

QUARTERLY BULLETIN ON SOLAR ACTIVITY

Published by the Eidgen. Sternwarte in Zürich

with financial support from UNESCO

I. SUNSPOTS

Sunspot Relative-Numbers and Sunspot-Areas

Co-operating Observatories for Sunspot Relative-Numbers R: Arcetri, Arosa, Baguio-City (Philippines), Beirut, Belgrad, Bucarest, Budapest, Freiburg, Herstmonceux, Ikoma-Nara, Istanbul, Kanzelhöhe, Karlsruhe, Kiev, Kislovodsk, Locarno, Meudon, Potsdam, Prag, Quezon-City (Philippines), Roma-Monte Mario, Santiago, Skalnaté Pleso, Sonneberg, Taipei (Astron. Observatory), Taipei (Weather Bureau), Tashkent, Tokyo, Tortosa, Uccle, Wellington, Wrocław, Zürich.

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1959	January			February			March		
	R	A_R	A_C	R	A_R	A_C	R	A_R	A_C
1	221	2623	--	141	809	2459	158	1865	2376
2	225	3177	--	141	--	1440	151	1834	2861
3	229	--	--	140	873	1233	151	2161	2546
4	231	3867	5482	137	1182	--	146	--	3721
5	243	5087	--	128	--	--	152	1036	533
6	238	--	5940	114	978	--	148	1020	1491
7	247	--	--	124	740	1383	150	--	--
8	246	--	--	90	799	--	155	939	1841
9	245	4814	5935	87	451	--	164	1708	3355
10	224	4371	5741	100	1283	--	156	--	--
11	218	4174	3344	100	1271	--	148	--	4037
12	203	--	--	101	1523	2221	126	2240	--
13	192	2646	5907	106	1519	2276	159	--	--
14	128	--	3773	129	1788	2399	173	--	4239
15	120	--	3527	133	--	3410	216	4245	4010
16	143	--	7760	144	--	3086	225	4279	4558
17	168	2658	4722	170	--	3337	228	3978	3306
18	179	--	--	170	3207	3722	230	--	--
19	202	3798	7441	175	2708	2679	234	4344	--
20	240	6367	8811	160	3151	3187	238	4985	--
21	255	--	11116	163	--	2504	230	5337	5294
22	278	--	--	171	2673	3529	208	--	4892
23	270	5334	8619	186	3204	--	194	4818	6216
24	261	4380	6958	190	--	3586	178	2583	3874
25	255	5909	6204	181	--	--	199	--	5310
26	252	5253	--	176	3432	--	190	--	4410
27	263	6121	--	163	3167	3291	178	--	3392
28	239	4757	7849	186	1848	2730	173	3845	2970
29	213	3560	5349				217	--	3409
30	167	2309	4730				233	--	4430
31	143	1845	6091				248	--	--
Mean	217.4	4153	6265	143.1	1830	2693	185.7	3013	3612

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1959	April			May			June		
	R	A_R	A_C	R	A_R	A_C	R	A_R	A_C
1	243	--	--	120	--	1741	152	3153	4081
2	242	3007	--	112	1059	--	133	2531	2594
3	174	3023	--	113	1569	1145	152	2311	3431
4	159	2453	3116	105	1613	2361	166	2151	2309
5	124	--	2104	112	1479	4547	162	2310	1915
6	108	2034	1390	138	2209	1672	180	2664	2765
7	107	--	2329	156	1621	1398	181	2653	--
8	136	2182	1992	188	2392	6108	192	3219	--
9	161	--	--	238	--	4877	188	3311	--
10	177	2854	3085	262	5021	--	160	3142	4956
11	197	2639	3064	287	5006	--	172	3256	2574
12	189	2775	2548	276	4763	4475	176	3094	3892
13	178	2559	2403	257	3996	4607	165	3292	3259
14	193	2330	2013	227	4025	--	170	--	2770
15	174	2183	2479	204	3727	--	158	2304	2710
16	153	--	1372	182	--	2205	172	2776	5306
17	126	1721	--	187	--	1414	161	4596	4976
18	114	1579	1826	198	2314	1917	174	3578	2354
19	117	--	2672	185	2051	--	182	3243	2632
20	135	--	--	187	1707	1081	173	3393	3215
21	128	--	1193	151	1767	1222	162	2826	3406
22	138	--	2848	145	--	--	170	3212	3579
23	186	2487	--	149	--	1615	188	3469	2675
24	186	2200	2022	143	2460	1565	157	3015	2918
25	203	2549	--	178	2893	2992	180	3427	3355
26	204	--	--	188	--	2353	184	3202	3306
27	175	2267	--	177	2195	3637	186	2943	2495
28	172	2124	--	132	1825	1859	160	2980	--
29	160	--	1848	99	--	--	158	1995	1116
30	141	2126	1550	106	2666	2515	147	1886	1482
31				131	--	3681			
Mean	163.3	2373	2203	172.0	2653	2652	168.7	2963	3080

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1959	July			August			September		
	R	A_R	A_C	R	A_R	A_C	R	A_R	A_C
1	147	1756	1570	194	3046	2306	290	6806	6769
2	118	1533	1454	210	2885	2524	256	--	--
3	138	1575	1127	213	--	3663	202	4433	--
4	158	1241	925	225	3364	3207	161	2943	--
5	136	--	1392	212	3829	--	148	3627	4664
6	127	--	1305	207	--	2957	152	3457	5147
7	120	2162	1548	179	2011	1919	135	2218	3079
8	131	2202	3862	175	1918	1911	136	2290	--
9	129	2988	3432	170	1752	2523	157	3065	3860
10	127	2376	--	155	2661	2932	141	2553	3142
11	133	1486	2479	180	2828	2305	155	2726	--
12	135	2696	2522	160	2800	2536	170	2667	2177
13	160	3209	3551	125	1753	2456	148	2678	2295
14	180	3185	3812	139	2464	2509	151	--	2567
15	176	3348	3270	144	2602	3008	161	--	2851
16	190	3589	3259	157	2659	3838	130	2269	2837
17	193	3758	3105	166	2863	2270	87	1694	2252
18	195	3427	4966	174	2362	3236	100	--	3136
19	184	3209	2844	182	3796	3738	120	1476	--
20	160	2992	2920	180	3473	3521	149	1455	--
21	132	1256	2014	200	3493	3210	143	--	1111
22	94	1010	2785	204	3351	5047	157	--	1301
23	113	1369	1317	205	--	3693	143	1101	1118
24	108	1601	1294	217	--	3720	155	1520	2379
25	118	3090	2805	212	3173	3384	132	--	1339
26	134	2683	2700	220	3723	4752	110	1084	--
27	156	2762	2392	231	3883	3314	102	--	--
28	181	2791	2715	274	5692	5251	91	765	685
29	182	3062	2804	301	6219	5673	87	735	608
30	193	3068	3384	292	--	--	86	671	--
31	190	2921	3580	284	6521	6348			
Mean	149.6	2495	2571	199.6	3274	3371	145.2	2374	2666

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1959	October			November			December		
	R	A_R	A_C	R	A_R	A_C	R	A_R	A_C
1	65	334	--	136	--	--	170	--	--
2	76	434	654	121	1222	1582	165	--	--
3	89	742	--	97	1512	--	160	3758	3295
4	101	825	884	103	2184	1665	163	--	3040
5	115	1014	1519	91	--	2487	142	--	2735
6	128	1344	--	98	1653	1211	147	3007	3278
7	130	1586	--	114	--	2828	141	--	2832
8	115	1296	--	131	2258	--	145	--	3590
9	103	1088	1081	136	2558	2398	94	2399	3523
10	91	1291	1557	142	2392	--	89	3057	--
11	87	--	1618	153	--	3102	82	2319	--
12	81	1466	1577	154	--	--	75	--	--
13	78	1558	--	149	--	--	73	--	1839
14	102	1743	1194	137	2693	2812	88	--	1735
15	96	987	1728	127	--	2958	123	--	4020
16	116	1427	3639	113	2888	2329	113	2128	1879
17	107	2168	2470	83	--	1503	107	2484	3780
18	116	--	--	73	--	--	117	2496	2321
19	111	1627	1535	69	1355	--	134	2415	--
20	108	1849	--	65	1800	--	133	2591	2677
21	111	2157	2049	70	1358	--	131	--	2833
22	129	2583	2250	110	1372	--	126	2213	1422
23	135	2583	3201	131	--	--	122	1331	1373
24	143	2529	--	151	--	2772	116	--	--
25	137	2639	2794	162	--	5246	121	1274	2467
26	126	2463	3389	161	--	--	124	--	1360
27	128	--	2054	157	3918	3446	132	--	1968
28	129	--	--	151	--	4053	127	1929	--
29	129	--	--	161	--	--	136	2229	--
30	131	1369	1604	175	--	--	127	2003	1711
31	141	--	2043				153	2618	2958
Mean	111.4	1564	1942	124.0	2083	2693	125.0	2368	2574