Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

Carl E. Feehrer, Editor 9 Gleason Rd. Bedford, MA 01730



Email: cfeehrer@hotmail.com

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Table I. American Relative Sunspot Numbers (Ra) for January 2006 [boldface = maximum, minimum]

Day	N	Raw Mean	Ra
1	20	39	27
2	18	33	24
3	21	35	24
4	20	25	18
5	21	15	10
6	16	15	11
7	26	12	8
8	27	11	8
9	29	12	8
10	31	11	8
11	29	11	8
12	29	6	5
13	20	1	1
14	12	2	2
15	23	29	21
16	27	39	27
17	28	33	24
18	22	40	28
19	32	32	23
20	22	23	17
21	18	33	24
22	30	46	32
23	27	50	34
24	29	40	28
25	27	30	21
26	35	20	14
27	26	17	12
28	26	3	2
29	27	2	1
30	22	0	0
31	20	0	0

24.5

21.5

15.1

Total No. of Observers: 57

Total No. of Observations: 760

Table II. January 2006 Observers

10	AAP	P.Abbott	1.	3	KAPJ	J.Kaplan
17	ANGR	R.Ang			KNJS	J.Knight
		G.Araujo		2	KROL	L.Krozel
13	BARH	H.Barnes		4	LARJ	J.Larriba
8	BATR	R.Battaiola		2	LERM	M.Lerman
3	BEB	R.Berg	1.	5	MARJ	J.Maranon
10	BERJ	J.Berdejo	2.	5	MCE	E.Mochizuki
3	BLAJ	J.Blackwell	1.	1	MENM	M.Menegotto
9	BMF	M.Boschat	1.	2	MMI	M.Moeller
17	BOSB	B.Bose	2	6	OATS	S.Oatney
27	BRAB	B.Branchett	1:	2	PEKT	R.Pektas
27	BRAD	D.Branchett		7	RICE	E.Richardson
1	BRAM	M.Bradbury	1	8	RITA	A.Ritchie
26	BRAR	R.Branch	1	4	SCHG	G.Scholl
23	BROB	R.Brown		1	SDP	D.Sharples
2	CAMP	P.Campbell		7	SIMC	C.Simpson
24	CHAG	G.Morales		3	STEF	G.Stefanopoulos
21	CKB	B.Cudnik	1.	3	STEM	G.Stemmler
12	CLZ	L.Corp	1	4	STQ	N.Stoikidis
2	COMT	T.Compton	2	3		M.Suzuki
18	DEJV	J.van Delft	1	7	SZAK	K.Szatkowski
14	DGP	G.Dyck		1		M.Szulc
12	FERJ	J.Fernandez	2	4		H.Takuma
25	FLET	T.Fleming	1	9	TESD	D.Teske
22	FUJK	K.Fujimori	1	3	TJV	J.Temprano
1	GOEM	M.Goetz	1	3	URBP	P.Urbanski
5	HAYK	K.Hay	1.	5	VARG	A.Vargas
10	JAMD	D.James	; 2	_		W.Wilson
				5	WRP	R.Wheeler

Reporting Addresses

Sunspot Reports -- email: solar@aavso.org

postal mail: AAVSO, 25 Birch St. Cambridge, MA 02138

FAX (AAVSO): (617) 354-0665

SID Solar Flare Reports -- email: noatak@aol.com

postal mail: Mike Hill

114 Prospect St. Marlboro, MA 01752

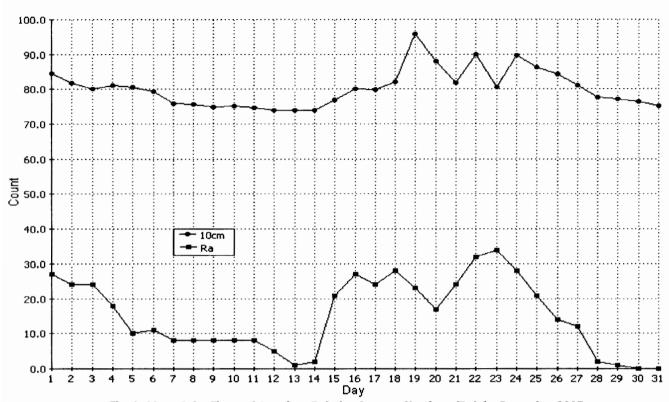


Fig. 1. 10 cm Solar Flux and American Relative Sunspot Numbers (Ra) for December 2005.

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

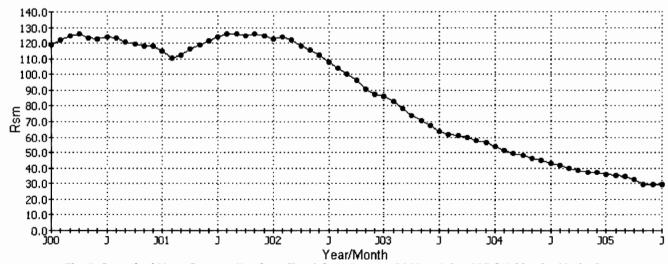


Fig. 2. Smoothed Mean Sunspot Numbers (Rsm) from January 2000 to July 2005 (Waldmeier Method).

Note: Several errors were found in the list of 2005 observers published in last month's Solar Bulletin. A revised list is presented in Table III on page 3.

Table III (Revised). Sunspot and SID Observers Who Contributed Reports During 2005.

Sunspot Observers

AAP	Patrick Abbott	Canada
ARAG	Gema Araujo	Spain
ARE	Richard Allessi	USA
AJV	Javier Alonso	Spain
ANGR	Raymund Ang	Philippines
BARH	Howard Barnes	New Zealand
BATR	Roberto Battaiola	Italy
BEB	Ray Berg	USA
BERJ	Jose Berdejo	Spain
BLAJ	John Blackwell	USA
$\mathbf{B}\mathbf{M}\mathbf{F}$	Michael Boschat	Canada
BOSB	Biswajit Bose	India
BRAB	Brenda Branchett	USA
BRAD	David Branchett	USA
BRAM	Mark Bradbury	USA
BRAR	Robert Branch	USA
BROB	Bob Brown	USA
CAMP	Paul Campbell	Canada
CHAG	German Morales	Bolivia
CKB	Brian Cudnik	USA
CLZ	Laurent Corp	France
COMT	Thomas Compton	USA
CR	Tom Cragg	Australia
DEJV	Jacques van Delft	South Africa
DELS	Susan Delaney	USA
DEMF	Frank Dempsey	Canada
DGP	Gerald Dyck	USA
DRAJ	Jean Dragesco	France
DUBF	Franky Dubois	Belgium
FEEC	Carl Feehrer	USA
FERJ	Jose Fernandez	Spain
FLET	Tom Fleming	USA
FUJK	Kenichi Fujimori	Japan
GOEM	Martin Goetz	Germany
HALB	Brian Halls	England
HAYK	Kim Hay	Canada
HRUT	Timothy Hrutkay	USA
JAMD	David James	USA
JEFT	Thomas Jeffrey	USA
JENJ	Jamey Jenkins	USA
JENS	Simon Jenner	England
KAPJ	John Kaplan	USA
KHAR	Rana Khan	India
KNJS	James Knight	South Africa
KQR	Richard Kinne	USA
KROL	Larry Krozel	USA
KUZM	Mikhail Kuzmin	Russia
LARJ	Jose Larriba	Spain
LERM	Michel Lerman	Canada
LEVM	Monty Leventhal	Australia
MARE	Enrico Mariani	Italy
MARJ	Jose Maranon	Spain
MCE	Etsuiku Mochizuki	Japan
MEU	Euan Mason	New Zealand
MENM	Miguel Menegotto	Argentina
MMI	Michael Moeller	Germany
OATS	Susan Oatney	USA
OBSO	IPS Observatory	Australia
OYE	Yenal Ogmen	Turkey

Sunspot Observers (cont'd.)

PEKT	Riza Pektas	Turkey
RICE	E. C. Richardson	England
RIDC	Charles Ridgway	USA
RITA	Arthur Ritchie	USA
SCGL	Gerd Lutz Schott	Germany
SCHG	Greg Scholl	USA
SDP	Dolores Sharples	USA
SIMC	Clyde Simpson	USA
STEF	George Stefanopoulos	Greece
STEM	Gerhard Stemmler	Germany
STQ	Nick Stoikidis	Greece
SUZM	Miyoshi Suzuki	Japan
SZAK	Kryzstoff Szatkowski	Poland
SZUM	Mieczyslaw Szulc	Poland
TESD	David Teske	USA
THR	Raymond Thompson	Canada
TJV	Javier Temprano	Spain
URBP	Piotr Urbanski	Poland
VARG	Alberto Vargas	Boliva
VIDD	Daniel Vidican	Romania
WILW	William Wilson	USA
WRP	Russell Wheeler	USA
YESH	Hulya Yesilyaprak	Turkey

SID Observers

A-29	1	USA
A-50	1	USA
A-52	Domenic Toldo	South Africa
A-59	Steve Hansen	USA
A-63	James Ellerbe	Spain
A-80	Peter King	England
A-84	Walter Moos	Switzerland
A-87	Mike Hill	USA
A-90	Jim Mandaville	USA
A- 91		Australia
A-93	Guglielmo DiFilipo	Italy
A-95	Ted Poulos	USA
A-96	Roberto Battaiola	Italy
A-97	Jon Wallace	USA
A-99	Michael King	England
A-100	Paul Campbell	Canada
A - 101	Giorgio Bressan	Italy
A-102	Francois Steyn	South Africa
A-103	Biswajit Bose	India
A-107	Nick Stoikidis	Greece
A-108	Paul Mortfield	USA
A-112	Andries Son	Belgium
A-115	Mark Suhovecky	USA
A-116	Trent Bjorndahl	Canada
A-117		USA

Several months ago, I informed AAVSO headquarters that I would be retiring from my positions as Solar Committee Chair and Sunspot Analyst. My service to the organization will end with publication of the April issue of the Solar Bulletin in May, 2006.

Mike Hill, our SID analyst will continue his service, and Paul Mortfield, an experienced SID observer has volunteered to assume the responsibilities of Solar Committee chair. Paul has worked on SOHO and solar outreach efforts within NASA's Sun-Earth Connection Forum and has been active on both the amateur and professional sides of the table. His involvement with SOHO and NASA and the formulation of solar activities and observing programs for schools, his hosting of solar educational broadcasts for NASA-TV and his presentations of talks to astronomical clubs in the US and Canada make him well-qualified for the position.

The task of identifying and training a volunteer interested in assuming the tasks associated with record-keeping, corresponding with sunspot observers and monthly analyses of sunspot reports remains. I would be pleased to hear from any observer who would consider taking on this role. If you are interested, please email me at cfeehrer@hotmail.com or write to me at the following address: 9 Gleason Road, Bedford, MA 01730.

At least two aspects of the task should be recognized by potential volunteers: 1) Software used to conduct monthly analyses is written in QuickBasic for an MS-DOS environment. It will run successfully with Win 95, Win 98, and Win XP operating systems, but will not run on a Macintosh. 2) Although not mandatory, a volunteer should be willing to travel to AAVSO meetings at their own expense.

Thank you all for continuing to send your sunspot reports to the AAVSO's Solar Committee. It has been a pleasure for me to serve as Committee Chair and analyst for the last 6-plus years.

CEF

Sudden Ionospheric Disturbance Report





Sudden Ionospheric Disturbances (SID) Recorded During January 2006

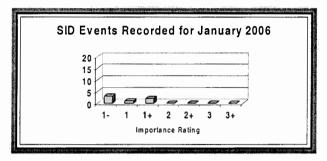
Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
060105	0924	1						
060122	0700	1-						
60122	1243	1-						
60122	1409	1-						
60122	1658	1+						
60124	0724	1+						
		-						
						:		
				-1-1-				
	-							
				4/***				
	-							

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
D Toldo	A52	DHO	M Suhovecky	A115	NAA
M Hill	A87	NAA	K Hubal	A117	NAA
G Di Filippo	A93	HWU			
T Poulos	A95	NAA			
R Battaiola	A96	HWU			
P Campbell	A100	NLK			
G Bressan	A101	HWU			
F Steyn	A102	NAA NWC			
L Observatory	A107	DHO			
P Mortfield	A108	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



January was a very slow month for solar flare activity and hence SID detections. Only 6 correlated SIDs were reported this month and those were all of low importance rating. The dates of SID detection correlate well with the flare activity reported by the GOES-12 satellite. As can be seen there was one C-Class flare on the 5th, which was detected as a SID. The other SIDs detected all fell around the 22nd of the month where there was a burst of solar activity as can be seen on the graph below. The GOES satellite reported only 100 flare events and all of these were B and C class events. Keep monitoring however. As has been seen before, one never knows when the sun will suddenly become active. I myself am waiting anxiously now for the first spot of cycle 24 to emerge and hence the first burst of new cycle flare activity.

