

# Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE



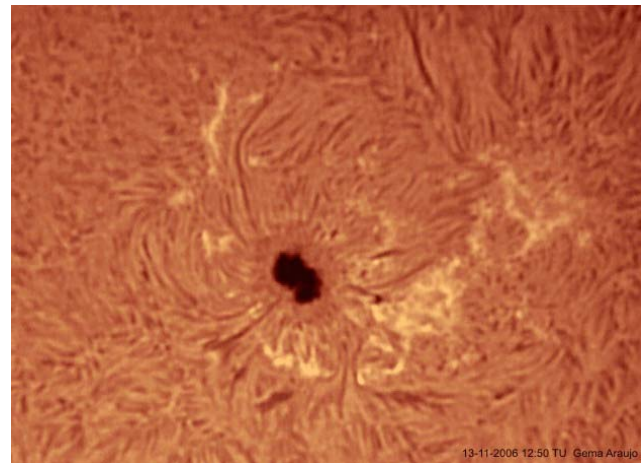
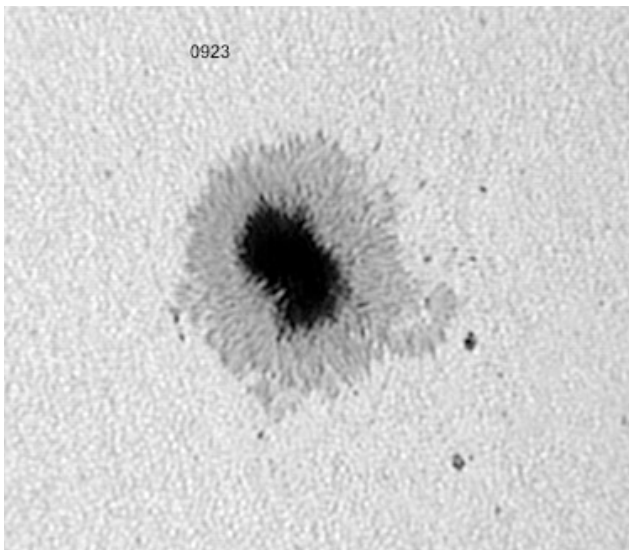
Paul Mortfield, Editor  
c/o AAVSO 25 Birch St  
Cambridge, MA 02138

Web: [www.AAVSO.org](http://www.AAVSO.org)  
Email: [Paul@IndustrialStars.com](mailto:Paul@IndustrialStars.com)  
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We continue to get sporadic solar activity, with several sunspots and flares recorded during November.



Gema Araujo took these images on November 13, 2006 in both white light and H-Alpha of active region 10923. Through her dedication, skill, and great observing location, Gema is compiling one of the most complete catalogs of (almost) daily solar drawings and photographic images. <http://astrosurf.com/obsolar/>

Bill Wilson has created an interesting program to calculate the length of a sunspot group from simple timings during visual observations. Its created as an Excel spreadsheet and is available at the link below. Now all we need are some big groups to measure. <http://www.aavso.org/observing/programs/solar/solarsoftware.shtml>

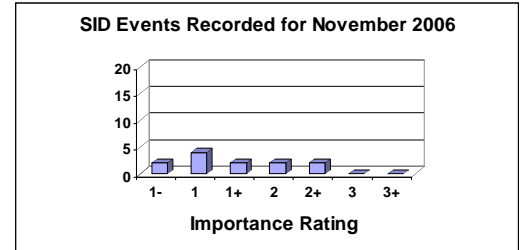


It is with sadness we report the passing of Alan H. Shapley on October 20 at age 87. Alan was instrumental in developing the AAVSO American Relative Sunspot Number ( $R_A$ ) in the mid 1940's. He was Director of the NOAA Geophysical Data Center in Boulder, Colorado from 1970 to 1981 and the son of Harvard astronomer Harlow Shapley. A fuller text of his career and his contributions to science and the arts can be viewed at:

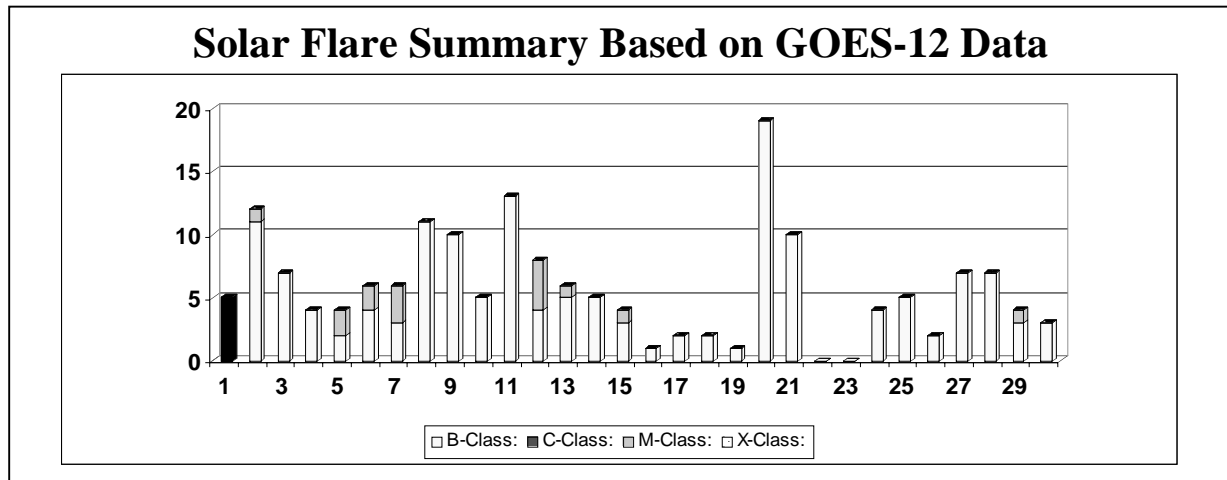
[www.aavso.org/observing/programs/solar/shapley.shtml](http://www.aavso.org/observing/programs/solar/shapley.shtml)



# Solar Events



This month proved to be a bit more energetic than last with many fewer reports of “No SIDs”. I’m sure many of you were happy to finally see some activity. A good reality check to be sure that the equipment really is working! There were 12 correlated SID events recorded this month. Most of them had a low importance rating as most were based on low level flare events. There were 170 X-Ray flares reported by the GOES satellite and of these all were B or C Class events. A lot of low level activity. Thanks to all that reported in. Wishing you all Happy Holidays and a Happy and Healthy New Year.



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

November 2006 Sunspot Observers

Day	N	Raw Mean	Ra
1	30	46	34
2	29	58	41
3	30	60	<b>43</b>
4	29	51	37
5	31	45	34
6	22	35	25
7	21	32	24
8	25	32	23
9	37	23	17
10	34	14	9
11	25	20	15
12	29	25	17
13	22	34	23
14	26	38	27
15	24	39	28
16	21	45	31
17	25	40	28
18	24	40	28
19	17	32	25
20	23	21	15
21	31	2	2
22	26	0	<b>0</b>
23	21	2	1
24	31	1	1
25	31	10	8
26	25	15	11
27	24	26	18
28	24	33	24
29	29	35	25
30	23	48	33

Means            26.3            30.2            21.5

No. of Observers: 59

Total No. of Observations: 789

AAP	A. Abbott	4
ANGR	R. Ang	16
ARAG	G. Araujo	24
BARH	H. Barnes	12
BATR	R. Battaiola	4
BEB	R. Berg	3
BEDJ	J. Bedient	1
BERJ	J. Berdejo	9
BLAJ	J. Blackwell	5
BMF	M. Boschatt	10
BRAB	B. Branchett	29
BRAM	M. Bradbury	2
BRAR	R. Branch	30
BROB	R. Brown	19
BYG	Y. Brovarets	14
CHAG	G. Morales	25
CKB	B. Cudnik	18
CLZ	L. Corp	8
COMT	T. Compton	6
CR	T. Cragg	22
CVJ	J. Carvajal	8
DEJV	J. van Delft	15
DGP	G. Dyck	13
DUBF	F. Dubois	20
FERJ	J. Fernandez	20
FLET	T. Fleming	23
FUJK	K. Fujimori	22
GFT	F. Gobet	7
GOEM	M. Goetz	1
HALB	B. Halls	4
HAYK	K. Hay	5
KAPJ	J. Kaplan	16
KNJS	J. & S. Knight	18
KQR	R. Kinne	8
KROL	L. Krozel	2
LARJ	J. Larriba	6
MARE	E. Mariani	5
MARJ	J. Maranon	24
MCE	E. Mochizuki	18
MCHL	L. McHenry	3
MMI	M. Moeller	18
OATS	S. Oatney	21
OBSO	IPS Observatory	20
PEKT	R. Pektas	18
RICE	E. C. Richardson	15
RITA	A. Ritchie	16
SCGL	G. Schott	21
SDP	D. Sharples	3
SIMC	C. Simpson	5
STEM	G. Stemmler	13
STQ	N. Stoikidis	23
SUZM	M. Suzuki	23
SZUM	M. Szulc	14
TESD	D. Teske	19
TJV	J. Temprano	6
URBP	P. Urbanski	12
VARG	A. Vargas	22
WILW	W. Wilson	17
WRP	R. Wheeler	4

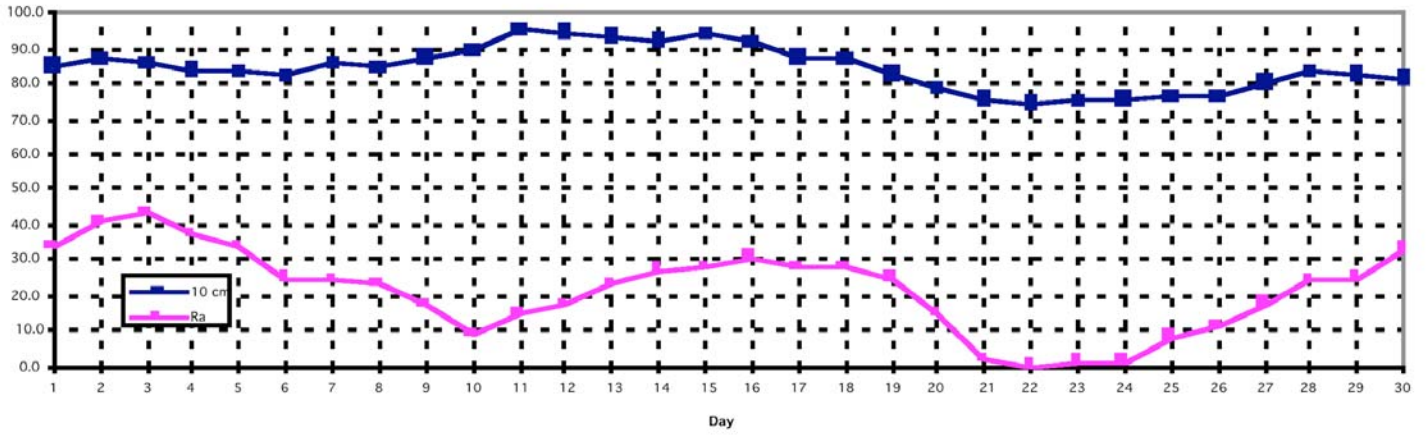
Reporting Addresses:

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

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

10 cmsource:<http://www.drao.nrc.ca>



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

