

# New Braunfels Astronomy Club

Texas, USA

July 16<sup>th</sup>, 2020

251<sup>st</sup> Meeting (Zoom 4)

## Larry's Celestial Calendar & Newsletter

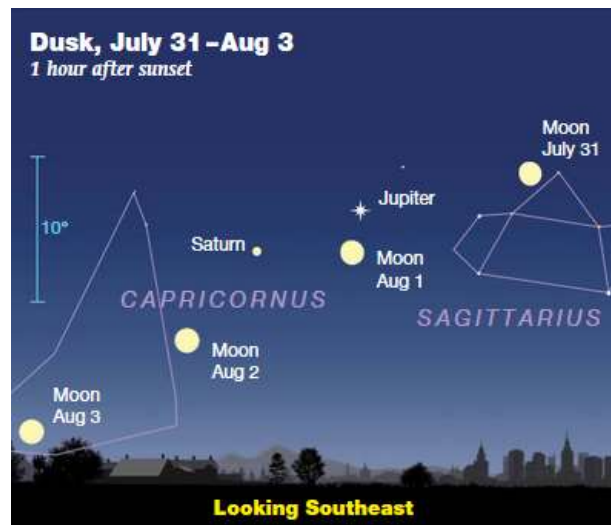
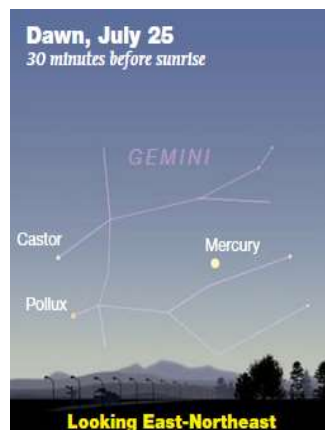
276<sup>th</sup> Edition

-by Eric Erickson

**Summertime, Summ...Yikes! It's HOT!**  
**Comet NEOWISE (C/2020 F3) Looking Good**  
**Venus in the Morning**  
**Saturn Reaches Opposition 07/20**  
**The Perseids are Coming 08/11-12**  
**The Moon and Planets Dance**

### Highlight Calendar for Clear Skies

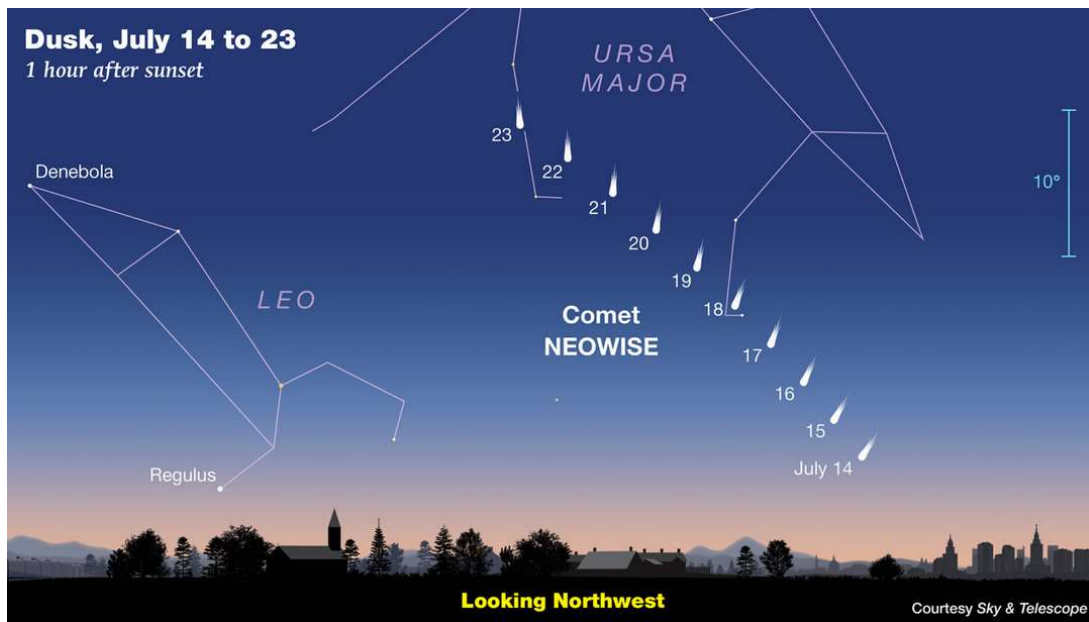
-From Sky and Telescope Magazine





## Solar System Roundup

- ✚ **Mercury** will be visible in the early morning hours east-northeast, starting July 17
- ✚ **Venus** is a morning planet, rising about 2 hours before the Sun. It meets up with a waning crescent Moon and Mercury July 17-19. Best on the 17<sup>th</sup>.
- ✚ **Earth** still spins, and we are still here to marvel at the wonders of our universe
- ✚ **The Moon** is with various planets this month, including Mars on August 8
- ✚ **Mars** rises after midnight and its disk getting bigger as it approaches opposition in October
- ✚ **Jupiter** rises in the late evening and looks great
- ✚ **Saturn** rises in the late evening and is in conjunction with Jupiter – a great conjunction. It is at opposition on July 20<sup>th</sup>.
- ✚ **Uranus** is in Aries and transits the meridian around sunrise
- ✚ **Neptune** is in Aquarius, transiting the meridian as Venus is rising
- ✚ **Comet(s)**
  - NEOWISE (C/2020 F3) is the first naked eye comet in a while. It's a retrograde comet, that is, orbit is opposite that of most other solar system objects. NEOWISE is a long period comet with a parabolic orbit. Don't hold your breath for its return.



ISS viewing for New Braunfels (works for Canyon Lake too).

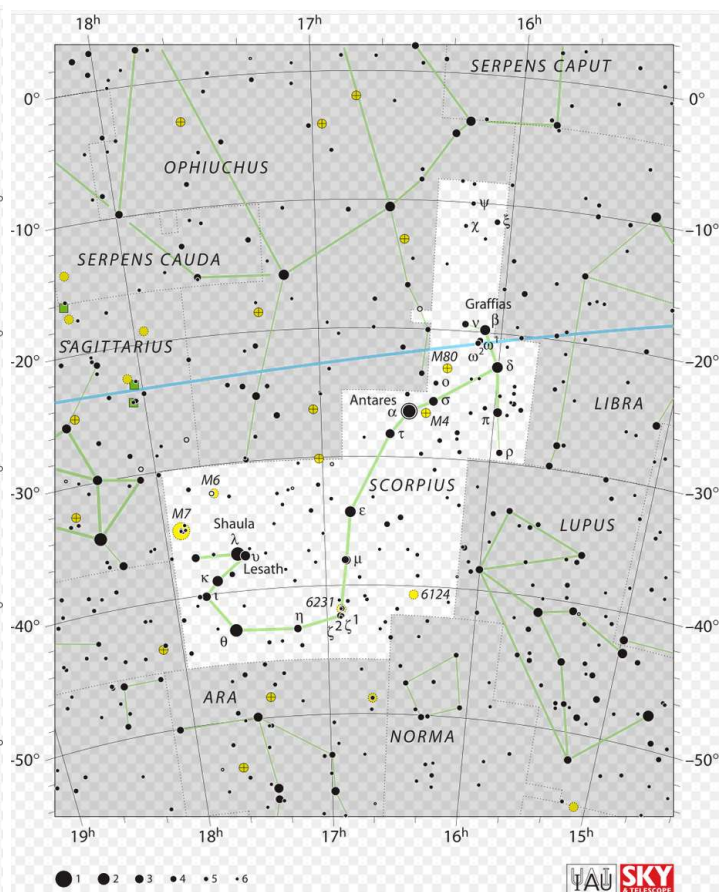
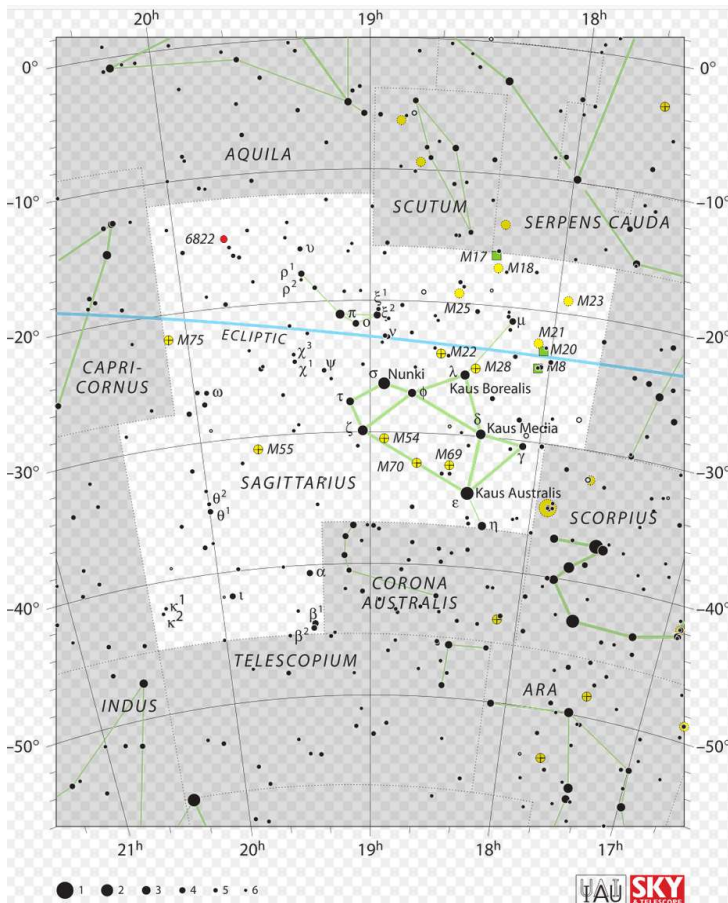
▪ From Heavens Above

Date	Start Time	Start Loc	Max Alt °	Travel Toward	Note
07/16	20:56	SW	89	NE	Skims by Arcturus
07/18	20:58	WSW	24	NNE	Close to Regulus
08/05	21:10	NW	53	SE	
08/07	21:09	NW	35	SE	Cuts through Scorpius
08/19	06:34	S	13	ENE	Slips past Sirius

## My Observing Pick: Still Scorpius & Sagittarius

It's summertime and that means all the thrill and beauty of the southern sky and Milky Way. We have the scary scorpion and the archer, both constellations of the Zodiac. And they're next door to each other. The shape of Scorpius is unmistakable. It's one of the best constellation examples of looking like what it is named. Sagittarius not so much. I have a harder time seeing a half-man, half-centaur. One asterism stands out in Sagittarius, the Teapot. Once Sagittarius rises above the city lights murk, the Teapot can be easily spotted. See below.

Both constellations have a wealth of objects visible in binoculars and telescopes. I suggest starting by scanning around in the constellations and then pick a few areas to focus on.



## Great Comets

2019 and 2020 have been blessed with the presence of numerous comets. You might ask, WHERE?! Me too. Unless you have a telescope at least 8" in diameter they are just dim smudges and even in an 8" they aren't anything to brag about. You need to go bigger, or take long exposure images, or mate a specially designed video camera with your telescope. That last option outputs to a display so you can comfortably look. Oh, and the output is bright and even colorful!

Recent comets have been a challenge. Well, there's a new comet in town. Comet NEOWISE, aka C/2020 F3 survived a close encounter with the Sun and is heading toward closest approach to us. Don't get overly amped up, this one probably won't be a great comet. But it might be a good comet.

Great comets are transformative. They astonish, incite wonder, even fear, and make us consider the larger picture. They get big, bright, and have marvelous tails. Let's look at some.

Comet Halley was first documented in the winter of BC 373-372 by Greek historian Ephorus. It has been followed ever since but hasn't always been a great comet. Remember 1986? It was not great. Its apparition in 12 BC was considered both an omen of death (Roman general Marcus Agrippa) and possibly birth (the Star of Bethlehem?). With a period of 74-79 years its return often rekindles prophecy or omens, including in 1066 when Harold II died in the battle of Hastings. Halley has had 5 great apparitions.

Donati's Comet (Giovanni Battista Donati) of 1858 was the brightest comet of the 19<sup>th</sup> century and considered one of the most beautiful ever. Abraham Lincoln observed it on September 14<sup>th</sup>, 1858, the night before his third debate with Stephen Douglas. He described it as "a fire of remarkable whiteness...a distinct disc of brilliant white light...terminating in a broad brush of faint light". Was it a good omen?

The Great Daylight Comet of 1910 snuck up on everyone that January. It apparently brightened suddenly because it was not discovered until already visible with the naked eye. This comet became brighter than Venus. It was also a big surprise because everyone was waiting for the next apparition of Halley's Comet in April, which itself was great. A twofer!

Comet Ikeya-Seki (1965) is a Sun-grazing comet, and got within 300,000 miles from the Sun. It became one of the brightest comets of the past 1000 years.

Hyped Kohoutek (1973) ...disintegrated and fizzled. Not great.

Comets Hyakutake (1996), and Hale-Bopp (1997) were treats to cap the 20<sup>th</sup> century. They were both bright, beautiful, and big and stayed a while. They were great comets.

Eric Erickson

## Coming up: OUR 252<sup>nd</sup> ASTRONOMY CLUB MEETING

**August 20<sup>th</sup>** 2020, from 7 – 9:00 p.m.

**ZOOM meeting**

New Braunfels Astronomy Club

 [Astronomy Friends New Braunfels](https://www.facebook.com/groups/354953995432792/)

 [Comal County Friends of the Night Sky](https://www.facebook.com/groups/166098014710276/)

Mick Homer-First Contact

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

<https://www.facebook.com/groups/354953995432792/>

<https://www.facebook.com/groups/166098014710276/>

[mhomer2012@yahoo.com](mailto:mhomer2012@yahoo.com)

# New Braunfels Astronomy Club Meeting

Date: 06/19/2020

## Agenda

- Open meeting and introduce new members
  
- Interesting observations, experiences
  
  
  
  
  
  
  
- Show and tell
  - **Observatories**
  
  
  
  
  
- What's in our sky this month? [Newsletter and Abrams Sky Calendars](#)
- What's going on – events, outreach
  
  
  
- Main feature(s)
  
  
- Open for discussion
  
  
- Feedback and close the meeting