

KIC 003342210

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})
003342210-01	OBS	No	546.385299	239.910532	789.0	4.857	12.5	5.4	0.84	5237	2.36	0.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003342210-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

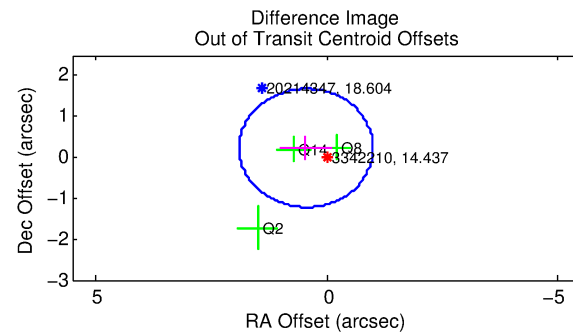
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

Ephemeris Match Information For 003342210-01

No Significant Match Found

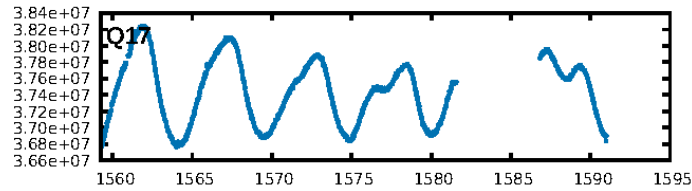
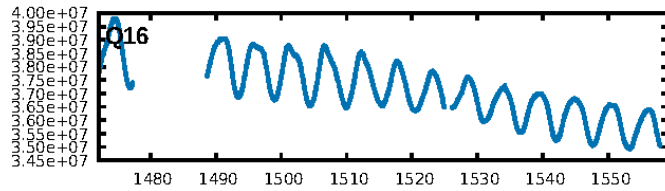
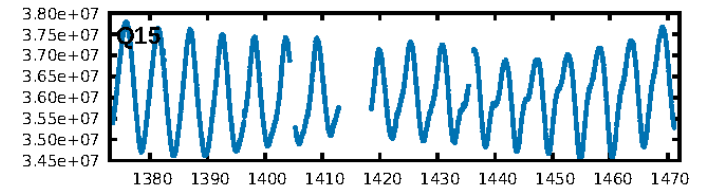
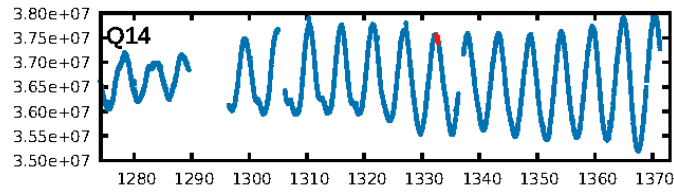
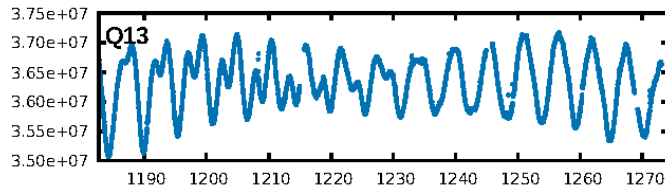
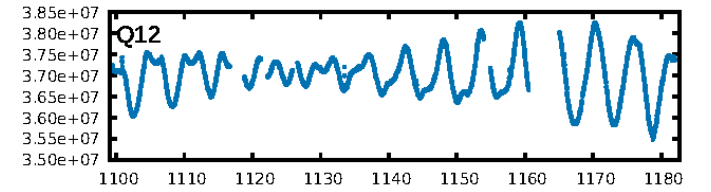
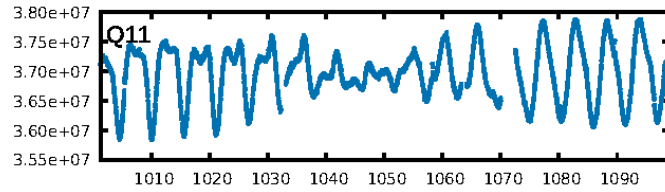
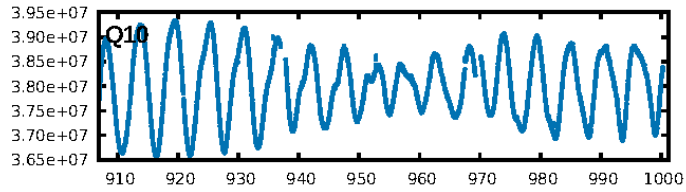
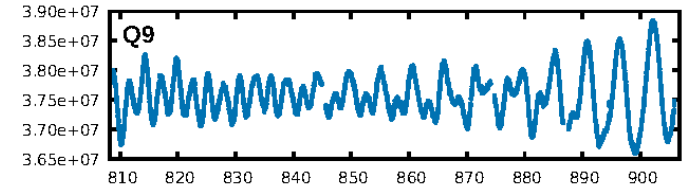
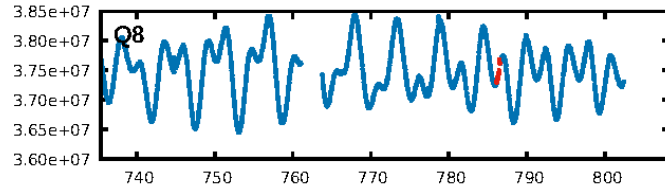
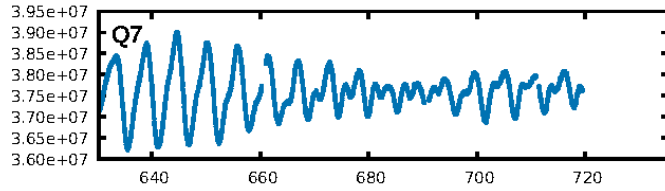
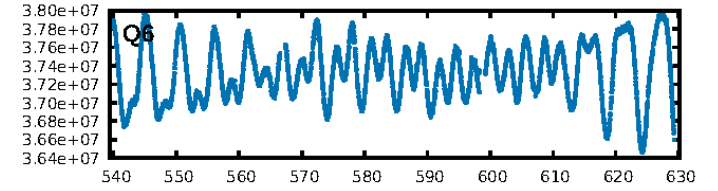
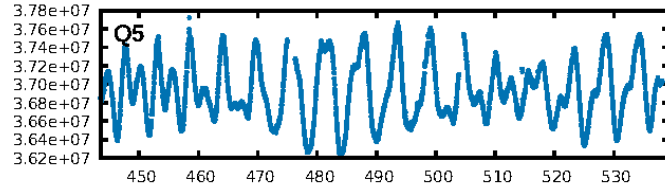
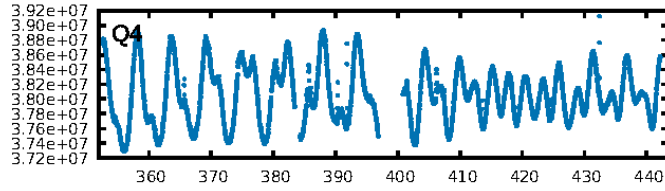
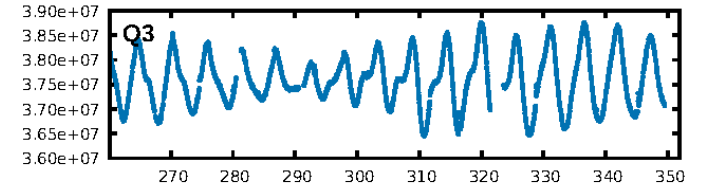
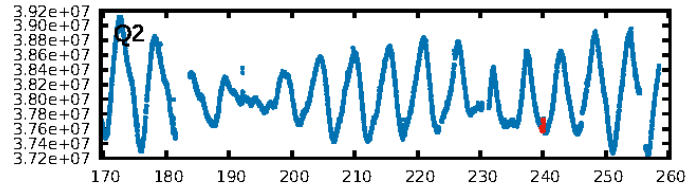
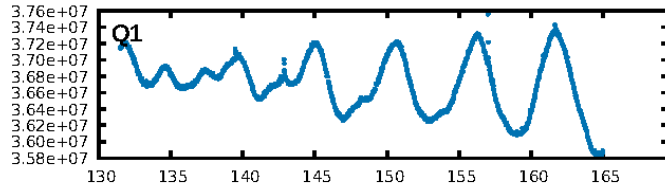
KIC: 3342210 Candidate: 1 of 1 Period: 546.385 d



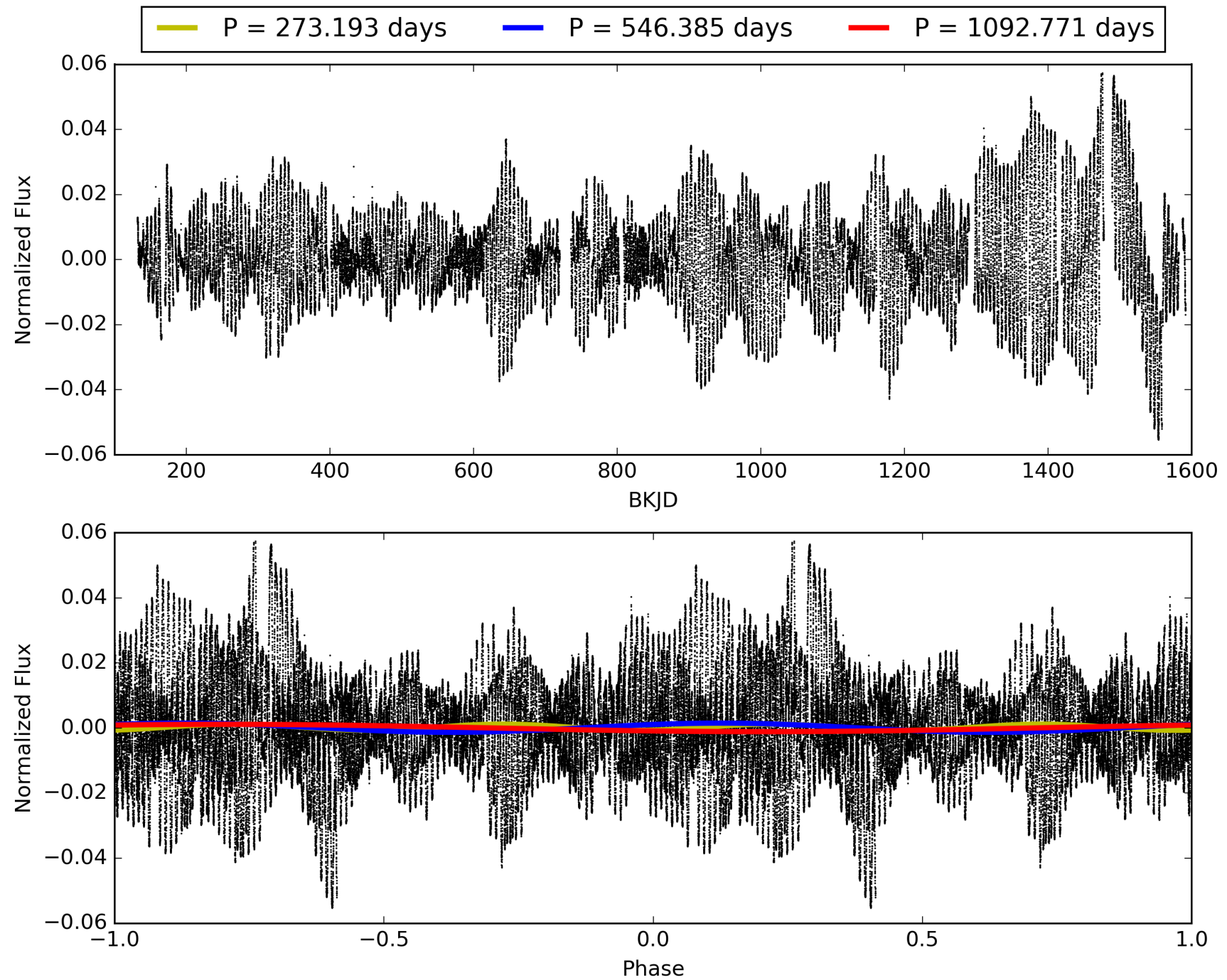
ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 81.9%
ModelChiSquareGof-sig: 94.1%
Bootstrap-pfa: 1.65e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.717

Centroid-sig: 9.5%
Centroid-so: 1.895 arcsec [1.22σ]
OotOffset-rm: 0.502 arcsec [1.04σ]
KicOffset-rm: 0.515 arcsec [1.00σ]
OotOffset-st: 2/0/1/0 [3]
KicOffset-st: 2/0/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 003342210-01, PDC Light Curves

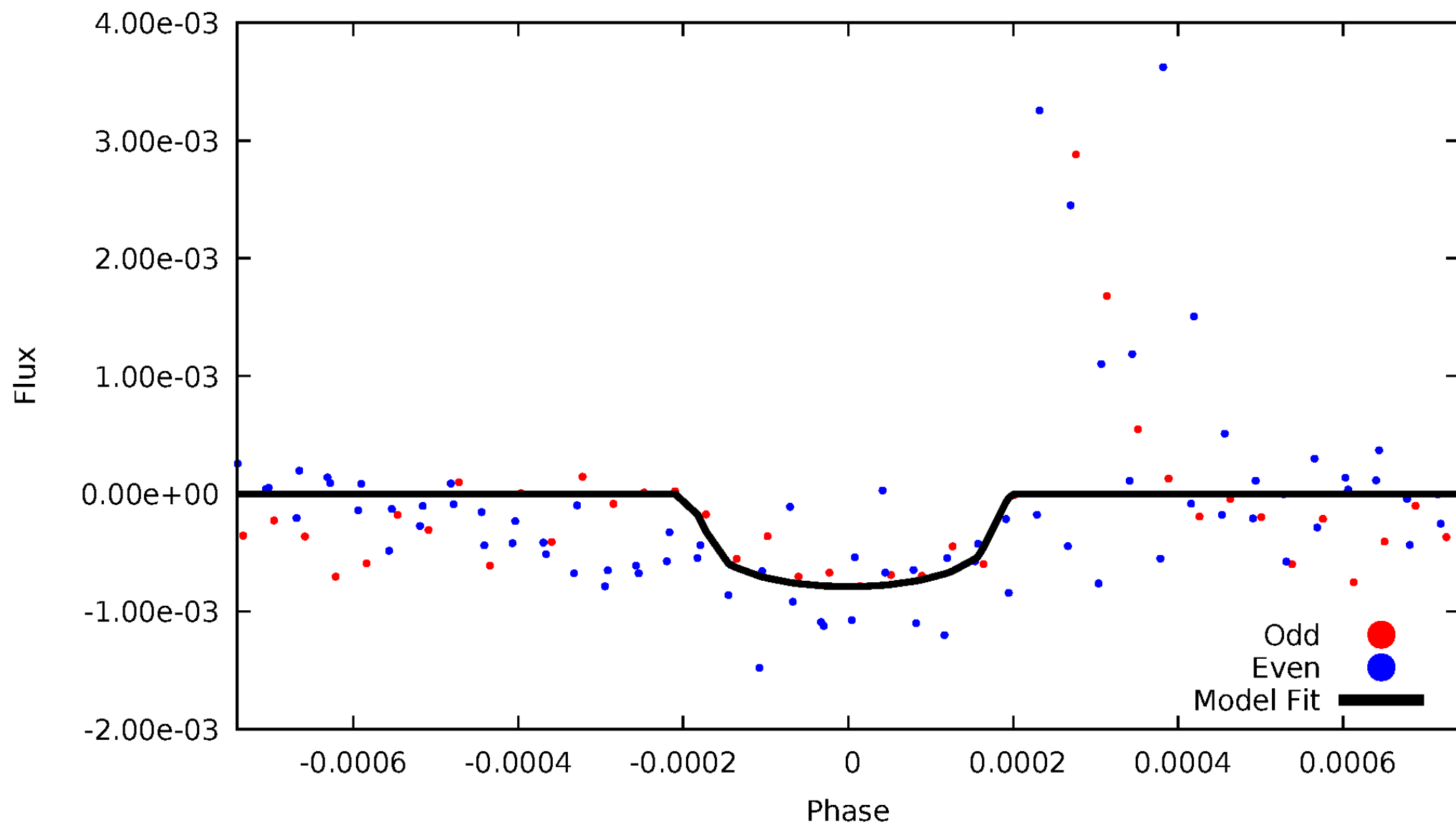


TCE 003342210-01



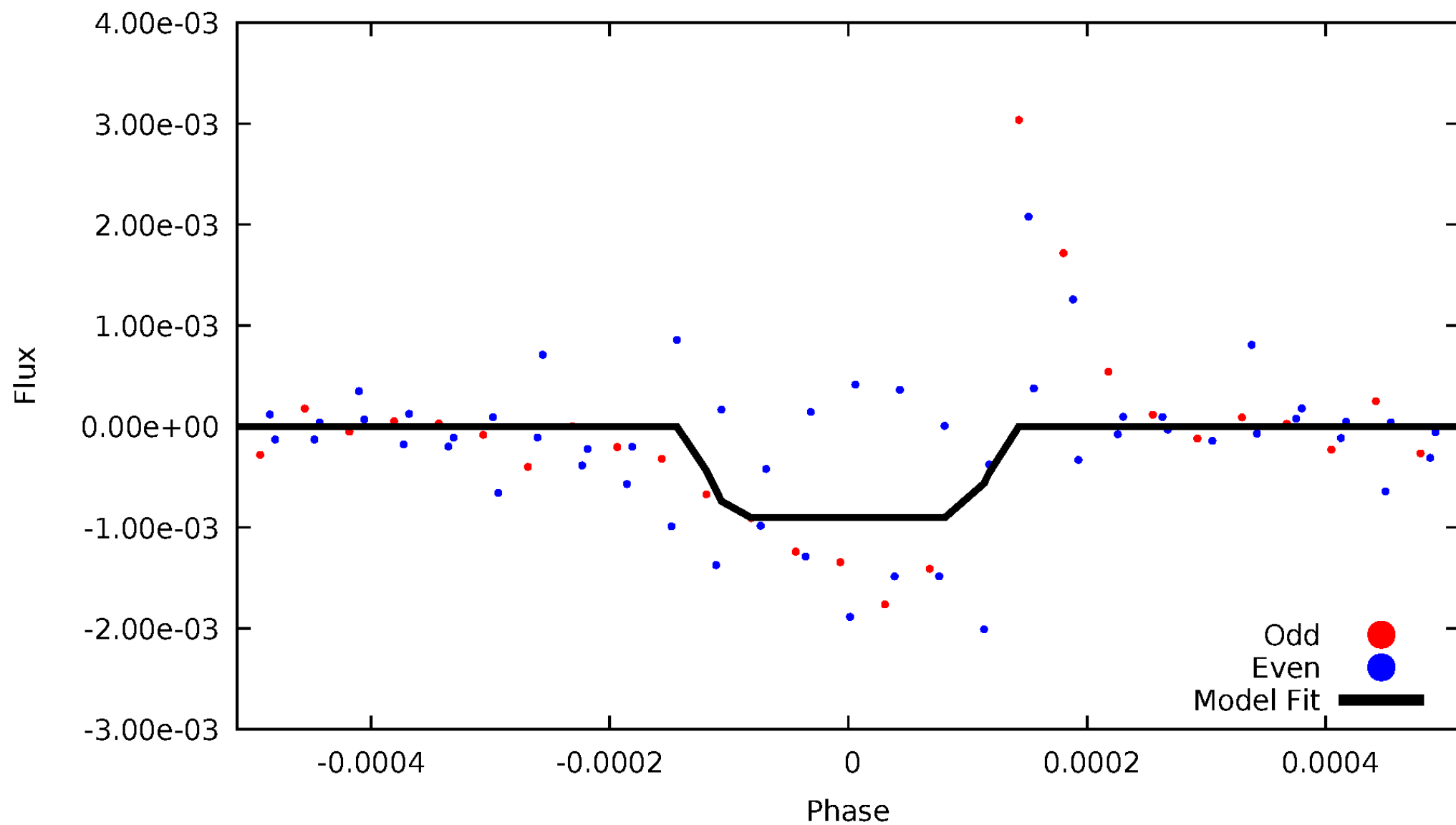
DV Odd/Even

TCE 003342210-01



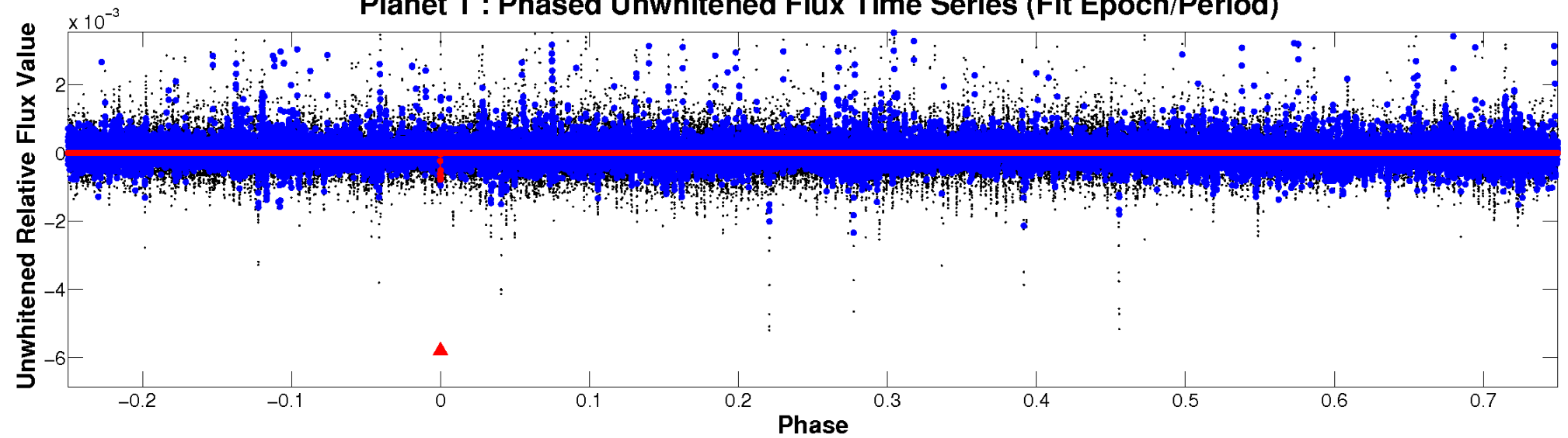
ALT Odd/Even

TCE 003342210-01

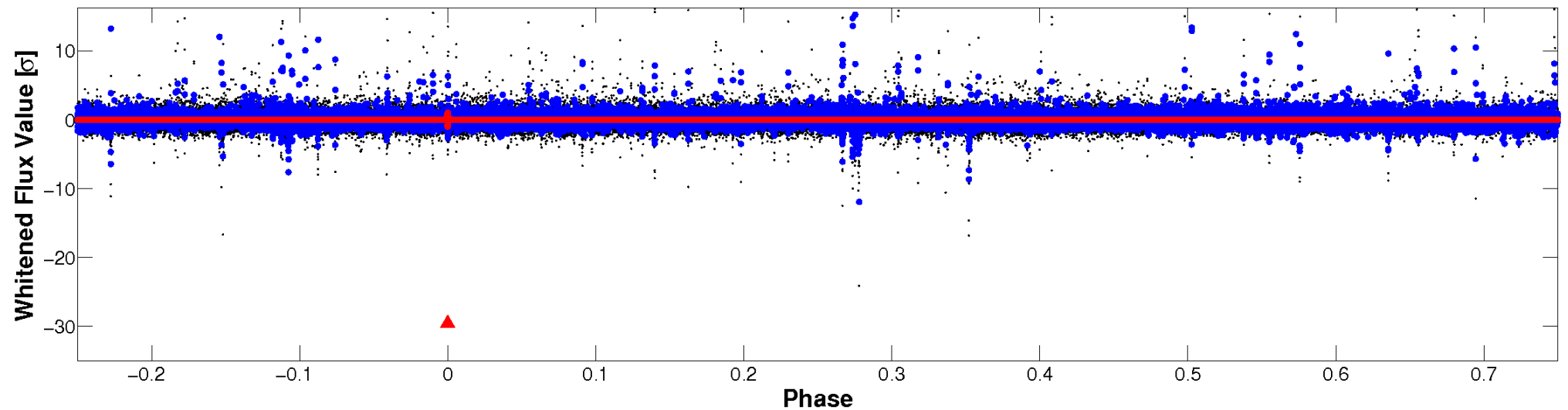


Non-Whitened Vs. Whitened Light Curve

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

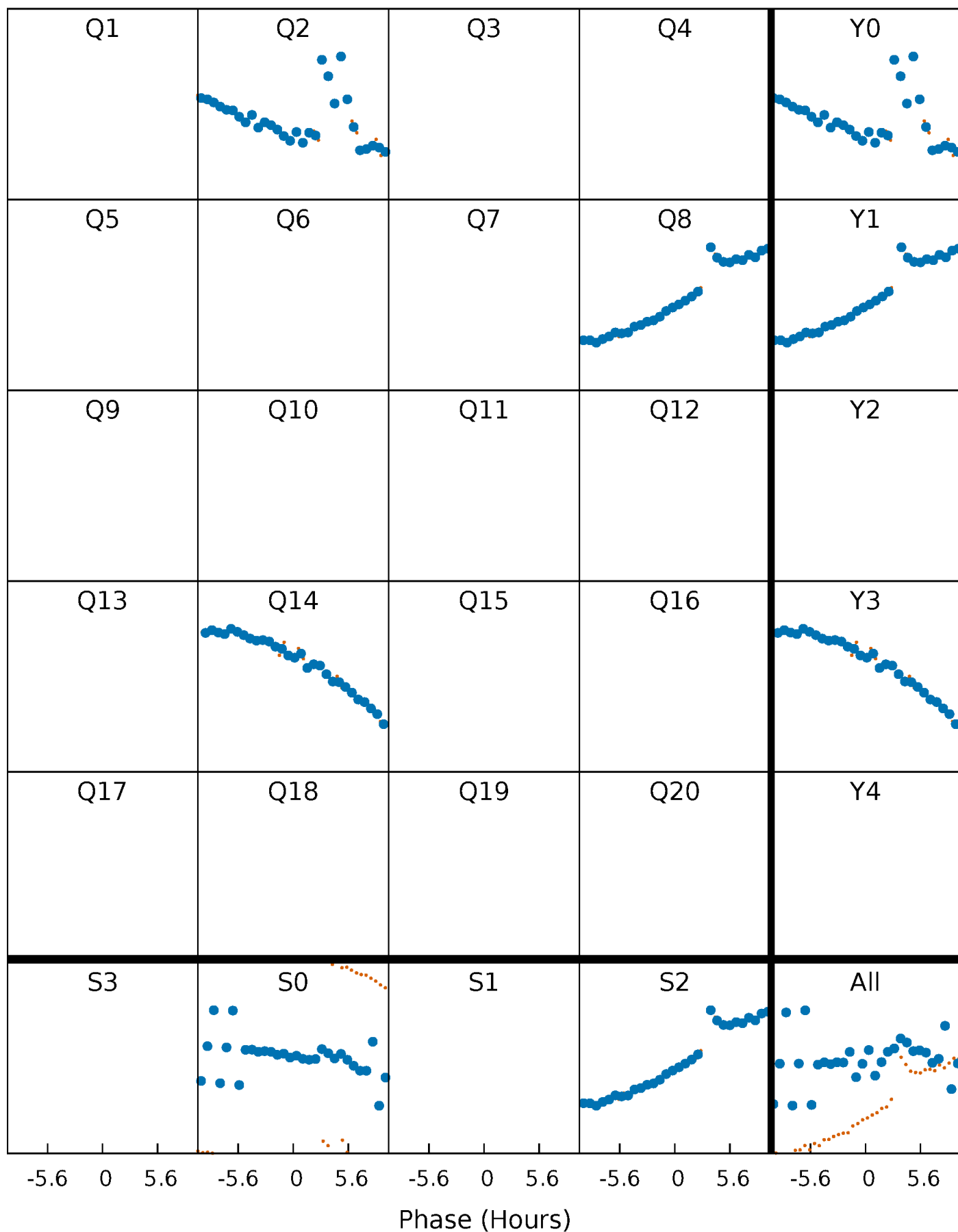


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



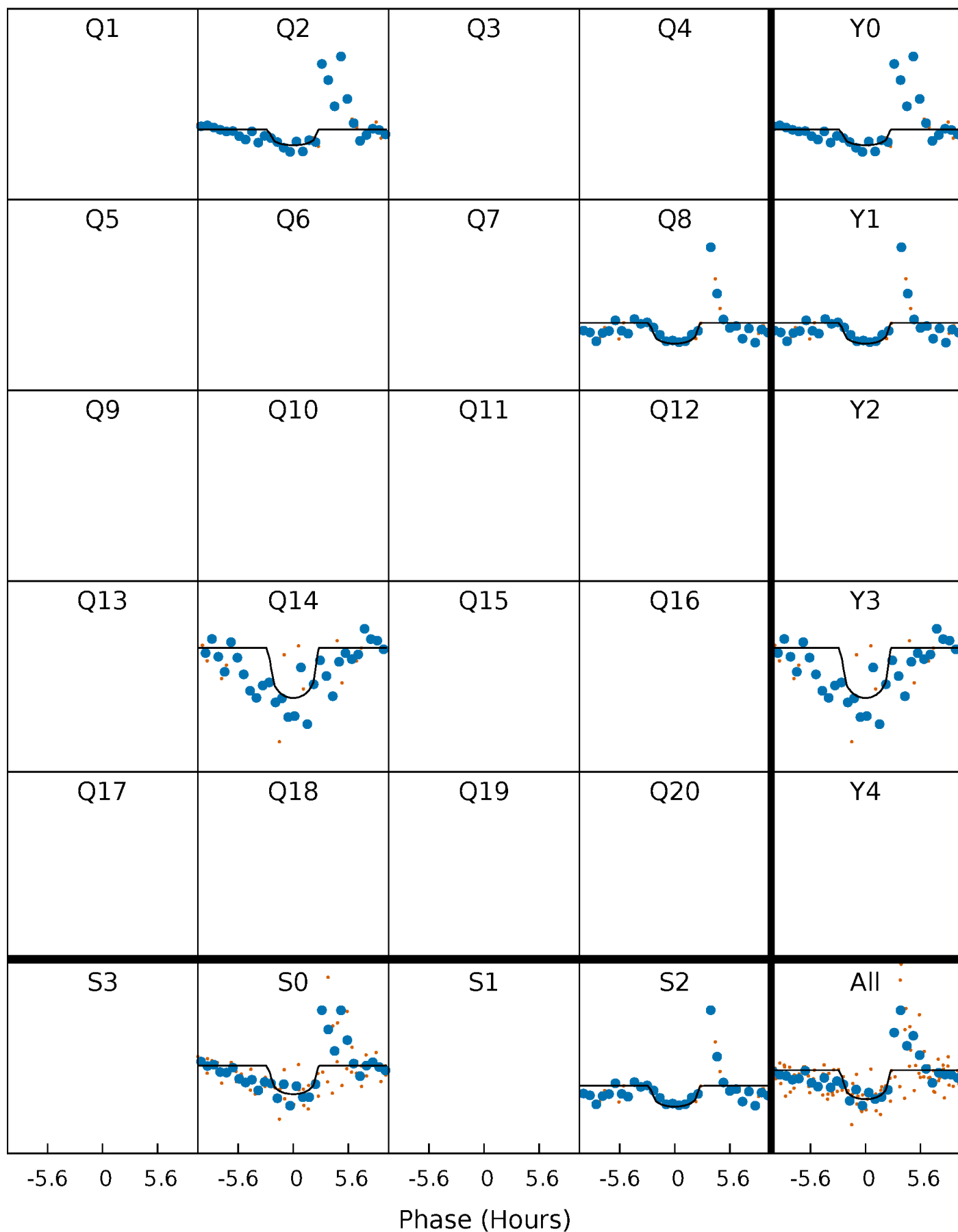
PDC Quarter-Phased Transit Curves

TCE 003342210-01 P=546.385299 Days $T_0=239.910532$ (BKJD)



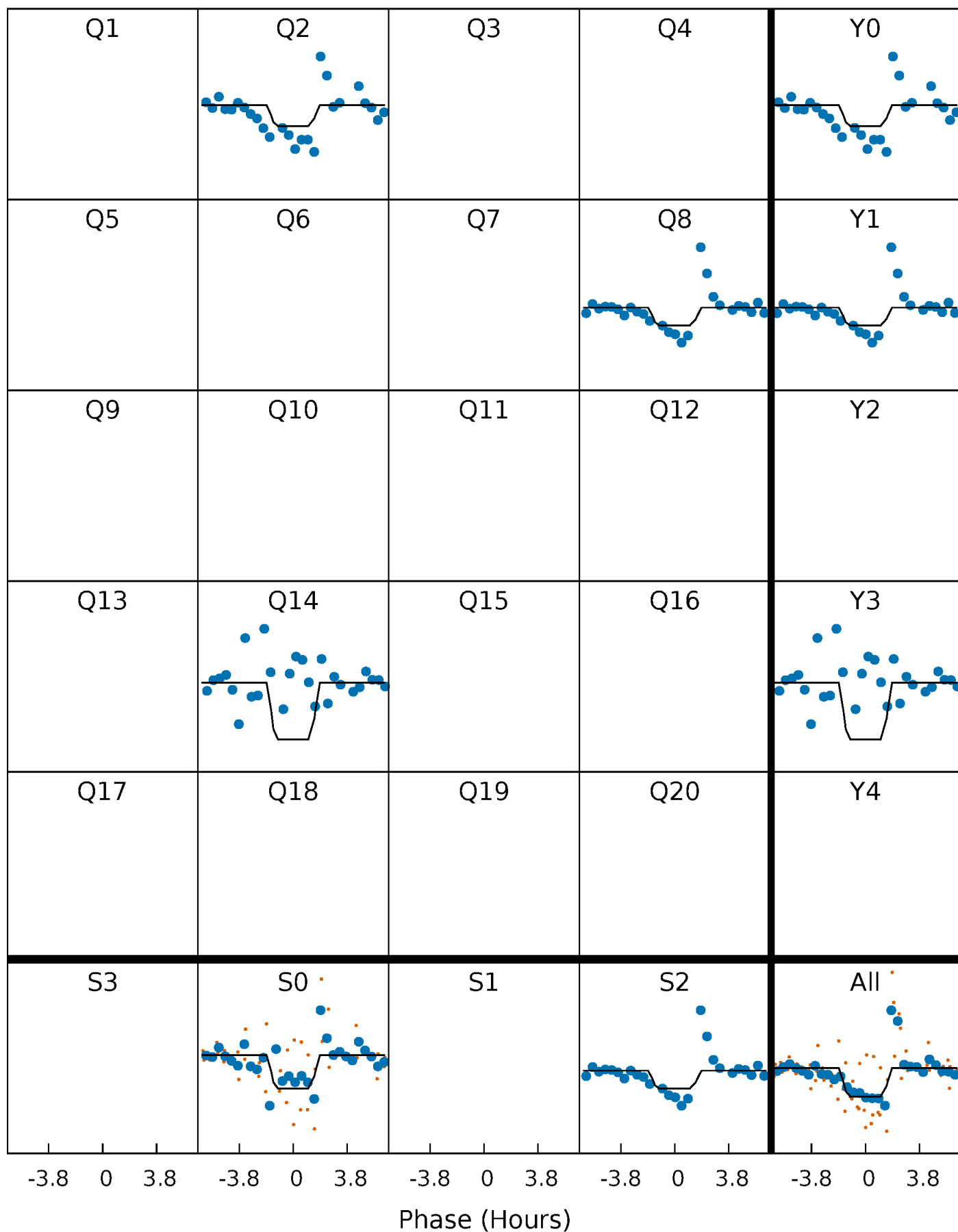
DV Quarter-Phased Transit Curves

TCE 003342210-01 P=546.385299 Days $T_0=239.910532$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

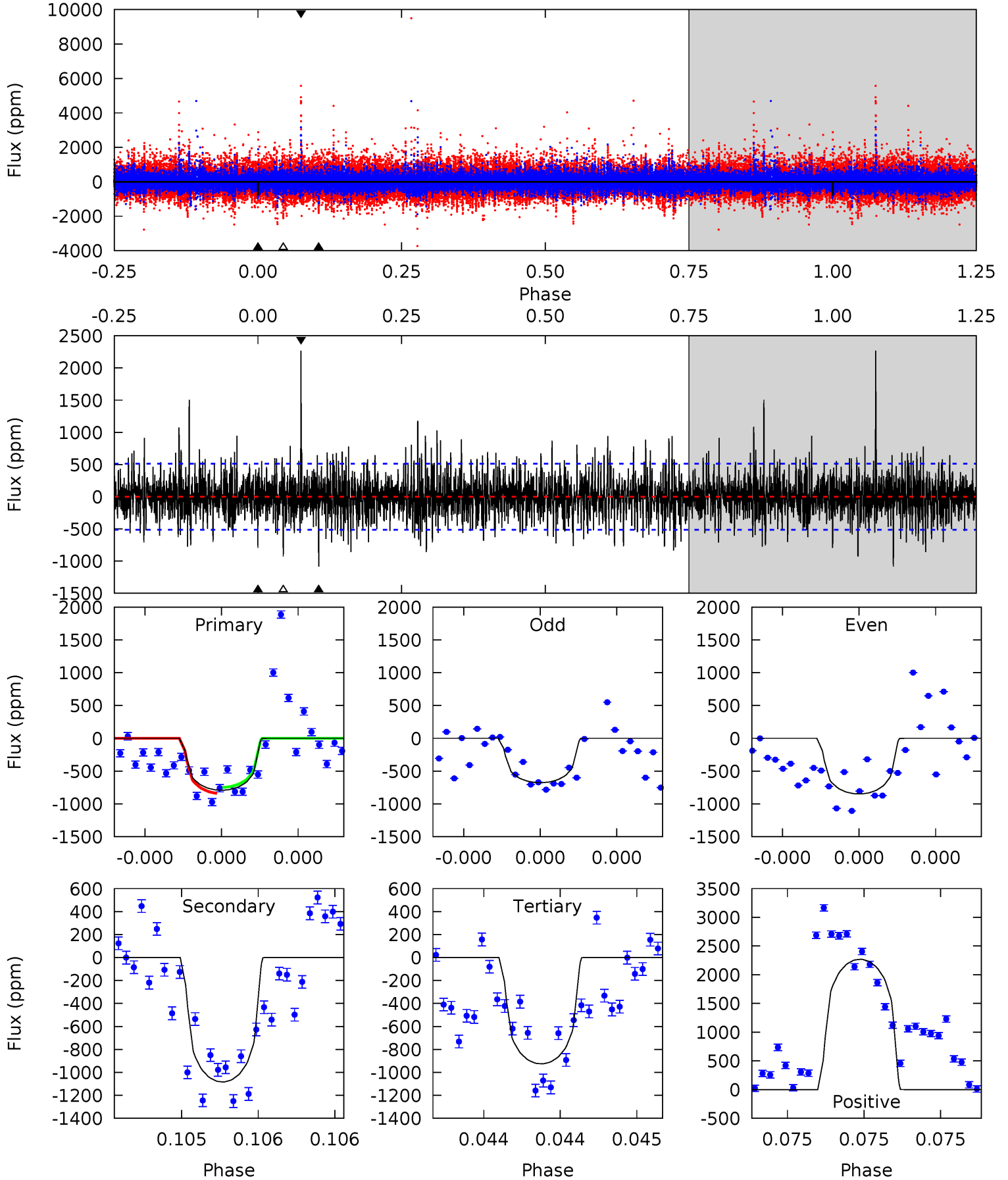
TCE 003342210-01 P=546.413828 Days $T_0=239.954787$ (BKJD)



DV Model-Shift Uniqueness Test

003342210-01, P = 546.385299 Days, E = 239.910532 Days

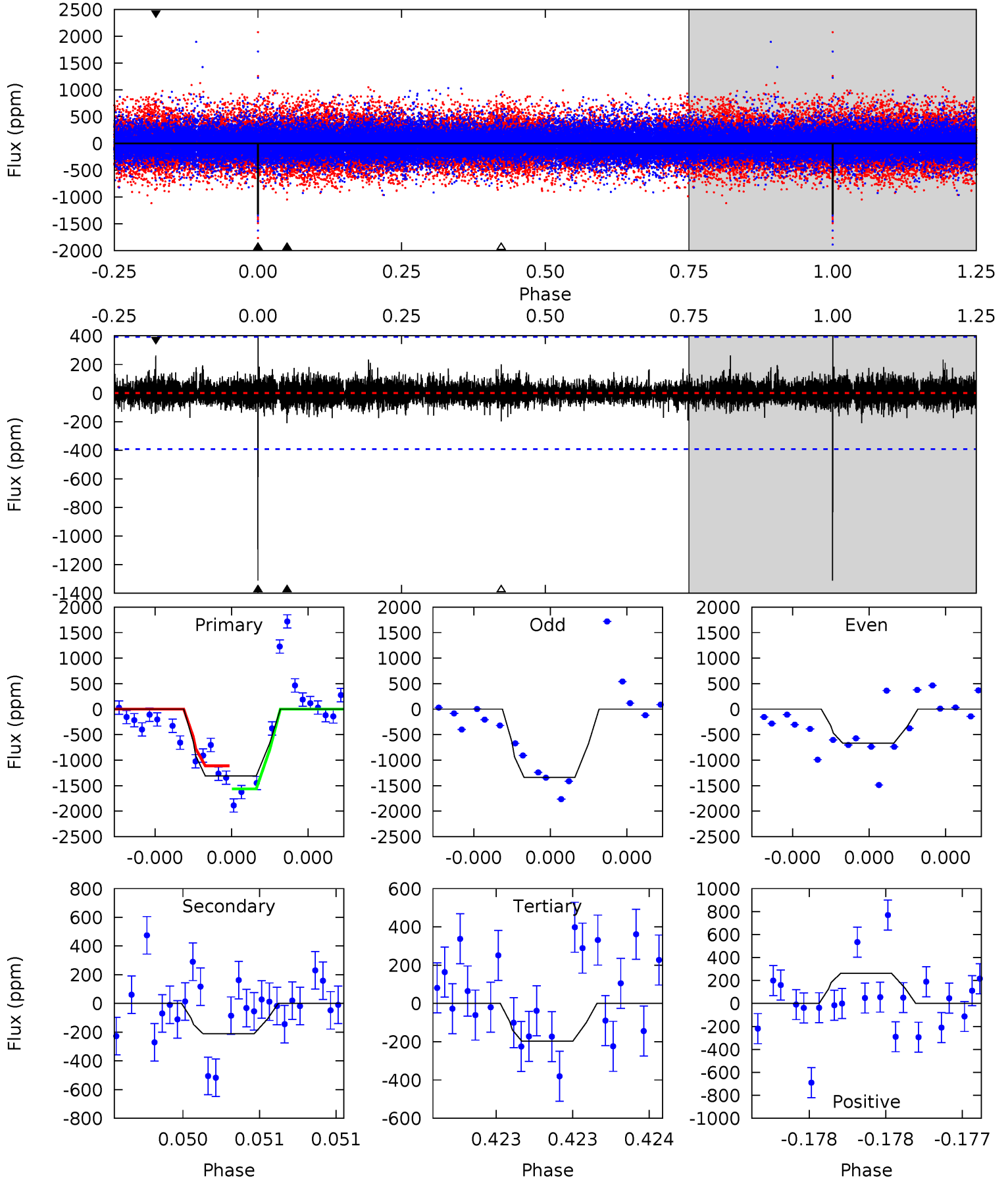
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.68	11.9	10.1	24.9	5.62	3.55	2.67	-1.47	-16.2	1.73	-13.0	0.81	0.95	0.68	0.50



Alt Model-Shift Uniqueness Test

003342210-01, P = 546.413828 Days, E = 239.954787 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.1	3.07	2.87	3.81	5.70	3.68	0.59	16.2	15.3	0.20	-0.74	5.37	0.71	0.23	3.27



Stellar Parameters For KIC 003342210

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5237^{+158}_{-142}	$4.481^{+0.099}_{-0.198}$	$-0.120^{+0.350}_{-0.250}$	$0.837^{+0.146}_{-0.106}$	$0.774^{+0.112}_{-0.060}$	$1.856^{+0.881}_{-0.821}$
	+3%/-3%	+2%/-4%	+292%/-208%	+17%/-13%	+14%/-8%	+47%/-44%
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 003342210-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1084 ± 91	$4.83^{+4.84}_{-3.16}$	273^{+16}_{-15}	4365^{+2935}_{-899}	$37253^{+286267}_{-27759}$
Alt.	-211 ± 69	$5.10^{+4.58}_{-3.34}$	273^{+16}_{-14}	3221^{+1467}_{-522}	5974^{+49767}_{-4335}

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 $A_{obs} \gg 1.0$

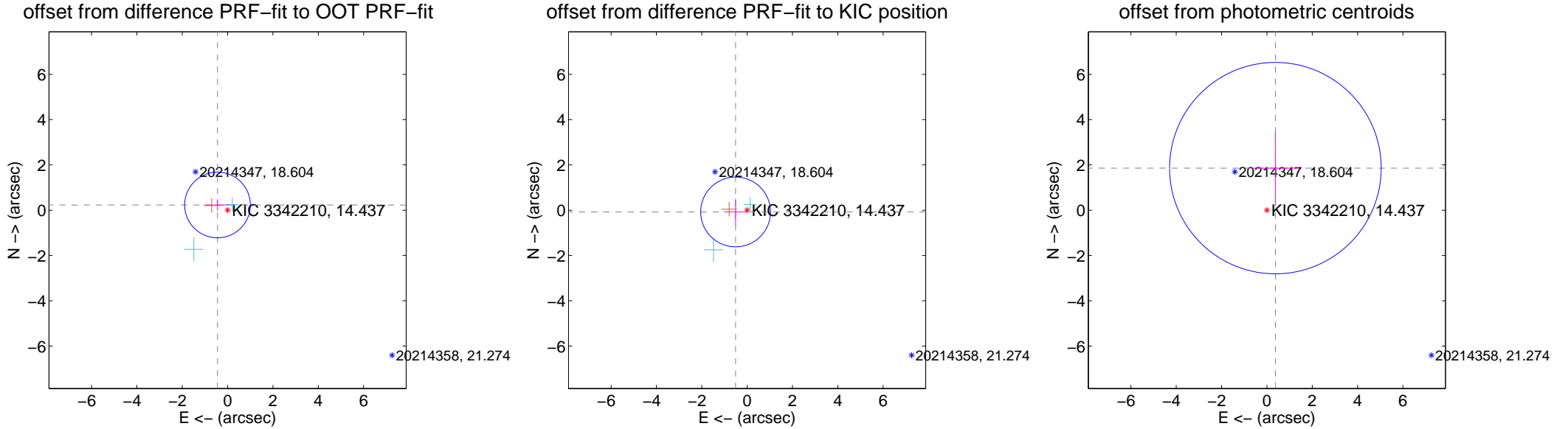
DV Centroid Data

Supplemental centroid analysis for 003342210-01. Kepler magnitude: 14.44. Transit SNR 5.40

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

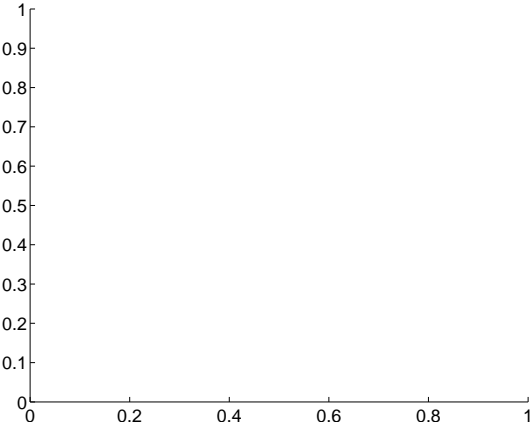
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.502 ± 0.483	1.04	0.446 ± 0.528	0.231 ± 0.254
PRF-fit source offset from KIC position	0.515 ± 0.514	1.00	0.509 ± 0.512	-0.077 ± 0.577
photometric centroid source offset	1.90 ± 1.56	1.22	-0.37 ± 1.04	1.86 ± 1.57



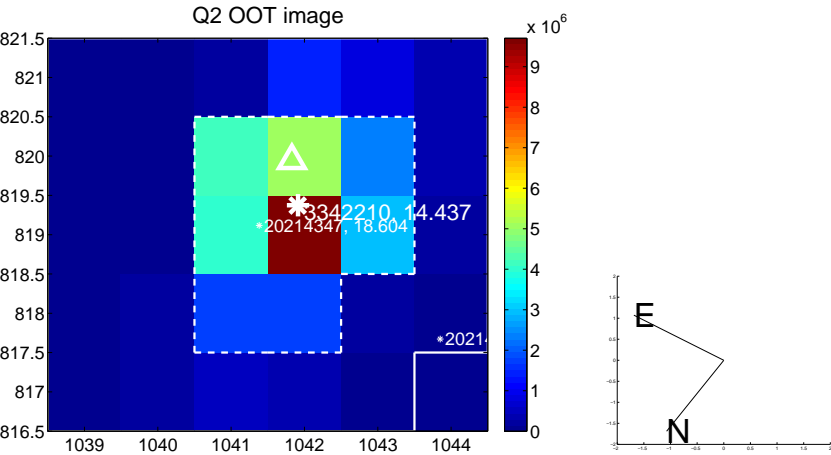
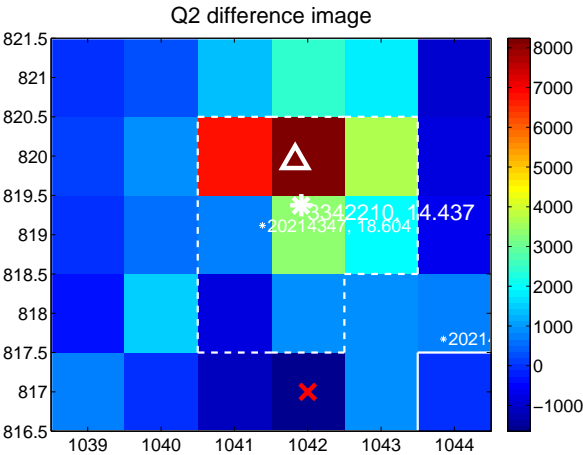
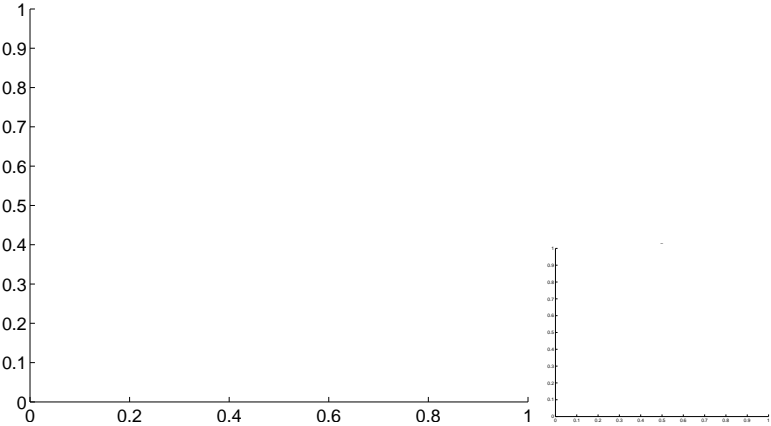
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

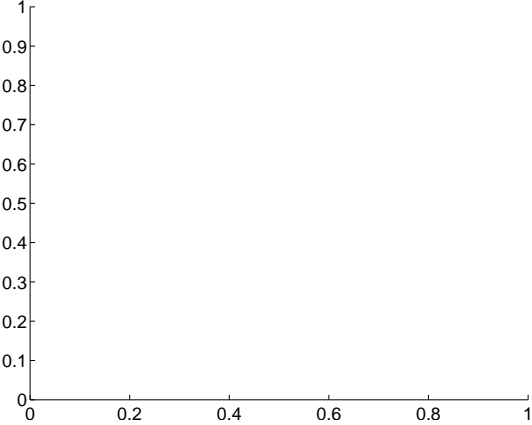
Q1 no difference image



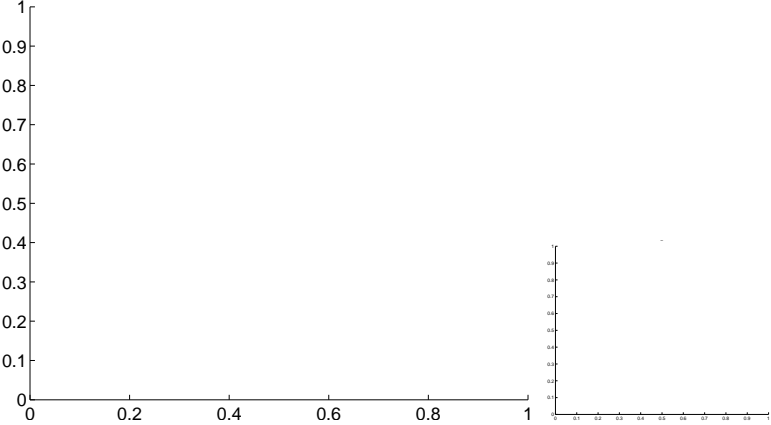
Q1 no OOT image



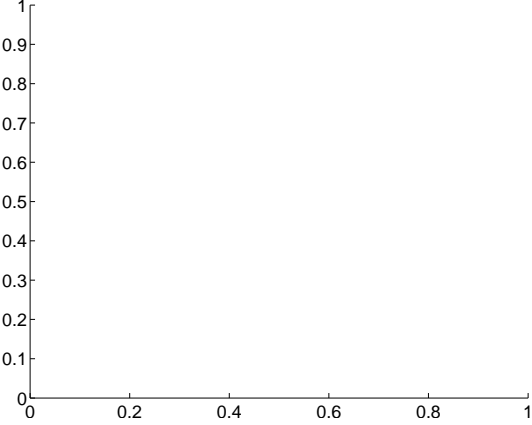
Q3 no difference image



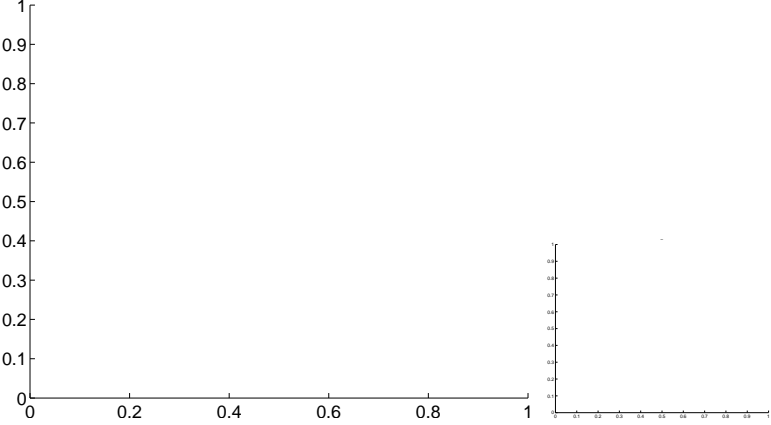
Q3 no OOT image



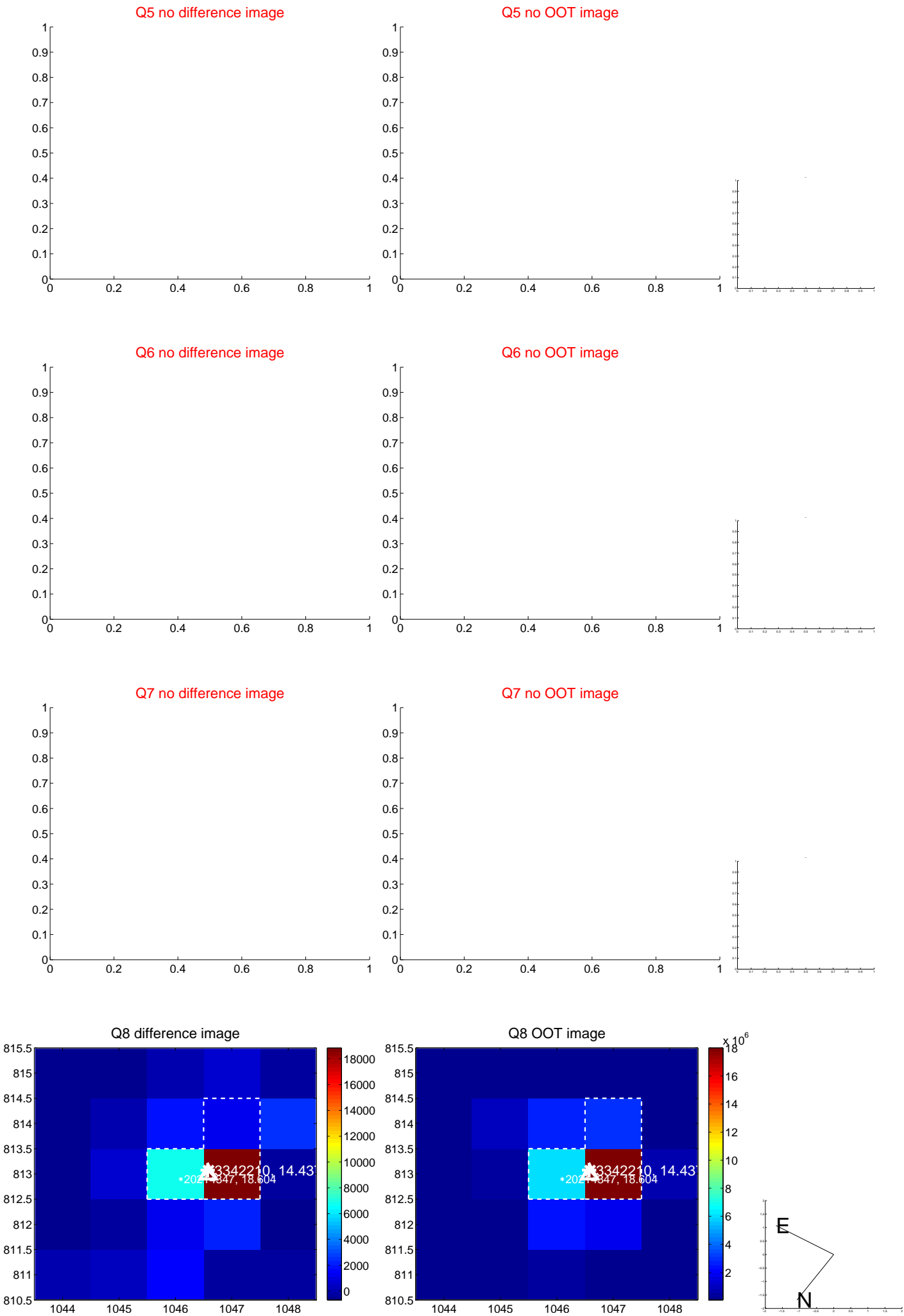
Q4 no difference image



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.

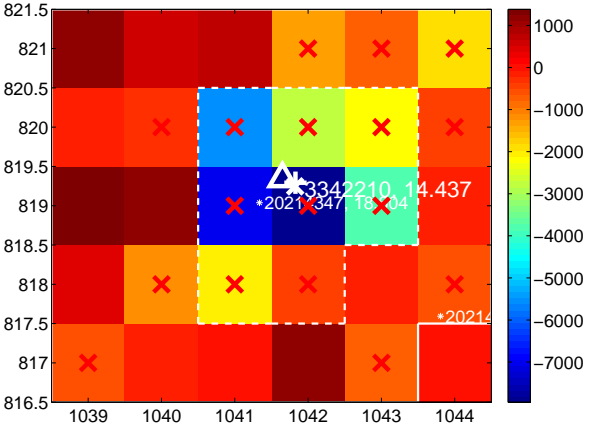
Q13 no difference image



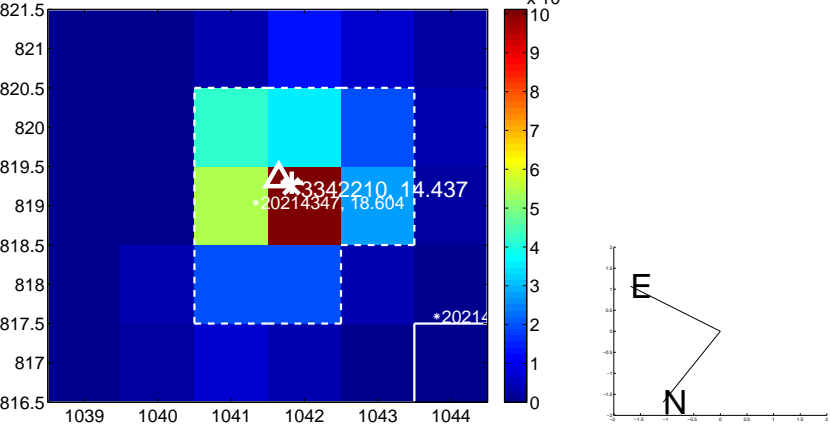
Q13 no OOT image



Q14 difference image. Poor Quality



Q14 OOT image



Q15 no difference image



Q15 no OOT image



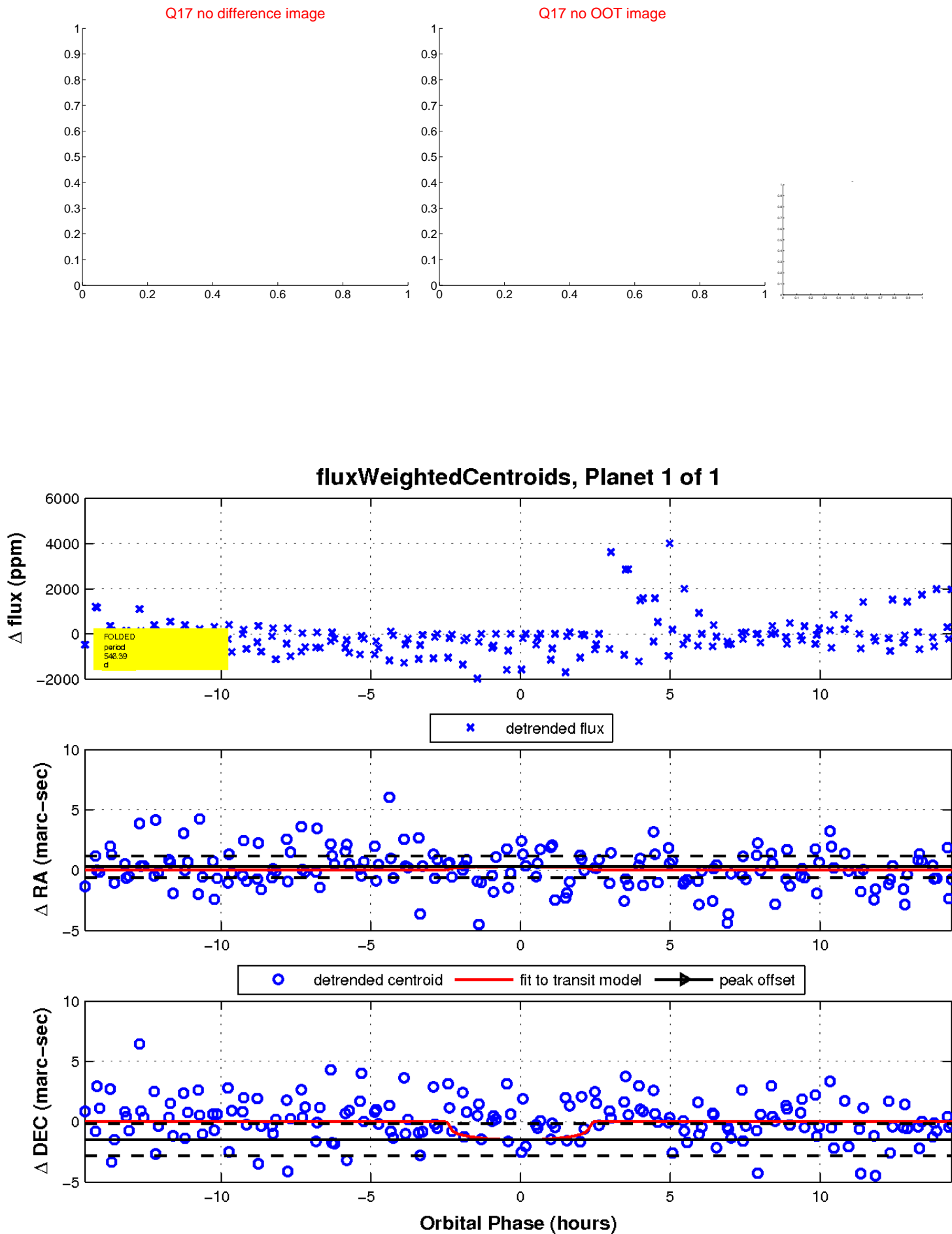
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

