

# Summer Astronomy 2017

By Rich Grebb

Below please find a few suggestions for viewing summer sky events.

**Night Viewing tips:** Night skies look best from dark locations away from lights. Always let someone know where you will be observing, take a flashlight, and let your eyes adjust to the dark (minimum of 30 minutes).

**Late June to early October,** look overhead for the three bright stars of the Summer Triangle, Vega (Constellation Lyra), Deneb (Cygnus), and Altair (Aquila).

- Use binoculars to scan the Milky Way in the center of the Triangle. This region is filled with thousands of stars and clusters.
- This is also the region being studied by the Kepler Spacecraft. Finding planets orbiting distant stars, Kepler has already confirmed 2335 new planets and another 4034 objects are awaiting confirmation! (Updated 06-24-2017)

**Planets:** Jupiter will be visible April through early August. Venus shines brightly in the southeast before sunrise mid-April to August. Saturn and its beautiful rings are visible evenings low on the southern horizon June through September!

In **July, August, and September**, the area near the southern horizon displays the prominent constellations Scorpius and Sagittarius (look for the Teapot). This region is cluttered with stars and star clusters, many can be seen naked eye or with binoculars. The center of our galaxy lies in this direction, some 30,000 LY away.

## Up-coming Astronomical Events:

**-Meteor Showers:** Late July into early August is a good time to see meteors "Shooting Stars". Meteors from the Delta Aquarids (July 29-30) and the Perseids (August 10-13) converge at this time. For more info, go to Earth-Sky News website listed below in references on the back.



**-The BIG EVENT of 2017**

**The American Total Solar Eclipse of August 21, 2017!** (Over) →

**The Great American Eclipse of 2017:** The “Really Big Show” this year is the much-anticipated Total Eclipse of the Sun on August 21<sup>st</sup>! The path of totality from the moon’s shadow will cut a path 68 miles wide from Portland, OR to Charleston, SC! It’s been almost 4 decades since a total solar eclipse has touched the US, and in 1979 only a few Western states saw totality. It was raining in NE PA!

For the August 21<sup>st</sup> eclipse, the rest of North America, outside the 68-mile wide path of totality (the Umbra), will see a partial eclipse. The amount of the sun covered and the timing will vary by location. **EYE SAFETY: Viewing any part of the sun can burn blind spots on the retina.** Eclipse glasses, a fun book titled **GET ECLIPSED** and other safe viewing tips can be found at: [www.EclipseGlasses.com](http://www.EclipseGlasses.com) See below!

**Special Note:** For my friends near **Philadelphia & New York**, approximate viewing times are listed here. All times are EDT, with the start, maximum, and end times listed respectively. Be sure to check local news services for updates!

<u>August 21, 2017:</u>	<u>Start</u>	<u>Maximum</u>	<u>Finish</u>
	1:20pm	2:40pm	4:00pm

### August 21, 2017 Total Solar Eclipse

#### References:

- Fred Espenak “Mr. Eclipse” at: [www.EclipseWise.com](http://www.EclipseWise.com)
- Eclipse Glasses, fun information, Safety & More at: [www.EclipseGlasses.com](http://www.EclipseGlasses.com)
- **\*\*Eclipse Glasses, Maps, Times, etc. at: [www.GreatAmericanEclipse.com](http://www.GreatAmericanEclipse.com)**  
**\*\*Best Price: 5 pair for \$8.00**
- **For Star Charts:** Abrams Planetarium at: [www.pa.msu.edu/abrams/skycalendar](http://www.pa.msu.edu/abrams/skycalendar)
- **For Astronomy News:** [www.EarthSky.org](http://www.EarthSky.org)
- **For new planet discoveries from NASA:** [www.Kepler.nasa.gov](http://www.Kepler.nasa.gov)

\*PS: During the eclipse, don’t forget to look under a leafy tree, like a Maple Tree. You’ll be **surprised** to see dozens of miniature **eclipses projected on the ground** through the tiny “pin-hole” spaces caused by the leaves.

**Remember: Never look at the sun without your eclipse glasses!**