

## Technical Page

Proposal Type: Regular  
 General Category: Planetary Radar  
 Observation Category: Solar System  
 Total Time Requested: 49.8 Hours  
 Minimum Useful Time: 3 hr

**Proposal Title:** Radar Observations of Mars During the 2010 Opposition

*ABSTRACT:*

We propose to conduct a campaign of S-band radar observations of Mars during the planet’s next opposition in early 2010. The objective will be to make high-resolution radar reflectivity images of large portions of the planet. These will be used to map out decimeter-scale surface roughness, circular polarization ratios (a diagnostic for surface texture), coherent backscatter from north polar ice, and reflectivity features possibly related to aqueous processes. Our proposed 2010 observing program has been tailored to complement the Arecibo imaging results obtained during the two previous (2005, 2007) Mars oppositions.

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### Remote Observing Request

- 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:** none

**RFI Considerations**

**Frequency Ranges Planned**