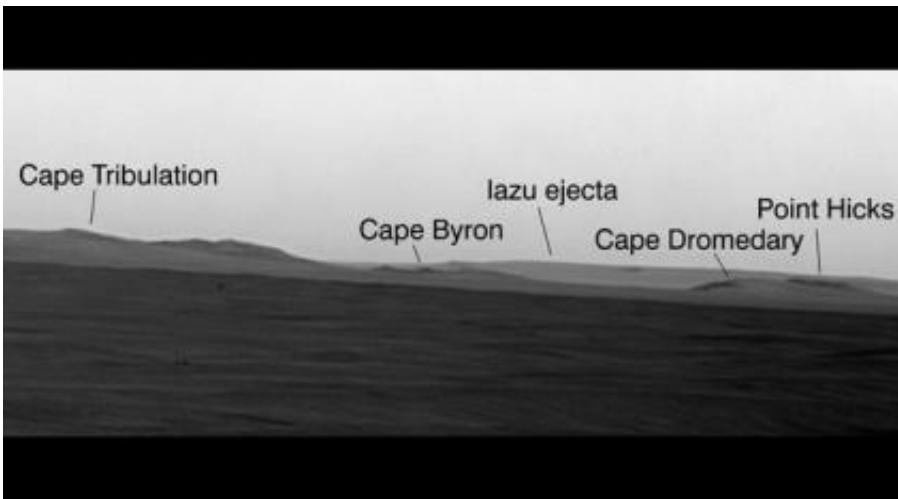


Mars Rover Seeing Destination in More Detail

June 29 2010



Since the summer of 2008, when NASA's Mars Exploration Rover Opportunity finished two years of studying Victoria Crater, the rover's long-term destination has been the much larger Endeavour Crater to the southeast.

(PhysOrg.com) -- Mars rover team members have begun informally naming features around the rim of Endeavour Crater, as they develop plans to investigate that destination when NASA's Opportunity rover arrives there after many more months of driving.

A new, super-resolution view of a portion of Endeavour's rim reveals details that were not discernible in earlier images from the rover. Several high points along the rim can be correlated with points discernible from orbit.

Super-resolution is an imaging technique combining information from multiple pictures of the same target to generate an image with a higher resolution than any of the individual images.

Endeavour has been the team's long-term destination for Opportunity since the summer of 2008, when the rover finished two years of studying [Victoria Crater](#). By the spring of 2010, Opportunity had covered more than a third of the charted, 19-kilometer (12-mile) route from Victoria to Endeavour and reached an area with a gradual, southward slope offering a view of Endeavour's elevated rim.

After the rover team chose Endeavour as a long-term destination, the goal became even more alluring when observations with the Compact Reconnaissance Imaging Spectrometer for [Mars](#), on NASA's Mars Reconnaissance Orbiter, found clay minerals exposed at Endeavour. Clay minerals, which form under wet conditions, have been found extensively on Mars from orbit, but have not been examined on the surface. Additional observations with that spectrometer are helping the rover team choose which part of Endeavour's rim to visit first with Opportunity.

The team is using the theme of names of places visited by British Royal Navy Capt. James Cook in his 1769-1771 Pacific voyage in command of H.M.S. Endeavour for informal names of sites at Endeavour Crater. Points visible in the super-resolution view from May 12 include "Cape Tribulation" and "Cape Dromedary."

Provided by JPL/NASA

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