

The High Desert Observer

The Bulletin of the Astronomical Society of Las Cruces

July, 2009

President's Message



July is upon us and the monsoon season will soon be making evening viewing all but impossible. Hopefully there will be a few clear nights to keep our itch scratched. This would be a good time to purchase new equipment; the weather is going to be bad anyway so no one will blame you for the new equipment curse.

We do have a few things going on this month. The City of Las Cruces has a purposed revised Outdoor Lighting Ordinance. I downloaded a copy and read it; there seems to be some meat in this document. It spells out quite clearly what is and is not allowed. It also is clear on how it is to be enforced. For those of you that have neighbors that insist on illuminating your property there is a section defining "Light Trespass," what is and is not allowed and how to get it enforced. A meeting to get public comment on a proposed

new lighting ordinance will be from 5 pm. to 7 pm. July 29 at City Hall. I am planning to attend and welcome as many of you as are able and willing.

Rich Richins has been hard at work trying to get our dark sky site restored to a dark sky. He has been in contact with Congressman Teague and with American Tower, Inc. the owner of the tower that is illuminating our dark sky site. Apparently the red lens that covered the light has been broken. The tower company has no sensors to detect that kind of damage. They depend on reports, which is basically what Rich provided. They informed us the tower was due for maintenance and now that they are aware of the problem they will take care of it. They reported to Rich that the light has been turned off until it can be repaired. Way to go, Rich!!!

I have been in discussions with Allen Scott of TAAS- the Albuquerque Astronomy Club for a possible joint club star party. The one we had planned for the Datil Wells area on June 19th and 20th was cancelled due to weather. We are looking at a fall (after the monsoon season) event now. We discussed October and November, we also discussed Datil Wells and Valley of Fires State Park. October is also our WS star party and by November Datil Wells is fairly cold. We are leaning toward Valley of Fires State Park in November but it will be on the agenda for further discussion in the coming months.

Speaking of WSSP, White Sands Star Party is coming up and we, the ASLC have agreed to provide the workshop speakers. So if you have an area of interest you would like to share, step up and get your name on the schedule. Let's continue to provide the quality of information and presentation we have in the past. Mike Mosier keeps asking for information to put in the schedule and I have none to give him. So far I have no, nada, zero volunteers to do workshops. we need your help.

ASLC is one of many amateur astronomy organizations. There are many national and international organizations that cater to the amateur astronomer. At our next club meeting we will be taking a look at several of those organizations. We are working on several short presentations that look at what their purpose is in general, what these organizations do, how we can participate with them, and what benefit they can offer us. These presentations will be given by members of our club who are also members of these other organizations.

Your President and humble servant, Jerry Gaber 575-382-9183

The Astronomical Society of Las Cruces (ASLC) is dedicated to expanding members and public awareness and understanding of the wonders of the universe. ASLC holds frequent observing sessions and star parties, and provides opportunities to work on club and public educational projects. Members receive *The High Desert Observer*, our monthly newsletter, membership in the Astronomical League, including AL's quarterly *A.L. Reflector*. Club dues are \$35 per year. Those opting to receive the ASLC newsletter electronically, receive a \$5 membership discount. Send dues, payable to ASLC with an application form or a note to: Treasurer ASLC, PO Box 921, Las Cruces, NM 88004.

ASLC members are entitled to a \$10 discount on subscriptions to *Sky and Telescope* magazine.

ASLC OFFICERS, 2009
Board@aslc-nm.org

President: Jerry Gaber
President@aslc-nm.org

Vice President: Kirby Benson
VP@aslc-nm.org

Treasurer: Janet Stevens
Treasurer@aslc-nm.org

Secretary: John McCullough
Secretary@aslc-nm.org

Immediate Past President:
Nils Allen
PPresident@aslc-nm.org

Directors:
Wes Baker
Director1@aslc-nm.org

George Hatfield
Director2@aslc-nm.org

Education Chairman: Rich Richins
Education@aslc-nm.org

Newsletter Editor: Tony Gondola
acgna@comcast.net

Emeritus (life) Member:
Walter Haas

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Next Meeting

The next monthly meeting will be held July 24th at 7:30 pm in the usual place (Main Campus of the Dona Ana Community College, room 77), this months speakers will be ALSC members. The topic will be "Contributions Amateurs Can Make to Astronomy."

The Imaging Group will meet at 7:00 pm.

Events

The next monthly dark sky viewing nights will be held on Saturday, July 18th and 25th at the Upham site. The next moon gaze will be held at International Delights Cafe on Sat. Aug. 1st. For these and other events, please see the ASLC website for further information:

<http://www.aslc-nm.org>.

August Issue of the HDO

A note to all members, we need more contributors ! Sharpen your writing skills, share your knowledge and help bolster our newsletter! Articles for the July issue should be sent to Tony Gondola by the 10th of the month. Text should be sent as email (acgna@comcast.net) or as an attached Microsoft Word document. Images should be sent in jpg format.

If you have any questions about submitting materials for publication in the *HDO*, please don't hesitate to contact me at 571-5118, acgna@comcast.net.

Thanks in advance! Tony Gondola, Editor, ASLC Newsletter

June 2009 Meeting Minutes

Call to Order:

Kirby Benson, Vice-President, Astronomical Society of Las Cruces (ASLC), called the meeting to order at 7:28 pm., 26 June 2009, Rm. 77, Dona Ana Community College.

President's Comments:

Kirby Benson welcomed the group and announced that Jerry Gaber, Club President, was absent tonight because of a scheduling conflict.

Secretary's Report:

The minutes for the May meeting were submitted as published in the current issue of the Club newsletter, the *High Desert Observer (HDO)*. Steve Barkes moved to accept the minutes as published, Dave Dockery seconded. The minutes were accepted by the members present with one opposed. The Secretary noted that he is currently without personal Internet access if members had attempted to contact him and gotten no response. There was not an additional Secretary's report.

Treasurer's Report:

There was no Treasurer's report (Treasurer absent because of illness). Dues or other payments could be submitted to Bert Stevens who would forward them to the Treasurer. Bert also noted that the Treasurer is having hip replacement surgery on 01 July. There was no additional Treasurer's report.

Committee Reports:

Observatory Committee:

There was no progress to report.

There were no additional committee reports.

Old Business:

1. Club-logo Apparel – Ron Kramer was not present to provide an update.
2. Meade Solarscope – No update was available (see Treasure's Report above). Steve Barkes will continue research into other vendors and brands.

Meeting Presentations – Jerry Gaber has contacted Valerie Atmar, Wirt's widow. He had noticed that the links to the recorded lectures/presentations from the Club's website were broken. He wanted to know if the Club would still have access to them or if they were lost. Mrs. Atmar emailed her son and had him reboot the server and the links are back up.

She is going to get the Club the software to continue to record the presentations and she has contacted Dr. Judd about possibly training some of the Club members in using the QCShow software. Dr. Judd is a high school teacher in El Paso and teaches the use of this software application. Jerry asked Mrs. Atmar for permission to do some sort of memorial page to Wirt for the Lecture page and she thought that would be nice. The Club has a wireless microphone and a 30-day trial version of the software. Dave Dockery will try it out on tonight's presentation. If the Club decides to continue using QCShow, Jerry thinks the Club should expect to pay for a license.

2. Public Outreach Coordinator – Bernie Joplin has volunteered to take over from Chuck Sterling, who must step down for family reasons. The Club thanks Bernie for stepping forward and volunteering to undertake this task and thanks Chuck for the excellent job he has done and for a smooth transition of responsibility to Bernie. Bernie has gotten the Club's Celestron C-8 from Vince Dovydaitis to use at public events. He has some questions regarding the drive setup for any members familiar with the system. He would like to purchase the telescope from the Club but the Board of Directors will have to check on any possible restrictions of the telescope's original donation. Joseph Mancilla noted that the Club, historically, has had little problem with extremely long-term loans of equipment.

There was no additional old business discussed.

New Business:

1. Star Parties – Another 100 Hours of Astronomy event possibly will be held in October '09 as part of IYA 2009. Kirby Benson and Wes Baker will continue to track this event.
2. White Sands Star Part (WSSP) 2009 – WSSP 2009 is scheduled for 11-12 September, a $\frac{3}{4}$ Moon weekend. The Alamogordo club has asked that the Club again provide mini-workshops and seminars during the day on Saturday. Start planning your presentation now and inform the President of your intent so he can provide a list to the other sponsors.
3. Enchanted Skies Star Party – Star party in Socorro area, October.
4. Beginners/Imagers circle – Thanks to Dave Dockery for tonight's presentation. Steve Barkes will present prior to July's meeting and Vince Dovydaitis will present in August. Additional volunteers are needed for the rest of the year.
5. *HDO* articles – Tony Gondola needs input for each issue. Please submit them to him by the 10th of each month.
6. Upham light – A bright white light has appeared on a tower west of the Club's Upham DSO site that greatly interferes with viewing and imaging. Rich Richins has contacted U.S. Congressman Harry Teague's office and has received a response. This issue appears to be moving into the political realm. Does the Club wish to pursue this? Vince Dovydaitis reminded the membership of another tower issue in viewing areas when the FAA required safety lights be installed on a local tower (red on top, flashing white xenon lower down). Does this new light have any connection to the new spaceport? Vince recommended that the issue be approached through political avenues, especially local elected officials, as the FAA is typically not worried about the Club's concerns. Vince presented a motion to contact Rep. Teague during a community visit planned for 27 June. He then revised his motion for the Club as an entity to approach Rep. Teague for support to resolve the issue. Rich reminded the members that the Club did not push Las Cruces' municipal efforts to develop and implement a restrictive lighting ordinance, nor use of alternative street lighting methods.

Bert Stevens questioned that if the Club pushes specific legislation efforts in its favor, will the Club risk losing its non-profit organization (NPO) status? Roy Willoughby seconded Vince's motion. He also noted that it is frequently very difficult to identify and contact the "guilty" party(s) in situations like this to try and resolve the conflict of interests, as it was approximately 10 years ago in the instance noted by Vince. Rich pointed out that elected public officials typically respond to numbers and that members could write, call, and email several officials' offices to raise awareness of the issue. The question was called: 15 in favor, 2 against, 2 abstentions. The town hall meeting with Rep. Teague will be 02 July at the Boys and Girls Club.

There was no additional new business for discussion.

Rich Richins offered a motion to adjourn and Joseph Mancilla seconded. The motion passed and the business portion of the meeting was adjourned at 8:12 pm.

Announcements:

Vince Dovydaitis announced that he still has posters signed by Clyde Tombaugh available for \$100 donations to the Astronomy endowment. Please see him after the meeting

There were no additional announcements made.

Presentation:

This month's program was "Moons! What satellites can tell us about the history and nature of our Solar System" by Chas Miller, NMSU Dept of Astronomy. Chas described several projects he is working on/has worked on as a PhD candidate at NMSU. These have included light curves of Uranus' moons, thin atmospheres of other moons leading to investigation of Pluto's atmosphere, to the LCross project with impact scheduled in Oct. 2009.

Despite Dave Dockery's best efforts, this presentation was not recorded for rebroadcast on the Internet. Other meeting presentations can be accessed on the web at <http://www.aicsresearch.com/lectures/aslcnm/>.

The June 2009 monthly meeting concluded at 9:30 pm.

-Respectfully submitted by John McCullough, ASLC Secretary

Upham Observing Report 6/21/09

By Dave Dockery

Conditions were excellent for the June DSO event at Upham. The winds predicted by the Clear Sky Clock (CSC) never materialized and the seeing improved from average to good over the course of the evening. And it was warm! That's right, warm throughout the night. I think Steve B. was in shorts and a tee shirt until well after midnight. The few patchy clouds quickly dissipated after sunset and we enjoyed clear skies with good transparency.

Steve Barkes, Jerry Gaber, John Kutney, Joseph Mancilla, Steve Shaffer, and I were in attendance. The majority of us were doing visual observations of deep sky objects working the RASC Finest NGC Objects and Messier lists. Joseph also located Pluto and sketched the star field in hopes of repeating the observation in a few days to see if he can detect some relative motion. This was especially challenging due to Pluto's magnitude being at the limit of his 8" reflector. Joseph had to use averted vision to detect both Pluto and nearby reference field stars.

I decided to take my DSO observations to the next level by downloading the Finest NGC Objects Observing Forms, which include important data and areas for making notes and drawings. There is a PDF file that contains forms for each object and it's available on the RASC website at: <http://www.rasc.ca/fngc/index.shtml>. Although this approach takes more time than just spending a few moments enjoying the view, you come away with a deeper appreciation for the details by taking the time to sketch each object and field. You also come away with something tangible to go back and look at later on, much like taking an image. I was able to log four observations from the Finest NGC list using the forms and I also knocked off two more (very low) Caldwell objects at -51 and -48 degrees declination. That puts me at 82 Caldwell observations with only one more worth observing from this latitude. Rich has little to no hope of finishing the list before me. (Eat your heart out, Richins!)

Jerry was the only one imaging and had a productive night after overcoming an early equipment issue (dead battery) thanks to Steve B. He broke in his new modified Canon DSLR by capturing fine images of the North American/Pelican Nebula and Veil Nebula region. Both shots are posted on his website.

I packed up and left around 2:00 with the Milky Way splitting the sky high overhead and the hub of the galaxy just hanging there as plain as the nose on my face. It was a fine last night of spring.

Moon Gaze, Saturday, June 27th, 2009

By Jerry McMahan

The June Moon Gaze was held at the International Delights Cafe. Telescopes were manned by Chuck Sterling, Jerry McMahan, Steve Shaffer and Bernie Joplin, who living up to his nick name as Mr. Enthusiasm, was on three telescopes. Bernie used a small Dobsonian, his 4.5 inch Meade Newtonian and an 8 inch Celestron Schmidt Cassegrain. Chuck had his 10 inch Meade Schmidt Cassegrain. Jerry McMahan used a 5 inch Meade EXT and Steve Shaffer brought a 3.5 inch Questar. Also in attendance were John McCullough, Rich Richins, and Steve Barkes, who came to help Bernie with the Celestron setup.

Chuck was on Saturn, while the other scopes were on the Moon at various magnifications. Bernie took over Saturn when the building hid it from Chuck's position. Chuck attempted to get the globular star cluster M13, but it was too faint in the city lights to be impressive enough to show to people.

The evening started with many clouds and a threat of rain coming from the east. The rain missed and the cloud cover lessened so the viewing session was a success. The seeing was fairly good. Chuck had Saturn at 300 power with only mild shimmering from the atmosphere.

We did have good attendance from the public. Bernie could probably give a fairly accurate count, since in his quest to have 10,000 people look through his telescope, he asks people to sign their names after observing. Most of the observers were enthusiastic about what they saw on the Moon and, as always, Saturn. Many asked questions and some stayed a while to look again and ask more questions.

It was one of the better sessions that we have had lately, both in the number of telescopes, the number of club members present and the interest expressed by the crowd.

A Message from Elkeve Observatory

We are frequent readers of your interesting magazine which has been one of our reasons and inspiration to carry out our project in the construction of the astronomical observatory Zaquencipa. Your magazine is sometimes difficult to get in our country but it has served us for making the effort to learn more as amateur astronomers.

Our dream has always been to construct an astronomical observatory, at present we are accomplishing our dream and this will be our contribution to the IYA (International Year of Astronomy.) The observatory is located in the valley of Santa Ecce Home, a village in the province of Boyaca, Columbia, South America. In addition to this, we are building an observatory site for a aerospace museum (Kosmos Space Museum) which will tell the story of the conquest of space.

Our work is directed primarily to low-income children who do not have the opportunity to watch the sky through a telescope. We work primarily with schools located in the region. The main telescope is a 17.5" F/4.5 reflector installed on a built up fork mounting that was made entirely by a mechanic in the region. Our observatory had been under construction for two years but it is very difficult in our country to find funding and incentives for astronomical research and education. We are currently seeking support from any foundation or individuals who may be willing to help us with our project.



The details of the observatory are as follows:

11 meters long x 4.5 meters wide, divided into three sections.

The upper section houses the telescope with an extension to carry the roll off roof.

The second section is the control room which will house the PCs.

The first section is for a lab.



For more information contact:

lunamaria3000@yahoo.com, linnamaraig@hotmail.com or charryormaza@yahoo.com

Phones for Spanish language contact: 0057-3102614456 or 0057-3112116933

For English, Italian or French language: 0057-3117156398

Quick and Easy Star Trail Correction

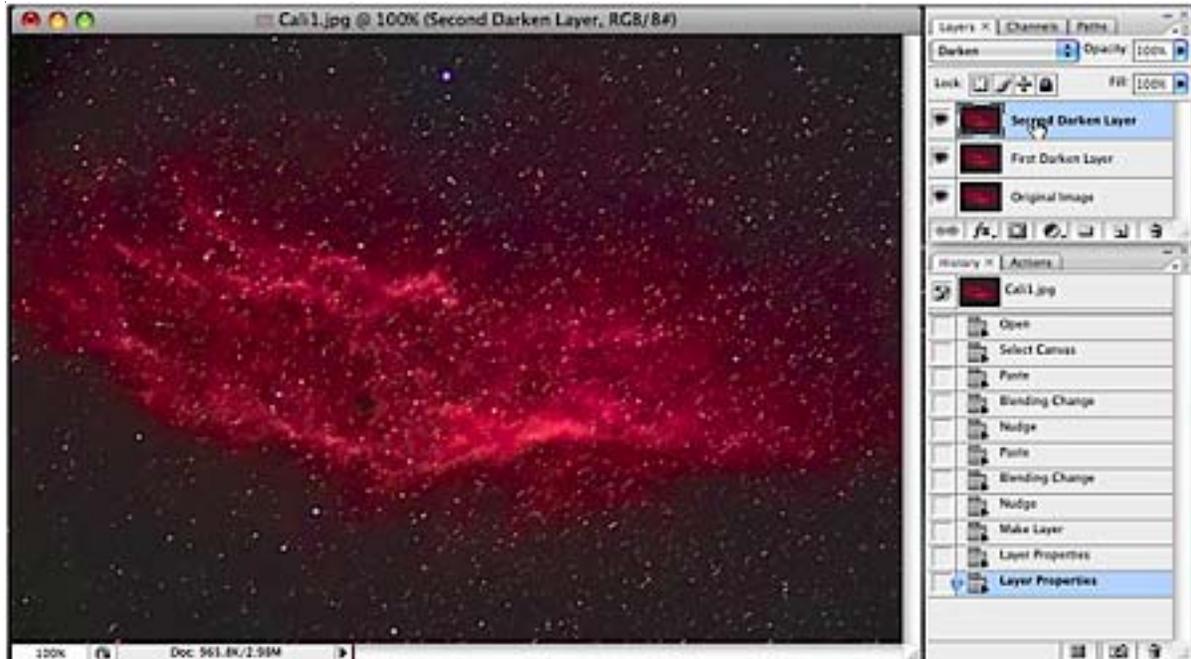
By Rich Richins

Astroimaging can be a tough and unforgiving hobby. Scopes/mounts must be properly pointed. Cameras, cables and computers must be properly connected. The image has to be properly framed and focused. Exposures must be utilized that will gather as much light as possible without blowing out the target or creating significant sky fog. Numerous trial images are taken and settings are tweaked. Then most of us finally give control to the computer and visit with friends or observe through other scopes (or catch a few zzzzz's).

When the session is finished, we anxiously check our images, and all-to-often learn that some of the images have some degree of tracking error. The error can be small (star elongation less than $\frac{1}{4}$ of the width of a typical star, or more significant (several times the width of a typical star). If the elongation is severe, we usually discard the sub. However, if the error is slight - especially if a number of the subs have some slight error, we often include the subs instead of trying to stack too few exposures (and obtaining a grainy image). Stacking may average out some of the error, but if the error tendency is in the same direction for many of the subs, the resulting stack may show the tracking error. Fortunately, most tracking errors can be easily improved.



The image on the previous page shows a fair amount of tracking error. To fix the error, open the image in Photoshop, then copy and paste the image atop itself. Set the layer property to 'darken', then use the arrow keys to nudge the image a bit. For the image above, a nudge of one point up and one point right helped a lot. A second 'darken' layer may be required if the error is larger. For the image above, I used two 'darken' layers - the first nudged one point up and right, the second nudged two points up and two points right.. The result can be seen below (also shown are the layers and history of the processing).



The image is darker than the original since we darkened a fair amount of the light (especially the starlight). Adjust curves, if desired.

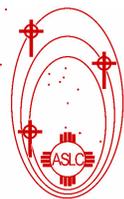
This approach works well on open clusters and most nebulae. It works less well on globular clusters and galaxies where finer detail is more important. Subs can be 'fixed' prior to stacking or the image can be 'fixed' after stacking/processing. The former approach requires a bit more effort, but I think it works a bit better. I used this approach several times for the images I took during the Messier Marathon. I was only taking eight unguided subs for each target, and roughly half of my subs showed some degree of tracking error. In some cases only one or two subs were good, and I had to rely on fixing the tracking error in the compromised subs to obtain enough to stack.

Happy imaging.

Following page: Happy observers at last month's Moon Gaze



ASTRONOMICAL SOCIETY of Las Cruces
PO Box 921
Las Cruces, NM 88004



ASLC - Sharing the Universe
With Our Community
for Over 50 Years

