

San Diego Astronomy Association

Celebrating Over 50 Years of Astronomical Outreach



August 2021

SDAA Update

<https://www.sdaa.org/>

A Non-Profit Educational Association
P.O. Box 23215, San Diego, CA 92193-3215

Next SDAA Business Meeting

August 10th at 7:00pm
10070 Willow Creek Rd
San Diego, CA 92131
Via Zoom

Next Program Meeting

August 18th at 7:00pm
Live Stream

SDAA is now actively using online facilities like Zoom and YouTube to provide access to club meetings, events, and outreach programs in keeping with state and local mandates regarding physical distancing requirements during the COVID-19 pandemic. In-person events will start again in 2021 as soon as allowed by state and local mandates. Look for updates on the Lipp telescope.

Since TDS is private space there is no reason to lock down the facility but there are actions you can take to help keep the site safe for all of us. If you plan to visit and use the facility, please bring along some disinfectant wipes or disinfectant spray cleaner. When you finish using the restrooms or the warming room, please wipe down the areas that you touched in order to help prevent the spread of any viruses. As much as we love sharing the views of the night sky, try to maintain the recommended 6-foot physical distance guideline.

August 18, 2021 Program Meeting

Speaker: Dr. Julie Castillo-Rogez, JPL planetary scientist
Topic: NASA Near Earth Object Missions

Dr. Julie Castillo-Rogez is a JPL planetary scientist specializing in water-rich objects from a modeling and experimental perspectives applied to the formulation, design, and planning of planetary missions. She is the principal science investigator at JPL for the NEA Scout mission.

You can register in advance for the meeting at the following link. After registering, you will receive a confirmation email containing information about joining the meeting.



<https://us02web.zoom.us/j/89298162225?pwd=TVZsTTg3dzRXcERDY0tXcHErVXAQT09>

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Newsletter Deadline

The deadline to submit articles
for publication is the
15th of each month.

Link to SDAA Merchandise Store <https://sdaa28.wildapricot.org/SDAA-Store>

Link to Outreach Calendar https://calendar.google.com/calendar/embed?src=g-calendar@sdaa.org&ctz=America/Los_



San Diego Astronomy Association

San Diego Astronomy Association Board of Directors Meeting

July 13, 2021 – Unapproved and subject to revision

1 Call to Order

The meeting was held via Zoom and was called to order at 7:01pm with the following board members in attendance: Dave Wood, President; Melany Biendara, Treasurer; Gene Burch, Recording Secretary; Mike Chasin, Director; Hiro Hakozaiki, Director; Dave Decker, Director; and members Jerry Hilburn and Kin Searcy.

2 Priority / Member Business

None

3. Approval of Last Meeting Minutes

The June meeting minutes were approved.

4. Treasurers & Membership Report

Last year was good from a fiscal perspective, thanks to the banquet and telescope sales. The budget for FY 2021/2022 was approved and includes a significant amount to continue the electrical system upgrades.

5. Standard Reports

a. Site Maintenance Report:

Alan Ruckle asked me to get a picture of the pole tag to confirm the right pole is in the plan for the electrical hookup, and it is. There are no emergency issues at the site at this time, and I have put off acquiring the battery driven weed whacker until August. I am back in Sacramento for a few weeks picking up some gear and scopes and will be back at TDS around the 16th. I will follow up in August on the electrical survey results.

b. Observatory/Loaner Scope Report:

Observatory:

The Observatory has reopened following CDC recommendations.

Loaner Scopes:

Program continues to run smoothly with a lot of usage. We are looking for a replacement chairperson for the Loaner Scopes program.

c. Private Pad Report:

We are up to 18 people on the waiting list and still only have 4 free pads (really 3 if you take out our unimproved pad). Two of the people on the waiting list are current pad holders looking for upgrades.

d. Program Meetings Report:

Kin Searcy has graciously offered to assist with the monthly program meetings until a new Vice President is found. Kin is working with Jerry and they have speakers for the rest of the year. Kin is also working with the City of San Diego and the Mission Trails Foundation in an effort to resume in-person meetings at Mission Trails. Hopefully he'll have more information next month. But as of now, our meetings will continue on Zoom.

e. ASISG Report:

The June ASISG meeting was presented by SDAA member Bill Jacobs and was well received. 15 members attended the meeting. Next ASISG meeting will showcase ASISG members demonstrating various processing steps on one of three selected TARO targets

f. Newsletter Report:

There was no newsletter in July as Andrea was taking a well-deserved vacation.

g. Website Report:

No issues, except that I would like to get program/speaker info for the website as soon as it is available.

h. Social Media:

No Report.



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i. Outreach Report:

In June we did not have any outreach events. Most of our host venues were waiting for the COVID updates from the State of California planned for mid-June. The changes in state policies regarding outdoor meetings were as expected, and some of our host agencies have already modified their agency policies in compliance. This allows us to plan for re-opening some monthly events beginning in July. Currently, we have calendared events at Oak Oasis County Preserve, Sycamore Canyon (East side), KQ Ranch, and the public events at TDS. Our first public event with these new policies will be at TDS on July 3.

The virtual events have been on hold due to my personal travel and Gary's purchase of a home and moving responsibilities. We hope to include some virtual programming in conjunction with in-person events soon. We do not expect to reopen outreach events at schools for some time.

Coming soon, is our "Vintage Telescope Event-BBQ" over the Labor Day Weekend, September 2-5. Our plans include activities over a 4-day period setting up the 24" Dobsonian with some historical displays concerning John Dobson and the construction of the scope. Yet to be determined is the issue of the BBQ. This will be a subject for the board to address.

The outreach page of the website and both calendars have been updated with these new plans, and I have restarted the weekly outreach blast via the Groups.IO site.

j. TARO Report:

TARO is operational and is accepting DSO/EXO target imaging requests, weather permitting. During extended high heat weather periods, TARO has been shut down to prevent excessive heating on components.

k. Cruzen Report:

Gene was going to start the beta training phase but the session was cancelled because of winds in excess of 10mph. Going to try again in the next week or two.

l. Merchandise Report:

Gene sent an email blast to members regarding a new order of merchandise and we made 34 sales. We ordered more shirts and hoodies (sweatshirts).

m. Astronomical League Report:

Nothing new to report this month.

n. JSF Report:

There have been no activities for the Julian Starfest, other than initial planning for next year. The dates for JSF 2022 will be August 25 - 28.

6. Old Business:

- a. Software Asset Updates – Mike has made a Google form to start collecting information of all of our software assets.
- b. September BBQ and Vintage Telescope Night – we're planning on a BBQ and Vintage Telescope night on September 4th. Members could bring their "vintage" telescopes and we hope to have the 24" Dobson set up. Jerry is going to head up the BBQ part of the event.
- c. Other old business - none

7. New Business:

- a. Tierra de Luna Grading – Jerry is going to work on finding someone who can grade Tierra de Luna Road which has become quite rutted.
- b. MTRP Star Party Updates – Kin and Dave are still working with the City of San Diego and the Mission Trails Foundation so we can resume our MTRP Star Parties. They are hoping to have more information next month.
- c. Other New Business – Melany is coordinating the annual audit and will report next month. It's also time to form a committee to start planning next year's banquet.

8. Adjournment: The meeting was adjourned at 8:37pm.



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2021 TDS Star Party Schedule

Date	Type	Sunset	Astro. Twi.	Moonrise(set)	Illumination
Aug-07	Private	7:41 PM	9:12 PM	6:03 AM	1%
Aug-14	Public	7:34 PM	9:03 PM	(11:34 PM)	43%
Sep-04	Private	7:08 PM	8:33 PM	4:52 AM	6%
Sep-11	Public	6:59 PM	8:22 PM	(10:14 PM)	29%
Oct-02	Private	6:31 PM	7:53 PM	3:38 AM	17%
Oct-09	Public	6:22 PM	7:44 PM	(8:54 PM)	16%
Nov-06	Private	5:53 PM	7:17 PM	(7:34 PM)	6%
Nov-27	Public	4:42 PM	6:09 PM	12:10 AM	50%
Dec-04	Private	4:42 PM	6:09 PM	(5:12 PM)	0%

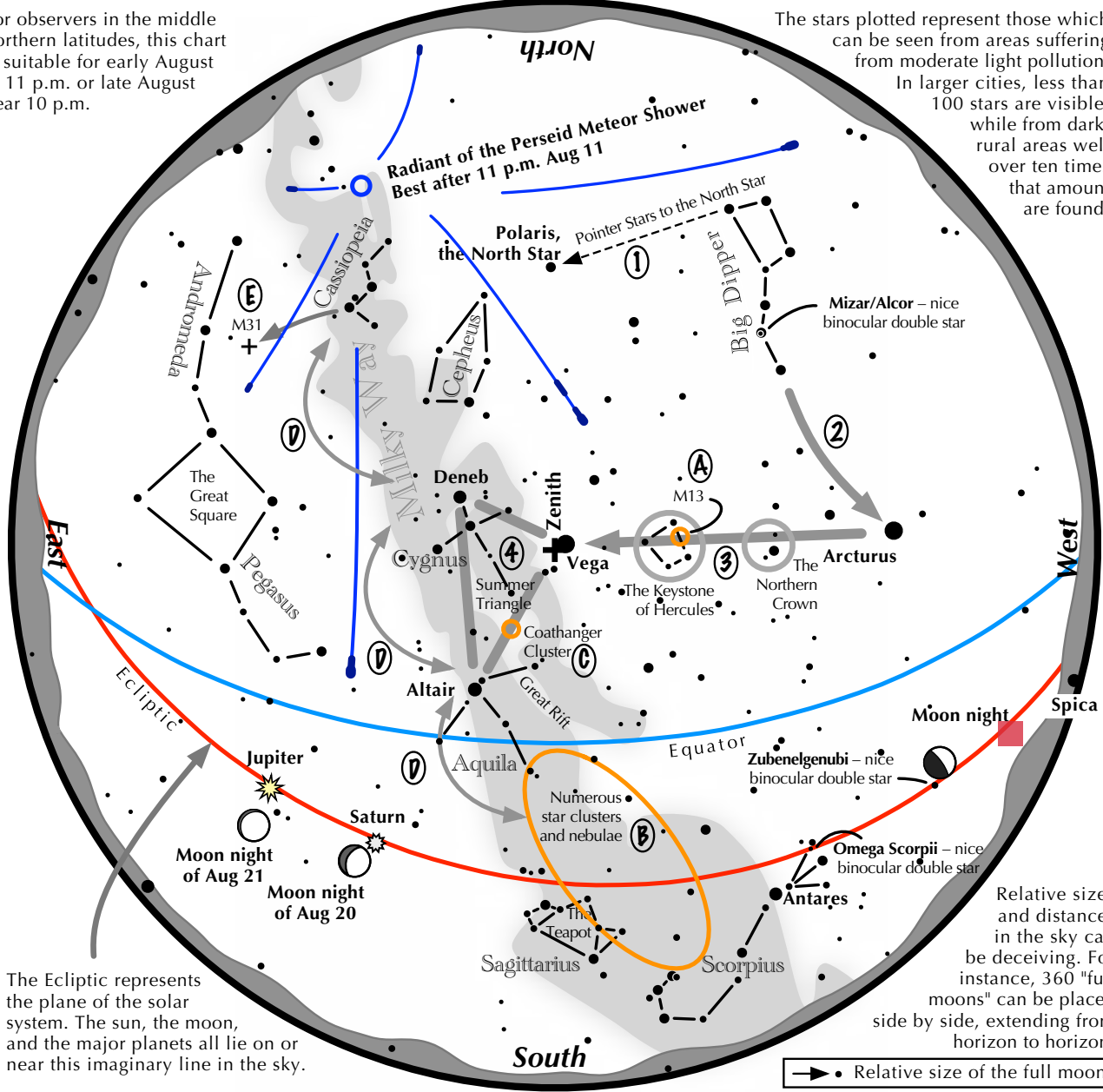


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Navigating the mid August Night Sky

For observers in the middle northern latitudes, this chart is suitable for early August at 11 p.m. or late August near 10 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

→ • Relative size of the full moon.

Navigating the mid August night sky: Simply start with what you know or with what you can easily find.

- 1 Extend a line north from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
- 2 Follow the arc of the Dipper's handle. It intersects Arcturus, the brightest star in the June evening sky.
- 3 To the northeast of Arcturus shines another star of the same brightness, Vega. Draw a line from Arcturus to Vega. It first meets "The Northern Crown," then the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.
- 4 High in the East lies the summer triangle stars of Vega, Altair, and Deneb.

Binocular Highlights

- A: On the western side of the Keystone glows the Great Hercules Cluster.
- B: Between the bright stars Antares and Altair, hides an area containing many star clusters and nebulae.
- C: 40% of the way between Altair and Vega, twinkles the "Coathanger," a group of stars outlining a coathanger.
- D: Sweep along the Milky Way for an astounding number of faint glows and dark bays, including the Great Rift.
- E: The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval.



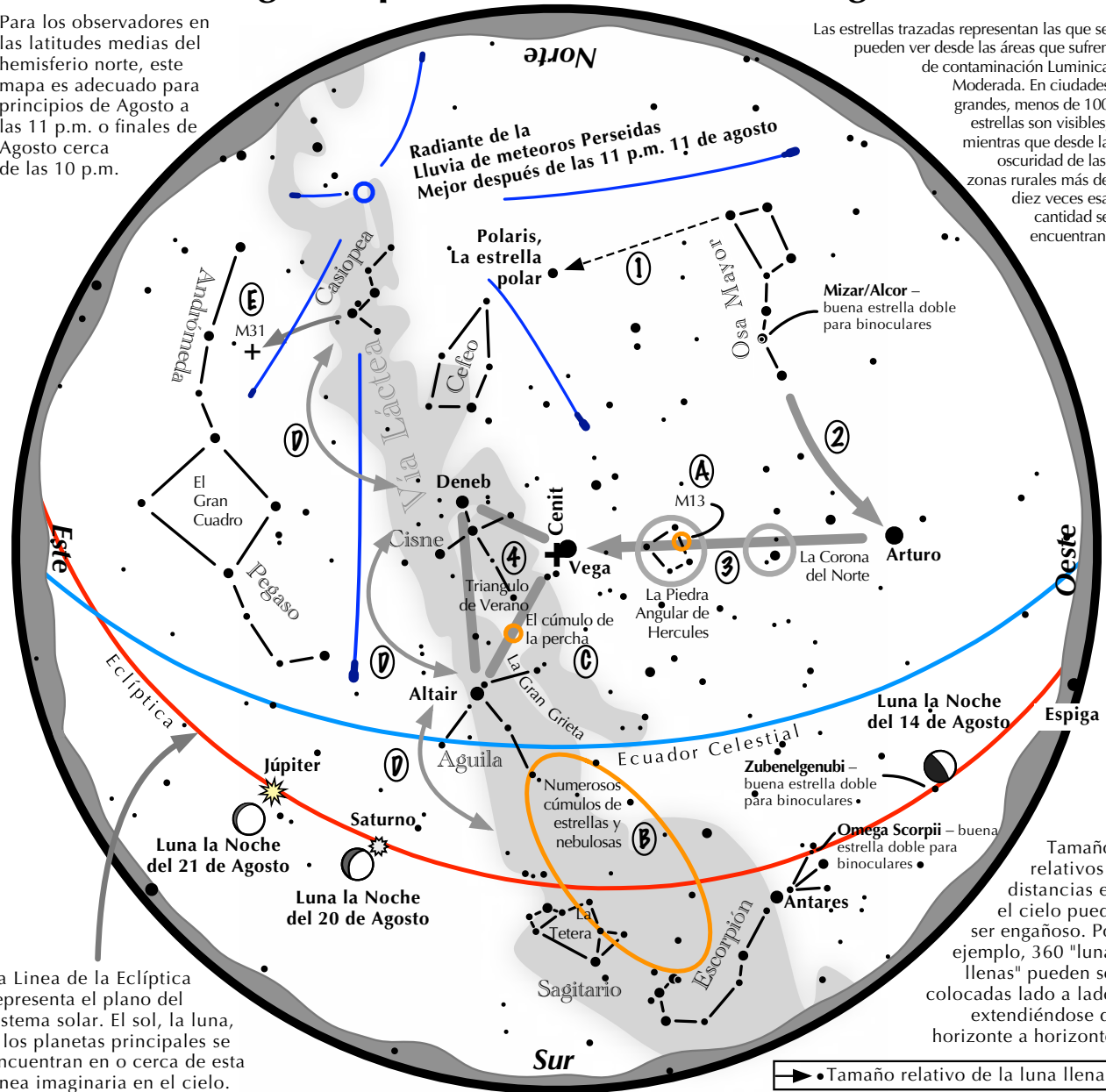


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Navegando por el cielo nocturno de Agosto

Para los observadores en las latitudes medias del hemisferio norte, este mapa es adecuado para principios de Agosto a las 11 p.m. o finales de Agosto cerca de las 10 p.m.

Las estrellas trazadas representan las que se pueden ver desde las áreas que sufren de contaminación Luminica Moderada. En ciudades grandes, menos de 100 estrellas son visibles, mientras que desde la oscuridad de las zonas rurales más de diez veces esa cantidad se encuentran.



La Línea de la Eclíptica representa el plano del sistema solar. El sol, la luna, y los planetas principales se encuentran en o cerca de esta línea imaginaria en el cielo.

Tamaños relativos y distancias en el cielo puede ser engañoso. Por ejemplo, 360 "lunas llenas" pueden ser colocadas lado a lado, extendiéndose de horizonte a horizonte.

→ • Tamaño relativo de la luna llena.

Navegando por el cielo nocturno: simplemente comience con lo que sabe o con lo que puede encontrar fácilmente.

- 1 Haz una línea hacia el norte desde las dos estrellas en la punta de la Osa Mayor. Pasa por Polaris, la estrella polar.
- 2 Siga el arco del mango del tazón de la Osa Mayor, continúa hacia Arturo, luego continúa hacia Espiga.
- 3 Dibuja una línea desde Arturo a Vega. Un tercio del camino se encuentra "La Corona del Norte". Dos tercios de esa distancia llevan a la "piedra angular de Hércules." Se necesita un cielo oscuro para ver estas dos configuraciones estelares tenues.
- 4 En lo alto del este se encuentran las tres estrellas brillantes del Triángulo de verano: Vega, Altair y Deneb.

Puntos destacados con binoculares

A: En el lado occidental de la Piedra Angular de Hércules. **B:** Entre las brillantes estrellas Antares y Altair, se esconde un área que contiene muchos cúmulos de estrellas y nebulosas. **C:** Casi a la mitad de la distancia entre Altair y Vega, Brilla la "Percha," un grupo de estrellas que describe un perchero. **D:** Recorre la Vía Láctea en busca de un número asombroso de destellos tenues y bahías oscuras, incluido La Gran Grieta. **E:** Las tres estrellas más occidentales de las "W" de Casiopea apuntan hacia el sur hasta M31, la Galaxia de Andromeda, un óvalo "borroso."





San Diego Astronomy Association

Fiscal year 2020 report

The SDAA board of directors thanks everyone for your generosity and support last year. With deferred maintenance looming at our dark-sky site in Tierra del So (TDS), and uncertainty over what 2020 would bring, preparing last year’s budget was certainly a challenge.

With your help we were able to repair the TDS warming room roof, upgrade the interior, restore the interior roads and mitigate erosion, have the septic tanks cleaned, and refill the fire-suppression water tank. These projects were completed under budget and without depleting our savings – tremendous thanks to all who donated and volunteered many hours of labor to keep costs down.

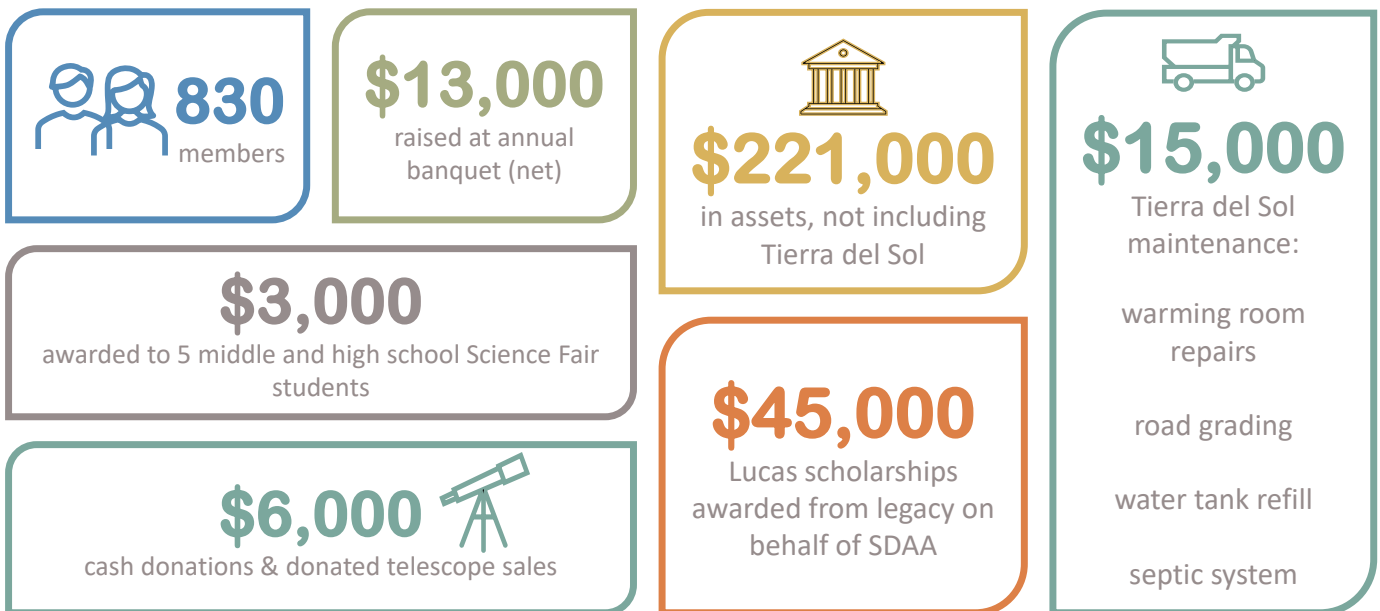
Last year we doubled the amount awarded to Science Fair students acknowledging the increased costs they face competing at this level. In addition, late member Bill Lucas’ legacy to San Diego State University on behalf of SDAA continues to provide scholarships to astronomy students and we hope to strengthen that partnership in the coming years.

With the ongoing threat of fire and encroaching development, we continue to hold savings to be prepared for any unforeseen large expenses. In addition, we continue to hold savings to restart the Julian StarFest once San Diego County grants large event permits.

We appreciate your generosity and are committed to managing funds wisely and in support of SDAA’s mission to promote education and enjoyment of astronomy and space science. It has been a pleasure and an honor serving as your treasurer.

-Mel Biendara

Snapshot of our members’ 2020 philanthropic impact





San Diego Astronomy Association

SDAA Contacts

Club Officers and Directors

President	Dave Wood	President@sdaa.org	(858) 735-8808
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Grants/Fund Raising	-Vacant-	Grants@sdaa.org	
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SDAA Editorial Staff

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newsletter@sdaa.org

Assistant Editor: Craig Ewing

Have a great new piece of gear? Read an astronomy-related book that you think others should know about? How about a photograph of an SDAA Member in action? Or are you simply tired of seeing these Boxes in the Newsletter rather than something, well, interesting?

Join the campaign to rid the Newsletter of little boxes by sharing them with the membership. In return for your efforts, you will get your very own byline or photograph credit in addition to the undying gratitude of the Newsletter Editor. Just send your article or picture to Newsletter@SDAA.Org.



San Diego Astronomy Association

NASA Night Sky Notes

August 2021



This article is distributed by NASA Night Sky Network

The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach.

Visit nightsky.jpl.nasa.gov to find local clubs, events, and more!

Corner the Great Square of Pegasus

David Prosper

The Summer Triangle may be the most famous seasonal star pattern, but during early August evenings another geometrically-themed asterism rises: the Great Square of Pegasus. This asterism's name is a bit misleading: while three of its stars - Scheat, Markab, and Algenib - are indeed found in the constellation of the winged horse Pegasus, its fourth star, Alpheratz, is the brightest star in the constellation Andromeda!

August evenings are an excellent time to look for the Great Square, as it will be rising in the east after sunset. If not obvious at first, wait for this star pattern to rise a bit above the murky air, and remember that depending on your point of view, it may appear more like a diamond than a square. Look for it below the Summer Triangle, or to the southeast of nearby Cassiopeia at this time. As the Great Square rises in prominence during autumn evenings, it becomes a handy guidepost to finding more constellations, including some of the dimmer members of the Zodiac: Aries, Pisces, Aquarius, and Capricornus. Like the Summer Triangle, the Great Square of Pegasus is also huge, but Pegasus itself is even larger; out of the 88 constellations, Pegasus is 7th in size, and feels larger as the stars in its neighboring constellations are much dimmer.

There are many notable deep-sky objects found within the stars of Pegasus - ranging from easily spotted to expert level targets - making it a great constellation to revisit as your observing skills improve. Notable objects include the densely-packed stars of globular cluster M15, a great first target. The potential "Milky Way look-alike" galaxy NGC 7331 is a fun target for more advanced observers, and expert observers can hop nearby to try to tease out the much dimmer interacting galaxies of Stephan's Quintet. A fascinating (but extremely difficult to observe) object is a gravitationally-lensed quasar famously known as the Einstein Cross. Pegasus has quite a storied history in the field of exoplanet research: 51 Pegasi was the first Sun-like star discovered to be host to a planet outside our solar system, now officially named Dimidium.

While observing Pegasus and its surroundings, keep your eyes relaxed and ready to catch some Perseids, too! August 2021 promises an excellent showing of this annual meteor shower. The crescent Moon sets early on the evening of the shower's peak on August 11-12, but you can spot stray Perseids most of the month. If you trace the path of these meteors, you'll find they originate from one point in Perseus - their radiant. Giant planets Jupiter and Saturn will be up all evening as well. Look south - they easily stand out as the brightest objects in the faint constellations Aquarius and Capricornus.

Pegasus truly holds some fantastic astronomical treasures! Continue your exploration of the stars of Pegasus and beyond with NASA at nasa.gov.



San Diego Astronomy Association

NASA Night Sky Notes

August 2021



While the stars of the Great Square of Pegasus are not as bright as those of the Summer Triangle, they still stand out compared to their neighbors, and make a great foundation for exploring this area of the night sky. Note that the brightness of the stars near the horizon is exaggerated in this picture.

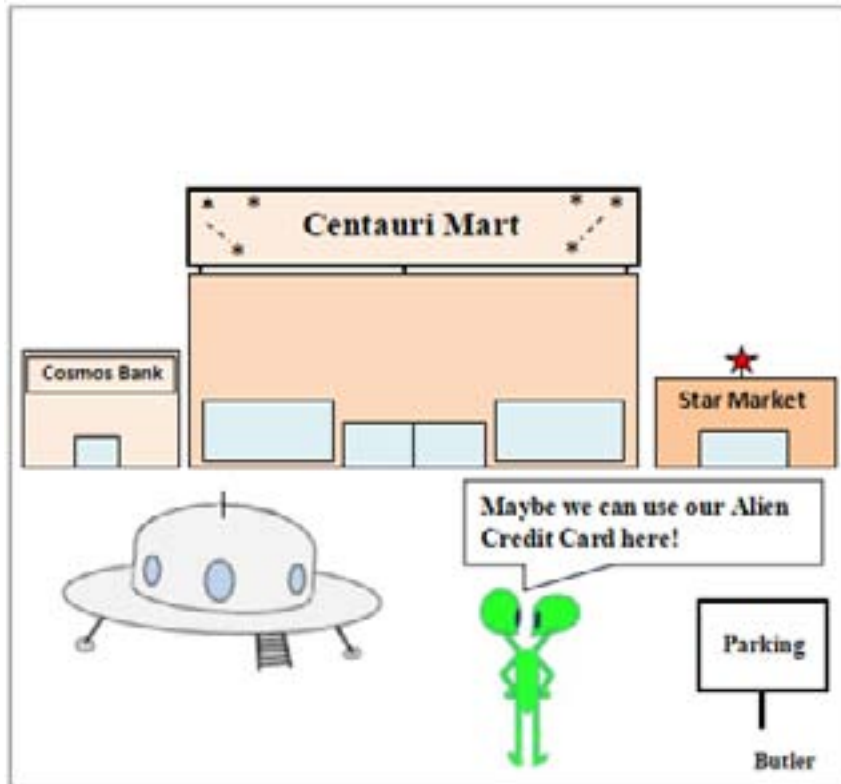


Stephan's Quintet is one of the most famous deep-sky objects in Pegasus. First discovered in 1877, it contains the first galaxy group discovered (which includes 4 of the 5 galaxies making up the Quintet) – and has been studied extensively ever since. One day this group will merge into one supergalaxy! While famous, these galaxies are hard to spot in all but the largest backyard telescopes – but are a favorite target of astrophotographers. Take a virtual flyby of these galaxies with a tour created from Hubble data at: bit.ly/quintetflyby

Credit: NASA, ESA, and G. Bacon, J. DePasquale, F. Summers, and Z. Levay (STScI)



San Diego Astronomy Association



AmazonSmile Donations

The SDAA board wants to thank members for using the AmazonSmile donation link as you've helped us raise over \$300 in 2020 at no cost to you. This is three times the amount we received in 2019. Our URL is smile.amazon.com/ch/51-0183640 and, if you are an Amazon user, we hope you will encourage your family to use this option.

MEMBERSHIP INFORMATION

Send dues and renewals to P.O. Box 23215, San Diego, CA 92193-3215 or renew on-line. The notice that your membership in SDAA will expire is sent by email. Dues are \$60 for Contributing Memberships; \$35 for Basic Membership; \$60.00 for Private Pads; \$5 for each Family membership.