Proposal Identification No.: R2261 Date Received: 2006-Sep-13_14:28:12

Technical Page

Proposal Type:	Urgent
General Category:	Planetary Radar
Observation Category:	Near-Earth Asteroid
Total Time Requested:	10.25 Hours
Minimum Useful Time:	

Proposal Title: URGENT PROPOSAL FOR RADAR OBSERVATIONS OF NEAR-EARTH ASTEROID 2004 XL14

ABSTRACT:

This is an urgent proposal for radar observations of near-Earth asteroid 2004 XL14 in Decemeber 2006. 2004 XL14 will be a strong radar target and we anticipate obtaining delay-Doppler images with resolutions as fine as 7.5 m/pixel, which may be sufficient to estimate its 3-D shape. 2004 XL14's absolute magnitude implies a diameter within a factor of two of 160 meters. Nothing else is known about the object. We seek to estimate the shape and spin state to constrain its internal structure and geologic history. We also will search for satellites.

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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: none

RFI Considerations

Frequency Ranges Planned

2.33-2.43 GHz