

Technical Page

This proposal has not been submitted before.

Proposal Type: Urgent
 General Category: Planetary Radar
 Observation Category: Solar System
 Total Time Requested: 56.5 Hours
 Minimum Useful Time: 1 hour

Proposal Title: Arecibo Observations of Three Comets May-August 2014

ABSTRACT:

Opportunities to observe comets are extremely rare, and these targets were either not known, or not known to be observable before the regular proposal deadline, so an Urgent proposal is being submitted. Recent observations of C/2012 K1 (PanSTARRS) have shown that it is brighter than expected, and will be observable at Arecibo using L-band spectroscopy. Comet Jacques was discovered 14 March 2014, and is also brighter than originally predicted. 209P/LINEAR is observable using radar May 23-27. The OH gas coma is not expected to be observable in this comet. Recent optical observations suggest that the nucleus may be as large as 2km, and the rotation period is about 8 hours, which give SNR>1500, and will result in excellent high-resolution images.

Name	Institution	E-mail	Phone	Student
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Remote Observing Request

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

Instrument Setup

S-Band radar L-wide S-band receiver

Atmospheric Observation Instruments:

Special Equipment or setup: The S-band radar is May 23-27 LST 21-24 (see proposal for specific times). The OH spectroscopy time distribution is given in the proposal, starting as soon as May 8, until August.

RFI Considerations

Frequency Ranges Planned

2380 Mhz

1665-1667 MHz