

New

Braunfels

Astronomy

Club

BECAUSE IT'S OUT THERE

# Larry's Celestial Calendar & Newsletter

by Eric Erickson

312<sup>th</sup> Edition

Volume 26, Number 7

July 20<sup>th</sup> to August 17<sup>th</sup>, 2023

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# New Braunfels Astronomy Club

BECAUSE IT'S OUT THERE

July 20<sup>th</sup>, 2023  
Meeting 286  
Agenda

- Open meeting and introduce new members (get names, email).
- Interesting observations, experiences.
  - **Tonight** – Venus, waxing crescent Moon, Mars, Regulus, & Mercury in the west – 30 minutes after sunset
- Show and tell.
- Current news and what's in our sky this month: *Member input, Newsletter.*
- Events, Outreach, Planning.
  - April 8, 2024 total solar eclipse planning
  - Fall/Winter/Spring Astronomy Night Schedule
- Business
- Main Event
  - Discussion from Wednesday's (07/19) *Dark Sky International* ZOOM presentation by Parisa Bajelan on Astrophotography.

Coming up: **OUR 287<sup>th</sup> ASTRONOMY CLUB MEETING**

**August 17<sup>th</sup>, 2023, from 6 - 8 pm**

**TJ's on Loop 337**

[astronomynbtx.org](http://astronomynbtx.org)

Email: [admin@astronomynbtx.org](mailto:admin@astronomynbtx.org)



Astronomy Friends New Braunfels.....

[facebook.com/groups/354953995432792/](https://facebook.com/groups/354953995432792/)

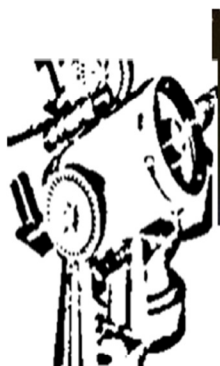


Comal County Friends of the Night Sky.....

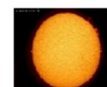
[facebook.com/groups/166098014710276/](https://facebook.com/groups/166098014710276/)

[comaldarksky.org/](http://comaldarksky.org/) Email: [admin@comaldarksky.org](mailto:admin@comaldarksky.org)

# Astronomy Night at Tye Preston Memorial Library Canyon Lake, TX



Date	Doors Open	Note
1/21/2023	7:00 PM	
2/18/2023	7:30 PM	
3/25/2023	8:30 PM	
4/22/2023	8:30 PM	
5/20/2023	2:00 PM	<i>Sun Party - wear sunscreen and sunglasses!</i>
9/16/2023	8:00 PM	
10/14/2023	8:00 PM	
10/21/2023	7:30 PM	International Observe the Moon Night
11/18/2023	6:30 PM	Crescent Moon
12/9/2023	6:30 PM	



Tye Preston Memorial Library  
New Braunfels Astronomy Club

[tpml.org](http://tpml.org)

[astronomynbtx.org](http://astronomynbtx.org)



Astronomy Friends New Braunfels

There will be surprise giveaways at some evnts so join us!!

**Comal County Friends of the Night Sky supports and encourages Astronomy Night**

Website: [comaldarksky.org](http://comaldarksky.org) Email: [info@comaldarksky.org](mailto:info@comaldarksky.org)



Comal County Friends of the Night Sky Group

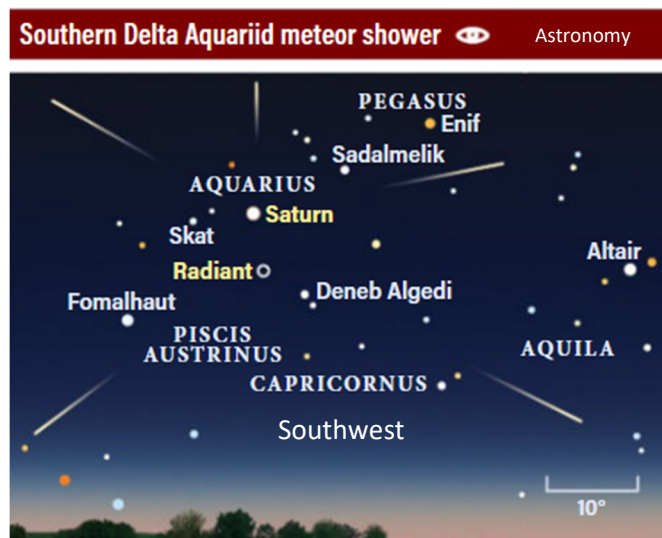
# JULY/AUGUST 2023

SUN MON TUE WED THU FRI SAT

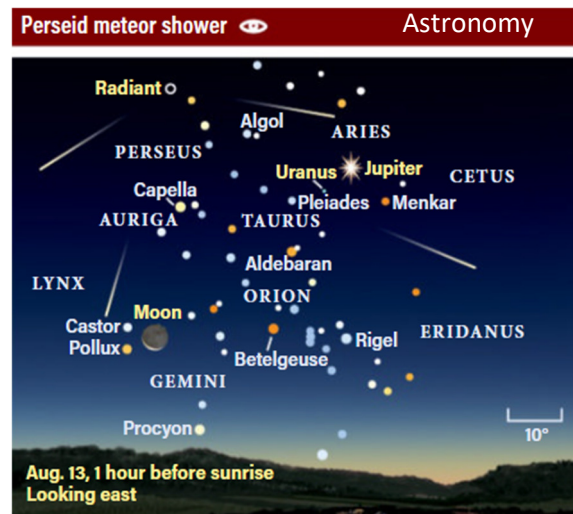
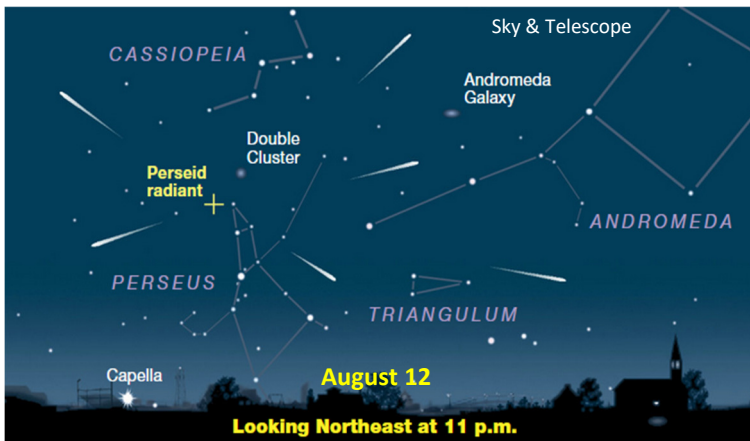
<div>On the Cover: Cr 399, aka Brocchi's cluster, is also called The Coathanger.</div> <div>We now know it is not a cluster, rather, it is an asterism.</div>		<div>LEO Sky &amp; Telescope</div> <div>Moon July 20</div> <div>Mars</div> <div>Regulus</div> <div>Venus</div> <div>Mercury</div> <div>Moon July 19</div>	<div>JUL 20</div> <div>21</div> <div>22</div> <div>NBAC Meeting</div> <div>6:00</div> <div>TJ's on Loop 337</div>			
23	<div>Dusk, July 23-24</div> <div>9 pm</div> <div>Spica</div> <div>Moon July 24</div> <div>Moon July 23</div> <div>Sky &amp; Telescope</div> <div>CORVUS</div>	25	<div>26</div> <div>Looking West</div>	27	28	29
30	<div>31</div> <div>Looking Southwest</div> <div>Southern Delta</div> <div>Aquarids</div> <div>meteor shower;</div> <div>before sunrise.</div> <div>Bright Moon</div>	<div>AUG 01</div> <div>Sturgeon Moon</div> <div>Fly Up "</div> <div>Corn "</div> <div>Harvest "</div> <div>Ricing "</div> <div>Black Cherries "</div> <div>Mountain shadows "</div> <div>Supermoon</div>		<div>Dawn, Aug 2-4</div> <div>45 minutes before sunrise</div> <div>Sky &amp; Telescope</div> <div>Moon Aug 4</div> <div>Saturn</div> <div>10°</div> <div>Moon Aug 3</div> <div>Fomalhaut</div> <div>Moon Aug 2</div> <div>CAPRICORNUS</div> <div>Looking Southwest</div>	04	05
06	07	08	10	11	12	<div>Persied</div> <div>Meteor</div> <div>Shower</div> <div>Late tonight</div>
13	14	<div>Dawn, Aug 8 and 9</div> <div>1 hour before sunrise</div> <div>Sky &amp; Telescope</div> <div>Pleiades</div> <div>Moon Aug 8</div> <div>Moon Aug 9</div> <div>Jupiter</div> <div>TAURUS</div> <div>Aldebaran</div> <div>Looking Southeast,</div> <div>halfway up in the sky</div>	16	17	<div>NBAC Meeting</div> <div>6:00</div> <div>TJ's on Loop 337</div>	
<div>Perseid</div> <div>Meteor</div> <div>Shower this morning</div>						

# Solar System Happenings

- ✚ **Mercury** is hanging about  $10^\circ$  above the horizon just after sunset and getting lower. See Venus. The low ecliptic means it doesn't get better, even with greatest eastern elongation on August 9.
- ✚ **Venus** is the brilliant object in our western sky, still hanging in there and looking good. ---on July 20<sup>th</sup>, our meeting night, 30 minutes after sunset, it's mixed up with Mars, a waxing crescent Moon, Leo's alpha star Regulus, and even Mercury below and to the right. Binoculars helpful.
- ✚ **Earth** still spins, and we are still here to marvel at it all.
  - July 30 (before sunrise): *Southern Delta Aquariid meteor shower*. A bright Moon interferes until it sets.



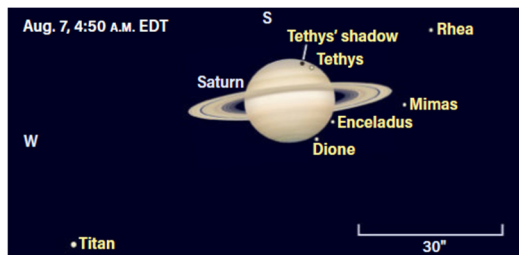
- August 12(night) – 13(morning): *Persied meteor shower*



## Best ISS viewing for Canyon Lake/New Braunfels - From [Heavens Above](#)

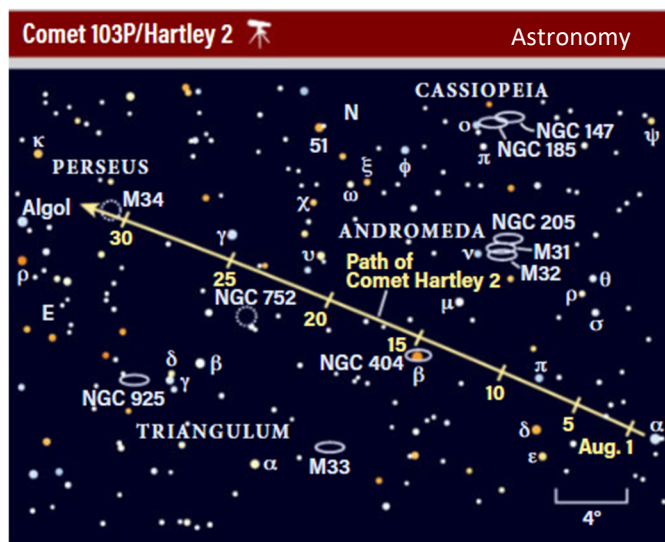
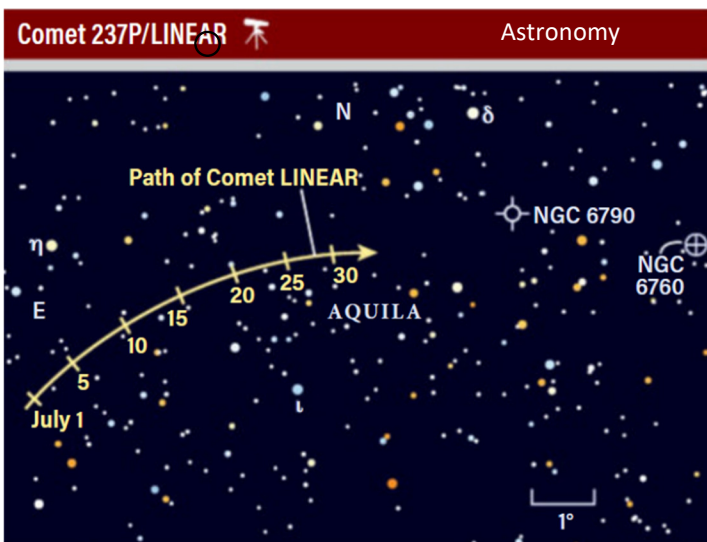
Date	Start Time	Start Loc	Max Alt °	End Loc	Note
07/30	21:32	NNW	20	ENE	Enters Earth's shadow
07/31	22:20	NW	46	-	Enters Earth's shadow near Arcturus
08/01	21:31	NW	64	ESE	Passes close to Vega. Enters Earth's shadow after passing Altair
08/03	21:30	NW	31	S	Enters Earth's shadow in Scorpius's tail
08/04	21:41	NW	68	SE	Enters Earth's shadow near the horizon

- ✚ **The Moon** dances with planets and stars.
- ✚ **Mars** is continuing to dim at magnitude 1.8 and progressively difficult to spot in the early evening sky. See Venus.
- ✚ **Jupiter** rises just after midnight in early August and is a good target, rising earlier as the month progresses.
- ✚ **Saturn** rises earlier, around 10-10:30 in mid-July and by 9:30 on August 1<sup>st</sup>, putting it in good position for observation and/or imaging a couple of hours later.



- ✚ **Uranus** shows up near Jupiter, around 7-9 degrees northeast, in Aries.
- ✚ **Neptune** rises around 10pm and is in Pisces.
- ✚ **Comets:**
  - Comet 237P/LINEAR is a short period comet (6.6 years) with an orbit controlled by Jupiter. It reaches just beyond Jupiter's orbit before swinging back toward the Sun. At magnitude 13 it requires some aperture to see well. 8" barely catches it. A 10" or larger scope is needed for any detail.
  - Comet 103P/Hartley 2 is a short period comet (6.5 years) and while a fairly dim magnitude 10, it's catchable in small instruments. Larger glass will bring out more of its character.





Comet Hartley 2 flies past several deep-sky objects in April. The comet mirrors the famous Ghost of Mirach midmonth.

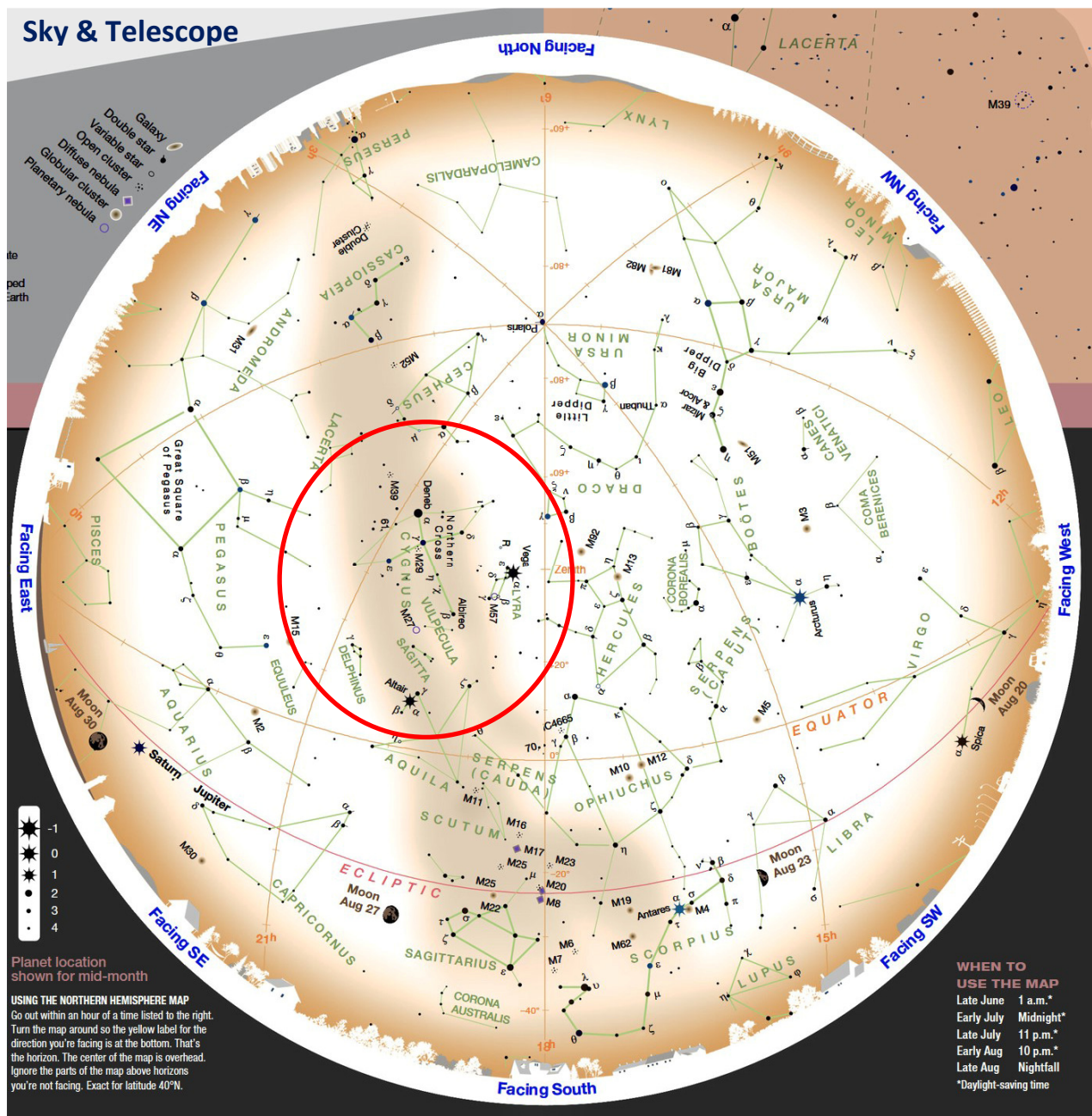
## My Celestial Pick: Inside the Summer Triangle

One sentinel of summer is the asterism called the Summer Triangle. Composed of the bright stars VEGA (Lyra), ALTAIR (Aquila), AND DENEK (Cygnus), it commands a big swath of sky and holds a bunch of binocular-ready sights. Situated up high, it's positioned for easy binocular holding – on your back or in a chair that leans way back. Most binoculars will work, but ones with 40-60 mm objectives and 10x magnification or a little higher are better. While it's not necessarily giant binocular friendly, if you are lying on your back or otherwise reclined sufficiently, even binoculars as large as 70-80 mm diameter could be tried. The limiting factor is your steadiness and resistance to fatigue. Larger binoculars tend to have greater magnification so take that into consideration. Also, they tend to be heavy, and fatigue is a factor even while lying down. It's still worth a try if you have them. So, get a blanket, pad, chaise lounge. Lie back and relax. Look into the triangle.

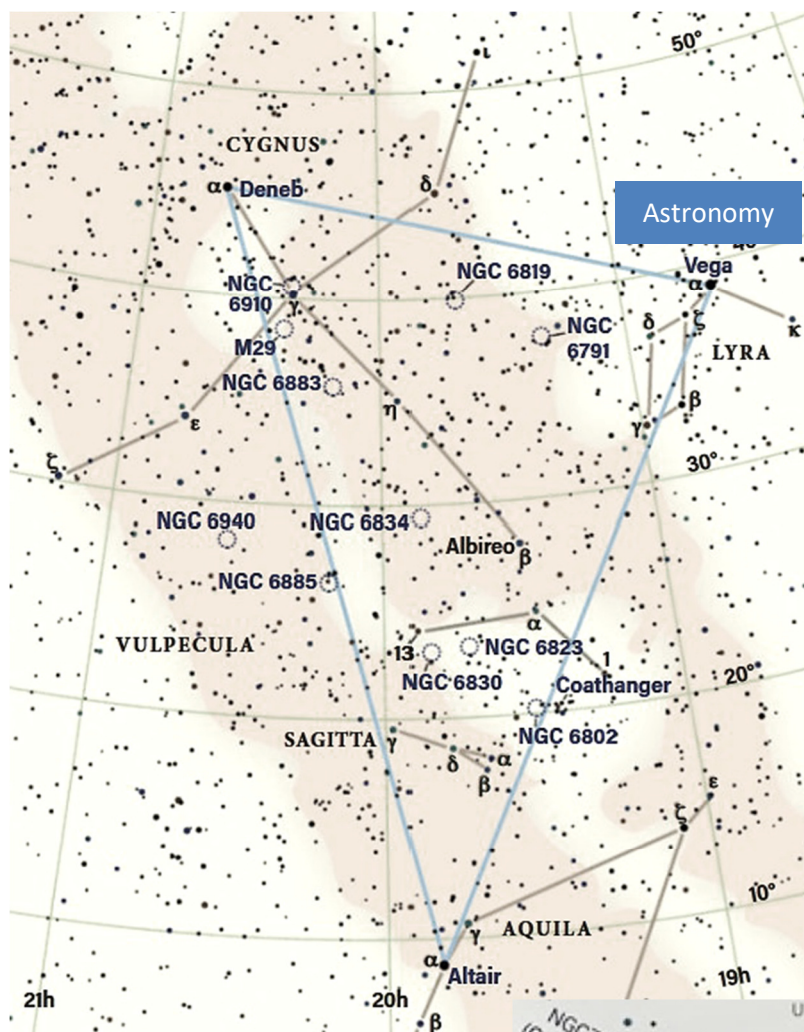
As you can see from the graphics below, the Summer Triangle is jam packed, because it overlays part of our Milky Way galaxy. There are even delights to see just outside the triangle. Some highlights:

- *M29* – one of many open clusters in the triangle
- *M56 & 71* – challenging globular clusters
- Albireo ( $\beta$  Cygni) – a beautiful, colorful (golden and blue) binary star
- *M27* – the Dumbbell Planetary Nebula
- *Collinder 399* – the Coathanger asterism (see Cover Story)
- *Epsilon ( $\epsilon$ ) Lyrae* – the Double-Double star system

- *M57* – the Ring Nebula is too small for binoculars smaller than 75mm and a challenge for binoculars smaller than 100mm. If you can see its elliptical shape, you are doing well. 100mm binoculars can show the ring shape. A telescope of 100mm or larger diameter shows the ring nicely.
- *NGC 7000/Caldwell 20 & IC 5070* – The North American Nebula and the Pelican Nebula are located just east of Deneb ( $\alpha$  Cygni) and visible in binoculars. To see them in any detail you will need 70mm or larger and 15x or higher. NGC 7000 and IC 5070 are part of a massive hydrogen cloud. The apparent gap between them is caused by a dust lane named LDN 935.







Pete Lawrence

## Cover Story> Asterisms: Better than Constellations?

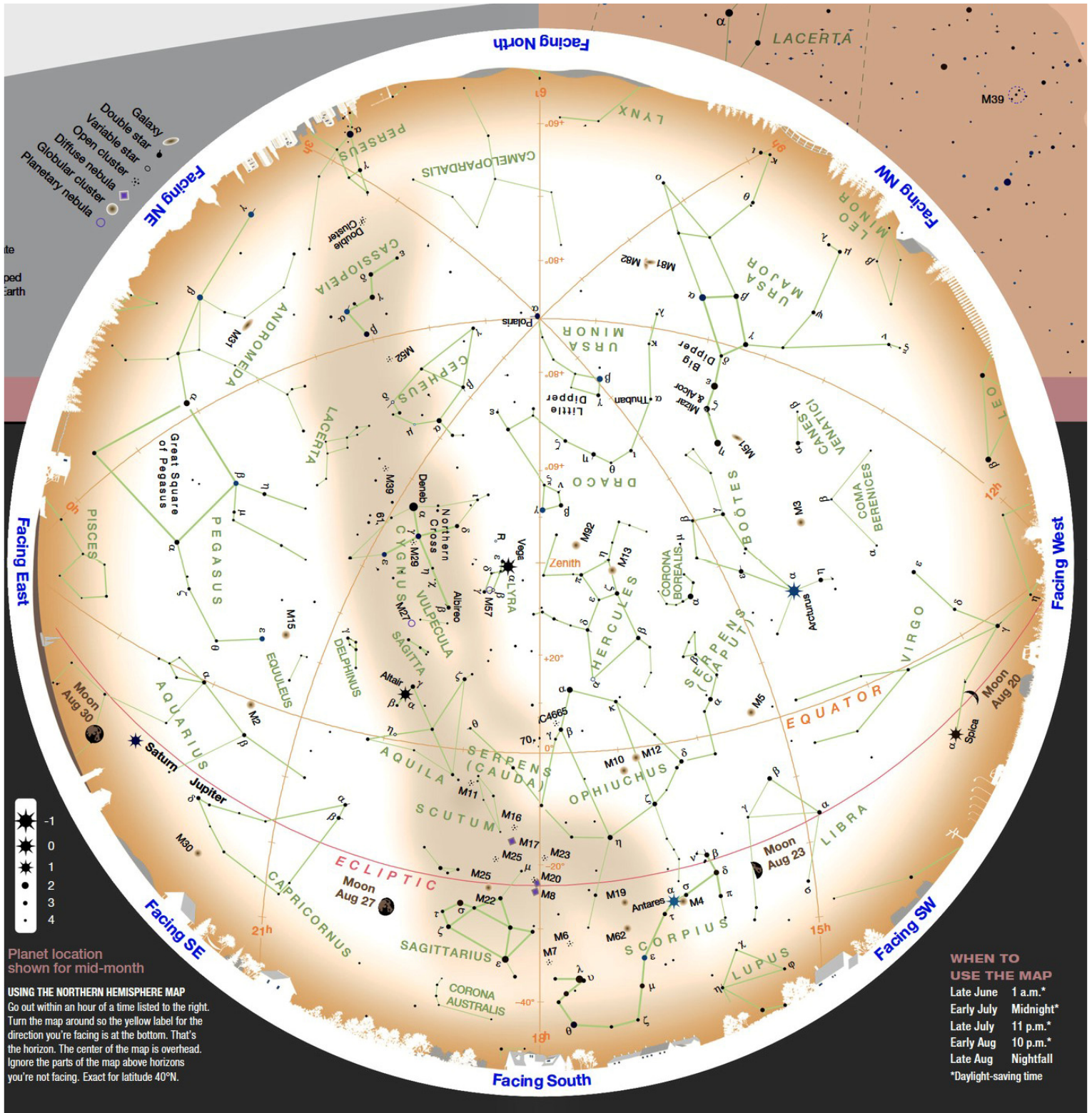
Better is a strong word, but you gotta admit, asterisms have a cool factor that constellations lack. In most cases, unlike constellations, asterisms look like their names!

An asterism is “an observed pattern or group of stars in the sky” according to Wikipedia. So, can I say all constellations are asterisms, but most asterisms are not constellations? Well, I said it. Constellations are based on asterisms and occupy defined spaces in the celestial sphere, filling the entire northern and southern sky. Asterisms, however, are constantly being found and named.

Here is a brief list of asterisms:

- The Big and Little Dippers – parts of Ursa Major and Minor, the great and small bear.
- The Summer Triangle (Altair, Deneb, Vega), Winter Hexagon (Pollux, Capella, Aldebaran, Rigel, Sirius, and Procyon), Winter Triangle (Procyon, Betelgeuse, and Sirius), Spring Triangle (Arcturus, Regulus, and Spica), the Great Diamond (Arcturus, Spica, Denebola, and Cor Caroli)
- The Northern Cross (part of Cygnus, from Deneb to Albireo and epsilon Cygni to delta Cygni). Cygnus, the swan.
- The Southern Cross (part of Crux – Alpha, Beta, Gamma, Delta, and Epsilon Crucis). Crux, the cross.
- The Fishhook (part of Scorpius – from Beta Scorpii to Delta Scorpii)
- The Scorpion (part of Scorpius) – from its head ( $\beta$ ,  $\delta$ , and  $\pi$ ), heart (Antares or  $\alpha$ ), body, tail, and stinger ( $\tau$  through  $\upsilon$ ). It’s a big constellation.
- The Butterfly and Keystone (parts of Hercules). Hercules, the demigod strongman.
- Ice Cream Cone/Kite (part of Boötes). Boötes is a plowman.
- The misshapen W or M of Cassiopeia
- The Great Square (part of Pegasus). Pegasus, the winged horse.
- The Teapot (part of Sagittarius). Sagittarius, the archer.
- The Pleiades (within Taurus) – many people mistake the Pleiades for the Little Dipper. The Pleiades is also called the Seven Sisters.
- The Bull’s Face/Hyades (part of Taurus). Taurus, the bull.
- The Coathanger (within Vulpecula). Need binoculars or telescope.
- The Trapezium (within Orion). Need a telescope.
- Orion’s Belt and Sword. Orion, the hunter with his tiny head.

Use the charts above and below to identify most of these asterisms



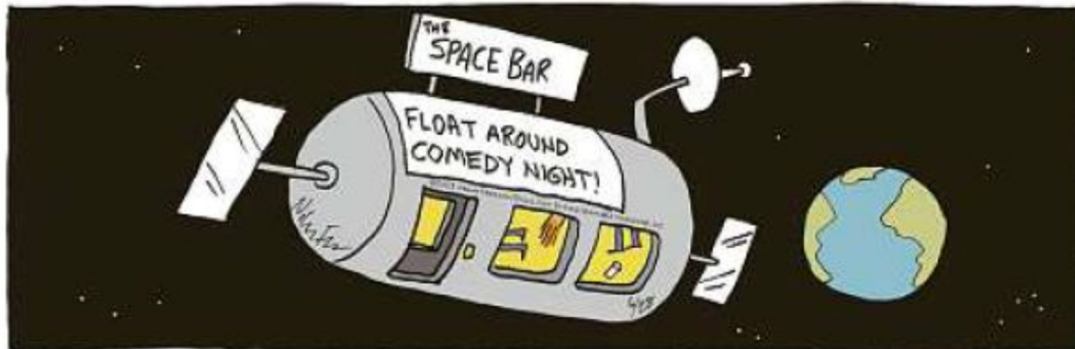


# Lagniappe

## THE OTHER COAST



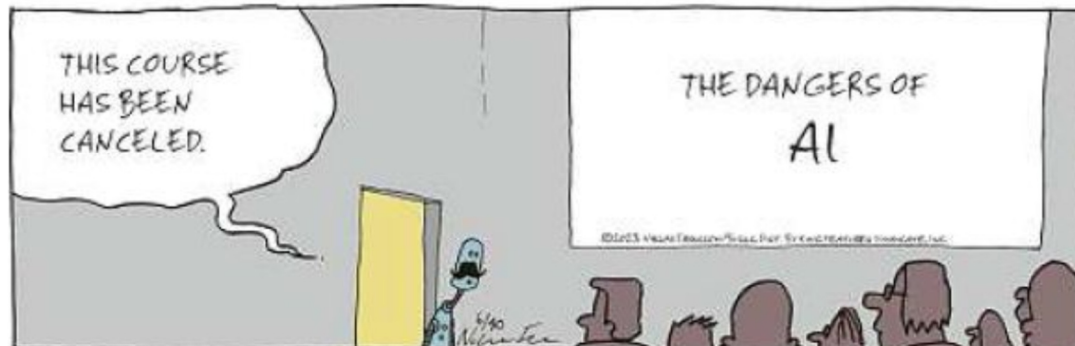
## CARPE DIEM



## WUMO



## CARPE DIEM



## MACANUDO



## RHYMES WITH ORANGE



## CARPE DIEM



## THE OTHER COAST

