

# Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

Carl E. Feehrer, Editor  
9 Gleason Rd.  
Bedford, MA 01730



Email: cfeehrer@hotmail.com

ISSN 0271-8480

Volume 61 Number 6

June 2005

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

Day	N	Raw Mean	Ra
1	44	70	51
2	36	45	35
3	38	45	33
4	37	68	49
5	43	86	63
6	39	97	69
7	46	97	<b>73</b>
8	46	97	71
9	44	94	69
10	31	91	67
11	26	79	57
12	32	70	50
13	31	44	31
14	37	47	33
15	33	58	41
16	36	62	44
17	33	64	43
18	37	45	32
19	36	43	30
20	45	50	36
21	38	47	34
22	38	35	25
23	39	13	10
24	36	7	5
25	37	5	3
26	42	1	<b>1</b>
27	32	6	4
28	36	14	10
29	31	43	31
30	36	87	63
31	---	---	---

**Table II. June 2005 Observers**

11 AAP P.Abbott	4 KROL L.Krozel
20 AJV J.Santiago	13 LARJ J.Larriba
30 ARAG G.Araujo	11 LERM M.Lerman
10 BARH H.Barnes	18 LEVM M.Leventhal
11 BATR R.Battaiola	17 MARE E.Mariani
10 BEB R.Berg	26 MARJ J.Maranon
13 BERJ J.Berdejo	22 MCE E.Mochizuki
2 BLAJ J.Blackwell	15 MMI M.Moeller
19 BMF M.Boschat	27 OATS S.Oatney
7 BOSB B.Bose	11 OBSO IPS Observatory
22 BRAB B.Branchett	14 RICE E.Richardson
26 BRAR R.Branch	27 RITA A.Ritchie
29 BROB R.Brown	13 SCHG G.Scholl
19 BVK K.Bankston	14 STEF G.Stefanopoulos
3 CAMP P.Campbell	23 STEM G.Stemmler
29 CHAG G.Morales	26 STQ N.Stoikidis
27 CKB B.Cudnik	20 SUZM M.Suzuki
16 CLZ L.Corp	26 SZUM M.Szulc
18 COMT T.Compton	29 TESD D.Teske
18 CR T.Cragg	9 THR R.Thompson
21 DEJV J.van Delft	22 TJV J.Temprano
18 DGP G.Dyck	30 URBP P.Urbanski
29 DUBF F.Dubois	22 VARG A.Vargas
8 FEEC C.Feehrer	18 VIDD D.Vidican
17 FERJ J.Fernandez	25 WILW W.Wilson
30 FLET T.Fleming	27 YESH H.Yesilyaprak
21 FUJK K.Fujimori	
17 GOEM M.Goetz	
11 HAYK K.Hay	
16 HRUT T.Hrutkay	
22 JAMD D.James	
5 JENJ J.Jenkins	
24 KAPJ J.Kaplan	
27 KNJS J&S	

**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

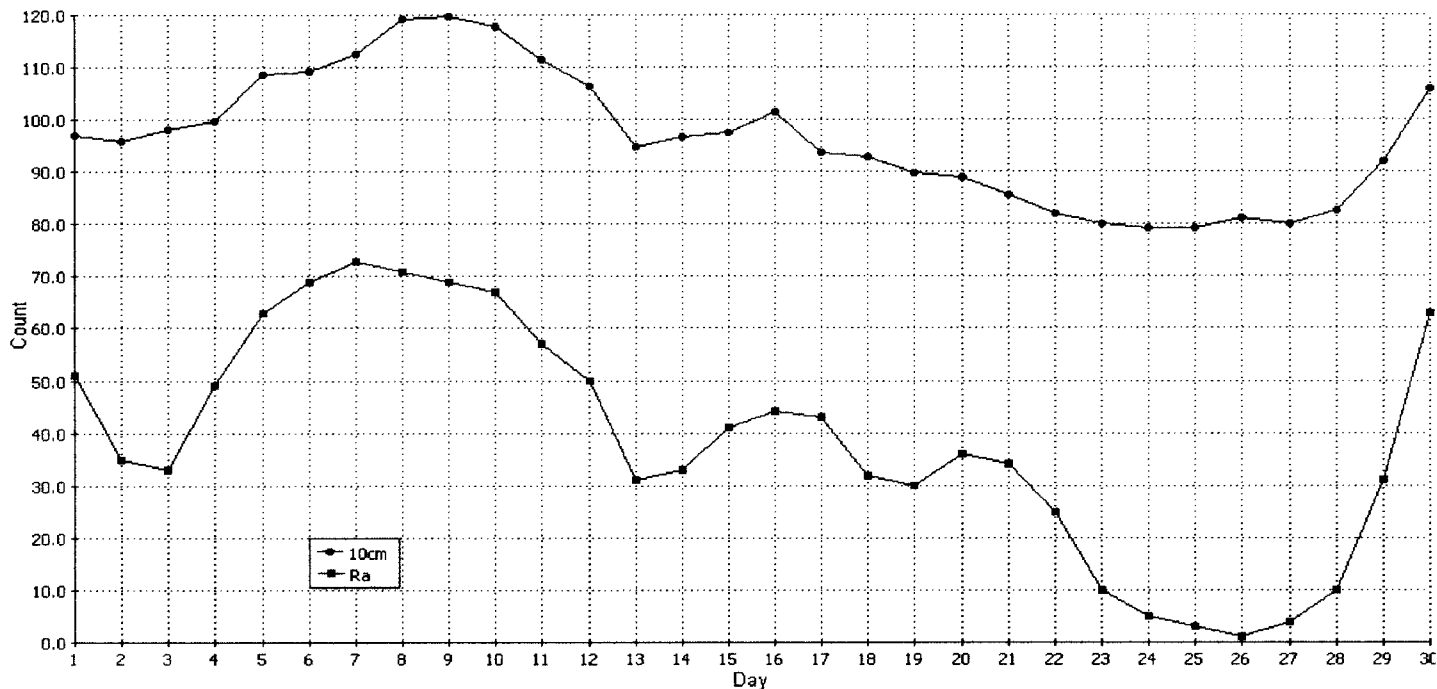
Means:                37.2                53.6                38.7

Total No. of Observers: 60

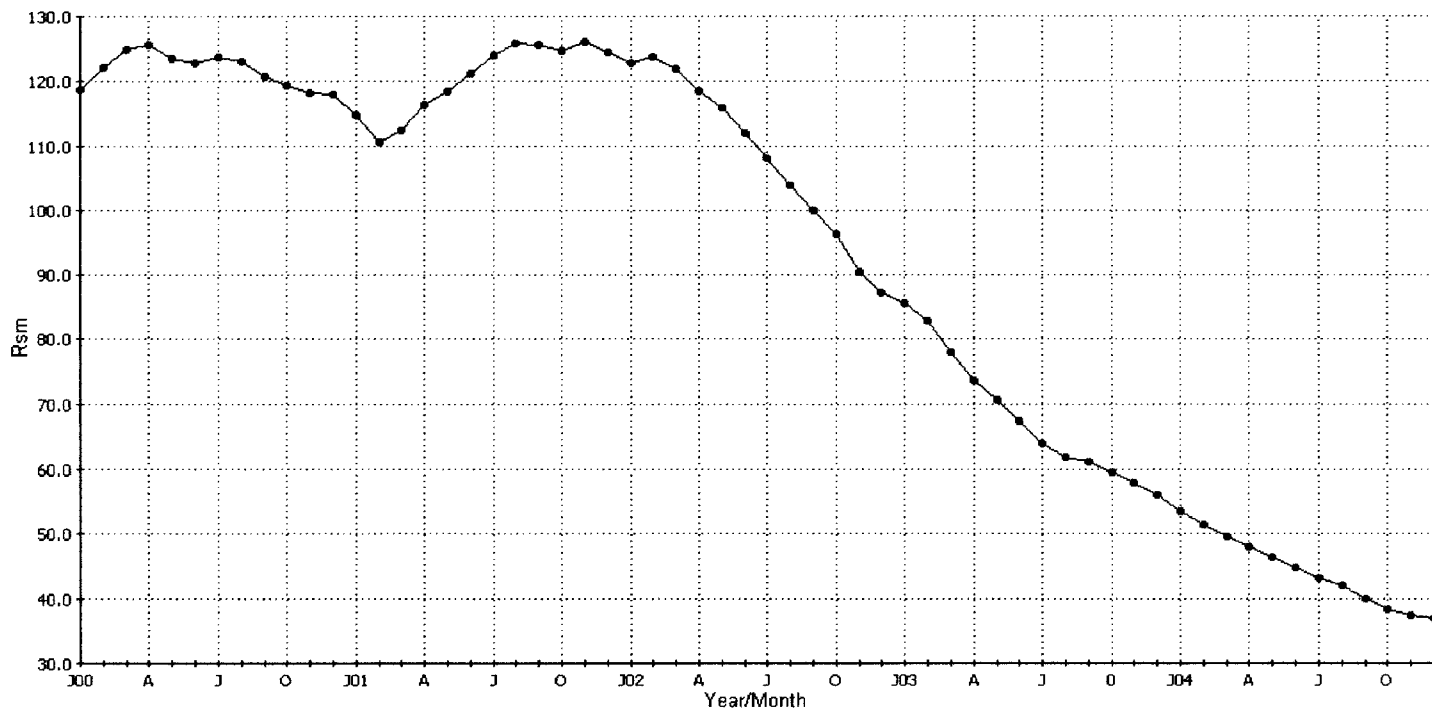
Total No. of Observations: 1115

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

Day	RG	S:G	Day	RG	S:G	Day	RG	S:G	Day	RG	S:G
1	4.4	6.0	9	4.6	10.3	17	3.2	10.1	25	0.4	2.3
2	2.6	7.5	10	4.6	9.8	18	2.0	12.6	26	1.0	2.0
3	2.5	7.8	11	3.4	12.9	19	2.0	11.3	27	0.5	1.3
4	4.1	6.7	12	3.0	13.3	20	2.1	13.8	28	1.1	2.3
5	5.2	6.7	13	2.4	8.4	21	2.1	13.0	29	3.0	4.2
6	5.3	8.5	14	3.1	5.2	22	1.9	7.8	30	5.0	7.4
7	5.4	8.0	15	3.7	5.8	23	0.9	4.9	31		
8	4.8	10.2	16	3.6	7.2	24	0.5	3.1	Mn.	2.9	7.6



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



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

# Sudden Ionospheric Disturbance Report

Michael Hill, SID Analyst 114 Prospect St Marlborough, MA 01752 USA noatak@aol.com	
---	--

## Sudden Ionospheric Disturbances (SID) Recorded During June 2005

(Analysis performed by Michael Hill, SID Analyst)

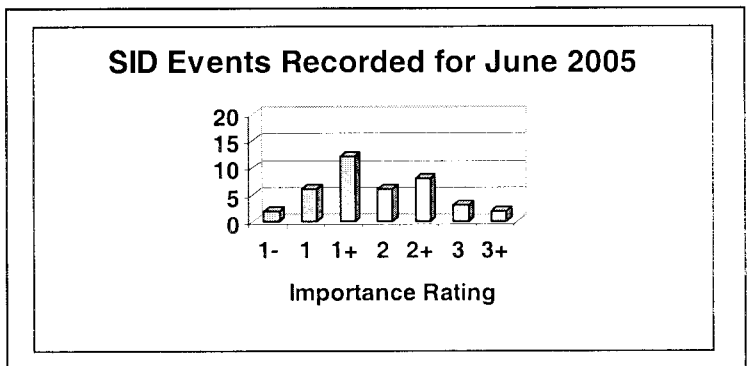
Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
050601	0245	2+	050615	1844	1+			
050601	0444	1+	050616	0907	3+			
050601	0706	2+	050616	2010	3+			
050601	0841	1	050616	2020	3			
050601	1052	1+	050617	1902	2+			
050601	1756	1-	050618	0202	1-			
050601	1812	2	050618	0304	1			
050601	2219	1+	050618	0829	1			
050603	0229	2+	050618	2301	2			
050603	0412	1	050619	1926	2			
050603	1220	2+	050621	1806	1			
050604	0056	1+	050622	1634	1+			
050604	0644	1+	050626	2032	2			
050605	1339	1+	050627	0850	2			
050605	1347	2+						
050607	1343	1+						
050607	1917	1+						
050608	0321	1+						
050608	0626	1+						
050608	0642	1						
050610	0312	2						
050612	1612	3						
050614	0729	2+						
050614	0735	3						
050614	1547	2+						

Importance rating : Duration(min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125
-----------------------------------	---------	----------	-----------	----------	-----------	-----------	----------

The events listed above meet at least one of the following criteria

- 1) Event reported by two or more observers within  $\pm 5$  minutes
- 2) Event matched to GOES-8 XRA event to within  $\pm 15$  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
M Hill	A87	NAA
J Mandaville	A90	NPM
L Anderson	A91	NWC
G Di Filippo	A93	HWU
T Pouios	A95	NAA
R Battaiaola	A96	HWU
J Wallace	A97	NAA
M King	A99	HWU
P Campbell	A100	NLK
F Steyn	A102	NAA NWC
B Bose	A103	VTX
L Observatory	A107	DHO
P Mortfield	A108	NAA



# Solar Events

June was a moderately active month for SID activity. There were 39 correlated SID events to report, most of medium to low importance rating. The GOES-12 spacecraft recorded 210 X-Ray flares and of these only 4 were M-Class events with all the rest of lower intensity. The activity was spread fairly evenly throughout the month with a slightly larger amount of activity at the beginning.

**Solar Flare Summary Based on GOES-12 Data**

