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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

Welcome to the enhanced *Newsletter*! We had been talking about reviving *CCD Views*, and about the same time, John Percy suggested that Headquarters should take over publication of the *PEP Newsletter*. We felt that this might be a good opportunity to combine the original *AAVSO Newsletter* with columns for visual, CCD, and PEP observing, plus give some timely information (observing calendars, for example) and other items that just didn't fit the *JAAVSO* mold. I hope you like the end result, but be sure to send us suggestions and we'll incorporate them as this new version evolves. By all means, if you have articles you want to submit, or want to volunteer for handling one of the features, let us know!

Life has been very busy at HQ the past few months. Lou Cohen donated his observatory to the AAVSO, and so I helped him dismantle the telescope and dome and transport them to HQ. We had to pick a sunny day for the dome removal, so that his contractor could build a roof to cover the hole; that turned out to be more of a challenge than I expected, as this has been a particularly rainy summer in Boston. The Meade 12-inch LX200 is now in Doc Clay Sherrrod's shop getting "supercharged," and we are starting the process of getting permission to install the telescope on the building. Doc Clay was kind enough to donate

his services to upgrading the telescope, and John Menke is donating his effort on automating the dome. Hopefully, the end result will be an on-site observatory that we can use for testing equipment, training the staff in CCD observing, and provide monitoring observations for campaigns. Remote telescopes are great, and having them in good observing sites means you get lots of quality data. At the same time, having something nearby, even at an urban site, has certain advantages. I really appreciate Lou's donation and the volunteer efforts of Doc and John!

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PRESIDENT'S MESSAGE

DR. PAULA SZKODY

It's been a busy three months since the March edition of the *Newsletter*. It appears there was a problem with the US Postal Service in that the batch delivered to the contract station somehow disappeared into a black hole or the Bermuda Triangle, so I hope everyone could read it online. This is solved by having all of our future *Newsletters* available exclusively online. In April, we had the joint meeting with the

BAA in Cambridge, England, followed by the Council meeting in Cambridge, Massachusetts, a few weeks later. The weather was definitely colder in England! The gathering of members and visiting scientists enabled much information and many ideas to be exchanged (and we could even understand the "foreign" language). It was especially interesting for CV people, like myself, with talks by David Boyd on SW Sex stars, by Boris Gaensicke on CVs from surveys, and by Mike Boyd on RS Oph. Topics ranging from the sun to GRBs were covered. One of the highlights for me was the visit to the Cambridge Institute's old telescopes on the first night. Sitting in the old observing chairs and seeing the unusual mounts was a real treat. And when the Astronomer Royal for Scotland could not make the after-dinner lecture, our own Mike Simonsen was able to step in and show that American humor can match the Brits. While we all agreed that international meetings are not cheap (especially in England with the value of the pound), the opportunity to meet with people from all over the world is priceless and I encourage everyone to save up for our next international meeting in Argentina in April 2010 (start practicing your Spanish now).

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FROM THE DIRECTOR'S DESK CONTINUED FROM PAGE 1...

It seems like I've been traveling all year. For some reason, my schedule was heavily front-end loaded, with the trips to Australia, New Zealand and the UK, followed by a bunch of domestic trips to the AAS, SAS, and STAR meetings. They were all valuable, with many contacts made, ideas brought forth, and advertisement of the AAVSO and our capabilities presented. Now things get to slow down a bit, with a trip to Potsdam to meet with the BAV being my major fall event. Of course, the joint AAVSO/MMO meeting on Nantucket has high priority, but most of that event's organization is in Rebecca's capable hands.

Donna Young passed along a request from Carole Jabbawy, Director of Internship Connection. Carole had a high school student from Korea, Sungmun Choi (he goes by the American name of "Orion"), staying in the Boston area. Orion was interested in astronomy and was willing to volunteer this summer at HQ. We've put Orion to work scanning Olin Eggen's observation cards and documenting archival material. We really appreciate his efforts this summer!

We're working on the next update to the comparison star database, which should be released about the same time as this *Newsletter* is published. There are still many improvements that we can make, from incorporating the excellent sequences by the BAA and RASNZ to continuing the all-sky calibration efforts at Sonoita Research Observatory, so more updates will be released over the next few months. We will try to make this transition period as short as possible.

Tom Smith transported the Morgan 24-inch telescope, donated by Lowell Observatory, from Flagstaff, AZ, to Tom's Dark Ridge Observatory near Weed, NM. Weed is a little town just east of Cloudcroft, at 7100ft elevation. Tom was kind enough to site the telescope there and help in its refurbishment. Tom has the telescope in his shop and is currently checking it out to see what needs to be done and in what order. He is also building the roll-off roof structure where it will live. The Mt. John 24-inch Optical Craftsman telescope in New Zealand is being refurbished, with Nigel

Frost of MJUO installing some new drive, focus and dome control motors. Alan Gilmore is starting tests of the telescope to further refine the drive control system. This is winter in the southern hemisphere, so I would not expect a lot of progress for a few more months, but everything appears to be on-track for adding this telescope to our network this year.

We're revamping the AAVSO committee structure. Some committees were formed for specific projects that may have ended; others have shifted emphasis over the years. As mentioned on the discussion group, we've merged the nova and supernova search committees under Tim Puckett as a first step in this direction. The evolution will take place over a fairly long time span. If you have any ideas as to what you would like to see, new emphasis in areas we've not traditionally pursued, etc., just let me know.

The International Year of Astronomy (IYA2009) is just about ready to get underway. The AAS received funding from the NSF to create a national office for IYA2009, and has contracted with a fund raiser to generate funds to support the many projects that AAS IYA2009 working groups have proposed. One of those groups is "citizen science," with emphasis on the upcoming epsilon Aurigae eclipse that will take place in 2009/2010. We are proceeding with a major campaign to support this project.

Sara Beck released "Zapper" just before she left for her annual sail to Maine. This new Java program can be used by any observer to inform headquarters of estimates that seem to be discrepant – a help to staff in our validation effort. We are hoping that this is the first of several programs that will either involve our observers in HQ activities, or provide tools to help you in your observational pursuits.

As you can see, there are lots of projects with plenty of opportunity for everyone to get involved. We'll inform you via postings to the discussion group, so keep tuned! ★

PRESIDENT'S MESSAGE CONTINUED FROM PAGE 1...

During our April Council meeting, we spent long hours (I think we set a new record for adjournment at 10:20 p.m. the first night!) discussing the current mission of the AAVSO and our top near-term future priorities. Within the next decade, survey telescopes will be providing hundreds of thousands of new variables and we want to remain the leader in information and data on variable stars. To this end, we will be trying to keep our membership supplied with the knowledge and tools to play an active part in this future. This will involve having sufficient technical and scientific expertise at Headquarters to make access to information and AAVSO and other archives as simple and efficient as possible, and having workshops to disseminate results and new techniques. At our next meeting in Nantucket in October, we hope to have speakers dealing with some of these issues - stay tuned for the next *Newsletter*.

In the meantime, drop by the Headquarters to see the renovations to the Director's residence and the new guest suite for visitors. Send me an email if you have ideas for our future and enjoy the short but warm observing nights of summer! ★

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS

| | |
|------------------------------|---------------------|
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| DEVELOPMENT DIRECTOR | Michael A. Simonsen |

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 travis@aaavso.org. Additional photos in this issue courtesy of Rebecca Turner, Gerry Samolyk, Gerry Dyck, and the AAVSO Archives.

AWARDS AND RECOGNITION

PRESENTED AT THE 97TH SPRING MEETING - CAMBRIDGE, ENGLAND APRIL 10-13, 2008

AAVSO GRB AWARD

Presented to **Arto Oksanen** for the discovery of the Gamma-Ray Burst optical afterglow of GRB 071010B, OCTOBER 10.8768, 2007 UT.



Member/Observer Arto Oksanen (L) accepts his AAVSO GRB Award from Director Arne Henden.

SPECIAL RECOGNITION: HONORARY MEMBERSHIP

Presented to British Astronomical Society Variable Star Section Director **Roger Pickard**.

“In recognition of his contributions to and support of international cooperation in the creation and dissemination of standardized comparison star sequences and charts, encouraging and promoting the exchange of information, data, and ideas between the British Astronomical Association, Variable Star Section, and the AAVSO, his lifelong contributions to variable star research as an observer, and his distinguished service as Director of the BAAVSS, this is to certify that Roger D. Pickard is an Honorary member of the American Association of Variable Star Observers for life, and is thereby entitled to all the privileges pertaining thereto.”



BAAVSS Director Roger Pickard accepts his Honorary Membership Certificate from AAVSO Director Arne Henden.

STAFF AWARDS

American Association of Variable Star Observers

Polarimetry and the Long Awaited Superoutburst of BZ UMa

A. Price (AAVSO/Tufts University) & J. Masiero (University of Hawaii Institute for Astronomy)

The dwarf novae BZ UMa has perplexed astronomers for decades. Regular outbursts typical of UGSSU dwarf novae have been detected. However, despite good coverage, no UGSSU-type superoutbursts had been detected while peculiar emission lines, intense quiescent flaring and quasi-periodic oscillations during outbursts have all been reported. This has led to speculation that it could be an intermediate polar (IP) or a hybrid between an IP and a UGSSU star. We report null polarimetry results and also detection of the long awaited superoutburst. We make the case for BZ UMa as an UGSSU-type cataclysmic variable star, but some peculiarities remain to be addressed.

► [UMa's Identity Problem](#) ► [Missing Spectral Problems](#)

AAVSO Technical Assistant and Tufts University graduate student **Aaron Price** won the American Astronomical Society's **Chamblis Astronomy Achievement Award** for his poster paper on variable BZ Uma.

The AAS established the Astronomy Achievement Student Awards to recognize exemplary research by undergraduate and graduate students who present posters at the semi-annual AAS meetings. Awardees are honored with a Chambliss medal and a certificate.

The poster was presented at the 212th AAS Meeting, held June 1-5, 2008, in St. Louis, Missouri. Congratulations, Aaron! ★

OBSERVER AWARDS

OVER 250,000 VISUAL OBSERVATIONS*

| | | | |
|-----------------|-------------|-----------|---------|
| Albert F. Jones | New Zealand | 1960-2007 | 277,351 |
|-----------------|-------------|-----------|---------|

OVER 200,000 VISUAL OBSERVATIONS*

none

OVER 150,000 VISUAL OBSERVATIONS*

| | | | |
|---------------|--------|-----------|---------|
| Paul Vedrenne | France | 1978-2007 | 152,455 |
|---------------|--------|-----------|---------|

OVER 100,000 VISUAL OBSERVATIONS*

| | | | |
|----------------|-----------|-----------|---------|
| Peter Williams | Australia | 1989-2007 | 102,130 |
| Eddy Muyliaert | Belgium | 1986-2007 | 100,073 |

OVER 50,000 VISUAL OBSERVATIONS*

| | | | |
|----------------------|--------------|-----------|--------------------------|
| Alexander W. Roberts | South Africa | 1894-1920 | 66,374 (historical data) |
| Gordon C. Herdman | New Zealand | 1989-2007 | 53,116 |

OVER 25,000 VISUAL OBSERVATIONS*

| | | | |
|----------------------|-------------|-----------|--------|
| N. W. Taylor | Australia | 1989-2007 | 49,094 |
| O. R. Hull | New Zealand | 1989-2007 | 43,475 |
| Barry Menzies | New Zealand | 2007-2007 | 31,741 |
| Hiroshi Matsuyama | Japan | 1978-2007 | 29,030 |
| W. Goltz | Australia | 1989-2007 | 28,326 |
| George Stefanopoulos | Greece | 1970-2007 | 25,376 |
| Frans R. Van Loo | Belgium | 1976-2007 | 25,298 |

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DEVELOPMENT UPDATE

MICHAEL SIMONSEN

For nearly 100 years, the AAVSO has been able to archive and disseminate data to the membership and astronomical community, maintain and expand its internet presence, publish the *Journal*, *Predicted Dates of Maxima and Minima of LPVs*, *Solar Bulletins*, *Newsletters*, *Monographs* and observing manuals, coordinate observing campaigns and put on our annual meetings without making a concerted effort to obtain funding through donations.

We've been able to meet our \$1,000,000 annual budget through withdrawals from our endowments, dues, grants and royalties, contributions, and miscellaneous operating income. The organization could go on for a few more years like this without running desperately short of cash or reducing services, but not indefinitely. This scenario also leaves no room for the organization to grow.

So to meet the current needs of the organization, assure its future, and make room for us to grow, we are asking for your help. Now wait, hear me out. After all, we haven't asked you to write a check for 100 years. The least you can do is read the rest of this article and consider what course you and the AAVSO should take.

Some of the things you can do are actually quite simple and painless. For example, make sure that your mailing address and contact information are up to date. It costs the organization time and money to track down new addresses and resend postal mail. You can easily check and update your personal information in the Blue and Gold Section of the AAVSO website at <http://www.aavso.org/bluegold/>, send an email to aavso@aavso.org with any updates, or simply fill out your dues reminder with the new address, email, and phone number.

Consider joining the AAVSO as a member. If you are one of the many observers who submits observations regularly, utilizes the website, downloads charts, participates in email discussion groups, and generally benefits from the many services the AAVSO provides, maybe its time

you fill out an application and start paying dues. The time may be right for foreign observers in particular, seeing as how 70 US Dollars is only 50 Euros, or 35 British Pounds, as of this writing.

Pay your dues on time. When your dues renewal notice comes in the mail, return it promptly with your dues payment, or simply log into Blue&Gold and renew your membership safely and securely online. Online payments literally save the organization thousands in postage costs sending multiple reminder notices to members who are in arrears.

You may also consider paying your dues at the Sustaining level this year. Annual dues are still only \$70. If you pay another \$70 to increase your dues to the Sustaining level, that extra money goes into the general fund to cover the day to day expenses of the organization. You will receive a personalized letter of thanks, signed by the Director, that also acts as your receipt for the IRS.

Do your online shopping through Amazon.com via the AAVSO website. Simply make a habit of clicking on the Amazon link at the bottom of our home page every time you make an online purchase, and 5%, or more, of your total purchase price is donated to AAVSO through Amazon.com. The way our agreement with Amazon works, we actually receive higher percentages based on total purchases, so your new shopping habits could actually provide a six or seven percent return this year. All you have to do is remember to do it!

You can set up a recurring donation to AAVSO through your Visa or Master Card using our simple online giving form at <http://www.aavso.org/aavso/support/gift.php>. You can specify a total donation amount and then break it into as many payments as you like.

A \$100.00 contribution each month (about the cost of your morning double latte) will add up to \$1200.00 by the end of the year, and the best part is, the money you contribute is tax deductible. You contribute to the AAVSO and the IRS has to give

you money back at tax time! That is a win-win situation for you and the AAVSO.

Adding the AAVSO as a beneficiary to your will or life insurance policy costs you little or nothing to do now, but guarantees your philanthropic wishes will be taken care of after you are gone.

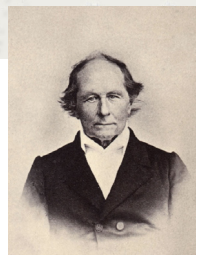
Better yet, write a check right now. You don't even need to spell, just make it payable to AAVSO. Pick your favorite number, add a few zeroes, and mail it to: AAVSO, 49 Bay State Rd., Cambridge, MA, 02138.

With your help, we will be able to meet the challenges and opportunities of the future, and continue providing the valuable scientific and educational services of the AAVSO for another 100 years.

Come on, you know it's the right thing to do. Make a contribution now, while the idea is still fresh in your mind. You'll be surprised how long the good feeling lasts. That's right. Get out the checkbook...here's a pen...pick a number...okay, sign your name...good, good. Now doesn't that feel nice? ★

THE ARGELANDER SOCIETY

Charles E. Curry
Clinton B. Ford
E. Dorrit Hoffleit
Theodore H. N. Wales
Thomas R. Williams



Named for **Friedrich Argelander** (1799-1875), who is considered "the father of variable star astronomy," The Argelander Society offers membership benefits and recognition to individuals who have given substantial financial support to the AAVSO over many years.

(Argelander photo courtesy of the Mary Lea Shane Archives of the Lick Observatory, University of California-Santa Cruz)

A PERSONAL VIEW

BY GARY POYNER (PYG) BIRMINGHAM, ENGLAND

The prospects of a joint BAAVSS/AAVSO meeting had been discussed in meetings, pubs, dining rooms, and places unmentionable by British variable star observers for many a long year. The very fact that it was actually going to happen in April 2008 was something of a miracle. Yet, here I was driving the 100 miles or so East down the A14, heading to New Hall, Cambridge, for that very meeting. Finally!

I arrived quite early on the Friday morning and was made to feel immediately welcome by the AAVSO's Rebecca Turner. She was to work tirelessly throughout the whole meeting to make sure everything went according to plan. It wasn't long however before some familiar faces started to emerge from the dining area. It was nice to see my Belgian friends Tonny Vanmunster, Eric Broens, and Patrick Wils again. I first met Patrick in the early 1980's, and I don't think he's aged a bit! It must be that yellow stuff the Belgians call beer, and which Tonny is ALWAYS telling me is the best in the world. It was nice to meet up with familiar BAA observers, too, but we usually do get to see each other three or four times a year anyway. It was great to renew my acquaintance with Arne Henden, and I met Pamela Gay for the first time, too. She is a very cheerful young lady, bursting with enthusiasm, to say the least. Speaking of bursting, the meeting with Mike Simonsen was – as expected – a joyful and painful experience. I just about survived the Simonsen hug, with relatively minor damage to my rib cage and internal organs. Jeremy Shears had a similar experience, but probably suffered more than I did (something to do with body mass). The noise level increased when Mike appeared, and didn't fall again until he left!

I attend a number of astronomical meetings during the year (not just on variables), and the more meetings I do attend the more I'm convinced that despite the quality of the speakers, and the attractiveness of the topic, the real meeting business is done during the break time. Cambridge was to

THE 97TH SPRING MEETING OF THE AAVSO

A JOINT MEETING WITH THE BRITISH ASTRONOMICAL ASSOCIATION (BAA)
CAMBRIDGE, ENGLAND APRIL 10-13, 2008

Meeting attendees gather for the official group photo outside of New Hall, Cambridge, England.

be no different. The quality of the talks were, as you would expect for a meeting of this status, of high quality and of the utmost interest, but it was the coffee/lunch breaks where you could feel the atmosphere build. The discerning observer could also spot 'groups.' Over there, people were discussing eclipsing stars, whilst in the darker regions of the corridors, the whispers were of red stars. Analysis, instrumentation, the dreaded CCD, the opinions were flowing, an abundance of knowledge very much in evidence. The CV people were seemingly the most numerous and the loudest! There were professionals and amateurs mixing while discussing campaigns and the latest papers and discoveries, while looking at the excellent display material on show, and general chit-chat about just how little we all know on the subject! New observing projects were also discussed – face to face, not by e-mail! David Boyd spoke about the DW UMa campaign in his slot on Friday morning, but the finer points and unasked questions were surely attended to in the lunch interval. Prof. Boris Gaensicke, always one for promoting amateur science, was a popular break time target for us (loud) CV enthusiasts!

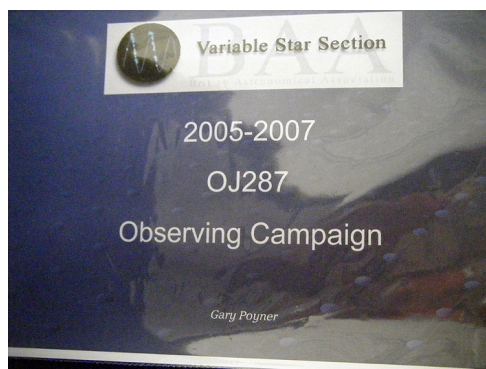
I missed out on the night time drinking sessions (sorry Tonny, English Real Ale is really the best in the world), as I was staying with my good friends Chris, Sue and young Nathan Jones at their home about 50 miles away to the East in deepest, darkest, rural part of Essex. Quite apart from such good company, Chris has a rather nice NGT 18 in a dome, with pretty dark skies for the UK, and what's more, it was clear on the Friday evening. I didn't miss the drinking sessions one little bit!

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POYNER: A PERSONAL VIEW CONTINUED FROM PAGE 5...

Following the banquet on Saturday evening, we discovered that the booked after-dinner speaker dropped out at the eleventh hour. This unfortunate circumstance opened the doors for Mike Simonsen to deliver a very entertaining talk – prepared at the last minute I should say – in which he described the various acronyms used in the AAVSO and after some fast homework, the BAAVSS. Fast and furious, Mike gave us all a great laugh, but



I'm not sure I'm any the wiser to those weird abbreviations, my old friend!

I drove home late on the Saturday evening, having decided to miss the Sunday Stonehenge and Avebury trip as I have visited them both dozens of times. Near empty roads gave me time to ponder over the last two days. Excellent talks, great chats with old friends, meeting up with people who's names I was familiar with but had never met, and even some observing. The only thing which would have made this an even better meeting would have been the attendance of more of our American friends. But that aside, an excellent time was had by all, and the organizers on both sides of the pond should be congratulated for a hugely successful meeting. ★

For a more detailed account of the Friday talks, see the free to download pdf: BAAVSS color Circular, from <http://www.britastro.org/vss/circs.htm>. Choose circular No. 136.

CAMBRIDGE HIGHLIGHTS

By MIKE SIMONSEN (SXN) IMLAY CITY, MICHIGAN

One of the things we had been hoping for when we planned our trip to England was to enjoy the spring blooming bulbs, flowers, shrubs, and trees in April. It became immediately apparent on the bus ride to Cambridge from Gatwick airport that the unseasonably cool weather was going to dash our hopes. It was nice to see green grass everywhere so early in the year, but most of England looked very late winter-like.

In spite of the weather, Cambridge turned out to be warm and charming in its own right, mostly due to our hosts, the British Astronomical Association. Thursday night we got together for the first time over a meal in the dining hall. It had been a while since I'd seen my friends John Toone and Roger Pickard, so I was glad they were among the early arrivals sharing a meal and catching up on things. After dinner most of the group went on to the Cambridge Institute of Astronomy to take a tour and see the historic telescopes there. Irene, John and I opted for the quiet of a local pub for a few drinks and then John and I went out to observe several cataclysmic variables using the C8 he had conveniently stashed in his trunk (or 'boot' as the English call it).

The crowd in the dining hall was much larger Friday morning and the hallway leading to the meeting room was full of displays and people. After a welcome message from the BAA President, Roger Pickard and AAVSO Director, Arne Henden, the paper session began. I thought the quality of the papers was very high at this meeting.

Paula Szkody's paper emphasized the importance of amateur collaboration and cooperation in her talk on HST campaigns of cataclysmic variables. Des Loughney made a good summary of some visual observing projects on bright binocular EBs. The VSS has an active bright EB observing program. Davis Boyd's talk on SW Sex stars and his proposed observing campaign was very informative. I'd always thought this class of stars was only interesting spectroscopically, so

his proposal for amateur contributions in this field was exciting. Pamela Gay talked about AAVSO's new initiatives in EPO. Specifically the speakers' bureau, writers' bureau, and our endeavor to participate in all the major star parties



Mike Simonsen at Stonehenge.

in America in the coming years. Pamela also blogged the whole meeting live on Astronomycast, so if you want a flavor of what happened in roughly chronological order see: <http://www.astronomycast.com/LIVE/>. My talk on VSP, VSX, and VSD had a lively Q&A session afterward.

Martin Nicholson did a very good job on his talk about remote observing with the Global Rent-A-Scope. His evaluation of the advantages and disadvantages was particularly enlightening. Patrick Wils' paper on data-mining NSVS was very good. We are fortunate to have him involved with VSX and AAVSO in general. He's smart, energetic, and willing to do a lot as a volunteer. I was glad to finally meet him in person. John Toone's paper on the early history of the BAAVSS was particularly appealing to me. I have an affinity for the visual observers from the early days of variable star research.

Robin Leadbetter's talk on amateur spectroscopy was very interesting and well done. The quality of work that can be done with relatively small telescopes and spectrographs is exciting news

SIMONSEN: CAMBRIDGE HIGHLIGHTS CONTINUED FROM PAGE 6...

for amateurs thinking about branching out into other areas of variable star research. Tom Lloyd-Evans paper on Carbon stars contained loads of spectrographic and visual information on several very interesting southern stars. In fact, there were so many talks given that highlighted the spectral information on variable stars that with just a few more this could easily have been turned into an amateur spectroscopy workshop!

Boris Gaensicke's talk on CVs discovered by large surveys was fast paced and informative. He had to move quickly, since he had 70 slides in his PowerPoint presentation! Boris is an engaging speaker and did a particularly fine presentation. After dinner Friday, professor Mike Bode gave a talk summarizing research results from outbursts of the recurrent nova RS Ophiuchi. One of the pleasant surprises in the results was that they had the system modeled fairly accurately the last time around, and were able to verify that during the most recent outburst.

That evening I had the pleasure of an entertaining, enthusiastic roundtable discussion with several Belgian observers in the local pub. We shared stories of how we got started in variable star astronomy, what keeps us coming back for more, our hopes and concerns for the future of research, and visual observing in particular. It was especially nice for me to finally meet Erwin van Ballegoij, who I have known for years through email only.

The Saturday session was equally informative and fun. Rene Oudmajer was very engaging and funny. I totally enjoyed his talk on star formation. Arne gave a combined talk on the AAVSO robotic telescopes and an abbreviated Director's report. The BAA members are keen to know what we are up to these days, as evidenced by the Q&A session after, that could have gone on much longer if time allowed. Guy Hurst did an excellent paper on the history and results of the TA/BAAVSS supernovae and novae search program. It's pretty remarkable what they get accomplished with their weather. It was also a personal highlight for me to finally get

UPCOMING MEETING NEWS

Join us in helping the Maria Mitchell Observatory (MMO) celebrate its 100th Anniversary!

The AAVSO 97th Annual Meeting will be held on the island of Nantucket, MA, on October 17th and 18th, 2008. On Friday we will hold a data mining workshop, a special session on the Maria Mitchell Observatory and its history, and an MMO open house and star party. Saturday will include the AAVSO membership meeting, a scientific paper session, and the awards banquet.

Our banquet speaker will be Robert Naeye, the new editor-in-chief of Sky and Telescope magazine. We are also planning an optional tour of the island for those who plan to stay an extra day. The full meeting notice, including registration forms and

to meet Guy. Former councilman Arto Oksanen gave a nice paper on the High Energy Network and chasing GRB afterglows. He humbly suggests that to catch an afterglow requires a certain amount of luck, but I think his success is also the result of a good deal of persistence and talent.

I had to miss the middle of the session on solar observing so I could hole up in my room to edit and reformat the presentation I was going to give that evening. The scheduled speaker had suddenly taken ill, so Roger asked me earlier that morning if I could do the after dinner lecture, a humorous presentation I had done before called 'Astronomy: Hobby or Obsession'.

The Saturday banquet was one of the best meals I had the whole time I was in the UK. Two special awards were given out after the banquet. The AAVSO presented Roger Pickard with a lifetime membership in the AAVSO, in recognition of a lifetime of contributions to variable star research. And the BAAVSS awarded Gary Poyner the Butterworth Award for his amazing contribution of over 200,000 visual observations.



reservation instructions for the Nantucket Inn, will be mailed this week.

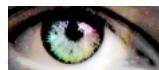
We hope to see you and your families on Nantucket for the 97th Annual Meeting of the AAVSO and the 100th Anniversary of the MMO! ★

My 'Hobby or Obsession' talk was well received. I think they enjoyed it almost as much as I enjoyed doing it. The meeting was adjourned and we had to say goodbye to friends like Gary Poyner and Chris Jones who were heading home that night.

The following day was spent bussing across the English countryside as we visited Stonehenge and another stone circle formation, Avebury, which is so large it actually has a small town inside of it. That is a trip I shall never forget.

Irene and I went on to stay another week in London, seeing the sights and doing all the touristy things there are to do in that magnificent city. The perfect topper to an already memorable trip was staying in the home of Brian and Hazel McGee our final night, enjoying what can only be described as a gourmet meal prepared by Brian, and hassle-free curb side delivery to the Gatwick terminal the following day from Hazel.

Thank you to all our British hosts for making this meeting a special memory. I look forward to seeing you all again soon. ★



EYEPIECE VIEWS

GAMZE MENALI, EDITOR

Dear Eyepiece Views Readers and Friends:

When we started our journey in July of 2001, we didn't know how much interest there was going to be for our publication. It has been seven years since we mailed out our first issue! There has not been a month where I haven't received support, words of encouragement, and praise from our wonderful readers, subscribers, and contributors alike. There is a lot of scientific information out there to benefit from when needed, so we've tried to keep *Eyepiece Views* somewhat light-hearted. We wanted our readers to learn while having fun,

we wanted our observers to share parts of their lives with the rest of us, so that we'd benefit from their experiences.

Although this does sound a bit like a farewell, it is not an ending! We are, in fact, starting a new era in order to better serve our membership and observers with our move to a quarterly electronic *Newsletter*. Yes, this very *Newsletter* you are enjoying right now! This enhanced *Newsletter* merges the old *Newsletter* with *Eyepiece Views*, and will eventually add columns regarding CCD and PEP observing. (Arne's original message announcing these changes went to the AAVSO discussion group and may be viewed in its entirety

at: <http://www.aavso.org/pipermail/aavso-discussion/2008-July/014449.html>.)

We hope to keep our current subscribers with us while promoting our wonderful new *Newsletter* to a wider audience. And as we always say in *Eyepiece Views*, we hope to keep a little humor and a little fun in all this too. I am forever grateful to all our contributors throughout the years for their support in making *Eyepiece Views* a better publication and I hope to be working with you all now to enhance this wonderful *Newsletter* and to promote it, too. Thanks, and good observing!

— Gamze

ONE MORE DOCENT

BY KATE HUTTON (HTN) PASADENA, CALIFORNIA

There was a time when every astronomer in the world dreamed of observing at Mount Wilson. Several of the most famous names that we know like Harlow Shapley, Edwin Hubble, Milton Humason, Walter Baade, and Fritz Zwicky were made there. It was on Mount Wilson the Milky Way galaxy was first measured, other galaxies were confirmed to be extragalactic, and the "expanding universe" was first known.

I live only a short, half-hour mountain drive from this historic site. It makes sense that I should become involved with Mount Wilson's docent program.

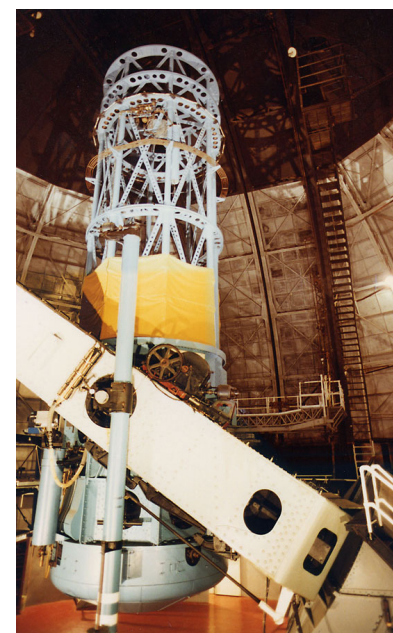
Docent training consisted of three all-day sessions. Our minds were literally crammed with astronomical and historical information, by Don Nicholson, a retired meteorologist whose father was one of the original mountain astronomers.

The first session was a lecture PowerPoint presentation. It was held at a historical site within the city of Pasadena: George Ellery Hale's Solar Laboratory. This place is now privately owned,

embedded within a prosperous neighborhood, but preserved as a historical site. As of a couple of years ago, the spectroheliograph had been restored and actually worked. The apparatus consists of a "folded" solar tower telescope, a coelostat system, with a 150ft focal length crammed into a 50ft tower, adjoining G.E. Hale's personal library with his original books and furniture. Beneath the tower, is the 80ft pit housing the spectrograph.

Astronomy began on Mount Wilson in 1889 when Harvard College Observatory, then the pre-eminent place in the U.S. to be an astronomer, briefly ran a station there to evaluate the atmospheric conditions for a possible observatory. USC had already obtained two 42-inch lens blanks from France, to be used in the world's largest refracting telescope. However, the funding for the observatory fell through and the lens blanks languished in Alvan Clark's workshop until Hale snagged them for the Yerkes Observatory of the University of Chicago.

It's a very long story, but it all revolves around George Ellery Hale, whose passionate childhood interest in astronomy and the solar spectrum in particular led him to eventually found a series of ever-larger observatories and telescopes. At the time of the high-rise boom in Chicago, Hale's



The 100-inch (2,500 mm) Hooker telescope located at Mount Wilson Observatory, Los Angeles, California.

father happened to be in the elevator business, so Hale grew up in a well-to-do environment. However, his father made young George write proposals for all the scientific equipment he wanted. So, he grew up with a great skill in talking rich people out of their money.

HUTTON: ONE MORE DOCENT CONTINUED FROM PAGE 8...

Harvard did not stay long in southern California, something about too many hikers interrupting the astronomers' daily sleep and too many rattlesnakes. But, Hale was here by 1903, starting with a solar telescope.

The second training session was part of a walking tour on the mountain; similar to the ones we will be giving to the public, but in more detail. We saw the monument marking the place from which Michelson measured the speed of light by bouncing a beam off not-so-nearby Lookout Mountain. We visited the 60-inch telescope, the largest working telescope between 1808 and 1917. (Although it is smaller than Lord Rosse's 72-inch, it has an aluminized glass mirror rather than speculum and it is much more manageable!) This is the telescope that pinned down the cluster variables in the globular clusters and revealed the size and shape of our Galaxy. Think Harlow Shapley.

The 60-inch is used today mainly for public viewing (groups of users pay for the time). For the convenience of the operators and the safety of the viewing public, there has been a lot of upgrade. The telescope is computer controlled and the worst of the exposed DC wiring (to move the dome) has been covered. (Oddly, the advent of computer control brought the need for an independent pointing method to reset the encoders when the computer restarts. Solution: a Telrad! The 100-inch telescope has two Telrads.)

In spite of the upgrades, a lot of the older equipment is still apparent. The power is mainly the old DC system. One can see a "power panel", a breadboard the size of a blackboard, with light bulbs as resistors. The DC switches are

worthy of Dr. Frankenstein. One can also see a bank of lockers, with labels "Hubble", "Zwicky", "Baade", etc. I looked into Hubble's; it contained only a broken plate holder.

Before the 60-inch, however, the first telescopes on the mountain were solar telescopes. The first was a horizontal coelostat system called the Snow Telescope. The configuration did not end up working that well, due to heating and air currents near ground level that destroyed the seeing, but the Snow is still used for training summer students. The next two were the 60-foot



October 2000 ariel photo of Mount Wilson, California, showing the historic Mount Wilson Observatory facilities and the CHARA array. [Photo by Eric Simison, Sea West Enterprises.]

and 150-foot solar towers, each with the standard 80-ft spectrograph underneath. The 150-foot tower featured innovative designs. It is a tower within a tower; the optics is supported by the inner one and the rest of the structure by the outer one, protecting the inner tower from the wind. The two never touch, except in high winds or earthquake, in which case, we were told, they make a terrible racket.

By the time the 60-inch was built the collection of switchbacks known as the Mount Wilson Toll

Road had been widened to accommodate motor vehicles. Much of the equipment for the early solar telescopes, however, came to the mountain by mule back. In fact, the famous astronomer Milton Humason started out as a mule driver, progressed to janitor and finally to Hubble's trusted right-hand observing man. Many L.A. residents hike or mountain bike the toll road these days. It's 9 miles each way, with a gain of 4,400 feet. The early observers frequently commuted that way! (Current Mount Wilson motor access is via the Angeles Crest Highway and Red Box Canyon Road, both WPA projects from the mid-1930's.)

We spent a couple of hours talking to the solar observer on duty that day (it was cloudy). He explained the equipment, another spectroheliograph, operating with a solar image 17-inches in diameter. He also described many of the historical discoveries that were made on the premises, including the recognition of the magnetic nature of sunspots, the reversing dipole magnetic field of the Sun, and some of the early helioseismology. In addition to all this, the tradition of daily tracings of the sunspots has continued, interrupted only by clouds, since January 1917. This tradition is maintained to facilitate comparison of the data over time.

There is somewhat of a cross-town rivalry going on here: the 60-foot tower is currently operated by UCLA, the 150-foot tower by USC. Sadly, the USC program will run out of funding at the end of this July and it is not known if there will ever be any more solar tracings.

EYEPIECE VIEWS

CONTINUED ON NEXT PAGE

JD / MOON PHASE CALENDARS

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

AUGUST 2008

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|------------|--|------------|------------|------------|------------|------------|
| | | | | | 1 4680 | 2 4681 |
| 3 4682 | 4 4683 | 5 4684 | 6 4685 | 7 4686 | 8 4687 | 9 4688 |
| 10 4689 | 11 4690 | 12 4691 | 13 4692 | 14 4693 | 15 4694 | 16 4695 |
| 17 4696 | 18 4697 | 19 4698 | 20 4699 | 21 4700 | 22 4701 | 23 4702 |
| 24 4703 | 25 4704 | 26 4705 | 27 4706 | 28 4707 | 29 4708 | 30 4709 |
| 31 4710 | SKY EVENTS: <u>August 1</u> - Total solar eclipse (visible from the Arctic, Russia, and China) <u>August 12</u> - Perseid meteor shower peaks (morning) | | | | | |

SEPTEMBER 2008

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|------------|------------|------------|---|------------|------------|------------|
| | 1 4711 | 2 4712 | 3 4713 | 4 4714 | 5 4715 | 6 4716 |
| 7 4717 | 8 4718 | 9 4719 | 10 4720 | 11 4721 | 12 4722 | 13 4723 |
| 14 4724 | 15 4725 | 16 4726 | 17 4727 | 18 4728 | 19 4729 | 20 4730 |
| 21 4730 | 22 4732 | 23 4733 | 24 4734 | 25 4735 | 26 4736 | 27 4737 |
| 28 4738 | 29 4739 | 30 4740 | SKY EVENTS: <u>September 19</u> - Moon occults the Pleiades. | | | |

HUTTON: ONE MORE DOCENT
CONTINUED FROM PAGE 9...

EYEPIECE VIEWS

When we emerged from the tower, we found a significant amount of “frozen sunshine” falling from the sky. This session was in mid-March, too late in the year for serious precipitation in the L.A. Basin, but not too late to be snowed in at 5,715 feet. We cut our training session short and left while we could.

On our third session, we got a rare treat that normal tours do not see. Beginning in 1912, electric power was supplied to the observatory by (let me be sure I get the “classic” details right) a Fairbanks-Morse 2-cylinder, 4-stroke gasoline engine and DC generator (plus a large bank of batteries). This engine is one of those classics with polished brass fittings, etc. The flywheel is just short of 6 feet in diameter. A small cadre of retired engineers have lovingly restored the engine to working condition. They ran the generator for twenty minutes or so, for our benefit. There is no muffler, so it makes a racket (as well as a significant disturbance on the nearby seismographic station!). In the early years, that racket was “hot shower call” for the staff on the mountain. The engine is water cooled, but the water is not re-circulated. Instead, it was conveniently cycled through a shower stall before irrigating a nearby cliff. It is said that Hubble himself, and perhaps Hale, could have the engine running specifically for his shower, but the rest had to wait until the batteries were low!

Another bit of tradition that regular tourists do not see, and somewhat more oppressive by modern standards, is the Monastery, the mountaintop dormitory, with its day wing and night wing (depending on the observing schedule of each astronomer). Today, the Monastery is co-ed and inhabited mainly by students. In the old days, however, it was very formal. If there were any female astronomers between 1905 and, say, 1950, they were not allowed on Mount Wilson. My understanding was that Margaret Burbidge was the first and it was her (theoretician) husband’s observing time!

The day and night astronomers met at formal dinner. The observer on the 100-inch sat at the head of the table and picked the topic of conversation. The observer on the 60-inch sat on his right and the rest on down the line. Regular observers had napkin rings with their names, so they would know their table status. Occasional observers and students had clothes pins. More often than not, it was Hubble who got to pick the topic. His normal practice was to sneak into the library/lounge before dinner and randomly crack the Encyclopedia Britannica. Whatever popped up was the topic and, of course, he was the only one who had just read up on it!

I could not resist the temptation to sit in “Hubble’s chair” at the head of the table, ring the bell to summon the servant to bring the food, and select a topic of conversation. I was nice, however; I selected “docent training” as the topic.

The rest of the day was devoted to the 100-inch telescope and to CHARA. The 100-inch Hooker telescope has a history, which is intimately connected to the cosmic distance scale and the expanding Universe. It is where the likes of Hubble, Humason, and Baade made their observations during the thirty one years before the Palomar Observatory came into use. One particular human story sits in my mind.

CONTINUED ON NEXT PAGE

OBSERVER AWARDS
CONTINUED FROM PAGE 4...HUTTON: ONE MORE DOCENT
CONTINUED FROM PAGE 10...

EYEPIECE VIEWS

OVER 10,000 VISUAL OBSERVATIONS*

| | | | |
|--------------------|--------|-----------|--------|
| Franck Gobet | France | 2003-2007 | 14,840 |
| George Vithoulkas | Greece | 1999-2007 | 11,550 |
| Emilian Skrzynecki | Poland | 2002-2007 | 10,969 |
| Tomasz Krzyt | Poland | 1997-2007 | 10,777 |
| Daniel P. Loring | USA | 1965-2007 | 10,338 |

OVER 300,000 CCD/PEP OBSERVATIONS*

none

OVER 250,000 CCD/PEP OBSERVATIONS*

| | | | |
|--------------------------|--------------|-----------|-------------|
| Christopher T. Middleton | South Africa | 2004-2007 | 265,227 CCD |
|--------------------------|--------------|-----------|-------------|

OVER 200,000 CCD/PEP OBSERVATIONS*

none

OVER 150,000 CCD/PEP OBSERVATIONS*

| | | | |
|---------------------|--------------|-----------|-------------|
| Libert A. G. Monard | South Africa | 1992-2007 | 167,834 CCD |
| Gerard Samolyk | USA | 1975-2007 | 175,474 CCD |
| Robert A. James | USA | 1953-2007 | 163,412 CCD |
| Vance Petriew | Canada | 2001-2007 | 152,111 CCD |

OVER 100,000 CCD/PEP OBSERVATIONS*

| | | | |
|-----------------|-----|-----------|-------------|
| Shawn W. Dvorak | USA | 1981-2007 | 109,418 CCD |
|-----------------|-----|-----------|-------------|

OVER 50,000 CCD/PEP OBSERVATIONS*

| | | | |
|---------------------|-----------|-----------|------------|
| Giorgio Di Scala | Australia | 2004-2007 | 60,764 CCD |
| Timothy Crawford | USA | 2001-2007 | 56,669 CCD |
| Neil D. Butterworth | Australia | 2002-2007 | 50,283 CCD |

OVER 25,000 CCD/PEP OBSERVATIONS*

| | | | |
|---------------------|---------|-----------|------------|
| Thomas Krajci | USA | 2002-2007 | 38,873 CCD |
| Arto Oksanen | Finland | 2001-2007 | 36,024 CCD |
| James L. Jones | USA | 2003-2007 | 34,571 CCD |
| Robert Koff | USA | 2003-2007 | 27,243 CCD |
| Keith A. Graham | USA | 1981-2007 | 25,242 CCD |
| Pierre De Ponthiere | Belgium | 2003-2007 | 25,090 CCD |

OVER 10,000 CCD/PEP OBSERVATIONS*

| | | | |
|-------------------|---------|-----------|------------|
| Jerry Bialozynski | USA | 2004-2007 | 22,652 CCD |
| Ray E. Tomlin | USA | 2006-2007 | 19,685 CCD |
| Jeremy Shears | England | 2004-2007 | 16,564 CCD |
| Patrick Wiggins | USA | 2000-2007 | 15,122 CCD |
| Michael Koppelman | USA | 2001-2007 | 12,194 CCD |
| Martin Nicholson | England | 2004-2007 | 11,732 CCD |

OVER 5,000 CCD/PEP OBSERVATIONS*

none

OVER 2,500 CCD/PEP OBSERVATIONS*

none

OVER 1,000 CCD/PEP OBSERVATIONS*

| | | | |
|--------------|-----|-----------|-----------|
| James H. Fox | USA | 1999-2007 | 1,064 PEP |
|--------------|-----|-----------|-----------|

* Years include total AAVSO observing interval (not only PEP/CCD observing). Total includes PEP and/or CCD observations only (not observer's visual contributions).

At the time that the U.S. entered World War II, Walter Baade had not, for whatever reason, become a naturalized U.S. citizen. He was automatically an enemy alien and was therefore restricted to Pasadena and with some string pulling, Mount Wilson. Meanwhile, Los Angeles was commonly “blacked out” to make it somewhat harder for Japanese bombers to find. Under these ideal observing conditions, from observations of M31 and other nearby galaxies, came the concept of stellar Population I and Population II.

As at Palomar, tourists normally see the 100-inch telescope through a glass window. The view is a good one and there is a recording of Hugh Downs describing the history of the telescope. To people who have been on the Palomar tour, the 100-inch may not look that huge, but it's a big telescope. From 1917 to 1948, it was the world's largest.

The docent trainers pulled one fun trick on us. The trainees, of course, get the “inside” tour beyond the glass wall. We were standing near the old night assistant's console, overlooking the telescope and the Universe. One of the trainers started pulling on a railing, while the other surreptitiously hit the switch that rotates the dome. It was very disorienting. Although we were riding with the dome, we could not tell whether the telescope or its surroundings was moving, the movement is so smooth! This is unlike the 60-inch dome, which rattles and clatters like the railroad trucks that it rides on and one wonders whether it will actually make it to the program star.

The night assistant's console contains vestigial telescopes of its own, which view, via a system of mirrors, the original setting circles!

Today, due to Los Angeles, the 100-inch is very underutilized. It doesn't see deep galaxies any more. It has nice equipment on it, however, including an adaptive optics system to augment the good seeing that Mount Wilson is famous for. The modern installation, CHARA, is right next-door. CHARA stands for Center for High Angular Resolution Astronomy, interferometry, in other words. The interferometer consists of six 1-meter telescopes, compact compared to the behemoths of the early 20th century, connected by evacuated tubes for the light beams to pass to a central control building. As the world turns, the appropriate delay between each pair of telescopes changes. The “delay lines” in this case consist of mirrors mounted on precision carts that move back and forth along rails as needed. Other techniques common in radio astronomy are also used in CHARA. Atmospheric turbulence destroys the phase of the fringes, which is needed to directly compute the brightness distribution of the source. However, fringe amplitude and closure phase, which is the sum of the phase around a triangle of three simultaneous baselines, are available on multiple baselines. As the Earth rotates, each pair of telescopes samples a set of different effective baseline lengths. In a process called Aperture Synthesis, a computer can combine all these data to simulate a telescope the size of the entire interferometer, producing an image of the source. CHARA looks at fast-rotating stars, which are oblate, and it sees the gravity darkening that happens because the equator is farther from the nuclear furnace than are the poles. It has also looked at many classes of pulsating variable stars to see how their appearance changes with their pulsation phase.

Eventually, the CHARA building will also house an Interferometry Museum, including the actual equipment that Albert Michelson and Francis Pease used in 1919 to measure the apparent diameter of Betelgeuse. The Michelson and Pease interferometer is currently on loan to the Museum of Natural History in New York. When it returns to California, it will sit on top of a replica of the top end of the 100-inch telescope, in the Interferometry Museum.

CONTINUED ON PAGE 15

REFLECTIONS ON THREE DECADES OF VARIABLE STAR OBSERVING

BY GERRY DYCK (DGP) ASSONET, MASSACHUSETTS

Sometimes I feel that my thirty years of variable star observing have been about as variable as the variable stars themselves. Next month I will send in my 300th consecutive monthly report to the AAVSO. Today, I look back at highlights, lowlights, trends, and changes in my astronomical endeavors.

I made my first variable star estimate in the summer of 1978. It was under the tutelage of Greg Stone of Westport, Massachusetts. He had set up his 6-inch Criterion reflector behind his house on the banks of the Westport River. After some splendid planetary views he asked me if I had ever seen a variable star. His response to my negative reply was to show me Z UMA. He showed me the chart, explained the process, then said we should make independent estimates before comparing results. I was quite pleased that my 9.2 matched his 9.2 exactly. This prompted me to make inquiries at the AAVSO and acquire a beginner's packet. Two of my vivid recollections of that visit to 187 Concord were seeing Katherine Hazen sitting at a desk opening the mail and checking scores of hand-written observation reports. At another desk sat Margaret Vargas plotting light curves with pencil and ruler. Indeed, times have changed.

The years from 1978 to 1982 were spent in learning the technique of estimating variables and slowly expanding the number of stars I could find. I began with Miras like S and T Gem, U CMi, and U Her, which I monitored with my newly-built 10-inch reflector. My cautious one-page hand-written reports landed on Katherine's desk.

1983 was a momentous year for me. It was then I built my 17.5-inch Dobsonian using optics I had gotten in trade for a ready-to-use 8-inch Criterion and a 90mm Celestron refractor. One summer later my Stellafane-awarded "monsterscope" was happily housed in a new Merry-Go-Round Observatory and I felt ready for more ambitious endeavors. I recall standing in the observatory one August evening in 1984 and saying to myself

that this splendid facility was worthy of some focus greater than casual recreational astronomy. That focus became the passion for observing cataclysmic variables, the first of which (U Gem) I had seen in outburst the previous winter.

My most active observing years were from 1984 to 1992 – my energy and enthusiasm seemed boundless. I observed on every clear night. I got up for frequent pre-dawn sessions. I cursed the clouds. I cursed the moon. I got the blues when some non-astronomical event required my attention on a clear night. My list of targets expanded to about 100 stars, about 75 of which I could keep up with pm/am sessions. Another impetus came in 1986 when I got my first computer and taught myself enough Basic to write a customized program for entering, sorting, graphing and reporting my data. For a dozen years I mailed in my monthly computer-printed reports which had to be re-entered into the computer at HQ. The longest of these contained 1,350 observations made during a fabulous February which brought 26 consecutive clear nights. Of course, I was proud of my output, but I was always second or third in the yearly totals. I joked with Helga that because of Danie (Overbeek) I would always be an Underbeek – and so I have been. One number that I am very proud of is 16 – the greatest number of CV outbursts detected in a single night.

The years from 1992 to the present have been marked by a slow but steady decline in my observing output. I attribute this in part to my decreasing energy with advancing age, but largely to the discouragement caused by the loss of dark skies in our small town. I recall seeing 15.6 stars a decade ago - now I strain to see 14.0 on the best of nights. I recall standing in awe of the majesty of the night - now I look up with disgust and tears for the glory that has passed from my sight. What Helga and I could once enjoy in our own backyard we must now travel to New Hampshire or New Mexico to see.

There have been milestones, of course, which I cherish: composing a musical suite for the 75th

EYEPIECE VIEWS

Anniversary of the AAVSO and later seeing it published, making my 100,000th estimate while on Mt. Wilson, being chosen by Director Janet Mattei to give a talk on visual observing at the Toronto meeting, pausing for a moment of silence before I made my 132,124th estimate, cooperating in many terrestrial and space-based observing campaigns, taking my telescope to many dark and wonderful astronomy places, and receiving my certificate last December for 150,000 observations. And perhaps it was a minor highlight for the HQ staff when in the year 1994 I tweaked my Basic program to format my observations for immediate electronic entry in the AAVSO database.



It is sad but true to say that since 2004 I have been known to look forward to a cloudy night when I can avoid the sorrowful effort of looking for my old celestial friends through the polluted murk of southeastern Massachusetts skies. This sorrow has been recently heightened by the loss of my dear devoted observing companion. For twelve years Smudgie would jump up and rush to the back door at the sound of my words "let's go get some Vs." He had his own cushion near the telescope where he would faithfully keep watch with me. When his eyesight and general strength failed I carried him out for his last few sessions. Now he is buried just behind the observatory. I wish that his name were included on award certificates. It is with a heavy heart that I press on, but I intend to contribute to the AAVSO database for as long as I am able. Oh yes, one more number fills me with awe. It is the number 512 – the number of consecutive months that Leslie Peltier sent in his data reports. ★

PATRICK McDONALD, MDP COMPASSING THE HEAVENS

INTERVIEW BY MIKE SIMONSEN

AAVSO member and observer Patrick McDonald is a teacher living in Toronto, Ontario, Canada. He's been observing variables for nearly thirty years now, and continues pushing towards his goal of 10,000 observations in spite of being diagnosed with leukemia in June of 2007.

I bumped into Patrick a while ago on the social networking website MySpace.com and we began corresponding via email. Patrick is a busy guy. He's never home when I call on the phone, so I feel lucky to have caught up with him for this interview.

Mike: When did you join the AAVSO?

Patrick: I've been observing since about 1979. Actual membership has been off and on due to finances, mental illness, etc. A person like me must have been crazy to go into teaching, which I guess proves my point.

Mike: What prompted you to join; a person, an article or book you read, or something else?

Patrick: The RASC Handbook's piece on Z U Ma. I'd been interested in astronomy generally, but this gave me a target to aim at.

Mike: Did you have a mentor or anyone who encouraged or helped you get started?

Patrick: No, just blind determination. After a few years, they sent me some more charts, which encouraged me.

Mike: What stars did you start out observing?

Patrick: Z UMa, X Cam, and Omicron Ceti.

Mike: What objects do you observe now?

Patrick: I have two file folders full; Miras, eclipsing binaries, dwarf novae, RR Lyraes, et cetera. The Internet has affected a quantum leap!

Mike: I find it impossible to say what my favorite star is, so I'll ask you, what are your favorite two or three variables?

Patrick: X Cam, since it was my first seriously (C8)

monitored star; SS Cyg, since it was awhile before I had an instrument large enough to follow it to minimum; and Z UMa, since I could find it with just the RASC Journal.

Mike: What equipment do you use?

Patrick: My C14 is the heavy artillery; my SkyMaster Binoculars for 6-8 mag; and my faithful 4.5 inch Tinsley that started it all and travels around the world with me. My C8 needs a new finder scope.

Mike: Do you have any favorite eyepieces or accessory recommendations?



Patrick McDonald (MDP) is nearing his goal of 10,000 observations.

Patrick: I use a 16 mm Nagler for closeup views of 12th mag or less. My "all-rounder" is a 24.5 Meade Super Wide Angle that I got in a pawnshop in Arizona. It's been to Mexico, Turkey, and Libya!

Mike: How often do you observe?

Patrick: As often as I can during the non-teaching season. Sometimes I will 'clear' a teaching day if the night is really good. Since my leukemia diagnosis, I realize that time is a finite quantity vis a vis getting my 10,000 observation certificate without the use of computer drives.

OBSERVER PROFILE

Mike: So you don't use a Go To scope, but star hop to your targets?

Patrick: I cycled across Canada without use of a motorized vehicle. It was the means, not the distance that was important. Somehow I feel that my first (and, I am betting, my last!) 10,000 observations are more significant to me if I know that I tracked each of them by star hopping through my Uranometria, however often that has led to frustration and extremely colourful language!

Mike: How cold does it have to be before you say 'no mas'?

Patrick: I am Canadian after all. During the winter, I wear a parka and note often that the frost on the scope from where my breath has hit it is a millimetre or two deep. At below -25 C, the motors on the scope slow down and the cord for the remote becomes hard and inflexible. So, that is a good time to switch to binoculars.

Mike: How has being an AAVSO member/observer impacted your life?

Patrick: It makes me feel that I have accomplished something worthwhile; that I leave something behind; that I am continuing an activity that my late ex approved of, and that I have compassed the heavens in some small part.

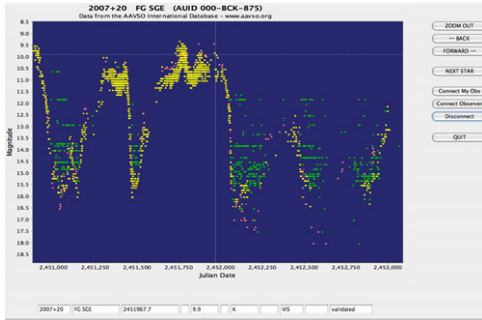
Mike: What do you mean by "compassed the heavens"?

Patrick: The reference is an egotistical parallel to William Blake's picture of the God of the Old Testament "compassing the depths" of the oceans. (Photo available at: http://www.geocities.com/brave_sir_newton/shift.html)

I believe the idea is the use of scientific instruments to measure the aspects of the natural world. Which is what we do with optical instruments or even our naked eyes when we measure the intensity of the fire of the stars. ★

INTRODUCING ZAPPER

KATE DAVIS



Zapper is a new tool that is now accessible for download via the AAVSO website. Just log in to [Blue&Gold](#) and click on “Help HQ Validate Data” to download the software. If you are not already registered with Blue&Gold, you can register easily on the AAVSO website. When you run the program, you will be able to plot several thousand data points for any star in the AAVSO Database.

You can scroll forwards and backwards in time, zoom in and out, flag points that look unusual and send that information to headquarters – all with a couple of mouse clicks!

AAVSO staff members spend a good deal of time [checking the validity of data](#) in our database to ensure that we are offering the highest quality data possible. By using Zapper, you will significantly reduce the staff time spent searching the data points for erroneous observations due to typos, JD errors, etc.

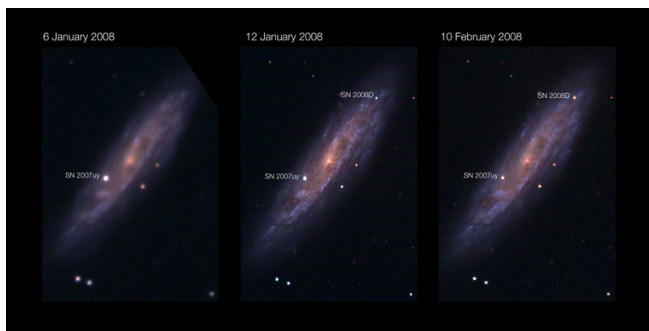
The software is developed in Java and utilizes Java Web Start to launch the application on your computer. There is more information on the technical aspects of the software on our help pages, but rest assured the process is very simple and easy-to-use. Give it a try today! ★

CALLING ALL PHOTOGRAPHERS!

Would you like to see your favorite image in print? We will be publishing an AAVSO wall calendar full of variable star related images. If you have taken a photo or put together a light curve that you think would make a good calendar picture we ask that you submit it to us. Simply type “calendar image” in the subject line and email your name, a brief description of the image, and the image file itself to aavso@aavso.org no later than September 1st, 2008. (*If you do not own the copyright to the image, please make sure that it is in the public domain before submitting.*) AAVSO staff members will select twelve monthly pictures and a cover image from all of your submissions. If your image is selected, you’ll receive credit on the calendar page and a free copy of the calendar. We ask that individuals not submit more than three images each, so pick your favorites and send them to the AAVSO! ★

ASTRO-BLOG ROUNDUP

TRAVIS SEARLE



Spiral galaxy NGC 2770 with two supernovae SN 2007uy and SN 2008D. (NASA)

The Astro-Blog Roundup features highlights from astronomy weblogs all across the internet. We hope to make this a regular feature and bring you many interesting and informative links. Let’s get started!

Sure, our Sun is a star, but what type of star is it? Writer **Ian O’Neil** of [Astroengine](#) offers up an answer. <http://www.astroengine.com/?p=368>

Ian also penned an entry over at [Universe Today](#) on July 25, 2008, about the discovery of an unusual supernova/gamma-ray burst hybrid in the spiral galaxy NGC 2770. The discovery has led some researchers to speculate that black hole-producing supernovae might have the potential to be gamma-ray burst progenitors. <http://www.universetoday.com/2008/07/25/astromers-discover-a-supernovagamma-ray-burst-hybrid/>

Meanwhile, the AAVSO’s own **Mike Simonsen** gets intimate with the Little Dipper’s most famous resident, Polaris, at his new blog, [Simostronomy](#). He’ll bet that you don’t know as much about Ursa Minoris as you think you do. <http://simostronomy.blogspot.com/2008/07/polaris.html>

Over at [Slacker Astronomy](#), AAVSO Council Member and MACHO-man **Doug Welch**

discusses the details of a possible companion of a companion of the Milky Way - sort of an astronomical ‘friend of a friend,’ you might say. Fellow AAVSO’er **Mike Koppelman** posts regularly as well, so be sure to check it out. <http://www.slackerastronomy.org/wordpress/2008/07/milky-way-galaxy-seeks-new-dwarf-companion/>

Chris Lintott’s July 23rd posting takes a closer look at poetry and science. <http://chrislintott.net/2008/07/23/poetry-and-science>

Meanwhile, over at his Discovery.com blog, [Space across the Pond](#), Chris puts together a list of what he deems as the “Top Ten Telescopes.” http://blogs.discovery.com/space_across_the_pond/2008/07/top-ten-telesco.html

Last but not least, **Professor Astronomy** discusses the case of a nova that nobody saw. <http://www.professor-astronomy.com/blog/2008/07/sometimes-we-miss-obvious.html> ★

IN MEMORIAM

MEMBERS, OBSERVERS, COLLEAGUES,
AND FRIENDS OF THE AAVSO

TOM DROEGE Batavia, IL

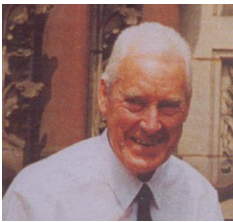
Tom Droege spent 25 years as a Fermilab engineer and is best known for “Droege Supplies,” orange NIM high-voltage power supplies in use all over the world.



Droege built and operated several CCD-based telescopes from an observatory that he built onto his house. He founded The Amateur Sky Survey, an international collaboration organized to record and analyze images of the night sky using a technique he invented and incorporated into his telescopes. He received honorary lifetime membership in the AAVSO for his work on TASS.

WILLIAM DOUGLAS HODGSON (HWD) Chidlow, Australia

William was a longtime observer and Sustaining member of the Association since 1988. An engineer by trade, Doug was a member of the AAVSO infrared photometry group. He also donated



his time as part of the comp star database working group. He contributed 1026 visual and photoelectric photometry observations from 1989 to his death in December 2007. Doug also dabbled in nova hunting spending several years as a proud member of the UK Nova Patrol. Many AAVSOers had the pleasure of meeting Doug in 2002 at the 91st Spring Meeting in Hawaii.

WALTER R. MOOS Koniz, Switzerland

A devoted solar observer since 1997, Walter regularly contributed his sunspot observations to the AAVSO Solar Observing Program. ★

HUTTON: ONE MORE DOCENT CONTINUED FROM PAGE 11...

Mount Wilson also has a small Astronomical Museum that dates back a few decades. One can see a cutaway of the double nature of the solar tower structure and the governor system that used to regulate the 60-inch (weight driven) clock drive. There is also a scale model of the mountain top as it was in the 1930's, including rather yellowed layers of cotton batting to represent the smoggy marine layer that all Mount Wilson astronomers welcome, as it covers the lights of Los Angeles.

If you happen to be in the area, the Walking Tour starts at the Pavilion at 1 pm on Saturdays and Sundays from April through November. Many special tours for groups are also arranged. If you'd rather a self-tour, the grounds are open daily from 10am to 4pm during the same time period. If you don't choose to walk up the Mount Wilson Toll Road, you'll need a Forest Service Adventure Pass to park. Maybe your tour guide will be me. ★

AAVSO.ORG

Variable Star of the Season: FG SGE

FG Sagittae, a rare variable seen at the end of its life, beginning the transition from giant star to white dwarf, is the subject of the latest edition of Variable Star of the Season, prepared by Dr. Matthew Templeton.

Planning Tool for Stars in Need

Prepared each month by Mike Simonsen, the NMO (Needs More Observations) Planning Tool is a table containing information on stars from AAVSO Bulletin 71 for 2008. The stars in this table have few observations for last year in the AAVSO International Database. Thus, they need more observations to make their light curves more complete.

The AAVSO Solar Bulletin

Published monthly, and available free online, The Solar Bulletin contains information on solar activity including sunspots and solar flares. ★

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