

New Braunfels Astronomy Club

Texas, USA

April 19^h, 2018

227th Meeting

Larry's

Celestial Calendar & Newsletter

April 20th, 2018 to May 17th, 2018 250th Edition

Lyrid Meteor Shower April 22
Eta Aquariid Meteor Shower May 6
Lunar and Planetary Pairings
Jupiter!

Observer's Highlight Calendar for Clear Skies

Month Date Time Event

Month	Date	Time	Event
Apr	22	1am...before dawn	Lyrid meteor shower peaks – start looking east after midnight
Apr	22	4:46pm CDT	First quarter Moon
Apr	27	Dusk	Venus, Aldebaran, and the Pleiades meet above the west-northwest horizon
Apr	29	7:58pm CDT	Full Moon
May	4	After sunset	See Apr 27
May	4-6	Before sunrise	Mars, Saturn, and a waning gibbous Moon dance close to the Sagittarius teapot in the south
May	6	+/- 3am CDT	The Eta Aquariid meteor shower is peaking in the east. The Moon will interfere.
May	7	9:09pm CDT	Last quarter Moon
May	8	8pm CDT	Jupiter is at opposition and rises with sunset
May	15	6:48am CDT	New Moon
May	17	Dusk	Venus shares the western horizon sky with a waxing crescent Moon, and Betelgeuse to the lower left

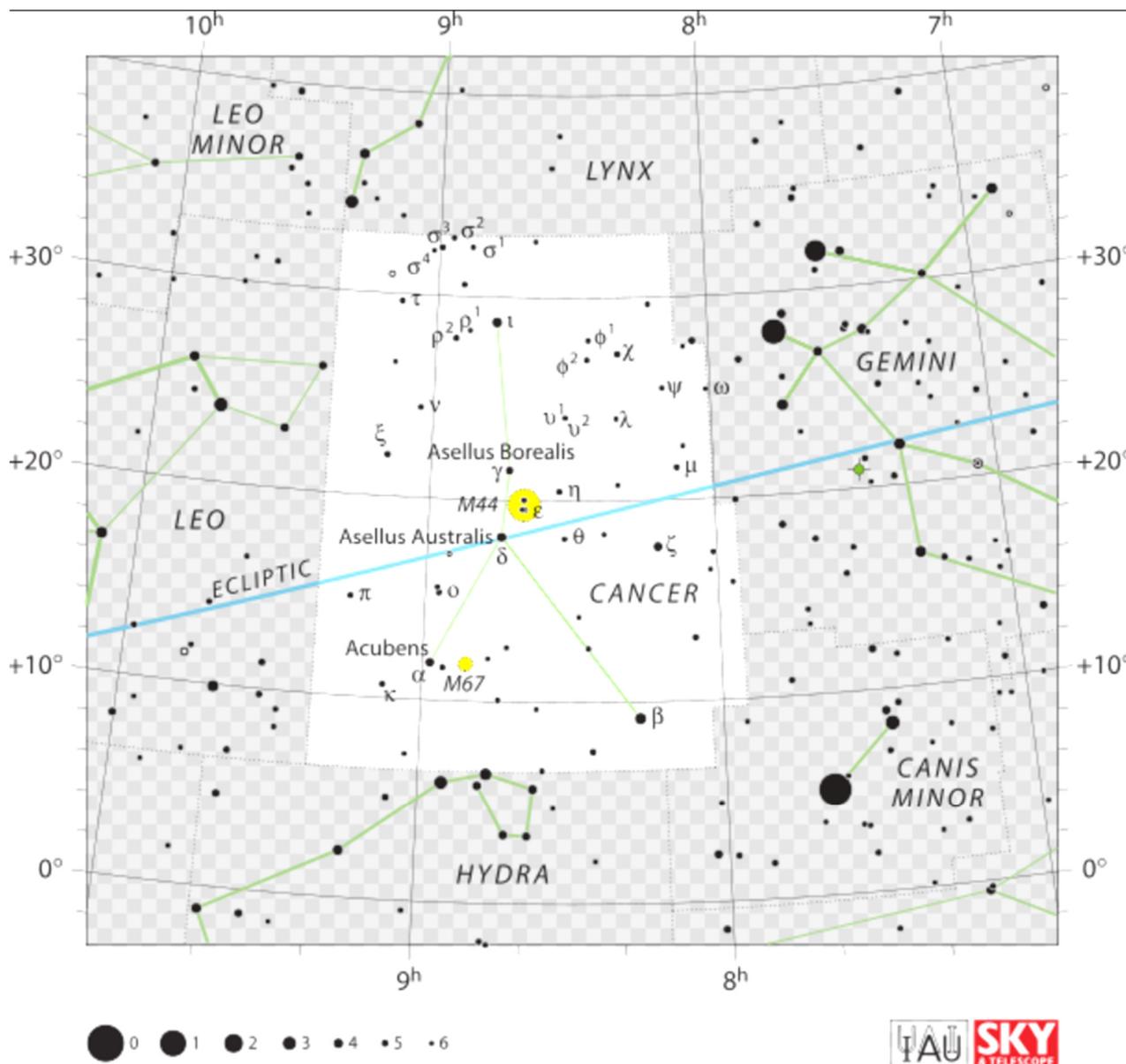
Solar System Roundup

- ✚ **Mercury** is heading toward greatest western elongation on April 29th but still close to the eastern horizon at dawn.
- ✚ **Venus** is brilliant in the low western sky before sunset.
- ✚ **Earth** still spins, and we are still here to marvel at the wonders of our universe.
- ✚ **The Moon** once exhibited volcanism on a grand scale, what a sight that must have been. With volcanos come lava flow, lava tubes and collapsed lava tubes known as *rilles*. So, the next time you are Moon watching with high power, check out some rilles and know that lava once flowed there. A prominent one is near the craters Aristarchus and Herodotus
- ✚ **Mars** is a morning “star” and rising higher in the southern sky, seen with Saturn just above the “Teapot” in Sagittarius.
- ✚ **Asteroid(s)** Ceres is the closest dwarf planet to Earth and cruising in between Cancer and Leo heading southeast.
- ✚ **Jupiter** is rising before 10pm now and at sunset on its May 8th opposition.
- ✚ **Saturn** is a morning “star” and teams up with the Moon and Mars in Sagittarius
- ✚ **Uranus** is lost in the Sun’s glare.
- ✚ **Neptune** is in conjunction with the Sun and not well placed for observing
- ✚ **Comet(s)** PANSTARRS (C/2016 R2) is a dim (magnitude 10-11) comet. It’s from the Oort cloud and is now heading northeast in Auriga. It will be about 2° south of Capella on May 1st.
- ✚ **ISS Viewing for New Braunfels (works for Canyon Lake too)**

Date	Start Time	Start Location	Travel
04/27	06:16:51	SSW	Along the south, southeast, and east horizon
04/29	06:08:06	SW	NE high in the sky
05/01	06:00:51	W	Along the west, northwest, north horizon

My Observing Pick: Cancer

Back to the Zodiac and Greek mythology. Latin for crab, cancer is a crab or some form of crustation in most cultures. The Greeks made Cancer a sacrificial object. Hercules either kicked it into the sky for challenging him, or Hera placed in the sky as reward for challenging Hercules during his twelve labors. Cancer might be a later addition to Hercules mythology and his twelve labors so his labors can correspond to the twelve signs of the Zodiac. Either way Cancer is the crab of crabs.



Name	Object Type	Location	Description
M44	Open cluster	Between δ & γ Cancri	Known as the Beehive or Praesepe. Contains around 1000 stars. 590 LY from Earth
M67	Open cluster	Just west of α Cancri	Smaller and denser than M44. 200 stars. 2600 LY from Earth

What is it?

Kelvin (K)

The *absolute thermodynamic temperature scale*. 0 kelvin = absolute zero, where all *thermal motion* stops. Not represented as a measure of degree since 1968.

Celsius = $K - 273.15$

Fahrenheit = $K \times 9/5 - 459.67$

Absolute zero = 0 K, -273.15° C, -459.67° F

A common use, Kelvin is used to measure color temperature of light sources as this is based on black body radiator principles. Redder light is below 4000 K and bluer light is above 7500 K. For example, digital cameras white balance can be adjusted manually (using K) to correct for different ambient light situations, or act as a color filter. Auto White Balance does it...automatically.

Next Month: Black Body Radiation

Opportunities for NBAC Reach out

New Braunfels and Guadalupe Master Naturalists

The New Braunfels and Guadalupe Master naturalists do not have any lectures on the night sky. Astronomy is in their curriculum, but they have no one to present. They are looking for someone to present a 45-minute talk + 15 minute Q&A at one of their monthly meetings.

New Braunfels: lindheimermn@gmail.com

Guadalupe: txmn.org/guadalupe/

Coming up: OUR 228th ASTRONOMY CLUB MEETING

Thursday, **May 17th**, 2018, from 7 – 9:00 p.m., held in the conference room of TJ's restaurant on Loop Road (337). Have dinner, snack, dessert, and/or a beverage if you like.

The New Braunfels Astronomy Club can be reached at www.astronomybtx.org

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