

A.A.V.S.O.

SOLAR DIVISION BULLETIN.

Neal J. Heines, Editor.

Number 18, Page 34.  
April 1947.

560 Broadway,  
Paterson 4, N.J.

The major, F type, sunspot group, our number 47381, which made its initial appearance on the east limb of the sun on the third of March, developed into one of the five largest groups on record according to the Science News Letter of March, 22nd, 1947. It was a naked-eye group, as was also the one above it in the north belt, our number 47382. Because of its extreme length 47381 was visible for a period of fifteen days. The great group of February 1946 was visible for seventeen days. This is possible when one observes the leading edge of a large group on the east limb of the sun and the trailing edge on the west limb.

Surrounded by penumbral wisps with faint spots, the main portion of 47381 was spectacular and very active. Bridges were in evidence for days, as well as penumbral clouds or veils over active vortices.

March was also a month which brought a wealth of solar literature important to all of us. It is listed as follows;

Popular Astronomy. No. 543 March, pp 120 - 133.

This issue contains a paper by Dr. Robert S. Richardson of Mount Wilson Observatory, entitled, "SUNSPOT PROBLEMS OLD AND NEW" which is divided under separate headings listed below;

1. Rotation of the Sun from long-lived spots.
2. The periodicity of sunspots.
3. Characteristics of the sunspot cycle.
4. Sporer's Law of sunspot latitude.
5. Halm's outburst hypothesis.
6. The temperatures of sunspots.
7. The Wilson effect.
8. Radial velocities in sunspots - Evershed effect.
9. Monochromatic images of the Sun.
10. Magnetic field in sunspots.
11. The law of sunspot polarity.
12. Theories of sunspots.
13. Bjerknæs "Sea Serpent" hypotheses.
14. Unsold's Modification of Bjerknæs Hypothesis.
15. Alfen's theory of sunspots.
16. Apparent solar and terrestrial relationships.

The paper itself is supplemented with forty references which are of great value to the solar student. We are greatly indebted to Dr Richardson for this fine contribution.

Publications Of The Astronomical Society Of The Pacific. Feb. No. 346.

Subspot activity during 1946. pp 12 - 16.

Summary of Mount Wilson Magnetic Observations of sunspots for November and December 1946. pp 36 - 42.

Leaflet Number 217. Astronomical Society Of The Pacific.

Radar And Astronomy - Dr. Donald H. Menzel.

Cycles. ( The Science Of Prediction ) Dewey - Dakin.

Henry Holt and Company, New York City, Publishers.

This is a valuable book to those interested in the statistics of sunspot phenomena.

Heaven Is Their Hobby. CORONET Magazine April Issue pp 92 - 96.

This is not the first time that CORONET has featured the Amateur Astronomer, nor will it be the last. Read what they have to say about our own Solar Division members Dr. William J. Holt (Deceased) and Mr. Carl H. Gamble.

SKY and TELESCOPE. February Issue.

Solar Division member Mr. Geo. A. Warren's Telescope, illustrated.

SOLAR CYCLES. Smithsonian Misc. Collections; Vol 106, No. 22.

By Mr. H. Helm Clayton, former Solar Division Executive Committee member. This is his last work, published posthumously. Write Smithsonian Institution Washington D.C. Price 35 - 50 cents.

Those of you who plan to attend the A.A.V.S.O. Spring Meeting, at Hood College Observatory, Fredrick, Maryland, on May 16, 17, can secure accomodation reservations by writing the management of the Frances Scott Keys Hotel, Fredrick, Md. Single rooms with bath \$2.75 - \$3.30, double with bath \$5.50 - \$7.00. Our Solar Division will be well represented. We have on hand a paper by Mr. Franklin J. Ryder, "Climate In The Upper Midwestern United States, And Its Relation To Sunspots". In addition Mr. Walter G. Bowerman, Dr. J. C. Bartlett, and Mr. H. W. Clough all affiliated with the Research Section of our Solar Division are preparing papers on solar matters for the same meeting.

The United States Bureau Of Standards has called our attention to an important issue in our observational procedure. All observers reports, that are to be used in the American relative sunspot number summaries must be made with the same instrument. If instruments are changed ( even different power eyepieces, ) four months must be reported with the new arrangement before a new reduction factor to the Zurich Scale can be computed. Therefore, to remain an "A" observer at the time of changeover, two monthly reports would be necessary for each of the four months, one with the old and one with the new instrument. Kindly adhere to the above procedure.

Mr. Franklin J. Ryder's paper, "Sunspot And Levels Of Lakes In Minnesota" which was read at the October Meeting at Harvard College Observatory will be published in an early issue of Popular Astronomy. This will be of interest to those of you who were unable to attend this meeting. Do not miss it.

Last year we found it very difficult to publish a May Bulletin because of the many details connected with the preparation of your S. D. Chairman's report to the A.A.V.S.O. Council and to the organization itself. We will try, however, to issue a bulletin this year if it is at all possible.

We are endeavouring, through the medium of this bulletin, to furnish you with literature references which will enable you to become familiar with all phases of sunspot work, its history etc. In 1939 Zsolt de Harsanyi had published the noted book "THE STAR GAZER". A novel of the life of GALILEO. No doubt many of our readers have had the privilege of reading this fine work. Galileo's discovery of spots on the sun is authentically portrayed as well as his many difficulties which followed this discovery. Father Scheiner claimed first discovery and this brought about many quarrels between the two. Intrigue, politics, and other means brought Galileo much sorrow. It will be of great interest to you to read the quarrels and the claims of both, at the same time, you will learn a great deal about sunspot work. In 1916 Popular Astronomy published the series of papers by Dr. Walter M. Mitchell on the History Of The Discovery Of Sunspots. Volume XXIV. This can be procured from Popular Astronomy. Your chairman still treasures the time spent in reading and studying this work. Much was learned from it, it is there for you, take advantage of it. You will never regret it. The Harvard Library has the original 1612 editions of Scheiner's De Maculis Solaribus and Tres Epistolae de Maculis Solaribus.