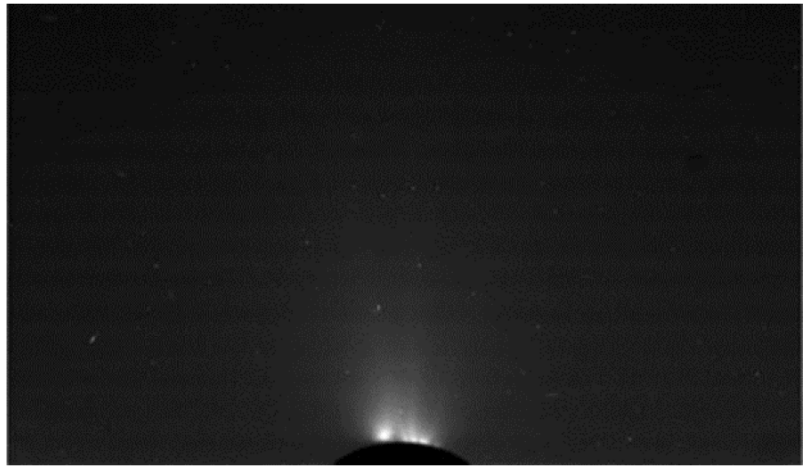
S96: Plume and Mimas Low Phase Out of Discipline PIES

Rings_243

ISS_243EN_PLMHPMR001_PIE

2016-269T14:14:00-19:20:00

Further characterization of plume morphology and time evolution



MAPS_244

UVIS_244MI_LOPHASE001_PIE

2016-277T13:15:00-15:35:00

Observations at small solar phase angles are especially key for understanding the backscattering properties of icy moons and how they compare to rocky bodies.

This observation goes through 0 degrees (although at a range of ~600,000 km). This is the smallest phase angle ever for Mimas. ORS in ridealong.

SOST_246 Segment Science Highlights 2016-296T01:01:00-298T07:31:00

- **UVIS_246EN_ICYLON001_PIE 2016-296T01:29:00-2016-296T03:40:00**

Solar phase curves at ultraviolet wavelengths reveal information about the nature and scattering properties of icy surfaces. These observations of Enceladus fill in missing coverage in the global phase / longitude matrix. No ridealongs

- **ISS_246RH_GLOCOLN002_PRIME 2016-296T03:40:00-2016-296T04:45:00**

This observations provides additional mapping coverage of the, plus additional time coverage for CIRS to derive the thermal inertia of the surface. CIRS, UVIS, VIMS are in in ridealong.

- **ISS_246DI_GLOCOLN003_PRIME 2016-296T04:45:00-2016-296T14:46:00**

This observation of Dione offers observations of the North Polar region at moderate phase angles, which are good for mapping composition, morphology and global color. CIRS, UVIS, VIMS are in in ridealong.

Science Highlights, cont'd.

- **ISS_246TE_GLOCOLN004_PRIME 2016-296T11:50:00-2016-296T13:30:00**

This observation offers a nice view of the PacMan feature and Odysseus, as well as the southern polar regions - to build up local time coverage to help understand thermal properties of the surface. Also, the conclusion that there are few "red streaks" in the south polar region of Tethys can be confirmed. CIRS, UVIS, VIMS are in in ridealong.

- **ISS_246EN_GLOCOLN005_PRIME 2016-296T13:30:00- 2016-296T14:46:00**

This observation provides additional coverage and mapping of the North Pole of Enceladus, to understand its composition and morphology and compare it to the South Pole. CIRS, UVIS, VIMS are in in ridealong.

Science Highlights, cont'd

- **ISS_246TE_GLOCOLN006_PRIME 2016-296T21:01:00- 2016-296T22:31:00**

Continuing the coverage of the trailing hemisphere of Tethys, with the other ORS instruments in ridealong.

- **CIRS_246MI_COMPGLBL001_PRIME 2016-296T22:31:00-2016-296T22:31:00**

This observation continues mapping pacmen and other thermal anomalies on Mimas, as well as building up local times to understand the therml inertia. CIRS, UVIS, VIMS are in in ridealong.

- **ISS_246DI_PLUMESEAR001_PRIME**

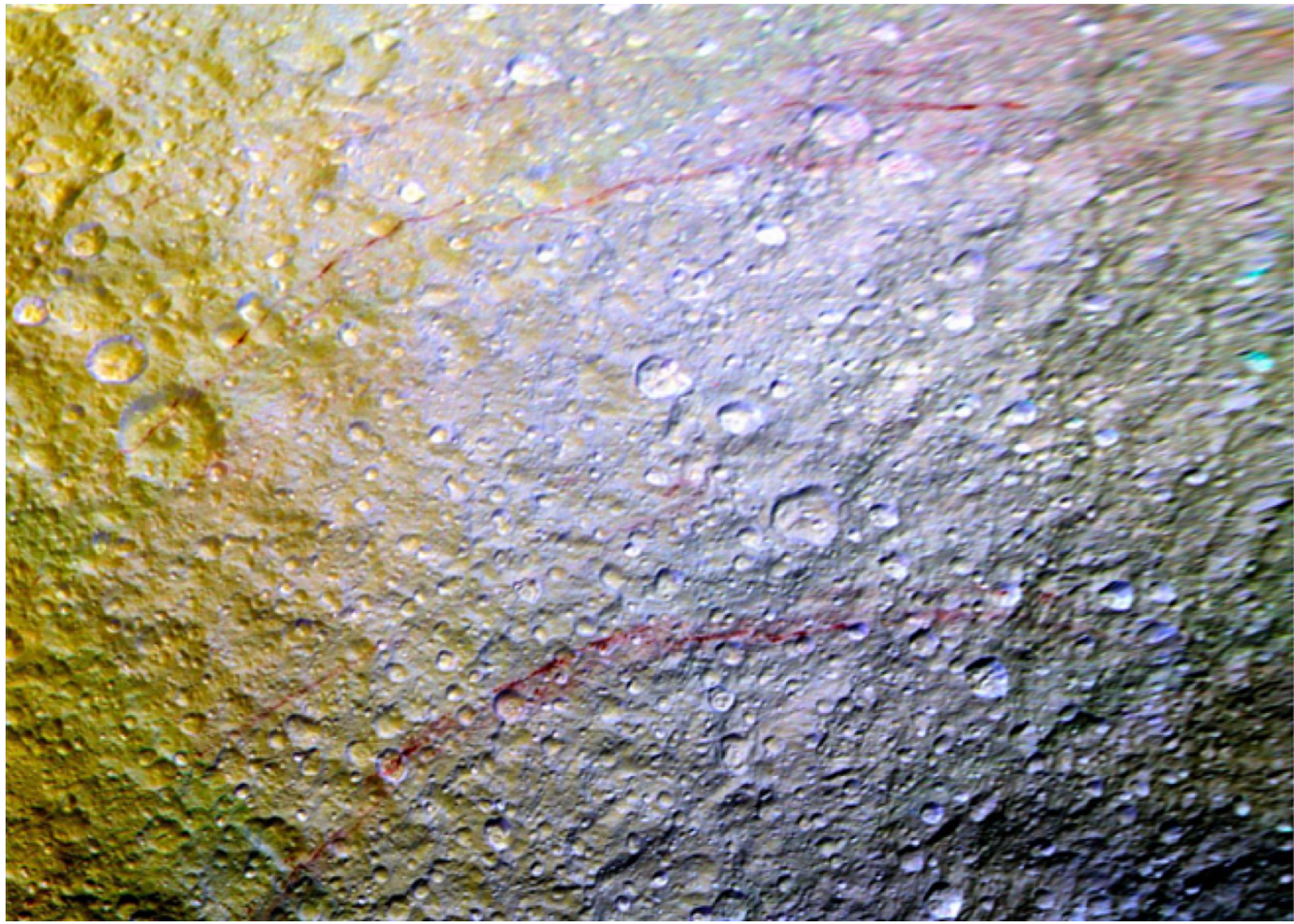
Dione shows several lines of evidence that it is currently exhibiting a low level of activity. One of the ways of detecting this activity is to observe plumes at large solar phase angles, when the plumes are backlit. This is part of this campaign. The other ORS instruments are in ridealong.

- **CIRS_246RH_COMPGLBL001_PRIME 2016-297T12:45:00-2016-297T20:56:00**

This observation is meant to search for thermal anomalies on Rhea and derive its thermal inertia. CIRS, UVIS, VIMS are in in ridealong.

MAPS_248 Red Tethys
2016-315T20:34:00-315T21:28:00

- This observation is designed to further map the mysterious red streaks on Tethys
- Full disk, leading side; northern regions; only expect good ISS data (~400,000 km range, moderate solar phase angle).



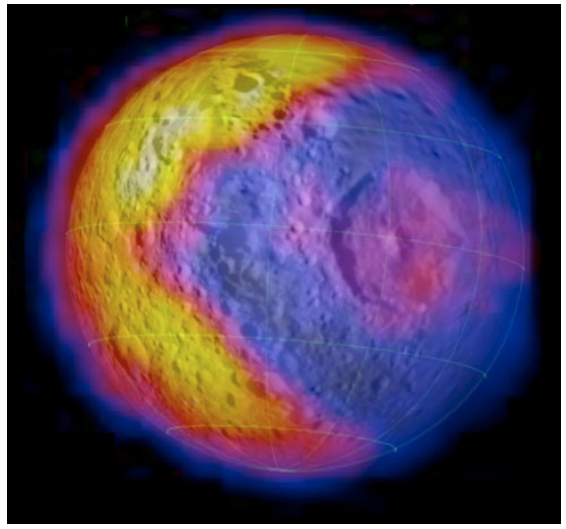
Out-of-Discipline Saturn_249 Pies

CIRS_249MI_MIMAS001_PIE
2016-324T06:00:00-324T09:00:00

This CIRS observation will further characterize the pacman on Mimas; the other ORS are in ridealong.

UVIS_249RH_ICYEXO001_PIE
2016-326T16:00:00-326T18:00:00

This observation (originally an occultation) is designed to search for an atmosphere or other material in regions just off of the surface of Rhea.



Mimas pacman (above); Rhea (below)