# Solar Bulletin



THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

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This wonderful H-alpha drawing by solar observer Monty Leventhal of the Sydney City Skywatchers, Australia was made on May 30, 2009. It clearly shows several interesting prominences occurring and some faculae. This should at least encourage those with H-alpha capable scopes to take a quick peek. I've received some other drawings and images that I'll include in the June 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

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



## Sudden Ionospheric Disturbances (SID) Recorded During March 2009

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
				NO				
				SID				
				Events				
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			ļ					
			L					

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

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
P King	A80		F Adamson	A122	
M Hill	A87		G Myers	A124	
L Anderson	A91				
R Battaiola	A96				
J Wallace	A97				
M King	A99				
L. Obs	A107				
P Mortfield	A108				
L Loudet	A118				
JP Godet	A119				

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)



Just the other day I was treated to an incredible view of the sun through a friends solar scope. The object of interest for most was the wispy prominence dancing on the limb of the sun. But for me the most striking aspect was the very evenly distributed tiny dark markings spread across the sun. They were like miniature filaments shimmering as if in constant motion. It gave the impression of a very active surface but on a miniscule scale. Like a pond that is evenly covered by tiny ripples raised by an almost imperceptable breeze. There is activity on the sun but it is so quiet, so calm. I wonder if this is the calm before the storm. I wonder what is going on below that surface. Monitoring for solar flares gives the imression that nothing is happening and indeed, from our vantage point that is true. But something is happening, and it is exciting to think about what is just around the corner or, should I say, the limb. Keep up the good work with your continued reports. Although there were zero correlated SID events this month, and only five B-Class X-Ray events recorded by the GOES-12 spacecaft, this doesn't mean we could not have a sudden eruption of activity anytime now. You wouldn't want to miss the first big one!



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

Day	N	Raw Mean	Ra
1	32	0	0
2	37	0	0
3	34	0	0
4	28	1	1
5	26	0	0
6	27	0	0
7	29	0	0
8	34	0	0
9	44	0	0
10	39	1	0
11	41	1	0
12	35	1	1
13	36	6	4
14	37	11	7
15	37	9	7
16	27	8	6
17	36	7	5
18	38	8	5
19	35	1	1
20	39	1	0
21	32	0	0
22	36	4	2
23	38	7	5
24	39	0	0
25	38	0	0
26	34	0	0
27	34	0	0
28	29	0	0
29	33	0	0
30	33	1	0
31	42	12	7

Means 34.8 2.5

1.6

No. of Observers: 58 Total No. of Observations: 1079

#### **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

A. Abbott	AAP	17
J. Alonso	AJV	25
R. Ang	ANGR	17
G. Araujo	ARAG	31

H. Barnes	BARH	13
R. Battaiola	BATR	9 15
J. Berdejo	BERJ	15
J. Blackwell	BLAJ	4
M. Boschat	BMF	14
B. Branchett	BRAB	27
R. Brown	BROB	24
A. Buck	BVC	31
A. Burda	BXD	24
G. Morales	CHAG	30
B. Cudnik	СКВ	25
D. Chantiles	CNT	13
P. Dekelver	DEKP	24
S. Dufoer	DFS	16
G. Dyck	DGP	3
F. Dubois	DUBF	27
J. Fernandez	FERJ	20
K. Fujimori	FUJK	18
B. Halls	HALB	19
К. Нау	HAYK	19
M. Harris	HMQ	18
T. Hrutkay	HRUT	16
K. Jaskulska	JASK	22
J. Kaplan	KAPJ	28
L. Krozel	KROL	11
M. Kuzmin	KUZM	6
J. Larriba	LARJ	16
M. Leventhal	LEVM	21
E. Mariani	MARE	10
F. Mariuzza	MARF	30
J. Maranon	MARJ	31
E. Mochizuki	MCE	20
E. Mason	MEU	3
J. Miller	MILJ	12
M. Moeller	MMI	29
S. Oatney	OATS	24
E. Richardson	RICE	20
A. Ritchie	RITA	9
G. Scholl	SCHG	7
C. Simpson	SIMC	11
G. Stefanopoulis	STEF	2
G. Stemmler	STEM	21
N. Stoikidis	STQ	27
M. Suzuki	SUZM	22
M. Szulc	SZUM	18
D. Teske	TESD	23
J. Temprano	TJV	20
P. Urbanski	URBP	29
A. Vargas	VARG	26
D. Vidican	VIDD	12
W. Wilson	WILW	22
P. Wirkus	WIRP	14
R. Wheeler	WRP	5
H. Yesilyaprak	YESH	29
	011	27

#### 10 cm Solar Flux and American Relative Sunspot Numbers (Ra) for May 2009 10 cm source: ftp://lynx.drao.nrc.ca/pub/solar/FLUX\_DATA/fluxtablerolling.text



Smoothed Mean Sunspot Numbers (Rsm) from January 2000 to November 2008 (Waldmeier Method)

