

# KIC 007468318

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007468318-01	OBS	No	426.421152	218.060743	168.6	3.500	8.7	-1.0	51.93	4041	63.39	355.38

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007468318-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

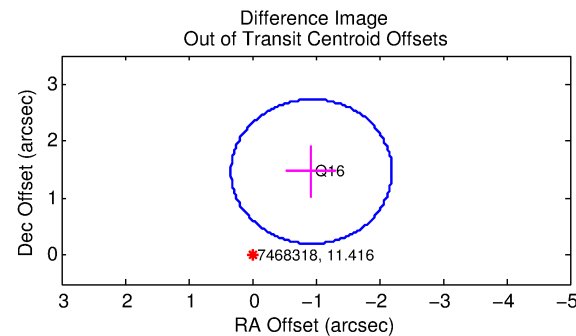
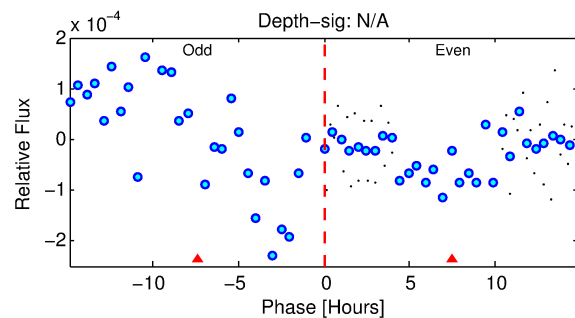
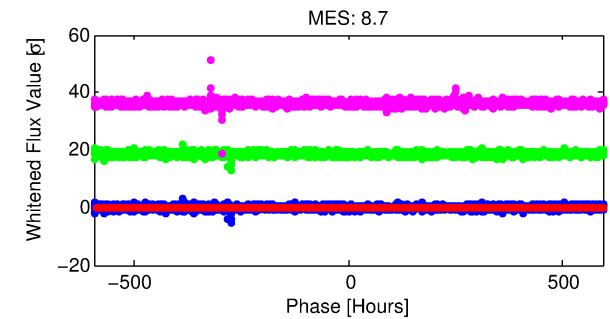
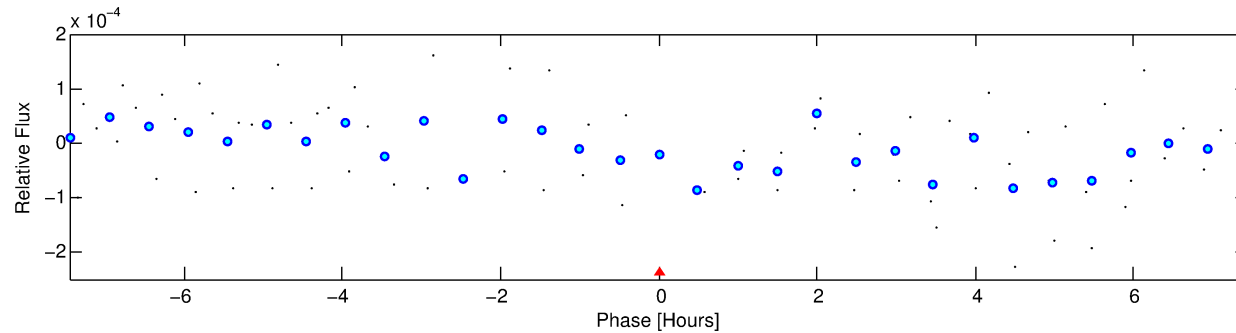
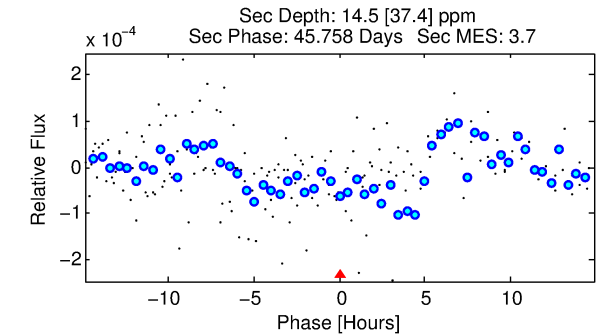
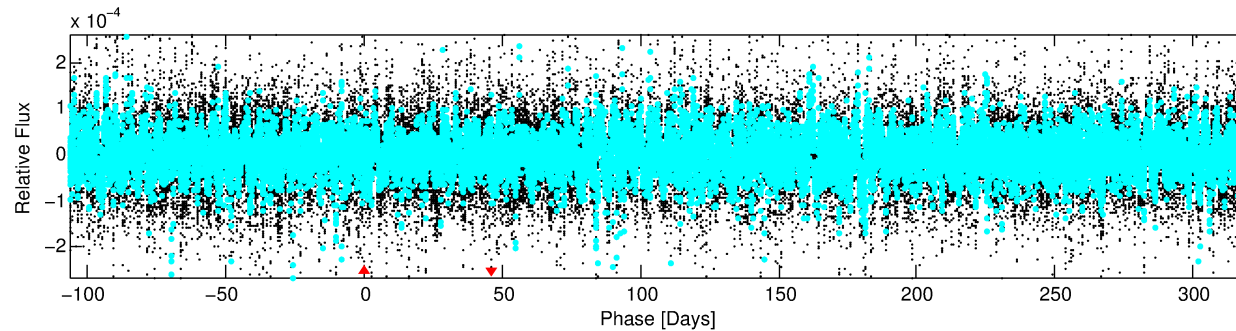
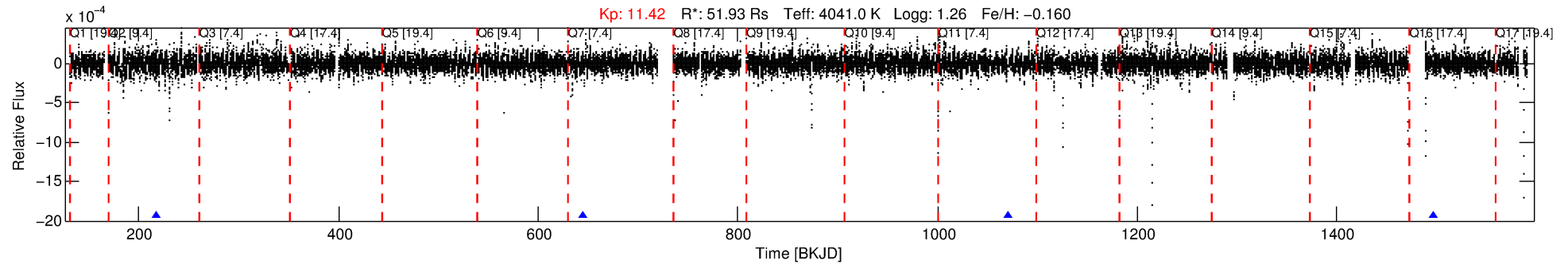
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007468318-01

No Significant Match Found

# DV One-Page Summary

KIC: 7468318 Candidate: 1 of 1 Period: 426.421 d



## TPS TCE Results:

Period = 426.42115 d  
Epoch = 218.0607 BKJD

DV fit results are unavailable

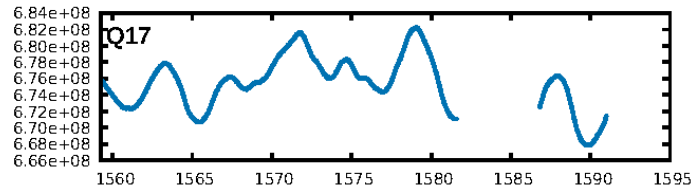
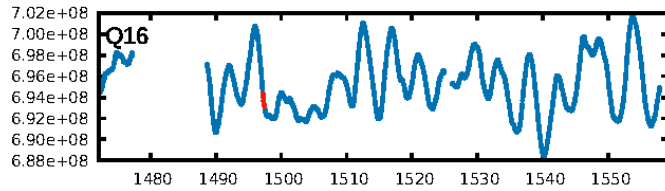
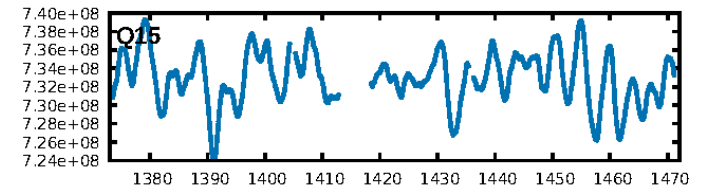
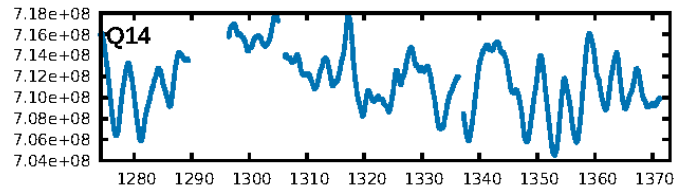
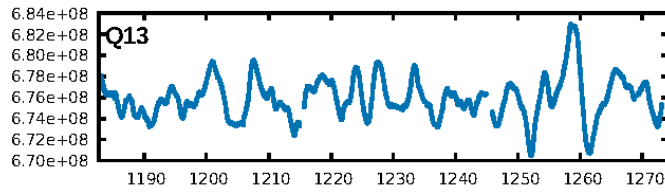
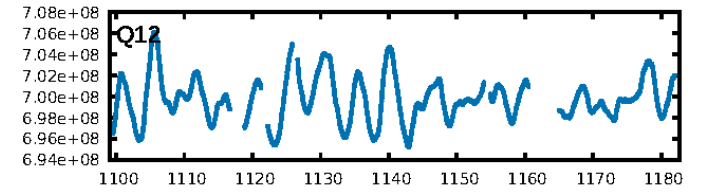
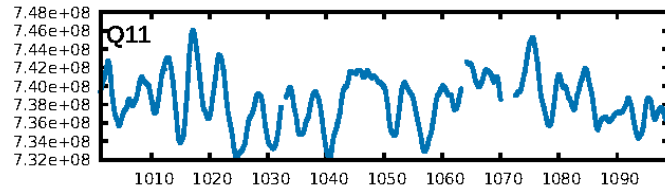
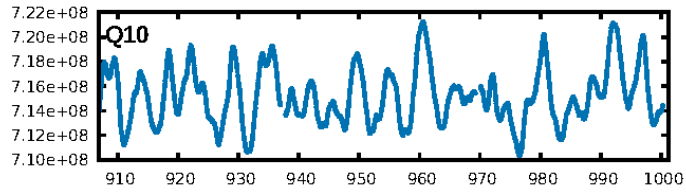
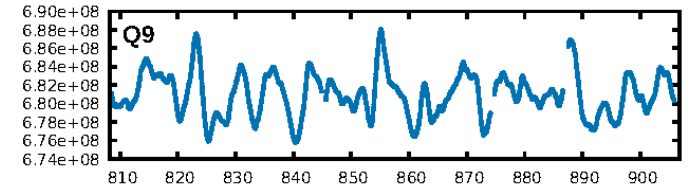
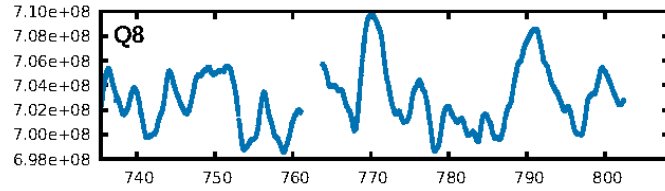
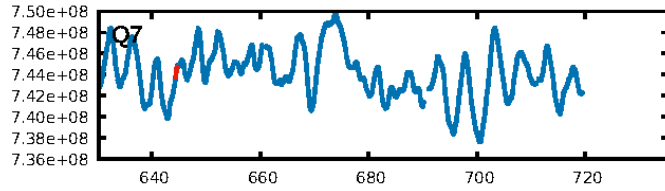
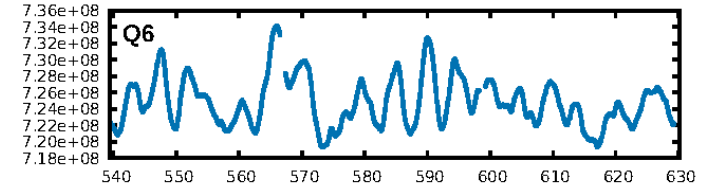
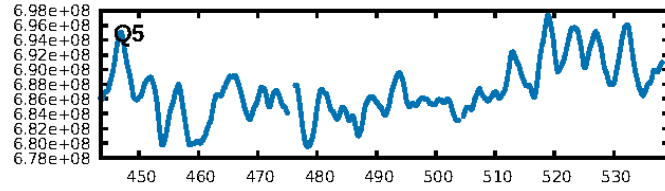
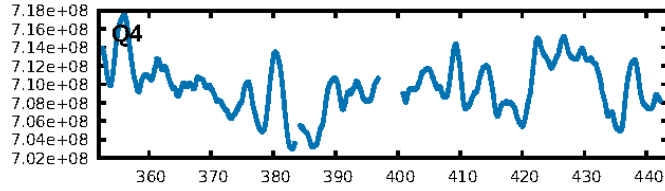
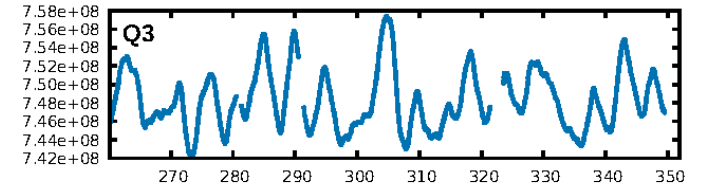
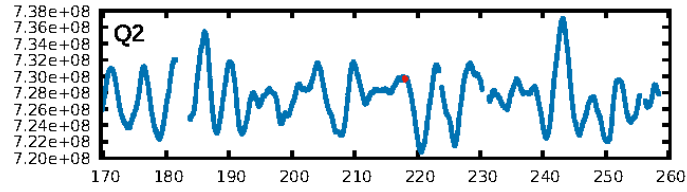
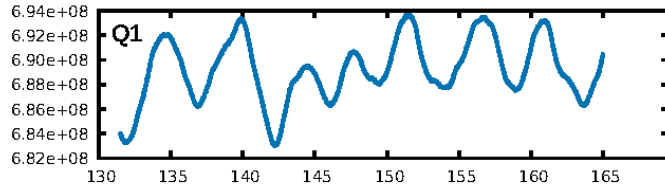
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 5.38e-05  
RollingBand-fgt: 1.00 [2/2]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 1.740 arcsec [4.13σ]  
KicOffset-rm: 1.567 arcsec [3.70σ]  
OotOffset-st: 0/0/1/0 [1]  
KicOffset-st: 0/0/1/0 [1]  
DiffImageQuality-fgm: 1.00 [1/1]  
DiffImageOverlap-fno: 1.00 [2/2]

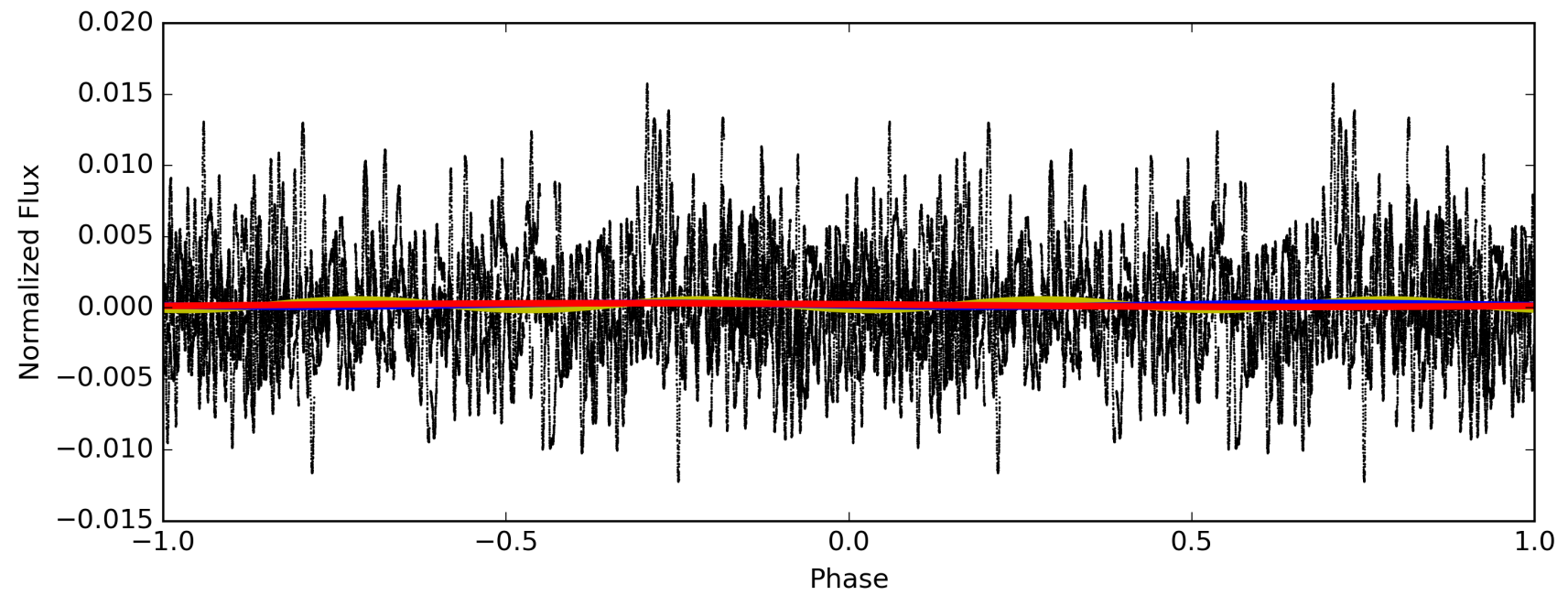
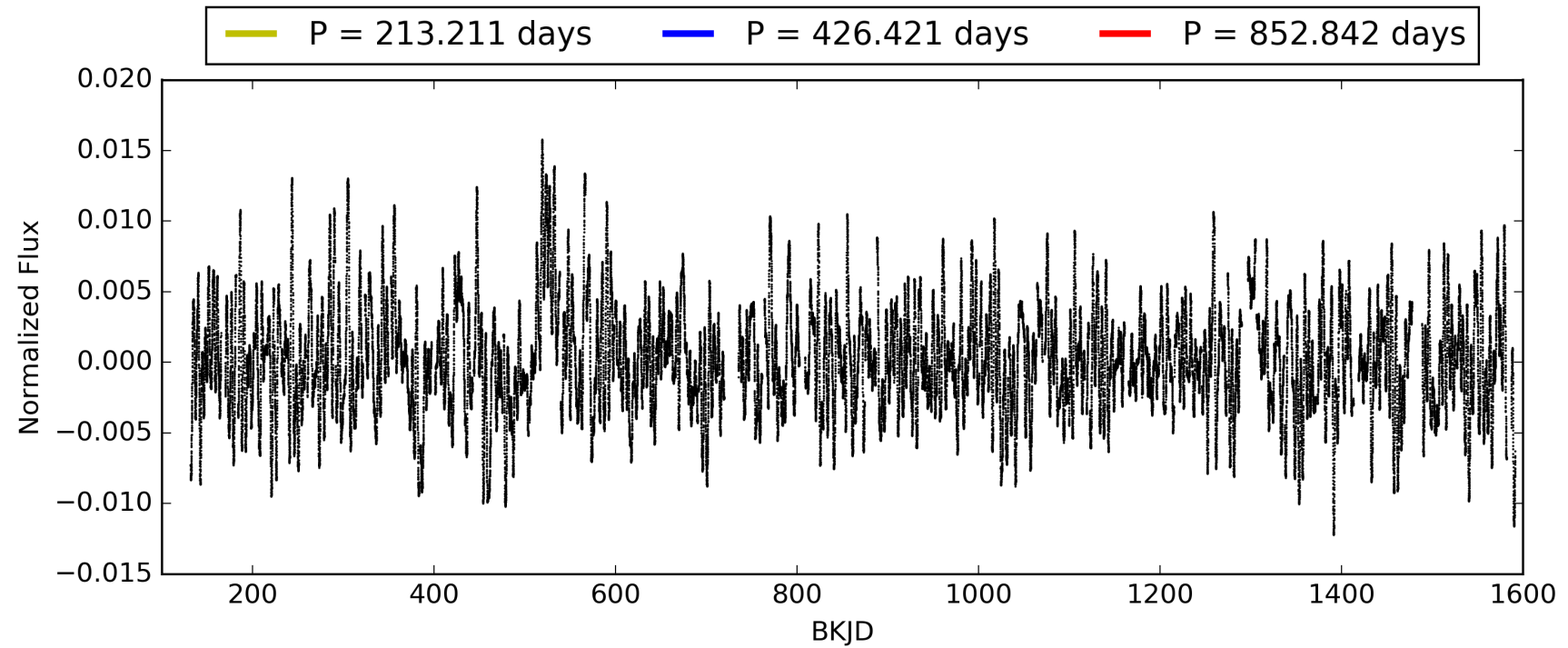
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:33:01 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 007468318-01, PDC Light Curves

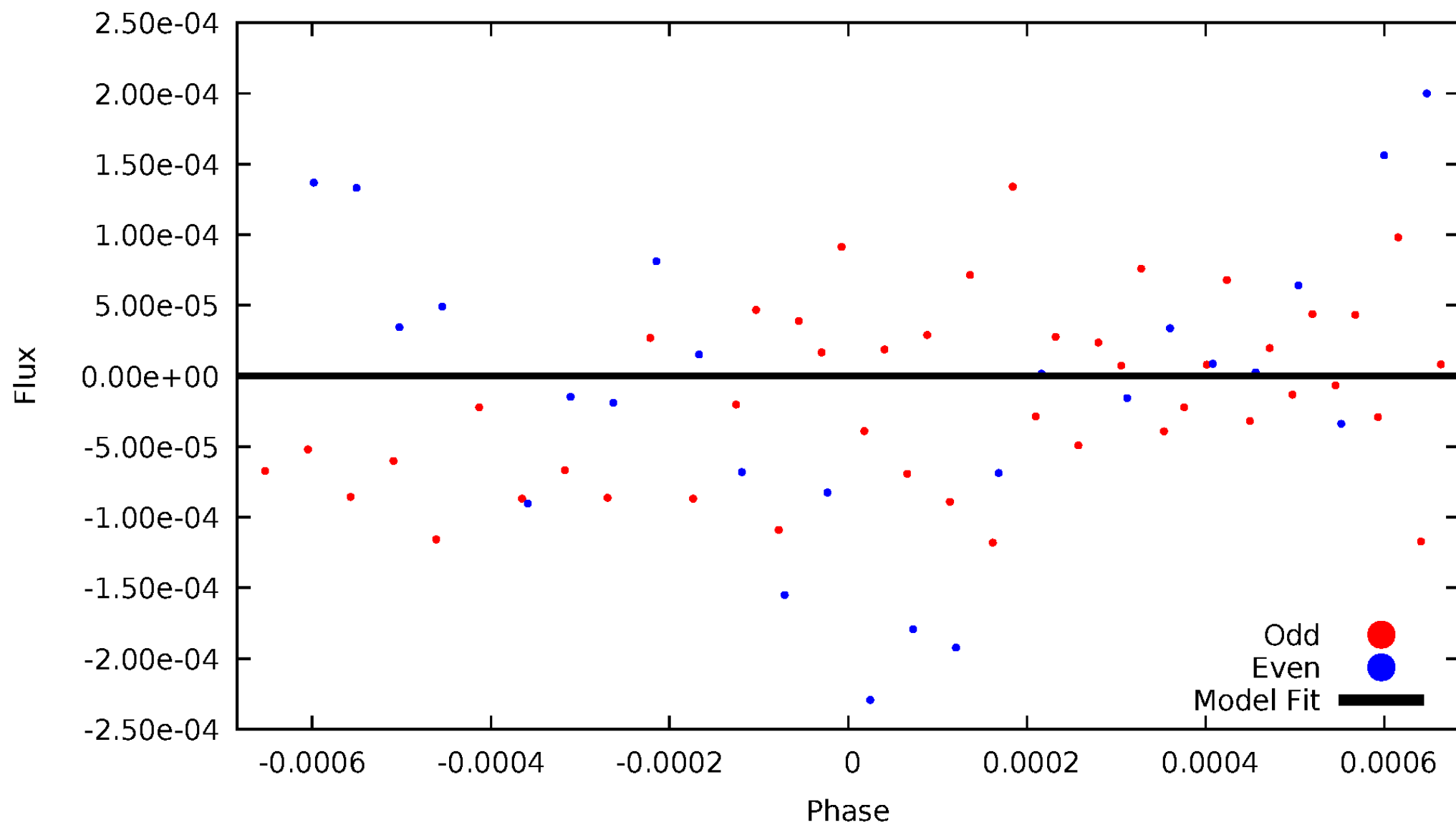


TCE 007468318-01



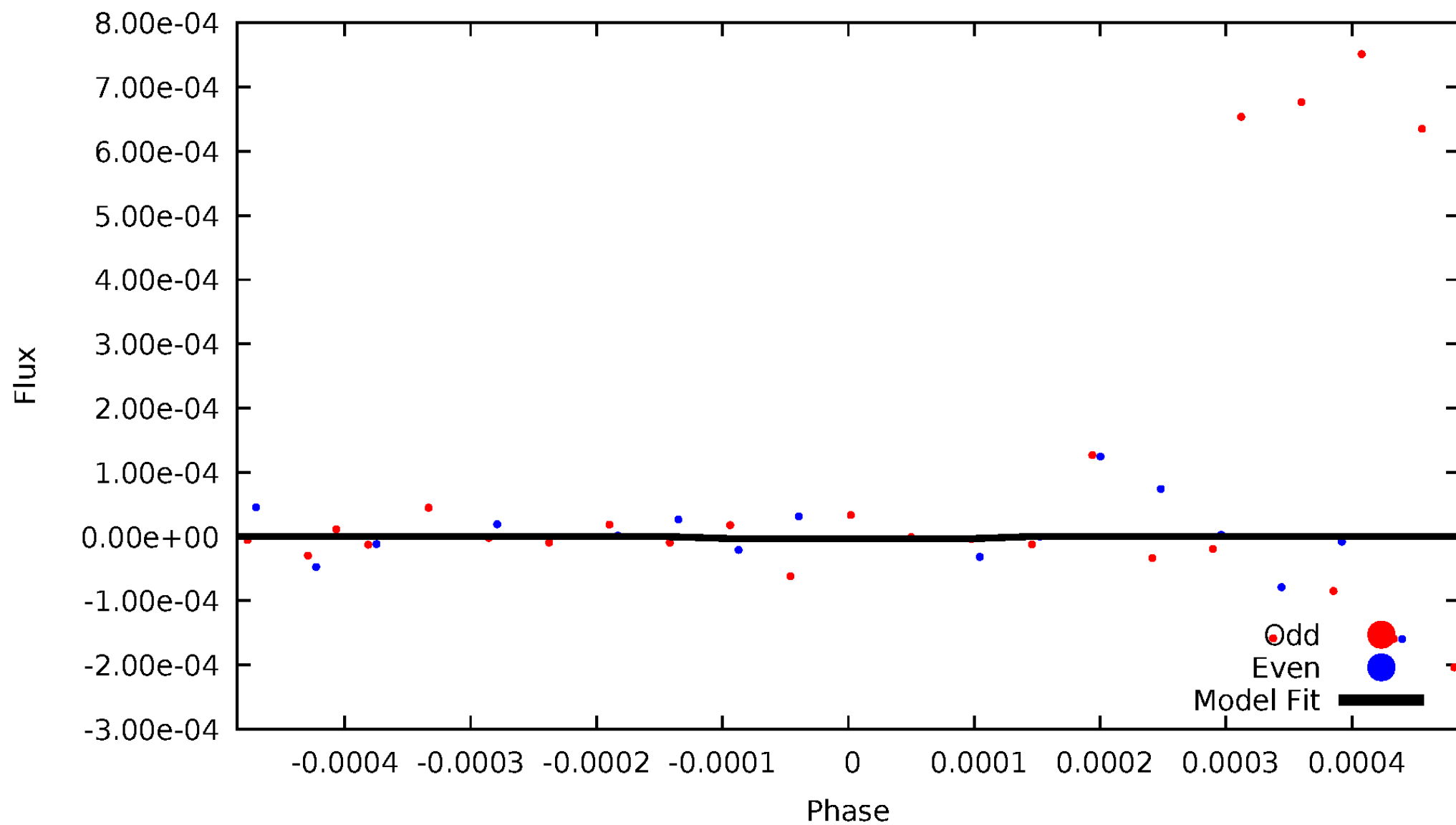
# DV Odd/Even

TCE 007468318-01

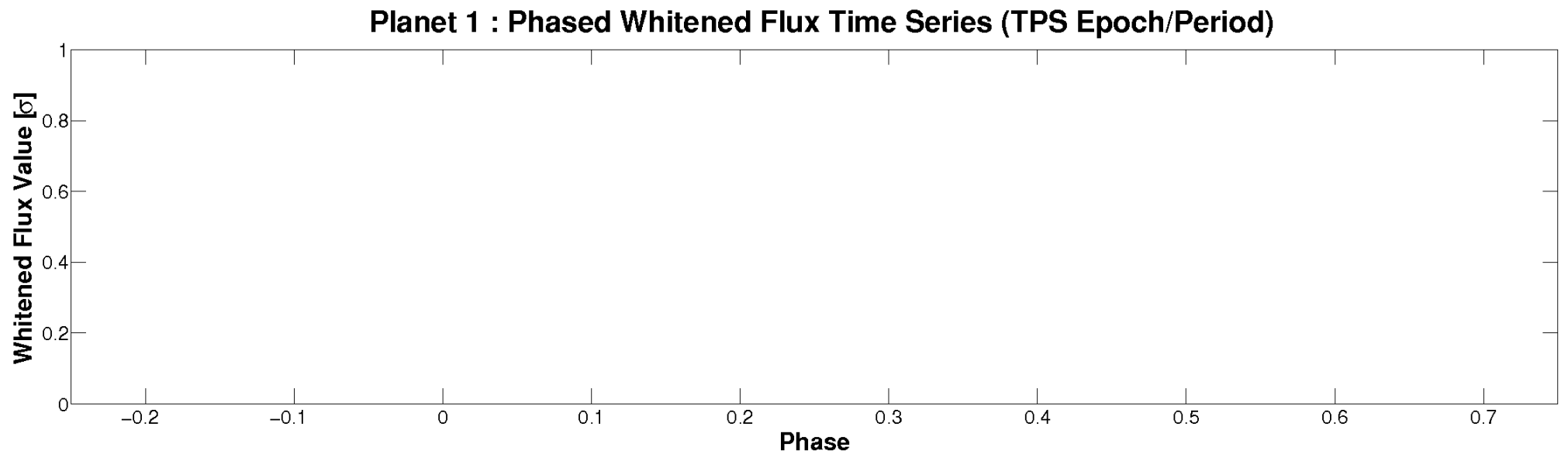
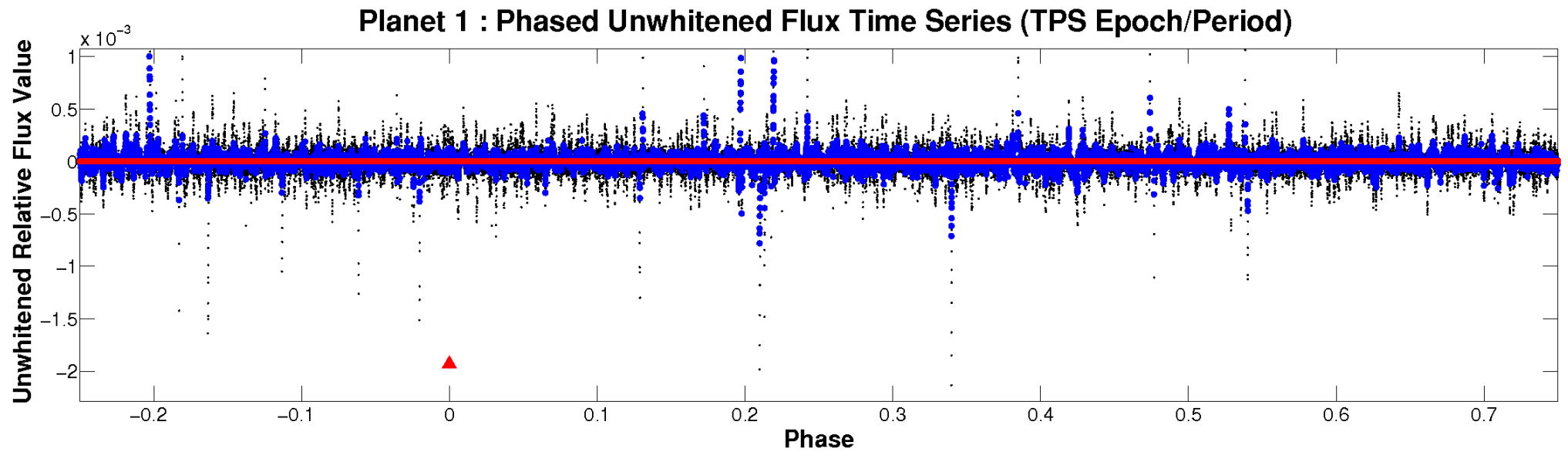


# ALT Odd/Even

TCE 007468318-01

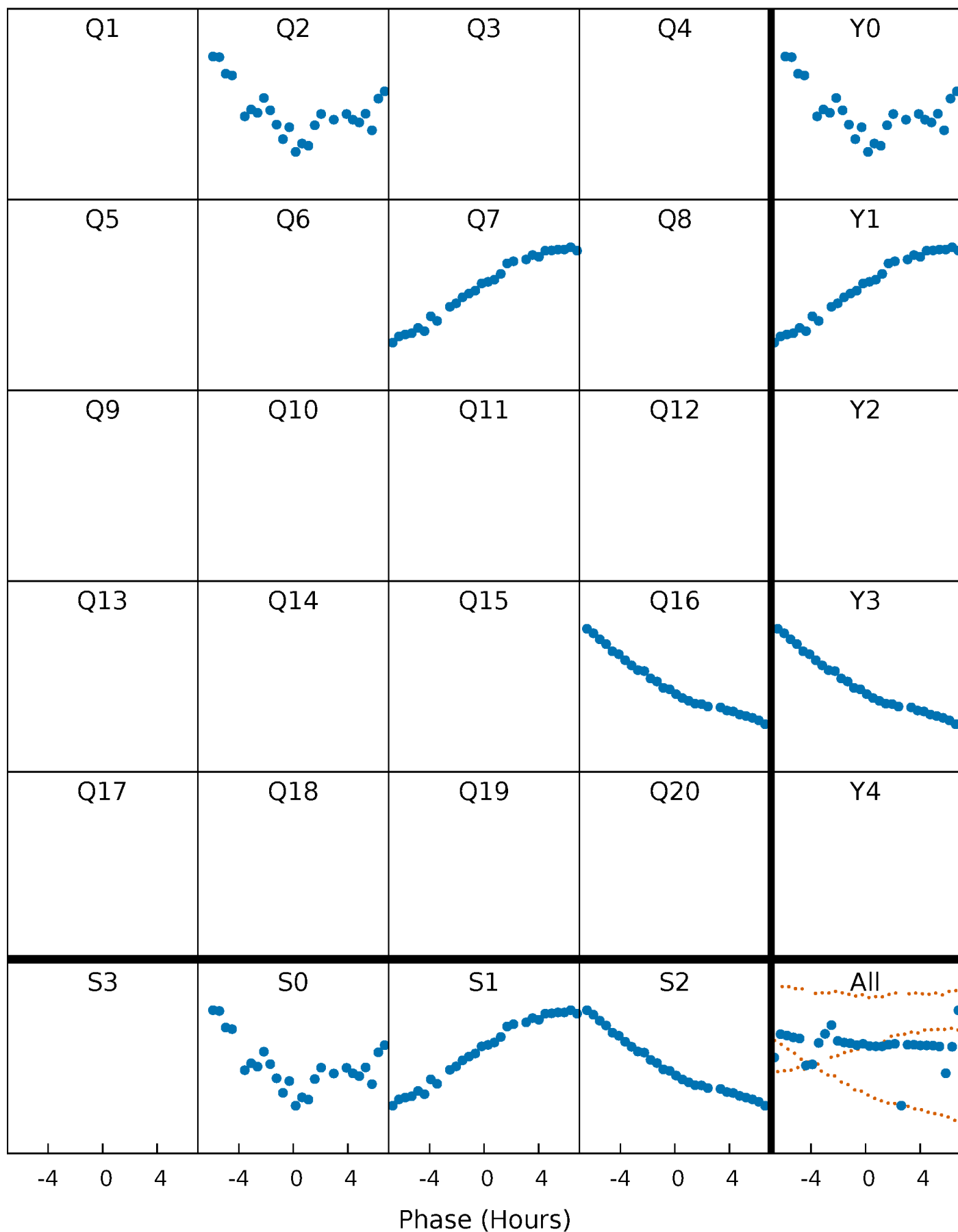


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

TCE 007468318-01 P=426.421152 Days  $T_0=218.060743$  (BKJD)





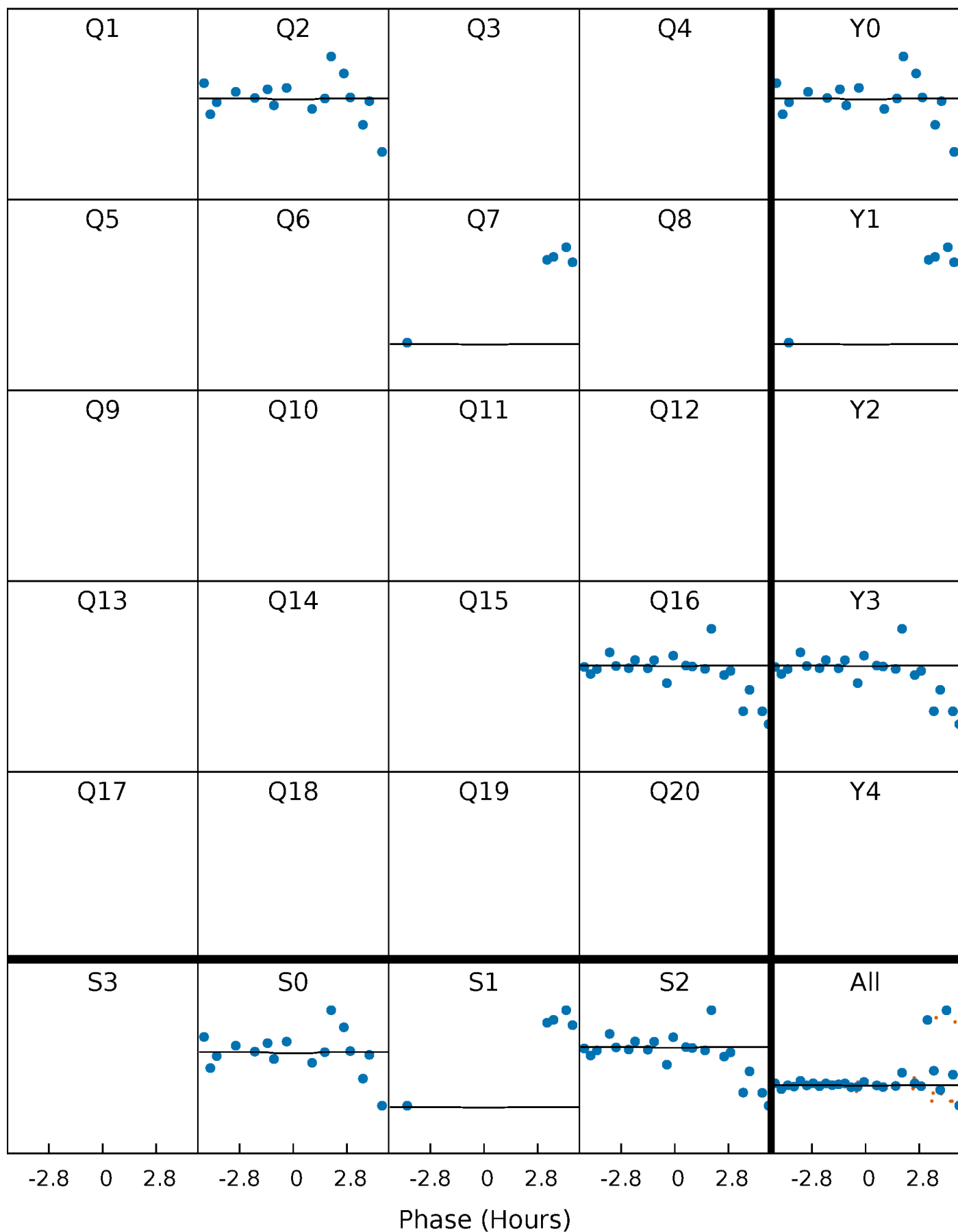
# DV Quarter-Phased Transit Curves

TCE 007468318-01 P=426.421152 Days  $T_0=218.060743$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

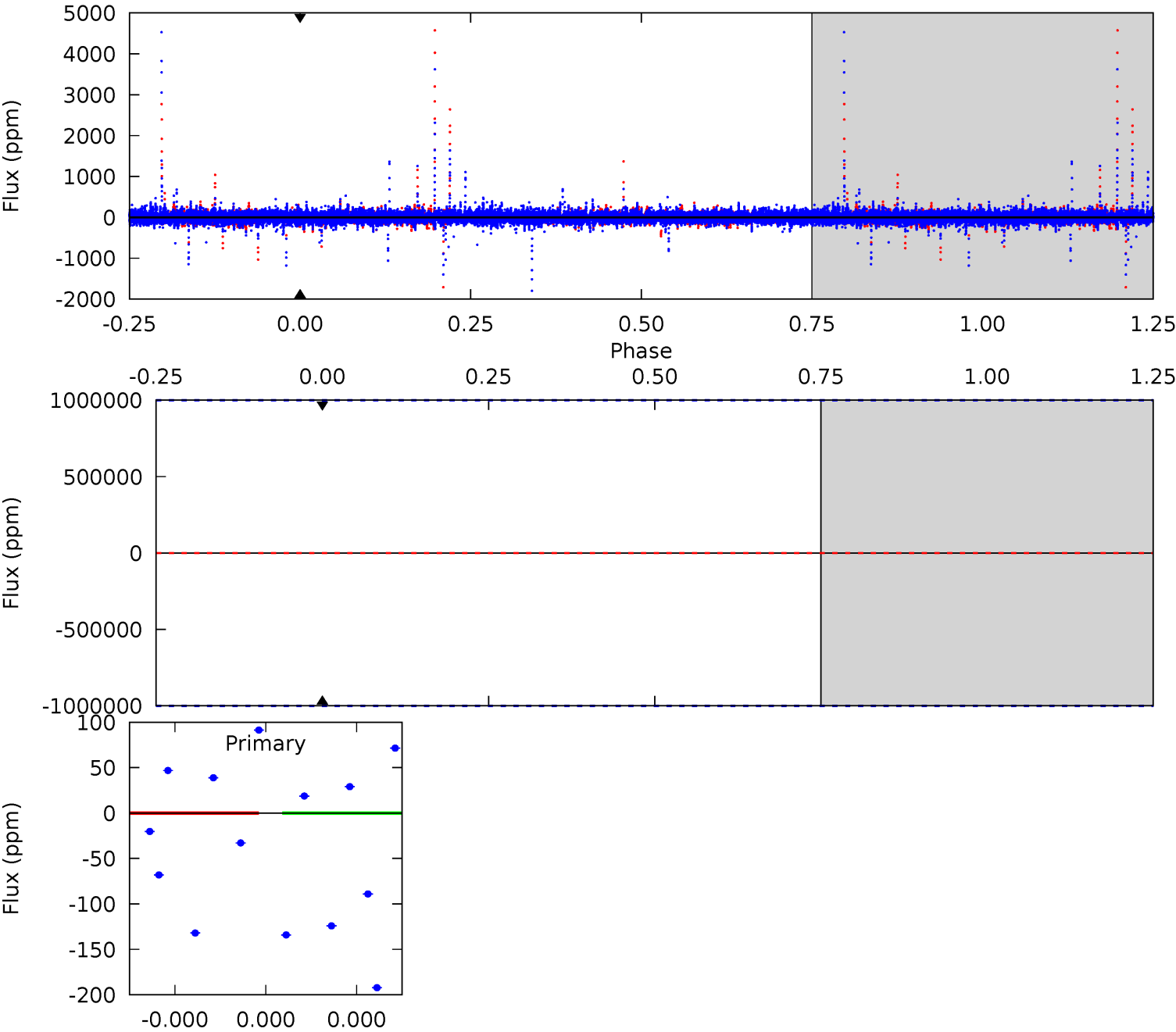
TCE 007468318-01 P=426.421152 Days  $T_0=217.883651$  (BKJD)



# DV Model-Shift Uniqueness Test

007468318-01, P = 426.421152 Days, E = 218.060743 Days

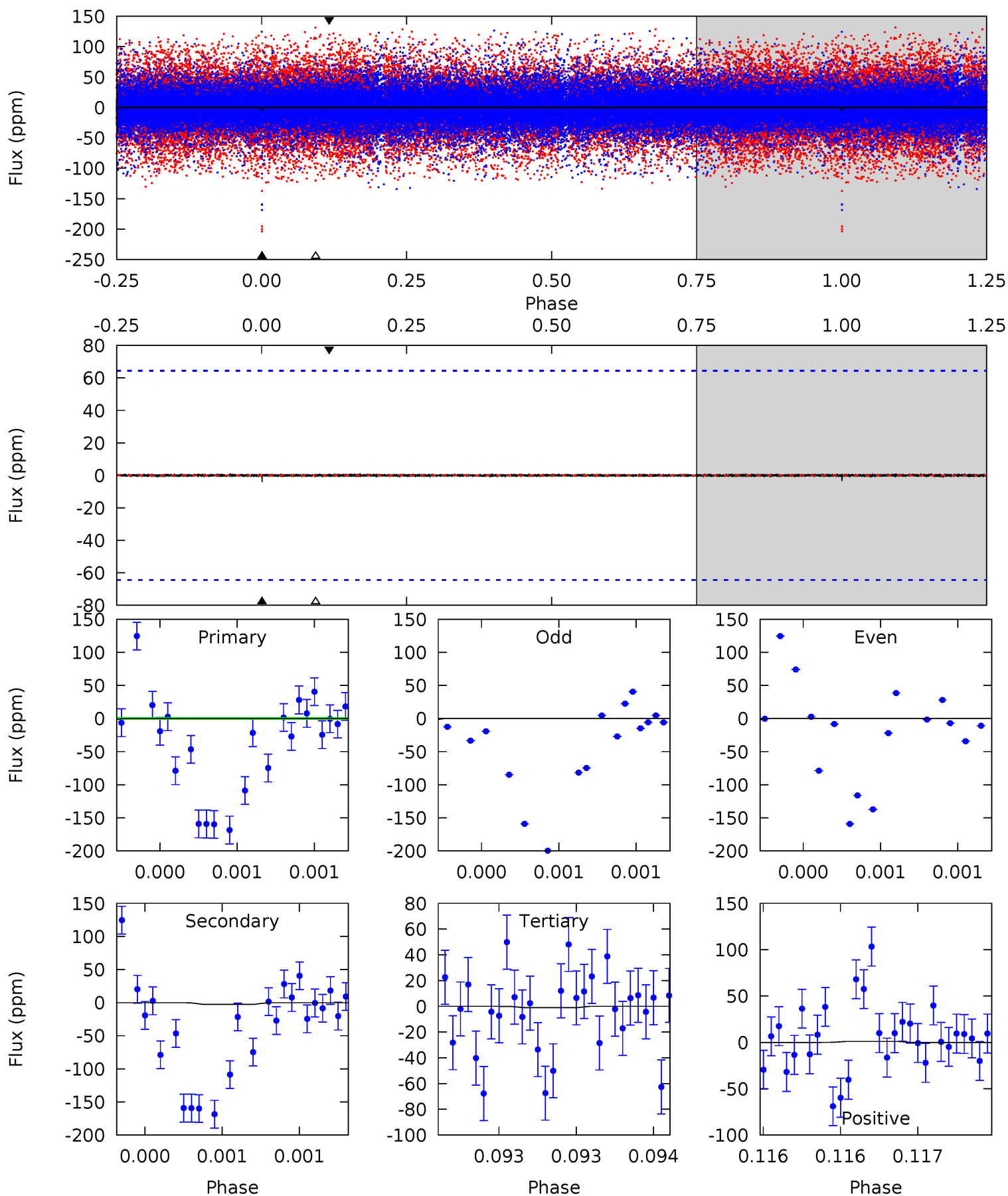
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

007468318-01, P = 426.421152 Days, E = 217.883651 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.31	0.22	0.09	0.09	5.67	3.63	0.02	0.22	0.22	0.12	0.13	0.05	1.00	0.22	0.30



### Stellar Parameters For KIC 007468318

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$4041^{+80}_{-111}$	$1.260^{+0.030}_{-0.027}$	$-0.160^{+0.200}_{-0.250}$	$51.934^{+1.870}_{-10.595}$	$1.791^{+0.072}_{-0.645}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+2%/-2%	+125%/-156%	+4%/-20%	+4%/-36%	+30%/-8%
Source	PHO54	AST54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 007468318-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 1000000$	$406.02^{+443.38}_{-292.07}$	$1544^{+40}_{-50}$	$2877^{+7889}_{-12361}$	$3.777^{+1501.214}_{-975.329}$
Alt.	$-2 \pm 11$	$405.89^{+433.67}_{-279.20}$	$1546^{+36}_{-45}$	$-2125^{+237}_{-66}$	$0.010^{+0.204}_{-0.064}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

$T_{obs}$  = Observed Planetary Temperature (Assuming A=0.3)

$A_{obs}$  = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$

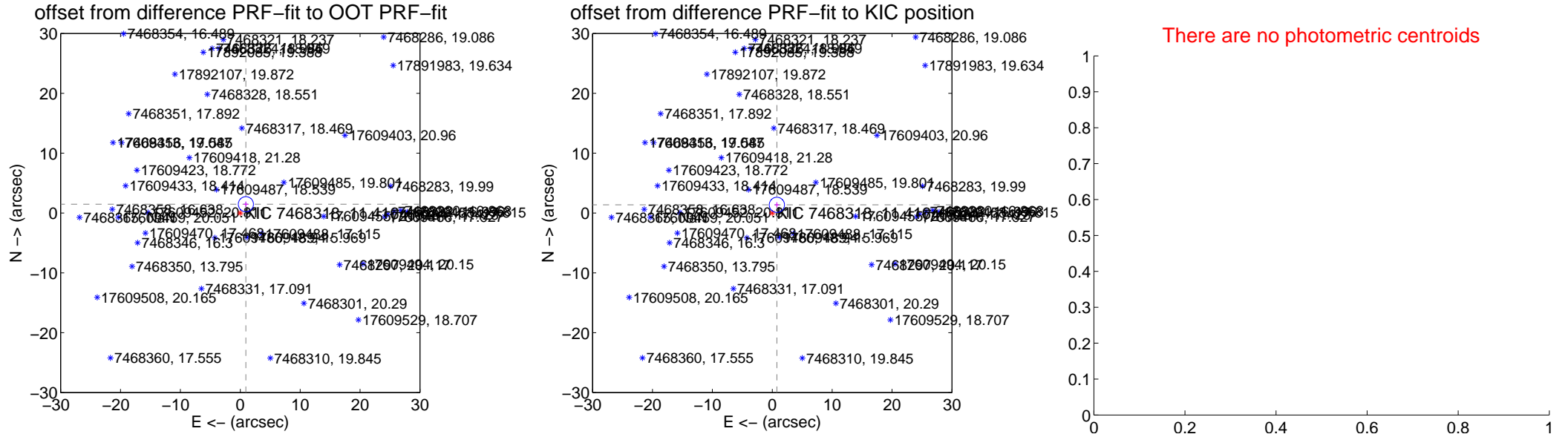
## DV Centroid Data

Supplemental centroid analysis for 007468318-01. **Kepler magnitude: 11.42.** Transit SNR -1.00

**There are 1 quarters with good PRF difference image offsets**

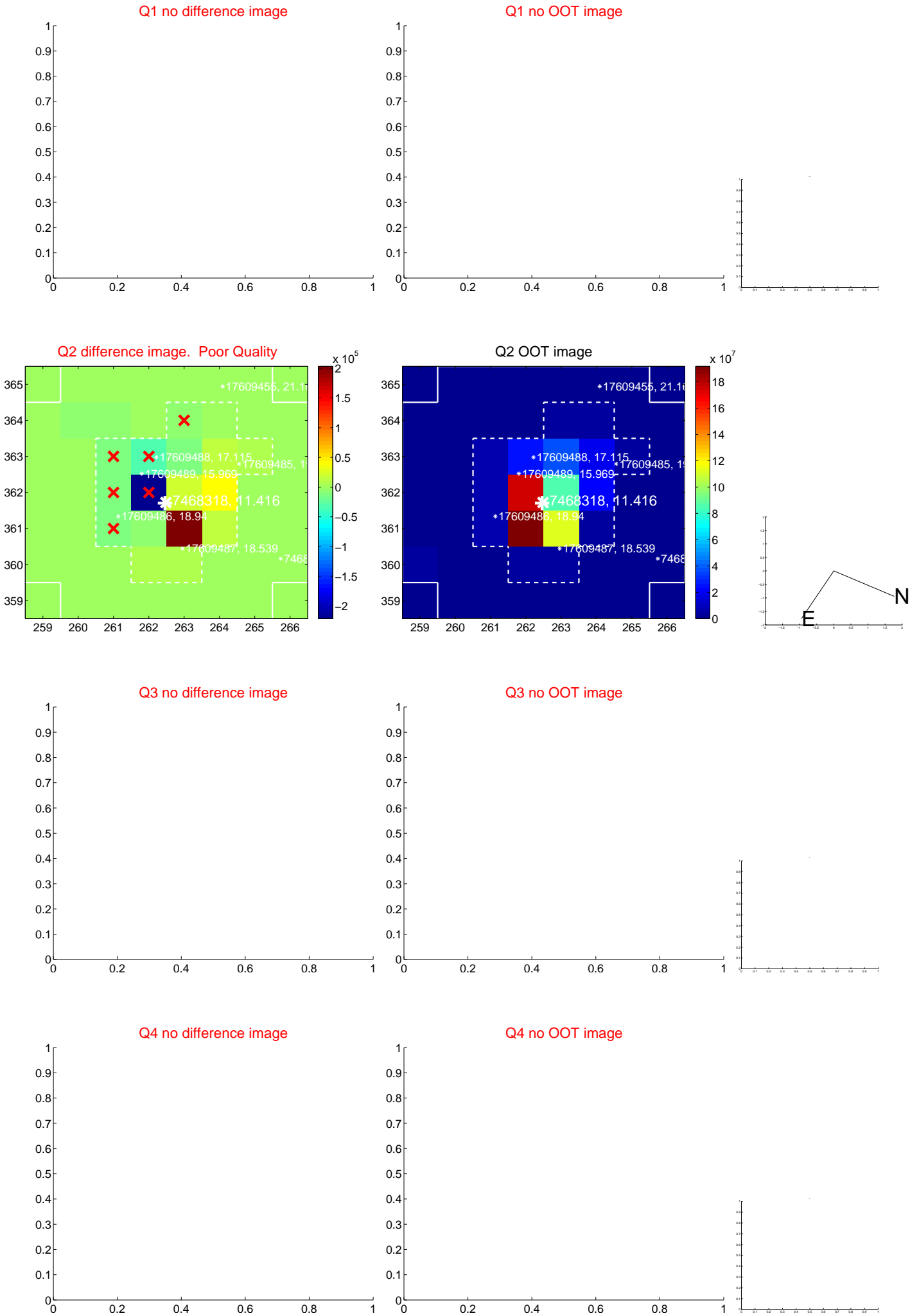
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b>1.740 <math>\pm</math> 0.421</b>	<b>4.13</b>	-0.934 $\pm$ 0.387	1.468 $\pm$ 0.434
PRF-fit source offset from KIC position	<b>1.567 <math>\pm</math> 0.423</b>	<b>3.70</b>	-0.771 $\pm$ 0.387	1.364 $\pm$ 0.434
photometric centroid source offset	—	—	—	—



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

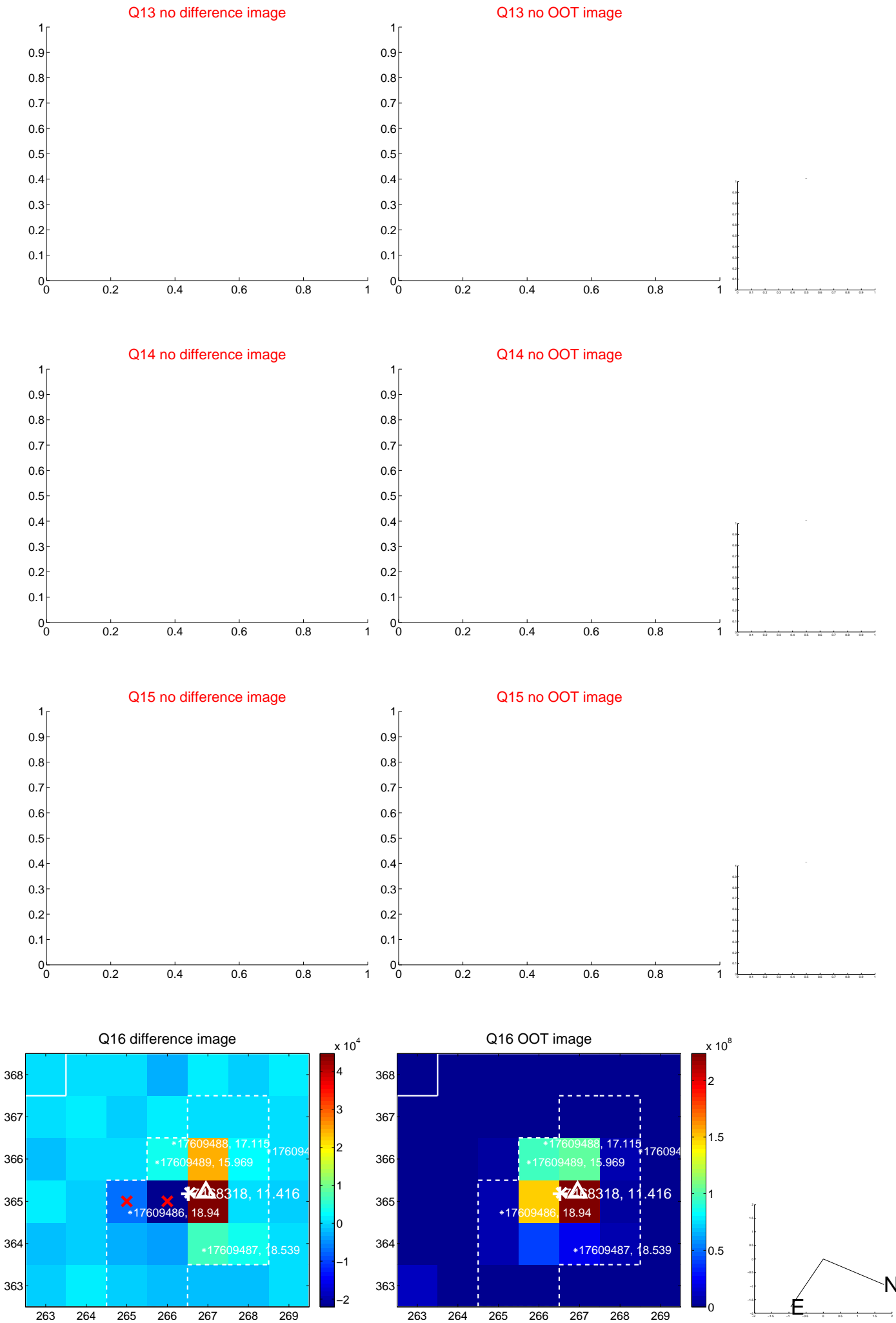




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

