

apparent magnitude between the two sets of images.

#### Two Southern Variable Stars

M.D. Overbeek: Discussion of observing problems, with the suggestion of the use of an aperture-restricting diaphragm to lower brightness of very red stars below the color-perception level, eliminating color contrast problems.

#### The Giant Sunspots of 1972

Herbert A. Luft: Brief account of diameter measurements and magnetic activity of sunspots in August and October 1972.

#### A Supernova Reference System

Thomas A. Cragg: Proposal to obtain photographs of selected bright galaxies which can be monitored visually for supernovae.

Comments on the Use of Variable Star Techniques in Observing Minor Planets and Mutual Phenomena of Satellites of Jupiter.

Marvin E. Baldwin

#### Observer Constants

Thomas A. Cragg

#### "Bonus" Stars Shown on AAVSO Charts

Thomas A. Cragg: Note that stars often appear on AAVSO charts which can be observed, such as CS Cygni on the lower part of the chart for 194348 TU Cyg.

### COMMITTEE REPORTS

SOLAR DIVISION, Chairman: Casper H. Hossfield  
540 North Central Avenue  
Ramsey, New Jersey 07446

The major change in the Solar Division during the past year was the appointment of Carolyn Hurless as editor of the Solar Bulletin. Mrs. Hurless now does all of the typing and assembly of the Bulletin, as well as the mailing.

OCCULTATIONS, Chairman: John E. Bortle  
Gold Road  
Stormville, New York 12582

During the fiscal year 1972-1973 a total of 47 timings of occultations was received from three observers, Benton, Korintus, and Scovil. These timings were transmitted to the Royal Greenwich Observatory in England for processing and reduction.

In addition, several requests for information about the AAVSO occultation program were filled, and it is hoped at least some of these will produce new occultation observers.

#### CHART DISTRIBUTION, AAVSO Headquarters

A total of 484 orders for charts was filled, including 110 sets for new observers, as follows:

8 x 10 charts	13,271
Finder charts	1,195
Atlases	19

The current catalog (May 1972) of AAVSO charts is available from AAVSO Headquarters at 50¢ per copy. Charts are priced at 15¢ each, and are sent third class mail unless extra postage is included with the order.

TELESCOPE LOAN, Chairman: Charles E. Scovil  
Stamford Observatory  
39 Scofieldtown Road  
Stamford, Connecticut 06903

In order to reduce unused inventory a number of small un-mounted refractors, eyepieces, lenses, and miscellaneous parts were sold during the year. Several mirrors, sizes 6" through 11 1/4" remain to be sold.

Seven complete telescopes remain on loan to members and are in use making variable star estimates.

The Charles Alfred Post 6" refractor was displayed at the meeting, on a temporary portable mounting pier. Mrs. Mayall supplied the information that this telescope, donated by Mr. Post's widow in 1921, had for many years been mounted in its own dome at Harvard Observatory. In that location it had been used by many AAVSO observers until new construction at the Observatory required its removal. It is hoped that when the AAVSO finally gets its own building this telescope may be housed in an observatory there.

SEARCH COMMITTEE, Chairman: Clinton B. Ford

The Search Committee completed its task of selecting a group of qualified candidates from a list which originally included over 100 names. Those selected were considered by the Council, and a new Director chosen. The Council then officially disbanded the Search Committee, with thanks to its members for their efforts.

ECLIPSING BINARY, Chairman: Marvin E. Baldwin  
AFSC HQ BOX 571  
Andrews AFB, Maryland 20331

Timings of 676 minima of 48 stars were published in the Information Bulletin on Variable Stars, Number 795, May 1973. This publication was the first of four sets of such data gathered by AAVSO observers. Publication of the final set will bring us up to date, hopefully within the next few months.

During the fiscal year we had 241 minima observed by 14 observers. There were observations of 49 of the 70 stars on our program, and 10 additional stars were observed. The 21 program stars which were not observed are of some concern lest we lose track of them. In particular TV Cas and U Cep which although easy to observe, have not been observed in a year. TY Pegasi and Y Piscium, both with periods of a little over three days have not been observed recently. This is in part due to the difficulty of finding appropriately placed eclipses. These are few for any particular year.

RR LYRAE, Chairman: Marvin E. Baldwin

Eight observers sent data on 24 stars during the year. XZ Cygni has been of particular interest, as reported at the Spring meeting (JAAVSO 2, 1, 14). Bruce Small and Horace

Smith have made observations confirming the continued cycle of about 59 days for the variation in the height of maxima.

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

During the period 9/1/72 - 8/31/73 the following observers submitted reports of their search areas:

		Areas	Observations
Manfred Dürkefälden	West Germany	71	287
Carmine Borzelli	New Jersey	4	84
James Currie	Ohio	2	22
Robert Hunter	Ohio	3	11
Stephen O'Connor	Canada	2	5
Michael Mattei	Massachusetts	4	4
Thomas Wilson	West Virginia	2	2
Diane Lucas	Ohio	1	1

The Committee underwent a reorganization during the observing year, with a change of chairman. Twenty-five new areas, all located north of declination  $-30^\circ$ , were added to the existing 175 areas. It was necessary to add these new areas, as the edges of several of the existing areas were within  $2^\circ$  of the plane of the Milky Way. I wish to express my appreciation to Manfred Dürkefälden of West Germany, who first brought the need for these new areas to my attention, and who began observing some of them. A similar study of the need for new areas south of declination  $-30^\circ$  will be undertaken this year by members of the New South Wales Section of the BAA. Cooperation has also been instituted with John Isles, Director of the Variable Star Section of the BAA, whose section is interested in joining the AAVSO in nova search.

Sixteen requests for information were received this past year, including requests from the BAA and the New South Wales Section of the BAA. All were answered, and four new observers were added to the ranks of nova searchers during the year ending August 31st, and five more sent reports starting in September. Revised observing forms were prepared during the year also. No "scares" were received during the fiscal year, but there was one each in September and October, 1973.

A program has also been started for supernova search. Cooperation with the Webb Society of England, which has already had such a program for a year has begun. The AAVSO will pattern its program after that of the Webb Society, which includes monitoring of every galaxy in the Atlas Coeli north of and including  $0^\circ$  declination. After reviewing the program with them, we have agreed to add open and globular clusters and galaxies north and south of  $0^\circ$  declination.

The observing procedure is simple. An observer selects an object and makes a chart of it while at his own telescope. Each time he observes the same object, he compares it with his chart. Minimum aperture recommended is an 8" reflector. Since each telescope and observer are different, the use of standard charts is precluded. Nevertheless, the Webb Society is attempting to mass produce some, and we have been promised

copies when they are available. Standard reporting forms have been prepared by the AAVSO and will be used by both societies as well as the BAA, which also wishes to join the supernova search program. While no formal supernova search reports were received, we did have a "scare" in early July. Rev. Ronald Royer saw a bright star in the center of NGC 6207. A check of de Vaucouleurs Reference Catalogue of Bright Galaxies indicated, however, that the galaxy has a "bright star near center".

Instructions and reporting forms for both programs are now available from me, and the Committee has set up a system to verify "finds" reported to it.

We need more observers to enable us to cover each area at least twice, since multiple coverage will be necessary to discover a supernova.

A report of this Committee will appear in a future issue of the BAA Journal.

PHOTOELECTRIC PHOTOMETRY, Chairman: Arthur J. Stokes  
Stokes Lane (Box 398)  
Hudson, Ohio 44236

We received ten inquiries during the year, mostly about equipment as a result of the paper on building an FET amplifier which appeared in JAAVSO 1, 2. Mr. M. D. Overbeek of South Africa has completed a unit and is using it.

A recent I.A.U. Bulletin, "Improved Ephemerides for  $\beta$  Lyrae" cites 12 timings of minima, five of which were by AAVSO observers Engelkemier, Landis, and Lovell.

Revision of the Photoelectric Photometry Manual is continuing with help from John Ruiz and Michael and Janet Mattei. It is hoped that this will soon be ready for publication.

CLASSICAL CEPHEIDS, Chairman: Thomas A. Cragg  
Hale Observatories  
Mt. Wilson, California 91023

Since we are nearing the end of the current 1000-day interval there is very little to report at this time. It is hoped that observers will submit their data promptly after JD 2442000 so that our next report may be a complete one. The one item of note is that we have many more observers recently due to the report of this committee as published in JAAVSO Vol. 1, No. 1.

All data which has been received to date has been sorted and filed ready for correlation into the final report.