

KIC 007877673

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})
007877673-01	OBS	No	224.835420	274.197566	877.9	3.715	8.2	7.1	13.01	4667	50.88	82.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007877673-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

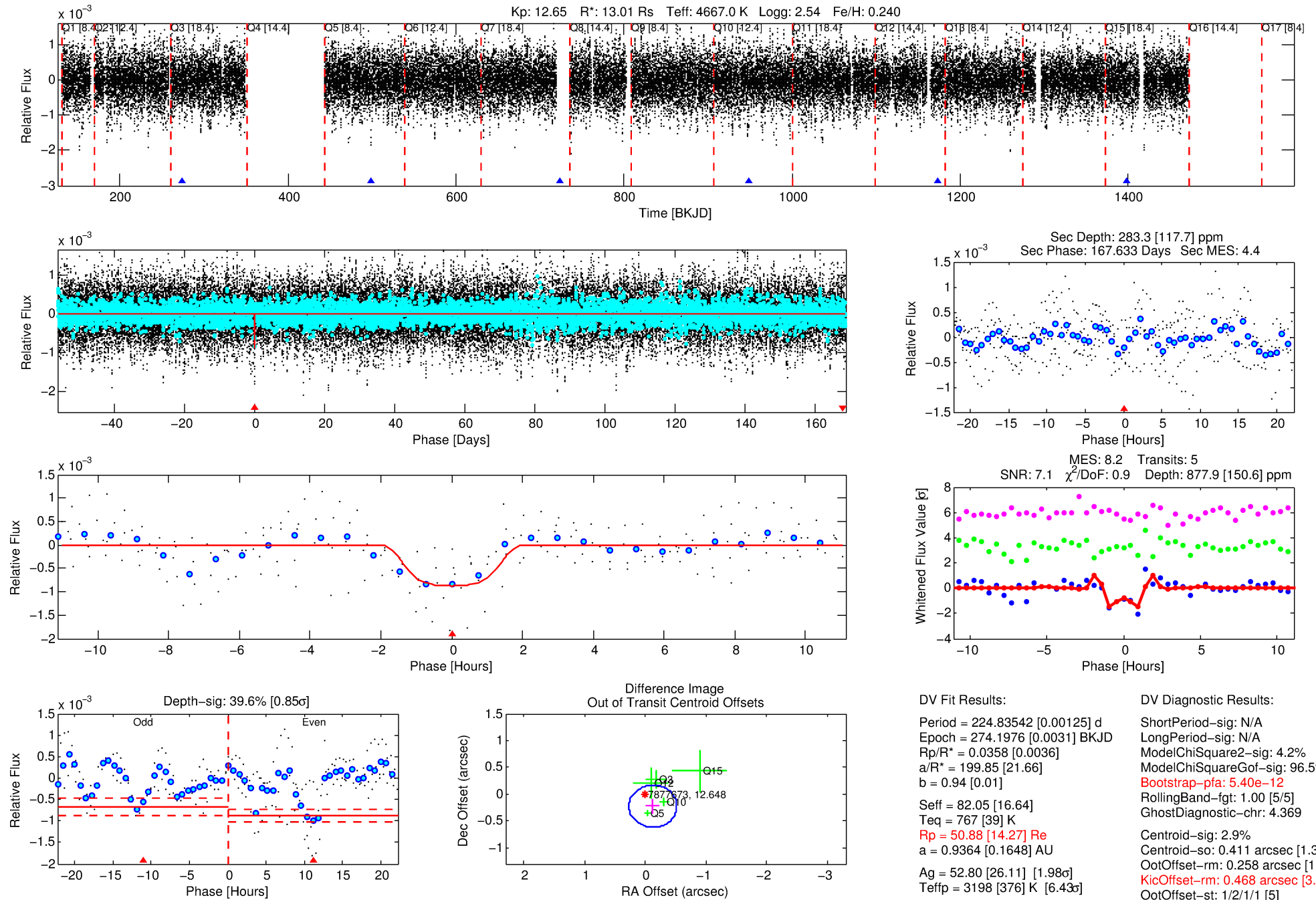
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007877673-01

No Significant Match Found

DV One-Page Summary

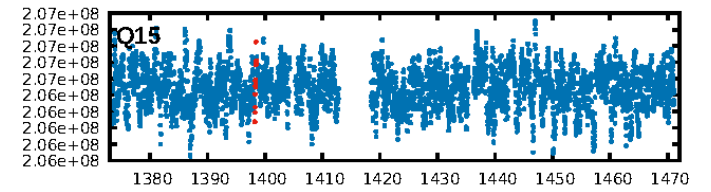
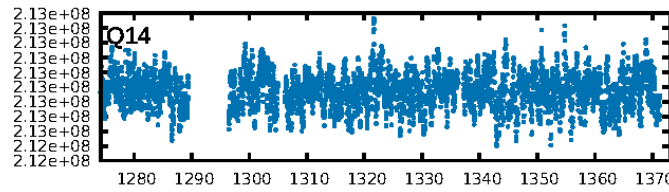
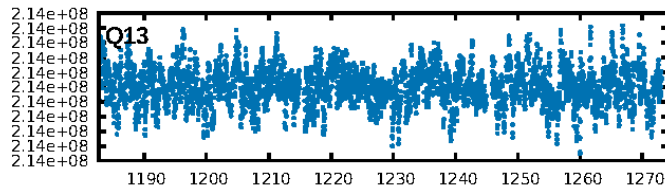
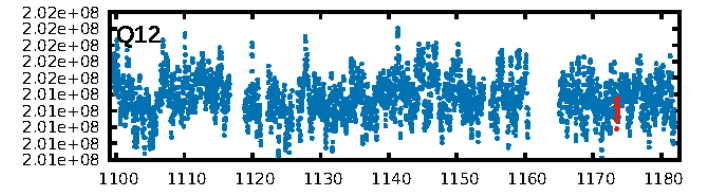
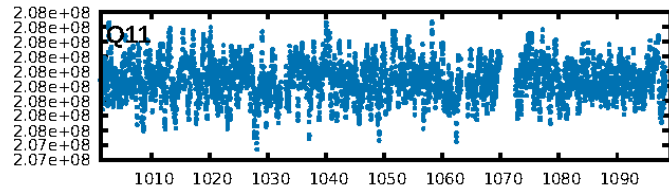
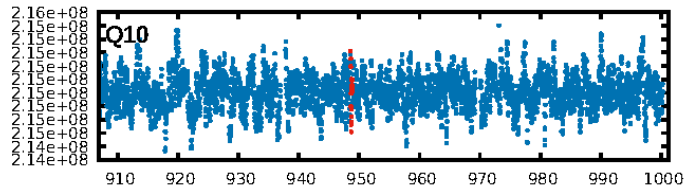
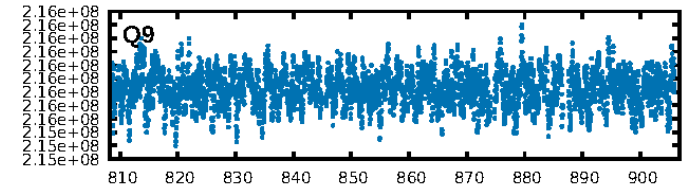
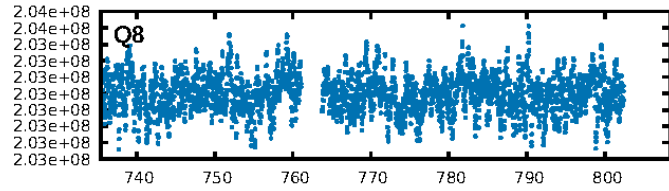
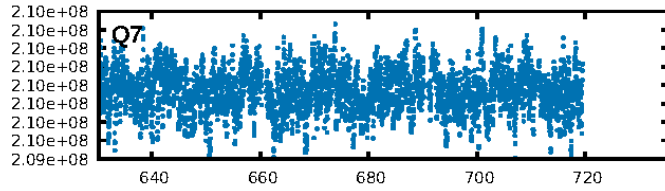
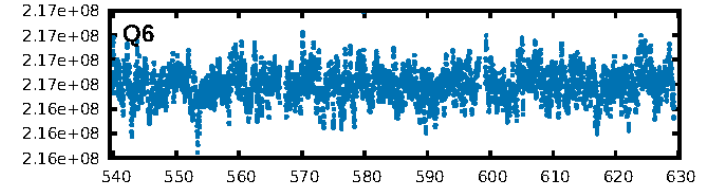
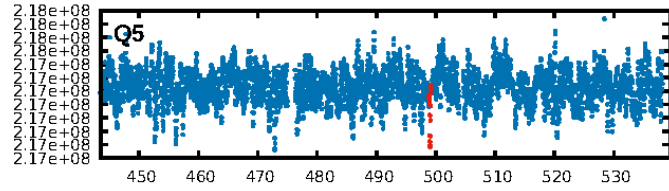
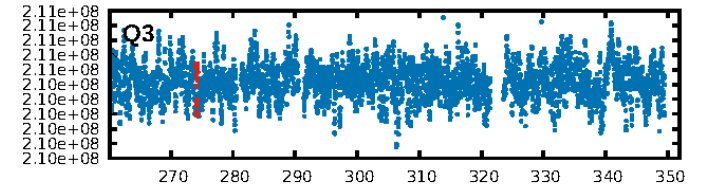
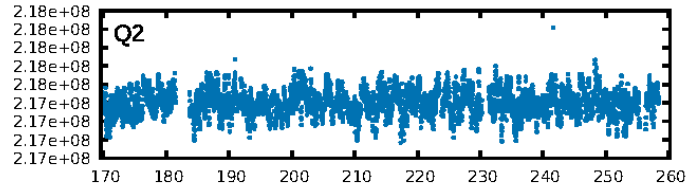
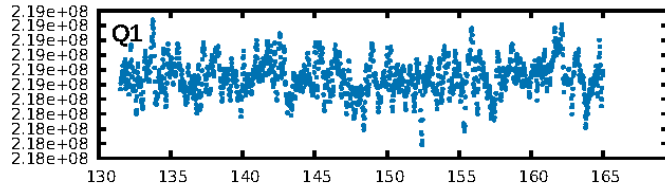
KIC: 7877673 Candidate: 1 of 1 Period: 224.835 d



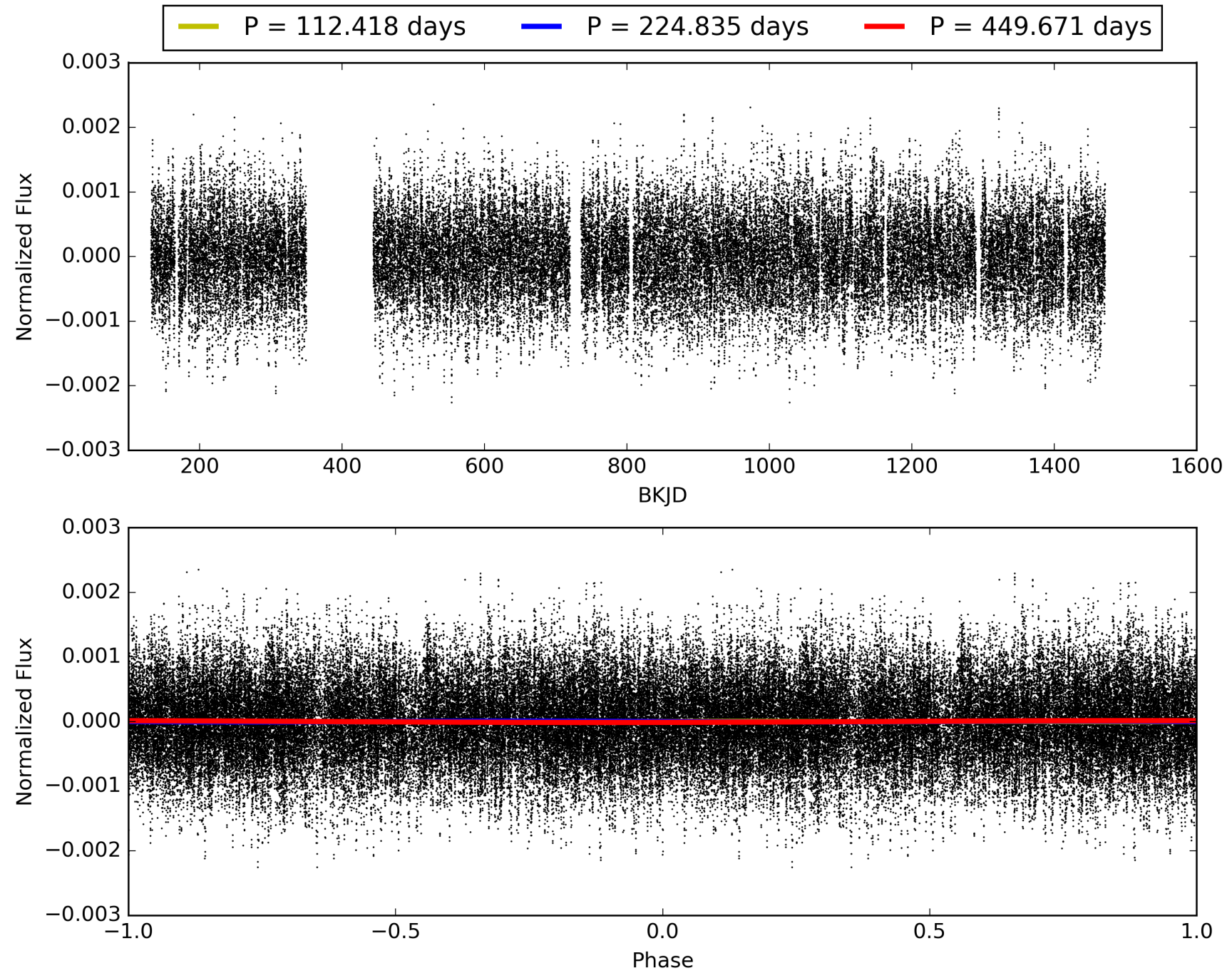
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:53:19 Z

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

TCE 007877673-01, PDC Light Curves

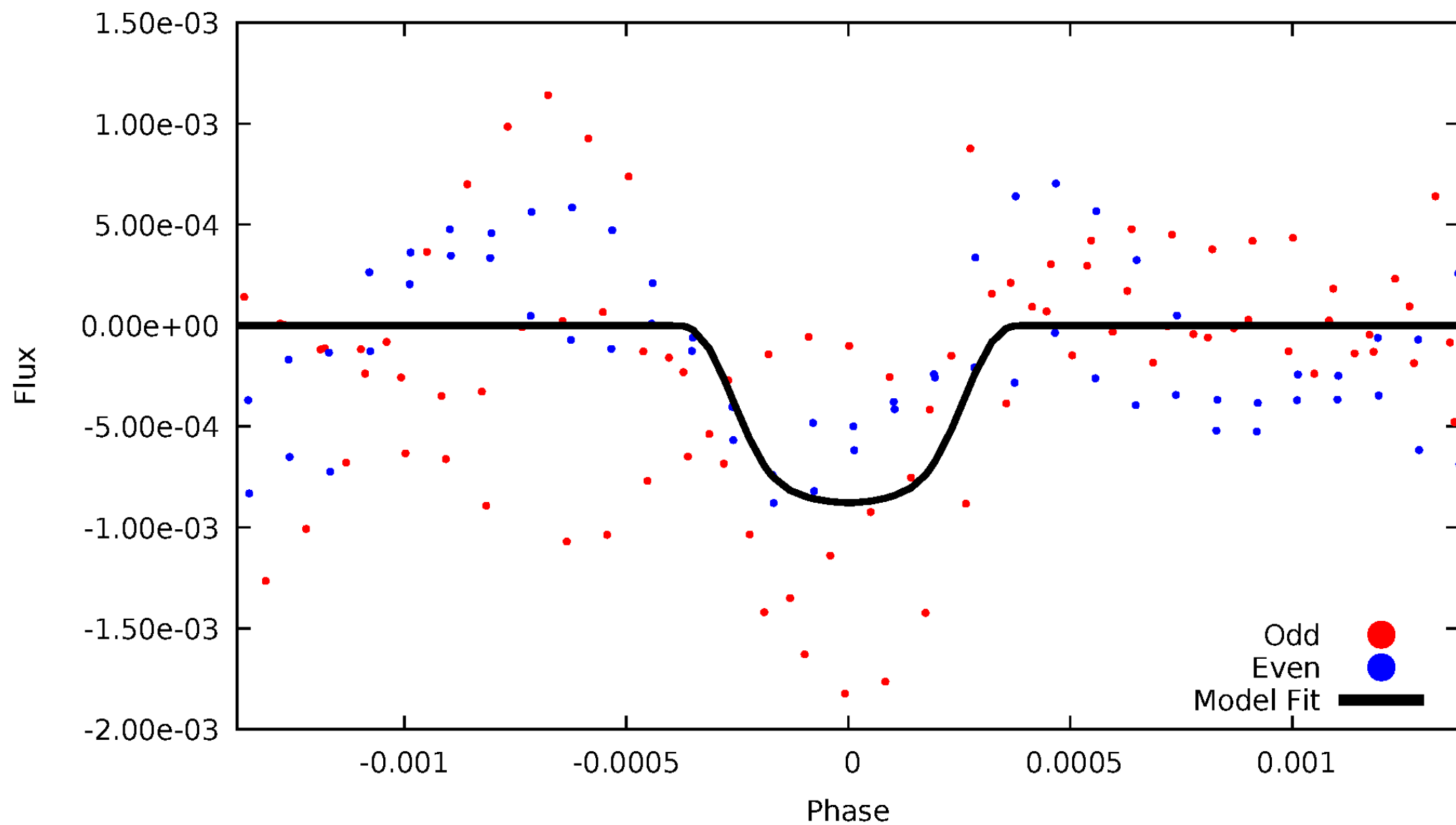


TCE 007877673-01



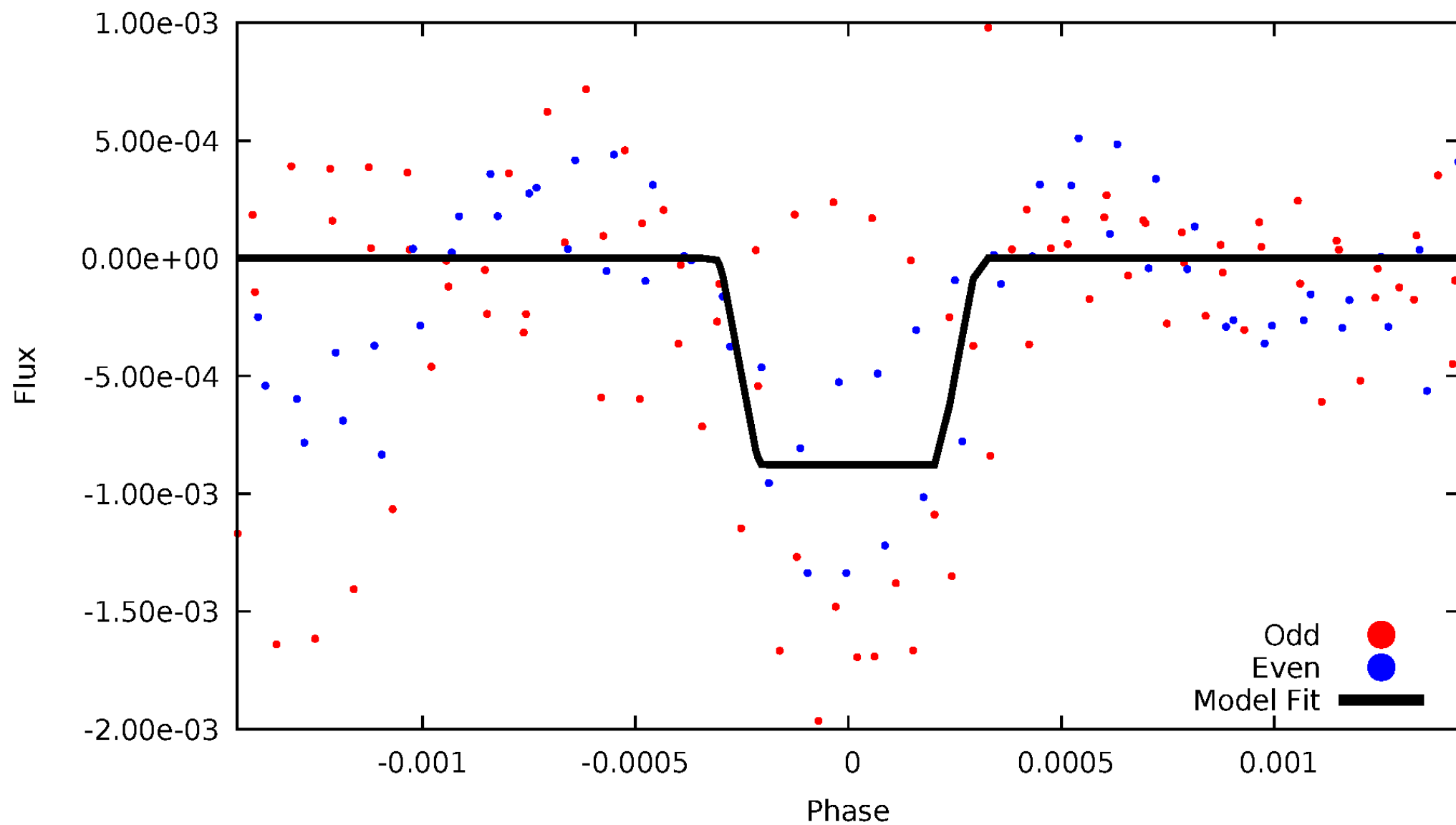
DV Odd/Even

TCE 007877673-01



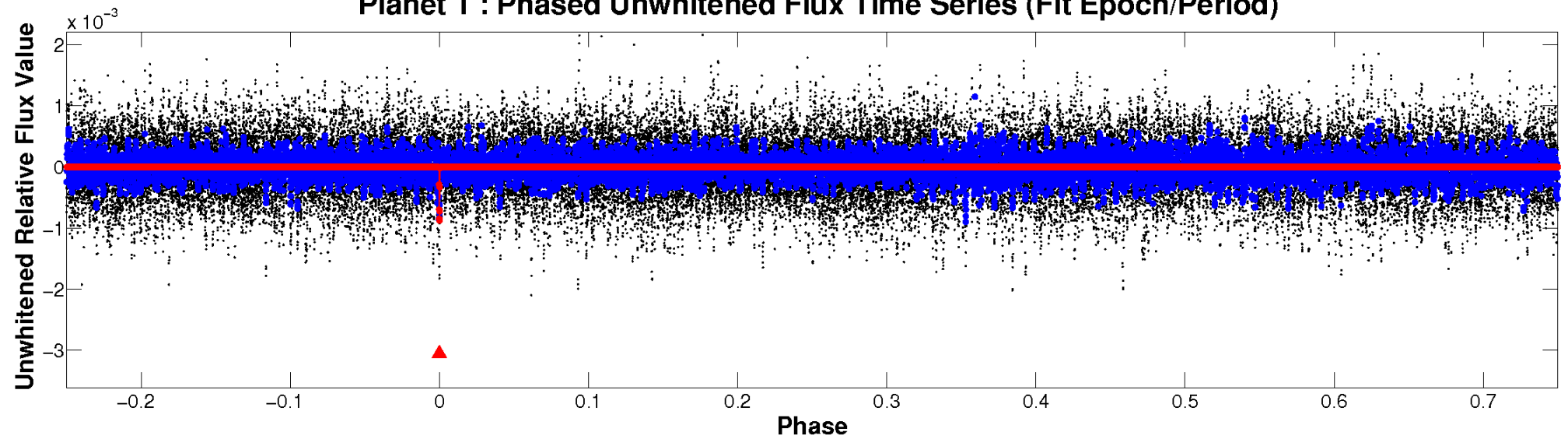
ALT Odd/Even

TCE 007877673-01

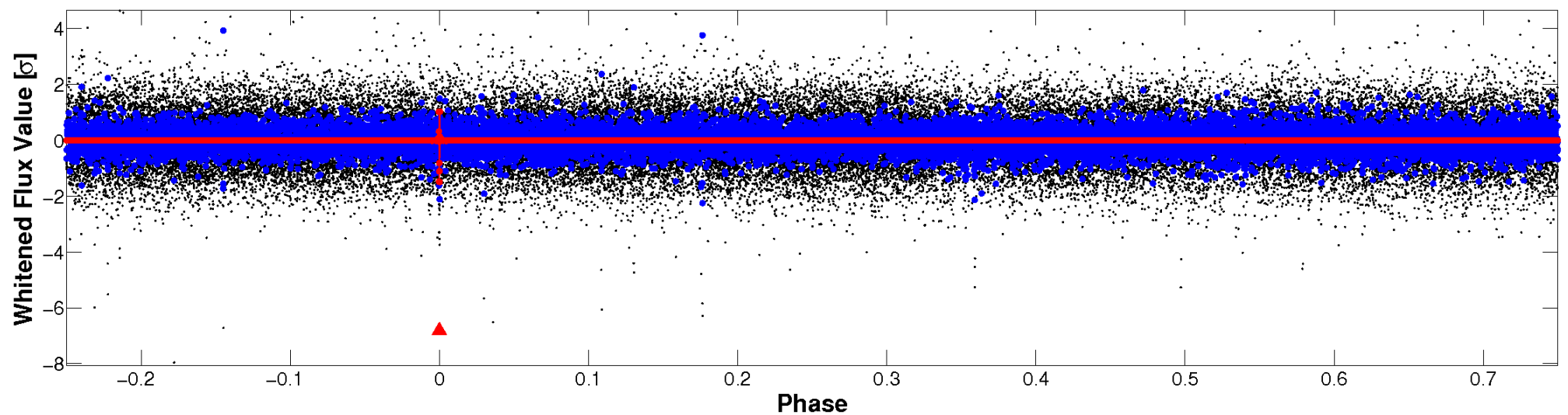


Non-Whitened Vs. Whitened Light Curve

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

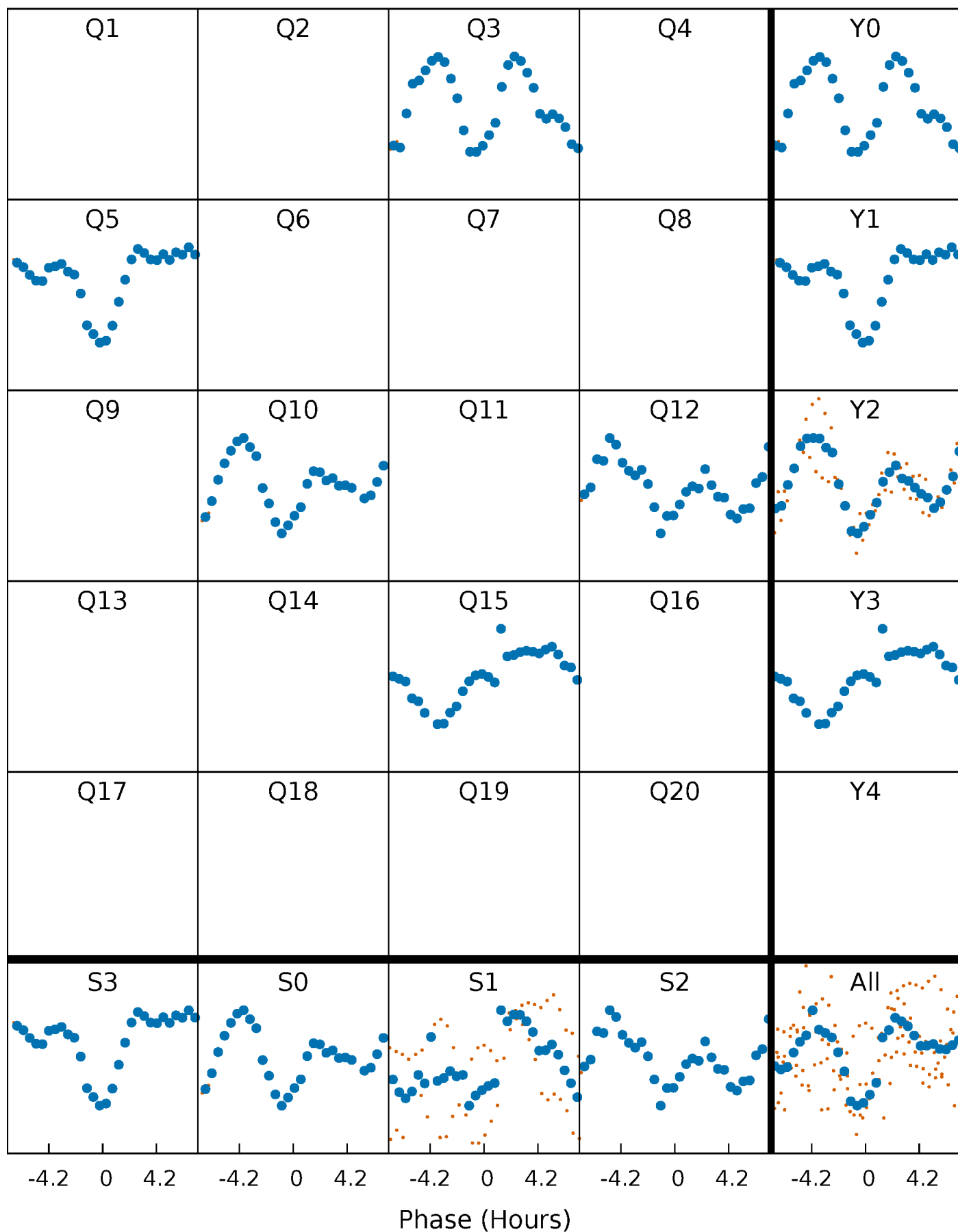


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



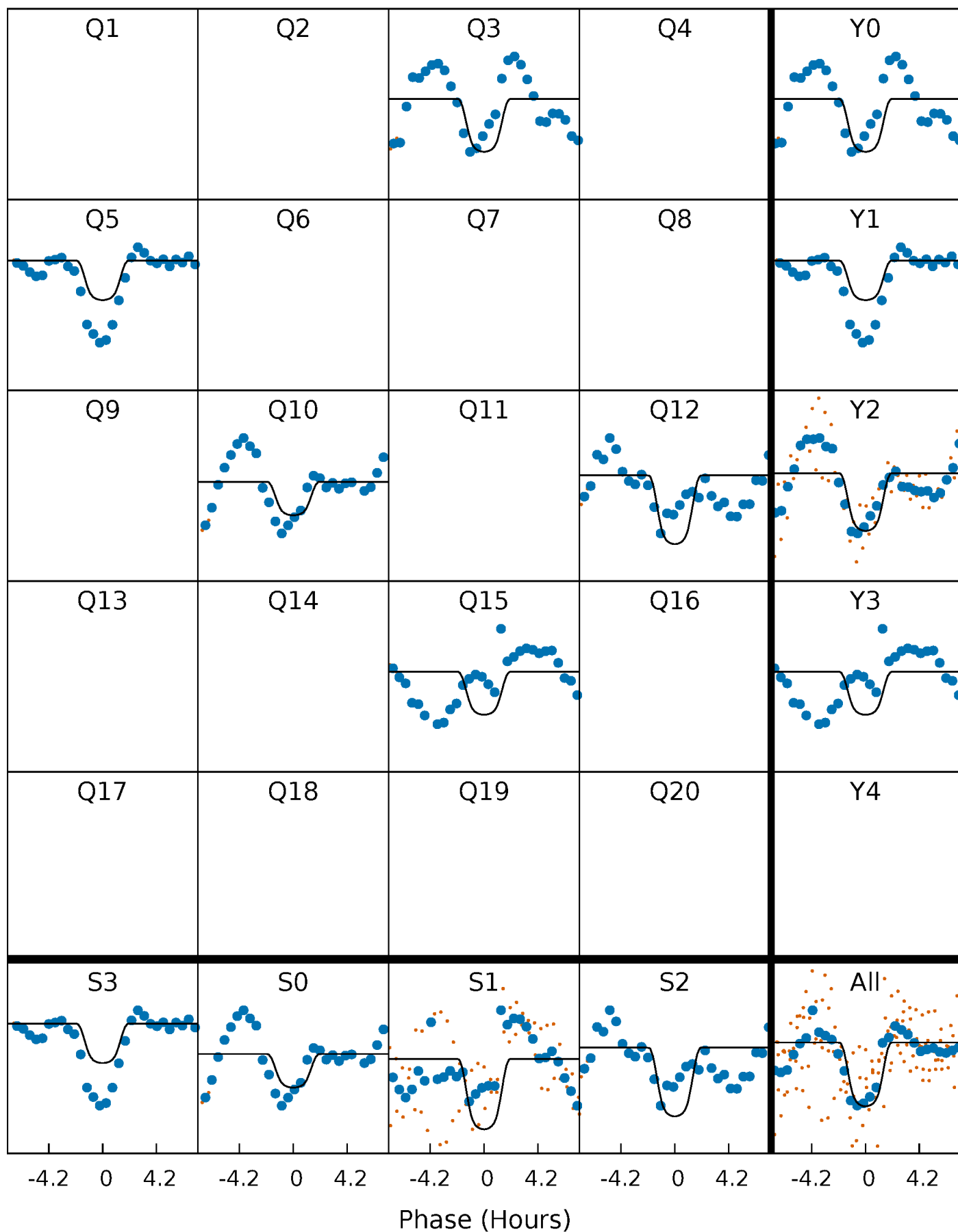
PDC Quarter-Phased Transit Curves

TCE 007877673-01 P=224.835420 Days $T_0=274.197566$ (BKJD)



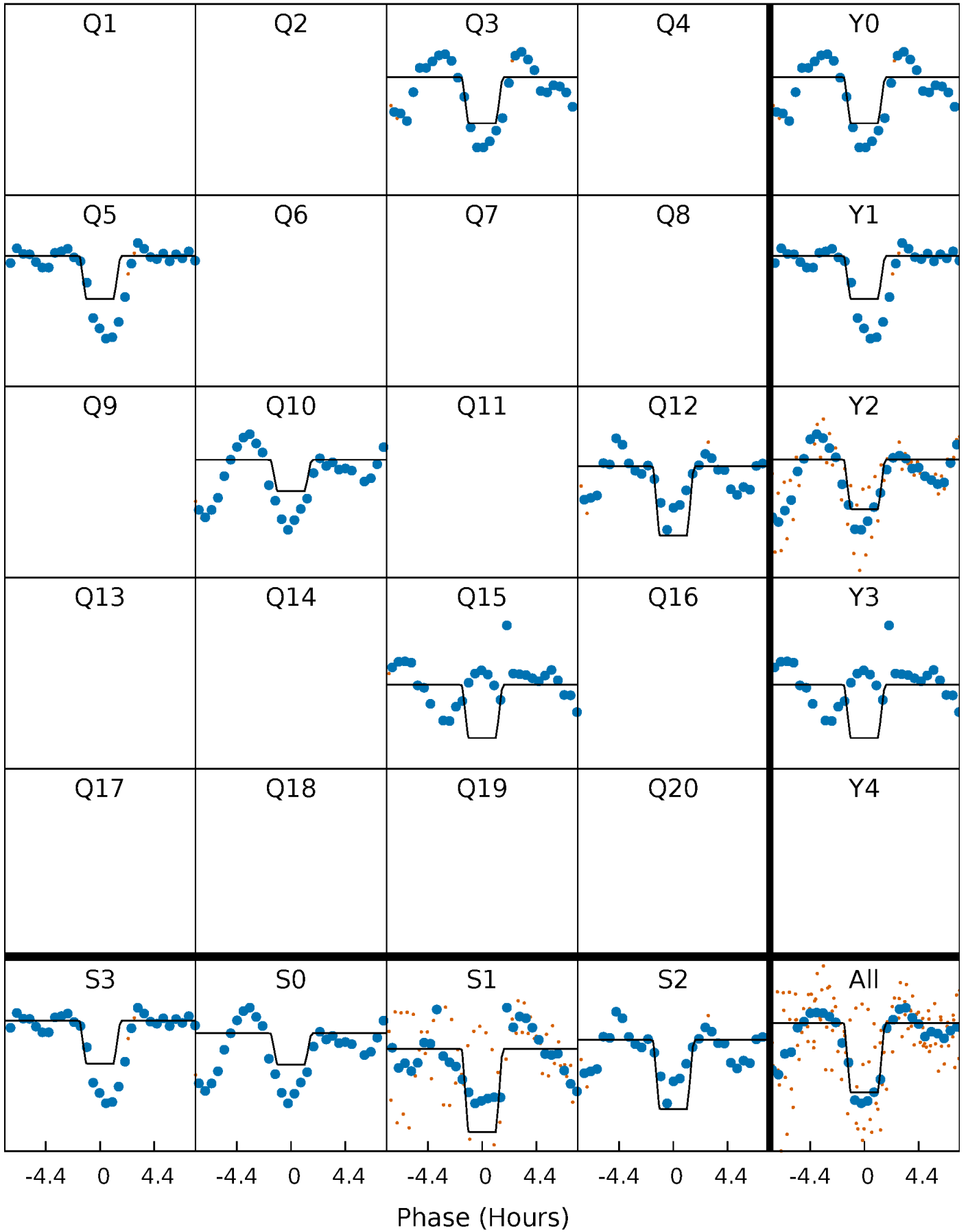
DV Quarter-Phased Transit Curves

TCE 007877673-01 P=224.835420 Days $T_0=274.197566$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

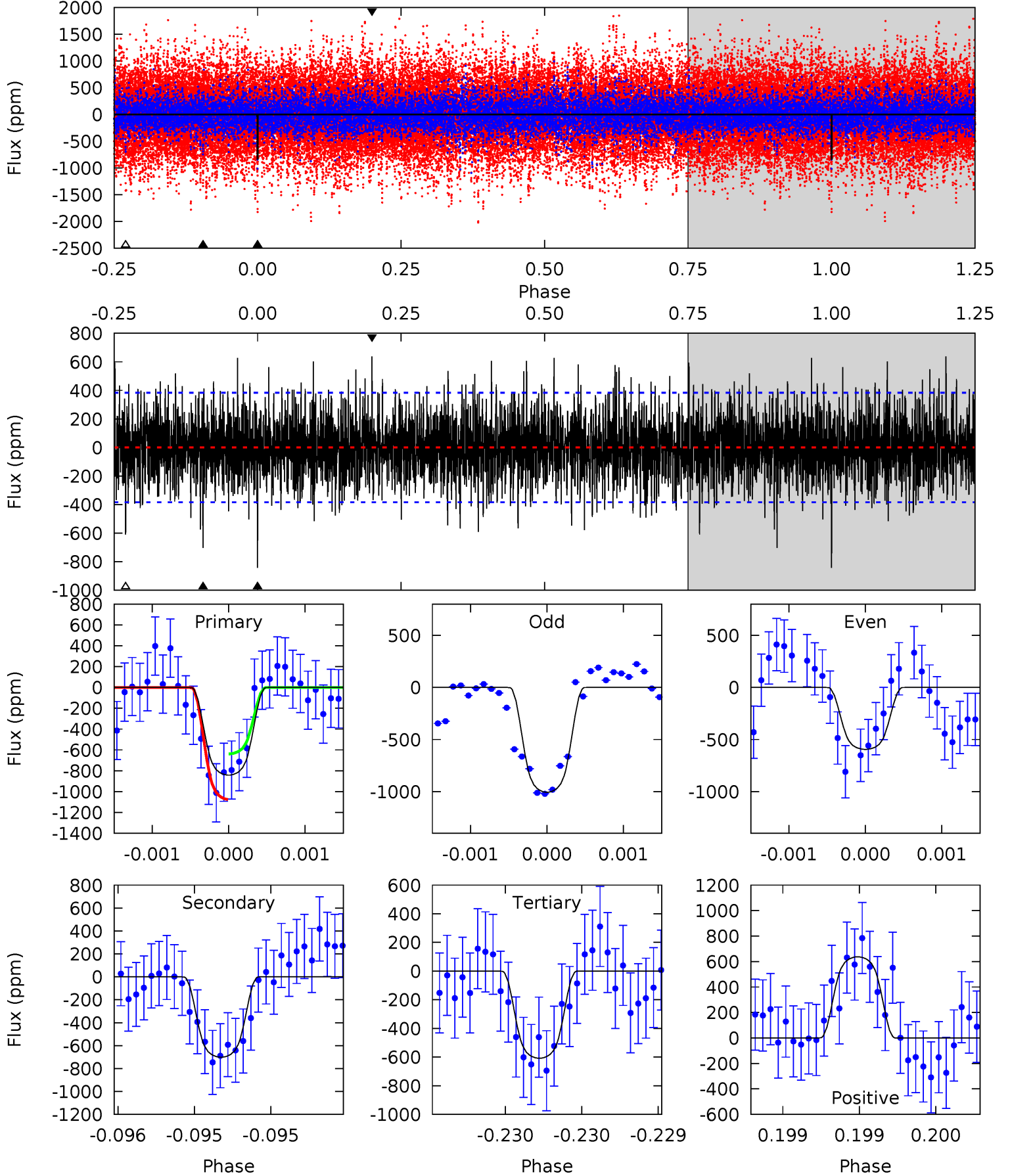
TCE 007877673-01 P=224.836268 Days $T_0=274.181255$ (BKJD)



DV Model-Shift Uniqueness Test

007877673-01, P = 224.835420 Days, E = 49.362146 Days

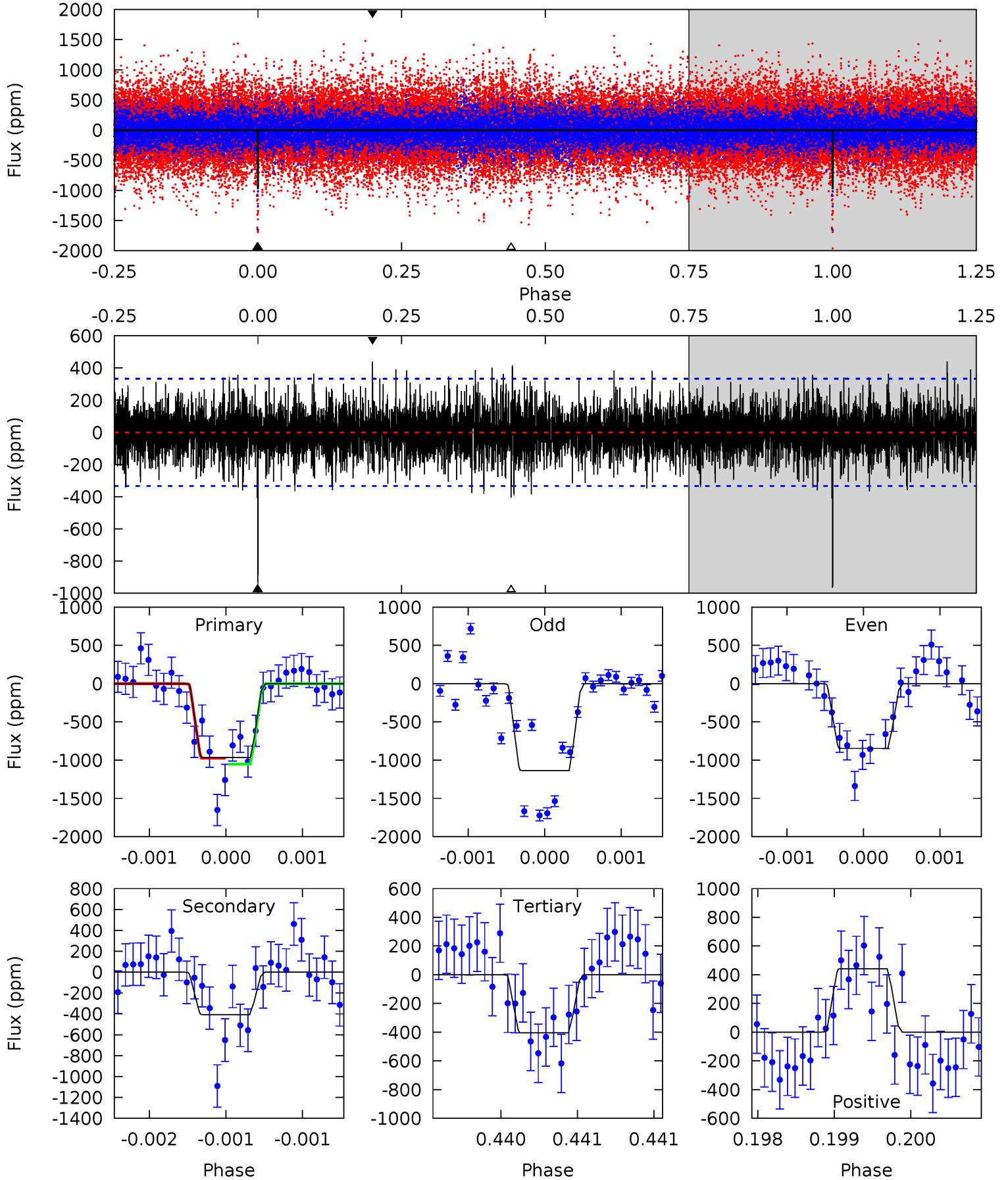
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	10.1	8.73	9.14	5.50	3.36	2.56	3.35	2.94	1.33	0.92	2.93	1.28	0.43	3.13



Alt Model-Shift Uniqueness Test

007877673-01, P = 224.836268 Days, E = 49.344987 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	6.75	6.71	7.32	5.53	3.42	1.91	9.29	8.68	0.04	-0.57	2.34	0.77	0.31	0.61



Stellar Parameters For KIC 007877673

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4667^{+55}_{-110}	$2.545^{+0.027}_{-0.027}$	$0.240^{+0.100}_{-0.300}$	$13.011^{+2.558}_{-3.410}$	$2.166^{+0.814}_{-0.995}$	$0.001^{+0.001}_{-0.000}$
	+1%/-2%	+1%/-1%	+42%/-125%	+20%/-26%	+38%/-46%	+40%/-13%
Source	PHO56	AST56	PHO56	DSEP		

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

Secondary Eclipse Parameters for KIC 007877673-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-702 ± 70	$52.23^{+8.98}_{-8.64}$	1074^{+31}_{-37}	4142^{+206}_{-178}	130^{+37}_{-30}
Alt.	-407 ± 60	$43.30^{+7.88}_{-8.11}$	1075^{+30}_{-39}	4031^{+234}_{-221}	111^{+40}_{-30}

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 $A_{obs} \gg 1.0$

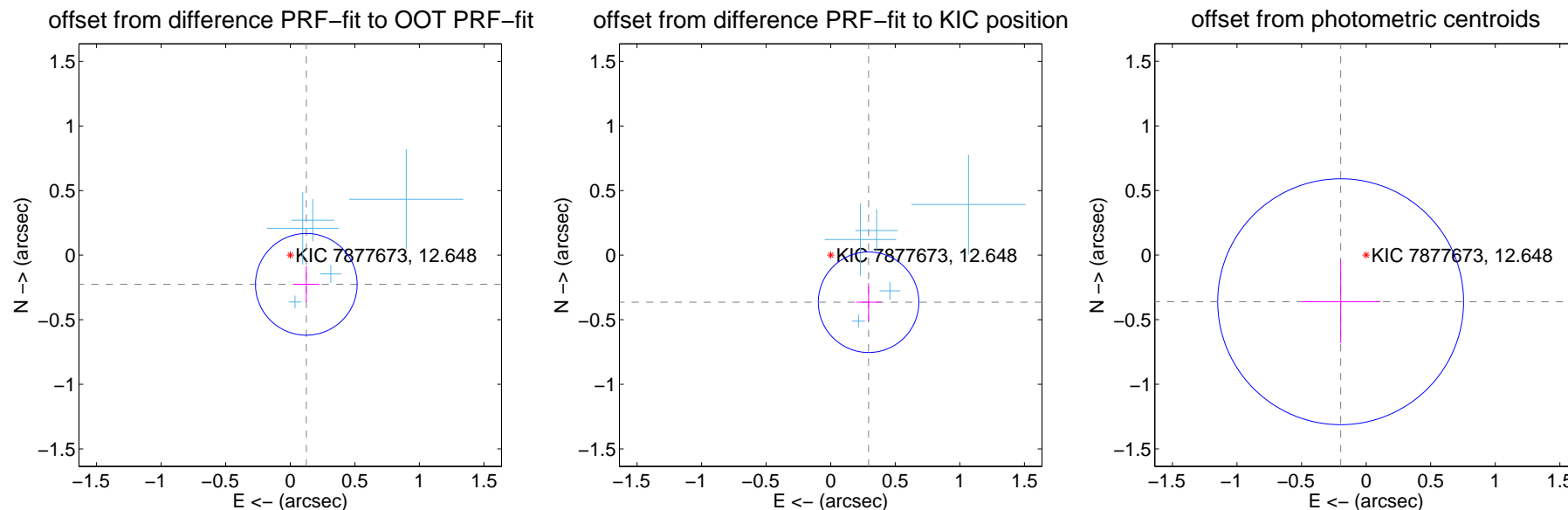
DV Centroid Data

Supplemental centroid analysis for 007877673-01. Kepler magnitude: 12.65. Transit SNR 7.12

There are 5 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.258 ± 0.131	1.97	-0.124 ± 0.102	-0.226 ± 0.139
PRF-fit source offset from KIC position	0.468 ± 0.130	3.61	-0.293 ± 0.096	-0.364 ± 0.147
photometric centroid source offset	0.41 ± 0.32	1.30	0.20 ± 0.31	-0.36 ± 0.32



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.

Q1 no difference image



Q1 no OOT image



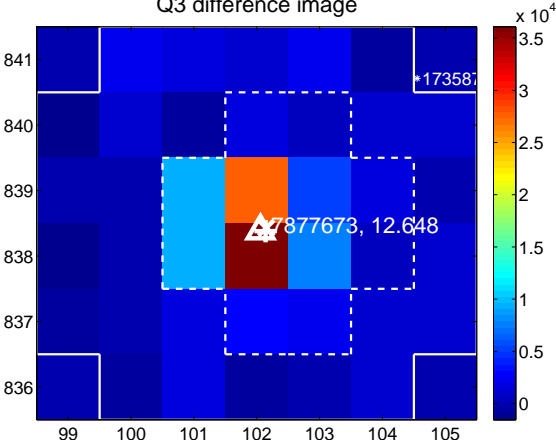
Q2 no difference image



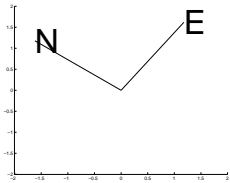
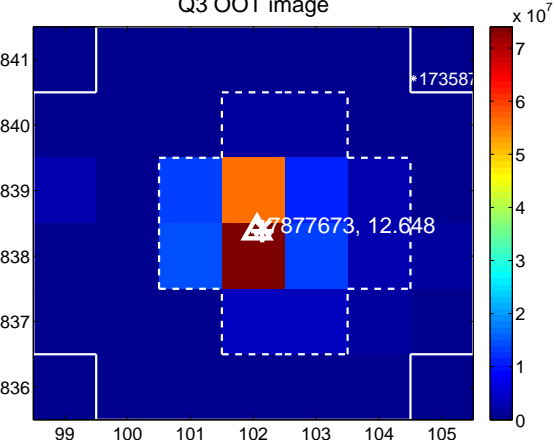
Q2 no OOT image



Q3 difference image



Q3 OOT image



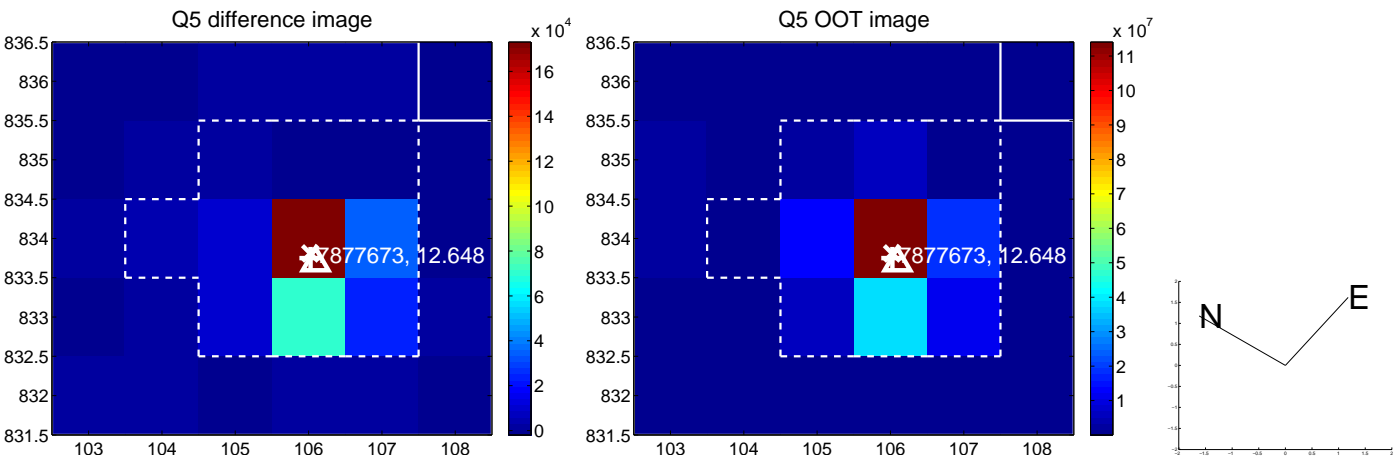
Q4 no difference image



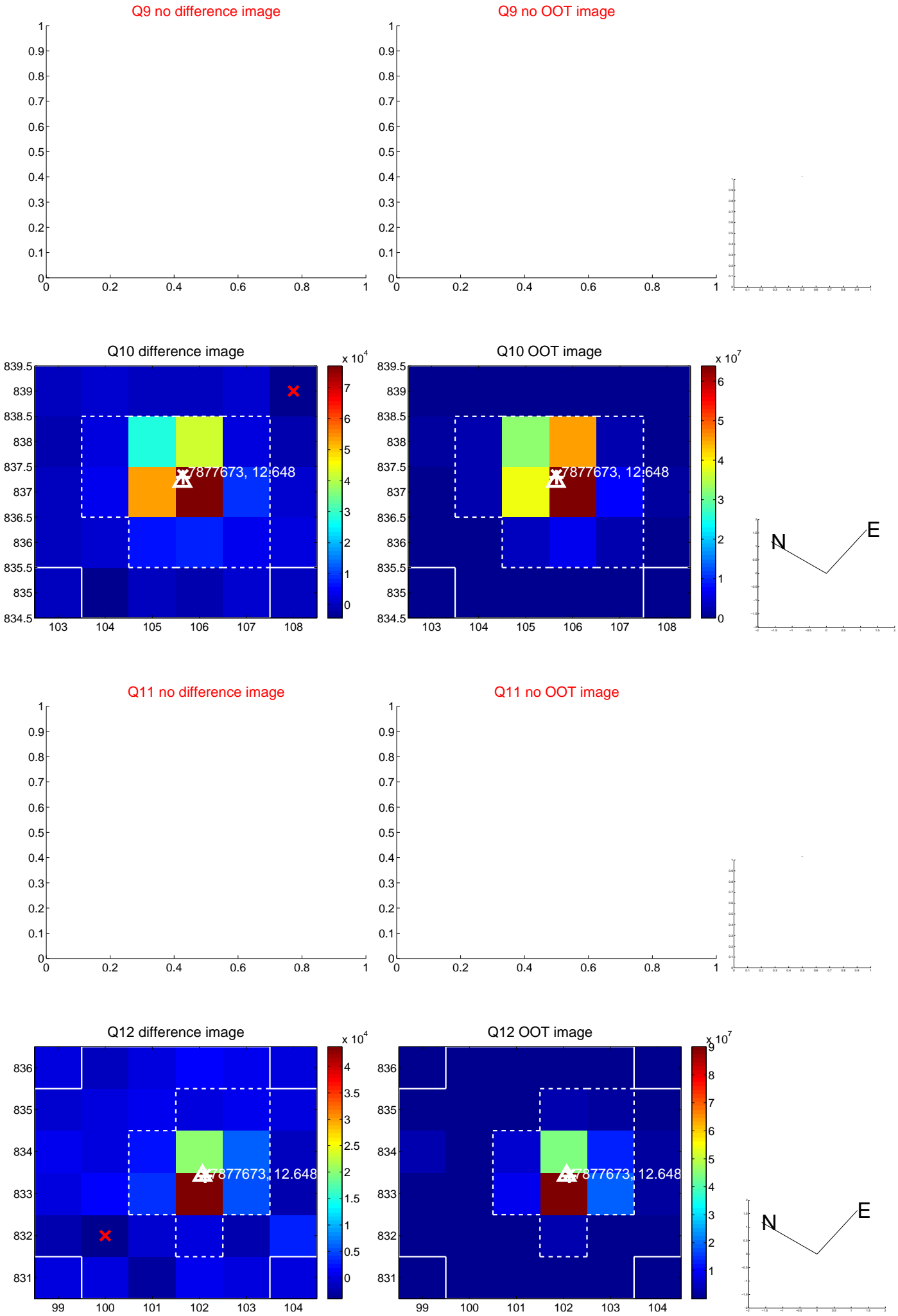
Q4 no OOT image



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.

Q13 no difference image



Q13 no OOT image



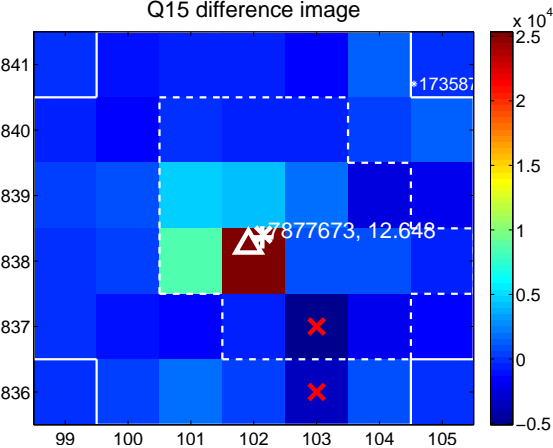
Q14 no difference image



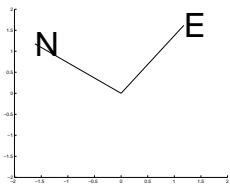
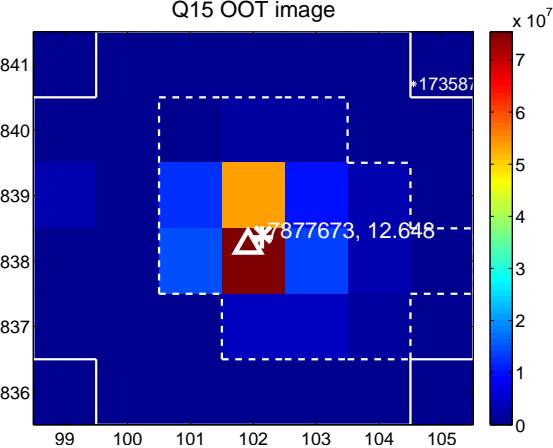
Q14 no OOT image



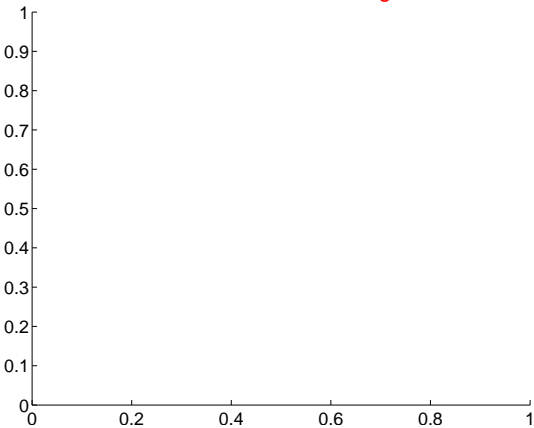
Q15 difference image



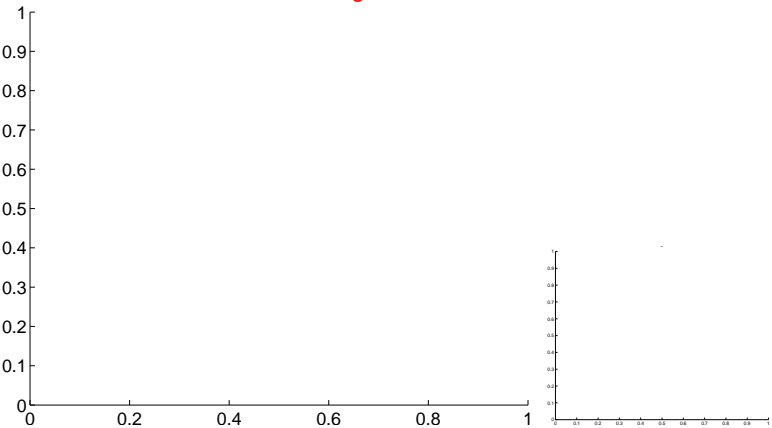
Q15 OOT image



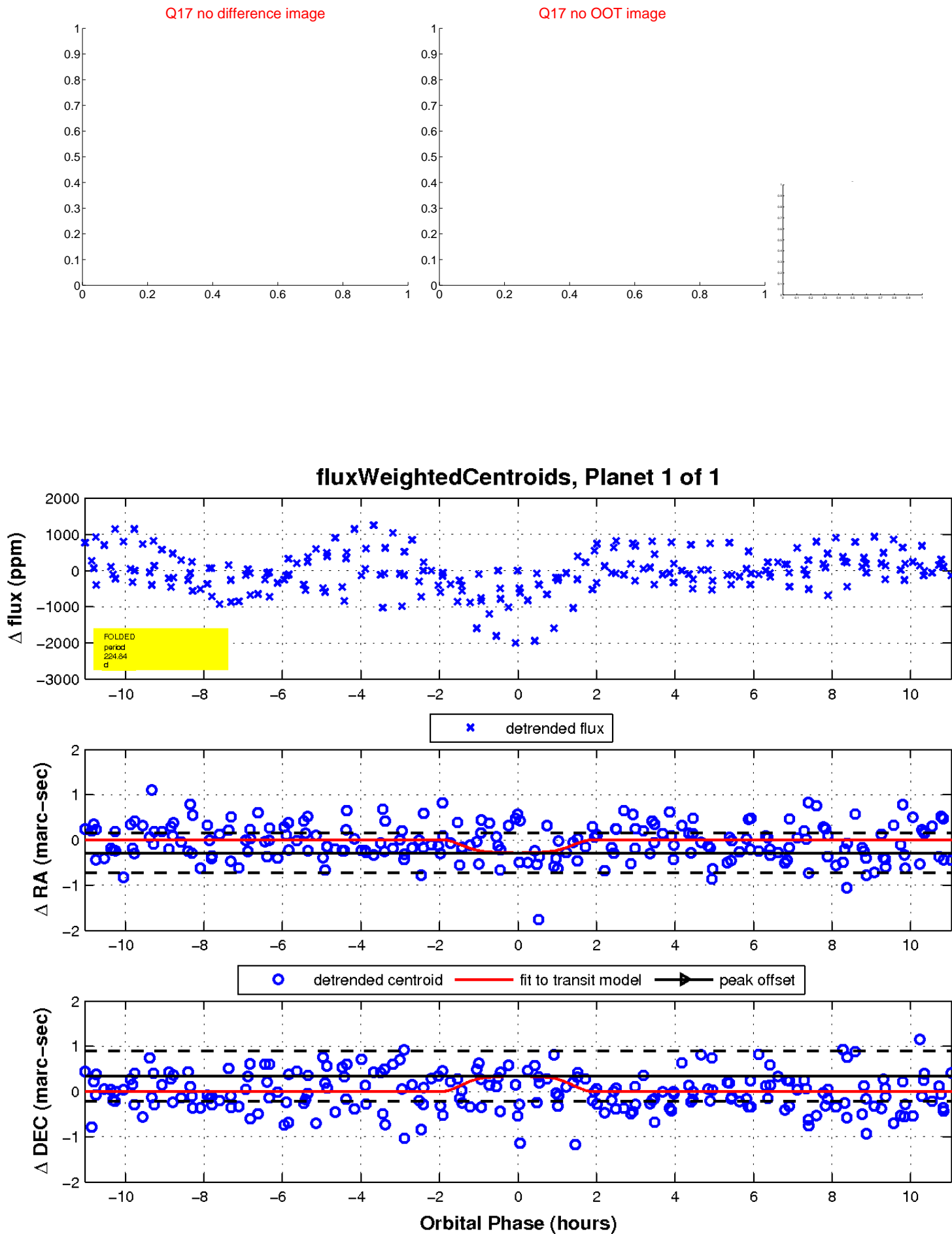
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

