A. A.V.S.O.

SOLAR DIVISION BULLETIN.

Neal J.Heines,Editor.

May 1950. 560 Broadway.
Number 53. Page 132. Paterson 4, New Jersey.

In the April issue of Sky and Telescope page 147, we find that the "Observers Page" is now being written by Mr. David Rosebrough of 87 Fern Circle, Waterbury, Conn. Mr. Rosebrough is a former Secretary of the A.A.V.S.O.; a past President, and an ardent observer of long standing. This page promises much in the way of Observing; Observing Techniques; Instrument Types, Instrument Accessories; etc in the various fields of astronomy.

We are pleased to announce the Astronomical Information Sheets are again available. This publication was first published by Dr. Bruce Blair. Since the death of Dr. Blair the work is now being carried on through the Sponsorship of the Sacramento Valley Astronomical Society. The new editor is Leon Salanave who teaches astronomy in Sacramento Junior College, with Paul Steel and Carl E. Wells as associate editors. The latter are noted amatuers on the west coast. The Managing Editor is Mrs. Elizabeth Champ, president of the S.V.A.S.. The publication is always full of useful information for the amatuer astronomer. The subscription price is $1.00 for 10 mailings. Send subscription to Astronomical Information Sheets, Sacramento Junior College, Sacramento 18, California.

The photo-print you received with the last issue of this bulletin was the gift of Reverend David Bogard of 28 Ridge Avenue, Little Falls, New Jersey in appreciation of his having been introduced to astronomy by your Chairman. His interest lies mainly in Variable Stars. If you believe that this gesture was unique drop the Reverend a note expressing your gratitude. One finds records of his observations of variable stars in Popular Astronomy under "Variable Star Notes".

Solar Division Headquarters has instigated a Motion Picture Film Rental Service to those connected with it. The following films, (16 mm.-400 ft.) are ready for shipment.

Reel 1	The Sun (Instructive)
Reel 2	The Moon
Reel 3	The Solar System
Reel 4	The Milky Way and Exterior Galaxies
Reel 5	Explosions on the Sun

Typed lectures are supplied with each reel.

The rental price is $2.50 for each reel, and each showing, postage one way. Return via. Parcel Post and insure for $35.00 per reel.

Orders should be placed well in advance of proposed date because of previous orders. Send orders to Solar Division Headquarters 560 Broadway, Paterson 4, New Jersey. No foreign orders.

We hope in the near future to place at your disposal, also, 2 slide collections of solar interest, size 3¼" by 4". Details will be announced later

As a supplement to the present Bulletin we have used Mr. Fernalds Seeing Conditions Report for 1949. To it we add below a table showing total number of days in each month of the four years that had seeing of the quality indicated.

Month	Poor	Fair	Good	Excellent
Jan.	25	15	13	1
Feb.	19	23	20	4
Mar.	20	26	35	7
Apr.	12	20	38	9
May	3	17	42	20
Jun.	4	12	49	28
July	3	21	59	22
Aug.	6	21	47	33
Sept.	9	29	47	5
Oct.	20	27	37	2
Nov.	18	17	31	0
Dec.	22	19	20	3
Totals	161	247	438	134

OBSERVERS NOTE

We are approaching the period in the current sunspot-cycle where we will have days when the sun will be void of spots. Kindly indicate this condition by placing a zero in the "f" - "g" and "p" columns of the monthly report form.

In order to save valuable time we are trying out an addressing system which employes gummed tabs. We are aware that these are used mostly for second class mail. We would therefore appreciate your comments on the following points.

1. Do such tabs distract from the value of envelope contents?
2. Does the mail come through with tabs intact?
3. Has the mailing process smeared the address to the extent of poor legibility?
4. Were tabs torn anywhere?

Due to conditions beyond his control, Mr. B.C. Parmenter will be unable to devote any time to the needs of the Solar Division, mechanically, and optically. We will hear more from Mr. Parmenter later when he has completed plans for an additional project for the Solar Division.

STATISTICS

The total number of observed groups for the month of March was --33
The total number of days with sunspots for March was ----------31
Zurich's Provisional Relative Sunspot Number for March was ----108.9
Mean (monthly) sunspot area (U.S. Naval Observatory) for Dec.--1612
*The highest sunspot group number, as assigned at Solar Division headquarters was observed on Apr. 4th; it represented a circumpolar group in the north belt near the east limb, it was assigned group-number 87.

*Group counting reference for observers.

Predictions of the smoothed monthly sunspot numbers for the coming six months are as follows:

April - 101	July - 92
May - 98	August - 89
June - 95	September - 86

Broadcast by Swiss Broadcasting Corp.
Released by Prof. M. Waldmeier
Director Federal Observatory
Zurich, Switzerland

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* Difinitive Sunspot Numbers 1949 (monthly)

Monthly Means.

J	F	M	A	M	J	J	A	S	O	N	D
119.1	132.3	157.5	147.0	106.2	121.7	125.8	123.8	145.3	131.6	143.5	117.6

Yearly Mean 1949 : 134.7

Prof. M. Waldmeier
Zurich, Switzerland

* Note Daily values for 1949 availablo at this office upon request.

PUBLICATIONS

" The February Outburst Of Sunspots"
Sky and Telescope April 1950 Vol. IX No.6 p. 139
" Visual Observing Programs for Amatuers"
Same issue as above p. 147-148.

Astronomy Charted (2nd Series) Ralph A. Wright
Twenty-five charts of useful astronomical data, well illustrated with good text.
Order from Mr. Wright who will supply all details
4 Mason Street, Worcester, Massachusetts.
S.D. Headquarters has the two series and finds them very useful.

PUBLICATIONS continued

"Absorption of light in colored glass" ---------H.B. Rumrill
Scientia University Press, Paris, France
Directs attention to numerous changes that light undergoes in passing through transparent substances.

Year Book No. 48 Carnegie Institution Of Washington.

Address: Carnegie Institution Of Washington
Washington D.C.
Contains 2 comprehensive reports on the activities of Mount Wilson and Mount Palomar for the fiscal year of 1948-1949 as well as an abundance of other scientific matter. Price $1.00 .

Cycle Analysis: The Moving Average - Mr. Edward R. Dewey

This is a treatise on moving average and the determination of separate rythms.
The author " Some sections of this primer are merely a restatement of what the student of cycles can find in any good textbook of statistics. In other sections, however, the reader will find material some of which is not, as far as the author knows, available readily, if at all"
The work is in mimeograph form, paper cover, 8½ by 11" well illustrated and consist of 37 pages Price $1.00 .
Send order to; Foundation For The Study Of Cycles, Riverside, Connecticut.

MONTHLY SUMMARY OF. A.A.V.S.O. AURORA REPORTS - MARCH 1950.

DATE	TIME USED	FORM, BRIGHTNESS & COLOR									ELEVATION			STATION.
	Time of Observation	G	HA HB	RA RB	R	D	C	PA PS	F	DS	1	2	3	
2/20	18:15								R					NW & N of Cambridge
2/20	18:30 18:35				G	R	DR	R	R	R+ G				Cambridge
3/21	20:30 20:40		IIG IIIG								9/29			North of Messina N.Y.
3/21	20:40 20:50				IIG					IG		50°		"
3/21	20:50 21:25			IIG			IIIG				42°			"
3/22	23:30 02:40									IG			42°	"

Reports from: Margaret Harwood and Karl A. Wells

Roy A Seely
969 Park Avenue New York 28. N.Y.

Comparison of Sunspot numbers of Median of Regular Observers with Observations of C. F. Fernald of Wilton, Maine.

Grouped by months and by rating of seeing as given by C.F.F.

Numbers given under each heading are: 1. Number of Days CFF made observations with seeing conditions of that rating. Day is put into the best seeing rating given for the day, where two or more observations are made. 2. Sum of CFF spot numbers for those days. 3. Sum of median spot numbers (Ra) for those days.

1949	Poor	Fair	Good	Excellent
January	5- 425- 694	1- 65- 165	3- 392- 468	0
February	3- 436- 634	4- 720- 912	5- 954- 1146	4- 829- 872
March	7-1084-1508	5- 787- 1028	5- 679- 895	2- 331- 381
April	3- 392- 519	4- 634- 777	8- 1258- 1472	6- 1058- 1181
May	0	2- 200- 269	15- 1845- 2234	11- 1339- 1612
June	2- 152- 213	3- 393- 519	12- 1520- 2073	9- 896- 1156
July	1- 119- 194	1- 168- 224	16- 1739- 2330	10- 1433- 1660
August	2- 344- 444	3- 486- 616	12- 1891- 2181	10- 1072- 1275
September	4- 419- 548	6- 1013- 1271	8- 1459- 1746	0
October	8- 873-1304	6- 841- 1151	9- 890- 1284	0
November	2- 369- 427	4- 586- 752	10- 1442- 1881	0
December	4- 427- 613	6- 767- 941	5- 488- 721	1- 89- 167
Totals	41-5040-7098	45- 6660- 8625	108-14557-18431	53- 7047- 8304
Percentage	71.0%	77.4%	79.0%	84.5%

Summary of years 1946-7-8-9

Year	Days Observe	Poor	Fair	Good	Excellent
1946	267	12.0%- 85.8	26.6% - 98.4	52.5% - 104.0	8.9% - 116.0
1947	260	19.6%- 88.8	33.4% - 92.0	38.9% - 105.5	8.1% - 115.5
1948	206	17.9%- 88.8	21.4% - 95.0	43.2% - 103.0	17.5% - 117.0
1949	247	16.6%- 95.8	18.2% -104.0	43.7% - 106.5	21.5% - 114.0

The percentage stated is that of the total days of observing that seeing was of that quality. The second figure is ratio of spot number of CFF to median. 1948 and 1949 figures multiplied by k factor to get on to comparative basis to former years.

Evidently I am getting so that I get more accurate count under poor and fair conditions than formerly.