Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

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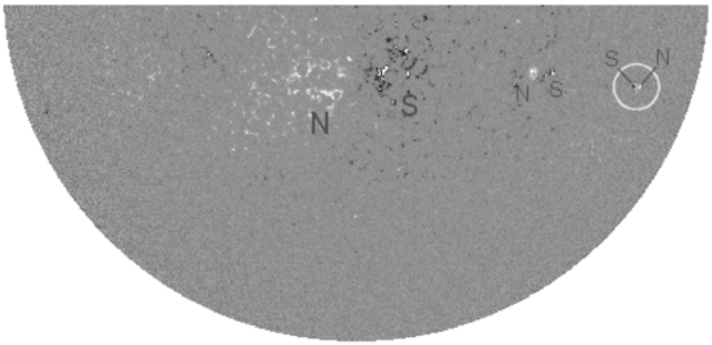
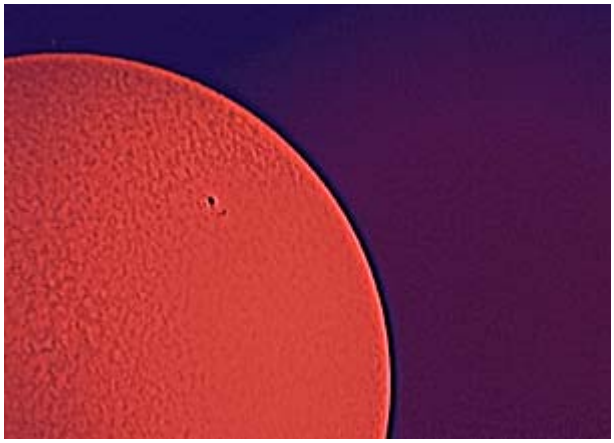


July was quiet again, but the big news was a very short lived active region detected on July 31 that showed an opposite polarity in the magnetic fields. Could this be the official start of solar cycle 24 ?? Hopefully we'll soon get some longer lasting spots that continue this characteristic and confirm the actual beginning of the new cycle. (Image courtesy SOHO/MDI)

I'd like to thank solar group members that took the time to send in some solar images as well as a little about themselves and their setups.

Bill Wilson (WILW) of Cordova, Tennessee, has been solar viewing with his Questar since 1979 and has been contributing his observatons to the AAVSO since 1980. Before retiring in 2004, Bill would often take his setup to work at the University of Tennessee to get observations during those shortened daylight months, and at the same time share views of the sun with coworkers. Upon his retirement a sundial was commissioned to be placed on the south side of the building. Bill also serves as a board member of the Memphis Astronomical Society.

John Blackwell (BLAJ) of Northwood, New Hampshire, took this H-alpha image on June 30, 2006 with a webcam connected to his 60mm Coronado scope. The image shows active region 0898.



Sudden Ionospheric Disturbance Report

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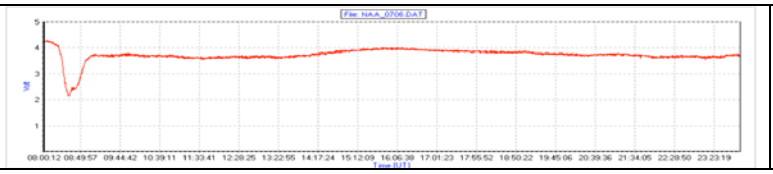


Sudden Ionospheric Disturbances (SID) Recorded During July 2006

(Analysis performed by Michael Hill, SID Analyst)

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
060705	0852	2+						
060705	0858	2						
060706	0825	3						
060706	0833	3						
060707	1206	2						

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

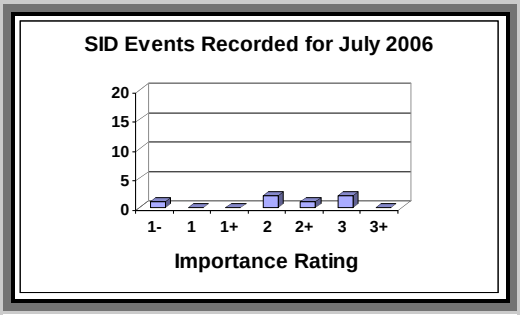
Observer	Code	Station(s) monitored
A Clerkin	A29	NAA
D Toldo	A52	NWC
P King	A80	HWU
M Hill	A87	NAA
J Mandaville	A90	NPM
L Anderson	A91	NWC
R Battaiola	A96	HWU
M King	A99	HWU
F Steyn	A102	NWC
L Observatory	A107	DHO

Observer	Code	Station(s) monitored
P Mortfield	A108	NAA
M Suhovecky	A115	NAA
K Hubal	A117	NAA NLK
L Loudet	A118	DHO

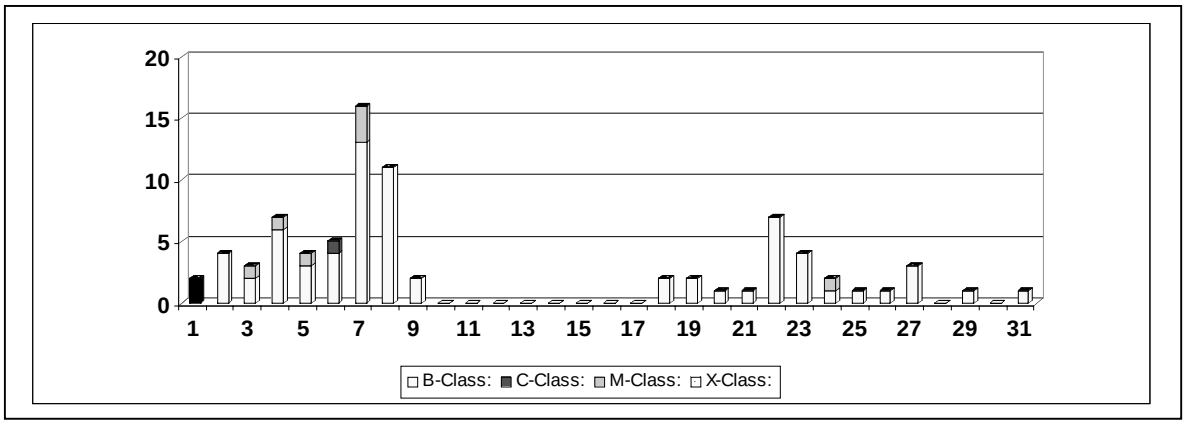
The events listed above meet at least one of the following criteria

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 was another slow month for SID events. There were only 6 correlated SID events reported by observers. Of those most had a higher than average importance rating however. X-Ray flares reported by the GOES-12 satellite were small in number as well. Only 70 recorded and of these most were B-Class events. There were seven C-Class events and one M-Class. I noticed however that the first sunspot with an opposite polarity magnetic field was detected on July 31st, although it was fleeting and lasted only for a few hours on the surface of the solar disk. This does however signify a possible start to the next solar cycle – Cycle 24.



American Relative Sunspot Numbers (Ra) for July 2006 [**boldface = maximum, minimum**]

Day	N	Raw Mean	Ra
1	42	33	**25**
2	32	28	19
3	35	25	18
4	37	26	18
5	33	32	22
6	37	33	23
7	35	36	**25**
8	41	32	23
9	32	27	20
10	29	15	11
11	32	13	9
12	30	7	5
13	35	3	2
14	32	11	8
15	37	15	10
16	39	19	13
17	40	21	15
18	32	20	15
19	38	20	14
20	33	7	5
21	31	1	**1**
22	31	13	8
23	33	18	13
24	38	18	13
25	39	19	13
26	31	17	12
27	33	17	12
28	30	15	11
29	33	16	12
30	33	25	19
31	31	20	15
Means	**34.3**	**19.4**	**13.9**

Total No. of Observers: 59

Total No. of Observations: 1064

Reporting Addresses:

Sunspot Reports – Email: solar@aavso.org Postal Mail: AAVSO, 25 Birch St. Cambridge, MA, 02138 Fax: 617-354-0665

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

July 2006 Sunspot Observers

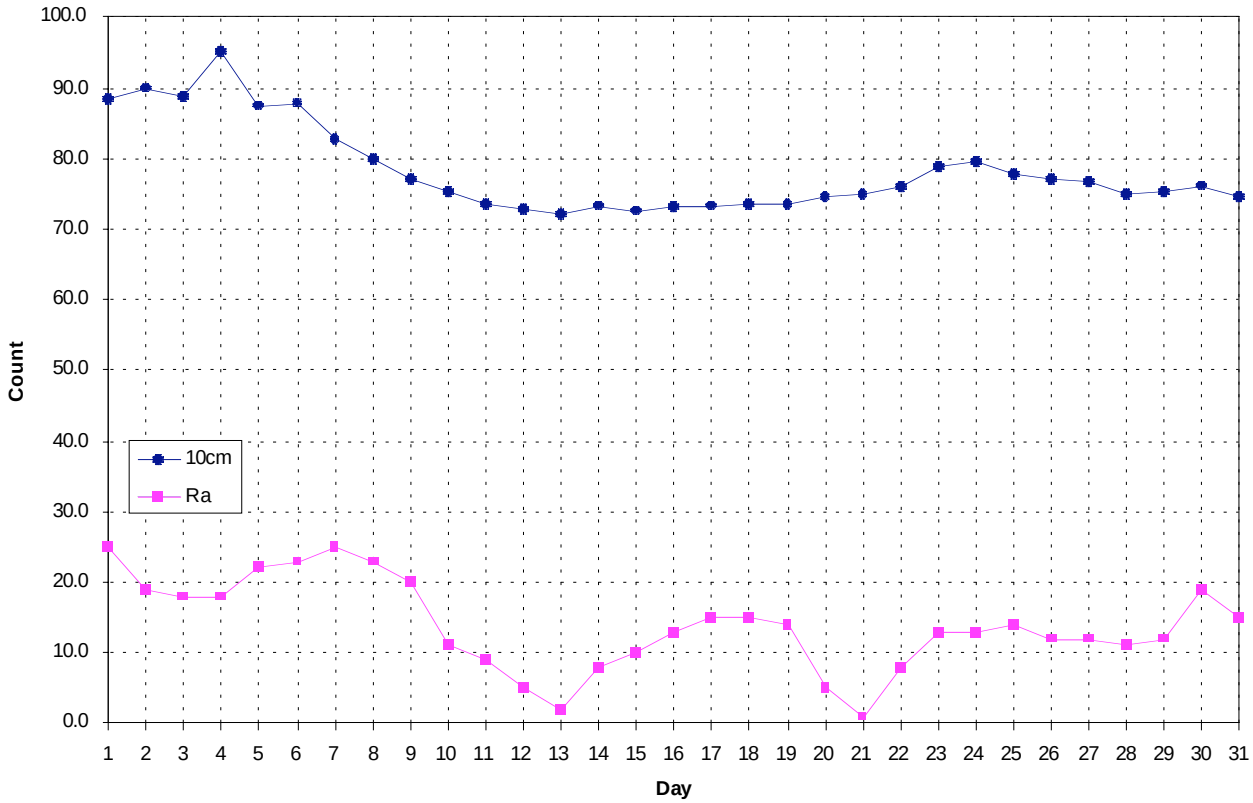
P. Abbott	AAP	24
J. Alonso	AJV	18
G. Araujo	ARAG	30
H. Barnes	BARH	14
R. Battaiola	BATR	17
R. Berg	BEB	12
J. Berdejo	BERJ	6
J. Blackwell	BLAJ	5
M. Boschat	BMF	16
B. Branchett	BRAB	30
M. Bradbury	BRAM	7
R. Branch	BRAR	27
R. Brown	BROB	31
Y. Brovarets	BYG	29
P. Campbell	CAMP	6
G. Morales	CHAG	31
B. Cudnik	CKB	19
L. Corp	CLZ	8
T. Compton	COMT	18
T. Cragg	CR	26
J. van Delft	DEJV	19
G. Dyck	DGP	5
J. Fernandez	FERJ	22
T. Fleming	FLET	31
K. Fujimori	FUJK	18
M. Goetz	GOEM	4
B. Halls	HALB	22
K. Hay	HAYK	13
S.Jenner	JENS	6
J. Kaplan	KAPJ	27
J.& S. Knight	KNJS	23
L. Krozel	KROL	1
J. Larriba	LARJ	10

M. Lerman	LERM	14
J. Maranon	MARJ	31
L. McHenry	MCHL	4
E. Mason	MEU	5
M. Moeller	MMI	30
S. Oatney	OATS	30
IPS Observatory	OBSO	12
R. Pektas	PEKT	30
E. Richardson	RICE	21
A. Ritchie	RITA	23
G. Schott	SCGL	31
D. Sharples	SDP	1
C. Simpson	SIMC	5

G. Stefanopoulis	STEF	9
G. Stemmler	STEM	25
N. Stoikidis	STQ	28
M. Suzuki	SUZM	19
M. Szulc	SZUM	30
D. Teske	TESD	28
J. Temprano	TJV	15
P. Urbanski	URBP	18
A. Vargas	VARG	28
D. Vidican	VIDD	13
D. Williams	WILD	6
W. Wilson	WILW	26
R. Wheeler	WRP	7

10 cm Solar Flux and American Relative Sunspot Numbers (Ra) for July 2006

10 cm source: http://www.drao.nrc.ca/icarus



Smoothed Mean Sunspot Numbers (Rsm) from January 2000 to January 2006
(Waldmeier Method)