

# KIC 011772717

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011772717-01	OBS	No	378.206577	251.660703	177.4	17.159	7.6	7.7	2.31	6133	3.42	5.38

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011772717-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

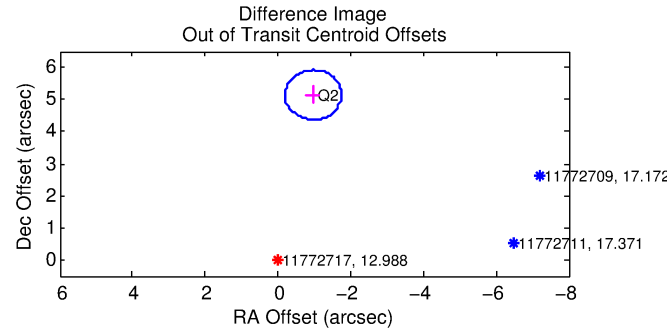
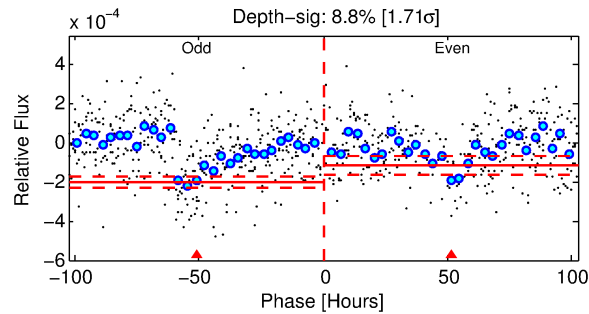
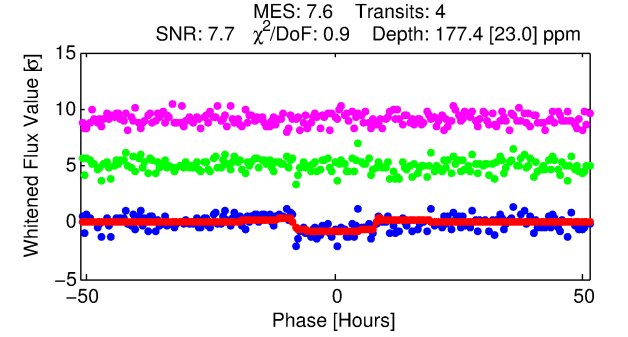
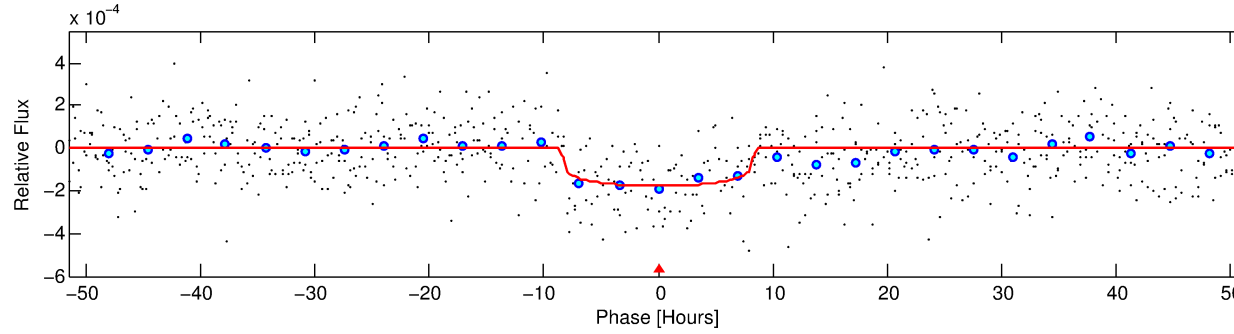
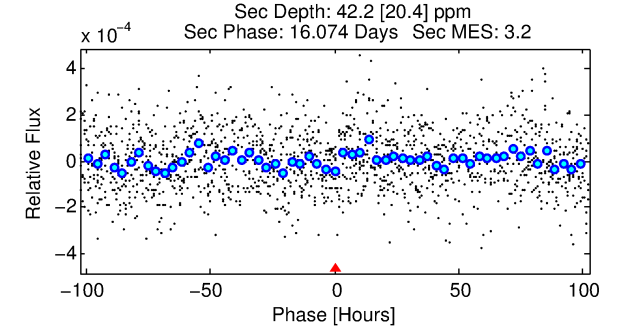
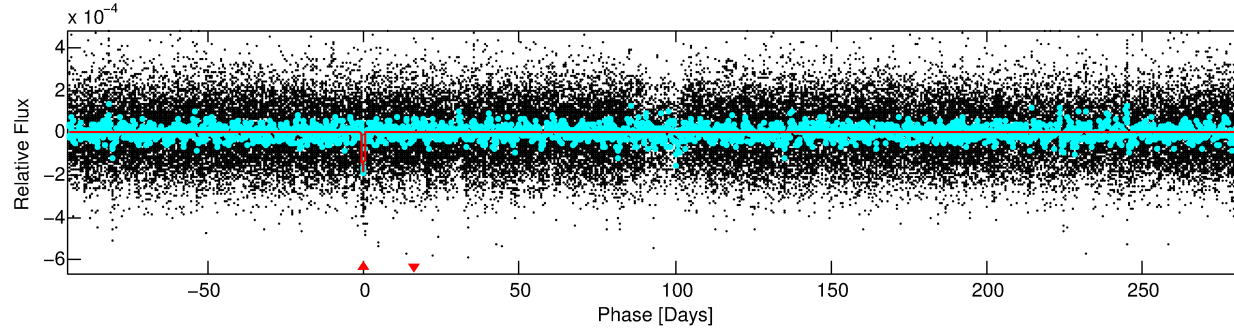
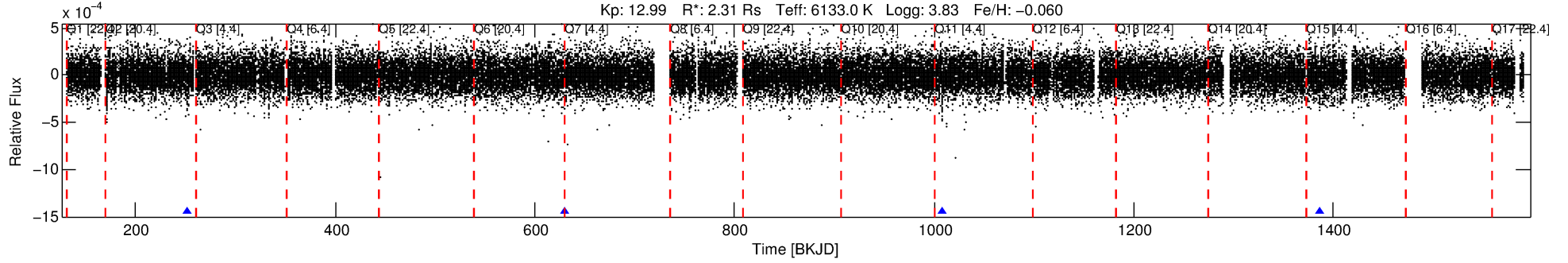
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011772717-01

No Significant Match Found

# DV One-Page Summary

KIC: 11772717 Candidate: 1 of 1 Period: 378.207 d



## DV Fit Results:

Period = 378.20658 [0.00889] d  
Epoch = 251.6607 [0.0185] BKJD  
Rp/R\* = 0.0136 [0.0030]  
a/R\* = 102.72 [107.48]  
b = 0.81 [0.45]  
Seff = 5.38 [2.78]  
Teq = 388 [50] K  
Rp = 3.42 [1.41] Re  
a = 1.1210 [0.3621] AU  
Ag = 2494.49 [2064.66] [1.21σ]  
Teffp = 4244 [705] K [5.45σ]

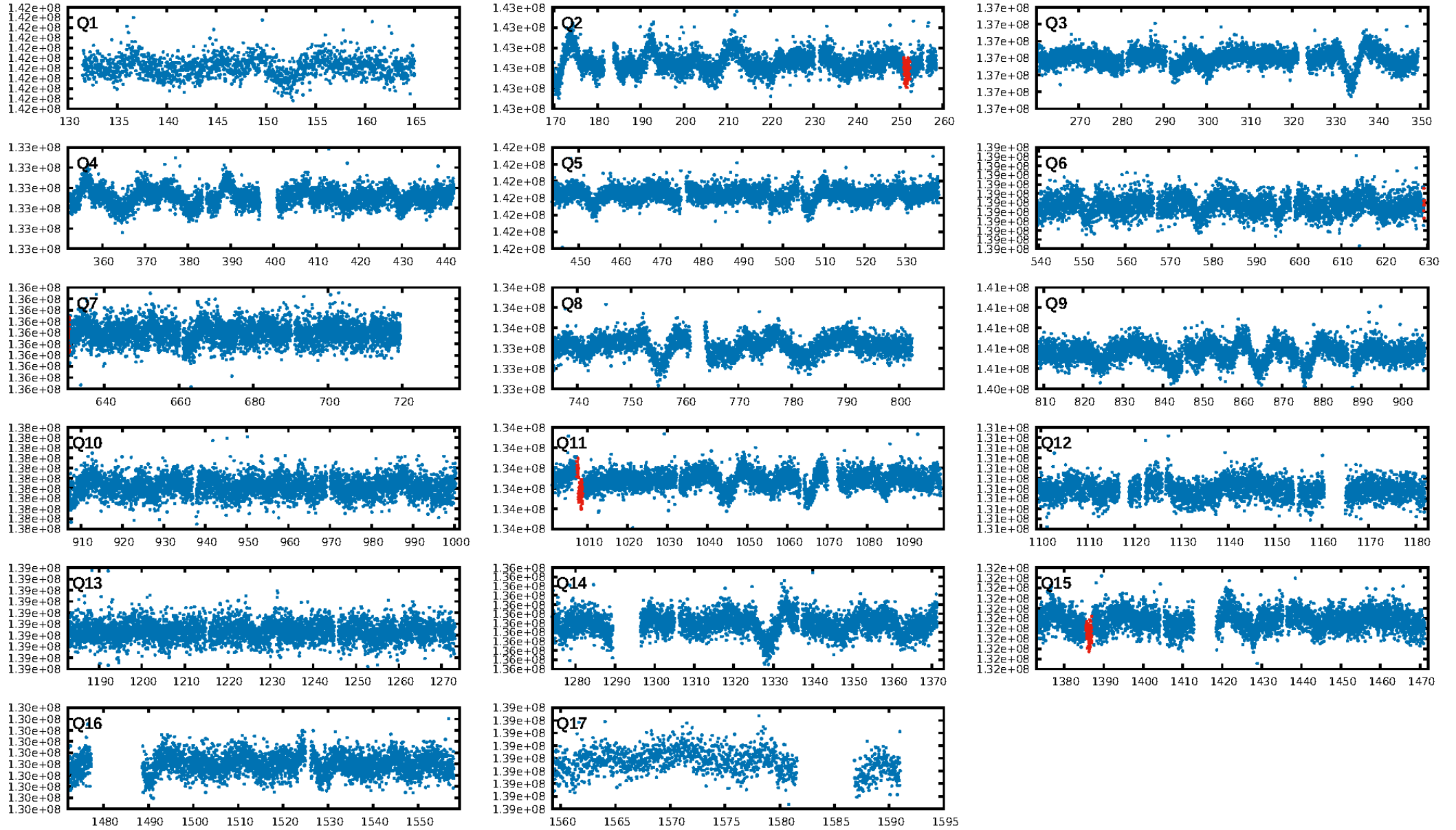
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 15.0%  
ModelChiSquareGof-sig: 100.0%  
**Bootstrap-pfa: 1.21e-09**  
RollingBand-fgt: 1.00 [4/4]  
GhostDiagnostic-chr: -18.21  
**Centroid-sig: 0.0%**  
Centroid-so: 3.714 arcsec [2.52σ]  
**OotOffset-rm: 5.233 arcsec [20.28σ]**  
**KicOffset-rm: 5.151 arcsec [20.02σ]**  
OotOffset-st: 1/0/0/0 [1]  
KicOffset-st: 1/0/0/0 [1]  
DiffImageQuality-fgm: 0.00 [0/1]  
DiffImageOverlap-fno: 1.00 [1/1]

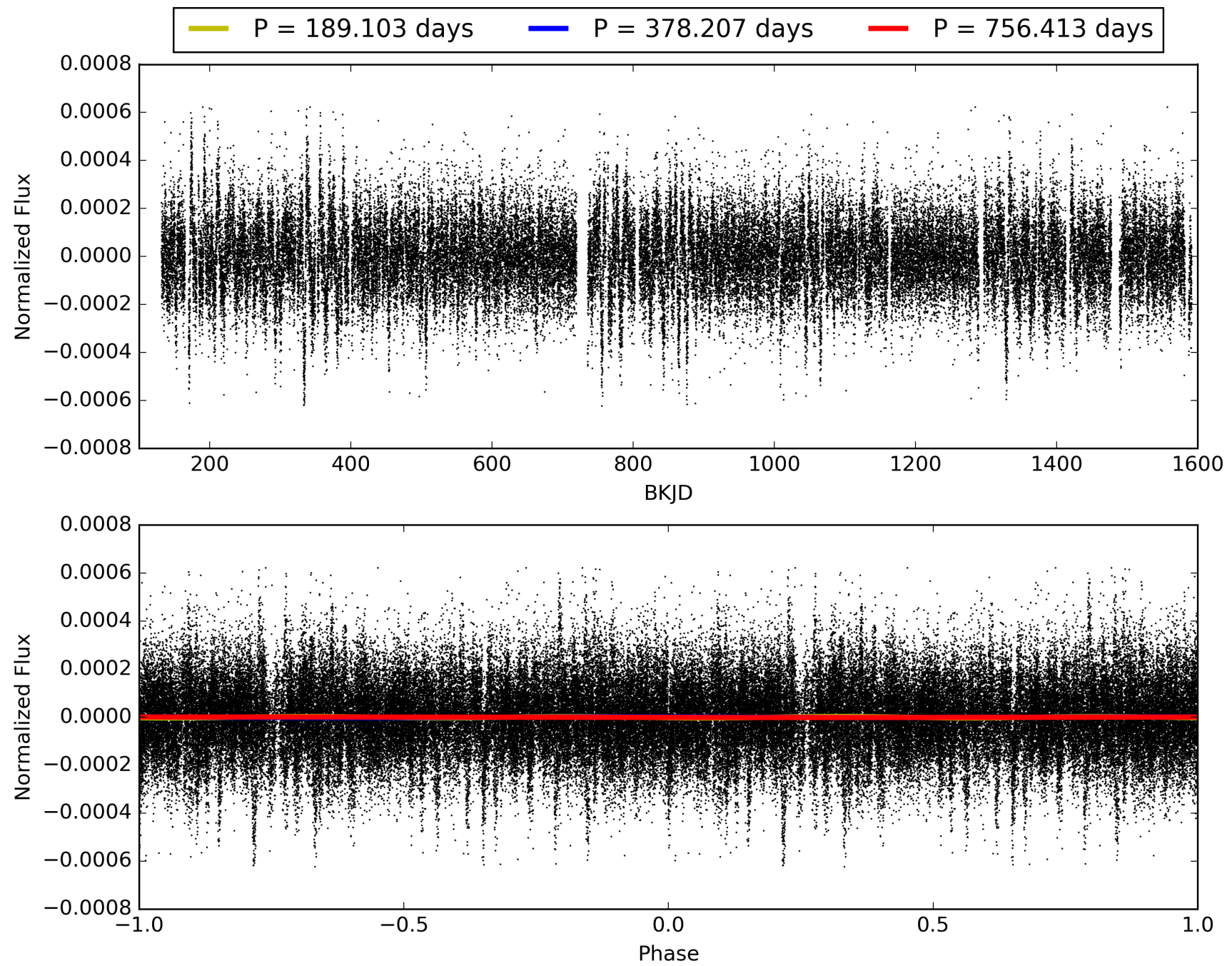
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:11:06 Z

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

# TCE 011772717-01, PDC Light Curves

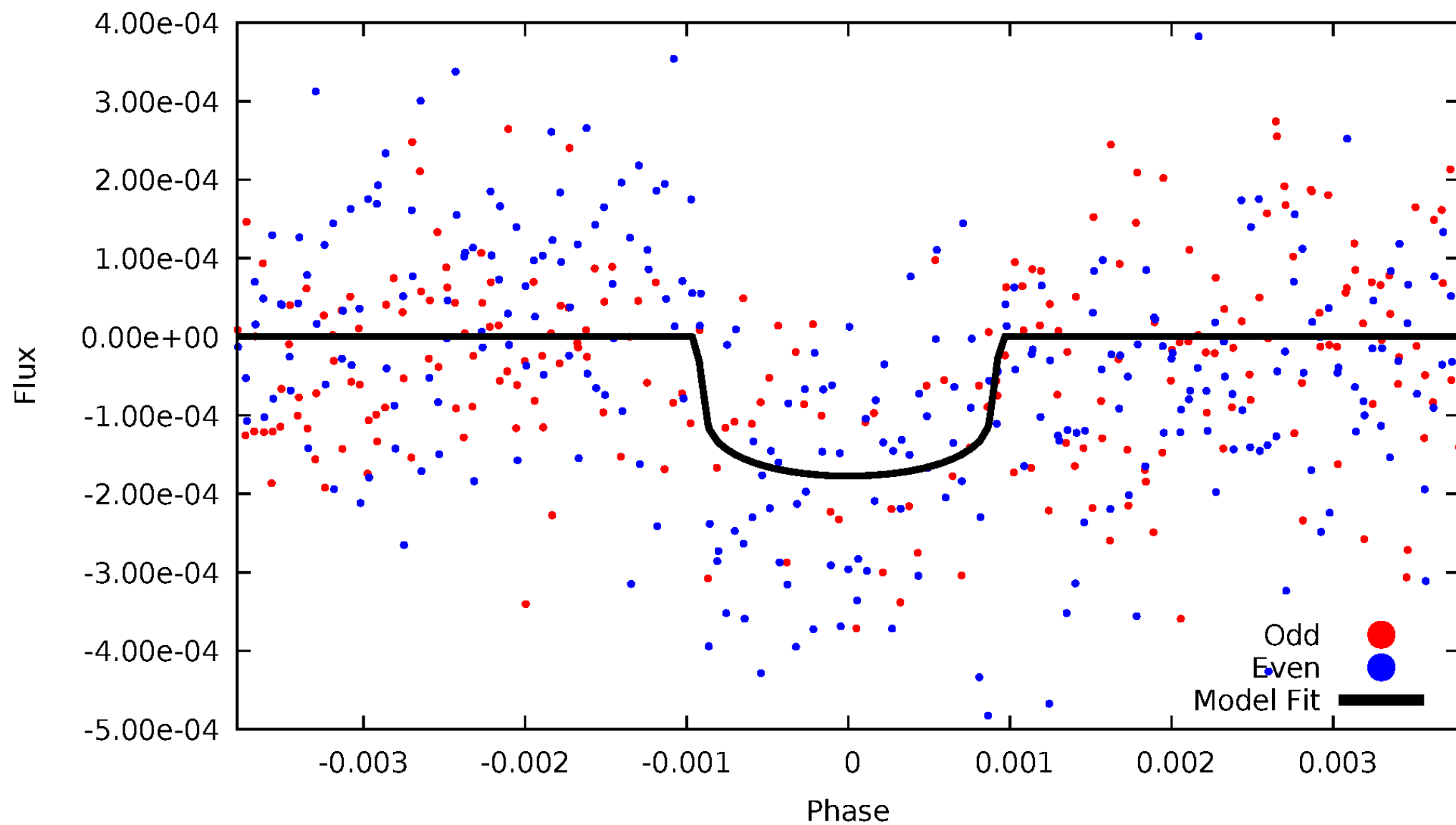


TCE 011772717-01



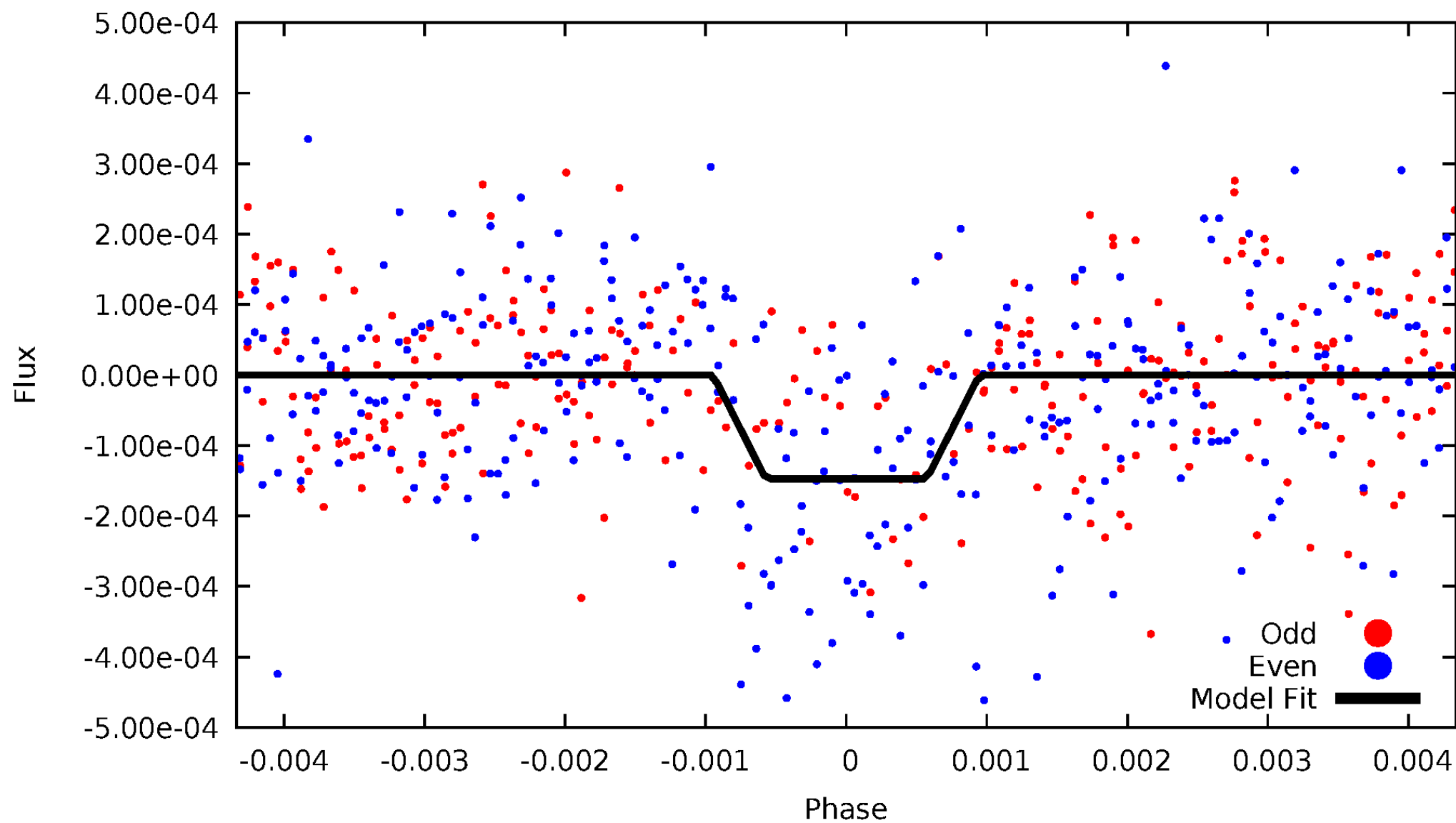
# DV Odd/Even

TCE 011772717-01

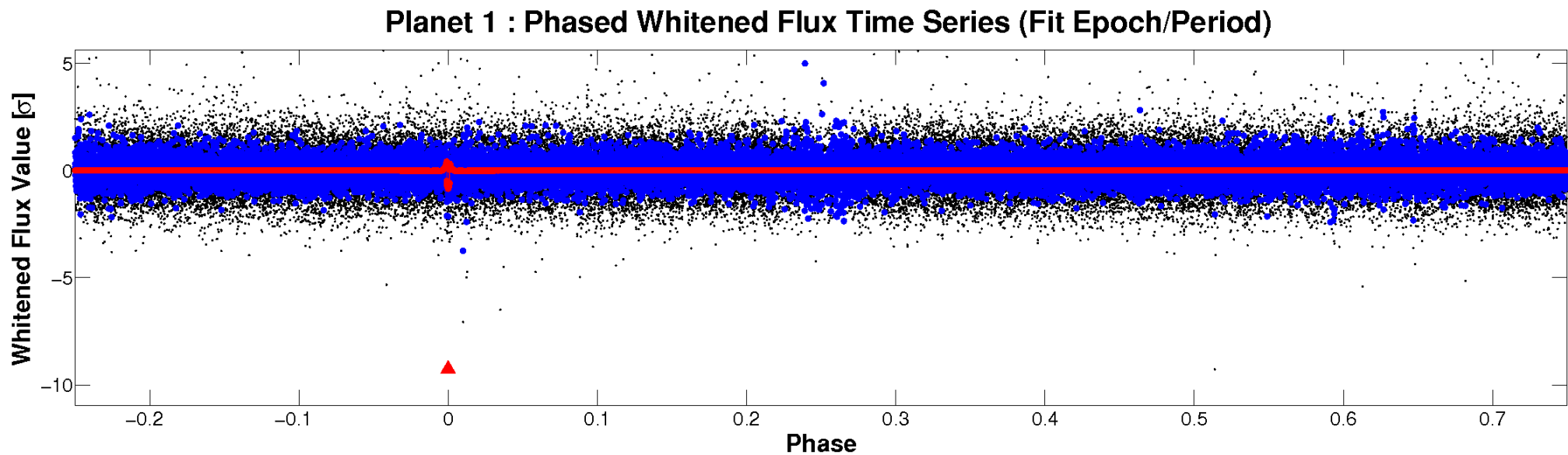
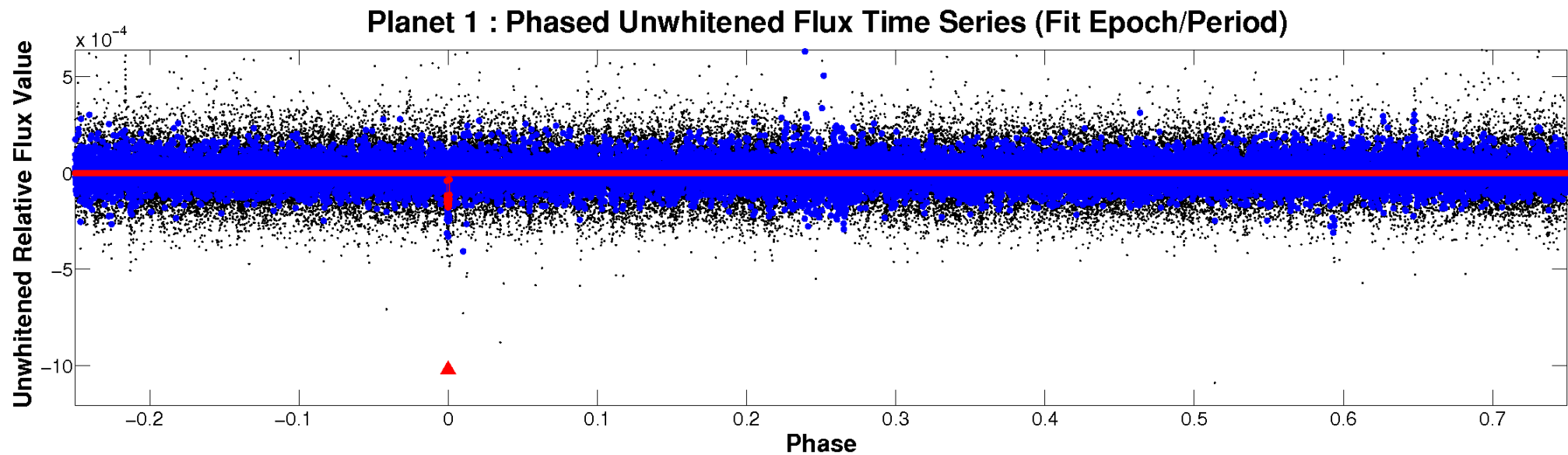


# ALT Odd/Even

TCE 011772717-01



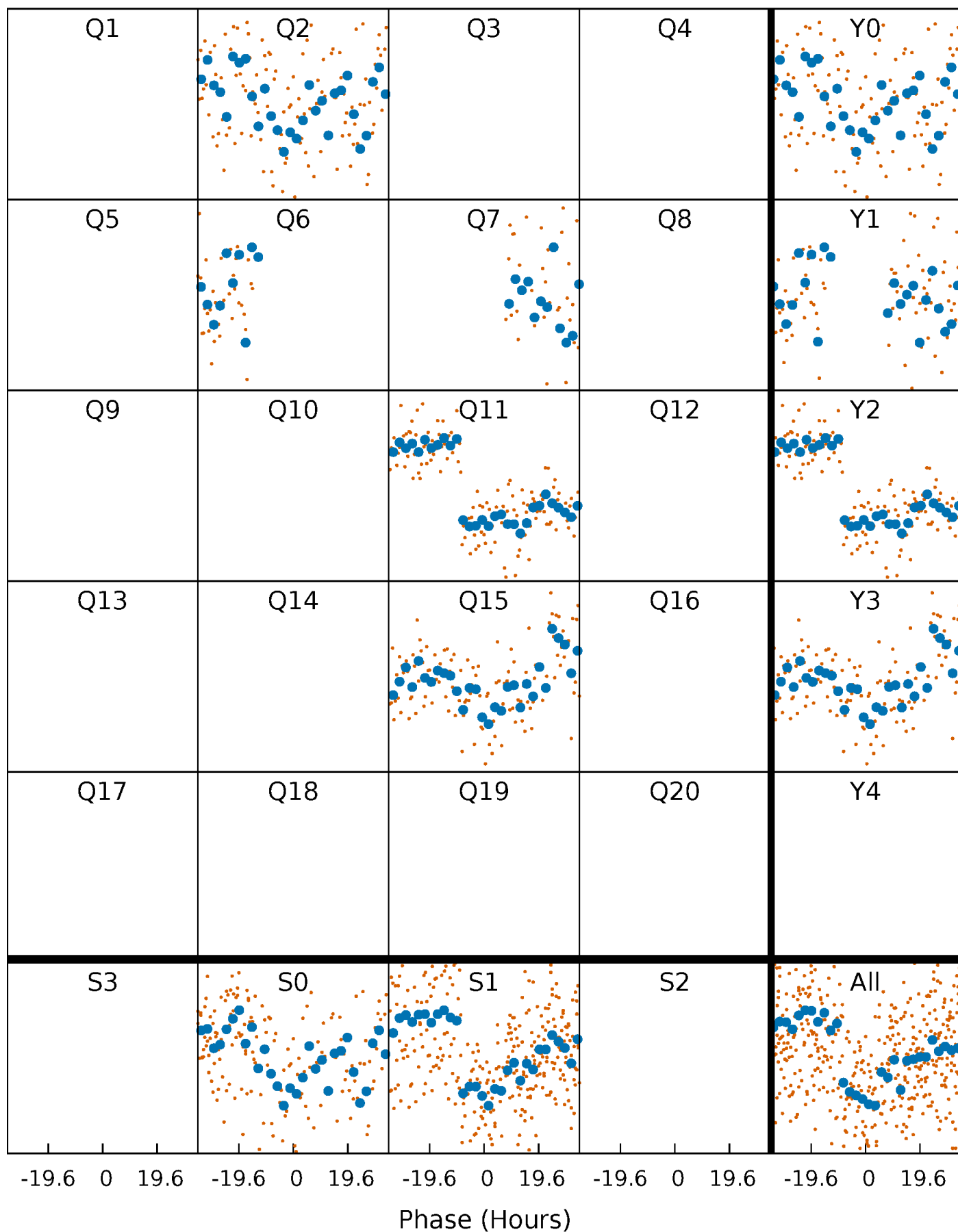
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

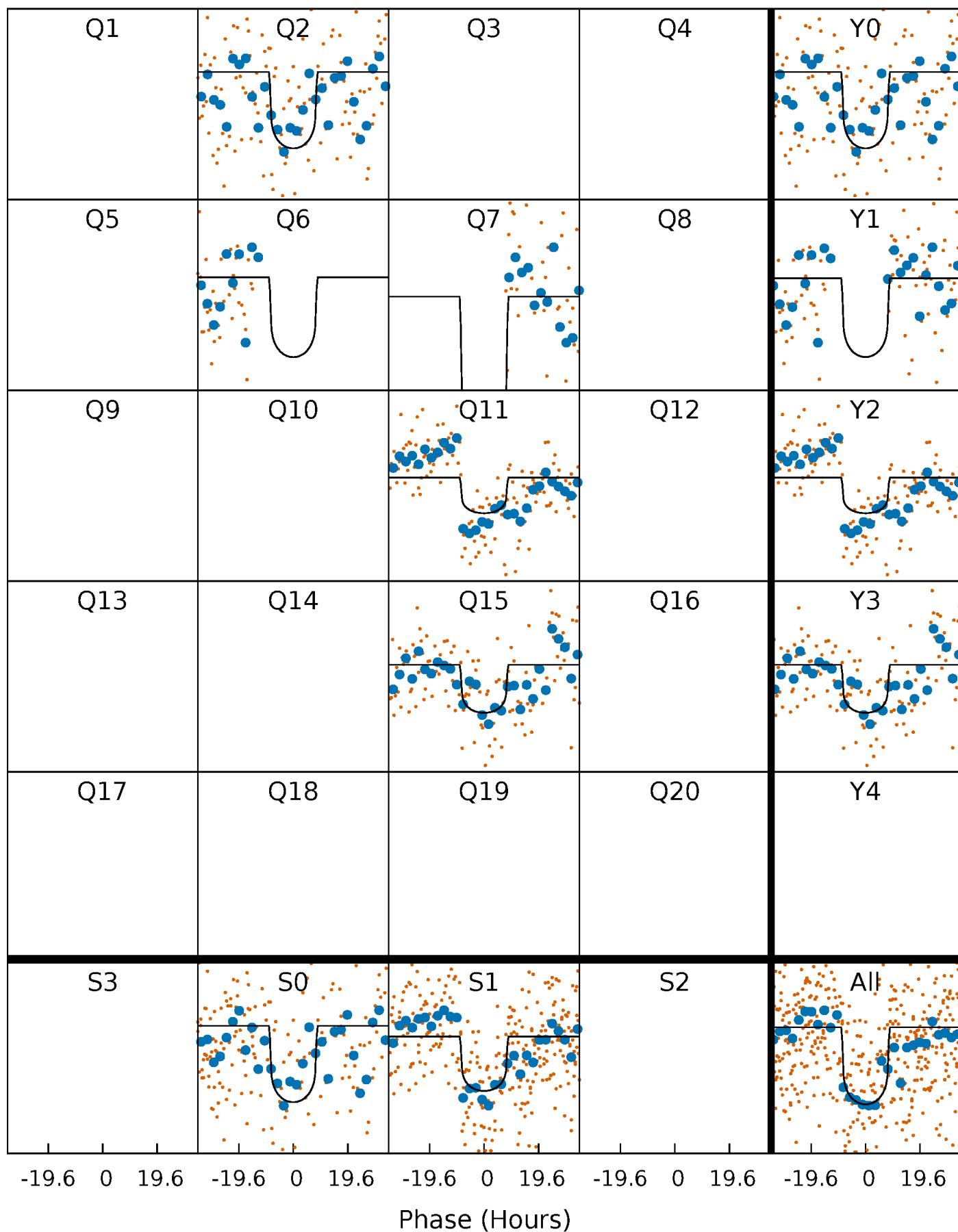
TCE 011772717-01 P=378.206577 Days  $T_0=251.660703$  (BKJD)





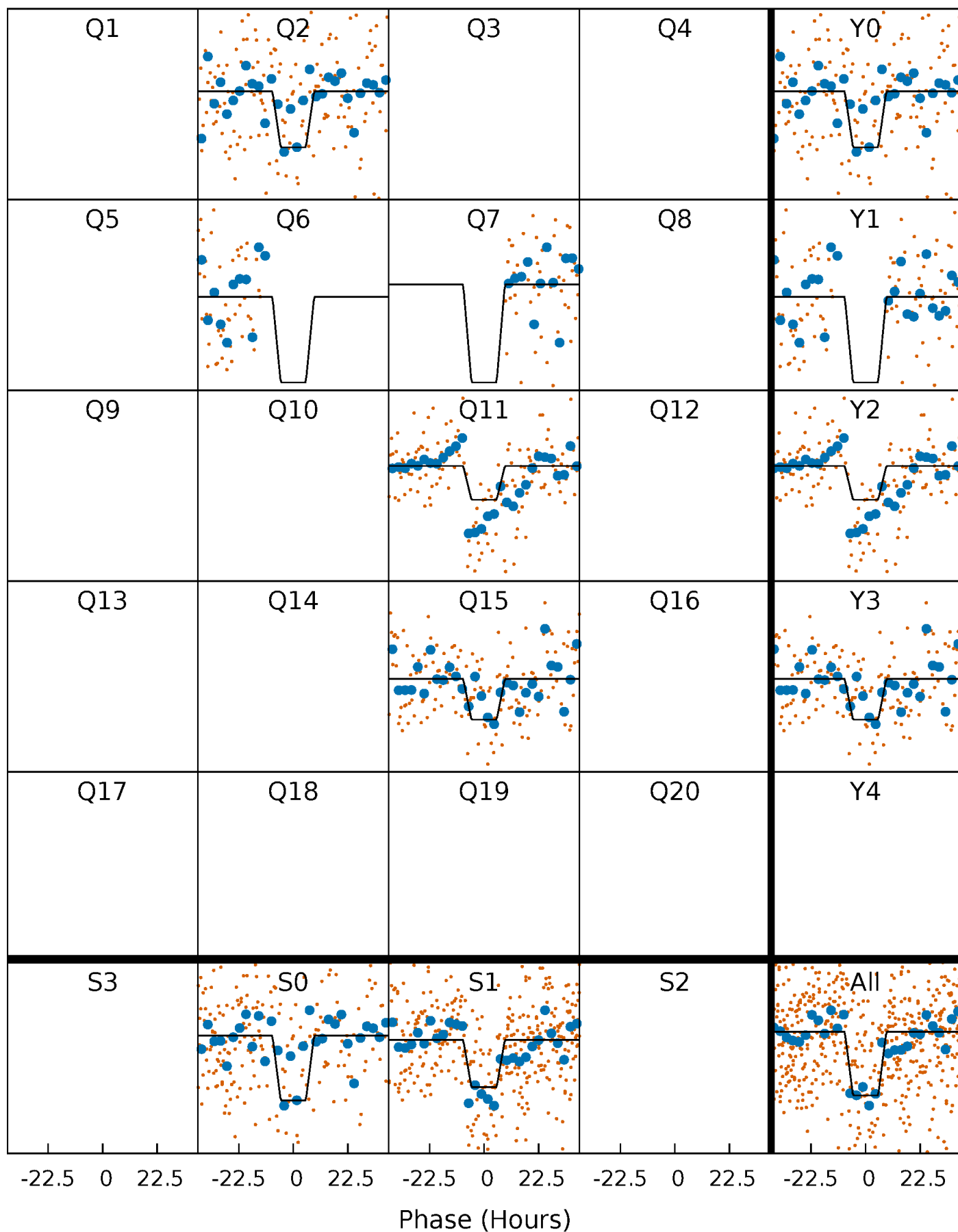
# DV Quarter-Phased Transit Curves

TCE 011772717-01 P=378.206577 Days  $T_0=251.660703$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

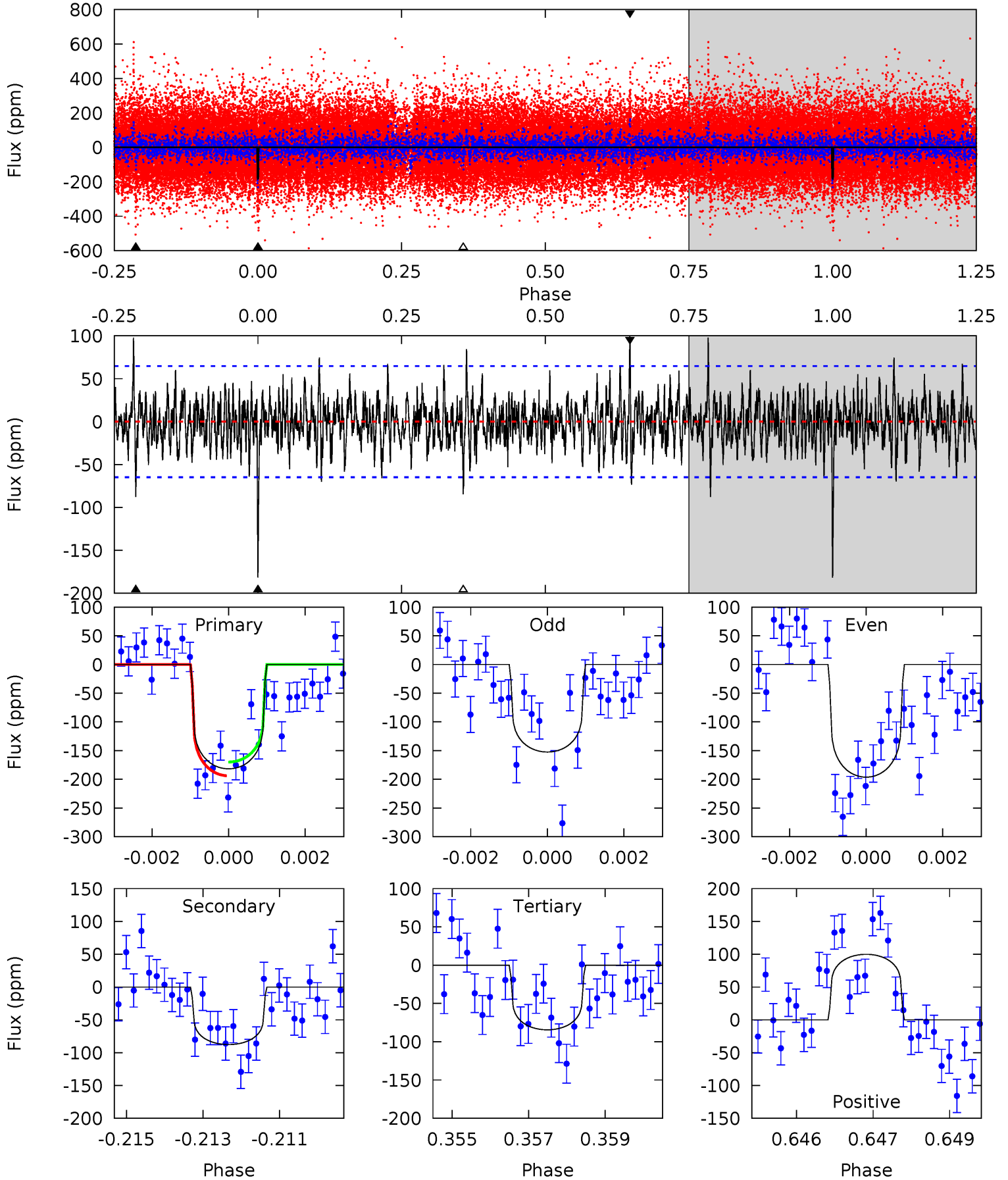
TCE 011772717-01 P=378.204762 Days  $T_0=251.620718$  (BKJD)



# DV Model-Shift Uniqueness Test

011772717-01,  $P = 378.206577$  Days,  $E = 251.660703$  Days

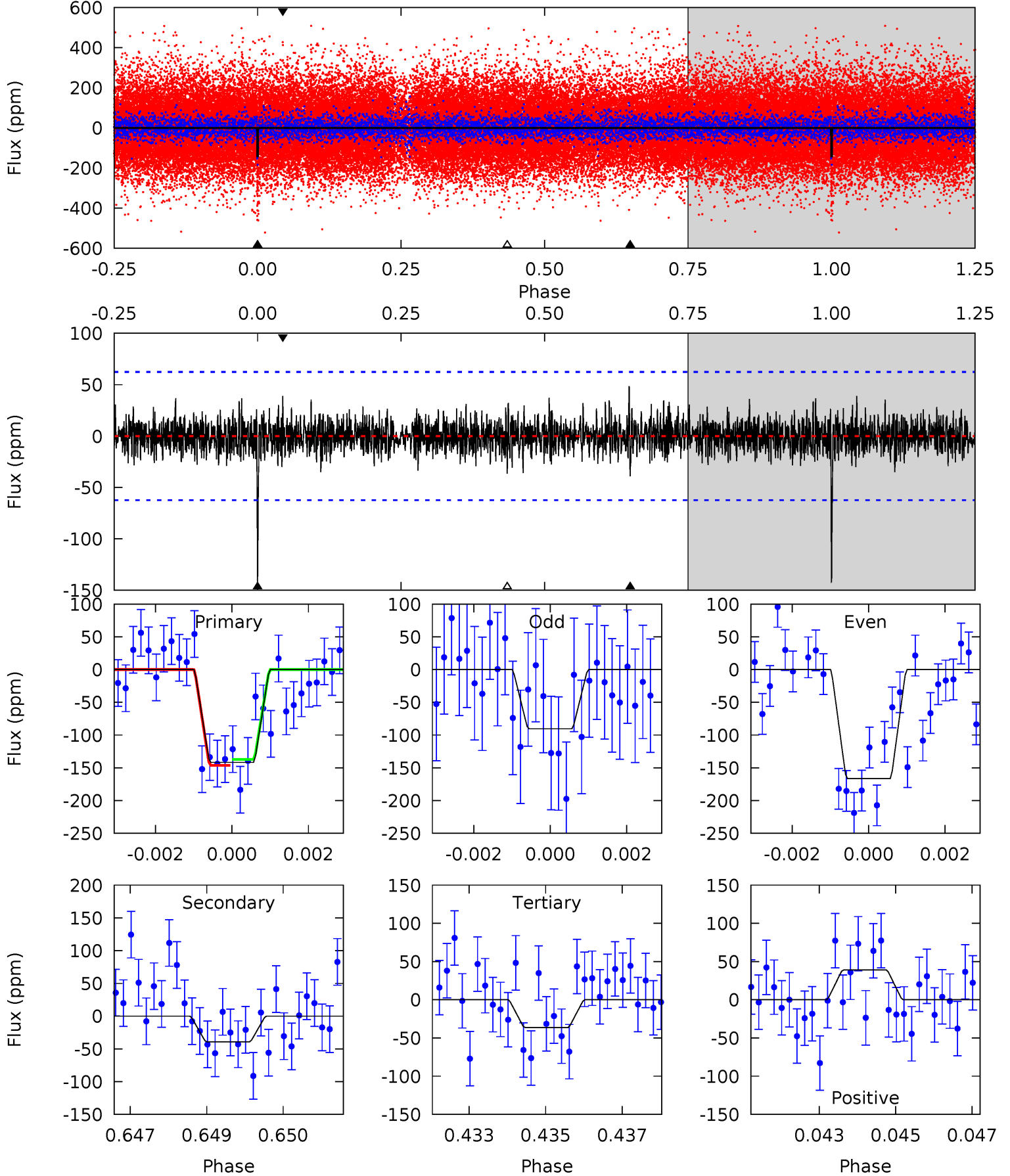
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	7.22	6.96	8.23	5.33	3.10	1.83	8.02	6.75	0.26	-1.01	1.73	0.99	0.35	0.99



# Alt Model-Shift Uniqueness Test

011772717-01, P = 378.204762 Days, E = 251.620718 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
12.1	3.34	3.11	3.33	5.33	3.10	0.94	9.01	8.79	0.24	0.02	3.08	1.57	0.25	0.39



### Stellar Parameters For KIC 011772717

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6133^{+165}_{-165}$	$3.829^{+0.292}_{-0.097}$	$-0.060^{+0.300}_{-0.250}$	$2.310^{+0.434}_{-0.806}$	$1.313^{+0.226}_{-0.249}$	$0.150^{+0.312}_{-0.047}$
	+3%/-3%	+8%/-3%	+500%/-417%	+19%/-35%	+17%/-19%	+208%/-31%
Source	PHO1	FLK73	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 011772717-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-88 \pm 12$	$3.20^{+0.99}_{-0.86}$	$532^{+34}_{-42}$	$5181^{+665}_{-482}$	$5972^{+4904}_{-2463}$
Alt.	$-39 \pm 12$	$2.92^{+0.87}_{-0.88}$	$535^{+33}_{-45}$	$4560^{+683}_{-441}$	$3200^{+3478}_{-1436}$

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

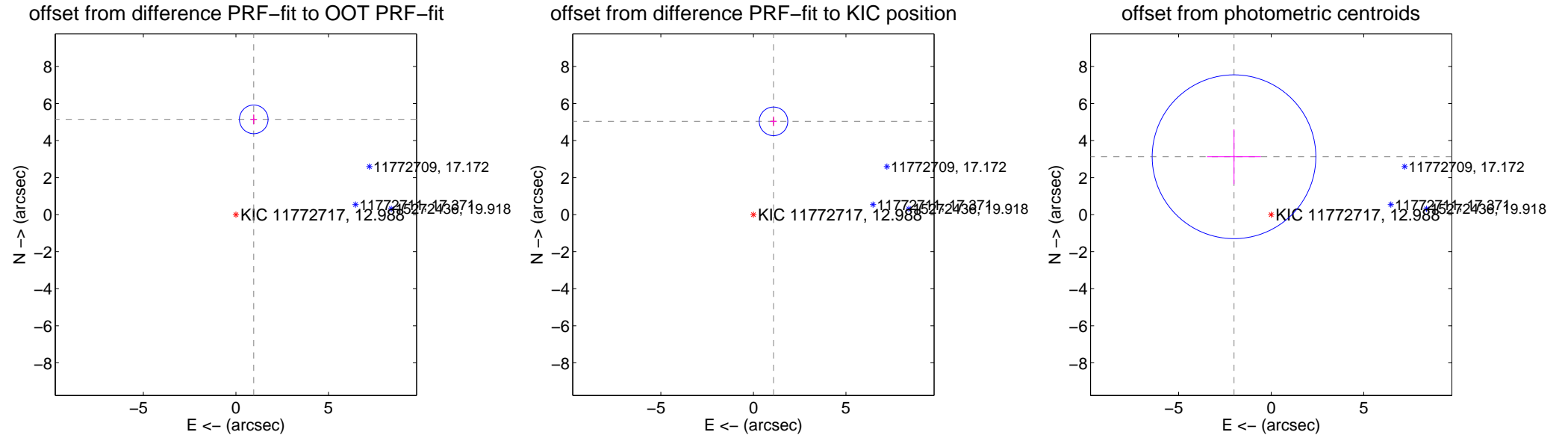
## DV Centroid Data

Supplemental centroid analysis for 011772717-01. Kepler magnitude: 12.99. Transit SNR 7.71

There are 0 quarters with good PRF difference image offsets

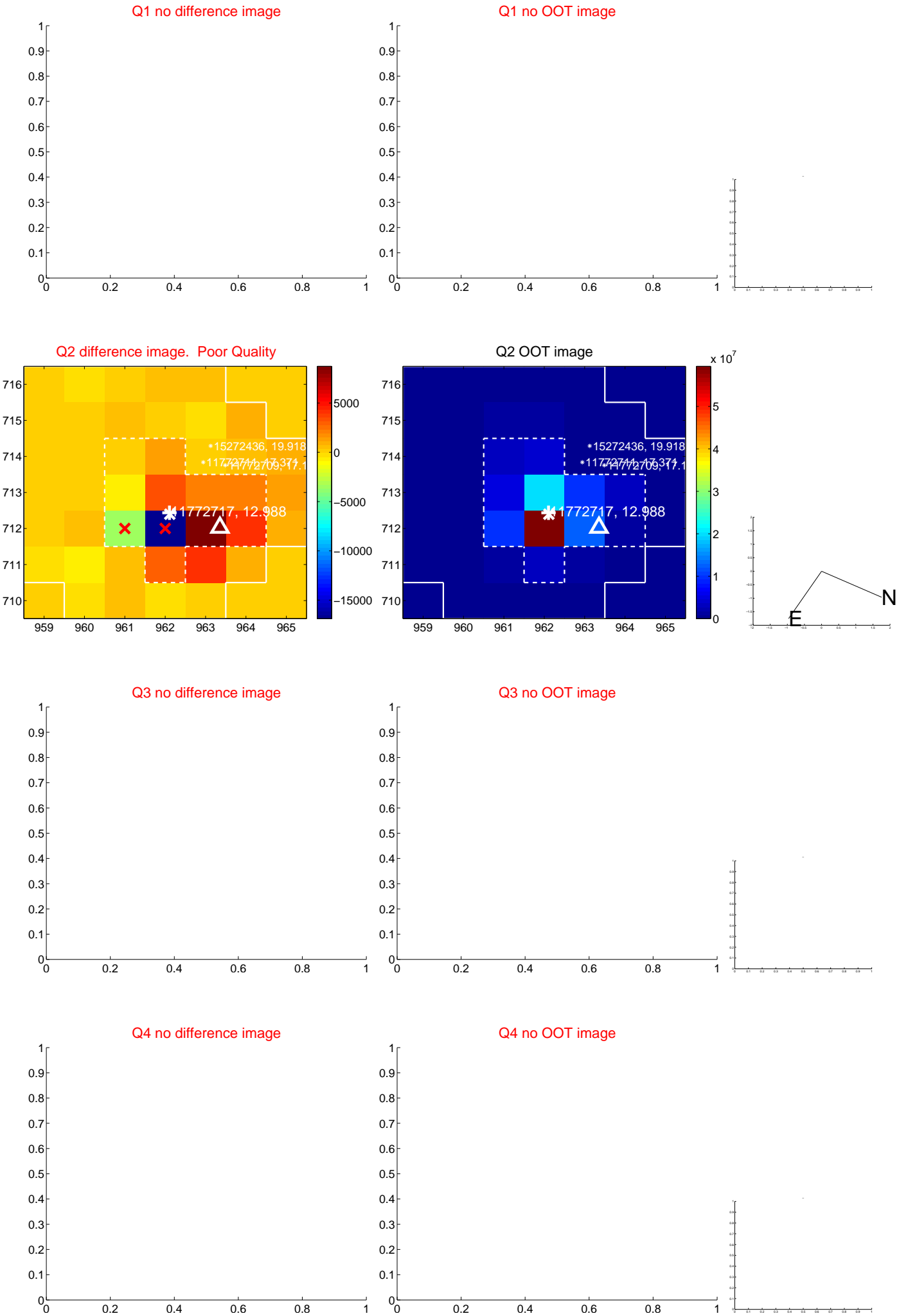
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$5.233 \pm 0.258$	20.28	$-0.965 \pm 0.177$	$5.143 \pm 0.260$
PRF-fit source offset from KIC position	$5.151 \pm 0.257$	20.02	$-1.086 \pm 0.177$	$5.036 \pm 0.260$
photometric centroid source offset	$3.71 \pm 1.47$	2.52	$2.01 \pm 1.46$	$3.12 \pm 1.48$



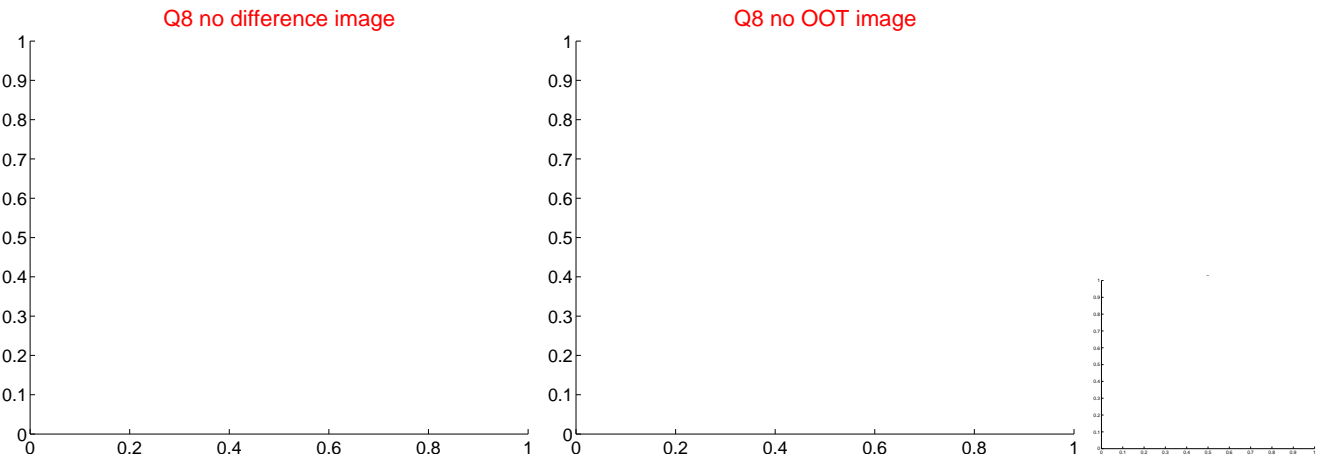
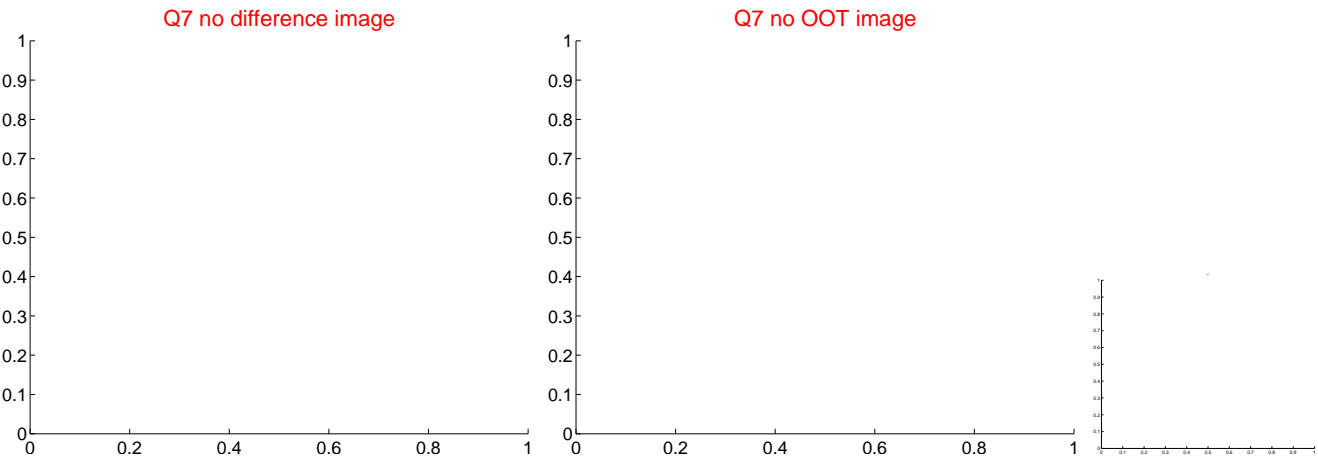
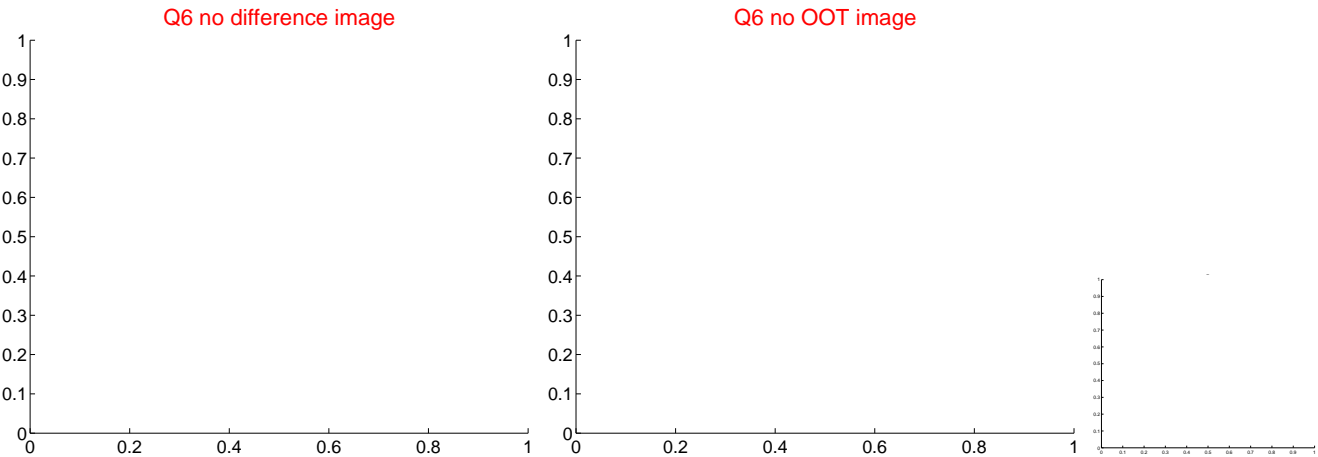
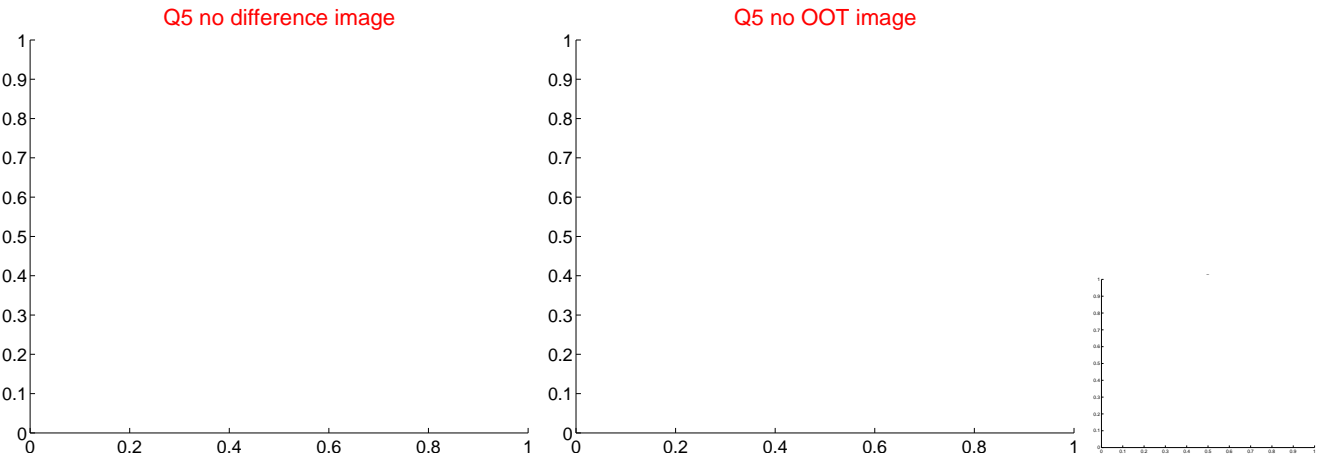
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . 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.

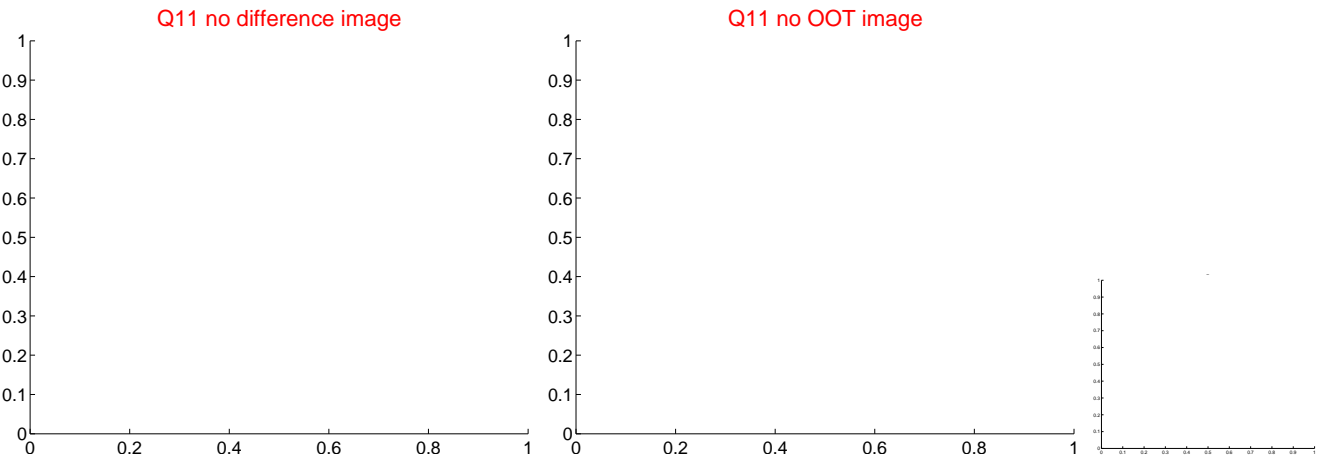




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



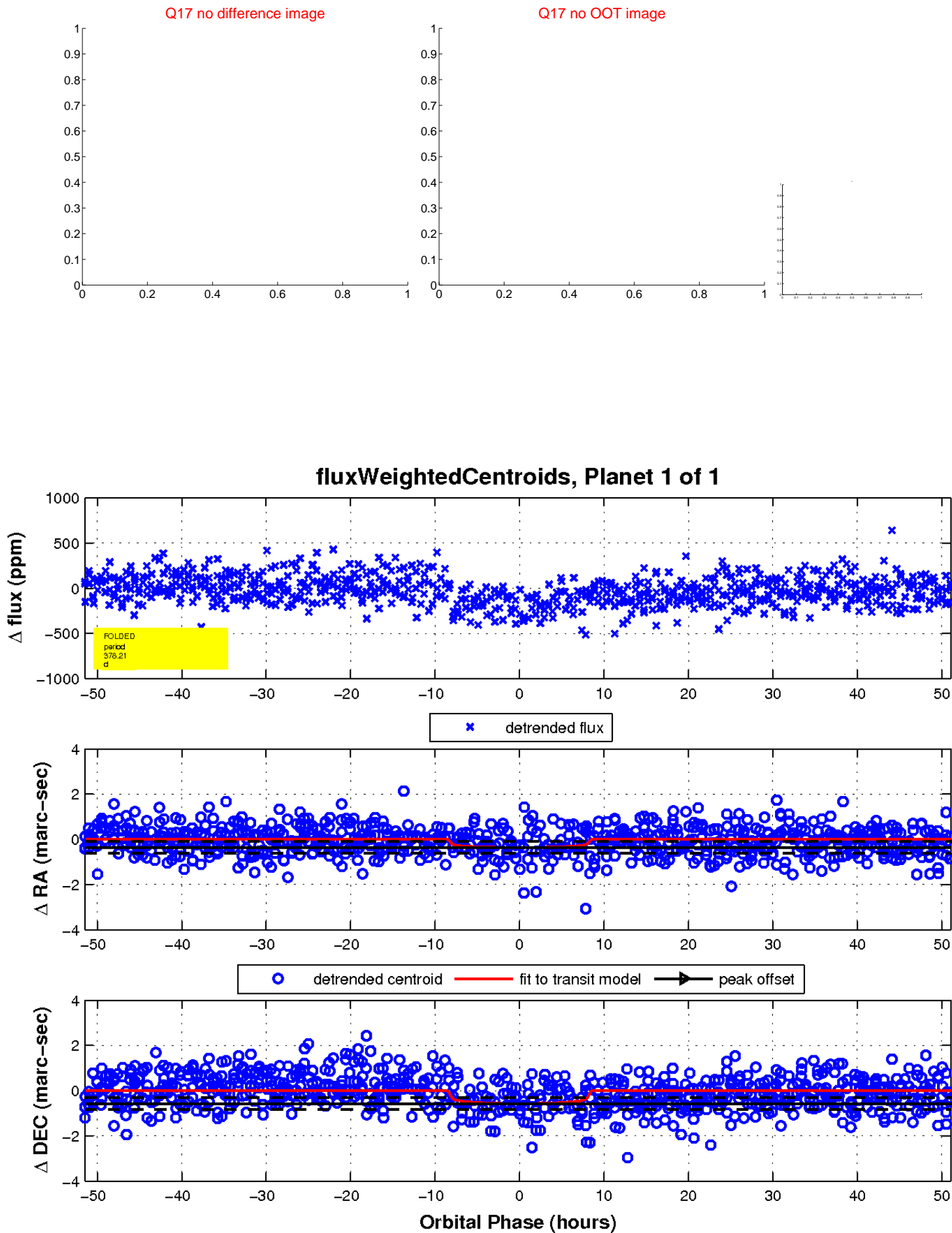
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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.



UKIRT Image

Declination

