

KIC 007693494

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})
007693494-01	OBS	No	368.955216	233.094708	1179.1	26.963	7.4	10.4	0.86	5701	3.71	0.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007693494-01	OBS	FP	0.00	1	0	0	1	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—EPHEM_MATCH

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.

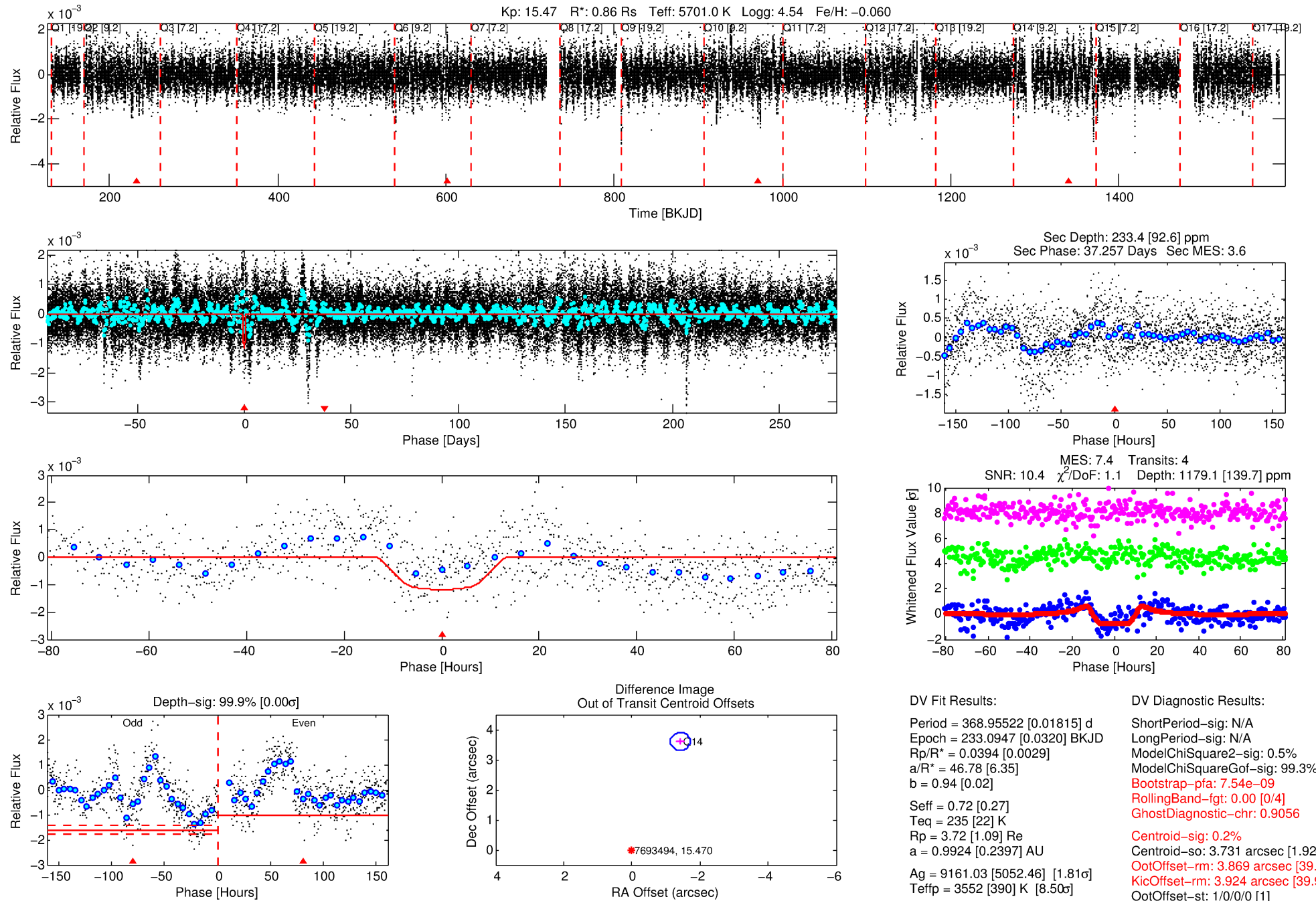
Ephemeris Match Information For 007693494-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist (\prime)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007693494-01	7693494	007764546-01	7764546	1:1	648.8	-163	3	15.13	15.47	0.47	Col-Anomaly	1	1.23	0.34

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7693494 Candidate: 1 of 1 Period: 368.955 d



DV Fit Results:

Period = 368.95522 [0.01815] d
Epoch = 233.0947 [0.0320] BKJD
Rp/R* = 0.0394 [0.0029]
a/R* = 46.78 [6.35]
b = 0.94 [0.02]
Seff = 0.72 [0.27]
Teq = 235 [22] K
Rp = 3.72 [1.09] Re
a = 0.9924 [0.2397] AU
Ag = 9161.03 [5052.46] [1.81 σ]
Teff = 3552 [390] K [8.50 σ]

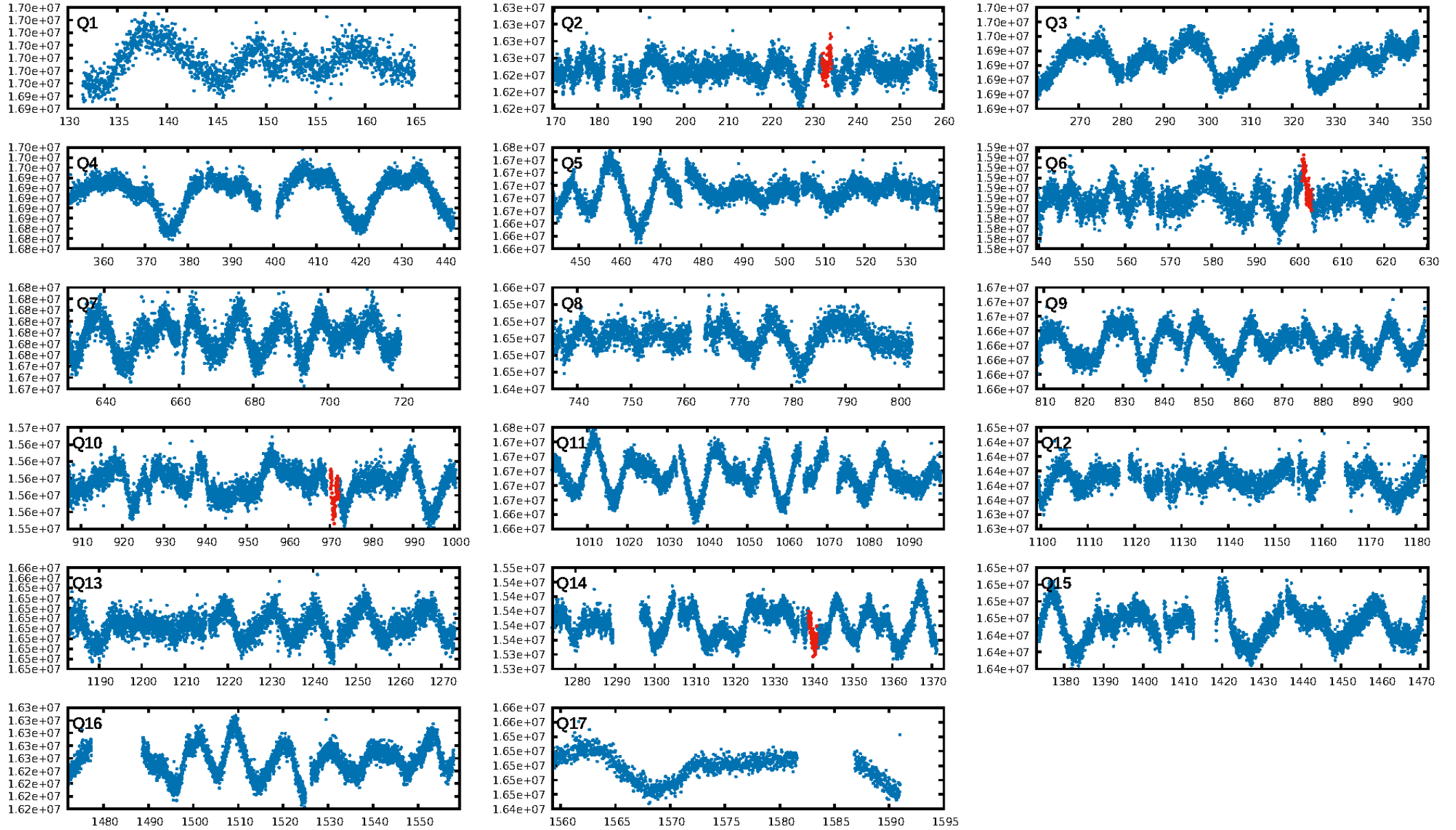
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.5%
ModelChiSquareGoF-sig: 99.3%
Bootstrap-pfa: 7.54e-09
RollingBand-fgt: 0.00 [0/4]
GhostDiagnostic-chr: 0.9056
Centroid-sig: 0.2%
Centroid-so: 3.731 arcsec [1.92 σ]
OotOffset-rm: 3.869 arcsec [39.38 σ]
KicOffset-rm: 3.924 arcsec [39.93 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

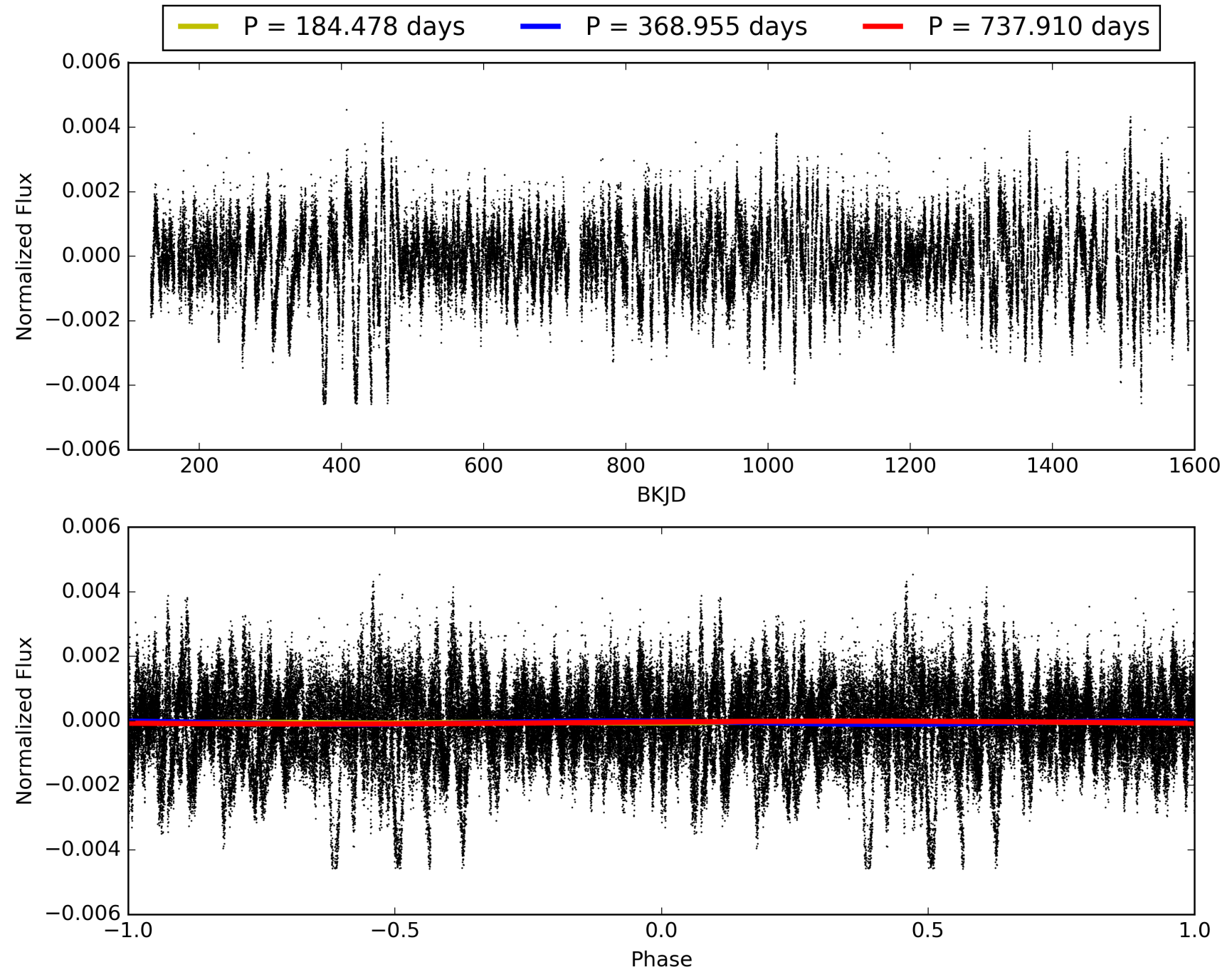
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:51:48 Z

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

TCE 007693494-01, PDC Light Curves

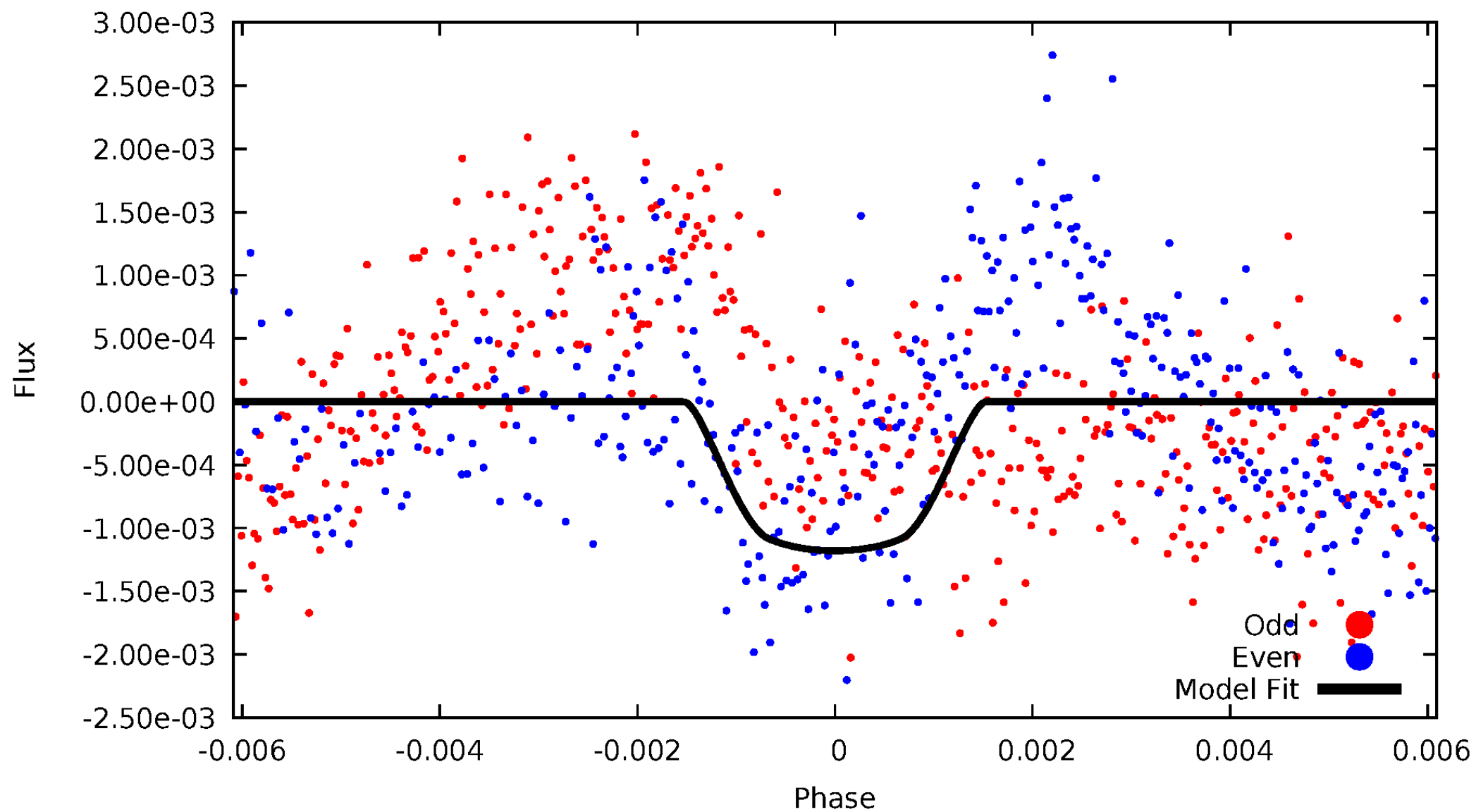


TCE 007693494-01



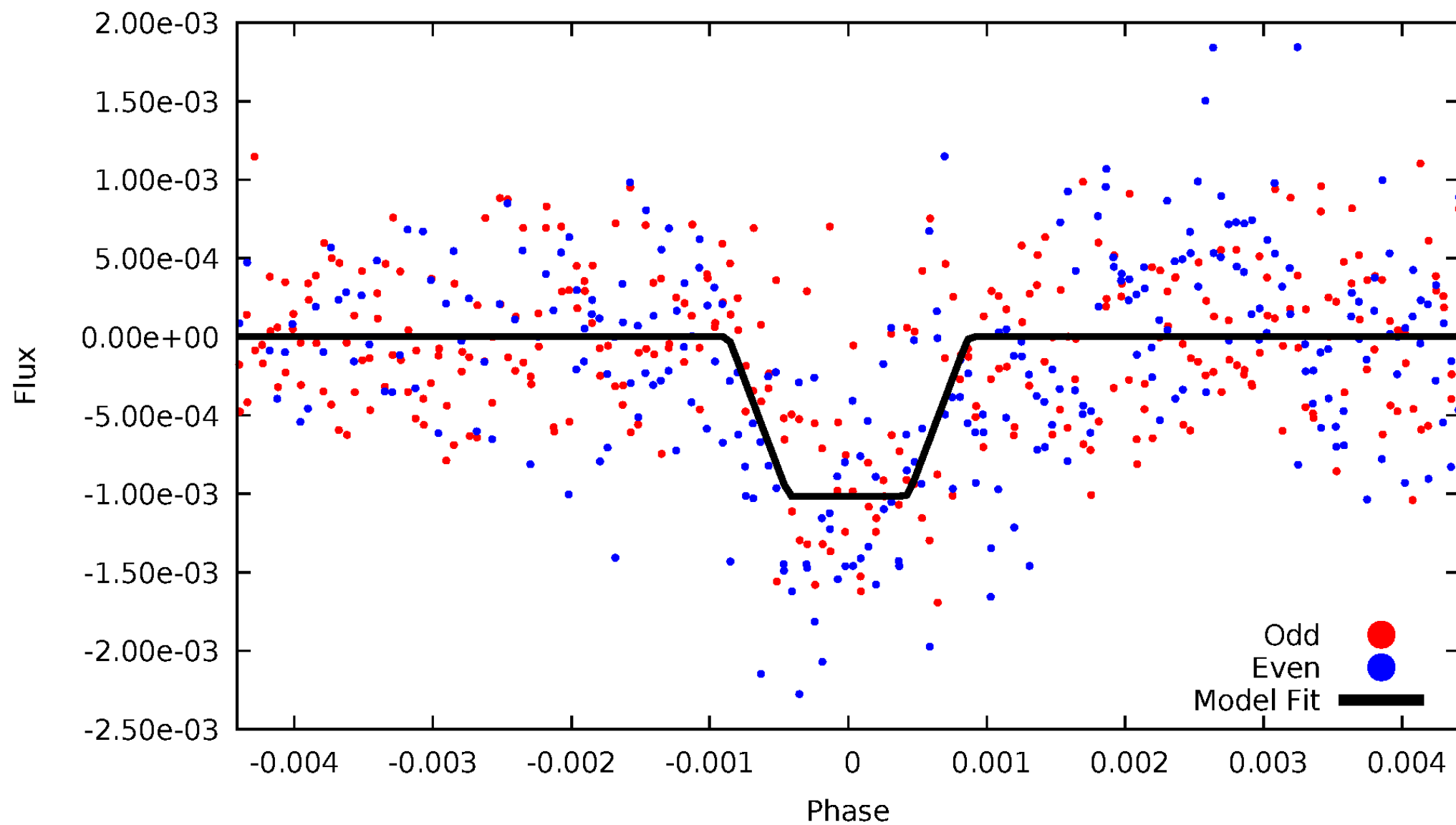
DV Odd/Even

TCE 007693494-01



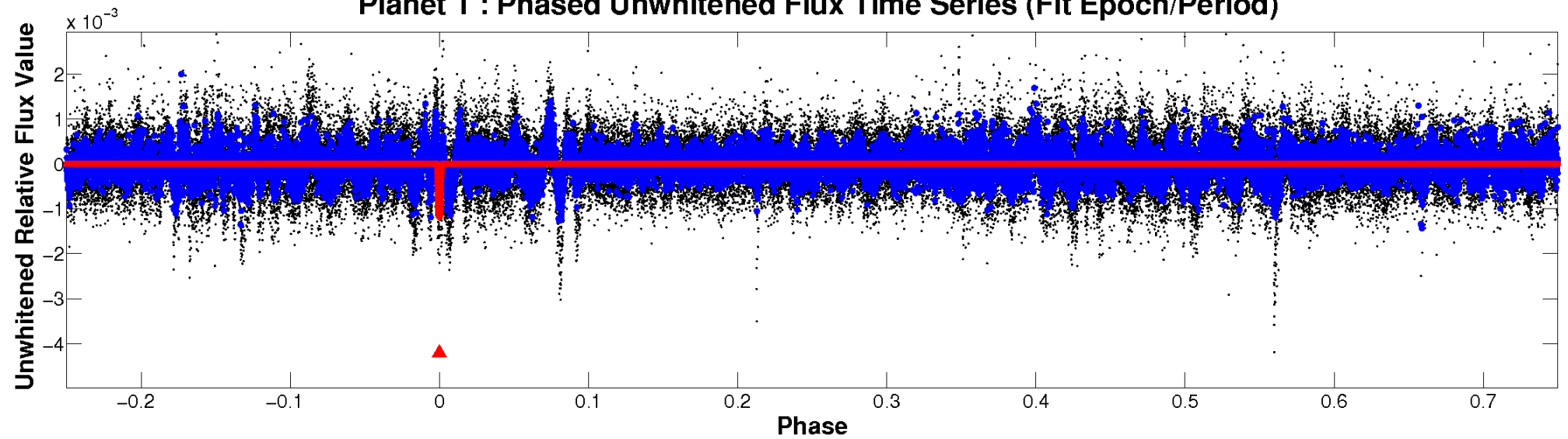
ALT Odd/Even

TCE 007693494-01

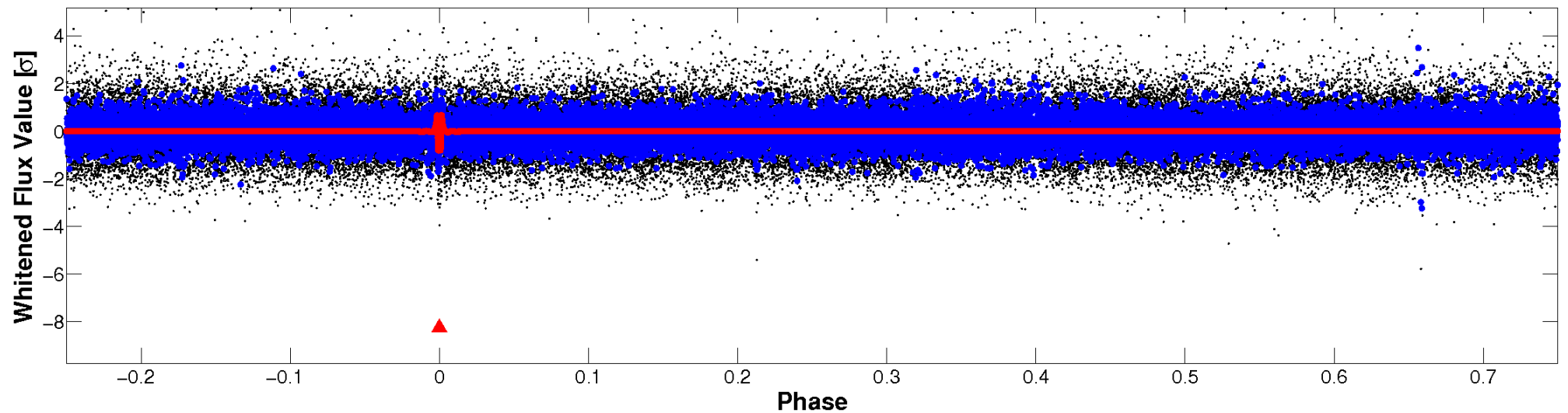


Non-Whitened Vs. Whitened Light Curve

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

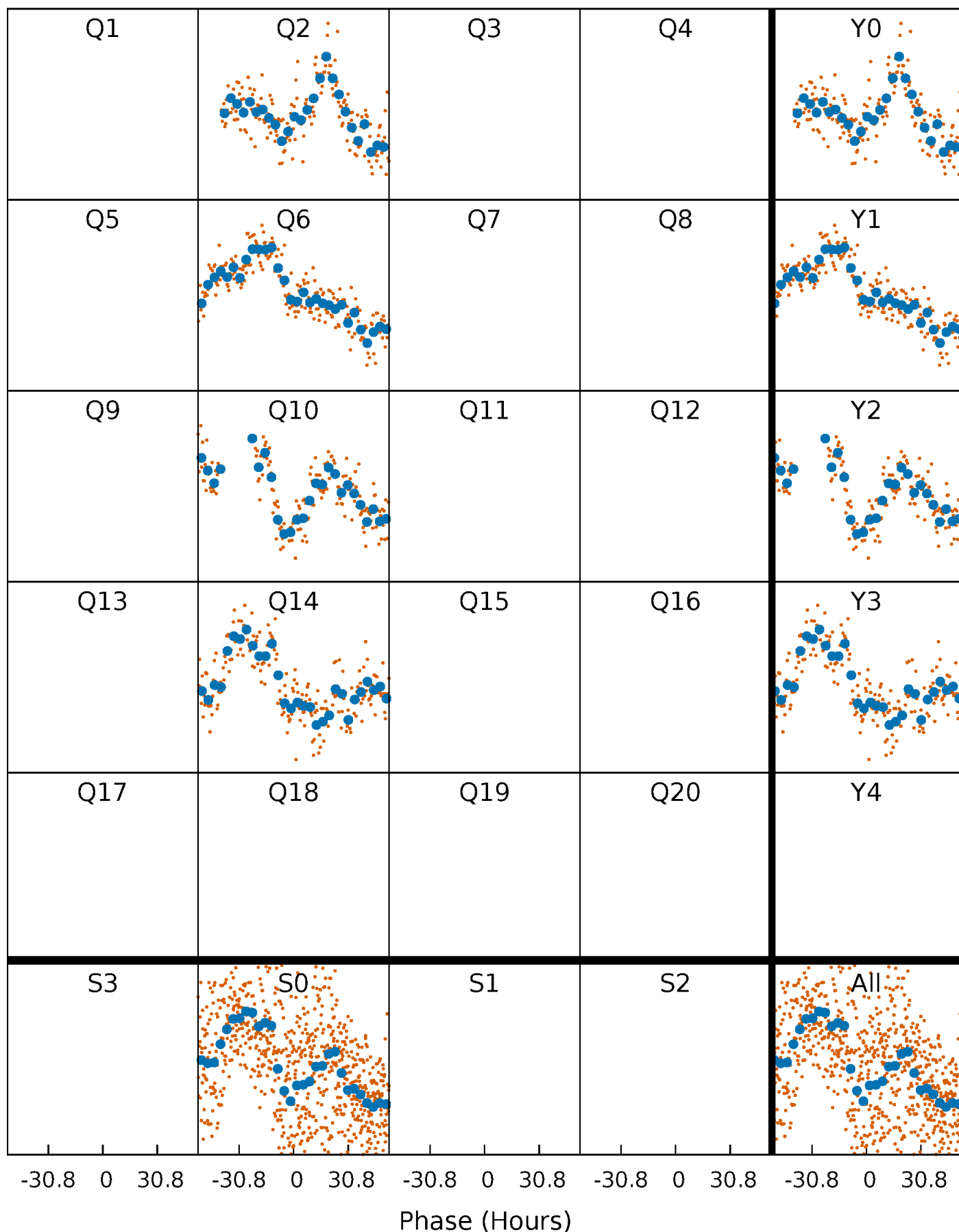


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



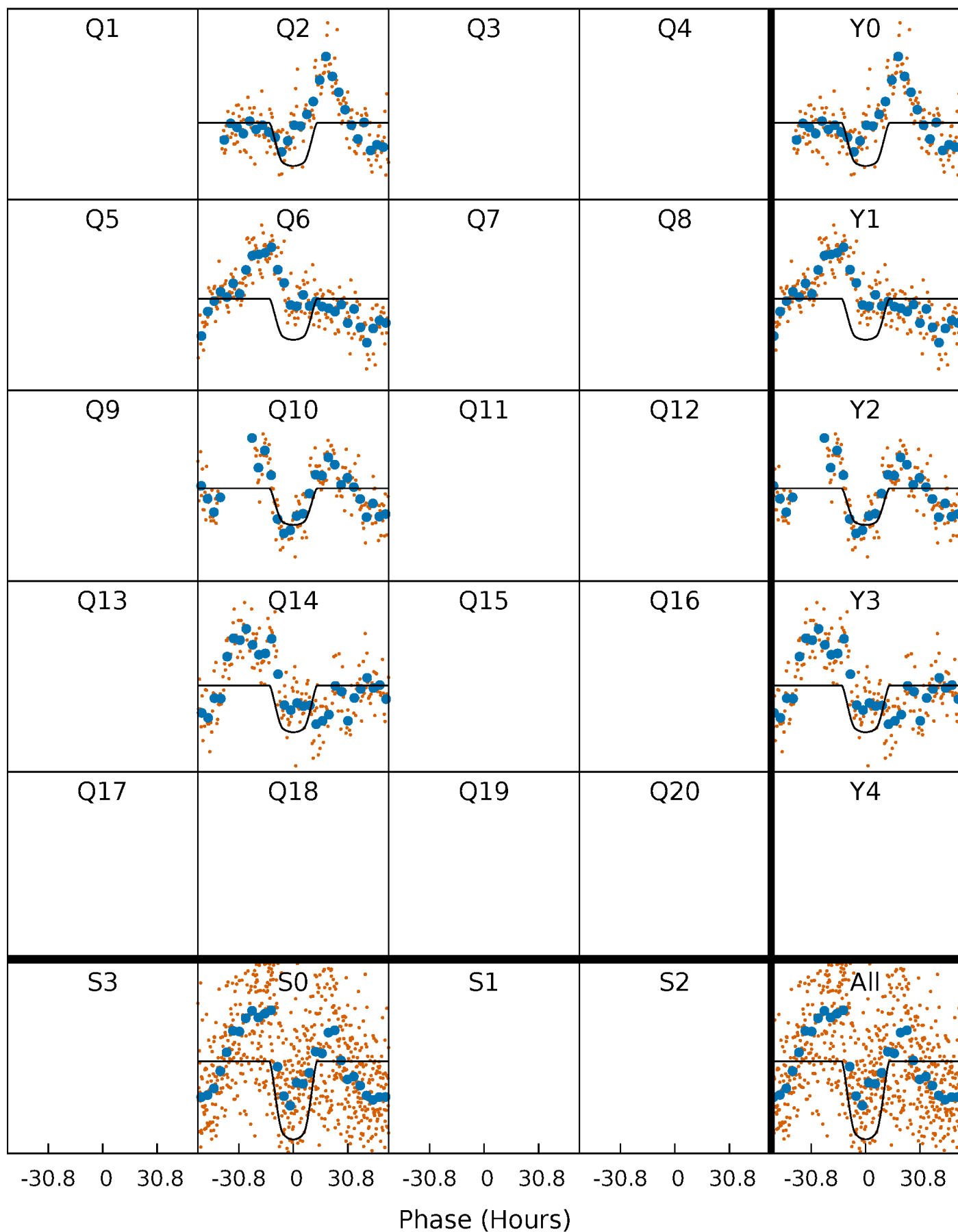
PDC Quarter-Phased Transit Curves

TCE 007693494-01 P=368.955216 Days $T_0=233.094707$ (BKJD)



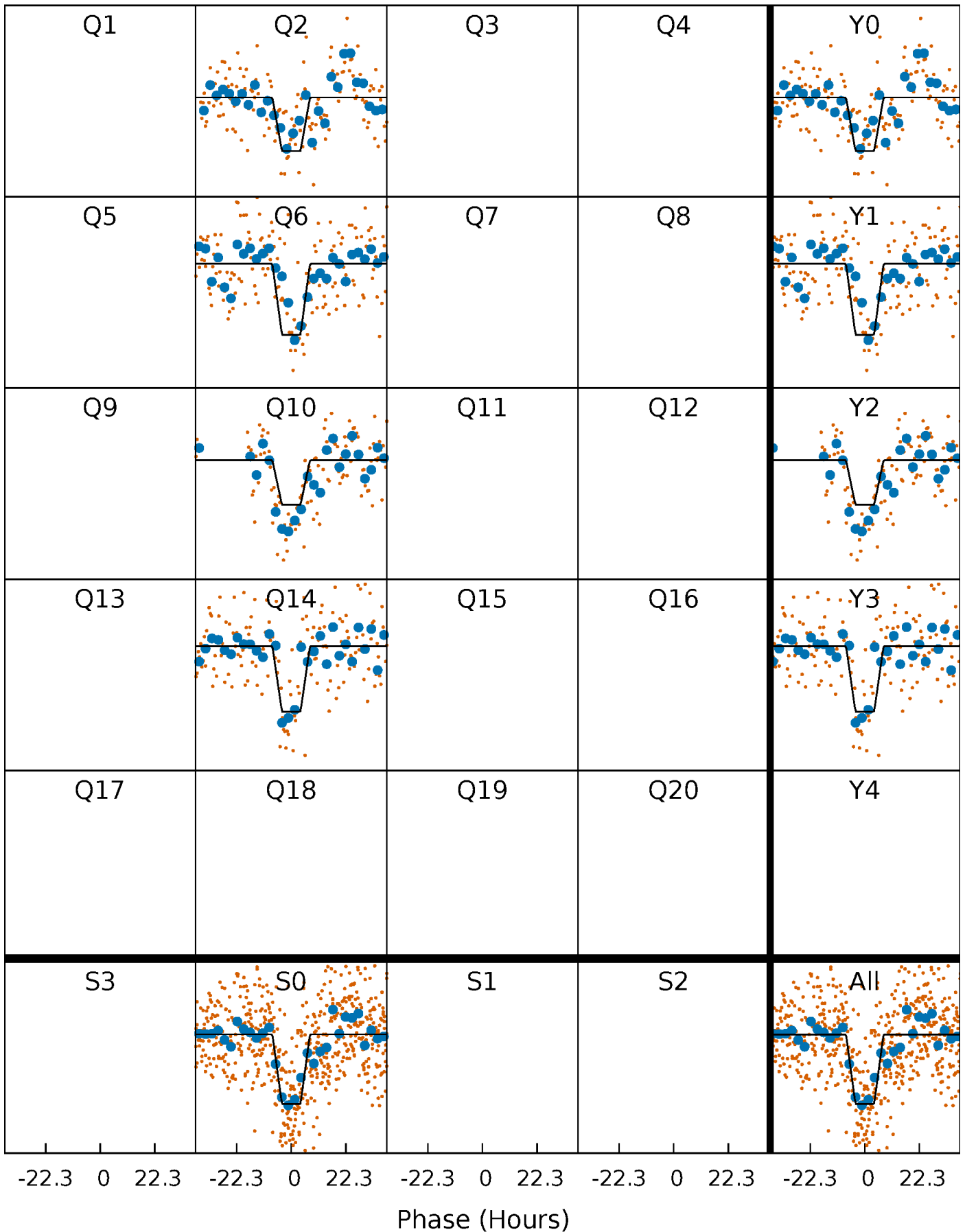
DV Quarter-Phased Transit Curves

TCE 007693494-01 P=368.955216 Days $T_0=233.094707$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

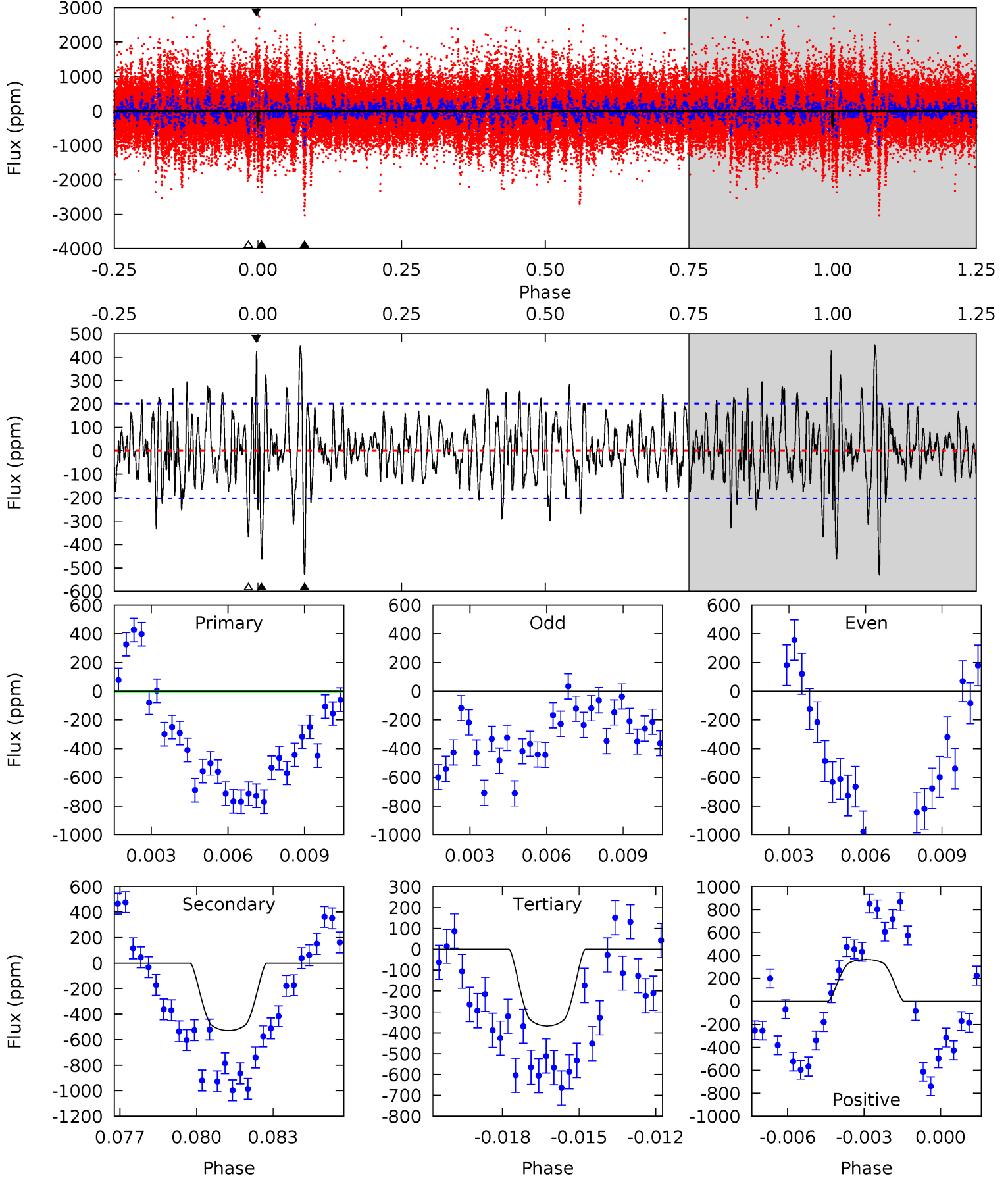
TCE 007693494-01 P=368.948359 Days $T_0=232.935498$ (BKJD)



DV Model-Shift Uniqueness Test

007693494-01, P = 368.955216 Days, E = 233.094707 Days

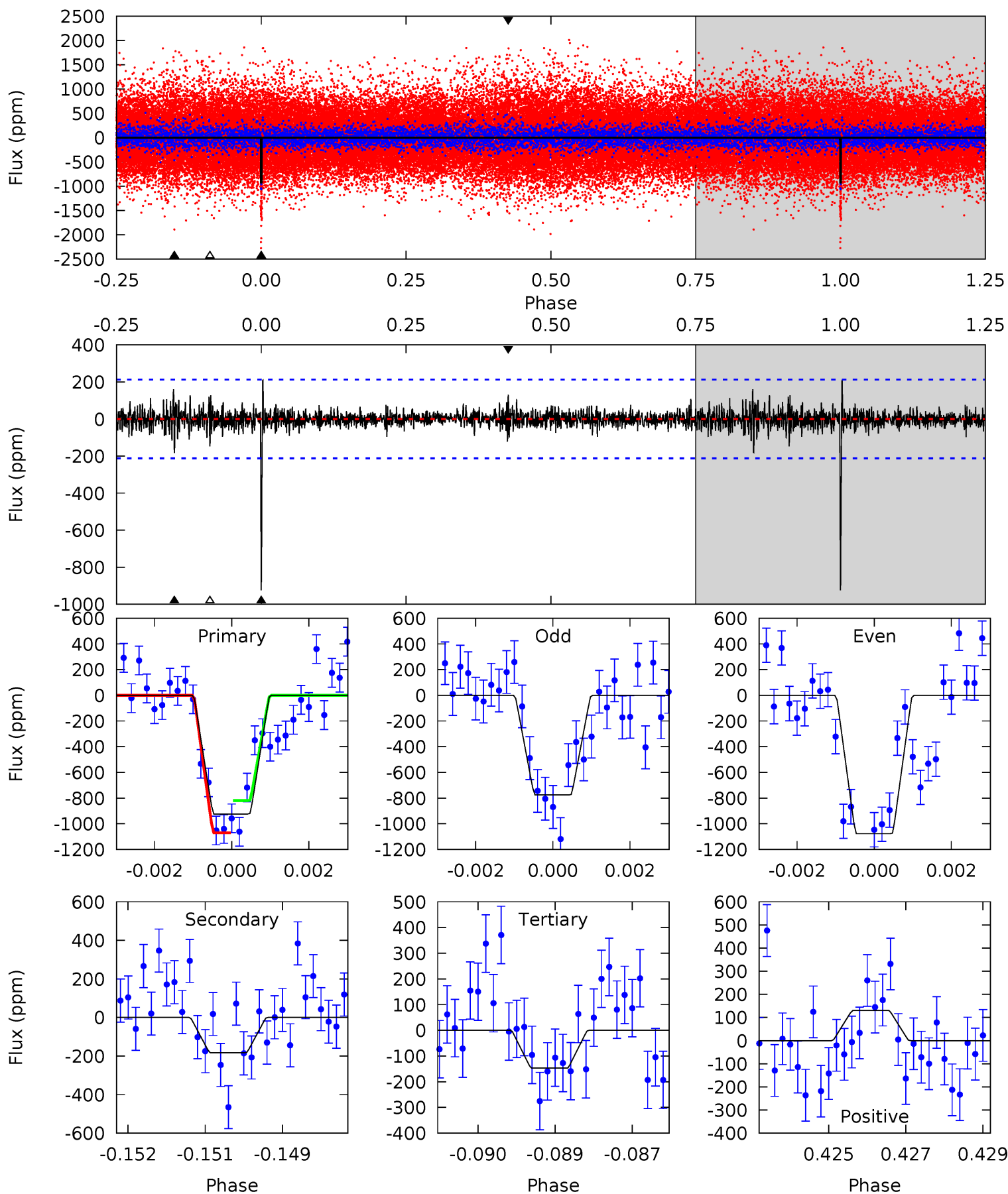
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	13.7	9.51	9.46	5.25	2.96	2.91	1.94	1.99	4.16	4.22	7.29	1.18	0.46	2.70



Alt Model-Shift Uniqueness Test

007693494-01, P = 368.948359 Days, E = 232.935498 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.3	4.60	3.71	3.29	5.35	3.13	0.79	19.6	20.0	0.90	1.32	3.81	1.20	0.19	3.15



Stellar Parameters For KIC 007693494

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5701^{+152}_{-169}	$4.545^{+0.034}_{-0.195}$	$-0.060^{+0.250}_{-0.300}$	$0.865^{+0.246}_{-0.066}$	$0.960^{+0.094}_{-0.115}$	$2.085^{+0.398}_{-1.046}$
	+3%/-3%	+1%/-4%	+417%/-500%	+28%/-8%	+10%/-12%	+19%/-50%
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 007693494-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-528 ± 39	$3.87^{+0.60}_{-0.39}$	336^{+22}_{-15}	4516^{+181}_{-177}	18607^{+4263}_{-4399}
Alt.	-183 ± 40	$3.11^{+0.53}_{-0.37}$	336^{+21}_{-15}	4018^{+240}_{-213}	9744^{+3914}_{-3084}

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 $A_{obs} \gg 1.0$

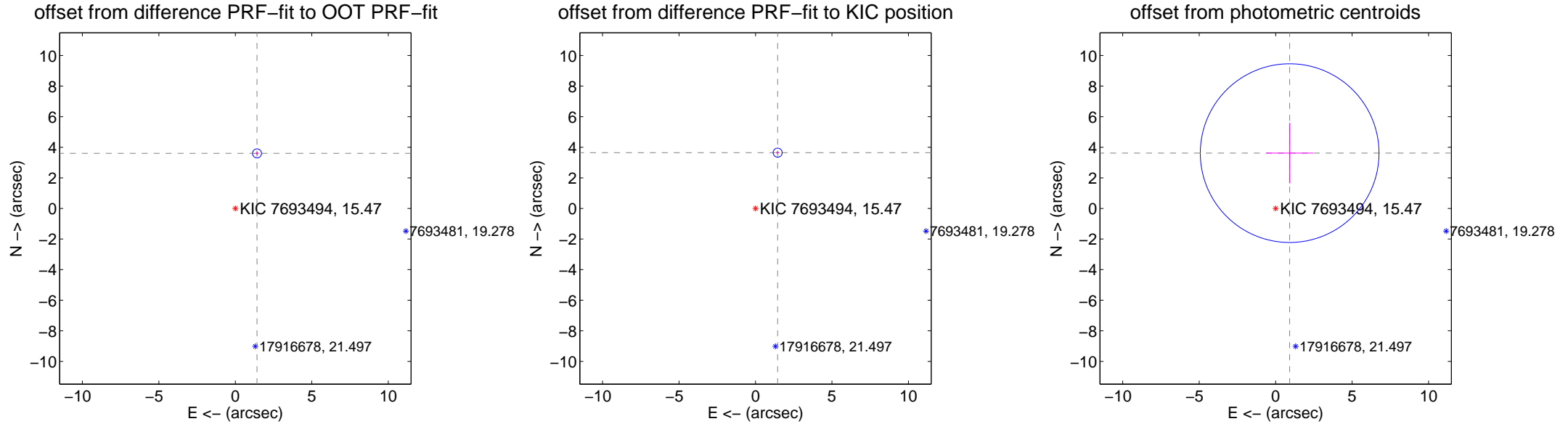
DV Centroid Data

Supplemental centroid analysis for 007693494-01. Kepler magnitude: 15.47. Transit SNR 10.40

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.869 ± 0.098	39.38	-1.418 ± 0.108	3.599 ± 0.097
PRF-fit source offset from KIC position	3.924 ± 0.098	39.93	-1.449 ± 0.108	3.647 ± 0.097
photometric centroid source offset	3.73 ± 1.95	1.92	-0.92 ± 1.54	3.62 ± 1.97

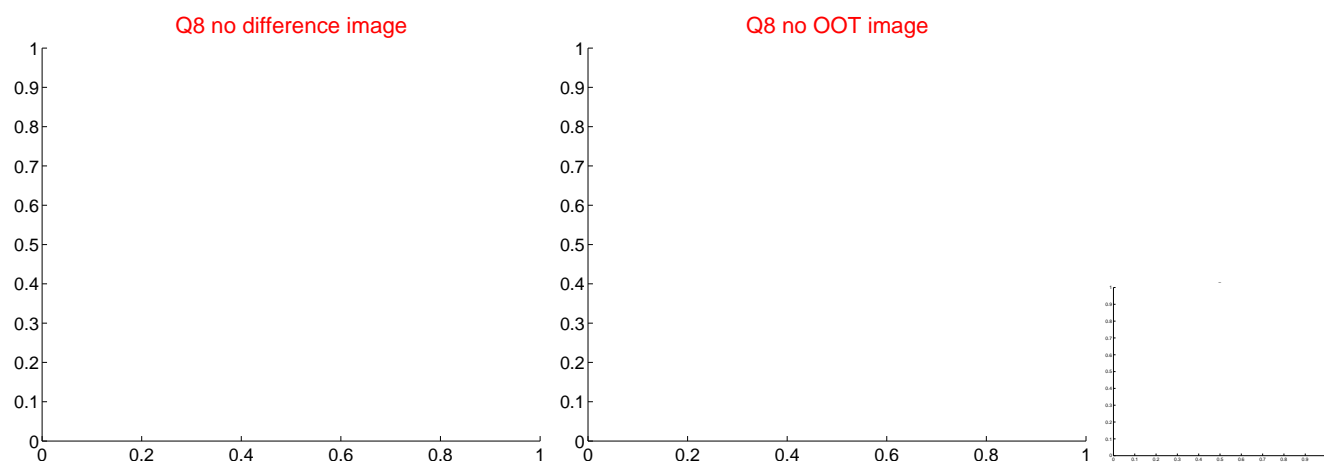
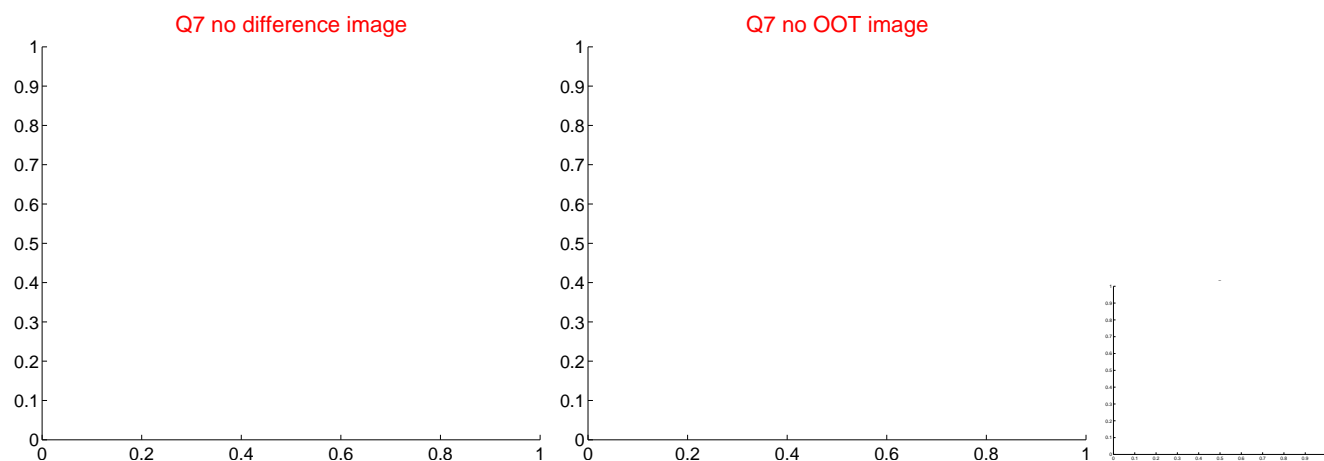
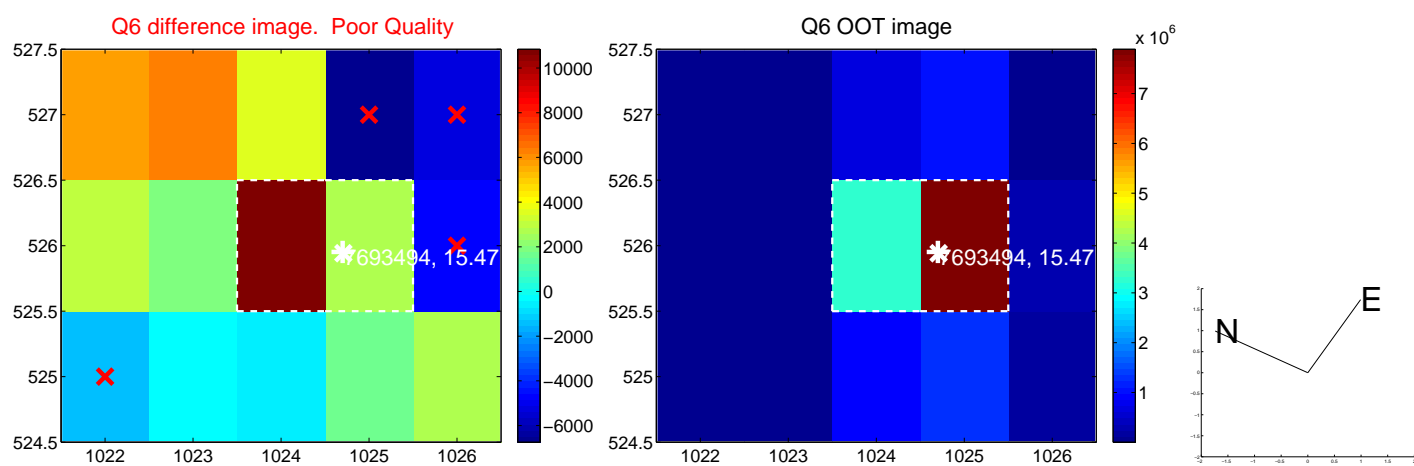
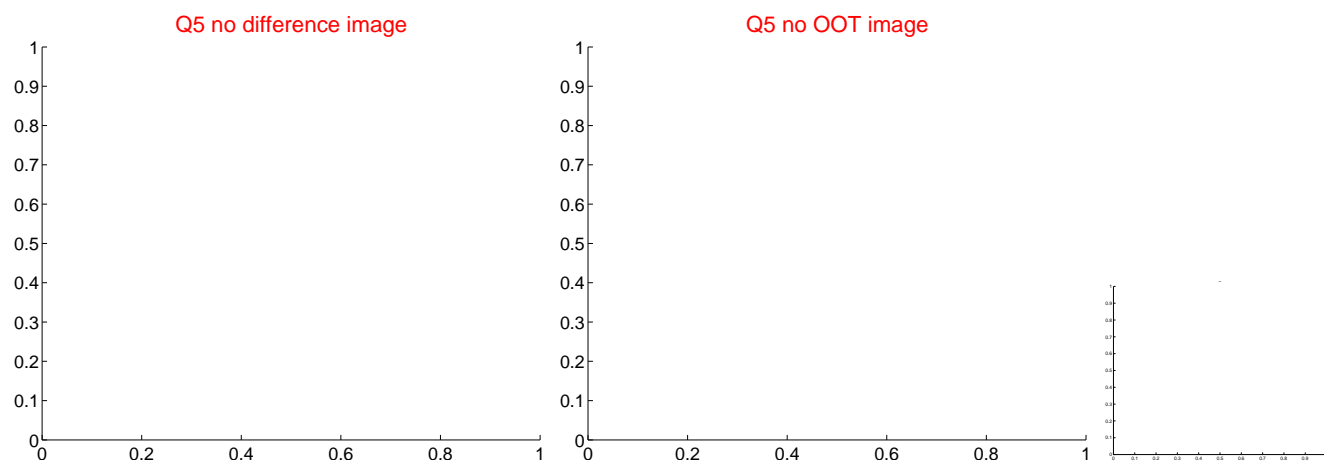


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



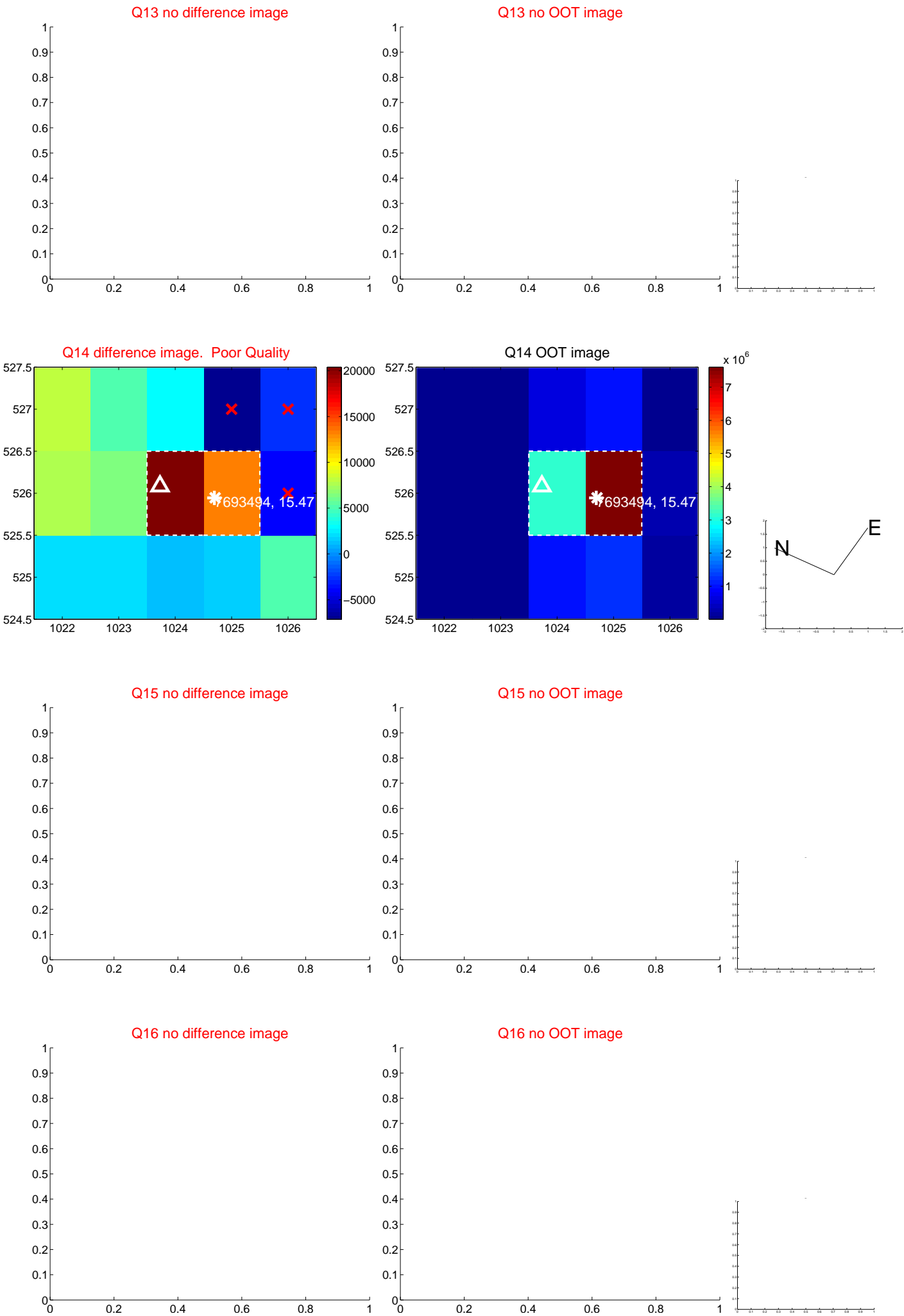
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



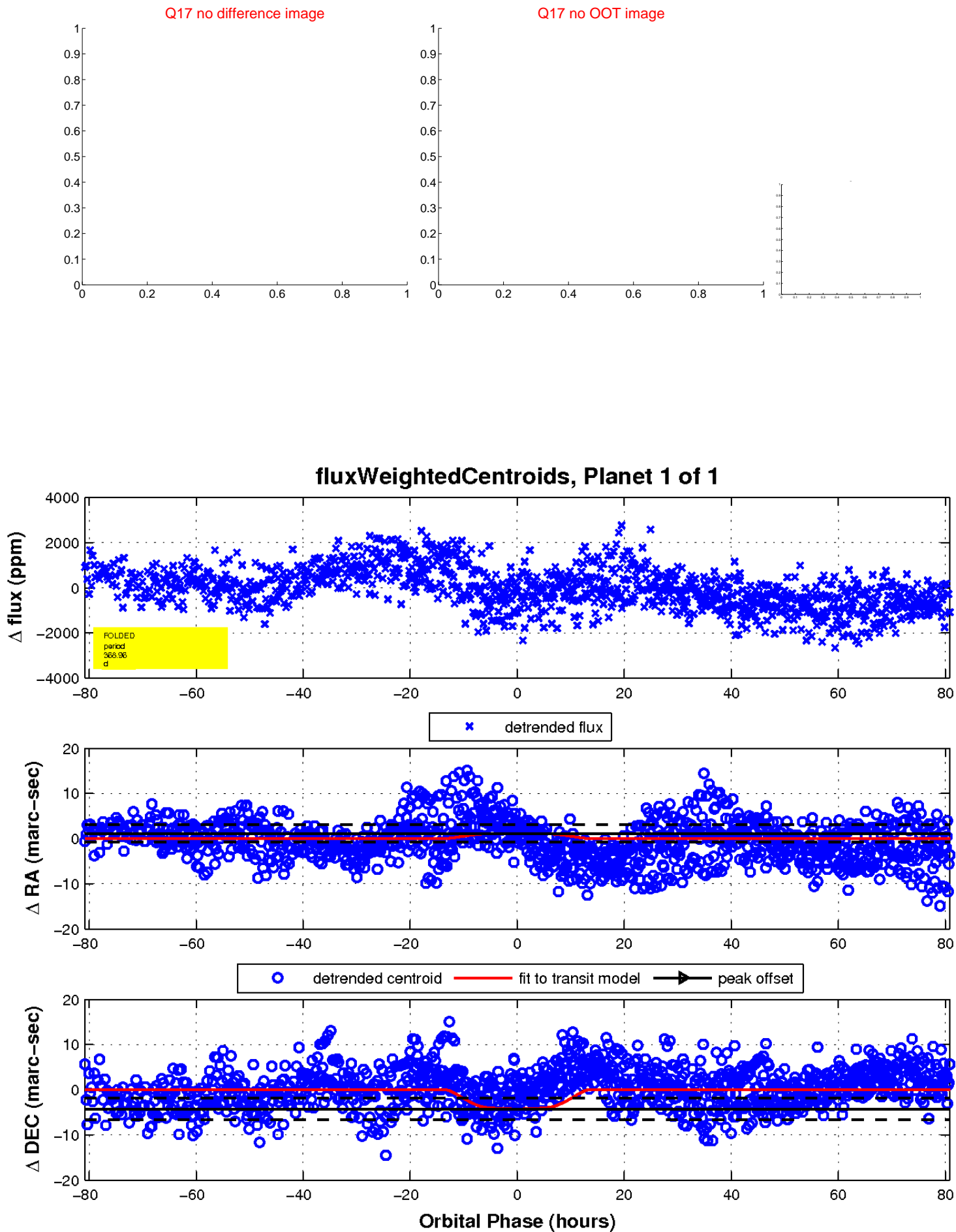
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

