

Pulsar Search Collaboratory

Team Bell

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Teachers

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Introduction

- Our team analyzed the following data sets, and reported back on the characteristics of our data. We are going to use the “Collaboratory” website throughout the year to record our thoughts, save promising data files, and communicate with our team.
- This is the data that team Bell observed.

Bell Data Sets:

EF	0421-0354
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JM	1719-0240
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EG	1736-0241
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CM	1646-0747
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AL	1429-0239
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CM	0800-0846
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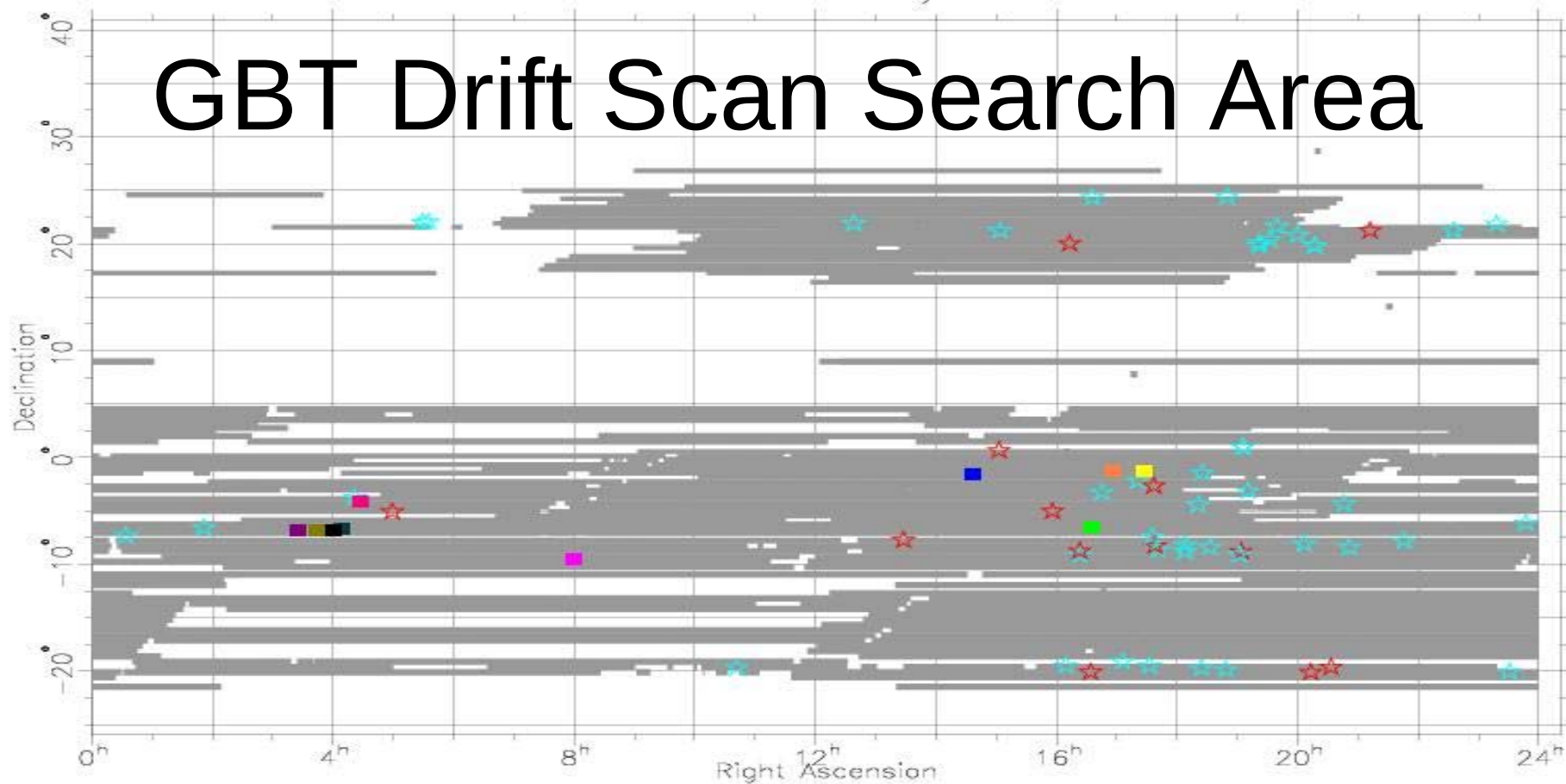
EG	0335-0749
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AL	0413-0749
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CM	0341-0749
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KS	0358-0749
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GBT Drift Scan Search Area



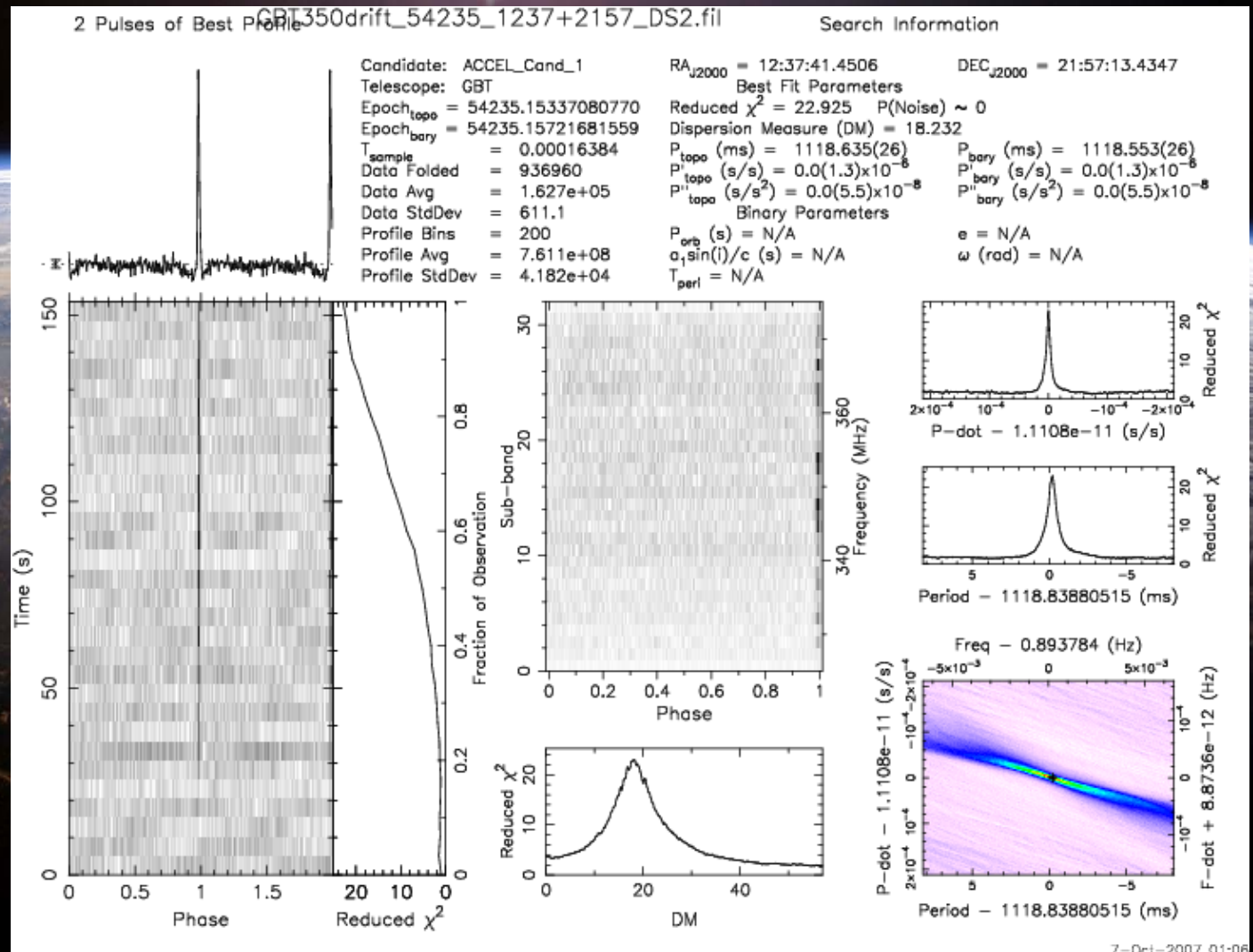
- 0421-0354
- 1719-0240
- 1736-0241
- 1646-0747
- 1429-0239
- 0800-0846
- 0335-0749
- 0413-0749
- 0341-0749
- 0358-0749

Team Bell

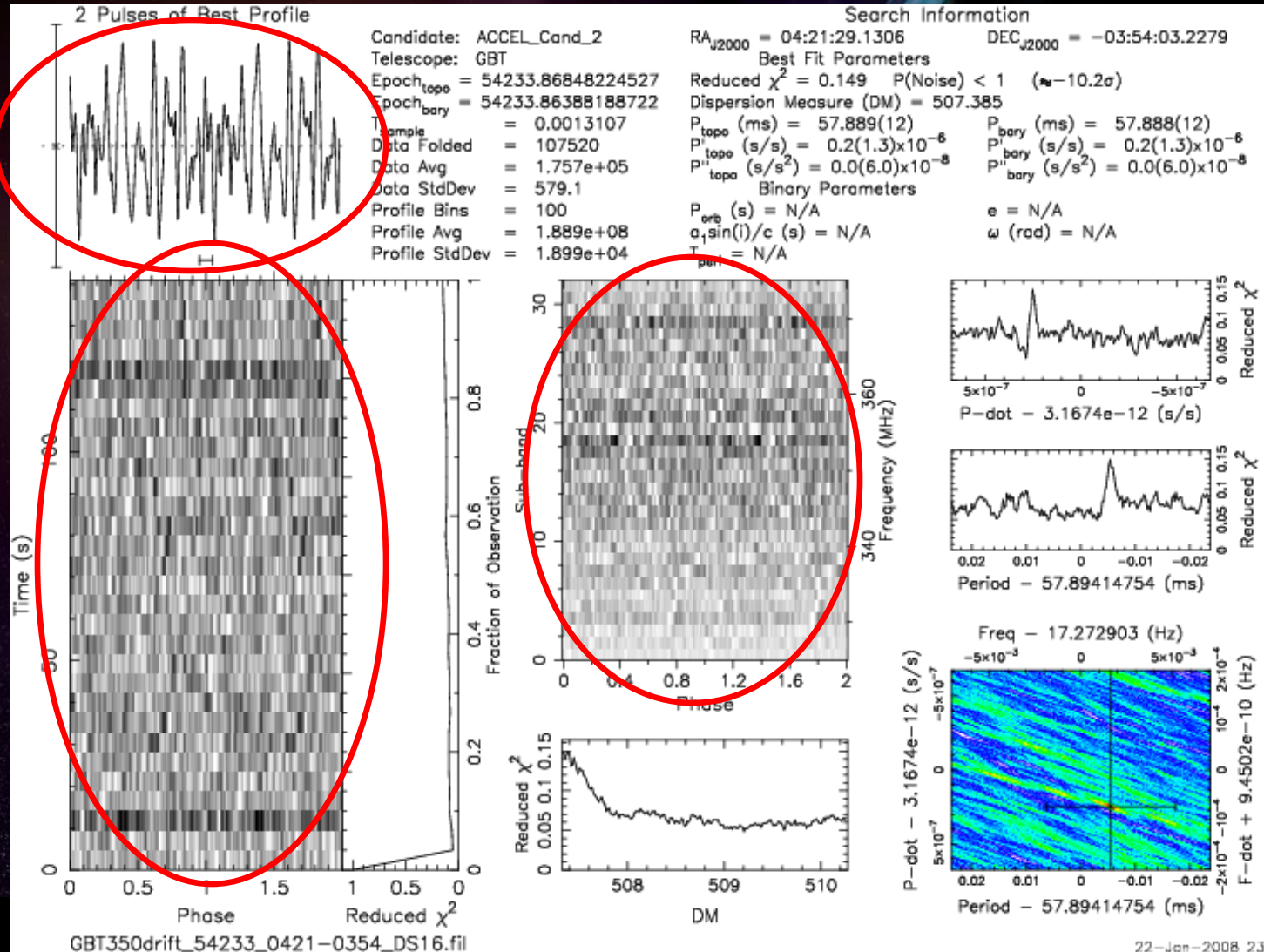
Our team researched 10 sets of data from the GBT drift scan taken in the summer of 2007. Each set included 30 candidates and we rated four graphs (Pulse Profile, Time Series, Sub-band, and DM) on a scale from 1-3. We then took our best candidates from the data and searched for them on ATNF catalog, to make sure the pulsar wasn't already known.

Pulsar Characteristics

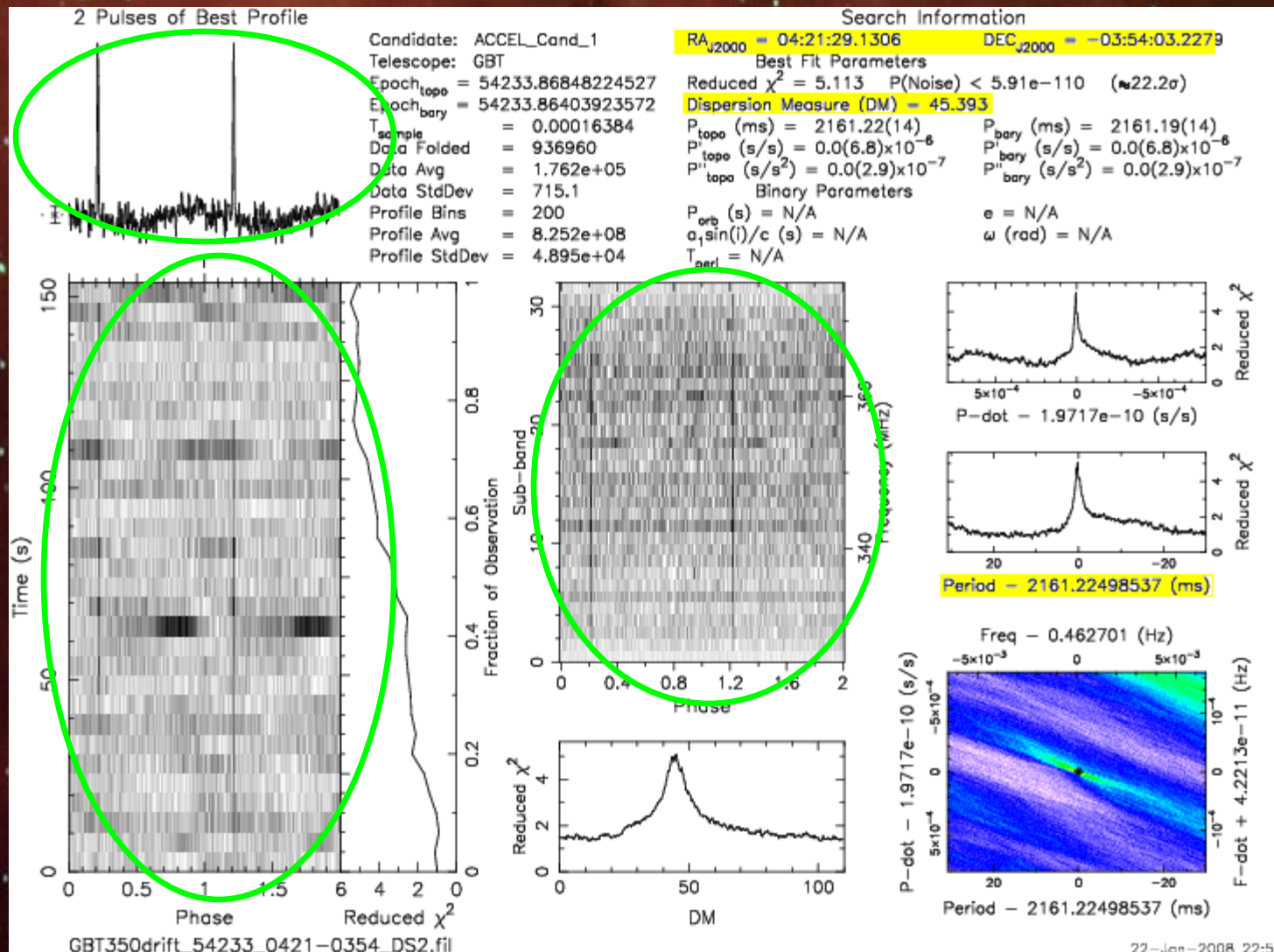
- Profile
- Persistence (Time/Phase Graph)
- Bandwidth (Sub-Band/Phase)
- Dispersion Measure



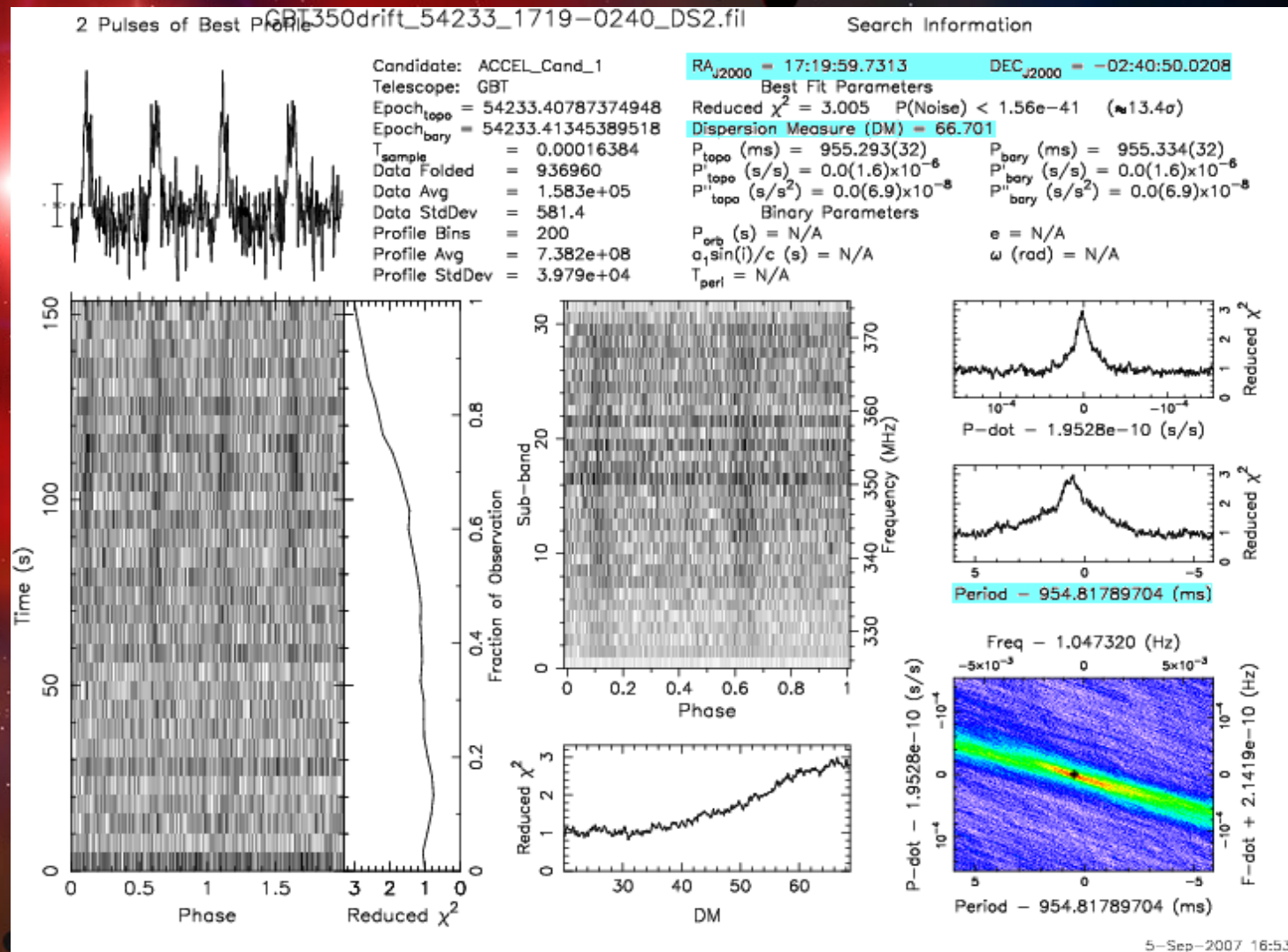
RFI



Known Pulsar (J0421-0354)

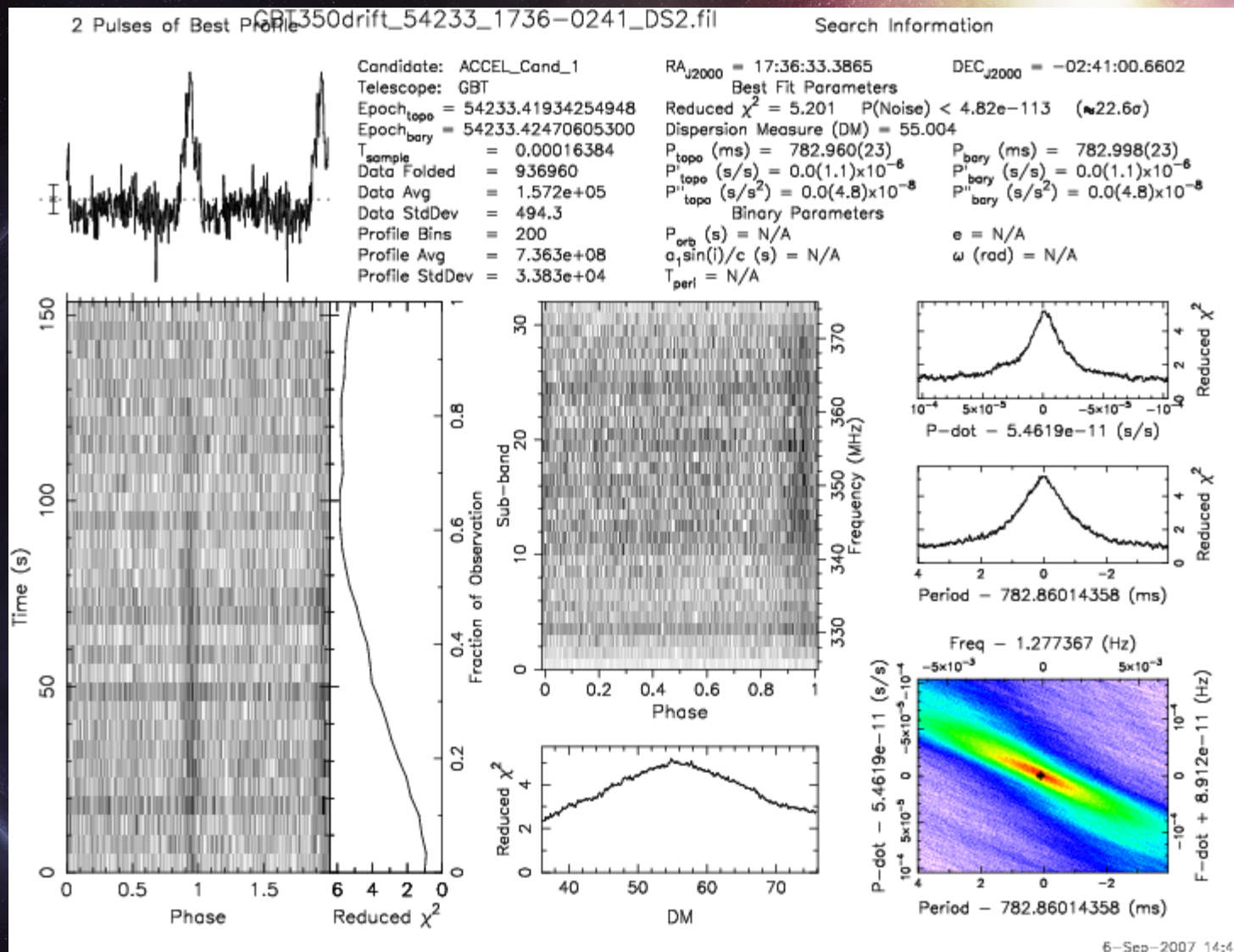


Known Pulsar (B1718-02) F.E.



NAME	RAJ (hms)	DECJ (dms)	PO (s)	DM (cm ⁻³ pc)
B1718-02	mlt+78	17:20:57.269	11	hlk+04
hlk+04	-02:12:23.9	5	hlk+04	0.477715343692
3	hlk+04	66.98		

Pulsar Candidate



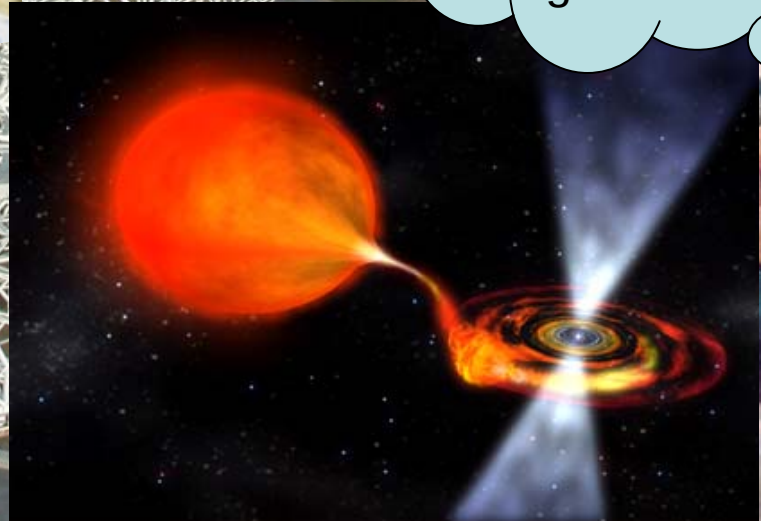
6-Sep-2007 14:41

The only one that can match the true power of a pulsar!!!!



I found it!

Your spin
period is no
match for my
Kung-Fu



Work Cited

- http://math.ucr.edu/home/baez/retina_nebula.jpg
- <http://www.cv.nrao.edu/course/astr534/images/GBT.jpg>
- http://persistentillusion.files.wordpress.com/2008/05/chuck_norris.jpg
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