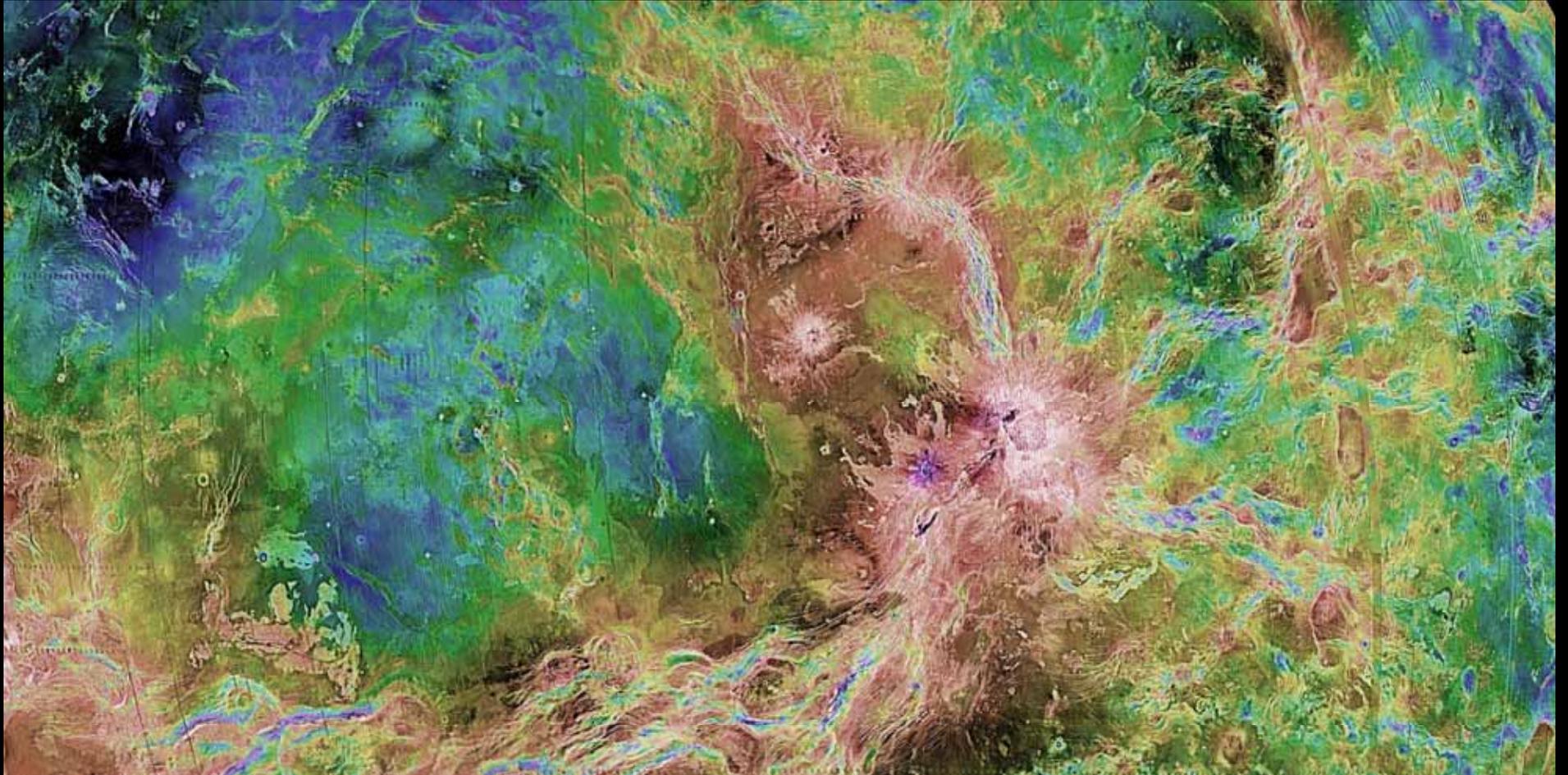


ART & THE COSMIC CONNECTION

The Elements of Art & Planetary Image Analysis



A VISION OF DISCOVERY NASA Educator Workshop
Monica Aiello, Planetary Artists & Educator
Saturday, March 10, 2012 - Pasadena, California

SCIENCE INSPIRES ART



MONICA & TYLER AIELLO



GANYMEDE



CREDIT: NASA/JPL



ART INSPIRES SCIENCE EDUCATION



ART & THE COSMIC CONNECTION

A K-12 Educational Program & Art Activity

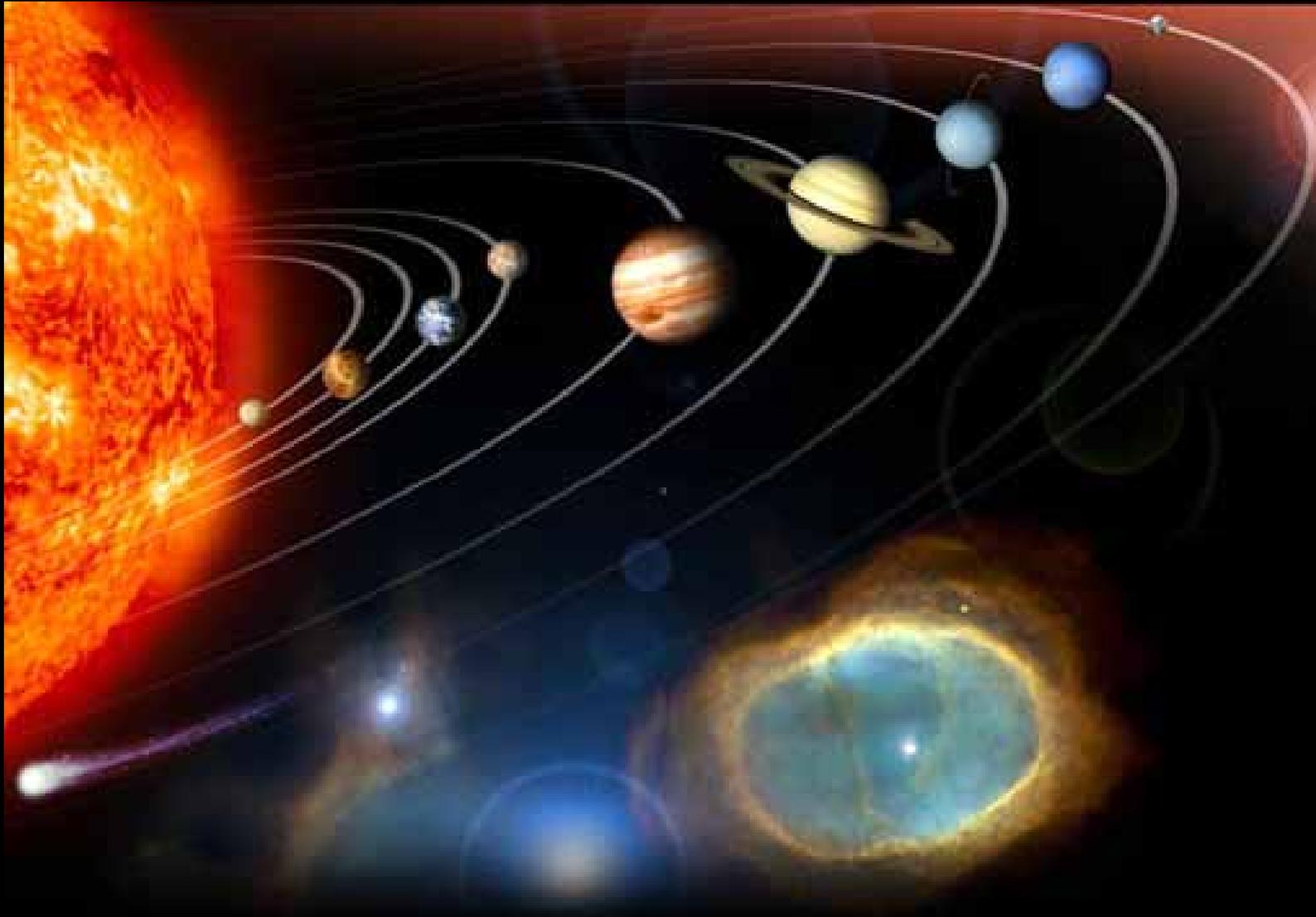


PROGRAM HIGHLIGHTS



- PowerPoint Lecture
- Easy to follow lecture script and scientific notes
- Correlates with current and recent missions
- Scalable for K-12 students...and beyond
- Art Activity to reinforce concepts
- Beautiful NASA image prints
- 1 day or 2 day program
- In-depth Teacher Training Guide
- Works in both art & science class
- Proven success with both youth and adults

OUR SPACE COMMUNITY



What do you know about the solar system?

SMALL BODIES: Moons

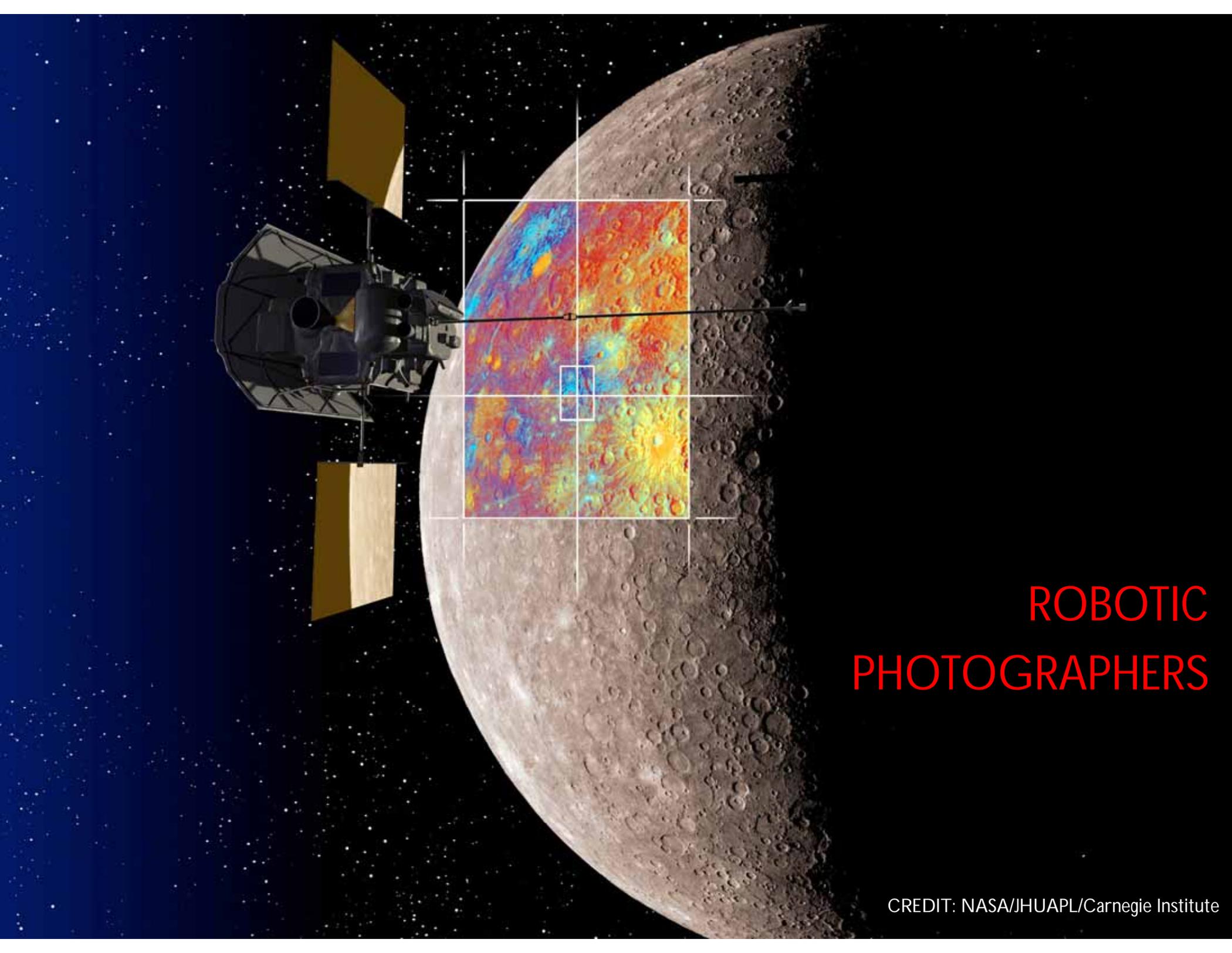


CREDIT: NASA/JPL

ROBOTIC PHOTOGRAPHERS



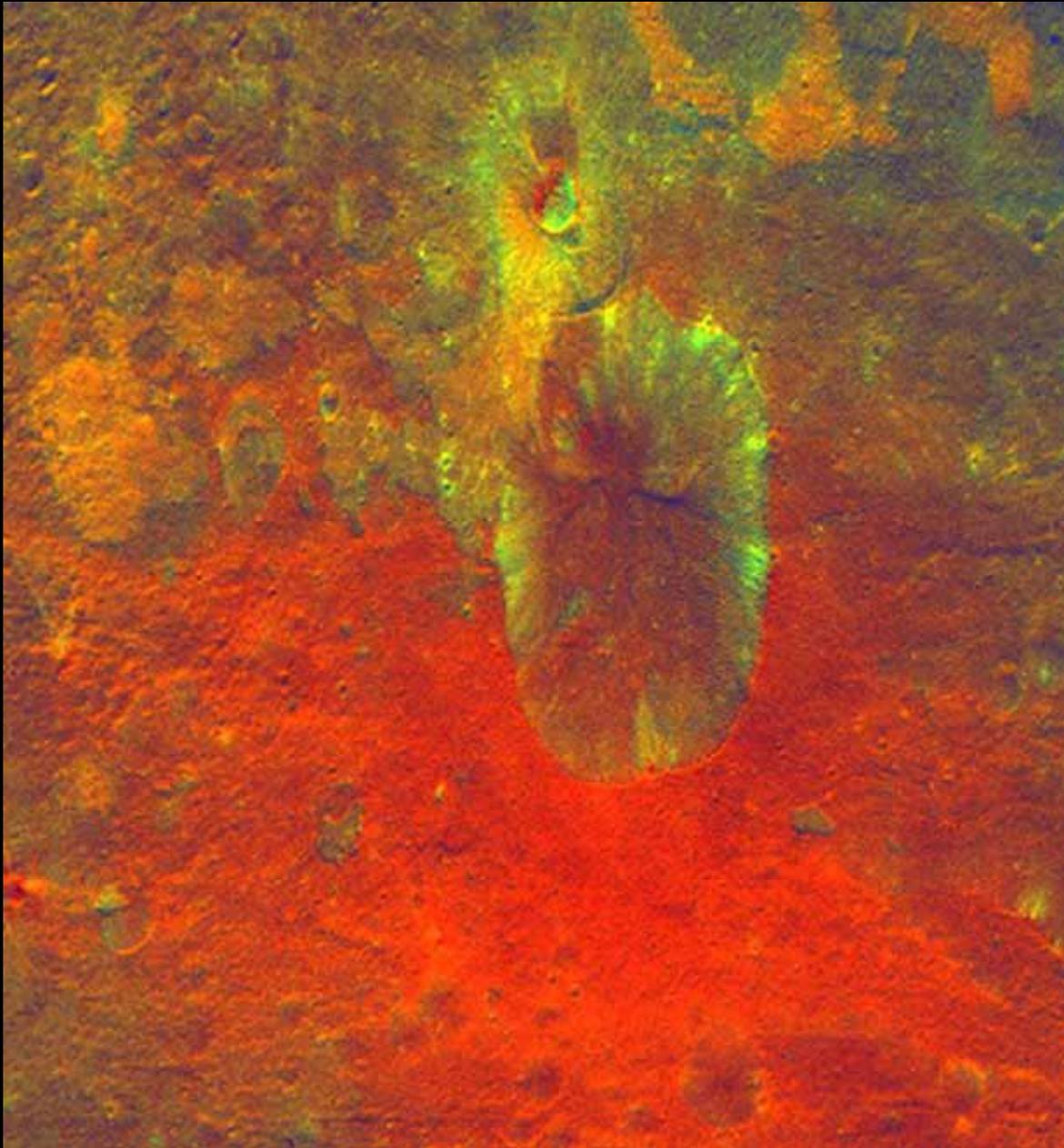
CREDIT: NASA/JPL



ROBOTIC PHOTOGRAPHERS

CREDIT: NASA/JHUAPL/Carnegie Institute

ELEMENTS OF ART & IMAGE ANALYSIS



-LINE

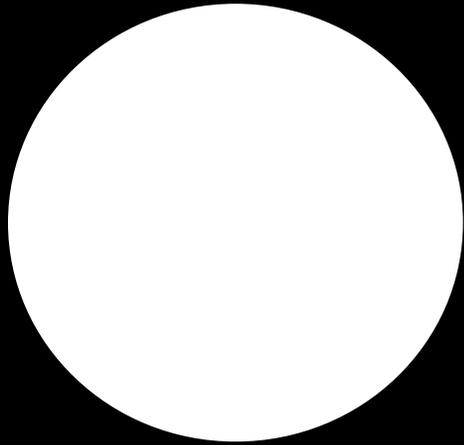
-SHAPE

-COLOR

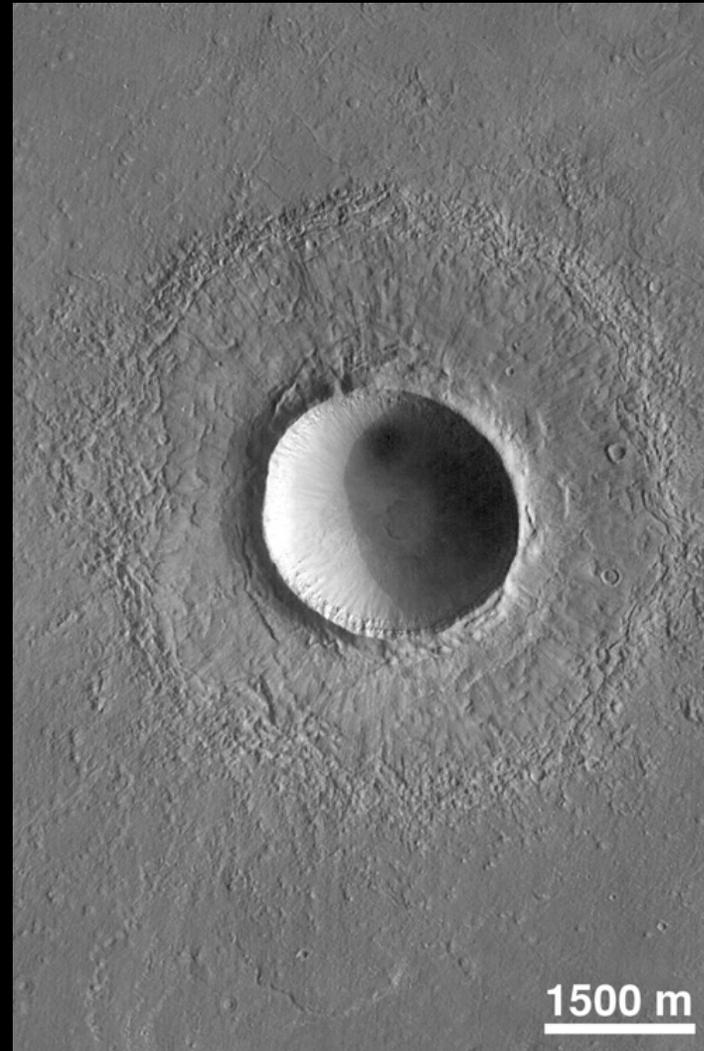
-VALUE

-TEXTURE

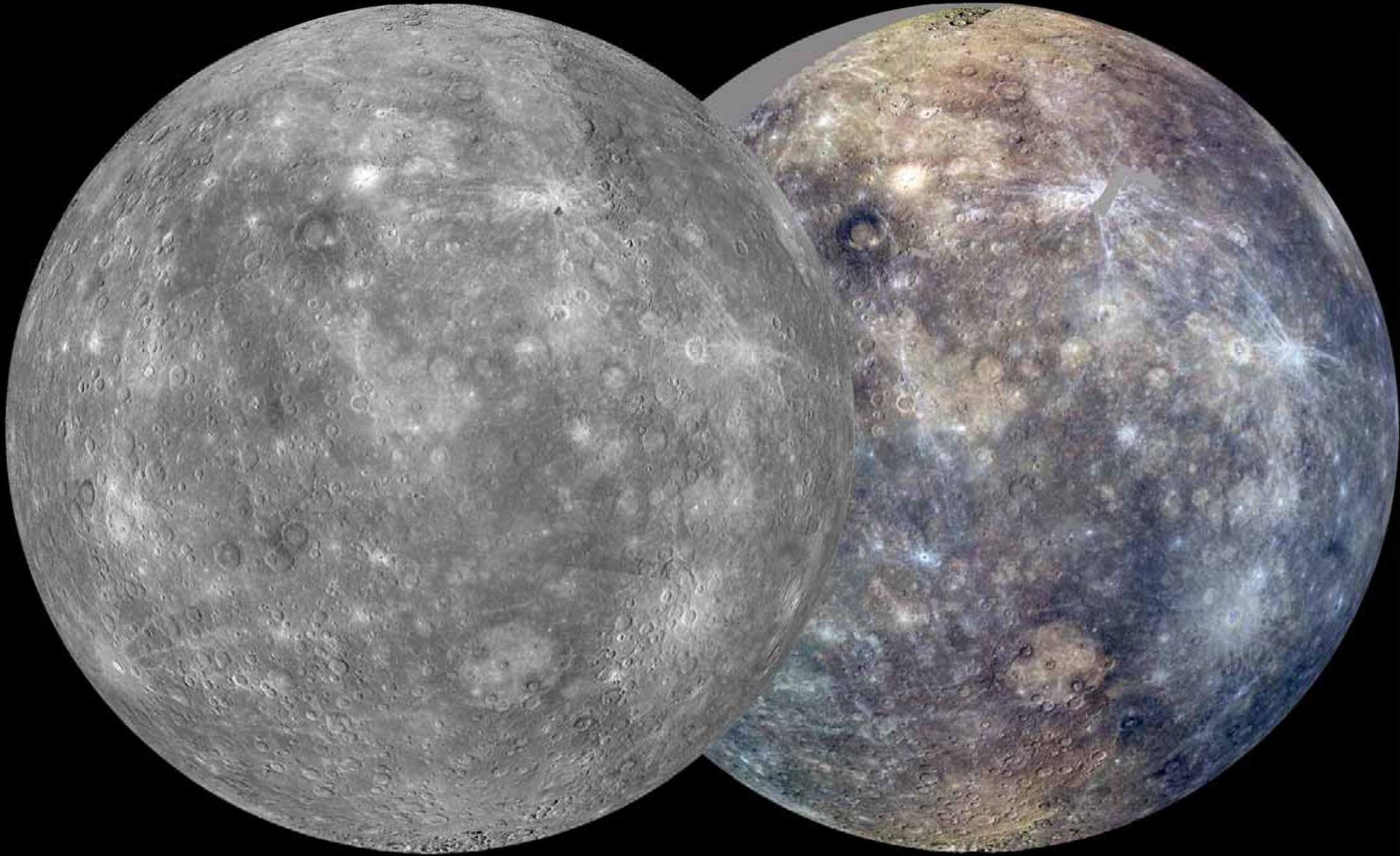
SHAPE



Circle - Craters

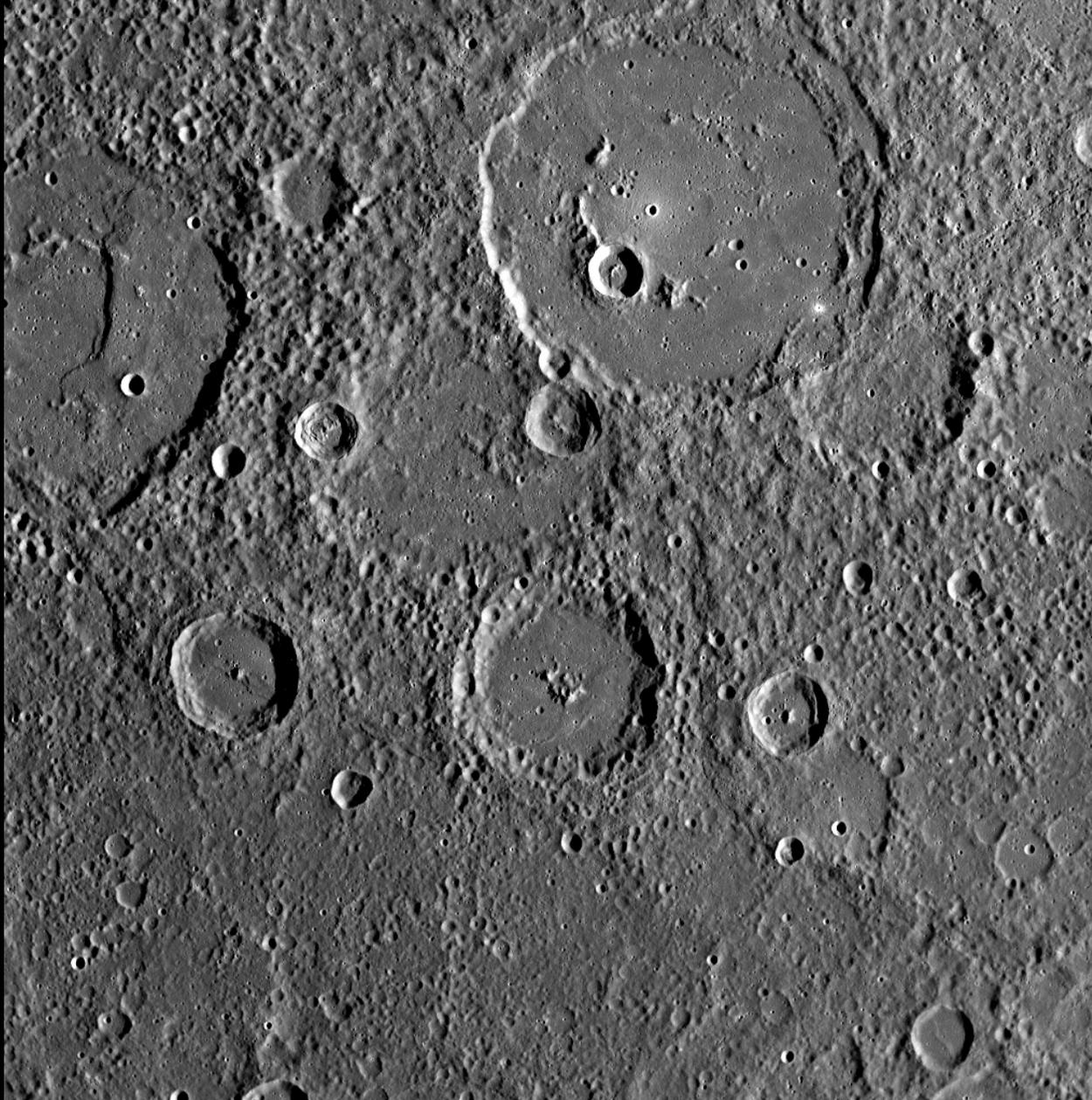


MERCURY



CREDIT: NASA/Johns Hopkins University Applied Physics Laboratory/Carnegie Institution of Washington

MERCURY



CREDIT: NASA/Johns Hopkins University Applied Physics Laboratory/Carnegie Institution of Washington

MANY TYPES OF CRATERS: Venus vs. Ganymede

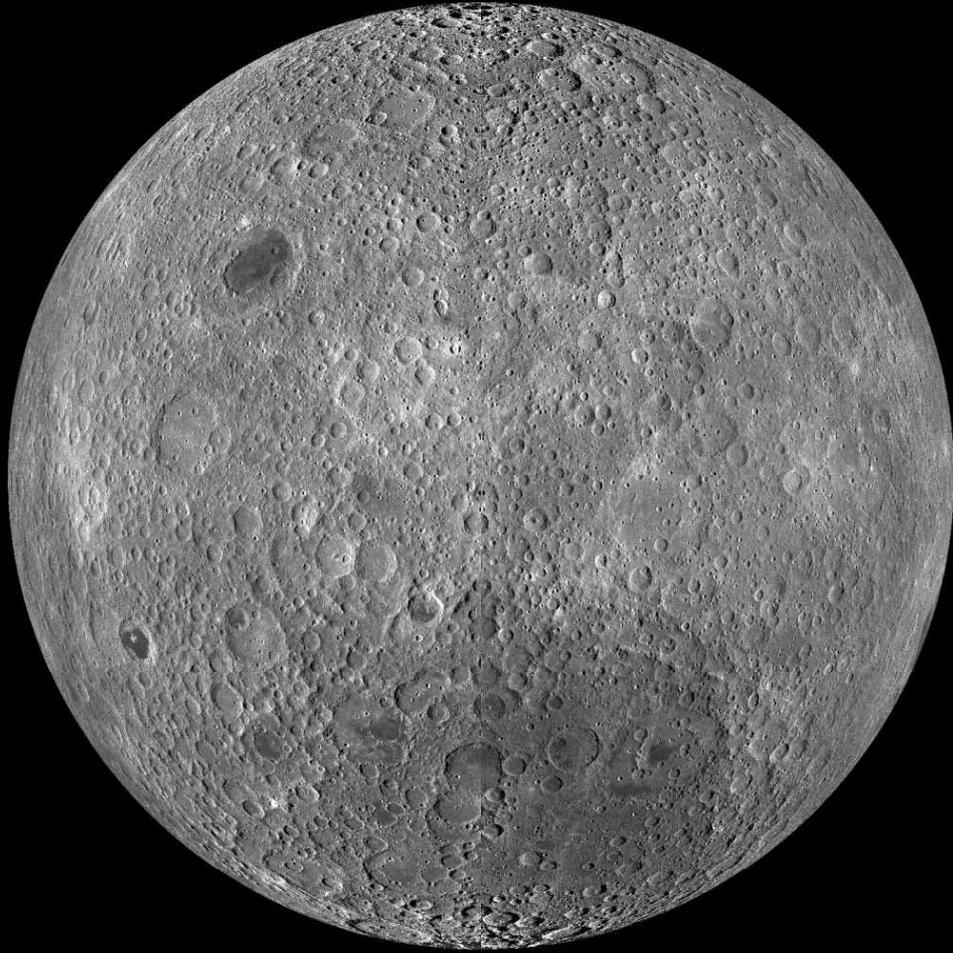


VENUS'S DICKINSON CRATER: CREDIT NASA/JPL

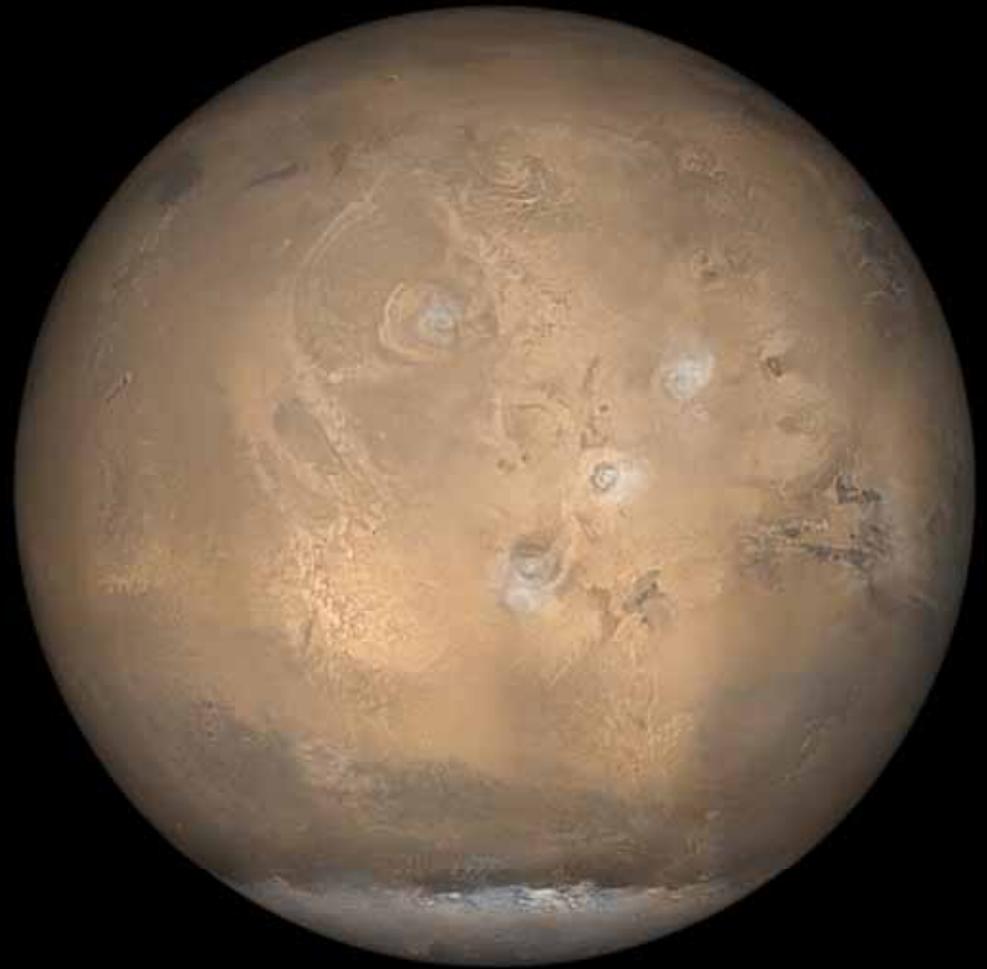


JUPITER'S MOON, GANYMEDE:
CREDIT NASA/JPL/USGS

COUNTING CRATERS: The Moon vs. Mars



CREDIT: NASA/GSFC/Arizona State University



CREDIT: NASA/JPL/Malin Space Science Systems

GIANT ASTEROID VESTA



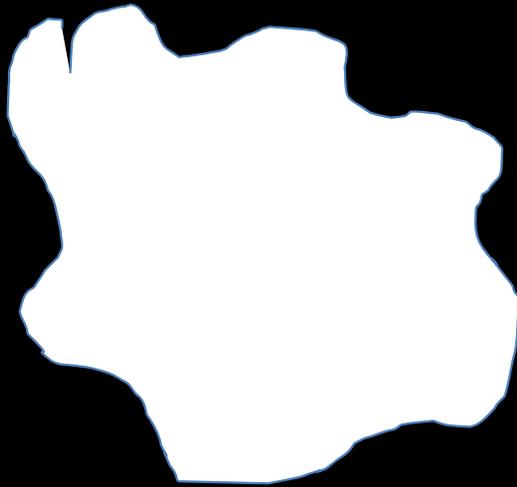
CREDIT: NASA/JPL-Caltech/UCLA/MPS/DLR/IDA

20 km

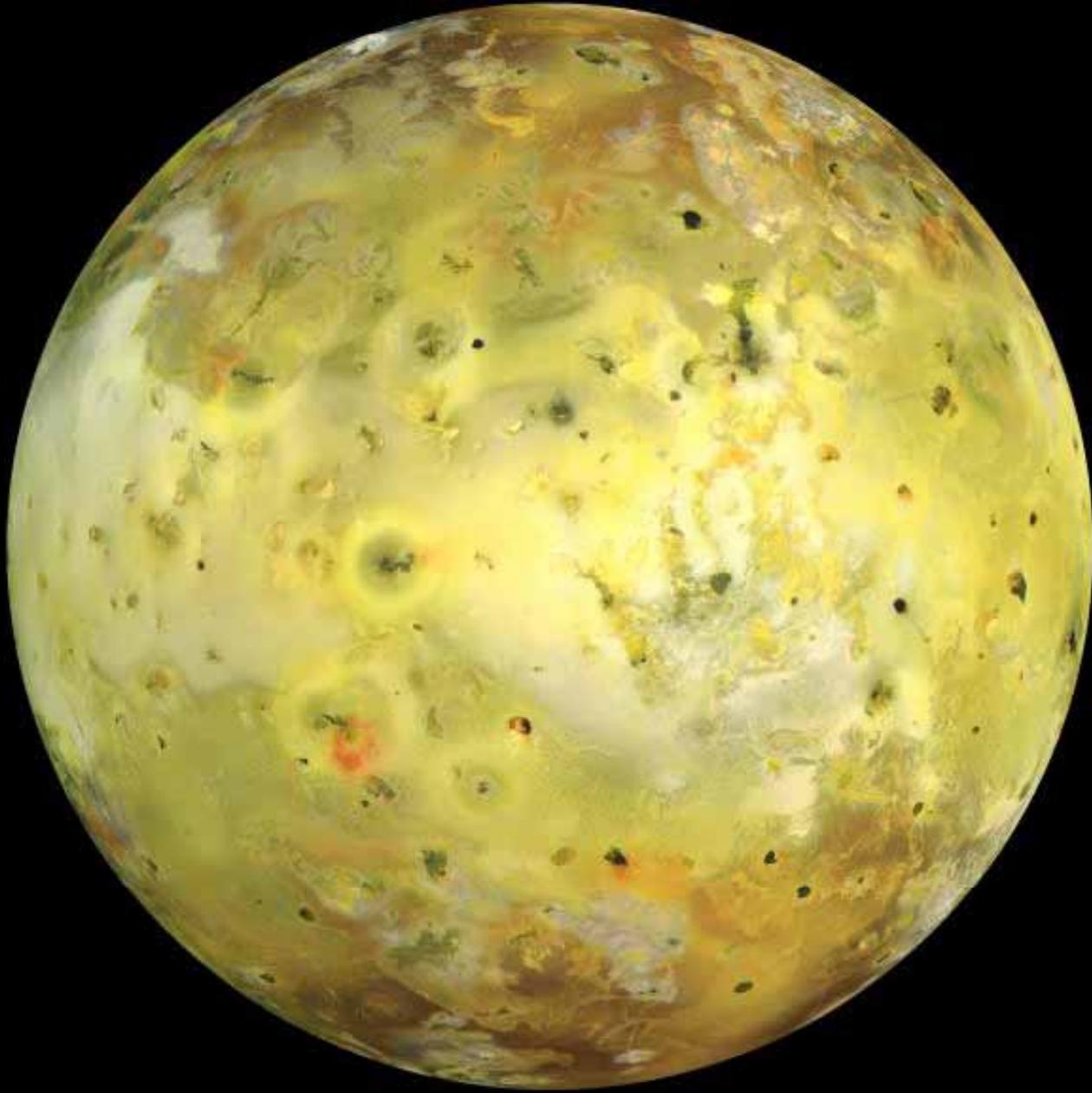
VENUS



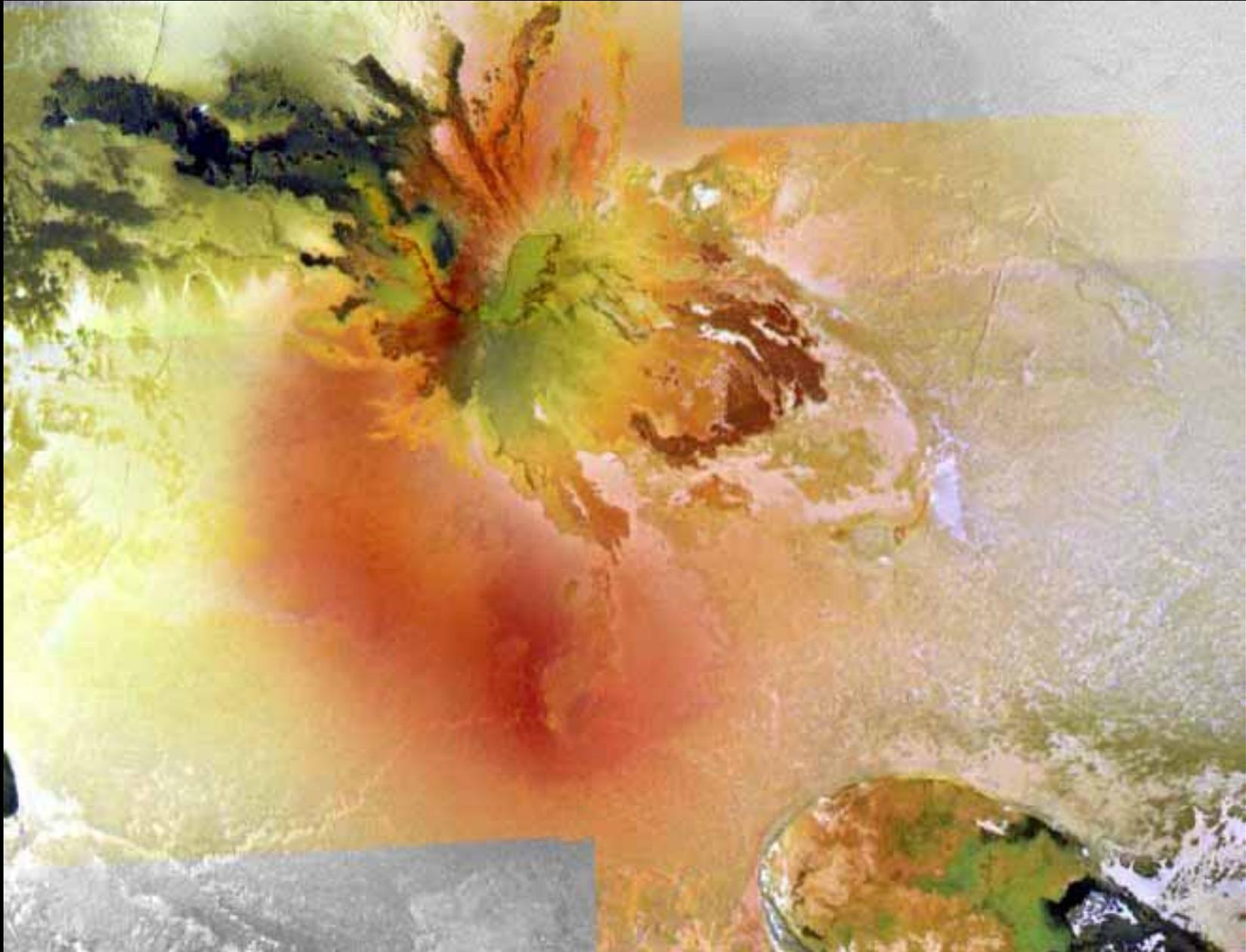
SHAPE



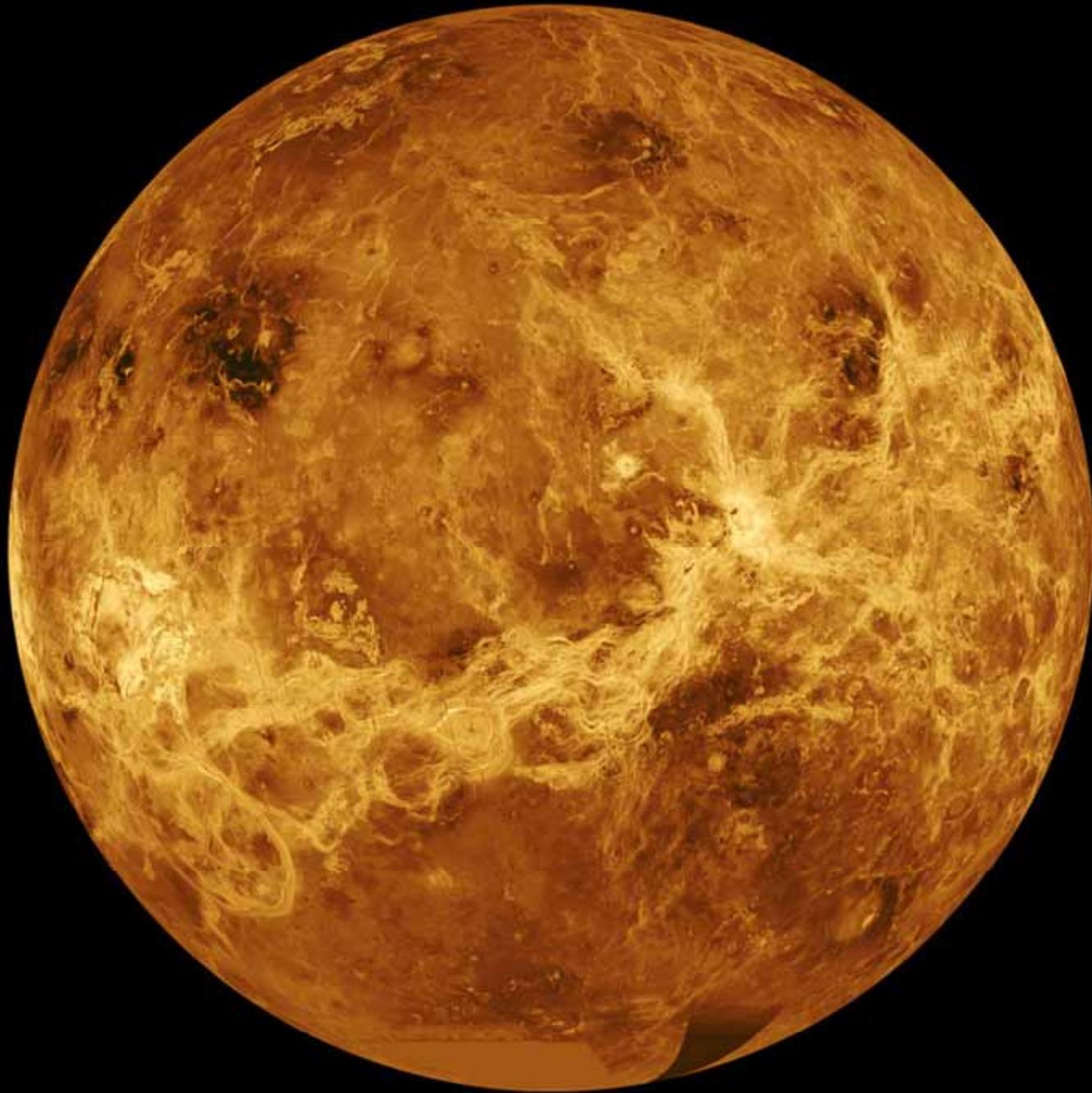
Blobs – Volcanoes (or Lakes)



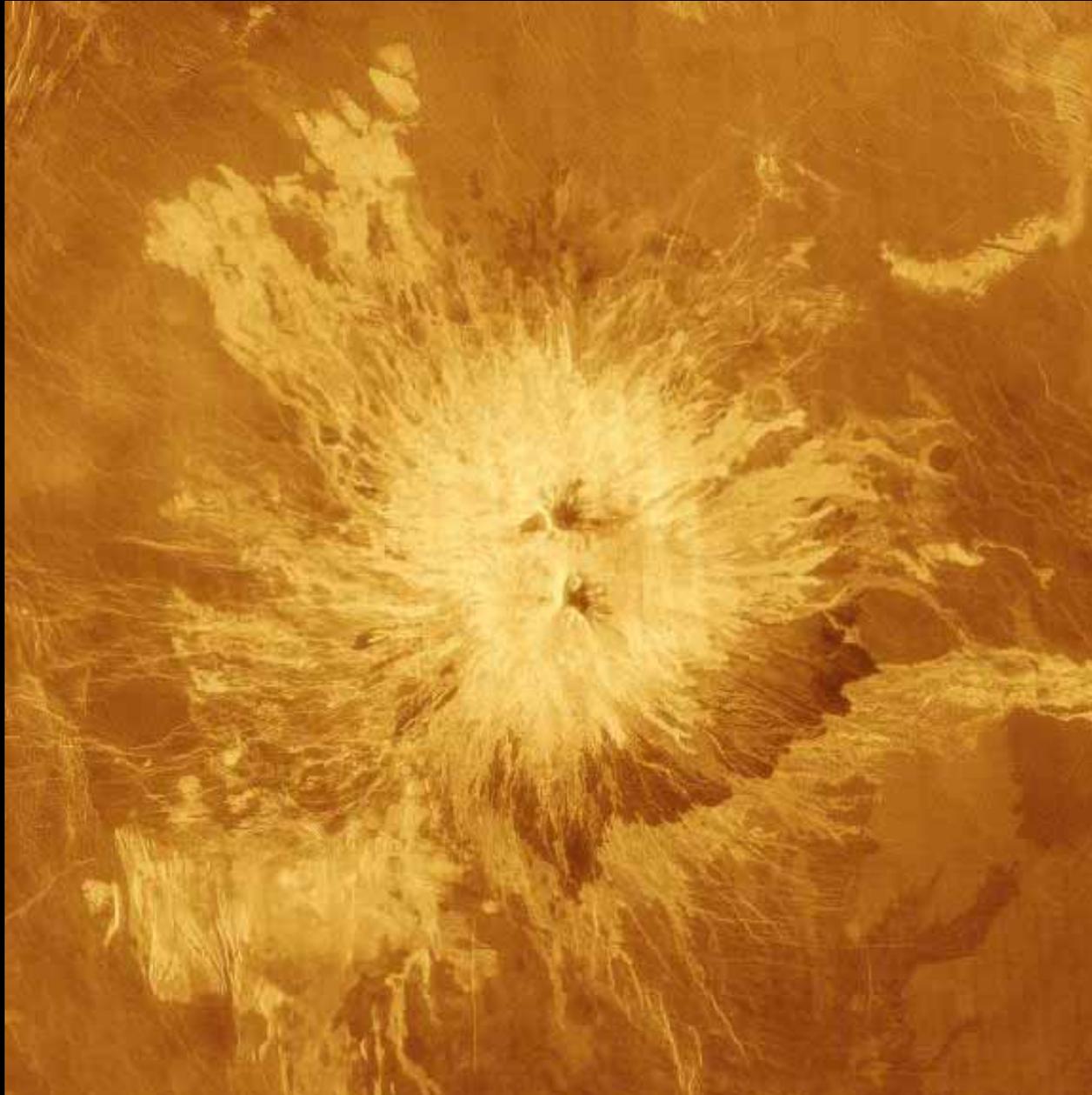
IO...a closer look



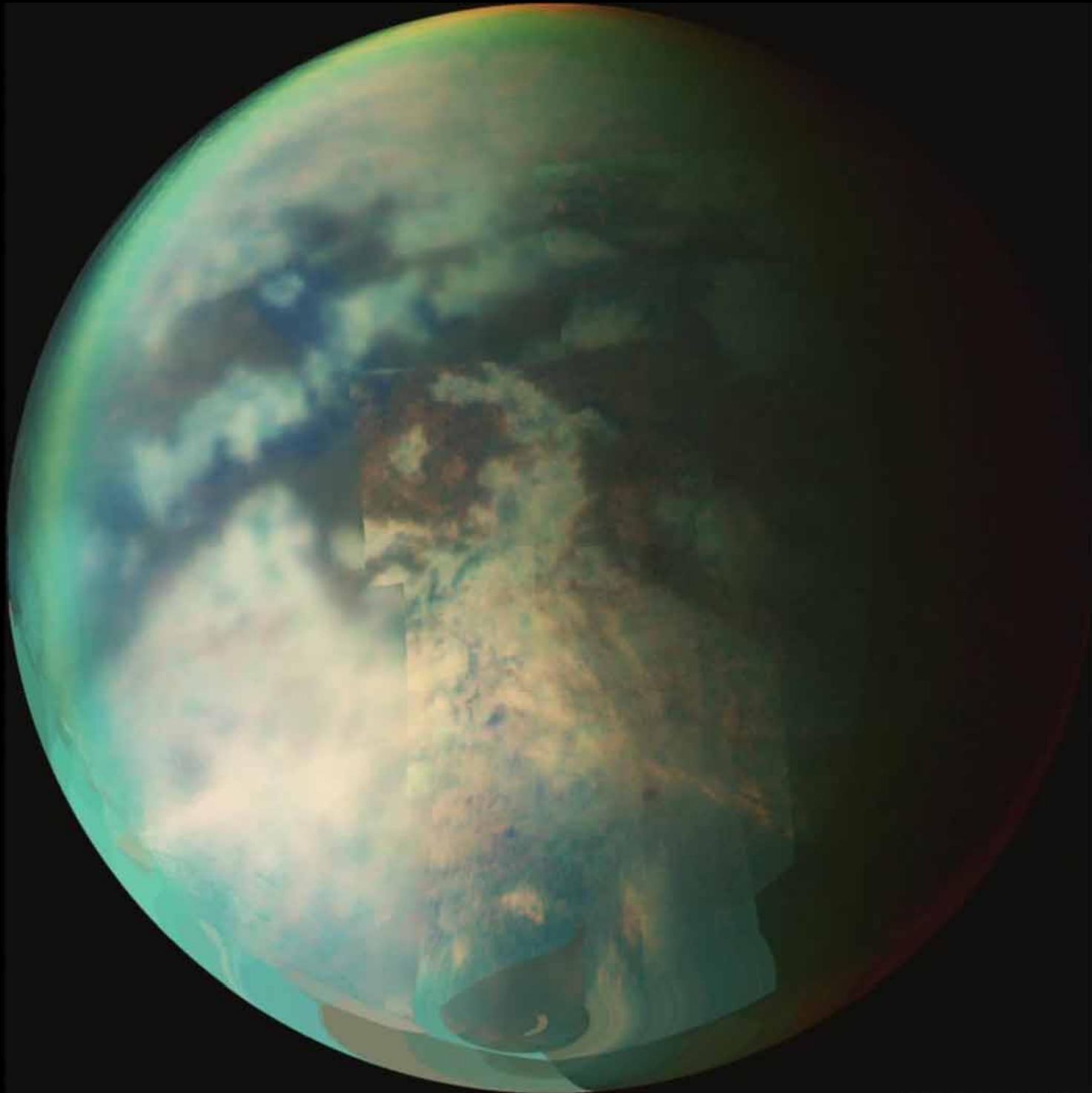
VENUS



VENUS: Sapas Mons

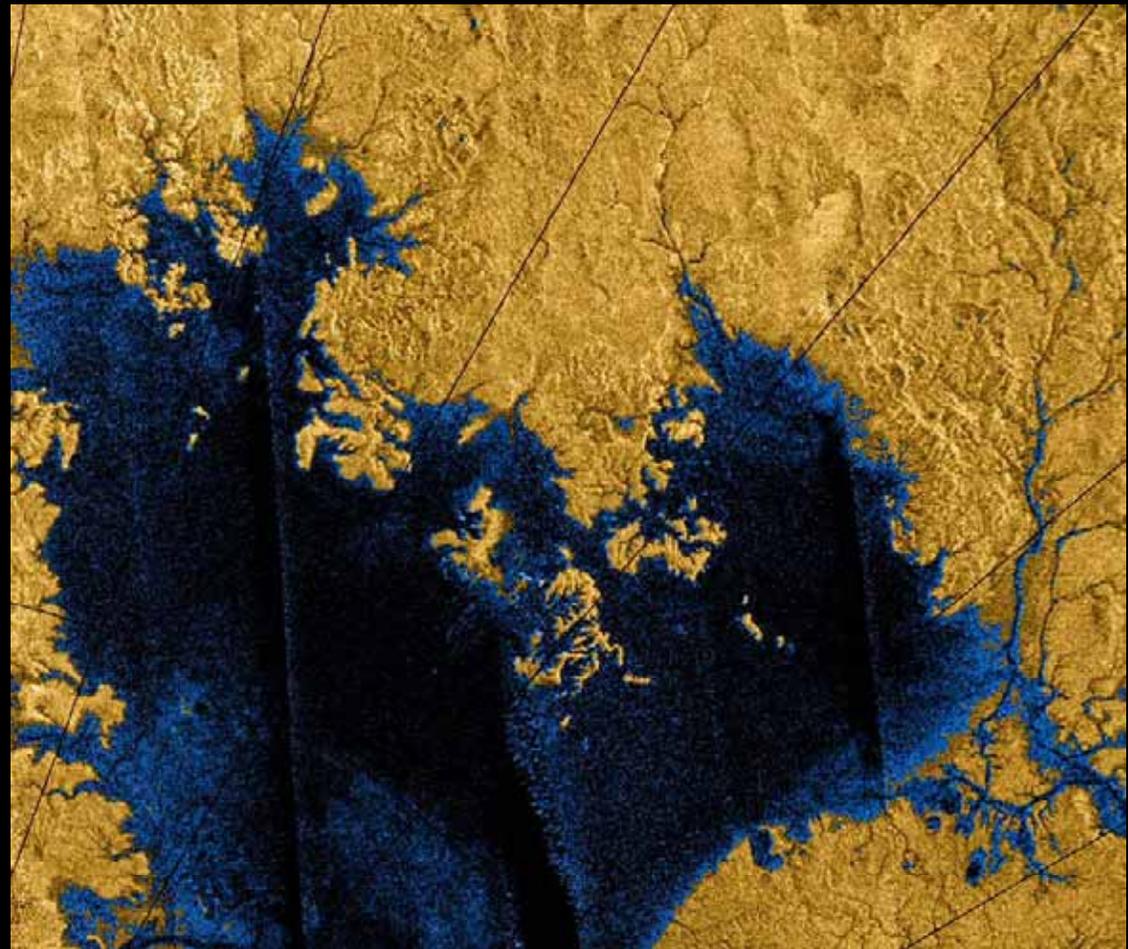
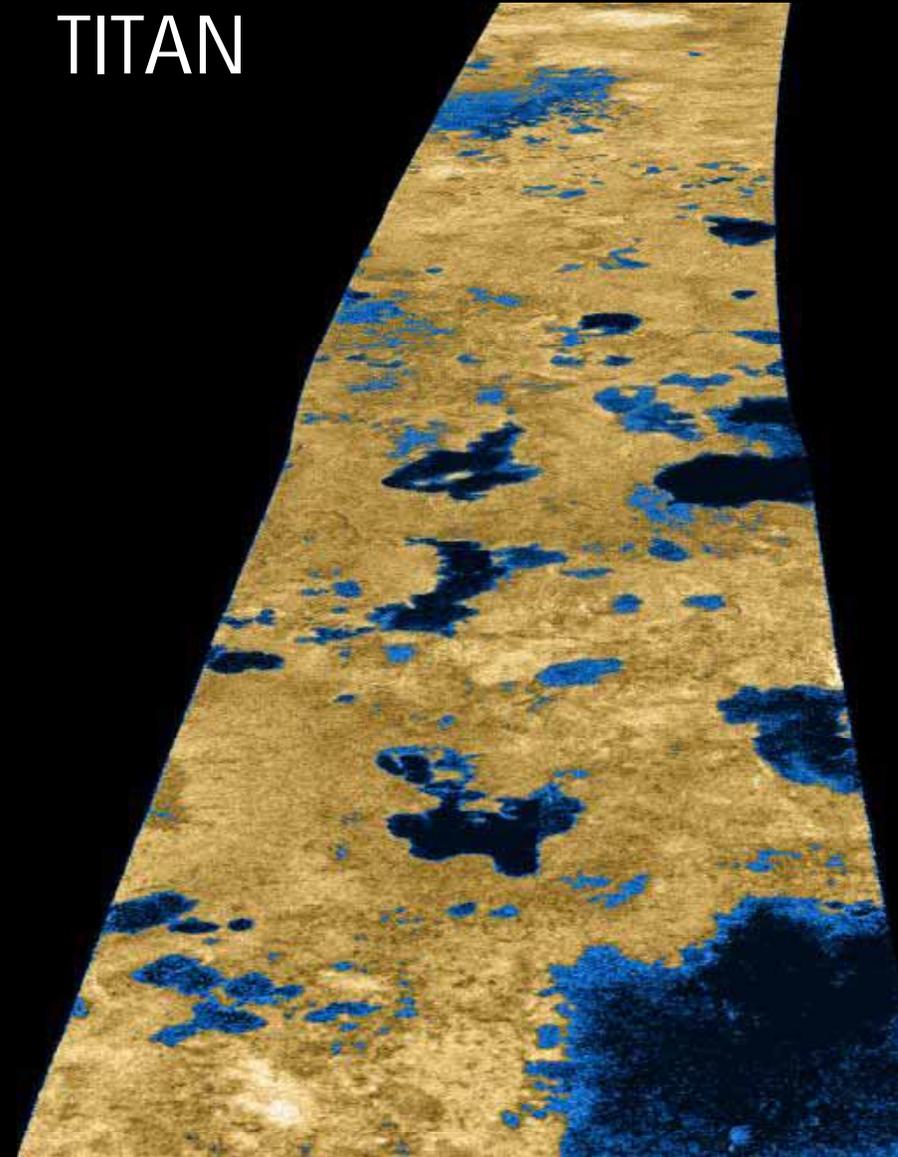


TITAN

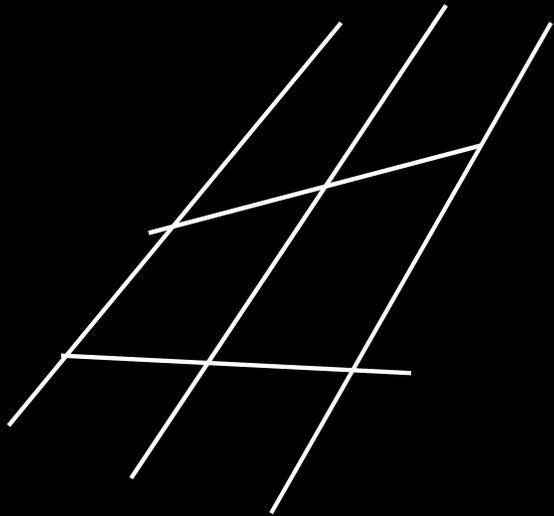


CREDIT: NASA/JPL/University of Arizona

TITAN

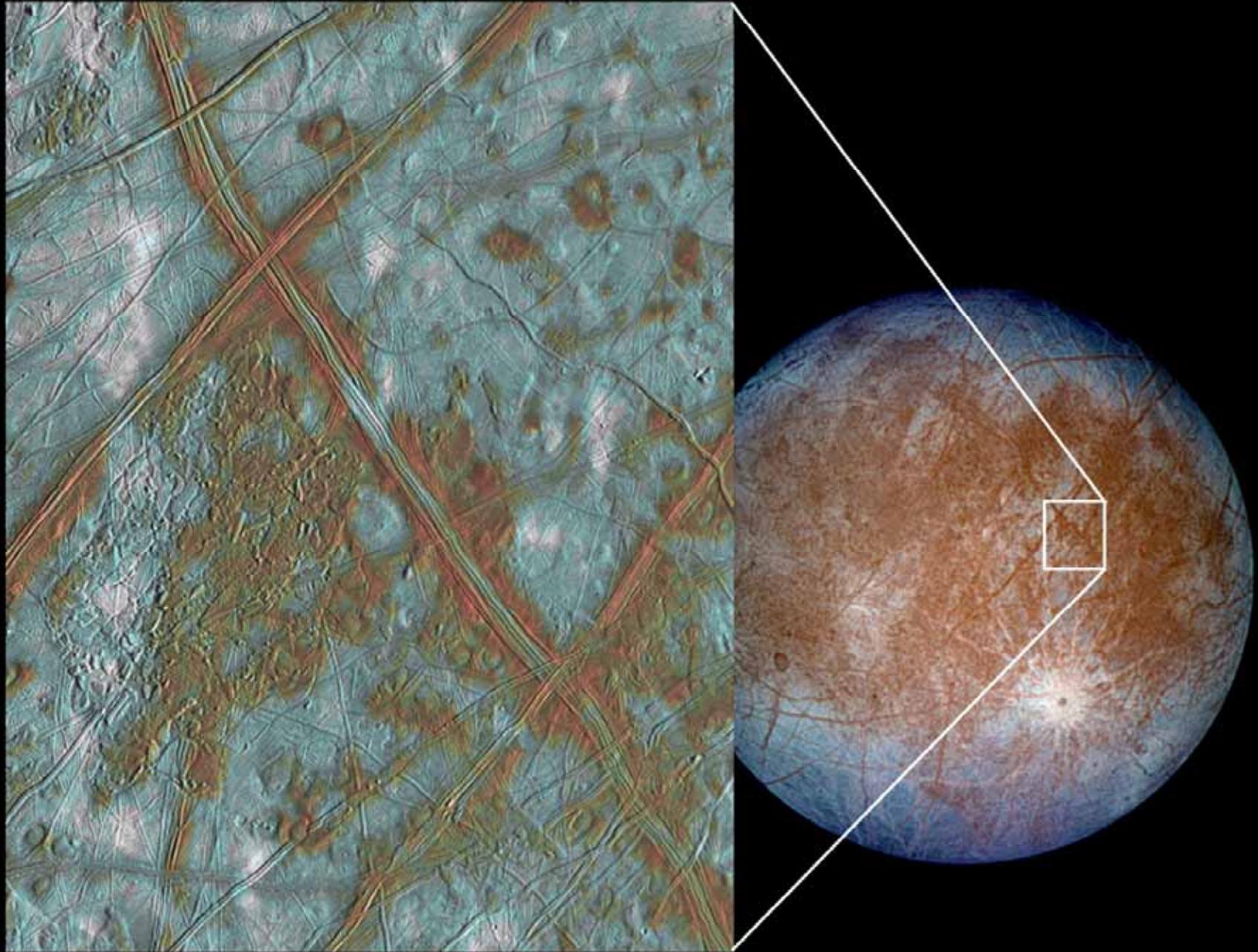


LINE

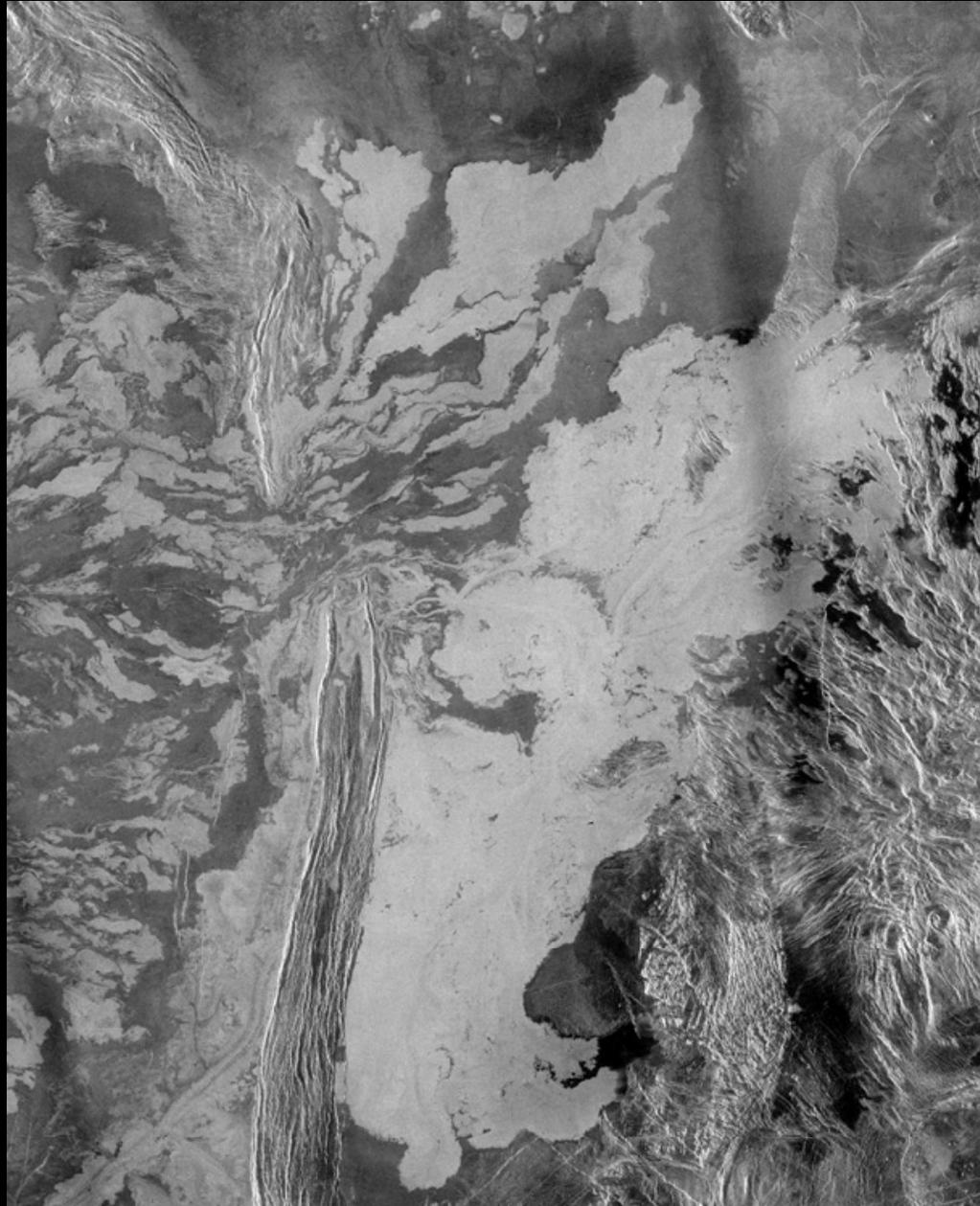


Straight lines - tectonics activity

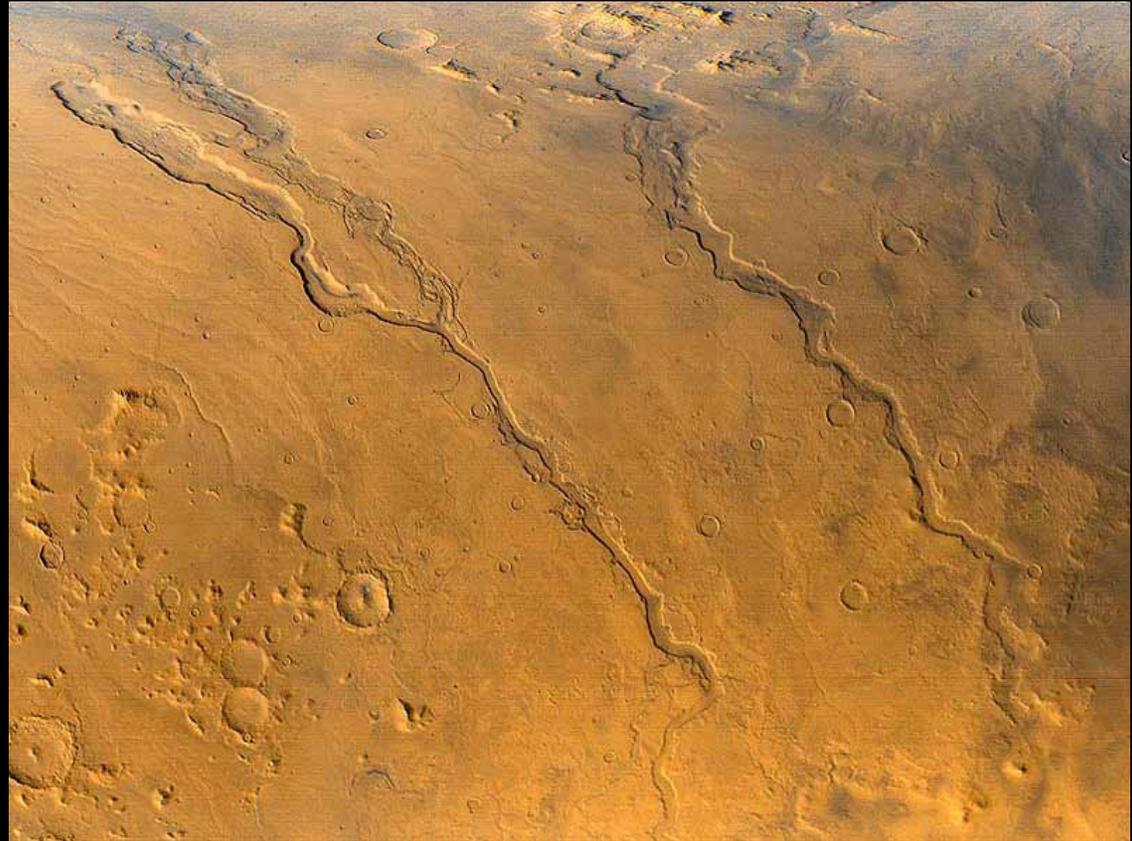
EUROPA



VENUS: Geology & Storytelling

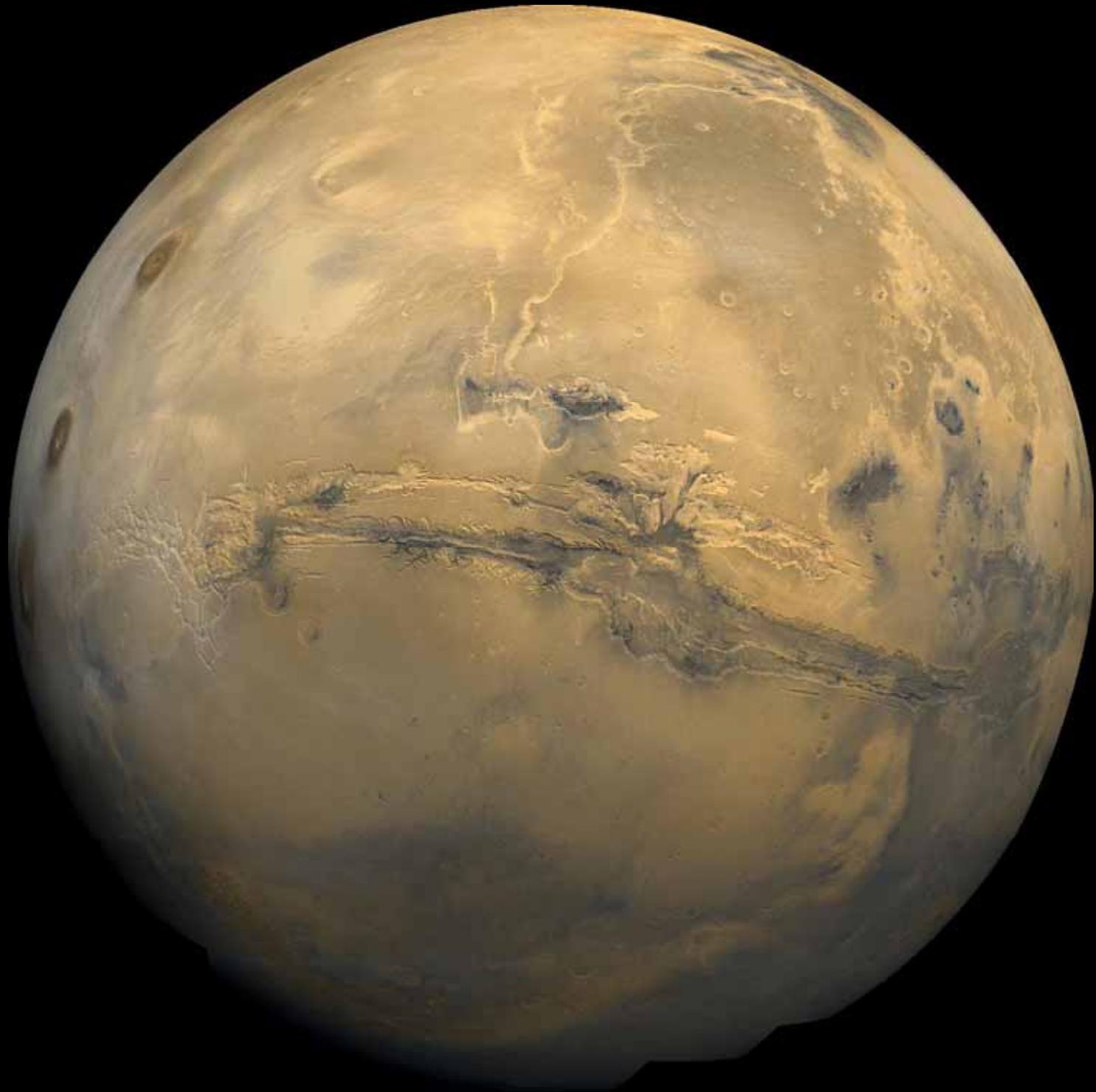


LINE



Squiggly lines - erosion (liquid & wind)

MARS



CREDIT: NASA/JPL

MARS



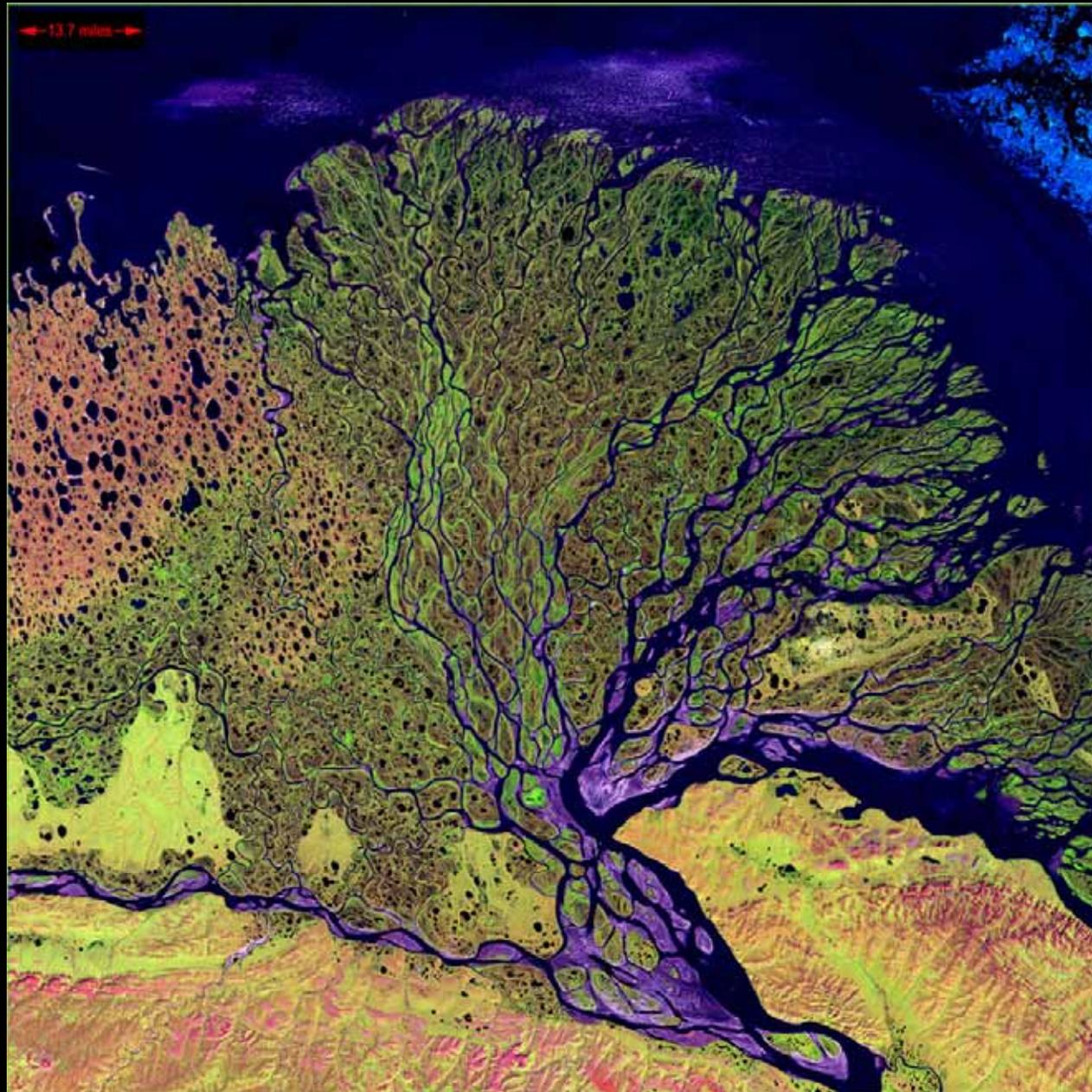
CREDIT: NASA/JPL-Caltech/University of Arizona

STORIES ON MARS: Victoria Crater



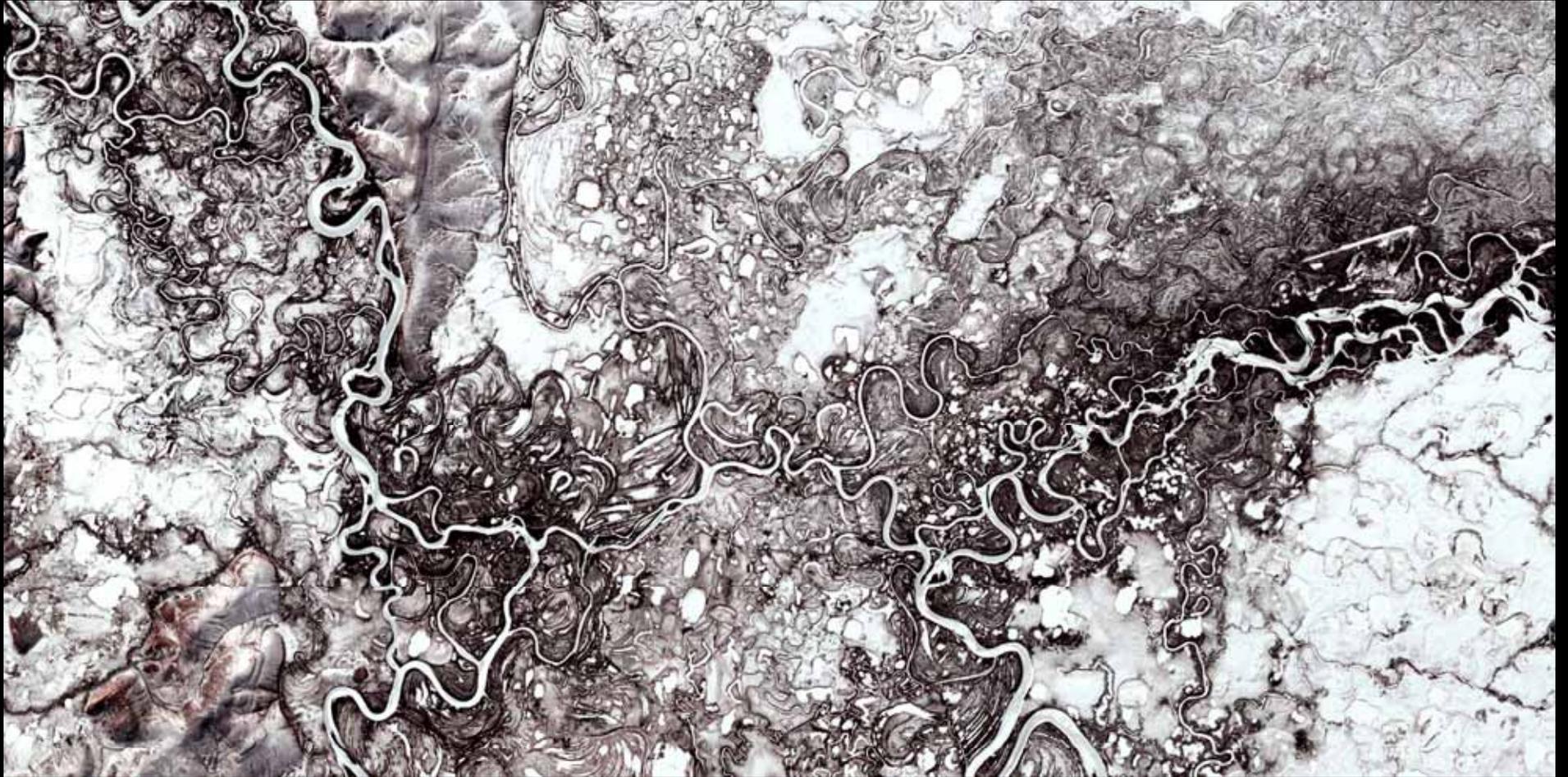
CREDIT: NASA/JPL-Caltech/University of Arizona/Cornell/Ohio State University

EARTH



CREDIT: NASA Earth Observatory

EARTH



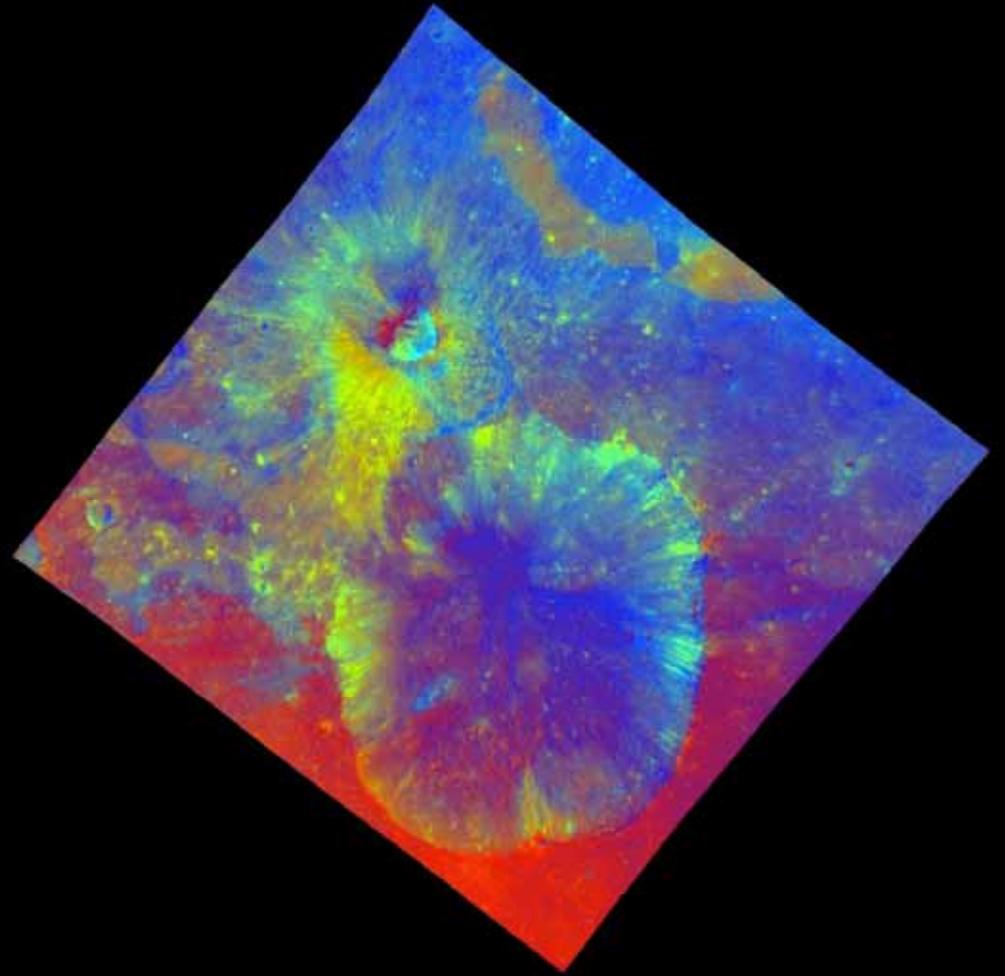
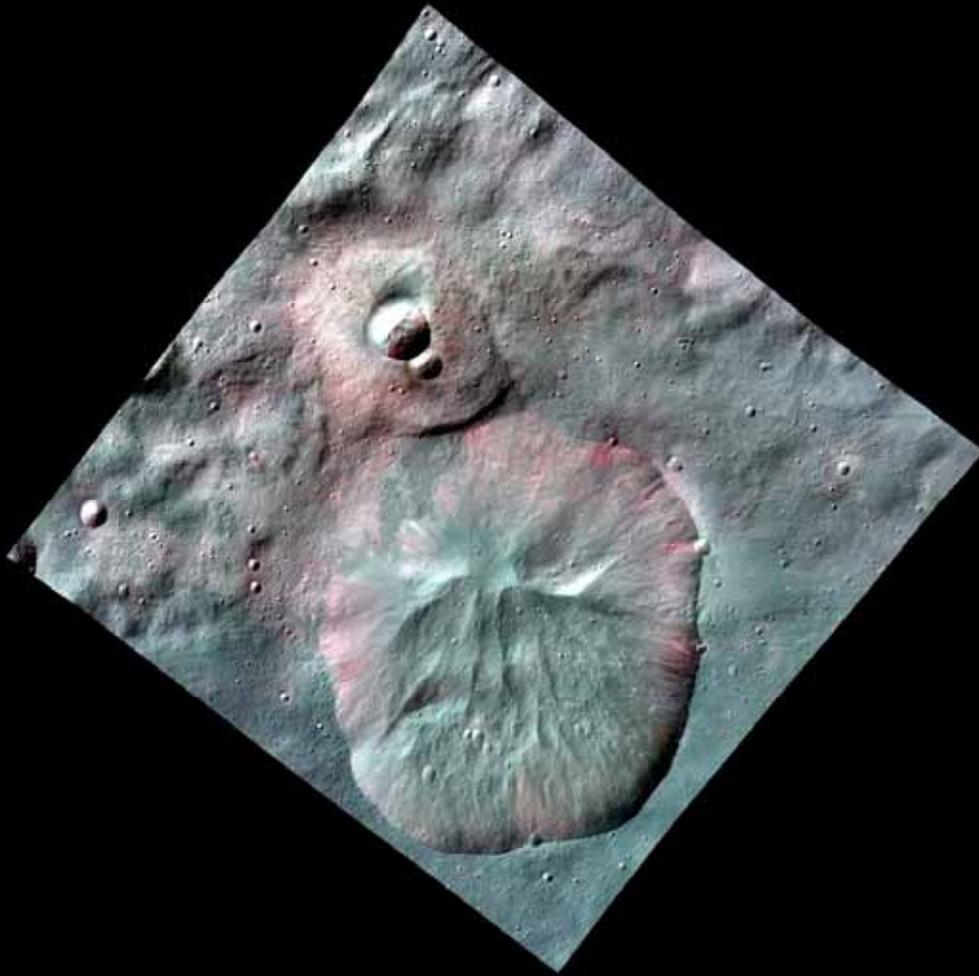
COLOR

MOON

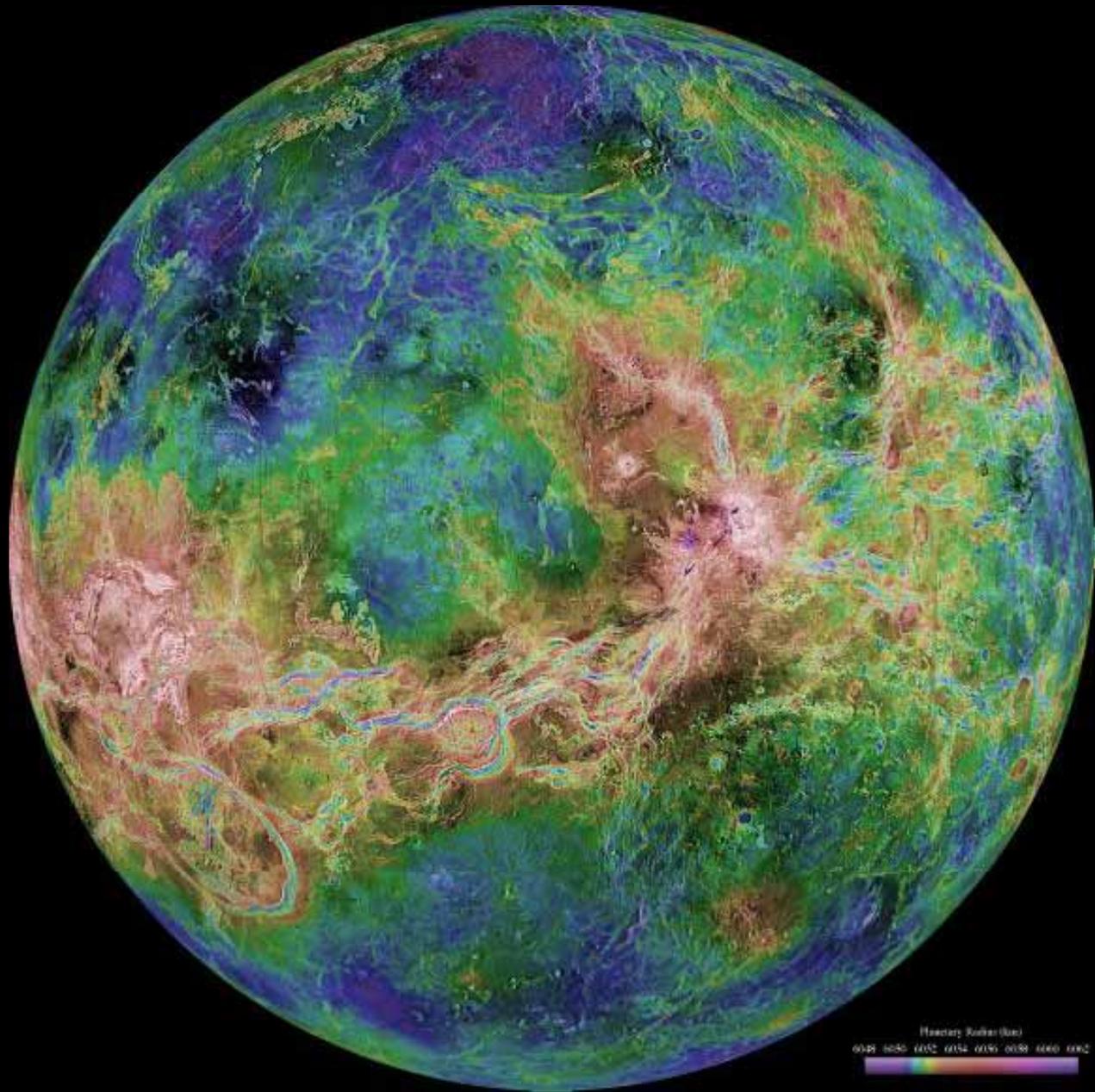


Color – true and added

VESTA



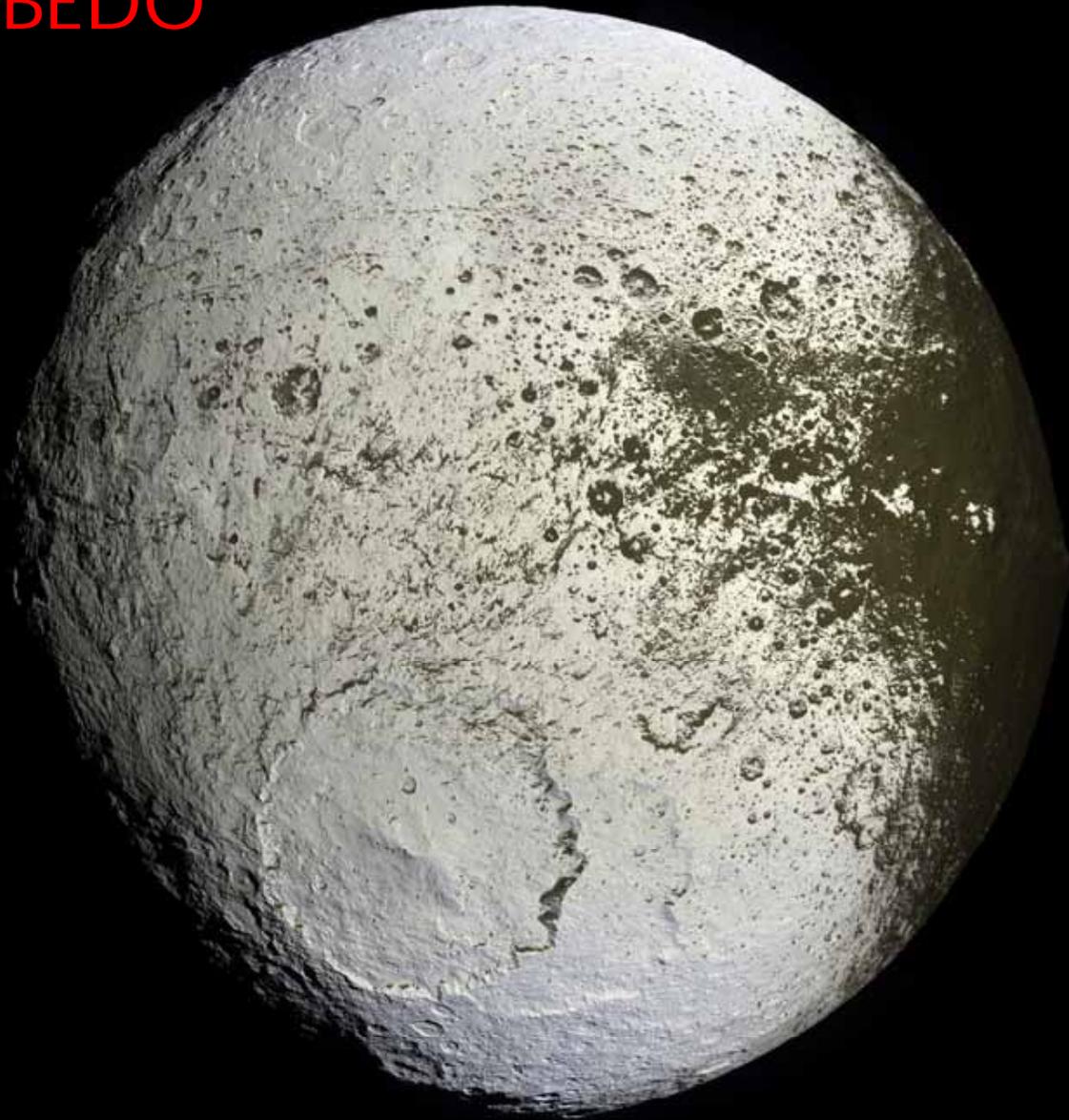
VENUS



CREDIT: NASA/JPL/USGS

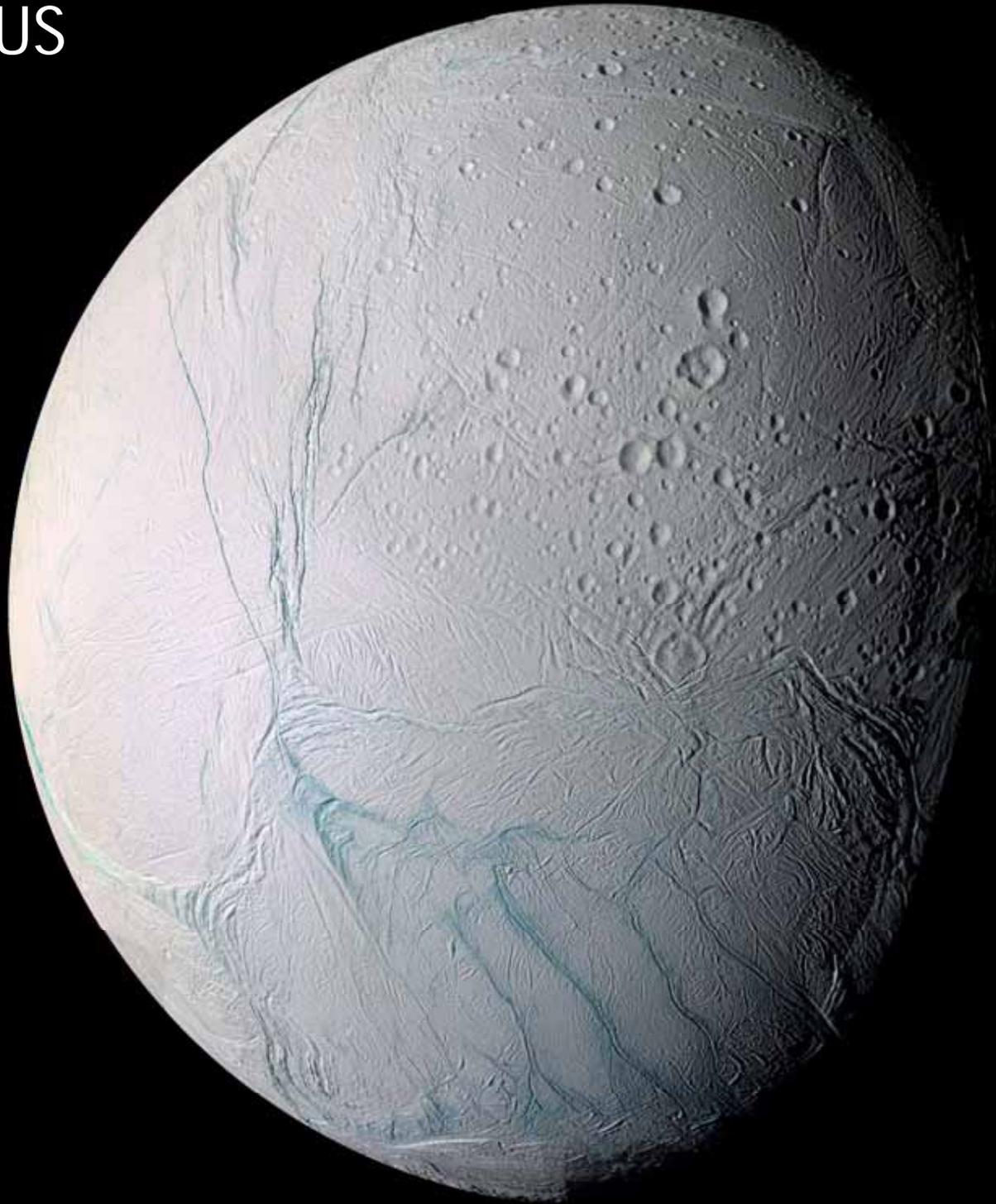
VALUE / ALBEDO

IAPETUS



Value – light and dark, shade and highlight

ENCELADUS



CREDIT: NASA/JPL/Space Science Institute

THE MAN ON MARS?

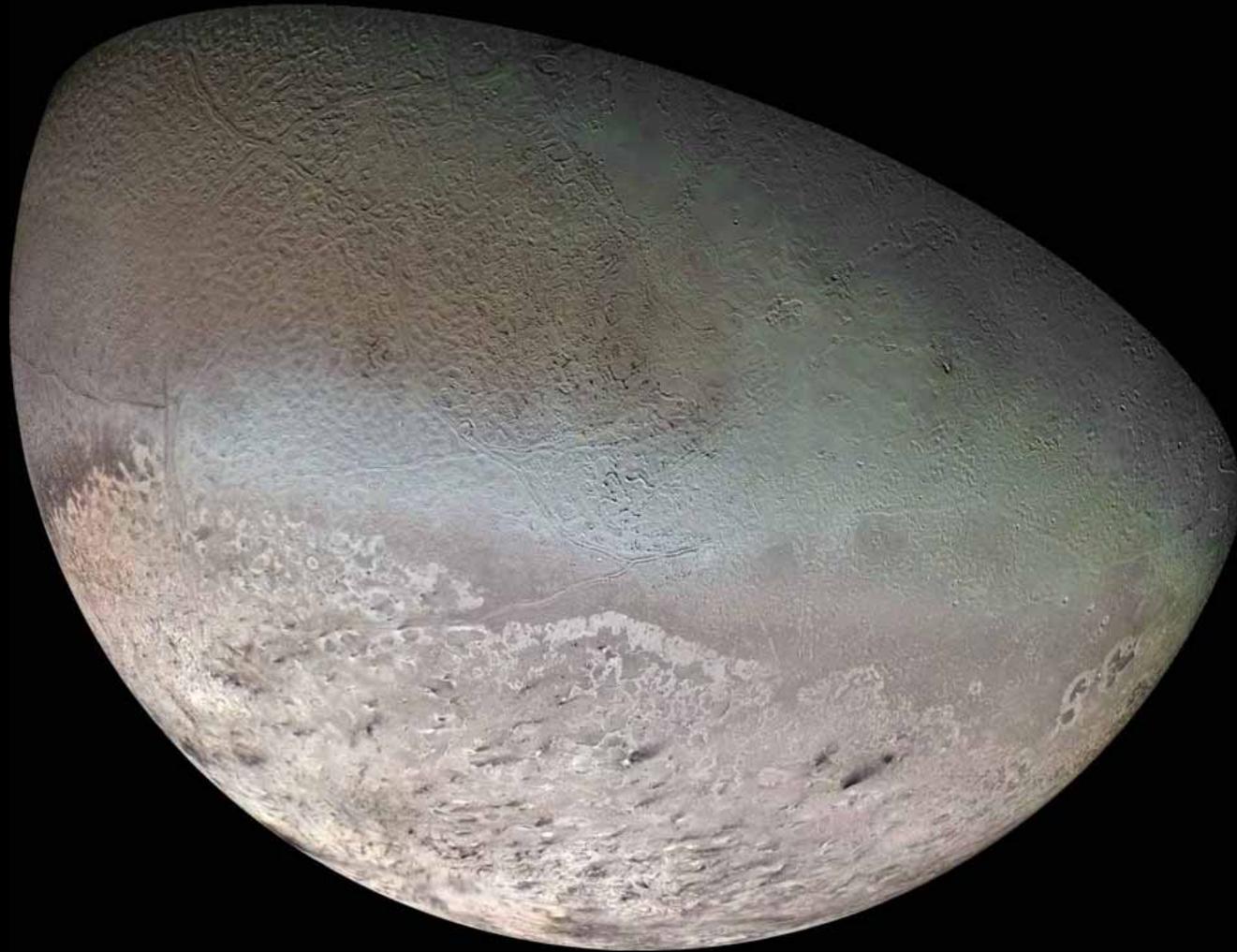


THE REAL MARS



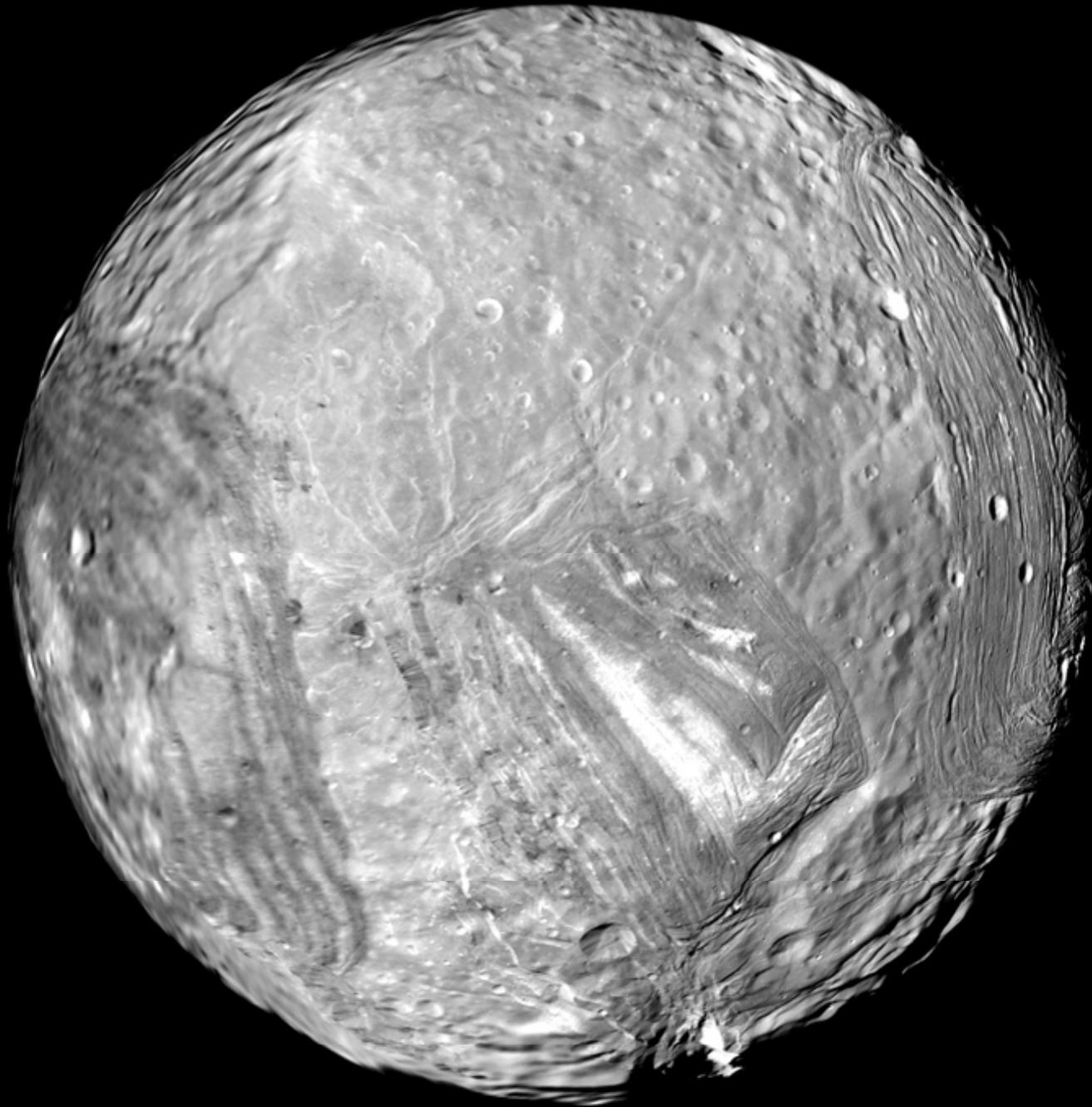
TEXTURE

TRITON

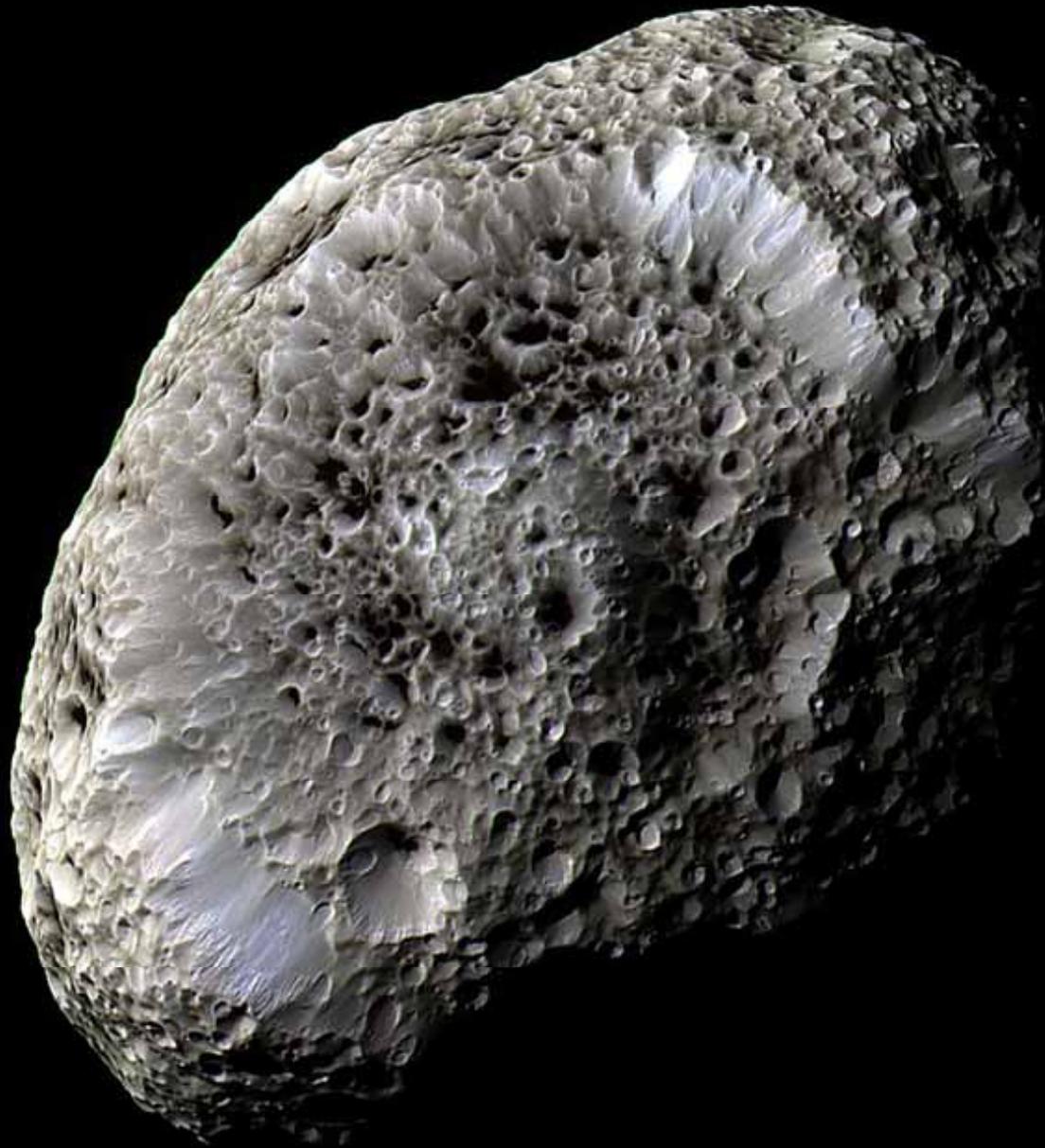


Texture – the quality of the surface

MIRANDA



HYPERION



INQUIRY INSPIRES INVESTIGATION: Martian Mystery?

