

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS
SOLAR SECTION



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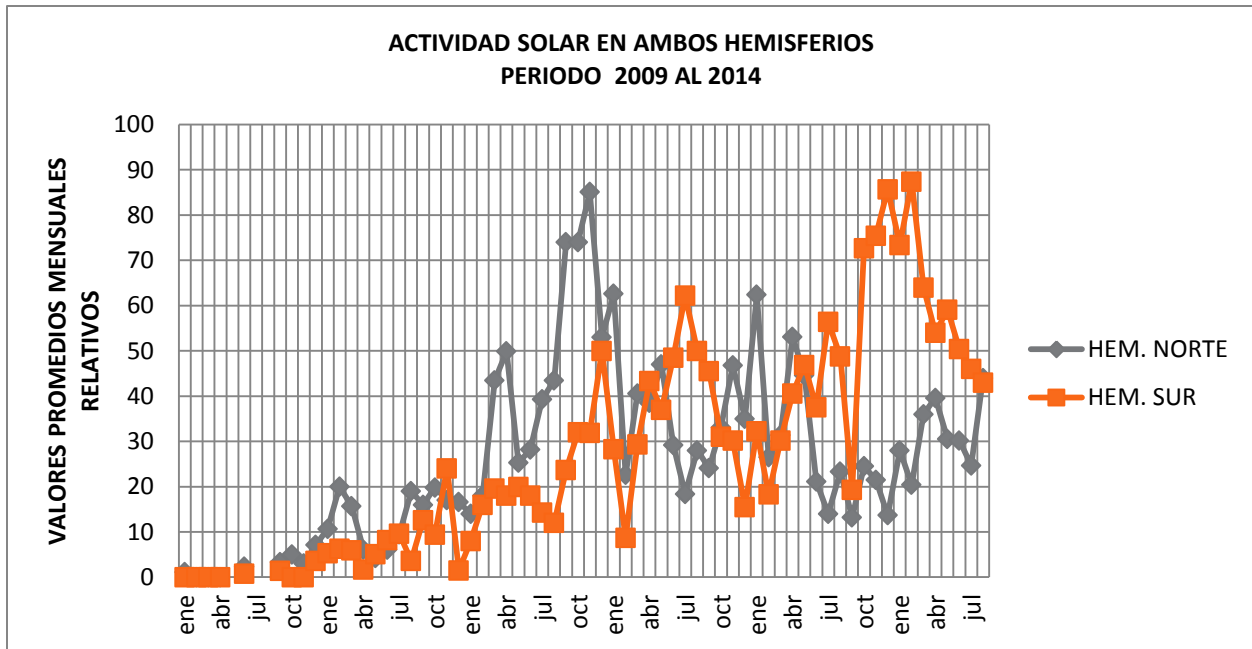
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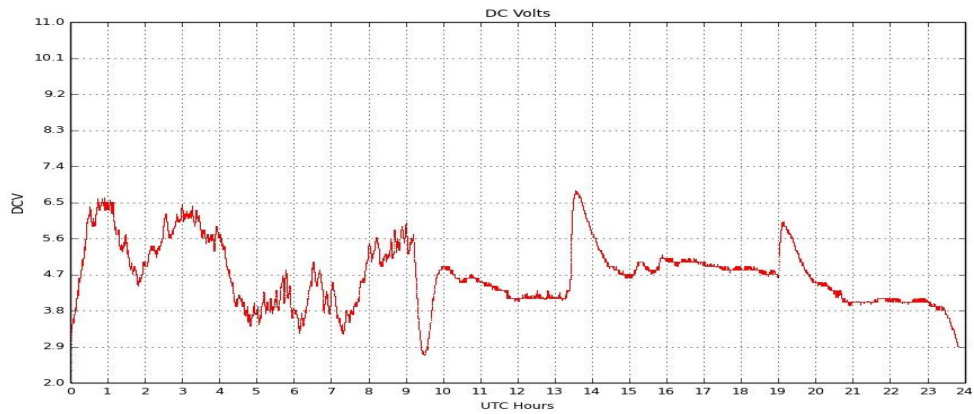


This graph is courtesy of Gonzalo Vargas (VARG), Cochabamba, Bolivia. He shows beyond a reasonable doubt how the polarity of sunspots switches between the northern and southern hemisphere of the sun. It's interesting how the group and sunspot counts (Wolf numbers) for the southern hemisphere are declining these last few months and the Wolf numbers for the northern hemisphere is rising. And you can see in this month's August graph (last page of this Solar Bulletin) the northern hemisphere's Wolf numbers are becoming predominant.

"No special conclusion should be drawn, as the evolution of solar cycles is always made of a succession of "surges" of activity. Those surges are mostly uncorrelated between hemispheres. Therefore, on a monthly basis, the predominance of a hemisphere may switch to the other hemisphere, temporarily disrupting a long-term trend. This is probably what is happening here. It is precisely to suppress those temporary random fluctuations that a smoothing (low-pass filtering) is applied for defining global properties of solar cycles (min/max, rise/decline rates). So let us just patiently observe how things will evolve in coming months." (Frederic Clette, Director of SILSO).

Sudden Ionospheric Disturbance Report

File: VLFlog201408210001.txt UTC: Thu Aug 21 23:50:00 2014 sun AZ = 289.2 sun EL = -1.9

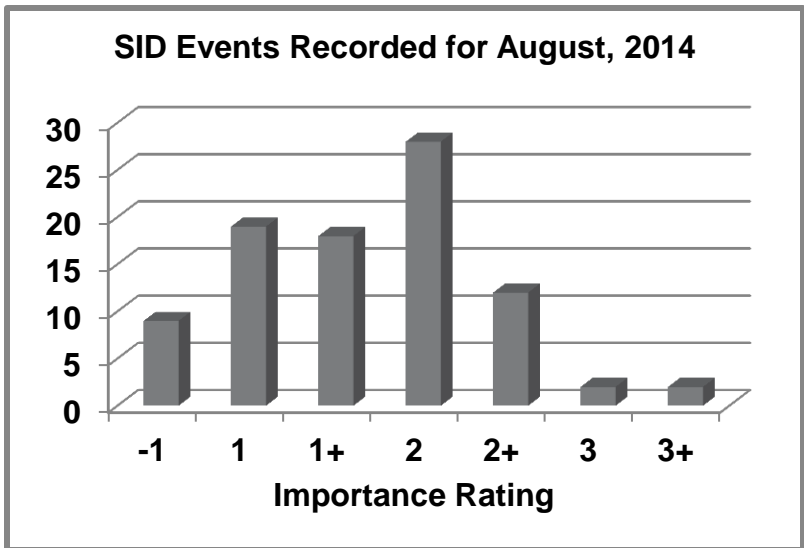


A large M3.4 class flare and a C7.3 class flare recorded on August 21, 2014. Graph from John DuBois in Boxborough Massachusetts, recording of NAA at 24 kHz

Sudden Ionospheric Disturbances (SID) Records During August, 2014

Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
140801	0018	2	140821	1512	2	140824	0740	1-
140801	0041	2	140821	1549	1	140824	1215	2
140801	1144	2	140821	1903	2+	140825	1427	1-
140801	1450	2	140822	0006	1+	140825	1444	2+
140801	1501	1-	140822	0135	1+	140825	1503	3
140801	1705	1	140822	0226	2+	140825	1512	2
140801	1804	2+	140822	0625	2	140825	2022	2+
140802	0005	1+	140822	0818	3+	140826	0243	2
140805	1132	2	140822	0836	1	140826	0928	1
140805	1418	1+	140822	0919	2	140826	1139	1+
140808	1133	1	140822	0926	1	140826	1254	2
140808	1702	1+	140822	1028	2	140826	1508	2
140809	0902	1	140822	1226	2+	140827	0358	2+
140809	1635	1+	140822	1257	2	140828	1518	1+
140809	1655	2	140822	1304	1	140829	1238	2
140816	0930	1	140822	1551	2	140829	1553	2
140820	0912	1+	140822	1557	1+	140829	2124	2+
140820	0919	2	140823	1128	1	140830	0012	2+
140820	1249	2	140823	1414	1+	140830	0428	1
140820	1258	1-	140823	1420	1-	140830	0458	2
140820	1754	1+	140823	1634	1+	140830	1212	2+
140820	1911	1+	140823	1727	1+	140830	1212	2+
140821	0046	3	140823	1743	2+	140830	1426	1
140821	1328	2	140823	1820	1+	140831	0555	1-

Solar Events

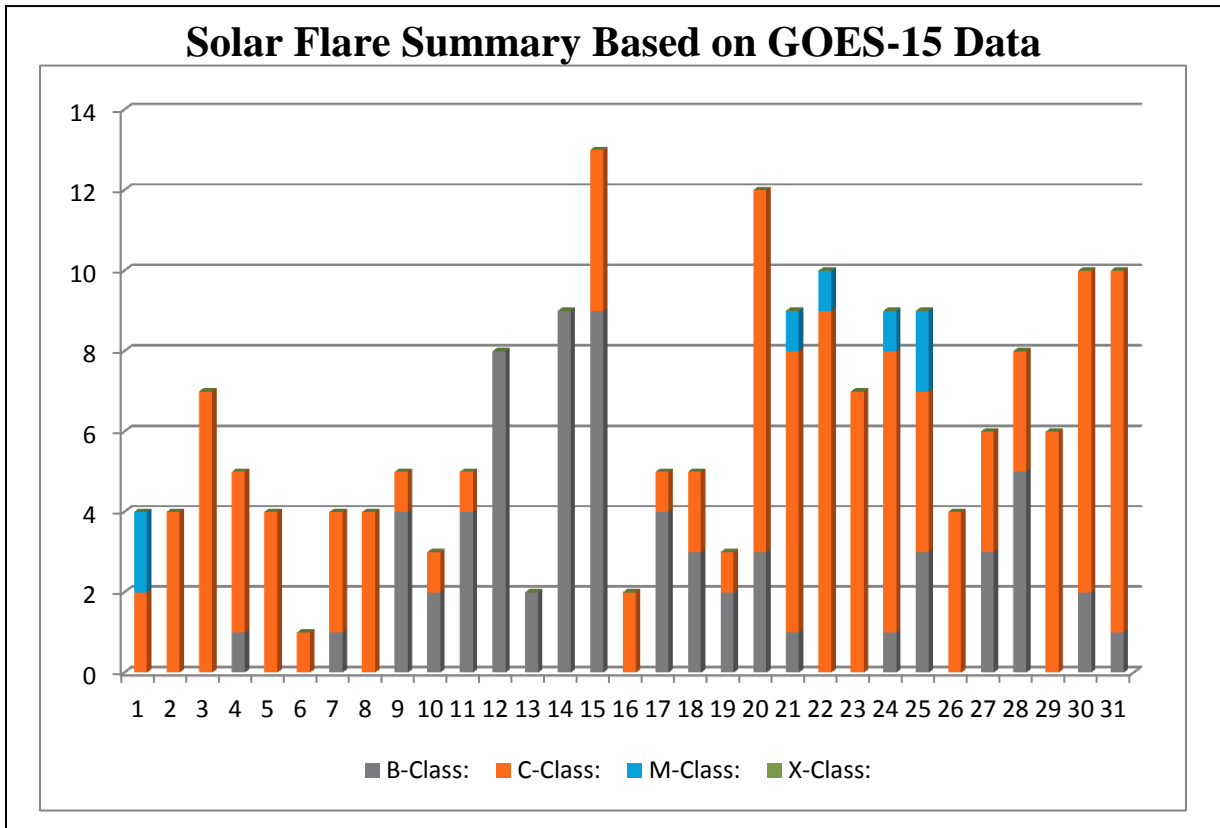


Importance rating: Duration (min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125
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Sudden Ionospheric Disturbances (SID) Observers During August, 2014

Observer	Code	Station(s) monitored	Observer	Code	Station(s) monitored
A McWilliams	A94	NML	K Cotar	A129	DHO GBZ
R Battaiola	A96	GBZ	J Karlovsky	A131	DHO NSY
J Wallace	A97	NAA	R Green	A134	JJI NWC
L Loudet	A118	DHO GQD NAA	R Mrlak	A136	GQD NSY
F Adamson	A122	NWC	S Aguirre	A138	NLK
S Oatney	A125	NAA NLK NWC	F Francione & C Re	A139	HWU NAA NSY

There were 193 solar flares measured by GOES-15 for August, 2014: Seven M class, 188 C class and 68 B class flares. Far more flares this month compared to last. There were 12 AAVSO SID observers who submitted reports this month.



American Relative Sunspot Numbers (Ra) for August, 2014 [**boldface = maximum, minimum**]

DAY	NumObs	RAW	Ra
1	42	136	105
2	37	141	107
3	39	124	100
4	46	120	94
5	41	109	83
6	48	104	82
7	43	104	77
8	43	79	58
9	44	60	46
10	38	54	43
11	43	63	49
12	33	70	51
13	36	70	52
14	40	73	57
15	37	91	68
16	33	101	77
17	37	100	79
18	38	91	72
19	41	90	68
20	44	96	72
21	43	112	84
22	38	119	89
23	48	122	95
24	46	123	95
25	44	96	73
26	38	79	61
27	41	76	58
28	41	68	52
29	38	62	46
30	37	70	54
31	36	78	60
Average	40.4	92.8	71.2

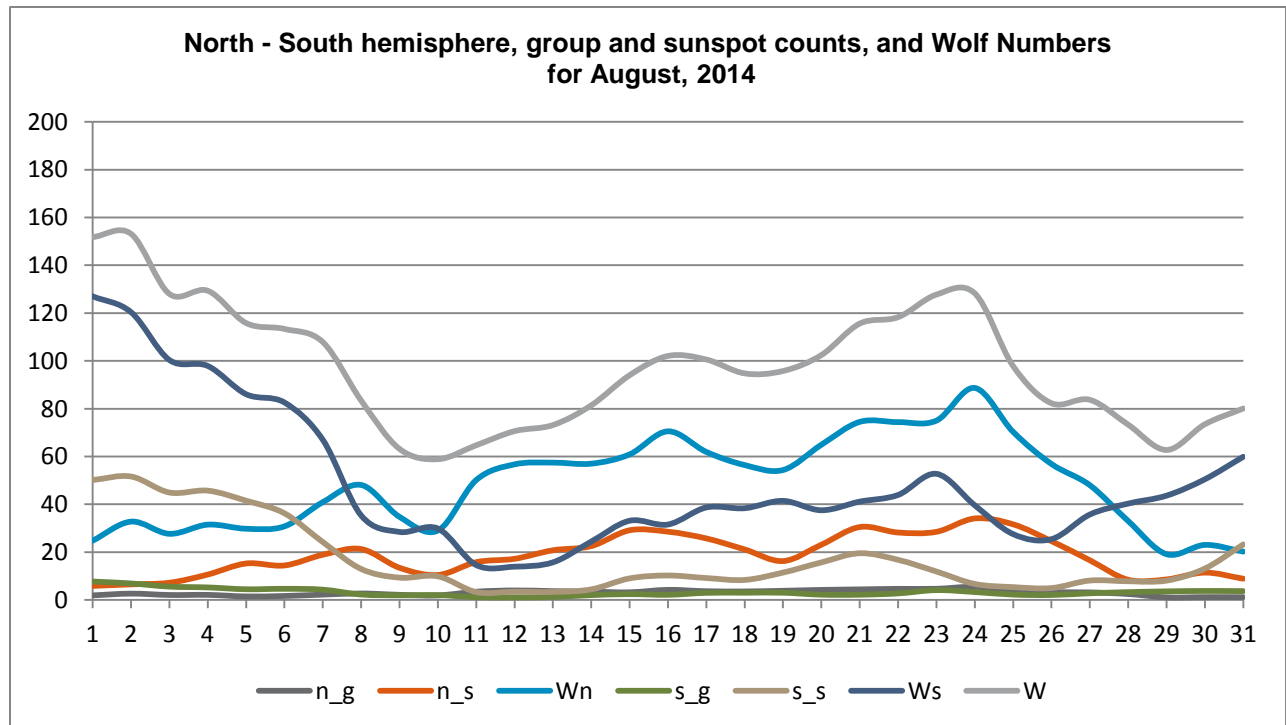
Obs	#Obs	Name
AAX	23	Alexandre Amorim
AJV	21	J. Alonso
ARAG	31	Gema Araujo
ASA	25	Salvador Aguirre
BARH	8	Howard Barnes
BDDA	15	Diego Bastiani
BERJ	19	Jose Alberto Berdejo
BMF	22	Michael Boschat
BRAB	31	Brenda Branchett

BRAB	27	Raffaello Braga
BROB	29	Robert Brown
BSAB	22	Santanu Basu
BXD	17	Alexandru Burda
CHAG	30	German Morales Chavez
CIOA	9	Ioannis Chouinavas
CKB	21	Brian Cudnik
CNT	11	Dean Chantiles
CVJ	12	Jose Carvajal
DEMF	10	Frank Dempsey
DGP	28	Gerald Dyck
DJOB	26	Jorge del Rosario
DUBF	29	Franky Dubois
FAM	10	Fabio Mariuzza
FERJ	21	Javier Ruiz Fernandez
FJAE	7	Dr.John Alan Freeman
FLET	25	Tom Fleming
FLF	15	Fredirico Luiz Funari
FTAA	11	Tadeusz Figiel
FUJK	16	K. Fujimori
HALB	14	Brian Halls
HAYK	18	Kim Hay
HMQ	4	Mark Harris
HOWR	29	Rodney Howe
JGE	22	Gerardo Jimenez Lopez
JJK	1	Jerry Klotz
JJMA	16	Jessica M.Johnson
KAND	30	Kandilli Observatory
KAPJ	17	John Kaplan
KNJS	22	James & Shirley Knight
KROL	29	Larry Krozel
LEVM	14	Monty Leventhal
LKR	20	Kristine Larsen
MARE	15	Enrico Mariani
MCE	21	Etsuiku Mochizuki
MGAA	2	Gael Mariani
MILJ	14	Jay Miller
MJHA	30	John McCammon
MMI	29	Michael Moeller
MUDG	12	George Mudry
OATS	16	Susan Oatney
OBSO	18	IPS Observatory
ONJ	17	John O'Neill
RLM	8	Mat Raymonde
RRO	1	Ralph Rogge
SCGL	27	Gerd-Lutz Schott
SDOH	31	SDO-Jan Alvestad

SIDM	25	Monika Sidor	WILW	30	William M. Wilson
SIMC	6	Clyde Simpson	WKM	2	Michael Wiskirken
SMNA	2	Michael Stephanou	WRP	2	Russell Wheeler
SONA	13	Andries Son			
SPIA	6	Piotr Skorupski			
STAB	31	Brian Gordon-States			
SUZM	16	Miyoshi Suzuki			
TESD	30	David Teske			
URBP	24	Piotr Urbanski			
VARG	26	A. Gonzalo Vargas			
VIDD	14	Dan Vidican			
WAU	2	Artur Wargin			
WGI	7	Guido Wollenhaupt			

Total Observers: 72
Total Observations: 1284

There were 42 out of 72 observers who submitted north and southern hemisphere group and sunspot counts this month. The 8th, 10th and the 28th were days when north and south cross over, but this time it looks as though the northern hemisphere is predominate.

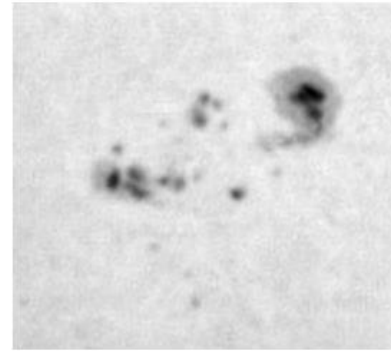


AR 2152

© Jean-françois Coliac
AAVSO Solar section
ALPO Solar section
GROES



116''



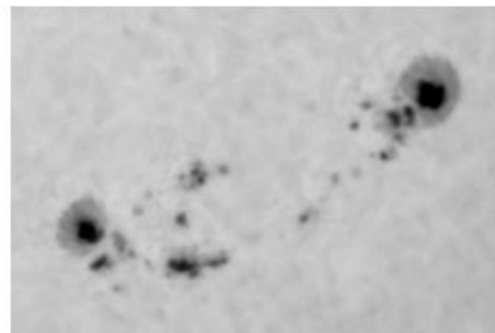
AR 2152 - 31 aout 2014 - 15h08 TU

168''



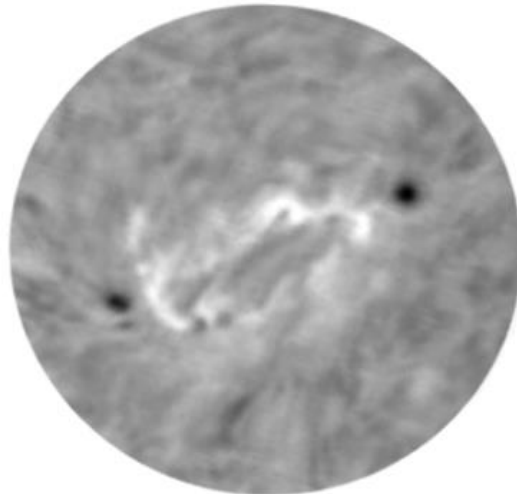
AR 2152 - 1er sep 2014 - 16h00 TU

177''



AR 2152 - 3 sep 2014 - 8h30 TU

Lunette 66/388 - prisme herschel - PL19M - filtre halpha



Lunt halpha 60SI/400 - PL19M

Jean-françois Coliac sends these H-alpha images from the last day in August and first few days in September. AR2152 was on the southern hemisphere, but only had a few C class flares from this active region during August.

Reporting Addresses:

Sunspot Reports – Kim Hay

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SID Solar Flare Reports – Rodney Howe

ahowe@frii.com