

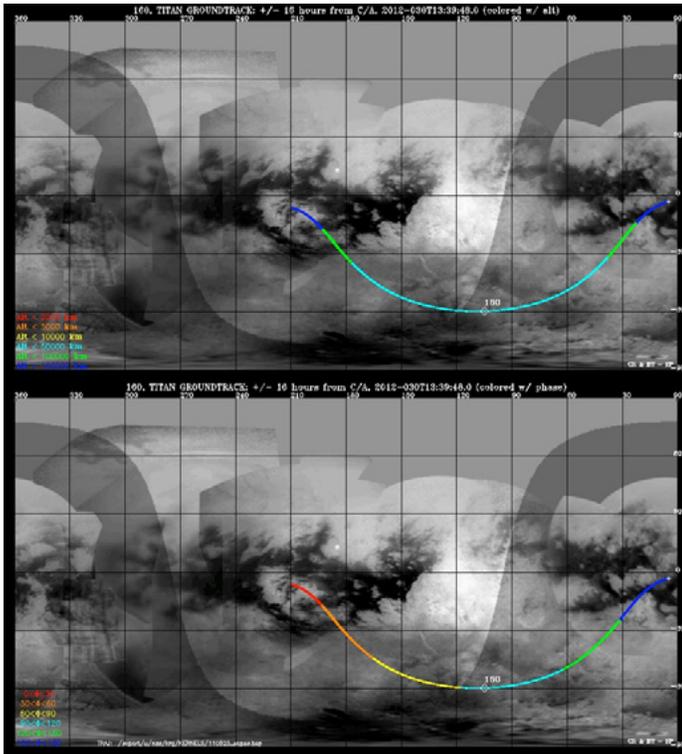
Cassini Solstice Mission Quick-Look Flyby Facts

Titan T-81 Encounter (Orbit 160)

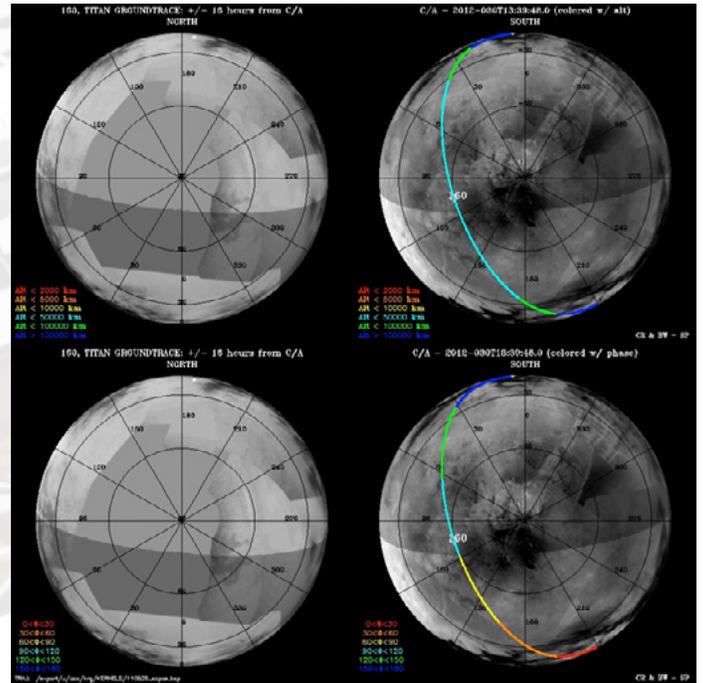


The T-81 flyby occurs with local time coverage moving from the dayside to the dusk side.

Cassini Groundtrack: Global Plot



Cassini Groundtrack: Polar Plot



* Start \diamond Closest Approach + End

Quick Facts

Closest Approach at 2012-030T13:39:48
January 30, 2012

Altitude: 31,131 km (~50,100 miles)

Speed: 5.4 km/sec (~12,000 mph)

Closest Approach latitude: 60° S

Flyby Setup Maneuver Schedule

Titan approach maneuver on Monday,

January 16 UTC 016T02:02:00

Closest Approach occurs ~ 2 days after Periapse

11th Titan encounter in the Solstice Mission

Science Highlights

Closest Approach/Unique Observations
ISS: On this high-altitude encounter, ISS will perform high-resolution observations around closest approach along Titan's leading hemisphere at high southern latitudes, including a late view of Ontario Lacus before the Sun sets for southern winter. ISS will also ride along with CIRS' inbound high-phase angle observations and CIRS' outbound observations over Titan's anti-Saturnian hemisphere at low phase angles. This encounter is one of the last views of Titan's high southern latitudes. This is one of ISS' so-called "10-pointers", i.e. one of the two scientifically most significant Titan flybys for ISS during the Solstice mission.

Titan T81 Encounter

Time Ordered Listing

<u>Event</u>	<u>Time (PST)</u>	<u>Event</u>	<u>Time (PST)</u>
Turn Cameras to Titan	Sun Jan 29 04:04 PM	Flyby	Mon Jan 30 07:02 AM-
Deadtime	Sun Jan 29 04:44 PM	UVIS	Mon Jan 30 09:47 AM
CIRS	Sun Jan 29 04:59 PM	CIRS	Mon Jan 30 04:02 AM
UVIS	Sun Jan 29 10:02 PM	Deadtime	Mon Jan 30 09:39 PM
ISS	Mon Jan 30 04:47 AM	Downlink	Tues Jan 31 12:04 AM

Science Highlights Inbound/Outbound Wings

CIRS: CIRS has inbound highphase angle observations and outbound observations over Titan's anti-Saturnian hemisphere at low phase angles.

UVIS: Inbound and outbound UVIS will obtain an image cube of Titan's atmosphere at EUV and FUV wavelengths by sweeping its slit across the disk.

VIMS: VIMS will ride along with ISS to look for lakes in the South Pole area.