

## COMMITTEE REPORTS

CHART DISTRIBUTION, AAVSO Headquarters

The following is a report of AAVSO charts distributed from Headquarters from 10/1/78 through 3/31/79. A total of 163 orders were filled including 32 sets for new members.

8 x 10 charts	4,413
Finder charts	126
Atlas	16

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

Since October 20, 1978, 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.	19	1,401
Canada	4	783
Chile	1	789
Switzerland	1	756
Australia	3	180
South Africa	1	46
France	2	45
Greece	1	29
Scotland	1	169
	<u>33</u>	<u>4,198</u>

As with previous reports, a more detailed breakdown of these figures is available, if desired. A total of 5 complete sets of the Preliminary Charts was shipped during the past six months.

Copies of the June 1978 Catalog of Preliminary Charts have been distributed gratis, as requested by observers. The original printing of this Catalog (300 copies) is nearing exhaustion. Thirty copies were distributed to astronomers attending the I.A.U. Colloquium No. 46 held in November-December, 1978, in New Zealand.

The backlog number of variable star charts awaiting preliminary charting is, as in the last report, about 80. Again, revisions of previously issued charts occupy about 50% of the time available for work on preliminary charts. Acknowledgements are due to many observers for contributing field photographs, revised comparison star sequences, visual sky checks of completed charts, etc.

During the past six months, correspondence with Dr. N. P. Kukarkina at the Sternberg Astronomical Institute in the U.S.S.R., who is supervising the forthcoming publication of a fully up-dated General Catalog of Variable Stars to supersede the 1969 edition, has assured the AAVSO that both its standard and its preliminary charts will be referenced in that new Catalog.

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

The Chairman has seen the greatest number of letters of inquiry in any 6-month period since accepting the office. Since October, 1978, I have received and answered requests for information from 21 prospective observers.

Two more Photoelectric Photometry (PEP) Bulletins have been mailed out to our active observers and some of the more likely prospects. In conversations with David Skillman, it was agreed that there should be a more regular appearance of the Bulletin to keep in better touch with, and to inspire, the PEP observers to observe regularly and, perhaps, more prolifically.

Your Chairman took down his observatory in December 1978 for a move to darker, more open sky. It is not in operation yet, but progress is being made in the re-assembly process. Dave Skillman has his computer-automated observatory in operation. Larry Lovell and I contributed observations to Dr. Hall of some of the RS CVn type stars.

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

The Chairman received reports from 15 observers covering 1741 observations of 107 areas for the six-month period ending February 28, 1979. Also, 2 observers reported 30 supernova search observations of 7 galaxies. Full details will be given in the Annual Report in the fall of 1979.

As previously reported, Warren Morrison, who has since become a regular NS observer, was the first discoverer of Nova Cygni 1978. On April 18, 1979, Gus Johnson, a correspondent of the Supernova program, discovered a Supernova in NGC 4321 (M100). He is the second amateur astronomer in our century to discover an extragalactic supernova visually. Both Gus and Warren are to be congratulated for their perseverance and good fortune of being "in the right place at the right time."

The Chairman also wishes to thank Tom Fetterman who has been preparing AAVSO-type charts of galaxies for the Supernova-search program. These will be available as soon as they are sky-checked and approved by the AAVSO director. Anyone who would like to volunteer to sky-check the charts may contact the Chairman for details.

Materials for both programs are available from the Chairman. If you have written before but received no reply, please write again, as your request may not have been received.

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

Dedicated observing by ten persons during this reporting period has resulted in approximately 5000 visual observations including data for about 190 eclipsing binary stars. Some 250 times of minima will be extracted from these data.

Additionally, Howard Louth has submitted an extensive report of PEP data for 10 eclipsing binary stars which are very difficult or

impossible to work visually. Several of these stars have had no minima timings for many years. These data are an extremely valuable addition to the program.

Peter Taylor and Josefa Manella have completed a computerized reduction of all visual 1976 eclipsing binary data which fit their computer format. This printout listing now awaits the completion of reduction of these data by the Chairman using the tracing paper method to determine if the two methods are compatible. Conversion to computerized reduction of data is expected when compatibility can be fully verified.

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

During this reporting period approximately 625 visual observations were made of stars included in the RR Lyrae program. About 45 times of maxima will be determined from these observations.

Two stars continue to command our attention because of their prominent secondary periods and other unusual behavior. SZ Hydrae is in need of more intensive observation to better define the nature of its behavior. XZ Cygni, on the other hand, has been closely followed. Alerted by Peter Taylor's suspicion that XZ Cygni had undergone another change resulting in a shortened period (see the RR Lyrae committee report, JAAVSO 7, page 55) the writer has intensified observation of this star during the past year. Based on a partial analysis of these new data, Taylor now finds an apparent lengthening of period to be in progress.

VARIABLE STAR ATLAS COMMITTEE, Chairman: Clinton B. Ford  
10 Canterbury Lane  
Wilton, CT 06897

No progress was made on the AAVSO VARIABLE STAR ATLAS since my October 1978 report, until the middle of January 1979. At that time, the AAVSO Director, Mrs. Mattei, received word from Sky Publishing Corporation that their Editors would like to discuss eventual publication of the Atlas by that Corporation.

Accordingly, a conference was held at AAVSO Headquarters in Cambridge, on February 13, 1979, attended by Mrs. Mattei, Mr. Leif Robinson for Sky Publishing, Messrs. Charles E. Scovil and Clinton B. Ford on behalf of the VSA Committee, and AAVSO Treasurer R. Newton Mayall and former AAVSO Director, Mrs. Margaret W. Mayall.

A mutual understanding was reached, the terms of which are now formulated in letters of agreement which specify the following:

1. The title of the publication shall be The AAVSO Variable Star Atlas, prepared by Charles E. Scovil with Clinton B. Ford as benefactor. Copyright shall be held by the AAVSO. Sky Publishing Corp. (hereafter referred to as Sky) will be the publisher and distributor.
2. The Atlas shall consist of two parts: (a) a collection of 178 charts of the entire sky based on original star maps of the Smithsonian Astrophysical Observatory star atlas, prepared by Mr. Scovil and to be supplied by the AAVSO; and (b) an accompanying booklet to be supplied by Sky.

3. In general, the Atlas charts shall contain all stars shown on the original SAO charts plus some others omitted from same. All variable stars currently charted by the AAVSO, and bright magnitude sequences near them (where appropriate) will be shown and identified if the variables become brighter than magnitude 9.5(v) or have a range of at least 0.5 magnitude. Further, the Atlas will show several hundred double stars (adapted from the Atlas of the Heavens II Catalogue); all galaxies in the Shapley-Ames Catalog; and the bulk of the clusters, nebulae, etc. in Sagot and Texereau's Revue des Constellations. The Atlas charts shall show coordinate markings for the year 2000.
4. Production and checking of the VS Atlas master charts shall be the sole responsibility of the AAVSO. Should the quality of the charts, in workmanship or content, be deemed unsatisfactory by Sky, Sky reserves the right to abandon the project. It is further agreed, that as of February 13, 1979, all alterations in current production practices for the Atlas charts, or the adoption of new ones, will be subject to approval by Sky.
5. The following schedule of production deadlines is agreed upon:
  - a. Base charts finished (total = 178 charts) October 1979  
(146 completed as of 2/13/79)
  - b. All corrections and overlays finished March 1980
  - c. Final checking completed May 1980
  - d. Delivery to Sky by July 1980
  - e. Printing in process (Sky) Summer-Fall 1980
  - f. Probable availability to subscribers November-December 1980

Since many parts of the publications process (e.g. final Atlas master chart photography, set-ups for offset printing, etc.) can be done by Sky as an "in-house" operation, Mr. Robinson indicated that over-all production costs can be held to a low figure compared to "outside" estimates. The proposed booklet (Item 2(b) above), publication of which would be entirely the responsibility of Sky, would contain descriptive articles on variable star observing, so-called deep-sky objects, comets, double stars, and other objects which, in the opinion of Sky's editors, should interest subscribers to the Atlas. The authors of those articles would be selected by Sky, in cooperation with the AAVSO.

As a result of this February 1979 conference, Mr. Scovil has resumed work on the Atlas, in accord with the above deadline schedule. It was further agreed at that conference, that all information shown in the third edition of the General Catalog of Variable Stars (GCVS) and its three supplements should be included in the variable star data shown in the AAVSO VSA. This data-revision process has now been completed by Mr. Scovil through chart no. 146. Two completely new charts, nos. 147 and 148, were on display at the May, 1979, AAVSO meeting. All up-dated information per the GCVS Supplements has now been key-punched on IBM cards for easy reference.