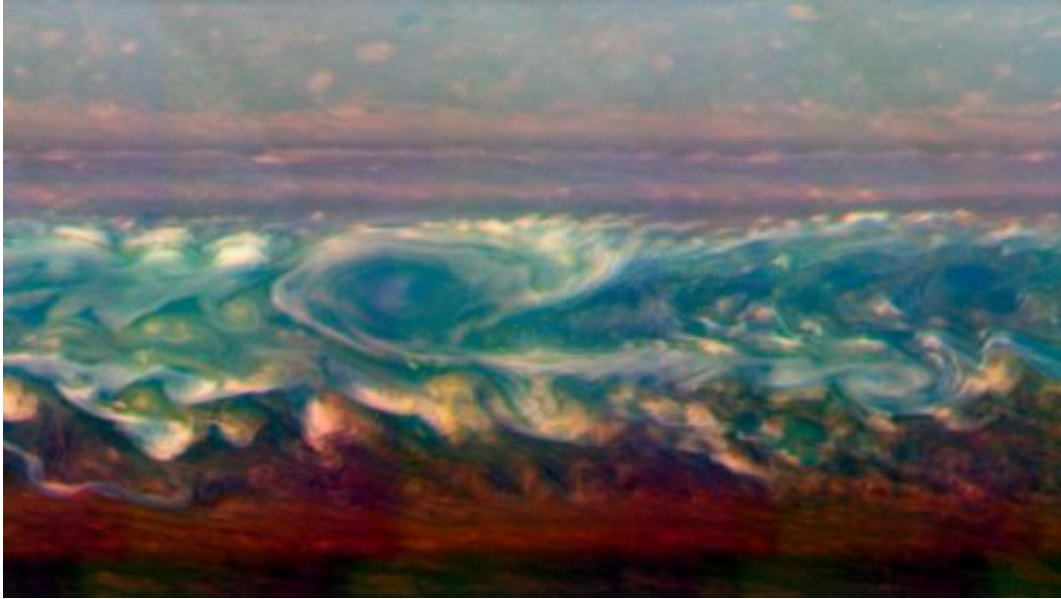


Image: Churning atmosphere on Saturn

February 4 2014



Credit: NASA/JPL-Caltech/SSI/Hampton University

Like a swirl from a paintbrush being dipped in water, this image from the Cassini orbiter shows the progress of a massive storm on Saturn. The storm first developed in December 2010, and this mosaic captures how it appeared on 6 March 2011.

The head of the [storm](#) is towards the left of the image, where the most turbulent activity is shown in white, but towards the centre you can also see the trace of a spinning vortex in the wake of the storm.

This image, centred at about 0° longitude and 35° N latitude, has had its

colours enhanced to help reveal the complex processes in Saturn's weather. The white corresponds to the highest cloud tops, but to the human eye the storm would appear more as a bright area against a yellow background.

Cassini also monitored the temperature of the storm, showing a rapid spike as energy was released into the atmosphere.

The storm grew so large that on Earth it would easily cover all of Europe. Atmospheric disturbances of this size can be expected once during each of Saturn's orbits around the Sun, which takes 30 Earth years. However, this particular event surprised scientists by occurring during the northern hemisphere spring, rather than the more typically stormy Saturnian summer.

The Cassini–Huygens mission is a cooperative project of NASA, ESA and Italy's ASI space agency. The Jet Propulsion Laboratory, a division of the California Institute of Technology in Pasadena, manages the mission for NASA's Science Mission Directorate, Washington, DC.

Provided by European Space Agency

Citation: Image: Churning atmosphere on Saturn (2014, February 4) retrieved 26 April 2024 from <https://phys.org/news/2014-02-image-churning-atmosphere-saturn.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.