

## Technical Page

This proposal has not been submitted before.

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category: Extragalactic  
 Total Time Requested: 22.5 Hours  
 Minimum Useful Time: 45 minutes

**Proposal Title:** A Search for Radio Transients Generated by Short Gamma-Ray Burst Remnants  
*ABSTRACT:*

Some short gamma-ray bursts (GRBs) are believed to be generated by the mergers of neutron star pairs. Depending on the mass of the binary, the merger remnant is possibly a massive and highly magnetized magnetar with a rotational period as short as several milliseconds. The probable presence of post-merger debris disks along with the possible presence of an extreme magnetar make these systems potential sources of bright, non-thermal, transient radio emission like that seen in pulsars and fast radio bursts. We propose to look for such transient radio phenomena coming from the sites of two nearby short GRBs (10 hours of observing per source). One of these short GRBs clearly displayed anomalous X-ray emission long after the initial gamma-ray flash, possibly indicating continued energy injection from a magnetar remnant. Searches for fast radio transients associated with short GRBs have never been done and could yield exceptional scientific dividends.

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### Remote Observing Request

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

### Instrument Setup

L-wide

### Atmospheric Observation Instruments:

**Special Equipment or setup:** none

## RFI Considerations

### Frequency Ranges Planned