

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE



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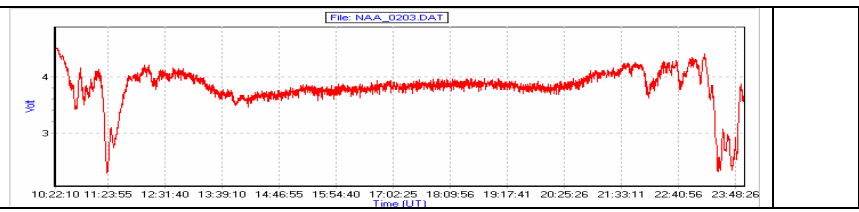
This sunspot image by solar observer Gema Araujo (www.astrosurf.com/obsolar) of Spain was made on July 5, 2009 at 07:54UT. The white light image highlights AR11024. It was nice to see some sunspot activity for a change, though only briefly. As I write the bulletin the sunspot count today is again zero, and the current stretch has been 44 days since the last sunspot was recorded.

At least there has been some solar prominence activity. Ernest Richardson of the UK reported 19 prominences over the course of 21 days of observation in July. You can also see a prominence report by Monty Leventhal of Australia, and another great solar image by Spain's Javier Ruiz Fernandez included on the last page of the bulletin.

Thanks again to all the dedicated observers who continue to patrol the sun and submit reports. Your data still counts and reflects the current status of this cycle. Don't forget to submit your images, drawings and SID plots to include in the bulletin.

Sudden Ionospheric Disturbance Report

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 Marlborough, MA 01752 USA
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Sudden Ionospheric Disturbances (SID) Recorded During July 2009

(Analysis performed by Michael Hill, SID Analyst)

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
090703	2311	2						
090705	0715	2+						

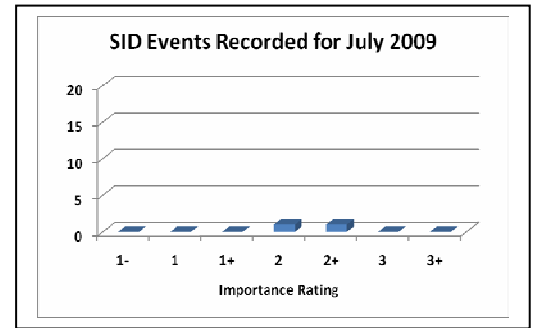
Importance rating: Duration (min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125
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Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
P King	A80		JP Godet	A119	GQD
M Hill	A87		F Adamson	A122	NWC
L Anderson	A91		G Myers	A124	
R Battaiola	A96				
J Wallace	A97				
M King	A99				
F Steyn	A102	NWC			
L. Obs	A107				
P Mortfield	A108				
L Loudet	A118				

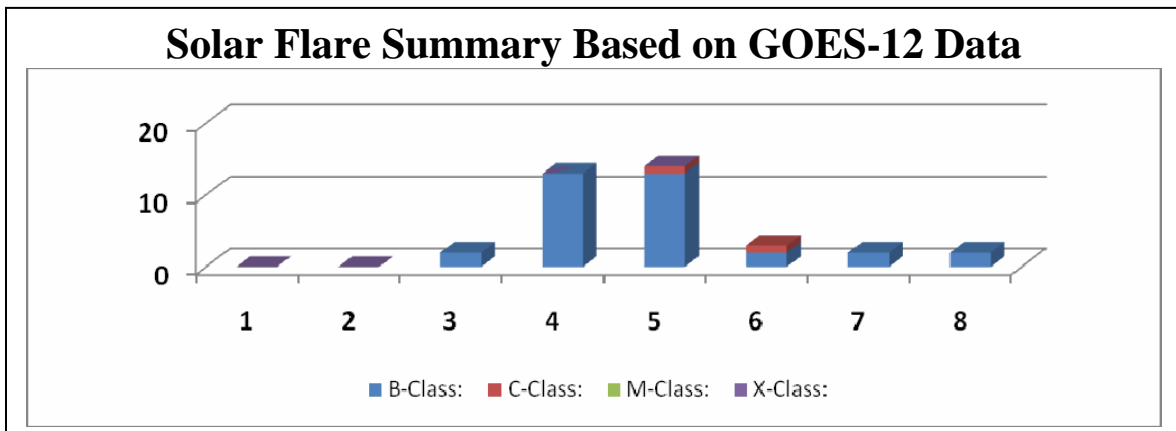
The events listed above meet at least one of the following criteria

- 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)

Solar Events



July 2009 is a month to remember since it is the first month for many many months that we can see some sort of Flare/SID activity. Not much but significant in that this may be the start of the rise in activity that we have all been eagerly anticipating. There were two correlated SID events this month and both fairly strong ones at that. Also of note are the large number of flares on the 4th and 5th of the month. All together there were 34 B-Class events and 2 C-Class events, all centered around this time frame early in the month. A glimmer of activity, to be sure, but good to see. Thanks to all of you who sent in observations and congratulations to Francois Steyn (A102), Jeanne-Pierre Godet (A119) and Frank Adamson (A122) for recording these SID^s this month.



American Relative Sunspot Numbers (Ra) for
July 2009 [boldface = maximum, minimum]

Day	N	Raw Mean	Ra
1	36	2	1
2	29	0	0
3	33	1	1
4	37	26	18
5	42	26	20
6	34	25	17
7	32	23	16
8	32	20	15
9	36	16	12
10	36	13	9
11	35	0	0
12	41	0	0
13	35	0	0
14	31	0	0
15	30	0	0
16	37	0	0
17	26	0	0
18	37	0	0
19	40	1	0
20	33	0	0
21	26	0	0
22	23	0	0
23	27	3	2
24	36	0	0
25	39	0	0
26	37	0	0
27	35	0	0
28	29	0	0
29	34	0	0
30	33	2	2
31	33	0	0

Means 33.7 5.1 3.6

No. of Observers: 55

Total No. of Observations: 1044

Reporting Addresses:

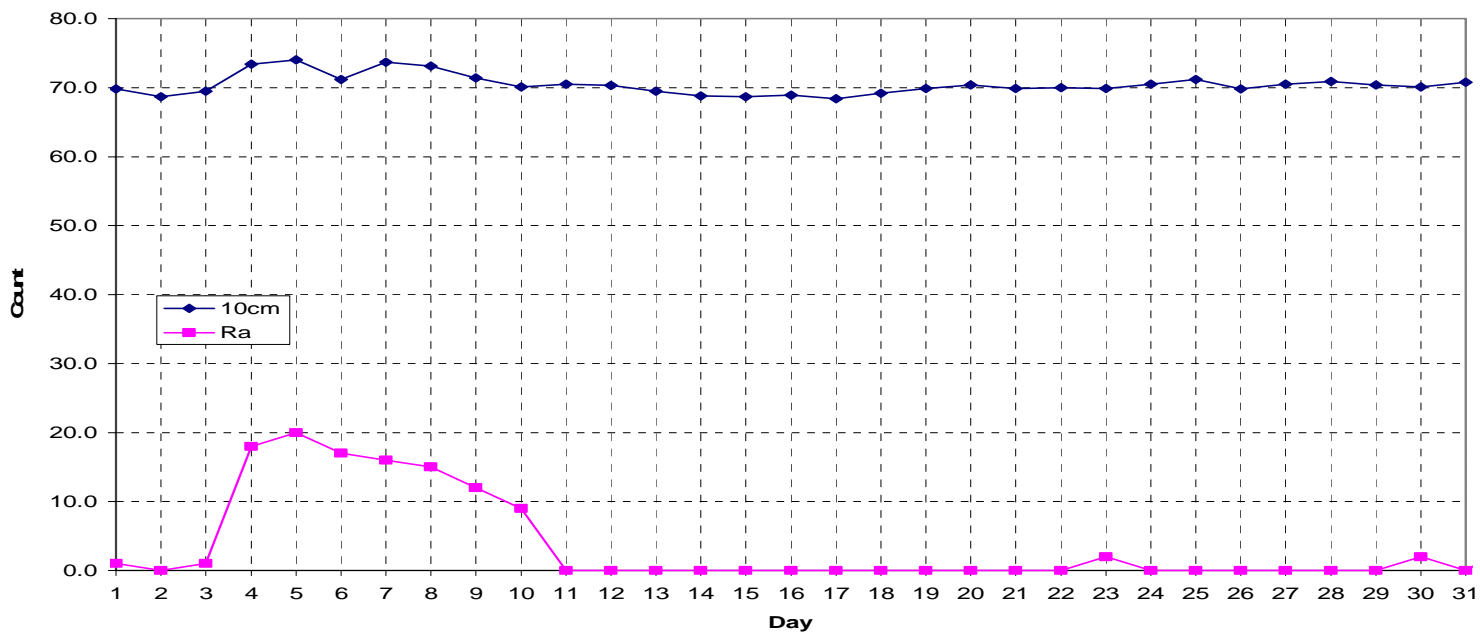
**Sunspot Reports – Email: solar@aavso.org Postal Mail: AAVSO,
49 Bay State Rd. Cambridge, MA, 02138 Fax: 617-354-0665**

**SID Flare Reports – email: noatak@aol.com Postal Mail: Mike Hill,
114 Prospect St., Marlboro, MA, 01752**

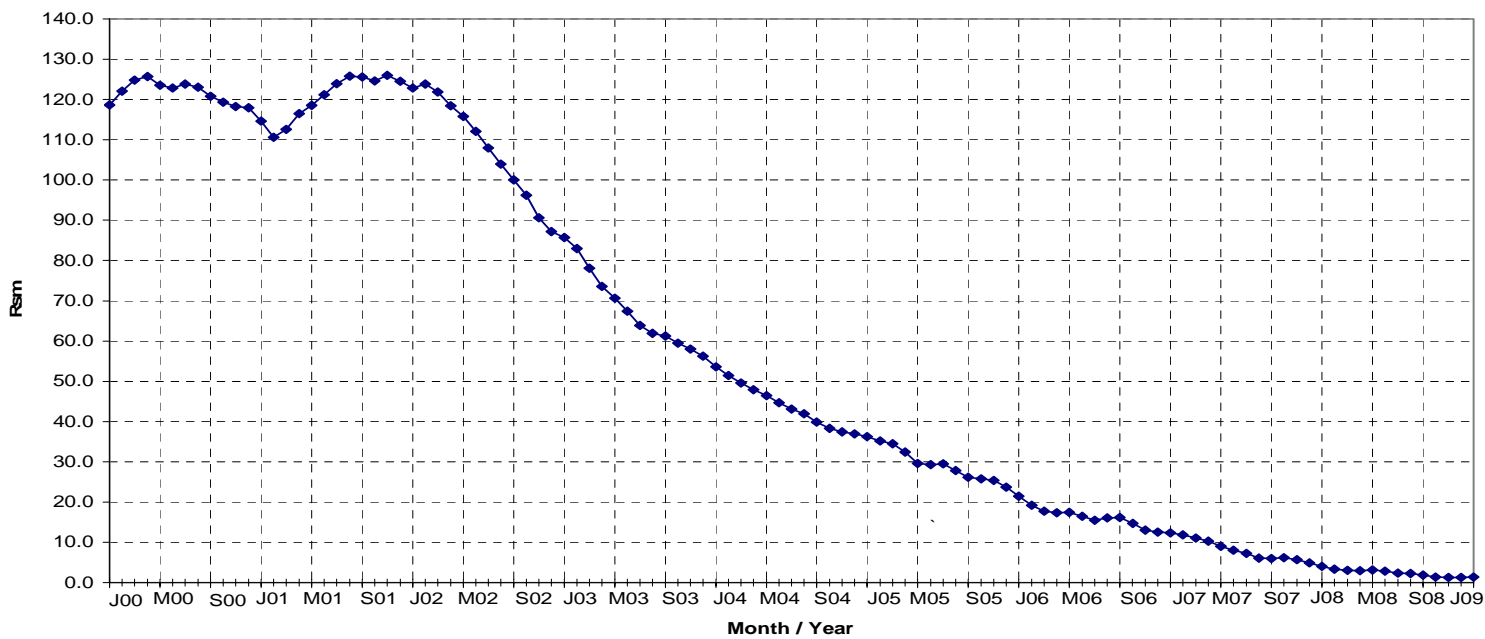
AAP	A. Abbott	19
AJV	J. Alonso	13
ANGR	R. Ang	13
ARAG	G. Araujo	31

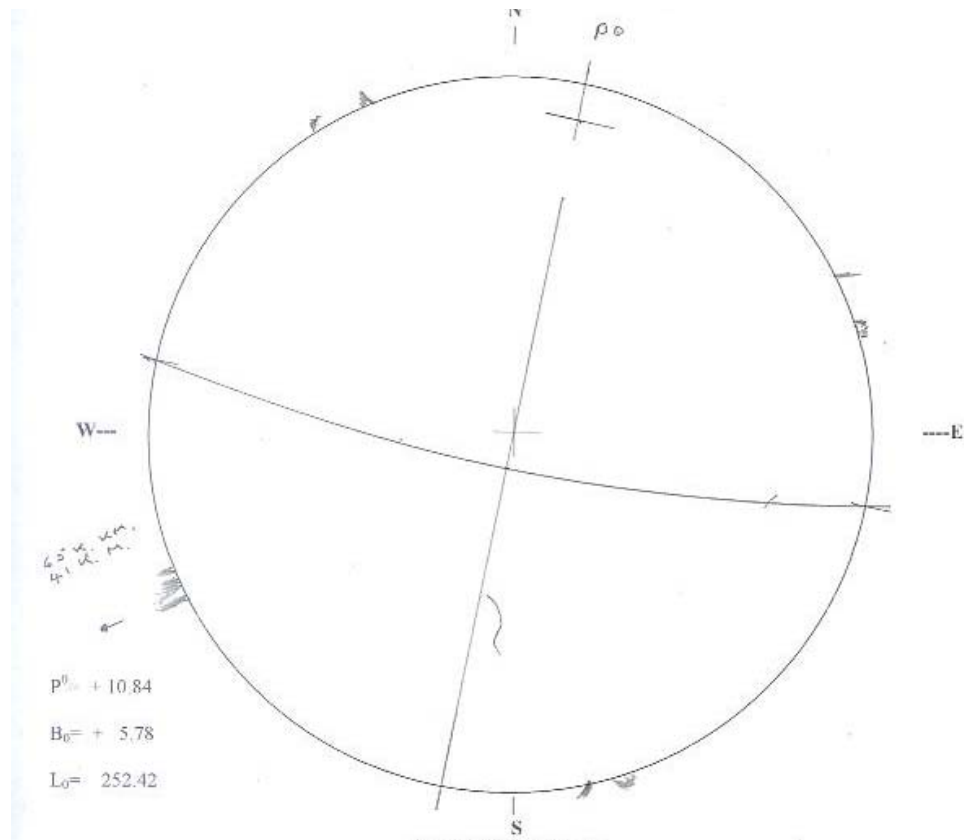
BARH	H. Barnes	12
BATR	R. Battaiola	15
BERJ	J. Berdejo	12
BMF	M. Boschat	14
BRAB	B. Branchett	30
BVC	A. Buck	31
BXD	A. Burda	28
CHAG	G. Morales	29
CKB	B. Cudnik	13
CLZ	L. Corp	17
CNT	D. Chantiles	17
DEKP	P. Dekelver	19
DGP	G. Dyck	7
DUBF	F. Dubois	31
FERJ	J. Fernandez	21
FLET	T. Fleming	21
FUJK	K. Fujimori	16
HAYK	K. Hay	22
HMQ	M. Harris	24
JASK	K. Jaskulska	20
KAPJ	J. Kaplan	25
KNJS	J. & S. Knight	17
KROL	L. Krozel	12
KUZM	M. Kuzmin	1
LARJ	J. Larriba	17
LEVM	M. Leventhal	24
MARE	E. Mariani	9
MCE	E. Mochizuki	20
MEU	E. Mason	7
MILJ	J. Miller	24
MMI	M. Moeller	29
OATS	S. Oatney	26
OBSO	IPS Observatory	15
RICE	E. Richardson	21
RITA	A. Ritchie	11
RO	J. Rousum	4
SCGL	G. Schott	30
SIMC	C. Simpson	13
STEF	G. Stefanopoulos	5
STEM	G. Stemmler	23
STQ	N. Stoikidis	30
SUZM	M. Suzuki	21
SZUM	M. Szulc	20
TESD	D. Teske	22
TJV	J. Temprano	16
URBP	P. Urbanski	29
VIDD	D. Vidican	23
WILW	W. Wilson	25
WIRP	P. Wirkus	14
WRP	R. Wheeler	5
YESH	H. Yesilyaprak	31

10 cm Solar Flux and American Relative Sunspot Numbers (Ra) for July 2009
 10 cm source: ftp://lynx.drao.nrc.ca/pub/solar/FLUX_DATA/fluxtablerolling

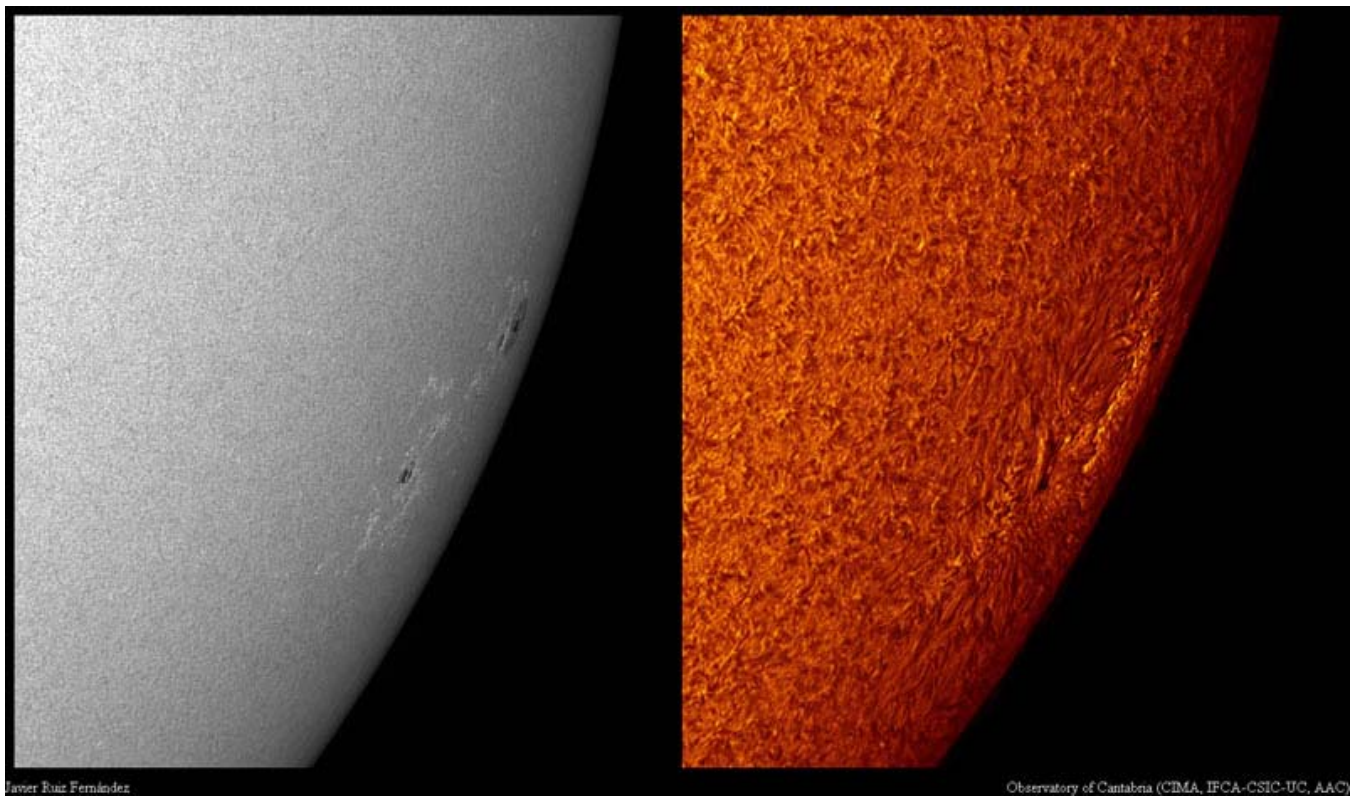


**Smoothed Mean Sunspot Numbers (Rsm) from January 2000 to January 2009
 (Waldmeier Method)**





Prominence Drawing by Monty Leventhal of Sydney, Australia done on July 31, 2009 at 22:25UT



A great white light and H-alpha photo taken by Javier Ruiz Fernandez of the Observatory of Cantabria, Spain