

COMMITTEE REPORTS

CHART DISTRIBUTION, AAVSO Headquarters

The following is a report of AAVSO charts distributed from Headquarters from 10/1/79 to 9/30/80. A total of 488 chart orders was filled. This is 133 orders more than last year.

8 x 10 charts	15,873
Finder charts	328
Atlas	23

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

During the past six months, 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 Addressees</u>	<u>Chart Copies Mailed</u>
U.S.A.	15	1,263
Japan	1	697
South Africa	2	101
Austria	1	69
Australia	3	47
Greece	1	25
Canada	2	16
West Germany	1	13
Poland	1	10
	<u>29</u>	<u>2,266</u>

Per previous reports, a detailed breakdown of these figures is available. Two complete sets of the Preliminary Charts were shipped during the six months.

Fifteen copies of the June 1978 Preliminary Charts Catalog were mailed, in response to requests. These included the supplementary update list showing all charts completed by the Chart Committee members between June 1978 and March 1, 1980. This list was published in JAAVSO vol. 8. no. 2 (Fall-Winter 1979-80).

The AAVSO Director and the New Charts Committee Chairman have now agreed upon a plan to publish in JAAVSO, from time to time in the future, listings of all currently new or newly-revised charts, showing dates when observers will be asked to start using same. It is anticipated that copies of these charts will be available from my office for the price of 15¢ (U.S.) each.

The long-delayed preparation of a complete Third Revision (i.e. a 4th Edition) of the AAVSO Preliminary Charts Catalog is now under way. The backlog of photographic, photometric, and revised comparison star sequence data for use in producing new and revised preliminary charts continues to increase.

Data contributions recently made by member-observer Richard H. Stanton deserve special mention. At his California observatory, he has measured, with a photon-counter attached to his 16-inch Cassegrain telescope, comparison star magns. in over 20 variable star fields, many as faint as magn. 15.5(v). Charles Scovil continues to measure field photos with the Yale Observatory's Cuffey astrophotometer.

Photographs for this work have originated mainly at Stamford (Conn.) Observatory (Scovil), Ford (Calif.) Observatory (Royer), and at Kitt Peak Observatory (Rick Hill). The principal contributor of visual data re chart corrections and revisions has been active observer Robert Annal in California.

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

Several PEP observers continue to submit data to AAVSO Headquarters, as the following list indicates:

Russ Genet, 44 i Boo.

J. Johnson, CH Cyg, HR 4742, HR 8062, HR 2059, HR 4041,
and HR 2195.

Len Kalish, SW Lac.

Kevin Krisciunas, alpha Ori, Y CVn, lam And, omi Cet.

Tom McFaul, HR 7442, HR 9038, HR 582, HR 1688, HR 7395,
nu Boo, chi UMa, rho Cyg, HD 182054, HD 86590, iota Aur,
pi Aur, V509 Cas, UX Ari.

H. Landis, V 509 Cas, HR 4263, HR 1577, V711 Tau, HR 4751,
and TT Aql.

Richard Lines, UV Cep.

Howard Louth, 44 i Boo, mu Her, mu Oph, TW Dra, Z Vul, GO Cyg.

David Skillman, EM Cep, mu Her, RS Vul, Z Vul, AN And,
CC Cas, AG Per, 44 i Boo, sig CrB.

The PEP NEWSLETTER is sent to active observers and includes observing projects, light curves obtained by observers, and ideas on equipment. David Skillman is doing a great job as editor of the NEWSLETTER; it keeps getting better.

Howard Louth and Art Stokes both have new designs for photometer heads. It is our intent to include one or both of them in the PEP Manual being revised.

In the latest PEP NEWSLETTER there is an up-dated list of 65 bright eclipsing variables provided by M. E. Baldwin, Chairman of the AAVSO Eclipsing Binary Committee. Other programs included: Dr. Douglas S. Hall, RS CVn stars; Dr. Dorrit Hoffleit, search for new bright variables; Dr. Thomas G. Barnes III, search for fine detail at the phase of light-curve reversals in certain Cepheids.

It is obvious that we have a lot of observing activity, but also we have a larger variety of observing that needs to be accomplished. We would like to have more observers and even greater observing activity, so if you think you want to get into Photoelectric Photometry, get in touch with me.

VARIABLE STAR ATLAS COMMITTEE, Chairman: Clinton B. Ford
10 Canterbury Lane
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I am pleased to report that, since May 1980, with minor exceptions all deadlines previously set for production of the AAVSO Variable Star Atlas (VSA) have been met. This has not been accomplished without an unprecedented effort on the part of Charles Scovil and his assistants at AAVSO Headquarters, the AAVSO Director Janet A. Mattei, and the

staff at Sky Publishing Corporation spearheaded by Leif J. Robinson, the Executive Editor of Sky and Telescope magazine.

The VSA is finally completed and published after nearly eight years of work and the expenditure of over \$30,000. After seemingly endless controversy, the retail price of the Atlas has been established at \$39.95 per copy ---- a remarkable achievement considering the amount of work involved and the tremendous amount of information in the Atlas.

As Chairman of the VSA Committee, I would like to ask the AAVSO Council's permission at this time to discontinue the VSA Committee and my responsibilities re same. As a parting remark, I would like to say that my file on the VSA Committee (correspondence, chart samples, photos, reports, etc.) is about four inches thick. The main point, I think, is that the AAVSO Variable Star Atlas is finally a fait accompli, and one of which we may be proud.

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

As previously predicted, there were record numbers of observations in both programs. There were, however, no discoveries. There were a few "minor" scares in both programs which also indicates that our vigilance has also increased.

At the Fall AAVSO workshop in Cambridge, in 1979, supplemental search activities were discussed. For supernova search, Mike Mattei discussed a search pattern from the Sagittarius star cloud to Cassiopeia, which is similar to the Nova search dome search procedure. Its purpose is to discover a supernova within our own Milky Way Galaxy. Such a discovery is long overdue, as the last one was in 1604. The chairman wishes to include reporting of these searches in his future reports. This can be done by indicating on the SNS Long Form, (use of the short forms for both programs has since been discontinued by consensus at this same workshop), SNS Starfield under NGC or Messier No. column. This search should be done with the naked eye down to 3rd magnitude as it would be for a dome search.

In the Nova search program, it was suggested that the variable star fields themselves be used to discover novae. This is how Nova Cygni 1978 was discovered by W. Morrison. While the logistics of trying to report these kinds of observations are probably going to be unwieldy for the nova search chairman, any irregularity in these fields should be reported at once to the AAVSO Director. Also, even though the chairman has discontinued reporting Dome searches, regular observing and reporting of the entire visible sky down to 3rd magnitude should be continued by all observers.

Difficulty with the mail is still being experienced on an increasing scale so that if you have written and received no answer, write again to the chairman and AAVSO Headquarters. During the 1979 Fall Meeting, the chairman distributed approximately 25 sets of supernova star charts prepared by Tom Fetterman to be sky-checked. To date, only 3 reports were received. No decision can be made until further sky-checking is done. Information on this project as well as materials for both programs are available free from the chairman. In addition, program information is available from AAVSO Headquarters.

Nova Search Observations

<u>Observer</u>	<u>Location</u>	<u>Affiliation</u>	<u># Areas</u>	<u># Observations</u>
Andrew Barrett	Australia	ASV	5	230
Kenneth Beckmann	Missouri	AAVSO	51	3590
Carmine Borzelli	New Jersey	AAVSO	124	4306
Robert Buss	North Dakota	AAVSO	2	14
Manfred Durkefalden	W. Germany	AAVSO	74	779
Frank Farr	Australia	ASV	1	14
David Levy	Arizona	AAVSO	6	141
Herbert Luft	New York	AAVSO	1	130
Warren Morrison	Canada	AAVSO	14	1212
Frank Schmidt	New York	AAA-NYC	1	9
Chris Spratt	Canada	AAVSO	4	56
Philip Steffey	California	AAVSO	9	53
Frank Traynor	Australia	BAA-NSW	Dome	searches only
Daniel Troiani	Illinois	AAVSO	10	23
Thomas Wilson	W. Virginia	AAVSO	7	<u>532</u>
				11,089

Supernova Search Observations

			<u>#Galaxies</u>	<u>#Observations</u>	<u>(I/S)*</u>
Carmine Borzelli	New Jersey	AAVSO	27	629	
Thomas Fetterman	New Jersey	AAVSO	44	85	(52)
Paul Goodwin	Louisiana	AAVSO	2	2	(2)
Gus Johnson	Maryland	AAVSO	27	110	(7)
Herbert Luft	New York	AAVSO	1	110	
Thomas McFaul	New York	AAVSO	24	35	(35)
Chris Spratt	Canada	AAVSO	4	50	
Daniel Troiani	Illinois	AAVSO	28	57	(4)
Thomas Wilson	W. Virginia	AAVSO	4	<u>9</u>	(8)
				1,087	(108)

* Indicates inner sanctum (mag. 14 or fainter) observation totals.

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

During this reporting period 16 visual observers submitted 7844 observations of 212 eclipsing binary stars. About 420 times of minima will eventually be reduced from these data. An additional 501 PEP observations of six stars were submitted by four observers.

Although the efforts of a few of our observers have enabled us to obtain data for large numbers of stars, the list of program stars which are not adequately observed continued to grow at a distressing rate. During the 1979-1980 observing year no minima were obtained for 24 program stars and only one minimum was obtained for each of a like number of stars.

No minima observed:

TW And	R Cma	SW Cyg	YY Del	VX Lac	SX Oph
RY Aqr	RV Crv	WW Cyg	UZ Dra	SS Lib	EQ Ori
ZZ Boo	V Crt	V387 Cyg	RW Gem	RU Mon	Beta Per
Y Cam	Y Cyg	TT Del	TU Her	BO Mon	AM Tau

One minimum observed:

V342 Aql	XX Cep	CT Her	FL Lyr	AQ Peg	U Sge
V343 Aql	SS Cet	Y Leo	RW Mon	Z Per	V505 Sgr
V346 Aql	U CrB	Delta Lib	FL Ori	ST Per	W Uma
AL Cam	V346 Cyg	EW Lyr	TY Peg	Y Psc	TX Uma

Any qualified observer wishing to make a large positive impact with a small number of minima observations can do so by observing a number of the stars listed here.

A new computerized ephemeris format designed and produced by Peter Taylor and Josefa Manella has been adopted for use by our observers. It is more compact and provides additional information on each star. This ephemeris format replaces the one provided by Don Livingston every year since the late 1960's. Those who were involved in our program at that time will remember well how his computerized ephemerides made possible the major expansion that made the program such a success. We are also pleased to note that Don continues to provide supplemental ephemeral material to a few observers doing special projects and that he retains full capability to provide us with the regular program ephemeris if we should require it.

RR LYRAE COMMITTEE, Chairman: Marvin E. Baldwin
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This annual report of the activities of the RR Lyrae committee and its observers finds a total of 5 observers reporting 2559 observations of 29 RR Lyrae type stars. A total of some 115 times of maxima will be extracted from these data.

Stars listed in our ephemeris which were not observed include:

SW Aqr	VZ Cnc	TW Her	SS Leo	RZ Lyr
TV Boo	RW Dra	AR Her	TV Leo	AV Peg
RW Cnc	XZ Dra	DL Her	WW Leo	RV Uma

Furthermore, only one maximum was observed for each of these stars -- AT And, TZ Aur, VX Her, SZ Hya, and UU Hya -- and only two maxima for TW Boo and DY Her. All of these stars need more attention by observers.

Observers now have available the new improved ephemeris format provided by Peter Taylor and Josefa Manella replacing the ephemerides produced for several years by Don Livingston which have long been an essential part of the RR program.

Yet another chapter is being unveiled in the unusual history of XZ Cygni. Late in 1979 Peter Taylor had found reason to suspect another major period change in this star. He was able to confirm this period change early in 1980 from our continued accumulation of data.