

COMMITTEE REPORTS

CHART DISTRIBUTION, AAVSO Headquarters

The following is a report of AAVSO standard charts distributed from Headquarters from 10/1/80 through 3/31/81. A total of 278 orders was filled, including 196 sets for new members.

8 x 10 charts	9724
Finder charts	156
"Old" Atlas	10
"New" AAVSO Variable Star Atlas	328

We now have available from Headquarters upon request a form for standard chart orders. The new form enables us to furnish charts to our observers much more efficiently.

NEW CHART COMPILATION, Chairman: Clinton B. Ford
10 Canterbury Lane
Wilton, CT 06897

Since my October 1980 report, the following mailings of AAVSO Preliminary Chart copies have been made from the Secretary's office. All mailings have resulted from requests by observers:

<u>Destination</u>	<u>No. of Different Addresses</u>	<u>Chart Copies Mailed</u>
U.S.A.	23	1,188
India	1	779
Venezuela	1	750
New Zealand	2	302
England; Scotland	2	276
Japan	2	235
Australia	2	85
France	2	83
South Africa	2	40
	<u>37</u>	<u>3,738</u>

A detailed breakdown of these figures is available, as usual. A total of 4 complete sets of the Preliminary Charts was shipped during the past six months.

Work on the new Third Revised (i.e. fourth edition) Catalog of AAVSO Preliminary Charts has been completed in time for distribution of copies at the April 1981 meetings in Tucson, Arizona. This fully up-dated Catalog supersedes all earlier issues of same, and contains listings for 735 variable stars and 779 charts for them, none of which was available in standard-format quantity-reproducible form prior to 1966 when the Preliminary Charts Program began.

As before, the backlog of photographic, photometric, and other data now at hand for the purpose of producing new or revised charts continues to increase. The receipt of new information in the mail---mostly from observers---is an almost daily occurrence. Every attempt is made to acknowledge such information immediately; however, the actual issuance of new or revised charts based on such data usually has to await confirmation of some kind via checks vs. photographs, etc.

PHOTOELECTRIC PHOTOMETRY, Chairman: Howard J. Landis
 Price Road West
 Rt. 2 Box 44ED
 Locust Grove, GA 30248

The AAVSO Photoelectric program stars are now in a computer list. This makes it much easier to add stars or added information about them as it becomes available. Many of the dates of last published minima have been changed on the basis of information obtained from IBVS and "Astronomy & Astrophysics Abstracts". We expect to obtain information on what comparison and check stars were used, where possible, and add this to the list. If we can use the same stars as those previously used, we will enhance the value of our data.

Dave Skillman had a very nice article in Sky and Telescope describing his computer - operated photoelectric data acquisition and reduction system. He is also fabricating two photometer heads, trying out new designs for amateur photometrists.

Harold Stelzer is making excellent progress in learning to use his Optec photometer system.

Howard Louth now has astronomical work to do when the weather does not cooperate. He has joined the ranks of the computerists among us with an Apple II+, disc, and printer.

At the Fall 1980 Meeting we had an informal display of some of the observational data obtained by AAVSO photoelectric observers. It drew a lot of interest, and we expect to continue these and to include pictures or drawings of equipment and accessories related to photoelectric observing.

The AAVSO Headquarters now has a complete Photoelectric Photometry Data Reduction Program, which will be converted this summer to the Digital VAX Computer System, the computer HQ uses. Thus, all photoelectric photometry data from observers will be reduced efficiently and prepared for publication.

We are always willing to help anyone interested in photoelectric photometry.

RR LYRAE, Chairman: Marvin E. Baldwin
 Route 1
 Butlerville, IN 47223

Since the Fall report, six observers have obtained data which can be used to determine times of 61 maxima of 16 RR Lyrae type stars. Stars most observed were XZ Cyg (20), DM Cyg (8), SW And (7), BH Aur (5), XX And (4), and SZ Hya (4). Currently, of the stars listed in the AAVSO RR Lyrae ephemeris, the nine stars in the constellation Bootes have been brought under close surveillance by at least one observer, but the five stars in the constellation Hercules remain for the special attention of some energetic observer. By October we hope to be able to report that all our RR Lyrae stars have been adequately observed for the year.

ECLIPSING BINARY, Chairman: Marvin E. Baldwin
 Route 1
 Butlerville, IN 47223

During the six month period, October 1980 through March 1981, a total of 13 observers reported data on 367 minima of eclipsing binary stars. Data were also reported on a few additional partial minima which were not counted and will probably not be used unless special

circumstances warrant.

Gerry Samolyk continues to be our most prolific observer, having personally accounted for 183 minima. Runner-up in this department was Gene Hanson, who reached a total of 91 minima. Both these observers included a wide variety of stars in their programs. They are developing a continuous year-to-year observing record on many stars which are otherwise rarely observed. This will enable us to establish, for the first time on some of these stars, O-C curves with good continuity, possibly revealing small changes in period which have previously been undetectable.

Because of early spring-like weather in many parts of the country, many observers have been expressing increased interest in eclipsing binaries. They will find that the short summer nights can sometimes interfere with obtaining complete light curves. It is, however, a good time to obtain some observing experience and prepare for the more ideal observing conditions that occur in the autumn when nights are still comfortably warm, yet long enough to obtain the required data, and a good variety of eclipsing binaries are available as the more heavily populated portion of the sky becomes visible in the early evening.

SOLAR DIVISION, Acting Chairman: Robert B. Ammons
411 Keith Avenue
Missoula, MT 59801

The present Acting Chairman of the Solar Division assumed his responsibilities January 1, 1981. With the assistance of Peter Taylor, Carolyn Hurlless, Cap Hossfield, Stephanie Ammons, Douglas Ammons, approximately fifty observers in all, and many other interested parties, issues of the Solar Bulletin reporting "final" sunspot and indirect radio flare information have been published for the months of January and February. The report for March is nearly complete, waiting only for final sunspot numbers whose computation depends on receipt of overseas data. Apparent delay in publication of monthly Bulletins since December has been due to inclusion of the final sunspot numbers rather than provisional numbers as in the past. The Bulletin is being mailed regularly to an active list of about 350 individuals and institutions.

From a relatively low level in January, solar activity has increased greatly. Numbers of sunspots and sunspot groups have approached the highest levels of the present cycle on a number of days in February and March. Detectable solar flare effects on the ionosphere as reported by our AAVSO radio observers reached the highest level so far in this cycle in February, and then increased to a new high for the cycle in March. H α observers noted nearly continuous flare activity over periods of hours to days.

A number of additional initiatives are planned for the coming six months: (1) develop closer relations with the Belgian sunspot program; (2) start developing training programs for optical and radio observers; (3) provide opportunities for experienced observers to participate in data analysis and interpretation; (4) strengthen the Solar Bulletin by channeling reports of more AAVSO observers to it; (5) find ways to encourage and support Mr. Hossfield's informal newsletter for radio observers without weakening the Solar Bulletin; (6) continue to develop new equipment and techniques for using it; (7) develop cooperative programs with active solar groups in other countries, such as England and Germany.

Those of us familiar with his efforts would like to take this occasion to express our profound appreciation to Cap Hossfield for

1981AAVSO...10

long years of patient dedication to and hard work for the Solar Division of the AAVSO. Without Cap's solid contributions for more than twenty years, we would have had little to report here today.

NOVA SEARCH, Chairman: Carmine Borzelli
12 Corbin Avenue
Jersey City, NJ 07306

About 5600 nova search report observations from 13 observers and over 300 supernova search observations from 7 observers were received in the six-month time period. Details will be given in the annual report. No positive observations were reported in either program. There was a "scare" in the supernova program when an observer reported a possible newcomer in NGC 2985 in January, 1981. It was difficult to establish that this was a discovery, since there were no readily available photographs from the usual sources. NGC 2985 is located in northern Ursa Major, about +72° declination, less than 4° from M81. It is not, however, part of the M81 "Local Group," as its radial velocity is much greater than that of any member of the group. There has apparently been little previous observing of the 11th magnitude Sb Spiral type which has no known supernovae. Supernovae observer Mike Witkoski, who first reported a possible find, has been monitoring NGC 2985 on a regular basis. Several charts are being prepared for this object.

Materials for both programs are available both from the chairman and from AAVSO Headquarters. Difficulty with the mails has increased, so that if you have written and received no reply, try again and contact AAVSO Headquarters as well.

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NOTICE TO ALL OBSERVERS USING PRELIMINARY CHARTS:

from: Clinton B. Ford
Chairman, AAVSO New Charts Committee
10 Canterbury Lane
Wilton, CT 06897 USA

Preliminary charts are continuously being revised, until such revisions are no longer necessary. Observers who use preliminary charts should use only the most recent versions of these charts.

A newly revised 4th Edition of the AAVSO Preliminary Chart Catalog was issued in May, 1981. This edition includes the date of the most recent version of each preliminary chart. Observers should obtain copies of this catalog and should use only the version of each chart whose date is listed in the catalog.

Observers are requested to update their preliminary charts as necessary. The newest versions of all preliminary charts should be in use no later than January 1, 1982, so that by this date all observers will be using the same comparison star sequences for these stars.

The 4th edition of the catalog (free) and charts (15¢ each) are available from me at the above address.

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