

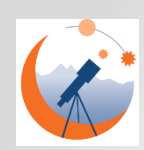


# [Astronomy Club of Asheville](#)

## March 2018 Sky Events

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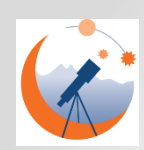


# March 2018 Sky Events – the Planets

- ★ After a drought of bright planets in evening skies, March finally begins to redress the balance – **Venus** and **Mercury** dominate dusk skies, **Saturn** and **Mars** are seen before sunrise, and **Jupiter** nearly straddles each side.
- ★ Catching **Venus** will require some planning, as the brilliant planet begins March low on the western horizon and sets less than an hour after sunset. Shining at a bright magnitude -3.9, Venus will gradually move higher in the sky as the month progresses.
- ★ **Mercury** will join Venus at sunset for the first few days of March to form a very close conjunction. This month will also mark Mercury's best apparition of 2018, when the solar system's innermost planet attains its *greatest elongation* of 18 degrees from the Sun on March 15<sup>th</sup>. Afterwards, Mercury begins to dim quickly, and by the 20<sup>th</sup> will be too faint to see with the naked eye.

# March 2018 Sky Events – the Planets

- ★ **Jupiter** makes its appearance in our skies just before midnight as March begins, and an hour earlier by month's end. Shining at a bright magnitude -2.3 in the dim constellation Libra, Jupiter will be an easy target to sight. The Jovian giant reaches its highest position in the sky around 5:00 a.m., and those willing to stay up very late or rise early to take in telescopic views won't be disappointed – Jupiter and its four Galilean moons have delighted observers for centuries!
- ★ Turning to early morning now, **Mars** rises around 2:30 a.m. on March 1<sup>st</sup>. Because of the red planet's easterly motion in our skies, Mars-rise will occur closer to 3:00 a.m. by month's end.
- ★ **Saturn** rises over an hour after Mars on March 1<sup>st</sup>. Separated by more than 17 degrees, both planets will gradually move closer and closer and by month's end they'll be less than 2 degrees apart.



# March 2018 Sky Events – the Planets

- ★ **Uranus**, after gracing our evening skies for several months, is finally succumbing to twilight. The ice giant will remain visible after sunset as the month begins, but soon will be caught in the Sun's glare as it heads toward an *April solar conjunction* (passing on the other side of the Sun as seen from the Earth).
- ★ **Neptune** has its own *solar conjunction* on March 4<sup>th</sup> and is not visible this month.



## March 2018 Sky Events – the Planets

# Close Conjunction of Venus and Mercury

On the evenings of **March 2<sup>nd</sup> through March 4<sup>th</sup>**, about 20 minutes after sunset (**between 6:45 and 7:00 p.m.**) the planets **Venus** and **Mercury** will form a very close conjunction.

Separated by just over one degree, the two planets will appear low to the western horizon. While Venus will shine brightly, Mercury's dimmer appearance will make it challenging to see in twilight skies.



Image courtesy of Sky & Telescope

**Binoculars will greatly improve your chances of locating both objects!**



## March 2018 Sky Events – the Planets

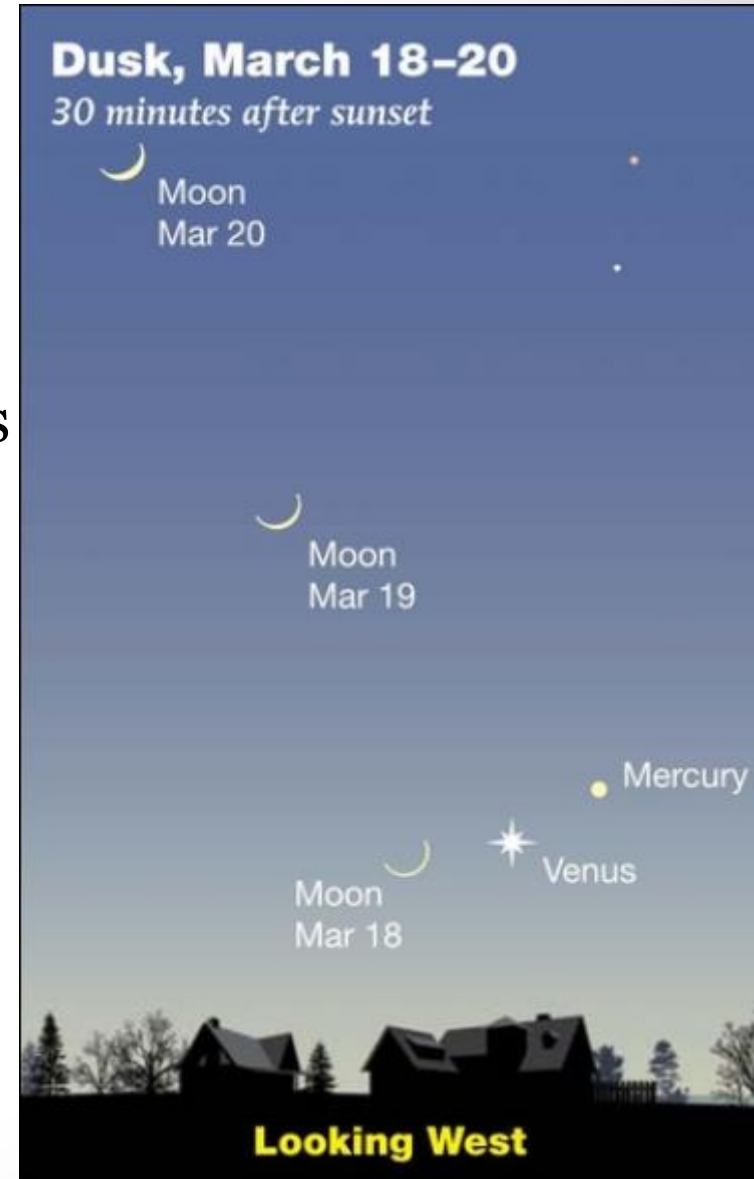
# The Crescent Moon Joins Venus and Mercury

On the **evenings of March 18-20**, the waxing crescent Moon forms an appealing conjunction with the planets **Venus** and **Mercury** in dusk skies.

Look low to the western horizon about 30 minutes after sunset to catch this view, **around 8:15 p.m. EDT**.

Binoculars will be helpful to locate Mercury and the one day-old waxing crescent Moon.

Image courtesy of Sky & Telescope







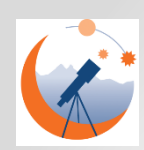
# March 2018 Sky Events – the Planets

## A Crescent Moon Pairs With Aldebaran

On the evening of **Thursday, March 22<sup>nd</sup>**, the 5-day old waxing crescent **Moon** will join the bright, orange star **Aldebaran** in the constellation Taurus.

In our two dimensional view of the heavens, both objects appear close. While the Moon is relatively close at 229,000 miles on this evening, Aldebaran is some 66 *light years* distant!

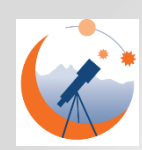




# March 2018 Planet Highlights

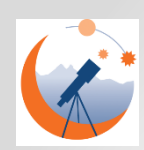
<u>Planet</u>	Avg. Distance from Earth	Constellation(s)	Avg. Diameter in arc seconds	Avg. Magnitude	Comments
<b>Mercury</b>	<b>0.9</b> AUs	Aquarius & Pisces	<b>7.9</b>	<b>+1.0</b>	Reaches best apparition of the year through March 20th.
<b>Venus</b>	<b>1.6</b> AUs	Aquarius, Pisces, Cetus & Aries	<b>10.3</b>	<b>-3.9</b>	Appears low in the west at dusk.
<b>Mars</b>	<b>1.3</b> AUs	Ophiuchus & Sagittarius	<b>7.5</b>	<b>+0.6</b>	Seen in morning skies before daybreak.





# March 2018 Planet Highlights

<b><u>Planet</u></b>	<b>Avg. Distance from Earth</b>	<b>Constellation(s)</b>	<b>Avg. Diameter in arc seconds</b>	<b>Avg. Magnitude</b>	<b>Comments</b>
<b>Jupiter</b>	<b>4.8</b> AUs	Libra	<b>40.8</b>	<b>-2.3</b>	Shining brightly in the SE from midnight to dawn.
<b>Saturn</b>	<b>10.2</b> AUs	Sagittarius	<b>16.3</b>	<b>+0.5</b>	Found in early morning S-SE skies all month.
<b>Uranus</b>	<b>20.7</b> AUs	Pisces	<b>3.4</b>	<b>+5.9</b>	Seen low in the west after sunset during the first 2 weeks of March.



# March 2018 Planet Highlights

<u>Planet</u>	Avg. Distance from Earth	Constellation(s)	Avg. Diameter in arc seconds	Avg. Magnitude	Comments
Neptune	30.9 AU <sub>s</sub>	Aquarius	2.2	+8.0	<i>Conjunction</i> with the Sun on March 4 <sup>th</sup> ; lost in the Sun's glare all month.



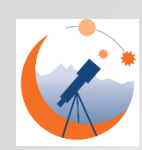
# The Moon – March 2018

	<b>Full Moon*</b>	1 <sup>st</sup>	7:51 p.m. <b>EST</b>
	<b>Last Quarter</b>	9 <sup>th</sup>	6:20 a.m. <b>EST</b>
	<b>New Moon</b>	17 <sup>th</sup>	9:12 a.m.
	<b>First Quarter</b>	24 <sup>th</sup>	11:35 a.m.
	<b>Full Moon**</b>	31 <sup>st</sup>	8:37 a.m.

\* The “Sap Moon”

\*\* The “Blue Moon”

**Unless otherwise indicated, all times are EDT**

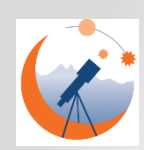


## March 2018 Highlight

### Daylight Saving Time Begins March 11<sup>th</sup>

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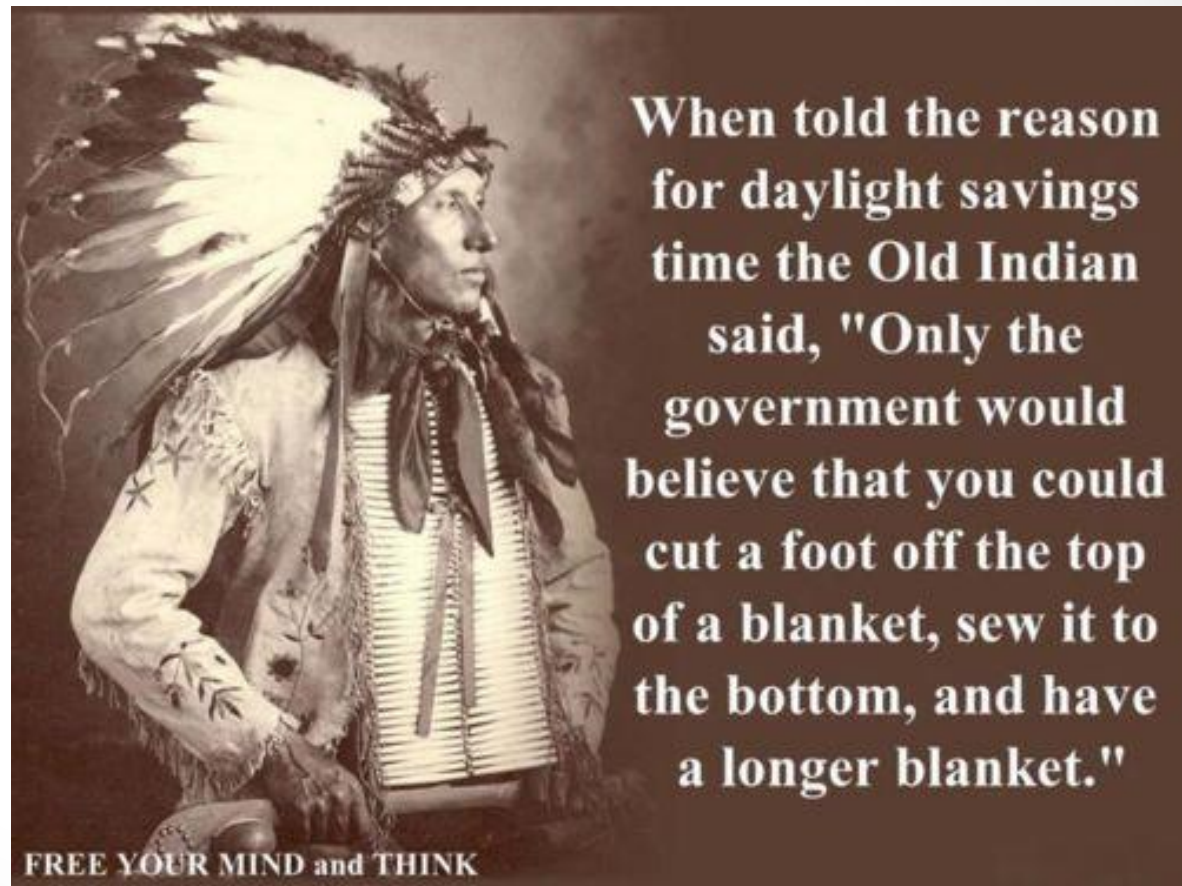
- ★ On Sunday, **March 11<sup>th</sup>**, at 2:00 a.m., **Daylight Saving Time** begins. Set your clock time forward by one hour.
- ★ Although it is called Daylight Saving Time, no daylight, time or energy is saved!
- ★ It should more appropriately be called daylight “shifting” time, as solar noon is no longer near correlation with our manipulated timepieces!
- ★ As a result, in the Asheville area, “high noon” occurs well after 1:00 p.m. local clock time during DST.



## March 2018 Highlight

### Daylight Saving Time Begins on Sunday – March 11<sup>th</sup> at 2:00 a.m.

★ The artificiality of Daylight Saving Time makes no sense, as no energy, daylight or time is saved by this ridiculous idea!





## March 2018 Highlight

### The Vernal Equinox – March 20<sup>th</sup>

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- ★ On **Tuesday, March 20<sup>th</sup>**, at 12:15 p.m. EDT, the Sun begins its journey north of the celestial equator, bringing spring to the northern hemisphere and autumn to the southern hemisphere.
- ★ This event is called the “**vernal equinox**” in the northern hemisphere, when plants are beginning to “green.”
- ★ On this day all places on Earth experience nearly equal amounts of daylight and darkness – about 12 hours of each. “**Equinox**” literally means “**equal night**.”
- ★ For all places on Earth at the equinox, the Sun rises due east and sets due west.





Astronomy Club of Asheville

## March 2018 Highlight

### The Vernal Equinox – March 20<sup>th</sup>

Montage of Summer Solstice, Equinox and Winter Solstice sunrises from a small Greek town showing the seasonal motion of the Sun.



**Note: only on the Equinoxes does the Sun rise due East and set due West!**



## March 2018 Highlight

### The Zodiacal Light (March 5<sup>th</sup>–19<sup>th</sup>)

- ★ March is the season to find the elusive “zodiacal light” in the early evening sky.
- ★ But what is zodiacal light?
- ★ Zodiacal light is the sunlight reflected from numerous dust grains located along the plane of the solar system → the ecliptic or “zodiac”.
- ★ These dust grains are left over from the formation of the solar system (a type of cosmic dust), and their supply is continuously fed by particles from comets and asteroid collisions.
- ★ The ecliptic is nearly vertical to the horizon this month providing good viewing opportunities.

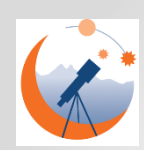


## March 2018 Highlight

### The Zodiacal Light (March 5<sup>th</sup>–19<sup>th</sup>)

- ★ Look for the Zodiacal Light **low in the west** (with an unobstructed view) beginning about 80 minutes after sunset. The viewing window closes about 2 hours after sunset.
- ★ Pick a **very dark location** far from artificial lights and **without moonlight**.
- ★ This spring's zodiacal light will form a **cone of pale light** that points up from the western horizon, along the ecliptic (zodiac), toward and through the planet Mars.
- ★ The best evenings without moonlight this month to see the zodiacal light will be **from March 5<sup>th</sup>– 19<sup>th</sup>**.
- ★ In the fall, when it is visible in the eastern morning sky, it is often called the “**false dawn**”.





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# March 2018 Highlight

## The Zodiacal Light



Zodiacal Light and the Milky Way



**End**