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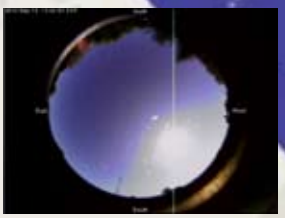

ISSUE NO.54 | OCTOBER 2012 WWW.AAVSO.ORG

AAVSO Newsletter

SINCE 1911...

The AAVSO is an international non-profit organization of variable star observers whose mission is: to observe and analyze variable stars; to collect and archive observations for worldwide access; and to forge strong collaborations and mentoring between amateurs and professionals that promote both scientific research and education on variable sources.

FROM THE DIRECTOR'S DESK

ARNE A. HENDEN (HQA)

Summer is over for those of us in the northern hemisphere. Unlike an academic institution, the AAVSO doesn't have any quiet periods; if anything, our summers are busier because we have summer students working with us. This year, Ben Briggs returned to give us help on web development. As this is Ben's second year, he was far more familiar with our activities and was a major help in many areas, including our website relocation to the Amazon Cloud. We also had Aaron Sliski join us, helping me with various AAVSOnet tasks. Aaron just graduated from high school, and now is attending Suffolk University, majoring in Physics. Aaron, along with his brother, David, and father, Alan, have been installing telescopes as a sideline, so Aaron has a lot of hardware skills that were useful in preparing BSM-Berry for operation and getting the spectrographs and cameras operational for other telescopes.

We had a week-long CCD School which was well attended (and described elsewhere in this newsletter). This was our first attempt at such a lecture series, and we learned a lot from the experience. We got many useful comments from the attendees that will make next year's version even better. I think one of the real benefits from the school was to get many active observers together, so that they could interact and learn from each other. We expect the 2013 School to occur during mid-July, and will be held at AAVSO Headquarters. More details will be released early next year.

Dr. Ulisse Munari (National Institute of Astrophysics, Asiago Astonomical Observatory, Italy) returned this year as our Janet A. Mattei Research Fellow, staying in the Feibelman Guest Suite all of September along with his wife, Emma. Ulisse is heavily involved with two southern spectroscopic surveys (RAVE and HERMES), and is a strong advocate of using APASS for their support. He has found that the APASS Sloan photometry in conjunction with 2MASS photometry is sufficient to derive stellar temperatures accurate enough to put constraints on the RAVE spectroscopic results. APASS is also expected to be the input catalog for the HERMES survey. Ulisse finished a couple of joint papers with me, and derived conversion formulae between APASS and the Cousins photometry. Emma also helped out at headquarters as a volunteer. They are a great couple, and if you ever get a chance to visit Asiago, you must look them up!

I spent a week in Tucson during August, attending an All-Hands Meeting for LSST (Large Synoptic Survey Telescope). Such a meeting is held every other year, with the last such meeting in 2010

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PRESIDENT'S MESSAGE

MARIO MOTTA, M.D. (MMX)

As we enter the fall season, and children return to school, I want to reiterate a common call to all to take time to tutor or inspire a child. We all lead busy lives, and many of our retiree members in the AAVSO have turned their hobby into a full-time job. What binds us in the AAVSO community is our love of the night sky and science. I never cease to be amazed by the many accomplishments of our members and their dedication in the long hours of collecting the vital data that are the AAVSO's gift to the world. Your individual activities can be both inspirational and intimidating to many young minds out there.

It seems that all children are born with an inmate natural curiosity and love of the sky. We have a dichotomy in modern times: due to a modern internet and mass communication, and better school standards worldwide, more and more children are exposed to deep-sky images from large observatories and space telescopes, yet fewer and fewer children get to experience the sky first-hand as an increasing fraction of the

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DIRECTOR'S MESSAGE
CONTINUED...

when I was not able to attend. This year's edition had nearly 300 attendees, with simultaneous sessions every day of the week. The telescope project has passed all of their preliminary reviews and is making good progress, but is such a major effort that "first light" is not expected for nearly another decade. I have a dual role for LSST, being on both the education/public outreach and the transient/variable star collaborations, so I was constantly running from one meeting room to another. While the meeting was great and the venue was a marvelous 5-star resort, you do need to remember that August is the hottest, most humid month in Tucson, and so you either got out to explore the landscape at sunrise, or you were locked inside air-conditioned, windowless rooms the rest of the day! They expect to hold these meetings more often in the future. LSST is a wonderful project with lots of opportunity for amateur astronomers to get involved.

Other activities at HQ this summer included the publication of *JAAVSO* volume 40, number 1, the issue that covered our Centennial Celebration (the review papers are marvelous—you should really take time out to read them); releasing the Amazon Cloud website; publishing our variable star section of the *RASC Observer's Handbook*; inclusion of APASS in the UCAC4 release; improving the exterior landscaping of the building; and holding campaigns for many targets, including TT Ari, S Dor, CH Cyg, and SDSS J164248.52+134751.4.

I hope many of you have the opportunity to come to the Annual meeting in November in Woburn, Mass., or the Spring 2013 meeting in Boone, North Carolina. If not, be sure to turn in your council ballots, watch the membership meeting via the GoToMeeting interface, and participate in the website forums. The AAVSO is a fun and vibrant organization! ★

Ed. note: the Spanish language version of Arne's message can be found on page 10.

PRESIDENT'S MESSAGE
CONTINUED...

world's population lives under light-polluted skies. This is both a challenge and a tragedy. For millennia humans have been inspired by the sky above them, without knowing the true majesty or the vastness of the universe out there. Today knowledge of deep space has never been more readily available, yet ability to participate seems to be shrinking with every new outdoor light bulb.

All of our members that I have met through the years at the AAVSO are incredibly gifted and talented individuals with a valuable font of knowledge. Like most scientific organizations however, our membership is graying and aging. To me the solution is obvious, as there are millions children out there who are naturally curious about the universe, and whose lives would be enriched by exposure to the sky by members like you. Our members are scattered all over the world, but in each locality there are local organizations that have star parties, or local school systems or children's organizations that would greatly appreciate an enrichment program in the sciences from the very people who are AAVSO members. Alternatively, you may know of a young person in your general area who would love to observe with you occasionally, and a simple introduction to the child and parent could set in motion a life-altering interaction.

Many members already carry out such programs, as I have through the years. I can tell you there is no greater sense of accomplishment then befriending a child and turning on the light bulb of science and discovery—that is a gift that will continue long after we leave this world. Our former director, Janet Mattei, once arranged for a small grant from NASA so I could have my local school system develop a program to have children grind telescope mirrors and build functional telescopes. The project created nine telescopes, but more importantly, a school full of budding scientists and enthusiastic science students. The school system still uses the telescopes in night sky projects. Some years later, a young woman informed me that she was accepted to Rensselaer Polytech to pursue a career in optical engineering due to that earlier experience. No, she is not becoming an astronomer, but her life path has been altered by exposure to the AAVSO. That will always remain as one of my fondest memories.

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CONTENTS

The *AAVSO Newsletter* is published in January, April, July, and October. Items of general interest to be considered for the *Newsletter* should be sent to eowaagen@aavso.org. Photos in this issue courtesy of C. Stephan and K. Paxson.

Membership in the AAVSO is open to anyone who is interested in variable stars and in contributing to the support of valuable research. Members include professional astronomers, amateur astronomers, researchers, educators, students, and those who love variable star astronomy.

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PRESIDENT'S MESSAGE
CONTINUED...

There are many such stories out there from many of our members.

You are all extremely knowledgeable and talented individuals with unique skills that can be inspirational to many. Make a point to take some time this year and share that knowledge and experience with another. You may never know who you inspire, but you will lay the seeds of inspiration for many. There will be no greater sense of accomplishment. I look forward to seeing as many of you as possible at the AAVSO annual meeting! ★

Ed. note: the Spanish language version of Mario's message can be found on page 10.

ONLINE SOLAR BULLETIN ARCHIVE IN PROGRESS

MATTHEW TEMPLETON, AAVSO SCIENCE DIRECTOR

In mid-September we were happy to have member-observer Anna Hillier visiting AAVSO Headquarters to help with scanning back issues of the AAVSO *Solar Bulletin*. With the help of volunteers we already have the run of the *Solar Bulletin* scanned all the way back to 1964, but still have 20 more years to go to complete our collection. The *Solar Bulletin* began in 1944 after the United States military encouraged the collection of solar data, and the first solar chairman, Neil Heines, began the *Bulletin*. It continued irregularly through 1964, when it became a monthly publication, nearly uninterrupted since.

Anna Hillier (HNL) at AAVSO HQ

We're scanning back issues from the Tom Cragg collection, received by the AAVSO from Tom and his wife Mary last year. Scanning these duplicates from Tom's collection allows us to keep the library originals in better condition, and there's an element of historic authenticity to knowing these particular copies passed through Tom's capable hands first. Our document scanner is making quick work of the *Bulletin*, and as we write this, we're already up to the 1950s. We hope to have the PDF files online soon. You can visit the current archive of the AAVSO *Solar Bulletin* here:

http://www.aavso.org/solar-bulletin

Many thanks to Anna and all of our volunteers for the work they do for us! ★

...AND THAT'S CAPRICORN, RIGHT OVER THERE...

Chris Stephan shares a photo of his new observing partner, appropriately named Capricorn after the constellation. Chris has not yet asked for observer initials for Capricorn, but he's only 9 months old so maybe he's still too young to observe.... ★

THANKS TO OUR SPONSORS!

NEW EYES FOR AAVSONET

MIKE SIMONSEN (SXN), DEVELOPMENT OFFICER

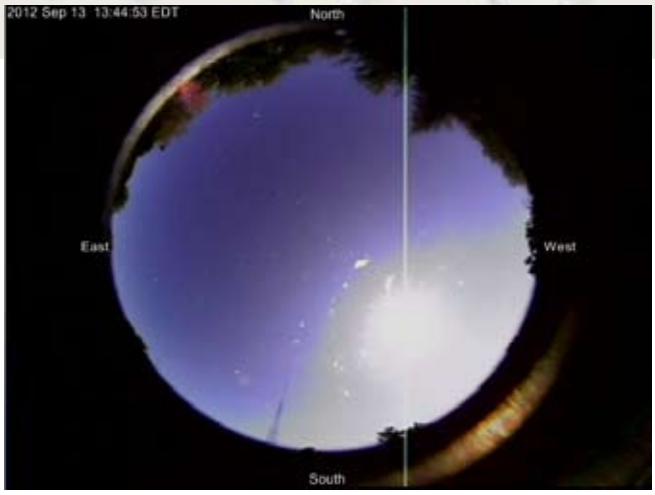
One of the critical pieces of information necessary when running remote telescopes, especially an all-sky photometric survey like APASS, is what are the sky conditions and cloud cover for any given time when observations are being made and data acquired. The difference between a photometric and non-photometric night can be difficult to ascertain without some sort of monitoring. This is typically done with a small fisheye lens on a digital camera. Images can be uploaded to a live webpage or downloaded with a time stamp and compared to images acquired with the survey or remote telescope.

Orion AllSky Camera II

When it was originally brought online, APASS South, at CTIO in the mountains of Chile, had an all-sky camera monitoring sky conditions 24 hours a day 7 days a week. Several months ago this camera died, and our survey telescopes were running without a good way to evaluate the sky conditions as the survey proceeded on a nightly basis. We needed to address this as soon as possible.

During the course of the CCD Class held at Tuft's University in August, Arne described all-sky surveys in general and APASS specifically. He also let it be known to the class attendees that our all-sky camera was offline and the difficulty this created in effectively running the survey. When Arne tapped me to raise funds to purchase a new all-sky camera I knew just who to ask first.

I personally emailed several AAVSO members who had just returned home from the class held in Boston and asked them to contribute a portion of the $1000.00 needed to buy a next-generation Orion StarShoot AllSky Camera II. Almost everyone I contacted immediately made an online donation or wrote a check and we had enough money ($2750.00) to buy at least two of the cameras within 48 hours!



Fish-eye view from AAVSO Headquarters

While we wait for the Orion StarShoot AllSky Camera II to be shipped we also acquired a Moonglow Technologies AllSky Camera to test. It has been mounted on top of headquarters, in Cambridge, and will be the all-sky camera for the Cohen/Menke Observatory.

I asked Arne what the plans were for the cameras and which ones will go where. He said, "The Orion camera will be going to APASS at CTIO for sure. The Moonglow camera we have now on the roof will be for the observatory here at headquarters. The question then becomes: which cameras can we use at which sites?"

Arne continued, "Once we have evaluated the Orion and Moonglow cameras we will have experience with three types of all-sky cameras and we can decide how to allocate the rest of the money raised to pay for cloud cams."

You can check the current sky conditions at AAVSO by going to the AAVSO HQ AllSky Camera page at http://www.allskycam.com/u.php?u=467

That url will be good until at least the middle of October 2012. I'll be sure to let you know how the rest of the story turns out. ★

TALKING ABOUT THE AAVSO

ELIZABETH O. WAAGEN (WEO) AAVSO HEADQUARTERS

Events—AAVSO members, observers, and friends have given presentations about the AAVSO at the following venues:

July 27, 2012—**Sebastian Otero** (OSE, Buenos Aires, Argentina) gave a one-hour teleconference presentation entitled "Técnicas de Observación de Variables" (Variable Star Observing Techniques) for the people attending the XVIII Encuentro Nacional de Astronomía that was held in Cochabamba, Bolivia.

August 18, 2012—**Richard "Doc" Kinne** (KQR, AAVSO Headquarters) gave his first talk for the AAVSO—an introduction to visual variable star observing—in the McGregor Observatory Library during the Stellafane Convention in Breezy Hill, Springfield, Vermont.

September 18, 2012—**Jim Roe** (ROE, Bourbon, Missouri) presented a program on variable star observing to the Digital Special Interest Group of the Astronomical Society of Eastern Missouri. Jim wrote of his then-upcoming event, "This is an active group of 'pretty picture' takers who are well-equipped and enthusiastic about imaging the night sky. I hope to turn (at least some of) them away from the dark side of the force to the light (although varying) side. My main strategy is to build upon their sense of fun in things astronomic to convince them that even more fun can be had by joining our merry band and producing works of lasting value. Wish me luck!"

Let us help you spread the word! Send us information about your event (upcoming or past) for inclusion in the October AAVSO Newsletter (submission deadline December 15). Many thanks for your education and outreach efforts on behalf of the AAVSO and variable star observing! ★

THE AAVSO ANNUAL MEETING REGISTRATION IS OPEN!

REBECCA TURNER (TRMB), AAVSO HEADQUARTERS

The 2012 Annual Meeting will be held November 1 to 3 at the Hilton Hotel in Woburn, Massachusetts. We will kick off this year's Annual Meeting with a Thursday evening reception just for first-time meeting attendees. (If you've never been to an AAVSO meeting this would be a great time to join us!) Friday will include three special topic paper sessions covering "Young Stellar Objects (YSOs)," "Novae/Symbiotics," and "Solar Astronomy." Saturday's full membership meeting will be broadcast online via GoToWebinars and we will take questions from our online listeners as well as those attending in person. Confirmed Friday and Saturday featured speakers include: Dr. William Herbst, Tim Crawford, and Gerald Dyck, with more to be announced in the coming weeks.

Please visit the AAVSO website for all of the meeting details and to register. http://www.aavso.org/101st-annual-meeting-aavso

Last year's Annual Meeting and a view of the Hilton hotel

2012 Deadlines to remember:

- October 8th—Early abstract submission deadline
- October 10th—Hotel reservation deadline
- October 15th—Early registration deadline and late abstract submission deadline
- October 17th—Notification of oral presentation status

AAVSO VISITS THE BLUE RIDGE MOUNTAINS IN 2013

The 2013 Spring meeting of the AAVSO will be held May 16–18, 2013, at Appalachian State University (ASU) in Boone, North Carolina. Sleeping rooms are already on hold at a well-appointed local hotel and arrangements have been made for our closing awards banquet to be held at ASU's Dark Sky Observatory! The folks at ASU are proving to be wonderful hosts and this is shaping up to be a meeting you won't want to miss. More information will be posted on the AAVSO website in the coming months. ★

Two views of fhe Dark Sky Observatory at Appalacian State University

CHOICE OFFERING MORE CHOICES IN 2013

MIKE SIMONSEN (SXN), AAVSO CHOICE PROGRAM ADMINISTRATOR

As you may know, the AAVSO has launched an online education initiative called CHOICE, which stands for the Carolyn Hurless Online Institute of Continuing Education. CHOICE is a collection of informal, online short courses on topics chosen to help members of the AAVSO contribute more to science. We have been offering courses in visual and CCD observing techniques and practices, as well as an introductory course on light curves and variable star types. So far the response has been overwhelmingly favorable and people have been asking when the next classes will be offered and what subjects will be addressed.

In January 2013, we will be offering again by popular demand, **Variable Star Types and Light Curves**. This course is an overview of the types of variable stars most commonly observed by AAVSO observers. We discuss the physical processes behind what makes each type variable and how this is demonstrated in their light curves. Variable star names and nomenclature are placed in a historical context to aid in understanding today's classification scheme. There are no prerequisites for this course, but there is quite a bit of reading, and discussion, so be prepared to devote at least an hour a day to this course.

We will also offer **CCD Image Calibration** again in 2013. This course describes how to and why we need to calibrate photometric images. It will cover techniques for bias, dark, and flat fielding. A wide variety of user scenarios will be covered, including tips for calibrating in poor observing conditions, with older equipment, different software types, etc. The content of the course will be based on chapters of Arne Henden's new book on CCD photometry (not yet in print). Access to a CCD camera and your own FITS images is required (AAVSOnet images will suffice). This is an ideal course for new CCD observers.

In March 2013, we plan to offer two new courses designed around a thoroughly updated *AAVSO Visual Observing Manual* and a newly revised *AAVSO CCD Observing Manual*. **Visual Observing Basics** will use the *AAVSO Visual Observing Manual* as its primary text. We will cover variable stars, basic equipment, how to make observations and submit data, plotting variable star observing (VSO) charts, planning an observing session, and many other topics. This course is highly recommended for anyone just starting out in visual VSOing.

CCD Observing Basics will utilize the *AAVSO CCD Observing Manual* as its primary text. We will cover basic equipment, CCD techniques and skills, submitting data, using VSO charts and photometry tables, planning an observing session, and many other topics. This course is highly recommended for anyone just starting out in CCD photometry.

We hope to roll out several other new courses in 2013, including Variable Stars and Stellar Evolution, Advanced Techniques for Visual Observers, and courses on how to use our VSTAR and VPHOT software packages for data and image analysis. We will try to offer new and existing courses every other month throughout the year.

You can read more about CHOICE on the CHOICE Home Page at http://www.aavso.org/choice-astronomy ★

HELP WANTED, APPLY WITHIN

MIKE SIMONSEN (SXN), AAVSO HEADQUARTERS

The AAVSO LPV Section needs a volunteer leader and administrator to take over an established website, forum, and observing section with existing projects and plans for future activities. This can be one special individual or any number of people willing to collaborate to maintain and grow this section.

Based closely on the model provided by CVnet (the AAVSO Cataclysmic Variable Section) the LPV Section has a website that is easy to edit and maintain, a forum on the AAVSO site, and the LPV Circular, which is automatically published and delivered to subscribers on Wednesday every week.

There is an established list of Program Stars as well as a special list of Legacy LPVs. We have interesting and fun projects launched on LPVs with humps in their curves and LPVs that are members of close binary systems. In January 2012, Roger Kolman and I conceived a plan for revitalizing the section and implemented several new initiatives and programs. All the heavy lifting has been done. We just need someone with the leadership abilities and enthusiasm to take it off my hands.

Since its inception, this section has struggled to find someone who could push it forward and act to coordinate and inspire observers interested in Long Period Variables, mostly Miras and Semiregulars. I have done all I can to find a section leader, and have kept this section on life support for several years now, but the reality of the situation is I simply cannot devote the time and energy to it that it deserves. I need to divest myself of the responsibility in 2013.

I am willing to train you on how to maintain the website and we can bring you up to speed on our current and future plans. I am willing to stay on as an advisor indefinitely; I just need someone else to take over as the front man and representative of the section. If you are interested leading or administering the LPV Section please contact me at mikesimonsen@aavso.org. I look forward to hearing from you!

For more information see:

LPV Section website
https://sites.google.com/site/aavsolpvsection/

LPV Forum
http://www.aavso.org/forums/variable-stars/long-period-variables-lpvs

LPV Circular archives
http://tech.groups.yahoo.com/group/lpv-circular/?yguid=331287075 ★

THE AAVSO'S 100TH ANNIVERSARY MEETINGS IN THE PAGES OF THE AAVSO JOURNAL

The special 100th anniversary issue of *The Journal of the American Association of Variable Star Observers* (*JAAVSO*, Vol. 40, No. 1, Parts A and B) celebrates the AAVSO's centennial by featuring papers presented at the 2011 Spring and Annual meetings of the AAVSO, as well as a section of thirteen invited review papers covering the latest developments in variable star astronomy.

Included in this special issue:

Group photographs taken at the 2011 Spring and Annual meetings

Meeting attendee lists

Photographs of the paper presenters

Papers on Women in the History of Variable Star Astronomy

Papers on the History of Variable Star Astronomy in Theory and Practice

Papers on the History of Variable Star Organizations

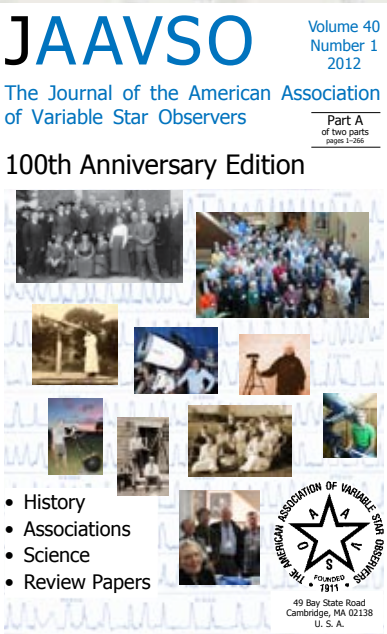
Papers on the History of AAVSO Observers, Programs, and Supporters

Scientific session papers and abstracts from the joint AAVSO/AAS meeting, Spring 2011

Papers presented at the general and scientific sessions of the 2011 Spring and Annual meetings

Text of the after-banquet remarks by Owen Gingerich

Invited review papers



This special two-part JAAVSO issue is available for purchase (or download by members): http://www.aavso.org/aavsos-100th-anniversary-meetings-pages-aavso-journal ★

A LONG STRANGE TRIP (THROUGH THE ARCHIVES)

MATTHEW TEMPLETON (TMT), AAVSO HEADQUARTERS

The AAVSO's library and archives are diverse and interesting enough that it's easy to find lots of curiosities. My accidental discovery of a copy of Frank Kameny's dissertation came from taking a break one afternoon and idly pulling a thick volume off of a bottom shelf in the McAteer library. My early ideas for encouraging a digitization project came in part from pulling a volume or two of the *Harvard Annals* off the shelves downstairs looking for Mira observations. And we've had a few staff blog posts about interesting people affiliated with the AAVSO in our distant past that came from staff pulling membership applications off the shelf.

I came across another interesting one of the latter recently while reading one of Margaret Mayall's annual reports available from the ADS Abstract Service. She ran down a list of newly-elected members for that spring, and one of the names caught my eye: Tom Constanten, elected a member at the Spring 1961 meeting. Years ago I used to listen to music from the band The Grateful Dead, and I remembered they had a keyboard player named "Tom Constanten" for a brief period in the late 1960s. My curiosity was piqued. Since we archive them, I searched our collection of past membership applications. As it turns out, the membership application had both a birthdate and a home city that matched what biographical information one can find through Wikipedia. As far as I'm able to determine, it seems that he was a VSOer very briefly as a teenager. "TC" as he's nicknamed was, for a very short time, AAVSO Observer "CTC". While a member of the AAVSO, he contributed 84 observations of variable stars. While a member of the Grateful Dead, he contributed music and keyboards to their albums Anthem of the Sun, Aoxomoxoa, and Live/Dead, as well as performing with them on tour until January 1970. While those particular albums are pretty "out there" musically, Constanten's musical and personal directions drifted away from rock and psychedelia and their attendant culture, and his career since has been oriented more toward classical composition and performance.

I sent an email to the address on his website asking him about his astronomical experiences a few months ago, and hopefully his publicist or secretary will find my email interesting enough to pass along. I'm sure he gets asked about his music all the time, but I wonder if he's ever had anyone ask about his astronomical interests. I know the AAVSO community is diverse enough that I'm not surprised to find a person whose life went in that direction, and we have many musicians among our current and former ranks just as we have doctors and accountants and engineers and scientists.

While his musical fame was the reason he caught my eye, my curiosity about his past history less about "why music" and more "why not variable stars?" His talents and enthusiasm for the former eventually led him toward what he made his life's work, and if VSOing didn't fit, so be it. We see people coming back to VSOing after (and sometimes during) long and productive careers elsewhere all the time. Perhaps we'll start seeing data from CTC again one day. I'd be happy to welcome him back to the fold, just as I'd welcome any other former members and observers to come back to us.

If you're a former VSOer—Deadhead or no—feel free to browse our website, introduce yourself on our forums, and look at all that the AAVSO community has been up to since you last visited. You may find you're still right at home with us. ★

DUTCH OBSERVERS RECEIVE TOP AMATEUR ASTRONOMER AWARD

We are delighted to report that longtime AAVSO observers Erwin van Ballegoij (BVE) and Reinder Bouma (BMU), both leaders in the Koninklijke Nederlandse Vereniging voor Weer- en Sterrenkunde, Werkgroep Veranderlijke Sterren (KNWVS,WVS), have been awarded the Dr. J. van der Biltprijs, the most prestigious award a Dutch amateur astronomer can receive in the Netherlands.

In November 2011, KNWVS Chairman Dr. Niek de Kort presented the award to Erwin (Reinder could not be present, so Erwin accepted for both of them) in recognition of their life work as variable star observers. Erwin, who is also a longtime AAVSO member, has contributed 25,772 observations (nearly all visual) to the AAVSO International Database since 1984. Reinder has contributed 23,595 observations (also nearly all visual) to the AAVSO International Database since 1981.

Reinder Bouma

Reinder and Erwin are the first variable star observers to receive the Dr. J. van der Biltprijs since 1970, when J.P.A. Veerkamp (VPA), Henk Feijth (FJH), and Georg Comello (CMG) were the recipients. A list of all the Dr. J. van der Biltprijs winners may be found at www.astro.rug.nl/~nvws/vdbiltprijs.htm. Dr. J. van der Bilt studied variable stars as well for his thesis, so it is particularly fitting that variable star observers should be recognized with the award named for him. Congratulations, Erwin and Reinder! ★

KNWVS Chairman Dr. Niek de Kort, left, presents the Dr. J. van der Biltprijs to Erwin van Ballegoij while Erwin's wife Heidi van der Vloet looks on. Erwin accepted the award on behalf of Reinder Bouma and himself.

MORE BIRDS OF A FEATHER...

In April of this year a Canada goose became the first avian AAVSO observer (observer initials GOOSE, see *AAVSO Newsletter No. 52*, page 5). Word must have gotten around, because this summer a second avian joined the ranks of potential AAVSO observers.

A wild turkey (a species native to North America) appeared one morning on Bay State Road outside AAVSO Headquarters, pacing up and down and clearly waiting for AAVSO staff to arrive and introduce it to variable stars. We assigned it the AAVSO Observer Initials TURKE (pronounced turk-ee) and asked it the same questions we had asked the goose.

Somewhat miffed, the turkey replied (isn't it fortunate we are fluent in turkey so as to be able to translate?), "What a pigeon that goose made of me! He stole nearly all my answers to the questions you asked him, so I am not going to repeat them."

He went on to say, "However, I would never say I didn't want to appear to be a silly goose; I would say I didn't want to be called a bird-brain..."

When asked why it was hanging around AAVSO headquarters and the Birch/Bay State Streets area, it replied, "I'm a beginner and I heard the AAVSO would take me under its wing. Also, I have been thinking of upgrading my roost. I heard the AAVSO was about to install a telescope on its roof and I wanted to see what a bird's-eye view would be like."

When told that some AAVSOers had been thinking of a name for it, TURKE replied, "I appreciate that, but I prefer to remain anonymous. Once you have a name, you become connected and relationships grow complicated and before you know it, you have been consumed by good intentions—and maybe for dinner as well. Sometimes it all makes you want to gobble…."

So now the AAVSO has had visits from Goosey-Loosey and Turkey-Lurkey. Keep your eyes open for a chicken wandering the streets near Headquarters—it may be Henny-Penny. If you see her, better put on your hard hat because the sky may be falling! ★

SCIENCE SUMMARY: AAVSO IN PRINT

ELIZABETH O. WAAGEN (WEO), AAVSO SENIOR TECHNICAL ASSISTANT

AAVSO data are constantly being used by researchers around the world in presentations and publications. Below is a listing of some of the publications that appeared July through September 2012 on the arXiv.org preprint server and used AAVSO data and/or acknowledged the AAVSO. To access these articles, type the preprint number into the "Search or Article-id" box at http://www.arXiv.org/.

U. Munari et al., "BVRI lightcurves of supernovae SN 2011fe in M101, SN 2012aw in M98, and SN 2012cg in NGC 4424", (arXiv:1209.4692) [Sept 21, 2012]

Jeremy Shears et al., "The orbital and superhump periods of the deeply eclipsing dwarf nova PU UMa", (arXiv:1209.4062) [Sept 18, 2012]

Shears, "Arthur Neville Brown : schoolmaster and variable star observer", (arXiv:1209.4059) [Sep 18, 2012]

A. Evans, R. D. Gehrz, "Infrared emission from novae", (arXiv:1209.3193) [Sep 14, 2012]

John K. Cannizzo, "The Shape of Long Outbursts in U Gem Type Dwarf Novae from AAVSO Data", (arXiv:1208.5477) [Aug 27, 2012]

G.A. Tammann, B. Reindl, "The luminosity of supernovae of type Ia from TRGB distances and the value of H_0", (arXiv:1208.5054) [Aug 24, 2012]

Ashish Raj, N. M. Ashok, D. P. K. Banerjee et al., "V496 Scuti: An Fe II nova with dust shell accompanied by CO emission", (arXiv:1207.4876) [Jul 20, 2012]

Lee Anne Willson and Massimo Marengo, "Miras", (arXiv:1207.4094) [Jul 17, 2012]

C. Paladini, S. Sacuto, D. Klotz et al., "Detection of an asymmetry in the envelope of the carbon Mira R Fornacis using VLTI/MIDI", (arXiv:1207.3910) [Jul 17, 2012]

R. Zhao-Geisler, A. Quirrenbach, R. Koehler et al., "Dust and molecular shells in asymptotic giant branch stars - Mid-infrared interferometric observations of R Aql, R Aqr, R Hya, W Hya and V Hya", (arXiv:1207.3767) [Jul 12, 2012]

Tomohito Ohshima, Taichi Kato, Elena P. Pavlenko et al., "Discovery of Negative Superhumps during a Superoutburst of January 2011 in ER Ursae Majoris", (arXiv:1207.2705) [Jul 11, 2012]

A. M. S. Richards, S. Etoka, M. D. Gray et al., "Evolved star water maser cloud size determined by star size", (arXiv:1207.2583) [Jul 11, 2012]

David Boyd, "A Study of the Orbital Periods of Deeply Eclipsing SW Sextantis Stars", (arXiv:1207.2432) [Jul 10, 2012]

B. Mauclaire, C. Buil, T. Garrel et al., "H{\alpha} spectral monitoring of epsilon Aurig\ae\ 2009-2011 eclipse", (arXiv:1207.0795) [Jul 3, 2012]

Richard C. S. Kinne, "An Overview of the AAVSO's Information Technology Infrastructure From 1967 to 1997", (arXiv:1207.0439) [Jul 2, 2012]

We thank the above researchers for including the AAVSO and its resources in their work, and for acknowledging the AAVSO in their publication. We urge all those writing for publication to include the word "AAVSO" in their list of keywords. ★

IN MEMORIAM

MEMBERS, OBSERVERS, COLLEAGUES, AND FRIENDS OF THE AAVSO

CARL E. FEEHRER (solar observer initials FEEC), AAVSO member and solar observer since 1998, died September 26, 2012, at the age of 76 of cancer. Not a variable star observer, Carl was a solar observer and, after retiring from his career as a research psychologist, contributed to the AAVSO sunspot program before becoming Chair of the AAVSO Solar Division (later Section) in April 2000, a post he held until May 2006 when he resigned due to his illness and family priorities. Carl took on leadership of the Solar Division at a time when his calm and diplomatic nature and his analytical abilities and common sense were particularly valuable, He was able to restore the division, which had seen a series of leadership transitions made complicated first by health issues then by good will but lack of experience, to smooth and scientifically appropriate operation. Carl and his wonderful wife Barbara were bright spots in our day whenever he or both of them visited headquarters or attended AAVSO events. We extend our sympathies to Barbara and family.

Carl Feehrer

ROMANO VIVALDI (VRM), AAVSO observer since 2003, died in December 2010, we learned recently. Romano contributed 227 visual observations in his seven years with the AAVSO. He was owner of the Astronomical Observatory Val Pellice (OAVP) and president of the OAVP Associazione Astrofili Urania for amateur astronomers in Luserna San Giovanni, Italy. His great love of the sky, enthusiasm, and generosity led him to turn his home into this site for astronomy enthusiasts, sharing the sky through the OAVP planetarium, night-time observing sessions with the telescopes, and courses, talks, and presentations for all levels of visitors. We extend our sympathy to Romano's family and friends.

Romano Vivaldi

Ed. note: following is the Spanish language text of Arne's Director's message.

MENSAJE DEL DIRECTOR

ARNE A. HENDEN (HQA)

El verano ha terminado para aquellos que estamos en el hemisferio norte. A diferencia de una institución académica, la AAVSO no tiene períodos de calma, en todo caso, los veranos resultan más ocupados porque tenemos estudiantes de verano que trabajan con nosotros. Este año, Ben Briggs volvió a darnos ayuda en el desarrollo de la web. Como este fue el segundo año de Ben, estaba mucho más familiarizado con nuestras actividades y fue de gran ayuda, en muchas áreas, incluyendo la reubicación de nuestro sitio web en la nube de Amazon. También estuvo con nosotros Aaron Sliski, ayudándome con las diferentes tareas de AAVSOnet. Aaron se acaba de graduar de la escuela secundaria, y ahora asiste a la Universidad de Suffolk, con especialización en Física. Aarón, junto con su hermano, David, y su padre, Alan, se dedican a la instalación de telescopios como una actividad secundaria, por lo que Aaron tiene un montón de habilidades de hardware que fueron útiles en la preparación del BSM-Berry para su operación y para dejar operacionales espectrógrafos y cámaras para otros telescopios .

Tuvimos una Escuela de CCD de una semana de duración que contó con buena asistencia (descrita aparte, en este boletín). Este fue nuestro primer intento de una serie de este tipo de eventos y hemos aprendido mucho de esta experiencia. Tuvimos muchos comentarios útiles de los participantes que harán que la versión del próximo año sea aún mejor. Creo que uno de los beneficios reales de la escuela es que tuvimos juntos a muchos observadores activos, para que puedan interactuar y aprender unos de otros. Esperamos que la Escuela 2013 pueda tener lugar a mediados de julio y se celebre en la Sede de AAVSO. Más información se dará a conocer a principios del año que viene.

El Dr. Ulisse Munari (Instituto Nacional de Astrofísica, Observatorio Astronómico de Asiago, Italia) regresó este año como investigador del fondo Janet A. Mattei, alojándose en la suite de invitados Feibelman, todo septiembre, junto con su esposa, Emma. Ulisse está muy involucrado con dos rastreos (surveys) espectroscópicos del sur (RAVE y Hermes), y es un firme defensor del uso de APASS por su apoyo. Él ha encontrado que la fotometría Sloan de APASS, junto con la fotometría de 2MASS, son suficientes para obtener temperaturas estelares precisas como para imponer restricciones a los resultados espectroscópicos de RAVE. se espera también que APASS sea el catálogo de entrada para el estudio HERMES. Ulisse terminó un par de trabajos conjuntos conmigo, y dedujo las fórmulas de conversión entre APASS y la fotometría de Cousins. Emma también ayudó, en la sede, como voluntaria. Son una gran pareja y, si alguna vez tienen la oportunidad de visitar Asiago, ¡deben buscarlos!

Pasé una semana en Tucson, durante agosto, asistiendo a la reunión All-Hands Meeting for LSST (Gran Telescopio para Rastreos Sinópticos). Esta reunión se celebra cada dos años y la última fue en 2010, a la cual no pude asistir. La edición de este año contó con cerca de 300 participantes, con sesiones simultáneas, todos los días de la semana. El proyecto del telescopio ha pasado todas sus revisiones preliminares y está haciendo un buen progreso, pero es un esfuerzo tan importante que la "primera luz" no se espera hasta casi dentro de una década. Tengo un doble rol en el LSST, estando tanto en las colaboraciones de educación/divulgación pública, como en la de transitorios/estrellas variable, así que estuve constantemente corriendo de una a otra sala de reuniones. Aunque la reunión fue estupenda y el lugar era un maravilloso complejo 5 estrellas, es necesario recordar que agosto es el mes más caliente y húmedo, en Tucson, así que o sale a explorar el paisaje al amanecer, o estará encerrado en el interior con aire acondicionado, sin ventanas, ¡por el resto del día! Esperan mantener estas reuniones con más frecuencia, en el futuro. El LSST es un proyecto maravilloso, con un montón de oportunidad para que se involucren los astrónomos aficionados.

Otras actividades, durante este verano, en la Sede, incluyeron la publicación del volumen 40, número 1 del JAAVSO, el número que cubrió la Celebración del Centenario (los artículos de revisión son maravillosos—realmente merecen tomarse un tiempo para leerlos), el lanzamiento del sitio web en la Amazon Cloud, la publicación de nuestra sección Estrellas Variables del Manual del Observador de la RASC, incluyendo APASS en el comunicado de UCAC4, mejorando la vista exterior del edificio y llevando a cabo campañas para muchos objetos, entre ellos TT Ari, S Dor, CH Cyg, y SDSS J164248.52 134.751.4.

Espero que muchos de ustedes tengan la oportunidad de asistir a la Reunión Anual de noviembre, en Woburn, MA, o a la Reunión de Primavera de 2013, en Boone, Carolina del Norte. Si no es así, asegúrense enviar sus boletas de votación para el Consejo, asistir a la reunión de los miembros a través de la interfaz de GoToMeeting, y participen en los foros del sitio web. ¡La AAVSO es una organización vibrante y divertida! ★

Ed. note: following is the Spanish language text of Mario's President's message.

MENSAJE DEL PRESIDENTE

MARIO MOTTA, M.D. (MMX)

Estamos comenzando al otoño boreal y los niños regresan a la escuela, por lo que quiero reiterar un llamado común a todos a ocuparnos de orientar o inspirar a un niño. Todos tenemos una vida muy ocupada y muchos de nuestros miembros de AAVSO que ya están jubilados han convertido su hobby en un trabajo de tiempo completo. Lo que nos une en la comunidad AAVSO es nuestro amor por el cielo nocturno y por la ciencia. Nunca dejo de sorprenderme por los muchos logros de nuestros miembros y su dedicación de largas horas de recolección de datos vitales que son el regalo de AAVSO para el mundo. Sus actividades individuales pueden ser a la vez inspiradoras e intimidatorias para muchas mentes jóvenes de las que hay por ahí.

Al parecer, todos los niños nacen con curiosidad natural y amor por el cielo. Tenemos una dicotomía en los tiempos modernos: debido a Internet y a la comunicación masiva, y a un nivel escolar más elevado, en todo el mundo, más y más niños están expuestos a imágenes de cielo profundo de grandes observatorios y telescopios espaciales. Sin embargo, cada vez menos niños tienen oportunidad de experimentar el cielo de primera mano, así como una fracción cada vez mayor de la población mundial vive bajo cielos con contaminación lumínica. Esto es, a la vez, un desafío y una tragedia. Durante milenios, los seres humanos se han inspirado en el cielo que estaba por encima de ellos, sin conocer la verdadera majestad o la inmensidad del universo. Hoy en día, el conocimiento del espacio profundo nunca ha sido de más fácil acceso y, sin embargo, la capacidad de participar parece estar disminuyendo con cada nueva lámpara de luz al aire libre.

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MENSAJE DEL PRESIDENTE
CONTINUED...

Todos nuestros miembros que he conocido a través de los años en la AAVSO son personas increíblemente dotadas y talentosas, con una fuente valiosa de conocimiento. Al igual que en la mayoría de las organizaciones científicas, nuestros miembros están envejeciendo. Para mí, la solución es obvia, ya que hay millones de niños por ahí que son naturalmente curiosos acerca del universo, y cuyas vidas se verían enriquecidas por la exposición al cielo por miembros como Usted. Nuestros miembros están dispersos por todo el mundo pero, en cada localidad, hay organizaciones que realizan fiestas de estrellas (star parties), o sistemas escolares locales u organizaciones infantiles que mucho agradecerían un programa de enriquecimiento en ciencias de esas mismas personas que son miembros de AAVSO. Alternativamente, usted puede saber de una persona joven en su zona que le encanta observar con usted de vez en cuando, y una introducción sencilla para el niño y el padre podría poner en marcha una interacción que le alterará la vida.

Muchos miembros ya realizan este tipo de programas, como lo he hecho por años. Les puedo decir que no hay mayor sensación de logro que hacerse amigo de un niño y encender la lamparita de la ciencia y el descubrimiento - que es un regalo que continuará mucho después que dejemos este mundo. Nuestra anterior directora, Janet Mattei, consiguió, una vez, una pequeña subvención de la NASA para que yo pudiera desarrollar un programa para que niños de mi sistema escolar local pudieran pulir espejos de telescopios y construir telescopios que funcionasen. El proyecto creó nueve telescopios pero, lo más importante, dejó una escuela llena de científicos en ciernes y entusiastas estudiantes de ciencias. El sistema escolar sigue utilizando los telescopios en proyectos de cielo nocturno. Algunos años más tarde, una joven me informó que fue aceptada en Rensselaer Polytech para seguir una carrera en ingeniería óptica, debido a aquella experiencia anterior. No, ella no se está convirtiendo en una astrónoma pero, su camino de vida ha sido alterado por la exposición a la AAVSO. Éste siempre se mantendrá como uno de mis mejores recuerdos. Hay muchas historias como ésta de muchos de nuestros miembros.

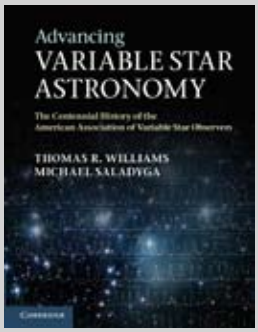
Todos ustedes son personas muy conocedoras y talentosas, con habilidades únicas que pueden ser fuente de inspiración para muchos. Hagan un paréntesis para ocupar un poco de su tiempo, este año, y compartir conocimientos y experiencias con otros. Nunca se puede saber a quién inspirará, pero sentará las semillas de inspiración en muchos. No habrá un mayor sentimiento de logro. ¡Estoy ansioso por ver a tantos de ustedes como sea posible en la reunión anual de AAVSO! ★

A NOTE ON THE TRANSLATIONS

We are grateful to Jaime García for providing the Spanish language versions of the Director's and President's messages, We hope that readers of the *Newsletter* will enjoy this feature.

AAVSO CENTENNIAL HISTORY !

Advancing Variable Star Astronomy: The Centennial History of The American Association of Variable Star Observers by Thomas R. Williams and Michael Saladyga, published by Cambridge University Press, is available through the AAVSO at a special reduced price.



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GERRY SAMOLYK– A DEDICATED AMATEUR OBSERVER

KEVIN B. PAXSON (PKV), SPRING, TEXAS

Gerry Samolyk (SAH) modestly thinks of himself as an "observer" and is proud to be called an "amateur." Yet, as of September 2012, Gerry contributed 371,353 variable star observations in the AAVSO International Database, with 293,936 of those being CCD observations and the remainder being 77,416 visual and one PEP. A query of the NASA ADS will yield 56 articles in the literature where Gerry is either the author or the co-author. These accomplishments are a true testament to Gerry's dedication and his variable star passion.

Gerry is 57 years old and lives in Greenfield, Wisconsin, about 10 miles southwest of downtown Milwaukee. Gerry has a BS degree is in Applied Math and Physics from University of Wisconsin at Milwaukee. He started his career as a test engineer in an electrical and environmental lab and later became involved in custom industrial automation systems. He has worked all over the world since the late 1980s. Currently working for the Oilgear Company, Gerry travels extensively (primarily in China) to oversee the commissioning of very large electro-hydraulic systems.

Gerry was born and raised in the Milwaukee, Wisconsin, area. His interest in the space program evolved toward astronomy in the 1960s. After starting off with a 50-mm refractor, Gerry later saved up enough money ($179 was a lot of money back then) to buy a Dynascope RV-6, which was his primary telescope until after he got involved with the Milwaukee Astronomical Society (MAS). After joining the MAS, Gerry was immediately exposed to variable stars.

The MAS has a tradition of observing variable stars and mentoring since it was formed in 1932 by Luverne Armfield (AAVSO observer "A" with 7,285 observations). Recently deceased MAS members Ed Halbach (AAVSO observer "HK" with 100,715 observations) and Bill Albrect (AAVSO observer "AB" with 115,403 observations) each began observing variables back in the 1930s. Ed Halbach mentored many amateur and professional observers and was responsible for Gerry getting into variable star observing. Both Ed and Bill were engineers by profession and they designed and built equipment at the MAS Observatory which is still in use today. Gerry has continued this mentoring tradition with the training of Gene Hanson (HSG), Chris Limbach (who is now a graduate student at Princeton University), and many others. He also continues to give advice and suggestions in the AAVSO Eclipsing Binary and Short Period Pulsating Sections.

Gerry made his first variable star observation in 1968. However, he did not get heavily involved in variable stars until he started observing EB stars in 1974. He joined the AAVSO a couple of years later and attended his first AAVSO meeting in 1976, where he met Janet Mattei, Clint Ford, Marv Baldwin, Chuck Scovil, and others. Gerry ended up working with Marv Baldwin for about 35 years on both the EB and RR Lyr Committees, analyzing and publishing results of EB and RR Lyr data.

Currently, Gerry images with two Meade LX-200 telescopes in his back yard, a 10-inch situated in a small flip-top observatory, and an 8-inch which is mounted on a pier and wedge. Using ST-9XE CCD cameras with their built-in autoguiders and laptop computers, Gerry is able to image all night unattended.

Gerry Samolyk at the Milwaukee Astronomical Society Observatory site.

Gerry also has set up an ST-9XE with a filter wheel for use with a 50-mm camera lens, which he calls his "camera on a stick." It is mounted on a tripod without any drive or go-to capability. This setup up has been used to image Epsilon Aur in BVRI, Cepheids, and other bright stars, whether at home or working abroad.

Gerry also uses telescopes at the MAS Observatory, located in New Berlin, Wisconsin, about 15 miles to the west of his home. In the early 1970s, the MAS built 12 portable 10-inch reflectors for observing grazing occultations. Gerry used these scopes and targeted each one on a different EB star field. He then moved from scope to scope to make visual observations. When one eclipse ended, he moved that scope to a different star and started again. Using this method, Gerry observed up to a dozen variables simultaneously!!!

Gerry made the transition to CCD observing in August 1998 using equipment at the MAS Observatory. Once his EB program stars began to be covered with more CCD data, his visual observations began to decline. He continues to CCD-image at the MAS Observatory when his schedule permits and often runs multiple scopes with CCD's. In his back yard, he usually runs two of his telescopes and picks up a few bright stars with his "camera on a stick."

At an AAVSO Meeting in the late 1970s, Gerry was introduced to the RR Lyr-type star SZ Hya. Later he began to observe RR Lyr stars more regularly, along with his EB stars, since the "observing techniques for both were identical." Gerry has observed other types of variables over the years, including Hipparcos variables, imaging Mira using his "camera on a stick," and imaging the recent supernova in M101.

Gerry is co-Chair of the AAVSO Eclipsing Binary Section, along with Gary Billings. The most active observers of the EB Section are Laurent Corp, Ken Menzies, Rudy Poklar, Richard Sabo, and Neil Simmons. "Since EB stars are very close binaries, their components usually interact with each other. It is typical for mass to be transferred from star to star, from a star to an accretion disk, or even to be ejected from the system. These mass transfers will change the orbital period of a system. A time of minimum (TOM) defines when the two stars were in conjunction. By collecting TOMs over a long period of time, small changes in the orbital period can be detected. The AAVSO has maintained a legacy program of 200 EB stars.

"Observing times of minimum are an easy way to get started in EB variables. There is an ephemeris on the AAVSO website that is intended for observers in North America." Take a time series of images, starting well before and

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A DEDICATED OBSERVER
CONTINUED...

following through and after the predicted TOM. "The ephemeris includes a recommended number of hours to observe and also indicates if the star has a total eclipse (flat bottom) to the light curve."

It is important to use proper filters to minimize the effect of the differential atmospheric absorption of the different colors. Also, be aware of keeping the proper time. "With modern CCD equipment, it is common to have a standard error for a TOM of 0.0001d (less than 10 seconds). The computer clock needs to be accurate to within 1 second and needs to be checked at the beginning and end of each observing run, as some computer clocks will drift." Also, each observer should upload a their data to the AAVSO International Database (AID). If an observer does not plan on publishing their own TOM, they should send Gerry a copy of their data for the computing of the heliocentric corrections and the publication of the TOMs in the *Journal of the AAVSO*. Gerry uses AVE software (freeware at www.astrogea.org) for TOM light curve analysis.

Gerry is interested in EB stars with total eclipses. "Many CCD observers do not observe these stars because longer observing runs are required. Stars like V342 Aql, U Cep, and RW Tau have a history of period changes. The long period eclipser, EE Cep, has been a favorite of mine because each eclipse has a different shape. This is a disk eclipser and a shorter-period cousin of epsilon Aur."

Gerry is also Chair of the Short Period Pulsating (SPP) Section. Shawn Dvorak is the webmaster and the most active observers are Ken Menzies, Rudy Poklar, Richard Sabo, and Neil Simmons. This group studies Cepheids, RR Lyr, and delta Sct stars. "All of these stars are in the instability strip of the HR diagram, but there are significant differences, however. Cepheids follow the well known period/luminosity relationship that makes them "standard candles" in the cosmic distance scale. The shorter-period RR Lyr and delta Sct stars do not follow this relationship. Since Cepheids have longer periods, time series observations in a single night cover only a small portion of the star's period."

Gerry is new to observing Cepheid stars. "Under the old structure of the AAVSO, there were separate committees for RR Lyr stars and Cepheids. Because these stars have longer periods, I image each star once per night in BVRI for an entire observing season and plot the data to phase to generate a light curve. Many of the light curves can include bumps at all phases, not just at maximum."

Many of the RR Lyr stars have a secondary period or "Blazhko effect" which can "cause changes in the brightness at both the maximum and minimum. There are often additional, small amplitude bumps that usually change throughout the Blazhko cycle. Times of maximum are useful for tracking the fundamental period of these stars, but complete light curves are needed to properly study the Blazhko cycle. Because the typical period of an RR Lyrae star is longer than a typical night, we have run international campaigns involving two or three continents to get continuous data on a particular star. When all observers use standard filters and standard comparison stars, the data is easy to combine."

Gerry's favorite RR Lyr stars all have a strong Blazhko effect: SZ Hya, AR Her, XZ Cyg, and RV UMa. "Multiple filter data are useful for observing RR Lyr stars. These stars vary much faster and a few observers have submitted light curves in two colors. More information is always better. Peranso software is used for determining times of maximum for RR Lyr stars. For each light curve, several different order polynomials are run to look for the most consistent result. The filter and time keeping procedures mentioned for EB stars are equally important for Cepheid, RR Lyr, and delta Sct stars."

Gerry Samolyk's backyard after a night of imaging.

Delta Scuti stars have very short periods, so "it is easy to observe multiple cycles in a single night. While many of these stars are very repeatable, some pulsate in multiple modes and can yield some very complex light curves. Two delta Scuti stars that I like are AE UMa and VX Hya. Both are part of the AAVSO legacy program. Eeach star has multiple periods of pulsation. Another star on the legacy program, SZ Lyn, has a very repeatable light curve but is part of a binary system (non-eclipsing)."

With perseverance and dedication often come acknowledgement and recognition. Deservedly, Gerry received the AAVSO Merit Award in 2007. In 2009, he received the Leslie C. Peltier Award from the Astronomical League. "It was a bit of a surprise, but it was special because five other members (or former members) of the MAS had received it including my mentor, Ed Halbach." Gerry also has been named as a Founder Member of the MAS and has been the Observatory Director of the MAS since May 1980. Additionally, Gerry served on the AAVSO Council during the 1986–1987 and 1988–1990 terms.

In addition to variable star observing, Gerry also enjoys observing occultations, planets, and solar eclipses. He got the eclipse bug after the 1979 total solar eclipse and has chased eclipses around the world ever since. Gerry has seen four transits of Mercury and two of Venus. He usually combines eclipse- and transit-oriented vacations with activities like going on wildlife safaris in Africa, seeing the pyramids of Egypt, or snorkeling off the shores of Hawaii or Aruba.

Gerry also enjoys wildlife photography, camping, hiking, and canoeing in the western USA. "Astronomy has always played a role while camping under the dark skies of the western desert. For the past decade or so, I have been taking an LX200 with a CCD on most of my trips and do imaging by night. I usually take a second scope to enjoy the sky visually."

Gerry believes that "the AAVSO needs to meet the challenge of encouraging new observers in the future." The key, he says, is "to never imply that observers who do not contribute to science are wasting their time. This is a hobby and it has to be fun. I always try to encourage people to watch variable stars because they are fun and interesting. Many amateurs are not aware how much change is taking place in the sky each night."

Gerry believes that "groups like the AAVSO are in a unique position to provide long term monitoring of EB and SPP stars. There are always short term studies being published, but there is a value in having many decades of continuous data on these groups of stars." If you are interested in EB or SPP stars, please check out the Eclipsing Binary and Short Period Pulsating Variable Groups or contact Gerry for more details and information. Keep up the great work, Gerry!.★

LOOKING AT LEGACY STARS

STARS OBSERVED RECENTLY AND RECOMMENDATIONS FOR THE NEXT FEW MONTHS

MATTHEW TEMPLETON (TMT), AAVSO SCIENCE DIRECTOR
SARA J. BECK (BSJ), AAVSO TECHNICAL ASSISTANT

This issue of the AAVSO Newsletter introduces a new column, a quarterly summary of popular and important targets of the previous quarter as observed by the AAVSO community. Our intention in creating this column is to keep the community up to date on what stars are being observed and how often. This will help keep the observers up to date on the observations being submitted to the AAVSO archives, and more importantly on what stars may need improved coverage by the community.

In the past few years, we've encouraged observers to keep a smaller subset of variables at the top of their observing planning via the Legacy and Program lists for LPVs and CVs (see https://sites.google.com/site/aavsolpvsection/Home/lpv-files for the LPV lists, and https://sites.google.com/site/aavsocvsection/aavso-legacy-cvs for the CV list). These lists were established to provide guidance on which stars had the best-observed light curves and thus had greatest potential for science if those stars continued being observed. There are thousands of other stars that are still regularly observed, and many objects not on the lists above remain worthy targets for variable star observers, visual and CCD alike.

Target lists for observers vary throughout the year, and the number of observations received changes depending upon a star's observability in a given season as well as whether there is special interest—for example, an observing campaign or recent notable activity. With this column, we hope to give you additional guidance as to which variables are worth special attention in the coming quarter. We also want to highlight recent interesting data sets or stars that have received substantial attention during the current quarter. Some stars may be heavily observed as part of an observing campaign by the AAVSO and other organizations, and quarterly totals also help to highlight what new and interesting data sets the AAVSO how holds.

Since this column is new, we'll be trying out a number of different statistics and presentations over the next several issues. Here we present the most- and least-observed stars of the LPV and CV Legacy lists, showing the number of visual and CCD observers ($N_{(vo)}$ and $N_{(co)}$) along with the total number of nights observed ($N_{(von)}$ and $N_{(con)}$). If you have suggestions on statistics that you'd like to see presented, you're welcome to email us—this is a work in progress. We'll post the full lists of the tables below on the AAVSO website.

The top ten best-covered stars of the LPV Legacy program, as measured by number of nights observed, 2012 June 15 to 2012 September 15:

Name	*Con*	*R. A. (J2000)*	*Dec. (J2000)*	$N_{(vo)}$	$N_{(von)}$	$N_{(co)}$	$N_{(con)}$
AF Cyg	Cyg	19:30:12.84	+46:08:52	54	92	1	1
W Cyg	Cyg	21:36:02.49	+45:22:28.4	46	92	3	5
rho Cas	Cas	23:54:23.03	+57:29:57.8	49	91	2	4
miu Cep	Cep	21:43:30.49	+58:46:48	45	91	2	29
CH Cyg	Cyg	19:24:33.06	+50:14:29	70	89	14	78
S UMa	UMa	12:43:56.67	+61:05:35.4	63	88	1	13
g Her	Her	16:28:38.54	+41:52:53.9	45	87	0	0
Z UMa	UMa	11:56:30.22	+57:52:17.6	67	87	0	0
X Oph	Oph	18:38:21.12	+08:50:02.7	40	86	0	0
U Del	Del	20:45:28.23	+18:05:24	42	85	2	6

$N_{(vo)}$ = number of observers making visual observations
$N_{(von)}$ = number of nights with visual observations
$N_{(co)}$ = number of observers making ccd observations
$N_{(con)}$ = number of nights with ccd observations

The twelve least-observed stars of the LPV Legacy program for the quarter 2012 June 15 to 2012 September 15:

Name	*Con*	*R. A. (J2000)*	*Dec. (J2000)*	$N_{(vo)}$	$N_{(von)}$	$N_{(co)}$	$N_{(con)}$
X Aur	Aur	06:12:13.38	+50:13:40.4	5	7	0	0
R Aur	Aur	05:17:17.69	+53:35:10.1	3	6	1	1
W Tau	Tau	04:27:57.18	+16:02:36.1	3	6	0	0
R Lep	Lep	04:59:36.34	–14:48:22.5	3	5	0	0
W Ori	Ori	05:05:23.71	+01:10:39.3	4	5	0	0
X Cnc	Cnc	08:55:22.87	+17:13:52.5	3	4	0	0
R LMi	LMi	09:45:34.27	+34:30:42.8	3	4	0	0
R Gem	Gem	07:07:21.27	+22:42:12.7	1	2	0	0
RX Lep	Lep	05:11:22.84	–11:50:57.1	2	2	0	0
S CMi	CMi	07:32:43.07	+08:19:05.1	1	1	0	0
R Cnc	Cnc	08:16:33.82	+11:43:34.5	1	1	0	0
Z Pup	Pup	07:32:38.05	–20:39:29.2	0	0	0	0

All of the LPVs with least coverage are pre-dawn targets. By the date of publication, these targets will be accessible to morning observers, and observations are strongly encouraged.

The top ten best-covered stars of the CV Legacy program, as measured by number of observers and nights observed, 2012 June 15 to 2012 September 15:

Name	*Con*	*R. A. (J2000)*	*Dec. (J2000)*	$N_{(vo)}$	$N_{(von)}$	$N_{(co)}$	$N_{(con)}$
T CrB	CrB	15:59:30.16	+25:55:12.6	73	91	9	31
SS Cyg	Cyg	21:42:42.78	+43:35:09.8	89	91	24	82
CH Cyg	Cyg	19:24:33.06	+50:14:29.1	65	88	12	77
AH Her	Her	16:44:10.01	+25:15:02	24	83	21	85
RS Oph	Oph	17:50:13.16	–06:42:28.5	34	82	6	46
RX And	And	01:04:35.52	+41:17:57.8	36	80	13	73
RU Peg	Peg	22:14:02.57	+12:42:11.4	26	78	15	3
Z And	And	23:33:39.95	+48:49:05.9	37	78	4	15
EM Cyg	Cyg	19:38:40.11	+30:30:28.4	20	77	12	67
Z Cam	Cam	08:25:13.18	+73:06:39	24	75	3	51

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LEGACY STARS
CONTINUED...

Stars in the CV Legacy list with no visual or CCD observations during the quarter from 2012 June 15 to 2012 September 15:

Name	*Con*	*R. A. (J2000)*	*Dec. (J2000)*	$N_{(vo)}$	$N_{(von)}$	$N_{(co)}$	$N_{(con)}$
TU Men	Men	04:41:40.62	-76:36:46.5	0	0	0	0
BI Ori	Ori	05:23:51.76	+01:00:30	0	0	0	0
CN Ori	Ori	05:52:07.79	-05:25:00.5	0	0	0	0
SS Lep	Lep	06:04:59.13	-16:29:03.9	0	0	0	0
KR Aur	Aur	06:15:43.91	+28:35:09	0	0	0	0
CZ Ori	Ori	06:16:43.23	+15:24:11.5	0	0	0	0
CW Mon	Mon	06:36:54.54	+00:02:17.6	0	0	0	0
IR Gem	Gem	06:47:34.51	+28:06:23.5	0	0	0	0
AW Gem	Gem	07:22:40.74	+28:30:16.9	0	0	0	0
UY Pup	Pup	07:46:31.25	-12:57:09.1	0	0	0	0
BV Pup	Pup	07:49:05.25	-23:34:00	0	0	0	0
BX Pup	Pup	07:54:15.55	-24:19:36.3	0	0	0	0
YZ Cnc	Cnc	08:10:56.63	+28:08:33.2	0	0	0	0
RX Pup	Pup	08:14:12.3	-41:42:29	0	0	0	0
CC Cnc	Cnc	08:36:19.17	+21:21:05.5	0	0	0	0
BB Vel	Vel	08:36:49.26	-47:22:37	0	0	0	0
EG Cnc	Cnc	08:43:04.02	+27:51:49.7	0	0	0	0
BZ UMa	UMa	08:53:44.15	+57:48:40.6	0	0	0	0
DI UMa	UMa	09:12:16.19	+50:53:54.2	0	0	0	0
WY Vel	Vel	09:21:59.14	-52:33:51.5	0	0	0	0
AG Hya	Hya	09:50:29.75	-23:45:17.2	0	0	0	0
SY Mus	Mus	11:32:10.01	-65:25:11.6	0	0	0	0
V0485 Cen	Cen	12:57:23.28	-33:12:06.5	0	0	0	0
NN Cen	Cen	13:14:15.6	-60:52:46.5	0	0	0	0
V0803 Cen	Cen	13:23:44.53	-41:44:29.6	0	0	0	0
AE Cir	Cir	14:44:51.29	-69:23:34.5	0	0	0	0
BR Lup	Lup	15:35:53.09	-40:34:05	0	0	0	0
HP Nor	Nor	16:20:49.56	-54:53:22.8	0	0	0	0
IK Nor	Nor	16:25:28.86	-55:20:02.7	0	0	0	0
V2051 Oph	Oph	17:08:19.11	-25:48:30.3	0	0	0	0
BF Ara	Ara	17:38:21.33	-47:10:41.4	0	0	0	0
V1830 Sgr	Sgr	18:13:50.65	-27:42:21	0	0	0	0
FM Sgr	Sgr	18:17:18.25	-23:38:27.8	0	0	0	0
V0441 Sgr	Sgr	18:22:08.09	-25:28:47.3	0	0	0	0
V4021 Sgr	Sgr	18:38:14.88	-23:22:47.1	0	0	0	0
KK Tel	Tel	20:28:38.46	-52:18:45.2	0	0	0	0

The list of stars with no observations is again mostly populated by poorly-placed stars. However, we note the presence of several stars on the list with accessible R. A. (centered on 18 hours) with few or zero observations. There were several northern variables on this list with very few observations. Observers should consider adding any of these stars to their observing programs to improve coverage of the legacy stars. ★

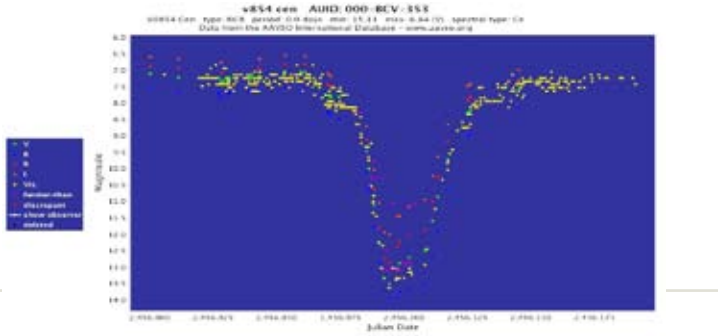
AAVSO OBSERVING CAMPAIGNS UPDATE

ELIZABETH O. WAAGEN (WEO),
AAVSO SENIOR TECHNICAL ASSISTANT

2012 continues to be a busy year for AAVSO observers to contribute to observing campaigns on variable stars. There are opportunities for observers with all types of techniques and instrumentation—visual, photoelectric photometry, CCD, spectroscopy—and stars ranging from binocular brightness to magnitude 18. Your help is needed!

Campaigns concluded since July 2012

The multiwavelength campaign on the RCB star **V854 Cen** (*AAVSO Alert Notice 456*) was successfully concluded. Principal investigator Dr. Bram Ochsendorf writes, "Just to say that during the decline of V854 until now we managed to get 4 spectra: 2 in the "declining" phase, 1 in minimum, and 1 in the "rising" phase. This was all triggered thanks to the observations of the people from the AAVSO. For now, I am tied up in another project, but I'll let you know when the data analysis is on its way. Many thanks for your help!" Accompanying is the AAVSO light curve of V854 Cen during the campaign interval.



AAVSO light curve of V854 Cen March–September 2012; 28 observers contributed the 853 observations in this light curve.

Campaigns initiated since July 2012

Drs. Boris Gaensicke (Warwick University), Joseph Patterson (Columbia University, Center for Backyard Astrophysics), and Arne Henden (AAVSO), on behalf of a consortium of 16 astronomers that includes Drs. Ed Guinan, Knox Long, and Paula Szkody, have requested multiband photometry, spectroscopy, and visual observations of a group of 40 cataclysmic variables to be observed with the Hubble Space Telescope Cosmic Origins Spectrograph (HST COS) in the coming months (*AAVSO Alert Notice 471*). The first target, **SDSS J164248.52+134751.4**, is being observed by HST as this newsletter goes to press (*Special Notice #297*). The second set of objects to be monitored has been announced in *AAVSO Special Notice #298*. **AX For**, **1RXS J023238.8-371812**, **SDSS J001153.08-064739.1**, **HS 2214+284**5, and **CC Scl** are all magnitude 16–18 at minimum, but are 11–15 in outburst.

Campaigns in progress

The MOST campaign on the novalike (VY Scl subtype) cataclysmic variable **TT Ari** is underway (*AAVSO Alert Notice 469*) and MOST is now devoting all its observing time to TT Ari. Principal investigator Dr. Nikolaus Vogt is

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CAMPAIGNS UPDATE
CONTINUED...

very pleased with the coverage provided by the AAVSO to date. He writes, "I am really impressed about the manner, how efficient AAVSO members are monitoring TT Ari during the last 3 weeks, after the publication of my call for collaboration. I have made a first analysis of the light curves available in the Light Curve Generator of your web page. The results are very interesting: there is a strong superhump present with a periodicity near 0.1329 d and rather large amplitude, promising a very precise ephemeris…Starting September 10th, the MOST satellite is also observing TT Ari for nearly 24 hours per day, only with some short interruptions of 20 minutes. Between 6th and 20th October MOST will monitor TT Ari exclusively without interruptions. As far as I know, there is no standard magnitude calibration of the satellite. All differential magnitudes are referred to the general average. Therefore, at least occasional simultaneous monitoring between MOST and AAVSO will be very important, in order to define the magnitude zero point, as well as to compare the accuracies of both observing methods, ground-based and satellite."

Dr. Margarita Karovska's HST and Chandra campaign on the symbiotic variable **CH Cyg** (*AAVSO Alert Notice 454* and *AAVSO Special Notices #267* and *294*) continues. Dr. Matthew Templeton's Photoelectric Photometry Program Update in this issue describes Dr. Karovska's happiness with the coverage so far and her request for ongoing coverage.

The multiwavelength campaign on the luminous blue variable prototype **S Dor** has been extended at least through the 2012–2013 observing season (*AAVSO Alert Notice 453*, *AAVSO Special Notice #280, AAVSO Special Notice #293*, and S Doradus Telegram on organizer's website).

J1407 (1SWASP J140747.93-394542.6)—determine eclipse behavior of transiting ringed substellar companion (*AAVSO Alert Notice 462*)

RU Peg—SS Cyg-type dwarf nova (*AAVSO Alert Notice 459*)

SS Cyg—dwarf nova (*AAVSO Alert Notice 445, AAVSO Special Notices #258* and *#279*, and organizer's website)

Nova Oph 2012—nova (*AAVSO Alert Notice 457*)

P Cyg, S Dor variable = Luminous Blue Variable (*AAVSO Alert Notice 440*)

3C 273 and **3C 279**—blazar-type quasars (*AAVSO Alert Notice 430*, AAVSO campaign page http://www.aavso.org/campaign-blazars-3c-273-and-3c-279)

HBC 722 and **VSX J205126.1+440523**—Young Stellar Objects (*AAVSO Alert Notice 425*)

HMXBs and **SFXT**s—High-Mass X-ray Binaries and Super Fast X-ray Transients, Dr. Gordon Sarty's list (*AAVSO Alert Notices 348, 354,* and *377*, *AAVSO Special Notices #118, #129, #143, #213,* and *#220*, and description of research program in *JAAVSO*, Vol. 35, p. 327; article viewable at http://adsabs.harvard.edu/abs/2007JAVSO..35..327S)

Blazars—Dr. Markus Boettcher's list (*AAVSO Alert Notice 353* at http://www.aavso.org/node/1555/451)

QX Pup—Mira variable (http://www.aavso.org/qx-pup)

Novae

And the novae keep coming! 2012 looks to be heading for a record year for galactic novae. The following novae have been discovered since 2012 July 1:

Nova Sagittarii 2012 No. 3 = PNV J17522579-2126215 (*AAVSO Alert Notice 463*)

Nova Sagittarii 2012 No. 4 = PNV J18202726-2744263 (*AAVSO Special Notice #289*)

Nova Sagittarii 2012 No. 5 = PSN J18193700-1907400 (*AAVSO Alert Notice 465*)

Possible nova in Carina (nature not determined) = PNV J09410000-5759540 (*AAVSO Special Notice #292*)

Nova Monocerotis 2012 = PNV J06393874+0553520 (*AAVSO Alert Notice 467*)

The astronomers and we at AAVSO Headquarters are grateful to all of you who are participating in AAVSO Observing Campaigns, and we thank you for your contributions. You have been and continue to be a vital part of variable star research, so stay tuned, get plenty of rest, and keep your equipment at the ready! ★

CCD SCHOOL REPORT

SARA J. BECK (BSJ), AAVSO HEADQUARTERS

The first-ever AAVSO CCD School was held at Tufts University in Medford, Massachusetts, during the week of July 30–August 3, 2012. AAVSO Director Dr. Arne Henden delivered all of the lectures, covering a wide range of material at both the theoretical and practical level.

In attendance were 24 students from all over the USA and 6 other countries. Most were experienced CCD users who were ready to delve a little deeper into the field, while a few were new to photometry and looking for some practical information. The good thing about this course is that there was something for everyone.

Some of the topics covered included observing procedures, image processing and star extraction, photometry concepts, transformation, and advanced techniques (such as PSF fitting). The use of VPHOT and IRAF were demonstrated and students were given some "practice images" with which to work. There were also field trips to see the "Great Refractor" at the Harvard College Observatory and the 25-inch robotic telescope at the Clay Center Observatory in Brookline, Massachusetts.

The residential nature of this course meant that it was a "total immersion" experience for the students. Not only did participants attend class for eight hours a day, but everyone talked photometry and shared ideas over meals by day and drinks at night. Lots of good information was exchanged and many good contacts and lasting friendships were formed.

The 2013 CCD School has been scheduled for July 15–19, 2013. If you think you might be interested, please keep an eye out for an announcement and further details early next year. ★

PHOTOELECTRIC PHOTOMETRY PROGRAM UPDATE

MATTHEW TEMPLETON (TMT), AAVSO SCIENCE DIRECTOR

The previous quarter starting June 15, 2012, was a productive one for the PEP program, with eight AAVSO PEP observers making 334 observations of 59 different stars.

Our most prolific observer of the season was Henri Van Bemmel (VBR), who recently relaunched his PEP observing program and submitted a number of observations for both 2011 and 2012 late this summer; Henri tallied 100 V-band measures during the quarter. Our PEP chairman Jim Fox (FXJ) contributed 60 observations, with 55 V-band and 5 B-band observations. Southern observer Giorgio Di Scala recently began PEP observing with the infrared SSP-4 photometer, and contributed 56 J- and H-band observations of southern targets during the quarter. Next was Tom Peairs (PTX) with 46, then Charles Calia (CCB) with 42, Adrian Ormsby (OAD) with 24 (12 V-band and 12 B-band), Thomas Rutherford (RTH) with 4 infrared observations (2 J-band and 2 H-band), and AAVSO Councilmember John Martin (UIS01) with 2 (1 V-band and 1 B-band).

P Cygni continues to receive the most concentrated attention, with four observers—Jim Fox, Adrian Ormsby, Tom Peairs, and Charles Calia—making 38 observations during the quarter. Additionally, Adrian Ormsby has been submitting B,V pairs in addition to V-band photometry. There were too many other stars to mention in the list, but some notable ones were V441 Her (21 observations), CH Cyg (18), AC Her (15), W Boo (13), V2048 Oph (12), and V2008 Cyg (9).

We have a few program updates for the observers. First, we discovered a minor but important error in how PEP data were processed via the PEPObs feature on the website. We expect to fix this by the time the newsletter goes to print, but for the time being we ask that you not mix gains during an observing sequence—please obtain all measures of the variable, comparison, check, and sky with the same gain. If you have unsubmitted reports in hand that have mixed gains, please email the reports to AAVSO headquarters for offline processing. We expect to announce that this bug is fixed on the website and in the next issue of the newsletter.

There are two campaign stars currently well-suited for PEP observers, both of which are conveniently in the same constellation! The campaign on P Cygni requested by Ernst Pollmann continues, and he has recently sent out an update to participating observers. The campaign on CH Cygni requested by Dr. Margarita Karovska also continues. CCD observers are doing a good job of tracking the overall light curve, but PEP observers are also valued because they can generally provide a more precise measure of both the brightness and color, and she encourages continued observations by both CCD and PEP observers. Observers are especially encouraged to be vigilant for any sign that the star begins a rapid decline, especially in the B-band.

The coming season will start to bring new targets back into view, especially alpha Orionis (Betelgeuse). This star is extremely difficult for imaging systems to measure with required accuracy, and last season's light curve shows substantial scatter. PEP observers can routinely reach errors lower than 0.01 magnitude, and we strongly encourage PEP observers to continue monitoring this star. The historical PEP light curve is of very high quality and we hope it continues unbroken into the future! ★

AAVSO CHARTS AND SEQUENCES UPDATE

MIKE SIMONSEN (SXN), AAVSO HEADQUARTERS

The latest release of APASS (AAVSO Photometric All-Sky Survey) data has made available literally millions of accurately measured stars for use as comparison stars. The AAVSO Charts and Sequences Team continues to work very hard on making new comparison star sequences and updating existing sequences in need of revision. The latest version of a sequence will appear in any chart you create using the AAVSO Variable Star Plotter (VSP, http://www.aavso.org/vsp).

From late April through August 2012, 155 stars have new or revised sequences. The list may be found at:

http://www.aavso.org/charts-and-sequences-update-august-2012

For September 2012, 102 stars have new or revised sequences. The list may be found at:

http://www.aavso.org/charts-and-sequences-updates-september-2012

If you find a comparison star sequence that needs correcting or extending, please submit a report to the Chart Error Tracking Tool (CHET, http://www.aavso.org/chet)

If you would like the team to supply a new sequence for a star that currently does not have comparison stars selected, go to the webpage below to learn how to make a formal request:

http://www.aavso.org/request-comparison-stars-variable-star-charts

Sincere thanks are due to all of the hard-working, dedicated charts and sequences team members – all volunteers. Their task is an endless one that is absolutely essential to the work of the AAVSO and variable star observers everywhere. ★

GET THE LATEST CAMPAIGN NEWS...

Subscribe online to receive AAVSO *Alert Notices* and *Special Notices* directly to your email's inbox. Stay on top of stellar activity and get detailed information on current and upcoming observing campaigns by visiting http://www.aavso.org/observation-notification to subscribe today!

JULIAN DATE / MOON PHASE CALENDARS

2,450,000 plus the value given for each date

OCTOBER 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 6202	2 6203	3 6204	4 6205	5 6206	6 6207
7 6208	8 6209	9 6210	10 6211	11 6212	12 6213	13 6214
14 6215	15 6216	16 6217	17 6218	18 6219	19 6220	20 6221
21 6222	22 6223	23 6224	24 6225	25 6226	26 6227	27 6228
28 6229	29 6230	30 6231	31 6232			

NOVEMBER 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 6233	2 6234	3 6235
4 6236	5 6237	6 6238	7 6239	8 6240	9 6241	10 6242
11 6243	12 6244	13 6245	14 6246	15 6247	16 6248	17 6249
18 6250	19 6251	20 6252	21 6253	22 6254	23 6255	24 6256
25 6257	26 6258	27 6259	28 6260	29 6261	30 6262	

DECEMBER 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 6263
2 6264	3 6265	4 6266	5 6267	6 6268	7 6269	8 6270
9 6271	10 6272	11 6273	12 6274	13 6275	14 6276	15 6277
16 6278	17 6279	18 6280	19 6281	20 6282	21 6283	22 6284
23 6285	24 6286	25 6287	26 6288	27 6289	28 6290	29 6291
30 6292	31 6293					

Moon calendars courtesy StarDate online
http://stardate.org/nightsky/moon/

THE AAVSO MENTOR PROGRAM

Since the earliest days of the AAVSO, experienced observers have helped new observers by corresponding, answering questions, and even providing personal guidance at the telescope.

If you would like to talk with an experienced variable star observer, contact the AAVSO and we will put you in contact with the mentor program coordinator, Mike Simonsen. Just send us an email (mentor@aavso.org), or call 617-354-0484 to let us know you are interested in this program.

Ideally, Mike will be able to provide you with names, addresses, and phone numbers of active AAVSO observers near you. If there are none located in your area, he can at least provide you with more distant contacts. A simple phone chat with an experienced observer may provide all the feedback you need to continue progressing as an AAVSO observer.

Visit the AAVSO mentor program webpage:

http://www.aavso.org/mentor-program

BY POPULAR DEMAND!

A set of twenty pdf commemorative posters exhibited at AAVSO Headquarters is available for downloading from our ftp site.

The posters show portraits of the AAVSO's Directors, Presidents, Secretaries, Treasurers, Council members, and Staff from 1911 to 2011, and the top Visual, CCD, PEP, and Photographic/ Photovisual observers. For more information go to:
http://www.aavso.org/aavso-100th-anniversary-commemorative-posters
or use this link:
http://tinyurl.com/cge9t9s

THE AAVSO WALTER A. FEIBELMAN SUITE

The Feibelman Suite is available to guests who are in the Boston/ Cambridge area to perform an AAVSO-related task, that is, the purpose of their visit is to do something for or related to the AAVSO. For details about the suite or making a reservation, please visit http://www.aavso.org/walter-feibelman-guest-suite.

See the following pages for important information about membership renewals and contributions.

JOIN THE AAVSO!

AAVSO 2012 New Member Form

Please send application, first year's dues, and application fee to:
AAVSO, 49 Bay State Road, Cambridge, MA 02138, USA

Date: _____

Full Name: _____

Full Address: _____

_____

_____

Telephone 1: _____ Telephone 2: _____

E-Mail: _____

Birth Date: _____ Vocation: _____

Telescopic Equipment: _____

_____

Astronomical Experience (if any): _____

_____

How did you learn about the AAVSO? _____

_____

Types of Membership Offered and Dues

Annual:	Adult	US $5.00 per month
	Associate (Under 21)/Pension/Limited Income	US $2.50 per month
Sustaining:		US $10.00 per month

Membership is paid through the end of the year, starting with the current month.
All applicants also add a one-time, $10.00 application fee.

*Please note that if joining in September–December, the following year's dues are already being collected, so we request that you pay for the end of this year and for the following year.

Please consult the following table to find out how much to pay, including application fee.

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept*	Oct*	Nov*	Dec*
Annual	$60.00	$55.00	$50.00	$45.00	$40.00	$35.00	$30.00	$25.00	$80.00	$75.00	$70.00	$65.00
A/P/LI	$30.00	$27.50	$25.00	$22.50	$20.00	$17.50	$15.00	$12.50	$40.00	$37.50	$35.00	$32.50
Sustaining	$120.00	$110.00	$100.00	$90.00	$80.00	$70.00	$60.00	$50.00	$160.00	$150.00	$140.00	$130.00

Dues *(see chart)*: US $_____ **Application fee**: US $__10__

Donation *(optional)*: US $_____ to _____ fund *(see box on right)*

Total payment *(dues + fee + donation)*: US $_____

Contributions *(see last page for descriptions)*:

AAVSO Building Fund	$_____
Janet A. Mattei Research Fellowship	$_____
Margaret Mayall Assistantship	$_____
Member Sponsorship Fund	$_____
AAVSO General Fund	$_____

_____ I have enclosed a check / money order _____ Please charge my credit card (Visa or Mastercard)

Credit card #:_____ Exp. Date:_____ Security Code (on back of card):_____

Cardholder's Name (as on card):_____

Billing address (if different from above):_____

_____

Signature:_____

MEMBERSHIP RENEWAL

On this page is a copy of the AAVSO membership renewal form for 2012. You may also renew your membership online. Safe and secure online payments are possible by visiting http://www.aavso.org/membership-renew. If your postal or email address has changed, please also take a minute to update your personal profile online. Simply click "User login" at the upper right of the home page, then go to "My account." Please note: We are transitioning from charging membership dues from the fiscal year (October 2010–September 2011) to the calendar year (January 2012–December 2012). If you paid dues for 2010–2011, you will be charged for the rest of 2011 (October–December) plus all of 2012. The prices listed for 2012 have been updated to reflect this. This is a one-time update and does not reflect a change in the price of our membership dues. In addition to your dues, your contributions to the AAVSO further support the organization's activities and are very much appreciated. Also, on the next page you will find descriptions of the various funds to which you may contribute.

AAVSO
Membership and Subscriptions
49 Bay State Rd
Cambridge, MA 02138-1203

Address Service Requested

Name _____

Address _____

City _____

State/Province _____

Zip/Postal Code _____

Country _____

2012 Membership Dues Renewal Form

Membership Type (*please check one*):
___ Annual $75 ___ Sustaining $150
___ Associate (*under 21*) $37.50
___ Pension/Limited Income $37.50

Contributions (*see other side for descriptions*):

AAVSO Building Fund	$_____
Janet A. Mattei Research Fellowship	$_____
Margaret Mayall Assistantship	$_____
Member Sponsorship Fund	$_____
AAVSO General Fund	$_____

TOTAL ENCLOSED: $_____

Payment and Contact Information

My ***check*** for $_____ is enclosed. *Checks must be in US funds and made payable to* ***AAVSO***.

For payment by ***credit card*** please complete the section below. *All fields are required*.

__ Visa __ Mastercard Card Number __ __ __ __–__ __ __ __–__ __ __ __–__ __ __ __ Exp Date: ____ / ____

Card Security Code (3-digit number on the back of your card): __ __ __ Total to be charged: $_____

Name on card:_____Signature:_____

***If the billing address for this credit card is different from your address above, please provide it here:**

Billing Address _____ City_____

State/Province _____ Zip/Postal Code _____ Country_____

Please make any changes necessary to correct and complete your membership contact information below:

Name: _____

Address: _____

City: _____ State/Province: _____

Zip/Postal code:_____ Country: _____

Phone: _____ Email: _____

SUPPORT THE AAVSO

In order to sustain the AAVSO and its operations, we rely on the generous support provided by members, sponsors, donors, and staff. Together we are the AAVSO. Your gift is a way for you to say that you believe in what we are doing and that you want it to continue moving forward. Every dollar given and membership purchased benefits the AAVSO in a necessary and unique way.

AAVSO Building Fund: Contributions to this fund will be used to replenish the Endowment, to refurbish the building, and to cover other costs associated with the purchase of 49 Bay State Road, Cambridge, Massachusetts. We expect the new Headquarters to meet the needs of the AAVSO for decades to come, with sufficient space for growth, for safeguarding our century-long archives, and for giving us the opportunity to hold meetings and workshops at Headquarters.

Janet A. Mattei Research Fellowship Fund: Contributions to this fund help to bring a visiting scientist, postdoctoral researcher, or student to AAVSO Headquarters to perform research using the AAVSO International Database with the goal of disseminating the results throughout the astronomical community.

Margaret W. Mayall Assistantship Fund: Established in honor of the former Director of the AAVSO on the occasion of her retirement in 1974, this fund is used to hire summer research assistants to carry out various important technical projects of the organization.

Member Sponsorship Program: Contributions to this fund go toward paying for the membership dues of an active observer who otherwise would not be able to become a member of the AAVSO. The recipients are chosen by the Director based on the quality and number of observations submitted to Headquarters and the perceived benefit of membership to the observer.

AAVSO General Fund: Contributions to this fund help in the operation of the AAVSO, enabling us better to serve the needs of our members and the astronomical community.

If you wish to contribute to one or more of these funds please fill in the amount on the appropriate line on your renewal form and include it in the total. *All contributions are tax-deductible in the USA.*

You may also donate online at: http://www.aavso.org/support-aavso

Thank you for your support of the AAVSO!