PROVISIONAL SUNSPOT RELATIVE NUMBERS FOR AUGUST 1938

[Dependent alone on observations at Zurich, Switzerland]

[Data furnished through the courtesy of Prof. W. Brunner]

August 1938	Relative numbers	August 1938	Relative numbers	August 1938	Relative numbers
1	*add* 144	11	*ad* 173	21	*a* 65
2	121	12	132	22	72
3	*EWcc* 121	13		23	*Macc* 94
4	d 153	14	*bd* 107	24	86
5	*dd* 132	15	102	25	*Ecc* 113
6	*a* 133	16	*Eac* 119	26	103
7	*aaa* 135	17	106	27	*d* 91
8	*d* 150	18	100	28	*a* 94
9	158	19	104	29	*d* 114
10	*ab* 161	20	76	30	105
				31	

Mean, 29 days=116.0

August 4^h at^m 8^h 34^m to 8^h 45^m U. T. Middle large bright chromospheric eruption.

August 4^h at^m 9^h 00^m to 9^h 25^m U. T. Middle large bright chromospheric eruption.

August 14^h at^m 13^h 27^m to 14^h 10^m U. T. Middle large bright chromospheric eruption.

a=Passage of an average-sized group through the central meridian.
b=Passage of a large group or spot through the central meridian.
c=New formation of a group developing into a middle-sized or large center of activity: E, on the eastern part of the sun's disk; W, on the western part; M, in the central circle zone.
d=Entrance of a large or average-sized center of activity on the east limb.

POSITIONS AND AREAS OF SUN SPOTS

[Communicated by Capt. J. F. Hellweg, U. S. Navy (Ret.), Superintendent, U. S. Naval Observatory. Data furnished by the U. S. Naval Observatory in cooperation with Harvard and Mount Wilson Observatories. The difference in longitude is measured from the central meridian, positive west. The north latitude is positive. Areas are corrected for foreshortening and are expressed in millionths of the sun's visible hemisphere. The total area for each day includes spots and groups]

Date	Eastern standard time	Mt. Wilson group No.	Heliographic: Diff. in longitude	Heliographic: Longitude	Heliographic: Latitude	Area: Spot or group	Area: Total for each day	Spot count	Observatory
1938	*h m*		°	°	°				
Aug. 1	10 54	6029	−80.0	86.9	−7.0	291	-------	2	U. S. Naval
		6030	−79.0	87.9	−17.0	388	-------	4	
		6028	−79.0	87.9	+13.0	291	-------	2	
		6027	−74.5	92.4	+17.0	6	-------	2	
		6025	−67.0	99.9	−1.0	73	-------	1	
		6024	−60.5	106.4	−10.5	73	-------	1	
		6022	+30.0	196.9	+20.0	6	-------	3	
		6017	+33.0	199.9	−6.0	388	-------	32	
		6016	+41.0	207.9	−21.0	388	-------	15	
		6023	+49.5	216.4	+6.0	12	-------	2	
		6014	+59.5	226.4	−7.5	61	-------	2	
		6012	+81.0	247.9	+4.0	6	1,983	2	
Aug. 2	13 6	6029	−66.0	86.4	−7.0	291	-------	2	Do.
		6028	−65.0	87.4	+13.0	48	-------	4	
		6030	−63.0	89.4	−16.0	218	-------	3	
		6027	−62.0	90.4	+17.5	291	-------	8	
		6025	−52.0	100.4	−1.0	61	-------	1	
		6024	−47.5	104.9	−11.0	73	-------	1	
		6017	+49.0	201.4	−7.0	388	-------	32	
		6016	+59.0	211.4	−21.0	242	-------	6	
		6014	+72.0	224.4	−8.0	6	1,618	2	
Aug. 3	14 30	6028	−53.0	85.5	+12.5	388	-------	18	Do.
		6029	−51.5	87.0	−7.0	242	-------	2	
		6030	−51.0	87.5	−16.0	206	-------	2	
		6027	−49.0	89.5	+17.5	24	-------	6	
		6025	−37.5	101.0	−1.0	48	-------	2	
		6033	−37.0	101.5	−17.0	97	-------	10	
		6024	−32.0	106.5	−11.0	61	-------	2	
		6031	+50.0	188.5	+7.0	48	-------	3	
		6017	+64.0	202.5	−7.0	388	-------	18	
		6016	+73.0	211.5	−21.0	388	1,890	5	
Aug. 4	10 51	6037	−85.0	42.2	−13.0	97	-------	3	Do.
		6037	−82.0	45.2	−19.0	194	-------	2	
		6036	−73.0	54.2	−26.0	388	-------	3	
		6029	−40.0	87.2	−7.5	291	-------	3	
		6030	−39.0	88.2	−16.0	194	-------	4	
		6028	−39.0	88.2	+11.0	315	-------	18	
		6027	−33.0	94.2	+18.0	6	-------	3	
		6033	−26.0	101.2	−17.0	61	-------	12	

POSITIONS AND AREAS OF SUN SPOTS—Continued

Date	Eastern standard time	Mt. Wilson group No.	Heliographic: Diff. in longitude	Heliographic: Longitude	Heliographic: Latitude	Area: Spot or group	Area: Total for each day	Spot count	Observatory
1938	*h m*		°	°	°				
Aug. 4	10 51	6025	−24.0	103.2	−2.0	61	-------	2	U. S. Naval.
		6024	−20.5	106.7	−11.0	73	-------	3	
		6035	−15.0	112.2	+18.0	24	-------	2	
		6034	+12.0	139.2	+18.0	12	-------	3	
		6032	+39.0	166.2	+10.5	24	-------	6	
		6031	+63.0	190.2	+7.5	291	-------	15	
		6017	+75.0	202.2	−8.5	145	-------	6	
		6016	+88.0	215.2	−21.0	97	2,273	1	
Aug. 5	14 40	6039	−80.0	31.9	+3.0	194	-------	1	Do.
		6038	−77.0	34.9	+23.0	121	-------	1	
		6037	−69.0	42.9	−13.0	485	-------	11	
		6037	−65.0	46.9	−19.0	242	-------	1	
		6036	−59.0	52.9	−26.5	388	-------	10	
		6029	−26.0	85.9	−7.0	267	-------	1	
		6030	−25.0	86.9	−15.0	194	-------	1	
		6028	−23.0	88.9	+11.0	242	-------	8	
		6033	−10.0	101.9	−17.0	97	-------	9	
		6025	−8.0	103.9	−2.0	48	-------	1	
		6024	−6.0	105.9	−11.0	61	-------	1	
		6035	+1.0	112.9	+19.0	85	-------	9	
		6031	+79.0	190.9	+8.0	291	2,715	6	
Aug. 6	12 1	6039	−68.0	32.2	+3.0	194	-------	1	Do.
		6038	−65.0	35.2	+23.0	121	-------	2	
		6037	−57.0	43.2	−13.0	727	-------	22	
		6037	−53.0	47.2	−19.0	339	-------	3	
		6036	−49.0	51.2	−26.5	388	-------	7	
		6029	−13.0	87.2	−7.0	267	-------	1	
		6030	−12.0	88.2	−15.0	194	-------	2	
		6030	−9.0	91.2	−17.0	48	-------	6	
		6028	−10.0	90.2	+11.0	242	-------	5	
		6033	+3.0	103.2	−17.0	73	-------	6	
		6025	+6.0	106.2	−2.0	24	-------	2	
		6024	+7.5	107.7	−11.0	61	-------	2	
		6035	+11.0	111.2	+19.0	24	-------	1	
		6031	+89.0	189.2	+8.0	97	2,799	1	
Aug. 7	8 58	6039	−56.0	32.6	+3.0	194	-------	1	Mt. Wilson.
		6038	−52.0	36.6	+23.0	73	-------	1	
		6037	−46.0	42.6	−13.0	582	-------	22	
		6037	−41.5	47.1	−19.0	291	-------	-------	
		6036	−38.0	50.6	−27.5	388	-------	7	
		6029	−1.0	87.6	−7.0	267	-------	6	
		6030	−0.5	88.1	−15.0	218	-------	11	
		6030	+3.0	91.6	−17.0	61	-------	-------	
		6028	+3.0	91.6	+11.0	206	-------	7	
		6033	+13.0	101.6	−17.0	73	-------	6	
		6025	+18.0	106.6	−2.5	24	-------	1	
		6024	+19.5	108.1	−11.0	73	-------	2	
		6035	+21.0	109.6	+19.0	16	2,466	1	
Aug. 8	11 4	6042	−79.0	355.2	−24.0	873	-------	9	U. S. Naval.
		6039	−42.0	32.2	+3.0	194	-------	2	
		6038	−39.0	35.2	+22.5	97	-------	2	
		6037	−32.0	42.2	−13.5	582	-------	36	
		6037	−28.0	46.2	−19.0	291	-------	8	
		6036	−25.0	49.2	−27.5	388	-------	13	
		6029	+12.0	86.2	−7.0	242	-------	1	
		6029	+14.0	88.2	−14.5	194	-------	1	
		6030	+19.0	93.2	−17.0	24	-------	5	
		6028	+15.0	89.2	+11.0	242	-------	16	
		6041	+19.0	93.2	+13.0	6	-------	9	
		6033	+28.0	102.2	−16.5	97	-------	16	
		6024	+32.0	106.2	−11.0	61	-------	2	
		6025	+32.0	106.2	−3.0	36	3,327	1	
Aug. 9	11 2	6044	−74.0	347.0	+7.0	6	-------	2	Do.
		6042	−63.0	358.0	−25.0	970	-------	15	
		6039	−29.0	32.0	+3.0	145	-------	2	
		6038	−25.5	35.5	+22.5	73	-------	3	
		6037	−18.5	42.5	−14.0	533	-------	28	
		6037	−13.5	47.5	−19.0	291	-------	15	
		6036	−12.0	49.0	−28.0	291	-------	15	
		6029	+27.0	88.0	−7.0	200	-------	2	
		6028	+27.0	88.0	+11.0	339	-------	15	
		6030	+29.0	90.0	−15.0	194	-------	1	
		6030	+32.0	93.0	−17.0	12	-------	5	
		6041	+32.0	93.0	+13.0	97	-------	13	
		6033	+45.0	106.0	−16.5	48	-------	9	
		6025	+45.0	106.0	−3.0	24	-------	4	
		6024	+47.0	108.0	−11.5	61	3,284	2	
Aug. 10	11 3	6045	−80.0	327.8	−22.0	194	-------	1	Do.
		6044	−61.5	346.3	+7.0	24	-------	1	
		6042	−50.0	357.8	−25.0	824	-------	20	
		6039	−15.0	32.8	+3.0	97	-------	4	
		6038	−13.0	34.8	+22.5	61	-------	2	
		6037	−5.0	42.8	−14.0	582	-------	20	
		6037	−0.5	47.3	−19.0	291	-------	5	
		6036	+1.5	49.3	−28.0	242	-------	8	
		6029	+40.0	87.8	−7.0	242	-------	4	
		6028	+40.0	87.8	+11.0	291	-------	11	
		6030	+41.0	88.8	−15.0	194	-------	2	
		6041	+46.0	93.8	+14.0	48	-------	12	
		6033	+58.0	105.8	−16.0	16	-------	2	
		6024	+61.0	108.8	−11.0	36	3,142	1	