

KIC 007594180

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})
007594180-02	OBS	No	479.224851	135.356555	178.4	6.481	12.7	11.6	148.39	3284	224.71	1393.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007594180-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_SKYE_TRACKER—ALL_TRANS_CHASES—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.

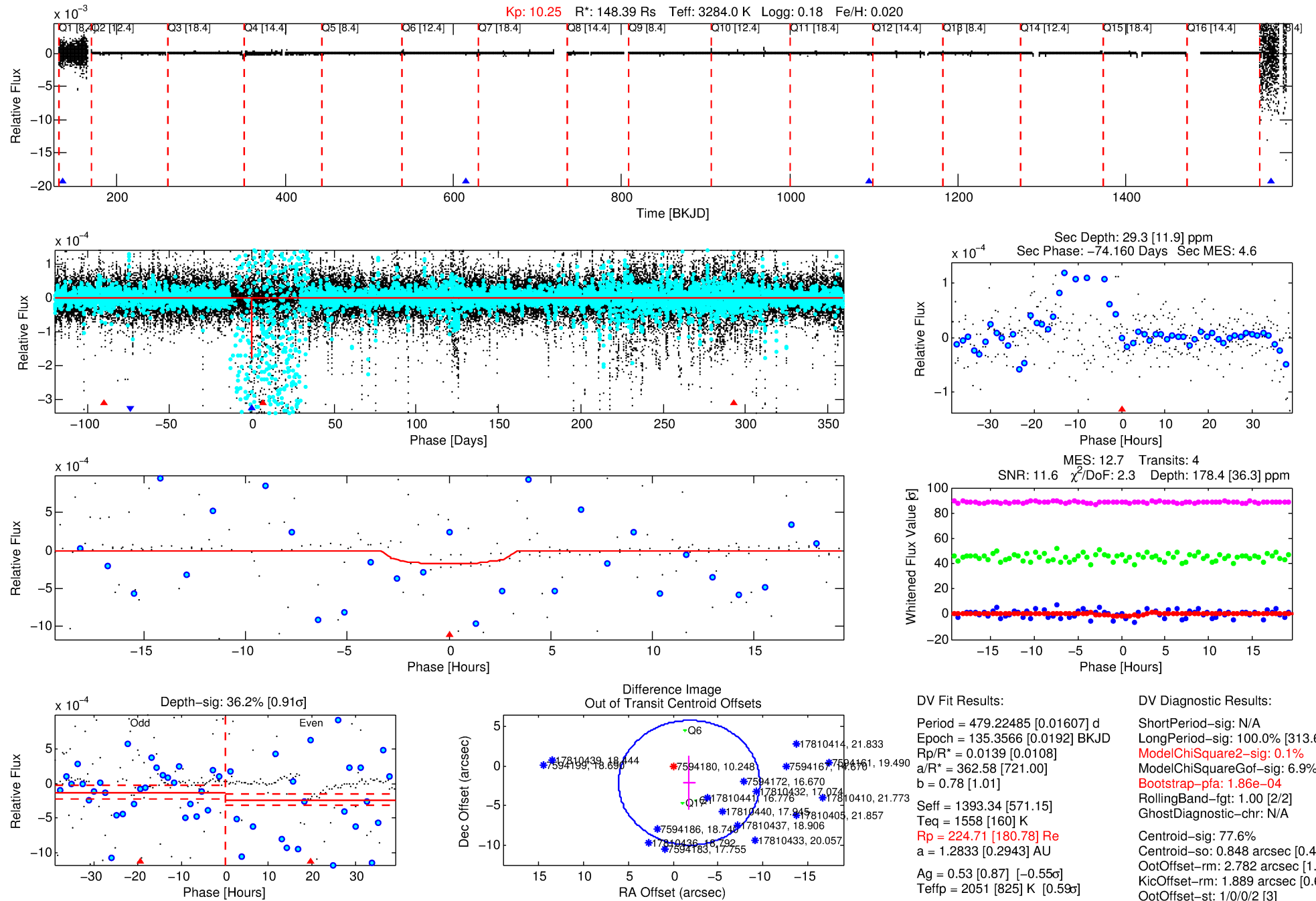
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007594180-02

No Significant Match Found

DV One-Page Summary

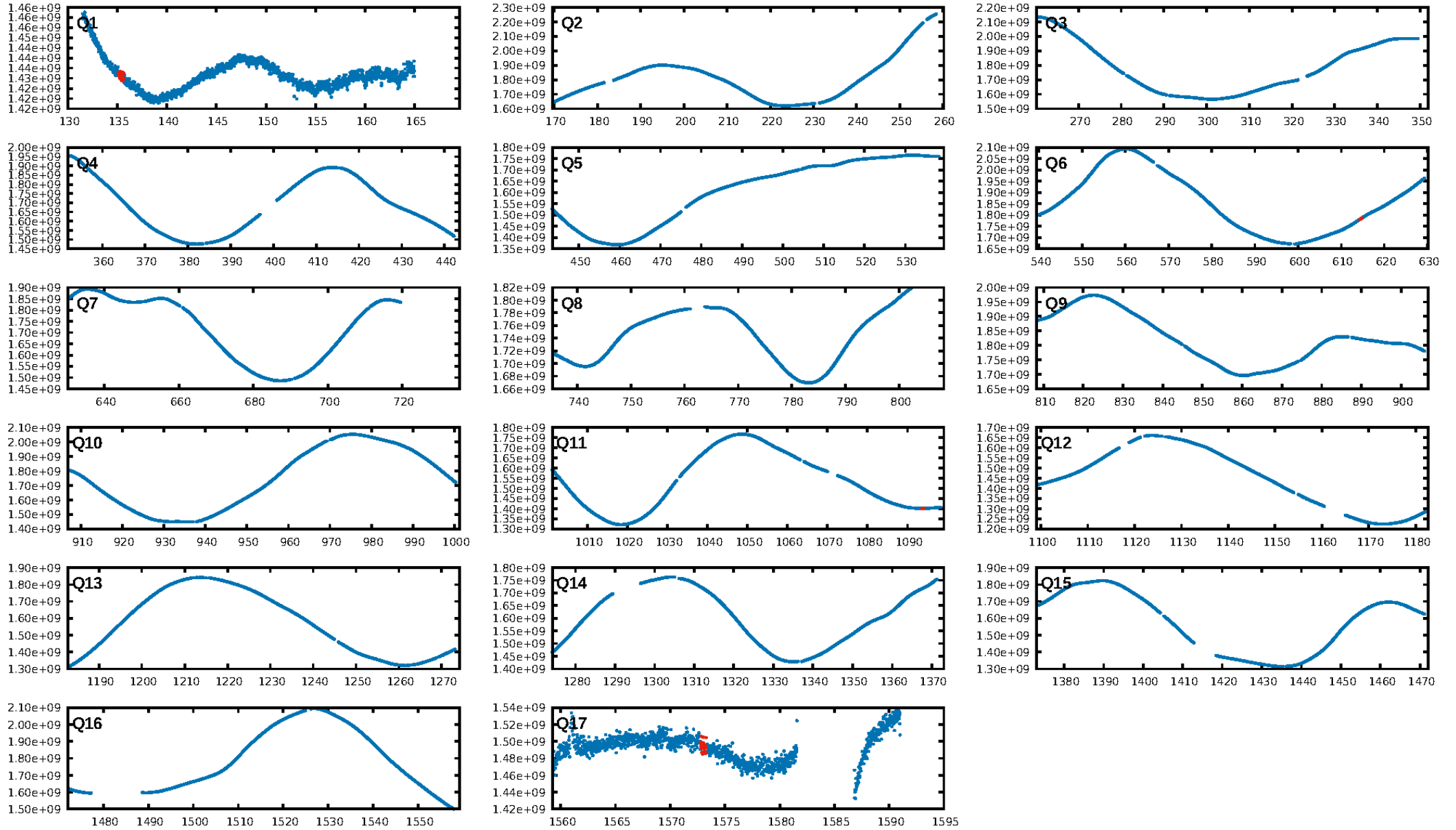
KIC: 7594180 Candidate: 2 of 2 Period: 479.225 d



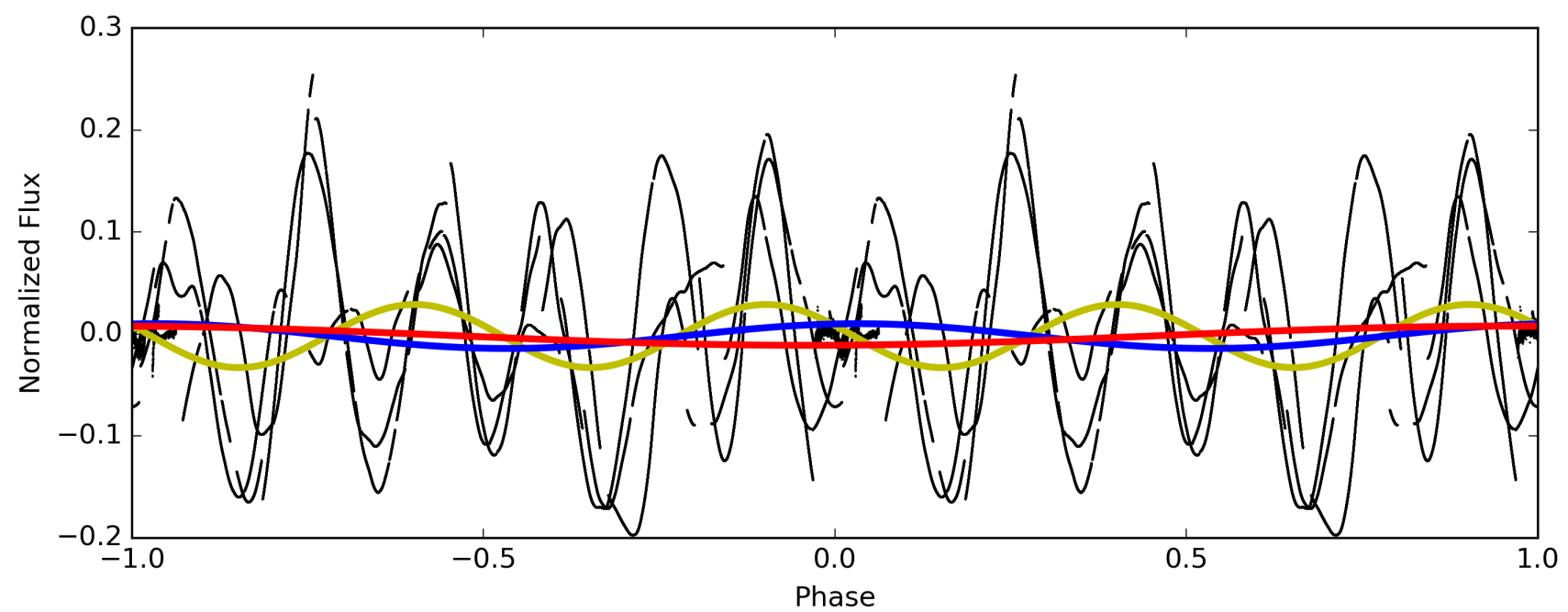
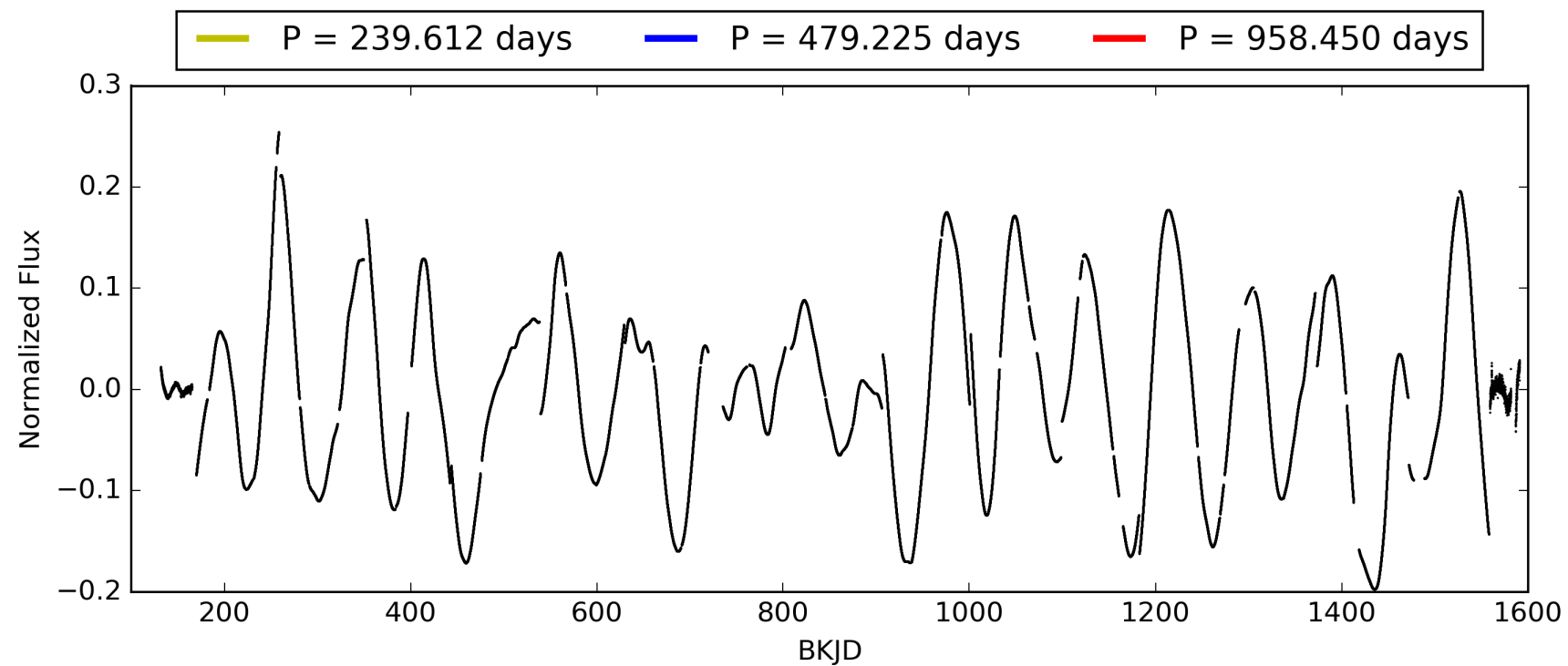
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 05:36:48 Z

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

TCE 007594180-02, PDC Light Curves

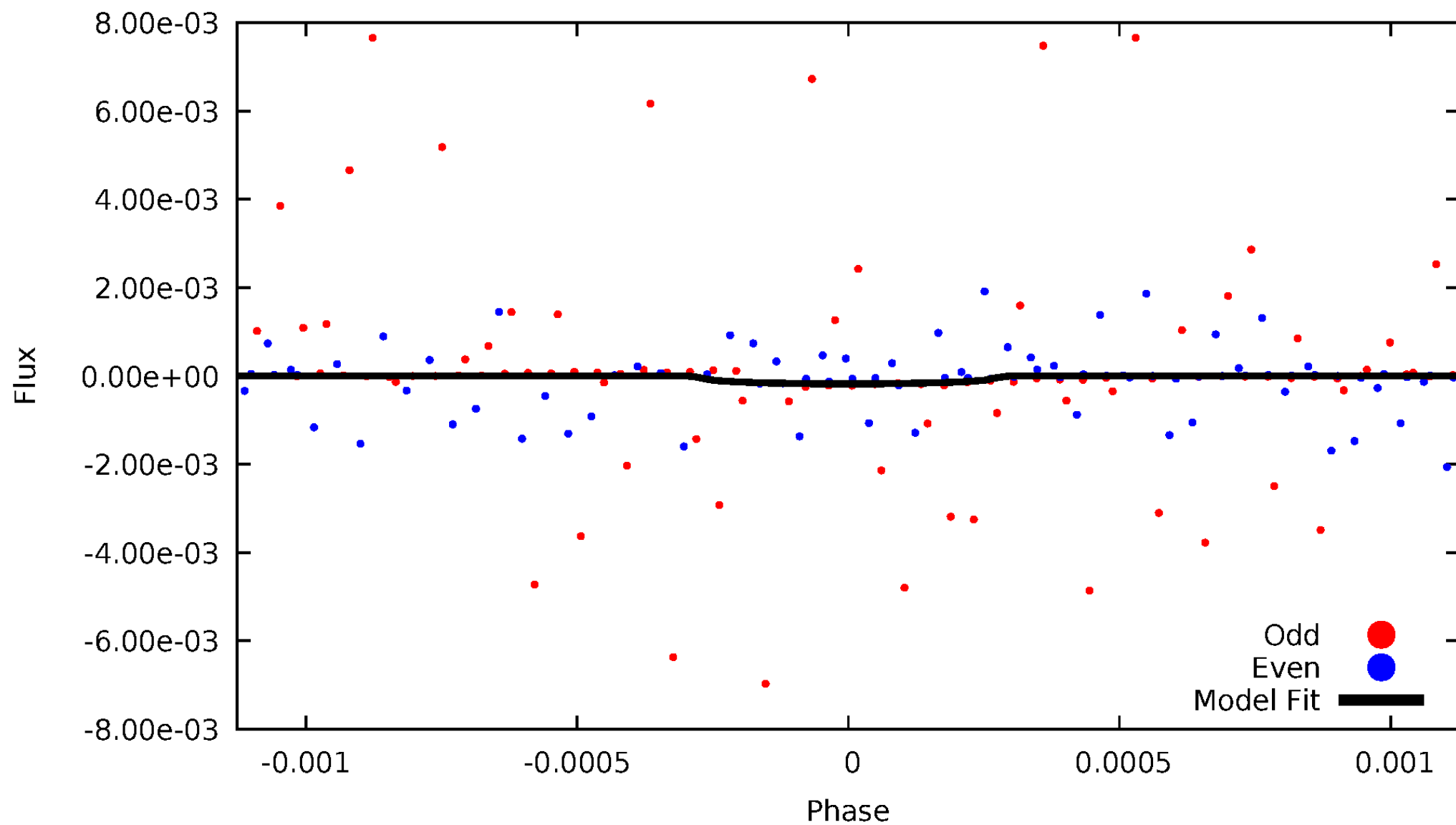


TCE 007594180-02



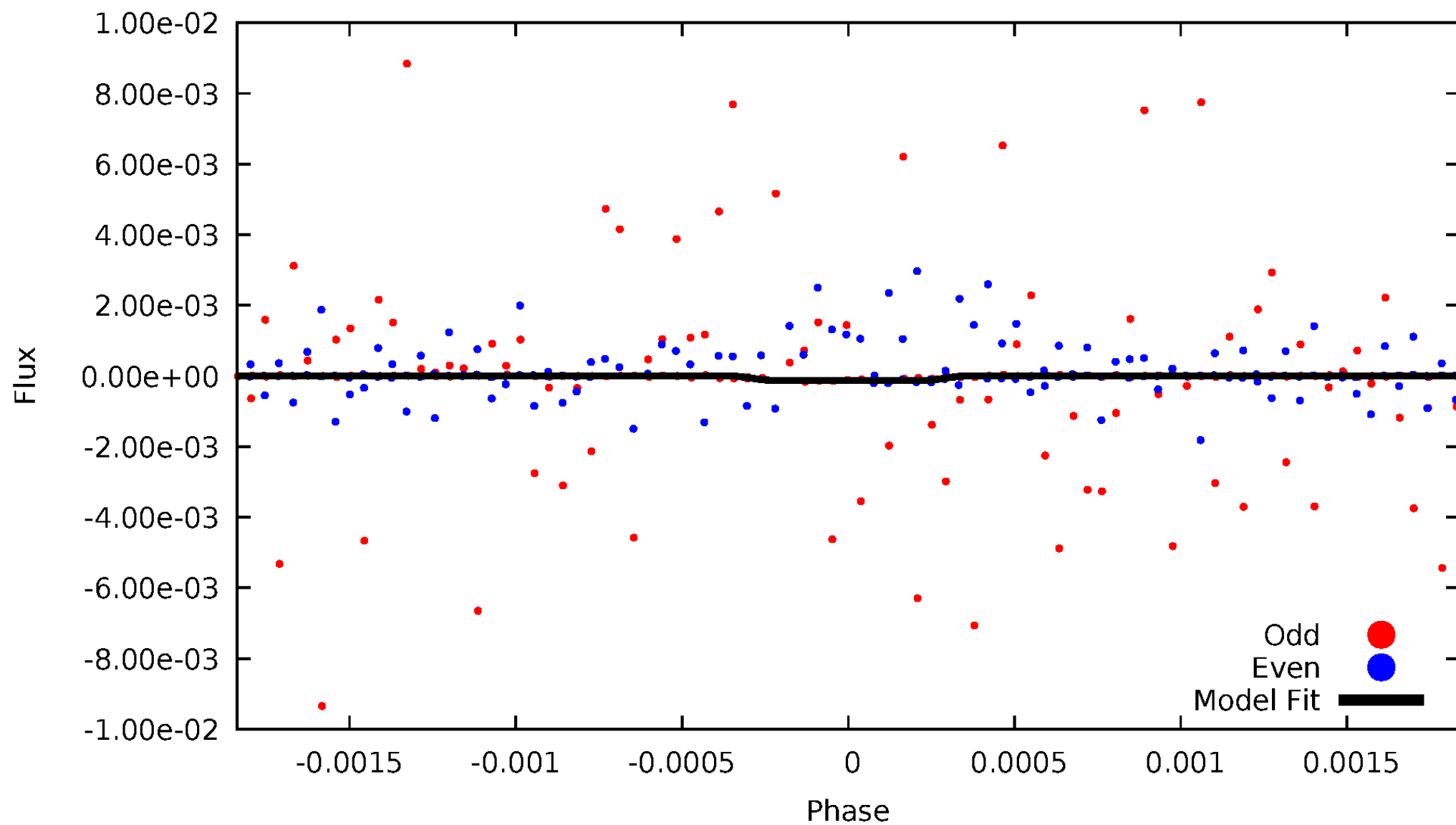
DV Odd/Even

TCE 007594180-02



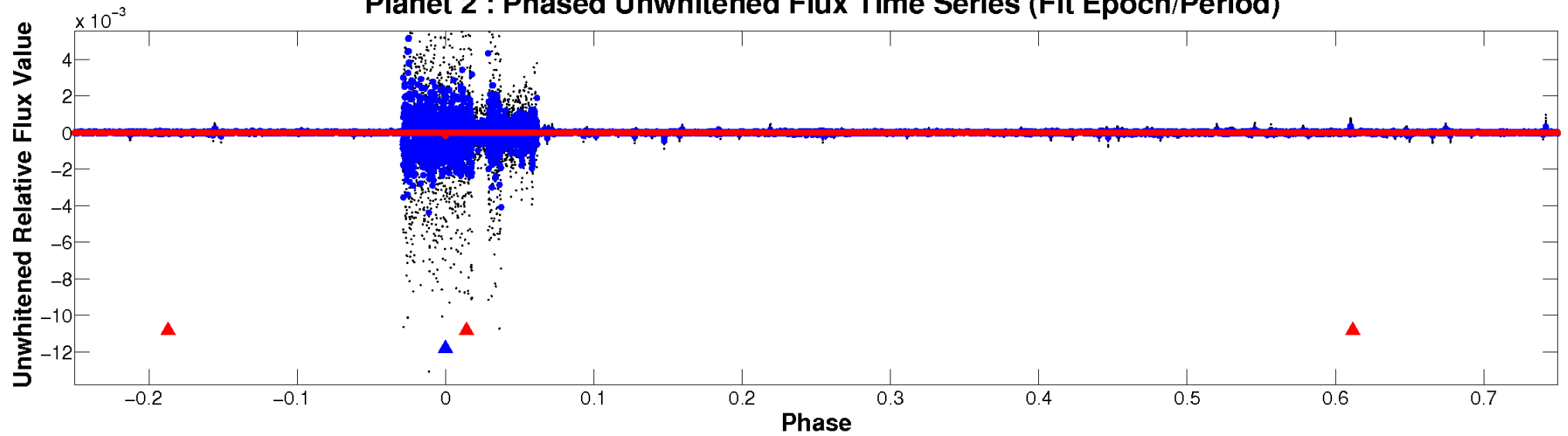
ALT Odd/Even

TCE 007594180-02

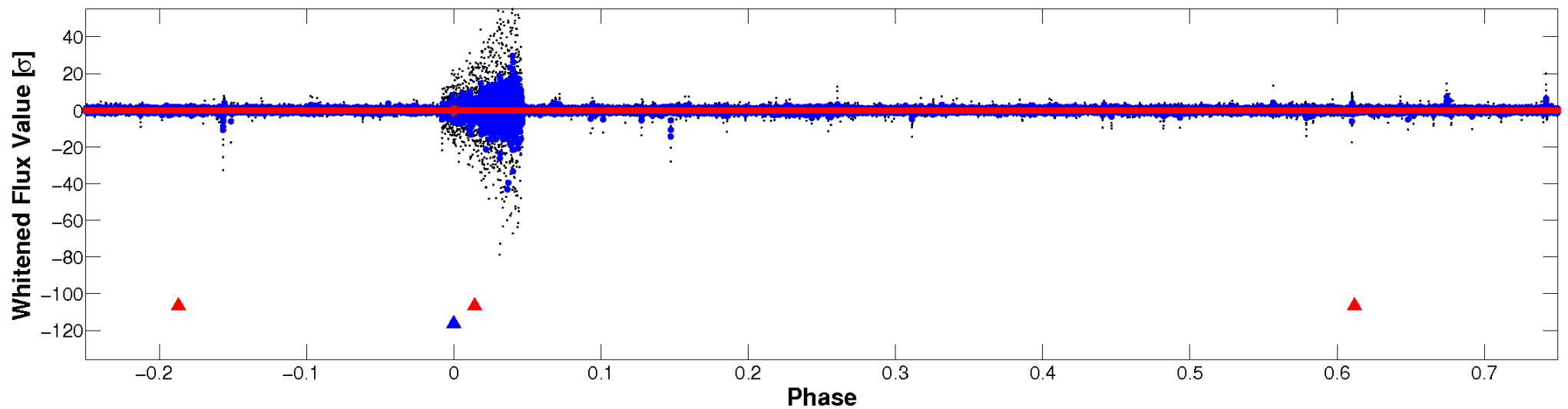


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

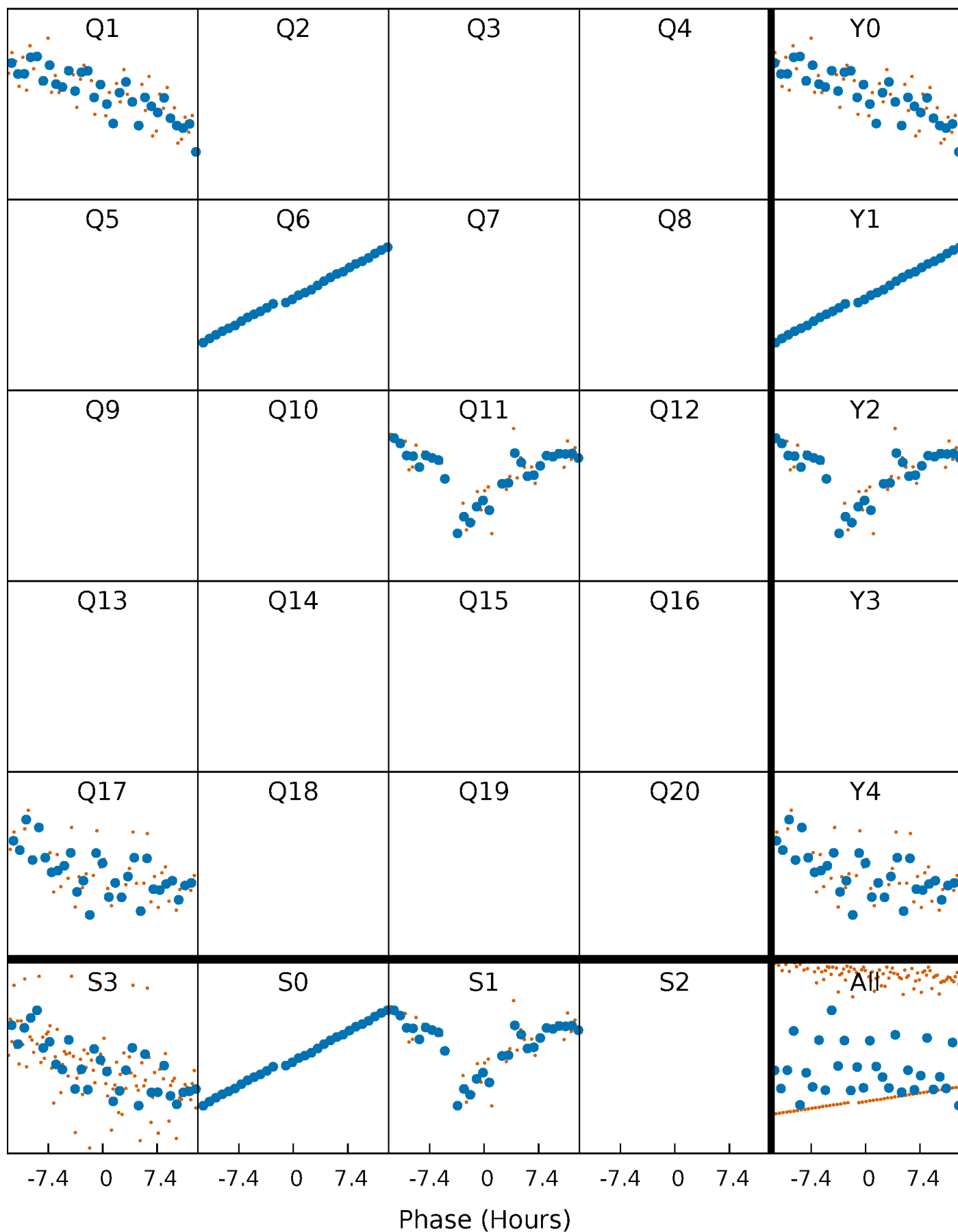


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



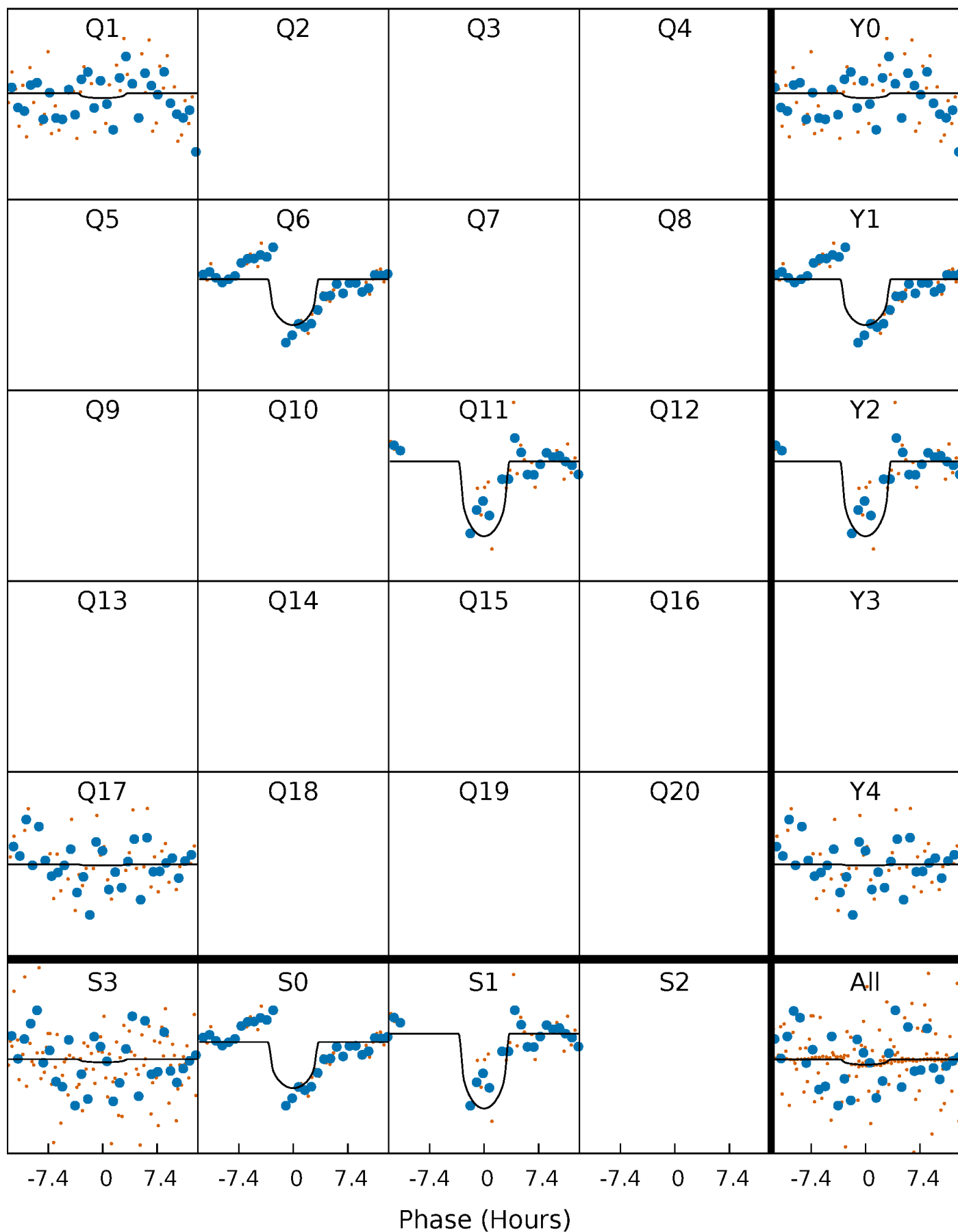
PDC Quarter-Phased Transit Curves

TCE 007594180-02 $P=479.224851$ Days $T_0=135.356555$ (BKJD)



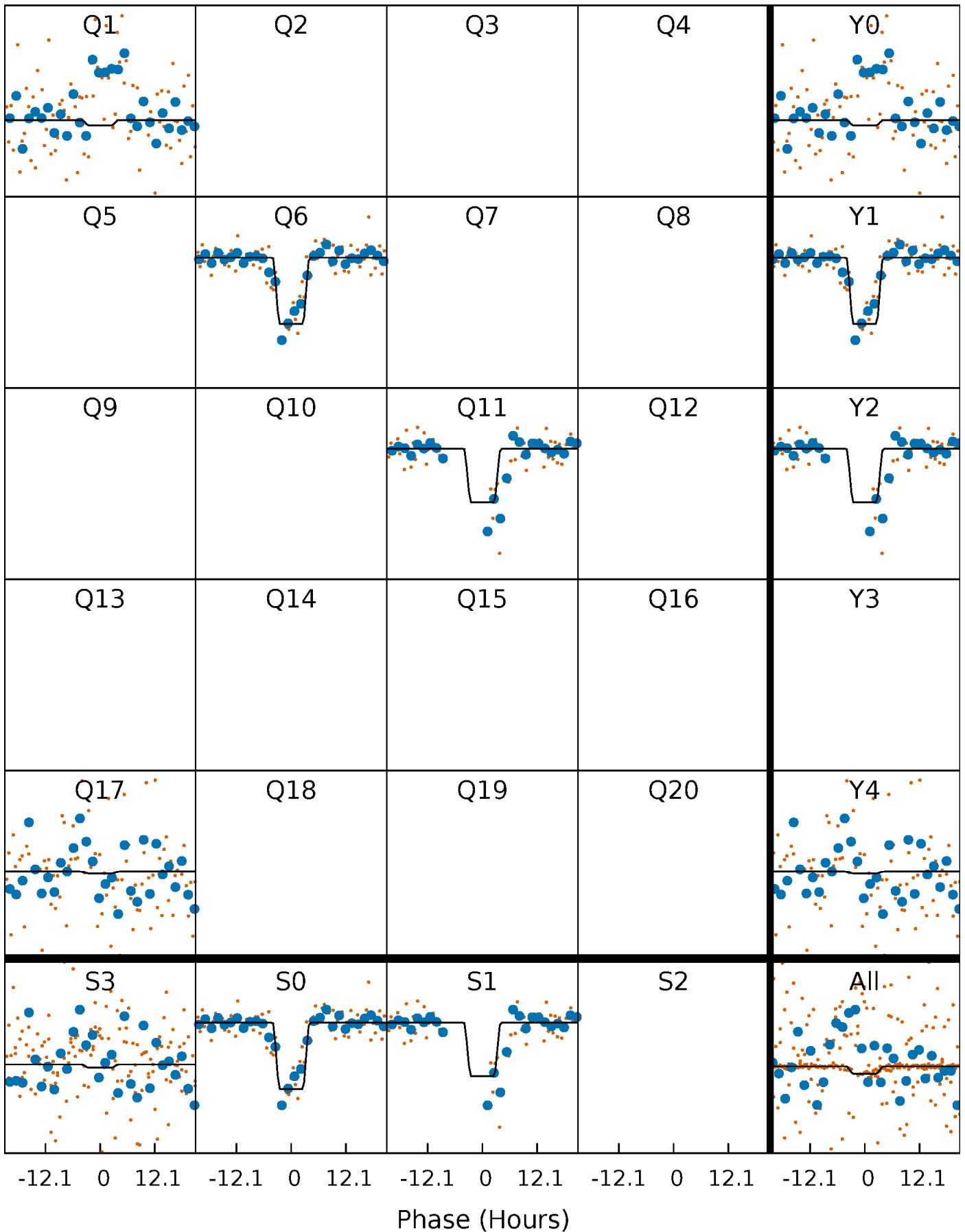
DV Quarter-Phased Transit Curves

TCE 007594180-02 $P=479.224851$ Days $T_0=135.356555$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

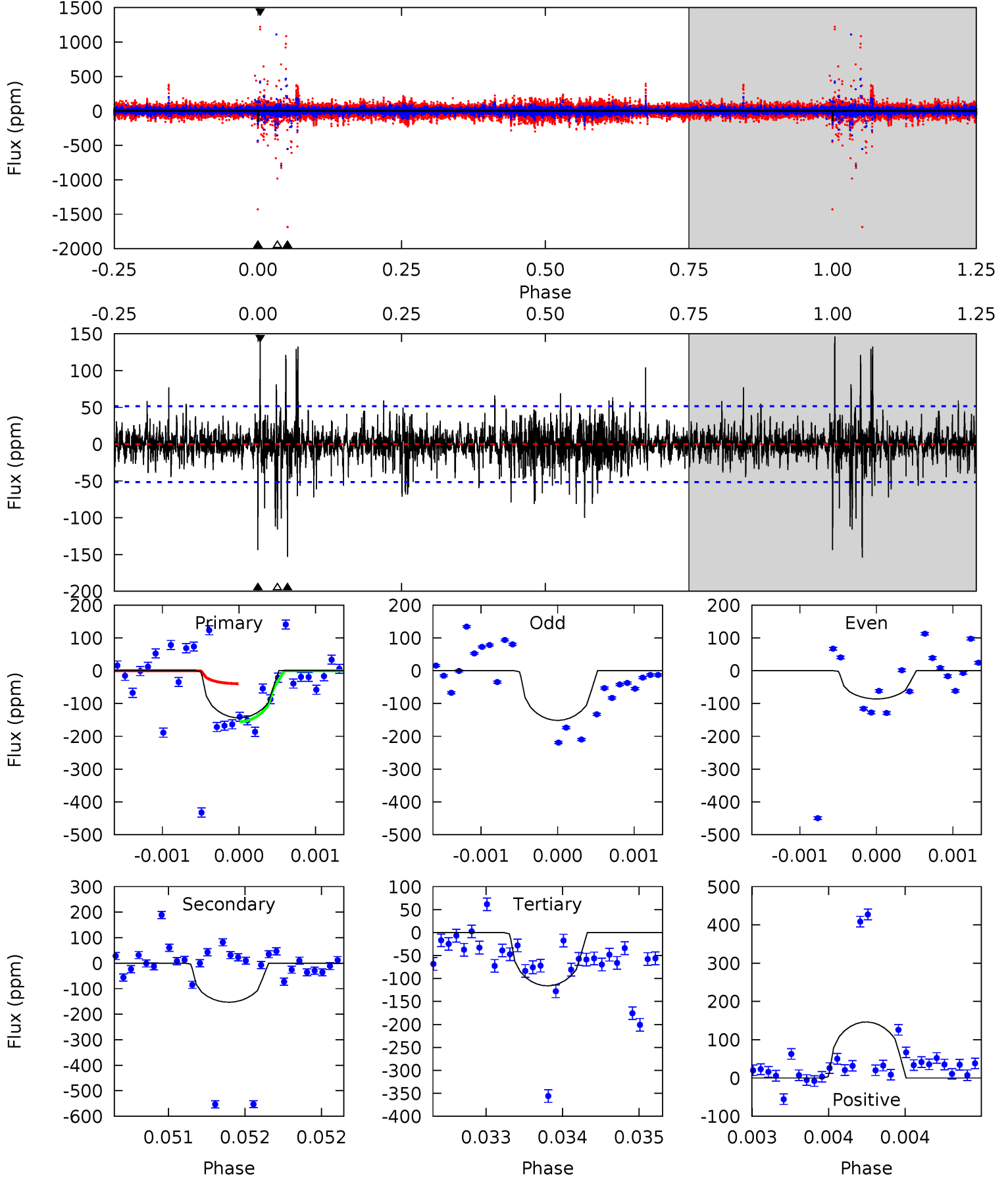
TCE 007594180-02 $P=479.085248$ Days $T_0=135.520931$ (BKJD)



DV Model-Shift Uniqueness Test

007594180-02, P = 479.224851 Days, E = 135.356555 Days

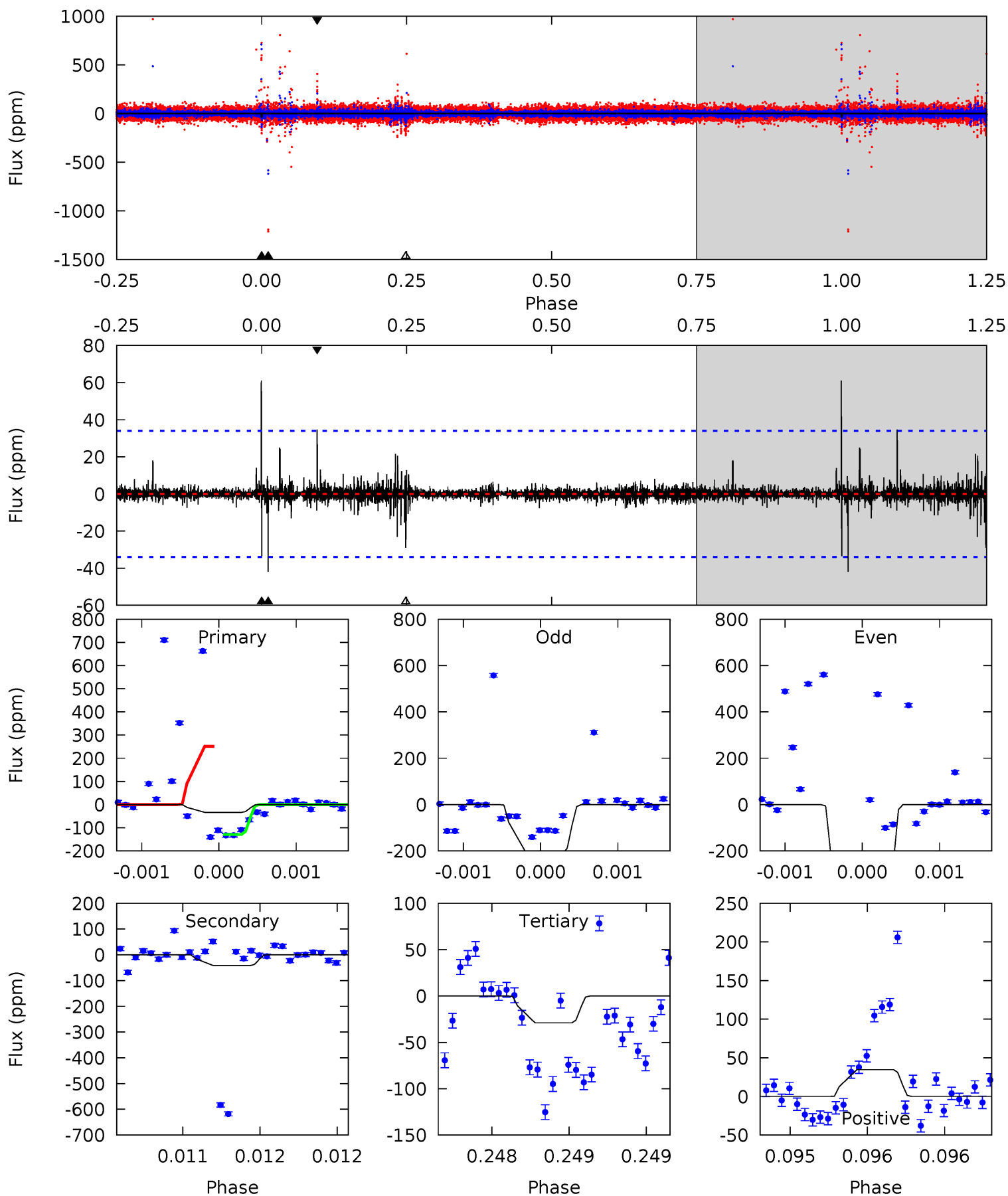
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	16.5	12.5	15.7	5.55	3.44	1.86	3.00	-0.28	3.99	0.71	1.46	2.39	0.49	6.02



Alt Model-Shift Uniqueness Test

007594180-02, P = 479.085248 Days, E = 135.520931 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.45	6.80	4.70	5.62	5.51	3.38	0.35	0.74	-0.18	2.09	1.18	10.6	-0.94	0.59	0



Stellar Parameters For KIC 007594180

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3284^{+117}_{-88}	$0.184^{+0.232}_{-0.058}$	$0.020^{+0.250}_{-0.150}$	$148.390^{+11.490}_{-32.172}$	$1.226^{+0.235}_{-0.157}$	$0.000^{+0.000}_{-0.000}$
	+4%/-3%	+126%/-32%	+1250%/-750%	+8%/-22%	+19%/-13%	+115%/-17%
Source	KIC0	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 007594180-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-153 ± 9	$236.05^{+162.49}_{-132.41}$	2141^{+109}_{-135}	3055^{+983}_{-491}	$2.619^{+10.858}_{-1.726}$
Alt.	-42 ± 6	$210.40^{+160.66}_{-132.74}$	2145^{+95}_{-131}	2511^{+1046}_{-4307}	$0.852^{+5.647}_{-0.579}$

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 $A_{obs} \gg 1.0$

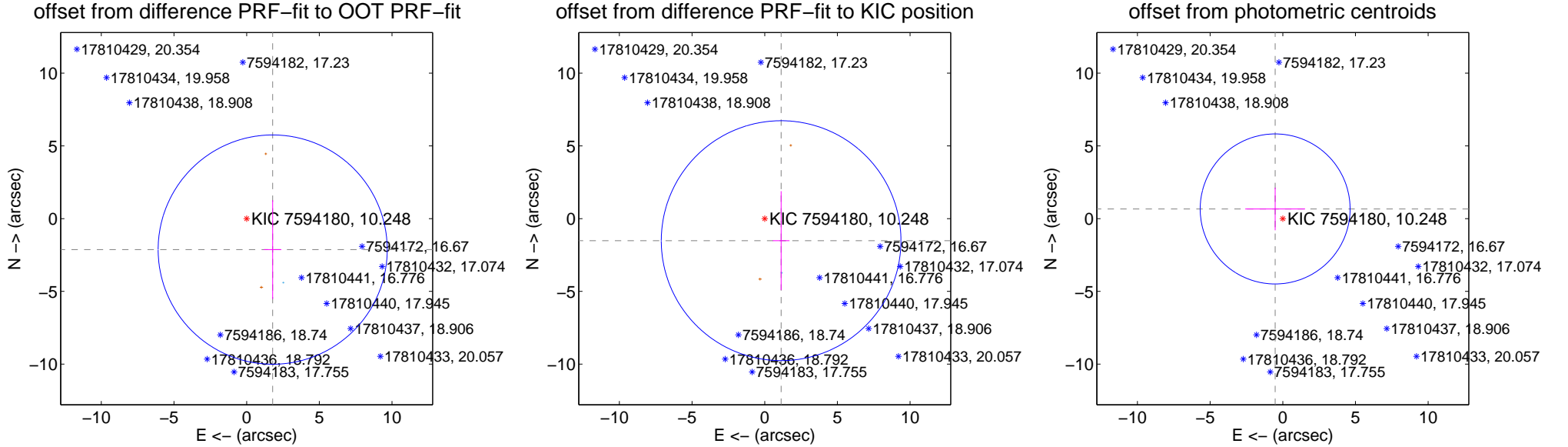
DV Centroid Data

Supplemental centroid analysis for 007594180-02. **Kepler magnitude: 10.25.** Transit SNR 11.56

There are 1 quarters with good PRF difference image offsets

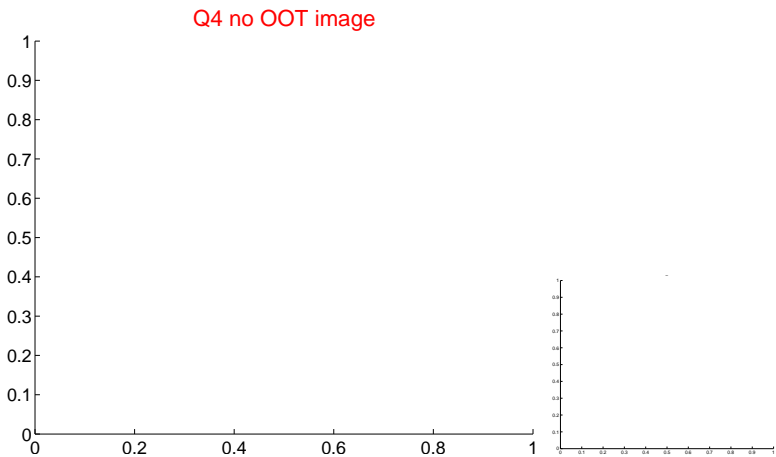
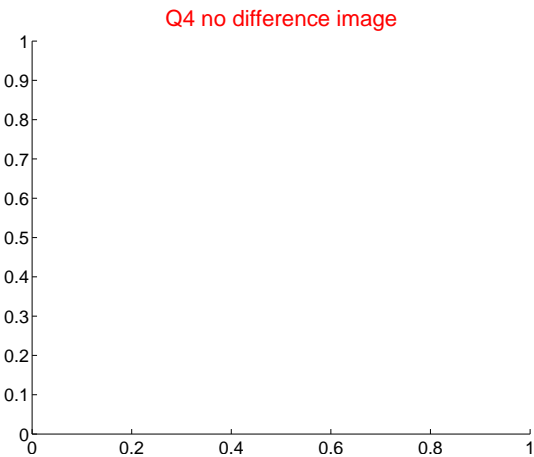
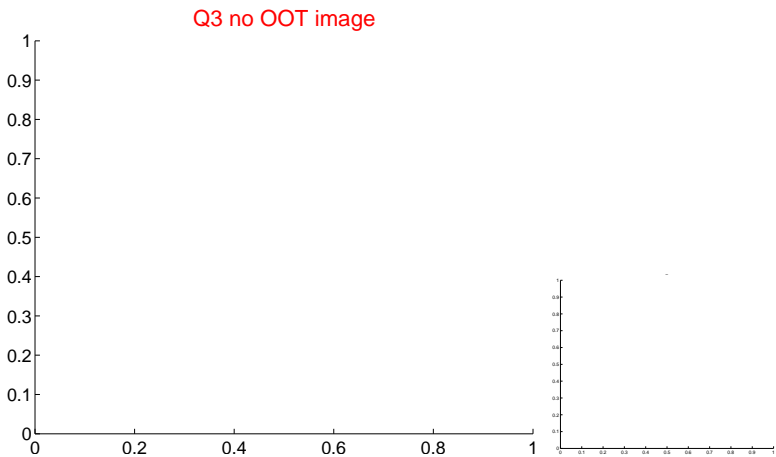
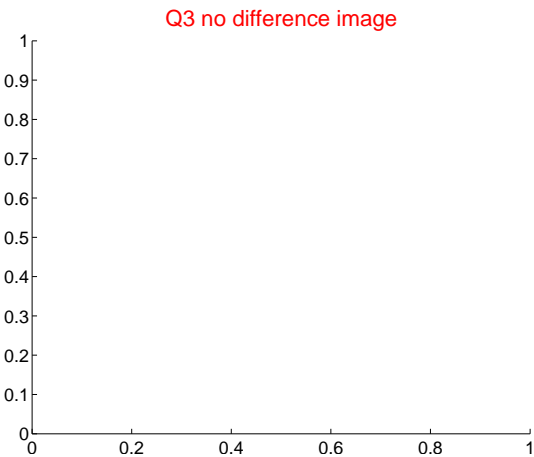
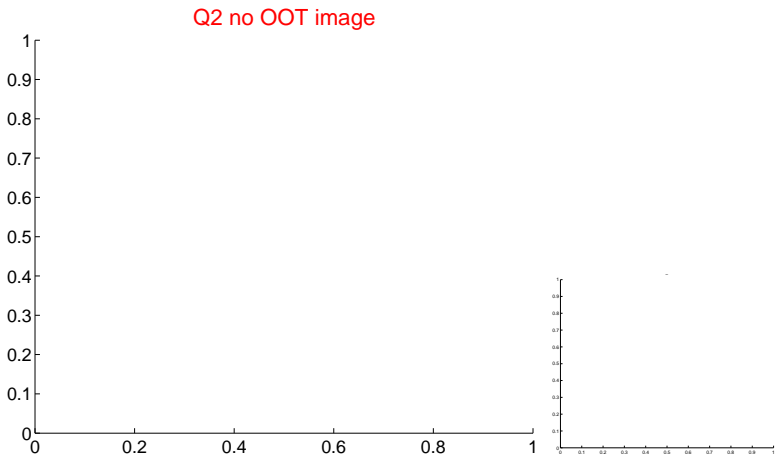
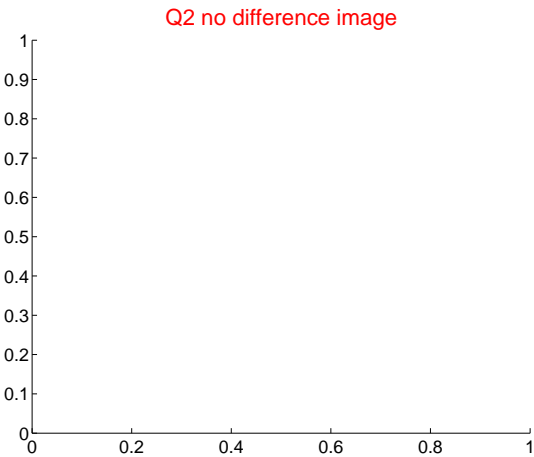
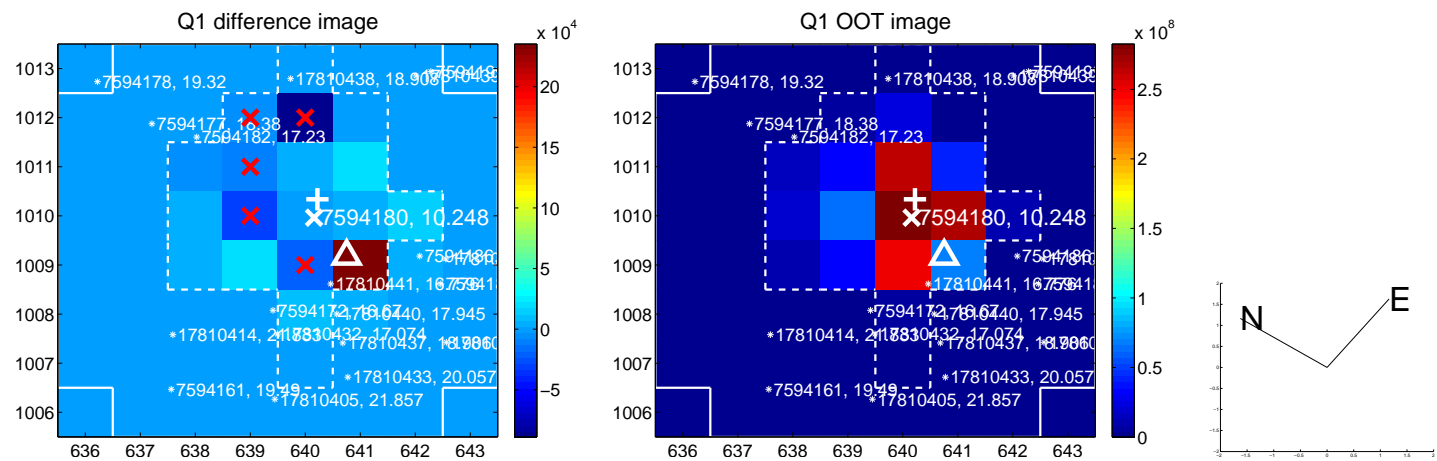
The direct PRF centroid is offset from the target star catalog position by about 1.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.782 ± 2.626	1.06	-1.791 ± 0.594	-2.128 ± 3.396
PRF-fit source offset from KIC position	1.889 ± 2.748	0.69	-1.128 ± 0.577	-1.515 ± 3.399
photometric centroid source offset	0.85 ± 1.72	0.49	0.53 ± 2.06	0.67 ± 1.47



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- σ uncertainty. Blue circle: three- σ . 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.

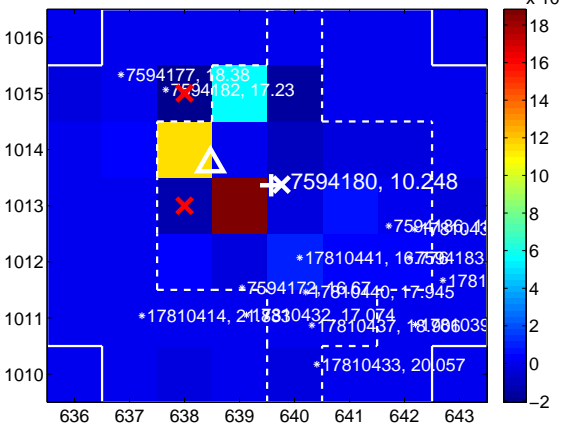
Q5 no difference image



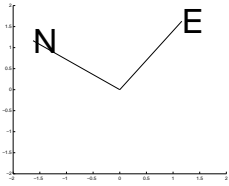
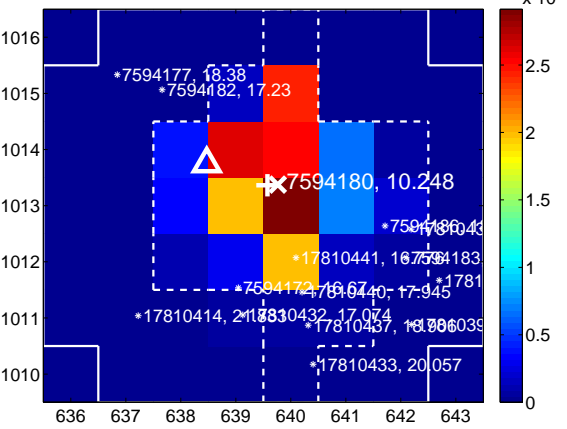
Q5 no OOT image



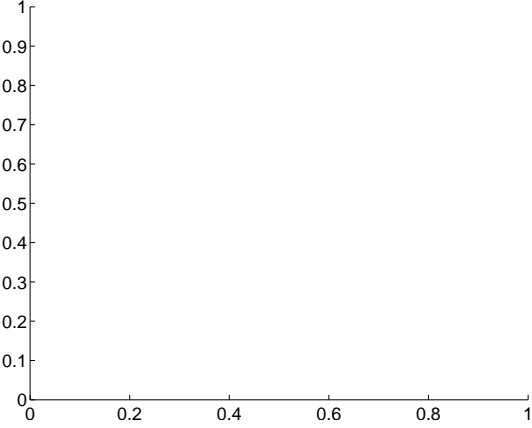
Q6 difference image. Poor Quality



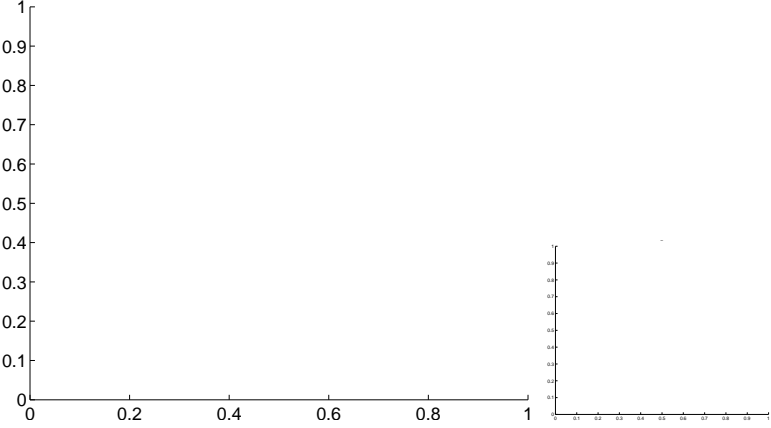
Q6 OOT image



Q7 no difference image



Q7 no OOT image



Q8 no difference image



Q8 no OOT image



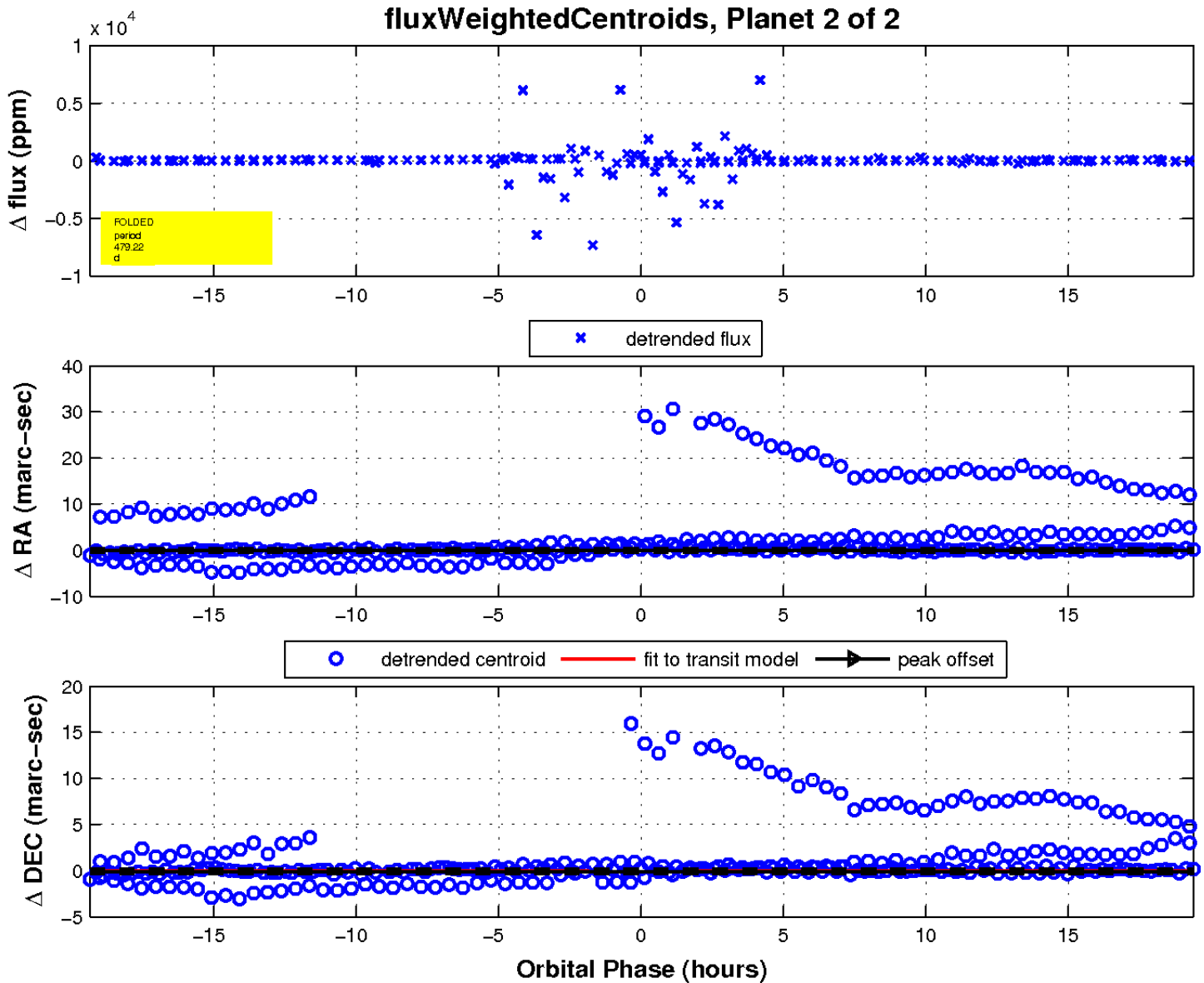
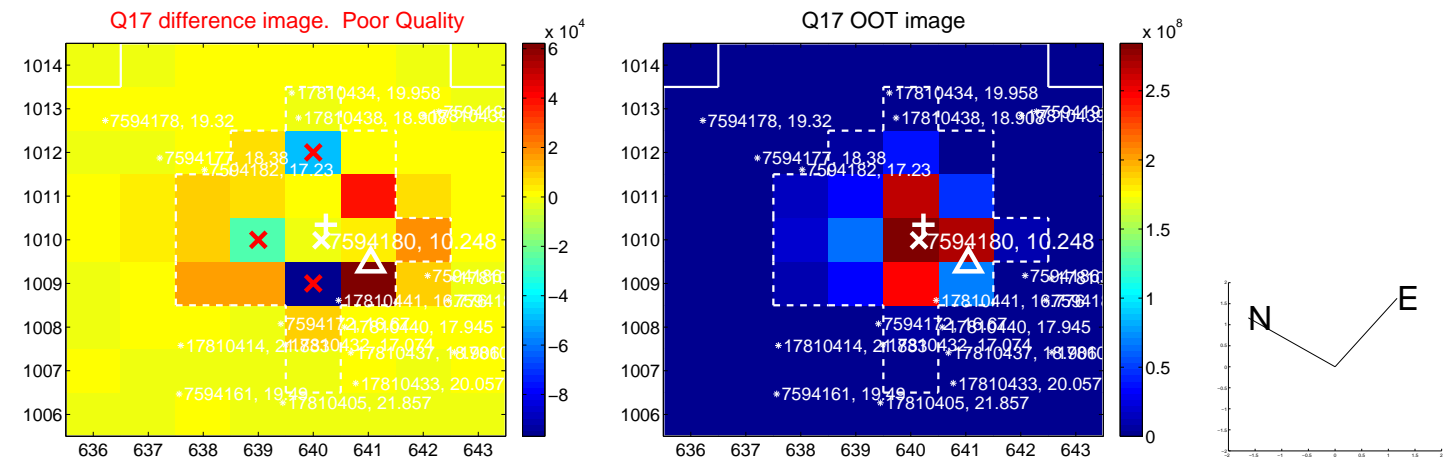
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

