

## Technical Page

This proposal has not been submitted before.

Proposal Type:                   Urgent  
 General Category:               Planetary Radar  
     Observation Category:   Solar System  
 Total Time Requested:       40 Hours  
 Minimum Useful Time:       45 min

**Proposal Title:** Radar and OH spectroscopy of C/2013 R1 Lovejoy Oct-Nov 2013

*ABSTRACT:*

Comet Lovejoy (C/2013 R1) was recently discovered, and is bright enough to detect OH in the coma. These data will determine the water production rate and outflow velocity of the coma gases. In addition, this comet may be close enough to detect with radar in mid-November when it reaches 0.4 AU from Earth. Our past experience is that about half the comets we have tried are detected at this distance in either nucleus echo or coma particles, or both. We request any available dates (outside the scheduled world days) for this comet from Nov 1-19.

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:** OH observations use L-wide radar observations use S-radar and transmitter (Nov 14-18 only)

### RFI Considerations

## Frequency Ranges Planned