

# Sky News

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Summer, 2018

volume 30, number 10

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## SOUTHERN SKY CONSTELLATIONS

## SUMMER PLANETS

French astronomer Nicolas Louis de Lacaille charted the southern sky and created many constellations in areas where there weren't any yet. He made celestial measurements, measured positions of 9,766 stars, and catalogued 42 deep sky objects.

Lacaille created the scientific tool constellations that were popular in the 1700s. They include: Antlia Pneumatica (the Air Pump), Caelum (the Engraving Tool), Circinus, (the Geometer's Compasses), Fornax Chemica (the Chemist's Furnace), Horologium Oscillatorium (the Pendulum Clock), Mons Mensae (Table Mountain), Microscopium (the Microscope), Norma et Refula (the Level and Square), Octans (the Octant), Pictor (the Painter's Easel), Pyxis Nautica (the Ship's Compass), Reticulum Rhomboidalis (the Eyepiece Reticule), and Sculptor (the Sculptor's Workshops).

### GREAT PACIFIC GARBAGE PATCH

An ocean gyre is a circular area created by Earth's spin and ocean currents. The Pacific Ocean gyre is located between California and Hawaii. In 2015, researchers discovered this gyre had grown to be 3 times the size of France, or 617,763 square miles, weighing 90,000 tons. It's growing at a rapid pace. The problem is the gyres accumulate trash floating in the ocean. Plastics especially, that can take extremely long to break down but then create another problem. Ocean life feeds on these small plastic pieces and people feed on them.

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The following sources were used  
for this issue of Sky News:

[www.casonline.org](http://www.casonline.org), [www.jpl.nasa.gov](http://www.jpl.nasa.gov),  
<http://www.astropixels.com>,  
<https://oneminuteastronomer.com/1158/>,  
[www.astronomy.com](http://www.astronomy.com), [EarthSky.org](http://EarthSky.org),  
*Astronomy*, and *Sky and Telescope*.

**Mercury** appears very low in the western sky in June and July after passing behind the Sun. Mercury will disappear in August as it passes between the Sun and Earth on August 8<sup>th</sup>. Mercury looks like a small white star.

**Venus** can be seen after sunset as the "Evening Star" this summer in the western sky moving from the constellation Cancer (the Crab) in June, into Leo (the Lion) for July, ending up in Virgo (the Maiden) in August. Venus disappears in the Sun's glare by the end of August. Venus looks like a bright white star.

**Jupiter** can be seen in the south-southwestern sky after sunset in the constellation Libra (the Scales), Jupiter appears farther to the west every night and sets earlier. By August, Jupiter can be seen only for an hour in the southwestern sky after sunset. Jupiter looks like a bright, yellow star.

**Mars** is great to view this summer as it reaches opposition on July 27<sup>th</sup>. Mars can be seen rising around midnight in the constellation Capricornus (the SeaGoat), rising earlier every night. Mars passes low through the southern sky and into the southwestern sky by dawn. Mars looks like a very bright, ruddy-colored star.

**Saturn** can be seen rising in the southeast after sunset in the constellation Sagittarius (the Archer), just above the Teapot. Saturn is opposite the Sun in June and is great to view! By August, Saturn is in the southern sky at sunset. Saturn moves through the southwestern sky and into the southwest, rising and setting earlier every night. Saturn looks like a bright, amber-colored star.

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This edition of the  
*Sky News*  
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**SKY DATES**

- June**
- 2 - Moon at apogee (farthest point from Earth) at 251,852 miles at 10:34 a.m.
  - 3 - Moon passes 3.2° N of Mars
  - 5 - Mercury at superior conjunction
  - 6 - Moon passes 2° S of Neptune
  - Last quarter moon at 12:32 p.m.
  - 7 - Venus passes 4.6° S of Pollux
  - 9 - Moon passes 2° S of Venus
  - 13 - New moon at 1:43 p.m.
  - 14 - Moon at perigee (closest point to Earth)
  - 16 - CAS hosts an Open House at Conway 9:00
  - Moon passes 2.3° S of Venus
  - Moon passes 1.5° S of Beehive cluster
  - June Lyrid meteor shower
  - 18 - Moon passes 1.7° N of Regulus
  - 19 - Venus passes 0.4° N of Beehive cluster
  - 20 - First quarter moon at 4:51 a.m.
  - 21 - Summer Solstice at 4:07 a.m.
  - 23 - Moon passes 4.2° N of Jupiter
  - 24 - Mercury passes 4.7° S of Pollux
  - 27 - Saturn at opposition at 6:00 a.m.
  - Moon passes 1.8° N of Saturn at 11 p.m.
  - 28 - Full moon called Rose, Green Corn, Hot, Planting, or Strawberry Moon at 11:53 p.m.
  - Mars is stationary at 9 a.m.
  - 29 - Moon at apogee (farthest point from Earth)
  - 30 - Moon passes 4.8° N of Mars
  - June Bootid meteor shower peaks
  - Asteroid Day
- July**
- 3 - Mercury passes 0.6° S of Beehive cluster
  - 6 - Last quarter moon at 1:51 a.m.
  - Earth at aphelion (farthest from sun) at 1.01670 AU or 94,508,169.254 miles
  - 9 - Venus passes 0.9° N of Regulus
  - 10 - Moon passes 1.1° N of Aldebaran
  - 11 - Mercury at greatest eastern elongation at 26.4° E of the Sun
  - 12 - New moon at 8:48 p.m.
  - Partial solar eclipse (not visible)
  - 13 - Moon at perigee (closest point to Earth)
  - 14 - CAS hosts an Open House at Conway 9:00
  - 15 - Moon passes 1.7° N of Regulus
  - Moon passes 1.6° N of Venus
- 19 - First quarter moon at 1:52 p.m.
- 20 - Mercury at aphelion
- Moon passes 4.4° N of Jupiter
- 24 - Mercury passes 1.2° S of Regulus
- 25 - Moon passes 2.0° N of Saturn
- 26 - Moon at apogee (farthest point from Earth)
- 27 - Mars at opposition
- Full moon called Summer, Red Cherries, Hay, Buck, or Thunder Moon at 10:07 p.m.
  - Total lunar eclipse not visible in the U.S.
- 28 - Delta Aquarid meteor shower peaks
- 29 - Alpha Capricornid meteor shower peaks
- August**
- 1 - Cross-quarter day, Lammas, the halfway point of summer
  - 4 - Last quarter moon at 12:18 p.m.
  - 6 - Moon passes 1.12° S of Aldebaran
  - 8 - Mercury at inferior conjunction
  - 10 - Moon at perigee (closest point to Earth)
  - 11 - Partial solar eclipse
  - New moon at 3:58 p.m.
  - CAS Open House at Conway at 8:30
  - 12 - Perseid meteor shower peaks after sunset
  - 14 - Moon passes 6.3° N of Venus
  - 17 - Moon passes 4.5° N of Jupiter
  - Venus at greatest eastern elongation
  - 18 - First quarter moon at 1:49 a.m.
  - 20 - Mercury passes 4.8° S of Beehive cluster
  - 21 - Moon passes 2.1° N of Saturn
  - 23 - Moon at apogee (farthest point from Earth)
  - 26 - Full moon called Green Corn, Grain, Red, Cherries Turn Black, Lightning, or Dog Day's Moon at 12:11 p.m.
  - Mercury at greatest western elongation
  - 29 - Venus passes 1.0° S of Spica
  - 31 - Aurigid meteor shower peaks

**BEST SUMMER SHOWER**

The best meteor shower of the summer will be the Perseids on August 12<sup>th</sup>. Just after a new moon phase, the sky will be dark for viewing 60 or more meteors per hour shooting across the sky from the north. The meteors emanate from the constellation Perseus (the Hero). Many of the meteors have long, golden trails behind them. Watch all night, from dusk to dawn, for the best summer shower of the year. Nights before and after the peak are active too.