

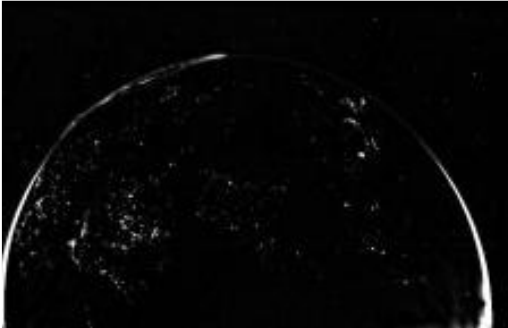


SPACE NEWS

N° 7

19th November 2007

Last week in space



Right on schedule on November 13th, ESA's Rosetta spacecraft made its 2nd earthly flyby; testing its scientific instruments, and receiving a much needed gravitational assist. About two hours before its flyby, the spacecraft captured this image of the Earth's night side, including Asia, Africa and Europe. When it captured this image, Rosetta was about 80,000 km (50,000 miles) away from the Earth, above the Indian Ocean. It imaged the planet using its OSIRIS instrument.

NGC 281 is a bustling hub of star formation about 10,000 light years away. This composite image of optical and X-ray emission includes regions where new stars are forming and older regions containing stars about 3 million years old. The optical data (seen in red, orange, and yellow) show a small open cluster of stars, large lanes of obscuring gas and dust, and dense knots where stars may still be forming. The X-ray data (purple), based on a Chandra observation lasting more than a day, shows a different view. More than 300 individual X-ray sources are seen, most of them associated with IC 1590, the central cluster. The edge-on aspect of NGC 281 allows scientists to study the effects of powerful X-rays on the gas in the region, the raw material for star formation. For more information, take a look here: <http://chandra.harvard.edu/photo/2007/ngc281/>



With ESA's Mars Express, scientists continue to gain new insight into the mysterious Martian environment. Some of the most exciting results are being sent back by the MARSIS (Mars Advanced Radar for Subsurface and Ionospheric Sounding) experiment. MARSIS transmits low frequency radio waves towards the planet's surface and records the echoes of the different layers. For more information, take a look here: www.esa.int/esaSC/SEMSS063R8F_index_0.html

In comparison to a mission to Venus, missions to Mars or the Moon are a cakewalk. With temperatures exceeding 450°C (840°F) and pressures over 92 times that of the surface of the Earth, landing a rover on the surface of Venus is quite a feat. This, however, is exactly what a research and development team at the NASA John Glenn Research Centre hopes to accomplish. For more information, take a look here: www.universetoday.com/2007/11/15/how-to-keep-a-venus-rover-cool/



Not to be missed next week

Comet Holmes, is exceptionally well placed in the constellation of Perseus and can easily be seen with the naked eye, try following its movement with a pair of binoculars.