

COMMITTEE REPORTS

CLASSICAL CEPHEID, Chairman: Thomas A. Cragg
 Anglo-Australian Observatory
 Coonabarabran, N.S.W. 2357
 Australia

Little action on the chairman's part has taken place because of the inability to obtain the data from Headquarters. We are now behind by several 1000-day intervals in publishing the material which must have a dilatory effect on observer enthusiasm. At hand is material from two observers, but surely does not represent a significant part of the material gathered.

Several papers in recent professional journals have included photoelectric photometry light curves of some of our program stars. None of these, however, discussed the long-term changes we are looking for in our program. These curves will be most useful to compare our results to when our data become available.

CHART DISTRIBUTION, AAVSO Headquarters

The following is a report of AAVSO charts distributed from Headquarters from October 1, 1984, to September 30, 1985. 371 chart orders were filled.

Standard Charts (8.5 x 11-inch)	14044
Photoelectric Photometry Charts	1654
Finder Charts	217
AAVSO Variable Star Atlas	43

Observers are requested to use the Standard Chart Order Form for ordering standard charts, and the **AAVSO Photoelectric Photometry Chart Catalog** together with special Photoelectric Photometry Chart Order Form when ordering photoelectric photometry charts. These forms are available from Headquarters.

Edward Halbach has offered his help in revising the AAVSO standard charts to include the epoch 2000 positions of the stars on the chart headings. This information becomes more and more important as we rapidly approach the year 2000. Availability of these revised charts will be announced.

Charles Scovil is revising the **AAVSO Standard Chart Catalog**, the first such revision since 1974. The availability of the revised **AAVSO Standard Chart Catalog** will also be announced.

With the approach of Comet Halley, the AAVSO charts and the **AAVSO Variable Star Atlas** covering the path of the Comet have been in high demand. The International Comet Halley Watch is distributing specially prepared copies of our charts to comet observers.

The publication of the Fourth Edition of the **General Catalogue of Variable Stars** by the Astronomical Council of the USSR Academy of Sciences is now in progress. Volumes I and II covering information on variables in constellations Andromeda through Orion are now available from Headquarters for \$55 (US orders) and \$60 (all non-US orders, US funds only), postage and handling included. The prices have been set by the publisher.

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

The following mailings of AAVSO Preliminary Charts have been made from the Secretary's office during the fiscal year 1984 - 1985.

Destination	No. of Different Addressees	Chart Copies Mailed
West Germany	1	1140
U.S.A.	14	328
Greece	1	85
Norway	<u>1</u>	<u>62</u>
TOTALS	17	1615

All of these mailings have been made in response to requests from observers. A detailed breakdown of these figures is available on request.

The Eighth Edition of the **AAVSO Preliminary Chart Catalog** was distributed at the June, 1985, meeting of the AAVSO in Seattle, WA, and also to attendees at the Ninth North American Workshop on Cataclysmic Variables held at Port Townsend, WA, in June, 1985.

During the past six months, the Eichner photoelectric photometer obtained from Columbia University and installed at the Stamford Observatory has finally been successfully activated, so that we are now able to make reliable magnitude estimates from the photographic images on many of our plates taken over a period of many years. The credit for getting this monster machine in operation goes to Mr. Edward H. Nadeau, an electronics expert who is a member of the Fairfield County Astronomical Society, who worked long hours at this job with Committee member Charles E. Scovil. The machine has affectionately been dubbed "Frankenstein."

A number of our plates have also been measured recently by a group of astronomy students at Wellesley College, using a Cuffey plate photometer, under the direction of Prof. Scott Birney of that institution.

The routine work of the New Chart Committee continues to be carried on by the same personnel as in my last report (June 1985).

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

In the past year twelve observers obtained data to define 763 times of minima for 210 eclipsing binary stars. A total of 11,111 observations were made. Of the 97 stars on the AAVSO program, data were obtained for 96. Minima were obtained for the additional 113 non-program stars as part of a continuing effort by several of our observers to provide continuous data on a large number of eclipsing binary stars.

Although 96 program stars were observed, data were incomplete for two of those stars, leaving us with three stars for which times of minima could not be determined. These stars are V346 Cyg, FL Lyr, and SX Oph. We had only nine stars (RY Aqr, V343 Aql, Y Cam, UU CMa, UZ Dra, RW Gem, BO Mon, FL Ori, and ST Per) where only one minimum was obtained. This represents the most thorough observation of program stars in the 20-year history of the program.

This outstanding coverage by our observers has revealed major deviations from the ephemeris for eight stars and has permitted us to update the elements for those and several additional stars with smaller deviations. These updated elements will be reflected in the 1986 AAVSO Eclipsing Binary Ephemeris.

Howard Louth accounted for 764 of these observations with his photoelectric photometry data. Five observers, Philip Atwood, Marvin Baldwin, Steve Cook, Gerry Samolyk, and David Williams, each observed more than one hundred minima.

A special note of thanks goes to Paul Sventek for preparing the 1985 ephemerides and to Gerry Samolyk for agreeing to assume this task for 1986.

NOVA SEARCH, Chairman: Rev. Kenneth C. Beckmann
111 West College Street
Hagerstown, IN 47346

From September 1, 1984, to August 31, 1985, a number of novae were discovered. No supernovae were announced for this period.

On September 25, Dr. William Liller, a member of the AAVSO and a member of the AAVSO Nova Search Committee, discovered a nova in the constellation of Sagittarius (N Sgr 1984). On December 14 the AAVSO received word that Mr. M. Honda had discovered a probable nova in Aquila. Because of poor weather conditions, the discovery was unconfirmed. On December 22, AAVSO member Peter Collins of Cardiff, California, discovered a nova in Vulpecula (N Vul 1984 No. 2). On January 26, Warren Morrison of Peterborough, Ontario, Canada, discovered the recurrent nova RS Ophiuchi in eruption. Also on the 26th, Dr. William Liller discovered another nova, this one in the constellation of Norma (N Nor 1985). On behalf of the AAVSO Nova Search Committee, I congratulate William Liller, M. Honda, Peter Collins, and Warren Morrison for their discoveries of new and recurrent novae.

In the spring of 1985, the AAVSO Nova Search Committee began publishing a one-page newsletter for general circulation to its observers. The newsletter, entitled, **New Star**, reports on current information about novae and supernovae. The newsletter is divided into three sections. The first one is entitled "Update." In this section, current news about novae and supernovae is communicated to observers. The second section is entitled "Bookmark." For each newsletter, an effort is made to search out old and new texts for interesting comments on the subject of novae, which are presented here. Also, books on the subject are reviewed in this section. The publication closes with "Amateur Briefs." The newsletter is published quarterly and is free to active nova hunters. If subscribers have an interest, please write the chairman for details.

A new text will shortly become available on nova and supernova search. The computer-generated, 35-page booklet should provide excellent tips on beginning one's own personal search program. Sponsored by the AAVSO Nova Search Committee, this booklet may become an excellent reference source as well.

Included below are observations of our observers. On behalf of the AAVSO Nova Search Committee, I extend sincere thanks and appreciation for their faithful efforts to observe the heavens.

SUPERNOVA

NOVA

Observer	No. of Obs.	Observer	No. of Obs.
Gus Johnson Swanton, MD	259	Robert Browning Audubon Park, NJ	136
Daniel Troiani Chicago, IL	23	Manfred Durkfalden West Germany	452
		Warren Morrison Cavan, Ontario, Canada	1021
		Daniel Troiani Chicago, IL	33
		Kenneth Beckmann Hagerstown, IN	141

PHOTOELECTRIC PHOTOMETRY, Chairman: Howard J. Landis
50 Price Road West
Locust Grove, GA 30248

It is with considerable pleasure that I present my tenth annual report of the Photoelectric Photometry Committee.

Headquarters has received 1254 PEP observations on 41 Photoelectric Photometry stars from 12 observers since last October. Howard Louth contributed the largest number of observations with 672. It gives me much pleasure to see this much observing activity taking place. We thank each observer for these observations and urge all photoelectric people to become even more productive. It would be very nice indeed for me to be able to report next Fall that we have 24 observers!

Requests for observational data came from Dr. Arlot of the Bureau of Longitude, Paris, France. Also, Dr. Parsons of the Computer Sciences Corporation requested observations of the May, 1985, eclipse of 22 Vul. From within the AAVSO we have a standing request that special attention be given the following stars: RU Cam, rho Cas, V509 Cas, P Cyg, and CH Cyg, three of which were observed. The reasons for selecting these stars can be found in the **AAVSO Photoelectric Photometry Newsletter**.

Our director has been looking for a photoelectric photometry reduction program not written in FORTRAN. I had been developing a program for my own use and it was nearly all we needed for the AAVSO. In early August I brought the program to HQ and demonstrated it to Dr. Mattei and her assistant, Elizabeth Waagen. Some changes were made in the program after the very useful discussions at HQ. Currently we have available on diskette the completed operating program, data for all the Photoelectric Photometry Program stars, and the comparison and check stars, totalling 68 files. Most of the B-V values were obtained by me from the **Tirion Catalog 2000**, while data on 4 fainter variables were made available by Dr. Percy. Of the observers who have sent observational data to HQ, there are still some observer files to be completed. We need information from those observers concerning their latitude and longitude, and the color calibration of their instruments. Since HQ knows how they want to handle the reduced data, the filing routine will be written there.

Dr. John Percy, Editor of the **AAVSO Photoelectric Photometry Newsletter**, published 3 issues this year. He would appreciate hearing from observers, even if it is just a "Letter to The Editor." A very

interesting discussion was published concerning a commercial photometer in which we heard complaints from users and answers to them from the manufacturer. The Editor brought to our readers several informative articles on different types of stars, which we hope will create greater interest in the observers and that this in turn will result in more observations.

It is becoming unusual to hear from a prospective observer who wants to construct his own Photometer instrument. I have communicated with two this year, one in Australia and one in Hawaii.

If you are interested in observing the stars photoelectrically, please let me hear from you. I am always happy to help with any problems you might have concerning photoelectric observing.

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

During this reporting period, 10 observers submitted 3346 observations on 42 RR Lyrae variables. Some 252 times of maximum are represented by these data. Maxima were timed for 37 of the 41 stars listed in the AAVSO ephemeris. The stars not observed are SW Aqr, VZ Cnc, DL Her, and RZ Lyr. The five stars observed which are not on the ephemeris are VZ Her, CE Her, DG Hya, ST Leo, and AA Leo.

Having fairly complete data to work with, we found that five stars had major deviations (one hour or more) from the 1985 ephemeris. Adjustments for these deviations as well as for other minor deviations have been made in the elements for the 1986 ephemeris. We wish to express our appreciation to Paul Sventek for preparing the 1985 ephemeris and to Gerry Samolyk who agreed to accept that task for 1986 when Paul received a new assignment taking him to Jakarta.

As noted in our Spring report, Alan MacRobert of **Sky & Telescope** asked us to provide materials for a brief article on RR Lyrae stars in the "Celestial Calendar" section of that magazine. This provided us with an excellent opportunity to communicate with that segment of the general public with a casual interest in astronomy as well as with a broader segment of those serious amateurs than we can normally reach through AAVSO resources. The item appeared in the June, 1985, issue, page 538, with information on XZ Cyg, XZ Dra, and AR Her, including charts, ephemeris information, and a light curve. The response to this article was a little surprising in that about 75% came from European observers. We are pleased to have this participation by our transatlantic neighbors.

SOLAR DIVISION, Chairman: Peter O. Taylor
P.O. Box 8115
Gainesville, FL 32605

The Solar Division continues to thrive. A great deal of interest was sparked by articles by the Chairman for **Sky & Telescope** magazine and various European publications during the latter part of this past year. Requests for information directly attributable to these writings continue to be received almost one year later. We wish to thank David Rosebrugh for his glimpses into the history of the Division which were invaluable in the preparation of these descriptive papers.

We are pleased to report that the "gap" in issues of the **Solar Bulletin** of some nine months which we inherited, has been eliminated; those issues have been compiled, printed, and dispatched.

Unfortunately, a new gap of four months occurred this past summer due to an unavoidable (personal) circumstance concerning the Chairman. However, those issues are being compiled and printed, and will be mailed out soon after this report. We certainly regret any inconvenience that this has caused recipients of the **Bulletin**.

Again we express our thanks to David Rosebrugh for his assistance with historical information and special studies of sunspot observing. We wish to thank MaryJane Taylor, Astronomy Doctoral candidate at University of Florida, for her work in preparation of computerized reports of American Relative Sunspot Numbers. Bruce Wingate continues to do a fine job of reduction of SES electronic data relating to sudden ionospheric disturbances; his work is much appreciated.

Last, and certainly not least, we express our sincere appreciation for the untiring efforts of our contributors. Without their fine work our programs could not continue to grow and prosper as they have.

TELESCOPE, Chairman: Charles E. Scovil
Stamford Observatory
c/o Stamford Museum
39 Scofieldtown Road
Stamford, CT 06903

Telescopes on hand for sale:

1. 6" C. A. Post Refractor with equatorial mount and accessories. \$5000 or offer.
2. 5" Refractor, made by John Mellish, Ca 1935. \$1000 or offer. Tube and optics only, with several eyepieces and 2 diagonals. Large focusser and drawtube, will take 2" eyepieces. **Excellent lens.**
3. 8" Dynamax.
4. 6" Reflector, located in Florida.
5. Two mirrors - 13" and 11".

During the year a Questor telescope complete with tripod was donated by Margaret and Newton Mayall. After spirited bidding between two parties, it was sold to Treasurer Ted Wales.