

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS— SOLAR DIVISION

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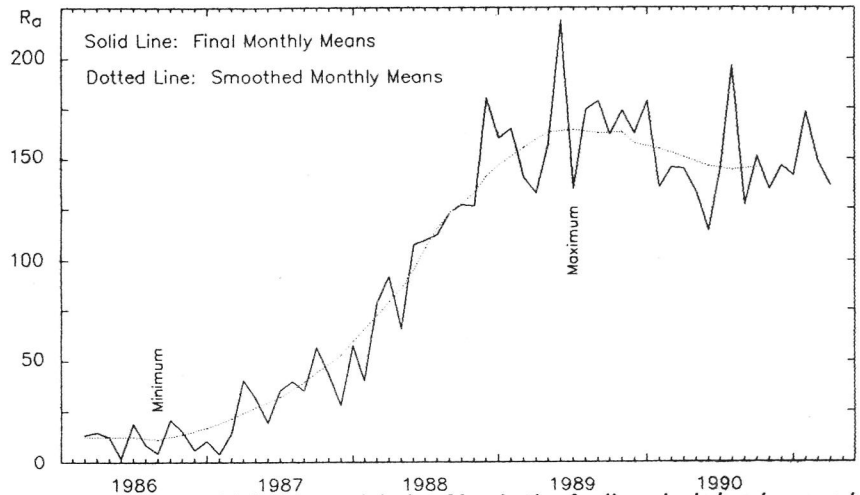


Volume 47 Number 4

April 1991

American Relative Sunspot Numbers for April

	R_a Final		
1) 91	11) 181	21) 115	
2) 102	12) 199	22) 78	
3) 113	13) 190	23) 60	
4) 138	14) 214	24) 38	
5) 157	15) 218	25) 52	
6) 171	16) 180	26) 71	
7) 163	17) 172	27) 82	
8) 129	18) 177	28) 116	
9) 148	19) 164	29) 122	
10) 169	20) 142	30) 118	
Mean: 135.7	Contributors: 104		



Note: Due to the large number of sudden ionospheric disturbances which occurred during March, the April analysis has been reduced. One X-class, and forty-one M-level solar flares were recorded during April. Three M-level flares were classed as major flares. The smoothed monthly-mean sunspot number for October 1990 declined slightly, to a value of 144.8.

The mean estimated American Relative Sunspot Number for 1-15 May is 116. Activity has been low and moderate during this interval.

Sudden Ionospheric Disturbances Recorded During March 1991

Records were received from A1,3,9,19,40,50,52,59,61,62,63,64,65,66,67,68,69,70,71,72.

Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp	Def	Day	Max	Imp
1	0450	2+	5	8	1930	2+	5	17	0522	2	5	22	0600	2
1	1221	2+	4	8	2021	1-	5	17	0715	2+	4	22	0636	2
1	1439	1	5	8	2028	3	5	17	0825	1-	5	22	0814	1-
1	1527	1-	5	9	0642	3+	5	17	0931	2+	5	22	0831	2
1	1745	1	5	9	1244	1+	5	17	1011	1	5	22	0924	1
1	1946	1-	5	9	1316	2+	4	17	1334	1	5	22	0937	2
1	2037	1-	5	9	1419	2+	5	17	1417	1-	5	22	1148	2+
1	2045	1-	5	9	1634	1	5	17	1440	2+	5	22	1315	1
1	2054	1+	5	9	1914	1	5	17	1500	1-	5	22	1353	1+
1	2320	1-	5	9	2144	2+	5	17	1553	2	5	22	1504	1-
1	2345	2+	5	10	0713	1-	5	17	1653	3	4	22	1749	1+
2	0129	1-	5	10	1108	2+	5	17	1720	1	4	22	1837	1-
2	0515	1	5	10	1320	1-	5	17	1750	1+	5	22	1930	2+
2	0705	1	5	10	1515	1	5	17	1905	1	5	22	2015	1+
2	1349	1	5	10	1534	1	5	17	1956	1-	5	22	2044	1+
2	1456	3	5	10	1759	1-	5	17	2040	2+	5	22	2109	1-
2	1559	2	5	10	1816	2	5	17	2126	2	5	22	2129	1
2	1632	1	5	10	2241	1+	5	17	2153	1-	5	22	2245	2+
2	1818	1+	5	11	0735	2	5	17	2247	1	5	23	0155	1
2	2122	2	5	11	0848	1-	5	17	2315	1	5	23	0400	3+
2	2217	2	5	11	1719	1+	5	17	2330	1+	5	23	0729	1
3	1231	2	4	11	1744	1	5	18	0136	1-	5	23	0802	2+
3	1311	1-	5	11	1901	1-	5	18	0732	1	5	23	1231	2+
3	1322	2	5	11	1958	1	5	18	0816	1+	5	23	1332	1-
3	1413	1	5	11	2217	1	5	18	0945	2+	5	23	1445	1+
3	1548	2	5	12	0426	2+	5	18	1032	2+	5	23	1546	1+
3	1639	1	5	12	1245	2+	5	18	1249	1-	4	23	1646	1+
3	1728	2	5	12	1835	2+	5	18	1301	1	5	23	1741	1

3	1835	1-	4	12	2038	1+	5	18	1322	1-	5	23	1753	1
3	1853	2+	5	12	2230	1-	5	18	1336	1-	4	23	1817	2
3	2119	1+	4	13	0101	1+	5	18	1429	1-	5	23	1907	1+
3	2346	1+	5	13	0736	1+	5	18	1438	1+	4	23	1919	2
4	0028	2+	4	13	0806	2	5	18	1508	1-	5	23	2104	1
4	0525	2+	5	13	1410	1	5	18	1518	1-	5	23	2210	2+
4	1039	2+	5	13	1516	1-	5	18	1634	1	5	24	0007	1-
4	1142	2+	5	13	1528	1-	5	18	1709	1+	5	24	0247	1-
4	1347	1-	5	13	1546	1-	5	18	1733	2+	5	24	0508	2
4	1401	3	5	13	1600	2	5	18	1920	1	5	24	1016	2
4	1559	2	5	13	1719	1+	5	18	2005	2	5	24	1415	2+
4	1751	2+	5	13	1823	1	5	18	2040	1	5	24	1720	1
4	1931	2+	5	13	1905	1+	5	18	2142	2+	5	24	1836	1+
4	2016	2+	5	13	2045	1	5	18	2238	1+	5	24	1845	1-
4	2114	1	4	13	2110	1	5	18	2309	1-	5	24	1904	1-
4	2131	1-	4	14	0711	1-	5	19	0122	2	5	24	1941	2
4	2200	1+	5	14	0736	1-	5	19	0204	2+	5	24	2054	1-
4	2252	1+	5	14	0832	1-	5	19	0610	2+	5	24	2156	2
5	0009	2+	5	14	1029	2+	5	19	0805	1	5	24	2231	1-
5	0816	1	5	14	1334	2+	5	19	0833	1+	5	24	2311	1-
5	0836	1+	5	14	1412	1-	5	19	1106	2	5	25	0020	2+
5	0914	2+	5	14	1508	2	5	19	1304	1	5	25	0311	1-
5	1539	2	5	14	1548	2	5	19	1340	1-	4	25	0809	2+
5	1719	2+	5	14	1615	1-	5	19	1400	2	5	25	0938	1+
5	1942	1-	5	14	1706	1	5	19	1503	1-	4	25	1212	1
5	1956	2	5	14	1740	2	5	19	1518	1	4	25	1435	2+
5	2036	2+	5	14	1815	3	5	19	1542	1+	5	25	1525	2+
5	2141	1+	5	14	2110	1	5	19	1617	2+	5	25	1551	2+
5	2201	1+	4	14	2143	1+	5	20	0315	1-	4	25	1928	2
5	2328	3	5	14	2306	1-	5	20	0326	2+	5	25	2010	1
6	0208	2	5	14	2359	1-	5	20	0520	2	4	25	2032	1+
6	0528	2+	5	15	0018	1	5	20	0555	2+	4	25	2217	1-
6	0745	1	5	15	0109	1	5	20	1045	2+	5	25	2346	1+
6	1039	1-	5	15	0220	2	5	20	1316	1+	5	26	1416U	2
6	1056	2+	5	15	0408	2+	4	20	1422	1	5	26	1620	2
6	1406	1-	5	15	0555	2+	4	20	1439	1	5	26	2015	1-
6	1502	2+	5	15	0740	1+	5	20	1604	1-	4	26	2031	2+
6	1751	2	5	15	0809	1-	5	20	1611	1	5	27	1241	1-
6	1837	1+	5	15	1218	1	5	20	1725	1-	5	27	1603	1-
6	2038	2	5	15	1244	2	5	20	1740	1	5	27	1758	1
6	2250	1-	4	15	1533	1	5	20	1814	1-	5	27	1835	1
6	2307	2+	5	15	1630	2	5	20	1821	1+	5	27	1937	1+
7	0624	2	4	15	1745	1+	5	20	1857	2+	5	27	2008	1-
7	0703	1-	5	15	1807	2+	5	20	1952	2	5	27	2149	1+
7	0709	1-	5	15	1848	1	5	20	2031	1+	5	27	2210	2
7	0748	2+	5	15	1913	2	5	20	2112	1-	5	27	2321	2
7	1002	2	5	15	2040	1	5	20	2122	2+	5	28	1917	1+
7	1037	1-	5	15	2118	1-	5	20	2307	1-	5	28	2101	2
7	1257	1+	5	15	2232	2+	5	20	2335	1+	5	28	2142	1
7	1338	1	5	16	0009	1+	5	21	0000	1-	5	29	0555	2+
7	1405	2	5	16	0050	2	5	21	0045	1-	5	29	0646	2+
7	1645	2	5	16	0410	1-	5	21	0055	1-	5	29	1042	1-
7	1720	2+	5	16	0434	2+	5	21	0559	2+	5	29	1400	1
7	1846	1	5	16	1045	1-	4	21	0657	1	5	29	1455	1-
7	1930	1	5	16	1055	1+	5	21	0735	1+	5	29	1807	1
7	2021	1	5	16	1245	1	5	21	0815	2+	5	29	1905	2+
7	2043	2	5	16	1725	1-	5	21	1036	2	5	29	2103	1+
7	2226	1	5	16	1752	1-	5	21	1100	1-	5	29	2126	1
7	2240	2	4	16	1807	2+	5	21	1245	2+	5	29	2155	1-
7	2318	2+	5	16	1905	1-	5	21	1345	2+	5	29	2252	1-
8	0001	1-	5	16	1955	1-	5	21	1515	2+	5	30	2021	1-
8	0230	2+	5	16	2009	1-	5	21	1624	1	5	30	2036	1+
8	0818	1-	5	16	2026	1-	5	21	1710	1+	5	30	2307	1-
8	0920	2+	5	16	2051	2+	5	21	1833	2+	5	31	0037	2+
8	1147	2+	5	16	2146	1-	5	21	1854	2+	5	31	0816	2
8	1335	1-	5	16	2156	2+	5	21	1958	1+	4	31	1133	1
8	1515	1+	5	17	0016	1-	5	21	2023	3	5	31	1350	1+
8	1539	2	5	17	0145	1-	5	21	2343	2+	5	31	1656	2+
8	1622	2+	5	17	0210	2	5	22	0100	1+	5	31	1912	1-
8	1828	1	5	17	0500	1	5	22	0523	2	5	31	2015	3+

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