



News from The Society- for Astronomical Sciences

Vol. 5, Number 1

2007 Planning for SAS Symposium and Workshop Schedule nearly Complete

Planning and scheduling for the 2007 SAS Symposium is nearly complete. As in the past few years we are continuing with a Workshop series on the Tuesday (5/22) prior to the Symposium. This year there are two workshops planned. The morning workshop will be on Spectroscopy running from 8-11 am and will be conducted by Gary Cole, Dale Mais and Olivier Thizy. Gary will provide some history behind spectroscopy, Dale will give you a hands on demonstration of the formation of spectral lines, hopefully not burning or electrocuting himself in the process. Finally, Olivier will give teach us on the use of Vspec in analyzing spectra obtained with currently available instruments. These include the SGS and DSS-7 from SBIG and the high resolution spectrometer currently being marketed by Olivier in France along with Christian Buil In the afternoon, Richard Berry will teach us on the use of AIP4WIN in scientific applications. As you know, this is a powerful piece of image analysis software written by Berry and James Burnell.

As you can see from the schedule of speakers on pages 3-4, we once again have a full program planned with more talks and posters on spectroscopy than we have had in previous years.

Continued on page 2, Symposium

Brian Warner is first Chambliss Amateur Achievement Award Winner



The [American Astronomical Society](#) (AAS) has awarded the Chambliss Amateur Achievement Medal for 2006 to asteroid enthusiast Brian D. Warner, owner and director of the [Palmer Divide Observatory](#) near Monument, Colorado. This award, being given for the first time, is named for Carlson R. Chambliss (Kutztown University, Pennsylvania), who donated the funds to support several new AAS prizes. The [Amateur Achievement Award](#) consists of a 224-gram (½-lb) silver medal and a \$1,000 honorarium.

The AAS, North America's principal association of professional astronomers and

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Dr. Ron Kaitchuck of Ball State University in Indiana has agreed to deliver the Keynote address at our 2007 Symposium. Many of us learned photometry through the book Arne and Ron published

Committee:

- Lee Snyder – Co-Chairman
- Robert Stephens – Co-Chairman
- Robert Gill – Audio Visual Webmaster
- Dave Kenyon – Program Co-Chairman
- Dale Mais – Program Co-Chairman, Newsletter editor
- Brian Warner – Program Co-Chairman
- Jerry Foote – Program Co-Chairman

Advisors:

- Arne Henden
- Dirk Terrell
- Alan Harris



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Your Participation Wanted!

As I have mentioned in previous Newsletters, we need your participation in the Newsletter. We don't want this to become a one person or just a couple person show. If you have an article which can cover a variety of topics, please put it together for a future Newsletter. Work in progress is always welcome. In addition, we have started a "letters to the Editor" section where we would like to add 2-3 letters from the members/participants. We had no letters to incorporate into this Newsletter edition. Constructive comments are always welcome as we are always looking for ways to improve not only the quality of the Newsletter but also the quality of the Symposium. We want the SAS to become a year around organization not just a once a year group.

Symposium, cont. from pg 1

This is an attempt to push the minor planet people to the side a little bit, at least for this year! Dr. Ron Kaitchuck will give our keynote address Thursday evening. Most of you will remember or even possess the book Ron wrote with Arne Henden on photometry. Many of us "learned how to do it" from this book. Since Arne will also be joining us at the symposium, if you have a copy of this book, you may want to bring it along and get the signatures of the two authors.

This year Meade will be joining us and will be displaying their new 20 inch and mount. It is hoped we can get this set up outside and perhaps get a spectrometer attached to it if Olivier Thizy brings a demo unit of their high resolution instrument and obtain some high resolution spectra of some brighter stars. So its going to be an exciting Symposium/Workshop series this year, if you haven't signed up, do it now!

Brian, Continued from page 1

planetary scientists, cited Warner "for his many contributions to the photometric study of asteroids. His skillful, methodical observations using multiple CCD-equipped telescopes at Palmer Divide Observatory have resulted in the publication of more than 200 asteroid light curves. His discovery of numerous binaries in the main belt has overturned the idea that binary asteroids form only through tidal interactions with planets. Warner encourages and supports other asteroid observers, both amateur and professional, through his ongoing development of the software MPO Canopus, his regular writing in the *Minor Planet Bulletin*, and his book *A Practical Guide to Lightcurve Photometry and Analysis*, now in its second edition (Springer, 2006). His efforts have facilitated a 21st-century renaissance in precision measurements of asteroid light curves."

Warner studied physics at the University of Colorado and earned his Master of Science degree from James Cook University in Queensland, Australia. He is a full member of the AAS Division for Planetary Sciences and a trustee of the [Society for Astronomical Sciences](#), one of the leading groups promoting professional-amateur collaborations for astronomical research.

Membership Information

Membership in your new Society for Astronomical Sciences (SAS).

As was pointed out with the last issue, it was felt that a modest membership fee would greatly help SAS to produce a better product for its members. This fee will be \$25.00 per year. What will this membership fee provide? Well for one thing it WILL NOT go to any committee members as part of their efforts within SAS. We volunteer our time for The Society.

Members will receive a discount for the registration fee each year for the Symposium at Big Bear. It will assure you that you will get a copy of the published proceedings each year, even if you do not attend the Symposium. It will help defray costs in bringing in outside speakers (professionals) to the symposium.

Membership is annual and runs from July to June of the following year. To become a member, send \$25 to: Society for Astronomical Sciences, 8300 Utica Avenue, Suite 105, Rancho Cucamonga, CA 91730. You may also join online at the registration page of the web site. Membership dues are tax deductible.

We currently have 82 members with many renewals due in by June 1.





*News from The Society
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Sciences*

Tentative Speakers for the 2007 Symposium on Telescope Science

Wednesday 5/23

Coffee/Registration	08:00	08:45
Welcome	08:45	09:00
Arne Henden	09:00	09:30 The Olin Eggen Project
Ron Bissinger	10:00	10:30 Amateur-Professional Collaboration Exoplanet Research Programs and Techniques
Jerry Foote (for Bruce Gary)	09:30	10:00 Exoplanet Observing Tips
Coffee Break	10:30	10:45 15 MINUTES
Thomas Smith	10:45	11:15 Study of Cepheid Variables as a Joint Spectroscopy Project
Oliver Thizy	11:15	11:55 Lhires III high resolution spectrograph
SAS COMMITTEE	11:55	12:00 SAS Election
Lunch	12:00	13:30 90 MINUTES
Poster Presentations	13:30	14:00 Presenters to stand with their posters / Please visit during this time
Jeff Hopkins	14:00	14:30 Photometry of Epsilon Aurigae
Eric Crane	14:30	15:00 Search for LPVs in GNAT Data
Coffee	15:00	15:15 15 MINUTES
Jeff Hopkins/Gene Lucas	15:15	15:45 BVRI CCD Photometry of Theta 1 Orionis
Bob Koff	15:45	16:15 Halloween Outburst of 2006 - A Nearby Microlens?
Lee Snyder	16:15	16:30 Compared Parameter Solutions for the System AP Leonis
Sponsor Infomercials	16:30	17:00 Sponsors Infomercials

Thursday 5/24

Coffee	08:30	08:45
Welcome, Announcements	08:45	09:00
John Hoot	09:00	09:30 Photometry with DSLR Cameras
Steve Gifford	09:30	10:00 CCD Video Photometry of a Comet using the Meade DSI Camera
Dan Durisooe	10:00	10:30 CCD Photometry of Sky Brightness Background with a Wide-Angle Lens
Coffee	10:30	10:45 15 MINUTES

Lance Benner	10:45	11:15	Arecibo and Goldstone Radar Imaging of Near-Earth and Main-Belt Asteroids in 2006
Steve Chesley	11:15	11:45	Asteroid Orbit Fitting: the Long and the Short of it
Group Photo	11:45	12:00	
Lunch	12:00	13:30	90 MINUTES
Brian D. Warner	13:30	14:00	Asteroid Shape Modeling by Lightcurve Inversion
David Boyd	14:00	14:30	Variable Star Photometry at West Challow Observatory
Peter McCullough	14:30	15:00	Selective Availability of Astronomical Data
Coffee	15:00	15:15	15 MINUTES
Russell Genet	15:15	15:45	Developing an Undergraduate Astronomical Research Program
Jerry Home	15:45	16:15	Imaging Automation
John Menke	16:15	16:45	Amateur Fast Photometry
	16:45	17:00	Goodnight, Farewell, Amen
Dinner	17:30		
Keynote Speaker			
Ronald Kaitchuck	19:00	20:00	Amateur Photometry



The 2006 Symposium in Full Bloom

Don't forget this years Riverside Telescope Makers Conference....immediately following the SAS Symposium



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A “Mind-Boggling” Place: The Development of GMAS

Ralph Megna

GMARS Station Master

For the first four decades of its existence, the Riverside (CA) Astronomical Society was like many amateur astronomical groups – a tribe of observational nomads, scheduling star parties and other events wherever it could find clear, dark skies and an accommodating property owner.

But by the late 1970s, a rapidly growing population was making most of suburban Southern California suitable for only lunar and planetary observation, and RAS members wanted a dark sky site they could call their own. Several efforts were made to identify a location. Over the years, several attempts were made to acquire a dark sky site, none of which were satisfactory.

Then, in 2000, a club member donated an unimproved five-acre property near Landers to the RAS. Although extensive development of this site would soon be frustrated by legal and utility complications, the club used the opportunity to conduct a thorough review of its goals for an observing site, and sought input from its membership through a formal survey. This proved to be a very important step, because it led to a vision for a facility that went far beyond just a place to set up telescopes.

Within two years, the RAS found and purchased a second five-acre property less than three miles from the first. This acquisition – initially called

the Botkin site – differed from the first in that it came with utilities, as well as a small house and a large garage within a fenced area.

The Botkin site would prove to be fertile ground for the development vision that had been unachievable on the first property. Broadly stated, the goal was to create a facility that was supportive of the broadest possible range of amateur and pro-am astronomical activities. This meant more than just a place to put telescopes – it also meant creating an environment that was hospitable for both members and their guests. Ultimately, it meant providing for a multi-faceted social life.

Early in the site’s development, there was a widespread interest in giving the place a name that reflected this ambitious vision for its future. Many names were suggested, but one – originally proposed as a joke – quickly entered

common usage: Goat Mountain Astronomical Research Station, or GMARS for short. This name, which referred to both its location (it is less than a mile from the base of an abrupt geological feature called Goat Mountain) and its character (some thought the word “station” vaguely referenced the small burgs in the Australian out-back) was soon formally adopted by the RAS Board of Trustees.

In the five years since its purchase, GMARS has benefited from many thousands of hours of volunteer labor devoted to its transformation into a wonderful asset for amateur astronomy. Among the projects that define its character today include:

Telescope field, RV area and parking. One of the basic planning principles for GMARS was the desire for a central observing field that would function like a “town square” and be a place where ob-



The Clubhouse at GMARS contains a bunkroom, kitchen and bathroom

servers could easily interact with each other. This field, along with adjacent RV spaces and areas for parking, was the first major improvement. Although it is large enough to easily accommodate scores of telescopes, it only uses about 20% of the site and allows much of the property to remain in its natural desert state.

Underground electrical distribution. In an age when astronomy increasingly involves powered telescopes and laptop computers, members indicated a strong desire to be able to “plug in” when at GMARS. Electricity from a 400-amp panel is distributed through thousands of feet of underground conduits – most in hand-dug trenches -- to the observing field, telescope pads and the observatories. Funding for this improvement came from a grant from the RTMC Astronomy Expo.

Telescope pads. Next to electricity, members pushed for concrete pads where telescopes could be set-up, in some cases with permanent mounting piers. As of 2007, there are 17 such pads at GMARS, all built with volunteer labor and licensed to individual members. The annual license fee -- \$150 – is an important source of funds for the operational costs at GMARS.

One telescope pad serves a special function: It is the home for the club’s largest telescope, the 22-inch Dobsonian known as Capella. The telescope is a great crowd-pleaser and is often used at star parties when GMARS is hosting guests such as school and scout groups.

Clubhouse & Garage. The fact that the property came with an 1100 square foot house and a

large garage was a huge boon. The clubhouse provides members and guests with such valuable facilities as a large kitchen; a “great room” with television, stereo and computer access; a bunk room with five beds that are available on a first-come basis; a full bathroom; and two outdoor patios, one with a huge new stainless steel grill. The clubhouse has made a stay at GMARS not just an astronomical experience, but a social (and gastronomic) one as well.

Observatories. The latest development at GMARS is the erection of private observatories. Like the telescope pads, these 10x12 roll-off roof structures – all based on a common design -- are licensed by members. By spring of 2007, four observatories and one warm room (fully capable of being converted to an observatory) were completed, and two more structures were under construction.

The completion of observatories at GMARS further extended the range of astronomical activities at the site. The licensees are currently pursuing high-quality deep-sky imaging, as well as collaborations with professional astronomers on asteroid research. GMARS has been given observatory code G79 by the Minor Planet Center.

The Future at GMARS. Despite the advanced state of development at GMARS, there are ongoing discussions regarding further improvements. On the short list of projects is the construction of a restroom and



Four Observatories are now operational at GMARS and are used for asteroid research and (gasp) general astro-imaging



The 22-inch Capella Telescope is used for general observing and out-reach events



17 concrete pads are used by members to set up their telescopes

shower facility adjacent to the observing field that would take some of the pressure off the single bathroom in the clubhouse. There is also a desire to acquire additional land around GMARS, in part to protect it from unrelated development, and in part to accommodate future expansion of the facilities.

At a recent star party, a visitor to GMARS gushed that “what you guys are doing out here is mind-boggling.” The RAS is proud that, only five years into its ownership of the “Botkin site,” it has created a place that not only supports the basics for observation and imaging, but has become one of the best places for amateur astronomers – and their friends and families – to gather and socialize in the western United States.

Several observatory raising parties occurred in the last couple of years



The dark desert skies of GMARS is an excellent location to study the stars

