

Did you see the Christmas Star?

Saturn and Jupiter are the largest planets in our solar system and they last appeared so close together that they could be mistaken for one large star (a phenomenon known as a great conjunction) in 1623. Best seen in the dusk, they reached their closest point on December 21st 2020 but, in Hickling, the weather was cloudy and they couldn't be seen (certainly with the naked eye). However, they could be seen (slightly further apart) for several nights before and after the 21st at dusk in the south-west.

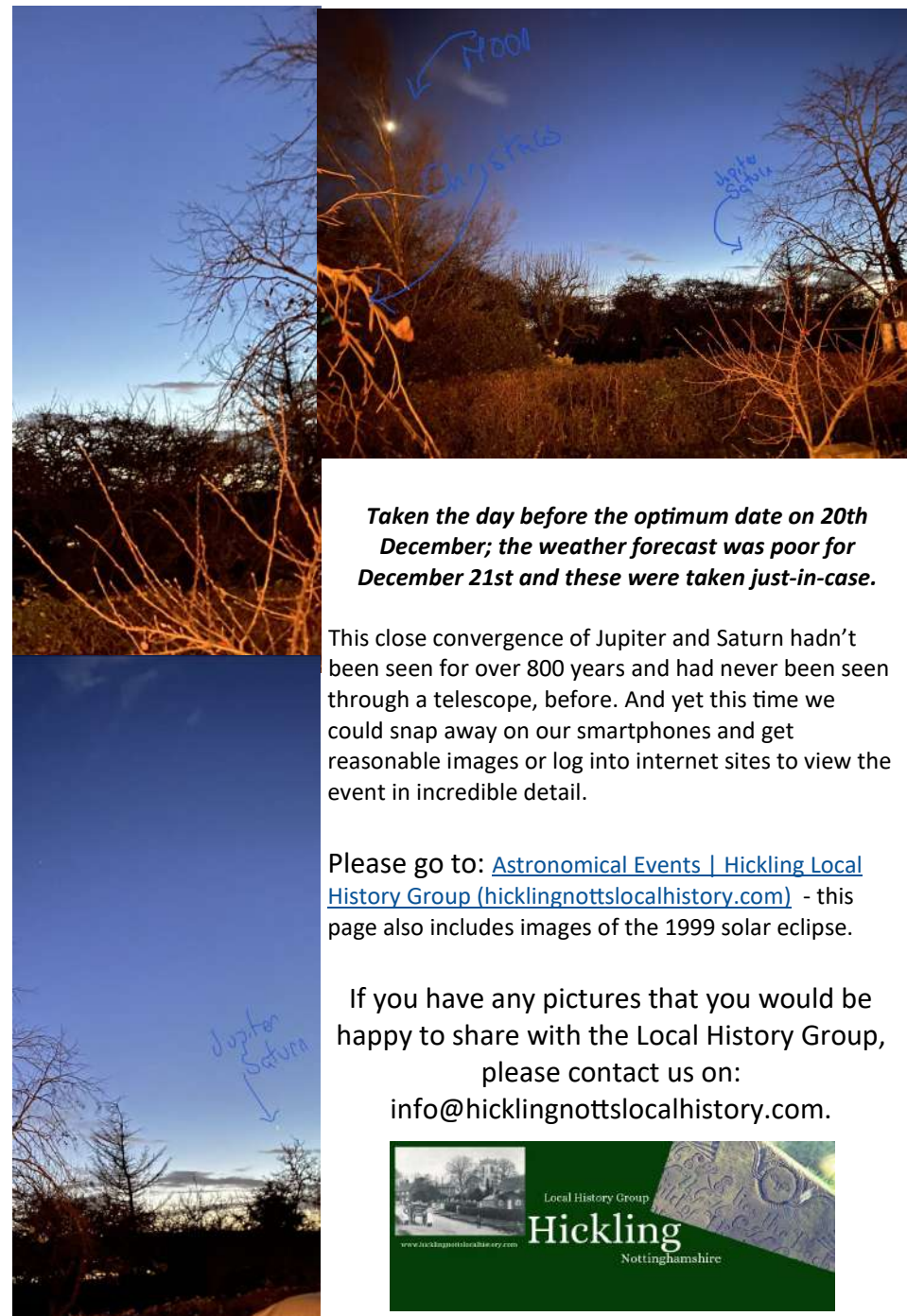
This conjunction last appeared in 1623 (14 years after Galileo's discovery of the telescope) but it doesn't seem to have been visible because it was too close to the sun. The last time that it was visible was in 1226. Johannes Kepler, the 17th-century German astronomer, calculated a similar conjunction for 7BC which fits estimates for the date of Jesus' birth sometime between 6BC and 8BC and making a great conjunction between Saturn and Jupiter a possible explanation (although one of many) for the Christmas Star. In reality, the two planets maintain a constant distance from each other out in space of roughly 450 million miles.

"A pair of unusually bright lights shone in the western sky in the evening — these were Jupiter and Saturn, with Jupiter the larger of the two. Over the coming days the two planets move even closer together in the night sky until on December 21 they will almost converge. This is the first so-called conjunction of Jupiter and Saturn in nearly 800 years, so no one is exactly sure what the sight will look like, although it will partly depend on local atmospheric conditions and how good someone's eyesight is — poor vision will make them look like one big light. An added bonus is that the planets will also appear to be larger when they are low on the horizon, although this is an optical illusion. This is a phenomenon best known from when the moon seems much larger when low in the sky, and is known as the moon illusion. To prove it is an illusion, if the moon is looked at through a tube it appears smaller, probably because the tube blocks out any comparison with objects on the

horizon.

"Is it a coincidence that the celestial spectacle is happening so close to Christmas? There is a thought that a conjunction of Jupiter with another planet, possibly Saturn or Mars, may have been involved in the story of the Star of Bethlehem. The conjunction of planets had great astrological or mystical significance in ancient times, but any astronomical explanation for a Christmas star is in the realms of speculation." (Paul Simons, Times 15/12/20)

Taken 3 days after the optimum date on Christmas Eve



Taken the day before the optimum date on 20th December; the weather forecast was poor for December 21st and these were taken just-in-case.

This close convergence of Jupiter and Saturn hadn't been seen for over 800 years and had never been seen through a telescope, before. And yet this time we could snap away on our smartphones and get reasonable images or log into internet sites to view the event in incredible detail.

Please go to: [Astronomical Events | Hickling Local History Group \(hicklingnottslalhistory.com\)](https://www.hicklingnottslalhistory.com) - this page also includes images of the 1999 solar eclipse.

If you have any pictures that you would be happy to share with the Local History Group, please contact us on:
info@hicklingnottslalhistory.com.