

What's Up?

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Happy Holidays to all!!

While "What's Up?" has been on hiatus, the heavens (and NASA) has not. Just this past Saturday, NASA launched Curiosity. Following in the footsteps of the rovers Sojourner, Spirit, and Opportunity, Curiosity launched at 7:02 am pst 26 November 2011 from the Cape Canaveral Air Force station in Florida. Curiosity was hoisted aloft by an Atlas V rocket that placed it into Earth orbit. A Centaur booster then sent Curiosity into a trajectory for a Martian encounter on 6 August 2012.

This 352-million mile journey will end with Curiosity landing inside Gale crater where it will begin a two-year primary mission that will utilize 10 separate instruments. The car-sized, one-ton rover will gather data using a drill at the end of its robotic arm and a scoop to collect samples from rock interiors. These samples will then be parceled out to various instruments inside the rover. In addition, Curiosity will employ a "... laser-firing instrument for checking rocks' elemental composition from a distance, and an X-ray diffraction instrument for definitive identification of minerals in powdered samples." (nasa.gov)

Because of its relatively large mass, the Mars Science Laboratory (MSL) (a.k.a, Curiosity) will land using a technique that should provide a greater precision in landing (by use of parachutes, sky crane, and rocket powered descent). For more information, be sure to visit Curiosity's website at <http://www.nasa.gov/msl>.

A View to New Horizons

On 19 January 2006, NASA launched the New Horizons spacecraft. New Horizons is

designed to fly past Pluto (the dwarf-planet) and its moons in July of 2015.

One of the fastest probes ever launched by NASA (having passed the Moon's orbit in merely eight hours), New Horizons has already passed Uranus's orbit in less than six years (whereas, Voyager 2 took nine years).

New Horizons has already by Jupiter in February, 2007 is currently 22.5 AU from the Earth (the Earth is 1 AU from the Sun) and 10.6 AU from Pluto. (<http://pluto.jhuapl.edu/>)

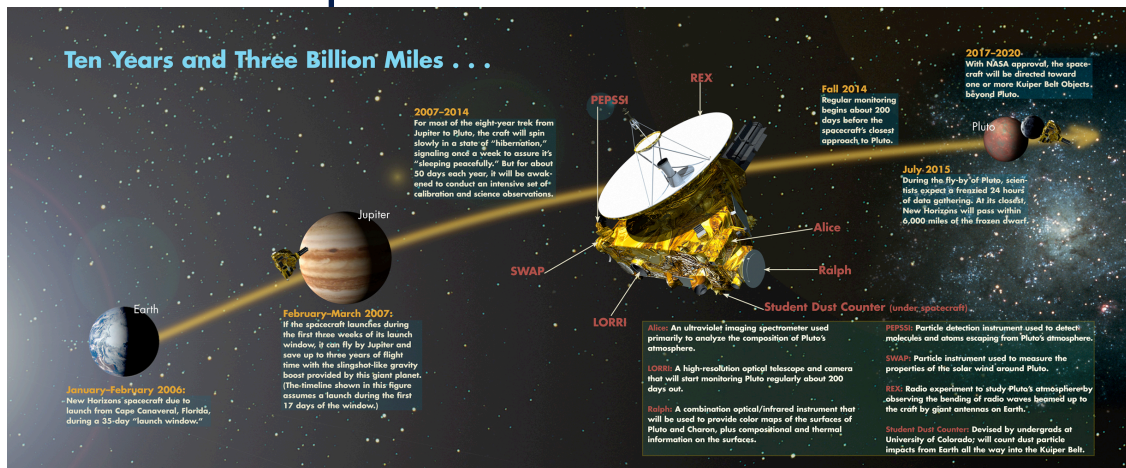


Launch of Curiosity on 26 November 2011 (NASA)

What's UP -- er, On??

The Regency Theater in San Juan Capistrano is showing the 31 year old series, COSMOS. Carl Sagan's series that brought astronomy to the TV is being shown on the big screen. Each month, another episode is shown in the Regency Theater with a guest lecturer to discuss the topic of that night's episode. The next showing is 14 December 2011 at 6:30pm. The guest lecturer will be Dr. Virginia Trimble from UCI.

Information about the theater is available at <http://www.regencymovies.com/main.php?theaterId=24>



New Horizons's path to Pluto (NASA)

For those who are

interested in viewing objects in real time, Jupiter and Venus are providing spectacular show.

Just after sunset, one should be able to see a very bright "star" very close to the Moon. That bright "star" is really Venus. Venus and the Moon will be low in the southwestern horizon as they get ready to set. Thought not as close as they have been the past couple of nights, this pairing should still be quite lovely.

Jupiter has been lighting up the eastern horizon for the past couple of months. To view Jupiter, look for the bright "star" in the eastern sky after sunset. As you may have noticed, not all stars you see in the sky, are stars. Some are planets.

This notice was published by the Astronomy program. Please feel free to send your comments or suggestions to Morrie Barembaum (barembaum_morrie@sccollege.edu) or Danielle Martino (martino_danielle@sccollege.edu).

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