

# KIC 006692833

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006692833-01	OBS	1244.01	10.804871	134.095118	308.2	3.525	24.6	26.1	1.00	6092	2.31	128.00

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006692833-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

**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.

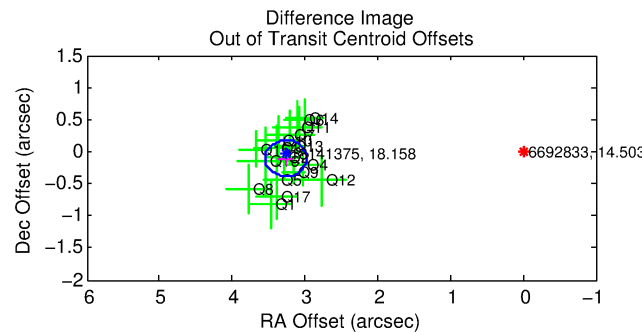
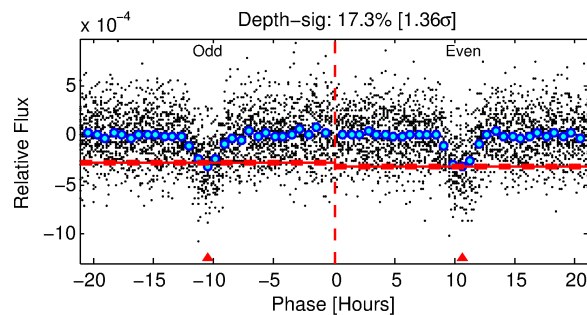
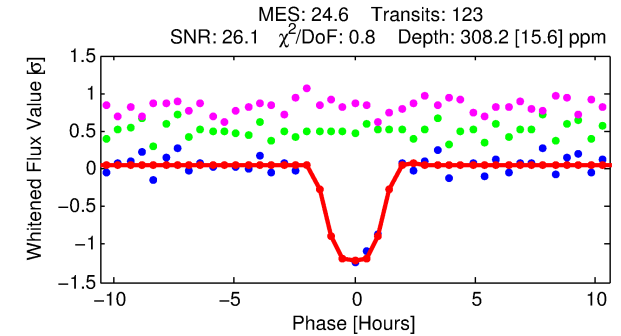
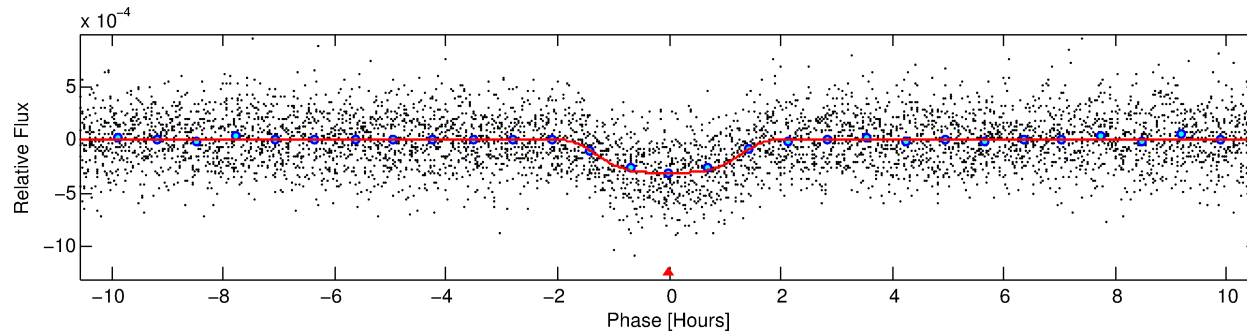
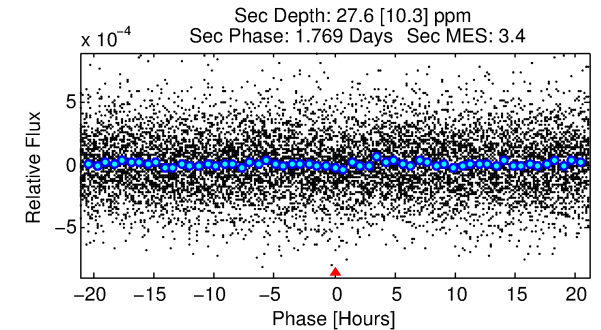
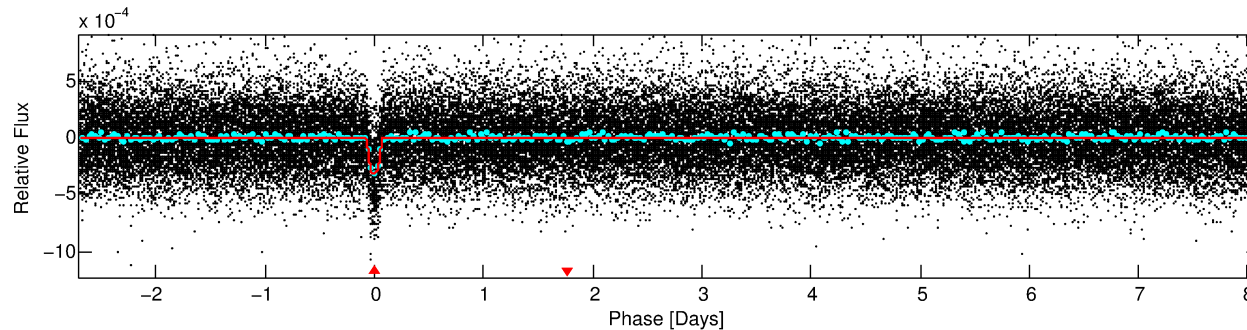
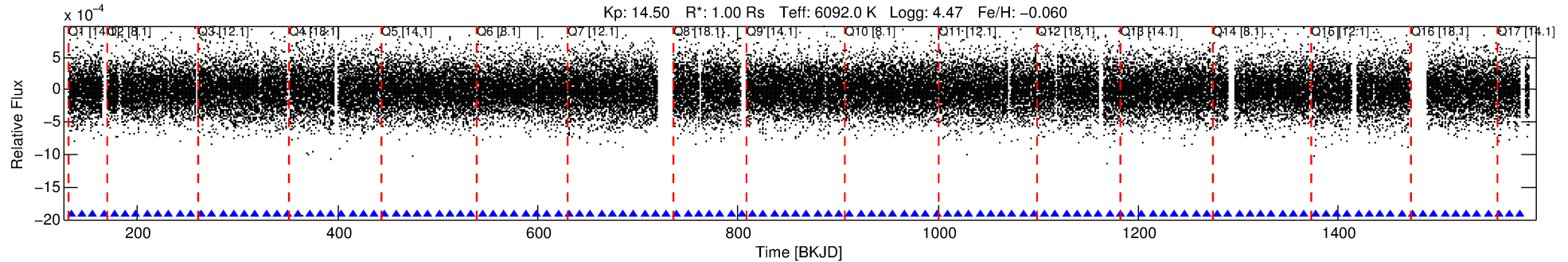
## Ephemeris Match Information For 006692833-01

No Significant Match Found

# DV One-Page Summary

KIC: 6692833 Candidate: 1 of 1 Period: 10.805 d  
KOI: K01244.01 Corr: 0.894

Kp: 14.50 R\*: 1.00 Rs Teff: 6092.0 K Logg: 4.47 Fe/H: -0.060



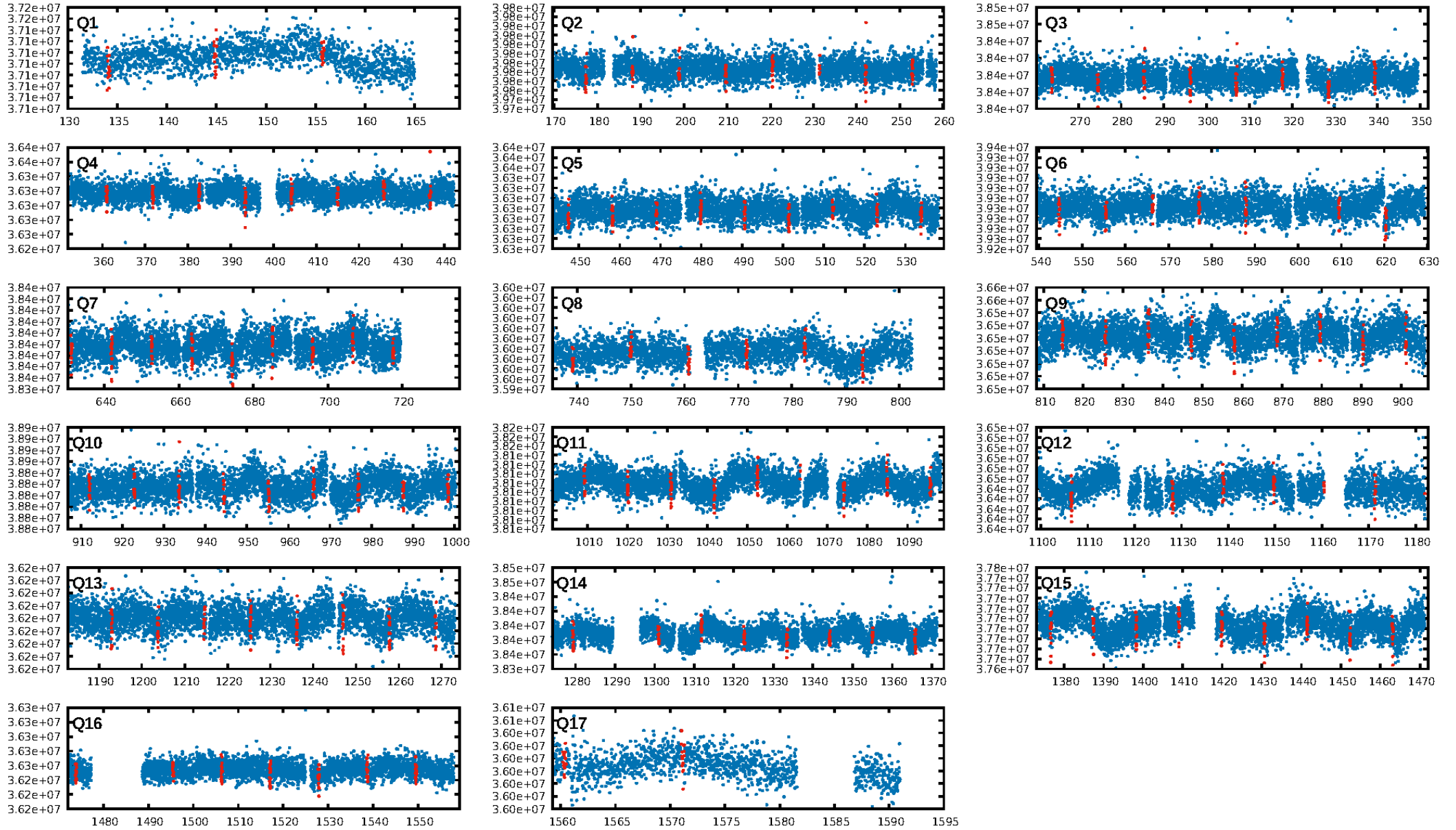
## DV Fit Results:

Period = 10.80487 [0.00004] d  
Epoch = 134.0951 [0.0031] BKJD  
Rp/R\* = 0.0212 [0.0008]  
a/R\* = 7.41 [0.80]  
b = 0.97 [0.01]  
Seff = 128.00 [49.11]  
Teq = 858 [82] K  
Rp = 2.31 [0.69] Re  
a = 0.0980 [0.0242] AU  
Ag = 27.39 [14.32] [1.84σ]  
Teffp = 3034 [307] K [6.84σ]

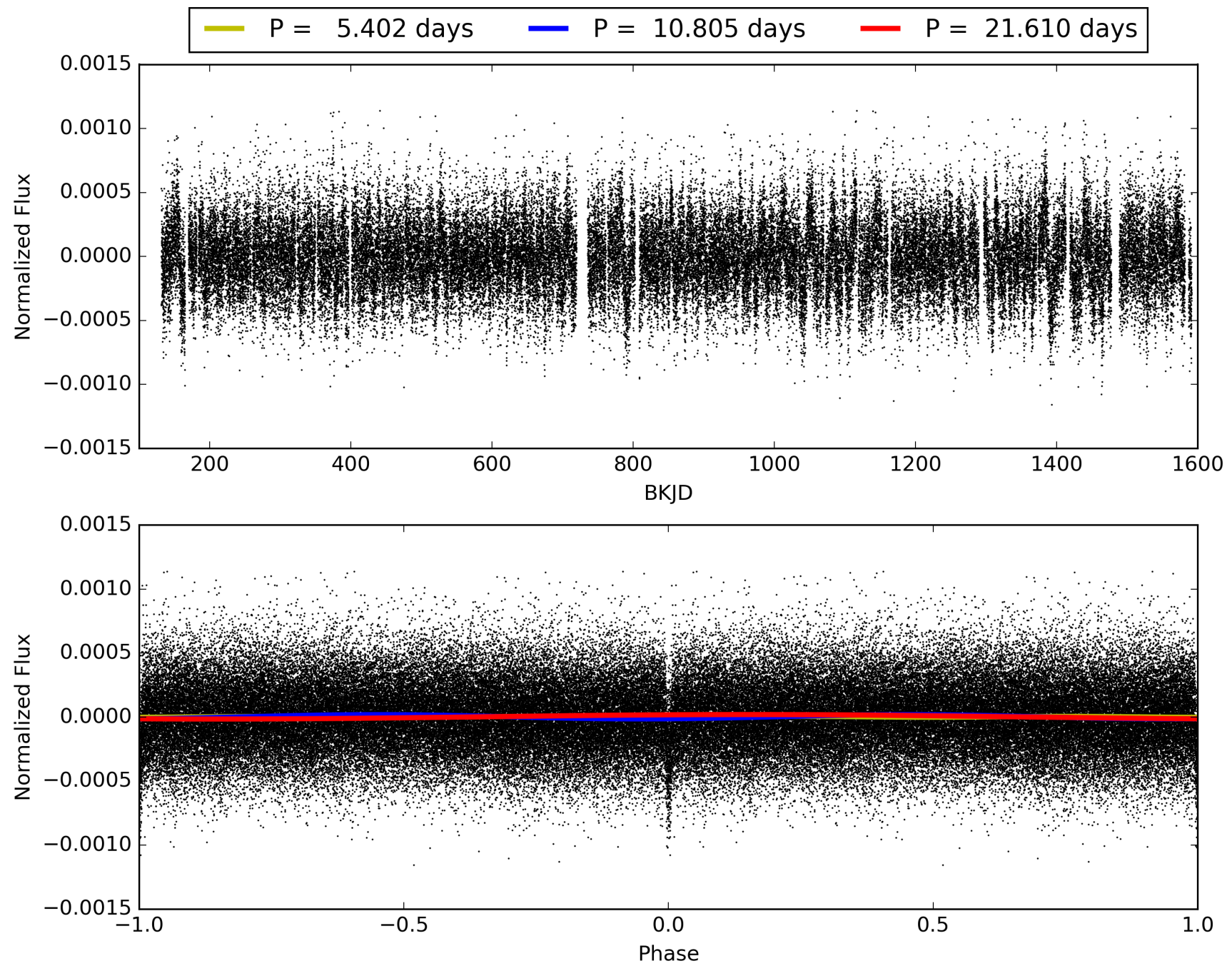
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 82.9%  
ModelChiSquareGof-sig: 100.0%  
Bootstrap-pfa: 3.05e-130  
RollingBand-fgt: 1.00 [118/118]  
GhostDiagnostic-chr: 1.319  
Centroid-sig: 0.0%  
Centroid-so: 3.842 arcsec [8.10σ]  
OotOffset-rm: 3.266 arcsec [34.68σ]  
KicOffset-rm: 3.173 arcsec [33.70σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 1.00 [17/17]

# TCE 006692833-01, PDC Light Curves

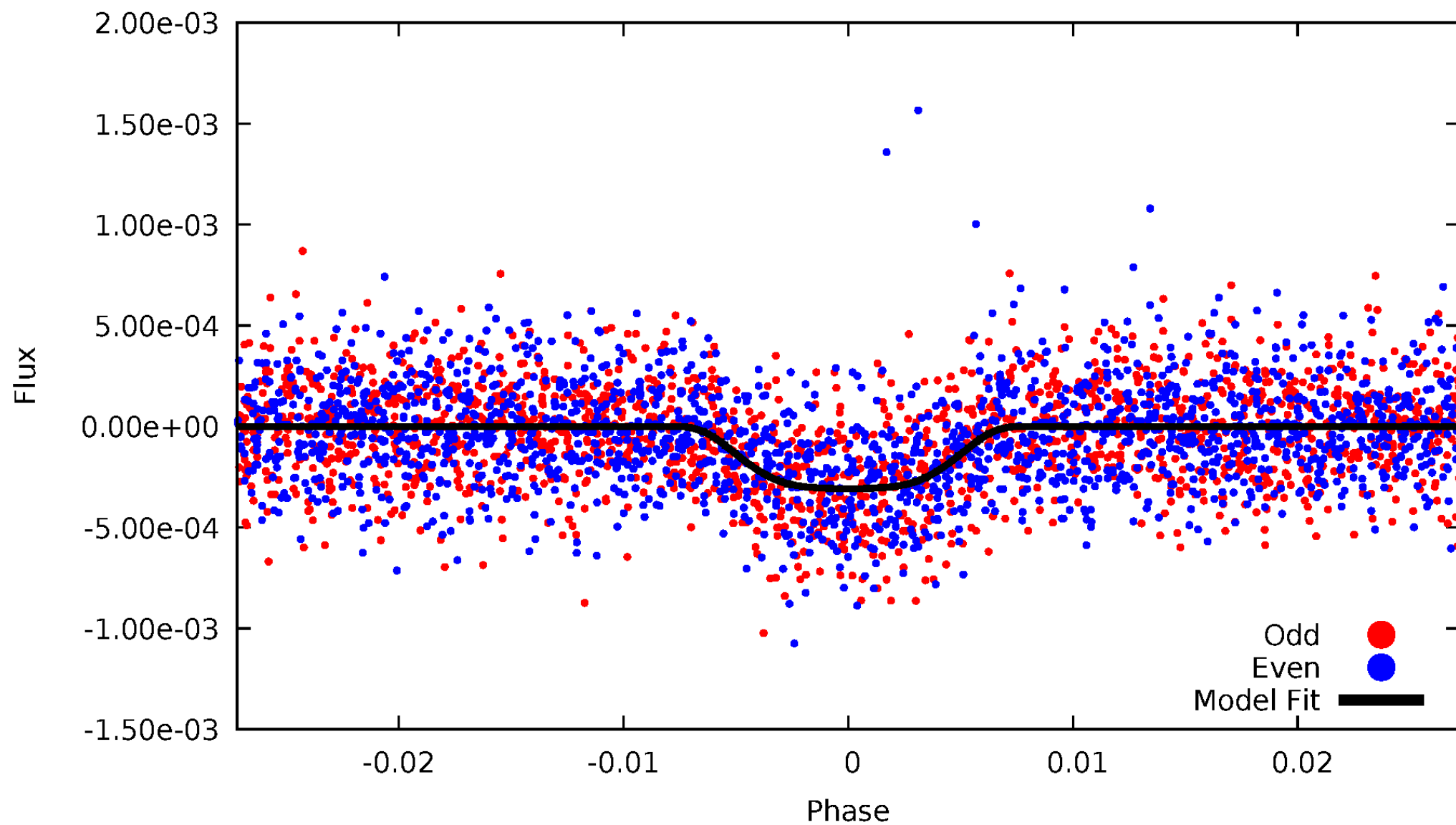


TCE 006692833-01



# DV Odd/Even

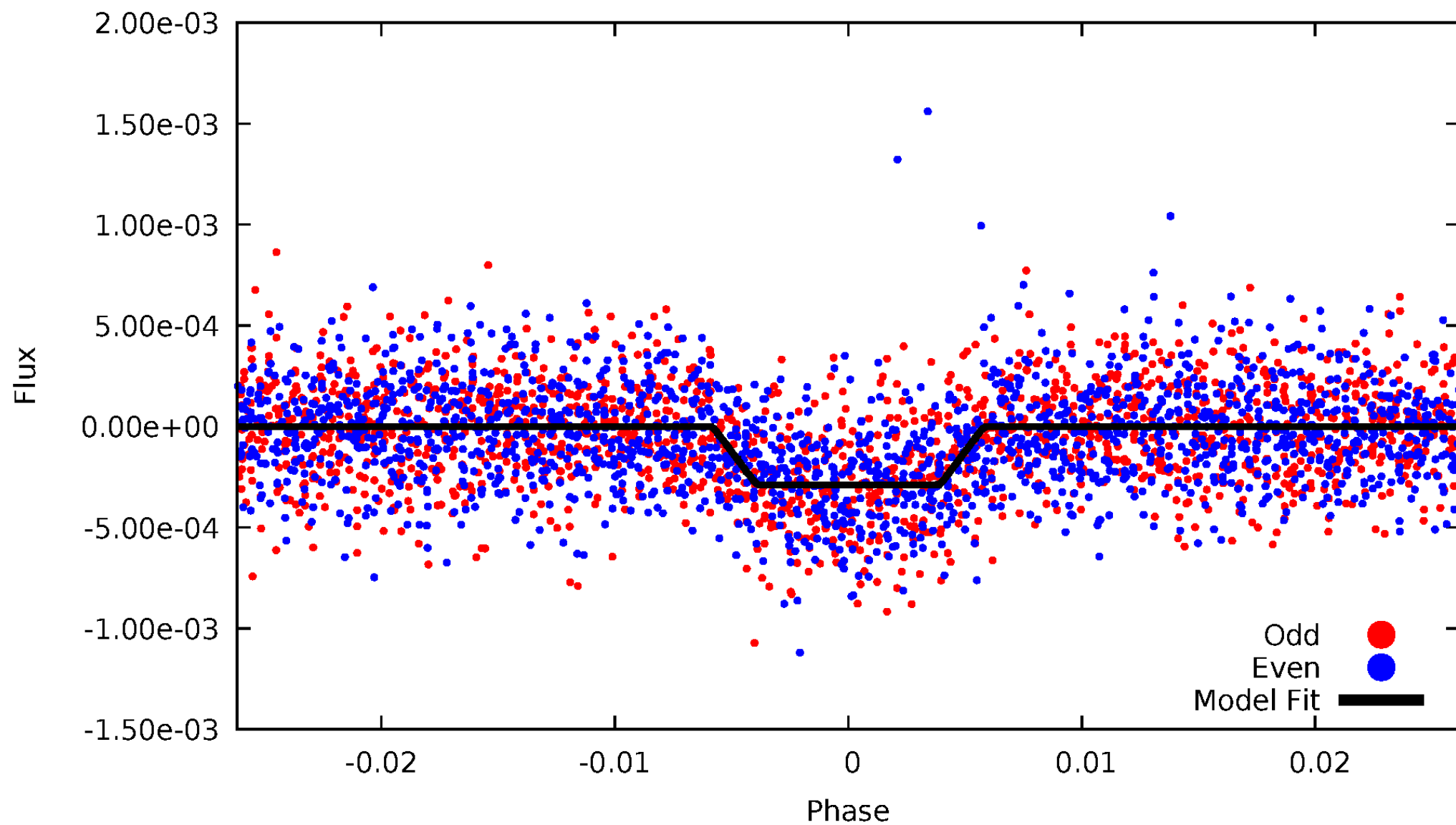
TCE 006692833-01





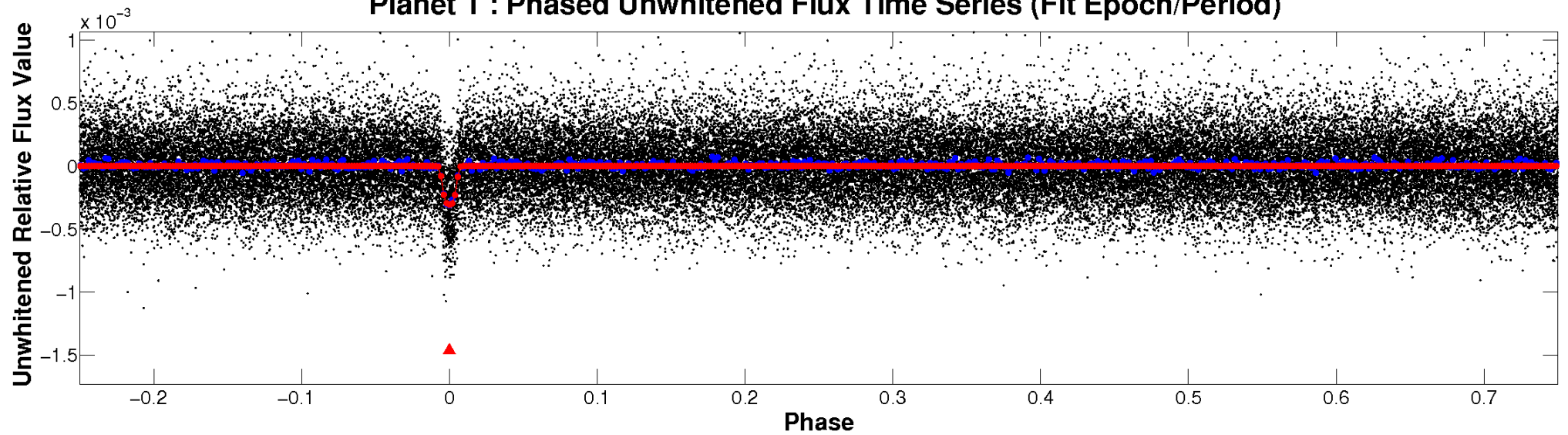
# ALT Odd/Even

TCE 006692833-01

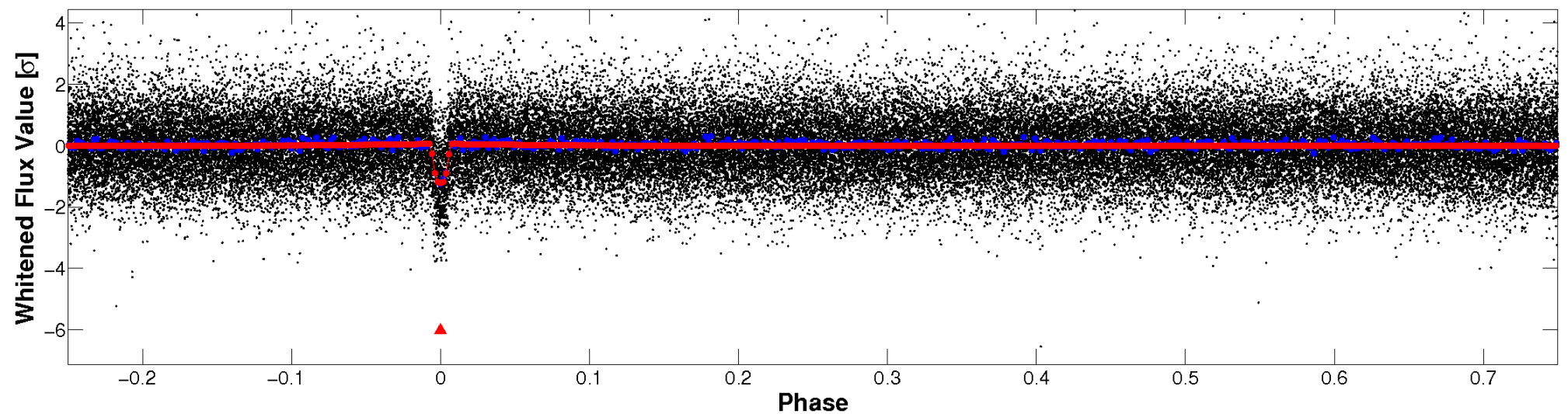


# Non-Whitened Vs. Whitened Light Curve

**Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)**

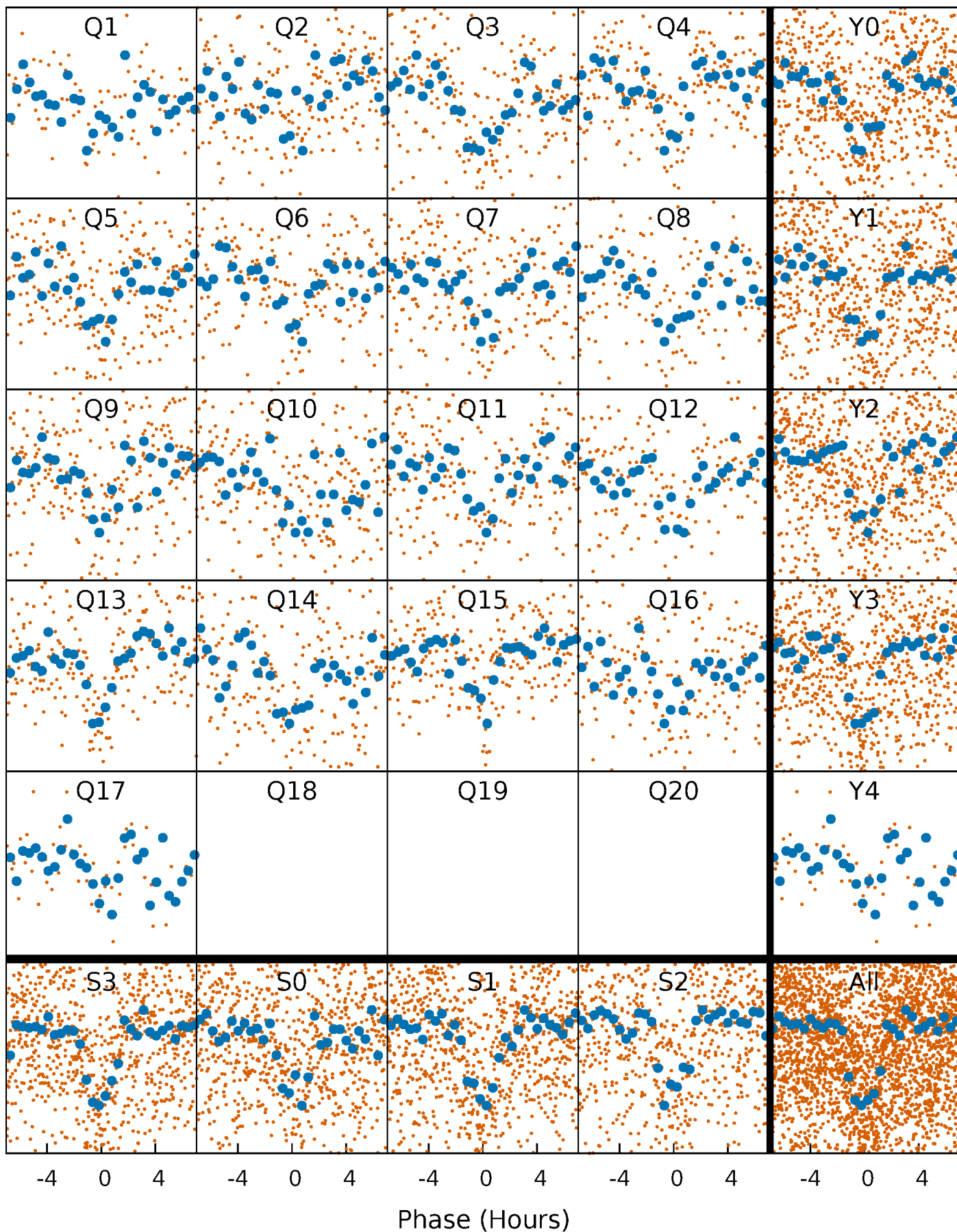


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

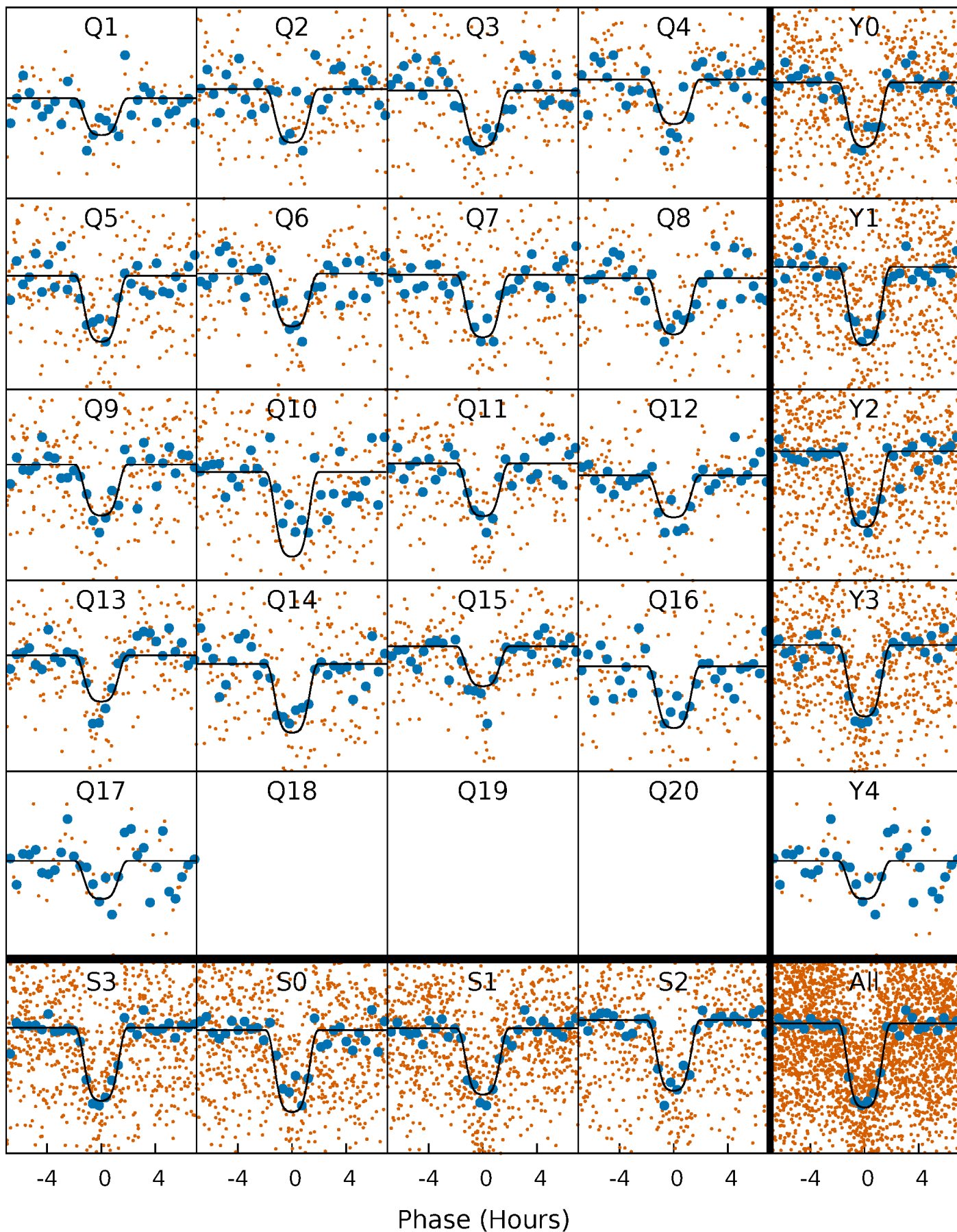
TCE 006692833-01 P= 10.804871 Days  $T_0=134.095118$  (BKJD)





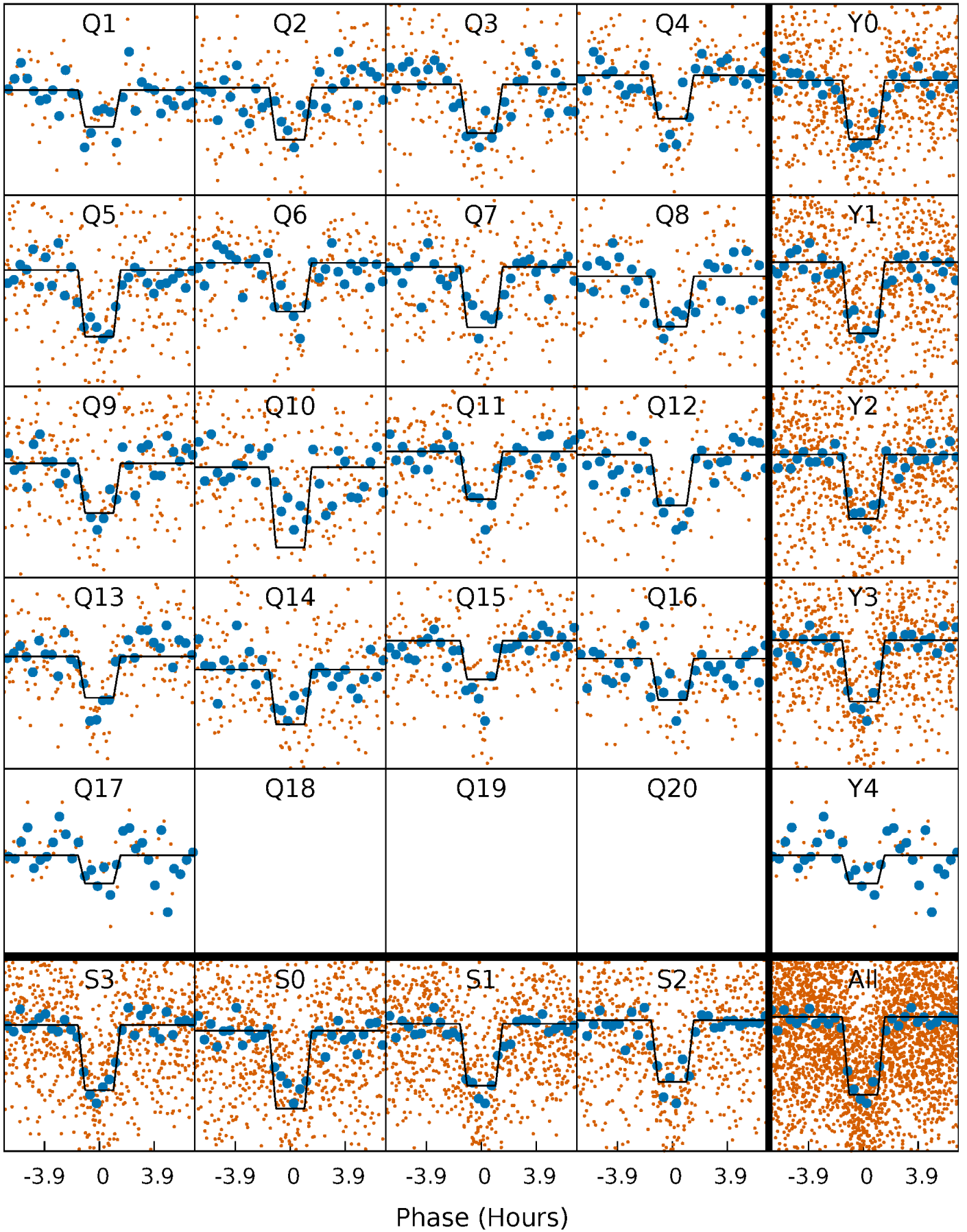
# DV Quarter-Phased Transit Curves

TCE 006692833-01 P= 10.804871 Days  $T_0=134.095118$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

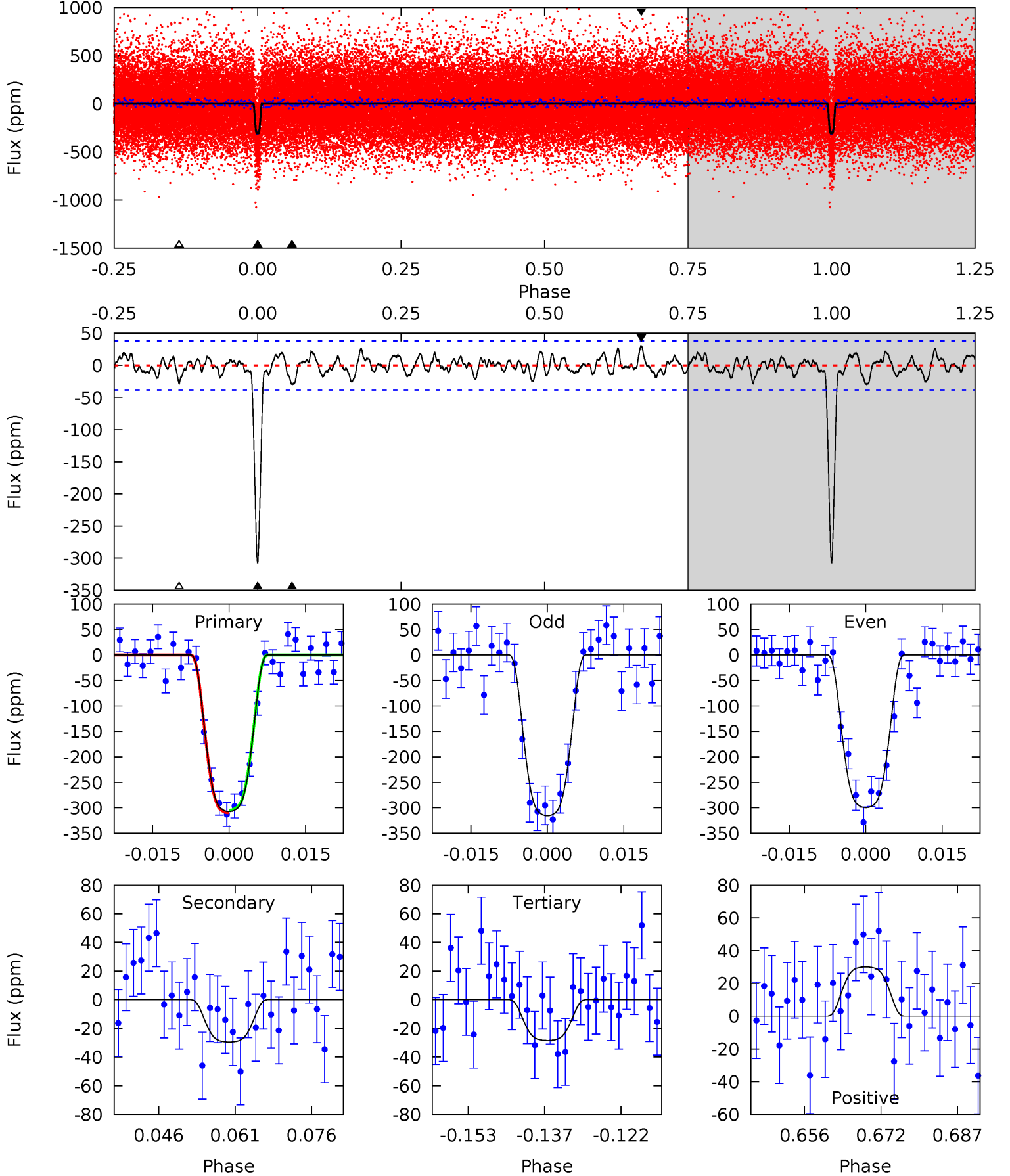
TCE 006692833-01 P= 10.804939 Days  $T_0=134.089981$  (BKJD)



# DV Model-Shift Uniqueness Test

006692833-01, P = 10.804871 Days, E = 123.290247 Days

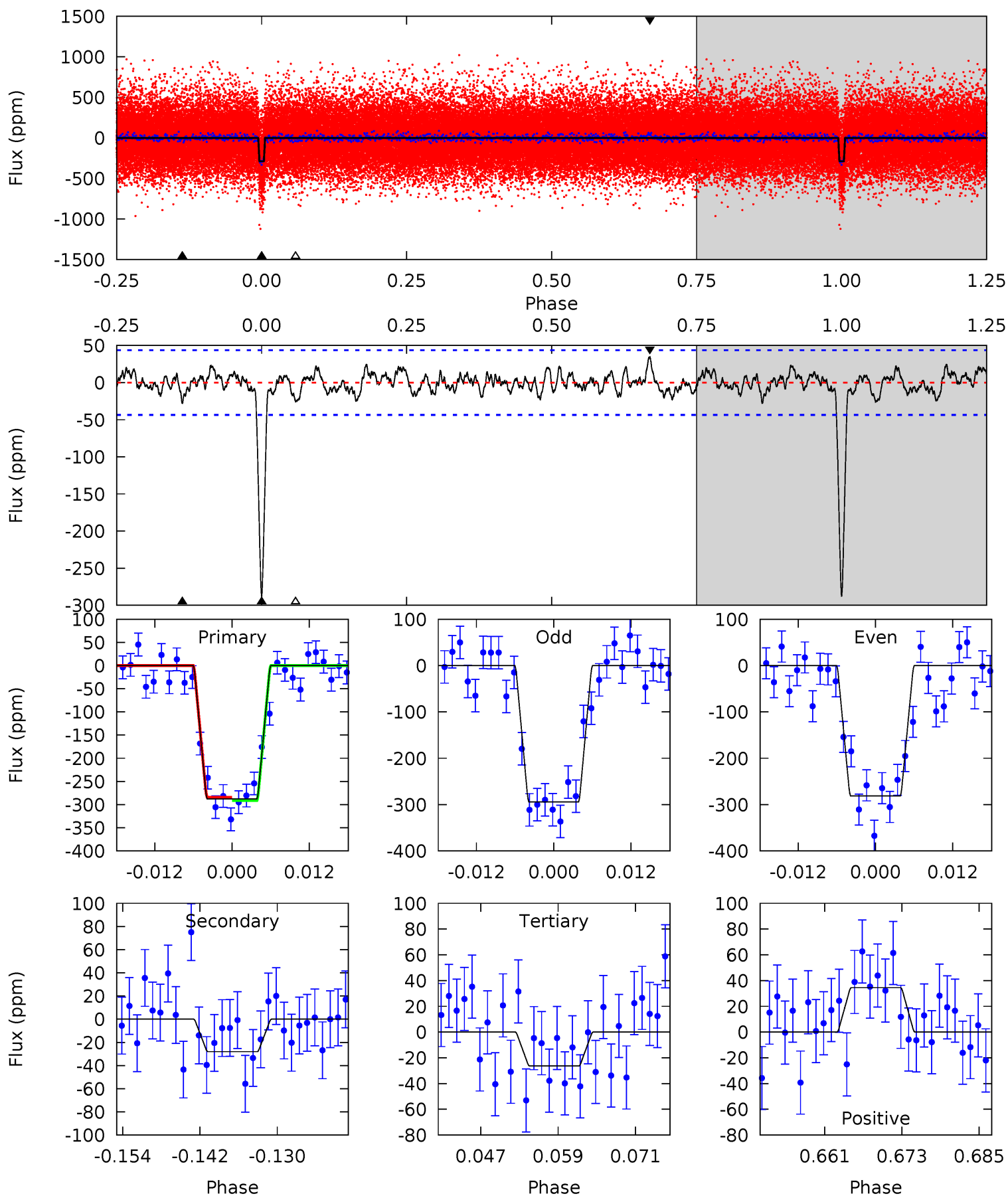
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.8	3.83	3.68	3.89	4.94	2.43	1.34	36.1	35.9	0.14	-0.07	1.03	1.00	0.09	0.33



# Alt Model-Shift Uniqueness Test

006692833-01, P = 10.804939 Days, E = 123.285042 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
32.9	3.20	3.00	3.94	4.99	2.52	1.18	29.9	29.0	0.20	-0.74	0.74	1.03	0.11	0.38



### Stellar Parameters For KIC 006692833

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6092^{+168}_{-210}$	$4.471^{+0.052}_{-0.195}$	$-0.060^{+0.250}_{-0.350}$	$0.998^{+0.294}_{-0.105}$	$1.074^{+0.139}_{-0.153}$	$1.522^{+0.404}_{-0.770}$
	+3%/-3%	+1%/-4%	+417%/-583%	+29%/-11%	+13%/-14%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

### Secondary Eclipse Parameters for KIC 006692833-01 / KOI 1244.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-30 \pm 8$	$2.37^{+0.35}_{-0.23}$	$1221^{+78}_{-60}$	$3528^{+171}_{-178}$	$26^{+10}_{-8}$
Alt.	$-28 \pm 9$	$1.91^{+0.28}_{-0.18}$	$1221^{+77}_{-54}$	$3763^{+223}_{-217}$	$38^{+16}_{-13}$

$T_{max}$  = 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  $A_{obs} \gg 1.0$



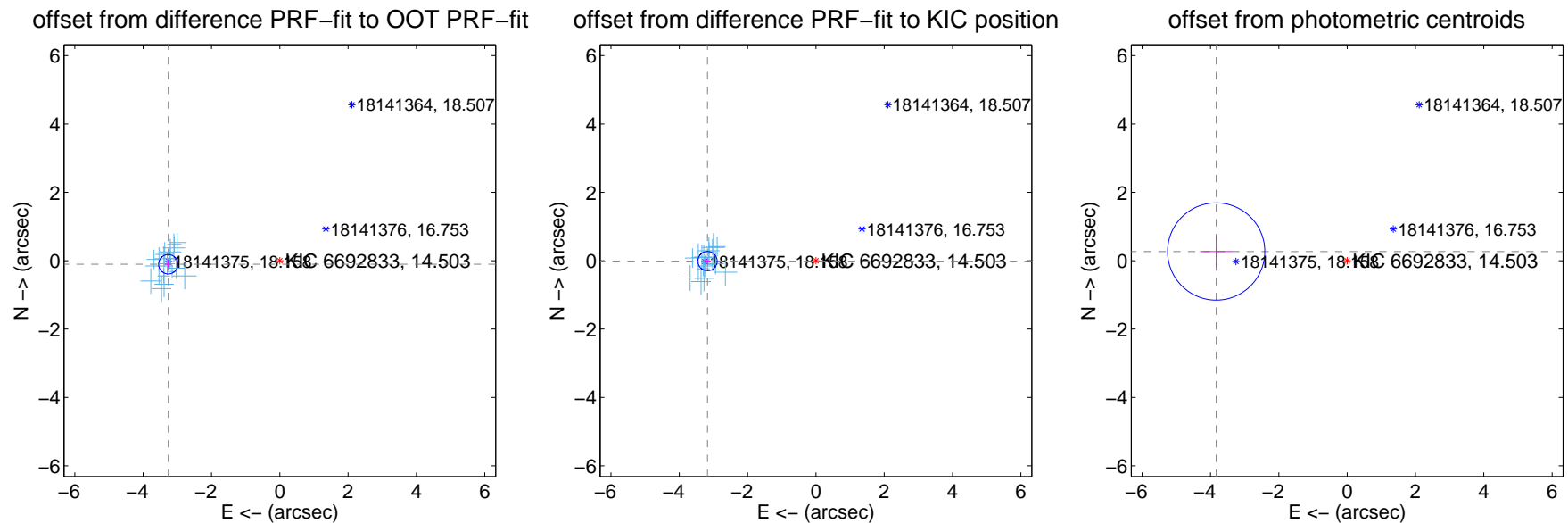
## DV Centroid Data

Supplemental centroid analysis for 006692833-01. Kepler magnitude: 14.50. Transit SNR 26.15

There are 17 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

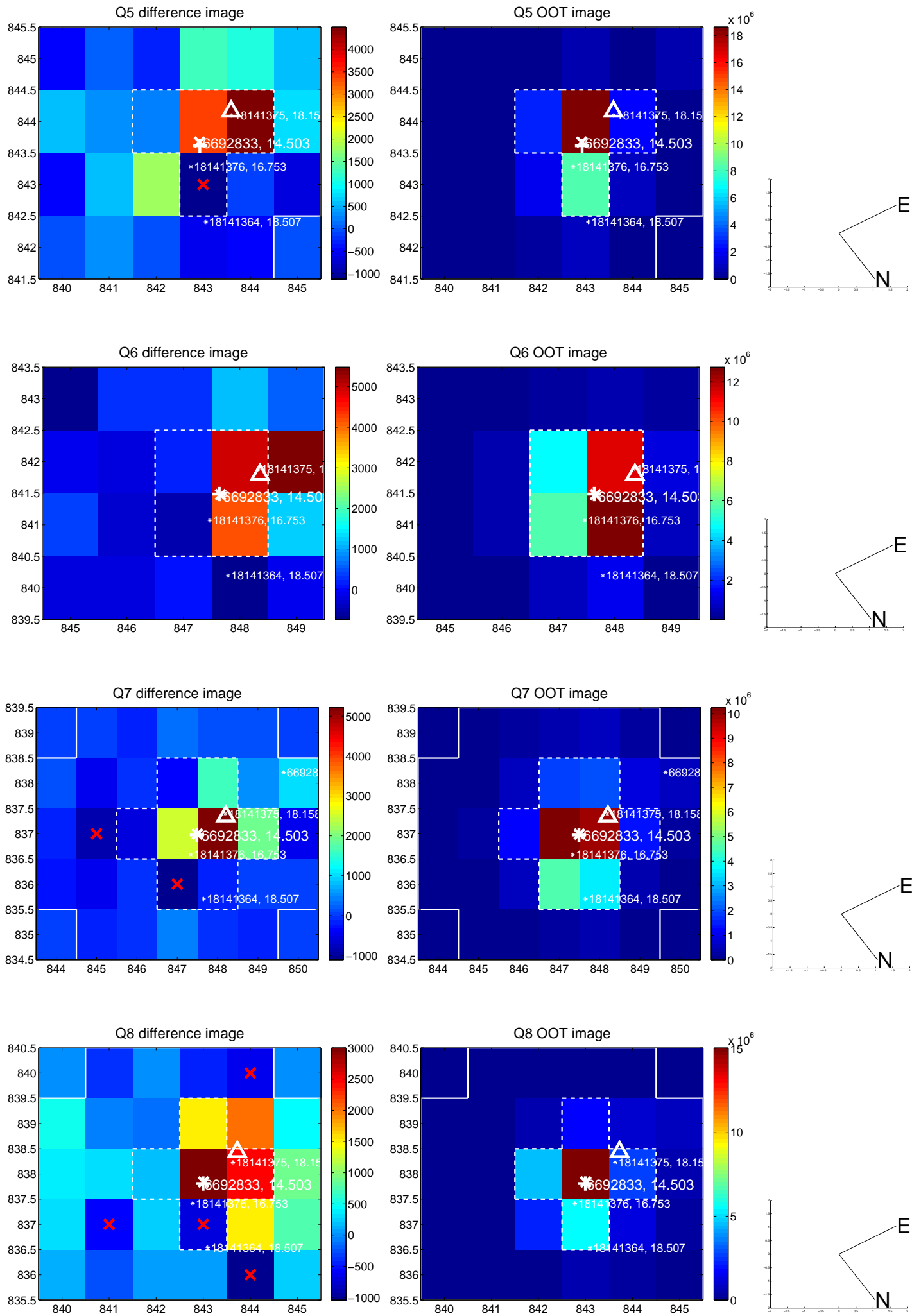
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$3.266 \pm 0.094$	34.68	$3.264 \pm 0.094$	$-0.104 \pm 0.107$
PRF-fit source offset from KIC position	$3.173 \pm 0.094$	33.70	$3.173 \pm 0.094$	$-0.012 \pm 0.107$
photometric centroid source offset	$3.84 \pm 0.47$	8.10	$3.83 \pm 0.47$	$0.27 \pm 0.45$



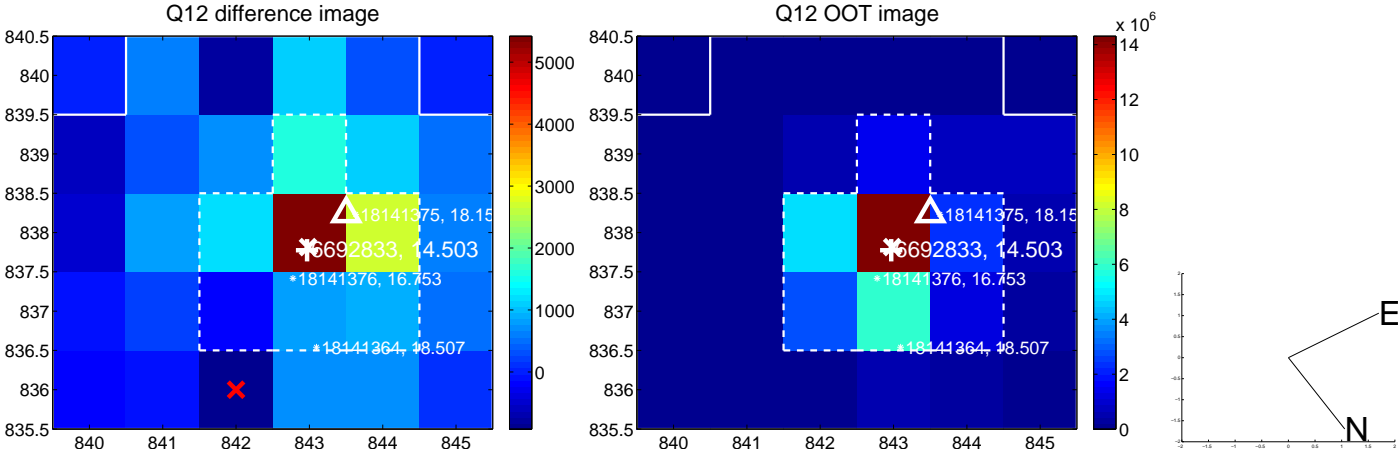
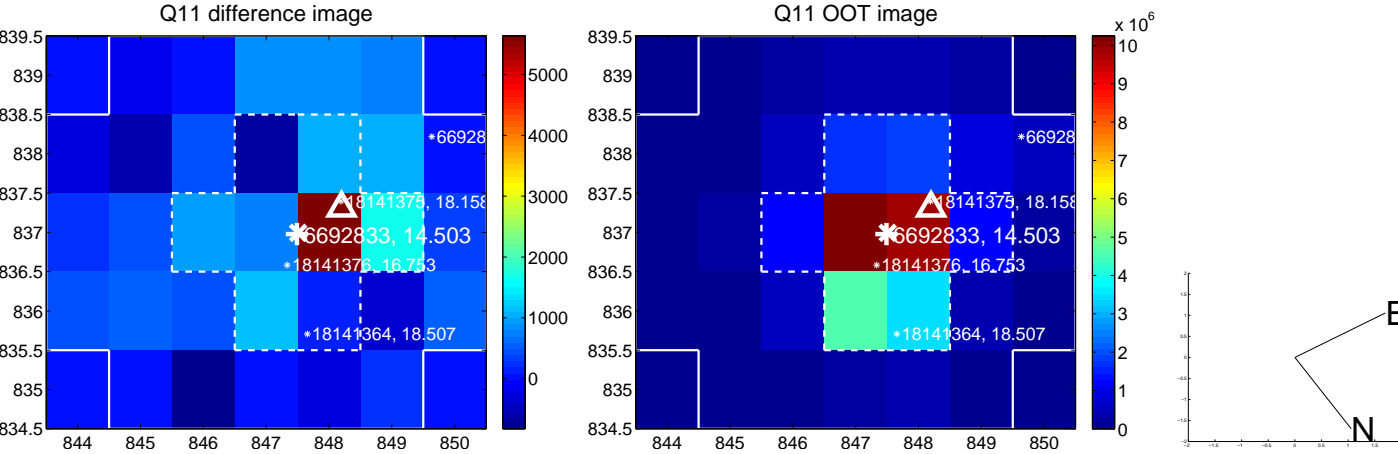
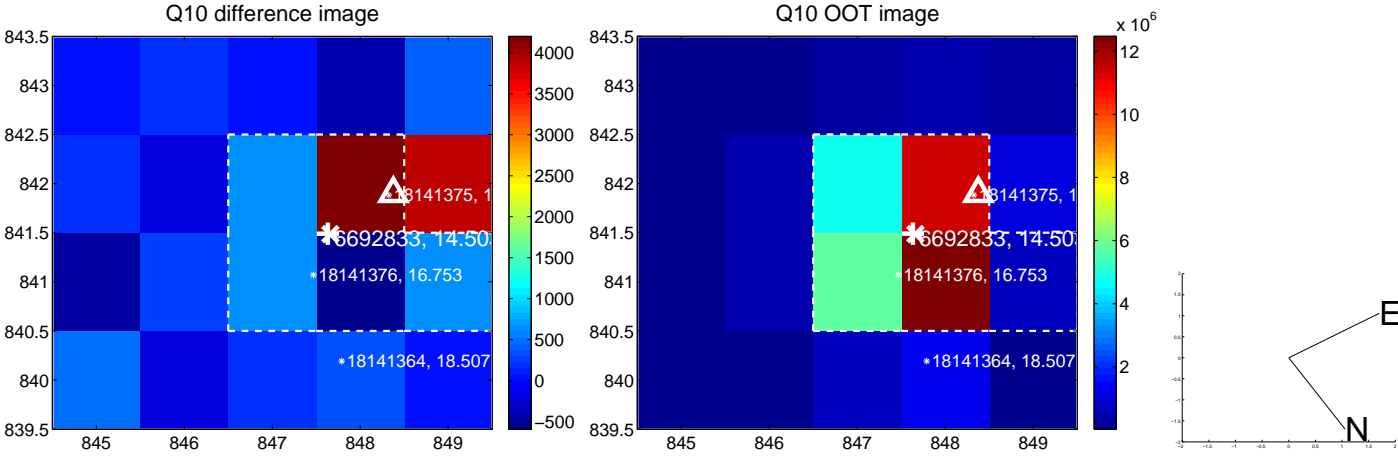
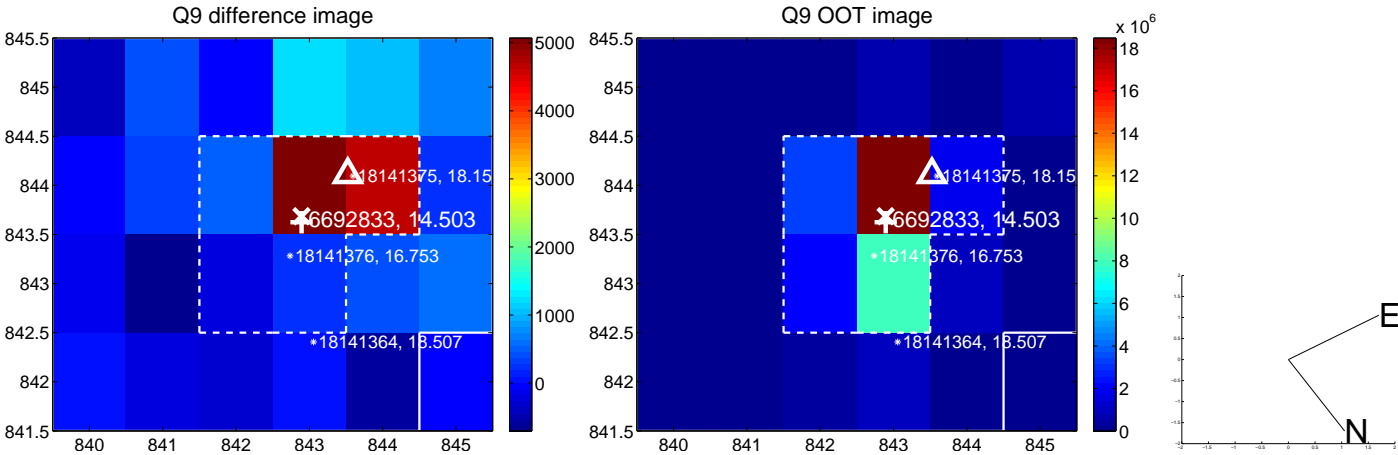
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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



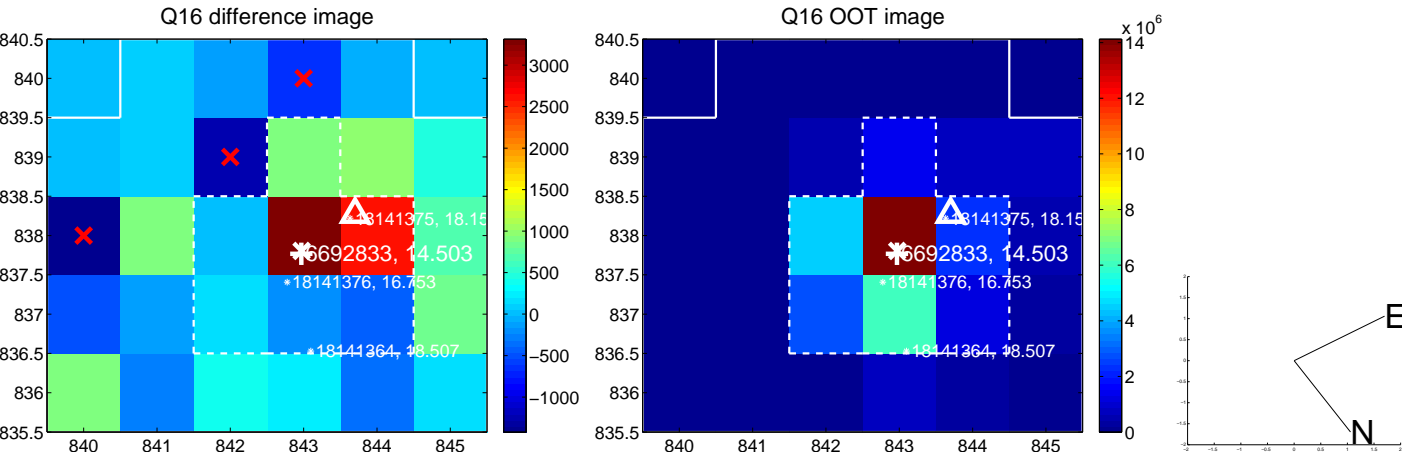
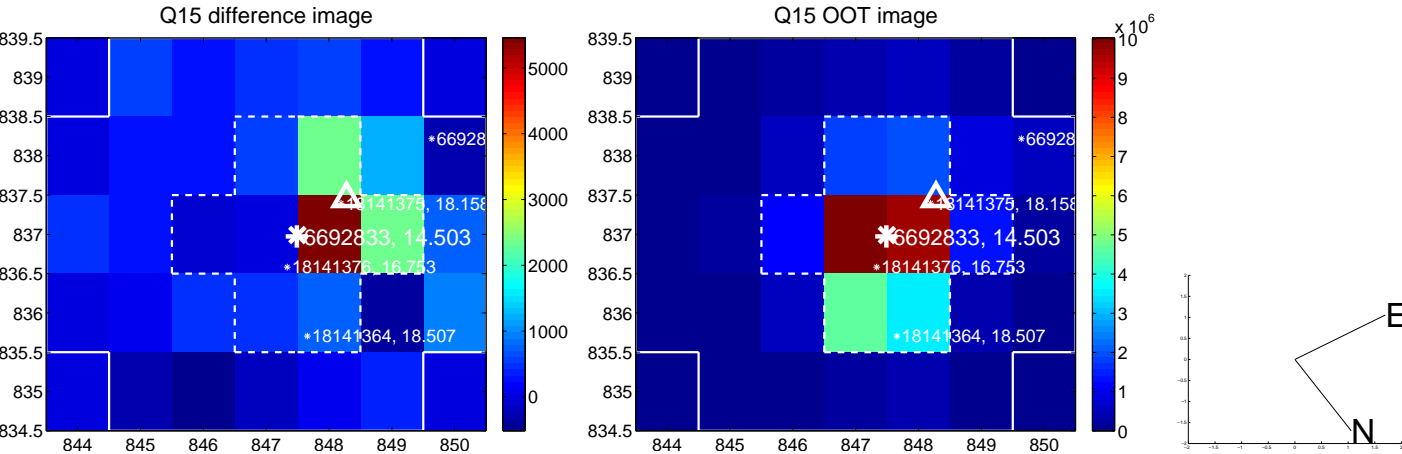
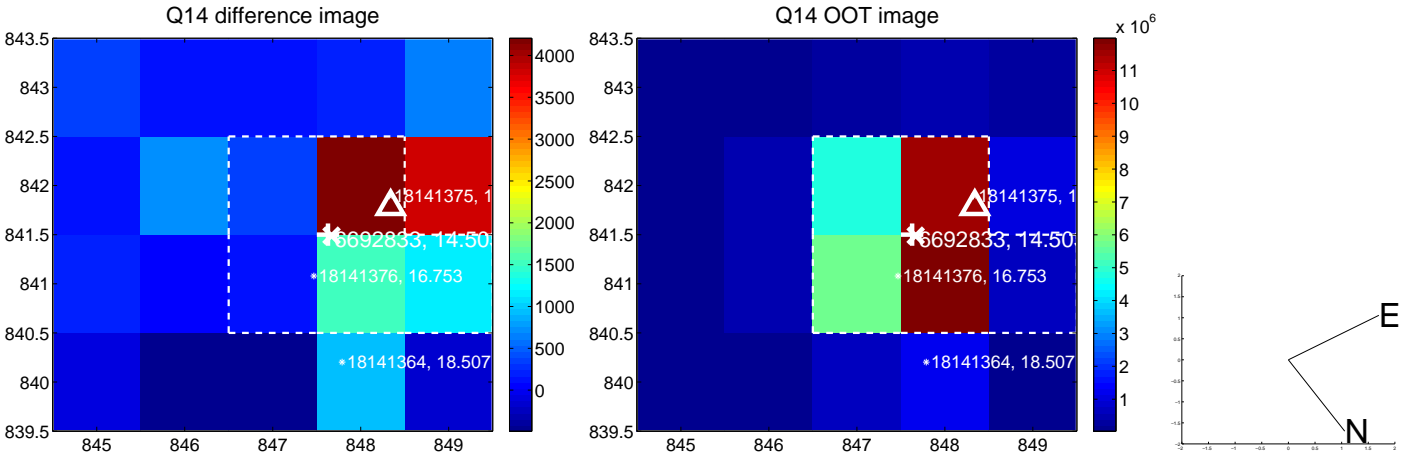
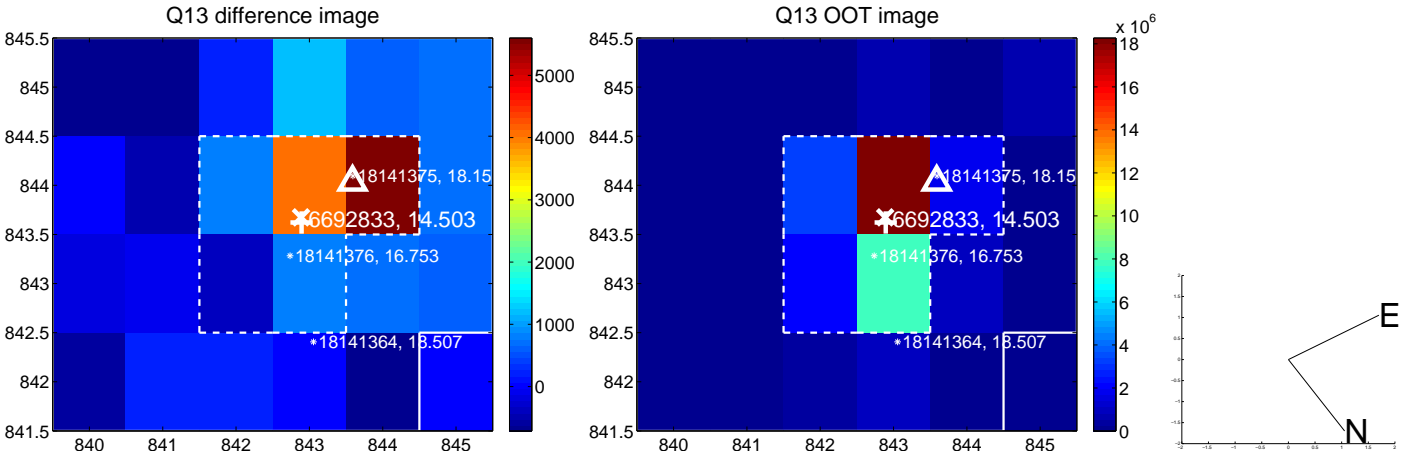
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

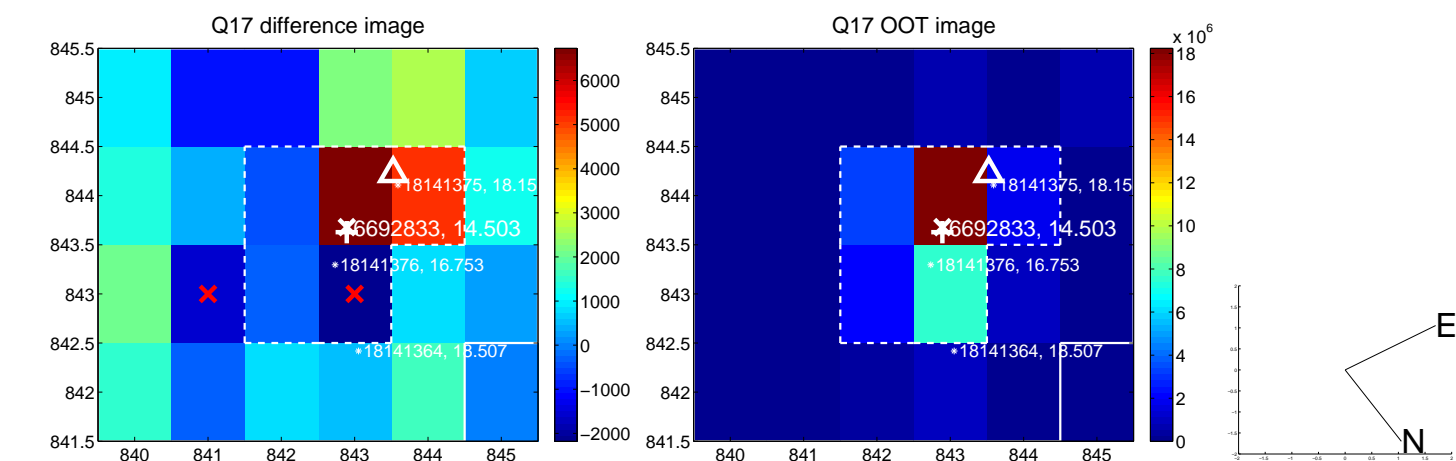


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

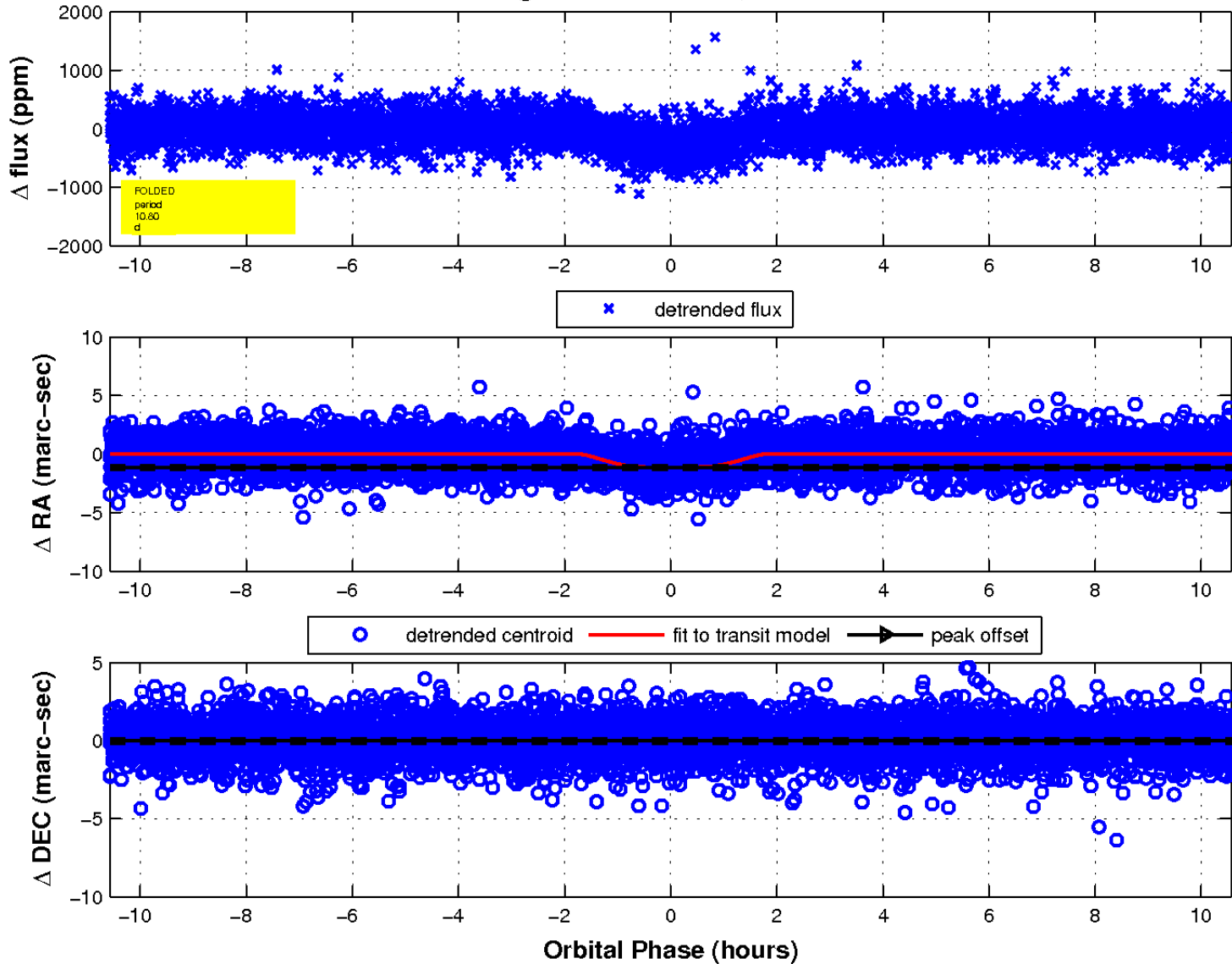




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\Delta$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

