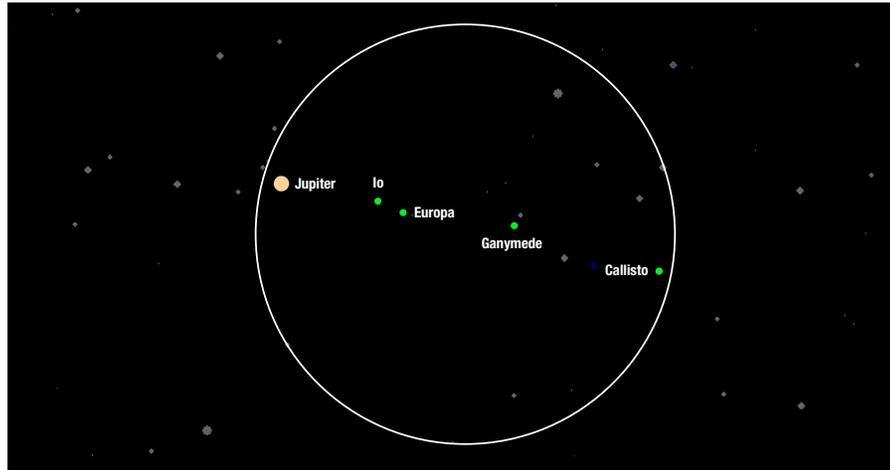


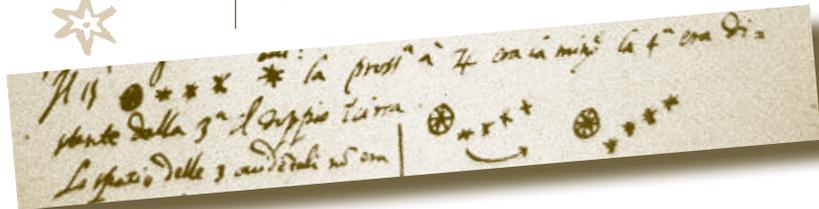


Re-create Galileo's observations

Place this page against an inside wall using tape or pins. Step back and use binoculars to view the image, which is exactly what Galileo would have seen on the night of January 15, 1610. To the right of Jupiter, you can see its four largest satellites — Io, Europa, Ganymede, and Callisto — aligned to the right of the planet.



Here is Galileo's drawing of Jupiter and the large satellites as he saw them on January 15, 1610.



Visit the "What's Up" podcast sites for monthly night sky viewing tips —
<http://solarsystem.nasa.gov/news/whatsup-archive.cfm>
http://www.nasa.gov/multimedia/podcasting/whatsup_index.html

National Aeronautics and Space Administration
Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

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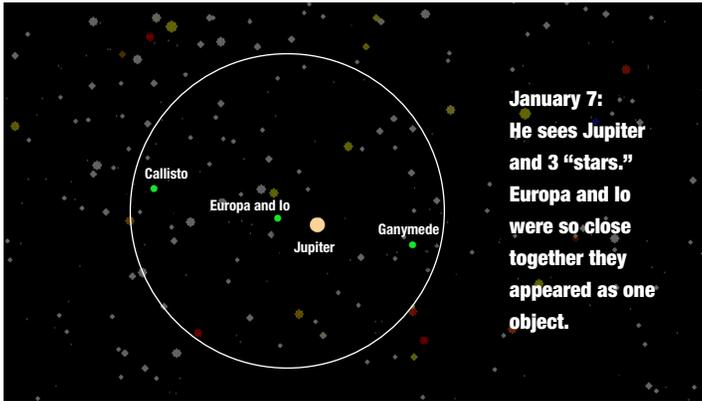
400th Anniversary of Galileo's Discovery



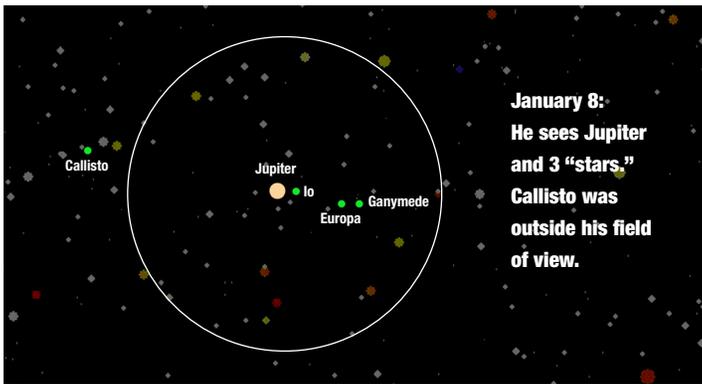
On January 7, 1610, Galileo Galilei aimed his telescope at the planet Jupiter. To his surprise, Galileo saw three "stars" that appeared strung out in a line near Jupiter. The next evening, the stars had moved. On January 13, he saw a fourth star. This quartet of objects never left the vicinity of Jupiter. Galileo realized that he was seeing small objects — satellites — in orbit around Jupiter. Contrary to the prevailing belief of his time, Galileo had found evidence that not everything orbits Earth.



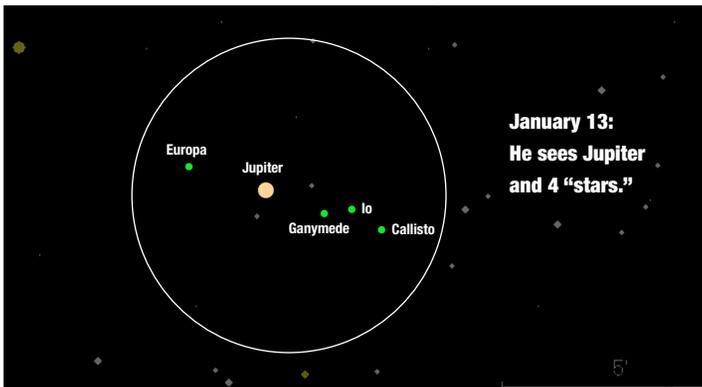
What Galileo saw in 1610



January 7:
He sees Jupiter and 3 "stars." Europa and Io were so close together they appeared as one object.

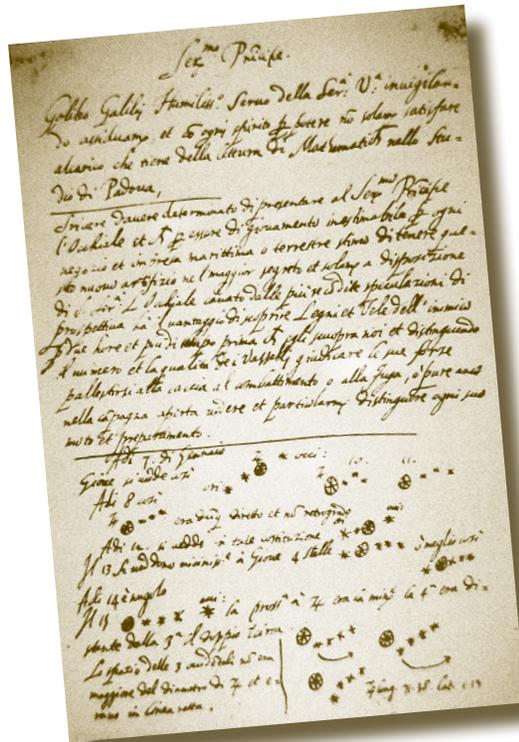


January 8:
He sees Jupiter and 3 "stars." Callisto was outside his field of view.

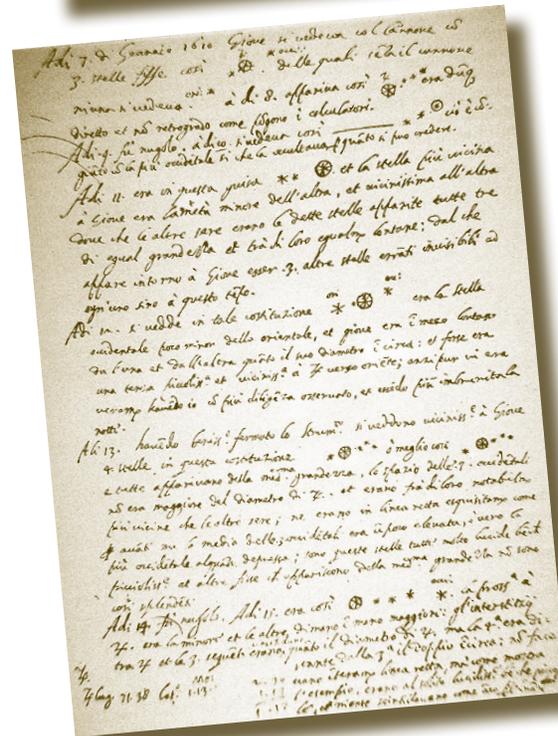
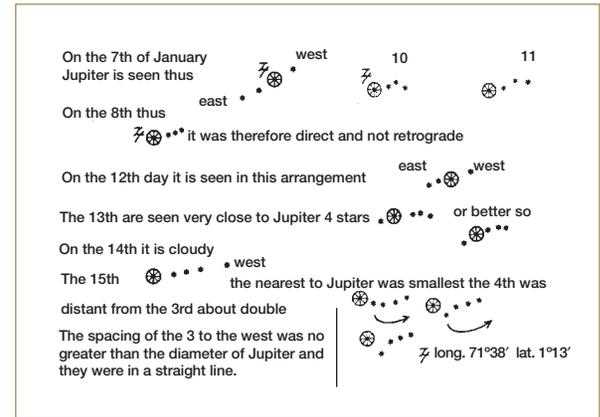


January 13:
He sees Jupiter and 4 "stars."

Galileo's telescope had a small field of view, so he could only see a few objects at a time. It wasn't until all four of the large moons were grouped close to Jupiter that he was able to see them all at once (on January 13). He quickly realized that these objects were companions — satellites — of Jupiter, not stars.



Galileo wrote a letter to the Prince of Venice describing how the telescope could be used as a spyglass, and he also illustrated his discovery of the four "stars" around Jupiter.



About 2 weeks later, Galileo published his revolutionary observations in *Sidereus Nuncius*, or *The Starry Messenger*.

Galileo called Jupiter's large satellites the "Medicean planets" after the Medici family. In the mid-1800s, the moons were named Io, Europa, Ganymede, and Callisto, and we refer to them today as the Galilean moons in honor of Galileo.