

SOLAR DIVISION BULLETIN.

Neal J. Hoines, Editor.

Number 11, Page 20.
August 1946.560 Broadway.
Paterson 4, New Jersey.

The average length of a sunspot cycle is 11.5 years. The period from minimum to maximum is four to five years and from maximum to minimum seven to nine years.

In the present cycle we are in the minimum to maximum period. This period has been unusually active although we are now only two and one-half years past minimum. Because of this unusual activity Research predicts an early maximum.

With the approach of maximum we would like the S.D. observers to take special notice of the frequency of Pores, Veiled Spots, Faint Markings, Penumbral Wisps, and, Faculae Tracery. Kindly enter data of same in the Remarks Column or on the back of the Monthly Report form.

PORES.

Pores are small, short-lived, spots, without penumbral areas observed mostly in the Central Zone of the sun. Some are visible for about a day but mostly they last only a few hours.

VEILED SPOTS.

Veiled spots are similar to pores but seem to be below a hazy cloud instead of on the surface as are the pores. Like the pores they are observed mostly in the Central Zone.

FAINT MARKINGS.

Faint Markings are observed within the confines of both sunspot belts. They appear between, in, above and below groups and are seen entirely alone, often in the Central Zone. They are tiny penumbral areas or a small group of tiny spots close together. Occasionally they develop into an active group. When once observed, that area should be closely watched for new group activity.

PENUMBRAL WISPS.

Penumbral Wisps are mostly seen near "F" type groups. In appearance they resemble small penumbral areas which have broken away from the main body of the "F" group. Sometimes they appear like whirling patches of penumbra.

FACULAE TRACERY.

This is a coined word by your chairman. It is so used to designate a trace of faculae. We are familiar with faculae as seen near the east and west limbs of the sun, around, and adjacent to sunspot groups. Faculae Tracery is seen only in the Central Zone, has the same appearance as faculae but very faint and diffused. When observed it is seen mostly alone.

All of the above items are observed visually with a Herschelien Eyepiece. It is doubtful that the projection method of observation will reveal any of the above items except possibly the pores. Observational procedure used here is as follows. Adjust R.A. Clamp for free movement of the telescope tube by hand. When seen or suspected the tube is moved, slowly, to the right and left as this has a tendency to bring out irregularities on the solar surface.

In your Instructions Leaflet, page one, fifth paragraph, the last sentence, we find, " Entries should be made with a hard pencil as the sharp point allows more detail, especially where an entry embodies multiple data ". With more groups and spots now in evidence this instruction should be closely followed. Some of our observers have an abundance of room on the Monthly Report form while others using dull pencils or pens find it difficult to include the break-down items.

Incidentally, it is not necessary to show the totals on the last line of the report form for break-down data in headings "g" and "i" but it is required that you show totals on the last line for headings b, f, g, h, i, j, k, l, m, n, o, p. In addition the sum of j and k should equal the sum of f and likewise the sum of l and n should equal the sum of g. Study paragraph two on page seven of the leaflet.

If during sunspot observations, color, other than that of the usual color of penumbral or umbral portions of groups is seen make a separate record of this, and send same to Dr. J. C. Bartlett of 300 N. Euter Street, Baltimore 1, Md., at the end of each month. We have asked Dr. Bartlett to make a special study of this in order to determine the possible causes of this phenomena.

We repeat an earnest request, that you make every effort to mail your completed reports so that they reach this office not later than the tenth of each succeeding month. Most reports are received on time even those from foreign countries, but a few are late. A new International set-up has been arranged and the Bureau of Standards in Washington where our reports are now received also has a time limit. Recognise the fact that your data is being used in this new International set-up. The importance of your work and co-operation is self-evident.

From time to time you will receive, through the Bulletin, information concerning the availability of Reprints on the subject in which we are interested. This month we recommend that you write to Dr. Ralph E. DeLury, Dominion Observatory, Ottawa, Canada, for their Dom. Obs. Reprint, No 32, " Sunspot Influences ". With your request include about 15 cents for postage and mention the Solar Division as your source of information. (Do not send stamps).

Observers with Reflecting Telescopes are urged to participate in the color study of sunspots. We are in need of some visual observations with this instrument. Here is the possibility of a good check on effects of secondary spectrum in achromatics. Arrange your data and send same to Dr. Bartlett.

We are happy to add to our membership list Mr. Joseph Swaen of Belgium, J. Hillebrand of Detroit and Floyd Arnold of Brooklyn.

Mr H/B/Chase, 40 Hummock Road, Quincy Mass., sent us some interesting photos of his new mounting for projection observing with a Refracting telescope. Cant stop 'em folks.

The fall meeting of the AAUSO will be held as usual in October at Harvard College Observatory, Cambridge, Mass., make every sacrifice to attend. They come from miles and miles and leave with smiles. Each meeting brings a better representation of the Solar Division. Reverend Kearons, our S/D/ COMMITTEE member and our "top man" in Solar Photography writes that he has a complete series of pictures of 46117 the great sunspot group of January and February. We received some prints of the March return of this group from Rev. Kearons a few days ago. Reverend Kearons will exhibit these pictures at the fall meeting. Meet the AAUSO folks this fall, a wonderful experience.