

COMMITTEE REPORTS

CLASSICAL CEPHEID, Chairman: Thomas A. Cragg
 Anglo-Australian Observatory
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 Coonabarabran, N.S.W. 2857
 Australia

Chairman's report not received at AAVSO Headquarters.

CHART DISTRIBUTION, AAVSO Headquarters

The following is a report of AAVSO standard charts distributed from Headquarters from October 1, 1982, to September 30, 1983. 438 chart orders were filled, which included 127 sets to new members.

Standard Charts (8.5 x 11-inch)	13515
Finder Charts	209
Photoelectric Photometry Charts	274
"Old" <u>AAVSO Atlas</u>	13
"New" <u>AAVSO Variable Star Atlas</u>	17

Please use the Standard Chart Order Form when ordering charts. This form is available from Headquarters. If ordering Photoelectric Photometry charts, please indicate on Order Form.

We are now preparing reversed charts for those observers with telescopes having an odd number of reflections, as in Celestrons. Richard Hill has undertaken this project, and has prepared several reversed charts.

Sky Publishing Corporation and Cambridge Press are still interested in a second printing of the AAVSO Variable Star Atlas when the current stock runs out. We are very interested in hearing from members and/or observers having suggestions, comments, or corrections for the second printing.

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 period of May 15, 1983, through October 20, 1983:

<u>Destination</u>	<u>No. of Different Addressees</u>	<u>Chart Copies Mailed</u>
U.S.A.	16	1044
Italy	2	365
Canada	2	53
England	1	33
Greece	<u>1</u>	<u>23</u>
TOTAL	22	1518

As usual, a detailed breakdown of these figures is available on request.

A new Sixth Edition of the AAVSO Preliminary Chart Catalog was completed, dated May 1983. About 60 copies of this Catalog have been issued, per requests. Unfortunately, the computer print-outs for the

Catalog pages could not be completed in time for distribution at the May 1983 meeting in Quebec City, Canada, but updated copies are currently available. These copies contain supplemental "Addenda and Corrections" sheets which bring the new Sixth Edition up to date through October 20, 1983. The total number of charts listed is now nearly 1200, covering 935 variable stars. None of these charts were available in standard, quantity-reproducible form prior to the inception of the Preliminary Charts program in 1966.

The same committee members and others continue to be active, as were listed in the May 1983 report. Our TRS-80 Model III computer has not yet satisfied all of its desired requirements, but Mr. Taylor and Ms. Manella have now furnished us with the newly revised and tested diskettes, and Mr. Scovil is confident that the computer program will very soon be in full operation to process both chart data and distribution.

There is one serious lack of equipment for producing the preliminary charts, and AAVSO Director Dr. Mattei and several others have attempted, so far without success, to remedy the situation. We badly need a modern plate-measuring photometer, in order to determine magnitude sequences on photographic plates. The Cuffey instrument formerly used by Mr. Scovil at Yale Observatory is no longer available, and other such photometers are not located convenient to our plate stacks at Stamford (CT) Observatory. A newly-manufactured Cuffey photometer, if now available, is priced at over \$30,000 and would not be a feasible purchase.

The backlog of new material to be charted remains the same or larger than noted in my previous report (May 1983).

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

During this reporting period, fifteen observers submitted 3,722 observations of 150 eclipsing binary stars. A total of 254 minima were observed. These data include PEP observations of three minima, SZ Her submitted by Charles Bordner, and WW Aur and W UMA submitted by Chris Hesselstine.

Minima were timed for 62 program stars and for 88 additional stars not included as part of the AAVSO standard program. This continuing successful endeavor to obtain year-to-year data on large numbers of additional eclipsing binaries is the result, in large part, of a cooperative effort between Peter Taylor, who provides a special ephemeris for this purpose, and Gerry Samolyk, who works extensive and sometimes frigid hours making the long observing series required.

As usual, we like to list the program stars which are receiving the least attention so that interested readers may determine where their observing efforts might be most productively applied. 36 program stars were not observed during this reporting period, and only one minimum was obtained for each of an additional 23 stars.

No Minima Observed

TW And	R CMa	Y Cyg	AV Hya	EQ Ori	XZ Per
XZ Aql	UU CMa	BR Cyg	T LMi	FL Ori	Y Psc
V343 Aql	RW Cap	V346 Cyg	Delta Lib	TY Peg	RW Tau
V346 Aql	XX Cep	V387 Cyg	EW Lyr	AQ Peg	AM Tau
ZZ Boo	SS Cet	TT Del	RU Mon	RV Per	RS Tri
AL Cam	RV Crv	UZ Dra	RW Mon	ST Per	AG Vir

One Minimum Observed

WZ And	U CrB	Z Dra	Y Leo	SX Oph	AC Tau
OO Aql	V Crt	TW Dra	SS Lib	U Peg	RV Tri
Y Cam	V477 Cyg	RW Gem	FL Lyr	RT Per	TX UMa
TV Cas	W Del	CT Her	BO Mon	Beta Per	

Although there are a few surprises on this list such as OO Aql, V346 Aql, R CMa, and RV Tri, which are generally considered easy to observe, most of these stars tend to be repeats due to difficulty of observation or reduced opportunity to observe because of long eclipse duration or infrequent minima.

It is especially gratifying to see several of our observers succeed in obtaining good minima of some of the more difficult objects. We would like to acknowledge some outstanding examples which occurred during this reporting period: Phillip Atwood, V342 Aql; Glenn Chaple, TU Her; Ernst Mayer, RY Aqr and Y Cam; Richard Hill, Z Per; Gerry Samolyk, RY Aqr, WW Cyg, V342 Aql, YY Del, AC Tau, XZ UMa, V Crt, SX Oph, TX UMa, and SW Cyg; David Williams, WW Cyg, YY Del, RW Gem, and TU Her.

Additionally, we acknowledge the support of those individuals whose services make it possible for our observers to accomplish their observing goals: Peter Taylor for the computerized production of the ephemerides, Janet Mattei and Headquarters staff for reproduction and distribution of the ephemerides, and Gerry Samolyk for maintaining the eclipsing binary chart library and distributing charts as needed. His address is: 931 S. 76 Street, West Allis, WI 53214.

NOVA SEARCH, Chairman: Kenneth C. Beckmann
312 Union Street
Bangor, ME 04401

Recently I was offered the opportunity to serve as Chairman of the AAVSO Nova and Supernova Search Committee. I look forward with great anticipation to working closely with all observers currently active in nova and supernova search. I believe the expectations of the program depend uniquely on our observers, who sacrifice many hours searching the skies in hopes of discovering a nova or supernova. Their encounters with the heavens enable our growth in understanding these elusive stellar objects.

Tentative programming for the new year 1984 includes the creation of a nova-hunting booklet as well as a supernova hunter's booklet. Each booklet is to be about twenty pages in length, and will be available to observers. Details are available from the Chairman.

Another tentative project is the creation of a quarterly newsletter to observers about nova and supernova hunting. The newsletter will include the prior quarter's news about novae and supernovae, as well as articles by observers describing their programs, methods, and techniques. Details will be forthcoming.

Please continue to send us your observations. You support our efforts by submitting your observations. We look forward to your continued participation, and to an opportunity to share the New Year with a hope that you may be successful during your nightly vigil.

On behalf of the AAVSO Nova and Supernova Search Committee I wish to extend sincere congratulations to Rev. Robert O. Evans of Australia on his discovery of a supernova in NGC 1365 during November 1983. Rev. Evans was the guest speaker at the Annual Meeting of the AAVSO in Nantucket, MA, in October, and also received the AAVSO Nova Award for his recent supernova discoveries.

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

Russ Genet, Editor of the AAVSO Photoelectric Photometry Newsletter since January, 1982, asked to be relieved of his position due to additional personal commitments. Russ put out three very good Newsletters, and we were very sorry to lose his services.

The new Editor is Dr. John R. Percy, Department of Astronomy, University of Toronto. He is particularly interested in the photometry of small-amplitude variable stars. We feel very pleased to have added a person with his knowledge and experience to the Photoelectric Photometry Committee. He has recently edited a very informative Newsletter.

All of the necessary forms have now been published and have now been distributed to those AAVSO observers whom we know to have observed using photoelectric photometry equipment. The Observer's Information Sheet collects necessary technical information about the observer's instrumentation. The Instruction Sheet explains how the Photoelectric Photometry Report Form should be used. This explanation is necessary because the data on the form will be used in a computer program, and so all observers must follow the same rules to obtain compatible results.

We have decided to withdraw the AAVSO Photoelectric Photometry Manual from the list of AAVSO publications. It is very out-dated, and we now recommend the use of the book Photoelectric Photometry of Variable Stars by Douglas S. Hall and Russell M. Genet.

Now that the Photoelectric Photometry Chart Catalog and the photoelectric photometry star charts are all available, I sincerely encourage anyone with photoelectric equipment to contribute to the AAVSO Photoelectric Photometry Program. If you have no photoelectric photometry equipment but are interested in becoming a photoelectric observer, please write to me.

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

Four observers submitted 913 observations of 18 RR Lyrae stars during the past year. We expect to determine 59 times of maxima from these data.

The 41 stars included in the AAVSO 1983 Ephemeris for RR Lyrae Stars are listed here with the number of observed maxima indicated for each star:

<u>Star</u>	<u>Obs. Max.</u>	<u>Star</u>	<u>Obs. Max.</u>	<u>Star</u>	<u>Obs. Max.</u>
SW And	7	YZ Boo	5	DY Her	5
XX And	1	RW Cnc	0	SZ Hya	0
AT And	0	TT Cnc	0	UU Hya	0
SW Aqr	0	VZ Cnc	0	VX Hya	0
TZ Aur	0	RR Cet	0	DH Hya	0
BH Aur	1	XZ Cyg	10	RR Leo	3
RS Boo	2	DM Cyg	1	SS Leo	0
ST Boo	1	RW Dra	0	TV Leo	0
SW Boo	0	XZ Dra	0	WW Leo	0
SZ Boo	1	RR Gem	2	RZ Lyn	0
TV Boo	2	TW Her	6	SZ Lyn	0
TW Boo	5	VX Her	2	AV Peg	0
UU Boo	3	AR Her	0	RV UMa	0
UY Boo	2	DL Her	0		

A quick glance at this list reveals that the prospective observer has plenty of opportunity to start filling observational gaps that have been left open during the past year.

We are pleased to note that Mark Heifner has, for the past several years, become one of our most dependable observers, and we rely on him to fill many of our observational gaps, including the securing of several maxima of XZ Cyg, a star which can suddenly change period in a very dramatic way and which needs to be monitored very frequently to assure a continuous record of its behavior.

We wish to acknowledge the services of Peter Taylor for the production of the ephemeris of RR Lyrae-type stars and Janet Mattei and Headquarters staff for their reproduction of the ephemeris and its distribution to observers.

SOLAR DIVISION, Chairman: Robert B. Ammons
411 Keith Avenue
Missoula, MT 59807

1. Reports of sunspots have been supplied on time each month to NOAA in Boulder, CO, as prepared by Peter Taylor from observations taken by more than 30 observers. A number of observer trainees have worked under the supervision of Douglas Ammons during this period.
2. Reports of sudden ionospheric disturbances have been supplied on time each month to NOAA in Boulder, CO, as prepared by Stephanie Ammons from the reports supplied by more than 17 radio observers.
3. AAVSO Solar Bulletins are in preparation for each month, January through September, 1983. All should be mailed within the next two months.
4. The present chairman was overwhelmed with work beyond his time and energy to carry out his duties. He thought to resign effective January, 1983. At Janet Mattei's request, he reluctantly agreed to assume caretaker status until April, and then finally until October, 1983. There is no way he can continue in this position beyond the present meeting. The present chairman apologizes for his inability to handle correspondence during this caretaker period.
5. The present chairman wishes his successor the best of good fortune and would like to describe the "ideal chairman," a person who can handle the work of the Solar Division. Needed for this position: a retired person in good health, with unlimited time available, with knowledge of radio engineering, experienced solar observer, experience in editing, familiar with organizational problems and volunteer scientific groups, preferably a recognized scientist in radio and/or solar physics. Perhaps this position can only be handled by a group of people.
6. I wish to thank many fine people who have helped me during the past year. Special appreciation to Janet Mattei, Peter Taylor, Stephanie Ammons, Douglas Ammons, and Marjorie Pettinato. Of course, without the active participation of our more than 50 active observers, no program would have been possible.

TELESCOPE, Chairman: Charles E. Scovil
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Stamford, CT 06903

Chairman's report not received at AAVSO Headquarters.