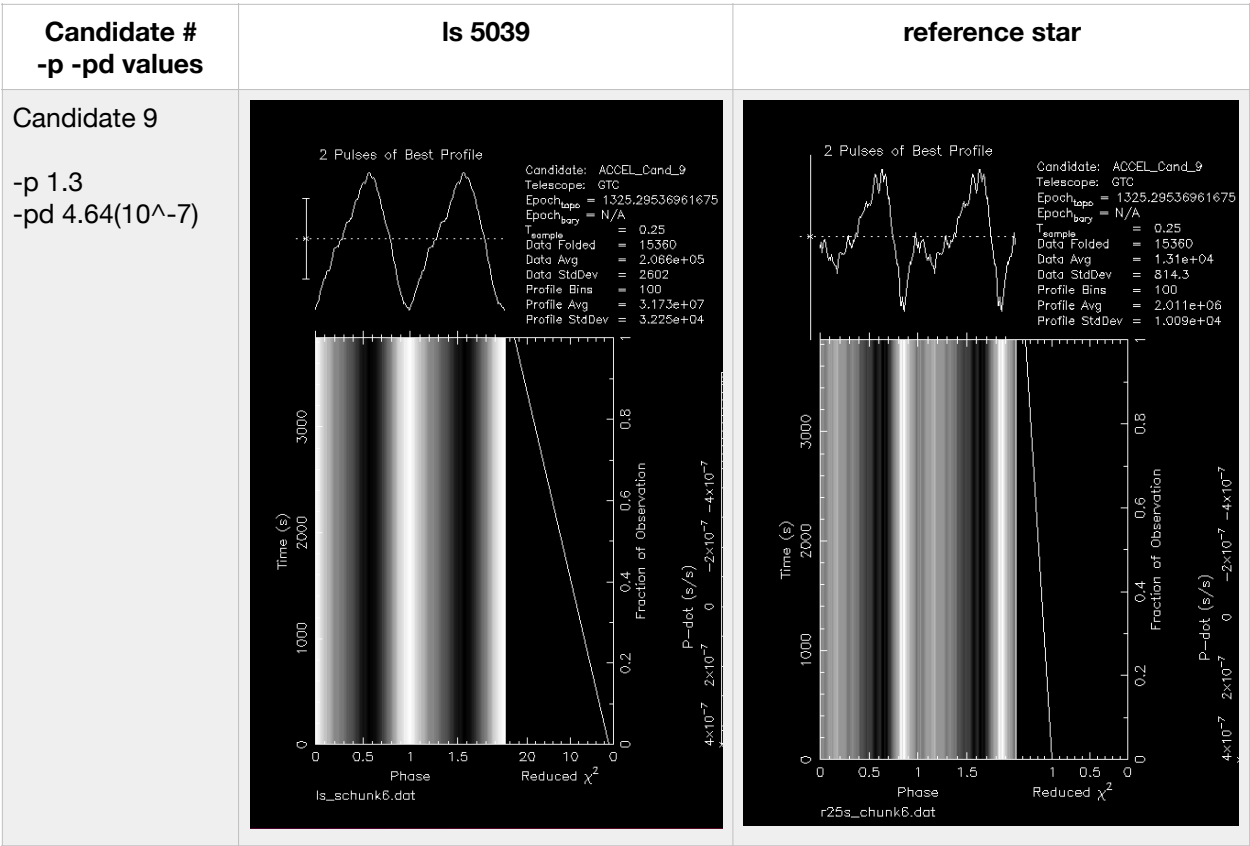


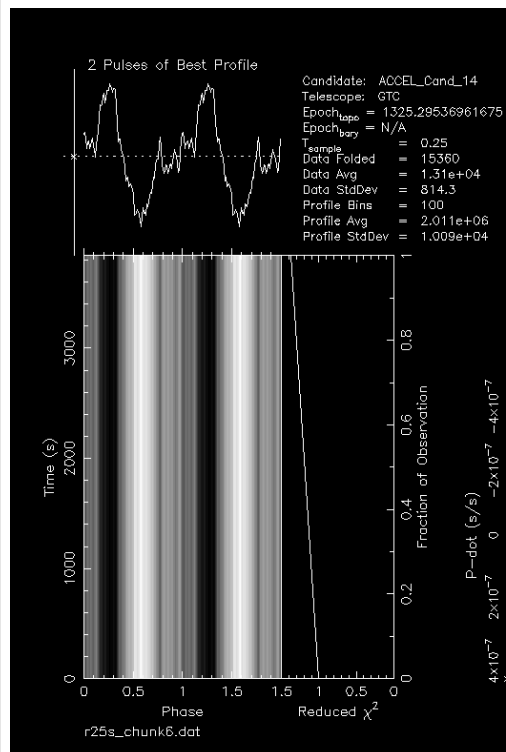
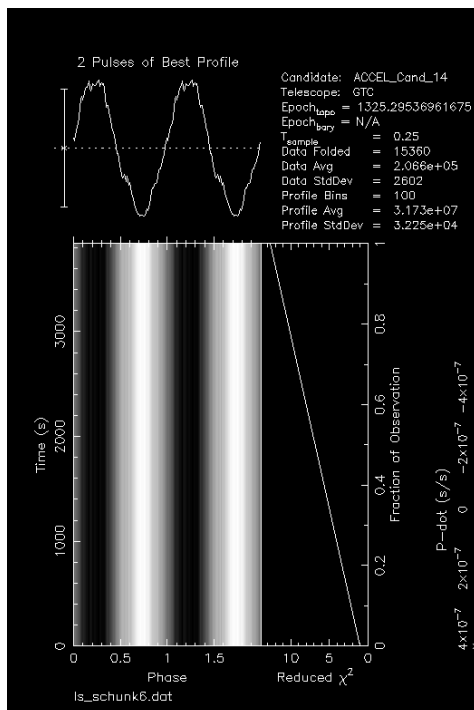
1. Make a side-by-side comparison of the "interesting" candidates from LS5039 chunk 6 on second night at P ~1300 ms. We want LS5039 in one column and reference star in another column.

prepfold on ls5039 second night with ls5039\_ACCEL\_2.cand file  
vs  
prepfold on reference star's second night with ls5039\_ACCEL\_2.cand file  
for interesting candidates (9, 14-22).



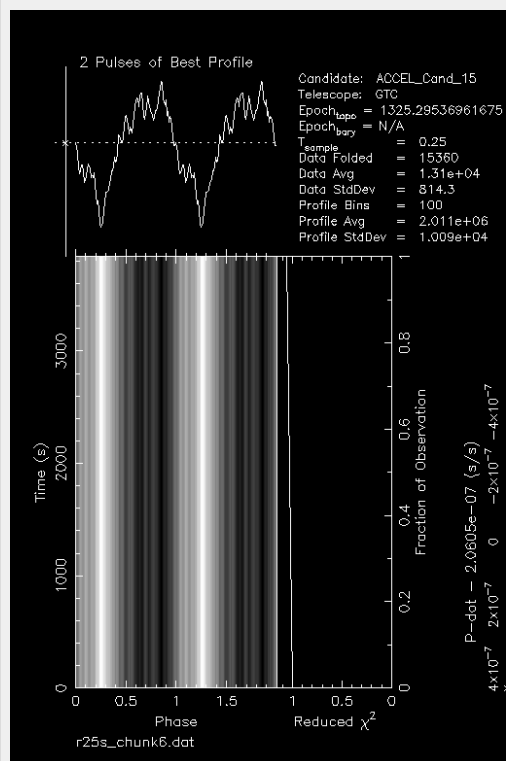
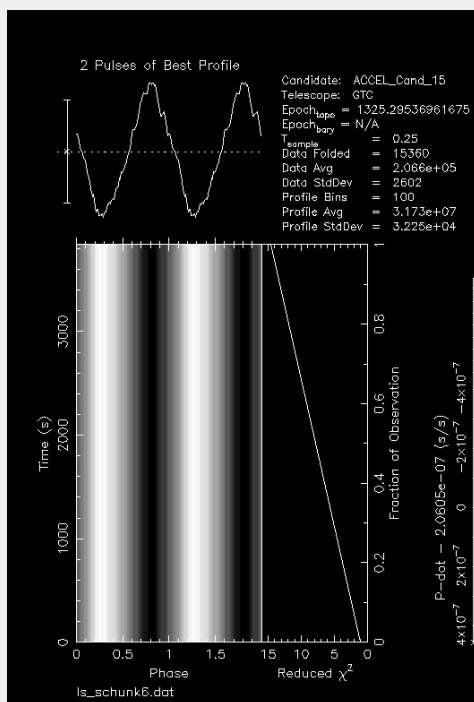
# Candidate 14

-p 1.3  
-pd  $4.5(10^{-7})$



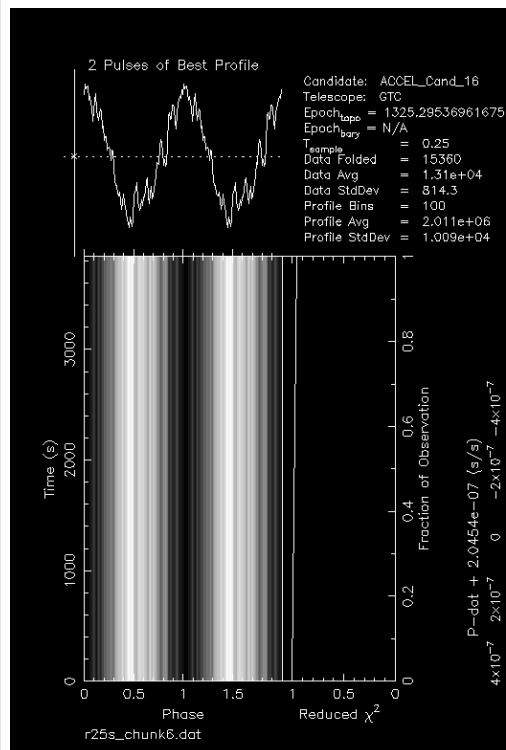
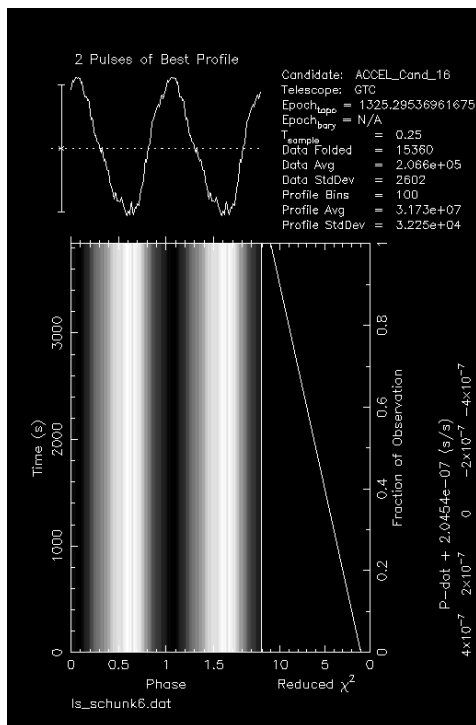
# Candidate 15

-p 1.29  
-pd  $6.6(10^{-7})$



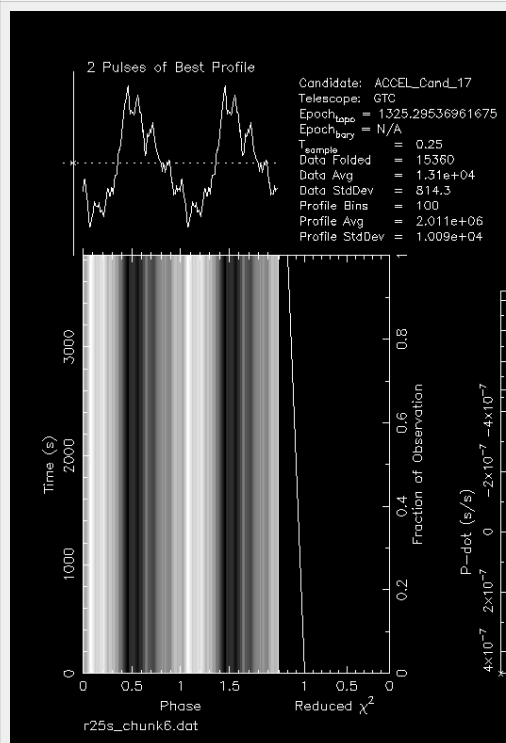
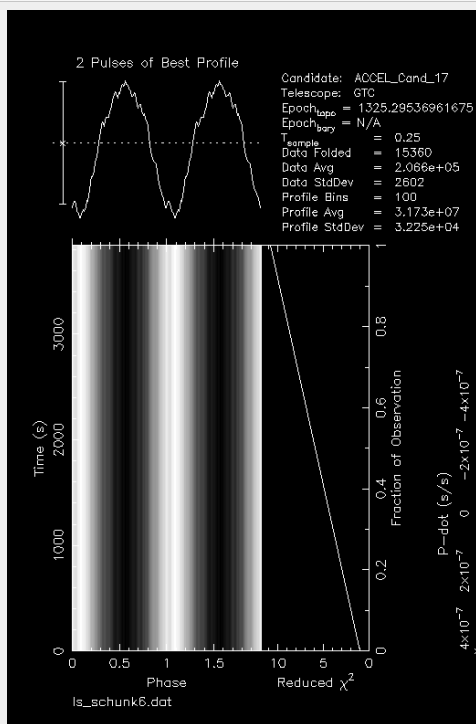
# Candidate 16

-p 1.29  
-pd  $2.5(10^{-7})$



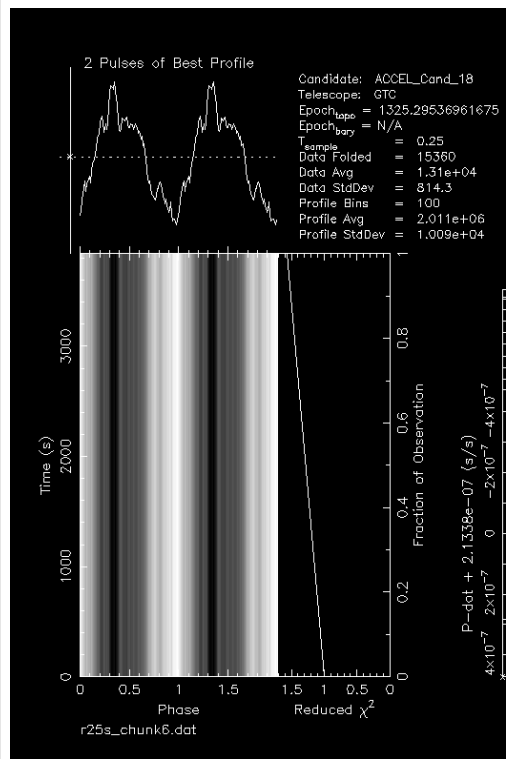
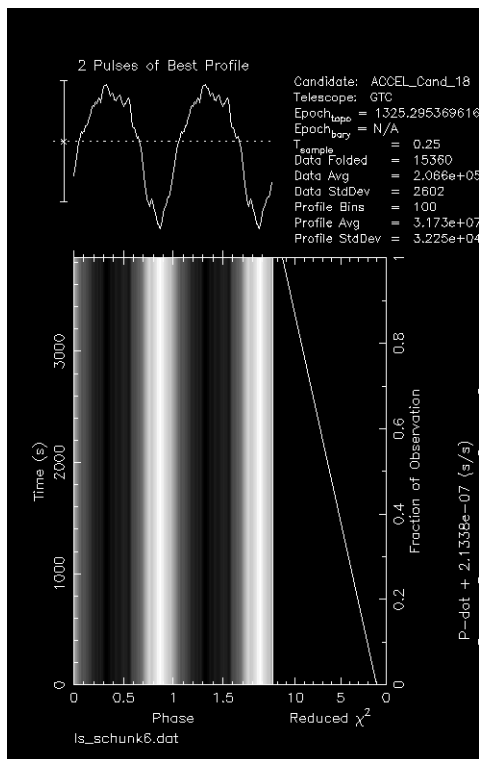
# Candidate 17

-p 1.3  
-pd  $4.7(10^{-7})$



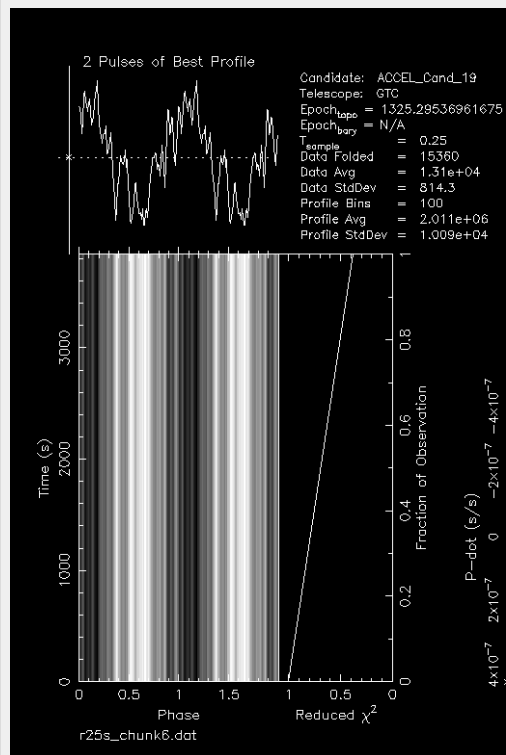
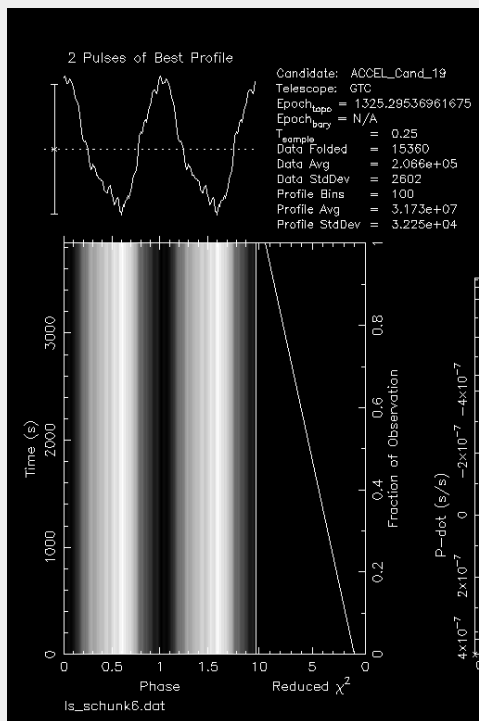
# Candidate 18

-p 1.3  
-pd  $2.6(10^{-7})$



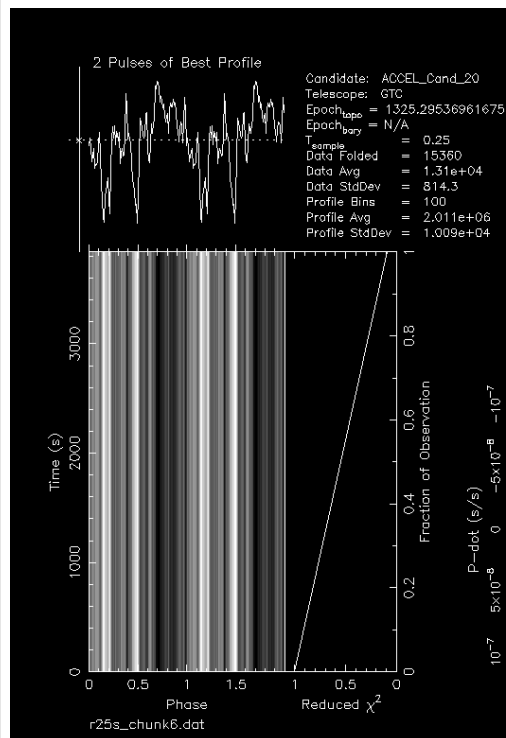
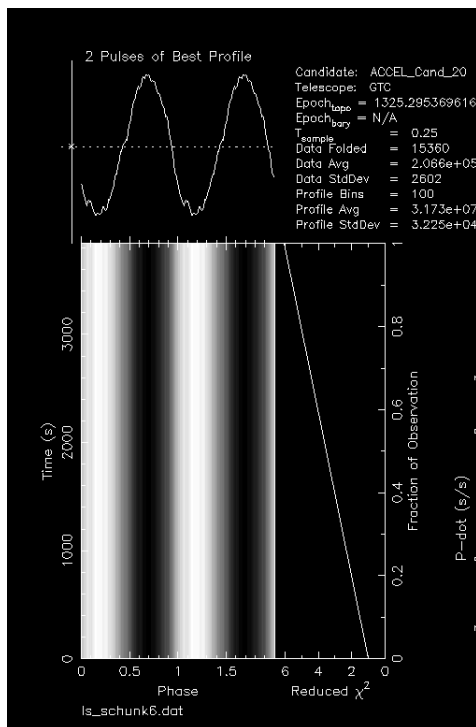
# Candidate 19

-p 1.28  
-pd  $4.5(10^{-7})$



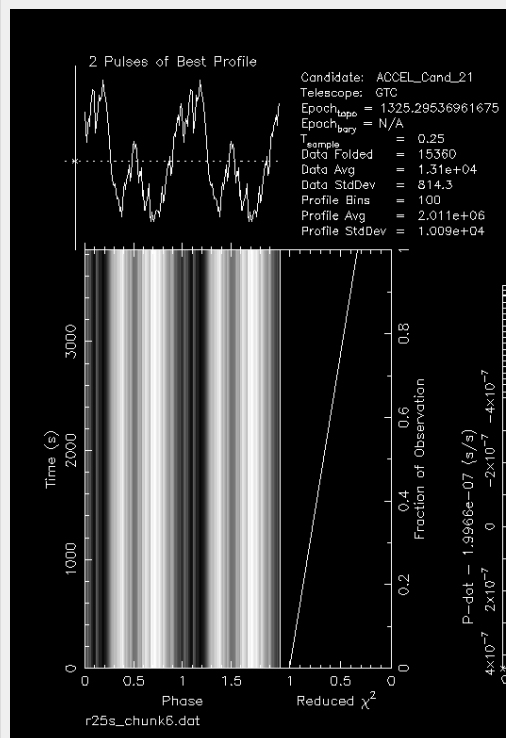
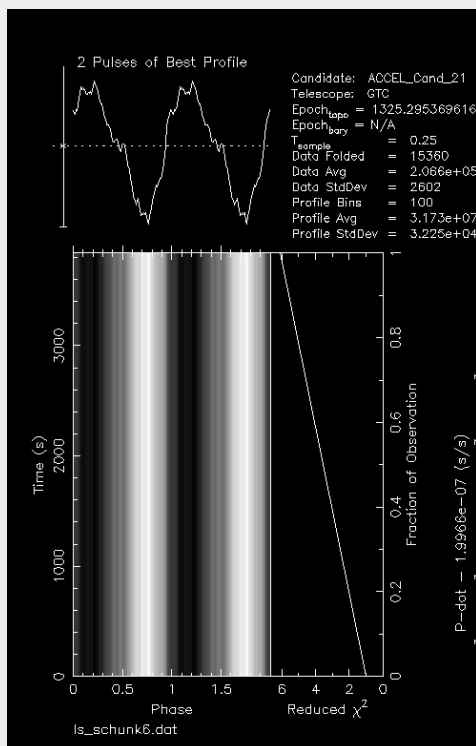
# Candidate 20

-p 0.6  
-pd 1.1(10<sup>-7</sup>)



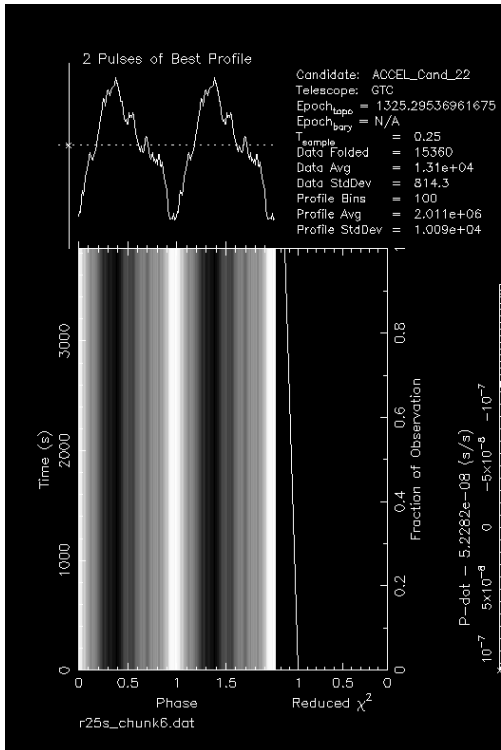
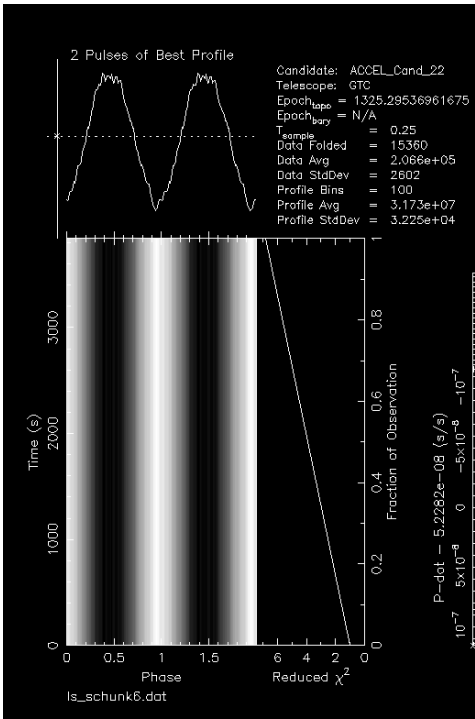
# Candidate 21

-p 1.27  
-pd 6.4(10<sup>-7</sup>)



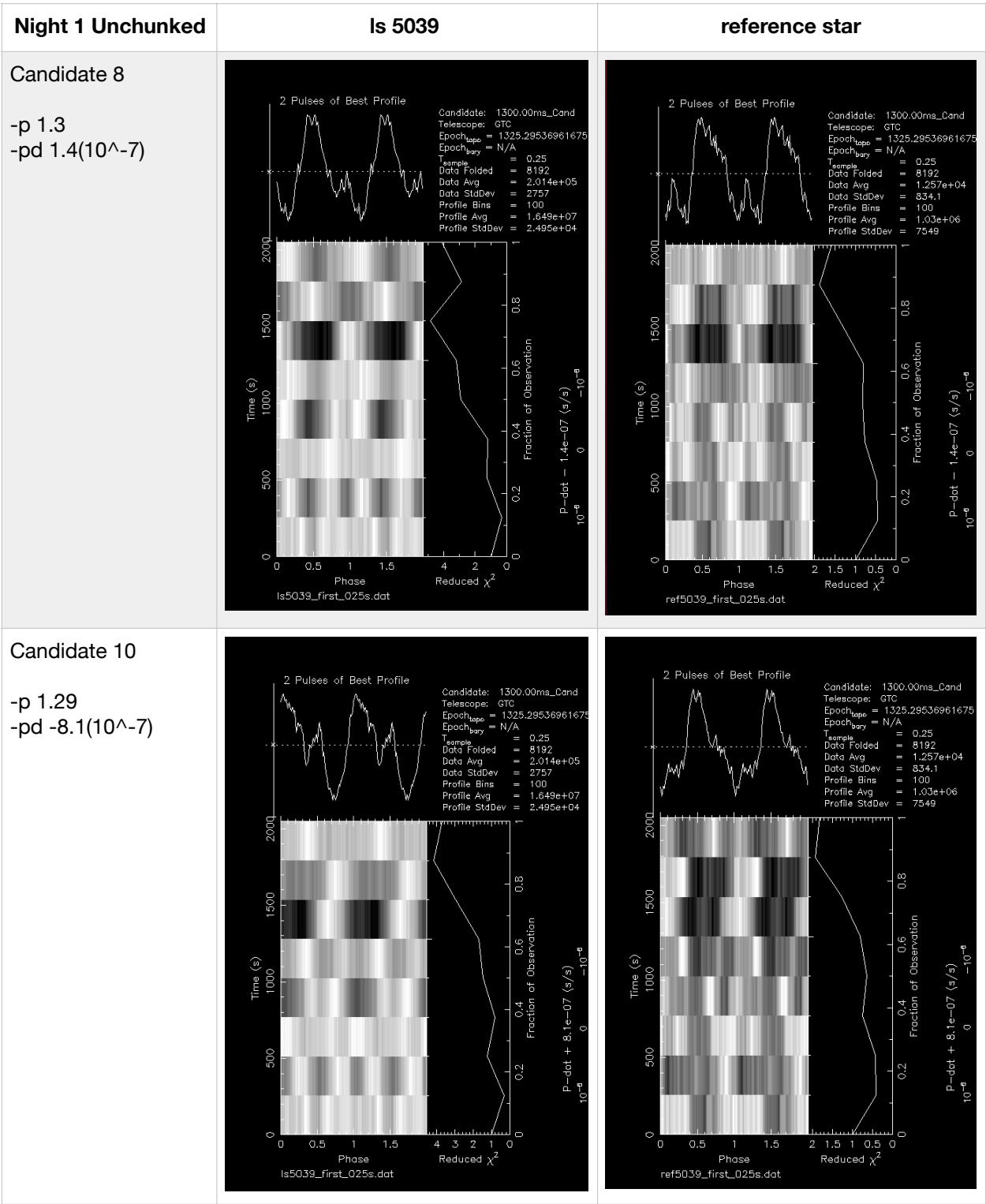
Candidate 22

-p 0.6  
-pd 1.7(10^-7)



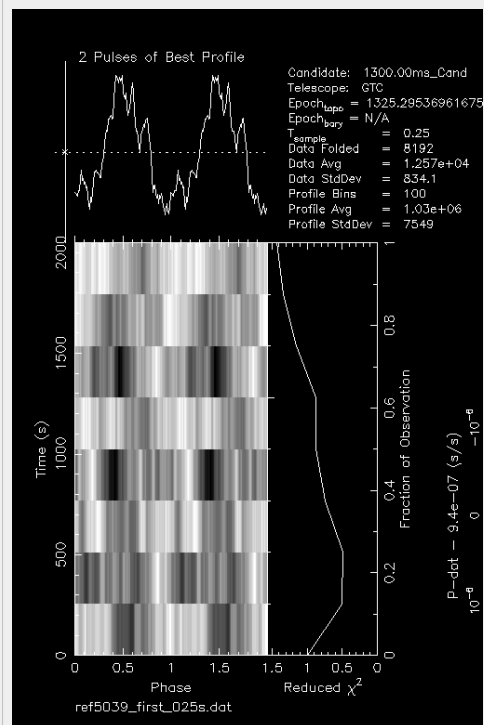
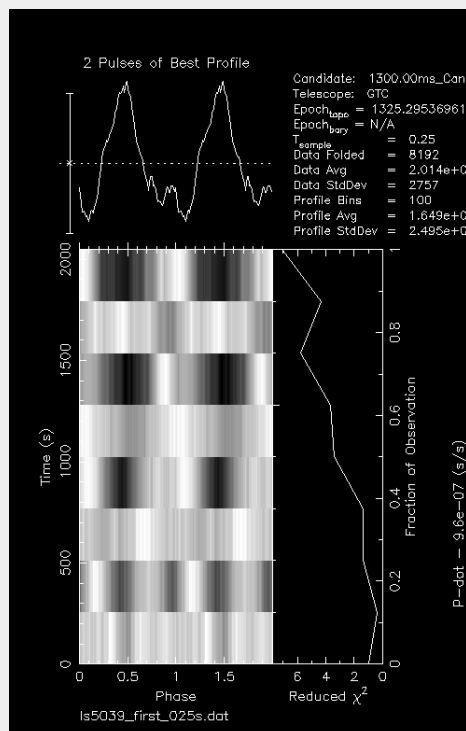
2. We want to look for interesting candidates in LS5039, and then compare them (for the same P and P-dot) to reference star in the same data set

Comparing P and P-dot outputs for Is 5039 vs reference star



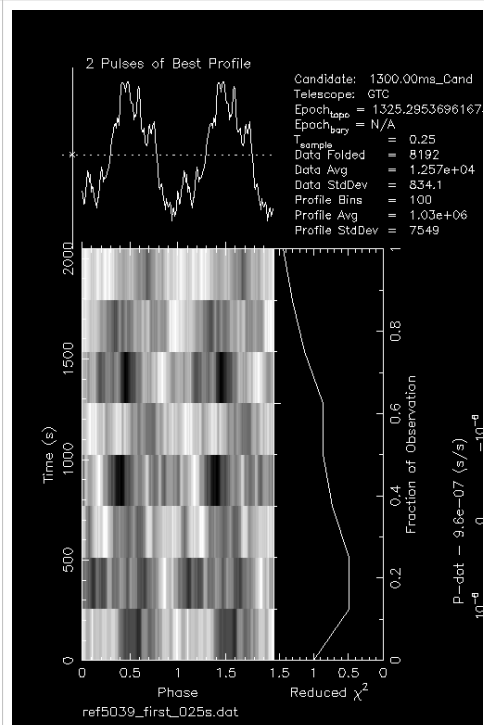
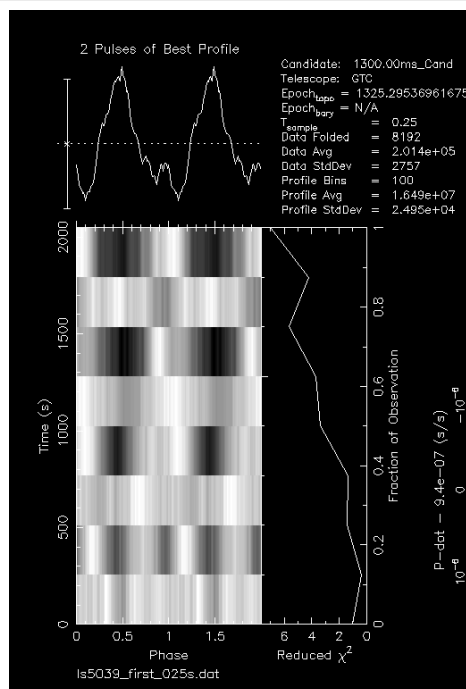
# Candidate 11

-p 1.29  
-pd  $9.6(10^{-7})$



# Candidate 14

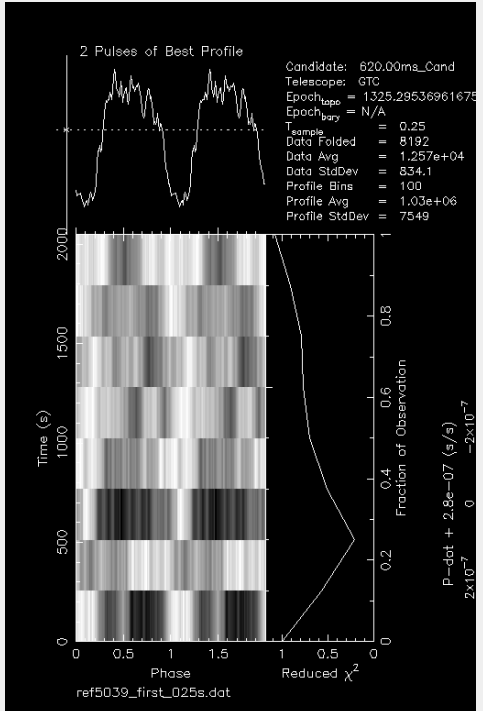
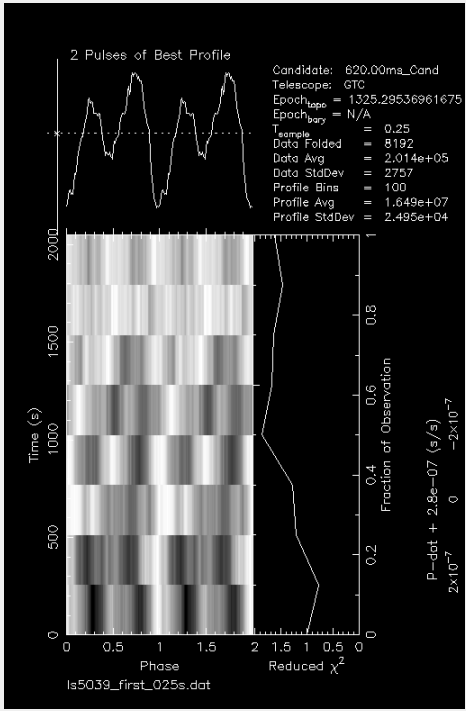
-p 1.27  
-pd  $9.4(10^{-7})$

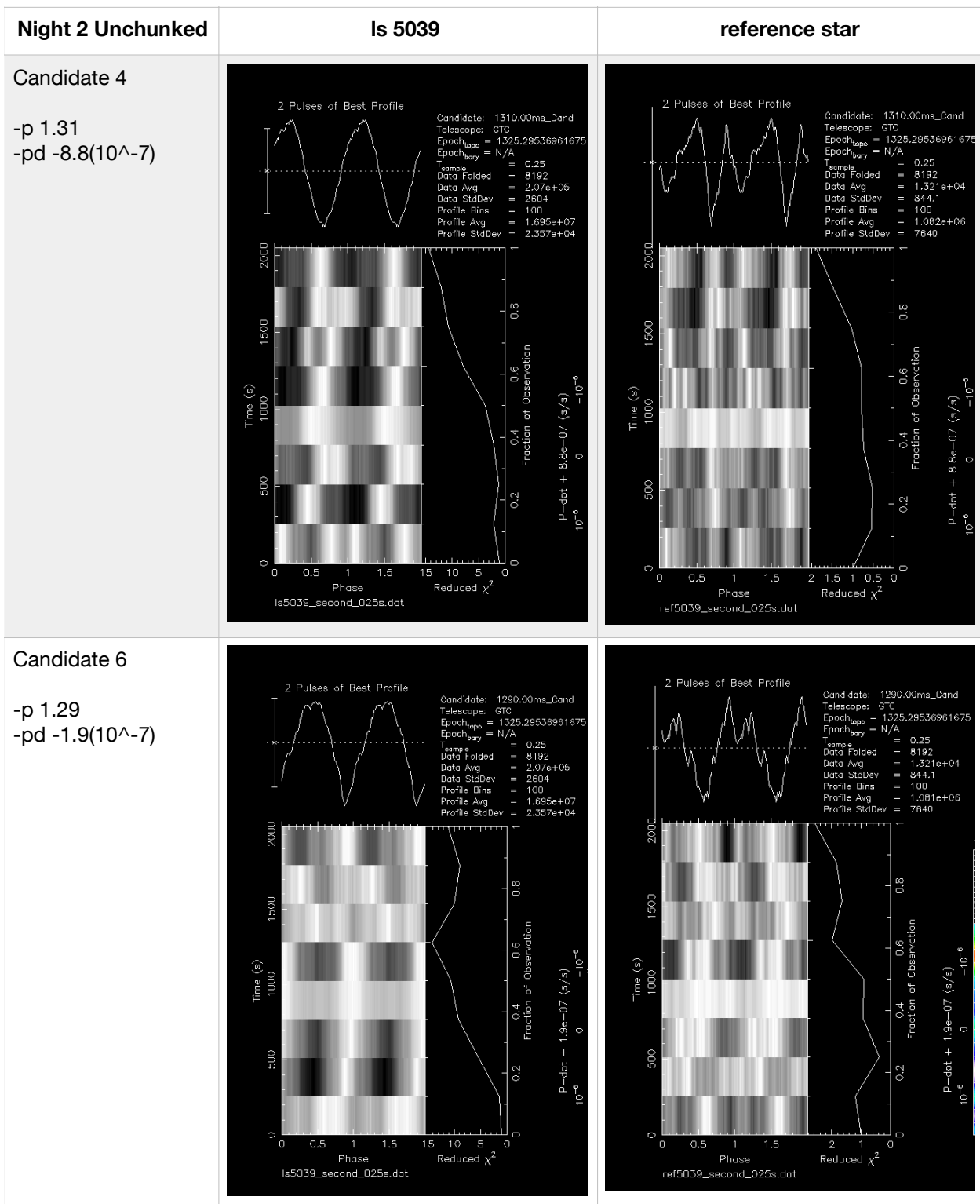




Candidate 15

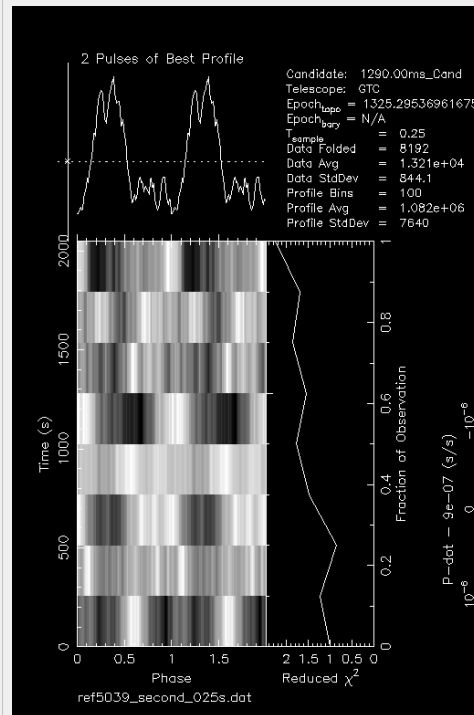
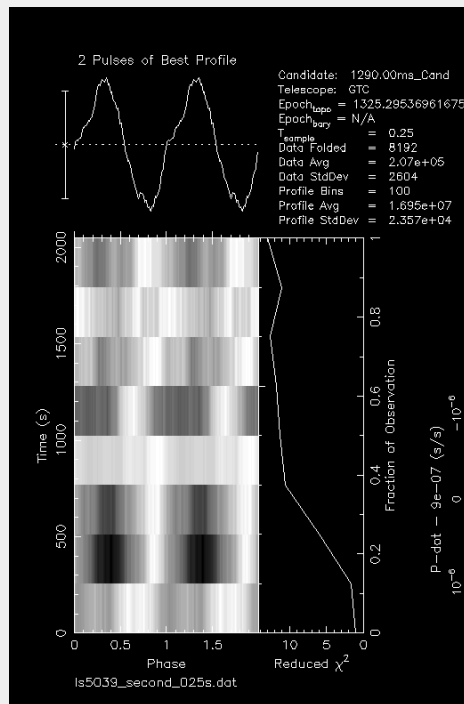
-p 0.62  
-pd -2.8(10<sup>-7</sup>)





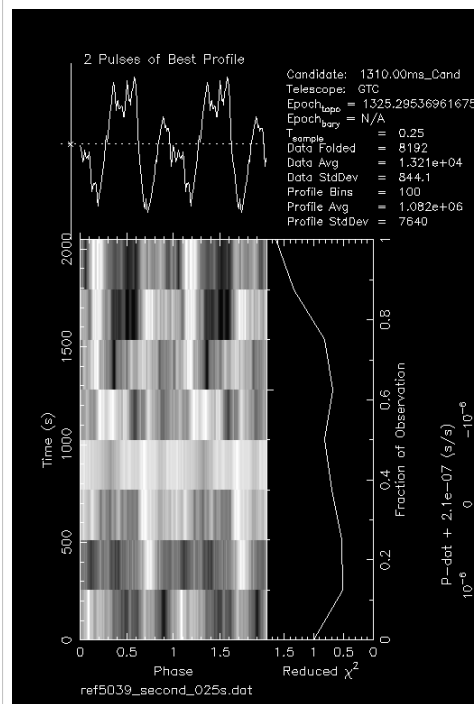
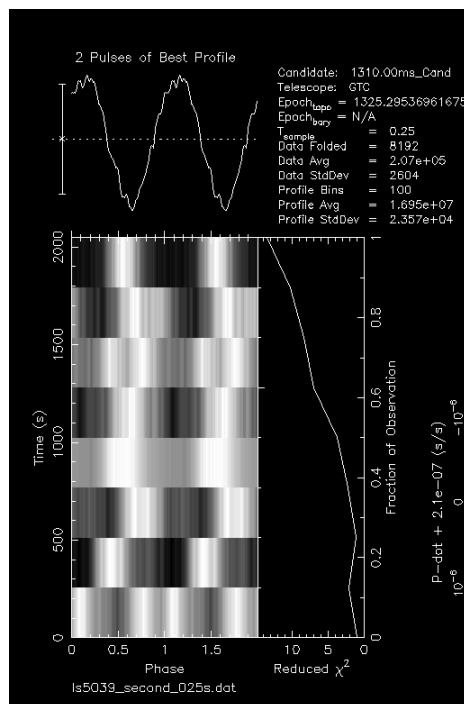
## Candidate 7

-p 1.29  
-pd  $0.9(10^{-7})$



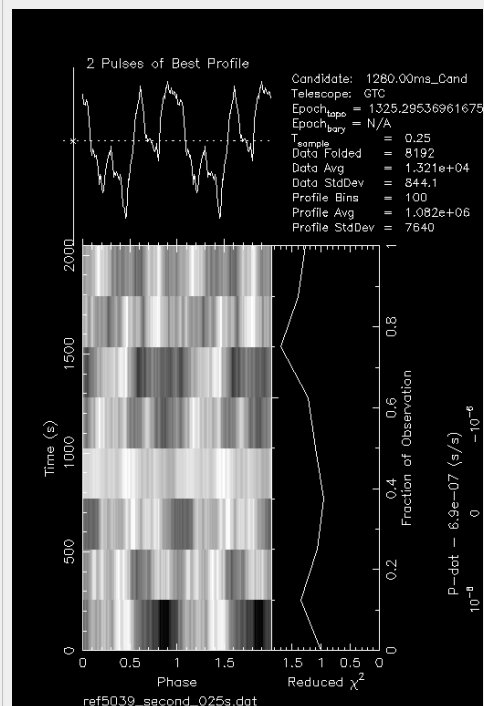
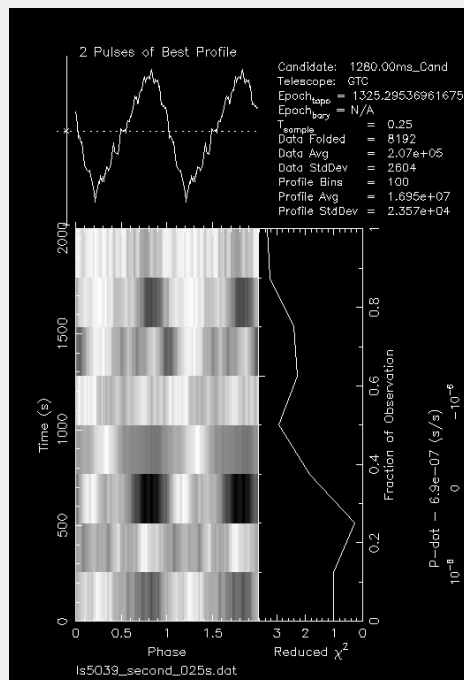
## Candidate 8

-p 1.31  
-pd  $-2.1(10^{-7})$



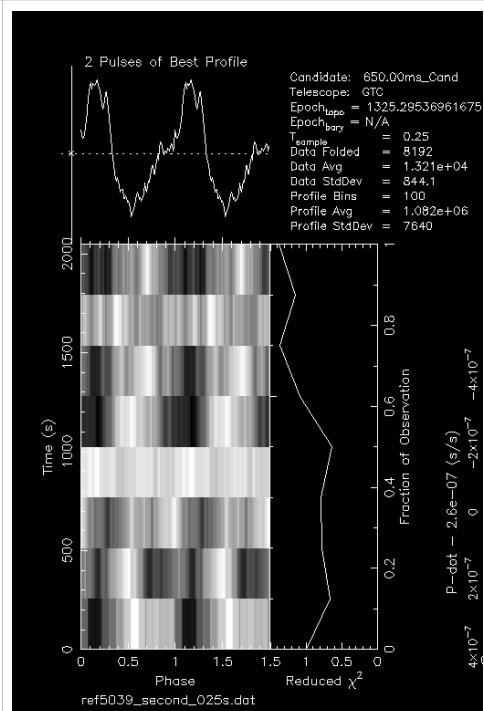
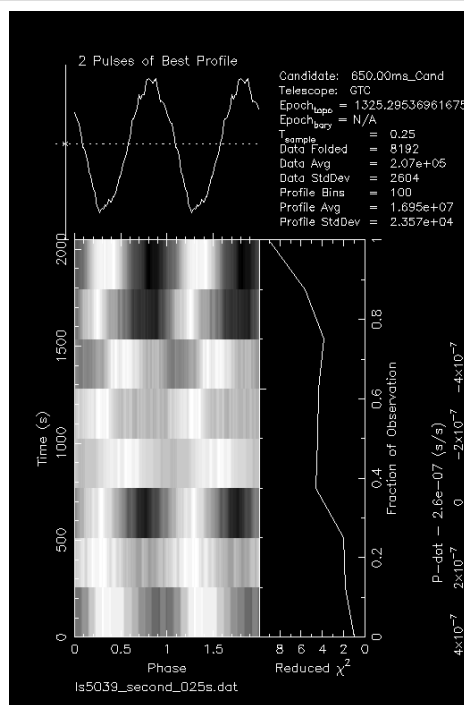
# Candidate 9

-p 1.28  
-pd 6.9(10<sup>-7</sup>)

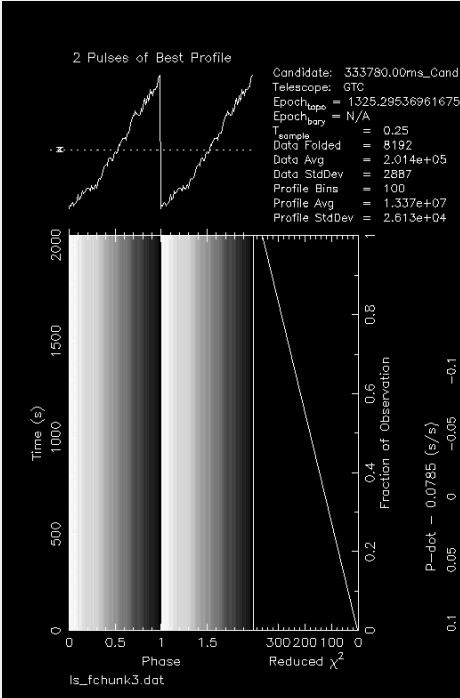
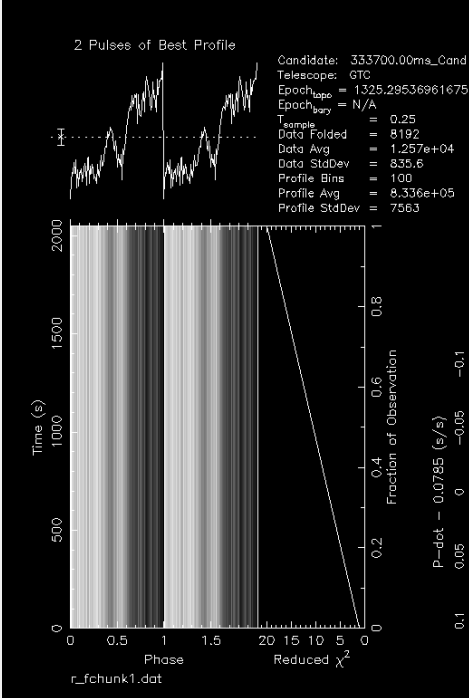


# Candidate 12

-p 0.65  
-pd 2.58(10<sup>-7</sup>)



Chunked at 16068 count multiples

Night 1 Chunked -p -pd values	Is 5039	reference star
<p>Chunk 1 (same values/graphs as the rest, looks wrong but I had nothing else from here to include)</p> <p>-p 333.7 -pd 0.0785</p>	 <p>2 Pulses of Best Profile</p> <p>Candidate: 333780.00ms_Cand Telescope: GTC Epoch<sub>1950</sub> = 1325.29536961675 Epoch<sub>J2000</sub> = N/A T<sub>sample</sub> = 0.25 Data_Folded = 8192 Data_Avg = 2.014e+05 Data_StdDev = 2887 Profile_Bins = 100 Profile_Avg = 1.337e+07 Profile_StdDev = 2.613e+04</p> <p>Time (s)</p> <p>Phase</p> <p>Fraction of Observation</p> <p>Reduced <math>\chi^2</math></p> <p>P-dot = 0.0785 (s/s)</p> <p>Is_fchunk3.dat</p>	 <p>2 Pulses of Best Profile</p> <p>Candidate: 333700.00ms_Cand Telescope: GTC Epoch<sub>1950</sub> = 1325.29536961675 Epoch<sub>J2000</sub> = N/A T<sub>sample</sub> = 0.25 Data_Folded = 8192 Data_Avg = 1.257e+04 Data_StdDev = 835.6 Profile_Bins = 100 Profile_Avg = 8.336e+05 Profile_StdDev = 7563</p> <p>Time (s)</p> <p>Phase</p> <p>Fraction of Observation</p> <p>Reduced <math>\chi^2</math></p> <p>P-dot = 0.0785 (s/s)</p> <p>r_fchunk1.dat</p>

Chunked at 28266 count multiples

Night 2 Chunked -p -pd values	Is 5039	reference star
Chunk 1 (same values/graphs as the rest)  -p 1.303 -pd 4.627(10^-7)	<p>2 Pulses of Best Profile</p> <p>Candidate: 1303.00ms_Cand Telescope: GTC Epoch<sub>hypo</sub> = 1325.28536961675 Epoch<sub>hary</sub> = N/A T<sub>sample</sub> = 0.25 Data Folded = 15360 Data Avg = 2.086e+05 Data StdDev = 2602 Profile Bins = 100 Profile Avg = 3.173e+07 Profile StdDev = 3.225e+04</p> <p>Time (s) 3000 2000 1000 0</p> <p>Phase 0 0.5 1 1.5 2 2.5 3 0</p> <p>Fraction of Observation 0 0.2 0.4 0.6 0.8 1</p> <p>Reduced <math>\chi^2</math> 0 1</p> <p>Is_schunk1.dat</p> <p>P-dot = 4.67e-07 (s/s) 4x10^-7 2x10^-7 0 -2x10^-7 -4x10^-7</p>	<p>2 Pulses of Best Profile</p> <p>Candidate: 1303.00ms_Cand Telescope: GTC Epoch<sub>hypo</sub> = 1325.28536961675 Epoch<sub>hary</sub> = N/A T<sub>sample</sub> = 0.25 Data Folded = 15360 Data Avg = 1.31e+04 Data StdDev = 814.3 Profile Bins = 100 Profile Avg = 2.011e+06 Profile StdDev = 1.009e+04</p> <p>Time (s) 3000 2000 1000 0</p> <p>Phase 0 0.5 1 1.5 2 2.5 3 0</p> <p>Fraction of Observation 0 0.2 0.4 0.6 0.8 1</p> <p>Reduced <math>\chi^2</math> 0 1</p> <p>r_schunk1.dat</p> <p>P-dot = 4.63e-07 (s/s) 4x10^-7 2x10^-7 0 -2x10^-7 -4x10^-7</p>