A.A.V.S.O.

SOLAR DIVISION BULLETIN

Neal J. Heines, Editor

September 1952 | P.O. Box 2353
Number 78 | Page -217- | Paterson, N.J.

The American Association of Variable Star Observers will hold its Forty-Second Meeting at Harvard College Observatory on October 17 - 18, 1952. From advance information, this meeting promises to be an interesting one. Full details will be released in our next bulletin.'

Membership in this organization is a prized privilege. Dues are three dollars a year. Write this office for an application blank.

Mr. Harry B. Chase is again bringing our Solar Division Album up to date. We request again Observer-Instrument photographs which are always of great interest at the AAVSO Meetings at Harvard. Kindly send your prints to this office before October 1st.

At our last fall meeting, two papers were presented on Solar Limb distortion, one by Mr. David Rosebrough and one by Mr. Ralph Buckstaff. The latter contained information concerning previous knowlege on the subject supplied by your director.

During the month of July we received a letter from Mr. Thomas Cragg concerning a sunspot group observed on the very edge of the west limb.

The question arises; was this spot on the very edge?

Mr. Cragg writes, "On June 24th, I caught a spot about as close to the limb as I think you can follow them. It appeared as merely a dark line on the West limb at 9:55. Earlier, the drawing made at 150' tower (Mt. Wilson) showed the spot at S - 18, W - 88 at 8:20 in the morning. Allowing about $\frac{1}{2}$ degree per hour for the motion (rotation) of the Sun, it would have been about $\frac{1}{2}$ degree from the West linb. However, since we are considerably smaller than the Sun, we miss the 90 degree mark by about $\frac{1}{4}$ degree. So actually the spot appeared about $\frac{1}{4}$ degree from the true limb.

It is pretty certain that I would not have noticed it had I not known that it was there."

Quite often we receive a note from some of our observers relating the fact that a spot was observed on the east limb and appeared as a sharp black line. Supposing then, that this spot was missed during an observation by an observer and reported by others. The result, would be a difference in total R collectively. Percentage-wise, this perhaps would not make too great a difference because both the appearance and disappearance might be missed. Hence, again, we can declare there is no true sunspot number. It is however, the best that can be obtained under present conditions.

Few of us realize the width between the last meridian and the edge of the true limb of the Sun. The Stonyhurst disks show this clearly.

STATISTICS

The total number of groups for the month of July was ..... 13.
Zurich's Provisional Sunspot Number for the month of July was..... 39.3.
The mean monthly sunspot area (U.S. Naval Observatory) for July was.. 551.
" " " " " " " " Feb. " .. 354.
" " " " " " " " Mar. " .. 229.
" " " " " " " " Apr. " .. 450.

*The highest sunspot group number as assigned at Solar Division Headquarters on August 17th was 88. It represented a small group in the South Belt near the east limb.
*Group counting reference for observers.

ERRATA

The American Relative Sunspot Number for the month of June was released as 36.0. Kindly change this to 35.9.

Predictions of smoothed monthly sunspot-numbers for the next six months.

Aug.	30	Nov.	24
Sept.	28	Dec.	22
Oct.	26	Jan.	22

Released by Prof. M. Waldmeier, Director Federal Observatory at Zurich, Switzerland, and transmitted by the Swiss Broadcasting Corporation.

Naked-Eye Sunspots were observed on July 1st and 31st by Paul S. Scott. Mrs. S. Wright submitted report declaring 21 observations but no naked-eye spots were observed. We are grateful to these observers of the R.A.S. Montreal Centre.

PUBLICATIONS

1. Solar Research at the McMath-Hulbert Observatory — R,R. MacMath
Publications of the Astronomical Society of the Pacific — August 1952
Vol. 64; No. 379; pp. 151 -164

A comprehensive report covering improvements in instrumentation and techniques especially filters and gratings. Deals with Solar Prominences; Flares; Limb Darkening; Angstrom measurement of various gases in the atmosphere; Spectra, etc. Your knowlege of things solar will be greatly supplemented after careful reading of this excellent contribution.

2. Summary of Mount Wilson Magnetic Observations of Sunspots for March and April 1952
Same issue as above pp 205 - 206.

3. "Die Haufigkeit der Sonnenflecken" — Prof. W. Gleissberg
(Frequency of Sunspots.) German Language.
Publisher; Akademie - Verlage, Berlin, Germany
Order now, limited quantity.
AAVSO Solar Division's work in Foreshortening Project, and Granulation (Bartlett) are referenced, as well as the American Sunspot Numbers.

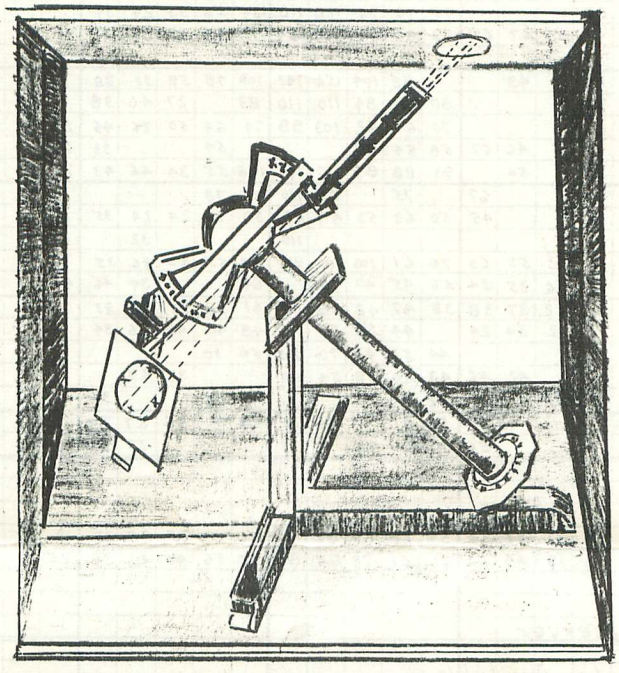
4. Solar Section Bulletin of the BRITISH ASTRONOMICAL ASSOCIATION.
Edited by Section Director.....D.W.Dewhirst
First issue July 1952. Serves solar observers with information quite similar to our own Solar Division Bulletin.

PUBLICATIONS (continued)

5. The 8 - Month Cycle in Sunspot Numbers 1749-1950 — Gerould T.Lane
Complete with graphs and tables, method of computation, etc.
Journal of Cycle Research Vo. 1; No. 4; pp 97-131
Order from Foundation For the Study of Cycles
9'E. 77th St., New York, 21, N.Y. Single Copies $1.25

6. The Planetary Cause of Sunspots and Their Terrestrial Effects — D. Williams
An up-to-date survey. Supply very limited.
David Williams, Consolidated Edison, 4 Irving Pl., New York, 3, N.Y.

7. Metropolitan Areas of the United States — Walter G. Bowerman
Address author - 51 Madison Ave., New York, 10, N.Y.
Contains good basic research Data.



"HELIOTROPII TELIOSCOPICI"

The above drawing was copied from POPULAR ASTRONOMY, Vol.XXIV,; No.6. It represents an early projection arrangement for studies of sunspots. The light of the sun comes through a hole in the ceiling into a small telescope and projected on the screen below.
This volume ,Number XXIV, contains, "THE HISTORY OF THE DISCOVERY OF THE SOLAR SPOTS" by, Dr. Walter M. Mitchell. Every person interested in sunspots should read this authentic account of Galileo and Father Scheiner and the part they played in sunspot history.
Another good account of Galileo's life is "THE STAR GAZER" by Zsolt De Harsanyi, this is also authentic.

Monthly Means Ra' 39.4 Rz 39.3 — American Sunspot Number Reductions — A.A.V.S.O. Solar Division

NJH & JM 8/17/52 — July 1952 — WAR 8/21/52

DAILY Ri

Observer		Ki	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	No.
Adams		0.70	73	75	53	53	38	35		24	61	91	75	102	111		144	133			26	34		11	11	11								61.1	19
Bartlett		1.51	30	31		29								40	59	86	119					35	11	11	16			27	26	41			44.5	10
Bissette		1.45															39	39			22		11				11		23				21.2	5
Bollmeyer	X	0.81	84	54	46	43	30	18	30			60	73	76	112	128	137	95			39	35	22		12	11	26	15		26				53.3	22
Bondy		1.22	56	30	29	28	15	0					61	77		83			41		33	34		11	11	11	12	12	23	24	28	35	60	32.3	21
Brennan	X	0.93					18		15												33	35		11							31			22.4	5
von Bransart		*																					11	11	11	11	23	14	24		28	32	55	23.2	9
Buckstaff	X	1.11	33	32	28	29	15	24		36	45	54		54			59	61	51		24	33	11	11	12	11	13	11	24	24	26	36	53	31.3	25
Chase	X	0.95						35	14												24	35						14	24					24.3	6
Chassapis		0.74	74	54	53	32	33	18	11	14	57	57	60	68	66	111	118	106	88	60	27	36	33	11	11	11	23	14	25	39	28	30	73	47.6	30
Cragg	X	0.92	46	49	29	39	19	0	13	47	70	78	86	79	98	110	92	72	49	40	31	43	22	11	13	11	12	12	25	32		34	100	48.8	27
DeKinder	X	0.80	47	58	39	31		26	14				58	69	85	131			49	38	26	35		11	13	11	12		28		29	42	81	42.4	22
Dellar		*	26	26		26	14				35		38		29						33				11	11	11							20.8	8
Detgen		1.39	29	33	27	25	13	11	0	11		45	40	41	39	53	50	49	29	22	23	12	11	12	11	11	11	12				19		28.4	18
DraKaKis		1.01	64	62	41	36		25	14	37	51	71	80	84	93	122	126	97	69	35	29		12	13	11	12	28	15	27	29	30	35	63	48.6	29
Dunn		*									41	43	54	31	35	42	46				11	0	0	11	11	11	11	11	11	22	24	28		23.3	19
Elias		0.60	59	56	67	32	28	14	11	24	54	60	82	72	75	135	116	86	51	45	26	34	22	11	11	11	25	14	25	24	29	33	57	45.5	30
G. Estremadoyro		*				90			40	45		179				301	221	182	197				47	34				43						125.3	11
V. Estremadoyro	X	0.80					75		44																									59.5	2
Fernald	X	1.02	68	70	55		35	12	0	11	47	55	54	67	78	67	77	69	43	29	25	36	11	11	11	11	11	11	23	23	27	31	56	37.4	30
Focas	X	0.60	54	60	42	34	18	17	11	39	54	66	65	61	65	127	102	75	60	49		34	33	11	11	11	24	15	38	41	30	33	68	46.1	29
Galbraith		*	51	34	31	30	18	13	14	36	43	51	56	55	75	76	71	51	45	26	34	34	11	11	12	12	13	14	35		29	59	56	37.4	28
Haines		*	58	56	43		25			11	46			57			57	54	28		23	33			11	11		11	34			40	51	37.0	15
Heines	X	0.97	71	52	47	35	30	35	24			78	79	90	102	129	126	90		39	27	36	11	11	12	12	26	15	27	28	32	40	70	49.0	28
Koyama	X	0.70	82	51	48	48	36							86			134	86	75			36		12	13	23	13	14	37					32.4	8
LeVaux		*	76	45	55	40	32	13	25	50	58	77	100		92	136	144	98	55	47	37	35	11	12	11	13	15	27	40		24	73	66	51.9	29
Loebbick	X	1.02	42	38	33	33	17	13					50	62	66	58	69	60	50	28	23	37		11	13	11	11	11	25		28	36	35	35.3	22
Luyt	X	0.98						25	28				75	73	76	128	118	124	56	55	24	34			11	11	30	16		31	35	43		52.2	19
Maher	X	0.90	42	31	29	31	16	12	13	35	47	61	59	67	69	79	84	71	50	27	25	35	11	11	11	11	11	15	25	26	28	38	40	35.8	31
Nosewerthy		*					23	92																										57.5	2
Olson		0.68	82	58	45	37	33	29	19		49			88	104	152	147	109	78	58	31	38		11	16	12	28				38			57.3	22
Pierson	X	0.83	68	55	53	37	19	29	26				80	62	84	110	110	83		27	40	38		12	12	12	23	12	24	25	34			44.8	24
Pierson Jr.		0.89	66	50	50	30	27	24	24				70	61	62	103	99	74	64	50	26	46	26	25	13	13	51	26	42	37	39	43	59	48.9	22
Pilsworth	X	0.86	47	50	46	30	30	25	15		46	67	58	64	85				54			33	21	11	23	11	22	22	23		30	39	59	37.9	24
Rosebrugh	X	0.68	53	35	40	38	29	26	24		56		93	88	84	110	125	106	55	34	46	43	22	11	11	11	29	15	30	41	31	38	54	47.5	29
Strayhorn		2.06	66	44	38		17					67		75		81	110	106	78						12	13							86	67.0	11
StryKer	X	1.06	39	41	39	37	23	12	12			45	50	63	53	44	49	37	31	24	24	35	11	11	11	11	11	11						30.1	24
Sullivan		0.60		53				31	17								119				32		17	19	17	18		21	49	33			75	40.0	12
Thomas	X	0.84	52	52	32	36	17	14	17	43	59	69	74	61	103	109	92	88	55	59	36	35	11	12	12	12	26	14	23	23	25	42	56	42.9	31
Thrussell	X	1.47		49		28	28	12	11	36	35	54	56	45	47	72		64			34	46	44	11	?	27	23	11			22	27	48	36.6	17
Trathen	X	1.28	50	38	37	36	23	11	12	22	37	38	39	47	48	58	45	41	38	23	22	33									24	26	31	33.9	20
Venter	X	1.28	30	45	33	26	15	12	0	12	24	24		44	54	75		48	45	40	26	34			11	11	12	12	23	23	23	27	39	28.0	19
Wallbillich						40	38	0	0				44	53	43	70	80	50	30															40.8	10
Warren	X	1.10	51	43	35		13				42	46	49	60	58	56	45			33	28					11	11	12	27		29	34	37	36.0	20
Wells		*						11	0	11			42						78			34		11			11	23	23	24		29		26.0	11
Williams	X	0.92	48	37		17	13	14					53	61		89	76	68	51	36	27	36	12	12	12	12	12	13	28		31	38	47	35.1	25
Windsor		*				41	26					56		66	72						27	36				11			37			32	42.0	8
Ra'			47	46	37	31	21	20	18	31	44	36	59	60	69	89	139	74	47	33	28	32	19	10	11	10	19	13	23	25	27	33	52	39.4	
Rz			59	55	39	31	26	12	13	19	44	52	70	66	72	93	90	85	53	43	23	30	25	9	9	9	17	11	19	23	26	36	60	39.3	

X Standard Observer

* Insufficient Data Available

† New Observer

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