



# Monthly Notices of the Everglades Astronomical Society



Naples, FL  
October 2020

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**Home Page:** <http://naples.net/~nfn19284/eas/>     **Webmaster:** Mike Usher

## President's Message

Chuck Dryer will be delivering a presentation on Astrophotography this Tuesday, October 13. Meeting starts at 7:00. Follow the meeting link below. Look forward to seeing you there.

On a different note, Daylight Savings Time starts November 1 which means the sun will be setting an hour earlier and the rainy season and cooler temperatures are right around the corner. Folks are venturing out and we can expect good viewing in just a few weeks. We are all ready to break out. Patience will pay off.

Clear skies, Robyn and Chris Pritchard

## Dates for Observing

Usually the best times to observe are moonless nights. Below is a list of upcoming Saturday nights that you may wish to enjoy the night sky from home until things get back to normal.

Date	Moonrise	Moonset
Oct. 10	Just aft midnight	1:55 p.m.
Oct. 17	7:15 a.m.	6:56 p.m.

## Sky Events

- Oct. 9            - Last Quarter
- Oct. 16          - New Moon
- Oct. 21/22      - Orionid Meteor Shower Peak
- Oct. 23          - First Quarter
- Oct. 31          - Full Moon

## Next Meeting – VIA ZOOM October 13, 2020 at 7:00 p.m. Eastern

Click on the below link to Join Zoom Meeting

<https://us02web.zoom.us/j/3495687507?pwd=RytWL1pzRjRDdHhDSDJvdnh1UVVYZz09>

Meeting ID: 349 568 7507

Password: telescope

## Zoom Meetings are Easy By Mike Usher

As you probably know by now, we are not having any face-to-face meetings until at least January or beyond due to the pandemic. But we are having Zoom meetings!

Our Zoom meetings have been rather lightly attended considering almost everyone has an available computer nowadays. I suspect people are just reluctant to try something new that has gotten some mostly unjustified bad press recently.



Photo of the club's first Zoom meeting in Sept. 2020 by Robyn and Chris Pritchard.

You do not need a camera installed on your computer to attend a meeting, or even a microphone if you don't want to do any talking. You will still hear and see everything that is available to hear and see. In that respect it is a lot like watching TV. You do not have to be in Naples, or even in the U.S.

If you do have a camera and a microphone, everyone will be able to see and hear you – but only if you wish them too. There are options available to just show us your photo and you can always mute the microphone. (It doesn't even have to be your photo, Vanna White anyone?). People with slow Internet service might want to do this anyway. If you feel creative, we can see a background that shows you having lunch in Paris instead of looking at your messy house. (Really! It's not all that hard to do; on a scale of 1 to 10 it's like a two.) If you want to do that, e-mail me and I will send you a link that tells you how to do it. Several of our members use a background consisting of a favorite astrophoto they have taken.

To join our next Zoom meeting, click on the link in this newsletter or the link in the e-mail notice. First-timers will get a message to download the Zoom client, which does not take long, **is free** and it installs itself with no particular effort from you. Robyn might stick a password in there, but she usually does not. If she does you will see it in the newsletter and/or e-mail.

We use Zoom, as opposed to other programs, as Zoom is tailored to making presentations.

See you at our next meeting!

### LDN673 by Ted Wolfe

The below image is a 12-hour exposure of an object called Lynd's Dark Nebula 673.



LDN673 by Ted Wolfe

The area shown is in the center of the "Aquila Rift" about 500 light years from us. The Aquila Rift is a mass of dark clouds of

dust and gas, which combined with the "Vulpecula Rift" and the "Cygnus Rift", form the "Great Rift" through the Milky Way.

The Aquila Rift looks like a sort of celestial Rorschach test. Its dusty, black arms weave a strange pattern across the night sky. The molecular clouds in the rift contain enough raw material to give birth to tens of thousands of stars. Here and there we can see new ones popping to the surface announcing their presence by the glow surrounding them in the dust.

This 12-hour exposure turned out well. Sky & Telescope has requested first publishing right to it – after only a 5-minute examination of the image.

### MORE AWESOME PHOTOS BY EAS MEMBERS



Photo of the moon and Mars by Trish Mack.



Photo of Mars by Chuck Pavlick



M27 (Dumbbell Nebula) by Henri Troch



Photo of Saturn by Chuck Pavlick

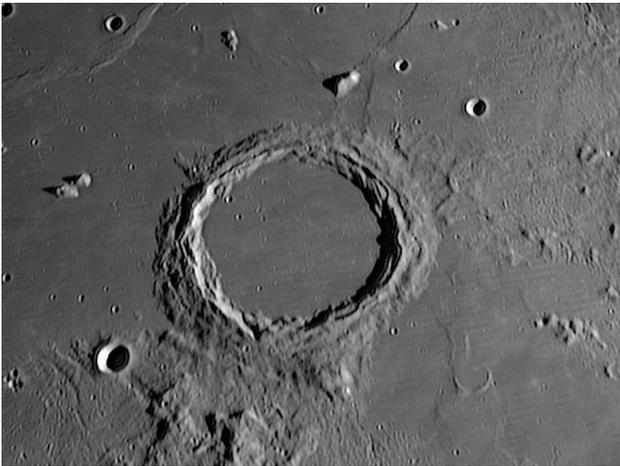


Photo of the Moon by Chuck Pavlick



## Observe the Skies Near Mars David Prosper

October is a banner month for Mars observers! October 6 marks the day Mars and Earth are at closest approach, a once-every-26-months event. A week later, on October 13, Mars is at opposition and up all night. Mars is very bright this month, and astronomers are eager to image and directly observe details on its disc; however, don't forget to look at the space around the planet, too! By doing so, you can observe the remarkable retrograde motion of Mars and find a few nearby objects that you may otherwise overlook.

Since ancient times, Mars stood out to observers for its dramatic behavior. Usually a noticeable but not overly bright object, its wandering path along the stars showed it to be a planet instead of a fixed star. Every couple of years, this red planet would considerably flare up in brightness, for brief times becoming the brightest planet in the sky before dimming back down. At these times, Mars would also appear to slow down its eastward motion, stop, then reverse and head westward against the stars for a few weeks, before again stopping and resuming its normal

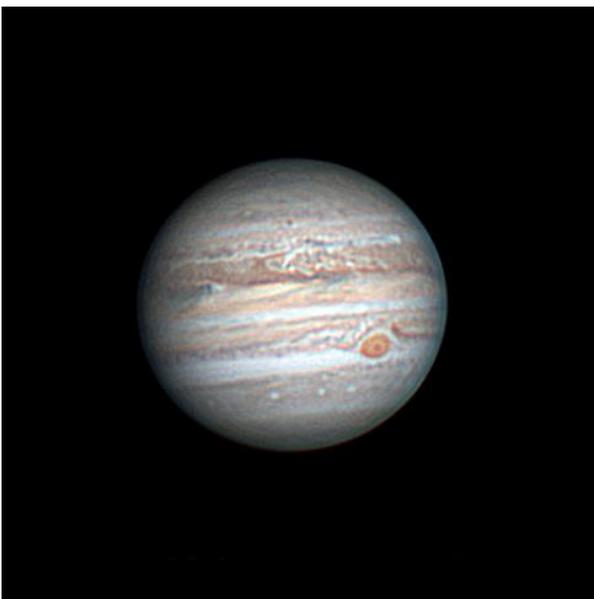
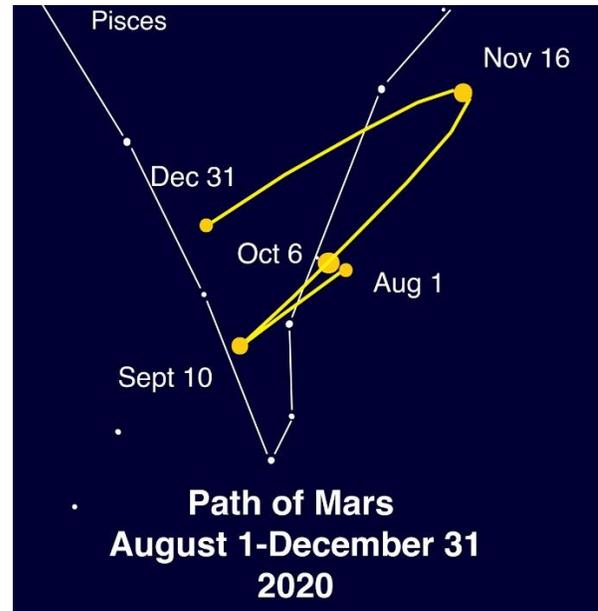


Photo of Jupiter by Chuck Pavlick

eastward movement. This change in the planet's movement is called "apparent retrograde motion." While all of the planets will appear to undergo retrograde motion when observed from Earth, Mars's retrograde appearances may be most dramatic. Mars retrograde motion in 2020 begins on September 10, and ends on November 16. You can observe its motion with your eyes, and it makes for a fun observing project! You can sketch the background stars and plot Mars as you observe it night after night, or set up a photographic series to track this motion. Does the planet move at the same rate night after night, or is it variable? As you observe its motion, note how Mars's brightness changes over time. When does Mars appear at its most brilliant?

NASA has tons of great Mars-related resources! Want to know more about apparent retrograde motion? NASA has an explainer at: [bit.ly/marsretromotion](https://bit.ly/marsretromotion). Find great observing tips in JPL's "What's Up?" videos: [bit.ly/jplwhatsup](https://bit.ly/jplwhatsup). Check out detailed views with NASA's HiRISE satellite, returning stunning closeups of the Martian surface since 2006: [hirise.lpl.arizona.edu](https://hirise.lpl.arizona.edu). NASA's Curiosity Rover will be joined in a few months by the Perseverance Rover, launched in late July to take advantage of the close approach of Mars and Earth, a launch window that opens two years: [nasa.gov/perseverance](https://nasa.gov/perseverance). Calculate the ideal launch window yourself with this handy guide: [bit.ly/marslaunchwindow](https://bit.ly/marslaunchwindow). The Night Sky Network's Exploring Our Solar System handout invites you to chart the positions of the planets in the Solar System, and NSN coordinator Jerelyn Ramirez recently contributed an update featuring Mars opposition! You can download both versions at [bit.ly/exploresolarsystem](https://bit.ly/exploresolarsystem). Young astronomers can find many Mars resources and activities on NASA's Space Place: [bit.ly/spaceplacemars](https://bit.ly/spaceplacemars). Here's to clear skies and good seeing for Mars's best appearance until 2033!



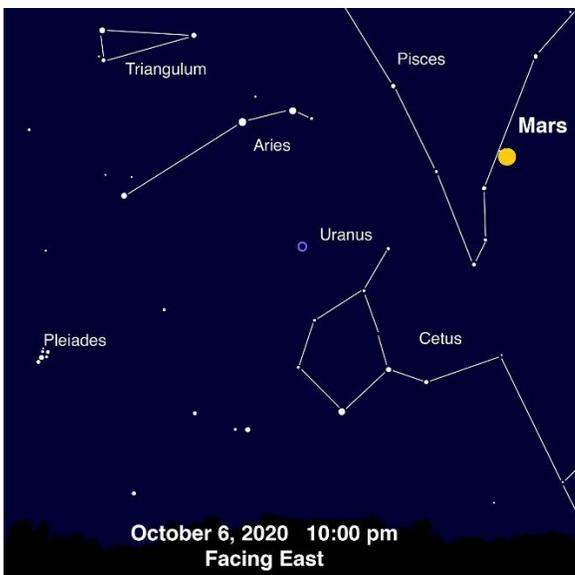
*(Left) If you are paying this much attention to Mars, you're likely curious about the skies surrounding it! Find Mars in the constellation Pisces, with constellations Aries, Triangulum, and Cetus nearby. Aries may be the only one of these dimmer patterns readily visible from light-polluted areas. The Pleiades rises shortly after Mars. Dim Uranus is found close by, in Aries. If you are observing Mars up close, use the same eyepiece to check out Uranus's tiny blue-green disc. If you are uncertain whether you spotted Uranus, you didn't see it! Unlike stars, Uranus doesn't resolve to a point at high magnifications.*

*(Right) The path of Mars during the last five months of 2020. Notice the retrograde motion from September 10 to November 16, with prime Mars observing time found in between. October 6 is the day of closest approach of Earth and Mars, "just" 38.6 million miles apart. Images created with help from Stellarium: [stellarium.org](https://stellarium.org)*

**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](https://nightsky.jpl.nasa.gov) to find local clubs, events, and more!

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## EAS 2020 DUES

For the bargain price of only \$20.00 per family, all this can be yours this year:

- Meet with your fellow astronomy enthusiasts at least 10 times a year;
- Learn about astronomy and telescopes. Check out our club scope;
- Many opportunities to view planets, nebulae and other celestial objects (even if you don't have your own telescope); and
- Enjoy the many astronomy programs at our regular monthly meetings.

**Don't miss out!** Fill out this form (please print clearly) and send it with your \$20 check to the Everglades Astronomical Society, P. O. Box 1451, Marco Island, Florida, 34146.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_