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AAVSO Newsletter

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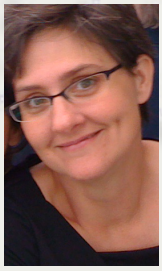

LISTEN UP!
RESTLESS UNIVERSE
THE NEW AAVSO PODCAST
FOR IYA. 7

THE INTERNATIONAL YEAR OF ASTRONOMY...

The United Nations officially declared 2009 to be the International Year of Astronomy. The AAVSO is proud to be taking part by leading a capstone project: the monitoring of the rare and mysterious 2009–2010 eclipse of Epsilon Aurigae. In the summer of IYA 2009, third-magnitude Eps Aur will experience its next eclipse, which occurs every 27.1 years and lasts 714 days, nearly two years! Projects are being developed to include three audiences: amateurs, the general public, and educators, in this exciting observing campaign. For more info on the IYA check out www.astronomy2009.org.

FROM THE DIRECTOR'S DESK

ARNE A. HENDEN

What a busy summer! I've been on travel since early May, both for AAVSO-related functions as well as some personal days. It seems like life passed me by for a few months. Now that I'm back at HQ, I'm slowly getting caught up with email and all of the pressing issues that have backlogged.

It has been a busy summer for the AAVSO as well. Since my last report, we've had the first of the Citizen Sky workshops, held at the Adler Planetarium. It is reported elsewhere, but I was quite impressed with both the workshop and the venue. Larry Ciupik and Lucy Fortson were excellent hosts, and the theater-style classroom had excellent speaker visibility and acoustics. I'd pick them again in a minute! I think the next workshop, to be held at the California Academy of Sciences, will be even better. The website is up, observations are pouring in—everyone should get involved in this interesting project and its "star." We've been working hard with a bunch of friendly NSF folk to finalize the three-year Informal Science Education grant that funds Citizen Sky, and are happy to announce that the award letter has been released—full speed ahead!

I have a huge backlog of CCD systems to test. I've been in contact with John Saxton of the BAA, who has developed a neat pulsed-LED system for testing detector linearity. It should be capable of 0.1% results, and is quite inexpensive to produce. In fact, John is sending an assembled system to the AAVSO shortly, so it will be available for some of my testing. I'll place the results on our web site so that you can see both the process and how different cameras compare. As part of the testing, we've also purchased a Canon XSi DSLR, and are having a blast running the camera under MaximDL. Doug Welch has found on-line software to convert almost any recent Canon point-and-shoot camera into a computer-controlled system, and I'm looking forward to testing that option as well. John Hoot has sent me his software to convert many RAW formats into FITS images. Perhaps inexpensive entry into the digital world is just around the corner!

Hannah diCicco, our summer assistant, finished scanning the Eggen photometric card catalog, and is spending a weekend or two finalizing the initial web-based access. By the time that you read this, we should have placed the card catalog on-line for you to use. It is going to take a lot of volunteer time to get the scanned images into digitized photometry, so we'll be asking for your help in the future. Hannah also worked on the IAU unpublished photometry archives, and those should go on-line soon. Again, here is an opportunity for volunteers to digitize data for inclusion in the AAVSO International Database.

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PRESIDENT'S MESSAGE

PAULA SZKODY

As my term will end with the upcoming Annual meeting, this will be my seventh and last Newsletter as President. It has been an interesting two years for—me. I've learned a lot about the details of operation of the AAVSO, met a variety of observers throughout the U.S. and Europe, and spent many discussions of where we should be going and how we can maintain the leadership in variable stars in the light of current budget constraints and upcoming all-sky surveys. This discussion will be continuing at the Annual Council meeting in Newton. If you have any thoughts on the Future of the AAVSO, be sure to transmit them to me or any Council member before November.

The professional community is also attempting to determine its future via the Decadal Survey. This will not be easy, since 117 Science white papers, 69 State of the Profession papers, 62 Technology Development papers, and 8 Theory, Computation, and Laboratory Astrophysics papers were submitted by the community. While I'm glad the AAVSO Council does not face this kind of

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FROM THE DIRECTOR'S DESK
CONTINUED...

We've revamped the Observer Award structure to account for the differences in observing techniques among visual, CCD, and PEP, as well as to give recognition to beginning observers. Any reinforcement we can do at an early stage will help keep newcomers interested. We will have a number of new observers coming from the Citizen Sky direction, as well as from the new Variable Star Club of the Astronomical League. In fact, we're getting more new members and observers than ever before, and they bring fresh ideas into the AAVSO. Welcome new faces and names whenever you see them!

I hope to see you all at the upcoming Annual meeting. It should be full of interesting papers. I tend to get fixated on a couple of topics and people, but realize that I really do want to see everyone, to shake your hand, and to find out where you are coming from and what you want to do in the future. If I don't find you, come looking for me and introduce yourself. Clear skies and good observing! ★

PRESIDENT'S MESSAGE
CONTINUED...

reading overload, it is an exercise in community engagement (or advertisement). If you want to delve into what is being proposed for the next ten years, you can read these papers from the Community Input link at:

http://sites.nationalacademies.org/bpa/BPA_049810

The ranked list of priorities will likely not be available until next summer, so, in the meantime, you can make your own list to compare with the official committee. Maybe there should be a contest as to who comes closest?

Meanwhile, it's a good time to start recalling or learning some basic Spanish—the next spring AAVSO meeting in April will be in Argentina, sponsored by the upcoming President (Jaime Garcia). It promises to be a unique experience in a dark site and it enables the AAVSO to forge more partnerships on an international level.

It has been a privilege to work with Arne, Mike, Matt, Elizabeth, Aaron, Rebecca, Doc, Sara, Gamze, Michael (AAVSO staff are wonderful!) during these last two years. Of course, the organization can't exist without the active visual, PEP, and CCD observers, who continue to impress me with their quantity and quality of data. The AAVSO is a unique and fun organization and I look forward to continued involvement during my last year on the Council and then as a continuing member. The emerging access to a growing array of AAVSO robotic telescopes in N and S constitutes a path to needed data since I'm not one of the lucky ones that has an observatory that I built in my backyard (actually, I don't even have a backyard where I live in Seattle!). Hopefully, this will also enable others in my situation (or those in bad weather areas—like Seattle) to obtain observations. Of course, mining the data archive is always an alternative on those cloudy nights. A workshop on data analysis to find periods, etc. is being planned for an upcoming meeting. Until then, happy observing. ★

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THE AAVSO WALTER A. FEIBELMAN SUITE

As a reminder, 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/news/feibelman.shtml.

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 gamze@aavso.org. Photos and images in this issue courtesy of Sara Beck, John Chumack, Georg Comello, The Digitized Sky Survey, Claudine Kavanagh, Richard Kinne, Gamze Menali, Haldun Menali, and John O'Neill.

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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Astronomer Interruptus

RICHARD "DOC" KINNE (KQR)
AAVSO HEADQUARTERS

Dr. Franklin E. Kameny (left), with Doc Kinne

"I'm sorry to interrupt, but I may never get this chance again."

My oldest friend, Bill McColl, and I sat in Annie's restaurant in Washington, D.C. The comments were not directed to either of us, but to the third person at our table—a small, eighty-four-year old man dressed conservatively in a blue suit and a red tie. "Thank you for everything," the young man continued, talking to our guest. "I wouldn't be here today if it wasn't for you." This scene, or tiny variations of it (at one point Bill and I took photos for a couple of people who had come up to the table) was repeated no less than five times during the course of the evening. Who were we having dinner with? William Shatner? Perhaps Phil Plait?

The AAVSO's McAteer Library, much like the Harvard Plate Stacks, is a treasure trove of discoveries waiting to be made. On June 9, 2009, our Staff Research Astronomer, Dr. Matthew Templeton, was in the Library. He pulled out from the shelves a cardboard-bound thesis—*A Photoelectric Study of Some RV Tauri and Yellow Semiregular Variables* by Franklin E. Kameny. Matthew went looking on the ADS to see if any of these data had been digitized and found that the author had not written anything since 1957. Thinking that was odd, and ever the digger, Matthew sought to find out why and came up with Frank's story. Knowing I'd be interested, Matthew immediately emailed me.

Dr. Frank Kameny was living—and had lived for the past fifty years—in Washington, D.C. For my part, my oldest friend who I'd not seen in twenty years also lived in D.C. Bill and I had reconnected as I was making my transition from Ithaca, New York, to the AAVSO here in Cambridge. I had been planning on going down to see Bill and realized that due to his position in D.C. as the Political Director of AIDS Action he might know, or at least know of, Dr. Kameny. Indeed Bill did know of him. I asked if it was possible to set up a meeting between us when I came down to D.C. It was.

Frank Kameny's dissertation concentrates on a small group of RV Tauri and Yellow Semiregular stars. They are: AG Aur, TW Cam, UY CMa, UZ CMa, SS Gem, SU Gem, AB Leo, U Mon, TX Per, RV Tau, WW Tau, SV UMa, and V Vul. Photoelectric UBV data were taken on these stars between JD2434775 (1 Feb 1954) and JD2434868 (5 May 1954) at the Steward Observatory of the University of Arizona. *B–V* and *U–B* values were calculated. Kameny commented on amplitude and color variations, atmospheric reddening, etc. All in all, the dissertation looks like a reasonable piece of survey work. The Ph.D. was awarded by Harvard University, but Kameny published nothing since then. What derailed this astronomer's career?

Simply put, Dr. Frank Kameny was a victim of the bigotry of the times and now stands as a lesson as to what that can cost us as a society. After his dissertation work was done, Kameny was hired by the Army Map Service in early 1957. In late 1957 Kameny was fired from his post for being Gay.

With his career as an astronomer hijacked, Kameny switched gears and made the decision by the Civil Service Commission the basis of a new career that ended up changing the lives of millions. Kameny protested his firing in what ended up being the very first civil rights case on the basis of sexual orientation ever heard by U.S. courts. He ran in 1971 as one of the nation's first openly Gay congressmen. He was responsible for having the American Psychiatric Association remove homosexuality from its manual of mental disorders ("We went into that meeting sick, and we came out cured!" Kameny remarked during our dinner conversation). Kameny was involved in every single D.C.-related piece of Gay civil rights legislation done, and a good portion of the national pieces as well. At the age of eighty-four he continues to be active not only in consulting for, but actually writing, current legislation for both D.C. and Congress. His current work involves a Marriage Equality bill for D.C. that is expected to pass within the next six months.

Over the last year Kameny has garnered a formal apology from the Office of Personnel Management (the successor to the Civil Service Commission) for his firing in 1957. He has met with both President Obama and Vice President Biden. His house has been designated a D.C. Historic Landmark, and his papers have been garnered by the Smithsonian National Museum of American History and the Library of Congress.

Obviously a man of great strength of will and focus, one can only wonder what Kameny would have been able to give to astronomy if the ignorance of the time had not intervened. However, even in his short career Kameny managed to work with some of the giants of the field back then, and with some of the most beloved figures in AAVSO's history.

Dr. Kameny's memory for dates is scary. Several times as we talked he mentioned incidents and gave me specific dates as to when they happened. This statute passed on this date, this law passed on that date. His memory for people, by his own admission, is somewhat less sharp. As noted, Dr. Kameny's thesis had been *A Photoelectric Study of Some RV Tauri and Yellow Semiregular Variables*. "Why RV Tauri stars," I'd asked.

"Well, like any graduate student who wants to get a Ph.D. you have to find a thesis topic. My advisor, Dr. Cecilia Payne-Gaposchkin, suggested it. I didn't know anything about RV Tauri stars at the time so I educated myself about them, took the data, and wrote the thesis." Dr. Kameny said his largest regret is that after the thesis has been written Harvard University allocated the sum of $200 to have a paper written, based on the thesis results and to be published in the *Astrophysical Journal*. This never was done.

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Amateur Astronomy Symposium in Istanbul

GAMZE MENALI (MGQ)
AAVSO HEADQUARTERS

Haldun Menali introduces variable stars—"What a magnificent light curve!"

I represented the AAVSO at the Amateur Astronomy Symposium held in Istanbul, Turkey, July 4–11, 2009. The meeting was organized by Istanbul Kültür University for the third time. You may read about the first symposium held in 2005 and the second one in 2007 by visiting these URLs:

http://www.aavso.org/news/mtgturkey.shtml

http://www.aavso.org/news/istanbul_conf.shtml

We flew from Boston to London's Heathrow first and then switched planes there for Istanbul. This was our fist time in Heathrow. It is a pretty well organized airport, considering the crowds. As soon as we got out of the plane in Istanbul the oh so familiar mad rush started! People everywhere, much less organized, everybody's running somewhere and yelling! Not so surprisingly there was an army of family waiting in the "welcoming area", ready to give us one of those 'WELCOME' hugs!! The ride from the airport was uneventful except that the cab driver told me not to sit in the back because I wouldn't fit in there!! He was just trying to make sure that I was comfortable without realizing how intrusive he was being! It is just part of the culture—Welcome to Istanbul!

My main purpose of attending the Symposium was to represent AAVSO and talk about our standing in the international arena. I also gave a paper about Citizen Sky, the epsilon Aurigae project, and our 10-Star Training Tutorial. The meeting also had a telescope-making workshop (second of its kind in the country) in addition to the symposium. There were about a hundred teachers from all parts of the country attending the telescope-making workshop; they were also in the audience during the symposium.

The 10-Star Training Tutorial was very well received, particularly by the teachers who started planning how to implement it as an extra curricular activity into their school programs. They said that it would be a perfect program for their students, most of whom couldn't even afford a pair of binoculars! The stars in the program are easy to locate, easy to observe, and easy to study, and all it takes is a pair of eyes to get going! The teachers were very grateful to the AAVSO for coming up with a tutorial like that and also for being willing to spread the information and the knowledge. I kept overhearing comments regarding their appreciation and how they wouldn't have had the opportunity to come up with such a simple and cost-effective project for their students if it weren't for the AAVSO, and how it would be wonderful to get the students involved in astronomy this way. I am sure most of you are familiar with the Citizen Sky Project by now. The 10-Star Training Tutorial is one of many tools AAVSO has to support the participants in Citizen Sky. Because observing variable stars take practice, AAVSO designed a training program that begins with unaided-eye stars easy to find and observe. The stars become more challenging as you go down the list. By the time you reach epsilon Aurigae at the bottom of the list, you will have become an expert variable star observer and will be able to contribute real data to professional scientists.

For more information on the topic, please visit the URL s below:

http://www.citizensky.org/

http://www.citizensky.org/content/10-star-training

My talk was well-received by astronomy professors and astronomy students, as well as the general public, alongside the school teachers who were most impressed by it. The teachers have been in touch with me for further guidance and assistance and so far, they are establishing student groups, educating them about the program, and making sure that the students understand the importance of their participation, so that they can see and feel that they are being part of something important. I am particularly happy about the role teachers will be taking in this. I used to teach, so I know how it feels to have a good extracurricular activity in which students take on a project, make it their own, and contribute something at the end of it all. It feels good all around.

Some of the other talks at the symposium were about telescope mirror testing (by Jerry Wright of Virginia Beach, VA), the state of telescope making in Turkey (by Basar Titiz), astrophotography (by Ugur Ikizler), light pollution and the work that is being done to prevent it or to keep it under control by applying the E.U. guidelines (by Prof. Dr. Zeki Aslan), and more….

Without pre-planning, three of the talks ended up being about variable stars, which was great! Haldun, my husband of fifteen years and an AAVSO member observer since 1984, told the attendees in his talk that if they have been

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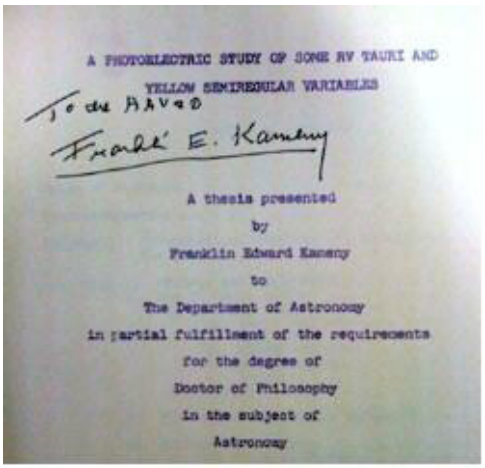
Mirrormaking in Istanbul: attendees at work grinding their mirrors

KINNE: ASTRONOMER INTERRUPTUS
CONTINUED...

In taking his Ph.D. at Harvard in the 1950s, Kameny has strong memories of working with the giants of the field—Harlow Shapley and Bart Bok specifically, as well as Dr. Payne-Gaposchkin, his thesis advisor. While most of the people reading this need no reminders as to who these folks were, I think its an interesting measure to take their effects on a layman. As Dr. Kameny talked during dinner of these people I would quietly mention to my friend, Bill, why they were important. Kameny would mention Dr. Harlow Shapley and I would, quietly, as an aside to Bill, mention that this was the man who figured out our galaxy was not the entire Universe, as well as figuring out our place in it. Kameny would mention Dr. Payne-Gaposchkin, and I would mention she was the woman who figured out the Sun was made of Hydrogen. Bill's eyes would bulge.

Kameny also remembers Margaret Mayall working in the Harvard Observatory at the time along with Dr. Dorrit Hoffleit. Mayall was responsible for providing Kameny with some unpublished star data integral to the third chapter in the thesis. Although they didn't appear to have worked together on any sort of project, per se, Kameny has strong memories of Dorrit at Harvard. Those of us privileged enough to have experienced and to remember Dorrit's strong force of will cannot be surprised by this!

At the end of a three-and-a-half-hour dinner Dr. Kameny signed his thesis for the AAVSO's McAteer Library. In the few weeks we had been emailing each other before our meeting, Kameny had taken his thesis off the shelf and had looked through it for the first time in fifty years. The AAVSO had, to some degree, given him back a part of his life that had been taken from him and that he never thought he would ever experience again. He sat somewhat amazed as I brought out for him a sheaf of papers detailing the light curves for his thesis stars, both over the last 400 days and during the time he had taken his data at the Steward Observatory. For the majority of the stars in his thesis, his are the only data of any form we have for those stars at that time. Dr. Franklin E. Kameny, holding the AAVSO Observer Initials of KFE, has 547 *UBV* photoelectric data points in the AAVSO International Database.


A PHOTOELECTRIC STUDY OF SOME RV TAURI AND
YELLOW SEMIREGULAR VARIABLES
To the AAVSO
Frank E. Kameny
A thesis presented
by
Franklin Edward Kameny
to
The Department of Astronomy
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy
in the subject of
Astronomy

Title page from Frank Kameny's Ph.D. thesis—shelved in the AAVSO's C. Y. McAteer Library

Bill and I left to accompany Dr. Kameny to his cab. As we did an entire table called out, "Thank you, Frank! Thank you for everything you've done!" While it certainly wasn't the life he would have chosen for himself, it is a great example of making the most of the cards you've been dealt. And in Dr. Kameny's case, his hand is now being called and we're finding he won the pot in the end. ★

MENALI: ISTANBUL SYMPOSIUM
CONTINUED...

observing other things and feel boredom, they should try variable star observing because there is nothing boring about that! He did a great job explaining his reasons as to why he chose variable star astronomy. Also, assistant professor of astronomy Yrd. Doç. Dr. Emre Işık talked about variable stars from a scientist's perspective. Together with my paper, we three formed a nice alliance on observing variable stars!

In the telescope-making workshop, 100 telescopes were built, ready for observing by the end of the workshop and for the teachers to take with them! Thus, the attendees were able to use the telescopes they had just made, which allowed them to make any needed improvements immediately to their brand new instruments. Jerry Wright from Virginia and his wonderful wife Rosemary were there to help out with the workshop. Haldun was heavily involved in running the workshop, mentoring the attendees, answering any questions. The finale was an all-night observing session using the telescopes made during the workshop and a nice live concert by one of the country's leading singers! I was amazed at how many people sacrificed the concert in order to add more hours to their observing session and very proud that the enthusiasm for astronomy—and variable star observing in particular—was alive and well! If you are interested in the telescopes made in the workshop, drop me a line at gamze@aavso.org and I'll provide you with more information on them.

Elizabeth told me that, while the meeting was going on, we received requests for official AAVSO observer initials from Turkey. It was nice to hear that our efforts were being recognized by the attendees and that they were eager to become a part of this wonderful project right away. What was particularly good about the meeting in Istanbul this year was that there were teachers from all over the country, as opposed to just the big cities and rich neighborhoods. There were teachers from the East, Southeast, North, and South who don't usually have the chance to participate anything that big. They stay in their small towns and villages and do the best they can with the little that they have. But this time, they left the meeting with a little extra hope that they, too, can feel useful, and that they, too, can contribute to something important and have their efforts make a difference. They made sure to send their love and gratitude to the people of the AAVSO for their good work and guidance in variable star observing. The Citizen Sky project has left its prints in a land where more and more people are becoming interested in and acquainted with variable star astronomy.

I will mention the following just because it is worth mentioning again and again. Istanbul Kültür University's handling of this symposium was well fitted to its reputation. The university is known for throwing its full support behind science, astronomy in particular. They support astronomy at every level, from an amateur's work with simple binoculars to advanced academic studies. The university executives are second to none when it comes to supporting academicians, and I think they deserve big applause for that, especially knowing how hard obtaining funding for science-related activities is in developing countries. They will continue supporting similar activities, meetings, and symposia in the years to come.

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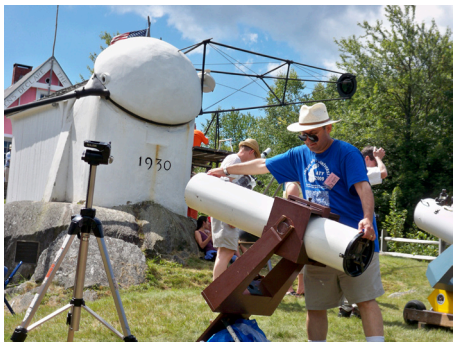
REPORT FROM STELLAFANE

SARA BECK (BSJ)
AAVSO HEADQUARTERS

The AAVSO was well-represented at the Springfield (Vermont) Telescope Maker's annual Stellafane Convention held on August 13–16, 2009. Amongst the thousand or so participants enjoying the clear skies and general enthusiasm of the event were members Mike Mattei, Gary Walker, Paul Valleli, Kristine Larsen, and Ed Los. Other AAVSO members included John O'Neill from Ireland and Dr. Mario Motta who served as one of the Mechanical Judges for the Stellafane Convention Telescope Competition. Haldun Menali and Mike Hill brought their home-built telescopes for all to enjoy using. Staff members Gamze Menali and Sara Beck were also present to enjoy the festivities, which included an entertaining talk by moon-walking astronaut Alan Bean and a visit to the fascinating Hartness House Museum. ★

Sara Beck illuminated in the Hartness House Turret Telescope



Haldun Menali with his homemade telescope

Haldun Menali and Gary Walker

John O'Neill at the Porter garden telescope

Some of the participants in front of the Stellafane "Pink Clubhouse"

The Porter Turret Telescope

IN MEMORIAM

MEMBERS, OBSERVERS, COLLEAGUES, AND FRIENDS OF THE AAVSO

JULIUS H. CAHN, AAVSO member since 1991, passed away July 29, 2009, at the age of 89. Jules Cahn was an astrophysicist and had been professor of physics and/or astronomy at the University of Nebraska, the Battelle Memorial Institute, and the University of Illinois, Urbana Champaign. His astronomical specialties included pulsating stars, planetary nebulae, and the interstellar medium. He was a member of the International Astronomical Union. Not an AAVSO observer, Jules supported the work of the AAVSO through his membership and contributions. A U.S. Army veteran of World War II, Jules was a gifted amateur musician, pilot, world traveler, loving family man, and enthusiast of life.

PATRICK DAVID COLLINS (CPV), AAVSO member since 2007, passed away August 3, 2008, from a heart attack while scuba diving off the Massachusetts coast, at the age of 40. A systems administrator in the banking community and a devoted uncle to his seven nieces and nephews, Patrick had not yet submitted observations to the AAVSO, but he was a keen amateur astronomer, in addition to having many other interests.

2009 ANNUAL MEETING

We are very happy to invite our members, observers, and friends to the 98th Annual Meeting of the AAVSO. This meeting will be held in Newton, Massachusetts, November 5–7, 2009, at the Newton Crowne Plaza (formerly the Sheraton Newton Hotel) in Newton, Massachusetts—just west of Boston.

The AAVSO annual meeting gives both newcomers and longtime attendees the opportunity to share ideas, experiences, and tips on variable star observing. Attendees are also invited to visit AAVSO Headquarters and meet the staff.

Special meeting events include: a Thursday evening informal dinner at a local restaurant; a special session on the Citizen Sky Project; a Friday night dinner and open house at Headquarters; the membership meeting; scientific paper sessions; and our annual banquet and awards presentation.

Autumn is a beautiful time to visit New England. Boston is a city filled with many interesting museums and attractions. Bring your families and stay a few extra days to enjoy the sights! We hope to see you there!

THE AAVSO AND 365 DAYS OF ASTRONOMY

A reminder that you can subscribe to both the 365 Days of Astronomy podcast and blog using the available RSS feed or via Apple's iTunes. 365 Days of Astronomy, that's what IYA 2009 is all about. We hope you'll tune in!

THE 98TH AAVSO SPRING MEETING ARCHIVE AND HIGHLIGHTS

Access the full archive and highlights of the AAVSO's 98th Spring Meeting, held with the Society for Astronomical Sciences at Big Bear, California, now online at: http://www.aavso.org/aavso/meetings/spring09.shtml. Included are selected presentations from the scientific paper session by Arne Henden, Paula Szkody, and James Hoffman.

ANNUAL MEETING—DATES TO REMEMBER

September 17	Online registration/abstract submission begins
October 14	Deadline for reserving guest rooms at the Crowne Plaza
October 23	Early meeting registration deadline
	Deadline for abstract submission
November 5	AAVSO Council Meeting begins
	Ballots must be returned to AAVSO HQ by this date in order to be counted in the Council Election
	Informal dinner for council and interested attendees
November 6	General meeting begins!

Note: registration materials, schedules, and additional information are available on the AAVSO website. If you would like a paper copy of the registration materials mailed to you, please call the AAVSO at 617-354-0484.

THANKS TO OUR SPONSORS!

Distilled Chicago Reflections
Thoughts from the IYA Workshop

CLAUDINE KAVANAGH, TUFTS UNIVERSITY

Of course, I will always remember Chicago spread before me like a picnic lunch from my vantage point at the Adler Planetarium. The city skyline was gorgeous against the bright August sky. I've just come home to Boston from my first AAVSO conference, and will keep with me (in particular) two comments made by speakers during the conference. On the first day of the conference, a participant's question brought to light the following vigorous debate: what do we mean when we say "citizen science" or "amateur astronomer"? Secondly, how do we use intellectual tools (like tables, graphs, or charts) to talk with ourselves, with our peers, and the general public? In many ways, these two issues are merely aspects of one larger theme: how do we become a scientifically-literate citizenry and welcome collaborations with professional scientists while simultaneously keeping those with less advanced science or astronomy skills engaged in the same dialogue? Or more to the point: is this even possible? In this essay, I hope to investigate this issue in a little more depth.

During one of the very first talks of the conference, a participant raised his hand and asked if the AAVSO could edit out the term "amateur" from the Citizen Sky website. The participant wanted to move away from the more pejorative uses of the terms. (As in: "'Amateurs!' the theater critic hissed under her breath after having to sit through the community's staging of *Our Town*.") Amateur, in this sense, is someone who bumbles through mistake after mistake. An amateur is a failed professional. It might be someone who once aspired to doing something (golf, tennis, theater, or even astronomy) but lacks the fundamental skills to make this aspiration a reality. To be amateur is to be incompetent. But what is an amateur? Sneaking a peek at the dictionary, I found a wonderful surprise worth sharing. The first definition provided by the Oxford English Dictionary is: "One who loves or is fond of; one who has a taste for anything." When you pull apart the word amateur, you find "amat-eur" (Anyone else take a few years of Latin? *Amo-Amas-Amat*, and all that? *I love, You love, He loves*.) So, an amateur is one who loves a topic passionately, and is willing to pursue it without thought of prospering thereby: a dedicated volunteer. So, by all means, the AAVSO can take the word amateur out of the Citizen Sky in order to tighten up the language used in the project overall. In communication, consistency is generally regarded as a good thing, right? If the project is called Citizen Sky, then that is truly a compelling argument to stick with just one term: "citizen."

But let me confess to you all that I'm dreaming of a day when amateur is transformed into an honorable label for people and their pursuits. I envision a future in which young astronomers have their t-shirts proudly emblazoned with the word AMATEUR, to indicate keeping up with astronomy for the love of the topic. But even more generally because they discovered science was personally meaningful as a tool for organizing their understanding of various physical phenomena they observed in their world.

The second point dovetails nicely into the first. During a talk on science visualization, the speaker displayed a slide that I thought was just brilliant. I had never thought about this before in such a succinct manner. We use science visualization to converse with: ourselves when we make sense of data we've collected, with our peers when we share our findings, and with broader audiences to distribute the findings to non-specialist audiences.

Claudine Kavanagh (right) took some time to catch up with good friends between sessions at the Chicago AAVSO conference

I think this issue is going to be relevant throughout the duration of the Citizen Sky project. If we're going to be communicating with each other, passing data back and forth between observers, as well as with others across a spectrum of astronomy backgrounds and skills, then we are going to have to be extremely conscious of how we label our data and indicate the impact of our findings. Looking forward, I suspect that among those with high-level skills, the focus of Citizen Sky will be the collection and interpretation of data. I think that those with less advanced skills will focus on their own understanding of variable stars, and the eps Aur system in particular. I suspect that when Citizen Sky has collected enough data to begin modeling various solutions to the enigma of the epsilon Aurigae system, we will need the skills of both communities.

Indeed, throughout the conference in Chicago, there were several points at which participants raised questions about how to present astronomical data (such as the historical peculiarities of the taxonomic system of stars "OBFGKM," the wacky axes H-R diagram, the intrinsic or extrinsic causes of variable stars, or, more broadly, the precision provided by using scientific terminology—even if it comes across as jargon-y). This whole discussion leaves me with the impression that AAVSO is uniquely situated to address the deeply engaging issues of scientific communication. By being situated between the community of professional scientists and the general public, we need to work to support the goals and aspirations of both groups.

(Scientific community) ⟷ (AAVSO) ⟷ (Public interest in astronomy)

By doing work of professional quality (even if no one gets paid for their observations), we have a chance to include those who are either just learning about astronomy (such as our students and other young people) and those who might never have had such an opportunity before (our students' parents and other adults). Sounds like an interesting proposition to me….

I can't wait to look over the data from the eps Aur eclipse as they come in. How much shorter will this eclipse be than the last one? Will there be a mid-eclipse brightening (data bump)? How can we use the data to improve upon the previous models of this bizarre and complex system? I can hardly wait to share the results of this project with others in my community, scientists and non-scientists alike. We're all trying to make sense of what we see in the night sky. Creating meaning from what we observe is what makes us human. I'm grateful to the speakers and hosts for helping me realize this in new and unexpected ways during the conference in Chicago. ★

EYEPIECE VIEWS

CONDUCTED BY GAMZE MENALI (MGQ) AAVSO HEADQUARTERS

As cold weather closes in on the northern hemisphere, the southern hemisphere will be warming up soon. While we here in Cambridge, Massachusetts, are getting ready to enjoy fall foliage with breathtaking colors capturing the attention of every visitor, our friends and observers all over the world are getting ready to welcome yet another season, whether fall or spring. Indeed, the seasons are changing pretty fast. One thing that is constant, though, is the love of variable star astronomy among enthusiasts! When our schedules or what life throws our way interrupt, we find ourselves spending less time on observing—however, it is always in the back of our mind one way or another. And it is a good feeling.

This edition of *Eyepiece Views* is full of intriguing articles. A little history, a little science, a little education, and a little fun! We hope you will enjoy reading them and we thank our contributors without whom we wouldn't be here.

Here at the AAVSO, fall means that the Annual Meeting is approaching! This year it will be held November 5–7, 2009, at the Crowne Plaza Hotel (formerly Sheraton) in Newton, MA. Stay tuned to our website for more information on the meeting.

Whatever season you are heading towards, enjoy the beauties that come with it!

We hope you will enjoy our fall issue. Your suggestions, comments, and questions are welcome as always. Just send an e-mail to gamze@aavso.org

Thanks and good observing!

Gamze Menali

WAS DAVID FABRICIUS A DUTCHMAN?

GEORG COMELLO (CMG)
GRONINGEN, THE NETHERLANDS

Georg Comello first published this article in Variabilia 54*, April 1998. Translation and adaptation of this article was done by Erwin van Ballegoij.*

David Fabricius observed Mira for the first time on August 13, 1596. It was then a star of second magnitude. In the following months Mira faded, disappearing from view in October 1596. Fabricius saw the star again in February 15, 1609. So this year marks the fourth centennial of the discovery of the first long period variable star.

Dorrit Hoffleit of Yale University published in the *Journal of the AAVSO* an interesting article about the "History of the Discovery of Mira Stars" (Hoffleit 1997). The first line below the heading "1. Mira, the Wonder Star" reads as follows: "David Fabricius (1564–1617), an amateur astronomer and native of Friesland, the Netherlands, is recognized as the first to have discovered a long period variable in 1596, later called o (omicron) Ceti by Johann Bayer in 1603."

This sentence roused my interest. Was the part of Friesland where David Fabricius was born, lived, and worked really a part of the Netherlands, or was it a part of Germany? There is more than one Friesland. West-Friesland and Friesland itself lie in the Netherlands, while Ostfriesland and Nordfriesland are part of Germany.

Fabricius was born in Esens and he worked as a Lutheran pastor in Osteel. I did some investigations and I came to a surprising conclusion. Esens lies about twenty kilometers north of Aurich and Osteel lies roughly ten kilometers southeast of Norden. All these villages and cities lie in Ostfriesland (Figure 1). In the time that Fabricius discovered the variability of Mira, both Germany and the Netherlands belonged to the Holy Roman Empire (Figure 2). This probably created the first confusion. To my surprise I discovered that *Burnham's Celestial Handbook* (Burnham 1978) also spoke about the "Dutch astronomer Fabricius." Perhaps his son Johann created this confusion about the nationality of David Fabricius, as Johann studied in the Netherlands. When he returned home he brought back telescopes from the Netherlands. With one of these telescopes Johann discovered sunspots in the morning hours of March 9, 1611. David Fabricius himself came to a sorry end when a farmer beat him to death with a shovel over a quarrel about geese.

Figure 1. Friesland

Figure 2. The Holy Roman Empire

It is my conclusion that David Fabricius should be considered as a German and not a Dutchman. When I confronted Dorrit Hoffleit with my conclusion, she graciously sent me a letter of apology. There are probably historical sources that mention David Fabricius as a Dutch amateur astronomer. When later works quote from these sources, not verifying the original sources, the mistake remains. I hope, now this is rectified, that from now on the correct nationality of David Fabricius will be mentioned in books, papers, and online sources.

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Two Views

MIKE SIMONSEN (SXN)
IMLAY CITY, MICHIGAN

Epsilon Aurigae the Beautiful

Recently, an image was sent to the AAVSO email account and forwarded to the staff. It was a picture of epsilon Aurigae and the surrounding star field taken by John Chumack, an AAVSO member and as it turns out, a professional astrophotographer.

I was so impressed by the image I emailed John and asked him if he would grant me an interview so I could learn more about him, his connection to the AAVSO, and his obvious love for the night sky.

As it turns out, John has been sharing his work with the AAVSO and the world for twenty years now. Shortly after embarking on his new career he got involved with AAVSO through assisting with the educational program *Hands-On Astrophysics* in the 1990's.

"I was the astrophotographer for it. At the time (1993–1996) I worked with Dr. Janet Mattei on the project. I think there were fifty-two other astrophotographers that put in proposals, but out of all of those they chose me. That was my first grant, so that was awesome.

Eyepiece Views

epsilon Aurigae 08/30/09 © John Chumack www.galactic images.com

"I started in '89, working on NASA's Ulysses Project, which was to image comets to measure the comet's ion tail, and then correlate that data with the Ulysses spacecraft."

So how does one become a professional astrophotographer?

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Simple, Exquisite Beauty

Making naked-eye observations for the Citizen Sky project has put me back in touch with the night sky on a level I didn't realize I was missing.

On a typical clear night, I'll spend anywhere from two to eight hours racing from one variable star field to another with the visual scope, under the protection of an observatory dome, or at the controls of my CCD telescope slewing and centering targets and watching images download on a computer screen from inside a warm room. I only see a small portion of the sky through the dome slot, eyepiece, or on the monitor.

When a bright meteor flashes through the sky I rarely see it, unless I happen to be standing outside taking a break. I often don't even know the weather is changing until the images in the eyepiece or on the screen start to deteriorate. Then I walk outside and look up to see if it's a total wash out or just a passing cloud or two.

Now I find myself taking longer breaks from the telescope and spending some quiet time alone with the Universe. Just me and the night sky I fell in love with long ago. I've come to appreciate the simple majesty of those bright stars shining down on Earth just as they have for thousands of years. And over the course of the last year I've become familiar with several naked-eye variables that I now keep track of.

I've followed an eclipse of Algol (beta Persei) through the course of an evening. The first time I ever did that was at the AAVSO spring meeting in Nantucket, on the night we had the star party and tour of the Maria Mitchell Observatory. It was already halfway to minimum when I first noticed it, but I was able to follow it every half hour or so as it faded to minimum and then rose back to maximum. Clouds rolled in over the island in the early morning hours, so I didn't get to see it back at full strength until the following night, but it made a lasting impression on me.

I've begun tracking the changes of delta and mu Cephei. Delta Cephei is the prototype of an entire class of astronomically significant variables. Cepheid variables are used to calibrate distances to far-off stars and galaxies. Mu Cephei is also known as Herschel's Garnet Star. It's an orangish semiregular variable that has been observed by variable star observers for over one hundred years.

As autumn approaches, the winter constellations are beginning to make their presence known again before dawn. I've spent a lot of time admiring the fiery bright winter constellations of Orion,

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EYEPIECE VIEWS

THE IMPORTANCE OF VISUAL OBSERVATIONS

MATTHEW TEMPLETON (TMT)
AAVSO HEADQUARTERS

Visual observations provide important astrophysical information for the study of variable stars, and should be encouraged as a scientific endeavor.

There, I've said it first thing, and gotten it out of the way. The question, "Is visual observing dead or dying?" continues to crop up in some of the most surprising places. Like Mark Twain, rumors of its death are greatly exaggerated. There's really very little new to be said about the topic that can't be sufficiently and eloquently superceded by looking over the articles on our AAVSO In Print page and seeing articles based partly or wholly on visual light curves (including several of my own, the most recent appearing in the *Astrophysical Journal* in February 2009). Visual observing will survive and its data will be useful to researchers for as long as there are visual observers.

If anything, it is only that latter point that worries me, and only sometimes. I don't have kids of my own but I see some children more concerned about looking down into their iPod or XBox than around and above themselves. That isn't universally true, of course, but given the unending supply of distractions today and the loss of dark skies in urban and suburban areas around the world, I worry that too many children don't experience the night sky, or their natural environment generally. Even those who are exposed to the science of astronomy may experience the universe only through Hubble's eye, or via a faraway telescope connected to the Internet. Don't get me wrong—both of those avenues for discovery are not only educational but also critical if they have no other access to the night sky. But how many kids today can and do experience the simple pleasure of going outside and looking up?

The sky is a beautiful place, and much more so than any computer monitor or database entry will ever be able to show. My first draft of this article was written before I saw the recent issue of *Sky & Telescope* (September 2009), in which Robert Naeye commented on this very issue, and it's not surprising that we share some of the same concerns, and also the same optimism. The experience of the night sky from a dark site can be very powerful and moving. If more people experienced it, I think the "question" of visual observing would come up a lot less than it does. If we give people the opportunity to see the night sky for themselves, with their own eyes, it can speak to them directly, as vividly as any Hubble Heritage image or remote telescope interface can. And there is frankly no better way to make a direct connection between the natural world and scientific understanding than to observe nature's changes with one's own eyes.

One of our responsibilities as an organization is to perpetuate our tradition of visual observing that's been handed down to us over the last few centuries. Doing so not only involves us in making our own observations, but in bringing new observers into the fold of the AAVSO. Every sighted person can make a variable star observation with a little practice and mentoring, whether the person is an elementary school child dipping their toes into astronomy for the first time, or a recent retiree looking for a new hobby and reinvigorating an early interest in the universe set aside for the demands of family and career. It doesn't require a computer-controlled telescope and camera that cost more than a car. Some stars don't even require binoculars. All it requires is your interest and your eyes; there are no memberships, no societies, no age limits, and no nationalities required. We all live under the same sky.

In an introduction to the AAVSO from the early 1960s, Newton Mayall quoted Friedrich Argelander when he encouraged others to take up the practice of variable star observing, and Argelander's words bear repeating:

> *...I lay these hitherto sorely neglected variables most pressingly on the hearts of all lovers of the starry heavens. May you increase your enjoyment by combining the useful and the pleasant, while you perform an important part toward the increase of human knowledge.*

Some of Mayall's own words bear repeating as well:

> *Little did those seven men who started it in 1911 realize that they had formed the nucleus of what was to become the largest organized effort in the world devoted to the study of variable stars. The AAVSO is a living memorial to its founders and to its members, past and present; for without their loyal devotion it could not have attained its present status.*

The words of both men ring true today, and are rendered even more meaningful when we realize that the work begun nearly a century ago still continues, just as relevant and important now as it was then. All of us have our own reasons for observing and studying variable stars and for contributing to the AAVSO, and all of us will leave our own mark on this organization in our own way. But our most lasting contribution will be to introduce the next generation of "lovers of the starry heavens" to that enjoyment that Argelander introduced to all of us more than a century and a half ago.

Today we live in a world with incredible technology, never imagined by the founders of the AAVSO a century ago, let alone by Argelander. With technology has come incredible advances in our understanding of the universe, and these advances show little signs of slowing down any time soon. Technology has been an incredible boon for all of astronomy, and variable star research is no exception. But technology may never be able to replace that profound and sublime experience of looking into a truly dark sky and seeing the universe with your own eyes. How many astronomers were inspired to pursue this field by the simple act of looking up and seeing the Milky Way overhead, or by learning to find a constellation, or by gazing into an eyepiece and seeing a tiny crescent Venus or the rings of Saturn? How many young people were hooked on variable star astronomy by seeing a star like SS Cygni flare to life with their own eyes, or by watching R CrB vanish from sight over just a few weeks, or by tracking the cycles of a Cepheid variable over the course of a few days? How many will be inspired by epsilon Aurigae during the coming weeks and months? How many by the simple joys of learning and discovery? What did it for you?

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DOUBLE DIPPING (AUTUMN)

MIKE SIMONSEN (SXN)
IMLAY CITY, MICHIGAN

Variable Stars Near Deep Sky Treats

Most nights, I race through my variable star observations, trying to log as many as I can get as fast as I can go before the weather changes, I run out of steam, or the Sun comes up. I hop from field to field, completely ignoring celestial wonders just a few degrees away. When the longer, clear, dry nights of autumn finally come, I am tempted to take a few extra minutes along the way to take in some sights and try new challenges.

Let's say tonight is one of those glorious clear, moonless, autumn nights. You've decided to stop and smell the roses along the way, but you'd still like to make some variable star estimates. Or maybe a couple of friends or family have stopped by for a late dinner, and now they want to look through the telescope. You need a plan.

Obviously, we'll start in the west and north with targets that will begin to fade into the haze of the horizon if we don't get them right away. Since it is still experiencing a record minimum, in magnitude and duration, I think we should be sure to observe R CrB first. This star could be considered a deep sky wonder itself. Usually visible in binoculars as an unassuming sixth magnitude star inside the 'Northern Crown', R CrB undergoes sudden, random fading episodes, sometimes to 14th magnitude. As of this writing, it is hovering just above 15th magnitude, where it has remained for longer than ever before in recorded history. In the same low-power telescopic field is the semiregular variable TT CrB, ranging from 10.9 to 12.1 visual, just north of R CrB. If you have a telescope large enough to see R CrB around 14.8, you may want to continue on from TT CrB to the bright 7th magnitude star to the NW, GSC 2039 0642. Just about 10.5 minutes north of that star is a faint, round 14th magnitude galaxy, NGC 6001. I'd put identifying this in the 'challenge' category. To me it looks like a slightly fuzzy star, but hey, we're just getting started.

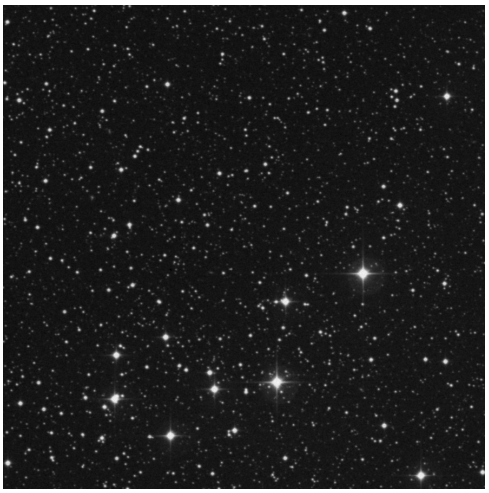
Before you leave Corona Borealis be sure to at least check in your finder to be sure the recurrent nova T CrB hasn't erupted. If it has, you'll see a bright star forming a triangle with epsilon CrB and delta CrB. Stop everything at that point and send out an alert. Forget the faint fuzzies!

Much more impressive in a telescope is M5 in Serpens. This is about as low as we want to go, and this is a better summer target, but the semiregular variable Z Ser is only 38 arc minutes away, and this star is almost totally ignored by observers. AAVSO has very little data on it. The GCVS lists a range of 9.4–10.9 photographic, and a period of approximately 88 days, so it should be interesting and easy to follow. Why don't you adopt this star into your program, and pick it up again in spring when it comes out of conjunction? It will give you an excuse to observe M5 on a regular basis without diminishing your serious variable stars observer status. (As for all the stars mentioned in this article, a finder chart with comparison stars is available for Z Ser in VSP http://www.aavso.org/observing/charts/vsp/); for Z Ser, the comp stars fit a 'c' scale chart (down to magnitude 12 and a 120-arc minute field of view).

From there we swing north to the great globular M13 in Hercules. Even I'm not so jaded that I don't like to take a few minutes to take in the finest globular cluster visible in the northern sky. But let's not get carried away. Waiting for us about one and a half degrees NW is the fine Mira variable W Her. W Her varies from 7th to 14th magnitude V, so it's usually visible in an 8-inch scope, and always visible in a 10- or 12-inch.

About halfway to our next destination is an anonymous little star cluster in Lyra, easily visible in your finder scope. Just to the east of the two brightest stars in the cluster is CY Lyr, a fun little U Gem star that is fairly active, outbursting into the 13th magnitude range every couple weeks or so. Even if it's not visible tonight, you won't have wasted your time visiting here. This one is off the well-beaten path of deep sky wonders. It's a pretty well kept secret amongst variable star folk, and we aim to keep it that way, so shhhh…don't tell anyone.

If you have company at the observatory, M57 is one of the stops you'll make anyway, so here is your chance to quickly locate and show them this real crowd pleaser, the Ring Nebula in Lyra. Located in the same low-power view as the ghostly ring of this planetary nebula is another



The field of CY Lyr, from The Digitized Sky Survey

Mira variable, RX Lyr. If you make it a point to observe this variable this month you'll be able to make a positive observation as it is just beginning to fade from maximum, around 11.2, on its way to the inner sanctum. It spends a lot of time fainter than 14th magnitude, so I always consider it a treat to make a positive observation of a variable so close to M57.

Our next stop is in Draco, the Cat's Eye Nebula. Located about midway between zeta and delta Draconis, this is another bright planetary nebula on the usual star party agenda. Yes, it's nice. Take a few moments to soak it in and explain to your guests how planetary nebulae are the remnants of old evolved stars, and then swing about one degree SE and you can show them two such stars in one field, W and X Draconis, one of my favorite "twofers" in the sky. X Dra is located next to an unmistakable triangle of field stars and should just be visible in a 10- or 12-inch around 14th magnitude if you hurry. Like RX Lyr, it spends a good deal of time fainter than 14th magnitude and has a period of 257 days. W Dra ranges from 9th to 15th magnitude V (period 278 days), so it is almost always visible in medium-sized scopes. These two Miras are only 14 arc seconds apart, so they are in the same medium- to high-power field.

From there you can glide into the Milky Way, starting your tour with everyone's favorite double star, Alberio, beta Cygni. Beta 1 Cyg, the orangish K star of the pair, is even suspected of being variable, although I doubt you could do much to prove or disprove this visually. But it is one of

CONTINUED ON NEXT PAGE

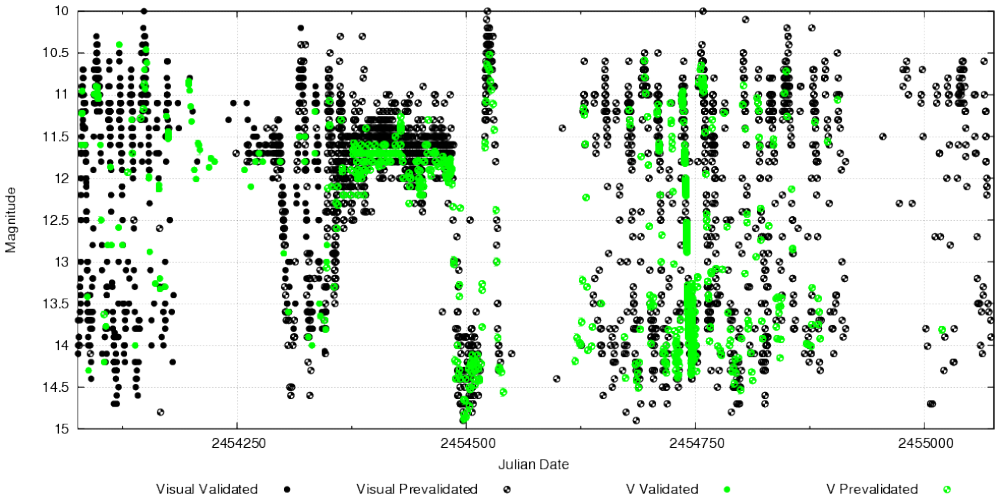
SIMONSEN: DOUBLE DIPPING
CONTINUED...

those fun facts I like to throw in just to discourage guests from ever coming to a star party at my observatory again! From there it is a relatively easy jump to M56, a globular with a bright core, about 3.75 degrees NW of Alberio, and then almost due east 4.7 degrees is one of the prettiest star fields containing a variable star in the sky. The variable is EM Cyg, a Z Cam star that varies from 11.9 to 14.4 photographic, so it is always visible in medium-sized telescopes. After you've made your estimate you can encourage visitors to slowly slew around the area getting lost in the diamond-clustered field against an ink-black backdrop.

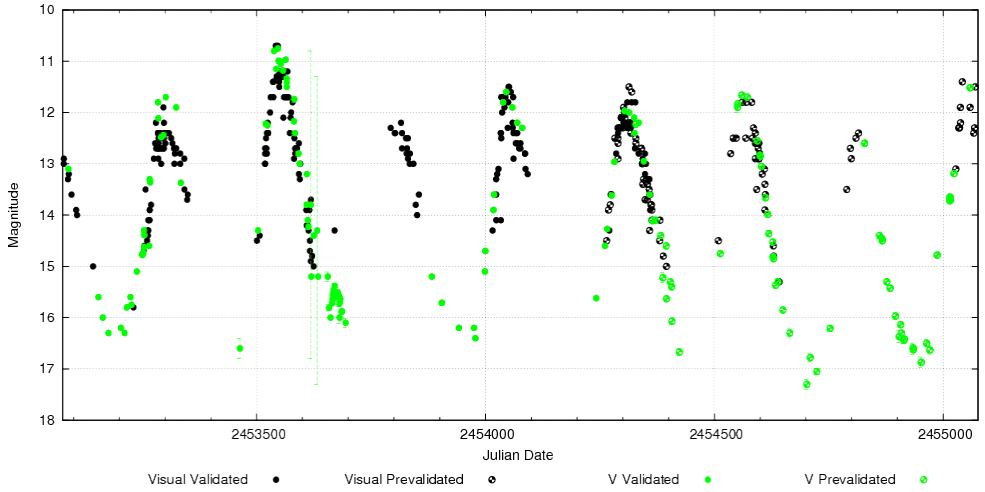
Continuing along the body of "The Swan" to the NE you'll come to chi Cygni. With a dramatic range from naked-eye visibility (magnitude 3 or 4) to 14th magnitude, this is one of the AAVSO 'legacy Miras', with data going back a hundred years or more. If that isn't enough to impress visitors you can track down any number of star clusters, planetary nebulae, or diffuse nebulae within a couple degrees of this variable. In fact, the area east of chi Cyg is a large bright diffuse nebula with the sexy name GN 19.50.2. If that doesn't impress your guests, slew NW to the "Blinking Nebula" and demonstrate averted vision with the 'now you see it, now you don't' planetary nebulae NGC 6826.

You'll have to go south again to visit the Dumbbell Nebula, M27. Then you can take a break from the telescope to observe one of the stars in the 10-Star Training Tutorial, eta Aquilae. At 3rd to 4th magnitude, this is a bright Cepheid observable with binoculars or the unaided eye. The observant visitors will want to know what that bright star is in the south, so be prepared to blow your dark adaptation with some glaring views of Jupiter and the Galilean satellites.

By now M31 should be high enough to see with the unaided eye from a dark site. You can show visitors where you're pointing the telescope next while you explain that the Andromeda Galaxy is the most distant thing you can see with the unaided eye, some 2.5 million light years away. After you get an eyeful of Andromeda you can swing over to another AAVSO favorite, RX And. This active Z Cam star ranges from 10.3 to 14.5 visual and it is always doing something.



AAVSO data for RX And



AAVSO data for RX Lyr

It's either trying to hide around 14th magnitude, in outburst at 10 or 11 or stuck in a standstill somewhere in-between on any given night.

A little further east and you'll come to U And, a nice well-behaved Mira that varies from 9.5 to 14.4 V in 346 days. It's in a very nice field of stars with a bright triangle of 8th, 9th, and 10th magnitude stars to the NE of the variable.

This is a good point to stop. If you really want to squeeze in one more deep sky treat you can slew south to M33 before capping the telescope and calling it a night. Depending on how late it is in the evening or the season, hints of the winter sights to come may be just visible in the east as Orion begins to rise into view. In the next issue, we'll talk about deep sky treats and variables worth braving the arctic air of a northern winter. ★

EYEPIECE VIEWS

SIMONSEN: EPSILON AURIGAE
CONTINUED...

"It got started as a hobby, but I've been doing it for a living for the last twenty years. I designed my own 16-inch telescope, a big fork-mounted equatorial, and the drive system for it, using a tape measure and a 1-horsepower motor. I took that to Astrofest in Chicago, three days after I finished it, and won an award for the design. I took it home and the local newspaper did a write-up on my award. I started shooting the night sky with the telescope after that.

"I started sending in photographs to *Astronomy* magazine, getting published in *Astronomy* and *Sky & Telescope* as well. About a year after my start, a stock photography company out of New York contacted me—they saw my images in the magazine, and wanted to represent me here in the U.S. Now I have agents in thirty-five countries selling my work world-wide."

I asked John what inspired him to do an image of epsilon Aurigae.

"Well I've done shots of that part of the sky before, constellation images of Auriga and that area. I've got over 35,000 images. I image the sky prolifically; I'm constantly out there. Now I have an entire observatory complex in Yellow Springs, Ohio, where I have multiple scopes running at the same time.

"I remembered reading about this mysterious variable that's been stumping astronomers since 1821 or something like that, so I thought, let me go take a shot of this star. I know I have wide-field images of it, but I don't have any close-up shots of it. So I took about a total of forty-five minutes' exposures, several images stacked; they're about five minutes apiece.

"Once I had the picture, I was looking at the field of view there and I noticed that the stars are evenly distributed across the entire field, except for the one quadrant. If you look at the image, from about three o'clock to six o'clock, it's devoid of stars. So that tells me right there that there is a large dark molecular cloud blocking the light from background stars.

"Anyway, I thought it's a nice picture of the star and if the AAVSO is trying to encourage people to do observations of this thing, so we can figure out what's going on with it, well, we need to get a pretty picture of it. I'll send it to them, maybe they can use it."

John's excellent website is called www.galacticimages.com. You can find examples of his work and a schedule of art fairs and shows he will be exhibiting at this year. After talking with John for a while, and looking at pictures of him at his observatory, I realized we'd met before at Arts, Beats, and Eats in Pontiac, Michigan, a few years ago. I remembered him telling me about his 16-inch telescope and ogling his fantastic images. Small world, eh?

Sometimes we get so wrapped up in the science, we forget just how stunningly beautiful many of these subjects are. Thanks for the picture, and the reminder, John. ★

SIMONSEN: EXQUISITE BEAUTY
CONTINUED...

Taurus, Gemini, and Auriga as they rise to fill the pre-dawn sky. I find myself fixing my gaze on eta Geminorum, Betelgeuse, Algol, and epsilon Aurigae now, instead of racing from sideways 'Y' of Taurus, through the Pleiades, up the curve of stars that is Perseus' lower branch through Auriga and on to Cassiopeia. Now I have little rest areas along the way.

A calmness and sense of satisfaction comes over me when life slows down and fills these moments with the perfect silence that is 5 o'clock in the morning. The sound of a hoot owl in a nearby tree reminds me I am not alone, and we share the view as dawn begins to break in the east. Swiftly and silently, a meteor streaks across the sky and I smile to myself, because I didn't miss that one. ★

CITY MOUSE AND COUNTRY MOUSE

GEOFF GAHERTY, ROYAL ASTRONOMICAL SOCIETY OF CANADA, TORONTO CENTRE

This article originally appeared in the October 2006 issue of the Journal of the RASC. *The author told us that the "mouse friend Richard" is the AAVSO's own Richard Huziak!*

Now you must know that a City Mouse once upon a time went on a visit to his cousin in the country. He was rough and ready, this cousin, but he loved his city friend and made him heartily welcome. Beans and bacon, cheese and bread, were all he had to offer, but he offered them freely. The City Mouse rather turned up his long nose at this country fare, and said: "I cannot understand, Cousin, how you can put up with such poor food as this, but of course you cannot expect anything better in the country; come you with me and I will show you how to live. When you have been in the city a week you will wonder how you could ever have stood a country life." No sooner said than done: the two mice set off for the city and arrived at the City Mouse's residence late at night. "You will want some refreshment after our long journey," said the polite City Mouse, and took his friend into the grand dining-room. There they found the remains of a fine feast, and soon the two mice were eating up jellies and cakes and all that was nice. Suddenly they heard growling and barking. "What is that?" said the Country Mouse. "It is only the dogs of the house," answered the other. "Only!" said the Country Mouse. "I do not like that music at my dinner." Just at that moment the door flew open, in came two huge mastiffs, and the two mice had to scamper down and run off. "Good-bye, Cousin," said the Country Mouse, "What! going so soon?" said the other. "Yes," he replied;

"Better beans and bacon in peace
than cakes and ale in fear."

—*Æsop's Fables*

CONTINUED ON NEXT PAGE

EYEPIECE VIEWS

TEMPLETON: VISUAL OBSERVING
CONTINUED...

All of the wonderful technology we have at our disposal can be used to study variable stars in ever-increasing depth and detail, and technology will be with us for as long as we choose to pursue this field of research. But the astronomer at the eyepiece -- star hopping her way through a field to find tonight's variable -- also has a place in science, and will continue to for as long as we value her work, and the work of the generations of observers who came before. As I do now and will say over and over and over again, there is still great science to be done with the eye, and there will be for a long, long time to come. The visual observers of the past, present, and future will be a part of it for as long as we deem it important.

We have a responsibility to science itself and to future scientists to teach the next generation to value scientific integrity and good judgment, to respect and be curious about the world around them, and to use all the tools at their disposal to learn -- including technology when appropriate. We as an organization (and as a society) would do well to teach them one more thing: to take pleasure in the simple beauty of the night sky, unencumbered by anything but their eyes and their imagination.

The next generation of the AAVSO will gravitate to whatever excites them most, whether it be data mining, observing with the latest and greatest technology, or observing with their eyes through the eyepiece. You as observers (and as parents, educators, and mentors) will play an important role in introducing them to this endeavor. But wherever their interests lie, be sure to give them a gentle reminder to look up once in a while and take in those same starry heavens that moved Argelander (and us) onto this path of discovery.

Clear skies★

GAHERTY: CITY MOUSE
CONTINUED...

Once upon a time there was a city mouse who was an amateur astronomer. He lived almost all his life in one city or another. When he was a young mouse, there was not much light pollution, and he was able to spend many nights on his back porch gazing at the stars. When he returned to astronomy as an older mouse he found that the city lights had become much brighter and that he was hard pressed to see all but the brightest stars. So he tried to visit his country mouse cousins as often as he could, but that was not often enough to satisfy his craving to observe.

Our city mouse studied many books on observing, and got much advice, some good and some bad. Some said, "The perfect telescope for urban observing is a small refractor," but he found that he could see even less with this than with his larger telescopes. Thus he learned that, as in other locations, in the city, aperture rules. In fact it takes a significantly larger telescope in the city to equal the views of a quite small telescope in the country.

He learned to modify his observing targets in order to have satisfying observing experiences in the city. He concentrated on the solar system, observing the Sun, Moon, and planets. When there were no planets around, he consulted his Observer's Handbook and tracked down a number of bright asteroids, and watched them move through the sky from night to night. He once spent a wonderful night watching Pallas pass through the outer edges of the star cluster Messier 47 (2000 February 28/29). He discovered that the beauties of double and multiple stars were undimmed by light pollution, and observed all of the stars on the Astronomical League's Double Star Club list <http://www.astroleague.org/al/obsclubs/dblstar/dblstar1.html>. One of his mouse friends named Richard encouraged him to observe variable stars, and this proved to be the most rewarding observing of all: no matter what the state of light pollution, moonlight, or seeing, there were hundreds of variable stars visible! He spent less time looking for deep sky objects, as these were hard to find in his city skies and, once found, rather disappointing to look at, if they could be seen at all. He saved his deep sky observing for those rare times he visited his country cousins, when the views were much more satisfying.

A little over a year ago, this city mouse decided to move permanently to the country. At first he spent a great deal of time observing those deep sky objects he had been deprived of for so long. But, by and by, he found that one faint fuzzy galaxy looked much like every other faint fuzzy galaxy. Then he heard that Jupiter's Great Red Spot had been joined by a smaller friend of similar hue, Red Jr. Soon our newly minted country mouse was back observing Jupiter with fresh enthusiasm. And as Jupiter disappeared into the twilight, he found himself returning to another of his city favourites, variable stars.

Just around the time the city mouse made his move, he acquired a 150 mm Dobsonian with digital setting circles. With this, he discovered he could see variable stars as faint in the country as the faintest stars he could ever see in the city with his 280 mm reflector. He also discovered that he could move from variable to variable much more quickly with the help of the digital setting circles. He's now purchased DSCs for his larger scope. Some of his more conservative mouse friends say he's gone over to the Dark Side, but he doesn't seem to mind.

One of the things which surprised the city mouse on moving to the country is that he was much less bothered by wildlife. It the city, he'd shared his backyard with neighbourhood skunks and raccoons. In fact, he almost lost an eyepiece to a marauding raccoon one night. The eyepiece had been deftly removed from its case and carried half way across the yard before it was retrieved! In the country, although our mouse hears rumours of bears and moose in the area, his most dangerous foe has been the lowly mosquito, which seems to exist in astonishing numbers.

But the transposed mouse's greatest pleasure is, no matter what he may be observing in his telescope, the opportunity to sit back from the eyepiece now and then, and just take in the beauty and richness of the dome of stars overhead. That's like having the cakes and ale without the fear!★

OBSERVING CAMPAIGNS UPDATE

MATTHEW TEMPLETON AAVSO CAMPAIGN COORDINATOR

We had two observing campaigns come to a close on August 31, and there was important activity on several others, and so we are due for an Observing Campaigns update.

First concluded was the mini campaign on EX Hya and DQ Her in support of Spitzer observations of these two cataclysmic variables. The Principal Investigator, Dr. Kunegunda Belle (LANL), informed me yesterday that Spitzer made the required observations, and that the AAVSO's observations were greatly appreciated additions to their data set. She also mentioned that she, Don Hoard, and Steve Howell have two more targets to be observed, so stay tuned for another short campaign from them.

The second to conclude was on V884 Sco, a bright star for which we requested precision photometry on behalf of Dr. Jerome Orosz (SDSU). Although we didn't get photometry through the AAVSO website, the call for observations also went out via our friends in Variable Stars South (http://www.varstars.org), and Dr. Orosz mentioned that he will be getting data privately through an observer in Australia. If you have data for this star and haven't submitted them, please do! V884 Sco is a bright star with a small amplitude, and the AAVSO will be talking more about bright star photometry and precision photometry at AAVSO in the coming months. There's a lot of good science to be done at the bright end (epsilon Aurigae being a great example!) and we'll be encouraging observations of bright stars in the future.

Next we have one important campaign update on AG Draconis. We requested observations on behalf of Ed Smith (STScI) to assist with the commissioning of the new Cosmic Origins Spectrograph on board Hubble. The original HST observation date mentioned in Alert Notice 399 slipped by two weeks, but the first AG Dra observation with COS was successfully obtained on Saturday, August 29. According to Ed, the observations went off without a hitch, and they're getting ready for the next set of commissioning observations on 2009 September 07 and 2009 September 08. Ed extends his thanks to all of the observers who've contributed thus far. Please continue observing AG Dra as you have been. If you haven't observed it yet, now's a great time to start!

There's been some neat discussion over the past few days of another of our campaigns, V1412 Aql (for Dr. Arlo Landolt, LSU), precipitated by some predictions by Michel Bonnardeau. It's great to see observations being made, and even better to see them being actively discussed—that's what AAVSO-discussion is for! V1412 Aql is a mysterious system, but potentially exciting if it really does consist of a white dwarf and a transiting exoplanet. It's a challenging target for CCD observers, and even visual observers if you can go below V=16.5.

Finally, the campaign on epsilon Aurigae is well underway, and we're getting lots of great data both from AAVSO observers and from the growing community over at Citizen Sky (www.citizensky.org). Now is the time when interesting stuff is going to start happening with epsilon Aurigae (and if it doesn't happen soon, that too will be really interesting). You can learn more about the campaign from Alert Notice 398 (http://www.aavso.org/publications/alerts/alert398.shtml), and learn more about why this star this so interesting from the Variable Star of the Season article (http://www.aavso.org/vstar/vsots/eps_aur.shtml), or from the Citizen Sky website itself.

Best wishes, and clear skies.

Reprinted from a message that was sent to the AAVSO discussion group on September 1, 2009. ★

JULIAN DATE / MOON PHASE CALENDARS

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

SEPTEMBER 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 5076	2 5077	3 5078	4 5079	5 5080
6 5081	7 5082	8 5083	9 5084	10 5085	11 5086	12 5087
13 5088	14 5089	15 5090	16 5091	17 5092	18 5093	19 5094
20 5095	21 5096	22 5097	23 5098	24 5099	25 5100	26 5101
27 5102	28 5103	29 5104	30 5105			

OCTOBER 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 5106	2 5107	3 5108
4 5109	5 5110	6 5111	7 5112	8 5113	9 5114	10 5115
11 5116	12 5117	13 5118	14 5119	15 5120	16 5121	17 5122
18 5123	19 5124	20 5125	21 5126	22 5127	23 5128	24 5129
25 5130	26 5131	27 5132	28 5133	29 5134	30 5135	31 5136

NOVEMBER 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1 5137	2 5138	3 5139	4 5140	5 5141	6 5142	7 5143
8 5144	9 5145	10 5146	11 5147	12 5148	13 5149	14 5150
15 5151	16 5152	17 5153	18 5154	19 5155	20 5156	21 5157
22 5158	23 5159	24 5160	25 5161	26 5162	27 5163	28 5164
29 5165	30 5166					

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

CORPORATE SPONSORSHIPS

MIKE SIMONSEN
AAVSO DEVELOPMENT DIRECTOR

You may have noticed over the last few months that certain corporate listings have begun to spring up on the website, in the newsletter and as messages in the footer of outgoing AAVSO email. The corporate sponsorship program has begun to take root with these initial astronomy-related businesses. We are now cultivating our crop of sponsors and seeking additional support from other astronomy businesses and organizations.

Orion Telescopes pays AAVSO a percentage on goods sold through clicks on the links on our website, in the same way we get funding from Amazon.com.

The publishers of *Sky & Telescope* have offered to pay us a percentage on new subscriptions from our listings on the website. By all means, if you plan to buy astronomy products from Orion Telescopes or subscribe to Sky & Telescope, please do so through the links on our home page and support pages.

Astronomy has agreed to promote us online at www.astronomy.com through at least two blogs, two podcasts, and two news stories on their home page. They are giving us a month of free banner advertising on the home page, and six weeks of banner ads in their electronic newsletter, which has a subscription of over 90,000 readers. We will also get a free ad in one issue of the print magazine.

Swinburne Astronomy Online has offered to support the AAVSO for one year at the Contributing Affiliate level ($2,500.00) and now has a listing on our home page and on our Education and outreach pages.

By far, our most generous contributor to date is the Santa Barbara Instruments Group, who have pledged and begun delivery on $25,000.00 worth of CCDs and filter wheels for our robotic telescope network, the photometric survey, and the bright star survey. They have pledged a spectrograph for the Mt. John telescope and four additional entry-level CCDs with filters to be distributed to deserving amateurs who might otherwise not be able to make the jump from visual observing.

In this economy, it has been easier to get businesses to contribute goods or services than cash, but we hope establishing strong relationships with these companies now will give us the chance to develop a compelling case for continued and increased support in the future. Whenever you have dealings with these astronomy related businesses, please remember to thank them for their kind support in the face of a challenging business climate. ★

MENALI: ISTANBUL SYMPOSIUM CONTINUED...

Special thanks to Dr. Arne Henden for supporting my attendance at this meeting, also to Prof. Dr. Dursun Kocer for his leadership and to Ayşegül F. Teker for a superb job well-done. Last but not least, my deepest appreciation to Fahamettin Akıngüç, the chairman of the board of trustees of Kültür University, for his leadership and his never-ending support of astronomy/science and for funding my trips.

Our trip back home was uneventful. We had had a wonderful time at the meeting, and then had spent time with family and friends. However, by the end of our trip, we were ready to come home!

As always, I wanted to share my trip with you all. I wish I could have taken everybody with me who would have been interested in coming along but I couldn't, so instead I took you on a virtual journey with me. Hope you enjoyed the ride!

Until next time.... ★

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Age _____ Birth Date _____ Vocation _____

Telescopic Equipment _____

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