



The High Desert Observer

The Bulletin of the
Astronomical Society of Las Cruces

Sharing the Universe with our
Community for over 60 years



Photo by John McCullough

June, 2013

The Astronomical Society of Las Cruces (ASLC) is dedicated to expanding public awareness and understanding of the wonders of the universe. ASLC holds frequent observing sessions and star parties and provides opportunities to work on Society and public educational projects. Members receive the *High Desert Observer*, our monthly newsletter, plus membership to the Astronomical League, which includes their quarterly publication, *Reflector*.

Individual Dues are \$30.00 per year

Family Dues are \$36.00 per year

Student (full-time) Dues are \$24.00

Dues include electronic delivery of the *HDO*. Prorated dues are available for new members. Dues are payable to ASLC with an application form or note to: Treasurer ASLC, PO Box 921, Las Cruces, NM 88004

ASLC members are entitled to a \$5.00 (per year) Sky and Telescope magazine discount.

ASLC Board of Directors, 2013

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June Meeting

Our June meeting will be held on Friday, June 28, in Room 77 at Doña Ana Community College, with the following schedule:

7:00 pm - 7:30 pm Show & Tell

7:30 pm - 8:00 pm Business Meeting

8:00 pm - 9:00 pm Guest Speaker & Presentation

This month's speaker will be Society member Steve Barkses, who will teach us Spectroscopy 101.

Events

ASLC hosts deep-sky viewing and imaging at our dark sky location in Upham. We also have public in-town observing sessions at both the International Delights Cafe (1245 El Paseo) and at Tombaugh Observatory (on the NMSU Campus). All sessions begin at dusk.

Starting soon will be regular observing sessions at the new Observatory at Leasburg Dam State Park, which houses an ASLC-run Meade 16" LX-200 telescope.

Outreach

Outreach is a very important part of ASLC. We are always looking for more volunteers to help us educate the public. Even if you do not have a portable telescope to bring to the events, please consider attending our public outreach programs to help answer questions, share knowledge and point out constellations in the sky.

The President's column-inch...

I want to thank Robert Williams for providing a very interesting and entertaining presentation during the May ASLC meeting on his and several other club members' trip to the Texas Star Party. It seems the weather did not cooperate as much as was hoped, however the images of the night sky were quite impressive anyway, as were the several pictures about the location, the Prude Guest Ranch, and the surrounding area. We tend to gloss over the daily details in our yearly TSP presentation and focus on the night sky images we obtain. This was a pleasant reminder that we don't really sleep all day and party all night. Not quite.



Jerry Gaber and Wes Baker represented ASLC at the Las Cruces Public Schools "Count Me In" event last month, providing Solar Viewing for anyone in attendance. I was told the Sun put on quite a show, hardly the quiescent globe it appears to be without a solar telescope to assist.

The observatory at Leasburg has seen first light, and a few mechanical problems also have come to light, so to speak. As of this writing we have goto problems in altitude axis, however the tracking, once an object is in the field of view, appears to be sufficient for normal use. We suspect the problem is in one of two areas, the motor position encoder or its supporting electronics, and are leaning toward the encoder as the culprit. In an interesting test done, the Meade "High Precision" function was used to get galaxy M51 (Whirlpool Galaxy) into the field of view. The way it works is the mount goes to a bright star adjacent to the galaxy, and once the star is centered, the operator pushes a button and the mount moves a very short distance to the galaxy. What we did not know at the outset was that the bright star and the galaxy were on opposite sides of the meridian, star on the east, galaxy on the west. Well, the initial goto to the star was way off, but the star which was quite visible was then centered manually and the next button pushed. Surprisingly, the mount moved away from the galaxy, and we thought the whole setup was snake-bit and going nuts. But the mount continued to move nearly the full circle, 355 degrees or more, and put the galaxy in the field of view. Much to our surprise, I might add... The error in pointing obviously doesn't affect azimuth moves, focusing our attention on the altitude motor, its position encoder, and its electronics. More news as it happens...

"Music & The Stars," a monthly event to be held at the Leasburg Observatory has been scheduled for June 15, July 13, August 10, September 7 and October 5. The music, from local artists, will begin about 2-1/2 hours before sunset and will be followed by an observing session with the 16" telescope. In June, Las Cruces musicians Travis Manning and Dye Packs will provide the entertainment, beginning at 6:00 pm. Please join us for a great evening of music and observing. The event is free, however normal entrance fees (5.00 per carload) at the Park are in effect. If you bring a telescope, the fees are waived.

The month of June includes a trip to McDonald Observatory near Fort Davis, Texas, leaving early on the 22nd with return to Las Cruces early in the morning of the 23rd. Last I heard there might still be room for one or two more to go, so if you would like to participate in this there may still be time to contact Ron Kramer and get the details.

The June Moon Gaze will be held on the 15th, one day before the 1st quarter moon, in front of the International Delights Café, near Albertsons on El Paseo Drive in Las Cruces. ASLC usually fields two or three scopes starting about an hour, perhaps a bit less, before sunset, and encourages folks passing by to view the Moon, and for now, Saturn (which is providing an excellent view of its rings this year). Please feel free to participate, whether or not you bring a telescope; we get lots and lots of questions...

Jumping ahead a little, we have a request for a Solar Observing Party on July 10th at a local Vacation Bible School, and maybe a volunteer to support it. This is subject to work schedule and other possible conflicts, so a backup volunteer would be a good thing to have before I commit the club to this. Any takers? Please let me know if you would be interested in doing this.

Our June ASLC Meeting will be held June 28th starting at 7pm in Room 77 of the Main Dona Ana Branch Community College campus (if I can get the room combination in time, otherwise we may be in the hallway – again). ASLC member Steve Barkes will give a presentation on Spectroscopy, Spectroscopy 101, as he put it, starting at 8pm. The meeting is open to the public and of course all ASLC members (we are public, too). Hope to see you there.

Have a Good Year; keep looking UP.

Chuck Sterling

Outreach Events for May, by Jerry McMahan

Clyde Tombaugh Observatory Open House, Friday May 17

Steve Shaffer opened the dome containing the clubs' 12.5-inch Cassegrain. Jerry McMahan was assisting. This event was one of the most attended that we have had. It was advertised in the newspaper which resulted in a great turnout even though school was out at the University. One man was especially interested and asked about our dark-sky observing locations. He has a 13-inch Dobsonian and is a potential member of the society.

The seeing was pretty good and the scope was tracking well, more often than not. The Moon was observed most of the evening, but Steve did move to Saturn when it was clear that the scope was tracking well enough to go to higher magnifications. Saturn remained in the field of view at a power of about 335.

Jupiter was low in the West, but the Astronomy Department did get it with the 16-inch Dobsonian.

Moongaze, Saturday, May 18

Chuck Sterling, recovering from pneumonia, was not able to set up his telescope, but did stop by for a few minutes. He is feeling much better. Steve Shaffer was also absent since there was another open house event at the Tombaugh Observatory. This is called Sky Safari and Steve was manning the 12.5 inch Cassegrain again. Steve did come by the Moongaze location after finishing at the open house. Ron Kramer and Judy Kile were at an event in El Paso, so we were pretty spread out that night.

Robert Williams brought his 8-inch Dobsonian. I (Jerry McMahan) brought the 8-inch Schmidt Cassegrain and the 125mm Maksutov Cassegrain. Jerry Gaber bought the 8-inch Schmidt along with the camera and computer monitor that will be used to project images at the Leasburg Observatory. Joseph brought a Celestron refractor and later attended the event at the Tombaugh Observatory as well. Moe Azzoline and his family brought a 6-inch Orion Dobsonian.

Moe intends to join the club. He was a student in the Astronomy class taught by Robert Hastings assisted by Rich Richins. Moe is also one of my former math students at the community college. He had an "A" in Astronomy and an "A" in my Algebra class. He also had an "A" in the next math class so I guess I couldn't have done too much damage.

I did a fake daytime alignment with both telescopes so the goto was off, but the tracking was pretty good. Moe's young daughter learned to use the goto and Telrad finder faster than anyone I have seen. I showed her one time and she went back and forth from the Moon and Saturn, in both scopes. She had no trouble finding Saturn even through high magnification. I don't think Moe is too happy about her wanting a goto telescope. I am a bad influence.

Outreach results for the year:

We have gone over 300 hours of outreach in the events through May. I do want to repeat that this total just includes time with the public and not the many hours put in by members to prepare for the events. Chuck Sterling organizes school star parties. Chuck, Ron Kramer and Jerry Gaber have spent many hours preparing the Leasburg Dam observatory. Sid Webb has secured grants to support outreach. Daniel Giron has worked hard to publicize outreach events. Steve Shaffer has spent many ours working on the dome and 12.5-inch telescope at the Clyde Tombaugh Observatory. None of the outreach events would be possible without the efforts of these people. I apologize to anyone that I have left out since many people have contributed.

El Paso Archaeological Museum, Saturday, May 18 (by Ron Kramer)

Ron Kramer and Judy Kile brought his 5-inch Meade Refractor to observe the moon and Saturn under the light polluted skies of El Paso. The museum is on Transmountain Highway, just off U.S. Hwy 54, and the entire western horizon is blocked by the Franklin Mountains. About 65 people showed up for a series of presentations about Native American astronomy and eclipses provided by Alex Mares (Leasburg Dam State Park) and an instructor from EPCC. For most of the visitors, it was the first time they had every looked through a telescope at either the moon or Saturn, and were duly impressed. Several expressed interest in joining our Society and were given copies of our flyer.

Calendar of Events: June 2013 - August 2013 (Mountain Time - 24 hr. clock)

JUN	15	18:00	MUSIC UNDER THE STARS; Leasburg Dam State Park Observatory
	15	20:00	OUTREACH EVENT; MOONGAZE; International Delights Cafe
	16	11:20	First Quarter Moon
	18	13:56	Moon - Spica Conjunction
	19	11:45	Moon - Saturn Conjunction
	20	23:04	Summer Solstice
	22	09:00	McDonald Observatory Tour by ASLC (return Sunday morning)
	23	05:32	Full Moon
	28	19:00	ASLC MONTHLY MEETING
	28	22:54	Last Quarter Moon
JUL	08	01:14	New Moon
	13	18:00	MUSIC UNDER THE STARS; Leasburg Dam State Park Observatory
	13	20:00	OUTREACH EVENT; MOONGAZE, International Delights Cafe
	15	21:13	Moon - Spica Conjunction
	15	21:18	First Quarter Moon
	16	19:19	Moon - Saturn Conjunction
	22	12:15	New Moon
	26	19:00	ASLC MONTHLY MEETING
	27	20:05	Delta Aquarids meteor shower
	29	11:43	Last Quarter Moon
AUG	03	16:22	Moon - Jupiter Conjunction
	06	15:51	New Moon
	09	20:19	Moon - Venus Conjunction
	10	18:00	MUSIC UNDER THE STARS; Leasburg Dam State Park Observatory
	12	11:59	Perseid Meteor Shower
	14	04:56	First Quarter Moon
	17	20:00	OUTREACH EVENT; MOONGAZE, International Delights Cafe
	20	19:45	Full Moon
	22	19:00	ASLC MONTHLY MEETING

AUG 28 03:35 Last Quarter Moon
31 10:38 Moon - Jupiter Conjunction

Be sure to visit our web site for the latest updates: www.aslc-nm.org

Minutes, May 2013 ASLC Meeting

Note: Minutes were not fully transcribed prior to *HDO* publication. Revisions/corrections to appear in the July issue of *HDO*.

Show & Tell:

A "Show & Tell" session preceded the start of the regular Business meeting.

Call to Order:

Chuck Sterling, President, Astronomical Society of Las Cruces (ASLC), called the business meeting to order at 7:30 pm, 24 May 2013, Room 77, Dona Ana Community College, Las Cruces, New Mexico.

President's Comments:

Chuck Sterling, President, welcomed the group to tonight's meeting. He thanked the various members for the "Show and Tell" session and for addressing the several topics of interest. There were no new members attending tonight's meeting. Oscar Galapra(?) of the El Paso astronomy group was attending. Chuck asked that all members be sure to check in on the roster and visitors and guests please sign the guest list.

Secretary's Report:

The Secretary, John McCullough, was not present at tonight's meeting. Chuck Sterling reported that the minutes for the April meeting were submitted for publication in the May issue of the Society newsletter, the High Desert Observer (HDO). Ron Kramer asked if there was anyone not receiving or having problems receiving the HDO. One member has not received the May issue. Chuck asked that they verify their email address on record with the Society before leaving tonight. There was not an additional Secretary's report.

Treasurer's Report:

The Treasurer, Trish Conley, had to leave before tonight's Call to Order. Chuck Sterling presented the Treasurer's report and gave a status of the Society's accounts, including \$1,075 in donations. There was not an additional Treasurer's report.

Committee Reports:

Apparel Committee:

Ron Kramer, temporary Committee Chairman, noted that jackets, "hoodies", shirts, caps, and other items will be available after tonight's meeting. Although Ron has a number of items and sizes available, he is assembling a "wish list", including new items, in preparation for submitting another order by the end of the year. Contact him if you have a special request. Ron will continue to fill in as temporary committee chair, but a new, permanent chair is required.

Education:

Rich Richins, Committee Chairman, had nothing new to report for this month.

Fund-Raising and Grants:

Sidney Webb, Committee Chairman, reported that he is ready to submit the second reimbursement request to the NASA/New Mexico Space Consortium. Sid believes things are proceeding well between the Society and the Consortium and that approximately \$2,000 remains of the initial grant for this year. The grant runs through 2013 with a final report of qualifying expenditures due in December 2013.

Society Library:

Brenner Fody, Society Librarian was not present. There was no Librarian report.

Loaner Telescope Program:

Ron Kramer, Committee Chairman, reported the program is doing well. There are currently five (5) telescopes active in the program: 12" and 10" Dobsonians, two (2) ETX 90s, and a Unitron refractor. Ron continues to work on smaller telescopes to add to the program. Some eyepieces are also available as part of the program.

Membership:

John McCullough, Committee Chairman, was not present. There was no Membership report.

ASLC Observatory at Leasburg Dam State Park (LDSP) Committee:

Jerry Gaber, Committee Co-Chair, announced a training session on the 16" Meade is planned for Saturday evening, 25 May. Participants need to be at the Observatory by 7:00 pm and the session should last about two hours. Jerry plans to schedule public events for the Saturday closest to 3rd quarter Moon, which will be next weekend and probably won't happen this month. Jerry thinks that "Skeeter" Giron, Park Manager, may have expected another event that didn't happen while many of the Society members were attending the Texas Star Party (TSP). Good viewing will become increasingly unavailable as the local area moves into its "monsoon" season. All the Observatory equipment seems to be functioning well, but can still use some eyepieces. Chuck suggested identifying what eyepieces would work well for public outreach and then utilizing grant funds to purchase them.

Ron Kramer, Committee Co-Chair, reported that he is working on "Music and the Stars" events with "Skeeter" that will take place at LDSP. The first event on 11 May was canceled because of the unknown status of the telescope mount. The next event will be 15 June from 6:30 to 8:30 and followed by observing. He hopes to schedule an event each month through October and could use additional telescopes to look at other objects and accommodate larger groups. Ron will be out of town in July and August and needs someone to oversee the operations those two months. Ron will work out the schedule and distribute it to the membership.

Tombaugh Observatory:

Steve Shaffer, Committee Chairman, reported that Jerry McMahan and he supported the NMSU Astronomy Department Open House on 17 May. They had good views of the Moon and Saturn and a respectable crowd considering school was not in session. Steve also had the observatory open on 18 May for a NMSU "Sky Safari" event. The Grubb mount tracked "flawlessly" for both events.

Outreach Committee:

Chuck Sterling, Outreach Coordinator, reported on recent events. The monthly Moon Gaze at International Delights Cafe (IDC) was 18 May. Las Cruces Public Schools "Count Me In" events took place 23 May at the Field of Dreams. Jerry Gaber reported it was a warm day with a good turnout (though smaller than last year) and that several telescopes were set up for solar viewing with good prominences and sun spot activity visible. Ron Kramer supported an event at the El Paso Archeological Museum on 18 May. The June Moon Gaze will be 15 June.

Publicity:

Daniel Giron, Committee Chairman, was not present. There was no Publicity report.

Society Website:

Steve Barks, webmaster, requested calendar updates be submitted to him. No other updates have been submitted.

There were no additional committee or officer reports.

Old Business:

1. State-wide Star Party - Ron Kramer has been working on this with the TAAS (The Albuquerque Astronomy Society) president. The current date is 02-03 November at the Sevilleta National Wildlife Refuge north of Socorro. Participating clubs are expected to include Albuquerque, Silver City, Carlsbad, El Paso, Alamogordo, Socorro, and Las Cruces. There will be no attendance cost to participants other than transportation. This has potential to be the largest star party in New Mexico. 8-10 members expressed interest in attending.
2. McDonald Observatory Field Trip, 22 June - William Wren, assistant director at the McDonald Observatory, has offered the Society a "behind the scenes" tour of the facility. Ron Kramer is finalizing the details, but attendees will have at least four hours of access to the 36" telescope and possibly the 82" telescope. The \$250 star party fee is being waived if enough members attend; twelve (12) members have committed to date (room for two more in the van), including two "self-drives". The vehicle size will be determined by the final count and Ron needs a co-driver. He has a handout describing the details if any members present are interested. The plan is to depart Lowe's Home Center in Las Cruces at 9:00 am on Saturday and return by approximately 4:00 am Sunday. Cost to members will include a box lunch, snacks, transportation, and dinner at the Observers Lounge at the Observatory and is expected to be \$75 plus the cost of dinner.

There was no additional old business discussed.

New Business:

There was no new business for discussion.

Items for Sale:

No items were announced for sale.

Announcements:

Ron Kramer needs articles for the High Desert Observer. Ron is also editor-in-chief of the Astronomical League's (AL) quarterly newsletter, the Reflector; he would like Society members to submit articles that can be published in the Reflector.

Chuck Sterling noted that the Presentation for June is open. He is considering having a demonstration of various types and sizes of telescopes and is open to suggestions. An introduction to spectroscopy has also been tentatively offered.

There were no additional announcements made.

Recognitions/Achievements:

John Kutney announced his latest observing achievement, completion of the AL's Northern Arm list. He has received the certification and read the award notification letter to the group.

There were no additional recognitions or achievements announced at tonight's meeting.

A motion to adjourn was offered and seconded. The motion passed by acclamation and the business portion of the meeting was adjourned.

Presentation:

This month's presentation was an overview of Texas Star Party (TSP), 2013, made by Robert Williams, Society member. He presented several astro-images obtained by Society members that attended TSP as well as images of the Prude Ranch and surrounding countryside taken by John Kutney and him.

The May meeting of the Astronomical Society of Las Cruces concluded.

-Respectfully submitted by John McCullough, ASLC Secretary

Photo of the Month



What's happening in the NGC 3582 nebula? Bright stars and interesting molecules are forming. The complex nebula resides in the star forming region called RCW 57. Visible in this image are dense knots of dark interstellar dust, bright stars that have formed in the past few million years, fields of glowing hydrogen gas ionized by these stars, and great loops of gas expelled by dying stars. A detailed study of NGC 3582, also known as NGC 3584 and NGC 3576, uncovered at least 33 massive stars in the end stages of formation, and the clear presence of the complex carbon molecules known as polycyclic aromatic hydrocarbons (PAHs). PAHs are thought to be created in the cooling gas of star forming regions, and their development in the Sun's formation nebula five billion years ago may have been an important step in the development of life on Earth.

The above image was taken at the Desert Hollow Observatory north of Phoenix, Arizona, USA.