Total Lunar Eclipse, April 4

The total eclipse of the full moon on April 4, 2015 will last less than five minutes, making it the shortest total lunar eclipse of the 21st century. It’s perfect for short attention spans! The total lunar eclipse will be visible from western North America, eastern Asia, the Pacific, Australia and New Zealand. At North American time zones, that means the greatest eclipse happens before sunrise on April 4 – the morning of April 4, not the evening. From the world’s Eastern Hemisphere – eastern Asia, Indonesia, New Zealand and Australia – the greatest eclipse takes place after sunset April 4.

Eclipse Times:
Partial umbral eclipse begins: 5:16 a.m. CDT
Total eclipse begins: 6:58 a.m. CDT
Greatest eclipse: 7:00 a.m. CDT
Total eclipse ends: 7:03 a.m. CDT
Sunrise: 7:12 a.m. CDT

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Earth Day, April 22
Featured Public Show

Dynamic Earth

Explore the inner workings of Earth’s climate engine with visualizations based on satellite monitoring data and advanced supercomputer simulations. This cutting-edge production follows a trail of energy that flows from the Sun into the interlocking systems that shape our climate: the atmosphere, oceans, and the biosphere. Audiences will ride along on swirling ocean and wind currents, dive into the heart of a monster hurricane, come face-to-face with sharks and gigantic whales, and fly into rolling volcanoes.

Plays for public:
- Fridays 6:00PM
- Saturdays 5:30PM

Founded in 1970 as a day of education about environmental issues, Earth Day is now a globally celebrated holiday that is sometimes extended into Earth Week, a full seven days of events focused on green awareness. The brainchild of Senator Gaylord Nelson and inspired by the antiwar protests of the late 1960s, Earth Day was originally aimed at creating a mass environmental movement. It began as a “national teach-in on the environment“ and was held on April 22 to maximize the number of students that could be reached on university campuses. By raising public awareness of air and water pollution, Nelson hoped to bring environmental causes into the national spotlight.

This April 22nd marks the 45th anniversary of the Earth Day movement. Learn more about our Earth and its climate systems with our newest show, Dynamic Earth!

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Source: http://www.history.com/topics/holidays/earth-day
Source: http://www.earthday.org/
Hubble’s 25th Anniversary, April 24

From the dawn of humankind to a mere 400 years ago, all that we knew about our universe came through observations with the naked eye. Then Galileo turned his telescope toward the heavens in 1610. The world was in for an awakening.

Saturn, we learned, had rings. Jupiter had moons. That nebulous patch across the center of the sky called the Milky Way was not a cloud but a collection of countless stars. Within but a few years, our notion of the natural world would be forever changed. A scientific and societal revolution quickly ensued.

In the centuries that followed, telescopes grew in size and complexity and, of course, power. They were placed far from city lights and as far above the haze of the atmosphere as possible. Edwin Hubble, for whom the Hubble Telescope is named, used the largest telescope of his day in the 1920s at the Mt. Wilson Observatory near Pasadena, Calif., to discover galaxies beyond our own.

Hubble, the observatory, is the first major optical telescope to be placed in space, the ultimate mountaintop. Above the distortion of the atmosphere, far far above rain clouds and light pollution, Hubble has an unobstructed view of the universe. Scientists have used Hubble to observe the most distant stars and galaxies as well as the planets in our solar system.

Hubble's launch and deployment in April 1990 marked the most significant advance in astronomy since Galileo's telescope. Our view of the universe and our place within it has never been the same.

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Source:http://www.nasa.gov/mission_pages/hubble/story/index.html#.VRmes_nF-So
Source:http://hubble25th.org/science

Spot the New Nova in Sagittarius

Great news about that new nova in Sagittarius. It’s still climbing in brightness and now ranks as the brightest nova seen from mid-northern latitudes in nearly two years. Even from the northern states, where Sagittarius hangs low in the sky before dawn, the “new star” was easy to spy this morning at magnitude +4.4.
While not as rare as hen’s teeth, novae aren’t common and those visible without optical aid even less so. The last naked eye nova seen from outside the tropics was V339 Del (Nova Delphini), which peaked at +4.3 in August 2013. The new kid on the block could soon outshine it if this happy trend continues.

Now bearing the official title of Nova Sagittarii 2015 No. 2, the nova was discovered on March 15 by amateur astronomer and nova hunter John Seach of Chatsworth Island, NSW, Australia. At the time it glowed at the naked eye limit of magnitude +6. Until this morning I wasn’t able to see it with the naked eye, but from a dark sky site, it’s there for the picking. So long as you know exactly where to look.

The chart and photo above will help guide you there. At the moment, the star’s about 15° high at dawn’s start, but it rises a little higher and becomes easier to see with each passing day. Find your sunrise time here and then subtract an hour and 45 minutes. That will bring you to the beginning of astronomical twilight, an ideal time to catch the nova at its highest in a dark sky.

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