

## COMMITTEE REPORTS

NOVA SEARCH, Chairman: Carmine V. Borzelli  
12 Corbin Avenue  
Jersey City, New Jersey 07306

During the period 9/1/73-4/30/74 12 observers sent in reports regularly and 15 observers sent in some reports. To date, all 158 areas north of declination  $-30^\circ$  have been observed at least once. This has been due largely to the efforts of Manfred Dürkefälden of West Germany, who has seen each area at least once. Of the 42 areas south of  $-30^\circ$ , 16 are covered by the New South Wales Section of the B.A.A., and four by other observers.

While the year has so far been very successful in the increase in new observers and areas covered, more observers are needed. There was a nova scare in each of the months of September, October and November, and, while they produced no novae, they gave us a chance to test our system, which is working very well.

In supernova search, the Webb Society of England informed us that they were experiencing delays in making galaxy charts. We have therefore undertaken the task of making our own. One of our program galaxies, NGC 4414, produced a supernova in late April. In addition, Richard Korn of New York City photographed M 83 in late April, but a check with The Hubble Atlas of Galaxies showed that no supernova was present. For the supernova program, experienced observers with large aperture telescopes, who have time to help, are asked to contact the chairman.

OCCULTATIONS, Chairman: John E. Bortle  
Gold Road  
Stormville, N. Y. 12582

Most of the observers report their observations once or perhaps twice a year, usually in September. Several requests for information were filled by the Committee. Several new foreign observers are reporting their observations, and a small group of American observers is doing likewise. It is expected that between 150 and 300 occultations will be reported to the AAVSO this year.

ECLIPSING BINARY, Chairman: Marvin E. Baldwin  
R.R. #1  
Butlerville, Ind. 47223

Since October, Eclipsing Binary Bulletins No. 30, 31 and 32 have been issued to active observers to assist in the conduct of their observing programs. Approximately 350 minima have been received during this period, and this represents a substantial increase over the past several years. Brief articles continue to appear in the AAVSO Circular each month. This method is used to reach readers who might not otherwise be in close contact with the eclipsing binary program. Stars are specifically chosen for those articles so as to provide a variety of challenges applicable to a full range of observer experience levels. Spring and summer observing rates are again ebbing to a low, partially because few program stars are well placed for observing at this time of year. This annual cyclic effect has prompted an effort to develop charts for

several new stars, and some of these will be placed on the program in time for the 1975 observing season. Charles Scovil has used the facilities of the Stamford Observatory to good advantage in support of chart development efforts. Schedules permitting, a few of our older charts will be up-dated this year. Four or five charts have been selected for up-dating, but others may be added. Observers who find any current charts particularly troublesome should alert the committee chairman.

RR LYRAE, Chairman: Marvin E. Baldwin

Observation of the RR Lyrae stars has been concentrated largely on XZ Cygni since the paper concerning its unusual behavior in JAAVSO, Spring, 1973. Otherwise, activities have been limited primarily to the timing of one or two maxima of individual stars. With the possible exception of SZ Lyncis, there has not been sufficient observation of additional stars to identify or analyze Blazko effects. Additional efforts are needed to intensely observe a few of these stars so that analyses similar to that made on XZ Cygni can be accomplished.

TELESCOPE LOANS, Chairman: Charles E. Scovil  
Stamford Observatory,  
Stamford Museum  
Stamford, Conn. 06903

All telescopes previously on loan remain with the same observers except for one of four inch aperture. This was recalled, and sold, along with a 3.5 inch alt-azimuth refractor to Missouri Western State College. Russell Maag of that organization also picked up a six inch Alvan Clark telescope whose borrower had not been using it. This instrument is now on loan to Mr. Maag's group. No instruments are now available for loan or sale.

CHART DISTRIBUTION, AAVSO Headquarters

During the first six months of the fiscal year the orders for charts filled totalled as follows:

|               |       |
|---------------|-------|
| 8 x 10 charts | 5,939 |
| Finder charts | 62    |
| Atlases       | 13    |

Since the blueprinting process is no longer available in the Cambridge area all charts are now being reproduced by a special offset printing process showing black stars on a white background.

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

This report covers activities of Chart Committee members engaged in the preparation of new AAVSO charts, particularly during the past two years, i.e. since the issue of the May 1972 Catalog of Preliminary AAVSO Charts. It is anticipated that similar reports will be prepared for each annual AAVSO meeting in the future.

## New Chart Preparation and Production:

|  | 1972<br>Prelim.<br>Catalog | 1974 Revised<br>Prelim.<br>Catalog | Increase |
|--|----------------------------|------------------------------------|----------|
| Totally new charts, for variables not on AAVSO programs before 1968. | 214                        | 266                                | 52       |
| Revisions or expansions of existing standard-format charts.          | 268                        | 348                                | 80       |
| Totals   | 482                        | 614                                | 132      |
| Number of different variables  | 413                        | 506                                | 93       |

The June 1974 Revised Catalog of Preliminary Charts has been completed and is ready for distribution as of the date of this report.

## Mailings of Preliminary Charts:

|   | No. Charts<br>Mailed    | Total<br>Addressees |       |
|---|-------------------------|---------------------|-------|
|   |                         | USA                 | Other |
| Previous to May 1972<br>Catalog issue                           | 1,500±                  | 23                  | 4     |
| May 1972 - June 1974  | 1,856                   | 38                  | 13    |
| Total   | 3,356±                  |                     |       |
| Total complete sets of Preliminary Charts issued (to June 1974) | (614 charts<br>per set) | 9                   | 4     |

## Committee Personnel:

Activities have continued as in the past, with each member primarily contributing the following:

Library and Literature Research, and preliminary field sketching: Wayne M. Lowder

Field Photography: Charles E. Scovil, with Stamford (Conn.) Observatory 22" reflector, and Lawrence E. Hazel, Lockport, N.Y., with 12" reflector.

Plate Measuring for Sequence Data: Charles E. Scovil, with Yale Univ. Cuffey Iris Photometer.

Chart Drafting and Standard-Format Preparation: R. Newton Mayall; Clinton B. Ford; John E. Bortle; Lawrence E. Hazel; Charles E. Scovil.

## Future Projects:

As noted in the newly-issued June 1974 Preliminary Chart Catalog, a survey of the V.P. Tsesevich et al. Atlas of Finding Charts of Variable Stars (Moscow, 1971) has now been completed by messrs. Scovil, Ford, and Cragg, with a view to selecting variables for charting which can be observed meaningfully by visual methods with modest sized telescopes. This survey has revealed that several hundred variables entirely new to AAVSO programs can now be identified, and should be added to our new chart production program after detailed photo-visual photographs can be taken of each field, and comparison star sequences determined.

VARIABLE STAR ATLASADVISORY COMMITTEE, Chairman: Clinton B. Ford

This is a new committee set up on a temporary basis to oversee and advise on the production of an atlas of the entire sky which will show the location of all AAVSO program variables regardless of magnitude range, and of all variables which reach visual magnitude 10.5 or brighter at maximum. For the brighter AAVSO variables, comparison star magnitudes will be shown so that they can be observed using this atlas. The fainter AAVSO variables will be shown as an aid in locating them.

The atlas will consist of 178 charts, each 11" x 14", to a scale of 15mm = 1°, (considerably enlarged from the Smithsonian Observatory Star Atlas which is being used as a base). The AAVSO program variables will be circled in red on the charts, and other information such as constellation configurations and boundaries will also be in red, so this extraneous information will not be visible to distract an observer using a red flashlight. On the reverse side of each chart a list of all variables shown, indicating the range, type, etc., will help in planning observing programs.

This project had its start some four years ago at Stamford Observatory (Conn.) when it was found that we had no adequate atlas which could be used by new observers interested in starting variable star observation. Webb's Atlas was long out of print, and would require too much up-dating, even if the copyrights could be secured. It was decided that the best thing would be to draft a new atlas. An examination of various possibilities indicated that the SAO Atlas offered the best base for our purpose, and permission to use it in the project was secured.

As a trained draftsman, Charles Scovil agreed to do the work if funds could be found to pay him for the two years work estimated to be involved in the project. The National Science Foundation, NASA, and several private foundations were approached in a search for grant funds to finance the project, without success. Early this year while an attempt to seek funds from another private foundation was being made, Clinton Ford agreed to fund the project. Details of chart design and items to be included were agreed upon at a conference between Mrs. Mattei, Mrs. Mayall, and Messrs. Scovil and Ford. A contract was drawn up engaging Mr. Scovil as a consultant to the AAVSO to do the drafting, and work began on March 1, 1974.

As of the date of this meeting (June 30, 1974) charts 1 through 19 have been completed, and numbers 20 and 21 are nearing completion. A number of minor difficulties both in production techniques, and in chart content have arisen, and have been solved by a second conference at Headquarters. It is expected that chart production will now proceed at an increased rate.

A sample volume consisting of the first group of charts has been produced for examination by the membership. This volume will be on display at future meetings until the completion of the project. It is hoped that since it will not be necessary to recover drafting costs from the eventual sales of the atlas, the price will be kept at a minimum.