

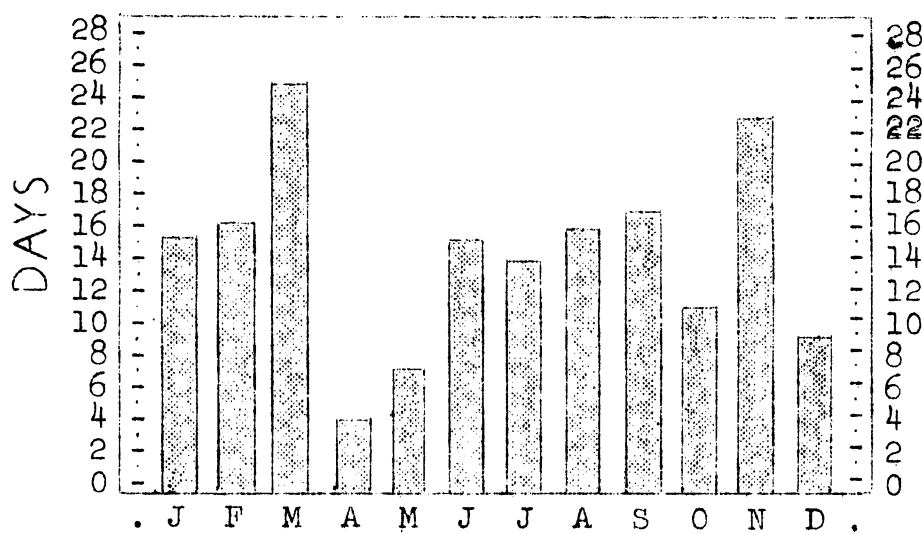
A.A.V.S.O.

SOLAR DIVISION BULLETIN.

Neal J. Heines, Editor.

April 1950.
Number 52. Page 128.

560 Broadway, -
Paterson 4, New Jersey.



NAKED-EYE SUNSPOTS 1949.

The data for the graph, above, was furnished by Mr. Thomas Cragg of Los Angeles, California. It will be interesting to compare this graph with that of Bulletin Number 43, June 1949. The Naked-Eye Spot Program is, obviously, for interest's sake only. Few people, interested and active in astronomy, realize how often spots do occur that are large enough to be seen without optical aid.

We have enclosed with this issue a photo-print showing a busy desk at Solar Division Headquarters. For those that are actively engaged in the Gleissberg Foreshortening Project we enclose a second report on this program.

Sunspot activity during March continued active and interesting.

Aurorae, as can be seen in our current report was again in evidence during February and was associated with the major group of that month. See item two under PUBLICATIONS.

Under GENERAL NOTES in the Publications of the Astronomical Society of the Pacific for December 1949, Vol. 61, No., 363 p. 274, we found an article that should be of interest to all solar people;

NO GENERAL MAGNETIC FIELD ON THE SUN.

The National Geographic Society announces that observations of cosmic rays prove that the sun has no general magnetic field. This result was the outcome of a late summer research program conducted above the shores of Hudson Bay under the sponsorship of the Society in collaboration with The Bartol Research Foundation of Swarthmore, Pennsylvania, and the Defense

Research Board of Canada. The research project was under the direction of Dr.Martin A.Pomerantz of the Bartel Foundation.

A permanent solar magnetic field would prevent any primary cosmic rays of low energy from ever reaching the earth, and would operate to keep the intensity of the radiations at a constant level north of a particular geomagnetic latitude.

Dr.Pomerantz reports that the expedition found no evidence of any permanent magnetic field on the sun. Even if the solar field had only one-twentieth of the strength previously ascribed to it, the weak cosmic rays recorded by the expedition would have been held back "

STATISTICS.

The total number of observed groups for the month of Feb. was---- 26
The total number of days with sunspots for February was----- 28
Zurich's Provisional Relative Sunspot Number for February was 94.6
Mean (monthly) sunspot area (U.S.Naval Observatory) Not Released.

*The highest sunspot group number, as assigned at Solar Division Headquarters was observed on March 17th., it represented a small group between the two other groups in the central zone on this date, all in the north belt. No.70 crossed the central meridian on said date.

* Group counting reference.

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

Mar. 104	Jun. 95
Apr. 101	Jul. 92
May. 98	Aug. 89

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

PUBLICATIONS.

"On Projection as a Possible Source of Apparent Color In Sunspots"
Dr,J,C,Bartlett,Jr.

Science (weekly) Vol III Feb.'50 p.172.

An interesting viewpoint for solar people and those of the Solar Division who are engaged in Dr.Bartlett's projects, Color in sunspots and Granulations on the Solar surface.

"Fun With A Solar Globe"----- Dr.Walter L.Moore.

Popular Astronomy Vol.LVIII, No.3 March 1950,pp.125-126.

Abstract of paper read at Brown University ,Spring Meeting,1949.

PUBLICATIONS Con'td.

"Sunspot Area Causes Short-Wave Radio Blackout"

Science New Letter, Feb.25, 1950, p.114.

Read this and find what the major sunspot group of February did to short-wave communication on February 20-22, and, Radar equipped for Solar Noise.

"Sun Catapults Gas Here"

Science News Letter March 4, 1950, pp.138-139.

Very interesting; Quoting Dr.Donald H.Menzel's conclusions, under the headings ; "Energy Creation" ; "Great Clouds Of Gas" ; "Lines Support Gas" . Read this to further your solar education.

"Flares, Fadeouts and Bursts" -----Dr.R.S.Richardson.
Leaflet No.252 March 1950. Astronomical Society of the Pacific.
Historical in Aspect , and source material.

Quote; ----- "Fifteen years ago our knowledge of Flares was very limited and of interest only to a few workers in solar astrophysics. Today it constitutes one of the most active fields of scientific research, of vital interest to engineers in commercial radio companies, to physicists gathering data on cosmic-ray tracks 30,000 feet above the earth, as well as to the astronomer in his sun tower."
Leaflets can be purchased from the Astronomical Society of the Pacific
129 twenty-fourth Avenue, San Francisco, California.

Membership in this society is \$5.00 per anum. Members receive thier "Publications" and the Leaflets as part of their membership.
Leaflets are available (Bound) , three volumes. These are essays of great interest and a source supply in the field of astronomy.

"Radio Astronomy"

PHYSICS TODAY. February 1950.

Mr.Martin Ryle.

"----- Our knowledge of the universe has been gained by measuring electromagnetic radiation falling on the earth. To the light from the stars for the astronomers telescopes there has been added radio waves for his receivers. Thus another probe into space is available for examining bodies which are capable of emitting, reflecting, or absorbing radio waves".

We are indebted to Mr.H.J.Seitz, one of our research affiliates for this reference.

"Sunspot Activity During 1949" ----- Dr.Seth B.Nicholson.

Publications Of The Astronomical Society Of The Pacific.

Vol.62, No 364 Feb.1950,
pp.5-8.

Data from Mount Wilson and Palomar Observatories.

AAVSO MEETING MAY 5-6

STATE-COLLEGE-PENNA.

MONTHLY SUMMARY OF
AAVSO AURORA REPORTS.

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February 1950.

D A T E	TIME USED E.S.T	FORM, BRIGHTNESS & COLOR									ELEV- ATION			STATION
		1			2			3			1	2	3	
		Time of Observation	G	HA HB	RA RB	R	O	C	PA PS	F				
1/19	20:45 21:15	GI												Wilton Maine
2/20	18:30 19:00				R II BI									Quincy Mass.
2/20	21:30 22:05	G II		GI	G II	G II	CI	G II	G II	R I	45°	45°	45°	Waterbury Conn.
2/20	18:15 18:46				G IV			G III RII		G II	45° Z			Messina NY
	18:46 20:46							GI RI				Z		"
	20:46 22:46							GI				Z		"
2/21	22:46 03:45		G III									23°		"
2/20	18:15 24:00	GI		R II	RI	R II	R II	R II						Milton Mass.
2/21	18:30	WI		R II	R II			G III				Z		Springfield Vermont
2/22	20:30	W III										20°		"
2/23	21:00	W III										20°		"
2/23	19:00 20:00			I								35°		Milton Mass.

Reports from; C.F.Fernald, h.b.Chase, D.W.Rosebrough,

Chas. J.Harrington, Karl A.Wells

Margret Beardsley.

By, Mr.Roy A. Seely.
969 Park Ave; N.Y. 28,N.Y.