

# Optical Examination of Eros' Surface



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# GOALS OF THE PROJECT

Examine the regions of Eros' surface where the Near-Infrared spectrometer (NIS) deviated from the average spectrum.

Particularly, we chose a group of representative areas in the asteroid, to make a visual inspection of each image in order to describe the surface and find a possible explanation for those deviations.

## To Find NEAR data

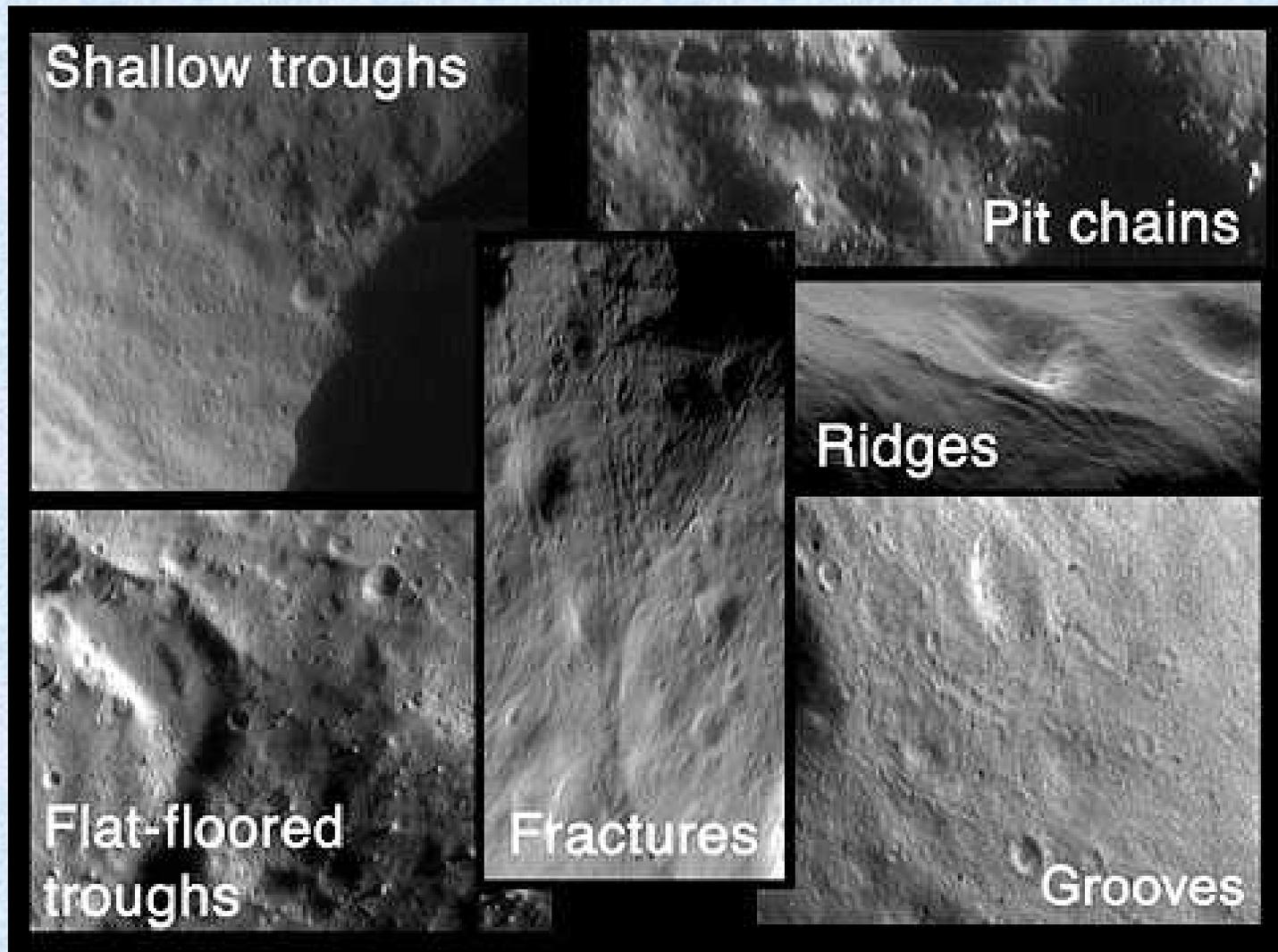
<http://pdssbn.astro.umd.edu>

# ABOUT EROS

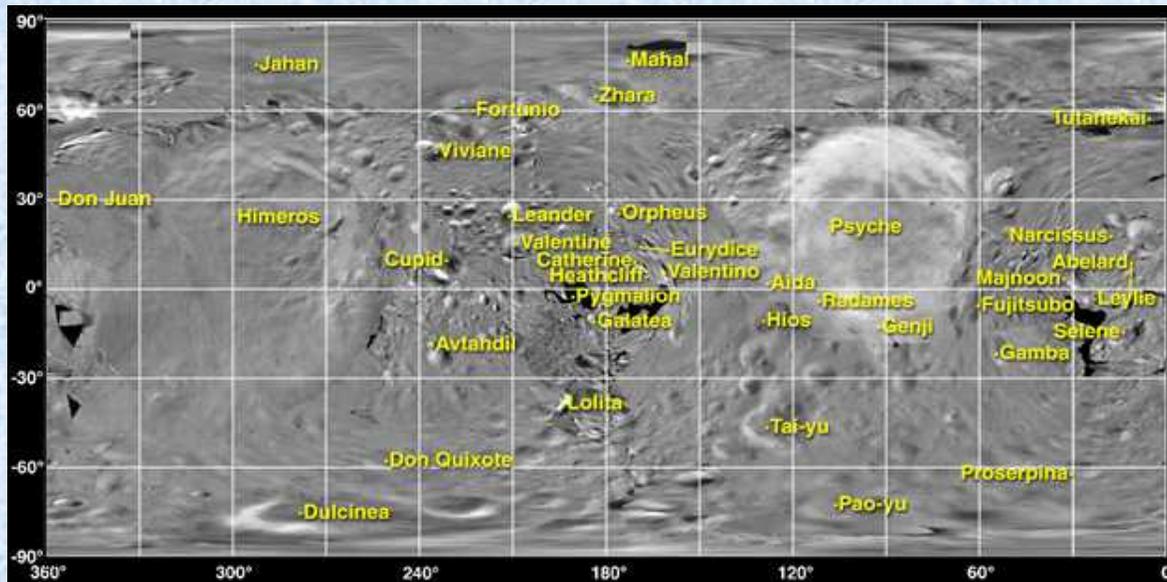
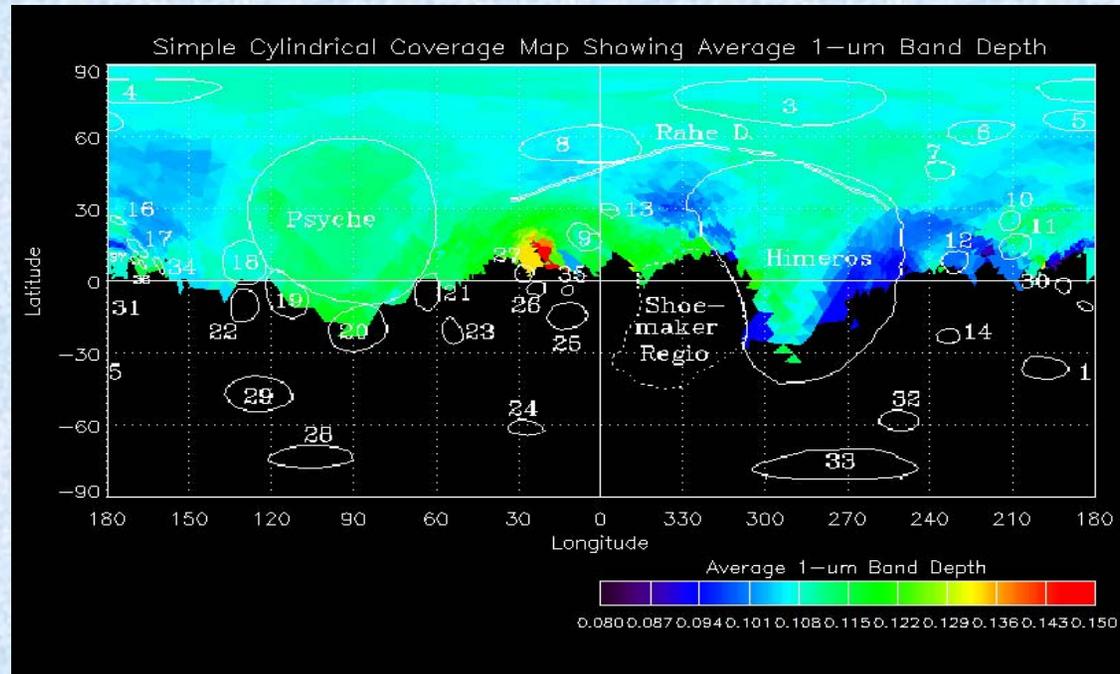
- Dimensions: 13x13x33 km
- Mass:  $7.2 \times 10^{15}$  kg
- Mean Density:  $2.4 \text{ g/cm}^3$
- Equatorial Surface Gravity:  $0.0059 \text{ m/s}^2$
- Albedo: 0.16
- Absolute Magnitude: 11.16
- Spectral Type: S

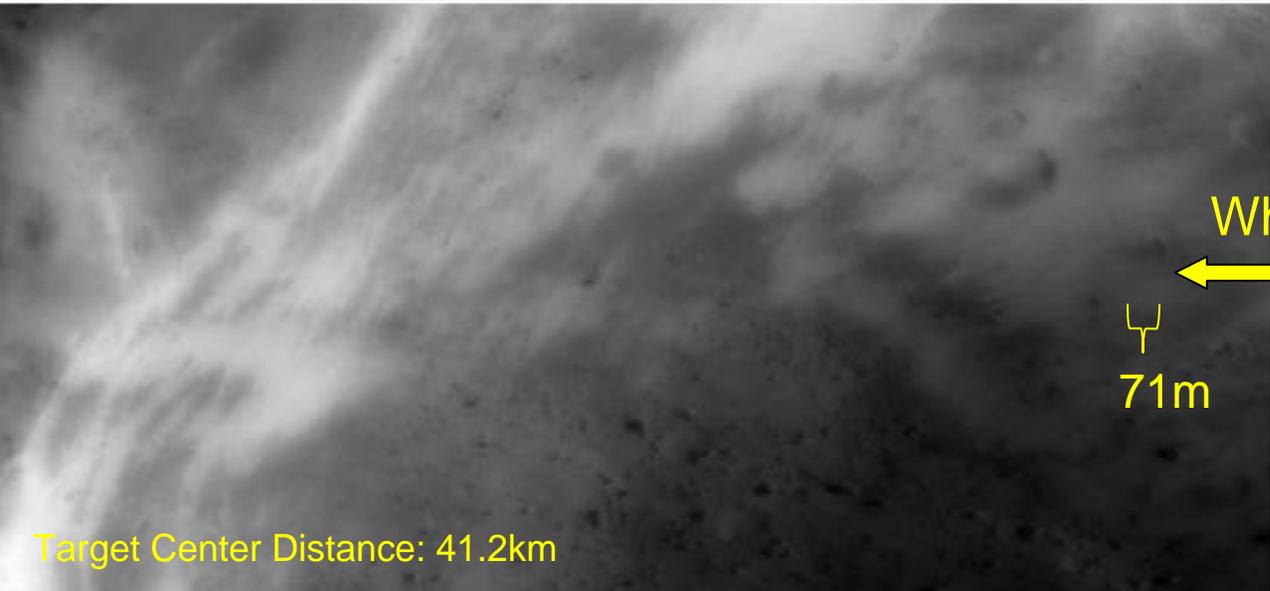
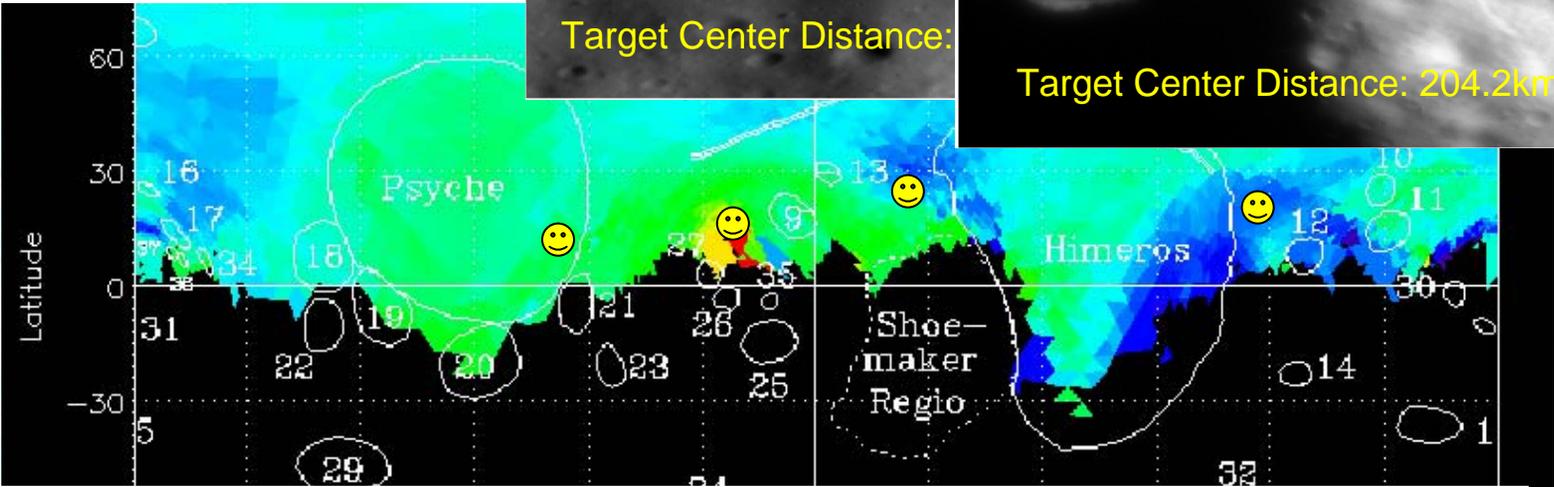
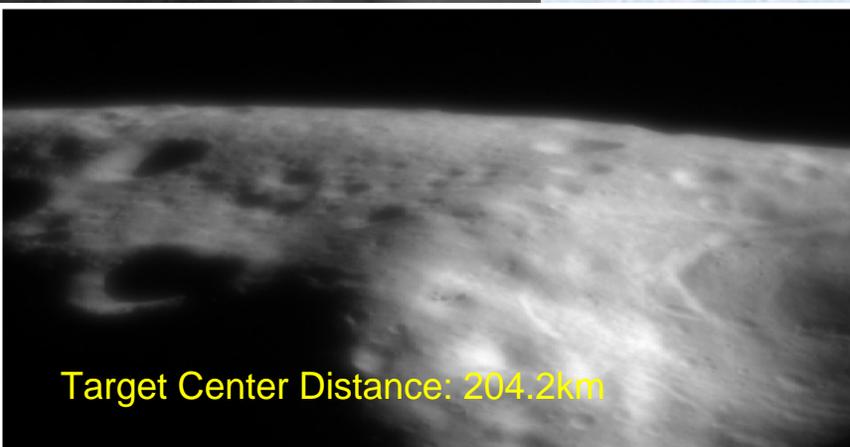
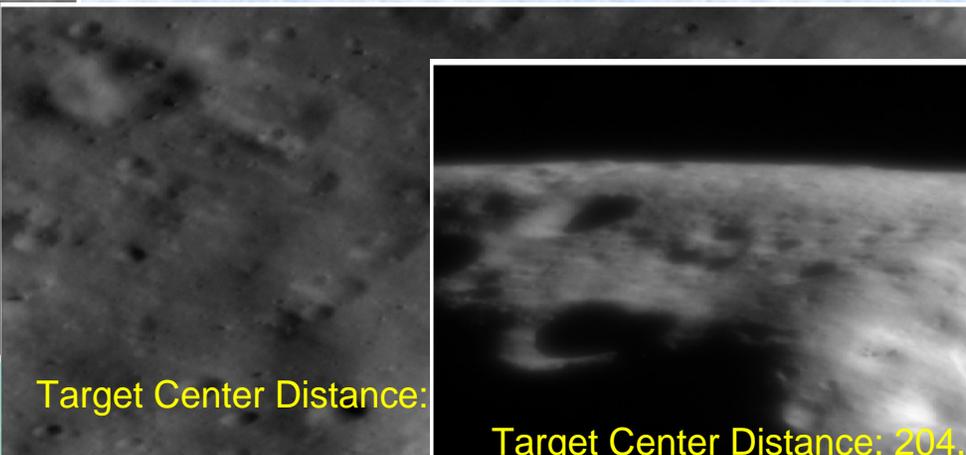
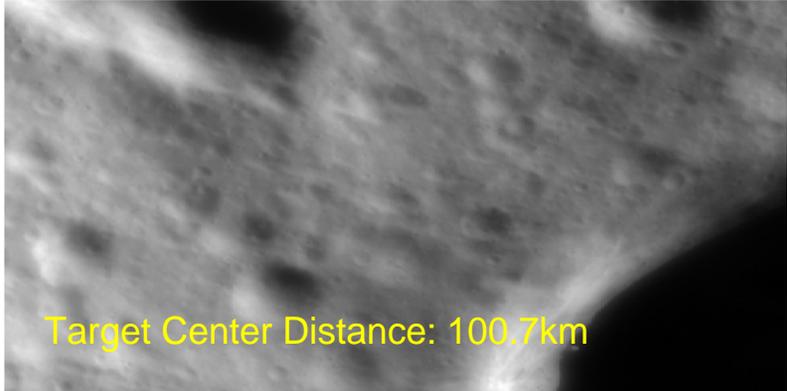


# SURFACE FEATURES



# EROS' MAPS





# COCLUSION

There is no obvious features in the studied Eros' surface images that can help us to tell the origin of the spectrum deviation.

# What's next?

- Try to find images at similar target center distance.
- Look for others images of the black spot or try to find more black spots.
- Make color Maps
- Try to do some correction for incidence emission angle.
- Can the x-ray data help us?

To be continue...