

A.A.V.S.O.

SOLAR DIVISION BULLETIN.

Neal J. Heines, Editor.

January 1951.
Number 60. Page 155.

560 Broadway.
Paterson 4, N.J.

Again another year has passed, and again we take this opportunity for an expression of gratitude. The American association of Variable Star Observers, The Executive Committee of the Solar Division. joins me, it's Chairman, in thanking the two sections for their splendid co-operation during the year 1950, both in physical and financial support.

This year, 1951, marks the Fortieth Anniversary of the American Association of Variable Star Observers. It has been planned to celebrate this event during the fall meetings at Harvard Observatory.

A fund for this celebration, and for the continuance of the AAVSO is a very necessary item. Plans are now being organized to this effect and will reach you early in 1951. We pray that you will do your utmost to make this effort a complete success.

In our files we have a limited amount of information concerning the background and the instrumental equipment in use by our observers. It is our desire to have this information in a more uniform and accessible manner rather than through scattered correspondence, which makes it difficult to find. We have therefore enclosed a prepared form for each observer. Kindly fill this out in detail. Under "Telescope Equipment" please enter the make of your telescope, its type, the diameter of the objective, focal distance of same, Power and type of ocular used, Type make and color of filter for solar work, Method of observation, whether visible or by projection, if the latter enter the diameter of the sun's image on the projection screen, length of time, in years you have been making solar observations. If because of lack of space the form does not allow the complete entry of details kindly place this information on the reverse side of the sheet. Mail promptly to Solar Division Headquarters early in January.

Dr. Harry Wexler, Chief, Scientific Service Division, U.S. Department of Commerce, Weather Bureau, Washington 25, D.C. has requested this office to obtain information regarding "colored suns and moons" accompanying the "smoke pall" during the latter part of September 1950.

The particular items he is interested in with regard to both colored suns and moons, are as follows.

The Dates.
The time of observation.
The duration.
The colors observed.
The brightness.

The information from foreign observers is highly desirable in order that areas of expanse can be determined.

Kindly forward this information direct to Dr. Wexler at the above address at your earliest convenience.

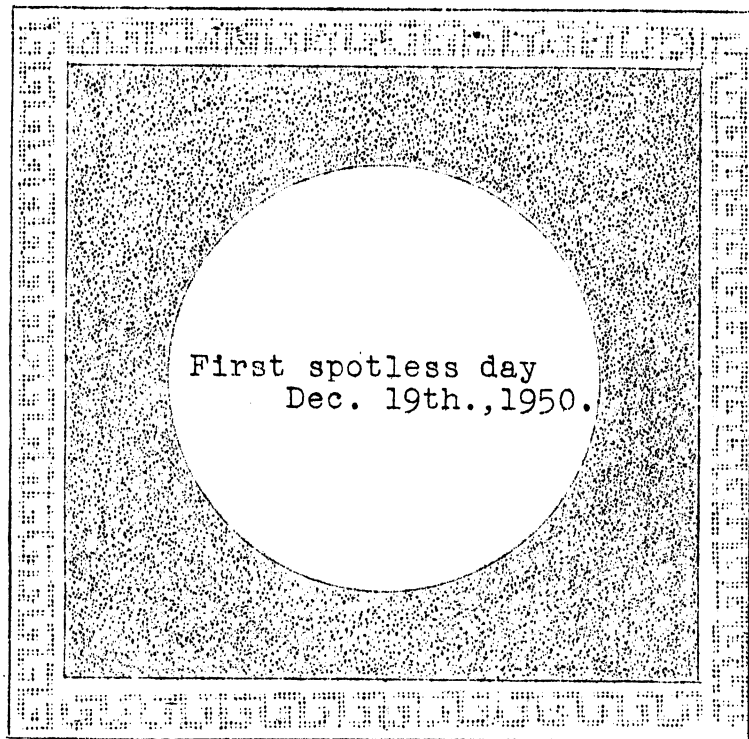
We were pleased to receive Wedding Announcements concerning the marriage of your fellow observer Mr. Cyrus F. Fernald to Miss Emily Parsons Sanborn on Friday, November 17th., 1950. Mr. Fernald is TOP VARIABLE STAR OBSERVER as well as a very fine solar observer.

CONGRATULATIONS "Cy" TO BOTH OF YOU FROM ALL OF US !!!

Mr. Fernald's address is Fernald Street, Wilton Maine.

The February Bulletin will contain a synopsis of solar activity as observed here at Solar Division Headquarters.

We receive a great many requests from various sources for information concerning solar problems. In our Bulletin Number 18, 1947 we referenced a paper by Dr. Robert S. Richardson, "SUNSPOT PROBLEMS OLD & NEW" This paper was published in POPULAR ASTRONOMY March 1947, No., 543, pp., 120 - 133. We recommend the reading of this paper to all who would like to know more about this subject. The above mentioned issue can be obtained by writing to Dr. Curvin H. Gingrich, Carleton College, Goodsell Observatory, Northfield, Minn., Popular Astronomy, or perhaps a friend has a copy to loan. Institution libraries generally have copies in file.



The sun has not been void of sunspots since September 15th., 1945, until a spotless day occurred on December 19th., 1950. This marks the beginning of sunspot minimum. Observers should carefully search both belts keeping in mind that high Latitude groups can now make their appearance any time. High latitude groups now and from now on would be of the "A" and "B" types (Waldmeier Classification). Also carefully search the areas of Faculae near the east limb for small spots.

In 1949 Prof. W. Gleissberg made the following prediction; "It may be expected with a probability of 93% that the period of low activity which will precede the next spot cycle will be shorter than 40 months." (Reprinted from the Astrophysical Journal Vol. 110., July 1949)

STATISTICS.

The total number of observed groups for the month of Nov. was----- 14
The total number of days with sunspots for the month of Nov. was-- 30
Zurich's Provisional Relative Sunspot Number for November was---- 54.6
Mean (Monthly) sunspot area (U.S.Naval Obsvty) for August was--- 1230
* The highest sunspot group number as assigned at Solar Division head-
quarters was No. 272. It was observed on December 16 and represent-
an "A" type group in the south belt, three days past the central solar
meridian.

* Group counting reference for observers.

The Final Relative sunspot number for 1949 has just arrived from Prof.
M.Waldmeier from Zurich. It was 134.7 .

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

Dec. 64	Mar. 58
Jan. 62	Apr. 56
Feb. 60	May. 54.

Prediction released by M.Waldmeier,
Director, Swiss Federal Observatory,
Transmitted By Swiss Broadasting
Corp. Zurich Switzerland.

The table below lists the dates for Zero meridian of the sun at
Central Meridian for 1951 :

<u>1951</u>	<u>UT or GT</u>	<u>1951</u>	<u>UT or GT</u>
Jan	6.07	Jul.	15.96
Feb	2.41	Aug.	12.18
Mar	1.75	Sep.	8.43
Mar	29.06	Oct.	5.70
Apr.	25.33	Nov.	1.99
May.	22.56	Nov.	29.30
Jun.	18.76	Dec.	26.63

PUBLICATIONS.

"Recent Peculiar Atmospheric Conditions" ----- H.B.Rumrill.
Popular Astronomy November 1950 Vol.LVIII, No.9, pp 470-471.
Under section Communications and Comments.

In this same issue on page 471 is a second article by N.W.McCloed
concerning similar observations.

PUBLICATIONS CONTINUED.

" Evidence for the entry into the Upper Atmosphere of High-Speed Protons during Auroral Activity" A.B.Minel .
The presence of the H-alpha line in the Auroral Spectrum.
Science Nov. 17, 1950 p 590.

In the December issue of Scientific American, in the section The Amateur Astronomer, by Albert G.Ingals, pp., 63 - 65 we find descriptions of two reflector-type telescopes. One of these was made by our observer Mr.A.K.Herring of Middletown,Ohio, 2228 Winton Street. Be sure to read this article. If you require a sturdy, rigid, mounting for little cost, Here it is. We regret that not more was said about this fine optical parts for this instrument . The complete assembly was made by Mr. Herring. Scientific tests by others pronounced the mirror of the finest quality. Congratulations AKH !!!

Report of the Recorder of the AAVSO Meetings at Harvard Observatory.
Popular Astronomy. Dec.Issue, Vol VIII, pp.519-523.
Complete coverage.

MONTHLY SUMMARY OF AAVSO AURORA REPORTS.
June 5th., to Nov. 10th, 1950.

TIME USED H.S.T.		RECEIVED DURING NOVEMBER														ELEVATION AND DIRECTION	GENERAL OBSERVATIONS	STATION
Date	TIME OF Observation	G	HA	RA	R	D	C	PA	PS	F	DS	OR						
June 5	22:50-23:25	Y	Y	Y										20° NW - N		Hantuchett, Mass		
AUG 18	22:00	Y	*				*							20° NW - N				
19	19:55		G	G									45° NW	Rays Pulsating				
	20:00		G	G									SW - SE	Covers whole sky Except S-SW				
	20:35		G	G										Perfect Corona 2				
	20:37													Center Half W 24				
	20:45		H	H										Between Vega-Antar				
	20:55		H	H														
	21:05		G	G									NE - W	Rays from Corona extend to horizon from all sides				
	21:07		H	H										Streaks of R 211				
	21:08						H							Motes West				
	21:15-22:45													Intermittent				
	22:45								H					Cloudy and rain				
NOV 20	0:30			I														
21	23:15		H											15-20° NW-N				
22	20:55-21:05			G										20-30° NW	Bright moonlight			
NOV 28	23:00-23:10	I												25° N	Faint Glow breaking into faint rays	Wilton, Maine		
10	23:10-23:45	*					*							45° N	Fading			
Reports received from: M. Harwood; C. Fernald																		
D. Kimball																		

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Per N.J.H.

Please note Items within dotted lines between asterisks, under column headings HA RA HB RB R D C MOVE OVER ONE COLUMN.

This was discovered after final checking. NJH.

Written Dec.21st.,1950.