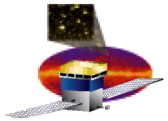
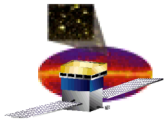


GLAST Pulsar Timing Program

Dave Thompson

GLAST Large Area Telescope
Multiwavelength Coordinator

1. Needs and plans for pulsar timing
2. Making timing data available to the user community



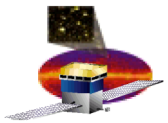
Introduction

Background:

- Gamma-ray pulsar studies depend heavily on external pulsar timing information. Gamma-ray pulsars tend to be young, noisy pulsars, and timing with gamma rays is impractical for all but the brightest of these.
- The GLAST Science Tools include a timing database (D4) that is designed to be used for pulsar timing analysis.

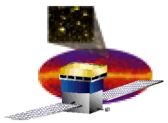
Planning

- The LAT team has been working with radio and X-ray astronomers to time the best candidates among known pulsars. Currently 231 pulsars are on this list.
- The LAT team has a deliverable to the project of a timing database, but the detailed contents are not specified.



Making the Timing Data Available to Users

- **Basic issue: the LAT team does not make the radio and X-ray timing measurements.**
  - **The radio and X-ray scientists have an understandable concern that making their work public at too early a stage will encourage users to ignore the substantial contributions of the timing community. NASA funds almost none of this work.**
- **The LAT team is developing a Memorandum of Understanding (MOU) with the timing community that will encourage the sharing of timing information.**
  - **A pulsar timing consortium has developed a plan to observe all the pulsars of interest and share the timing information with the LAT team.**
  - **The LAT team has agreed to offer authorship on pulsar papers to all members of the timing consortium.**
  - **The MOU asks the timers to make the timing data public at some appropriate time. Details are being worked. I am optimistic.**



Some Possibilities

- The timing groups may publish timing papers near the end of Cycle 1, so that there are references available to be cited. There is a general paper in progress describing the overall timing program.
- The timing database should include notes requesting that users contact the timing originators when using the data, or to contact the observers for timing data not in the database. This was done in the CGRO era.
- Scott suggests 6 months after the end of Cycle 1 for release of the timing data for Cycle 1, plus immediate release of timing data for published LAT pulsar detections.