

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS
SOLAR COMMITTEE

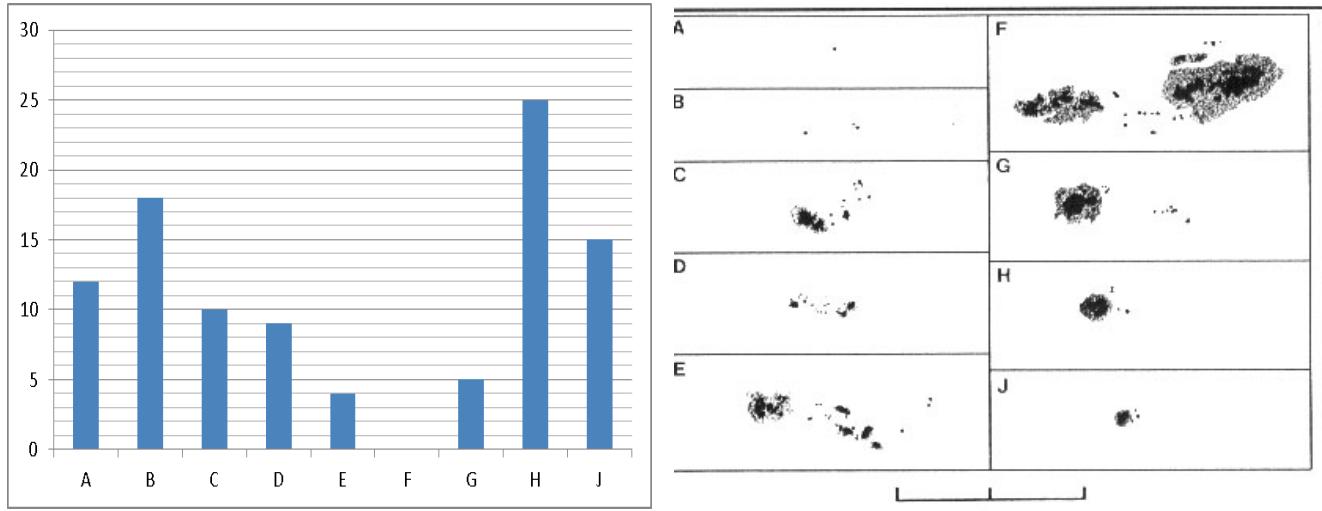


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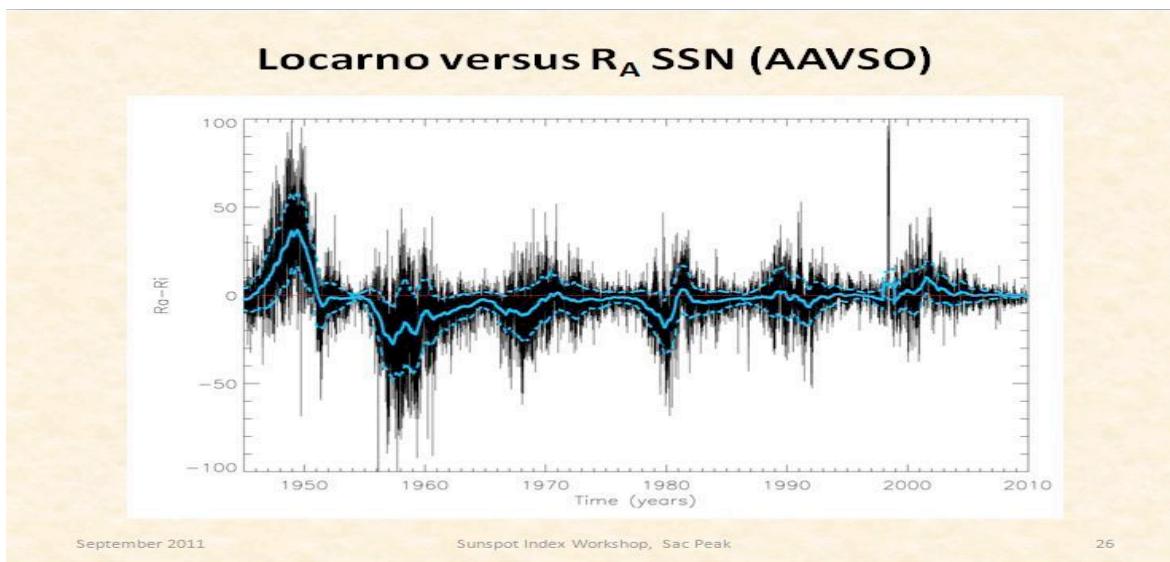
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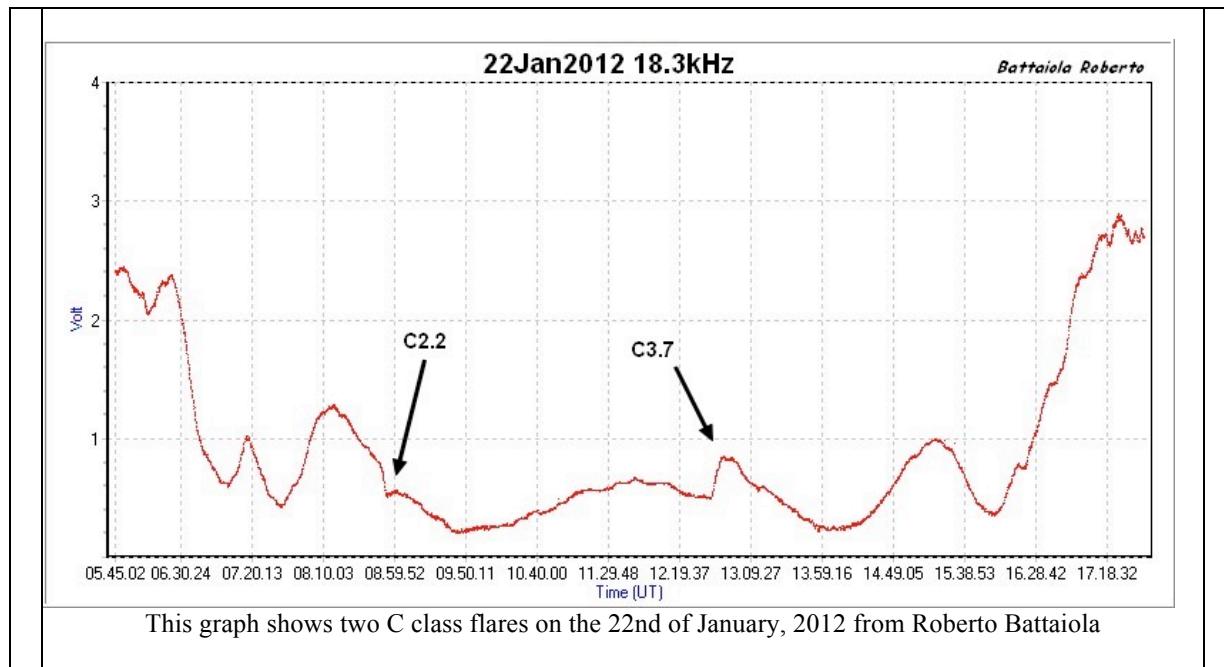


These graphs were made by *Alvaro Gonzalo Vargas Beltrán, Cochabamba Bolivia*:
On the left are the Zurich Classifications for the January, 2012 sunspots, and on the right are his drawings he recorded. All visual observations and hand drawings!



For the last 60 years the monthly AAVSO American Relative sunspot numbers (blue) can be matched to the daily observations of the standard reference observatory at Locarno, Italy. The Locarno observatory is used by SIDC to rate and rank their European volunteer observers. Graph courtesy of Frederic Clette, SIDC.

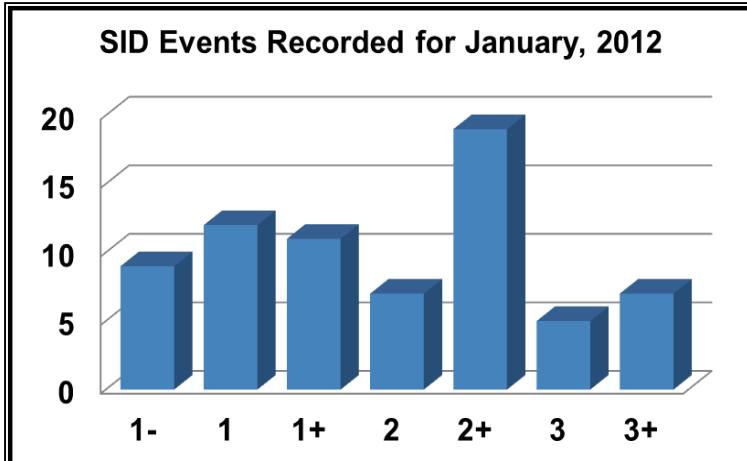
Sudden Ionospheric Disturbance Report



Sudden Ionospheric Disturbances (SID) Records During January, 2012

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
120101	0733	2+	120114	1208	1+	120122	1247	2+
120102	0528	1+	120114	1247	2	120122	1255	2
120102	1519	2+	120114	1318	1+	120123	0348	3
120105	1045	2+	120116	0812	1-	120123	0354	3
120106	1124	1+	120116	1038	2	120124	0952	1
120107	0442	2+	120116	1607	3+	120126	0008	1
120108	0227	2+	120117	0449	1-	120126	0039	2+
120108	0328	1	120117	0455	2+	120126	0150	2+
120108	0450	2+	120118	0955	1-	120126	0158	2+
120108	1318	2	120118	1029	1+	120126	1011	1
120108	1710	2+	120118	1914	2+	120126	2045	2
120110	0409	3	120119	1250	1	120127	0425	1+
120111	0447	2+	120119	1455	3+	120127	0642	2
120111	1112	1-	120119	1525	3	120127	1208	1+
120112	0435	1	120119	1625	3+	120127	1832	3
120112	1320	2	120121	1342	2+	120127	1840	3+
120112	1324	1+	120122	0304	2+	120130	0439	1
120113	0605	1	120122	0854	1			
120114	0341	1	120122	0958	1			

Solar Events



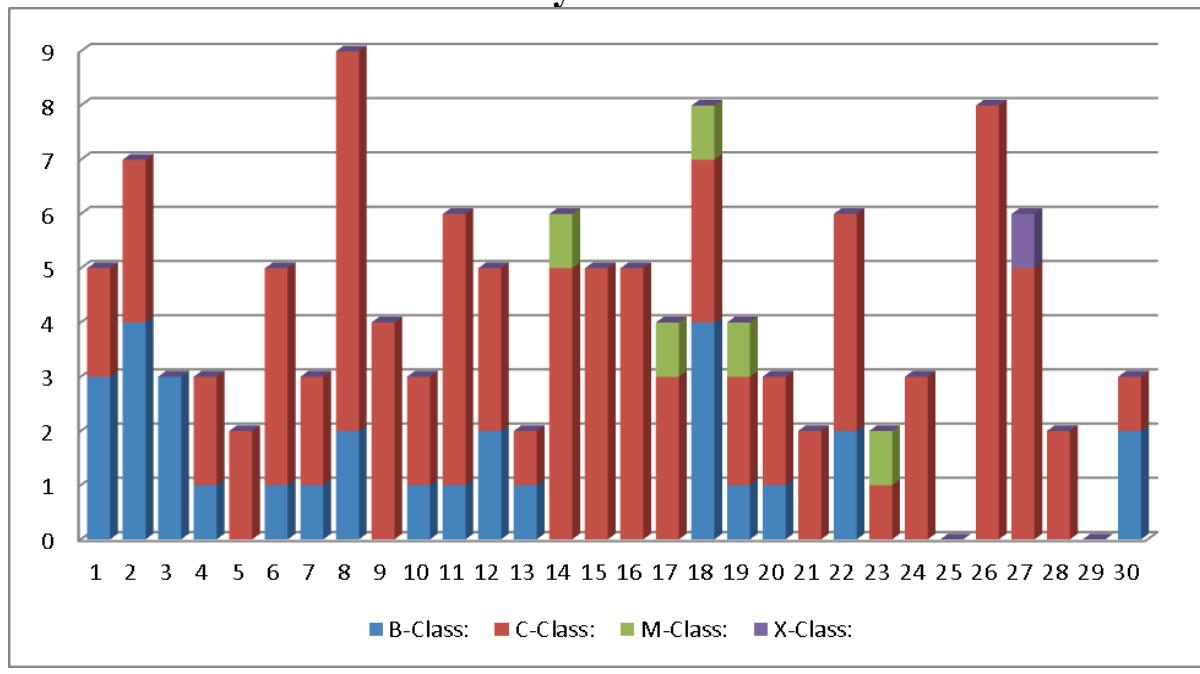
Importance rating: Duration (min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125
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Sudden Ionospheric Disturbances (SID) Observers During January, 2012

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
P King	A80	HWU	R Howe	A121	NLM
A McWilliams	A94	NML	F Adamson	A122	NWC
R Battaiola	A96	HWU	G Myers	A124	NLK
J Wallace	A97	NAA	S Oatney	A125	NML
F Steyn	A102	NAA NWC	K Cotar	A129	DHO FTA
M Suhovecky	A115	NAA	S Zinn	A130	NLK
L Loudet	A118	GQD NAA	J Karlovsky	A131	DHO ICV
J Godet	A119	GBZ GQD ICV	L Anderson	A91	No Data
B Terrill	A120	NWC			

There were 124 solar flares measured by GOES-15 for January, 2012. There was one X class and five M class flares, 88 C class and 30 B class flares. The sun was not as active with C and M class flares as December, 2011. There were 16 AAVSO SID Observers who submitted reports this month.

Solar Flare Summary Based on GOES-15 Data



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

DAY	NumObs	RAW	Ra	BERJ	10	Jose Alberto Berdejo
1	26	57	39	BMF	14	Michael Boschat
2	30	82	60	BRAB	30	Brenda Branchett
3	28	100	68	BRAF	7	Raffaello Braga
4	29	98	64	BROB	23	Robert Brown
5	31	89	63	BXD	15	Alexandru Burda German Morales Chavas
6	27	91	66	CHAG	27	Ioannis Chouinavas
7	29	101	72	CIOA	14	Brian Cudnik
8	32	89	63	CKB	19	Corp Laurent
9	21	71	50	CLZ	4	Dean Chantiles
10	23	60	43	CNT	14	Jose Carvajal
11	24	53	38	CVJ	10	Susan Delaney
12	24	48	31	DELS	6	Gerald Dyck
13	22	76	53	DGP	20	Jorge del Rosario
14	33	94	70	DJOB	21	Franky Dubois
15	34	115	82	DUBF	18	Fabio Mariuzza Javier Ruiz Fernandez
16	26	113	86	FAM	8	Tom Fleming
17	27	117	81	FERJ	12	K. Fujimori
18	23	93	63	FLET	26	Brian Halls
19	22	88	59	FUJK	21	Kim Hay
20	18	100	65	HALB	4	Mark Harris
21	25	98	67	HMQ	5	Rodney Howe
22	22	96	66	HOWR	28	Timothy Hrutkay
23	23	97	68	HRUT	7	Krstyna Wirkus Gerado Jinenez Lopez
24	22	76	52	JASK	9	Jerry Klotz
25	21	59	47	JGE	6	Kandilli Observatory
26	21	45	29	JJK	2	John Kaplan James & Shirley Knight
27	23	44	30	KAND	18	Larry Krozel
28	29	39	28	KAPJ	17	Monty Leventhal
29	27	47	33	KNJS	25	Kristine Larsen
30	30	59	43	KROL	16	Enrico Mariani
31	36	68	50	LEVW	15	Alexandre Arorim
Average	26.1	79.5	55.7	LKR	14	Michael Moeller
				MARE	4	George Mudry
Observer	#Obs	Name		MILJ	11	Susan Oatney
AAX	21	Alexandre Arorim		MMI	16	IPS Observatory
AVJ	20	J. Alonso		MUDG	4	E. C. Richardson
ARAG	31	Gema Araujo		OATS	18	Gerd-Lutz Schott
ASA	20	Salvador Aguirre		OBSD	6	Clyde Simpson
BARH	8	Howard Barnes		RICE	17	
BATR	2	Roberto Battaiola		SCGL	16	
BEB	4	Ray Berg		SIMC	6	

SONA	5	Andries Son	
SUZM	25	Miyoshi Suzuki	Sunspot Reports – Kim Hay
TESD	20	David Teske	<u>solar.aavso@gmail.com</u>
URBP	14	Piotr Urbanski	SID Solar Flare Reports – Rodney Howe
VARG	17	A.Gonzalo Vargas	<u>ahowe@frii.com</u>
VIDD	8	Vidican Dan	
WILW	8	William M. Wilson	
WIRP	1	Piotr Wirkus	
WRP	3	Russell Wheeler	

Total observers: 60
Total observations: 808



Ernest Richardson sends this image of the sun from his Celestron 8" telescope;
January, 5, 2012