Committee Reports

Charge-Coupled Device (CCD)

Chair: Gary Walker
179 South Main Street, Sherborn, MA 01770

The CCD Program is having another active and successful year in 2003.

Observers continue to perform variable star measurements with their CCD cameras. In addition to our program stars, observers continue performing significant photometry on many of the AAVSO program stars that were not CCD Program Stars.

This year recognized the need to start a standard star observing program for CCD Observers. Bruce Gary, Arne Henden, and Aaron Price made contributions by suggesting potential fields, performing accurate photometry, posting them to Arne's ftp site, and making provisions to accept data via WebObs, etc. Trial observations were made on the field of SA114 by 6 observers who have started posting their results via the discussion group, while final details get worked out at AAVSO Headquarters.

The World Wide Web continues to be a useful tool, and along with the online data submission and the online light curve generator, the tasks of collecting data, and plotting light curves continue to be done on line and updated every 10 minutes

Personally, I can say that logging in my observations, over the Web, and then seeing how they compare to each star's history, and the other observers from the night before, is still the highlight of my day. Many thanks to the Headquarters staff for this Web presence.

While the *BVRI* and CV/LPV Programs will continue and need ongoing observations, I encourage each of you to observe, submit online, view online and data-mine whatever stars are of interest to you.

1,457 observations of the stars in the *BVRI* program were logged and put on the web. As of 30 September, the *BVRI* CCD measurements on 8 LPV's now approach 9,557 measurements, going back 10 years. The faint CV and LPV project continues to log *V* magnitudes. In the same interval 5,451 observations were logged for a cumulative total exceeding 10,151. Combining both the *BVRI* and CV/LPV Programs gives a Grand Total CCD observations of nearly 19,708 observations.

An additional 63,758 CCD observations on other stars have been submitted in the same interval, joining the existing 153,000 non-program star CCD observations in the AAVSO Database. This brings the grand-grand total of all AAVSO CCD observations to 236,666 total CCD observations.

I would like to recognize our *BVRI* observers: Ronald Zissell, 556 observations; Thomas Michalik, 346; Gary Walker, 171; Donald Pray, 142; Mark Munkacsy, 70; Frank Scheder, 44; Mauro Graziani, 30; Michael Koppelman, 22; Robert James, 15; Stefano Valentini, 12; Frans Nieuwenhout, 11; Flavio Zattera, 10; Doug West, 8; Maciej Reszelski, 6; Keith Graham, 5; David Oesper, 3; Ivo Peretto, 3; David Hurdis, 2; Arno Van Werven, 1 observation.

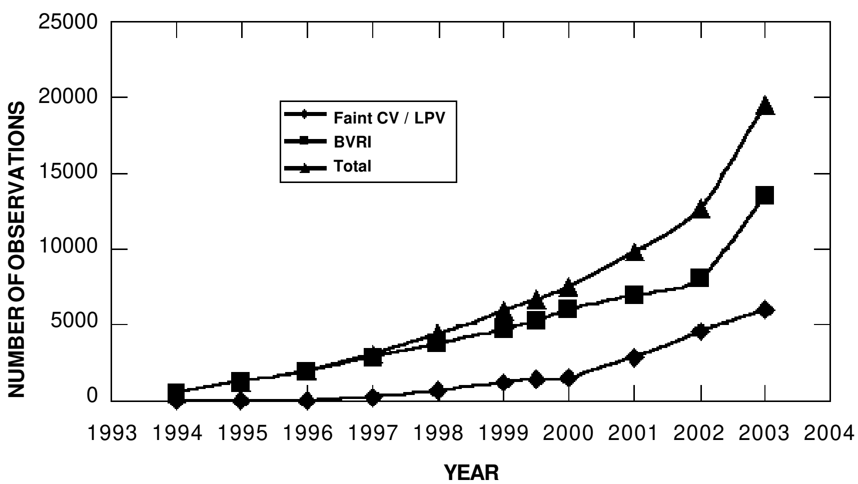
I would also like to recognize our Faint CV/LPV observers: Lewis Cook, 3427 observations; Robert James, 464; Peter Nelson, 363; Keith Graham, 245; Gary Billings, 174; Ronald Zissell, 160; Walter MacDonald, 74; William Goff, 62; Mark Munkacsy, 56; Stephen Robinson, 45; James Case, 35; Mauro Graziani, 30; Gary Walker, 30; Stefano Valentini, 27; Roger Diethelm, 25; Robert Stephens, 20; Alexandru Corlan, 19; Diego Rodriguez, 19; Don Wells, 19; Maurizio Martinengo, 18; Radu Corlan, 17; Flavio Zattera, 17; Neil Butterworth, 16; William Dillon, 16; Michael Gundy, 13; Frans Nieuwenhout, 10; Frank Scheder, 8; Horace Smith, 7; William Aquino, 6; Michael Nicholas, 6; Dennis Hohman, 5; Alain Bruno, 4; Ronald Royer, 4; Danny Scharnhoist, 3; Alan Smith, 3; and Thom Gandet, David Hurdis, Michael Koppelman, and David Levy, each 1 observation.

A total of 113 observers submitted CCD Program Observations, an increase from 35 observers in my last report.

In addition, Aaron Price performed yeoman's duty by publishing electronic issues of *CCD Views*.

I would like to thank Elizabeth Waagen for compiling and summarizing the observer totals.

The main goal for the next 6 months is to enable WebsObs to accept standard star observations, and encourage all CCD observers to complete several time-series runs on these fields and share their data on-line to reduce errors in observations. We expect that this fast turn around will greatly expand participation and interest. In addition, we will continue to mentor future CCD observers and be a resource to observers embarking on this fascinating segment of AAVSO.



CCD PROGRAM OBSERVATIONS

Eclipsing Binary

Chair: Marvin E. Baldwin
8655 N. County Road 775 E., Butlerville, IN 47223

During the past 12 months 31 observers reported data directly to the committee chair, including nearly 26,000 observations of 266 eclipsing binary stars. More than 20,000 of these observations were obtained with CCD equipment, the remaining being visual observations. Fifteen of these 31 observers provided CCD data.

In addition to data reported directly to the committee chair, more than 11,000 observations were reported directly to AAVSO Headquarters by an additional 123 observers. These observations include data on an additional 180 eclipsing binary stars.

Alltogether, more than 37,000 observations of 446 eclipsing binary stars were reported by 154 observers.

New Chart

Chair: Charles E. Scovil
Stamford Observatory, 39 Scofieldtown Road, Stamford, CT 06903

The work of creating new charts and revising existing ones continues by the AAVSO Chart Team and members of the New Chart Committee. Distribution of new charts is nearly all via the AAVSO web site.

Nova Search

Chair: Rev. Kenneth C. Beckmann
330 North Washington, Kahoka, MO 63445

Received at AAVSO Headquarters after the October 2003 meeting

Three novae were discovered in September and October 2003: Nova Sagittarii 2002 No. 2 was discovered by our AAVSO Nova Search committee member, William Liller, Viña del Mar, Chile, at photovisual magnitude 8.5 on September 15.1102 UT; Katsumi Haseda, Aichi, Japan, discovered Nova Sagittarii 2002 No. 3 on September 20.43 UT at photographic magnitude 5.0; Velo Tabur, Waniassa, Australia, discovered Nova Sagittarii 2002 No. 4 on October 25.44 UT at photographic magnitude 9.7. We congratulate all who discovered a nova during the past year.

Currently the committee is studying the feasibility of using an on-line form for submitting free, dome, visual, and photographic observations. We encourage those who are using the internet and a simple text program like Windows Notepad to continue doing so until the form is ready for publication and use. If you are sending hard copies of your observations, we encourage you to continue doing so. The committee also hopes that the extensive table of classical galactic novae will soon be on the nova search web pages as reported in the previous report.

During the year beginning September 1, 2002, and ending August 31, 2003, the following observers submitted the following observations. (Observation totals include free nova search, and visual and photographic dome and area searches.)

Observer	*Country*	*Free*	*Dome*	*Visual*	*Photographc*
Manfred Durkefälden	Germany	6039 min		28	
Steve Fanutti	Canada			17	
John Pickett	United States		66		1032
Gary Nowak	United States			2392	
Ken Beckmann	United States			1061	
Totals: 5 observers		6039	66	3498	1032

Photoelectric Photometry

AAVSO Headquarters
25 Birch Street, Cambridge, MA 02138

In June 2003, AAVSO Photoelectric Photometry Committee Chair Philip Manker stepped down as chair for health reasons. Phil had served as chair for the previous three years, having taken up the work after Howard Landis retired.

The AAVSO is very grateful to Phil for his truly dedicated efforts over the years on behalf of the AAVSO's photoelectric photometry program, and we thank him most sincerely. We look forward to continuing to hear from Phil PEP-wise as an observer, and we wish him and Glenda all the best!

Upon Phil's resignation, the PEP program operations were transferred to AAVSO Headquarters until a new committee chair could be found. As a result of this transfer, including changes in how and where observers send their data and where the data are reduced, the 2002–2003 annual totals for PEP observers are not complete at this time.

The table below includes partial totals; some observers who were active this year may not appear in the table, and some totals may be incomplete. We can say that at least 16 observers contributed PEP program star observations this year, and that at least 1,975 observations were submitted. The grand total of PEP program star observations had stood at 33,965 through fiscal year 2001–2003, so it now stands at at least 35,940 observations.

Revised totals will be published in *JAAVSO* after the data have been checked to make certain all observers and observations are accounted for. We apologize to our PEP observers and thank them very much for their patience and understanding.

Photoelectric photometry observations October 1, 2002–September 30, 2003 (partial list)

Observer	*Location*	*No. Obs.*	*Observer*	*Location*	*No. Obs.*
Clark, W.	MO	145	Kneipp, P.	LA	10
Cox, L.	Canada	135	Luedeke, K.	NM	220
Crumrine, R.	NY	10	Manker, P.	NM	5
Dempsey, F.	Canada	29	Stoikidis, N.	Greece	268
Fox, J.	MN	193	Thompson, R.	Canada	641
Grim, J.	UT	10	Van Bemmel, H.	Canada	40
Hodgson, D.	Australia	9	Wiggins, P.	UT	110
Jones, R.	South Africa	140	Wood, J.	CA	10

RR Lyrae

Chair: Marvin E. Baldwin
8655 N. County Road 775 E., Butlerville, IN 47223

This reporting period saw 15 observers reporting more than 17,000 observations of 54 stars directly to the committee chair. Among these, six CCD observers provided more than 15,000 CCD observations. Slightly less than 2,000 visual observations were made.

An additional 32 observers reported 913 observations directly to AAVSO Headquarters, including data on an additional 12 RR Lyrae-type stars.

Alltogether, nearly 18,000 observations of 66 stars were contributed by 47 observers.

Solar

Chair: Carl E. Feehrer
9 Gleason Road, Bedford, MA 01730

The Solar program continues to attract new contributors to both of its observation activities. During the period, 95 observers have filed sunspot reports, a gain of five over the previous year, and 24 observers have filed SID reports, a gain of four. We hope that these gains and the high levels of interest demonstrated by both sunspot and SID observers can be maintained as solar activity levels now trend toward the minimum part of the sunspot cycle.

Sunspot Reports

During the period, 887sunspot reports containing a total of 13,645 observations were received and processed. A larger number of reports has been received in this period than in the previous periods as a result of growth in the size of the observer group. On average, reports have been received from an average of 75 observers during each month of the period.

SID Reports

Despite the loss of the NAA transmitter in Cutler, ME, due to an extended period of maintenance, 158 reports based on the monitoring of seven different VLF stations were received and processed. The average number of SID observers reporting each month was 13.

Website Activity

The number of contributions of solar images continues to increase to the extent that it is now possible to become somewhat selective concerning the images chosen to appear on the site. The numbers of downloads from the AAVSO/Solar website also remain high and the ability to obtain the *Solar Bulletin* in this way has reduced the need for hardcopy mailings.

Reorganization of the *Sudden Ionospheric Disturbances Supplement*

In December 2002, AAVSO member Doug Welch (A-104), who earlier had set up the AAVSO's GRB and SID discussion groups, assumed the responsibility for editing a stand-alone version of the *Sudden Ionospheric Disturbances Supplement* that had accompanied the *Solar Bullletin* until the death of its author, Casper Hossfield, the month before. This document is now published in electronic form on an irregular basis and is available for downloading via a link on the AAVSO website. The *Solar Bulletin* continues as before with analyses and commentary related to sunspots and solar flares.

New Sofware in Development

Software required for the analysis of sunspot reports in a modern (e.g., Windows XP) environment is now being written by AAVSO member Len Abbey. This software will replace programs written some years ago for an MS-DOS environment and will provide new tools for identification of non-conforming data formats and other report deficiencies that complicate the monthly task of preparing observations for analysis.

Acknowledgements

The successful performance of the Solar program during the period is due to the dedication and hard work of our network of observers, the AAVSO's staff, volunteer Arthur Ritchie who assists in the preparation of the monthly sunspot data, and Solar Flare/SID Observing Group Leader William Michael Hill.

Thank you all.

Supernova Search

Chair: Rev. Robert O. Evans
Villa 7, 1 Glendarrah Street, Hazelbrook, N. S. W. 2779, Australia

Amateur supernova searching proceeds steadily in both CCD and visual forms.

Several amateur supernova search individuals and groups seem to have largely dropped out of the list of discoverers in the last twelve months, as mentioned in my last report. However, the group of English and European CCD hunters associated with Guy Hurst's *The Astronomer* magazine have this year marked up the one hundredth discovery for their combined search effort. A good number of other amateurs from various parts of the world are still involved, and are being successful.

Regarding discoveries made visually, I have notched up three more in June, July, and August. The first was SN2003gd in Messier 74, a Type II supernova which exploded while the galaxy was hidden behind the sun, and was found at around magnitude 13.3, about six weeks after maximum. The progenitor star is probably present on archival HST photos, and on pictures secured with several other very large telescopes taken several months before the explosion, and two professional groups are working on deciding which star it is. The second was SN 2003gs in NGC 936, a Type Ia supernova which was subluminous, found at magnitude 13.4, around maximum light, and which declined and disappeared extremely quickly. The third discovery was SN 2003hn in NGC 1448, another Type II supernova.

This little spurt of discoveries through the southern winter, following upon the visual discovery of SN 2003B found last January, now makes my list of visual discoveries total 39. It supports the idea that visual discoveries can still be made, despite competition from all the automatic searches.

Ed. note: The AAVSO Supernova Award for all four visual supernova discoveries was presented to Robert Evans on October 25, 2003, at the 92nd Annual Meeting in Cambridge, MA.

Telescope

Chair: Charles E. Scovil
Stamford Observatory, 39 Scofieldtown Road, Stamford, CT 06903

There are no telescopes for sale at the present time.