

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, Catania, Freiburg, Granada, 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, Wrocław, Zürich.

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1960	January			February			March		
	R	A_R	A_C	R	A_R	A_C	R	A_R	A_C
1	136	1571	1586	173	2267	2248	63	--	--
2	141	1272	--	181	--	4210	57	783	872
3	148	--	--	177	2608	2947	62	886	1024
4	160	3231	2370	156	--	2179	66	--	1332
5	168	3864	3931	149	1634	3043	74	722	--
6	174	4226	4112	145	2646	--	79	872	1016
7	179	4449	3504	123	2276	--	108	--	--
8	171	--	4295	116	--	--	111	1429	--
9	158	--	--	143	--	2899	109	1373	1138
10	139	--	--	143	--	2606	109	--	--
11	143	--	3284	128	--	2541	82	--	--
12	123	--	2618	116	--	--	68	434	394
13	108	2162	2454	106	1872	2200	85	326	1011
14	118	1877	1959	104	--	1934	76	--	716
15	121	--	--	94	--	--	84	--	854
16	119	3004	2423	84	1569	1366	98	--	1027
17	117	--	--	73	--	1669	86	881	598
18	103	1277	1062	60	--	--	85	969	693
19	87	--	965	44	1047	--	95	1070	1627
20	94	--	1518	49	--	1046	97	1458	1461
21	108	1086	919	56	--	1611	115	1656	--
22	134	1141	1199	64	--	895	128	1275	1552
23	138	--	--	68	--	818	145	1329	1624
24	136	--	--	74	624	--	123	--	--
25	152	--	--	89	--	773	128	--	--
26	209	4078	--	96	614	663	133	--	--
27	203	3961	--	92	--	1144	138	--	2105
28	199	--	--	87	812	657	139	--	3070
29	193	--	3224	83	826	714	142	--	3447
30	178	2573	--				151	2501	2766
31	178	2286	--				132	2384	4038
Mean	146.3	2629	2437	106.0	1566	1817	102.2	1197	1541

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1960	April			May			June		
	R	A_R	A_C	R	A_R	A_C	R	A_R	A_C
1	154	2665	—	97	2052	1600	100	1129	1114
2	143	2994	2545	97	2807	1970	90	1107	726
3	152	3134	2465	102	—	—	109	1124	848
4	162	—	—	96	—	—	113	—	1449
5	156	3453	—	87	—	—	104	—	1470
6	143	1563	4132	93	—	—	109	1674	2059
7	123	1293	1196	125	1733	1846	123	2200	2748
8	112	1238	1209	135	—	1671	113	2610	2696
9	98	988	1160	142	2056	1788	129	1617	3047
10	103	—	—	149	2221	1858	147	2190	2386
11	114	2139	1646	147	2628	2006	149	1816	1498
12	139	—	1730	127	3201	2430	151	1155	1539
13	132	—	—	135	3424	3817	131	1213	773
14	149	2010	—	110	3438	3795	138	1213	1106
15	156	2324	—	91	1546	1698	144	1552	—
16	152	—	2807	101	1677	1448	138	—	984
17	124	—	—	114	1617	—	105	725	903
18	116	—	1951	106	1610	—	91	751	623
19	121	1410	1514	108	1762	1674	84	687	1229
20	116	—	1335	115	1701	—	60	988	1041
21	123	1924	1233	109	1777	1549	56	617	1114
22	108	2290	2068	118	2357	1738	50	452	—
23	106	1864	1999	125	2583	1672	58	784	963
24	102	2029	2271	147	2439	1703	68	980	1115
25	95	—	2211	148	2466	1689	80	1435	1137
26	96	1553	1460	124	—	1254	99	—	2041
27	82	—	1218	148	2212	1480	116	2213	1891
28	91	1141	1140	142	2415	1844	140	—	1556
29	92	—	—	138	—	2620	147	2817	3058
30	100	1172	2410	121	—	1741	165	—	2927
31				111	1719	1722			
Mean	122.0	1957	1890	119.6	2237	1942	110.2	1377	1573

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1960	July			August			September		
	R	A_R	A_C	R	A_R	A_C	R	A_R	A_C
1	167	3005	3086	75	891	748	103	1088	1024
2	157	3140	3349	58	729	542	105	1261	1377
3	163	--	--	36	477	299	80	1632	2233
4	203	4039	3526	30	447	401	75	957	1240
5	168	--	3642	25	520	397	83	--	1364
6	139	3060	2971	24	327	313	100	--	1902
7	133	2888	2427	56	1692	1911	110	1234	1073
8	134	2523	2875	58	1314	1539	121	--	952
9	123	--	2103	76	1348	1050	138	1688	2148
10	108	--	1443	94	2207	2401	147	1533	1674
11	95	1293	1368	156	3022	3549	145	1437	1275
12	83	1258	1203	201	--	2935	147	1186	1252
13	84	1223	999	235	4388	3071	160	1830	1932
14	89	1123	732	236	4218	4072	161	1398	1584
15	105	1439	1042	252	4421	4877	151	970	4538
16	132	1708	2177	244	--	4789	128	1623	2013
17	136	1983	1729	253	4068	4039	122	1462	1762
18	140	1748	2019	257	4632	4671	153	--	2962
19	141	1714	1615	228	4457	4828	166	--	3027
20	137	1704	1244	204	3842	4043	171	3144	3136
21	139	1897	1438	177	2525	2573	177	2889	2646
22	135	1850	1154	168	1754	2537	189	2580	2634
23	127	1283	1838	130	1777	2457	168	2503	1942
24	105	1528	1459	113	1375	1972	157	1916	1866
25	110	1823	2020	131	1716	1474	141	--	1691
26	92	--	1270	140	1650	1372	114	1614	1758
27	90	1117	1306	109	2545	1629	97	--	1854
28	80	--	1145	98	1565	1458	89	744	724
29	94	1034	983	97	1188	1671	74	691	979
30	82	915	996	96	739	519	44	73	1302
31	83	787	730	100	993	1115			
Mean	121.7	1843	1796	134.1	2097	2234	127.2	1541	1862

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1960	October			November			December		
	R	A_R	A_C	R	A_R	A_C	R	A_R	A_C
1	22	--	107	76	--	418	74	851	--
2	34	200	754	79	--	498	92	818	512
3	22	259	350	69	--	346	101	908	872
4	53	272	620	67	--	287	111	1120	1086
5	70	684	446	77	--	199	102	1524	1118
6	92	804	434	90	--	1964	104	--	701
7	113	1013	437	116	1891	2208	94	--	--
8	110	981	526	132	1727	2276	99	--	--
9	128	1324	1018	127	2048	2134	97	--	--
10	140	1386	1663	137	--	1782	103	--	544
11	133	1280	1103	134	--	2898	102	--	458
12	116	1348	971	116	--	2299	101	--	--
13	123	1008	991	122	--	2471	92	--	469
14	106	--	2612	132	2601	2625	101	713	439
15	98	2599	2619	133	2756	2339	108	--	--
16	98	--	1816	121	--	2488	103	--	--
17	103	2380	1912	103	--	1971	92	--	--
18	98	1872	1605	93	1682	2351	82	642	490
19	96	1675	1542	83	--	747	70	--	593
20	92	--	1107	82	1219	938	71	--	491
21	82	2205	1600	72	--	985	63	366	637
22	60	1239	964	66	--	--	44	542	--
23	54	1285	1068	59	--	786	35	316	--
24	49	--	1242	52	224	680	37	--	504
25	62	--	2281	42	344	257	57	--	316
26	72	--	2215	60	506	362	48	369	--
27	67	1634	1650	58	--	565	70	1442	988
28	52	--	470	57	--	614	86	--	1051
29	72	--	548	64	737	580	94	--	901
30	82	--	506	69	674	314	103	1362	1032
31	68	--	450				118	1369	1040
Mean	82.8	1272	1149	89.6	1367	1324	85.6	882	712