

One year of the moon in 2.5 minutes

June 15 2011, By Nancy Atkinson

We don't always have the time or ability to see the Moon every night of the year, but this video, from the Goddard Space Flight Center Scientific Visualization Studio, uses data from the Lunar Reconnaissance Orbiter and compresses one month into 12 seconds and one year into 2.5 minutes. This is how the Moon will look to us on Earth during the entire year of 2011. While the Moon always keeps the same face to us, it's not exactly the same face. Because of the tilt in its axis and shape of its orbit, we see the Moon from slightly different angles over the course of a month, and the year. Normally, we don't see how the Moon "wobbles" in its orbit, but seeing the Moon's year this quickly, we can see the changes in libration, and axis tilt — as well as the most noticeable changes, the Moon's phases.

This animation is the most accurate to date, showing shadows and other features on the Moon in incredible detail. This is thanks to the Lunar Orbiter Laser Altimeter (LOLA) aboard LRO. The shadows are based on the global elevation map being developed from measurements by the LOLA, and the instrument has already taken more than 10 times as many elevation measurements as all previous missions combined.

If you want to know what the Moon looks like "right now" this page from the SVC is updated every hour showing the Moon's geocentric phase, libration, position angle of the axis, and apparent diameter of the Moon. It also has images showing the different phases of the [Moon](#), too.

Celestial north is up in these images, corresponding to the view from the northern hemisphere. The descriptions of the print resolution stills also

assume a northern hemisphere orientation. To adjust for southern hemisphere views, rotate the images 180 degrees, and substitute “north” for “south” in the descriptions.

More information: svs.gsfc.nasa.gov/vis/a0000000/a003800/a003810/

Source: [Universe Today](#)

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