

SOST_250 Segment Science Highlights

2016-331T05:43:00-334T05:28:00

- **UVIS_250DI_ICYLON001_PRIME 331T20:00:00-22:30:00**
- **UVIS_250TE_ICYLON001_PRIME 331T22:30:00-02:30:00**

Solar phase curves at ultraviolet wavelengths reveal information about the nature and scattering properties of icy surfaces. These observations of Dione and Tethys fill in missing coverage in the global phase / longitude matrix. CIRS, ISS, and VIMS ridealong

- **CIRS_250EN_NORTHPOLE001_PRIME 332T01:00:00-02:00:00 (U,V in ridealong)**
- **RADAR_250EN_ENCEL001_PIE 332T03:00:00-05:00:00**
- **ISS_250EN_ENCELNPOL001_PIE 332T05:29:00-07:15:00 (C,M,U,V in ridealong)**
- **CIRS_250EN_ENCELSPOL001_PRIME 332T07:15:00-09:55:00 (I,M,U,V in ridealong)**

These observations of the N. pole of Enceladus are designed to measure and compare the composition, morphology, radar properties, and thermal inertia with the S. Pole

The segment begins with a 2 hr 20 min and ends with an 8 hr 18 min ISS observation of an outer moon.

SOST_258_259 Segment Science Highlights

2017-025T19:45:00-032T07:39:00

Segment starts out with several ISS outer rock observations. The purpose is to understand their dynamical states and to know if any of them are binaries

- **ISS_258EN_PLUME001_PRIME 2017-025T23:30:00-08:30 (U in ridealong)**
- **ISS_259EN_ENCELNP001_PRIME 2017-030T03:38:00-06:18 (C,U in ridealong)**
- **ISS_259TE_TETHYS001_PRIME 2017-030T06:18:00-07:45:00 (C,U in ridealong)**

Tethys observation is to obtain additional mapping of areas poorly covered and more phase angle coverage (not a red Tethys).

- **ISS_259TE_REDTETHYS001_PRIME 2017-030T18:45:00-19:22:00 (C, M,U) in ridealong**
- **ISS_259EP_EPIMETHEU001_PIE 2017-030T19:22:00-21:12 (C,M,U,V in ridealong); C/A is 5900 km; at a solar phase angle of 75°; should be best flyby**
- **ISS_259MI_MIMASSP001_PRIME 2017-030T21:12:00-23:20 (C,M,U in ridealong)**

Observations of poorly-imaged S. Pole of Mimas

- **CIRS_259EN_SP004_PIE 2017-030T23:20:00-08:00 (I,U,V in ridealong)**
- **CIRS_259RH_COMPGLBL001_PRIME 2017-031T11:16:00-16:16 (no ridealongs)**

Additional observations to understand the composition of Rhea. Sequence ends with a short outer rock observation.

S97: Enceladus S.pole, red Tethys, plume and Pandora out-of-discipline PIES and observations

South pole observations:

XD_251_252:

CIRS_251EN_SPXREDTE001_PIE

2016-339T14:58:00-19:10:00

ISS on Red Tethys for 10 minutes at 16:00

MAPS_254:

CIRS_254EN_SP002_PIE

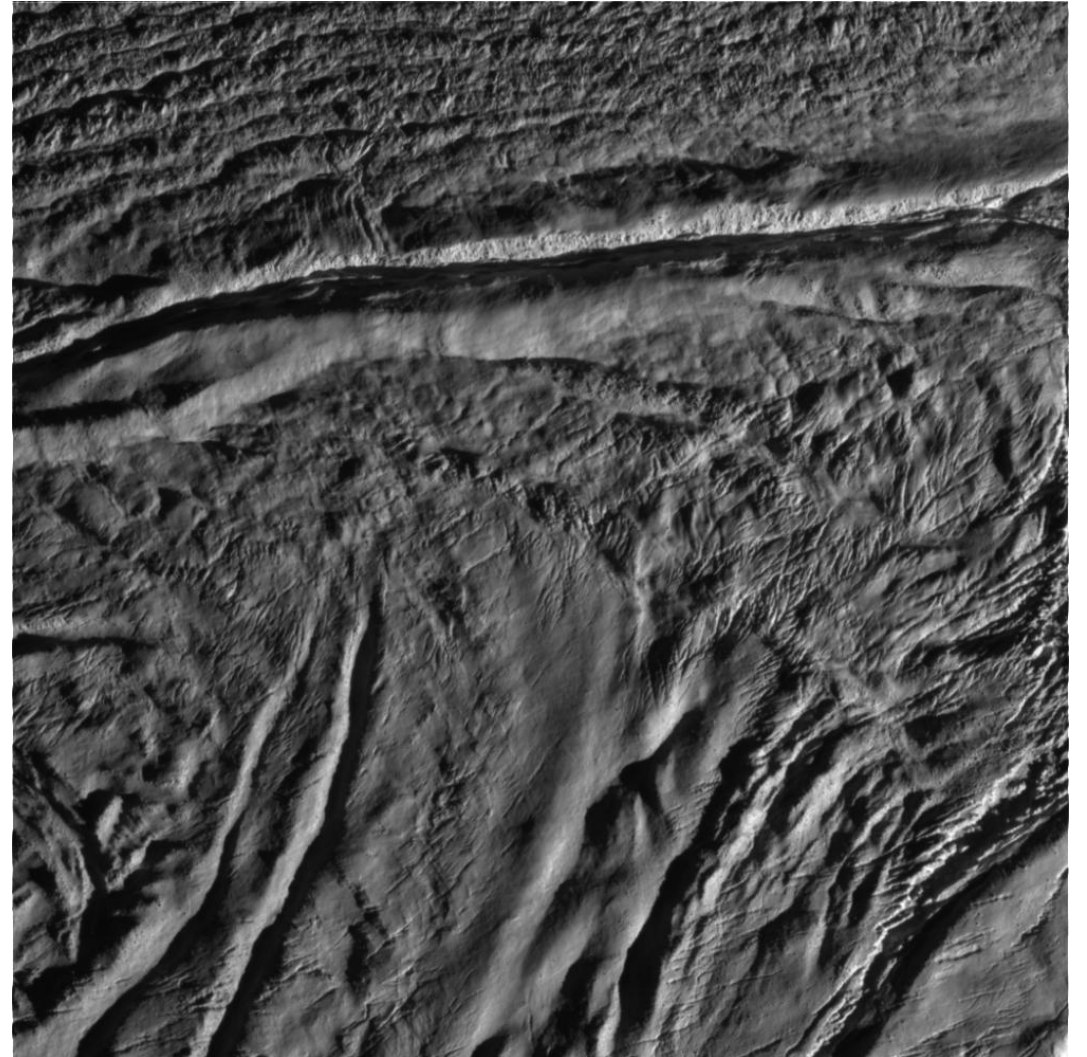
2016-361T03:00:00-T08:30:00

RINGS_255_256:

CIRS_255EN_SP003_PIE

2017-002T10:00:00-12:30:00

The purpose of the S. Pole observations is to characterize the heat flow, including the background heat production, and its variability with time and with mean anomaly. Other ORS in ridealong



S97: Plume observation

XD_251_252

ISS_251EN_PLUME001_PIE

2016-341T06:36:00-16:56:00

(CMUV in ridealong)

Further characterization of plume morphology and time evolution, and dependence with mean anomaly



Pandora PIE

RINGS_253

ISS_253PA_PANDORA001_PIE
2016-353T19:59:00-21:59:00
(CMUV in ridealong)

C/A~14,000 km; phase angle 80°

Closest by nearly a factor of 4

Best ever!!

