

Technical Page

Proposal Type: Urgent
 General Category: Planetary Radar
 Sub-Category: Spectroscopy
 Sub-Category: Radar
 Observation Category: Solar System
 Total Time Requested: 25 Hours

Proposal Title: Radar and OH observations of Comet C/2000 WM1 (LINEAR)

ABSTRACT:

Comet C/2000 WM1 (LINEAR) will pass within 0.32 AU of the earth in late November/early December of this year. This urgent proposal is requesting 7 observation periods for a combination of radar and OH observations. Four to five radar observations and 2 to 3 OH observations will be made with the balance depending on the success of the radar measurements. These radar observations will be aimed at investigating the radio wave reflection properties of the nucleus and the spatial and size distribution of large particles in the coma. Only 8 comets have been investigated by radar to date and little is still known about their radio wave scattering properties. The OH observations are aimed at determining outflow velocities, at identifying asymmetries and at investigating the role of collisional quenching on the emission strength in fairly "normal" low production comets such as WM1. The OH observations will be made at 1612, 1665 and 1667 MHz and the emission measured from the direction of the nucleus and at one beamwidth from the nucleus in a hexagonal pattern about the nucleus.

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Service Observing Request

Remote Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

- No
- Maybe
- Yes

Instrument Setup

S-Band radar L-wide S-band receiver

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned