

VOL. 99 • NO. 3 • MAR 2018
EOS
Earth & Space Science News

JunoCam

FLIGHTS OF WHIMSY

Exploring the
Energy-Water Nexus

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Enabling FAIR Data

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JunoCam's Flights of Whimsy: From Dragons to Jovey McJupiterface

It's been more than a year and a half since NASA's Juno spacecraft arrived at Jupiter. What has the spacecraft been up to? It's been unlocking the mysteries of the gas giant's gravity, magnetic field, turbulent atmosphere, and brilliant auroras.

But that's not all. The spacecraft also houses JunoCam, its color camera. JunoCam is unique because the public, rather than the mission scientists, determines what spots on Jupiter the camera will image. Before each flyby of the spacecraft, members of the open online JunoCam community propose, discuss, and vote on points of interest that JunoCam should examine up-close.

Here's the fun part: After each flyby is completed, the raw JunoCam images are posted online for anyone to download and process into polished pictures.

Some images created by the public highlight the mission's scientific goals, but other people throw scientific gravitas out the window, looking to hit a more whimsical note. This is, after all, the digital age. Below are just some of these images, created by amateur astronomers, citizen scientists, and artists who looked at Jupiter and saw something a bit different.

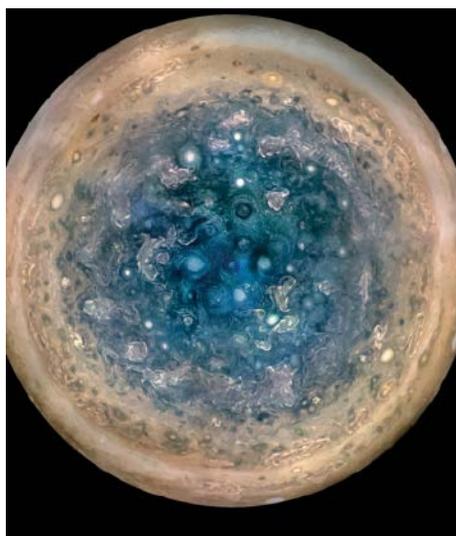
Throughout the span of its approximately 2-year mission, Juno will make 32 polar orbits of the planet, skimming within 5,000 kilometers of the cloud tops. When this issue *Eos* went to press, JunoCam images from the first 11 flybys, called perijoves, were available for the public to work (and play!) with, and more will soon follow. What new artistic pursuits will Juno's journey inspire? We can't wait to find out!

Jupiter as a Work of Impressionist Art



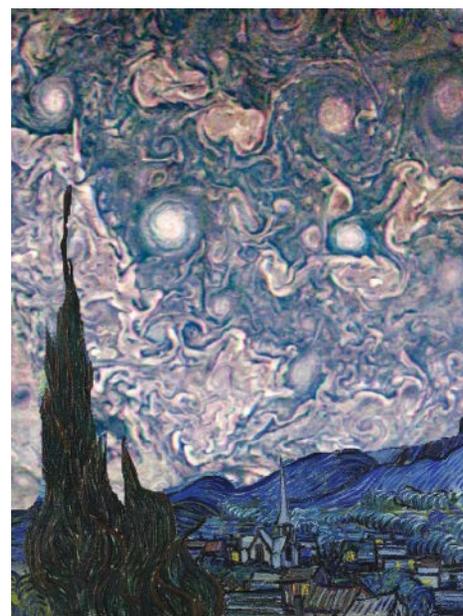
Credit: NASA/JPL-Caltech/SwRI/MSSS/
David England

Many astronomers have long considered the swirling storms on Jupiter to be beautiful works of art. This avant-garde interpretation of Jupiter's Great Red Spot pays tribute to French impressionist painter Claude Monet and his famous *Water Lilies* series.



Credit: NASA/JPL-Caltech/SwRI/MSSS/Betsy Asher
Hall/Gervasio Robles

Jupiter's south pole is no slouch when it comes to atmospheric turbulence, spots, and storms. This enhanced-color image from JunoCam's early science results, taken from 52,000 kilometers above the atmosphere, combines snapshots taken over three separate orbits of the spacecraft. The patterns created by Jupiter's complex magnetic field invoke the skies of Vincent van Gogh's *Wheatfield with Crows* or *Imperial Fritillaries* in a *Copper Vase*. Some of the oval cyclone features are 1,000 kilometers wide.

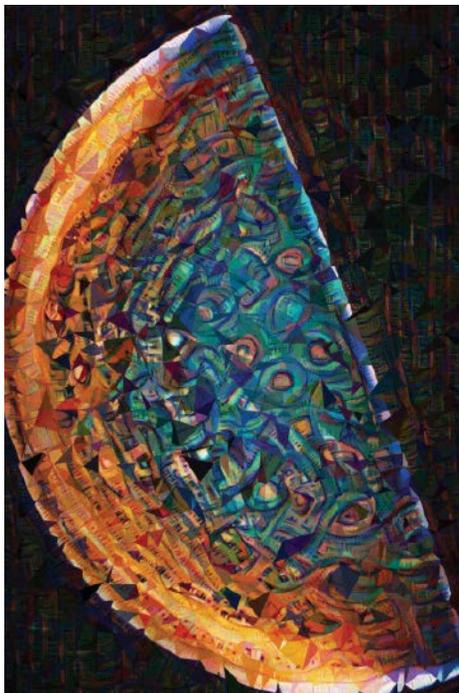


Credit: NASA/JPL-Caltech/SwRI/MSSS/Amelia
Carolina Sparavigna

Of course, no astronomy-themed art gallery would be complete without a tribute to van Gogh's *The Starry Night*. In this interpretation, a false-color image of Jupiter's south pole is the backdrop for the iconic sleepy French village depicted in the painting. Turbulent storms and atmospheric swirls are convincing substitutes for van Gogh's postimpressionist-style sky.

You can view the newest
JunoCam images at
<http://bit.ly/nasa-junocam>.

A Mathematical Take on Jupiter



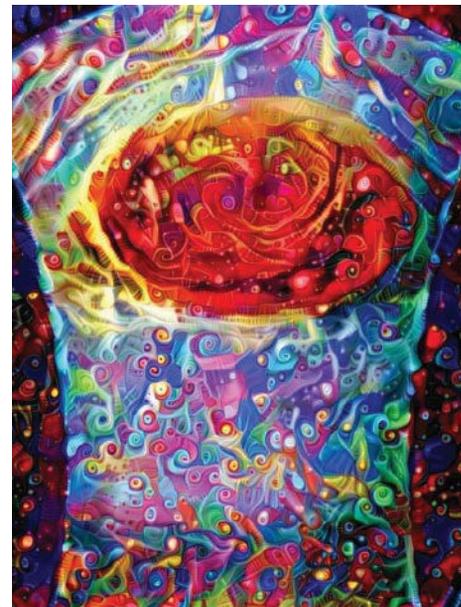
Credit: NASA/JPL-Caltech/SwRI/MSSS/
Michael_Ranger

Despite being half in shadow, this geometric take on Jupiter's south pole storms is reminiscent of the symmetrical optics inside a kaleidoscope or the fractal geometry of male peacock feathers.



Credit: NASA/JPL-Caltech/SwRI/MSSS/
CosmicRamonet

Some people just can't stop themselves from spicing up their planetary science with a little galactic astronomy. This false-color view looking directly down at Jupiter's south pole interprets the coils surrounding the bright pole as the spiral galaxy NGC 6814. The smaller spiral storms might even be background galaxies or bright foreground stars.



Credit: NASA/JPL-Caltech/SwRI/MSSS/Mik Petter

Is this the Great Red Spot or a psychedelic throwback to the 1960s? Trick question: It's both! Artist Mik Petter created this mesmerizing take on Jupiter's most prominent hurricane by converting JunoCam data into a colorful set of fractal-based swirls, highlighting the turbulence surrounding the centuries-old storm.

Listen to the First Two Episodes



E-1 Parking Lot Lava

Bob Karson and Jeff Wysocki describe their eight-year lava-making journey, from googling "how to buy basalt" to pouring hot lava into the cavity of a frozen chicken.

E-2 Science at a Glacier's Edge

Oceanographer David Sutherland describes facing boat-blocking icebergs, calving-induced tidal waves, and cold, dreary days experiences at Le Conte glacier.



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