New
Braunfels
Astronomy
Club Because It's Out There

October 20th, 2022
Meeting 277
Agenda

NOTE: Meeting at TJ's

- Open meeting and introduce new members (get names, email)
- Interesting observations, experiences
  - Report - field trip to McDonald Observatory - 09/23
- Show and tell
  - Baader Planetarium binoviewer
- Current news and what's in our sky this month: *Member input + Newsletter*
- Events, outreach
  - October is Hill Country Night Sky Month (Hill Country Alliance)
  - Report – International Observe the Moon Night at TPML (10/01)
  - Astronomy Night at TPML – 10/22
  - Trunk or Treat at Mountain Valley Elementary (10/27) 5-7pm
  - Trunk or Treat in Sattler (10/31) – CCFNS
  - Celebration of NBAC's 25 years???
  - Solar telescope for TPML
- Main feature(s)

Coming up: OUR 278th ASTRONOMY CLUB MEETING

November 17th, 2022, from 6 - 8 pm **TJ's on Loop 337**

astronomynbtx.org Email: info@astronomynbtx.org

Astronomy Friends New Braunfels..... facebook.com/groups/354953995432792/

Comal County Friends of the Night Sky..... facebook.com/groups/166098014710276/

comaldarksky.org/ Email: info@comaldarksky.org

Larry's Celestial Calendar & Newsletter

by Eric Erickson

303rd Edition

Volume 25, Number 10

October 20th to November 15th, 2022

New

Braunfels

Astronomy

Club

Because it's Out There

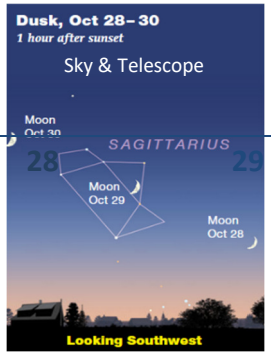
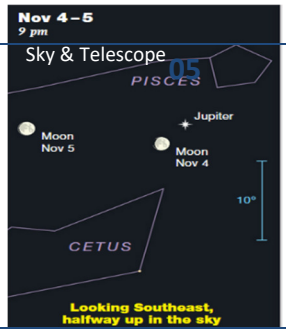
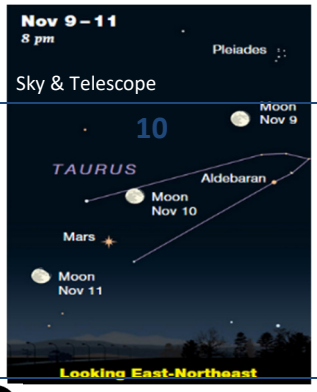
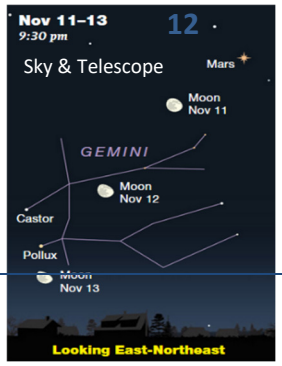
* NBAC's 25th Year! *

Cover Story> How big is Yours?

(Telescope Envy)

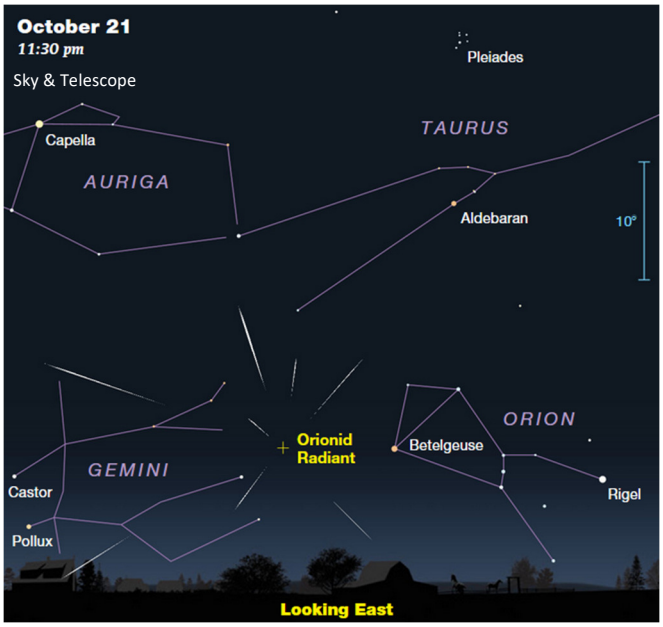
Lori Stiles & John Florence

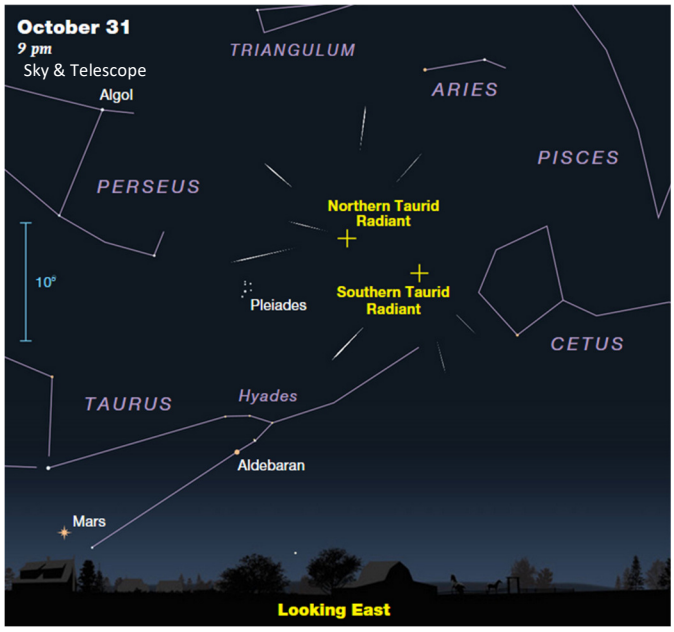
OCTOBER/NOVEMBER 2022

SUN	MON	TUE	WED	THU	FRI	SAT
Cover Story Photo Ready for aluminizing, first of the dual 8.3-meter mirrors for the Large Binocular Telescope. Behind is the team responsible for it. Produced at the Steward Observatory Mirror Laboratory, University of Arizona.				20 **NBAC Meeting** 6:00 TJ's - Loop 337	21 **Orionids peak**	22 **Astronomy Night** Tye Preston Library Canyon Lake, 7:30
23	24 	25	26	27 **Trunk or Treat** Mountain Valley Elementary 5-7pm	28 	29
30	31 HALLOWEEN **Trunk or Treat** Sattler ***N&S Taurids peak***	NOV 01	02	03	04 	05
06 **Daylight Savings Time Ends – 2am**	07	08 **Beaver** AKA - Frost, Snow, Trading Moon	09 	10	11 	12
13	14	15	16	17 **NBAC Meeting** 6:00 TJ's – Loop 337		

Solar System Happenings

- Mercury is an eastern morning planet, getting lower in the sky but remains bright
- Venus is heading for conjunction with the Sun on October 22. It comes back in the evening later in the year
- Earth still spins, and we are still here to marvel at it all.
    - We have two+ meteor showers in October
    - The Orionids on the late night of October 21st to morning of the 22nd. Originating from comet 1P/Halley, the Orionids are considered a beautiful shower.
    - Then a two-fer on Halloween night. The Northern and Southern Taurids occur simultaneously. The Southern Taurids come from remnants of comet Encke and the Northern Taurids come from remnants of Asteroid 2004 TG_{10}. The asteroid is thought to be associated with or a part of comet Encke due to sharing the same orbit.

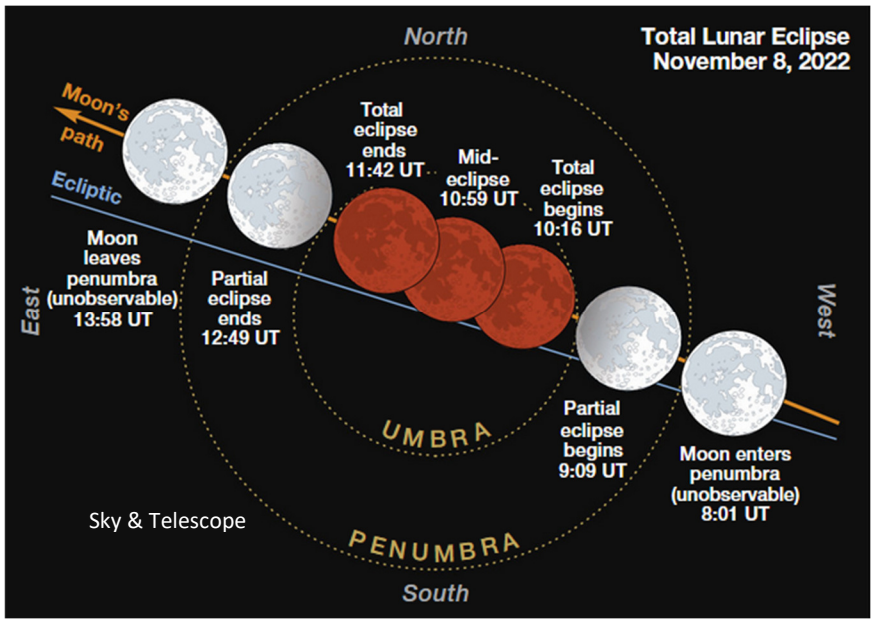




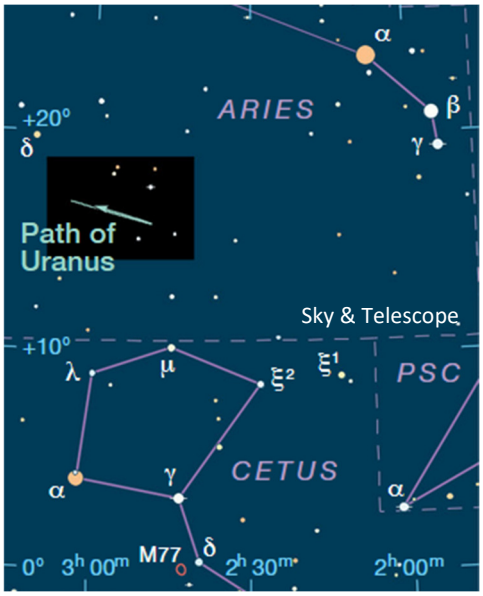
Best ISS viewing for Canyon Lake/New Braunfels -From Heavens Above

Date	Start Time	Start Loc	Max Alt °	End Loc	Note
10/21	06:46:14	W	27	NNE	Exits Earth's shadow at 06:46:14 Passes through Cassiopeia
11/06	05:42:12	N	12	E	Exits Earth's shadow at 05:42:12 Passes near Arcturus
11/08	05:41:25	NNW	31	ESE	Exits Earth's shadow at 05:41:25 Passes close to Alcor/Mizar
11/10	05:40:52	WNW	69	SE	Exits Earth's shadow at 05:40:52 Travels through Auriga, near M36,37,38
11/14	18:57	SSW	51	SE	Enters Earth's shadow near Jupiter
11/15	18:08	SSW	24	ENE	Enters Earth's shadow

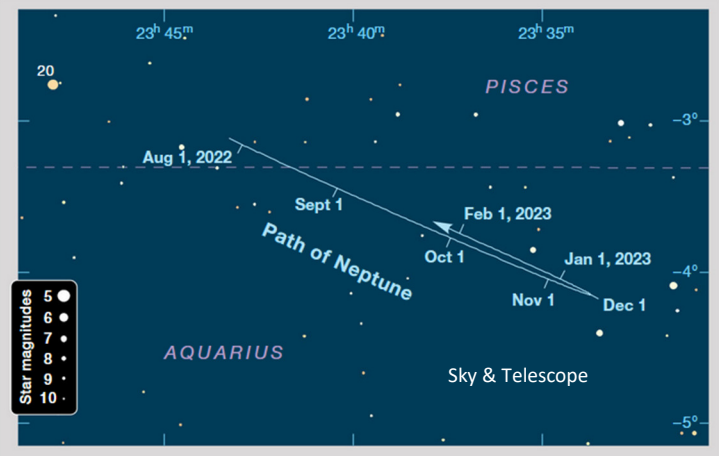
- The Moon dances with planets and stars.
  - CHALLENGE! A thin crescent Moon occults Mercury on October 24th, just after 9am CDT. Start following the Moon earlier.
  - Total Lunar Eclipse – November 8, early morning. Partial phase begins at 3:09 AM CST. See below.



- Mars is heading toward opposition and getting a little better every day. Now rising around 9:30 and up all night, it presents a bright target.
- Jupiter is past opposition and slowly losing brightness and apparent size. But…it's up all night.
- Saturn is up most of the night, setting in the early am hours and a beautiful sight.
- Uranus is in Aries, rising late night (east) and a morning planet in the southeast – use binoculars or telescope and catch this gray-green dot.



- Neptune is in eastern Aquarius, a month past opposition and up all night. Use binoculars or telescope to see this blue dot.



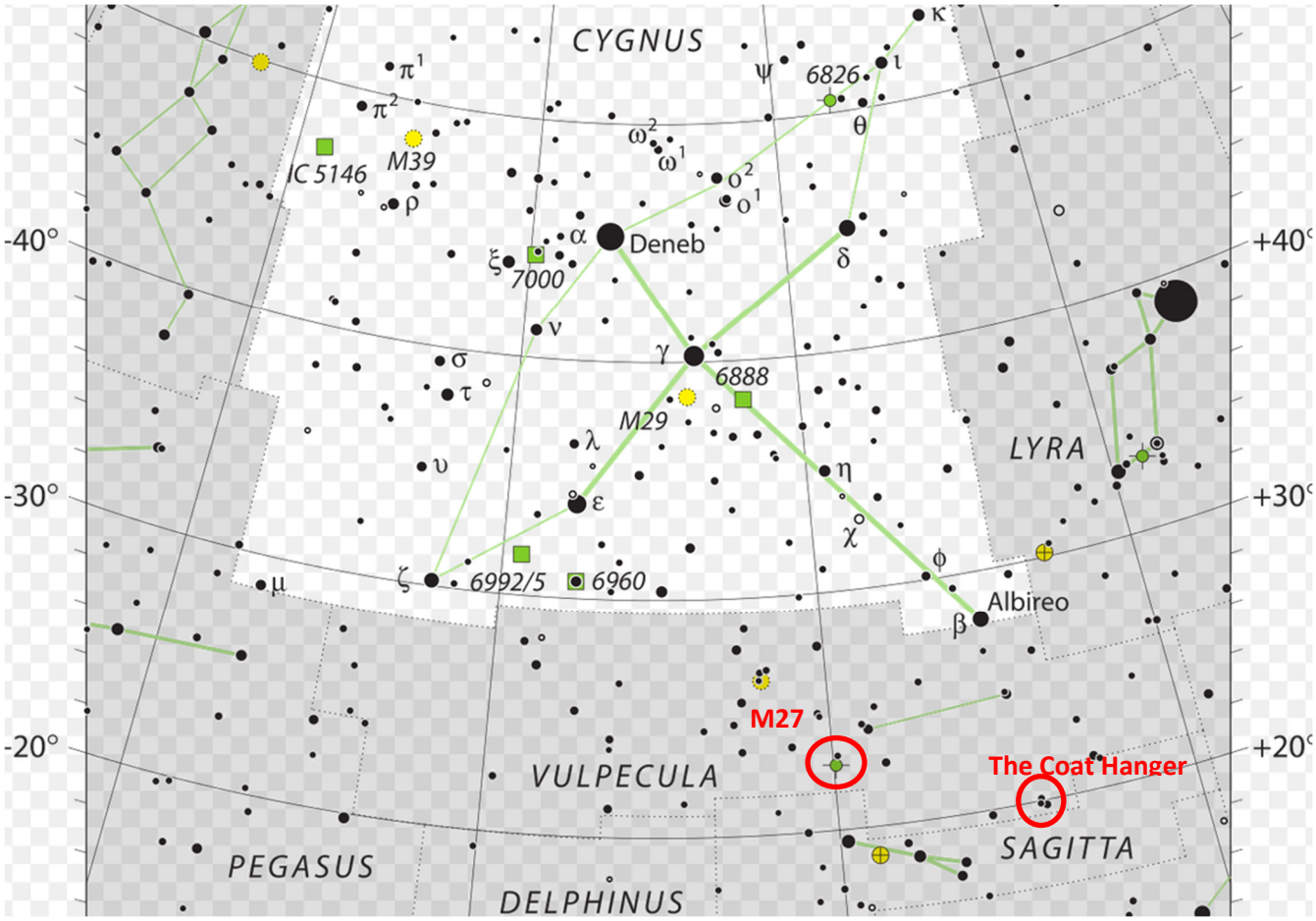
- Comets: Comet 2022 E3 (ZTF) was discovered in March 2022 by the Zwicky Transient Facility. It is a magnitude 10 object currently in northern Serpens Caput, so not well placed for us at this time. It sets just after sunset and rises just before sunrise. Come back in December.

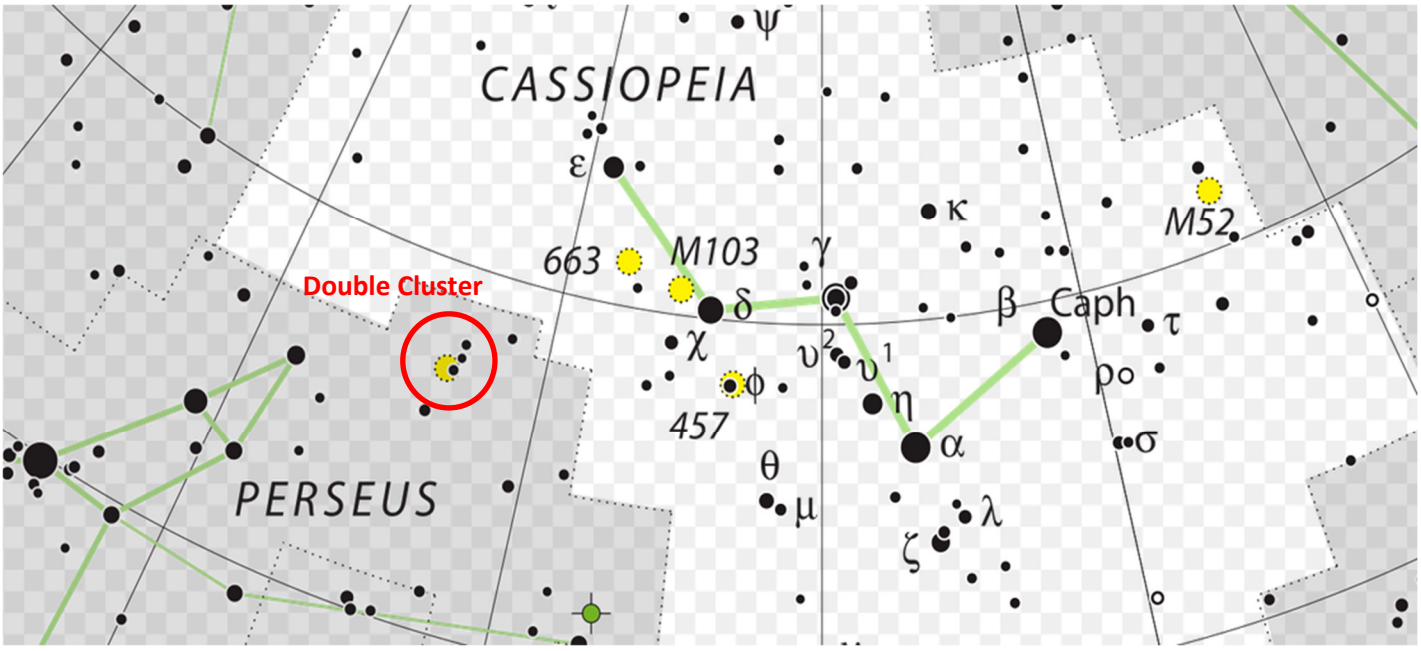
My Celestial Pick: The Rest of the Milky Way

In July I picked Sagittarius and the wealth of objects to observe in the southern Milky Way. Last month I picked Aquila, just north of that concentration of show pieces. As Paul Harvey used to say, now it's time for "the rest of the story".

While the southern Milky way has low-hanging fruit to sample, the central and northern Milky have gems of their own. Here is a sampling.

1. M27 (The Dumbbell – planetary nebula) in Vulpecula
2. Collinder 399 (the Coat hanger asterism-almost directly south of Albireo in Cygnus) in Vulpecula
3. Albireo (double star) in Cygnus
4. M29 (open cluster) in Cygnus
5. M39 (open cluster) in Cygnus
6. NGC 7000 & IC 5070 (North American Nebula & Pelican Nebula) in Cygnus
7. NGC 6826 (Blinking Planetary – planetary nebula) in Cygnus
8. NGC 6888 (Crescent Nebula with a Wolf Rayet star at center) in Cygnus
9. M52 (open cluster) in Cassiopeia
10. NGC 869 & 884 (Double Cluster – open clusters) in Perseus


CYGNUS
LYRA
VULPECULA
PEGASUS
DELPHINUS
SAGITTA
Deneb
Albireo
M39
IC 5146
7000
6826
6888
M29
6992/5
6960
M27
The Coat Hanger
-40°
-30°
-20°
+40°
+30°
+20°


CASSIOPEIA
PERSEUS
Double Cluster
663
M103
457
M52
β Caph

Imagining Imaging: Platform for club imagers…images and imagers needed!

Cover Story: How Big is Yours?

So, when you were a kid did you lust for that powerful, sleek, shiny white 60mm refractor in the Christmas catalogs? I did, and I had a neighbor across the alley who had one. I was lucky. He and I spent hours staring into the 12.5mm Huygens eyepiece of his 60mm Simmons Alt-Az refractor with a defective altitude controller (the hole it was supposed to connect to had not been tapped – no threads, so the altitude arm kept falling off). Still had a great time.

Then I met someone in eighth grade who had a 3" Alt-Az Newtonian reflector. It was nice but he soon got a Christmas upgrade, a gorgeous Tasco 4.5" equatorial Newtonian and boy, that made a difference! We had great times with it. I got a Gilbert microscope for Christmas. Noooo! I guess I didn't leave my mom enough hints – TELESCOPE! The microscope was cool but...

Then came high school and my lusts changed. CARS! After getting my license and a part time job, I bought my first car, a 1953 Ford that had been sitting in a yard I walked past every day going to school. Grass had grown up around it, it had been hand-painted a pinkish beige, flat tires. I had no idea if it would run but I plunked down $20. I aired up the tires and had my buddy from next door tow it home. You know, hook a chain to the bumpers and pull it slowly about 8 feet behind – hoping the brakes don't go out. Charged the battery, put a couple of gallons of gas in the tank, checked the oil (it was nasty but present) and turned the ignition. It stared and that was that. Independence!

College, marriage, and employment – yada, yada, yada, I subscribed to Astronomy magazine and telescope lust came back big time. Then it happened. Meade started an ad campaign for their new "APO" refractors. After a couple of agonizing years I built up the nerve to request budget for a 102ED. My first telescope!

That was the early 1990s. The 8" SCT was king of the block, and to me that seemed a big scope. Then I went to the Texas Star Party in 1995. There were 16", 18", 20", even 30" telescopes around me and my 4" refractor. My first view in a big scope was through my tent neighbor's 16" DIY DOB, of the Omega globular cluster. Wow – full of stars! Then I was invited to look at M104 (the Sombrero Galaxy) with a 20" Obsession DOB. My knees got weak. Didn't get a look through the 30".

Aperture fever is not just an ego thing, although it doesn't hurt. More bigger means more and brighter detail.

More better, yes?

It's a balance - what you want, what you want to see, and what you can handle. More bigger also means more weight, bulk, and physical challenge (even if it's in a permanent spot). More bigger usually means longer focal length, higher power, and narrower field of view. Oh, and more $$$$. It's a balance.

My current lust? A 20" f3.3 Go To DOB. Dream on…dream until your dreams come true.

The cover image? Just a teaser. There is no way…

-Eric Erickson

Lagniappe

CARPE DIEM

CARPE DIEM

RHYMES WITH ORANGE

THE OTHER COAST

-From Stewart Wirebaugh (2)