

Partial Lunar Eclipse June 26 2010

What is Happening?

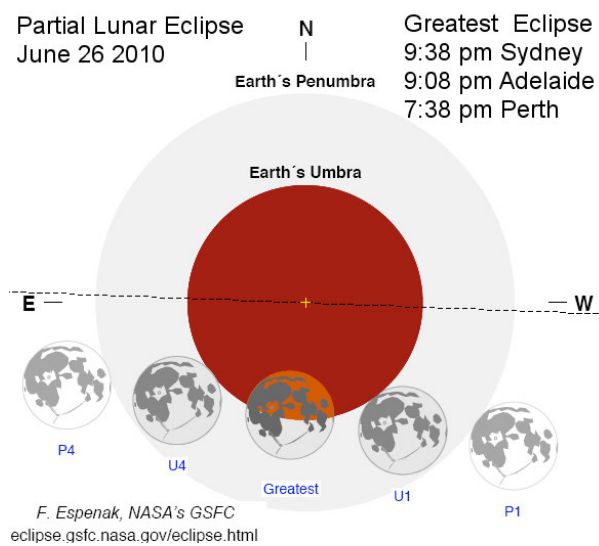
On the evening of Saturday, June 26 there will be a **partial eclipse of the Moon**. Lunar eclipses occur when the Moon passes through Earth's shadow. Lunar eclipses don't occur often, and for Australians this is the best eclipse since the total Lunar eclipse of August 2007. If the sky is clear, this will be a beautiful sight, with the bottom half of the Moon going dark. You don't need anything special to watch the eclipse, just your eyes.

What Time can I see it?

The Moon rises in the east at roughly 4:45 pm on the east coast, 5:45 pm for the central states and 5:10 pm in Western Australia. It will enter the outer part of Earth's shadow (the penumbra) after twilight finishes in the eastern and central states. However, this shadow is faint and will not darken the Moon very much.

The Moon enters the darkest part of the Earth's shadow (the Umbra on the diagram) at 8:16 pm on the east coast, 7:46 pm for the central states and 6:16 pm in Western Australia. For the eastern and central states the sky is fully dark, but in WA the sky is still in late twilight. Nonetheless everyone should be able to see a visible "chip" on the bottom of the Moon.

Over the next hour you will see the shadow slowly creep over the Moon's face until more than half the Moon is covered by the shadow of the Earth (9:38 pm eastern states, 9:08 pm central states and 7:38 pm WA). Even the part of the Moon not covered by Earth's shadow will be darker than normal.



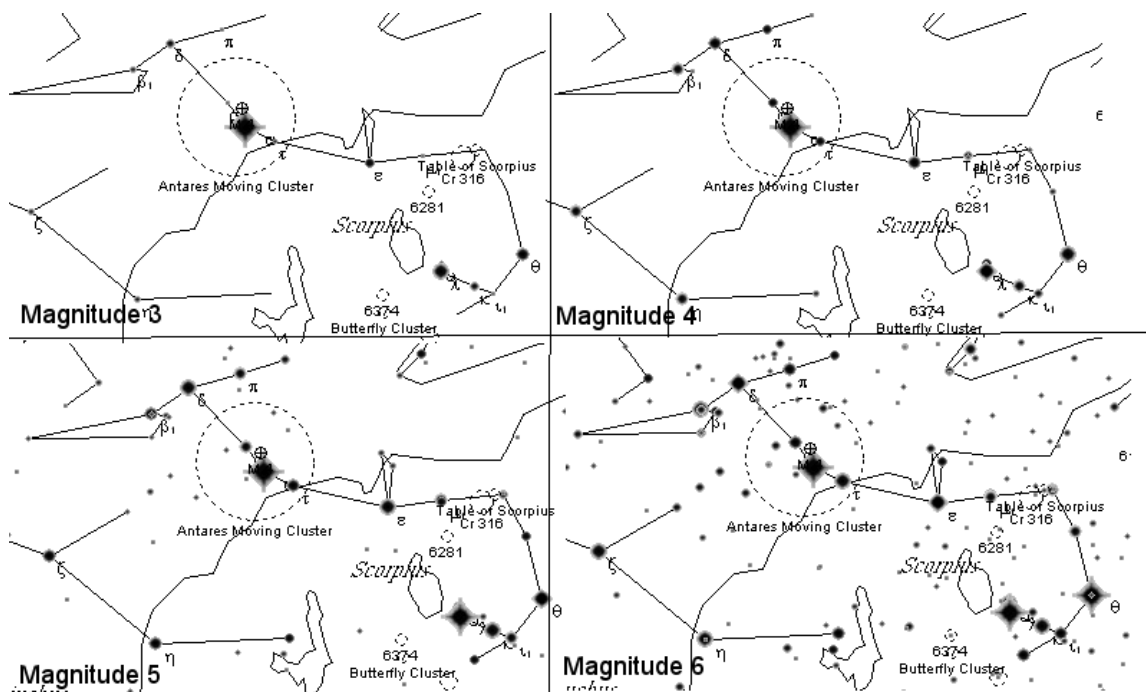
Prepared by Ian Musgrave, Astroblog: <http://astroblogger.blogspot.com/>
Southern Skywatch: <http://home.mira.net/~reynella/skywatch/ssky.htm>

Things to Do:

Model your own eclipse. For this you will need a torch and two balls. The torch will represent the Sun and the two balls the Earth and the Moon. Place the torch on a table and turn it on. Place one ball on the table in the path of the torch beam (this represents earth). One side of the ball will be lit up, and the other side dark. You should see the shadow of the first all on the table. Place the second ball (representing the Moon, try and make it a smaller ball than the one representing the Earth) on the table to one side of the first ball, but also in the beam of the torch. One side of this ball will be lit up as well. Now move the second ball behind the first ball, as it goes behind the first ball, it dims as it enters the shadow. Just as we see with a real lunar eclipse.

Things to think about: Why don't we have an eclipse every full Moon? A website where you can learn more: **Mr. Eclipse** <http://www.mreclipse.com/Special/LEprimer.html>

How dark does the sky get during the eclipse? As the Moon gets darker, you can see more stars. How many can you see at mid eclipse? The diagram below shows the constellation of Scorpius. It looks like a big question mark on its side in the eastern sky (just above the Moon).



If you can only see the bright middle star of Scorpius, and a few of the tail stars, the sky is so bright that only moderately bright stars (magnitude 3) can be seen. If you can see all the stars in Scorpius, then the sky is very dark. Compare the number of stars you see at mid-eclipse with the number of stars you see the following night during the nearly full Moon, and a night with no Moon. Is the sky as dark during the eclipse as a Moonless night?

Make eclipse biscuits: Get an adult to help you make some plain vanilla biscuits using a healthy recipe, then put different amounts of chocolate icing on them to make it look like the Moon at different times of the eclipse.