

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

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August 2004

Table I. American Relative Sunspot Numbers (Ra) for August 2004 [boldface = maximum, minimum]

Day	N	Raw Mean	Ra
1	40	39	31
2	44	44	34
3	37	48	37
4	36	43	32
5	37	39	30
6	38	52	40
7	41	63	49
8	39	60	47
9	39	82	61
10	36	93	67
11	33	100	72
12	39	109	81
13	34	122	86
14	41	114	84
15	35	95	71
16	47	91	68
17	32	69	52
18	41	65	47
19	40	65	47
20	37	86	61
21	37	92	69
22	49	98	75
23	39	76	59
24	37	62	45
25	40	49	36
26	39	39	29
27	34	35	28
28	32	33	27
29	38	21	16
30	31	23	17
31	38	10	7

Means: 38.2 65.1 48.5

Total No. of Observers: 64

Total No. of Observations: 1184

Table II. August 2004 Observers

15 AAP P.Abbott	21 MARE E.Mariani
30 ARAG G.Araujo	25 MARJ J.Maranon
16 BARH H.Barnes	21 MAV D.Matsnev
11 BATR R.Battaiola	22 MCE E.Mochizuki
20 BEB R.Berg	17 MMI M.Moeller
9 BERJ J.Berdejo	18 OBSO IPS Observatory
13 BLAJ J.Blackwell	16 RICE E.Richardson
26 BMF M.Boschat	10 RITA A.Ritchie
16 BOSB B.Bose	29 SCGL G.Schott
29 BRAB B.Branchett	11 SCHG G.Scholl
20 BRAR R.Branch	1 SDP D.Sharples
31 BROB R.Brown	24 STEF G.Stefanopoulos
7 CAMP P.Cambell	26 STEM G.Stemmler
10 CARJ J.Carlson	29 STQ N.Stoikidis
30 CHAG G.Morales	24 SUZM M.Suzuki
28 CKB B.Cudnik	27 SZUM M.Szulc
15 CLZ C.Laurent	28 TESD D.Teske
15 COMT T.Compton	17 THR R.Thompson
17 DEJV J.van Delft	21 TJV J.Temprano
4 DELS S.Delaney	24 URBP P.Urbanski
16 DGP G.Dyck	18 VARG A.Vargas
7 DPP P.dePonhiere	9 VELM M.Velea
23 DRAJ J.Dragesco	21 WILW W.Wilson
30 DUBF F.Dubois	25 YESH H.Yesilyaprak
18 FEEC C.Feehrer	
22 FERJ J.Fernandes	
24 FLET T.Fleming	
25 FUJK K.Fujimori	
17 GOEM M.Goetz	
10 HALB B.Halls	
13 HAYK K.Hay	
19 HRUT T.Hrutkay	
25 KAPJ J.Kaplan	
29 KNJS J&S Knight	
6 KQR R.Kinne	
7 KROL L.Krozel	
4 LARJ J.Larriba	
12 LERM M.Lerman	
24 LEVM M.Leventhal	

Reporting Addresses

Sunspot Reports -- email: solar@aavso.org
postal mail: AAVSO, 25 Birch St. Cambridge, MA 02138
FAX (AAVSO): (617) 354-0665

SID Solar Flare Reports -- email: noatak@aol.com
postal mail: Mike Hill
114 Prospect St. Marlboro, MA 01752

Table III. Means of Raw Group Counts (RG) and Ratios of Spots to Groups (S:G) in August 2004

Day	RG	S:G	Day	RG	S:G	Day	RG	S:G	Day	RG	S:G
1	2.3	7.4	9	4.0	10.6	17	3.0	13.3	25	3.2	5.2
2	2.2	9.8	10	4.4	11.1	18	3.5	8.8	26	2.4	6.1
3	2.1	12.6	11	4.0	14.9	19	3.9	6.6	27	2.5	3.9
4	1.8	14.1	12	4.2	15.8	20	4.8	8.1	28	2.6	2.7
5	1.5	16.4	13	4.6	16.3	21	4.6	10.1	29	1.8	1.8
6	2.7	9.1	14	4.3	16.2	22	5.2	8.9	30	1.5	5.0
7	3.7	6.8	15	3.7	16.1	23	4.5	7.0	31	0.8	2.5
8	3.3	7.9	16	3.3	17.1	24	3.7	6.8	Mn.	3.2	9.6

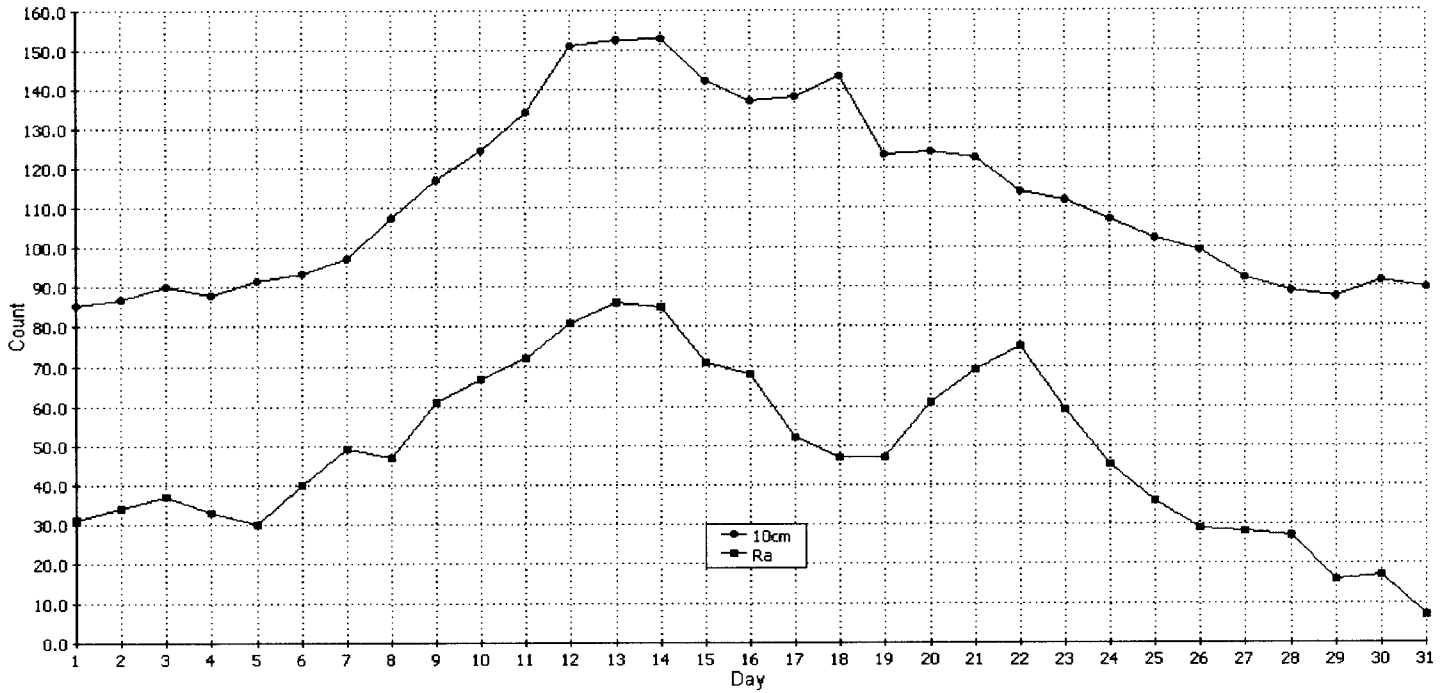


Fig. 1. 10 cm Solar Flux and American Relative Sunspot Numbers (Ra) for August 2004
 10 cm source: <http://www.drao.nrc.ca/icarus>

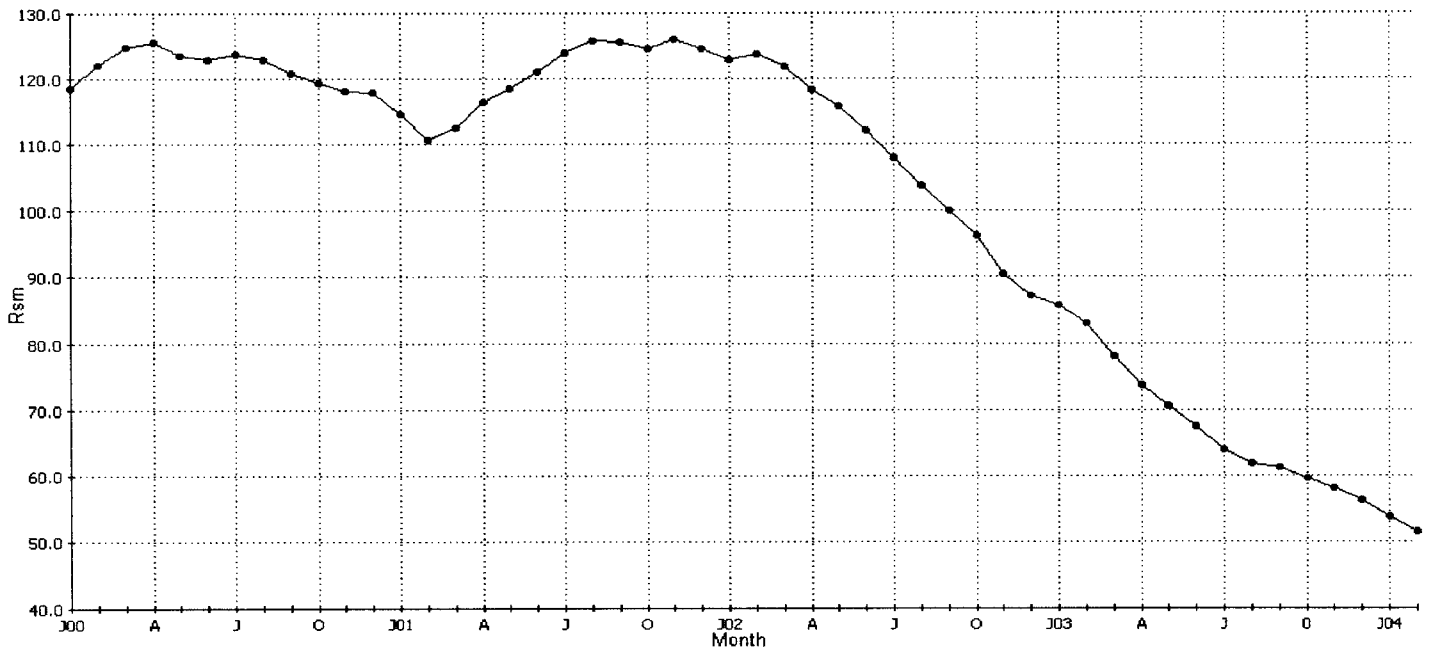
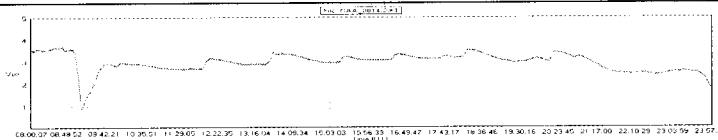


Fig. 2. Smoothed Mean Sunspot Numbers (Waldmeier method) from January 2000 to February 2004.

Sudden Ionospheric Disturbance Report

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 Marlborough, MA 01752 USA
 noatak@aol.com



Sudden Ionospheric Disturbances (SID) Recorded During August 2004

(Analysis performed by Michael Hill, SID Analyst)

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
040808	1704	2+	040813	1739	2	040816	1338	2
040808	1710	1-	040813	1814	2	040817	0744	2+
040808	1725	2	040813	2001	1	040817	0841	2+
040809	0736	1+	040814	0415	2+	040817	0859	1-
040809	0808	1	040814	0545	2	040817	1000	1+
040809	0840	1-	040814	0552	2+	040817	1333	2+
040809	1108	1-	040814	0756	1	040817	1338	2
040809	1335	1	040814	0803	3+	040817	1807	2+
040810	1154	1-	040814	0931	1-	040817	1933	2+
040810	1447	2+	040814	0938	2+	040817	2119	2+
040810	1756	1+	040814	1001	1	040817	2124	2
040811	0825	1-	040814	1211	2	040818	0847	1
040811	0854	1	040814	1342	2	040818	1047	1-
040811	1016	1+	040814	1523	1+	040818	1355	1+
040811	1142	1+	040814	1637	1+	040818	1627	1-
040812	0508	1-	040814	1647	1+	040818	1645	1+
040812	0935	1-	040814	1745	1+	040818	1734	2
040812	0948	1+	040814	1819	2	040818	1747	2+
040812	1143	1+	040814	2019	2	040818	1758	3
040812	1301	1-	040815	0505	2	040819	0659	2
040812	1622	1+	040815	0600	1	040819	1151	1-
040812	1822	1+	040815	1130	1+	040819	1239	1-
040813	0726	1+	040815	1139	2	040819	1305	1+
040813	0734	2	040815	1238	2	040819	1339	2+
040813	0946	1	040815	1651	1	040819	1347	2+
040813	1210	1	040815	1846	2	040826	0217	1
040813	1327	1-	040815	2045	1+			
040813	1518	1+	040816	1026	2			

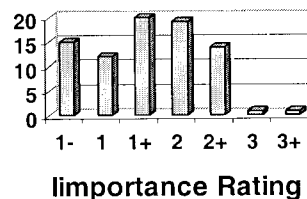
Importance rating : Duration(min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125
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The events listed above meet at least one of the following criteria

- 1) Event reported by two or more observers within ± 5 minutes
- 2) Event matched to GOES-8 XRA event to within ± 15 minutes and event time < 1000 UT
- 3) reported by observer with a quality rating > 8 (scale 1-10)

Observer	Code	Station(s) monitored
A Clerkin	A29	NAA
J Winkler	A50	NAA NML NPM
D Toldo	A52	NAA VTX
J Ellerbe	A63	ICV
P King	A80	HWU
W Moos	A84	FTA
M Hill	A87	NAA
J Mandaville	A90	NPM
G DiFillipo	A93	DHO HWU
T Poulos	A95	NAA
J Wallace	A97	NAA
M King	A99	HWU
P Campbell	A100	NLK
G Bressan	A101	HWU
F Steyn	A102	NAA
B Bose	A103	VTX
L Observatory	A107	DHO

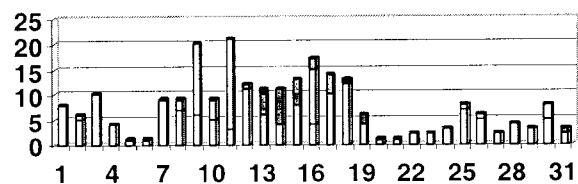
SID Events Recorded for August 2004



Solar Events

August was another busy month for flare activity. There were quite a number of powerful flares resulting in a good deal of SID activity, especially during the middle of the month. There were 82 correlated SID events this month. All of them had an importance rating below 2+ however. There were 238 X-Ray flares recorded by the GOES-12 spacecraft. Of these, 2 were X-Class and 26 were M-Class flares. This would explain why most were of a lower importance rating. Still a busy month however. This month is looking to be mildly busy but as I write this I am anxiously awaiting the arrival of possible auroral activity which is something else that does not occur too often as we approach solar minimum. Looks like a late night for me. Thanks to all of you who reported your data in the correct format, per my request. And thanks to those of you working with me to come into compliance.

Solar Flare Summary Based on GOES-12 Data



August 2004

□ B-Class: □ C-Class: ■ M-Class: ■ X-Class: