

## SOLAR DIVISION BULLETIN

Neal J. Heines, Editor.

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Paterson, 4, New Jersey

This issue, as you will note in the heading, covers a period of two months, August and September. The next issue will be that of October.

The present sunspot cycle continues to wane. This is evident in the current activity but better still by the new six months Predictions, released by Prof. Waldmeir, Director of the Federal Observatory of Switzerland, which will be found under the heading of Statistics, further on in this issue.

It may be of interest to know that records here show that on June 10th and 11th 1949 the Central Zone was void of Sunspot Groups, the first time since March 26th, 1948. The North Belt was void of Sunspot Groups on July 8th and 9th 1949, the first time since the 31st of January 1948. The records further show that the last time the South Belt was void of sunspot groups was November 30th 1948. During Maximum Year the only zeros in evidence for the Central Zone was January 4, in a 5 day period of bad seeing and on November 7th in a 3 day period of bad seeing. The North Belt, during this period was void of sunspot groups on January 29th, February 1st and 2nd, and March 16-20th. There were no zeros for the South Belt during this period of 1947. This information bears evidence of the extremely broad maximum of the present cycle.

We have received several inquiries regarding the initials in the upper right hand corner of the Monthly Reductions Report which you receive. This in itself, is interesting, for it evidences interest in all things concerning the Solar Division and The Central Radio Propagation Laboratory (C.R.P.L.) at the National Bureau of Standards in Washington, D.C.

Following is a list of the Executives of the C.R.P.L. with whom the Solar Division comes in direct contact. There are, of course, others.

Dr. A.G. McNish, Chief. Basic Ionospheric Research Section  
Allan H. Shapley, Upper Atmosphere Research Section  
J. Virginia Lincoln " " "  
S.W.J. Welch, Administrative Officer  
Mrs. E.H. Miller, Physical Science Aide-Radio Propagation Analysis.

The initials then, J.V.L. - E.H.M. are for Miss Lincoln and Mrs. Miller, respectively.

Miss Lincoln writes; "Mrs. Miller knows more of the American Association of Variable Star Observers-by name-than any one."

NOTE

Kindly add to your Observers List:  
Mr. P. Adams 324 South Valley, Neosho, Missouri.

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A.A.V.S.O.



### STATISTICS

The total number of observed groups for the month of June was- 43.

The total number of days with sunspots for June was----- 30.

Zurich's Provisional Relative Sunspot Number for June was ---123.5

Mean (monthly) Sunspot Area (U.S. Naval Observatory) May was 1,415

\*The highest sunspot Group Number as assigned at Solar Division Headquarters on July 14th was 277. It was a moderately sized group observed on the very edge of the east limb North Belt at 1700 U.T.

\*This information is given in order that the Solar Division Observers may check their group Counting each Month.

Special - "Predictions of the smoothed monthly Sunspot numbers for the coming six months:

July	124	October	112
August	120	November	108
September	116	December	104

M. Waldmeier."

We are grateful to Prof. Waldmeier for this splendid release.

### PUBLICATIONS

#### "OUR SUN"

Dr. Donald H. Menzel's book is now available from Blakistons, Philadelphia, or your own dealer. Many of both groups already have copies. Price \$4.50.

"SUNSPOTS" - - - - - J. Hugh Pruett.

SKY AND TELESCOPE (Terminology Talks)

July issue P. 219 and 221.

Do not miss this article.

"RADIO ASTRONOMY"----- Bernard Lovell

POPULAR ASTRONOMY June Vol-LVII No 6 pp273 - 276

"Climate in the Upper Midwestern United States, and its Relation to Sunspots" ----- --Franklin J. Ryder.

POPULAR ASTRONOMY June Vol. lvII No. 6, pp. 286-290

This is one of the several papers written by Mr. Ryder for the Solar Division, read at one of its meetings and now published. Interesting.

As a supplement to this issue you will find an interesting Book Review on Dr. Menzel's "Our Sun" by our own "Tommy" Cragg whose destiny is not hard to predict.

Our observer Harold Leinbach has devised a Spectroscope - Set-up for viewing solar prominences. This will be published in one of the Journals which we will announce as soon as possible. If you are interested, write him.

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## BOOK REVIEW

### OUR SUN

Dr. Donald H. Menzel

This is another of the "Harvard Series" consisting of twelve chapters entitled as follows: (1) Meet the Sun; (2) A Panoramic Sunscape; (3) Light, Atoms, and Test Tubes; (4) The Message of Sunlight; (5) Solar Chemistry; (6) Sunspots-Solar Cyclones; (7) Fine Details of the Solar Surface; (8) Prominences-Geyzers and Volcanoes; (9) The Corona-a Mystery; (10) Atomic Energy and the Solar Interior; (11) Solar Eclipses-Old and New; and (12) The Sun and You!

The book starts out quite simplified in the first two chapters, but by the third he is creating background for later studies, since he takes up the spectroscope and the periodic table. Chapters four and five deal primarily with what is found with the spectroscope with some idea as to the chemical constitution there. The sunspot chapter is very good since it takes up in detail the Mt. Wilson classification of sunspots as well as a thorough discussion of their characteristics. The part on contemplation of the causes - theories proposed - are most interesting. Next he takes up hydrogen and calcium flocculi (both bright and dark) and solar flares. This chapter is one of the most interesting of the book, along with the one on Prominences and the corona. His chapters on prominences and the corona certainly seem to offer irrefutable proof about the temperature of the Corona's being higher than the photosphere. Dr. Robert's observations of bright spots in the corona were especially interesting. He then takes the reader inside the sun and shows how the carbon cycle works - with a full page chart. Dr. Menzel also goes through eclipses far more deeply than just the Saros. He shows several periods; how one can compute roughly where eclipses are going to occur; and work the ancients did on the subject. The polarization pictures of the corona during an eclipse are of special note.

I was a bit skeptical when I read the title of the last chapter, but found that he treated very touchy subjects quite nicely. He showed that there was evidence of certain solar-terrestrial relationships, but that most of them remain unproven. The author's suggestions for uses of solar energy are very interesting indeed.

After having read the book I came to the following conclusion; it is definitely the best book on the Sun available. Not only does it make fine reading, but it also makes a very fine reference book. Dr. Menzel's ways of treating the subject from every conceivable angle certainly are signs of a master. I most heartily recommend anyone's buying and reading "Our Sun" by Dr. Donald H. Menzel.

Thomas Cragg.

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