Doomsday Comet of 2012 Cometh?

Since pre-historic times bright comets have been viewed as starry messengers, carrying tidings of joy or messages of doom. A rare few reach naked-eye visibility as they near the Sun, sprouting majestic tails; leaving their marks in history, folklore and art. These “great comets” are sometimes visible even in daylight. Recently, doomsayers have predicted that comet C/2010X Elenin will come so close to the Earth that it will “block out the Sun,” causing earthquakes, pestilence and assorted apocalyptic chaos.

Comet McNaught, C2009R1, M. Jaeger

My grandfather claimed that The Great Comet of January 1910 was so bright that their horses shied, and had to be put in blinders. While not nearly so spectacular as that, early in September, Comet Garrard (C/2009P1) passed close by the “Coat hanger” asterism (Cr399) in Sagitta, making it easy to locate from a dark sky site with a small telescope. In late August, we observed it through our 22” scope making us eager to see this visitor from the Kuiper Belt passing through the “Great Rift” of the Milky Way where it would appear against the inky background. But the weather in Escanaba and a waxing Moon haven’t co-operated much since. As September flows into October, Garrard drifts high across the night sky, gliding from Sagitta into Hercules, where it should continue to brighten to about 7th magnitude and provide good binocular and telescopic viewing. Set your alarm for very early morning and you can look for two other comets that also grace our skies this fall: Periodic comet C45 Honda/Mrkos/Padjusakova is making its best apparition since 1948 in Leo, brightening to within small ‘scope reach at about 8th magnitude.1

A new visitor from the fringes of the Solar System, C/2010X Elenin also passes through Leo in the first weeks of October, possibly getting as bright as 6th magnitude. Elenin (The so-called “Doomsday” comet of 2012) makes its closest approach to Earth on the 16th, at just a mere 22 million miles away! By comparison, the Moon is far larger and 90 times as close as Elenin will get to Earth, and does “blot out the Sun” during eclipses, but most rational people aren’t afraid of it causing chaos or the end of the world.2


1 Sky Map: Chris Matthews: www.Astrobob.areavoices.com
2 See the August 2011 DAS Newsletter, re: the Moon’s orbital characteristics, tidal effects, etc.
Recently, a friend of mine from High School protested my strong support for Space Science (Specifically, NASA's Juno probe to Jupiter) at a time when government is cutting funds for everything from education to Medicare. She couldn't see any value in NASA's programs. I disagree with her, but have to admit, she has a valid point. At a time when millions are out of work and many others are living paycheck to paycheck, barely getting by --How do we justify the cost of space science and exploration? Certainly not by citing spin-offs such as Teflon and memory foam, as handy as they may be.

I believe that there are three essential questions that we humans are compelled to ask and are driven to answer: "Why are we here?" "Why Here and Now?" And, "Are we alone?" These seem like ancient Theological and Philosophical questions—and they are—but it appears we might finally be able to answer them through the pursuit of science. Only within the last century have we begun to understand the true nature of our place in the architecture of the cosmos. And we are still refining our understanding of such basic concepts as the extent of the Solar System and the shape of the Galaxy, let alone our comprehension of the true nature of the Universe.

Scientists are anything but arrogant about such questions as these. It has taken the fastest moving deep space probes humans have ever constructed—Voyagers 1 & 2—a third of a Century just to reach the outer boundaries of our Solar System...about 11 billion miles away. Yet, Proxima Centauri, the next closest star to our Sun currently lies some 24 trillion miles away across the yawning gulfs of interstellar space. If we are not alone, then one wonders if our little blue Earth might not be off in some dusty, forgotten corner of the Universe?

Unlike the famous trio of monkeys who see, hear and say no evil, we keep listening and watching—religiously so—for whispers of Another Civilization out there, across the vast reaches of Space. And we keep fabricating ways to climb up and out of this deep gravity well of ignorance and mythology that kept our ancestors captive for millennia. We build rockets and rovers, not because it is easy or cheap, or just for the thrill of it, but because we yearn for answers. I, for one, believe that tax money spent on the quest for knowledge—especially if it addresses the "Big 3" questions, is money well spent. It's assuredly better than building bombs, making war, and trying to destroy ourselves.

As Always, "Keep Looking Up!" Dan

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Autumn Skies…

The nights of October are often some of the best of the entire year: cool, clear skies with a crisp chill that clears the air of summer’s humidity, yet not so cold that it makes observing too difficult. Overhead, the Milky Way makes its final stand, arching across the late evening skies from the northeast to the southwest. Circling the zenith are the Great Square of Pegasus, Cassiopeia, and the Northern Cross. After midnight, the Pleiades rise, followed by the horns of the Bull, Taurus. Saturday night, October 8th is International “Observe the Moon” night. A gibbous Moon will ride the ecliptic midway between Uranus and Neptune. Both planets will be within reach of binoculars or small telescopes all month. From a dark sky site, Uranus may be seen naked eye around the first and last weeks of the month. Major members of the Local Group of galaxies, M-33 the Pinwheel in Triangulum and M-31 in Andromeda are both at their best. Massive Jupiter weighs in this fall as the dominant object in the skies. Visible virtually all night, brilliant Jove rises in the East and rides the heavens until early morning, reaching Opposition, and peak brightness (Mag. –2.9) at month’s end. On its way to Jupiter is the Juno craft, launched August 5th from the Cape. Juno was developed as NASA’s follow up to Galileo. The solar powered craft is equipped with eight sensors that will peer deep into the giant gas planet during its scheduled 33 polar orbits, specifically to answer questions that the Galileo craft raised, but left unanswered. Scientists hope to learn about Jupiter’s origin and evolution—perhaps the keys to understanding the development of our own Solar System and others.

Jupiter True Color Portrait. Cassini . NASA/ JPL.

As Juno is cruising toward its rendezvous with Jupiter, the last operating Mars rover, Opportunity continues to do important scientific research on the Martian surface, now at the rim of Endeavour crater, 12 miles away from its original landing site.

Rim of Endeavour Crater, Mars. Opportunity. 8-10-2011, NASA

You will have to get up very early in the hours before dawn in the first couple of days of October to watch Mars pass through the Beehive cluster (M44). But it should be worth the challenge. Toward the end of the month, Saturn reappears, low in the predawn skies. You will need a clear view to the eastern horizon, to catch the ringed planet.

Vernal Equinox on Saturn, 8/12/2009 Cassini, NASA/ JPL

One night in late August we observed a trio of planets in the outer Solar System: greenish-gray Uranus, blue-green Neptune and the tiny white dot of the dwarf planet, Pluto. This trans-Neptunian object (TNO) is actually a “double planet,” orbiting a common external center of gravity with its moon Charon. Astronomers have counted 4 moons in the Pluto system—so far. Come out and observe with DAS. Best weekends include: Sep’t. 30th – Oct. 2nd; Oct. 21st – 23rd; Oct. 28th – 30th.