

## Technical Page

Proposal Type: Long-term  
 General Category: Pulsars  
 Observation Category: Galactic  
 Total Time Requested: 72 Hours

**Proposal Title:** Timing observations of the planets pulsar, PSR B1257+12

*ABSTRACT:*

We propose to continue the systematic timing observations of the planets pulsar, PSR B1257+12, with the Arecibo radio telescope and the four WAPP backend processors at 327, 430, 1400, and 2600 MHz over the next two years. Continuation of a precision timing of this pulsar at multiple frequencies will make it possible to verify a very likely presence of an astroid belt at the outskirts of the pulsar’s planetary system. If confirmed, this detection will practically complete the inventory of the system, currently known to consist of three terrestrial-mass planets. As the PSR B1257+12 planetary system appears as an astonishingly accurate, scaled-down copy of the inner solar system, such a complete characterization of its composition will be helpful in further studies of low-mass planets around other kinds of stars.

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**Service Observing Request**

**Remote Observing Request**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> None<br><input type="checkbox"/> All of the observing run.<br><input type="checkbox"/> Part of the observing run.<br><input type="checkbox"/> Queue Observing | <input type="checkbox"/> No<br><input type="checkbox"/> Maybe<br><input checked="" type="checkbox"/> Yes |
|---|--|

**Instrument Setup**

430 G                      L-wide                      S-low                      327

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** WAPP x 4, PSPM

**RFI Considerations**

## Frequency Ranges Planned