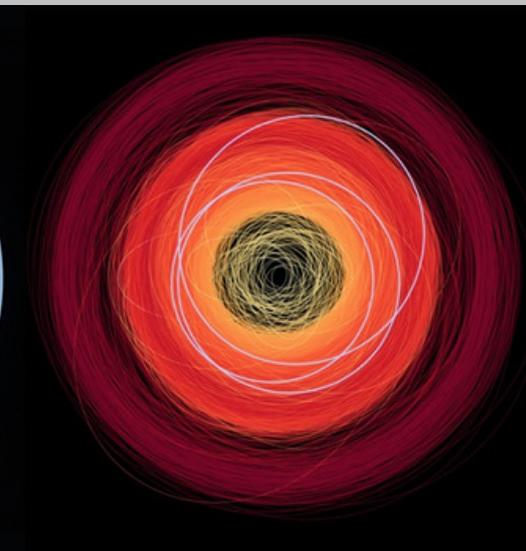


DUBAI ASTRONOMY GROUP

Weekly Newsletter

INSIDE THIS ISSUE



THE SKY THIS WEEK FROM MAY 3 TO 12

The Eta Aquariid meteor shower peaks under a Moon-free sky this week, while Mars appears as a third horn for Taurus the Bull.

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VENUS REIMAGINED: A NEW IMAGE OF AN ACTIVE WORLD

A new analysis of venusian lava flows shows they may have formed less than 250,000 years ago, suggesting a significant fraction of Venus' roughly 1,600 volcanoes are still active.

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GAIA SPACECRAFT MAPS 14,000 ASTEROIDS

The newly released image above shows the orbits of 14,000 asteroids that it mapped during its first two years of observing.

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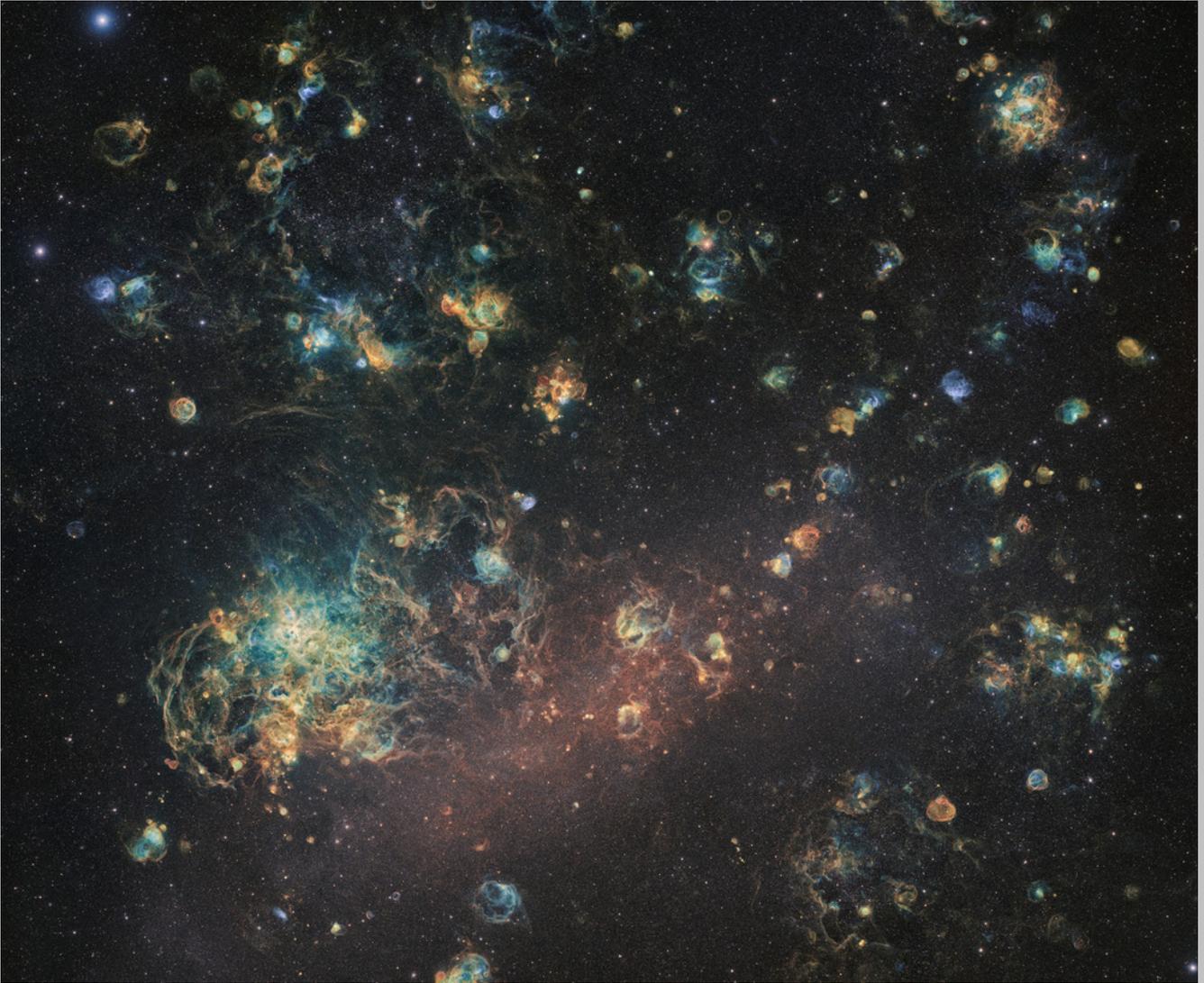
ASTEROIDS DELIVERED HALF OF EARTH'S WATER, NEW SAMPLE SUGGESTS

New analysis of grains from asteroid Itokawa, returned by Hayabusa in 2010, suggest our planet may have gotten a significant portion of its liquid from such bodies.

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ASTRONOMY PICTURE OF THE WEEK



Clouds of the Large Magellanic Cloud
Image Credit & Copyright: Team Ciel Austral -
J. C. Canonne, N. Outters, P. Bernhard, D. Chaplain, L. Bourgon

The Large Magellanic Cloud (LMC) is an alluring sight in southern skies. But this deep and detailed telescopic view, over 10 months in the making, goes beyond what is visible to most circumnavigators of planet Earth. Spanning over 5 degrees or 10 full moons, the 4x4 panel mosaic was constructed from 3900 frames with a total of 1,060 hours of exposure time in both broadband and narrowband filters. The narrowband filters are designed to transmit only light emitted by sulfur, hydrogen, and oxygen atoms. Ionized by energetic starlight, the atoms emit their characteristic light as electrons are recaptured and the atoms transition to a lower energy state. As a result, in this image the LMC seems covered with its own clouds of ionized gas surrounding its massive, young stars. Sculpted by the strong stellar winds and ultraviolet radiation, the glowing clouds, dominated by emission from hydrogen, are known as H II (ionized hydrogen) regions. Itself composed of many overlapping H II regions, the Tarantula Nebula is the large star forming region at the left. The largest satellite of our Milky Way Galaxy, the LMC is about 15,000 light-years across and lies a mere 160,000 light-years away toward the constellation Dorado.

MAY CELESTIAL EVENTS

May 6, 7 - Eta Aquarids Meteor Shower

The Eta Aquarids is an above average shower, capable of producing up to 60 meteors per hour at its peak. Most of the activity is seen in the Southern Hemisphere. In the Northern Hemisphere, the rate can reach about 30 meteors per hour. It is produced by dust particles left behind by comet Halley, which has known and observed since ancient times. The shower runs annually from April 19 to May 28. It peaks this year on the night of May 6 and the morning of the May 7. The thin crescent moon will set early in the evening leaving dark skies for what should be a good show. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Aquarius, but can appear anywhere in the sky.



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