

# S99, SOST: Plume PIE observation; Dione high phase PIE, and one CIRS Rhea observation

- ISS Plume PIE in (ORS are in ridealong); SATURN Rev 271 segment

ISS\_271EN\_PLUME001\_PIE

2017-117T17:45:00-118T06:16:00 (155-163° is solar phase; ~800k km)

- VIMS Dione high phase PIE (ORS are in ridealong); TOST Rev 275 segment (164.2° is maximum solar phase; ~600k km); ***Search for activity***

VIMS\_275DI\_HIPHASE001\_PIE

2017-143T14:44:00-143T16:44:00

Also, a non-PIE CIRS observation of Rhea on XD 272\_273 (UVIS in ridealong):

CIRS\_272RH\_COMPGLBL001\_PRIME

2017-121T22:20:00-122T06:20:00



# Dione: is it active?

***Lines of evidence from several Cassini instruments suggest that Dione is active:***

- MAPS instruments presented evidence for “loading” of plasma by Tethys and Dione into the system
- Transient atmosphere reported by VIMS and CAPS
- Geologic evidence, including fossilized tiger stripes and cryovolcanoes; and features that suggest a subsurface liquid ocean (check out CHARM talks from 2013 and 2016)
- Our last chance to look

# Paul Schenk: Volcanism

## - Smooth plains on Dione

- Lower crater density
- Linear grooves and scarps
- Rampart craters
- Anomalous crater pair: Possible volcanic vent!

