

## Technical Page

This proposal has been submitted before.

The previous proposal number is P2825.

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category: Galactic  
 Total Time Requested: 60 Hours  
 Minimum Useful Time: 0.75 hours

**Proposal Title:** Followup Timing of 13 Discoveries from the Arecibo Observatory 327 MHz Drift Survey

*ABSTRACT:*

The Arecibo Observatory 327 MHz Drift Survey has discovered 33 radio pulsars overall and 14 in the past year. We are requesting 87 hours to follow-up 13 of these new discoveries which includes a rotating radio transient (RRAT), 3 millisecond pulsars (MSP), and 2 intermediate period pulsars. One of the intermediate period pulsars is a double neutron star system (DNS). The three MSPs are in binary systems and all of them are good candidates for inclusion in pulsar timing arrays (PTAs) seeking to measure the effects of gravitational waves on the pulse arrival times. These observations will allow us to very precisely measure the pulsars' spin, astrometric, and binary parameters (if applicable) for all of our sources. These observations will allow us to make measurements of the neutron star masses in the case of the DNS, and will help us to assess the MSPs and allow us to determine initial ephemerides for use in PTAs.

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### Remote Observing Request

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

### Instrument Setup

L-wide                      327

### Atmospheric Observation Instruments:

**Special Equipment or setup:** none

## **RFI Considerations**

### **Frequency Ranges Planned**

297-357, 1100-1900

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.