

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS
SOLAR COMMITTEE



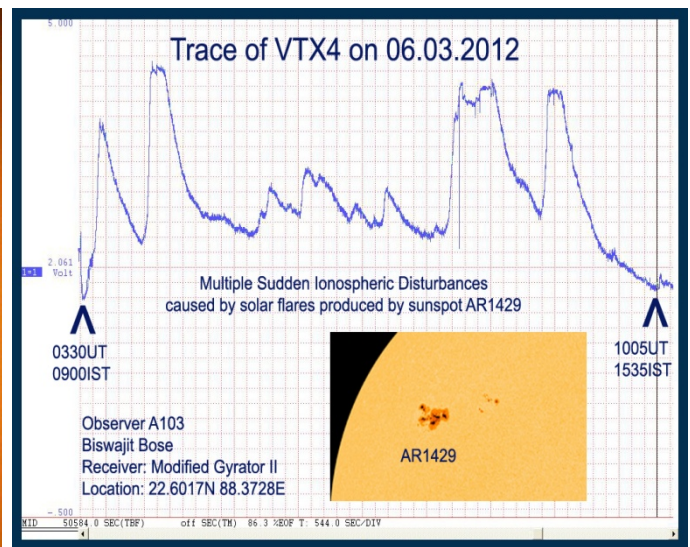
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On the left, Ernest Richardson, UK, takes a snapshot of AR1429 on the 5th of March with a digital camera at the eyepiece of his 8" SCT. On the right is a VLF SID graph of recorded outbursts from Active Region 1429 for the 6th of March from Biswajit Bose, India, recording the VTX4 Naval transmitter at 19.2 kHz.



We are implementing the new SunEntry program !

The formal release of SunEntry is scheduled for May 1, 2012.

However, we would suggest that all AAVSO sunspot observers begin learning how to work with SunEntry by using it to enter their April, 2012 data.

You can download the SunEntry program from here, please visit this page:

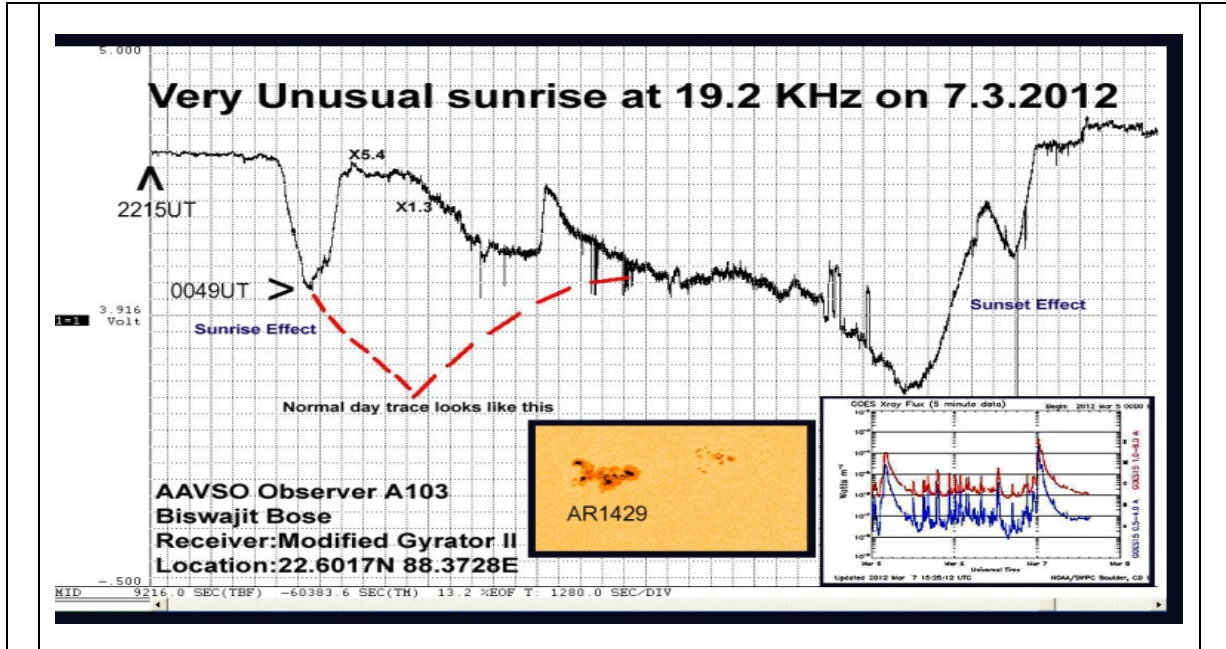
<http://www.aavso.org/sun-entry> you will need an AAVSO account. Please contact AAVSO Staff member Sara Beck (sara@aaavso.org) to have access to the SunEntry AAVSO database.

Please save all your entries to both a text file and to the SunEntry database.

Please send only the SunEntry text files for April, 2012 to:

Kim Hay
AAVSO Sunspot Coordinator
solar.aavso@gmail.com

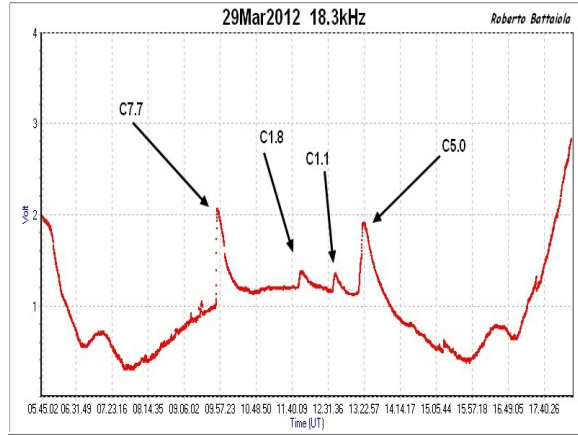
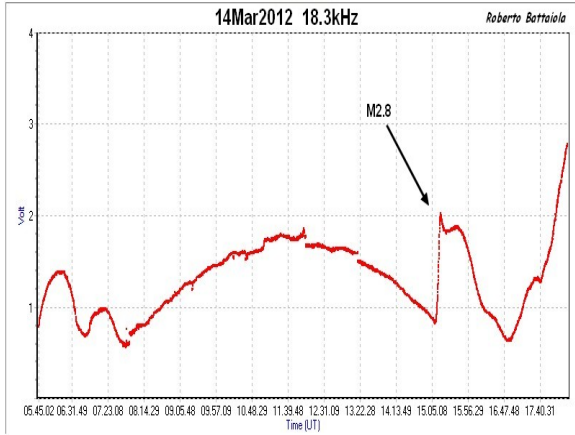
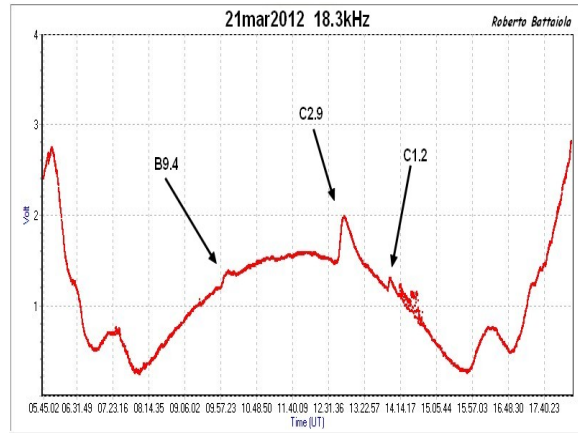
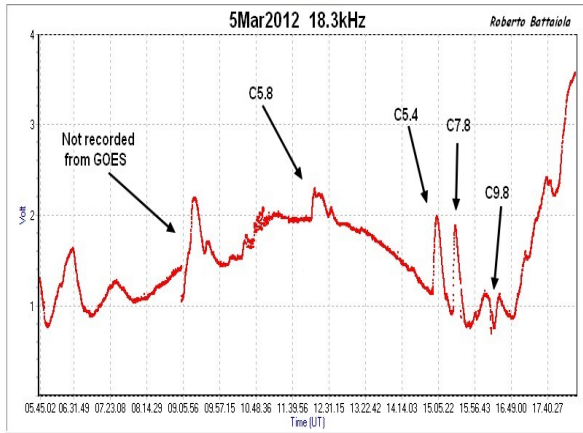
Sudden Ionospheric Disturbance Report



Sudden Ionospheric Disturbances (SID) Records During March, 2012

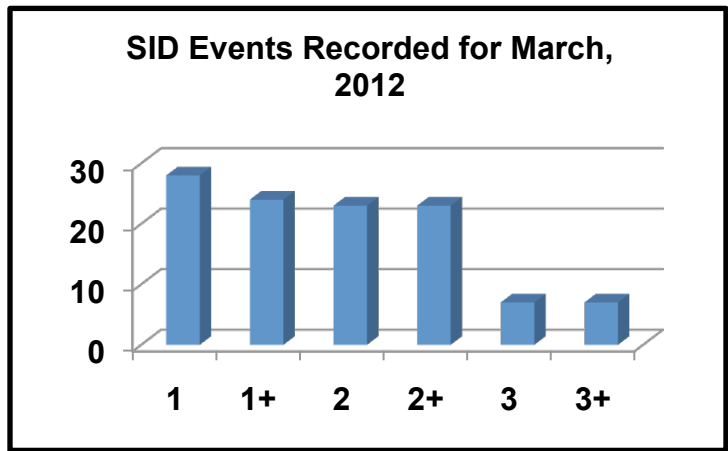
Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
120301	1526	1	120306	0406	2	120310	1747	1+
120302	1744	2+	120306	0734	2	120310	0120	2+
120303	1910	3+	120306	1042	2	120310	0244	2+
120304	1039	2	120306	1234	2	120310	0555	2+
120304	1048	3	120306	0554	1+	120310	1816	3+
120304	1118	2+	120306	0649	1+	120311	0317	1
120305	0000	1	120306	0756	1+	120312	1210	2
120305	0724	1	120306	0848	1+	120313	0720	2
120305	0757	1	120306	1116	1+	120313	1732	2
120305	0817	1	120306	1239	1+	120313	1725	2+
120305	1503	1	120306	2107	1+	120314	1520	2+
120305	1935	1	120306	0051	2+	120315	1405	1+
120305	0920	2	120306	0114	2+	120315	0751	2+
120305	1649	2	120306	0214	2+	120315	0942	3+
120305	1912	2	120307	0842	2	120316	1240	2
120305	2233	2	120307	1023	3+	120319	1346	2+
120305	0343	3	120308	0254	1	120321	1251	1+
120305	0402	3	120308	0841	1	120321	1359	1+
120305	0010	1+	120308	1023	1+	120321	1005	2+
120305	0037	1+	120309	0251	1	120323	1941	1
120305	1529	1+	120309	1023	1	120323	1639	1+
120305	1622	1+	120309	2023	1	120324	0844	3

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
120305	0116	2+	120309	0128	2	120324	0913	3
120305	1602	2+	120309	1120	2	120324	0857	2+
120305	2014	2+	120309	1156	1+	120325	0202	1
120305	2320	2+	120310	0853	1	120327	0311	3
120306	0529	1	120310	1546	2	120329	1153	1
120306	0744	1	120310	1725	2	120329	0953	1+
120306	1400	1	120310	1735	3	120329	1241	1+
120306	1652	1	120310	0701	1+	120329	1320	1+
120306	0337	2	120310	0743	1+	120329	1640	2+



**SID graphs from Roberto Battaiola, Milan Italy,
recording transmissions from LaBlanc France at 18.3 kHz**

Solar Events

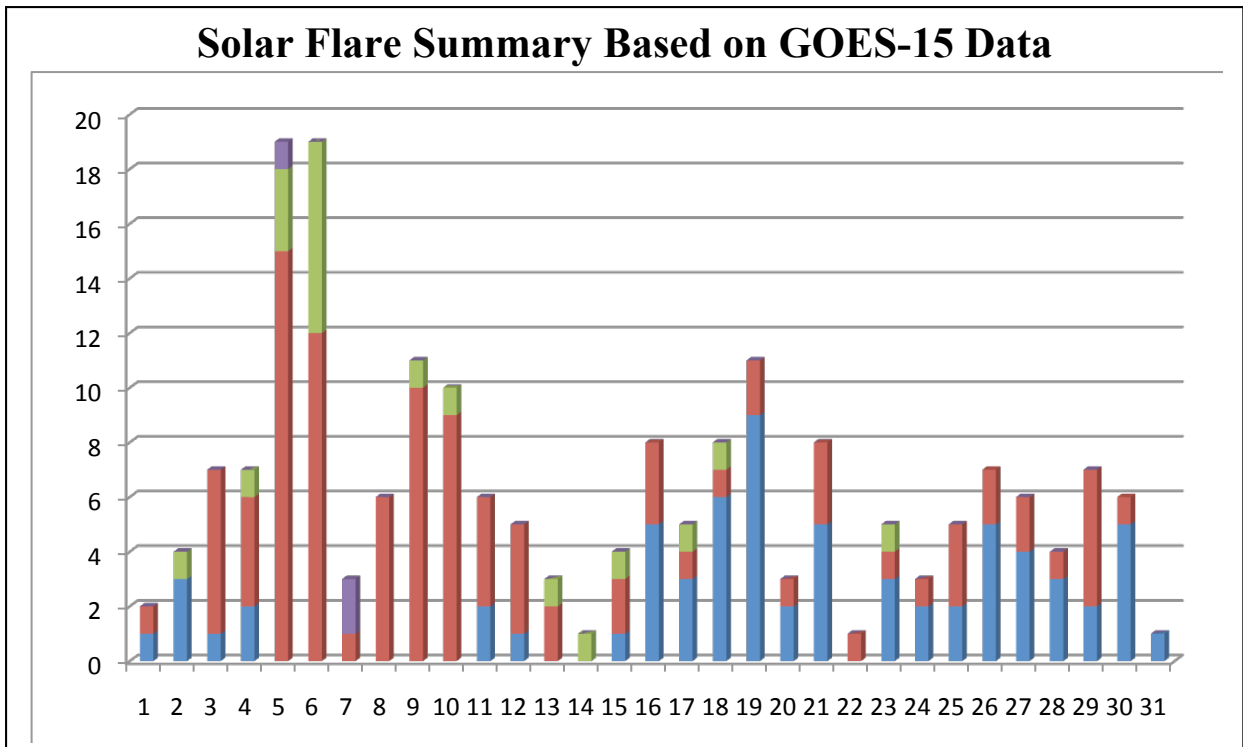


Importance rating: Duration (min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125
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Sudden Ionospheric Disturbances (SID) Observers During March, 2012

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
P King	A80	HWU	B Terrill	A120	NWC
A McWilliams	A94	NML	F Adamson	A122	NWC
R Battaiola	A96	HWU	G Myers	A124	NLK
J Wallace	A97	NAA	S Oatney	A125	NML NPM
F Steyn	A102	NAA NWC	K Cotar	A129	DHO FTA
A Son	A112	DHO	S Zinn	A130	NAA NML
L Loudet	A118	DHO GQD ICV	J Karlovsky	A131	DHO ICV
J Godet	A119	GBZ GQD ICV			

There were 195 solar flares measured by GOES-15 for March, 2012. There were three X class flares 20 M class flares, 104 C class and 68 B class flares. The sun was very active compared to February, 2012. There were 15 AAVSO SID Observers who submitted reports this month.



American Relative Sunspot Numbers (Ra) for
 March, 2012 [**boldface = maximum, minimum**]

DAY	NumObs	RAW	Ra
1	25	26	16
2	24	24	17
3	33	56	38
4	30	76	55
5	30	96	69
6	31	105	74
7	22	87	66
8	33	90	68
9	30	101	77
10	37	96	68
11	38	107	79
12	29	98	68
13	35	93	64
14	38	80	55
15	32	71	50
16	30	75	48
17	33	70	47
18	29	54	39
19	37	64	46
20	26	75	52
21	32	62	42
22	34	54	40
23	32	56	40
24	38	78	55
25	37	70	48
26	41	71	51
27	36	71	52
28	38	79	56
29	28	104	70
30	32	80	53
31	27	66	43
Averages	32.2	75.3	53.1

Observer	#Obs	Name
AAP	9	A. Patrick Abbott
AAX	28	Alexandre Arorim
AJV	24	J. Alonso
ARAG	31	Gema Araujo
ASA	8	Salvador Aguirre
BARH	13	Howard Barnes
BATR	4	Roberto Battaiola
BEB	2	Ray Berg
BERJ	13	Jose Alberto Berdejo

BMF	17	Michael Boschat
BRAB	30	Brenda Branchett
BRAF	25	Raffaello Braga
BROB	16	Robert Brown
CHAG	27	German Morales Chavez
CIOA	18	Ioannis Chouinavas
CKB	23	Brian Cudnik
CLZ	5	Corp Laurent
CNT	13	Dean Chantiles
CVJ	13	Jose Carvajal
DELS	5	Susan Delaney
DGP	20	Gerald Dyck
DJOB	16	Jorge del Rosario
DUBF	23	Franky Dubois
FAM	7	Fabio Mariuzza
FERJ	23	Javier Ruiz Fernandez
FLET	20	Tom Fleming
FLF	23	Fredirico Luiz Funari
FUJK	19	K. Fujimori
HALB	6	Brian Halls
HAYK	18	Kim Hay
HMQ	4	Mark Harris
HOWR	27	Rodney Howe
HRUT	17	Timothy Hrutkay
JASK	19	Krystyna Wirkus
JGE	11	Gerado Jinenez Lopez
JJK	3	Jerry Klotz
KAND	23	Kandilli Observatory
KAPJ	19	John Kaplan
KNJS	28	James & Shirley Knight
KROL	25	Larry Krozel
LEVM	19	Monty Leventhal
LKR	14	Kristine Larsen
MCE	21	Etsuiku Mochizuki
MILJ	5	Jay Miller
MMI	18	Michael Moeller
MUDG	12	George Mudry
OATS	15	Susan Oatney
OBSO	20	IPS Observatory
RICE	19	E. C. Richardson
SCGL	23	Gerd-Lutz Schott
SDP	2	Dolores Sharples
SIMC	12	Clyde Simpson
SONA	20	Andries Son
SUZM	22	Miyoshi Suzuki
TESD	23	David Teske

URBP	27	Piotr Urbanski
VARG	20	A.Gonzalo Vargas
WILW	26	William M. Wilson
WIRP	1	Piotr Wirkus
WRP	3	Russell Wheeler

Total Observers: 60
Total Observations: 997

Sunspot Reports – Kim Hay

solar.aavso@gmail.com

SID Solar Flare Reports – Rodney Howe

ahowe@frii.com

New Data Entry Software for Sunspot Observers

Participants in the AAVSO Solar Section's sunspot observing program will soon have a new way to enter and submit their data to the AAVSO.

SunEntry is a platform independent Java application that will help observers to create reports and send them to the solar database. Users will be able to submit their observations day by day, or on a monthly basis as they have done in the past. The data collected will then be published monthly in the *Solar Bulletin* and used in the AAVSO American Relative Sunspot Program.

Over the past several weeks, SunEntry has been beta-tested and useful feedback has been sent to its creator, AAVSO Staff member Sara Beck (sara@aavso.org).

The formal release of SunEntry is scheduled for May 1, 2012. However, we would suggest that all AAVSO sunspot observers begin learning how to work with SunEntry by using it to enter their April data. Please save all your entries to a text file and to the database.

It is our goal to make SunEntry the only program you will need for submitting sunspot data to the AAVSO and we ask that all users of SUNKEY and SolObs switch to the new program. Using it will not only reduce staff time and the time spent entering data by Solar Section leaders, but it will also ensure that your data is properly formatted and stored in the most useful form for solar researchers to access.

To read more about SunEntry and to download the program, please visit this page:

<http://www.aavso.org/sun-entry>

People who have never submitted sunspot data to the AAVSO before, but would like to begin participating in the program should contact the Solar Section chairman, Rodney Howe (ahowe@frii.com) to let him know of your interest. Useful information about the sunspot observing program can also be found here: <http://www.aavso.org/solar>.