

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category:
 Total Time Requested: 48 Hours

Proposal Title: Confirmation of Pulsar Candidates from 430-MHz Drift-Scan Searches
ABSTRACT:

We request 48 hr of telescope time to confirm pulsar candidates discovered in 430-MHz drift-scan search data. These data were taken by the Berkeley/Cornell and STSci/NAIC collaborations during the latter part of the upgrade period and are currently being processed on a Beowulf cluster at Jodrell Bank. Processing of these data began two months ago and is almost 50% complete. In the 550 square degrees covered thus far, we have detected 13 known pulsars, 3 new pulsars (confirmed during our April/May Arecibo session), and 4 candidates which are almost certainly new pulsars. Of particular interest are pulsars J0610+21 and J1453+19, with periods of 55.6 and 5.79 milliseconds, respectively. We also have roughly 20 candidates which are less likely to be pulsars but do merit reobservation. We expect to finish the processing of these data by August 2002, at which time we should have a total of roughly 70 candidates. We request 2 24-hour blocks of time to do confirmation observations and, in preparation for timing, find better positions for the new pulsars.

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Service Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

430 CH receiver

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

425 - 435

This proposal requires coordination with AFTWF within the band 425-435 MHz.