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Jupiter and Saturn will form rare "Christmas Star" on winter solstice

by Eric Betz Renaissance.

This December, Jupiter and Saturn will put on a show for skygazers that hasn't been seen in roughly 800 years. Astronomers are calling it the Great Conjunction of 2020. On December 21 - coincidentally the winter solstice - the two largest planets in our solar system will appear to almost merge in Earth's night sky.

During the event, Jupiter and Saturn will sit just 0.1 degrees apart, or a mere one-fifth the width of the Moon. The sight will likely leave many casual observers wondering "What are those large, bright objects so close together in the sky?"

In fact, Jupiter and Saturn will be so close that you will be able to fit them both in the same telescopic field of view. That's an incredibly rare occurrence. The last time Jupiter and Saturn were this close together away from the Sun was in 1226 A.D., at a time when Genghis Khan was conquering large swaths of Asia, and Europe was still generations away from the

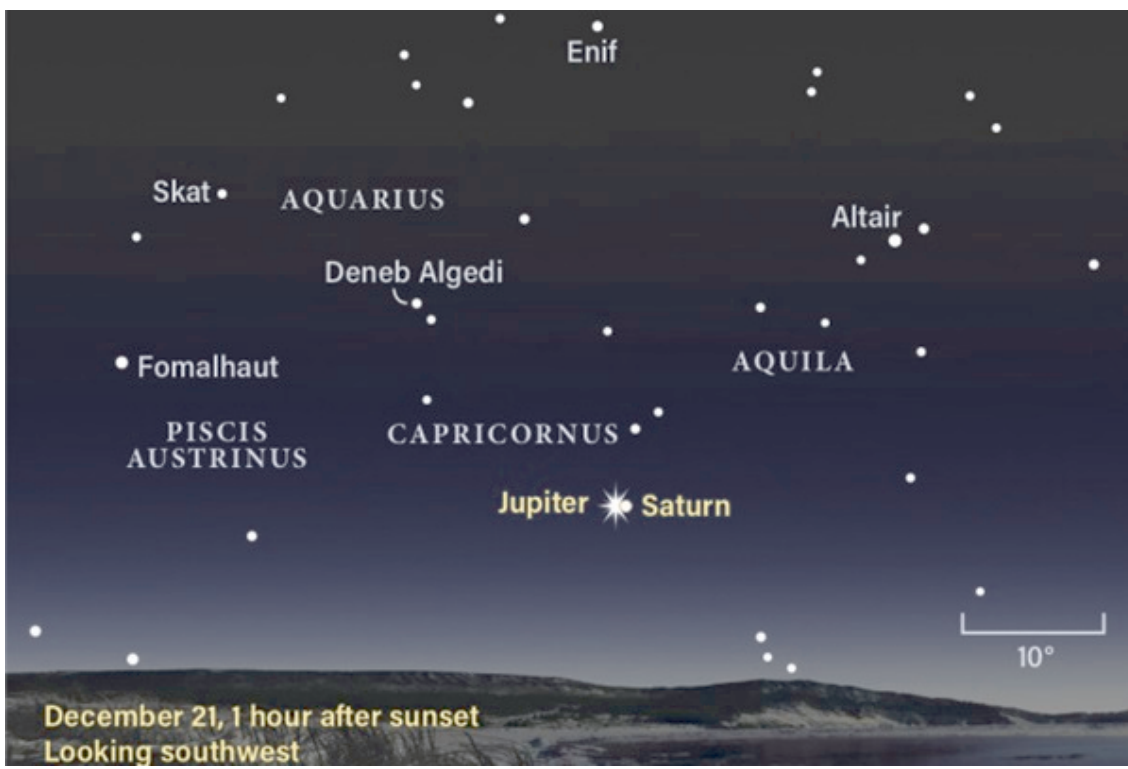
Humanity won't have to wait quite as long to see the solar system's two largest planets repeat this month's performance, though. Another Great Conjunction will occur in 2080. Of course, many of us alive today won't be around then, so it would be wise to soak in this show while you can.

How to find Jupiter and Saturn

For much of the year, Jupiter and Saturn have shared the same swath of sky. The pair begin the month of December just 2 degrees apart, creating an already impressive sight. Now, you can find them both in the southwestern sky just after sunset, located some 20 degrees above the horizon at 6 P.M. local time.

By mid-month, they'll be just one Moon-width apart. On December 16, the Moon will sit just 5 degrees away from the pair, offering a handy comparison. They'll reach greatest conjunction on December 21.

Conjunctions happen when two celestial objects appear to pass



December 21, 1 hour after sunset
Looking southwest

close to one another as seen from Earth. Of course, those objects aren't necessarily physically close, they simply look that way because of their orbital alignment.

Conjunctions are extremely common, though. Throughout the year, the Moon regularly appears alongside a number of planets and bright stars. And two or more planets come together relatively frequently. However, having two bright planets like Jupiter and Saturn pair up is extremely rare.

The last conjunction of Jupiter and Saturn happened in May 2000. That close approach in our sky occurred relatively near the Sun, which made it hard to observe. A similar thing occurred in 1623 A.D., when Jupiter and Saturn brushed shoulders near the Sun.

We don't have to worry about that this time. Throughout the month, the gas giants will be hard to miss. Jupiter shines brighter than any star in the sky at magnitude -2.0, while Saturn

is dimmer at magnitude 0.6 - though the Ringed Planet is still quite bright.

So, you certainly won't need binoculars or a telescope to see the Great Conjunction of 2020. But if you do have observing equipment, you'll be able to zoom in and watch the dance of Jupiter's four moons - Europa, Io, Callisto and Ganymede.

Then, without moving the telescope, you can slightly shift your gaze to Saturn and its magnificent rings. Despite the significant size difference between the planets, Saturn's massive rings mean the two worlds both appear to have about the same diameter when viewed through a telescope.

As the conjunction reaches its climax on December 21, scopes located in the Eastern United States will be able to catch Ganymede as it transits Jupiter for three and a half hours starting at 7:04 P.M. EST. Meanwhile, telescopic observers on the West Coast will see

Ganymede's shadow hovering over Jupiter's cloud tops by 9:40 P.M. EST.

[Editor's Note: In the year when Jesus was born, there was much darkness with violence, chaos, and political and social unrest. The Christmas Star followed by the Magi was actually the conjunction of Jupiter, Saturn and Mars. The Magi followed the star to find the Savior. In a time so dark, light came to quell the chaos and bring peace.

This past year, 2020, has been a time of extreme darkness with chaos, confusion and fear. The darkest day and the shortest day on the calendar is December 21, the Winter Solstice. This day marks the beginning of the cold winter season. Yet as in the year of Jesus' birth, the planets (Jupiter and Saturn) will come together to shine a light on earth in the form of another Christmas Star. It is a reminder that the light will always beat back the darkness.]

WEEK AT A GLANCE

Friday, December 18

Early Release -
Bronte ISD, Robert Lee ISD, Blackwell CISD

High School Basketball -
Bronte Boys at Ira, 6:15 pm
Bronte Girls at Blackwell, 6:15 pm
Rotan Boys at Blackwell, 4:30 pm

Saturday, December 19

High School Basketball -
Bronte Girls at Miles, 5 pm

Sunday, December 20

Pictures with Calvin Claus, 1 pm - 6 pm,
Dollar General, Bronte

Monday, December 21

School Holiday -
Bronte ISD, Robert Lee ISD, Blackwell CISD

Tuesday, December 22

School Holiday -
Bronte ISD, Robert Lee ISD, Blackwell CISD

Wednesday, December 23

School Holiday -
Bronte ISD, Robert Lee ISD, Blackwell CISD

Thursday, December 24

School Holiday -
Bronte ISD, Robert Lee ISD, Blackwell CISD

Friday, December 25

School Holiday -
Bronte ISD, Robert Lee ISD, Blackwell CISD

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