

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS
SOLAR SECTION



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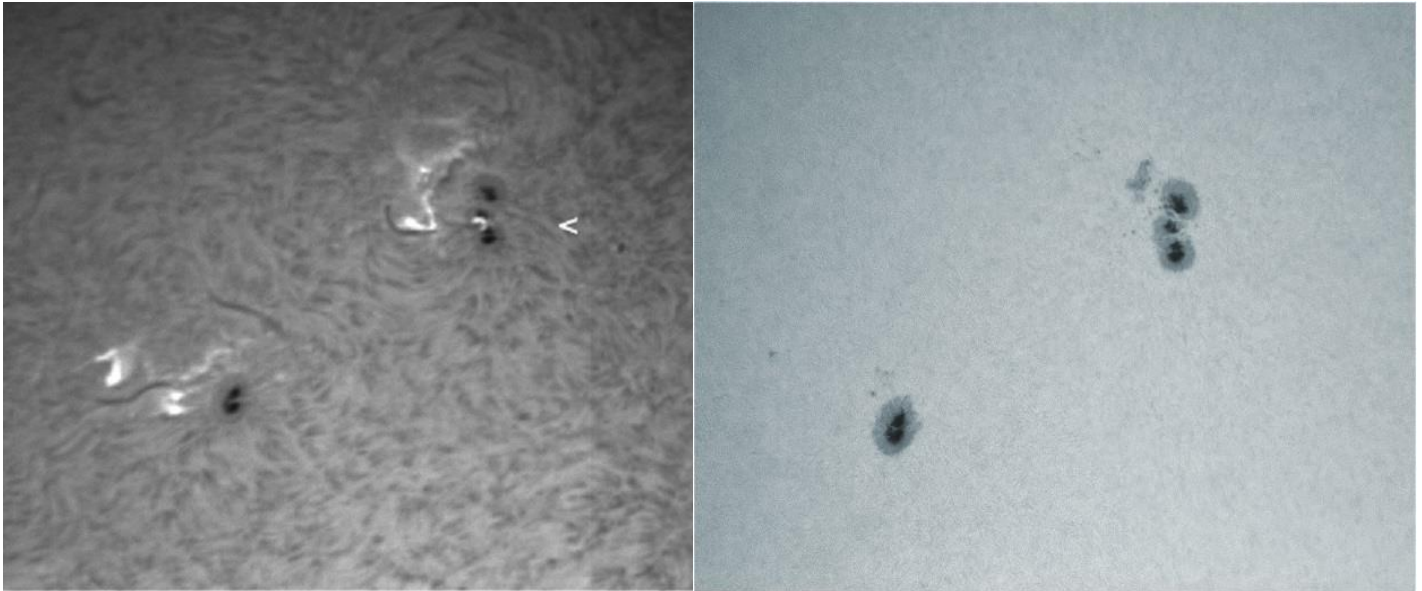
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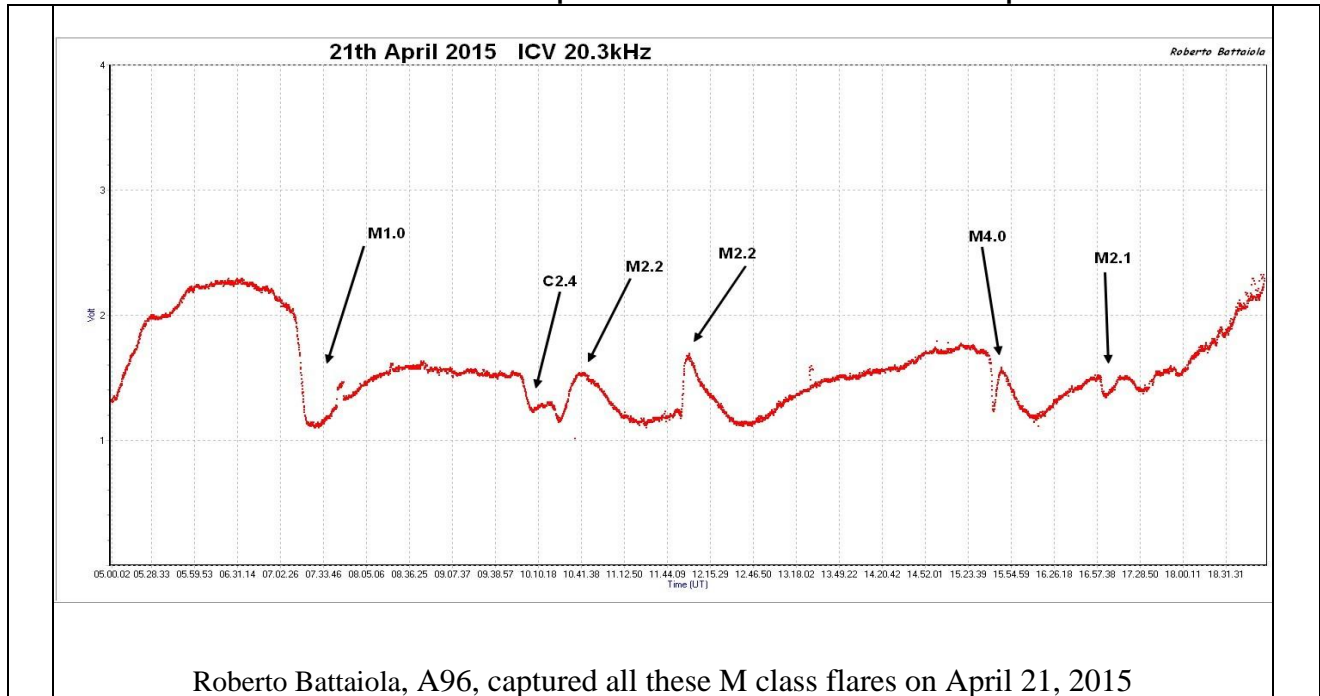


I caught a flare in region AR 2324 on the 18th of April, 2015. On the left is a Hydrogen Alpha flare image with an arrow pointing to the flare region with a light bridge! On the right is a white light view of the area a few minutes before the flare.

Best wishes

Brian Halls, HALB

Sudden Ionospheric Disturbance Report

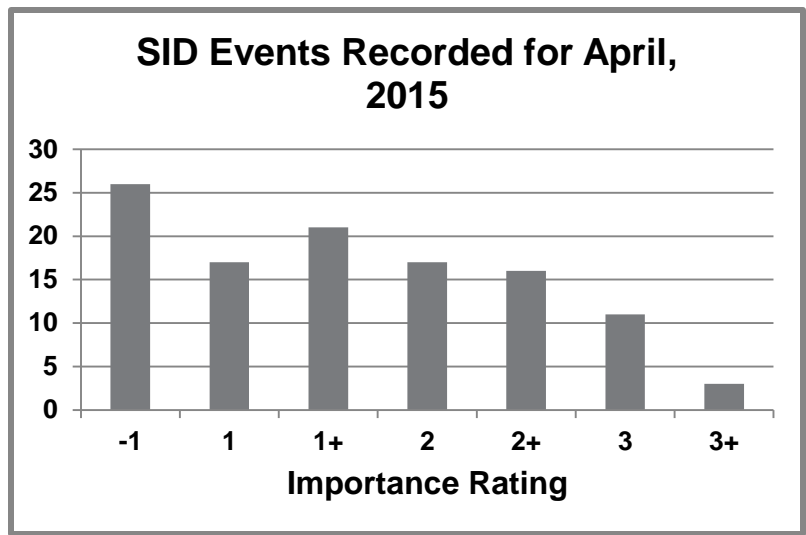


Sudden Ionospheric Disturbances (SID) Records During April, 2015

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
150402	534	2+	150413	830	1+	150421	1036	2+
150403	637	3	150413	759	2+	150421	1543	2+
150408	1444	2	150415	1141	2	150421	1547	2+
150409	635	1+	150415	2023	2	150422	842	2
150409	1722	1+	150415	1342	3	150422	325	3
150409	1858	1+	150416	137	3	150422	1253	3
150409	805	2+	150416	1919	1+	150422	808	1+
150410	805	2	150417	1040	2	150422	115	2+
150410	948	2+	150418	1416	2	150422	854	2+
150410	959	2+	150418	1817	2	150423	214	2
150411	240	2+	150418	1337	1+	150423	329	2
150412	943	3	150418	1422	2+	150423	745	2
150412	29	1+	150421	720	2	150423	922	2
150412	127	1+	150421	1157	2	150423	1205	2
150412	818	1+	150421	1050	3	150423	947	3
150412	925	1+	150421	1144	3	150423	953	3
150412	2328	1+	150421	1701	1+	150423	2004	1+
150412	955	3+	150421	2102	1+	150423	935	3+
150413	555	3	150421	2146	1+	150425	1824	2+
						150427	1344	2

*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

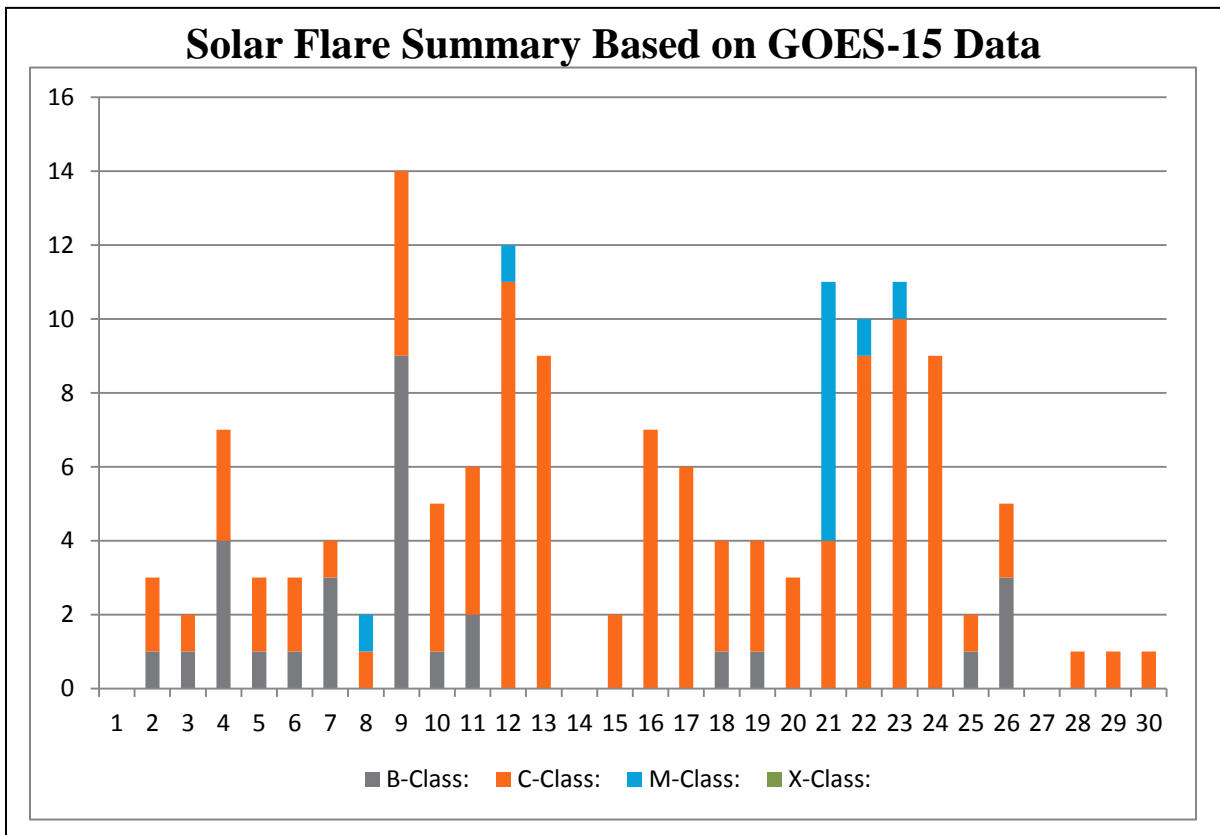


Importance rating: Duration (min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: 125
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Sudden Ionospheric Disturbances (SID) Observers During April, 2015

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
A McWilliams	A94	NML	R Green	A134	NWC
R Battaiola	A96	ICV	S Aguirre	A138	NLK
J Wallace	A97	NAA	R Mrlak	A136	GDQ NSY
L Loudet	A118	GBZ GQD NAA	F Francione & C Re	A139	HWU NSY
J Godet	A119	GBZ GQD ICV	G Silvis	A141	NAA NLK NPM
F Adamson	A122	NWC	I Ryumshin	A142	DHO GBZ GQD
S Oatney	A125	NML NLK NAA	R Rogge	A143	DHO GQD ICV
J Karlovsky	A131	DHO NSY			

There were 147 solar flares measured by GOES-15 for April, 2015: 10 M class, 108 C class and 29 B class flares. Far less flaring this month compared to last. There were 15 AAVSO SID observers who submitted reports this month.



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

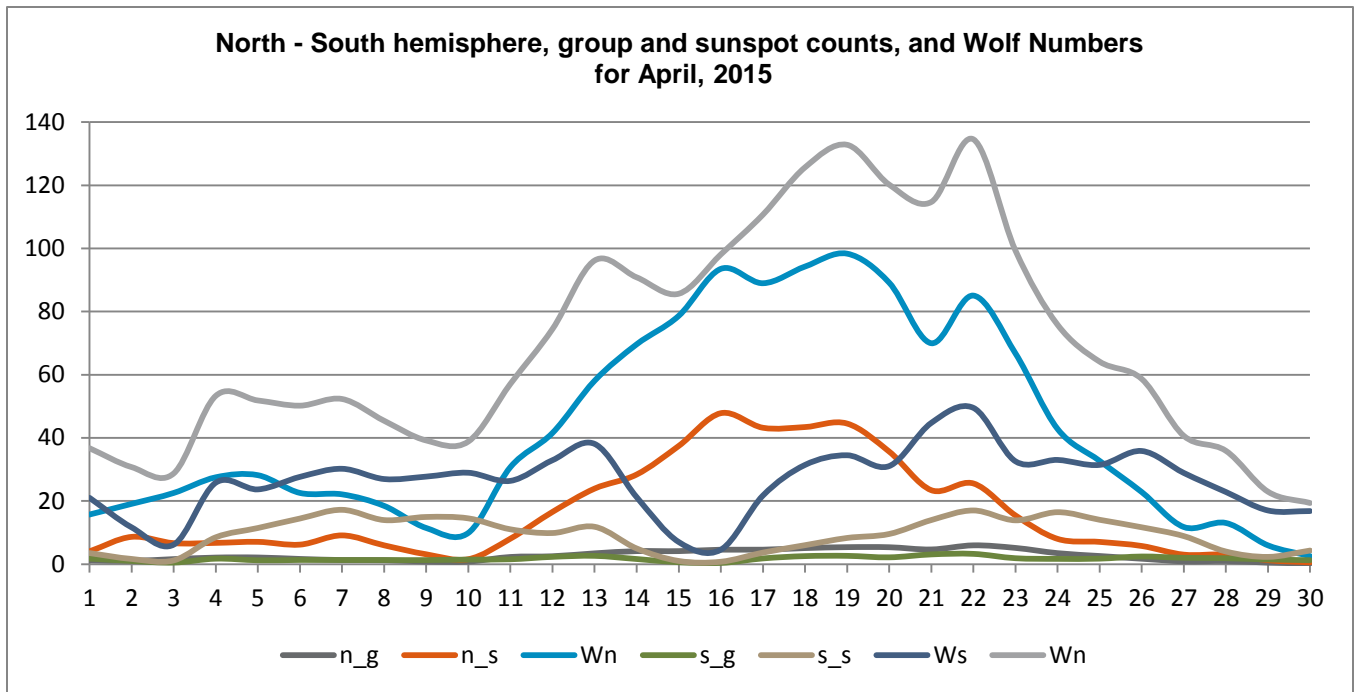
DAY	NumObs	RAW	Ra
1	36	32	24
2	35	29	22
3	30	24	18
4	38	53	42
5	29	48	36
6	35	46	35
7	30	48	37
8	30	43	32
9	29	40	30
10	29	34	25
11	41	56	42
12	43	75	56
13	39	92	69
14	32	88	68
15	35	83	64
16	30	93	66
17	36	106	79
18	40	113	88
19	33	122	90
20	31	112	86
21	40	110	87
22	34	126	95
23	34	91	66
24	39	71	54
25	31	61	45
26	31	53	40
27	29	37	28
28	36	34	26
29	34	12	9
30	37	17	13
Average	34.2	65	49

Obs	#Obs	Name
AAX	13	Alexandre Amorim
AJV	24	J. Alonso
ARAG	30	Gema Araujo
ASA	20	Salvador Aguirre
BARH	12	Howard Barnes
BATR	7	Roberto Battaiola
BERJ	20	Jose Alberto Berdejo
BLAJ	9	John A. Blackwell
BMF	16	Michael Boschat
BRAB	30	Brenda Branchett
BRAF	19	Raffaello Braga

BROB	28	Robert Brown
BXD	16	Alexandru Burda
CHAG	26	German Morales Chavez
CIOA	8	Ioannis Chouinavas
CKB	21	Brian Cudnik
CLZ	2	Laurent Corp
CNT	18	Dean Chantiles
CVJ	14	Jose Carvajal
DEMF	9	Frank Dempsey
DUBF	27	Franky Dubois
FERJ	20	Javier Ruiz Fernandez
FLET	16	Tom Fleming
FLF	17	Fredirico Luiz Funari
FUJK	17	K. Fujimori
HALB	15	Brian Halls
HAYK	18	Kim Hay
HMQ	4	Mark Harris
HOWR	25	Rodney Howe
JDAC	14	David Jackson
JGE	5	Gerardo Jimenez Lopez
JJMA	5	Jessica M.Johnson
KAND	25	Kandilli Observatory
KAPJ	22	John Kaplan
KNJS	27	James & Shirley Knight
KROL	23	Larry Krozel
LEVM	16	Monty Leventhal
LKR	8	Kristine Larsen
LRRR	22	Robert Little
MARE	7	Enrico Mariani
MGAA	5	Gael Mariani
MILJ	7	Jay Miller
MJHA	24	John McCammon
MMI	25	Michael Moeller
MUDG	8	George Mudry
MWU	14	Walter Maluf
OATS	9	Susan Oatney
OBSO	16	IPS Observatory
ONJ	9	John O'Neill
RLM	8	Mat Raymonde
SCGL	28	Gerd-Lutz Schott
SDOH	30	Jan Alvestad (SDO)
SIDM	19	Monika Sidor
SIMC	6	Clyde Simpson
SMNA	2	Michael Stephanou
SONA	18	Andries Son
SPIA	9	Piotr Skorupski
STAB	29	Brian Gordon-States

SUZM	15	Miyoshi Suzuki
TESD	20	David Teske
URBP	27	Piotr Urbanski
VARG	18	A. Gonzalo Vargas
VIDD	14	Dan Vidican
WAW	3	Artur Wargin
WGI	3	Guido Wollenhaupt
WILW	12	William M. Wilson
WRP	3	Russell Wheeler

Total Observers: 67
Total Observations: 1056



There were 40 out of 67 observers who counted northern and southern hemisphere groups and sunspots this month. The northern hemisphere was predominant with days of crossover on the 6th, 11th and 25th.

Reporting Addresses:

Sunspot Reports – Kim Hay solar.aavso@gmail.com

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