GREENWICH

PHOTO-HELIOGRAPHIC

RESULTS.

1915.

Pg 90 Line 20. Col 3 from 14644 to 75644

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GREENWICH PHOTO-HELIOGRAPHIC RESULTS, 1915.

MEASURES OF POSITIONS AND AREAS OF SUN SPOTS AND FACULÆ, 1915.

PAGE	COL.	LINE	
D 2	1	9	Day and Decimal, *for* 0·551, *read* 1·551.
D 11	7	35	Latitude, *for* $-14^{\circ}\cdot7$, *read* $+14^{\circ}\cdot7$.

Also in the footnotes:—

PAGE	
D 18	Group 7216, *for* April 2, *read* April 3.
D 92	Group 7586, *for* Jan. 8, *read* Jan. 7.

GREENWICH PHOTO-HELIOGRAPHIC RESULTS, 1915.

INTRODUCTION.

§ 1. *Measures of Positions and Areas of Sun Spots and Faculæ on Photographs taken at the Royal Observatories of Greenwich, and of the Cape, and in India, at Kodaikánal and at Dehra Dûn, in the year* 1915; *with the deduced Heliographic Longitudes and Latitudes.*

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. The instrument was used in the Transit of Venus expedition to New Zealand in 1874, and, as now adapted, gives a solar image of about 10-centimetre radius on the photographic plate.

The photographs have been taken throughout the year on gelatine dry plates; "Process," or "Lantern," supplied by the Imperial Dry Plate Company, being used, with hydroquinone development.

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. The plates and development used have been much the same at each of the four collaborating observatories.

Photographs of the Sun were available for measurement upon each day in 1915, those finally selected for measurement being supplied by the different observatories as under :—

Greenwich	201
Cape	136
Kodaikánal	11
Dehra Dûn	17
Total	365

The measures were made in the manner described in the *Introduction to the Greenwich Photo-Heliographic Results* for 1909, and the results of the measures are printed upon the same general plan, the following being the signatures of those persons who measured the photographs for the year 1915 :—

E. W. Maunder	M	J. S. Smith	JS
H. W. Newton	N	Annie S. D. Maunder	AM
J. Van Dingenen	VD		

At the principal focus of the photoheliographs one or two spider-lines are fixed by which the zero of position-angles on the photographs can be determined. There is only one such spider-line in the Kodaikánal photoheliograph, and this is placed horizontally. In the other photoheliographs two spider-lines are used, crossing each other at right angles at the centre of the field. 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.

The method of determining the zero of position-angles for the Dallmeyer Photoheliograph at the Royal Observatory, Greenwich, was the same as that used for the Thompson Photoheliograph, as described in 1909, except that, as in 1913, and as just noted, the two spider-lines were arranged nearly at an angle of 45° to the equator.

The determinations obtained were the following :—

DALLMEYER PHOTOHELIOGRAPH, GREENWICH.

Date, Greenwich Civil Time.			Correction for Zero.	Date. Greenwich Civil Time.			Correction for Zero.
		d h m	° ′			d h m	° ′
1914	December	14. 11 4	+2 38	1915	June	16. 12 20	+2 28
		14. 12 34	+2 42			17. 10 22	+2 32
1915	January	2. 12 44	+2 45			21. 7 20	+2 28
		18. 10 57	+2 38		July	9. 12 16	+2 31
		18. 13 2	+2 49			15. 8 4	+2 30
	February	5. 10 15	+2 39			26. 8 14	+2 31
		10. 12 6	+2 37		August	10. 16 9	+2 39
		23. 11 12	+2 42			19. 15 34	+2 26
		26. 9 35	+2 36			25. 9 43	+2 40
	March	8. 14 28	+2 42		September	6. 8 25	+2 20
		20. 11 44	+2 40			9. 11 18	+2 37
		30. 10 30	+2 30			18. 9 39	+2 41
		31. 9 48	+2 35			29. 14 44	+2 36
	April	15. 8 1	+2 29		October	12. 9 53	+2 36
		16. 9 29	+2 30			14. 12 28	+2 52
		19. 11 15	+2 41			20. 12 47	+2 44
		19. 15 45	+2 30			22. 9 57	+2 50
		21. 12 39	+2 43		November	10. 10 14	+2 48
						11. 11 48	+2 47
	May	6. 7 54	+2 32			26. 11 36	+2 46
		6. 12 50	+2 36		December	23. 10 11	+2 34
		25. 9 50	+2 27			23. 10 18	+2 41
		26. 16 2	+2 33			28. 11 14	+2 45
	June	7. 10 36	+2 30	1916	January	10. 11 43	+2 47

The zero-corrections used in the reduction of the photographs taken at Greenwich with the Dallmeyer Photoheliograph were as follows :—

Date.	Correction for Zero.	Date.	Correction for Zero.
	°		°
From 1915 January 1 to January 31	+2·7	From 1915 October 1 to 31	+2·7
,, ,, February 1 ,, May 3	+2·6	,, ,, November 1 ,, 30	+2·8
,, ,, May 5 ,, July 31	+2·5	,, ,, December 1 ,, 31	+2·7
,, ,, August 1 ,, September 30	+2·6		

Some slight adjustments were made to the declination axis of the photoheliograph on 1915 May 4.

The double-image method, as described in 1909, was employed with the Dallmeyer Photoheliograph, at the Royal Observatory, Cape of Good Hope, and the following determinations were obtained :—

DALLMEYER PHOTOHELIOGRAPH, CAPE OF GOOD HOPE.

Date. Greenwich Civil Time.					Correction for Zero.		Date. Greenwich Civil Time.					Correction for Zero.	
		d	h	m	°	′			d	h	m	°	′
1914	December	3.	8	10	+0	7	1915	June	29.	12	16	+0	18
		17.	9	2	+0	4		July	13.	10	40	+0	33
1915	January	4.	7	50	−0	4			27.	8	35	+0	15
		18.	8	49	+0	6		August	12.	10	44	+0	6
	February	3.	9	1	−0	1		September	10.	11	57	+0	7
		18.	9	15	+0	4			22.	10	59	+0	12
	March	5.	10	26	+0	11		October	5.	8	5	+0	4
		20.	10	39	0	0			20.	9	51	+0	2
	April	6.	8	56	+0	10		November	3.	8	23	+0	1
		20.	8	52	+0	17			19.	8	19	+0	6
	May	5.	9	0	+0	10		December	6.	8	27	+0	4
		23.	9	24	+0	10			21.	9	20	Definition bad.	
	June	4.	10	43	+0	11	1916	January	7.	12	24	+0	6
		24.	9	26	+0	15			24.	10	22	+0	3

The wire frame was removed for cleaning on 1914 December 31 and 1915 November 5.

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

Date.	Correction for Zero.	Date.	Correction for Zero.
	°		°
From January 1 to February 28	0·0	From July 1 to July 31	+0·3
,, March 1 ,, March 31	+0·1	,, August 1 ,, August 31	+0·2
,, April 1 ,, June 30	+0·2	,, September 1 ,, December 31	+0·1

The zero-corrections for the photographs taken at the two Indian Observatories were determined in the same general manner, a correction of +0°·4 for those taken at Kodaikánal, and of —0°·8 for those from Dehra Dûn, being applied throughout the year 1915.

The method of reduction of the measures of the photographs is the same as that described in the *Introduction to the Greenwich Photo-Heliographic Results* for 1909. The inclination of the Sun's axis to the ecliptic is assumed to be 82° 45′, the longitude of the ascending node for 1915·0 to be 74° 34′·4, 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. *Ledgers of Areas and Heliographic Positions of Groups of Sun Spots deduced from the measurement of the Solar photographs for each day in the year* 1915.

§ 3. *Catalogue of Recurrent Groups of Sun Spots compiled from the Ledgers of Groups of Sun Spots for the year* 1915.

§ 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* 1915.

These three sections are similar to the corresponding sections for 1911.

F. W. DYSON.

Royal Observatory, Greenwich,
1920 *May.*

ROYAL OBSERVATORY, GREENWICH.

MEASURES OF POSITIONS AND AREAS

OF

SUN SPOTS AND FACULÆ

ON

PHOTOGRAPHS

TAKEN WITH THE

PHOTOHELIOGRAPHS

AT GREENWICH, AT THE CAPE, AND IN INDIA,

WITH THE DEDUCED

HELIOGRAPHIC LONGITUDES AND LATITUDES.

1915.

MEASURES of POSITIONS and AREAS of SUN SPOTS and FACULÆ on PHOTOGRAPHS taken at the ROYAL OBSERVATORIES of GREENWICH and of the CAPE, and in INDIA, at KODAIKÁNAL and at DEHRA DÚN, in the Year 1915.

NOTE.—The Greenwich Civil Time at which the Photograph was taken is expressed by the Day of the Year and decimals of a day, reckoning from Midnight, January $1^d\ 0^h$. For convenience of reference, the Month and Day of the Month (Civil Reckoning) are added.

The letter G. signifies that the photograph was taken at Greenwich; the letter C. that it was taken at the Cape; the letter K. that it was taken at Kodaikánal: the letter D. that it was taken at Dehra Dûn; the time given is Greenwich Civil Time.

The position-angles are reckoned from the North Pole of the Sun's Axis in the direction N., E., S., W., N.

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column, it is to be understood that there is a Facula unaccompanied by a Spot. 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.

The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

In the line immediately below the results for each day are given in brackets:—1. The Position Angle of the Sun's Axis (from the North point); 2. The Heliographic Longitude and Latitude of the Centre of the Disc; 3. The total areas for each day of Spots and Faculæ.

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
0·103	N, VD	7122*a*	0·404	210·6	109·2	−23·3	9	20	
		7126	0·577	109·4	62·4	−13·6	4	12	
		7126	0·660	108·4	56·2	−14·4	8	15	
K.		7127	0·952	73·4	25·9	+14·7	8	55	
		7127	0·964	72·5	23·6	+15·9	0	20	313*c*
		7127	0·976	74·4	20·3	+14·5	9	13	
			0·923	65·7	32·2	+21·0			560
Jan. 1				(+2·4)	(96·3)	(−3·1)	(38)	(135)	(873)
0·551	JS, N		0·902	250·1	141·0	−19·3			170
		7122	0·606	234·1	109·4	−23·5	0	2	
		7122*a*	0·595	234·1	108·7	−23·1	13	17	
		7126	0·379	124·2	58·3	−15·3	2	2	
		7126	0·383	122·7	57·8	−15·0	2	11	
		7126	0·390	120·2	56·9	−14·3	2	5	
		7128	0·779	60·8	31·0	+20·1	2	6	169*c*
		7127	0·802	69·6	26·6	+14·1	10	26	
		7127	0·814	68·9	25·5	+15·0	22	70	
G.		7127	0·830	69·6	23·8	+14·9	6	35	
		7127	0·833	68·6	23·7	+15·8	10	46	
		7127	0·848	69·4	21·9	+15·5	0	10	599*c*
		7127	0·858	70·6	20·6	+14·8	19	41	
		7127	0·862	69·0	20·4	+16·3	3	7	
		7127	0·873	69·8	19·0	+15·9	7	28	
		7127	0·884	69·2	17·8	+16·7	0	5	
			0·957	171·8	48·1	−73·7			52
			0·786	52·6	33·3	+26·1			111
			0·893	55·7	20·4	+28·4			120
Jan. 2				(−1·7)	(77·2)	(−3·2)	(98)	(311)	(1221)

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
2·108	N, VD	7129	0·797	306·1	115·3	+25·7	5	10	
		7129	0·783	305·1	114·4	+24·3	1	5	137*c*
		7129	0·793	308·4	114·0	+27·1	5	12	
		7129	0·775	308·5	112·3	+26·3	1	8	
		7122*a*	0·676	238·8	108·7	−23·1	9	13	
		7127	0·728	67·1	26·4	+14·0	8	33	
K.		7127*a*	0·753	66·6	24·4	+15·0	46	309	
		7127	0·783	67·1	21·6	+15·5	0	19	
		7127	0·797	68·6	20·0	+14·8	0	76	245*c*
		7127	0·802	66·7	20·0	+16·3	5	11	
		7127*b*	0·819	67·7	18·1	+16·0	4	16	
		7127	0·829	67·3	17·1	+16·7	0	9	
Jan. 3				(+1·5)	(69·9)	(−3·3)	(84)	(521)	(382)
3·321	N, VD	7129	0·922	299·3	116·5	+25·3	0	38	
		7129	0·913	299·9	114·9	+25·4	1	8	242*c*
		7129	0·912	302·3	114·1	+27·5	16	71	
		7122*a*	0·831	244·4	108·2	−23·0	3	11	394*s*
		7130	0·226	200·9	66·0	−15·6	0	6	
		7127*a*	0·550	56·7	25·7	+14·5	47	393	
C.		7127	0·572	59·1	23·6	+14·1	4	10	
		7127	0·587	57·3	23·2	+15·5	0	7	
		7127*c*	0·627	58·3	20·3	+16·4	11	63	
		7127	0·627	61·3	19·4	+14·7	1	7	
		7127*b*	0·646	60·1	18·4	+15·9	15	93	
		7127	0·670	60·1	16·7	+16·8	2	8	
			0·946	113·2	343·3	−23·0			112
Jan. 4				(+0·9)	(53·9)	(−3·4)	(100)	(715)	(748)

Group 7122, 1914 December 25–1915 January 4. Return of Group 7102. A slowly contracting spot,—*a* of Group 7102,—with a mass of faculæ to the South. The motion of the spot in longitude, since its maximum about December 3, appears to be consistently maintained.

Group 7126, 1914 December 30–1915 January 5. Probably a return of Group 7117. A few small spots in an intermittent group not seen on January 3 and 4.

Group 7127, 1914 December 31–1915 January 12. A fine cluster by January 3, developing into two large and active composite spots, *a* and *b*, with a few faint companions. The larger, *a*, has divided up by January 11, while *b* disappears quickly. Perhaps a return of Group 7110, but more probably a new disturbance in its neighbourhood.

Group 7128, 1915 January 2. A very small spot.

Group 7129, January 3–5. A few small spots in a short irregular stream forming near the West limb.

Group 7130, January 4. A pair of very small faint spots preceding the place of Group 7126, and in the same latitude.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
4·351	JS, N		0·939	242·6	109·2	−26·9			355
			0·817	295·1	91·2	+18·0			95
			0·805	234·6	89·4	−30·1			136
		7129	0·986	296·2	117·5	+25·0	3	43	
		7129	0·979	298·0	114·9	+26·4	18	45	345c
		7129	0·959	297·9	109·8	+25·4	9	18	
		7126	0·344	233·6	56·9	−15·2	2	5	
		7131	0·215	172·2	38·6	−15·9	0	7	
		7127	0·378	32·5	28·2	−15·0	0	3	
C.		7127a	0·382	37·4	26·5	+14·1	82	415	
		7127	0·433	41·0	23·2	+15·6	5	15	
		7127	0·434	43·9	22·2	+14·7	2	7	
		7127b	0·479	45·8	19·4	+16·1	47	293	
		7127	0·508	48·4	17·1	+16·3	0	9	
		7132	0·565	48·2	14·0	+18·8	1	7	
			0·850	114·4	343·6	−22·5			124
			0·940	114·4	330·9	−24·1			122
Jan. 5				(−0·4)	(40·3)	(−3·6)	(169)	(867)	(1177)
5·367	N, JS		0·979	243·9	105·3	−26·2			189
			0·909	290·9	89·5	+17·2			94
			0·896	238·3	88·3	−29·9			357
		7127	0·338	359·0	27·4	+15·9	2	6	
		7127a	0·308	359·9	27·0	+14·2	66	438	
		7127	0·276	2·6	26·3	+12·2	5	12	
		7127	0·274	7·1	25·0	+12·0	1	3	
C.		7127	0·337	11·7	23·0	+15·5	3	7	
		7127	0·349	18·7	20·4	+15·5	4	17	
		7127	0·375	17·2	20·4	+17·2	1	6	
		7127	0·329	24·1	19·1	+13·7	3	9	
		7127b	0·371	22·2	18·6	+16·3	31	241	
		7133	0·838	118·9	332·5	−26·0	2	11	150f
			0·741	118·3	342·0	−23·1			82
Jan. 6				(−0·1)	(27·0)	(−3·7)	(118)	(750)	(872)
6·384	N, VD		0·857	301·8	66·7	+24·6			66
			0·959	240·6	86·5	−29·2			164
		7127	0·368	318·0	28·1	+12·1	2	7	
		7127a	0·387	323·2	27·4	+14·3	94	457	
		7127	0·351	322·4	26·2	+12·4	12	20	
C.		7127	0·356	339·0	21·2	+15·6	1	6	
		7127	0·325	341·8	19·6	+14·1	1	6	
		7127	0·388	345·2	19·6	+18·2	10	17	
		7127b	0·355	347·0	18·4	+16·4	26	237	
		7127	0·356	353·4	16·0	+16·8	1	4	
1915.				°	°	°			
6·384	N, VD	7134	0·447	12·4	7·7	−22·0	0	4	
C.		7134	0·438	20·6	4·2	+20·3	1	4	
			0·740	120·7	329·2	−24·9			86
Jan. 7				(−0·6)	(13·6)	(−3·8)	(148)	(762)	(316)
7·486	N, JS		0·938	300·7	63·8	−27·0			156
			0·879	254·6	60·4	−15·4			201
		7127	0·581	303·5	29·1	+15·3	1	2	
		7127	0·567	301·5	28·8	−13·8	2	7	
		7127a	0·559	303·7	27·7	+14·6	52	260	
		7127	0·574	308·7	27·0	+17·5	0	2	
		7127	0·561	307·4	26·7	+16·5	6	37	
		7127	0·550	305·7	26·6	+15·2	12	24	
		7127	0·530	302·4	26·3	+13·0	1	9	
G.		7127	0·547	307·3	25·9	+15·8	7	30	
		7127	0·528	305·8	25·2	−14·4	0	12	
		7127	0·528	308·4	24·4	+15·6	0	6	
		7127	0·510	309·3	23·1	+15·2	0	4	
		7127	0·488	310·4	21·6	+14·8	0	6	
		7127	0·481	314·1	20·1	+15·9	1	7	
		7127	0·505	318·3	19·7	−18·4	1	1	
		7127b	0·472	316·9	18·7	+16·4	34	186	
			0·942	68·3	291·6	+18·9			50
Jan. 8				(−1·2)	(359·1)	(−3·9)	(117)	(593)	(407)
8·402	N, VD		0·979	247·3	65·9	−23·1			101
			0·963	256·8	61·7	−13·8			154
			0·928	303·4	49·1	+28·9			133
			0·893	242·8	48·9	−26·0			72
			0·803	301·8	34·4	+22·3			166
C.		7127a	0·695	295·9	27·1	+14·6	54	318	
		7127	0·697	298·8	26·4	+16·5	1	15	
		7127	0·673	297·7	24·9	+15·0	4	49	
		7127	0·661	296·0	24·5	+13·6	0	17	
		7127b	0·612	303·0	19·2	+16·0	31	162	
			0·911	109·2	281·7	−19·1			44
Jan. 9				(−1·6)	(347·0)	(−4·0)	(90)	(561)	(670)
9·451	N, JS		0·962	243·6	47·3	−26·5			86
			0·901	298·8	32·6	+23·7			260
G.			0·837	309·0	21·1	+29·0			81
		7127a	0·836	291·1	26·9	+15·1	55	348	365c
		7127	0·830	293·4	25·7	+16·8	2	12	

Group 7131, January 5. A faint marking following Group 7126, and in the same latitude.
Group 7132, January 5. A faint marking, *nf* Group 7127.
Group 7133, January 6. A small spot surrounded by faculæ. Near the place of Group 7113, but probably a fresh outburst.
Group 7134, January 7. A pair of very small spots, *nf* Group 7127.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
9·451	N, JS	7127	0·816	291·8	24·7	+15·0	2	22	
G.		7127*b*	0·765	295·2	19·2	+16·2	34	145	
			0·908	63·9	272·1	+21·6			129
Jan. 10				(−2·1)	(333·2)	(−4·1)	(93)	(527)	(921)
10·459	N, JS		0·971	295·8	32·5	+23·8			245
			0·887	301·7	16·4	+25·5			96
		7127*a*	0·937	287·9	27·1	+15·1	48	236	
		7127	0·937	290·3	26·7	+17·4	15	112	
G.		7127	0·931	289·1	25·9	+16·0	5	20	569*c*
		7127	0·925	288·5	25·1	+15·3	5	16	
		7127*b*	0·892	290·5	20·2	+16·2	20	146	
		7135	0·624	291·9	355·8	+10·0	0	3	
		7135	0·618	292·1	355·3	+10·0	4	6	
Jan. 11				(−2·6)	(319·9)	(−4·2)	(97)	(539)	(910)
11·357	N, JS		0·947	298·6	14·8	+25·3			145
		7127*a*	0·985	286·0	26·4	+14·9	33	178	
		7127	0·986	288·0	26·4	+16·9	28	101	
		7127	0·982	289·4	24·9	+18·1	11	27	558*c*
		7127	0·963	287·4	20·3	+15·4	4	17	
		7127*b*	0·958	288·2	19·1	+16·0	13	32	
C.		7136	0·571	231·8	337·5	−24·4	1	4	
		7136	0·554	233·9	337·0	−22·7	1	3	
		7136	0·547	231·6	335·9	−23·7	3	6	
		7137*a*	0·461	224·7	328·7	−23·1	10	12	
		7138	0·988	67·8	229·6	+21·1	10	46	259*c*
			0·934	66·9	242·4	+19·8			95
Jan. 12				(−3·0)	(308·1)	(−4·3)	(114)	(426)	(1057)
12·388	JS, VD		0·992	288·4	15·2	+17·6			193
			0·892	282·7	356·1	+ 9·2			69
		7137*b*	0·631	240·5	330·6	−21·7	4	23	
		7137*a*	0·613	236·5	328·2	−23·4	3	9	
C.		7137	0·607	237·5	328·1	−22·7	0	3	
		7137	0·594	236·5	326·9	−22·8	1	3	
		7138	0·932	65·1	229·6	+21·3	26	77	166*c*
			0·866	59·9	240·1	+23·1			89
Jan. 13				(−3·5)	(294·5)	(−4·4)	(34)	(115)	(517)
13·416	N, VD		0·973	280·8	356·4	+ 9·4			69
C.			0·888	247·0	342·9	−22·4			159
1915.				°	°	°			
13·416	N, VD	7137*b*	0·792	245·8	331·9	−21·8	5	46	
		7137	0·770	242·9	329·2	−23·5	1	3	
		7137*a*	0·752	242·6	327·4	−23·3	0	10	172*c*
		7137*c*	0·743	245·8	327·3	−20·8	11	16	
		7137	0·749	240·3	326·6	−24·9	3	6	
		7137*d*	0·725	242·7	325·1	−22·6	4	8	
C.		7139	0·438	330·2	294·2	+17·8	12	26	
		7139	0·424	331·0	293·4	+17·3	3	9	
		7139	0·406	334·6	291·4	+17·0	2	6	
		7139	0·432	336·8	291·3	+18·9	4	8	
		7139	0·412	338·6	290·1	+18·0	6	13	
		7138	0·837	61·2	229·4	+21·0	11	58	262*c*
			0·939	66·1	214·7	+20·6			279
Jan. 14				(−4·0)	(281·0)	(−4·5)	(62)	(209)	(941)
14·337	N, VD		0·941	246·0	339·0	−24·1			246
		7137*b*	0·902	248·6	332·9	−21·2	5	27	
		7137	0·892	248·4	331·6	−21·4	2	7	
		7137*c*	0·859	248·4	327·4	−20·8	10	36	343*c*
		7137*a*	0·860	245·5	327·1	−23·3	4	14	
		7137*d*	0·839	246·0	324·8	−22·5	6	19	
C.		7139	0·554	311·6	294·5	+17·4	9	38	
		7139	0·514	316·8	290·5	+17·7	8	18	
		7139	0·508	319·0	289·4	+18·2	2	4	
		7138	0·728	54·8	229·4	+21·2	15	75	
		7140	0·992	65·2	189·0	+23·9	12	141	151*s*
			0·842	62·6	216·4	+20·0			155
			0·940	58·0	204·7	+27·9			205
Jan. 15				(−4·4)	(268·9)	(−4·6)	(73)	(379)	(1100)
15,422	N, JS		0·880	234·9	313·3	−32·8			83
		7137*b*	0·977	249·0	333·0	−21·5	0	32	
		7137	0·970	251·8	331·1	−18·8	0	48	
		7137	0·968	248·1	330·7	−22·4	0	8	
		7137	0·961	251·4	329·1	−19·2	4	32	674*c*
		7137*c*	0·951	249·8	326·9	−20·7	3	32	
		7137*e*	0·948	251·6	326·3	−18·9	9	46	
G.		7137*d*	0·942	248·0	325·1	−22·3	0	10	
		7137	0·932	247·6	323·2	−22·5	0	33	
		7141	0·814	307·1	300·7	+26·1	0	2	
		7141	0·802	308·5	299·0	+26·6	3	7	55*c*
		7139	0·718	299·8	295·2	+17·3	5	9	
		7139	0·708	300·4	294·2	+17·4	3	8	70*c*
		7139	0·700	299·8	293·8	+16·7	0	3	
		7139	0·673	302·8	290·8	+17·5	1	4	

Group 7135, January 11. A very small dark spot, preceded by a very small faint marking.
Group 7136, January 12. A few very small faint spots in a sparse cluster.
Group 7137, January 12–17. A small well-defined spot, *a*, *f* Group 7136. Other spots, mostly small, form in the neighbourhood of *a*, making up with it a sparse irregular stream, of which some members are fairly stable.
Group 7138, January 12–23. A regular spot steadily diminishing after January 15.
Group 7139, January 14–17. A number of spots, mostly small and unstable, in an irregular cluster.
Group 7140, January 15–22. Return of Group 7125. A regular spot, *a*, steadily diminishing after January 17. A very small companion, *b*, is seen near *a* on January 21; *a* has disappeared by January 22, but *b* and another very small spot are seen on that day.
Group 7141, January 16. Two very small spots, surrounded by faculæ, *np* Group 7139.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
15·422	N, JS	7138	0·587	42·5	229·5	+21·4	12	60	
		7142	0·692	60·7	215·8	+16·1	3	4	
		7142	0·715	62·3	213·6	+15·9	0	6	86*c*
		7142	0·738	62·7	211·7	+16·3	2	7	
		7142*a*	0·749	63·5	210·5	+16·2	15	18	
G.		7140*a*	0·939	62·7	189·2	+23·6	13	60	288*c*
		7143	0·949	72·2	185·3	+15·3	16	51	162*c*
		7143	0·954	71·4	184·5	+16·2	15	52	
			0·867	56·5	201·4	+25·8			257
			0·854	104·7	196·0	−15·0			86
Jan. 16				(−5·0)	(254·6)	(−4·7)	(104)	(532)	(1761)
16·160	N, VD		0·873	303·4	298·7	+25·9			103
		7137*e*	0·986	251·1	326·0	−19·4	0	31	427*s*
		7139	0·818	295·3	295·4	+17·4	0	9	139*f*
		7138	0·504	30·1	229·1	+21·1	12	62	
K.		7142*a*	0·656	58·5	209·3	+16·1	6	8	
		7140*a*	0·882	60·0	188·6	+23·5	16	82	259*f*
		7143*a*	0·889	69·9	185·1	+15·3	21	95	189*f*
			0·820	52·5	198·3	+26·6			104
Jan. 17				(−5·3)	(244·8)	(−4·8)	(55)	(287)	(1221)
17·117	N, VD		0·953	299·9	299·4	+26·5			47
			0·903	292·7	293·2	+18·0			178
K.		7138	0·442	5·7	229·5	+21·1	15	56	
		7140*a*	0·783	54·3	188·4	+23·7	18	57	202*f*
		7143*a*	0·776	65·6	185·3	+15·3	26	120	171*f*
Jan. 18				(−5·7)	(232·2)	(−4·9)	(59)	(233)	(598)
18·334	N, VD		0·981	289·9	292·5	+18·4			239
		7144	0·519	314·0	239·0	+16·5	4	10	
		7144	0·484	317·1	236·2	+16·0	1	13	
		7138	0·486	334·4	229·2	+21·1	10	19	
		7145	0·308	199·9	222·6	−21·7	0	4	
C.		7145	0·303	194·2	220·8	−22·0	0	8	
		7140*a*	0·638	42·7	188·2	+23·5	8	27	
		7143*a*	0·592	55·7	185·9	+15·1	14	110	
			0·912	111·4	150·6	−21·5			95
			0·970	64·7	144·1	+23·0			287
Jan. 19				(−6·3)	(216·2)	(−5·0)	(37)	(191)	(621)
19·311	N, VD	7138	0·598	317·2	229·1	+21·4	8	24	
D.		7140*a*	0·538	27·8	187·5	+23·4	4	8	
		7140*b*	0·518	30·4	187·0	+21·5	5	21	
1915.				°	°	°			
19·311	N, VD	7140	0·542	31·0	185·8	+22·7	3	6	
		7143*a*	0·451	40·4	185·7	+15·2	13	70	
		7146	0·727	72·5	158·9	+ 9·0	2	15	21*c*
D.		7146	0·746	73·2	157·2	+ 8·9	0	3	
			0·916	61·8	142·1	+23·2			363
Jan. 20				(−6·8)	(203·3)	(−5·1)	(35)	(147)	(384)
20·387	N, VD	7138	0·733	305·6	228·8	+21·2	5	18	204*sp*
		7140*b*	0·451	2·8	187·8	+21·4	1	4	
		7140*a*	0·476	3·0	187·7	+23·0	1	6	
		7143*a*	0·351	9·0	186·0	+15·0	10	24	
C.			0·813	55·2	142·4	+24·1			220
			0·983	61·8	114·1	+26·4			266
			0·972	119·4	112·1	−29·8			88
Jan. 21				(−7·2)	(189·2)	(−5·2)	(17)	(52)	(778)
21·391	N, JS	7138	0·852	299·0	228·8	+21·1	13	15	259*sp*
		7140*b*	0·492	336·3	188·2	+21·4	1	2	
		7140	0·473	335·1	188·2	+20·1	0	7	
		7143	0·412	330·9	188·0	+15·9	0	4	
		7143	0·385	331·3	187·0	+14·5	0	5	
C.		7143*a*	0·383	334·7	185·7	+15·0	11	23	
		7147	0·562	24·0	161·4	+25·6	1	8	
			0·925	58·6	114·4	+26·4			206
			0·935	118·3	107·0	−28·3			235
			0·971	59·8	104·9	+27·6			184
Jan. 22				(−7·7)	(176·0)	(−5·3)	(26)	(64)	(884)
22·356	N, VD		0·801	294·9	212·3	+16·2			114
		7138	0·935	294·7	228·4	+20·8	6	25	194*c*
		7148	0·889	294·7	221·8	+19·0	0	14	132*c*
		7143*a*	0·501	312·5	185·7	+14·8	9	24	
			0·838	54·7	114·2	+25·4			302
C.			0·863	120·4	105·4	−28·7			383
			0·911	56·5	104·6	+27·5			253
			0·949	73·6	94·0	+13·6			82
			0·976	120·9	85·0	−31·3			261
Jan. 23				(−8·1)	(163·3)	(−5·3)	(15)	(63)	(1721)
23·454	N, JS		0·949	291·2	217·1	+18·1			214
		7143*a*	0·668	299·2	185·7	+14·7	8	16	
C.			0·831	49·5	102·7	+28·9			155
			0·846	69·8	94·1	+13·9			69

Group 7142, January 16–17. A few small spots, of which the last one, *a*, is the largest and darkest, in a straight stream. Only *a* remains on January 17.
Group 7143, January 16–26. A pair of spots separated by a narrow tongue of bright material on January 16. This tongue has narrowed by January 17, and the group appears as a single regular spot, *a*, crossed by a bright bridge. The spot diminishes after January 18, and is preceded by two small companions on January 22.
Group 7144, January 19. A pair of very small spots.
Group 7145, January 19. A pair of very small spots.
Group 7146, January 20. A cluster of very small spots.
Group 7147, January 22. A small spot.
Group 7148, January 23. A faint spot surrounded by bright faculæ, *f* Group 7138.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
23·454	N, JS		0·913	121·4	83·9	−30·8			147
C.			0·992	109·5	64·8	−20·0			161
Jan. 24				(−8·6)	(148·8)	(−5·4)	(8)	(16)	(746)
24·337	JS, VD		0·910	304·0	195·6	+27·8			302
			0·797	307·4	181·3	+25·0			392
C.		7143*a*	0·789	293·0	185·6	+14·3	5	12	179*c*
		7157*	0·958	110·0	63·1	−20·8	0	9	141*nf*
			0·849	123·0	81·6	−30·6			244
Jan. 25				(−9·0)	(137·2)	(−5·5)	(5)	(21)	(1258)
25·411	N, JS		0·896	301·2	180·4	+24·7			722
			0·873	317·0	170·2	+35·9			81
		7143*a*	0·909	288·5	185·6	+14·2	2	5	175*c*
G.			0·764	125·1	77·0	−30·0			112
			0·852	111·0	64·9	−20·8			293
			0·926	56·6	62·1	+28·0			117
			0·927	120·2	55·5	−30·0			125
Jan. 26				(−9·5)	(123·0)	(−5·6)	(2)	(5)	(1625)
26·388	JS, N		0·975	286·7	185·1	+14·8			100
			0·954	297·3	178·0	+23·9			364
		7149*a*	0·795	310·4	152·8	+26·8	2	11	
C.			0·725	114·7	65·2	−21·7			115
			0·867	53·5	58·6	+27·5			79
			0·930	118·9	42·0	−28·9			277
Jan. 27				(−9·9)	(110·2)	(−5·7)	(2)	(11)	(935)
27·312	N, JS		0·989	295·3	175·8	+23·9			159
			0·747	305·9	138·5	+21·6			90
		7149*a*	0·884	304·5	152·5	+26·7	4	9	
		7149*b*	0·865	305·7	149·8	+26·8	5	14	154*c*
		7150	0·863	308·5	148·2	+28·8	10	24	
C.		7151	0·600	57·9	66·6	+13·6	1	3	
		7152*a*	0·676	67·3	58·8	+10·6	1	4	
		7152*b*	0·699	65·3	57·6	+12·5	3	6	
			0·868	121·2	39·4	−29·8			253
			0·924	57·1	37·4	+27·3			191
			0·962	70·5	26·8	+16·9			513
Jan. 28				(−10·3)	(98·0)	(−5·8)	(24)	(60)	(1360)
1915.				°	°	°			
28·343	N, VD		0·832	300·2	134·6	−21·1			184
		7149	0·962	299·8	153·1	−26·5	0	15	
		7149	0·943	301·4	148·8	−27·0	8	13	300*c*
		7150	0·937	304·3	146·7	−29·2	7	27	
		7153	0·560	315·2	108·8	−18·0	2	6	
		7153	0·553	318·4	107·2	−19·0	4	5	
C.		7154	0·578	326·2	104·8	−23·1	1	5	
		7154	0·540	330·8	100·9	+22·4	0	7	
		7155	0·321	70·8	66·8	+0·5	1	3	
		7152*a*	0·504	56·4	59·2	+10·9	4	5	
		7152*b*	0·543	56·0	57·1	+12·5	1	4	
			0·765	124·8	38·1	−29·9			77
			0·917	69·4	21·2	+16·2			563
Jan. 29				(−10·8)	(84·4)	(−5·8)	(28)	(90)	(1124)
29·432	JS, VD		0·933	296·2	134·3	+21·8			218
			0·784	310·2	111·7	+26·0			203
C.		7156	0·184	66·0	60·2	−1·5	0	7	
			0·750	60·4	27·2	+17·4			175
			0·859	62·9	16·0	+19·6			297
Jan. 30				(−11·2)	(70·1)	(−5·9)	(0)	(7)	(893)
30·113	N, VD		0·982	294·1	136·4	+22·2			138
			0·862	305·6	112·4	+26·4			172
		7157	0·336	136·9	47·0	−20·0	0	6	
K.		7158*a*	0·989	109·9	338·2	−20·5	45	182	310*c*
			0·783	57·8	16·3	+20·4			137
			0·910	52·2	4·6	+30·6			104
Jan. 31				(−11·5)	(61·1)	(−6·0)	(45)	(188)	(861)
31·351	N, VD		0·952	300·8	111·0	+26·8			179
			0·901	294·2	104·7	+18·6			121
			0·855	238·2	101·7	−30·1			335
C.			0·888	306·6	98·8	+28·4			251
		7159	0·301	121·8	29·5	−15·0	0	4	
		7158*a*	0·915	109·6	338·2	−20·4	27	123	
		7160	0·981	113·6	324·5	−24·3	8	37	917*c*
Feb. 1				(−12·0)	(44·8)	(−6·1)	(35)	(164)	(1803)
32·347	N, JS		0·926	240·9	99·4	−29·2			429
C.			0·945	301·6	96·4	+27·2			263
			0·786	236·8	80·6	−29·5			183
		7152*a*	0·539	303·0	59·1	+11·6	1	3	

Group 7157*, January 25. A small faint marking, *p* the position of Group 7157. Group 7149, January 27–29. A small spot, *a*, on January 27. A second, *b*, has formed *f a* by January 28. Group 7150, January 28–29. A very close pair of small spots. Group 7151, January 28. A very small marking. Group 7152, January 28–February 3. A wide pair of very small faint spots, *a* and *b*. The spots cannot be certainly detected from January 30 to February 1, but both have re-appeared by February 2. The region in which are this group and Group 7151 seems in a state of feeble and intermittent activity. Group 7153, January 29. Two faint markings. Group 7154, January 29. Two very faint markings. Group 7155, January 29. A very small faint spot. Group 7156, January 30. A very small faint marking. Group 7157, January 31. A very small faint marking. Group 7158, January 31–February 10. With Group 7160, a return of Group 7137. A regular spot, *a*, which has divided into two portions, *b* and *c*, by February 3, after which the group disintegrates. Some small unstable spots are seen in the neighbourhood on February 9 and 10. Group 7159, February 1. A very small faint marking. Group 7160, February 1–13. A few spots, mostly small, following Group 7158. New spots form, and by February 6 a wide area is affected by the disturbance. By February 8 the group has developed into a long, straight, and nearly continuous stream, inclined at a considerable angle to the sun's equator. By February 10, two of the leading spots, *a* and *b*, have become regular, and have apparently coalesced to form *c* by February 12. Only *c* is visible on February 13.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
32·347	N, VD	7152*b*	0·516	307·4	56·4	+12·7	1	2	
		7158*a*	0·802	110·9	338·8	−20·4	25	169	
C.		7158	0·845	111·0	334·3	−20·9	2	7	1562*c*
		7160	0·890	113·4	328·9	−23·6	7	13	
		7160	0·918	113·9	324·9	−24·3	0	77	
Feb. 2				(−12·4)	(31·7)	(−6·1)	(36)	(271)	(2437)
33·371	N, JS		0·968	237·6	94·7	−32·9			217
			0·858	237·8	75·5	−30·6			210
			0·770	245·8	67·5	−22·4			116
		7152	0·705	294·2	59·2	+12·1	0	5	
		7152	0·695	298·8	57·1	+14·7	0	7	
C.		7158*b*	0·647	114·4	339·4	−20·4	18	119	
		7158*c*	0·666	114·0	337·9	−20·4	7	61	
		7160	0·771	115·0	328·9	−23·1	2	5	
		7160	0·792	115·7	327·0	−24·0	3	7	661*c*
		7160	0·799	115·0	326·2	−23·6	2	13	
		7160	0·819	115·4	324·2	−24·2	8	59	
Feb. 3				(−12·8)	(18·2)	(−6·2)	(40)	(276)	(1204)
34·115	N, VD		0·912	239·2	73·6	−30·5			176
			0·872	249·1	69·0	−21·2			59
		7161	0·598	45·3	341·8	+19·2	13	18	
		7161	0·620	45·8	340·3	+20·0	10	24	
		7161	0·638	49·3	337·7	+19·1	14	32	
		7158	0·520	122·3	340·3	−21·7	1	5	
		7158*b*	0·519	119·8	339·8	−20·4	18	109	
K.		7158*c*	0·543	118·9	338·0	−20·6	8	51	
		7162	0·555	121·5	337·8	−22·2	0	12	
		7160	0·726	117·5	323·7	−24·1	10	23	143*f*
		7160	0·731	116·3	323·1	−23·3	0	6	
		7163*a*	0·920	101·6	300·9	−13·1	10	15	82*c*
		7163*b*	0·932	103·2	299·0	−14·5	4	16	
			0·960	64·1	299·2	+22·7			77
Feb. 4				(−13·1)	(8·4)	(−6·3)	(88)	(311)	(537)
35·404	JS, VD		0·955	249·9	65·2	−21·1			83
			0·922	286·7	56·1	+12·7			76
		7161	0·435	19·5	342·8	+17·9	24	48	
G.		7161	0·450	20·7	341·9	+18·6	2	4	
		7161	0·474	22·1	340·6	+19·8	0	4	
		7161	0·458	26·5	339·1	+18·0	4	21	
		7161	0·488	27·5	337·7	+19·5	3	14	
		7158*b*	0·303	143·8	340·6	−20·3	19	80	
1915.				°	°	°			
35·404	N, VD	7158*d*	0·323	145·5	340·5	−21·5	6	18	
		7158*e*	0·332	139·7	338·3	−20·8	2	6	
		7158*e*	0·332	138·1	337·9	−20·4	4	15	
		7158	0·361	136·5	336·1	−21·1	0	5	
		7162	0·347	147·5	339·9	−23·1	0	8	
		7162	0·368	140·9	337·0	−22·7	4	8	
		7164	0·430	124·9	329·5	−20·1	6	8	
		7164	0·458	122·3	327·3	−19·9	0	9	
G.		7164	0·515	128·9	326·6	−18·3	6	16	
		7160	0·509	126·5	325·2	−23·3	0	15	
		7160	0·528	126·8	324·1	−23·9	0	6	
		7160	0·542	125·3	322·7	−23·7	17	51	
		7163*a*	0·757	101·3	302·1	−12·7	2	5	
		7163*b*	0·786	104·1	299·6	−15·0	5	7	
		7165*a*	0·992	109·3	267·1	−19·9	38	232	
			0·888	59·1	295·4	+23·7			172
Feb. 5				(−13·7)	(351·5)	(−6·3)	(142)	(580)	(331)
36·463	N, JS		0·885	238·9	38·6	−30·3			181
			0·888	305·8	31·7	+27·6			97
			0·831	293·7	29·5	+15·6			160
		7161*a*	0·415	347·0	343·1	+17·4	33	72	
		7161	0·430	349·3	342·3	+18·5	1	4	
		7161*b*	0·404	350·2	341·6	+17·0	8	10	
		7161	0·441	356·9	338·9	+19·7	1	4	
		7161	0·435	0·2	337·4	+19·3	2	3	
		7158	0·271	195·5	341·9	−21·4	1	10	
		7158*b*	0·254	194·1	341·3	−20·6	13	37	
		7158	0·279	191·9	341·0	−22·2	2	5	
		7158	0·267	190·5	340·5	−21·5	3	8	
		7158	0·265	186·6	339·3	−21·6	2	4	
		7158*c*	0·245	183·5	338·4	−20·5	3	8	
G.		7158	0·239	177·5	336·9	−20·1	3	5	
		7162	0·293	179·3	337·3	−23·4	0	6	
		7162	0·301	178·1	336·9	−23·8	1	1	
		7164	0·266	155·8	330·9	−20·3	5	15	
		7164	0·308	149·3	327·8	−21·6	0	2	
		7164	0·287	145·5	327·6	−20·0	4	9	
		7160	0·290	159·5	331·2	−22·1	0	3	
		7160	0·308	157·5	330·2	−22·8	4	17	
		7160	0·353	150·8	326·7	−24·2	9	16	
		7160	0·373	150·9	326·0	−25·2	3	5	
		7160	0·367	147·9	325·2	−24·3	0	6	
		7160	0·348	143·4	324·6	−22·4	0	10	
		7160	0·387	148·3	324·5	−25·4	3	12	
		7160	0·393	144·5	323·0	−24·9	4	19	

Group 7161, February 4–12. A wide area of disturbance undergoing much the same type of changes as Group 7160. A composite spot, *a*, has formed at the head of the group by February 6, but diminishes slowly afterwards. It is followed by one or two small spots, of which *b* is the most stable. But a new outbreak has occurred by February 9, *nf* the position of *b*, and a long, sparse, straight stream is formed inclined at a considerable angle to the equator. These new spots have developed largely by February 11, while *a* has disappeared by February 12.

Group 7162, February 4–8. A few small unstable spots in a disturbed area, *s* of Group 7158.

Group 7163, February 4–5. A wide pair of small spots, *a* and *b*.

Group 7164, February 5–8. A few small unstable spots in a disturbed area, *n* of Group 7160.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
36·463	N, JS	7160	0·384	141·1	322·3	−23·5	16	31	
		7166	0·370	134·1	321·0	−21·1	3	8	
G.		7165*a*	0·941	109·1	266·5	−20·1	19	212	220*c*
			0·815	47·7	294·3	+28·6			51
			0·888	121·5	275·9	−30·8			82
Feb. 6				(−14·1)	(337·5)	(−6·4)	(143)	(542)	(791)
37·391	JS, N		0·941	241·3	35·9	−29·1			111
			0·949	303·7	29·7	+29·1			63
			0·879	293·4	22·6	+17·0			352
			0·845	306·2	14·3	+25·7			64
		7161*a*	0·499	323·6	343·3	+17·4	18	37	
		7161*b*	0·481	326·0	341·6	+17·2	2	11	
		7161	0·485	336·8	337·0	+20·0	0	15	
		7158*b*	0·364	226·9	341·7	−20·6	5	11	
		7162	0·385	213·8	338·9	−25·0	3	5	
		7158*c*	0·326	221·5	338·6	−20·4	3	7	
C.		7164	0·270	200·4	331·1	−21·1	5	31	
		7160	0·301	192·2	329·3	−23·5	0	5	
		7160	0·308	186·8	327·6	−24·3	9	58	
		7160	0·318	180·2	325·4	−25·0	28	189	
		7160	0·323	171·5	322·3	−25·0	7	26	
		7160	0·293	167·4	321·3	−23·0	4	36	
		7166	0·261	164·4	321·0	−21·0	0	5	
		7166	0·262	158·6	319·5	−20·5	0	4	
		7165*a*	0·854	109·4	266·6	−19·9	49	291	234*c*
		7167	0·635	37·2	300·5	+24·4	5	7	
Feb. 7				(−14·4)	(325·3)	(−6·5)	(138)	(738)	(824)
38·430	N, JS		0·936	290·4	17·6	+16·5			167
			0·912	302·0	10·5	+25·6			156
		7161*a*	0·635	307·4	343·3	+17·1	13	39	
		7161	0·638	309·2	342·8	+18·2	3	6	
		7161*b*	0·614	309·4	341·3	+17·2	3	4	
		7158*b*	0·547	242·4	342·6	−20·3	2	4	
		7162	0·487	232·8	336·4	−23·0	0	6	
G.		7164	0·382	225·8	328·7	−21·6	1	2	
		7160	0·413	226·0	330·3	−22·8	17	18	
		7160	0·401	225·5	329·6	−22·5	7	25	
		7160	0·414	223·4	329·6	−23·7	11	32	
		7160	0·396	222·8	328·5	−23·0	3	7	
		7160	0·405	220·4	328·3	−24·2	2	8	
		7160	0·392	221·0	327·8	−23·4	1	4	
		7160	0·396	218·4	327·2	−24·3	2	8	
		7160	0·383	219·4	326·9	−23·5	3	5	
1915.				°	°	°			
38·430	N, JS	7160	0·386	216·9	326·3	−24·2	10	52	
		7160	0·402	214·2	326·1	−25·7	2	6	
		7160	0·376	217·2	325·9	−23·7	2	8	
		7160	0·398	211·4	324·9	−26·1	2	8	
		7160	0·379	213·4	324·8	−24·7	4	13	
		7160	0·378	209·8	323·6	−25·5	16	54	
		7160	0·346	213·4	323·5	−23·1	3	11	
G.		7160	0·355	207·0	321·8	−24·8	1	9	
		7160	0·323	205·2	320·2	−23·3	2	9	
		7167	0·526	14·6	303·3	+24·1	3	9	
		7167*a*	0·559	19·1	300·0	+25·4	7	11	
		7168*a*	0·627	25·0	294·1	+28·4	1	8	
		7168*b*	0·656	27·2	291·5	+29·5	4	11	
		7165*a*	0·722	111·9	266·2	−20·3	40	223	264*c*
		7169*a*	0·972	64·0	239·8	+23·3	81	374	205*c*
Feb. 8				(−14·8)	(311·6)	(−6·5)	(246)	(974)	(792)
39·598	N, JS	7170	0·864	249·9	356·1	−20·6	1	9	
		7170	0·857	249·8	355·3	−20·7	0	14	101*c*
		7170	0·847	248·1	353·9	−22·0	6	14	
		7170	0·842	248·7	353·4	−21·4	1	2	
		7161*a*	0·793	297·9	343·3	+17·4	15	21	
		7161	0·769	301·9	339·8	+19·2	17	36	
		7161	0·755	303·7	337·9	+19·8	5	12	73*c*
		7161	0·743	305·1	336·4	+20·3	4	10	
		7161	0·736	306·0	335·5	+20·5	6	15	
		7158	0·691	246·2	338·7	−21·1	3	10	
		7158	0·673	247·3	337·4	−20·0	1	4	207*p*
		7160	0·609	241·5	331·4	−22·3	11	45	
		7160	0·605	240·1	330·8	−23·0	3	19	
		7160	0·590	238·5	329·3	−23·5	5	13	
G.		7160	0·579	237·7	328·3	−23·6	9	21	
		7160	0·568	236·5	327·3	−23·9	4	11	
		7160	0·549	235·5	325·7	−23·8	0	6	
		7160	0·559	233·2	325·7	−25·2	1	7	
		7160	0·549	233·7	325·2	−24·7	6	12	
		7160	0·555	230·7	324·7	−26·4	4	7	
		7160	0·536	231·2	323·6	−25·4	6	13	
		7160	0·532	229·3	322·8	−26·1	18	25	
		7160	0·510	230·5	321·8	−24·9	2	23	
		7166	0·475	234·3	320·7	−22·0	0	5	
		7166	0·450	233·4	319·0	−21·6	2	3	
		7167	0·521	345·2	304·5	+23·6	3	5	
		7167	0·525	348·9	302·5	+24·3	4	7	
		7167	0·548	353·5	300·2	+26·3	2	16	
		7167*a*	0·539	354·7	299·4	+25·7	8	15	

Group 7165, February 5–18. A large regular spot, *a*, crossed by a bright bridge. After February 11, when *a* has diminished a good deal, a number of very small and unstable spots appear round *a* at a considerable distance from it.
Group 7166, February 6–9. One or two small faint unstable spots, forming *nf* Group 7160. The group is not seen on February 8.
Group 7167, February 7–14. Some very small faint spots in a sparse stream. The rear spot, *a*, has developed considerably by February 10, and become a double spot, but has almost disappeared by February 13.
Group 7168, February 8–9. A pair of small spots, *a* and *b*, forming *nf* Group 7167.
Group 7169, February 8–20. A very large regular spot, *a*, with several very small companions.
Group 7170, February 9–10. A few small spots forming close to the West limb, and *p* Group 7158.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
39·598	N, JS	7168*a*	0·573	4·2	293·5	+28·2	1	5	
		7168*b*	0·594	6·7	291·7	+29·4	0	9	
		7165*a*	0·539	118·1	265·9	−20·4	40	223	
		7169*a*	0·888	59·5	240·0	+23·2	83	460	
		7169	0·905	60·1	237·6	+23·5	7	15	
G.		7169	0·913	58·7	237·0	+25·0	0	12	141*c*
		7169	0·913	59·4	236·7	+24·5	0	4	
		7169	0·915	60·5	236·0	+23·6	6	9	
		7171	0·954	65·9	227·9	+20·6	10	20	312*n*
		7172*a*	0·976	77·5	220·6	+10·6	38	61	90*f*
Feb. 9				(−15·3)	(296·2)	(−6·6)	(332)	(1218)	(924)
40·441	N, JS	7170	0·924	249·0	353·2	−21·9	4	13	69*n*
		7161*a*	0·889	293·4	343·6	+17·3	7	17	
		7161	0·868	297·4	339·9	+19·8	18	60	
		7161	0·863	296·4	339·7	+18·8	7	35	
		7161	0·856	297·8	338·4	+19·7	5	23	
		7161	0·860	299·8	338·2	+21·4	11	23	
		7161	0·850	299·2	337·3	+20·5	6	8	265*c*
		7161	0·853	300·4	337·2	+21·6	1	6	
		7161	0·846	298·6	337·1	+19·8	5	11	
		7161	0·842	299·6	336·3	+20·5	5	8	
		7161	0·838	300·2	335·7	+20·8	5	18	
		7161	0·829	300·6	334·6	+20·7	5	10	
		7158	0·849	248·3	343·1	−21·9	0	3	
		7158	0·813	248·3	339·1	−21·4	2	6	309*c*
		7160*a*	0·745	245·8	332·2	−22·3	9	61	
		7160	0·731	245·7	330·9	−22·2	3	13	
G.		7160*b*	0·725	244·6	330·2	−22·8	11	52	
		7160	0·718	245·5	329·7	−22·0	1	5	
		7160	0·715	243·8	329·2	−23·2	0	3	
		7160	0·694	242·7	327·2	−23·5	4	10	
		7160	0·678	241·6	325·6	−23·8	2	6	
		7160	0·686	237·0	325·2	−27·0	3	6	
		7160	0·681	238·4	325·1	−25·9	2	4	
		7160	0·666	239·8	324·3	−24·7	1	2	
		7610	0·657	237·5	323·0	−25·9	0	9	
		7160	0·656	236·3	322·6	−26·6	6	11	
		7160	0·636	239·2	321·8	−24·3	3	6	
		7160	0·639	238·0	321·7	−25·1	4	18	
		7160	0·639	235·2	321·0	−26·8	1	10	
		7167	0·591	327·0	305·6	+23·5	4	7	
		7167	0·574	331·0	302·7	+23·8	3	5	
		7167	0·578	332·5	302·1	+24·4	2	4	
		7167	0·566	332·6	301·6	+23·8	1	4	
		7167*a*	0·582	337·2	299·6	+25·9	20	56	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
40·441	N, JS	7165*a*	0·398	127·9	265·6	−20·4	35	190	
		7169*a*	0·805	54·2	239·9	+23·4	95	518	
		7169	0·805	56·9	238·8	+21·5	2	45	
		7169	0·829	55·4	237·1	+23·7	0	19	125*c*
		7169	0·820	57·8	237·0	+21·5	3	3	
G.		7169	0·842	53·8	236·4	+25·5	6	22	
		7169	0·844	55·2	235·6	+24·5	0	6	
		7171	0·888	62·5	227·9	+20·7	6	14	354*n*
		7172*a*	0·915	74·4	221·3	+11·4	16	98	196*c*
		7173	0·956	77·5	214·0	+ 9·9	0	7	
Feb. 10				(−15·6)	(285·1)	(−6·6)	(324)	(1455)	(1318)
41·418	N, JS	7174	0·955	251·6	346·1	−19·5	2	7	487*f*
		7174	0·947	251·7	344·6	−19·5	0	5	
		7161*a*	0·963	289·9	343·4	+17·1	2	7	
		7161	0·949	293·7	339·7	+20·0	0	40	
		7161	0·944	292·2	339·2	+18·4	0	24	
		7161	0·945	293·0	339·1	+19·1	11	39	
		7161	0·939	294·1	337·8	+19·8	13	22	
		7161	0·937	294·8	337·3	+20·4	3	20	254*c*
		7161	0·940	296·3	337·3	+21·9	3	36	
		7161	0·930	295·8	335·8	+21·0	7	16	
		7161	0·924	295·9	334·9	+20·8	8	16	
		7161	0·925	296·7	334·8	+21·5	0	4	
		7161	0·919	295·3	334·3	+20·1	1	3	
		7161	0·919	296·3	334·0	+21·0	3	6	
		7160*a*	0·873	248·1	333·3	−22·4	19	90	
		7160	0·863	248·6	332·0	−21·8	4	4	
		7160*b*	0·860	247·7	331·5	−22·5	9	43	
G.		7160	0·857	248·6	331·3	−21·8	6	15	
		7160	0·836	247·3	328·7	−22·6	3	5	
		7160	0·822	246·1	327·1	−23·4	11	40	446*c*
		7160	0·817	244·7	326·4	−24·5	4	10	
		7160	0·803	245·4	325·0	−23·7	8	22	
		7160	0·804	244·5	324·9	−24·4	2	2	
		7160	0·787	241·3	322·6	−26·5	5	14	
		7160	0·778	244·0	322·2	−24·3	2	5	
		7160	0·772	242·5	321·3	−25·3	4	6	
		7167	0·710	313·2	306·5	+23·5	11	20	
		7167	0·708	320·1	302·9	+27·1	0	3	
		7167	0·673	316·7	302·4	+23·5	1	4	
		7167	0·666	319·3	300·7	+24·4	3	5	
		7167*a*	0·671	322·1	299·5	+25·9	15	52	
		7167	0·657	321·9	298·8	+25·1	1	3	
		7167	0·638	321·3	298·1	+23·8	0	3	
		7165*a*	0·264	155·1	265·5	−20·5	27	162	

Group 7171, February 9–10. Return of Group 7138. A small spot, *sf* Group 7169.
Group 7172, February 9–14. A regular spot, *a*, *sf* Group 7171, with occasionally some very small companions. *a* diminishes quickly after February 12.
Group 7173, February 10. A very small spot, *sf* Group 7172.
Group 7174, February 11. A pair of very small spots, *np* Group 7158, and *nf* the place of Group 7170.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
41·418	N, JS	7169*a*	0·693	45·5	239·8	+23·4	92	538	
		7169	0·705	49·3	237·3	+21·9	7	52	
		7169	0·739	45·5	236·6	+25·7	4	16	135*f*
		7169	0·705	51·0	236·5	+20·9	1	7	
G.		7169	0·731	48·1	235·9	+23·8	3	28	
		7169	0·748	56·3	231·1	+19·5	2	3	
		7172*a*	0·801	70·4	222·2	+11·3	17	103	
		7172	0·819	71·8	220·1	+10·7	2	3	161*f*
		7172	0·831	73·0	218·6	+10·2	3	4	
Feb. 11				(−15·9)	(272·3)	(−6·7)	(319)	(1507)	(1483)
42·347	N, JS		0·991	250·5	343·8	−20·1			199
			0·833	243·1	315·6	−26·0			295
		7161	0·991	290·5	339·4	+19·2	19	54	
		7161	0·988	291·9	337·7	+20·3	0	30	284*c*
		7161	0·988	293·9	337·2	+22·2	3	23	
		7161	0·980	293·3	334·7	+21·1	13	47	
		7160*c*	0·954	248·7	333·7	−22·3	26	181	
		7160	0·933	246·7	329·7	−24·1	3	3	1087*c*
		7160	0·901	247·2	324·7	−23·4	2	4	
		7160	0·889	246·7	323·0	−23·7	1	3	
		7167	0·819	305·3	306·8	+23·7	17	22	
		7167	0·794	305·9	304·3	+23·0	3	5	
C.		7167	0·771	308·3	301·2	+23·4	11	23	202*c*
		7167	0·773	311·3	300·0	+25·5	2	5	
		7167*a*	0·766	312·8	298·7	+26·1	10	73	
		7165*a*	0·254	199·7	265·3	−20·4	23	164	
		7165	0·311	175·8	258·7	−24·7	1	6	
		7169*a*	0·596	33·3	239·3	+23·5	100	560	
		7169	0·643	34·1	236·6	+25·9	2	3	
		7169	0·594	38·9	236·6	+21·3	1	9	
		7169	0·625	38·0	235·4	+23·3	6	58	
		7169	0·666	44·5	229·9	+22·5	1	7	
		7172*a*	0·667	64·5	222·4	+11·3	23	77	
		7172	0·715	68·7	217·7	+10·1	2	5	
			0·965	69·2	188·8	+18·0			169
Feb. 12				(−16·3)	(260·1)	(−6·7)	(269)	(1362)	(2236)
43·396	N, JS		0·842	311·4	292·3	+29·1			118
			0·930	244·8	315·1	−25·8			228
		7160*c*	0·998	248·1	335·0	−22·2	94	429	538*sf*
C.		7167	0·915	299·7	306·2	+23·7	5	12	
		7167	0·886	300·6	302·0	+23·1	2	15	273*c*
		7167	0·867	305·6	297·8	+26·1	5	7	
		7167	0·857	305·4	296·7	+25·5	1	5	
1915.				°	°	°			
43·396	N, JS	7165*a*	0·386	231·2	264·8	−20·4	29	144	
		7165	0·324	232·7	261·8	−17·8	1	2	
		7165	0·261	221·2	256·6	−18·0	0	7	
		7165	0·247	216·9	255·1	−18·0	0	4	
		7169*a*	0·518	13·2	238·8	+23·4	104	497	
		7169	0·531	21·3	234·2	+22·8	5	31	
C.		7169	0·573	19·6	233·9	+25·9	1	2	
		7169	0·545	25·4	231·6	+22·8	0	6	
		7169	0·594	23·2	231·1	+26·4	3	15	
		7172*a*	0·499	53·1	222·3	+11·1	5	17	
			0·881	65·5	189·1	+17·8			189
			0·964	61·8	177·0	+24·8			128
Feb. 13				(−16·6)	(246·2)	(−6·8)	(255)	(1193)	(1474)
44·360	N, VD		0·987	245·4	316·7	−25·4			272
			0·963	238·1	309·1	−32·5			135
			0·913	306·4	290·6	+29·2			180
			0·906	259·2	299·1	−12·7			105
		7167	0·961	296·8	302·5	+23·4	8	8	285*c*
		7167	0·944	300·9	297·7	+26·1	10	11	
		7165	0·590	250·8	268·9	−16·8	1	3	
		7165	0·545	247·8	265·4	−17·7	3	6	
		7165*a*	0·547	242·7	264·6	−20·3	21	132	
C.		7169*a*	0·506	350·6	238·6	+23·1	96	490	
		7169	0·518	354·8	236·4	+24·1	4	8	
		7169	0·489	357·8	234·7	+22·4	0	3	
		7169	0·499	359·4	233·8	+23·0	4	23	
		7169	0·552	4·4	230·8	+26·4	0	4	
		7172*a*	0·400	41·6	217·9	+16·8	0	12	
			0·798	56·9	187·9	+21·1			123
			0·893	58·0	177·4	+24·5			105
			0·956	56·4	167·6	+29·4			125
Feb. 14				(−17·0)	(233·5)	(−6·8)	(147)	(700)	(1330)
45·339	N, JS		0·992	297·3	298·8	+25·8			162
			0·952	303·9	285·5	+29·3			86
		7165	0·712	252·1	265·8	−17·6	2	5	
		7165*a*	0·705	248·5	264·8	−19·9	19	136	
		7165	0·627	247·7	258·4	−19·2	3	3	
C.		7165	0·607	245·3	256·6	−20·3	0	6	
		7169*a*	0·569	330·3	238·5	+23·0	99	504	
		7169	0·569	335·1	235·9	+24·3	1	5	
		7169	0·541	337·4	233·7	+23·1	4	5	
		7175	0·327	226·9	235·3	−19·6	1	9	
		7176	0·447	190·5	226·2	−32·9	0	11	

Group 7175, February 15–16. A very small spot, *f* Group 7165.
Group 7176, February 15. A small spot, *sf* Group 7165.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
45·339	N, JS		0·824	39·0	181·8	+34·5			79
			0·817	51·7	175·6	+25·5			169
C.			0·892	50·7	167·8	+30·3			162
			0·990	74·3	141·2	+14·4			164
			0·968	63·3	150·2	+23·6			125
Feb. 15				(−17·3)	(220·7)	(−6·9)	(129)	(684)	(947)
46·413	N, JS	7165	0·859	254·2	266·1	−17·1	2	5	
		7165	0·850	253·6	265·1	−17·6	5	8	
		7165	0·847	254·4	264·8	−16·9	0	4	268c
		7165a	0·845	251·1	264·4	−19·7	19	106	
		7165	0·824	252·5	262·1	−18·3	2	4	
		7169a	0·685	314·9	238·2	+23·0	101	488	
G.		7169	0·644	318·1	234·1	+22·5	1	3	
		7169	0·660	321·2	233·5	+24·7	2	6	
		7169	0·635	320·7	232·4	+23·2	0	3	
		7175	0·490	240·4	233·4	−20·1	1	2	
			0·787	43·3	168·3	+29·6			121
			0·892	57·9	150·6	+24·5			94
			0·933	71·5	140·7	+14·4			301
Feb. 16				(−17·7)	(206·5)	(−6·9)	(133)	(629)	(784)
47·399	N, VD	7165	0·942	253·6	264·8	−17·7	3	5	
		7165a	0·940	251·6	264·4	−19·6	12	86	403c
		7165	0·921	252·6	261·3	−18·6	12	26	
C.		7169a	0·798	306·0	237·9	+23·0	92	469	207n
		7169	0·761	307·9	234·0	+22·7	0	4	
			0·861	67·6	138·1	+15·3			145
Feb. 17				(−18·0)	(193·5)	(−6·9)	(119)	(590)	(755)
48·108	N, VD		0·898	290·6	244·5	+15·0			99
		7165	0·989	254·8	267·0	−16·0	0	19	
		7165	0·983	254·3	265·0	−16·7	0	16	
		7165a	0·982	251·2	265·0	−19·8	20	63	412c
		7165	0·976	253·0	262·9	−18·0	7	33	
K.		7165	0·969	252·4	261·3	−18·8	8	33	
		7169a	0·871	302·0	237·6	+23·4	88	472	446nf
			0·730	62·2	142·5	+14·7			68
			0·830	61·9	133·8	+18·6			139
			0·988	62·8	107·7	+25·4			92
			0·984	118·0	102·5	−28·7			107
Feb. 18				(−18·2)	(184·2)	(−7·0)	(123)	(636)	(1363)
1915.				°	°	°			
49·610	N, JS		0·932	251·7	234·1	−19·6			101
			0·857	288·0	220·5	+11·5			164
G.		7169a	0·978	295·5	237·9	+23·1	84	455	427f
			0·892	55·7	109·4	+26·2			116
			0·906	118·7	99·4	−28·9			345
Feb. 19				(−18·7)	(164·4)	(−7·0)	(84)	(455)	(1153)
50·396	JS, N		0·933	284·8	223·8	+16·2			197
			0·959	300·4	221·5	+26·5			111
		7169a	0·997	293·7	236·2	+22·9	104	259	296f
		7177	0·420	25·8	143·2	+15·3	0	9	
		7178	0·414	39·6	138·5	+11·8	0	3	
		7179	0·447	52·6	133·1	+ 9·1	0	2	
C.		7180a	0·946	112·1	82·0	−23·1	3	8	78f
			0·821	51·5	108·7	+25·8			74
			0·851	121·5	97·2	−30·2			146
			0·966	51·4	87·7	+34·6			81
			0·951	121·4	81·4	−31·9			127
Feb. 20				(−19·0)	(154·1)	(−7·0)	(107)	(281)	(1110)
51·463	N, JS		0·969	283·9	213·6	+11·6			79
			0·821	297·7	189·6	+17·9			91
			0·751	319·9	173·5	+29·1			53
		7180a	0·842	113·1	82·8	−23·2	6	10	
		7180	0·850	113·0	81·8	−23·3	2	8	
		7180	0·855	113·1	81·3	−23·4	2	7	167c
		7180	0·862	111·7	80·3	−22·3	2	4	
G.		7180	0·879	112·5	78·2	−23·1	2	4	
		7181	0·963	74·9	68·0	+12·4	9	42	
		7181	0·969	74·6	66·7	+13·0	12	50	209c
		7181	0·981	75·1	63·5	+13·0	0	15	
		7181	0·985	72·8	62·6	+15·5	0	14	
			0·762	126·9	94·1	−32·2			69
			0·950	120·7	67·3	−31·3			182
Feb. 21				(−19·3)	(140·0)	(−7·1)	(35)	(154)	(850)
52,412	N, VD		0·906	292·6	188·3	+17·0			106
			0·827	307·3	174·0	+25·2			80
		7182	0·714	242·6	171·4	−24·3	0	5	
C.		7180a	0·714	116·2	83·4	−23·5	5	11	
		7180	0·731	113·6	81·4	−22·0	9	19	
		7180	0·778	114·4	77·2	−23·3	3	8	

Group 7177, February 20. A close pair of faint markings, measured together as one.
Group 7178, February 20. A very small faint marking, *sf* Group 7177.
Group 7179, February 20. A very small faint marking, *sf* Group 7178.
Group 7180, February 20–March 3. A small spot, *a*, on February 20. Other small spots appear *f a*, on the following days. But by February 24 the group has undergone a great change. *a* has developed into a fine composite spot at the head of the group, and a considerable cluster is in process of forming at a distance, *sf*. The group continues to develop, and by February 26 consists of *a*, now a large regular spot, and *b*, a triple cluster far in the rear, and a few very small companions.
Group 7181, February 21–March 3. A few small spots loosely scattered over an extensive area. The group has disappeared by February 25, but has revived by February 27, when it consists of a short broad stream led by a regular spot, *a*.
Group 7182, February 22. A small faint spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
52·412	N, VD	7181	0·890	71·5	67·7	+12·9	13	61	
		7181	0·918	70·0	64·4	+15·1	5	13	
C.		7181	0·925	72·4	62·8	+13·3	0	24	354*c*
		7181	0·934	70·0	62·0	+15·7	0	4	
			0·890	122·3	65·3	−31·9			150
Feb. 22				(−19·6)	(127·5)	(−7·1)	(35)	(145)	(690)
53·456	N, JS		0·969	289·1	186·3	+16·5			72
			0·927	301·3	175·0	+25·5			145
			0·866	311·5	162·4	+30·4			74
		7180*a*	0·539	123·5	84·6	−23·5	4	5	
		7180	0·556	123·7	83·5	−24·1	1	2	
		7180	0·550	120·9	83·2	−22·5	4	6	
		7180	0·560	120·5	82·4	−22·6	8	12	
		7180	0·568	122·3	82·3	−23·7	1	2	
		7180	0·568	119·3	81·6	−22·2	2	9	
G.		7180	0·594	121·5	80·3	−24·0	1	1	
		7180	0·591	118·5	79·8	−22·3	2	5	
		7180	0·629	118·7	77·0	−23·3	4	10	
		7181	0·756	66·4	68·7	+12·6	6	11	
		7181	0·768	66·6	67·7	+12·9	2	6	
		7181	0·774	67·1	67·0	+12·7	4	7	360*f*
		7181	0·816	68·3	62·9	+13·1	3	6	
		7183*a*	0·970	108·0	36·4	−19·2	44	137	138*f*
			0·923	54·3	54·9	+29·1			71
Feb. 23				(−19·9)	(113·8)	(−7·1)	(86)	(219)	(860)
54·611	N, JS		0·963	295·3	168·2	+22·0			69
			0·934	228·3	166·6	−41·4			46
			0·885	305·4	152·3	+26·8			139
		7184	0·693	299·5	136·9	+14·4	1	2	68*sp*
		7180*a*	0·357	142·9	85·0	−23·4	32	132	
		7180	0·375	144·4	84·7	−24·6	4	4	
		7180	0·372	141·9	84·0	−23·8	19	31	
		7180	0·351	137·4	83·7	−21·8	1	3	
		7180	0·378	139·8	83·1	−23·6	4	20	
G.		7180	0·360	132·6	82·1	−20·9	2	4	
		7180	0·389	135·7	81·4	−22·9	8	17	
		7180	0·414	138·0	80·8	−24·7	0	15	
		7180	0·402	132·4	79·9	−22·4	3	11	
		7180	0·435	136·8	79·4	−25·1	5	10	
		7180	0·447	138·0	79·1	−26·1	2	4	
		7180	0·414	130·6	78·7	−22·3	2	5	
		7180	0·454	136·1	78·1	−25·7	2	11	
		7180	0·448	134·0	77·8	−24·8	16	47	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
54·611	N. JS	7180	0·453	129·9	76·3	−23·4	1	3	
		7181	0·597	57·4	67·6	+12·7	2	2	
		7181	0·622	60·2	65·1	+12·1	1	4	
		7181	0·646	56·8	64·6	+14·8	1	3	
		7181	0·644	58·2	64·3	+14·0	1	2	
G.		7181	0·661	58·0	63·2	+14·7	1	1	
		7183*a*	0·882	107·8	36·1	−19·0	25	160	
		7183	0·919	109·8	31·0	−20·9	6	28	157*c*
			0·919	61·2	37·6	+23·0			108
			0·906	120·6	33·6	−30·7			101
Feb. 24				(−20·2)	(98·5)	(−7·1)	(139)	(519)	(688)
55·333	N. VD		0·946	302·5	153·0	+27·6			138
			0·800	293·8	137·8	+14·1			246
		7180*a*	0·289	167·3	85·0	−23·5	47	255	
		7180	0·302	157·2	81·7	−23·3	9	29	
		7180	0·319	152·8	79·9	−23·5	2	2	
		7180	0·352	155·0	79·5	−25·6	5	10	
		7180	0·301	149·0	79·4	−22·0	1	9	
		7180	0·326	146·7	77·9	−22·8	10	39	
C.		7180	0·347	148·8	77·7	−24·3	0	7	
		7180	0·364	149·1	77·1	−25·2	11	54	
		7185	0·837	51·7	42·0	+26·4	0	11	
		7185	0·859	53·1	39·0	+26·5	5	21	117*c*
		7183*a*	0·803	108·5	35·5	−19·1	16	144	
		7183	0·848	110·1	30·8	−20·8	5	13	179*c*
			0·853	65·4	35·2	+16·6			112
			0·960	67·1	19·5	+19·5			234
Feb. 25				(−20·4)	(89·0)	(−7·2)	(111)	(594)	(1026)
56·487	N. JS		0·928	290·1	138·4	+15·6			319
		7186	0·908	252·5	139·8	−18·9	4	9	
		7186	0·899	253·3	138·5	−18·1	1	5	78*c*
		7186*a*	0·878	251·4	135·7	−19·7	6	9	
		7180	0·384	215·9	88·1	−25·0	1	4	
		7180*a*	0·350	212·9	85·8	−24·0	40	209	
		7180	0·320	209·5	83·6	−23·2	6	12	
G.		7180	0·309	208·9	83·1	−22·7	0	5	
		7180	0·316	207·3	82·8	−23·3	2	4	
		1780	0·311	197·1	79·5	−24·4	1	3	
		7180	0·267	198·7	79·1	−21·8	2	3	
		7180	0·319	191·9	78·0	−25·3	0	2	
		7180	0·294	193·0	77·9	−23·8	1	3	
		7180	0·283	189·7	76·8	−23·3	18	51	
		7180	0·319	188·1	76·6	−25·5	7	25	

Group 7183, February 23–March 6. A regular spot, *a*, with some unstable small companions.
Group 7184, February 24. A very small spot.
Group 7185, February 25–March 7. An extensive area in which small unstable spots are irregularly scattered. The group is not seen on March 4, but has revived by March 5. The leader, *a*, on March 6 is a regular spot, and alone remains on March 7.
Group 7186, February 26–27. Three small spots on February 26. Only the last one, *a*, is seen on February 27.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
56·487	N, JS	7180*b*	0·299	186·2	75·8	−24·5	9	32	
		7180	0·331	183·9	75·2	−26·4	2	9	
		7185	0·698	39·2	44·4	+26·4	6	9	
		7185	0·748	43·4	38·7	+27·0	1	7	53*c*
		7185	0·774	43·2	36·8	+28·6	2	4	
		7183	0·612	115·7	37·7	−21·2	1	2	
G.		7183	0·643	115·7	35·3	−21·9	2	3	
		7183*a*	0·634	111·3	35·3	−19·0	16	101	
		7183	0·643	112·4	34·8	−19·8	4	5	
		7183	0·690	112·4	31·0	−20·6	5	8	
		7187*a*	0·983	107·7	352·7	−18·7	48	262	260*s*
			0·772	55·4	31·1	+20·8			71
			0·876	61·6	18·6	+20·6			165
Feb. 26				(−20·7)	(73·8)	(−7·2)	(185)	(786)	(946)
57·390	N, JS		0·963	291·6	132·5	+18·5			156
			0·815	310·0	105·9	+26·4			166
		7186*a*	0·950	251·5	134·9	−19·8	2	5	172*p*
		7180*a*	0·484	230·8	86·1	−24·3	36	188	
		7180	0·446	230·4	83·7	−23·1	0	7	
		7180	0·371	225·0	78·3	−22·0	1	7	
		7180*b*	0·374	216·1	75·9	−24·5	14	58	
		7181	0·357	339·3	69·3	+12·3	0	6	
		7181*a*	0·382	344·1	68·1	+14·3	17	59	
		7181	0·371	346·0	67·2	+13·9	2	5	
		7181	0·347	346·3	66·7	+12·4	0	1	
C.		7181	0·398	350·3	65·9	+15·9	3	10	
		7181	0·377	350·3	65·6	+14·5	1	2	
		7181	0·406	351·8	65·3	+16·4	6	13	
		7185	0·508	25·5	45·0	+26·3	1	3	
		7185	0·639	30·0	41·0	+26·8	2	8	
		7185	0·659	32·6	38·5	+27·0	1	9	
		7185	0·706	34·0	35·0	+29·4	2	2	
		7183*a*	0·486	117·1	34·7	−19·2	15	105	
		7183	0·537	117·2	31·4	−20·4	1	14	
		7188	0·868	113·0	1·5	−23·5	0	4	
		7187*a*	0·930	107·5	352·5	−18·9	44	288	431*c*
			0·984	68·0	345·9	+20·0			166
Feb. 27				(−21·0)	(61·9)	(−7·2)	(148)	(794)	(1091)
58·412	N, JS		0·909	302·1	106·6	+25·2			102
G.		7180*a*	0·637	240·2	85·6	−24·2	31	177	
		7180	0·540	238·7	78·3	−22·5	0	3	
1915.				°	°	°			
58·412	N, JS	7180*b*	0·534	234·9	77·0	−24·2	0	20	
		7180*b*	0·508	234·1	75·1	−23·7	6	23	
		7181*a*	0·495	316·7	68·9	+14·3	21	132	
		7181	0·493	319·3	67·9	+15·1	6	16	
		7181	0·456	319·1	66·3	+13·3	2	6	
		7181	0·472	322·7	65·7	+15·1	5	21	
		7181	0·479	324·7	65·2	+16·0	8	31	
		7181	0·492	326·7	64·9	+17·3	2	18	
G.		7185	0·574	12·3	40·7	+26·8	0	6	
		7185	0·583	15·9	38·2	+26·9	5	7	
		7185	0·596	17·5	36·9	+27·5	4	7	
		7183*a*	0·309	133·0	34·7	−19·1	15	75	
		7183	0·329	132·5	33·6	−19·8	1	3	
		7187*a*	0·825	107·7	352·7	−18·6	50	251	369*c*
		7189	0·926	64·7	345·6	+20·1	0	5	319*c*
		7190*a*	0·980	112·6	328·2	−23·5	45	198	399*p*
Feb. 28				(−21·3)	(48·5)	(−7·2)	(201)	(999)	(1189)
59·436	N, JS		0·859	240·5	93·5	−29·0			229
		7180*a*	0·782	244·5	85·6	−24·3	23	179	
		7180	0·732	241·5	80·3	−25·5	0	4	
		7180	0·723	244·0	80·0	−23·6	5	11	77*c*
		7180*b*	0·698	241·5	77·3	−24·8	5	8	
		7180*b*	0·691	242·9	77·0	−23·7	2	6	
		7180*b*	0·673	242·1	75·4	−23·8	5	10	
		7181*a*	0·649	302·0	69·4	+14·1	20	102	
		7181	0·638	304·1	68·0	+14·9	1	3	
		7181	0·626	302·7	67·7	+13·7	1	6	
		7181	0·626	308·5	65·6	+16·7	2	5	
		7181	0·612	308·3	64·9	+16·0	8	10	
		7181	0·623	310·3	64·8	+17·5	5	10	
G.		7185	0·573	358·2	36·2	+27·6	2	18	
		7191	0·144	201·3	38·1	−14·9	1	2	
		7183	0·191	190·3	37·0	−18·0	2	4	
		7183	0·228	188·3	37·0	−20·2	2	5	
		7183	0·245	181·4	35·4	−21·4	2	4	
		7183*a*	0·210	176·4	34·2	−19·3	16	66	
		7187*a*	0·683	109·7	352·4	−18·7	41	237	
		7187	0·689	112·0	352·2	−20·3	0	14	265*f*
		7187	0·761	110·0	345·7	−19·9	2	2	
		7190	0·858	109·4	335·6	−20·3	0	4	806*c*
		7190*a*	0·919	112·3	327·5	−23·3	28	150	
			0·848	61·0	343·1	+19·9			198
			0·932	61·8	332·0	+23·0			206
Mar. 1				(−21·5)	(35·0)	(−7·2)	(173)	(860)	(1781)

Group 7187, February 26–March 11. Return of Group 7170. A large regular spot, *a*, with occasionally one or two small companions.
Group 7188, February 27. A very small spot, *sp* Group 7187.
Group 7189, February 28. A very small faint spot in bright faculæ. Possibly a return of Group 7161.
Group 7190, February 28–March 11. A large regular spot, *a*, with a very small companion on March 1.
Group 7191, March 1. A very small spot, *np* Group 7183.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
60·428	JS, VD		0·963	244·3	97·7	−26·6			88
			0·905	235·2	85·9	−34·4			105
		7180*a*	0·893	246·5	85·5	−24·2	18	139	
		7180	0·861	246·2	81·3	−24·1	0	4	
		7180	0·849	247·0	80·0	−23·3	0	3	239*c*
		7180*b*	0·817	245·8	76·2	−23·8	13	32	
		7181*a*	0·793	293·8	70·1	+13·9	14	86	
		7181	0·780	294·4	68·8	+13·9	2	4	
		7181	0·753	299·4	64·9	+16·5	0	3	
		7181	0·762	301·4	64·9	+18·1	0	3	
		7192	0·541	282·0	53·7	+ 0·3	0	2	
		7185	0·617	335·2	38·7	+27·1	2	8	
		7185	0·628	341·0	35·4	+29·3	0	5	
C.		7185	0·628	342·8	34·2	+29·7	0	4	
		7183	0·331	228·0	37·0	−19·7	2	6	
		7183	0·335	220·0	35·3	−21·8	3	7	
		7183*a*	0·287	223·0	33·8	−19·1	7	64	
		7183	0·283	216·8	32·3	−20·1	1	1	
		7183	0·290	212·3	31·4	−21·2	1	2	
		7183	0·279	208·0	29·9	−21·3	0	4	
		7193*a*	0·392	131·6	3·6	−21·8	4	12	
		7187*a*	0·518	114·5	352·2	−18·6	41	233	
		7190*a*	0·819	113·4	327·3	−23·2	25	173	336*c*
			0·970	62·2	311·3	+24·7			108
			0·947	120·3	309·8	−30·9			148
			0·849	56·6	306·2	+23·3			131
Mar. 2				(−21·8)	(21·9)	(−7·2)	(133)	(795)	(1155)
61·175	N, VD	7180*a*	0·953	246·8	85·6	−24·2	11	113	
		7180	0·928	246·8	81·0	−24·1	3	9	457*c*
		7180*b*	0·895	247·2	76·0	−23·5	24	43	
		7181*a*	0·884	289·9	70·8	+13·8	13	55	
		7181	0·873	288·0	69·9	+11·9	7	9	
		7181	0·870	290·0	69·1	+13·5	4	11	290*c*
		7181	0·839	296·1	64·0	+17·2	2	5	
		7185	0·687	324·2	38·9	+27·4	4	6	
D.		7185	0·667	327·4	35·9	+27·5	0	4	
		7185	0·681	331·6	34·0	+30·0	5	9	
		7183	0·458	241·4	37·2	−19·2	4	6	
		7183*a*	0·416	238·0	34·0	−19·4	10	46	
		7193*a*	0·289	155·8	4·8	−22·4	20	59	
		7195	0·329	147·4	1·0	−23·1	2	9	
		7187*a*	0·392	122·4	351·7	−18·8	44	258	
		7187	0·467	117·8	346·3	−19·0	2	3	
		7196	0·480	128·0	347·8	−23·7	1	2	
		7194	0·608	41·7	346·6	+20·4	2	3	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
61·175	N, VD	7190*a*	0·727	115·6	326·7	−23·4	35	173	
		7190	0·755	114·4	323·9	−23·1	3	6	367*f*
		7190	0·814	114·8	318·1	−24·3	2	6	
D.			0·764	50·8	332·1	+23·4			154
			0·887	119·8	310·0	−29·6			268
			0·957	54·8	307·0	+30·6			138
			0·956	60·9	305·0	+25·1			127
Mar. 3				(−22·0)	(12·1)	(−7·2)	(198)	(835)	(1801)
62·513	N, VD		0·977	245·3	74·0	−25·6			394
			0·952	288·7	63·5	+15·3			492
			0·804	312·1	36·5	+27·3			143
		7183	0·672	248·7	36·0	−19·5	0	4	
		7183*a*	0·645	249·5	33·9	−18·6	8	17	
		7183	0·646	247·3	33·7	−20·1	0	4	
		7193*a*	0·323	214·9	6·0	−22·4	11	92	
		7195	0·277	197·9	359·8	−22·4	2	4	
		7187*a*	0·201	166·1	351·6	−18·4	42	251	
C.		7187	0·238	168·1	351·5	−20·6	1	7	
		7196	0·306	159·9	347·9	−23·7	0	6	
		7190*a*	0·517	123·7	326·8	−23·0	23	178	
		7197	0·958	64·4	286·0	+22·0	11	20	218*c*
		7197	0·974	65·1	282·2	+22·1	7	53	
			0·868	46·9	306·6	+31·6			171
			0·797	125·9	304·7	−32·6			141
			0·886	56·1	300·2	+25·4			120
			0·980	70·9	279·1	+17·0			184
Mar. 4				(−22·3)	(354·5)	(−7·2)	(105)	(636)	(1863)
63,428	N, VD		0·980	287·5	58·0	+15·4			158
		7185	0·913	303·6	40·5	+26·6	9	56	
		7185	0·903	302·9	39·4	+25·6	6	21	
		7185	0·902	305·9	38·1	+28·0	5	25	306*c*
		7185	0·894	303·9	37·8	+25·9	7	24	
		7183*a*	0·782	251·5	33·8	−18·9	6	12	157*p*
		7193*a*	0·466	233·9	6·3	−22·4	15	93	
		7195	0·383	218·1	357·4	−24·4	0	3	
C.		7187*a*	0·243	215·9	351·0	−18·4	48	239	
		7199	0·337	169·8	338·6	−26·5	0	5	
		7190*a*	0·375	137·7	326·6	−23·0	26	164	
		7198	0·762	19·3	323·5	+39·0	0	7	
		7198	0·772	23·5	319·4	+38·3	0	3	
		7197	0·882	59·7	287·1	+22·4	10	27	
		7197	0·887	61·1	286·1	+21·4	7	14	222*c*
		7197	0·902	59·8	284·6	+23·2	1	5	
		7197	0·917	62·1	281·7	+22·0	3	21	

Group 7192, March 2. A very small spot, *sf* Group 7181.
Group 7193, March 2–9. A small spot, *sp* Group 7187, rapidly developing into a regular spot, *a*, but diminishing again after March 5.
Group 7194, March 3. A small spot.
Group 7195, March 3–5. A very small double spot, *f* Group 7193, seen only on March 4, but a faint marking is seen near its place on March 5.
Group 7196, March 3–4. A very small faint spot, *sf* Group 7187.
Group 7197, March 4–12. A number of small spots, mostly unstable, irregularly scattered. A very small spot, *a*, in the southern portion of the group on March 8 develops rapidly into a regular spot and alone remains by March 12.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
63·428	N, VD	7200	0·899	67·1	282·7	+16·9	6	42	272*f*
		7200	0·901	68·3	282·1	+15·9	2	15	
			0·789	44·5	303·4	+28·7			138
C.			0·866	50·3	292·9	+29·0			106
			0·889	114·5	279·4	−25·0			81
			0·952	107·0	269·2	−18·3			216
Mar. 5				(−22·5)	(342·4)	(−7·2)	(151)	(776)	(1656)
64.208	N, VD	7185	0·965	299·7	40·9	+26·1	81	244	
		7185	0·953	300·7	38·0	+26·3	11	32	
		7185	0·953	302·7	37·3	+28·1	0	7	308*c*
		7185	0·940	304·1	34·4	+28·6	3	6	
		7183*a*	0·878	252·1	34·0	−19·1	7	9	364*s*
		7193*a*	0·602	241·9	7·0	−22·4	9	63	
		7187*a*	0·371	237·0	351·2	−18·4	35	177	
		7190*a*	0·293	161·0	326·2	−23·2	31	159	
		7202	0·678	30·9	308·7	+28·9	2	4	148*f*
D.		7197	0·804	54·9	286·9	+22·5	11	15	
		7197	0·812	56·4	285·5	+21·8	9	21	
		7197	0·817	58·2	284·3	+20·7	0	4	202*c*
		7197	0·836	56·2	283·3	+23·0	1	2	
		7197	0·834	57·3	283·0	+22·1	2	4	
		7197	0·852	58·4	280·7	+22·1	4	12	
		7200	0·814	63·2	282·9	+16·8	10	16	215*f*
		7200	0·812	64·3	282·7	+15·9	4	7	
			0·790	46·3	292·1	+27·6			132
			0·907	107·0	266·3	−18·4			320
Mar. 6				(−22·7)	(332·1)	(−7·2)	(220)	(782)	(1689)
65·473	N, VD		0·913	296·7	16·1	+20·8			241
		7185*a*	0·996	297·2	35·9	+26·1	0	40	216*n*
		7201	0·944	247·2	27·3	−23·8	0	6	
		7193*a*	0·792	247·8	7·5	−21·9	9	30	238*f*
		7187*a*	0·591	248·7	350·8	−18·3	25	180	
		7190*a*	0·324	211·6	326·1	−23·1	24	136	
		7202	0·598	8·2	309·9	+29·0	0	7	
		7202	0·625	11·6	307·1	+30·5	3	15	
C.		7197	0·656	43·6	286·4	+22·0	7	19	52*f*
		7197	0·672	43·8	285·3	+22·7	0	6	
		7200*a*	0·639	51·5	284·1	+17·2	12	21	
		7200*b*	0·676	56·0	279·9	+16·3	8	17	
		7200*c*	0·702	57·1	277·7	+16·7	3	31	
		7203	0·946	70·8	247·7	+15·5	10	42	
		7203	0·960	71·2	245·0	+15·7	15	47	149*c*
		7203	0·971	71·8	242·4	+15·6	2	35	
		7203	0·979	71·4	240·2	+16·5	0	8	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
65·473	N, VD	7204*a*	0·995	64·2	235·5	+24·6	67	169	91*p*
C.			0·724	108·2	269·4	−18·1			74
			0·851	110·2	257·0	−20·9			132
Mar. 7				(−23·0)	(315·5)	(−7·2)	(185)	(809)	(1193)
66·384	N, JS		0·931	297·2	6·6	+22·1			123
			0·769	304·4	346·0	+20·5			95
		7193*a*	0·898	249·4	8·0	−21·7	7	24	59*c*
		7187*a*	0·735	251·6	350·6	−18·3	28	159	
		7187	0·723	249·4	349·3	−19·8	2	6	108*s*
		7190*a*	0·454	231·3	326·1	−23·1	22	95	
		7202	0·623	355·8	306·5	+31·1	3	4	
		7202	0·592	356·0	306·2	+28·9	1	3	
		7197	0·570	30·2	285·5	+22·6	6	17	
		7197*a*	0·557	33·6	284·3	+20·8	1	2	
		7197	0·584	34·2	282·8	+22·0	1	8	
		7200*a*	0·515	37·0	284·6	+17·4	8	11	
G.		7200*b*	0·536	43·2	281·1	+16·3	14	25	
		7200	0·561	46·8	278·4	+16·0	1	4	
		7200*c*	0·590	47·2	276·7	+17·2	7	34	
		7203*a*	0·856	66·4	249·0	+15·9	6	12	
		7203	0·863	66·8	248·1	+15·9	0	2	
		7203	0·868	67·2	247·5	+15·7	5	11	
		7203	0·874	67·7	246·7	+15·5	2	8	243*c*
		7203	0·887	68·0	245·0	+15·7	0	9	
		7203	0·890	68·6	244·5	+15·3	0	9	
		7203*b*	0·907	69·0	242·1	+15·6	7	21	
		7204*a*	0·961	62·0	235·1	+24·3	47	371	354*c*
			0·738	114·1	256·9	−22·5			75
Mar. 8				(−23·2)	(303·5)	(−7·2)	(168)	(835)	(1057)
67·379	N, JS		0·866	297·6	344·6	+19·5			141
			0·797	306·1	334·5	+22·9			83
		7193*a*	0·974	249·8	8·6	−21·2	2	9	129*c*
		7187*a*	0·861	252·8	350·2	−18·4	22	160	320*s*
		7190*a*	0·613	240·9	325·8	−23·2	15	83	
		7197	0·511	8·8	285·4	+23·0	0	2	
G.		7197*a*	0·479	10·7	284·9	+20·8	9	53	
		7197	0·491	14·0	283·0	+21·2	10	20	
		7200*a*	0·429	13·0	284·5	+17·5	3	4	
		7200	0·403	16·1	283·7	+15·6	2	6	
		7200*b*	0·421	18·5	282·3	+16·3	15	32	
		7200	0·470	26·0	277·9	+17·8	2	4	
		7200*c*	0·473	28·6	276·6	+17·4	5	14	

Group 7198, March 5. A pair of very small faint markings.
Group 7199, March 5. A very small faint marking, *sp* Group 7190.
Group 7200, March 5–10. A pair of spots, *s* of Group 7197. The group quickly develops into a sparse stream of normal type, with three chief spots, *a*, *b*, and *c*.
Group 7201, March 7. A very small faint marking, *sf* the place of Group 7183, which has disappeared.
Group 7202, March 6–8. Some small spots, *np* Group 7197.
Group 7203, March 7–13. A number of spots, mostly small, in a long straight stream. All the members of the group are unstable except the leader, *a*.
Group 7204, March 7–19. Return of Group 7169. A large regular spot, *a*, which has divided into two regular spots by March 11. These are measured as one until March 14, after which they are taken separately and are lettered *b* and *c*. Numerous small unstable spots are seen in the neighbourhood of the principal spots from day to day.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
67·379	N, JS	7203*a*	0·720	59·8	250·2	+15·7	9	13	
		7203	0·732	60·4	249·0	+15·8	5	7	
		7203	0·769	62·8	245·2	+15·6	2	5	93*c*
G.		7203	0·807	64·2	241·4	+15·9	2	3	
		7204*a*	0·887	58·0	235·0	+24·0	59	341	586*c*
			0·902	74·2	228·4	+10·9			42
Mar. 9				(−23·4)	(290·3)	(−7·2)	(162)	(756)	(1394)
68·429	N, JS		0·947	294·6	343·1	+20·5			255
			0·855	244·7	335·0	−25·3			246
			0·871	303·0	329·5	+24·1			151
		7187	0·964	250·1	352·5	−21·1	16	48	310*c*
		7187*a*	0·954	253·1	350·2	−18·3	64	113	
		7190*a*	0·761	245·2	325·1	−23·4	8	37	
		7197*a*	0·496	342·6	285·6	+21·1	15	45	
		7197	0·478	354·7	279·2	+21·1	0	1	
C.		7200*b*	0·420	346·7	282·3	+16·8	2	11	
		7200*c*	0·413	356·8	277·9	+17·1	1	12	
		7203*a*	0·565	48·6	250·5	+15·3	6	16	
		7203	0·584	49·4	249·2	+15·9	0	20	
		7204*a*	0·781	51·6	234·7	+23·7	60	339	
		7204	0·808	54·2	231·2	+23·2	9	25	394*f*
		7204	0·828	52·4	230·1	+25·4	0	3	
			0·954	50·6	213·6	+34·2			53
Mar. 10				(−23·6)	(276·5)	(−7·2)	(181)	(670)	(1409)
69·504	JS, VD		0·955	297·2	329·7	+23·3			169
			0·807	313·8	303·7	+28·6			117
		7187*a*	0·995	252·0	348·7	−18·6	0	92	
		7190*a*	0·878	247·0	323·9	−23·6	0	7	341*f*
		7197*a*	0·591	322·1	285·1	+21·1	7	20	
		7197	0·582	324·9	283·3	+21·7	0	7	
C.		7203*a*	0·427	27·5	250·6	+15·1	5	19	
		7203	0·434	30·6	249·1	+14·8	0	5	
		7204*a*	0·655	40·6	234·7	+23·4	32	286	
		7204	0·655	43·9	233·1	+21·8	0	17	168*f*
		7204	0·679	45·2	231·0	+22·4	0	2	
		7204	0·714	43·3	229·7	+25·2	4	26	
			0·963	67·3	192·0	+19·5			68
Mar. 11				(−23·8)	(262·3)	(−7·2)	(48)	(481)	(863)
70·380	N, JS		0·912	247·7	317·3	−23·3			496
C.			0·839	236·7	306·1	−31·7			69
			0·878	308·7	302·2	+28·9			144
1915.				°	°	°			
70·380	N, JS	7197*a*	0·692	310·6	284·9	+20·8	0	13	
		7203	0·370	359·0	251·2	+14·4	0	2	
		7203*a*	0·377	0·6	250·5	+14·9	4	9	
		7204	0·549	28·3	234·6	+21·9	2	16	
		7204*a*	0·570	27·4	234·3	+23·4	45	244	
		7204	0·556	31·0	232·9	+21·5	4	17	
C.		7204	0·639	26·4	232·1	+28·0	0	5	
		7204	0·637	29·1	230·5	+26·9	0	6	
		7204	0·629	34·0	228·1	+24·7	3	4	
		7204	0·674	33·5	226·1	+27·6	0	4	
			0·902	63·1	191·9	+20·4			154
Mar. 12				(−24·0)	(250·8)	(−7·2)	(58)	(320)	(863)
71,446	N, VD		0·973	246·5	314·8	−24·4			251
			0·910	239·3	302·1	−30·8			90
			0·947	302·3	300·9	+27·4			107
			0·802	301·5	283·2	+19·9			224
C.		7203*a*	0·436	328·3	250·3	+14·7	1	10	
		7204*a*	0·513	4·7	234·1	+23·4	27	215	
		7204	0·483	7·3	232·9	+21·3	0	7	
		7205	0·458	33·1	221·7	+15·5	0	7	
Mar. 13				(−24·1)	(236·7)	(−7·2)	(28)	(239)	(672)
72,099	N, VD		0·960	241·3	303·2	−29·5			182
			0·939	299·7	291·7	+24·7			128
			0·862	232·9	285·4	−35·4			87
			0·856	297·9	281·2	+19·3			475
		7203*	0·456	327·8	242·7	+15·6	0	3	
		7204*a*	0·521	350·5	233·5	+23·7	34	193	
K.		7204	0·489	351·6	232·5	+21·7	3	7	
		7206	0·220	172·3	226·3	−19·7	4	8	
		7206	0·258	170·1	225·4	−21·8	12	17	
		7206	0·235	168·8	225·3	−20·5	0	8	
			0·940	57·1	165·3	+27·6			164
			0·954	74·9	158·0	+12·0			65
			0·988	110·3	145·2	−21·1			109
Mar. 14				(−24·3)	(228·1)	(−7·2)	(53)	(236)	(1210)
73,429	N, JS		0·957	292·7	279·6	+19·2			613
			0·863	252·5	270·6	−18·6			153
C.		7203*	0·631	306·1	242·5	+15·8	0	3	
		7204*b*	0·617	323·9	233·8	+23·3	10	51	
		7204*c*	0·610	325·9	232·4	+23·7	20	133	
		7204	0·576	324·2	231·7	+21·1	3	5	

Group 7205, March 13. A very small spot, *sf* Group 7204.
Group 7203*, March 14–15. A small spot following the position of Group 7203.
Group 7206, March 14–20. A few small spots in an irregular cluster that gradually straightens out into a sparse stream of normal type. The rear spot, *b*, is larger and better defined than the leader, *a*, after March 17.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
73·429	N, JS	7204	0·577	328·1	229·8	+22·5	1	6	
		7206	0·389	234·8	230·2	−19·6	9	11	
		7206	0·377	234·5	229·5	−19·3	1	8	
		7206*a*	0·365	231·6	228·2	−19·8	10	26	
		7206	0·360	226·9	226·9	−21·1	2	4	
		7206	0·326	227·5	225·3	−19·6	0	3	
		7206*b*	0·342	221·0	224·5	−21·8	15	39	
		7206	0·321	222·3	223·9	−20·6	0	2	
C.		7206	0·294	214·9	220·9	−20·8	0	2	
		7207	0·623	341·4	223·7	+29·1	0	5	
		7208	0·127	23·0	207·8	− 0·4	0	6	
		7209	0·945	108·5	138·6	−19·8	0	15	142*sf*
			0·880	47·8	160·7	+31·8			118
			0·908	65·7	150·0	+18·6			128
			0·906	98·9	145·1	−11·0			63
			0·916	109·9	143·4	−21·1			120
			0·961	71·2	139·8	+15·8			100
Mar. 15				(−24·5)	(210·6)	(−7·1)	(71)	(319)	(1437)
74·167	N, VD		0·985	291·4	277·4	+19·5			114
			0·889	250·6	264·1	−20·4			254
			0·827	297·2	251·3	+17·7			164
			0·748	303·0	242·2	+18·7			123
			0·698	329·6	225·0	+30·5			163
		7204	0·719	313·4	235·6	+23·7	1	3	
		7204*b*	0·700	314·4	233·8	+23·3	12	51	
		7204	0·710	316·8	233·2	+25·1	0	3	131*c*
		7204*c*	0·691	316·4	232·2	+23·9	22	104	
		7204	0·670	314·2	231·9	+21·7	1	3	
D.		7206	0·530	243·1	231·0	−20·0	2	4	
		7206	0·510	242·0	229·4	−20·1	3	8	
		7206	0·464	240·5	226·2	−19·6	9	10	
		7206*b*	0·457	234·8	224·5	−21·7	7	13	
		7209	0·886	109·0	138·0	−20·1	0	8	
		7210	0·989	72·6	122·2	+15·9	0	14	177*c*
			0·842	42·6	158·2	+33·1			80
			0·864	59·6	147·7	+21·7			167
			0·834	111·0	144·4	−21·4			152
			0·923	69·2	137·2	+16·1			281
			0·905	109·6	135·3	−20·8			298
Mar. 16				(−24·6)	(200·9)	(−7·1)	(57)	(221)	(2104)
75·161	N, VD		0·946	249·5	260·0	−21·7			241
D.			0·898	291·2	247·9	+15·5			209
			0·863	300·0	241·0	+21·4			102

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
75·161	N, VD		0·780	319·0	224·0	+30·3			113
		7204	0·823	308·5	233·3	+25·8	11	15	
		7204*b*	0·808	306·0	233·1	+23·4	11	40	
		7204	0·797	305·5	232·3	+22·5	4	7	220*c*
		7204*c*	0·797	307·4	231·4	+23·8	19	90	
		7204	0·807	309·5	231·4	+25·8	2	12	
		7206*a*	0·663	247·2	228·3	−20·3	17	55	
D.		7206	0·645	244·7	226·5	−21·6	2	5	
		7206	0·635	247·8	226·2	−19·5	10	26	
		7206*b*	0·619	245·6	224·6	−20·5	28	49	
		7206	0·621	242·9	224·3	−22·1	2	4	
		7211	0·675	301·8	224·1	+15·1	3	7	
		7210	0·925	69·9	123·6	+15·6	6	11	151*f*
			0·791	113·2	135·8	−23·1			142
Mar. 17				(−24·8)	(187·8)	(−7·1)	(115)	(321)	(1178)
76·395	N, VD		0·973	288·8	245·0	+16·4			172
			0·891	310·0	223·8	+30·6			159
		7204	0·932	298·9	234·3	+23·7	0	7	
		7204	0·926	300·3	232·9	+24·6	0	16	
		7204	0·918	299·5	231·8	+23·4	3	4	398*c*
		7204*c*	0·911	300·3	230·6	+23·8	16	76	
		7204	0·908	302·5	229·4	+25·5	0	5	
		7206*a*	0·844	251·3	229·3	−19·6	22	68	
		7206	0·825	249·7	227·1	−20·7	4	24	
C.		7206	0·812	250·9	225·8	−19·6	6	9	188*c*
		7206	0·800	250·7	224·6	−19·7	0	4	
		7206*b*	0·797	249·1	224·1	−20·8	24	93	
		7212	0·295	290·5	187·5	− 0·9	0	4	
		7213	0·392	131·7	153·2	−21·8	0	2	
		7210*a*	0·786	63·7	124·7	+15·6	15	52	
		7210	0·820	62·7	121·8	+17·5	3	7	154*c*
		7210	0·816	65·1	121·5	+15·6	0	4	
		7210*b*	0·821	63·9	121·3	+16·7	0	22	
Mar. 18				(−24·9)	(171·5)	(−7·1)	(93)	(397)	(1071)
77·423	N, JS		0·920	310·1	214·5	+32·6			97
		7204	0·975	296·7	230·3	+24·0	18	90	521*f*
		7206*a*	0·945	252·3	229·9	−19·0	5	15	
		7206	0·938	252·6	228·7	−18·7	0	4	
		7206	0·933	251·9	227·9	−19·4	3	6	
G.		7206	0·928	251·2	227·1	−20·1	1	5	364*c*
		7206*b*	0·907	249·7	223·8	−21·4	17	112	
		7206	0·906	251·0	223·7	−20·2	0	8	
		7210*a*	0·641	55·3	125·0	+15·4	12	25	

Group 7207, March 15. A small faint marking *nf* Group 7204.
Group 7208, March 15. Several faint markings in a compact cluster.
Group 7209, March 15–26. Return of Group 7186. A close pair of small faint markings, on March 15 and 16. The group is not seen on March 17–19, and again on March 21–24, but small markings are seen in the neighbourhood on March 20, 25, and 26.
Group 7210, March 16–22. An irregular and unstable cluster tending to straighten out into a short stream. The leader spot, *a*, is at first the largest; the rear spot, *b*, is the principal spot later, and finally, *c*, an intermediate spot, is largest.
Group 7211, March 17. A small faint spot *sf* Group 7204.
Group 7212, March 18. A small faint marking.
Group 7213, March 18. A small faint marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
77·423	N, JS	7210	0·662	53·7	124·2	+17·2	1	4	
		7210	0·658	55·1	123·9	+16·2	5	13	
		7210	0·655	56·2	123·8	+15·4	7	17	
G.		7210*b*	0·688	56·3	121·4	+16·8	24	48	
			0·919	56·3	99·0	+27·1			64
			0·935	116·5	88·1	−27·2			198
			0·977	64·7	84·8	+22·8			164
Mar. 19				(−25·1)	(158·0)	(−7·1)	(93)	(347)	(1408)
78·479	N, JS		0·962	292·2	214·2	+19·0			92
			0·912	255·0	210·5	−16·5			44
			0·838	301·0	194·2	+21·1			93
		7206*b*	0·977	249·4	223·3	−21·6	19	103	140*c*
		7209	0·239	155·8	138·1	−19·5	3	7	
		7210*a*	0·501	41·2	124·1	+15·5	5	20	
G.		7210*c*	0·528	39·8	123·4	+17·3	14	41	
		7210*b*	0·546	43·8	120·8	+16·8	7	22	
		7214	0·885	60·6	88·0	+21·9	0	5	} 140*f*
		7214	0·887	62·0	87·3	+20·8	0	4	
			0·868	126·8	85·9	−35·2			102
			0·898	116·3	80·0	−26·6			246
			0·957	71·2	74·0	+15·7			228
Mar. 20				(−25·2)	(144·0)	(−7·0)	(48)	(202)	(1085)
79·477	N, JS		0·912	297·2	191·2	+21·3			98
		7210*c*	0·428	16·0	123·8	+17·3	16	34	
		7210	0·403	17·2	123·8	+15·6	1	3	
		7210	0·439	19·0	122·3	+17·5	2	9	
		7210	0·446	21·0	121·3	+17·7	3	11	
		7210	0·437	23·8	120·3	+16·6	1	4	
		7214	0·776	54·9	88·1	+21·4	4	6	}
		7214	0·778	56·0	87·4	+20·8	2	10	
		7214	0·795	55·0	86·4	+22·2	0	3	} 84*c*
G.		7214	0·811	55·8	84·6	+22·3	6	8	
		7214	0·817	55·1	84·3	+23·1	1	2	
		7215	0·867	67·8	74·8	+15·3	1	2	} 196*c*
		7215	0·873	66·6	74·4	+16·5	0	2	
			0·752	119·8	84·1	−26·8			116
			0·860	128·9	74·5	−36·7			139
			0·848	118·1	73·7	−27·4			172
			0·944	68·6	63·9	+17·5			107
			0·948	119·6	58·6	−30·2			110
Mar. 21				(−25·4)	(130·9)	(−7·0)	(37)	(94)	(1022)
1915.				°	°	°			
80·396	N, JS		0·968	297·9	189·0	−24·7			116
		7210*c*	0·419	347·2	124·4	+17·1	10	18	
		7210	0·421	354·1	121·4	+17·7	0	4	
		7214	0·648	46·1	89·0	+20·5	1	3	
		7214	0·667	45·9	87·9	+21·6	2	19	
		7214	0·694	46·7	85·8	+22·5	0	2	
C.		7214	0·715	47·7	83·9	+23·0	2	2	
		7216*a*	0·995	62·5	39·0	+26·3	31	119	
			0·777	62·3	73·2	+16·2			115
			0·747	121·5	72·9	−27·9			194
			0·886	67·3	60·6	+16·4			156
			0·887	120·6	57·0	−30·2			128
Mar. 22				(−25·5)	(118·8)	(−7·0)	(46)	(167)	(709)
81·633	N, JS		0·924	304·8	162·0	−28·5			125
			0·833	304·6	150·8	+23·7			137
			0·875	319·3	147·7	−36·7			125
		7214	0·497	23·4	90·4	−20·3	0	3	
		7214	0·508	23·7	89·9	+20·9	0	3	
G.		7214	0·520	24·5	89·2	+21·4	0	5	
		7214	0·524	26·1	88·2	+21·3	0	6	
		7216*a*	0·936	58·8	39·7	+26·0	23	113	348*c*
			0·842	114·2	45·5	−24·0			126
			0·933	66·6	37·8	+18·9			105
			0·956	117·4	28·4	−28·2			214
Mar. 23				(−25·6)	(102·5)	(−6·9)	(23)	(130)	(1180)
82·403	N, VD		0·959	303·0	158·9	+28·9			94
			0·889	291·7	151·2	+15·7			64
			0·926	314·5	147·6	+36·7			149
			0·889	303·3	147·5	+25·4			117
			0·764	249·3	141·7	−20·2			95
C.		7216*a*	0·874	55·3	39·6	+25·7	15	116	} 316*f*
		7216	0·894	56·9	36·5	+25·4	0	6	
			0·900	116·1	81·7	−70·6			116
			0·958	56·7	26·1	+29·1			111
Mar. 24				(−25·7)	(92·3)	(−6·9)	(15)	(122)	(1062)
83·425	N, VD		0·895	250·8	142·8	−20·2			114
			0·776	298·4	124·1	+16·8			128
		7209	0·848	252·2	137·0	−18·6	4	11	81*sf*
C.		7216*a*	0·709	48·4	39·4	+25·4	16	110	} 211*f*
		7216	0·807	49·4	35·6	+26·8	0	7	
			0·880	50·0	27·7	+30·2			163

Group 7214, March 20–23. A few small unstable spots irregularly distributed over a small area.
Group 7215, March 21. A pair of very small markings *sf* Group 7214. Possibly a return of Group 7181.
Group 7216, March 22–April 2. Return of Group 7185. A regular spot, *a*, usually with one or two very small companions.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
83·425	N, VD		0·845	121·0	22·5	−29·7			85
			0·931	60·4	16·3	+24·3			95
C.			0·928	109·6	9·8	−20·8			72
Mar. 25				(−25·8)	(78·8)	(−6·8)	(20)	(128)	(949)
84·610	N, JS		0·916	246·3	130·0	−24·4			69
			0·905	292·6	123·9	+17·1			213
		7209	0·961	252·8	138·2	−18·3	0	11	145*f*
		7216*a*	0·640	34·7	39·5	+25·5	12	104	52*f*
G.		7217	0·736	33·8	34·5	+31·7	0	7	80*f*
			0·801	45·1	22·7	−29·3			51
			0·805	112·3	10·0	−22·0			60
			0·947	109·9	350·8	−21·1			282
Mar. 26				(−25·9)	(63·2)	(−6·8)	(12)	(122)	(952)
85·412	N, JS		0·979	249·8	132·3	−21·1			157
			0·956	291·6	121·8	−18·3			197
			0·943	198·6	105·2	−67·8			40
		7216*	0·262	132·9	41·1	−16·8	0	5	
		7216*	0·279	127·8	39·4	−16·5	0	7	
		7216*a*	0·573	21·8	39·0	+25·4	21	113	
G.		7216	0·578	24·7	37·2	+25·0	0	4	
		7216	0·595	25·8	35·9	+25·8	0	3	
			0·925	27·0	11·4	+50·5			48
			0·874	109·9	351·4	−20·7			131
			0·943	65·2	346·7	+20·6			152
			0·940	112·8	341·7	−23·7			348
Mar. 27				(−26·0)	(52·6)	(−6·8)	(21)	(132)	(1073)
86.488	N, JS		0·810	302·2	85·5	+21·1			104
		7216*a*	0·529	359·0	39·0	+25·1	16	104	
		7216	0·529	2·0	37·2	+25·1	1	5	
G.			0·803	112·4	345·5	−21·9			145
			0·860	61·2	344·9	+20·6			134
			0·917	116·6	331·7	−27·0			349
			0·962	62·8	329·3	+23·8			101
Mar. 28				(−26·0)	(38·4)	(−6·7)	(17)	(109)	(833)
87·393	N, JS		0·908	298·8	85·9	+22·7			121
			0·810	298·3	74·9	+18·1			138
G.		7218	0·520	221·9	49·8	−28·9	1	2	
		7216*a*	0·560	339·9	38·7	+25·0	17	92	
		7216	0·536	344·1	35·7	+24·3	1	1	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915				°	°	°			
87·393	N, JS	7219	0·531	2·3	25·1	+25·2	2	2	
		7220*a*	0·810	107·5	332·4	−18·1	9	16	54*c*
		7221*a*	0·934	61·9	323·0	+23·2	6	30	
		7221	0·952	62·2	319·7	+23·8	0	8	188*c*
G.		7221*b*	0·955	63·1	318·8	+23·2	0	20	
			0·786	117·3	336·0	−25·4			66
			0·891	122·3	324·4	−31·7			112
			0·933	113·7	316·9	−24·5			175
Mar. 29				(−26·1)	(26·5)	(−6·7)	(36)	(171)	(854)
88·428	N, JS		0·932	243·4	82·0	−27·1			125
			0·926	294·3	76·2	+19·5			201
			0·819	243·7	66·8	−25·2			89
			0·817	296·9	62·4	+17·4			62
		7222	0·578	230·0	42·6	−27·5	1	3	
		7222	0·565	227·6	40·9	−28·2	1	5	
		7222*a*	0·555	226·4	39·9	−28·4	4	9	
		7216*a*	0·651	322·5	38·7	+25·1	12	77	
		7216	0·644	325·5	36·6	+25·9	1	4	
G.		7220*a*	0·652	109·4	332·8	−17·5	18	60	
		7220	0·685	109·3	330·1	−18·0	3	15	
		7221*a*	0·840	57·2	323·0	+22·8	0	7	
		7221*b*	0·874	59·4	318·3	+22·7	4	6	80*c*
		7223*a*	0·968	66·8	301·3	+20·4	120	944	
		7223*b*	0·984	67·7	296·6	+20·5	25	189	165*c*
		7224*a*	0·995	72·4	291·0	+16·7	29	103	
			0·845	115·9	315·7	−25·4			147
			0·952	53·6	308·9	+31·6			74
			0·942	117·6	301·7	−28·2			173
Mar. 30				(−26·2)	(12·8)	(−6·6)	(218)	(1422)	(1116)
89·421	N, JS		0·964	239·2	75·4	−31·4			85
			0·977	291·4	74·0	+19·2			188
			0·911	244·5	65·5	−25·9			178
			0·910	235·0	64·2	−34·5			49
			0·894	290·4	59·6	+14·9			170
		7222*a*	0·689	233·8	39·1	−29·2	2	4	
G.		7216*a*	0·757	311·3	38·4	+24·9	13	67	
		7216	0·753	312·3	37·6	+25·2	2	6	
		7216	0·749	314·6	36·1	+26·4	1	2	
		7220*a*	0·473	114·8	333·1	−17·3	12	24	
		7220	0·517	114·5	330·2	−18·1	1	7	
		7220	0·528	112·7	329·1	−17·5	2	5	
		7223*a*	0·896	63·0	301·4	+20·6	123	926	583*c*
		7223*b*	0·922	64·8	297·2	+20·1	21	151	

Group 7216*, March 27. A pair of very small spots on the same meridian as Group 7216 but in the southern hemisphere. Group 7217, March 26. A very small faint marking *nf* Group 7216. Group 7218, March 29. A very small spot. Group 7219, March 29. A very small spot *f* Group 7216.
Group 7220, March 29–April 5. A regular spot, *a*, small at first, but quickly increasing and as quickly diminishing. Occasionally some small companions are seen *f*.
Group 7221, March 29–30. A small stream of normal type, the first and last spots, *a* and *b*, being the largest.
Group 7222, March 30–April 2. A few very small spots, of which the last, *a*, is the largest, in a short straight stream *f* the place of Group 7218. The group is not seen on April 1. Group 7223, March 30–April 10. A very large spot, *a*, *sf* Group 7221, nearly regular in outline at first, but having a long narrow projection, *b*, on the *f* side, which is included in the measure of *a* on April 3. Another projection from *a* on the *sp* side is measured as a separate spot, *c*, on April 4, and has become quite detached from *a* by April 5. A few small companions are also sometimes seen. Group 7224, March 30–April 11. A fine straight and almost continuous stream, *sf* Group 7223, of which the two first spots, *a* and *b*, are the largest. *a* and *b* increase in size and have coalesced to form a very large double spot, *c*, by April 3. A train of small spots usually follows *c*.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
89·421	N. JS	7224*a*	0·947	69·6	291·8	+16·9	25	142	
		7224*b*	0·954	71·4	290·2	+15·5	20	57	
		7224	0·960	71·9	288·8	+15·3	0	13	
		7224	0·967	71·9	287·3	+15·6	26	49	481*c*
		7225	0·981	70·4	283·9	+17·7	3	26	
G.		7225	0·981	71·8	283·7	+16·3	0	28	
		7225	0·980	72·8	283·7	+15·4	0	35	
			0·744	49·2	321·8	+23·8			
			0·912	51·8	303·4	+30·7			49
			0·862	118·6	301·0	−27·9			99
Mar. 31				(−26·2)	(359·7)	(−6·6)	(251)	(1542)	317 (2199)
90·334	N, JS		0·962	243·4	62·9	−27·3			
			0·948	288·9	56·1	+15·6			157
			0·841	240·1	43·6	−28·6			127
			0·793	253·8	40·2	−16·8			136
			0·821	314·1	30·5	+30·1			69
		7216*a*	0·854	304·7	38·3	+25·0	12	63	165
		7216	0·847	305·7	37·1	+25·4	0	5	
		7216	0·841	306·7	36·1	+25·9	2	8	100*c*
		7220*a*	0·301	127·7	333·4	−16·9	5	11	
		7220	0·355	124·6	329·9	−17·8	0	3	
		7223*a*	0·802	58·1	301·2	+20·6	158	834	
		7223*b*	0·834	60·3	297·3	+20·3	17	193	382*f*
		7224*a*	0·866	66·1	292·0	+16·9	23	154	
		7224*b*	0·873	68·1	290·7	+15·5	20	112	
G.		7224	0·883	69·3	289·2	+14·8	16	63	
		7224	0·889	68·1	288·7	+16·1	0	20	
		7224	0·898	69·1	287·3	+15·6	3	12	
		7225	0·917	67·4	285·2	+17·7	3	5	464*c*
		7225	0·916	68·2	285·1	+16·9	5	11	
		7225	0·927	69·5	283·2	+16·2	11	86	
		7225	0·930	68·5	283·0	+17·2	5	16	
		7226*a*	0·974	105·1	269·7	−16·2	0	18	
		7226	0·978	104·9	268·7	−15·9	0	17	132*c*
		7226	0·984	105·2	266·8	−16·1	0	17	
			0·843	47·3	301·9	+30·4			47
			0·762	124·5	301·3	−30·1			169
			0·963	61·5	278·6	+25·2			75
			0·933	111·9	278·2	−22·7			105
Apr. 1				(−26·3)	(347·7)	(−6·5)	(280)	(1648)	(2128)
91·346	N, JS		0·922	254·1	42·2	−17·2			42
			0·880	309·7	25·7	+30·2			96
G.		7222	0·907	239·9	39·1	−30·0	0	11	111*n*
		7216*a*	0·936	299·9	37·7	+25·0	11	32	83*n*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
91·346	N, JS	7220*a*	0·187	173·7	333·1	−17·2	0	7	
		7223*a*	0·680	49·9	300·7	−20·6	128	904	195*f*
		7223*b*	0·710	54·1	296·9	+19·4	22	90	
		7224*a*	0·743	60·1	292·1	+16·9	27	144	
		7224*b*	0·751	62·7	290·7	+15·4	46	156	
		7224	0·765	60·9	290·0	+17·2	2	6	
		7224	0·780	64·5	287·6	+15·2	7	14	208*c*
		7225	0·816	64·3	284·4	+16·6	0	7	
		7225*a*	0·832	65·3	282·5	+16·4	23	156	
G.		7226*a*	0·891	105·7	270·8	−16·9	9	45	
		7226	0·895	105·1	270·3	−16·4	6	9	
		7226	0·904	104·9	269·0	−16·3	0	11	
		7226	0·907	103·9	268·6	−15·3	2	8	266*c*
		7226	0·925	105·6	265·9	−16·9	3	31	
		7226	0·935	106·8	264·3	−18·0	1	13	
		7226*b*	0·937	104·3	264·0	−15·7	14	58	
		7227*a*	0·990	67·7	255·8	+20·9	0	46	
			0·883	58·7	279·0	+23·7			184
Apr. 2				(−26·3)	(334·3)	(−6·5)	(301)	(1748)	(1185)
92·572	JS, N		0·980	243·6	38·3	−27·1			107
			0·960	303·1	25·1	+29·2			201
			0·893	242·0	21·1	−27·8			90
		7216*a*	0·993	296·4	37·3	+25·1	0	49	84*n*
		7220*a*	0·310	233·0	332·8	−16·9	7	9	
		7223*a*	0·540	33·4	299·8	+20·6	156	993	
		7224*c*	0·578	49·6	291·0	+16·2	71	442	
		7224	0·610	53·4	287·8	+15·7	3	25	
		7224	0·608	55·8	287·1	+14·4	3	5	
		7224	0·639	54·7	285·4	+16·2	16	47	
		7224	0·650	59·1	283·2	+14·2	2	13	
		7225*a*	0·682	57·6	281·5	+16·2	43	224	
		7226*a*	0·731	106·6	271·5	−16·5	15	92	
C.		7226	0·750	105·9	269·7	−16·2	0	5	
		7226	0·758	104·6	268·9	−15·2	6	22	
		7226	0·776	107·5	267·5	−17·6	3	4	
		7226	0·796	103·6	265·3	−14·7	3	10	144*c*
		7226	0·808	105·4	264·2	−16·2	5	18	
		7226*b*	0·813	104·1	263·7	−15·1	10	78	
		7226	0·814	107·9	263·7	−18·3	3	7	
		7227*a*	0·914	63·2	257·3	+21·3	9	68	
		7227	0·922	63·8	255·9	+21·1	0	7	
		7227	0·935	64·9	253·5	+20·8	3	30	331*c*
		7228	0·959	63·7	249·4	+23·0	17	114	
		7228	0·961	65·6	248·4	+21·3	0	15	
			0·908	112·6	252·7	−23·2			97
Apr. 3				(−26·4)	(318·2)	(−6·4)	(375)	(2277)	(1054)

Group 7225, March 31–April 10. Three small spots in a straight line perpendicular to the equator, *f* Group 7224. These have coalesced to form a large regular spot, *a*, by April 2. *a* diminishes and breaks up, chiefly by forming spots on the *p* side, after April 3.

Group 7226, April 1–13. A number of spots, none of them large, in a straight stream, of which *a* and *b*, the first and last members, are the largest. *a* is closely followed by a double spot, *c*, on April 4, and the two have coalesced by April 6 to form a large regular spot, *d*. The other members of the group are small and unstable, and *d* alone remains after April 9.

Group 7227, April 2–13. A long narrow spot *a*, followed by a train of small spots, making up with it a short straight stream *nf* Group 7225. *a* has divided into two regular spots, *b* and *c*, by April 10, after which both diminish in size, and *c* alone remains by April 13.

Group 7228, April 3–10. A irregular cluster of spots, mostly unstable, and rather faint in appearance, *f* Group 7227. The group steadily diminishes in size.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
93·511	N, JS		0·954	243·3	19·1	−27·3			84
			0·898	249·8	10·0	−20·9			110
		7220*a*	0·483	245·5	333·1	−17·1	2	4	
		7223	0·403	9·1	302·0	+17·1	2	8	
		7223*c*	0·419	9·5	301·6	+18·0	14	99	
		7223*a*	0·462	12·2	299·8	+20·5	144	733	
		7223*b*	0·456	19·2	296·7	+19·2	15	109	
		7224*c*	0·451	32·6	291·2	+16·2	83	459	
		7224	0·499	29·2	290·9	+19·7	0	5	
		7224	0·458	38·4	288·7	+14·9	3	20	
		7224	0·482	38·9	287·5	+16·0	2	32	
		7224	0·497	41·8	285·7	+15·8	9	57	
		7224	0·521	41·8	284·6	+16·9	1	4	
		7225	0·515	47·2	282·9	+14·7	3	8	
		7225	0·532	45·8	282·5	+15·9	3	29	
		7225*a*	0·543	48·2	281·1	+15·4	50	184	
G.		7226*a*	0·573	110·2	271·8	−16·6	14	80	
		7226*c*	0·595	109·1	270·1	−16·3	12	37	
		7226	0·629	110·8	267·8	−17·8	0	5	
		7226	0·655	105·9	265·2	−15·1	3	11	
		7226	0·667	107·6	264·5	−16·4	3	11	
		7226*b*	0·676	105·8	263·6	−15·3	15	54	
		7226	0·682	109·6	263·5	−17·9	0	8	
		7227*a*	0·811	58·0	258·4	+21·2	18	90	
		7227	0·824	59·2	256·7	+20·8	17	29	
		7227	0·835	59·8	255·4	+20·9	2	6	
		7227	0·845	60·9	254·0	+20·4	4	8	376*c*
		7228	0·887	60·2	249·4	+22·7	13	142	
		7228	0·897	62·4	247·4	+21·3	21	43	
		7229	0·946	63·2	239·7	+22·8	0	23	
			0·961	62·7	236·8	+24·0			300
			0·967	110·7	229·6	−21·5			267
Apr. 4				(−26·4)	(305·8)	(−6·3)	(453)	(2298)	(1137)
94·167	N, AM		0·948	248·9	9·4	−22·0			129
			0·850	248·6	355·1	−21·4			192
			0·738	243·8	343·1	−23·4			196
		7220	0·610	249·8	333·8	−17·2	1	4	
		7223*c*	0·433	347·0	303·0	+18·6	10	55	
		7223	0·414	351·0	301·0	+17·7	12	77	
D.		7223*a*	0·457	354·8	299·6	+20·7	172	757	
		7223	0·420	357·6	298·1	+18·4	2	7	
		7223*b*	0·435	1·1	296·6	+19·3	20	137	
		7223	0·474	2·0	296·1	+21·8	2	8	
		7224	0·454	12·0	291·3	+20·0	3	20	
		7224*c*	0·400	14·6	291·1	+16·4	100	467	
		7224	0·423	18·8	288·9	+17·2	6	17	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
94·167	N, AM	7224	0·420	24·4	286·7	+16·2	4	22	
		7224	0·427	27·0	285·5	+16·2	13	47	
		7224	0·411	31·4	284·4	+14·3	0	4	
		7224	0·426	30·4	284·2	+15·3	0	21	
		7225	0·434	34·0	282·6	+14·9	7	26	
		7225	0·482	30·1	282·4	+18·5	0	3	
		7225	0·407	37·8	282·4	+12·6	2	5	
		7225	0·453	33·4	282·1	+16·0	2	37	
		7225*a*	0·452	36·8	280·9	+15·0	45	188	
		7225	0·442	40·2	280·1	+13·6	0	13	
		7226*a*	0·453	115·8	272·0	−17·1	21	94	
		7226*c*	0·470	113·4	270·5	−16·4	12	54	
		7226	0·542	108·8	265·1	−15·3	6	34	
		7226	0·562	111·2	264·0	−17·0	4	33	
D.		7226*b*	0·567	108·4	263·3	−15·6	13	37	
		7226	0·581	110·6	262·6	−16·9	1	7	
		7227*a*	0·732	52·4	258·7	−21·6	19	92	
		7227	0·740	54·1	257·4	−20·8	10	28	
		7227	0·757	55·2	255·6	−20·8	1	8	
		7227	0·766	56·0	254·5	−20·8	2	9	
		7228	0·816	57·2	249·6	−22·0	11	29	428*c*
		7228	0·828	56·4	248·7	−23·1	14	55	
		7228	0·839	58·6	246·8	−21·9	6	23	
		7228	0·835	59·9	246·7	−20·8	6	22	
		7229	0·900	60·4	239·0	−23·1	0	5	
			0·937	110·9	226·9	−21·8			296
			0·928	60·4	234·9	−24·4			359
Apr. 5				(−26·4)	(297·1)	(−6·3)	(527)	(2445)	(1600)
95·340	N, VD		0·907	248·6	347·0	−22·0			154
			0·909	298·0	341·5	−22·2			162
			0·786	240·0	331·3	−27·2			101
		7230	0·743	238·0	326·7	−27·6	0	5	
		7230	0·723	237·2	324·7	−27·6	0	5	
		7231	0·677	240·2	321·6	−24·4	0	4	
		7223*c*	0·545	319·3	303·5	+18·6	14	38	
		7223	0·520	319·7	302·2	+17·5	1	8	
C.		7223*a*	0·529	327·4	299·2	+20·4	132	822	
		7223	0·487	327·2	297·6	+18·1	2	15	
		7223*b*	0·492	330·9	296·2	+19·4	9	73	
		7223	0·510	334·0	295·4	+21·1	1	4	
		7223	0·553	337·6	294·9	+24·6	0	7	
		7224	0·469	339·6	291·6	+19·9	6	20	
		7224*c*	0·413	337·4	291·1	+16·1	79	437	
		7224	0·420	343·4	288·8	+17·5	1	11	
		7224	0·388	349·0	286·0	+16·1	9	32	

Group 7229, April 4–5. Return of Group 7204. Third apparition. A small spot *nf* Group 7228, and making up with it and Group 7227 a small procession.
Group 7230, April 6. A pair of very small faint spots.
Group 7231, April 6. A very small faint spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
95·340	N, VD	7225	0·376	357·2	282·7	+15·8	4	35	
		7225*a*	0·360	1·2	281·1	+14·8	30	142	
		7225	0·380	9·7	277·8	+15·7	1	2	
		7232	0·446	6·9	278·3	+19·9	0	1	
		7232	0·445	15·0	274·6	+19·2	0	2	
		7233	0·261	17·5	277·1	+ 8·2	0	8	
		7233	0·270	27·0	274·5	+ 7·7	0	6	
		7226*d*	0·244	141·8	272·6	−17·1	22	115	
		7226	0·236	136·5	271·9	−15·9	1	8	
		7226	0·249	124·9	269·5	−14·2	3	16	
		7226	0·282	118·6	266·9	−13·8	3	9	
		7226	0·312	123·0	265·9	−15·7	1	3	
C.		7226	0·351	124·0	264·0	−17·1	0	38	
		7226	0·347	118·4	263·2	−15·3	8	16	
		7227*a*	0·581	38·0	259·1	+21·4	20	133	
		7227	0·592	41·8	256·8	+20·5	3	11	
		7227	0·572	49·6	254·7	+16·2	1	3	
		7228	0·679	48·8	248·5	+21·3	13	80	
			0·769	53·4	239·8	+22·7			77
			0·856	55·8	230·5	+24·9			188
			0·820	113·4	227·1	−22·7			119
			0·919	64·4	219·6	+20·5			89
			0·892	114·8	218·7	−24·8			54
			0·959	53·6	215·8	+32·3			85
Apr. 6				(−26·4)	(281·6)	(−6·2)	(364)	(2109)	(1029)
96·398	N, JS		0·956	247·4	341·5	−23·4			103
			0·947	296·6	334·0	+22·7			126
			0·872	253·4	328·6	−17·5			156
			0·859	237·4	325·0	−31·0			219
			0·739	243·4	313·6	−23·7			72
		7223*c*	0·694	305·6	304·0	+18·8	44	161	
		7223	0·665	305·8	302·0	+17·7	9	18	
		7223*a*	0·652	311·3	298·9	+20·1	150	779	
		7223*b*	0·619	312·8	296·3	+19·4	12	96	
		7224	0·565	316·6	291·7	+18·6	6	13	
G.		7224*c*	0·533	313·8	291·1	+15·9	91	473	
		7224	0·530	318·5	289·1	+17·5	3	13	
		7224	0·495	315·1	288·7	+14·7	2	4	
		7224	0·485	320·6	286·2	+16·0	8	22	
		7225	0·453	324·8	283·3	+15·7	4	9	
		7225	0·437	327·2	281·8	+15·5	7	14	
		7225*a*	0·415	328·1	280·6	+14·6	21	84	
		7232	0·437	341·7	275·9	+18·3	2	3	
		7232	0·454	344·5	275·0	+19·7	0	9	
		7226	0·189	209·6	273·1	−15·6	1	3	
1915				°	°	°			
96·398	N, JS	7226*d*	0·209	204·2	272·7	−17·2	30	128	
		7226	0·206	193·2	270·4	−17·8	1	1	
		7226	0·139	194·7	269·7	−13·9	3	9	
		7226	0·140	178·2	267·3	−14·3	7	12	
		7226	0·144	170·3	266·2	−14·3	2	5	
		7226	0·211	166·6	264·7	−18·0	0	3	
		7226	0·191	162·6	264·2	−16·6	1	5	
		7227	0·467	13·2	261·1	+20·8	1	2	
		7227*a*	0·481	16·5	259·2	+21·2	29	170	
		7227	0·451	17·8	259·2	+19·2	7	11	
		7227	0·502	18·1	257·9	+22·3	2	7	
G.		7227	0·503	27·0	253·5	+20·6	2	5	
		7227	0·533	28·4	251·8	+21·9	1	5	
		7228	0·537	32·2	249·8	+21·1	7	36	
		7228	0·562	32·6	248·6	+22·3	0	2	
		7228	0·540	35·0	248·4	+20·3	3	29	
		7228	0·558	36·4	246·9	+20·8	4	21	
		7228	0·579	35·4	246·4	+22·3	3	6	
			0·747	48·2	229·8	+25·0			119
			0·864	55·2	215·8	+25·7			142
			0·904	47·1	214·5	+34·3			190
			0·943	76·2	199·0	+10·8			66
Apr. 7				(−26·4)	(267·6)	(−6·2)	(463)	(2158)	(1193)
97·421	N, JS		0·958	251·6	328·3	−19·3			88
			0·927	239·8	321·9	−30·2			163
			0·929	298·1	317·1	+23·2			89
			0·865	246·8	313·8	−23·1			112
			0·840	311·4	300·5	+29·6			155
			0·707	316·4	286·8	+25·6			134
		7223*c*	0·825	297·5	304·6	+18·6	24	161	
		7223	0·809	297·8	302·9	+18·1	0	23	
		7223	0·792	298·0	301·3	+17·7	6	29	
		7223*a*	0·784	301·9	299·2	+20·2	119	705	150*p*
G.		7223	0·772	305·0	297·0	+21·8	14	52	
		7223*b*	0·750	302·0	296·3	+18·9	10	77	
		7223	0·754	304·6	295·6	+20·8	2	8	
		7224	0·702	304·6	291·6	+18·6	6	10	
		7224*c*	0·685	301·4	291·5	+16·0	95	510	
		7224	0·698	307·2	290·3	+20·0	1	4	
		7224	0·673	305·4	289·3	+17·9	2	11	
		7224	0·632	305·3	286·6	+16·2	4	7	
		7225	0·578	308·4	282·1	+15·6	5	8	
		7225*a*	0·554	307·8	280·9	+14·3	21	57	
		7225	0·569	312·8	280·0	+17·2	0	5	
		7226*d*	0·371	237·8	273·3	−17·2	22	121	

Group 7232, April 6–12. One or two very small faint spots forming *nf* Group 7225. The group is not seen on April 8, 9, or 10. The Groups 7223, 7224, 7225, and 7232 make up a magnificent procession, 30° in length.
Group 7233, April 6. A wide pair of very small spots *s* of Group 7232.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
97·421	N, JS	7226	0·344	241·8	272·4	−15·1	2	3	
		7226	0·306	242·2	270·3	−14·0	1	2	
		7226	0·322	231·6	269·5	−17·4	1	3	
		7226	0·299	236·7	269·1	−15·3	1	2	
		7226	0·262	235·6	267·0	−14·4	5	17	
		7226	0·267	227·0	265·9	−16·4	1	2	
		7226	0·245	229·8	265·3	−15·1	2	4	
G.		7227	0·440	348·0	259·7	+19·3	0	13	
		7227*a*	0·468	349·5	259·4	+21·2	38	186	
		7227	0·442	351·4	258·2	+19·8	2	3	
		7227	0·450	356·0	256·1	+20·4	1	3	
		7227	0·454	359·4	254·5	+20·8	3	7	
		7228	0·460	12·2	248·3	+20·6	3	10	
		7228	0·465	14·8	246·9	+20·6	8	17	
			0·832	43·0	211·8	+33·0			147
Apr. 8				(−26·4)	(254·2)	(−6·1)	(399)	(2060)	(1038)
98·352	N, JS		0·950	244·0	314·4	−26·6			153
			0·876	239·3	301·8	−29·7			95
			0·779	239·6	290·8	−27·2			69
		7223*c*	0·916	293·6	304·2	+18·8	28	112	
		7223	0·906	294·0	302·6	+18·7	0	22	
		7223	0·891	293·2	300·9	+17·5	8	15	
		7223*a*	0·883	296·6	298·9	+20·1	126	675	400*c*
		7223	0·868	299·4	296·2	+21·8	4	24	
		7223*b*	0·856	296·8	295·7	+19·2	9	27	
		7224	0·818	292·8	293·0	+14·7	1	10	
		7224*c*	0·809	295·0	291·5	+16·1	78	489	145*n*
		7224	0·791	298·0	288·9	+17·7	3	5	
		7225	0·716	299·4	282·2	+16·0	1	2	
G.		7225*a*	0·696	298·6	281·0	+14·8	13	31	
		7225	0·708	302·2	280·7	+17·5	3	11	
		7225	0·703	304·8	279·4	+18·9	0	4	
		7226*d*	0·544	248·0	273·6	−16·9	24	148	
		7226	0·443	249·4	267·1	−14·4	3	12	
		7227	0·559	324·6	262·2	+21·4	0	9	
		7227	0·531	325·2	260·7	+20·1	7	23	
		7227*a*	0·536	328·2	259·5	+21·3	43	182	
		7227	0·508	329·4	257·8	+20·1	15	43	
		7227	0·497	334·8	254·9	+20·8	1	2	
		7228	0·461	349·0	247·3	+20·8	7	17	
		7228	0·480	351·6	246·2	+22·2	2	6	
		7228	0·457	352·9	245·4	+20·9	0	3	
Apr. 9				(−26·4)	(241·9)	(−6·0)	(376)	(1872)	(862)
1915.				°	°	°			
99·345	N, JS		0·922	308·8	286·7	+32·2			251
			0·789	233·8	277·1	−31·8			67
		7223*c*	0·979	290·4	304·0	+18·5	0	50	
		7223*a*	0·960	292·8	298·8	+19·9	144	848	
		7223*b*	0·943	292·8	295·6	+19·2	6	12	
		7224*c*	0·915	290·6	291·7	+16·1	91	490	1097*c*
		7224	0·903	292·4	289·6	+17·3	5	14	
		7224	0·888	292·6	287·6	+16·9	0	6	
		7225	0·840	296·0	281·2	−18·0	0	6	
G.		7225*a*	0·829	292·8	281·0	+15·1	0	14	
		7226*	0·878	246·8	289·9	−23·1	0	5	176*sp*
		7226*	0·860	246·6	287·7	−23·1	0	5	
		7226*d*	0·714	252·2	273·9	−16·8	31	162	64*s*
		7227*b*	0·664	312·6	260·4	+21·5	14	71	
		7227	0·648	311·2	260·0	+20·1	1	3	
		7227*c*	0·638	314·0	258·1	+21·0	21	120	
		7227	0·624	313·1	257·7	+20·0	3	41	
		7227	0·612	316·2	255·6	+20·8	1	2	
		7228	0·541	327·0	247·1	+21·2	2	6	
Apr. 10				(−26·4)	(228·8)	(−6·0)	(319)	(1855)	(1655)
100·507	N, JS		0·962	243·6	288·4	−27·0			108
			0·931	304·8	274·5	+29·3			111
			0·710	310·0	249·3	+22·3			85
		7224*c*	0·985	287·6	291·1	+16·2	43	431	528*nf*
		7232	0·908	294·2	274·4	+19·1	0	7	
		7226*d*	0·871	254·2	274·2	−16·6	24	152	234*f*
		7227*b*	0·808	302·0	260·6	+21·4	8	50	
C.		7227	0·779	301·6	258·1	+19·9	1	10	87*c*
		7227*c*	0·783	303·3	257·8	+21·2	21	116	
		7227	0·769	302·8	256·8	+20·3	0	5	
		7234	0·950	107·0	140·9	−18·0	0	10	357*c*
		7234	0·967	108·4	137·3	−19·3	0	55	
			0·935	177·8	205·5	−74·8			79
			0·910	60·0	153·9	+24·1			85
			0·987	63·7	136·7	+24·7			132
Apr. 11				(−26·4)	(213·4)	(−5·9)	(97)	(836)	(1806)
101·345	N, VD		0·971	302·3	272·6	+29·4			96
			0·800	306·3	247·2	+24·1			109
		7232	0·967	292·1	274·2	+19·6	0	15	358*c*
C.		7226*d*	0·945	254·5	273·9	−16·5	13	140	410*f*
		7226	0·907	258·3	267·9	−13·0	0	5	
		7235	0·930	274·5	270·2	+ 2·0	0	7	

Group 7226*, April 10. A pair of very small markings *sp* Group 7226.
Group 7234. April 11–18. Return of Group 7209. Third apparition. A few small unstable spots in an extended group of faculæ. The group is not seen on April 14 or April 17.
Group 7235, April 12. A very small faint marking *s* Group 7233.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
101·345	N, VD	7227*b*	0·893	297·3	260·5	+21·1	7	14	152*c*
		7227*c*	0·873	298·3	257·7	+21·1	13	79	
		7236	0·719	314·9	236·7	+25·7	0	4	
		7237	0·626	225·7	233·7	−30·8	0	5	
		7234	0·866	106·7	142·3	−17·4	9	16	
C.		7234	0·908	109·4	137·0	−20·0	5	26	294*c*
		7234	0·919	107·8	135·2	−18·6	0	11	
			0·924	184·7	217·0	−72·6			49
			0·945	61·5	136·7	+24·5			102
			0·974	61·5	130·2	+26·1			130
Apr 12.				(−26·3)	(202·4)	(−5·8)	(47)	(322)	(1700)
102·302	N. JS		0·880	299·9	245·4	+22·8			314
			0·773	310·3	230·4	+25·7			145
		7226*d*	0·994	254·3	274·7	−16·2	10	196	442*f*
		7227*c*	0·950	294·5	257·4	+21·1	10	21	297*c*
		7238	0·588	40·5	165·6	+21·3	0	3	
		7238	0·651	39·5	162·6	+25·0	0	1	
C.		7238	0·655	41·6	161·3	+24·2	1	6	
		7234	0·718	111·7	144·9	−19·4	1	5	
		7234	0·736	108·3	142·9	−17·2	4	7	205*c*
		7234	0·808	111·4	136·5	−20·5	4	6	
			0·935	191·1	223·8	−71·3			61
			0·865	57·8	136·6	+24·1			124
			0·917	·59·1	129·3	+25·4			150
Apr. 13				(−26·3)	(189·7)	(−5·7)	(30)	(245)	(1738)
103·405	N, JS		0·947	296·3	241·9	+22·7			238
			0·865	240·9	233·8	−27·9			133
			0·870	306·0	227·5	+27·4			172
			0·810	323·0	212·0	+35·7			201
		7238	0·545	11·7	168·1	+26·6	0	4	
G.		7238	0·506	14·0	167·5	+23·8	4	24	
		7238	0·527	18·7	164·6	+24·3	5	11	
			0·777	60·8	129·8	+18·3			45
			0·820	53·0	128·8	+25·7			134
			0·861	65·8	119·9	+17·5			111
Apr. 14				(−26·2)	(175·2)	(−5·6)	(9)	(39)	(1034)
104·327	N. JS		0·950	300·4	229·2	+26·6			293
G.			0·886	249·0	225·3	−21·2			198
			0·896	237·6	225·2	−31·4			69
			0·860	305·5	214·3	+26·5			226
1915.				°	°	°			
104·327	N, JS		0·855	318·8	207·0	+36·0			149
		7239	0·948	242·9	234·7	−27·4	2	5	145*s*
		7238	0·493	351·6	167·5	+23·5	1	2	
		7238	0·502	356·8	164·8	+24·3	2	4	
		7234	0·403	122·6	142·2	−17·7	2	3	
G.		7234	0·447	117·4	138·6	−16·9	2	5	
		7234	0·466	119·8	137·9	−18·4	2	8	
		7234*	0·527	122·9	134·7	−21·5	1	3	
		7234*	0·577	122·0	131·2	−22·5	2	6	
			0·773	44·1	125·0	+29·3			89
Apr. 15				(−26·2)	(163·0)	(−5·6)	(14)	(36)	(1169)
105·418	N, JS		0·922	185·5	164·8	−71·6			166
			0·945	250·3	220·0	−20·4			117
			0·942	304·6	212·0	+30·0			243
			0·921	316·5	202·9	+38·8			112
		7239	0·997	243·5	236·5	−26·8	6	126	254*c*
		7239	0·989	242·1	231·8	−28·4	0	14	
G.		7234	0·217	164·7	145·2	−17·5	0	14	
		7234	0·218	157·8	143·7	−17·1	1	6	
		7234	0·282	141·0	137·9	−18·0	1	2	
		7234	0·306	140·9	136·9	−19·0	2	11	
			0·898	60·4	90·4	+23·5			64
			0·925	117·6	81·2	−27·6			282
			0·957	69·8	78·5	+17·5			193
Apr. 16				(−26·1)	(148·6)	(−5·5)	(10)	(173)	(1431)
106·333	JS, N		0·958	304·7	203·1	+31·0			92
			0·839	119·7	181·3	−27·7			104
G.			0·933	197·1	181·2	−67·1			78
			0·901	69·1	75·5	+16·2			112
			0·939	121·1	67·0	−31·0			119
Apr. 17				(−26·1)	(136·5)	(−5·4)	(0)	(0)	(505)
107·403	JS, N		0·956	259·2	195·8	−11·9			45
		7234	0·341	228·8	138·0	−18·1	2	6	
		7240	0·831	111·2	66·8	−20·5	1	2	
		7240	0·842	110·8	65·6	−20·3	3	3	38*c*
G.		7241	0·862	111·6	63·3	−21·2	1	5	
			0·793	61·0	75·4	+19·0			93
			0·883	124·8	62·8	−33·0			213
			0·890	69·4	62·7	+15·6			73
			0·970	118·7	45·8	−29·1			375
Apr. 18				(−26·0)	(122·4)	(−5·3)	(7)	(16)	(837)

Group 7236, April 12. A very small faint marking *n* the position of Group 7229.
Group 7237, April 12. A very small faint marking.
Group 7238, April 13–15. A few small scattered and unstable spots.
Group 7239, April 15–16. A very small spot appearing near the W. limb on April 15, *n* of the position of Group 7237. It has developed into a large spot, followed by a small companion, by April 16. Group 7234*, April 15. Two very small spots *sf* Group 7234.
Group 7240, April 18–27. A pair of very small spots on April 18. The group has greatly increased in size by April 21 and becomes an irregular stream of normal type. The leading spot, *a*, is the largest and most stable, and alone remains after April 25.
Group 7241, April 18–23. A very small intermittent spot *f* Group 7240; not seen on April 21 or 22.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
108·331	JS, N		0·891	304·1	165·9	+27·1			107
		7242	0·862	294·5	165·5	+18·0	3	7	} 70c
		7242a	0·833	296·6	161·8	+18·7	12	19	
		7240	0·696	114·7	67·7	−20·8	6	9	
		7240	0·701	114·0	67·2	−20·4	4	8	
		7240	0·721	113·2	65·4	−20·2	0	1	
		7241	0·760	113·6	62·0	−21·2	4	9	
G.		7243	0·942	119·3	39·9	−29·3	2	3	} 307c
		7243a	0·953	119·5	37·6	−29·7	5	10	
		7244	0·948	116·9	38·6	−27·1	18	21	
			0·818	125·4	58·8	−31·6			112
			0·905	120·0	46·3	−29·3			277
			0·931	110·3	41·3	−20·8			42
			0·966	59·9	40·1	+27·3			79
Apr. 19				(−25·9)	(110·1)	(−5·2)	(54)	(87)	(994)
109·364	N, JS		0·955	251·4	169·7	−19·2			73
			0·945	292·4	164·0	+19·2			116
			0·942	299·8	161·5	+25·8			129
			0·744	248·2	143·4	−19·5			90
			0·733	314·8	132·0	+26·9			89
		7245	0·448	137·8	77·3	−24·1	0	4	
		7245	0·491	142·6	76·9	−27·7	6	13	
		7245	0·513	142·2	75·6	−28·6	1	3	
		7245	0·517	139·8	74·4	−27·9	2	13	
C.		7240	0·500	124·4	70·4	−20·9	6	11	
		7240	0·509	122·2	69·3	−20·2	1	2	
		7241	0·592	117·7	62·7	−20·2	1	3	
		7246	0·648	127·8	61·4	−27·5	1	2	
		7244	0·857	117·8	39·0	−26·3	5	11	} 174c
		7243a	0·867	122·2	38·6	−30·3	3	11	
			0·806	123·0	45·9	−29·3			143
			0·923	56·4	35·9	+28·2			141
			0·918	121·2	30·9	−30·6			103
Apr. 20				(−25·8)	(96·5)	(−5·1)	(26)	(73)	(1058)
110·362	JS, N		0·826	247·5	138·1	−21·4			288
			0·835	306·5	131·7	+26·4			121
			0·854	319·5	126·9	+36·7			64
		7245a	0·392	166·7	77·5	−27·4	41	192	
G.		7245	0·423	163·5	75·4	−28·9	0	6	
		7245	0·411	161·9	75·0	−28·0	0	3	
		7245	0·434	161·9	74·4	−29·3	4	11	
		7245	0·423	160·4	74·1	−28·4	5	15	
		7245b	0·433	157·3	72·4	−28·4	32	93	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
110·362	JS, N	7240a	0·347	148·1	71·9	−22·0	15	64	
		7240	0·325	144·2	71·7	−20·2	0	3	
		7240	0·338	139·1	69·8	−19·7	0	3	
		7240	0·358	141·3	69·5	−21·1	3	17	
		7240	0·357	138·3	68·7	−20·3	1	1	
		7240	0·363	134·1	67·3	−19·5	0	3	
		7240	0·385	136·5	66·9	−21·1	4	7	
G.		7240	0·387	132·3	65·7	−19·9	15	29	
		7246	0·540	137·5	59·0	−28·1	2	5	
		7247	0·612	82·4	46·1	+0·6	3	7	
			0·777	124·1	35·9	−29·3			123
			0·858	51·0	33·5	+29·4			111
			0·939	56·9	19·8	+28·6			60
			0·922	122·1	17·2	−31·5			166
Apr. 21				(−25·7)	(83·3)	(−5·1)	(125)	(459)	(933)
111·515	JS, VD		0·937	249·8	137·9	−20·7			233
			0·917	301·1	128·6	+25·8			171
			0·895	315·4	119·3	+36·4			79
		7248	0·582	221·6	94·5	−30·2	0	4	
		7245a	0·412	200·8	77·6	−27·5	29	178	
		7245	0·402	197·8	76·0	−27·4	2	33	
		7245	0·410	195·3	75·1	−28·2	0	13	
C.		7245	0·395	191·8	73·3	−27·6	0	9	
		7245b	0·420	189·9	72·8	−29·3	4	63	
		7245b	0·412	187·0	71·4	−29·0	10	61	
		7240a	0·298	192·0	71·9	−21·8	10	62	
		7240	0·266	189·0	70·6	−20·2	3	17	
		7240	0·261	168·2	64·9	−19·7	5	30	
		7246	0·376	167·6	63·0	−26·4	0	4	
		7249	0·556	140·8	44·2	−30·0	1	5	
			0·876	129·3	10·9	−36·4			102
			0·941	112·6	357·6	−23·0			104
Apr. 22				(−25·6)	(68·1)	(−5·0)	(64)	(479)	(689)
112·507	N, JS		0·978	247·2	133·7	−23·3			233
			0·967	299·3	125·6	+26·7			138
			0·950	289·3	124·1	+16·5			87
		7250	0·637	314·2	84·4	+22·0	0	4	
C.		7250	0·629	313·0	84·4	+21·1	0	4	
		7245a	0·516	220·9	77·3	−27·4	31	220	
		7245	0·496	218·1	75·1	−27·5	4	15	
		7245	0·478	219·0	74·5	−26·4	1	4	
		7245b	0·483	210·9	71·4	−29·1	32	84	
		7240a	0·395	222·9	71·7	−21·4	11	39	

Group 7242, April 19. A small regular spot, *a*, with a faint companion; seen only close to the W. limb.
Group 7243, April 19–20. A small spot, *a*, with a faint companion in bright faculæ. Only *a* remains on April 20.
Group 7244, April 19–20. A small spot *n* of Group 7243, and in the same mass of faculæ.
Group 7245, April 20–28. A few small spots *sp* Group 7240, rapidly developing into a well-formed stream of normal type. The leader, *a*, is a regular spot, much the largest member of the group. The rear spot, *b*, is next in size; the intermediate spots are small. *b* has broken up by April 22, but is measured as a single cluster on April 23 and after April 24.
Group 7246, April 20–22. A disturbed area *sf* Group 7240, in which one or two very small unstable spots are seen.
Group 7247, April 21. A very small equatorial spot.
Group 7249, April 22. A very small marking *p* the place of Group 7243.
Group 7248, April 22. A very small marking *sp* Group 7245.
Group 7250, April 23. A pair of very small faint markings.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
112·507	N, JS	7240	0·364	223·1	70·3	−20·1	9	21	
		7240	0·322	216·0	66·6	−19·8	3	12	
		7240	0·321	212·1	65·4	−20·5	0	4	
		7240	0·304	210·7	64·4	−19·9	4	18	
		7241	0·315	201·1	62·0	−21·9	1	2	
C.		7251	0·092	137·2	51·4	− 8·8	0	3	
		7251	0·108	138·6	50·9	− 9·5	0	4	
		7252	0·770	109·5	5·4	−18·1	0	6	
			0·845	112·5	358·2	−21·5			128
			0·952	69·5	345·8	+17·7			204
			0·953	114·1	342·5	−24·4			107
Apr. 23				(−25·5)	(55·0)	(−4·9)	(96)	(440)	(897)
113·388	N, JS	7245*a*	0·638	231·2	77·3	−27·5	29	197	
		7245	0·618	229·7	75·3	−27·6	3	9	
		7245	0·599	225·2	72·3	−29·1	1	5	
		7245*b*	0·590	223·4	71·0	−29·6	10	19	
		7245*b*	0·578	222·3	69·7	−29·5	3	15	
		7240*a*	0·523	235·8	70·8	−21·3	19	47	
		7240	0·509	236·4	70·1	−20·6	1	4	
G.		7240	0·519	234·0	70·1	−22·0	0	4	
		7240	0·482	236·9	68·6	−19·5	1	3	
		7240	0·446	235·1	66·0	−19·2	1	3	
		7240	0·436	233·1	64·9	−19·6	4	8	
		7253	0·462	54·8	20·8	+11·0	1	2	
			0·862	67·6	347·3	+16·5			122
			0·846	116·4	346·9	−24·8			102
			0·939	64·4	337·5	+22·0			75
			0·941	117·4	333·3	−27·4			129
Apr. 24				(−25·4)	(43·3)	(−4·8)	(73)	(316)	(428)
114·524	N, JS		0·902	293·7	88·9	+18·9			114
			0·788	302·5	73·8	+21·7			98
		7245*a*	0·785	238·5	77·0	−27·3	24	141	214*c*
		7245	0·763	237·1	74·5	−27·7	1	3	
		7245*b*	0·731	233·5	70·4	−29·2	4	12	
		7240*a*	0·701	243·9	70·7	−21·4	17	64	
		7240	0·648	244·7	66·7	−19·8	1	4	
C.		7254	0·547	107·7	356·0	−13·6	0	5	
		7254	0·567	107·1	354·6	−13·6	1	8	
			0·777	117·9	339·6	−24·4			88
			0·883	117·9	327·6	−26·8			134
			0·727	60·7	326·9	+17·3			100
			0·827	56·5	319·4	+24·1			112
			0·967	118·3	312·9	−28·5			159
			0·980	71·1	312·2	+17·4			100
Apr. 25				(−25·3)	(28·3)	(−4·7)	(48)	(237)	(1119)
1915.				°	°	°			
115·364	JS, VD		0·868	297·0	72·7	+20·6			94
			0·712	237·8	59·0	−25·7			59
		7245*a*	0·874	241·0	76·4	−27·4	12	101	302*c*
		7245*b*	0·825	236·8	69·6	−29·7	2	8	
		7240*a*	0·812	246·8	70·3	−21·4	8	28	116*c*
		7255	0·979	73·6	300·9	+15·0	3	11	860*c*
C.		7255	0·984	71·2	299·8	+17·5	18	205	
		7255*a*	0·996	69·4	294·7	+20·0	96	381	
		7256*a*	0·979	110·2	298·2	−20·7	0	71	219*c*
		7256	0·982	111·6	297·3	−22·1	0	57	
			0·822	125·0	325·6	−31·0			87
			0·887	113·6	315·4	−23·0			65
			0·919	124·0	312·3	−32·9			145
Apr. 26				(−25·2)	(17·2)	(−4·6)	(139)	(862)	(1947)
116·479	JS, N		0·970	292·6	75·4	+20·6			146
			0·884	294·8	60·6	+19·4			61
			0·836	239·8	56·9	−27·5			75
		7245*a*	0·956	242·5	75·4	−27·6	23	86	301*sf*
		7240*a*	0·921	248·6	69·3	−21·4	0	16	255*f*
		7257	0·865	63·0	307·3	+20·5	1	2	
		7255	0·892	68·2	302·7	+17·1	5	8	1151*c*
		7255	0·893	71·1	301·9	+14·6	5	7	
G.		7255	0·916	68·4	299·3	+17·7	17	100	
		7255	0·927	68·2	297·7	+18·3	1	8	
		7255	0·929	69·6	297·1	+17·1	1	33	
		7255*a*	0·937	66·8	296·5	+19·8	62	329	
		7256*a*	0·894	111·3	299·6	−21·0	25	169	377*c*
		7256	0·911	110·6	297·1	−20·6	6	26	
		7256	0·914	112·0	296·8	−21·9	6	10	
		7256	0·928	109·8	294·5	−20·0	0	4	
		7258*a*	0·957	71·4	291·8	+16·3	7	55	
Apr. 27				(−25·0)	(2·5)	(−4·5)	(159)	(853)	(2366)
117·356	N, JS		0·955	247·2	63·8	−23·1			337
			0·896	229·8	50·3	−37·5			151
			0·839	239·3	45·4	−27·9			109
		7245	0·992	242·5	74·8	−27·8	12	48	268*c*
		7245	0·978	240·5	69·4	−29·8	2	12	
G.		7255	0·818	66·5	299·7	+16·3	0	7	434*c*
		7255	0·829	66·0	298·7	+17·0	5	43	
		7255	0·834	67·2	297·9	+16·2	3	7	
		7255	0·840	65·3	297·8	+17·9	0	5	
		7255	0·843	66·8	297·1	+16·8	6	12	
		7255*a*	0·859	63·8	296·1	+19·7	58	316	
		7255	0·848	69·3	295·9	+14·9	7	9	

Group 7251, April 23. A pair of very small faint markings.
Group 7252, April 23. A very small faint marking.
Group 7253. April 24. A very small spot.
Group 7254, April 25. Some very small faint markings.
Group 7255, April 26–May 8. Return of Group 7223. A large regular spot, *a*, *nf* a number of small spots in a long irregular stream. The stream has disappeared by May 6, leaving *a* alone.
Group 7256, April 26–May 8. A large regular spot, *a*, followed by a few small spots in a short train.
Group 7257, April 27. A very small spot *p* Group 7255.
Group 7258, April 27–May 4. Return of Group 7224. A small compact cluster, *a*, *sf* Group 7255. A companion cluster, *b*, has formed close to *a* on the *s* by May 2.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
117·356	N, JS	7256*a*	0·789	113·4	300·2	−21·1	26	160	
		7256	0·821	112·5	296·8	−20·9	0	19	264*c*
		7256	0·833	114·3	295·8	−22·6	1	3	
		7259*a*	0·868	115·3	291·9	−24·0	6	10	
		7258*a*	0·887	69·3	291·4	+16·0	11	58	
G.		7260*a*	0·953	71·8	280·9	+15·8	36	188	
		7260	0·960	73·9	279·1	+14·1	2	4	488*c*
		7260	0·974	72·3	276·1	+16·1	2	11	
		7261*a*	0·967	105·1	275·3	−15·7	24	124	154*c*
			0·928	61·3	287·6	+24·5			409
Apr. 28				(−24·9)	(350·9)	(−4·4)	(201)	(1036)	(2614)
118·351	N, JS		0·936	228·5	44·1	−40·2			44
			0·920	240·7	43·5	−28·6			145
			0·843	236·4	31·9	−30·3			125
			0·879	309·7	30·1	+31·6			87
		7255	0·662	53·9	303·3	+19·4	0	11	
		7255	0·658	57·7	302·3	+17·0	0	7	
		7255	0·694	54·7	300·7	+20·2	0	4	
		7255	0·679	61·9	299·5	+15·3	0	2	
		7255	0·698	60·3	298·5	+16·9	7	15	
		7255	0·693	62·3	298·3	+15·4	0	19	
		7255	0·713	61·3	297·1	+16·7	2	4	
		7255	0·713	63·3	296·5	+15·4	0	5	
		7255*a*	0·739	58·1	296·1	+19·7	49	287	
G.		7256*a*	0·641	117·7	300·5	−20·8	18	151	
		7256	0·679	115·5	297·1	−20·3	4	10	66*f*
		7256	0·693	116·9	296·2	−21·5	5	16	
		7259*a*	0·754	118·5	291·4	−24·0	0	16	
		7258*a*	0·775	64·9	290·9	+16·2	14	43	
		7260*a*	0·861	68·1	281·5	+16·4	17	193	
		7260	0·899	70·1	276·4	+15·8	1	5	
		7260	0·903	69·2	276·1	+16·7	2	8	373*c*
		7260	0·899	72·3	276·0	+13·8	2	7	
		7261*a*	0·883	105·2	275·8	−15·4	20	111	255*f*
			0·844	120·5	282·6	−27·8			116
			0·895	58·4	280·1	+25·7			485
			0·927	115·9	270·5	−25·5			69
Apr. 29				(−24·7)	(337·7)	(−4·3)	(141)	(914)	(1765)
119·419	N, JS		0·918	239·5	28·8	−29·6			312
			0·930	307·1	24·7	+32·2			133
G.		7262	0·456	297·3	347·7	+ 8·2	0	16	
		7262	0·434	301·0	345·6	+ 9·0	3	6	
1915.				°	°	°			
119·419	N, JS	7255	0·511	39·5	303·5	+19·2	0	3	
		7255	0·503	45·3	301·8	+16·8	10	22	
		7255	0·524	44·9	300·8	+17·9	4	15	
		7255	0·533	48·0	299·2	+17·0	22	60	
		7255	0·526	50·5	298·8	+15·7	4	17	
		7255	0·541	52·7	297·2	+15·3	2	8	
		7255*a*	0·593	48·1	295·8	+19·5	54	291	
		7256	0·436	129·7	302·8	−20·1	0	3	
		7256*a*	0·465	128·8	300·9	−20·8	32	158	
		7256	0·493	131·2	300·0	−22·8	2	7	
		7256	0·517	127·0	297·3	−21·9	2	4	
		7256	0·508	124·4	297·2	−20·4	5	8	
		7256	0·547	127·3	295·5	−23·0	1	6	
G.		7259	0·594	124·1	291·4	−23·0	2	5	
		7259*a*	0·610	125·2	290·7	−24·0	5	11	
		7258*a*	0·621	56·6	291·0	+16·4	9	26	
		7260*a*	0·730	62·5	281·3	+16·5	21	131	
		7260	0·731	64·7	280·6	+15·1	2	4	215*f*
		7260	0·776	65·5	276·5	+15·9	3	13	
		7261*a*	0·745	106·8	276·1	−15·3	20	116	156*f*
		7263*a*	0·984	67·3	246·6	+21·4	0	94	52*f*
		7263	0·989	68·2	244·5	+20·8	0	31	
			0·841	53·9	274·1	+27·0			272
			0·848	116·2	267·2	−24·3			88
			0·933	63·5	258·9	−22·8			194
Apr. 30				(−24·5)	(323·6)	(−4·2)	(203)	(1055)	(1422)
120·165	N, M		0·977	240·4	31·8	−29·8			244
			0·917	236·8	18·3	−31·9			195
			0·929	302·2	16·4	+27·8			246
		7264	0·825	294·2	5·6	+17·1	5	7	
		7264	0·792	296·0	1·9	+17·5	0	4	115*c*
		7264	0·765	297·0	359·2	+17·4	1	4	
		7264	0·734	298·7	356·1	+17·5	0	2	
		7265	0·667	297·8	351·3	+14·8	0	2	
D.		7265*a*	0·654	297·0	350·5	+13·9	2	4	
		7262	0·612	290·2	349·2	+ 8·8	4	13	
		7262	0·568	291·2	346·0	+ 8·3	0	10	
		7262	0·562	292·3	345·4	+ 8·8	2	6	
		7255	0·413	30·4	301·2	+16·8	1	10	
		7255	0·407	38·2	298·8	+14·7	7	16	
		7255	0·422	36·8	298·6	+15·7	0	27	
		7255	0·447	35·8	298·0	+17·2	19	39	
		7255*a*	0·499	37·0	295·3	+19·5	66	277	
		7256	0·364	151·6	303·0	−22·7	0	5	

Group 7259, April 28–May 7. A small, ill-defined spot, *a*, *sf* Group 7256, with occasionally a very small companion. The group is not seen on May 4, 5, and 6.
Group 7260, April 28–May 8. Perhaps a return of Group 7232. An elongated spot, *a*, crossed by many bright bridges, and followed by a short train. *a* has disappeared by May 7, but the group is represented by faint markings on May 7 and 8.
Group 7261, April 28–May 9. Return of Group 7226. A large regular spot, *a*, with occasionally a small companion.
Group 7262, April 30–May 1. A few small spots.
Group 7263, April 30–May 10. A regular spot, *a*, followed by an irregular train. The train has disappeared by May 8, leaving *a* alone.
Group 7264, May 1–2. Four very small spots in a long straight stream on May 1. Only the two leaders remain by May 2.
Group 7265, May 1–3. A very small spot, *a*, sometimes with a very small companion *sf* Group 7264.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
120·165	N, M	7256*a*	0·363	144·4	300·8	−21·1	27	144	
		7256	0·401	146·0	299·7	−23·3	0	2	
		7256	0·394	140·4	298·2	−21·6	1	2	
		7256	0·394	136·8	297·1	−20·5	6	9	
		7259*a*	0·513	133·2	289·7	−24·2	3	4	
		7258*a*	0·515	47·7	290·5	+16·5	10	22	
		7258	0·563	46·4	288·3	+19·1	0	1	
		7260*a*	0·632	56·8	280·4	+16·8	24	115	
		7260	0·624	59·4	280·1	+15·0	0	3	
D.		7260	0·670	62·6	276·0	+14·7	2	11	
		7260	0·678	60·6	276·0	+16·2	2	8	
		7261*a*	0·634	109·2	275·6	−15·2	19	107	295*f*
		7263*a*	0·949	65·6	245·8	+21·5	18	95	
		7263	0·959	66·6	243·5	+21·0	0	43	550*c*
		7263	0·977	66·8	239·0	+21·6	0	31	
			0·867	45·6	265·1	+34·0			123
			0·910	60·2	253·5	+24·8			227
			0·967	113·4	238·3	−23·7			151
May 1				(−24·4)	(313·8)	(−4·1)	(219)	(1023)	(2146)
121·553	N, JS	7264	0·946	288·9	4·0	+16·4	0	3	
		7264	0·936	289·8	2·2	+16·9	1	2	153*c*
		7265*a*	0·847	289·1	350·7	+13·8	0	2	82*c*
		7266*a*	0·527	323·2	315·1	+21·1	17	33	
		7266	0·507	326·9	312·6	+21·2	5	15	
		7266	0·494	330·7	310·4	+21·5	7	14	
		7255	0·416	338·9	304·5	+18·9	0	9	
		7255	0·384	340·6	303·0	+17·2	16	19	
		7255	0·377	347·1	300·4	+17·5	3	6	
		7255	0·343	352·5	298·1	+15·8	0	21	
		7255	0·361	352·7	298·1	+16·9	12	56	
		7255*a*	0·397	359·9	295·4	+19·3	57	299	
		7256	0·327	200·9	302·6	−21·7	3	6	
G.		7256*a*	0·302	1983·	301·2	−20·6	26	143	
		7256	0·294	187·9	297·9	−20·9	3	6	
		7267	0·235	4·9	294·2	+ 9·5	4	7	
		7267	0·261	10·1	292·7	+10·9	1	3	
		7259	0·329	174·7	293·5	−23·0	0	2	
		7259*a*	0·345	168·2	291·0	−23·7	2	10	
		7258*a*	0·358	12·7	290·7	+16·4	8	18	
		7258*b*	0·339	14·6	290·3	+15·1	6	10	
		7260*a*	0·434	34·9	280·4	+16·9	8	78	
		7260	0·445	43·3	277·1	+15·0	0	13	
		7260	0·492	41·0	275·6	+18·0	1	2	
		7261*a*	0·376	121·7	276·1	−15·1	17	93	
1915.				°	°	°			
121·553	N, JS	7263*a*	0·821	59·7	245·8	+21·9	18	62	
		7263	0·830	61·1	244·4	+21·1	12	39	287*c*
G.		7263	0·878	62·3	238·7	+21·9	5	17	
			0·896	115·5	232·9	−24·5			157
			0·961	59·5	226·2	+27·8			93
May 2				(−24·1)	(295·4)	(−4·0)	(232)	(988)	(772)
122·346	N, JS		0·977	288·8	0·6	+17·4			204
			0·946	247·4	355·8	−22·6			95
			0·912	286·2	348·8	+13·0			296
		7265	0·939	286·5	352·9	+14·0	0	1	
		7265*a*	0·926	286·6	350·7	+13·7	0	3	
		7266*a*	0·646	310·4	316·8	+21·4	33	120	
		7266	0·593	314·7	311·7	+21·1	23	66	
		7266	0·565	314·0	310·4	+19·5	1	3	
		7266	0·578	316·0	310·4	+20·9	10	31	
		7255	0·506	319·0	305·4	+18·7	1	8	
		7255	0·469	319·8	303·4	+17·2	9	14	
		7255	0·432	325·2	299·9	+16·9	5	16	
		7255	0·406	327·2	298·2	+16·1	6	16	
		7255	0·376	326·4	297·4	+14·4	1	2	
		7255*a*	0·426	336·2	295·4	+19·0	45	269	
		7256*a*	0·395	222·4	301·5	−20·7	33	161	
		7256	0·358	216·2	298·0	−20·6	1	3	
		7267	0·289	321·5	295·5	+ 9·2	2	3	
G.		7267	0·277	324·5	294·3	+ 9·2	1	3	
		7267	0·293	327·0	294·3	+10·3	3	3	
		7267	0·282	333·0	292·5	+10·7	2	7	
		7259*a*	0·352	196·8	291·3	−23·5	4	10	
		7258*b*	0·332	342·6	290·9	+14·5	6	14	
		7258*a*	0·361	344·6	290·7	+16·5	9	14	
		7260	0·356	10·8	281·0	+16·4	1	4	
		7260*a*	0·360	13·4	280·0	+16·6	18	79	
		7260	0·422	25·3	274·1	+18·5	0	3	
		7261*a*	0·246	143·0	276·2	−15·1	14	97	
		7263*a*	0·722	54·2	246·0	+21·9	8	66	
		7263	0·732	55·8	244·7	+21·2	8	13	
		7263	0·745	57·7	242·9	+20·5	2	4	194*c*
		7263	0·763	59·2	240·9	+20·2	2	3	
		7263	0·777	58·1	240·1	+21·4	4	9	
		7263	0·797	58·9	237·9	+21·7	0	6	
			0·851	117·4	228·6	−25·2			217
			0·908	55·0	226·6	+29·4			210
May 3				(−24·0)	(285·0)	(−3·9)	(252)	(1051)	(1216)

Group 7266, May 2–7. A number of small spots in an irregular stream forming suddenly *np* Group 7255. The group develops rapidly, and consists on May 3 chiefly of *a*, the leader, a large regular spot, and a compact cluster in the rear of the group. The cluster, when close to the limb on May 7, appears from the foreshortening like a regular spot, *b*.

Group 7267, May 2–3. A few very small unstable spots *s* Groups 7255 and 7258.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
123·392	JS, N		0·977	281·0	347·7	+ 9·9			147
			0·958	291·6	341·8	+19·5			76
		7266*a*	0·786	301·0	317·2	+21·2	32	219	
		7266	0·761	303·0	314·3	+21·7	3	5	
		7266	0·744	301·8	313·3	+20·2	0	4	
		7266	0·726	304·6	310·9	+21·4	23	84	
		7266	0·671	305·8	306·3	+19·9	0	13	
		7255	0·572	307·0	299·5	+16·8	5	16	
		7255*a*	0·547	314·9	295·2	+19·1	42	263	
		7256	0·569	241·2	302·8	−19·1	1	3	
		7256*a*	0·561	237·9	301·5	−20·5	29	171	
		7256	0·510	232·7	296·8	−21·4	1	1	
		7256	0·493	227·7	294·3	−22·8	2	3	
C.		7258*a*	0·472	317·4	290·5	+16·7	3	6	
		7258*b*	0·447	314·2	290·4	+14·5	3	6	
		7260	0·357	334·5	280·2	+15·0	2	6	
		7260*a*	0·376	337·4	279·7	+16·5	19	82	
		7261*a*	0·217	201·7	275·9	−15·4	10	101	
		7261	0·238	173·4	269·5	−17·4	0	3	
		7263*a*	0·589	43·5	245·3	+21·8	14	79	
		7263	0·599	47·2	243·2	+20·6	3	5	
		7263	0·636	49·4	240·1	+21·1	4	16	
		7263	0·668	49·2	238·0	+22·7	1	9	
			0·661	122·8	233·8	−24·0			74
			0·761	123·6	225·7	−27·5			89
			0·838	50·2	223·3	+29·9			151
			0·955	56·6	204·0	+30·2			138
May 4				(−23·8)	(271·1)	(−3·8)	(197)	(1095)	(675)
124·397	N, JS	7266*a*	0·898	295·4	317·8	+20·8	48	266	
		7266	0·888	296·4	316·2	+21·3	10	47	
		7266	0·873	297·1	314·2	+21·4	2	7	
		7266	0·864	296·0	313·4	+20·1	6	15	
		7266	0·865	298·3	312·8	+22·0	1	2	
		7266	0·858	297·4	312·3	+21·1	3	8	
		7266	0·851	296·8	311·8	+20·4	6	20	363*c*
		7266	0·847	297·6	311·1	+20·9	11	23	
G.		7266	0·850	298·8	311·1	+22·0	7	39	
		7266	0·838	298·5	309·8	+21·3	13	20	
		7266	0·835	299·4	309·3	+21·9	5	26	
		7266	0·803	298·4	306·4	+20·0	3	12	
		7255	0·725	297·1	299·9	+16·5	2	3	
		7255*a*	0·687	303·4	295·1	+19·2	54	254	
		7256*a*	0·714	244·7	301·2	−20·4	25	156	
		7256	0·698	245·0	299·9	−19·8	3	6	
		7258*	0·612	305·8	289·1	+17·8	1	3	
1915.				°	°	°			
124·397	N, JS	7260	0·484	312·2	279·5	+15·4	5	10	
		7260*a*	0·492	314·3	279·3	+16·6	11	37	
		7260	0·463	315·8	277·3	+15·9	2	5	
		7260	0·476	318·6	277·0	+17·4	1	5	
G.		7261*a*	0·362	235·2	275·7	−15·4	17	92	
		7261	0·329	228·4	272·6	−16·2	1	1	
		7263*a*	0·476	25·6	245·1	+21·7	16	70	
		7263	0·518	35·3	239·1	+21·4	2	4	
			0·892	52·9	202·3	+30·5			160
May 5				(−23·6)	(257·8)	(−3·7)	(255)	(1131)	(523)
125·316	N, JS		0·897	231·0	305·2	−36·2			123
			0·756	239·0	291·4	−25·4			80
			0·747	309·8	285·1	+25·7			121
		7266*a*	0·067	292·6	318·2	+20·8	60	351	
		7266	0·955	293·2	315·5	+20·9	12	19	
		7266	0·935	293·2	311·7	+20·1	19	52	
		7266	0·925	294·2	310·0	+20·8	15	63	
		7266	0·926	295·4	309·8	+21·9	26	88	559*c*
		7266	0·920	293·6	309·3	+20·0	5	21	
		7266	0·917	295·2	308·5	+21·4	4	16	
		7266	0·899	294·2	306·2	+19·8	5	11	
		7255*a*	0·806	297·0	295·0	+19·1	53	267	444*c*
		7256*a*	0·832	247·6	300·7	−20·6	22	137	116*c*
G		7260*a*	0·623	302·0	278·9	+16·2	7	21	
		7260	0·601	304·0	276·9	+16·5	1	8	
		7261*a*	0·532	246·1	275·9	−15·5	19	105	
		7268	0·186	206·9	250·6	−13·1	5	15	
		7268	0·162	201·8	249·2	−12·2	1	3	
		7268	0·148	178·6	245·5	−12·1	3	8	
		7263*a*	0·429	2·1	244·7	+21·7	17	68	
		7263	0·420	4·3	243·8	+21·1	0	7	
		7263	0·469	9·2	241·0	+23·8	0	2	
		7263	0·464	14·6	238·4	+23·0	7	17	
		7269*a*	0·977	70·2	170·2	+18·4	12	34	115*c*
			0·852	45·0	198·8	+34·6			144
			0·932	54·4	183·5	+31·2			107
May 6				(−23·4)	(245·7)	(−3·6)	(293)	(1313)	(1809)
126·350	N, JS		0·850	241·9	288·0	−25·5			236
			0·848	306·0	282·6	+27·6			372
G.			0·752	294·0	277·2	+15·3			83
		7266	0·991	291·3	312·1	+20·5	0	26	466*c*
		7266*b*	0·983	292·5	309·1	+21·4	8	241	
		7255*a*	0·914	292·9	294·9	+19·2	45	259	601*c*

Group 7258*, May 5. A pair of small spots *n* of the position of Group 7258.
Group 7268, May 6–9. A few very small unstable spots in an irregular stream. The rear spot remains alone on May 9.
Group 7269, May 6–9. Probably a return of Group 7242. A small regular spot, *a*, with a very small companion on May 8.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
126·350	N. JS	7256*a*	0·931	249·4	300·1	−20·4	23	85	151*c*
		7259*a*	0·873	243·6	291·2	−24·7	0	2	
		7260	0·767	293·2	278·8	+15·2	1	2	
		7261*a*	0·705	251·3	275·7	−15·6	13	76	
		7268	0·368	241·6	251·3	−13·3	10	19	
		7268	0·351	239·7	250·1	−13·5	2	8	
		7268	0·338	242·6	249·8	−12·2	0	8	
		7268	0·322	238·6	248·3	−13·0	3	7	
G.		7268	0·296	239·0	247·0	−12·1	4	5	
		7268	0·290	233·6	245·8	−13·3	1	2	
		7268	0·268	237·5	245·3	−11·6	3	5	
		7263	0·450	333·4	244·3	+20·2	1	4	
		7263*a*	0·471	335·0	244·3	+21·7	18	65	
		7263	0·413	344·7	238·6	+19·9	0	4	
		7263	0·450	346·8	238·4	+22·4	3	22	
		7270	0·177	202·0	235·9	−12·9	1	4	
		7269*a*	0·905	67·9	170·2	+18·3	11	35	387*f*
May 7				(−23·2)	(232·0)	(−3·5)	(147)	(879)	(2296)
127·323	N, JS		0·933	244·3	287·2	−25·1			288
			0·891	302·9	276·2	+27·1			536
			0·864	234·1	274·9	−32·3			77
		7255*a*	0·977	290·5	294·8	+19·2	53	247	281*c*
		7256*a*	0·984	249·6	299·3	−20·7	0	11	123*c*
		7260	0·876	291·0	277·5	+16·5	0	4	} 353*c*
		7260	0·866	292·2	276·1	+17·2	1	1	
G.		7261*a*	0·842	253·2	275·9	−15·9	15	90	126*c*
		7268	0·550	250·6	251·3	−13·4	6	19	
		7268	0·479	249·8	246·5	−12·5	3	4	
		7263*a*	0·579	316·2	244·6	+21·6	13	65	
		7271	0·299	214·8	229·5	−17·9	1	3	
		7269*a*	0·791	64·0	171·0	+18·0	9	18	} 337*f*
		7269	0·826	61·7	168·3	+20·8	1	2	
		7272	0·936	113·4	150·4	−23·1	0	6	103*f*
May 8				(−23·0)	(219·2)	(−3·4)	(102)	(470)	(2224)
128·341	N, JS		0·957	294·5	275·7	+22·3			426
			0·864	303·3	259·2	+26·4			149
		7261*a*	0·939	254·4	275·5	−15·8	0	6	108*f*
G.		7268	0·660	254·3	246·2	−12·7	1	6	
		7263*a*	0·715	304·4	244·8	+21·2	13	45	
		7269*a*	0·650	56·7	171·0	+18·1	3	8	
			0·883	112·9	144·8	−21·7			232
May 9				(−22·7)	(205·7)	(−3·3)	(17)	(65)	(915)
1915.				°	°	°			
129·480	JS, VD		0·972	252·8	267·0	−17·4			105
			0·949	296·9	258·5	+24·2			141
			0·866	256·3	250·2	−13·4			302
G.		7263*a*	0·855	297·3	245·0	+21·2	7	17	257*c*
		7273	0·887	312·9	243·1	+35·2	0	6	17*p*
			0·902	58·9	131·5	+26·1			113
May 10				(−22·5)	(190·6)	(−3·2)	(7)	(23)	(935)
130·317	N, JS		0·937	256·4	249·0	−13·8			208
			0·899	296·5	239·7	+22·1			225
G.			0·821	250·5	233·7	−17·7			96
			0·970	47·3	111·2	+40·0			95
May 11				(−22·3)	(179·6)	(−3·1)	(0)	(0)	(624)
131·367	N, VD		0·970	295·7	238·6	+24·0			146
			0·920	246·8	231·6	−22·4			63
C.			0·882	304·4	221·2	+28·2			123
			0·830	240·6	218·9	−25·7			48
			0·929	43·0	108·5	+41·2			86
May 12				(−22·0)	(165·7)	(−2·9)	(0)	(0)	(466)
132·450	N, VD		0·977	248·1	229·1	−22·0			128
			0·958	302·8	220·0	+30·2			201
			0·917	242·9	216·3	−25·9			86
C.			0·826	311·7	197·4	+31·3			103
			0·873	37·5	106·1	+41·8			107
			0·955	69·4	81·0	+18·6			139
			0·959	118·3	78·8	−27·9			154
May 13				(−21·7)	(151·4)	(−2·8)	(0)	(0)	(918)
133·559	JS, VD		0·906	307·1	194·7	+31·7			142
		7274*a*	0·633	54·1	103·9	+19·4	3	6	
		7274*b*	0·659	55·4	101·6	+19·7	1	8	
G.			0·805	29·5	104·5	+42·1			63
			0·901	120·8	75·0	−28·7			222
			0·957	112·4	64·1	−22·2			411
May 14				(−21·4)	(136·7)	(−2·7)	(4)	(14)	(838)
134·342	JS, N		0·887	306·2	181·9	+30·1			72
			0·761	303·2	169·8	+22·7			105
G.			0·644	311·4	157·8	+22·9			164
		7274*b*	0·548	47·0	101·2	+19·5	3	6	

Group 7270, May 7. A very small spot.
Group 7271, May 8. A very small spot.
Group 7272, May 8. A very small faint spot.
Group 7273, May 10. A very small faint spot *n* of Group 7263.
Group 7274, May 14–15. A pair of very small faint markings, *a* and *b*. *a* has disappeared by May 15.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
134·342	JS, N		0·759	22·6	103·3	+41·9			116
			0·835	59·3	74·9	+23·6			119
G.			0·848	123·6	72·3	−29·5			222
			0·916	113·0	61·1	−22·0			233
May 15				(−21·2)	(126·3)	(−2·6)	(3)	(6)	(1031)
135·460	N, JS		0·837	297·4	164·1	+21·1			227
		7275	0·839	45·6	65·3	+34·1	0	21	
			0·744	14·2	97·0	+43·5			104
C.			0·737	130·3	71·0	−30·3			116
			0·847	122·6	57·3	−28·6			104
			0·968	119·8	37·1	−29·4			153
May 16				(−21·0)	(111·5)	(−2·5)	(0)	(21)	(704)
136·319	N, VD		0·908	294·5	162·2	+20·9			257
C.			0·938	121·1	32·5	−29·9			151
May 17				(−20·7)	(100·2)	(−2·4)	(0)	(0)	(408)
137·167	N, AM		0·961	293·7	160·4	+22·0			391
			0·834	241·1	142·5	−25·1			218
		7276	0·923	72·9	23·4	+14·8	0	9	} 73c
		7276	0·936	72·6	21·4	+15·3	3	8	
D.			0·867	122·4	32·5	−28·9			322
			0·930	55·6	26·1	+30·6			250
			0·928	123·2	23·6	−31·5			389
			0·939	64·8	22·1	+22·7			97
May 18				(−20·4)	(89·0)	(−2·3)	(3)	(17)	(1740)
138·323	JS, VD		0·901	245·5	136·4	−22·9			234
			0·722	129·3	34·3	−28·7			148
			0·802	69·6	22·8	+14·9			96
G.			0·832	126·1	22·5	−30·6			61
			0·906	50·3	16·5	+34·1			172
			0·932	126·1	8·5	−34·1			108
			0·962	114·7	0·4	−24·3			66
May 19				(−20·1)	(73·7)	(−2·1)	(0)	(0)	(885)
139·495	N, VD		0·938	239·7	125·7	−29·0			79
			0·915	300·6	120·0	+26·8			116
C.			0·846	315·2	105·1	+35·4			78
			0·835	326·2	97·0	+42·3			101
		7277	0·574	317·6	83·0	+23·1	0	6	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
139·495	N, VD	7278	0·335	193·2	62·9	−21·0	0	8	
		7279	0·986	69·2	339·5	+20·1	0	72	
		7279	0·988	70·2	338·6	+19·2	0	25	
		7280*a*	0·996	68·0	334·7	+21·7	0	107	
C.			0·724	135·0	21·1	−32·3			97
			0·869	129·9	4·0	−34·9			112
			0·857	69·9	1·6	+16·0			70
			0·898	115·2	356·2	−23·3			119
			0·939	78·4	349·3	+10·2			56
May 20				(−19·8)	(58·2)	(−2·0)	(0)	(218)	(828)
140·624	N, JS		0·927	293·2	108·4	+20·5			139
			0·876	321·8	90·0	+42·1			71
G.		7279*a*	0·919	66·9	339·1	+20·3	12	95	} 285c
		7280*a*	0·952	66·8	333·4	+21·4	27	186	
			0·989	70·0	323·0	+19·5			535
May 21				(−19·4)	(43·2)	(−1·9)	(39)	(281)	(1030)
141·430	JS, VD	7279*a*	0·836	64·9	339·3	+19·7	0	40	} 151c
		7280*a*	0·886	64·6	333·5	+21·4	38	135	
		7281*a*	0·944	69·4	323·9	+18·7	5	11	
G.		7281	0·963	70·4	320·0	+18·3	4	13	929c
		7282*b*	0·976	68·7	317·0	+20·3	33	208	
		7282*a*	0·984	67·0	314·8	+22·2	127	552	
May 22				(−19·2)	(32·6)	(−1·8)	(207)	(959)	(1080)
142·331	N, VD	7279*a*	0·721	60·1	339·3	+19·7	6	15	
		7280*a*	0·790	61·1	333·0	+21·3	19	168	
		7281*a*	0·859	67·1	324·3	+18·6	1	5	
		7281*b*	0·875	66·4	322·6	+19·6	1	6	
		7281	0·889	66·9	320·7	+19·5	2	2	
G.		7282*b*	0·920	66·7	316·5	+20·5	12	172	927c
		7282*a*	0·936	65·3	314·1	+22·3	70	369	
		7282*c*	0·956	66·6	310·1	+21·7	11	72	
		7282	0·958	67·9	309·5	+20·5	7	23	
			0·961	113·3	307·7	−22·8			131
May 23				(−18·9)	(20·7)	(−1·7)	(129)	(832)	(1058)
143·297	N, JS		0·896	239·8	67·8	−27·5			165
		7283	0·567	214·3	29·3	−29·3	1	3	
G.		7279*a*	0·578	51·9	339·2	+19·4	8	13	
		7280	0·658	54·8	332·9	+20·9	8	25	
		7280	0·675	55·4	331·5	+21·1	8	23	

Group 7275, May 16. A cluster of faint markings.
Group 7276, May 18. A pair of very small spots in bright faculæ.
Group 7277, May 20. A very small faint marking.
Group 7278, May 20. A pair of very small faint markings.
Group 7279, May 20–30. Two spots close together that speedily combine to form a rather faint and indefinite spot, *a*. After May 24, however, it is very dark, but small, but varies in size from day to day. A very small companion is seen on May 25.
Group 7280, May 20–28. A large spot, *a*, with triple umbra *f* Group 7279. It breaks up after May 23.
Group 7281, May 22–26. A small spot, *a*, followed by a very small cluster. The cluster has disappeared by May 24, except for a very small spot, *b*.
Group 7282, May 22–June 3. Return of Group 7266. A remarkable group, consisting chiefly of a very large regular spot, *a*, with two regular spots close to it, *b* and *c*; the one *sp* and the other *sf*. A great number of small unstable spots form and disappear within a wide area round these three chief spots.
Group 7283, May 24–25. Some very small faint markings.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
143·297	N. JS	7281	0·727	62·4	325·3	+18·5	2	2	
		7281*a*	0·739	63·0	324·2	+18·3	12	45	
		7281*b*	0·756	63·0	322·7	+18·9	4	8	
		7282*b*	0·825	63·7	316·0	+20·4	13	126	
		7282	0·822	64·8	316·0	+19·5	5	6	
		7282*a*	0·848	62·4	313·9	+22·1	75	425	
		7282*c*	0·874	64·4	310·3	+21·3	11	61	905*c*
G.		7282	0·873	65·8	310·0	+20·2	4	6	
		7282	0·911	66·6	305·0	+20·4	10	22	
		7284	0·854	115·4	311·6	−22·4	2	9	
		7284	0·888	116·0	307·4	−23·7	1	9	96*c*
		7285*a*	0·979	69·1	291·2	+20·1	13	121	
		7286	0·986	65·8	289·4	+23·5	0	15	220*c*
			0·927	115·1	301·7	−23·7			83
			0·975	114·6	291·5	−24·3			140
May 24				(−18·6)	(7·9)	(−1·6)	(177)	(919)	(1609)
144·315	JS, N		0·939	248·4	63·2	−20·8			106
			0·906	236·9	55·7	−30·3			108
		7283	0·691	226·5	29·4	−29·5	0	5	
		7279*a*	0·434	35·0	339·2	+19·2	10	15	
		7279	0·478	37·2	336·5	+20·8	2	2	
		7280	0·513	43·0	332·5	+20·6	2	6	
		7280	0·539	41·2	331·9	+22·4	1	1	
		7280	0·534	44·4	330·9	+21·0	8	12	
		7281*a*	0·584	54·8	324·4	+18·3	12	29	
		7281*b*	0·611	55·8	322·3	+18·7	1	1	
		7282	0·621	58·6	320·8	+17·5	1	6	
		7282	0·646	59·4	318·8	+18·0	2	5	
G.		7282	0·662	57·0	318·4	+19·8	2	5	
		7282	0·674	56·0	317·8	+20·9	1	4	
		7282*b*	0·690	57·2	316·2	+20·8	17	125	437*f*
		7282*a*	0·722	56·8	313·9	+22·1	70	403	
		7282	0·731	60·4	312·0	+20·0	3	7	
		7282*c*	0·750	59·6	310·7	+21·1	9	52	
		7282	0·788	65·0	305·8	+18·4	2	2	
		7284	0·777	119·7	307·1	−23·7	3	3	124*c*
		7284	0·791	118·3	305·4	−23·0	2	3	
		7286	0·912	61·7	292·3	+24·9	3	4	332*c*
		7285*a*	0·912	66·8	291·3	+20·3	27	122	
			0·930	117·6	288·0	−26·1			227
			0·969	62·6	281·5	+26·0			168
May 25				(−18·2)	(354·4)	(−1·5)	(178)	(812)	(1502)
1915.				°	°	°			
145·319	N, VD		0·808	233·3	29·1	−29·6			84
		7279*a*	0·352	5·5	339·1	+19·2	7	32	
		7280	0·416	24·6	330·5	+20·8	2	5	
		7281*a*	0·429	39·7	324·4	+18·0	6	10	
		7281*b*	0·451	42·8	322·4	+18·0	2	6	
		7282	0·509	42·9	319·5	+20·5	0	11	
		7282	0·523	44·9	318·0	+20·5	0	36	
		7282	0·537	43·3	317·8	+21·7	2	13	
		7282	0·552	44·7	316·5	+21·8	3	6	
G.		7282*b*	0·546	46·7	316·0	+20·8	20	153	
		7282*a*	0·585	47·5	313·5	+22·1	89	424	
		7282	0·581	51·9	312·2	+19·7	2	5	
		7282*c*	0·607	51·6	310·6	+21·0	5	40	
		7282	0·604	55·1	309·6	+19·0	3	8	
		7285*a*	0·812	63·3	290·4	+20·7	15	111	137*c*
			0·865	121·9	285·1	−27·9			136
			0·920	62·3	277·6	+24·7			407
			0·914	110·1	276·3	−18·8			148
May 26				(−17·9)	(341·1)	(−1·3)	(156)	(860)	(912)
146·320	N, VD		0·897	237·6	28·0	−29·3			118
		7279*a*	0·398	331·2	339·6	+19·2	9	16	
		7280	0·389	351·6	331·4	+21·4	2	13	
		7282	0·456	19·2	318·5	+24·2	0	12	
		7282	0·411	22·6	318·2	+21·1	3	15	
		7282	0·382	24·8	318·2	+19·0	2	8	
		7282	0·440	26·4	315·8	+21·9	1	3	
		7282*b*	0·424	28·2	315·6	+20·7	23	147	
		7282	0·417	34·8	313·4	+18·8	2	10	
		7282*a*	0·462	31·0	313·1	+22·0	78	398	
G.		7282	0·400	38·6	312·8	+17·0	0	2	
		7282	0·440	35·6	312·2	+19·7	0	2	
		7282*c*	0·462	36·6	310·9	+20·5	10	43	
		7282	0·435	41·7	310·3	+17·7	1	2	
		7282	0·485	39·9	308·5	+20·7	0	4	
		7285*a*	0·682	57·0	290·3	+20·8	14	112	
			0·752	126·4	285·1	−27·3			80
			0·858	60·3	273·2	+24·4			179
			0·918	53·4	267·1	+32·6			151
			0·892	113·8	266·7	−21·7			110
May 27				(−17·6)	(327·9)	(−1·2)	(145)	(787)	(638)
147·260	N, M		0·927	236·8	19·9	−30·9			289
D.			0·932	226·4	17·7	−40·4			216

Group 7284, May 24–25. Some very small faint markings.
Group 7285, May 24–June 5. Return of Group 7255. Third apparition. A large regular spot, *a*, with a very small companion on May 29.
Group 7286, May 24–June 1. A feeble intermittent disturbance *n* of Group 7285. One or two small faint markings, not seen on May 26, 27, 29, or 31.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
147·260	N, M	7287	0·771	292·7	3·1	+16·5	9	22	
		7287	0·743	291·8	0·9	+15·2	0	3	
		7287	0·748	295·4	0·5	+17·9	3	6	123c
		7287	0·734	292·8	359·9	+15·6	1	3	
		7287	0·730	294·8	359·1	+17·0	2	12	
		7279*a*	0·520	310·4	340·0	+18·6	9	11	
		7280	0·456	323·2	332·3	+20·3	0	4	
		7282	0·438	353·4	318·6	+24·6	1	4	
		7282	0·345	351·1	318·6	+18·7	0	2	
		7282	0·383	353·3	318·1	+21·1	0	4	
		7282*b*	0·376	0·8	315·1	+20·8	13	44	
		7282	0·348	8·0	312·5	+18·9	4	10	
		7282*a*	0·402	7·0	312·4	+22·3	71	385	
D.		7282	0·317	10·7	311·9	+17·0	0	4	
		7282	0·357	12·8	310·6	+19·2	1	6	
		7282*c*	0·382	12·2	310·5	+20·8	9	46	
		7282	0·418	12·5	309·8	+22·9	2	3	
		7282	0·367	16·9	308·9	+19·4	0	5	
		7282	0·451	24·1	303·9	+23·1	0	3	
		7286	0·583	43·7	289·4	+23·8	0	1	
		7285*a*	0·560	47·2	289·3	+21·3	19	102	
			0·724	50·6	276·9	+26·4			180
			0·833	51·5	266·5	+30·4			286
			0·783	114·8	266·5	−19·8			91
			0·908	68·1	252·5	+19·2			149
			0·936	57·4	250·3	+29·8			111
May 28				(−17·2)	(315·4)	(−1·1)	(144)	(680)	(1445)
148·362	N, VD	7287*a*	0·915	289·6	5·3	+17·4	12	36	
		7287	0·901	288·8	3·4	+16·4	5	8	
		7287	0·865	289·0	358·9	+15·8	9	18	171c
		7287	0·861	290·8	358·1	+17·2	3	9	
		7288*a*	0·739	302·9	343·0	+22·8	7	8	
		7288	0·721	305·2	340·8	+23·7	1	2	
		7289	0·732	306·7	341·1	+25·1	2	5	
C.		7279*a*	0·686	298·3	340·2	+18·3	8	14	
		7282	0·459	323·6	317·8	+20·6	0	6	
		7282*b*	0·438	328·6	315·0	+20·8	5	28	
		7282*a*	0·432	336·2	311·7	+22·2	63	428	
		7282*c*	0·393	335·8	310·7	+19·9	8	54	
		7282	0·447	343·7	308·8	+24·3	3	6	
		7285	0·400	25·4	290·4	+20·1	2	7	
		7285*a*	0·422	26·8	289·2	+21·1	16	92	
		7285*	0·717	40·2	267·8	+32·3	1	7	
May 29				(−16·8)	(300·9)	(−1·0)	(145)	(728)	(171)
1915.				°	°	°			
149·330	JS, N	7287*a*	0·981	288·1	5·7	+17·5	27	117	304*f*
		7288*a*	0·854	297·3	343·0	+22·5	6	6	
		7289	0·845	301·3	340·9	+25·4	4	8	111c
		7279*a*	0·821	292·5	340·6	+17·7	4	6	
		7282	0·621	301·9	321·6	+18·3	1	2	
		7282*b*	0·573	311·3	315·4	+21·4	3	11	
		7282	0·512	312·0	311·6	+19·1	1	6	
G.		7282*a*	0·538	316·5	311·5	+22·1	66	408	
		7282*c*	0·509	315·1	310·4	+20·2	4	22	
		7282	0·561	322·7	310·0	+25·5	4	13	
		7282	0·515	320·5	308·7	+22·5	3	17	
		7282	0·467	316·6	307·7	+18·9	2	4	
		7286	0·430	355·7	290·0	+24·4	0	4	
		7285*a*	0·379	357·5	289·0	+21·2	17	76	
May 30				(−16·5)	(288·0)	(−0·9)	(142)	(700)	(415)
150·305	N, VD		0·921	293·9	339·8	+21·6			303
			0·843	293·9	329·8	+19·5			166
		7282	0·749	298·1	319·6	+20·1	1	2	
		7282	0·740	297·9	318·9	+19·7	5	8	
		7282	0·731	299·7	317·7	+20·7	2	3	
		7282	0·695	302·3	314·0	+21·1	3	5	
		7282	0·702	304·1	313·9	+22·5	0	8	154*p*
G.		7282*a*	0·668	305·7	310·9	+22·4	64	368	
		7282*c*	0·647	303·3	310·1	+20·2	5	6	
		7282	0·617	303·5	308·0	+19·2	0	9	
		7282	0·641	308·3	308·0	+22·7	3	6	
		7285*a*	0·436	329·9	288·6	+21·4	15	91	
			0·883	53·1	219·4	+31·5			84
			0·976	66·5	199·3	+22·7			344
May 31				(−16·1)	(275·1)	(−0·7)	(98)	(506)	(1051)
151·310	N, VD		0·955	292·6	332·8	+21·4			210
			0·880	294·6	320·6	+21·1			407
		7282	0·815	293·0	313·8	+18·2	3	7	
		7282*a*	0·797	299·0	310·5	+22·3	63	343	300*sp*
		7282	0·761	296·9	307·7	+19·6	0	4	
G.		7286	0·601	313·6	290·1	+23·9	1	5	
		7285*a*	0·560	312·2	288·1	+21·4	12	74	
			0·917	63·8	198·1	+23·6			603
June 1				(−15·8)	(261·8)	(−0·6)	(79)	(433)	(1520)
152·554	JS, VD		0·968	293·3	319·3	+22·4			413
G.		7282	0·944	294·7	313·9	+23·0	3	3	610c
		7282	0·922	294·5	310·3	+22·3	51	343	

Group 7287, May 28–30. A ring of small spots forming a good way in advance of Group 7279. A small regular spot, *a*, has formed *np* the ring by May 29, and alone remains by May 30.
Group 7288, May 29–30. A very small spot, *a*, *n* of Group 7279. A very small companion is seen near *a* on May 29.
Group 7289, May 29–30. A very small spot *n* Group 7288.
Group 7285*, May 29. A small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
152·554	JS, VD	7291*a*	0·900	243·7	307·0	−23·7	14	50	88*c*
		7291	0·886	243·0	304·9	−23·9	0	7	
		7291*b*	0·870	241·9	302·6	−24·4	11	18	
		7290	0·863	295·1	302·1	+21·1	5	19	
G.		7290	0·836	296·9	298·6	+21·8	7	11	
		7285*a*	0·732	300·6	287·8	+21·4	13	58	210*n*
			0·810	60·1	195·7	+23·4			349
			0·918	68·6	180·7	+19·3			59
June 2				(−15·3)	(245·4)	(−0·5)	(104)	(509)	(1729)
153·365	N, VD		0·814	234·3	283·4	−28·6			120
		7282	0·974	293·0	310·0	+22·2	41	340	
		7290	0·945	291·7	303·9	+20·3	0	32	456*c*
		7290	0·936	292·5	302·2	+20·8	9	24	
		7290	0·916	295·3	298·4	+22·8	6	33	
C.		7291*a*	0·967	245·5	308·4	−23·7	0	86	
		7291	0·947	245·3	304·1	−23·4	2	9	256*c*
		7291*b*	0·937	243·9	302·0	−24·4	19	79	
		7285*a*	0·831	296·3	287·6	+21·3	16	46	260*n*
			0·748	54·0	192·7	+25·7			131
			0·972	67·7	159·8	+21·5			105
June 3				(−14·9)	(234·7)	(−0·4)	(93)	(649)	(1328)
154·442	JS, VD		0·989	245·3	300·9	−24·4			149
			0·978	290·8	297·1	+20·2			99
			0·914	240·1	283·1	−27·1			174
			0·891	284·8	282·3	+13·0			58
			0·920	229·8	281·0	−36·4			60
G.			0·839	301·4	272·8	+25·7			299
			0·783	315·1	261·8	+33·5			85
		7285*a*	0·934	292·8	287·5	+21·1	9	18	272*n*
			0·913	66·8	156·6	+21·0			70
June 4				(−14·6)	(220·4)	(−0·2)	(9)	(18)	(1266)
155·126	N, VD		0·957	239·9	281·8	−28·7			148
			0·902	233·2	270·2	−32·7			76
			0·884	297·9	270·0	+24·3			190
			0·869	248·0	269·6	−19·1			149
			0·851	313·5	260·5	+35·6			68
K.		7285*a*	0·972	291·9	286·4	+21·2	0	11	135*n*
		7292	0·433	26·8	199·1	+22·5	6	28	
		7292	0·452	32·6	196·1	+22·1	0	9	
			0·958	114·9	139·8	−23·8			88
June 5				(−14·3)	(211·3)	(−0·2)	(6)	(48)	(854)
1915.				°	°	°			
156·349	JS, N		0·967	297·8	268·3	+26·8			194
			0·898	309·8	252·3	+35·0			167
			0·873	299·4	252·2	+25·4			75
		7292	0·425	344·4	202·3	+24·1	1	2	
G.		7292*a*	0·382	347·0	200·4	+21·8	5	32	
		7292	0·403	353·0	198·2	+23·4	2	6	
		7292	0·394	355·2	197·1	+23·0	2	8	
			0·865	120·5	139·3	−26·0			105
June 6				(−13·8)	(195·1)	(0·0)	(10)	(48)	(541)
157·379	N, VD		0·936	299·8	247·9	+27·7			156
		7292*a*	0·475	320·2	200·5	+21·4	11	15	
G.		7292*b*	0·480	322·1	200·0	+22·3	2	4	
		7292	0·471	326·8	197·7	+23·2	4	5	
		7292	0·460	328·6	196·5	+23·1	5	15	
June 7				(−13·4)	(181·5)	(+0·1)	(22)	(39)	(156)
158·302	N, VD		0·951	297·0	239·1	+25·6			76
			0·875	246·1	227·8	−20·6			71
		7292*a*	0·606	306·7	200·6	+21·4	3	20	
		7292*b*	0·600	308·5	199·6	+22·0	7	12	
G.		7292	0·600	310·9	198·7	+23·2	2	3	
		7292	0·575	308·8	197·9	+21·2	7	18	
		7292	0·585	312·5	197·2	+23·4	3	9	
		7292	0·567	315·3	195·0	+23·8	1	4	
			0·919	59·9	105·8	+27·5			100
June 8				(−13·0)	(169·3)	(+0·2)	(23)	(66)	(247)
159·436	N, VD		0·897	245·9	215·6	−21·3			83
		7292*a*	0·771	298·2	201·0	+21·5	3	6	110*n*
G.		7292*b*	0·764	299·0	200·2	+22·0	7	8	
		7293	0·502	129·8	130·4	−18·3	2	4	
June 9				(−12·6)	(154·3)	(+0·4)	(12)	(18)	(193)
160·419	N, VD		0·966	247·4	214·8	−21·7			128
			0·759	307·4	184·1	+27·8			60
		7292*a*	0·883	295·6	200·8	+22·7	6	19	315*c*
C.		7292	0·845	297·7	195·7	+23·4	4	14	
		7294	0·445	319·9	159·0	+20·3	4	5	
			0·892	68·9	79·9	+18·9			62
June 10				(−12·2)	(141·3)	(+0·5)	(14)	(38)	(565)

Group 7290, June 2–3. A few small spots in a straight stream between Groups 7282 and 7285.

Note.—Groups 7287, 7279, 7288, 7289, 7280, 7281, 7282, 7290, 7285, and 7286, form a long irregular "procession" of disturbances.

Group 7291, June 2–3. A few spots in a short stream of normal type, appearing suddenly in the region of Group 7284. The first and last spots, *a* and *b*, are the largest.

Group 7292, June 5–10. A few small spots, mostly unstable, in a short stream. The usual leader and rear spots are represented by small clusters, of which the following is not seen on June 9. The most stable members of the group are *a* and *b*, which make up the leading cluster on June 7.

Group 7293, June 9. A very small spot.

Group 7294, June 10–11. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
161·688	N, VD		0·944	296·0	193·2	+24·6			569
G.			0·811	293·1	176·4	+18·9			63
		7294	0·649	299·4	161·1	+19·0	3	5	
June 11				(−11·7)	(124·5)	(+0·6)	(3)	(5)	(632)
162·398	N, VD		0·973	296·5	190·4	+25·9			442
			0·916	304·0	177·3	+31·0			118
			0·897	290·6	177·3	+18·6			113
		7295	0·251	239·5	127·6	−6·6	1	3	
		7296	0·568	5·3	111·4	+34·9	0	3	
C.		7297	0·226	20·9	110·4	+12·8	1	5	
		7298	0·497	38·7	95·4	+23·4	1	3	
		7299*a*	0·993	88·8	32·2	+ 1·2	32	128	279*c*
			0·895	129·8	58·7	−34·5			94
			0·907	118·0	53·4	−24·8			152
			0·958	108·6	43·1	−17·5			203
June 12				(−11·4)	(115·1)	(+0·7)	(35)	(142)	(1401)
163·120	N, M		0·988	297·2	185·4	+26·9			90
			0·948	288·7	176·0	+18·0			85
			0·923	298·7	170·1	+26·5			59
			0·869	291·1	164·1	+18·6			183
			0·916	317·8	162·8	+43·1			159
		7299	0·943	90·5	35·2	− 0·2	2	8	
		7299	0·955	87·5	33·0	+ 2·6	2	9	
K.		7299*a*	0·959	88·9	32·2	+ 1·2	25	86	522*c*
		7299	0·961	86·9	31·7	+ 3·2	15	68	
		7299	0·966	88·2	30·6	+ 2·0	2	25	
		7299	0·969	87·2	30·0	+ 2·9	4	12	
		7300*a*	0·993	108·3	23·3	−18·0	34	176	
			0·854	131·9	55·4	−34·2			153
			0·942	129·7	41·1	−36·6			122
			0·917	111·1	41·0	−18·9			290
June 13				(−11·1)	(105·5)	(+0·8)	(84)	(384)	(1663)
164·110	N, M		0·920	281·8	158·8	+11·2			91
			0·904	294·5	155·0	+22·4			210
K.		7301*a*	0·421	142·6	76·8	−18·6	2	8	
		7301*b*	0·455	140·4	74·5	−19·6	2	10	
		7299	0·845	90·6	34·9	0·0	0	5	
1915.				°	°	°			
164·110	N, M	7299*a*	0·860	89·0	33·3	+1·3	17	134	
		7299	0·863	91·2	33·0	− 0·6	0	9	
		7299	0·863	87·0	33·0	+ 3·1	17	75	
		7299	0·876	88·6	31·4	+ 1·7	0	10	362*c*
		7299*b*	0·881	87·1	30·9	+ 3·0	26	156	
K.		7299	0·884	90·8	30·5	− 0·3	2	7	
		7300*a*	0·945	109·1	23·0	−17·7	34	209	
		7300	0·962	108·8	19·6	−17·8	6	20	459*f*
		7303*a*	0·982	70·4	13·9	+19·4	11	45	
		7303*b*	0·992	70·6	10·2	+19·3	0	16	306*c*
			0·854	114·0	36·6	−19·8			89
June 14				(−10·6)	(92·4)	(+0·9)	(117)	(704)	(1517)
165·422	N, VD	7301*a*	0·341	189·2	78·4	−18·5	2	5	
		7301*b*	0·350	178·9	74·7	−19·2	3	5	
		7302*a*	0·538	127·7	48·6	−18·2	18	82	
		7302	0·567	125·3	46·1	−18·0	10	18	
		7302	0·591	124·7	44·3	−18·9	6	9	
		7302	0·581	122·3	44·3	−17·1	6	7	
		7299	0·617	89·1	37·2	+ 1·5	0	7	
		7299*a*	0·640	89·7	35·5	+ 1·0	32	164	
		7299	0·660	89·1	34·0	+ 1·4	4	6	
		7299	0·663	92·0	33·8	− 0·5	8	11	
G.		7299	0·666	87·1	33·5	+ 2·8	14	35	119*f*
		7299*b*	0·695	86·6	31·3	+ 3·1	26	188	
		7299	0·702	89·4	30·7	+ 1·2	1	3	
		7299	0·709	91·9	30·2	− 0·5	1	7	
		7300*a*	0·802	113·0	24·6	−17·5	36	230	
		7300	0·840	111·9	20·4	−17·6	3	5	416*f*
		7303*a*	0·886	69·1	14·3	+18·9	6	18	
		7303*b*	0·915	69·5	10·1	+19·2	13	31	
		7303	0·933	69·9	7·3	+19·1	0	6	548*c*
		7303	0·939	70·5	6·3	+18·6	2	14	
		7304	0·956	72·0	2·9	+17·5	5	7	
June 15				(−10·1)	(75·1)	(+1·1)	(196)	(858)	(1083)
166·362	N, JS	7305	0·886	247·8	122·5	−18·9	5	5	74*c*
		7306	0·576	231·1	91·0	−20·1	3	6	
		7301*a*	0·416	216·1	77·5	−18·4	0	15	
		7301*b*	0·393	210·0	74·5	−18·6	1	5	
G.		7302*a*	0·392	147·4	49·8	−18·0	16	82	
		7302	0·409	143·6	47·9	−18·0	11	19	
		7302	0·412	139·4	46·4	−17·0	3	6	
		7302	0·432	137·7	44·9	−17·4	8	11	
		7302	0·444	136·6	44·0	−17·6	1	4	

Groups 7295, 7296, 7297, 7298, June 12. Very small faint markings. Group 7299, June 12–24. A large complex and irregular cluster undergoing continual change. The group on June 17 and 18 consists chiefly of a straight stream of which *a*, *c*, and *b* are the principal members. These principal spots change quickly but can be identified until June 20, after which the cluster dissolves. Group 7300, June 13–24. A large regular spot, *a*, usually followed by a short train of small companions. Group 7301, June 14–17. A pair of very small spots, or clusters of spots, *a* and *b*. Group 7302, June 15–22. A regular spot, *a*, forming *p* Group 7300. A train of small companions forms in the rear of *a*, and attains a considerable development by June 18, after which it dissolves. Group 7303, June 14–20. Two small spots, *a* and *b*, on June 14, followed June 15–17 by a small train. Only the two first spots, *a* and *b*, are at all stable, but these disappear before June 19, and only one or two very small faint markings remain. Group 7304, June 15–27. Return or revival of Group 7287. A group forming *f* Group 7303. At first an irregular stream it rapidly develops into a very large and complex cluster, of which two very large composite spots, *a* and *b*, form the chief members on June 22. *b* has thrown off two clusters of small spots, *c* and *d*, by June 23, which are measured as one on June 25 and 26. Group 7305, June 16. A very small spot. Group 7306, June 16–19. A very small spot on June 16. On the succeeding days a stream of normal type of which *a* and *b*, the first and last spots, are the largest.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
166·362	N, JS	7302	0·458	136·9	43·4	−18·3	5	17	
		7299*a*	0·436	89·7	36·9	+ 1·2	19	118	
		7299	0·447	92·9	36·2	− 0·2	2	15	
		7299	0·465	85·0	35·1	+ 3·4	0	4	
		7299	0·468	88·5	34·8	+ 1·8	2	17	
		7299	0·477	93·5	34·3	− 0·7	4	9	
		7299	0·492	89·6	33·2	+ 1·2	4	11	
		7299	0·494	86·9	33·1	+ 2·6	10	27	
		7299	0·497	92·5	33·0	− 0·2	1	4	
		7299*b*	0·520	86·2	31·4	+ 3·0	32	165	
		7299	0·526	90·3	31·0	− 0·9	4	55	
		7299	0·535	92·4	30·4	− 0·2	7	18	
		7299	0·544	86·7	29·8	+ 2·8	1	4	
G.		7299	0·555	92·3	29·1	− 0·3	0	4	
		7300*a*	0·661	118·1	25·2	−17·1	35	200	} 291*f*
		7300	0·679	119·2	24·1	−18·3	0	5	
		7303*a*	0·769	66·5	14·7	+18·6	1	6	
		7303*b*	0·807	67·4	10·9	+18·7	18	43	} 601*c*
		7303	0·834	67·7	8·1	+19·1	2	7	
		7303	0·850	68·7	6·1	+18·6	2	11	
		7304	0·865	71·3	4·0	+16·8	12	69	
		7304	0·877	70·7	2·7	+17·4	5	8	
		7304	0·886	70·1	1·6	+18·1	2	5	
		7304	0·896	71·5	0·1	+17·1	8	11	
		7304	0·912	72·1	357·8	+16·8	3	5	
		7307	0·973	73·0	346·5	+16·8	9	16	127*f*
June 16				(−9·7)	(62·6)	(+1·2)	(236)	(1007)	(1093)
167·411	N, JS		0·961	249·2	121·0	−19·6			235
		7306*a*	0·740	242·3	92·5	−19·2	13	23	
		7306	0·718	240·1	90·0	−19·9	2	10	
		7306*b*	0·707	239·0	88·8	−20·3	6	13	
		7301*a*	0·564	233·7	77·2	−18·3	1	4	
		7301*b*	0·540	230·2	74·6	−18·9	0	6	
		7302*a*	0·334	184·8	50·4	−18·0	19	68	
		7302	0·330	179·4	48·5	−17·9	2	2	
		7302	0·319	175·6	47·2	−17·2	13	37	
G.		7302	0·339	173·8	46·5	−18·3	2	4	
		7302	0·329	170·3	45·4	−17·6	2	6	
		7302	0·360	170·0	44·9	−19·4	5	5	
		7302	0·332	166·1	43·9	−17·4	26	53	
		7302	0·348	162·8	42·5	−18·0	0	7	
		7299	0·189	95·0	37·9	+ 0·4	0	3	
		7299*a*	0·193	88·3	37·6	+ 1·6	20	80	
		7299	0·214	89·6	36·4	+ 1·4	4	9	
		7299	0·219	95·8	36·2	0·0	2	9	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
167·411	N, JS	7299*c*	0·245	86·5	34·6	+ 2·1	34	108	
		7299	0·259	101·6	34·1	− 1·7	0	14	
		7299	0·256	94·6	34·0	+ 0·1	3	8	
		7299	0·290	100·4	32·2	− 1·7	3	18	
		7299*b*	0·292	83·2	31·9	+ 3·2	34	184	
		7299	0·308	91·6	30·9	+ 0·7	12	84	
		7299	0·309	78·0	30·7	+ 5·0	3	6	
		7299	0·338	90·2	29·0	+ 1·2	2	5	
		7308*a*	0·519	150·2	32·2	−25·4	18	45	
		7308	0·511	148·4	31·7	−24·4	2	4	
		7308	0·552	147·0	29·2	−26·2	4	18	
		7308	0·561	145·0	27·8	−26·1	10	22	
		7308	0·577	143·8	26·4	−26·4	1	5	
		7300*a*	0·489	129·6	25·6	−16·8	30	174	
		7300	0·526	129·0	23·3	−18·1	2	3	
G.		7303*a*	0·612	62·0	14·3	+17·7	0	4	
		7303*b*	0·647	61·8	11·8	+18·8	13	24	
		7303	0·677	63·4	9·2	+18·6	1	5	
		7303	0·712	62·8	6·5	+19·9	4	6	
		7309*a*	0·639	121·8	13·9	−18·6	2	4	
		7309*b*	0·659	120·3	12·0	−18·3	2	3	
		7304	0·725	67·6	4·4	+16·9	17	87	
		7304	0·749	68·0	2·3	+17·1	4	10	
		7304	0·762	66·6	1·4	+18·5	6	7	
		7304	0·761	69·8	0·9	+16·1	4	15	
		7304	0·780	67·1	359·6	+18·5	3	5	169*c*
		7304	0·781	70·4	359·0	+15·9	2	2	
		7304	0·789	69·0	358·4	+17·2	15	34	
		7304	0·795	67·4	358·1	+18·6	6	13	
		7307	0·892	71·0	346·8	+17·4	6	20	244*f*
June 17				(−9·2)	(48·7)	(+1·3)	(360)	(1276)	(648)
168·324	N, JS		0·996	240·0	120·7	−20·8			128
		7306*a*	0·867	246·7	94·0	−19·2	9	30	} 139*c*
		7306	0·853	246·5	92·3	−19·0	6	8	
		7306*b*	0·823	243·7	88·5	−20·5	20	89	
		7302*a*	0·409	215·6	51·1	−18·0	15	57	
		7302	0·383	211·2	48·7	−17·7	18	40	
G.		7302	0·378	208·3	47·5	−18·0	6	24	
		7302	0·376	202·4	45·4	−18·9	1	2	
		7302	0·385	200·6	44·9	−19·6	3	11	
		7302	0·344	200·6	44·0	−17·4	7	35	
		7302	0·360	196·0	42·7	−18·7	2	5	
		7299	0·038	246·4	38·7	+ 0·5	0	5	
		7299*a*	0·030	281·2	38·4	+ 1·7	17	59	
		7299	0·008	235·3	37·1	+ 1·1	3	6	

Group 7307, June 16–18. A small regular spot *f* Group 7304.

Group 7308, June 17–24. An active stream forming suddenly, *s* Group 7300. The leader, *a*, soon becomes a large regular spot. A second regular spot, *b*, soon develops near the rear of the group, but diminishes quickly by throwing off fragments on its *p* side. *a* has divided into two portions, *c* and *d*, by June 21.

Group 7309, June 17–21. A wide pair of very small spots, *a* and *b*, *f* Group 7300. *a* is not seen on June 18, and neither *a* nor *b* on June 19 and 20. But faint markings are seen near the places of both on June 21.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
168·324	N, JS	7299	0·014	358·8	36·7	+ 2·2	1	5	
		7299	0·019	160·4	36·3	+ 0·4	2	5	
		7299	0·010	63·1	36·2	+ 1·6	13	23	
		7299	0·027	62·2	35·3	+ 2·1	2	5	
		7299	0·067	156·8	35·2	− 2·1	2	6	
		7299	0·041	125·7	34·8	0·0	2	5	
		7299*c*	0·043	67·2	34·4	+ 2·3	6	38	
		7299	0·060	54·9	33·9	+ 3·3	6	16	
		7299*b*	0·082	65·6	32·4	+ 3·3	41	213	
		7299	0·080	79·9	32·2	+ 2·2	1	2	
		7299	0·099	100·0	31·1	+ 0·4	4	12	
		7299	0·116	58·6	31·0	+ 4·8	2	3	
		7308*a*	0·452	172·0	32·7	−25·1	34	122	
		7308	0·470	168·6	30·8	−25·9	4	13	
		7308	0·484	166·0	29·2	−26·5	2	14	
		7308	0·458	164·0	28·7	−24·6	3	18	
		7308	0·506	165·4	28·4	−27·9	1	4	
G.		7308*b*	0·490	162·1	27·1	−26·3	16	91	
		7300*a*	0·365	150·0	25·7	−17·0	31	173	
		7303	0·504	48·8	12·9	+20·6	1	5	
		7303*b*	0·494	52·7	12·3	+18·6	5	19	
		7309*b*	0·514	130·5	12·5	−18·1	2	9	
		7304	0·576	61·3	4·9	+17·2	33	132	
		7304	0·570	65·0	4·5	+15·0	3	5	
		7304	0·601	63·4	2·7	+16·8	1	1	
		7304	0·610	62·0	2·4	+17·7	3	7	
		7304	0·621	65·6	0·8	+15·9	5	8	
		7304	0·642	62·1	0·1	+18·6	18	67	
		7304	0·670	60·8	358·3	+20·1	4	18	
		7304	0·661	64·1	358·2	+17·8	44	198	
		7304	0·680	62·2	357·2	+19·5	5	12	
		7307	0·783	68·4	347·1	+17·6	0	11	165*c*
			0·969	68·4	321·8	+21·2			253
June 18				(−8·8)	(36·7)	(+1·4)	(404)	(1631)	(685)
169·353	N, VD		0·828	246·2	75·8	−18·5			90
		7306*a*	0·959	249·4	94·7	−19·2	8	12	
		7306	0·951	249·4	93·0	−18·9	2	5	217*c*
		7306*b*	0·926	247·0	88·3	−20·5	6	19	
		7302*a*	0·564	234·0	51·5	−17·9	8	12	
C.		7302	0·537	232·0	49·3	−17·7	10	44	
		7302	0·521	229·8	47·6	−18·1	3	7	
		7302	0·493	224·5	44·3	−19·0	0	8	
		7302	0·470	226·4	43·8	−17·4	1	17	
		7302	0·477	220·5	42·1	−19·6	2	6	
		7299*a*	0·279	269·4	39·1	+ 1·4	15	73	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
169·353	N, VD	7299	0·242	268·6	36·9	+ 1·2	23	96	
		7299	0·234	259·8	36·3	− 0·8	1	2	
		7299	0·211	260·2	34·9	− 0·5	8	19	
		7299*c*	0·191	276·0	33·9	+ 2·7	10	22	
		7299*b*	0·172	283·6	32·6	+ 3·9	20	99	
		7299	0·145	285·8	31·0	+ 3·9	1	16	
		7310	0·487	209·8	38·2	−23·4	0	4	
		7308*a*	0·476	199·6	33·1	−24·9	51	228	
		7308	0·476	192·5	29·6	−26·0	1	1	
		7308	0·443	191·6	28·6	−24·0	3	10	
		7308	0·457	188·8	27·4	−25·1	9	31	
		7308*b*	0·478	186·2	26·3	−26·6	15	72	
		7300*a*	0·332	188·2	25·8	−17·5	31	159	
		7300	0·337	182·9	24·0	−18·0	1	5	
		7300	0·311	179·4	22·8	−16·4	0	4	
		7300	0·340	177·3	22·0	−18·2	0	4	
		7300	0·344	173·8	20·7	−18·3	0	5	
		7303	0·330	22·5	15·3	+19·2	1	3	
		7303	0·302	27·0	14·8	+17·1	0	4	
C.		7311	0·436	32·0	8·5	+23·1	1	3	
		7304	0·412	40·8	6·5	+19·6	0	2	
		7304	0·401	47·0	5·2	+17·4	22	116	
		7304	0·404	49·8	4·3	+16·6	0	17	
		7304	0·455	49·4	1·7	+18·6	9	65	
		7304	0·436	55·0	1·3	+15·9	4	9	
		7304	0·458	52·6	0·7	+17·6	0	22	
		7304	0·456	56·2	359·9	+16·2	1	3	
		7304	0·507	49·2	358·9	+20·8	1	5	
		7304	0·481	55·3	358·6	+17·3	5	108	
		7304	0·499	52·4	358·4	+19·1	1	7	
		7304	0·509	55·3	357·0	+18·2	15	89	
		7304	0·527	52·2	356·8	+20·2	11	27	
		7312*a*	0·976	68·1	306·2	+21·7	18	155	302*c*
		7313*a*	0·982	114·6	305·9	−23·8	38	180	
		7313	0·983	112·4	305·2	−21·7	0	39	551*p*
		7313	0·992	113·3	301·9	−22·8	0	77	
			0·908	66·4	319·4	+22·0			333
			0·906	78·9	318·4	+10·7			79
June 19				(−8·4)	(23·0)	(+1·6)	(356)	(1911)	(1572)
170·318	N, JS		0·947	249·1	79·5	−19·1			138
		7302*a*	0·723	242·5	52·6	−18·2	11	17	
		7302	0·699	241·8	50·5	−18·0	8	26	
G.		7299*a*	0·505	269·4	40·5	+ 1·2	12	31	
		7299	0·471	268·0	38·3	− 0·6	14	41	
		7299	0·459	267·6	37·5	+ 0·4	3	7	

Group 7310, June 19. A very small faint marking between Groups 7302 and 7308.
Group 7311, June 19. A very small faint marking *nf* Group 7304.
Group 7312, June 19–27. Return of Group 7290. A large regular spot, *a*, with occasionally some small companions.
Group 7313, June 19–July 1. Return of Group 7291. A very long active stream, of the normal type at first, with a large regular spot, *a*, leading the stream, and another, *b*, ending it. But both of these have broken up by June 24, and by June 26 the group is entirely reconstructed: the *p* portion, roughly corresponding to *a*, being now a number of widely scattered spots, mostly small, and the *f* portion, apparently *b* re-formed, a very large composite spot. *b* then breaks up a second time to form three spots, *c*, *d*, and *e*, and a regular spot, *f*, takes shape in the *p* portion of the stream.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
170·318	N, JS	7299	0·451	270·2	37·0	+ 1·6	10	37	
		7299	0·428	267·8	35·5	+ 0·7	9	19	
		7299	0·420	265·2	34·9	− 0·4	12	24	
		7299	0·413	272·0	34·6	+ 2·3	1	4	
		7299	0·407	269·6	34·2	+ 1·4	3	10	
		7299	0·396	277·0	33·4	+ 4·3	2	3	
		7299*b*	0·395	274·4	33·4	+ 3·3	17	86	
		7299	0·376	261·7	32·0	− 1·5	6	11	
		7308*a*	0·575	218·8	33·6	−25·0	33	179	
		7308	0·540	218·5	31·7	−23·3	13	35	
		7308	0·522	213·8	28·8	−24·0	1	17	
		7308	0·531	209·6	27·2	−25·8	13	51	
		7308*b*	0·537	207·0	26·1	−26·8	9	55	
		7300*a*	0·428	218·1	26·4	−18·0	25	146	
		7300	0·405	215·4	24·5	−17·6	6	17	
		7300	0·384	212·0	22·6	−17·3	5	8	
		7303	0·293	345·0	14·8	+18·0	0	3	
		7304	0·303	359·1	10·6	+19·2	2	4	
G.		7304	0·307	9·0	7·4	+19·2	0	3	
		7304	0·279	15·0	6·0	+17·2	26	118	
		7304	0·255	17·0	5·9	+15·8	3	5	
		7304	0·250	22·9	4·5	+15·0	0	8	
		7304	0·270	21·2	4·5	+16·2	4	28	
		7304	0·297	21·4	3·8	+17·7	7	8	
		7304	0·280	28·3	2·4	+15·9	11	31	
		7304	0·318	26·2	1·8	+18·2	62	272	
		7304	0·344	36·4	358·0	+17·7	44	199	
		7304	0·380	34·3	357·2	+19·8	32	165	
		7313*a*	0·923	116·8	306·4	−23·7	27	198	
		7313	0·918	113·8	306·4	−21·0	0	16	
		7313	0·936	116·4	304·1	−23·8	0	19	859*c*
		7313	0·951	114·6	300·9	−22·7	0	44	
		7313	0·954	112·2	300·0	−20·5	0	19	
		7313*b*	0·967	114·4	297·4	−23·0	39	286	
		7312*a*	0·911	66·8	306·2	+21·7	19	138	287*c*
			0·800	62·8	320·1	+22·5			258
June 20				(−8·0)	(10·3)	(+1·7)	(489)	(2388)	(1542)
171·298	N, JS	7302*a*	0·853	247·0	52·9	−18·4	15	25	407*f*
		7299	0·686	268·3	40·4	+ 0·2	4	10	
		7299	0·659	269·0	38·3	+ 0·7	14	36	
G.		7299	0·624	269·9	35·7	+ 1·4	1	3	
		7299	0·618	267·1	35·2	− 0·4	10	21	
		7299	0·612	275·2	34·8	+ 4·6	1	5	
		7299	0·599	270·3	34·0	+ 1·6	0	13	
		7299*b*	0·592	273·7	33·4	+ 3·6	16	58	
1915.				°	°	°			
171·298	N, JS	7299	0·571	276·7	31·9	+ 5·3	2	6	
		7299	0·563	264·9	31·3	− 1·4	1	5	
		7308*c*	0·696	229·8	33·1	−25·1	37	167	
		7308*d*	0·674	231·3	32·1	−23·4	31	100	
		7308	0·678	228·7	31·4	−25·0	6	14	
		7308	0·648	228·0	29·0	−24·1	10	21	
		7308	0·651	225·5	28·1	−25·5	0	13	
		7308*b*	0·637	222·7	26·0	−26·2	18	58	
		7300*a*	0·570	233·7	26·1	−18·0	23	121	
		7300	0·544	234·5	24·7	−16·8	4	32	
		7300	0·551	232·3	24·5	−18·0	5	7	
		7300	0·529	231·3	22·9	−17·6	4	7	
		7300	0·509	228·5	20·8	−18·0	1	3	
		7309*a*	0·448	215·7	13·3	−19·5	0	12	
		7309*b*	0·418	216·9	12·5	−17·7	0	6	
		7304	0·363	329·9	8·4	+20·0	1	12	
		7304	0·306	330·0	6·5	+17·1	31	130	
		7304	0·287	330·9	5·6	+16·2	3	12	
		7304	0·262	331·5	4·7	+15·0	1	5	
G.		7304	0·290	340·3	3·2	+17·6	106	560	
		7304	0·314	349·0	0·9	+19·7	3	13	
		7304	0·242	350·3	359·7	+15·5	2	4	
		7304	0·276	352·4	359·5	+17·6	9	46	
		7304	0·249	355·8	358·4	+16·1	1	11	
		7304	0·311	0·7	357·1	+19·8	91	415	
		7304	0·273	0·9	357·0	+17·6	16	90	
		7304	0·322	10·1	353·9	+20·2	0	3	
		7314	0·356	129·7	341·2	−11·3	1	3	
		7312*a*	0·806	63·9	306·3	+21·8	21	147	304*c*
		7313*a*	0·829	120·3	306·2	−23·5	33	192	
		7313	0·826	114·8	305·0	−19·1	1	4	
		7313	0·845	119·9	304·3	−23·7	2	18	
		7313	0·841	116·9	303·9	−21·2	1	4	
		7313	0·868	118·9	301·4	−23·7	1	6	762*c*
		7313	0·870	116·6	300·6	−21·9	0	79	
		7313	0·871	114·7	300·0	−20·3	5	13	
		7313*b*	0·895	116·5	297·3	−22·6	40	246	
			0·915	52·7	295·5	+34·5			44
			0·948	64·1	287·3	+25·0			156
June 21				(−7·5)	(357·3)	(+1·8)	(572)	(2756)	(1673)
172·356	N, VD		0·946	230·1	47·6	−36·5			81
		7302*a*	0·946	250·0	52·4	−18·2	6	16	387*f*
G.		7299	0·826	269·9	38·8	+ 1·0	5	6	
		7299	0·823	268·7	38·4	+ 0·2	3	8	386*c*
		7299	0·815	270·9	37·7	+ 1·8	0	4	

Group 7314, June 21. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915. 172·356	N, VD	7299	0·767	273·2	33·2	+ 3·6	5	8	
		7308*d*	0·813	239·5	32·7	−23·1	33	129	
		7308*c*	0·811	237·1	31·7	−24·8	29	159	
		7308	0·788	235·2	28·9	−25·4	6	63	
		7308	0·767	236·7	27·5	−23·5	4	30	
		7308*b*	0·772	233·9	26·9	−25·6	5	37	
		7308	0·759	233·1	25·4	−25·6	10	16	
		7300*a*	0·725	243·1	25·9	−17·7	22	123	
		7304	0·534	305·1	10·8	+19·5	0	6	
		7304	0·434	301·9	5·6	+15·0	0	16	
		7304*a*	0·439	306·9	4·7	+17·0	142	772	
		7304	0·390	312·7	0·7	+17·1	7	15	
		7304	0·370	311·7	359·9	+16·0	1	2	
		7304	0·371	316·8	358·7	+17·4	10	74	
		7304	0·352	321·5	356·5	+17·7	15	65	
		7304*b*	0·376	325·7	356·3	+19·9	84	447	
		7304	0·344	330·6	353·6	+19·2	3	25	
		7315*a*	0·321	355·1	345·0	+20·4	4	11	
		7315*b*	0·312	0·5	343·1	+20·0	0	5	
G.		7316	0·510	45·1	320·3	+22·7	2	6	
		7312	0·606	58·3	310·1	+20·1	0	4	
		7312	0·638	60·0	307·4	+20·1	3	4	
		7312*a*	0·667	58·5	305·7	+21·8	20	152	
		7313	0·705	129·6	306·6	−25·1	2	3	
		7313*a*	0·702	127·2	305·9	−23·5	37	171	
		7313	0·726	125·2	303·3	−23·2	1	2	
		7313	0·751	125·3	301·2	−24·2	7	24	
		7313	0·745	123·3	301·0	−22·7	0	47	
		7313	0·764	125·1	300·0	−24·7	0	7	
		7313	0·755	121·5	299·6	−21·8	1	63	356*c*
		7313	0·752	119·9	299·3	−20·6	6	22	
		7313	0·764	121·8	298·8	−22·4	2	2	
		7313	0·771	120·7	297·9	−21·8	0	9	
		7313	0·765	118·3	297·7	−19·9	2	8	
		7313*b*	0·786	121·1	296·7	−22·6	25	182	
		7313	0·801	119·2	294·7	−21·7	2	4	
			0·859	61·2	286·5	+26·1			236
			0·957	62·0	271·7	+27·2			224
			0·990	112·9	263·0	−22·4			236
June 22				(−7·1)	(343·3)	(+1·9)	(504)	(2747)	(1906)
173·405 C.	N, VD		0·972	250·0	44·1	−18·9			270
		7299	0·941	270·6	39·4	+ 1·2	0	5	522*c*
		7299	0·909	272·8	34·6	+ 3·4	0	1	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915. 173·405	N, VD	7308*d*	0·926	243·2	33·7	−23·7	32	135	
		7308	0·914	243·2	32·0	−23·4	5	30	
		7300*c*	0·916	241·2	31·7	−25·2	32	137	
		7308	0·899	242·6	29·6	−23·4	1	9	296*c*
		7308	0·890	241·0	27·9	−24·4	9	18	
		7308*b*	0·884	239·8	26·9	−25·3	0	20	
		7308	0·879	238·6	25·9	−26·1	5	11	
		7300*a*	0·870	248·4	27·3	−17·6	9	26	168*f*
		7300	0·859	248·0	25·9	−17·7	1	15	
		7304*a*	0·628	295·4	5·6	+17·1	91	613	
		7304	0·597	300·1	2·4	+19·0	8	34	
		7304	0·574	296·4	1·7	+16·5	11	51	
		7304*c*	0·546	299·5	359·1	+17·3	4	182	
		7304*d*	0·538	302·3	357·9	+18·3	25	154	
		7304*b*	0·517	306·4	355·5	+19·6	50	253	
		7304	0·498	308·0	353·9	+19·6	1	9	
		7315*a*	0·418	320·7	345·8	+20·8	0	6	
		7315*b*	0·386	326·0	342·7	+20·5	0	4	
		7317	0·307	28·9	320·5	+17·4	0	7	
C.		7316	0·385	22·2	320·4	+22·7	4	11	
		7313	0·521	142·7	309·5	−22·4	9	11	
		7313	0·530	139·2	307·6	−21·7	5	29	
		7313	0·549	137·5	305·9	−22·0	17	43	
		7313*a*	0·565	139·0	305·7	−23·3	31	167	
		7313	0·591	141·0	305·2	−25·4	1	3	
		7313	0·556	132·4	303·6	−20·1	11	22	
		7313	0·592	133·0	301·7	−22·0	0	13	
		7313	0·607	134·9	301·6	−23·5	2	8	
		7313	0·620	129·0	298·4	−21·2	17	134	
		7313	0·675	133·6	296·6	−26·0	1	10	
		7313	0·654	128·6	296·0	−22·4	12	78	
		7313	0·679	127·6	293·9	−22·7	0	4	
		7312	0·472	49·2	307·2	+19·8	7	16	
		7312*a*	0·513	47·8	305·3	+21·9	19	133	
		7318	0·947	116·2	261·2	−24·0	9	21	233*n*
			0·891	126·3	273·0	−30·6			80
			0·901	60·6	269·4	+25·2			218
June 23				(−6·6)	(329·4)	(+2·0)	(429)	(2423)	(1787)
174·388 C.	N, VD	7299	0·987	269·6	36·9	− 0·1	0	7	496*c*
		7299	0·980	272·4	34·7	+ 2·8	0	14	
		7308*d*	0·980	245·4	32·7	−23·6	30	179	
		7308*c*	0·975	243·6	30·9	−25·1	20	134	492*c*
		7308*b*	0·958	243·4	26·7	−24·7	0	19	
		7300*a*	0·955	251·2	27·3	−17·2	6	7	477*f*

Group 7315, June 22–28. Two very small spots, *a* and *b*. *a* moves forward with considerable speed, and a sparse stream has formed by June 26, of which *a* is the leader. *b* is not seen after June 23.
Group 7316, June 22–24. A very small faint spot *f* Group 7315.
Group 7317, June 23. A very small faint marking *s* Group 7316.
Group 7318, June 23–25. A small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
174·388	N, VD	7304*a*	0·779	290·5	6·0	+17·1	94	619	
		7304	0·744	289·8	2·9	+16·0	8	42	
		7304	0·739	294·8	1·6	+19·5	4	7	
		7304*c*	0·713	293·7	359·6	+18·2	10	38	392*c*
		7304*d*	0·688	295·4	357·2	+18·7	22	86	
		7304	0·695	298·2	357·1	+20·7	0	45	
		7304*b*	0·667	297·2	355·2	+19·3	45	211	
		7304	0·650	297·7	353·8	+19·2	1	4	
		7315*a*	0·583	303·2	347·6	+20·4	0	3	
		7316	0·358	349·0	320·6	+22·6	0	2	
		7313	0·409	169·6	311·9	−21·5	0	3	
		7313	0·409	165·6	310·2	−21·1	4	12	
		7313	0·433	166·3	310·0	−22·7	9	59	
		7313	0·405	156·4	306·5	−19·6	0	43	
		7313	0·441	157·2	305·8	−21·8	9	24	
		7313	0·463	158·2	305·4	−23·3	18	69	
C.		7313	0·463	154·4	303·9	−22·6	0	15	
		7313	0·468	150·7	302·2	−22·0	23	72	
		7313	0·479	146·9	300·1	−21·5	8	76	
		7313	0·489	144·4	298·7	−21·4	10	57	
		7313	0·505	145·8	298·6	−22·6	3	13	
		7313	0·505	143·3	297·5	−21·8	6	30	
		7313	0·470	137·1	296·8	−18·1	0	6	
		7313	0·498	140·5	296·7	−20·5	14	87	
		7313	0·561	145·4	295·8	−25·4	0	4	
		7313	0·526	141·0	295·6	−22·1	15	67	
		7312	0·334	25·4	307·7	+19·6	1	2	
		7312*a*	0·386	28·0	305·2	+21·9	17	111	
		7319	0·749	115·0	271·4	−16·9	1	2	259*c*
		7318	0·865	119·4	261·1	−23·9	6	9	
			0·806	131·8	272·1	−30·9			99
			0·914	53·6	254·3	+33·8			103
June 24				(−6·2)	(316·4)	(+2·1)	(384)	(2178)	(2318)
175·487	N, VD		0·961	248·7	13·6	−19·7			188
		7304	0·915	290·5	7·1	+19·6	5	18	
		7304*a*	0·910	287·8	6·6	+17·1	85	586	
		7304	0·889	287·3	3·8	+16·4	5	18	403*c*
		7304*cd*	0·852	291·2	358·8	+19·2	15	102	
G.		7304*b*	0·821	292·5	355·2	+19·6	48	228	
		7315*a*	0·747	295·4	347·6	+20·2	5	17	
		7315	0·710	297·1	344·1	+20·5	0	6	155*c*
		7313	0·430	201·8	311·6	−21·1	1	2	
		7313	0·434	198·7	310·4	−21·9	8	16	
		7313	0·381	195·1	307·8	−19·2	0	7	
		7313	0·428	191·4	307·0	−22·4	1	9	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
175·487	N, VD	7313	0·425	188·1	305·5	−22·5	16	44	
		7313	0·409	182·1	302·7	−21·7	13	101	
		7313	0·426	178·8	301·2	−22·8	5	12	
		7313	0·405	175·5	299·9	−21·4	23	171	
		7313	0·410	168·3	296·7	−21·2	50	180	
		7312*a*	0·342	350·9	305·1	+22·0	13	96	
G.		7320	0·236	355·8	302·8	+15·9	1	2	
		7320	0·250	2·9	301·0	+16·7	1	3	
		7319*a*	0·555	125·4	273·7	−16·7	15	82	
		7319*b*	0·606	124·9	270·4	−18·3	21	90	
		7318	0·740	125·9	261·0	−23·9	3	5	
			0·910	48·7	241·8	+38·0			108
June 25				(−5·7)	(301·8)	(+2·3)	(334)	(1795)	(854)
176·310	N, JS	7304*a*	0·972	286·7	7·2	+16·8	84	870	
		7304*cd*	0·931	289·5	358·7	+18·9	1	84	
		7304	0·927	290·5	358·1	+19·0	1	8	952*c*
		7304	0·917	289·7	356·5	+18·9	9	18	
		7304*b*	0·906	290·7	354·9	+19·7	38	169	
		7315*a*	0·864	292·4	349·1	+20·4	15	47	
		7315	0·848	292·9	347·2	+20·5	1	2	
		7315	0·836	293·1	345·9	+20·5	2	5	152*c*
		7315	0·831	291·4	345·6	+18·9	8	12	
		7313	0·503	217·1	309·8	−21·3	7	20	
		7313	0·473	209·9	305·6	−21·8	13	23	
G.		7313	0·459	208·5	304·4	−21·4	1	5	
		7313	0·453	204·6	302·6	−21·9	11	67	
		7313	0·436	200·4	300·3	−21·7	8	87	
		7313*b*	0·414	194·1	297·1	−21·2	84	365	
		7313	0·399	187·7	294·2	−20·8	5	17	
		7312*a*	0·409	326·8	304·8	+22·2	16	66	
		7319*a*	0·425	138·9	274·0	−16·3	18	104	
		7319*b*	0·487	136·7	270·4	−18·4	16	68	
		7319	0·489	131·6	268·6	−16·7	1	2	
		7321	0·797	117·1	242·2	−19·7	5	9	40*c*
		7321	0·799	116·1	241·8	−18·9	1	3	
June 26				(−5·3)	(290·9)	(+2·4)	(345)	(2051)	(1144)
177·333	N, VD	7304*b*	0·976	289·2	354·6	+19·2	12	76	
		7315*a*	0·958	290·0	350·4	+19·9	60	134	690*c*
		7315*c*	0·928	290·9	344·6	+20·2	13	25	
G.		7313	0·652	232·2	310·9	−21·4	1	3	
		7313	0·605	233·0	308·0	−19·1	13	40	
		7313	0·604	227·0	305·7	−22·0	4	8	
		7313	0·581	230·0	305·5	−19·6	4	5	

Group 7319, June 24–July 1. A very small spot *nf* Group 7318. Two regular spots, *a* and *b*, on June 25. A sparse irregular stream, of which *a* is leader, on June 28. Only *a* remains after June 29.
Group 7320, June 25. A pair of very small spots *sf* Group 7312.
Group 7321, June 26. A small cluster of very small faint spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
177·333	N, VD	7313	0·580	223·6	302·9	−22·4	8	45	
		7313	0·584	221·4	302·2	−23·7	2	5	
		7313	0·556	222·6	301·2	−21·8	5	10	
		7313	0·548	221·0	300·1	−22·0	6	42	
		7313	0·550	218·0	298·9	−23·3	2	7	
		7313*b*	0·512	217·4	296·8	−21·5	93	362	
		7313	0·481	218·0	295·7	−19·8	5	18	
		7313	0·482	212·8	293·6	−21·4	2	11	
G.		7312*a*	0·544	309·6	304·2	+22·4	6	11	
		7319*a*	0·335	170·4	274·1	−16·8	17	44	
		7319	0·343	164·4	271·9	−16·8	1	1	
		7319*b*	0·378	163·0	270·7	−18·6	16	18	
		7319	0·357	161·2	270·5	−17·1	7	17	
		7319	0·373	155·7	268·2	−17·3	10	21	
		7322	0·295	13·4	273·3	+19·1	0	2	
			0·963	66·8	203·5	+23·0			193
June 27				(−4·8)	(277·4)	(+2·5)	(287)	(905)	(883)
178·505	N, VD		0·859	294·3	319·3	+22·0			322
			0·769	299·5	308·8	+24·0			245
		7315	0·989	290·1	343·4	+20·2	18	99	201*p*
		7313	0·781	243·1	309·1	−18·9	13	36	
		7313	0·763	242·3	307·3	−18·9	3	12	
		7313	0·741	239·3	304·5	−20·2	13	33	
		7313	0·731	235·5	302·4	−22·4	2	19	
		7313	0·697	233·3	299·0	−22·4	2	10	393*sp*
		7313*c*	0·681	234·5	298·2	−21·2	12	129	
		7313*d*	0·663	233·8	296·7	−20·8	9	50	
		7313*e*	0·653	231·5	295·2	−21·8	19	157	
		7319*a*	0·383	210·8	273·6	−16·5	7	48	
C.		7319	0·378	205·5	271·7	−17·3	0	3	
		7319	0·392	202·0	270·8	−18·6	5	9	
		7319	0·363	196·7	268·2	−17·7	4	12	
		7319	0·319	199·3	268·1	−14·9	0	5	
		7323	0·714	119·3	221·0	−18·4	2	4	
		7323	0·744	120·7	219·0	−20·4	3	8	
		7323	0·750	118·4	217·9	−18·9	6	19	
		7323	0·757	117·5	217·0	−18·6	2	5	
		7324*a*	0·973	74·5	185·4	+15·6	7	65	237*c*
		7324	0·987	72·5	181·0	+17·7	0	7	
			0·884	62·0	202·0	+25·8			286
			0·951	64·6	190·8	+24·9			126
June 28				(−4·3)	(261·9)	(+2·6)	(127)	(730)	(1810)
1915.				°	°	°			
179·373	N, AM		0·931	292·1	318·1	+21·4			555
			0·828	295·7	304·2	+22·7			214
		7313	0·886	247·0	309·7	−18·9	2	11	
		7313	0·871	246·7	307·8	−18·6	0	6	
		7313	0·859	243·8	305·8	−20·8	7	41	
		7313*f*	0·843	243·9	304·2	−20·1	18	68	
		7313	0·836	241·5	302·5	−21·8	9	21	1085*s*
		7313*c*	0·796	240·5	298·2	−21·1	19	91	
		7313*d*	0·773	240·1	296·0	−20·8	4	22	
		7313*e*	0·763	238·1	294·5	−21·8	23	142	
		7313	0·752	234·5	290·2	−17·7	0	2	
		7325	0·774	287·3	300·1	+15·0	0	8	72*p*
C.		7319*a*	0·496	229·2	273·3	−16·3	11	18	
		7319	0·460	219·5	268·3	−18·1	1	4	
		7319	0·463	208·5	264·1	−21·3	0	2	
		7323	0·608	128·5	220·1	−19·9	4	17	
		7323	0·605	125·4	219·3	−18·1	6	21	
		7323	0·614	123·7	218·1	−17·6	0	3	
		7326	0·636	93·9	211·2	− 0·4	0	3	
		7324*a*	0·910	73·7	185·4	+15·9	16	60	
		7324	0·924	73·9	183·3	+15·9	7	23	396*c*
		7324	0·940	72·5	180·7	+17·4	13	36	
			0·751	61·1	205·0	+23·1			89
			0·887	61·2	190·2	+26·6			187
June 29				(−3·9)	(250·4)	(+2·7)	(140)	(599)	(2598)
180·330	N, VD		0·971	292·7	313·6	+22·7			386
			0·917	294·5	303·0	+23·5			249
			0·904	284·7	302·0	+14·5			126
			0·897	305·3	297·9	+32·6			115
			0·778	301·5	285·0	+25·8			104
		7313	0·959	249·4	309·1	−18·9	10	30	
		7313	0·954	248·0	307·7	−20·0	9	23	
		7313*f*	0·937	246·7	304·4	−20·7	36	171	980*c*
		7313	0·933	245·3	303·4	−21·8	2	11	
D.		7313*c*	0·902	244·7	298·5	−21·3	13	89	
		7313*e*	0·872	243·1	294·3	−21·7	22	125	
		7325	0·900	288·3	301·3	+17·7	2	4	
		7319*a*	0·649	240·1	273·5	−16·5	11	16	
		7323*a*	0·452	142·7	221·0	−18·3	14	30	
		7323*b*	0·478	143·6	220·2	−19·9	22	72	
		7323	0·470	137·5	218·3	−17·6	4	10	
		7323	0·509	141·9	218·1	−20·9	4	18	
		7323	0·490	138·9	217·9	−18·9	1	8	
		7323	0·552	138·6	214·7	−21·8	1	23	

Group 7322, June 27. A very small faint marking.
Group 7323, June 28–July 5. An irregular cluster of small unstable spots. Of these two, *a* and *b*, have developed greatly by July 1, and the group appears as two parallel streams. *b* has broken up by July 3, after which the group rapidly disappears.
Group 7324, June 28–July 8. A regular spot, *a*, usually with a small train of companions. The group diminishes quickly after July 2, and is not seen on July 6, but a feeble revival is seen on July 7 and 8.
Group 7325, June 29–30. A very small spot.
Group 7326, June 29. A very small faint marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
180·330	N, VD	7324*a*	0·802	72·4	185·3	+15·7	20	120	
		7324	0·858	71·2	179·5	+17·5	0	36	203*c*
D.		7324	0·862	72·7	178·9	+16·3	2	8	
			0·677	54·7	200·2	+25·2			70
			0·792	56·1	189·8	+28·0			102
June 30				(−3·5)	(237·7)	(+2·8)	(173)	(794)	(2335)
181·350	N, AM		0·975	287·8	301·4	+18·0			347
			0·959	299·7	296·7	+29·3			107
			0·882	296·6	284·2	+24·7			266
			0·863	232·5	276·0	−29·4			144
		7313*f*	0·988	248·6	303·3	−20·6	21	88	
		7313	0·987	247·6	302·7	−21·5	3	20	873*c*
		7313*c*	0·971	247·3	297·8	−21·2	0	23	
		7313*e*	0·955	246·4	294·0	−21·4	11	39	
		7319*a*	0·789	246·8	273·0	−16·2	2	5	107*c*
		7327	0·264	303·6	237·1	+11·2	0	7	
		7327	0·217	298·5	235·3	+ 8·8	0	5	
C.		7323*a*	0·368	177·6	223·3	−18·6	16	77	
		7323	0·357	173·2	221·7	−17·7	5	17	
		7323*b*	0·392	170·7	220·4	−19·8	33	216	
		7323	0·366	167·2	219·3	−18·0	6	18	
		7323	0·422	167·4	218·6	−21·4	3	10	
		7323	0·358	160·5	217·1	−16·8	1	13	
		7323	0·428	162·9	216·5	−21·1	2	5	
		7323	0·380	159·4	216·2	−17·9	4	15	
		7324*a*	0·644	69·6	185·6	+15·2	21	131	
		7324	0·722	69·2	179·6	+16·8	4	15	
			0·938	113·0	157·4	−20·3			160
July 1				(−3·0)	(224·2)	(+2·9)	(132)	(704)	(2004)
182·405	N, JS		0·953	297·3	281·8	+26·9			155
			0·889	247·7	270·1	−18·2			155
			0·879	296·7	270·0	+24·8			220
			0·892	233·6	266·3	−30·2			104
			0·823	308·0	260·2	+32·3			83
			0·810	237·7	258·5	−23·6			58
G.		7327*	0·304	307·1	224·7	+13·4	0	4	
		7323*a*	0·429	211·6	223·9	−18·4	16	64	
		7323	0·420	209·7	222·9	−18·3	4	12	
		7323	0·403	207·3	221·5	−18·0	4	12	
		7323*b*	0·411	203·0	220·0	−19·2	32	187	
		7323	0·369	195·7	216·3	−17·7	0	4	
		7327†	0·297	332·7	218·5	+18·2	0	3	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
182·405	N, JS	7328	0·642	178·0	208·7	−36·7	0	12	
G.		7324*a*	0·451	61·7	186·1	+15·0	20	80	
			0·864	117·7	155·0	−21·9			99
July 2				(−2·5)	(210·3)	(+3·0)	(76)	(378)	(874)
183·297	N, JS		0·957	249·7	269·3	−18·3			162
			0·900	296·5	261·1	+25·1			96
			0·911	242·1	259·9	−23·7			121
			0·868	306·3	254·4	+32·6			164
		7323	0·540	230·5	224·3	−17·2	0	6	
		7323*a*	0·545	228·3	223·8	−18·4	17	50	
		7323	0·540	226·8	223·0	−18·8	0	3	
G.		7323	0·521	228·1	222·4	−17·4	1	6	
		7323	0·517	224·3	220·8	−18·8	8	11	
		7323	0·517	221·9	219·9	−19·7	12	61	
		7323	0·501	223·5	219·7	−18·3	7	34	
		7323	0·478	221·7	217·9	−17·9	0	2	
		7324*a*	0·300	45·8	185·7	+15·0	14	35	
			0·905	120·7	138·8	−25·9			68
			0·954	111·4	128·5	−19·3			200
July 3				(−2·1)	(198·5)	(+3·1)	(59)	(208)	(811)
184·550	N, JS		0·986	245·9	259·8	−23·1			114
			0·968	303·9	256·4	+33·6			120
			0·898	309·9	241·2	+36·9			113
		7323*a*	0·726	240·7	223·6	−18·3	7	11	
		7323	0·719	239·6	222·7	−18·8	1	5	
G.		7323	0·700	238·3	220·8	−18·9	1	3	
		7323	0·684	238·8	219·7	−18·1	1	4	
		7323	0·692	236·7	219·6	−19·6	10	31	
		7324*a*	0·214	343·8	185·4	+15·0	9	17	
		7324	0·242	348·9	184·7	+17·0	2	3	
		7324	0·248	3·8	180·9	+17·6	1	3	
		7324	0·249	8·8	179·6	+17·5	0	3	
			0·848	116·7	128·2	−20·4			90
			0·917	115·3	119·0	−21·6			381
July 4				(−1·5)	(181·9)	(+3·3)	(32)	(80)	(818)
185·513	N, JS		0·889	244·1	227·9	−21·1			63
		7323*a*	0·843	245·8	222·9	−18·2	7	9	
		7323	0·837	244·3	221·9	−19·2	2	2	
		7323	0·825	244·9	220·8	−18·3	2	11	
G.		7323	0·818	242·8	219·6	−19·8	9	12	236*c*
		7323	0·793	243·6	217·3	−18·3	1	3	
		7329*a*	0·791	240·9	216·4	−20·3	10	15	
		7329	0·787	240·5	215·9	−20·4	1	3	
		7329*b*	0·789	237·4	215·0	−22·7	22	45	

Group 7327, July 1. A pair of small faint markings.
Group 7327*, July 2. A small faint marking *nf* the place of Group 7327.
Group 7327†, July 2. A small faint marking *nf* Group 7327*.
Group 7328, July 2. A faint elongated marking.
Group 7329, July 5–7. Two spots, *a* and *b*. The line joining *a* and *b* is inclined to the equator at an angle of about 59° on July 5, of about 45° on July 6, and of about 32° on July 7. *a* has a very small companion on July 5.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
185·513	N, JS	7324*a*	0·337	308·1	185·0	+15·3	1	3	
		7330*a*	0·976	111·7	94·1	−20·3	93	524	355*p*
G.			0·716	121·6	129·0	−19·3			72
			0·815	119·4	119·6	−21·3			300
			0·927	71·9	101·4	+18·0			77
July 5				(−1·1)	(169·1)	(+3·4)	(148)	(627)	(1103)
186·428	N, VD		0·748	300·8	202·0	+25·0			127
		7329*a*	0·895	245·0	216·8	−20·5	21	71	497*c*
		7329*b*	0·881	241·1	213·9	−23·3	18	82	
		7330*a*	0·918	114·0	93·8	−20·4	100	531	
G.		7330	0·937	113·8	90·7	−20·8	0	9	
		7330*b*	0·937	111·8	90·3	−18·9	8	89	715*c*
		7330*c*	0·956	114·2	87·2	−21·9	18	130	
		7330*d*	0·955	111·5	86·9	−19·3	14	317	
		7330	0·967	109·1	84·0	−17·4	8	55	
July 6				(−0·7)	(157·0)	(+3·5)	(187)	(1284)	(1339)
187·615	JS, N		0·891	294·7	203·1	+23·6			139
			0·828	304·7	193·1	+30·2			51
		7329*a*	0·982	248·0	218·0	−20·8	11	41	461*c*
		7329*b*	0·968	244·3	213·4	−23·7	10	52	
		7324*a*	0·691	287·7	184·0	+14·8	1	1	
		7331	0·572	137·7	116·9	−21·7	1	3	
		7331	0·589	135·4	115·0	−21·4	0	4	
		7330*a*	0·797	118·9	93·5	−20·2	88	438	
		7330	0·817	120·1	91·9	−21·8	2	17	
G.		7330	0·823	118·9	90·9	−21·1	0	8	
		7330*b*	0·819	117·1	90·8	−19·6	31	163	
		7330	0·833	117·5	89·5	−20·4	0	4	
		7330	0·830	115·9	89·3	−19·0	0	29	385*c*
		7330*d*	0·851	114·9	86·8	−18·9	42	291	
		7330*c*	0·860	118·1	86·7	−21·8	46	259	
		7330	0·860	115·7	86·0	−19·8	4	10	
		7330	0·879	118·9	84·7	−23·1	2	10	
		7330	0·877	112·4	83·2	−17·6	8	12	
			0·939	79·3	71·3	+11·3			30
July 7				(−0·1)	(141·3)	(+3·6)	(246)	(1342)	(1066)
188·430	N, AM		0·994	245·6	211·7	−23·7			222
			0·938	296·4	199·6	+26·1			239
C.		7324*a*	0·825	285·6	185·6	+15·0	0	5	160*n*
		7324	0·803	285·6	183·4	+14·7	0	4	
		7324	0·781	288·0	181·0	+16·2	0	2	
188·430	N, AM	7324	0·795	287·6	180·8	+16·2	0	4	
		7332	0·834	299·2	184·5	+26·1	0	17	76*c*
		7332	0·832	301·3	183·8	+27·8	1	8	
		7333	0·306	272·3	148·3	+ 4·2	0	2	
		7333	0·290	273·6	147·3	+ 4·6	0	3	
		7334	0·639	49·8	97·3	+27·4	0	4	
C.		7330	0·645	122·0	95·8	−16·9	0	7	
		7330	0·680	122·4	93·4	−18·3	0	14	
		7330*e*	0·698	124·6	92·9	−20·4	135	710	350*f*
		7330*f*	0·755	121·0	87·1	−20·2	74	604	
		7330	0·784	116·6	83·2	−18·0	2	20	
		7335	0·859	80·4	71·3	+10·2	1	3	86*c*
			0·987	111·3	75·0	−20·3			306
July 8				(+0·2)	(130·5)	(+3·7)	(213)	(1407)	(1439)
189·474	N, VD		0·913	286·5	182·4	+16·5			346
			0·917	299·1	181·8	+28·1			263
		7336	0·438	213·4	131·3	−17·7	1	4	
		7336	0·431	205·6	128·0	−19·0	2	8	
		7330	0·522	134·3	93·7	−17·7	1	2	
		7330	0·579	140·5	93·2	−23·0	1	4	
		7330*e*	0·562	136·3	92·3	−20·4	128	713	
		7330	0·564	131·5	90·4	−18·4	1	9	
G.		7330	0·599	131·9	88·4	−20·2	5	150	
		7330	0·588	125·5	86·9	−16·5	0	1	
		7330	0·627	132·1	86·8	−21·4	3	36	
		7330*f*	0·617	128·7	86·2	−19·3	72	339	
		7330	0·658	131·9	84·8	−22·7	20	70	
		7330	0·644	124·3	82·8	−18·0	3	8	
		7337	0·929	114·7	52·0	−21·2	0	6	649*c*
			0·961	89·5	43·0	+ 1·5			122
July 9				(+0·7)	(116·7)	(+3·8)	(237)	(1350)	(1380)
190·328	N, VD		0·974	286·2	182·7	+16·7			309
			0·972	294·9	182·0	+25·1			111
		7336	0·528	225·8	128·8	−18·0	8	11	
		7336	0·527	223·2	127·7	−18·9	5	14	
		7336	0·508	219·8	125·5	−19·2	8	19	
		7338	0·407	169·0	100·7	−19·6	1	2	
G.		7330*e*	0·469	151·8	91·8	−20·5	128	750	
		7330	0·452	146·9	90·4	−18·3	2	11	
		7330	0·487	144·6	88·0	−19·6	3	14	
		7330	0·509	146·0	87·7	−21·1	2	28	
		7330*f*	0·504	141·3	86·0	−19·4	66	289	
		7330	0·527	143·8	85·9	−21·4	4	56	

Group 7330, July 5–17. Return of Group 7306. A fine group, consisting chiefly of a very large regular spot, *a*, closely followed by, and at times connected with, an extensive shaded region divided into three main areas, *b*, *c*, *d*. *a* and *b* have coalesced to form *e*, and *c* and *d* to form *f*, by July 8. Several nuclei form in *f*, which throws off several small spots, and diminishes in size, and has almost vanished by July 17.

Group 7331, July 7. A few very small faint spots *p* Group 7330.

Group 7333, July 8. A pair of very small markings.

Group 7335, July 8. A very small marking.

Group 7337, July 9–17. A disturbed region in which a number of unstable spots are formed. The group is not seen on July 16.

Group 7338, July 10. A very small spot *p* Group 7330.

Group 7332, July 8. Two small spots *n* Group 7324.

Group 7334, July 8. A very small marking.

Group 7336, July 9–13. A few small scattered spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
190·328	N, VD	7330	0·516	137·5	83·9	−18·6	1	4	
		7330	0·521	135·4	82·9	−18·1	0	2	
		7330	0·547	134·6	81·2	−18·9	0	5	
		7330	0·588	139·4	81·0	−22·9	1	3	
G.		7337	0·847	117·9	52·3	−21·0	3	6	671*c*
		7337	0·872	117·0	49·2	−21·1	2	4	
		7339*a*	0·986	116·9	28·4	−25·6	0	247	268*p*
			0·915	89·6	39·4	+ 2·0			234
July 10				(+1·2)	(105·4)	(+3·9)	(234)	(1465)	(1593)
191·377	N, AM		0·905	241·9	151·6	−23·2			98
		7340	0·886	289·4	153·4	+19·0	6	26	
		7340	0·875	288·8	152·0	+18·3	1	9	80*c*
		7340	0·874	290·7	151·7	+20·0	2	17	
		7336	0·699	238·8	130·3	−18·0	9	28	
		7336	0·660	235·8	126·5	−18·4	10	26	
		7330	0·459	183·6	93·3	−23·1	1	4	
		7330*e*	0·422	180·8	91·9	−20·8	126	705	
		7330	0·454	177·0	90·0	−22·8	0	17	
		7330	0·421	172·7	88·2	−20·6	8	48	
		7330	0·448	168·2	85·9	−22·0	6	57	
C.		7330*f*	0·413	166·4	85·6	−19·6	65	307	
		7330	0·384	161·2	84·1	−17·3	1	5	
		7330	0·472	165·3	84·0	−23·1	3	24	
		7330	0·440	158·0	81·4	−20·0	1	4	
		7337	0·737	123·8	50·6	−21·1	0	13	
		7337	0·740	121·8	49·7	−19·9	6	15	
		7337	0·748	123·2	49·5	−21·1	5	8	421*c*
		7337	0·767	120·7	47·0	−20·1	7	14	
		7337	0·780	121·5	46·2	−21·1	1	5	
		7339*a*	0·933	119·8	27·5	−25·9	18	256	450*c*
		7341*a*	0·987	73·2	10·2	+17·2	34	214	422*c*
			0·808	88·6	37·7	+ 3·5			162
July 11				(+1·6)	(91·5)	(+4·0)	(310)	(1802)	(1633)
192·487	JS, VD	7340	0·973	288·5	153·8	+18·9	0	34	117*c*
		7342*a*	0·914	243·4	138·6	−22·2	5	10	81*np*
		7336	0·859	245·9	132·2	−18·2	3	6	
		7336	0·844	244·4	130·2	−18·9	2	8	139*c*
		7336	0·811	242·3	126·2	−19·4	1	13	
G.		7330*e*	0·485	209·1	91·4	−21·0	116	629	
		7330	0·464	204·6	88·7	−20·8	3	43	
		7330	0·484	203·1	88·6	−22·3	1	5	
		7330	0·446	204·5	88·1	−19·8	0	5	
		7330	0·461	201·3	87·1	−21·3	1	3	
1915.				°	°	°			
192·487	JS, VD	7330	0·462	197·5	85·4	−22·0	7	28	
		7330*f*	0·420	199·3	85·2	−19·2	37	232	
		7330	0·433	196·5	84·3	−20·3	2	2	
		7330	0·423	192·1	82·2	−20·2	0	8	
		7337	0·540	135·5	53·3	−18·9	3	5	
		7337	0·577	136·5	51·7	−20·9	1	5	
		7337	0·591	133·5	49·7	−20·2	16	58	
		7337	0·606	135·3	49·6	−21·8	4	13	
G.		7337	0·644	132·5	46·1	−22·1	8	20	
		7339*a*	0·833	124·9	27·7	−25·7	17	143	
		7339	0·838	123·4	26·6	−24·8	1	16	368*c*
		7339	0·856	124·7	25·1	−26·6	5	17	
		7341*a*	0·917	72·5	10·4	+17·7	39	200	595*c*
		7343*a*	0·995	71·5	351·7	+18·8	0	101	428*p*
			0·917	115·9	14·4	−21·7			138
			0·955	62·9	4·3	+27·1			70
July 12				(+2·1)	(76·8)	(+4·1)	(272)	(1604)	(1936)
193·298	JS, VD	7342	0·982	248·6	142·7	−20·1	8	27	
		7342	0·964	247·2	137·6	−20·6	6	33	120*c*
		7342*a*	0·965	245·4	137·5	−22·4	4	48	
		7336	0·897	246·1	126·2	−19·2	2	5	264*c*
		7330*e*	0·578	222·9	91·0	−21·1	122	634	
		7330	0·562	218·5	88·2	−22·1	3	7	
		7330	0·546	219·7	87·9	−20·8	0	19	
		7330	0·556	216·4	87·0	−22·6	2	4	
		7330	0·537	214·6	85·2	−22·1	8	58	
		7330*f*	0·501	218·1	85·1	−19·2	29	161	
		7330	0·476	217·4	83·7	−18·2	2	4	
		7330	0·459	210·0	80·1	−19·2	1	4	
		7337	0·433	152·6	54·0	−18·4	1	5	
G.		7337	0·461	150·2	52·1	−19·4	1	5	
		7337	0·489	147·9	50·1	−20·3	12	27	
		7337	0·513	147·4	48·9	−21·4	5	35	
		7337	0·571	146·6	46·0	−24·4	3	21	
		7337	0·558	144·1	45·4	−22·8	7	78	
		7344	0·452	138·8	48·1	−15·9	0	6	
		7339*a*	0·744	130·6	27·5	−25·6	22	67	
		7339	0·739	129·5	27·4	−24·7	5	16	186*c*
		7339	0·773	128·8	24·3	−25·8	2	21	
		7341	0·824	67·6	11·7	+20·8	0	12	
		7341*a*	0·831	71·5	10·5	+17·7	42	183	577*f*
		7341	0·839	68·4	10·0	+20·3	0	13	
		7343*a*	0·964	71·5	351·2	+18·9	24	141	367*p*
			0·861	121·4	12·7	−24·1			217
July 13				(+2·4)	(66·1)	(+4·2)	(311)	(1634)	(1731)

Group 7339, July 10–18. Return of Group 7308. A composite spot, *a*, with a few unstable attendants, mostly on the *f* side, except on July 14.
Group 7340, July 11–12. A cluster of small spots forming near the West limb.
Group 7341, July 11–23. Return of Group 7304. A large regular spot, *a*, frequently accompanied by small unstable spots at a considerable distance, mostly *n* of *a*.
Group 7342, July 12–13. A small spot, *a*, forming near the West limb, *sp* Group 7336. Two fresh spots have formed *n* and *np* of *a*, by July 13.
Group 7343, July 12–25. Return of Group 7315. A large regular spot, *a*, with occasionally a very small companion.
Group 7344, July 13. A very small spot *n* of Group 7337.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
194·357	JS, VD		0·984	249·8	129·5	−19·0			173
			0·922	242·5	114·8	−23·3			75
			0·820	239·3	101·4	−21·9			193
		7330*e*	0·718	234·7	90·9	−21·1	114	640	
		7330	0·727	230·3	89·8	−24·2	0	5	
		7330*f*	0·641	233·1	84·8	−18·9	14	90	
		7330	0·664	228·9	84·7	−22·2	0	17	
		7330	0·630	234·7	84·6	−17·7	0	3	
		7337	0·418	175·5	50·1	−20·2	1	4	
		7337	0·433	173·5	49·1	−21·1	3	7	
		7337	0·459	172·0	48·2	−22·6	6	17	
G.		7337	0·488	166·8	45·1	−24·0	11	24	
		7339	0·619	146·1	29·4	−26·9	1	5	
		7339	0·652	145·9	27·6	−28·7	0	3	
		7339*a*	0·631	141·9	26·6	−25·8	19	60	
		7339	0·649	136·3	22·8	−24·1	0	3	
		7341	0·670	64·7	12·2	+19·9	5	11	
		7341*a*	0·682	68·3	10·5	+17·8	35	185	
		7341	0·705	65·7	9·2	+19·9	6	14	
		7345	0·739	67·5	5·9	+19·4	0	7	
		7345	0·758	69·2	4·0	+18·5	1	2	
		7343*a*	0·877	70·9	351·2	+18·8	18	114	436*c*
July 14				(+2·9)	(52·1)	(+4·3)	(234)	(1211)	(877)
195·358	JS, VD		0·909	243·5	99·8	−21·8			183
		7330*e*	0·837	241·1	90·4	−21·1	91	534	
		7330	0·772	242·3	84·6	−18·0	0	7	298*c*
		7330*f*	0·773	240·8	84·2	−19·0	6	83	
		7337	0·446	207·4	51·3	−18·9	2	6	
		7337	0·477	203·7	50·6	−21·4	1	12	
		7337	0·475	199·5	48·6	−22·1	1	3	
		7337	0·447	200·3	48·3	−20·3	0	2	
G.		7337	0·493	191·5	45·0	−24·4	1	9	
		7337	0·456	191·0	44·2	−22·1	1	4	
		7337	0·474	190·1	44·0	−23·3	1	4	
		7339*a*	0·542	158·8	26·3	−25·9	11	42	
		7339	0·538	157·3	25·6	−25·4	3	3	
		7339	0·566	158·1	25·1	−27·3	1	5	
		7339	0·556	156·3	24·4	−26·2	4	36	
		7346	0·395	49·2	20·4	+19·1	0	6	
		7341	0·500	58·1	12·2	+19·2	1	4	
		7341*a*	0·514	61·9	10·5	+17·8	40	175	
		7341	0·536	58·3	9·8	+20·2	3	14	
		7341	0·551	60·7	8·3	+19·4	0	3	
		7343*a*	0·756	68·9	350·9	+18·7	26	114	224*f*
July 15				(+3·3)	(38·8)	(+4·4)	(193)	(1066)	(705)
1915.				°	°	°			
196·375	N, AM		0·975	248·2	99·8	−20·1			260
			0·890	292·0	87·8	+21·6			85
		7330*e*	0·933	245·4	90·5	−21·0	85	564	
		7330	0·913	243·4	86·9	−22·0	1	10	886*f*
		7330*f*	0·888	245·8	84·1	−19·0	6	35	
		7330	0·883	246·8	83·8	−18·0	1	5	
		7347	0·675	244·0	63·9	−13·6	0	5	
		7339*a*	0·502	181·4	26·2	−25·4	7	14	
		7346	0·270	16·2	20·8	+19·5	3	9	
C.		7341	0·351	40·6	11·4	+19·8	0	4	
		7341*a*	0·342	46·8	10·3	+17·8	47	197	
		7341	0·379	43·8	9·2	+20·2	5	15	
		7343*a*	0·599	64·4	350·8	+18·6	18	114	
		7343	0·624	64·0	349·0	+19·5	0	6	
		7348*a*	0·957	74·8	311·9	+15·9	23	120	
		7348	0·981	72·6	305·8	+18·0	0	9	198*c*
			0·931	64·4	317·3	+25·4			106
			0·976	116·4	311·7	−24·5			710
July 16				(+3·8)	(25·4)	(+4·5)	(196)	(1107)	(2245)
197·317	JS, N	7330*e*	0·985	247·2	90·0	−21·4	96	507	726*f*
		7330*f*	0·958	248·0	83·2	−19·5	2	4	
		7337	0·705	237·2	51·5	−18·9	0	3	
		7337	0·691	237·4	50·5	−18·2	0	1	
		7349	0·659	226·3	44·0	−23·1	0	3	
		7339*a*	0·532	201·8	25·4	−25·0	5	14	
		7339	0·518	199·8	24·0	−24·5	0	5	
		7339	0·527	197·4	22·9	−25·5	1	1	
		7341*a*	0·236	10·4	10·3	+18·0	43	197	
		7341	0·276	10·0	10·0	+20·3	0	3	
G.		7341	0·279	16·7	8·0	+20·0	1	13	
		7343*a*	0·438	55·2	350·7	+18·6	21	114	
		7343	0·489	48·6	349·5	+23·0	0	2	
		7348*a*	0·873	74·0	312·3	+16·1	28	114	
		7348	0·882	76·6	311·0	+14·0	4	13	146*c*
		7348	0·884	74·5	310·8	+15·9	1	6	
		7348	0·914	71·2	306·9	+19·0	0	5	
		7348	0·926	71·2	305·0	+19·2	10	18	145*c*
			0·878	61·2	313·1	+27·4			88
			0·905	116·4	312·5	−21·4			726
			0·963	112·8	301·8	−20·4			290
			0·948	65·4	301·4	+24·8			74
July 17				(+4·2)	(12·9)	(+4·6)	(212)	(1023)	(2195)

Group 7345, July 14. Two very small markings *f* Group 7341.
Group 7346, July 15–16. A very small diffused marking *p* Group 7341, on July 15; a close pair of very small spots on July 16.
Group 7347, July 16. A very small marking *nf* Group 7330.
Group 7348, July 16–27. Return of Group 7325. A large regular spot, *a*, followed by a number of small unstable spots widely scattered. *a* diminishes rapidly, and a small spot, *b*, has formed *p* it by July 22. *b*, now the leader, increases in size up to July 25, but diminishes later. In general the group has the form of a straight sparse stream.
Group 7349, July 17. A very small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
198·522	N, VD		0·994	248·8	78·2	−20·4			125
			0·844	242·8	49·8	−19·9			480
			0·807	234·4	43·1	−24·7			352
		7339*a*	0·654	221·1	25·3	−25·3	3	4	
		7339	0·637	220·8	24·1	−24·6	3	18	
		7339	0·629	217·4	22·0	−25·6	0	4	
		7341*a*	0·321	316·5	10·4	+18·0	41	175	
		7341	0·328	332·6	6·3	+21·4	1	5	
		7350	0·258	344·9	1·1	+19·0	0	2	
		7351*a*	0·482	187·4	0·9	−23·7	4	7	
		7351*b*	0·488	183·2	358·7	−24·3	3	5	
		7343	0·210	0·0	357·0	+16·8	0	2	
G.		7343*a*	0·269	24·4	350·3	+18·8	16	120	
		7352	0·342	35·4	344·8	+20·8	0	9	
		7348*a*	0·702	71·6	313·3	+16·2	15	74	
		7348	0·712	72·2	312·4	+15·9	0	3	
		7348	0·720	75·1	311·4	+13·9	4	6	310*f*
		7348	0·730	72·2	310·8	+16·2	5	7	
		7348	0·796	68·8	305·2	+19·6	0	3	
			0·787	123·8	312·1	−22·6			658
			0·869	119·6	302·2	−22·7			731
			0·877	61·0	297·7	+27·6			208
			0·942	116·6	290·9	−23·1			577
			0·952	66·0	284·8	+24·2			85
July 18				(+4·8)	(357·0)	(+4·7)	(95)	(444)	(3526)
199·563	N, VD		0·941	247·1	49·9	−19·6			355
			0·906	238·6	42·1	−25·7			383
		7341	0·546	295·6	14·2	+17·7	0	1	
		7341	0·530	296·7	12·9	+17·9	3	6	
		7341*a*	0·495	299·3	10·1	+18·3	35	179	
		7341	0·448	299·8	7·1	+17·2	0	1	
		7350	0·381	312·0	0·6	+19·2	3	10	
		7351*a*	0·555	210·0	0·8	−24·0	0	10	
		7351*b*	0·546	207·1	359·0	−24·4	4	7	
G.		7351	0·532	207·8	358·8	−23·3	0	1	
		7343*a*	0·273	335·3	350·1	+19·1	15	114	
		7352	0·271	1·4	342·8	+20·5	1	1	
		7348*a*	0·519	66·4	313·6	+16·1	10	47	
		7348	0·606	65·4	307·8	+18·5	0	5	
		7348	0·627	66·5	306·1	+18·2	0	2	
		7353	0·720	123·3	303·7	−19·6	0	3	152*f*
		7354*a*	0·973	111·7	269·5	−19·8	16	110	
		7354*b*	0·987	111·3	265·2	−20·1	13	64	224*c*
		7354*c*	0·993	113·7	263·4	−22·6	0	22	
		7354*d*	0·992	110·6	262·8	−19·7	0	8	
1915.				°	°	°			
199·563	N, VD		0·792	134·7	302·7	−30·2			173
			0·866	121·1	280·3	−23·8			536
G.			0·877	67·4	282·5	+22·1			93
			0·932	57·9	275·5	+31·6			144
July 19				(+5·2)	(343·2)	(+4·8)	(100)	(591)	(2060)
200·316	N, VD		0·975	247·9	47·4	−20·2			245
			0·955	241·3	41·1	−25·5			361
			0·841	235·3	23·1	−25·6			190
			0·708	226·3	14·7	−29·8			96
		7341*a*	0·622	293·0	10·0	+17·9	41	188	169*p*
		7350	0·505	300·1	0·6	+18·9	0	5	
		7351*b*	0·622	218·6	358·4	−24·7	3	3	
		7343*a*	0·370	312·2	350·0	+19·0	19	125	
		7348*a*	0·377	58·6	313·7	+15·9	7	33	
		7348	0·368	63·2	313·5	+14·1	0	3	
		7348	0·417	58·0	311·6	+17·1	0	6	
		7348	0·466	60·4	308·2	+17·6	3	14	
		7348	0·498	60·6	306·1	+18·4	7	21	
		7353	0·622	131·2	303·5	−19·9	0	13	
		7355	0·740	123·6	292·2	−20·5	1	3	343*f*
G.		7355	0·779	125·4	289·6	−23·3	0	3	
		7354	0·891	112·9	273·8	−17·9	0	3	
		7354	0·897	113·8	273·2	−18·9	5	9	
		7354	0·904	114·0	272·4	−19·3	2	7	
		7354	0·905	113·1	272·0	−18·5	0	9	
		7354*a*	0·920	113·6	270·0	−19·5	70	360	
		7354	0·929	111·8	268·2	−18·2	4	8	
		7354	0·937	113·9	267·4	−20·4	14	41	489*c*
		7354	0·943	113·5	266·3	−20·2	0	9	
		7354*b*	0·945	112·6	265·6	−19·5	19	67	
		7354*c*	0·961	115·7	263·2	−23·0	28	122	
		7354*d*	0·960	113·2	262·9	−20·6	0	50	
		7354	0·967	114·1	261·5	−21·8	4	12	
			0·872	54·8	275·6	+32·7			145
			0·951	58·9	261·7	+31·0			135
July 20				(+5·6)	(333·2)	(+4·8)	(227)	(1114)	(2173)
201·306	N, VD		0·938	249·2	26·7	−17·5			94
			0·904	236·8	18·1	−27·1			368
			0·764	232·8	1·6	−23·8			134
G.		7356	0·823	248·8	12·3	−14·3	0	2	
		7341*a*	0·772	289·2	9·9	+17·9	26	166	461*p*
		7341	0·729	289·2	6·0	+17·3	0	6	
		7343*a*	0·539	298·6	350·0	+19·2	14	113	

Group 7350, July 18–23. A very small spot between Groups 7341 and 7343; not seen on July 21 and 22.
Group 7351, July 18–20. Two very small spots, *a* and *b*, on July 18. A third is seen on July 19. Only *b* remains on July 20.
Group 7352, July 18–19. A very small spot *f* Group 7343. Groups 7346, 7341, 7345, 7350, 7343, and 7352, follow one another on a parallel of latitude.
Group 7353, July 19–20. A very small spot.
Group 7354, July 19–31. A magnificent and complex group undergoing much change. Four spots on July 19, *a*, *b*, *c*, *d*, of which *a*, the leader, is the largest and regular in form. The group by July 24 has become a very long, straight, and almost continuous stream, in which *c*, *f*, and *g* represent respectively the principal parts of *c*, *b*, and *d*. An active spot, *h*, forms *s* of *g* on July 25, and another, *j*, *s* of *a* on July 26, while *a* has divided into two, *k* and *l*, by July 27. After this the group breaks up. Only *g* remains in sight on July 31.
Group 7355, July 20–23. Some very small markings between Groups 7353 and 7354, not seen on July 21 and 22. Group 7356, July 21. A very small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spot. Area of UMBRA for each Spot (and for Day).	Spot. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
201·306	N, VD	7343	0·547	307·4	348·3	+23·7	1	1	
		7357	0·475	172·8	316·4	−23·1	2	3	
		7357	0·522	172·4	315·7	−26·1	0	5	
		7348	0·193	24·8	315·3	+15·0	0	6	
		7348*a*	0·212	30·7	313·7	+15·3	9	23	
		7348	0·245	36·7	311·4	+16·2	0	7	
		7348	0·260	39·5	310·2	+16·3	0	3	
		7348	0·285	40·2	309·0	+17·4	0	3	
		7348	0·330	43·6	306·3	+18·6	3	14	
		7354	0·777	119·0	274·5	−18·6	3	12	
		7354	0·784	117·0	273·2	−17·5	3	13	
		7354*a*	0·809	118·4	271·3	−19·4	118	507	
		7354	0·838	119·0	268·6	−20·9	3	14	
		7354	0·834	115·9	268·1	−18·3	6	65	
G.		7354	0·847	119·2	267·7	−21·4	4	10	
		7354	0·844	117·8	267·6	−20·2	0	30	
		7354	0·848	115·6	266·5	−18·6	2	8	548*c*
		7354*b*	0·860	116·6	265·5	−19·8	24	124	
		7354	0·877	119·8	264·5	−23·1	4	26	
		7354	0·877	118·2	264·0	−21·8	5	71	
		7354*d*	0·881	115·8	262·8	−19·9	1	41	
		7354*c*	0·893	119·0	262·2	−23·0	26	196	
		7354	0·901	117·6	260·7	−22·2	0	12	
		7354	0·906	118·9	260·4	−23·5	1	10	
		7358	0·948	111·0	251·8	−18·0	3	16	
		7358	0·965	112·2	248·5	−19·9	0	4	
		7358	0·965	111·4	248·3	−19·1	4	22	280*c*
		7358	0·974	112·0	246·2	−20·1	0	11	
		7358	0·977	111·4	245·3	−19·6	5	27	
July 21				(+6·0)	(320·1)	(+4·9)	(267)	(1571)	(1885)
202·392	N, AM		0·960	240·5	14·5	−26·4			211
			0·929	250·0	11·1	−16·5			68
			0·891	237·9	2·4	−25·5			118
		7341*a*	0·905	287·3	10·7	+17·7	36	197	654*c*
D.		7343*a*	0·725	292·2	351·0	+19·5	18	82	346*p*
		7359	0·747	224·6	342·1	−28·0	2	5	
		7359	0·762	220·2	340·9	−31·4	5	11	
		7359	0·740	217·0	337·3	−31·9	4	6	
		7348*b*	0·229	315·5	315·3	+14·3	0	1	
		7348*a*	0·233	322·3	314·3	+15·6	11	22	
		7348	0·238	331·8	312·5	+17·1	0	1	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
202·392	N, AM	7354	0·639	129·6	274·4	−19·7	2	16	
		7354	0·631	125·6	273·4	−17·3	0	28	
		7354*a*	0·666	127·0	271·6	−19·5	119	530	
		7354	0·694	129·0	270·4	−21·8	2	5	
		7354	0·718	123·8	266·6	−19·6	94	575	
		7354	0·752	124·8	264·3	−21·6	0	62	163*c*
		7354	0·765	123·0	262·6	−20·9	0	16	
D.		7354	0·780	125·8	262·4	−23·4	2	13	
		7354*d*	0·768	121·5	261·8	−20·1	24	112	
		7354*e*	0·796	125·8	260·9	−24·2	26	123	
		7354	0·801	124·3	259·9	−23·3	2	29	
		7358	0·861	114·9	250·6	−18·4	24	73	
		7358	0·902	114·9	245·6	−19·9	2	24	212*c*
		7358*a*	0·913	114·3	243·8	−19·8	19	71	
			0·968	112·7	233·6	−20·5			163
July 22				(+6·4)	(305·8)	(+5·0)	(392)	(2002)	(1935)
203·480	N, JS		0·962	241·9	355·1	−19·0			105
		7341*a*	0·980	287·2	10·6	−17·8	31	216	417*f*
		7350	0·915	288·6	357·7	−19·0	0	7	
		7350	0·914	289·2	357·5	−19·6	0	5	486*c*
		7343*a*	0·864	289·9	350·8	−19·7	10	79	
		7359	0·862	233·3	342·7	−27·8	7	13	
		7359	0·848	231·7	340·3	−28·3	0	4	149*s*
		7348*b*	0·423	293·3	314·9	+14·3	1	2	
		7348*a*	0·424	297·1	314·4	+15·9	10	12	
		7348	0·424	303·0	313·3	+18·0	0	4	
		7348	0·399	295·3	313·2	+14·5	1	1	
		7348	0·387	305·9	310·5	+17·9	0	1	
		7355	0·461	182·9	292·9	−22·2	1	5	
		7355	0·470	177·3	290·0	−22·7	0	4	
G.		7355	0·473	174·5	288·6	−22·9	0	2	
		7354	0·504	148·2	275·0	−20·4	1	1	
		7354*a*	0·517	142·5	272·0	−19·3	110	562	
		7354	0·495	137·0	270·9	−16·4	0	12	
		7354	0·553	141·4	269·8	−20·8	2	5	
		7354	0·563	138·5	268·1	−20·3	31	177	
		7354*f*	0·552	134·5	267·0	−18·0	8	80	
		7354*f*	0·588	136·3	265·8	−20·5	13	51	
		7354	0·576	133·7	265·4	−18·8	9	57	
		7354	0·594	132·7	264·0	−19·1	5	31	
		7354	0·614	134·4	263·5	−20·8	3	5	
		7354	0·590	130·5	263·4	−18·0	0	10	
		7354	0·627	134·9	263·0	−21·7	0	5	
		7354*d*	0·621	131·2	261·8	−19·6	21	78	

Group 7357, July 21. Two very small spots.
Group 7358, July 21–27. Several spots, mostly small, in a sparse, long, straight stream. *a* the rear spot, is the largest, but diminishes rapidly after July 24, and has disappeared by July 27.
Group 7359, July 22–24. Two small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
203·480	N, JS	7354	0·655	135·7	261·6	−23·4	0	5	
		7354	0·646	133·0	261·0	−21·7	3	10	
		7354	0·674	135·5	260·3	−24·3	25	114	
		7354	0·665	134·1	260·2	−23·1	6	17	
		7358	0·711	121·3	251·9	−17·7	11	27	
		7358	0·707	120·1	251·8	−16·8	0	3	
G.		7358	0·735	120·8	249·9	−18·3	5	11	190*c*
		7358	0·757	120·4	247·9	−18·8	1	2	
		7358*a*	0·797	119·7	244·2	−19·8	14	83	
		7360	0·864	117·3	236·6	−20·4	4	11	
		7360	0·881	115·1	233·9	−19·2	0	2	217*c*
		7360	0·892	116·2	232·9	−20·5	3	9	
			0·968	113·5	219·5	−21·1			342
July 23				(+6·9)	(291·4)	(+5·1)	(336)	(1723)	(1906)
204·299	N, VD	7343*a*	0·936	289·1	350·2	+19·7	13	62	562*c*
		7359	0·936	237·3	343·6	−28·1	7	18	
		7359	0·910	235·3	338·7	−28·5	5	18	215*s*
		7348*b*	0·589	287·5	315·8	+14·4	19	23	
		7348	0·577	287·5	314·9	+14·2	1	4	
		7348*a*	0·573	290·4	314·3	+15·8	9	10	
		7348	0·550	288·7	312·9	+14·5	0	15	
		7348	0·547	293·9	311·9	+17·2	0	4	
		7348	0·484	298·4	307·0	+17·9	1	7	
		7361*a*	0·625	235·2	312·7	−16·5	5	16	
		7361*b*	0·593	232·1	309·6	−16·7	5	10	
		7354	0·437	168·7	275·3	−20·1	3	9	
		7354	0·404	166·9	275·0	−17·9	0	1	
		7354	0·448	166·9	274·3	−20·6	1	11	
		7354	0·431	165·7	274·0	−19·4	5	31	
G.		7354*a*	0·437	160·9	271·8	−19·1	117	517	
		7354	0·402	155·3	270·5	−16·2	0	3	
		7354	0·462	155·6	268·9	−19·7	18	62	
		7354	0·450	154·0	268·5	−18·6	1	10	
		7354	0·424	150·7	268·1	−16·5	0	5	
		7354	0·470	153·8	267·8	−19·8	2	14	
		7354*f*	0·474	151·0	266·5	−19·3	14	135	
		7354	0·494	151·5	266·0	−20·6	8	46	
		7354	0·457	148·5	266·0	−17·7	7	64	
		7354	0·479	147·1	264·6	−18·6	10	37	
		7354*g*	0·502	147·1	263·7	−19·9	43	171	
		7354	0·559	149·1	262·3	−23·7	0	3	
		7354	0·518	145·1	262·2	−20·1	5	17	
		7354	0·514	143·5	261·7	−19·4	11	30	
		7354	0·530	143·9	261·1	−20·4	0	16	
		7354	0·559	146·1	260·8	−22·7	3	26	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
204·299	N. VD	7354*e*	0·589	145·4	259·1	−24·1	21	113	
		7358	0·592	129·3	251·9	−17·4	12	17	
		7358	0·614	128·7	250·4	−18·0	1	5	
		7358	0·641	127·7	248·3	−18·6	5	10	
		7358	0·677	125·6	245·1	−18·9	1	4	
		7358*a*	0·696	125·1	243·5	−19·4	18	115	
G.		7360	0·770	121·6	236·4	−20·1	2	5	
		7360	0·805	122·2	233·5	−21·8	1	4	208*c*
		7360	0·799	120·2	233·3	−20·1	2	7	
		7360	0·809	119·7	232·2	−20·1	3	14	
			0·916	116·5	218·8	−21·7			385
			0·969	118·9	209·6	−26·3			221
			0·973	66·4	203·1	+24·1			191
July 24				(+7·3)	(280·5)	(+5·2)	(379)	(1689)	(1782)
205·304	N, VD		0·972	237·9	338·1	−29·5			166
			0·794	233·3	311·5	−24·5			502
		7343*a*	0·988	289·6	349·5	+20·2	0	86	308*f*
		7348*b*	0·757	284·9	316·1	+14·7	17	60	
		7348*a*	0·739	286·9	314·3	+15·9	4	6	110*c*
		7348	0·735	284·3	314·3	+14·1	2	5	
		7348	0·717	285·5	312·6	+14·8	4	20	
		7361*a*	0·779	244·3	314·0	−16·1	17	50	103*c*
		7361*b*	0·733	241·5	309·2	−16·5	13	85	
		7354	0·435	197·3	275·0	−19·2	2	20	
		7354	0·455	195·5	274·6	−20·7	2	8	
		7354	0·398	197·1	274·2	−17·0	7	17	
		7354*a*	0·424	190·8	272·0	−19·2	126	569	
		7354	0·379	189·1	270·8	−16·5	2	13	
		7354	0·402	185·4	269·5	−18·2	6	24	
G.		7354	0·443	184·9	269·5	−20·8	4	9	
		7354	0·417	182·6	268·3	−19·2	4	8	
		7354	0·434	178·7	266·6	−20·3	8	17	
		7354*f*	0·405	177·1	266·0	−18·4	28	220	
		7354	0·401	172·3	264·0	−18·0	6	14	
		7354	0·433	172·7	263·9	−20·1	4	56	
		7354	0·463	170·9	262·7	−21·8	2	6	
		7354*g*	0·426	169·1	262·3	−19·3	50	209	
		7354*h*	0·468	169·1	261·7	−22·0	5	40	
		7354	0·459	167·1	260·9	−21·2	2	5	
		7354	0·483	167·1	260·5	−22·7	0	27	
		7354	0·485	164·6	259·2	−22·5	2	7	
		7354*e*	0·504	164·6	258·8	−23·7	18	74	
		7358	0·450	147·1	252·5	−17·0	5	7	
		7358	0·464	144·8	251·0	−17·1	1	5	
		7358	0·497	143·4	249·1	−18·4	2	4	

Group 7360, July 23–30. A few small spots in a sparse straight stream. The group is not seen on July 29.
Group 7361, July 24–27. Two spots, *a* and *b*, with a very small companion on July 26.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued*.

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
205·304	N, VD	7358	0·538	138·4	245·1	−18·7	1	6	
		7358*a*	0·555	137·1	243·7	−19·0	12	48	
		7360	0·639	131·1	236·5	−20·2	2	3	85*c*
		7360	0·675	127·3	232·5	−19·8	3	5	
G.			0·824	120·3	217·7	−21·1			335
			0·908	122·7	208·6	−26·7			269
			0·903	65·4	203·1	+24·4			171
			0·976	73·5	188·9	+17·3			143
July 25				(+7·7)	(267·2)	(+5·3)	(361)	(1733)	(2192)
206·336	N, JS		0·869	296·3	313·0	+25·4			106
			0·894	240·0	311·1	−23·7			421
			0·791	291·1	305·1	+19·9			181
			0·909	230·3	304·6	−26·0			75
			0·805	238·7	300·9	−21·1			168
			0·821	229·7	298·8	−28·3			101
		7348*b*	0·894	283·6	317·2	+14·5	11	56	
		7348	0·876	284·0	314·9	+14·8	7	24	
		7348	0·862	283·5	313·3	+14·3	3	10	270*c*
		7348	0·856	285·1	312·5	+15·6	2	8	
		7348	0·855	283·8	312·4	+14·5	5	15	
		7361*a*	0·902	248·4	314·6	−16·8	13	64	
		7361	0·867	248·0	310·2	−16·1	3	5	156*c*
		7361*b*	0·864	247·3	309·6	−16·5	8	32	
		7362	0·676	222·7	283·9	−25·1	1	2	64*np*
		7354	0·582	218·1	276·4	−22·3	1	4	
		7354	0·529	220·9	274·9	−18·5	13	54	
		7354	0·503	221·5	273·9	−17·1	1	1	
G.		7354	0·556	213·1	272·7	−22·7	1	5	
		7354	0·484	219·5	272·3	−16·8	6	35	
		7354*a*	0·515	215·9	272·2	−19·6	111	544	
		7354*j*	0·534	211·3	270·9	−22·0	15	79	
		7354	0·469	211·7	268·6	−18·3	10	28	
		7354	0·485	209·2	268·1	−19·8	1	5	
		7354	0·453	212·0	268·1	−17·4	1	2	
		7354*f*	0·455	205·6	265·5	−18·9	37	230	
		7354	0·485	203·4	265·5	−21·1	1	6	
		7354	0·467	200·3	263·6	−20·8	3	35	
		7354*g*	0·445	198·0	262·0	−19·7	42	163	
		7354*h*	0·477	196·2	261·8	−21·9	4	70	
		7354	0·434	195·3	260·6	−19·4	2	4	
		7354	0·458	194·2	260·5	−21·0	1	7	
		7354	0·485	192·8	260·3	−22·8	7	43	
		7354*e*	0·494	189·5	258·7	−23·7	13	57	
		7354	0·478	186·8	257·1	−23·0	0	5	
		7358	0·383	178·3	252·7	−23·2	0	4	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
206·336	N, JS	7358	0·418	171·8	250·0	−19·0	2	6	
		7358	0·434	166·2	247·3	−19·6	1	5	
		7358	0·425	160·3	245·0	−18·3	1	1	
		7358	0·450	161·3	244·8	−19·9	1	4	
		7358*a*	0·442	158·3	243·7	−18·9	11	15	
		7360	0·512	145·7	235·8	−19·9	5	18	
		7360	0·514	143·3	234·7	−19·2	2	5	
G.		7360	0·535	142·6	233·4	−20·1	14	21	
		7360	0·561	140·1	231·1	−20·5	0	8	
		7363	0·812	129·2	208·8	−27·1	0	3	149*c*
		7364*a*	0·977	68·8	175·0	+21·8	61	194	144*p*
			0·821	61·6	200·3	+26·1			115
			0·892	74·7	190·3	+16·0			134
			0·933	56·7	185·6	+32·9			94
July 26				(+8·1)	(253·6)	(+5·3)	(421)	(1877)	(2178)
207·480	JS, VD		0·959	295·0	312·5	+25·4			101
			0·967	243·8	309·7	−23·7			358
			0·918	290·3	305·3	+20·8			172
			0·901	243·4	298·0	−21·1			321
			0·917	233·3	296·9	−30·5			204
			0·863	304·8	295·5	+32·5			140
			0·840	297·2	294·2	+25·6			136
			0·824	233·2	285·5	−25·8			274
		7348*b*	0·979	284·0	317·6	+14·8	3	15	326*c*
		7348	0·971	284·2	315·3	+15·0	0	7	
		7361*a*	0·979	251·8	314·3	−16·5	3	8	140*c*
		7361*b*	0·964	251·1	310·3	−16·5	6	12	
		7354*k*	0·694	234·4	275·1	−19·5	56	259	
		7354	0·663	236·4	273·7	−17·1	1	7	
		7354*l*	0·658	232·0	271·7	−19·3	56	280	
G.		7354*j*	0·666	227·8	270·5	−22·0	26	105	
		7354	0·637	227·0	268·3	−21·0	2	6	
		7354	0·613	228·8	267·6	−19·0	6	29	
		7354*f*	0·588	226·2	265·1	−19·2	14	145	
		7354	0·574	221·2	262·2	−20·6	1	3	
		7354*h*	0·581	220·0	262·1	−21·4	16	119	
		7354*g*	0·556	221·5	261·4	−19·6	29	122	
		7354	0·565	219·8	261·2	−20·7	1	5	
		7354	0·581	216·6	260·5	−22·7	0	5	
		7354*e*	0·577	214·4	259·2	−23·2	8	31	
		7354	0·559	212·1	257·3	−23·1	6	12	
		7358	0·461	210·2	252·6	−18·1	0	4	
		7358	0·459	207·2	251·2	−18·7	2	4	
		7358	0·440	202·0	248·5	−18·6	0	4	
		7360	0·432	175·0	236·2	−20·0	3	5	

Group 7362, July 26. A very small spot.
Group 7363, July 26–27. A very small spot.
Group 7364, July 26–August 7. A large regular spot, *a*, usually with several small companions preceding it.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for each Day).
1915.				°	°	°			
207·480	JS, VD	7360	0·428	173·0	235·3	−19·6	1	8	
		7360	0·449	172·4	234·9	−20·9	2	4	
		7360	0·447	168·0	232·8	−20·5	0	6	
		7360	0·431	167·4	232·8	−19·4	7	10	
		7360	0·452	165·7	231·7	−20·5	0	4	
		7363	0·691	140·2	208·8	−27·3	1	2	115*c*
G.		7364	0·876	70·6	177·4	+19·6	1	7	359*c*
		7364*a*	0·899	68·4	174·5	+21·8	39	194	
		7365*a*	0·960	73·2	164·0	+17·7	17	73	
		7365	0·964	74·2	163·3	+16·6	6	29	
		7365	0·965	71·6	162·9	+19·2	6	8	347*c*
		7365	0·966	72·8	162·7	+18·0	4	14	
		7365*b*	0·976	71·0	160·2	+19·7	21	76	
July 27				(+8·6)	(238·5)	(+5·4)	(344)	(1622)	(2993)
208·300	N, JS		0·960	288·4	302·0	+19·2			74
			0·974	246·3	300·8	−21·5			119
			0·925	296·5	295·0	+26·5			138
			0·958	235·5	294·1	−30·7			182
			0·908	240·0	286·9	−24·2			313
			0·876	230·1	278·9	−30·7			136
		7354	0·819	245·9	278·5	−16·1	1	4	
		7354	0·791	245·3	275·7	−15·6	3	9	
		7354*k*	0·804	241·3	275·7	−19·0	64	272	
		7354	0·780	243·1	274·0	−16·8	4	15	
		7354	0·795	238·5	273·9	−20·8	6	8	
		7354	0·785	236·6	272·3	−21·7	1	3	
		7354*l*	0·772	239·0	272·0	−19·5	53	233	
		7354	0·762	236·9	270·4	−20·5	2	5	
G.		7354*j*	0·767	234·7	270·0	−22·2	31	139	129*c*
		7354	0·746	234·3	268·1	−21·6	2	4	
		7354*f*	0·701	235·5	265·1	−18·9	21	110	
		7354	0·688	232·9	263·2	−20·0	2	3	
		7354*h*	0·691	230·9	262·6	−21·2	14	98	
		7354*g*	0·665	231·9	261·2	−19·6	38	142	
		7354	0·671	228·3	260·1	−21·8	3	13	
		7354*e*	0·670	225·7	258·9	−23·1	11	22	
		7354	0·651	223·7	256·8	−23·2	3	5	
		7360	0·444	194·1	234·2	−19·9	2	6	
		7360	0·441	190·5	232·5	−20·1	6	9	
		7364*a*	0·814	67·0	174·0	+21·8	36	178	202*c*
		7364	0·851	67·3	169·9	+22·1	1	5	
		7365*a*	0·892	73·1	164·5	+17·2	17	88	
		7365	0·899	71·5	163·5	+18·9	5	7	
		7365	0·902	72·7	162·9	+18·0	6	13	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
208·300	N, JS	7365	0·905	74·3	162·5	+16·5	10	39	
		7365*b*	0·922	71·3	160·2	+19·3	27	80	337*c*
G.		7365	0·943	71·9	156·5	+18·9	3	14	
		7366*a*	0·963	110·5	156·3	−18·0	0	12	218*c*
			0·968	69·1	151·5	+21·5			405
July 28				(+8·9)	(227·6)	(+5·5)	(372)	(1536)	(2253)
209·370	N, JS		0·966	242·0	283·6	−25·1			212
			0·920	293·8	280·4	+24·1			51
			0·702	235·2	250·8	−19·1			96
		7354*k*	0·917	246·9	276·1	−18·6	38	291	
		7354*l*	0·901	244·9	273·3	−19·7	17	76	
		7354	0·889	242·6	271·0	−21·1	0	8	
		7354*j*	0·878	244·0	270·1	−19·6	7	22	
		7354	0·885	241·2	270·0	−22·1	6	64	
		7354	0·880	239·9	269·0	−23·0	0	8	580*c*
		7354*f*	0·839	242·1	265·2	−19·7	11	76	
		7354*h*	0·822	239·0	262·4	−21·4	5	56	
		7354*f*	0·804	240·1	261·1	−19·9	34	168	
		7354*e*	0·796	234·8	258·3	−23·3	1	2	
		7364	0·601	64·8	178·3	+19·4	2	9	
		7364	0·627	63·2	176·8	+20·8	1	2	
		7364*a*	0·665	62·7	173·9	+22·1	41	188	
G.		7365	0·734	72·0	166·7	+17·0	12	16	
		7365	0·760	71·5	164·4	+17·7	1	15	
		7365	0·764	73·2	163·9	+16·4	4	11	
		7365	0·772	70·9	163·4	+18·3	4	11	
		7365*c*	0·777	73·2	162·7	+16·5	10	40	245*c*
		7365	0·787	71·8	161·9	+17·7	3	5	
		7365*b*	0·810	70·6	159·7	+18·9	18	124	
		7365	0·835	70·3	157·1	+19·5	6	15	
		7366*a*	0·864	114·3	157·8	−17·7	0	8	228*f*
		7367*a*	0·955	113·8	144·4	−20·8	9	12	250*f*
		7368*a*	0·983	108·6	136·5	−17·1	59	539	
		7368*b*	0·993	107·9	132·4	−17·0	0	129	205*c*
		7368	0·994	109·3	132·2	−18·4	0	42	
			0·980	161·8	167·0	−65·0			29
			0·879	77·0	151·6	+14·1			132
			0·890	67·6	150·7	+22·4			420
July 29				(+9·4)	(213·4)	(+5·6)	(289)	(1937)	(2448)
210·296	N, VD		0·884	230·2	253·4	−31·0			90
G.			0·773	239·8	246·0	−18·9			224

Group 7365, July 27–August 5. An irregular stream, of which *a* and b, the first and last spots, are the largest. *a* has broken up by July 29, *c* being its largest and most stable fragment. *b*, now a very small spot, alone remains of the original group on August 5.

Group 7366, July 28–30. A small regular spot, *a*.

Group 7367, July 29–August 1. Return of Group 7342. A small regular spot, *a*.

Group 7368, July 29–August 10. Return of Group 7336. A very large and complex spot, *a*, closely followed by a numerous train, of which *b*, *c*, *d*, *e*, and *f* are the principal members. The group lengthens out into a very long straight stream, and *a* breaks up into four chief spots, *g*, *h*, *j*, and *k*. A large regular spot, *l*, has formed at the head of the stream by August 4, and another, *m*, near its rear by August 6. After this the group rapidly diminishes, and consists of three widely separated divisions by August 8, of which only the last remains in sight on August 10.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs.—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spot. Area of UMBRA for each Spot (and for Day).	Spot. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
210·296	N, VD	7354*k*	0·977	250·0	275·9	−18·0	24	318	
		7354*l*	0·967	247·8	273·0	−19·7	0	20	
		7354	0·959	246·9	271·0	−20·2	2	15	
		7354*j*	0·955	244·7	269·7	−22·1	0	53	1066*c*
		7354*f*	0·927	246·3	265·1	−19·4	0	31	
		7354	0·921	242·1	263·1	−22·9	0	7	
		7354*g*	0·904	244·4	261·3	−20·2	32	107	
		7354	0·896	242·0	259·6	−22·0	1	2	
		7360	0·649	230·5	233·2	−19·5	0	4	
		7360	0·639	227·9	231·5	−20·4	2	8	
		7369	0·519	191·4	207·7	−24·8	0	2	
		7364	0·440	55·6	178·6	+19·6	5	14	
		7364	0·469	56·0	176·8	+20·4	2	15	
		7364*a*	0·521	55·3	173·7	+22·3	33	202	
		7365	0·572	68·6	167·5	+16·8	3	4	
		7365	0·615	68·1	164·6	+17·7	2	7	
		7365	0·634	68·2	163·1	+18·0	8	29	
		7365*c*	0·634	70·0	162·8	+17·0	10	50	
		7365*b*	0·676	67·8	159·9	+19·0	15	76	
G.		7365	0·671	72·2	159·7	+16·1	1	1	
		7365	0·692	69·2	158·4	+18·4	3	4	
		7365	0·711	67·9	157·0	+19·6	6	15	
		7366*a*	0·747	119·9	158·5	−17·7	5	6	159*f*
		7370	0·750	66·3	153·9	+21·4	0	4	
		7370	0·760	67·8	152·7	+20·5	0	5	
		7370	0·770	62·6	152·7	+24·5	0	3	235*c*
		7370	0·776	66·4	151·4	+21·8	0	8	
		7370	0·794	66·1	149·6	+22·4	0	3	
		7367*a*	0·883	117·2	144·2	−20·8	4	9	214*f*
		7368*a*	0·921	110·8	137·4	−16·6	104	601	
		7368	0·952	111·8	132·6	−18·6	10	29	
		7368*b*	0·952	110·2	132·1	−17·2	38	208	
		7368	0·965	110·9	129·6	−18·4	4	30	
		7368*c*	0·969	109·2	128·3	−17·0	36	139	713*c*
		7368*d*	0·972	111·5	128·1	−19·2	33	82	
		7368	0·978	108·2	125·7	−16·5	0	30	
		7368*e*	0·983	110·9	124·9	−19·2	0	79	
		7368*f*	0·985	109·6	124·0	−18·0	0	60	
July 30				(+9·8)	(201·2)	(+5·7)	(383)	(2280)	(2701)
211·433	N, AM		0·908	245·4	247·1	−19·4			352
			0·811	241·0	234·7	−19·3			167
C.		7354*g*	0·977	247·5	260·5	−20·5	8	116	830*c*
		7364	0·270	27·3	178·7	+19·6	5	11	
		7364	0·308	32·2	176·1	+20·8	0	3	
		7364*a*	0·354	35·2	173·5	+22·4	24	170	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
211·433	N, AM	7364	0·410	44·6	168·1	+22·4	2	16	
		7365	0·397	60·0	165·2	+16·8	2	8	
		7365*c*	0·436	61·4	162·7	+17·4	4	24	
		7365	0·471	65·1	159·8	+16·6	1	3	
		7365*b*	0·489	60·5	159·5	+19·1	16	65	
		7365	0·501	63·1	158·2	+18·3	1	5	
		7372	0·613	41·7	157·5	+32·3	0	3	
		7371	0·513	77·8	155·5	+11·2	1	4	
C.		7367*a*	0·759	124·3	144·2	−21·0	0	5	101*c*
		7373	0·816	123·8	138·9	−23·0	0	6	
		7368	0·769	119·6	141·6	−18·2	0	15	
		7368*a*	0·803	116·0	137·5	−16·8	146	839	
		7368*b*	0·851	114·4	132·2	−17·2	56	265	
		7368	0·864	116·5	131·3	−19·4	8	41	780*c*
		7368*cd*	0·888	114·6	128·0	−18·6	39	223	
		7368	0·900	111·9	125·7	−16·8	9	79	
		7368*ef*	0·911	114·0	124·7	−19·0	43	232	
July 31				(+10·2)	(186·2)	(+5·8)	(365)	(2133)	(2230)
212·338	N, VD		0·985	249·0	251·4	−19·5			179
			0·919	245·6	236·8	−19·7			372
			0·801	237·2	220·5	−21·7			144
		7364	0·255	343·1	178·7	+19·9	4	7	
		7364*a*	0·286	3·4	173·1	+22·4	30	169	
		7364	0·331	22·6	166·3	+23·4	1	1	
		7365	0·285	33·6	164·6	+19·4	1	4	
		7365	0·253	41·0	164·3	+16·7	1	3	
		7365*c*	0·276	45·3	162·4	+16·8	6	9	
		7365	0·320	47·3	159·9	+18·1	0	3	
		7365	0·319	50·5	159·3	+17·3	6	14	
		7365*b*	0·340	46·4	159·2	+19·1	9	54	
		7365	0·341	51·2	158·1	+17·9	1	6	
G.		7370	0·453	50·0	152·3	+22·3	1	5	
		7375	0·562	140·4	151·8	−20·2	1	3	
		7375	0·579	136·6	149·3	−19·5	0	3	
		7374	0·438	60·4	150·7	+17·7	1	2	
		7367*a*	0·655	131·5	142·7	−20·7	2	6	
		7368*a*	0·685	122·0	137·0	−16·6	155	956	
		7368	0·740	122·0	132·9	−18·7	6	12	
		7368*b*	0·738	119·8	132·3	−17·2	18	140	
		7368	0·765	124·8	131·9	−21·6	1	3	
		7368	0·766	121·9	130·7	−19·7	13	39	
		7368	0·755	118·8	130·6	−17·1	7	46	
		7368	0·772	118·8	129·1	−17·7	7	28	
		7368*d*	0·791	120·1	127·9	−19·4	6	57	
		7368*e*	0·787	118·0	127·5	−17·7	14	66	

Group 7369, July 30. A very small marking.
Group 7370, July 30–August 1. Return of Group 7340. A disturbed region *f* Group 7365, in which some very small markings are seen. The group is not seen on July 31.
Group 7371, July 31. A very small marking *nf* Group 7365.
Group 7372, July 31. A very small marking *sf* Group 7365.
Group 7373, July 31. A very small marking *sf* Group 7367.
Group 7374, August 1–5. A very small marking *sf* Group 7365, not seen on August 2, 3, and 4.
Group 7375, August 1. A pair of very small markings *p* Group 7367.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
212·338	N, VD	7368	0·799	118·8	126·7	−18·7	6	18	
		7368	0·796	116·2	126·1	−16·8	6	41	
		7368*f*	0·807	117·2	125·5	−17·8	25	98	569*c*
		7368*e*	0·821	120·4	125·1	−20·8	7	141	
		7368	0·826	117·6	123·7	−18·9	11	87	
G.		7368	0·839	119·3	122·9	−20·6	6	41	
			0·899	127·6	119·0	−30·0			66
			0·929	120·2	111·8	−25·2			149
			0·931	71·8	105·2	+19·0			50
			0·979	112·5	99·4	−20·5			241
Aug. 1				(−10·6)	(174·2)	(+5·8)	(352)	(2062)	(1770)
213·430	N, JS		0·970	247·8	232·3	−19·8			214
			0·905	243·6	219·8	−20·8			221
			0·841	233·6	208·5	−26·0			161
			0·802	225·6	200·9	−29·7			88
		7364	0·405	311·2	178·3	+21·0	2	6	
		7364*a*	0·353	323·0	173·0	+22·0	31	147	
		7364	0·322	337·9	167·3	+23·1	0	3	
		7365	0·203	333·4	165·2	+16·3	2	3	
		7365	0·246	341·4	164·5	+19·3	3	5	
		7365	0·194	341·5	163·5	+16·5	4	11	
		7365	0·197	0·6	159·7	+17·2	3	16	
		7365*b*	0·238	3·6	158·9	+19·6	10	45	
		7365	0·208	6·4	158·4	+17·7	2	6	
		7365	0·227	12·8	156·8	+18·6	0	3	
		7376	0·279	150·8	151·9	− 8·2	0	2	
		7368	0·528	143·6	140·5	−19·5	4	7	
G.		7368*g*	0·511	139·0	139·4	−17·1	92	476	
		7368*h*	0·514	132·7	136·9	−14·9	12	106	
		7368*j*	0·549	135·2	136·0	−17·4	65	293	
		7368*k*	0·549	131·8	134·7	−16·1	13	188	
		7368	0·605	134·4	132·6	−19·8	4	11	
		7368	0·548	125·2	132·5	−13·1	1	4	
		7368*b*	0·587	131·2	132·3	−17·5	31	167	
		7368	0·613	132·9	131·5	−19·5	11	18	
		7368	0·578	127·0	131·4	−15·1	1	5	198*f*
		7368	0·609	128·9	130·2	−17·3	10	40	
		7368*d*	0·644	128·3	127·7	−18·5	29	153	
		7368*c*	0·647	124·9	126·3	−16·8	11	61	
		7368*f*	0·667	127·0	125·7	−18·7	42	140	
		7368*e*	0·683	129·1	125·4	−20·6	15	122	
		7368	0·651	121·2	124·8	−14·8	1	14	
		7368	0·686	126·2	124·1	−19·1	14	50	
		7368	0·714	126·8	122·3	−20·6	8	46	
			0·903	116·6	100·3	−20·8			322
1915.				°	°	°			
213·430	N, JS		0·930	68·8	91·0	+21·8			121
G.			0·974	116·0	87·2	−23·6			617
Aug. 2				(−11·0)	(159·8)	(+5·9)	(421)	(2148)	(1942)
214·277	N, AM		0·964	245·6	219·1	−21·6			63
			0·914	236·9	207·5	−26·9			201
		7364*a*	0·482	306·4	173·1	+22·0	35	144	
		7377	0·471	210·4	163·0	−18·0	3	6	
		7377	0·449	207·2	160·9	−17·6	0	3	
		7365	0·314	310·5	162·9	+17·5	0	1	
		7365	0·310	318·6	161·0	+19·2	0	1	
		7365	0·281	317·7	159·9	+17·8	4	12	
		7365*b*	0·293	325·5	158·6	+19·8	8	30	
		7365	0·268	325·8	157·6	+18·7	0	7	
		7368	0·450	164·6	141·2	−19·7	1	3	
		7368	0·377	159·8	140·8	−14·7	0	5	
		7368*g*	0·421	159·4	139·6	−17·1	103	512	
D.		7368	0·392	152·6	137·8	−14·4	0	4	
		7368*k*	0·450	150·0	134·9	−17·0	68	495	
		7368*b*	0·485	144·7	131·5	−17·5	26	190	
		7368	0·553	142·4	127·5	−20·3	2	25	
		7368*d*	0·534	139·6	127·2	−18·3	15	144	
		7368*c*	0·532	135·6	125·7	−16·8	0	40	
		7368*e*	0·573	138·0	124·6	−19·6	31	186	
		7368	0·594	136·8	122·9	−20·2	7	53	
		7368	0·612	135·2	121·2	−20·3	8	44	
		7378	0·270	59·6	134·7	+13·6	2	6	
			0·823	120·4	99·3	−20·7			160
			0·933	118·6	85·0	−24·0			637
Aug. 3				(−11·4)	(148·5)	(+6·0)	(313)	(1911)	(1061)
215·689	N, VD		0·968	237·5	199·3	−29·4			176
			0·929	294·7	198·5	+25·2			129
			0·829	291·9	185·4	+21·5			207
		7364*a*	0·702	295·2	172·9	+21·8	25	121	
		7377*a*	0·665	233·7	164·1	−18·0	5	8	
		7377	0·678	231·4	164·1	−19·9	1	3	
G.		7377	0·634	231·7	161·3	−17·9	5	7	
		7365	0·529	293·9	160·3	−17·6	0	1	
		7365*b*	0·512	299·9	158·0	+20·1	5	14	
		7365	0·461	296·9	155·3	+17·5	0	4	
		7368*l*	0·441	207·8	142·3	−16·9	39	198	
		7368	0·402	207·3	140·8	−14·9	0	14	
		7368*g*	0·417	202·3	139·4	−16·5	45	211	
		7368	0·376	203·5	138·8	−14·0	1	2	

Group 7376, August 2. A very small marking *np* Group 7368.
Group 7377, August 3–5. Three very small spots. The leader, *a*, alone remains on August 5.
Group 7378, August 3. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
215·689	N, VD	7368	0·460	198·1	138·6	−19·8	1	2	
		7368*h*	0·396	197·7	137·1	−15·9	10	28	
		7368	0·465	192·1	135·9	−20·8	1	3	
		7368*j*	0·408	193·0	135·4	−17·3	48	186	
		7368*k*	0·385	193·4	135·2	−15·9	3	40	
		7368	0·509	188·5	134·6	−24·0	1	4	
		7368	0·453	187·5	133·5	−20·5	2	4	
		7368*b*	0·403	186·5	132·6	−17·4	40	239	
		7368	0·446	184·4	132·0	−20·2	2	22	
		7368	0·416	181·0	130·3	−18·3	1	13	
		7368	0·452	180·7	130·2	−20·7	1	1	
		7368	0·360	179·5	129·7	−14·9	3	37	
		7368	0·431	177·8	128·9	−19·3	2	8	
		7368*d*	0·414	175·7	128·0	−18·2	5	38	
		7368	0·464	174·7	127·3	−21·3	2	4	
		7368*e*	0·393	171·1	126·3	−16·6	5	12	
G.		7368*f*	0·423	171·5	126·1	−18·6	13	37	
		7368	0·442	170·6	125·5	−19·7	5	27	
		7368*e*	0·460	170·3	125·2	−20·8	17	83	
		7368	0·430	165·7	123·5	−18·5	2	11	
		7368	0·461	163·9	122·1	−20·2	6	23	
		7368	0·430	161·7	121·8	−18·0	2	12	
		7379*b*	0·529	171·9	125·2	−25·4	2	3	
		7379*a*	0·534	164·6	120·9	−24·8	14	51	
		7379*c*	0·539	161·5	119·1	−24·6	4	6	
		7379*c*	0·537	157·5	117·0	−23·7	11	20	
		7380	0·466	63·9	105·1	+ 6·3	2	5	
		7381*a*	0·633	132·4	100·2	−19·9	1	2	} 108*c*
		7381*b*	0·662	129·5	97·2	−19·7	0	2	
			0·738	129·9	91·9	−23·4			211
			0·846	125·9	80·5	−25·8			739
			0·878	112·5	72·4	−16·4			60
			0·968	111·1	57·7	−18·6			124
Aug. 4				(+11·9)	(129·9)	(+6·1)	(332)	(1506)	(1754)
216·312	N, AM		0·869	292·1	181·7	+22·1			148
			0·681	285·6	164·2	+15·0			129
		7364*a*	0·787	292·8	172·7	+21·6	23	134	
		7377*a*	0·745	239·1	163·7	−18·0	1	4	
		7365*b*	0·616	295·4	157·8	+20·2	0	4	
G.		7365	0·612	299·0	156·8	+22·2	0	1	
		7365	0·593	298·4	155·5	+21·4	1	5	
		7374	0·541	295·8	152·4	+18·8	2	6	
		7368*l*	0·515	222·0	142·6	−16·8	38	186	
		7368	0·485	221·5	141·0	−15·5	1	6	
		7368*g*	0·491	218·1	140·0	−16·8	39	153	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
216·312	N, AM	7368	0·449	221·5	139·4	−13·8	2	23	
		7368	0·469	215·4	138·0	−16·5	18	44	
		7368	0·423	217·1	136·8	−13·8	0	3	
		7368	0·441	214·6	136·6	−15·3	0	4	
		7368*j*	0·456	209·8	135·3	−17·3	56	215	
		7368*b*	0·439	204·9	132·7	−17·4	73	174	
		7368	0·399	206·9	132·3	−14·7	4	36	
		7368	0·461	200·2	131·3	−19·5	10	58	
		7368	0·411	200·8	130·3	−16·5	3	20	
		7368	0·371	201·3	129·6	−14·1	0	3	
		7368	0·352	200·5	128·8	−13·0	0	2	
		7368*d*	0·426	194·0	127·8	−18·3	8	30	
		7368	0·465	191·6	127·3	−20·9	1	20	
		7368	0·346	191·6	126·9	−19·1	8	61	
G.		7368	0·372	191·3	125·9	−15·2	5	20	
		7368*e*	0·459	188·0	125·5	−20·8	15	70	
		7368	0·389	187·1	124·5	−16·5	26	47	
		7368	0·447	183·0	123·0	−20·3	9	38	
		7368	0·404	181·9	122·4	−17·7	5	36	
		7368	0·377	175·9	120·0	−15·9	1	2	
		7379*b*	0·534	187·4	126·0	−25·7	4	18	
		7379*b*	0·537	182·9	123·3	−26·1	3	11	
		7379*a*	0·515	179·1	121·1	−24·8	26	149	
		7379*c*	0·527	172·0	117·0	−25·3	9	21	
		7379*c*	0·495	171·3	116·9	−23·1	9	17	
			0·685	140·4	92·5	−26·4			223
			0·793	131·2	79·7	−26·9			666
			0·934	112·8	56·5	−18·7			219
Aug. 5				(−12·2)	(121·6)	(+6·1)	(400)	(1621)	(1385)
217·633	N, VD		0·853	241·5	157·1	−20·3			201
			0·759	293·7	152·5	+21·9			274
		7364*a*	0·927	290·6	172·7	+21·4	11	110	507*f*
		7368*l*	0·712	238·7	143·5	−16·9	28	137	
		7368	0·708	235·5	142·1	−18·6	1	1	
		7368*g*	0·683	236·3	140·6	−17·3	20	107	
		7368	0·648	234·5	137·5	−16·9	11	15	
G.		7368*j*	0·635	231·6	135·6	−17·9	29	129	
		7368	0·612	233·3	134·8	−16·0	1	3	
		7368	0·633	225·7	133·1	−20·8	3	12	
		7368	0·584	232·9	132·9	−15·1	1	2	
		7368*b*	0·604	229·5	132·9	−17·7	36	314	
		7368	0·586	225·6	130·3	−18·6	2	7	
		7368	0·517	231·1	128·5	−13·3	1	2	
		7368	0·547	225·8	128·3	−16·7	2	4	
		7368	0·573	222·3	128·2	−19·3	3	13	

Group 7379. August 4–10. A sparse straight stream *ef* Group 7368, and nearly in contact with it. The principal spot, *a*, is in the middle of the group, and is a large regular spot, with double nucleus on August 5. The following part of the group, *c*, has disappeared by August 9, and the preceding part, *b* by August 10, leaving *a* alone.
Group 7380, August 4–9. A very small spot, not seen on August 5, 6, 7, or 8.
Group 7381, August 4–6. A pair of very small markings, *a* and *b*, on August 4. The group is not seen on August 5, but *a* is visible on August 6.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for each Day).
1915.				°	°	°			
217·633	N, VD	7368*m*	0·525	226·5	127·4	−15·4	18	121	
		7368*e*	0·565	218·3	126·1	−20·5	4	20	
		7368	0·497	225·7	125·7	−14·5	2	3	
		7368	0·521	221·8	125·4	−17·1	9	67	
		7368	0·493	220·7	123·7	−16·0	21	53	
		7368	0·536	215·3	123·4	−20·0	3	25	
		7368	0·506	217·9	123·2	−17·6	0	23	
		7368	0·473	220·7	122·8	−15·0	2	10	
		7368	0·494	213·3	120·7	−18·3	4	23	
		7379*b*	0·622	213·2	126·3	−25·5	8	12	
G.		7379*b*	0·610	209·9	123·9	−26·0	3	4	
		7379*a*	0·585	208·7	122·1	−24·8	16	54	
		7379*c*	0·577	206·3	120·5	−25·1	7	9	
		7379*c*	0·534	201·1	116·3	−23·7	9	21	
		7381*a*	0·445	171·3	100·1	−19·8	1	8	
			0·769	121·3	60·3	−19·1			144
			0·845	119·5	52·5	−20·8			162
			0·870	80·3	43·4	+11·5			74
			0·943	122·2	40·2	−27·6			188
			0·970	82·9	27·7	+ 8·4			85
			0·983	68·3	23·4	+22·4			78
Aug. 6				(+12·7)	(104·2)	(+6·2)	(256)	(1309)	(1713)
218·701	N, VD		0·931	245·5	154·3	−20·1			72
			0·879	291·3	151·7	+21·7			509
		7364*a*	0·988	290·5	172·4	+21·1	20	83	421*f*
		7368*l*	0·854	245·3	144·3	−17·3	22	135	
		7368	0·832	246·4	142·3	−15·6	16	77	
		7368	0·842	242·7	142·2	−18·9	0	4	
		7368*g*	0·822	244·1	140·6	−17·1	27	108	
		7368	0·806	243·5	138·9	−17·1	1	13	
		7368*j*	0·772	240·4	134·8	−18·0	34	226	
		7368*b*	0·742	239·3	131·9	−17·5	0	93	569*c*
		7368	0·735	234·7	129·7	−20·3	0	3	
G.		7368*m*	0·679	238·5	126·9	−15·8	14	107	
		7368	0·695	234·0	126·5	−19·1	3	6	
		7368	0·673	236·5	125·8	−16·8	13	46	
		7368	0·658	232·5	123·3	−18·3	1	5	
		7368	0·639	234·9	123·0	−16·3	16	28	
		7382	0·779	280·9	141·5	+12·4	1	2	38*c*
		7379*b*	0·744	227·3	127·3	−25·4	6	8	
		7379*b*	0·735	227·5	126·6	−24·7	1	5	
		7379*a*	0·698	223·9	122·2	−24·8	12	41	
		7379*c*	0·659	222·5	119·1	−23·6	1	2	
		7379*c*	0·633	219·1	115·9	−23·7	5	22	
		7383	0·951	106·7	20·7	−13·7	0	10	426*c*
1915.				°	°	°			
218·701	N, VD	7384*a*	0·981	72·9	10·0	+18·0	32	173	296*p*
			0·819	137·5	49·2	−32·5			92
			0·768	127·3	48·6	−23·1			57
G.			0·873	127·5	38·4	−28·3			171
			0·888	84·1	27·2	+ 8·0			79
			0·930	118·0	27·1	−23·1			197
Aug. 7				(+13·1)	(90·1)	(+6·2)	(225)	(1197)	(2927)
219·501	N, VD		0·951	291·6	152·3	+22·4			571
			0·867	280·4	140·0	+12·1			84
		7368*l*	0·935	248·2	145·1	−17·8	9	88	
		7368	0·920	248·6	142·8	−16·8	11	21	
		7368	0·904	249·6	140·8	−15·4	9	55	
		7368*g*	0·907	247·6	140·7	−17·2	16	62	
		7268*j*	0·870	244·6	135·2	−18·4	17	70	
		7368	0·861	245·8	134·6	−17·1	6	18	
		7368*b*	0·846	244·4	132·5	−17·7	12	41	
		7368	0·837	240·8	130·5	−20·2	0	9	
G.		7368*m*	0·785	244·0	126·5	−15·9	13	57	
		7368	0·780	241·2	125·2	−17·7	5	24	
		7368	0·747	241·2	122·4	−16·5	4	4	
		7379*b*	0·832	233·4	127·1	−25·5	5	5	
		7379*a*	0·790	231·1	122·1	−25·1	12	32	1002*c*
		7379*c*	0·724	228·1	115·4	−23·7	5	14	
		7383	0·883	109·4	20·7	−13·8	3	4	459*c*
		7384*a*	0·933	73·2	9·8	+18·0	17	136	436*c*
			0·791	133·3	38·9	−28·1			154
			0·870	122·6	26·2	−24·3			90
			0·953	119·6	12·8	−25·7			120
Aug. 8				(+13·4)	(79·5)	(+6·3)	(144)	(640)	(2916)
220·405	N, AM		0·993	292·2	152·5	+22·7			410
		7368*l*	0·990	250·6	146·5	−18·1	0	77	
		7368	0·974	252·7	141·9	−15·3	2	12	
		7368*g*	0·972	250·3	140·8	−17·4	7	70	
		7368*j*	0·949	248·1	135·4	−18·4	12	61	
		7368	0·943	249·1	134·6	−17·3	7	30	
C.		7368	0·905	246·5	128·1	−18·1	0	33	
		7368*m*	0·891	248·1	126·7	−16·2	15	57	
		7368	0·889	246·3	126·0	−17·7	2	12	
		7368	0·859	246·2	122·5	−16·7	1	4	
		7382	0·962	281·2	142·3	+12·4	0	8	229*c*
		7382	0·952	281·1	140·3	+12·5	5	18	
		7379*b*	0·919	238·3	127·6	−25·8	1	6	1622*c*
		7379*a*	0·886	237·1	122·6	−25·2	8	18	

Group 7382, August 7–9. A small marking on August 7. Nothing is seen on August 8, but two small spots are visible on August 9.
Group 7383, August 7–8. A very small spot.
Group 7384, August 7–19. Return of Group 7341. Third apparition. A large regular spot, *a*, sometimes with one or two distant attendants.

Measures of Positions and Areas of Sun Spots annd Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
220·405	N, AM	7385	0·796	292·5	119·6	+21·7	5	12	
		7380	0·639	270·3	107·2	+ 5·0	0	4	
		7386	0·103	55·5	62·6	+ 9·6	0	4	
		7387	0·606	145·7	45·6	−24·1	0	6	
C.		7384*a*	0·840	72·7	10·2	+18·0	18	128	497*c*
			0·776	127·9	25·7	−23·7			80
			0·834	112·7	14·0	−15·0			472
			0·930	124·1	6·6	−28·4			188
			0·968	61·7	350·7	+29·0			110
Aug. 9				(+13·7)	(67·5)	(+6·3)	(83)	(560)	(3608)
221·384	N, VD		0·946	277·6	126·2	+ 9·3			37
			0·893	290·7	118·1	+21·4			87
			0·801	238·6	101·2	−20·3			263
			0·738	227·9	91·4	−24·4			117
		7368*m*	0·967	251·1	126·9	−16·4	0	14	
		7368	0·968	249·3	126·8	−18·2	0	8	1311*c*
		7379*a*	0·957	241·1	122·2	−25·2	11	21	
		7388	0·553	142·9	28·8	−25·5	4	6	
		7388	0·686	138·5	24·5	−25·4	1	1	
G.		7384	0·625	65·9	17·4	+19·9	1	4	
		7384*a*	0·708	71·1	10·1	+17·8	19	128	333*f*
		7384	0·762	70·3	5·4	+19·2	0	2	
		7389	0·723	119·5	13·9	−16·0	0	2	
		7390*a*	0·983	121·7	340·8	−29·5	17	31	340*c*
			0·733	116·8	12·2	−14·5			155
			0·823	129·6	9·3	−27·1			143
			0·919	67·9	347·5	+22·7			212
			0·960	58·7	340·0	+31·8			102
Aug. 10				(+14·1)	(54·6	(+6·4)	(53)	(217)	(3100)
222·332	N, VD		0·988	247·3	119·6	−21·1			370
			0·882	288·1	104·3	+19·0			80
			0·900	244·2	101·4	−19·8			197
			0·826	238·3	91·0	−21·5			134
			0·768	225·0	79·8	−27·7			171
		7385	0·966	290·8	118·2	+21·7	0	8	107*n*
		7391*a*	0·500	215·0	59·6	−17·9	2	5	
G.		7384*a*	0·550	67·2	10·1	+17·8	18	125	105*f*
		7384	0·604	68·2	6·1	+18·2	3	9	
		7390*a*	0·930	125·2	341·5	−29·4	4	16	439*c*
			0·788	65·1	351·1	+23·5			81
			0·886	65·3	339·8	+24·9			163
			0·972	123·5	332·3	−30·4			176
			0·945	73·9	330·4	+17·3			103
Aug. 11				(+14·4)	(42·1)	(+6·5)	(27)	(163)	(2126)
1915.				°	°	°			
223·600	N, VD		0·977	247·2	99·2	−20·5			176
			0·945	243·2	91·2	−22·7			207
			0·876	232·5	77·3	−28·3			401
		7391	0·690	235·5	61·8	−17·7	1	3	
		7391*a*	0·671	234·1	60·0	−17·8	4	7	
		7391	0·657	232·0	58·2	−18·3	2	6	
		7388	0·535	183·3	27·3	−25·7	3	7	
		7388	0·534	180·2	25·4	−25·6	1	6	
G.		7388	0·537	176·7	23·3	−25·8	1	4	
		7384*a*	0·327	51·6	9·7	+18·0	21	116	
		7390*a*	0·828	132·5	341·0	−29·4	0	15	377*c*
		7392*a*	0·790	122·5	340·1	−20·5	7	15	58*c*
		7392*b*	0·812	121·8	337·8	−21·0	3	4	
			0·900	128·3	330·7	−30·2			341
			0·898	74·3	320·9	+16·9			136
			0·963	116·1	315·6	−22·9			403
Aug. 12				(+14·9)	(25·3)	(+6·5)	(43)	(183)	(2099)
224·322	N, VD		0·979	246·0	90·0	−21·8			89
			0·921	240·4	76·9	−24·0			375
			0·909	230·7	71·2	−31·5			181
		7391*a*	0·778	241·0	61·2	−17·5	6	17	36*c*
		7391	0·748	238·6	57·8	−18·0	1	14	
		7388	0·570	199·0	27·7	−26·0	0	4	
		7388	0·558	195·9	25·5	−25·8	4	12	
		7388	0·568	192·6	23·8	−27·0	3	8	
		7384*a*	0·230	28·4	9·2	+18·2	22	120	
G.		7390*a*	0·761	138·3	340·5	−29·2	6	9	342*c*
		7392*a*	0·695	128·0	340·3	−19·9	35	47	
		7392	0·705	126·4	338·9	−19·4	1	1	
		7392*b*	0·735	126·8	336·9	−21·0	12	40	
			0·845	132·2	329·6	−30·1			436
			0·860	72·6	316·2	+18·3			138
			0·926	119·6	314·0	−24·2			414
			0·918	62·6	309·1	+27·7			138
			0·949	111·9	308·0	−18·3			90
Aug. 13				(−15·2)	(15·8)	(+6·6)	(90)	(272)	(2239)
225·325	N, VD		0·992	294·7	87·6	+25·3			169
			0·977	244·5	75·8	−23·1			181
			0·959	233·5	68·0	−32·2			156
G.			0·826	236·4	50·6	−22·8			139
		7391*a*	0·905	247·1	63·2	−17·4	9	20	
		7391	0·886	246·6	60·6	−17·1	0	5	220*c*
		7391	0·865	245·3	57·7	−17·4	0	7	

Group 7385, August 9–11. A small spot, not seen on August 10.
Group 7386, August 9. A very small marking.
Group 7387, August 9. A very small marking.
Group 7388, August 10–14. A few very small spots in a sparse stream, not seen on August 11.
Group 7389, August 10. A very small marking.
Group 7390, August 10–16. A small regular spot, *a*. A spot is seen on August 16 which appears to be a new formation near the place of *a*.
Group 7391. August 11–15. A small spot, *a*, moving forward in longitude, and usually attended by some very small companions.
Group 7392. August 12–17. Two small spots, *a* and *b*, on August 12. Both *a* and *b* have greatly increased by August 13, and a small spot has formed between them. Both *a* and *b* then diminish rapidly. Some very small spots form in the neighbourhood, and one of these last, *c*, alone remains on August 17.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
225·325	N, VD	7388	0·645	216·9	27·7	−25·0	0	4	
		7388	0·658	215·6	27·7	−26·3	8	10	
		7388	0·643	209·1	23·1	−27·9	0	4	
		7384*a*	0·229	331·9	9·0	+18·2	23	104	
		7392*a*	0·564	140·9	340·4	−19·8	4	19	
		7392	0·602	139·7	337·9	−21·2	0	4	
		7392*b*	0·609	138·1	336·8	−21·0	3	7	
		7390*a*	0·670	150·1	340·1	−29·3	3	8	188*f*
G.			0·801	140·3	325·1	−32·8			261
			0·873	124·9	309·8	−26·1			439
			0·833	66·1	306·6	+23·4			90
			0·881	113·7	305·1	−17·2			77
			0·965	125·3	295·2	−31·5			99
			0·966	113·7	291·6	−20·8			104
			0·947	63·2	290·4	+27·5			89
			0·987	117·9	286·4	−26·1			137
			0·981	75·3	282·7	+15·6			80
Aug. 14				(+15·5)	(2·5)	(+6·6)	(50)	(192)	(2429)
226·340	N, VD		0·927	245·6	52·6	−19·7			42
			0·886	234·7	43·1	−26·9			96
			0·844	225·7	34·0	−31·4			54
			0·754	225·3	25·8	−26·6			76
		7391*a*	0·982	250·8	65·1	−17·3	0	5	130*c*
		7391	0·961	250·3	59·8	−16·8	0	9	
		7384*a*	0·380	302·8	8·7	+18·2	17	98	
		7392	0·449	163·1	341·2	−18·7	1	2	
		7392*a*	0·466	161·1	339·9	−19·5	2	17	
G.		7392	0·485	161·1	339·5	−20·6	0	3	
		7390*a*	0·608	165·9	339·3	−29·4	4	5	
		7393	0·973	110·7	275·9	−18·3	29	255	244*c*
		7393	0·971	108·3	275·9	−15·9	0	11	
			0·788	132·1	308·3	−26·8			136
			0·895	130·6	296·2	−31·7			105
			0·879	62·5	288·1	+27·2			77
			0·931	119·8	286·6	−24·6			235
			0·930	76·1	280·0	+15·3			88
			0·968	83·4	273·1	+ 8·1			52
Aug. 15				(+15·9)	(349·1)	(+6·7)	(53)	(405)	(1335)
227·616	N, VD		0·928	242·5	34·9	−22·4			119
			0·891	234·3	26·7	−27·5			286
G.			0·799	244·9	20·6	−15·3			183
		7384*a*	0·603	291·7	8·2	+18·3	16	86	
		7384	0·555	292·3	4·7	+17·7	1	2	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
227·616	N, VD	7392*a*	0·454	195·3	339·5	−19·2	1	1	
		7392*c*	0·485	188·5	336·6	−21·8	1	5	
		7390	0·579	189·1	338·1	−28·1	1	6	
		7394*a*	0·218	335·9	337·5	+18·1	4	14	
		7394	0·218	347·5	335·0	+18·9	1	9	
		7394	0·196	347·9	334·7	+17·7	0	3	
		7395	0·621	186·3	336·8	−31·3	0	3	
		7396	0·618	175·5	329·0	−31·2	2	3	
		7397	0·748	74·9	283·8	+15·7	3	6	
		7397	0·761	75·5	282·6	+15·3	0	3	
		7397*a*	0·773	76·1	281·4	+15·0	8	10	42*c*
		7397	0·789	73·7	280·1	+16·9	3	7	
		7397*b*	0·799	75·0	279·0	+16·0	3	5	
G.		7398*a*	0·785	88·5	280·4	+ 5·3	2	5	100*nf*
		7398*b*	0·810	87·6	278·0	+ 5·8	2	3	
		7393	0·848	114·9	278·9	−17·0	8	16	
		7393	0·859	115·2	277·7	−17·6	11	24	
		7393	0·863	113·3	276·8	−16·2	4	25	327*f*
		7393	0·879	115·7	275·6	−18·8	36	164	
		7393	0·881	113·1	274·6	−16·7	0	6	
			0·809	138·6	328·6	−32·2			116
			0·836	126·9	284·5	−25·7			361
			0·810	63·9	279·0	+25·0			62
			0·923	55·1	265·4	+34·7			142
			0·957	115·1	263·6	−21·7			250
			0·943	73·1	260·8	+18·1			94
Aug. 16				(+16·3)	(332·2)	(+6·7)	(107)	(406)	(2082)
228·316	N, VD		0·943	238·6	26·9	−26·5			125
			0·846	295·7	20·2	+25·2			186
			0·871	247·8	19·7	−15·6			228
		7384*a*	0·714	289·2	8·1	+18·3	16	96	146*p*
		7384	0·686	289·8	5·7	+18·3	1	2	
		7394*a*	0·331	307·8	338·9	+18·1	2	4	
		7392*c*	0·527	204·6	336·6	−22·0	1	4	
		7396	0·625	188·7	329·3	−31·3	1	3	
		7397	0·622	74·4	284·8	+15·0	0	1	
G.		7397*a*	0·661	74·8	281·8	+15·0	10	30	
		7397	0·687	72·1	280·0	+17·1	4	14	
		7397*b*	0·695	73·9	279·2	+15·9	1	7	
		7398*a*	0·662	90·3	281·5	+ 4·9	9	17	
		7398*b*	0·714	88·3	277·3	+ 5·9	8	14	
		7393	0·762	119·4	279·2	−17·1	9	22	
		7393	0·781	120·1	277·8	−18·3	0	4	
		7393	0·777	118·0	277·4	−16·7	2	8	286*f*
		7393	0·795	117·3	275·6	−16·8	6	31	
		7393	0·804	119·1	275·4	−18·5	25	220	

Group 7393, August 15–26. Return of Group 7354. A compact cluster gradually condensing into two large composite spots, *a* and *b*, almost in contact with each other, and a few smaller but close companions.

Group 7394, August 16–20. A small spot, *a*, sometimes followed by a train of very small unstable spots.

Group 7395, August 16. A very small marking.

Group 7396, August 16–17. A very small marking.

Group 7397, August 16–26. An irregular cluster of small spots, of which *a* and *b* speedily develop and become the leader and rearguard of a stream of normal type. The centre of the group soon dies out, leaving *a*, a large regular spot, followed at a great distance by a few very small unstable spots. *a* has passed out of sight at the West limb on August 26.

Group 7398, August 16–22. A pair of very small spots, *a* and *b*. *a* has divided into two, *c* and *d*, by August 18, and other very small spots having formed, the group has become a sparse stream, of which only *c* remains on August 21. A pair of very small markings are seen on August 22.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
228·316	N, VD		0·785	143·7	289·2	−33·6			80
			0·782	133·0	283·2	−27·1			185
G.			0·912	117·2	262·6	−21·4			234
			0·877	73·4	261·3	+17·7			71
Aug. 17				(+16·5)	(323·0)	(+6·7)	(95)	(477)	(1541)
229,554	N, VD		0·961	251·7	17·6	−15·4			224
			0·882	232·5	359·1	−28·4			83
			0·732	216·4	336·6	−30·1			131
		7384*a*	0·875	287·4	8·1	+18·5	14	98	266*n*
		7394*a*	0·552	292·1	338·9	+17·7	1	3	
		7397*a*	0·404	67·7	283·9	+15·0	28	75	
		7397	0·464	65·7	280·5	+17·1	1	4	
		7397*b*	0·480	69·0	278·9	+15·9	26	48	
		7398*c*	0·400	94·9	283·2	+ 4·3	7	11	
		7398*d*	0·428	93·2	281·3	+ 4·7	8	17	
G.		7398	0·444	91·7	280·2	+ 5·3	2	5	
		7398*b*	0·479	89·9	277·9	+ 6·0	8	24	
		7398	0·502	91·7	276·5	+ 5·0	5	10	
		7393	0·589	132·9	279·8	−17·5	5	9	
		7393*a*	0·607	131·3	278·1	−17·6	21	84	
		7393	0·614	128·1	276·5	−16·3	8	16	
		7393*b*	0·647	129·2	274·8	−18·3	38	229	
			0·747	129·3	267·9	−22·9			280
			0·847	124·4	256·7	−24·3			255
			0·908	135·7	254·7	−36·4			81
			0·929	119·7	244·5	−24·3			183
Aug. 18				(+16·9)	(306·6)	(+6·8)	(172)	(633)	(1503)
230·418	N, VD		0·841	297·4	351·5	+26·5			106
			0·769	236·0	337·9	−20·5			114
			0·819	222·2	335·6	−32·2			391
			0·751	217·6	327·3	−30·7			209
		7384*a*	0·949	287·6	7·8	+18·8	10	92	288*n*
		7394*a*	0·702	287·7	339·7	+17·2	9	20	
		7394	0·679	287·2	337·6	+16·6	0	3	
G.		7394	0·671	290·0	336·6	+18·3	3	4	
		7394	0·652	288·6	335·3	+17·2	4	8	
		7399	0·597	203·2	310·4	−26·6	1	2	
		7400*a*	0·544	193·0	302·9	−25·1	0	4	
		7397*a*	0·217	48·8	285·5	+14·9	14	90	
		7397	0·268	50·8	282·8	+16·3	6	12	
		7397	0·287	57·4	280·7	+15·4	2	5	
		7397	0·304	53·4	280·5	+17·0	9	16	
		7397	0·312	61·6	278·8	+15·0	2	21	
1915.				°	°	°			
230·418	N, VD	7397*b*	0·325	58·2	278·5	+16·3	15	62	
		7398*c*	0·205	103·3	283·7	+ 3·9	7	9	
		7398*d*	0·227	98·7	282·2	+ 4·7	6	10	
		7398*b*	0·297	92·0	277·9	+ 5·9	2	17	
		7398	0·315	95·0	276·9	+ 4·9	1	3	
		7393	0·440	148·6	281·5	−15·3	1	2	
		7393*a*	0·487	147·1	279·0	−17·4	16	121	
G.		7393	0·476	143·6	278·2	−15·9	0	10	
		7393	0·495	142·4	276·9	−16·5	6	27	
		7393*b*	0·534	141·7	274·9	−18·3	41	255	
		7393	0·527	139·2	274·2	−17·1	7	23	
		7393	0·559	140·6	273·2	−19·2	3	7	
			0·795	128·8	252·3	−24·9			310
			0·894	123·0	239·3	−25·4			128
Aug. 19				(+17·2)	(295·2)	(+6·8)	(165)	(823)	(1546)
231·378	N, VD		0·970	288·3	359·8	+19·4			74
			0·922	296·1	350·2	+26·7			101
			0·884	241·2	338·6	−21·4			173
			0·812	295·0	336·1	+24·2			90
			0·899	229·4	335·8	−31·8			438
			0·840	225·5	326·8	−31·1			442
			0·704	223·3	314·5	−24·9			154
		7394*a*	0·841	285·4	340·1	+16·6	3	10	} 194*c*
		7394	0·806	287·4	336·3	+18·0	0	7	
		7400*a*	0·610	212·0	303·3	−24·7	9	13	
		7400	0·603	210·2	301·9	−24·8	0	1	
G.		7397*a*	0·156	330·3	287·1	+14·7	13	99	
		7397	0·158	353·5	283·6	+15·9	1	2	
		7397	0·169	10·0	280·8	+16·4	3	7	
		7397*b*	0·181	23·7	278·2	+16·4	25	82	
		7398*c*	0·058	215·9	284·4	+ 4·2	6	9	
		7398*d*	0·044	191·4	283·0	+ 4·4	3	5	
		7393*a*	0·420	170·9	278·5	−17·5	54	259	
		7393	0·395	169·1	278·1	−15·9	4	23	
		7393	0·423	163·6	275·4	−17·0	19	57	
		7393*b*	0·449	162·5	274·4	−18·4	34	198	
		7393	0·470	159·3	272·4	−19·2	2	12	
			0·932	118·4	219·5	−23·3			93
Aug. 20				(+17·5)	(282·5)	(+6·9)	(176)	(784)	(1759)
232·434	N, VD		0·964	243·5	338·1	−23·2			130
			0·920	287·4	336·2	+18·7			285
G.			0·957	231·9	332·8	−33·4			231
			0·894	298·4	331·5	+28·3			110

Group 7399, August 19. A very small marking.
Group 7400, August 19–21. A small spot, *a*, followed on August 20 by a very small companion.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
232·434	N, VD		0·914	231·5	324·9	−31·0			397
			0·819	233·8	314·8	−24·2			232
		7401	0·845	286·1	326·5	+17·3	12	19	126*c*
		7401	0·814	287·3	323·1	+18·0	9	14	
		7400*a*	0·728	225·7	303·4	−24·8	2	6	111*s*
		7397*a*	0·362	292·9	288·6	+14·5	16	108	
		7397	0·219	310·6	278·4	+15·0	0	3	
		7397*b*	0·230	316·9	277·9	+16·5	6	31	
		7397	0·207	321·3	276·2	+16·2	0	3	
G.		7397	0·229	327·4	275·9	+18·0	0	4	
		7398*c*	0·287	261·1	285·0	+ 4·1	2	5	
		7393	0·412	202·3	277·8	−15·5	1	4	
		7393*a*	0·443	200·5	277·8	−17·6	56	370	
		7393*b*	0·435	192·1	274·0	−18·2	24	164	
		7393	0·435	188·8	272·5	−18·5	3	55	
			0·854	122·3	217·1	−22·9			165
			0·897	69·4	208·3	+15·0			82
			0·941	121·2	204·9	−26·2			168
Aug. 21				(+17·9)	(268·5)	(+6·9)	(131)	(786)	(2037)
233·457	N, AM		0·971	296·0	332·7	+26·8			50
			0·975	235·4	325·1	−31·5			369
			0·940	245·1	320·3	−20·5			148
			0·862	234·2	305·9	−26·0			318
		7402	0·975	290·0	333·7	+21·0	5	22	265*s*
		7401	0·955	286·0	328·8	+17·3	0	30	200*c*
		7401	0·920	288·1	322·7	+19·3	15	41	
		7403	0·798	226·4	295·8	−28·2	0	6	81*c*
		7403	0·794	225·4	294·9	−28·6	3	15	
		7403*a*	0·772	224·2	292·5	−28·1	4	10	
		7397*a*	0·564	286·4	288·9	+14·9	20	105	
C.		7397	0·420	291·5	278·8	+15·1	0	2	
		7397*b*	0·419	294·6	278·3	+16·3	0	2	
		7398	0·480	266·4	283·6	+ 4·4	1	6	
		7398	0·451	267·4	281·8	+ 5·0	0	6	
		7393*a*	0·551	221·6	277·5	−17·9	55	377	
		7393	0·551	218·0	276·0	−19·2	0	7	
		7393*b*	0·520	215·8	273·6	−18·3	46	181	
		7393	0·515	213·3	272·3	−18·9	0	19	
		7404	0·807	67·0	201·7	+22·5	0	5	
			0·898	128·6	201·0	−30·1			126
			0·816	66·4	200·8	+23·1			101
			0·907	70·1	189·3	+20·9			145
Aug. 22				(+18·2)	(255·0)	(+6·9)	(149)	(834)	(1803)
1915.				°	°	°			
234·588	N, VD		0·974	287·3	318·2	+18·3			181
			0·943	240·3	304·6	−25·0			428
			0·803	229·5	282·9	−26·3			324
		7403*a*	0·876	232·5	291·9	−28·0	1	8	177*p*
		7397*a*	0·748	283·9	288·7	+15·0	15	103	
		7397	0·638	290·5	278·9	+18·3	6	18	
		7397	0·618	289·1	277·6	+17·2	3	11	
		7393*a*	0·705	235·5	277·6	−18·0	33	252	238*c*
		7393*b*	0·668	232·5	273·9	−18·1	45	186	
		7393	0·656	229·4	271·8	−19·2	1	4	
G.		7405*a*	0·412	49·7	220·4	+22·0	9	15	
		7405*b*	0·431	52·7	218·6	+21·6	2	2	
		7406*a*	0·786	67·4	188·8	+22·0	29	90	179*c*
		7406	0·799	68·1	187·4	+21·7	7	14	
		7406	0·809	70·0	186·2	+20·2	4	5	
		7406	0·828	68·3	184·4	+21·8	8	29	
		7406	0·844	68·8	182·5	+21·6	24	83	
			0·795	134·8	200·2	−28·7			95
			0·938	66·7	169·4	+24·3			142
			0·944	74·7	168·4	+16·8			250
Aug. 23				(+18·5)	(240·1)	(+7·0)	(187)	(820)	(2014)
235·523	N, VD		0·963	237·0	295·2	−29·2			248
			0·931	228·1	285·1	−34·8			163
			0·798	271·2	282·7	+13·8			199
			0·886	234·2	281·4	−27·1			459
		7397*a*	0·868	282·3	288·4	+14·1	17	101	428*c*
		7397	0·805	286·0	281·5	+17·1	3	4	
		7397	0·783	285·3	279·4	+16·3	2	14	
		7397	0·783	287·4	279·3	+18·0	11	29	
		7397	0·758	286·4	277·0	+17·0	3	4	
		7393*a*	0·821	242·1	277·2	−18·0	60	249	579*c*
		7393	0·792	241·0	274·1	−17·7	3	25	
G.		7393*b*	0·791	239·5	273·6	−18·8	60	95	
		7405*a*	0·276	23·8	220·9	+21·5	12	17	
		7405*b*	0·293	32·0	218·2	+21·3	3	4	
		7406*a*	0·635	63·2	190·1	+22·1	29	138	
		7406	0·654	66·1	188·1	+20·8	6	14	
		7406	0·672	67·4	186·5	+20·3	20	49	
		7406	0·684	65·6	185·8	+21·7	5	21	
		7406*b*	0·714	66·0	183·2	+21·9	39	122	
		7406*c*	0·734	66·6	181·4	+21·8	20	95	
		7407*a*	0·987	109·6	150·0	−18·0	22	209	81*sp*
			0·883	41·8	171·1	+45·3			66
			0·860	72·5	168·0	+18·6			434

Group 7401, August 21–22. A few small spots, seen only near the West limb.
Group 7402, August 22. A small spot *np* Group 7401, seen only close to the West limb.
Group 7403, August 22–23. A small spot, *a*, preceded on August 22 by two others.
Group 7404, August 22. A very small spot.
Group 7405, August 23–26. Two small spots, *a* and *b*.
Group 7406, August 23–September 3. A fine stream, of which *a*, the leader, is the largest member. The two last spots, *b* and *c*, on August 24, are a close pair, which have coalesced to form a double spot, *d*, by August 26, but *b* and *c* are again distinct spots by August 27. Only *c* remains in sight on September 3.
Group 7407, August 24–September 5. A large regular spot, *a*, occasionally with some very small companions.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
235·523	N, VD		0·936	72·7	157·4	+18·6			257
G.			0·972	65·2	149·7	+25·7			361
Aug. 24				(+18·8)	(227·7)	(+7·0)	(315)	(1190)	(3275)
236·393	N, VD		0·966	242·8	286·2	−24·0			229
			0·894	272·5	279·7	+ 5·4			219
			0·910	233·1	272·7	−29·4			106
			0·816	236·4	263·2	−22·1			212
			0·756	223·3	251·9	−27·7			72
		7397*a*	0·948	283·4	288·6	+14·9	15	84	
		7397	0·889	286·7	279·5	+18·0	0	9	
		7397	0·885	284·6	279·1	+16·2	9	27	428*c*
		7397	0·866	285·6	276·7	+17·0	1	6	
		7393*a*	0·908	246·1	276·9	−18·2	57	231	
		7393	0·886	245·1	273·8	−18·3	0	11	485*c*
		7393*b*	0·886	244·0	273·5	−19·2	35	68	
G.		7405*a*	0·264	342·3	221·1	+21·5	9	13	
		7405*b*	0·275	356·9	217·1	+22·8	0	10	
		7406*a*	0·489	55·9	190·4	+22·1	46	245	
		7406	0·518	53·7	189·1	+24·0	1	3	
		7406	0·533	61·3	186·3	+20·8	14	51	
		7406*b*	0·581	62·3	182·8	+21·4	28	152	
		7406*c*	0·609	63·1	180·6	+21·7	29	144	
		7406	0·554	62·1	174·7	+21·0	1	10	
		7407*a*	0·944	111·7	149·4	−17·7	23	123	177*s*
			0·771	70·5	166·0	+19·5			163
			0·912	76·3	149·7	+15·3			127
			0·918	64·3	149·1	+26·3			288
			0·981	109·4	140·5	−17·4			408
Aug. 25				(+19·1)	(216·2)	(+7·0)	(268)	(1187)	(2914)
237·360	N, VD		0·962	273·2	277·8	+ 5·0			113
			0·908	242·0	262·8	−21·7			341
			0·837	228·0	248·6	−29·1			186
		7397	0·980	284·6	283·0	+15·6	8	46	
		7397	0·971	284·5	280·6	+15·7	0	39	458*c*
		7393*a*	0·972	249·0	276·1	−18·3	37	232	
G.		7393*b*	0·960	247·3	273·1	−19·4	35	86	401*c*
		7405*a*	0·378	311·6	221·0	+21·3	2	3	
		7405*b*	0·358	319·8	217·8	+22·7	2	8	
		7406*a*	0·340	37·0	190·6	+22·6	47	254	
		7406	0·362	45·2	187·4	+21·5	8	15	
		7406	0·371	50·2	185·8	+20·5	13	35	
		7406	0·424	50·4	182·8	+22·3	2	7	
		7406	0·414	54·8	182·3	+20·4	7	17	
1915				°	°	°			
237·360	N, VD	7406*d*	0·442	54·3	180·8	+21·4	47	237	
		7408	0·635	58·9	166·8	+24·8	3	5	
		7407*a*	0·855	115·5	149·6	−17·4	22	122	225*s*
G.			0·832	62·4	147·9	+26·8			442
			0·853	76·8	144·3	+15·0			135
			0·939	113·4	137·8	−19·1			1050
			0·980	72·5	123·5	+18·5			129
Aug. 26				(+19·4)	(203·4)	(+7·1)	(233)	(1106)	(3480)
238·394	N, VD		0·968	244·3	260·5	−22·6			174
			0·892	235·0	244·6	−26·8			235
		7406*a*	0·274	356·9	190·7	+22·9	50	258	
		7406	0·262	9·8	187·1	+22·0	11	41	
		7406	0·260	18·5	184·7	+21·3	9	25	
		7406	0·287	22·5	183·0	+22·4	14	32	
		7406	0·264	25·9	182·7	+20·8	3	16	
		7406*b*	0·285	29·1	181·3	+21·4	27	82	
		7406*c*	0·305	32·3	179·7	+21·9	16	86	
G.		7408*a*	0·446	48·1	168·6	+23·9	9	15	
		7408*b*	0·505	51·1	164·3	+24·8	5	9	
		7409	0·671	60·7	149·9	+24·7	0	7	
		7409	0·685	62·3	148·4	+23·9	1	13	
		7407*a*	0·728	122·0	149·7	−17·3	17	102	80*s*
			0·850	118·1	137·4	−19·2			1010
			0·940	117·6	125·3	−22·9			815
			0·912	71·8	123·3	+19·5			247
			0·964	65·4	113·9	+25·5			213
			0·969	73·6	112·8	+17·6			62
Aug. 27				(+19·7)	(189·8)	(+7·1)	(162)	(686)	(2836)
239·379	N, VD	7406*a*	0·353	322·4	190·3	+23·1	52	268	
		7406	0·325	321·3	189·4	+21·6	1	3	
		7406	0·314	327·4	187·3	+22·2	2	4	
		7406	0·305	331·5	185·8	+22·5	9	21	
		7406	0·270	337·7	183·1	+21·4	3	15	
		7406	0·287	341·2	182·5	+22·7	5	43	
		7406*b*	0·263	344·1	181·2	+21·7	17	32	
G.		7406	0·284	346·7	180·9	+23·1	3	5	
		7406*c*	0·268	349·9	179·7	+22·4	17	84	
		7408*a*	0·315	24·1	168·8	+23·7	2	9	
		7408	0·333	31·3	166·0	+23·4	3	4	
		7408*b*	0·365	32·9	164·3	+24·7	7	11	
		7410	0·594	152·3	159·2	−24·8	1	2	
		7407*a*	0·591	132·1	149·6	−16·9	16	110	
		7411*a*	0·992	67·7	92·0	+22·9	135	614	274*c*

Group 7408, August 26–28. A very small spot *nf* Group 7406, on August 26; a small pair, *a*, followed on August 27 by a small spot, *b*, at a considerable distance. A sparse stream on August 28.

Group 7409, August 27. Some very small markings *f* Group 7408.

Group 7410, August 28. A very small marking, *sp*, Group 7407.

Group 7411, August 28–September 10. A very large composite spot, *a*, with some small companions. *a* breaks up after September 3, the chief portions being *b*, a regular spot leading the group, and *c*, a large composite spot in the centre. *c* again has broken up by September 5, its two chief portions being *d* and *e*. Only *e* is in sight on September 10.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
239·379	N, VD		0·773	125·1	134·3	−21·1			566
			0·875	122·3	123·1	−23·7			910
			0·807	71·1	123·0	+19·4			154
G.			0·895	65·3	113·1	+25·2			244
			0·923	110·3	113·0	−15·6			94
			0·900	76·5	112·0	+15·2			83
Aug. 28				(+19·9)	(176·8)	(+7·1)	(273)	(1225)	(2325)
240·437	N, AM		0·835	293·0	219·2	+23·0			130
			0·886	237·8	217·9	−24·2			77
			0·755	224·0	198·8	−27·1			118
		7406*a*	0·510	304·6	189·8	+23·1	43	271	
		7406	0·485	301·8	188·9	+21·1	0	2	
		7406	0·479	306·4	187·5	+23·0	3	29	
		7406	0·436	308·4	184·4	+22·3	4	7	
		7406	0·423	311·4	182·8	+22·8	9	22	
		7406*b*	0·400	310·6	181·8	+21·7	3	20	
		7406	0·411	315·2	181·2	+23·7	0	4	
		7406*c*	0·375	315·4	179·3	+22·3	18	88	
		7406	0·354	311·2	179·2	+20·2	1	2	
C.		7407*a*	0·463	151·8	149·6	−17·1	21	104	
		7407	0·503	150·8	147·8	−19·1	1	3	
		7407	0·493	148·4	147·1	−17·9	3	14	
		7412	0·550	143·7	142·7	−19·6	0	6	
		7413	0·771	124·1	120·0	−20·4	0	7	230*s*
		7411	0·923	69·0	94·6	+22·1	3	19	
		7411	0·936	71·0	92·5	+20·2	0	6	524*c*
		7411*a*	0·945	68·1	90·8	+23·0	94	637	
			0·851	129·0	114·6	−27·7			368
			0·779	62·6	112·9	+25·7			124
			0·860	115·8	168·5	−18·0			97
			0·947	117·4	96·9	−23·1			234
Aug. 29				(+20·2)	(162·8)	(+7·1)	(203)	(1241)	(1902)
241·445	N, VD		0·868	231·7	199·8	−28·0			152
		7414	0·911	244·9	210·2	−19·3	0	15	105*s*
		7406*a*	0·663	297·2	189·2	+23·2	41	254	
		7406*b*	0·574	299·5	182·1	+22·4	5	14	
		7406	0·578	305·5	180·9	+25·7	0	3	
G.		7406*c*	0·530	301·1	178·7	+22·1	17	69	
		7415	0·666	211·7	172·7	−27·8	1	4	
		7415*a*	0·652	208·7	170·2	−28·1	8	16	
		7407*a*	0·407	179·5	149·3	−16·7	17	91	
		7416	0·435	151·9	137·3	−15·4	0	1	
		7413	0·602	141·1	125·7	−21·3	3	7	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915									
241·445	N, VD	7411	0·825	68·0	94·1	+22·1	4	13	
		7411	0·842	69·9	92·0	+20·8	10	64	418*f*
		7411*a*	0·856	67·2	90·6	+23·1	90	505	
		7418*a*	0·970	108·5	76·7	−15·9	44	349	121*c*
G.			0·765	135·7	112·6	−27·5			105
			0·869	121·9	96·3	−23·1			277
			0·926	59·6	81·3	+30·8			144
			0·980	120·9	77·1	−28·2			128
Aug. 30				(+20·5)	(149·5)	(+7·2)	(240)	(1405)	(1450)
242·675	N, VD		0·907	291·8	198·9	+22·7			62
		7414	0·991	248·0	211·9	−20·5	0	67	144*c*
		7419	0·921	255·4	198·0	−10·4	7	11	37*n*
		7406*a*	0·825	293·1	188·5	+23·0	51	256	
		7406	0·802	293·8	186·0	+23·3	3	16	
		7406	0·771	294·3	182·9	+23·2	2	7	203*c*
		7406	0·729	296·2	178·6	+23·8	0	5	
		7406*c*	0·721	293·8	178·4	+22·0	18	73	
		7415*a*	0·762	223·2	169·2	−27·9	0	2	49*c*
		7407*a*	0·476	212·8	148·7	−16·5	15	77	
		7412	0·445	198·2	141·6	−17·8	1	3	
		7413	0·495	166·0	125·8	−21·4	3	8	
G.		7413	0·464	163·5	125·2	−19·2	1	2	
		7417	0·263	39·8	123·0	+18·7	1	1	
		7411	0·658	67·0	93·1	+20·4	7	8	
		7411*a*	0·704	63·4	89·9	+23·7	94	501	324*f*
		7411	0·759	65·6	84·7	+23·1	0	4	
		7418*a*	0·875	112·7	76·3	−15·9	55	302	168*c*
			0·776	129·0	92·1	−23·8			223
			0·854	57·3	76·0	+31·5			80
			0·912	125·0	75·7	−27·8			214
			0·963	110·9	62·5	−17·8			229
Aug. 31				(+20·8)	(133·2)	(+7·2)	(258)	(1343)	(1733)
243·509	N, VD		0·962	289·9	197·8	+21·1			47
			0·847	230·9	169·9	−27·5			83
			0·732	291·5	168·7	+20·5			122
		7406*a*	0·910	291·9	188·3	+22·8	39	256	
		7406	0·870	292·7	182·8	+23·2	0	2	293*c*
G.		7406*c*	0·832	292·1	178·5	+22·4	17	55	
		7407*a*	0·580	227·5	148·6	−16·5	17	88	
		7407	0·562	228·1	147·8	−15·5	0	4	
		7412	0·550	217·4	142·8	−19·1	5	8	
		7416	0·470	213·4	137·8	−16·1	2	6	
		7416*	0·542	200·7	134·2	−23·3	1	12	

Group 7412, August 29–September 2. A very small marking *sf* Group 7407, not seen on August 30.
Group 7413, August 29–September 1. An area of feeble disturbance.
Group 7414, August 30–31. A small spot, seen only near the West limb.
Group 7415, August 30–September 2. A small composite spot, *a*, preceded on August 30 by a very small companion; not seen on September 1.
Group 7416, August 30–September 1. A wide area of feeble disturbance in which small unstable markings appear irregularly. No markings are seen on August 31.
Group 7417, August 31. A very small spot.
Group 7418, August 30–September 10. A large regular spot, *a*, sometimes preceded by a very small companion.
Group 7419, August 31. A small spot *nf* Group 7414, seen only close to the West limb.
Group 7416.* September 1. A small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
243·509	N, VD	7416†	0·480	199·9	132·2	−19·6	1	3	
		7413	0·473	187·7	126·1	−20·6	1	3	
		7411	0·525	61·7	92·7	+20·7	2	6	
		7411*a*	0·577	58·3	89·9	+23·7	106	509	
		7411	0·569	62·5	89·5	+21·3	8	32	
		7411	0·656	62·8	83·0	+23·0	3	8	
G.		7418	0·768	120·3	78·3	−17·6	2	4	231*c*
		7418*a*	0·776	117·5	76·6	−16·0	62	291	
		7420*a*	0·966	112·2	51·1	−19·2	12	99	468*nf*
			0·735	54·7	78·3	+30·3			162
			0·869	130·9	73·0	−30·1			282
			0·909	114·1	61·5	−18·3			254
Sept. 1				(+21·1)	(122·2)	(+7·2)	(278)	(1386)	(1942)
244·358	N, AM		0·861	241·8	164·6	−19·8			103
		7406*a*	0·968	291·9	188·1	+23·0	54	299	
		7406	0·957	289·5	185·5	+20·8	0	5	376*c*
		7406	0·955	292·1	185·0	+23·2	5	31	
		7406*c*	0·917	291·3	178·3	+22·4	11	48	
		7415	0·922	237·5	170·9	−26·2	0	8	78*sf*
		7421	0·863	294·5	170·6	+24·7	3	17	456*sf*
		7407	0·705	239·5	149·9	−15·3	0	9	
		7407*a*	0·701	236·9	148·7	−16·8	15	102	
		7407	0·681	235·0	146·6	−17·1	1	4	51*p*
		7412	0·654	230·9	143·3	−18·3	1	3	
C.		7412	0·658	227·9	142·2	−19·9	0	7	
		7416‡	0·591	222·1	135·8	−19·5	1	5	
		7422	0·197	212·9	117·1	− 2·3	1	8	
		7411	0·373	50·7	93·1	+20·4	1	1	
		7411	0·408	52·7	90·7	+21·1	7	41	
		7411*a*	0·442	48·5	89·9	+23·7	98	511	
		7411	0·441	54·7	88·4	+21·4	3	10	
		7418*a*	0·661	125·1	76·8	−16·4	57	281	
		7420*a*	0·900	115·3	51·8	−19·0	19	121	739*f*
			0·786	135·3	72·2	−28·3			166
			0·833	118·5	60·5	−18·9			224
Sept. 2				(+21·3)	(111·0)	(+7·2)	(277)	(1511)	(2193)
245·424	N, VD		0·930	291·0	166·2	+22·1			176
			0·793	300·5	147·6	+28·3			81
			0·744	227·6	133·8	−24·3			156
G.		7406*c*	0·989	291·0	180·2	+21·7	0	123	
		7407*a*	0·832	244·4	148·3	−16·6	13	85	132*c*
		7411	0·260	23·6	90·5	+20·8	3	21	
		7411*a*	0·308	21·8	89·8	+23·7	95	448	
		7411	0·289	28·4	88·4	+21·8	2	6	
		7411	0·366	26·8	86·4	+26·1	0	6	
		7411	0·341	35·0	84·6	+23·2	0	4	
		7418	0·516	145·0	78·8	−18·0	2	7	
		7418*a*	0·513	140·4	77·1	−16·5	62	318	
		7420*a*	0·783	120·8	51·9	−18·6	13	75	
G.		7423	0·831	117·5	46·3	−18·0	0	6	262*c*
		7423	0·850	116·9	44·1	−18·3	3	8	
		7423	0·870	116·5	41·8	−18·8	1	4	
		7424*a*	0·994	113·6	16·9	−22·4	23	64	161*p*
			0·743	127·5	57·8	−21·3			74
			0·893	124·9	42·0	−26·7			137
			0·974	67·6	18·3	+23·4			90
Sept. 3				(+21·6)	(96·9)	(+7·2)	(217)	(1175)	(1269)
246·383	N, VD		0·966	291·9	160·8	+23·0			139
			0·876	296·5	145·2	+26·6			258
			0·809	234·6	129·8	−23·0			628
		7407*a*	0·927	248·6	148·3	−16·7	19	88	302*f*
		7425	0·721	235·9	123·0	−18·3	0	5	
		7425	0·710	228·0	118·9	−22·4	1	6	
		7411*b*	0·312	336·7	91·9	+23·7	14	82	
		7411	0·267	333·5	91·5	+20·9	3	6	
		7411*c*	0·297	344·4	89·2	+23·7	67	355	
		7411	0·258	342·2	89·0	+21·4	7	20	
		7411	0·331	355·4	85·9	+26·4	3	4	
G.		7411	0·343	4·6	82·4	+27·1	0	3	
		7418*a*	0·424	164·2	77·3	−16·8	46	281	
		7420*a*	0·661	129·6	51·7	−18·9	12	22	
		7423	0·739	123·4	43·8	−18·5	4	8	174*c*
		7423	0·766	123·2	41·5	−19·5	2	13	
		7424*a*	0·945	117·4	18·8	−22·9	16	102	243*c*
		7424	0·975	114·4	11·4	−21·8	5	69	
			0·773	132·4	45·0	−25·8			163
			0·903	67·4	19·2	+23·4			210
			0·928	107·7	19·0	−13·4			104
			0·971	71·3	6·5	+19·9			214
Sept. 4				(+21·8)	(84·2)	(+7·2)	(199)	(1064)	(2435)
247·557	N, VD		0·950	298·3	141·7	+29·1			165
			0·817	290·9	123·5	+21·1			135
			0·848	228·9	115·6	−29·0			157
G.		7407*a*	0·990	251·9	147·9	−16·7	0	71	193*f*
		7425*a*	0·876	237·5	122·5	−23·9	2	13	573*np*
		7411	0·488	308·6	93·4	+24·3	1	6	

Group 7416,† September 1. A small spot.

Group 7420, September 1–12. Perhaps connected with Group 7391. A regular spot, *a*, diminishing rapidly and disappearing before September 5. *a* revives again after September 6, with companions to the North, making up a feeble stream, mostly collected into two small clusters, *b* and *c*. *b* coalesces to form a regular spot.

Group 7421, September 2. A small spot *f* Group 7406, seen only near the West limb.

Group 7422, September 2. A very small marking.

Group 7416,‡ September 2. A small spot.

Group 7423, September 3–6. A wide area of feeble disturbance in which small unstable markings appear irregularly.

Group 7424, September 3–15. A large regular spot, *a*, gradually becoming elliptical. It develops quickly after September 6, and is usually followed by several small companions in a long sparse train.

Group 7425, September 4–6. A wide area of disturbance near the West limb in which some small spots form, of which *a*, seen on September 5 and 6, is the most stable.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
247·557	N, VD	7411*b*	0·467	308·7	92·1	+23·5	15	64	
		7411	0·451	307·1	91·6	+22·4	4	16	
		7411	0·460	312·1	90·8	+24·6	1	4	
		7411*d*	0·432	311·3	89·4	+23·2	42	197	
		7411	0·410	307·7	89·1	+21·2	7	20	
		7411*e*	0·424	316·4	87·5	+24·7	10	51	
		7411	0·408	327·2	83·1	+27·0	1	1	
		7418*a*	0·433	199·6	77·5	−16·8	52	268	
G.		7423	0·538	142·1	48·5	−18·3	1	6	
		7424*a*	0·832	123·3	20·2	−22·4	19	98	
		7424	0·859	122·7	17·1	−23·2	1	2	407*c*
		7424	0·894	118·6	11·5	−21·5	12	30	
			0·821	134·1	26·3	−29·6			209
			0·805	62·9	16·1	+26·0			88
			0·891	71·1	5·2	+20·1			363
			0·935	83·5	359·1	+ 8·6			131
Sept. 5				(+22·1)	(68·8)	(+7·2)	(168)	(847)	(2421)
248·366	N, VD		0·893	288·2	122·0	+19·5			229
			0·895	232·0	112·0	−29·4			318
			0·810	298·0	111·2	+26·8			167
			0·829	243·4	108·8	−17·3			79
		7425*a*	0·945	242·0	123·3	−23·4	2	14	
		7425	0·948	239·4	123·1	−26·0	13	26	652*c*
		7411	0·612	302·0	92·8	+24·8	0	4	
		7411*b*	0·599	300·6	92·2	+23·7	13	54	
		7411	0·581	298·5	91·4	+22·1	7	22	
		7411	0·561	297·6	90·7	+23·1	1	2	
		7411	0·578	302·4	90·3	+24·1	10	17	
		7411*d*	0·556	301·5	89·0	+23·0	33	128	
		7411	0·531	297·8	88·1	+20·5	1	4	
		7411	0·533	300·4	87·7	+21·9	4	11	
G.		7411*e*	0·544	305·4	87·2	+24·6	16	56	
		7418*a*	0·513	218·2	77·4	−16·8	44	260	
		7426	0·464	179·7	57·9	−20·3	2	7	
		7423	0·464	160·8	48·9	−18·8	3	8	
		7423	0·477	154·6	45·7	−18·4	1	2	
		7424*a*	0·729	130·9	21·6	−22·7	21	82	
		7424	0·769	129·6	17·9	−23·9	11	19	
		7424	0·771	127·2	16·6	−22·4	1	3	220*c*
		7424	0·811	123·3	11·5	−21·5	11	15	
			0·781	87·0	6·5	+ 6·9			83
			0·812	71·6	3·6	+19·2			407
			0·869	84·0	357·4	+ 8·8			110
			0·958	114·2	349·2	−20·7			54
			0·961	72·8	342·9	+18·5			213
Sept. 6				(+22·2)	(58·1)	(+7·2)	(194)	(734)	(2532)
1915.				°	°	°			
249·402	N, VD		0·972	288·6	122·2	+19·7			152
			0·987	246·7	121·1	−21·4			252
			0·912	295·7	110·7	+26·4			276
			0·947	240·3	109·5	−25·1			191
			0·851	237·4	95·3	−22·8			305
		7411*b*	0·757	295·5	92·5	+23·8	16	57	
		7411	0·738	293·5	91·1	+22·1	11	17	
		7411	0·742	296·5	91·0	+24·3	9	28	
		7411	0·729	295·4	90·0	+23·2	5	14	
		7411	0·728	296·6	89·7	+24·1	2	3	
		7411*d*	0·709	296·0	88·2	+23·3	7	23	
		7411*e*	0·700	297·7	87·1	+24·3	28	83	
		7427	0·653	307·4	80·7	+29·1	0	5	
		7418*a*	0·649	233·2	77·1	−16·8	51	255	
		7428	0·665	216·7	70·5	−25·7	1	1	
		7420*b*	0·426	199·4	52·9	−16·5	13	36	
G.		7420*a*	0·458	195·3	51·7	−18·9	2	5	
		7420*c*	0·415	193·9	51·7	−16·5	17	34	
		7429	0·558	176·7	42·3	−26·5	2	3	
		7429	0·567	175·6	41·6	−27·1	0	1	
		7429	0·563	173·5	40·3	−26·7	4	9	
		7424*a*	0·606	143·5	21·5	−22·4	42	161	
		7424	0·633	143·5	20·2	−24·0	5	17	
		7424	0·617	141·3	19·9	−22·1	1	5	
		7424	0·637	140·1	18·2	−22·7	5	10	
		7424	0·627	137·7	17·6	−21·1	2	7	
		7424	0·649	139·1	17·0	−22·9	16	27	
		7430	0·622	70·7	6·5	+17·6	2	7	
			0·909	122·1	346·3	−25·1			161
			0·903	73·6	339·2	+17·8			324
			0·951	67·9	331·2	+23·2			133
Sept. 7				(+22·5)	(44·4)	(+7·2)	(241)	(808)	(1794)
250·370	N, VD		0·967	295·2	108·3	+26·1			130
			0·983	236·5	104·3	−30·9			166
			0·905	238·1	89·2	−24·7			369
			0·775	301·7	80·3	+29·0			385
		7411*b*	0·871	293·2	92·3	+23·7	14	44	
		7411	0·863	291·2	91·6	+22·0	0	8	
G.		7411*d*	0·844	293·3	89·1	+23·5	12	36	408*c*
		7411	0·830	294·1	87·4	+24·0	6	17	
		7411*e*	0·820	294·9	86·2	+24·5	16	61	
		7418*a*	0·783	241·5	77·4	−16·9	48	264	48*p*
		7428	0·772	227·1	70·5	−26·1	1	3	235*p*
		7420*b*	0·541	222·8	54·1	−16·5	15	25	
		7420	0·523	220·0	52·1	−16·8	2	4	

Group 7426, September 6–9. A very small marking *sp* the place of Group 7420; not seen on September 7 and 8.
Group 7427, September 7. A very small marking *nf* Group 7411.
Group 7428, September 7–8. A very small marking *sf* Group 7418.
Group 7429, September 7. A few very small spots.
Group 7430, September 7–9. A small marking, not seen on September 8.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
250·370	N, VD	7420*a*	0·555	216·5	52·0	−19·6	2	3	
		7420*c*	0·508	215·9	49·7	−17·3	16	41	
		7424*a*	0·519	161·1	21·2	−22·1	41	224	
		7424	0·537	156·3	18·2	−22·3	12	19	
		7424	0·550	155·2	17·2	−22·7	14	23	
		7424	0·549	153·3	16·2	−22·3	4	7	
		7431	0·593	144·1	9·7	−21·8	3	10	
G.		7432	0·627	79·1	352·7	+12·5	1	2	
		7432	0·635	81·7	352·0	+10·9	5	5	
			0·839	127·6	344·1	−25·9			181
			0·814	71·1	337·0	+19·6			303
			0·954	127·1	327·8	−32·1			282
			0·899	67·5	327·0	+23·4			212
			0·948	112·9	324·4	−18·9			89
Sept. 8				(+22·7)	(31·6)	(+7·3)	(212)	(796)	(2808)
251·448	N, VD		0·976	242·9	89·8	−24·4			187
			0·871	298·7	77·5	+28·4			336
			0·889	233·2	71·0	−28·0			276
		7411	0·944	290·9	89·2	+22·1	0	9	
		7411	0·938	292·7	88·1	+23·7	0	19	
		7411	0·934	294·1	87·3	+25·0	6	27	471*p*
		7411*e*	0·925	293·5	85·8	+24·4	23	60	
		7418*a*	0·905	247·3	78·0	−17·0	41	267	150*c*
		7426	0·741	235·0	57·4	−19·6	1	5	
		7420*b*	0·692	235·9	54·1	−17·1	25	39	
		7420	0·669	236·2	52·5	−15·9	1	3	
		7420*a*	0·678	230·5	51·0	−19·5	1	3	
G.		7420*c*	0·657	231·9	50·2	−17·8	20	38	
		7433	0·577	233·7	45·9	−13·6	1	4	
		7424*a*	0·493	185·9	20·5	−22·1	38	214	
		7424	0·495	179·9	17·4	−22·4	1	2	
		7424	0·487	177·5	16·1	−21·8	1	2	
		7431	0·506	166·1	9·9	−22·1	1	2	
		7430	0·249	41·3	7·5	+17·8	1	13	
		7434	0·555	70·2	344·5	+16·8	1	1	
		7434	0·563	74·1	343·5	+14·9	1	2	
		7434	0·581	68·1	342·9	+18·4	0	1	
			0·699	68·5	333·7	+20·1			105
			0·886	131·1	326·2	−31·2			444
			0·790	67·7	325·6	+22·0			151
			0·865	117·3	323·1	−19·2			113
			0·960	117·1	309·0	−23·4			311
Sept. 9				(+22·9)	(17·4)	(+7·2)	(163)	(711)	(2544)
1915.				°	°	°			
252·355	N, AM		0·943	290·3	76·9	+21·4			69
			0·936	298·6	75·6	+29·3			277
			0·946	236·3	68·9	−28·6			198
			0·899	228·7	58·2	−32·2			59
		7411*e*	0·977	293·4	84·8	+24·3	10	74	312*p*
		7418*a*	0·969	250·3	77·7	−17·0	45	311	163*f*
		7420*b*	0·819	242·6	54·9	−17·5	21	64	
		7420	0·807	244·3	54·0	−15·8	0	3	466*c*
		7420*a*	0·789	237·7	50·4	−19·9	2	9	
G.		7420*c*	0·777	239·7	50·1	−18·0	15	44	
		7424*a*	0·534	205·4	19·6	−21·8	37	215	
		7435	0·730	68·2	319·1	+20·8	0	3	
		7435	0·747	68·9	317·5	+20·5	0	3	
		7436	0·942	82·3	294·3	+ 9·7	0	8	297*n*
			0·835	135·5	322·3	−31·3			216
			0·919	135·3	311·8	−36·7			177
			0·922	123·0	305·7	−26·6			286
			0·979	73·7	285·7	+17·4			438
Sept. 10				(+23·1)	(5·4)	(+7·2)	(130)	(734)	(2958)
253·413	N, AM		0·956	298·9	65·6	+29·7			157
			0·939	257·8	59·4	− 8·8			89
			0·944	228·9	51·4	−34·9			171
			0·823	240·9	40·7	−18·9			173
			0·844	231·7	39·1	−26·8			134
		7420*b*	0·927	247·3	55·2	−17·9	4	41	
		7420	0·896	245·2	50·2	−18·4	0	2	483*c*
		7420	0·891	246·0	49·8	−17·5	3	16	
		7420	0·889	245·3	49·4	−18·0	0	18	
		7424*a*	0·641	222·1	18·9	−22·0	44	246	
G.		7424	0·653	219·3	18·2	−23·9	1	5	
		7436	0·857	83·1	292·0	+ 9·6	8	20	305*n*
		7436	0·880	82·6	289·3	+ 9·9	3	10	
			0·757	147·7	322·5	−33·5			411
			0·882	145·3	309·7	−41·2			88
			0·817	130·8	307·5	−27·1			192
			0·895	128·8	298·0	−29·9			208
			0·931	119·3	288·9	−23·9			113
			0·915	74·4	284·4	+17·1			691
			0·951	110·6	283·0	−17·1			162
			0·949	57·0	279·0	+33·5			73
Sept. 11				(+23·3)	(351·4)	(+7·2)	(63)	(358)	(3450)
254·455	N, AM		0·918	245·5	39·5	−19·1			207
C.			0·922	236·9	37·3	−26·8			162
			0·832	239·9	27·5	−20·1			78

Group 7431, September 8–9. A very small spot *f* Group 7424.
Group 7432, September 8. Two very small spots.
Group 7433, September 9. A very small marking *nf* Group 7420.
Group 7434, September 9. A few very small markings.
Group 7435, September 10. A pair of very small markings.
Group 7436, September 10–22. A wide area of disturbance, in which a number of very small unstable spots and markings are seen. A pair of small regular spots, *a* and *b*, have formed near the head of the group by September 17, and the group develops into a well-marked stream.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
254·455	N, AM	7420	0·980	251·4	53·1	−16·5	0	11	524*sf*
		7424	0·775	231·7	18·9	−23·3	3	7	
		7424*a*	0·762	232·5	18·2	−22·1	43	211	75*c*
		7424	0·764	229·3	16·9	−24·3	1	9	
		7424	0·749	229·1	15·7	−23·7	2	7	
		7437	0·614	217·3	1·3	−22·6	1	3	
		7437	0·625	216·3	1·3	−23·6	1	4	
		7436	0·697	83·5	293·1	+ 9·7	9	16	
C.		7436	0·712	83·5	291·9	+ 9·7	0	3	152*c*
		7436	0·725	81·9	290·9	+10·8	2	15	
		7438	0·805	73·2	283·8	+17·7	2	7	449*c*
			0·799	155·1	311·7	−39·9			162
			0·793	136·7	299·0	−29·6			239
			0·893	128·7	284·3	−29·8			204
			0·863	115·8	283·0	−18·0			281
			0·842	61·3	281·1	+27·9			71
			0·954	116·5	270·2	−22·6			244
Sept. 12				(+23·5)	(337·6)	(+7·2)	(64)	(293)	(2848)
255·501	N, VD		0·974	244·6	36·0	−22·6			236
		7424	0·885	240·6	19·8	−21·8	0	3	
		7424	0·886	238·4	19·2	−23·6	0	3	427*c*
		7424*a*	0·874	239·2	18·0	−22·5	25	125	
		7436	0·482	81·0	295·1	+10·6	2	9	
		7436	0·486	82·9	294·7	+ 9·7	6	12	
		7436	0·520	81·1	292·5	+10·7	2	3	
G.		7436	0·570	82·9	289·0	+ 9·9	0	2	
		7439*a*	0·818	135·9	282·6	−30·6	2	4	
		7440	0·881	134·6	275·3	−33·5	7	14	146*c*
		7440	0·895	135·2	273·8	−34·9	0	5	
			0·740	121·2	282·6	−17·1			89
			0·837	121·0	273·9	−21·0			141
			0·918	121·8	264·3	−25·4			168
Sept. 13				(+23·8)	(323·9)	(+7·2)	(44)	(180)	(1207)
256·490	N, AM		0·934	285·9	20·8	+17·4			167
			0·891	297·3	13·8	+27·5			254
			0·819	287·6	6·0	+18·5			221
		7424	0·961	243·9	19·8	−22·6	4	16	
C.		7424	0·957	240·9	18·0	−25·1	2	4	646*c*
		7424*a*	0·952	243·6	17·9	−22·4	25	117	
		7424	0·944	244·7	16·7	−21·0	2	5	
		7441	0·067	82·9	307·0	+ 7·7	0	4	
		7441	0·068	93·9	306·9	+ 6·9	0	10	
		7441	0·078	71·6	306·5	+ 8·5	0	4	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
256·490	N, AM	7436	0·261	79·1	295·8	+ 9·8	7	9	
		7436	0·274	76·0	295·2	+10·7	1	4	
		7436	0·309	76·9	293·0	+10·8	1	1	
		7436	0·383	69·3	289·2	+14·5	1	5	
		7439	0·719	149·9	285·8	−31·9	0	4	
		7439	0·700	148·2	285·7	−29·9	5	8	
		7439*a*	0·730	146·0	282·5	−30·9	2	8	
		7438	0·471	66·9	284·0	+17·1	1	7	
		7438	0·486	66·9	283·1	+17·8	1	3	
C.		7438	0·486	67·5	282·9	+17·1	0	3	
		7440	0·781	142·1	276·4	−32·1	0	4	63*c*
		7440	0·810	142·2	274·1	−34·0	1	3	
		7442	0·724	100·1	265·5	− 2·2	0	3	
		7442	0·742	101·9	264·3	− 3·9	0	5	
		7443	0·888	80·9	247·6	+11·3	0	9	
			0·764	134·3	273·3	−26·5			106
			0·847	124·7	261·2	−24·2			188
			0·951	120·0	245·0	−25·7			188
Sept. 14				(+23·9)	(310·8)	(+7·2)	(53)	(236)	(1833)
257·355	N, AM		0·905	291·3	4·9	+22·3			265
			0·850	278·2	358·1	+10·7			113
		7424*a*	0·991	246·3	17·7	−22·2	0	108	331*c*
		7436	0·064	44·5	296·8	+ 9·8	4	12	
		7436	0·146	53·5	292·5	+12·1	1	3	
G.		7436	0·160	69·4	290·7	+10·3	0	9	
		7439	0·635	161·8	286·2	−29·9	1	5	
		7439*a*	0·667	157·6	282·2	−31·0	3	10	
			0·876	129·0	248·4	−29·0			261
			0·864	118·3	245·5	−20·0			143
			0·952	116·3	232·3	−22·3			217
Sept. 15				(+24·1)	(299·4)	(+7·2)	(9)	(147)	(1330)
258·546	AM, M		0·888	302·9	345·5	+32·4			89
			0·825	288·9	339·4	+19·6			146
		7436	0·242	283·5	297·5	+10·2	0	17	
		7436	0·204	286·8	295·1	+10·4	6	23	
G.		7436	0·180	284·9	293·8	+ 9·7	0	5	
		7436	0·151	293·7	291·8	+10·6	3	12	
		7436	0·171	314·5	290·9	+13·9	0	3	
		7436	0·122	298·7	289·9	+10·5	3	10	
		7438	0·197	354·5	284·8	+18·5	0	12	
		7438	0·175	357·9	284·1	+17·2	0	8	

Group 7437, September 12. A pair of very small spots *f* Group 7424.
Group 7438, September 12–16. Return of Group 7397. A few very small spots *nf* Group 7436, not seen on September 13 and 15.
Group 7439, September 13–16. A very small spot, *a*, on September 13. A few small markings appear preceding it on the following days.
Group 7440, September 13–14. A small spot with a faint companion on September 13. Two very small markings on September 14.
Group 7441, September 14. A cluster of very small markings *p* Group 7436.
Group 7442, September 14. A pair of very small markings.
Group 7443, September 14. A very small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
258·546	AM, M	7439	0·616	180·1	283·7	−30·6	0	1	
G.		7439*a*	0·623	177·5	281·9	−31·1	0	4	
			0·956	116·7	215·9	−22·9			78
Sept. 16				(+24·3)	(283·7)	(+7·2)	(12)	(95)	(313)
259·447	N, AM		0·911	288·2	338·1	+19·5			367
			0·853	241·0	324·1	−20·1			177
			0·785	296·6	322·4	+25·2			191
			0·871	223·0	317·8	−34·7			507
			0·737	221·8	305·1	−27·2			213
		7436	0·425	279·6	296·8	+10·6	1	5	
		7436*a*	0·415	279·4	296·2	+10·4	15	41	
		7436*b*	0·384	280·6	294·2	+10·7	12	44	
		7436	0·381	276·4	294·2	+ 9·1	3	6	
G.		7436	0·341	277·4	291·7	+ 9·3	2	6	
		7436*c*	0·343	282·8	291·5	+11·1	6	31	
		7436	0·333	289·6	290·4	+13·2	1	8	
		7436	0·317	280·1	290·1	+10·0	3	7	
		7444	0·753	56·2	225·7	+29·8	2	5	64*c*
		7444	0·776	56·4	223·5	+30·2	1	4	
		7445*a*	0·993	69·0	186·4	+21·6	21	105	78*c*
			0·877	118·8	216·5	−20·9			171
			0·950	110·7	203·5	−17·1			139
			0·941	69·7	200·5	+21·4			151
Sept. 17				(+24·4)	(271·7)	(+7·2)	(67)	(262)	(2058)
260·385	N, AM		0·962	286·2	334·6	+17·4			186
			0·899	295·3	323·7	+25·8			135
			0·918	244·0	320·9	−20·4			240
			0·913	227·1	313·4	−34·4			353
			0·813	227·6	302·1	−28·1			326
		7436*a*	0·608	278·2	297·0	+10·6	17	68	
		7436	0·595	277·8	296·1	+10·4	12	21	
		7436	0·592	280·0	295·8	+11·6	3	13	
		7436	0·582	275·7	295·1	+ 9·1	1	5	
G.		7436*b*	0·574	277·8	294·6	+10·2	18	67	
		7436	0·551	278·6	292·9	+10·6	4	16	
		7436	0·550	280·9	292·8	+11·9	16	38	
		7436	0·533	278·4	291·7	+10·5	5	15	
		7436	0·519	279·4	290·7	+11·0	6	28	
		7445*a*	0·949	69·4	186·7	+21·7	18	87	223*c*
			0·864	69·6	203·2	+13·6			102
			0·883	110·3	200·9	−14·2			65
			0·927	122·1	198·6	−26·1			130
Sept. 18				(+24·6)	(259·4)	(+7·1)	(100)	(358)	(1760)
1915.				°	°	°			
261·416	N. AM		0·987	246·7	322·6	−21·5			194
			0·902	233·7	301·3	−28·3			332
		7436*a*	0·783	277·8	297·7	+10·5	12	120	
		7436*b*	0·758	278·5	295·4	+11·0	19	49	
		7436	0·725	280·0	292·5	+12·1	6	41	176*c*
		7436	0·721	281·3	292·1	+13·0	1	4	
G.		7436	0·708	278·3	291·1	+10·9	12	54	
		7445*a*	0·862	69·1	186·1	−21·5	12	87	168*c*
			0·758	66·8	197·2	+22·1			35
			0·912	121·7	187·0	−25·1			100
			0·958	69·3	171·2	+21·8			186
Sept. 19				(+24·7)	(245·8)	(+7·1)	(62)	(355)	(1191)
262·358	N. AM		0·941	236·7	296·1	−28·0			227
			0·787	289·3	285·1	+19·5			158
			0·804	241·1	280·9	−18·1			169
			0·869	225·7	280·7	−32·6			145
			0·761	225·8	270·7	−26·4			51
		7436*a*	0·903	278·3	298·4	+10·5	13	93	
		7436	0·892	278·4	296·9	+10·7	5	9	
		7436	0·879	276·2	295·2	+ 8·8	6	12	
G.		7436*b*	0·876	277·9	295·0	+10·3	19	45	392*c*
		7436	0·857	276·9	292·7	+ 9·6	6	16	
		7436	0·852	278·3	292·2	+10·8	4	29	
		7436	0·848	279·7	291·7	+11·9	4	30	
		7445*a*	0·747	67·3	185·7	+21·5	13	72	76*nf*
		7445	0·770	66·7	183·6	+22·4	0	2	
		7446*a*	0·994	79·1	148·3	+11·6	32	122	93*f*
			0·878	69·1	171·6	+21·7			273
			0·936	67·5	163·0	+23·5			268
Sept. 20				(+24·9)	(233·3)	(+7·1)	(102)	(430)	(1852)
263·348	N, AM		0·888	285·6	283·5	+17·1			344
			0·928	231·8	278·9	−31·5			164
			0·891	243·3	277·9	−19·9			191
			0·838	300·1	276·1	+29·0			71
			0·804	230·4	263·6	−25·7			108
G.		7436*a*	0·978	278·8	299·0	+10·0	12	148	
		7436*b*	0·964	279·0	295·6	+10·5	23	126	462*c*
		7436	0·949	278·7	292·6	+10·4	13	164	
		7436	0·934	278·6	289·9	+10·5	0	26	
		7445*a*	0·601	63·2	185·2	+21·5	10	66	

Group 7444, September 17. A pair of very small spots.
Group 7445, September 17–26. Return of Group 7406. A regular spot, *a*, which diminishes rapidly. One or two small companions are seen occasionally.
Group 7446, September 20–October 2. A fine irregular stream in continual change. Two large composite spots, *a* and *b*, are near the head of the group, and soon coalesce to form a very large composite spot, *d*, though *a* and *b* are generally measured separately up to September 26. A large, but faint, double spot, *c*, forms the rear of the group, and a number of small unstable spots surround the chief spots on all sides.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
263·348	N, AM	7446	0·934	83·3	150·8	+ 8·8	1	4	
		7446	0·932	79·8	150·8	+12·1	7	35	
		7446*a*	0·942	81·0	149·2	+10·8	94	374	
		7446	0·943	78·4	148·9	+13·3	0	6	283*c*
		7446	0·958	81·7	146·3	+ 9·9	11	21	
G.		7446*b*	0·966	80·2	144·4	+11·3	43	198	
		7446*c*	0·975	78·2	142·1	+13·0	11	41	
			0·743	61·2	174·1	+25·9			50
			0·848	66·3	162·5	+23·8			146
			0·950	111·8	152·4	−18·1			154
			0·955	62·1	146·4	+28·7			137
Sept. 21				(+25·0)	(220·3)	(+7·1)	(225)	(1209)	(2110)
264·342	VD, AM		0·951	285·1	280·1	+16·5			313
			0·932	296·9	276·6	+27·6			63
			0·917	239·9	267·2	−24·0			373
			0·853	229·5	254·8	−29·0			158
		7436	0·993	280·5	291·5	+11·3	0	25	
		7436	0·993	279·5	291·1	+10·2	0	71	310*c*
		7436	0·987	281·5	288·9	+12·4	0	50	
		7445*a*	0·438	53·5	184·9	+21·6	12	44	
		7447	0·608	55·1	173·5	+26·1	1	3	46*c*
		7447	0·630	56·5	171·4	+26·1	1	6	
G.		7446	0·818	80·3	151·8	+11·9	6	26	
		7446*a*	0·839	81·9	149·6	+10·6	80	387	
		7446*b*	0·874	81·9	145·7	+10·5	68	262	
		7446	0·854	80·4	145·6	+11·9	7	68	188*c*
		7446	0·886	79·8	144·2	+12·2	14	34	
		7446	0·899	80·9	142·5	+11·3	7	14	
		7446*c*	0·905	78·7	141·6	+13·2	24	76	
			0·828	124·9	159·4	−23·6			82
			0·902	116·4	147·9	−20·1			391
			0·881	60·9	145·9	+28·8			508
			0·896	68·9	143·0	+22·0			75
Sept. 22				(+25·1)	(207·1)	(+7·0)	(220)	(1066)	(2507)
265·389	N, AM		0·938	296·6	263·8	+27·3			134
			0·960	242·6	261·8	−23·8			141
			0·861	232·7	243·4	−27·1			256
		7445*a*	0·270	30·1	184·4	+21·4	6	18	
C.		7445	0·339	25·0	184·3	+24·8	1	3	
		7446	0·653	79·7	152·4	+12·0	9	30	
		7446*d*	0·697	82·1	148·9	+10·5	172	775	
		7446	0·740	80·5	145·3	+11·7	2	23	
		7446	0·763	79·5	143·3	+12·5	1	3	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
265·389	N, AM	7446	0·771	82·4	142·5	+10·3	0	4	79*c*
		7446*c*	0·782	79·9	141·5	+12·2	30	167	
			0·759	57·2	146·6	+29·1			96
			0·841	121·0	142·8	−21·3			256
C.			0·885	57·5	132·0	+31·9			133
			0·932	116·9	129·9	−21·9			432
			0·909	71·3	127·5	+19·9			117
			0·976	71·4	114·5	+19·6			459
Sept. 23				(+25·3)	(193·3)	(+7·0)	(221)	(1023)	(2103)
266·418	VD, AM		0·892	231·4	232·9	−29·7			191
			0·847	243·0	232·2	−18·4			111
		7445	0·244	340·2	184·7	+20·2	0	3	
		7445*a*	0·261	345·4	183·7	+21·6	6	12	
		7445	0·279	348·2	183·2	+22·7	0	2	
		7445	0·293	349·0	183·2	+23·7	1	10	
		7446	0·454	77·8	152·9	+11·8	3	7	
		7446*a*	0·500	80·8	149·7	+10·7	118	522	
		7446	0·547	78·2	146·6	+12·3	0	4	
		7446*b*	0·549	82·0	146·3	+10·2	49	224	
		7446	0·602	78·0	142·7	+12·8	3	6	
G.		7446	0·608	80·4	142·2	+11·3	21	52	
		7446*c*	0·617	78·9	141·6	+12·3	18	75	
		7448	0·873	73·2	118·4	+18·0	2	10	
		7448	0·893	72·8	115·9	+18·5	1	7	472*c*
		7448	0·925	72·0	111·3	+19·2	1	9	
			0·774	52·6	132·8	+32·9			56
			0·856	126·8	129·9	−26·4			842
			0·798	72·4	126·7	+18·3			139
			0·900	117·4	121·3	−20·8			363
			0·935	63·2	109·7	+27·5			65
Sept. 24				(+25·4)	(179·7)	(+7·0)	(223)	(943)	(2239)
267·404	N, AM		0·944	238·9	230·8	−26·2			193
			0·896	304·3	229·3	+33·7			103
			0·821	239·3	215·3	−20·2			116
		7445*a*	0·371	314·3	183·2	+21·6	1	4	
		7445	0·398	319·7	183·0	+24·3	0	3	
		7446	0·259	72·7	152·2	+11·2	0	5	
G.		7446	0·266	67·3	152·2	+12·6	0	13	
		7446	0·298	67·8	150·3	+13·1	1	6	
		7446*a*	0·303	75·9	149·4	+10·9	135	665	
		7446	0·342	73·9	147·2	+12·1	4	11	
		7446	0·336	84·0	147·0	+ 8·6	0	8	
		7446	0·363	75·9	145·8	+11·6	3	12	

Group 7447, September 22. A pair of very small markings.
Group 7448, September 24–28. A wide area of feeble disturbance in which several small unstable spots are seen from time to time. No spots are seen on September 27.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
267·404	N, AM	7446*b*	0·360	80·3	145·7	+10·0	29	150	
		7446	0·387	80·0	144·0	+10·2	0	7	
		7446	0·416	77·5	142·3	+11·6	23	73	
		7446*c*	0·430	75·7	141·6	+12·4	15	70	
		7448	0·734	70·6	119·9	+18·9	3	9	
		7448	0·752	71·3	118·1	+18·7	0	2	242*c*
G.		7448	0·787	71·7	114·8	+18·6	4	17	
			0·926	7·1	143·4	+73·2			61
			0·830	125·5	119·1	−24·2			334
			0·933	127·9	107·0	−31·6			212
			0·963	116·9	97·4	−23·5			180
			0·954	67·5	93·1	+23·5			668
Sept. 25				(+25·5)	(166·7)	(+7·0)	(218)	(1055)	(2109)
268·463	VD, AM	7445*a*	0·544	300·0	183·0	+21·7	1	3	
		7446	0·085	359·6	152·7	+11·8	1	8	
		7446*a*	0·085	37·9	149·7	+10·7	89	474	
		7446*a*	0·104	53·2	147·9	+10·4	35	103	
		7446	0·092	68·9	147·7	+ 8·8	1	5	
		7446	0·115	63·2	146·7	+ 9·8	2	63	
		7446*b*	0·148	65·9	144·8	+10·3	24	109	
		7446	0·143	73·9	144·7	+ 9·1	4	9	
		7446	0·165	59·0	144·4	+11·7	1	12	
		7446	0·176	66·8	143·3	+10·8	6	33	
		7446	0·205	53·2	143·0	+13·8	0	3	
		7446	0·198	65·4	142·2	+11·6	14	38	
		7446*c*	0·213	63·8	141·5	+12·1	6	19	
		7446	0·316	57·2	136·7	+16·5	0	15	
		7449*a*	0·602	145·2	130·9	−23·1	6	15	
G.		7449	0·624	146·8	130·6	−25·0	0	4	32*c*
		7449	0·637	142·6	127·7	−24·1	2	10	
		7448	0·555	65·4	120·5	+19·2	5	9	
		7448	0·597	68·0	117·1	+18·5	1	12	
		7448	0·625	68·4	115·0	+18·8	2	7	
		7448	0·651	68·8	113·0	+18·9	1	2	
		7448	0·663	67·1	112·3	+20·2	6	11	
		7450*a*	0·965	109·3	81·0	−16·5	37	166	197*c*
			0·832	140·4	112·7	−34·6			147
			0·825	130·4	107·8	−27·5			45
			0·915	120·2	92·9	−24·0			216
			0·874	67·0	91·7	+23·4			519
			0·965	63·4	76·6	+27·4			214
			0·987	69·3	70·5	+21·4			124
Sept. 26				(+25·6)	(152·7)	(+6·9)	(244)	(1130)	(1494)
1915.									
269·269	M. AM	7451	0·444	311·9	163·2	+23·7	6	31	
		7451	0·429	315·1	161·4	+24·1	6	17	
		7446*d*	0·141	298·7	149·3	+10·7	104	519	
		7446	0·090	303·7	146·4	+ 9·7	6	32	
		7446	0·075	318·5	145·0	+10·2	5	23	
		7446	0·069	336·0	143·7	+10·5	11	58	
		7446	0·080	0·2	142·1	+11·5	5	38	
		7449*a*	0·535	161·5	131·5	−23·6	4	10	
D.		7449	0·565	155·2	127·1	−24·1	1	7	
		7450*a*	0·907	111·9	80·9	−16·5	41	183	190*s*
		7450	0·924	112·3	76·9	−19·9	0	5	
			0·731	148·7	115·5	−32·4			226
			0·847	124·7	92·4	−24·4			154
			0·811	65·3	88·6	+24·0			169
			0·914	61·9	76·0	+28·3			283
			0·925	77·7	73·7	+13·9			52
			0·946	70·2	70·1	+20·9			219
Sept. 27				(+25·7)	(142·1)	(+6·9)	(189)	(923)	(1293)
270·327	N, AM		0·926	290·1	196·6	+21·1			193
			0·833	295·6	183·9	+25·0			191
		7451	0·613	299·2	163·5	+23·0	1	3	
		7451	0·610	300·4	163·0	+23·5	8	36	
		7451	0·592	301·7	161·4	+23·8	5	19	
		7446	0·410	285·3	151·9	+12·4	3	8	
		7446	0·386	287·8	150·2	+13·0	1	4	
		7446	0·378	286·8	149·8	+12·6	8	22	
		7446*d*	0·362	281·8	149·1	+10·5	125	552	
		7446	0·316	280·3	146·4	+ 9·7	8	36	
		7446	0·281	282·0	144·2	+ 9·9	17	74	
		7446	0·261	287·8	142·7	+11·1	2	18	
C.		7449*a*	0·513	188·0	132·5	−23·6	3	4	
		7448	0·224	26·0	122·2	+18·3	3	12	
		7448	0·265	31·6	119·6	+19·7	0	6	
		7452	0·752	163·0	111·6	−39·4	0	2	
		7453	0·460	63·8	102·5	+17·8	0	3	
		7450*a*	0·790	117·2	81·1	−16·5	27	154	176*s*
		7454	0·785	62·8	77·7	+25·4	3	8	279*sf*
			0·878	109·5	69·9	−13·6			141
			0·898	65·3	64·1	+25·1			886
			0·948	123·8	64·0	−29·0			287
Sept. 28				(+25·8)	(128·1)	(+6·8)	(214)	(961)	(2153)

Group 7449, September 26–28. A small regular spot, *a*, with one or two very small followers.
Group 7450, September 26–October 7. Return of Group 7418. A large regular spot, *a*, with occasionally a small companion.
Group 7451, September 27–30. A few small unstable spots.
Group 7452, September 28. A very small marking.
Group 7453, September 28. A very small marking.
Group 7454, September 28. A very small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
271·492	N, AM		0·938	293·3	183·4	+24·2			220
			0·889	212·2	153·6	−43·6			58
		7451	0·778	294·2	163·0	+23·0	0	4	
		7451	0·763	294·8	161·5	+23·2	8	43	177*p*
		7451	0·750	293·6	160·5	+22·1	5	25	
		7446	0·627	280·8	151·7	+12·0	3	22	
		7446	0·618	281·7	150·9	+12·5	0	17	
		7446	0·601	282·1	149·7	+12·7	5	17	
		7446*d*	0·589	278·7	149·0	+10·6	119	505	
		7446	0·576	282·1	147·9	+12·5	0	10	
		7446	0·543	280·4	145·7	+11·3	2	6	
G.		7446	0·531	277·6	145·0	+ 9·8	6	30	
		7446	0·509	282·9	143·2	+12·4	3	43	
		7450*a*	0·623	126·6	81·6	−15·9	25	145	
		7455	0·758	67·4	64·3	+21·4	0	2	
		7455	0·767	66·8	63·5	+22·0	2	3	234*c*
		7455	0·781	66·8	62·1	+22·3	0	3	
		7456	0·798	85·3	59·6	+ 7·9	0	3	
			0·835	131·3	67·3	−28·7			116
			0·812	55·3	61·2	+31·8			210
			0·908	133·0	59·5	−34·3			146
			0·879	118·3	57·1	−20·8			128
			0·954	109·3	43·4	−16·1			71
Sept. 29				(+25·9)	(112·8)	(+6·8)	(178)	(878)	(1360)
272·503	N, AM		0·942	291·8	170·6	+22·7			296
			0·941	217·2	152·5	−44·7			72
			0·856	239·6	151·8	−21·6			215
			0·726	303·6	142·8	+28·6			111
			0·734	225·8	134·9	−25·3			120
		7451	0·882	292·5	161·4	+22·9	0	11	
		7451	0·874	291·8	160·5	+22·3	0	9	270*p*
		7451	0·874	292·6	160·4	+23·0	3	17	
		7446	0·792	279·4	152·1	+11·6	9	43	
C.		7446	0·775	280·8	150·5	+12·6	9	51	
		7446*d*	0·759	278·5	149·0	+10·8	109	466	84*c*
		7446	0·757	281·0	148·8	+12·7	11	54	
		7446	0·721	277·2	145·8	+ 9·9	5	22	
		7446	0·691	281·0	143·2	+12·5	0	29	
		7450*a*	0·482	141·9	81·5	−15·9	20	120	
		7450	0·515	142·2	80·1	−17·7	3	8	
			0·816	135·7	58·1	−30·6			169
			0·773	120·6	55·0	−18·4			60
			0·899	132·0	46·7	−33·0			154
			0·876	115·1	43·0	−18·1			196

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
272·503	N, AM		0·950	115·8	32·4	−21·9			138
C.			0·931	78·6	30·2	+13·0			59
Sept. 30				(+26·0)	(99·4)	(+6·7)	(169)	(830)	(1944)
273·610	N, AM		0·967	292·0	161·3	+22·9			253
			0·925	243·5	147·4	−21·4			182
			0·866	299·8	143·8	+29·0			270
			0·813	232·5	130·0	−24·9			214
		7446	0·920	279·9	152·3	+11·7	8	25	
		7446	0·908	280·9	150·6	+12·7	6	53	507*c*
		7446*d*	0·895	279·3	149·0	+11·3	106	528	
		7446	0·879	277·5	146·8	+ 9·8	1	3	
		7457	0·828	243·1	135·4	−17·7	10	14	
		7457	0·806	243·1	133·4	−17·0	0	7	112*c*
G.		7457	0·806	240·4	132·4	−18·9	1	2	
		7457	0·790	241·1	131·2	−17·8	6	10	
		7450*a*	0·385	171·9	81·6	−15·6	22	107	
		7455	0·488	52·3	60·0	+23·4	1	5	
			0·831	142·1	45·9	−35·8			169
			0·765	121·9	41·6	−18·9			103
			0·884	117·4	28·1	−20·4			57
			0·934	129·0	25·4	−32·7			141
			0·865	66·7	25·1	+23·4			127
			0·961	119·5	16·7	−25·8			177
			0·948	66·5	12·4	+24·4			182
Oct. 1				(+26·1)	(84·8)	(+6·7)	(161)	(754)	(2494)
274·446	N, AM		0·928	297·5	142·2	+27·9			145
			0·853	302·9	130·5	+31·3			109
			0·748	289·3	121·8	+18·8			115
			0·793	236·4	118·8	−21·4			76
			0·836	225·0	117·6	−31·5			44
		7446	0·964	281·6	149·2	+12·9	10	85	485*c*
		7446*d*	0·964	279·4	149·0	+10·8	58	427	
		7457	0·922	247·1	136·9	−18·1	4	15	96*f*
		7457	0·883	245·3	131·2	−18·2	0	7	
C.		7458	0·917	239·9	134·1	−24·2	5	27	201*c*
		7459	0·375	315·3	90·2	+21·8	0	2	
		7459	0·377	319·3	89·2	+23·0	0	4	
		7450*a*	0·403	199·1	81·6	−15·8	12	104	
		7450	0·409	194·7	80·0	−16·6	0	11	
		7460	0·837	95·1	17·5	− 0·7	0	5	29*c*
			0·905	124·1	16·7	−27·0			216
			0·890	65·5	10·9	+24·8			201
			0·961	119·7	5·6	−26·1			77
Oct. 2				(+26·1)	(73·8)	(+6·6)	(89)	(687)	(1794)

Group 7455, September 29–October 1. A small area of feeble disturbance. No markings are seen on September 30.
Group 7456, September 29. A very small marking.
Group 7457, October 1–2. A few very small spots in a sparse stream.
Group 7459, October 2. Two very small markings.
Group 7458, October 2–3. A small spot.
Group 7460, October 2. A very small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
275·513	N, AM		0·992	281·1	143·6	+11·9			250
			0·947	300·8	131·4	+31·2			228
			0·954	256·1	130·1	−11·0			109
			0·954	249·2	128·7	−17·5			302
			0·953	235·0	124·5	−30·5			85
			0·896	289·4	123·7	+20·2			135
			0·900	240·3	117·7	−23·0			204
			0·862	247·0	115·1	−15·9			80
			0·809	288·9	113·6	+19·2			74
G.			0·880	228·3	110·1	−31·7			91
			0·872	219·1	103·8	−37·9			88
		7458	0·971	242·2	130·8	−24·9	0	19	290*np*
		7450*a*	0·517	224·0	81·5	−15·6	25	99	
		7450	0·490	222·4	79·6	−15·0	0	4	
		7450	0·498	220·8	79·4	−15·9	0	13	
			0·806	129·0	15·8	−25·7			112
			0·797	59·3	8·9	+28·2			228
			0·886	124·0	5·1	−25·9			142
			0·958	67·0	345·4	+23·8			141
Oct. 3				(+26·2)	(59·7)	(+6·6)	(25)	(135)	(2559)
276·453	N, AM		0·965	302·3	123·1	+32·8			134
			0·947	288·7	119·5	+19·8			299
			0·910	277·9	113·3	+ 9·9			104
			0·953	233·1	111·4	−32·2			216
			0·937	241·9	111·3	−23·4			123
			0·912	250·7	109·9	−14·6			77
			0·877	288·0	108·9	+18·9			154
			0·864	301·4	105·6	+30·2			96
			0·876	232·7	99·3	−28·1			100
			0·771	238·8	91·3	−18·9			48
			0·710	295·9	90·9	+22·7			80
			0·789	231·8	90·0	−24·4			71
G.		7450*a*	0·656	236·5	81·8	−15·9	23	93	
		7450	0·632	234·1	79·4	−16·2	1	9	
		7461*a*	0·620	82·9	8·9	+ 9·5	6	17	
		7461*b*	0·673	80·9	4·9	+10·9	4	18	
			0·696	139·1	16·9	−26·1			142
			0·803	131·9	5·0	−27·6			145
			0·846	65·9	350·0	+23·7			81
			0·935	70·9	342·2	+13·4			157
			0·932	63·5	338·1	+27·0			126
			0·980	110·7	332·0	−18·7			184
Oct. 4				(+26·3)	(47·3)	(+6·5)	(34)	(137)	(2337)
1915.				°	°	°			
277·335	N, AM		0·977	278·5	114·1	+ 9·7			72
			0·962	288·6	110·9	−19·6			235
			0·932	299·2	104·6	+29·5			67
			0·884	291·8	97·9	−22·2			110
			0·893	237·5	91·8	−25·1			209
			0·828	294·0	91·0	+23·4			149
			0·765	293·8	84·7	+22·4			101
		7450*a*	0·780	243·3	82·0	−16·0	7	87	85*p*
C.		7461	0·439	81·2	9·7	+ 9·7	3	16	
		7461*a*	0·458	79·7	8·5	+10·5	0	7	
		7461*b*	0·515	79·1	4·8	+11·1	7	20	
		7462	0·696	142·1	7·0	−27·5	0	9	
			0·811	59·7	343·3	+28·2			88
			0·863	71·5	335·8	+19·2			229
			0·942	113·5	329·4	−19·6			415
			0·922	63·1	328·4	+27·2			181
			0·982	114·5	320·7	−22·4			253
Oct. 5				(+26·3)	(35·7)	(+6·5)	(17)	(139)	(2194)
278·491	N, AM		0·971	293·5	97·8	+24·3			178
			0·929	293·5	89·2	+24·2			466
			0·939	238·1	83·6	−26·9			179
			0·834	298·5	75·6	+27·1			156
			0·763	294·5	69·0	+22·7			96
			0·789	306·7	68·7	+32·4			68
			0·794	245·3	68·6	−15·1			58
			0·827	227·6	64·8	−29·4			106
			0·795	218·5	56·5	−33·2			89
		7450*a*	0·910	249·1	82·3	−15·9	5	40	256*c*
		7461	0·268	69·3	5·6	+11·6	0	6	
C.		7461*b*	0·292	71·7	4·0	+11·4	5	7	
		7463*a*	0·635	63·7	342·9	+21·4	12	26	
		7463	0·687	64·7	338·6	+21·8	4	10	
		7463	0·684	67·3	338·4	+20·1	3	24	
		7463	0·714	67·2	335·9	+20·6	2	9	
		7464*a*	0·975	83·5	302·8	+ 7·7	0	43	475*n*
			0·835	118·1	329·3	−19·2			255
			0·798	66·1	328·3	+22·8			112
			0·909	118·2	320·6	−22·3			376
			0·901	53·1	317·8	+35·9			155
			0·985	108·3	303·0	−16·7			123
			0·981	65·5	300·1	+25·2			60
Oct. 6				(+26·3)	(20·4)	(+6·4)	(31)	(165)	(3208)

Group 7461, October 4–8. Two small spots, *a* and *b*. *a* has disappeared by October 6. One or two small unstable spots are seen for a short time near *b*.
Group 7462, October 5. A small marking.
Group 7463, October 6–13. A disturbed area in which a number of spots, mostly small and unstable, are loosely scattered. The leader, *a*, a regular spot, is the only stable member of the group.
Group 7464, October 6–12. A small regular spot, *a*, with a very small companion on October 7. The group is not seen on October 9, 10, or 11, but a small marking indicates its place on October 12.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
279·331	N, AM		0·970	294·0	86·6	+24·9			461
			0·962	250·5	80·3	−16·6			196
			0·890	294·6	72·1	+24·7			218
			0·893	250·0	69·2	−14·6			90
			0·869	305·7	67·4	+34·0			81
			0·887	232·2	62·5	−29·2			118
			0·790	293·8	60·7	+22·7			110
			0·771	307·9	55·4	+32·7			111
			0·837	221·0	50·9	−34·4			74
		7450	0·958	251·0	79·6	−16·1	0	9	
		7461	0·049	13·6	8·6	+ 9·1	0	7	
		7461*b*	0·132	48·6	3·5	+11·4	4	10	
		7465	0·578	33·2	346·7	+34·8	0	3	
		7463*a*	0·478	55·3	344·4	+21·5	13	56	
C.		7463	0·541	62·2	338·8	+20·1	3	18	
		7463	0·561	59·7	338·0	+21·9	3	14	
		7466	0·898	80·4	304·9	+11·4	0	15	
		7464	0·907	85·0	303·9	+ 7·2	0	5	602*n*
		7464*a*	0·920	84·3	302·1	+ 7·7	4	29	
		7467	0·991	80·8	286·4	+ 9·9	31	75	
		7467	0·994	81·5	284·9	+ 9·1	0	19	155*c*
			0·740	122·6	328·3	−18·7			85
			0·838	122·0	319·3	−22·3			194
			0·920	72·5	304·1	+15·2			82
			0·959	121·5	302·0	−27·7			209
			0·955	110·6	300·0	−17·4			328
			0·946	65·6	297·5	+25·1			93
			0·980	71·6	289·5	+19·3			59
Oct. 7				(+26·4)	(9·3)	(+6·4)	(58)	(260)	(3266)
280·446	N, AM		0·964	294·4	70·2	+25·1			265
			0·909	286·2	60·5	+17·4			67
			0·903	295·0	59·1	+25·2			112
			0·899	305·2	57·1	+34·2			185
			0·920	237·0	54·4	−27·0			130
			0·836	293·5	50·8	+23·0			111
			0·918	226·2	49·3	−35·9			96
G.			0·825	241·5	44·6	−19·2			185
			0·847	227·4	40·9	−30·6			91
			0·886	216·6	38·8	−40·8			71
		7461*b*	0·176	301·6	3·4	+11·5	1	5	
		7463*a*	0·312	29·0	345·3	+22·0	16	82	
		7463	0·326	33·4	343·5	+21·9	2	9	
		7463	0·346	36·6	341·8	+22·6	0	1	
		7463	0·339	39·4	341·3	+21·2	1	2	
		7463	0·343	45·0	339·7	+20·1	3	14	
1915.				°	°	°			
280·446	N, AM	7463	0·371	42·7	338·9	+21·8	0	1	
		7463	0·393	45·4	337·1	−22·0	3	3	
		7466	0·753	80·2	305·6	+11·5	2	5	
		7464*a*	0·794	85·2	301·8	+ 7·7	3	15	476*n*
		7467	0·909	84·2	288·9	+ 7·9	9	27	
		7467	0·914	82·5	288·1	+ 9·4	15	39	
		7467	0·918	84·0	287·7	+ 8·0	4	24	
		7467	0·919	82·0	287·4	+ 9·9	0	25	
		7467	0·922	81·6	286·9	+10·2	8	14	
		7467	0·927	82·6	286·2	+ 9·2	3	16	271*c*
G.		7467	0·929	81·5	285·9	+10·2	1	14	
		7467*a*	0·942	82·2	283·7	+ 9·4	48	230	
		7467	0·946	80·9	282·0	+10·6	8	27	
			0·701	117·2	314·8	−13·8			39
			0·744	123·9	313·8	−19·7			53
			0·888	125·4	300·2	−27·3			220
			0·865	114·8	299·2	−17·7			264
			0·847	71·8	296·6	+18·7			53
			0·853	83·0	295·7	+ 9·3			137
			0·866	64·4	295·2	+25·2			82
			0·932	73·6	285·2	+17·5			160
Oct. 8				(+26·4)	(354·6)	(+6·3)	(127)	(553)	(3068)
281·309	N, AM		0·961	295·8	58·1	+26·5			164
			0·943	234·8	53·5	−35·2			96
			0·932	288·8	52·8	+19·8			67
			0·888	246·2	45·8	−24·0			70
			0·937	223·1	39·5	−39·8			77
			0·924	308·0	29·7	+37·3			91
		7463*a*	0·270	352·4	345·4	+21·8	12	61	
		7463	0·281	11·2	339·8	+22·2	2	12	
		7467	0·805	85·8	289·5	+ 7·0	16	144	
		7467	0·807	84·2	289·2	+ 8·4	5	29	
		7467	0·819	84·7	288·0	+ 8·0	5	39	
C.		7467	0·822	83·3	287·7	+ 9·1	3	67	137*c*
		7467*a*	0·863	82·2	283·2	+ 9·9	18	309	
		7467	0·866	83·9	282·9	+ 8·4	0	5	
		7467	0·866	79·6	282·8	+12·1	0	4	
			0·804	132·4	301·0	−28·2			127
			0·764	119·4	299·1	−17·5			121
			0·766	61·0	295·2	+26·1			34
			0·911	129·2	287·3	−31·7			85
			0·856	73·2	284·2	+17·6			83
			0·911	116·0	282·4	−20·5			111
			0·961	68·2	268·3	+22·6			112
Oct. 9				(+26·4)	(343·2)	(+6·3)	(61)	(670)	(1375)

Group 7465, October 7. A very small faint spot *n* of Group 7463.
Group 7466, October 7–13. A small spot *n* of Group 7464, not seen on October 9, 11, or 12.
Group 7467, October 7–19. Together with Groups 7464 and 7466, a return of Group 7436. A number of spots in a long, straight, nearly continuous stream, the largest being a fine composite spot, *a*, in the rear of the group. A double spot, *b*, which eventually becomes regular, has formed at the head of the group by October 13. The intermediate spots then diminish and disappear, and only *b* and *a* remain by October 18.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
282·603	N, AM		0·975	247·7	39·8	−20·1			117
			0·900	246·4	26·2	−18·1			157
			0·850	231·7	14·9	−27·7			183
		7463	0·427	307·6	347·3	+20·8	0	3	
		7463*a*	0·410	312·5	345·1	+21·9	7	36	
		7466	0·322	74·8	307·9	+10·7	0	3	
		7467	0·576	87·2	291·0	+ 6·6	17	84	
		7467	0·588	85·4	290·1	+ 7·7	15	35	
		7467	0·605	84·2	288·9	+ 8·5	20	56	
G.		7467	0·618	85·4	287·9	+ 7·7	3	26	
		7467	0·641	84·0	286·2	+ 8·5	11	50	
		7467	0·657	81·8	285·0	+10·1	3	14	
		7467	0·668	79·4	284·3	+11·7	0	6	
		7467	0·672	84·2	283·8	+ 8·5	5	23	
		7467*a*	0·682	81·4	283·1	+10·4	40	216	
			0·782	121·9	281·4	−20·0			114
			0·799	72·8	273·3	+17·4			85
			0·856	66·2	267·8	+23·5			143
Oct. 10				(+26·4)	(326·2)	(+6·2)	(121)	(552)	(799)
283·596	N, AM		0·914	294·9	19·2	+25·2			168
			0·910	249·6	15·3	−15·7			67
			0·924	235·4	13·0	−28·7			199
			0·859	276·0	12·6	+ 8·3			69
			0·825	296·1	7·6	+24·8			72
			0·794	283·7	5·8	+14·5			125
			0·846	233·2	2·1	−26·5			105
			0·934	205·6	355·0	−52·9			28
		7463	0·617	300·0	348·5	+23·0	0	4	
		7463*a*	0·571	299·9	345·2	+21·7	3	20	
		7468	0·492	154·3	300·0	−20·2	0	2	
		7467	0·366	87·0	291·6	+ 6·8	16	65	
G.		7467	0·376	85·4	291·0	+ 7·4	7	20	
		7467	0·397	84·9	289·7	+ 7·7	10	37	
		7467	0·438	83·6	287·1	+ 8·3	11	43	
		7467	0·447	82·0	286·6	+ 9·1	0	15	
		7467	0·472	79·7	285·1	+10·2	4	21	
		7467	0·483	76·6	284·5	+11·8	0	4	
		7467	0·492	82·8	283·6	+ 8·8	9	27	
		7467*a*	0·500	79·4	283·2	+10·5	37	168	
		7469	0·597	73·6	277·0	+14·6	2	10	
		7469	0·632	73·6	274·4	+15·0	6	14	
			0·686	66·3	271·1	+20·5			59
			0·856	121·0	260·7	−22·4			108
1915.				°	°	°			
283·596	N, AM		0·891	47·8	253·8	+40·0			103
G.			0·915	122·0	253·6	−26·0			119
			0·942	67·9	242·1	+22·8			51
Oct. 11				(+26·4)	(313·1)	(+6·1)	(105)	(450)	(1273)
284·417	N, AM		0·955	291·8	15·8	+22·6			54
			0·967	237·4	11·1	−29·3			134
			0·928	277·8	10·7	+ 9·5			81
			0·922	286·1	10·0	+17·2			59
			0·905	296·7	6·9	+26·8			149
			0·870	280·6	3·0	+12·2			62
			0·907	238·3	0·7	−25·4			90
		7463*a*	0·693	295·2	344·5	+21·7	7	8	
		7463*	0·613	299·0	337·4	+22·2	0	1	
		7464	0·044	31·0	300·9	+ 8·2	0	5	
G.		7467	0·189	84·6	291·3	+ 7·0	18	80	
		7467	0·211	83·2	290·1	+ 7·4	8	68	
		7467	0·226	83·8	289·2	+ 7·4	0	8	
		7467	0·258	81·3	287·3	+ 8·2	6	35	
		7467	0·275	78·9	286·4	+ 8·8	0	5	
		7467	0·308	79·5	284·4	+ 9·1	2	6	
		7467	0·314	74·2	284·4	+10·7	0	10	
		7467	0·320	79·6	283·7	+ 9·1	3	15	
		7467*a*	0·335	76·2	283·0	+10·3	30	152	
		7469	0·493	70·0	273·7	+15·0	9	16	
			0·907	122·6	244·1	−26·1			126
Oct. 12				(+26·4)	(302·2)	(+6·1)	(83)	(409)	(755)
285·359	N, AM		0·960	296·4	4·4	+27·0			133
			0·948	280·8	1·8	+12·2			151
			0·958	240·5	357·7	−26·0			82
			0·874	284·0	351·0	+15·1			55
			0·733	234·7	329·3	−20·4			75
		7463*a*	0·818	291·8	344·1	+21·1	5	8	204*f*
		7466	0·307	283·4	307·4	+ 9·8	0	3	
		7470	0·346	228·8	305·0	− 7·4	0	4	
C.		7467*b*	0·028	315·5	290·9	+ 7·2	28	160	
		7467	0·027	31·0	289·0	+ 7·3	0	4	
		7467	0·044	46·8	288·0	+ 7·7	6	28	
		7467	0·102	48·6	285·4	+ 9·8	1	19	
		7467	0·132	45·0	284·4	+11·3	0	4	
		7467	0·113	59·0	284·2	+ 9·3	4	19	
		7467	0·119	65·0	283·6	+ 8·9	0	3	
		7467*a*	0·140	59·1	282·8	+10·1	24	138	
		7471	0·139	116·8	282·7	− 2·4	0	3	

Group 7468, October 11. A very small marking *sp* Group 7467.
Group 7469, October 11–18. An irregular stream of small spots *nf* Group 7467. The group chiefly appears as two clusters, the arrangement of which changes from day to day.
Group 7470, October 13. A very small marking *sp* Group 7467.
Group 7463*, October 12. A very small spot *nf* Group 7463.
Group 7471, October 13. A very small marking *sf* Group 7467.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
285·359	N, AM	7472	0·567	16·6	277·9	+38·6	0	4	
		7469	0·262	56·4	276·8	+14·2	16	29	
		7469	0·270	54·4	276·7	+14·9	2	7	
		7469	0·290	52·0	276·1	+16·1	0	2	
		7469	0·307	60·1	273·9	+14·6	6	32	
C.		7469	0·323	58·6	273·3	+15·4	2	6	
		7473	0·490	27·1	274·7	+31·5	1	4	
			0·857	120·2	237·0	−21·9			52
			0·929	123·7	228·7	−28·2			123
			0·980	65·8	209·8	+24·9			74
Oct. 13				(+26·4)	(289·8)	(+6·0)	(95)	(477	(949)
286·494	N, AM		0·898	292·6	338·7	+22·9			246
			0·924	244·0	337·6	−21·2			44
			0·874	250·2	332·6	−14·1			52
			0·858	240·4	328·0	−21·6			187
			0·795	298·1	325·7	+25·7			38
			0·787	243·6	321·9	−16·5			68
			0·784	233·7	318·1	−23·3			102
		7467*b*	0·272	275·6	290·6	+ 7·2	28	113	
		7467	0·246	275·8	289·0	+ 7·2	0	17	
		7467	0·177	291·5	284·4	+ 9·5	0	4	
		7467*a*	0·152	298·2	282·6	+ 9·9	24	132	
G.		7469	0·170	339·2	278·4	+15·0	16	71	
		7469	0·182	345·8	277·5	+16·0	2	7	
		7469	0·168	359·3	274·9	+15·5	0	15	
		7469	0·157	9·4	273·3	+14·8	9	46	
		7474	0·234	30·6	267·7	+17·4	0	3	
		7475	0·967	107·2	202·1	−14·9	22	163	
		7475	0·972	109·3	201·3	−17·1	21	179	406*c*
		7475	0·989	109·4	196·1	−18·1	0	100	
		7475*a*	0·993	106·8	193·9	−15·8	0	145	
			0·939	129·6	214·3	−33·9			110
			0·929	115·8	211·1	−21·3			30
			0·914	64·6	208·9	+25·5			162
Oct. 14				(+26·4)	(274·8)	(+5·9)	(122)	(995)	(1445)
287·126	N, AM		0·949	291·6	338·8	+22·4			311
			0·939	250·2	333·2	−16·2			75
			0·861	295·4	325·3	+24·8			119
			0·898	241·6	324·9	−22·2			186
D.			0·819	232·9	312·7	−25·5			124
		7476	0·641	291·0	305·3	+17·9	1	2	
		7467*b*	0·413	274·6	290·9	+ 7·3	18	115	
		7467*a*	0·292	285·4	283·0	+10·1	22	119	
		7469	0·269	306·2	279·4	+14·9	22	83	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
287·126	N, AM	7469	0·234	314·6	276·4	+15·3	1	3	
		7469	0·228	324·1	274·5	+16·5	1	6	
		7469	0·200	323·0	273·6	+15·0	6	49	
		7477	0·824	64·4	212·1	+24·3	3	11	
		7478	0·869	61·9	207·2	+27·2	0	8	108*c*
		7478	0·887	60·4	205·0	+28·9	2	10	
		7475	0·921	108·8	202·3	−14·7	23	152	
D.		7475	0·931	110·9	201·3	−17·0	35	105	
		7475	0·948	109·6	198·1	−16·5	0	6	801*c*
		7475	0·960	111·0	196·1	−18·2	19	77	
		7475*a*	0·967	108·2	194·0	−15·9	27	93	
		7475	0·970	109·6	193·5	−17·3	8	20	
			0·805	131·6	223·7	−28·0			60
			0·890	130·8	214·1	−32·0			60
			0·940	66·6	196·0	+24·0			191
Oct. 15				(+26·4)	(266·5)	(+5·9)	(188)	(859)	(2035)
288·331	N, AM		0·971	245·5	322·7	−22·0			255
			0·920	251·2	314·6	−14·7			75
			0·940	237·0	313·3	−27·7			81
			0·838	278·5	307·8	+10·3			225
			0·855	238·9	302·9	−22·6			100
			0·774	287·9	301·0	+17·5			72
			0·822	226·4	294·0	−30·3			66
		7467*b*	0·645	274·4	290·8	+ 7·3	17	103	
		7467	0·608	272·7	288·1	+ 6·2	0	3	
		7467*a*	0·531	279·9	282·5	+10·2	16	83	
		7469	0·507	288·9	280·2	+14·5	12	33	
		7469	0·485	289·9	278·6	+14·6	0	13	
		7469	0·424	294·0	274·2	+15·2	2	7	
		7469	0·404	294·7	272·8	+15·1	9	28	
C.		7473	0·568	321·1	275·2	+31·4	0	7	
		7477	0·627	62·5	214·1	+21·5	0	3	
		7477	0·642	59·7	213·6	+23·5	1	9	43*f*
		7477	0·638	61·6	213·4	+22·2	0	6	
		7475*b*	0·788	114·3	202·7	−15·0	33	174	
		7475	0·803	114·1	201·3	−15·3	1	14	
		7475	0·795	111·4	201·3	−13·1	0	8	
		7475	0·811	116·1	200·7	−18·2	17	90	
		7475	0·816	114·5	200·2	−16·1	0	6	236*c*
		7475	0·820	113·8	199·6	−15·7	4	12	
		7475	0·845	115·9	197·6	−18·2	0	6	
		7475	0·860	116·2	196·1	−18·9	6	88	
		7475*a*	0·867	112·7	194·4	−16·3	14	78	
		7475	0·876	114·1	193·7	−17·8	3	30	
			0·915	63·5	184·6	+26·5			160
Oct. 16				(+26·3)	(250·6)	(+5·8)	(135)	(801)	(1313)

Group 7472, October 13. A very small marking *n* Group 7469.

Group 7473, October 13–16. A very small marking *n* Group 7470. The marking is not seen on October 14 and 15.

Group 7474, October 14. A very small marking *nf* Group 7469.

Group 7475, October 14–25. A large and complicated cluster. The spots composing it are in continual change, but eventually three become stable. Of these *a* is a regular spot in the rear of the group, and *b* and *c* are composite spots on the same meridian in the front of the group. *c*, the last of these spots to form, is the first to break up. Only *b* remains in sight on October 25.

Group 7476, October 15. A very small marking *np* Group 7467.

Group 7477. October 15–24. A small spot on October 15. Numerous spots appear in the neighbourhood on the succeeding days, and the group becomes an irregular stream, the members of which are unstable and begin to break up and disappear after October 18.

Group 7478, October 15. A pair of small spots *nf* Group 7477.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
289·551	AM, N		0·966	240·2	304·3	−26·8			77
			0·934	278·9	303·9	+10·3			148
			0·937	248·3	300·6	−18·0			84
			0·902	287·1	299·1	+17·8			93
			0·903	233·0	290·5	−29·8			129
			0·802	292·3	287·0	+21·2			72
		7467*b*	0·830	274·7	290·7	+ 7·1	16	101	
		7467	0·774	278·7	285·3	+10·3	0	10	89*c*
		7467*a*	0·747	278·8	282·9	+10·3	5	15	
		7467	0·734	278·7	281·5	+ 8·4	0	9	
		7469	0·735	283·5	281·7	+13·8	9	21	
		7469	0·722	283·7	280·6	+13·8	0	12	29*p*
		7469	0·631	286·8	273·1	+15·0	5	25	
		7477	0·436	49·9	213·6	+21·5	10	62	
		7477	0·474	46·7	212·4	+24·2	6	19	
		7477	0·476	48·9	211·6	+23·4	13	53	
		7477	0·522	47·1	209·5	+25·9	3	12	
		7477	0·541	48·3	207·9	+26·1	7	27	
G.		7475	0·618	126·4	203·4	−16·6	1	43	
		7475	0·598	121·7	203·1	−13·4	11	30	
		7475*b*	0·613	124·3	203·0	−15·3	23	138	
		7475	0·624	122·7	201·7	−14·8	3	11	
		7475*c*	0·612	119·7	201·6	−12·8	29	182	
		7475	0·644	124·5	201·0	−16·6	8	41	
		7475	0·646	121·7	199·9	−15·1	0	15	154*f*
		7475	0·690	125·1	198·1	−18·7	0	6	
		7475	0·704	124·5	196·8	−18·9	8	21	
		7475*a*	0·712	119·8	194·8	−16·3	11	70	
		7475	0·719	123·3	194·4	−18·8	0	48	
		7475	0·729	120·7	193·6	−17·5	3	13	
		7479*a*	0·993	78·7	150·5	+11·9	50	228	148*p*
		7479	0·997	77·1	147·9	+13·3	0	56	
			0·813	63·3	181·5	+24·9			104
			0·935	118·3	174·9	−17·7			92
			0·885	72·5	172·1	+18·1			87
			0·941	63·5	164·1	+26·8			82
Oct. 17				(+26·3)	(234·5)	(+5·7)	(221)	(1268)	(1388)
290·445	AM, N		0·974	285·5	300·5	+16·4			99
			0·976	252·4	297·6	−15·7			72
			0·952	237·0	288·4	−29·0			121
G.			0·908	290·2	288·0	+20·6			78
			0·884	240·4	279·0	−22·8			119
		7467*b*	0·928	275·6	291·0	+ 7·3	12	69	318*c*
		7467*a*	0·866	278·8	282·9	+10·4	0	11	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
290·445	AM, N	7469	0·839	283·3	279·9	+14·2	0	16	185*c*
		7469	0·772	284·8	273·1	+15·0	5	16	
		7477	0·314	26·4	214·1	+21·8	17	128	
		7477	0·343	31·2	211·7	+22·5	23	135	
		7477	0·385	30·6	210·3	+24·7	10	46	
		7477	0·430	34·9	206·9	+25·9	11	41	
		7475	0·479	140·0	204·1	−16·2	6	66	
		7475*b*	0·489	138·2	203·0	−16·0	17	92	
		7475*c*	0·453	131·6	202·5	−12·2	33	161	
		7475	0·489	134·6	201·7	−14·8	5	36	
		7475	0·515	136·6	201·1	−16·7	8	35	
		7475	0·490	131·4	200·6	−13·6	11	88	
G.		7475	0·526	132·6	199·1	−15·6	2	23	
		7475	0·580	135·0	197·1	−19·1	3	5	
		7475	0·600	132·5	194·9	−18·9	3	44	
		7475*a*	0·581	128·7	194·6	−16·2	12	63	
		7475	0·592	130·2	194·5	−17·4	2	11	
		7479	0·937	76·2	152·6	+14·9	10	69	
		7479*a*	0·944	79·2	151·5	+12·0	39	195	495*c*
		7479	0·950	77·5	150·3	+13·6	11	81	
			0·916	131·4	166·7	−34·2			181
			0·861	61·6	164·5	+27·2			100
			0·943	115·2	156·5	−21·4			173
Oct. 18				(+26·2)	(222·7)	(+5·6)	(240)	(1431)	(1941)
291·425	AM, N		0·972	289·2	287·0	+19·9			86
			0·915	283·9	276·4	+14·9			268
			0·889	302·0	270·9	+30·8			132
			0·872	292·2	270·1	+22·0			77
			0·796	286·4	262·3	+16·3			71
		7467*b*	0·990	276·2	292·0	+ 6·9	0	31	368*f*
		7480*a*	0·411	214·2	223·5	−14·5	2	8	
		7480	0·413	211·1	222·5	−15·3	1	3	
		7477	0·280	342·2	215·0	+20·8	22	76	
		7477	0·301	347·8	213·7	+22·5	11	40	
		7477	0·279	348·3	213·3	+21·3	10	58	
G.		7477	0·279	356·1	211·0	+21·6	1	10	
		7477	0·294	358·1	210·4	+22·5	14	46	
		7477	0·334	358·6	210·3	+24·9	4	13	
		7477	0·333	4·0	208·3	+24·8	1	11	
		7477	0·355	8·4	206·5	+26·0	2	10	
		7475*b*	0·393	162·6	202·8	−16·5	21	146	
		7475*c*	0·337	157·2	202·1	−12·6	38	224	
		7475	0·397	156·8	200·5	−14·7	9	79	
		7475	0·426	153·4	198·3	−16·9	11	33	
		7475	0·466	148·6	195·1	−18·0	2	10	

Group 7479, October 17–29. Return of Group 7446. A fine double spot, *a*, with some close companions of considerable size. A fresh outbreak occurs after October 26, and on October 27 the group is a fine compact cluster, which later condenses into a pair of large composite spots, *b* and *c*.
Group 7480, October 19. A close pair of small spots, *a*, with a very small companion.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
291·425	AM, N	7475*a*	0·446	146·2	194·9	−16·3	15	57	
		7479	0·827	75·6	154·0	+15·0	7	15	
		7479	0·830	78·6	153·6	+12·5	0	9	
		7479*a*	0·846	79·2	151·9	+12·0	28	182	431*c*
		7479	0·858	77·5	150·5	+13·5	15	80	
G.			0·905	117·8	150·2	−22·2			224
			0·946	108·7	141·6	−15·6			93
			0·942	57·8	139·8	+32·1			150
			0·951	66·0	137·3	+24·5			106
Oct. 19				(+26·2)	(209·8)	(+5·5)	(214)	(1141)	(2006)
292·511	N, AM		0·996	283·1	281·3	+13·5			112
			0·979	285·2	274·5	+15·9			170
			0·919	291·9	262·3	+22·2			83
			0·904	285·5	260·4	+16·3			65
			0·933	242·9	259·6	−22·8			121
			0·891	231·0	249·1	−30·9			149
		7481	0·964	299·8	270·5	+30·1	0	28	
		7481	0·961	298·9	269·7	+29·2	0	18	204*c*
		7481*a*	0·955	301·3	268·2	+31·4	13	38	
		7482	0·716	225·5	229·9	−25·6	0	4	
		7477	0·441	309·3	216·9	+21·2	12	56	
		7477	0·416	310·9	215·1	+20·8	12	23	
		7477	0·406	314·5	213·6	+21·6	9	31	
		7477	0·409	320·2	212·0	+23·4	1	6	
		7477	0·380	321·4	210·3	+22·4	8	22	
		7477	0·403	328·3	209·0	+25·2	1	7	
		7477	0·411	333·9	207·1	+26·9	1	8	
G.		7475	0·388	202·6	204·4	−15·6	5	40	
		7475	0·398	197·7	202·7	−16·8	15	70	
		7475*c*	0·335	200·5	202·4	−12·8	33	250	
		7475*b*	0·404	195·1	201·8	−17·5	25	139	
		7475	0·370	194·0	200·8	−15·6	6	56	
		7475	0·328	193·5	200·0	−13·1	0	4	
		7475	0·392	188·8	199·1	−17·3	4	8	
		7475*a*	0·375	178·5	194·9	−16·5	6	36	
		7483	0·357	50·6	178·7	+18·3	4	6	
		7483	0·403	52·4	175·8	+19·5	0	3	
		7479	0·660	74·3	154·7	+14·4	1	3	
		7479	0·672	76·3	153·6	+13·2	1	3	
		7479*a*	0·688	78·3	152·2	+11·9	32	137	177*f*
		7479	0·702	75·9	151·2	+13·7	6	34	
		7484	0·935	72·7	125·9	+18·0	0	10	150*n*
			0·899	123·2	138·5	−26·5			115
			0·869	55·9	137·5	+32·1			107
			0·906	113·3	134·4	−18·4			220
1915.				°	°	°			
292·511	N, AM		0·921	65·8	128·5	+24·3			103
			0·964	122·1	126·7	−29·0			126
			0·958	55·4	122·4	+34·6			122
G.			0·973	112·9	122·3	−20·8			98
			0·973	71·1	118·1	+19·6			134
Oct. 20				(+26·1)	(195·5)	(+5·4)	(195)	(1040)	(2256)
293·348	N, AM		0·969	292·4	260·8	+23·0			49
			0·969	286·6	260·8	+17·4			54
			0·974	246·6	257·8	−21·3			63
			0·961	237·8	252·5	−28·9			96
			0·895	245·0	243·6	−19·5			131
			0·889	231·7	238·1	−30·3			173
		7481*a*	0·990	301·3	267·9	+31·7	0	7	136*s*
		7485	0·837	248·1	237·7	−15·0	0	2	
		7477	0·587	300·1	217·4	+21·6	5	21	
		7477	0·563	299·5	215·9	+20·7	0	8	
		7477	0·535	301·2	213·6	+20·8	2	5	
		7477	0·550	305·1	213·6	+23·1	0	1	
		7477	0·506	307·3	210·1	+22·6	4	13	
		7475	0·479	223·4	204·3	−15·2	3	25	
		7475*c*	0·435	224·9	202·7	−12·7	23	212	
		7475*b*	0·486	217·4	202·4	−17·5	38	235	
		7475	0·456	217·0	200·9	−16·1	6	50	
		7475	0·387	220·9	199·3	−11·7	5	13	
		7475*a*	0·415	205·6	195·2	−16·5	8	38	
C.		7475	0·445	203·6	195·2	−18·7	0	14	
		7483	0·242	17·6	180·0	+18·3	2	4	
		7479*a*	0·542	76·6	152·0	+11·8	32	151	
		7479	0·560	74·5	150·9	+13·1	1	26	
		7479	0·593	78·0	148·3	+11·4	0	5	
		7486	0·889	21·8	143·6	+59·7	0	6	14*c*
		7484	0·844	72·1	127·0	+18·0	2	7	101*f*
			0·931	11·4	151·2	+70·4			80
			0·769	55·0	138·0	+29·9			42
			0·841	118·4	132·5	−20·3			158
			0·868	126·6	132·5	−27·9			155
			0·916	136·6	130·9	−38·6			93
			0·840	64·4	128·4	+24·3			69
			0·859	55·2	127·9	+32·4			84
			0·938	127·3	122·7	−32·2			130
			0·918	117·0	122·1	−22·7			168
			0·909	63·8	119·5	+26·0			70
			0·926	70·5	116·4	+20·0			204
			0·942	55·2	114·8	+34·5			126
Oct. 21				(+26·0)	(184·4)	(+5·4)	(131)	(843)	(2196)

Group 7481, October 20–21. A regular spot, *a*, preceded by two fainter companions, first seen near the West limb.
Group 7482, October 20. A very small marking *sp* Group 7475.
Group 7483, October 20–22. A small disturbed area in which one or two very small unstable spots are seen.
Group 7484, October 20–27. A small spot, not seen on October 23, 24, or 25.
Group 7485, October 21–23. A few small unstable spots.
Group 7486, October 21. A very small marking, partly surrounded by a small faculous wall, in very high latitude.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
294·399	N, AM		0·902	236·3	227·9	−27·2			135
		7485	0·956	252·3	241·1	−15·2	0	13	126c
		7485	0·939	250·6	237·6	−16·2	3	13	
		7485	0·938	251·1	237·5	−15·6	0	11	
		7477	0·748	294·5	217·5	+21·7	6	8	
		7477	0·668	298·4	210·0	+22·6	3	9	
		7475	0·610	244·6	204·6	−10·8	1	2	
		7475c	0·604	240·9	203·2	−12·5	38	222	
		7475	0·612	237·3	202·7	−14·8	0	8	
		7475b	0·621	233·1	201·8	−17·3	38	253	
		7475	0·554	239·3	199·6	−11·7	2	7	
		7475	0·587	228·2	197·9	−18·3	0	7	
		7475a	0·542	227·5	195·1	−16·5	8	28	
G.		7483	0·255	333·7	177·4	+18·4	1	5	
		7479a	0·335	69·7	152·0	+11·6	28	118	
		7479	0·355	66·1	151·2	+13·3	3	13	
		7487	0·652	122·7	135·9	−16·2	1	7	
		7484	0·685	69·2	128·5	+18·0	1	1	36f
			0·832	132·7	125·5	−30·5			110
			0·840	121·5	119·8	−22·7			88
			0·826	55·1	118·3	+31·4			58
			0·823	69·5	115·8	+19·8			219
			0·931	132·4	112·4	−36·2			116
			0·913	120·7	110·7	−25·1			129
			0·918	58·1	105·0	+31·3			99
			0·961	68·9	96·0	+21·7			225
Oct. 22				(+25·9)	(170·6)	(+5·3)	(133)	(725)	(1341)
295·479	N, M		0·930	239·7	219·0	−25·6			62
			0·775	300·9	204·3	+26·9			100
		7485	0·995	252·9	238·5	−16·4	0	24	220n
		7477	0·887	292·3	218·4	+22·1	0	6	160f
		7475	0·790	249·7	205·5	−12·5	14	45	
		7475	0·775	248·7	203·9	−12·8	13	54	
		7475	0·763	247·7	202·6	−13·2	0	14	
		7475	0·752	248·5	201·9	−12·4	0	5	
		7475b	0·770	242·4	201·7	−17·2	33	177	
G.		7475	0·752	247·5	201·6	−13·0	5	13	
		7475a	0·703	240·1	195·6	−16·5	9	20	
		7479a	0·130	33·7	152·1	+11·3	15	102	
		7479	0·150	32·9	151·5	+12·4	5	15	
		7479	0·178	30·9	150·9	+13·9	0	3	
		7479	0·164	36·5	150·6	+12·7	1	5	
		7488a	0·996	69·1	70·3	+21·2	64	309	
			0·840	134·1	111·0	−32·2			88
			0·927	135·3	100·1	−38·4			114
295·479	N, M		0·900	122·0	98·6	−25·7			104
			0·885	68·0	94·4	+21·9			196
			0·882	75·7	94·3	+15·0			48
G.			0·947	111·1	88·2	−18·0			185
			0·945	64·5	85·2	+25·8			261
Oct. 23				(+25·9)	(156·3)	(+5·2)	(159)	(792)	(1538)
296·173	N, AM		0·861	298·9	205·0	+27·3			202
		7477	0·948	291·8	219·0	+22·3	0	5	286f
		7475	0·878	252·6	206·1	−12·6	4	41	666c
		7475	0·865	251·9	204·5	−12·8	8	46	
		7475	0·845	251·0	202·1	−13·0	3	19	
		7475b	0·855	245·8	201·9	−17·6	16	176	
		7475a	0·803	244·9	196·4	−16·5	9	15	
		7479	0·195	330·8	152·8	+14·8	0	7	
		7479a	0·139	320·4	152·4	+11·2	11	68	
D.		7479	0·147	334·0	151·0	+12·7	0	39	
		7488a	0·970	69·0	70·5	+21·6	73	299	265f
			0·856	123·2	95·2	−24·8			58
			0·811	66·2	94·2	+22·1			83
			0·903	113·2	86·4	−18·3			255
			0·896	62·9	84·4	+26·5			146
			0·963	121·2	78·3	−28·2			60
			0·956	59·4	74·4	+30·6			82
Oct. 24				(+25·8)	(147·2)	(+5·1)	(124)	(715)	(2103)
297·311	N, AM		0·987	292·6	214·1	+23·1			140
			0·944	297·1	202·8	+27·2			161
			0·945	235·5	195·5	−29·5			64
			0·860	302·7	189·1	+30·5			63
			0·831	289·4	187·9	+18·8			62
			0·767	298·5	180·0	+24·9			62
		7475b	0·951	249·7	201·3	−17·5	12	75	858c
		7475	0·920	250·3	196·2	−15·9	0	1	
C.		7479	0·398	294·3	154·0	+14·0	0	1	
		7479a	0·356	287·9	152·3	+11·0	15	75	
		7479	0·340	293·3	150·8	+12·4	1	29	
		7489	0·476	43·9	111·0	+24·6	0	6	
		7488	0·858	68·5	73·3	+21·5	0	4	359f
		7488a	0·882	68·7	70·8	+21·0	47	262	
		7488	0·910	67·9	66·9	+22·1	0	3	
			0·784	119·7	86·1	−19·4			231
			0·786	59·1	83·2	+27·0			103

Group 7487, October 22. A close pair of very small spots.
Group 7488, October 23–November 5. A large regular spot, *a*, followed by a considerable train somewhat further toward the north.
Group 7489, October 25. A very small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
297·311	N. AM		0·894	107·8	71·3	−13·5			65
C.			0·891	57·1	71·2	+31·4			59
			0·964	56·7	58·1	+33·4			70
Oct. 25				(+25·7)	(132·2)	(+5·0)	(75)	(456)	(2297)
298·393	N, AM		0·973	247·4	191·3	−20·6			356
			0·880	290·7	179·2	+20·5			147
			0·877	301·5	177·2	+29·8			36
			0·867	239·5	172·1	−23·2			86
		7479	0·596	281·2	154·2	+10·6	1	9	
		7479	0·597	284·3	154·1	+12·7	0	8	
		7479*a*	0·563	282·3	151·8	+11·0	16	82	
		7484	0·266	327·3	126·5	+17·7	0	6	
G.		7488*a*	0·759	66·5	69·9	+20·9	36	283	} 265*f*
		7488	0·795	63·7	67·0	+23·7	9	39	
		7488	0·819	64·8	64·3	+23·3	3	39	
			0·800	55·7	68·3	+30·0			88
			0·906	126·7	61·0	−30·1			124
			0·878	70·3	56·8	+19·6			184
			0·936	55·1	49·8	+34·3			106
			0·946	64·9	46·8	+25·3			88
Oct. 26				(+25·5)	(117·9)	(+4·9)	(65)	(466)	(1480)
299·425	N. AM		0·959	289·8	178·1	+20·3			93
			0·954	298·8	176·6	+28·8			41
			0·885	289·0	166·3	+18·9			29
			0·872	298·4	163·4	+26·9			35
		7479	0·778	280·4	155·3	+11·1	0	7	
		7479	0·755	280·4	153·3	+11·0	7	49	
		7479	0·753	278·8	153·2	+ 9·8	7	25	
		7479	0·752	282·5	152·9	+12·5	10	93	
		7479*a*	0·741	280·4	152·0	+11·0	10	70	
		7484	0·444	302·6	127·4	+18·2	0	5	
C.		7490*a*	0·468	150·7	90·3	−19·3	2	8	
		7488*a*	0·599	62·0	70·1	+20·2	19	193	
		7488	0·624	60·5	68·7	+21·8	5	16	
		7488	0·649	58·8	67·2	+23·5	7	69	
		7488	0·668	61·4	65·1	+22·3	0	5	
		7488	0·693	58·6	63·8	+24·8	0	18	
		7488	0·687	60·8	63·7	+23·2	6	64	
			0·796	54·5	55·6	+30·7			79
			0·918	114·8	41·8	−20·4			74
			0·961	62·7	30·2	+27·5			76
Oct. 27				(+25·4)	(104·3)	(+4·8)	(73)	(622)	(427)
1915.				°	°	°			
300·604	N. AM		0·979	250·0	164·3	−18·4			89
			0·883	240·1	145·1	−23·5			149
			0·828	282·5	144·5	+13·0			72
		7479*b*	0·902	281·6	153·3	+12·5	28	254	} 323*c*
		7479*c*	0·899	279·5	152·9	+10·6	20	183	
		7490*b*	0·424	188·6	92·6	−20·0	5	14	
		7490*a*	0·405	182·8	89·9	−19·0	3	10	
		7488*a*	0·404	47·8	70·2	+20·1	45	224	
		7488	0·452	46·7	67·9	+22·4	2	9	
G.		7488	0·472	46·5	66·9	+23·2	13	39	
		7488	0·484	48·9	65·5	+22·8	5	28	
		7488	0·460	55·1	65·2	+19·5	0	4	
		7488	0·526	45·8	64·1	+25·7	0	2	
		7488	0·515	50·5	63·2	+23·3	13	35	
			0·820	49·1	39·3	+35·5			62
			0·845	60·5	33·1	+27·2			80
			0·892	116·1	30·0	−20·7			150
			0·925	63·3	21·6	+26·4			114
			0·965	83·4	13·7	+ 7·6			196
Oct. 28				(+25·3)	(88·7)	(+4·7)	(134)	(802)	(1235)
301·410	N. AM		0·911	282·8	143·9	+13·6			136
			0·872	293·0	143·1	+22·3			52
			0·941	238·2	142·7	−27·8			89
			0·875	247·4	135·6	−17·1			89
			0·908	228·6	133·5	−34·3			53
			0·849	303·8	133·2	+30·9			133
			0·866	237·8	131·7	−24·8			110
			0·778	292·8	127·9	+20·5			144
			0·952	354·6	99·0	+75·5			19
		7479*b*	0·965	281·2	153·3	+12·0	38	361	} 313*c*
		7479*c*	0·962	279·6	152·5	+10·5	14	142	
		7491	0·938	245·0	143·9	−21·5	0	3	133*p*
G.		7490*b*	0·484	211·2	93·5	−19·9	5	9	
		7490*a*	0·453	206·0	90·2	−19·4	3	6	
		7488*a*	0·296	26·5	70·1	+19·9	32	190	
		7488	0·371	30·0	66·5	+23·2	9	41	
		7488	0·344	38·7	64·9	+20·0	2	23	
		7488	0·393	35·4	63·8	+23·1	4	43	
		7492*a*	0·854	118·2	24·5	−21·1	2	5	} 88*c*
		7492	0·882	117·8	21·1	−21·8	0	7	
		7493*a*	0·834	61·9	23·5	+25·8	6	22	} 75*c*
		7493*b*	0·856	61·9	20·9	+26·3	7	15	
		7494*a*	0·872	84·8	17·3	+ 6·8	4	9	264*f*
			0·953	0·2	77·3	+76·9			28
			0·821	142·6	39·6	−37·0			49

Group 7490, October 27–31. A small spot, *a*, preceded from October 28 to 30 by a similar small spot, *b*.
Group 7491, October 29. A very small spot in bright faculæ, seen only near the West limb.
Group 7492, October 29–November 7. A very small spot, *a*, on October 29, followed by a very small pair, of which only the preceding member, *b*, is seen on October 30. *a* moves forward in longitude, and increases in size on the succeeding days, and fresh spots forming between *a* and *b*, the group becomes a straight stream by November 2, with *a*, now a double spot, as leader. *a* has broken up by November 6 into three small regular spots, and the rear spot has become the principal member of the group.
Group 7493, October 29–31. A pair of small spots, *a* and *b*.
Group 7494, October 29–November 1. A small spot, *a*, followed after October 29 by a few small spots in a short train.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
301·410	N, AM		0·902	141·2	29·1	−41·6			64
			0·956	123·5	11·1	−30·1			102
			0·932	65·5	9·7	+24·4			90
G.			0·972	111·4	4·5	−19·5			67
			0·986	117·6	1·6	−26·1			12
			0·978	59·4	359·5	+30·9			47
Oct. 29				(+25·2)	(78·1)	(+4·6)	(126)	(876)	(2157)
302·435	N. AM		0·981	283·0	143·9	+13·6			129
			0·917	299·8	130·0	+29·1			100
			0·921	249·8	128·8	−16·6			212
			0·891	290·2	127·2	+20·0			154
			0·930	239·0	122·7	−20·4			239
			0·943	359·7	65·7	+74·8			31
		7490*b*	0·620	229·1	94·4	−19·9	1	1	
		7490*a*	0·578	226·0	90·7	−19·6	3	5	
		7495*a*	0·490	321·2	84·6	+26·5	0	4	
		7488*a*	0·277	341·4	70·0	+19·6	32	175	
		7488	0·330	350·1	68·1	+23·4	1	16	
		7488	0·326	355·6	66·2	+23·4	7	11	
		7488	0·265	359·6	64·7	+19·8	1	15	
		7488	0·308	1·0	64·3	+22·4	1	9	
		7492*a*	0·719	124·8	25·6	−20·7	10	30	
		7492*b*	0·748	122·9	22·6	−20·6	0	4	31*c*
G.		7492	0·772	123·7	20·9	−22·1	0	5	
		7493*a*	0·692	56·9	24·8	+25·6	12	27	
		7493*b*	0·740	58·2	21·4	+26·1	8	21	49*c*
		7494*a*	0·719	84·7	18·6	+ 6·9	9	22	
		7494	0·736	85·1	17·2	+ 6·6	5	11	193*f*
		7494	0·767	84·0	14·5	+ 7·5	7	16	
		7496	0·991	74·5	341·7	+15·9	0	11	129*p*
			0·946	2·6	54·9	+75·2			17
			0·981	2·9	41·6	+82·7			13
			0·883	127·0	10·7	−29·5			144
			0·847	61·7	8·6	+26·1			183
			0·907	113·8	3·3	−19·3			72
			0·886	74·0	2·3	+16·2			113
			0·930	119·9	1·4	−25·6			190
			0·929	56·8	357·9	+32·3			115
			0·989	67·6	342·3	+22·8			148
Oct. 30				(+25·0)	(64·6)	(+4·5)	(97)	(383)	(2262)
303·436	N. AM		0·964	290·7	126·3	+21·1			198
			0·949	306·7	121·7	+36·2			117
			0·955	248·1	121·1	−19·4			134

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
303·436	N, AM		0·891	290·0	114·1	−19·8			210
			0·907	238·7	110·6	−25·8			95
			0·882	305·7	110·1	+33·2			124
			0·916	229·4	108·5	−34·2			92
			0·823	313·9	99·8	+37·7			47
			0·848	210·3	87·4	−43·4			70
		7490*a*	0·719	237·0	91·0	−19·6	2	5	85*p*
		7495*a*	0·621	307·9	84·3	+26·1	5	35	
		7495*b*	0·602	313·5	81·0	+28·2	12	37	
		7488*a*	0·408	311·7	70·2	−19·8	27	152	
		7488	0·424	322·0	67·9	+23·7	0	2	
		7488	0·404	325·2	65·9	+23·5	3	6	
		7488	0·381	330·9	63·0	+23·7	0	6	
		7492*a*	0·568	136·6	26·9	−20·3	15	80	
C.		7492	0·570	134·5	26·0	−19·5	0	4	
		7492*b*	0·613	133·1	22·9	−20·8	3	25	
		7497	0·429	74·9	26·6	+10·2	0	2	
		7493*a*	0·539	47·0	25·6	−25·4	3	32	
		7493*b*	0·606	50·5	20·1	+26·4	4	19	
		7494*a*	0·523	84·1	19·9	− 6·8	3	20	
		7494	0·539	84·7	18·8	+ 6·6	0	10	
		7494	0·599	82·8	14·7	+ 7·9	0	13	
		7496	0·915	74·3	345·2	+16·1	0	8	
		7496	0·924	75·2	343·8	+15·3	0	4	204*f*
		7496	0·932	74·7	342·5	+15·9	0	4	
			0·859	124·8	359·5	−26·6			186
			0·845	56·5	356·9	+30·3			45
			0·938	67·1	341·8	+23·0			84
Oct. 31				(+24·9)	(51·4)	(+4·4)	(77)	(464)	(1691)
304·337	N, AM		0·953	289·7	112·1	+20·1			246
			0·949	304·4	109·9	+33·9			126
			0·923	230·0	98·1	−34·2			82
			0·852	281·0	97·9	+11·6			66
			0·855	303·5	95·1	+30·5			113
			0·815	249·9	93·2	−18·8			60
			0·817	292·9	93·1	+21·1			162
			0·767	238·7	83·7	−20·4			95
C.			0·939	351·3	66·5	+71·8			20
			0·949	355·5	55·3	+74·2			40
		7498	0·858	261·4	97·7	− 5·1	0	7	193*c*
		7495*a*	0·751	301·5	84·8	+26·1	10	64	
		7495	0·714	303·6	81·0	+26·5	0	11	153*c*
		7495*b*	0·713	306·4	80·0	+28·3	23	116	
		7488*a*	0·555	300·5	69·9	+20·0	26	150	
		7488	0·560	308·9	67·9	+24·3	1	9	

Group 7495, October 30–November 4. A short stream forming *np* of Group 7494. Of the two chief spots, *a* and *b*, the rear spot, *b*, develops more quickly than *a*, the leader.
Group 7496, October 30–November 2. Some small unstable spots.
Group 7497, October 31. A very small marking *sp* Group 7500.
Group 7498, November 1. A very small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
304·337	N, AM	7488	0·532	310·7	65·6	+24·1	2	6	
		7488	0·518	315·5	63·1	+25·5	0	4	
		7488	0·489	312·1	62·6	+23·0	0	3	
		7499	0·543	343·7	50·2	+35·5	0	2	
		7492*a*	0·458	155·9	28·1	−20·4	24	94	
		7492	0·453	153·1	27·0	−19·5	0	2	
		7492*b*	0·503	147·6	22·8	−20·9	0	10	
		7494*a*	0·332	82·6	20·2	+ 6·5	0	11	
C.		7494	0·371	80·9	17·9	+ 7·4	0	2	
		7500	0·558	65·1	7·7	+17·1	0	11	
		7496	0·820	73·1	344·9	+16·2	0	5	} 290*nf*
		7496	0·834	73·7	343·4	+15·9	0	10	
			0·950	9·9	5·8	+72·9			15
			0·870	60·4	341·0	+27·7			102
			0·964	116·7	328·8	−24·3			119
			0·965	107·3	326·8	−15·4			60
Nov. 1				(+24·7)	(39·5)	(+4·3)	(86)	(517)	(1942)
305·489	N, AM		0·933	290·9	93·0	+21·0			138
			0·944	247·5	91·9	−19·6			287
			0·899	245·1	84·4	−20·2			137
			0·855	237·1	76·6	−25·1			86
		7495*a*	0·894	297·7	86·2	+26·5	11	53	
		7495	0·877	297·1	84·0	+25·6	4	10	
		7495	0·876	298·5	83·8	+26·9	2	8	
		7495	0·857	300·7	80·8	+28·2	2	7	} 322*c*
		7495	0·853	299·1	80·7	+26·8	0	10	
		7495*b*	0·842	300·9	79·1	+28·1	23	93	
		7488*a*	0·731	293·3	69·6	+19·7	21	125	
G.		7492*a*	0·423	190·1	28·8	−20·4	14	79	
		7492	0·430	184·5	26·4	−21·1	6	33	
		7492	0·430	178·5	23·6	−21·1	4	17	
		7492*b*	0·420	175·3	22·2	−20·4	6	27	
		7496	0·661	73·0	343·7	+14·3	1	8	
		7501	0·725	70·3	338·9	+17·1	0	3	
			0·967	163·1	343·6	−64·5			14
			0·739	58·3	340·2	+25·8			75
			0·871	117·9	328·6	−21·7			198
			0·884	62·5	323·7	+26·1			74
			0·942	116·6	318·0	−23·3			110
			0·955	78·9	311·3	+11·9			133
Nov. 2				(+24·5)	(24·3)	(+4·2)	(94)	(473)	(1574)
306·344	N, AM		0·987	291·0	95·1	+21·6			113
C.			0·980	250·0	90·0	−18·6			224
			0·933	241·2	77·4	−25·0			132

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
306·344	N, AM		0·802	304·4	62·5	+29·6			67
		7495*a*	0·958	296·8	86·2	+26·8	0	33	
		7495	0·947	297·2	83·8	+27·0	0	28	
		7495	0·931	298·8	80·7	+28·2	0	16	} 305*c*
		7495	0·926	297·7	79·9	+27·1	0	11	
		7495*b*	0·920	299·3	78·7	+28·4	22	122	
		7488*a*	0·842	290·8	69·6	+19·7	16	110	} 268*nf*
		7488	0·792	297·2	63·2	+23·8	0	3	
		7492*a*	0·486	212·8	29·3	−20·0	13	76	
		7492	0·479	209·9	27·8	−20·5	19	52	
		7492	0·481	206·9	26·6	−21·3	2	11	
C.		7492	0·454	207·2	25·8	−19·7	0	4	
		7492	0·460	200·6	23·1	−21·4	14	23	
		7492	0·434	208·0	22·9	−18·5	0	18	
		7492*b*	0·450	197·9	21·6	−21·1	13	37	
		7502	0·436	325·2	28·9	+24·8	0	2	
			0·829	122·8	323·6	−24·0			119
			0·893	114·6	313·7	−19·8			88
			0·887	78·4	310·6	+12·2			235
			0·930	68·8	304·9	+21·2			101
			0·947	85·0	301·8	+ 6·0			107
			0·960	106·9	301·3	−15·0			79
			0·984	78·4	293·1	+12·1			234
Nov. 3				(+24·4)	(13·1)	(+4·1)	(99)	(546)	(2072)
307·307	N, AM		0·976	244·8	74·4	−23·4			125
			0·917	275·6	67·0	+ 6·9			46
			0·879	300·7	59·7	+28·7			111
			0·833	310·6	51·0	+35·3			154
		7495*b*	0·976	298·5	78·0	+28·7	14	101	221*sp*
		7488*a*	0·935	289·4	69·5	+19·5	16	98	398*nf*
		7492*a*	0·603	228·4	29·0	−20·0	28	145	
		7492	0·580	224·2	25·9	−21·8	1	13	
		7492	0·539	228·4	25·3	−17·3	0	3	
		7492	0·555	220·8	23·2	−21·1	3	25	
C.		7492*b*	0·545	217·8	21·4	−21·7	4	20	
		7503	0·455	295·8	25·4	+15·0	0	4	
		7504	0·744	181·2	1·6	−43·9	0	5	
		7505	0·779	176·2	356·1	−46·8	0	3	
		7506	0·368	37·8	346·5	+20·8	0	2	
		7501	0·423	53·6	339·5	+18·2	0	3	
			0·698	126·4	323·5	−21·2			104
			0·802	117·3	311·7	−18·9			71
			0·795	74·8	308·2	+14·5			123
			0·867	65·9	301·6	+22·7			53
			0·917	124·6	300·5	−29·4			246

Group 7499, November 1. A very small marking.
Group 7501, November 2–5. A very small spot, not seen on November 3.
Group 7503, November 4. A very small marking.
Group 7505, November 4. A very small marking.

Group 7500, November 1. A small marking.
Group 7502, November 3. A very small marking.
Group 7504, November 4. A very small marking.
Group 7506, November 4. A very small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
307·307	N, AM		0·893	87·0	297·2	+ 4·6			93
			0·928	79·1	292·2	+11·6			199
			0·932	73·2	291·7	+17·1			66
C.			0·946	62·2	290·0	+27·5			65
			0·984	75·6	280·2	+14·9			73
Nov. 4				(+24·2)	(0·4)	(+4·0)	(66)	(422)	(2148)
308·433	N, AM		0·946	297·0	56·1	+26·8			141
			0·878	304·2	43·8	+31·6			110
			0·915	240·0	42·4	−19·2			130
			0·905	229·0	41·0	−34·2			104
		7488*a*	0·990	289·0	67·8	+19·3	10	58	261*nf*
		7492*a*	0·752	239·1	28·6	−19·8	14	73	
		7492	0·734	236·5	26·3	−20·9	12	25	
		7492	0·726	237·2	25·9	−20·1	0	16	91*c*
		7492	0·692	235·6	22·7	−19·9	0	10	
		7492*b*	0·694	233·0	21·9	−21·4	29	115	
		7501	0·280	24·2	338·6	+18·6	0	6	
G.		7507	0·442	56·2	322·9	+17·7	1	3	
		7508	0·616	127·2	315·5	−12·5	1	6	22*c*
		7509	0·774	78·9	295·0	+11·0	1	2	34*p*
			0·825	133·3	300·8	−31·6			111
			0·822	76·8	290·5	+13·0			136
			0·904	126·4	288·3	−30·3			245
			0·870	67·2	286·0	+21·7			51
			0·919	74·8	278·8	+15·5			127
			0·932	105·4	278·6	−12·8			165
			0·931	69·4	277·3	+20·5			41
			0·953	62·2	273·7	+27·6			122
Nov. 5				(+24·0)	(345·5)	(+3·9)	(68)	(314)	(1891)
309·364	N, AM		0·973	297·0	50·8	+27·1			91
			0·948	251·8	42·4	−15·9			54
			0·958	241·4	42·4	−26·0			74
			0·940	304·3	41·6	+33·5			77
			0·881	220·6	41·0	−39·4			62
			0·959	233·4	40·4	−33·5			98
			0·902	317·2	30·7	+43·5			68
C.			0·911	228·2	29·3	−35·3			109
			0·870	311·3	28·2	+37·2			81
			0·830	298·2	27·0	+25·3			124
			0·754	305·3	17·5	+28·5			77
		7492	0·862	244·5	28·7	−19·6	3	19	
		7492	0·860	243·4	28·1	−20·4	3	17	
		7492	0·850	242·4	26·8	−20·9	5	15	318*c*
		7492	0·834	243·9	25·5	−19·2	0	3	
		7492*b*	0·809	239·7	21·7	−21·5	7	84	
1915.				°	°	°			
309·364	N, AM	7507	0·259	28·3	325·9	+16·8	3	11	
		7507	0·298	34·8	323·0	+17·8	5	20	
		7510*a*	0·989	106·2	253·4	−15·3	21	157	46*sp*
			0·738	139·6	299·7	−30·2			71
			0·842	130·5	285·4	−30·5			84
			0·785	112·0	284·5	−14·6			73
			0·823	71·7	278·6	+17·1			183
C.			0·882	122·8	277·5	−26·4			51
			0·924	134·1	276·1	−37·9			76
			0·873	109·5	275·0	−14·9			76
			0·893	51·4	274·1	+35·8			94
			0·908	60·5	269·6	+28·3			198
			0·994	54·8	248·2	+35·4			103
Nov. 6				(+23·8)	(333·2)	(+3·8)	(47)	(326)	(2288)
310·192	N, AM		0·916	296·1	27·6	+25·4			100
			0·931	229·2	22·2	−35·6			51
			0·892	309·6	20·9	+36·5			42
			0·849	274·5	20·4	+ 5·8			86
			0·854	300·0	18·4	+27·3			62
			0·917	221·8	16·1	−40·9			40
			0·755	282·3	11·0	+11·6			21
		7492	0·937	247·1	28·7	−19·9	0	16	
D.		7492	0·934	245·6	27·9	−21·1	0	17	162*c*
		7492	0·897	243·6	21·9	−21·6	3	35	
		7492	0·896	242·7	21·5	−22·3	1	17	
		7507	0·227	340·3	326·8	+15·9	8	18	
		7507	0·232	347·6	325·3	+16·8	3	16	
		7507*a*	0·248	359·5	322·4	+18·0	10	53	
		7510*a*	0·951	107·5	252·4	−15·3	19	131	135*sf*
		7511	0·956	56·1	250·6	+33·4	3	22	159*nf*
Nov. 7				(+23·6)	(322·3)	(+3·7)	(47)	(325)	(858)
311·511	N, AM		0·996	249·0	27·8	−20·5			346
			0·984	295·3	24·7	+25·4			69
			0·981	246·8	21·1	−21·9			330
			0·955	297·8	17·1	+27·6			100
			0·943	276·8	15·5	+ 7·6			349
G.			0·944	304·0	13·8	+33·1			102
			0·931	242·0	9·1	−24·3			122
			0·924	233·7	5·5	−31·4			77
			0·869	298·4	3·2	+26·3			116
			0·848	234·5	355·6	−27·2			123
		7507	0·442	298·6	328·5	+15·4	10	31	
		7507	0·430	300·8	327·4	+16·0	2	11	

Group 7507, November 5–12. A small straight sparse stream gradually developing until November 8. The rear spot, *a*, is the largest and most stable. After November 10 the group consists of a very wide pair of small spots, of which the leader, *b*, is a new formation.

Group 7508, November 5. A very small spot.

Group 7509, November 5–12. A very small spot on November 5. Nothing is seen on the three succeeding days, but two small spots, *a* and *b*, have appeared by November 9. Only *b* is seen on November 10. Nothing is seen on November 11. Two small spots are seen on November 12.

Group 7510, November 6–14. A large regular spot, *a*, which diminishes rapidly after November 8.

Group 7511, November 7–10. A small spot, quickly diminishing.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
311·511	N, AM	7507	0·410	303·4	325·7	+16·3	3	22	
		7507	0·404	313·4	323·0	+19·5	0	8	
		7507*a*	0·382	311·2	322·4	+18·0	16	83	
		7510*a*	0·823	111·7	252·6	−15·5	18	120	279*sf*
G		7511	0·857	52·4	250·5	+33·6	4	12	273*nf*
			0·846	122·8	253·4	−25·0			103
			0·925	104·6	238·9	−12·0			104
			0·936	111·8	238·4	−18·9			162
			0·947	48·8	236·7	+40·0			171
Nov. 8				(+23·4)	(304·9)	(+3·6)	(53)	(287)	(2826)
312·305	N, M		0·988	298·4	16·0	+28·6			67
			0·975	278·4	11·8	+ 9·0			148
			0·963	248·1	6·1	−19·9			103
			0·945	298·6	4·4	+28·1			87
			0·934	284·0	3·5	+14·3			90
			0·956	238·4	2·5	−28·7			154
			0·896	238·4	352·5	−26·1			83
			0·787	286·0	345·7	+14·7			95
		7507	0·594	291·4	329·3	+15·3	1	15	
		7507	0·570	292·8	327·4	+15·6	0	13	
		7507	0·543	295·0	325·2	+16·2	3	11	
		7507*a*	0·516	300·7	322·2	+18·3	11	65	
C.		7509*a*	0·148	5·6	293·7	+11·9	0	3	
		7509*b*	0·156	18·4	291·6	+11·9	2	14	
		7512	0·526	56·3	266·9	+20·0	5	17	
		7512	0·565	53·4	265·2	+22·7	1	6	
		7510*a*	0·713	116·0	253·0	−15·6	23	128	290*sf*
		7511	0·781	48·8	249·9	+33·4	5	15	147*nf*
			0·905	150·6	251·6	−49·4			52
			0·882	46·6	238·8	+39·3			158
			0·889	118·4	236·5	−23·1			116
			0·873	108·6	236·1	−14·3			81
			0·962	70·2	220·4	+20·0			42
			0·978	64·4	216·6	+25·7			181
Nov. 9				(+23·2)	(294·5)	(+3·5)	(51)	(287)	(1894)
313·406	N, AM		0·913	253·7	343·9	−13·3			61
			0·920	307·5	343·4	+35·5			69
			0·892	285·5	342·7	+15·3			205
G.			0·844	291·8	336·3	+20·1			79
			0·877	238·9	335·7	+25·0			72
			0·850	302·0	335·0	+28·7			114
			0·805	237·9	327·5	−23·0			93
1915.				°	°	°			
313·406	N, AM	7507	0·738	289·3	326·3	+16·5	8	21	} 71*p*
		7507*a*	0·688	293·7	321·4	+18·6	8	24	
		7509*b*	0·252	306·3	291·8	+11·9	1	4	
		7512*a*	0·337	31·3	269·2	+20·0	24	119	
		7512	0·380	36·6	265·9	+21·0	6	10	
		7512	0·395	36·9	265·2	+21·7	0	5	
		7512	0·415	36·9	264·3	+22·6	2	25	
		7510*a*	0·537	125·8	253·2	−15·2	25	109	
G.		7511	0·662	40·4	249·2	+33·1	2	3	51*nf*
			0·813	40·7	235·9	+40·4			94
			0·872	46·3	225·9	+39·0			61
			0·891	55·7	220·1	+31·8			71
			0·873	69·7	220·0	+19·3			56
			0·906	63·1	216·4	+25·7			183
			0·960	63·0	206·7	+26·8			48
			0·972	109·1	205·5	−17·7			167
Nov. 10				(+22·9)	(279·9)	(+3·4)	(76)	(320)	(1495)
314·472	N, AM		0·970	242·6	338·3	−25·5			71
			0·935	290·1	334·7	+19·9			168
			0·926	298·7	332·1	+27·6			139
			0·917	260·5	331·5	− 7·4			74
			0·902	242·5	326·1	−23·0			191
		7507*b*	0·885	285·8	327·7	+15·4	5	19	} 507*c*
		7507*a*	0·838	290·3	321·8	+18·7	3	18	
		7512*a*	0·298	345·3	270·5	+19·9	22	116	
		7512	0·298	349·9	269·1	+20·2	8	33	
		7512	0·295	0·1	265·9	+20·2	4	16	
G.		7512	0·323	5·5	264·0	+21·9	13	33	
		7510*a*	0·386	146·3	253·1	−15·5	15	69	
		7513*a*	0·418	68·3	242·6	+11·9	2	6	
		7513	0·439	70·3	241·1	+11·3	0	2	
		7513*b*	0·455	72·1	239·9	+10·9	2	10	
			0·724	31·3	236·2	+40·9			76
			0·807	60·5	215·1	+25·4			123
			0·905	112·1	204·1	−18·3			391
			0·908	102·7	202·0	−10·1			89
			0·914	61·5	201·6	+27·2			184
			0·970	113·5	192·8	−21·8			97
Nov. 11				(+22·7)	(265·9)	(+3·2)	(74)	(322)	(2110)
315·365	N, M		0·985	287·8	334·3	+18·0			54
			0·981	298·6	332·7	+28·6			94
C.			0·969	244·3	326·6	−23·9			137
			0·885	296·1	314·6	+24·4			102

Group 7512, November 9–17. Some small spots rapidly developing into an irregular stream, of which the leader, *a*, a regular spot, is the largest member. *a* is double on November 12 to 14, and has passed out of sight by November 17.
Group 7513, November 11–12. Two small spots, *a* and *b*, with a very small companion on November 11.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1915.									
315·365	N, M		0·894	247·7	314·5	−18·3			82
			0·863	280·5	313·6	+10·7			136
			0·821	290·6	308·1	+18·6			148
			0·835	225·3	299·5	−33·7			115
		7507*b*	0·960	284·5	327·8	+14·8	0	7	} 502*c*
		7507*a*	0·921	289·1	320·6	+18·7	0	10	
		7509	0·635	284·3	292·8	+11·4	1	7	
		7509	0·597	284·7	290·0	+11·2	4	10	
		7512*a*	0·404	316·9	271·1	+20·1	27	140	
		7512	0·389	320·9	269·2	+20·5	4	25	
		7512	0·374	325·1	267·3	+20·8	3	9	
		7512	0·351	330·0	264·9	+20·7	3	13	
		7512	0·353	334·5	263·5	+21·6	4	16	
		7514	0·687	193·9	266·3	−38·7	0	6	
C.		7510*a*	0·327	176·0	252·7	−15·9	6	29	
		7513*a*	0·244	53·1	242·7	+11·4	3	13	
		7513*b*	0·269	61·9	240·2	+10·2	2	5	
			0·704	53·0	214·9	+27·5			52
			0·785	104·5	203·9	− 9·3			68
			0·832	115·6	201·7	−19·2			304
			0·834	58·0	201·0	+28·0			149
			0·890	106·3	193·1	−13·0			58
			0·915	116·4	191·7	−22·6			131
			0·925	79·5	186·5	+10·9			76
			0·974	115·5	183·8	−24·0			231
			0·975	110·1	179·0	−18·8			106
			0·969	62·9	178·9	+27·0			127
Nov. 12				(+22·5)	(254·1)	(+3·1)	(57)	(290)	(2672)
316·323	N, AM		0·984	289·2	321·5	+19·5			277
			0·961	250·2	313·2	−18·0			104
			0·942	280·9	311·9	+11·3			125
			0·917	289·4	307·4	+18·9			192
			0·847	275·4	299·3	+ 6·1			65
			0·838	288·3	297·5	+16·9			63
			0·899	230·6	297·3	−33·1			91
			0·775	281·2	291·9	+10·5			143
C.			0·822	230·8	288·1	−29·1			102
			0·806	218·2	279·9	−36·9			93
		7515	0·593	267·2	277·7	+ 0·7	0	5	
		7512*a*	0·571	302·4	272·3	+20·3	24	138	
		7512	0·546	305·2	269·9	+20·9	14	42	
		7512	0·498	309·4	265·7	+21·1	7	37	
		7512	0·479	312·8	263·6	+21·7	4	16	
		7510*a*	0·373	210·8	252·9	−15·6	1	3	
316·323	N, AM	7516	0·879	113·8	183·3	−19·2	0	18	} 93*s*
		7516	0·894	114·4	181·6	−20·1	9	15	
		7516	0·914	118·2	179·8	−24·1	1	5	170*f*
		7517*a*	0·989	78·2	159·8	+12·1	14	80	215*f*
			0·730	120·4	199·8	−19·4			148
C.			0·836	123·6	191·1	−25·6			77
			0·835	63·8	187·1	+23·3			101
			0·929	62·6	174·6	+26·5			164
			0·940	111·7	174·3	−19·0			146
			0·973	52·7	166·3	+36·9			75
Nov. 13				(+22·2)	(241·5)	(+3·0)	(74)	(359)	(2444)
317·526	N, M		0·913	281·5	291·3	+11·6			165
			0·931	239·2	289·3	−27·1			74
			0·900	230·5	281·6	−33·3			138
			0·830	285·5	281·0	+14·4			76
			0·858	242·3	280·3	−21·8			63
		7512*a*	0·763	293·8	273·3	+19·9	31	127	
		7512	0·757	295·4	272·4	+20·8	11	46	
		7512	0·722	297·1	269·0	+21·2	4	14	
		7512	0·691	296·9	266·5	+20·4	8	23	
		7512	0·682	298·3	265·5	+21·1	3	12	
		7510*a*	0·538	234·3	252·5	−15·6	1	4	
		7518	0·576	340·6	239·1	+35·5	1	3	
G.		7516	0·720	120·5	184·7	−19·2	0	1	
		7516	0·755	119·6	181·4	−20·2	12	18	
		7516	0·779	124·1	181·0	−23·7	2	3	
		7516	0·792	125·7	180·4	−25·4	2	6	} 242*c*
		7519	0·826	127·1	177·6	−27·9	4	9	
		7519	0·827	126·1	177·1	−27·1	6	14	
		7519	0·830	124·4	176·1	−26·1	0	4	
		7517*a*	0·918	78·2	159·2	+11·9	13	68	529*f*
			0·836	115·1	172·6	−18·9			174
			0·832	60·1	172·4	+26·1			63
			0·872	52·1	169·7	+34·0			58
			0·929	114·7	160·8	−21·4			47
			0·948	103·6	155·5	−11·9			67
Nov. 14				(+21·9)	(225·6)	(+2·9)	(98)	(352)	(1696)
318·451	M, N		0·940	283·2	283·3	+13·3			190
			0·884	233·6	268·5	−30·0			139
		7512*a*	0·878	291·4	273·7	+20·1	33	190	
G.		7512	0·861	292·0	271·5	+20·2	0	14	
		7512	0·852	293·8	270·2	+21·7	0	20	} 448*c*
		7512	0·802	294·8	264·6	+21·4	8	32	
		7512	0·801	296·5	264·2	+22·7	0	11	

Group 7514, November 12. A very small marking.

Group 7515, November 13. A very small marking.

Group 7516, November 13–23. An extensive area of disturbance in which a number of small spots form and disappear irregularly. The group is divided into two clusters up to November 15, but is not seen on November 16 or 17. After its re-appearance on November 18 it tends to assume the form of a curved stream.

Group 7517, November 13–25. Return of Group 7479. Third apparition. A regular spot, *a*, that diminishes rapidly and has disappeared by November 17. A fresh outburst has taken place by November 19, and an irregular cluster has formed which eventually develops into a straight stream of normal type. The leader, *b*, and rear spot, *c*, are then both large and composite.

Group 7518, November 14–18. A very small spot on November 14. The group is not seen on November 15, but has reappeared by November 16 as a straight stream, the leader of which, *a*, soon develops into a large regular spot.

Group 7519, November 14–20. A few small unstable spots *sf* Group 7516. The group is not seen on November 18 and 19, but a very small marking appears on November 20.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
318·451	M, N	7516	0·614	127·3	182·4	−19·3	0	4	
		7516	0·662	132·8	181·3	−24·3	3	7	
		7516	0·700	132·3	178·5	−25·7	0	5	
		7519	0·715	135·8	179·0	−28·4	0	2	
		7519	0·739	133·6	177·1	−28·3	3	9	
		7519	0·733	132·3	176·0	−27·2	8	14	
G.		7517*a*	0·814	77·6	159·4	+11·7	3	22	362*f*
			0·856	120·0	159·5	−23·7			58
			0·919	116·8	150·4	−23·2			171
			0·910	73·2	148·4	+16·4			107
			0·909	81·4	148·1	+ 9·1			77
			0·947	105·4	143·7	−13·6			202
			0·969	68·8	138·0	+21·2			90
Nov. 15				(+21·6)	(213·4)	(+2·8)	(58)	(330)	(1844)
319·461	M, N		0·979	283·4	278·3	+13·6			43
			0·810	246·1	250·8	−17·4			204
			0·763	239·8	244·7	−20·5			100
		7512*a*	0·962	289·7	274·0	+19·7	20	148	
		7512	0·945	289·6	270·6	+19·4	0	21	
		7512	0·945	291·3	270·4	+21·0	0	15	361*c*
		7512	0·915	293·6	265·1	+22·6	0	7	
		7512	0·913	292·4	264·9	+21·4	8	31	
		7518*a*	0·753	315·5	239·8	+34·5	23	78	
		7518	0·751	319·7	237·4	+36·9	8	28	
		7519	0·632	145·7	176·2	−28·9	0	1	
G.		7519	0·625	143·1	175·2	−27·4	1	14	
		7519	0·636	144·2	175·1	−28·5	1	5	
		7517*a*	0·657	75·0	159·9	+11·9	0	7	
			0·761	70·8	151·8	+16·2			69
			0·801	118·5	151·5	−20·7			83
			0·813	75·8	146·3	+13·1			70
			0·887	119·6	142·3	−24·5			144
			0·877	72·7	139·5	+16·5			62
			0·896	104·2	137·9	−11·4			50
			0·945	111·0	134·7	−18·8			83
			0·931	66·1	132·6	+23·1			115
			0·962	56·9	129·5	+32·5			81
Nov. 16				(+21·4)	(200·1)	(+2·7)	(61)	(355)	(1465)
320·475	N, M		0·938	289·6	255·9	+19·2			86
			0·921	250·0	251·6	−17·3			229
G.			0·899	304·3	247·3	+31·6			102
			0·835	282·4	243·0	+11·7			104
			0·853	246·3	242·1	−18·6			124

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
320·475	N, M		0·835	233·9	236·3	−27·8			59
		7512	0·990	289·7	268·7	+19·8	7	24	480*c*
		7512	0·975	292·0	263·7	+22·0	0	15	
		7518*a*	0·857	309·3	240·0	+34·3	19	150	
		7518	0·851	313·5	237·6	+37·4	4	10	310*c*
		7518	0·840	314·9	235·6	+37·9	13	60	
		7518	0·829	312·5	235·4	+35·7	3	18	
		7520	0·399	211·3	199·3	−17·4	1	4	
		7519	0·545	162·1	175·8	−28·6	1	4	
		7519	0·537	160·2	175·0	−27·8	0	2	
G.		7521*a*	0·463	120·5	162·9	−11·2	8	11	
		7521	0·479	117·3	161·3	−10·4	2	4	
		7521	0·517	117·5	159·0	−11·6	0	5	
		7521	0·535	120·3	158·6	−13·4	0	2	
		7522	0·672	124·6	150·8	−20·4	0	4	
			0·808	126·1	140·1	−26·6			126
			0·829	67·1	132·6	+20·2			147
			0·902	121·9	127·7	−27·1			207
			0·891	57·7	126·9	+29·7			114
			0·956	56·9	115·7	+32·3			92
			0·957	67·1	114·2	+22·7			109
Nov. 17				(+21·1)	(186·8)	(+2·5)	(58)	(313)	(2289)
321·337	N, AM		0·973	251·2	250·4	−17·7			192
			0·957	302·4	246·7	+31·6			63
			0·923	281·8	242·5	+11·8			123
			0·930	246·5	241·0	−20·8			208
			0·903	236·2	234·2	−28·9			48
			0·818	282·8	229·8	+11·9			69
			0·857	318·6	224·4	+41·5			51
		7518*a*	0·927	305·9	240·0	+33·9	17	100	
		7518	0·905	312·2	234·3	+38·6	7	24	217*c*
		7518	0·892	309·8	233·3	+36·0	1	8	
C.		7516	0·422	208·0	187·6	−19·5	0	3	
		7516	0·389	194·9	181·5	−19·6	0	10	
		7521*a*	0·317	139·2	163·2	−11·5	0	3	
		7523	0·430	142·4	159·5	−17·5	2	6	
		7524	0·786	59·8	127·1	+24·8	0	3	129*c*
		7525	0·877	65·2	116·0	+22·7	3	5	
		7525*a*	0·894	66·0	113·6	+22·4	1	9	176*c*
		7526*a*	0·974	113·7	100·9	−22·4	28	225	
		7527	0·995	113·6	92·9	−23·2	0	72	482*f*
			0·845	51·2	123·5	+3·34			60
			0·913	116·8	113·2	−23·2			115

Group 7520, November 17. A very small marking. Group 7521, November 17–18. A few small spots loosely scattered. The leader, *a*, alone remains by November 18.
Group 7522, November 17–21. A very small marking not seen on November 18, 19 and 20.
Group 7523, November 18–23. A very small spot *sf* Group 7521, on November 18. The group develops into a small stream of normal type, the first and last spots, *a* and *b*, being the largest members. Group 7524, November 18. A very small marking.
Group 7525, November 18–20. A small spot, *a*, preceded by a very small companion on November 18. Group 7526, November 18–30. A large regular spot, *a*, followed by a short train of smaller spots. Group 7527, November 18–27. Three spots, *a*, *b*, and *c*, arranged along a meridian *f* Group 7526, on November 19 and 20. The most southern, *a*, moves backward in longitude, and becomes the principal member of the group by November 22, but declines again, and is very small by November 24. Some small fresh spots are seen preceding its place on the succeeding days.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
321·337	N, AM		0·930	56·8	109·6	+31·6			128
			0·976	105·7	99·2	−14·8			83
C.			0·985	107·1	96·7	−16·4			358
Nov. 18				(+20·8)	(175·4)	(+2·4)	(59)	(468)	(2502)
322·544	AM, N		0·977	300·5	236·2	+30·2			69
			0·978	247·1	235·3	−21·8			59
			0·974	306·7	234·7	+36·2			238
			0·930	245·6	224·9	−21·6			81
			0·937	315·3	223·1	+42·7			78
			0·869	293·0	218·2	+21·0			70
			0·865	301·3	216·1	+27·9			94
			0·775	243·0	206·2	−18·9			166
		7516	0·552	227·5	185·0	−19·8	3	11	
		7516	0·527	221·2	181·3	−21·1	14	40	
		7516	0·520	217·8	179·5	−22·0	4	26	
		7516	0·522	213·3	177·6	−23·6	2	19	
		7528	0·599	201·7	174·5	−31·5	0	3	
		7517	0·169	345·5	162·0	+11·6	2	7	
G.		7517	0·174	2·5	159·1	+12·2	1	4	
		7523*a*	0·328	184·7	161·1	−16·7	4	16	
		7523*b*	0·340	176·8	158·4	−17·4	8	23	
		7525*a*	0·767	62·2	112·5	+22·4	4	9	55*c*
		7526*a*	0·884	116·9	101·2	−22·4	35	184	
		7526	0·899	116·6	99·2	−22·5	0	9	
		7526	0·914	117·9	97·4	−24·2	5	20	
		7526	0·922	116·7	95·9	−23·4	3	12	335*c*
		7527*a*	0·944	118·3	92·4	−25·7	11	51	
		7527*b*	0·942	115·0	92·2	−22·5	7	37	
		7527*c*	0·946	116·9	91·8	−24·4	6	30	
		7529*a*	0·995	59·9	75·5	+30·1	14	91	230*s*
			0·815	112·1	107·7	−16·5			90
			0·907	107·8	96·3	−15·0			183
			0·925	68·3	92·9	+20·8			98
			0·968	61·9	85·1	+27·7			402
Nov. 19				(+20·5)	(159·5)	(+2·3)	(123)	(592)	(2248)
323·367	N, M		0·978	310·8	224·2	+40·2			139
			0·919	275·6	215·2	+ 6·0			73
			0·917	291·6	214·0	+20·6			79
C.			0·924	300·1	213·8	+28·5			143
			0·889	247·4	208·6	−18·9			114
			0·825	254·2	202·5	−11·6			98
			0·788	247·0	197·6	−16·5			47
			0·807	239·0	197·2	−23·0			160
1915.				°	°	°			
323·367	N, M		0·927	348·9	176·0	+67·2			30
			0·922	354·0	163·8	+68·4			38
		7516	0·671	236·4	184·9	−20·0	2	9	
		7516	0·648	233·4	182·3	−20·8	12	46	
		7516	0·653	230·0	181·4	−22·9	0	4	
		7516	0·621	235·0	181·0	−18·9	6	20	
		7516	0·639	231·5	181·0	−21·4	3	25	
		7516	0·627	228·6	179·1	−22·5	7	21	
		7516	0·641	224·7	178·3	−25·1	0	3	
		7516	0·621	226·0	177·7	−23·6	17	79	
		7519	0·690	224·6	181·6	−27·5	0	5	
		7523*a*	0·396	215·6	162·5	−16·5	7	12	
		7523	0·383	213·1	161·1	−16·5	1	16	
		7523	0·375	209·4	159·6	−16·8	2	11	
		7523*b*	0·370	205·1	158·0	−17·3	6	12	
		7517	0·280	305·0	162·1	+11·3	0	3	
C.		7517	0·247	306·8	160·2	+10·6	0	4	
		7517	0·251	315·1	159·0	+12·4	0	3	
		7530	0·503	59·2	121·9	+16·8	0	1	
		7530	0·515	62·4	120·4	+15·7	1	2	
		7525*a*	0·651	57·4	112·4	+22·2	2	5	66*f*
		7526*a*	0·797	120·9	100·9	−22·7	35	247	
		7526	0·830	120·9	97·7	−23·8	4	6	
		7526	0·835	116·8	95·9	−20·8	0	9	361*c*
		7527*b*	0·873	118·0	91·9	−23·0	4	13	
		7527*a*	0·883	121·2	91·6	−26·0	14	50	
		7527*c*	0·881	119·8	91·4	−24·8	3	16	
		7531	0·945	61·0	79·4	+28·0	0	12	225*c*
		7529*a*	0·968	59·2	74·4	+30·3	16	49	
			0·842	65·4	93·3	+21·7			108
			0·850	111·8	93·1	−17·1			104
			0·913	61·4	84·8	+26·9			398
			0·945	115·5	80·8	−23·1			112
Nov. 20				(+20·2)	(148·6)	(+2·2)	(142)	(683)	(2295)
324·487	N, AM		0·972	297·5	209·5	+27·2			77
			0·915	251·5	198·1	−15·9			202
			0·901	239·8	193·6	−25·8			97
			0·775	226·9	174·7	−30·3			138
		7516	0·797	243·9	183·0	−19·1	4	11	
C.		7516	0·804	241·4	182·9	−21·2	15	92	146*c*
		7516	0·776	241·9	180·4	−19·9	5	19	
		7516	0·766	234·9	177·3	−24·5	16	90	
		7517*b*	0·488	288·3	161·9	+10·7	6	14	
		7517	0·494	291·5	161·8	+12·2	0	6	
		7517	0·479	294·5	160·4	+13·3	3	7	

Group 7528, November 19. A very small marking.
Group 7529, November 19–27. With Groups 7531, 7532, and 7533, a return of Group 7495. A regular spot, *a*, quickly diminishing. It is not seen on November 25, but a slight outburst is seen on the two succeeding days. *a* has a small companion on November 23.
Group 7530, November 20. A pair of very small markings.
Group 7531, November 20–23. A small spot *sp* Group 7529.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
324·487	N, AM	7517	0·464	291·7	159·9	+11·7	2	26	
		7523*a*	0·550	235·0	161·8	−16·5	4	14	
		7523	0·530	232·3	159·8	−17·0	0	6	
		7523*b*	0·515	229·3	158·0	−17·7	3	8	
		7522	0·488	215·6	151·6	−21·3	1	4	
		7526*a*	0·654	129·5	100·9	−22·7	37	234	
		7526	0·689	128·5	98·0	−23·6	1	5	
		7527*b*	0·744	124·0	92·0	−23·0	0	11	} 65*f*
		7527*a*	0·773	126·3	90·3	−25·7	13	114	
		7532	0·805	57·7	84·4	+26·8	3	13	249*c*
C.		7531	0·848	58·1	79·6	+27·9	6	15	
		7533*a*	0·871	59·3	76·5	+27·5	4	10	} 319*c*
		7529*a*	0·896	56·8	73·8	+30·3	7	20	
			0·920	14·3	102·0	+64·6			73
			0·684	60·9	94·3	+21·0			105
			0·864	119·5	78·8	−23·9			157
			0·929	129·1	72·7	−34·8			127
			0·893	68·2	71·9	+20·4			122
			0·962	61·8	61·1	+27·6			324
			0·964	71·3	59·7	+18·6			118
Nov. 21				(+19·9)	(133·9)	(+2·1)	(130)	(719)	(2319)
325·342	N, AM		0·970	255·5	197·4	−13·5			224
			0·974	244·8	197·2	−24·0			173
			0·856	231·4	173·6	−30·9			199
			0·766	242·0	168·3	−19·6			62
		7516	0·906	245·5	184·5	−21·1	7	17	
		7516	0·893	245·3	182·6	−20·8	0	9	
		7516	0·875	246·6	180·6	−19·2	0	4	
		7516	0·872	240·8	178·8	−24·0	0	7	
		7516	0·858	244·4	178·1	−20·6	14	33	} 428*c*
		7516	0·870	238·3	177·9	−26·0	0	12	
		7516	0·859	239·6	176·9	−24·5	12	66	
C.		7516	0·848	241·9	176·4	−22·3	8	24	
		7523*a*	0·695	244·0	163·0	−16·2	0	4	
		7523*b*	0·643	239·2	157·9	−17·5	3	10	
		7517*b*	0·645	284·6	161·9	+10·9	38	119	
		7517*c*	0·620	287·2	159·7	+12·1	13	75	
		7526*a*	0·540	140·1	100·7	−22·5	32	261	
		7526	0·576	138·7	98·2	−23·7	0	8	
		7527*b*	0·612	132·8	93·6	−22·7	0	8	
		7527*a*	0·673	133·0	89·7	−25·5	9	46	
		7532	0·691	52·5	85·0	+26·4	3	8	40*c*
		7531	0·739	53·3	80·8	+27·6	5	18	
		7533*a*	0·783	55·4	76·1	+27·7	5	26	} 220*c*
		7529*a*	0·823	53·6	72·6	+30·5	9	15	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
325·342	N, AM		0·813	64·9	70·6	+21·4			149
			0·917	128·7	63·2	−33·9			67
			0·899	110·1	60·8	−17·1			37
C.			0·908	59·4	60·1	+28·4			188
			0·905	68·9	58·9	+19·9			104
			0·966	61·9	48·7	+27·6			171
Nov. 22				(+19·6)	(122·6)	(+2·0)	(158)	(770)	(2062)
326·330	N, AM		0·929	296·0	176·2	+24·7			178
			0·929	236·1	172·7	−30·3			127
			0·878	284·6	170·3	+13·6			60
			0·883	247·3	168·8	−18·9			58
		7516	0·974	247·7	184·5	−21·2	13	114	
		7516	0·962	247·7	181·5	−20·8	0	7	
		7516	0·960	246·5	181·0	−21·9	2	19	} 550*c*
		7516	0·950	247·3	179·0	−20·8	17	84	
		7516	0·942	242·7	176·6	−24·8	1	15	
		7516	0·928	244·9	174·8	−22·4	15	61	
		7534*a*	0·861	296·3	166·6	+23·3	0	6	118*f*
		7517	0·817	282·7	163·8	+11·3	2	12	
		7517*b*	0·802	282·3	162·3	+10·9	30	113	} 113*c*
		7517	0·787	283·7	160·8	+11·9	0	23	
C.		7517*c*	0·772	284·3	159·3	+12·1	22	134	
		7523	0·821	248·3	162·1	−16·5	1	10	} 93*c*
		7523	0·804	247·8	160·4	−16·5	3	4	
		7526*a*	0·443	160·3	100·3	−22·7	36	230	
		7527*a*	0·566	145·3	88·7	−25·9	6	22	
		7531	0·609	43·1	81·6	+27·9	0	3	
		7533*a*	0·668	47·6	75·7	+28·2	1	7	
		7529	0·710	48·4	72·2	+29·5	1	7	
		7529*a*	0·721	47·7	71·6	+30·3	4	12	
			0·810	56·5	60·1	+27·6			81
			0·813	66·2	57·4	+20·2			59
			0·898	59·7	48·6	+27·8			227
			0·964	119·9	38·3	−28·2			50
			0·973	109·7	34·6	−18·7			79
Nov. 23				(+19·3)	(109·6)	(+1·8)	(154)	(883)	(1793)
327·507	N, AM		0·921	251·1	159·3	−16·6			182
			0·901	274·5	158·2	+ 4·8			48
			0·839	292·3	149·3	+19·5			96
C.		7534*a*	0·967	293·9	168·5	+23·5	0	69	} 181*c*
		7534	0·945	296·1	163·5	+25·1	0	3	
		7517*b*	0·935	280·9	163·0	+10·8	44	178	} 320*c*
		7517*c*	0·912	283·5	159·4	+13·0	46	220	

Group 7532, November 21–26. A small spot *sp* Group 7531, not seen on November 23, 24, and 25.
Group 7533, November 21–27. A small spot, *a*, with a very small companion, on November 25. The group lies *s* of Group 7529, and *f* of Group 7531; the three groups together with Group 7532 marking a wide area of feeble disturbance.
Group 7534, November 23–25. A very small spot, *a*, rapidly increasing in size. It is followed by a small companion on November 24, but has passed out of sight by November 25, but a pair of small followers are still in view.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
327·507	N, AM	7526*a*	0·428	192·8	100·0	−22·8	28	216	
		7527	0·432	174·1	91·3	−23·7	1	2	
		7527*a*	0·478	169·7	88·7	−26·2	0	6	
		7533*a*	0·529	32·0	75·6	−28·2	2	7	
		7535	0·653	26·5	72·7	+37·2	1	7	
		7529*a*	0·577	35·5	71·5	+29·5	1	4	
		7536	0·473	65·3	68·1	+12·9	0	3	
		7537*a*	0·948	78·9	22·9	+11·0	6	17	124*c*
			0·785	56·1	47·3	+27·0			59
C.			0·879	133·1	42·0	−35·8			58
			0·866	123·3	39·7	−27·3			121
			0·888	51·9	36·8	+34·1			120
			0·906	111·8	31·5	−18·9			297
			0·894	85·1	31·0	+ 5·1			141
			0·930	64·3	27·4	+24·4			100
			0·958	126·9	26·1	−34·4			110
			0·960	113·9	22·6	−22·4			260
Nov. 24				(−18·9)	(94·1)	(+1·7)	(129)	(732)	(2217)
328·319	N, AM		0·977	252·8	159·9	−16·5			21
			0·968	274·0	158·7	+ 4·2			63
			0·934	243·0	149·2	−24·4			102
			0·905	285·2	147·6	+14·4			190
			0·846	237·9	135·9	−25·7			118
		7534	0·988	295·0	164·0	+24·9	0	19	226*c*
		7534	0·980	295·7	161·0	+25·4	0	27	
		7517*b*	0·984	280·6	162·9	+10·7	25	186	
		7517	0·970	281·5	159·2	+11·6	0	36	351*c*
		7517*c*	0·968	283·4	158·6	+13·3	16	125	
		7526*a*	0·490	211·6	99·5	−23·0	32	223	
C.		7526	0·485	203·1	95·5	−24·8	0	5	
		7527	0·450	196·9	91·6	−23·8	0	12	
		7527	0·489	194·7	91·3	−26·5	0	1	
		7527	0·480	191·4	89·5	−26·4	0	3	
		7533*a*	0·456	13·8	76·4	+27·8	0	4	
		7533	0·471	17·4	74·2	+28·2	0	3	
		7537	0·857	78·6	25·0	+10·5	2	5	102*c*
		7537*a*	0·874	78·3	22·9	+11·0	2	8	
			0·766	132·6	43·0	−29·9			114
			0·873	136·6	33·7	−38·3			97
			0·835	115·2	30·2	−19·8			185
			0·806	85·2	29·9	+ 4·8			80
			0·855	61·8	27·6	+24·7			76
			0·928	117·9	18·8	−25·0			287
			0·949	53·3	15·2	+35·1			91
Nov. 25				(+18·6)	(83·4)	(+1·6)	(77)	(657)	(2103)
1915.				°	°	°			
329·476	N. AM		0·978	287·1	145·7	+17·0			71
			0·925	244·4	132·9	−23·0			78
			0·908	291·6	131·9	+20·1			183
			0·869	304·1	124·0	+29·9			75
			0·928	350·3	91·9	+67·2			27
		7526*a*	0·628	229·2	99·1	−23·0	38	216	
		7527	0·585	216·8	91·1	−26·5	0	4	
		7527	0·558	211·4	87·1	−27·0	1	3	
		7532	0·491	330·6	83·7	+26·5	0	2	
		7533*a*	0·462	346·1	75·3	+28·0	5	16	
		7529	0·474	352·4	72·2	+29·4	2	6	
G.		7538*a*	0·706	121·1	28·2	−20·2	8	21	110*c*
		7538	0·744	121·1	25·1	−21·5	2	7	
		7537	0·685	77·0	25·6	+ 9·9	1	7	72*c*
		7537*a*	0·713	76·3	23·5	+10·7	1	6	
			0·920	164·5	37·7	−61·0			32
			0·833	124·8	17·9	−27·4			149
			0·839	56·1	15·7	+28·7			114
			0·923	36·4	12·3	+48·6			90
			0·836	79·3	11·9	+ 9·7			109
			0·905	46·2	10·6	+39·4			75
			0·931	59·9	2·1	+28·3			81
Nov. 26				(+18·2)	(68·1)	(+1·4)	(58)	(288)	(1266)
330·561	N, AM		0·953	241·6	123·0	−26·4			98
			0·754	248·0	100·1	−15·4			79
		7526*a*	0·768	238·0	98·7	−23·0	41	210	
		7526	0·748	236·0	96·3	−23·7	1	2	
		7527	0·764	230·8	95·7	−27·8	0	2	140*c*
		7527	0·735	234·2	94·5	−24·4	0	3	
		7527	0·704	230·1	90·5	−25·7	0	4	
		7540	0·445	300·6	77·0	+14·2	1	3	
		7533*a*	0·557	322·6	76·1	+27·4	1	7	
		7529	0·542	331·1	71·2	+29·4	0	2	
		7538*a*	0·536	132·4	29·0	−19·9	12	18	
G.		7539*a*	0·617	136·0	25·7	−25·1	2	7	
		7539	0·629	134·8	24·4	−25·1	0	6	
		7539	0·651	135·6	23·3	−26·5	2	11	
		7539	0·672	134·4	21·4	−26·8	4	9	
		7537*a*	0·536	72·6	22·6	+10·3	1	6	
		7541	0·672	46·1	20·4	+28·7	0	1	
			0·857	30·4	13·0	+48·5			100
			0·753	50·4	12·1	+29·5			49
			0·870	41·7	3·7	+41·2			125
			0·869	57·8	357·4	+28·2			129
			0·923	119·4	350·2	−26·3			97

Group 7535, November 24. A very small spot, *n* of Group 7529.

Group 7536, November 24. A very small marking *sf* Groups 7529 and 7533.

Group 7537, November 24–27. A small spot, *a*, with a small companion on November 25 and 26.

Group 7538, November 26–December 3. A small spot, *a*, followed by a distant companion on November 26. A second and larger spot, *b*, has formed close behind *a*, and a more distant companion, *c*, by November 29, but these have both disappeared by December 3.

Group 7539, November 27–December 3. A number of small unstable spots in an irregular stream *s* Group 7538. The first and last spots, *a* and *b*, on November 29, are the largest and most stable.

Group 7540, November 27. A very small marking.

Group 7541, November 27. A very small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
330·561	N, AM		0·925	74·6	346·8	+14·7			259
G.			0·966	64·2	340·1	+25·2			114
			0·988	74·8	332·9	+15·3			167
Nov. 27				(+17·8)	(53·8)	(+1·3)	(65)	(291)	(1357)
331·434	N, AM		0·956	244·8	112·8	−23·6			71
			0·930	294·7	109·0	+23·3			63
			0·936	233·6	106·3	−33·2			81
			0·910	304·1	103·8	+31·2			69
			0·858	250·1	99·2	−16·2			81
			0·837	292·4	97·1	+19·2			82
			0·732	243·3	85·7	−18·3			58
			0·742	305·7	84·5	+26·5			86
			0·655	319·5	71·9	+30·8			35
		7526*a*	0·867	242·3	98·6	−23·0	37	232	295*sf*
C.		7538*a*	0·411	150·8	30·0	−19·8	3	15	
		7539*a*	0·509	150·9	26·5	−25·1	4	24	
		7542	0·396	58·1	22·2	+13·1	0	2	
			0·856	124·7	349·4	−28·3			71
			0·832	73·6	347·1	+14·2			119
			0·922	56·5	338·8	+31·0			88
			0·925	65·9	336·3	+22·7			55
			0·946	115·3	333·8	−23·4			40
			0·947	75·5	331·6	+14·1			114
			0·980	69·0	324·4	+20·8			143
Nov. 28				(+17·5)	(42·3)	(+1·2)	(44)	(273)	(1551)
332·392	N, AM		0·926	251·0	95·8	−17·1			121
			0·899	291·9	92·1	+20·1			125
			0·857	301·4	84·7	+27·1			324
			0·752	311·3	70·5	+30·5			92
		7526*a*	0·944	244·8	97·8	−23·3	27	204	508*sf*
		7538*a*	0·361	182·4	30·6	−19·9	1	7	
		7538*b*	0·359	176·3	28·3	−19·8	6	41	
C.		7538*c*	0·382	168·2	24·9	−20·8	3	20	
		7539*a*	0·451	173·2	26·3	−25·4	5	31	
		7539*b*	0·491	165·7	21·8	−27·9	10	31	
		7543	0·533	157·5	16·4	−28·3	5	9	
		7544	0·504	107·1	0·8	− 7·5	0	2	
			0·857	74·2	331·7	+14·1			96
			0·887	117·9	330·9	−23·9			102
			0·929	66·5	323·1	+22·1			318
Nov. 29				(+17·1)	(29·7)	(+1·1)	(57)	(345)	(1686)
1915.				°	°	°			
333·506	N, AM		0·969	289·0	90·0	+18·6			119
			0·942	248·3	83·5	−20·1			125
			0·939	298·2	82·5	+26·6			458
			0·906	283·3	79·3	+12·4			94
			0·905	291·5	78·3	+19·8			58
			0·860	302·3	70·1	+27·8			251
		7526*a*	0·996	246·3	97·9	−23·3	48	314	366*sf*
		7538*a*	0·425	214·0	29·6	−19·7	0	17	
		7538*b*	0·410	211·5	28·1	−19·5	9	29	
G.		7538*c*	0·400	202·8	24·5	−20·7	15	23	
		7539*a*	0·483	204·1	27·5	−25·1	11	49	
		7539	0·492	196·6	24·0	−27·1	1	2	
		7539	0·456	197·7	23·7	−24·7	0	8	
		7539*b*	0·497	189·8	20·5	−28·3	10	60	
		7543	0·494	182·1	16·2	−28·5	1	6	
			0·931	67·3	347·9	+21·4			101
			0·749	59·5	330·7	+22·9			30
			0·837	63·8	321·0	+22·1			113
Nov. 30				(+16·7)	(15·0)	(+0·9)	(95)	(508)	(1715)
334·351	N, AM		0·982	297·2	81·8	+26·8			205
			0·973	243·0	78·3	−26·0			68
			0·936	302·2	70·1	+30·2			178
			0·920	290·8	69·4	+19·4			73
			0·837	303·2	56·0	+27·7			120
		7538*a*	0·540	229·6	29·7	−19·7	9	31	
		7538*b*	0·519	227·6	27·8	−19·7	0	9	
		7538*c*	0·494	220·6	24·0	−21·2	4	22	
		7539*a*	0·581	220·6	28·5	−25·4	15	47	
C.		7539	0·536	212·8	22·7	−25·9	0	8	
		7539*b*	0·555	206·1	20·0	−29·0	3	21	
		7543	0·518	203·2	17·1	−27·5	0	2	
		7543	0·537	201·4	16·8	−29·1	0	1	
		7545	0·719	58·7	322·4	+22·4	0	9	109*c*
		7546	0·827	65·6	310·6	+20·4	0	5	127*c*
			0·817	74·9	310·0	+13·3			64
			0·892	86·2	301·0	+ 3·7			52
			0·943	75·8	294·0	+13·6			133
Dec. 1				(+16·4)	(3·9)	(+0·8)	(31)	(155)	(1129)
335·374	N, AM		0·981	300·8	67·4	+30·2			146
			0·951	292·7	61·1	+21·8			59
C.			0·900	300·0	51·2	+27·0			288
			0·838	312·1	39·2	+34·5			144
		7544*	0·872	244·4	48·0	−21·7	0	6	428*p*

Group 7542, November 28. A very small marking, seen *n* of the place of Group 7537, after the disappearance of the latter.
Group 7543, November 29–December 1. A very small spot *f* Group 7539. A very small companion is seen on December 1. Groups 7538, 7539, and 7543 are parts of a feeble disturbance spread over a wide area.
Group 7544, November 29. A very small marking.
Group 7545, December 1. A small marking.
Group 7546, December 1–8. A very small spot on December 1, not seen on the two succeeding days. Two very small spots are seen on December 4, but none on December 5, after which the group appears as a small unstable cluster.
Group 7544,* December 2. A small marking.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
335·374	N, AM	7538*a*	0·696	240·2	30·1	−19·6	9	17	63*c*
		7538*c*	0·632	233·5	23·3	−21·4	0	9	
		7539*a*	0·715	232·5	29·0	−25·1	4	18	
		7539	0·683	229·3	25·4	−25·8	2	4	44*c*
		7539	0·655	225·9	21·9	−26·4	1	3	
		7539*b*	0·654	220·6	19·4	−29·1	0	5	
		7547	0·167	308·3	357·9	+ 6·6	0	3	
C.		7547	0·145	321·0	355·6	+ 7·1	0	3	
		7548	0·607	12·0	341·3	+37·0	0	4	
		7548	0·608	15·7	338·6	+36·4	0	8	
		7549	0·506	25·7	336·1	+27·7	0	1	
		7550*a*	0·983	68·8	271·8	+20·9	11	53	290*c*
			0·963	0·4	348·9	+74·8			37
			0·883	75·2	289·3	+13·3			184
			0·953	121·0	281·4	−29·1			112
Dec. 2				(+16·0)	(350·4)	(+0·7)	(27)	(134)	(1409)
336·427	N, AM		0·953	295·6	46·9	+24·4			173
			0·916	235·2	37·8	−31·2			85
			0·910	306·8	36·9	+33·2			220
			0·805	302·8	25·2	+26·1			80
		7538*a*	0·835	245·4	30·1	−19·9	5	16	
		7538	0·829	246·1	29·7	−19·2	0	4	590*c*
		7539*a*	0·839	238·9	28·9	−25·2	0	5	
C.		7539	0·778	233·4	20·9	−27·1	2	3	
		7550*a*	0·916	67·3	271·9	+20·9	7	42	287*c*
		7551	0·959	66·6	264·5	+22·5	0	10	326*c*
		7552*a*	0·973	63·0	261·5	+26·3	9	49	
		7553*a*	0·991	108·4	254·9	−18·2	0	29	102*s*
			0·903	129·8	278·9	−34·9			43
			0·922	120·0	273·0	−27·1			95
Dec. 3				(+15·6)	(336·5)	(+0·6)	(23)	(158)	(2001)
337·456	M, AM		0·897	242·4	23·4	−24·3			1394
		7546	0·416	31·6	309·4	+21·1	4	15	
		7546	0·441	34·2	307·5	+21·7	0	7	
C.		7550*a*	0·811	64·0	271·8	+21·0	3	27	359*c*
		7552*a*	0·912	61·6	260·1	+25·8	5	34	
		7553*a*	0·943	109·2	253·7	−18·0	0	25	298*c*
		7554	0·969	61·0	249·2	+28·1	0	4	1116*c*
Dec. 4				(+15·2)	(322·9)	(+0·4)	(12)	(112)	(3167)
1915.				°	°	°			
338·513	AM, M		0·963	243·5	21·3	−25·4			1038
		7555*a*	0·603	227·3	337·8	−23·7	1	4	
		7555*b*	0·581	225·7	335·9	−23·6	2	7	
		7550*a*	0·672	58·5	271·3	+20·8	4	21	
G.		7552*a*	0·810	57·7	259·7	+25·8	5	19	694*f*
		7553*a*	0·853	111·5	252·6	−18·0	10	33	507*c*
		7556	0·883	110·7	248·9	−18·0	0	8	
			0·940	78·3	239·5	+11·0			65
Dec. 5				(+14·7)	(309·0)	(+0·3)	(22)	(92)	(2304)
339·348	N, AM		0·984	241·2	15·9	−28·2			353
			0·946	310·4	3·6	+37·8			112
			0·935	354·6	311·8	+68·4			26
		7555*a*	0·733	236·7	339·8	−23·5	6	24	
		7555*b*	0·688	233·8	335·2	−23·7	6	16	
		7546	0·394	336·0	307·8	+21·1	2	11	
		7546	0·401	338·4	307·1	+22·0	0	8	
		7546	0·382	340·5	305·8	+21·2	1	3	
		7550	0·491	44·5	276·5	+20·6	0	2	
C.		7550*a*	0·550	50·0	271·3	+20·8	6	15	
		7550	0·539	52·5	271·2	+19·2	0	2	
		7552*a*	0·712	52·3	259·4	+25·8	3	9	211*f*
		7553*a*	0·742	115·2	253·2	−18·3	7	28	156*c*
		7556	0·801	112·9	247·3	−18·0	0	13	
			0·907	113·9	235·3	−21·4			112
			0·961	52·4	228·1	+35·9			177
			0·991	50·4	218·5	+39·1			108
Dec. 6				(+14·4)	(298·0)	(+0·2)	(31)	(131)	(1255)
340·359	M, AM		0·906	291·2	347·9	+19·2			149
			0·772	291·2	333·1	+16·2			74
			0·938	351·2	307·2	+68·0			46
		7555*a*	0·845	241·7	338·7	−23·5	0	35	141*c*
		7555*b*	0·808	240·2	334·4	−23·5	6	23	
		7546	0·533	316·1	308·2	+22·6	1	5	
		7546	0·492	315·5	306·2	+20·5	5	22	
		7550*a*	0·421	31·1	271·3	+21·1	2	13	
C.		7552*a*	0·584	41·2	259·4	+26·1	0	5	162*f*
		7554	0·691	46·9	249·9	+28·2	0	3	
		7553*a*	0·577	122·4	254·0	−17·9	7	23	
		7556	0·627	120·9	250·3	−18·6	0	1	
			0·905	48·7	226·9	+36·7			282
			0·954	47·4	218·1	+40·2			312
			0·970	108·4	209·7	−17·8			127
Dec. 7				(+14·0)	(284·7)	(+0·1)	(21)	(130)	(1293)

Group 7547. December 2. A pair of very small markings. Group 7548, December 2. Two very small markings. Group 7549, December 2. A very small spot.
Group 7550, December 2–13. Return of Group 7512. A small regular spot, *a*, on December 2. A diffuse spot, *b*, has formed *sp a* by December 8, and by December 11 the group consists of three spots, *c*, *b*, *d*, in a straight line, *sp* the place of *a* which has disappeared. Only *d* remains in sight on December 13.
Group 7551, December 3. A small diffused spot.
Group 7552, December 3–9. A small regular spot, *a*, gradually diminishing. It is not seen after December 7, but a very small marking is near its place on December 9.
Group 7553, December 3–12. A small regular spot, *a*, occasionally with one or two very small attendants. *a* has disappeared by December 10, but some small markings are seen near its place on December 11 and 12. Group 7554, December 4–8. A very small spot, not seen on December 5 and 6.
Group 7555, December 5–8. A pair of small spots, *a* and *b*. *a* has broken up into a cluster of very faint markings—which are still measured as one by December 7, and have disappeared by December 8. Group 7556, December 5–10. A region of very feeble disturbance *f* Group 7553. No spots are seen on December 8.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
341·470	N, AM		0·931	294·3	336·5	+22·4			101
			0·902	286·6	333·3	+14·8			166
			0·908	305·7	330·2	+31·9			100
			0·824	297·0	322·2	+21·8			75
		7555*b*	0·914	243·7	333·5	−23·9	0	11	277*p*
		7546	0·665	302·3	306·9	+20·7	0	5	
		7550*b*	0·334	345·2	275·2	+18·6	1	22	
		7550*a*	0·363	356·7	271·4	+21·1	2	6	
G.		7553*a*	0·401	139·7	254·4	−17·8	6	21	
		7554	0·560	32·3	250·4	+28·1	1	5	
		7557	0·961	106·1	197·0	−15·4	0	25	86*s*
		7558*a*	0·993	110·1	187·9	−19·9	24	183	57*c*
			0·828	43·3	225·0	+36·9			231
			0·898	42·7	216·3	+41·2			157
			0·918	112·6	205·4	−20·7			149
			0·915	103·1	204·7	−12·0			80
Dec. 8				(+13·5)	(270·1)	(−0·1)	(34)	(278)	(1479)
342·337	M, AM		0·981	246·0	336·3	−23·6			239
			0·958	285·4	331·1	+14·7			108
			0·921	292·3	323·8	+20·4			187
			0·788	297·8	306·9	+21·4			102
		7550*b*	0·429	319·1	275·8	+18·6	3	28	
		7550*a*	0·417	331·0	271·1	+21·1	1	6	
		7552	0·429	1·1	258·1	+25·1	0	3	
		7553	0·319	174·6	256·8	−18·6	0	3	
		7553*a*	0·317	166·5	254·2	−18·0	0	12	
		7556	0·385	154·0	248·3	−20·3	0	2	
C.		7559*a*	0·386	63·4	238·2	+ 9·7	1	6	
		7560*a*	0·910	109·9	194·7	−18·0	1	5	68*c*
		7558*a*	0·960	111·2	186·1	−20·4	28	211	423*c*
			0·755	37·6	223·8	+36·4			72
			0·833	38·2	216·0	+40·6			132
			0·840	114·4	204·1	−20·4			135
			0·869	103·8	199·1	−21·1			58
			0·934	63·8	192·0	+24·3			50
			0·993	114·6	176·4	−24·4			301
Dec. 9				(+13·2)	(258·6)	(−0·2)	(34)	(276)	(1875)
343·319	N, AM		0·978	291·9	322·4	+21·3			136
			0·917	283·7	311·3	+12·4			95
C.			0·905	293·9	308·2	+21·4			116
			0·930	324·6	300·8	+49·0			78
		7550	0·578	302·1	276·5	+17·6	0	11	
		7550*b*	0·567	304·3	275·1	+18·3	10	52	
1915.				°	°	°			
343·319	N, AM	7550	0·534	307·0	272·3	+18·4	5	38	
		7556	0·297	178·0	245·1	−17·4	0	8	
		7559*b*	0·190	30·7	240·1	+ 9·1	3	7	
		7559*a*	0·226	37·4	237·7	+10·0	2	10	
		7561	0·244	74·9	232·1	+ 3·3	0	5	
		7560*a*	0·813	113·0	193·7	−18·6	0	4	} 56*c*
		7560*b*	0·810	110·9	193·6	−16·9	0	3	
C.		7558*a*	0·885	112·9	185·6	−20·2	26	201	242*c*
		7562*a*	0·975	107·5	169·3	−17·1	7	77	318*f*
			0·658	25·2	225·5	+36·1			52
			0·791	32·7	211·1	+41·4			94
			0·950	116·3	175·9	−25·0			307
			0·968	78·5	170·8	+11·0			161
			0·987	64·7	166·3	+24·9			230
Dec. 10				(+12·7)	(245·7)	(−0·3)	(53)	(416)	(1885)
344·481	AM, N		0·981	291·2	308·1	+20·7			76
			0·930	248·0	297·2	−20·5			122
			0·887	284·9	291·7	+13·0			165
		7550*c*	0·764	294·4	277·2	+18·0	8	17	
		7550*b*	0·726	296·4	273·5	+18·4	4	22	
		7550*d*	0·697	298·2	270·7	+18·8	8	29	
		7553	0·532	230·2	256·1	−20·2	0	6	
		7553	0·497	228·8	253·7	−19·5	0	8	
		7559*b*	0·251	313·0	241·1	+ 9·3	3	11	
		7559	0·231	318·9	239·2	+ 9·5	0	2	
G.		7559*a*	0·217	323·1	238·0	+ 9·4	4	28	
		7558*a*	0·748	117·0	185·3	−20·2	33	223	
		7558	0·771	114·8	182·8	−19·2	2	13	53*c*
		7562*a*	0·893	108·6	168·5	−16·8	7	35	437*f*
			0·860	118·2	174·5	−24·1			444
			0·901	75·7	167·2	+12·6			448
			0·921	62·2	166·4	+25·2			354
			0·940	126·6	164·7	−34·3			245
			0·972	62·4	156·2	+26·6			209
Dec. 11				(+12·2)	(230·4)	(−0·5)	(69)	(394)	(2553)
345·169	N, AM		0·933	284·1	289·2	+12·9			110
			0·739	304·1	263·2	+24·0			83
		7550*c*	0·859	291·7	278·3	+18·2	4	15	} 172*c*
D.		7550*b*	0·820	293·3	273·7	+18·6	8	31	
		7550*d*	0·790	295·0	270·4	+19·1	8	55	
		7553	0·626	241·4	256·4	−17·9	·1	2	
		7559*b*	0·371	298·1	240·6	+ 9·4	2	14	
		7559*a*	0·332	302·5	237·7	+ 9·7	1	5	

Group 7557, December 8. A small spot.

Group 7558. December 8–21. Return of Group 7516. A large regular spot, *a*, generally followed by one or two small companions.

Group 7559, December 9–16. A very small spot, *a*, on December 9. Other spots form *p a* on the succeeding days, and the group develops into a thin straight stream, of which the leader, *b*, is the most stable member.

Group 7560, December 9–10. A very small spot, *a*, on December 9. A second, *b*, is also seen on December 10.

Group 7561, December 10. A small diffused marking *nf* Group 7559.

Group 7562, December 10–20. A composite spot, *a*, on December 10, diminishing on the succeeding days. The group increases in size after December 12, and appears as a number of small unstable spots, loosely scattered over a wide area.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
345·169	N, AM	7558*a*	0·655	121·8	185·0	−20·6	30	199	
		7558	0·676	118·3	182·4	−19·2	2	9	
		7562*a*	0·818	110·9	168·3	−17·3	3	16	} 354*c*
		7562	0·852	109·0	164·4	−16·4	0	2	
			0·798	122·1	173·0	−25·4			244
D.			0·863	60·7	165·6	+24·6			252
			0·853	73·5	164·2	+13·7			519
			0·901	129·3	163·2	−35·0			91
			0·940	60·9	154·4	+26·9			209
			0·959	74·1	148·8	+15·0			64
Dec. 12				(+11·9)	(221·3)	(−0·6)	(59)	(348)	(2098)
346·337	N, AM		0·903	234·4	265·7	−32·0			67
			0·869	297·0	262·8	+22·8			158
			0·804	246·3	256·9	−19·2			168
			0·836	305·0	256·7	+28·1			100
			0·757	314·4	245·0	+31·3			104
			0·941	182·1	211·8	−70·6			32
		7550*d*	0·915	291·5	270·1	+19·2	9	43	463*p*
		7559*b*	0·594	287·2	240·9	+ 9·5	13	39	
		7559	0·578	289·8	239·4	+10·7	1	5	
		7559	0·567	287·6	239·0	+ 9·3	1	13	
		7559*a*	0·548	289·2	237·4	+ 9·8	4	14	
C.		7558*a*	0·475	135·4	185·1	−20·4	36	205	
		7558	0·484	131·2	183·3	−19·2	0	7	
		7562	0·629	111·6	169·0	−13·9	0	3	} 114*c*
		7562	0·672	113·8	166·2	−16·2	8	20	
		7562	0·714	113·4	162·8	−17·0	4	38	
			0·734	54·2	165·1	+24·8			107
			0·808	134·4	161·4	−34·8			59
			0·744	69·9	159·9	+14·3			134
			0·840	55·6	154·5	+27·8			208
			0·885	69·2	145·7	+18·0			90
			0·902	120·2	144·9	−27·2			61
Dec. 13				(+11·4)	(205·9)	(−0·7)	(76)	(387)	(1865)
347·334	M, AM		0·978	291·5	269·3	+20·8			273
			0·937	297·0	259·5	+24·8			296
			0·907	248·9	256·4	−19·4			179
			0·838	246·0	247·3	−20·4			76
C.			0·858	306·0	245·7	+29·8			163
		7559*b*	0·752	283·1	240·5	+ 9·3	5	36	
		7559	0·743	285·0	239·5	+10·5	0	13	
		7559*a*	0·718	284·8	237·4	+ 9·9	8	33	
		7563	0·215	180·8	193·0	−13·2	1	6	
1915.				°	°	°			
347·334	N, AM	7558*a*	0·360	158·4	184·7	−20·2	45	207	
		7562	0·425	120·6	170·8	−13·2	0	2	
		7562	0·495	122·6	167·8	−16·2	4	15	
		7562	0·477	120·0	167·7	−14·5	0	4	
		7562	0·526	128·8	167·1	−19·9	0	4	
C.		7562	0·507	117·8	165·3	−14·3	0	7	
		7562	0·559	120·6	162·7	−17·2	0	4	
		7564	0·468	68·8	166·7	+ 9·1	0	10	
		7564	0·506	70·2	164·1	+ 9·1	4	12	
		7565	0·673	51·2	157·8	+24·2	0	3	36*c*
			0·901	65·0	131·3	+22·0			72
Dec. 14				(+11·0)	(192·8)	(−0·8)	(67)	(356)	(1095)
348·334	N, AM		0·980	296·1	256·5	+25·7			219
			0·972	250·5	253·7	−18·0			351
			0·939	302·3	245·4	+29·7			265
			0·908	249·1	243·3	−19·2			297
			0·915	228·9	239·6	−37·4			135
			0·807	319·2	220·7	+36·8			163
			0·751	330·1	208·6	+39·6			63
		7559*b*	0·883	281·2	240·8	+ 9·4	7	22	273*f*
		7566	0·836	230·3	229·4	−32·9	0	5	
		7567	0·650	234·6	214·5	−22·8	0	9	
C.		7558*a*	0·343	194·2	184·7	−20·3	34	203	
		7558	0·326	189·3	182·8	−19·7	0	4	
		7558	0·312	185·3	181·3	−19·0	0	5	
		7562	0·298	141·5	168·6	−14·4	7	17	
		7562	0·325	143·5	168·1	−16·0	4	22	
		7562	0·309	132·9	166·2	−13·0	8	17	
		7562	0·396	135·2	162·7	−17·2	0	11	
		7564	0·258	51·4	167·9	+ 8·2	7	26	
		7564	0·313	58·3	164·1	+ 8·5	19	87	
			0·976	109·3	102·9	−19·0			77
Dec. 15				(+10·5)	(179·6)	(−1·0)	(86)	(428)	(1843)
349·465	N, AM		0·989	300·3	244·1	+29·8			138
			0·961	251·2	237·8	−18·3			143
			0·904	312·2	221·2	+36·7			195
			0·842	322·0	207·7	+40·7			97
C.		7559*b*	0·973	280·1	240·7	+ 9·5	0	9	177*f*
		7558*a*	0·461	223·8	184·5	−20·4	31	209	
		7558	0·430	221·9	182·4	−19·6	0	5	
		7558	0·417	218·4	180·6	−20·0	0	2	
		7568	0·435	195·1	171·9	−25·8	0	5	
		7564	0·183	329·2	170·1	+ 7·9	22	85	

Group 7563, December 14. A very small spot *n* of the place of Group 7560.
Group 7564, December 14–22. A pair of small spots on December 14. New spots form on the succeeding days, and by December 17, the group has become a long stream. The leader, *a*, is then a large regular spot, and the rear spot, *b*, has assumed the same form by December 20.
Group 7565, December 14. A very small marking *nf* Group 7564.
Group 7566, December 15. A very small marking.
Group 7567, December 15. A very small marking.
Group 7568, December 16. Two very small markings *ef* Group 7558.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for each Day).
1915.				°	°	°			
349·465	N, AM	7564	0·153	350·0	166·2	+ 7·5	1	11	
		7564	0·165	4·8	163·9	+ 8·3	7	50	
		7562	0·243	201·6	170·0	−14·1	3	13	
		7562	0·268	192·8	168·2	−16·2	0	5	
		7562	0·235	178·0	164·2	−14·7	1	5	
		7569	0·271	19·2	159·5	+13·7	0	1	
C.		7570	0·493	39·4	145·2	+21·2	0	2	
			0·916	65·6	101·0	+21·7			84
			0·909	109·0	100·5	−17·7			50
			0·956	117·6	93·6	−26·6			291
			0·990	62·6	84·8	+26·9			161
Dec. 16				(+10·0)	(164·7)	(−1·1)	(65)	(402)	(1336)
350·427	N, AM		0·960	309·6	220·0	+37·2			204
			0·899	302·0	211·3	+27·8			107
			0·899	315·0	206·4	+38·7			184
		7558*a*	0·603	236·8	184·4	−20·2	19	184	
		7558	0·578	236·0	182·5	−19·8	0	5	
		7558	0·563	233·2	180·7	−20·7	0	3	
154+2		7464*a*	0·374	296·0	171·8	+ 8·3	25	156	
		7564	0·327	296·3	169·1	+ 7·1	0	4	
		7564	0·334	299·2	169·1	+ 8·2	3	12	
		7564	0·328	303·8	168·0	+ 9·3	9	23	
C.		7564	0·294	300·3	166·8	+ 7·4	1	7	
		7564	0·266	309·4	163·9	+ 8·5	10	36	
		7562	0·379	234·6	170·5	−13·8	3	9	
		7562	0·380	227·0	168·7	−16·1	0	2	
		7562	0·365	222·4	166·8	−16·7	1	3	
		7562	0·353	218·6	165·3	−17·1	0	1	
			0·790	114·0	102·3	−19·5			38
			0·861	63·8	96·0	+21·6			108
			0·893	119·6	91·8	−26·7			277
			0·901	110·7	89·1	−19·1			36
			0·943	61·0	84·8	+26·7			194
Dec. 17				(−9·6)	(152·0)	(−1·2)	(71)	(445)	(1148)
351·337	N. AM		0·988	308·3	217·4	+37·4			103
			0·908	250·4	204·1	−18·3			74
			0·933	315·9	199·9	+41·4			166
		7558*a*	0·731	243·3	183·9	−20·0	28	170	
C.		7558	0·700	240·9	180·8	−20·8	1	4	
		7564*a*	0·565	286·7	173·1	+ 8·2	26	161	
		7564	0·517	289·0	169·6	+ 8·5	9	29	
		7564	0·495	290·5	168·0	+ 8·8	3	16	
		7564*b*	0·477	292·7	166·5	+ 9·4	23	71	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for each Day).
1915.				°	°	°			
351·337	N, AM	7564	0·441	292·9	164·3	+ 8·7	4	22	
		7571	0·629	307·6	172·3	+21·4	0	4	
		7571	0·618	309·9	170·8	+22·1	0	9	
		7562	0·527	243·9	169·2	−14·5	0	4	
		7562	0·483	235·5	164·6	−17·0	0	9	
C.		7572	0·654	53·9	105·6	+21·5	0	5	
			0·773	61·6	93·7	+20·7			53
			0·836	124·7	88·3	−29·2			287
			0·869	59·1	84·5	+25·7			184
			0·946	60·0	72·6	+27·7			240
Dec. 18				(+9·1)	(140·1)	(−1·3)	(94)	(504)	(1107)
352·460	N, AM		0·958	252·7	198·1	−17·0			81
			0·971	314·1	194·9	+42·0			129
			0·789	235·8	172·3	−27·2			149
		7558*a*	0·873	247·7	184·4	−20·1	23	167	} 231*c*
		7558	0·840	245·2	180·1	−21·4	0	4	
		7564*a*	0·764	282·6	174·0	+ 8·5	32	174	
		7564	0·744	284·4	172·1	+ 9·6	12	65	
C.		7564	0·713	282·8	169·7	+ 8·0	4	26	
		7564	0·693	285·3	167·8	+ 9·4	18	70	
		7564*b*	0·667	286·0	165·7	+ 9·4	28	88	
		7562	0·671	246·8	165·1	−16·4	0	2	94*p*
		7573*a*	0·986	108·1	45·2	−18·1	15	61	116*c*
			0·880	56·3	69·2	+28·3			142
			0·966	60·3	53·5	+28·1			116
			0·991	63·7	44·9	+25·8			83
Dec. 19				(+8·6)	(125·3)	(−1·5)	(132)	(657)	(1141)
353·341	N, AM		0·885	239·0	172·6	−27·9			230
			0·833	293·6	167·1	+18·4			67
			0·841	301·4	165·9	+25·0			92
		7558*a*	0·950	249·2	184·6	−20·2	28	175	291*c*
		7564*a*	0·877	281·8	174·0	+ 9·5	43	276	} 178*c*
		7564	0·841	281·5	170·0	+ 8·8	16	128	
C.		7564*b*	0·805	282·5	166·2	+ 9·1	45	383	
		7562	0·802	250·6	165·6	−16·5	0	2	159*p*
		7573*a*	0·938	108·8	44·8	−18·2	13	72	252*c*
			0·788	52·6	69·0	+27·4			34
			0·912	55·5	53·5	+30·2			108
			0·957	61·1	43·8	+27·0			162
Dec. 20				(+8·2)	(113·7)	(−1·6)	(145)	(1036)	(1573)

Group 7569, December 16. A very small marking *nf* Group 7564.
Group 7570, December 16. A very small marking *nf* Group 7569.
Group 7571, December 18. A pair of very small markings *n* of Group 7564.
Group 7572, December 18. A very small marking.
Group 7573, December 19–26. A regular spot, *a*, slowly diminishing. *a* is followed by a very small companion on December 26.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs.—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
354·380	N, AM		0·952	241·1	170·3	−27·9			262
			0·915	251·5	165·3	−17·6			310
			0·918	298·5	162·8	+25·1			236
			0·883	288·8	160·0	+15·6			123
			0·892	231·5	157·8	−34·6			64
			0·846	305·9	151·1	+28·6			127
C.		7558*a*	0·991	250·2	182·0	−19·8	4	65	112*f*
		7564*a*	0·965	280·7	174·0	+ 9·9	45	440	
		7564	0·946	280·1	170·3	+ 8·9	6	26	307*c*
		7564*b*	0·916	281·2	165·4	+ 9·5	32	349	
		7573*a*	0·841	110·3	44·2	−17·9	13	61	155*c*
			0·887	58·4	42·4	+26·8			107
			0·939	110·5	31·1	−19·8			151
Dec. 21				(+7·7)	(100·0)	(−1·7)	(100)	(941)	(1954)
355·336	M, AM		0·967	251·1	162·2	−18·7			324
			0·954	287·1	158·4	+15·6			207
			0·945	297·5	155·1	+25·2			349
			0·965	237·1	150·8	−25·1			79
		7564*b*	0·977	279·7	164·4	+ 9·1	18	131	345*p*
C.		7573*a*	0·713	113·5	44·2	−17·7	8	46	91*c*
			0·871	113·5	28·7	−21·2			223
			0·972	118·5	12·0	−28·1			242
Dec. 22				(+7·3)	(87·4)	(−1·8)	(26)	(177)	(1860)
356·301	M, AM		0·972	293·6	148·9	+22·4			219
			0·967	304·4	145·3	+32·4			183
		7573*a*	0·562	119·6	44·0	−17·7	5	40	
C.			0·906	46·8	18·9	+37·2			111
			0·868	114·6	16·5	−22·1			74
			0·927	124·2	10·0	−32·2			181
Dec. 23				(+6·8)	(74·7)	(−2·0)	(5)	(40)	(768)
357·521	N, AM	7574	0·254	341·8	63·2	+11·9	0	7	
C.		7573*a*	0·374	138·2	43·5	−18·1	12	39	
			0·821	129·0	9·7	−32·4			278
Dec. 24				(+6·2)	(58·6)	(−2·1)	(12)	(46)	(278)
358·502	M, AM	7573*a*	0·277	171·4	43·2	−18·0	7	25	
		7575	0·372	141·5	31·6	−19·0	6	19	
G.		7575	0·426	136·5	27·6	−20·1	0	5	
			0·907	112·9	342·0	−21·6			81
			0·935	73·7	338·0	+14·4			89
Dec. 25				(+5·7)	(45·7)	(−2·2)	(13)	(49)	(170)
1915.				°	°	°			
359·459	N, AM		0·922	249·5	99·4	−19·8			134
			0·900	296·3	93·6	+22·4			125
			0·870	238·1	90·2	−28·6			191
		7576	0·819	302·7	82·2	+24·7	0	4	185*n*
		7577	0·717	237·5	74·5	−24·4	1	4	
		7578	0·884	197·1	63·9	−59·5	0	7	29*c*
		7579	0·516	319·2	54·1	+20·7	0	5	
		7573*a*	0·325	211·3	43·3	−18·4	7	9	
		7573	0·323	205·7	41·6	−19·2	0	2	
		7575	0·285	180·5	33·3	−18·9	4	6	
C.		7575	0·293	172·3	30·7	−19·2	6	20	
		7575	0·315	165·3	28·2	−20·1	5	14	
		7580	0·523	118·3	4·5	−16·5	0	2	
		7581*a*	0·996	107·3	308·0	−17·4	11	128	
			0·793	3·7	28·6	+49·6			43
			0·799	115·1	342·5	−20·9			74
			0·897	122·3	332·4	−29·8			71
			0·956	65·7	322·8	+22·4			57
			0·966	71·3	319·9	+17·4			124
Dec. 26				(+5·3)	(33·1)	(−2·4)	(34)	(201)	(1033)
360·480	N, AM		0·925	241·3	85·4	−27·4			185
			0·916	301·2	81·0	+27·1			284
			0·846	241·8	74·7	−24·9			39
			0·797	305·5	65·5	+25·8			121
		7575	0·356	217·7	32·8	−18·7	12	50	
		7575	0·354	203·8	28·4	−21·3	1	11	
C.		7575	0·325	202·4	27·1	−19·9	7	17	
		7582*a*	0·426	181·6	20·4	−27·6	0	1	
		7582	0·441	180·2	19·7	−28·6	3	8	
		7581*a*	0·954	107·6	307·4	−17·5	13	272	384*f*
			0·884	119·5	320·1	−27·1			42
			0·887	69·4	319·6	+16·9			147
Dec. 27				(+4·8)	(19·6)	(−2·5)	(36)	(359)	(1202)
361·441	N, AM		0·976	298·1	81·3	+26·7			122
			0·960	243·9	79·8	−25·7			130
			0·942	289·1	75·3	+17·0			66
			0·903	301·3	66·5	+26·6			62
		7575	0·511	237·5	33·9	−18·2	6	18	
G.		7575	0·488	235·5	32·0	−18·3	0	5	
		7575	0·476	231·6	30·2	−19·5	1	9	
		7575	0·468	223·1	27·1	−22·4	8	18	
		7582*a*	0·476	208·5	21·7	−27·1	3	15	
		7582	0·471	203·2	19·1	−28·1	2	20	

Group 7574, December 24. A very small marking.
Group 7575, 1915 December 25–1916 January 1. A sparse unstable stream forming in the rear of Group 7573, and generally arranged in two loose clusters, of which the following has greatly diminished by December 31.
Group 7576, 1915 December 26. A very small marking.
Group 7577, 1915 December 26. A very small spot.
Group 7578, 1915 December 26. A very small marking in high southern latitude.
Group 7579, 1915 December 26. A very small marking.
Group 7580, 1915 December 26. A very small marking.
Group 7581, 1915 December 26–1916 January 8. A large regular spot, *a*, followed by an irregular train of small spots.
Group 7582, 1915 December 27–30. A very small spot, *a*, *ef* Group 7575, and usually followed at a distance by a feeble train of small unstable spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1915.				°	°	°			
361·441	N, AM	7581*a*	0·875	108·5	306·8	−17·4	43	231	
		7581	0·882	112·5	306·5	−21·0	0	5	384*c*
		7581	0·895	108·1	304·2	−17·3	0	7	
G.		7581	0·914	108·3	301·6	−17·7	6	34	
			0·969	112·1	291·7	−22·0			137
			0·983	73·5	289·1	+15·7			290
			0·982	80·7	288·7	+ 8·5			373
Dec. 28				(+4·3)	(7·0)	(−2·6)	(69)	(362)	(1564)
362·337	N, AM		0·964	299·3	66·0	+27·2			91
			0·902	303·7	53·7	+28·6			121
			0·819	305·5	43·2	+26·5			164
		7575	0·661	244·9	34·1	−18·3	13	57	
		7575	0·638	242·9	32·0	−18·9	0	9	
		7575	0·596	234·7	26·8	−22·4	4	30	
		7582*a*	0·592	224·7	23·0	−27·2	1	14	
		7582	0·564	217·9	18·4	−28·8	7	28	
		7583	0·782	31·9	323·1	+39·2	0	5	
		7581*a*	0·762	111·1	307·1	−17·7	34	225	
C.		7581	0·787	110·1	304·7	−17·4	0	5	436*c*
		7581	0·821	110·5	301·3	−18·3	6	30	
		7584	0·937	75·5	287·1	+12·5	1	16	
		7584	0·942	76·9	286·1	+11·3	1	3	318*c*
		7585	0·974	76·0	279·6	+13·0	0	11	
			0·745	57·3	313·0	+21·7			35
			0·886	69·7	295·3	+16·5			90
			0·905	113·8	291·7	−22·6			152
			0·925	80·5	288·4	+ 7·7			287
			0·989	117·7	273·6	−27·8			131
Dec. 29				(+3·9)	(355·2)	(−2·7)	(67)	(433)	(1825)
363·458	N, AM		0·927	299·7	43·8	+26·1			149
			0·898	250·0	41·9	−16·5			84
			0·929	311·2	40·4	+36·3			78
		7575	0·830	249·8	35·3	−18·3	6	32	
C.		7575	0·793	248·1	31·2	−18·9	4	16	196*c*
		7575	0·780	246·2	29·7	−20·2	0	7	
		7575	0·755	242·0	26·5	−22·7	2	4	
		7582*a*	0·749	235·7	24·2	−26·9	1	6	43*c*
1915.				°	°	°			
363·458	N, AM	7581*a*	0·587	116·3	307·1	−17·4	27	229	
		7581	0·627	121·8	305·6	−21·5	1	6	
		7581	0·622	115·8	304·5	−17·9	2	12	97*f*
		7581	0·645	120·2	303·9	−21·1	0	5	
		7581	0·667	113·7	300·7	−17·7	9	32	
		7584*a*	0·810	71·0	288·6	+13·6	38	190	
		7584	0·817	73·6	287·4	+11·6	0	2	293*c*
		7584	0·834	69·2	286·6	+15·6	4	14	
C.		7584*b*	0·849	71·0	284·6	+14·4	47	197	
		7586	0·836	79·2	284·7	+ 7·4	1	8	196*c*
		7586	0·860	79·3	282·1	+ 7·7	3	15	
		7585	0·889	73·0	279·6	+13·7	1	9	
		7587	0·922	118·4	275·0	−27·1	0	3	203*c*
		7588	0·959	119·4	268·0	−29·0	0	21	
			0·777	77·2	290·7	+ 8·1			87
			0·933	67·6	274·2	+19·7			173
Dec. 30				(+3·4)	(340·4)	(−2·8)	(146)	(808)	(1599)
364·363	M, AM		0·959	250·2	41·7	−19·8			64
			0·966	298·1	40·0	+26·1			101
			0·910	291·6	31·3	+18·3			75
			0·805	235·3	17·5	−29·1			137
			0·719	223·0	4·6	−33·9			53
			0·966	184·6	348·5	−76·9			15
		7575	0·925	251·3	35·6	−18·4	4	21	394*sf*
		7575	0·891	249·7	30·6	−19·3	0	9	
		7589	0·366	269·9	349·9	− 3·1	0	2	
		7590	0·574	23·6	313·4	+28·8	0	4	
		7581*a*	0·432	125·5	307·0	−17·2	37	229	
		7581	0·476	125·4	304·4	−18·6	0	2	
C.		7581	0·513	120·1	300·9	−17·4	4	17	
		7584*a*	0·679	65·9	289·0	+13·8	36	209	
		7584	0·707	65·3	287·7	+11·4	0	13	436*c*
		7584	0·692	68·1	287·5	+12·7	0	10	
		7584*b*	0·729	67·1	284·8	+14·3	28	247	
		7586*a*	0·694	76·1	285·9	+ 7·4	8	32	229*c*
		7586	0·736	76·5	282·4	+ 7·9	12	44	
		7588	0·891	121·1	268·2	−28·8	2	20	221*np*
			0·839	64·1	275·4	+19·7			258
			0·947	61·4	261·2	+25·8			129
			0·943	109·9	258·4	−19·7			203
			0·982	107·0	249·3	−17·2			54
Dec. 31				(+2·9)	(328·5)	(−2·9)	(131)	(859)	(2369)

Group 7583, 1915 December 29. A very small marking.
Group 7584, 1915 December 29–1916 January 8. A few very small spots on December 29, rapidly developing into a fine straight stream, of which *a* and *b*, the first and last members, are large regular spots. The group declines rapidly after January 1.
Group 7585, 1915 December 29–30. A small spot *f* Group 7584.
Group 7586, 1915 December 30–1916 January 8. A few small unstable spots in an irregular stream, *s* Group 7584. The leader, *a*, is a small regular spot.
Group 7587, 1915 December 30. A very small spot.
Group 7588, 1915 December 30–1916 January 1. A small faint spot *sf* Group 7587.
Group 7589, 1915 December 31. A very small marking.
Group 7590, 1915 December 31. A very small marking.

ROYAL OBSERVATORY, GREENWICH.

LEDGERS

OF

AREAS AND POSITIONS OF GROUPS OF SUN SPOTS

DEDUCED FROM THE MEASUREMENT

OF THE

SOLAR PHOTOGRAPHS

FOR EACH DAY IN THE YEAR

1915.

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS DEDUCED FOR EACH DAY from the MEASUREMENTS of the PHOTOGRAPHS taken at the ROYAL OBSERVATORIES of GREENWICH and of THE CAPE, and IN INDIA, at the OBSERVATORY, KODAIKÁNAL, and at DEHRA DÛN, in the YEAR 1915.

NOTE.—The Greenwich Civil Time at which the photograph was taken is expressed by the month, day of the month (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, one taken at the Cape by the letter C, one taken at Kodaikánal by the letter K, and one taken at Dehra Dûn by the letter D.

The Projected Area of the Umbræ and Whole Spots 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 Columns "Mean Longitude of Group" give 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

$$866'\cdot6 - 128' \sin^2 l.$$

In both systems the longitude of the centre of the Sun's disk is adopted as 97°·66 for 1915 Jan. 1d·0; the longitudes given under System I. being thus rendered uniform with those given in preceding volumes of the Greenwich Photo-Heliographic Results.

The Column "Longitude from the Central Meridian" gives the Mean heliographic longitude of the group, reckoned from the meridian passing through the centre of the Sun's disk at the moment of observation; longitudes west of the centre being reckoned as positive.

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 7122.

1914 December 25–1915 January 4. Return of Group 7102. A slowly contracting spot,—*a* of Group 7102,—with a mass of faculæ to the south. The motion of the spot in longitude, since its maximum about December 3, appears to be consistently maintained.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
$\bar{7}$·444 C	8	48	14	82	111·7	111·2	−23·4	−72·3
$\bar{6}$·391 C	14	55	15	59	110·6	110·2	−23·3	−60·9
$\bar{5}$·510 G	16	96	12	74	110·5	110·2	−22·9	−46·3
$\bar{4}$·359 C	16	64	10	42	110·1	109·8	−23·0	−35·5
$\bar{3}$·340 C	13	49	7	29	109·7	109·5	−23·0	−23·0
$\bar{2}$·356 C	19	49	10	27	109·5	109·4	−23·4	− 9·8
$\bar{1}$·375 C	14	29	7	16	109·2	109·2	−23·5	+ 3·3
0·103 K	17	38	9	20	109·2	109·2	−23·3	+12·9
1·551 G	21	30	13	19	108·8	108·9	−23·1	+31·6
2·108 K	14	19	9	13	108·7	108·9	−23·1	+38·8
3·321 C	3	13	3	11	108·2	108·4	−23·0	+54·3
Means ..	..	..	10	36	109·65	109·54	−23·18	..

Note.—The longitudes according to System II. for this group, and also for Groups 7126 and 7127, are computed here from 1915·0, instead of from 1914·0 as in the volume for 1914.

Group 7126.

1914 December 30–1915 January 5. Probably a return of Group 7117. A few small spots in an intermittent group not seen on January 3 and 4.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
$\bar{2}$·356 C	22	43	23	40	59·4	59·6	−13·7	−59·9
$\bar{1}$·375 C	23	37	17	27	58·7	58·8	−13·9	−47·2
0·103 K	18	42	12	27	59·0	59·0	−14·0	−37·3
1·551 G	9	34	6	18	57·6	57·4	−14·8	−19·6
2·108 K	0	0	0	0	..	..	..	..
3·321 C	0	0	0	0	..	..	..	..
4·351 C	3	9	2	5	56·9	56·3	−15·2	+16·6
Means ..	..	..	9	17	58·32	58·22	−14·32	..

Group 7127.

1914 December 31–1915 January 12. A fine cluster by January 3, developing into two large and active composite spots, *a* and *b*, with a few faint companions. The larger, *a*, has divided up by January 11, while *b* disappears quickly. Perhaps a return of Group 7110, but more probably a new disturbance in its neighbourhood.

$\bar{1}$·375 C	4	19	14	62	25·6	25·7	+14·9	−80·3
0·103 K	9	50	17	88	24·5	24·5	+14·9	−71·8
1·551 G	85	297	77	268	23·2	23·0	+15·2	−54·0

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
Group 7127—*continued.*								
1915. d					°	°	°	°
2·108 K	81	608	63	473	23·3	23·1	+15·0	−46·6
3·321 C	129	946	80	581	23·7	23·3	+15·0	−30·2
4·351 C	247	1345	136	742	23·5	23·0	+15·0	−16·8
5·367 C	219	1397	116	739	23·9	23·3	+14·9	− 3·1
6·384 C	273	1400	147	754	24·3	23·6	+15·0	+10·7
7·486 G	197	1004	117	593	24·4	23·6	+15·4	+25·3
8·402 C	137	838	90	561	24·5	23·6	+15·1	+37·5
9·451 G	108	610	93	527	24·7	23·6	+15·4	+51·5
10·459 G	71	407	93	530	25·0	23·8	+15·9	+65·1
11·357 C	35	137	89	355	25·3	24·0	+15·7	+77·2
Means ..	..	..	87	483	24·30	23·70	+15·18	..
Group 7129.								
January 3–5. A few small spots in a short irregular stream forming near the west limb.								
2·108 K	14	42	12	35	114·0	114·3	+26·1	+44·1
3·321 C	15	95	17	117	114·9	115·4	+26·6	+61·0
4·351 C	14	44	30	106	115·1	115·8	+25·7	+74·8
Means ..	..	..	20	86	114·67	115·17	+26·13	..
Group 7137.								
January 12–17. A small well-defined spot, *a*, *f* Group 7136. Other spots, mostly small, form in the neighbourhood of *a*, making up with it a sparse irregular stream, of which some members are fairly stable.								
11·357 C	18	21	10	12	328·7	329·1	−23·1	+20·6
12·388 C	13	59	8	38	329·5	330·0	−22·3	+35·0
13·416 C	32	113	24	89	329·5	330·0	−22·1	+48·5
14·337 C	27	102	27	103	328·6	329·1	−21·6	+59·7
15·422 G	10	140	16	241	328·3	328·9	−20·3	+73·7
16·160 K	0	11	(0	31	326·0	326·6	−19·4)*	+81·2
Means ..	..	..	17	97	328·92	329·42	−21·88	..
Group 7138.								
January 12–23. A regular spot steadily diminishing after January 15.								
11·357 C	3	15	10	46	229·6	229·8	+21·1	−78·5
12·388 C	19	57	26	77	229·6	229·8	+21·3	−64·9
13·416 C	13	64	11	58	229·4	229·7	+21·0	−51·6
14·337 C	21	103	15	75	229·4	229·7	+21·2	−39·5
15·422 G	20	98	12	60	229·5	229·8	+21·4	−25·1
Group 7138—*continued.*								
1915. d					°	°	°	°
16·160 K	20	108	12	62	229·1	229·4	+21·1	−15·7
17·117 K	27	100	15	56	229·5	229·8	+21·1	− 2·7
18·334 C	18	34	10	19	229·2	229·5	+21·1	+13·0
19·311 D	13	39	8	24	229·1	229·5	+21·4	+25·8
20·387 C	6	24	5	18	228·8	229·2	+21·2	+39·6
21·391 C	14	16	13	15	228·8	229·2	+21·1	+52·8
22·356 C	4	18	6	25	228·4	228·8	+20·8	+65·1
Means ..	..	..	12	45	229·20	229·52	+21·15	..
Group 7139.								
January 14–17. A number of spots, mostly small and unstable, in an irregular cluster.								
13·416 C	48	110	27	62	292·6	291·7	+17·8	+11·6
14·337 C	32	102	19	60	294·0	293·1	+17·5	+25·1
15·422 G	13	33	9	24	294·0	293·0	+17·3	+39·4
16·160 K	0	11	0	9	295·4	294·3	+17·4	+50·6
Means ..	..	..	14	39	294·00	293·03	+17·50	..
Group 7140.								
January 15–22. Return of Group 7125. A regular spot, *a*, steadily diminishing after January 17. A very small companion, *b*, is seen near *a* on January 21; *a* has disappeared by January 22, but *b* and another very small spot are seen on that day.								
14·337 C	3	37	12	141	189·0	189·9	+23·9	−79·9
15·422 G	9	42	13	60	189·2	190·2	+23·6	−65·4
16·160 K	15	78	16	82	188·6	189·6	+23·5	−56·2
17·117 K	22	71	18	57	188·4	189·5	+23·7	−43·8
18·334 C	13	42	8	27	188·2	189·4	+23·5	−28·0
19·311 D	19	61	12	35	186·9	188·1	+22·1	−16·4
20·387 C	4	18	2	10	187·7	189·0	+22·4	− 1·5
21·391 C	2	16	1	9	188·2	189·6	+20·4	+12·2
Means ..	..	..	10	53	188·28	189·41	+22·89	..
Group 7142.								
January 16–17. A few small spots, of which the last one, *a*, is the largest and darkest, in a straight stream. Only *a* remains on January 17.								
15·422 G	27	48	20	35	211·9	210·5	+16·2	−42·7
16·160 K	9	13	6	8	209·3	207·8	+16·1	−35·5
Means ..	..	..	13	22	210·60	209·15	+16·15	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7143.

January 16–26. A pair of spots separated by a narrow tongue of bright material on January 16. This tongue has narrowed by January 17, and the group appears as a single regular spot, *a*, crossed by a bright bridge. The spot diminishes after January 18, and is preceded by two small companions on January 22.

Date. Greenwich Civil Time. and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915.d					°	°	°	°
15·422 G	19	65	31	103	184·9	183·1	+15·8	−69·7
16·160 K	19	88	21	95	185·1	183·2	+15·3	−59·7
17·117 K	33	152	26	120	185·3	183·3	+15·3	−46·9
18·334 C	23	176	14	110	185·9	183·8	+15·1	−30·3
19·311 D	24	124	13	70	185·7	183·4	+15·2	−17·6
20·387 C	19	44	10	24	186·0	183·6	+15·0	− 3·2
21·391 C	21	58	11	32	186·2	183·7	+15·0	+10·2
22·356 C	15	42	9	24	185·7	183·1	+14·8	+22·4
23·454 C	12	23	8	16	185·7	183·0	+14·7	+36·9
24·337 C	6	15	5	12	185·6	182·8	+14·3	+48·4
25·411 G	2	4	2	5	185·6	182·6	+14·2	+62·6
Means ..	..	..	14	56	185·61	183·24	+14·97	..

Group 7149.

January 27–29. A small spot, *a*, on January 27. A second, *b*, has formed *f a* by January 28.

26·388 C	2	14	2	11	152·8	157·4	+26·8	+42·6
27·312 C	9	22	9	23	150·9	155·7	+26·8	+52·9
28·343 C	5	17	8	28	151·1	156·0	+26·7	+66·7
Means ..	..	..	6	21	151·60	156·37	+26·77	..

Group 7150.

January 28–29. A very close pair of small spots.

27·312 C	11	24	10	24	148·2	154·8	+28·8	+50·2
28·343 C	5	19	7	27	146·7	153·5	+29·2	+62·3
Means ..	..	..	9	26	147·45	154·15	+29·00	..

Group 7152.

January 28–February 3. A wide pair of very small faint spots, *a* and *b*. The spots cannot be certainly detected from January 30 to February 1, but both have reappeared by February 2. The region containing this group and Group 7151, seems in a state of feeble and intermittent activity.

27·312 C	5	15	4	10	58·1	53·7	+11·7	−39·9
28·343 C	8	16	5	9	58·3	53·7	+11·6	−26·1
29·432 C	0	0	0	0	..	..	..	..

Group 7152—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915.d					°	°	°	°
30·113 K	0	0	0	0	..	..	..	..
31·351 C	0	0	0	0	..	..	..	..
32·347 C	2	8	2	5	58·0	52·7	+12·0	+26·3
33·371 C	0	18	0	12	58·0	52·6	+13·6	+39·8
Means ..	..	..	2	5	58·10	53·18	+12·23	..

Group 7158.

January 31–February 10. With Group 7160, a return of Group 7137. A regular spot, *a*, which has divided into two portions, *b* and *c*, by February 3, after which the group disintegrates. Some small unstable spots are seen in the neighbourhood on February 9 and 10.

30·113 K	14	55	45	182	338·2	338·4	−20·5	−82·9
31·351 C	22	100	27	123	338·2	338·4	−20·4	−66·6
32·347 C	32	210	27	176	338·6	338·8	−20·4	−53·1
33·371 C	39	275	25	180	338·9	339·1	−20·4	−39·3
34·115 K	46	279	27	165	339·3	339·5	−20·5	−29·1
35·404 G	59	236	31	124	340·0	340·2	−20·5	−11·5
36·463 G	51	147	27	77	340·6	340·8	−20·9	+ 3·1
37·391 C	15	35	8	18	340·5	340·7	−20·5	+15·2
38·430 G	4	7	2	4	342·6	342·8	−20·3	+31·0
39·598 G	5	20	4	14	338·3	338·5	−20·8	+42·1
40·441 G	2	10	2	9	340·4	340·6	−21·6	+55·3
Means ..	..	..	20	97	339·60	339·80	−20·62	..

Group 7160

February 1–13. A few spots, mostly small, following Group 7158. New spots form, and by February 6, a wide area is affected by the disturbance. By February 8, the group has developed into a long, straight, and nearly continuous stream, inclined at a considerable angle to the Sun's Equator. By February 10, two of the leading spots, *a* and *b*, have become regular, and have apparently coalesced to form *c* by February 12. Only *c* is visible on February 13.

31·351 C	3	15	8	37	324·5	327·2	−24·3	−80·3
32·347 C	6	73	7	90	325·5	328·2	−24·2	−66·2
33·371 C	17	98	15	84	325·0	327·8	−24·0	−53·2
34·115 K	14	40	10	29	323·6	326·5	−23·9	−44·8
35·404 G	28	120	17	72	323·3	326·3	−23·6	−28·2
36·463 G	73	218	39	119	325·1	328·2	−23·9	−12·4
37·391 C	92	598	48	314	325·1	328·3	−24·6	− 0·2
38·430 G	159	504	88	277	326·3	329·6	−24·1	+14·7
39·598 G	114	332	69	202	327·0	330·4	−24·1	+30·8
40·441 G	73	305	50	216	328·2	331·6	−23·6	+43·1
41·418 G	84	275	77	256	329·7	333·2	−23·1	+57·4
42·347 C	21	119	32	191	333·3	336·9	−22·4	+73·2
43·396 C	13	58	94	429	335·0	338·7	−22·2	+88·8
Means ..	..	..	43	178	327·05	330·22	−23·69	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7161.

February 4–12. A wide area of disturbance, undergoing much the same type of changes as Group 7160. A composite spot, *a*, has formed at the head of the Group by February 6, but diminishes slowly afterwards. It is followed by one or two small spots, of which *b* is the most stable. But a new outbreak has occurred by February 9, *nf* the position of *b*, and a long, sparse, straight stream is formed inclined at a considerable angle to the equator. These new spots have developed largely by February 11, while *a* has disappeared by February 12.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
34·115 K	59	114	37	74	339·5	338·3	+19·4	−28·9
35·404 G	60	163	33	91	341·0	339·8	+18·3	−10·5
36·463 G	79	170	45	93	342·5	341·2	+17·6	+ 5·0
37·391 C	36	109	20	63	341·5	340·2	+18·0	+16·2
38·430 G	28	75	19	49	343·1	341·8	+17·2	+31·5
39·598 G	59	121	47	94	339·3	337·9	+19·2	+43·1
40·441 G	75	226	75	219	338·8	337·4	+19·8	+53·7
41·418 G	35	159	51	233	338·0	336·6	+20·1	+65·7
42·347 C	12	51	35	154	337·3	335·8	+20·4	+77·2
Means ..	..	..	40	119	340·11	338·78	+18·89	..

Group 7162.

February 4–8. A few small unstable spots in a disturbed area, *s* of Group 7158.

34·115 K	0	20	0	12	337·8	340·4	−22·2	−30·6
35·404 G	8	31	4	16	338·4	341·1	−22·9	−13·1
36·463 G	2	13	1	7	337·2	339·9	−23·5	− 0·3
37·391 C	5	8	3	5	338·9	341·7	−25·0	+13·6
38·430 G	0	11	0	6	336·4	339·3	−23·0	+24·8
Means ..	..	..	2	9	337·74	340·48	−23·32	..

Group 7163.

February 4–5. A wide pair of small spots, *a* and *b*.

34·115 K	11	23	14	31	299·9	295·3	−13·8	−68·5
35·404 G	9	16	7	12	300·6	295·8	−14·0	−50·9
Means ..	..	..	11	22	300·25	295·55	−13·90	..

Group 7164.

February 5–8. A few small unstable spots in a disturbed area, *n* of Group 7160.

35·404 G	21	58	12	33	327·5	327·6	−19·2	−24·0
36·463 G	16	50	9	26	329·5	329·6	−20·3	− 8·0
37·391 C	9	59	5	31	331·1	331·3	−21·1	+ 5·8
38·430 G	2	4	1	2	328·7	328·9	−21·6	+17·1
Means ..	..	..	7	23	329·20	329·35	−20·55	..

Group 7165.

February 5–18. A large regular spot, *a*, crossed by a bright bridge. After February 11, when *a* has diminished a good deal, a number of very small and unstable spots appear round *a* at a considerable distance from it.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
35·404 G	10	61	38	232	267·1	266·7	−19·9	−84·4
36·463 G	13	145	19	212	266·5	266·1	−20·1	−71·0
37·391 C	52	304	49	291	266·6	266·2	−19·9	−58·7
38·430 G	56	308	40	223	266·2	265·8	−20·3	−45·4
39·598 G	68	373	40	223	265·9	265·5	−20·4	−30·3
40·441 G	64	346	35	190	265·6	265·2	−20·4	−19·5
41·418 G	53	313	27	162	265·5	265·0	−20·5	− 6·8
42·347 C	47	330	24	170	265·1	264·6	−20·6	+ 5·0
43·396 C	55	292	30	157	264·1	263·6	−20·2	+17·9
44·360 C	41	235	25	141	264·7	264·2	−20·1	+31·2
45·339 C	33	215	24	150	264·4	263·9	−19·8	+43·7
46·413 G	29	136	28	127	264·5	264·0	−19·3	+58·0
47·399 C	20	83	27	117	263·7	263·2	−19·3	+70·2
48·108 K	15	67	35	164	264·1	263·6	−18·5	+79·9
Means ..	..	..	32	183	265·29	264·83	−19·95	..

Group 7166.

February 6–9. One or two small faint unstable spots forming *nf* Group 7160. The Group is not seen on February 8.

36·463 G	5	15	3	8	321·0	321·7	−21·1	−16·5
37·391 C	0	18	0	9	320·3	321·1	−20·8	− 5·0
38·430 G	0	0	0	0	..	..	..	..
39·598 G	3	15	2	8	320·1	320·9	−21·8	+23·9
Means ..	..	..	1	6	320·47	321·23	−21·23	..

Group 7167.

February 7–14. Some very small faint spots in a sparse stream. The rear spot, *a*, has developed considerably by February 10, and become a double spot, but has almost disappeared by February 13.

37·391 C	7	12	5	7	300·5	305·0	+24·4	−24·8
38·430 G	17	35	10	20	301·5	306·1	+24·8	−10·1
39·598 G	29	72	17	43	300·8	305·6	+25·5	+ 4·6
40·441 G	49	123	30	76	300·6	305·4	+25·4	+15·5
41·418 G	43	131	31	90	301·3	306·3	+25·1	+29·0
42·347 C	54	162	43	128	300·8	305·9	+25·1	+40·7
43·396 C	13	36	13	39	301·9	307·1	+24·1	+55·7
44·360 C	11	12	18	19	299·7	305·0	+25·0	+66·2
Means ..	..	..	21	53	300·89	305·80	+24·93	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7168.

February 8–9. A pair of small spots, *a* and *b*, forming *nf* Group 7167.

Date. Greenwich Civil Time, and Where taken.	Projected Area of: Umbra.	Projected Area of: Whole Spot.	Area Corrected for Foreshortening of: Umbra.	Area Corrected for Foreshortening of: Whole Spot.	Mean Longitude of Group: System I.	Mean Longitude of Group: System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
38·430 G	8	28	5	19	292·6	301·9	+29·0	−19·0
39·598 G	1	22	1	14	292·3	301·9	+29·0	− 3·9
Means ..	..	..	3	17	292·45	301·90	+29·00	..

Group 7169.

February 8–20. A very large regular spot, *a*, with several very small companions.

38·430 G	39	179	81	374	239·8	242·6	+23·3	−71·8
39·598 G	88	457	96	500	239·8	242·7	+23·3	−56·4
40·441 G	125	726	106	613	239·6	242·5	+23·3	−45·5
41·418 G	156	924	109	644	239·3	242·3	+23·3	−33·0
42·347 C	177	1021	110	637	238·8	241·8	+23·5	−21·3
43·396 C	192	941	113	551	238·2	241·3	+23·5	− 8·0
44·360 C	180	911	104	528	238·3	241·5	+23·1	+ 4·8
45·339 C	172	844	104	514	238·4	241·7	+23·0	+17·7
46·413 G	152	732	104	500	238·1	241·4	+23·0	+31·6
47·399 C	111	573	92	473	237·9	241·3	+23·0	+44·4
48·108 K	87	467	88	472	237·6	241·1	+23·4	+53·4
49·610 G	36	194	84	455	237·9	241·5	+23·1	+73·5
50·396 C	17	42	104	259	236·2	239·8	+22·9	+82·1
Means ..	..	..	100	502	238·45	241·66	+23·21	..

Group 7170.

February 9–10. A few small spots forming close to the West limb, and *p* Group 7158.

39·598 G	8	40	8	39	354·9	356·0	−21·2	+58·7
40·441 G	3	10	4	13	353·2	354·4	−21·9	+68·1
Means ..	..	..	6	26	354·05	355·20	−21·55	..

Group 7171.

February 9–10. Return of Group 7138. A small spot *sf* Group 7169.

39·598 G	6	12	10	20	227·9	228·1	+20·6	−68·3
40·441 G	6	13	6	14	227·9	228·1	+20·7	−57·2
Means ..	..	..	8	17	227·90	228·10	+20·65	..

Group 7172.

February 9–14. A regular spot, *a*, *sf* Group 7171, with occasionally some very small companions. *a* diminishes quickly after February 12.

1915. d					°	°	°	°
39·598 G	17	27	38	61	220·6	213·4	+10·6	−75·6
40·441 G	13	80	16	98	221·3	214·0	+11·4	−63·8
41·418 G	25	132	22	110	222·0	214·5	+11·2	−50·3
42·347 C	37	122	25	82	222·1	214·4	+11·2	−38·0
43·396 C	10	30	5	17	222·3	214·4	+11·1	−23·9
44·360 C	0	21	0	12	217·9	209·9	+10·8	−15·6
Means ..	..	..	18	63	221·03	213·43	+11·05	..

Group 7175.

February 15–16. A very small spot *f* Group 7165.

45·339 C	1	17	1	9	235·3	234·7	−19·6	+14·6
46·413 G	1	4	1	2	233·4	232·8	−20·1	+26·9
Means ..	..	..	1	6	234·35	233·75	−19·85	..

Group 7180.

February 20–March 3. A small spot, *a*, on February 20. Other small spots appear *f a*, on the following days. But by February 24 the group has undergone a great change. *a* has developed into a fine composite spot at the head of the group, and a considerable cluster is in process of forming at a distance, *sf*. The group continues to develop, and by February 26 consists of *a*, now a large regular spot, and *b*, a triple cluster, far in the rear, and a few very small companions.

50·396 C	2	5	3	8	82·0	86·3	−23·1	−72·1
51·463 G	14	34	14	33	81·4	85·8	−23·1	−58·6
52·412 C	23	51	17	38	81·1	85·6	−22·7	−46·4
53·456 G	45	84	27	52	81·3	85·8	−22·8	−32·5
54·611 G	184	584	101	317	82·4	87·0	−23·8	−16·1
55·333 C	160	773	85	405	82·6	87·3	−23·7	− 6·4
56·487 G	165	683	89	362	82·4	87·2	−24·1	+ 8·6
57·390 C	91	460	51	260	83·6	88·5	−24·3	+21·7
58·412 G	59	353	37	223	83·6	88·6	−24·1	+35·1
59·436 G	53	275	40	218	84·2	89·2	−24·3	+49·2
60·428 C	31	170	31	178	83·6	88·7	−24·1	+61·7
61·175 D	30	115	38	165	82·8	88·0	−24·0	+70·7
Means ..	..	..	44	188	82·58	87·33	−23·68	..

Group 7181.

February 21–March 3. A few small spots, loosely scattered over an extensive area. The group has disappeared by February 25, but has revived by February 27, when it consists of a short broad stream led by a regular spot, *a*.

51·463 G	11	59	21	121	66·3	59·3	+13·1	−73·7
52·412 C	16	88	18	102	65·9	58·8	+13·4	−61·6
53·456 G	19	38	15	30	67·0	59·7	+12·8	−46·8

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time. and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		

Group 7181—*continued.*

1915. d					°	°	°	°
54·611 G	11	20	6	12	65·1	57·7	+13·4	−33·4
55·333 C	0	0	0	0	..	..	..	..
56·487 G	0	0	0	0	..	..	..	..
57·390 C	52	180	29	96	67·5	59·7	+14·6	+ 5·6
58·412 G	77	390	44	224	67·6	59·7	+14·9	+19·1
59·436 G	56	207	37	136	68·5	60·4	+14·6	+33·5
60·428 C	19	119	16	96	69·7	61·5	+14·1	+47·8
61·175 D	25	77	26	80	70·0	61·7	+13·8	+57·9
Means ..	..	..	19	82	67·51	59·83	+13·86	..

Group 7183.

February 23–March 6. A regular spot, *a*, with some unstable small companions.

53·456 G	22	68	44	137	36·4	34·9	−19·2	−77·4
54·611 G	29	174	31	188	35·3	33·8	−19·3	−63·2
55·333 C	24	187	21	157	35·1	33·6	−19·2	−53·9
56·487 G	41	183	28	119	35·0	33·4	−19·3	−38·8
57·390 C	27	207	16	119	34·3	32·7	−19·3	−27·6
58·412 G	30	149	16	78	34·7	33·1	−19·1	−13·8
59·436 G	43	154	22	79	34·6	32·9	−19·4	− 0·4
60·428 C	26	160	14	84	33·9	32·2	−19·5	+12·0
61·175 D	25	95	14	52	34·4	32·7	−19·4	+22·3
62·513 C	12	39	8	25	34·2	32·4	−19·0	+39·7
63·428 C	7	15	6	12	33·8	32·0	−18·9	+51·4
64·208 D	7	9	7	9	34·0	32·2	−19·1	+61·9
Means ..	..	..	19	88	34·64	32·99	−19·23	..

Group 7185.

February 25–March 7. An extensive area in which small unstable spots are irregularly scattered. The group is not seen on March 4, but has revived by March 5. The leader, *a*, on March 6 is a regular spot, and alone remains on March 7.

55·333 C	5	33	5	32	40·0	50·4	+26·5	−49·0
56·487 G	12	27	9	20	40·9	51·5	+27·0	−32·9
57·390 C	9	33	6	22	40·0	50·8	+27·0	−21·9
58·412 G	15	33	9	20	38·5	49·5	+27·1	−10·0
59·436 G	3	30	2	18	36·2	47·4	+27·6	+ 1·2
60·428 C	3	28	2	17	36·7	48·1	+28·4	+14·8
61·175 D	13	27	9	19	35·9	47·4	+28·7	+23·8
62·513 C	0	0	0	0	..	..	..	..
63·428 C	24	107	27	126	39·3	51·2	+26·6	+56·9
64·208 D	52	158	95	289	40·4	52·5	+26·2	+68·3
65·473 C	0	7	(0	40	35·9	48·2	+26·1)*	+80·4
Means ..	..	..	16	56	38·66	49·87	+27·23	..

Group 7186.

February 26–27. Three small spots on February 26. Only the last one, *a*, is seen on February 27.

1915. d					°	°	°	°
56·487 G	10	21	11	23	137·9	136·5	−19·0	+64·1
57·390 C	1	3	2	5	134·9	133·5	−19·8	+73·0
Means ..	..	..	7	14	136·40	135·00	−19·40	..

Group 7187.

February 26–March 11. Return of Group 7170. A large regular spot, *a*, with occasionally one or two small companions.

56·487 G	18	98	48	262	352·7	350·3	−18·7	−81·1
57·390 C	33	214	44	288	352·5	350·1	−18·9	−69·4
58·412 G	56	285	50	251	352·7	350·2	−18·6	−55·8
59·436 G	62	370	43	253	352·3	349·8	−18·8	−42·7
60·428 C	69	396	41	233	352·2	349·7	−18·6	−29·7
61·175 D	85	481	46	261	351·6	349·0	−18·8	−20·5
62·513 C	85	505	43	258	351·6	349·0	−18·5	− 2·9
63·428 C	94	465	48	239	351·0	348·3	−18·4	+ 8·6
64·208 D	64	329	35	177	351·2	348·5	−18·4	+19·1
65·473 C	41	292	25	180	350·8	348·0	−18·3	+35·3
66·384 G	41	224	30	165	350·6	347·8	−18·4	+47·1
67·379 G	22	164	22	160	350·2	347·4	−18·4	+59·9
68·429 C	47	94	80	161	350·9	348·0	−19·1	+74·4
69·504 C	0	19	(0	92	348·7	345·8	−18·6)*	+86·4
Means ..	..	..	43	222	351·56	348·93	−18·61	..

Group 7190.

February 28–March 11. Return of Group 7160. A large regular spot, *a*, with a very small companion on March 1.

58·412 G	18	80	45	198	328·2	332·5	−23·5	−80·3
59·436 G	22	123	28	154	327·7	332·0	−23·2	−67·3
60·428 C	29	199	25	173	327·3	331·7	−23·2	−54·6
61·175 D	54	254	40	185	326·3	330·8	−23·4	−45·8
62·513 C	39	305	23	178	326·8	331·4	−23·0	−27·7
63·428 C	49	306	26	164	326·6	331·2	−23·0	−15·8
64·208 D	60	305	31	159	326·2	330·9	−23·2	− 5·9
65·473 C	45	259	24	136	326·1	330·9	−23·1	+10·6
66·384 G	39	170	22	95	326·1	330·9	−23·1	+22·6
67·379 G	23	131	15	83	325·8	330·7	−23·2	+35·5
68·429 C	11	48	8	37	325·1	330·1	−23·4	+48·6
69·504 C	0	6	0	7	323·9	329·0	−23·6	+61·6
Means ..	..	..	24	131	326·34	331·01	−23·24	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7193.

March 2–9. A small spot *sp* Group 7187, rapidly developing into a regular spot, *a*, but diminishing again after March 5.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Foreshortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
60·428 C	7	21	4	12	3·6	6·1	−21·8	−18·3
61·175 D	38	113	20	59	4·8	7·3	−22·4	− 7·3
62·513 C	21	175	11	92	6·0	8·6	−22·4	+11·5
63·428 C	27	165	15	93	6·3	8·9	−22·4	+23·9
64·208 D	15	102	9	63	7·0	9·6	−22·4	+34·9
65·473 C	11	37	9	30	7·5	10·2	−21·9	+52·0
66·384 G	6	21	7	24	8·0	10·7	−21·7	+64·5
67·379 G	1	4	2	9	8·6	11·4	−21·2	+78·3
Means ..	..	..	10	48	6·48	9·10	−22·03	..

Group 7195.

March 3–5. A very small double spot *f* Group 7193; a faint marking is seen near its place on March 5.

61·175 D	3	16	2	9	361·0	5·6	−23·1	−11·1
62·513 C	3	9	2	4	359·8	4·5	−22·4	+ 5·3
63·428 C	0	5	0	3	357·4	2·2	−24·4	+15·0
Means ..	..	..	1	5	359·40	4·10	−23·30	..

Group 7196.

March 3–4. A very small faint spot *sf* Group 7187.

61·175 D	2	3	1	2	347·8	353·1	−23·7	−24·3
62·513 C	0	12	0	6	347·9	353·3	−23·7	− 6·6
Means ..	..	..	1	4	347·85	353·20	−23·70	..

Group 7197.

March 4–12. A number of small spots, mostly unstable, irregularly scattered. A very small spot, *a*, in the southern portion of the group on March 8. Develops rapidly into a regular spot and alone remains by March 12.

62·513 C	10	36	18	73	283·2	285·2	+22·1	−71·3
63·428 C	19	60	21	67	285·1	287·1	+22·1	−57·3
64·208 D	31	67	27	58	284·5	286·6	+22·0	−47·6
65·473 C	11	37	7	25	286·1	288·2	+22·2	−29·4
66·384 G	14	44	8	27	284·6	286·7	+22·3	−18·9
67·379 G	34	133	19	75	284·4	286·6	+21·0	− 5·9
68·429 C	26	80	15	46	285·5	287·7	+21·1	+ 9·0
69·504 C	11	44	7	27	284·6	286·8	+21·3	+22·3
70·380 C	0	19	0	13	284·9	287·2	+20·8	+34·1
Means ..	..	..	14	46	284·77	286·90	+21·66	..

Group 7200.

March 5–10. A pair of spots *s* of Group 7197. The group quickly develops into a sparse stream of normal type, with three chief spots, *a*, *b*, and *c*.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Foreshortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
63·428 C	7	50	8	57	282·5	278·6	+16·6	−59·9
64·208 D	16	27	14	23	282·8	278·9	+16·5	−49·3
65·473 C	34	102	23	69	280·2	276·2	+16·8	−35·3
66·384 G	52	123	30	74	279·5	275·5	+16·9	−24·0
67·379 G	46	107	27	60	281·0	276·9	+16·7	− 9·3
68·429 C	4	41	3	23	280·0	275·8	+17·0	+ 3·5
Means ..	..	..	18	51	281·00	276·98	+17·75	..

Group 7202.

March 6–8. Some small spots *np* Group 7197.

64·208 D	3	5	2	4	308·7	325·7	+28·9	−23·4
65·473 C	4	35	3	22	308·0	325·4	+30·0	− 7·5
66·384 G	7	10	4	7	306·4	324·0	+30·2	+ 2·9
Means ..	..	..	3	11	307·70	325·03	+29·70	..

Group 7203.

March 7–13. A number of spots, mostly small, in a long straight stream. All the members of the group are unstable except the leader, *a*.

65·473 C	16	75	27	132	244·9	237·6	+15·7	−70·6
66·384 G	19	68	20	72	245·4	238·0	+15·6	−58·1
67·379 G	24	37	18	28	248·1	240·6	+15·7	−42·2
68·429 C	10	59	6	36	249·8	242·2	+15·6	−26·7
69·504 C	9	44	5	24	250·3	242·6	+15·0	−12·0
70·380 C	7	21	4	11	250·6	242·8	+14·8	− 0·2
71·446 C	2	18	1	10	250·3	242·4	+14·7	+13·6
Means ..	..	..	12	45	248·49	240·89	+15·30	..

Group 7204

March 7–19. Return of Group 7169. A large regular spot, *a*, which has divided into two regular spots by March 11. These are measured as one until March 14, after which they are taken separately and are lettered *b* and *c*. Numerous small unstable spots are seen in the neighbourhood of the principal spots from day to day.

65·473 C	14	35	67	169	235·5	241·3	+24·6	−80·0
66·384 G	26	208	47	371	235·1	241·0	+24·3	−68·4
67·379 G	55	317	59	341	235·0	241·0	+24·0	−55·3
68·429 C	86	457	69	367	234·4	240·5	+23·7	−42·1

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7204—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
69·504 C	55	500	36	331	234·6	240·8	+23·5	−27·7
70·380 C	88	483	54	296	233·9	240·2	+23·4	−16·9
71·446 C	46	383	27	222	234·1	240·5	+23·3	− 2·6
72·099 K	63	340	37	200	233·5	239·9	+23·6	+ 5·4
73·429 C	54	311	34	195	232·7	239·2	+23·5	+22·1
74·167 D	51	238	36	164	232·8	239·4	+23·7	+31·9
75·161 D	56	197	47	164	232·0	238·7	+24·0	+44·2
76·395 C	15	88	19	108	231·2	238·0	+24·0	+59·7
77·423 G	8	41	18	90	230·3	237·2	+24·0	+72·3
Means ..	..	..	42	232	233·47	239·82	+23·82	..

Group 7203.*

March 14–15. A small spot following the position of Group 7203.

72·099 K	0	6	0	3	242·7	235·3	+15·6	+14·6
73·429 C	0	5	0	3	242·5	234·9	+15·8	+31·9
Means ..	..	..	0	3	242·60	235·10	+15·70	..

Group 7206.

March 14–20. A few small spots in an irregular cluster that gradually straightens out into a sparse stream of normal type. The rear spot, *b*, is larger and better defined than the leader, *a*, after March 17.

72·099 K	31	64	16	33	225·6	226·2	−21·0	− 2·5
73·429 C	69	177	37	95	226·6	227·2	−20·6	+16·0
74·167 D	35	61	21	35	226·8	227·4	−20·5	+25·9
75·161 D	93	215	59	139	226·4	227·0	−20·3	+38·6
76·395 C	63	227	56	198	226·3	226·9	−20·3	+54·8
77·423 G	20	124	26	150	224·8	225·4	−20·9	+66·8
78·479 G	8	45	19	103	223·3	223·9	−21·6	+79·3
Means ..	..	..	33	108	225·69	226·29	−20·74	..

Group 7209.

March 15–26. Return of Group 7186. A close pair of small faint markings, on March 15 and 16. The group is not seen on March 17–19, and again on March 21–24, but small markings are seen in the neighbourhood on March 20, 25, and 26.

73·429 C	0	10	0	15	138·6	136·6	−19·8	−72·0
74·167 D	0	8	0	8	138·0	136·0	−20·1	−62·9
75·161 D	0	0	0	0	..	..	..	..
76·395 C	0	0	0	0	..	..	..	..
77·423 G	0	0	0	0	..	..	..	..

Group 7209—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
78·479 G	6	14	3	7	138·1	136·0	−19·5	− 5·9
79·477 G	0	0	0	0	..	..	..	..
80·396 C	0	0	0	0	..	..	..	..
81·633 G	0	0	0	0	..	..	..	..
82·403 C	0	0	0	0	..	..	..	..
83·425 C	4	12	4	11	137·0	134·7	−18·6	+58·2
84·610 G	0	6	0	11	138·2	135·9	−18·3	+75·0
Means ..	..	..	1	4	137·98	135·84	−19·26	..

Group 7210.

March 16–22. An irregular and unstable cluster tending to straighten out into a short stream. The leader spot, *a*, is at first the largest; the rear spot, *b*, is the principal spot later, and finally, *c*, an intermediate spot, is largest.

74·167 D	0	4	0	14	122·2	115·6	+15·9	−78·7
75·161 D	4	9	6	11	123·6	116·9	+15·6	−64·2
76·395 C	22	101	18	85	123·4	116·6	+16·0	−48·1
77·423 G	72	160	49	107	123·0	116·1	+16·2	−35·0
78·479 G	43	141	26	83	122·9	115·9	+16·7	−21·1
79·477 G	39	111	23	61	122·9	115·8	+17·3	− 8·0
80·396 C	18	40	10	22	123·9	116·7	+17·2	+ 5·1
Means ..	..	..	19	55	123·13	116·23	+16·41	..

Group 7214.

March 20–23. A few small unstable spots irregularly distributed over a small area.

78·479 G	0	9	0	9	87·7	89·7	+21·4	−56·3
79·477 G	16	36	13	29	86·5	88·6	+21·6	−44·4
80·396 C	8	40	5	26	87·6	89·7	+21·7	−31·2
81·633 G	0	28	0	17	89·2	91·3	+21·1	−13·3
Means ..	..	..	5	20	87·75	89·83	+21·45	..

Group 7216.

March 22–April 3. Return of Group 7185. A regular spot, *a*, usually with one or two very small companions.

80·396 C	6	25	31	119	39·0	49·7	+26·3	−79·8
81·633 G	16	80	23	113	39·7	50·6	+26·0	−62·8
82·403 C	15	114	15	122	39·4	50·4	+25·7	−52·9
83·425 C	21	150	16	117	39·2	50·3	+25·5	−39·6
84·610 G	18	160	12	104	39·5	50·8	+25·5	−23·7
85·412 G	35	194	21	120	38·9	50·3	+25·4	−13·7

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7216—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
86·488 G	29	187	17	109	38·9	50·4	+25·1	+ 0·5
87·393 G	30	154	18	93	38·7	50·3	+25·0	+12·2
88·428 G	19	124	13	81	38·6	50·4	+25·1	+25·8
89·421 G	21	98	16	75	38·3	50·2	+25·0	+38·6
90·334 G	14	79	14	76	38·0	50·0	+25·1	+50·3
91·346 G	8	22	11	32	37·7	49·8	+25·0	+63·4
92·572 C	0	12	0	49	37·3	49·6	+25·1	+79·1
Means ..	..	..	16	93	38·71	50·22	+25·37	..

Group 7220.

March 29–April 5. A regular spot, *a*, small at first, but quickly increasing and as quickly diminishing. Occasionally some small companions are seen, *f*.

87·393 G	10	18	9	16	332·4	326·3	−18·1	−54·1
88·428 G	33	94	21	75	332·3	326·1	−17·6	−40·5
89·421 G	26	63	15	36	332·0	325·7	−17·5	−27·7
90·334 G	9	27	5	14	332·6	326·3	−17·1	−15·1
91·346 G	0	14	0	7	333·1	326·7	−17·2	− 1·2
92·572 C	13	17	7	9	332·8	326·3	−16·9	+14·6
93·511 G	4	7	2	4	333·1	326·6	−17·1	+27·3
94·167 D	1	7	1	4	333·8	327·2	−17·2	+36·7
Means ..	..	..	8	21	332·76	326·40	−17·34	..

Group 7221.

March 29–30. A small stream of normal type. The first and last spots, *a* and *b*, being the largest.

87·393 G	4	39	6	58	321·1	327·0	+23·3	−65·4
88·428 G	4	14	4	13	320·8	326·8	+22·8	−52·0
Means ..	..	..	5	36	320·95	326·90	+23·05	..

Group 7222.

March 30–April 2. A few very small spots, of which the last, *a*, is the largest, in a short straight stream *f* the place of Group 7218. The group is not seen on April 1.

88·428 G	10	28	6	17	40·7	62·5	−28·2	+27·9
89·421 G	3	6	2	4	39·1	61·2	−29·2	+39·4
90·334 G	0	0	0	0	..	..	..	..
91·346 G	0	9	0	11	39·1	61·7	−30·0	+64·8
Means ..	..	..	2	8	39·63	61·80	−29·13	..

Group 7223.

March 30–April 10. A very large spot, *a*, *sf*, Group 7221, nearly regular in outline at first, but having a long narrow projection, *b*, on the *f* side, which is included in the measure of *a* on April 3. Another projection from *a* on the *sp* side is measured as a separate spot, *c*, on April 4, and has become quite detached from *a* by April 5. A few small companions are also sometimes seen.

1915. d					°	°	°	°
88·428 G	70	551	145	1133	300·5	300·1	+20·4	−72·3
89·421 G	126	946	144	1077	300·8	300·4	+20·5	−58·9
90·334 G	208	1215	175	1027	300·5	300·0	+20·5	−47·2
91·346 G	218	1452	150	994	300·4	299·9	+20·5	−33·9
92·572 C	262	1666	156	993	299·8	299·3	+20·6	−18·4
93·511 G	309	1685	175	949	299·7	299·2	+20·1	− 6·1
94·167 D	390	1865	218	1041	299·5	299·0	+20·2	+ 2·4
95·340 C	269	1638	159	967	299·1	298·6	+20·2	+17·5
96·398 G	325	1603	215	1054	299·5	299·0	+19·8	+31·9
97·421 G	215	1300	175	1055	299·8	299·3	+19·8	+45·6
98·352 G	162	811	175	875	299·5	299·0	+19·9	+57·6
99·345 G	86	510	150	910	299·0	298·5	+19·8	+70·2
Means ..	..	..	170	1006	299·84	299·36	+20·19	..

Group 7224.

March 30–April 11. A fine straight and almost continuous stream *sf* Group 7223, of which the two first spots, *a* and *b*, are the largest. *a* and *b* increase in size and have coalesced to form a very large double spot, *c*, by April 3. A train of small spots usually follows *c*.

88·428 G	6	22	29	103	291·0	282·8	+16·7	−81·8
89·421 G	42	159	71	261	290·5	282·2	+16·3	−69·2
90·334 G	61	353	62	361	290·8	282·4	+16·0	−56·9
91·346 G	110	424	82	320	291·2	282·7	+16·1	−43·1
92·572 C	153	858	95	532	290·1	281·5	+16·1	−28·1
93·511 G	175	1024	98	577	290·3	281·6	+16·1	−15·5
94·167 D	231	1098	126	598	290·2	281·4	+16·5	− 6·9
95·340 C	171	908	95	500	290·7	281·8	+16·3	+ 9·1
96·398 G	187	892	110	525	290·8	281·8	+16·0	+23·2
97·421 G	158	793	108	542	291·4	282·3	+16·1	+37·2
98·352 G	96	593	82	504	291·5	282·4	+16·1	+49·6
99·345 G	78	413	96	510	291·6	282·4	+16·1	+62·8
100·507 C	16	161	43	431	291·1	281·8	+16·2	+77·7
Means ..	..	..	84	443	290·86	282·08	+16·20	..

Group 7225.

March 31–April 10. Three small spots in a straight line perpendicular to the equator, *f* Group 7224. These have coalesced to form a large regular spot, *a*, by April 2. *a* diminishes and breaks up, chiefly by forming spots on the *p* side, after April 3.

89·421 G	1	35	3	89	283·8	274·5	+16·4	−75·9
90·334 G	18	91	24	118	283·4	274·0	+16·5	−64·3
91·346 G	26	182	23	163	282·6	273·1	+16·4	−51·7

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7225—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of: Umbra.	Projected Area of: Whole Spot.	Area Corrected for Foreshortening of: Umbra.	Area Corrected for Foreshortening of: Whole Spot.	Mean Longitude of Group: System I.	Mean Longitude of Group: System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
92·572 C	63	328	43	224	281·5	271·9	+16·2	−36·7
93·511 G	94	373	56	221	281·3	271·6	+15·4	−24·5
94·167 D	102	485	56	272	281·2	271·4	+15·1	−15·9
95·340 C	65	332	35	179	281·4	271·5	+15·0	− 0·2
96·398 G	58	194	32	107	281·0	271·0	+14·8	+13·4
97·421 G	43	116	26	70	281·0	270·9	+14·7	+26·8
98·352 G	25	69	17	48	280·9	270·7	+15·8	+39·0
99·345 G	0	22	0	20	281·1	270·8	+16·0	+52·3
Means ..	..	..	29	137	281·75	271·95	+15·66	..

Group 7226.

April 1–13. A number of spots, none of them large, in a straight stream, of which *a* and *b*, the first and last members, are the largest. *a* is closely followed by a double spot, *c*, on April 4, and the two have coalesced by April 6 to form a large regular spot, *d*. The other members of the group are small and unstable, and *d* alone remains after April 9.

90·334 G	0	21	0	52	268·4	260·5	−16·1	−79·3
91·346 G	29	139	35	175	267·0	259·0	−16·4	−67·3
92·572 C	58	299	45	236	267·5	259·4	−15·9	−50·7
93·511 G	74	322	47	206	268·2	260·0	−16·2	−37·6
94·167 D	98	449	57	259	268·3	260·0	−16·5	−28·8
95·340 C	75	395	38	205	269·7	261·3	−16·5	−11·9
96·398 G	85	324	45	166	271·5	263·0	−16·7	+ 3·9
97·421 G	63	287	35	154	272·1	263·5	−16·7	+17·9
98·352 G	46	270	27	160	273·1	264·4	−16·7	+31·2
99·345 G	44	228	31	162	273·9	265·2	−16·8	+45·1
100·507 C	25	159	24	152	274·2	265·4	−16·6	+60·8
101·345 C	9	97	13	145	273·7	264·8	−16·4	+71·3
102·302 C	2	45	10	196	274·7	265·7	−16·2	+85·0
Means ..	..	..	31	174	270·95	262·48	−16·44	..

Group 7227.

April 2–13. A long narrow spot, *a*, followed by a train of small spots, making up with it a short straight stream *nf* Group 7225. *a* has divided into two regular spots, *b* and *c*, by April 10, after which both diminish in size, and *c* alone remains by April 13.

91·346 G	0	13	0	46	255·8	257·4	+20·9	−78·5
92·572 C	10	83	12	105	256·1	257·7	+21·1	−62·1
93·511 G	47	154	41	133	257·6	259·2	+21·1	−48·2
94·167 D	43	183	32	137	258·0	259·6	+21·3	−39·1
95·340 C	38	238	24	147	258·8	260·4	+21·2	−22·8
96·398 G	75	349	42	200	258·8	260·4	+21·1	− 8·8
97·421 G	77	375	44	212	259·2	260·9	+21·0	+ 5·0
98·352 G	112	439	66	259	259·4	261·1	+21·0	+17·5

Group 7227—*continued.*

1915. d					°	°	°	°
99·345 G	60	362	40	237	258·7	260·4	+21·0	+29·9
100·507 C	39	235	30	181	258·6	260·3	+21·2	+45·2
101·345 C	20	90	20	93	258·1	259·8	+21·1	+55·7
102·302 C	7	13	10	21	257·4	259·1	+21·1	+67·7
Means ..	..	..	30	148	258·04	259·69	+21·09	..

Group 7228.

April 3–10. An irregular cluster of spots, mostly unstable, and rather faint in appearance *f* Group 7227. The group steadily diminishes in size.

92·572 C	10	74	17	129	249·3	252·0	+22·8	−68·9
93·511 G	31	170	34	185	248·9	251·6	+22·4	−56·9
94·167 D	41	145	37	129	248·2	250·9	+22·2	−48·9
95·340 C	20	118	13	80	248·5	251·3	+21·3	−33·1
96·398 G	28	158	17	94	248·3	251·1	+20·9	−19·3
97·421 G	18	47	11	27	247·8	250·6	+20·6	− 6·4
98·352 G	15	47	9	26	246·8	249·7	+21·1	+ 4·9
99·345 G	4	10	2	6	247·1	250·0	+21·2	+18·3
Means ..	..	..	18	85	248·11	250·90	+21·56	..

Group 7229.

April 4–5. Return of Group 7204. Third apparition. A small spot, *nf*, Group 7228, and making up with it and Group 7227 a small procession.

93·511 G	0	15	0	23	239·7	245·8	+22·8	−66·1
94·167 D	0	4	0	5	239·0	245·1	+23·1	−58·1
Means ..	..	..	0	14	239·35	245·45	+22·95	..

Group 7232.

April 6–12. One or two very small faint spots forming *nf*, Group 7225. The group is not seen on April 8, 9, or 10. The Groups 7223, 7224, 7225, and 7232 make up a magnificent procession, 30° in length.

95·340 C	0	7	0	3	275·8	273·4	+19·4	− 5·8
96·398 G	4	22	2	12	275·2	272·8	+19·3	+ 7·6
97·421 G	0	0	0	0	..	..	..	..
98·352 G	0	0	0	0	..	..	..	..
99·345 G	0	0	0	0	..	..	..	..
100·507 C	0	6	0	7	274·4	271·9	+19·1	+61·0
101·345 C	0	8	0	15	274·2	271·7	+19·6	+71·8
Means ..	..	..	0	5	274·90	272·45	+19·35	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7234.

April 11–18. Return of Group 7209. Third apparition. A few small unstable spots in an extended group of faculæ. The group is not seen on April 14 or April 17.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
100·507 C	0	36	0	65	137·9	133·4	−19·1	−75·5
101·345 C	13	47	14	53	138·2	133·6	−18·9	−64·2
102·302 C	11	25	9	18	141·3	136·7	−18·9	−48·4
103·405 G	0	0	0	0	..	..	..	..
104·327 G	10	27	6	16	138·9	134·2	−17·8	−24·1
105·418 G	7	66	4	33	141·7	137·0	−18·0	− 6·9
106·333 G	0	0	0	0	..	..	..	..
107·403 G	3	11	2	6	138·0	133·2	−18·1	+15·6
Means ..	..	..	4	24	139·33	134·68	−18·47	..

Group 7238.

April 13–15. A few small scattered and unstable spots.

102·302 C	2	16	1	10	162·7	171·9	+23·4	−27·0
103·405 G	14	67	9	39	166·7	176·0	+24·2	− 8·5
104·327 G	4	9	3	6	165·7	175·1	+24·0	+ 2·7
Means ..	..	..	4	18	165·03	174·33	+23·87	..

Group 7239.

April 15–16. A very small spot appearing near the W. limb on April 15, *n* of the position of Group 7237. It has developed into a large spot, followed by a small companion, by April 16.

104·327 G	1	3	2	5	234·7	254·2	−27·4	+71·7
105·418 G	1	25	6	140	236·0	255·7	−27·0	+87·4
Means ..	..	..	4	73	235·35	254·95	−27·20	..

Group 7240.

April 18–27. A pair of very small spots on April 18. The group has greatly increased in size by April 21, and becomes an irregular stream of normal type. The leading spot, *a*, is the largest and most stable, and alone remains after April 25.

107·403 G	4	6	4	5	66·1	67·6	−20·4	−56·3
108·331 G	14	26	10	18	67·3	68·8	−20·6	−42·8
109·364 C	12	22	7	13	70·2	71·7	−20·8	−26·3
110·362 G	70	238	38	127	69·7	71·2	−21·2	−13·6
111·515 C	34	209	18	109	69·8	71·4	−21·0	+ 1·7
112·507 C	51	175	27	94	69·1	70·7	−20·6	+14·1
113·388 G	46	119	26	69	69·7	71·3	−20·9	+26·4

Group 7240—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
114·524 C	26	98	18	68	70·5	72·1	−21·3	+42·2
115·364 C	9	33	8	28	70·3	71·9	−21·4	+53·1
116·479 G	0	12	0	16	69·3	70·9	−21·4	+66·8
Means ..	..	..	16	55	69·20	70·76	−20·96	..

Group 7241.

April 18–23. A very small intermittent spot *f* Group 7240; not seen on April 21 or 22.

107·403 G	1	5	1	5	63·3	65·2	−21·2	−59·1
108·331 G	5	11	4	9	62·0	63·9	−21·2	−48·1
109·364 C	1	4	1	3	62·7	64·7	−20·2	−33·8
110·362 G	0	0	0	0	..	..	..	..
111·515 C	0	0	0	0	..	..	..	..
112·507 C	1	4	1	2	62·0	64·0	−21·9	+ 7·0
Means ..	..	..	1	3	62·50	64·45	−21·13	..

Group 7243.

April 19–20. A small spot, *a*, with a faint companion in bright faculæ. Only *a* remains on April 20. Apparently a return of Group 7222.

108·331 G	4	8	7	13	38·1	67·7	−29·6	−72·0
109·364 C	3	11	3	11	38·6	68·5	−30·3	−57·9
Means ..	..	..	5	12	38·35	68·10	−29·95	..

Group 7244.

April 19–20. A small spot *n* of Group 7243, and in the same mass of faculæ.

108·331 G	11	13	18	21	38·6	57·2	−27·1	−71·5
109·364 C	6	11	5	11	39·0	57·8	−26·3	−57·5
Means ..	..	..	12	16	38·80	57·50	−26·70	..

Group 7245.

April 20–28. A few small spots *sp* Group 7240, rapidly developing into a well-formed stream of normal type. The leader, *a*, is a regular spot, much the largest member of the group. The rear spot, *b*, is next in size; the intermediate spots are small. *b* has broken up by April 22, but is measured as a single cluster on April 23 and after April 24.

109·364 C	15	55	9	33	75·8	97·9	−27·4	−20·7
110·362 G	149	585	82	320	75·7	98·0	−27·8	− 7·6
111·515 C	84	652	45	357	75·3	97·8	−28·1	+ 7·2

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
Group 7245—*continued.*								
1915. d					°	°	°	°
112·507 C	118	556	68	323	75·6	98·3	−27·8	+20·6
113·388 G	71	381	46	245	76·2	99·1	−27·8	+32·9
114·524 C	36	195	29	156	76·4	99·5	−27·5	+48·1
115·364 C	14	108	14	109	75·9	99·2	−27·6	+58·7
116·479 G	13	51	23	86	75·4	98·9	−27·6	+72·9
117·356 G	4	18	(14	60	73·7	97·4	−28·2)*	+82·8
Means ..	..	..	40	204	75·79	98·59	−27·70	..
Group 7246. April 20–22. A disturbed area *sf* Group 7240, in which one or two very small unstable spots are seen.								
109·364 C	1	3	1	2	61·4	82·3	−27·5	−35·1
110·362 G	4	8	2	5	59·0	80·1	−28·1	−24·3
111·515 C	0	8	0	4	63·0	84·3	−26·4	− 5·1
Means ..	..	..	1	4	61·13	82·23	−27·33	..
Group 7255. April 26–May 8. Return of Group 7223. A large regular spot, *a*, *nf* a number of small spots in a long irregular stream. The stream has disappeared by May 6, leaving *a* alone.								
115·364 C	26	151	117	597	296·6	292·8	+19·0	−80·6
116·479 G	67	357	91	485	297·3	293·5	+19·0	−65·2
117·356 G	81	417	79	399	296·5	292·6	+19·1	−54·4
118·351 G	79	485	58	354	296·8	292·9	+19·2	−40·9
119·419 G	159	681	96	416	297·0	293·1	+18·8	−26·6
120·165 D	162	647	93	369	296·1	292·1	+18·7	−17·7
121·553 G	163	758	88	410	296·5	292·5	+18·7	+ 1·1
122·346 G	120	587	67	325	296·4	292·4	+18·6	+11·4
123·392 C	80	466	47	279	295·4	291·3	+19·0	+24·3
124·397 G	82	373	56	257	295·2	291·1	+19·2	+37·4
125·316 G	62	315	53	267	295·0	290·9	+19·1	+49·3
126·350 G	36	211	45	259	294·9	290·7	+19·2	+62·9
127·323 G	23	107	53	247	294·8	290·6	+19·2	+75·6
Means ..	..	..	73	359	296·04	292·04	+18·98	..
Group 7256. April 26–May 8. A large regular spot, *a*, followed by a few small spots in a short train.								
115·364 C	0	52	0	128	297·8	299·0	−21·3	−79·4
116·479 G	33	186	37	209	299·1	300·3	−21·0	−63·4
117·356 G	33	222	27	182	299·8	301·0	−21·1	−51·1
Group 7256—*continued.*								
1915. d					°	°	°	°
118·351 G	41	269	27	177	299·9	301·1	−20·8	−37·8
119·419 G	73	328	42	186	300·5	301·7	−20·9	−23·1
120·165 D	63	302	34	162	300·6	301·8	−21·1	−13·2
121·553 G	62	297	32	155	301·1	302·3	−20·7	+ 5·7
122·346 G	63	303	34	164	301·4	302·6	−20·7	+16·4
123·392 C	55	294	33	178	301·4	302·6	−20·5	+30·3
124·397 G	40	228	28	162	301·2	302·4	−20·4	+43·4
125·316 G	25	152	22	137	300·7	302·0	−20·6	+55·0
126·350 G	17	62	23	85	300·1	301·4	−20·4	+68·1
127·323 G	0	4	0	11	299·3	300·6	−20·7	+80·1
Means ..	..	..	26	149	300·22	301·45	−20·78	..
Group 7258. April 27–May 4. Return of Group 7224. A small compact cluster, *a*, *sf* Group 7255. A companion cluster, *b*, has formed close to *a* on the *s*, by May 2.								
116·479 G	4	32	7	55	291·8	280·6	+16·3	−70·7
117·356 G	10	54	11	58	291·4	280·1	+16·0	−59·5
118·351 G	18	54	14	43	290·9	279·5	+16·2	−46·8
119·419 G	14	41	9	26	291·0	279·5	+16·4	−32·6
120·165 D	18	40	10	23	290·4	278·9	+16·6	−23·4
121·553 G	26	54	14	28	290·6	278·9	+15·9	− 4·8
122·346 G	29	53	15	28	290·8	279·1	+15·5	+ 5·8
123·392 C	11	21	6	12	290·4	278·6	+15·6	+19·3
Means ..	..	..	11	34	290·91	279·40	+16·06	..
Group 7259. April 28–May 7. A small, ill-defined spot, *a*, *sf* Group 7256, with occasionally a very small companion. The group is not seen on May 4, 5, and 6.								
117·356 G	6	10	6	10	291·9	302·8	−24·0	−59·0
118·351 G	0	21	0	16	291·4	302·4	−24·0	−46·3
119·419 G	11	26	7	16	290·9	302·0	−23·7	−32·7
120·165 D	4	7	3	4	289·7	300·9	−24·2	−24·1
121·553 G	4	24	2	12	291·4	302·7	−23·6	− 4·0
122·346 G	7	19	4	10	291·3	302·7	−23·5	+ 6·3
123·392 C	0	0	0	0	..	..	..	..
124·397 G	0	0	0	0	..	..	..	..
125·316 G	0	0	0	0	..	..	..	..
126·350 G	0	2	0	2	291·2	303·0	−24·7	+59·2
Means ..	..	..	2	7	291·11	302·36	−23·96	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7260.

April 28–May 8. Revival of Group 7225. An elongated spot, *a*, crossed by many bright bridges, and followed by a short train. *a* has disappeared by May 7, but the group is represented by faint markings on May 7 and 8.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
117·356 G	24	123	40	203	280·6	269·9	+15·8	−70·3
118·351 G	23	215	22	213	281·0	270·2	+16·3	−56·7
119·419 G	35	201	26	148	280·9	270·0	+16·4	−42·7
120·165 D	45	213	28	137	279·8	268·9	+16·6	−34·0
121·553 G	16	166	9	93	279·8	268·7	+16·7	−15·6
122·346 G	35	162	19	86	279·8	268·7	+16·7	− 5·2
123·392 C	39	163	21	88	279·7	268·5	+16·4	+ 8·6
124·397 G	32	99	19	57	279·0	267·7	+16·4	+21·2
125·316 G	12	46	8	29	278·3	266·9	+16·3	+32·6
126·350 G	1	2	1	2	278·8	267·3	+15·2	+46·8
127·323 G	1	5	1	5	277·2	265·6	+16·6	+58·0
Means ..	..	..	18	96	279·54	268·40	+16·31	..

Group 7261.

April 28–May 9. Return of Group 7226. A large regular spot, *a*, with occasionally a small companion.

117·356 G	12	64	24	124	275·3	262·6	−15·7	−75·6
118·351 G	19	105	20	111	275·8	263·0	−15·4	−61·9
119·419 G	27	156	20	116	276·1	263·2	−15·3	−47·5
120·165 D	29	166	19	107	275·6	262·6	−15·2	−38·2
121·553 G	32	173	17	93	276·1	263·0	−15·1	−19·3
122·346 G	28	188	14	97	276·2	263·0	−15·1	− 8·8
123·392 C	19	202	10	104	275·7	262·4	−15·5	+ 4·6
124·397 G	33	174	18	93	275·7	262·3	−15·4	+17·9
125·316 G	31	177	19	105	275·9	262·4	−15·5	+30·2
126·350 G	19	108	13	76	275·7	262·1	−15·6	+43·7
127·323 G	17	98	15	90	275·9	262·2	−15·9	+56·7
128·341 G	0	4	0	6	275·5	261·6	−15·8	+69·8
Means ..	..	..	16	94	275·79	262·53	−15·46	..

Group 7262.

April 30–May 1. A few small spots.

119·419 G	6	38	3	22	347·1	321·8	+8·4	+23·5
120·165 D	10	46	6	29	347·3	321·8	+8·6	+33·5
Means ..	..	..	5	26	347·20	321·80	+8·50	..

Group 7263.

April 30–May 10. A regular spot, *a*, followed by an irregular train. The train has disappeared by May 8, leaving *a* alone.

1915. d					°	°	°	°
119·419 G	0	44	0	125	246·1	249·6	+21·3	−77·5
120·165 D	11	99	18	169	244·0	247·5	+21·4	−69·8
121·553 G	40	131	35	118	244·3	247·8	+21·6	−51·1
122·346 G	32	137	24	101	244·8	248·3	+21·6	−40·2
123·392 C	35	173	22	109	243·8	247·4	+21·7	−27·3
124·397 G	32	129	18	74	244·8	248·4	+21·7	−13·0
125·316 G	43	166	24	94	243·4	247·0	+21·9	− 2·3
126·350 G	38	165	22	95	242·7	246·4	+21·7	+10·7
127·323 G	21	105	13	65	244·6	248·3	+21·6	+25·4
128·341 G	18	64	13	45	244·8	248·5	+21·2	+39·1
129·480 G	7	18	7	17	245·0	248·8	+21·2	+54·4
Means ..	..	..	18	92	244·39	248·00	+21·54	..

Group 7264.

May 1–2. Four very small spots in a long straight stream on May 1. Only the two leaders remain by May 2.

120·165 D	7	20	6	17	2·1	352·7	+17·3	+48·3
121·553 G	1	4	1	5	3·3	353·8	+16·6	+67·9
Means ..	..	..	4	11	2·70	353·25	+16·95	

Group 7265.

May 1–3. A very small spot, *a*, sometimes with a very small companion *sf* Group 7264.

120·165 D	3	9	2	6	350·8	334·6	+14·2	+37·0
121·553 G	0	2	0	2	350·7	334·3	+13·8	+55·3
122·346 G	0	3	0	4	351·3	334·8	+13·8	+66·3
Means ..	..	..	1	4	350·93	334·57	+13·93	..

Group 7266.

May 2–7. A number of small spots in an irregular stream forming suddenly *np* Group 7255. The group develops rapidly, and consists on May 3 chiefly of *a*, the leader, a large regular spot, and a compact cluster in the rear of the group. The cluster, when close to the limb on May 7, appears from the foreshortening like a regular spot, *b*.

121·553 G	49	105	29	62	313·4	315·6	+21·2	+18·0
122·346 G	105	345	67	220	314·3	316·5	+21·2	+29·3
123·392 C	74	417	58	325	315·0	317·2	+21·2	+43·9

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7266—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
124·397 G	113	464	115	485	315·2	317·4	+21·0	+57·4
125·316 G	95	383	146	621	314·8	317·1	+20·9	+69·1
126·350 G	3	98	(8	267	309·4	311·7	+21·3)*	+77·4
Means ..	..	..	83	343	314·54	316·76	+21·10	..

Group 7267.

May 2–3. A few very small unstable spots *s* Groups 7255 and 7258.

121·553 G	9	21	5	10	293·7	270·0	+ 9·9	− 1·7
122·346 G	15	32	8	16	293·7	269·8	+10·1	+ 8·7
Means ..	..	..	7	13	293·70	269·90	+10·00	..

Group 7268.

May 6–9. A few very small unstable spots in an irregular stream. The rear spot remains alone on May 9.

125·316 G	17	51	9	26	248·9	229·7	−12·7	+ 3·2
126·350 G	43	103	23	54	249·4	230·1	−12·9	+17·4
127·323 G	16	37	9	23	250·5	231·0	−13·2	+31·3
128·341 G	1	9	1	6	246·2	226·6	−12·7	+40·5
Means ...	..	..	11	27	248·75	229·35	−12·88	..

Group 7269.

May 6–9. Perhaps a return of Group 7242. A regular spot, *a*, with a very small companion on May 8.

125·316 G	5	15	12	34	170·2	164·1	+18·4	−75·5
126·350 G	9	30	11	35	170·2	164·0	+18·3	−61·8
127·323 G	12	24	10	20	170·7	164·5	+18·3	−48·5
128·341 G	5	13	3	8	171·0	164·7	+18·1	−34·7
Means ..	..	..	9	24	170·53	164·33	+18·28	..

Group 7274.

May 14–15. A pair of very small faint markings, *a* and *b*. *a* has disappeared by May 15.

133·559 G	5	21	4	14	102·6	99·9	+19·6	−34·1
134·342 G	4	9	3	6	101·2	98·5	+19·5	−25·1
Means ..	..	..	4	10	101·90	99·20	+19·55	..

Group 7279.

May 20–30. Two spots close together that speedily combine to form a rather faint and indefinite spot, *a*. After May 24, however, it is very dark but small, and varies in size from day to day. A very small companion is seen on May 25.

1915. d					°	°	°	°
139·495 C	0	32	0	97	339·3	335·4	+19·9	−78·9
140·624 G	9	76	12	95	339·1	335·2	+20·3	−64·1
141·430 G	0	44	0	40	339·3	335·3	+19·7	−53·3
142·331 G	8	21	6	15	339·3	335·3	+19·7	−41·4
143·297 G	13	21	8	13	339·2	335·2	+19·4	−28·7
144·315 G	21	32	12	17	338·9	334·9	+19·4	−15·5
145·319 G	14	60	7	32	339·1	335·0	+19·2	− 2·0
146·320 G	16	28	9	16	339·6	335·5	+19·2	+11·7
147·260 D	15	18	9	11	340·0	335·9	+18·6	+24·6
148·362 C	12	20	8	14	340·2	336·0	+18·3	+39·3
149·330 G	4	6	4	6	340·6	336·4	+17·7	+52·6
Means ..	..	..	7	32	339·51	335·46	+19·22	..

Group 7280.

May 20–28. A large spot, *a*, with triple umbra *f* Group 7279. It breaks up after May 23.

139·495 C	0	20	0	107	334·7	337·2	+21·7	−83·5
140·624 G	17	116	27	186	333·4	335·9	+21·4	−69·8
141·430 G	36	126	38	135	333·5	336·0	+21·4	−59·1
142·331 G	23	206	19	168	333·0	335·6	+21·3	−47·7
143·297 G	24	75	16	48	332·2	334·8	+21·0	−35·7
144·315 G	20	33	11	19	331·5	334·1	+20·9	−22·9
145·319 G	3	8	2	5	330·5	333·1	+20·8	−10·6
146·320 G	3	24	2	13	331·4	334·0	+21·4	+ 3·5
147·260 D	0	8	0	4	332·3	335·0	+20·3	+16·9
Means ..	..	..	13	76	332·50	335·08	+21·13	..

Group 7281.

May 22–26. A small spot, *a*, followed by a very small cluster. The cluster has disappeared by May 24, except for a very small spot, *b*.

141·430 G	5	15	9	24	321·8	315·4	+18·5	−70·8
142·331 G	4	14	4	13	323·0	316·6	+19·2	−57·7
143·297 G	24	74	18	55	324·0	317·6	+18·4	−43·9
144·315 G	22	49	13	30	324·3	317·8	+18·3	−30·1
145·319 G	14	28	8	16	323·6	317·1	+18·0	−17·5
Means ..	..	..	10	28	323·34	316·90	+18·48	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7282.

May 22–June 3. Return of Group 7266. A remarkable group, consisting chiefly of a very large regular spot, *a*, with two regular spots close to it, *b* and *c*; the one *sp* and the other *sf*. A great number of small unstable spots form and disappear within a wide area round these three chief spots.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915.d					°	°	°	°
141·430 G	61	294	160	760	315·4	320·6	+21·7	−77·2
142·331 G	69	454	100	636	314·1	319·4	+21·7	−66·6
143·297 G	123	684	118	646	313·6	318·9	+21·6	−54·3
144·315 G	150	847	107	609	314·2	319·5	+21·6	−40·2
145·319 G	201	1129	124	696	314·3	319·7	+21·6	−26·8
146·320 G	213	1146	120	646	313·8	319·2	+21·5	−14·1
147·260 D	184	950	101	516	312·5	317·9	+21·9	− 2·9
148·362 C	142	946	79	522	311·8	317·3	+21·9	+10·9
149·330 G	141	803	84	483	311·4	316·9	+22·0	+23·4
150·305 G	122	621	83	415	311·1	316·7	+22·2	+36·0
151·310 G	79	427	66	354	310·5	316·1	+22·2	+48·7
152·554 G	42	269	54	346	310·3	315·9	+22·3	+64·9
153·365 C	19	157	41	340	310·0	315·7	+22·2	+75·3
Means ..	..	..	95	536	312·54	317·98	+21·88	..

Group 7283.

May 24–25. Some very faint small markings.

143·297 G	2	4	1	3	29·3	65·8	−29·3	+21·4
144·315 G	0	7	0	5	29·4	66·2	−29·5	+35·0
Means ..	..	..	1	4	29·35	66·00	−29·40	..

Group 7284.

May 24–25. Some very small faint markings.

143·297 G	4	18	3	18	309·5	319·8	−23·0	−58·4
144·315 G	6	7	5	6	306·2	316·6	−23·4	−48·2
Means ..	..	..	4	12	307·85	318·20	−23·20	..

Group 7285.

May 24–June 5. Return of Group 7255. Third apparition. A large regular spot, *a*, with a very small companion on May 29.

143·297 G	5	50	13	121	291·2	293·5	+20·1	−76·7
144·315 G	22	101	27	122	291·3	293·6	+20·3	−63·1
145·319 G	18	129	15	111	290·4	292·7	+20·7	−50·7
146·320 G	20	164	14	112	290·3	292·6	+20·8	−37·6
147·260 D	32	170	19	102	289·3	291·7	+21·3	−26·1

Group 7285—*continued.*

1915.d					°	°	°	°
148·362 C	31	178	18	99	289·3	291·7	+21·0	−11·6
149·330 G	30	141	17	76	289·0	291·4	+21·2	+ 1·0
150·305 G	26	162	15	91	288·6	291·0	+21·4	+13·5
151·310 G	19	121	12	74	288·1	290·5	+21·4	+26·3
152·554 G	18	79	13	58	287·8	290·2	+21·4	+42·4
153·365 C	18	52	16	46	287·6	290·1	+21·3	+52·9
154·442 G	6	13	9	18	287·5	290·0	+21·1	+67·1
155·126 K	0	5	0	11	286·4	288·9	+21·2	+75·0
Means ..	..	..	14	80	288·98	291·38	+21·02	..

Group 7286.

May 24–June 1. A feeble intermittent disturbance, *n* of Group 7285. One or two small faint markings, not seen on May 26, 27, 29, or 31.

143·297 G	0	5	0	15	289·4	303·2	+23·5	−78·5
144·315 G	2	3	3	4	292·3	306·2	+24·9	−62·1
145·319 G	0	0	0	0	..	..	..	..
146·320 G	0	0	0	0	..	..	..	..
147·260 D	0	2	0	1	289·4	303·5	+23·8	−26·0
148·362 C	0	0	0	0	..	..	..	..
149·330 G	0	7	0	4	290·0	304·3	+24·4	+ 2·0
150·305 G	0	0	0	0	..	..	..	..
151·310 G	1	8	1	5	290·1	304·6	+23·9	+28·3
Means ..	..	..	0	3	290·24	304·36	+24·10	..

Group 7287.

May 28–30. A ring of small spots forming a good way in advance of Group 7279. A small regular spot, *a*, has formed *np* the ring by May 29, and alone remains by May 30.

147·260 D	18	61	15	46	1·4	350·2	+16·7	+46·0
148·362 C	27	63	29	71	2·6	351·3	+16·9	+61·7
149·330 G	11	46	27	117	5·7	354·4	+17·5	+77·7
Means ..	..	..	24	78	3·23	351·97	+17·03	..

Group 7288.

May 29–30. A very small spot, *a*, *n* of Group 7279. A very small companion is is seen near *a* on May 29.

148·362 C	10	15	8	10	342·6	351·5	+23·0	+41·7
149·330 G	6	6	6	6	343·0	352·0	+22·5	+55·0
Means ..	..	..	7	8	342·80	351·75	+22·75	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7289.

May 29–30. A very small spot, *n* Group 7288.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
148·362 C	3	7	2	5	341·1	0·2	+25·1	+40·2
149·330 G	4	8	4	8	340·9	0·2	+25·4	+52·9
Means ..	..	..	3	6	341·00	0·20	+25·25	..

Group 7290.

June 2–3. A few small spots in a straight stream between Groups 7282 and 7285.

Note.—Groups 7287, 7279, 7288, 7289, 7280, 7281, 7282, 7290, 7285, and 7286 form a long irregular "procession" of disturbances.

152·554 G	13	30	12	30	300·8	304·6	+21·4	+55·4
153·365 C	11	65	15	89	301·4	305·2	+21·4	+66·7
Means ..	..	..	14	60	301·10	304·90	+21·40	..

Group 7291.

June 2–3. A few spots in a short stream of normal type, appearing suddenly in the region of Group 7284. The first and last spots, *a* and *b*, are the largest.

152·554 G	23	68	25	75	305·7	319·9	−23·9	+60·3
153·365 C	15	106	21	174	306·4	320·7	−24·0	+71·7
Means ..	..	..	23	125	306·05	320·30	−23·95	..

Group 7292.

June 5–10. A few small spots, mostly unstable, in a short stream. The usual leader and rear spots are represented by small clusters, of which the following is not seen on June 9. The most stable members of the group are *a* and *b*, which make up the leading cluster on June 7.

155·126 K	10	66	6	37	198·4	205·8	+22·4	−12·9
156·349 G	18	89	10	48	199·7	207·2	+22·3	+ 4·6
157·379 G	38	71	22	39	198·6	206·2	+22·4	+17·1
158·302 G	36	104	23	66	198·8	206·4	+22·0	+29·5
159·436 G	13	18	10	14	200·5	208·2	+21·8	+46·2
160·419 C	10	32	10	33	198·6	206·3	+23·0	+57·3
Means ..	..	..	14	40	199·10	206·68	+22·32	..

Group 7294.

June 10–11. A very small spot.

160·419 C	6	8	4	5	159·0	156·1	+20·3	+17·7
161·688 G	4	7	3	5	161·1	158·2	+19·0	+36·6
Means ..	..	..	4	5	160·05	157·15	+19·65	..

Group 7299.

June 12–24. A large complex and irregular cluster undergoing continual change. The group on June 17 and 18 consists chiefly of a straight stream, of which *a*, *c*, and *b* are the principal members. These principal spots change quickly, but can be identified until June 20, after which the cluster dissolves.

1915. d					°	°	°	°
162·398 C	8	32	32	128	32·2	350·5	+ 1·2	−82·9
163·120 K	28	117	50	208	31·9	350·0	+ 2·1	−73·6
164·110 K	62	392	62	396	32·2	350·0	+ 2·2	−60·2
165·422 G	131	628	86	421	33·3	350·8	+ 2·0	−41·8
166·362 G	148	781	86	451	33·3	350·5	+ 1·6	−29·3
167·411 G	227	1017	117	528	33·4	350·4	+ 1·9	−15·3
168·324 G	204	804	102	403	34·1	350·8	+ 2·5	− 2·6
169·353 C	151	635	78	327	35·5	352·0	+ 2·2	+12·5
170·318 G	139	439	89	273	35·8	352·0	+ 1·4	+25·5
171·298 G	76	245	49	157	35·2	351·2	+ 1·9	+37·9
172·356 G	15	31	13	26	36·8	352·5	+ 1·7	+53·5
173·405 C	0	5	0	6	38·6	354·0	+ 1·6	+69·2
174·388 C	0	8	0	21	35·4	350·6	+ 1·8	+79·0
Means ..	..	..	59	257	34·44	351·18	+ 1·85	..

Group 7300.

June 13–24. A large regular spot, *a*, usually followed by a short train of small companions.

163·120 K	8	43	34	176	23·3	12·4	−18·0	−82·2
164·110 K	26	149	40	229	22·7	11·7	−17·7	−69·7
165·422 G	46	281	39	235	24·5	13·4	−17·5	−50·6
166·362 G	53	309	35	205	25·2	14·1	−17·1	−37·4
167·411 G	56	308	32	177	25·6	14·4	−16·8	−23·1
168·324 G	57	324	31	173	25·7	14·4	−17·0	−11·0
169·353 C	60	332	32	177	25·5	14·2	−17·5	+ 2·5
170·318 G	65	311	36	171	26·0	14·6	−17·9	+15·7
171·298 G	63	280	37	170	25·5	14·0	−17·8	+28·2
172·356 G	31	170	22	123	25·9	14·3	−17·7	+42·6
173·405 C	11	42	10	41	26·8	15·2	−17·6	+57·4
174·388 C	3	5	6	7	27·3	15·6	−17·2	+70·9
Means ..	..	..	30	157	25·33	14·03	−17·48	..

Group 7301.

June 14–17. A pair of very small spots, or clusters of spots, *a* and *b*.

164·110 K	7	33	4	18	75·5	69·4	−19·2	−16·9
165·422 G	9	18	5	10	76·6	70·5	−18·8	+ 1·5
166·362 G	1	36	1	20	76·7	70·5	−18·5	+14·1
167·411 G	1	17	1	10	75·6	69·4	−18·7	+26·9
Means ..	..	..	3	15	76·10	69·95	−18·80	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7302.

June 15–22. A regular spot, *a*, forming *p* Group 7300. A train of small companions forms in the rear of *a*, and attains a considerable development by June 18, after which it dissolves.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915.d					°	°	°	°
165·422 G	64	193	40	116	47·6	38·7	−18·2	−27·5
166·362 G	79	253	44	139	48·1	39·1	−17·9	−14·5
167·411 G	131	343	69	182	47·1	38·1	−17·7	− 1·6
168·324 G	98	321	52	174	47·9	38·8	−17·9	+11·2
169·353 C	39	161	24	94	47·6	38·5	−17·9	+24·6
170·318 G	26	60	19	43	51·3	42·1	−18·1	+41·0
171·298 G	16	26	15	25	52·9	43·6	−18·4	+55·6
172·356 G	4	11	6	16	52·4	43·1	−18·2	+69·1
Means ..	..	..	34	99	49·36	40·25	−18·04	..

Group 7303.

June 14–20. Two small spots, *a* and *b*, on June 14, followed, June 15–17, by a small train. Only the two first spots, *a* and *b*, are at all stable, but these disappear before June 19, and only one or two very small faint markings remain.

164·110 K	4	22	11	61	12·9	6·3	+19·4	−79·5
165·422 G	17	56	21	69	10·2	3·6	+19·0	−64·9
166·362 G	26	77	23	67	10·2	3·5	+18·7	−52·4
167·411 G	26	59	18	39	10·9	4·2	+18·8	−37·8
168·324 G	9	42	6	24	12·5	5·8	+19·0	−24·2
169·353 C	2	14	1	7	15·0	8·2	+18·0	− 8·0
170·318 G	0	6	0	3	14·8	8·0	+18·0	+ 4·5
Means ..	..	..	11	39	12·36	5·66	+18·70	..

Group 7304.

June 15–27. Return or revival of Group 7287. A group forming *f* Group 7303. At first an irregular stream, it rapidly develops into a very large and complex cluster, of which two very large composite spots, *a* and *b*, form the chief members on June 22. *b* has thrown off two clusters of small spots, *c* and *d*, by June 23, which are measured as one on June 25 and 26.

165·422 G	3	4	5	7	2·9	352·8	+17·5	−72·2
166·362 G	28	95	30	98	3·0	352·9	+16·9	−59·6
167·411 G	74	228	57	173	2·0	351·8	+17·1	−46·7
168·324 G	180	694	116	448	0·6	350·3	+17·8	−36·1
169·353 C	123	831	69	470	0·6	350·3	+17·9	−22·4
170·318 G	361	1591	191	841	0·8	350·4	+18·1	− 9·5
171·298 G	503	2490	264	1301	1·0	350·6	+18·3	+ 3·7
172·356 G	479	2584	262	1422	1·2	350·7	+18·0	+17·9
173·405 C	313	1836	190	1296	1·5	350·9	+17·8	+32·1
174·388 C	249	1410	184	1052	2·3	351·7	+17·8	+45·9

Group 7304—*continued.*

1915.d					°	°	°	°
175·487 G	150	888	158	952	3·0	352·3	+18·0	+61·2
176·310 G	82	642	133	1149	4·5	353·7	+17·4	+73·6
177·333 G	5	34	(12	76	354·6	343·8	+19·2)*	+77·2
Means ..	..	..	138	767	1·95	351·53	+17·72	..

Group 7306.

June 16–19. A very small spot on June 16. On the succeedings days a stream of normal type, of which *a* and *b*, the first and last spots, are the largest.

166·362 G	4	9	3	6	91·0	88·7	−20·1	+28·4
167·411 G	28	63	21	46	90·9	88·6	−19·7	+42·2
168·324 G	39	139	35	127	91·6	89·2	−19·7	+54·9
169·353 C	10	25	16	36	91·1	88·7	−19·8	+68·1
Means ..	..	..	19	54	91·15	88·80	−19·83	..

Group 7307.

June 16–18. A small regular spot *f* Group 7304.

166·362 G	4	7	9	16	346·5	334·7	+16·8	−76·1
167·411 G	5	18	6	20	346·8	334·9	+17·4	−61·9
168·324 G	0	14	0	11	347·1	335·1	+17·6	−49·6
Means ..	..	..	5	16	346·80	334·90	+17·27	..

Group 7308.

June 17–24. An active stream forming suddenly *s* Group 7300. The leader, *a*, soon becomes a large regular spot. A second regular spot, *b*, soon develops near the rear of the group but diminishes quickly by throwing off fragments on its *p* side. *a* has divided into two portions, *c* and *d*, by June 21.

167·411 G	61	157	35	94	30·3	50·1	−25·7	−18·4
168·324 G	106	461	60	262	30·1	50·0	−24·6	− 6·6
169·353 C	138	602	79	342	31·0	51·0	−25·3	+ 8·0
170·318 G	113	556	69	337	31·0	51·1	−25·2	+20·7
171·298 G	151	552	102	373	31·3	51·5	−24·8	+34·0
172·356 G	103	521	87	434	30·7	51·0	−24·4	+47·4
173·405 C	69	294	84	360	31·8	52·3	−24·4	+62·4
174·388 C	21	145	50	332	31·6	52·2	−24·3	+75·2
Means ..	..	..	71	317	30·98	51·15	−24·84	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
Group 7309.								
June 17–21. A wide pair of very small spots, *a* and *b*, *f* Group 7300. *a* is not seen on June 18, and neither *a* nor *b* on June 19 and 20. But faint markings are seen near the places of both on June 21.								
1915. d					°	°	°	°
167·411 G	6	11	4	7	13·1	5·7	−18·5	−35·6
168·324 G	4	15	2	9	12·5	5·1	−18·1	−24·2
169·353 C	0	0	0	0	..	..	..	..
170·318 G	0	0	0	0	..	..	..	..
171·298 G	0	34	0	18	13·0	5·5	−18·9	+15·7
Means ..	..	..	1	7	12·87	5·43	−18·50	..
Group 7312.								
June 19–27. Return of Group 7290. A large regular spot, *a*, with occasionally some small companions.								
169·353 C	8	69	18	155	306·2	312·6	+21·7	−76·8
170·318 G	16	115	19	138	306·2	312·7	+21·7	−64·1
171·298 G	25	175	21	147	306·3	312·8	+21·8	−51·0
172·356 G	36	239	23	160	305·9	312·5	+21·7	−37·4
173·405 C	45	257	26	149	305·5	312·1	+21·7	−23·9
174·388 C	33	209	18	113	305·2	311·8	+21·9	−11·2
175·487 G	25	181	13	96	305·1	311·8	+22·0	+ 3·3
176·310 G	28	120	16	66	304·8	311·5	+22·2	+13·9
177·333 G	11	19	6	11	304·2	310·9	+22·4	+26·8
Means ..	..	..	18	115	305·49	312·08	+21·90	..
Group 7313.								
June 19–July 1. Return of Group 7291. A very long active stream, of the normal type at first, with a large regular spot, *a*, leading the stream, and another, *b*, ending it. But both of these have broken up by June 24, and by June 26 the group is entirely reconstructed; the *p* portion, roughly corresponding to *a*, being now a number of widely scattered spots, mostly small, and the *f* portion, apparently *b* reformed, a very large composite spot. *b* then breaks up a second time to form three spots, *c*, *d*, and *e*, and a regular spot, *f*, takes shape in the *p* portion of the stream.								
169·353 C	15	105	(38	296	304·8	310·9	−23·3)*	−78·2
170·318 G	41	366	66	582	301·1	307·2	−23·1	−69·2
171·298 G	83	560	83	562	301·2	307·4	−22·8	−56·1
172·356 G	113	721	85	544	300·8	307·0	−22·8	−42·5
173·405 C	173	840	106	522	302·1	308·3	−22·3	−27·3
174·388 C	206	1122	119	637	301·5	307·8	−21·7	−14·9
175·487 G	213	986	117	542	300·4	306·7	−21·5	− 1·4
176·310 G	231	1051	129	584	299·0	305·3	−21·4	+ 8·1
177·333 G	247	937	145	556	298·7	305·1	−21·4	+21·3
178·505 C	105	649	73	446	298·8	305·2	−21·1	+36·9
Group 7313—*continued.*								
1915. d					°	°	°	°
179·373 C	95	480	82	404	299·2	305·7	−21·1	+48·8
180·330 D	71	360	92	449	300·9	307·4	−21·0	+63·2
181·350 C	15	70	(35	170	300·4	306·9	−21·0)*	+76·2
Means ..	..	..	100	530	300·34	306·65	−21·84	..
Group 7315.								
June 22–28. Two very small spots, *a* and *b*. *a* moves forward with considerable speed, and a sparse stream has formed by June 26, of which *a* is the leader. *b* is not seen after June 23.								
172·356 G	7	30	4	16	344·4	343·9	+20·3	+ 1·1
173·405 C	0	19	0	10	344·6	344·1	+20·7	+15·2
174·388 C	0	5	0	3	347·6	347·1	+20·4	+31·2
175·487 G	6	32	5	23	346·7	346·2	+20·3	+44·9
176·310 G	26	69	26	66	348·2	347·7	+20·1	+57·3
177·333 G	44	97	73	159	349·5	349·0	+19·9	+72·1
178·505 C	6	30	(18	19	343·4	342·9	+20·2)*	+81·5
Means ..	..	..	18	46	346·83	346·33	+20·28	..
Group 7316.								
June 22–24. A very small faint spot *f* Group 7315.								
172·356 G	3	9	2	6	320·3	330·3	+22·7	−23·0
173·405 C	8	20	4	11	320·4	330·5	+22·7	− 9·0
174·388 C	0	3	0	2	320·6	330·7	+22·6	+ 4·2
Means ..	..	..	2	6	320·43	330·50	+22·67	..
Group 7318.								
June 23–25. A small spot.								
173·405 C	6	14	9	21	261·2	277·2	−24·0	−68·2
174·388 C	6	9	6	9	261·1	277·1	−23·9	−55·3
175·487 G	4	6	3	5	261·0	277·1	−23·9	−40·8
Means ..	..	..	6	12	261·10	277·13	−23·93	..
Group 7319.								
June 24–July 1. A very small spot *nf* Group 7318. Two regular spots, *a* and *b*, on June 25. A sparse irregular stream, of which *a* is leader, on June 28. Only *a* remains after June 29.								
174·388 C	1	2	1	2	271·4	257·8	−16·9	−45·0
175·487 G	58	277	36	172	272·0	258·3	−17·5	−29·8
176·310 G	61	310	35	174	272·5	258·7	−17·1	−18·4

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
Group 7319—*continued.*								
1915.					°	°	°	°
177·333 G	95	187	51	101	271·6	257·8	−17·3	− 5·8
178·505 C	30	143	16	77	272·0	258·1	−16·9	+10·1
179·373 C	21	43	12	24	271·7	257·7	−17·0	+21·3
180·330 D	17	24	11	16	273·5	259·4	−16·5	+35·8
181·350 C	2	6	2	5	273·0	258·9	−16·2	+48·8
Means ..	..	..	21	71	272·21	258·34	−16·93	..
Group 7323. June 28–July 5. An irregular cluster of small unstable spots. Of these two, *a* and *b*, have developed greatly by July 1, and the group appears as two parallel streams. *b* has broken up by July 3, after which the group rapidly disappears.								
178·505 C	17	48	13	36	218·4	212·7	−19·1	−43·5
179·373 C	15	65	10	41	219·5	213·8	−18·8	−30·9
180·330 D	82	283	46	161	219·1	213·3	−19·8	−18·6
181·350 C	129	684	70	371	220·6	214·8	−19·2	− 3·6
182·405 G	102	506	56	279	221·0	215·2	−18·9	+10·7
183·297 G	76	293	45	173	221·3	215·4	−18·8	+22·8
184·550 G	28	98	20	54	220·8	214·9	−19·1	+38·9
185·513 G	23	42	21	37	220·7	214·8	−18·8	+51·6
Means ..	..	..	35	144	220·18	214·36	−19·06	..
Group 7324. June 28–July 8. A regular spot, *a*, usually with a small train of companions. The group diminishes quickly after July 2, and is not seen on July 6, but a feeble revival is seen on July 7 and 8.								
178·505 C	3	33	7	72	185·0	165·9	+15·8	−76·9
179·373 C	28	93	36	119	183·6	164·4	+16·4	−66·8
180·330 D	26	189	22	164	183·7	164·4	+16·1	−54·0
181·350 C	37	222	25	146	185·5	166·1	+15·4	−38·7
182·405 G	36	141	20	80	186·1	166·6	+15·0	−24·2
183·297 G	26	68	14	35	185·7	166·1	+15·0	−12·8
184·550 G	23	52	12	26	184·1	164·4	+15·8	+ 2·2
185·513 G	2	6	1	3	185·0	165·2	+15·3	+15·9
186·428 G	0	0	0	0	..	..	..	..
187·615 G	2	2	1	1	184·0	163·9	+14·8	+42·7
188·430 C	0	17	0	15	183·1	162·9	+15·4	+52·6
Means ..	..	..	13	60	184·58	164·99	+15·50	..
Group 7325. June 29–30. A very small spot.								
179·373 C	0	10	0	8	300·1	284·0	+15·0	+49·7
180·330 D	2	3	2	4	301·3	285·1	+17·7	+63·6
Means ..	..	..	1	6	300·70	284·55	+16·35	..
Group 7329. July 5–7. Two spots, *a* and *b*. The line joining *a* and *b* is inclined to the equator at an angle of about 59° on July 5, of about 45° on July 6, and of about 32° on July 7. *a* has a very small companion on July 5.								
1915.					°	°	°	°
185·513 G	40	78	33	63	215·4	223·6	−22·0	+46·3
186·428 G	36	141	39	153	215·2	223·4	−22·0	+58·2
187·615 G	9	42	21	93	215·4	223·7	−22·4	+74·1
Means ..	..	..	31	103	215·33	223·57	−22·13	..
Group 7330. July 5–17. Return of Group 7306. A fine group, consisting chiefly of a very large regular spot, *a*, closely followed by, and at times connected with, an extensive shaded region divided into three main areas, *b*, *c*, *d*. *a* and *b* have coalesced to form *e*, and *c* and *d* to form *f* by July 8. Several nuclei form in *f*, which throws off several small spots, and diminishes in size, and has almost vanished by July 17.								
185·513 G	41	232	(93	524	94·1	94·8	−20·3)*	−75·0
186·428 G	109	788	148	1131	90·3	91·0	−20·0	−66·7
187·615 G	250	1387	223	1241	89·8	90·5	−20·1	−51·5
188·430 C	293	1866	211	1355	90·2	91·0	−20·2	−40·3
189·474 G	379	2152	234	1332	89·7	90·5	−20·2	−27·0
190·328 G	362	2029	207	1162	89·8	90·6	−20·2	−15·6
191·377 C	380	2112	211	1171	89·6	90·4	−20·6	− 1·9
192·487 G	292	1686	167	955	89·5	90·3	−20·6	+12·7
193·298 G	298	1470	167	891	89·4	90·2	−20·8	+23·3
194·357 G	179	1072	128	755	90·0	90·8	−20·9	+37·9
195·358 G	108	702	97	624	89·5	90·3	−20·8	+50·7
196·375 C	65	457	93	614	90·0	90·8	−20·9	+64·6
197·317 G	35	181	98	511	89·9	90·7	−21·4	+77·0
Means ..	..	..	165	979	89·81	90·59	−20·56	..
Group 7336. July 9–13. A few small scattered spots.								
189·474 G	6	20	3	12	129·1	121·9	−18·6	+12·4
190·328 G	35	75	21	44	127·0	119·8	−18·8	+21·6
191·377 C	27	80	19	54	128·5	121·2	−18·2	+37·0
192·487 G	6	30	6	27	128·7	121·4	−19·0	+51·9
193·298 G	2	4	2	5	126·2	118·9	−19·2	+60·1
Means ..	..	..	10	28	127·90	120·64	−18·76	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
Group 7337. July 9–17. A disturbed region in which a number of unstable spots are formed. The group is not seen on July 16.								
1915.					°	°	°	°
189·474 G	0	4	0	6	52·0	55·6	−21·2	−64·7
190·328 G	5	11	5	10	51·1	54·7	−21·0	−54·3
191·377 C	25	72	19	55	48·9	52·5	−20·5	−42·6
192·487 G	52	159	32	101	49·3	53·0	−20·8	−27·5
193·298 G	51	287	29	171	47·4	51·1	−22·1	−18·7
194·357 G	37	92	21	52	47·0	50·7	−22·9	− 5·1
195·358 G	12	70	7	40	47·9	51·6	−22·0	+ 9·1
196·375 C	0	0	0	0	..	..	..	..
197·317 G	0	6	0	4	51·2	54·9	−18·7	+38·3
Means ..	..	..	13	49	49·35	53·01	−21·15	..
Group 7339. July 10–18. Return of Group 7308. A composite spot, *a*, with a few unstable attendants, mostly on the *f* side, except on July 14.								
190·328 G	0	84	0	247	28·4	54·7	−25·6	−77·0
191·377 C	14	187	18	256	27·5	53·9	−25·9	−64·0
192·487 G	25	195	23	176	27·3	53·9	−25·7	−49·5
193·298 G	40	137	29	104	26·8	53·5	−25·5	−39·3
194·357 G	31	110	20	71	26·7	53·5	−25·9	−25·4
195·358 G	31	142	19	86	25·4	52·4	−26·1	−13·4
196·375 C	11	25	7	14	26·2	53·3	−25·4	+ 0·8
197·317 G	9	34	6	20	24·9	52·1	−24·9	+12·0
198·522 G	8	41	6	26	24·0	51·4	−24·9	+27·0
Means ..	..	..	14	111	26·36	53·19	−25·54	..
Group 7340. July 11–12. A cluster of small spots forming near the West limb.								
191·377 C	9	51	9	52	152·6	146·5	+19·2	+61·1
192·487 G	0	16	0	34	153·8	147·6	+18·9	+77·0
Means ..	..	..	5	43	153·20	147·05	+19·05	..
Group 7341. July 11–23. Return of Group 7304. A large regular spot, *a*, frequently accompanied by small unstable spots at a considerable distance, mostly *n* of *a*.								
191·377 C	11	71	34	214	10·2	359·3	+17·2	−81·3
192·487 G	32	160	39	200	10·4	359·4	+17·7	−66·4
193·298 G	46	232	42	208	10·5	359·5	+18·0	−55·6
194·357 G	66	307	46	210	10·5	359·4	+18·0	−41·6
195·358 G	74	335	44	196	10·5	359·4	+18·0	−28·3
Group 7341—*continued.*								
1915.					°	°	°	°
196·375 C	97	405	52	216	10·2	359·0	+18·0	−15·2
197·317 G	83	410	44	213	10·2	359·0	+18·2	− 2·7
198·522 G	79	343	42	180	10·3	359·0	+18·1	+13·3
199·563 G	65	325	38	187	10·2	358·8	+18·3	+27·0
200·316 G	63	294	41	188	10·0	358·6	+17·9	+36·8
201·306 G	33	219	26	172	9·8	358·3	+17·9	+49·7
202·392 D	31	170	36	197	10·7	359·2	+17·7	+64·9
203·480 G	13	88	31	216	10·6	359·0	+17·8	+79·2
Means ..	..	..	40	200	10·32	359·07	+17·91	..
Group 7342. July 12–13. A small spot, *a*, forming near the West limb, *sp* Group 7336. Two fresh spots have formed, *n* and *np* of *a*, by July 13.								
192·487 G	6	8	5	10	138·6	145·1	−22·2	+61·8
193·298 G	8	54	18	108	138·8	145·4	−21·3	+72·7
Means ..	..	..	12	59	138·70	145·25	−21·75	..
Group 7343. July 12–25. Return of Group 7315. A large regular spot, *a*, with occasionally a very small companion.								
192·487 G	0	21	0	101	351·7	345·9	+18·8	−85·1
193·298 G	13	76	24	141	351·2	345·4	+18·9	−74·9
194·357 G	17	110	18	114	351·2	345·4	+18·8	−60·9
195·358 G	34	150	26	114	350·9	345·0	+18·7	−47·9
196·375 C	29	192	18	120	350·7	344·8	+18·6	−34·7
197·317 G	38	207	21	116	350·7	344·8	+18·7	−22·2
198·522 G	32	237	16	122	350·4	344·4	+18·8	− 6·6
199·563 G	30	220	15	114	350·1	344·1	+19·1	+ 6·9
200·316 G	35	232	19	125	350·0	344·0	+19·0	+16·8
201·306 G	25	192	15	114	350·0	344·0	+19·2	+29·9
202·392 D	25	114	18	82	351·0	344·9	+19·5	+45·2
203·480 G	11	80	10	79	350·8	344·7	+19·7	+59·4
204·299 G	9	44	13	62	350·2	344·1	+19·7	+69·7
205·304 G	0	27	0	86	349·5	343·3	+20·2	+82·3
Means ..	..	..	15	106	350·60	344·63	+19·12	..
Group 7346. July 15–16. A very small diffused marking *p* Group 7341 on July 15; a close pair of very small spots on July 16.								
195·358 G	0	9	0	6	20·4	15·3	+19·1	−18·4
196·375 C	6	17	3	9	20·8	15·7	+19·5	− 4·6
Means ..	..	..	2	8	20·60	15·50	+19·30	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7348.

July 16–27. Return of Group 7325. A large regular spot, *a*, followed by a number of small unstable spots widely scattered. *a* diminishes rapidly, and a small spot, *b*, has formed *p* it by July 22. *b*, now the leader, increases in size up to July 25, but diminishes later. In general the group has the form of a straight sparse stream.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Foreshortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
196·375 C	14	74	23	129	311·5	291·9	+16·0	−73·9
197·317 G	40	148	43	156	311·1	291·4	+16·4	−61·8
198·522 G	34	132	24	93	312·7	292·8	+16·2	−44·3
199·563 G	17	90	10	54	312·8	292·8	+16·4	−30·4
200·316 G	31	137	17	77	310·5	290·5	+16·9	−22·7
201·306 G	23	107	12	56	311·3	291·2	+16·4	− 8·8
202·392 D	22	49	11	24	314·3	294·1	+15·6	+ 8·5
203·480 G	20	36	12	20	314·0	293·7	+16·2	+22·6
204·299 G	50	103	30	63	313·6	293·2	+15·5	+33·1
205·304 G	66	123	27	91	315·1	294·6	+14·8	+47·9
206·336 G	26	109	28	113	315·4	294·8	+14·6	+61·8
207·480 G	1	9	3	22	316·9	296·2	+14·9	+78·4
Means ..	..	..	20	75	313·27	293·10	+15·83	..

Group 7350.

July 18–23. A very small spot between Groups 7341 and 7343, not seen on July 21 and 22.

198·522 G	0	4	0	2	1·1	354·9	+19·0	+ 4·1
199·563 G	5	19	3	10	0·6	354·4	+19·2	+17·4
200·316 G	0	8	0	5	0·6	354·4	+18·9	+27·4
201·306 G	0	0	0	0	..	..	..	..
202·392 D	0	0	0	0	..	..	..	..
203·480 G	0	9	0	12	357·6	351·3	+19·3	+66·2
Means ..	..	..	1	5	359·98	353·75	+19·10	..

Group 7351..

July 18–20. Two very small spots, *a* and *b*, on July 18. A third is seen on July 19. Only *b* remains on July 20.

198·522 G	13	21	7	12	0·0	20·1	−24·0	+ 3·0
199·563 G	6	30	4	18	0·0	20·2	−24·1	+16·8
200·316 G	4	5	3	3	358·4	18·6	−24·7	+25·2
Means ..	..	..	5	11	359·47	19·63	−24·27	..

Group 7352.

July 18–19. A very small spot *f* Group 7343. Groups 7346, 7341, 7345, 7350, 7343, and 7352 follow one another on a parallel of latitude.

198·522 G	0	17	0	9	344·8	346·0	+20·8	−12·2
199·563 G	1	2	1	1	342·8	344·0	+20·5	− 0·4
Means ..	..	..	1	5	343·80	345·00	+20·65	..

Group 7353.

July 19–20. A very small spot.

1915. d					°	°	°	°
199·563 G	0	4	0	3	303·7	300·7	−19·6	−39·5
200·316 G	0	20	0	13	303·5	300·5	−19·9	−29·7
Means ..	..	..	0	8	303·60	300·60	−19·75	..

Group 7354.

July 19–31. A magnificent and complex group undergoing much change. Four spots on July 19, *a*, *b*, *c*, *d*, of which *a*, the leader, is the largest and regular in form. The group by July 24 has become a very long, straight, and almost continuous stream, in which *e*, *f*, and *g* represent respectively the principal parts of *c*, *b*, and *d*. An active spot, *h*, forms *s* of *g* on July 25, and another, *j*, *s* of *a* on July 26, while *a* has divided into two, *k* and *l*, by July 27. After this the group breaks up. Only *g* remains in sight on July 31.

199·563 G	12	80	29	204	267·2	264·8	−20·2	−76·0
200·316 G	104	498	146	697	267·6	265·2	−20·2	−65·6
201·306 G	223	1222	200	1139	267·7	265·3	−20·3	−52·4
202·392 D	383	2114	271	1509	267·5	265·1	−20·1	−38·3
203·480 G	388	2009	237	1220	268·1	265·7	−19·9	−23·3
204·299 G	473	2309	269	1321	267·6	265·1	−19·8	−12·9
205·304 G	500	2421	278	1343	267·6	265·1	−19·5	+ 0·4
206·336 G	472	2395	270	1377	268·0	265·5	−19·9	+14·4
207·480 G	341	1741	222	1128	268·7	266·2	−20·0	+30·2
208·300 G	342	1433	259	1085	269·3	266·8	−19·9	+41·7
209·370 G	115	746	119	771	269·6	267·1	−19·7	+56·2
210·296 G	40	311	59	553	271·4	268·9	−19·1	+70·2
211·433 C	3	50	(8	116	260·5	258·0	−20·5)*	+74·3
Means ..	..	..	197	1029	268·36	265·90	−19·88	..

Group 7355.

July 20–23. Some very small markings between Groups 7353 and 7354, not seen on July 21 and 22.

200·316 G	1	7	1	6	290·9	300·1	−21·9	−42·3
201·306 G	0	0	0	0	..	..	..	..
202·392 D	0	0	0	0	..	..	..	..
203·480 G	1	19	1	11	291·1	300·5	−22·5	− 0·3
Means ..	..	..	1	4	291·00	300·30	−22·20	..

Group 7358.

July 21–27. Several spots, mostly small, in a sparse, long, straight stream. *a*, the rear spot, is the largest, but diminishes rapidly after July 24 and has disappeared by July 27.

201·306 G	6	41	12	80	247·7	241·3	−19·2	−72·4
202·392 D	42	154	45	168	247·0	240·5	−19·2	−58·8
203·480 G	40	160	31	126	246·6	240·1	−19·1	−44·8

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
Group 7358—*continued.*								
1915. d					°	°	°	°
204·299 G	58	223	37	151	245·0	238·5	−19·1	−35·5
205·304 G	36	118	21	70	245·5	238·9	−18·6	−21·7
206·336 G	26	60	16	35	246·5	239·9	−19·6	− 7·1
207·480 G	4	21	2	12	250·8	244·2	−18·5	+12·3
Means ..	..	..	23	92	247·01	240·49	−19·03	..
Group 7359. July 22–24. Two small spots.								
202·392 D	14	29	11	22	340·2	29·2	−30·8	+34·4
203·480 G	7	18	7	17	342·1	31·3	−27·9	+50·7
204·299 G	9	27	12	36	341·2	30·6	−28·3	+60·7
Means ..	..	..	10	25	341·17	30·37	−29·00	..
Group 7360. July 23–30. A few small spots in a sparse, straight stream. The group is not seen on July 29.								
203·480 G	7	22	7	22	234·8	233·4	−20·3	−56·6
204·299 G	8	37	8	30	233·3	331·9	−20·3	−47·2
205·304 G	7	13	5	8	234·0	232·6	−20·0	−33·2
206·336 G	35	89	21	52	234·0	232·6	−20·0	−19·6
207·480 G	22	66	13	37	233·9	232·4	−20·0	− 4·6
208·300 G	15	27	8	15	233·2	231·7	−20·0	+ 5·6
209·370 G	0	0	0	0	..	..	..	..
210·296 G	3	19	2	12	232·1	230·6	−20·1	+30·9
Means ..	..	..	8	22	233·61	232·17	−20·10	..
Group 7361. July 24–27. Two spots, *a* and *b*, with a very small companion on July 26.								
204·299 G	17	41	10	26	311·9	293·9	−16·6	+31·0
205·304 G	39	179	30	135	311·0	293·3	−16·4	+43·8
206·336 G	23	94	24	101	312·8	295·1	−16·7	+59·2
207·480 G	4	9	9	20	311·9	294·1	−16·5	+73·4
Means ..	..	..	18	71	311·80	294·10	−16·55	..
Group 7363. July 26–27. A very small spot.								
1915. d					°	°	°	°
206·336 G	0	3	0	3	208·8	247·4	−27·1	−44·8
207·480 G	1	3	1	2	208·8	247·6	−27·3	−29·7
Means ..	..	..	1	3	208·80	247·50	−27·20	..
Group 7364. July 26–August 7. A large regular spot, *a*, usually with several small companions preceding it.								
206·336 G	26	84	61	194	175·0	182·4	+21·8	−78·6
207·480 G	36	177	40	201	174·6	182·1	+21·7	−63·9
208·300 G	43	213	37	183	173·9	181·4	+21·8	−53·7
209·370 G	65	299	44	199	174·1	181·6	+22·0	−39·3
210·296 G	70	395	40	231	174·2	181·8	+22·0	−27·0
211·433 C	58	373	31	200	173·4	181·0	+22·2	−12·8
212·338 G	68	340	35	177	173·3	180·9	+22·3	− 0·9
213·430 G	61	289	33	156	173·1	180·8	+22·0	+13·3
214·277 D	61	253	35	144	173·1	180·8	+22·0	+24·6
215·689 G	36	173	25	121	172·9	180·7	+21·8	+43·0
216·312 G	28	166	23	134	172·7	180·5	+21·6	+51·1
217·633 G	8	83	11	110	172·7	180·5	+21·4	+68·5
218·701 G	6	26	20	83	172·4	180·3	+21·1	+82·3
Means ..	..	..	33	164	173·49	181·14	+21·82	..
Group 7365. July 27–August 5. An irregular stream, of which *a* and *b*, the first and last spots, are the largest. *a* has broken up by July 29, *c* being its largest and most stable fragment. *b*, now a very small spot, alone remains of the original group on August 5.								
207·480 G	27	102	54	200	162·3	154·4	+18·4	−76·2
208·300 G	57	204	68	241	163·2	155·3	+18·0	−64·4
209·370 G	72	290	58	237	161·2	153·2	+18·2	−52·2
210·296 G	73	281	48	186	161·3	153·3	+18·2	−39·9
211·433 C	43	184	24	105	160·6	152·6	+18·4	−25·6
212·338 G	44	177	24	93	159·9	151·8	+18·4	−14·3
213·430 G	45	173	24	89	160·0	151·9	+18·5	+ 0·2
214·277 D	23	98	12	51	158·9	150·8	+19·1	+10·4
215·689 G	8	32	5	19	157·6	149·4	+19·4	+27·7
216·312 G	1	17	1	10	156·6	148·4	+21·0	+35·0
Means ..	..	..	32	123	160·16	152·11	+18·76	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
Group 7366. July 28–30. A small regular spot, *a*.								
1915. d					°	°	°	°
208·300 G	0	6	0	12	156·3	143·8	−18·0	−71·3
209·370 G	0	8	0	8	157·8	145·2	−17·7	−55·6
210·296 G	6	8	5	6	158·5	145·9	−17·7	−42·7
Means ..	..	..	2	9	157·53	144·97	−17·80	..
Group 7367. July 29–August 1. Return of Group 7342. A small regular spot, *a*.								
209·370 G	5	7	9	12	144·4	146·7	−20·8	−69·0
210·296 G	4	8	4	9	144·2	146·5	−20·8	−57·0
211·433 C	0	7	0	5	144·2	146·5	−21·0	−42·0
212·338 G	3	8	2	6	142·7	145·0	−20·7	−31·5
Means ..	..	..	4	8	143·88	146·18	−20·83	..
Group 7368. July 29–August 10. A very large and complex spot, *a*, closely followed by a numerous train, of which *b*, *c*, *d*, *e*, and *f* are the principal members. The group lengthens out into a very long, straight stream, and *a* breaks up into four chief spots, *g*, *h*, *j*, and *k*. A large regular spot, *l*, has formed at the head of the stream by August 4, and another, *m*, near its rear by August 6. After this the group rapidly diminishes, and consists of three widely separated divisions by August 8, of which only the last remains in sight on August 10.								
209·370 G	22	244	(59	710	135·5	121·3	−17·2)*	−77·9
210·296 G	147	804	225	1258	132·9	118·6	−17·2	−68·3
211·433 C	321	1813	301	1694	133·0	118·6	−17·5	−53·2
212·338 G	392	2400	288	1773	132·6	118·2	−17·5	−41·6
213·430 G	586	3272	364	1901	133·1	118·6	−17·6	−26·7
214·277 D	459	2983	261	1701	133·1	118·5	−17·7	−15·4
215·689 G	462	2271	257	1259	134·4	119·7	−17·5	+ 4·5
216·312 G	570	2216	322	1251	133·8	119·1	−17·5	+12·2
217·633 G	315	1721	201	1091	132·9	118·1	−17·3	+28·7
218·701 G	187	1070	147	851	135·5	120·6	−17·1	+45·4
219·501 G	99	426	102	449	136·8	121·9	−17·2	+57·3
220·405 C	34	217	46	356	136·5	121·5	−17·5	+69·0
221·384 G	0	12	(0	22	126·9	121·8	−17·1)*	+72·3
Means ..	..	..	229	1235	134·05	119·40	−17·42	..
Group 7370. July 30–August 1. Revival of Group 7340. A disturbed region *f* Group 7365, in which some very small markings are seen. The group is not seen on July 31.								
210·296 G	0	30	0	23	152·1	161·1	+21·9	−49·1
211·433 C	0	0	0	0	..	..	..	..
212·338 G	1	8	1	5	152·3	161·4	+22·3	−21·9
Means ..	..	..	0	9	152·20	161·25	+22·10	..
Group 7374. August 1–5. A very small marking *sf* Group 7365, not seen on August 2, 3, and 4.								
1915. d					°	°	°	°
212·338 G	1	3	1	2	150·7	140·1	+17·7	−23·5
213·430 G	0	0	0	0	..	..	..	..
214·277 D	0	0	0	0	..	..	..	..
215·689 G	0	0	0	0	..	..	..	..
216·312 G	3	11	2	6	152·4	141·6	+18·8	+30·8
Means ..	..	..	1	2	151·55	140·85	+18·25	..
Group 7377. August 3–5. Three very small spots. The leader, *a*, alone remains on August 5.								
214·277 D	5	16	3	9	162·3	150·7	−17·9	+13·8
215·689 G	17	27	11	18	163·0	151·4	−18·3	+33·1
216·312 G	1	5	1	4	163·7	152·0	−18·0	+42·1
Means ..	..	..	5	10	163·00	151·37	−18·07	..
Group 7379. August 4–10. A sparse, straight stream *sf* Group 7368, and nearly in contact with it. The principal spot, *a*, is in the middle of the group, and is a large regular spot, with double nucleus on August 5. The following part of the group, *c*, has disappeared by August 9, and the preceding part, *b*, by August 10, leaving *a* alone.								
215·689 G	53	132	31	80	120·0	145·5	−24·5	− 9·9
216·312 G	89	369	51	216	120·9	146·4	−24·9	− 0·7
217·633 G	68	162	43	100	121·3	147·0	−24·7	+17·1
218·701 G	38	114	25	78	121·1	146·9	−24·5	+31·0
219·501 G	26	64	22	51	120·8	146·7	−24·8	+41·3
220·405 C	9	21	9	24	123·9	149·9	−25·4	+56·4
221·384 G	6	13	11	21	122·2	148·3	−25·2	+67·6
Means ..	..	..	27	81	121·46	147·24	−24·86	..
Group 7380. August 4–9. A very small spot, not seen on August 5, 6, 7, or 8.								
215·689 G	3	8	2	5	105·1	53·8	+ 6·3	−24·8
216·312 G	0	0	0	0	..	..	..	..
217·633 G	0	0	0	0	..	..	..	..
218·701 G	0	0	0	0	..	..	..	..
219·501 G	0	0	0	0	..	..	..	..
220·405 C	0	7	0	4	107·2	54·7	+ 5·0	+39·7
Means ..	..	..	0	2	106·15	54·25	+ 5·65	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time. and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		

Group 7381.

August 4–6. A pair of very small markings, *a* and *b*, on August 4. The group is not seen on August 5, but *a* is visible on August 6.

1915. d					°	°	°	°
215·689 G	2	6	1	4	98·7	95·7	−19·8	−31·2
216·312 G	0	0	0	0	..	..	..	..
217·633 G	2	14	1	8	100·1	97·1	−19·8	− 4·1
Means ..	..	..	1	4	99·40	96·40	−19·80	..

Group 7382.

August 7–9. A small marking on August 7. Nothing is seen on August 8, but two small spots are visible on August 9.

218·701 G	1	2	1	2	141·5	106·5	+12·4	+51·4
219·501 G	0	0	0	0	..	..	..	..
220·405 C	3	16	5	26	140·9	105·6	+12·5	+73·4
Means ..	..	..	2	9	141·20	106·05	+12·45	..

Group 7383.

August 7–8. A very small spot.

218·701 G	0	6	0	10	20·7	350·5	−13·7	−69·4
219·501 G	3	4	3	4	20·7	350·4	−13·8	−58·8
Means ..	..	..	2	7	20·70	350·45	−13·75	..

Group 7384.

August 7–19. Return of Group 7341. Third apparition. A large regular spot, *a*, sometimes with one or two distant attendants.

218·701 G	13	68	32	173	10·0	358·6	+18·0	−80·1
219·501 G	13	99	17	136	9·8	358·4	+18·0	−69·7
220·405 C	20	140	18	128	10·2	358·7	+18·0	−57·3
221·384 G	27	189	20	134	10·2	358·7	+17·9	−44·4
222·332 G	35	224	21	134	9·8	358·2	+17·8	−32·3
223·600 G	40	222	21	116	9·7	358·1	+18·0	−15·6
224·322 G	42	233	22	120	9·2	357·6	+18·2	− 6·6
225·325 G	45	203	23	104	9·0	357·3	+18·2	+ 6·5
226·340 G	32	183	17	98	8·7	356·9	+18·2	+19·6
227·616 G	27	141	17	88	8·1	356·3	+18·3	+35·9
228·316 G	24	139	17	98	8·1	356·2	+18·3	+45·1
229·554 G	14	96	14	98	8·1	356·2	+18·5	+61·5
230·418 G	6	59	10	92	7·8	355·8	+18·8	+72·6
Means ..	..	..	19	117	9·13	357·46	+18·17	..

Group 7385.

August 9–11. A small spot, not seen on August 10.

1915. d					°	°	°	°
220·405 C	6	15	5	12	119·6	126·9	+21·7	+52·1
221·384 G	0	0	0	0	..	..	..	..
222·332 G	0	4	0	8	118·2	125·5	+21·7	+76·1
Means ..	..	..	2	7	118·90	126·20	+21·70	..

Group 7388.

August 10–14. A few very small spots in a sparse stream, not seen on August 11.

221·384 G	7	11	5	7	28·2	61·4	−25·5	−26·4
222·332 G	0	0	0	0	..	..	..	..
223·600 G	7	28	5	17	25·7	59·2	−25·7	+ 0·4
224·322 G	12	39	7	24	25·3	58·9	−26·2	+ 9·5
225·325 G	12	28	8	18	26·7	60·5	−26·4	+24·2
Means ..	..	..	5	13	26·48	60·00	−25·95	..

Group 7390.

August 10–16. A small regular spot, *a*. A spot is seen on August 16 which appears to be a new formation near the place of *a*.

221·384 G	6	12	17	31	340·8	35·7	−29·5	−73·8
222·332 G	3	12	4	16	341·5	36·6	−29·4	−60·6
223·600 G	0	17	0	15	341·0	36·5	−29·4	−44·3
224·322 G	7	12	6	9	340·5	36·1	−29·2	−35·3
225·325 G	4	13	3	8	340·1	36·0	−29·3	−22·4
226·340 G	6	7	4	5	339·3	35·4	−29·4	− 9·8
227·616 G	2	9	1	6	338·1	34·5	−28·1	+ 5·9
Means ..	..	..	5	13	340·19	35·83	−29·19	..

Group 7391.

August 11–15. A small spot, *a*, moving forward in longitude, and usually attended by some very small companions.

222·332 G	3	8	2	5	59·6	45·4	−17·9	+17·5
223·600 G	12	23	7	16	59·7	45·4	−18·0	+34·4
224·322 G	8	40	7	31	59·7	45·3	−17·7	+43·9
225·325 G	7	28	9	32	61·6	47·2	−17·4	+59·1
226·340 G	0	7	0	14	61·7	47·2	−17·0	+72·6
Means ..	..	..	5	20	60·46	46·10	−17·60	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7392.

August 12–17. Two small spots, *a* and *b*, on August 12. Both *a* and *b* have greatly increased by August 13, and a small spot has formed between them. *a* and *b* then diminish rapidly. Some very small spots form in the neighbourhood, and one of these last, *c*, alone remains on August 17.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
223·600 G	12	24	10	19	339·6	341·4	−20·6	−45·7
224·322 G	68	125	48	88	338·7	340·5	−20·4	−37·1
225·325 G	11	48	7	30	339·2	341·0	−20·3	−23·3
226·340 G	6	38	3	22	340·0	341·8	−19·5	− 9·1
227·616 G	4	12	2	6	337·1	338·9	−21·4	+ 4·9
228·316 G	2	6	1	4	336·6	338·4	−22·0	+13·6
Means ..	..	..	12	28	338·53	340·33	−20·70	..

Group 7393.

August 15–26. Return of group 7354. A compact cluster gradually condensing into two large composite spots, *a* and *b*, almost in contact with each other, and a few smaller but close companions.

226·340 G	14	125	29	266	275·9	263·9	−18·2	−73·2
227·616 G	59	230	59	235	276·1	264·0	−18·2	−56·1
228·316 G	50	344	42	285	275·8	263·7	−18·2	−47·2
229·554 G	113	524	72	338	275·8	263·6	−18·0	−30·8
230·418 G	125	758	74	445	276·2	264·0	−17·8	−19·0
231·378 G	204	985	113	549	276·5	264·2	−17·7	− 6·0
232·434 G	150	1062	84	593	276·3	264·0	−17·8	+ 7·8
233·457 C	169	981	101	584	276·1	263·7	−18·1	+21·1
234·588 G	116	643	79	442	276·0	263·6	−18·1	+35·9
235·523 G	145	431	123	369	276·1	263·6	−18·2	+48·4
236·393 G	80	269	92	310	276·0	263·5	−18·4	+59·8
237·360 G	38	160	72	318	275·3	262·7	−18·6	+71·9
Means ..	..	..	78	395	276·01	263·71	−18·11	..

Group 7394.

August 16–20. A small spot, *a*, sometimes followed by a train of very small unstable spots.

227·616 G	9	50	5	26	336·3	322·4	+18·3	+ 4·1
228·316 G	4	7	2	4	338·9	325·0	+18·1	+15·9
229·554 G	2	5	1	3	338·9	324·9	+17·7	+32·3
230·418 G	23	50	16	35	338·2	324·1	+17·3	+43·0
231·378 G	3	19	3	17	338·5	324·4	+17·2	+56·0
Means ..	..	..	5	17	338·16	324·16	+17·72	..

Group 7396.

August 16–17. A very small marking.

1915. d					°	°	°	°
227·616 G	3	4	2	3	329·0	40·7	−31·2	− 3·2
228·316 G	2	5	1	3	329·3	41·2	−31·3	+ 6·3
Means ..	..	..	2	3	329·15	40·95	−31·25	..

Group 7397.

August 16–26. An irregular cluster of small spots, of which *a* and *b* speedily develop and become the leader and rearguard of a stream of normal type. The centre of the group soon dies out, leaving *a*, a large regular spot, followed at a great distance by a few very small unstable spots. *a* has passed out of sight at the West limb on August 26.

227·616 G	22	40	17	31	281·3	256·7	+15·8	−50·9
228·316 G	23	78	15	52	281·0	256·3	+15·7	−42·0
229·554 G	99	230	55	127	281·9	257·1	+15·4	−24·7
230·418 G	96	400	48	206	282·0	257·1	+15·6	−13·2
231·378 G	82	374	42	190	283·0	258·0	+15·5	+ 0·5
232·434 G	42	282	22	149	285·6	260·5	+15·1	+17·1
233·457 C	33	183	20	109	288·5	263·3	+14·9	+33·5
234·588 G	33	180	24	132	286·4	261·1	+15·6	+46·3
235·523 G	40	164	36	152	285·4	260·0	+15·2	+57·7
236·393 G	20	94	25	126	285·3	259·8	+15·5	+69·1
237·360 G	3	38	(8	85	281·9	256·3	+15·6)*	+78·5
Means ..	..	..	30	127	284·04	258·99	+15·43	..

Group 7398.

August 16–22. A pair of very small spots, *a* and *b*, *a* has divided into two, *c* and *d*, by August 18, and other very small spots having formed, the group has become a sparse stream, of which only *c* remains on August 21. A pair of very small markings are seen on August 22

227·616 G	4	9	4	8	279·5	224·2	+ 5·5	−52·7
228·316 G	25	46	17	31	279·6	224·1	+ 5·4	−43·4
229·554 G	53	120	30	67	279·6	223·8	+ 5·2	−27·0
230·418 G	33	77	16	39	280·3	224·3	+ 5·1	−14·9
231·378 G	18	29	9	14	283·9	227·7	+ 4·3	+ 1·4
232·434 G	4	10	2	5	285·0	228·5	+ 4·1	+16·5
233·457 C	2	22	1	12	282·7	226·0	+ 4·7	+27·7
Means ..	..	..	11	25	281·51	225·51	+ 4·90	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7400.

August 19–21. A small spot, *a*, followed on August 20 by a very small companion.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
230·418 G	0	6	0	4	302·9	330·1	−25·1	+ 7·7
231·378 G	15	23	9	14	303·2	330·5	−24·7	+20·7
232·434 G	3	8	2	6	303·4	330·8	−24·8	+34·9
Means ..	..	..	4	8	303·17	330·47	−24·87	..

Group 7401.

August 21–22. A few small spots, seen only near the West limb.

232·434 G	23	37	21	33	325·1	312·6	+17·6	+56·6
233·457 C	12	50	15	71	325·3	312·7	+18·5	+70·3
Means ..	..	..	18	52	325·20	312·65	+18·05	..

Group 7403.

August 22–23. A small spot, *a*, preceded on August 22 by two others.

233·457 C	8	37	7	31	294·3	345·0	−28·4	+39·3
234·588 G	2	7	1	8	291·9	342·8	−28·0	+51·8
Means ..	..	..	4	20	293·10	343·90	−28·20	..

Group 7405.

August 23–26. Two small spots, *a* and *b*.

234·588 G	20	31	11	17	220·2	229·6	+22·0	−19·9
235·523 G	28	41	15	21	220·4	229·8	+21·5	− 7·3
236·393 G	18	44	9	23	219·4	228·9	+22·1	+ 3·2
237·360 G	6	21	4	11	218·7	228·2	+22·3	+15·3
Means ..	..	..	10	18	219·68	229·13	+21·98	..

Group 7406.

August 23–September 3. A fine stream, of which, *a*, the leader, is the largest member. The two last spots, *b* and *c*, on August 24, are a close pair, which have coalesced to form a double spot, *d*, by August 26, but *b* and *c* are again distinct spots by August 27. Only *c* remains in sight on September 3.

234·588 G	84	257	72	221	185·8	197·5	+21·8	−54·3
235·523 G	173	640	119	439	185·6	197·4	+21·7	−42·1
236·393 G	199	1008	119	605	185·5	197·3	+21·7	−30·7
237·360 G	230	1037	124	565	185·8	197·7	+21·9	−17·6
238·394 G	249	1041	130	540	186·3	198·2	+22·3	− 3·5

Group 7406—*continued.*

1915. d					°	°	°	°
239·379 G	206	894	109	475	186·6	198·6	+22·7	+ 9·8
240·437 C	142	783	81	445	186·7	198·7	+22·8	+23·9
241·445 G	98	524	63	340	186·7	198·8	+23·0	+37·2
242·675 G	88	423	74	357	186·1	198·2	+22·8	+52·9
243·509 G	51	278	56	313	186·5	198·7	+22·7	+64·3
244·358 C	40	213	70	383	186·6	198·8	+22·9	+75·6
245·424 G	0	37	(0	123	180·2	192·5	+21·7)*	+83·3
Means ..	..	..	92	426	186·20	198·17	+22·39	..

Group 7407.

August 24–September 5. A large regular spot, *a*, occasionally with some very small companions.

235·523 G	7	69	22	209	150·0	131·9	−18·0	−77·7
236·393 G	16	83	23	123	149·4	131·2	−17·7	−66·8
237·360 G	23	126	22	122	149·6	131·3	−17·4	−53·8
238·394 G	24	141	17	102	149·7	131·3	−17·3	−40·1
239·379 G	25	178	16	110	149·6	131·2	−16·9	−27·2
240·437 C	43	214	25	121	149·3	130·8	−17·2	−13·5
241·445 G	31	166	17	91	149·3	130·7	−16·7	− 0·2
242·675 G	26	134	15	77	148·7	130·0	−16·5	+15·5
243·509 G	28	150	17	92	148·6	129·8	−16·5	+26·4
244·358 C	23	165	16	115	148·7	129·9	−16·7	+37·7
245·424 G	15	95	13	85	148·3	129·4	−16·6	+51·4
246·383 G	15	67	19	88	148·3	129·3	−16·7	+64·1
247·557 G	0	21	0	71	147·9	128·8	−16·7	+79·1
Means ..	..	..	17	108	149·03	130·43	−16·99	..

Group 7408.

August 26–28. A very small spot *nf* Group 7406, on August 26; a small pair, *a*, followed on August 27 by a small spot, *b*, at a considerable distance. A sparse stream on August 28.

237·360 G	5	6	3	5	166·8	191·5	+24·8	−36·6
238·394 G	24	43	14	24	167·0	191·8	+24·2	−22·8
239·379 G	23	45	12	24	166·3	191·2	+24·1	−10·5
Means ..	..	..	10	18	166·70	191·50	+24·37	..

Group 7411.

August 28–September 10. A very large composite spot, *a*, with some small companions. *a* breaks up after September 3, the chief portions being *b*, a regular spot leading the group, and *c*, a large composite spot in the centre. *c* again has broken up by September 5, its two chief portions being *d* and *e*. Only *e* is in sight on September 10.

239·379 G	35	160	135	614	92·0	111·4	+22·9	−84·8
240·437 C	64	441	97	662	90·9	110·4	+22·9	−71·9

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7411—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
241·445 G	108	606	104	582	90·8	110·4	+22·8	−58·7
242·675 G	144	726	101	513	89·9	109·6	+23·6	−43·3
243·509 G	192	904	119	555	89·8	109·5	+23·5	−32·4
244·358 C	197	1013	109	563	89·9	109·7	+23·5	−21·1
245·424 G	191	937	100	485	89·7	109·6	+23·6	− 7·2
246·383 G	182	905	94	470	89·6	109·6	+23·6	+ 5·4
247·557 G	148	652	81	359	89·8	109·9	+23·4	+21·0
248·366 G	139	491	85	298	89·5	109·6	+23·4	+31·4
249·402 G	107	311	78	225	89·6	109·8	+23·8	+45·2
250·370 G	52	181	48	166	88·8	109·1	+23·9	+57·2
251·448 G	22	85	29	115	86·8	107·2	+24·2	+69·4
252·355 G	4	32	10	74	84·8	105·2	+24·3	+79·4
Means ..	..	..	85	406	89·42	109·36	+23·53	..

Group 7412.

August 29–September 2. A very small marking *sf* Group 7407, not seen on August 30.

240·437 C	0	10	0	6	142·7	134·8	−19·6	−20·1
241·445 G	0	0	0	0	..	..	..	..
242·675 G	1	5	1	3	141·6	133·6	−17·8	+ 8·4
243·509 G	8	12	5	8	142·8	134·8	−19·1	+20·6
244·358 C	1	14	1	10	142·5	134·4	−19·4	+31·5
Means ..	..	..	1	5	142·40	134·40	−18·98	..

Group 7413.

August 29–September 1. An area of feeble disturbance.

240·437 C	0	9	0	7	120·0	122·6	−20·4	−42·8
241·445 G	4	10	3	7	125·7	128·4	−21·3	−23·8
242·675 G	7	19	4	10	125·7	128·4	−21·0	− 7·5
243·509 G	2	5	1	3	126·1	128·8	−20·6	+ 3·9
Means ..	..	..	2	7	124·38	127·05	−20·83	..

Group 7414.

August 30–31. A small spot, seen only near the West limb.

241·445 G	0	12	0	15	210·2	207·3	−19·3	+60·7
242·675 G	0	27	0	67	211·9	209·0	−20·5	+78·7
Means ..	..	..	0	41	211·05	208·15	−19·90	..

Group 7415.

August 30–September 2. A small composite spot, *a*, preceded on August 30 by a very small companion; not seen on September 1.

1915. d					°	°	°	°
241·445 G	15	31	9	20	170·7	217·1	−28·0	+21·2
242·675 G	0	2	0	2	169·2	215·8	−27·9	+36·0
243·509 G	0	0	0	0	..	..	..	..
244·358 C	0	7	0	8	170·9	217·8	−26·2	+59·9
Means ..	..	..	2	8	170·27	216·90	−27·37	..

Group 7416.

August 30–September 1. A small spot, not seen on August 31.

241·445 G	0	2	0	1	137·3	112·7	−15·4	−12·2
242·675 G	0	0	0	0	..	..	..	..
243·509 G	3	10	2	6	137·8	113·0	−16·1	+15·6
Means ..	..	..	1	2	137·55	112·85	−15·75	..

Group 7418.

August 30–September 10. A large regular spot, *a*, sometimes preceded by a very small companion.

241·445 G	22	173	44	349	76·7	55·9	−15·9	−72·8
242·675 G	53	293	55	302	76·3	55·4	−15·9	−56·9
243·509 G	80	374	64	295	76·6	55·7	−16·0	−45·6
244·358 C	86	422	57	281	76·8	55·8	−16·4	−34·2
245·424 G	110	560	64	325	77·1	56·0	−16·5	−19·8
246·383 G	83	509	46	281	77·3	56·1	−16·8	− 6·9
247·557 G	94	485	52	268	77·5	56·2	−16·8	+ 8·7
248·366 G	76	447	44	260	77·4	56·0	−16·8	+19·3
249·402 G	78	390	51	255	77·1	55·7	−16·8	+32·7
250·370 G	60	331	48	264	77·4	55·9	−16·9	+45·8
251·448 G	35	230	41	267	78·0	56·4	−17·0	+60·6
252·355 G	23	156	45	311	77·7	56·0	−17·0	+72·3
Means ..	..	..	51	288	77·16	55·93	−16·57	..

Group 7420.

September 1–12. Perhaps connected with Group 7391. A regular spot, *a*, diminishing rapidly and disappearing before September 5. *a* revives again after September 6, with companions to the north, making up a feeble stream, mostly collected into two small clusters, *b* and *c*. *b* coalesces to form a regular spot.

243·509 G	6	52	12	99	51·1	37·2	−19·2	−71·1
244·358 C	17	106	19	121	51·8	37·9	−19·0	−59·2
245·424 G	16	94	13	75	51·9	37·9	−18·6	−45·0

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7420—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
246·383 G	18	33	12	22	51·7	37·7	−18·9	−32·5
247·557 G	0	0	0	0	..	..	..	..
248·366 G	0	0	0	0	..	..	..	..
249·402 G	58	135	32	75	52·3	38·1	−16·7	+ 7·9
250·370 G	61	124	35	73	51·4	37·1	−17·1	+19·8
251·448 G	71	122	47	83	52·1	37·8	−17·5	+34·7
252·355 G	45	144	38	120	52·9	38·5	−17·8	+47·5
253·413 G	7	64	7	77	52·6	38·2	−17·9	+61·2
254·455 C	0	4	0	11	53·1	38·6	−16·5	+75·5
Means ..	..	..	18	63	52·09	37·90	−17·92	..

Group 7423.

September 3–6. A wide area of feeble disturbance in which small unstable markings appear irregularly.

245·424 G	4	19	4	18	44·3	34·0	−18·3	−52·6
246·383 G	8	27	6	21	42·4	32·1	−19·1	−41·8
247·557 G	2	10	1	6	48·5	38·1	−18·3	−20·3
248·366 G	6	19	4	10	48·3	37·9	−18·7	− 9·8
Means ..	..	..	4	14	45·88	35·53	−18·60	..

Group 7424.

September 3–15. A large regular spot, *a*, gradually becoming elliptical. It develops quickly after September 6, and is usually followed by several small companions in a long sparse stream.

245·424 G	5	15	23	64	16·9	28·7	−22·4	−80·0
246·383 G	12	99	21	171	15·8	27·6	−22·5	−68·4
247·557 G	32	138	32	130	18·1	30·0	−22·2	−50·7
248·366 G	56	159	44	119	19·6	31·5	−22·7	−38·5
249·402 G	112	359	71	227	20·6	32·6	−22·5	−23·8
250·370 G	119	465	71	273	20·5	32·5	−22·2	−11·1
251·448 G	70	379	40	218	20·4	32·5	−22·1	+ 3·0
252·355 G	62	362	37	215	19·6	31·7	−21·8	+14·2
253·413 G	69	386	45	251	18·9	31·1	−22·0	+27·5
254·455 C	63	301	49	234	18·1	30·3	−22·3	+40·5
255·501 G	25	128	25	131	18·1	30·4	−22·5	+54·2
256·490 C	20	87	33	142	18·1	30·4	−22·4	+67·3
257·355 G	0	30	0	108	17·7	30·1	−22·2	+78·3
Means ..	..	..	38	176	18·65	30·72	−22·29	..

Group 7425.

September 4–6. A wide area of disturbance near the west limb in which some small spots form of which *a*, seen on September 5 and 6, is the most stable.

1915. d					°	°	°	°
246·383 G	2	15	1	11	120·8	138·3	−20·5	+36·6
247·557 G	2	12	2	13	122·5	140·1	−23·9	+53·7
248·366 G	9	26	15	40	123·2	140·8	−25·1	+65·1
Means ..	..	..	6	21	122·17	139·73	−23·17	..

Group 7426.

September 6–9. A very small marking *sp* the place of Group 7420, not seen on September 7 and 8.

248·366 G	4	12	2	7	57·9	55·2	−20·3	− 0·2
249·402 G	0	0	0	0	..	..	..	..
250·370 G	0	0	0	0	..	..	..	..
251·448 G	1	7	1	5	57·4	54·6	−19·6	+40·0
Means ..	..	..	1	3	57·65	54·90	−19·95	..

Group 7428.

September 7–8. A very small marking *sf* Group 7418.

249·402 G	1	2	1	1	70·5	107·4	−25·7	+26·1
250·370 G	1	4	1	3	70·5	107·6	−26·1	+38·9
Means ..	..	..	1	2	70·50	107·50	−25·90	..

Group 7430.

September 7–9. A small marking, not seen on September 8.

249·402 G	3	10	2	7	6·5	351·0	+17·6	−37·9
250·370 G	0	0	0	0	..	..	..	..
251·448 G	2	25	1	13	7·5	351·9	+17·8	− 9·9
Means ..	..	..	1	7	7·00	351·45	+17·70	..

Group 7431.

September 8–9. A very small spot *f* Group 7424.

250·370 G	5	16	3	10	9·7	19·5	−21·8	−21·9
251·448 G	2	4	1	2	9·9	19·7	−22·1	− 7·5
Means ..	..	..	2	6	9·80	19·60	−21·95	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7436.

September 10–22. A wide area of disturbance in which a number of very small unstable spots and markings are seen. A pair of small regular spots, *a* and *b*, have formed near the head of the group by September 17, and the group develops into a well-marked stream.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
252·355 G	0	5	0	8	294·3	246·6	+ 9·7	−71·1
253·413 G	11	30	11	30	291·1	243·2	+ 9·7	−60·3
254·455 C	17	48	11	34	292·0	243·9	+10·2	−45·6
255·501 G	18	45	10	26	294·1	245·8	+10·1	−29·8
256·490 C	18	36	10	19	293·8	245·3	+11·3	−17·0
257·355 G	9	48	5	24	294·0	245·4	+10·3	− 5·4
258·546 G	23	139	12	70	294·1	245·2	+10·5	+10·4
259·447 G	76	271	43	148	293·8	244·8	+10·7	+22·1
260·385 G	134	442	82	271	294·5	245·3	+10·7	+35·1
261·416 G	68	352	50	268	295·1	245·7	+11·0	+49·3
262·358 G	55	222	57	234	295·5	245·9	+10·5	+62·2
263·348 G	26	254	48	464	295·3	245·5	+10·3	+75·0
264·342 G	0	40	(0	146	290·4	240·4	+11·1)*	+83·3
Means ..	..	..	28	133	293·97	245·22	+10·42	..

Group 7438.

September 12–16. Return of Group 7397. A few very small spots *nf* Group 7436, not seen on September 13 and 15.

254·455 C	2	9	2	7	283·8	268·0	+17·7	−53·8
255·501 G	0	0	0	0	..	..	..	..
256·490 C	2	21	2	13	283·5	267·6	+17·3	−27·3
257·355 G	0	0	0	0	..	..	..	..
258·546 G	0	39	0	20	284·5	268·5	+18·0	+ 0·8
Means ..	..	..	1	8	283·93	268·03	+17·67	..

Group 7439.

September 13–16. A very small spot, *a*, on September 13. A few small markings appear preceding it on the following days.

255·501 G	2	5	2	4	282·6	358·7	−30·6	−41·3
256·490 C	10	28	7	20	284·4	0·8	−30·7	−26·4
257·355 G	6	23	4	15	283·5	0·2	−30·6	−15·9
258·546 G	0	8	0	5	282·3	359·3	−31·0	− 1·4
Means ..	..	..	3	11	283·20	359·75	−30·73	..

Group 7440.

September 13–14. A small spot with a faint companion on September 13. Two very small markings on September 14.

1915. d					°	°	°	°
255·501 G	6	18	7	19	274·9	13·8	−33·9	−49·0
256·490 C	1	8	1	7	275·4	14·7	−32·9	−35·4
Means ..	..	..	4	13	275·15	14·25	−33·40	..

Group 7445.

September 17–26. Return of Group 7406. A regular spot, *a*, which diminishes rapidly. One or two small companions are seen occasionally.

259·447 G	5	26	21	105	186·4	195·7	+21·6	−85·3
260·385 G	11	56	18	87	186·7	196·1	+21·7	−72·7
261·416 G	12	89	12	87	186·1	195·5	+21·5	−59·7
262·358 G	18	98	13	74	185·6	195·0	+21·5	−47·7
263·348 G	15	106	10	66	185·2	194·7	+21·5	−35·1
264·342 G	21	78	12	44	184·9	194·4	+21·6	−22·2
265·389 C	12	41	7	21	184·4	194·0	+21·9	− 8·9
266·418 G	12	52	7	27	183·6	193·2	+22·3	+ 3·9
267·404 G	1	13	1	7	183·1	192·7	+22·8	+16·4
268·463 G	1	5	1	3	183·0	192·7	+21·7	+30·3
Means ..	..	..	10	52	184·90	194·40	+21·81	..

Group 7446.

September 20–October 2. A fine irregular stream in continual change. Two large composite spots, *a* and *b*, are near the head of the group, and soon coalesce to form a very large composite spot, *d*, though *a* and *b* are sometimes for the sake of convenience still measured separately. A large, but faint, double spot, *c*, forms the rear of the group, and a number of small unstable spots surround the chief spots on all sides.

262·358 G	7	28	32	122	148·3	100·8	+11·6	−85·0
263·348 G	104	421	167	679	147·4	99·7	+11·1	−72·9
264·342 G	208	888	206	867	147·1	99·3	+11·0	−60·0
265·389 C	303	1418	214	1002	147·6	99·6	+10·9	−45·7
266·418 G	359	1513	212	890	147·7	99·5	+10·8	−32·0
267·404 G	395	1930	210	1020	147·7	99·3	+11·0	−19·0
268·463 G	360	1765	183	891	147·6	99·0	+10·7	− 5·1
269·269 D	254	1318	131	670	148·1	99·4	+10·7	+ 6·0
270·327 C	305	1335	164	714	148·4	99·5	+10·5	+20·3
271·492 G	224	1057	138	650	148·5	99·4	+10·9	+35·7
272·503 C	186	868	143	665	148·9	99·6	+11·2	+49·5
273·610 G	108	542	121	609	149·3	99·8	+11·4	+64·5
274·446 C	37	277	68	512	149·0	99·3	+11·1	+75·2
Means ..	..	..	153	715	148·12	99·55	+10·99	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
Group 7448. September 24–28. A wide area of feeble disturbance in which several small unstable spots are seen from time to time. No spots are seen on September 27.								
1915. d					°	°	°	°
266·418 G	4	24	4	26	115·2	105·3	+18·6	−64·5
267·404 G	9	36	7	28	116·7	106·8	+18·7	−50·0
268·463 G	24	64	15	41	116·0	106·1	+19·2	−36·7
269·269 D	0	0	0	0	..	..	..	..
270·327 C	7	35	3	18	121·3	111·3	+18·8	− 6·8
Means ..	..	..	6	23	117·30	107·38	+18·83	..
Group 7449. September 26–28. A small regular spot, *a*, with one or two very small followers.								
268·463 G	13	45	8	29	129·8	152·9	−23·7	−22·9
269·269 D	9	28	5	17	129·7	152·9	−23·8	−12·4
270·327 C	5	8	3	4	132·5	155·7	−23·6	+ 4·4
Means ..	..	..	5	17	130·67	153·83	−23·70	..
Group 7450. September 26–October 7. Return of Group 7418. A large regular spot, *a*, with occasionally a small companion.								
268·463 G	19	88	37	166	81·0	55·2	−16·5	−71·7
269·269 D	35	159	41	188	80·8	55·0	−16·6	−61·3
270·327 C	33	190	27	154	81·1	55·2	−16·5	−47·0
271·492 G	39	228	25	145	81·6	55·5	−15·9	−31·2
272·503 C	39	222	23	128	81·4	55·2	−16·0	−18·0
273·610 G	41	197	22	107	81·6	55·3	−15·6	− 3·2
274·446 C	23	211	12	115	81·4	55·1	−15·9	+ 7·6
275·513 G	43	199	25	116	81·2	54·8	−15·6	+21·5
276·453 G	36	156	24	102	81·6	55·1	−15·9	+34·3
277·335 C	9	109	7	87	82·0	55·4	−16·0	+46·3
278·491 C	4	34	5	40	82·3	55·6	−15·9	+61·9
279·331 C	0	5	0	9	79·6	52·8	−16·1	+70·3
Means ..	..	..	21	113	81·30	55·02	−16·04	..
Group 7451. September 27–30. A few small unstable spots.								
269·269 D	22	86	12	48	162·6	182·3	+23·8	+20·5
270·327 C	23	93	14	58	162·5	182·2	+23·6	+34·4
271·492 G	17	94	13	72	161·2	181·0	+22·8	+48·4
272·503 C	3	36	3	37	160·7	180·6	+22·8	+61·3
Means ..	..	..	11	54	161·75	181·53	+23·25	..
Group 7455. September 29–October 1. A small area of feeble disturbance. No markings are seen on September 30.								
1915. d					°	°	°	°
271·492 G	2	10	2	8	63·2	79·2	+22·0	−49·6
272·503 C	0	0	0	0	..	..	..	..
273·610 G	2	8	1	5	60·0	76·1	+23·4	−24·8
Means ..	..	..	1	4	61·60	77·65	+22·70	..
Group 7457. October 1–2. A few very small spots in a sparse stream.								
273·610 G	19	38	17	33	133·5	117·6	−17·7	+48·7
274·446 C	3	19	4	22	135·1	119·2	−18·1	+61·3
Means ..	..	..	11	28	134·30	118·40	−17·90	..
Group 7458. October 2–3. A small spot.								
274·446 C	4	22	5	27	134·1	164·0	−24·2	+60·3
275·513 G	0	9	0	19	130·8	160·8	−24·9	+71·1
Means ..	..	..	3	23	132·45	162·40	−24·55	..
Group 7461. October 4–8. Two small spots, *a* and *b*; *a* has disappeared by October 6. One or two small unstable spots are seen for a short time near *b*.								
276·453 G	15	53	10	35	6·8	315·9	+10·2	−40·5
277·335 C	17	76	10	43	7·2	316·2	+10·5	−28·5
278·491 C	9	25	5	13	4·7	313·5	+11·5	−15·7
279·331 C	9	35	4	17	5·6	314·2	+10·5	− 3·7
280·446 G	2	9	1	5	3·4	311·8	+11·5	+ 8·8
Means ..	..	..	6	23	5·54	314·32	+10·84	..
Group 7463. October 6–13. A disturbed area in which a number of spots, mostly small and unstable, are loosely scattered. The leader, *a*, a small regular spot, is the only stable member of the group.								
278·491 C	31	103	21	69	339·8	347·9	+20·9	−40·6
279·331 C	34	152	19	88	342·2	350·3	+21·3	−27·1
280·446 G	47	211	25	112	344·1	352·2	+21·7	−10·5

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7463—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
281·309 C	27	141	14	73	344·5	352·7	+21·9	+ 1·3
282·603 G	13	70	7	39	345·3	353·5	+21·8	+19·1
283·596 G	5	39	3	24	345·8	354·0	+21·9	+32·7
284·417 G	10	12	7	8	344·5	352·7	+21·7	+42·3
285·359 C	5	10	5	8	344·1	352·4	+21·1	+54·3
Means ..	..	..	13	53	343·79	351·96	+21·56	..

Group 7464.

October 6–12. A small regular spot, *a*, with a very small companion on October 7. The group is not seen on October 9, 10, or 11, but a small marking indicates its place on October 12.

278·491 C	0	20	0	43	302·8	241·5	+ 7·7	−77·6
279·331 C	3	27	4	34	302·4	241·0	+ 7·6	−66·9
280·446 G	3	18	3	15	301·8	240·1	+ 7·7	−52·8
281·309 C	0	0	0	0	..	..	..	..
282·603 G	0	0	0	0	..	..	..	..
283·596 G	0	0	0	0	..	..	..	..
284·417 G	0	9	0	5	300·9	238·3	+ 8·2	− 1·3
Means ..	..	..	1	14	301·98	240·23	+ 7·80	..

Group 7466.

October 7–13. A small spot *n* of Group 7464, not seen on October 9, 11, or 12.

279·331 C	0	13	0	15	304·9	253·8	+11·4	−64·4
280·446 G	2	6	2	5	305·6	254·3	+11·5	−49·0
281·309 C	0	0	0	0	..	..	..	..
282·603 G	0	6	0	3	307·9	256·2	+10·7	−18·3
283·596 G	0	0	0	0	..	..	..	..
284·417 G	0	0	0	0	..	..	..	..
285·359 C	0	5	0	3	307·4	255·2	+ 9·8	+17·6
Means ..	..	..	0	4	306·45	254·88	+10·85	..

Group 7467.

October 7–19. Together with groups 7464 and 7466, a return of Group 7436. A number of spots in a long, straight, nearly continuous stream, the largest being a fine composite spot, *a*, in the rear of the group. A double spot, *b*, which eventually becomes regular, has formed at the head of the group by October 13. The intermediate spots then diminish and disappear, and only *b* and *a* remain by October 18.

279·331 C	9	25	(31	94	286·1	227·2	+ 9·7)*	−83·2
280·446 G	69	299	96	416	285·1	225·9	+ 9·4	−69·5
281·309 C	53	651	47	597	285·8	226·4	+ 8·9	−57·4

Group 7467—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
282·603 G	177	784	114	510	286·2	226·6	+ 9·0	−40·0
283·596 G	171	715	94	400	286·2	226·4	+ 9·1	−26·9
284·417 G	130	729	67	379	286·7	226·7	+ 8·8	−15·5
285·359 C	123	748	63	375	286·9	226·7	+ 8·6	− 2·9
286·494 G	100	518	52	266	286·4	225·9	+ 8·6	+11·6
287·126 D	75	438	40	234	286·9	226·3	+ 8·7	+20·4
288·331 C	55	319	33	189	287·1	226·3	+ 8·6	+36·5
289·551 G	25	162	21	135	288·8	227·7	+ 7·8	+54·3
290·445 G	9	63	12	80	289·9	228·6	+ 7·7	+67·2
291·425 G	0	9	(0	31	292·0	230·5	+ 6·9)*	+82·2
Means ..	..	..	58	326	286·91	226·68	+ 8·65	..

Group 7469.

October 11–18. An irregular stream of small spots *nf* Group 7467. The group chiefly appears as two clusters, the arrangement of which changes from day to day.

283·596 G	12	38	8	24	275·5	241·5	+14·8	−37·6
284·417 G	15	29	9	16	273·7	239·6	+15·0	−28·5
285·359 C	51	145	26	76	275·3	241·1	+14·6	−14·5
286·494 G	53	272	27	139	276·3	241·9	+15·0	− 1·5
287·126 D	59	273	30	141	277·1	242·6	+15·0	+10·6
288·331 C	40	145	23	81	276·9	242·3	+14·8	+26·3
289·551 G	19	83	14	58	277·8	243·1	+14·3	+43·3
290·445 G	6	39	5	32	276·5	241·6	+14·6	+53·8
Means ..	..	..	18	71	276·14	241·71	+14·76	..

Group 7473.

October 13–16. A very small marking *n* Group 7470. The marking is not seen on October 14 and 15.

285·359 C	3	8	1	4	274·7	6·6	+31·5	−15·1
286·494 G	0	0	0	0	..	..	..	..
287·126 D	0	0	0	0	..	..	..	..
288·331 C	0	11	0	7	275·2	8·0	+31·4	+24·6
Means ..	..	..	0	3	274·95	7·30	+31·45	..

Group 7475.

October 14–25. A large and complicated cluster. The spots composing it are in continual change, but eventually three become stable. Of these *a* is a regular spot in the rear of the group, and *b* and *c* are composite spots on the same meridian in the front of the group. *c*, the last of these spots to form, is the first to break up. Only *b* remains in sight on October 25.

286·494 G	21	236	43	587	198·8	168·4	−16·3	−76·0
287·126 D	74	305	112	453	198·9	168·5	−16·2	−67·6
288·331 C	90	575	78	506	199·2	168·6	−16·7	−51·4

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7475—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
289·551 G	149	947	97	618	200·3	169·6	−15·2	−34·2
290·445 G	181	1083	102	624	200·7	169·9	−14·9	−22·0
291·425 G	177	1017	96	549	201·0	170·1	−14·7	− 8·8
292·511 G	177	1119	94	603	201·8	170·8	−15·1	+ 6·3
293·348 C	148	1044	83	587	201·8	170·7	−15·4	+17·4
294·399 G	138	835	87	527	202·0	170·8	−15·1	+31·4
295·479 G	95	420	74	328	202·2	170·9	−15·4	+45·9
296·173 D	43	306	40	297	202·6	171·2	−15·8	+55·4
297·311 C	7	50	(12	76	201·2	169·7	−17·5)*	+69·0
Means ..	..	..	82	516	200·85	169·95	−15·53	..

Group 7477.

October 15–24. A small spot on October 15. Numerous spots appear in the neighbourhood on the succeeding days and the group becomes an irregular stream, the members of which are unstable and begin to break up and disappear after October 18.

287·126 D	3	12	3	11	212·1	228·2	+24·3	−54·4
288·331 C	2	28	1	18	213·6	229·7	+22·7	−37·0
289·551 G	69	303	39	173	211·7	227·9	+23·4	−22·8
290·445 G	114	655	61	350	211·8	228·1	+22·9	−10·9
291·425 G	126	509	65	264	212·6	228·9	+22·1	+ 2·8
292·511 G	79	274	44	153	213·9	230·3	+22·0	+18·4
293·348 C	19	80	11	48	214·7	231·1	+21·7	+30·3
294·399 G	13	23	9	17	213·5	230·0	+22·2	+42·9
295·479 G	0	6	0	6	218·4	234·9	+22·1	+62·1
296·173 D	0	3	0	5	219·0	235·6	+22·3	+71·8
Means ..	..	..	23	105	214·13	230·47	+22·57	..

Group 7479.

October 17–29. Return of Group 7446. A fine double spot, *a*, with some close companions of considerable size. A fresh outbreak occurs after October 26, and on October 27 the group is a fine compact cluster which later condenses into a pair of large composite spots, *b* and *c*.

289·551 G	12	65	50	284	150·0	101·1	+12·2	−84·5
290·445 G	41	229	60	345	151·4	102·3	+13·0	−71·3
291·425 G	54	306	50	286	151·7	102·5	+12·6	−58·1
292·511 G	56	258	40	177	152·1	102·7	+12·3	−43·4
293·348 C	55	303	33	182	151·7	102·1	+12·0	−32·7
294·399 G	58	248	31	131	151·9	102·1	+11·8	−18·7
295·479 G	42	248	21	125	151·9	102·0	+11·6	− 4·4
296·173 D	22	224	11	114	151·9	101·8	+11·9	+ 4·7
297·311 C	30	198	16	105	151·9	101·7	+11·4	+19·7
298·393 G	29	165	17	99	152·2	101·8	+11·1	+34·3
299·425 C	45	323	34	244	152·8	102·2	+11·5	+48·5

Group 7479—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
300·604 G	42	383	48	437	153·1	102·3	+11·7	+64·4
301·410 G	28	271	52	503	153·1	102·2	+11·6	+75·0
Means ..	..	..	36	233	151·98	102·06	+11·90	..

Group 7481.

October 20–21. A regular spot, *a*, preceded by two fainter companions, first seen near the west limb.

292·511 G	8	49	13	84	269·3	0·0	+30·5	+73·8
293·348 C	0	2	0	7	267·9	358·8	+31·7	+83·5
Means ..	..	..	7	46	268·60	359·40	+31·10	..

Group 7483.

October 20–22. A small disturbed area in which one or two very small unstable spots are seen.

292·511 G	7	17	4	9	177·7	164·5	+18·7	−17·8
293·348 C	5	8	2	4	180·0	166·8	+18·3	− 4·4
294·399 G	2	9	1	5	177·4	164·2	+18·4	+ 6·8
Means ..	..	..	2	6	178·37	165·17	+18·47	..

Group 7484.

October 20–27. A small spot, not seen on October 23, 24, or 25.

292·511 G	0	7	0	10	125·9	109·5	+18·0	−69·6
293·348 C	3	8	2	7	127·0	110·6	+18·0	−57·4
294·399 G	2	2	1	1	128·5	112·0	+18·0	−42·1
295·479 G	0	0	0	0	..	..	..	..
296·173 D	0	0	0	0	..	..	..	..
297·311 C	0	0	0	0	..	..	..	..
298·393 G	0	12	0	6	126·5	109·8	+17·7	+ 8·6
299·425 C	0	10	0	5	127·4	110·6	+18·2	+23·1
Means ..	..	..	0	4	127·06	110·50	+17·98	..

Group 7485.

October 21–23. A few small unstable spots.

293·348 C	0	3	0	2	237·7	207·5	−15·0	+53·3
294·399 G	2	25	3	37	238·8	208·5	−15·7	+68·2
295·479 G	0	5	0	24	238·5	208·1	−16·4	+82·2
Means ..	..	..	1	21	238·33	208·03	−15·70	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7488.

October 23–November 5. A large regular spot, *a*, followed by a considerable train somewhat further toward the north.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915.d					°	°	°	°
295·479 G	12	58	64	309	70·3	71·5	+21·2	−86·0
296·173 D	36	148	73	299	70·5	71·7	+21·6	−76·7
297·311 C	45	255	47	269	70·8	72·0	+21·0	−61·4
298·393 G	62	466	48	361	69·0	70·2	+21·5	−48·9
299·425 C	58	566	37	365	68·0	69·2	+21·7	−36·3
300·604 G	136	613	78	341	68·6	69·8	+21·1	−20·1
301·410 G	88	565	47	297	68·3	69·5	+20·8	− 9·8
302·435 G	78	435	42	226	69·1	70·3	+20·2	+ 4·5
303·436 C	56	304	30	166	69·8	71·0	+20·1	+18·4
304·337 C	49	285	29	172	69·4	70·6	+20·5	+29·9
305·489 G	29	171	21	125	69·6	70·8	+19·7	+45·3
306·344 C	17	124	16	113	69·4	70·6	+19·8	+56·3
307·307 C	12	71	16	98	69·5	70·7	+19·5	+69·1
308·433 G	3	17	10	58	67·8	69·0	+19·3	+82·3
Means ..	..	..	40	229	69·29	70·49	+20·57	..

Group 7490.

October 27–31. A small spot, *a*, preceded from October 28 to 30 by a similar small spot, *b*.

299·425 C	3	15	2	8	90·3	84·3	−19·3	−14·0
300·604 G	15	43	8	24	91·5	85·5	−19·6	+ 2·8
301·410 G	15	27	8	15	92·2	86·2	−19·7	+14·1
302·435 G	7	10	4	6	91·3	85·3	−19·7	+26·7
303·436 C	3	7	2	5	91·0	84·9	−19·6	+39·6
Means ..	..	..	5	12	91·26	85·24	−19·58	..

Group 7492.

October 29–November 7. Two very small spots, *a* and *b*, on October 29. *a* moves forward in longitude and increases in size on the succeeding days, and fresh spots forming between *a* and *b*, the group becomes a straight stream by November 2, with *a*, now a double spot, as leader. *a* has broken up by November 6 into three small regular spots, and the rear spot has become the principal member of the group.

301·410 G	2	12	2	12	22·5	24·9	−21·5	−55·6
302·435 G	14	54	10	39	24·7	27·1	−20·9	−39·9
303·436 C	29	178	18	109	25·9	28·3	−20·4	−25·5
304·337 C	43	189	24	106	27·6	30·0	−20·4	−11·9
305·489 G	54	284	30	156	26·6	29·0	−20·6	+ 2·3
306·344 C	108	360	61	221	26·3	28·8	−20·4	+13·2
307·307 C	59	336	36	206	27·3	29·8	−20·4	+26·9
308·433 G	78	334	55	239	24·7	27·2	−20·7	+39·2
309·364 C	22	154	18	138	24·1	26·6	−21·0	+50·9
310·192 D	4	69	4	85	24·3	26·8	−21·3	+62·0
Means ..	..	..	26	131	25·40	27·85	−20·76	..

Group 7493.

October 29–31. A pair of small spots, *a* and *b*.

1915.d					°	°	°	°
301·410 G	14	40	13	37	22·4	66·7	+26·0	−55·7
302·435 G	28	68	20	48	23·3	67·8	+25·8	−41·3
303·436 C	12	83	7	51	23·6	68·2	+25·8	−27·8
Means ..	..	..	13	45	23·10	67·57	+25·87	..

Group 7494.

October 29–November 1. A small spot, *a*, followed after October 29, by a few small spots in a short train.

301·410 G	4	9	4	9	17·3	308·6	+ 6·8	−60·8
302·435 G	29	66	21	49	16·9	307·9	+ 7·0	−47·7
303·436 C	5	72	3	43	18·1	308·9	+ 7·1	−33·3
304·337 C	0	26	0	13	19·8	310·4	+ 6·6	−19·7
Means ..	..	..	7	29	18·03	308·95	+ 6·88	..

Group 7495.

October 30–November 4. A short stream forming *np* of Group 7494. Of the two chief spots, *a* and *b*, the rear spot, *b*, develops more quickly than *a*, the leader.

302·435 G	0	7	0	4	84·6	144·2	+26·5	+20·0
303·436 C	28	116	17	72	82·6	142·4	+27·2	+31·2
304·337 C	45	262	33	191	81·7	141·7	+27·5	+42·2
305·489 G	54	226	42	181	81·8	142·0	+27·4	+57·5
306·344 C	17	154	22	210	80·8	141·1	+27·9	+67·7
307·307 C	6	45	14	101	78·0	138·5	+28·7	+77·6
Means ..	..	..	21	127	81·58	141·65	+27·53	..

Group 7496.

October 30–November 2. Some small unstable spots.

302·435 G	0	3	0	11	341·7	309·3	+15·9	−82·9
303·436 C	0	13	0	16	344·2	311·7	+15·8	−67·2
304·337 C	0	16	0	15	343·9	311·3	+16·0	−55·6
305·489 G	2	12	1	8	343·7	311·0	+14·3	−40·6
Means ..	..	..	0	13	343·38	310·83	+15·50	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7501.

November 2–5. A very small spot not seen on November 3.

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
305·489 G	0	4	0	3	338·9	321·8	+17·1	−45·4
306·344 C	0	0	0	0	..	..	..	..
307·307 C	0	5	0	3	339·5	322·3	+18·2	−20·9
308·433 G	0	11	0	6	338·6	321·3	+18·6	− 6·9
Means ..	..	..	0	3	339·00	321·80	+17·97	..

Group 7507.

November 5–12. A small straight sparse stream gradually developing until November 8. The rear spot, *a*, is the largest and most stable. After November 10 the group consists of a very wide pair of small spots, of which the leader, *b*, is a new formation.

308·433 G	1	5	1	3	322·9	301·3	+17·7	−22·6
309·364 C	16	60	8	31	324·0	302·3	+17·4	− 9·2
310·192 D	41	168	21	87	323·8	302·1	+17·3	+ 1·5
311·511 G	56	283	31	155	324·5	302·7	+17·2	+19·6
312·305 C	26	177	15	104	324·2	302·3	+17·3	+29·7
313·406 G	22	63	16	45	323·7	301·8	+17·6	+43·8
314·472 G	8	38	8	37	324·8	302·8	+17·0	+58·9
315·365 C	0	12	0	17	323·6	301·5	+17·1	+69·5
Means ..	..	..	13	60	323·94	302·10	+17·33	..

Group 7509.

November 5–12. A very small spot on November 5. Nothing is seen on the three succeeding days, but two small spots, *a* and *b*, have appeared by November 9. Only *b* is seen on November 10. Nothing is seen on November 11. Two small spots are seen on November 12.

308·433 G	1	2	1	2	295·0	241·3	+11·0	−50·5
309·364 C	0	0	0	0	..	..	..	..
310·192 D	0	0	0	0	..	..	..	..
311·511 G	0	0	0	0	..	..	..	..
312·305 C	3	32	2	17	292·0	237·7	+11·9	− 2·5
313·406 G	1	8	1	4	291·8	237·3	+11·9	+11·9
314·472 G	0	0	0	0	..	..	..	..
315·365 C	9	27	5	17	291·2	236·3	+11·3	+37·1
Means ..	..	..	1	5	292·50	238·15	+11·53	..

Group 7510.

November 6–14. A large regular spot, *a*, which diminishes rapidly after November 8.

309·364 C	6	48	21	157	253·4	220·3	−15·3	−79·8
310·192 D	12	82	19	131	252·4	219·2	−15·3	−69·9
311·511 G	20	136	18	120	252·6	219·3	−15·5	−52·3

Group 7510—*continued.*

1915. d					°	°	°	°
312·305 C	32	181	23	128	253·0	219·6	−15·6	−41·5
313·406 G	42	184	25	109	253·2	219·7	−15·2	−26·7
314·472 G	28	127	15	69	253·1	219·5	−15·5	−12·8
315·365 C	11	55	6	29	252·7	219·0	−15·9	− 1·4
316·323 C	1	6	1	3	252·9	219·1	−15·6	+11·4
317·526 G	2	6	1	4	252·5	218·5	−15·6	+26·9
Means ..	..	..	14	83	252·87	219·36	−15·50	..

Group 7511.

November 7–10. A small spot quickly diminishing.

310·192 D	2	13	3	22	250·6	10·6	+33·4	−71·7
311·511 G	4	12	4	12	250·5	11·1	+33·6	−54·4
312·305 C	6	19	5	15	249·9	10·8	+33·4	−44·6
313·406 G	3	5	2	3	249·2	10·5	+33·1	−30·7
Means ..	..	..	4	13	250·05	10·75	+33·38	..

Group 7512.

November 9–17. Some small spots rapidly developing into an irregular stream of which the leader, *a*, a regular spot, is the largest member. *a* is double on November 12 to 14, and has passed out of sight by November 17.

312·305 C	10	39	6	23	266·5	266·5	+20·7	−28·0
313·406 G	61	297	32	159	268·1	268·1	+20·5	−11·8
314·472 G	90	380	47	198	268·8	268·8	+20·3	+ 2·9
315·365 C	76	376	41	203	269·7	269·7	+20·3	+15·6
316·323 C	82	390	49	233	270·2	270·2	+20·6	+28·7
317·526 G	75	297	57	222	271·2	271·2	+20·3	+46·1
318·451 G	42	269	41	267	271·8	271·8	+20·5	+58·4
319·461 G	18	138	28	222	271·9	271·9	+20·1	+71·8
320·475 G	2	14	(7	39	266·8	266·8	+20·6)*	+80·0
Means ..	..	..	38	191	269·78	269·78	+20·41	..

Group 7513.

November 11–12. Two small spots, *a* and *b*, with a very small companion on November 11.

314·472 G	7	31	4	18	240·9	184·6	+11·3	−25·0
315·365 C	11	35	5	18	242·0	185·5	+11·1	−12·1
Means ..	..	..	5	18	241·45	185·05	+11·20	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7516.

November 13–23. An extensive area of disturbance in which a number of small spots form and disappear irregularly. The group is divided into two clusters up to November 15, but is not seen on November 16 or 17. After its reappearance on November 18, it tends to assume the form of a curved stream.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
316·323 C	10	35	10	38	182·2	192·6	−20·2	−59·3
317·526 G	18	33	16	28	181·3	191·8	−21·7	−44·3
318·451 G	4	23	3	16	180·7	191·2	−23·5	−32·7
319·461 G	0	0	0	0	..	..	..	..
320·475 G	0	0	0	0	..	..	..	..
321·337 C	0	25	0	13	182·9	193·5	−19·6	+ 7·5
322·544 G	40	162	23	96	180·5	191·1	−21·7	+21·0
323·367 C	73	322	47	207	180·0	190·7	−22·0	+31·4
324·487 C	51	265	40	212	180·3	191·0	−22·4	+46·4
325·342 C	40	174	41	172	178·3	189·0	−22·9	+55·7
326·330 C	30	176	48	300	180·3	191·1	−21·5	+70·7
Means ..	..	..	21	98	180·72	191·33	−21·72	..

Group 7517.

November 13–25. Return of Group 7479. Third apparition. A regular spot, *a*, that diminishes rapidly and has disappeared by November 17. A fresh outburst has taken place by November 19, and an irregular cluster has formed which eventually develops into a straight stream of normal type. The leader, *b*, and rear spot, *c*, are then both large and composite.

316·323 C	4	24	14	80	159·8	105·7	+12·1	−81·7
317·526 G	10	54	13	68	159·2	104·9	+11·9	−66·4
318·451 G	4	26	3	22	159·4	104·9	+11·7	−54·0
319·461 G	0	10	0	7	159·9	105·3	+11·9	−40·2
320·475 G	0	0	0	0	..	..	..	..
321·337 C	0	0	0	0	..	..	..	..
322·544 G	5	20	3	11	160·9	105·8	+11·8	+ 1·4
323·367 C	0	20	0	10	160·4	105·1	+11·3	+11·8
324·487 C	18	93	11	53	160·7	105·2	+11·7	+26·8
325·342 C	80	300	51	194	161·0	105·4	+11·4	+38·4
326·330 C	66	349	54	282	160·8	105·0	+11·6	+51·2
327·507 C	70	311	90	398	161·0	105·0	+12·0	+66·9
328·319 C	18	150	41	347	161·0	104·9	+11·7	+77·6
Means ..	..	..	22	114	160·37	105·20	+11·74	..

Group 7518.

November 14–18. A very small spot on November 14. The group is not seen on November 15, but has reappeared by November 16 as a straight stream, the leader of which, *a*, soon develops into a large regular spot.

317·526 G	1	5	1	3	239·1	22·3	+35·5	+13·5
318·451 G	0	0	0	0	..	..	..	..
319·461 G	40	139	31	106	239·2	23·3	+35·1	+39·1

Group 7518—*continued.*

1915. d					°	°	°	°
320·475 G	41	251	39	238	238·4	22·9	+35·4	+51·6
321·337 C	20	105	25	132	238·6	23·5	+34·9	+63·2
Means ..	..	..	19	96	238·83	23·00	+35·23	..

Group 7519.

November 14–20. A few small unstable spots *sf* Group 7516. The group is not seen on November 18 and 19, but a very small marking appears on November 20.

317·526 G	11	30	10	27	177·1	241·2	−27·2	−48·5
318·451 G	15	52	11	25	176·6	240·9	−27·7	−36·8
319·461 G	2	32	2	20	175·2	239·7	−27·8	−24·9
320·475 G	2	10	1	6	175·5	240·2	−28·3	−11·3
321·337 C	0	0	0	0	..	..	..	..
322·544 G	0	0	0	0	..	..	..	..
323·367 C	0	7	0	5	181·6	246·9	−27·5	+33·0
Means ..	..	..	3	12	177·20	241·78	−27·70	..

Group 7521.

November 17–18. A few small spots loosely scattered. The leader, *a*, alone remains by November 18.

320·475 G	18	39	10	22	161·3	104·9	−11·3	−25·5
321·337 C	0	6	0	3	163·2	106·6	−11·5	−12·2
Means ..	..	..	5	13	162·25	105·75	−11·40	..

Group 7522.

November 17–21. A very small marking not seen on November 18, 19 and 20.

320·475 G	0	6	0	4	150·8	154·3	−20·4	−36·0
321·337 C	0	0	0	0	..	..	..	..
322·544 G	0	0	0	0	..	..	..	..
323·367 C	0	0	0	0	..	..	..	..
324·487 C	2	7	1	4	151·6	155·2	−21·3	+17·7
Means ..	..	..	0	2	151·20	154·75	−20·85	..

Group 7523.

November 18–23. A very small spot *sf* Group 7521 on November 18. The group develops into a small stream of normal type, the first and last spots, *a* and *b*, being the largest members.

321·337 C	4	10	2	6	159·5	134·8	−17·5	−15·9
322·544 G	23	74	12	39	159·5	134·7	−17·1	0·0
323·367 C	31	93	16	51	160·4	135·5	−16·8	+11·8

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7523—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
324·487 C	13	47	7	28	160·3	135·3	−17·0	+26·4
325·342 C	4	21	3	14	159·4	134·3	−17·1	+36·8
326·330 C	4	16	4	14	161·6	136·5	−16·5	+52·0
Means ..	..	..	7	25	160·12	135·18	−17·00	..

Group 7525.

November 18–20. A small spot, *a*, preceded by a very small companion on November 18.

321·337 C	4	14	4	14	114·5	130·6	+22·5	−60·9
322·544 G	5	12	4	9	112·5	128·6	+22·4	−47·0
323·367 C	3	8	2	5	112·4	128·6	+22·2	−36·2
Means ..	..	..	4	9	113·13	129·27	+22·37	..

Group 7526.

November 18–30. A large regular spot, *a*, followed by a short train of small spots.

321·337 C	13	104	28	225	100·9	120·8	−22·4	−74·5
322·544 G	39	207	43	225	100·5	120·5	−22·6	−59·0
323·367 C	48	318	39	262	100·7	120·7	−22·7	−47·9
324·487 C	58	363	38	239	100·8	120·9	−22·7	−33·1
325·342 C	55	456	32	269	100·6	120·8	−22·5	−22·0
326·330 C	64	411	36	230	100·3	120·5	−22·7	− 9·3
327·507 C	51	392	28	216	100·0	120·3	−22·8	+ 5·9
328·319 C	57	401	32	228	99·4	119·8	−23·0	+16·0
329·476 G	60	338	38	216	99·1	119·5	−23·0	+31·0
330·561 G	53	272	42	212	98·7	119·2	−23·0	+44·9
331·434 C	37	232	37	232	98·6	119·1	−23·0	+56·3
332·392 C	18	136	27	204	97·8	118·4	−23·3	+68·1
333·506 G	9	59	48	314	97·9	118·6	−23·3	+82·9
Means ..	..	..	36	236	99·64	119·93	−22·85	..

Group 7527.

November 18–27. Three spots, *a*, *b*, and *c*, arranged along a meridian *f* Group 7526, on November 19 and 20. The most southern, *a*, moves backward in longitude and becomes the principal member of the group by November 22, but is very small by November 24; some small fresh spots are seen preceding its place on the succeeding days.

321·337 C	0	15	0	72	92·9	133·7	−23·2	−82·5
322·544 G	16	79	24	118	92·2	133·2	−24·4	−67·3
323·367 C	20	74	21	79	91·6	132·7	−25·3	−57·0
324·487 C	17	160	13	125	90·4	131·6	−25·5	−43·5
325·342 C	13	81	9	54	90·3	131·6	−25·1	−32·3

Group 7527—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
326·330 C	10	36	6	22	88·7	130·1	−25·9	−20·9
327·507 C	1	13	1	8	89·4	131·0	−25·6	− 4·7
328·319 C	0	31	0	16	91·2	132·9	−24·5	+ 7·8
329·476 G	1	12	1	7	89·4	131·2	−26·7	+21·3
330·561 G	0	12	0	9	93·0	135·0	−25·7	+39·2
Means ..	..	..	8	51	90·91	132·30	−25·19	..

Group 7529.

November 19–27. With Groups 7531, 7532, and 7533, a return of Group 7495. A regular spot, *a*, quickly diminishing. It is not seen on November 25, but a slight outburst is seen on the two succeeding days. *a* has a small companion on November 23.

322·544 G	3	19	14	91	75·5	163·2	+30·1	−84·0
323·367 C	8	25	16	49	74·4	162·4	+30·3	−74·2
324·487 C	6	18	7	20	73·8	162·1	+30·3	−60·1
325·342 C	10	17	9	15	72·6	161·1	+30·5	−50·0
326·330 C	6	27	5	19	71·8	160·6	+30·0	−37·8
327·507 C	1	7	1	4	71·5	160·6	+29·5	−22·6
328·319 C	0	0	0	0	..	..	..	..
329·476 G	3	10	2	6	72·2	161·8	+29·4	+ 4·1
330·561 G	0	4	0	2	71·2	161·1	+29·4	+17·4
Means ..	..	..	6	23	72·88	161·61	+29·94	..

Group 7531.

November 20–23. Return of Group 7495. A small spot *sp* Group 7529.

323·367 C	0	8	0	12	79·4	146·3	+28·0	−69·2
324·487 C	6	16	6	15	79·6	146·8	+27·9	−54·3
325·342 C	7	24	5	18	80·8	148·1	+27·6	−41·8
326·330 C	0	4	0	3	81·6	149·2	+27·9	−28·0
Means ..	..	..	3	12	80·35	147·60	+27·85	..

Group 7532.

November 21–26. A small spot *sp* Group 7531, not seen on November 23, 24, and 25.

324·487 C	4	16	3	13	84·4	138·9	+26·8	−49·5
325·342 C	4	11	3	8	85·0	139·7	+26·4	−37·6
326·330 C	0	0	0	0	..	..	..	..
327·507 C	0	0	0	0	..	..	..	..
328·319 C	0	0	0	0	..	..	..	..
329·476 G	0	4	0	2	83·7	139·1	+26·5	+15·6
Means ..	..	..	1	4	84·37	139·23	+26·57	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
Group 7533.								
November 21–27. A small spot, *a*, with a very small companion on November 25. The group lies *s* of Group 7529, and *f* Group 7531; the three groups, together with Group 7532, marking a wide area of feeble disturbance.								
1915. d					°	°	°	°
324·487 C	4	10	4	10	76·5	133·6	+27·5	−57·4
325·342 C	6	32	5	26	76·1	133·4	+27·7	−46·5
326·330 C	1	10	1	7	75·7	133·1	+28·2	−33·9
327·507 C	4	12	2	7	75·6	133·2	+28·2	−18·5
328·319 C	0	13	0	7	75·5	133·3	+28·0	− 7·9
329·476 G	9	29	5	16	75·3	133·3	+28·0	+ 7·2
330·561 G	2	11	1	7	76·1	134·3	+27·4	+22·3
Means ..	..	..	3	11	75·83	133·46	+27·86	..
Group 7534.								
November 23–25. A very small spot, *a*, rapidly increasing in size. It is followed by a small companion on November 24, and has passed out of sight by November 25, but a pair of small followers are still in view.								
326·330 C	0	6	0	6	166·6	192·4	+23·3	+57·0
327·507 C	0	38	0	72	168·3	194·2	+23·6	+74·2
328·319 C	0	17	(0	46	162·2	188·1	+25·2)*	+78·8
Means ..	..	..	0	39	167·45	193·30	+23·45	..
Group 7537.								
November 24–27. A small spot, *a*, with a small companion on November 25 and 26.								
327·507 C	4	11	6	17	22·9	321·7	+11·0	−71·2
328·319 C	4	14	4	13	23·7	322·3	+10·8	−59·7
329·476 G	3	19	2	13	24·6	323·0	+10·3	−43·5
330·561 G	1	10	1	6	22·6	320·8	+10·3	−31·2
Means ..	..	..	3	12	23·45	321·95	+10·60	..
Group 7538.								
November 26–December 3. A small spot, *a*, followed by a distant companion on November 26. A second and larger spot, *b*, has formed close behind *a*, by November 29, and a more distant companion, *c*, by November 30, but these have both disappeared by December 3.								
329·476 G	13	39	10	28	27·4	24·8	−20·5	−40·7
330·561 G	21	30	12	18	29·0	26·4	−19·9	−24·8
331·434 C	6	28	3	15	30·0	27·3	−19·8	−12·3
332·392 C	20	126	10	68	27·5	24·8	−20·1	− 2·2
333·506 G	45	122	24	69	27·3	24·6	−19·9	+12·3
Group 7538—*continued.*								
1915. d					°	°	°	°
334·351 C	23	106	13	62	27·4	24·7	−20·2	+23·5
335·374 C	13	38	9	26	27·7	25·0	−20·2	+37·3
336·427 C	6	22	5	20	30·0	27·3	−19·8	+53·5
Means ..	..	..	11	38	28·29	25·61	−20·05	..
Group 7539.								
November 27–December 3. A number of small unstable spots in an irregular stream *s* Group 7538. The first and last spots, *a* and *b*, on November 29, are the largest and most stable.								
330·561 G	12	52	8	33	23·5	64·8	−26·0	−30·3
331·434 C	7	42	4	24	26·5	67·9	−25·1	−15·8
332·392 C	27	111	15	62	24·0	65·5	−26·6	− 5·7
333·506 G	39	208	22	119	23·7	65·4	−26·7	+ 8·7
334·351 C	30	124	18	76	25·5	67·3	−26·4	+21·6
335·374 C	9	46	7	30	26·2	68·1	−26·0	+35·8
336·427 C	2	11	2	8	25·9	68·0	−25·9	+49·4
Means ..	..	..	11	50	25·04	66·71	−26·10	..
Group 7543.								
November 29–December 1. A very small spot, *a*, *f* Group 7539. A very small companion is seen on December 1. Groups 7538, 7539, and 7543 are parts of a feeble disturbance spread over a wide area.								
332·392 C	8	15	5	9	16·4	88·9	−28·3	−13·3
333·506 G	1	11	1	6	16·2	88·9	−28·5	+ 1·2
334·351 C	0	6	0	3	17·0	89·9	−28·0	+13·1
Means ..	..	..	2	6	16·53	89·23	−28·23	..
Group 7546.								
December 1–8. A very small spot on December 1, not seen on the two succeeding days. Two very small spots are seen on December 4, but none on December 5, after which the group appears as a small unstable cluster.								
334·351 C	0	6	0	5	310·6	315·3	+20·4	−53·3
335·374 C	0	0	0	0	..	..	..	..
336·427 C	0	0	0	0	..	..	..	..
337·456 C	7	40	4	22	308·8	313·5	+21·3	−14·1
338·513 G	0	0	0	0	..	..	..	..
339·348 C	5	41	3	22	307·3	312·1	+21·4	+ 9·3
340·359 C	9	47	6	27	306·6	311·4	+20·9	+21·9
341·470 G	0	7	0	5	306·9	311·7	+20·7	+36·8
Means ..	..	..	2	10	308·04	312·80	+20·94	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7550.

December 2–13. Return of Group 7512. A small regular spot, *a*, on December 2. A diffuse spot, *b*, has formed *sp a* by December 8, and by December 11 the group consists of three spots, *c*, *b*, and *d*, in a straight line, *sp* the place of *a* which has disappeared. Only *d* remains in sight on December 13.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Foreshortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
335·374 C	4	20	11	53	271·8	268·1	+20·9	−78·6
336·427 C	6	34	7	42	271·9	268·2	+20·9	−64·6
337·456 C	3	32	3	27	271·8	268·1	+21·0	−51·1
338·513 G	6	31	4	21	271·3	267·6	+20·8	−37·7
339·348 C	11	34	6	19	271·8	268·1	+20·6	−26·2
340·359 C	4	23	2	13	271·3	267·6	+21·1	−13·4
341·470 G	6	53	3	28	274·4	270·6	+19·1	+ 4·3
342·337 C	7	62	4	34	275·0	271·2	+19·0	+16·4
343·319 C	25	169	15	101	274·2	270·4	+18·3	+28·5
344·481 G	28	93	20	68	273·2	269·4	+18·5	+42·8
345·169 D	22	120	20	101	272·6	268·8	+18·8	+51·3
346·337 C	7	35	9	43	270·1	266·3	+19·2	+64·2
Means ..	..	..	9	46	272·45	268·70	+19·85	..

Group 7552.

December 3–9. A small regular spot, *a*, gradually diminishing. It is not seen after December 7, but a very small marking is near its place on December 9.

336·427 C	4	23	9	49	261·5	310·6	+26·3	−75·0
337·456 C	4	28	5	34	260·1	309·4	+25·8	−62·8
338·513 G	6	22	5	19	259·7	309·1	+25·8	−49·3
339·348 C	4	12	3	9	259·4	308·9	+25·8	−38·6
340·359 C	0	9	0	5	259·4	309·1	+26·1	−25·3
341·470 G	0	0	0	0	..	..	..	..
342·337 C	0	6	0	3	258·1	308·1	+25·1	− 0·5
Means ..	..	..	3	17	259·70	309·20	+25·82	..

Group 7553.

December 3–12. A small regular spot, *a*, occasionally with one or two very small attendants. *a* has disappeared by December 10, but some small markings are seen near its place on December 11 and 12.

336·427 C	0	8	0	29	254·9	237·7	−18·2	−81·6
337·456 C	0	17	0	25	253·7	236·5	−18·0	−69·2
338·513 G	11	35	10	33	252·6	235·3	−18·0	−56·4
339·348 C	9	38	7	28	253·2	235·9	−18·3	−44·8
340·359 C	11	38	7	23	254·0	236·6	−17·9	−30·7
341·470 G	11	38	6	21	254·4	237·0	−17·8	−15·7
342·337 C	0	27	0	15	254·7	237·2	−18·1	− 3·9
343·319 C	0	0	0	0	..	..	..	..
344·481 G	0	24	0	14	254·7	237·1	−19·8	+24·3
345·169 D	1	3	1	2	256·4	238·8	−17·9	+35·1
Means ..	..	..	3	19	254·29	236·90	−18·22	..

Group 7554.

December 4–8. A very small spot, not seen on December 5 and 6.

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Foreshortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
337·456 C	0	2	0	4	249·2	321·8	+28·1	−73·7
338·513 G	0	0	0	0	..	..	..	..
339·348 C	0	0	0	0	..	..	..	..
340·359 C	0	5	0	3	249·9	323·1	+28·2	−34·8
341·470 G	2	8	1	5	250·4	323·8	+28·1	−19·7
Means ..	..	..	0	2	249·83	322·90	+28·13	..

Group 7555.

December 5–8. A pair of small spots, *a* and *b*. *a* has broken up into a cluster of very faint markings—which are still measured as one—by December 7, and has disappeared by December 8.

338·513 G	5	18	3	11	336·6	5·4	−23·6	+27·6
339·348 C	17	56	12	40	338·0	6·8	−23·6	+40·0
340·359 C	7	65	6	58	337·0	5·9	−23·5	+52·3
341·470 G	0	9	0	11	333·5	2·5	−23·9	+63·4
Means ..	..	..	5	30	336·28	5·15	−23·65	..

Group 7556.

December 5–10. A region of very feeble disturbance *f* Group 7553. No spots are seen on December 8.

338·513 G	0	8	0	8	248·9	233·7	−18·0	−60·1
339·348 C	0	16	0	13	247·3	232·0	−18·0	−50·7
340·359 C	0	2	0	1	250·3	235·0	−18·6	−34·4
341·470 G	0	0	0	0	..	..	..	..
342·337 C	0	4	0	2	248·3	232·9	−20·3	−10·3
343·319 C	0	15	0	8	245·1	229·7	−17·4	− 0·6
Means ..	..	..	0	5	247·98	232·66	−18·46	..

Group 7558.

December 8–21. Return of Group 7516. A large regular spot, *a*, generally followed by one or two small companions.

341·470 G	6	45	24	183	187·9	186·2	−19·9	−82·2
342·337 C	16	120	28	211	186·1	184·4	−20·4	−72·5
343·319 C	24	188	26	201	185·6	183·9	−20·2	−60·1
344·481 G	47	313	35	236	185·2	183·5	−20·1	−45·2
345·169 D	49	314	32	208	184·9	183·2	−20·5	−36·4
346·337 C	63	371	36	212	185·0	183·3	−20·4	−20·9
347·334 C	83	384	45	207	184·7	183·0	−20·2	− 8·1

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7558—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
348·334 C	64	400	34	212	184·6	182·9	−20·3	+ 5·0
349·465 C	56	386	31	216	184·4	182·7	−20·4	+19·7
350·427 C	30	306	19	192	184·3	182·5	−20·2	+32·3
351·337 C	40	238	29	174	183·8	182·0	−20·0	+43·7
352·460 C	23	168	23	171	184·3	182·5	−20·1	+59·0
353·341 C	18	111	28	175	184·6	182·8	−20·2	+70·9
354·380 C	1	18	4	65	182·0	180·2	−19·8	+82·0
Means ..	..	..	28	190	184·81	183·08	−20·19	..

Group 7559.

December 9–16. A very small spot, *a*, on December 9. Other spots form *p a*, on the succeeding days, and the group develops into a thin straight stream, of which the leader, *b*, is the most stable member.

342·337 C	2	11	1	6	238·2	169·7	+ 9·7	−20·4
343·319 C	9	33	5	17	238·7	170·0	+ 9·6	− 7·0
344·481 G	14	80	7	41	238·9	170·0	+ 9·4	+ 8·5
345·169 D	5	35	3	19	239·8	170·8	+ 9·5	+18·5
346·337 C	32	117	19	71	239·8	170·5	+ 9·6	+33·9
347·334 C	17	111	13	82	239·1	169·6	+ 9·7	+46·3
348·334 C	7	21	7	22	240·8	171·1	+ 9·4	+61·2
349·465 C	0	4	0	9	240·7	170·8	+ 9·5	+76·0
Means ..	..	..	7	33	239·50	170·31	+ 9·55	..

Group 7560.

December 9–10. A very small spot, *a*, on December 9; a second, *b*, is also seen on December 10.

342·337 C	1	4	1	5	194·7	175·5	−18·0	−63·9
343·319 C	0	8	0	7	193·7	174·5	−17·9	−52·0
Means ..	..	..	1	6	194·20	175·00	−17·95	..

Group 7562.

December 10–20. A composite spot, *a*, on December 10, diminishing on the succeeding days. The group increases in size after December 12, and appears as a number of small unstable spots, loosely scattered over a wide area.

343·319 C	3	35	7	77	169·3	137·0	−17·1	−76·4
344·481 G	6	32	7	35	168·5	136·1	−16·8	−61·9
345·169 D	4	21	3	18	167·9	135·5	−17·2	−53·4
346·337 C	18	87	12	61	164·2	131·6	−16·6	−41·7
347·334 C	7	65	4	36	166·8	134·2	−16·0	−26·0
348·334 C	37	125	19	67	166·9	134·2	−15·0	−12·7

Group 7562—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of		Area Corrected for Fore-shortening of		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.		
1915. d					°	°	°	°
349·465 C	7	44	4	23	168·3	135·5	−14·7	+ 3·6
350·427 C	7	28	4	15	169·2	136·3	−14·9	+17·2
351·337 C	0	22	0	13	166·0	133·0	−16·2	+25·9
352·460 C	0	3	0	2	165·1	132·0	−16·4	+39·8
353·341 C	0	2	0	2	165·6	132·4	−16·5	+51·9
Means ..	..	..	5	32	167·07	134·35	−16·13	..

Group 7564.

December 14–22. A pair of small spots on December 14. New spots form on the succeeding days, and by December 17 the group has become a long stream. The leader, *a*, is then a large regular spot, and the rear spot, *b*, has assumed the same form by December 20.

347·334 C	7	38	4	22	165·3	92·7	+ 9·1	−27·5
348·334 C	48	215	26	113	165·0	92·2	+ 8·4	−14·6
349·465 C	59	288	30	146	167·7	94·7	+ 8·0	+ 3·0
350·427 C	91	445	48	238	169·9	96·7	+ 8·4	+17·9
351·337 C	116	510	65	299	170·3	96·9	+ 8·6	+30·2
352·460 C	131	581	94	423	170·7	97·0	+ 9·0	+45·4
353·341 C	111	862	104	787	169·6	95·8	+ 9·2	+55·9
354·380 C	55	534	83	815	170·2	96·1	+ 9·7	+70·2
355·336 C	8	57	(18	131	164·4	90·1	+ 9·1)*	+77·0
Means ..	..	..	57	355	168·59	95·26	+ 8·80	..

Group 7573.

December 19–26. A regular spot, *a*, slowly diminishing. *a* is followed by a very small companion on December 26.

352·460 C	5	21	15	61	45·2	25·8	−18·1	−80·1
353·341 C	9	50	13	72	44·8	25·4	−18·2	−68·9
354·380 C	14	66	13	61	44·2	24·7	−17·9	−55·8
355·336 C	11	65	8	46	44·2	24·7	−17·7	−43·2
356·301 C	9	67	5	40	44·0	24·4	−17·7	−30·7
357·521 C	21	72	12	39	43·5	23·8	−18·1	−15·1
358·502 G	14	48	7	25	43·2	23·5	−18·0	− 2·5
359·459 C	13	20	7	11	43·0	23·2	−18·5	+ 9·9
Means ..	..	..	10	44	44·01	24·44	−18·03	..

Group 7575.

1915 December 25–1916 January 1. A sparse unstable stream forming in the rear of Group 7573, and generally arranged in two loose clusters, of which the following has greatly diminished by December 31.

358·502 G	11	44	6	24	30·8	22·9	−19·2	−14·9
359·459 C	29	76	15	40	30·2	22·3	−19·5	− 2·9

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 7575—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
360·480 C	37	147	20	78	30·9	23·0	−19·3	+11·3
361·441 G	26	85	15	50	30·6	22·6	−20·0	+23·6
362·337 C	26	149	17	96	31·6	23·6	−19·6	+36·4
363·458 C	15	70	12	59	32·9	24·9	−19·0	+52·5
364·363 C	3	24	4	30	34·1	26·1	−18·7	+65·6
365·444 C	0	20	0	55	34·0	26·0	−20·4	+79·8
Means ..	..	..	11	54	31·89	23·93	−19·46	..

Group 7581.

1915 December 26–1916 January 8. A large regular spot, *a*, followed by an irregular train of small spots.

359·459 C	2	24	11	128	308·0	284·3	−17·4	−85·1
360·480 C	8	166	13	272	307·4	283·6	−17·5	−72·2
361·441 G	47	262	49	277	306·1	282·2	−17·5	−60·9
362·337 C	51	333	40	260	306·4	282·5	−17·8	−48·8
363·458 C	60	454	39	284	306·2	282·2	−17·6	−34·2
364·363 C	75	449	41	248	306·6	282·6	−17·2	−21·9
365·444 C	67	466	35	242	306·8	282·7	−17·1	− 7·4
366·423 C	82	439	43	228	306·9	282·7	−17·2	+ 5·6
367·367 C	57	331	31	179	307·0	282·8	−17·1	+18·1
368·451 C	73	314	45	192	307·1	282·8	−17·3	+32·5
369·379 C	46	239	33	170	306·5	282·1	−17·7	+44·1
370·472 C	26	181	25	177	306·9	282·4	−17·8	+58·9
371·508 C	19	107	33	184	307·8	283·3	−17·7	+73·4
372·431 C	5	24	24	115	307·3	282·7	−18·2	+85·1
Means ..	..	..	33	211	306·92	282·77	−17·51	..

Group 7582.

1915 December 27–30. A very small spot, *a*, *sf* Group 7575, and usually followed at a distance by a feeble train of small unstable spots.

360·480 C	5	16	3	9	19·8	94·4	−28·5	+ 0·2
361·441 G	9	60	5	35	20·2	95·0	−27·7	+13·2
362·337 C	13	69	8	42	19·9	94·9	−28·3	+24·7
363·458 C	1	8	1	6	24·2	99·4	−26·9	+43·8
Means	..	..	4	23	21·03	95·93	−27·85	..

Group 7584.

1915 December 29–1916 January 8. A few very small spots on December 29, rapidly developing into a fine straight stream, of which *a* and *b*, the first and last members are large regular spots. The group declines rapidly after January 1, and the preceding part alone remains on January 8.

362·337 C	2	13	2	19	286·9	240·9	+12·3	−68·3
363·458 C	100	449	89	403	286·6	240·4	+14·1	−53·8

Group 7584—*continued.*

Date. Greenwich Civil Time, and Where taken.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area Corrected for Foreshortening of Umbra.	Area Corrected for Foreshortening of Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.
1915. d					°	°	°	°
364·363 C	90	677	64	479	286·8	240·5	+14·0	−41·7
365·444 C	122	761	72	449	286·9	240·5	+14·2	−27·3
366·423 C	94	602	51	325	286·3	239·8	+14·8	−15·0
367·367 C	72	448	38	237	286·7	240·0	+14·8	− 2·2
368·451 C	67	433	36	234	286·5	239·7	+15·5	+11·9
369·379 C	37	183	21	106	286·7	239·8	+15·1	+24·3
370·472 C	15	80	10	54	286·9	239·9	+14·8	+38·9
371·508 C	6	48	5	42	286·9	239·7	+15·0	+52·5
372·431 C	4	28	6	39	289·5	242·2	+13·6	+67·3
Means ..	..	..	36	117	286·97	240·31	+14·38	..

Group 7585.

1915 December 29–30. A small spot *f* Group 7584.

362·337 C	0	5	0	11	279·6	227·1	+13·0	−75·6
363·458 C	1	8	1	9	279·6	226·9	+13·7	−60·8
Means ..	..	..	1	10	279·60	227·00	+13·35	..

Group 7586.

1915 December 30–1916 January 7. A few small unstable spots in an irregular stream *s* Group 7584. The leader, *a*, is a small regular spot.

363·458 C	4	24	4	23	283·0	203·8	+ 7·6	−57·4
364·363 C	26	105	20	76	283·9	204·5	+ 7·7	−44·6
365·444 C	32	99	19	58	284·7	205·0	+ 7·6	−29·5
366·423 C	21	90	11	48	286·8	206·9	+ 8·2	−14·5
367·367 C	13	64	7	33	286·7	206·6	+ 7·8	− 2·2
368·451 C	15	68	8	36	288·3	208·0	+ 8·5	+13·7
369·379 C	13	18	8	10	290·9	210·4	+ 8·2	+28·5
370·472 C	8	14	6	10	291·5	210·7	+ 8·1	+43·5
371·508 C	6	14	6	13	291·6	210·6	+ 8·0	+57·2
Means ..	..	..	10	34	287·49	207·39	+ 7·97	..

Group 7588.

1915 December 30–1916 January 1. A small faint spot *sf* Group 7587.

363·458 C	0	12	0	21	268·0	352·7	−29·0	−72·4
364·363 C	2	18	2	20	268·2	353·1	−28·8	−60·3
365·444 C	3	7	2	6	268·5	353·6	−28·3	−45·7
Means ..	..	..	1	16	268·23	353·13	−28·70	..

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS in the YEAR 1915.

GROUPS SEEN ONLY ON ONE DAY.

NOTE.—The longitudes according to System II. for Groups 7118, 7120, 7123, and 7124, are computed here from 1915·0 instead of from 1914·0, as in the volume for 1914.

The longitudes, System II., for the high latitude Groups 7486, 7504, 7505, and 7578, are computed in accordance with the formula $866'\cdot6 - 128' \sin^2 l$, but are enclosed in brackets, as the formula may not hold for such latitudes.

Letter for Group.	Date. Greenwich Civil Time, and Where taken.	Projected Area. Umbra.	Projected Area. Whole Spot.	Area Corrected for Foreshortening. Umbra.	Area Corrected for Foreshortening. Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.	NOTES.
	ROTATION 819; 1914 December 12·084 to 1915 January 8·414.									
	1914. d					°	°	°	°	
7118	Dec. 14·434 G	0	6	0	7	265·3	266·3	−17·9	−63·7	A very small spot.
7120	20·459 C	3	11	5	17	321·1	322·1	−16·6	+71·4	A pair of small spots; a revival of Group 7091.
7123	26·391 C	2	18	1	11	157·5	156·3	+28·0	−14·0	A small double spot.
7124	29·340 C	0	9	0	5	115·9	115·3	−27·9	−16·8	A very small spot *sp* Group 7122.
	1915.									
7128	Jan. 2·551 G	3	8	2	6	31·0	31·0	+20·1	−46·2	A very small spot.
7130	4·321 C	0	12	0	6	66·0	65·7	−15·6	+12·1	A pair of very small faint spots, preceding the place of Group 7126, and in the same latitude.
7131	5·351 C	0	15	0	7	38·6	38·2	−15·9	− 1·7	A faint marking *f* Group 7126, and in the same latitude.
7132	5·351 C	0	12	1	7	14·0	13·8	+18·8	−26·3	A faint marking *nf* Group 7127.
7133	6·367 C	2	12	2	11	332·5	333·3	−26·0	−54·5	A small spot surrounded by faculæ, near the place of Group 7113, but probably a fresh outburst.
7134	7·384 C	2	14	1	8	5·9	6·0	+21·1	− 7·7	A pair of very small spots *nf* Group 7127.
	ROTATION 820; 1915 January 8·414 to February 4·755.									
	1915.									
7135	Jan. 11·459 G	6	11	4	9	355·5	353·5	+10·0	+35·6	A very small dark spot, preceded by a very small faint marking.
7136	12·357 C	6	21	5	13	336·6	337·6	−23·7	+28·5	A few very small faint spots in a sparse cluster.
7141	16·422 G	4	10	3	9	299·4	302·0	+26·5	+44·8	Two very small spots, surrounded by faculæ *np* Group 7139.
7144	19·334 C	7	40	5	23	237·4	235·7	+16·2	+21·2	A pair of very small spots.
7145	19·334 C	0	23	0	12	221·4	222·1	−21·9	+ 5·2	A pair of very small spots.
7146	20·311 D	3	25	2	18	158·6	154·6	+ 9·0	−44·7	A cluster of very small spots.
7147	22·391 C	2	14	1	8	161·4	164·4	+25·6	−14·6	A small spot.
7148	23·356 C	0	13	0	14	221·8	221·1	+19·0	+58·5	A faint spot surrounded by bright faculæ *f* Group 7138.
7157*	25·337 C	0	5	0	9	63·1	63·3	−20·8	−74·1	A small faint marking *p* the position of Group 7157.
7151	28·312 C	1	5	1	3	66·6	62·7	+13·6	−31·4	A very small marking.
7153	29·343 C	9	19	6	11	108·1	106·9	+18·5	+23·7	Two faint markings.
7154	29·343 C	2	19	1	12	102·5	104·2	+22·7	+18·1	Two very faint markings.
7155	29·343 C	2	5	1	3	66·8	59·5	+ 0·5	−17·6	A very small faint spot.
7156	30·432 C	0	14	0	7	60·2	52·6	− 1·5	− 9·9	A very small faint marking.
7157	31·113 K	0	11	0	6	47·0	46·7	−20·0	−14·1	A very small faint marking.
7159	Feb. 1·351 C	0	8	0	4	29·5	25·9	−15·0	−15·3	A very small faint marking.
	ROTATION 821; 1915 February 4·755 to March 4·092.									
7173	Feb. 10·441 G	0	4	0	7	214·0	206·1	+ 9·9	−71·1	A very small spot *sf* Group 7172.
7174	11·418 G	1	7	2	12	345·5	344·6	−19·5	+73·2	A pair of very small spots *np* Group 7158 and *nf* the place of Group 7170.
7176	15·339 C	0	19	0	11	226·2	243·0	−32·9	+ 5·5	A small spot *sf* Group 7165.
7177	20·396 C	0	17	0	9	143·2	137·6	+15·3	−10·9	A close pair of faint markings measured together as one.
7178	20·396 C	0	5	0	3	138·5	129·9	+11·8	−15·6	A very small faint marking *sf* Group 7177.

AREAS AND HELIOGRAPHIC POSITIONS OF GROUPS OF SUN SPOTS—*continued.*

GROUPS SEEN ONLY ON ONE DAY.

Letter for Group.	Date. Greenwich Civil Time, and Where taken.	Projected Area. Umbra.	Projected Area. Whole Spot.	Area Corrected for Foreshortening. Umbra.	Area Corrected for Foreshortening. Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.	NOTES.
										ROTATION 821—*continued.*
	1915. d					°	°	°	°	
7179	Feb. 20·396 C	0	4	0	2	133·1	122·7	+ 9·1	−21·0	A very small faint marking *sf* Group 7178.
7182	22·412 C	0	6	0	5	171·4	176·7	−24·3	+43·9	A small faint spot.
7184	24·611 G	1	3	1	2	136·9	130·0	+14·4	+38·4	A very small spot.
7188	27·390 C	0	4	0	4	1·5	6·1	−23·5	−60·4	A very small spot *sp* Group 7187.
7189	28·412 G	0	4	0	5	345·6	345·2	+20·1	−62·9	A very small faint spot in bright faculæ. Possibly a return of Group 7161.
7191	Mar. 1·436 G	2	4	1	2	38·1	31·1	−14·9	+ 3·1	A very small spot *np* Group 7183.
7192	2·428 C	0	3	0	2	53·7	38·0	+ 0·3	+31·8	A very small spot *sf* Group 7181.
7194	3·175 D	3	4	2	3	346·6	346·6	+20·4	−25·5	A small spot.
										ROTATION 822; 1915 March 4·092 to March 31·401.
7198	Mar. 5·428 C	0	12	0	10	322·3	359·0	+38·8	−20·1	A pair of very small faint markings.
7199	5·428 C	0	9	0	5	338·6	349·1	−26·5	− 3·8	A very small faint marking *sp* Group 7190.
7201	7·473 C	0	4	0	6	27·3	33·1	−23·8	+71·8	A very small faint marking *sf* the place of Group 7183, which has disappeared.
7205	13·446 C	0	13	0	7	221·7	214·1	+15·5	−15·0	A very small spot *sf* Group 7204.
7207	15·429 C	0	8	0	5	223·7	241·8	+29·1	+13·1	A small faint marking *nf* Group 7204.
7208	15·429 C	0	12	0	6	207·8	188·8	− 0·4	− 2·8	Several faint markings in a compact cluster.
7211	17·161 D	4	10	3	7	224·1	215·5	+15·1	+36·3	A small faint spot *sf* Group 7204.
7212	18·395 C	0	8	0	4	187·5	167·8	− 0·9	+16·0	A small faint marking.
7213	18·395 C	0	4	0	2	153·2	155·9	−21·8	−18·3	A small faint marking.
7215	21·477 G	1	4	1	4	74·6	66·7	+15·9	−56·3	A pair of very small markings *sf* Group 7214. Possibly a revival of Group 7181.
7217	26·610 G	0	9	0	7	34·5	62·4	+31·7	−28·7	A very small faint marking *nf* Group 7216.
7216*	27·412 G	0	23	0	12	40·1	32·8	−16·6	−12·5	A pair of very small spots on the same meridian as Group 7216, but in the southern hemisphere.
7218	29·393 G	1	4	1	2	49·8	70·7	−28·9	+23·3	A very small spot.
7219	29·393 G	3	4	2	2	25·1	36·3	+25·2	− 1·4	A very small spot *f* Group 7216.
										ROTATION 823; 1915 March 31·401 to April 27·667.
7230	Apr. 6·340 C	0	13	0	10	325·7	344·7	−27·6	+44·1	A pair of very small faint spots.
7231	6·340 C	0	7	0	4	321·6	331·6	−24·4	+40·0	A very small faint spot.
7233	6·340 C	0	26	0	14	276·0	255·2	+ 8·0	− 5·6	A wide pair of very small spots *s* of Group 7232.
7226*	10·345 G	0	10	0	10	288·8	295·7	−23·1	+60·0	A pair of very small markings *sp* Group 7226.
7235	12·345 C	0	5	0	7	270·2	244·3	+ 2·0	+67·8	A very small faint marking *s* Group 7233.
7236	12·345 C	0	5	0	4	236·7	251·1	+25·7	+34·3	A very small faint marking *n* the position of Group 7229.
7237	12·345 C	0	8	0	5	233·7	264·1	−30·8	+31·3	A very small faint marking.
7234*	15·327 G	4	14	3	9	132·4	138·8	−22·2	−30·6	Two very small spots *sf* Group 7234.
7242	19·331 G	17	28	15	26	162·8	158·0	+18·5	+52·7	A small regular spot, *a*, with a faint companion; seen only close to the W. limb.
7247	21·362 G	5	10	3	7	46·1	17·5	+ 0·6	−37·2	A very small equatorial spot.
7248	22·515 C	0	7	0	4	94·5	125·8	−30·2	+26·4	A very small marking *sp* Group 7245.
7249	22·515 C	2	8	1	5	44·2	74·8	−30·0	−23·9	A very small marking *p* the place of Group 7243.
7250	23·507 C	0	12	0	8	84·4	87·8	+21·6	+29·4	A pair of very small faint markings.

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

GROUPS SEEN ONLY ON ONE DAY.

Letter for Group.	Date. Greenwich Civil Time, and Where taken.	Projected Area. Umbra.	Projected Area. Whole Spot.	Area Corrected for Foreshortening. Umbra.	Area Corrected for Foreshortening. Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude. from Central Meridian.	NOTES.
										ROTATION 823—*continued.*
	1915. d					°	°	°	°	
7251	Apr. 23·507 C	0	14	0	7	51·1	28·1	− 9·2	− 3·9	A pair of very small faint markings.
7252	23·507 C	0	8	0	6	5·4	359·4	−18·1	−49·6	A very small faint marking.
7253	24·388 G	2	3	1	2	20·8	0·3	+11·0	−22·5	A very small spot.
7254	25·524 C	2	21	1	13	355·1	339·0	−13·6	−33·2	Some very small faint markings.
7257	27·479 G	1	2	1	2	307·3	307·6	+20·5	−55·2	A very small spot *p* Group 7255.
										ROTATION 824; 1915 April 27·667 to May 24·892.
7258*	May 5·397 G	1	5	1	3	289·1	281·6	+17·8	+31·3	A pair of small spots *n* of the position of Group 7258.
7270	7·350 G	1	8	1	4	235·9	216·6	−12·9	+ 3·9	A very small spot.
7271	8·323 G	2	6	1	3	229·5	222·2	−17·9	+10·3	A very small spot.
7272	8·323 G	0	4	0	6	150·4	159·2	−23·1	−68·8	A very small faint spot.
7273	10·480 G	0	5	0	6	243·1	301·4	+35·2	+52·5	A very small faint spot *n* of Group 7263.
7275	16·460 C	0	23	0	21	65·3	121·1	+34·1	−46·2	A cluster of faint markings.
7276	18·167 D	2	12	3	17	22·5	6·6	+15·0	−66·5	A pair of very small spots in bright faculæ.
7277	20·495 C	0	10	0	6	83·0	92·3	+23·1	+24·8	A very small faint marking.
7278	20·495 C	0	14	0	8	62·9	65·0	−21·0	+ 4·7	A pair of very small faint markings.
										ROTATION 825; 1915 May 24·892 to June 21·093.
7285*	May 29·362 C	1	10	1	7	267·8	319·7	+32·3	−33·1	A small marking.
7293	June 9·436 G	4	7	2	4	130·4	122·6	−18·3	−23·9	A very small spot.
7295	12·398 C	1	6	1	3	127·6	90·1	− 6·6	+12·5	A very small faint marking.
7296	12·398 C	0	6	0	3	111·4	182·7	+34·9	− 3·7	A very small faint marking.
7297	12·398 C	1	9	1	5	110·4	85·4	+12·8	− 4·7	A very small faint marking.
7298	12·398 C	2	5	1	3	95·4	107·9	+23·4	−19·7	A very small faint marking.
7305	16·362 G	4	4	5	5	122·5	116·7	−18·9	+59·9	A very small spot.
7310	19·353 C	0	7	0	4	38·2	51·2	−23·4	+15·2	A very small faint marking between Groups 7302 and 7308.
7311	19·353 C	1	6	1	3	8·5	20·2	+23·1	−14·5	A very small faint marking *nf* Group 7304.
										ROTATION 826; 1915 June 21·093 to July 18·293.
7314	June 21·298 G	2	6	1	3	341·2	310·9	−11·3	−16·1	A very small spot.
7317	23·405 C	0	14	0	7	320·5	308·7	+17·4	− 8·9	A very small faint marking *s* Group 7316.
7320	25·487 G	2	9	2	5	301·7	286·1	+16·4	− 0·1	A pair of very small spots *sf* Group 7312.
7321	26·310 G	7	14	6	12	242·1	238·4	−19·5	−48·8	A small cluster of very small faint spots.
7322	27·333 G	0	4	0	2	273·3	267·8	+19·1	− 4·1	A very small faint marking.
7326	29·373 C	0	5	0	3	211·2	164·7	− 0·4	−39·2	A very small faint marking.
7327	July 1·350 C	0	14	0	12	236·3	201·5	+10·2	+12·1	A pair of small faint markings.
7327*	2·405 G	0	7	0	4	224·7	198·3	+13·4	+14·4	A small faint marking *nf* the place of Group 7327.
7327†	2·405 G	0	5	0	3	218·5	209·2	+18·2	+ 8·2	A small faint marking *nf* Group 7327.*
7328	2·405 G	0	18	0	12	208·7	300·4	−36·7	− 1·6	A faint elongated marking.
7331	7·615 G	2	11	1	7	115·8	121·1	−21·5	−25·5	A few very small faint spots *p* Group 7330.

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued*.

GROUPS SEEN ONLY ON ONE DAY.

Letter for Group.	Date. Greenwich Civil Time, and Where taken.	Projected Area. Umbra.	Projected Area. Whole Spot.	Area Corrected for Foreshortening. Umbra.	Area Corrected for Foreshortening. Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	Longitude from Central Meridian.	NOTES.
										ROTATION 826—*continued*.
	1915.d					°	°	°	°	
7332	July 8·430 C	1	28	1	25	184·3	216·1	+26·6	+53·8	Two small spots *n* Group 7324.
7333	8·430 C	0	10	0	5	147·7	101·3	+ 4·4	+17·2	A pair of very small markings.
7334	8·430 C	0	7	0	4	97·3	133·7	+27·4	−33·2	A very small marking.
7335	8·430 C	1	3	1	3	71·3	35·1	+10·2	−59·2	A very small marking.
7338	10·328 G	1	3	1	2	100·7	97·1	−19·6	− 4·7	A very small spot *p* Group 7330.
7344	13·298 G	0	11	0	6	48·1	29·0	−15·9	−18·0	A very small spot *n* of Group 7337.
7345	14·357 G	1	13	1	9	5·5	0·1	+19·2	−46·6	Two very small markings *f* Group 7341.
7347	16·375 C	0	7	0	5	63·9	36·2	−13·6	+38·5	A very small marking *nf* Group 7330.
7349	17·317 G	0	4	0	3	44·0	57·6	−23·1	+31·1	A very small marking.
										ROTATION 827; 1915 July 18·293 to August 14·514.
7356	July 21·306 G	0	2	0	2	12·3	346·3	−14·3	+52·2	A very small marking.
7357	21·306 G	3	14	2	8	316·0	340·6	−25·0	− 4·1	Two very small spots.
7362	26·336 G	1	3	1	2	283·9	309·7	−25·1	+30·3	A very small spot.
7369	30·296 G	0	4	0	2	207·7	232·1	−24·8	+ 6·5	A very small marking.
7371	31·433 C	1	7	1	4	155·5	117·7	+11·2	−30·7	A very small marking *nf* Group 7365.
7372	31·433 C	0	4	0	3	157·5	231·5	+32·3	−28·7	A very small marking *sf* Group 7365.
7373	31·433 C	0	7	0	6	138·9	153·1	−23·0	−47·3	A very small marking *sf* Group 7367.
7375	Aug. 1·338 G	2	9	1	6	150·6	147·6	−19·8	−23·6	A pair of very small markings *p* Group 7367.
7376	2·430 G	0	4	0	2	151·9	105·8	− 8·2	− 7·9	A very small marking *np* Group 7368.
7378	3·277 D	3	11	2	6	134·7	104·5	+13·6	−13·8	A very small spot.
7386	9·405 C	0	9	0	4	62·6	18·5	+ 9·6	− 4·9	A very small marking.
7387	9·405 C	0	9	0	6	45·6	66·9	−24·1	−21·9	A very small marking.
7389	10·384 G	0	3	0	2	13·9	352·4	−16·0	−40·7	A very small marking.
										ROTATION 828; 1915 August 14·514 to September 10·762.
7395	Aug. 16·616 G	0	5	0	3	336·8	48·9	−31·3	+ 4·6	A very small marking.
7399	19·418 G	1	3	1	2	310·4	349·3	−26·6	+15·2	A very small marking.
7402	22·457 C	2	10	5	22	333·7	337·2	+21·0	+78·7	A small spot *np* Group 7401, seen only close to the West limb.
7404	22·457 C	0	6	0	5	201·7	214·1	+22·5	−53·3	A very small spot.
7409	27·394 G	2	29	1	20	148·9	172·5	+24·2	−40·9	Some very small markings *f* Group 7408.
7410	28·379 G	1	3	1	2	159·2	187·0	−24·8	−17·6	A very small marking *sp* Group 7407.
7417	31·675 G	2	2	1	1	123·0	113·3	+18·7	−10·2	A very small spot.
7419	31·675 G	5	8	7	11	198·0	152·0	−10·4	+64·8	A small spot *nf* Group 7414, seen only close to the West limb.
7416*	Sept. 1·509 G	2	20	1	12	134·2	152·5	−23·3	+12·0	A small spot.
7416†	1·509 G	1	5	1	3	132·2	127·6	−19·6	+10·0	A small spot.
7421	2·358 C	3	18	3	17	170·6	198·5	+24·7	+59·6	A small spot *f* Group 7406, seen only near the West limb.
7416‡	2·358 C	2	9	1	5	135·8	130·7	−19·5	+24·8	A small spot.
7422	2·358 C	2	17	1	8	117·1	54·6	− 2·3	+ 6·1	A very small marking.
7427	7·402 G	0	8	0	5	80·7	142·1	+29·1	+36·3	A very small marking *nf* Group 7411.
7429	7·402 G	9	21	6	13	40·9	83·8	−26·7	− 3·5	A few very small spots.
7432	8·370 G	9	11	6	7	352·2	308·1	+11·4	−39·4	Two very small spots.
7433	9·448 G	2	6	1	4	45·9	10·4	−13·6	+28·5	A very small marking *nf* Group 7420.
7434	9·448 G	1	7	2	4	343·6	320·7	+16·3	−33·8	A few very small markings.
7435	10·355 G	0	8	0	6	318·3	319·6	+20·6	−47·1	A pair of very small markings.

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

GROUPS SEEN ONLY ON ONE DAY.

Letter for Group.	Date. Greenwich Civil Time, and Where taken.	Projected Area.		Area Corrected for Fore-shortening.		Mean Longitude of Group.		Mean Latitude of Group.	Longi-tude from Central Meridian.	NOTES.
		Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.			
	ROTATION 829; 1915 September 10·762 to October 8·038.									
	1915. d					°	°	°	°	
7437	Sept. 12·455 C	2	12	2	7	1·3	19·6	−23·2	+23·7	A pair of very small spots *f* Group 7424.
7441	14·490 C	0	36	0	18	306·8	249·3	+ 7·4	− 4·0	A cluster of very small markings *p* Group 7436.
7442	14·490 C	0	11	0	8	264·8	200·2	− 3·3	−46·0	A pair of very small small markings.
7443	14·490 C	0	9	0	9	247·6	202·2	+11·3	−63·2	A very small marking.
7444	17·447 G	4	12	3	9	224·7	295·8	+30·0	−47·0	A pair of very small spots.
7447	22·342 G	3	14	2	9	172·1	212·8	+26·1	−35·0	A pair of very small markings.
7452	28·327 C	0	3	0	2	111·6	274·0	−39·4	−16·5	A very small marking.
7453	28·327 C	0	5	0	3	102·5	86·3	+17·8	−25·6	A very small marking.
7454	28·327 C	3	10	3	8	77·7	113·9	+25·4	−50·4	A very small marking, probably associated with Group 7411 in the previous rotation.
7456	29·492 G	0	4	0	3	59·6	0·1	+ 7·9	−53·2	A very small marking.
7459	Oct. 2·446 C	0	12	0	6	89·5	104·9	+22·6	+15·7	Two very small markings.
7460	2·446 C	0	5	0	5	17·5	306·6	− 0·7	−56·3	A very small marking.
7462	5·335 C	0	13	0	9	7·0	61·4	−27·5	−28·7	A small marking.
7465	7·331 C	0	5	0	3	346·7	108·5	+34·8	−22·6	A very small faint spot *n* of Group 7463.
	ROTATION 830; 1915 October 8·038 to November 4·334.									
7468	Oct. 11·596 G	0	4	0	2	300·0	298·6	−20·2	−13·1	A very small marking *sp* Group 7467.
7463*	12·417 G	0	2	0	1	337·4	350·3	+22·2	+35·2	A very small marking *nf* Group 7463.
7470	13·359 C	0	7	0	4	305·0	241·1	− 7·4	+15·2	A very small marking *sp* Group 7467.
7471	13·359 C	0	6	0	3	282·7	209·9	− 2·4	− 7·1	A very small marking *sf* Group 7467.
7472	13·359 C	0	8	0	4	277·9	80·9	+38·6	−11·9	A very small marking *n* Group 7469.
7474	14·494 G	0	5	0	3	267·7	248·2	+17·4	− 7·1	A very small marking *nf* Group 7469.
7476	15·126 D	1	3	1	2	305·3	288·9	+17·9	+38·8	A very small marking *np* Group 7467.
7478	15·126 D	2	17	2	18	206·0	267·4	+28·1	−60·5	A pair of small spots *nf* Group 7477.
7480	19·425 G	6	21	3	11	223·2	187·9	−14·7	+13·4	A close pair of small spots, *a*, with a very small companion.
7482	20·511 G	0	5	0	4	229·9	270·6	−25·6	+34·4	A very small marking *sp* Group 7475.
7486	21·348 C	0	5	0	6	143·6	(174·3)	+59·7	−40·8	A very small marking partly surrounded by a small faculous wall, in very high latitude.
7487	22·399 G	2	11	1	7	135·9	108·5	−16·2	−34·7	A close pair of very small spots.
7489	25·311 C	0	11	0	6	111·0	144·0	+24·6	−21·2	A very small marking.
7491	29·410 G	0	2	0	3	143·9	152·3	−21·5	+65·8	A very small spot in bright faculæ, seen only near the West limb.
7497	31·436 C	0	3	0	2	26·6	328·3	+10·2	−24·8	A very small marking *sp* Group 7500.
7498	Nov. 1·337 C	0	7	0	7	97·7	24·0	− 5·1	+58·2	A very small marking.
7499	1·337 C	0	3	0	2	50·2	190·2	+35·5	+10·7	A very small marking.
7500	1·337 C	0	18	0	11	7·7	344·9	+17·1	−31·8	A small marking.
7502	3·344 C	0	4	0	2	28·9	64·4	+24·8	+15·8	A very small marking.
7503	4·307 C	0	7	0	4	25·4	349·8	+15·0	+25·0	A very small marking.
7504	4·307 C	0	6	0	5	1·6	(237·3)	−43·9	+ 1·2	A very small marking.
7505	4·307 C	0	4	0	3	356·1	(265·0)	−46·8	− 4·3	A very small marking.
7506	4·307 C	0	3	0	2	346·5	349·6	+20·8	−13·9	A very small marking.
	ROTATION 831; 1915 November 4·334 to December 1·644.									
7508	Nov. 5·433 G	2	9	1	6	315·5	266·5	−12·5	−30·0	A very small spot.
7514	12·365 C	0	9	0	6	266·3	87·6	−38·7	+12·2	A very small marking.
7515	13·323 C	0	9	0	5	277·7	196·1	+ 0·7	+36·2	A very small marking.

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

GROUPS SEEN ONLY ON ONE DAY.

Letter for Group.	Date. Greenwich Civil Time, and Where taken.	Projected Area		Area Corrected for Foreshortening.		Mean Longitude of Group.		Mean Latitude of Group.	Longitude from Central Meridian.	NOTES.
		Umbra.	Whole Spot.	Umbra.	Whole Spot.	System I.	System II.			
						ROTATION 831—*continued.*				
	1915. d					°	°	°	°	
7520	Nov. 17·475 G	2	7	1	4	199·3	177·5	−17·4	+12·5	A very small marking.
7524	18·337 C	0	4	0	3	127·1	164·4	+24·8	−48·3	A very small marking.
7528	19·544 G	0	5	0	3	174·5	278·7	−31·5	+15·0	A very small marking.
7530	20·367 C	1	5	1	3	120·9	90·2	+16·1	−27·7	A pair of very small markings.
7535	24·507 C	2	10	1	7	72·7	243·3	+37·2	−21·4	A very small spot *n* of Group 7529.
7536	24·507 C	0	6	0	3	68·1	18·0	+12·9	−26·0	A very small marking *sf* Groups 7529 and 7533.
7540	27·561 G	1	5	1	3	77·0	34·0	+14·2	+23·2	A very small marking.
7541	27·561 G	0	2	0	1	20·4	97·4	+28·7	−33·4	A very small marking.
7542	28·434 C	0	4	0	2	22·2	332·8	+13·1	−20·1	A very small marking seen *n* of the place of Group 7537, after the disappearance of the latter.
7544	29·392 C	0	4	0	2	0·8	286·7	− 7·5	−28·9	A very small marking.
7545	Dec. 1·351 C	0	12	0	9	322·4	339·5	+22·4	−41·5	A small marking.
						ROTATION 832; 1915 December 1·644 to December 28·969.				
7544*	Dec. 2·374 C	0	6	0	6	48·0	59·1	−21·7	+57·6	A small marking.
7547	2·374 C	0	13	0	6	356·8	280·0	+ 6·8	+ 6·4	A pair of very small markings.
7548	2·374 C	0	19	0	12	339·5	146·9	+36·6	−10·9	Two very small markings.
7549	2·374 C	0	2	0	1	336·1	43·8	+27·7	−14·3	A very small spot.
7551	3·427 C	0	6	0	10	264·5	282·3	+22·5	−72·0	A small diffused spot.
7557	8·470 G	0	14	0	25	197·0	159·8	−15·4	−73·1	A small spot.
7561	10·319 C	0	9	0	5	232·1	145·6	+ 3·3	−13·6	A small diffused marking *sf* Group 7559.
7563	14·334 C	1	11	1	6	193·0	141·6	−13·2	+ 0·2	A very small spot *n* of the place of Group 7560.
7565	14·334 C	0	4	0	3	157·8	192·2	+24·2	−35·0	A very small marking *nf* Group 7564.
7566	15·334 C	0	5	0	5	229·4	358·3	−32·9	+49·8	A very small marking.
7567	15·334 C	0	13	0	9	214·5	235·7	−22·8	+34·9	A very small marking.
7568	16·465 C	0	9	0	5	171·9	222·6	−25·8	+ 7·2	Two very small markings *sf* Group 7558.
7569	16·465 C	0	2	0	1	159·5	110·9	−13·7	− 5·2	A very small marking *nf* Group 7564.
7570	16·465 C	0	4	0	2	145·2	152·2	+21·2	−19·5	A very small marking *nf* Group 7569.
7571	18·337 C	0	22	0	13	171·3	184·7	+21·9	+31·2	A pair of very small markings *n* of Group 7564.
7572	18·337 C	0	7	0	5	105·6	115·2	+21·5	−34·5	A very small marking.
7574	24·521 C	0	13	0	7	63·2	3·1	+11·9	+ 4·6	A very small marking.
7576	26·459 C	0	5	0	4	82·2	123·2	+24·7	+49·1	A very small marking.
7577	26·459 C	2	5	1	4	74·5	112·2	−24·4	+41·4	A very small spot.
7578	26·459 C	0	7	0	7	63·9	(180·2)	−59·5	+30·8	A very small marking in high southern latitude.
7579	26·459 C	0	8	0	5	54·1	57·0	+20·7	+21·0	A very small marking.
7580	26·459 C	0	4	0	2	4·5	333·2	−16·5	−28·6	A very small marking.
						ROTATION 833 (part); 1915 December 28·969 to 1916 January 1·0.				
7583	Dec. 29·337 C	0	6	0	5	323·1	178·0	+39·2	−32·1	A very small marking.
7587	30·458 C	0	2	0	3	275·0	341·9	−27·1	−65·4	A very small spot.
7589	31·363 C	0	4	0	2	349·9	257·7	− 3·1	+21·4	A very small marking.
7590	31·363 C	0	7	0	4	313·4	39·4	+28·8	−15·1	A very small marking.

ROYAL OBSERVATORY, GREENWICH.

CATALOGUE

OF

RECURRENT GROUPS OF SUN SPOTS

COMPILED FROM THE

LEDGERS OF GROUPS OF SUN SPOTS

FOR THE YEAR

1915.

CATALOGUE of RECURRENT GROUPS of SUN SPOTS, COMPILED from the LEDGERS of AREAS and POSITIONS of GROUPS of SUN SPOTS deduced from the MEASUREMENT of the SOLAR PHOTOGRAPHS at the ROYAL OBSERVATORY, GREENWICH, for the YEAR 1915.

NOTE.—Groups of Sun Spots observed uninterruptedly in two or more consecutive Rotations of the Sun, are classified as "Recurrent." Cases where the continuity of the group is doubtful are enclosed in brackets.

The reference Numbers in the following Table are in continuation of those given in previous "Catalogues of Recurrent Groups of Sun Spots."

The numeration of the Spot Groups is the same as in the two preceding Sections.

The numeration of the Rotations is the same as in the preceding and following Sections.

The Columns "Longitude from Central Meridian" give, for the date on which each group was first seen and last seen respectively, its heliographic longitude from the meridian passing through the centre of the Sun's disc at the moment of observation; longitude west of the centre being reckoned as positive.

The Mean Areas for Umbra and for Whole Spot are corrected for the effect of foreshortening and are expressed in millionths of the Sun's visible hemisphere.

Reference Number.	No. of Group.	Rotation.	First Seen.		Last Seen.		No. of Days Photographed.	Mean Area for		Mean Longitude of Group.		Mean Latitude of Group.	REMARKS.
			Date.	Longitude from Central Meridian.	Date.	Longitude from Central Meridian.		Umbra.	Whole Spot.	System I.	System II.		
			1914.	°	1914.	°				°	°	°	
727	7125	819	Dec. 30	+68·8	Dec. 31	+78·4	2	5	49	186·20	186·15	+22·65	A small group forming near the W. limb.
			1915.		1915.								
	7140	820	Jan. 15	−79·9	Jan. 22	+12·2	8	10	53	188·28	189·41	+22·89	A regular spot with very small companion.
728	7137	820	Jan. 12	+20·6	Jan. 17	+81·2	6	17	97	328·92	329·42	−21·88	Some small spots in a sparse irregular stream.
	(7158	821	31	−82·9	Feb. 10	+55·3	11	20	97	339·60	339·80	−20·62)	A regular spot soon dividing and breaking up.
	7160	821	Feb. 1	−80·3	13	+88·8	13	43	178	327·05	330·22	−23·69	A few small spots *f* 7158. The group develops into a long, straight and nearly continuous stream.
	7190	822	28	−80·3	Mar. 11	+61·6	12	24	131	326·34	331·01	−23·24	A large regular spot. *Note.*—Group 7160 appears to be the return of 7137; 7158 being only a considerable associated disturbance.
729	7138	820	Jan. 12	−78·5	Jan. 23	+65·1	12	12	45	229·20	229·52	+21·15	A regular spot steadily diminishing after Jan. 15.
	7171	821	Feb. 9	−68·3	Feb. 10	−57·2	2	8	17	227·90	228·10	+20·65	A small spot.
(729*)	7161	821	Feb. 4	−28·9	Feb. 12	+77·2	9	40	119	340·11	338·78	+18·89	A wide area of disturbance in which a long sparse stream has formed by Feb. 10.
	7189	822	28	−62·9	28	−62·9	1	0	5	345·60	345·20	+20·10	A very small faint spot. Probably a feeble associated disturbance, not an actual return.
730	7169	821	Feb. 8	−71·8	Feb. 20	+82·1	13	100	502	238·45	241·66	+23·21	A very large regular spot.
	7204	822	Mar. 7	−80·0	Mar. 19	+72·3	13	42	232	233·47	239·82	+23·82	A large regular spot, which has divided into two by March 11.
	7229	823	Apr. 4	−66·1	April 5	−58·1	2	0	14	239·35	245·45	+22·95	A small spot *f* Groups 7227 and 7228.
731	7170	821	Feb. 9	+58·7	Feb. 10	+68·1	2	6	26	354·05	355·20	−21·55	A few small spots forming near the W. limb.
	7187	822	26	−81·1	Mar. 11	+86·4	14	43	222	351·56	348·93	−18·61	A large regular spot.
732	7185	821	Feb. 25	−49·0	Mar. 7	+80·4	10	16	56	38·66	49·87	+27·23	A disturbed area in which small unstable spots are irregularly scattered. None are seen on March 4.
	7216	822	Mar. 22	−79·8	Apr. 3	+79·1	13	16	93	38·71	50·22	+25·37	A regular spot with small companions.
(732*)	7186	821	Feb. 26	+64·1	Feb. 27	+73·0	2	7	14	136·40	135·00	−19·40	Some very small spots.
	7209	822	Mar. 15	−72·0	Mar. 26	+75·0	5	1	4	137·98	135·84	−19·26	An area of feeble and intermittent activity.
	7234	823	Apr. 11	−75·5	Apr. 18	+15·6	6	4	24	139·33	134·68	−18·47	A few small unstable spots seen intermittently. *Note.*—Both 7209 and 7234 are intermittent; so that though 7209 is a return of 7186, and 7234 of 7209, the series is not continuous but broken.

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

Reference Number.	No. of Group.	Rotation.	First Seen. Date.	First Seen. Longitude from Central Meridian.	Last Seen. Date.	Last Seen. Longitude from Central Meridian.	No. of Days Photographed.	Mean Area for Umbra.	Mean Area for Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	REMARKS.
			1915.	°	1915.	°				°	°	°	
733	7222	822	Mar. 30	+27·9	Apr. 2	+64·8	3	2	8	39·63	61·80	−29·13	A few very small spots. Intermittent.
	7243	823	Apr. 19	−72·0	20	−57·9	2	5	12	38·35	68·10	−29·95	A small spot with faint companion.
734	7223	823	Mar. 30	−72·3	Apr. 10	+70·2	12	170	1006	299·84	299·36	+20·19	A very large spot with a few small companions.
	7255	824	Apr. 26	−80·6	May 8	+75·6	13	73	359	296·04	292·04	+18·98	A large regular spot and companions.
	7285	825	May 24	−76·7	June 5	+75·0	13	14	80	288·98	291·38	+21·02	A large regular spot.
735	7224	823	Mar. 30	−81·8	Apr. 11	+77·7	13	84	443	290·86	282·08	+16·20	A fine straight and almost continuous stream.
	7258	824	Apr. 27	−70·7	May 4	+19·3	8	11	34	290·91	279·40	+16·06	A small compact cluster.
(735*)	7225	823	Mar. 31	−75·9	Apr. 10	+52·3	11	29	137	281·75	271·95	+15·66	Some small spots uniting to form a regular spot which soon breaks up.
	7260	824	Apr. 28	−70·3	May 8	+58·0	11	18	96	279·54	268·40	+16·31	An elongated spot followed by a short train. *Note.*—Evidently an instance of revival, not of the return of a continuous disturbance.
736	7226	823	Apr. 1	−79·3	Apr. 13	+85·0	13	31	174	270·95	262·48	−16·44	A number of small spots in a straight stream.
	7261	824	28	−75·6	May 9	+69·8	12	16	94	275·79	262·53	−15·46	A large regular spot.
737	7266	824	May 2	+18·0	May 7	+77·4	6	83	343	314·54	316·76	+21·10	An irregular stream developing rapidly.
	7282	825	22	−77·2	June 3	+75·3	13	95	536	312·54	317·98	+21·88	A remarkable group, consisting chiefly of a very large regular spot with many companions.
738	7290	825	June 2	+55·4	June 3	+66·7	2	14	60	301·10	304·90	+21·40	A few small spots in a straight stream.
	7312	826	19	−76·8	27	+26·8	9	18	115	305·49	312·08	+21·90	A large regular spot with small companions.
739	7291	825	June 2	+60·3	June 3	+71·7	2	23	125	306·05	320·30	−23·95	A small stream of normal type.
	7313	826	19	−78·2	July 1	+76·2	13	100	530	300·34	306·65	−21·84	A very long active stream.
740	(7287	824	May 28	+46·0	May 30	+77·7	3	24	78	3·23	351·97	+17·03)	A ring of small spots on May 28; a small regular spot on May 30.
	7304	825	June 15	−72·2	June 27	+77·2	13	138	767	1·95	351·53	+17·72	An irregular stream developing into a very large and complex cluster.
	7341	826	July 11	−81·3	July 23	+79·2	13	40	200	10·32	359·07	+17·91	A large regular spot with small and distant followers.
	7384	827	Aug. 7	−80·1	Aug. 19	+72·6	13	19	117	9·13	357·46	+18·17	A large regular spot. *Note.*—Group 7304, though in the same position as 7287, appears to be a new formation.
741	7306	825	June 16	+28·4	June 19	+68·1	4	19	54	91·15	88·80	−19·83	A small stream of normal type.
	7330	826	July 5	−75·0	July 17	+77·0	13	165	979	89·81	90·59	−20·56	A very large regular spot closely followed by an extensive shaded region.
742	7308	825	June 17	−18·4	June 24	+75·2	8	71	317	30·98	51·15	−24·84	An active stream forming suddenly.
	7339	826	July 10	−77·0	July 18	+27·0	9	14	111	26·36	53·19	−25·54	A composite spot with a few attendants.
743	7315	826	June 22	+ 1·1	June 28	+81·5	7	18	46	346·83	346·33	+20·28	Two small spots at first; later, a sparse stream.
	7343	827	July 12	−85·1	July 25	+82·3	14	15	106	350·60	344·63	+19·12	A large regular spot.
744	7325	826	June 29	+49·7	June 30	+63·6	2	1	6	300·70	284·55	+16·35	A very small spot.
	7348	827	July 16	−73·9	July 27	+78·4	12	20	75	313·27	293·10	+15·83	A large regular spot, followed by a widely scattered train.

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

Reference Number.	No. of Group.	Rotation.	First Seen. Date.	First Seen. Longitude from Central Meridian.	Last Seen. Date.	Last Seen. Longitude from Central Meridian.	No. of Days Photographed.	Mean Area for Umbra.	Mean Area for Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	REMARKS.
			1915.	°	1915.	°				°	°	°	
(744*)	7336	826	July 9	+12·4	July 13	+60·1	5	10	28	127·90	120·64	−18·76	A few small scattered spots.
	7368	827	29	−77·9	Aug. 10	+72·3	13	229	1235	134·05	119·40	−17·42	A very large and complex spot closely followed by a numerous train. *Note.*—Group 7336 seems to disappear before reaching the W. limb. If so 7368 is a revival of 7336, not a return.
(744†)	7340	826	July 11	+61·1	July 12	+77·0	2	5	43	153·20	147·05	+19·05	A cluster of small spots.
	7370	827	30	−49·1	Aug. 1	−21·9	2	0	9	152·20	161·25	+22·10	A disturbed region in which some very faint markings are seen. A feeble disturbance associated with Group 7340, not a return.
745	7342	826	July 12	+61·8	July 13	+72·7	2	12	59	138·70	145·25	−21·75	A small spot on July 12, three on July 13.
	7367	827	29	−69·0	Aug. 1	−31·5	4	4	8	143·88	146·18	−20·83	A small regular spot.
746	7354	827	July 19	−76·0	July 31	+74·3	13	197	1029	268·36	265·90	−19·88	A very large and complex group undergoing much change.
	7393	828	Aug. 15	−73·2	Aug. 26	+71·9	12	78	395	276·01	263·71	−18·11	A compact cluster.
747	7397	828	Aug. 16	−50·9	Aug. 26	+78·5	11	30	127	284·04	258·99	+15·43	An irregular cluster developing into a stream of normal type.
	7438	829	Sept. 12	−53·8	Sept. 16	+ 0·8	3	1	8	283·93	268·03	+17·67	A few very small spots. Intermittent.
748	(7364	827	July 26	−78·6	Aug. 7	+82·3	13	33	164	173·49	181·14	+21·82)	A large regular spot, usually with companions.
	7406	828	Aug. 23	−54·3	Sept. 3	+83·3	12	92	426	186·20	198·17	+22·39	A fine stream.
	7445	829	Sept. 17	−85·3	26	+30·3	10	10	52	184·90	194·40	+21·81	A regular spot. *Note.*—Group 7406 appears suddenly in the third lune from the E. limb. It is therefore a revival, not a return, of 7364.
(748*)	7411	828	Aug. 28	−84·8	Sept. 10	+79·4	14	85	406	89·42	109·36	+23·53	A very large composite spot with some small companions.
	7454	829	Sept. 28	−50·4	28	−50·4	1	3	8	77·70	113·90	+25·40	A very small marking. Probably a feeble associated disturbance, not an actual return.
749	(7391	827	Aug. 11	+17·5	Aug. 15	+72·6	5	5	20	60·46	46·10	−17·60)	A small spot.
	7418	828	30	−72·8	Sept. 10	+72·3	12	51	288	77·16	55·93	−16·57	A large regular spot.
	(7420	828	Sept. 1	−71·1	12	+75·5	10	18	63	52·09	37·90	−17·92)	A regular spot disappearing before Sept. 5 and reappearing on Sept. 7 as a feeble stream.
	7450	829	26	−71·7	Oct. 7	+70·3	12	21	113	81·30	55·02	−16·04	A large regular spot. *Note.*—Group 7450 is a return of 7418; 7391 and 7420 are only feeble associated disturbances.
750	7436	829	Sept. 10	−71·1	Sept. 22	+83·3	13	28	133	293·97	245·22	+10·42	A wide area of feeble disturbance from which a well-marked stream is developed.
	(7464	830	Oct. 6	−77·6	Oct. 12	− 1·3	4	1	14	301·98	240·23	+ 7·80)	A small regular spot. Intermittent.
	(7466	830	7	−64·4	13	+17·6	4	0	4	306·45	254·88	+10·85)	A small spot. Intermittent.
	7467	830	7	−83·2	19	+82·2	13	58	326	286·91	226·68	+ 8·65	A long straight nearly continuous stream.
	(7509	831	Nov. 5	−50·5	Nov. 12	+37·1	4	1	5	292·50	238·15	+11·53	A very small spot. Intermittent. *Note.*—Group 7467 appears to be a return of 7436, but 7464, 7466, and 7509 are only feeble associated disturbances.

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

Reference Number.	No. of Group.	Rotation.	First Seen. Date.	First Seen. Longitude from Central Meridian.	Last Seen. Date.	Last Seen. Longitude from Central Meridian.	No. of Days Photographed.	Mean Area for Umbra.	Mean Area for Whole Spot.	Mean Longitude of Group. System I.	Mean Longitude of Group. System II.	Mean Latitude of Group.	REMARKS.
			1915.	°	1915.	°				°	°	°	
751	7446	829	Sept. 20	−85·0	Oct. 2	+75·2	13	153	715	148·12	99·55	+10·99	A fine irregular stream in continual change.
	7479	830	Oct. 17	−84·5	29	+75·0	13	36	233	151·98	102·06	+11·90	A fine double spot, expanding after Oct. 26 into a fine compact cluster.
	7517	831	Nov. 13	−81·7	Nov. 25	+77·6	11	22	114	160·37	105·20	+11·74	A regular spot disappearing before Nov. 17. A fresh outburst has taken place by Nov. 19, and an irregular cluster has formed.
752	7495	830	Oct. 30	+20·0	Nov. 4	+77·6	6	21	127	81·58	141·65	+27·53	A short stream.
	7531	831	Nov. 20	−69·2	23	−28·0	4	3	12	80·35	147·60	+27·85	A small spot.
753	7512	831	Nov. 9	−28·0	Nov. 17	+80·0	9	38	191	269·78	269·78	+20·41	An irregular stream.
	7550	832	Dec. 2	−78·6	Dec. 13	+64·2	12	9	46	272·45	268·70	+19·85	A few small and rather unstable spots.
754	7516	831	Nov. 13	−59·3	Nov. 23	+70·7	9	21	98	180·72	191·33	−21·72	Two clusters up to Nov. 15; not seen on Nov. 16 and 17; a curved stream later.
	7558	832	Dec. 8	−82·2	Dec. 21	+82·0	14	28	190	184·81	183·08	−20·19	A large regular spot.
755	7564	832	Dec. 14	−27·5	Dec. 22	+77·0	9	57	355	168·59	95·26	+8·80	A pair of small spots developing into a long stream.
			1916.		1916.								
	7595	833	Jan. 6	−72·2	Jan. 18	+82·3	13	41	236	175·29	106·12	+10·83	A large regular spot with companions.
	7622	834	Feb. 2	−78·3	Feb. 14	+78·9	13	16	86	174·61	100·79	+10·89	A large regular spot.

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

1915.

TOTAL AREAS of SUN SPOTS and FACULÆ for EACH DAY in the YEAR 1915.

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, one taken at the Cape by the letter C, one taken at Kodaikánal by the letter K, and one taken at Dehra Dûn by the letter D.

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.	Where taken.	Projected Area.			Area Corrected for Foreshortening.		
		Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1915 d							
January 1·103	K	44	130	593	38	135	873
2·551	G	118	368	1263	98	341	1221
3·108	K	108	670	449	84	521	382
4·321	C	147	1065	704	100	715	748
5·351	C	264	1425	903	169	867	1177
6·367	C	222	1408	740	118	750	872
7·384	C	275	1413	278	148	762	316
8·486	G	197	1004	336	117	593	407
9·402	C	137	838	527	90	561	670
10·451	G	108	610	919	93	527	921
11·459	G	77	418	726	97	539	910
12·357	C	62	193	588	114	426	1057
13·388	C	32	116	318	34	115	517
14·416	C	92	288	878	62	209	941
15·337	C	83	343	851	73	379	1100
16·422	G	101	435	1384	104	532	1761
17·160	K	64	308	883	55	287	1221
18·117	K	82	324	593	59	233	598
19·334	C	61	315	315	37	191	621
20·311	D	59	248	323	35	147	384
21·387	C	29	86	651	17	52	778
22·391	C	39	103	641	26	64	884
23·356	C	19	72	1491	15	63	1721
24·454	C	12	23	546	8	16	746
25·337	C	6	20	1297	5	21	1258
26·411	G	2	4	1512	2	5	1625
27·388	C	2	14	710	2	11	935
28·312	C	26	66	1009	24	60	1360
29·343	C	33	95	965	28	90	1124
30·432	C	0	14	950	0	7	893
31·113	K	14	66	611	45	188	861
February 1·351	C	25	123	1419	35	164	1803
2·347	C	40	291	2078	36	271	2437
3·371	C	56	391	1245	40	276	1204
4·115	K	129	477	500	88	311	537
5·404	G	194	685	269	142	580	331
6·463	G	238	758	722	143	542	791
7·391	C	216	1143	739	138	738	824
8·430	G	312	1151	706	246	974	792
9·598	G	397	1491	845	332	1218	924
10·441	G	409	1844	1279	324	1455	1318
1915 d							
February 11·418	G	396	1942	1398	319	1507	1483
12·347	C	348	1804	1682	269	1362	2236
13·396	C	282	1357	1034	255	1193	1474
14·360	C	232	1179	885	147	700	1330
15·339	C	206	1095	641	129	684	947
16·413	G	182	872	765	133	629	784
17·399	C	131	656	731	119	590	755
18·108	K	101	534	1092	123	636	1363
19·610	G	36	194	924	84	455	1153
20·396	C	19	74	705	107	281	1110
21·463	G	25	93	680	35	154	850
22·412	C	39	146	586	35	145	690
23·456	G	86	190	735	86	219	860
24·611	G	225	781	603	139	519	688
25·333	C	190	994	959	111	594	1026
26·487	G	246	1013	754	185	786	946
27·390	C	212	1101	758	148	794	1091
28·412	G	256	1294	966	201	999	1189
March 1·436	G	242	1163	1663	173	860	1781
2·428	C	184	1097	1038	133	795	1155
3·175	D	279	1186	1747	198	835	1801
4·513	C	169	1081	1509	105	636	1863
5·428	C	228	1194	1428	151	776	1656
6·208	D	248	1003	1671	220	782	1689
7·473	C	175	885	816	185	809	1193
8·384	G	205	869	919	168	835	1057
9·379	G	206	894	1349	162	756	1394
10·429	C	183	779	1236	181	670	1409
11·504	C	74	613	888	48	481	863
12·380	C	95	523	754	58	320	863
13·446	C	48	414	530	28	239	672
14·099	K	94	410	960	53	236	1210
15·429	C	123	522	1066	71	319	1437
16·167	D	86	311	1990	57	221	2104
17·161	D	157	431	1134	115	321	1178
18·395	C	100	428	946	93	397	1071
19·423	G	100	325	944	93	347	1408
20·479	G	57	209	816	48	202	1085
21·477	G	56	150	995	37	94	1022
22·396	C	32	105	729	46	167	709
23·633	G	16	109	934	23	130	1180

TOTAL AREAS of SUN SPOTS and FACULÆ—*continued.*

Greenwich Civil Time.		Where taken.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1915.	d							
March	24·403	C	15	119	896	15	122	1062
	25·425	C	25	162	977	20	128	949
	26·610	G	18	176	827	12	122	952
	27·412	G	35	217	715	21	132	1073
	28·488	G	29	187	770	17	109	833
	29·393	G	48	219	770	36	171	854
	30·428	G	143	832	908	218	1422	1116
	31·421	G	219	1307	1622	251	1542	2199
April	1·334	G	311	1785	1931	280	1648	2128
	2·346	G	391	2256	1165	301	1748	1185
	3·572	C	568	3337	756	375	2277	1054
	4·511	G	734	3750	846	453	2298	1137
	5·167	D	906	4237	1553	527	2445	1600
	6·340	C	638	3680	992	364	2109	1029
	7·398	G	762	3540	1131	463	2158	1193
	8·421	G	574	2918	1056	399	2060	1038
	9·352	G	456	2228	830	376	1872	862
	10·345	G	273	1555	1404	319	1855	1655
	11·507	C	81	597	1440	97	836	1806
	12·345	C	41	261	1270	47	322	1700
	13·302	C	22	100	1424	30	245	1738
	14·405	G	14	67	1020	9	39	1034
	15·327	G	20	54	1030	14	36	1169
	16·418	G	8	91	922	10	173	1431
	17·333	G	0	0	404	0	0	505
	18·403	G	8	23	634	7	16	837
	19·331	G	52	87	812	54	87	994
	20·364	C	39	107	990	26	73	1058
	21·362	G	229	841	968	125	459	933
	22·515	C	120	883	545	64	479	689
	23·507	C	169	769	556	96	440	897
	24·388	G	119	503	373	73	316	428
	25·524	C	65	314	1119	48	237	1119
	26·364	C	50	343	1359	139	862	1947
	27·479	G	119	641	1889	159	853	2366
	28·356	G	172	908	1940	201	1036	2614
	29·351	G	179	1149	1581	141	914	1765
	30·419	G	326	1514	1337	203	1055	1422
May	1·165	D	353	1550	1674	219	1023	2146
	2·553	G	402	1736	697	232	988	772
	3·346	G	435	1829	1056	252	1051	1216
	4·392	C	313	1737	583	197	1095	675
	5·397	G	335	1472	530	255	1131	523
	6·316	G	290	1304	1726	293	1313	1809
	7·350	G	167	790	1862	147	879	2296
	8·323	G	92	391	1888	102	470	2224
	9·341	G	24	90	711	17	65	915
	10·480	G	7	23	829	7	23	935
	11·317	G	0	0	502	0	0	624
	12·367	C	0	0	356	0	0	466
	13·450	C	0	0	635	0	0	918
	14·559	G	5	21	633	4	14	838
	15·342	G	4	9	1218	3	6	1031

Greenwich Civil Time.		Where taken.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1915.	d							
May	16·460	C	0	23	736	0	21	704
	17·319	C	0	0	323	0	0	408
	18·167	D	2	12	1389	3	17	1740
	19·323	G	0	0	856	0	0	885
	20·495	C	0	77	808	0	218	828
	21·624	G	26	191	551	39	281	1030
	22·430	G	102	479	677	207	959	1080
	23·331	G	105	694	840	129	832	1058
	24·297	G	195	930	1423	177	919	1609
	25·315	G	244	1079	1410	178	812	1502
	26·319	G	249	1355	845	156	860	912
	27·320	G	252	1362	614	145	787	638
	28·260	D	248	1208	1424	144	680	1445
	29·362	C	227	1238	162	145	728	171
	30·330	G	196	1019	294	142	700	415
	31·305	G	148	782	845	98	506	1051
June	1·310	G	99	557	1344	79	433	1520
	2·554	G	96	446	1496	104	509	1729
	3·365	C	63	380	1086	93	649	1328
	4·442	G	6	13	1005	9	18	1266
	5·126	K	10	71	669	6	48	854
	6·349	G	18	89	427	10	48	541
	7·379	G	38	71	111	22	39	156
	8·302	G	36	104	195	23	66	247
	9·436	G	17	25	211	12	18	193
	10·419	C	17	41	515	14	38	565
	11·688	G	4	7	454	3	5	632
	12·398	C	12	56	810	35	142	1401
	13·120	K	36	161	1218	84	384	1663
	14·110	K	99	594	1062	117	704	1517
	15·422	G	271	1179	997	196	858	1083
	16·362	G	348	1572	1139	236	1007	1093
	17·411	G	616	2221	554	360	1276	648
	18·324	G	697	2814	504	404	1631	685
	19·353	C	547	2784	1058	356	1911	1572
	20·318	G	762	3444	1303	489	2388	1542
	21·298	G	920	4368	1808	572	2756	1673
	22·356	G	791	4315	1783	504	2747	1906
	23·405	C	624	3339	1468	429	2423	1787
	24·388	C	519	2917	1862	384	2178	2318
	25·487	G	459	2381	680	334	1795	854
	26·310	G	437	2206	939	345	2051	1144
	27·333	G	402	1278	506	287	905	883
	28·505	C	161	903	1608	127	730	1810
	29·373	C	159	696	2413	140	599	2598
	30·330	D	198	860	1984	173	794	2335
July	1·350	C	183	995	1328	132	704	2004
	2·405	G	138	678	807	76	378	874
	3·297	G	102	361	622	59	208	811
	4·550	G	52	150	601	32	80	818
	5·513	G	107	359	1055	148	627	1103
	6·428	G	145	929	1197	187	1284	1339
	7·615	G	264	1442	818	246	1342	1066

TOTAL AREAS of SUN SPOTS and FACULÆ—*continued.*

Greenwich Civil Time.		Where taken.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1915. July	d 8·430	C	295	1932	1108	213	1407	1439
	9·474	G	385	2176	1018	237	1350	1380
	10·328	G	403	2202	1166	234	1465	1593
	11·377	C	466	2572	1401	310	1802	1633
	12·487	G	411	2276	1538	272	1604	1936
	13·298	G	458	2270	1609	311	1634	1731
	14·357	G	331	1703	791	234	1211	877
	15·358	G	257	1408	797	193	1066	705
	16·375	C	222	1177	1474	196	1107	2245
	17·317	G	206	991	1588	212	1023	2195
	18·522	G	166	795	3515	95	444	3526
	19·563	G	136	770	1809	100	591	2060
	20·316	G	238	1203	1873	227	1114	2173
	21·306	G	313	1797	1273	267	1571	1885
	22·392	D	516	2629	1770	392	2002	1935
	23·480	G	487	2441	1577	336	1723	1906
	24·299	G	625	2785	1424	379	1689	1782
	25·304	G	618	2882	2115	361	1733	2192
	26·336	G	610	2837	2168	421	1877	2178
	27·480	G	437	2130	2337	344	1622	2993
	28·300	G	458	1883	1453	372	1536	2253
	29·370	G	280	1594	2104	289	1937	2448
	30·296	G	343	1860	2826	383	2280	2701
	31·433	C	427	2445	1697	365	2133	2230
August	1·338	G	512	2947	1524	352	2062	1770
	2·430	G	692	3738	1507	421	2148	1942
	3·277	D	551	3361	846	313	1911	1061
	4·689	G	581	2650	1769	332	1506	1754
	5·312	G	693	2783	1633	400	1621	1385
	6·633	G	394	1979	1709	256	1309	1713
	7·701	G	245	1287	2531	225	1197	2927
	8·501	G	141	593	2552	144	640	2916
	9·405	C	72	433	2856	83	560	3608
	10·384	G	47	238	2560	53	217	3100
	11·332	G	41	248	1684	27	163	2126
	12·600	G	70	314	1725	43	183	2099
	13·322	G	138	448	2063	90	272	2239
	14·325	G	79	320	1997	50	192	2429
	15·340	G	58	360	1084	53	405	1335
	16·616	G	131	501	1953	107	406	2082
	17·316	G	131	626	1596	95	477	1541
	18·554	G	280	974	1484	172	633	1503
	19·418	G	284	1353	1706	165	823	1546
	20·378	G	321	1431	1766	176	784	1759
	21·434	G	223	1399	1773	131	786	2037
	22·457	C	227	1289	1319	149	834	1803
	23·588	G	255	1118	1855	187	820	2014
	24·523	G	394	1344	3031	315	1190	3275
	25·393	G	332	1497	2409	268	1187	2914
	26·360	G	305	1388	2665	233	1106	3480
	27·394	G	299	1254	2393	162	686	2836
	28·379	G	290	1280	2231	273	1225	2325
	29·437	C	250	1456	1762	203	1241	1902
	30·445	G	278	1526	1253	240	1405	1450
	31·675	G	327	1640	1671	258	1343	1733

Greenwich Civil Time.		Where taken.	Projected Area.			Area Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1915. September	d 1·509	G	374	1811	1768	278	1386	1942
	2·358	C	371	1983	1978	277	1511	2193
	3·424	G	341	1756	1248	217	1175	1269
	4·383	G	320	1654	2340	199	1064	2435
	5·557	G	278	1319	2231	168	847	2421
	6·366	G	291	1154	2361	194	734	2532
	7·402	G	369	1237	1331	241	808	1794
	8·370	G	308	1132	2668	212	796	2808
	9·448	G	206	865	2051	163	711	2544
	10·355	G	134	708	2148	130	734	2958
	11·413	G	88	480	3183	63	358	3450
	12·455	C	84	375	2622	64	293	2848
	13·501	G	51	196	1092	44	180	1207
	14·490	C	50	235	1577	53	236	1833
	15·355	G	16	100	1030	9	147	1330
	16·546	G	23	186	295	12	95	313
	17·447	G	85	309	1977	67	262	2058
	18·385	G	145	497	1488	100	358	1760
	19·416	G	80	441	981	62	355	1191
	20·358	G	79	348	1702	102	430	1852
	21·348	G	145	781	1679	225	1209	2110
	22·342	G	232	1021	2023	220	1066	2507
	23·389	C	315	1459	1692	221	1023	2103
	24·418	G	375	1589	2178	223	943	2239
	25·404	G	405	1979	1723	218	1055	2109
	26·463	G	417	1967	1204	244	1130	1494
	27·269	D	320	1591	1261	189	923	1293
	28·327	C	376	1679	2027	214	961	2153
	29·492	G	283	1393	1362	178	878	1360
	30·503	C	229	1126	1881	169	830	1944
October	1·610	G	170	785	2227	161	754	2494
	2·446	C	68	546	1553	89	687	1794
	3·513	G	43	208	1904	25	135	2559
	4·453	G	51	209	1989	34	137	2337
	5·335	C	26	197	1757	17	139	2194
	6·491	C	44	181	2652	31	165	3208
	7·331	C	54	263	2460	58	260	3266
	8·446	G	123	544	2912	127	553	3068
	9·309	C	80	792	1208	61	670	1375
	10·603	G	191	861	777	121	552	799
	11·596	G	189	796	1210	105	450	1273
	12·417	G	155	781	581	83	409	755
	13·359	C	182	937	796	95	477	949
	14·494	G	175	1030	1146	122	995	1445
	15·126	D	215	1048	1564	188	859	2035
	16·331	C	186	1077	1203	135	801	1313
	17·551	G	275	1561	1211	221	1268	1388
	18·445	G	350	2069	1534	240	1431	1941
	19·425	G	362	1862	1568	214	1141	2006
	20·511	G	327	1729	1619	195	1040	2256
	21·348	C	229	1452	1767	131	843	2196
	22·399	G	217	1154	1180	133	725	1341
	23·479	G	149	737	1186	159	792	1538
	24·173	D	101	680	1858	124	715	2103
	25·311	C	82	514	1876	75	456	2297

TOTAL AREAS of SUN SPOTS and FACULÆ—*continued.*

Greenwich Civil Time.	Where taken.	Projected Area.			Area Corrected for Foreshortening.		
		Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1915. d							
October 26·393	G	91	642	1259	65	466	1480
27·425	C	106	914	337	73	622	427
28·604	G	194	1039	1032	134	802	1235
29·410	G	152	926	1818	126	876	2157
30·435	G	157	642	1805	97	383	2262
31·436	C	133	776	1407	77	464	1691
November 1·337	C	137	807	1815	86	517	1942
2·489	G	140	698	1354	94	473	1574
3·344	C	142	642	1538	99	546	2072
4·307	C	77	478	1779	66	422	2148
5·433	G	85	378	1581	68	314	1891
6·364	C	45	262	2070	47	326	2288
7·192	D	59	332	664	47	325	858
8·511	G	80	431	1913	53	287	2826
9·305	C	77	448	1558	51	287	1894
10·406	G	130	558	1399	76	320	1495
11·472	G	134	575	1872	74	322	2110
12·365	C	105	513	2186	57	290	2672
13·323	C	97	464	1955	74	359	2444
14·526	G	118	426	1533	98	352	1696
15·451	G	65	371	1693	58	330	1844
16·461	G	60	319	1365	61	355	1465
17·475	G	65	327	1884	58	313	2289
18·337	C	41	283	1622	59	468	2502
19·544	G	131	578	1573	123	592	2248
20·367	C	184	882	2057	142	683	2295
21·487	C	181	994	2152	130	719	2319
22·342	C	219	1115	1825	158	770	2062
23·330	C	180	1035	1497	154	883	1793
24·507	C	134	799	1851	129	732	2217
25·319	C	79	625	1735	77	657	2103
26·476	G	89	451	1220	58	288	1266
27·561	G	90	397	1161	65	291	1357
1915. d							
November 28·434	C	51	307	1435	44	273	1551
29·392	C	74	391	1532	57	345	1686
30·506	G	94	400	1249	95	508	1715
December 1·351	C	53	254	928	31	155	1129
2·374	C	26	145	1078	27	134	1409
3·427	C	19	104	1675	23	158	2001
4·456	C	15	119	2764	12	112	3167
5·513	G	28	113	1866	22	92	2304
6·348	C	46	196	900	31	131	1255
7·359	C	32	191	1139	21	130	1293
8·470	G	25	173	1223	34	278	1479
9·337	C	26	234	1275	34	276	1875
10·319	C	62	457	1247	53	416	1885
11·481	G	95	541	2099	69	394	2553
12·169	D	82	493	2108	59	348	2098
13·337	C	120	609	1930	76	387	1865
14·334	C	116	613	845	67	356	1095
15·334	C	156	779	1388	86	428	1843
16·465	C	122	738	826	65	402	1336
17·427	C	129	779	945	71	445	1148
18·337	C	155	800	940	94	504	1107
19·460	C	160	773	919	132	657	1141
20·341	C	139	1026	1349	145	1036	1573
21·380	C	69	618	1554	100	941	1954
22·336	C	19	122	1155	26	177	1860
23·301	C	9	67	504	5	40	768
24·521	C	21	85	320	12	46	278
25·502	G	25	91	134	13	49	170
26·459	C	46	150	940	34	201	1033
27·480	C	50	329	948	36	359	1202
28·441	G	81	408	886	69	362	1564
29·337	C	92	575	1607	67	433	1825
30·458	C	181	1028	1562	146	808	1599
31·363	C	196	1285	2429	131	859	2369

MEAN AREAS of SUN SPOTS and FACULÆ, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORIES of GREENWICH and of the CAPE, and in INDIA, for each ROTATION of the SUN, from 1915 January 7 to December 28.

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 1873–1914 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							
820	1915	January	8·41	28	57	260	867	48	226	1046
821		February	4·76	27	210	957	922	165	750	1100
822		March	4·09	27	102	488	1018	84	405	1182
823		March	31·40	28	250	1296	1073	182	982	1276
824		April	27·67	27	131	627	1013	105	530	1205
825		May	24·89	27	198	914	806	136	639	977
826		June	21·09	27	337	1736	1258	244	1306	1521
827		July	18·29	28	354	1764	1961	254	1294	2262
828		August	14·51	27	273	1261	1929	195	930	2164
829		September	10·76	27	158	746	1760	115	556	2037
830		October	8·04	28	176	971	1405	123	705	1681
831		November	4·33	27	101	515	1611	79	428	1926
832		December	1·64	27	69	398	1221	52	328	1528

MEAN AREAS of SUN SPOTS and FACULÆ, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORIES of GREENWICH and of the CAPE, and in INDIA, for the YEAR 1915.

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.
1915	365	186	920	1289	137	697	1521

MEAN HELIOGRAPHIC LATITUDE of SUN SPOTS, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORIES of GREENWICH and of the CAPE, and in INDIA, for each ROTATION of the SUN, from 1915 January 7 to December 28.

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 two very high latitude groups, Nos. 7486 and 7578 appearing in rotations 830 and 832 respectively, have been omitted in taking the Mean Heliographic Latitude.

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			°		°	°	°
820	1915 Jan. 8·41	28	167	17·28	60	20·95	+ 7·18	18·25
821	Feb. 4·76	27	350	21·57	399	21·50	− 1·37	21·53
822	Mar. 4·09	27	272	22·41	134	20·41	+ 8·28	21·75
823	Mar. 31·40	28	790	18·96	192	21·28	+11·11	19·41
824	Apr. 27·67	27	419	19·88	111	18·66	+11·81	19·63
825	May 24·89	27	462	15·97	177	20·71	+ 5·82	17·28
826	June 21·09	27	441	17·84	866	21·05	− 7·93	19·96
827	July 18·29	28	253	19·15	1041	18·75	−11·33	18·83
828	Aug. 14·51	27	479	21·61	452	18·17	+ 2·30	19·94
829	Sept. 10·76	27	461	11·76	95	18·99	+ 6·51	13·00
830	Oct. 8·04	28	463	15·70	242	16·19	+ 4·76	15·87
831	Nov. 4·33	27	177	19·50	250	21·84	− 4·70	20·87
832	Dec. 1·64	27	151	11·51	177	19·43	− 5·20	15·79

MEAN HELIOGRAPHIC LATITUDE of SUN SPOTS, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORIES of GREENWICH and of the CAPE, and in INDIA, for the YEAR 1915.

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.		
			°		°	°	°
1915	365	379	17·95	318	19·75	+0·77	18·77