

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS
SOLAR COMMITTEE

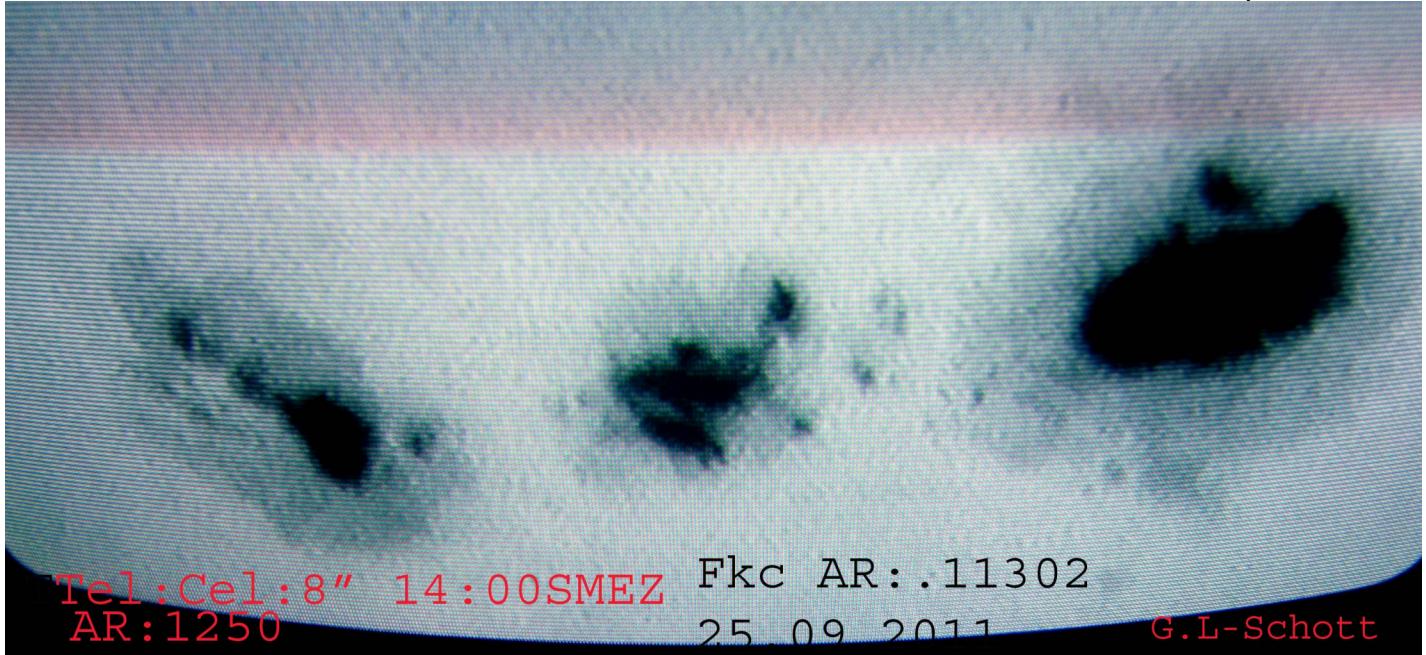


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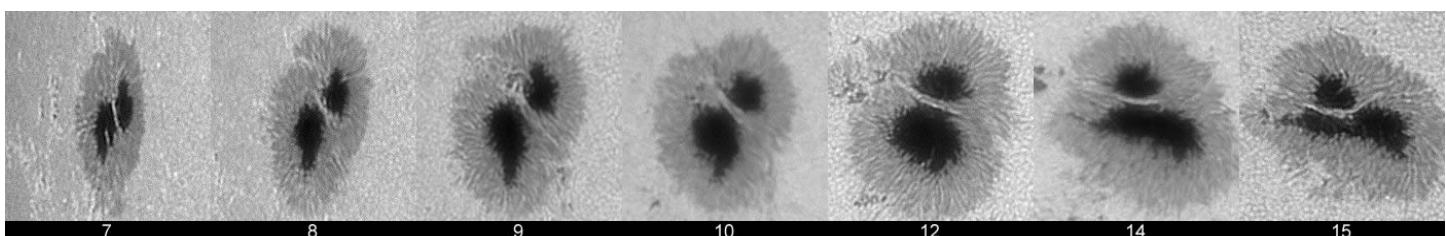
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September, 2011



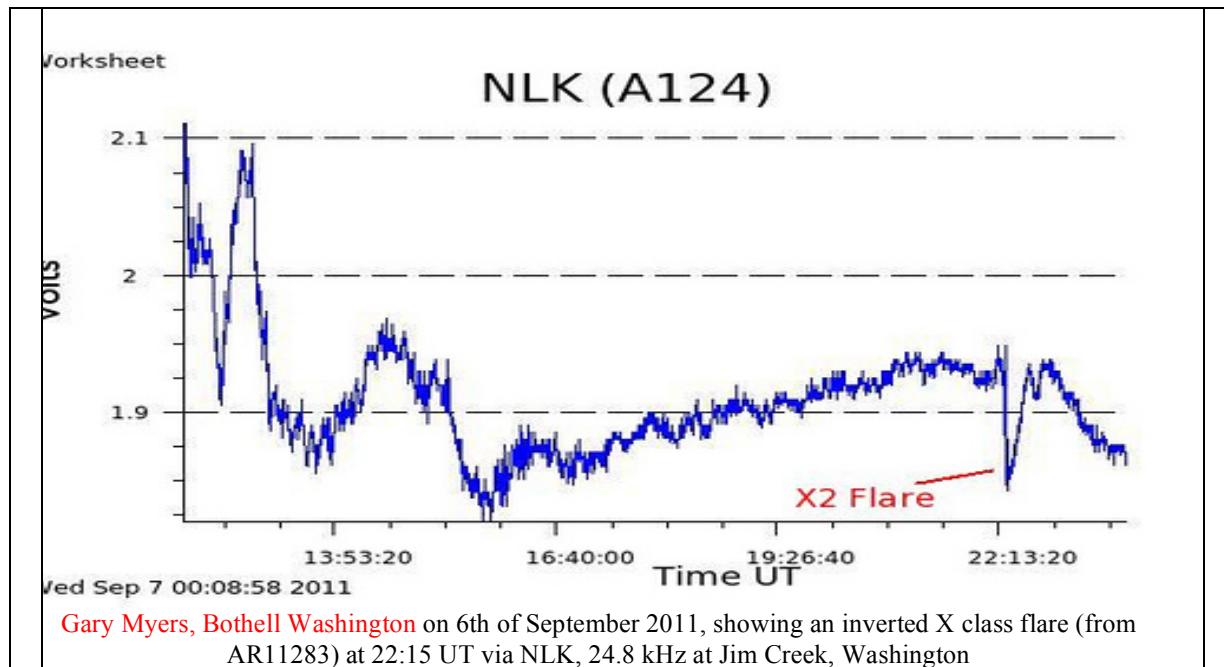
Here's an image of AR11302 by G.L-Schott for September, 25, 2011. This sunspot group gave us 2 of the 4 X class flares this month.

Here are images of sunspot evolution for AR11289 from Javier Ruiz for September, 7 thru 15. This sunspot group gave us the other 2 out of 4 X class flares this month.



Sequence of NOAA11289
Filter: Baader Astrosolar
Instrument: Skywatcher Equinox 120/900 + Barlow 3x + DMK31
Santander (Spain)

Sudden Ionospheric Disturbance Report



Sudden Ionospheric Disturbances (SID) Records During September, 2011

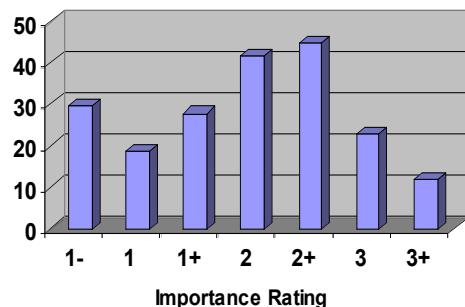
Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
110901	1250	1+	110906	0612	2	110911	1327	2
110901	1821	2	110906	2222	2+	110912	1225	3
110902	0837	1-	110906	2338	3	110912	2054	2+
110903	0604	1+	110906	2355	1-	110913	0408	1-
110903	0756	2	110907	0000		110913	1244	3
110903	1736	1+	110907	1046	2+	110914	0836	1+
110904	0111	1-	110907	2005	2+	110914	1125	3
110904	0454	1+	110907	2241	2	110914	1606	1-
110904	0616	1+	110908	1049	3	110914	1628	2+
110904	0835	2+	110908	1442	3+	110914	2053	2
110904	0842	3+	110908	1548	2+	110915	0029	1-
110904	1017	3	110908	1600	2	110915	0213	1-
110904	1129	1-	110908	1847	2+	110915	0239	1-
110904	1146	2+	110909	0217	1	110915	1627	2+
110904	1533	2+	110909	0614	2	110915	2115	2
110904	2035	1	110909	0812	3+	110916	0048	1+
110904	2345	1-	110909	1248	2+	110916	0257	2
110905	0758	2	110909	1458	3	110916	0444	2+
110905	1027	1+	110910	0544	1+	110916	0802	1-
110905	1101	1	110910	0728	3	110916	0845	1
110905	1125	2	110910	0736	2+	110916	1138	2+
110905	1346	1-	110910	1725	2	110916	1722	2+
110905	1407	2	110910	2150	2	110916	1849	2
110905	1659	1+	110911	0853	2+	110918	0736	2

Sudden Ionospheric Disturbances (SID) Records During September, 2011

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
110918	1554	2	110924	0817	1-	110926	0048	2+
110919	1542	2	110924	0845	1+	110926	0152	2
110920	0007	1-	110924	0934	2+	110926	0731	1+
110920	0513	2	110924	0950	1+	110926	0750	1+
110920	0657	1+	110924	1133	3	110926	0943	1+
110921	1124	3	110924	1245	3+	110926	1001	2
110921	1212	3	110924	1642	1-	110926	1314	2+
110922	0431	2+	110924	1655	1+	110926	1335	3
110922	0437	1+	110924	1721	2	110926	1446	3
110922	0904	3	110924	1806	2	110926	1653	3
110922	1000	1-	110924	1924	1+	110926	1659	1
110922	1017	1-	110924	2033	1	110927	0505	2+
110922	1051	3+	110924	2127	1	110927	0746	1+
110922	2050	2	110925	0234	2	110927	0811	2
110922	2253	1	110925	0326	3	110927	1054	2+
110923	0000	2+	110925	0446	2+	110927	1147	2+
110923	0037	2	110925	0521	3	110927	2059	2+
110923	0157	2	110925	0700	1+	110928	0823	2+
110923	0220	1+	110925	0836	1	110928	1232	2+
110923	0618	2	110925	0850	1	110928	1305	3+
110923	0818	1+	110925	0931	2+	110928	1328	2+
110923	0849	3	110925	1035	3+	110928	2248	1-
110923	1220	3	110925	1129	1+	110929	1240	3
110923	1536	2	110925	1448	2	110929	1807	2+
110923	1914	2	110925	1510	1+	110930	0255	1-
110923	2148	1	110925	1535	1+	110930	0356	2+
110923	2211	2+	110925	1618	2	110930	1852	1-
110923	2358	1-	110925	1658	2	110930	1906	2
110924	0000	2+	110925	2222	1+			

Solar Events

SID Events Recorded for September, 2011



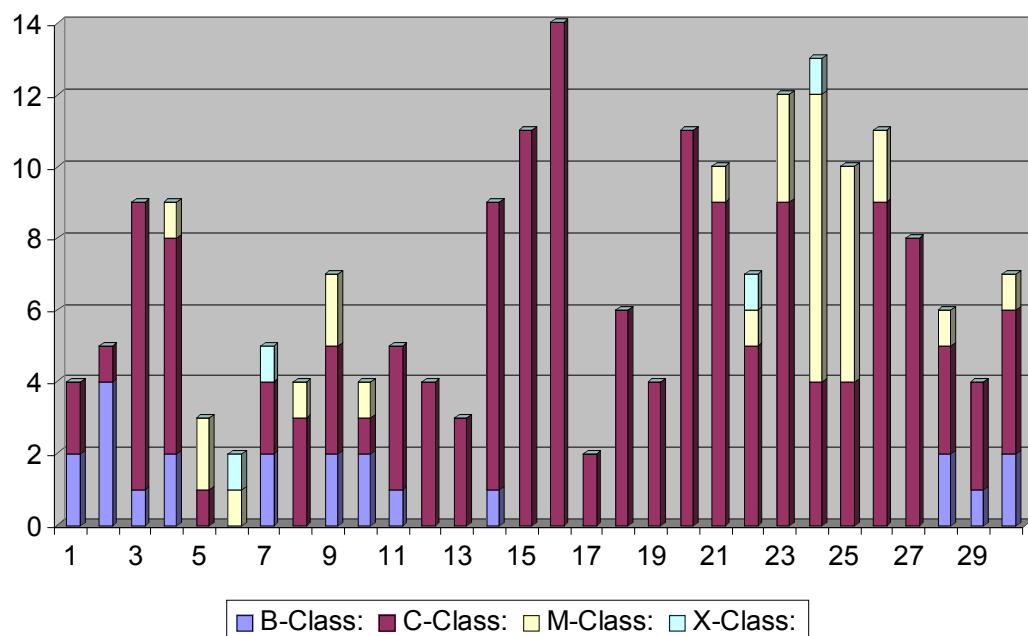
Importance rating: Duration (min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125
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Sudden Ionospheric Disturbances (SID) Observers During September, 2011

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
L Anderson	A91	NWC	B Terrill	A120	NWC
A McWilliams	A94	NML	R Howe	A121	NML
J Wallace	A97	NAA	F Adamson	A122	NWC
F Steyn	A102	NAA NWC	G Myers	A124	NLK
M Suhovecky	A115	NAA	S Oatney	A125	NML
L Loudet	A118	GQD NAA NSY	G Richardson	A128	NML NPM NWC
J Godet	A119	GBZ GQD			

There were 209 solar flares measured by GOES-15 for September, 2011, Four X class flare, 31 M class flares, 152 C class and 22 B class flares. There were 14 AAVSO SID Observers who submitted reports on a month with the most X class flares this solar cycle 24!

Solar Flare Summary Based on GOES-15 Data



American Relative Sunspot Numbers (Ra) for
September, 2011 [boldface = maximum, minimum]

DAY	NumObs	RAW	Ra
1	36	110	80
2	36	122	89
3	36	118	85
4	33	101	74
5	29	95	67
6	26	78	55
7	28	57	39
8	26	51	35
9	38	69	48
10	39	75	52
11	41	87	63
12	39	117	81
13	32	128	91
14	34	145	105
15	31	159	107
16	28	161	117
17	33	136	94
18	31	127	91
19	29	120	85
20	35	111	79
21	28	97	67
22	29	88	65
23	30	81	55
24	30	101	69
25	38	104	73
26	28	97	68
27	31	96	67
28	35	97	70
29	33	103	72
30	31	98	71
Averages	32.4	104.4	73.8

Total Observers: 58

Total Observations: 985

Observer	#Obs	Name
AAP	11	A. Patrick Abbott
AAX	17	Alexandre Arorim
AVJ	19	J. Alonso
ARAG	30	Gema Araujo
ASA	26	Salvador Aguirre
BARH	10	Howard Barnes
BEB	12	Ray Berg
BERJ	12	Jose Alberto Berdejo
BMF	21	Michael Boschat
BRAF	8	Raffaello Braga
BROB	30	Robert Brown
BXD	10	Alexandru Burda

CHAG	27	German Chavas Morales
CKB	27	Brian Cudnik
CLZ	11	Corp Laurent
CNT	16	Dean Chantiles
CVJ	10	Jose Carvajal
DANB	4	Anderson Dantas
DGP	17	Gerald Dyck
DUBF	26	Franky Dubois
FAM	8	Fabio Mariuzza
FERJ	26	Javier Ruiz Fernandez
FLET	25	Tom Fleming
FLF	21	Fredirico Luiz Funari
FUJK	19	K. Fujimori
HALB	10	Brian Halls
HAYK	16	Kim Hay
HMQ	5	Mark Harris
HOWR	22	Rodney Howe
HRUT	16	Timothy Hrutkay
JASK	23	Krystyna Wirkus
JEFT	17	Thomas Jeffrey
KAND	30	Kandilli Observatory
KAPJ	26	John Kaplan
KNJS	20	James & Shirley Knight
KROL	16	Larry Krozel
LEVM	20	Monty Leventhal
LKR	15	Kristine Larsen
MARE	7	Enrico Mariani
MILJ	5	Jay Miller
MMI	29	Michael Moeller
MUDG	14	George Mudry
OATS	12	Susan Oatney
OBSO	18	IPS Observatory
RICE	29	E. C. Richardson
SCGL	22	Gerd-Lutz Schott
SIMC	9	Clyde Simpson
SONA	17	Andries Son
STQ	12	Nick Stoikidis
SUZM	20	Miyoshi Suzuki
TESD	23	David Teske
TJV	2	Javier Temprano
URBP	28	Piotr Urbanski
VARG	22	A.Gonzalo Vargas
VIDD	8	Daniel Vidican
WILW	25	William M. Wilson
WIRP	1	Piotr Wirkus
WRP	3	Russell Wheeler

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