

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS
SOLAR SECTION



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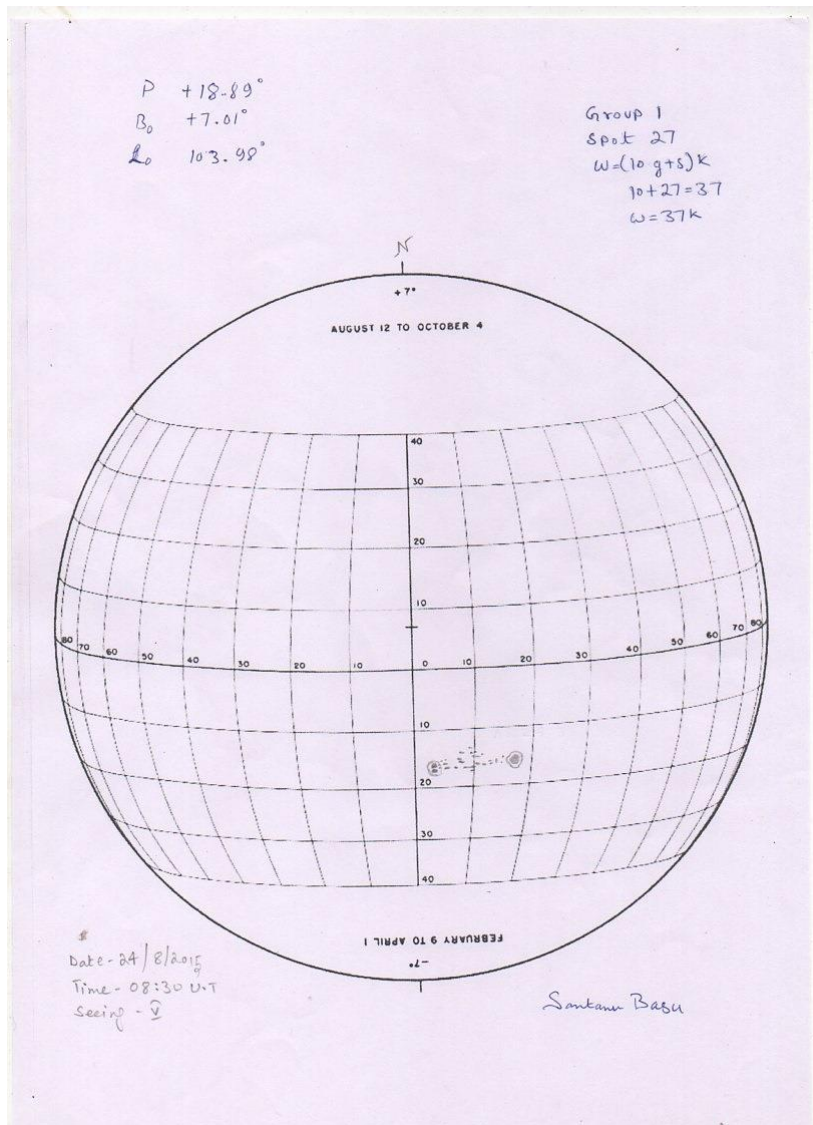
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For 24 August, 8h 30m UT a drawing from Santanu Basu (BSAB) with one group and 33 sunspot counts for this large Active Region AR2403.

We are once again requesting that all AAVSO solar observers transmit their original reports to AAVSO headquarters if at all possible so that they can be properly preserved and put to use by the research community. We are asking the following:

* For observers with reports in *electronic* format, please send them to me at this email address (matthewt@aavso.org), or contact me with any questions about file formats or how to transmit large numbers of files. Please contact me before you send files, in case they are mistakenly trapped by spam prevention software or are otherwise miss-delivered.

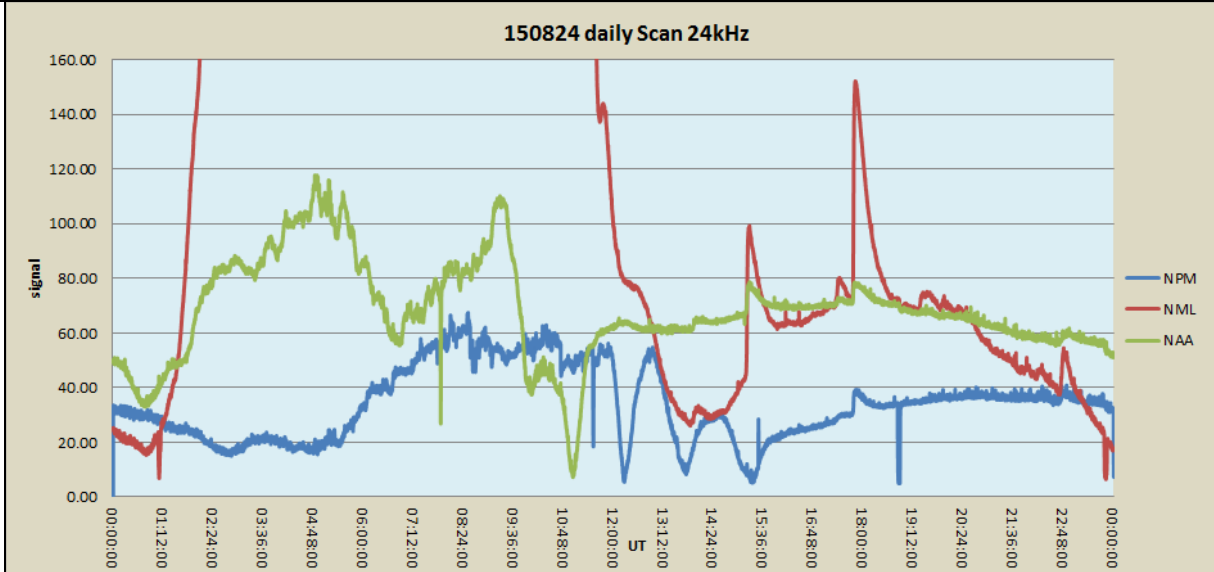
* For observers with observations in paper format, please send us electronic scans (jpeg or pdf) or make paper copies of your records. For notebooks or large collections, please contact me (matthewt@aavso.org) so that we can

make arrangements or give suggestions for scanning.

In either case, we encourage you to share as much as possible, but if making this material available will be difficult, please contact me for suggestions. We may be able to assist with some special cases (e.g. files on floppy disk or out-of-service hard drives).

Clear skies, & best wishes,
Matthew

Sudden Ionospheric Disturbance Report



There were two flares on August 24, 2015. This graph shows two M class SID events coming from AR2403.

Sudden Ionospheric Disturbances (SID) Records During August, 2015

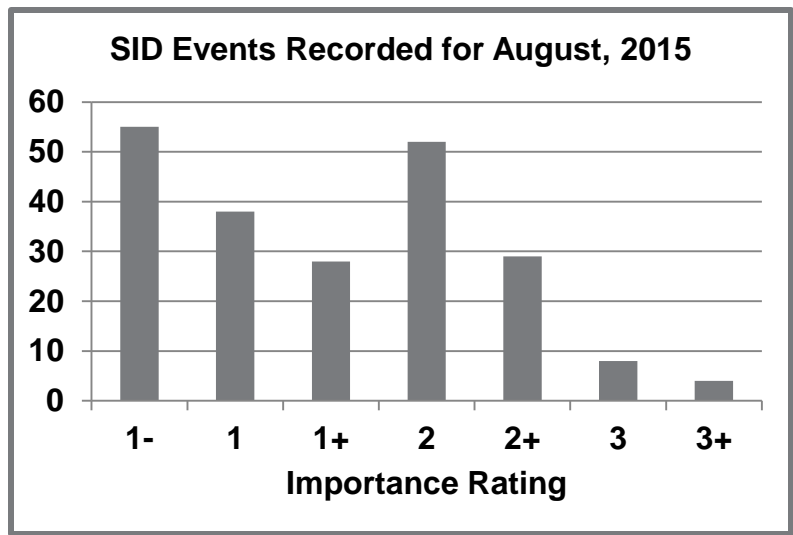
Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
150807	908	1	150816	1906	1	150822	26	3
150807	1433	2	150816	930	2	150822	658	3
150808	601	1	150816	1545	2	150822	1330	3
150808	918	2	150818	1150	1	150822	842	1+
150808	910	1+	150818	1713	1	150822	848	1+
150808	1437	1+	150819	1114	1+	150822	1839	1+
150809	1613	1	150819	2222	1+	150822	2001	1+
150809	752	2	150820	711	1	150822	648	2+
150809	741	2+	150820	1426	1	150822	926	2+
150809	1115	2+	150820	235	2+	150822	1128	2+
150809	2159	2+	150820	525	2+	150822	1324	2+
150810	916	1	150820	806	2+	150823	1121	1
150813	1504	1	150820	428	3+	150823	713	2
150813	1333	2	150821	1622	1	150823	858	2
150814	33	1	150821	1939	2	150823	1128	2
150814	200	1	150821	205	3	150824	1328	1
150814	304	1+	150821	218	3	150824	1706	1
150815	1501	2	150821	951	3	150824	1207	2
150815	1736	2	150821	944	2+	150824	1728	2
150815	1208	3	150822	916	2	150824	1747	2
150815	1920	1+	150822	1026	2	150824	616	1+
150816	1649	1	150822	1134	2	150824	959	1+

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
150824	1214	1+	150826	1543	1+	150828	1145	2
150824	1357	1+	150826	301	2+	150828	1317	2
150824	2243	1+	150826	1348	2+	150828	1903	2
150824	733	2+	150826	1355	2+	150828	2348	2
150824	1514	2+	150827	341	1	150828	242	2+
150825	1035	1	150827	1710	1	150828	819	2+
150825	1200	1	150827	242	2	150828	1127	2+
150825	1927	1	150827	543	2	150828	1313	2+
150825	804	2	150827	725	2	150829	1319	1
150825	1046	2	150827	2052	2	150829	729	2
150825	631	1+	150827	3	1+	150829	1508	1+
150825	205	2+	150827	455	1+	150829	1521	1+
150825	242	2+	150827	608	1+	150830	1530	1
150825	2353	2+	150828	1000	1	150830	209	2
150826	1508	1	150828	37	2	150830	930	2
150826	836	2	150828	249	2	150830	1450	1+
			150828	628	2	150830	252	2+
			150828	825	2	150830	330	3+
						150830	355	3+

*This is a truncated list of importance ratings greater than -1, see the full SID report here:

<http://www.aavso.org/sid-database>

Solar Events

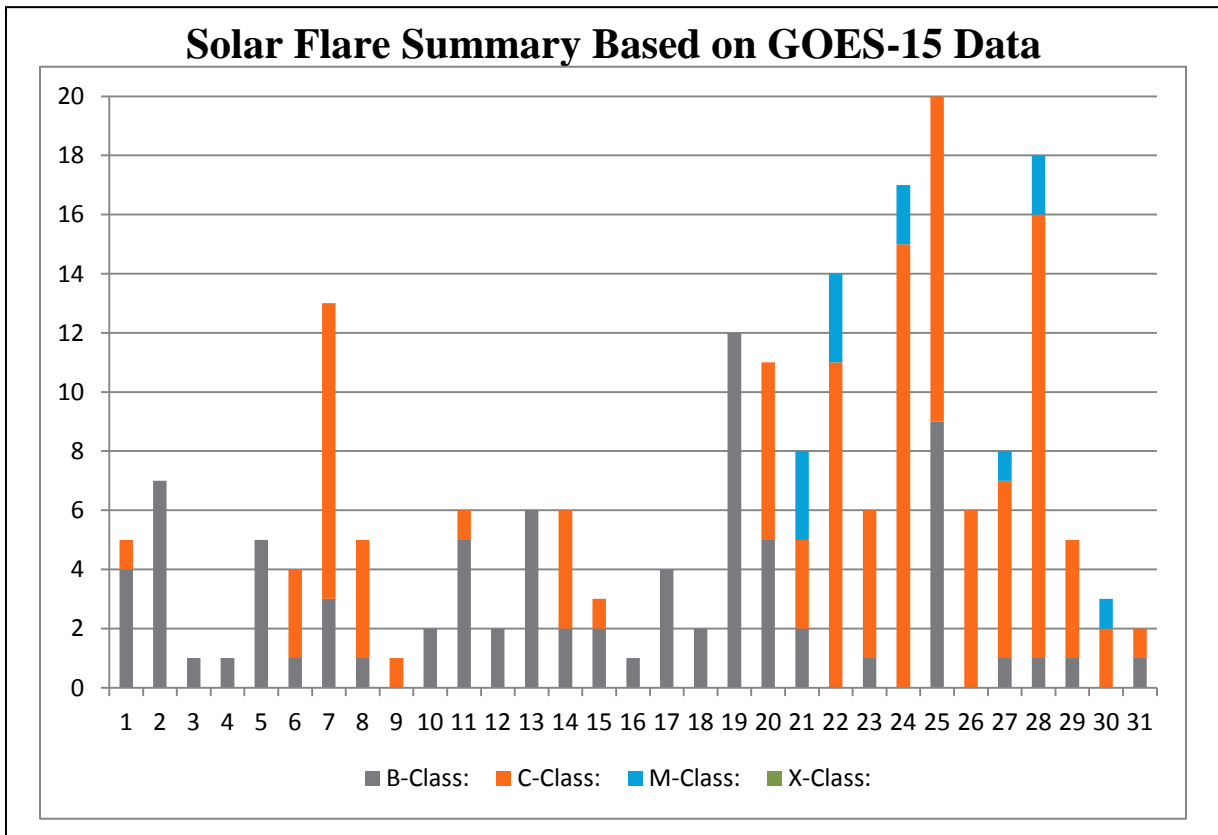


Importance rating: Duration (min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: 125
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Sudden Ionospheric Disturbances (SID) Observers During August, 2015

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
A McWilliams	A94	NML	J Karlovsky	A131	DHO
R Battaiola	A96	ICV	R Green	A134	NWC
J Wallace	A97	NAA	R Mrlak	A136	GQD
L Loudet	A118	GQD	G Silvis	A141	NML NPM
J Godet	A119	GBZ GQD	I Ryumshin	A142	DHO GQD
F Adamson	A122	NWC	R Rogge	A143	DHO GBZ GQD
S Oatney	A125	NML	K Menzies	A146	NAA

There were 204 GOES XRA events recorded for August, 2015. Twelve M class flares, 110 C class flares and 82 B class flares. This was a slightly more active month than July, 2015. A little more flaring this month compared to last. There were 14 AAVSO SID observers who submitted reports this month.



American Relative Sunspot Numbers (Ra) for August, 2015 [**boldface = maximum, minimum**]

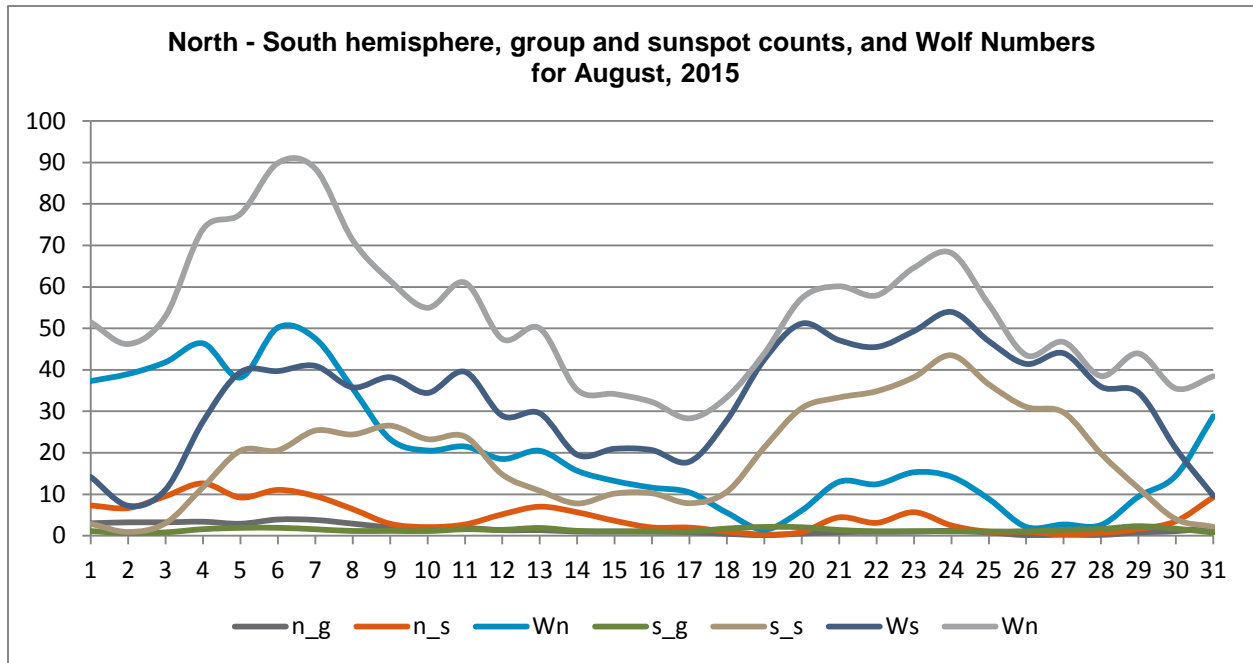
DAY	NumObs	RAW	Ra
1	34	51	40
2	41	44	34
3	36	49	37
4	34	71	55
5	40	76	59
6	31	89	68
7	37	83	66
8	38	69	55
9	36	61	48
10	35	56	44
11	35	63	49
12	35	44	34
13	33	46	36
14	33	36	28
15	34	34	26
16	34	30	22
17	31	28	22
18	31	34	25
19	37	43	34
20	37	54	42
21	34	60	46
22	42	57	44
23	36	67	52
24	35	69	53
25	37	56	43
26	41	44	34
27	34	45	33
28	39	36	28
29	37	39	30
30	36	25	18
31	34	30	21
Average	35.7	51.3	39.5

Obs	#Obs	Name
AAX	13	Alexandre Amorim
AJV	22	J. Alonso
ARAG	31	Gema Araujo
ASA	26	Salvador Aguirre
BARH	8	Howard Barnes
BERJ	20	Jose Alberto Berdejo
BLAJ	4	John A. Blackwell
BMF	19	Michael Boschat
BRAB	31	Brenda Branchett
BRAF	23	Raffaello Braga

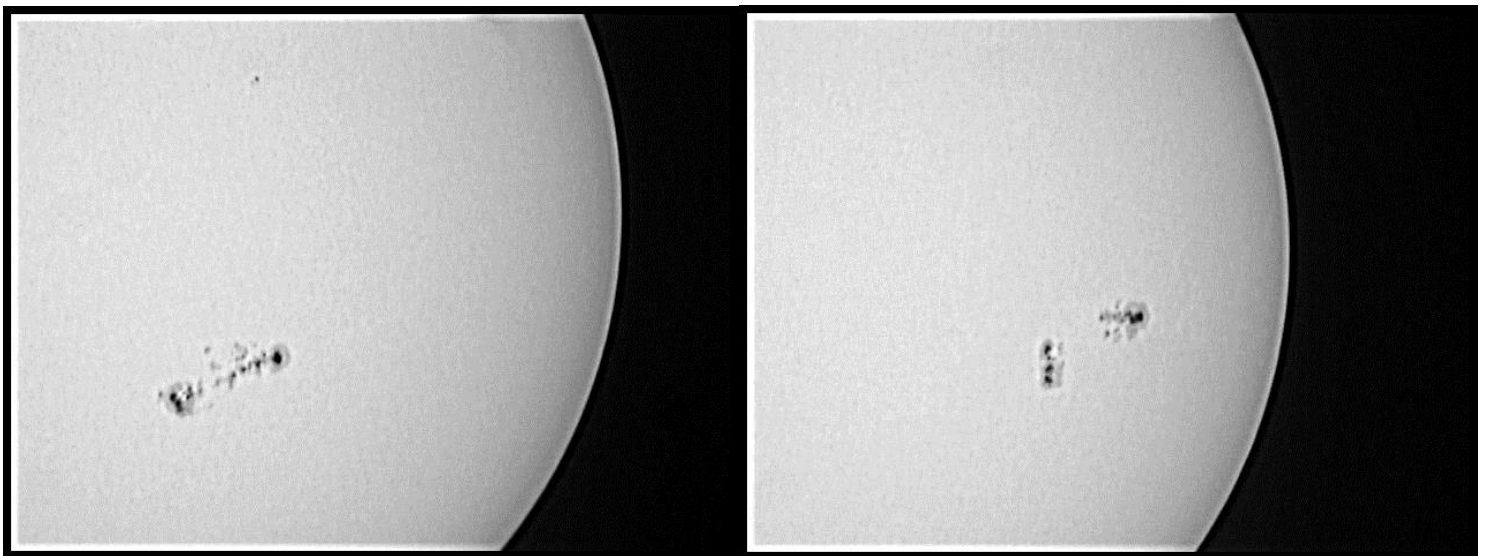
BROB	31	Robert Brown
BSAB	12	Santanu Basu
BXD	3	Alexandru Burda
CHAG	28	German Morales Chavez
CIOA	6	Ioannis Chouinavas
CKB	17	Brian Cudnik
CNT	11	Dean Chantiles
DGP	22	Gerald Dyck
DUBF	27	Franky Dubois
FERJ	20	Javier Ruiz Fernandez
FGT	21	Tadeusz Figiel
FLET	26	Tom Fleming
FLF	24	Fredirico Luiz Funari
FUJK	22	K. Fujimori
HALB	7	Brian Halls
HAYK	22	Kim Hay
HMQ	5	Mark Harris
HOWR	30	Rodney Howe
JDAC	17	David Jackson
JGE	7	Gerardo Jimenez Lopez
JJMA	5	Jessica M.Johnson
KAND	31	Kandilli Observatory
KAPJ	23	John Kaplan
KNJS	25	James & Shirley Knight
KROL	30	Larry Krozel
LKR	13	Kristine Larsen
LRRR	22	Robert Little
MARE	18	Enrico Mariani
MILJ	24	Jay Miller
MJHA	30	John McCammon
MUDG	8	George Mudry
MWU	26	Walter Maluf
OATS	2	Susan Oatney
OBSO	17	IPS Observatory
ONJ	10	John O'Neill
RLM	15	Mat Raymonde
RRO	6	Ralph Rogge
SDOH	31	Jan Alvestad
SIDM	28	Monika Sidor
SIMC	12	Clyde Simpson
SONA	18	Andries Son
SPIA	5	Piotr Skorupski
STAB	28	Brian Gordon-States
SUZM	20	Miyoshi Suzuki
TESD	29	David Teske
URBP	29	Piotr Urbanski
VARG	21	A. Gonzalo Vargas

VIDD	21	Dan Vidican
WAU	2	Artur Wargin
WILW	28	William M. Wilson
WRP	6	Russell Wheeler

Total	Observers:	62
Total	Observations:	1139



There were 38 out of 62 observers who counted northern and southern hemisphere groups and sunspots this month. The southern hemisphere was predominant with days of crossover on the 5th, 8th and 30th.



From 24 August, 8h 15m UT, and 26 August, 8h 45m UT, there were very strong and unusual changes for this large Active Region AR2403.

Best regards,
Dan Vidican (VIDD)

Grupos: 2398, 2396 y 2394

Solar Position				
RA	Dec	Alt	Azi	
9h 12m 21s	+16° 09' 03"	64.4'	160.5'	
Solar Parameters				
Bo	Lo	P	Diam.	CR
+6.25'	33.87'	+13.54'	31' 35.9"	2166
Helographic Latitude/Longitude, Area & Carrington Rotation				
Latitude	Longitude	Area	CR	
+16°	340°	0	2167	



8-ago-2015. 11:50 T.U.

Gerardo Jiménez

Here are 42 images of 1/500 second exposure processed with Registax 6 software to create this single image. Images were taken on August 4, 2015 (11:50 UT) using a 250 mm Newtonian telescope and Mylar filter on a Dobson mount. The camera is a Canon EOS 300D set at 100 ASA.

Gerardo Jiménez Lopez (JGE)

Reporting Addresses:

Sunspot Reports – Kim Hay solar@aavso.org

SID Solar Flare Reports – Rodney Howe ahowe@frii.com