

NOVA



Official Newsletter of the Salt Lake Astronomical Society
Volume 51 Number 6 November / December 2021

SLAS Newsletter's 51st year of publication.

Please Welcome The Newest SLAS Members!

Bell, Ruth

George, Alex

Pearson, John

Webb, Daniel

Cook, Harley

Jensen, Trenton

Peirce, James

Weston, J Kael

Covington, Benjamin

Lapp, Elizabeth

Tuitupou, Maiko

Wheeler, Gerald

Fee, Robert

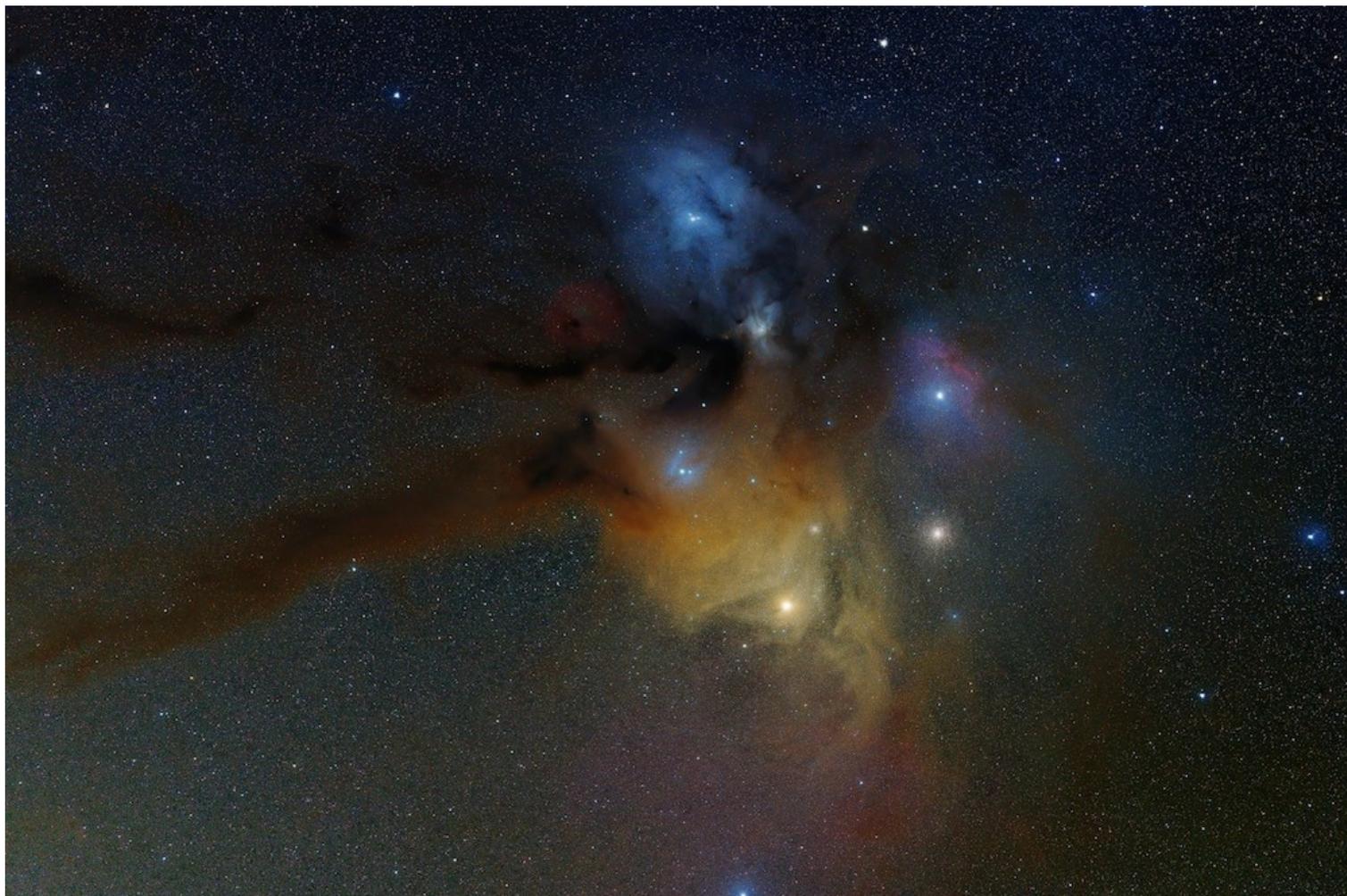
Lane, Kyle

Wang, Laura

Fuentes, Michael

Morris, Misty

Ward, Michael



Chris Freerksen and Jeannie Gamble image of Rho Ophiuchi taken at Bryce Canyon, 10 June 2021.

SALT LAKE ASTRONOMICAL SOCIETY BOARD MEETING
08 September 2021

Board Members in Attendance: Aleta Cox, Daland Speirs, Tom Sevcik (via Zoom), John Drabik

Other Members in Attendance: Joan Carman, Patrick Wiggins, Rodger Fry, Tony Sarra, Ken Warner (via Zoom), Alpine Stringham, and Mike Clements (via Zoom).

Location: Denny's 250 West, 500 South, Salt Lake City, Utah

President Aleta Cox called the meeting called to order: 7:03 PM

Aleta provided an Agenda to Board Members before the meeting.

Aleta began by distributing the list of election nominees. There is one candidate for President (Aleta Cox), two Vice President (Cecile Oldham and Tony Sarra), one for Secretary Treasurer (Rochelle Tarin), and three for the Board Member at large positions (2 positions; Jeannie Gamble, Jim Keane, and William Payne). Elections will be held online and write-ins can be added at the General Meeting next week during the election. No primary run off is necessary for any of the elected positions. The two people with the highest vote counts (of the three people) for Board Member at Large positions will be selected.

Aleta next indicated that the original speaker from SDI who was scheduled for next week has had a schedule conflict and instead Mr. Robert Burt from SDI will speak instead, on the Osiris Rex mission. The meeting will be held in person at Salt Lake Community College (SLCC) Rampton Technology building next week, as well as online via Zoom. Parking has been moved to the R Lot, not the Q Lot as in previous years. The R lot is directly across from the front of the Rampton building.

Next was a reminder about the Solstice party in December to be held at Golden Corral in Midvale, on 700 East. It will begin at 7:00 PM. Attendees will purchase their own food and drinks. SLAS will be giving away door prizes and Ann House has been given a budget of \$300 to purchase them [Author Note: See later paragraph for an update]. SLAS will also provide a \$200 gratuity to Golden Corral as in previous years.

There was no VP report this week.

John gave the Secretary / Treasurer report. SLAS received \$748.48 for membership and dues in July plus \$1.53 bank interest. We received \$88.43 as donations. The bank balance as of September 1 was \$41,311.35 after expenditures of \$580.77 for SLAS t-shirts to Uptown Embroidery and \$200.00 for the Stansbury Days advertisement in the Tooele Transcript. Eight new members were added in August. Welcome Lindsey Hunt, Scott Harris, Sue Guinn, Lilian Shelton, Brenda Scheer, Nikkeve Campbell, Kade Thueson, and Jeff Marston.

Next, Daland mentioned that he is seeking operators for the SPOC star party this Saturday. He also noted that the Harmons star party on Friday will be held on the East side of the store. This will be at the Bangarter Harmons at 125 East 13800 South.

[Author note: Update to Solstice Party door prize budget]. Tom was next, and indicated he will donate another \$100 to be used for the Solstice Party door prize giveaway. This gives a total \$400 budget for door prizes this year.

Joan Carman described the status of the library loaner program. The telescopes being donated to Salt Lake County by Clarke Planetarium have arrived. However they need a contract with Salt Lake City to provide the City library with eight telescopes for the SLC Libraries since they are funded separately from the County libraries (Clarke is funded by the County and

donations). SLAS will perform the telescope modifications and Joan described the work to be done at an upcoming telescope modification event in concert with the Boy Scouts and SLAS volunteers. That will be done in October or early November – a date has not been set yet. Joan asked John to consider whether we can 3-D print some of the final small pieces that will be needed and will send him print files to examine and test.

Aleta mentioned that the new SLAS t-shirts are being handed out slowly but are being distributed, and others can get their t-shirts next week at the General meeting, or by contacting Aleta to make other arrangements.

There was a brief discussion of whether we should return to Zoom meetings only. It was determined that that is not necessary at this time and we will continue with both Zoom and in-person meetings (Board and General).

Patrick noted that we need better “star party advertising” with the local media. He has provided contact lists for this purpose. In the past this was done by the Vice President but he asked whether we should either make it an appointed position or find other ways to get the word out. This needs to be discussed at a future meeting.

As the meeting was closing John noted that the SLAS IRS 990 form should be filed soon and will be sent to Patrick for posting when it is received.

There being no further business, Aleta adjourned the meeting.

Meeting adjourned: 7:53 PM

SALT LAKE ASTRONOMICAL SOCIETY MEMBERSHIP MEETING 15 September 2021

Board Member Present in Person: Aleta Cox

Board Member Present via Zoom: Tom Sevcik, Daland Speirs, Jamie Bradley

Other Members in Attendance: ~28

Location: Location: Salt Lake Community College Taylorsville Campus, Rampton Technology Building Rm. TB104 and online

President Aleta Cox called the meeting called to Order: 7:30 PM

Aleta welcomed everyone to the first in-person meeting since COVID shut everything down about a year and a half ago. She expressed thanks to our host and liaison with SLCC, Dr. Jonathan Barnes who worked hard to put this in place to allow us to use the room and the technology. Dr. Barnes is teaching a class during the time we meet and so could not join us but sent his colleague Sam Jones to represent the college at our meetings this semester.

Aleta introduced our speaker, Mr. Robert Burt, from Utah State University's Space Dynamics Laboratory (SDL).

Mr. Burt then gave his presentation via Zoom and spoke about the OSIRIS-REx mission, a touch and retrieve mission to Asteroid Bennu. SDL was involved with production of the OSIRIS-REx visible camera suite, called 'OCAMS' on board the satellite. He talked about how they were constructed, showing pictures, and explained about the testing to meet stringent requirements. Some tests on one component took a whole week to complete and there were multiple components to be tested. After passing these tests NASA had to approve it before it could be used on the satellite.

The OSIRIS-REx satellite was launched in 2016, traveled to deep space, collected a sample of the Asteroid Bennu in October 2020 and will return to Earth with the sample in 2023. It is scheduled to land in Utah's west desert. Mr. Burt showed a photo of the landing site and said that if you wanted to watch it land, here's where you park your motor home. [You couldn't tell where it really was though and there were several chuckles.]

Mr. Burt showed a video of the touch and capture maneuver and pointed out all the rocks and debris particles that flew up from the surface as the device touched the surface. Enough particles stuck to places on the device that prevented the capture container from closing completely and some of the collection was spilling out. Originally the plan was to spin this to create gravity so it could be weighed, but engineers feared that they would lose too much material, and so they decided just to store it and prepare for the return journey. Basically they don't know exactly how much material they collected. He allowed a few minutes for questions and answers.

Following that, Aleta gave a few minutes for those needing to leave, time to do so and then proceeded with the Business part of the meeting. She shared a screen shot of the agenda. First up was Officer Elections for 2022 showing all candidates on the ballot. She explained that in order to vote one must log in as a club member and there would be a link to the voting. She added that one had to be a member as of September 1st in order to be able to vote.

Next item was 'Mark your calendars for the Solstice Party' on Saturday December 4, 2021 to be held at Golden Corral in Midvale beginning at 7:00 p.m. It will be like past solstice parties- everyone purchases their own dinner and then we have a drawing for door prizes.

Aleta then announced upcoming Star Parties and events: Saturday September 18th is a Sun Party at Winchester Park from 9-12 noon. Friday October 1st is a Star Party at SPOC. Saturday, October 2nd also a Star Party at SPOC. The star parties will go until 9 p.m.

Finally, Aleta mentioned SLAS T-shirts and encouraged those who had ordered and paid for them to please contact her and arrange for pickup. She will be at the SPOC Star Parties when possible.

Aleta asked if there was any other business and seeing none, adjourned the meeting.

Meeting adjourned: ~8:40 PM

SALT LAKE ASTRONOMICAL SOCIETY BOARD MEETING 13 October 2021

Board Members in Attendance: Aleta Cox, Jamie Bradley, Daland Speirs, John Drabik, Tom Sevcik (via Zoom)

Other Members in Attendance: Joan Carman, Patrick Wiggins, Tony Sarra, Mike Wilson, Ken Warner (via Zoom)

Location: Denny's 250 West, 500 South, Salt Lake City, Utah

President Aleta Cox called the meeting called to order: 7:01 PM

Aleta provided an Agenda to Board Members before the meeting.

Aleta announced that an election committee has been formed and that Mike Wilson, Don Abernathy and Charlie Campbell have agreed to serve. Ken will send them the vote totals and information so that they can finalize the vote at the General meeting next week. This includes the list of

who has already voted so that there is no duplication. In person voting will occur before the start of next week's General Meeting. Aleta will close the vote at the opening of the meeting when she introduces the guest speaker. Results will be announced during the Business portion of the General meeting next week.

Short discussion of manual versus online all-electronic voting going forward.

The Solstice party is still set for December 4, 2021 at 7:00 PM at Golden Corral on 700 East in Midvale. Ann House informed Aleta that she is concerned about attending group events. Tom noted concern as well. After some discussion, the consensus is that the Board will review state virus status at Thanksgiving and will continue or cancel the event then, which is closer to the scheduled date.

The speaker next week will be Nancy Chabot, speaking on NASA's DART (Double Asteroid Redirection Test) mission. The meeting will be held at Salt Lake Community College's Redwood Road campus in the usual room from previous years and will start at 7:30 PM. It will also be delivered via Zoom.

Aleta reviewed the schedule for the remainder of 2021:

- 10/15- Star party at South Jordan Harmons, 10500 South Redwood Road
- 10/16- Star party at SPOC
- 10/23- Sun party at Winchester Park, starting 9:00 to noon
- 10/23- There is also a Library Loaner construction and modification party at Whitmore Library starting at 11:00 AM
- 10/29- Star party at SPOC
- 10/30- Star party at SPOC – this will be the final scheduled star party for 2021
- 11/10- Board meeting
- 11/17- Final General meeting of 2021, speaker to be announced
- 12/04- Solstice Party at Golden Corral
- 12/08- Transitional Board meeting; the outgoing Board members will hand out materials and arrange for review sessions as needed

Aleta was contacted by Leslie Fowler who asked about costumes being worn for the last 3 star parties at SPOC. She and Mike Clements plan to wear costumes for all three. After light discussion this was quickly whittled down to costumes-optional for the 10/30 star party only. There was also discussion of candy handouts but concern was expressed about the virus and concern that the star party might be viewed as a trick-or-treat event so the idea of candy handouts was rejected.

Next was the Secretary/Treasurer report. John noted that we received \$644.82 in dues and fees in September plus \$1.72 bank interest. There were \$111.00 in donations. There was one expenditure in September of \$148.98 for reimbursement of library loaner telescope parts. John noted that he has submitted a reimbursement request for \$86.97 for additional library loaner 3D printed parts plus \$20.00 to renew the SLAS Utah Business license. The bank balance as of October 1 is \$42,443.55.

We added nine new members in September. New member packets were sent to:

Gerald Wheeler	David Webb	Robert Fee	Benjamin Covington	Trenton Jensen
Alex George	Harley Cook	J Kael Weston	Laura Wang	

John closed by noting that the expired/expiring membership notices have been sent and that accounts that expired prior to 8/1/2021 and have not yet renewed have been disabled. This is a standard monthly set of processes.

Jamie had nothing to report.

Patrick asked whether announcements for star parties have been sent to the media outlets and Jamie confirmed that he sent them but has heard nothing back about whether they will be published.

Patrick also asked whether we should consider a Constitution change that would change the voting process to be all on-line / electronic. After some discussion it was decided that this should be addressed at either the transitional Board meeting in December or at the first Board meeting of 2022.

Daland also had nothing extra to report.

Tom contacted the Harmons manager who requested that star party telescopes be setup at the northwest corner of their lot.

Daland opened a conversation about a need for special committees and/or special events. Suggestions included:

- Introduction to Astronomy (for SLAS newcomers and general public)
- Media contact committee, including Utah County and Ogden areas
- SPOC "Star-BQs" star parties and food for SLAS members only

It was suggested that this would also be a good topic for either the transitional board meeting or the first Board meeting of 2022 with the new Board.

There being no further business Daland moved to close the meeting. Second by Jamie, passed unanimously.

Meeting adjourned: 7:53 PM

SALT LAKE ASTRONOMICAL SOCIETY MEMBERSHIP MEETING 20 October 2021

Board Members in Attendance: Aleta Cox, Tom Sevcik, John Drabik

Other Members in Attendance: ~30

Location: Salt Lake Community College Taylorsville Campus, Rampton Technology Building Rm. TB104 and online

President Aleta Cox called the meeting called to order: 7:40 PM

After some minor technical delays President Aleta Cox called the meeting to order. She said election results will be announced after the Guest Speaker presentation has concluded. In-person attendees had been invited to vote by paper ballot before the meeting started if they had not already done so.

Aleta then introduced the guest speaker, Nancy Chabot from the DART double asteroid redirection test asteroid impact study program. Nancy is a planetary scientist at Johns Hopkins University Applied Physics Laboratory.

Nancy earned her B.A. in physics from Rice University in 1994. After earning her Ph.D. in planetary science from the University of Arizona in 1999, she worked at the Johnson Space Center in Houston, then at Case Western Reserve University in Cleveland. She joined the Applied Physics Laboratory at Johns Hopkins University in 2005.

She has been a member of five field teams that traveled to Antarctica with the Antarctic Search for Meteorites (ANSMET) program to collect meteorites. In 2001, she was awarded the United States Antarctic Service Medal. On NASA's MESSENGER mission, she served as the Instrument Scientist for the Mercury Dual Imaging System (MDIS) and as Chair of the Geology Discipline Group. She was the lead for MDIS-based scientific investigations of Mercury's polar, radar-bright, ice-bearing craters and led the release of web images since MESSENGER's first flyby of Mercury in January 2008. Currently she is the Deputy PI for the Mars-moon Exploration with GAMMA rays and NEUTRONS (MEGANE) instrument on the JAXA Martian Moons eXploration (MMX) mission. Relevant to tonight's presentation she is the Coordination Lead on NASA's Double Asteroid Redirection Test (DART) mission which is run by Johns Hopkins for NASA. Nancy is also a Fellow of the Meteoritical Society. Asteroid (6899) Nancychabot is named in her honor. (Source (modified): Wikipedia)

DART is a first test of one Earth planetary defense mechanism. It is intended to purposely crash ("impact") the primary DART craft into the smaller asteroid of a two-asteroid orbiting pair in order to see how much the orbit of the smaller asteroid is perturbed. The pair consists of Didymos the larger asteroid and the smaller asteroid moon Dimorphos.

DART is scheduled to launch on Nov 23, 2021 via a SpaceX Falcon Heavy rocket. DART will travel to the asteroids for about a year arriving in September 2022. It will travel near Earth for much of that time until the closest approach to the asteroid pair. DART will impact at 15,000 MPH into the Dimorphos; a portion of the DART craft will separate before the crash and will trail the primary craft by several minutes to collect photos and other data. Ejecta quantity/volume is one of the factors to be studied, to verify the asteroid composition. Currently it is assumed to be similar to the larger asteroid. The impact must be autonomously controlled, from detecting the smaller moon until impact since there is no time for Earth communication and trajectory updates and the exact position of Dimorphos will have to be determined during the last few minutes of the mission. The amount of ejecta will affect a change in the orbital period of the asteroid moon of Didymos.

Nancy commented that asteroids hit Earth "all the time" and she showed a chart showing the relative frequency of hits versus the size of the impactor. The smallest asteroids burn up on entry. Somewhat larger asteroids are less frequent but can cause substantial damage. The largest asteroids are well known and charted and if they started to move toward Earth we might have 10 or more years to plan and execute a response.

The biggest concern is intermediate size asteroids of about 160 meters in diameter. Only 42% of these objects have been identified for tracking yet if one of them impacts Earth it could have devastating consequences. DART will show one possible approach to mitigating the threat. Others include "tractor" mechanisms (a large space craft flies near to an asteroid and gravitationally directs it off an Earth collision path), impactors such as DART (without causing breakup into a large number of pieces that could be even more dangerous) or as a last resort nuclear explosions (which would cause undesirable breakup with unpredictable results). DART is not intended to cause significant damage to Didymos but should be able to change its orbit; the amount of change can be used to predict the mass and impact speed of other impactors in the future if needed for Earth defense.

Nancy likened DART to "crashing a vending machine into the pyramids to see how much they move" but added that "in space, this actually works". The DART test relies on a number of other spacecraft (including the sensor probe craft that will separate about an hour before impact for the fly-by) and as a result a similar alignment won't occur for about 40 years.

She noted that this will not be visible to the naked eye despite the relatively close approach of the asteroid pair. However she said that with a good telescope ("probably 28" or more") and a sensitive CCD camera it should be possible to participate in the study by capturing photogrammetry light curves, to detect the change in orbit time from the current 11 hours and

55 minutes, to the new value after impact. The asteroids are aligned with Earth in such a way that light curves have been able to determine the current rate with good accuracy. Detecting the amount of change may take several months (until early 2023).

The amount of "push" will depend on the amount of ejecta, called the Beta value. A "great success" will have a B value of 4 or more. If scientists are correct and the composition is similar to Didymos the B value may be less, however.

She then discussed details of the flight, sensors and control systems in a series of photographs taken over the past few years during assembly and testing of the craft. The key feature is the autonomous operation since it will be impossible to differentiate between the two asteroids until the last hour before impact. They also don't know the actual shape of the moon so the craft has to be able to determine that in order to impact it. She finished her presentation with a simulation of the last hour of the flight, and noted that the last 20 seconds are the most critical where they'll have to account for things like "wobble" and motion-retarding hysteresis due to the solar panels on the craft.

Next was questions and answers. In answer to the first question about what we could/would do if the mission was a great success but an Earth impactor was discovered the very next day with an expected impact of 5 years or less. She noted that an actual mission could possibly be launched in 1-2 years but even with a 5 year window a 160 meter object would require a very large "nudge" but care would be needed to avoid breaking it into pieces (which would then all have to be re-directed separately, a much larger problem). She indicated that if we know the Earth impact will be significant we would also likely prepare and use more than one craft and/or method to divert it.

Could we measure the effect on both the moon Dimorphos and on Didymos, i.e., their path (together) around the Sun. Dr. Chabot indicated that may not be measurable with the available instruments. The HERA project may be able to detect the change when it launches in a few years, however.

Another person asked about the communication time. At closest approach the distance will be about 6.8 million miles, so about 1 minute (the impact mission was designed to intercept while the asteroids are close to the Earth). However, because the shape, position, and exact speed of the target are not known the 2-minute round trip time is much greater than the mission demands (it requires trajectory changes until about the last 20 seconds of the mission). Photographs from the fly-by craft will arrive at Earth over a period of several days after that.

Another person asked about the composition of the asteroids. Nancy indicated that the larger asteroid is an S-type with fairly well known characteristics. They assume the smaller moon is of the same type but do not know for sure.

Light curve measurements were then discussed. They will depend on the exact plane of rotation of the orbits of the asteroids with best results if the two line up directly aligned ("side-ways") to Earth. Other NASA programs like MPC and some specialized craft such as NEO and NEO Surveyor might detect them if not directly inline but the NEO Surveyor won't launch until 2026 at the earliest.

Deflection methods were the topic of the next question. Dr. Chabot explained that tractor and/or ion-beam methods are "slow-push" methods that would require many years to achieve their results. Tractor method relies on putting large heavy craft near the asteroid and then flying the tractor craft slowly off of the Earth trajectory. Ion beams work by constantly hitting the asteroid with tiny but consistent burst of energy which, over time, can deflect even large objects but again the amount of lead time before Earth impact will be a factor.

What's next after DART? Nancy said that space telescopes, DART-like but intended to fly by and examine asteroids to get their characteristics, as a possible next step. She finished the Q&A session with more pictures, a review of the expected effects of various size asteroids and by mentioning when DART images will be available. First images will arrive at Earth in late September and early October of 2022. "Good measurements" will not be available until January 2023 or later.

Dr Chabot's presentation and Q&A concluded at 8:40 PM with a large round of applause from the audience.

Aleta announced there would be a short break before the start of the Business Meeting.

Business Meeting

The first business item was the announcement of the election results. They are:

Aleta Cox will be retained as President

Tony Sarra will be the new Vice President

Rochelle Tarin will be the new Secretary/Treasurer

Jim Keane and Jeannie Gamble were selected as the new Board Members at Large.

Aleta noted that on this Saturday October 23rd, the last Sun party for the year will be held at Winchester Park [Update: this event was rained out].

Also on the 23rd the Library Loaner Telescope Preparation session will be held at Whitmore Library on Ft Union Blvd and about 2100 East, starting at 11:00 AM. Those attending should enter through the north lower-level doors.

Friday October 29th and Saturday October 30th will be the last two star parties for this year, and both will be held at SPOC starting around dusk and running until about 9:00 PM. Leslie has asked people to consider wearing costumes. There will be no candy handouts.

Don Abernathy spoke about an upcoming seminar in Salt Lake City to be hosted by the American Astronomical Society. AAS will hold their annual meeting in SLC next year from January 9th to the 13th at the Salt Palace. More details can be obtained at: <https://aas.org>

Don provided AAS membership information. He is registered as an "Amateur Affiliate Member", a lower-cost membership that applies to SLAS members. The cost is about \$50 per year and membership is required in order to attend the annual meeting / seminar in January. The cost of the seminar is \$160 if you want to attend all five days. However, if one signs up to volunteer at the event before October 28th (there was some confusion and Don indicated the actual cutoff date may be November 5th), attendance is free and with access to the exhibit hall and other venues. Don encouraged SLAS members to consider becoming AAS members or volunteering for the event or both.

Aleta still has some undelivered t-shirts. She hopes to hand them out tonight or at the star parties on the 29th / 30th. Contact her if you have not received your t-shirt(s)!!

Our November General Meeting will have our final speaker of the year, John K Lundwall, who has authored academic articles and books on oral myth and cosmology, served as editor on academic journals and publications and is a founding board member of the Utah Valley Astronomy Club.

There being no further business, Aleta adjourned the meeting.

Meeting adjourned: 8:54 PM

SLAS Member Information

The SLAS Member Information file is available at <http://slas.us/slasbooks/NEWMEM.PDF>.

Loaner Telescopes For SLAS Members

SLAS has several scopes available for loan to current SLAS members. Check the SLAS website under "[Membership Benefits](#)" for details.

Contact Us board@slas.us

2021 SLAS Board of Directors

President	Aleta Cox
Meetings	
Vice President	Jamie Bradley
Publicity, PR and Web Content	
Secretary-Treasurer	John Drabik
Membership Dues & Renewals	
Board Member at Large	Tom Sevcik
SPOC Star Party Coordinator	
Board Member at Large	Daland Speirs
School & Special Star Parties	

Appointed Positions

Astronomical League Contact	Aleta Cox
Equipment Manager	Luke Moses
Historian	Patrick Wiggins
NASA Night Sky Ambassador	Ann House
Newsletter Editor	Patrick Wiggins
Observatory Director	Rodger Fry
Private Star Party Coordinator	Don Colton
Webmaster	Ken Warner
ZAP Grant Writer	Jim Keane

SPOC Advisory Committee

Chair through 01 FEB 2024	Rodger Fry
Member through 01 FEB 2024	Bob Moore
Member through 01 FEB 2024	Patrick Wiggins
Member through 01 FEB 2024	Luke Moses
Member through 01 FEB 2024	Jim Keane
Member through 01 FEB 2024	John Drabik
Member through 01 FEB 2024	Bill Kennedy
Member while SLAS President	Aleta Cox
Member as Obser. Dir. Emeritus	Bruce Grim

SPOC Telescope Instruction Coordinators

Refractor	Marlene Egger
Ealing	Jim Keane
Grim	Rodger Fry
Clements	Leslie Fowler

Events Calendar

November 2021

10 Board Meeting at Denny's Restaurant, 250 W 500 S, 7:00 pm

17 General Meeting at SLCC's Rampton Technology Building, Taylorsville Campus, 7:30 pm

December 2021

04 Solstice Party at Golden Corral, 665 E 7200 S, 7:00 pm

08 Transitional Board Meeting at Denny's Restaurant, 250 W 500 S, 7:00 pm

NOVA is a publication of the Salt Lake Astronomical Society, a non-profit organization. Nova contains minutes of meetings, Board member names & contact info, activities, reports and special club events. The editor of NOVA is appointed by the SLAS Vice-President. Members are encouraged to contribute content. Current editor is Patrick Wiggins, 4099wiggins@gmail.com.