Solar Bulletin

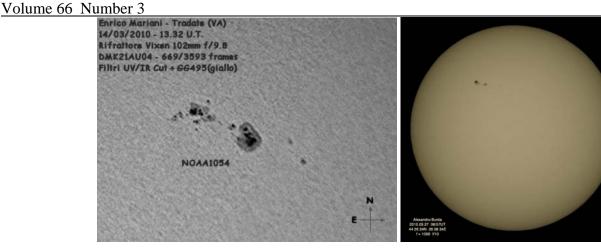


THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

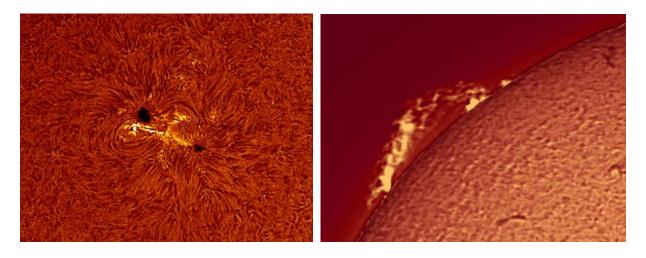
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March 2010



March images of sunspot activity left, on March 14 at 13:32UT by Enrico Mariani of Tradate, Italy. The full disk image was taken by Alex Burda of Bucharest, Romania on March 27, 08:57UT. The bottom left image in H-alpha taken by Javier Ruiz Fernandez of the Observatorio de Cantabria. March 17, 11:10UT huge prominence by Gema Araujo of Spain.



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). Having the solar team re-enter observations manually is time consuming and considerably slows our process down. Using the programs helps us quickly analyze and report all the observations. The programs are available at the following link. http://www.aavso.org/observing/programs/solar/solarsoftware.shtml

Sunspot reports must be submitted by the 10th day of the following month to be included in the Bulletin.

Sudden Ionospheric Disturbance Report

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Sudden Ionospheric Disturbances (SID) Recorded During March 2010

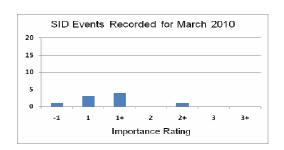
Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
100304	1612	1			ľ			ı.
100305	702	2+						
100312	1829	1						
100312	1839	1+						
100326	2118	-1						
100326	2128	1						
100327	758	1+						
100327	1014	1+						
100327	1831	1+						
·								

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
A Clerkin	A29	NAA	L Loudet	A118	DCF ICV NAA
M Hill	A87	NAA	J Godet	A119	GBZ GQD ICV
G DiFilippo	A93	DHO	F Adamson	A122	NWC
R Battaiola	A96	HWU	G Myers	A124	NLK
J Wallace	A97	NAA	S Oatney	A125	NML
M King	A99	HWU			
P Campbell	A100	NLK			
F Steyn	A102	NWC			
P Mortfield	A108	NAA			
M Suhovecky	A115	NAA			

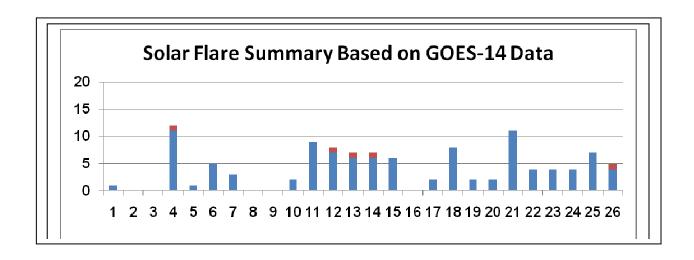
The events listed above meet at least one of the following criteria

- 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



As we continue into cycle 24, the observer reports are more often ones that include actual SID observations instead of the many instances of "No SIDS" that I have had to log into my system. That is indeed a good thing to see. Some of you may still be missing some of them due to the timing and your location but be patient as there will be many more to come and your activity level will also pick up. In March there were 9 correlated SID events reported. Not a large number but a step in the active direction nonetheless. There were 110 X-ray flares recorded by the GOES satellite and of these 105 were B-Class events and the other 5 were C-Clas events. A lot of little flares which are hard to detect with most of our monitors. Thanks to all who reported in.



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

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

Means 25.1 21.6 15.4

No. of Observers: 51

Total No. of Observations: 778

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	9
AAX	A. Amorim	11
AJV	J. Alonso	11
ANGR	R. Ang	13
ARAG	G. Araujo	27
ASA	S. Aguirre	2
BARH	H. Barnes	10
BATR	R. Battaiola	4
BEB	R. Berg	6
BERJ	J. Berdejo	15
BLAJ	J. Blackwell	6
BMF	M. Boschat	22
BRAB	B. Branchett	27
BROB	R. Brown	25
BVC	A. Buck	31
BXD	A. Burda	15
CHAG	G. Morales	26
CKB	B. Cudnik	24
CLZ	L. Corp	5
CNT	D. Chantiles	18
CA1	J. Carvajal	8
DELS	S. Delaney	8
DGP	G. Dyck	17
DUBF	F. Dubois	29
FAM	F. Mariuzza	10
FERJ	J. Fernandez	21
FUJK	K. Fujimori	17
HMQ	M. Harris	12
JASK	K. Wirkus	13
KAPJ	J. Kaplan	20
KNJS	J. & S. Knight	25
KROL	L. Krozel	9
LEVM	M. Leventhal	3
MARE	F. Mariuzza	6
MILJ	J. Miller	17
MMI	M. Moeller	18
OATS	S. Oatney	8
OBSO	IPS Observatory	18
SCGL	G. Schott	24
SDP	D. Sharpless	3
SIMC	C. Simpson	9
STQ	N. Stokidis	20
SUZM	M. Suzuki	21
TESD	D. Teske	22
TJV	J. Temprano	6
URBP	P. Urbanski	22
VARG	G. Vargas	22
VIDD	D. Vidican	17
WILW	W. Wilson	22
WRP	P. Wirkus	1
YESH	H. Yesilyaprak	23