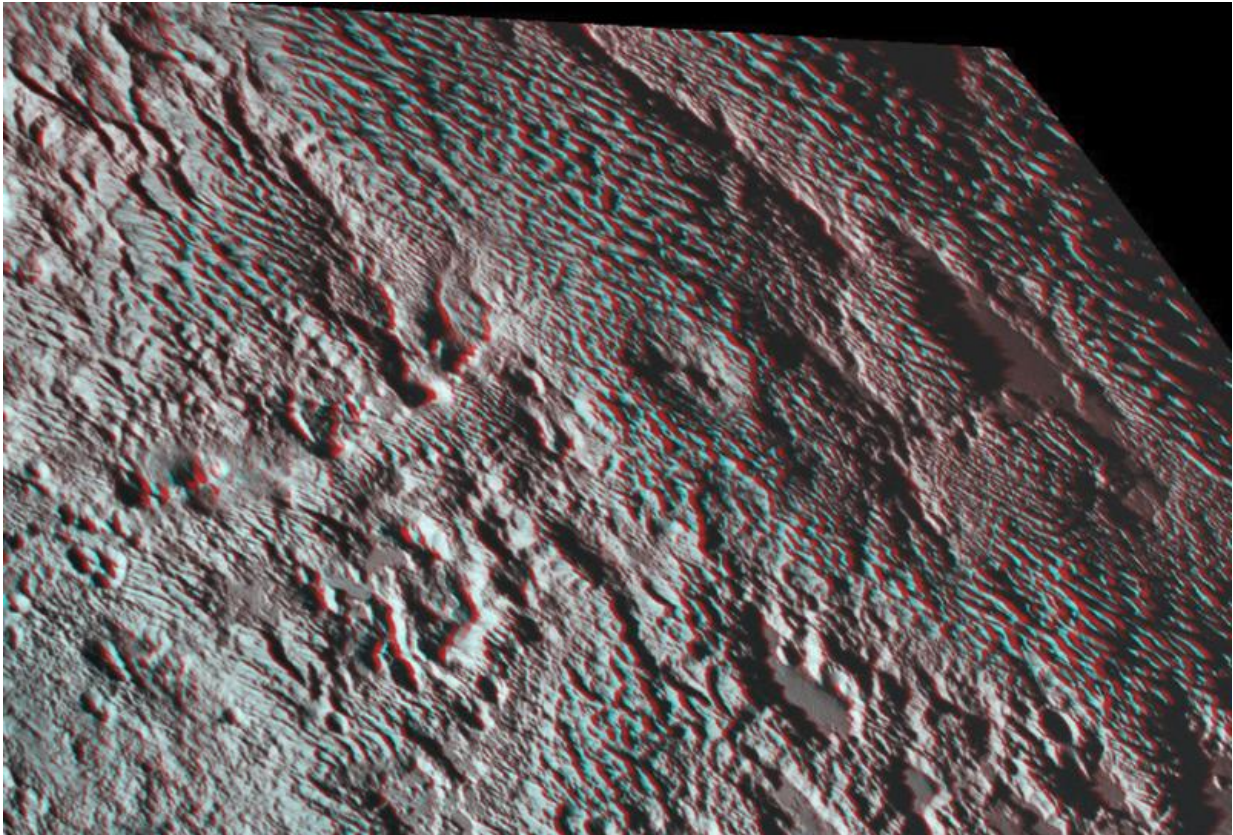


Image: Pluto's bladed terrain in 3-D

April 4 2016



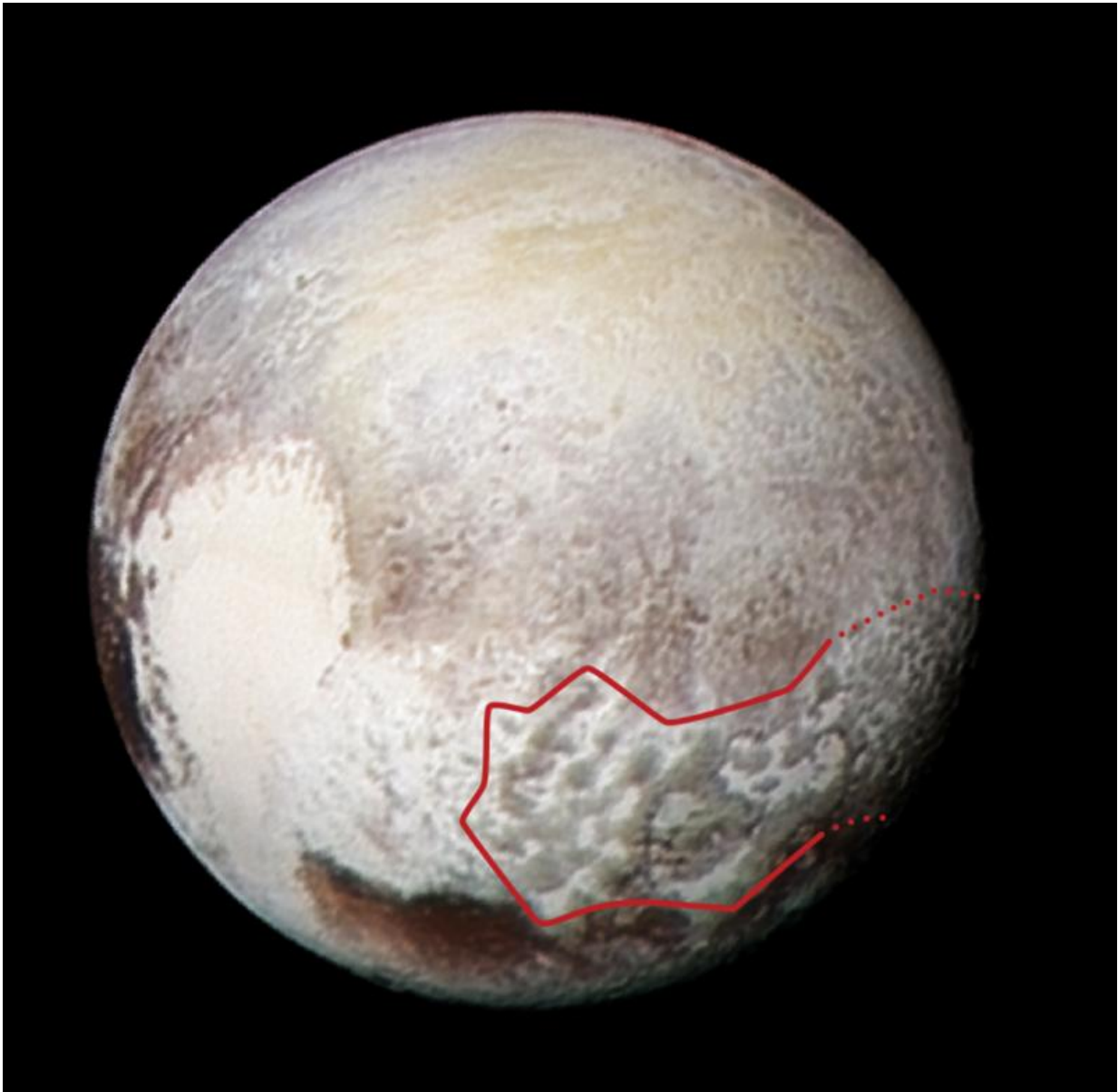
Credit: NASA/JHUAPL/SwRI

One of the strangest landforms spotted by NASA's New Horizons spacecraft when it flew past Pluto last July was the "bladed" terrain just east of Tombaugh Regio, the informal name given to Pluto's large heart-shaped surface feature.

No geology degree is necessary to see why the terrain is so interesting – just a pair of 3-D glasses will do. The blades are the dominant feature of a broad area informally named Tartarus Dorsa. They align from north to south, reach hundreds of feet high and are typically spaced a few miles apart. This remarkable landform, unlike any other seen in our solar system, is perched on a much broader set of rounded ridges that are separated by flat valley floors.

On the global image below, the bladed terrain extends far to the east. New Horizons scientists have speculated about (but not yet agreed on) the terrain's origins. Current theories include erosion from evaporating ices or deposition of methane ices; New Horizons researcher Orkan Umurhan takes an in-depth look at the terrain – and proposes another origin idea – in this recent NASA Web blog.

The amazing stereo view combines two images from the Ralph/Multispectral Visible Imaging Camera (MVIC) taken about 14 minutes apart on July 14, 2015. The first was taken when New Horizons was 16,000 miles (25,000 kilometers) away from Pluto, the second when the spacecraft was 10,000 miles (about 17,000 kilometers) away. Best resolution is approximately 1,000 feet (310 meters).



Credit: NASA/JHUAPL/SwRI

Global View:

This global view of Pluto combines a Ralph/Multispectral Visible

Imaging Camera (MVIC) color scan and an image from the Long Range Reconnaissance Imager (LORRI), both obtained on July 13, 2015 – the day before New Horizons' closest approach. The MVIC scan was taken from a range of 1 million miles (1.6 million kilometers), at a resolution of 20 miles (32 kilometers) per pixel. The corresponding LORRI image was obtained from roughly the same range, but has a higher spatial resolution of 5 miles (8 kilometers) per pixel. The red outline marks the large area of mysterious, bladed terrain extending from the eastern section of the large feature informally named Tombaugh Regio.

Provided by NASA

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