

Technical Page

This proposal has been submitted before.

The previous proposal number is p2976.

Proposal Type: Director Discretionary Time
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 4 Hours
 Minimum Useful Time: 45 mins

Proposal Title: Searching for pulsed radio emission from transient Magnetar SGR 1935+2154

ABSTRACT:

We aim to search for pulsed radio emission from magnetar SGR 1935+2154, which recently became burst active in hard X-ray/soft gamma-rays. Since its reactivation in June, SGR 1935+2154 has been steadily detected with Swift and, very recently underwent a very bright outburst. Previously, pulsed radio emission has been detected in four of the currently known (23) magnetars and, almost always after the X-ray burst. Although, origin of this pulsed radio emission remains elusive. Therefore, we want to detect the pulsed radio emission from SGR 1935+2154 to be able to time it and, hence deduce its characteristic age and magnetic field strength. Using these estimates we can improve our understanding of the radio-detected magnetars and provide tight constrain on the theoretical models for their radio emission. Therefore, we request immediate commencement of observations for SGR 1935+2154, since, in previous instances radio emission has enhanced and then decayed post the X-ray burst.

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Remote Observing Request

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

Instrument Setup

L-wide C

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

This proposal requires Iridium RFI protection at 1612 MHz between 10pm and 6am EST.

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz..

This proposal requires coordination with GPS L3 at 1381 MHz.