



[Astronomy Club of Asheville](#)

November 2018 Sky Events

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November 2018 Sky Events – the Planets

- ★ November is traditionally a time to give thanks for bountiful harvests, but if observers are looking to reap the dusk skies of naked eye planets, the pickings this month are scarce.
- ★ For those in the Northern Hemisphere, **Mercury** is all but lost to the Sun's glare this month. The solar system's innermost planet heads toward an *inferior conjunction* on the 27th, passing between the Earth and the Sun. In December, it reemerges in dawn skies with a favorable apparition for early risers.
- ★ **Venus** celebrated its own *inferior conjunction* in October; it now shines in the E-SE as a *Morning Star* before sunrise. By month's end, this planet will beam at a bright magnitude of -4.9. Modest telescopes will reveal a charming thin, waxing crescent disk.
- ★ **Jupiter** ends its delightful evening reign and joins other planetary companions as it, too, becomes lost in the Sun's glare. Reaching *solar conjunction* on the 27th, this gas giant reappears in morning skies next month.

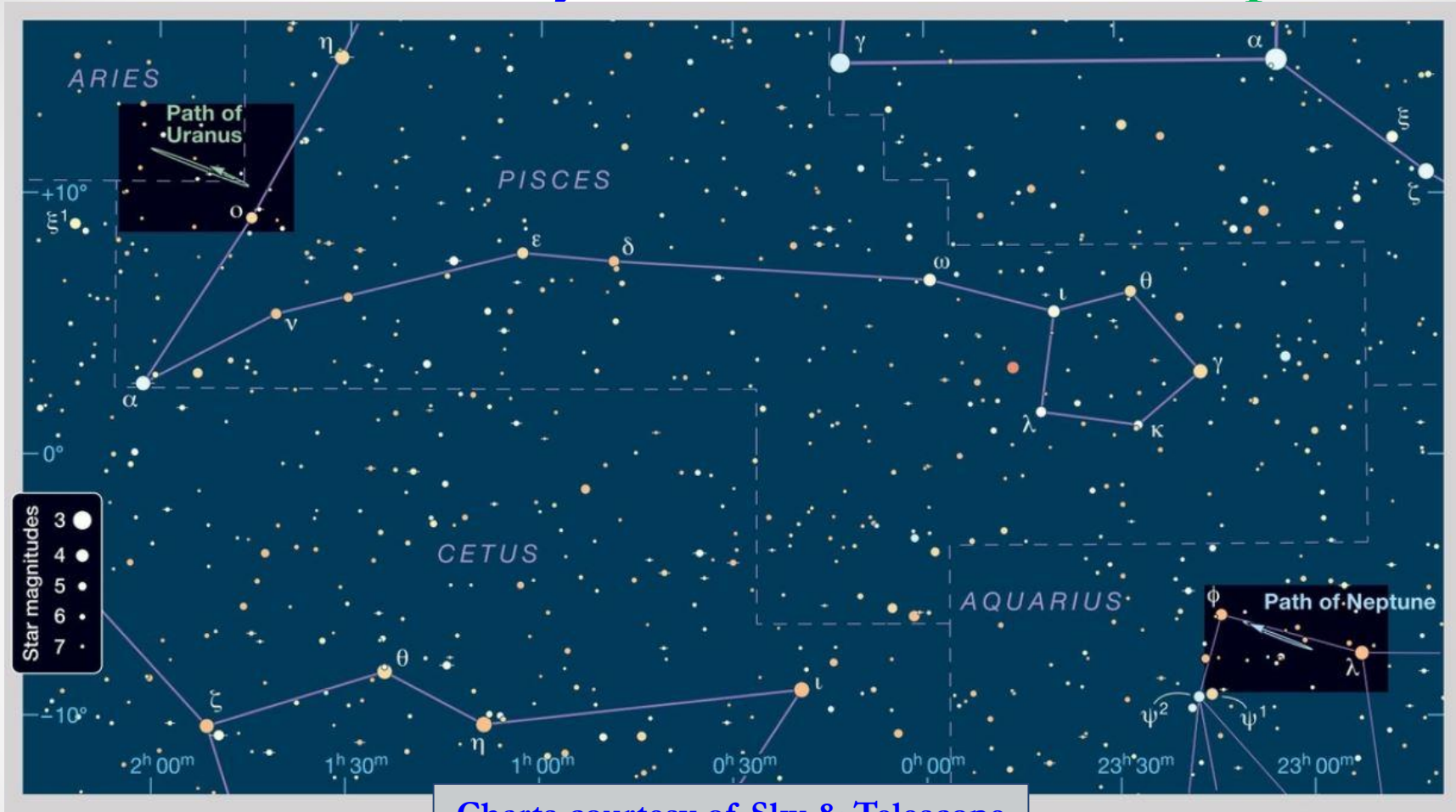


November 2018 Sky Events – the Planets

- ★ Continuing the pattern of disappearing naked eye planets after sunset, **Saturn** begins its own descent to the southwestern horizon and into twilight's glare. This early evening target will still delight during the first few days of the month; later in November, crisp telescopic views of the *Ringed Planet* will be compromised by atmospheric distortion near the horizon.
- ★ Finally, **Mars** is the sole naked eye planet to remain in a favorable observing position in November's evening skies. While this might console some sky watchers, the *Red Planet* is well past its July peak. Receding from the Earth and fading noticeably, Mars ends the month 20 million miles more distant and dims a half magnitude in brightness.
- ★ The outer planets, *ice giants* **Uranus** and **Neptune**, remain in great position for evening observers. Though harder to locate and less alluring than the five naked eye planets of Mercury, Venus, Mars, Jupiter and Saturn, these two distant worlds can be pleasant in the eyepiece and are worth hunting. See the following charts to locate their positions in November.



November 2018 Sky Events – Uranus and Neptune



The motion of the two ice giants, Uranus and Neptune, as they slowly move through the constellations Aries and Aquarius, respectively, in 2018 and beyond.



November 2018 Sky Events – Uranus and Neptune

Charts courtesy of Sky & Telescope



Position of Uranus in November 2018



Position of Neptune in November 2018

While Uranus makes an 84 year orbit around the Sun, Neptune's path takes nearly twice as long – 165 years – thus their lazy motion through our skies is nearly imperceptible.



4 November 2018 Highlight

Mars Pairs with the Sea-Goat's Tail

Dusk, Nov 4

1 hour after sunset

Mars
δ Cap
Less than
1° apart!

10°

Fomalhaut

Looking South-Southeast

On the evening of **Sunday, November 4th**, a conjunction of the planet **Mars** with the tail of the mythical “sea-goat” constellation **Capricornus** will form a close pair, separated by less than one degree.

This star, Delta (δ) Capricorni, is also known as “**Deneb Algedi**”, Arabic for “tail of the goat.” At magnitude 2.9, the star is easily outshone by the planet – on this night, Mars gleams **23 times** brighter!

Despite Deneb Algedi’s faintness, it lies some 39 light years, or **234 trillion miles**, behind the Red Planet!



10-11 November 2018 Highlight

A Crescent Moon Skips Past Saturn

On the evenings of **Saturday and Sunday, November 10th & 11th**, follow the thin crescent **Moon** as it seems to pass **Saturn**, moving from opposite sides of the *Ringed Planet* during these two nights, and forming a pleasing conjunction.

Try your luck spotting this pair about an hour after sunset, around **6:30 p.m.**, before the waxing lunar crescent sets in the fading twilight.

While the Moon lies **246,000 miles** distant on these nights, Saturn is some **995 million miles beyond** its celestial companion!





15 November 2018 Highlight

A Shiny Quarter and a Copper Planet

On the evening of **Thursday, November 15th**, look to the south about **6:30 p.m.** to see the **First Quarter Moon** situated 3 degrees to the lower right of ruddy **Mars**.

While the Moon's travel against the background stars is easy to detect from night to night, planetary movement is fairly subtle. When watched closely, though, its motion can sometimes surprise.

To the Moon's right is the star *Delta* (δ) *Capricorni*. Just 11 days earlier, this object was paired very closely with the Red Planet in our skies!

Dusk, Nov 14–16

1 hour after sunset



Looking South, halfway up

[Image courtesy of Sky & Telescope](#)



November 2018 Planet Highlights

<u>Planet</u>	Avg. Distance from Earth	Constellation(s)	Avg. Diameter in arc seconds	Avg. Magnitude	Comments
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Mercury	0.9 AU _s	Scorpius, Ophiuchus & Libra	8.0	+1.2	Poor month for the planet. Reaches <i>inferior conjunction</i> on the 27 th .
Venus	0.3 AU _s	Virgo	51.2	-4.6	Shines brightly low in the SE at dawn by mid-month.
Mars	0.9 AU _s	Capricornus & Aquarius	10.6	-0.3	Fading in brightness. Seen in the S by early



November 2018 Planet Highlights

<u>Planet</u>	Avg. Distance from Earth	Constellation(s)	Avg. Diameter in arc seconds	Avg. Magnitude	Comments
Jupiter	6.3 AU _s	Libra & Scorpius	31.2	-1.7	Reaches conjunction with the Sun on the 26 th .
Saturn	10.7 AU _s	Sagittarius	15.4	+0.5	Sets in the SW by early evening.
Uranus	19.0 AU _s	Aries	3.7	+5.7	Visible most of the night.



November 2018 Planet Highlights

<u>Planet</u>	Avg. Distance from Earth	Constellation(s)	Avg. Diameter in arc seconds	Avg. Magnitude	Comments
Neptune	29.6 AU _s	Aquarius	2.3	+7.9	Observe before midnight.



The Moon – November 2018

	New Moon**	7 th	11:02 a.m.
	First Quarter	15 th	9:54 a.m.
	Full Moon	23 rd	12:39 a.m.
	Last Quarter	29 th	7:19 p.m.

**** The “Beaver Moon”**

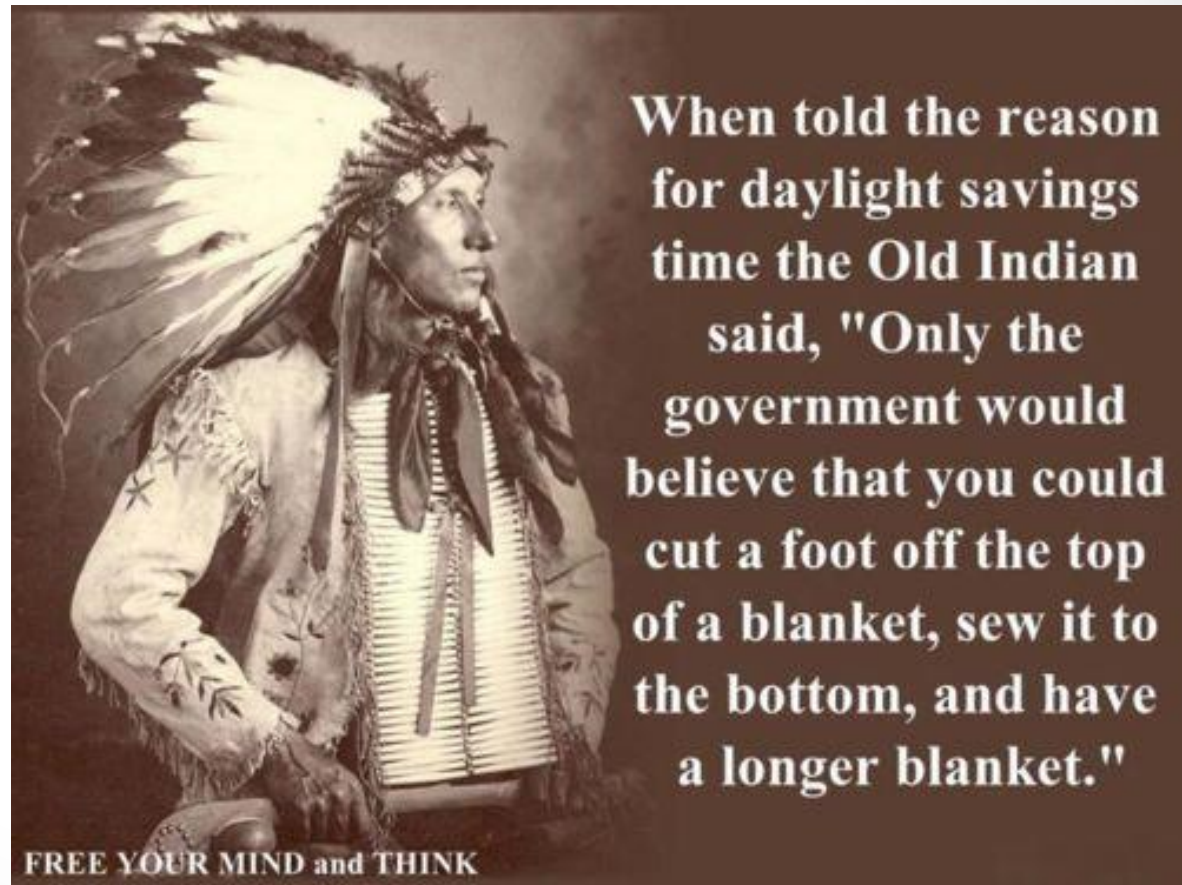
All times are Eastern Standard Time



November 2018 Sky Events

**Daylight Savings Time Ends on Sunday –
November 4th at 2:00 a.m.**

- ★ At this time each fall astronomers take delight in moving their clocks back an hour to the more natural time.
- ★ The artificiality of Daylight Savings Time makes no sense, as no energy, daylight or time is saved by this ridiculous idea!
- ★ And it needlessly plays with our clocks.





November 2018 Sky Events

Leonid Meteor Shower

- ★ The annual **Leonid meteor shower** is predicted to peak during the *early morning hours* of **Saturday, November 17th** and **Sunday, November 18th**.
- ★ The Leonid meteor shower is caused by the Earth orbiting into the debris trail (comet dust) left by **Comet 55P/Tempel-Tuttle**.
- ★ In 1966, during a 15-minute period, the Leonids produced a true hailstorm of meteors, with estimates in the thousands *per minute!*
- ★ No such hailstorm is predicted this year, though; the shower is expected to produce up to **15 meteors per hour**.
- ★ Unfortunately, in 2018 a bright gibbous Moon will spoil late night views. The darkest skies and best meteor hunting opportunities will be found by those willing to try between moonset (**1:17 a.m. on Saturday** and **2:14 a.m. Sunday**) and **4:00 a.m.**



November 2018 Sky Events

Leonid Meteor Shower

The constellation Leo is rising in the east after midnight on the morning of November 17th & 18th.

The Leonid meteors will appear to radiate from this area of the sky – hence the shower's name.

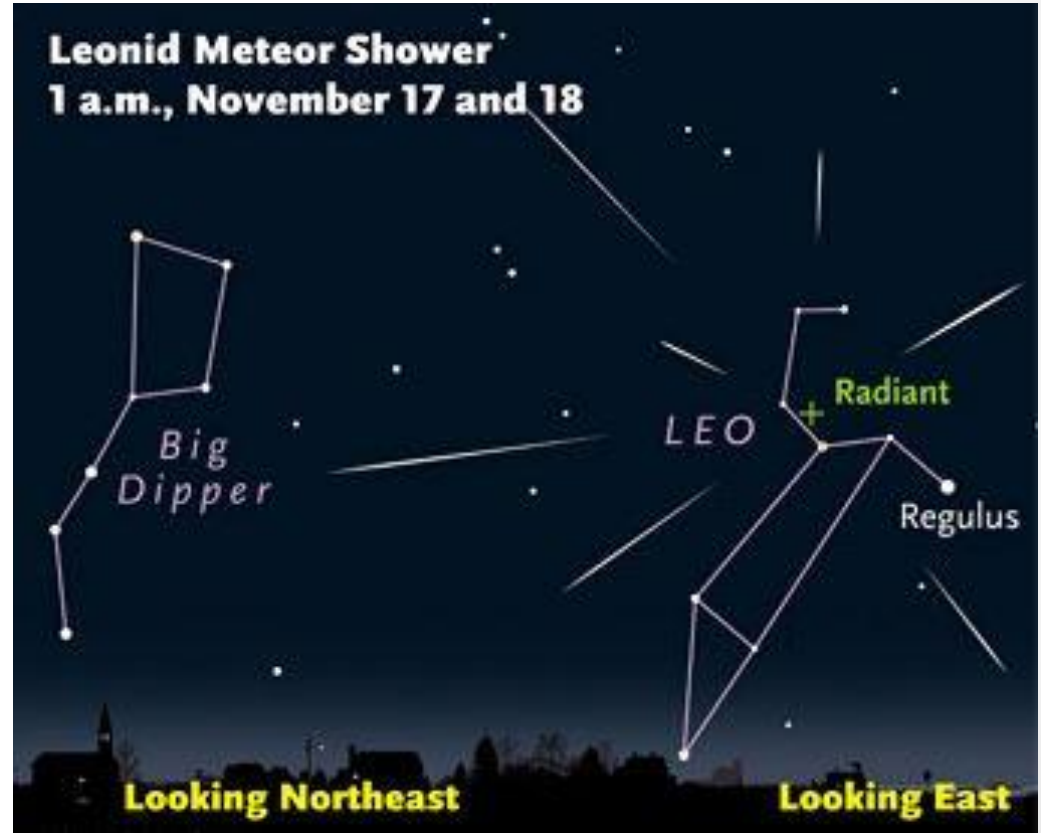


Illustration courtesy of Sky & Telescope



End

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