### Solar Bulletin



#### THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

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Welcome **Rodney Howe (A121)**, our new SID analyst. Rodney lives in Fort Collins, Colorado and has a Masters Degree in Remote Sensing / Geographical Information Systems. Before retiring he spent 20 years working with Landsat and the AVHRR satellite data classifying agriculture crop land images with the USDA. He's been recording SID data for 10 years with a variety of Gyrator receivers and the 1.5meter loop antenna pictured above right. He was fortunate to capture the SGR 1806-20 magnetar on Dec 27, 2004 with his SID gear.

#### **Solar Section Chairperson Needed ASAP**

It is with deep regret that after 4 years of being chair of this section I will have to step down due to increased business responsibilities and travel. A volunteer is needed to step forward and lead the combined solar group and be editor of the monthly solar bulletin. This section has a long history in contributing the monthly American Relative Sunspot Number (Ra) and the Sudden Ionospheric Disturbance (SID) solar flare radio reports. If you can spare 4 hours per month and wish to take on the leadership of this section, please contact me at Paul@theDDO.ca I will be available to assist in the transition over the next several months to get the new chairperson up to speed. Thank You.

## Sudden Ionospheric Disturbance Report

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#### Sudden Ionospheric Disturbances (SID) Recorded During September 2010

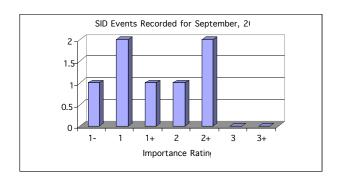
Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
100906	1500	2+			,			•
100907	0848	1						
100926	1237	1						
100928	0949	2						

Observer	Code	Station(s) monitored	1	Observer	Code	Station(s) monitored
F Steyn	A102	NWC				
J Godet	A119	GBZ				
R Howe	A121	NML				
F Adamson	A122	NWC				
S Oatney	A125	NML				
-						

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

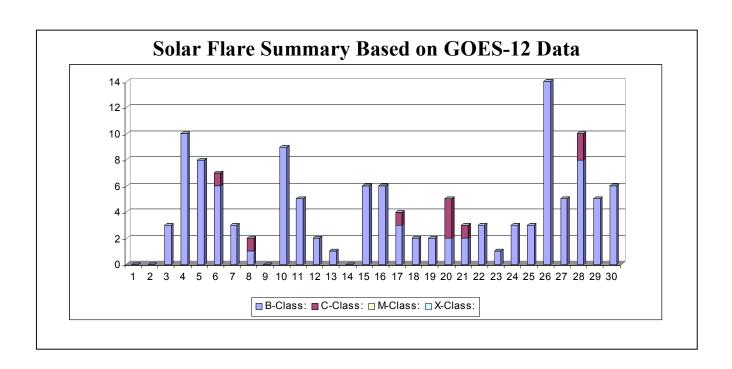
- 1) Event reported by two or more observers within  $\pm 5$  minutes
- 2) Event matched to GOES-8 XRA event to within  $\pm 15$  minutes and event time  $\leq 1000~UT$
- 3) reported by observer with a quality rating > 8 (scale 1-10)

# **Solar Events**



There were 128 solar flares measured by GOES-8/14, only 9 of which were C class flares. All four flares reported by our SID observers where C class flares. Twelve AAVSO SID observers submitted reports, however only five observers recorded events.

There were more B class flares this month, and comparing Augusts 2010's 85 flares/7 C class, September shows a slight rise in flare activity. The Importance rating of September's flares however is less than those in August.



# American Relative Sunspot Numbers (Ra) for September 2010 [boldface = maximum, minimum]

Day	N	Raw Mean	Ra
1	30	38	26
2	37	48	34
3	29	44	31
4	36	50	35
5	38	42	29
6	28	26	18
7	30	12	9
8	26	2	1
9	27	0	0
10	34	1	1
11	33	11	8
12	29	15	11
13	31	21	14
14	27	23	16
15	29	25	18
16	26	40	28
17	25	44	33
18	24	41	30
19	27	41	28
20	27	31	24
21	33	34	23
22	31	30	22
23	27	34	24
24	31	37	26
25	29	36	27
26	28	46	33
27	20	46	35
28	24	50	37
29	26	48	34
30	26	42	30
Means	28.9	32.0	22.9

Total Observers: 52 Total Observations: 868

Initials	Name	# of Obs.
AAP	A. Patrick Abbott	5
AAX	Alexandre Arorim	8
AJV	J. Alonso	16
ARAG	Gema Araujo	30
ASA	Salvador Aguirre	24
BARH	Howard Barnes	5
BATR	Roberto Battaiola	3

BEB	Ray Berg	15
BERJ	Jose Alberto Berdejo	13
BMF	Michael Boschat	21
BRAB	Brenda Branchett	30
BRAF	Raffaello Braga	16
BROB	Robert Brown	30
BVC	Alan Buck	30
BXD	Alexandru Bruda	4
CHAG	German Chavas Morales	30
CKB	Brian Cudnik	23
CLZ	Corp Laurent	7
CNT	Dean Chantiles	11
CVJ	Jose Carvajal	10
DELS	Susan Delaney	11
DEMF	Frank Dempsey	4
DGP	Gerald Dyck	20
DUBF	Franky Dubois	23
FAM	Fabio Mariuzza	13
FERJ	Javier Ruiz Fernandez	22
FLET	Tom Fleming	25
FUJK	K. Fujimori	21
HALB	Brian Halls	12
HAYK	Kim Hay	12
HMQ	Mark Harris	7
JASK	Krystyna Wirkus	18
KAPJ	John Kaplan	23
KNJS	James & Shirley Knight	22
KROL	Larry Krozel	1
LEVM	Monty Leventhal	23
MARE	Enrico Mariani	5
MILJ	Jay Miller	21
MMI	Michael Moeller	24
OATS	Susan Oatney	18
OBSO	IPS Observatory	14
RICE	E. C. Richardson	17
SCGL	Gerd-Lutz Schott	23
SIMC	Clyde Simpson	12
STQ	Nick Stoikidis	16
TJV	Javier Temprano	7
URBP	Piotr Urbanski	20
VARG	A.Gonzalo Vargas	28
VIDD	Daniel Vidican	19
WILW	William M. Wilson	27
WIRP	Piotr Wirkus	3
YESH	Hulya Yesilyaprak	26
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#### **Reporting Addresses:**

Sunspot Reports – Kim Hay, Email: solar@aavso.org

SID Solar Flare Reports - Rodney Howe,

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