

PAS-Times



The newsletter of the Pontchartrain Astronomy Society
visit us online www.astronola.org

January 2021
Volume 62, Issue 1



Next PAS General Meeting
Friday, January 29th - 7:30pm
Zoom meeting due to COVID-19

Rosette Nebula NGC 2237
by PAS President
Philip Wollenberg

PAS Officers for 2021**President:**

Philip Wollenberg
paspres@astronola.org

1st Vice-President:

Mike Danielson
Program Chairman
pas1vp@astronola.org

2nd Vice-President:

Kent Birkle
PAS-Times Editor
pas2vp@astronola.org

Treasurer:

John Scholl
pastreas@astronola.org

Secretary:

Jeff Best
Archivist Webmaster
passec@astronola.org

SPMOS:

Ron Marella
passpmos@astronola.org

Community Outreach:

pasoutreach@astronola.org

ALCOR (Astronomy League):

pasalcor@astronola.org

President's Message

By: Philip Wollenberg

Fellow Astronomers,

Welcome back for what hopes to be another incredible year in astronomy. Many of you already know me but for those who don't, my name is Philip Wollenberg. My wife is Cristina, and Parker is our beautiful baby boy. I am a chemical engineer by trade, so a little nerdy and geeky, and have been active in astronomy for 4 yrs. I love to observe visually (particularly with a group of fellow astronomers claiming to see the horsehead - yes. I did see it). However, astrophotography is where I spend most of my astronomy hours. Unlike the typical astronomer, I have only been able to acquire a single pricey optical tube, Televue NP-101. It does setup quick and gets several dozen uses per year. I have been negotiating with Cristina for a second, perhaps in 2021.

We will start this year still operating in a virtual mode (via ZOOM) but hope to begin meeting again in person as soon as it is safe for everyone to do so. We will be planning some socially distanced in-town star gazing this year so stay tuned. Outreaches are still suspended but hope they will pick up in the second half of the year after vaccines become widespread.

On Jan 23, Mercury starts a show and will be at its greatest east elongation and then by the 27th it will reach the highest point in the evening sky reaching a magnitude of -0.7. Look to the southwest at sunset, 5-6 pm, at 20 deg above the horizon.

On Feb 18, the NASA rover Perseverance will touch down on Mars in the Jerzero Crater at 2pm CST.

Looking forward to helping the club thrive in 2021.

Philip Wollenberg - PAS President 2021



Sunspots

Forum Post by
Lowell McCormick on
Sun Dec 27, 2020

"Well there are finally some sunspots. Small, but they are there. Taken with a Canon T2i mounted to a Vixen ED 80 with an Orion neutral density filter"



Secretary's Report December 2020 General Meeting **By: Jeff Best**

December 4th, 2020

13-members were in attendance for our 8th virtual meeting

Bill Johnson opened the meeting at 7:40 pm, welcomed everyone

- Skipped Officer's reports
- Bill & Barry Simon discussed attendance at the Deep South Star Gaze
Several PAS members where in attendance at the White Horse camp near Sandy Hook, MS. Event went well considering Covid situation. Had clear skies on several nights & got some good views.
- Discussed upcoming conjunction of Saturn & Jupiter
- 2021 membership dues of \$40 are due for payment by Jan 1st.
Pay by mail is OK. Online payment system is experiencing issues, contact John Scholl.
- Philip Wollenburg is the new PAS President beginning in January of 2021
All other officers continue to serve the PAS as follows:
Mike Danielson - 1st VP
Kent Birkle - 2nd VP
John Scholl - Treasurer
Jeff Best - Secretary
Ron Marella - SPMOS
- Use of UNO for 2021 meetings still remains uncertain due to Covid situation
- 2021 Meeting dates will fall on the Friday of each month nearest the full moon
Next PAS Meeting: January 29th, 2021
- Meeting adjourned to start the Christmas Program



Baghead Solar Observatory

Post by Lowell McCormick
Tue Dec 29, 2020 4:01 pm

Centering and focusing the image
with live view.

Check Your Sky's Quality with Orion!

By David Prosper

Have you ever wondered how many stars you can see at night? From a perfect dark sky location, free from any light pollution, a person with excellent vision may observe a few thousand stars in the sky at one time! Sadly, most people don't enjoy pristine dark skies - and knowing your sky's brightness will help you navigate the night sky.



The brightness of planets and stars is measured in terms of apparent magnitude, or how bright they appear from Earth. Most visible stars range in brightness from 1st to 6th magnitude, with the lower number being brighter. A star at magnitude 1 appears 100 times brighter than a star at magnitude 6. A few stars and planets shine even brighter than first magnitude, like brilliant Sirius at -1.46 magnitude, or Venus, which can shine brighter than -4 magnitude! Very bright planets and stars can still be seen from bright cities with lots of light pollution. Given perfect skies, an observer may be able to see stars as dim as 6.5 magnitude, but such fantastic conditions are very rare; in much of the world, human-made light pollution drastically limits what people can see at night.

Your sky's limiting magnitude is, simply enough, the measure of the dimmest stars you can see when looking straight up. So, if the dimmest star you can see from your backyard is magnitude 5, then your limiting magnitude is 5. Easy, right? But why would you want to know your limiting magnitude? It can help you plan your observing! For example, if you have a bright sky and your limiting magnitude is at 3, watching a meteor shower or looking for dimmer stars and objects may be a wasted effort. But if your sky is dark and the limit is 5, you should be able to see meteors and the Milky Way.

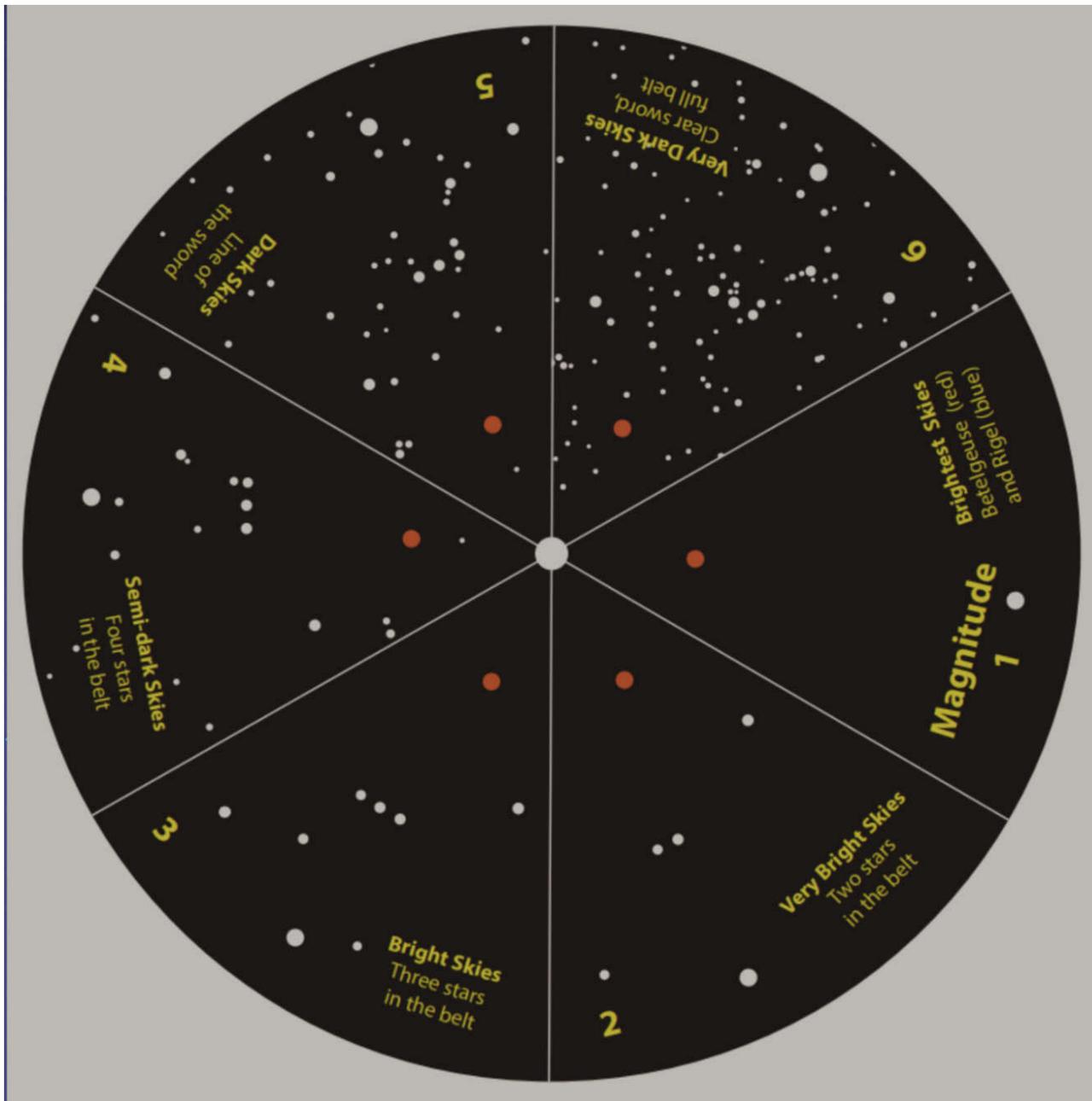
The Dark Sky Wheel, showing the constellation Orion at six different limiting magnitudes (right), and a photo of Orion (left). What is the limiting magnitude of the photo? For most observing locations, the Orion side works best on evenings from January-March, and the Scorpius side from June-August.



Knowing this figure can help you measure light pollution in your area and determine if it's getting better or worse over time. And regardless of location, be it backyard, balcony, or dark sky park, light pollution is a concern to all stargazers!

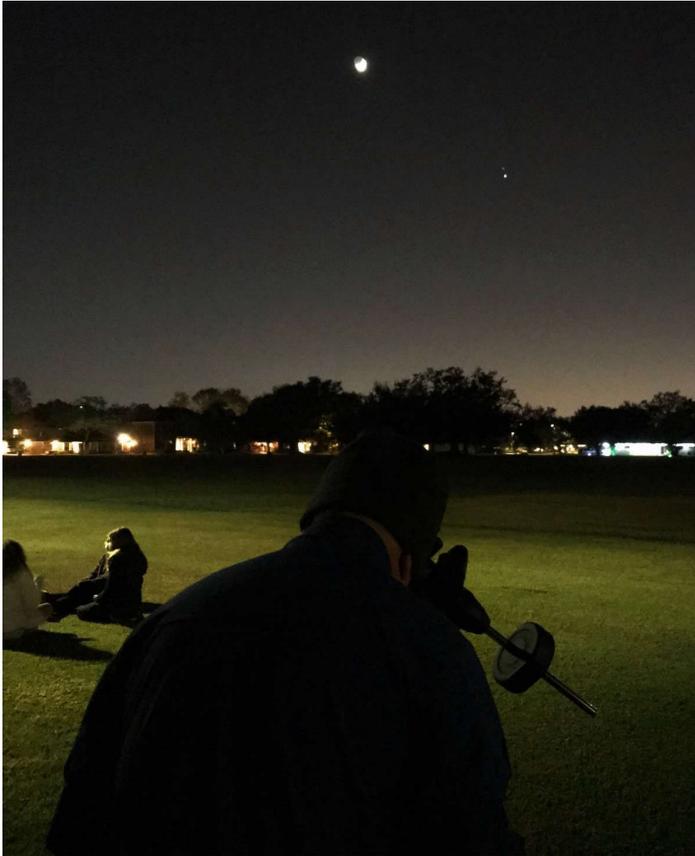
How do you figure out the limiting magnitude in your area? While you can use smartphone apps or dedicated devices like a Sky Quality Meter, you can also use your own eyes and charts of bright constellations! The Night Sky Network offers a free printable Dark Sky Wheel, featuring the stars of Orion on one side and Scorpius on the other, here: bit.ly/darkskywheel. Each wheel contains six "wedges" showing the stars of the constellation, limited from 1-6 magnitude. Find the wedge containing the faintest stars you can see from your area; you now know your limiting magnitude! For maximum accuracy, use the wheel when the constellation is high in the sky well after sunset. Compare the difference when the Moon is at full phase, versus new. Before you start, let your eyes adjust for twenty minutes to ensure your night vision is at its best. A red light can help preserve your night vision while comparing stars in the printout.

Did you have fun? Contribute to science with monthly observing programs from Globe at Night's website (globeatnight.org), and check out the latest NASA's science on the stars you can - and can't - see, 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.gov to find local clubs, events, and more!



Conjunction Observing

by Barry Simon

Jupiter and Saturn came together from our perspective and was be in close conjunction on December 21, 2020 in what was their closest angular separation in about 400 years. That one occurred in 1623 but Jupiter and Saturn were not well separated in the sky from the Sun so the glare from the Sun made that one very hard to see, virtually impossible for most people to see. Another 400 years back was a close Jupiter and Saturn conjunction seen in the year 1226. Another good one takes place in 2080 but looking beyond that you will have to wait until the 25th century for a real good one.

Jupiter steadily approached Saturn from our perspective, closing the angular separation between the two. (Jupiter laps Saturn approximately every 20 years appearing to pass either above or below Saturn.) This is what we call a conjunction – when they appear to be very close. In reality Saturn is approximately 452 million miles further out from us in our solar system so there is no danger of a collision! Jupiter is 474.73 million miles from the Sun and Saturn is 926.98 million miles from the Sun.

What made this conjunction especially interesting and unusual is just how close the two appeared to be. The angular separation will be only 6 arc minutes on 12-21, that is just 1/10th of a degree or from our perspective will be equivalent to 1/5th of the Moon's diameter. As I said, no danger of a collision as Saturn is approximately 452 million miles further out in the solar system than is Jupiter.

Upcoming Events

PAS General Meeting Friday, January 29th. Virtual online due to COVID-19

Visit the PAS website and forum for COVID-19 info, virtual meeting information and outreach updates....

www.astronola.org

On the Cover

Rosette Nebula NGC 2237 by Philip Wollenberg

On the Back Cover

Constellation Orion
from Urania's Mirror - A View of the Heaven

The PAS is a proud member of these organizations:

International Dark-Sky Association



PAS 2021
General Meetings
ZOOM
January 29, 2021
February 26
March 26
April 23
May 28
June 25
July 23
August 20

February 2021
PAS-Times Deadline
Sunday, February 14th
Please submit all things astronomical to be included in the next edition of PAS-Times to the editor at the following address:
pas2vp@astronola.org

2021 Membership Renewal Form
Date _____

Name _____
Address _____
City _____ St _____ ZIP _____
Home Phone* _____
Work Phone* _____
Occupation _____
E-mail Address _____
*Check here if you DO NOT want your phone numbers published.

Membership Dues:
(Calendar year per household) \$40.00 _____
(Calendar year per Student) \$20.00 _____
Optional Subscriptions:
Sky & Telescope \$32.95/yr \$65.95 two years
 ___ New ___ Renewal _____
Astronomy \$34.00/yr or \$60.00/2years
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Mailed Newsletter \$20.00/yr _____
SPMOS Key Deposit \$25 _____
Only pay this if you do not have a Dorm key and want to obtain one.
Optional Donation: _____ (Tax Deductible)

Total Amount: _____
(Make check payable to PAS)
Mail to:

Pontchartrain Astronomy Society, Inc.
16082 Lake Ramsey Rd.
Covington, LA 70435

Members can also renew their membership and pay dues on the website. Here is the link: <http://astronola.org/join.php>

Pontchartrain Astronomy Society, Inc
Kent Birkle, PAS-Times Editor
21067 Lowe Davis Rd.
Covington, La. 70435



The Pontchartrain Astronomy Society, Inc. is an organization of amateur astronomers representing the greater New Orleans area, southeastern Louisiana and adjacent parts of Mississippi. Our members come from many walks of life, and have a common interest in astronomy and observing the sky. The PAS aims to enhance the study and enjoyment of astronomy among our members, and to promote an understanding of astronomy in our local community.

The Constellation Orion has been admired by all civilizations and can be observed from every part of the globe. The Southern hemisphere sees the constellation of Orion up-side down