

SIDEREAL TIMES

Austin Astronomical Society
keeping astronomy weird since 1969

MONTHLY MEETING

Friday, January 11, 2019

Our meeting location has changed for this meeting only! We will be meeting at St Stephen's School off Loop 360

6:30 PM
PRACTICAL ASTRONOMY

7:30 PM
GENERAL ASSEMBLY

Featured Speaker

Our speakers this month will be Jim Spigelmire who will present some metaphysical ponderings on "The Space of Space", and Jessica Cofrancesco, who will present a tour of the Andromeda galaxy.



PRESIDENT'S NOTES

By Tim Brown, President

HAPPY NEW YEAR

Fiftieth Anniversary Year of the AAS

In August, if my information is correct, the Austin Astronomical Society will reach the half-century mark of continuous service to amateur astronomy. At our Monday Executive Committee meeting, we agreed to plan a series of events leading to a big "blow-out" party in August.

What events you ask? At this point who knows. In fact, that's where you Ms./Mr. club member come-in. In February we'll organize a planning committee for the party.

It's particularly important that long-time members share their knowledge of the club's history and join in the planning. So, I ask that each member who is interested to send in your name and the year that you joined AAS. Also, if you know any "lapsed" members please invite them to participate.

Please send any correspondence to: president@austinastro.org.

2019-2020 Executive Committee Elections

Joyce Lynch and Phil Schmidt, the primary authors of our new by-laws, have suggested tweaks to the election process. Lessons learned last year have led to suggested changes to election procedures.



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<http://www.austinastro.org/>

Sidereal Times is the official monthly publication of the Austin Astronomical Society.

Banner: Dec. 2018 Image of the Month: Chris Foster - NGC7380



PRESIDENT'S NOTES CONTINUED

Information regarding the suggested changes will be circulated prior to the February meeting. The GA will then vote to accept or reject the proposal. Be sure to check the website and your email sometime after mid-January for full information.

Public and Members only Star Party Sites

Dawn Davis, who with others created the opportunities for new partnerships with the state parks, reports that State Park officials are still reviewing our proposal at Pedernales Falls. At last, we feel close to a final agreement. Fingers crossed.

In the meantime, we have a great working relationship with both Inks Lake and Pedernales. Check the website for dates and times of public and private/public events.

Saint Stephens Tonight

Thanks to Frank Mikan, Saint Stephens' science teacher extraordinaire, we'll hold our monthly meeting this Friday night, January 11th at Saint Stephens near Franks' classroom and observatory. Check the website and watch your email for directions. Don't miss this meeting. We always have a good time at "Frank's place".

The Practical Astronomy presentation at 6:30 will be given by the never-dull Scotsman, Brian Lippincott.

Immediately following Brian's talk the General Assembly will meet at the usual time of 7:30. Terry Phillips has recruited two members, Jessica Cofrancesco and Jim Spigelmire to give presentations on topics of their choice. Jessica will share her enthusiasm of and knowledge for the Andromeda Galaxy. Jim will present some metaphysical ponderings on "The Space of Space".

If we're even luckier and have clear skies, we'll follow with an observing session at Frank's observatory.

See you Friday night.

Tim

"For my part, I know nothing with certainty, but the sight of stars makes me dream". (Vincent Van Gogh)

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AAS AFFILIATIONS



<http://darksky.org/>



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



<https://nightsky.jpl.nasa.gov>



<http://www.tsgc.utexas.edu/>



JANUARY OBSERVING TARGETS

By Brian Cuthbertson

Nothing like a little variety to keep things interesting. So this month we target an easy open cluster, a beautiful triple star, and an interacting set of galaxies. Assuming you can find a break in the clouds, one of these should pique your interest. If not, there's plenty more up there, and the year is young yet. Keep calm, carry on, and enjoy!

M35 rating EASY

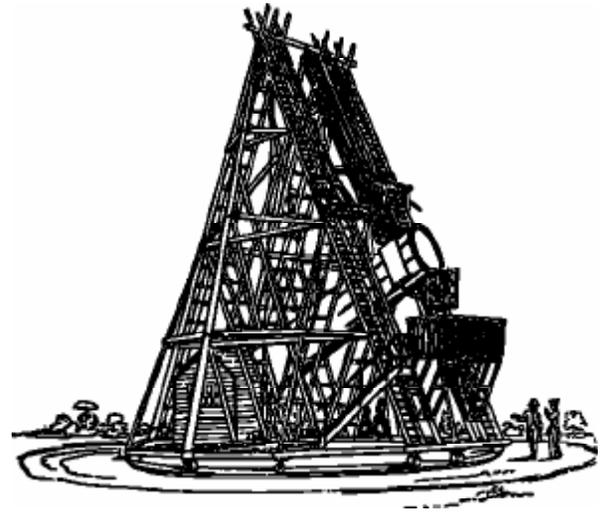
open cluster in Gemini

RA 06h 08.9m Dec +24d 20.6' (2000)

Magnitude 5.1

Located at the western foot of Gemini and just above Orion's raised arm, M35 is a naked-eye cluster which has been known since before the time of Messier. Messier himself noted that M35 was shown on the star atlas of John Bevis in 1750, along with a few other bright nebulae and star clusters known at the time, including what we now call M1, M11, M13 and M42.

M35 is a naked-eye cluster that's a superb binocular target. As big as the Moon, it is easily resolved using even a small 2.4-inch refractor, with most of the bright stars scattered to the east of the cluster. You can see at least 40 stars, including bright conspicuous pair ADS 4744 on the NNE edge. The brightest stars in the cluster range from 7th to 8th magnitude. The cluster itself is doughnut-shaped, with relatively few



William Herschel's telescope. From a drawing in 'The Imperial History of England, comprising the entire work of D. Hume,' David Hume, 1891. Credit: openclipart.org

stars in the central region. This hole remains even in a 10-inch scope, which shows the cluster 80' across with a 20' center. A 12-inch will pull in up to 200 stars in a 23' field.

M35 is about 2800 light-years away and about 30 light-years in diameter. About half a degree SW is companion open cluster NGC 2158. But NGC 2158 lies far behind M35 at about 16000 light-years, and its brightest stars reach only 16th magnitude.

Beta Mon rating: MEDIUM

triple star in Monoceros

RA 6h 28.8m Dec -07d 01.9' (2000)

Magnitude 4.6

Extend a line from Orion's Belt southeast toward

JANUARY OBSERVING TARGETS, CONTINUED

Canis Major, and when you're about 2/3 the way to Sirius, veer due north about 1 belt-width. Where does that put you? Near one of the prettiest triple stars in the sky, even though it's unknown to most observers. It was discovered in 1781 by Sir William Herschel, who described it as "one of the most beautiful sights in the heavens", no small complement considering how many objects the man observed during his lifetime.

Beta Monocerotis is one of the best examples of a ternary system for small telescopes, and unusual in that the three components have nearly equal magnitudes. Its bluish white suns, all spectral class B3 with emission lines, form a tight and slender triangle. The AB pair consists of the two brighter 5th magnitude stars 7.4" apart. At Beta's distance of 150-200 light years, this equates to a projected separation of roughly 400 AU, or about 8 times Pluto's average distance from the Sun. The third component, C, is about 6th magnitude and is just 2.8" from B.

Beta shows up beautifully in a 5-inch at 75x, but remains impressive even with higher magnifications or in large amateur scopes.

NGC 2293 rating HARD galaxy in Canis Major

RA 06h 47.7m Dec -26 45' (2000)

Magnitude 12.0

Here's a post-holiday 3-for-one deal for you: NGC 2293 is the brightest of a small group of 3 galaxies located 6 degrees due south of open cluster M41 in Canis Major. The other two galaxies are NGC 2292 and NGC 2295, both about magnitude 14.

NGC 2293 and NGC 2292 are actually an interacting pair so close that they almost touch, and in large telescopes they appear to be wrapped in a common outer envelope. For this reason, the pair is also known by the interacting galaxy designation VV 178. NGC 2295 is located about 4 arc minutes to the WNW of this pair. In the Digital Sky survey, NGC 2295 appears similar to well-known edge-on spiral galaxy NGC 891 in Andromeda, except that it's tilted perhaps 5-10 degrees from true edge-on orientation. With a 6-inch scope, you can see NGC 2292/93 as a single sub-stellar spot, surrounded by several magnitude 12-13 stars to the north and southwest. In a 12-inch scope the two galaxies are 50" apart with their halos in contact or merger, and a common envelope. NGC 2292 has a conspicuous stellar nucleus, while NGC 2293's nucleus isn't quite stellar.

You can see NGC 2295 in a 6-inch scope as a faintly visible sub-stellar spot, closely surrounded by several mag. 12-13 stars. In a 12-inch you can see a halo around a very faint sub-stellar nucleus.



JANUARY'S EVENING ECLIPSE AND MORNING CONJUNCTIONS

By DAVID PROSPER

Observers in the Americas are treated to an evening **total lunar eclipse** this month. Early risers can spot some striking morning conjunctions between **Venus, Jupiter,** and the **Moon** late in January.

A **total lunar eclipse** will occur on **January 20th** and be visible from start to finish for observers located in North and South America. This eclipse might be a treat for folks with early bedtimes; western observers can even watch the whole event before midnight. Lunar eclipses takes several hours to complete and are at their most impressive during total eclipse, or totality, when the Moon is completely enveloped by the umbra, the darkest part of Earth's shadow. During totality the color of the Moon can change to a bright orange or red thanks to the sunlight bending through the Earth's atmosphere - the same reason we see pink sunsets. The eclipse begins at 10:34 pm Eastern Standard Time, with totality beginning at 11:41 pm. The total eclipse lasts for slightly over an hour, ending at 12:43 am. The eclipse finishes when the Moon fully emerges from Earth's shadow by 1:51 am. Convert these times to your own time zone to plan your own eclipse watching; for example, observers under Pacific Standard Time will see the eclipse start at 7:34 pm and end by 10:51 pm.

Lunar eclipses offer observers a unique opportunity to judge how much the Moon's glare can interfere with stargazing. On eclipse night the Moon will be in **Cancer**, a constellation made up of dim stars. How many stars you can see near the full Moon before or after the eclipse? How many stars can you

but has faded considerably since its closest approach to Earth last summer. Watch the red planet travel through the constellation Pisces throughout January.

Venus makes notable early morning appearances beside both **Jupiter** and the **Moon** later this month;

make sure to get up about an hour before sunrise for the best views of these events. First, Venus and Jupiter approach each other during the third full week of January. Watch their conjunction on the 22nd, when the planets appear to pass just under 2 1/2 degrees of each other. The next week, observe Venus in a close conjunction with a crescent Moon the morning of the 31st. For many observers their closest pass - just over half a degree apart, or less than a thumb's width held at arm's length - will occur after sunrise. Since Venus and the Moon are so bright you may



Caption: Have you ever wondered how eclipses occur? You can model the Earth-Moon system using just a couple of small balls and a measuring stick to find out! The "yardstick eclipse" model shown here is set up to demonstrate a lunar eclipse. The "Earth" ball (front, right) casts its shadow on the smaller "Moon" ball (rear, left). You can also simulate a solar

see during the total eclipse? The difference may surprise you. During these observations, you may spot a fuzzy cloud of stars relatively close to the Moon; this is known as the **"Beehive Cluster," M44, or Praesepe**. It's an open cluster of stars thought to be about 600 million year old and a little under 600 light years distant. Praesepe looks fantastic through binoculars.

Mars is visible in the evening and sets before midnight. It is still bright

st1ll be able to spot them, even after sunrise. Have you ever seen Venus in the daytime?

If you have missed **Saturn** this winter, watch for the ringed planet's return by the end of the month, when it rises right before sunrise in Sagittarius. See if you can spot it after observing Venus' conjunctions!

You can catch up on all of NASA's current and future missions at nasa.gov

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.org to find local clubs, events, and more!

IMAGE OF THE YEAR 2018



The votes are in and the image of the year for 2018 goes to Rob Pettingill for his January Moon photo. Congratulations!



CONGRATULATIONS TO AMY JACKSON

Congratulations to AAS member Amy Jackson, Founder & Director at Starry Sky Austin. At last month's Texas Women and Girls in STEM Summit Amy was awarded the Individual Mentor Stand Up for STEM Award for her mentorship in STEM fields at museums, community colleges, local observatories and classrooms in Texas and beyond.

IMAGE OF THE MONTH

January 2019

Congratulations to
NATHAN MORGAN, COMET 46P AND PLEIADES



MEMBERS' GALLERY

→
by Rathijit Banerjee
Rosette Nebula

Target: Imaging Telescope: Celestron EdgeHD 11" with HyperStar (f/2)

Imaging Camera: ZWO ASI071MC Pro (RGB) and ZWO ASI1600MM Pro (Ha)

Imaging Filter: Astronomik 12nm 2" (Ha)

Mount: Losmandy G-11

Integration Time: 4hrs (RGB) + 4.5hrs (Ha)

Imaged from a suburban Austin backyard by Rathijit Banerjee.

More details here: <https://www.astrobin.com/384853/>



←
by Nathan Morgan
IC5070 Pelican Nebula

Williams Optics 81GTF 81mm Refractor F6.6

Starlight Xpress SX814

HA bin1x1 92x1200s (30 Hours 40 Minutes)

OIII bin1x1 28x1200s (9 Hours 20 Minutes)

SII bin2x2 65x300s (5 Hours 40 Minutes)

Total Integration = 45 Hours+

50 Dark Frames

50 Flat Frames

200 Bias Frames

Processed in PixInsight and Photoshop



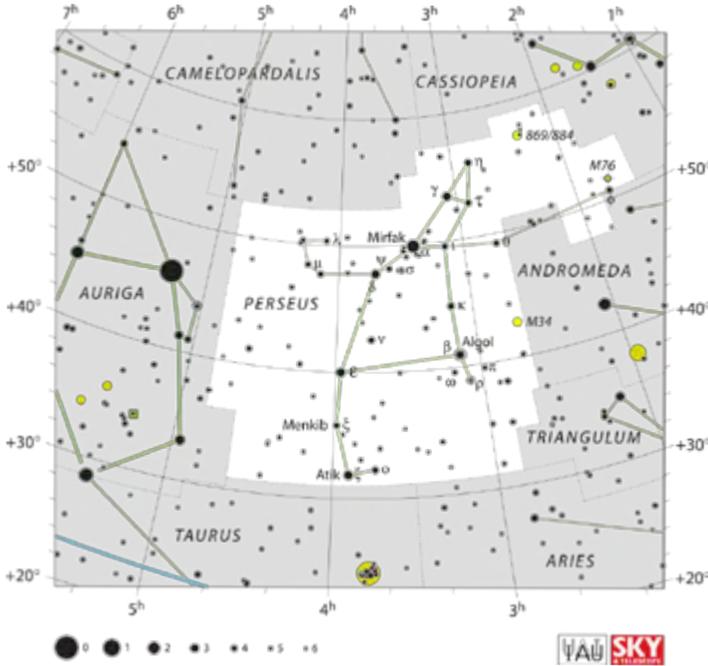
→
by Chris Foster
M17 in SHO





CONSTELLATION OF THE MONTH PERSEUS

By MARK STAR*MAN JOHNSTON



Credit: Wikipedia / Sky & Telescope

Perseus was named after the Greek hero known for slaying Medusa, The Gorgon, whose head he is pictured holding on Classical constellation charts. The variable star Algor depicts one of Medusa's eyes. Perseus is also the hero who rescued Andromeda from the sea monster Cetus. Perseus is contained within the plane of the gal-

axy, so visually its stars lie along the swath we call the Milky-Way.

Stars & Dso's

Besides the intriguing variable star Algor, the constellation is known for the bright star Mirfak, the California Nebula NGC 1499, myriad double stars, and a multitude of open star clusters. The best open star clusters are the bright, wide cluster M34 (that I personally call the double star cluster) and famous Double Cluster NGC 869 and NGC 884. If you use binoculars you can see the stick figure Star*Man holding a chain of stars leading to the Double Cluster. I call him Star*Man keeper of the double cluster. Right now is a good time as the Star*man is standing upright for the most part.

With Perseus being a Milky-Way constellation, one may expect to find a large number of NGC entries to be galactic star clusters. But they are not. Of the 95 NGC objects 71 are galaxies but they are dimmed by gas and dust. Of the 71 only one is brighter than magnitude 10. That galaxy is NGC 1023 which is a member of a group of galaxies located together in space. The group is next-door neighbors to our local group and part of the Virgo-Supercluster.

AAS GUEST SPEAKER IN JANUARY

Our featured speaker will be: Jim Spigelmire & Jessica Cofrancesco

AAS General Assembly meeting program: Our speakers this month will be Jim Spigelmire who will present some metaphysical ponderings on "The Space of Space", and Jessica Cofrancesco, who will present a tour of the Andromeda galaxy. Weather permitting, we will also conduct an observing session from the observatory to honor the 100 hours of Astronomy worldwide event being conducted this week.

The venue for the meeting will be the Observatory at St. Stephen's School. That's building J on the campus map which can be found at https://sstx.myschoolapp.com/ftpimages/580/download/download_1930086.pdf



OUTREACH REPORT, JANUARY 2019

By Joyce Lynch, Outreach Chair

Outreach Report

Joyce Lynch, Outreach Chair

In January and February we have a lot of events scheduled. Please consider which ones you can attend.

- January 23 Kathy Caraway Elementary School, Round Rock
- January 24 Great Oaks Elementary School, Round Rock
- January 25 Wagner Middle School, Georgetown
- January 26 Public Star Party at Inks Lake State Park
- January 31 Allison Elementary School, Austin
- February 1 Elsa England Elementary School, Round Rock
- February 6 Dessau Middle School, Pflugerville
- February 9 Public Star Party at Pedernales Falls State Park
- February 16 Conservation Day at Austin Zoo
- February 23 Girl Day at UT

Look for emails with more information before each event.

ASTRONOMY FOR PAY

Recently we have received several requests for star parties from commercial entities. Since we focus on non-profits such as schools and libraries, we offered these groups the option of paying astronomers to conduct the event. There could be similar requests in the future, so we are compiling a list of members who might be interested in participating. If you would like to have your name on the list of people interested in doing events for pay, please send an email to outreach@austinastro.org Include your name, contact information, where in Central Texas you are willing to go, any specific areas of astronomy that interest you, and a little bit about your experience with observing.

NIGHT SKY FESTIVAL



AAS is now a partner of the Texas Night Sky Festival® (TNSF)! This free to attend, family oriented, biannual Festival is a not-to-miss event. This year's Festival is scheduled for March 30, 2019.

The last TNSF had over 2800 attendees and more are expected this year. As before, the Festival will be held at Dripping Springs Ranch Park and Event Center on RR 12 north of Highway 290. AAS will staff a double-sized exhibitor table during the Saturday event, and will host solar and night-sky star



parties.

The Saturday Festival will feature guest speakers, numerous night sky related exhibitors, great food trucks, live music, solar observing and an evening star party. Kids of all ages can earn the Dark Sky or Midnight Defender patches. Speakers will include Irene Pease from the New York Hayden Planetarium and Bill Wren from McDonald Observatory. Terri Hendrix and Lloyd Maines will headline the live music stage.

A public star party will follow the daylight portion of the Festival. The public part of the star party officially ends at 11:00 p.m., but all astronomers are invited to stay and observe all night. The observing site is a short distance north of the exhibit building but is well shielded by trees. Tent camping will be available near the observing field and a limited number of RV sites with hookups are available to reserve near the main festival build-

ing. Moonrise will not occur until around 3:00 a.m., so there will be lots of deep sky targets to observe.

On Sunday, March 31, the Festival, in conjunction with the International Dark-Sky Association (IDA), will host a workshop on dark sky advocacy, with a focus on how to apply to be recognized by IDA as an International Dark Sky Place. Anyone with a passion for dark skies should attend. There will be a small charge to cover lunch at the Sunday event.

As a TNSF Partner, AAS will be listed above Sponsors in TNSF publications where Partners, Sponsors, and/or Exhibitors are all listed, and the AAS logo and name is already included in Festival advertising.

All AAS members are encouraged to come and share their love of the sky!

Stay abreast of details about the event by visiting www.Texas-NightSkyFestival.org.





EXECUTIVE COMMITTEE MINUTES, Nov. 2018

By John Cassidy, Secretary

November 5, 2018

The meeting was call to order by Tim Brown at 7:00 PM at the home of Tim and Kathy Brown.

Present were:

Tim Brown, Kathy Brown, Terry Phillips, John Cassidy, Sean Leary, Dana Leary, Joyce Lynch, Brian Lippincott, Jim Spigelmire, Dawn Davies, Domingo Rochin, Vanessa Perez

Main topics on the Agenda handout were:

Reports on arrangements for Pedernales State Park and Inks Lake State Park

Officer's reports

Officer Reports

Vice-President. Terry

1. January's GC will be member presentation night.
2. The EC approved payments for speaker accommodations in the amounts of \$184 for Larry Mitchell and \$117 for Renee James.
3. The location for the Christmas Party has not been settled. Discussions with the Austin Gem and Mineral Society are ongoing.

Treasurer. Dana

1. Dana asked for approval of a \$1,728 payment to Wild Apricot for online membership management. The EC approved the payment unanimously.
2. There was general agreement that the Wild Apricot expense should be moved out of the software budget category and made its own category in the future.

Outreach. Joyce

1. The Society will participate in Girls Day at UT in February.
2. Joyce and Jim Lynch and John and Cindy Cassidy will conduct a dark sky program and a star party for the Whitewater Springs Community on

CALENDAR OF EVENTS

11 Jan. 2019

Practical Astronomy

6:30 PM

General Assembly Meeting

7:30 PM

Stephens School, Observatory
(building J)

20 Jan. 2019

Members' Only Star Party

6:30 PM - 11:00 PM

Lunar Eclipse at Mansfield Dam @
Mansfield Dam

8 Feb. 2019

Executive Committee Meeting

7:00 PM - 8:30 PM

TBD.

EXECUTIVE COMMITTEE MINUTES, CONTINUED

November 11.

Equipment. Brian & Dawn

1. We are still in talks with Texas Parks and Wildlife re the Inks Lake and Pedernales sites.
2. The EC discussed the use of a portable dome at Inks Lake, but no action was taken.

Secretary. John

Minutes of the October 10 EC meeting were approved unanimously.

Member Services. Vanessa

There will be no PA this month.

Communications. Sean and Jim

1. There have been some intermittent outages on the website. These have been reported to the webmaster.
2. Jim is vetting "like" requests on the Facebook page.

Meeting was adjourned at 8:45 PM

John Cassidy, Secretary



COMMUNICATIONS REPORT, DEC. 2018

By Sean Leary, Communications Chair

Communications Chair: Sean Leary
For the Executive Committee meeting in January 2019

- Take down holiday banner
- Update Sidereal Times Dec banner, link, page, and slider
- Update image of the month Dec banner and link
- Add Executive Committee events through 2019
- Add General Assembly meeting events through 2019
- Add Holiday party event for Dec 2019 (no details yet)
- Add banner, post, image, and event for lunar eclipse Jan 2019
- Add Practical Astronomy event for Jan 2019

Website traffic for the past month



COMMUNICATIONS REPORT CONTINUED

How many people are visiting the site?

Page	Pageviews	Page Value
/	820	\$0.00
/JoinAAS	67	\$0.00
/index.php/membership/	63	\$0.00
/index.php/aas-holida...-year-selection-2018/	48	\$0.00
/index.php/events/	47	\$0.00
/Sys/Profile	46	\$0.00
/index.php/events/aas...anyon-of-the-eagles/	33	\$0.00
/index.php/about-aas-2/	32	\$0.00
/index.php/f-a-q/	31	\$0.00
/index.php/event/mem...e-at-mansfield-dam/	29	\$0.00

Last 30 days ▾ [PAGES REPORT >](#)

Who is sending us traffic?





TREASURER'S REPORT, DEC. 2018

By Dana Leary, Treasurer

December 2018 Treasurer's Report

Deposits:

Dues payments		
Checks	\$0.00	
Paypal	\$ 500.00	
Dues payments in checking acct.		\$ 500.00
Donation into checking acct.		\$ 23.42
Interest earned - reg. (donations)	\$ 0.65	
interest earned - scholarship	\$ 0.64	
Interest earned-checking	\$ 0.98	
Interest earned - CD - A	\$ 5.44	
Interest earned - CD - B	\$ 6.39	
Total interest earned		\$12.44

Deposit Totals Dec. 2018

\$12.44

Expenses:

Life Storage - telescope storage	\$ 65.00
Check no. 2191 - AGMS party rental expense	\$ 75.00
Reimbursement to M. Nelson	\$ 161.95

Expenses Total Dec. 2018

\$ 301.95

Bank Balances:

UFCU donations	\$ 1,522.57
UFCU scholarship special **	\$ 1,001.91
UFCU checking **	\$ 23,156.77
UFCU CD - A	\$ 5,850.21
UFCU CD - B	\$ 5,828.01
Paypal account	\$ 833.87

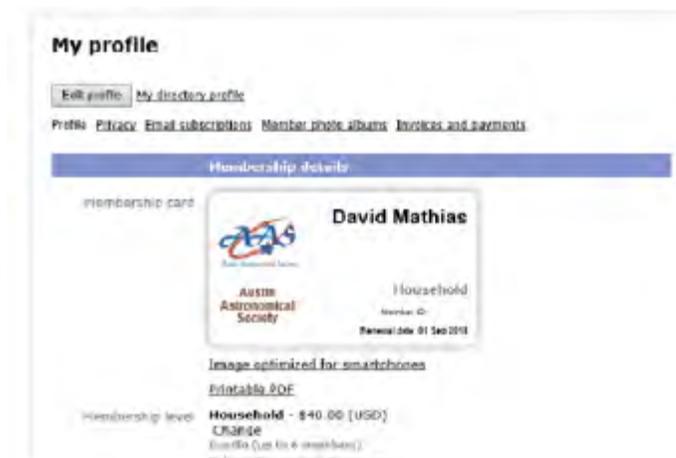
Total Cash as of 12/31/18:

\$38,193.34

AAS members	621
AAS memberships	450

MEMBERSHIP CARDS NOW IN YOUR PROFILES

At last, Wild Apricot, our membership database vendor, has made available to its customers membership card templates. Now, under your AAS membership profile you will see a mockup of a card with your name, Membership ID and membership expiration date. You are offered two options for displaying your card: one which is suitable for displaying from a smartphone, and another printable PDF which you can cut and laminate to your heart's delight.



WELCOME NEW MEMBERS!

Baunach, John
Buls, Paula
Clark, Jon
Delp, Eugene (Gene)
Hendricks, Richard
Hughes, Steven
Kinzy, Jacki
Majors, Cassandra

Powers, Shirley
Poyser, Bryan
prabhu, mahesh
Roach, Patricia
Smith, Andrea
Wetherell II, Lester C.
Willis, Nikki

JOINING AAS OR RENEWING MEMBERSHIP

To join or renew your membership to AAS, please visit: <http://austinastro.org/index.php/why-should-you-be-a-member/> There are six membership levels to choose from:

Household Bundle (up to 6 members) \$40.00 (USD)

Renewal: Every one year, starting from join date

No recurring payments. For members of a household living at the same address.

Household With Senior (up to 6 members) \$28.00 (USD)

Renewal: Every one year, starting from join date

No recurring payments.

For members of a household living at the same address and at least one member is over 65 years of age.

Junior \$15.00 (USD)

Renewal: Every one year, starting from join date

No recurring payments. For members up to age 18.

Students \$15.00 (USD)

Renewal: Every one year, starting from join date

No recurring payments. For members age 18 and older.

Regular \$25.00 (USD)

Renewal: Every one year, starting from join date

No recurring payments. For individual members.

Seniors \$15.00 (USD)

Renewal: Every one year, starting from join date

No recurring payments. For members 65 years of age or older.



NIGHT SKY NETWORK

The Night Sky Network is a nationwide coalition of amateur astronomy clubs bringing the science, technology, and inspiration of NASA's missions to the general public. AAS members can register with NSN and receive the NSN newsletter and email about upcoming webinars and any additional information or announcements created by the NSN for members. They will be able to search for resources, view all of the toolkits and the files, and access the downloads in each kit.

If you are interested in registering, here is the procedure.

Go to <https://nightsky.jpl.nasa.gov/index.cfm>

Enter your zip code in the upper right box for CURRENT LOCATION.

Scroll down to CLUBS NEAR YOU and click on AAS.

Click on Register in the toolbar on our page.

Fill out the form and submit.

Your form will be sent to the club for approval.

If you have any questions, email outreach@austinastro.org

OFFICERS OF THE SOCIETY, 2018-2019

President	Tim Brown	president@austinaastro.org
Vice-President	Terry Phillips	vicepresident@austinaastro.org
Secretary	John Cassidy	secretary@austinaastro.org
Treasurer	Dana Leary	treasurer@austinaastro.org
Communications Chair	Sean Leary	communications@austinaastro.org
Outreach Chair	Joyce Lynch	outreach@austinaastro.org
Equipment Chair	Brian Lippincott	equipment@austinaastro.org
Member Services Chair	Vanessa Perez	memberservices@austinaastro.org
Member-at-Large	Pamela Castillo	membersatlarge@austinaastro.org
Member-at-Large	Greg Rohde	membersatlarge@austinaastro.org
Member-at-Large	Jessica Cofrancesco	membersatlarge@austinaastro.org
Member-at-Large	Frank Mikan	membersatlarge@austinaastro.org
Member-at-Large	Domingo Rochin	membersatlarge@austinaastro.org
Member-at-Large	Jim Spigelmire	membersatlarge@austinaastro.org
Parliamentarian*	Ron Carman	parliamentarian@austinaastro.org
ALCor (Astronomical League)*	Tara Krzywonski	
IDA Rep (Dark Skies)*	John Cassidy	darksbies@austinaastro.org
Newsletter Editor*	Nathan Morgan	newsletter@austinaastro.org
Webmaster*	Maurice Nelson	webmaster@austinaastro.org
* designates appointed position		

Visit Dawn Davies' *Earthbound Astronomer* website at <https://www.earthboundastronomer.com/>

Amy Jackson's website is <http://www.starryskyaustin.com/>. Learn more about her children's book about astronomy at <http://www.starryskyaustin.com/childrens-book-project/>

Rob Pettengill's site can be found at <http://astronomy.robpettengill.org/>. Rob's material shared per CC BY-NC-SA 4.0 license.

Celestial Teapot's product catalog can be found at <http://messierplanisphere.com/>

Joseph Macry writes a weekly column for Manor Community News: "This Week in Astronomy". You can read the online edition here: <http://manorcommunitynews.com/>