·930	270·3					259
											·899	239·3					120
319·470		·980	242·1					61	C		·892	291·5					803
G		·867	252·6					55			·804	275·7					63
		·808	237·1					67		8738	·535	245·5	139·1	−10·7	49	310	

Group 8740, Nov. 13 16. A pair of very small spots on Nov. 13 and 14; nothing on Nov. 15; one very small spot on Nov. 16.
Group 8741, Nov. 13 16. A very small spot *p* Group 8742, not seen on Nov. 15. Two small spots appear near its position on the following day.
Group 8742, Nov. 13 25. A return or more probably a revival of Group 8719. A large spot, at first of regular formation, followed by an evanescent cluster of unimportant spots. Both the penumbra and the umbra of the large spot show instability, and after Nov. 20 it divides into two, the foremost portion immediately assuming a regular outline, whilst the other part rapidly disappears.
Group 8743, Nov. 14 22. A small regular spot with two very small followers, one of which has become larger and of regular type by Nov. 17.
Group 8744, Nov. 15 21. A regular spot gradually disappearing.
Group 8745, Nov. 15 27. Return of Group 8721. A small regular spot slowly diminishing; on the same meridian as Group 8744.
Group 8746, Nov. 15 23. A small regular spot, with double umbra, gradually disappearing. Group 8747, Nov. 16 17. Two very small spots.
Group 8748, Nov. 16 23. A small stream of spots *f* Group 8743. Group 8749, Nov. 16 23. A small spot on the same meridian as Group 8744.
Group 8750, Nov. 16 26. An irregular stream of spots diminishing from the east limb. Group 8751, Nov. 17 20. Two or three small spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
321·352	8739	·276	317·5	120·3	+14·0	83	547	
	8751	·257	200·5	114·5	−11·5	6	14	
	8742	·291	72·3	93·1	+ 7·4	80	547	
	8743	·437	111·1	85·2	− 6·9	22	107	
	8748	·568	108·5	76·4	− 8·3	12	49	
	8749	·630	79·3	70·7	+ 8·5	19	40	69*f*
C	8744	·657	66·7	70·4	+16·9	9	32	80*c*
	8745	·694	118·5	69·7	−17·4	24	150	
	8746	·685	100·8	66·9	− 5·5	15	80	166*f*
	8752	·735	72·3	63·2	+14·5	4	10	24*f*
	8750	·878	114·5	51·2	−20·1	29	320	556*c*
		·844	105·7					153
		·932	107·0					109
Nov. 18			(+20·7)	(109·3)	(+2·4)	(352)	(2206)	(2599)
322·404		·965	292·0					290
		·955	265·8					133
		·952	283·8					155
		·885	279·2					120
		·860	293·3					109
	8738	·730	253·1	140·5	−10·7	73	480	222*c*
	8739	·465	296·8	120·7	+14·1	49	513	
	8751	·391	231·3	113·6	−11·9	4	15	
	8742	·091	17·0	94·0	+ 7·3	92	633	
	8743	·233	132·0	85·3	− 6·6	20	48	
C	*8711j*	·366	55·4	77·5	+14·1	0	5	
	8748	·359	119·2	77·1	− 7·9	21	123	
	8749	·419	74·2	71·5	+ 8·6	10	34	
	8745	·527	128·9	70·2	−17·1	21	129	
	8744	·483	58·6	70·1	+16·7	6	25	
	8746	·498	105·6	66·8	− 5·6	8	60	
	8753	·542	112·0	65·0	− 9·7	1	23	
	8752	·542	66·7	64·7	+14·3	1	9	
	8750	·759	118·6	50·6	−19·6	36	216	86*c*
		·841	109·2					103
		·968	79·5					104
Nov. 19			(+20·4)	(95·5)	(+2·3)	(342)	(2313)	(1322)
323·340		·966	285·1					192
		·948	237·6					223
		·916	298·9					177
		·863	236·5					104
		·765	286·9					74
		·744	275·7					136
C	*8711k*	·920	262·4	149·4	− 6·1	3	11	85*c*
	8738	·860	255·7	141·1	−11·0	78	499	485*c*
	8754	·836	263·7	139·3	− 4·0	5	18	74*c*
	8739	·627	290·6	120·3	+14·5	55	371	

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
323·340	8751	·558	243·1	113·6	−12·7	2	11	
	8742	·210	296·6	94·0	+ 7·5	96	648	
	8743	·172	194·1	85·5	− 7·4	10	30	
	8748	·196	148·6	77·2	− 7·4	15	54	
	8749	·228	60·3	71·6	+ 8·5	10	34	
	8745	·396	146·9	70·1	−17·1	18	110	
	8744	·337	41·3	69·7	+16·8	6	16	
C	8746	·313	115·7	66·7	− 5·7	10	38	
	8753	·374	123·2	64·7	− 9·7	10	41	
	8711	·460	105·4	56·8	− 5·0	2	4	
	8750	·632	124·7	49·9	−19·2	25	149	
	8755	·908	79·1	18·1	+10·8	14	42	174*f*
	8756	·989	100·1	2·5	− 9·6	0	43	90*f*
		·951	109·5					77
		·968	72·1					73
		·973	118·3					260
Nov. 20			(+20·1)	(83·1)	(+2·2)	(359)	(2119)	(2224)
324·350		·955	298·0					106
		·919	241·8					141
		·895	284·9					101
		·883	272·6					107
	8738	·953	257·4	141·1	−11·3	126	553	374*c*
	8754	·946	264·1	140·4	− 5·0	6	79	189*c*
	8739	·784	287·0	120·4	+14·5	59	361	108*c*
	8742	·439	283·4	95·2	+ 7·6	84	496	
	8743	·320	241·2	86·1	− 6·9	5	14	
	8748	·216	223·9	78·4	− 6·9	8	41	
	8749	·117	344·2	71·6	+ 8·5	3	8	
	8745	·330	180·2	69·8	−17·1	13	100	
C	8744	·251	1·2	69·5	+16·5	4	9	
	8746	·147	158·3	66·7	− 5·8	12	22	
	8753	·214	153·6	64·3	− 9·1	17	60	
	8752	·248	28·6	62·8	+14·5	5	20	
	8750	·490	138·0	49·5	−19·4	19	84	
	8757	·686	67·6	28·5	+16·5	10	30	
	8755	·791	78·2	18·1	+10·5	19	51	82*c*
	8756	·952	100·3	358·5	− 9·1	27	106	269*c*
	8758	·957	66·4	357·6	+23·1	19	51	273*nf*
		·912	111·7					116
		·938	120·0					289
		·970	78·4					139
Nov. 21			(+19·8)	(69·8)	(+2·0)	(436)	(2085)	(2294)
325·468		·949	271·7					187
		·876	254·1					158
G		·865	275·7					221
	8738	·989	258·6	135·7	−11·0	10	75	279*c*

Group 8752, Nov. 18–23. A very small spot not visible on Nov. 20. A small evanescent stream appears on Nov. 21.
Group 8753, Nov. 19–23. A cluster of small spots.
Group 8754, Nov. 20–21. A cluster of very small spots.
Group 8755, Nov. 20–27. A small but definite spot with a distant companion on Nov. 21 and 23.
Group 8756, Nov. 20–Dec. 2. A remarkable group consisting at first of a few small spots in two groups. Of these the latter grows very considerably, whilst the other disappears and by Nov. 25 a very long spot has formed, the axis of which is inclined about 80° to the solar equator. The spot is made up of two chief nuclei at opposite extremities, connected by a large mass of penumbra of irregular outline.
Group 8757, Nov. 21–23. A few very small spots arranged in a stream.
Group 8758, Nov. 21–22. Return of Group 8725. A small spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
325·468	8739	·915	284·7	120·8	+14·2	59	274	339*f*
	8742	·667	278·3	96·6	+ 6·9	83	324	
	8743	·537	252·2	86·1	− 7·7	2	11	
	8748	·446	249·4	79·9	− 7·1	8	22	
	8749	·294	291·0	71·1	+ 7·9	4	8	
	8745	·407	216·5	69·7	−17·2	15	98	
	8746	·251	235·1	67·0	− 6·4	5	9	
	8753	·255	217·3	64·1	− 9·8	10	39	
	8752	·244	331·8	61·9	+14·2	3	12	
G	8750	·372	168·0	50·4	−19·3	9	34	
	8757	·478	60·5	29·7	+15·3	4	8	
	8755	·597	75·9	19·3	+ 9·9	10	30	
	8756	·845	102·1	358·5	− 9·1	32	207	142*c*
	8758	·864	64·7	357·5	+22·7	9	21	245*nf*
	8759	·957	108·1	343·6	−16·7	7	24	245*c*
		·847	123·1					296
		·885	77·6					122
		·964	116·3					83
Nov. 22			(+19·5)	(55·1)	(+1·9)	(270)	(1196)	(2317)
326·472		·961	255·6					97
		·960	275·5					262
		·904	303·1					93
		·854	288·1					81
		·750	253·3					74
	8739	·978	284·7	119·7	+14·8	28	193	292*f*
	8742	·825	277·1	97·3	+ 6·9	70	327	627*c*
	8748	·618	254·3	78·7	− 8·2	3	20	
	8749	·492	282·5	70·8	+ 7·7	5	9	
	8745	·548	234·3	69·5	−17·0	17	94	
G	8746	·448	251·8	67·1	− 6·4	1	2	
	8752	·413	303·7	62·6	+14·9	11	45	
	8753	·399	241·1	62·5	− 9·4	2	9	
	8750	·385	198·9	49·5	−19·5	2	22	
	8757	·324	43·6	28·6	+15·3	3	24	
	8755	·412	70·3	18·8	+ 9·6	9	31	
	8756	·713	105·5	357·9	− 9·7	38	221	134*c*
	8759	·867	111·5	344·3	−17·5	19	104	249*c*
		·795	59·4					139
		·795	129·0					98
		·928	119·6					145
Nov. 23			(+19·1)	(41·9)	(+1·8)	(208)	(1101)	(2291)
Nov. 24			No Photograph					
328·352		·947	299·5					123
C		·883	259·3					180

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
328·352		·839	237·9					102
		·809	295·9					136
		·796	280·9					100
		·764	257·1					148
	8742	·988	277·3	98·0	+ 7·4	41	151	766*f*
	871*m*	·962	260·3	90·6	− 8·9	9	47	322*f*
	8745	·823	248·1	69·8	−16·9	18	87	57*c*
	8750	·613	235·1	49·1	−19·2	1	8	
C	8755	·138	339·6	19·9	+ 8·9	7	12	
	8756	·385	118·5	357·2	− 9·1	71	552	
	8759	·617	121·1	343·7	−17·2	24	99	
	8760	·986	109·5	298·2	−18·9	26	218	380*c*
		·796	123·7					70
		·864	113·1					179
		·917	88·1					79
		·927	43·5					78
		·933	167·9					44
		·936	98·2					90
		·960	78·7					178
Nov. 25			(+18·5)	(17·1)	(+1·5)	(197)	(1174)	(3032)
329·377		·983	276·5					242
		·972	260·6					468
		·971	298·0					98
		·936	239·9					171
		·893	294·1					351
		·889	260·3					414
		·889	281·8					322
	8745	·927	251·3	69·8	−16·8	18	90	223*c*
	8750	·756	241·1	48·3	−20·4	2	11	125*c*
C	8755	·315	294·5	20·4	+ 8·8	5	10	
	8756	·215	149·9	357·4	− 9·3	114	818	
	8759	·452	135·1	344·2	−17·3	11	57	
	8760	·904	112·1	301·3	−19·2	38	179	441*c*
		·875	98·8					49
		·889	77·2					149
		·901	86·9					79
		·927	171·5					57
		·981	105·9					81
Nov. 26			(+18·1)	(3·6)	(+1·4)	(188)	(1165)	(3270)
330·303		·968	278·6					229
		·960	242·6					206
		·953	293·4					277
C		·950	285·6					160
		·945	261·7					464
		·887	253·8					125
		·881	243·7					579

Group 8759, Nov. 22–Dec. 1. Intermittent. A small spot, increasing for a time and becoming regular, with a few unstable followers. The group has disappeared by Nov. 28, but near the west limb on Dec. 1, one very small spot is seen in the *p* portion of an area of faculæ.

Group 8760, Nov. 25–Dec. 2. Return of Group 8731. An extended mass of faculæ with a few spots in a very long and sparse stream. The leader is the largest and best-defined component and appears for several days as a small regular spot. Only one very small spot remains on Dec. 2.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
330·303	8745	·983	252·6	69·7	−16·8	16	96	85*f*	333·342		·919	280·5					120
	8755	·503	285·4	20·7	+ 8·8	2	9				·887	254·4					96
	8756	·215	209·2	357·5	− 9·5	103	826				·836	236·1					212
	8759	·347	157·4	343·4	−17·4	9	31				·783	301·4					102
C	8760	·781	115·8	303·5	−18·9	41	199	417*c*		8756	·746	254·8	358·2	−10·7	80	727	269*c*
		·904	175·4					61		8761	·504	218·4	331·0	−22·3	18	75	
		·922	106·4					163	C	8760	·355	157·5	303·8	−18·5	36	117	
		·962	61·0					95			·731	108·1					101
		·969	78·9					137			·861	115·6					99
Nov. 27			(+17·8)	(351·4)	(+1·3)	(171)	(1161)	(2998)			·901	72·7					127
											·943	87·2					133
											·973	112·8					136
									Nov. 30			(+16·7)	(311·3)	(+0·9)	(134)	(919)	(1674)
331·360		·958	282·7					91									
		·955	245·4					370									
		·952	257·2					145									
		·810	288·8					90	334·358		·983	281·9					98
	8756	·393	240·2	357·6	−10·1	75	698				·907	240·3					369
	872a	·336	220·5	350·3	−13·5	2	10				·874	298·2					184
C	8761	·426	164·0	330·1	−22·9	13	41				·797	304·3					96
	8760	·630	123·4	303·6	−19·2	41	213			8756	·874	257·1	357·8	−10·8	184	1249	764*c*
		·827	109·8					98	C	8759	·755	246·8	344·1	−16·7	0	3	235*sf*
		·863	91·8					99		8761	·631	232·3	330·3	−21·9	12	43	
		·903	74·4					207		8760	·345	200·5	305·2	−17·9	13	43	
		·947	106·0					277		8762	·804	75·1	245·4	+12·4	1	5	42*c*
		·956	86·1					232			·854	89·1					81
Nov. 28			(+17·4)	(337·4)	(+1·2)	(131)	(962)	(1609)			·936	114·7					267
									Dec. 1			(+16·3)	(297·9)	(+0·8)	(210)	(1343)	(2136)
332·339		·973	297·1					79									
		·967	243·9					164	335·549		·965	241·5					259
		·965	255·7					169			·961	294·9					179
		·904	287·1					110			·896	301·5					124
		·816	281·1					119		8756	·972	258·3	358·0	−11·2	249	1749	374*c*
	8756	·574	251·1	357·8	− 9·9	96	763			*872b*	·887	242·7	341·4	−23·7	2	7	342*nf*
	8761	·412	195·9	331·5	−22·3	22	118		C	8761	·808	242·8	332·4	−21·2	3	18	84*f*
C	8760	·487	136·0	303·6	−19·5	33	160			8760	·502	234·9	307·4	−16·2	0	8	
		·694	111·3					73		8763	·288	157·4	275·7	−14·8	7	23	
		·774	76·3					100		8762	·627	71·1	245·0	+12·1	12	54	
		·869	63·0					85			·709	117·4					105
		·877	84·1					164			·910	121·9					302
		·882	106·8					312	Dec. 2			(+15·9)	(282·2)	(+0·6)	(273)	(1859)	(1769)
		·965	68·7					100									
Nov. 29			(+17·1)	(324·5)	(+1·0)	(151)	(1041)	(1475)									
									336·545		·960	248·1					533
										8761	·914	246·0	332·7	−21·5	5	10	146*sf*
333·342		·986	285·7					187	C	8763	·284	208·3	277·0	−13·9	5	17	
C		·959	309·1					92		8762	·456	63·3	244·6	+12·2	8	26	

Group 8761, Nov. 28–Dec. 3. A small, short stream on Nov. 28. A regular spot has fully formed at the head on Nov. 29, but it rapidly diminishes as the smaller spots disappear.
Group 8762, Dec. 1–10. A small group of the "stream" type.
Group 8763, Dec. 2–8. A short stream of small unstable spots.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
336·545	8764	·747	113·5	223·5	−16·9	3	5	
		·826	126·2					166
G		·945	73·0					75
		·959	125·4					35
Dec. 3			(+15·5)	(269·1)	(+0·5)	(21)	(58)	(955)
337·365		·981	246·3					239
		·898	248·7					227
		·772	245·9					190
		·722	285·1					99
	872c	·681	238·9	296·6	−20·2	1	3	
	8763	·393	229·9	276·3	−14·2	4	40	
	872d	·438	348·5	263·8	+25·7	1	4	
C	8765	·259	197·4	262·9	−13·8	4	15	
	8762	·301	46·7	245·4	+12·3	11	43	
	8764	·617	118·2	223·9	−16·5	3	10	
		·869	136·5					95
		·957	78·8					144
		·968	91·9					114
		·977	119·1					97
Dec. 4			(+15·1)	(258·3)	(+0·4)	(24)	(115)	(1205)
338·362		·918	247·5					305
		·890	267·7					98
		·875	280·5					114
		·798	242·3					99
	8763	·565	243·8	276·6	−14·1	7	46	
	8765	·400	233·1	264·3	−13·6	1	4	
C	8762	·210	352·9	246·7	+12·2	11	32	
	872e	·750	68·9	198·7	+15·8	4	11	
		·862	95·5					99
		·897	77·5					101
		·945	117·7					160
		·952	66·7					256
Dec. 5			(+14·7)	(245·2)	(+0·3)	(23)	(93)	(1232)
339·349		·971	268·5					109
		·967	249·3					419
		·961	280·7					159
		·885	246·7					266
	8763	·732	250·5	277·2	−14·1	22	64	
	8765	·549	243·8	262·5	−13·9	19	84	
	8762	·319	311·1	246·3	+12·2	6	45	
C	8766	·993	100·4	149·3	−10·3	65	488	115*c*
		·838	82·9					77
		·841	64·1					264
		·894	116·4					105

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
339·349		·922	66·5					218
		·952	92·9					85
C		·963	56·5					77
Dec. 6			(+14·3)	(232·1)	(+0·1)	(112)	(681)	(1894)
340·357		·962	245·8					171
		·840	280·7					121
	8763	·873	254·2	278·5	−13·7	14	56	95*c*
	8765	·702	249·4	261·4	−14·2	8	55	75*c*
	8762	·508	294·7	246·9	+12·2	8	59	
	8766	·945	101·1	148·6	−10·5	95	589	684*f*
C		·739	124·9					78
		·774	109·7					79
		·804	60·3					248
		·874	122·9					151
		·947	58·9					139
		·965	92·3					188
		·969	74·5					179
Dec. 7			(+13·9)	(218·9)	(0·0)	(125)	(759)	(2208)
341·367		·939	281·7					190
		·919	238·6					73
		·899	267·8					137
		·889	296·1					188
		·853	279·9					145
	8763	·960	255·7	278·6	−13·7	7	33	359*c*
	8765	·825	250·7	259·4	−15·9	28	102	407*c*
	8762	·695	287·8	248·0	+12·2	32	146	59*c*
C	*872f*	·665	59·6	168·3	+19·5	1	3	53*nf*
	8766	·847	102·7	148·6	−10·8	100	623	652*f*
	8767	·957	95·4	132·8	− 5·2	29	139	594*c*
		·887	93·4					136
		·904	58·3					80
		·927	80·7					153
		·936	117·2					111
		·960	71·3					195
Dec. 8			(+13·5)	(205·6)	(−0·1)	(197)	(1046)	(3532)
342·414		·969	257·6					197
		·960	281·6					106
		·958	294·2					86
	8765	·930	252·4	259·1	−16·5	73	430	230*c*
G	8762	·844	284·5	248·2	+12·0	24	94	132*c*
	8766	·699	104·6	148·6	−10·4	83	609	254*f*
	8767	·858	96·0	133·1	− 5·3	22	143	306*c*
		·822	83·7					70
		·859	70·3					87

Group 8764, Dec. 3–4. A very small spot.
Group 8765, Dec. 4–10. A stream of few unimportant spots until Dec. 9, when two spots of some extent develop near the west limb.
Group 8766, Dec. 6–18. Return of Group 8738. A very large regular spot, generally with some very small companions following it.
Group 8767, Dec. 8–18. A regular spot breaking up on Dec. 14. Two very small followers are seen in the accompanying faculæ on Dec. 10.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
342·414		·861	53·4					69	345·331		·889	54·8					160
G		·940	83·3					123			·891	98·7					460
		·946	71·1					173			·897	72·3					77
Dec. 9			(+13·0)	(191·8)	(−0·3)	(202)	(1276)	(1833)	C		·905	84·9					465
											·957	58·9					189
											·976	102·1					155
343·489		·947	246·1					97	Dec. 12			(+11·7)	(153·3)	(−0·6)	(121)	(788)	(2559)
		·907	273·8					74									
		·813	245·8					157									
		·764	230·9					102	346·357		·973	239·7					158
	8765	·985	252·1	257·1	−17·7	87	564	400*c*			·969	278·5					101
	8762	·958	283·2	250·2	+12·5	2	43	433*e*			·951	183·3					64
	8766	·514	109·6	148·2	−10·2	89	618				·918	233·7					197
C	8767	·711	97·4	132·7	− 5·5	24	138	110*c*		8769	·865	288·3	198·0	+15·3	36	193	191*c*
	8768	·968	81·6	102·6	+ 8·0	0	8	320*f*		*872h*	·526	316·3	162·7	+21·5	1	4	
		·855	67·3					233		8766	·228	221·3	148·6	−10·7	78	517	
		·901	101·5					90		8767	·151	129·8	133·1	− 6·3	20	111	
		·931	83·2					228		8770	·629	77·1	101·8	+ 7·4	1	7	
		·934	119·4					131		8771	·959	109·9	67·3	−19·2	7	19	306*c*
		·959	60·3					101	C		·789	100·3					248
		·980	95·8					103			·813	82·3					323
Dec. 10			(+12·6)	(177·6)	(−0·4)	(202)	(1371)	(2579)			·822	49·9					156
											·889	63·5					103
											·929	99·3					261
344·362		·984	283·0					348			·938	88·5					113
		·968	272·6					114			·941	51·7					146
		·908	290·0					118			·960	119·9					130
		·900	249·9					259			·960	65·5					93
		·838	234·2					293			·963	78·0					126
	8769	·586	297·2	198·6	+15·0	4	14		Dec. 13			(+11·3)	(139·8)	(−0·8)	(143)	(851)	(2716)
	872g	·331	60·2	149·3	+ 9·0	3	13										
	8766	·343	120·4	148·7	−10·4	98	551										
C	8767	·548	99·6	133·4	− 5·6	22	133		347·361		·873	278·7					97
	8768	·897	80·8	103·0	+ 8·0	1	4	345*f*			·808	300·0					133
		·749	64·8					118		8769	·952	286·4	197·6	+15·3	19	147	221*c*
		·839	82·0					240		8766	·408	244·8	148·6	−10·8	64	563	
		·955	98·4					508		8767	·153	229·6	133·3	− 6·6	18	72	
		·957	71·0					134	C.	8771	·876	111·8	67·2	−19·5	5	26	161*c*
		·961	51·0					83			·819	98·9					115
		·962	86·0					418			·876	124·6					87
Dec. 11			(+12·2)	(166·1)	(−0·5)	(128)	(715)	(2978)			·937	77·4					82
											·965	121·4					88
									Dec. 14			(+10·8)	(126·6)	(−0·9)	(106)	(808)	(984)
345·331		·948	248·5					139									
		·922	238·6					250									
		·835	228·3					152	348·437		·940	226·6					68
C	8769	·744	290·7	199·2	+14·8	20	97	117*c*			·937	285·1					118
	8766	·189	154·1	148·5	−10·3	79	546		C		·892	240·6					115
	8767	·354	105·3	133·3	− 5·9	22	145				·881	257·2					78
		·821	82·3					395			·881	297·0					183

Group 8768, Dec. 10–11. Return of Group 8742. A very small spot.
Group 8769, Dec. 11–15. A pair of imperfectly-formed spots developing near the west limb.
Group 8770, Dec. 13–16. Two or three very small spots seen only on Dec. 13 and 16.
Group 8771, Dec. 13–15. Return or revival of Group 8745. A small spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.			G.M.T. (Civil.)	Group No.	Measures.		Position.		Area.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
348·437		·806	308·1					80	351·165	8773	·718	104·5	31·5	−11·3	5	33	69*c*
		·774	237·6					37		8774	·940	111·8	7·7	−20·8	44	242	541*nf*
	8769	·996	286·1	196·4	+15·8	27	85	94*s*	D	8775	·963	97·6	2·4	− 7·7	129	534	1049*c*
	8766	·606	254·0	148·6	−10·4	89	465				·960	79·3					141
	8767	·355	254·3	132·4	− 6·4	6	29		Dec. 18			(+9·1)	(76·5)	(−1·4)	(268)	(1293)	(2830)
	8721	·401	113·1	90·5	− 9·9	1	2										
C	8771	·744	115·3	67·2	−19·2	4	12	78*c*									
		·796	127·8					57	352·345		·984	254·5					290
		·817	74·4					86			·946	274·6					152
		·849	57·6					79			·934	263·9					269
		·859	103·5					87			·884	291·0					207
		·908	119·6					274			·804	276·5					239
		·968	52·2					51		8772	·508	259·7	91·0	− 6·5	11	43	
		·989	98·8					59	C	8773	·477	108·5	33·7	−10·0	64	406	
Dec. 15			(+10·4)	(112·4)	(−1·0)	(127)	(593)	(1544)		8774	·825	114·1	7·6	−20·5	37	222	597*nf*
										8776	·836	74·9	5·6	+11·7	5	27	115*c*
										8775	·851	97·9	2·9	− 7·5	92	481	679*c*
349·383		·946	240·4					120			·903	121·9					218
		·940	294·6					229			·937	63·0					179
		·938	255·8					76			·961	99·1					74
		·933	285·1					101	Dec. 19			(+8·5)	(60·9)	(−1·5)	(209)	(1179)	(3019)
		·907	265·1					87									
		·896	303·0					106									
C		·857	237·5					60	353·332		·979	262·9					139
	8766	·760	257·5	148·6	−10·2	62	504				·951	290·8					194
	8767	·553	259·3	132·9	− 6·8	5	8				·905	274·5					202
	8770	·135	335·5	103·1	+ 5·9	2	10				·876	286·2					93
		·852	119·1					110			·810	278·1					144·
		·940	100·4					168			·723	278·9					76
		·954	110·9					52		8777	·914	262·5	113·7	− 7·4	17	38	63*c*
Dec. 16			(+9·9)	(99·9)	(−1·1)	(69)	(522)	(1109)		8772	·678	261·7	90·2	− 6·8	4	22	
										8778	·249	42·7	38·1	+ 8·9	3	11	
										8773	·278	120·0	33·8	− 9·5	92	657	
350·501		·956	239·7					91	C	8774	·690	118·7	7·8	−20·5	25	208	75*nf*
		·895	301·5					71		8776	·691	71·9	6·0	+11·2	8	34	
	8766	·899	259·3	148·8	−10·2	87	471	495*sf*		8775	·714	98·9	2·7	− 7·4	69	443	175*f*
	8767	·747	261·8	133·1	− 6·9	1	5	260*f*			·818	124·1					127
G	8772	·124	217·8	89·6	− 6·9	19	62				·831	109·6					122
	8773	·831	99·4	29·4	− 8·5	0	6	93*c*			·866	57·4					120
	8774	·978	110·8	7·8	−20·6	80	296	353*f*			·926	114·3					228
	8775	·991	97·2	3·1	− 7·3	153	654	549*c*			·933	99·9					188
Dec. 17			(+9·4)	(85·2)	(−1·3)	(340)	(1494)	(1912)			·939	125·8					130
											·964	61·5					117
									Dec. 20			(+8·1)	(47·9)	(−1·6)	(218)	(1413)	(2193)
351·165		·948	299·0					91									
		·879	279·7					133									
		·846	293·4					139	354·334		·974	274·0					297
D	8766	·958	260·1	149·6	− 9·9	73	418	405*sf*			·888	276·8					399
	8767	·844	263·2	133·8	− 6·5	1	6	262*c*	C		·871	264·0					341
	8772	·259	249·3	90·5	− 6·6	16	60			8777	·985	262·2	114·7	− 8·0	3	73	218*f*

Group 8772, Dec. 17–20. Revival of Group 8743. A pair of spots first appearing on the central meridian.

Group 8773, Dec. 17–27. A large stream of normal type developing rapidly from a very small spot seen in a small area of faculæ on Dec. 17. The leader shows minor deviations from the regular type, but considerable changes take place in the follower which breaks up between Dec. 22 and 24.

Group 8774, Dec. 17–29. A regular spot slowly diminishing. Very small followers appear on Dec. 22–24.

Group 8775, Dec. 17–29. A group in the same general area of disturbance as Group 8774, shown by a very large extent of faculæ. Return of Group 8756. A large regular spot. After Dec. 21, considerable changes take place; a mass of penumbra forms just northwards, whilst later the regular spot becomes elongated, develops a double umbra and then divides. Meanwhile a small cluster has appeared preceding this composite formation. The whole group shrinks rapidly after Dec. 25.

Group 8776, Dec. 19–27. Two small spots becoming a short stream of little importance after Dec. 22. On the same meridian as Groups 8774 and 8775.

Group 8777, Dec. 20–21. A small group appearing at the west limb. Group 8778, Dec. 20–22. A very small but persistent spot.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
354·334	8778	·187	332·6	39·7	+ 7·7	1	6	
	8773	·138	174·3	33·9	− 9·6	125	859	
	8774	·542	127·8	7·5	−20·9	31	203	
	8776	·511	63·5	7·0	+11·6	23	167	
	8775	·532	101·7	3·1	− 7·7	86	536	
C	8779	·866	103·8	335·3	−12·8	2	13	148*n*
		·719	114·0					193
		·726	128·2					179
		·878	129·8					126
		·888	119·0					308
		·923	55·0					258
Dec. 21			(+7·6)	(34·7)	(−1·8)	(271)	(1857)	(2467)
355·372		·961	274·9					196
		·949	261·9					339
		·934	285·6					153
		·930	304·9					150
		·849	270·9					159
		·822	254·5					97
	872j	·688	247·0	62·3	−17·0	1	4	
	8778	·372	295·9	40·6	+ 7·5	1	2	
	8773	·257	240·0	34·0	− 9·2	123	782	
C	8774	·390	145·1	7·3	−20·4	33	183	
	8776	·341	47·9	6·1	+11·3	42	108	
	8775	·322	107·4	3·0	− 7·3	111	782	
	872k	·487	122·9	355·8	−17·0	0	7	
	8779	·744	105·9	333·9	−13·0	3	11	58*c*
	8780	·804	109·1	328·8	−16·4	4	15	119*f*
		·767	122·7					222
		·940	109·7					199
		·951	77·9					134
Dec. 22			(+7·1)	(21·0)	(−1·9)	(318)	(1894)	(1826)
356·355		·961	300·1					159
		·956	272·5					168
		·919	258·1					152
		·849	305·5					99
		·849	278·7					85
		·841	249·5					155
		·825	233·2					74
	8773	·475	253·9	35·6	− 9·3	103	729	
C	8774	·328	178·7	7·6	−21·1	20	166	
	8776	·229	12·1	5·3	+10·9	10	52	
	8775	·122	142·3	3·8	− 7·5	105	857	
	8779	·535	108·9	337·1	−11·6	1	2	
	8780	·660	112·0	328·8	−15·8	27	110	

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
356·355		·834	109·7					85
C		·836	76·1					57
		·947	112·9					129
Dec. 23			(+6·7)	(8·1)	(−2·0)	(266)	(1916)	(1163)
357·321		·976	261·0					202
		·970	307·4					95
		·944	238·0					87
		·927	249·0					168
		·903	298·0					128
		·855	238·3					71
	8773	·657	258·8	35·8	− 8·9	115	706	
	8781	·564	233·6	24·4	−21·3	25	104	
	8774	·373	209·6	6·7	−20·9	24	175	
C	8776	·289	323·0	5·6	+11·3	7	34	
	8775	·166	235·0	3·2	− 7·5	114	769	
	873a	·450	141·4	337·8	−22·5	0	3	
	8780	·500	118·6	328·4	−15·6	34	151	
		·902	116·6					279
		·937	98·8					104
		·955	107·6					105
		·978	77·9					228
		·987	100·0					209
Dec. 24			(+6·2)	(355·4)	(−2·1)	(319)	(1942)	(1676)
358.494	8773	·842	260·7	37·1	− 9·0	106	574	121*c*
	8781	·746	243·0	25·3	−21·4	47	199	43*c*
	8774	·530	231·5	6·2	−21·2	27	146	
	8776	·479	298·0	5·3	+10·9	6	26	
	8775	·415	255·5	3·7	− 8·0	102	733	
	873b	·362	242·1	358·9	−11·9	1	6	
	8779	·219	152·8	334·0	−13·5	1	5	
	8780	·300	145·0	329·6	−16·4	41	293	
	8782	·975	105·6	262·9	−15·7	16	·84	} 900*c*
G	8783	·992	107·6	257·0	−17·7	23	107	
	8784	·991	78·4	258·6	+11·1	7	54	44*c*
		·776	121·4					102
		·846	110·6					42
		·898	101·0					246
		·899	75·8					157
		·948	64·4					91
		·963	101·6					399
		·978	86·1					106
Dec. 25			(+5·6)	(339·9)	(−2·3)	(377)	(2227)	(2251)

Group 8779, Dec. 21–31. Intermittent. A small area of disturbance, *np* Group 8780, shown by faculæ and one or two evanescent spots, not seen on Dec. 24, 27 and 29.
Group 8780, Dec. 22–31. A stream developing from two very small spots. The chief component is the leader seen on Dec. 26 as a spot of regular type, after which the group diminishes rapidly.
Group 8781, Dec. 24–27. A pair of spots appearing on Dec. 24 as the chief component of a small stream.
Group 8782, Dec. 25–30. Return of Group 8765. A small spot gradually fading out, with a few companions.
Group 8783, Dec. 25–Jan. 3. A small regular spot disappearing in a few days, when one or two very small spots appear near its place. Part of a large general disturbance with Groups 8782 and 8788.
Group 8784, Dec. 25–Jan. 1. A return possibly of Group 8762. A small spot followed by an extended area of faculæ.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
359·507	8773	·948	261·6	37·9	− 8·7	92	483	347*c*
	8781	·870	246·3	25·3	−21·7	30	190	145*c*
	8785	·799	262·6	19·4	− 7·3	2	28	33*c*
	8776	·666	290·4	6·0	+11·6	3	9	
	8774	·679	240·7	5·9	−21·2	34	160	
	8775	·609	260·0	3·7	− 7·9	74	487	
	8779	·229	212·9	333·9	−13·4	0	4	
	8786	·413	350·3	330·9	+21·5	2	14	
G	8780	·258	195·6	330·7	−16·7	61	307	
	8787	·114	80·4	320·2	− 1·3	0	5	
	8788	·854	102·8	268·4	−12·2	2	8	280*f*
	8782	·898	106·4	263·3	−15·8	24	82	229*c*
	8784	·938	77·0	258·1	+11·3	10	24	307*c*
	8783	·942	108·1	256·7	−17·8	19	86	358*c*
		·782	102·2					111
		·796	74·4					48
		·886	63·8					101
Dec. 26			(+5·2)	(326·6)	(−2·4)	(353)	(1887)	(1959)
360·378		·693	240·8					255
	8773	·994	262·3	39·0	− 8·0	61	356	573*f*
	8781	·945	247·9	25·3	−21·7	22	178	309*c*
	8785	·887	263·0	17·5	− 7·4	3	22	106*p*
	8776	·813	285·6	7·8	+11·0	0	9	114*c*
	8774	·796	245·0	5·6	−21·2	30	161	278*c*
	8775	·752	261·7	3·6	− 7·9	80	440	388*c*
	8780	·372	226·4	331·4	−17·2	33	266	
C	8786	·486	328·7	330·8	+22·0	8	15	
	8787	·099	282·3	320·6	− 1·2	1	3	
	8789	·642	68·9	277·6	+11·3	1	10	
	8788	·735	103·2	268·4	−11·3	8	39	422*c*
	8782	·801	107·9	263·0	−15·7	22	76	508*c*
	8784	·855	74·8	258·0	+11·6	6	18	722*f*
	8783	·867	109·7	256·1	−18·3	15	82	624*c*
		·802	60·3					96
Dec. 27			(+4·7)	(315·1)	(−2·5)	(290)	(1675)	(4395)
361·527		·987	248·0					127
		·931	283·2					256
		·886	242·0					124
		·840	299·6					145
	8785	·975	262·8	17·1	− 7·6	0	11	106*p*
C	8774	·916	247·6	5·2	−21·4	23	157	650*nf*
	8775	·892	261·9	3·0	− 8·4	37	395	515*c*
	8779	·624	253·8	337·6	−12·1	4	14	
	8780	·575	241·4	331·9	−18·1	21	155	

G.M.T. (Civil.)	Group No.	MEASURES. Dist.	MEASURES. Pos. Angle.	POSITION. Long.	POSITION. Lat.	AREA. Umbræ.	AREA. Whole Spots.	AREA. Faculæ.
1918.			°	°	°			
361·527	8786	·632	311·2	330·8	+22·3	5	28	
	873*c*	·345	203·7	308·5	−20·9	2	6	
	873*d*	·456	116·6	275·3	−14·1	1	3	
C	8788	·542	107·2	268·3	−11·4	31	181	
	8782	·622	113·0	263·6	−16·2	8	29	
	8784	·703	69·9	257·7	+12·1	10	17	154*f*
	8783	·727	112·8	255·3	−18·2	11	48	95*c*
		·943	111·8					141
Dec. 28			(+4·2)	(300.0)	(−2·6)	(153)	(1044)	(2313)
362·381		·967	281·6					122
		·950	243·0					216
		·921	297·6					188
		·895	259·0					90
	8774	·974	248·4	5·4	−21·7	26	130	673*nf*
	8775	·963	262·2	3·0	− 8·2	60	366	361*c*
	8780	·732	248·2	334·0	−17·7	19	103	84*c*
	8786	·751	303·6	331·2	+22·5	1	7	58*c*
C	8789	·291	26·8	281·0	+12·3	2	9	
	8788	·363	115·1	269·2	−11·3	26	165	
	8782	·466	120·0	264·0	−15·9	6	32	
	8784	·566	63·7	257·6	+12·2	9	16	
	8783	·590	117·6	255·5	−18·0	9	20	
	873*e*	·897	72·4	226·9	+14·4	0	8	67*f*
		·703	65·2					140
		·912	108·3					115
		·970	118·2					127
Dec. 29			(+3·8)	(288·7)	(−2·7)	(158)	(856)	(2241)
363·363		·979	255·5					367
		·974	296·7					137
		·971	245·5					172
		·895	240·9					141
		·867	229·9					106
		·858	298·0					108
	8779	·892	258·3	338·7	−11·7	9	43	119*c*
	8780	·892	251·3	338·2	−18·0	9	45	244*f*
C	8788	·179	147·8	270·2	−11·6	18	125	
	8782	·311	139·9	263·8	−16·5	5	40	
	8784	·402	49·5	257·6	+12·4	7	12	
	8783	·427	128·6	255·3	−18·1	3	7	
		·831	72·7					146
		·942	121·8					225
		·954	81·5					121
		·963	70·1					174
Dec. 30			(+3·3)	(275·8)	(−2·9)	(51)	(272)	(2060)

Group 8785, Dec. 26–28. A very small cluster on Dec. 26; a single small spot on the two following days.
Group 8786, Dec. 26–29. A few very small evanescent spots.
Group 8787, Dec. 26–27. One very small spot.
Group 8788, Dec. 26–Jan 3. A small spot, *np* Group 8782, in the same general area of faculæ, from which develops a small stream. The only important component is the leader, a regular spot.
Group 8789, Dec. 27–29. A small spot not seen on Dec. 28.

POSITIONS and AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.			G.M.T. (Civil.)	Group No.	MEASURES.		POSITION.		AREA.		
		Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.			Dist.	Pos. Angle.	Long.	Lat.	Umbræ.	Whole Spots.	Faculæ.
1918.			°	°	°				1918.			°	°	°			
364·346		·945	240·8					168	364·346	8783	·270	158·5	256·9	−17·4	0	7	
		·938	295·6					120			·777	123·5					121
		·915	309·6					71			·887	77·9					85
		·770	244·6					119	C		·888	125·6					177
C	8779	·971	257·8	339·1	−12·6	12	31	257*c*			·890	67·2					98
	8780	·969	252·2	338·5	−18·0	8	22	412*f*			·951	125·3					134
	8788	·187	218·8	269·6	−11·3	17	136		Dec. 31			(+2·8)	(262·8)	(−3·0)	(40)	(202)	(1762)
	8784	·279	19·0	257·5	+12·2	3	6										

ROYAL OBSERVATORY, GREENWICH.

GENERAL CATALOGUE

OF

GROUPS OF SUN SPOTS.

FOR THE YEAR

1918.

GENERAL CATALOGUE of GROUPS of SUN SPOTS for the YEAR 1918.

NOTE.—Groups of Sun Spots, lasting for two or more days, are numbered in the *first* column in continuation of the Group-numbers given in 1917 and the previous years. Groups seen only once are not included in this Catalogue.

The *second* 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 *fourth* and *sixth* columns, headed "Longitude from Central Meridian," give, for the days on which each Group was first and last seen respectively, the mean 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 *seventh* and *eighth* columns are corrected for the effect of foreshortening and are expressed in millionths of the Sun's visible hemisphere.

The *ninth* and *tenth* columns give, under the heading "Mean Longitude of Group," the mean heliographic longitude of the Group as computed upon two different systems. In System I. the daily sidereal motion due to the Sun's rotation is assumed to be 851′·07 for all spots, whatever their latitude; this corresponds to Carrington's assumed rotation period of 25·38 days. In System II. the daily sidereal motion is assumed to vary with the latitude in accordance with the formula

$$866'{\cdot}6 - 128' \sin^2 l.$$

In both systems the longitude of the centre of the Sun's disc is adopted as 31°·78 for 1918 Jan. 1^{d}·0, the longitudes given under System I. being thus rendered uniform with those given in preceding volumes of the Greenwich Photo-Heliographic Results. The longitudes according to System II. for Groups 8374-5, 8377-8, 8382–4, are computed here from 1918·0 instead of from 1917·0, as in the volume for 1917.

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.

No. of Group.	Duration.	First Seen.		Last Seen.		Mean Area Corrected for Foreshortening.		Mean Longitude of Group.		Mean Latitude of Group.	Reference to Ledger.	NOTES.
		Date.	Long. from C.M.	Date.	Long. from C.M.	Umbræ.	Whole Spots.	System I.	System II.			
	d	1917.	°	1918.	°			°	°	°		
8374	13	Dec. 21	−81·4	Jan. 2	+79·9	76	527	92·4	93·6	+ 2·6	I. 834 (1)	
5	13	21	−80·7	2	+80·2	15	108	92·7	93·6	− 9·8	II.	*See* Ledger for 1917.
7	13	24	−77·4	5	+82·0	88	574	53·9	54·1	− 7·9	I. 835 (1)	
8	13	24	−81·7	5	+76·5	31	204	51·3	51·6	+ 7·1	I. 830 (2)	*See* Ledger for 1917.
8382	7	27	+ 3·9	2	+78·9	15	80	95·0	95·2	+11·7	II.	*See* Ledger for 1917.
3	13	27	−80·0	8	+80·7	33	210	14·7	14·4	+ 9·9	I. 837 (1)	
4	6	28	−56·9	2	+ 6·9	5	21	22·3	22·5	−12·1	II.	*See* Ledger for 1917.
		1918.										
6	6	Jan. 1	−34·2	6	+30·7	7	33	349·9	349·9	−19·5	II.	
7	13	1	−79·1	13	+79·4	105	595	307·6	306·2	+ 6·6	I. 832 (2)	*See* Recurrent Series 826.
8	4	4	+10·2	7	+53·6	6	33	359·4	358·4	− 9·4	II.	Revives as Group 8417.
9	10	4	−79·0	13	+40·2	13	85	267·7	265·9	+ 6·1	I. 831 (2)	*See* Ledger for 1917.
8390	14	5	−76·7	18	+81·8	81	498	256·1	254·8	+14·3	I. 838 (1)	*See* Groups 8319 and 8361 for first activity.
1	2/3	6	−20·4	8	+ 3·4	0	5	298·2	296·8	+ 8·0		
2	12	7	−80·0	18	+68·8	33	260	228·1	227·2	−17·1	II.	Revival of Group 8356.
3	3	10	−67·2	12	−41·5	5	15	199·8	201·7	−27·0		
4	2	10	−67·4	11	−52·6	0	5	199·8	197·8	− 9·3		
5	3/4	11	−15·2	14	+24·0	1	3	238·7	236·9	−13·1		
6	2	12	+63·9	13	+76·4	1	15	305·2	308·8	−31·0	I. 839 (1)	
7	6	13	−16·6	18	+50·6	9	37	211·9	208·2	+ 3·6	II.	
8	3	13	−66·3	15	−39·8	2	8	162·6	164·3	−25·3		
9	9	14	−29·6	22	+79·7	36	225	187·8	188·3	+21·6	II.	Revival near Recurrent Series 828.
8400	13	14	−80·9	26	+76·5	105	1077	132·9	130·8	−15·4	I. 836 (2)	
1	13	14	−82·0	26	+76·7	20	104	132·7	128·3	− 7·6	I. 829 (3)	*See* Ledger for 1917.
2	13	15	−74·9	27	+81·4	20	139	126·6	124·8	+16·7	I. 833 (2)	Revives as Group 8435.
3	2	16	−76·8	17	−63·3	0	8	113·2	109·2	+ 3·5		

GENERAL CATALOGUE of GROUPS of SUN SPOTS—*continued.*

No. of Group.	Duration.	First Seen. Date.	First Seen. Long. from C.M.	Last Seen. Date.	Last Seen. Long. from C.M.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Reference to Ledger.	NOTES.
	d	1918.	°	1918.	°			°	°	°		
8404	2	Jan. 17	−47·1	Jan. 18	−34·0	0	6	129·4	131·2	−24·6		
5	2	17	−57·5	18	−43·5	0	2	119·4	116·2	−10·3		
6	7	17	−80·3	23	+ 0·4	15	87	97·1	92·2	+ 2·4	I. 834 (2)	
7	7/8	18	−21·3	25	+73·6	5	19	143·0	141·5	+17·0	II.	
8	3/4	20	+ 0·1	23	+37·3	1	7	135·2	136·1	−22·0		Revival of Group 8371.
9	13	20	−76·3	Feb. 1	+80·6	16	113	59·9	54·5	− 8·6	I. 835 (2)	
8410	9	21	−33·1	Jan. 29	+72·2	9	38	89·1	83·7	+ 7·7	II.	
1	4	22	− 3·2	25	+35·7	9	39	107·4	101·6	+ 2·5		
2	8	22	− 6·2	29	+80·8	76	617	102·0	99·8	−16·4	I. 840 (1)	Revival of Group 8372.
3	11	23	−77·7	Feb. 2	+54·2	10	73	19·9	14·7	+10·3	I. 837 (2)	
4	3	24	− 7·3	Jan. 26	+16·5	1	4	75·4	72·3	+14·3		
5	10	25	−44·2	Feb. 3	+81·2	22	120	29·8	29·4	−19·7	II.	
6	2	26	−27·0	Jan. 27	−10·3	3	14	32·2	28·4	+13·4		
7	10	26	−54·5	Feb. 4	+74·1	9	47	8·8	3·1	−10·3	II.	Revival of Group 8388.
8	3/6	27	− 1·0	1	+61·7	1	3	42·0	37·6	+13·1	II.	Revives as Group 8445.
9	13	28	−80·4	9	+74·0	33	213	308·1	300·9	+ 8·1	I. 832 (3)	
8420	3	29	+45·7	Jan. 31	+74·2	21	109	63·5	59·3	+13·5		Revives as Group 8441.
1	5	29	+34·9	Feb. 2	+80·6	20	144	49·5	48·2	−18·6	I. 841 (1)	
2	10	29	−78·9	7	+37·3	15	86	295·3	306·1	−31·6	I. 839 (2)	
3	9	Feb. 1	−80·6	9	+24·5	13	96	258·2	253·0	+13·3	I. 838 (2)	
4	2/3	2	−44·0	4	−18·7	0	3	281·2	278·4	−16·7		
5	3	3	+21·4	5	+42·9	4	11	330·7	326·5	−14·6		
6	4	4	−32·6	7	+ 6·4	2	16	265·4	261·7	+15·5		
7	11/12	6	−78·7	17	+72·7	8	38	197·4	191·4	+13·6	II.	
8	12	7	−68·2	18	+75·3	20	101	189·8	180·7	− 8·6	II.	
9	2	9	−72·7	10	−60·1	1	8	160·6	161·8	−21·6		
8430	13	10	−86·2	22	+73·4	6	39	134·8	126·5	−11·2	I. 836 (3)	
1	5	11	−37·0	15	+19·4	5	28	169·0	166·0	+17·4		
2	5/8	11	−53·7	18	+38·6	1	6	151·7	151·9	+20·6	II.	
3	13	11	−81·3	23	+77·1	97	730	125·4	113·6	+ 3·6	I. 842 (1)	
4	9	13	−73·2	21	+32·5	18	101	107·6	103·6	−16·6	I. 840 (2)	
5	4	14	−39·2	17	+ 4·1	1	8	130·0	126·9	+17·4	II.	Revival of Recurrent Series 833.
6	6/7	15	−64·6	21	+ 7·7	2	19	83·8	89·0	+24·6	II.	
7	2	16	+11·4	17	+28·2	1	4	155·0	154·8	−20·3		
8	6/7	17	−53·6	23	+24·4	2	7	74·5	74·3	−20·2	II.	
9	13	17	−83·0	Mar. 1	+71·1	20	116	42·1	41·8	−20·1	I. 841 (2)	
8440	13	21	−77·7	5	+76·5	45	307	354·0	341·4	+ 7·8	II.	
1	2	22	+ 5·0	Feb. 23	+18·8	3	15	68·0	61·3	+14·4		Revival of Group 8420.
2	2	23	− 0·5	24	+17·5	1	4	50·8	52·0	−21·3		
3	3	25	−11·1	27	+15·8	8	31	10·9	4·3	+14·9		
4	13	25	−72·9	Mar. 9	+83·2	19	117	307·2	293·0	+ 6·6	I. 832 (4)	
5	4	26	+34·9	1	+71·4	2	11	43·0	35·0	+13·8		Revival of Group 8418.
6	12	26	−79·0	9	+69·7	14	73	292·5	282·7	−12·5	II.	
7	3	Mar. 3	+59·9	5	+82·0	8	68	2·2	2·8	−20·8	I. 843 (1)	
8	2	3	−74·9	4	−61·1	2	10	228·9	213·3	+ 3·2		
9	3	5	+ 4·0	7	+30·6	3	13	281·4	266·3	− 6·1		
8450	7	6	−65·0	12	+17·1	5	14	201·4	187·1	− 8·4	II.	Revival near Group 8428.
1	2	7	+62·0	8	+78·0	27	142	313·3	298·8	− 7·8	I. 844 (1)	
2	5	8	−54·5	12	− 3·9	3	15	180·7	173·6	−15·6		
3	13	8	−77·5	20	+76·1	116	780	158·0	154·7	+18·4	I. 845 (1)	
4	7	9	−36·7	15	+43·6	3	18	186·8	186·8	−20·4	II.	
5	7	10	−63·8	16	+13·1	8	31	145·9	143·7	−19·1	II.	
6	5/6	10	−75·0	15	−10·4	2	9	136·7	118·6	+ 2·0	I. 842 (2)	
7	2	11	+35·9	12	+47·2	2	3	232·2	223·4	+14·4		
8	2	11	+26·7	12	+35·0	1	3	221·5	207·4	− 9·4		
9	2	11	− 5·4	12	+ 5·7	1	7	190·8	198·4	−24·6		

GENERAL CATALOGUE of GROUPS of SUN SPOTS—*continued.*

No. of Group.	Duration.	First Seen.		Last Seen.		Mean Area Corrected for Foreshortening.		Mean Longitude of Group.		Mean Latitude of Group.	Reference to Ledger.	NOTES.
		Date.	Long. from C.M.	Date.	Long. from C.M.	Umbræ.	Whole Spots.	System I.	System II.			
	d	1918.	°	1918.	°			°	°	°		
8460	11	Mar. 11	−52·5	Mar. 21	+79·5	8	40	146·4	129·7	+ 7·4	II.	Revives as Group 8496.
1	6	12	+ 7·1	17	+78·2	13	77	193·8	200·4	+23·8	II.	
2	7	12	− 5·5	18	+76·7	49	298	180·9	164·7	+ 7·7	I. 846 (1)	
3	7	14	−33·2	20	+51·3	4	17	130·0	114·7	+ 9·3	II.	
4	9	15	−51·3	23	+60·7	15	73	96·5	76·9	+ 3·0	II.	Revives as Group 8492.
5	4	18	+47·6	21	+81·9	11	58	149·8	137·6	−12·6		
6	2	19	+ 3·8	20	+18·4	7	23	97·2	79·3	+ 6·8		
7	5	19	−73·7	23	−19·9	7	41	20·1	9·4	+14·0		
8	13	19	−81·2	31	+74·8	27	168	10·4	6·5	−18·4	II.	
9	4/5	20	+20·5	24	+73·7	4	15	99·9	85·4	−11·1		
8470	12	20	−77·3	31	+66·8	13	82	1·2	358·1	−18·8	I. 843 (2)	
1	3	21	−65·2	23	−37·5	3	10	1·4	341·7	− 4·7		
2	9	23	−58·8	31	+44·2	32	188	338·7	328·3	−14·7	II.	
3	13	23	−78·4	April 4	+79·3	49	255	321·4	299·9	− 4·4	I. 844 (2)	
4	6	24	−44·8	Mar. 29	+24·4	4	15	344·0	349·0	−22·7	II.	
5	5	25	−67·2	29	−15·5	4	23	306·2	287·1	+ 7·4	I. 832 (5)	
6	12	28	−80·3	April 8	+60·8	14	53	250·8	238·8	−14·2	II.	
7	6	29	+ 3·0	3	+73·1	8	29	325·0	339·4	−26·3	II.	
8	8	31	− 6·8	7	+84·0	26	145	290·1	297·0	−23·3	I. 847 (1)	
9	12	31	−75·7	11	+74·5	106	669	221·3	207·5	+13·3	I. 848 (1)	
8480	6	31	−79·3	5	−14·6	6	24	214·1	204·0	−15·4	II.	
1	8	April 1	−19·6	8	+72·5	3	21	258·5	241·5	−11·0	II.	Revives as Group 8511.
2	10	2	−62·9	11	+60·1	22	112	207·7	203·4	+18·4	II.	*See* Group 8509.
3	13	2	−82·7	14	+73·2	19	102	185·9	163·3	+ 6·4	I. 846 (2)	
4	5/6	4	+ 7·1	9	+72·0	27	184	248·4	266·5	+27·2	I. 849 (1)	
5	2/3	4	−13·8	6	+12·5	0	3	228·2	204·2	+ 2·8		
6	12	4	−75·7	15	+77·1	21	120	170·8	161·6	+16·2	I. 845 (2)	*See* Group 8514.
7	3	5	− 5·0	7	+24·7	0	4	224·1	200·0	+ 2·9		
8	10	6	−66·0	15	+53·6	17	92	150·8	140·3	+15·6	I. 845 (2)	*See* Groups 8486 and 8515.
9	12	8	−72·5	19	+78·0	18	113	119·5	93·0	− 1·0	II.	Revives as Group 8519.
8490	9/10	9	−54·4	18	+64·0	17	78	120·5	101·4	+10·7	II.	
1	2	11	−66·9	12	−52·1	0	11	83·4	75·4	+20·0		
2	9	12	−34·7	20	+72·0	17	81	101·1	74·4	+ 3·1	II.	Revival of Group 8464.
3	9	12	−36·8	20	+67·4	14	53	98·8	88·1	−15·8	II.	Revives as Group 8520.
4	3	13	+28·0	15	+50·8	1	9	149·5	155·2	−22·6		
5	2	13	− 5·0	14	+ 4·6	1	8	117·8	100·7	−12·0		
6	2	15	+49·5	16	+63·6	4	19	146·7	121·8	+ 5·8		Revival of Group 8460.
7	4	15	−22·0	18	+22·2	10	30	75·8	55·8	−10·4		Revives as Group 8526.
8	6	19	+ 0·1	24	+73·3	18	65	46·6	50·0	−21·6	II.	
9	8	19	−21·8	26	+75·5	25	163	24·6	3·5	−10·5	II.	
8500	12	19	−78·4	30	+68·8	16	102	326·1	298·7	− 5·5	I. 844 (3)	
1	13	22	−74·6	May 4	+81·7	33	169	289·0	299·5	−23·9	I. 847 (2)	
2	13	23	−78·6	5	+79·6	67	360	273·6	248·9	− 8·8	I. 850 (1)	
3	3/4	24	−36·8	April 27	+ 3·9	0	5	301·0	324·9	−27·9		
4	4	25	−48·4	28	− 8·3	5	19	276·2	258·0	−12·6		Revives as Recurrent Series 852.
5	5/6	25	−58·5	30	+ 7·1	1	6	265·2	283·3	−26·1	II.	
6	3	25	−78·8	27	−53·4	1	13	244·4	219·2	− 7·9		
7	11	25	−79·2	May 5	+45·1	12	65	242·4	264·1	+27·0	I. 849 (2)	
8	12	26	−83·7	7	+64·1	40	233	227·3	213·7	+15·2	I. 848 (2)	
9	5	27	−79·2	1	−27·9	6	35	218·0	212·0	+18·3	II.	Revival near Group 8482.
8510	4	28	+32·6	1	+75·3	16	63	318·5	295·9	−10·4		
1	4	30	+ 3·3	3	+45·6	5	18	262·5	243·4	−12·6		Revival of Group 8481.
2	13	30	−86·1	12	+72·0	13	71	171·4	174·2	−21·3	II.	
3	6	May 1	+ 7·2	6	+77·2	43	246	254·2	235·5	+12·9	II.	Revives as Group 8540.
4	9	2	−57·9	10	+51·3	14	57	175·8	173·8	+19·7	II.	Revival of Recurrent Series 845.
5	12	2	−78·7	13	+68·8	34	219	151·7	134·4	+13·9	II.	

GENERAL CATALOGUE of GROUPS of SUN SPOTS—*continued.*

No. of Group.	Duration.	First Seen. Date.	First Seen. Long. from C.M.	Last Seen. Date.	Last Seen. Long. from C.M.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Reference to Ledger.	NOTES.
	d	1918.	°	1918.	°			°	°	°		
8516	13	May 3	−78·3	May 15	+79·6	94	552	137·7	129·0	+17·4	I. 851(1)	
7	3	3	−73·4	5	−50·1	8	83	145·7	135·8	+16·8		
8	3	4	−72·4	6	−44·1	4	16	132·6	101·0	+ 2·7		
9	10	5	−83·5	14	+47·1	12	49	116·3	83·1	− 0·6	II.	Revival of Group 8489.
8520	11	6	−74·4	16	+53·2	13	56	102·6	91·9	−16·8	II.	Revival of Group 8493.
1	4	6	−77·3	9	−40·3	8	19	99·4	114·1	+24·8		
2	2/3	7	−28·9	9	− 1·7	1	3	137·1	105·6	+ 4·3		
3	3	8	−57·9	10	−29·0	7	27	94·9	65·1	+ 6·5		
4	3/4	10	−12·8	13	+29·9	0	6	113·0	79·5	+ 2·1		Revival near Group 8492.
5	2	10	−46·1	11	−31·4	6	23	79·9	59·8	+12·8		
6	2	10	−49·2	11	−34·8	3	8	76·6	55·8	−12·4		Revival of Group 8497.
7	6	12	−32·0	17	+36·2	14	59	68·2	36·0	− 5·4	II.	
8	10	12	−71·4	21	+53·1	26	128	31·9	37·1	−21·9	II.	
9	10	14	−79·8	23	+40·3	14	67	352·9	327·0	+10·6	II.	
8530	6	14	−80·9	19	−15·1	7	22	350·9	318·4	+ 5·6	II.	
1	2	19	−21·3	20	− 7·7	0	6	345·2	322·7	+12·3		
2	13	20	−77·3	June 1	+80·4	25	157	275·4	245·0	− 8·8	I. 850 (2)	
3	12	21	−65·8	1	+79·2	90	461	272·7	250·3	−12·9	I. 852 (1)	Revival of Group 8504.
4	2	22	+39·7	May 23	+53·8	3	9	7·0	354·8	−16·6		
5	4	22	−36·0	25	+ 7·1	2	9	292·5	262·3	− 8·6		
6	2	24	+53·4	25	+66·6	5	13	353·8	353·9	−20·4		
7	3	24	−31·7	26	− 7·9	2	9	267·3	258·8	−17·8		
8	2	25	+53·1	26	+68·5	6	23	341·4	315·3	−11·1		
9	5/8	25	−30·2	June 1	+62·5	0	4	256·6	236·5	−13·9	II.	
8540	4	25	−33·0	May 28	+ 9·1	2	6	256·0	229·5	+11·0		Revival of Group 8513.
1	9/10	25	−77·1	June 3	+48·5	3	14	212·7	174·8	+ 2·8	II.	
2	3/4	26	−34·4	May 29	+ 7·8	3	14	240·5	217·4	+12·6		
3	2	27	+54·3	28	+70·5	3	5	316·7	335·2	−25·2		
4	6	29	+ 1·3	June 3	+69·1	23	86	237·9	219·9	+14·8	II.	Revival near Recurrent Series 848.
5	10	29	−46·0	7	+69·9	39	190	190·5	189·6	−20·2	II.	
6	7	29	−68·1	4	+13·8	4	25	166·7	171·1	+21·6	II.	
7	10	29	−72·7	7	+37·3	8	42	159·2	148·4	+17·3	II.	
8	8	30	−56·0	6	+36·3	22	101	165·0	186·3	−25·6	II.	
9	14	30	−82·2	12	+86·4	49	282	136·8	125·9	+17·3	I. 851 (2)	
8550	3	31	−31·5	2	− 1·3	2	7	177·7	170·9	−18·5		
1	7/8	31	−48·3	7	+41·0	17	74	160·8	126·1	− 7·2	II.	
2	10	31	−67·1	9	+58·0	20	77	143·9	105·0	+ 3·4	II.	Revives as Group 8575.
3	10	31	−67·2	9	+54·2	19	101	141·8	106·8	− 7·2	II.	
4	9	31	−70·1	8	+36·8	11	57	136·6	105·4	− 9·4	II.	
5	7/8	June 1	−66·1	8	+31·5	7	20	131·3	100·3	+ 9·5	II.	Revives as Recurrent Series 853.
6	2	2	− 4·2	3	+ 5·9	1	4	175·6	189·6	−23·9		
7	2	2	−18·3	3	− 6·8	1	14	162·2	137·6	+12·4		
8	10	2	−36·4	11	+83·5	38	202	144·8	123·9	+14·0	II.	Revives as Group 8579
9	7/9	2	−71·8	10	+34·2	1	8	108·3	83·4	+12·4	II.	Revives as Group 8576.
8560	2/4	5	+30·5	8	+70·7	0	6	172·9	166·4	−18·6		Feeble revival of Group 8512.
1	3	5	−53·0	7	−29·9	3	13	89·0	69·8	−14·6		
2	10	6	−60·4	15	+58·9	12	48	67·6	48·0	+14·7	II.	
3	8	13	−77·2	20	+16·2	7	29	320·4	314·9	+19·0	II.	
4	3/4	16	−77·8	19	−36·1	1	7	279·4	258·7	−14·6	I. 852 (2)	
5	10	17	−53·9	26	+72·5	13	73	288·7	262·5	−12·9	I. 852* (1)	
6	2	19	+20·8	20	+34·3	4	9	337·4	306·7	−11·0		Revives as Group 8592.
7	2	19	−11·7	20	+ 1·0	3	13	304·6	261·6	+ 3·1		Revives as Group 8594.
8	8	19	−66·7	26	+27·9	14	58	250·2	208·0	− 4·8	II.	
9	4	20	+ 2·4	23	+45·8	8	35	307·7	282·8	−13·4		
8570	2	21	+31·5	22	+43·2	7	23	321·0	4·4	+29·3		

GENERAL CATALOGUE of GROUPS of SUN SPOTS—*continued.*

No. of Group.	Duration.	First Seen. Date.	First Seen. Long. from C.M.	Last Seen. Date.	Last Seen. Long. from C.M.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Reference to Ledger.	NOTES.
	d	1918.	°	1918.	°			°	°	°		
8571	3/4	June 23	+28·2	June 26	+73·0	16	61	293·0	250·3	+ 4·8		Revives as Group 8595.
2	10	26	−76·2	July 5	+44·9	7	26	148·6	141·7	−18·8	II.	
3	13	27	−77·4	9	+78·3	17	94	131·7	115·9	+16·5	I. 851 (3)	Revives as Recurrent Series 861.
4	12	27	−78·3	8	+69·3	21	132	133·6	96·3	+ 9·3	I. 853 (1)	Revival of Group 8555.
5	10	28	−52·5	7	+75·3	23	129	150·2	106·3	+ 5·4	II.	Revival of Group 8552.
6	4	28	−80·8	1	−43·1	4	49	116·4	83·2	+10·7	II.	Revival of Group 8559.
7	4	29	−61·8	2	−17·9	1	5	123·8	84·0	+ 7·8		
8	2	30	+ 1·6	1	+13·0	2	8	171·6	124·9	− 1·4		
9	4/8	30	−23·1	7	+72·5	1	7	149·2	124·7	+14·0	II.	Revival of Group 8558.
8580	5/8	30	−31·6	7	+62·4	1	7	139·9	95·3	+ 5·0	II.	
1	11	30	−76·0	10	+53·7	18	93	93·3	62·9	+12·2	II.	
2	13	July 1	−76·7	13	+84·8	68	436	82·0	48·8	+11·3	I. 854 (1)	
3	9	2	−22·1	10	+84·1	20	101	122·3	92·3	+12·4	II.	
4	3	3	+40·0	5	+68·4	3	14	172·5	134·5	− 9·1		
5	12	3	−76·2	14	+69·4	43	261	55·4	32·2	−14·6	II.	
6	12	3	−76·8	14	+67·0	21	126	53·1	32·7	+15·5	II.	
7	3	7	−41·2	9	−11·7	1	8	38·4	20·9	−16·2		
8	4	8	+35·8	11	+74·1	8	33	101·1	54·0	+ 4·2	I. 855 (1)	
9	5	9	+19·7	13	+73·2	8	39	72·5	57·8	−17·0		
8590	2	9	−27·1	10	−13·2	1	7	24·6	19·9	−19·4		Revives as Group 8596.
1	8	9	−27·7	16	+70·4	21	104	27·0	354·3	−11·8	II.	
2	8	9	−76·4	16	+15·7	8	29	335·4	299·3	−10·6	II.	Revival of Group 8566.
3	9	10	−26·2	18	+73·9	13	74	11·4	1·0	−18·0	I. 855* (1)	
4	5/6	11	−76·5	16	− 8·3	3	9	310·0	259·9	+ 1·4	II.	Revival of Group 8567.
5	7/8	12	−69·7	19	+21·1	6	25	301·6	253·1	+ 4·1	II.	Revival of Group 8571.
6	3/4	13	+22·9	16	+61·5	3	12	21·2	15·6	−19·2		Revival of Group 8590.
7	8	13	− 7·2	20	+81·3	85	448	351·8	311·9	− 9·3	I. 856 (1)	
8	4	13	−61·5	16	−20·0	4	15	296·2	269·0	−13·6	I. 852*(2)	Revives as Group 8627.
9	13	15	−72·6	27	+85·4	85	449	257·2	213·9	+ 8·3	I. 857 (1)	
8600	11	15	−80·9	25	+47·3	4	24	248·0	201·2	+ 6·2	II.	Revives as Group 8637.
1	12	17	−71·7	28	+74·1	42	217	232·2	203·0	−13·4	I. 858 (1)	
2	3	19	+50·6	21	+77·1	34	213	330·4	302·5	+13·7	I. 859 (1)	
3	12	19	−60·8	30	+82·1	74	442	219·6	200·6	+16·2	I. 860 (1)	
4	4	21	+ 8·8	24	+50·7	6	15	263·3	232·0	−12·8		
5	6	21	+ 6·9	26	+75·4	14	71	261·0	238·1	+15·2	II.	Revives as Group 8642.
6	11	22	−72·1	Aug. 1	+62·9	19	94	168·1	152·7	−17·1	II.	Revives as Group 8643.
7	8	23	−45·3	July 30	+45·6	7	30	181·8	208·3	−25·2	II.	
8	2	24	−16·6	25	− 1·8	0	8	198·0	169·6	+13·7		
9	5	24	−51·6	28	+ 0·5	7	21	161·7	114·3	+ 6·7	II.	Revival near Group 8575.
8610	10	24	−75·1	Aug. 2	+46·8	2	14	139·8	92·4	+ 7·0	I. 853 (2)	Revives as Group 8648.
1	3	26	−70·2	July 28	−41·0	5	20	118·3	69·7	+ 6·3		
2	11	27	−46·3	Aug. 6	+86·4	77	462	129·1	112·2	+16·8	I. 861 (1)	Revival of Recurrent Series 851.
3	12	27	−63·1	7	+80·4	58	343	110·8	60·1	+ 5·5	I. 855 (2)	Revives as Group 8658.
4	5	27	−70·0	July 31	−17·7	3	10	102·2	56·1	+ 7·8		
5	14	27	−85·0	Aug. 9	+81·4	18	111	86·1	45·5	+10·4	I. 854 (2)	
6	6	28	+ 4·3	2	+75·4	16	58	166·9	172·6	−21·5	II.	*See* Group 8606.
7	4	28	−22·8	July 31	+16·7	7	19	137·6	141·4	+21·1		
8	3/4	30	−30·5	Aug. 2	+ 9·6	1	7	103·2	71·9	−13·2		
9	13	Aug. 1	−76·1	13	+78·1	77	487	28·5	26·3	−20·0	I. 862 (1)	
8620	2	2	−10·5	3	+ 5·6	1	7	85·5	62·6	+15·5		
1	12	2	−79·8	13	+65·1	24	140	14·2	22·1	−21·8	I. 855*(2)	
2	2	3	−35·8	4	−24·5	1	5	44·3	45·2	−20·6		Revives as Group 8629.
3	7	3	−82·7	9	− 4·6	17	70	359·9	317·1	− 9·8	I. 856 (2)	
4	8	5	−82·0	12	+13·4	13	68	333·9	303·8	+13·8	I. 859 (2)	
5	2	8	+31·7	9	+43·0	6	21	47·0	355·2	− 5·9		
6	10	8	−79·1	17	+37·0	20	105	294·7	274·1	+16·3	II.	

GENERAL CATALOGUE of GROUPS of SUN SPOTS—*continued.*

No. of Group.	Duration.	First Seen. Date.	First Seen. Long. from C.M.	Last Seen. Date.	Last Seen. Long. from C.M.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Reference to Ledger.	NOTES.
	d	1918.	°	1918.	°			°	°	°		
8627	3	Aug. 8	−79·6	Aug. 10	−52·1	14	48	295·4	256·0	−11·2		Revival of Group 8598.
8	7	9	−79·1	15	+ 3·8	4	13	285·9	272·7	+17·8	II.	
9	3	10	+54·6	12	+81·0	10	31	42·3	32·1	−18·4		Revival of Group 8622.
8630	9/10	10	−40·1	19	+79·6	7	36	310·5	273·9	−12·3	II.	
1	14	10	−77·9	23	+83·5	142	933	266·1	219·8	+ 9·4	I. 857 (2)	
2	2	11	−50·6	12	−39·0	6	13	281·8	229·6	− 6·2		
3	3	12	+41·0	14	+66·2	3	10	2·1	311·6	− 7·3		
4	4/5	12	−70·8	16	−20·0	2	9	250·3	249·9	+20·3		
5	12	12	−78·5	23	+66·0	31	184	241·8	210·4	−13·8	I. 858 (2)	Revives as Recurrent Series 864.
6	2	13	+45·9	14	+61·6	4	25	355·9	351·2	−19·5		
7	4/5	13	−56·2	17	− 4·2	1	4	253·0	200·7	+ 6·6		Revival of Group 8600.
8	2/4	13	−70·2	16	−29·7	1	3	239·1	218·6	+16·3		
9	9/10	13	−76·0	22	+43·1	4	34	233·4	202·3	−13·9	I. 858 (2)	Revives as Recurrent Series 864.
8640	9	13	−82·6	21	+21·9	12	54	226·7	200·9	+15·2	I. 860 (2)	
1	6	16	+ 1·8	21	+70·1	10	55	271·4	279·0	+21·7	II.	
2	2	16	−11·8	17	+ 0·3	2	15	257·0	231·2	+15·2		Revival of Group 8605.
3	13	17	−83·9	29	+75·1	80	460	173·2	162·9	−18·5	II.	Revival of Group 8606.
4	6	18	+ 9·2	23	+75·2	23	150	252·8	214·0	+12·0	I. 863 (1)	
5	3	18	−22·5	20	+ 2·8	1	8	220·1	211·6	+18·8		
6	8	18	−82·0	25	+ 7·7	15	74	158·5	149·8	−18·8	II.	
7	9	19	−29·3	27	+83·5	18	106	203·3	152·5	− 8·0	II.	
8	6	19	−84·8	24	−16·9	10	40	146·2	94·3	+ 7·5	II.	Revival of Recurrent Series 853.
9	4	20	+17·8	23	+59·5	4	23	236·3	192·8	+10·6		
8650	2	20	−65·3	21	−53·4	1	5	151·2	92·5	+ 3·0		
1	14	20	−83·2	Sept. 2	+87·0	90	653	132·8	111·2	+16·3	I. 861 (2)	
2	13	20	−85·4	1	+73·3	49	292	130·1	73·0	+ 5·4	II.	
3	5	22	−55·9	Aug. 26	− 2·0	6	21	135·5	96·5	−12·0		
4	7	22	−56·6	28	+31·2	7	25	137·9	76·7	+ 0·1	II.	
5	2	23	−20·8	24	−11·5	1	6	154·2	104·4	+ 8·5		
6	2/3	23	−36·9	25	− 8·4	0	6	141·2	84·4	+ 5·2		
7	7	24	−76·1	30	+ 3·6	2	9	86·6	42·3	+10·6	I. 854 (3)	
8	3/4	26	−20·5	29	+22·9	1	7	119·7	62·3	+ 5·5		*See* Recurrent Series 855 and 866.
9	3	28	−75·8	30	−48·2	4	23	35·0	40·3	+21·3		
8660	6	29	−70·9	Sept. 3	− 7·0	10	33	26·0	25·2	−20·3	I. 862 (2)	
1	4	31	+ 3·2	3	+43·5	3	23	74·6	17·8	+ 6·3		Revives as Group 8686.
2	3	31	− 7·9	2	+20·7	2	8	64·0	88·3	+24·2		
3	6	31	−37·4	5	+35·7	10	43	35·6	350·1	−10·7	II.	Revives as Recurrent Series 867.
4	2	Sept. 1	−36·1	2	−22·8	2	8	21·6	31·4	+22·0		
5	12	1	−80·5	12	+60·9	6	44	334·8	343·0	−21·7	II.	
6	2	2	−13·5	3	− 1·8	1	2	30·2	37·8	+21·6		
7	7	4	−78·1	10	+ 0·6	12	55	299·9	271·7	−15·2	II.	Revival near Group 8627.
8	10	5	−68·2	14	+45·1	6	39	290·8	254·3	+13·4	II.	Revival near Group 8626.
9	9	6	−79·5	14	+26·1	10	58	271·9	226·9	+11·2	I. 857 (3)	
8670	8	7	−76·2	14	+21·2	13	57	263·8	214·2	+ 9·9		
1	2	8	+52·0	9	+64·2	7	37	17·2	42·7	+24·3		
2	7	8	−66·3	14	+ 8·5	7	36	257·4	217·4	+12·6	I. 863 (2)	Revives as Group 8697.
3	2	9	+ 7·4	10	+23·0	1	6	320·8	279·0	−12·0		
4	7	9	− 8·9	15	+66·7	14	74	300·5	347·3	−27·1	II.	
5	9	10	−49·1	18	+56·8	4	17	250·7	213·8	−13·4	II.	
6	12	10	−58·6	21	+82·3	97	631	241·1	201·5	−12·8	I. 864 (1)	Revival of Recurrent Series 858.
7	4	13	+41·9	16	+78·4	25	206	301·8	276·7	−15·9	I. 865 (1)	
8	2	13	−38·1	14	−21·5	1	8	222·5	163·6	− 6·8		Revives as Groups 8708 and 8711.
9	8	15	−80·7	22	+ 8·4	12	81	150·2	141·9	+19·0	II.	Revives as Group 8713.
8680	13	17	−76·8	29	+80·9	36	228	130·4	101·7	+15·4	I. 861 (3)	
1	10	17	−82·6	26	+38·6	19	120	125·9	71·0	− 8·9	II.	
2	13	18	−79·7	30	+77·1	17	115	113·4	53·8	− 7·4	II.	

GENERAL CATALOGUE of GROUPS of SUN SPOTS—*continued.*

No. of Group.	Duration.	First Seen. Date.	First Seen. Long. from C.M.	Last Seen. Date.	Last Seen. Long. from C.M.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Longitude of Group System I.	Mean Longitude of Group System II.	Mean Latitude of Group.	Reference to Ledger.	NOTES.
	d	1918.	°	1918.	°			°	°	°		
8683	11	Sept. 20	−48·8	Sept. 30	+85·5	73	416	122·5	65·1	+ 8·2	I. 866 (1)	
4	5	22	−76·8	26	−20·6	6	22	67·2	9·9	− 8·3		
5	4	23	−25·0	26	+13·9	3	12	102·6	54·0	−11·0		
6	8	26	−12·6	Oct. 3	+80·6	14	62	76·9	14·4	+ 6·8	II.	*See* Group 8661 and 8719.
7	10	26	−53·7	5	+71·0	102	711	39·0	349·3	−11·0	I. 867 (1)	Revival of Group 8663.
8	5	27	−18·8	1	+35·0	4	13	57·3	48·0	−19·0		
9	4/5	27	−51·7	1	+ 1·2	1	3	23·1	342·4	+13·1		Revives as Group 8729.
8690	7	27	+76·6	3	+ 2·2	17	90	357·7	305·1	+10·2	II.	
1	4	28	+39·8	1	+83·2	54	445	103·0	58·6	+12·2	I. 868 (1)	
2	5/6	29	−52·8	4	+14·0	5	16	355·8	332·5	+16·6		
3	9/10	Oct. 1	−71·3	10	+44·7	4	12	310·4	271·5	−13·7	I. 865 (2)	
4	9	2	−32·6	10	+71·3	8	41	338·3	319·4	+17·4	II.	
5	2	3	+70·4	4	+78·8	43	197	62·4	357·6	+ 6·0	I. 869 (1)	
6	5	3	−29·7	7	+27·3	11	34	326·4	311·7	−18·1		
7	8	4	−82·6	11	+11·7	12	71	260·3	216·0	+12·6	II.	Revival of Recurrent Series 863.
8	2	5	−20·7	6	− 5·5	3	16	309·0	242·6	− 5·6		
9	5	5	−44·2	9	+ 8·8	5	21	286·1	234·4	−10·8		
8700	8	5	−79·3	12	+11·0	2	26	248·1	200·0	−11·7	I 864 (2)	
1	8	6	−26·0	13	+68·6	15	58	289·7	224·3	+ 6·5	I. 870 (1)	
2	4	8	+ 5·7	11	+45·1	12	39	295·4	223·8	− 2·7		
3	6	8	+ 4·4	13	+74·4	56	358	296·0	223·1	+ 1·2	I. 871 (1)	
4	4	8	−28·5	11	+12·5	6	17	262·1	189·4	+ 0·9		
5	4	8	−82·2	11	−45·0	3	14	206·8	192·4	+18·2		
6	2	11	+ 7·1	12	+20·6	12	36	257·0	201·1	+ 9·8		Revives as Group 8732.
7	3	11	− 8·9	13	+13·3	2	7	237·9	224·0	+18·3		
8	2	11	−24·1	12	−12·7	1	11	224·8	159·8	− 6·8		
9	13	11	−82·0	23	+72·6	95	635	166·8	139·4	+16·1	II.	Revives as Group 8737.
8710	7/10	12	−55·8	21	+66·7	3	10	184·2	149·9	−14·9	II.	Revives as Group 8736.
1	3/6	13	+ 4·0	18	+72·2	1	3	228·1	158·4	− 5·1		Revival of Group 8678.
2	3	13	− 0·4	15	+25·3	12	43	222·3	241·5	−23·0		
3	2	13	−75·5	14	−65·0	1	6	146·0	136·6	+19·0		Revival near Group 8679.
4	5/6	14	−58·4	19	+ 6·5	1	6	150·8	76·3	− 1·5		
5	10	15	−70·8	24	+50·9	11	48	127·6	60·5	+ 6·7	I. 866 (2)	
6	3/5	16	−47·7	20	+ 4·1	0	3	136·0	129·9	−19·5		
7	12	16	−74·1	27	+72·5	55	298	109·9	53·8	+10·3	I. 868 (2)	
8	9	16	−75·6	24	+29·2	14	64	106·3	87·0	+17·5	II.	
9	12	18	−78·0	29	+70·8	52	274	82·0	10·1	+ 5·0	II.	*See* Groups 8686 and 8742.
8720	10	19	−71·2	28	+48·0	20	110	71·7	2·4	+ 6·2	I. 869 (2)	Revives as Group 8749.
1	13	19	−72·2	31	+82·2	53	317	70·3	50·7	−17·5	I. 872 (1)	
2	7/10	21	−72·1	30	+50·9	2	6	47·4	345·3	− 8·8	I. 867 (2)	
3	4	23	− 2·9	26	+37·3	11	39	87·9	71·0	+17·9		
4	13	23	−77·4	Nov. 4	+76·0	19	102	11·0	355·3	−18·1	II.	
5	14	23	−84·4	5	+82·0	42	248	4·2	22·0	+22·7	I. 873 (1)	
6	12	26	−74·8	6	+76·3	24	147	341·7	294·6	−12·7	II.	
7	13	28	−80·8	9	+78·1	18	91	304·6	225·3	+ 0·6	I. 871 (2)	
8	12	28	−86·0	8	+53·8	19	124	298·4	233·0	+ 8·3	I. 870 (2)	
9	2	31	+38·4	1	+51·1	8	27	24·6	333·6	+11·9		Revival of Group 8689.
8730	5	Nov. 5	−27·5	9	+29·7	3	10	253·8	173·4	+ 0·6		
1	4	6	+39·8	9	+79·5	20	114	307·9	299·2	−19·2	I. 874 (1)	
2	5	8	+19·6	12	+72·4	17	90	260·8	194·7	+ 8·6		Revival of Group 8706.
3	5	9	+10·2	13	+69·4	9	38	240·2	174·1	+ 8·7		
4	5/6	9	−66·7	14	+ 1·1	3	12	161·5	86·6	+ 5·6		
5	2	11	+57·7	12	+72·4	6	42	259·4	179·7	+ 3·0		
6	2/4	11	− 9·5	14	+30·5	0	2	191·8	145·4	−13·2		Revival of Group 8710.
7	4/7	11	−28·8	17	+46·1	1	5	170·2	165·1	+19·7	II.	Revival of Group 8709.
8	11/12	11	−62·8	22	+80·6	34	180	139·3	78·6	−10·3	I. 875 (1)	

GENERAL CATALOGUE of GROUPS of SUN SPOTS—*continued.*

No. of Group.	Duration.	First Seen. Date.	First Seen. Long. from C.M.	Last Seen. Date.	Last Seen. Long. from C.M.	Mean Area Corrected for Foreshortening. Umbræ.	Mean Area Corrected for Foreshortening. Whole Spots.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Reference to Ledger.	NOTES.
	d	1918.	°	1918.	°			°	°	°		
8739	13	Nov. 11	−78·1	Nov. 23	+77·8	72	452	120·8	79·2	+14·2	II.	
8740	3/4	13	−42·2	16	− 3·3	3	9	131·6	97·5	+15·5		
1	3/4	13	−73·1	16	−32·9	3	8	101·0	27·9	+ 6·7		
2	13	13	−81·1	25	+80·9	83	456	94·3	22·5	+ 7·5	I. 876 (1)	Revival of Group 8719.
3	9	14	−76·0	22	+31·0	16	76	85·7	11·7	− 6·7	II.	Revives as Group 8772.
4	7	15	−77·1	21	− 0·3	11	48	70·2	43·5	+16·7	II.	
5	13	15	−77·4	27	+78·3	19	122	69·8	45·8	−17·1	I. 872 (2)	Revives as Group 8771.
6	9	15	−80·9	23	+25·2	10	47	66·8	350·1	− 5·7	II.	
7	2	16	−34·8	17	−22·8	3	9	99·6	17·2	+ 1·4		
8	8	16	−60·3	23	+36·8	9	45	77·1	6·4	− 7·8	II.	
9	8	16	−64·0	23	+28·9	8	21	71·0	1·6	+ 8·3	II.	Revival of Recurrent Series 869.
8750	11	16	−79·7	26	+44·7	19	138	50·4	44·9	−19·7	II.	
1	4	17	− 8·4	20	+30·5	5	13	114·0	59·6	−11·8		
2	5/6	18	−46·1	23	+20·7	4	16	63·0	22·5	+14·5		
3	5	19	−30·5	23	+20·6	8	34	64·1	359·2	− 9·5		
4	2	20	+56·2	21	+70·6	5	48	139·8	60·2	− 4·5		
5	8	20	−65·0	27	+29·3	9	26	19·3	313·9	+ 9·6	II.	
6	13	20	−80·6	Dec. 2	+75·8	89	663	358·2	293·3	− 9·8	I. 877 (1)	
7	3	21	−41·3	Nov. 23	−13·3	6	21	28·9	355·4	+15·7		
8	2	21	−72·2	22	−57·6	14	36	357·6	18·4	+22·9	I. 873 (2)	
9	7/10	22	−71·5	Dec. 1	+46·2	8	35	343·9	319·5	−17·1	II.	Revival near Group 8726.
8760	8	25	−78·9	2	+25·2	28	142	303·3	289·1	−18·5	I. 874 (2)	
1	6	28	− 7·3	3	+63·6	12	51	331·3	345·0	−22·0	II.	
2	10	Dec. 1	−52·5	10	+72·6	11	55	246·7	191·4	+12·2	I. 878 (1)	
3	7	2	− 6·5	8	+73·0	9	40	277·1	232·1	−14·1	II.	
4	2	3	−45·6	4	−34·4	3	7	223·7	195·8	−16·7		
5	7	4	+ 4·6	10	+79·5	31	179	261·0	221·8	−15·1	I. 879 (1)	
6	13	6	−82·8	18	+73·1	82	536	148·7	83·1	−10·4	I. 875 (2)	
7	11	8	−72·8	18	+57·3	15	84	133·1	51·7	− 6·1	II.	Revival near Group 8754.
8	2	10	−75·0	11	−63·1	1	6	102·8	27·8	+ 8·0	I. 876 (2)	
9	5	11	+32·5	15	+84·0	21	107	198·0	159·2	+15·2		
8770	2/4	13	−38·0	16	+ 3·2	1	4	102·4	22·4	+ 6·6		Revival of Group 8768.
1	3	13	−72·5	15	−45·2	5	19	67·2	58·2	−19·3		Revival of Recurrent Series 872.
2	4	17	+ 4·4	20	+42·3	13	47	90·3	9·4	− 6·7		Revival of Group 8743.
3	11	17	−55·8	27	+83·9	81	508	34·7	322·2	− 9·3	I. 880 (1)	
4	13	17	−77·4	29	+76·7	33	188	6·8	11·8	−21·0	I. 881 (1)	
5	13	17	−82·1	29	+74·3	93	575	3·2	284·4	− 7·7	I. 877 (2)	
6	9	19	−55·3	27	+52·7	12	52	6·1	303·0	+11·3	II.	
7	2	20	+65·8	21	+80·0	10	55	114·2	36·0	− 7·7		Revival near Group 8751.
8	3	20	− 9·8	22	+19·6	2	6	39·5	322·6	+ 8·0		
9	8/11	21	−59·4	31	+76·3	3	11	336·2	279·4	−12·6	II.	
8780	10	22	−52·2	31	+75·7	26	147	332·0	304·3	−17·0	II.	
1	4	24	+29·0	27	+70·2	31	168	25·1	35·1	−21·5		
2	6	25	−77·0	30	−12·0	14	57	263·4	228·1	−16·0	I. 879 (2)	
3	10	25	−82·9	Jan. 3	+34·3	8	39	256·5	238·4	−18·2	II.	
4	8	25	−81·3	1	+ 7·2	7	19	257·7	196·5	+11·9	I. 878 (2)	
5	3	26	+52·8	Dec. 28	+77·1	2	20	18·0	297·6	− 7·4		
6	4	26	+ 4·3	29	+42·5	4	16	330·9	346·1	+22·1		
7	2	26	− 6·4	27	+ 5·5	1	4	320·4	227·5	− 1·2		
8	9	26	−58·2	Jan. 3	+50·3	15	82	270·2	206·3	−11·4	II.	
9	2/3	27	−37·5	Dec. 29	− 7·7	1	6	279·3	217·9	+11·8		

GENERAL CATALOGUE of SUN SPOTS—*continued*.

REVIVAL GROUPS of SUN SPOTS, 1918.

Groups of spots, noted in the preceding Catalogue as "Revivals," have been tabulated in series in the following table. 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.

Reference No. of Series.	Group No.	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 System I.	Longitude System II.	Latitude.	
			d	1917–18	°	1917–18	°		°	°	°	
1	8356	859	4	Dec. 13	−52	Dec. 16	−13	22	224	225	−18	
	8392	860	12	Jan. 7	−80	Jan. 18	+69	260	228	227	−17	II.
2	8361	859	5	Dec. 15	+ 9	Dec. 19	+57	18	257	258	+14	
	8390	860	14	Jan. 5	−77	Jan. 18	+82	498	256	255	+14	I. 838
	8423	861	9	Feb. 1	−81	Feb. 9	+24	96	258	253	+13	I. 838
3	8369	859	13	Dec. 19	−70	Dec. 31	+79	491	126	126	+16	I. 833
	8402	860	13	Jan. 15	−75	Jan. 27	+81	139	127	125	+17	I. 833
	8435	861	4	Feb. 14	−39	Feb. 17	+ 4	8	130	127	+17	II.
4	8388	860	4	Jan. 4	+10	Jan. 7	+54	33	359	358	− 9	II.
	8417	861	10	26	−55	Feb. 4	+74	47	9	3	−10	II.
5	8418	860	3/6	Jan. 27	− 1	Feb. 1	+62	3	42	38	+13	II.
	8445	861	4	Feb. 26	+35	March 1	+71	11	43	35	+14	
6	8453	862	13	March 8	−78	March 20	+76	780	158	155	+18	I. 845
	8486	863	12	April 4	−76	April 15	+77	120	171	162	+16	I. 845
	8488	863	10	6	−66	15	+54	92	151	140	+16	I. 845
	8514	864	9	May 2	−58	May 10	+51	57	176	174	+20	
	8515	864	12	2	−79	13	+69	219	152	134	+14	
7	8460	862	11	March 11	−53	March 21	+79	40	146	130	+ 7	II.
	8496	863	2	April 15	+49	April 16	+64	19	147	122	+ 6	
8	8464	862	9	March 15	−51	March 23	+61	73	97	77	+ 3	II.
	8492	863	9	April 12	−35	April 20	+72	81	101	74	+ 3	II.
	8524	864	3/4	May 10	−13	May 13	+30	6	113	79	+ 2	
9	8481	863	8	April 1	−20	April 8	+72	21	259	242	−11	II.
	8511	864	4	30	+ 3	May 3	+46	18	263	243	−13	
10	8489	863	12	April 8	−72	April 19	+78	113	120	93	− 1	II.
	8519	864	10	May 5	−83	May 14	+47	49	116	83	− 1	II.
11	8493	863	9	April 12	−37	April 20	+67	53	99	88	−16	II.
	8520	864	11	May 6	−74	May 16	+53	56	103	92	−17	II.
12	8497	863	4	April 15	−22	April 18	+22	30	76	56	−10	
	8526	864	2	May 10	−49	May 11	−35	8	77	56	−12	
13	8504	864	4	April 25	−48	April 28	− 8	19	276	258	−13	
	8533	865	12	May 21	−66	June 1	+79	461	273	250	−13	I. 852
	8564	866	3/4	June 16	−78	June 19	−36	7	279	259	−15	I. 852

GENERAL CATALOGUE of SUN SPOTS—*continued* (REVIVAL GROUPS).

Reference No. of Series.	Group No.	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 System I.	Longitude System II.	Latitude.	
			d	1918	°	1918	°		°	°	°	
14	8513	864	6	May 1	+ 7	May 6	+77	246	254	236	+13	II.
	8540	865	4	25	−33	28	+ 9	6	256	230	+11	
15	8516	864	13	May 3	−78	May 15	+80	552	138	129	+17	}
	8549	865	14	30	−82	June 12	+86	282	137	126	+17	} I. 851
	8573	866	13	June 27	−77	July 9	+78	94	132	116	+16	}
	8612	867	11	July 27	−46	Aug. 6	+86	462	129	112	+17	}
	8651	868	14	Aug. 20	−83	Sept. 2	+87	653	133	111	+16	} I. 861
	8680	869	13	Sept. 17	−77	29	+81	228	130	102	+15	}
16	8552	865	10	May 31	−67	June 9	+58	77	144	105	+ 3	II.
	8575	866	10	June 28	−52	July 7	+75	129	150	106	+ 5	II.
17	8555	865	7/8	June 1	−66	June 8	+32	20	131	100	+ 9	II.
	8574	866	12	27	−78	July 8	+69	132	134	96	+ 9	} I. 853
	8610	867	10	July 24	−75	Aug. 2	+47	14	140	92	+ 7	}
	8648	868	6	Aug. 19	−85	24	−17	40	146	94	+ 8	II.
18	8558	865	10	June 2	−36	June 11	+84	202	145	124	+14	II.
	8579	866	4/8	30	−23	July 7	+73	7	149	125	+14	II.
19	8559	865	7/9	June 2	−72	June 10	+34	8	108	83	+12	II.
	8576	866	4	28	−81	July 1	−43	49	116	83	+11	II.
20	8565	866	10	June 17	−54	June 26	+72	73	289	263	−13	}
	8598	867	4	July 13	−62	July 16	−20	15	296	269	−14	} I. 852*
	8627	868	3	Aug. 8	−80	Aug. 10	−52	48	295	256	−11	}
21	8567	866	2	June 19	−12	June 20	+ 1	13	305	262	+ 3	
	8594	867	5/6	July 11	−77	July 16	− 8	9	310	260	+ 1	II.
22	8566	866	2	June 19	+21	June 20	+34	9	337	307	−11	
	8592	867	8	July 9	−76	July 16	+16	29	335	299	−11	II.
23	8571	866	3/4	June 23	+28	June 26	+73	61	293	250	+ 5	
	8595	867	7/8	July 12	−70	July 19	+21	25	302	253	+ 4	II.
24	8588	866	4	July 8	+36	July 11	+74	33	101	54	+ 4	} I. 855
	8613	867	12	27	−63	Aug 7	+80	343	111	60	+ 5	}
	8658	868	3/4	Aug. 26	−21	29	+23	7	120	62	+ 5	
	8683	869	11	Sept. 20	−49	Sept. 30	+86	416	123	65	+ 8	} I. 866
	8715	870	10	Oct. 15	−71	Oct. 24	+51	48	128	61	+ 7	}
25	8600	867	11	July 15	−81	July 25	+47	24	248	201	+ 6	II.
	8637	868	4/5	Aug. 13	−56	Aug. 17	− 4	4	253	201	+ 7	
26	8601	867	12	July 17	−72	July 28	+74	217	232	203	−13	} I. 858
	8635	868	12	Aug. 12	−79	Aug. 23	+66	184	242	210	−14	}
	8676	869	12	Sept. 10	−59	Sept. 21	+82	631	241	202	−13	} I. 864
	8700	870	8	Oct. 5	−79	Oct. 12	+11	26	248	200	−12	}
27	8605	867	6	July 21	+ 7	July 26	+75	71	261	238	+15	II.
	8642	868	2	Aug. 16	−12	Aug. 17	0	15	257	231	+15	
28	8606	867	11	July 22	−72	Aug. 1	+63	94	168	153	−17	II.
	8643	868	13	Aug. 17	−84	29	+75	460	173	163	−18	II.

GENERAL CATALOGUE of SUN SPOTS—*continued* (REVIVAL GROUPS).

Reference No. of Series.	Group No.	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 System I.	Longitude System II.	Latitude.	
			d	1918	°	1918	°		°	°	°	
29	8644	868	6	Aug. 18	+ 9	Aug. 23	+75	150	253	214	+12	I. 863
	8672	869	7	Sept. 8	−66	Sept. 14	+ 8	36	257	217	+13	I. 863
	8697	870	8	Oct. 4	−83	Oct. 11	+12	71	260	216	+13	II.
30	8661	868	4	Aug. 31	+ 3	Sept. 3	+44	23	75	18	+ 6	
	8686	869	8	Sept. 26	−13	Oct. 3	+81	62	77	14	+ 7	II.
	8719	870	12	Oct. 18	−78	29	+71	274	82	10	+ 5	II.
	8742	871	13	Nov. 13	−81	Nov. 25	+81	456	94	23	+ 7	I. 876
	8768	872	2	Dec. 10	−75	Dec. 11	−63	6	103	28	+ 8	I. 876
31	8663	868	6	Aug. 31	−37	Sept. 5	+36	43	36	350	−11	II.
	8687	869	10	Sept. 26	−54	Oct. 5	+71	711	39	349	−11	I. 867
	8722	870	7/10	Oct. 21	−72	30	+51	6	47	345	− 9	I. 867
32	8678	869	2	Sept. 13	−38	Sept. 14	−22	8	223	164	− 7	
	8708	870	2	Oct. 11	−24	Oct. 12	−13	11	225	160	− 7	
	8711	870	3/6	13	+ 4	18	+72	3	228	158	− 5	
33	8679	869	8	Sept. 15	−81	Sept. 22	+ 8	81	150	142	+19	
	8713	870	2	Oct. 13	−76	Oct. 14	−65	6	146	137	+19	
34	8689	869	4/5	Sept. 27	−52	Oct. 1	+ 1	3	23	342	+13	
	8729	870	2	Oct. 31	+38	Nov. 1	+51	27	25	334	+12	
35	8695	869	2	Oct. 3	+70	Oct. 4	+79	197	62	358	+ 6	I. 869
	8720	870	10	19	−71	28	+48	110	72	2	+ 6	I. 869
	8749	871	8	Nov. 16	−64	Nov. 23	+29	21	71	2	+ 8	I. 869
36	8706	870	2	Oct. 11	+ 7	Oct. 12	+21	36	257	201	+10	
	8732	871	5	Nov. 8	+20	Nov. 12	+72	90	261	195	+ 9	
37	8709	870	13	Oct. 11	−82	Oct. 23	+73	635	167	139	+16	
	8737	871	4/7	Nov. 11	−29	Nov. 17	+46	5	170	165	+20	
38	8710	870	7/10	Oct. 12	−56	Oct. 21	+67	10	184	150	−15	
	8736	871	2/4	Nov. 11	−10	Nov. 14	+31	2	192	145	−13	
39	8721	870	13	Oct. 19	−72	Oct. 31	+82	317	70	51	−17	I. 872
	8745	871	13	Nov. 15	−77	Nov. 27	+78	122	70	46	−17	I. 872
	8771	872	3	Dec. 13	−73	Dec. 15	−45	19	67	58	−19	I. 872
40	8743	871	9	Nov. 14	−76	Nov. 22	+31	76	86	12	− 7	
	8772	872	4	Dec. 17	+ 4	Dec. 20	+42	47	90	9	− 7	

ROYAL OBSERVATORY, GREENWICH.

LEDGERS

OF

GROUPS OF SUN SPOTS

FOR THE YEAR

1918.

LEDGER I.—RECURRENT GROUPS.

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918.

NOTE.—The Greenwich Civil Time at which the photograph was taken is expressed in the *first* column by the Day of the Year (civil reckoning) 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, Kodaikánal, Dehra Dûn, by the letters C, K, and D 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 remaining columns correspond to those with similar headings in the preceding Section.

When a group is near the East or the West limb of the Sun on any particular day, and in consequence is only visible in part, the measures for that day are marked with an asterisk and are not included in taking the mean area, longitude, and latitude of the group.

RECURRENT SERIES 832.

Group 8354 seen in Rotation 859.
,, 8387 ,, ,, 860.
,, 8419 ,, ,, 861.
,, 8444 ,, ,, 862.
,, 8475 ,, ,, 863.

Group 8354.—1917 December 12–18. A large stream of normal type with rapid development, appearing on the central meridian between Groups 8348 and 8349, thereby making a long procession with Group 8353 in the rear. Both the leading spot, *a*, and the follower, are large and fully formed by December 15.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
$\bar{2}0{\cdot}344$ C	45	224	23	114	292·0	296·3	+ 7·7	+ 1·3
$\bar{1}9{\cdot}342$ C	269	1274	142	672	293·3	297·4	+ 7·5	+15·7
$\bar{1}8{\cdot}365$ C	263	1680	153	976	293·0	296·9	+ 7·8	+28·9
$\bar{1}7{\cdot}488$ G	364	2052	260	1460	293·6	297·2	+ 7·3	+44·3
$\bar{1}6{\cdot}454$ C	201	1677	197	1557	293·4	296·8	+ 7·6	+56·8
$\bar{1}5{\cdot}459$ C	73	926	123	1504	294·9	298·1	+ 7·9	+71·6
14·323 C	38	318	(89	706	288·4	291·4	+ 8·1)*	+76·5
Means ..	..	..	150	1047	293·37	296·3	+ 7·63	..

Spot *a*.

$\bar{1}9{\cdot}342$ C	87	480	47	259	297·0	301·2	+ 7·1	+19·4
$\bar{1}8{\cdot}365$ C	98	655	60	400	298·3	302·3	+ 7·1	+34·2
$\bar{1}7{\cdot}488$ G	156	820	122	640	299·2	302·9	+ 6·7	+49·9
$\bar{1}6{\cdot}454$ C	100	517	114	589	300·2	303·7	+ 7·2	+63·6
$\bar{1}5{\cdot}459$ C	27	298	65	715	301·0	304·3	+ 7·7	+77·7

Group 8387.—January 1–13. Two large regular spots, *a* and *b*. The preceding one, *a*, is the smaller and is gradually disappearing, whilst its umbra becomes composite.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
0·421 C	43	225	125	624	307·1	307·0	+ 6·8	−79·1
1·350 C	81	456	106	590	307·3	307·0	+ 6·6	−66·7
2·338 C	121	714	105	619	307·3	306·8	+ 6·6	−53·7
3·352 C	182	995	122	662	307·5	306·7	+ 6·4	−40·1
4·361 C	205	1130	117	644	307·3	306·3	+ 6·5	−27·1
5·564 C	201	1277	104	659	307·7	306·4	+ 6·5	−10·8
6·349 C	217	1282	111	654	307·9	306·4	+ 6·4	− 0·3
7·358 C	193	1133	101	593	307·8	306·1	+ 6·6	+12·9
8·347 C	173	1057	98	598	307·9	306·0	+ 6·5	+26·0
9·499 G	145	752	99	510	307·8	305·6	+ 6·5	+41·1
10·550 G	108	549	95	486	307·7	305·3	+ 6·5	+54·8
11·353 C	67	408	82	506	307·7	305·1	+ 6·9	+65·4
12·464 C	26	143	(76	418	307·1	304·2	+ 7·2)*	+79·4
Means ..	..	..	105	595	307·58	306·23	+ 6·75	..

Spot *a*. This has been associated with spot *b* on account of its proximity and its apparent general relationship. It is also probably a return of Group 8348, Recurrent Series 826.

0·421 C	15	103	33	224	310·1	310·0	+ 7·0	−76·1
1·350 C	29	189	34	219	310·0	309·7	+ 6·4	−64·0
2·338 C	40	258	32	209	309·9	309·4	+ 6·1	−51·1
3·352 C	56	352	36	225	310·6	309·8	+ 6·1	−37·0
4·361 C	50	392	27	216	310·7	309·7	+ 6·1	−23·7
5·564 C	43	438	22	223	310·9	309·6	+ 6·4	− 7·6
6·349 C	45	433	23	221	311·0	309·5	+ 6·2	+ 2·8
7·358 C	34	326	18	173	311·1	309·4	+ 6·2	+16·2
8·347 C	32	315	19	183	310·9	308·9	+ 6·2	+29·0
9·499 G	32	154	23	109	310·7	308·5	+ 5·6	+44·0
10·550 G	13	94	12	90	310·8	308·3	+ 5·7	+57·9
11·353 C	8	65	11	91	310·8	308·1	+ 6·1	+68·5

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 832—*continued.*								
Spot *b* (evidently *a* of Group 8354).								
1918. d					°	°	°	°
0·421 C	28	122	92	400	305·4	305·3	+ 6·9	−80·8
1·350 C	52	267	72	371	305·6	305·3	+ 6·6	−68·4
2·338 C	81	456	73	410	305·6	305·1	+ 6·4	−55·4
3·352 C	126	643	86	437	305·9	305·1	+ 6·5	−41·7
4·361 C	155	738	90	428	306·1	305·1	+ 6·6	−28·3
5·564 C	158	839	82	436	306·1	304·8	+ 6·6	−12·4
6·349 C	172	849	88	433	306·4	304·9	+ 6·5	− 1·8
7·358 C	159	807	83	420	306·6	304·9	+ 6·6	+11·7
8·347 C	141	742	79	415	306·8	304·9	+ 6·9	+24·9
9·499 G	113	598	76	401	306·7	304·5	+ 6·6	+40·0
10·550 G	95	455	83	396	307·0	304·6	+ 6·7	+54·1
11·353 C	59	343	71	415	307·0	304·4	+ 7·0	+64·7
12·464 C	26	143	76	418	307·1	304·2	+ 7·2	+79·4
Group 8419.—January 28–February 9. A stable regular spot, *a* of Group 8354.								
27·528 G	9	66	30	216	308·9	302·9	+ 8·1	−80·4
28·476 G	33	185	48	266	308·4	302·2	+ 8·2	−68·4
29·484 G	45	302	41	275	308·5	302·1	+ 8·1	−55·1
30·496 G	57	371	40	260	308·3	301·7	+ 8·1	−41·9
31·313 C	67	419	41	256	308·2	301·4	+ 8·2	−31·3
32·341 C	51	366	28	198	307·9	300·9	+ 8·3	−18·0
33·368 C	59	383	31	199	308·0	300·8	+ 8·3	− 4·4
34·377 C	70	389	36	202	308·0	300·5	+ 8·2	+ 8·9
35·385 C	46	336	26	188	307·9	300·2	+ 8·0	+22·0
36·309 C	38	266	24	168	308·2	300·3	+ 7·7	+34·5
37·491 C	31	227	25	182	307·7	299·6	+ 8·0	+49·6
38·452 G	28	153	32	174	308·0	299·7	+ 7·7	+62·5
39·340 C	14	95	27	186	307·8	299·3	+ 8·0	+74·0
Means ..	..	..	33	213	308·14	300·89	+ 8·07	..
Group 8444.—February 25–March 9. A stable regular spot, *a* of Group 8354.								
55·521 G	8	66	15	121	307·8	295·0	+ 7·2	−72·9
56·357 C	21	134	24	150	307·7	294·7	+ 7·2	−62·0
57·371 C	25	173	20	137	307·4	294·1	+ 6·9	−48·9
58·561 C	40	205	25	127	307·3	293·8	+ 6·7	−33·3
59·390 C	34	225	19	126	307·2	293·5	+ 6·6	−22·5
60·491 G	56	255	29	133	307·3	293·3	+ 6·5	− 7·9
61·369 C	47	226	24	118	307·3	293·1	+ 6·4	+ 3·6
62·398 C	36	221	19	119	307·0	292·6	+ 6·4	+16·9
63·360 C	31	193	18	114	306·9	292·3	+ 6·4	+29·5
64·400 C	22	156	16	111	307·2	292·3	+ 6·4	+43·5
65·396 C	12	105	11	99	306·9	291·8	+ 6·3	+56·3
66·505 C	15	71	24	114	306·8	291·4	+ 6·4	+70·8
67·436 G	0	12	0	57	306·9	291·3	+ 6·1	+83·2
Means ..	..	..	19	117	307·21	293·02	+ 6·58	..
Group 8475.—March 25–29. Two or three small faint spots.								
1918. d					°	°	°	°
83·358 C	5	24	7	33	306·6	287·9	+ 7·6	−67·2
84·434 G	13	50	12	44	306·4	287·5	+ 7·0	−53·3
85·369 C	4	42	3	29	306·4	287·3	+ 7·1	−40·9
86·372 C	0	10	0	6	306·4	287·1	+ 6·9	−27·7
87·394 C	0	9	0	5	305·1	285·5	+ 8·5	−15·5
Means ..	..	..	4	23	306·18	287·06	+ 7·42	..
RECURRENT SERIES 833.								
Group 8369 seen in Rotation 859.								
„ 8402 „ „ 860.								
Group 8369.—1917 December 19–31. A few scattered unstable spots in a stream which develops considerably between December 23 and 24. Two very large spots, *a* and *b*, then appear as the leader and terminal spots respectively. A cluster of small spots situated between them dies out by December 28.								
13·411 C	3	15	4	22	128·1	129·2	+13·0	−69·5
12·426 C	7	17	7	16	126·7	127·7	+14·2	−57·5
11·318 C	28	65	21	49	126·9	127·9	+15·0	−45·6
10·330 C	65	190	42	122	125·2	126·1	+16·2	−34·0
9·455 C	20	190	11	108	123·8	124·6	+17·1	−20·5
8·321 C	136	780	73	418	124·6	125·3	+16·8	− 8·3
7·405 C	181	1149	96	609	125·7	126·3	+16·9	+ 7·0
6·359 C	227	1304	128	735	125·6	126·1	+17·0	+19·5
5·373 C	266	1740	170	1110	125·5	125·9	+17·1	+32·8
4·348 C	198	1268	153	963	125·1	125·4	+17·4	+45·2
3·324 C	139	949	142	971	125·0	125·2	+17·4	+58·0
2·400 C	69	437	121	768	124·5	124·6	+17·5	+71·6
1·351 C	13	118	(41	372	119·6	119·7	+18·9)*	+79·3
Means ..	..	..	81	491	125·56	125·69	+16·30	..
Spot *a*.								
9·455 C	6	32	3	17	129·1	129·9	+15·5	−15·2
8·321 C	65	328	34	174	127·6	128·3	+15·7	− 5·3
7·405 C	95	564	50	299	128·9	129·5	+15·7	+10·2
6·359 C	95	538	55	312	129·7	130·2	+15·9	+23·6
5·373 C	124	820	83	549	130·0	130·4	+16·3	+37·3
4·348 C	105	522	87	433	130·1	130·5	+16·1	+50·2
3·324 C	61	411	71	481	129·6	129·9	+16·5	+62·6
2·400 C	27	173	62	398	128·9	129·1	+16·4	+76·0
Spot *b*.								
8·321 C	55	380	30	205	122·1	122·5	+17·8	−10·8
7·405 C	69	498	37	274	121·9	122·2	+18·0	+ 3·2
6·359 C	111	673	61	370	121·7	122·0	+18·2	+15·6
5·373 C	142	920	87	561	121·4	121·6	+18·2	+28·7
4·348 C	93	746	66	530	121·0	121·2	+18·5	+41·1
3·324 C	78	538	71	490	120·4	120·5	+18·3	+53·4
2·400 C	42	264	59	370	119·7	119·8	+18·7	+66·8
1·351 C	13	118	41	372	119·6	119·6	+18·9	+79·3

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES, 833—*continued.*								
Group 8402.—January 15–27. A regular spot, *a*, followed at some distance by a small companion, *b*, until January 21, when for two days a small cluster takes its place. Another companion has appeared on January 26.								
1918.d					°	°	°	°
14·310 C	9	62	(20	137	128·4	127·2	+16·8)*	−74·9
15·314 C	26	160	32	205	126·3	125·1	+17·4	−63·8
16·353 C	41	236	36	199	127·2	125·9	+16·8	−49·2
17·344 C	47	267	33	179	127·5	126·1	+16·9	−35·9
18·329 C	43	262	25	154	127·1	125·6	+17·0	−23·3
19·485 C	48	347	26	188	127·8	126·2	+16·8	− 7·4
20·456 G	38	228	21	123	127·5	125·8	+16·4	+ 5·1
21·351 C	32	254	18	142	126·2	124·5	+16·9	+15·6
22·373 C	22	227	14	139	125·2	123·4	+16·8	+28·0
23·479 G	15	136	11	103	127·2	125·3	+16·2	+44·6
24·319 C	17	97	16	93	126·7	124·7	+16·5	+55·1
25·344 C	6	57	8	84	125·0	122·9	+16·5	+66·9
26·450 C	0	13	0	65	124·9	122·7	+16·6	+81·4
Means ..	..	..	20	139	126·55	124·85	+16·73	..
Spot *a* (evidently *a* of Group 8402).								
14·310 C	9	62	20	137	128·4	127·2	+16·8	−74·9
15·314 C	22	132	25	152	128·8	127·5	+16·8	−61·3
16·353 C	32	216	26	177	128·4	127·0	+16·6	−48·0
17·344 C	35	244	23	161	128·2	126·7	+16·8	−35·2
18·329 C	35	238	20	138	128·3	126·7	+16·5	−22·1
19·485 C	46	328	25	177	128·0	126·3	+16·6	− 7·2
20·456 G	38	233	21	120	127·8	126·0	+16·3	+ 5·4
21·351 C	31	229	17	128	127·4	125·6	+16·5	+16·8
22·373 C	22	194	14	120	127·2	125·3	+16·5	+30·0
23·479 G	15	136	11	103	127·2	125·2	+16·2	+44·6
24·319 C	17	97	16	93	126·7	124·6	+16·5	+55·1
25·344 C	4	45	6	70	126·6	124·4	+16·5	+68·5
26·450 C	0	7	0	43	126·9	124·6	+16·7	+83·4
Spot *b* (evidently *b* of Group 8402).								
15·314 C	4	28	7	53	118·3	117·7	+19·1	−71·8
16·353 C	9	20	10	22	117·6	117·0	+18·8	−58·8
17·344 C	12	23	10	18	117·5	116·8	+18·6	−45·9
18·329 C	8	24	5	16	117·3	116·6	+18·5	−33·1
19·485 C	0	6	0	3	116·7	116·0	+18·7	−18·5
20·456 G	0	5	0	3	115·4	114·6	+18·8	− 7·0
RECURRENT SERIES 834. Group 8374 seen in Rotation 859. ,, 8406 ,, ,, 860.								
Group 8374.—1917 December 21–1918 January 2. A very large regular spot with a small regular companion to the *s*. From December 24 to 28, a nebulous cluster of very small spots follows the principal spot.								
11·318 C	16	123	55	422	91·1	93·8	+ 3·6	−81·4
10·330 C	53	305	72	417	90·9	93·4	+ 3·4	−68·3

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 834. Group 8374—*continued.*								
1918.d					°	°	°	°
9·455 C	84	684	71	578	91·0	93·2	+ 2·8	−53·3
8·321 C	126	911	85	614	91·3	93·3	+ 2·4	−41·6
7·405 C	186	1344	110	761	90·9	92·6	+ 2·9	−27·8
6·359 C	195	1335	102	697	91·7	93·1	+ 2·7	−14·4
5·373 C	184	1173	91	585	92·0	93·2	+ 3·1	− 0·7
4·348 C	189	1058	98	549	92·8	93·7	+ 2·6	+12·9
3·324 C	124	838	70	471	93·5	94·2	+ 2·3	+26·5
2·400 C	112	705	74	467	93·6	94·0	+ 2·3	+40·7
1·351 C	78	599	67	508	94·0	94·2	+ 2·1	+53·7
0·421 C	51	354	69	484	94·4	94·3	+ 1·9	+68·2
1·350 C	8	104	23	304	93·9	93·6	+ 2·3	+79·9
Means ..	..	..	76	527	92·39	93·58	+ 2·65	..
Group 8406.—January 17–23. A small regular spot rapidly disappearing after January 21.								
16·353 C	9	53	27	161	96·1	91·9	+ 2·0	−80·3
17·344 C	15	84	19	106	97·0	92·6	+ 2·0	−66·4
18·329 C	30	135	25	115	97·0	92·3	+ 2·3	−53·4
19·485 C	17	133	11	85	97·2	92·2	+ 2·5	−38·0
20·456 G	29	191	16	107	97·3	92·1	+ 2·5	−25·1
21·351 C	12	58	6	30	97·5	92·1	+ 2·6	−13·1
22·373 C	6	15	3	8	97·6	91·9	+ 3·0	+ 0·4
Means ..	..	..	15	87	97·10	92·16	+ 2·41	..
RECURRENT SERIES 835. Group 8377 seen in Rotation 859. ,, 8409 ,, ,, 860.								
Group 8377.—1917 December 24–1918 January 5. A large stream of normal type, but in which the leader, *a*, becomes exceptionally large and the rear spot, b, correspondingly small. The umbra of *a* is crossed by "bridges" from December 27–31.								
8·321 C	14	105	(31	236	55·5	57·2	− 7·8)*	−77·4
7·405 C	65	505	88	679	50·6	52·0	− 8·2	−68·1
6·359 C	95	757	81	660	51·9	53·1	− 7·9	−54·2
5·373 C	163	1026	108	696	51·8	52·8	− 8·2	−40·9
4·348 C	206	1195	116	673	53·6	54·4	− 8·2	−26·3
3·324 C	200	1212	104	627	53·6	54·2	− 7·8	−13·4
2·400 C	203	1298	101	650	53·8	54·1	− 7·9	+ 0·9
1·351 C	189	1242	97	640	53·6	53·7	− 8·0	+13·3
0·421 C	147	950	84	546	54·8	54·7	− 7·7	+28·6
1·350 C	116	720	77	478	55·2	54·9	− 7·7	+41·2
2·338 C	91	518	78	443	55·4	54·9	− 7·7	+54·4
3·352 C	48	323	65	434	55·9	55·2	− 7·7	+68·3
4·361 C	15	105	51	360	56·4	55·5	− 7·7	+82·0
Means ..	..	..	88	574	53·88	54·13	− 7·89	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 835. Group 8377—*continued*.								
Spot *a*.								
1918. d					°	°	°	°
8·321 C	14	105	31	236	55·5	57·2	− 7·8	−77·4
7·405 C	42	332	46	362	55·9	57·4	− 8·0	−62·8
6·359 C	69	477	54	372	56·3	57·5	− 7·7	−49·8
5·373 C	117	612	74	386	56·0	57·0	− 8·0	−36·7
4·348 C	148	924	81	508	56·2	57·0	− 7·7	−23·7
3·324 C	153	918	78	468	56·3	56·9	− 7·5	−10·7
2·400 C	157	1013	78	506	56·1	56·5	− 7·7	+ 3·2
1·351 C	149	929	77	483	55·9	56·0	− 7·4	+15·6
0·421 C	131	861	76	499	55·6	55·5	− 7·4	+29·4
1·350 C	109	678	73	454	55·8	55·5	− 7·7	+41·8
2·338 C	88	504	76	433	55·7	55·2	− 7·6	+54·7
3·352 C	48	317	65	428	56·0	55·3	− 7·7	+68·4
4·361 C	15	105	51	360	56·4	55·4	− 7·7	+82·0
Spot *b*.								
7·405 C	23	173	42	317	44·5	45·9	− 8·4	−74·2
6·359 C	26	280	27	288	45·1	46·3	− 7·9	−61·0
5·373 C	46	414	34	310	44·6	45·6	− 8·3	−48·1
4·348 C	58	271	35	165	45·0	45·8	− 8·5	−34·9
3·324 C	44	264	24	143	45·1	45·7	− 8·7	−21·9
2·400 C	42	236	21	120	44·9	45·2	− 8·8	− 8·0
1·351 C	35	187	17	93	45·1	45·2	− 8·7	+ 4·8
0·421 C	12	61	6	32	45·2	45·1	− 8·2	+19·0
1·350 C	7	38	4	22	45·5	45·2	− 7·8	+31·5
2·338 C	3	14	2	10	45·5	45·0	− 8·2	+44·5
3·352 C	0	6	0	6	45·3	44·6	− 8·5	+57·7
Group 8409.—January 20–February 1. A regular spot (*a* of Group 8377) diminishing to a mere dot at the west limb.								
19·485 C	18	145	36	293	58·9	54·8	− 8·2	−76·3
20·456 G	42	235	45	236	59·7	55·4	− 8·2	−62·7
21·351 C	32	314	25	245	59·9	55·4	− 8·5	−50·7
22·373 C	26	244	16	154	59·9	55·2	− 8·5	−37·3
23·479 G	33	257	18	139	59·9	54·9	− 8·8	−22·7
24·319 C	38	245	19	125	59·9	54·8	− 8·5	−11·7
25·344 C	20	177	10	88	60·2	54·9	− 8·3	+ 2·1
26·450 C	18	134	10	70	59·8	54·2	− 8·5	+16·3
27·528 G	22	84	13	49	59·8	54·0	− 8·9	+30·5
28·476 G	17	34	12	23	60·1	54·1	− 9·1	+43·3
29·484 G	3	20	3	18	60·0	53·8	− 8·8	+56·4
30·496 G	1	12	1	17	60·0	53·6	− 9·1	+69·8
31·313 C	0	3	0	8	60·1	53·5	− 8·5	+80·6
Means ..	..	..	16	113	59·86	54·51	− 8·61	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 836.								
Group 8379 seen in Rotation 859.								
,, 8400 ,, ,, 860.								
,, 8430 ,, ,, 861.								
Group 8379.—1917 December 26–30. A group of a few small spots, *n*, Group 8371.								
1918. d					°	°	°	°
6·359 C	9	32	5	19	131·9	132·2	−17·8	+25·8
5·373 C	18	84	12	55	131·1	131·3	−18·3	+38·4
4·348 C	17	114	14	91	129·6	129·8	−19·0	+49·7
3·324 C	7	19	8	23	132·3	132·4	−18·0	+65·3
2·400 C	0	4	0	12	133·7	133·8	−17·1	+80·8
Means ..	..	..	8	40	131·72	131·90	−18·04	..
Group 8400.—January 14–26. A very large group consisting of two large composite components, which at first practically form a single spot of great extent. The following spot is, however, soon disappearing, whilst the leading one, having also diminished, is last seen at the west limb as a spot nearly of regular type.								
13·349 C	25	372	(73	1086	135·1	133·6	−15·4)*	−80·9
14·310 C	81	1126	119	1704	132·5	130·9	−15·9	−70·8
15·314 C	161	1667	149	1572	132·5	130·8	−16·0	−57·6
16·353 C	197	1954	139	1362	132·3	130·5	−15·9	−44·1
17·344 C	193	2147	114	1272	132·1	130·2	−15·5	−31·3
18·329 C	283	2290	152	1224	132·5	130·5	−15·1	−17·9
19·485 C	208	2134	106	1088	132·8	130·7	−15·2	− 2·4
20·456 G	184	1951	95	1011	132·9	130·7	−15·2	+ 10·5
21·351 C	161	1779	87	971	132·7	130·4	−14·9	+ 22·1
22·373 C	174	1211	108	754	132·8	130·3	−15·0	+35·6
23·479 G	112	917	89	733	133·7	131·1	−15·5	+ 51·1
24·319 C	54	624	56	662	133·8	131·1	−15·0	+ 62·2
25·344 C	23	272	44	569	134·6	131·8	−15·0	+ 76·5
Means ..	..	...	105	1077	132·93	130·75	−15·35	..
Group 8430.—February 10–22. A disturbed area containing a few small spots, generally arranged as a short stream.								
40·378 C	2	6	11	32	133·9	126·7	−14·0	−86·2
41·434 C	4	17	6	25	134·9	127·5	−13·9	−71·3
42·313 C	1	14	1	14	134·8	127·3	−13·6	−59·8
43·359 C	4	30	3	23	132·9	125·2	−12·4	−48·0
44·322 C	17	155	11	95	132·5	124·6	−10·8	−35·7
45·593 G	12	52	7	28	132·4	124·3	−11·2	−19·0
46·169 D	6	52	3	26	134·8	126·6	−10·6	− 9·1
47·493 G	8	83	4	42	136·5	128·1	− 9·7	+ 10·1
48·474 G	12	93	7	51	135·4	126·8	− 9·9	+ 21·9
49·342 C	6	28	3	17	136·3	127·5	− 9·9	+ 34·2
50·366 C	17	75	12	55	135·4	126·4	−10·3	+46·8
51·461 G	11	66	12	70	136·4	127·3	−10·0	+ 62·2
52·337 C	1	15	2	26	136·0	126·7	− 9·7	+73·4
Means ..	..	..	6	39	134·78	126·54	−11·23	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 837.								
Group 8383 seen in Rotation 859.								
,, 8413 ,, ,, 860.								
Group 8383.—1917 December 27–1918 January 8. A regular spot with a short train of small followers until January 5.								
1918. d					°	°	°	°
5·373 C	6	35	18	106	12·7	13·6	+ 9·4	−80·0
4·348 C	17	106	22	138	13·0	13·7	+ 9·3	−66·9
3·324 C	26	230	22	195	14·2	14·7	+ 9·7	−52·8
2·400 C	49	297	32	195	15·3	15·6	+ 9·6	−37·6
1·351 C	60	446	34	252	15·0	15·1	+ 9·9	−25·3
0·421 C	71	503	37	263	14·5	14·4	+ 9·7	−11·7
1·350 C	80	435	41	222	15·6	15·3	+10·2	+ 1·6
2·338 C	60	457	32	241	14·5	14·0	+10·0	+13·5
3·352 C	64	427	37	246	14·7	14·0	+10·4	+27·1
4·361 C	40	379	28	261	15·2	14·3	+10·1	+40·8
5·564 C	38	210	36	199	15·5	14·4	+10·2	+57·0
6·349 C	34	154	46	208	15·2	14·0	+ 9·9	+67·0
7·358 C	13	59	45	202	15·6	14·2	+10·1	+80·7
Means ..	..	..	33	210	14·69	14·41	+ 9·88	..
Group 8413.—January 23–February 2. A small regular spot gradually diminishing. Two small companions appear on January 29 and 30.								
22·373 C	4	55	10	142	19·6	15·3	+10·5	−77·6
23·479 G	15	124	18	146	19·3	14·8	+10·3	−63·3
24·319 C	25	138	21	119	19·5	14·9	+10·6	−52·1
25·344 C	28	170	19	114	19·7	14·9	+10·5	−38·4
26·450 C	24	183	14	104	20·0	15·0	+10·4	−23·5
27·528 G	17	165	9	87	20·2	15·0	+10·2	− 9·1
28·476 G	9	99	5	51	20·3	14·9	+ 9·9	+ 3·5
29·484 G	9	32	5	17	20·1	14·5	+10·2	+16·5
30·496 G	4	14	2	8	20·0	14·2	+10·1	+29·8
31·313 C	5	11	3	8	20·0	14·0	+10·4	+40·5
32·341 C	1	6	1	5	20·1	13·9	+10·2	+54·2
Means ..	..	..	10	73	19·89	14·67	+10·30	..
RECURRENT SERIES 838.								
Group 8390 seen in Rotation 860.								
,, 8423 ,, ,, 861.								
Group 8390.—January 5–18. An active and a very long stream of spots with a regular spot, *a*, as leader, which at first is the largest component. By January 13, a larger spot, *b*, has developed in the middle of the stream, whilst a small cluster at the rear has condensed to a single spot by January 15.								
4·361 C	16	108	37	259	257·7	257·1	+14·1	−76·7
5·564 C	69	394	77	440	257·4	256·7	+14·1	−61·1
6·349 C	76	499	63	418	257·7	256·9	+13·9	−50·5
7·358 C	102	593	68	400	256·8	255·9	+14·2	−38·1
8·347 C	112	631	66	368	256·8	255·7	+14·3	−25·1
9·499 G	136	582	74	312	257·7	256·5	+13·6	− 9·0
10·550 G	111	477	59	254	257·7	257·4	+13·6	+ 5·8

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8390—*continued.*								
1918. d					°	°	°	°
11·353 C	134	715	72	389	255·7	254·3	+14·5	+13·4
12·464 C	171	1145	104	682	254·7	253·1	+14·8	+27·0
13·349 C	128	954	87	651	254·8	253·1	+14·4	+38·8
14·310 C	161	821	135	698	254·1	252·3	+14·9	+50·8
15·314 C	98	733	118	907	253·7	251·7	+15·1	+63·6
16·353 C	43	272	96	695	253·4	251·3	+14·9	+77·0
17·344 C	7	36	(31	158	245·2	243·0	+15·4)*	+81·8
Means ..	..	..	81	498	256·09	254·77	+14·34	..
Spot *a*.								
4·361 C	11	66	21	127	260·8	260·2	+13·3	−73·6
5·564 C	39	232	39	234	260·3	259·5	+13·3	−58·2
6·349 C	44	285	34	222	260·7	259·8	+13·0	−47·5
7·358 C	55	314	35	201	260·5	259·4	+13·4	−34·4
8·347 C	57	341	32	191	260·4	259·2	+13·3	−21·5
9·499 G	66	356	35	189	260·5	259·1	+13·0	− 6·2
10·550 G	68	329	36	174	260·5	258·9	+12·9	+ 7·6
11·353 C	47	279	26	153	260·3	258·6	+13·3	+18·0
12·464 C	38	228	24	144	260·5	258·7	+13·3	+32·8
13·349 C	24	254	18	185	259·9	257·9	+13·3	+43·9
14·310 C	27	148	26	145	260·2	258·1	+13·4	+56·9
15·314 C	13	103	21	165	260·1	257·8	+13·4	+70·0
16·353 C	0	23	0	122	259·8	257·4	+13·2	+83·4
Spot *b*.								
12·464 C	75	646	44	381	254·3	252·8	+14·8	+26·6
13·349 C	66	501	45	341	254·5	252·9	+14·4	+38·5
14·310 C	73	423	63	364	254·9	253·2	+14·8	+51·6
15·314 C	39	351	51	460	255·4	253·5	+14·9	+65·3
16·353 C	19	123	55	359	255·0	253·0	+14·8	+78·6
Group 8423.—February 1–9. A spot—probably *b* of Group 8390—with composite umbra. After dividing on February 7, it soon disappears.								
31·313 C	8	40	31	153	258·9	254·3	+13·6	−80·6
32·341 C	7	122	10	181	257·9	253·2	+13·6	−68·0
33·368 C	17	130	16	121	258·1	253·2	+13·8	−54·3
34·377 C	18	146	12	104	258·1	253·1	+13·8	−41·0
35·385 C	16	182	10	110	258·0	252·8	+13·3	−27·9
36·309 C	17	167	9	92	258·2	252·9	+13·0	−15·5
37·491 C	25	116	14	61	258·1	252·6	+13·0	0·0
38·452 G	24	54	13	29	258·2	252·6	+12·7	+12·7
39·340 C	4	17	2	10	258·3	252·6	+13·0	+24·5
Means ..	..	..	13	96	258·20	253·03	+13·31	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 839.								
Group 8396 seen in Rotation 860.								
,, 8422 ,, ,, 861.								
Group 8396.—January 12–13. A pair of very small spots in isolated faculæ.								
1918. d					°	°	°	°
11·353 C	2	13	2	16	306·2	309·7	−31·5	+63·9
12·464 C	0	6	0	13	304·1	307·9	−30·6	+76·4
Means ..	..	..	1	15	305·15	308·80	−31·05	..
Group 8422.—January 29–February 7. Two composite spots, *a* and *b*, gradually dying away. There are occasional very small companions.								
28·476 G	8	51	18	118	297·9	307·2	−31·0	−78·9
29·484 G	23	170	29	221	296·7	306·3	−30·6	−66·9
30·496 G	39	154	35	138	297·0	307·0	−31·4	−53·2
31·313 C	47	196	34	147	296·6	306·8	−31·9	−42·9
32·341 C	15	152	10	98	293·9	304·5	−31·8	−32·0
33·368 C	9	86	5	50	294·7	305·6	−30·9	−17·7
34·377 C	14	51	8	28	294·5	305·7	−31·6	− 4·6
35·385 C	15	64	8	36	294·7	306·3	−31·7	+ 8·8
36·309 C	4	33	3	19	292·0	303·9	−32·6	+18·3
37·491 C	0	7	0	5	295·4	307·7	−32·7	+37·3
Means ..	..	..	15	86	295·34	306·10	−31·62	..
Spot *a*.								
28·476 G	4	20	7	36	302·0	310·4	−30·2	−74·8
29·484 G	14	73	16	82	301·0	309·7	−29·8	−62·6
30·496 G	21	72	17	58	301·5	310·5	−30·9	−48·7
31·313 C	26	85	18	59	301·3	310·5	−31·1	−38·2
32·341 C	2	39	1	24	300·3	309·8	−30·9	−25·6
33·368 C	4	48	2	27	299·5	309·3	−29·8	−12·9
34·377 C	7	28	4	15	298·9	309·0	−30·9	− 0·2
35·385 C	6	14	3	8	298·0	308·4	−30·7	+12·1
36·309 C	1	7	1	4	297·7	308·4	−31·1	+24·0
Spot *b*.								
28·476 G	4	31	11	82	295·9	305·6	−31·4	−80·9
29·484 G	9	97	13	139	294·1	304·1	−31·1	−69·5
30·496 G	18	82	18	80	292·7	303·1	−31·6	−57·5
31·313 C	19	101	15	81	291·7	302·3	−32·1	−47·8
32·341 C	10	96	7	64	290·6	301·6	−32·4	−35·3
33·368 C	5	38	3	23	289·9	301·2	−32·1	−22·5
34·377 C	7	23	4	13	289·4	301·1	−32·6	− 9·7
35·385 C	7	17	4	10	288·7	300·7	−32·3	+ 2·8
36·309 C	1	10	1	6	288·0	300·3	−32·3	+14·3

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 840.								
Group 8412 seen in Rotation 860.								
,, 8434 ,, ,, 861.								
Group 8412.—January 22–29. On January 22, some faint spots which develop very considerably within a few days to form a large group. The leader spot, *a*, is regular and is followed by a large cluster undergoing much change.								
1918. d					°	°	°	°
21·351 C	6	38	3	19	104·4	102·5	−16·2	− 6·2
22·373 C	35	152	18	77	101·0	99·0	−15·9	+ 3·8
23·479 G	115	736	62	385	102·7	100·6	−16·7	+20·1
24·319 C	153	1204	91	711	102·0	99·9	−16·7	+30·4
25·344 C	195	1498	136	1051	102·1	99·9	−16·1	+44·0
26·450 C	111	1101	107	1042	101·1	98·8	−16·5	+57·6
27·528 G	70	648	116	1036	100·6	98·2	−17·0	+71·3
28·476 G	14	109	(42	312	97·6	95·1	−17·7)*	+80·8
Means ..	..	..	76	617	101·99	99·84	−16·44	..
Spot *a*.								
23·479 G	64	403	35	222	104·6	102·6	−16·3	+22·0
24·319 C	55	450	34	274	105·2	103·1	−16·7	+33·6
25·344 C	58	364	43	273	106·0	103·8	−16·7	+47·9
26·450 C	51	410	55	437	106·0	103·7	−16·5	+62·5
27·528 G	38	287	74	563	105·5	103·1	−16·6	+76·2
Group 8434.—February 13–21. A pair of small regular spots (probably representing *a* of Group 8412), which dissolve into a cluster after February 17.								
43·359 C	15	125	24	205	107·7	104·0	−16·2	−73·2
44·322 C	23	161	23	162	107·3	103·5	−16·4	−60·9
45·593 G	43	243	30	168	107·4	103·5	−16·7	−44·0
46·169 D	51	248	32	156	107·8	103·8	−16·5	−36·1
47·493 G	37	180	20	96	107·9	103·8	−16·6	−18·5
48·474 G	23	80	12	41	108·0	103·8	−16·8	− 5·5
49·342 C	19	67	10	33	107·7	103·5	−16·2	+ 5·6
50·366 C	14	40	8	21	108·1	103·8	−17·1	+19·5
51·461 G	7	46	4	28	106·7	102·3	−16·6	+32·5
Means ..	..	..	18	101	107·62	103·56	−16·57	..
RECURRENT SERIES 841.								
Group 8421 seen in Rotation 860.								
,, 8439 ,, ,, 861.								
Group 8421.—January 29–February 2. A short stream of which the last component, *b*, becomes a regular spot.								
28·476 G	30	104	18	65	51·7	50·5	−17·7	+34·9
29·484 G	17	139	13	106	52·2	51·0	−18·0	+48·6
30·496 G	32	117	31	112	49·2	47·9	−18·6	+59·0
31·313 C	18	152	24	203	48·0	46·7	−19·0	+68·5
32·341 C	5	88	13	234	46·5	45·1	−19·6	+80·6
Means ..	..	..	20	144	49·52	48·24	−18·58	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 841. Group 8421—*continued.*								
Spot *b*.								
1918. d					°	°	°	°
28·476 G	9	46	5	28	50·0	49·2	−18·2	+33·2
29·484 G	8	39	6	28	49·4	48·6	−18·9	+45·8
30·496 G	20	94	19	87	47·7	46·8	−19·5	+57·5
31·313 C	12	93	15	116	46·6	45·7	−19·8	+67·1
32·341 C	5	88	13	234	46·5	45·6	−19·6	+80·6
Group 8439.—February 17–March 1. A regular spot (probably *b* of Group 8421) slowly diminishing. Occasional very small companions form and disappear near it.								
47·493 G	11	49	36	161	43·4	43·1	−19·6	−83·0
48·474 G	19	130	26	179	43·6	43·3	−20·1	−69·9
49·342 C	24	147	23	140	43·4	43·1	−20·1	−58·7
50·366 C	35	224	26	164	42·5	42·2	−19·8	−46·1
51·461 G	43	266	26	160	42·5	42·2	−20·2	−31·7
52·337 C	45	299	25	164	42·1	41·8	−20·1	−20·5
53·330 C	45	289	23	150	42·0	41·7	−19·9	− 7·6
54·438 G	19	213	10	111	41·9	41·6	−20·1	+ 6·9
55·521 G	31	167	17	91	41·7	41·4	−20·2	+21·0
56·357 C	27	114	16	69	41·5	41·2	−20·5	+31·8
57·371 C	13	72	9	51	41·4	41·1	−20·4	+45·1
58·561 C	12	43	12	43	41·0	40·7	−20·4	+60·4
59·390 C	4	16	6	23	40·8	40·4	−20·4	+71·1
Means ..	..	..	20	116	42·14	41·83	−20·14	..
RECURRENT SERIES 842. Group 8433 seen in Rotation 861. ,, 8456 ,, ,, 862.								
Group 8433.—February 11–23. A large and irregular stream. The components, excepting the leader, *a*, which becomes regular, are of indefinite form and unstable in character.								
41·434 C	16	153	59	528	124·9	114·5	+ 2·7	−81·3
42·313 C	40	470	59	708	124·6	114·0	+ 3·4	−70·0
43·359 C	86	926	80	857	124·9	114·0	+ 3·3	−56·0
44·322 C	110	1351	79	958	124·8	113·7	+ 3·5	−43·4
45·593 G	260	1478	148	844	124·8	113·4	+ 3·3	−26·6
46·169 D	261	1690	140	908	124·6	113·0	+ 3·5	−19·3
47·493 G	343	1978	176	1008	124·7	112·8	+ 3·5	− 1·7
48·474 G	280	1768	145	923	125·0	112·8	+ 3·4	+11·5
49·342 C	187	1445	104	802	126·4	114·0	+ 3·9	+24·3
50·366 C	123	996	82	647	126·3	113·6	+ 4·2	+37·7
51·461 G	93	647	79	541	126·4	113·5	+ 4·0	+52·2
52·337 C	59	343	73	404	126·6	113·5	+ 4·2	+64·0
53·330 C	14	135	37	362	126·7	113·3	+ 3·6	+77·1
Means ..	..	..	97	730	125·44	113·55	+ 3·58	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Spot *a*.								
1918. d					°	°	°	°
41·434 C	8	92	19	221	128·6	118·2	+ 2·7	−77·6
42·313 C	19	192	23	232	129·5	118·8	+ 2·9	−65·1
43·359 C	33	384	27	319	128·9	118·0	+ 2·8	−52·0
44·322 C	51	602	34	397	128·9	117·7	+ 3·1	−39·3
45·593 G	101	570	56	314	129·6	118·1	+ 3·1	−21·8
46·169 D	131	568	68	295	129·7	118·1	+ 3·1	−14·2
47·493 G	62	310	32	158	131·0	119·0	+ 3·1	+ 4·6
48·474 G	55	339	29	180	131·2	119·0	+ 3·2	+17·7
49·342 C	47	283	27	164	131·6	119·2	+ 3·6	+29·5
50·366 C	50	272	35	190	131·3	118·6	+ 3·8	+42·7
51·461 G	39	191	37	181	131·8	118·8	+ 3·6	+57·6
52·337 C	22	107	32	155	131·7	118·5	+ 3·8	+69·1
53·330 C	5	50	20	204	132·0	118·6	+ 3·5	+82·4
Group 8456.—March 10–15. A very small spot, probably *a* of Group 8433, not seen on March 14.								
68·349 C	2	12	4	24	136·7	119·2	+ 2·6	−75·0
69·551 G	4	11	4	11	137·5	119·7	+ 2·0	−58·4
70·346 C	2	9	2	7	137·7	119·7	+ 1·9	−47·7
71·347 C	3	13	2	8	136·9	118·7	+ 1·2	−35·3
72·466 G	0	0	0	0	..	..	..	..
73·411 G	1	4	1	2	134·6	115·8	+ 2·5	−10·4
Means ..	..	..	2	9	136·68	118·62	+ 2·04	..
RECURRENT SERIES 843. Group 8447 seen in Rotation 862. ,, 8470 ,, ,, 863.								
Group 8447.—March 3–5. A small group forming near the west limb.								
61·369 C	1	4	1	4	3·6	4·2	−20·5	+59·9
62·398 C	14	98	23	161	3·5	4·1	−20·8	+73·4
63·360 C	0	14	0	40	359·4	0·0	−21·1	+82·0
Means ..	..	..	8	68	2·17	2·77	−20·80	..
Group 8470.—March 20–31. A regular spot *f* Group 8468, with a few very small followers until March 23.								
78·405 G	15	84	30	168	1·9	359·0	−19·5	−77·3
79·419 G	12	113	13	124	2·1	359·2	−19·5	−63·7
80·413 G	27	134	22	107	1·4	358·4	−19·2	−51·3
81·393 G	28	176	18	114	1·3	358·3	−19·2	−38·5
82·364 C	29	188	16	105	1·3	358·3	−18·6	−25·7
83·358 C	26	188	14	98	1·0	357·9	−18·6	−12·8
84·434 G	27	176	14	90	1·1	358·0	−18·6	+ 1·4
85·369 C	24	134	13	71	1·3	358·1	−18·8	+14·0
86·372 C	19	98	11	56	1·2	358·0	−18·6	+27·1
87·349 C	7	40	5	26	0·9	357·7	−18·4	+40·3
88·403 C	4	21	3	18	0·9	357·6	−18·5	+53·6
89·435 G	1	7	1	9	0·5	357·2	−18·5	+66·8
Means ..	..	..	13	82	1·24	358·14	−18·83	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 844.								
Group 8451 seen in Rotation 862.								
,, 8473 ,, ,, 863.								
,, 8500 ,, ,, 864.								
Group 8451.—March 7–8. A stream, apparently of normal type, forming at the west limb; *a* is the leader spot.								
1918. d					°	°	°	°
65·396 C	9	38	9	40	312·6	298·2	— 7·6	+62·0
66·505 C	21	106	45	244	314·0	299·4	— 8·0	+78·0
Means ..	..	..	27	142	313·30	298·80	— 7·80	..
Spot *a*.								
65·396 C	5	24	5	26	313·9	299·8	— 8·3	+63·3
66·505 C	8	59	21	157	316·1	301·8	— 8·2	+80·1
Group 8473.—March 23–April 4. A stable regular spot, probably *a* of Group 8451, with a few small companions after March 27.								
81·393 G	21	94	50	226	321·4	301·3	— 5·0	−78·4
82·364 C	38	230	46	278	321·0	300·7	— 4·5	−66·0
83·358 C	54	282	44	231	321·2	300·6	— 4·6	−52·6
84·434 G	86	412	55	264	321·2	300·4	— 4·7	−38·5
85·369 C	106	450	59	252	321·4	300·3	— 4·2	−25·9
86·372 C	84	499	43	254	321·2	299·9	— 4·4	−12·9
87·394 C	88	485	44	242	321·3	299·7	— 4·4	+ 0·7
88·403 C	71	494	37	257	321·2	299·4	— 4·4	+13·9
89·435 G	85	433	48	247	321·7	299·6	— 4·5	+28·0
90·668 G	85	450	59	316	322·2	299·8	— 3·9	+44·8
91·366 G	65	308	55	259	321·9	299·3	— 4·2	+53·7
92·351 C	44	198	55	249	322·0	299·2	— 4·2	+66·8
93·366 C	17	93	44	241	321·1	298·0	— 3·9	+79·3
Means ..	..	..	49	255	321·45	299·86	— 4·38	..
Group 8500.—April 19–30. A stable regular spot, slowly contracting.								
108·358 G	12	67	29	161	325·5	299·5	— 5·6	−78·4
109·358 C	15	106	18	125	325·5	299·3	— 5·8	−65·2
110·371 C	25	160	20	128	325·7	299·2	— 5·7	−51·6
111·380 C	24	204	15	131	325·4	298·7	— 5·6	−38·6
112·367 C	35	182	19	100	325·5	298·5	— 5·5	−25·4
113·335 C	34	236	17	120	325·5	298·3	— 5·5	−12·7
114·439 G	23	207	11	103	325·9	298·4	— 5·7	+ 2·3
115·405 C	19	140	10	73	326·0	298·3	— 5·3	+15·2
116·461 G	27	150	15	85	326·5	298·6	— 5·5	+29·6
117·385 C	23	103	15	69	326·9	298·7	— 5·4	+42·2
118·382 C	7	59	6	52	327·0	298·6	— 5·3	+55·5
119·365 C	9	54	12	73	327·3	298·7	— 5·0	+68·8
Means ..	..	..	16	102	326·06	298·73	— 5·49	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 845.								
Group 8453 seen in Rotation 862.								
,,8486 and 8488 ,, 863.								
Group 8453.—March 8–20. A large irregular stream, composed at first of a regular spot, *a*, followed by two companions. These latter coalesce to form a composite spot, *b*, which grows considerably, and after becoming more irregular in shape, finally splits into two components by March 19. A spot, *c*, of regular type at its maximum development, forms the end of the stream from March 11–18.								
1918. d					°	°	°	°
66·505 C	9	104	31	315	158·5	155·4	+18·6	−77·5
67·436 G	74	422	102	585	159·0	155·9	+18·4	−64·7
68·349 C	77	581	72	541	159·6	156·5	+18·3	−52·1
69·551 G	155	805	108	565	159·1	155·9	+18·1	−36·8
70·346 C	183	1099	114	687	158·4	155·2	+18·1	−27·0
71·347 C	257	1424	146	813	158·3	155·0	+18·2	−13·9
72·466 G	287	1602	159	886	158·1	154·8	+18·1	+ 0·7
73·411 G	256	1624	147	933	158·3	154·9	+18·0	+13·3
74·534 G	269	1871	171	1187	158·4	155·0	+18·2	+28·2
75·496 C	182	1490	135	1109	157·9	154·4	+18·9	+40·4
76·503 C	148	1030	140	973	156·9	153·4	+18·7	+52·7
77·357 C	62	684	81	924	156·8	153·2	+19·2	+63·8
78·405 G	37	236	97	625	155·3	151·7	+18·4	+76·1
Means ..	..	..	116	780	158·05	154·72	+18·40	..
Spot *a*.								
66·505 C	0	34	0	74	162·7	159·0	+18·6	−73·3
67·436 G	26	146	30	171	163·5	159·8	+18·6	−60·2
68·349 C	31	224	26	188	164·2	160·4	+18·4	−47·5
69·551 G	49	234	32	152	165·5	161·7	+18·2	−30·4
70·346 C	42	230	25	136	165·8	161·9	+18·6	−19·6
71·347 C	41	270	23	151	166·0	162·1	+18·3	− 6·2
72·466 G	53	299	30	167	165·8	161·8	+17·8	+ 8·4
73·411 G	44	250	26	148	165·6	161·6	+17·4	+20·6
74·534 G	38	242	26	165	165·7	161·6	+17·2	+35·5
75·496 C	22	124	18	104	165·8	161·6	+17·7	+48·3
76·503 C	16	76	19	90	165·1	160·9	+17·5	+60·9
77·357 C	5	52	9	92	163·3	159·0	+18·0	+70·3
Spot *b*.								
67·436 G	48	276	72	414	157·1	154·1	+18·3	−66·6
68·349 C	46	357	46	353	157·2	154·1	+18·3	−54·5
69·551 G	95	505	68	364	157·0	153·9	+18·0	−38·9
70·346 C	127	795	80	501	157·0	153·8	+18·0	−28·4
71·347 C	192	934	109	532	157·2	154·0	+18·3	−15·0
72·466 G	212	1101	117	606	156·9	153·6	+18·3	− 0·5
73·411 G	195	1298	111	742	157·3	154·0	+18·3	+12·3
74·534 G	231	1601	145	1005	157·6	154·2	+18·4	+27·4
75·496 C	160	1361	117	1002	157·3	153·9	+19·2	+39·8
76·503 C	132	954	121	883	156·1	152·7	+18·8	+51·9
77·357 C	57	632	72	832	156·2	152·7	+19·2	+63·2

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 845. Group 8453—*continued.*								
Spot *c*.								
1918. d					°	°	°	°
69·551 G	9	36	7	28	152·5	149·4	+18·3	−43·4
70·346 C	14	74	9	50	152·0	148·8	+18·3	−33·4
71·347 C	24	220	14	130	151·6	148·4	+18·3	−20·6
72·466 G	22	202	12	113	151·2	147·9	+18·6	− 6·2
73·411 G	17	76	10	43	151·1	147·8	+18·3	+ 6·1
74·534 G	0	28	0	17	150·6	147·2	+18·5	+20·4
75·496 C	0	5	0	3	150·1	146·7	+19·0	+32·6
Group 8486.—April 4–15. A regular spot with a few small scattered followers. The group is followed by extensive areas of faculæ, in which Group 8488 appears.								
93·366 C	2	12	5	30	166·1	157·4	+16·8	−75·7
94·358 C	17	75	21	95	165·8	157·0	+16·5	−62·9
95·328 C	33	206	27	170	168·1	159·2	+16·4	−47·8
96·555 G	49	264	30	165	170·6	161·6	+16·5	−29·1
97·377 C	43	245	24	140	171·5	162·4	+16·2	−17·4
98·366 C	52	266	29	145	170·5	161·4	+15·8	− 5·3
99·377 C	35	226	20	124	171·8	162·6	+15·6	+ 9·3
100·312 C	43	233	25	134	172·1	162·8	+15·6	+22·0
101·403 G	37	215	25	145	172·9	163·5	+15·3	+37·2
102·392 C	23	131	20	112	172·7	163·2	+16·2	+50·0
103·093 D	18	97	20	108	173·0	163·4	+16·3	+59·6
104·331 C	4	27	11	74	174·2	164·5	+17·3	+77·1
Means ..	..	..	21	120	170·78	161·58	+16·21	..
Group 8488.—April 6–15. A spot at the east limb developing into a stream of normal type. The leader alone remains after April 13, excepting an ephemeral companion on April 15. The group is apparently a revival of activity of the rear portion of Group 8453.								
95·328 C	1	22	1	31	149·9	139·8	+15·8	−66·0
96·555 G	41	251	35	214	150·1	139·9	+15·7	−49·6
97·377 C	51	276	36	193	150·3	140·0	+15·9	−38·6
98·366 C	47	267	28	161	149·1	138·7	+15·3	−26·7
99·377 C	43	219	24	121	150·3	139·8	+15·6	−12·2
100·312 C	26	131	14	71	150·3	139·7	+15·6	+ 0·2
101·403 G	19	79	11	44	152·0	141·3	+15·0	+16·3
102·392 C	13	51	8	32	152·5	141·7	+15·5	+29·8
103·093 D	9	38	6	27	153·0	142·1	+15·5	+39·6
104·331 C	9	26	9	24	150·7	139·6	+15·6	+53·6
Means ..	..	..	17	92	150·82	140·26	+15·55	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 846.								
Group 8462 seen in Rotation 862.								
,, 8483 ,, ,, 863.								
Group 8462.—March 12–18. Two small spots on March 12, developing rapidly into a regular spot, *a*, followed by a cluster of small companions which die out at the west limb.								
1918. d					°	°	°	°
70·346 C	48	106	25	55	179·9	164·4	+ 7·4	− 5·5
71·347 C	95	683	50	360	180·8	165·0	+ 7·9	+ 8·6
72·466 G	99	592	56	335	181·0	165·0	+ 7·7	+23·6
73·411 G	106	631	68	404	181·1	164·9	+ 7·4	+36·1
74·534 G	81	471	66	388	181·1	164·6	+ 7·3	+50·9
75·496 C	35	236	42	287	181·6	164·9	+ 8·0	+64·1
76·503 C	16	106	39	258	180·9	164·0	+ 8·1	+76·7
Means ..	..	..	49	298	180·91	164·69	+ 7·69	..
Spot *a*.								
70·346 C	48	106	25	55	179·9	164·6	+ 7·4	− 5·5
71·347 C	82	559	43	296	181·4	165·9	+ 8·2	+ 9·2
72·466 G	61	360	35	205	182·3	166·5	+ 8·1	+24·9
73·411 G	64	420	42	273	182·2	166·2	+ 7·7	+37·2
74·534 G	57	316	48	269	182·4	166·2	+ 8·0	+52·2
75·496 C	31	222	38	273	182·1	165·6	+ 8·2	+64·6
76·503 C	16	102	39	251	181·3	164·6	+ 8·2	+77·1
Group 8483.—April 2–14. A regular spot—*a* of Group 8462—rapidly disappearing after April 10. There are a few small followers on April 8–10.								
91·366 G	8	32	35	140	185·5	164·3	+ 6·6	−82·7
92·351 C	23	98	34	147	185·8	164·4	+ 6·6	−69·4
93·366 C	31	145	29	135	185·5	163·8	+ 6·6	−56·3
94·358 C	30	196	21	139	185·4	163·5	+ 6·7	−43·3
95·328 C	32	195	19	115	185·7	163·6	+ 6·6	−30·2
96·555 G	31	227	16	120	185·9	163·5	+ 6·4	−13·8
97·377 C	42	221	21	113	185·8	163·2	+ 6·5	− 3·1
98·366 C	38	215	20	112	185·5	162·7	+ 6·2	+ 9·7
99·377 C	18	165	10	92	186·0	162·9	+ 6·2	+23·5
100·312 C	24	124	15	79	186·5	163·2	+ 6·3	+36·4
101·403 G	17	82	14	66	186·3	162·8	+ 6·0	+50·6
102·392 C	7	38	8	44	186·1	162·4	+ 6·4	+63·4
103·093 D	2	14	4	26	186·6	162·7	+ 6·4	+73·2
Means ..	..	..	19	102	185·89	163·31	+ 6·42	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

RECURRENT SERIES **847.**

Group 8478 seen in Rotation 863.
,, 8501 ,, ,, 864.

Group 8478.—March 31–April 7. A small stream of little importance until April 4, when a well-defined regular spot, *a*, is forming as the leader.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
89·435 G	8	39	4	21	286·9	293·6	−25·0	−6·8
90·668 G	39	86	21	45	288·8	295·6	−24·1	+11·4
91·366 G	14	122	8	69	289·7	296·6	−23·4	+21·5
92·351 C	41	162	26	102	290·7	297·6	−23·3	+35·5
93·366 C	39	181	31	141	290·8	297·8	−23·1	+49·0
94·358 C	53	302	58	330	291·5	298·6	−22·4	+62·8
95·328 C	20	158	37	304	292·0	299·1	−21·8	+76·1
96·555 G	0	9	(0	36	283·7	290·9	−25·7)*	+84·0
Means ..	..	..	26	145	290·06	296·99	−23·30	..
Spot *a*.								
92·351 C	27	98	17	63	291·6	295·9	−23·1	+36·4
93·366 C	26	137	21	108	291·9	296·3	−22·6	+50·1
94·358 C	42	253	47	283	292·5	296·9	−21·9	+63·8
95·328 C	15	131	30	265	292·9	297·4	−21·4	+77·0

Group 8501.—April 22–May 4. A small regular spot, *a*, preceded by a few small companions. These grow and others appear, one in particular to the south becoming conspicuous for a few days. The group is now an extended cluster. The spots are very small and faint on April 30, but renewed activity is shown near the west limb.

111·380 C	16	115	29	209	289·4	299·4	−22·1	−74·6
112·367 C	20	122	21	129	289·4	299·5	−22·1	−61·5
113·335 C	43	225	34	176	289·2	299·4	−23·0	−49·0
114·439 G	67	325	41	196	290·1	300·4	−23·4	−33·5
115·405 C	35	201	20	114	289·5	299·9	−23·3	−21·3
116·461 G	96	436	52	236	288·6	299·1	−26·1	− 8·3
117·385 C	65	249	35	132	287·6	298·2	−25·8	+ 2·9
118·382 C	29	270	16	151	288·7	299·3	−25·0	+17·2
119·365 C	26	100	16	61	289·3	300·0	−24·1	+30·8
120·350 C	22	134	16	95	287·3	298·1	−25·0	+41·8
121·403 G	56	197	53	191	289·1	300·0	−23·3	+57·6
122·355 C	42	223	63	342	289·4	300·4	−23·1	+70·4
123·453 G	6	53	(20	171	286·1	297·2	−23·0)*	+81·7
Means ..	..	..	33	169	288·97	299·48	−23·86	..
Spot *a*, probably *a* of Group 8478.								
111·380 C	10	73	20	145	287·8	292·0	−21·8	−76·2
112·367 C	14	86	15	94	288·4	292·7	−21·7	−62·5
113·335 C	15	110	12	88	287·9	292·2	−21·8	−50·3
114·439 G	20	108	13	69	287·4	291·7	−22·0	−36·2
115·405 C	13	72	7	41	287·4	291·8	−21·8	−23·4
116·461 G	22	36	12	19	287·3	291·7	−22·1	− 9·6
117·385 C	11	20	6	10	287·1	291·6	−22·0	+ 2·4
118·382 C	2	13	1	7	286·9	291·4	−22·0	+15·4

RECURRENT SERIES **848.**

Group 8479 seen in Rotation 863.
,, 8508 ,, ,, 864.

Group 8479.—March 31–April 11. A large stream of normal type. The leader, *a*, becomes very large and elongated by April 6, after which a portion separates from the *f* side. Meanwhile, *b*, the rear component of the stream, and at first a regular spot, is disappearing as a cluster.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
89·435 G	56	353	123	806	218·0	205·0	+13·0	−75·7
90·668 G	124	857	130	907	218·8	205·6	+13·3	−58·6
91·366 G	168	927	141	775	218·3	205·0	+13·2	−49·9
92·351 C	193	1204	129	800	218·9	205·4	+13·3	−36·3
93·366 C	190	1364	109	792	218·8	205·2	+13·1	−23·0
94·358 C	240	1365	129	736	219·8	206·0	+13·2	− 8·9
95·328 C	209	1407	112	758	221·9	208·0	+14·1	+ 6·0
96·555 G	208	1138	122	666	223·3	209·2	+13·6	+23·6
97·377 C	141	914	92	598	224·2	210·0	+13·3	+35·3
98·366 C	88	577	72	471	224·7	210·3	+13·1	+48·9
99·377 C	61	306	72	358	224·7	210·2	+13·2	+62·2
100·312 C	19	167	40	356	224·6	210·0	+13·5	+74·5
Means ..	..	..	106	669	221·33	207·49	+13·32	..
Spot *a*.								
89·435 G	39	224	70	403	221·9	208·5	+12·4	−71·8
90·668 G	81	535	77	508	222·3	208·7	+12·8	−55·1
91·366 G	89	473	69	364	222·3	208·6	+13·3	−45·9
92·351 C	120	763	76	481	222·6	208·7	+13·0	−32·6
93·366 C	129	817	72	458	223·0	209·0	+13·1	−18·8
94·358 C	177	860	94	456	223·1	208·9	+13·0	− 5·6
95·328 C	153	942	83	509	224·0	209·7	+13·4	+ 8·1
96·555 G	162	881	96	520	224·9	210·4	+13·2	+25·2
97·377 C	115	772	76	510	225·2	210·6	+13·3	+36·3
98·366 C	85	558	70	458	225·0	210·2	+13·0	+49·2
99·377 C	61	296	72	349	225·1	210·2	+13·1	+62·6
100·312 C	19	167	40	356	224·6	209·6	+13·5	+74·5
Spot *b*.								
89·435 G	10	77	36	278	213·7	202·7	+14·0	−80·0
90·668 C	31	268	40	343	213·1	201·9	+14·1	−64·3
91·366 G	56	277	54	269	212·3	201·1	+14·1	−55·9
92·351 C	54	289	40	214	212·1	200·7	+14·2	−43·1
93·366 C	39	305	24	189	211·9	200·4	+14·3	−29·9
94·358 C	38	241	21	135	211·8	200·2	+14·6	−16·9
95·328 C	23	93	12	50	212·1	200·4	+15·0	− 3·8
96·555 G	15	80	8	44	213·1	201·2	+14·6	+13·4
97·377 C	10	37	6	22	213·3	201·3	+15·0	+24·4
98·366 C	3	19	2	13	213·3	201·2	+15·1	+37·5
99·377 C	0	10	0	9	214·0	201·8	+15·5	+51·5

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 848—*continued.*								
Group 8508.—April 26–May 7. A regular (spot *a* of Group 8479) *n* of which a cluster forms and becomes of considerable extent by May 2. Meanwhile the primary spot has developed a triple umbra, after which it soon breaks up and disappears with the cluster.								
1918. d					°	°	°	°
115·405 C	8	28	49	171	227·1	214·1	+13·8	−83·7
116·461 G	14	120	23	196	226·6	213·4	+13·9	−70·3
117·385 C	36	273	36	274	226·8	213·5	+14·3	−57·9
118·382 C	65	341	48	254	227·0	213·6	+14·5	−44·5
119·365 C	71	422	44	262	226·6	213·1	+14·2	−31·9
120·350 C	88	556	50	313	226·9	213·3	+15·3	−18·6
121·403 C	136	819	72	438	227·5	213·8	+16·8	− 4·0
122·355 C	117	808	63	437	227·5	213·7	+16·5	+ 8·5
123·453 G	65	356	38	205	227·3	213·3	+15·6	+22·9
124·131 D	53	243	33	152	227·5	213·5	+16·1	+32·0
125·487 C	19	83	17	68	227·2	213·0	+15·6	+49·6
126·370 C	3	21	4	27	230·0	215·7	+15·8	+64·1
Means ..	..	..	40	233	227·33	213·67	+15·20	..
RECURRENT SERIES 849.								
Group 8484 seen in Rotation 863. ,, 8507 ,, ,, 864.								
Group 8484.—April 4–9. Intermittent. A pair of minute spots on April 4. On April 6, a stream of normal type, of which *a* is the leading spot, is developing in their place.								
93·366 C	1	11	1	7	248·9	266·5	+26·8	+ 7·1
94·358 C	0	0	0	0	..	..	..	..
95·328 C	22	101	16	72	247·5	265·4	+27·4	+31·6
96·555 G	40	260	38	248	249·3	267·5	+26·9	+49·6
97·377 C	33	299	43	377	248·4	266·7	+27·7	+59·5
98·366 C	30	178	65	401	247·8	266·3	+27·4	+72·0
Means ..	..	..	27	184	248·38	266·48	+27·24	..
Spot *a*.								
95·328 C	11	41	8	30	249·9	264·2	+26·1	+34·0
96·555 G	28	183	27	179	251·2	265·7	+25·8	+51·5
97·377 C	21	153	29	208	251·4	266·0	+26·1	+62·5
98·366 C	14	97	37	258	250·6	265·4	+25·9	+74·8
Group 8507.—April 25–May 5. A small regular spot, *a* of Group 8484, just disappearing. A small cluster occupies its place after May 1.								
114·439 G	11	39	42	149	244·4	265·2	+26·5	−79·2
115·405 C	9	60	14	93	244·4	265·4	+26·5	−66·4
116·461 G	17	86	17	85	244·0	265·2	+26·5	−52·9
117·385 C	10	126	8	98	243·7	265·1	+26·4	−41·0

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8507—*continued.*								
1918. d					°	°	°	°
118·382 C	21	102	14	67	243·2	264·7	+26·5	−28·3
119·365 C	20	69	13	42	242·3	264·1	+26·8	−16·2
120·350 C	21	48	12	28	242·1	264·0	+27·1	− 3·4
121·403 C	12	48	7	29	241·0	263·1	+28·5	+ 9·5
122·355 C	2	44	1	28	240·6	262·9	+27·7	+21·6
123·453 G	0	48	0	35	239·9	262·4	+27·0	+35·5
124·131 D	10	72	8	60	240·6	263·2	+27·9	+45·1
Means ..	..	..	12	65	242·38	264·12	+27·04	..
RECURRENT SERIES 850.								
Group 8502 seen in Rotation 864. ,, 8532 ,, ,, 865.								
Group 8502.—April 23–May 5. A large regular spot, with a small distant follower on April 26, and a small close companion cluster on April 27 and 29.								
112·367 C	33	152	79	365	272·3	248·8	− 9·1	−78·6
113·335 C	57	312	67	365	273·0	249·3	− 8·9	−65·2
114·439 G	93	445	73	347	273·1	249·2	− 9·0	−50·5
115·405 C	115	595	72	375	273·2	249·1	− 9·1	−37·6
116·461 G	137	657	75	361	273·3	249·0	− 9·1	−23·6
117·385 C	135	779	69	397	273·6	249·1	− 8·9	−11·1
118·382 C	138	799	69	399	273·5	248·8	− 8·5	+ 2·0
119·365 C	110	665	57	346	273·7	248·7	− 8·5	+15·2
120·350 C	111	633	63	361	273·8	248·6	− 8·5	+28·3
121·403 C	81	461	55	313	273·9	248·5	− 8·5	+42·4
122·355 C	62	354	54	308	274·0	248·4	− 8·5	+55·0
123·453 G	38	231	55	333	274·4	248·6	− 8·8	+70·0
124·131 D	32	155	85	412	275·1	249·2	− 8·9	+79·6
Means ..	..	..	67	360	273·61	248·87	− 8·79	..
Group 8532.—May 20–June 1. A circular spot slowly contracting.								
139·416 G	14	84	32	189	276·0	246·8	− 9·5	−77·3
140·381 G	22	152	26	178	275·9	246·6	− 9·7	−64·7
141·409 C	28	202	22	162	275·9	246·3	− 9·1	−51·1
142·433 G	45	272	29	174	275·6	245·8	− 9·1	−37·8
143·435 C	60	292	33	161	275·5	245·5	− 8·8	−24·7
144·399 C	45	291	23	151	275·4	245·2	− 8·8	−12·0
145·428 C	47	282	23	141	275·4	245·0	− 8·8	+ 1·6
146·377 G	50	331	26	172	275·2	244·6	− 8·6	+14·0
147·420 G	42	252	24	144	275·0	244·2	− 8·4	+27·6
148·375 G	38	214	25	141	274·9	243·9	− 8·4	+40·1
149·346 G	27	157	22	130	274·8	243·6	− 8·3	+52·9
150·352 G	18	104	22	131	275·1	243·7	− 8·5	+66·5
151·425 G	6	56	18	170	274·8	243·2	− 8·5	+80·4
Means ..	..	..	25	157	275·35	244·95	− 8·81	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 851.								
Group 8516 seen in Rotation 864.								
,, 8549 ,, ,, 865.								
,, 8573 ,, ,, 866.								
Group 8516.—May 3–15. A large regular spot, *a*, with a long and sparse train which gradually disappears.								
1918. d					°	°	°	°
122·355 C	29	144	(85	420	140·7	132·4	+17·1)*	−78·3
123·453 G	68	496	121	786	135·2	126·8	+17·5	−69·2
124·131 D	111	592	126	650	135·7	127·3	+17·8	−59·8
125·487 C	153	957	112	699	135·4	126·9	+17·7	−42·2
126·370 C	164	1031	102	641	136·3	127·7	+17·5	−29·6
127·499 C	187	1014	105	564	137·7	129·0	+17·2	−13·3
128·409 C	144	990	77	527	138·3	129·6	+17·7	− 0·6
129·386 G	191	1028	104	564	138·0	129·2	+17·7	+12·0
130·496 G	131	801	79	479	138·8	129·9	+17·2	+27·5
131·393 C	103	598	72	417	138·7	129·8	+17·3	+39·2
132·597 G	84	522	81	500	139·4	130·4	+17·2	+55·9
133·463 G	57	310	80	437	139·4	130·3	+17·1	+67·3
134·349 C	23	115	72	362	140·0	130·9	+16·9	+79·6
Means ..	..	..	94	552	137·74	128·98	+17·40	..
Spot *a*.								
122·355 C	29	144	85	420	140·7	131·8	+17·1	−78·3
123·453 G	49	393	63	503	139·9	130·9	+17·1	−64·5
124·131 D	82	476	80	466	139·4	130·3	+17·4	−56·1
125·487 C	114	694	78	472	139·4	130·2	+17·2	−38·2
126·370 C	118	797	71	478	139·4	130·2	+17·1	−26·5
127·499 C	143	820	79	451	139·5	130·2	+17·1	−11·5
128·409 C	125	794	66	421	139·4	130·0	+17·4	+ 0·5
129·386 G	156	832	86	458	139·3	129·9	+17·5	+13·3
130·496 G	111	733	67	440	139·2	129·7	+17·2	+27·9
131·393 C	100	582	70	407	139·2	129·6	+17·3	+39·7
132·597 G	82	515	79	494	139·5	129·8	+17·1	+56·0
133·463 G	57	310	80	437	139·4	129·7	+17·1	+67·3
134·349 C	23	115	72	362	140·0	130·2	+16·9	+79·6
Group 8549.—May 30–June 12. A stable regular spot, *a* of Group 8516, followed by a small companion. Northwards there is also a small spot which gradually disappears.								
149·346 G	14	58	57	281	139·7	129·3	+16·9	−82·2
150·352 G	39	225	62	361	138·6	128·1	+17·5	−70·0
151·425 G	67	395	69	393	137·0	126·4	+17·7	−57·4
152·446 G	98	477	72	351	136·8	126·1	+17·7	−44·1
153·377 G	123	583	77	364	136·2	125·5	+17·7	−32·4
154·380 C	132	584	73	323	136·6	125·8	+17·6	−18·7
155·342 C	96	545	51	290	136·9	126·0	+17·4	− 5·7
156·392 G	106	528	57	280	136·5	125·5	+17·1	+ 7·8
157·118 K	72	465	39	256	136·0	125·0	+17·5	+16·9
158·406 G	51	387	32	243	135·8	124·7	+17·1	+33·8
159·323 G	45	320	34	243	136·3	125·2	+17·1	+46·4
Group 8549—*continued.*								
1918. d					°	°	°	°
160·485 G	28	160	31	174	136·1	124·9	+17·1	+61·6
161·455 G	19	103	37	202	136·5	125·2	+17·0	+74·8
162·380 C	0	26	0	191	135·9	124·5	+16·8	+86·4
Means ..	..	..	49	282	136·78	125·87	+17·30	..
Group 8573.—June 27–July 9. A stable regular spot, evidently *a* of Group 8516. Note the considerable proper motion in longitude since its first appearance.								
177·394 C	8	42	18	94	133·3	118·0	+16·8	−77·4
178·359 C	20	85	24	103	132·5	117·2	+17·1	−65·4
179·370 C	26	144	22	120	132·6	117·2	+16·7	−52·0
180·421 G	28	165	18	107	132·4	116·9	+16·8	−38·2
181·386 G	40	195	23	111	132·0	116·4	+16·8	−25·9
182·496 C	29	192	15	100	131·9	116·2	+16·7	−11·3
183·360 C	32	205	16	105	131·7	115·9	+16·5	− 0·1
184·385 G	36	166	19	88	131·4	115·5	+16·5	+13·2
185·382 C	33	158	19	90	131·4	115·5	+16·3	+26·4
186·536 C	27	149	18	101	131·4	115·4	+16·3	+41·7
187·376 C	10	116	8	95	130·6	114·5	+16·2	+52·0
188·388 C	8	67	10	80	130·7	114·5	+16·2	+65·5
189·387 G	2	14	5	33	130·3	114·0	+16·0	+78·3
Means ..	..	..	17	94	131·71	115·94	+16·53	..
RECURRENT SERIES 852.								
Group 8533 seen in Rotation 865.								
,, 8564 ,, ,, 866.								
Group 8533.—May 21–June 1. An insignificant stream of small spots until May 27, when it shows great and sudden activity. A large regular spot, *a*, as the most stable member, forms from an irregular spot at the head of the stream; the other components are in continual change; *b* is the rear spot. The group is situated immediately *s f* Group 8532.								
140·381 G	0	8	0	10	274·8	253·3	−13·6	−65·8
141·409 C	29	73	27	67	270·1	248·5	−12·7	−56·9
142·433 G	26	76	17	52	271·1	249·3	−13·2	−42·3
143·435 C	23	108	14	62	273·1	251·1	−13·6	−27·1
144·399 C	44	196	23	102	272·9	250·8	−13·3	−14·5
145·428 C	36	223	19	114	272·2	250·0	−12·7	− 1·6
146·377 G	203	895	105	465	271·9	249·5	−12·5	+10·7
147·420 G	192	1187	108	672	272·4	249·8	−12·5	+25·0
148·375 G	223	1324	145	864	272·9	250·2	−12·6	+38·1
149·346 G	157	1250	129	1019	273·3	250·5	−12·5	+51·4
150·352 G	178	987	215	1192	273·6	250·6	−13·1	+65·0
151·425 G	87	339	273	918	273·6	250·4	−12·3	+79·2
Means ..	..	..	90	461	272·66	250·33	−12·88	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 852. Group 8533—*continued.*								
Spot *a*.								
1918. d					°	°	°	°
145·428 C	16	63	8	32	274·8	255·0	−13·8	+ 1·0
146·377 G	91	446	48	236	274·1	254·2	−13·8	+12·9
147·420 G	100	630	58	365	274·6	254·6	−14·1	+27·2
148·375 G	104	709	71	482	275·8	255·6	−14·1	+41·0
149·346 G	82	609	71	530	276·0	255·7	−13·8	+54·1
150·352 G	84	493	113	661	276·1	255·7	−14·0	+67·5
151·425 G	60	142	217	513	276·4	255·8	−13·6	+82·0
Spot *b*.								
145·428 C	11	88	6	45	270·4	243·1	−11·7	− 3·4
146·377 G	100	383	51	195	269·6	242·1	−11·0	+ 8·4
147·420 G	79	478	43	263	269·5	241·8	−10·6	+22·1
148·375 G	98	536	61	332	269·7	241·8	−10·2	+34·9
149·346 G	47	436	36	331	270·2	242·1	− 9·9	+48·3
150·352 G	44	231	48.	252	271·1	242·8	−10·2	+62·5
151·425 G	20	137	43	297	270·9	242·4	− 9·9	+76·5
Group 8564.—June 16–19. A small spot, not seen on June 17, in a large area of faculae.								
166·373 C	1	6	2	15	278·8	258·3	−12·0	−77·8
167·526 C	0	0	0	0	..	..	..	..
168·394 C	2	11	2	9	279·2	258·5	−16·9	−50·7
169·422 G	0	5	0	3	280·1	259·3	−15·0	−36·1
Means ..	..	..	1	7	279·37	258·70	−14·63	..
(RECURRENT SERIES **852.**)*								
Group 8565 seen in Rotation 866.								
,, 8598 ,, ,, 867.								
Group 8565.—June 17–26. A small unstable stream *p* Group 8564 in the same general area of disturbance.								
167·526 C	3	28	3	25	287·4	261·9	−11·8	−53·9
168·394 C	5	57	3	40	287·3	261·7	−12·1	−42·6
169·422 G	11	95	6	56	286·8	261·1	−12·5	−29·4
170·380 G	34	137	18	74	285·4	259·5	−13·0	−18·2
171·374 C	27	186	14	97	286·9	260·9	−12·7	− 3·5
172·388 G	20	123	10	64	285·1	258·9	−13·0	+ 8·1
173·463 G	25	117	15	68	289·5	263·1	−13·6	+26·7
174·571 G	17	122	12	88	291·7	265·2	−13·6	+43·6
175·438 G	17	68	16	65	292·7	266·0	−13·9	+56·1
176·588 G	18	84	31	152	293·9	267·1	−13·0	+72·5
Means ..	..	..	13	73	288·67	262·54	−12·92	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8598.—July 13–16. Possibly only a revival of Group 8565 and not a return. An area of disturbance shown by faculæ, and a few scattered unstable spots.								
1918. d					°	°	°	°
193·406 G	6	14	7	16	297·3	270·2	−13·3	−61·5
194·385 C	7	29	6	24	295·4	268·2	−13·9	−50·4
195·576 G	2	17	1	11	292·9	265·5	−14·4	−37·2
196·383 G	4	15	2	8	299·4	271·9	−13·0	−20·0
Means ..	..	..	4	15	296·25	268·95	−13·65	..
RECURRENT SERIES **853.**								
Group 8574 seen in Rotation 866.								
,, 8610 ,, ,, 867.								
Group 8574.—June 27–July 8. A spot, approximately of regular formation, accompanied by a small cluster *s f* until July 4.								
177·394 C	8	42	19	101	132·4	96·2	+ 9·1	−78·3
178·359 C	16	235	19	284	132·3	95·9	+ 9·2	−65·6
179·370 C	18	271	15	220	132·6	96·0	+ 8·9	−52·0
180·421 G	50	341	32	215	133·4	96·6	+ 8·9	−37·2
181·386 G	71	258	39	142	133·5	96·5	+ 8·8	−24·4
182·496 C	54	268	28	137	133·7	96·5	+ 9·0	− 9·5
183·360 C	44	192	22	96	134·2	96·8	+ 9·3	+ 2·4
184·385 G	36	191	19	99	134·0	96·4	+ 9·4	+15·8
185·382 C	43	181	25	105	134·2	96·4	+ 9·7	+29·2
186·536 C	20	141	14	99	134·4	96·4	+ 9·7	+44·7
187·376 C	10	64	9	56	134·3	96·1	+ 9·7	+55·7
188·388 C	6	18	8	25	134·5	96·1	+ 9·6	+69·3
Means ..	..	..	21	132	133·63	96·33	+ 9·27	..
Group 8610.—July 24–August 2. An area of faculæ in which a few very small spots are seen.								
204·347 G	0	2	0	4	138·9	92·5	+ 8·4	−75·1
205·367 G	2	6	2	6	139·7	93·1	+ 8·2	−60·8
206·379 C	2	21	1	15	139·1	92·3	+ 6·9	−48·1
207·523 G	5	51	3	30	139·4	92·3	+ 7·5	−32·6
208·398 C	3	17	2	9	139·5	92·2	+ 7·7	−21·0
209·410 G	5	30	3	15	138·9	91·4	+ 7·4	− 8·2
210·424 G	0	19	0	9	140·1	92·4	+ 6·9	+ 6·5
211·411 G	2	31	1	16	140·5	92·5	+ 5·8	+19·9
212·446 G	5	33	3	20	140·4	92·2	+ 6·1	+33·5
213·384 C	2	17	1	12	141·3	92·9	+ 5·5	+46·8
Means ..	..	..	2	14	139·78	92·38	+ 7·04	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 854.								
Group 8582 seen in Rotation 866.								
,, 8615 ,, ,, 867.								
,, 8657 ,, ,, 868.								
Group 8582.—July 1–13. A large stream of normal type. The leader, *a*, of regular formation is always the most conspicuous part of the stream, but the following portion is a cluster of some extent for a few days after July 4.								
1918. d					°	°	°	°
181·386 G	23	92	48	196	81·2	49·1	+11·0	−76·7
182·496 C	37	312	40	350	80·2	47·9	+11·0	−63·0
183·360 C	74	448	59	358	80·9	48·5	+11·2	−50·9
184·385 G	138	740	88	474	81·0	48·4	+11·3	−37·2
185·382 C	170	1215	94	677	80·2	47·4	+11·6	−24·8
186·536 C	152	1124	78	577	80·9	47·9	+11·6	− 8·8
187·376 C	177	1243	90	630	81·1	47·9	+11·3	+ 2·5
188·388 C	194	1184	101	621	82·1	48·8	+11·5	+16·9
189·387 G	167	826	97	480	82·6	49·1	+11·6	+30·6
190·476 G	132	555	96	405	83·8	50·1	+11·0	+46·2
191·303 D	48	469	44	429	83·7	49·8	+10·9	+57·1
192·390 G	29	211	46	337	84·4	50·4	+11·0	+72·2
193·406 G	0	28	0	134	83·6	49·4	+11·6	+84·8
Means ..	..	..	68	436	81·98	48·82	+11·28	..
Spot *a*.								
181·386 G	23	89	48	186	81·4	49·1	+11·0	−76·5
182·496 C	25	198	25	202	82·6	50·1	+10·8	−60·6
183·360 C	50	307	38	233	83·3	50·7	+11·0	−48·5
184·385 G	84	464	52	288	83·0	50·2	+11·3	−35·2
185·382 C	136	746	75	410	82·8	49·8	+11·6	−22·2
186·536 C	102	723	52	369	83·4	50·2	+11·6	− 6·3
187·376 C	131	780	67	398	83·9	50·6	+11·6	+ 5·3
188·388 C	110	809	58	429	84·4	50·9	+11·5	+19·2
189·387 G	124	586	73	346	84·3	50·6	+11·2	+32·3
190·476 G	100	447	74	331	84·7	50·8	+11·0	+47·1
191·303 D	41	375	39	356	85·2	51·2	+11·0	+58·6
192·390 G	27	192	44	315	84·9	50·7	+11·0	+72·7
193·406 G	0	28	(0	134	83·6	49·2	+11·6)*	+84·8
Group 8615.—July 27–August 9. A stable regular spot—*a* of Group 8582—with occasional very small companions.								
207·523 G	2	28	10	134	87·0	47·6	+10·6	−85·0
208·398 C	17	64	30	113	86·1	46·5	+10·7	−74·4
209·410 G	16	115	16	116	86·1	46·3	+10·3	−61·0
210·424 G	21	161	16	120	85·9	45·9	+10·4	−47·7
211·411 G	23	186	14	112	86·1	45·9	+10·2	−34·5
212·446 G	31	208	17	112	86·2	45·8	+10·3	−20·7
213·384 C	35	210	18	107	86·1	45·6	+10·2	− 8·4
214·375 C	35	202	17	101	86·1	45·4	+10·2	+ 4·7
215·422 G	34	210	18	111	86·0	45·1	+10·2	+18·5
Group 8615—*continued.*								
1918. d					°	°	°	°
216·367 C	27	231	16	134	86·2	45·1	+10·4	+31·1
217·615 G	25	141	19	104	86·3	45·0	+10·7	+47·7
218·432 C	13	106	12	99	85·8	44·3	+10·5	+58·0
219·422 G	18	82	27	121	85·8	44·1	+10·5	+71·1
220·172 D	6	25	18	76	86·1	44·3	+10·2	+81·4
Means ..	..	..	18	111	86·13	45·49	+10·39	..
Group 8657.—August 24–30. A small but persistent spot—*a* of Group 8582.								
235·394 G	1	10	2	19	87·4	43·6	+10·8	−76·1
236·371 C	0	8	0	9	86·8	42·8	+10·7	−63·8
237·349 C	2	13	2	10	86·7	42·5	+10·8	−51·0
238·362 C	4	14	3	9	86·5	42·2	+10·5	−37·8
239·363 C	6	13	3	7	86·4	41·9	+10·2	−24·7
240·365 C	3	14	2	7	86·3	41·6	+10·6	−11·6
241·511 G	0	11	0	5	86·3	41·4	+10·9	+ 3·6
Means ..	..	..	2	9	86·63	42·29	+10·64	..
RECURRENT SERIES 855.								
Group 8588 seen in Rotation 866.								
,, 8613 ,, ,, 867.								
Group 8588.—July 8–11. A small group forming towards the west limb.								
188·388 C	2	8	1	5	101·0	54·3	+ 3·9	+35·8
189·387 G	1	8	1	6	100·9	53·9	+ 4·3	+48·9
190·476 G	23	79	26	90	101·8	54·6	+ 4·6	+64·2
191·303 D	3	17	5	31	100·7	53·3	+ 3·8	+74·1
Means ..	..	..	8	33	101·10	54·03	+ 4·15	..
Group 8613.—July 27–August 7. A small cluster for a few days with considerable development near the central meridian, when the group becomes an irregular stream. A large irregular spot is the chief component, and this has formed from the original cluster, the preceding components being entirely of new formation.								
207·523 G	27	88	29	96	108·9	59·3	+ 6·1	−63·1
208·398 C	34	137	28	111	108·3	58·5	+ 6·1	−52·2
209·410 G	35	136	22	87	108·0	58·0	+ 6·3	−39·1
210·424 G	64	276	35	152	109·3	59·1	+ 5·5	−24·3
211·411 G	90	351	45	178	110·1	59·6	+ 5·1	−10·5
212·446 G	126	720	62	360	110·0	59·2	+ 4·8	+ 3·1
213·384 C	150	882	79	462	111·4	60·4	+ 5·0	+16·9
214·375 C	189	1111	108	643	111·5	60·3	+ 4·9	+30·1
215·422 G	161	954	114	680	113·2	61·7	+ 5·2	+45·7
216·367 C	53	603	53	570	113·3	61·6	+ 5·7	+58·2
217·615 G	29	209	58	434	115·1	63·1	+ 5·8	+76·5
218·432 C	2	40	(6	113	108·2	56·0	+ 6·0)*	+80·4
Means ..	..	..	58	343	110·83	60·07	+ 5·50	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
(RECURRENT SERIES **855.**)*								
Group 8593 seen in Rotation 866. ,, 8621 ,, ,, 867.								
Group 8593.—July 10–18. A disturbed area shown at first by one or two scattered evanescent spots. On July 15, a group of the "stream" type has suddenly appeared, but it is apparently dispersing when last seen at the west limb.								
1918. d					°	°	°	°
190·476 G	1	13	1	8	11·4	1·1	−16·8	−26·2
191·303 D	2	14	1	8	10·6	0·3	−18·3	−16·0
192·390 G	2	14	1	8	12·7	2·3	−17·7	+ 0·5
193·406 G	1	6	1	3	8·7	358·3	−19·9	+ 9·9
194·385 C	0	7	0	4	12·3	1·8	−16·2	+26·5
195·576 G	63	272	46	200	11·9	1·3	−18·5	+41·8
196·383 G	27	236	25	217	12·2	1·6	−18·3	+52·8
197·514 G	17	95	26	146	11·7	1·0	−18·6	+67·3
198·388 C	2	9	(4	20	6·8	356·1	−19·9)*	+73·9
Means ..	..	..	13	74	11·44	0·96	−18·04	..
Group 8621.—August 2–13. Possibly only a revival of Group 8593 and not a return. A group, *f* Group 8619, in a conspicuous area of faculæ coterminous with that surrounding the latter group. Two partially formed regular spots, coalescing to make an indefinite and unstable spot, which soon breaks up and so dies out. There is a small follower from August 4–7.								
213·384 C	8	63	31	241	14·7	22·4	−21·0	−79·8
214·375 C	17	106	27	167	14·3	22·0	−21·2	−67·1
215·422 G	71	401	73	400	13·3	21·0	−22·0	−54·2
216·367 C	70	337	54	260	13·2	21·0	−21·8	−41·9
217·615 G	46	337	29	210	14·5	22·3	−21·4	−24·1
218·432 C	18	259	10	151	14·1	22·0	−21·4	−13·7
219·422 G	34	184	19	105	14·1	22·0	−21·8	− 0·6
220·172 D	23	123	13	71	14·2	22·1	−22·1	+ 9·5
221·394 G	28	48	18	31	14·7	22·7	−21·9	+26·1
222·608 G	8	24	6	19	14·6	22·6	−22·4	+42·1
223·507 G	4	19	4	19	14·7	22·7	−22·4	+54·0
224·368 G	2	7	3	10	14·4	22·5	−22·7	+65·1
Means ..	..	..	24	140	14·23	22·11	−21·84	..
RECURRENT SERIES **856.**								
Group 8597 seen in Rotation 866. ,, 8623 ,, ,, 867.								
Group 8597.—July 13–20. A large irregular stream, rapidly appearing from two small nuclei on July 13 near the central meridian. The two leading spots coalesce to make a large regular spot, *a*, whilst at the rear of the stream a large composite component, which has formed from a cluster, is diminishing.								
193·406 G	2	13	1	7	351·6	312·3	− 8·5	− 7·2
194·385 C	24	164	13	85	352·8	313·3	− 8·5	+ 7·0
195·576 G	133	566	74	316	352·3	312·6	− 9·2	+22·2
196·383 G	274	1021	166	618	350·8	310·9	− 9·4	+31·4

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long from C.M.
Group 8597—*continued.*								
1918. d					°	°	°	°
197·514 G	174	1007	135	774	351·5	311·4	− 9·6	+47·1
198·388 C	107	731	108	741	351·7	311·4	− 9·9	+58·8
199·375 C	54	339	96	595	352·0	311·5	−10·1	+72·2
200·447 C	2	28	(8	107	346·9	306·2	−11·5)*	+81·3
Means ..	..	..	85	448	351·81	311·91	− 9·31	..
Spot *a*.								
197·514 G	100	527	80	422	354·1	314·4	− 9·6	+49·7
198·388 C	53	379	58	413	354·1	314·2	− 9·4	+61·2
199·375 C	35	215	69	421	353·9	313·8	− 9·6	+74·1
Group 8623.—August 3–9. A small but stable regular spot (*a* of Group 8597) breaking into two portions on August 9 and then disappearing.								
214·375 C	8	30	38	144	358·7	316·5	− 9·9	−82·7
215·422 G	15	79	22	115	359·3	316·9	− 9·9	−68·2
216·367 C	25	73	23	67	0·1	317·5	− 9·5	−55·0
217·615 G	19	105	13	69	0·5	317·6	− 9·9	−38·1
218·432 C	18	85	11	50	0·4	317·4	− 9·9	−27·4
219·422 G	13	55	7	30	0·4	317·2	− 9·9	−14·3
220·172 D	9	34	5	18	0·1	316·7	− 9·9	− 4·6
Means ..	..	..	17	70	359·93	317·11	− 9·84	..
RECURRENT SERIES **857.**								
Group 8599 seen in Rotation 867. ,, 8631 ,, ,, 868. ,, 8669 and 8670 ,, 869.								
Group 8599.—July 15–27. A large regular spot with a few very small companions. From July 21–24, a small portion of the large spot becomes separated and appears as a close companion to it.								
195·576 G	69	248	113	407	257·5	215·4	+ 7·7	−72·6
196·383 G	70	435	73	457	257·5	215·3	+ 7·4	−61·9
197·514 G	148	638	108	466	257·4	214·9	+ 7·8	−47·0
198·388 C	151	800	92	488	257·3	214·7	+ 7·8	−35·6
199·375 C	153	898	83	485	257·3	214·4	+ 8·0	−22·5
200·447 C	175	967	89	493	257·2	214·1	+ 8·3	− 8·4
201·401 C	162	1017	81	508	257·0	213·7	+ 8·4	+ 4·0
202·440 C	134	910	71	482	257·0	213·5	+ 8·5	+17·7
203·428 C	148	752	86	436	256·9	213·2	+ 8·5	+30·7
204·347 G	100	638	68	434	256·8	212·9	+ 8·8	+42·8
205·367 G	101	429	90	382	256·7	212·6	+ 8·8	+56·2
206·379 C	61	288	88	415	257·4	213·0	+ 8·8	+70·2
207·523 G	12	73	64	388	257·4	212·8	+ 8·8	+85·4
Means ..	..	..	85	449	257·18	213·88	+ 8·28	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

RECURRENT SERIES **857**—*continued*.

Group 8631.—August 10–23. A very large stream, some 15° in length, composed of two regular spots and numerous small unstable spots between them. The leader, *a*, shows the greater development, and becomes firstly double and then composite. The follower, *b*, at the same time shows a double nucleus and is gradually diminishing. Larger attendant spots tend to form, but they break up within a few days.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long from C.M.
1918. d					°	°	°	°
221·394 G	9	71	(20	157	270·7	225·8	+10·7)*	−77·9
222·608 G	76	493	103	676	263·2	218·0	+ 8·9	−69·3
223·507 G	181	823	165	758	263·2	217·8	+ 9·3	−57·5
224·368 G	188	1281	134	910	263·8	218·2	+ 9·1	−45·5
225·445 G	217	1442	126	848	264·0	218·3	+ 9·0	−31·0
226·397 G	302	1959	160	1029	265·3	219·3	+ 9·5	−17·2
227·429 G	338	2054	171	1038	264·9	218·7	+ 9·5	− 3·9
228·357 C	271	2330	136	1189	266·4	220·0	+ 9·7	+ 9·8
229·396 C	283	2131	157	1182	268·0	221·4	+ 9·5	+25·2
230·358 G	266	1756	170	1123	268·4	221·7	+ 9·2	+38·3
231·359 C	197	1231	161	997	269·1	222·1	+ 9·6	+52·2
232·327 C	76	722	85	815	268·4	221·2	+ 9·5	+64·3
233·408 G	54	263	138	635	268·6	221·2	+ 9·4	+78·8
234·369 C	11	60	(41	231	260·6	213·0	+ 8·6)	+83·5
Means ..	..	..	142	933	266·11	219·82	+ 9·35	..
Spot *a*.								
221·394 G	9	71	20	157	270·7	228·0	+10·7	−77·9
222·608 G	24	131	24	132	271·4	228·4	+10·3	−61·1
223·507 G	31	152	23	114	272·0	228·9	+10·4	−48·7
224·368 G	33	240	21	151	272·1	228·8	+10·2	−37·2
225·445 G	104	528	57	290	271·0	227·5	+ 9·9	−24·0
226·397 G	94	575	48	293	271·9	228·2	+ 9·9	−10·6
227·429 G	94	517	47	258	272·6	228·7	+ 9·9	+ 3·8
228·357 C	68	757	35	394	272·7	228·6	+10·1	+16·1
229·396 C	118	886	68	514	272·6	228·3	+10·2	+29·8
230·358 G	120	643	82	437	272·9	228·4	+10·1	+42·8
231·359 C	106	526	95	473	273·7	229·0	+ 9·9	+56·8
232·327 C	29	265	39	358	273·2	228·4	+10·0	+69·1
233·408 G	29	122	99	418	272·3	227·3	+ 9·9	+82·5
Spot *b*.								
222·608 G	36	239	58	382	260·0	212·8	+ 8·2	−72·5
223·507 G	79	425	80	429	259·9	212·5	+ 8·4	−60·8
224·368 G	89	617	68	469	259·9	212·3	+ 8·2	−49·4
225·445 G	98	648	60	395	259·9	212·1	+ 8·5	−35·1
226·397 G	125	679	68	367	260·3	212·3	+ 8·5	−22·2
227·429 G	162	1019	83	520	260·3	212·1	+ 8·7	− 8·5
228·357 C	109	949	54	475	260·6	212·2	+ 9·1	+ 4·0
229·396 C	88	697	46	362	260·6	212·0	+ 8·8	+17·8
230·358 G	73	444	42	258	260·5	211·7	+ 8·5	+30·4
231·359 C	52	330	36	228	261·0	212·0	+ 8·8	+44·1
232·327 C	31	271	28	247	261·2	212·0	+ 8·7	+57·1
233·408 G	25	141	39	217	261·6	212·1	+ 8·4	+71·8

Group 8669.—September 6–14. A small regular spot (*a* of Group 8631), gradually dying out. A near companion is seen to the *n* until September 8.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
248·346 C	7	53	17	130	273·0	228·8	+11·6	−79·5
249·338 C	16	93	19	112	273·1	228·7	+11·5	−66·3
250·377 C	17	94	14	77	272·4	227·8	+11·3	−53·2
251·373 G	16	108	10	70	272·4	227·7	+10·9	−40·1
252·416 G	22	103	12	58	271·8	226·9	+11·0	−26·9
253·414 G	18	65	9	34	271·3	226·2	+11·1	−14·2
254·444 G	12	40	6	20	271·0	225·7	+11·0	− 0·9
255·378 G	9	34	5	17	270·6	225·1	+11·3	+11·0
256·485 C	0	13	0	7	271·1	225·5	+11·4	+26·1
Means ..	..	..	10	58	271·86	226·93	+11·23	..

Group 8670.—September 7–14. Two small spots, *f* Group 8669, representing *b* of Group 8631. On September 11, two larger spots appear for a few days.

249·338 C	4	35	8	70	263·2	214·3	+ 8·5	−76·2
250·377 C	12	47	13	50	262·9	213·8	+ 8·6	−62·7
251·373 G	18	46	14	35	262·9	213·6	+ 8·3	−49·6
252·416 G	18	41	11	25	263·1	213·6	+ 8·1	−35·6
253·414 G	50	232	27	125	263·9	214·2	+11·1	−21·6
254·444 G	34	144	18	74	264·7	214·8	+11·3	− 7·2
255·378 G	18	130	8	65	263·9	213·8	+10·9	+ 4·3
256·485 C	15	28	8	15	266·2	215·9	+12·2	+21·2
Means ..	..	..	13	57	263·85	214·25	+ 9·88	..

RECURRENT SERIES **858.**

Group 8601 seen in Rotation 867.
,, 8635 and 8639 ,, 868.

Group 8601.—July 17–28. A group in continual change. At first, two small regular spots with a few small followers. These multiply, as the regular spots are disappearing, and form a very extensive and irregular stream of tiny components. Two or three larger spots then appear, whilst the minor members of the stream die out.

197·514 G	20	102	34	178	232·7	204·3	−12·2	−71·7
198·388 C	24	267	26	289	232·5	203·9	−12·4	−60·4
199·375 C	52	209	40	162	232·8	204·1	−12·5	−47·0
200·447 C	55	311	34	196	232·4	203·5	−12·8	−33·2
201·401 C	64	301	36	170	232·3	203·3	−13·1	−20·7
202·440 C	67	349	35	187	231·0	201·9	−13·5	− 8·3
203·428 C	61	442	32	234	231·2	201·9	−13·2	+ 5·0
204·347 G	149	663	83	368	230·5	201·1	−14·0	+16·5
205·367 G	111	520	68	320	230·5	200·9	−14·1	+30·0
206·379 C	53	276	40	209	232·3	202·6	−14·4	+45·1
207·523 G	46	134	53	151	233·3	203·4	−14·9	+61·3
208·398 C	10	69	21	144	234·6	204·6	−14·1	+74·1
Means ..	..	..	42	217	232·17	202·96	−13·43	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 858—*continued.*								
Group 8635.—August 12–23. A small regular spot, *f* which two others develop together with smaller companions to make a close cluster.								
1918. d					°	°	°	°
223·507 G	9	44	27	133	242·2	211·6	−14·1	−78·5
224·368 G	16	86	22	122	242·6	211·9	−14·2	−66·7
225·445 G	32	178	29	160	242·4	211·5	−13·8	−52·6
226·397 G	57	290	42	211	241·1	210·1	−13·9	−41·4
227·429 G	83	454	50	277	240·3	209·1	−13·6	−28·5
228·357 C	93	603	51	332	241·1	209·8	−13·3	−15·5
229·396 C	69	493	37	261	241·8	210·4	−13·5	− 1·0
230·358 G	71	355	39	195	242·2	210·6	−13·8	+12·1
231·359 C	57	318	34	188	242·5	210·8	−13·9	+25·6
232·327 C	25	251	17	171	241·3	209·5	−13·9	+37·2
233·408 G	19	125	16	109	241·0	209·0	−13·7	+51·2
234·369 C	9	34	12	47	243·1	211·0	−14·2	+66·0
Means ..	..	..	31	184	241·80	210·44	−13·82	..
Group 8639.—August 13–22. A few very small spots which increase for a few days and form an indefinite stream. No spots are seen on August 21. This group closely follows Group 8635 in the same general area of faculæ, and the separation into two groups is somewhat arbitrary.								
224·368 G	2	19	4	45	233·3	202·8	−13·6	−76·0
225·445 G	1	8	1	9	233·9	203·2	−13·6	−61·1
226·397 G	2	4	2	4	229·8	199·0	−13·6	−52·7
227·429 G	3	33	2	22	230·7	199·8	−13·0	−38·1
228·357 C	32	157	19	91	234·9	203·8	−13·8	−21·7
229·396 C	13	134	7	72	234·9	203·7	−14·3	− 7·9
230·358 G	10	133	5	71	234·5	203·2	−13·9	+ 4·4
231·359 C	3	21	2	12	235·8	204·3	−14·6	+18·9
232·327 C	0	0	0	0	..	..	..	..
233·408 G	3	11	3	9	232·9	201·2	−14·4	+43·1
Means ..	..	..	4	34	233·41	202·33	−13·87	..
RECURRENT SERIES 859.								
Group 8602 seen in Rotation 867. ,, 8624 ,, ,, 868.								
Group 8602.—July 19–21. A pair of regular spots.								
199·375 C	12	52	10	41	330·4	302·7	+13·5	+50·6
200·447 C	35	223	41	261	330·6	302·7	+13·8	+65·0
201·401 C	23	153	51	337	330·1	302·1	+13·8	+77·1
Means ..	..	..	34	213	330·37	302·50	+13·70	..
Group 8624.—August 5–12. A small regular spot with occasional companions.								
216·367 C	9	54	28	170	333·1	303·5	+13·8	−82·0
217·615 G	15	68	17	78	333·7	303·9	+13·9	−64·9
218·432 C	9	85	8	71	334·0	304·1	+14·0	−53·8

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8624—*continued.*								
1918. d					°	°	°	°
219·422 G	21	116	14	77	334·0	303·9	+13·8	−40·7
220·172 D	28	105	17	62	333·7	303·5	+14·3	−31·0
221·394 G	24	115	13	60	334·4	304·1	+13·8	−14·2
222·608 G	15	42	7	21	334·5	304·0	+13·6	+ 2·0
223·507 G	0	13	0	7	334·1	303·5	+13·6	+13·4
Means ..	..	..	13	68	333·94	303·81	+13·85	..
RECURRENT SERIES 860.								
Group 8603 seen in Rotation 867. ,, 8640 ,, ,, 868.								
Group 8603.—July 19–30. A small stream forming at the east limb and showing a very considerable extension after July 23. Though larger spots appear, they are very unstable and change rapidly. A small regular spot, *a*, as leader, and a large irregular spot, *b*, as the rear component of the stream, can be identified, however, for several days.								
199·375 C	12	66	13	68	219·0	200·5	+15·9	−60·8
200·447 C	17	95	12	69	219·2	200·6	+16·5	−46·4
201·401 C	46	225	28	137	218·7	200·0	+16·5	−34·3
202·440 C	75	384	40	207	219·0	200·2	+16·2	−20·3
203·428 C	94	542	48	276	219·3	200·4	+15·7	− 6·9
204·347 G	179	928	91	473	220·0	201·0	+15·8	+ 6·0
205·367 G	282	1522	151	818	219·4	200·3	+15·9	+18·9
206·379 C	130	1081	79	650	219·8	200·6	+16·4	+32·6
207·523 G	145	979	109	736	220·5	201·2	+16·3	+48·5
208·398 C	78	702	79	704	220·9	201·5	+16·7	+60·4
209·410 G	97	435	161	727	220·3	200·8	+16·5	+73·2
210·424 G	9	35	(28	110	215·7	196·1	+19·3)*	+82·1
Means ..	..	..	74	442	219·65	200·65	+16·22	..
Spot *a*.								
205·367 G	40	173	22	97	225·1	204·8	+15·3	+24·6
206·379 C	17	120	11	78	226·3	205·9	+15·6	+39·1
207·523 G	24	102	21	88	226·6	206·1	+15·8	+54·6
208·398 C	16	101	19	122	226·6	206·0	+16·2	+66·1
209·410 G	7	42	17	101	226·2	205·5	+16·5	+79·1
Spot *b*.								
205 367 G	116	727	61	385	216·8	206·1	+17·1	+16·3
206·379 C	51	588	30	341	216·6	205·9	+17·7	+29·4
207·523 G	83	504	58	353	216·1	205·3	+18·0	+44·1
208·398 C	35	354	31	315	216·4	205·6	+18·3	+55·9
209·410 G	43	199	56	261	215·3	204·4	+18·5	+68·2
210·424 G	9	35	28	110	215·7	204·8	+19·3	+82·1

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 860—*continued.*								
Group 8640.—August 13–21. A small indefinite group.								
1918. d					°	°	°	°
224·368 G	2	11	7	36	226·7	201·4	+14·4	−82·6
225·445 G	16	62	21	80	226·8	201·3	+14·5	−68·2
226·397 G	47	188	40	162	227·5	201·9	+14·4	−55·0
227·429 G	38	146	25	98	227·4	201·7	+14·7	−41·4
228·357 C	8	78	5	45	227·3	201·5	+15·1	−29·3
229·396 C	4	21	2	11	226·4	200·5	+15·9	−16·4
230·358 G	4	39	2	20	225·5	199·5	+16·2	− 4·6
231·359 C	6	52	3	27	226·7	200·6	+15·3	+ 9·8
232·327 C	0	9	0	5	226·0	199·8	+16·2	+21·9
Means ..	..	..	12	54	226·70	200·91	+15·19	..
RECURRENT SERIES 861.								
Group 8612 seen in Rotation 867. ,, 8651 ,, ,, 868. ,, 8680 ,, ,, 869.								
Group 8612.—July 27–August 6. Revival of Recurrent Series 851. A long stream growing from two very small spots seen on July 27. It is composed of a regular spot, *a*, and a broad train of small unstable spots. On August 1, another regular spot has appeared immediately following *a*, with which it coalesces by August 2. Meanwhile a spot at the rear of the stream is becoming more conspicuous.								
207·523 G	13	27	9	20	125·7	109·1	+16·1	−46·3
208·398 C	57	211	36	130	126·1	109·4	+16·2	−34·4
209·410 G	90	466	48	251	127·2	110·4	+15·9	−19·9
210·424 G	113	389	58	200	128·4	111·6	+16·5	− 5·2
211·411 G	128	449	65	231	128·7	111·8	+16·7	+ 8·1
212·446 G	147	772	80	425	129·8	112·8	+16·9	+22·9
213·384 C	127	897	80	566	130·7	113·6	+17·5	+36·2
214·375 C	143	1038	113	808	131·3	114·2	+17·5	+49·9
215·422 G	192	934	214	1025	130·8	113·6	+17·5	+63·3
216·367 C	33	473	68	969	132·5	115·2	+17·6	+77·4
217·615 G	0	34	(0	181	125·0	107·6	+16·9)*	+86·4
Means ..	..	..	77	462	129·12	112·17	+16·84	..
Spot *a*.								
207·523 G	9	15	6	11	127·4	111·6	+16·1	−44·6
208·398 C	18	118	11	71	128·1	112·3	+16·2	−32·4
209·410 G	40	247	21	131	130·2	114·3	+16·5	−16·9
210·424 G	35	200	18	102	131·8	115·8	+17·0	− 1·8
211·411 G	31	175	16	91	133·3	117·2	+17·3	+12·7
212·446 G	30	185	17	105	134·0	117·9	+17·4	+27·1
213·384 C	79	472	52	312	134·2	118·0	+17·4	+39·7
214·375 C	82	569	68	472	134·6	118·3	+17·3	+53·2
215·422 G	94	420	117	525	134·6	118·2	+17·5	+67·1
216·367 C	18	242	44	595	134·8	118·4	+17·6	+79·7

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8651.—August 20–September 2. A very large and nearly regular spot (*a* of Group 8612), with double nucleus. A division of the spot tends to take place near the more northern and smaller nucleus, but the actual separation into two components does not occur until September 1. Numerous ill-defined companions usually surround the spot.								
1918. d					°	°	°	°
231·359 C	26	188	89	645	133·7	112·7	+16·8	−83·2
232·327 C	71	447	99	626	133·9	112·8	+16·6	−70·2
233·408 G	150	799	133	711	133·6	112·4	+16·8	−56·2
234·369 C	136	948	95	664	133·1	111·8	+17·0	−44·0
235·394 G	187	1268	108	736	133·3	111·9	+16·4	−30·2
236·371 C	181	1429	96	757	133·0	111·5	+16·6	−17·6
237·349 C	214	1546	109	790	132·7	111·1	+16·5	− 5·0
238·362 C	187	1419	95	724	133·0	111·3	+16·2	+ 8·7
239·363 C	167	1452	90	784	132·9	111·1	+15·9	+21·8
240·365 C	134	1160	82	708	132·7	110·8	+15·3	+34·8
241·511 G	125	832	95	632	132·2	110·2	+15·7	+49·5
242·358 C	90	616	90	616	132·4	110·4	+15·9	+60·9
243·388 C	36	312	60	515	131·5	109·4	+16·2	+73·6
244·428 C	3	40	17	235	131·2	109·0	+16·5	+87·0
Means ..	..	..	90	653	132·80	111·17	+16·31	..
Group 8680.—September 17–29. A stable regular spot (*a* of Group 8612), slowly contracting. After September 20, several ill-defined and unstable spots appear just north and west of it, attaining a maximum on September 22.								
259·358 G	24	136	48	271	130·3	102·3	+15·8	−76·8
260·418 G	32	222	34	233	130·6	102·5	+15·7	−62·5
261·385 G	54	319	42	246	130·5	102·3	+15·9	−49·8
262·369 G	54	350	34	220	130·0	101·7	+15·6	−37·3
263·370 C	65	485	36	268	130·5	102·1	+15·6	−23·6
264·172 D	125	797	64	413	130·5	102·0	+16·4	−13·0
265·395 G	73	486	37	248	130·2	101·5	+15·7	+ 2·8
266·385 G	73	392	38	205	130·6	101·8	+15·3	+16·3
267·346 C	47	324	27	185	130·4	101·5	+15·0	+28·8
268·352 C	48	302	32	205	130·8	101·8	+14·8	+42·5
269·400 G	47	206	44	186	130·9	101·8	+14·8	+56·4
270·377 G	16	125	20	163	129·8	100·6	+15·1	+68·2
271·372 C	5	45	14	123	129·4	100·1	+15·0	+80·9
Means ..	..	..	36	228	130·35	101·69	+15·44	..
RECURRENT SERIES 862.								
Group 8619 seen in Rotation 867. ,, 8660 ,, ,, 868.								
Group 8619.—August 1–13. A large stream, differing from the normal type in that the composite spot at the rear dies out before the irregular cluster of spots between it and the leader, *a*. One member of the cluster, a small regular spot, *c*, remains with *a* whilst the other components of the stream disappear.								
212·446 G	31	154	82	410	30·8	28·7	−20·3	−76·1
213·384 C	67	408	90	548	30·4	28·3	−20·0	−64·1
214·375 C	108	782	99	743	28·6	26·5	−19·2	−52·8
215·422 G	206	1250	150	915	27·6	25·5	−19·2	−39·9

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 862. Group 8619—*continued.*								
1918. d					°	°	°	°
216·367 C	166	1259	103	788	27·6	25·4	−19·2	−27·5
217·615 G	160	1039	91	592	27·8	25·6	−19·6	−10·8
218·432 C	116	649	64	363	28·2	26·0	−19·8	+ 0·4
219·422 G	105	719	61	415	28·0	25·8	−20·2	+13·3
220·172 D	89	646	55	398	28·5	26·3	−20·4	+23·8
221·394 G	74	444	55	329	28·5	26·3	−20·2	+39·9
222·608 G	53	272	55	284	28·6	26·4	−20·3	+56·1
223·507 G	31	168	48	265	28·1	25·9	−20·6	+67·4
224·368 G	17	85	51	282	27·4	25·2	−20·6	+78·1
Means ..	..	..	77	487	28·47	26·30	−19·97	..
Spot *a*.								
212·446 G	31	154	82	410	30·8	31·2	−20·3	−76·1
213·384 C	59	354	77	464	31·0	31·4	−20·1	−63·5
214·375 C	75	457	67	407	31·2	31·6	−20·1	−50·2
215·422 G	117	688	82	482	30·8	31·2	−20·2	−36·7
216·367 C	88	714	54	436	30·8	31·2	−20·0	−24·3
217·615 G	107	630	61	359	30·3	30·7	−20·5	− 8·3
218·432 C	96	444	54	249	29·8	30·2	−20·4	+ 2·0
219·422 G	84	525	49	304	29·2	29·6	−20·3	+14·5
220·172 D	73	556	45	345	29·1	29·5	−20·7	+24·4
221·394 G	50	365	38	274	29·3	29·7	−20·5	+40·7
222·608 G	34	193	36	207	29·2	29·6	−20·8	+56·7
223·507 G	19	121	32	203	29·2	29·6	−21·1	+68·5
224·368 G	7	48	28	195	28·9	29·3	−21·4	+79·6
Spot *c*.								
217·615 G	19	121	11	69	25·3	17·5	−18·8	−13·3
218·432 C	10	92	5	51	24·9	17·0	−18·7	− 2·9
219·422 G	16	108	9	63	24·7	16·8	−18·9	+10·0
220·172 D	15	83	9	49	24·5	16·6	−19·2	+19·8
221·394 G	24	79	17	55	24·5	16·5	−18·7	+35·9
222·608 G	15	57	14	52	24·5	16·5	−18·9	+52·0
223·507 G	12	47	16	62	24·4	16·4	−18·9	+63·7
224·368 G	10	37	23	87	24·0	15·9	−18·9	+74·7

Group 8660.—August 29–September 3. A small spot (probably *a* of Group 8619) dissolving into a cluster on September 2.

240·365 C	9	20	17	38	27·0	26·3	−20·5	−70·9
241·511 G	9	54	10	57	26·5	25·8	−20·5	−56·2
242·358 C	17	59	14	48	26·0	25·3	−20·2	−45·5
243·388 C	14	47	9	31	26·0	25·3	−20·2	−31·9
244·428 C	10	27	6	16	25·7	25·0	−19·6	−18·5
245·387 G	4	14	2	8	24·5	23·8	−20·7	− 7·0
Means ..	..	..	10	33	25·95	25·25	−20·28	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 863. Group 8644 seen in Rotation 868. ,, 8672 ,, ,, 869.								
1918. d					°	°	°	°
229·396 C	10	40	5	20	252·0	213·7	+12·2	+ 9·2
230·358 G	11	84	6	45	252·7	214·2	+12·1	+22·6
231·359 C	16	84	10	53	254·5	215·9	+11·7	+37·6
232·327 C	58	297	44	223	252·3	213·5	+12·1	+48·2
233·408 G	35	322	38	347	252·7	213·7	+11·9	+62·9
234·369 C	20	116	37	212	252·3	213·2	+11·9	+75·2
Means ..	..	..	23	150	252·75	214·03	+11·98	..

Group 8644.—August 18–23. At first a faint stream of small spots appearing behind Group 8631. A small spot at the rear develops considerably after August 20, whilst the preceding spots disappear.

Group 8672.—September 8–14. An unstable group of small spots generally arranged as a stream. This group is in the same general area of faculæ as Group 8670. Note that these two groups with Group 8669 disappear simultaneously.

250·377 C	8	49	9	59	259·3	219·7	+13·6	−66·3
251·373 G	14	78	11	61	261·7	222·0	+13·1	−50·8
252·416 G	14	91	9	59	259·1	219·2	+12·8	−39·6
253·414 G	24	57	14	32	257·5	217·5	+12·4	−28·0
254·444 G	12	40	6	21	255·8	215·6	+11·9	−16·1
255·378 G	4	23	2	11	254·9	214·6	+12·2	− 4·7
256·485 C	3	22	2	11	253·5	213·0	+12·0	+ 8·5
Means ..	..	..	7	36	257·40	217·37	+12·57	..

RECURRENT SERIES **864.** Group 8676 seen in Rotation 869. ,, 8700 ,, ,, 870.

Group 8676.—September 10–21. Revival of Recurrent Series 858. A remarkable group. A small spot on September 10, in the northern portion of a faculous area, developing into a large irregular cluster. Just past the central meridian, the northern portion condenses to a large composite spot, *a*, which later becomes of nearly regular formation. Meanwhile a nucleus in the *sf* part of the cluster is becoming a regular spot, *b*, and the group becomes of the "stream" type, with an axis considerably inclined to the solar equator.

252·416 G	4	8	4	8	240·1	201·2	−11·9	−58·6
253·414 G	25	114	19	87	240·9	201·9	−12·5	−44·6
254·444 G	60	431	38	272	240·0	200·8	−12·4	−31·9
255·378 G	129	751	72	422	239·8	200·5	−12·4	−19·8
256·485 C	153	886	82	473	240·6	201·1	−12·1	− 4·4
257·503 C	181	1245	98	673	242·2	202·6	−11·8	+10·6
258·404 C	162	1447	94	838	241·8	202·0	−12·5	+22·1
259·358 G	221	1636	143	1066	241·6	201·7	−13·4	+34·5
260·418 G	165	1321	134	1086	241·4	201·3	−14·0	+48·3
261·385 G	140	956	163	1109	241·4	201·1	−14·5	+61·1
262·369 G	96	395	219	907	242·4	201·9	−13·7	+75·1
263·370 C	17	68	(93	379	236·4	195·8	−15·3)*	+82·3
Means ..	..	..	97	631	241·11	201·46	−12·84	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 864. Group 8676—*continued*.								
Spot *a*.								
1918. d					°	°	°	°
256·485 C	72	497	38	263	242·4	197·5	−11·4	− 2·6
257·503 C	98	834	53	450	243·4	198·3	−10·8	+11·8
258·404 C	86	913	50	530	243·7	198·5	−11·1	+24·0
259·358 G	67	803	44	530	243·9	198·5	−11·4	+36·8
260·418 G	60	736	51	625	243·8	198·2	−11·6	+50·7
261·385 G	74	457	92	571	244·3	198·6	−11·9	+64·0
262·369 G	51	211	136	561	244·6	198·7	−11·9	+77·3
Spot *b*.								
257·503 C	45	275	25	151	238·5	221·8	−15·5	+ 6·9
258·404 C	46	385	27	223	238·2	221·4	−16·2	+18·5
259·358 G	105	458	67	293	237·7	220·8	−17·5	+30·6
260·418 G	87	492	68	384	237·4	220·5	−17·8	+44·3
261·385 G	56	367	59	389	237·4	220·4	−18·3	+57·1
262·369 G	34	129	59	224	236·9	219·8	−18·9	+69·6
263·370 C	13	45	69	239	235·9	218·8	−18·7	+81·8
Group 8700.—October 5–12. A few small faint spots.								
277·355 C	0	10	0	32	250·2	202·8	−13·8	−79·3
278·482 G	7	53	9	76	247·0	199·4	−11·3	−67·7
279·533 G	2	16	2	14	247·4	199·6	−11·9	−53·4
280·348 C	3	22	2	16	248·5	200·6	−12·9	−41·6
281·343 C	0	10	0	6	248·3	200·2	−12·5	−28·6
282·163 D	0	18	0	10	247·5	199·2	−10·2	−18·6
283·449 G	4	34	2	18	247·4	198·9	−10·2	− 1·7
284·354 C	0	65	0	34	248·2	199·6	−10·9	+11·0
Means ..	..	..	2	26	248·06	200·04	−11·71	..
RECURRENT SERIES 865. Group 8677 seen in Rotation 869. ,, 8693 ,, ,, 870.								
Group 8677.—September 13–16. Two regular spots forming near the west limb.								
255·378 G	13	70	10	51	301·5	276·5	−15·8	+41·9
256·485 C	30	281	32	289	301·6	276·5	−16·3	+56·6
257·503 C	19	149	34	277	302·4	277·2	−15·7	+70·8
258·404 C	6	17	(20	56	298·1	272·8	−16·9)*	+78·4
Means ..	..	..	25	206	301·83	276·73	−15·93	..
Group 8693.—October 1–10. A small spot at first; later a very small cluster which has disappeared by October 7. A very small spot again appears from October 8–10.								
1918. d					°	°	°	°
273·426 G	5	14	9	25	310·1	271·8	−13·0	−71·3
274·356 C	4	14	4	15	309·9	271·5	−12·9	−59·2
275·526 G	16	44	12	33	310·7	272·1	−13·6	−43·0
276·410 G	10	20	6	12	311·1	272·4	−13·2	−30·9
277·355 C	2	21	1	12	308·9	270·1	−12·3	−20·6
278·482 G	0	13	0	7	310·7	271·7	−14·7	− 4·0
279·533 G	0	0	0	0	..	..	..	..
280·348 C	0	7	0	4	310·7	271·4	−13·8	+20·6
281·343 C	2	8	1	5	310·3	270·9	−14·7	+33·4
282·163 D	2	11	2	8	310·8	271·3	−14·7	+44·7
Means ..	..	..	4	12	310·36	271·47	−13·66	..
RECURRENT SERIES 866. Group 8683 seen in Rotation 869. ,, 8715 ,, ,, 870.								
Group 8683.—September 20–30. A large group of the "stream" type, developing rapidly. The leader, *a*, is large and regular. The rear portion of the stream is usually represented by a cluster, *b*. Two companion spots form close to *a*, near the west limb.								
262·369 G	67	245	50	185	118·5	62·1	+ 8·3	−48·8
263·370 C	106	582	64	350	120·5	63·9	+ 8·6	−33·6
264·172 D	182	855	98	460	122·1	65·3	+ 9·1	−21·4
265·395 G	189	973	95	489	122·1	65·0	+ 8·7	− 5·3
266·385 G	193	1071	98	543	122·4	65·1	+ 8·7	+ 8·1
267·346 C	101	749	55	408	123·8	66·3	+ 8·5	+22·2
268·352 C	86	501	53	309	125·1	67·4	+ 8·1	+36·8
269·400 G	101	572	77	434	123·9	66·0	+ 7·4	+49·4
270·377 G	61	418	64	431	123·5	65·4	+ 7·4	+61·9
271·372 C	41	305	75	547	122·8	64·5	+ 7·5	+74·3
272·386 C	0	28	(0	149	120·6	62·0	+ 7·6)*	+85·5
Means ..	..	..	73	416	122·47	65·10	+ 8·23	..
Spot *a*.								
262·369 G	28	91	20	65	121·5	64·8	+ 7·9	−45·8
263·370 C	57	346	33	201	123·4	66·5	+ 8·3	−30·7
264·172 D	113	559	60	296	124·3	67·2	+ 8·8	−19·2
265·395 G	98	654	49	327	125·4	68·1	+ 9·1	− 2·0
266·385 G	159	707	81	361	125·6	68·1	+ 8·8	+11·3
267·346 C	88	627	48	345	125·7	68·0	+ 8·5	+24·1
268·352 C	79	475	49	294	125·3	67·3	+ 8·1	+37·0
269·400 G	80	400	62	312	124·8	66·6	+ 7·3	+50·3
270·377 G	44	253	48	273	124·6	66·2	+ 7·3	+63·0
271·372 C	25	147	50	293	124·6	66·0	+ 7·4	+76·1

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 866. Group 8683—*continued.* Spot *b*.								
1918. d					°	°	°	°
262·369 G	39	154	30	120	116·8	62·2	+ 8·5	−50·5
263·370 C	49	236	31	149	116·7	61·9	+ 9·1	−37·4
264·172 D	49	229	27	128	116·7	61·8	+ 9·4	−26·8
265·395 G	75	278	38	142	116·9	61·7	+ 8·7	−10·5
266·385 G	34	364	17	182	117·0	61·6	+ 8·8	+ 2·7
267·346 C	13	122	7	63	116·9	61·3	+ 8·9	+15·3
268·352 C	7	26	4	15	117·7	61·9	+ 8·8	+29·4
269·400 G	8	90	5	61	117·9	61·9	+ 8·8	+43·4
Group 8715.—October 15–24. A small regular spot, probably *a* of Group 8683.								
287·340 C	9	38	13	56	127·0	60·9	+ 7·2	−70·8
288·411 C	10	79	9	71	127·3	61·0	+ 7·1	−56·4
289·439 G	27	118	18	80	127·4	60·8	+ 6·9	−42·7
290·334 C	20	101	12	59	127·5	60·7	+ 6·6	−30·8
291·523 G	33	114	17	59	127·8	60·8	+ 6·4	−14·9
292·364 C	25	119	12	60	127·8	60·6	+ 6·4	− 3·8
293·334 C	16	97	8	49	128·3	60·8	+ 6·6	+ 9·5
294·426 C	26	44	14	24	127·9	60·2	+ 6·6	+23·5
295·463 G	13	21	8	13	127·7	59·7	+ 6·7	+37·0
296·506 G	2	8	2	6	127·8	59·6	+ 6·6	+50·9
Means ..	..	..	11	48	127·65	60·51	+ 6·71	..
RECURRENT SERIES 867. Group 8687 seen in Rotation 869. „ 8722 „ „ 870. Group 8687.—September 26–October 5. Revival of Group 8663. A very large stream of spots developing rapidly. The leader, *a*, though at first composite, is the most stable member. The rear portion of the stream is represented by a large double spot in rapid change. Following this a few other spots form later to complete an extended stream 11° in length, which is seen to be diminishing as the west limb is approached. The axis of the group is inclined to the solar equator.								
268·352 C	0	9	0	9	34·6	345·8	−13·4	−53·7
269·400 G	56	294	37	193	39·3	350·3	−11·6	−35·2
270·377 G	200	971	113	553	39·3	350·1	−11·2	−22·3
271·372 C	235	1348	126	718	39·5	350·1	−10·4	− 9·0
272·386 C	215	1758	113	926	39·4	349·8	−10·2	+ 4·3
273·426 G	294	1792	163	992	39·0	349·2	−10·6	+17·6
274·356 C	232	1783	140	1082	39·0	349·1	−10·7	+29·9
275·526 G	188	1347	144	1028	39·6	349·4	−11·0	+45·9
276·410 G	96	827	97	834	39·9	349·6	−10·7	+57·9
277·355 C	51	461	85	772	40·5	350·0	− 9·9	+71·0
Means ..	..	..	102	711	39·01	349·34	−10·97	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8687—*continued.* Spot *a*.								
1918. d					°	°	°	°
270·377 G	81	318	45	175	42·6	345·8	− 9·6	−19·0
271·372 C	79	547	41	284	43·0	346·0	− 9·2	− 5·5
272·386 C	106	723	55	376	43·2	346·0	− 8·8	+ 8·1
273·426 G	98	630	55	353	43·3	345·9	− 8·5	+21·9
274·356 C	68	505	43	318	43·8	346·2	− 8·2	+34·7
275·526 G	64	374	52	307	44·1	346·2	− 8·6	+50·4
276·410 G	30	238	34	267	44·0	346·0	− 8·4	+62·0
277·355 C	16	145	32	293	44·0	345·8	− 8·1	+74·5
Group 8722.—October 21–30. Intermittent. A disturbed area shown by faculæ and a very small spot, not seen on October 25, 26 and 29.								
293·334 C	4	16	7	28	46·7	345·4	− 8·6	−72·1
294·426 C	3	14	3	14	46·6	345·1	− 8·5	−57·8
295·463 G	6	10	4	7	46·7	344·9	− 8·5	−44·0
296·506 G	2	9	1	5	47·0	345·0	− 8·8	−29·9
297·375 C	0	0	0	0	..	..	..	..
298·464 G	0	0	0	0	..	..	..	..
299·371 C	0	12	0	6	48·5	345·9	− 9·6	+ 9·4
300·460 G	1	4	1	2	48·9	346·1	− 9·6	+24·1
301·372 C	0	0	0	0	..	..	..	..
302·589 C	1	4	1	3	47·6	344·4	− 7·9	+50·9
Means ..	..	..	2	6	47·43	345·26	− 8·79	..
RECURRENT SERIES 868. Group 8691 seen in Rotation 869. „ 8717 „ „ 870. Group 8691.—September 28–October 1. A cluster of three spots with very small companions. The middle spots disappear suddenly after September 29; *a* is the leading spot.								
270·377 G	108	541	70	351	101·4	57·3	+12·1	+39·8
271·372 C	62	476	51	402	102·7	58·5	+12·5	+54·2
272·386 C	41	444	53	587	103·2	58·8	+12·3	+68·1
273·426 G	13	126	42	442	104·6	60·0	+12·1	+83·2
Means ..	..	..	54	445	102·98	58·65	+12·25	..
Spot *a*.								
270·377 G	30	205	20	137	103·5	60·8	+12·7	+41·9
271·372 C	25	261	22	232	105·1	62·2	+12·7	+56·6
272·386 C	20	241	29	354	106·2	63·2	+12·6	+71·1
273·426 G	4	49	4	261	107·6	64·4	+12·4	+86·2

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 868—*continued*.								
Group 8717.—October 16–27. A regular spot (probably *a* of Group 8691), stable until October 23, after which it divides into three portions. There are generally some very small attendant spots.								
1918. d					°	°	°	°
288·411 C	34	171	59	298	109·6	54·5	+11·6	−74·1
289·439 G	61	294	61	294	109·6	54·3	+11·4	−60·5
290·334 C	64	373	48	280	109·6	54·1	+11·2	−48·7
291·523 G	98	533	59	320	109·9	54·2	+10·8	−32·8
292·364 C	105	572	57	309	109·9	54·1	+10·7	−21·7
293·334 C	119	632	61	322	109·8	53·8	+10·5	− 9·0
294·426 C	121	644	62	322	109·7	53·5	+10·2	+ 5·3
295·463 G	118	611	63	324	109·7	53·3	+ 9·9	+19·0
296·506 G	102	555	60	327	109·5	52·9	+ 9·6	+32·6
297·375 C	83	466	58	325	109·8	53·0	+ 9·6	+44·3
298·464 G	46	280	44	269	110·0	53·0	+ 9·1	+58·9
299·371 C	17	118	27	190	111·6	54·4	+ 8·9	+72·5
Means ..	..	..	55	298	109·89	53·76	+10·29	..
RECURRENT SERIES 869.								
Group 8695 seen in Rotation 869. ,, 8720 ,, ,, 870.								
Group 8695.—October 3–4. A group of the "stream" type appearing suddenly at the west limb.								
275·526 G	27	140	39	210	64·1	359·3	+ 6·0	+70·4
276·410 G	19	75	47	184	60·8	355·8	+ 6·1	+78·8
Means ..	..	..	43	197	62·45	357·55	+ 6·05	..
Group 8720.—October 19–28. A spot, with composite umbra, behind which an unstable train of small companions appears after October 20.								
291·523 G	15	129	23	196	71·5	3·3	+ 5·8	−71·2
292·364 C	32	181	31	177	71·9	3·5	+ 6·1	−59·7
293·334 C	39	213	29	157	71·6	3·0	+ 6·1	−47·2
294·426 C	50	219	30	131	71·2	2·3	+ 6·1	−33·2
295·463 G	48	296	25	159	71·2	2·1	+ 6·1	−19·5
296·506 G	45	180	23	90	71·8	2·4	+ 6·3	− 5·1
297·375 C	40	206	20	103	71·3	1·7	+ 6·4	+ 5·8
298·464 G	23	101	12	54	71·3	1·4	+ 6·6	+20·2
299·371 C	17	54	10	32	72·3	2·2	+ 6·9	+33·2
300·460 G	2	6	1	4	72·8	2·5	+ 5·5	+48·0
Means ..	..	..	20	110	71·69	2·44	+ 6·19	..
RECURRENT SERIES 870.								
Group 8701 seen in Rotation 870. ,, 8728 ,, ,, 871.								
Group 8701.—October 6–13. A stream of small unstable spots. The leading spot, *a*, is assuming a definite form by October 12.								
1918. d					°	°	°	°
278·482 G	2	5	1	3	288·7	224·1	+ 5·1	−26·0
279·533 G	18	94	9	48	287·5	222·7	+ 6·0	−13·3
280·348 C	41	111	20	55	287·8	222·8	+ 6·6	− 2·3
281·343 C	17	99	9	50	289·7	224·4	+ 6·4	+12·8
282·163 D	15	50	8	28	290·8	225·3	+ 6·3	+24·7
283·449 G	42	107	28	71	290·2	224·4	+ 6·9	+41·1
284·354 C	19	124	16	105	291·4	225·4	+ 7·2	+54·2
285·438 G	19	79	25	106	291·5	225·3	+ 7·6	+68·6
Means ..	..	..	15	58	289·70	224·30	+ 6·51	..
Spot *a*.								
284·354 C	9	61	8	55	293·7	228·3	+ 6·5	+56·5
285·438 G	10	39	15	60	294·6	229·0	+ 6·9	+71·7
Group 8728.—October 28–November 8. A regular spot (perhaps *a* of Group 8701) which has dissolved into a cluster of small components by November 5.								
300·460 G	5	41	31	250	298·8	234·5	+ 7·7	−86·0
301·372 C	22	140	38	244	299·1	234·6	+ 7·7	−73·7
302·589 C	35	233	32	214	299·2	234·4	+ 8·0	−57·5
303·382 C	47	312	34	228	299·5	234·6	+ 8·0	−46·8
304·357 C	39	317	24	194	298·9	233·8	+ 8·1	−34·5
305·301 C	52	300	28	162	299·1	233·8	+ 8·3	−21·9
306·375 C	30	161	15	82	298·9	233·3	+ 8·4	− 7·9
307·426 G	30	95	15	48	298·6	232·8	+ 8·3	+ 5·7
308·446 G	13	59	7	31	298·4	232·4	+ 9·1	+18·9
309·205 D	8	48	5	27	297·5	231·3	+ 8·8	+28·0
310·355 C	0	4	0	3	297·4	231·0	+ 9·3	+43·1
311·308 C	0	7	0	6	295·6	229·0	+ 8·3	+53·8
Means ..	..	..	19	124	298·42	232·96	+ 8·33	..
RECURRENT SERIES 871.								
Group 8703 seen in Rotation 870. ,, 8727 ,, ,, 871.								
Group 8703.—October 8–13. A group of spots, forming *sp* Group 8701, passing in a few days through the development of the normal type of "stream"; *a* and *b* are the leading and following spots respectively.								
280·348 C	53	150	27	75	294·5	222·2	+ 2·3	+ 4·4
281·343 C	121	738	64	391	295·5	222·9	+ 1·7	+18·6
282·163 D	146	912	85	530	295·9	223·1	+ 2·0	+29·8
283·449 G	82	618	61	459	296·1	223·0	+ 0·9	+47·0
284·354 C	52	376	53	375	297·0	223·6	+ 0·3	+59·8
285·438 G	24	169	46	317	297·3	223·6	0·0	+74·4
Means ..	..	..	56	358	296·05	223·07	+ 1·20	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 871. Group 8703—*continued.*								
Spot *a*.								
1918.d					°	°	°	°
280·348 C	35	74	18	37	296·2	223·9	+ 2·1	+ 6·1
281·343 C	58	363	31	196	298·0	225·4	+ 1·7	+21·1
282·163 D	74	420	44	252	299·0	226·2	+ 1·2	+32·9
283·449 G	49	356	38	278	299·0	225·9	+ 0·4	+49·9
284·354 C	38	220	41	238	299·6	226·2	+ 0·1	+62·4
285·438 G	15	99	33	219	299·7	226·1	− 0·2	+76·8
Spot *b*.								
280·348 C	15	59	7	29	292·3	220·0	+ 2·1	+ 2·2
281·343 C	45	282	23	147	292·3	219·7	+ 1·4	+15·4
282·163 D	52	369	29	207	292·1	219·3	+ 1·6	+26·0
283·449 G	33	262	23	181	292·2	219·1	+ 1·5	+43·1
284·354 C	14	156	12	137	292·5	219·1	+ 0·7	+55·3
285·438 G	9	62	13	86	291·8	218·2	+ 0·3	+68·9
Group 8727.—October 28–November 9. A regular spot slowly disappearing—evidently *a* of Group 8703.								
300·460 G	7	36	22	113	304·0	226·2	+ 0·4	−80·8
301·372 C	13	75	18	104	303·9	225·9	+ 0·4	−68·9
302·589 C	24	130	20	108	304·0	225·6	+ 0·7	−52·7
303·382 C	32	155	21	104	304·5	225·9	+ 0·5	−41·8
304·357 C	37	172	21	98	304·1	225·3	+ 0·5	−29·3
305·301 C	30	210	16	109	304·5	225·4	+ 0·7	−16·5
306·375 C	31	187	15	94	304·6	225·2	+ 0·7	− 2·2
307·426 G	36	211	18	108	304·7	225·1	+ 0·7	+11·8
308·446 G	29	155	16	85	304·7	224·8	+ 0·7	+25·2
309·205 D	28	136	17	84	305·3	225·2	+ 0·8	+35·8
310·355 C	25	98	20	77	305·2	224·8	+ 0·7	+50·9
311·308 C	11	40	12	45	305·4	224·8	+ 0·7	+63·6
312·420 G	5	20	12	48	305·2	224·3	+ 0·4	+78·1
Means ..	..	..	18	91	304·62	225·27	+ 0·61	..
RECURRENT SERIES 872. Group 8721 seen in Rotation 870. „ 8745 „ „ 871.								
Group 8721.—October 19–31. A stable regular spot, followed on some days by one or two isolated spots and at times by a small cluster.								
291·523 G	29	193	51	367	70·5	51·3	−17·3	−72·2
292·364 C	59	324	67	374	71·4	52·1	−17·0	−60·2
293·334 C	76	432	62	352	71·4	52·0	−17·1	−47·4
294·426 C	83	551	54	363	70·8	51·4	−17·4	−33·6
295·463 G	115	703	67	409	70·0	50·5	−17·4	−20·7
296·506 G	97	676	53	366	69·8	50·2	−17·4	− 7·1
297·375 C	118	626	64	338	70·6	51·0	−17·4	+ 5·1
298·464 G	88	513	50	293	70·3	50·6	−17·6	+19·2
299·371 C	80	445	51	285	70·7	50·9	−17·8	+31·6
300·460 G	61	385	48	300	70·1	50·3	−17·9	+45·3
301·372 C	48	271	49	279	70·3	50·4	−17·7	+57·5
302·589 C	23	140	45	274	69·6	49·6	−17·7	+72·9
303·382 C	6	24	29	115	68·5	48·5	−18·0	+82·2
Means ..	..	..	53	317	70·31	50·68	−17·52	..
Group 8745.—November 15–27. A small regular spot, slowly diminishing, on the same meridian as Group 8744.								
318·462 G	9	73	23	189	70·0	46·4	−17·4	−77·4
319·470 G	25	145	31	181	70·0	46·4	−17·5	−64·2
320·342 C	23	157	20	140	69·6	45·9	−17·3	−53·1
321·352 C	35	218	24	150	69·7	45·9	−17·4	−39·6
322·404 C	35	218	21	129	70·2	46·3	−17·1	−25·3
323·340 C	33	203	18	110	70·1	46·2	−17·1	−13·0
324·350 C	24	188	13	100	69·8	45·8	−17·1	0·0
325·468 G	27	179	15	98	69·7	45·6	−17·2	+14·6
326·472 G	28	157	17	94	69·5	45·3	−17·0	+27·6
327·				No Photograph.				
328·352 C	21	99	18	87	69·8	45·5	−16·9	+52·7
329·377 C	14	68	18	90	69·8	45·4	−16·8	+66·2
330·303 C	6	36	16	96	69·7	45·2	−16·8	+78·3
Means ..	..	..	19	122	69·83	45·38	−17·13	..
RECURRENT SERIES 873. Group 8725 seen in Rotation 870. „ 8758 „ „ 871.								
Group 8725.—October 23–November 5. A stable regular spot.								
295·463 G	10	65	41	265	6·3	23·7	+22·2	−84·4
296·506 G	34	195	50	287	6·3	23·8	+22·3	−70·6
297·375 C	51	259	51	259	5·9	23·4	+22·2	−59·6
298·464 G	61	360	45	266	5·5	23·1	+22·4	−45·6
299·371 C	67	452	42	285	5·0	22·7	+22·4	−34·1
300·460 G	88	511	49	286	4·6	22·3	+22·1	−20·2
301·372 C	83	486	44	258	4·4	22·2	+22·5	− 8·4
302·589 C	81	441	43	234	3·9	21·7	+22·7	+ 7·2
303·382 C	78	479	43	263	4·0	21·9	+22·9	+17·7
304·357 C	53	366	32	223	3·5	21·5	+23·0	+30·1
305·301 C	46	289	33	205	3·3	21·3	+23·2	+42·3
306·375 C	33	207	31	193	2·9	21·0	+23·3	+56·1
307·426 G	29	161	41	227	2·1	20·2	+23·4	+69·2
308·446 G	15	68	49	223	1·5	19·7	+23·4	+82·0
Means ..	..	..	42	248	4·23	22·04	+22·71	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 873—*continued*.								
Group 8758.—November 21–22. A small spot.								
1918. d					°	°	°	°
324·350 C	11	30	19	51	357·6	18·4	+23·1	−72·2
325·468 G	9	21	9	21	357·5	18·3	+22·7	−57·6
Means ..	..	..	14	36	357·55	18·35	+22·90	..
RECURRENT SERIES 874.								
Group 8731 seen in Rotation 871.								
,, 8760 ,, ,, 872.								
Group 8731.—November 6–9. A cluster of small spots.								
309·205 D	17	53	12	38	309·3	300·6	−18·9	+39·8
310·355 C	21	155	20	147	308·7	300·0	−19·2	+54·4
311·308 G	26	139	35	186	307·1	298·4	−18·9	+65·3
312·420 G	4	26	13	85	306·6	297·9	−19·9	+79·5
Means ..	..	..	20	114	307·93	299·23	−19·23	..
Group 8760.—November 25–December 2. An extended mass of faculæ with a few spots in a very long and sparse stream. The leader is the largest and best defined component and appears for several days as a small regular spot. Only one very small spot remains on December 2.								
328·352 C	9	75	26	218	298·2	284·1	−18·9	−78·9
329·377 C	32	154	38	179	301·3	287·1	−19·2	−62·3
330·303 C	51	248	41	199	303·5	289·3	−18·9	−47·9
331·360 C	63	331	41	213	303·6	289·4	−19·2	−33·8
332·339 C	59	280	33	160	303·6	289·3	−19·5	−20·9
333·342 C	69	217	36	117	303·8	289·5	−18·5	− 7·5
334·358 C	23	81	13	43	305·2	290·8	−17·9	+ 7·3
335·549 C	0	13	0	8	307·4	293·0	−16·2	+25·2
Means ..	..	..	28	142	303·32	289·06	−18·54	..
RECURRENT SERIES 875.								
Group 8738 seen in Rotation 871.								
,, 8766 ,, ,, 872.								
,, 8791 ,, ,, 873.								
Group 8738.—November 11–22. At first, a few ephemeral spots not seen on November 14. After November 16, a stream develops with slight differences from the normal type; *a* is the leading spot.								
314·380 C	0	5	0	6	138·5	78·8	−11·6	−62·8
315·436 G	7	19	6	15	137·0	77·1	−10·2	−50·3
316·475 G	1	6	1	4	138·5	78·4	−10·0	−35·1
317·406 C	0	0	0	0	..	..	..	..
318·462 G	2	7	1	4	139·0	78·5	− 7·4	− 8·4
319·470 G	3	23	2	12	139·0	78·3	−10·2	+ 4·8
Group 8738—*continued*.								
1918. d					°	°	°	°
320·342 C	69	182	37	97	139·5	78·6	−10·2	+16·8
321·352 C	84	526	49	310	139·1	78·0	−10·7	+29·8
322·404 C	100	656	73	480	140·5	79·2	−10·7	+45·0
323·340 C	80	511	78	499	141·1	79·7	−11·0	+58·0
324·350 C	76	333	126	553	141·1	79·5	−11·3	+71·3
325·468 G	3	23	(10	75	135·7	73·9	−11·0)*	+80·6
Means ..	..	..	34	180	139·33	78·61	−10·33	..
Spot *a*.								
320·342 C	28	97	15	52	141·8	83·2	−10·4	+19·1
321·352 C	20	149	12	92	143·4	84·6	−10·8	+34·1
322·404 C	53	293	41	229	144·4	85·3	−10·9	+48·9
323·340 C	45	282	48	302	144·2	85·0	−11·0	+61·1
324·350 C	37	170	71	328	144·0	84·6	−11·4	+74·2
Group 8766.—December 6–18. A very large regular spot, generally with some very small companions following it.								
339·349 C	16	120	65	488	149·3	84·8	−10·3	−82·8
340·357 C	63	390	95	589	148·6	83·9	−10·5	−70·3
341·367 C	107	662	100	623	148·6	83·7	−10·8	−57·0
342·414 G	119	870	83	609	148·6	83·5	−10·4	−43·2
343·489 C	153	1066	89	618	148·2	82·9	−10·2	−29·4
344·362 C	185	1039	98	551	148·7	83·3	−10·4	−17·4
345·331 C	155	1071	79	546	148·5	82·9	−10·3	− 4·8
346·357 C	153	1013	78	517	148·6	82·8	−10·7	+ 8·8
347·361 C	116	1023	64	563	148·6	82·6	−10·8	+22·0
348·437 C	142	738	89	465	148·6	82·4	−10·4	+36·2
349·383 C	81	654	62	504	148·6	82·2	−10·2	+48·7
350·501 G	77	417	87	471	148·8	82·2	−10·2	+63·6
351·165 D	42	240	73	418	149·6	82·9	− 9·9	+73·1
Means ..	..	..	82	536	148·72	83·08	−10·39	..
Group 8791.—1919 January 2–12. A regular spot disappearing rapidly after January 10.								
366·404 C	11	45	53	216	151·3	75·1	− 8·8	−84·4
367·359 C	30	139	48	224	151·0	74·6	− 9·2	−72·2
368·350 C	25	190	24	182	151·3	74·7	− 9·1	−58·8
369·366 C	37	233	26	165	151·2	74·4	− 8·8	−45·5
370·484 G	59	264	35	156	150·8	73·7	− 8·8	−31·2
371·345 C	53	330	28	175	150·8	73·6	− 8·7	−19·9
372·355 C	69	313	35	160	150·6	73·2	− 8·5	− 6·8
373·423 C	42	277	21	141	150·3	72·6	− 8·9	+ 7·0
374·361 C	25	228	13	121	150·2	72·3	− 9·2	+19·3
375·370 C	16	142	9	84	150·0	71·9	− 9·1	+32·3
376·386 C	7	17	5	12	150·0	71·7	− 9·1	+45·7
Means ..	..	..	27	149	150·68	73·44	− 8·93	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

RECURRENT SERIES **876.**

Group 8742 seen in Rotation 871.
,, 8768 ,, ,, 872.

Group 8742.—November 13–25. A return or more probably a revival of Group 8719. A large spot, at first of regular formation, followed by an evanescent cluster of unimportant spots. Both the penumbra and the umbra of the large spot show instability. After November 20, it divides into two, the foremost portion immediately assuming a regular outline, whilst the other part rapidly disappears.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
316·475 G	23	127	72	400	92·5	21·9	+ 7·9	−81·1
317·406 C	65	353	92	499	92·0	21·2	+ 8·2	−69·4
318·462 G	121	609	106	532	92·3	21·3	+ 7·8	−55·1
319·470 G	140	737	93	490	93·1	21·9	+ 7·5	−41·1
320·342 C	162	750	92	429	93·2	21·8	+ 7·7	−29·5
321·352 C	153	1049	80	547	93·1	21·4	+ 7·4	−16·2
322·404 C	184	1267	92	633	94·0	22·1	+ 7·3	− 1·5
323·340 C	189	1275	96	648	94·0	22·0	+ 7·5	+10·9
324·350 C	151	895	84	496	95·2	22·9	+ 7·6	+25·4
325·468 G	123	481	83	324	96·6	24·0	+ 6·9	+41·5
326·472 G	79	371	70	327	97·3	24·5	+ 6·9	+55·4
327				No Photograph.				
328·352 C	13	48	41	151	98·0	24·8	+ 7·4	+80·9
Means ..	..	..	83	456	94·27	22·48	+ 7·51	..

Group 8768.—December 10–11. A very small spot.

343·489 C	0	4	0	8	102·6	27·7	+ 8·0	−75·0
344·362 C	1	4	1	4	103·0	27·9	+ 8·0	−63·1
Means ..	..	..	1	6	102·80	27·80	+ 8·00	..

RECURRENT SERIES **877.**

Group 8756 seen in Rotation 871.
,, 8775 ,, ,, 872.

Group 8756.—November 20–December 2. A remarkable group consisting at first of a few small spots in two groups. Of these the latter grows very considerably whilst the other disappears, and by November 25 a very long spot has formed, the axis of which is inclined about 80° to the solar equator. The spot is made up of two chief nuclei at opposite extremities, connected by a large mass of penumbra of irregular outline.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
323·340 C	0	13	0	43	2·5	298·8	− 9·6	−80·6
324·350 C	17	63	27	106	358·5	294·6	− 9·1	−71·3
325·468 G	34	223	32	207	358·5	294·4	− 9·1	−56·6
326·472 G	54	311	38	221	357·9	293·6	− 9·7	−44·0
327				No Photograph.				
328·352 C	132	1022	71	552	357·2	292·5	− 9·1	−19·9
329·377 C	224	1603	114	818	357·4	292·5	− 9·3	− 6·2
330·303 C	202	1619	103	826	357·5	292·4	− 9·5	+ 6·1

Group 8756—*continued.*

1918. d					°	°	°	°
331·360 C	139	1293	75	698	357·6	292·3	−10·1	+20·2
332·339 C	158	1251	96	763	357·8	292·3	− 9·9	+33·3
333·342 C	106	970	80	727	358·2	292·5	−10·7	+46·9
334·358 C	180	1225	184	1249	357·8	291·9	−10·8	+59·9
335·549 C	119	837	249	1749	358·0	291·9	−11·2	+75·8
Means ..	..	..	89	663	358·24	293·31	− 9·84	..

Group 8775.—December 17–29. A group in the same general area of disturbance as Group 8774, shown by a very large extent of faculæ. A large regular spot. After December 21, considerable changes take place, a mass of penumbra forms just northwards whilst later the regular spot becomes elongated, develops a double umbra and then divides. Meanwhile a small cluster has appeared preceding this composite formation. The whole group shrinks rapidly after December 25.

350·501 G	36	162	153	654	3·1	285·6	− 7·3	−82·1
351·165 D	70	284	129	534	2·4	284·8	− 7·7	−74·1
352·345 C	97	507	92	481	2·9	285·0	− 7·5	−58·0
353·332 C	97	624	69	443	2·7	284·6	− 7·4	−45·2
354·334 C	146	909	86	536	3·1	284·8	− 7·7	−31·6
355·372 C	209	1475	111	782	3·0	284·5	− 7·3	−18·0
356·355 C	210	1714	105	857	3·8	285·0	− 7·5	− 4·3
357·321 C	224	1506	114	769	3·2	284·2	− 7·5	+ 7·8
358·494 G	184	1326	102	733	3·7	284·5	− 8·0	+23·8
359·507 G	118	778	74	487	3·7	284·3	− 7·9	+37·1
360·378 C	103	580	80	440	3·6	284·0	− 7·9	+48·5
361·527 C	34	359	37	395	3·0	283·1	− 8·4	+63·0
362·381 C	33	200	60	366	3·0	282·9	− 8·2	+74·3
Means ..	..	..	93	575	3·17	284·41	− 7·72	..

RECURRENT SERIES **878.**

Group 8762 seen in Rotation 872.
,, 8784 ,, ,, 873.

Group 8762.—December 1–10. A small group of the "stream" type.

334·358 C	1	6	1	5	245·4	190·9	+12·4	−52·5
335·549 C	19	85	12	54	245·0	190·3	+12·1	−37·2
336·545 G	14	46	8	26	244·6	189·7	+12·2	−24·5
337·365 C	22	82	11	43	245·4	190·4	+12·3	−12·9
338·362 C	22	63	11	32	246·7	191·5	+12·2	+ 1·5
339·349 C	12	84	6	45	246·3	191·0	+12·2	+14·2
340·357 C	14	102	8	59	246·9	191·4	+12·2	+28·0
341·367 C	45	209	32	146	248·0	192·4	+12·2	+42·4
342·414 G	26	101	24	94	248·2	192·4	+12·0	+56·4
343·489 C	1	25	2	43	250·2	194·2	+12·5	+72·6
Means ..	..	..	11	55	246·67	191·42	+12·23	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
RECURRENT SERIES 878—*continued*.								
Group 8784.—December 25–January 1. A small spot followed by an extended area of faculæ.								
1918. d					°	°	°	°
358·494 G	2	15	7	54	258·6	198·0	+11·1	−81·3
359·507 G	7	17	10	24	258·1	197·3	+11·3	−68·5
360·378 C	6	19	6	18	258·0	197·1	+11·6	−57·1
361·527 C	15	24	10	17	257·7	196·6	+12·1	−42·3
362·381 C	14	27	9	16	257·6	196·4	+12·2	−31·1
363·363 C	12	22	7	12	257·6	196·2	+12·4	−18·2
364·346 C	6	12	3	6	257·5	195·9	+12·2	− 5·3
365·383 C	4	16	2	8	256·4	194·7	+12·1	+ 7·2
Means ..	..	..	7	19	257·69	196·52	+11·88	..
RECURRENT SERIES 879.								
Group 8765 seen in Rotation 872. „ 8782 „ „ 873.								
Group 8765.—December 4–10. A stream of few unimportant spots until December 9, when two spots of some extent develop near the west limb.								
337·365 C	7	28	4	15	262·9	224·1	−13·8	+ 4·6
338·362 C	2	7	1	4	264·3	225·4	−13·6	+19·1
339·349 C	32	140	19	84	262·5	223·5	−13·9	+30·4
340·357 C	12	79	8	55	261·4	222·3	−14·2	+42·5
341·367 C	32	115	28	102	259·4	220·1	−15·9	+53·8
342·414 G	55	323	73	430	259·1	219·7	−16·5	+67·3
343·489 C	31	201	87	564	257·1	217·6	−17·7	+79·5
Means ..	..	..	31	179	260·96	221·81	−15·09	..
Group 8782.—December 25–30. A small spot gradually fading out with a few companions.								
358·494 G	7	38	16	84	262·9	227·8	−15·7	−77·0
359·507 G	21	73	24	82	263·3	228·1	−15·8	−63·3
360·378 C	27	91	22	76	263·0	227·7	−15·7	−52·1
361·527 C	12	45	8	29	263·6	228·2	−16·2	−36·4
362·381 C	11	58	6	32	264·0	228·5	−15·9	−24·7
363·363 C	9	76	5	40	263·8	228·2	−16·5	−12·0
Means ..	..	..	14	57	263·43	228·08	−15·97	..
RECURRENT SERIES 880.								
Group 8773 seen in Rotation 872. „ 8798 „ „ 873.								
Group 8773.—December 17–27. A large stream of normal type, developing rapidly from a very small spot, seen in a small area of faculæ on December 17. The leader, *a*, shows minor deviations from the regular type, but considerable changes take place in the follower, *b*, which breaks up between December 22 and 24.								
350·501 G	0	7	0	6	29·4	317·9	− 8·5	−55·8
351·165 D	7	46	5	33	31·5	319·9	−11·3	−45·0
352·345 C	113	717	64	406	33·7	321·8	−10·0	−27·2

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8773—*continued*.								
1918. d					°	°	°	°
353·332 C	177	1261	92	657	33·8	321·7	− 9·5	−14·1
354·334 C	248	1701	125	859	33·9	321·6	− 9·6	− 0·8
355·372 C	240	1519	123	782	34·0	321·5	− 9·2	+13·0
356·355 C	182	1287	103	729	35·6	322·9	− 9·3	+27·5
357·321 C	173	1069	115	706	35·8	322·9	− 8·9	+40·4
358·494 G	115	621	106	574	37·1	324·0	− 9·0	+57·2
359·507 G	61	311	92	483	37·9	324·6	− 8·7	+71·3
360·378 C	14	81	61	356	39·0	325·5	− 8·0	+83·9
Means ..	..	..	81	508	34·70	322·21	− 9·27	..
Spot *a*.								
351·165 D	6	33	4	23	32·5	318·4	−11·1	−44·0
352·345 C	53	253	30	142	35·9	321·6	− 9·6	−25·0
353·332 C	100	575	51	293	36·7	322·2	− 8·8	−11·2
354·334 C	155	818	78	409	36·7	321·9	− 8·5	+ 2·0
355·372 C	122	749	63	389	36·9	321·9	− 8·0	+15·9
356·355 C	76	554	44	321	38·3	323·1	− 7·9	+30·2
357·321 C	95	578	65	393	38·0	322·6	− 7·7	+42·6
358·494 G	78	426	75	409	38·6	323·0	− 8·4	+58·7
359·507 G	44	257	71	414	38·7	322·8	− 8·3	+72·1
360·378 C	14	81	61	356	39·0	323·0	− 8·0	+83·9
Spot *b*.								
353·332 C	77	686	41	364	31·5	326·1	−10·2	−16·4
354·334 C	93	883	47	450	31·4	325·9	−10·6	− 3·3
355·372 C	118	770	60	393	31·3	325·6	−10·4	+10·3
356·355 C	87	501	48	276	32·4	326·5	−10·9	+24·3
357·321 C	60	311	38	196	32·3	326·2	−10·8	+36·9
358·494 G	22	116	18	96	32·6	326·3	−11·0	+52·7
359·507 G	10	33	10	41	32·6	326·1	−11·0	+66·0
Group 8798.— 1919 January 11–22. A regular spot dividing into two portions on January 17. There are occasional very small companions.								
375·370 C	32	136	61	.258	42·5	320·3	− 7·8	−75·2
376·386 C	47	269	50	287	42·0	319·6	− 7·7	−62·3
377·493 C	68	406	50	296	42·4	319·7	− 8·0	−47·3
378·426 C	81	454	49	277	42·7	319·8	− 7·9	−34·7
379·334 C	89	493	48	266	42·9	319·8	− 7·9	−22·6
380·475 G	101	544	50	272	43·2	319·9	− 8·1	− 7·2
381·513 G	99	470	50	235	43·7	320·1	− 8·2	+ 6·9
382·509 G	56	406	30	215	44·1	320·3	− 7·8	+20·4
383·367 C	37	280	21	162	43·5	319·5	− 7·7	+31·1
384·350 C	20	143	14	99	42·8	318·6	− 7·6	+43·4
385·355 C	18	71	17	65	43·4	319·0	− 7·9	+57·2
386·224 K	10	22	13	29	42·5	317·9	− 7·2	+67·8
Means ..	..	..	38	205	42·98	319·54	− 7·82	..

LEDGER I.—RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

RECURRENT SERIES **881.**

Group 8774 seen in Rotation 872.
,, 8801 ,, ,, 873.

Group 8774.—December 17–29. A regular spot slowly diminishing. Very small followers appear on December 22–24.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
350·501 G	34	126	80	296	7·8	12·7	−20·6	−77·4
351·165 D	30	167	44	242	7·7	12·6	−20·8	−68·8
352·345 C	42	252	37	222	7·6	12·5	−20·5	−53·3
353·332 C	36	301	25	208	7·8	12·7	−20·5	−40·1
354·334 C	54	345	31	203	7·5	12·5	−20·9	−27·2
355·372 C	62	338	33	183	7·3	12·3	−20·4	−13·7
356·355 C	37	313	20	166	7·6	12·6	−21·1	− 0·5
357·321 C	45	324	24	175	6·7	11·7	−20·9	+11·3
358·494 G	45	247	27	146	6·2	11·2	−21·2	+26·3
359·507 G	50	236	34	160	5·9	10·9	−21·2	+39·3
360·378 C	36	196	30	161	5·6	10·7	−21·2	+50·5
361·527 C	19	128	23	157	5·2	10·3	−21·4	+65·2
362·381 C	12	60	26	130	5·4	10·5	−21·7	+76·7
Means ..	..	..	33	188	6·79	11·78	−20·95	..

Group 8801.—1919 January 14–17. A small spot.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C M.
1918. d					°	°	°	°
378·426 C	3	6	6	11	2·0	12·6	−21·5	−75·4
379·334 C	7	16	8	18	1·7	12·3	−21·4	−63·8
380·475 G	5	20	4	16	1·2	11·8	−21·5	−49·2
381·513 G	7	15	4	10	1·5	12·2	−21·7	−35·3
Means ..	..	..	6	14	1·60	12·23	−21·52	..

ROYAL OBSERVATORY, GREENWICH.

LEDGERS

OF

GROUPS OF SUN SPOTS

FOR THE YEAR

1918.

LEDGER II.—NON-RECURRENT GROUPS.

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918.

NOTE.—The Greenwich Civil Time at which the photograph was taken is expressed in the *first* column by the Day of the Year (civil reckoning) 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, Kodaikánal, Dehra Dûn, by the letters C, K, and D 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 remaining columns correspond to those with similar headings in the preceding Section.

When a group is near the East or the West limb of the Sun on any particular day, and in consequence is only visible in part, the measures for that day are marked with an asterisk and are not included in taking the mean area, longitude and latitude of the group.

Group 8386.

January 1–6. A short stream of very small spots.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
0·421 C	4	15	3	9	352·0	352·0	−19·5	−34·2
1·350 C	25	60	14	34	348·6	348·6	−19·2	−25·4
2·338 C	9	57	5	30	349·4	349·4	−19·7	−11·6
3·352 C	19	77	10	40	350·2	350·1	−19·6	+ 2·6
4·361 C	11	130	6	70	350·2	350·1	−19·0	+15·8
5·564 C	9	28	5	17	349·2	349·1	−20·2	+30·7
Means ..	..	..	7	33	349·93	349·88	−19·53	..

Group 8388.

January 4–7. A small short-lived stream.

3·352 C	20	106	10	54	357·8	357·1	− 9·9	+10·2
4·361 C	13	109	7	60	358·5	357·6	− 9·5	+24·1
5·564 C	6	22	4	15	359·5	358·4	− 9·4	+41·0
6·349 C	2	6	2	5	1·8	0·5	− 8·9	+53·6
Means ..	..	..	6	33	359·40	358·40	− 9·43	..

Group 8392.

January 7–18. Revival of Group 8356. A large cluster of partially formed spots, followed by a spot, *a*, which has become of regular type by January 12. The group is disappearing rapidly after January 14, one component of the cluster alone remaining on January 18.

6·349 C	4	17	9	46	228·2	227·7	−18·0	−80·0
7·358 C	13	125	17	172	226·8	226·3	−17·8	−68·1
8·347 C	37	382	34	348	226·0	225·4	−18·1	−55·9
9·499 G	61	490	41	328	226·6	225·9	−18·1	−40·1
10·550 G	120	1016	69	582	226·3	225·5	−17·7	−26·6
11·353 C	107	805	57	429	227·1	226·3	−17·0	−15·2

Group 8392—*continued.*

1918. d					°	°	°	°
12·464 C	109	923	56	475	227·2	226·3	−17·0	− 0·5
13·349 C	106	651	55	343	227·5	226·5	−17·4	+11·5
14·310 C	46	344	26	189	228·4	227·4	−16·3	+25·1
15·314 C	16	176	10	116	229·2	228·1	−16·2	+39·1
16·353 C	12	65	11	57	231·4	230·2	−15·8	+55·0
17·344 C	5	24	7	32	232·2	230·9	−15·8	+68·8
Means ..	..	..	33	260	228·08	227·21	−17·10	..

Spot *a*.

6·349 C	0	5	0	19	224·8	224·6	−17·4	−83·4
7·358 C	4	59	6	87	224·6	224·3	−18·6	−70·3
8·347 C	21	209	20	199	224·3	224·0	−18·9	−57·6
9·499 G	27	252	19	176	223·7	223·3	−19·2	−43·0
10·550 G	56	450	33	265	223·8	223·4	−19·0	−29·1
11·353 C	62	349	34	192	223·0	222·6	−18·8	−19·3
12·464 C	59	359	31	187	222·5	222·0	−18·8	− 5·2
13·349 C	56	240	29	125	222·1	221·6	−18·7	+ 6·1
14·310 C	20	82	11	44	221·7	221·1	−18·8	+18·4
15·314 C	3	32	2	20	222·1	221·5	−19·1	+32·0

Group 8397.

January 13–18. A group of very small spots.

12·464 C	13	97	7	51	211·1	208·0	+ 3·3	−16·6
13·349 C	6	54	3	28	210·8	207·5	+ 3·6	− 5·2
14·310 C	26	82	13	42	210·6	207·0	+ 3·8	+ 7·3
15·314 C	37	139	20	76	212·2	208·4	+ 3·7	+22·1
16·353 C	11	24	7	15	212·7	208·6	+ 3·9	+36·3
17·344 C	4	12	3	10	214·0	209·7	+ 3·6	+50·6
Means ..	..	..	9	37	211·90	208·20	+ 3·65	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Group 8399.

January 14–22. Revival of Group 8360. A few small spots on January 14, which rapidly become a stream of normal type. Excepting the leader, which is a regular spot, the stream soon dies out, but it is represented by conspicuous faculæ at the west limb.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
13·349 C	40	109	26	70	186·4	186·8	+21·5	−29·6
14·310 C	66	167	38	98	185·9	186·3	+22·0	−17·4
15·314 C	89	526	50	294	186·6	187·0	+21·8	− 3·5
16·353 C	89	675	51	385	187·4	187·9	+21·4	+11·0
17·344 C	95	576	58	354	186·7	187·2	+21·7	+23·3
18·329 C	53	395	38	281	187·6	188·1	+21·7	+37·2
19·485 C	27	275	27	270	188·5	189·1	+21·4	+53·3
20·456 G	13	73	22	120	190·8	191·4	+21·1	+68·4
21·351 C	3	39	11	149	190·3	190·9	+21·5	+79·7
Means ..	..	..	36	225	187·80	188·30	+21·57	..

Group 8407.

January 18–25. Intermittent. A pair of small spots which separate considerably. The following spot remains on January 22, but has disappeared by January 23. A spot near the leader's position appears on January 24 and 25.

17·344 C	7	27	4	16	142·1	140·8	+17·2	−21·3
18·329 C	22	91	12	49	142·4	141·0	+17·1	− 8·0
19·485 C	17	54	9	30	143·0	141·5	+17·4	+ 7·8
20·456 G	3	21	2	13	142·4	140·8	+17·1	+20·0
21·351 C	7	28	4	18	139·8	138·2	+18·0	+29·2
22·373 C	0	0	0	0	..	..	..	..
23·479 G	1	8	1	10	146·4	144·6	+16·0	+63·8
24·319 C	4	9	8	18	145·2	143·3	+16·2	+73·6
Means ..	..	..	5	19	143·04	141·46	+17·00	..

Group 8410.

January 21–29. Some small spots generally arranged in a stream.

20·456 G	3	10	2	6	89·3	84·8	+ 7·1	−33·1
21·351 C	8	20	4	11	89·7	85·0	+ 7·7	−20·9
22·373 C	22	75	11	39	90·1	85·1	+ 8·0	− 7·1
23·479 G	22	113	11	59	89·1	83·9	+ 8·3	+ 6·5
24·319 C	19	122	10	66	89·5	84·1	+ 8·8	+17·9
25·344 C	11	61	6	37	88·8	83·2	+ 8·2	+30·7
26·450 C	19	48	14	35	87·9	82·1	+ 7·2	+44·4
27·528 G	17	63	18	66	88·9	82·8	+ 6·8	+59·6
28·476 G	4	12	8	22	89·0	82·7	+ 7·1	+72·2
Means ..	..	..	9	38	89·14	83·74	+ 7·69	..

Group 8415.

January 25–February 3. A short stream of insignificant spots until January 28, when the group becomes prominent as a stream of normal type, but in which the rear component attains little importance.

1918. d					°	°	°	°
24·319 C	25	90	18	64	27·4	27·0	−21·1	−44·2
25·344 C	7	68	4	48	26·6	26·2	−21·5	−31·5
26·450 C	31	107	16	58	27·0	26·6	−21·1	−16·5
27·528 G	55	284	28	148	27·3	26·8	−20·7	− 2·0
28·476 G	71	366	38	192	28·4	27·9	−20·8	+11·6
29·484 G	81	437	46	249	29·5	29·0	−19·5	+25·9
30·496 G	51	225	34	152	32·3	31·8	−18·8	+42·1
31·313 C	14	125	12	105	32·6	32·1	−18·3	+53·1
32·341 C	12	77	15	99	33·8	33·3	−17·7	+67·9
33·368 C	3	29	8	82	33·6	33·0	−17·3	+81·2
Means ..	..	..	22	120	29·85	29·37	−19·68	..

Group 8417.

January 26–February 4. A stream of spots of which the only important member is the leader.

25·344 C	6	30	5	25	3·6	358·8	−10·9	−54·5
26·450 C	2	6	1	4	5·6	0·6	−10·9	−37·9
27·528 G	15	48	8	26	4·9	359·7	−11·0	−24·4
28·476 G	35	198	18	102	7·1	1·7	−11·0	− 9·7
29·484 G	58	295	29	147	8·1	2·5	−10·5	+ 4·5
30·496 G	31	151	17	80	10·3	4·5	− 9·9	+20·1
31·313 C	12	63	7	37	8·9	3·0	−10·3	+29·4
32·341 C	4	24	3	17	11·8	5·7	− 9·9	+45·9
33·368 C	4	18	4	19	14·1	7·8	− 8·7	+61·7
34·377 C	2	6	3	10	13·2	6·7	−10·3	+74·1
Means ..	..	..	9	47	8·76	3·10	−10·34	..

Group 8418.

January 27–February 1. Intermittent. A very small spot *p* Group 8413: not seen on January 28–30.

26·450 C	0	4	0	2	42·5	38·5	+12·2	− 1·0
27·528 G	0	0	0	0	..	..	..	..
28·476 G	0	0	0	0	..	..	..	..
29·484 G	0	0	0	0	..	..	..	..
30·496 G	2	13	2	11	42·3	37·7	+13·0	+52·1
31·313 C	2	6	2	7	41·2	36·5	+14·1	+61·7
Means ..	..	..	1	3	42·00	37·57	+13·10	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Group 8427.

February 6–17. Intermittent. One or two spots which have disappeared by February 9. A small regular spot then appears followed for a few days by small companions.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C M.
1918. d					°	°	°	°
36·309 C	1	10	3	30	195·0	189·9	+13·3	−78·7
37·491 C	5	11	6	13	195·1	189·8	+13·5	−63·0
38·452 G	1	6	1	5	193·9	188·5	+13·8	−51·6
39·340 C	0	0	0	0	..	..	..	..
40·378 C	4	11	2	6	196·5	190·8	+14·0	−23·6
41·434 C	6	46	3	25	197·4	191·5	+13·6	− 8·8
42·313 C	21	130	12	70	198·5	192·5	+13·8	+ 3·9
43·359 C	35	177	20	99	198·6	192·5	+13·8	+17·7
44·322 C	33	135	21	84	198·7	192·4	+13·9	+30·5
45·593 G	11	65	9	52	198·6	192·1	+13·1	+47·2
46·169 D	6	26	6	25	199·6	193·0	+13·1	+55·7
47·493 G	6	24	12	46	199·1	192·4	+13·2	+72·7
Means ..	..	..	8	38	197·36	191·40	+13·55	..

Group 8428.

February 7–18. An irregular stream of spots seen to develop from a single small spot on February 7. The middle of the stream is noticeable on February 11–12, but later the leader, now a small regular spot, is the only important component.

37·491 C	1	6	1	8	189·9	181·9	− 8·8	−68·2
38·452 G	2	7	2	6	190·6	182·5	− 9·3	−54·9
39·340 C	11	34	8	24	188·1	179·8	− 8·4	−45·7
40·378 C	23	71	14	42	187·7	179·1	− 7·7	−32·4
41·434 C	81	485	43	256	187·4	178·6	− 8·5	−18·8
42·313 C	96	492	49	246	188·6	179·6	− 8·5	− 6·0
43·359 C	85	436	43	219	189·4	180·2	− 8·4	+ 8·5
44·322 C	45	278	24	151	190·6	181·2	− 8·8	+22·4
45·593 G	33	160	22	105	192·3	182·6	− 9·1	+40·9
46·169 D	16	111	12	84	193·2	183·4	− 8·8	+49·3
47·493 G	7	27	9	32	191·5	181·4	− 8·8	+65·1
48·474 G	6	21	11	40	188·8	178·5	− 7·7	+75·3
Means ..	..	..	20	101	189·84	180·73	− 8·57	..

Group 8432.

February 11–18. Intermittent. A very small spot on February 11–12; nothing is then seen until February 16, when one or two small spots appear.

41·434 C	0	3	0	3	152·5	152·7	+20·2	−53·7
42·313 C	1	4	1	3	153·3	153·5	+20·4	−41·3
43·359 C	0	0	0	0	..	..	..	..
44·322 C	0	0	0	0	..	..	..	..
45·593 G	0	0	0	0	..	..	..	..
46·169 D	1	5	1	3	149·9	150·1	+21·4	+ 6·0
47·493 G	14	60	8	37	150·9	151·1	+20·8	+24·5
48·474 G	0	4	0	3	152·1	152·3	+20·1	+38·6
Means ..	..	..	1	6	151·74	151·94	+20·58	..

Group 8435.

February 14–17. A very small spot.

1918. d					°	°	°	°
44·322 C	2	15	1	11	129·0	126·0	+18·0	−39·2
45·593 G	1	6	1	4	130·2	127·1	+17·4	−21·2
46·169 D	0	11	0	6	130·2	127·1	+17·6	−13·7
47·493 G	5	18	3	10	130·5	127·3	+16·7	+ 4·1
Means ..	..	..	1	8	129·98	126·88	+17·42	..

Group 8436.

February 15–21. Intermittent. A disturbed area shown by faculæ and a few unstable spots. None are seen on February 19.

45·593 G	1	8	1	12	86·8	91·8	+24·8	−64·6
46·169 D	8	80	10	102	83·6	88·7	+24·8	−60·3
47·493 G	0	7	0	6	81·6	86·8	+24·8	−44·8
48·474 G	1	4	1	3	85·1	90·4	+23·7	−28·4
49·342 C	0	0	0	0	..	..	..	..
50·366 C	0	10	0	5	83·5	89·0	+25·1	− 5·1
51·461 G	2	8	1	5	81·9	87·6	+24·2	+ 7·7
Means ..	..	..	2	19	83·75	89·05	+24·57	..

Group 8438.

February 17–23. Intermittent. A few small unstable spots not seen on February 21.

47·493 G	2	9	2	8	72·8	72·6	−20·1	−53·6
48·474 G	4	16	2	11	72·5	72·3	−20·7	−41·0
49·342 C	4	12	2	7	75·8	75·6	−20·3	−26·3
50·366 C	3	13	2	7	76·0	75·8	−20·2	−12·6
51·461 G	0	0	0	0	..	..	..	..
52·337 C	0	4	0	2	76·0	75·7	−19·5	+13·4
53·330 C	5	25	3	14	74·0	73·7	−20·4	+24·4
Means ..	..	..	2	7	74·52	74·28	−20·20	..

Group 8440.

February 21–March 5. Two regular spots, *a* and *b*, widely separated, but in the same area of faculæ. The following one has broken up by March 1.

51·461 G	8	44	(21	114	356·5	345·2	+ 7·4)*	−77·7
52·337 C	36	243	57	399	351·8	340·3	+ 8·6	−70·8
53·330 C	76	503	76	495	352·1	340·4	+ 8·5	−57·5
54·438 G	104	653	74	468	352·0	340·0	+ 8·1	−43·0
55·521 G	100	744	59	439	352·7	340·5	+ 7·8	−28·0
56·357 C	89	789	48	431	352·5	340·1	+ 8·1	−17·2
57·371 C	86	561	45	291	353·1	340·5	+ 8·0	− 3·2
58·561 C	78	491	42	263	353·4	340·5	+ 8·0	+12·8
59·390 C	74	393	41	223	354·0	340·9	+ 7·7	+24·3

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8440—*continued*.								
1918. d					°	°	°	°
60·491 G	32	244	23	172	357·4	344·1	+ 6·9	+42·2
61·369 C	19	128	17	114	357·8	344·3	+ 6·8	+54·1
62·398 C	12	61	17	84	357·2	343·5	+ 6·9	+67·1
63·360 C	2	25	(3	65	353·9	340·0	+ 7·2)*	+76·5
Means ..	..	..	45	307	354·00	341·37	+ 7·76	..
Spot *a*.								
51·461 G	8	44	21	114	356·5	344·5	+ 7·4	−77·7
52·337 C	19	117	23	144	357·7	345·5	+ 6·6	−64·9
53·330 C	31	241	26	202	357·6	345·2	+ 6·0	−52·0
54·438 G	52	295	34	192	357·7	345·0	+ 5·6	−37·3
55·521 G	52	366	29	205	357·7	344·8	+ 5·8	−23·0
56·357 C	40	355	21	188	357·5	344·4	+ 6·1	−12·2
57·371 C	37	281	19	143	357·6	344·2	+ 6·3	+ 1·3
58·561 C	48	271	26	146	357·4	343·7	+ 6·6	+16·8
59·390 C	40	242	23	140	357·5	343·7	+ 6·4	+27·8
60·491 G	32	227	23	161	358·0	343·9	+ 6·6	+42·8
61·369 C	19	118	17	106	358·4	344·1	+ 6·6	+54·7
62·398 C	12	52	17	75	358·7	344·2	+ 6·6	+68·6
Spot *b*.								
52·337 C	17	126	34	255	348·5	338·2	+ 9·7	−74·1
53·330 C	45	262	50	293	348·3	337·8	+ 9·9	−61·3
54·438 G	52	358	40	276	348·1	337·4	+ 9·9	−46·9
55·521 G	48	378	30	234	348·4	337·5	+ 9·6	−32·3
56·357 C	49	434	27	243	348·6	337·5	+ 9·7	−21·1
57·371 C	49	280	26	148	348·4	337·1	+ 9·9	− 7·9
58·561 C	30	220	16	117	348·3	336·8	+ 9·7	+ 7·7
59·390 C	26	121	14	67	348·3	336·6	+ 9·9	+18·6
60·491 G	0	17	0	11	348·4	336·5	+10·2	+33·2

Group 8446.

February 26–March 9. A close pair of small regular spots which have coalesced by March 3. The resultant spot diminishes rapidly.

56·357 C	4	43	9	102	290·7	281·7	−13·3	−79·0
57·371 C	13	82	15	94	291·3	282·2	−13·3	−65·0
58·561 C	45	172	35	130	291·6	282·3	−12·9	−49·0
59·390 C	44	193	28	122	292·2	282·8	−12·8	−37·5
60·491 G	30	163	16	88	292·6	283·0	−12·7	−22·6
61·369 C	34	230	18	117	292·9	283·1	−12·9	−10·8
62·398 C	25	157	12	79	293·0	283·1	−12·5	+ 2·9
63·360 C	21	114	11	59	293·0	282·9	−12·2	+15·6
64·400 C	12	79	7	45	293·2	283·0	−12·1	+29·5
65·396 C	9	28	6	19	293·1	282·7	−11·9	+42·5
66·505 C	3	14	3	13	293·4	282·8	−11·6	+57·4
67·436 G	2	8	3	11	293·4	282·7	−11·6	+69·7
Means ..	..	..	14	73	292·53	282·69	−12·48	..

Group 8450.

March 6–12. Revival near Group 8428. A small spot with a faint companion on March 12.

1918. d					°	°	°	°
64·400 C	4	13	5	15	198·7	185·0	− 8·0	−65·0
65·396 C	8	14	6	11	199·8	185·9	− 8·0	−50·8
66·505 C	8	20	5	12	201·2	187·0	− 8·4	−34·8
67·436 G	20	31	11	17	202·1	187·7	− 8·8	−21·6
68·349 C	9	44	5	22	202·4	187·9	− 8·8	− 9·3
69·551 G	8	27	4	14	203·2	188·4	− 8·8	+ 7·3
70·346 C	2	12	1	6	202·5	187·5	− 8·3	+17·1
Means ..	..	..	5	14	201·41	187·06	− 8·44	..

Group 8454.

March 9–15. A few small unstable spots.

67·436 G	4	12	3	8	187·0	187·0	−21·0	−36·7
68·349 C	1	10	1	5	184·8	184·8	−20·5	−26·9
69·551 G	0	37	0	19	184·2	184·2	−20·5	−11·7
70·346 C	7	52	4	26	186·9	186·9	−20·3	+ 1·5
71·347 C	6	49	3	27	189·1	189·1	−20·5	+16·9
72·466 G	15	59	9	35	186·8	186·8	−20·2	+29·4
73·411 G	3	10	2	7	188·6	188·6	−19·9	+43·6
Means ..	..	..	3	18	186·77	186·77	−20·41	..

Group 8455.

March 10–16. A short stream of spots which have nearly died out by March 14.

68·349 C	1	8	1	8	147·9	145·8	−18·2	−63·8
69·551 G	37	123	28	94	146·7	144·5	−18·7	−49·2
70·346 C	23	62	14	39	147·8	145·6	−18·4	−37·6
71·347 C	21	90	12	49	147·1	144·9	−18·5	−25·1
72·466 G	2	17	1	9	144·7	142·5	−20·1	−12·7
73·411 G	2	23	1	12	143·9	141·6	−20·0	− 1·1
74·534 G	0	10	0	5	143·3	141·0	−19·7	+13·1
Means ..	..	..	8	31	145·91	143·70	−19·09	..

Group 8460.

March 11–21. A small stream of feeble but sustained activity.

69·551 G	6	21	5	18	143·4	127·8	+ 7·4	−52·5
70·346 C	7	43	5	30	143·4	127·7	+ 7·8	−42·0
71·347 C	14	50	8	30	144·1	128·1	+ 8·0	−28·1
72·466 G	3	22	2	11	147·7	131·5	+ 7·6	− 9·7

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8460—*continued.*								
1918. d					°	°	°	°
73·411 G	6	15	3	8	149·0	132·6	+ 7·1	+ 4·0
74·534 G	0	30	0	16	147·8	131·1	+ 7·0	+17·6
75·496 C	22	83	13	50	147·6	130·7	+ 7·1	+30·1
76·503 C	34	110	23	78	146·6	129·5	+ 7·5	+42·4
77·357 C	22	112	19	100	146·3	129·0	+ 8·0	+53·3
78·405 G	3	55	5	84	148·9	131·3	+ 7·2	+69·7
79·419 G	1	6	3	18	145·3	127·5	+ 6·8	+79·5
Means ..	..	..	8	40	146·37	129·71	+ 7·41	..
Group 8461. March 12–17. A short stream, almost disappearing on March 14, and reforming on March 16 with a regular spot as leader.								
70·346 C	16	63	9	37	192·5	198·8	+24·0	+ 7·1
71·347 C	16	64	10	41	192·4	198·8	+24·0	+20·2
72·466 G	2	4	1	3	194·7	201·2	+23·3	+37·3
73·411 G	6	35	6	31	192·0	198·6	+24·8	+47·0
74·534 G	25	141	38	213	195·5	202·2	+23·3	+65·3
75·496 C	4	35	16	135	195·7	202·5	+23·7	+78·2
Means ..	..	..	13	77	193·80	200·35	+23·85	..
Group 8463. March 14–20. A disturbed area, *f* Group 8460, containing a few small unstable spots.								
72·466 G	0	19	0	12	124·2	109·5	+11·5	−33·2
73·411 G	18	44	10	24	128·7	113·8	+ 8·9	−16·3
74·534 G	9	66	5	35	130·7	115·6	+ 8·6	+ 0·5
75·496 C	6	27	3	15	132·2	116·9	+ 9·2	+14·7
76·503 C	6	32	4	19	131·2	115·7	+ 9·1	+27·0
77·357 C	8	13	5	9	132·2	116·5	+ 9·3	+39·2
78·405 G	0	3	0	3	130·5	114·6	+ 8·7	+51·3
Means ..	..	..	4	17	129·95	114·66	+ 9·33	..
Group 8464. March 15–23. Two spots on March 15, which multiply and form a stream of unstable character.								
73·411 G	2	6	2	5	93·7	75·1	+ 3·1	−51·3
74·534 G	9	37	5	23	94·4	75·6	+ 2·6	−35·8
75·496 C	56	255	31	141	93·9	74·8	+ 2·8	−23·6
76·503 C	68	305	35	156	95·8	76·5	+ 2·5	− 8·4
77·357 C	39	281	20	143	97·0	77·4	+ 3·4	+ 4·0
78·405 G	38	200	20	107	97·8	78·0	+ 2·9	+18·6
79·419 G	29	84	17	50	96·7	76·6	+ 2·6	+30·9
80·413 G	8	29	6	21	98·8	78·5	+ 3·1	+46·1
81·393 G	2	10	2	11	100·5	79·9	+ 3·8	+60·7
Means ..	..	..	15	73	96·51	76·93	+ 2·98	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8468. March 19–31. A group consisting of a stable regular spot, *a*, *n* of which numerous small companions appear arranged as a stream. These have died out by March 29, at the same time that *a* is also disappearing.								
1918. d					°	°	°	°
77·357 C	7	73	20	205	11·8	8·2	−18·0	−81·2
78·405 G	27	174	33	218	11·8	8·1	−18·6	−67·4
79·419 G	37	193	32	164	11·7	8·0	−18·8	−54·1
80·413 G	44	282	31	190	10·6	6·8	−18·3	−42·1
81·393 G	72	386	42	222	10·7	6·9	−17·6	−29·1
82·364 C	72	447	38	237	10·8	6·9	−17·7	−16·2
83·358 C	86	523	46	267	10·4	6·5	−17·3	− 3·4
84·434 G	59	413	31	216	11·1	7·1	−17·7	+11·4
85·369 C	46	303	26	169	11·4	7·4	−17·8	+24·1
86·372 C	31	197	20	124	9·7	5·6	−18·7	+35·6
87·394 C	17	80	13	60	8·6	4·5	−19·2	+48·0
88·403 C	10	72	10	74	8·6	4·4	−19·5	+61·3
89·435 G	8	22	14	39	8·5	4·3	−19·5	+74·8
Means ..	..	..	27	168	10·44	6·52	−18·36	..
Spot *a*.								
77·357 C	5	50	16	158	10·9	8·3	−18·3	−82·1
78·405 G	18	114	23	146	11·2	8·6	−18·9	−68·0
79·419 G	18	135	16	117	10·7	8·1	−18·9	−55·1
80·413 G	26	171	18	116	10·3	7·6	−18·8	−42·4
81·393 G	29	195	17	113	10·3	7·6	−18·9	−29·5
82·364 C	33	204	17	108	10·0	7·3	−18·9	−17·0
83·358 C	33	216	17	110	9·7	6·9	−18·9	− 4·1
84·434 G	29	201	15	105	9·5	6·7	−19·0	+ 9·8
85·369 C	33	189	18	104	9·6	6·8	−18·9	+22·3
86·372 C	22	153	14	95	9·3	6·4	−19·2	+35·2
87·394 C	17	80	13	60	8·6	5·7	−19·2	+48·0
88·403 C	10	72	10	74	8·6	5·7	−19·5	+61·3
89·435 G	8	22	14	39	8·5	5·5	−19·5	+74·8
Group 8472. March 23–31. A pair of small spots near the east limb; the leader becomes a cluster and then a composite spot; the follower shows a more extensive development as a regular spot. Both disappear rather rapidly.								
81·393 G	8	19	8	18	341·0	331·1	−15·3	−58·8
82·364 C	18	69	13	51	339·2	329·2	−15·0	−47·8
83·358 C	60	456	36	280	338·6	328·4	−14·9	−35·2
84·434 G	112	820	60	439	338·9	328·6	−14·9	−20·8
85·369 C	114	692	58	353	339·0	328·6	−14·8	− 8·3
86·372 C	79	507	40	256	338·6	328·1	−14·6	+ 4·5
87·394 C	80	313	42	164	337·9	327·2	−14·1	+17·3
88·403 C	31	168	18	98	337·5	326·7	−14·1	+30·2
89·435 G	12	51	9	36	337·9	327·0	−14·4	+44·2
Means ..	..	..	32	188	338·73	328·32	−14·68	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Group 8474.

March 24–29. A small but distinct spot, *sp* Group 8472.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
82·364 C	5	24	4	17	342·2	347·1	−21·8	−44·8
83·358 C	16	48	10	29	342·4	347·3	−22·1	−31·4
84·434 G	8	27	4	15	344·3	349·3	−23·2	−15·4
85·369 C	5	33	3	17	344·9	349·9	−23·1	− 2·4
86·372 C	5	14	3	7	344·9	350·0	−23·0	+10·8
87·394 C	2	7	1	4	345·0	350·2	−23·0	+24·4
Means ..	..	..	4	15	343·95	348·97	−22·70	..

Group 8476.

March 28–April 8. A small spot, *f* which a stream is developing on March 31 in the same faculous area. The component spots, however, are small and also unstable, and the group, though persistent, is generally insignificant.

86·372 C	3	15	8	39	253·8	242·6	−14·9	−80·3
87·394 C	7	11	9	13	253·9	242·5	−14·7	−66·7
88·403 C	8	16	7	13	253·8	242·3	−14·8	−53·5
89·435 G	42	143	29	102	248·3	236·7	−14·3	−45·4
90·668 G	46	174	26	97	249·2	237·4	−14·4	−28·2
91·366 G	12	101	6	53	250·7	238·8	−14·7	−17·5
92·351 C	13	96	7	48	251·0	239·0	−14·1	− 4·2
93·366 C	26	141	14	72	248·9	236·8	−13·2	+ 7·1
94·358 C	18	84	10	46	250·9	238·6	−14·1	+22·2
95·328 C	24	82	15	50	249·4	237·0	−13·9	+33·5
96·555 G	27	85	21	66	249·6	237·0	−13·7	+49·9
97·377 C	16	41	16	42	249·7	237·0	−13·6	+60·8
Means ..	..	..	14	53	250·77	238·81	−14·20	..

Group 8477.

March 29–April 3. A small distinct spot followed by a small cluster, which disappears on April 1.

87·394 C	2	9	1	5	323·6	337·6	−26·8	+ 3·0
88·403 C	36	157	20	87	322·4	336·5	−27·4	+15·1
89·435 G	17	72	11	43	322·1	336·3	−27·4	+28·4
90·668 G	10	22	7	17	325·7	340·2	−26·0	+48·3
91·366 G	4	10	4	10	327·8	342·4	−25·2	+59·6
92·351 C	2	9	3	15	328·3	343·1	−25·0	+73·1
Means ..	..	..	8	29	324·98	339·35	−26·30	..

Group 8480.

March 31–April 5. A small double spot fading out. A small companion follows on April 4.

89·435 G	0	11	0	26	214·4	204·7	−15·3	−79·3
90·668 G	12	41	13	44	214·5	204·6	−15·5	−62·9
91·366 G	10	37	9	31	214·0	204·0	−15·5	−54·2

Group 8480—*continued*.

1918. d					°	°	°	°
92·351 C	8	29	5	19	214·5	204·4	−15·6	−40·7
93·366 C	10	27	6	16	213·0	202·8	−15·5	−28·8
94·358 C	1	11	1	6	214·1	203·8	−15·0	−14·6
Means ..	..	..	6	24	214·08	204·05	−15·40	..

Group 8481.

April 1–8. A feeble stream of spots, *np* Group 8476.

90·668 G	5	23	3	12	257·8	241·4	−12·1	−19·6
91·366 G	0	8	0	4	259·2	242·7	−12·2	− 9·0
92·351 C	0	25	0	12	258·0	241·3	−11·3	+ 2·8
93·366 C	10	47	5	24	256·5	239·6	−10·8	+14·7
94·358 C	15	79	9	45	257·6	240·5	−10·8	+28·9
95·328 C	0	39	0	27	259·5	242·3	−10·5	+43·6
96·555 G	5	27	5	25	257·8	240·3	−10·7	+58·1
97·377 C	0	11	0	17	261·4	243·8	− 9·7	+72·5
Means ..	..	..	3	21	258·48	241·49	−11·01	..

Group 8482.

April 2–11. A stream of spots in continual change, *f* Group 8479. The end portion of the group has dispersed by April 9.

91·366 G	11	50	14	64	205·3	201·2	+18·5	−62·9
92·351 C	39	169	34	147	206·5	202·3	+18·0	−48·7
93·366 C	52	243	35	168	205·9	201·7	+18·2	−35·9
94·358 C	51	273	31	162	206·6	202·4	+18·3	−22·1
95·328 C	17	131	9	73	206·6	202·3	+18·6	− 9·3
96·555 G	62	257	34	143	208·2	203·9	+18·1	+ 8·5
97·377 C	44	252	26	148	208·9	204·5	+18·4	+20·0
98·366 C	18	89	11	59	209·4	205·0	+18·4	+33·6
99·377 C	17	116	13	96	209·7	205·2	+18·8	+47·2
100·312 C	13	49	15	57	210·2	205·7	+19·2	+60·1
Means ..	..	..	22	112	207·73	203·42	+18·45	..

Group 8489.

April 8–19. An equatorial stream, consisting at first of a composite spot, *a*, as leader, and an unstable train which soon dies out; *a*, which remains alone on April 15, passes to the regular type of spot and then diminishes rapidly.

97·377 C	4	37	6	62	116·4	91·3	− 0·6	−72·5
98·366 C	15	121	14	121	116·7	91·3	− 0·7	−59·1
99·377 C	59	313	44	235	115·7	90·1	+ 0·1	−46·8
100·312 C	53	249	31	149	117·5	91·6	− 0·5	−32·6
101·403 G	44	219	23	114	119·6	93·4	− 1·5	−16·1
102·392 C	52	205	25	103	119·8	93·4	− 1·3	− 2·9
103·093 D	33	243	17	123	120·2	93·6	− 1·2	+ 6·8

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8489—*continued.*								
1918. d					°	°	°	°
104·331 C	19	198	10	109	121·3	94·4	− 1·2	+24·2
105·381 C	26	217	17	139	121·8	94·6	− 1·2	+38·6
106·327 C	15	150	12	120	122·0	94·6	− 1·4	+51·3
107·532 C	13	41	16	52	121·2	93·5	− 1·3	+66·4
108·358 G	2	14	5	34	121·9	93·9	− 1·4	+78·0
Means ..	..	..	18	113	119·51	92·98	− 1·02	..
Spot *a*.								
97·377 C	4	24	6	38	117·4	92·3	− 0·7	−71·5
98·366 C	15	90	14	85	118·0	92·6	− 1·2	−57·8
99·377 C	33	127	23	88	118·9	93·3	− 0·8	−43·6
100·312 C	42	189	24	110	119·2	93·3	− 1·4	−30·9
101·403 G	44	215	23	112	119·6	93·4	− 1·5	−16·1
102·392 C	47	170	23	85	120·3	93·9	− 1·5	− 2·4
103·093 D	33	220	17	112	120·5	93·9	− 1·3	+ 7·1
104·331 C	19	198	10	109	121·3	94·4	− 1·2	+24·2
105·381 C	26	217	17	139	121·8	94·6	− 1·2	+38·6
106·327 C	15	150	12	120	122·0	94·6	− 1·4	+51·3
107·532 C	12	34	15	44	122·1	94·4	− 1·0	+67·3
108·358 G	2	14	5	34	121·9	93·9	− 1·4	+78·0

Group 8490.

April 9–18. A pair of small spots not seen on April 10. A stream then forms in their place on April 11, but the component spots are very unstable.

98·366 C	7	21	6	19	121·4	103·2	+11·0	−54·4
99·377 C	0	0	0	0	..	..	..	..
100·312 C	25	102	15	61	121·0	102·4	+11·2	−29·1
101·403 G	42	184	23	100	121·0	102·2	+10·8	−14·7
102·392 C	38	175	19	92	119·8	100·9	+10·8	− 2·9
103·093 D	37	218	19	114	119·9	100·8	+10·7	+ 6·5
104·331 C	45	296	26	167	120·8	101·5	+10·4	+23·7
105·381 C	50	269	33	179	120·9	101·4	+10·5	+37·7
106·327 C	27	49	22	40	121·2	101·5	+10·4	+50·5
107·532 C	2	4	2	5	118·8	98·9	+10·5	+64·0
Means ..	..	..	17	78	120·53	101·42	+10·70	..

Group 8492.

April 12–20. A group of small and very faint spots until April 17, when larger components are appearing.

101·403 G	0	8	0	5	101·0	75·4	+ 4·5	−34·7
102·392 C	0	7	0	4	101·8	75·9	+ 4·8	−20·9
103·093 D	4	28	2	15	98·9	72·8	+ 2·5	−14·5
104·331 C	4	17	2	8	99·5	73·1	+ 2·3	+ 2·4
105·381 C	24	121	13	65	100·5	73·8	+ 2·6	+17·3

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8492—*continued.*								
1918. d					°	°	°	°
106·327 C	41	204	24	121	102·4	75·5	+ 3·0	+31·7
107·532 C	79	297	58	224	101·8	74·6	+ 2·8	+47·0
108·358 G	35	195	33	187	101·2	73·8	+ 2·5	+57·3
109·358 C	14	58	23	97	102·7	75·0	+ 2·5	+72·0
Means ..	..	..	17	81	101·09	74·43	+ 3·06	..

Group 8493.

April 12-20. A small spot on April 12, developing into a small regular spot, followed by a train. The group is very unstable, however, and is represented latterly by a cluster of a few spots.

101·403 G	2	7	1	4	98·9	88·6	−16·4	−36·8
102·392 C	44	161	24	87	100·7	90·3	−15·3	−22·0
103·093 D	53	287	28	150	100·6	90·1	−15·6	−12·8
104·331 C	45	156	23	79	100·8	90·2	−15·6	+ 3·7
105·381 C	18	63	10	34	101·3	90·6	−15·4	+18·1
106·327 C	14	55	8	31	97·4	86·5	−15·9	+26·7
107·532 C	33	86	22	58	95·6	84·6	−16·2	+40·8
108·358 G	15	35	12	28	95·7	84·6	−16·5	+51·8
109·358 C	1	4	1	5	98·1	87·0	−15·0	+67·4
Means ..	..	..	14	53	98·79	88·06	−15·77	..

Group 8498.

April 19–24. Two spots, *a* and *b*, which separate considerably in longitude. *a* is left on April 24.

108·358 G	41	162	21	84	44·0	47·4	−21·8	+ 0·1
109·358 C	71	254	38	136	44·5	47·9	−21·9	+13·8
110·371 C	32	151	18	88	45·1	48·5	−21·5	+27·8
111·380 C	17	58	12	41	46·0	49·4	−21·5	+42·0
112·367 C	12	30	12	28	48·3	51·8	−21·4	+57·4
113·335 C	3	8	5	13	51·5	55·0	−21·8	+73·3
Means ..	..	..	18	65	46·57	50·00	−21·65	..
Spot *a*.								
108·358 G	6	37	3	19	45·7	48·2	−21·8	+ 1·8
109·358 C	27	79	15	43	47·2	49·7	−21·4	+16·5
110·371 C	14	64	8	38	48·6	51·1	−20·8	+31·3
111·380 C	11	28	8	21	50·1	52·7	−20·8	+46·1
112·367 C	10	21	10	21	51·2	53·8	−21·4	+60·3
113·335 C	3	8	5	13	51·5	54·1	−21·8	+73·3

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8498—*continued.*								
Spot *b*.								
1918. d					°	°	°	°
108·358 G	35	125	18	65	43·5	47·5	−21·7	− 0·4
109·358 C	44	175	23	93	43·1	47·1	−22·0	+12·4
110·371 C	18	87	10	50	42·8	46·9	−22·0	+25·5
111·380 C	6	30	4	20	42·1	46·2	−22·0	+38·1
112·367 C	2	9	2	7	42·2	46·4	−21·7	+51·3
Group 8499.								
April 19–26. A regular spot, forming from a cluster on April 19, and followed by a cluster of small spots until April 24.								
108·358 G	69	308	38	168	22·1	1·7	−11·7	−21·8
109·388 C	78	436	39	219	23·2	2·6	−10·6	− 7·5
110·371 C	56	330	28	168	24·2	3·5	−10·5	+ 6·9
111·380 C	62	418	33	224	24·1	3·2	−11·0	+20·1
112·367 C	35	270	21	165	24·7	3·6	−10·8	+33·8
113·335 C	22	160	16	118	25·6	4·3	−10·3	+47·4
114·439 G	13	78	14	83	26·3	4·8	− 9·8	+62·7
115·405 C	7	81	14	156	26·3	4·6	− 9·6	+75·5
Means ..	..	..	25	163	24·56	3·54	−10·54	..
Group 8505.								
April 25–30. Two or three very small but persistent spots, not seen on April 26.								
114·439 G	0	2	0	2	265·1	282·7	−26·8	−58·5
115·405 C	0	0	0	0	..	..	..	..
116·461 G	0	2	0	1	265·1	283·0	−26·1	−31·8
117·385 C	6	23	3	13	265·2	283·3	−26·1	−19·5
118·382 C	4	17	2	9	265·1	283·3	−25·8	− 6·4
119·365 C	3	24	2	13	265·6	284·0	−25·8	+ 7·1
Means ..	..	..	1	6	265·22	283·26	−26·12	..
Group 8509.								
April 27–May 1. Two small spots *nf* Group 8508 in the same general area of faculæ. One alone remains after April 29.								
116·461 G	0	23	0	75	217·7	211·9	+18·2	−79·2
117·385 C	8	27	12	38	218·3	212·4	+18·7	−66·4
118·382 C	6	36	6	33	218·3	212·4	+18·1	−53·2
119·365 C	8	23	6	17	217·9	211·9	+18·1	−40·6
120·350 C	8	17	5	10	217·6	211·6	+18·2	−27·9
Means ..	..	..	6	35	217·96	212·04	+18·26	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8512.								
April 30–May 12. A small regular spot slowly diminishing to a mere dot. From May 3–8, it is followed by small evanescent companions.								
1918. d					°	°	°	°
119·365 C	7	36	37	192	172·4	175·1	−21·8	−86·1
120·350 C	11	84	19	143	172·3	175·1	−21·4	−73·2
121·403 C	20	111	20	111	172·1	174·9	−21·1	−59·4
122·355 C	20	125	15	95	171·8	174·6	−21·3	−47·2
123·453 G	25	126	15	78	171·2	174·0	−21·4	−33·2
124·131 D	21	134	12	78	170·8	173·6	−21·4	−24·7
125·487 C	24	125	13	66	170·6	173·5	−21·2	− 7·0
126·370 C	28	140	15	75	170·8	173·7	−21·4	+ 4·9
127·499 C	18	68	11	38	170·9	173·8	−22·0	+19·9
128·409 C	8	23	5	14	171·1	174·0	−21·1	+32·2
129·386 G	8	23	6	17	171·0	174·0	−21·1	+45·0
130·496 G	2	9	2	9	171·3	174·3	−21·0	+60·0
131·393 C	0	4	0	7	171·5	174·5	−20·9	+72·0
Means ..	..	..	13	71	171·37	174·24	−21·32	..
Group 8513.								
May 1–6. A stream of normal type developing in the usual manner from a pair of small spots seen on May 1.								
120·350 C	5	18	3	10	252·7	234·4	+13·9	+ 7·2
121·403 C	57	211	32	121	254·8	236·4	+13·0	+23·3
122·355 C	92	488	59	312	254·8	236·2	+12·4	+35·8
123·453 G	111	473	91	385	254·0	235·2	+12·6	+49·6
124·131 D	40	358	40	367	254·2	235·3	+12·9	+58·7
125·487 C	14	114	31	283	254·8	235·7	+12·8	+77·2
Means ..	..	..	43	246	254·22	235·53	+12·93	..
Group 8514.								
May 2–10. Two spots, *a* and *b*, gradually moving apart and becoming smaller. Only *a* remains after May 7.								
121·403 C	36	129	38	139	173·6	171·7	+22·0	−57·9
122·355 C	37	211	29	171	173·3	171·3	+21·5	−45·7
123·453 G	34	99	21	64	174·2	172·2	+20·3	−30·2
124·131 D	17	78	10	46	175·3	173·3	+19·9	−20·2
125·487 C	23	91	12	49	174·9	172·9	+18·9	− 2·7
126·370 C	14	39	8	22	176·4	174·4	+18·9	+10·5
127·499 C	10	17	6	10	178·5	176·5	+17·8	+27·5
128·409 C	2	8	1	6	178·5	176·5	+18·0	+39·6
129·386 G	2	9	2	8	177·3	175·2	+20·0	+51·3
Means ..	..	..	14	57	175·78	173·78	+19·70	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8514—*continued.*								
Spot *a*.								
1918. d					°	°	°	°
121·403 C	20	57	20	57	175·7	171·3	+20·7	−55·8
122·355 C	16	61	12	46	176·4	172·0	+19·8	−42·6
123·453 G	17	47	10	29	177·0	172·6	+18·7	−27·4
124·131 D	11	52	6	30	177·4	172·9	+18·6	−18·1
125·487 C	9	36	5	19	178·1	173·6	+18·1	+ 0·5
126·370 C	14	27	8	15	178·4	173·9	+17·9	+12·5
127·499 C	10	17	6	10	178·5	173·9	+17·8	+27·5
128·409 C	2	8	1	6	178·5	173·9	+18·0	+39·6
129·386 G	2	9	2	8	177·3	172·6	+20·0	+51·3
Spot *b*.								
121·403 C	16	72	18	82	171·9	176·9	+22·5	−59·6
122·355 C	21	144	17	120	172·0	177·0	+22·4	−47·0
123·453 G	17	52	11	35	171·4	176·5	+21·8	−33·0
124·131 D	6	26	4	16	170·6	175·7	+22·1	−24·9
125·487 C	8	20	4	11	170·9	176·0	+21·7	− 6·7
126·370 C	0	12	0	7	170·9	176·1	+21·7	+ 5·0
Group 8515.								
May 2–13. Revival near Group 8488. An ill-formed regular spot disappearing very rapidly after May 10. Numerous small attendants appear from May 6–11.								
121·403 C	13	89	38	260	152·8	136·3	+13·7	−78·7
122·355 C	27	225	36	309	152·1	135·5	+13·7	−66·9
123·453 G	50	278	43	239	152·3	135·5	+13·8	−52·1
124·131 D	74	395	54	288	151·8	134·9	+13·7	−43·7
125·487 C	75	444	43	258	151·6	134·5	+14·0	−26·0
126·370 C	72	499	39	269	151·3	134·1	+14·0	−14·6
127·499 C	68	498	35	259	151·2	133·9	+14·0	+ 0·2
128·409 C	65	535	35	289	150·8	133·3	+14·4	+11·9
129·386 G	67	385	39	223	150·9	133·3	+14·1	+24·9
130·496 G	44	244	30	166	151·2	133·5	+13·9	+39·9
131·393 C	13	74	11	64	151·8	133·9	+13·8	+52·3
132·597 G	0	4	0	6	152·3	134·3	+13·2	+68·8
Means ..	..	..	34	219	151·68	134·42	+13·86	..
Group 8519.								
May 5–14. Revival near Group 8489. A small regular spot disappearing quickly after May 10. A few small spots form an occasional train.								
124·131 D	7	34	31	149	112·0	80·0	+ 0·4	−83·5
125·487 C	18	48	21	57	113·1	80·7	0·0	−64·5
126·370 C	18	94	14	75	114·8	82·1	+ 0·1	−51·1
127·499 C	17	110	11	68	116·5	83·6	− 0·1	−34·5
128·409 C	14	67	8	36	116·8	83·7	− 0·7	−22·1

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8519—*continued.*								
1918. d					°	°	°	°
129·386 G	20	123	10	63	115·6	82·2	− 1·0	−10·4
130·496 G	15	28	8	14	118·0	84·3	− 1·3	+ 6·7
131·393 C	13	28	7	15	118·3	84·4	− 1·4	+18·8
132·597 G	10	22	6	13	119·0	84·8	− 1·2	+35·5
133·463 G	1	4	1	3	119·2	84·8	− 1·2	+47·1
Means ..	..	..	12	49	116·33	83·06	− 0·64	..
Group 8520.								
May 6–16. Revival near Group 8493. Two or three small spots, developing later into a short stream which gradually disperses.								
125·487 C	5	35	9	64	103·2	92·9	−16·7	−74·4
126·370 C	7	49	8	59	100·8	90·4	−16·5	−65·1
127·499 C	9	30	7	23	102·5	92·1	−16·8	−48·5
128·409 C	12	33	7	21	104·6	94·1	−16·5	−34·3
129·386 G	21	72	12	40	103·0	92·4	−16·4	−23·0
130·496 G	28	109	14	57	102·5	91·8	−17·0	− 8·8
131·393 C	44	122	23	63	102·2	91·4	−16·8	+ 2·7
132·597 G	52	251	28	137	103·1	92·2	−16·8	+19·6
133·463 G	30	147	18	89	104·1	93·2	−16·5	+32·0
134·349 C	15	67	10	47	102·4	91·4	−17·1	+42·0
135·344 C	7	18	6	15	100·4	89·3	−17·4	+53·2
Means ..	..	..	13	56	102·62	91·93	−16·77	..
Group 8527.								
May 12–17. A stream of small faint spots in continual change.								
131·393 C	23	92	14	54	67·5	36·0	− 5·4	−32·0
132·597 G	37	127	20	67	67·3	35·5	− 5·8	−16·2
133·463 G	41	160	20	80	67·3	35·3	− 5·8	− 4·8
134·349 C	18	119	9	59	67·7	35·5	− 5·5	+ 7·3
135·344 C	23	125	12	68	69·0	36·5	− 4·9	+21·8
136·351 C	10	44	6	27	70·1	37·4	− 4·7	+36·2
Means ..	..	..	14	59	68·15	36·03	− 5·35	..
Group 8528.								
May 12–21. A stream of normal type seen developing from the east limb. The leader spot, *a*, is the only member left after May 18, but two or three small spots appear preceding it on the following days; *b* is the rear spot of the stream.								
131·393 C	17	72	26	115	28·1	33·1	−22·7	−71·4
132·597 G	62	306	55	266	30·8	35·8	−21·9	−52·7
133·463 G	67	250	48	174	31·4	36·5	−21·8	−40·7
134·349 C	34	235	21	143	31·3	36·4	−21·9	−29·1
135·344 C	44	294	24	162	31·7	36·8	−21·9	−15·5

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8528—*continued*.								
1918. d					°	°	°	°
136·351 C	43	230	23	122	31·8	37·0	−21·8	− 2·1
137·385 G	38	213	21	116	32·3	37·5	−21·8	+12·1
138·450 C	35	159	21	95	34·1	39·4	−21·4	+28·0
139·416 G	25	89	18	62	33·8	39·1	−22·0	+40·5
140·381 G	8	33	7	29	33·7	39·0	−21·8	+53·1
Means ..	..	..	26	128	31·90	37·06	−21·90	..
Spot *a*.								
131·393 C	7	18	9	24	32·4	36·6	−22·0	−67·1
132·597 G	24	158	19	128	33·7	37·9	−21·4	−49·8
133·463 G	28	143	19	96	34·1	38·4	−21·0	−38·0
134·349 C	25	168	15	99	33·9	38·2	−21·4	−26·5
135·344 C	25	168	14	91	33·9	38·2	−21·2	−13·3
136·351 C	26	153	14	81	33·8	38·2	−21·7	− 0·1
137·385 G	32	167	18	92	33·6	38·0	−21·8	+13·4
138·450 C	25	129	15	77	33·6	38·0	−21·9	+27·5
139·416 G	23	84	16	58	33·5	38·0	−22·1	+40·2
140·381 G	8	26	7	23	33·3	37·8	−22·3	+52·7
Spot *b*.								
131·393 C	8	42	14	73	26·4	35·1	−23·1	−73·1
132·597 G	21	80	21	78	25·9	34·7	−23·1	−57·6
133·463 G	21	57	16	43	25·9	34·7	−23·1	−46·2
134·349 C	9	67	6	44	25·6	34·5	−22·9	−34·8
135·344 C	6	22	3	13	25·4	34·3	−22·7	−21·8
Group 8529. May 14–23. A small spot near which companions appear, first to make a short stream and then a cluster.								
133·463 G	0	29	0	88	352·3	327·2	+11·0	−79·8
134·349 C	4	26	6	37	352·1	326·8	+10·8	−68·3
135·344 C	11	41	10	36	352·5	327·1	+10·7	−54·7
136·351 C	23	103	16	70	352·6	327·0	+10·2	−41·3
137·385 G	54	219	31	127	352·7	326·9	+10·5	−27·5
138·450 C	35	139	19	74	352·8	326·8	+10·8	−13·3
139·416 G	26	71	14	36	353·2	327·0	+10·8	− 0·1
140·381 G	63	225	33	117	353·1	326·7	+ 9·8	+12·5
141·409 C	15	102	9	58	353·8	327·2	+10·5	+26·8
142·433 G	11	44	7	29	353·7	326·9	+10·4	+40·3
Means ..	..	..	14	67	352·88	326·96	+10·55	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8530. May 14–19. A small but definite spot with an attendant on May 15.								
1918. d					°	°	°	°
133·463 G	1	7	3	23	351·2	319·3	+ 6·1	−80·9
134·349 C	8	27	11	38	351·6	319·5	+ 5·2	−68·8
135·344 C	12	40	11	37	350·2	317·9	+ 5·5	−57·0
136·351 C	13	20	9	14	350·5	317·9	+ 5·6	−43·4
137·385 G	13	24	8	14	350·7	317·9	+ 5·5	−29·5
138·450 C	0	7	0	4	351·0	317·9	+ 5·5	−15·1
Means ..	..	..	7	22	350·87	318·40	+ 5·57	..
Group 8539. May 25–June 1. Intermittent. A disturbed area, *f* Group 8533, in which a few small spots appear occasionally.								
144·399 C	2	13	1	8	257·2	237·6	−12·7	−30·2
145·428 C	0	0	0	0	..	..	..	..
146·377 G	0	0	0	0	..	..	..	..
147·420 G	0	16	0	8	257·3	237·3	−13·6	+ 9·9
148·375 G	0	6	0	3	255·2	235·0	−13·8	+20·4
149·346 G	0	0	0	0	..	..	..	..
150·352 G	2	6	2	5	256·5	236·1	−14·7	+47·9
151·425 G	0	4	0	4	256·9	236·3	−14·7	+62·5
Means ..	..	..	0	4	256·62	236·46	−13·90	..
Group 8541. May 25–June 3. A very small, faint, but persistent group of a few spots.								
144·399 C	0	2	0	5	210·3	173·6	+ 2·8	−77·1
145·428 C	2	5	2	5	211·4	174·5	+ 2·8	−62·4
146·377 G	0	0	0	0	..	..	..	..
147·420 G	10	49	6	30	212·0	174·6	+ 2·9	−35·4
148·375 G	15	55	8	30	210·9	173·2	+ 2·9	−23·9
149·346 G	5	29	3	15	210·4	172·5	+ 2·8	−11·5
150·352 G	1	7	1	4	213·6	175·4	+ 2·8	+ 5·0
151·425 G	14	44	7	23	213·3	174·8	+ 2·3	+18·9
152·446 G	10	43	6	26	215·4	176·7	+ 2·8	+34·5
153·377 G	1	6	1	5	217·1	178·1	+ 3·5	+48·5
Means ..	..	..	3	14	212·71	174·82	+ 2·84	..
Group 8544. May 29–June 3. Two small centres of feeble activity, at which two larger spots appear near the west limb.								
148·375 G	2	9	1	5	236·1	218·4	+14·2	+ 1·3
149·346 G	19	56	10	31	238·2	220·4	+14·2	+16·3
150·352 G	26	100	16	60	238·7	220·8	+14·5	+30·1
151·425 G	21	79	16	58	238·7	220·7	+15·3	+44·3
152·446 G	39	131	37	126	237·9	219·8	+15·1	+57·0
153·377 G	40	157	60	235	237·7	219·5	+15·6	+69·1
Means ..	..	..	23	86	237·88	219·93	+14·82	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8545.								
May 29–June 7. Two very small clusters on May 29, which become a stream with a leader, *a*, as the only important component. This at first is regular, but after developing a composite umbra, it breaks in two portions whilst dying out.								
1918. d					°	°	°	°
148·375 G	20	67	15	50	188·8	187·9	−18·3	−46·0
149·346 G	54	218	34	135	190·4	189·5	−19·3	−31·5
150·352 G	93	397	51	219	191·9	191·0	−20·3	−16·7
151·425 G	153	669	81	355	191·5	190·6	−20·6	− 2·9
152·446 G	134	640	72	344	191·2	190·3	−20·3	+10·3
153·377 G	84	520	49	301	191·1	190·2	−20·5	+22·5
154·380 C	67	342	44	225	191·2	190·3	−20·7	+35·9
155·342 C	21	180	17	142	190·4	189·5	−20·5	+47·8
156·392 G	17	96	19	106	189·8	188·9	−20·3	+61·1
157·118 K	4	16	6	25	189·0	188·1	−20·8	+69·9
Means ..	..	..	39	190	190·53	189·63	−20·16	..
Spot *a*.								
149·346 G	32	110	20	67	192·4	193·6	−20·1	−29·5
150·352 G	60	285	33	157	192·8	194·0	−21·0	−15·8
151·425 G	121	520	64	276	192·4	193·6	−21·1	− 2·0
152·446 G	91	506	49	273	192·1	193·3	−20·8	+11·2
153·377 G	75	462	44	268	191·6	192·8	−20·8	+23·0
154·380 C	61	326	40	215	191·4	192·6	−20·8	+36·1
155·342 C	21	180	17	142	190·4	191·6	−20·5	+47·8
156·392 G	16	86	18	95	189·5	190·8	−20·7	+60·8
157·118 K	4	16	6	25	189·0	190·3	−20·8	+69·9
Group 8546.								
May 29–June 4. Some small unstable spots.								
148·375 G	0	21	0	31	166·7	171·0	+21·4	−68·1
149·346 G	5	23	4	21	169·2	173·5	+21·7	−52·7
150·352 G	3	22	2	16	169·4	173·8	+22·0	−39·2
151·425 G	7	29	4	18	163·9	168·3	+20·8	−30·5
152·446 G	16	32	9	18	162·7	167·1	+21·0	−18·2
153·377 G	14	118	8	63	165·9	170·3	+21·8	− 2·7
154·380 C	3	12	2	7	169·1	173·6	+22·3	+13·8
Means ..	..	..	4	25	166·70	171·09	+21·57	..
Group 8547.								
May 29–June 7. A wide area containing very unstable and scattered spots.								
148·375 G	0	5	0	9	162·1	151·6	+14·8	−72·7
149·346 G	16	71	18	78	161·0	150·4	+15·3	−60·9
150·352 G	20	91	16	70	161·2	150·5	+15·0	−47·4
151·425 G	24	113	16	74	158·4	147·6	+16·5	−36·0
152·446 G	11	78	7	45	155·9	145·1	+18·3	−25·0
153·377 G	21	142	11	75	157·2	146·3	+17·8	−11·4

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8547—*continued.*								
1918. d					°	°	°	°
154·380 C	17	57	9	30	161·6	150·6	+20·3	+ 6·3
155·342 C	2	7	1	4	161·0	150·0	+17·4	+18·4
156·392 G	8	54	5	33	157·4	146·3	+18·5	+28·7
157·118 K	2	7	1	5	156·4	145·2	+18·9	+37·3
Means ..	..	..	8	42	159·22	148·36	+17·28	..
Group 8548.								
May 30–June 6. A small group of the "stream" type in continual change.								
149·346 G	9	31	9	30	165·9	186·7	−26·0	−56·0
150·352 G	26	151	20	115	164·6	185·5	−26·1	−44·0
151·425 G	26	150	17	95	164·6	185·6	−25·5	−29·8
152·446 G	88	385	51	222	164·5	185·7	−25·1	−16·4
153·377 G	103	398	57	221	164·5	185·8	−25·3	− 4·1
154·380 C	20	167	12	95	164·6	186·1	−25·7	+ 9·3
155·342 C	12	40	7	24	166·6	188·2	−25·5	+24·0
156·392 G	2	11	2	7	165·0	186·7	−25·6	+36·3
Means ..	..	..	22	101	165·04	186·29	−25·60	..
Group 8551.								
May 31–June 7. A small stream passing rapidly through its development. The leading spot is alone represented on June 5 and 7, nothing being visible on June 6.								
150·352 G	10	28	7	21	160·3	126·3	− 8·5	−48·3
151·425 G	67	390	40	237	160·3	126·1	− 7·9	−34·1
152·446 G	72	317	39	171	160·4	126·0	− 7·6	−20·5
153·377 G	68	223	35	114	160·3	125·6	− 7·3	− 8·3
154·380 C	24	54	12	28	161·6	126·7	− 6·6	+ 6·3
155·342 C	6	32	3	17	162·6	127·5	− 5·7	+20·0
156·392 G	0	0	0	0	..	..	..	..
157·118 K	3	10	2	7	160·1	124·6	− 6·7	+41·0
Means ..	..	..	17	74	160·80	126·11	− 7·19	..
Group 8552.								
May 31–June 9. A short irregular stream of spots in continual change, forming near the east limb. The axis of the group is at first considerably inclined to the equator.								
150·352 G	2	7	3	9	141·5	103·8	+ 2·8	−67·1
151·425 G	29	91	25	76	141·5	103·5	+ 3·8	−52·9
152·446 G	79	252	51	163	141·9	103·6	+ 4·2	−39·0
153·377 G	44	263	24	147	142·3	103·8	+ 3·8	−26·3
154·380 C	26	124	14	64	142·1	103·3	+ 4·0	−13·2
155·342 C	19	65	9	33	144·6	105·6	+ 2·9	+ 2·0
156·392 G	69	176	36	92	144·9	105·7	+ 3·3	+16·2
157·118 K	25	188	14	105	145·8	106·4	+ 3·1	+26·7
158·406 G	21	64	15	45	146·7	106·9	+ 3·1	+44·7
159·323 G	11	39	11	37	147·9	107·9	+ 3·1	+58·0
Means ..	..	..	20	77	143·92	105·05	+ 3·41	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8553. May 31–June 9. A short stream developing at the east limb. None of the spots are stable and the character of the stream continually changes.								
1918. d					°	°	°	°
150·352 G	1	6	1	8	141·4	107·4	− 8·4	−67·2
151·425 G	14	33	12	28	141·1	106·9	− 8·2	−53·3
152·446 G	66	148	43	98	141·2	106·8	− 6·3	−39·7
153·377 G	53	385	30	218	141·0	106·3	− 6·4	−27·6
154·380 C	36	231	19	121	141·0	106·1	− 6·6	−14·3
155·342 C	52	338	26	169	141·9	106·8	− 6·8	− 0·7
156·392 G	63	336	33	175	141·1	105·8	− 7·1	+12·4
157·118 K	35	275	19	151	141·5	106·0	− 7·7	+22·4
158·406 G	8	66	5	44	143·2	107·4	− 7·1	+41·2
159·323 G	2	4	2	3	144·1	108·1	− 7·4	+54·2
Means ..	..	..	19	101	141·75	106·76	− 7·20	..
Group 8554. May 31–June 8. A small spot, *f* Group 8553, which grows and becomes regular for two days before breaking up.								
150·352 G	1	6	1	9	138·5	108·1	− 8·7	−70·1
151·425 G	22	57	20	53	137·2	106·6	− 9·3	−57·2
152·446 G	29	215	21	153	136·8	106·0	− 9·9	−44·1
153·377 G	37	228	22	137	136·1	105·1	− 9·9	−32·5
154·380 C	26	142	14	77	135·7	104·5	− 9·9	−19·6
155·342 C	27	101	14	52	135·3	103·9	− 9·6	− 7·3
156·392 G	9	25	5	13	135·1	103·5	− 9·4	+ 6·4
157·118 K	1	13	1	7	135·6	103·9	− 9·9	+16·5
158·406 G	7	12	4	8	138·8	106·8	− 8·1	+36·8
Means ..	..	..	11	57	136·57	105·38	− 9·41	..
Group 8555. June 1–8. A very small stream on June 1 and 2; only the leader is left on the following days. Nothing is seen on June 7.								
151·425 G	11	52	14	66	128·3	97·9	+ 9·1	−66·1
152·446 G	21	57	17	48	128·7	98·1	+ 9·6	−52·2
153·377 G	14	25	9	16	131·5	100·7	+ 9·1	−37·1
154·380 C	13	27	7	15	131·9	100·9	+ 9·6	−23·4
155·342 C	6	10	3	5	132·4	101·2	+ 9·7	−10·2
156·392 G	2	9	1	5	132·7	101·3	+ 9·4	+ 4·0
157·118 K	0	0	0	0	..	..	..	..
158·406 G	2	8	1	5	133·5	101·7	+ 9·7	+31·5
Means ..	..	..	7	20	131·29	100·26	+ 9·46	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8558. June 2–11. A group developing from a very small spot on June 2, immediately *p* Group 8549. A regular spot, *a*, generally with composite umbra, is the chief member. There are a few followers, but these soon disappear.								
1918. d					°	°	°	°
152·446 G	1	2	1	1	144·5	124·2	+13·8	−36·4
153·377 G	22	111	13	63	143·5	123·1	+15·0	−25·1
154·380 C	56	225	29	118	144·4	123·9	+14·5	−10·9
155·342 C	94	453	49	236	144·9	124·2	+14·4	+ 2·3
156·392 G	149	709	80	381	144·7	123·9	+14·2	+16·0
157·118 K	100	504	57	291	145·4	124·5	+14·2	+26·3
158·406 G	34	344	24	243	145·1	124·0	+14·1	+43·1
159·323 G	42	283	38	257	145·4	124·2	+13·6	+55·5
160·485 G	21	123	32	187	144·9	123·6	+13·3	+70·4
161·455 G	12	56	53	246	145·2	123·7	+13·3	+83·5
Means ..	..	..	38	202	144·80	123·93	+14·04	..
Spot *a*.								
154·380 C	49	169	25	88	145·6	124·3	+14·2	− 9·7
155·342 C	76	321	40	167	145·9	124·5	+14·2	+ 3·3
156·392 G	100	510	54	275	145·8	124·2	+13·8	+17·1
157·118 K	83	418	48	242	146·1	124·4	+14·1	+27·0
158·406 G	33	314	23	223	145·5	123·6	+13·8	+43·5
159·323 G	40	278	36	253	145·6	123·6	+13·5	+55·7
160·485 G	21	123	32	187	144·9	122·8	+13·3	+70·4
161·455 G	12	56	53	246	145·2	122·9	+13·3	+83·5
Group 8559. June 2–10. Intermittent. A few very small, faint, but persistent spots; none are seen on June 8 and 9.								
152·446 G	2	8	3	13	109·1	84·7	+11·7	−71·8
153·377 G	0	5	0	5	107·2	82·7	+12·2	−61·4
154·380 C	8	31	6	23	108·6	83·9	+11·3	−46·7
155·342 C	2	13	1	8	107·8	82·9	+12·7	−34·8
156·392 G	3	19	2	10	108·1	83·1	+12·2	−20·6
157·118 K	0	9	0	5	108·9	83·8	+13·6	−10·2
158·406 G	0	0	0	0	..	..	..	..
159·323 G	0	0	0	0	..	..	..	..
160·485 G	1	16	1	10	108·7	83·0	+13·3	+34·2
Means ..	..	..	1	8	108·34	83·44	+12·43	..
Group 8562. June 6–15. A small group showing little activity until June 10, when an extended stream suddenly appears. The component spots, however, are small and soon begin to disappear.								
156·392 G	2	10	2	11	68·3	49·2	+14·4	−60·4
157·118 K	18	100	15	84	67·1	47·9	+15·0	−52·0
158·406 G	31	90	21	59	65·0	45·7	+15·6	−37·0

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8562—*continued.*								
1918. d					°	°	°	°
159·323 G	8	27	5	15	64·5	45·1	+15·9	−25·4
160·485 G	70	260	37	136	68·6	49·0	+14·5	− 5·9
161·455 G	42	132	22	69	68·9	49·2	+14·8	+ 7·2
162·380 C	16	102	9	56	70·5	50·7	+13·0	+21·0
163·163 D	9	34	5	20	66·4	46·5	+15·3	+27·3
164·535 C	6	29	5	22	68·3	48·2	+13·9	+47·4
165·413 C	2	11	2	11	68·2	48·0	+14·4	+58·9
Means ..	..	..	12	48	67·58	47·95	+14·68	..
Group 8563. June 13–20. A small regular spot slowly disappearing. A few very small followers appear on June 18.								
163·163 D	0	15	0	35	321·9	316·5	+19·2	−77·2
164·535 C	11	56	12	59	320·4	315·0	+18·6	−60·5
165·413 C	18	66	14	52	320·5	315·0	+18·6	−48·8
166·373 C	23	54	15	35	320·7	315·2	+18·6	−35·9
167·526 C	11	31	6	17	320·6	315·1	+19·2	−20·7
168·394 C	9	54	5	29	319·5	313·9	+19·3	−10·4
169·422 G	2	6	1	3	320·2	314·6	+19·0	+ 4·0
170·380 G	1	6	1	3	319·8	314·2	+19·4	+16·2
Means ..	..	..	7	29	320·45	314·94	+18·99	..
Group 8568. June 19–26. A small stream forming near the east limb with only one component, the leader, of any importance.								
169·422 G	11	21	14	27	249·5	208·2	− 4·7	−66·7
170·380 G	30	72	26	63	249·2	207·7	− 5·0	−54·4
171·374 C	21	108	15	73	249·1	207·3	− 4·9	−41·3
172·388 G	50	197	28	111	250·6	208·5	− 4·7	−26·4
173·463 G	14	121	7	62	251·7	209·4	− 4·6	−11·1
174·571 G	26	191	13	95	250·6	208·0	− 4·6	+ 2·5
175·438 G	12	51	7	27	251·4	208·6	− 4·2	+14·8
176·588 G	2	4	1	2	249·3	206·2	− 5·5	+27·9
Means ..	..	..	14	58	250·17	207·99	− 4·78	..
Group 8572. June 26–July 5. A small but definite spot slowly disappearing. Two distant followers appear on June 30.								
176·588 G	7	33	17	79	145·2	138·5	−20·8	−76·2
177·394 C	6	25	7	31	147·3	140·6	−20·1	−63·4
178·359 C	8	69	7	59	147·8	141·0	−19·5	−50·1
179·370 C	15	26	10	17	148·3	141·5	−18·4	−36·3
180·421 G	16	44	9	25	147·6	140·7	−18·5	−23·0

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8572—*continued.*								
1918. d					°	°	°	°
181·386 G	19	39	10	21	149·7	142·8	−18·0	− 8·2
182·496 C	10	17	5	9	149·9	143·0	−17·7	+ 6·7
183·360 C	8	17	5	10	150·0	143·0	−18·0	+18·2
184·385 G	5	8	3	5	149·9	142·9	−18·3	+31·7
185·382 C	1	5	1	4	149·9	142·9	−18·3	+44·9
Means ..	..	..	7	26	148·56	141·69	−18·76	..
Group 8575. June 28–July 7. Revival of Group 8552. A stream of normal type developing in the usual manner, *sp* Group 8574; *a* is the leader spot, *b* represents the rear of the stream.								
178·359 C	6	34	5	28	145·4	102·6	+ 6·0	−52·5
179·370 C	25	72	16	45	146·5	103·5	+ 5·6	−38·1
180·421 G	49	194	27	107	147·0	103·7	+ 5·6	−23·6
181·386 G	66	318	33	160	148·8	105·3	+ 5·5	− 9·1
182·496 C	69	421	34	214	150·8	107·0	+ 5·7	+ 7·6
183·360 C	71	416	38	223	151·8	107·8	+ 5·4	+20·0
184·385 G	62	336	37	201	151·5	107·3	+ 5·1	+33·3
185·382 C	31	211	23	156	152·6	108·1	+ 5·1	+47·6
186·536 C	8	76	9	88	153·9	109·1	+ 4·9	+64·2
187·376 C	6	34	12	66	153·9	108·9	+ 5·3	+75·3
Means ..	...	..	23	129	150·22	106·33	+ 5·42	..
Spot *a*.								
179·370 C	10	36	6	22	147·9	104·5	+ 5·2	−36·7
180·421 G	22	95	12	51	149·2	105·5	+ 5·2	−21·4
181·386 G	35	202	17	101	150·7	106·8	+ 5·2	− 7·2
182·496 C	40	294	20	150	152·9	108·7	+ 5·7	+ 9·7
183·360 C	49	293	26	158	153·5	109·1	+ 5·4	+21·7
184·385 G	42	234	26	143	153·7	109·1	+ 4·8	+35·5
185·382 C	16	130	12	99	154·3	109·4	+ 4·7	+49·3
186·536 C	8	69	9	81	154·6	109·5	+ 4·8	+64·9
187·376 C	6	34	12	66	153·9	108·6	+ 5·3	+75·3
Spot *b*.								
180·421 G	23	76	13	43	144·8	102·2	+ 6·4	−25·8
181·386 G	31	116	16	59	145·0	102·2	+ 6·2	−12·9
182·496 C	20	95	10	48	145·1	102·0	+ 6·0	+ 1·9
183·360 C	15	73	8	38	145·5	102·2	+ 5·8	+13·7
184·385 G	13	59	7	33	145·9	102·4	+ 5·3	+27·7

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8576. June 28–July 1. Revival of Group 8559. A small double spot.								
1918. d					°	°	°	°
178·359 C	2	38	6	115	117·1	84·1	+10·4	−80·8
179·370 C	0	36	0	47	116·9	83·7	+10·5	−67·7
180·421 G	9	30	8	25	117·0	83·6	+10·3	−53·6
181·386 G	0	15	0	10	114·8	81·2	+11·6	−43·1
Means ..	..	..	4	49	116·45	83·15	+10·70	..
Group 8579. June 30–July 7. Revival of Group 8558. Intermittent. A very small spot seen only on June 30 and July 1; nothing is then seen until July 6, when two larger spots appear.								
180·421 G	3	17	2	9	147·5	123·5	+13·8	−23·1
181·386 G	0	6	0	3	148·6	124·5	+14·4	− 9·3
182·496 C	0	0	0	0	..	..	..	..
183·360 C	0	0	0	0	..	..	..	..
184·385 C	0	0	0	0	..	..	..	..
185·382 C	0	0	0	0	..	..	..	..
186·536 C	6	28	6	28	149·4	124·6	+14·1	+59·7
187·376 C	0	10	0	16	151·1	126·2	+13·9	+72·5
Means ..	..	..	1	7	149·15	124·70	+14·05	..
Group 8580. June 30–July 7. Intermittent. One or two small spots not seen on July 3 to 5.								
180·421 G	2	6	1	4	139·0	95·2	+ 4·8	−31·6
181·386 G	3	30	2	16	139·7	95·6	+ 4·8	−18·2
182·496 C	5	14	2	7	141·2	96·8	+ 5·5	− 2·0
183·360 C	0	0	0	0	..	..	..	..
184·385 G	0	0	0	0	..	..	..	..
185·382 C	0	0	0	0	..	..	..	..
186·536 C	0	9	0	7	138·7	93·4	+ 4·2	+49·0
187·376 C	6	19	6	20	141·0	95·5	+ 5·6	+62·4
Means ..	..	..	1	7	139·92	95·30	+ 4·98	..
Group 8581. June 30–July 10. A group forming at the east limb, seen generally as two extensive clusters of small unstable spots.								
180·421 G	4	22	9	44	94·6	65·0	+11·9	−76·0
181·386 G	17	82	19	95	93·6	63·9	+13·3	−64·3
182·496 C	22	47	17	36	94·6	64·7	+12·1	−48·6
183·360 C	41	133	27	86	92·8	62·7	+11·0	−39·0
184·385 G	87	375	49	211	92·2	62·0	+11·0	−26·0
185·382 C	77	474	39	245	92·7	62·3	+11·7	−12·3
186·536 C	36	288	18	145	92·6	62·0	+11·0	+ 2·9

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8581—*continued*.								
1918. d					°	°	°	°
187·376 C	28	237	15	125	93·7	63·0	+11·6	+15·1
188·388 C	2	27	1	16	96·6	65·7	+11·6	+31·4
189·387 G	0	15	0	10	91·4	60·3	+14·3	+39·4
190·476 G	2	10	2	8	91·3	60·1	+14·5	+53·7
Means ..	..	..	18	93	93·28	62·88	+12·18	..
Group 8583. July 2–10. A small irregular cluster which lengthens to a stream. The leading spot alone shows stability.								
182·496 C	34	130	19	72	121·1	91·7	+12·7	−22·1
183·360 C	59	339	30	173	121·7	92·2	+12·2	−10·1
184·385 G	99	496	50	253	122·0	92·3	+12·4	+ 3·8
185·382 C	31	212	16	113	122·2	92·4	+12·7	+17·2
186·536 C	18	57	11	35	123·4	93·4	+13·0	+33·7
187·376 C	23	120	16	85	123·4	93·2	+12·9	+44·8
188·388 C	23	85	22	80	123·2	92·9	+12·4	+58·0
189·387 G	8	47	12	68	122·0	91·5	+11·6	+70·0
190·476 G	0	6	0	26	121·7	91·0	+11·3	+84·1
Means ..	..	..	20	101	122·30	92·29	+12·36	..
Group 8585. July 3–14. A large spot of regular type, with a few very small followers until July 9, in a dense area of faculæ.								
183·360 C	19	122	44	281	55·6	33·0	−14·5	−76·2
184·385 G	55	299	63	344	55·8	33·1	−14·4	−62·4
185·382 C	56	386	45	314	55·6	32·8	−14·4	−49·4
186·536 C	80	466	51	300	55·3	32·4	−14·5	−34·4
187·376 C	46	452	26	258	55·5	32·5	−14·6	−23·1
188·388 C	92	531	49	282	55·6	32·4	−14·5	− 9·6
189·387 G	95	485	50	257	55·7	32·4	−14·4	+ 3·7
190·476 G	80	443	45	248	55·5	32·1	−14·8	+17·9
191·303 D	57	347	34	208	55·4	31·9	−14·8	+28·8
192·390 G	46	303	34	221	55·1	31·4	−14·8	+42·9
193·406 G	50	241	48	231	54·9	31·1	−14·8	+56·1
194·385 C	15	120	24	188	55·2	31·3	−14·8	+69·4
Means ..	..	..	43	261	55·43	32·20	−14·61	..
Group 8586. July 3–14. A regular spot followed by a few very small spots, those on July 9–11 being distant. On the same meridian as Group 8585.								
183·360 C	8	98	17	209	55·0	35·2	+14·7	−76·8
184·385 G	38	205	43	231	54·7	34·8	+15·0	−63·5
185·382 C	37	230	30	185	54·2	34·2	+15·3	−50·8
186·536 C	43	281	27	178	53·3	33·2	+15·4	−36·4

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8586—*continued.*								
1918. d					°	°	°	°
187·376 C	52	299	30	170	52·9	32·7	+15·3	−25·7
188·388 C	38	227	20	118	52·8	32·5	+15·6	−12·4
189·387 G	37	248	19	127	52·5	32·1	+15·4	+ 0·5
190·476 G	30	185	16	98	52·1	31·5	+15·4	+14·5
191·303 D	20	134	11	76	52·1	31·4	+15·8	+25·5
192·390 G	19	80	13	53	52·4	31·6	+15·6	+40·2
193·406 G	15	44	13	37	52·4	31·5	+15·8	+53·6
194·385 C	8	24	10	30	52·8	31·8	+16·2	+67·0
Means ..	..	..	21	126	53·10	32·71	+15·46	..
Group 8591.								
July 9–16. A few small spots becoming a stream roughly of normal type. The group quickly passes through the usual phases of development.								
189·387 G	10	67	6	39	24·3	352·1	−12·0	−27·7
190·476 G	68	273	36	146	24·9	352·5	−12·2	−12·7
191·303 D	72	416	38	216	25·0	352·5	−12·0	− 1·6
192·390 G	77	326	41	175	25·1	352·4	−12·2	+12·9
193·406 G	45	227	27	136	27·5	354·6	−11·9	+28·7
194·385 C	13	87	10	62	30·0	357·0	−11·6	+44·2
195·576 G	8	31	8	33	29·8	356·6	−11·4	+59·7
196·383 G	3	14	5	23	29·8	356·4	−11·1	+70·4
Means ..	..	..	21	104	27·05	354·26	−11·80	..
Group 8592.								
July 9–16. Revival of Group 8566. A small regular spot just disappearing.								
189·387 G	6	33	14	76	335·6	300·2	−11·1	−76·4
190·476 G	8	56	9	63	335·5	299·9	−11·2	−62·1
191·303 D	8	37	7	31	335·0	299·2	−10·6	−51·6
192·390 G	19	40	12	26	335·5	299·5	−10·7	−36·7
193·406 G	12	30	7	17	335·5	299·3	−10·5	−23·3
194·385 C	9	19	5	10	335·3	298·9	−10·2	−10·5
195·576 G	9	20	5	10	335·5	299·0	−10·2	+ 5·4
196·383 G	1	5	1	3	335·1	298·4	−10·4	+15·7
Means ..	..	..	8	29	335·38	299·30	−10·61	..
Group 8594.								
July 11–16. Revival of Group 8567. A small spot not seen on July 13. A spot has appeared the following day, preceded by a companion which remains alone on July 17.								
191·303 D	1	6	2	13	310·1	260·7	+ 1·6	−76·5
192·390 G	7	16	7	17	310·9	261·3	+ 1·3	−61·3
193·406 G	0	0	0	0	..	..	..	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8594—*continued.*								
1918. d					°	°	°	°
194·385 C	0	15	0	10	307·4	257·3	+ 0·9	−38·4
195·576 G	9	17	5	9	310·3	259·8	+ 1·8	−19·8
196·383 G	2	15	1	8	311·1	260·4	+ 1·6	− 8·3
Means ..	..	..	3	9	309·96	259·90	+ 1·44	..
Group 8595.								
July 12–19. An unstable stream of small spots which have all disappeared by July 18. A small spot reappears temporarily on July 19.								
192·390 G	3	9	4	13	302·5	254·8	+ 4·4	−69·7
193·406 G	22	51	20	47	301·5	253·5	+ 4·2	−57·3
194·385 C	11	84	7	57	302·9	254·7	+ 3·9	−42·9
195·576 G	22	82	12	47	301·5	253·0	+ 4·4	−28·6
196·383 G	9	51	5	26	303·5	254·8	+ 4·1	−15·9
197·514 G	0	11	0	5	298·6	249·6	+ 3·4	− 5·8
198·388 C	0	0	0	0	..	..	..	..
199·375 C	0	10	0	5	300·9	251·5	+ 4·4	+21·1
Means ..	..	..	6	25	301·63	253·13	+ 4·11	..
Group 8600.								
July 15–25. A small, faint, but persistent cluster of small spots, *f* Group 8599. These two groups are probably related to each other, although there is a definite separation of the faculæ surrounding each of them.								
195·576 G	0	21	0	65	249·2	203·4	+ 5·7	−80·9
196·383 G	8	32	12	47	248·9	203·0	+ 5·5	−70·5
197·514 G	15	69	13	60	249·1	202·9	+ 5·4	−55·3
198·388 C	5	21	3	14	249·0	202·6	+ 5·5	−43·9
199·375 C	6	27	3	15	250·2	203·6	+ 5·0	−29·6
200·447 C	14	36	7	19	246·7	199·8	+ 8·7	−18·9
201·401 C	8	47	4	23	247·6	200·5	+ 8·7	− 5·4
202·440 C	0	7	0	4	247·8	200·4	+ 6·7	+ 8·5
203·428 C	2	15	1	8	245·5	197·9	+ 7·1	+19·3
204·347 G	0	17	0	10	246·6	198·8	+ 5·2	+32·6
205·367 G	0	4	0	3	247·8	199·7	+ 4·7	+47·3
Means ..	..	..	4	24	248·04	201·15	+ 6·20	..
Group 8605.								
July 21–26. Two very small spots which are the nuclei for two small clusters. The *f* cluster disappears after July 24.								
201·401 C	7	17	4	9	259·9	237·3	+16·2	+ 6·9
202·440 C	59	234	32	128	259·3	236·6	+16·2	+20·0
203·428 C	33	192	20	120	261·3	238·5	+15·4	+35·1
204·347 G	19	104	14	77	260·5	237·6	+15·9	+46·5
205·367 G	9	28	9	29	262·3	239·3	+13·9	+61·8
206·379 C	3	33	6	62	262·6	239·5	+13·8	+75·4
Means ..	..	..	14	71	260·98	238·13	+15·23	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8606.								
July 22–August 1. A small regular spot, *f* which a train of very small spots appears. On July 28, Group 8616 develops just southwards in the same general area of faculæ.								
1918. d					°	°	°	°
202·440 C	6	34	11	63	167·2	152·2	−16·1	−72·1
203·428 C	18	99	19	105	167·7	152·7	−16·7	−58·5
204·347 G	31	194	25	155	166·9	151·8	−16·5	−47·1
205·367 G	59	280	38	181	167·5	152·3	−16·7	−33·0
206·379 C	41	233	24	133	168·0	152·7	−16·5	−19·2
207·523 G	40	179	22	96	169·1	153·7	−17·1	− 2·9
208·398 C	37	211	20	115	168·0	152·6	−17·0	+ 7·5
209·410 G	33	158	19	92	168·1	152·6	−17·4	+21·0
210·424 G	19	89	13	60	168·7	153·1	−18·0	+35·1
211·411 G	17	41	13	33	167·7	152·1	−18·4	+47·1
212·446 G	2	4	2	5	169·8	154·1	−17·8	+62·9
Means ..	..	..	19	94	168·06	152·72	−17·11	..
Group 8607.								
July 23–30. A small group, generally as a few small spots in a short stream.								
203·428 C	5	12	4	10	180·9	206·9	−24·5	−45·3
204·347 G	16	42	11	29	182·4	208·6	−25·0	−31·6
205·367 G	9	31	5	20	183·5	209·8	−24·9	−17·0
206·379 C	8	100	5	59	181·2	207·6	−25·4	− 6·0
207·523 G	28	78	17	46	182·7	209·3	−25·4	+10·7
208·398 C	14	79	9	50	182·3	209·0	−25·3	+21·8
209·410 G	3	22	2	16	182·0	208·8	−25·0	+34·9
210·424 G	2	8	2	7	179·2	206·1	−26·2	+45·6
Means ..	..	..	7	30	181·78	208·26	−25·21	..
Group 8609.								
July 24–28. Two small spots, the *f* one alone remaining on July 28.								
204·347 G	7	33	6	26	162·4	115·4	+ 5·8	−51·6
205·367 G	25	48	15	31	161·8	114·6	+ 6·4	−38·7
206·379 C	14	43	8	23	161·7	114·2	+ 7·0	−25·5
207·523 G	9	23	5	11	161·7	114·0	+ 6·9	−10·3
208·398 C	3	24	1	12	161·0	113·1	+ 7·4	+ 0·5
Means ..	..	..	7	21	161·72	114·26	+ 6·70	..
Group 8616.								
July 28–August 2. Two spot centres, represented generally by small clusters, appearing just *s* of Group 8606 in the same area of faculæ. The *p* one is alone left after July 31.								
208·398 C	7	44	4	25	164·8	170·4	−21·4	+ 4·3
209·410 G	34	109	20	65	165·6	171·2	−21·4	+18·5
210·424 G	48	135	32	90	165·2	170·9	−21·9	+31·6

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Group 8616—*continued*.								
1918. d					°	°	°	°
211·411 G	20	77	16	63	166·5	172·2	−21·4	+45·9
212·446 G	6	28	8	36	169·6	175·3	−21·4	+62·7
213·384 C	7	26	18	66	169·9	175·7	−21·3	+75·4
Means ..	..	..	16	58	166·93	172·62	−21·47	..
Group 8626.								
August 8–17. A regular spot breaking up suddenly after August 13.								
219·422 G	8	61	19	143	295·6	275·4	+16·5	−79·1
220·172 D	23	96	31	131	295·3	275·0	+16·8	−69·4
221·394 G	35	204	29	169	295·6	275·2	+16·5	−53·0
222·608 G	65	273	41	172	295·7	275·2	+16·0	−36·8
223·507 G	56	289	31	162	295·3	274·7	+16·2	−25·4
224·368 G	46	293	23	152	294·8	274·2	+15·9	−14·5
225·445 G	26	140	13	71	294·1	273·4	+16·1	− 0·9
226·397 G	16	70	8	36	293·6	272·8	+16·0	+11·1
227·429 G	7	19	4	11	293·4	272·5	+16·4	+24·6
228·357 C	0	4	0	3	293·6	272·6	+16·2	+37·0
Means ..	..	..	20	105	294·70	274·10	+16·26	..
Group 8628.								
August 9–15. A very small spot, *f* Group 8626, with which it is probably related. A tiny ephemeral stream appears on August 15.								
220·172 D	1	7	2	16	285·6	272·6	+18·5	−79·1
221·394 G	6	16	6	17	286·2	273·1	+18·3	−62·4
222·608 G	13	26	9	19	285·7	272·6	+18·3	−46·8
223·507 G	5	21	3	13	285·3	272·1	+18·0	−35·4
224·368 G	4	16	2	9	284·9	271·7	+17·6	−24·4
225·445 G	1	4	1	2	287·0	273·7	+16·4	− 8·0
226·397 G	9	27	5	14	286·3	272·9	+17·8	+ 3·8
Means ..	..	..	4	13	285·86	272·67	+17·84	..
Group 8630.								
August 10–19. A disturbed area shown at first by one or two very small spots and later by a sparse stream, with maximum development on the central meridian. Nothing is seen on August 17, and only one small spot on August 18–19.								
221·394 G	3	7	2	5	308·5	272·6	−13·9	−40·1
222·608 G	2	7	1	4	310·3	274·2	−12·2	−22·2
223·507 G	37	94	20	51	310·0	273·8	−11·6	−10·7
224·368 G	47	277	25	147	310·0	273·7	−11·7	+ 0·7
225·445 G	13	94	7	51	311·6	275·1	−11·9	+16·6
226·397 G	20	67	12	41	312·1	275·4	−11·9	+29·6

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8630—*continued.*								
1918. d					°	°	°	°
227·429 G	5	35	4	25	311·0	274·2	−11·9	+42·2
228·357 C	0	0	0	0	..	..	..	..
229·396 C	2	10	3	15	311·1	273·9	−13·0	+68·3
230·358 G	0	6	0	21	309·7	272·4	−12·7	+79·6
Means ..	..	..	7	36	310·48	273·92	−12·31	..
Group 8641. August 16–21. One small spot on August 16 and 17; two on August 18, the leader being of regular type and alone remaining on August 21.								
227·429 G	2	10	1	5	270·6	278·1	+21·4	+ 1·8
228·357 C	3	13	2	7	269·6	277·1	+21·8	+13·0
229·396 C	38	211	22	123	270·8	278·4	+21·8	+28·0
230·358 G	23	162	15	110	270·8	278·4	+21·9	+40·7
231·359 C	17	85	16	77	272·7	280·3	+21·8	+55·8
232·327 C	2	8	3	11	274·2	281 9	+21·6	+70·1
Means ..	..	..	10	55	271·45	279·03	+21·72	..
Group 8643. August 17–29. More probably a revival only of Groups 8606 and 8616, and not a return. A large regular spot with a small and imperfectly formed companion, *n f*. After August 22, the larger spot shows signs of disruption and by August 26 it has separated into two close regular components.								
228·357 C	10	45	74	331	172·7	162·7	−17·7	−83·9
229·396 C	61	360	106	631	172·8	162·7	−17·9	−70·0
230·358 G	97	549	102	577	173·0	162·9	−18·1	−57·1
231·359 C	132	661	103	515	173·4	163·2	−18·3	−43·5
232·327 C	151	833	98	544	173·0	162·8	−18·6	−31·1
233·408 G	191	915	111	531	173·4	163·1	−18·6	−16·4
234·369 C	137	830	77	463	173·3	163·0	−18·6	− 3·8
235·394 G	136	737	77	418	173·4	163·0	−18·9	+ 9·9
236·371 C	121	654	73	398	173·2	162·8	−18·9	+22·6
237·349 C	104	624	72	436	173·9	163·5	−19·0	+36·2
238·362 C	68	440	59	383	173·5	163·0	−18·9	+49·2
239·363 C	49	327	61	405	173·0	162·5	−18·7	+61·9
240·365 C	12	140	30	344	173·0	162·4	−18·6	+75·1
Means ..	..	..	80	460	173·20	162·89	−18·52	..
Group 8646. August 18–25. A small diminishing regular spot with a few small followers. Groups 8643 and 8646 are situated in the same general area of faculæ of considerable extent.								
229·396 C	7	27	37	144	160·8	152·3	−18·5	−82·0
230·358 G	17	108	29	189	159·7	151·2	−18·9	−70·4
231·359 C	17	96	18	101	160·1	151·5	−18·1	−56·8
232·327 C	30	87	24	69	158·4	149·8	−18·6	−45·7
233·408 G	17	78	11	51	157·9	149·3	−18·6	−31·9

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Group 8646—*continued.*								
1918. d					°	°	°	°
234·369 C	4	36	2	21	157·1	148·4	−18·9	−20·0
235·394 G	6	28	3	16	155·4	146·7	−20·3	− 8·1
236·371 C	0	6	0	3	158·3	149·6	−18·6	+ 7·7
Means ..	..	..	15	74	158·46	149·85	−18·81	..
Group 8647. August 19–27. A small stream of normal type; *a* is the leader spot.								
230·358 G	2	5	1	3	200·8	150·8	− 7·4	−29·3
231·359 C	7	41	4	22	200·1	149·9	− 7·6	−16·8
232·327 C	42	140	21	72	202·0	151·6	− 7·4	− 2·1
233·408 G	48	197	25	104	202·7	152·1	− 7·7	+12·9
234·369 C	66	295	37	171	202·6	151·7	− 8·2	+25·5
235·394 G	52	304	36	207	202·7	151·6	− 9·1	+39·2
236·371 C	26	163	24	146	204·3	153·0	− 8·5	+53·7
237·349 C	10	50	15	76	207·1	155·6	− 8·1	+69·4
238·362 C	0	28	0	149	207·8	156·1	− 8·3	+83·5
Means ..	..	..	18	106	203·34	152·49	− 8·03	..
Spot *a*.								
232·327 C	18	74	9	38	202·8	152·2	− 7·2	− 1·3
233·408 G	27	127	14	67	204·1	153·2	− 7·7	+14·3
234·369 C	26	130	15	77	205·5	154·4	− 8·1	+28·4
235·394 G	21	129	15	92	206·0	154·7	− 8·5	+42·5
236·371 C	16	91	15	86	207·0	155·5	− 8·2	+56·4
237·349 C	10	50	15	76	207·1	155·4	− 8·1	+69·4
Group 8648. August 19–24. Revival of Group 8610. A small spot.								
230·358 G	2	17	10	81	145·3	93·9	+ 7·6	−84·8
231·359 C	11	45	16	66	146·1	94·5	+ 7·7	−70·8
232·327 C	15	53	14	49	146·2	94·4	+ 7·6	−57·9
233·408 G	11	32	7	22	146·6	94·6	+ 7·1	−43·2
234·369 C	11	21	6	12	146·7	94·4	+ 7·5	−30·4
235·394 G	7	21	4	11	146·6	94·1	+ 7·4	−16·9
Means ..	..	..	10	40	146·25	94·32	+ 7·48	..
Group 8652. August 20–September 1. Two regular spots, *a* and *b*. The more northern is originally part of a composite spot, which later dissolves into a cluster before disappearing.								
231·359 C	4	22	(21	117	131·5	76·0	+ 6·0)*	−85·4
232·327 C	31	280	58	525	128·9	73·1	+ 6·9	−75·2
233·408 G	95	535	96	535	129·3	73·3	+ 6·6	−60·5
234·369 C	83	678	62	504	128·8	72·6	+ 6·6	−48·3

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8652—*continued*.								
1918. d					°	°	°	°
235·394 G	145	718	87	433	129·3	72·8	+ 5·8	−34·2
236·371 C	101	668	54	358	129·5	72·8	+ 5·7	−21·1
237·349 C	116	643	59	325	129·8	72·8	+ 5·3	− 7·9
238·362 C	78	456	39	228	130·2	73·0	+ 5·3	+ 5·9
239·363 C	75	386	40	205	130·8	73·4	+ 4·4	+19·7
240·365 C	54	226	32	135	131·3	73·6	+ 4·7	+33·4
241·511 G	46	182	35	136	131·1	73·1	+ 4·5	+48·4
242·358 C	23	76	23	76	131·3	73·1	+ 4·2	+59·8
243·388 C	4	27	7	46	131·2	72·8	+ 4·9	+73·3
Means ..	..	..	49	292	130·13	73·03	+ 5·41	..
Spot *a*.								
232·327 C	15	125	26	215	130·4	75·8	+ 6·5	−73·7
233·408 G	29	232	28	220	131·3	76·5	+ 6·4	−58·5
234·369 C	31	251	22	181	131·0	75·9	+ 6·4	−46·1
235·394 G	61	230	36	136	131·1	75·8	+ 6·0	−32·4
236·371 C	47	225	25	119	131·2	75·6	+ 6·1	−19·4
237·349 C	49	270	25	135	131·4	75·6	+ 5·8	− 6·3
238·362 C	32	209	16	105	131·6	75·6	+ 5·8	+ 7·3
239·363 C	36	194	19	103	131·6	75·4	+ 5·8	+20·5
240·365 C	29	113	17	68	131·9	75·4	+ 5·8	+34·0
241·511 G	21	92	16	69	131·5	74·7	+ 6·0	+48·8
242·358 C	9	34	9	34	131·7	74·7	+ 6·2	+60·2
243·388 C	0	16	0	27	131·4	74·2	+ 6·4	+73·5
Spot *b*.								
232·327 C	4	43	8	84	128·3	70·2	+ 5·0	−75·8
233·408 G	14	57	14	59	128·7	70·4	+ 4·9	−61·1
234·369 C	17	87	13	65	128·7	70·1	+ 4·5	−48·4
235·394 G	44	222	27	135	128·8	70·0	+ 4·1	−34·7
236·371 C	35	223	19	120	128·8	69·7	+ 4·4	−21·8
237·349 C	46	195	23	99	129·0	69·7	+ 3·9	− 8·7
238·362 C	36	169	18	84	129·3	69·7	+ 3·6	+ 5·0
239·363 C	39	192	21	102	129·8	70·0	+ 3·2	+18·7
240·365 C	25	106	15	63	130·5	70·4	+ 3·1	+32·6
241·511 G	25	90	19	67	130·9	70·5	+ 2·8	+48·2
242·358 C	14	42	14	42	131·1	70·5	+ 2·6	+59·6
243·388 C	4	11	7	19	131·0	70·2	+ 2·4	+73·1
Group 8654. August 22–28. A small equatorial group, seen firstly as a pair of spots and latterly as a small stream.								
233·408 G	2	4	2	4	133·2	72·8	− 0·4	−56·6
234·369 C	7	29	5	20	135·2	74·5	− 0·4	−41·9
235·394 G	16	46	9	26	136·4	75·4	− 0·6	−27·1

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8654—*continued*.								
1918. d					°	°	°	°
236·371 C	12	44	7	22	138·2	77·0	− 0·4	−12·4
237·349 C	30	94	15	47	140·0	78·5	+ 0·7	+ 2·3
238·362 C	17	78	9	41	140·0	78·3	+ 0·8	+15·7
239·363 C	9	27	5	16	142·3	80·3	+ 0·7	+31·2
Means ..	..	..	7	25	137·90	76·69	+ 0·06	..
Group 8663. August 31–September 5. A small stream of unstable spots.								
242·358 C	14	46	9	31	34·1	349·0	−10·8	−37·4
243·388 C	22	130	13	74	34·4	349·1	−10·8	−23·5
244·428 C	25	114	14	61	34·8	349·3	−10·8	− 9·4
245·387 G	28	78	15	41	35·2	349·6	−10·5	+ 3·7
246·386 C	11	67	6	37	36·8	351·0	−10·4	+18·5
247·558 G	3	17	2	11	38·6	352·6	−10·7	+35·7
Means ..	..	..	10	43	35·65	350·10	−10·67	..
Group 8665. September 1–12. A small regular spot, with very small companions from September 5–8.								
243·388 C	0	26	0	125	337·4	345·4	−22·0	−80·5
244·428 C	6	37	10	60	336·7	344·8	−21·7	−67·5
245·387 G	11	66	11	69	336·3	344·4	−21·6	−55·2
246·386 C	11	87	9	69	335·9	344·0	−21·4	−42·4
247·558 G	14	90	9	58	335·1	343·3	−21·5	−27·8
248·346 C	16	80	10	48	335·2	343·4	−21·3	−17·3
249·338 C	9	72	5	42	333·9	342·1	−21·8	− 5·5
250·377 C	13	39	8	23	334·0	342·3	−21·7	+ 8·4
251·373 G	6	25	4	15	333·7	342·0	−21·8	+21·2
252·416 G	8	13	6	9	333·5	341·8	−21·8	+34·8
253·414 G	4	9	4	8	333·3	341·7	−22·0	+47·8
254·444 G	0	3	0	4	332·8	341·2	−22·1	+60·9
Means ..	..	..	6	44	334·82	343·03	−21·73	..
Group 8667. September 4–10. A small cluster.								
246·386 C	0	7	0	21	300·2	272·4	−15·0	−78·1
247·558 G	13	47	16	55	301·4	273·4	−14·5	−61·5
248·346 C	36	117	33	106	300·2	272·1	−14·4	−52·3
249·338 C	32	195	23	138	300·5	272·3	−14·8	−38·9
250·377 C	12	80	7	49	299·4	271·1	−15·0	−26·2
251·373 G	3	12	2	7	298·4	270·0	−15·6	−14·1
252·416 G	2	12	1	7	299·3	270·8	−16·9	+ 0·6
Means ..	..	..	12	55	299·91	271·73	−15·17	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Group 8668.

September 5–14. Two small spots which later are the nuclei for small clusters.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
247·558 G	4	20	5	26	294·7	258·8	+12·6	−68·2
248·346 C	9	33	8	32	293·1	257·1	+13·1	−59·4
249·338 C	14	119	11	89	291·1	255·0	+13·3	−48·3
250·377 C	25	171	14	104	291·7	255·4	+13·4	−33·9
251·373 G	20	92	11	50	290·5	254·1	+13·3	−22·0
252·416 G	8	72	4	37	288·9	252·3	+13·9	− 9·8
253·414 G	10	61	5	30	289·2	252·5	+13·7	+ 3·7
254·444 G	3	22	2	12	289·2	252·3	+13·6	+17·3
255·378 G	0	6	0	3	289·4	252·4	+13·6	+29·8
256·485 C	0	6	0	4	290·1	252·9	+13·1	+45·1
Means ..	..	..	6	39	290·79	254·28	+13·36	..

Group 8674.

September 9–15. Two diminutive clusters, the following one becoming a short-lived, regular spot, whilst the other soon disappears.

251·373 G	17	66	10	41	303·6	349·8	−26·9	− 8·9
252·416 G	48	206	29	124	302·9	349·3	−26·8	+ 4·2
253·414 G	37	233	23	146	301·4	348·0	−27·0	+15·9
254·444 G	27	158	19	110	299·8	346·6	−27·1	+27·9
255·378 G	14	88	11	70	298·5	345·5	−27·0	+38·9
256·485 C	8	14	9	15	299·0	346·2	−27·2	+54·0
257·503 C	0	6	0	10	298·3	345·7	−27·8	+66·7
Means ..	..	..	14	74	300·50	347·30	−27·11	..

Group 8675.

September 10–18. An area of faculæ, in which a few small and usually very faint spots form and disappear.

252·416 G	0	4	0	3	249·6	213·3	−11·3	−49·1
253·414 G	2	7	1	5	250·0	213·5	−11·0	−35·5
254·444 G	4	15	2	8	253·1	216·5	−13·9	−18·8
255·378 G	1	18	1	10	252·5	215·7	−15·1	− 7·1
256·485 C	2	12	1	6	251·3	214·4	−13·0	+ 6·3
257·503 C	3	14	2	8	250·8	213·7	−13·5	+19·2
258·404 C	17	99	11	62	249·8	212·6	−14·6	+30·1
259·358 G	17	58	12	42	249·7	212·3	−14·2	+42·6
260·418 G	5	12	5	12	249·9	212·4	−14·2	+56·8
Means ..	..	..	4	17	250·74	213·82	−13·42	..

Group 8679.

September 15–22. A small regular spot breaking up on September 19.

1918. d					°	°	°	°
257·503 C	6	53	16	137	150·9	142·7	+19·5	−80·7
258·404 C	13	127	18	171	150·1	141·8	+19·6	−69·6
259·358 G	20	154	18	142	149·7	141·4	+19·4	−57·4
260·418 G	22	139	15	96	149·5	141·2	+18·7	−43·6
261·385 G	22	84	13	50	149·0	140·6	+18·5	−31·3
262·369 G	15	62	8	33	149·4	141·0	+18·6	−17·9
263·370 C	9	23	5	12	151·2	142·8	+19·0	− 2·9
264·172 D	6	18	3	9	151·9	143·5	+18·9	+ 8·4
Means ..	..	..	12	81	150·21	141·88	+19·02	..

Group 8681.

September 17–26. A regular spot with small attendants.

259·358 G	4	28	19	134	124·5	70·5	− 9·6	−82·6
260·418 G	22	115	31	165	125·1	70·9	− 9·0	−68·0
261·385 G	26	174	23	159	125·7	71·3	− 8·8	−54·6
262·369 G	50	244	35	172	125·4	70·8	− 8·8	−41·9
263·370 C	27	253	16	149	125·8	71·0	− 8·7	−28·3
264·172 D	37	233	20	128	125·8	70·8	− 8·6	−17·7
265·395 G	36	247	19	128	126·4	71·2	− 8·8	− 1·0
266·385 G	40	193	21	102	126·4	71·0	− 8·5	+12·1
267·346 C	7	83	4	48	127·2	71·6	− 8·8	+25·6
268·352 C	3	24	2	16	126·9	71·1	− 9·1	+38·6
Means ..	..	..	19	120	125·92	71·02	− 8·87	..

Group 8682.

September 18–30. A small regular spot, *f* which a train of small attendants appears after September 22.

260·418 G	9	51	28	161	113·4	55·1	− 7·2	−79·7
261·385 G	14	84	18	111	114·0	55·5	− 7·5	−66·3
262·369 G	19	144	17	125	114·1	55·3	− 7·7	−53·2
263·370 C	22	156	15	106	114·3	55·3	− 7·6	−39·8
264·172 D	20	147	12	87	114·0	54·8	− 7·2	−29·5
265·395 G	38	250	20	133	112·5	53·1	− 7·3	−14·9
266·385 G	52	287	27	149	112·3	52·6	− 7·3	− 2·0
267·346 C	49	237	25	125	112·7	52·8	− 7·3	+11·1
268·352 C	17	115	10	66	114·1	54·0	− 7·6	+25·8
269·400 G	23	161	15	106	113·5	53·2	− 7·2	+39·0
270·377 G	23	151	20	125	113·4	52·8	− 7·2	+51·8
271·372 C	11	69	14	88	114·0	53·2	− 7·0	+65·5
272·386 C	2	43	6	113	112·2	51·2	− 7·5	+77·1
Means ..	..	..	17	115	113·42	53·76	− 7·35	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8686.								
September 26–October 3. Revival of Group 8661. One very small spot on September 26, developing on the succeeding days into a short-lived stream, the following spot being last seen.								
1918. d					°	°	°	°
268·352 C	2	14	1	7	75·7	14·0	+ 6·8	−12·6
269·400 G	25	82	12	41	77·5	15·5	+ 6·5	+ 3·0
270·377 G	65	238	33	123	76·9	14·7	+ 6·5	+15·3
271·372 C	46	214	27	123	79·3	16·9	+ 5·9	+30·8
272·386 C	25	149	17	101	77·7	15·1	+ 6·3	+42·6
273·426 G	16	70	14	66	78·9	16·0	+ 5·7	+57·5
274·356 C	5	20	6	24	75·0	11·9	+ 7·5	+65·9
275·526 G	0	4	0	11	74·3	10·9	+ 8·8	+80·6
Means ..	..	..	14	62	76·91	14·38	+ 6·75	..
Group 8690.								
September 27–October 3. A long stream of spots just dying out.								
269·400 G	27	124	54	253	357·9	305·9	+ 9·6	−76·7
270·377 G	21	160	22	174	358·3	306·1	+10·0	−63·3
271·372 C	30	146	24	114	357·9	305·5	+10·2	−50·6
272·386 C	23	87	14	54	358·2	305·6	+10·0	−36·9
273·426 G	7	27	4	15	357·9	305·1	+10·1	−23·5
274·356 C	3	30	2	15	358·1	305·1	+10·2	−11·0
275·526 G	2	8	1	4	355·9	302·7	+11·0	+ 2·2
Means ..	..	..	17	90	357·74	305·14	+10·16	..
Group 8694.								
October 2–10. One or two small spots at first; later, a short stream.								
274·356 C	3	21	2	13	336·5	317·8	+18·3	−32·6
275·526 G	7	17	4	9	339·1	320·4	+17·2	−14·6
276·410 G	8	12	4	6	339·6	320·8	+17·0	− 2·4
277·355 C	3	17	2	9	339·1	320·2	+17·4	+ 9·6
278·482 G	30	127	16	70	337·9	319·0	+17·6	+23·2
279·533 G	33	229	21	144	337·7	318·7	+17·8	+36·9
280·348 C	12	105	9	78	338·2	319·1	+17·3	+48·1
281·343 C	9	35	10	38	339·3	320·2	+16·5	+62·4
282·163 D	0	4	0	6	337·4	318·2	+17·7	+71·3
Means ..	..	..	8	41	338·31	319·38	+17·42	..
Group 8697.								
October 4–11. Revival in region of Groups 8670 and 8672. A regular spot gradually disappearing, followed by an extended area of faculæ.								
276·410 G	4	34	14	117	259·4	215·7	+11·9	−82·6
277·355 C	15	90	20	121	260·3	216·5	+12·3	−69·2
278·482 G	28	127	24	108	260·2	216·2	+12·4	−54·5

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8697—*continued.*								
1918. d					°	°	°	°
279·533 G	20	165	13	109	260·1	215·9	+12·5	−40·7
280·348 C	18	89	10	52	260·4	216·1	+12·7	−29·7
281·343 C	10	60	5	31	260·5	216·1	+12·7	−16·4
282·163 D	12	43	6	22	260·5	215·9	+13·0	− 5·6
283·449 G	2	12	1	6	260·8	216·0	+13·1	+11·7
Means ..	..	..	12	71	260·28	216·05	+12·58	..
Group 8709.								
October 11–23. A very composite spot, *b*, seen at the east limb, preceded by a companion, *a*. Both grow, *b* in particular, and the group lengthens out into a large stream; *a* becomes of regular type, whilst *b* splits up into unstable components. The whole group is seen to be diminishing rapidly towards the west limb.								
283·449 G	8	62	24	188	167·1	140·2	+16·5	−82·0
284·354 C	44	298	62	421	167·2	140·2	+16·5	−70·0
285·438 G	113	645	102	582	166·4	139·3	+16·5	−56·5
286·454 C	133	1172	91	805	167·0	139·8	+16·5	−42·5
287·340 C	201	1297	118	763	167·4	140·1	+16·2	−30·4
288·411 C	207	1470	111	785	167·4	140·0	+16·2	−16·3
289·439 G	270	1532	138	781	166·7	139·2	+16·2	− 3·4
290·334 C	199	1399	102	719	166·2	138·6	+15·6	+ 7·9
291·523 G	228	1630	128	908	166·6	138·9	+15·8	+23·9
292·364 C	190	1108	119	693	166·9	139·1	+15·6	+35·3
293·334 C	119	816	90	605	165·9	138·0	+16·1	+47·1
294·426 C	48	342	55	367	166·9	138·9	+15·7	+62·5
295·463 G	13	89	(19	151	163·3	135·2	+15·7)*	+72·6
Means ..	..	..	95	635	166·81	139·36	+16·12	..
Spot *a*.								
284·354 C	5	21	6	25	170·8	147·8	+16·8	−66·4
285·438 G	24	109	20	89	170·2	147·1	+16·5	−52·7
286·454 C	36	261	23	167	172·2	149·0	+17·3	−37·3
287·340 C	62	369	35	207	173·7	150·4	+17·4	−24·1
288·411 C	54	374	28	194	174·5	151·1	+17·1	− 9·2
289·439 G	51	264	26	135	175·2	151·8	+16·5	+ 5·1
290·334 C	36	225	19	119	175·6	152·1	+16·6	+17·3
291·523 G	48	239	29	143	175·7	152·1	+16·5	+33·0
292·364 C	30	195	21	138	176·1	152·4	+16·7	+44·5
293·334 C	23	122	21	112	176·0	152·2	+16·6	+57·2
294·426 C	13	67	20	102	176·0	152·2	+16·5	+71·6
Spot *b*.								
283·449 G	8	62	24	188	167·1	138·8	+16·5	−82·0
284·354 C	39	277	56	396	166·9	138·5	+16·5	−70·3
285·438 G	89	536	82	493	165·4	136·9	+16·4	−57·5

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8709, Spot *b*—*continued.*								
1918. d					°	°	°	°
286·454 C	97	911	68	638	165·5	136·9	+16·4	−44·0
287·340 C	125	891	75	535	164·8	136·1	+16·3	−33·0
288·411 C	138	1042	75	563	164·5	135·7	+16·1	−19·2
289·439 G	190	1192	97	608	163·8	134·9	+15·8	− 6·3
290·334 C	146	1100	74	561	163·8	134·8	+15·5	+ 5·5
291·523 G	144	1203	78	657	164·0	134·9	+15·4	+21·3
292·364 C	129	778	77	467	163·7	134·5	+15·3	+32·1
293·334 C	73	622	51	435	162·8	133·5	+15·9	+44·0
294·426 C	27	240	25	223	162·2	132·8	+15·0	+57·8
295·463 G	13	71	19	102	161·0	131·5	+15·1	+70·3
Group 8710. October 12–21. Intermittent. A disturbed area shown by faculæ and a small spot on October 12. Nothing is then seen until the appearance of a small spot on October 16. On October 18, a very small stream has formed, somewhat preceding in longitude. Only one spot remains after October 19.								
284·354 C	2	7	2	7	181·4	147·8	−15·6	−55·8
285·438 G	0	0	0	0	..	..	..	..
286·454 C	0	0	0	0	..	..	..	..
287·340 C	0	0	0	0	..	..	..	..
288·411 C	2	7	1	4	182·3	148·3	−15·9	− 1·4
289·439 G	2	4	1	2	182·0	147·8	−15·4	+11·9
290·334 C	16	51	10	31	186·5	152·2	−14·4	+28·2
291·523 G	9	32	7	23	186·0	151·6	−14·2	+43·3
292·364 C	8	15	7	14	185·5	151·0	−14·4	+53·9
293·334 C	3	13	4	18	185·5	150·9	−14·5	+66·7
Means ..	..	..	3	10	184·17	149·94	−14·91	..
Group 8718. October 16–24. A small regular spot followed by a few small scattered and unstable companions.								
288·411 C	4	48	(8	71	108·1	89·1	+18·6)*	−75·6
289·439 G	23	127	27	149	105·5	86·4	+18·3	−64·6
290·334 C	28	132	23	110	105·9	86·7	+18·0	−52·4
291·523 G	13	92	8	58	107·5	88·3	+17·7	−35·2
292·364 C	19	79	11	44	107·7	88·4	+17·4	−23·9
293·334 C	25	97	13	50	106·4	87·0	+17·0	−12·4
294·426 C	28	98	15	50	106·2	86·8	+17·7	+ 1·8
295·463 G	26	79	15	41	105·1	85·6	+17·1	+14·4
296·506 G	5	12	3	7	106·1	86·5	+16·8	+29·2
Means ..	..	..	14	64	106·30	86·96	+17·50	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8719. October 18–29. Revival of Group 8686. A large extended cluster of spots with maximum development near the central meridian. The most stable component is a small regular spot, *a*, in front.								
1918. d					°	°	°	°
290·334 C	15	96	36	226	80·3	9·7	+ 5·1	−78·0
291·523 G	53	270	53	280	81·2	10·4	+ 5·3	−61·5
292·364 C	53	286	42	227	80·8	9·8	+ 5·2	−50·8
293·334 C	63	377	40	237	81·5	10·2	+ 5·2	−37·3
294·426 C	138	659	75	358	81·1	9·5	+ 5·1	−23·3
295·463 G	147	887	75	448	82·3	10·5	+ 5·6	− 8·4
296·506 G	150	745	75	374	82·7	10·7	+ 5·5	+ 5·8
297·375 C	150	729	79	384	82·9	10·6	+ 5·1	+17·4
298·464 G	96	527	56	306	82·3	9·8	+ 5·0	+31·2
299·371 C	64	373	44	257	82·6	9·8	+ 4·7	+43·5
300·460 G	43	137	42	130	82·4	9·4	+ 4·2	+57·6
301·372 C	8	43	12	67	83·6	10·4	+ 4·5	+70·8
Means ..	..	..	52	274	81·98	10·07	+ 5·04	..
Spot *a*.								
293·334 C	22	127	13	77	84·1	11·1	+ 4·2	−34·7
294·426 C	28	173	15	92	85·4	12·1	+ 3·9	−19·0
295·463 G	35	164	18	82	86·0	12·4	+ 3·7	− 4·7
296·506 G	38	133	19	68	86·6	12·8	+ 3·8	+ 9·7
297·375 C	29	130	16	70	87·3	13·3	+ 3·8	+21·8
298·464 G	13	33	8	20	87·8	13·5	+ 3·4	+36·7
299·371 C	11	34	8	26	88·8	14·3	+ 3·5	+49·7
300·460 G	8	17	9	20	89·3	14·5	+ 3·8	+64·5
301·372 C	0	8	0	16	89·0	14·0	+ 4·4	+76·2
Group 8724. October 23–November 4. A regular spot, with a small companion which outlives it by a few days.								
295·463 G	10	53	28	149	13·3	357·9	−18·8	−77·4
296·506 G	22	122	29	160	12·6	357·2	−18·3	−64·3
297·375 C	32	178	30	165	12·3	356·8	−18·6	−53·2
298·464 G	43	225	31	159	11·8	356·3	−18·3	−39·3
299·371 C	36	202	22	124	11·7	356·1	−18·3	−27·4
300·460 G	45	305	26	171	11·1	355·5	−18·1	−13·7
301·372 C	36	255	20	137	11·1	355·4	−18·0	− 1·7
302·589 C	38	188	21	104	10·6	354·9	−18·0	+13·9
303·382 C	32	135	19	81	10·7	354·9	−18·0	+24·4
304·357 C	17	50	12	34	9·8	354·0	−18·6	+36·4
305·301 C	4	16	3	13	9·2	353·3	−17·6	+48·2
306·375 C	3	15	4	18	9·4	353·5	−17·4	+62·6
307·426 G	0	5	0	12	8·9	352·9	−17·8	+76·0
Means ..	..	..	19	102	10·96	355·28	−18·14	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8726.								
October 26–November 6. Two indefinite spots at the east limb. The leader, *a*, tends to the regular type and remains stable; the follower, *b*, soon breaks up and disappears, at the same time that a few spots are forming between them. These in turn die out, leaving *a* alone on November 4.								
1918. d					°	°	°	°
298·464 G	11	84	23	180	336·3	290·0	−12·8	−74·8
299·371 C	27	266	33	321	336·0	289·6	−13·0	−63·1
300·460 G	39	202	30	157	338·4	291·8	−13·0	−46·4
301·372 C	39	208	24	131	339·1	292·4	−13·0	−33·7
302·589 C	66	277	36	151	341·1	294·2	−12·8	−15·6
303·382 C	78	406	41	213	341·3	294·3	−13·4	− 5·0
304·357 C	57	350	30	185	341·9	294·7	−13·5	+ 8·5
305·301 C	32	206	18	117	343·5	296·2	−12·4	+22·5
306·375 C	31	181	20	121	345·2	297·7	−12·1	+38·4
307·426 G	24	123	21	106	345·5	297·8	−12·1	+52·6
308·446 G	8	39	11	52	345·8	298·0	−12·3	+66·3
309·205 D	0	12	0	28	345·8	297·9	−12·5	+76·3
Means ..	..	..	24	147	341·66	294·55	−12·74	..
Spot *a*.								
298·464 G	3	27	5	49	338·8	290·8	−12·2	−72·3
299·371 C	10	102	11	109	339·2	291·0	−12·6	−59·9
300·460 G	26	133	19	98	340·7	292·3	−13·0	−44·1
301·372 C	27	147	16	90	341·5	293·0	−12·7	−31·3
302·589 C	31	174	17	94	342·3	293·6	−12·4	−14·4
303·382 C	52	232	27	121	343·0	294·2	−12·5	− 3·3
304·357 C	34	199	18	105	344·0	295·0	−12·4	+10·6
305·301 C	28	169	16	96	344·7	295·5	−11·9	+23·7
306·375 C	29	164	19	110	345·5	296·2	−11·9	+38·7
307·426 G	24	123	21	106	345·5	296·0	−12·1	+52·6
308·446 G	8	39	11	52	345·8	296·1	−12·3	+66·3
309·205 D	0	12	0	28	345·8	296·0	−12·5	+76·3
Spot *b*.								
298·464 G	8	57	18	131	335·2	290·4	−13·0	−75·9
299·371 C	17	164	22	212	334·0	289·1	−13·4	−65·1
300·460 G	11	62	9	53	333·2	288·1	−12·9	−51·6
301·372 C	12	43	8	29	333·3	288·1	−13·1	−39·5
Group 8737.								
November 11–17. Revival of Group 8709. A large area of faculæ, seen at both the east limb and later at the west limb, in which a few very small spots appear. Nothing is seen on November 12, 13 and 15.								
314·380 C	1	10	1	6	172·5	167·5	+19·7	−28·8
315·436 G	0	0	0	0	..	..	..	..
316·475 G	0	0	0	0	..	..	..	..
Group 8737—*continued.*								
1918. d					°	°	°	°
317·406 C	4	12	2	7	169·7	164·6	+21·4	+ 8·3
318·462 G	0	0	0	0	..	..	..	..
319·470 G	4	26	3	17	169·7	164·6	+19·1	+35·5
320·342 C	2	4	1	3	168·8	163·7	+18·7	+46·1
Means ..	..	..	1	5	170·18	165·10	+19·73	..
Group 8739.								
November 11–23. Two spots developing near the east limb with numerous very small companions. The leader, *a*, becomes very large and is of composite formation. After November 17, it practically separates into two portions. The follower, *b*, though tending to the regular type of spot, soon begins to diminish and is last seen as a tiny spot on November 21.								
314·380 C	5	18	12	42	123·2	82·3	+13·6	−78·1
315·436 G	66	334	86	423	120·6	79·6	+14·2	−66·7
316·475 G	113	777	96	656	120·5	79·4	+14·5	−53·1
317·406 C	157	927	105	621	120·8	79·5	+14·4	−40·6
318·462 G	186	1062	107	606	121·0	79·6	+14·1	−26·4
319·470 G	193	1329	102	698	121·2	79·7	+13·8	−13·0
320·342 C	176	1106	90	566	121·0	79·4	+14·1	− 1·7
321·352 C	159	1054	83	547	120·3	78·5	+14·0	+11·0
322·404 C	87	905	49	513	120·7	78·8	+14·1	+25·2
323·340 C	87	583	55	371	120·3	78·3	+14·5	+37·2
324·350 C	73	452	59	361	120·4	78·2	+14·5	+50·6
325·468 G	48	223	59	274	120·8	78·5	+14·2	+65·7
326·472 G	12	82	28	193	119·7	77·3	+14·8	+77·8
Means ..	..	..	72	452	120·81	79·16	+14·22	..
Spot *a*.								
315·436 G	20	162	23	188	122·7	80·4	+13·4	−64·6
316·475 G	61	429	49	343	123·0	80·6	+13·9	−50·6
317·406 C	86	492	55	315	123·5	81·0	+13·8	−37·9
318·462 G	121	694	68	389	122·8	80·1	+13·6	−24·6
319·470 G	150	976	78	508	122·3	79·5	+13·6	−11·9
320·342 C	133	864	68	441	121·6	78·7	+13·9	− 1·1
321·352 C	116	820	60	426	121·4	78·3	+13·9	+12·1
322·404 C	59	799	34	455	121·4	78·2	+13·9	+25·9
323·340 C	78	532	50	340	120·6	77·3	+14·4	+37·5
324·350 C	67	437	54	350	120·5	77·0	+14·5	+50·7
325·468 G	48	223	59	274	120·8	77·2	+14·2	+65·7
326·472 G	12	82	28	193	119·7	76·0	+14·8	+77·8
Spot *b*.								
315·436 G	41	128	57	179	118·1	82·5	+14·9	−69·2
316·475 G	52	348	47	313	117·8	82·0	+15·1	−55·8
317·406 C	56	321	40	228	117·6	81·7	+15·6	−43·8

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued.*

Date G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8739, Spot *b*—*continued.*								
1918. d					°	°	°	°
318·462 G	45	289	27	171	117·3	81·3	+15·3	−30·1
319·470 G	35	279	19	151	117·2	81·1	+15·3	−17·0
320·342 C	33	177	17	92	117·0	80·8	+15·6	− 5·7
321·352 C	30	133	16	69	116·7	80·4	+15·3	+ 7·4
322·404 C	28	106	15	58	116·3	79·9	+15·0	+20·8
323·340 C	9	51	5	31	116·2	79·7	+14·7	+33·1
324·350 C	6	15	5	11	116·5	79·9	+14·9	+46·7
Group 8743. November 14–22. A small regular spot with two very small followers, one of which has become larger and of regular type by November 17.								
317·406 C	7	43	14	96	85·4	12·4	− 6·0	−76·0
318·462 G	20	98	21	105	86·0	12·8	− 6·3	−61·4
319·470 G	36	210	29	163	85·5	12·0	− 6·5	−48·7
320·342 C	33	178	21	114	85·8	12·1	− 6·4	−36·9
321·352 C	41	194	22	107	85·2	11·3	− 6·9	−24·1
322·404 C	39	93	20	48	85·3	11·1	− 6·6	−10·2
323·340 C	18	58	10	30	85·5	11·1	− 7·4	+ 2·4
324·350 C	8	27	5	14	86·1	11·5	− 6·9	+16·3
325·468 G	4	19	2	11	86·1	11·2	− 7·7	+31·0
Means ..	..	..	16	76	85·66	11·72	− 6·74	..
Group 8744. November 15–21. A regular spot gradually disappearing.								
318·462 G	8	39	18	86	70·3	43·9	+16·8	−77·1
319·470 G	20	98	23	112	70·6	44·1	+16·7	−63·6
320·342 C	13	65	11	54	70·6	44·0	+16·6	−52·1
321·352 C	14	48	9	32	70·4	43·7	+16·9	−38·9
322·404 C	12	46	6	25	70·1	43·3	+16·7	−25·4
323·340 C	12	31	6	16	69·7	42·9	+16·8	−13·4
324·350 C	7	17	4	9	69·5	42·6	+16·5	− 0·3
Means ..	..	..	11	48	70·17	43·50	+16·71	..
Group 8746. November 15–23. A small regular spot, with double umbra, gradually disappearing.								
318·462 G	0	18	0	59	66·5	350·7	− 5·1	−80·9
319·470 G	19	69	25	90	67·0	351·0	− 5·1	−67·2
320·342 C	16	66	14	59	66·9	350·7	− 5·3	−55·8
321·352 C	22	117	15	80	66·9	350·4	− 5·5	−42·4
322·404 C	14	103	8	60	66·8	350·1	− 5·6	−28·7
323·340 C	18	71	10	38	66·7	349·7	− 5·7	−16·4
324·350 C	23	44	12	22	66·7	349·5	− 5·8	− 3·1
325·468 G	10	18	5	9	67·0	349·5	− 6·4	+11·9
326·472 G	2	4	1	2	67·1	349·4	− 6·4	+25·2
Means ..	..	..	10	47	66·84	350·11	− 5·66	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Group 8748. November 16–23. A small stream of spots, *f* Group 8743.								
1918. d					°	°	°	°
319·470 G	2	11	2	11	73·9	3·9	− 8·8	−60·3
320·342 C	9	54	7	41	75·2	5·0	− 8·2	−47·5
321·352 C	20	80	12	49	76·4	6·0	− 8·3	−32·9
322·404 C	39	227	21	123	77·1	6·5	− 7·9	−18·4
323·340 C	29	105	15	54	77·2	6·4	− 7·4	− 5·9
324·350 C	16	80	8	41	78·4	7·4	− 6·9	+ 8·6
325·468 G	14	39	8	22	79·9	8·6	− 7·1	+24·8
326·472 G	5	32	3	20	78·7	7·2	− 8·2	+36·8
Means ..	..	..	9	45	77·10	6·38	− 7·85	..
Group 8749. November 16-23. A small spot on the same meridian as Group 8744.								
319·470 G	6	14	7	16	70·2	1·5	+ 8·4	−64·0
320·342 C	9	23	7	19	70·4	1·5	+ 8·3	−52·3
321·352 C	29	62	19	40	70·7	1·6	+ 8·5	−38·6
322·404 C	19	62	10	34	71·5	2·2	+ 8·6	−24·0
323·340 C	19	66	10	34	71·6	2·1	+ 8·5	−11·5
324·350 C	7	17	3	8	71·6	1·9	+ 8·5	+ 1·8
325·468 G	7	16	4	8	71·1	1·1	+ 7·9	+16·0
326·472 G	9	15	5	9	70·8	0·6	+ 7·7	+28·9
Means ..	..	..	8	21	70·99	1·56	+ 8·30	..
Group 8750. November 16–26. An irregular stream of spots diminishing from the east limb.								
319·470 G	7	74	19	252	54·5	49·1	−20·0	−79·7
320·342 C	31	160	51	282	51·3	45·8	−20·1	−71·4
321·352 C	28	307	29	320	51·2	45·7	−20·1	−58·1
322·404 C	47	282	36	216	50·6	45·1	−19·6	−44·9
323·340 C	38	233	25	149	49·9	44·4	−19·2	−33·2
324·350 C	34	148	19	84	49·5	44·0	−19·4	−20·3
325·468 G	16	63	9	34	50·4	44·9	−19·3	− 4·7
326·472 G	5	39	2	22	49·5	43·9	−19·5	+ 7·6
327·				No Photograph.				
328·352 C	1	12	1	8	49·1	43·5	−19·2	+32·0
329·377 C	3	15	2	11	48·3	42·7	−20·4	+44·7
Means ..	..	..	19	138	50·43	44·91	−19·68	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*.

Group 8755.

November 20–27. A small but definite spot with a distant companion on November 21 and 23.

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
1918. d					°	°	°	°
323·340 C	12	36	14	42	18·1	313·4	+10·8	−65·0
324·350 C	22	63	19	51	18·1	313·2	+10·5	−51·7
325·468 G	16	48	10	30	19·3	314·2	+ 9·9	−35·8
326·472 G	17	57	9	31	18·8	313·5	+ 9·6	−23·1
327·				No Photograph.				
328·352 C	15	24	7	12	19·9	314·2	+ 8·9	+ 2·8
329·377 C	9	18	5	10	20·4	314·5	+ 8·8	+16·8
330·303 C	4	15	2	9	20·7	314·6	+ 8·8	+29·3
Means ..	..	..	9	26	19·33	313·94	+ 9·61	..

Group 8759.

November 22–December 1. Intermittent. A small spot, increasing for a time and becoming regular, with a few unstable followers. The group has disappeared by November 28, but near the west limb on December 1, one very small spot is seen in the *p* portion of an area of faculæ.

325·468 G	4	14	7	24	343·6	319·5	−16·7	−71·5
326·472 G	19	104	19	104	344·3	320·1	−17·5	−57·6
327·				No Photograph.				
328·352 C	38	157	24	99	343·7	319·4	−17·2	−33·4
329·377 C	20	100	11	57	344·2	319·8	−17·3	−19·4
330·303 C	17	56	9	31	343·4	319·0	−17·4	− 8·0
331·360 C	0	0	0	0	..	..	..	..
332·339 C	0	0	0	0	..	..	..	..
333·342 C	0	0	0	0	..	..	..	..
334·358 C	0	4	0	3	344·1	319·4	−16·7	+46·2
Means ..	..	..	8	35	343·88	319·53	−17·13	..

Group 8761.

November 28–December 3. A small, short stream on November 28. A regular spot has fully formed at the head on November 29, but it rapidly diminishes as the small spots disappear.

331·360 C	24	74	13	41	330·1	343·7	−22·9	− 7·3
332·339 C	39	214	22	118	331·5	345·1	−22·3	+ 7·0
333·342 C	32	131	18	75	331·0	344·7	−22·3	+19·7
334·358 C	18	66	12	43	330·3	344·0	−21·9	+32·4
335·549 C	4	22	3	18	332·4	346·2	−21·2	+50·2
336·545 G	4	8	5	10	332·7	346·5	−21·5	+63·6
Means ..	..	..	12	51	331·33	345·03	−22·02	..

Group 8763.

December 2–8. A short stream of small unstable spots.

1918. d					°	°	°	°
335·549 C	14	45	7	23	275·7	231·1	−14·8	− 6·5
336·545 G	10	34	5	17	277·0	232·2	−13·9	+ 7·9
337·365 C	8	74	4	40	276·3	231·4	−14·2	+18·0
338·362 C	12	77	7	46	276·6	231·6	−14·1	+31·4
339·349 C	29	88	22	64	277·2	232·1	−14·1	+45·1
340·357 C	14	55	14	56	278·5	233·2	−13·7	+59·6
341·367 C	4	19	7	33	278·6	233·2	−13·7	+73·0
Means ..	..	..	9	40	277·13	232·11	−14·07	..

Group 8767.

December 8–18. A regular spot breaking up on December 14. Two very small followers are seen in the accompanying faculæ on December 10.

341·367 C	17	82	29	139	132·8	52·6	− 5·2	−72·8
342·414 G	23	147	22	143	133·1	52·6	− 5·3	−58·7
343·489 C	33	195	24	138	132·7	52·0	− 5·5	−44·9
344·362 C	36	222	22	133	133·4	52·5	− 5·6	−32·7
345·331 C	42	274	22	145	133·3	52·2	− 5·9	−20·0
346·357 C	40	218	20	111	133·1	51·7	− 6·3	− 6·7
347·361 C	35	142	18	72	133·3	51·7	− 6·6	+ 6·7
348·437 C	12	55	6	29	132·4	50·5	− 6·4	+20·0
349·383 C	9	14	5	8	132·9	50·8	− 6·8	+33·0
350·501 G	1	6	1	5	133·1	50·7	− 6·9	+47·9
351·165 D	1	6	1	6	133·8	51·3	− 6·5	+57·3
Means ..	..	..	15	84	133·08	51·69	− 6·09	..

Group 8776.

December 19–27. Two small spots becoming a short stream of little importance after December 22. On the same meridian as Groups 8774 and 8775.

352·345 C	5	30	5	27	5·6	303·2	+11·7	−55·3
353·332 C	11	49	8	34	6·0	303·5	+11·2	−41·9
354·334 C	40	288	23	167	7·0	304·3	+11·6	−27·7
355·372 C	79	203	42	108	6·1	303·2	+11·3	−14·9
356·355 C	20	101	10	52	5·3	302·2	+10·9	− 2·8
357·321 C	13	66	7	34	5·6	302·3	+11·3	+10·2
358·494 G	10	46	6	26	5·3	301·9	+10·9	+25·4
359·507 G	4	14	3	9	6·0	302·4	+11·6	+39·4
360·378 C	0	11	0	9	7·8	304·0	+11·0	+52·7
Means ..	..	..	12	52	6·08	303·00	+11·28	..

LEDGER II.—NON-RECURRENT GROUPS of SUN SPOTS for the YEAR 1918—*continued*

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude System I.	Longitude System II.	Latitude.	Long. from C.M.
Group 8779. December 21–31. Intermittent. A small area of disturbance, *np* Group 8780, shown by faculæ and one or two evanescent spots, not seen on December 24, 27 and 29.								
1918. d					°	°	°	°
354·334 C	2	13	2	13	335·3	279·3	−12·8	−59·4
355·372 C	4	15	3	11	333·9	277·7	−13·0	−47·1
356·355 C	2	4	1	2	337·1	280·8	−11·6	−31·0
357·321 C	0	0	0	0	..	..	..	..
358·494 G	2	9	1	5	334·0	277·4	−13·5	− 5·9
359·507 G	0	7	0	4	333·9	277·1	−13·4	+ 7·3
360·378 C	0	0	0	0	..	..	..	..
361·527 C	6	22	4	14	337·6	280·5	−12·1	+37·6
362·381 C	0	0	0	0	..	..	..	..
363·363 C	8	39	9	43	338·7	281·3	−11·7	+62·9
364·346 C	6	15	12	31	339·1	281·5	−12·6	+76·3
Means ..	..	..	3	11	336·20	279·45	−12·59	..
Group 8780. December 22–31. A stream developing from two very small spots. The chief component is the leader, *a*, seen on December 26, as a spot of regular type, after which date the group diminishes rapidly.								
355·372 C	5	18	4	15	328·8	301·4	−16·4	−52·2
356·355 C	41	167	27	110	328·8	301·4	−15·8	−39·3
357·321 C	59	262	34	151	328·4	300·9	−15·6	−27·0
358·494 G	79	564	41	293	329·6	302·0	−16·4	−10·3
359·507 G	118	590	61	307	330·7	303·0	−16·7	+ 4·1
360·378 C	59	490	33	266	331·4	303·6	−17·2	+16·3
361·527 C	34	249	21	155	331·9	304·1	−18·1	+31·9
362·381 C	26	140	19	103	334·0	306·1	−17·7	+45·3
363·363 C	8	41	9	45	338·2	310·2	−18·0	+62·4
364·346 C	4	11	8	22	338·5	310·4	−18·0	+75·7
Means ..	..	..	26	147	332·03	304·31	−16·99	..

Date. G.M.T. (Civil) Place.	Projected Area. Umbræ.	Projected Area. Whole Spots.	Corrected Area. Umbræ.	Corrected Area. Whole Spots.	Longitude. System I.	Longitude. System II.	Latitude.	Long. from C.M.
Spot *a*.								
1918. d					°	°	°	°
356·355 C	30	106	20	69	329·8	303·8	−15·9	−38·3
357·321 C	43	157	25	89	330·0	303·9	−15·3	−25·4
358·494 G	59	401	31	209	331·5	305·3	−16·2	− 8·4
359·507 G	79	446	41	232	332·6	306·4	−16·8	+ 6·0
360·378 C	41	313	23	172	333·7	307·4	−18·0	+18·6
361·527 C	24	145	15	93	335·6	309·2	−18·3	+35·6
362·381 C	24	100	18	77	336·8	310·4	−18·0	+48·1
363·363 C	8	41	9	45	338·2	311·7	−18·0	+62·4
364·346 C	4	11	8	22	338·5	311·9	−18·0	+75·7
Group 8783. December 25–1919 January 3. A small regular spot disappearing in a few days, when one or two very small spots appear near its place. Part of a large general disturbance with Groups 8782 and 8788.								
358·494 G	6	28	23	107	257·0	239·1	−17·7	−82·9
359·507 G	13	58	19	86	256·7	238·7	−17·8	−69·9
360·378 C	15	82	15	82	256·1	238·1	−18·3	−59·0
361·527 C	15	66	11	48	255·3	237·2	−18·2	−44·7
362·381 C	14	32	9	20	255·5	237·4	−18·0	−33·2
363·363 C	5	13	3	7	255·3	237·1	−18·1	−20·5
364·346 C	0	14	0	7	256·9	238·7	−17·4	− 5·9
365·383 C	3	27	2	14	258·2	239·9	−19·9	+ 9·0
366·404 C	2	21	1	12	256·8	238·5	−18·5	+21·1
367·359 C	3	13	2	8	257·5	239·1	−18·6	+34·3
Means ..	..	..	8	39	256·53	238·38	−18·25	..
Group 8788. December 26–1919 January 3. A small spot, *np* Group 8782, in the same general area of faculæ, from which develops a small stream. The only important component is the leader, a regular spot.								
359·507 G	2	8	2	8	268·4	205·1	−12·2	−58·2
360·378 C	11	54	8	39	268·4	205·0	−11·3	−46·7
361·527 C	52	304	31	181	268·3	204·7	−11·4	−31·7
362·381 C	48	310	26	165	269·2	205·4	−11·3	−19·5
363·363 C	34	245	18	125	270·2	206·2	−11·6	− 5·6
364·346 C	32	267	17	136	269·6	205·5	−11·3	+ 6·8
365·383 C	31	105	17	57	271·2	206·9	−11·3	+22·0
366·404 C	14	26	9	16	273·2	208·7	−11·1	+37·5
367·359 C	7	18	5	14	273·5	208·8	−11·0	+50·3
Means ..	..	..	15	82	270·22	206·26	−11·39	..

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

1918.

TOTAL AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

NOTE.—The Greenwich Civil Time at which the photograph was taken is expressed by the month, day of month (civil reckoning), 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, Kodaikánal and Dehra Dûn, by the letters C, K and D 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 disk.

The Area Corrected for the effect of Foreshortening is expressed in millionths of the Sun's visible hemisphere.

Greenwich Civil Time.		Place.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1918	d							
January	1·421	C	405	2474	1813	381	2221	2377
	2·350	C	355	2113	1293	296	1904	1920
	3·338	C	314	1957	1391	246	1502	1589
	4·352	C	356	2102	1752	276	1695	1793
	5·361	C	326	2137	1061	293	1973	1523
	6·564	C	347	2062	1181	245	1433	1415
	7·349	C	359	2116	1149	248	1437	1529
	8·358	C	347	2097	1282	246	1472	1646
	9·347	C	344	2296	845	209	1432	1232
	10·499	G	381	2028	936	236	1267	1202
	11·550	G	375	2231	1130	245	1430	1230
	12·353	C	328	2038	570	224	1396	717
	13·464	C	328	2345	1088	251	1666	1398
	14·349	C	312	2180	1202	257	2277	1624
	15·310	C	401	2673	2173	371	2988	2626
	16·314	C	460	3586	2880	413	3359	3563
	17·353	C	445	3501	2278	398	3054	2715
	18·344	C	411	3422	2639	292	2277	3037
	19·329	C	494	3413	2248	286	1950	2666
	20·485	C	368	3342	1471	231	2082	1801
	21·456	G	353	2876	1603	224	1708	1958
	22·351	C	307	2779	1477	182	1715	1926
	23·373	C	347	2260	1156	212	1471	1400
	24·479	G	342	2374	973	232	1654	993
	25·319	C	353	2607	1656	257	1939	1729
	26·344	C	309	2438	1579	245	2103	2060
	27·450	C	213	1626	1449	167	1396	2153
	28·528	G	205	1358	782	222	1628	1042
	29·476	G	237	1213	906	219	1193	1374
	30·484	G	264	1521	796	197	1172	980
	31·496	G	227	1123	950	183	925	1102
February	1·313	C	173	1015	965	154	924	1320
	2·341	C	95	845	1734	80	839	2312
	3·368	C	103	674	1374	70	486	1709
	4·377	C	112	641	1434	64	373	1934
	5·385	C	88	628	1024	50	362	1215
	6·309	C	60	509	1065	39	327	1163
	7·491	C	64	387	1401	48	280	1684
	8·452	G	56	236	1341	49	225	1523
	9·340	C	31	157	1322	40	230	1581
1918	d							
February	10·378	C	29	104	1305	27	94	1726
	11·434	C	111	726	1813	114	852	2375
	12·313	C	180	1215	1128	135	1106	1296
	13·359	C	231	1746	1502	176	1433	1860
	14·322	C	231	2159	1257	160	1496	1438
	15·593	G	365	2036	755	220	1223	842
	16·169	D	350	2229	2019	205	1313	2471
	17·493	G	433	2445	1165	270	1452	1426
	18·474	G	347	2126	1090	205	1257	1238
	19·342	C	240	1699	1689	142	999	1941
	20·366	C	194	1367	1847	131	905	2087
	21·461	G	164	1077	715	143	918	975
	22·337	C	145	915	1851	159	1001	2175
	23·330	C	153	1015	1797	146	1059	2257
	24·438	G	123	871	1115	84	582	1399
	25·521	G	164	1054	786	104	694	1013
	26·357	C	160	1192	872	108	814	1364
	27·371	C	144	911	1333	94	588	1864
	28·561	C	177	925	787	116	578	940
March	1·390	C	156	832	740	94	503	913
	2·491	G	118	662	356	68	393	367
	3·369	C	102	592	1071	62	361	1392
	4·398	C	89	549	867	73	456	1050
	5·360	C	59	364	921	35	287	1354
	6·400	C	46	283	673	32	190	815
	7·396	C	42	206	812	34	181	984
	8·505	C	58	330	710	110	711	906
	9·436	G	116	539	762	130	714	971
	10·349	C	94	682	946	85	615	1245
	11·551	G	219	1064	978	155	747	1163
	12·346	C	294	1492	1053	179	913	1162
	13·347	C	421	2393	902	246	1364	1222
	14·466	G	408	2326	540	228	1297	855
	15·411	G	400	2392	1206	240	1426	1249
	16·534	G	393	2626	947	285	1867	1138
	17·496	C	309	2167	821	243	1761	1131
	18·503	C	278	1616	1113	246	1509	1349
	19·357	C	173	1397	1470	176	1623	1809
	20·405	G	164	934	1731	227	1391	2390
	21·419	G	91	439	1408	77	411	1951

TOTAL AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

Greenwich Civil Time.		Place.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1918	d							
March	22·413	G	97	499	1226	71	357	1271
	23·393	G	147	754	1654	133	643	1837
	24·364	C	169	974	1463	129	716	1940
	25·358	C	247	1521	1769	157	938	2223
	26·434	G	307	1906	420	178	1077	466
	27·369	C	299	1654	519	162	891	669
	28·372	C	221	1340	258	125	742	431
	29·394	C	203	954	785	115	519	893
	30·403	C	160	928	1454	95	547	1889
	31·435	G	229	1131	1156	239	1329	1785
April	1·668	G	322	1661	1249	260	1444	1453
	2·366	G	292	1595	1197	272	1405	1389
	3·351	C	363	1990	1516	293	1539	1824
	4·366	C	378	2276	1343	279	1632	1989
	5·358	C	425	2395	1716	280	1564	2415
	6·328	C	358	2355	2121	236	1608	2499
	7·555	G	463	2535	1973	301	1693	2099
	8·377	C	374	2296	1455	264	1690	1651
	9·366	C	295	1734	1557	245	1489	2033
	10·377	C	233	1345	1188	183	1026	1377
	11·312	C	205	1072	2099	156	927	2467
	12·403	G	161	803	783	97	486	1002
	13·392	C	184	808	1266	108	495	1398
	14·093	D	158	960	1573	97	583	1526
	15·331	C	172	858	2128	109	545	2518
	16·381	C	140	766	1203	87	482	1770
	17·327	C	118	510	1172	77	339	1598
	18·532	C	129	432	968	99	341	1013
	19·358	G	174	781	714	138	662	999
	20·358	C	179	858	1297	119	582	1763
	21·371	C	120	659	863	76	408	1511
	22·380	C	119	795	1148	89	605	1607
	23·367	C	135	756	943	152	787	1074
	24·335	C	159	947	774	139	796	938
	25·439	G	212	1147	1082	185	931	1280
	26·405	C	198	1120	1152	184	996	1565
	27·461	G	314	1599	1557	194	1109	2099
	28·385	C	307	1644	1259	192	1057	1434
	29·382	C	282	1752	1156	169	1057	1131
	30·365	C	286	1498	843	218	1105	1013
May	1·350	C	293	1556	1187	196	1032	1695
	2·403	C	420	2113	1634	320	1630	2036
	3·355	C	445	2742	2083	433	2614	2790
	4·453	G	399	2206	1529	407	2350	2008
	5·131	D	371	2138	3652	406	2272	4006
	6·487	C	339	1919	2070	273	1579	2396
	7·370	C	318	1904	2636	205	1204	3244
	8·499	C	325	1807	1219	191	1023	1576
	9·409	C	268	1719	750	149	937	1004
	10·386	G	331	1737	1273	190	983	1108
May	11·496	G	233	1231	1128	140	749	1424
	12·393	C	217	1035	995	155	759	1391
	13·597	G	250	1256	1524	193	1002	1751
	14·463	G	203	928	2220	174	908	2974
	15·349	C	102	589	2425	129	686	3025
	16·344	C	97	518	2453	63	318	2693
	17·351	C	90	408	1417	55	246	1778
	18·385	G	105	456	1255	60	257	1647
	19·450	C	70	311	1103	40	176	1566
	20·416	G	65	265	976	64	298	1386
	21·381	G	93	418	599	66	334	739
	22·409	C	85	446	941	66	331	1002
	23·433	G	88	408	382	57	267	480
	24·435	C	97	447	918	56	253	1185
	25·399	C	112	570	1479	67	324	1839
	26·428	C	117	651	919	66	360	1289
	27·377	G	257	1250	777	134	652	1065
	28·420	G	254	1528	1249	146	872	1662
	29·375	G	298	1705	2499	194	1135	2897
	30·346	G	306	1912	2649	286	1744	3256
	31·352	G	424	2152	2486	421	2229	3186
June	1·425	G	548	2510	1676	612	2573	2401
	2·446	G	686	2830	1993	441	1805	2386
	3·377	G	624	3218	1213	396	1992	1379
	4·380	C	428	1996	1569	241	1126	1850
	5·342	C	342	1812	1131	185	1000	1382
	6·392	G	442	2012	1829	250	1140	1709
	7·118	K	263	1608	1505	156	948	1654
	8·406	G	154	991	2234	102	665	2591
	9·323	G	112	681	2553	92	559	2864
	10·485	G	120	559	1659	101	507	1988
	11·455	G	75	295	1822	114	520	2488
	12·380	C	16	128	982	9	247	1483
	13·163	D	9	49	380	5	55	413
	14·535	C	17	85	859	17	81	1077
	15·413	C	22	85	1034	17	67	1134
	16·373	C	24	60	1114	17	50	1887
	17·526	C	14	59	1464	9	42	1849
	18·394	C	18	130	1723	11	82	1915
	19·422	G	35	160	1027	27	107	1176
	20·380	G	102	347	881	65	212	959
	21·374	C	82	383	351	49	221	442
	22·388	G	89	457	406	52	277	478
	23·463	G	47	293	696	28	169	821
	24·571	G	43	313	1124	25	183	1513
	25·438	G	69	260	1519	60	218	1866
	26·588	G	45	196	2970	78	355	3656
	27·394	C	22	109	2029	44	226	3043
	28·359	C	52	466	1910	61	594	2525
	29·370	C	85	559	1190	64	456	1408
	30·421	G	164	841	1301	108	549	1690

TOTAL AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

Greenwich Civil Time.		Place.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1918 July	d 1·386	G	249	1095	933	180	786	1228
	2·496	C	263	1415	529	162	933	724
	3·360	C	361	1998	588	261	1558	941
	4·385	G	558	2832	1976	373	1919	2227
	5·382	C	482	3087	1247	296	1910	1441
	6·536	C	390	2619	976	232	1558	1181
	7·376	C	358	2604	1079	212	1528	1424
	8·388	C	367	2164	1556	213	1237	2107
	9·387	G	330	1779	1275	206	1118	1715
	10·476	G	367	1709	1218	247	1151	1571
	11·303	D	226	1506	1344	154	1063	1682
	12·390	G	218	1064	1715	176	925	2174
	13·406	G	156	678	2326	126	654	2474
	14·385	C	87	549	1286	75	470	1597
	15·576	G	325	1326	1693	271	1141	2252
	16·383	G	405	1842	1763	297	1421	2017
	17·514	G	377	1928	1890	318	1633	2293
	18·388	C	289	1828	783	233	1552	998
	19·375	C	289	1601	526	245	1371	676
	20·447	C	298	1660	554	191	1145	1001
	21·401	C	319	1798	775	210	1212	1171
	22·440	C	366	1970	1370	203	1101	1820
	23·428	C	368	2075	1712	215	1203	2101
	24·347	G	502	2655	1899	299	1597	2348
	25·367	G	600	2877	2763	381	1801	3226
	26·379	C	312	2082	1243	251	1576	1670
	27·523	G	345	1723	2532	335	1763	2712
	28·398	C	290	1675	1170	251	1490	1539
	29·410	G	352	1613	2256	314	1451	3099
	30·424	G	308	1206	1459	203	807	1611
	31·411	G	288	1170	2559	159	653	2543
August	1·446	G	366	1988	2327	264	1405	2826
	2·384	C	403	2582	1520	321	2044	2232
	3·375	C	501	3289	1990	403	2619	2510
	4·422	G	683	3859	3090	593	3288	3267
	5·367	C	385	3037	1783	346	2962	2342
	6·615	G	294	1933	1600	227	1668	2242
	7·432	C	176	1224	821	111	847	1488
	8·422	G	215	1274	883	171	984	1222
	9·172	D	197	1091	1391	161	833	1809
	10·394	G	193	950	1442	155	808	1701
	11·608	G	244	1178	2052	237	1245	2415
	12·507	G	344	1530	2762	329	1498	3019
	13·368	G	345	2168	3532	290	1792	4055
	14·445	G	312	1958	2299	206	1254	3190
	15·397	G	455	2644	1524	270	1519	1733
	16·429	G	486	2803	1490	262	1505	1428
	17·357	C	427	3275	719	292	2021	1031
	18·396	C	492	3464	1697	380	2483	2347
	19·358	G	506	3235	2477	381	2446	3410
	20·359	C	502	2904	2763	483	2855	3417
	21·327	C	510	3183	3730	468	3144	4264
	22·408	G	636	3327	3537	589	3094	4238
August	23·369	C	506	3149	2179	389	2420	2511
	24·394	G	568	3183	2127	337	1894	2439
	25·371	C	450	3022	605	259	1719	996
	26·349	C	477	3006	1110	273	1703	1363
	27·362	C	354	2435	1464	205	1534	1769
	28·363	C	313	2245	1509	207	1459	1882
	29·365	C	215	1595	1230	166	1260	1663
	30·511	G	185	1105	1560	144	850	1769
	31·358	C	154	852	2226	142	804	2558
September	1·388	C	90	620	1248	97	833	1518
	2·428	C	56	275	923	53	404	1557
	3·387	G	54	224	676	35	163	949
	4·386	C	24	168	1304	17	133	1479
	5·558	G	34	174	1312	32	150	1523
	6·346	C	74	322	987	72	339	1264
	7·338	C	77	528	1543	68	465	1881
	8·377	C	93	503	1945	70	381	2506
	9·373	G	105	494	2030	73	344	2504
	10·416	G	127	562	1402	78	337	1838
	11·414	G	181	817	1043	109	491	1175
	12·444	G	152	861	1087	91	525	1104
	13·378	G	190	1127	1071	110	654	1126
	14·485	C	217	1288	1243	140	839	1673
	15·503	C	209	1467	2007	150	1105	2801
	16·404	C	198	1690	1874	143	1127	2642
	17·358	G	289	2043	3033	242	1671	3569
	18·418	G	257	1864	3907	248	1756	4538
	19·385	G	256	1617	1524	259	1675	1607
	20·369	G	301	1440	1076	363	1642	1280
	21·370	C	252	1595	682	232	1278	994
	22·172	D	376	2071	557	211	1147	873
	23·395	G	341	1995	1123	176	1034	1196
	24·385	G	368	1988	1021	191	1030	1120
	25·346	C	230	1485	1205	126	816	1525
	26·352	C	167	1011	1698	105	639	2312
	27·400	G	294	1516	2189	248	1258	2384
	28·377	G	507	2637	3770	350	1939	4099
	29·372	C	440	2659	1917	341	2162	2394
	30·386	C	337	2609	1537	223	1994	2406
October	1·426	G	361	2081	1139	247	1569	1450
	2·356	C	256	1902	1267	159	1167	1510
	3·526	G	282	1704	1162	227	1388	1350
	4·410	G	160	1042	1549	181	1194	2019
	5·355	C	105	700	1984	131	1013	2856
	6·482	G	98	438	1980	67	325	2621
	7·533	G	94	596	1851	58	367	1968
	8·348	C	177	661	2166	100	402	2379
	9·343	C	216	1157	1185	121	639	1343
	10·163	D	209	1131	1364	120	659	1521

TOTAL AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1918.

Greenwich Civil Time.		Place.	Projected Area.			Area Corrected for Foreshortening.			Greenwich Civil Time.		Place.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.				Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1918	d								1918	d							
October	11·449	G	177	948	1858	138	801	2604	November	21·350	C	532	2608	1682	436	2085	2294
	12·354	C	139	987	1587	144	1004	2047		22·468	G	347	1479	1906	270	1196	2317
	13·438	G	219	1063	1980	215	1129	2447		23·472	G	258	1315	2119	208	1101	2291
	14·454	C	139	1272	1010	95	868	1258		24·			No Photograph.				
	15·340	C	221	1391	2955	137	852	3434		25·352	C	234	1463	2407	197	1174	3032
	16·411	C	266	1803	3065	193	1253	3737		26·377	C	302	1958	2555	188	1165	3270
	17·439	G	386	2086	2826	247	1312	3326		27·303	C	280	1974	2339	171	1161	2998
	18·334	C	344	2164	1550	234	1437	2044		28·360	C	229	1716	1182	131	962	1609
	19·523	G	482	3020	2130	348	2225	2791		29·339	C	256	1745	1272	151	1041	1475
	20·364	C	491	2694	1343	346	1903	1646		30·342	C	207	1318	1516	134	919	1674
	21·334	C	476	2739	2084	321	1843	2276									
	22·426	C	497	2571	1871	308	1629	2174									
	23·463	G	527	2882	2381	356	2001	2636									
	24·506	G	493	2648	1772	314	1699	2398	December	1·358	C	222	1382	2005	210	1343	2136
	25·375	C	491	2531	2128	311	1611	2842		2·549	C	158	1009	1367	273	1859	1769
	26·464	G	380	2112	3080	268	1540	3361		3·545	G	32	95	701	21	58	955
	27·371	C	308	1922	1195	229	1500	1414		4·365	C	44	212	958	24	115	1205
	28·460	G	291	1627	1958	250	1413	2219		5·362	C	41	162	1023	23	93	1232
	29·372	C	249	1478	1712	205	1220	2218		6·349	C	89	432	1373	112	681	1894
	30·589	C	268	1413	1607	198	1088	1846		7·357	C	103	626	1735	125	759	2208
	31·382	C	288	1585	1349	197	1051	1886		8·367	C	207	1092	2891	197	1046	3532
										9·414	G	223	1441	1573	202	1276	1833
										10·489	C	218	1491	1847	202	1371	2579
										11·362	C	233	1313	2194	128	715	2978
November	1·357	C	211	1275	1214	125	749	1762		12·331	C	224	1474	2286	121	788	2559
	2·301	C	164	1021	1376	98	606	1560		13·357	C	237	1455	2228	143	851	2716
	3·375	C	131	759	1751	88	517	1970		14·361	C	168	1281	859	106	808	984
	4·426	G	121	602	1903	96	506	2064		15·437	C	166	829	1376	127	593	1544
	5·446	G	69	339	1291	85	401	1564		16·383	C	95	688	860	69	522	1109
	6·205	D	65	277	1030	40	192	1195		17·501	G	186	843	1380	340	1494	1912
	7·355	C	55	297	1025	45	252	1680		18·165	D	182	859	2030	268	1293	2830
	8·308	C	58	274	1924	59	284	2275		19·345	C	277	1581	2648	209	1179	3019
	9·420	G	95	464	2400	74	378	2828		20·332	C	347	2319	1968	218	1413	2193
	10·408	C	73	345	2289	49	234	2705		21·334	C	493	3294	2209	271	1857	2467
	11·380	C	38	190	1824	39	179	2280		22·372	C	602	3590	1551	318	1894	1826
	12·436	G	94	466	1905	118	585	2611		23·355	C	492	3586	1001	266	1916	1163
	13·475	G	149	942	1467	182	1091	1865		24·321	C	556	3404	1053	319	1942	1676
	14·406	C	259	1450	1487	228	1288	2194		25·494	G	516	3171	1427	377	2227	2251
	15·462	G	346	1917	1590	276	1587	2427		26·507	G	431	2351	1649	353	1887	1959
	16·470	G	466	2787	2580	342	2071	3112		27·378	C	308	1792	4500	290	1675	4395
	17·342	C	561	2779	3490	360	1821	3709		28·527	C	201	1262	2068	153	1044	2313
	18·352	C	603	3696	2449	352	2206	2599		29·381	C	164	860	1678	158	856	2241
	19·404	C	587	3952	1140	342	2313	1322		30·363	C	76	436	1509	51	272	2060
	20·340	C	567	3315	1799	359	2119	2224		31·346	C	48	319	1430	40	202	1762

MEAN AREAS of SUN SPOTS and FACULÆ for each ROTATION of the SUN, from 1918 January 4 to December 23.

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 disk, 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 1873–1917 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 Civil 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.
			d							
860	1918	January	3·41	27	345	2393	1417	255	1821	1753
861			30·75	27	171	1118	1308	122	821	1608
862		February	27·09	27	186	1091	1047	138	835	1314
863		March	26·41	28	242	1336	1254	171	952	1573
864		April	22·68	27	251	1372	1530	193	1058	1876
865		May	19·91	27	224	1134	1419	162	818	1733
866		June	16·12	27	187	1056	1264	126	720	1616
867		July	13·31	28	339	1876	1642	256	1453	2039
868		August	9·53	27	331	2025	1833	248	1518	2231
869		September	5·78	27	246	1488	1625	179	1088	1992
870		October	3·05	27	293	1680	1916	210	1231	2331
871			30·34	27	257	1443	1836	187	1046	2255
872		November	26·65	27	223	1400	1643	169	1037	2015

MEAN AREAS of SUN SPOTS and FACULÆ for the YEAR 1918.

The Mean Projected Areas are expressed in millionths of the Sun's apparent disk.

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.
1918	364	255	1504	1526	188	1118	1882

MEAN HELIOGRAPHIC LATITUDE of SUN SPOTS for each ROTATION of the SUN, from 1918 January 4 to December 23.

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.		
		d		°		°	°	°
860	1918 January	3·41	27	808	11·58	1013	15·20	− 3·31	13·59
861		30·75	27	600	6·28	221	16·70	+ 0·09	9·09
862	February	27·09	27	624	14·39	211	14·61	+ 7·05	14·44
863	March	26·41	28	558	13·79	394	11·45	+ 3·35	12·82
864	April	22·68	27	612	16·19	446	13·63	+ 3·62	15·11
865	May	19·91	27	342	14·64	476	13·35	− 1·64	13·89
866	June	16·12	27	516	11·35	203	13·40	+ 4·36	11·93
867	July	13·31	28	863	11·89	590	16·05	+ 0·53	13·56
868	August	9·53	27	1039	11·74	479	16·64	+ 2·79	13·29
869	September	5·78	27	470	11·72	618	12·38	− 1·97	12·10
870	October	3·05	27	882	11·46	349	14·64	+ 4·06	12·36
871		30·34	27	624	11·36	422	13·15	+ 1·48	12·08
872	November	26·65	27	58	12·98	979	11·03	− 9·69	11·14

MEAN HELIOGRAPHIC LATITUDE of SUN SPOTS for the YEAR 1918.

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.		
			°		°	°	°
1918	364	609	11·97	509	13·69	+ 0·29	12·75

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RESULTS.

1918.