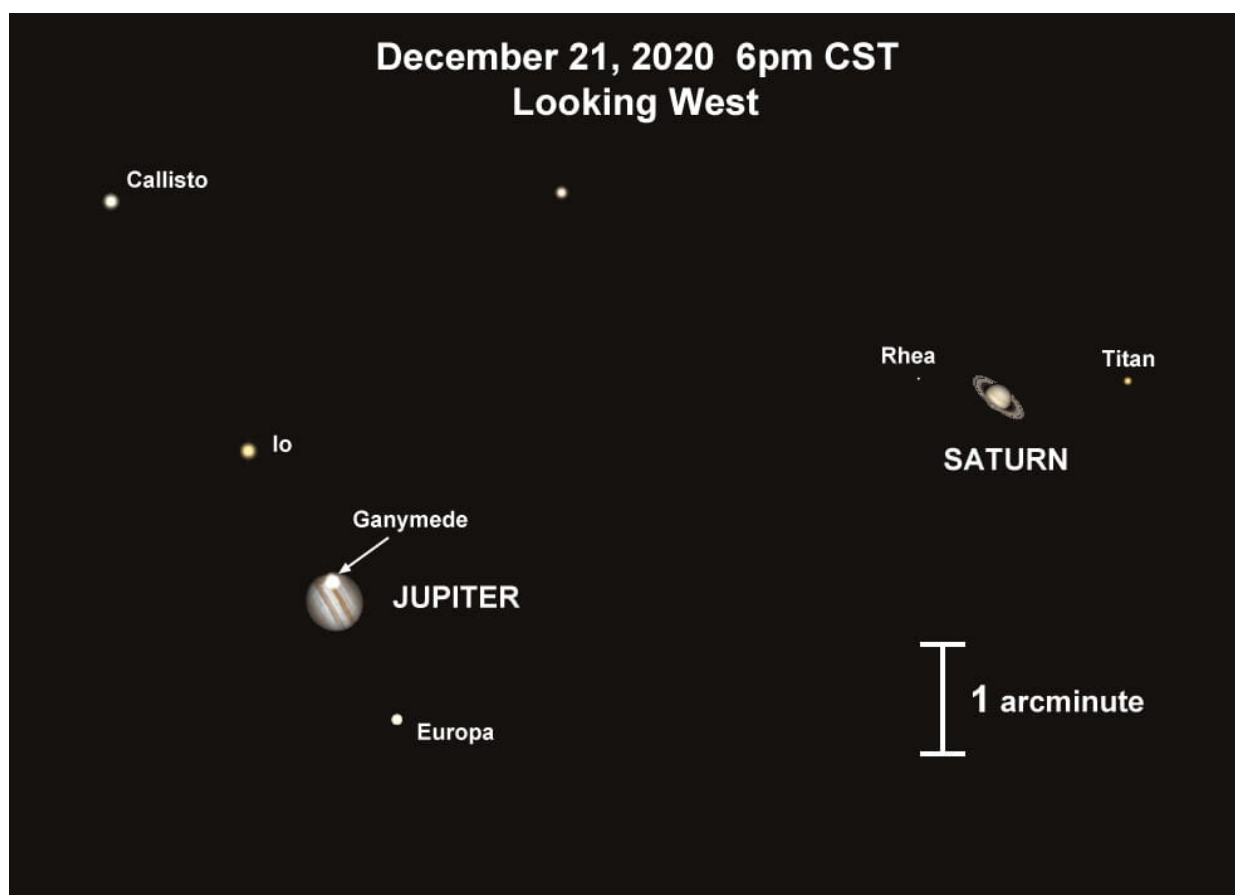


In December, Jupiter, Saturn will look like double planet for first time since the Middle Ages

November 20 2020, by Jade Boyd



A view showing how the Jupiter-Saturn conjunction will appear in a telescope pointed toward the western horizon at 6 p.m. CST, Dec. 21, 2020. The image is adapted from graphics by open-source planetarium software Stellarium. Credit: Patrick Hartigan, GPL-2.0, provided under CC BY 4.0

Just after sunset on the evening of Dec. 21, Jupiter and Saturn will appear closer together in Earth's night sky than they have been since the Middle Ages, offering people the world over a celestial treat to ring in the winter solstice.

"Alignments between these two planets are rather rare, occurring once every 20 years or so, but this conjunction is exceptionally rare because of how close the planets will appear to one another," said Rice University astronomer Patrick Hartigan. "You'd have to go all the way back to just before dawn on March 4, 1226, to see a closer alignment between these objects visible in the night sky."

Jupiter and Saturn have been approaching one another in Earth's sky since the summer. From Dec. 16-25, the two will be separated by less than the diameter of a full moon.

"On the [evening](#) of closest approach on Dec 21 they will look like a double planet, separated by only 1/5th the diameter of the full moon," said Hartigan, a professor of physics and astronomy. "For most telescope viewers, each planet and several of their largest moons will be visible in the same field of view that evening."

Though the best viewing conditions will be near the equator, the event will be observable anywhere on Earth, weather-permitting. Hartigan said the planetary duo will appear low in the western sky for about an hour after [sunset](#) each evening.

"The further north a viewer is, the less time they'll have to catch a glimpse of the conjunction before the planets sink below the horizon," he said. Fortunately, the planets will be bright enough to be viewed in twilight, which may be the best time for many U.S. viewers to observe the conjunction.

"By the time skies are fully dark in Houston, for example, the [conjunction](#) will be just 9 degrees above the horizon," Hartigan said.

"Viewing that would be manageable if the weather cooperates and you have an unobstructed view to the southwest."

But an hour after sunset, people looking skyward in New York or London will find the [planets](#) even closer to the horizon, about 7.5 degrees and 5.3 degrees respectively. Viewers there, and in similar latitudes, would do well to catch a glimpse of the rare astronomical sight as soon after sunset as possible, he said.

Those who prefer to wait and see Jupiter and Saturn this close together and higher in the [night sky](#) will need to stick around until March 15, 2080, Hartigan said. After that, the pair won't make such an appearance until sometime after the year 2400.

Provided by Rice University

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