Proposal Identification No.: R2242 Date Received: 2006-Jun-01_11:50:17

Technical Page

Proposal Type:	Regular
General Category:	Planetary Radar
Observation Category:	Solar System
Total Time Requested:	60 Hours
Minimum Useful Time:	3.5 hours

Proposal Title: S-Band radar observations of Titan

ABSTRACT:

During the opposition of the Saturn system in February 2007 the sub-Earth latitude will be $\tilde{1}$5S providing the first good opportunity for Arecibo 13 cm radar observations of low near-IR albedo "dark" areas on Titan and the central areas of Xanadu, the large continetal sized "bright" area. The emphasis will be on examining the properties and occurence of specular echoes for "dark" areas with longitudinal dunes that have been observed from Cassini, the "dark" area in the vicinity of the landing site of the Huygens probe and for Xanadu. The major objective will be to understand the implications of the very low dielectric constants, 1.6 to 2.1, derived from both Cassini 2.2 cm and Arecibo observations, for the composition and physical properties of Titan's surface.

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Remote Observing Request

- [X] Observer will travel to AO
- [ ] Remote Observing
- [ ] In Absentia (instructions to operator)

Instrument Setup

S-Band radar S-band receiver

Atmospheric Observation Instruments:

Special Equipment or setup: No special equipment is required.

RFI Considerations

Frequency Ranges Planned

2379 - 2381