



# The Observer

April 2011 (#28)

**Schedule of public programs on last page!**

An interesting celestial event is coming up this weekend. The following is from NASA Science: Science News (with a few additions from the folks at Otter Creek-South Harrison)

## Super Full Moon

Mark your calendar. On March 19th, a full Moon of rare size and beauty will rise in the east at sunset. It's a super "perigee moon" – the biggest in almost 20 years.



Perigee moons are as much as 14% wider and 30% brighter than lesser full Moons. However, the average full moon you see lies somewhere between the two extremes shown here. And while moons as large as the March 19<sup>th</sup> full moon are rare, ones almost as large are more common. So, the large full moon is definitely cool, but don't go around talking it up as some sort of **SPECTACULAR ONCE IN A LIFETIME CELESTIAL EVENT FORTELLING THE END OF THE WORLD!!!!**

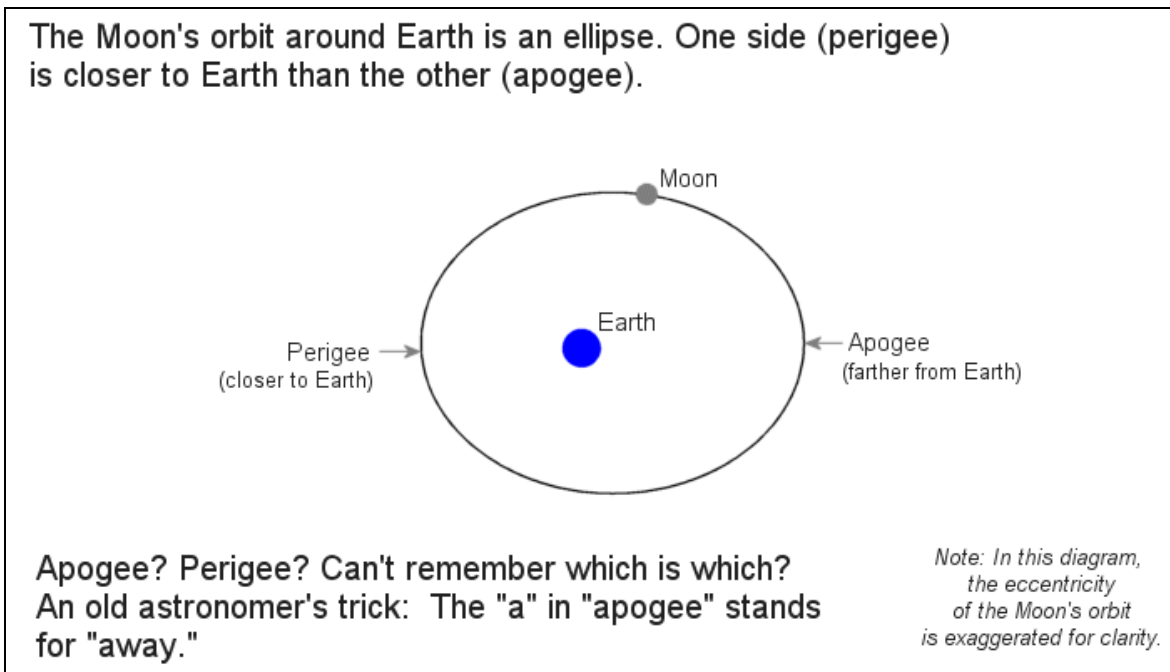
We have far too much of that as is these days.



[www.jefferson.kctcs.edu/observatory](http://www.jefferson.kctcs.edu/observatory)

*"The last full Moon so big and close to Earth occurred in March of 1993," says Geoff Chester of the US Naval Observatory in Washington DC. "I'd say it's worth a look."*

*Full Moons vary in size because of the oval shape of the Moon's orbit. It is an ellipse with one side (perigee) about 50,000 km closer to Earth than the other (apogee). Nearby perigee moons are about 14% bigger and 30% brighter than lesser moons that occur on the apogee side of the Moon's orbit.*



*"The full Moon of March 19th occurs less than one hour away from perigee – a near-perfect coincidence that happens only 18 years or so," adds Chester.*

*A perigee full Moon brings with it extra-high "perigean tides," but this is nothing to worry about, according to NOAA. In most places, lunar gravity at perigee pulls tide waters only a few centimeters (an inch or so) higher than usual. Local geography can amplify the effect to about 15 centimeters (six inches) – not exactly a great flood.*

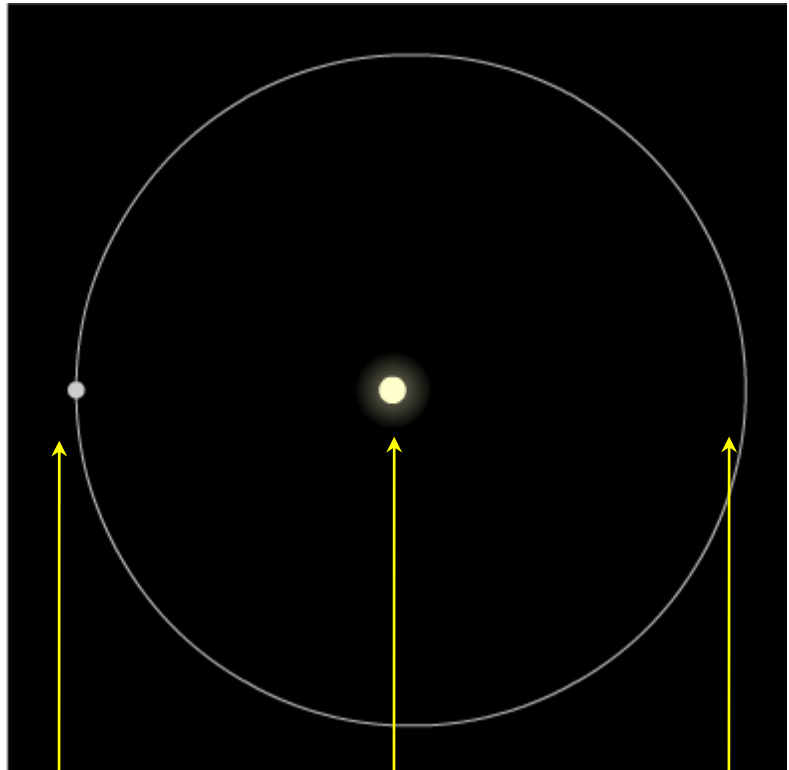


**The Moon looks extra-big when it is beaming through foreground objects – a.k.a. "the Moon illusion."**

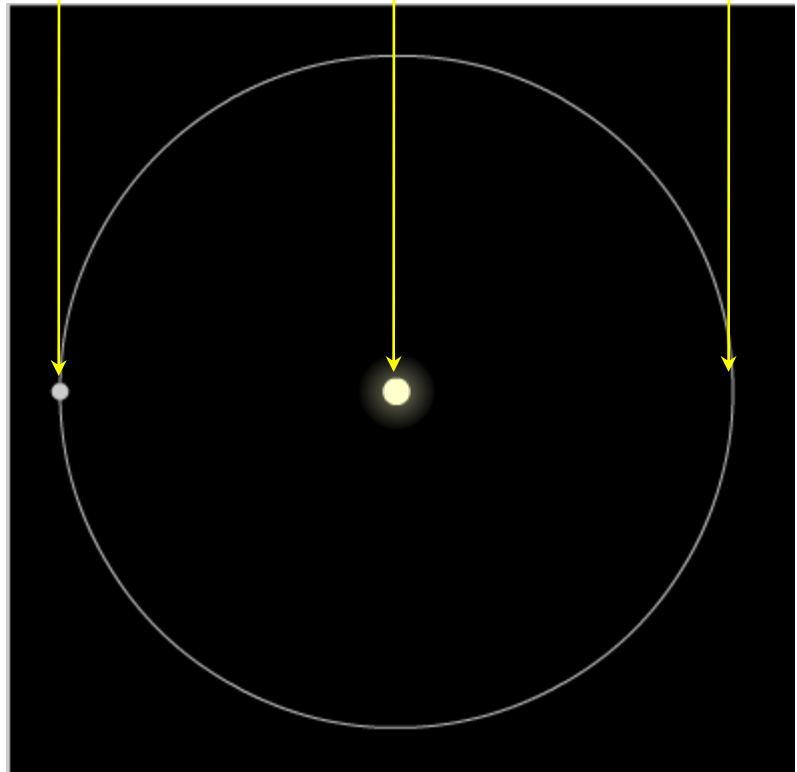
*The Moon looks extra-big when it is beaming through foreground objects – a.k.a. "the Moon illusion." Indeed, contrary to some reports circulating the Internet, perigee Moons do not trigger natural disasters. The "super moon" of March 1983, for instance, passed without incident. And an almost-super Moon in Dec. 2008 also proved harmless.*

*Okay, the Moon is 14% bigger than usual, but can you really tell the difference? It's tricky. There are no rulers floating in the sky to measure lunar diameters. Hanging high overhead with no reference points to provide a sense of scale, one full Moon can seem much like any other.*

*The best time to look is when the Moon is near the horizon. That is when illusion mixes with reality to produce a truly stunning view. For reasons not fully understood by astronomers or psychologists, low-hanging Moons look unnaturally large when they beam through trees, buildings and other foreground objects. On March 19th, why not let the*



**The real shape of the moon's orbit, without exaggeration.**



**A circular orbit, in which the moon is always the same distance from Earth. The yellow lines show the actual differences between the moon's orbit and a circular orbit.**

*"Moon illusion" amplify a full Moon that's extra-big to begin with? The swollen orb rising in the east at sunset may seem so nearby, you can almost reach out and touch it.*

*Don't bother. Even a super perigee Moon is still 356,577 km away. That is, it turns out, a distance of rare beauty.*

*Author: Dr. Tony Phillips | Credit: Science @NASA*

[http://science.nasa.gov/science-news/science-at-nasa/2011/16mar\\_supermoon/](http://science.nasa.gov/science-news/science-at-nasa/2011/16mar_supermoon/)

NASA has produced a YouTube video on this event:

[http://www.youtube.com/watch?v=r1yalg\\_Apdw](http://www.youtube.com/watch?v=r1yalg_Apdw)



# Jefferson



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## 2011 Spring - Fall Schedule

### South Harrison Park Observatory Events

\*\*\* **ALL PROGRAMS ARE FREE!** \*\*\*

#### Nighttime programs:

Mar. 19 8:30 pm to 10:30 pm

April 16 8:30 pm to 10:30 pm

May 14 9:00 pm to 11:00 pm

#### National Astronomy Day Celebration

June 18 At Buffalo Trace Park for **NASA's in the Park** Program

July 9 9:30 pm to 11:30 pm

Aug 6 9:30 pm to 11:30 pm

Sept 3 9:00 pm to 11:00 pm

Oct 8 8:00 pm to 10:00 pm

#### NASA's International Observe the Moon Night

Nov 5 7:30 pm to 9:30 pm

#### Daytime programs:

Mar. 5 11 am to 1 pm

April 2 11 am to 1 pm

April 30 11 am to 1 pm

May 28 11 am to 1 pm

July 23 11 am to 1 pm

Aug 20 11 am to 1 pm

Sept 17 11 am to 1 pm

Oct 22 11 am to 1 pm

Nov 19 11 am to 1 pm

\*\*\*\* Closed in December except by special request.

All programs at South Harrison Park are open rain or shine.

**Daytime programs** allow you to safely view the Sun using solar filters.

**Nighttime programs** allow you to view the Moon, Stars, Planets, and more.

The facility is handicapped accessible and we feature a video display system for cloudy days and/or nights.

Contacts: Park Astronomer – Henry Sipes Home 270-828-6191  
Cell 270-668-2103  
Harrison County Park Office – 812-738-8236

Websites: <http://www.harrisoncoparks.com/Observatory.html>  
<http://www.jefferson.kctcs.edu/observatory/>  
<http://astronomy2009.us/>

