Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS
SOLAR COMMITTEE

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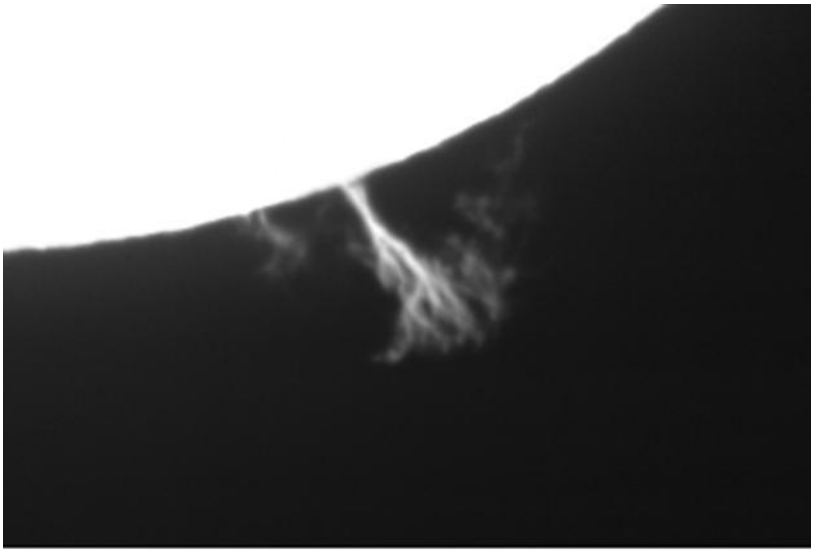
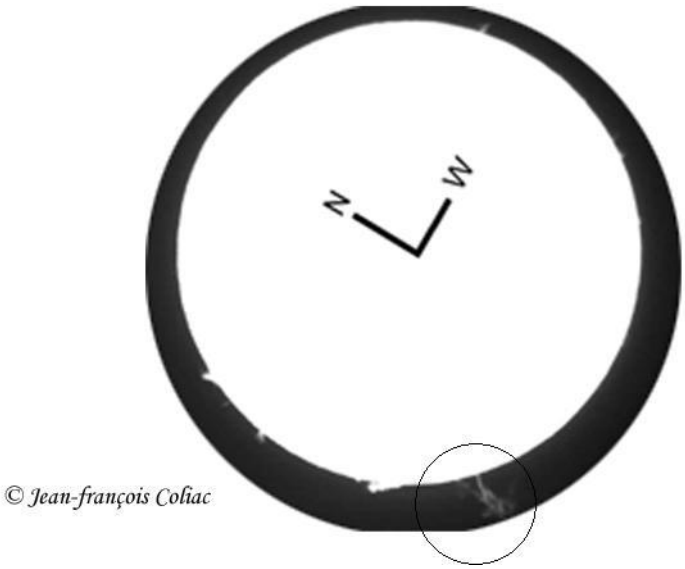


Lunt LS60T - PL1M - 2013 september 11th - 7h37 TU - sized 2x



© Jean-françois Coliac

On the 10th Sept.: It's an impossible solar maximum: I observed the Sun with small or greater telescope (from 2 inch to 8 in) from the year 1949, but don't remember, that during the maximum-time I saw only one single spot on the solar disc! Similar deep max: 1805, 1816, 1829, and 1883, 1894, 1906. - Lajos Bartha, Budapest (Hu).

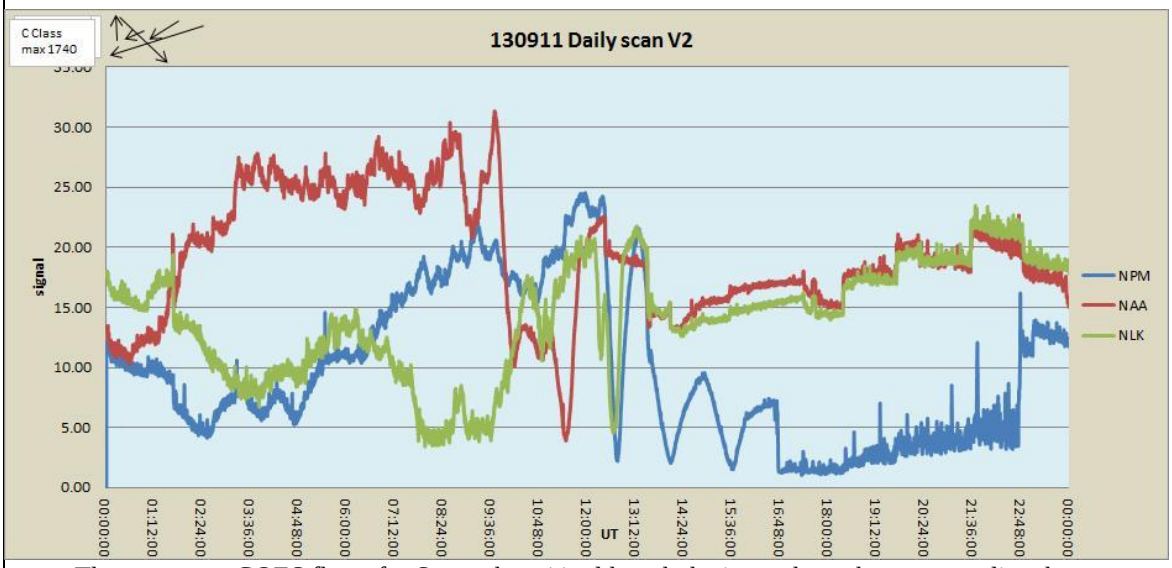
The very next day Jean-francois Coliac captures this prominence with an H-alpha filter. He suggests we record data using the H-alpha filter with the following attributes:

BRIGHTNESS - For the brightness, I suppose that it will change depending on the instrument. It will be difficult to set an absolute value. How can we say if a prominence is bright or no... An idea would be to stay "relative". We could fix, for the brightest prominence, the brightness with a code and then say the brightness of other relative to the first (the brightest) with another code. I think that a ladder of 3/4 steps is good as (very bright, bright, dull). It would not take lot of time

SIZE - For the size, measuring in degrees seems to me a problem if one has no reticulated eyepiece. I might suggest that a relative measure could work well too, for example with the unit of sun diameter. We could fix 3 categories : prominence less than 5% sun diameter (frequent) between 5% and 10% (medium) and the big (over 5% sun diameter)

POSITION - And then would be the problem of measuring the position of prominences on, or not on the limb of the disk. It would be difficult to be precise unless doing a photograph, but I think there is much more solar observation with eye than with photograph. Cutting the solar in 1/8 would be a start, it is simple and fast. And finally SHAPE - It would be interesting to note the shape of prominences: fan, bar, arch, full, other for example. For the filaments and spots (on the disk), the length would be in percentage of sun diameter (1/4 or 1/8...) and for spots a category small, medium and big spots.

Sudden Ionospheric Disturbance Report

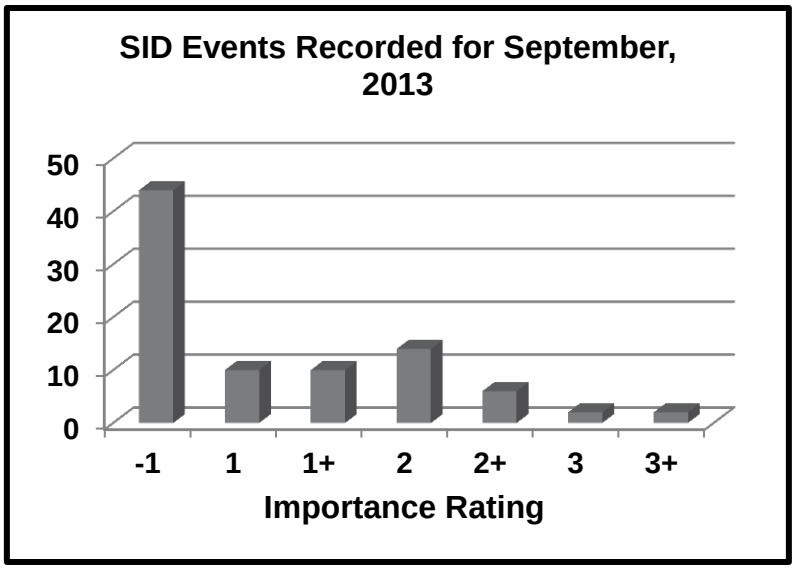


There were no GOES flares for September, 11, although the ionosphere shows many disturbances.

Sudden Ionospheric Disturbances (SID) Records During September, 2013

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
130901	1422	1+	130907	407	-1	130921	924	1
130903	54	-1	130907	841	-1	130921	1046	-1
130903	100	-1	130907	1608	-1	130922	248	-1
130903	1421	1	130910	459	3	130922	639	-1
130903	1730	2+	130910	548	3+	130923	711	1
130903	2342	1+	130910	1046	2	130923	2155	-1
130904	10	1	130912	1106	1+	130923	2238	1
130904	43	2	130913	834	-1	130924	207	1+
130904	252	1	130918	314	2	130924	1711	-1
130904	416	-1	130919	813	2	130924	1906	-1
130904	536	-1	130919	820	2	130924	2302	-1
130904	544	-1	130919	1841	-1	130924	2329	2+
130904	619	-1	130919	2301	-1	130925	2225	-1
130904	723	-1	130920	417	2	130926	317	1+
130904	729	-1	130920	1003	1+	130927	1513	-1
130904	742	1	130920	1012	2	130928	1208	-1
130904	749	-1	130920	1152	2	130928	1742	-1
130904	822	-1	130920	1253	2	130929	45	3
130904	842	1+	130921	150	-1	130929	51	2+
130904	849	2	130921	202	-1	130929	516	1+
130904	1013	-1	130921	631	1+	130929	528	1
130904	1147	-1	130921	735	-1	130929	2344	3+
130904	1214	-1	130921	848	2+	130930	1	2+
130905	1950	-1	130921	857	2+	130930	1730	-1
130906	1255	-1	130921	915	2			

Solar Events

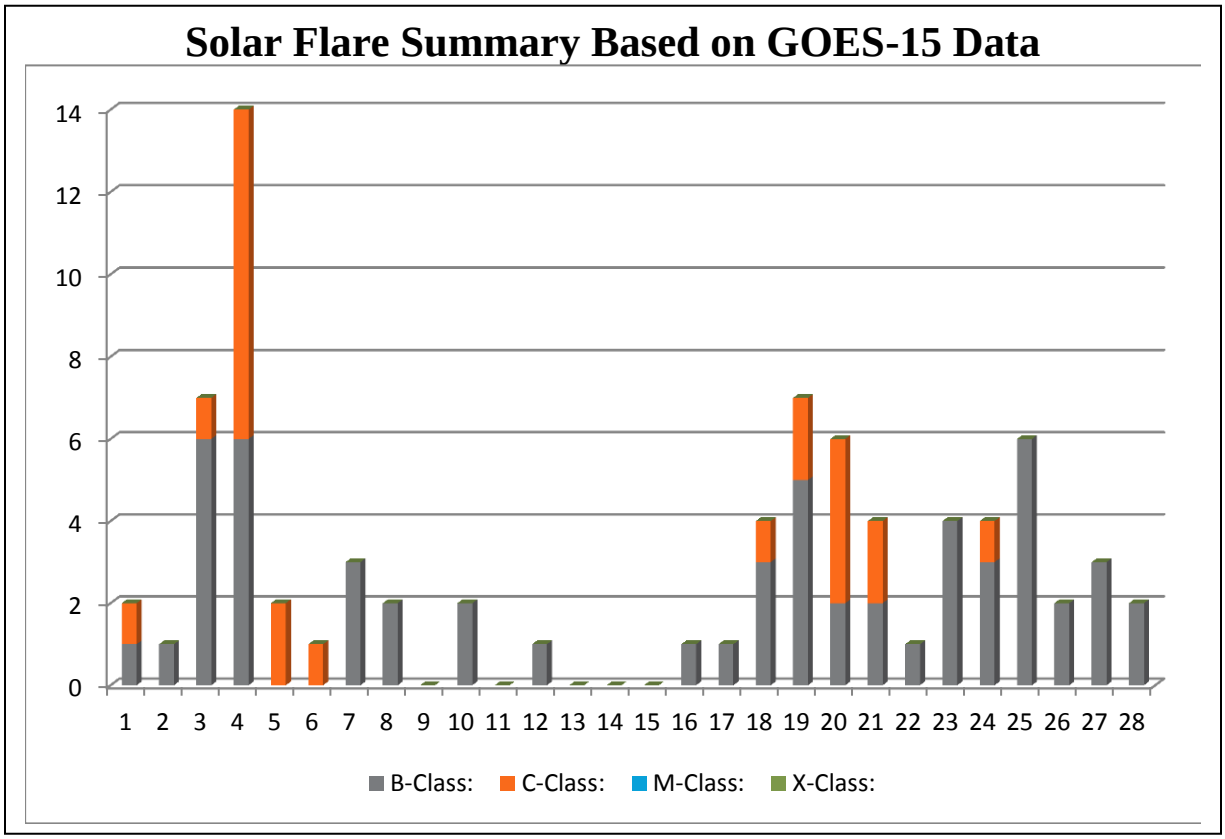


Importance rating: Duration (min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125

Sudden Ionospheric Disturbances (SID) Observers During September, 2013

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
A McWilliams	A94	no data	J Karlovsky	A131	DHO
J Wallace	A97	NAA	E Soubrouillar	A132	DHO FTA
R Battaiola	A96	no data	R Green	A134	no data
L Loudet	A118	ICV	R Mrllak	A136	GQD NSY
J Godet	A119	GBZ GQD ICV	D Koawl	A137	NAA NLK NML
B Terrill	A120	no data	S Aguirre	A138	NLK (1)
F Adamson	A122	NWC	F Francione & C Re	A139	HWU NAA NSY
S Oatney	A125	no data	L Corp	A140	DHO

There were 80 solar flares measured by GOES-15 for September, 2013, 23 C class and 57 B class flares. The sun produced half the number of C class flares this month compared to last, very weak flaring. There were 16 AAVSO SID observers who submitted reports this month.



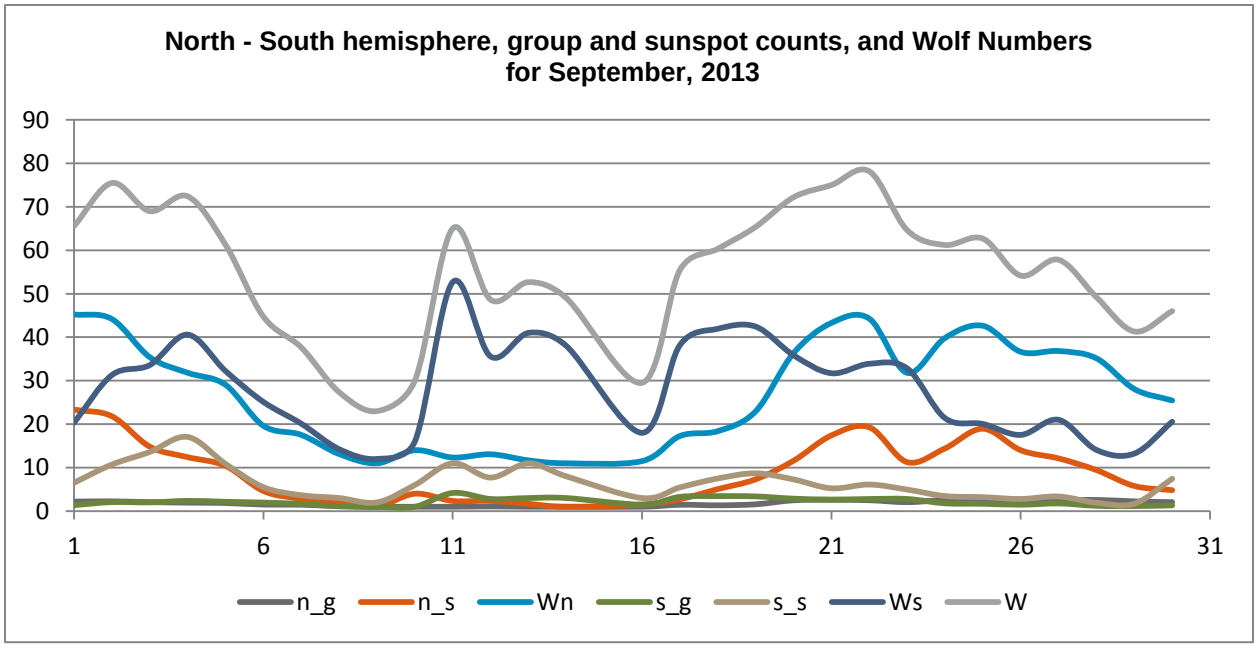
American Relative Sunspot Numbers (Ra) for September, 2013 [**boldface = maximum, minimum**]

DAY	NumObs	RAW	Ra
1	38	68	50
2	35	76	**59**
3	35	67	50
4	37	72	54
5	42	57	41
6	45	43	32
7	39	33	23
8	40	17	12
9	42	12	**9**
10	37	20	16
11	33	45	31
12	33	44	30
13	39	30	20
14	36	17	11
15	34	13	**9**
16	33	22	16
17	38	46	30
18	40	55	39
19	37	61	44
20	37	72	51
21	40	70	50
22	37	75	52
23	36	60	44
24	44	59	44
25	35	57	40
26	37	51	38
27	32	54	38
28	31	49	37
29	32	42	33
30	33	48	34
Average	**36.9**	**47.7**	**34.6**

Obs	#Obs	Name
AAP	8	A. Patrick Abbott
AAX	11	Alexandre Amorim
AJV	18	J. Alonso
AMG	1	Margarete J. Amorim
ARAG	30	Gema Araujo
ASA	26	Salvador Aguirre
BARH	8	Howard Barnes
BDDA	17	Diego Bastiani
BERJ	26	Jose Alberto Berdejo
BMF	16	Michael Boschat
BRAB	29	Brenda Branchett
BRAF	26	Raffaello Braga
BROB	22	Robert Brown
BXD	20	Alexandru Burda
CADA	1	Adair Cardoso
CFO	11	Jean F. Coliac
CHAG	28	German Morales Chavez
CIOA	14	Ioannis Chouinavas
CKB	23	Brian Cudnik
CLZ	3	Laurent Corp
CNT	9	Dean Chantiles
CVJ	11	Jose Carvajal
DEMF	5	Frank Dempsey
DGP	25	Gerald Dyck
DJOB	16	Jorge del Rosario
DUBF	26	Franky Dubois
FAM	10	Fabio Mariuzza
FERJ	15	Javier Ruiz Fernandez
FLET	24	Tom Fleming
FLF	17	Fredirico Luiz Funari
FTAA	10	Tadeusz Figiel
FUJK	20	K. Fujimori
HALB	1	Brian Halls
HAYK	19	Kim Hay
HOWR	25	Rodney Howe
JASK	14	Krystyna Wirkus
JGE	7	Gerardo Jimenez Lopez
JJMA	15	Jessica M.Johnson
KAPJ	14	John Kaplan
KNJS	21	James & Shirley Knight
KROL	24	Larry Krozel
LEVM	22	Monty Leventhal
LKR	20	Kristine Larsen
MARE	10	Enrico Mariani
MCE	20	Etsuiku Mochizuki
MGAA	2	Gael Mariani
MILJ	18	Jay Miller
MJHA	25	John McCammon
MMI	24	Michael Moeller
MUDG	7	George Mudry
OATS	13	Susan Oatney
OBSO	17	IPS Observatory
RICE	15	E. C. Richardson
RLM	12	Mat Raymonde
SCGL	27	Gerd-Lutz Schott
SDOH	30	Solar Dynamics Obs - HMI
SDP	1	Dolores Sharples

SIMC	8	Clyde Simpson	WILW	24	William M. Wilson
SMNA	6	Michael Stephanou	WKM	2	Michael Wiskirken
SONA	15	Andries Son	WRP	5	Russell Wheeler
STAB	28	Brian Gordon-States			
SUZM	24	Miyoshi Suzuki			
TESD	24	David Teske	**Total**	**Observers:**	**70**
URBP	17	Piotr Urbanski	**Total**	**Observations:**	**1107**
VARG	12	A. Gonzalo Vargas			
VIDD	9	Dan Vidican			
WAU	4	Artur Wargin			

38 of our 70 observers submitted data on the sunspot and group counts for the Sun's north and south hemispheres. It is interesting to note how the Wolf numbers of groups and Sunspots counts cross over on the 20th and 23rd day this month, and the southern hemisphere is predominant.



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