A.A.V.S.O.

SOLAR DIVISION BULLETIN.

Neal J.Heines , Editor.

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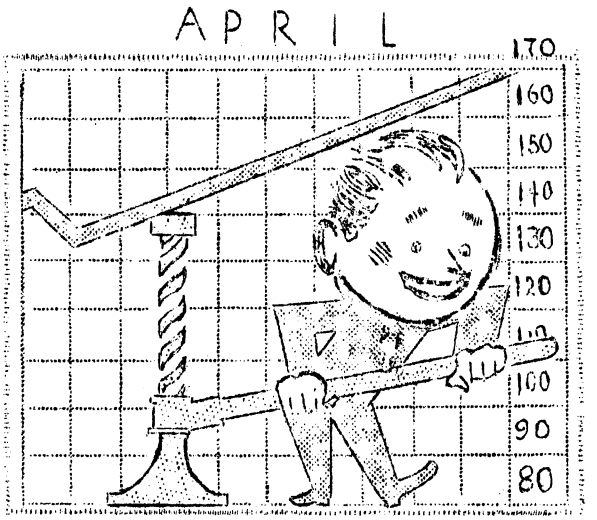

WHAT FORCE IS THIS ?

Word has been received from Mr.Alan H.Shapley of the National Bureau of Standards at Washington D.C. that Zurich, (Dr.M.Waldmeier) Swiss Federal Observatory has declared the date of maximum for the present sunspot cycle as 1947.4 .

The new Reductions Report from the National Bureau Of Standards will no doubt please all concerned. A complete clarification is attached to it in the present mailing. You will find also re-issues for January and February 1948 and the current issue for March.

A number of reports were received for March showing zero values for the 22nd and 23rd day of the month. Scrutiny of the Reductions Report will reveal the necessary information. This is not a discredit to those who reported the zero values for it can well be understood, because of observing conditions, instrumentation and the method of observation. There were two groups and three sunspots which were very small. Lapsed time, and the number of individual observations may have been the reason for the value differences between Zurich and American observers.

It is generally understood that April and September are extra active months during the year for the effect of sunspot activity due to the inclination positions of both axes of the Sun and Earth. It is also generally beleived that some of the most phenominal Spot-Groups make their appearance from a year and one-half to two years after sunspot maximum, such as we have at present (4-24-48) but we beleive that the present April excessive activity is due to some other unknown cause. It certainly has been a phenominal month.

Avery interesting Solar Conclave was held at Yale Observatory,New Haven,Conn. on Sunday April the 4th. The moening until 11:00 o'clock was spent in making observations and comparisons of data as well as problem discussions amongst the observers.

At 11:00 o'clock Mr. H.B.Chase, who originally suggested the Solar Conclaves showed us the moving picture film, " Explosions On The Sun " taken at the Harvard Observatory, Climax Station, with the American Coronograph. This is an exciting film and very instructive. Other Conclaves will do will to procure this film for projection at their sessions.

After the film Mr/Alan H.Shapley gave his lecture on "WHY OBSERVE SUNSPOTS" and in addition told us of the use of the data,supplied by the Solar Division, at the National Bureau Of Standards. The lecture was supplemented with Lantern Slides which were explained by Mr.Shapley, and viewed by those present with much interest. We are greatly indebted to Mr.Shapley for this fine contribution to the conclave.

Your Chairman showed slides of the major sunspot groups of the previous cycle oand of some of the prominences of the past.

Mr. J.J.Neale projected, for exhibition, the Sun's image on a Wilson hemisphere after the suggestions of Dr.W.L.Moore of the University of Louisville. This was intensely interesting for it portrayed the foreshortening of the spots on or near the limbs of the sun beautifully. A Paper on this method of projection was read at the last October meeting at Harvard Observatory.

We are , indeed, very grateful to the New Haven Astronomical Society for their genuine hospitality and splendid arrangements for the conclave held in conjunction with the Convention of the North Eastern Region of the Astronomical League.

GLEISSBERG PROJECT.(Special Instructions)

***- " Sometimes it may happen that an observer has some doubt as to which of two consecutive integers should be written whithin parenthesis. In this case, I suggest that he should write the half number that lies between the integers. For Instance, if an observer estimates that a group is more than two (2) days or less than three (3) days before its central meridian passage and if he does not know whether it would be better to write -2 or -3, he should write -2.5 . Or if there is some doubt whether a group has passed over the central meridian 4 or 5 days ago, then the observer should write + 4.5 . This method of recording doubtful cases has already been used by some of your observers in their reports for January 1948. and I beleive it should be reccomended to all observers who are participating in this project. "

Prof. W.Gleissberg.

The actual Date for the AAVSO Spring Meeting at Mount Holyoke College,Williston Observatory, South Hadley Massachusetts, is May the 22nd. There will be a Solar Symposium at 4:00 P.M. when Solar Papers will be readand discussions will be held on Solar problems. Notices have been sent to members of the AAVSO with all details. If you have not received one write to Mr.Leon Campbell's office at the Harvard Observatory, Cambridge 38, Massachusetts.

STATISTICS.

The total number of observed groups for the month of March 1948 was 36.
Total number of Days with sunspots was 31.
R_a for March will be found at the top of the Reductions Report.
* The highest group number , as assigned at Solar Division Headquarters, for
* April,including the 25th (and up to) was 155.
* This information is given in order that the S.D.Observers may check their group counting each month.

PUBLICATIONS.

We are again indebted to Dr.Helen S.Hogg, of the David Dunlop Observatory for making available through The Journal of The Royal Astronomical Society Of Canada, Vol. XLII No. 1, whole number 370, pp 42-46, under the section of "Out Of Old Books" "Schwabe's Determination Of The Sunspot Cycle" Everyone should read this. If you do not subscribe, write J.H.Horning, 3 Wilcocks Street, Toronto 5, Ontario,Canada . Single copies are twenty-five cents each.

Science Weekly New Letter April 10th Issue p 235.
Noise Heats Sun's Corona.

Astronomical Journal March No.1169 write editor Yale Observatory.
Reports Of Observatories 1947- 1947.
Much valuable information can be gleaned from these reports.

Terrestrial Magnetism March 1948 pp 1 - 26. write Johns Hopkins Press Baltimore 18, Maryland single copies $1.00
" A Model Of The Ionosphere " and four other Ionospheric papers which will be of great interest to those who are doing research on sunspots or making sunspot observations.

APRIL SUPPLEMENT

Last month we gave Mr.Fernald's report on seeing conditions at his Observatroy. This mont we received another fro Mr.George A.Warren of Westchester Pa, RD #2. We give this in it's entirety. Mr.Warren writes; The Fernald suspicion is very interesting and I am sending you my figure for 1947. My percentages show a very similar trend except that they do not have such a wide differential between extremes of seeing conditions.

In as much as seeing conditions are some of the many functions of the median count, I think the Fernald percentages could be expected because on any particular day you are comparing your seeing on that day with the average seeing over the whole country for the same day. If your seeing is particular badon that day you will see less than average and vice-versa.

Another interesting camparison is to evaluate the seeing conditions between two observatories. I took Fernald's figures and mine as the only ones available: Write down the number of observations for P, F. G, and E, as percentages of the total observations for a year. Then using the factors P = 1, F = 2, G = 3, E = 4 multiply by the percentages and add up the total; then divide by 10 the (the sum of the factors) . This will give a pretty good idea of your special brand of seeing as compared with perfect seeing as 100.

My yearly seeing is 23.9%, Fernalds is 23.5 % ? It almost makes you wish that you lived on the moon.

Mr.George R.Warren

April 12th.,1948.

Mr warrens table is found on the following supplament sheet.

APRIL SUPPLEMENT.

Comparison of sunspot numbers of Median Of Regular Observers with observations : George R.Warren , Westchester , Penna.

We invite participation in this study especially in the Midwestern United States and the Pacific Coast. We eventually will then have a fine picture of observing conditions throughout the country.

Date 1947	Poor	Fair	Good	Excellent
January	2- 192 -298	1- 103 -126	2- 84 - 116	0
February	1- 65 -136	7- 461 -900	12-961- 1802	0
March	3- 85 -294	5- 236 -521	6- 444 -770	5- 539- 905
April	5- 325-540	4-260 -356	6- 975-1449	0
may	1- 83-168	3-343 -531	9-138692102	1- 215- 328
June	3- 298-461	8-1080-1354	7-947-1135	2- 438 - 459
July	2- 233-313	6- 828-1024	12-1783-1909	3- 469 - 515
August	4- 488-517	4-579 - 734	7-1667-1832	2 - 550 - 518
September	8-1272-1445	7-1358-1382	3- 598- 565	2 -386 - 411
October	2 -215 -278	6- 813- 911	9-1889-1796	2- 580 - 537
November	4- 259 -358	4- 564- 618	3- 417- 513	0
December	2- 215 -263	4- 423- 465	6- 882- 878	0
TOTALS	37-3730-5041	,59-7048-8942,	84-12036-15098,	17-3177-3673
Percentages	74%	79%	80 %	85 %