

## Other Papers Presented:

The Story of the Eight Inch Springfield, The First Telescope to Make 100,000 Variable Star Observations

Cyrus F. Fernald: Personal reminiscences regarding the acquisition, installation and use of this telescope.

1700 Day Plots of Five Long Period Variables

Janet Akyüz: Display of large-scale computer plots of light curves from Oct.1961 to June 1966. (Several already published in Report 28; the balance to appear in Report 30).

Astronomical Serendipity

Kenneth Weitzenhoffer: Humorous astronomical trivia.

A Puzzling Variable - X Ophiuchi

Lewis J. Boss: Brief review of previously published material on this star.

An Intriguing Set of Sunspot Observations

David W. Rosebrugh: Description of anomalous sunspot counts obtained at two different times on the same day.

Dome Construction at Ford Observatory

Gerald Bilodeau: Color slide photos of dome construction.

Solar Eclipse of 10 July, 1972: Aspects of Lunar Shadow in the Atmosphere.

William H. Glenn: Color slides of lunar shadow in the sky, taken with 180° field-of-view lens.

The Giant Sunspot in Early August 1972.

Herbert Luft: Visual observations of a large sunspot group made intermittently from July 1 through Sept. 4, 1972 with a 54mm refractor.

Desiderata

Harry L. Bondy: Tribute to and biographical sketch of Neal J. Heines.

## COMMITTEE REPORTS

SOLAR DIVISION, Casper H. Hossfield, Chairman

The Solar Division continues to generate the data from which the American Sunspot Numbers are calculated. These are reported to NOAA and published monthly in Sky & Telescope.

The Solar Bulletin, ably edited by Keith Strait, is issued monthly to solar observers, and to subscribers. It reports on visual sunspot observations as represented by the Sunspot Numbers, and on the SEA\* and SES\* radio flare patrol work done by members.

\*Sudden Enhancement of Atmospheric radio noise or Signal

ECLIPSING BINARY, Marvin E. Baldwin, Chairman

During the period 1 October 1971 through 30 Sept., 1972 sixteen observers reported a total of 219 minima timings of 47 eclipsing binaries. Six of the stars observed were non-program stars. Nevertheless, these statistics represent a decrease in observing activity in nearly every category as compared to the last two years. Those who may wish to make comparison of observing progress should examine listings in Bulletins No. 14 and 19.

The listings given here include the number of minima observed for each star and the number made by each observer.

OBSERVERS		PROGRAM STARS OBSERVED					
G. E. Bailey	1	RT And	8	U Cep	3	U Oph	1
Marvin Baldwin	79	WZ And	2	EG Cep	8	EQ Ori	1
John Bortle	12	XZ And	5	U CrB	2	ER Ori	26
Martin Connors	1	AB And	20	ZZ Cyg	3	U Peg	12
Stephen Cook	4	RY Aqr	1	V477 Cyg	1	RT Per	3
Thomas Cragg	10	CX Aqr	2	FZ Del	2	Beta Per	6
Murray Daw	2	OO Aql	13	TW Dra	1	Y Psc	1
Rusty Harvin	1	V346 Aql	2	AI Dra	2	RW Tau	2
Herb Koller	1	WW Aur	3	YY Eri	11	HU Tau	1
Ivars Lenss	28	SV Cam	7	SZ Her	3	X Tri	7
Ernst Mayer	10	AL Cam	22	CT Her	1	W UMa	12
Donald Ortwein	12	RZ Cas	17	SW Lac	8	TX UMa	1
Karl Simmons	2	TV Cas	2	SS Lib	1	BU Vul	2
Bruce Small	53	AB Cas	3	RU Mon	1		
Raymond Thompson	1						
David Wolters	2						
		NON-PROGRAM STARS OBSERVED					
		CM Lac	1	V1143 Cyg	1	RU UMi	5
		UV Leo	1	RW Mon	1	XZ Per	1

## PROGRAM STARS NOT OBSERVED

XZ Aql	XX Cep	TT Del	VX Lac	FL Lyr	ST Per
V342 Aql	SS Cet	TY Del	Y Leo	SX Oph	Z Per
Y Cam	W Crv	YY Del	T LMi	FL Ori	U Sge
R CMA	Y Cyg	Z Dra	Delta Lib	TY Peg	VV UMa
RW Cap	W Del	TU Her	EW Lyr	DI Peg	XZ UMa

The observer who wants an important project to work on need only look as far as the list of program stars not observed. Y Cam, R CMA, Z Dra, Y Leo, T LMi and FL Ori are but a few that are or soon will be in good observing position. With only three exceptions every program star not observed in the previous year remained unobserved.

RR LYRAE, Marvin E. Baldwin, Chairman

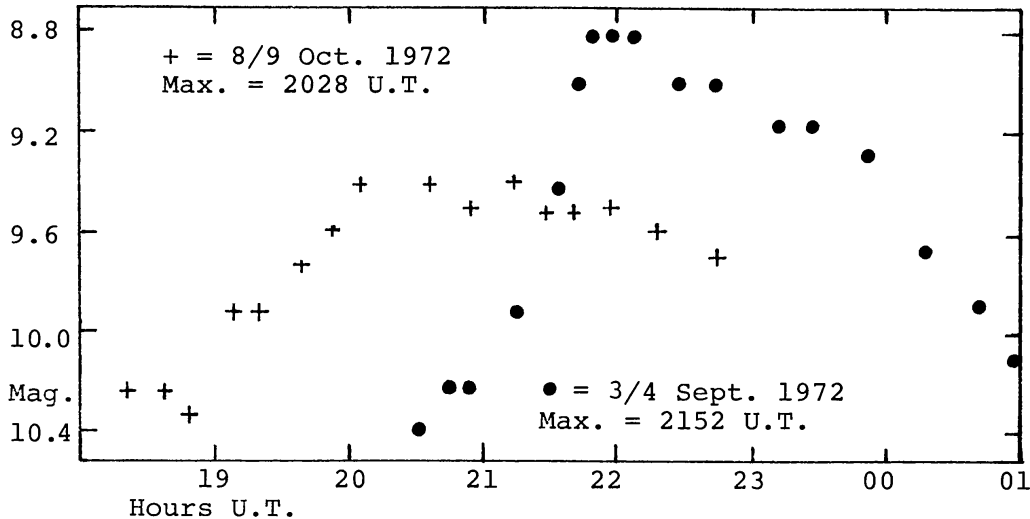
Continuing efforts to observe the RR stars have resulted in 1578 potentially useful observations by eight observers during the period 1 Oct. 1971 through 30 Sept. 1972.

XZ Cyg usually demonstrates rapid rise from minimum brightness of about magnitude 10.3 to a maximum of magnitude 8.9. However, during recent days maxima of this star have been fore-shortened to about 9.4 magnitude. This is illustrated in the

two maxima reproduced here.

XZ Cyg also continues to be spectacular from the viewpoint of period change. The revised period discussed in Bulletin Number 5\* has proved to be too conservative. The O - C residuals continue to deviate from the established elements at an increasing rate. Relative to the 1969 GCVS elements the residual has now passed the value of -0.400 day and will soon have advanced one full cycle (0.467 day) ahead of those elements. This could be very confusing to the observer currently watching this star if he is not familiar with its behavior of the past 5 or 6 years.

\*Bulletin of the AAVSO RR Lyrae Committee



XZ CYG - TWO TYPES OF MAXIMA

PHOTOELECTRIC PHOTOMETRY, Arthur J. Stokes, Chairman

We continue with three observers doing PEP observations, Larry Lovell, Howard Landis, and myself. Several inquiries have been received and answered during the year, and one new PEP outfit is under construction.

Larry Lovell has done work on 31 Cygni and Beta Lyrae, the latter in conjunction with Dr. D.S. Hall of Vanderbilt Univ. This is to be published in Publications of the Astronomical Society of the Pacific.

Howard Landis has also worked on Beta Lyrae, and has measured new comparison star sequences for CH Cyg and X Cyg. The work on CH Cyg appears in AAVSO CIRCULAR No. 24, Oct. 1972, and that on X Cyg will be given as a paper at this meeting.

AD HOC COMMITTEE ON DATA PROCESSING, Arthur J. Stokes and George Diedrich

We believe this should be the last report of this committee since essentially most of its purpose has been fulfilled. That is, by probing for a new and better way to send reports to Headquarters we have at least stirred up some members who have found that indeed they can get some key-punching help in their own areas and thus prepare cards for use in the SAO

computer, which certainly satisfies the main purpose of the formation of this committee.

A computer program is available from the authors to convert "Port-A-Punch" recorded card data to the regular format on standard IBM cards as used at Headquarters. This can also be done on certain types of mechanical card duplicators.

ED. NOTE: Refer to AAVSO Committee Reports, Sept. 30, 1971, and JAAVSO 1, 1972, 25. It is suggested that observers who are interested in punching their own data write to Headquarters for sample cards and program cards.

---

OCCULTATIONS, John E. Bortle, Chairman

At mid year I took over the chairmanship of the committee. Unfortunately for many reasons the changeover could not be made quickly and smoothly, and complete transition was not accomplished until the time of the Fall meeting. As a result, it seems that reports from many of the regular observers have not yet reached me, as only 20 timings have been reported. It is hoped that all those who have not reported their 1971-1972 occultation observations will send them to me at: Gold Road, Stormville, N. Y. 12582.

---

NOVA SEARCH, George Diedrich, Chairman

1972 has seen an increase in observers and observations but, unfortunately, no increase in novae found. The observers reporting, and the number of area-nights, followed by the numbers of times the entire "dome" was observed are as follows:

James D. Currie	11, 4	Diane Lucas	1, 0
DeLorne Diedrich	31, 0	P. T. Menoher	2, 0
George Diedrich	41, 7	Robert Schlesinger	81, 42
Robert R. Hunter	20, 10	Karl A. Wells	8, 0

---

CHART DISTRIBUTION, AAVSO Headquarters

A total of 496 orders for blueprint charts was filled, including 96 sets for new members, as follows:

8 x 10 charts	12,910
Finder Charts	437
Atlases	26

In May a new catalog of all AAVSO blueprint charts was compiled. This is now available at 50¢ per copy. A supplement will be issued shortly, showing additions since May.

Please note that all charts are sent third class mail unless extra postage is included with the order.

---

NEW CHART COMPILATION, Clinton B. Ford, Chairman.

The work of compiling new charts (pencil-traced) continues with material from several sources, principally research in the literature by Wayne Lowder and Lawrence Hazel. Photographs by Hazel and by Charles Scovil with the 22" telescope at the Stamford Observatory are used. Howard Landis has done some PEP work on sequences and some has been done by others.

On the average there are some new charts each month. A new catalog of these charts was recently prepared. This is free

(in contrast to the catalog of blueprint charts) and is available from me. (C. B. Ford, 10 Canterbury La., Wilton, Conn. 06897)

---

TELESCOPE LOANS, Charles E. Scovil, Chairman

All useable telescope outfits have now been loaned out except for two small refractors of 2.4" and 3.3" aperture, and two mirrors of unknown quality, 8" and 10" in diameter. The 11 1/4" mirror mentioned in the last report has recently been loaned out and the recipient is building a mounting.

Cyrus F. Fernald has generously donated his Springfield-mounted 8" telescope to the Association. It has been loaned to Chandler Holton, of South China, Maine.

---

AAVSO TREASURER'S REPORT: YEAR ENDING SEPTEMBER 30, 1972

<u>GENERAL FUND</u> (See Note)	12 Months Ending 9/30/72		12 Months Ending 9/30/71	
	<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>
<u>RECEIPTS:</u>				
Dues:				
Annual (Junior)	\$ 294	0.7	\$ 368	1.1
Annual (Regular)	3,035	7.5	3,039	9.0
Sustaining	1,739	4.3	1,673	5.0
Arrears	217	0.5	393	1.2
Advance	326	0.8	155	0.5
New Members	708	1.8	739	2.2
	<u>6,319</u>	<u>15.6</u>	<u>6,367</u>	<u>19.0</u>
Application Fees:				
Junior	44	0.1	65	0.2
Regular	67	0.2	63	0.2
Sustaining	2	0.0	1	0.0
	<u>113</u>	<u>0.3</u>	<u>129</u>	<u>0.4</u>
Special Projects	--		650	1.9
Subscriptions	554	1.4	502	1.5
Cash Gifts	107	0.3	173	0.5
Chart Fund (Net)	1,187	2.8	1,617	4.8
Chart Catalog Sales	68	0.2	69	0.2
Manual Sales	108	0.3	162	0.4
Miscellaneous	23	0.1	185	0.6
Transfers from E.F.	31,895	79.0	23,736	70.7
	<u>\$40,374</u>	<u>100.0</u>	<u>\$33,590</u>	<u>100.0</u>
Grant: NOAA for Solar D.	1,704		1,704	
Total Receipts	<u>\$42,078</u>		<u>\$35,294</u>	