Some of our observers were concerned with the drop in sunspot activity during the month of November. Some wrote about the paucity of spots in the south belt, others followed with remarks concerning the change in the north belt. This is certain, the sunspot curve (as above) is not going out of the window for some time to come. We are experiencing a very active and unusually high sunspot cycle and we can expect as well some very unusual and drastic changes, but the period between maximum and minimum will be a long one exhibiting a gradual slope to the minimum period.

Another year has passed. We therefore take this opportunity for an expression of gratitude. The American Association of Variable Star Observers, the Executive Committee of the Solar Division, joins me, its Chairman, in thanking the two sections of the Solar Division, the Observers and the Research affiliates for their splendid cooperation during 1948.

It is only through your efforts that the AAVSO Solar Division has achieved its present standing in the field of Solar Astronomy.

As has often been stated, interest in the work grows with experience and progresses with the latter.
The future holds still greater opportunity, with new projects and some better methods. In addition some of the monthly forms will be revised, more of this later.

We are happy to report progress in the LIBRARY PROJECT. To date we have received the following cash donations for the purchase of books:

- Aldrich Astronomy Club, Worcester, Mass. $5.00
- Gene Waters (Observer) Jefferson City, Mo. $5.00
- James Hillebrand Notre Dame University, Ind. $5.00
- Robert Spalding, Denver, Colo. $5.00
- American Association of Variable Star Observers (by the Council), appropriated, and, to $24.00

TOTAL $44.00

We are exceedingly grateful for these gifts.

Please note: Gifts of books are to be sent to Mr. Leon Campbell, Harvard College Observatory, Cambridge 38, Mass. Cash for the purchase of books are to be sent to this office. This month, this office will send to Cambridge a package of books purchased with the above mentioned funds. A list of same will be published in the next Bulletin. Some books already have been mailed to Mr. Campbell as gifts from a few of the observers. Please make your contribution at an early date.

DR. ROBERTS PROJECT.

Convenient forms for this project, of reports of sudden and extraordinary changes in sunspot formation, color etc., are now ready for distribution, in fact some have already been distributed to those who are now participating. Instructions for this work can now be obtained by writing; Dr. Walter Orr Roberts, High Altitude Observatory, Boulder, Colorado. Please co-operate if you can in this very important study.

GLEISSBERG FORESHORTENING PROJECT.

New forms have also been devised for this project, same will save considerable time in entering the data. We acknowledge gratefully the suggestions of Mr. George Warren of Westchester, Pa. concerning this revision.

Please correct the Supplement of the December Bulletin, in which we made a typographical error. At the bottom of the page a formula was given following the line "The first average in Column "D" is; Kindly make a plus sign of the minus sign given.

STATISTICS

The total number of observed groups, for the month of November was 39.
The total Number Of Days With Sunspots was 31.
Zurich's Provisional Relative Sunspot Number for November was 93.2
Mean (Monthly) sunspot Area, (U.S. Naval Observatory) for the month of October will be given in the next bulletin, it has not arrived.
* The highest sunspot group number as assigned at Solar Division Headquarters on December was 523. It was the group in the south belt, east limb, which came from the invisible hemisphere.
* This information is given in order that the Solar Division observers can check their group counting each month.
PUBLICATIONS.

ELEMENTARY STATISTICAL ANALYSIS -------------- S.S.Wilks.  
Princeton University Press Price $2.50  
Very helpful to those interested in sunspot statistics. The  
work begins with DOT FREQUENCY DIAGRAMS, then SAMPLING MEANS,  
and ELEMENTARY PROBABILITY. More advanced processes follow.

DROUGHT -------------------------- I.R.Tannehill.  
Princeton University Press Price $3.00  
This work is an interesting treatise on the causes and  
effects of droughts. It contains an interesting chapter,  "What About Sunspots". Weather men have been slow to  place the sun in the picture of weather but eventually  they will.

THE UPPER ATMOSPHERE (The Sun And The Earth) ------ Dr.D.H.Menzel.  
" We are now in scientific period where in-  
tensive study of the sun, together with simultaneous  
study of many types of terrestrial phenomena, should lead  
to the discoveries of vital interest and practical value"  
Extract from his Paper given at The AAAS Centennial Cele-  
bration. You should by all means read this interesting  
paper.

THE NAVIGATION OF BIRDS. ---------------------- Donal R.Griffin.  
Scientific American, Vol 179, No.6, December 1948.  
"How do they find their way in their vast migrations over  
land and water ? Some new evidence on an old mystery "  
A fairly good coverage of what is known today. Every one  
interested in our 'Migratory Bird Project shuld read this  
article.

Next month's Bulletin will contain a summary of sunspot data as  
of 1948, similar to that as given last year.

A dinner was given in New York City during the month of October  
1948 for the eastern section of our Research affiliates. Those  
present were Dr.J.Q.Stewart, Princeton Observatory; Dr.S.Valkenburg,  
Clark University; Mr.E.R.Dewey, Foundation For The Study Of Cycles;  
Walter G.Bowerman, New York Life; Mr.Allan H.Shapley, National  
Bureau Of Standards,Washington D.C.; Mr.J.H.Nelson, Radio Corpora-  
tion Of America; Mr. Robert W.Edwards, Private Research;  
Mr.John J.Oneill, Science Writer, Mr.Emery Radwany, Private Research,  
Neal J.Heines, AAVSO Solar Division.

Mr.Radwany was host, and, acted as moderator for the evening.  
Interesting discussions, on the various fields represented, con-  
sumed most of the evening, followed by the Moving Picture Film,  "EXPLOSIONS ON THE SUN" from the High Altitude Observatory in  
Colorado, a Harvard Station, in Charge Of Dr.Walter Orr Roberts.  
The program was somewhat as follows; Radwany, greetings and  
plans, Dr.Valkenburg, Unpublished material of Dr.E.Huntington, this  
was given for review to Walter G.Bowerman; Dr.J.Q.Stewart on The  
Distribution Of Populations and Some Of Their Causes, Mr.Allan H.  
Shapley, The Ionosphere and its Relation to Forecasts; Mr.E.R.  
Dewey, on the publications of the Foundation; Mr.Nelson, Radio  
Disturbance Forecasts, Mr.Radwany, Planetary Configuration and its  
relation to Cosmic Disturbances; Heines, Sunspots.