Mars Odyssey

Comet Siding Spring Observing Plans

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September 19, 2014
• Objective:
  – Obtain images of CSS, at the highest possible spatial resolution and covering largest possible spatial extent. THEMIS camera will acquire both visible and infrared spectral imaging.

• 3 Prioritized Observations:
  – Obtain highest possible spatial resolution images over as much of the coma as possible during one observing period. Image coma as close to closest approach to Mars as possible.
  – Obtain complete coverage of the coma and tail at moderate spatial resolution.
  – Obtain an image of the entire coma and tail above the Mars limb to provide context of the coma relative to the known temperature and gas and dust opacity of the Mars atmosphere.

• Neutron Spectrometer and HEND:
  – Nominal observations while in nadir-point attitude to monitor effects on neutral and charged particle fluxes.
Not to Scale

Mars ‘01 Odyssey
Comet Siding Spring Observation Suite

1: hi-res coma detail

2: lower-res distance down tail

3. Ground truth scan up from Mars

1 Swath

8 Swaths

5 Swaths