

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

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May 2005

Table I. American Relative Sunspot Numbers (Ra) for May 2005 [boldface = maximum, minimum]

Day	N	Raw Mean	Ra
1	37	52	38
2	40	51	37
3	42	62	44
4	35	58	42
5	43	57	40
6	37	56	42
7	36	51	35
8	42	59	43
9	38	80	57
10	40	106	75
11	35	109	77
12	33	101	73
13	26	85	60
14	32	72	51
15	29	57	41
16	32	57	39
17	30	43	31
18	33	29	20
19	37	25	18
20	38	16	11
21	27	20	13
22	32	30	21
23	37	32	22
24	35	35	24
25	43	42	30
26	47	55	38
27	46	57	40
28	34	54	36
29	38	59	42
30	28	62	42
31	37	70	49

Table II. May 2005 Observers

16 AAP P.Abbott	18 MARE E.Mariani
26 ARAG G.Araujo	29 MARJ J.Maranon
2 ARE R.Allessi	25 MCE E.Mochizuki
7 BARH H.Barnes	5 MEU E.Mason
19 BATR R.Battaiola	11 MMI M.Moeller
16 BEB R.Berg	19 OBSO IPS Observatory
14 BERJ J.Berdejo	13 RICE E.Richardson
2 BLAJ J.Blackwell	10 RITA A.Ritchie
9 BMF M.Boschat	25 SCGL G.Schott
19 BOSB B.Bose	10 SCHG G.Scholl
25 BRAB B.Branchett	14 SIMC C.Simpson
29 BRAR R.Branch	6 STEF G.Stefanopoulos
22 BROB R.Brown	19 STEM G.Stemmler
27 BVK K.Bankston	25 STQ N.Stoikidis
30 CHAG G.Morales	25 SUZM M.Suzuki
31 CKB B.Cudnik	26 SZAK K.Szatkowski
12 CLZ L.Corp	26 SZUM M.Szulc
12 COMT T.Compton	7 THR R.Thompson
28 CR T.Cragg	25 TJV J.Temprano
20 DEJV J.van Delft	27 URBP P.Urbanski
6 DEMF F.Dempsey	21 VARG A.Vargas
25 DRAJ J.Dragesco	17 VIDD D.Vidican
27 DUBF F.Dubois	27 WILW W.Wilson
2 FEBC C.Feehrer	27 YESH H.Yesilyaprak
21 FERJ J.Fernandez	
24 FLET T.Fleming	
24 FUJK K.Fujimori	
17 GOEM M.Goetz	
12 HAYK K.Hay	
17 HRUT T.Hrutkay	
24 JAMD D.James	
8 JENJ J.Jenkins	
19 KAPJ J.Kaplan	
29 KNJS J&S	
2 KROL L.Krozel	
9 LARJ J.Larriba	
10 LERM M.Lerman	
20 LEVM M.Leventhal	

Reporting Addresses

Sunspot Reports -- email: solar@aaavso.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

Means: 36.1 56.2 39.7

Total No. of Observers: 62

Total No. of Observations: 1119

Table III. Means of Raw Group Counts (RG) and Ratios of Spots to Groups (S:G) in May 2005

Day	RG	S:G	Day	RG	S:G	Day	RG	S:G	Day	RG	S:G
1	2.2	13.9	9	3.6	12.4	17	2.3	9.1	25	2.2	9.0
2	2.8	8.2	10	5.1	10.7	18	2.0	4.9	26	2.6	11.2
3	3.3	8.5	11	5.6	9.5	19	2.1	1.6	27	2.5	12.7
4	3.0	9.7	12	5.4	8.8	20	1.4	1.3	28	2.2	14.0
5	2.5	13.1	13	4.3	9.8	21	1.7	1.8	29	3.0	9.6
6	2.5	12.5	14	3.7	9.4	22	2.2	3.3	30	3.1	9.6
7	2.3	12.2	15	3.1	8.2	23	2.2	4.9	31	4.2	6.6
8	2.8	11.0	16	2.8	10.3	24	1.9	8.0	Mn.	2.9	8.9

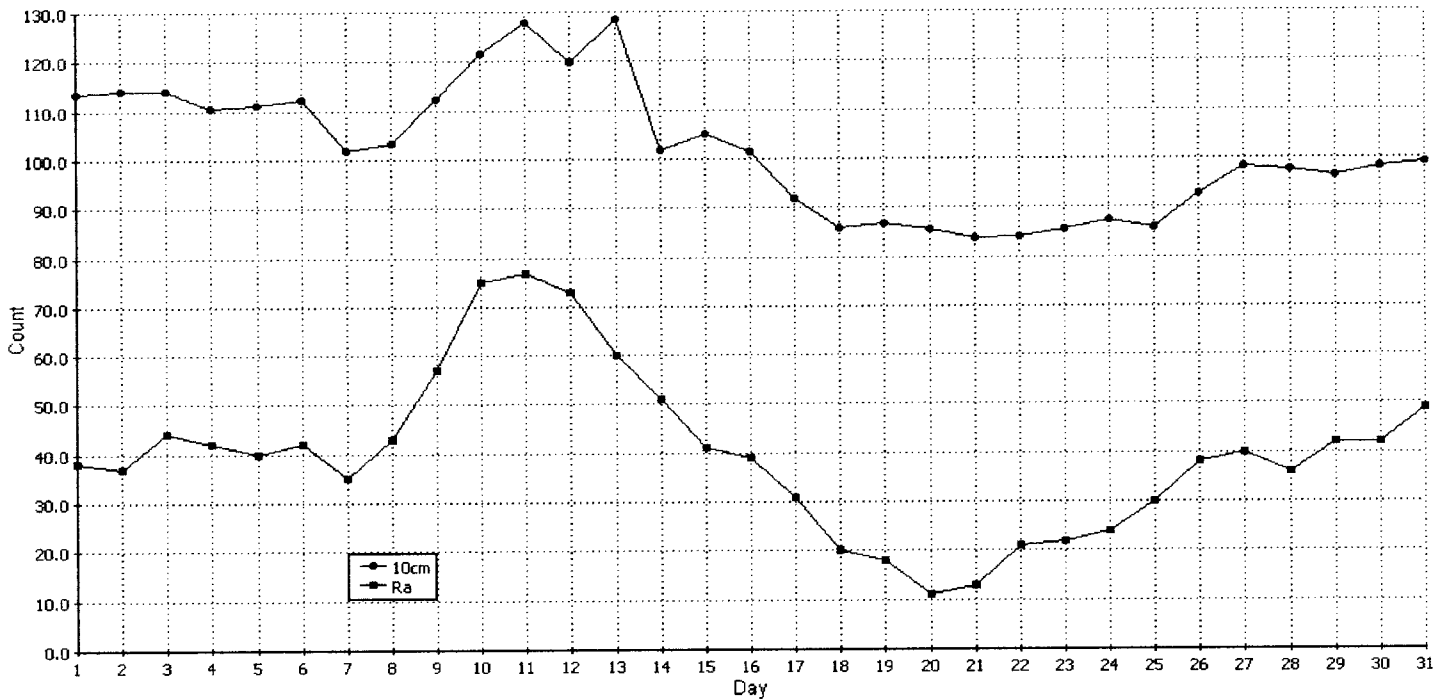


Fig. 1. 10 cm Solar Flux and American Relative Sunspot Numbers (Ra) for May 2005.
10 cm source: <http://www.drao.nrc.ca/icarus>

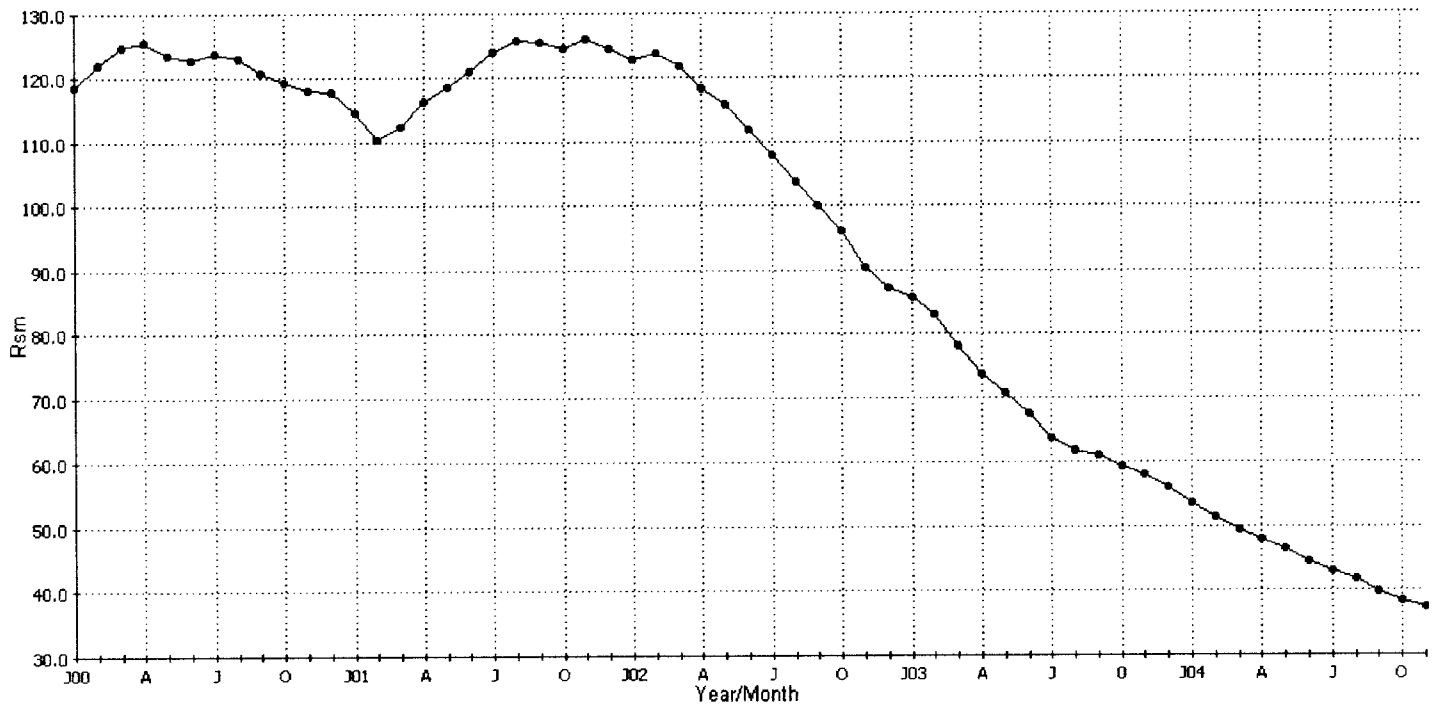
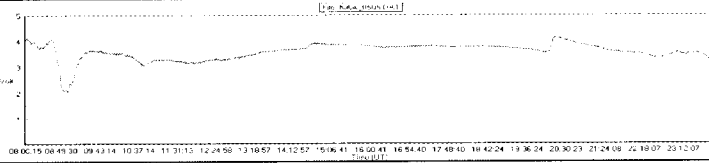


Fig. 2. Smoothed Mean Sunspot Numbers (Rsm) from January 2000 to November 2004 (Waldmeier Method).

Sudden Ionospheric Disturbance Report

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 Marlborough, MA 01752 USA
 noatak@aol.com



Sudden Ionospheric Disturbances (SID) Recorded During May 2005

(Analysis performed by Michael Hill, SID Analyst)

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
050501	0019	1-	050511	1930	1+	050518	0829	1+
050501	0820	1-	050511	1943	2+	050521	1351	2+
050501	1637	2+	050512	0116	1-	050526	2109	1+
050503	1037	1+	050512	0702	1	050526	2136	2
050505	1444	1+	050512	0734	2	050527	0508	1-
050505	2019	1+	050512	1357	2+	050527	0635	1+
050506	0317	2+	050512	1707	1	050527	1231	2+
050506	0552	2+	050512	1743	2+	050528	0231	2
050506	1127	2	050512	1954	1-	050528	0500	1-
050507	0812	2	050513	0822	1+			
050507	0851	1-	050513	1643	2+			
050509	1104	2	050513	1709	2			
050509	1147	1+	050514	1507	1+			
050509	1233	1+	050514	1601	1+			
050509	2107	2+	050515	1748	2+			
050510	0523	2+	050515	1856	2+			
050510	0907	1+	050515	2046	1			
050510	1227	1	050515	2236	2			
050510	1838	1+	050516	0242	1+			
050510	1952	1+	050516	0911	2			
050510	1959	2	050516	1301	1+			
050511	0623	1-	050517	0240	1+			
050511	0643	2+	050517	0404	1			
050511	0908	1+	050517	0553	1+			
050511	1702	1+	050517	1021	2+			

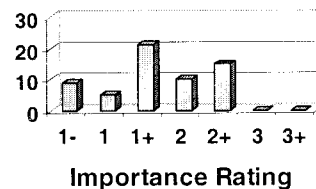
Importance rating : Duration(min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125
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The events listed above meet at least one of the following criteria

- 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 NAU
J Winkler	A50	NAA NML NPM
D Toldo	A52	NWC XXX
W Moos	A84	ICV
M Hill	A87	NAA
J Mandaville	A90	NPM
L Anderson	A91	NWC
G Di Filippo	A93	HWU
T Poulos	A95	NAA
R Battaiola	A96	HWU
J Wallace	A97	NAA
M King	A99	HWU
F Steyn	A102	NAA NWC
B Bose	A103	VTX
L Observatory	A107	DHO
P Mortfield	A108	NAA
M Suhovecky	A115	NAA

SID Events Recorded for May 2005



Solar Events

May turned out to be a fairly active month for SID events. As opposed to last month's mere twelve events, this month we recorded 60 correlated SID events. The GOES-12 satellite recored 221 X-Ray flares and of these, 13 were M-Class events with the peak activity being around the beginning of the month and mid-month.

The SID event count actually surprised me at first because although a number of you had lengthy reports, none approached this number. The maximum number of events reported by any one observer was 29. The reason the count was so high however was the good coverage across the entire day provided by our network of observers, which runs from California to Massachussets, across the Atlantic to England, Switzerland, Italy, Greece, South Africa, India, and Australia. This coverage is very important and all of you in all the corners of the world serve an important function to capture all the SID events which this month, more than others I have seen, were spread quite evenly across the 24 hours of the day on all the active days. The results of this month point to the strength of our network and the importance of each and every one of you to make it that way. Keep up the good work and thanks to all.

Solar Flare Summary Based on GOES-12 Data

