Solar Bulletin



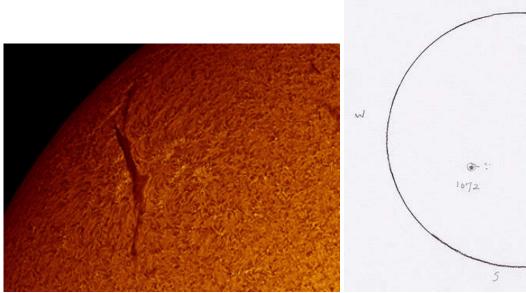
THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

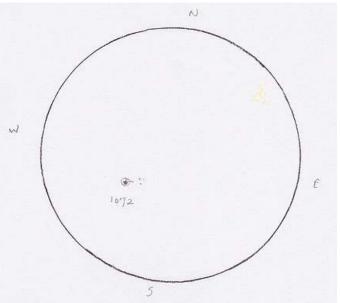
Paul Mortfield, Editor c/o AAVSO, 49 Bay State Rd Cambridge, MA 02138

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May 2010





May images of sunspot activity at left in H-alpha taken by Javier Ruiz Fernandez of the Observatorio de Cantabria, on May 18 at 14:15UT. The solar drawing is by Susan Delaney on May 24 at 16:15UT. Thank you to all our members for their submissions.

New Sunspot Analyst



I'd like to take this opportunity to introduce our new sunspot analyst Kim Hay. She has been a member of the AAVSO since the early 90's submitting solar results to the solar section as HAYK. She's also been an active variable star observer (HKY). Her solar equipment includes a 4" B&L SCT using both Thousand Oaks and Baader solar filters for sunspots and an SM60 for H-Alpha work. Kim is also involved in Radio Astronomy with a collection of solar data using a 40khz radio telescope at www.starlightcascade.ca Future projects include a Radio Jove Kit and a SID detector. Kim lives in Yarker, Ontario, and is a member of the Kingston Centre of the Royal Astronomical Society of Canada (RASC), and contributed the section on "Solar

Observing" in the 2010 RASC Observer's Handbook now in its 102 year of publication. Welcome Kim. You can reach Kim and submit sunspot reports via email to solar@aavso.org

Notice to all Sunspot Observers

Beginning in March 2010 all sunspot reports need to be submitted electronically in the official format using the SolObs program (Windows) or the Sunkey program (DOS) or manual entry in the proper text format). The programs are available at: http://www.aavso.org/observing/programs/solar/solarsoftware.shtml
Submissions in other formats will no longer be accepted. Sunspot reports must be submitted by the **10th day** of the following month to be included in the analysis and Bulletin.

Solar Section Chairperson Needed

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.

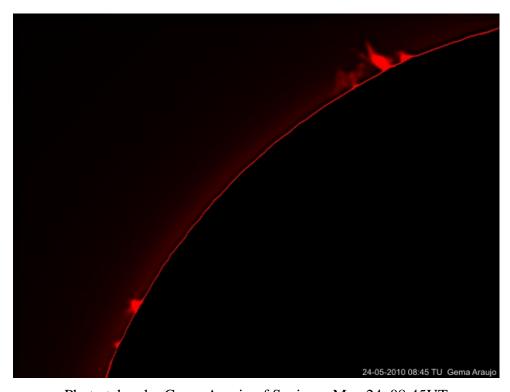
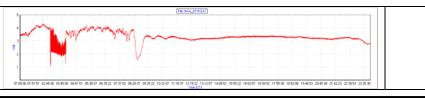


Photo taken by Gema Araujo of Spain on May 24, 08:45UT

Sudden Ionospheric Disturbance Report

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



Sudden Ionospheric Disturbances (SID) Recorded During May 2010

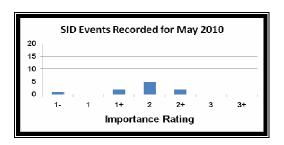
Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
100504	1629	2			,		-	<u> </u>
100505	0716	2						
100505	1152	2						
100505	1719	2						
100507	0742	2+						
100507	0754	2						
100508	0459	1+						
100508	1149	2+						
100508	1150	1+						
100508	2014	1-						
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Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
A Clerkin	A29	NAA	F Adamson	A122	NPM NWC
P King	A80	FTA	G Myers	A124	NLK
M Hill	A87	NAA	S Oatney	A125	NML
R Battaiola	A96	HWU	G Perry	A126	HWU
J Wallace	A97	NAA			
F Steyn	A102	NAA			
A Son	A112	DHO			
M Suhovecky	A115	NAA			
L Loudet	A118	DCF DHO			
J Godet	A119	GBZ GQD ICV			

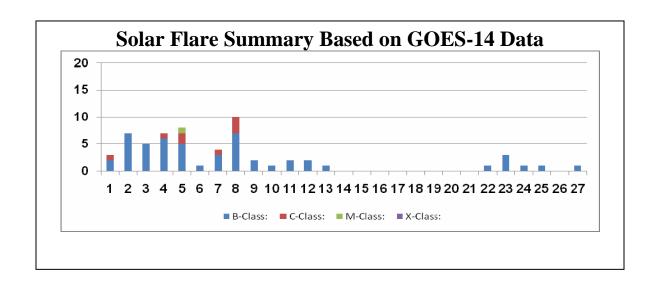
The events listed above meet at least one of the following criteria

- 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



May was not an overly active month for SID^s but there was some activity at least to speak of. Most but not all observers reported some events. There were 10 Correlated SID events, most of average importance rating. The GOES-14 spacecraft recorded 60 X-Ray flare events. Of these, 51 were B Class events, 8 were C Class events and there was even one M Class event on the 5th of the month. Most of the activity, in fact, was at the start of month with a mid month lull which then picked up a bit towards the end of the month. We have a new observer Gary Perry (A126) contributing now from the UK. Welcome aboard Gary and thanks again to all the rest of you for your contribution to the SID Progam.



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

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

Means 28.3 11.8 8.4

No. of Observers: 51

Total No. of Observations: 877

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	5
AAX	A.Amorim	10
AJV	J.Alonso	19
ANGR	R.Ang	8
ARAG	G.Araujo	31
ASA	S.Aguirre	23
BARH	H.Barnes	9
BATR	R.Battaiola	6
BEB	R.Berg	19
BERJ	J.Berdejo	12
BLAJ	J.Blackwell	3
BMF	M.Boschat	24
BRAB	B.Branchett	30
BROB	R.Brown	28
BVC	A.Buck	31
BXD	A.Burda	16
CHAG	G.Morales	27
СКВ	B.Cudnik	19
CLZ	L.Corp	4
CNT	D.Chantiles	10
DELS	S.Delaney	4
DGP	G.Dyck	12
DUBF	F.Dubois	27
FAM	F.Mariuzza	14
FERJ	J.Fernandez	16
FLET	T.Fleming	23
FUJK	K.Fujimori	23
HAYK	K. Hay	18
HMQ	M.Harris	16
JASK	K.Wirkus	12
KAPJ	J.Kaplan	24
KNJS	J.Knight	22
KROL	L.Krozel	8
LEVM	M.Leventhal	17
MARE	E.Mariani	11
MILJ	J.Miller	12
MMI	M.Moeller	16
OATS	S.Oatney	14
OBSO	IPS.Culgoor	
SCGL	G.Schott	18
SIMC	C.Simpson	26 15
STQ	N.Stoikidis	28
TESD	D.Teske	27
TJV	J.Temprano	13
URBP	P.Urbanski	21
VARG	A.Vargas	27
VIDD	D.Vidican	16
WILW	W.Wilson	25
WIRP	P.Wirkus	4
WRP	R.Wheeler	4
YESH	H.Yesilyapr	30