

KIC 003542832

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})
003542832-01	OBS	No	478.663965	452.893490	575.0	6.499	7.5	7.7	0.83	6053	2.11	0.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003542832-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS

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

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

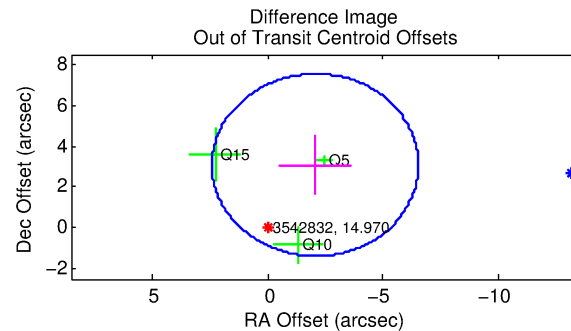
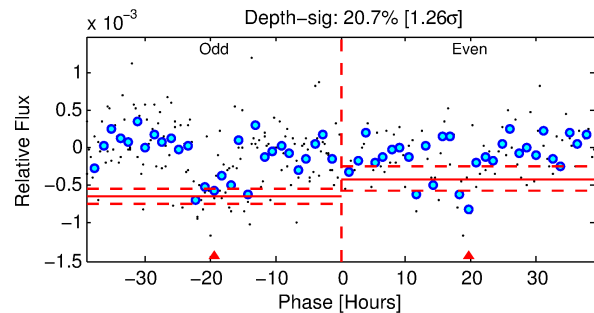
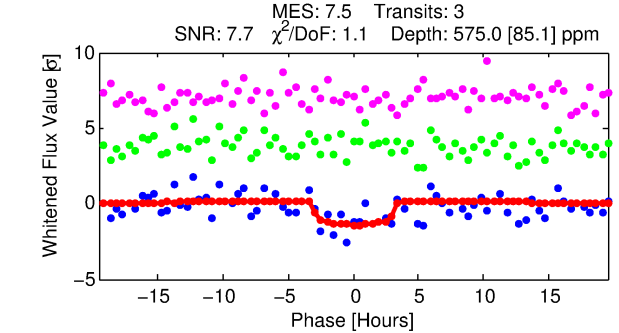
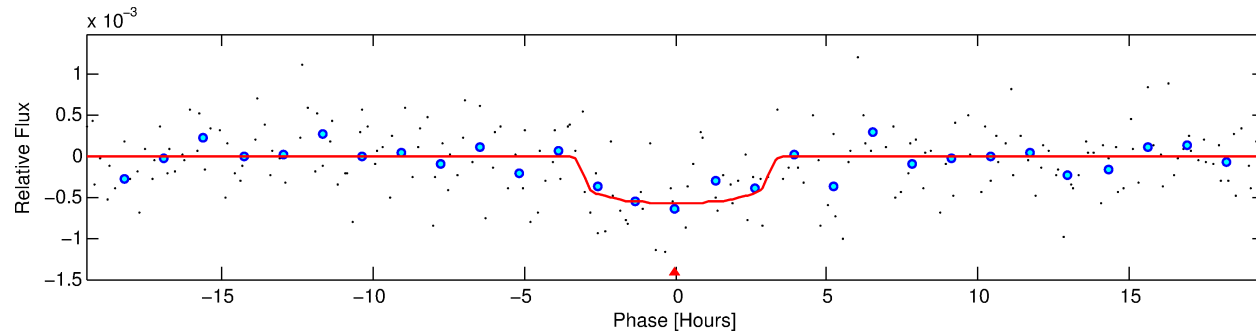
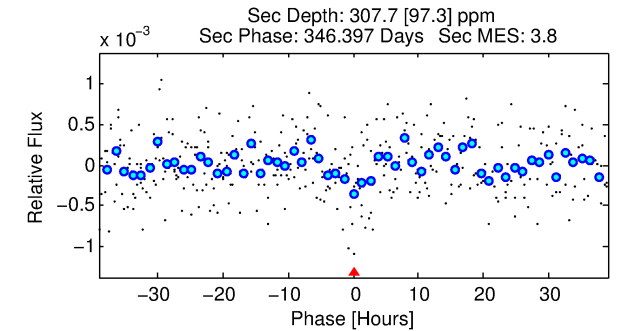
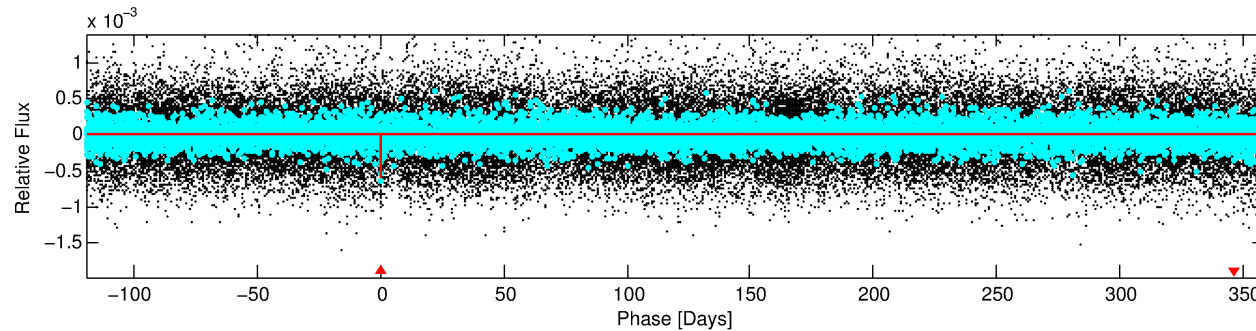
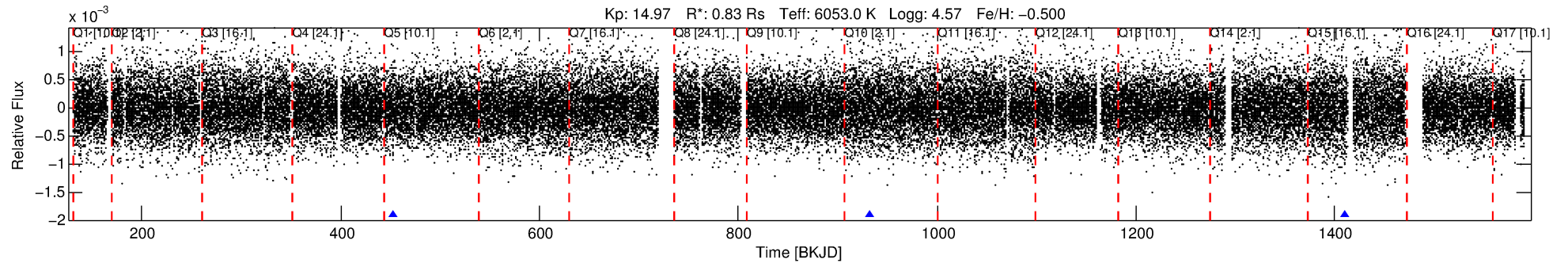
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003542832-01

No Significant Match Found

DV One-Page Summary

KIC: 3542832 Candidate: 1 of 1 Period: 478.664 d



DV Fit Results:

Period = 478.66396 [0.01160] d
Epoch = 452.8935 [0.0142] BKJD
Rp/R* = 0.0234 [0.0198]
a/R* = 431.67 [1850.55]
b = 0.68 [3.46]
Seff = 0.60 [0.22]
Teff = 225 [20] K
Rp = 2.11 [1.86] Re
a = 1.1661 [0.2592] AU
Ag = 51764.34 [90735.56] [0.57 σ]
Teffp = 5245 [2264] K [2.22 σ]

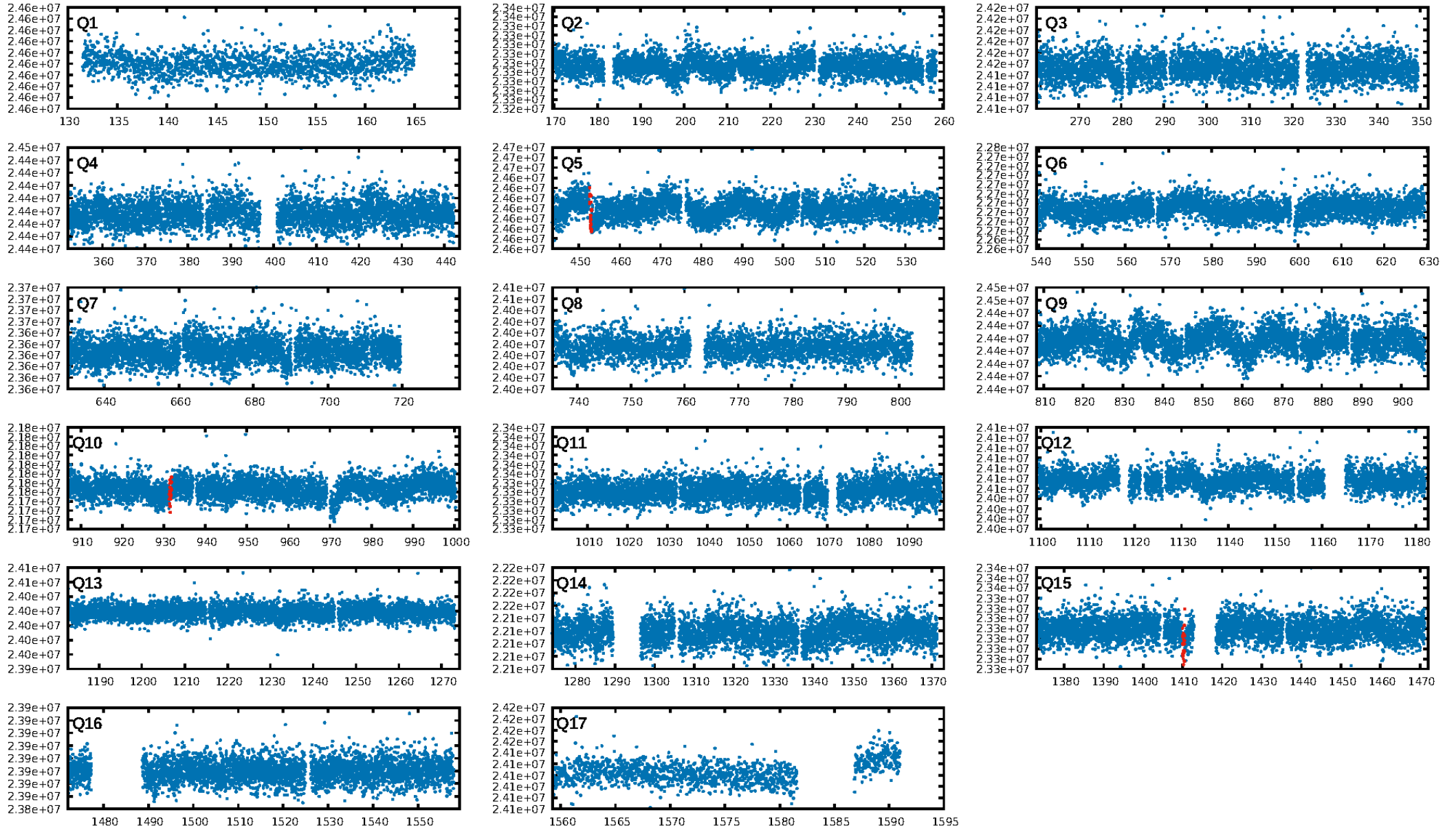
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 41.2%
ModelChiSquareGof-sig: 95.5%
Bootstrap-pfa: 1.22e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -12.33
Centroid-sig: 0.0%
Centroid-so: 5.039 arcsec [2.77 σ]
OotOffset-rm: 3.705 arcsec [2.49 σ]
KicOffset-rm: 3.715 arcsec [3.78 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

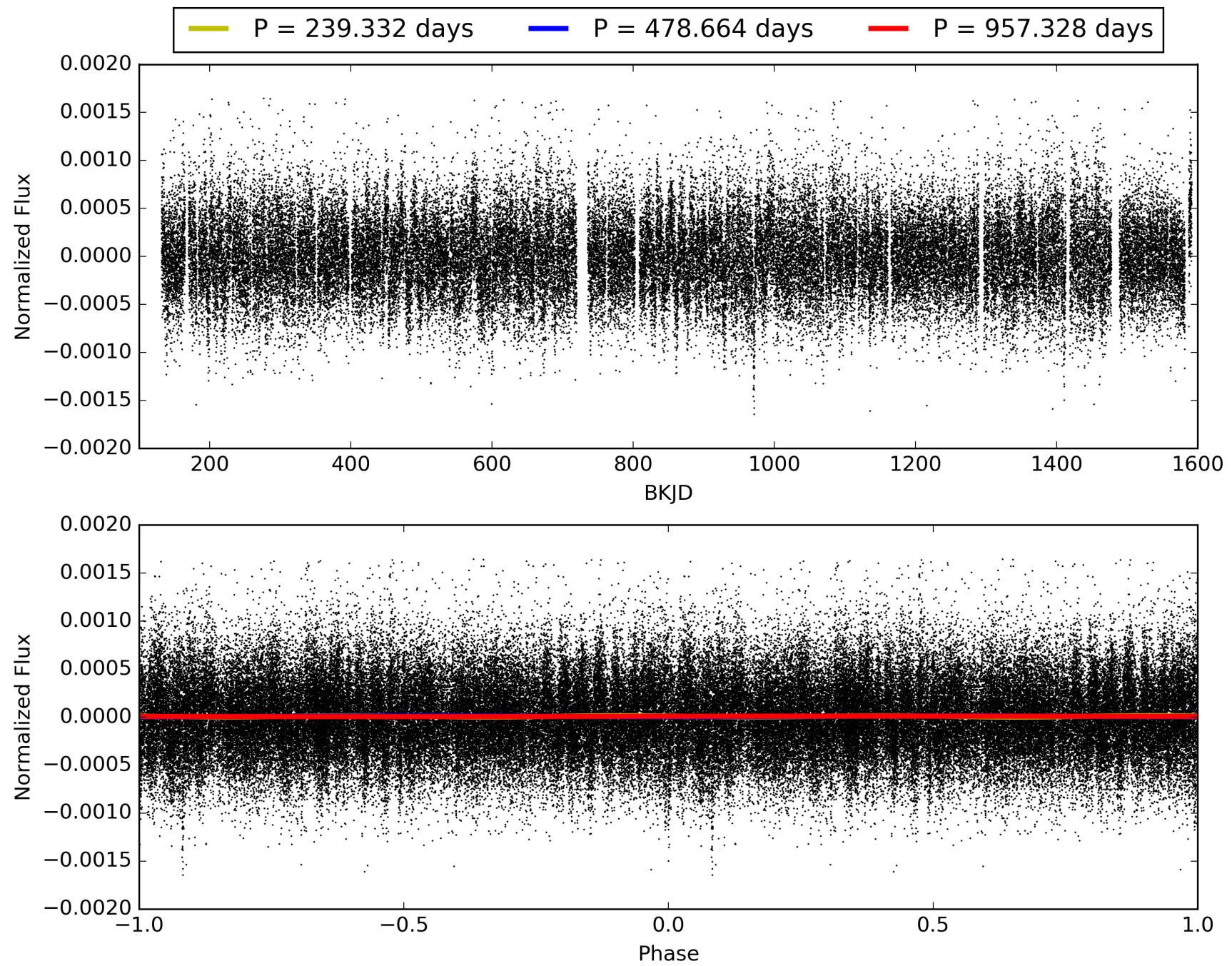
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:12:23 Z

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

TCE 003542832-01, PDC Light Curves

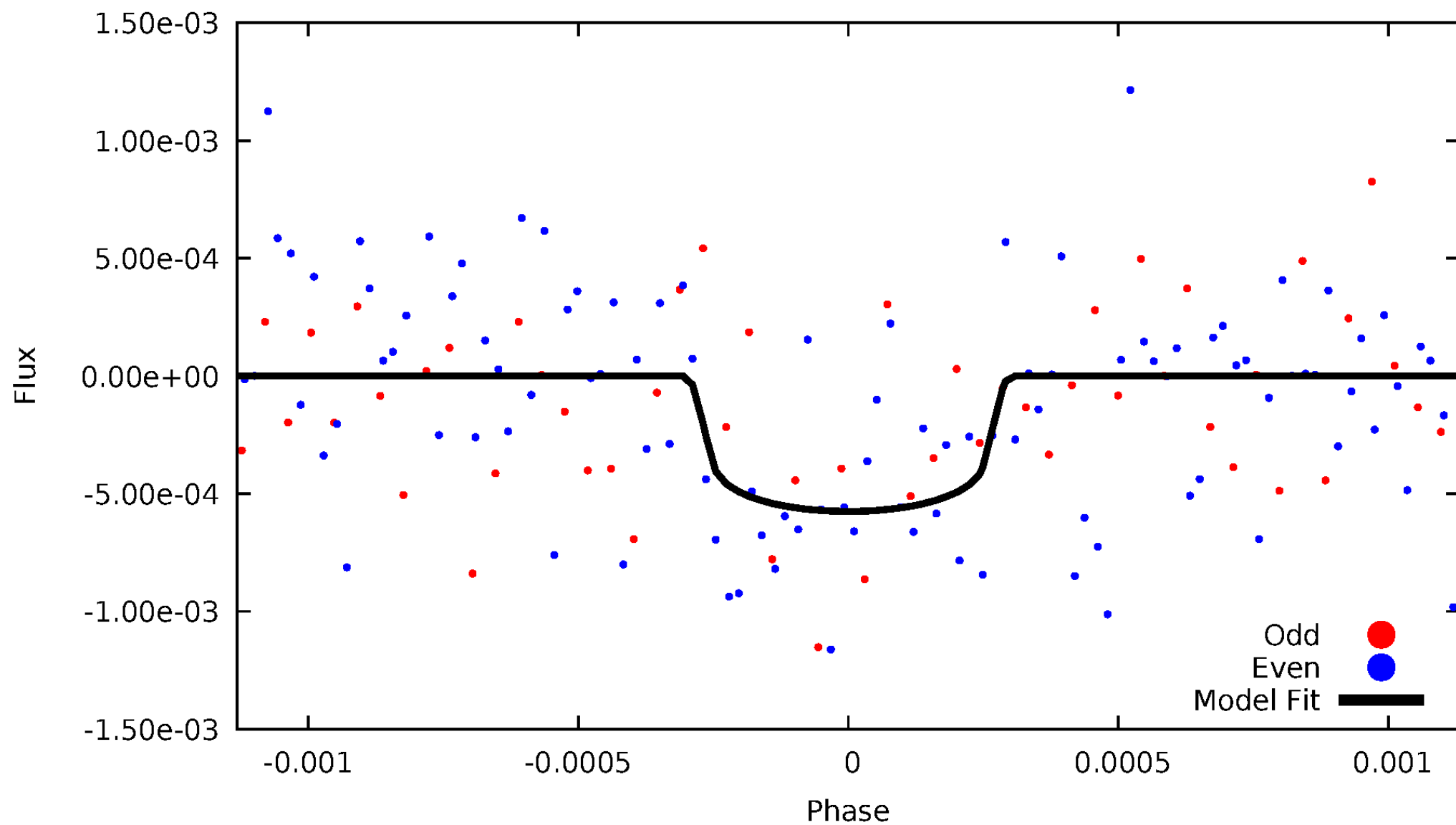


TCE 003542832-01



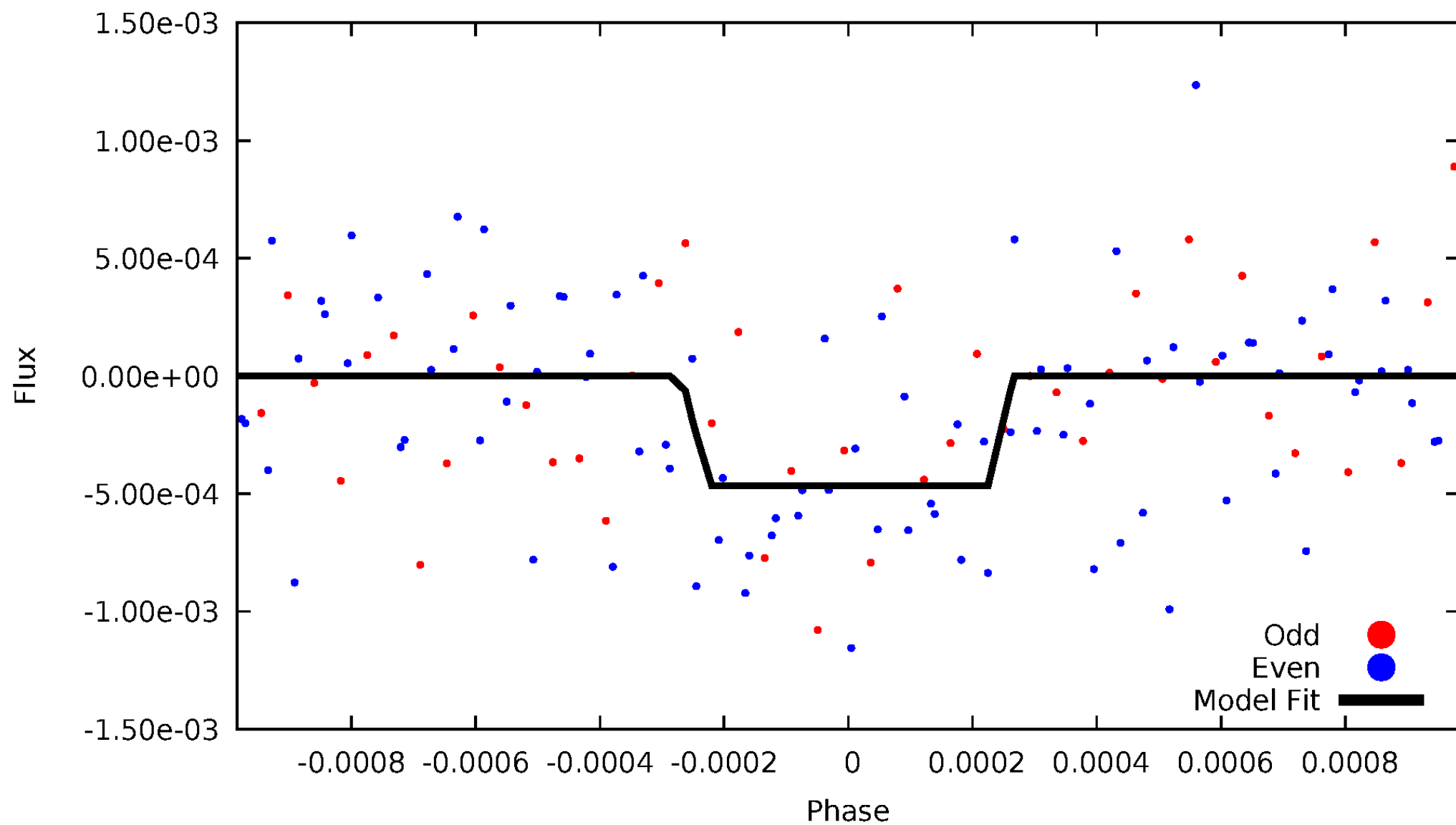
DV Odd/Even

TCE 003542832-01



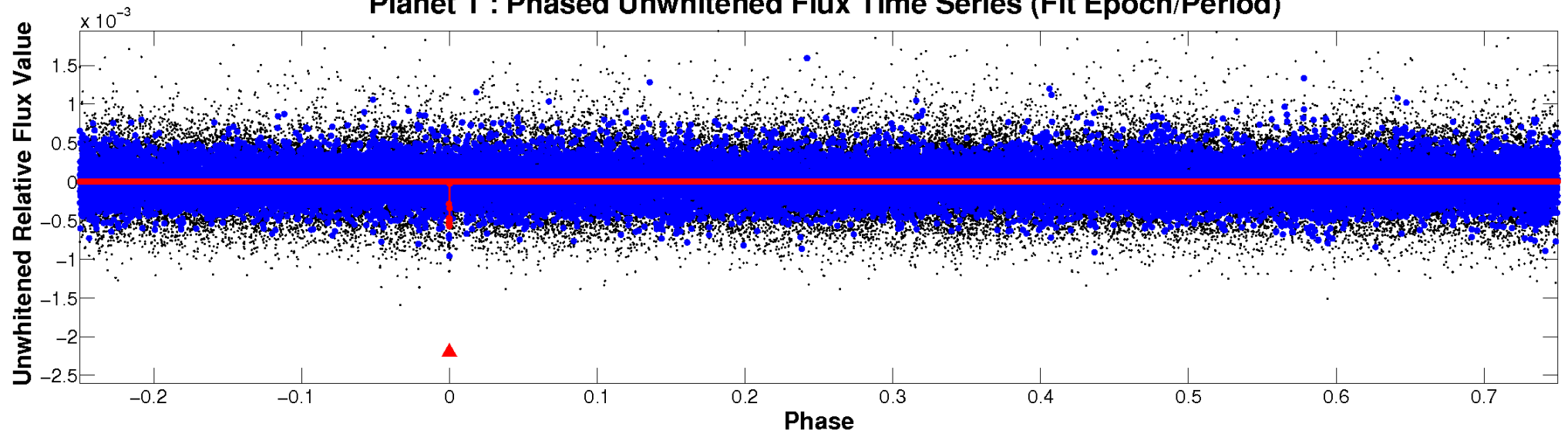
ALT Odd/Even

TCE 003542832-01

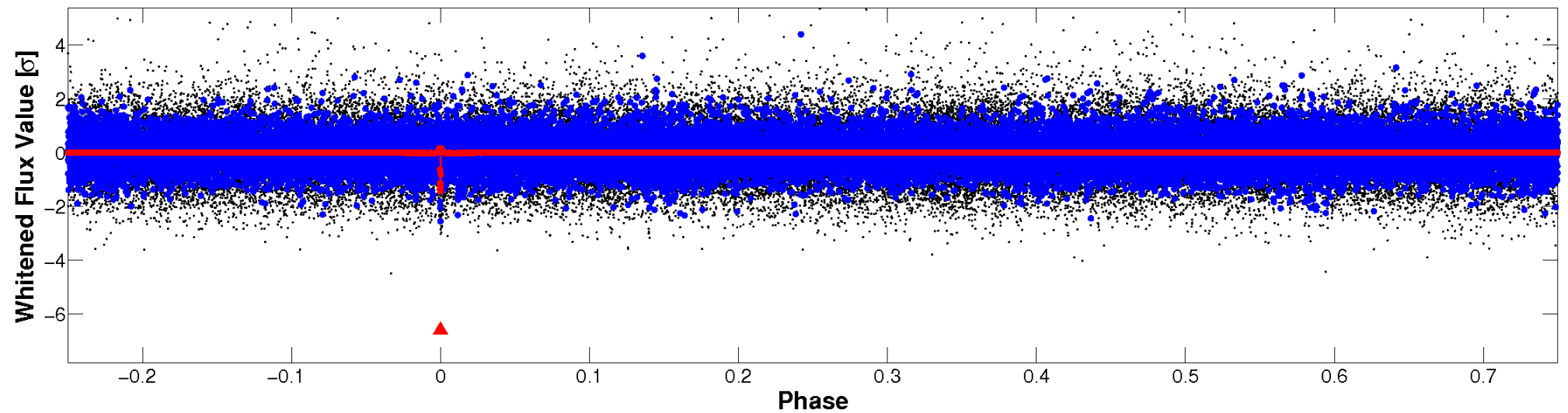


Non-Whitened Vs. Whitened Light Curve

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

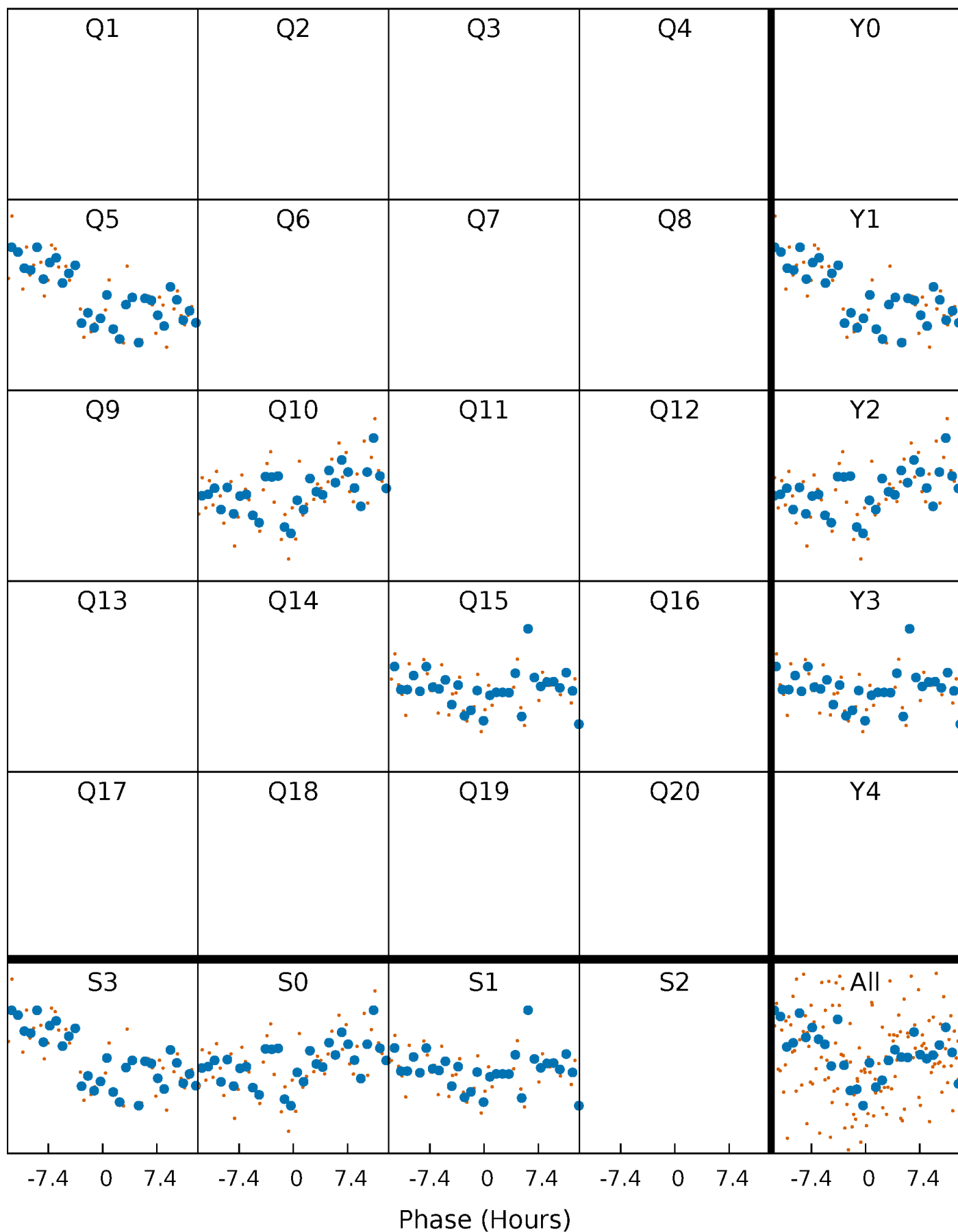


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



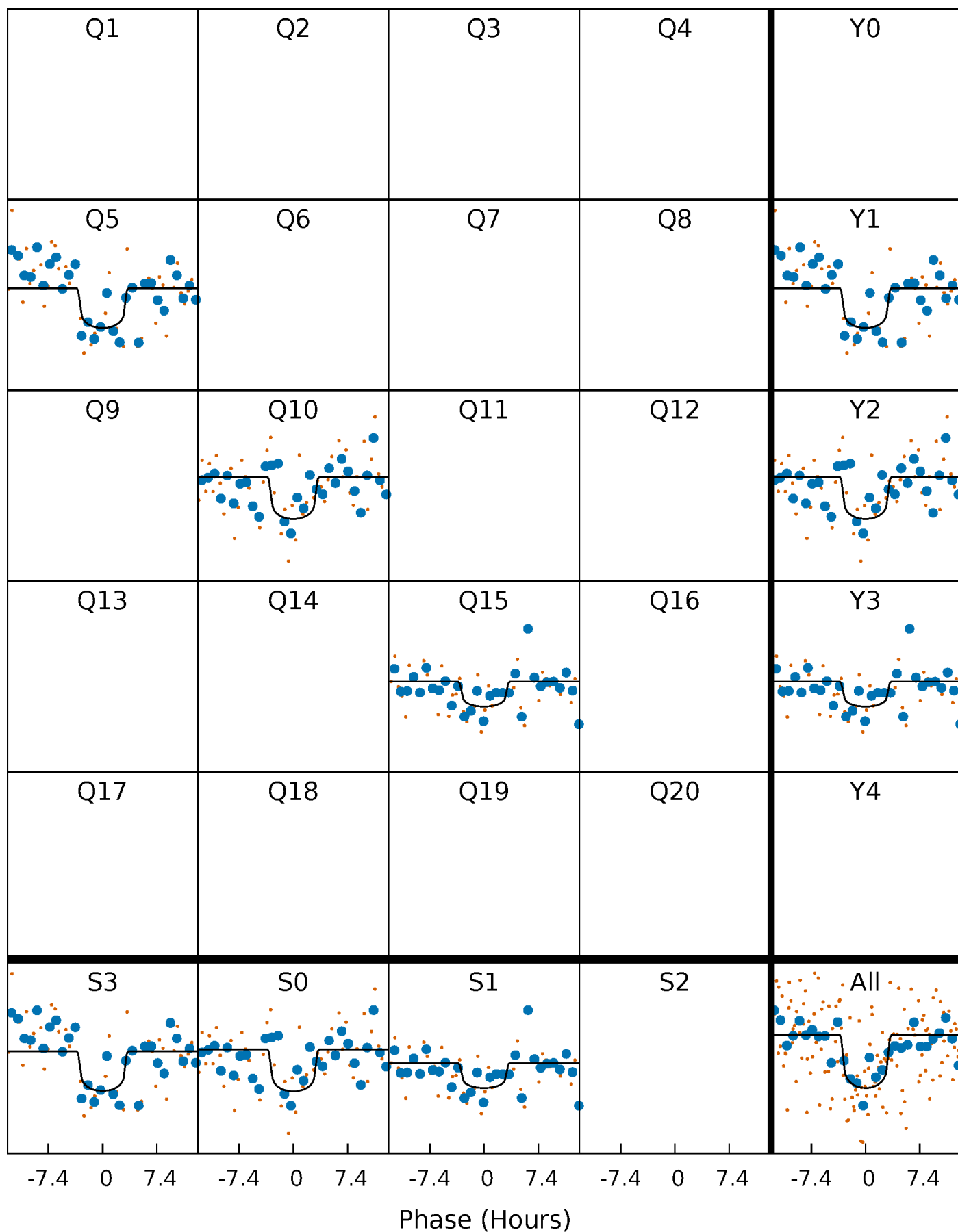
PDC Quarter-Phased Transit Curves

TCE 003542832-01 P=478.663965 Days $T_0=452.893489$ (BKJD)



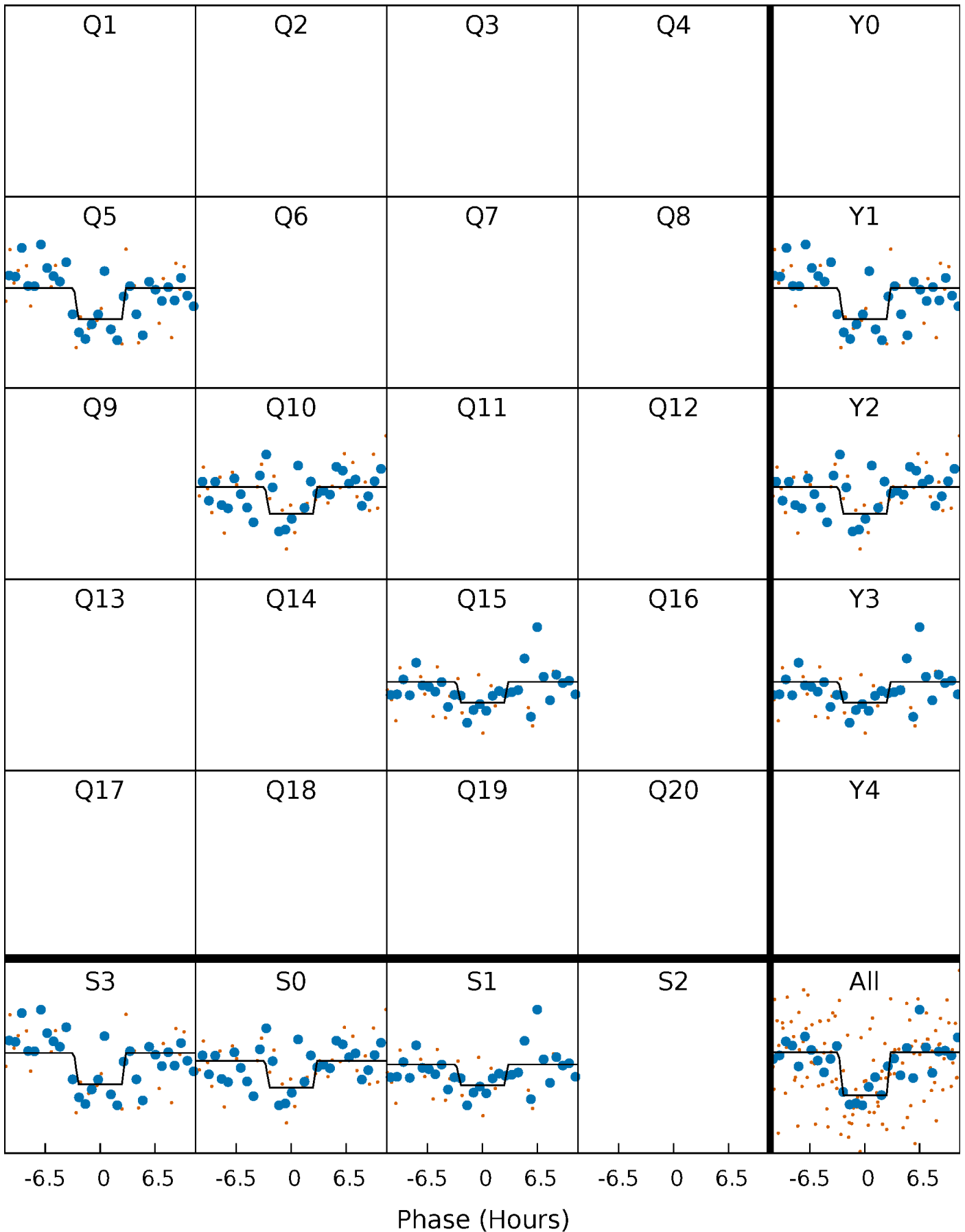
DV Quarter-Phased Transit Curves

TCE 003542832-01 P=478.663965 Days $T_0=452.893489$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

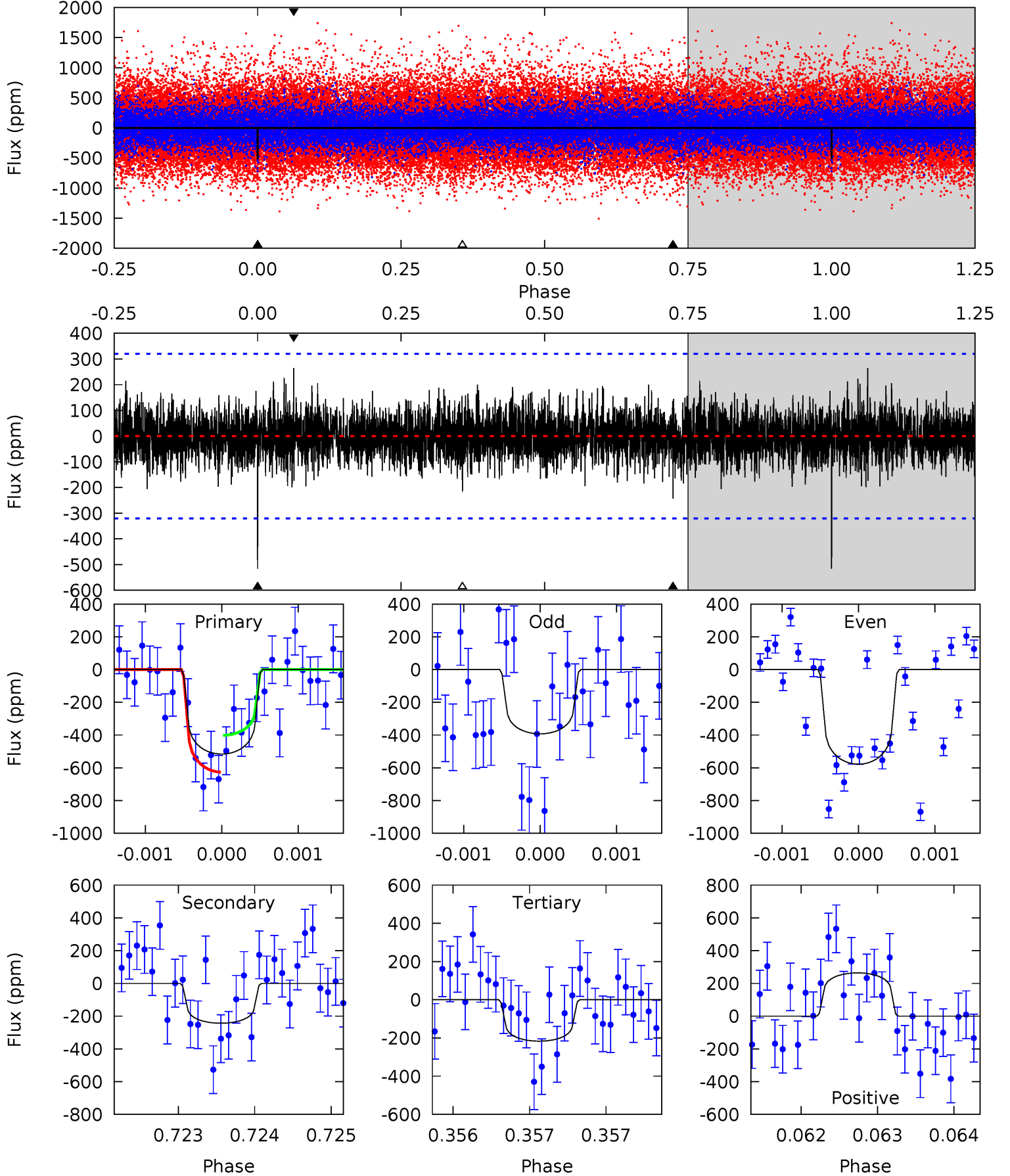
TCE 003542832-01 P=478.649332 Days $T_0=452.904977$ (BKJD)



DV Model-Shift Uniqueness Test

003542832-01, P = 478.663965 Days, E = 452.893489 Days

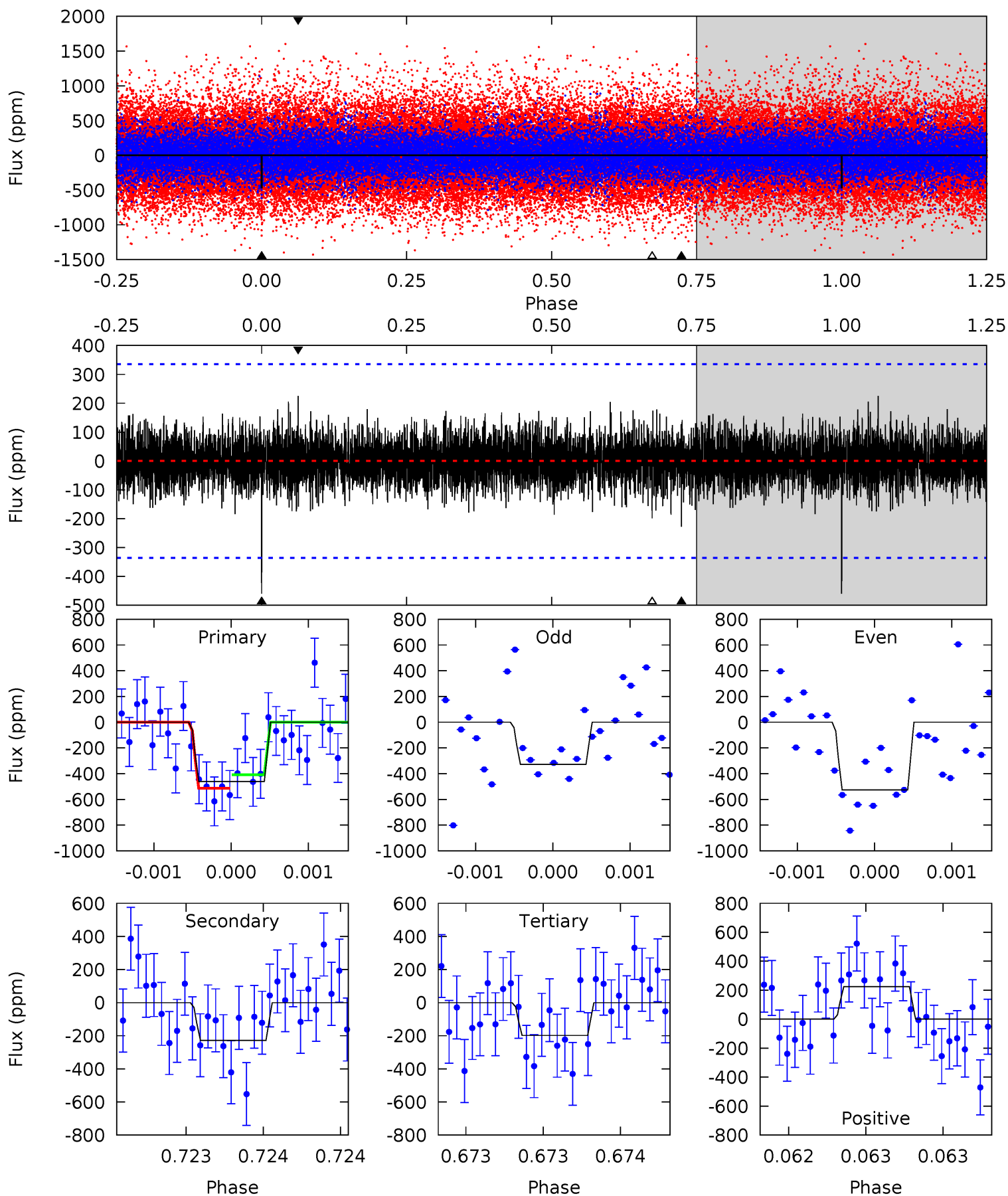
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.93	4.21	3.75	4.57	5.55	3.44	1.07	5.18	4.36	0.46	-0.36	1.51	0.96	0.34	1.95



Alt Model-Shift Uniqueness Test

003542832-01, P = 478.649332 Days, E = 452.904977 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.63	3.78	3.29	3.73	5.57	3.47	0.92	4.34	3.90	0.49	0.04	1.56	0.91	0.33	0.88



Stellar Parameters For KIC 003542832

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6053^{+163}_{-199}	$4.568^{+0.035}_{-0.184}$	$-0.500^{+0.300}_{-0.300}$	$0.827^{+0.213}_{-0.071}$	$0.923^{+0.089}_{-0.119}$	$2.300^{+0.414}_{-1.114}$
	+3%/-3%	+1%/-4%	+60%/-60%	+26%/-9%	+10%/-13%	+18%/-48%
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 003542832-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-243 ± 58	$2.44^{+1.98}_{-1.48}$	321^{+21}_{-15}	4796^{+2984}_{-929}	$29002^{+150195}_{-20032}$
Alt.	-228 ± 60	$2.40^{+1.91}_{-1.56}$	320^{+21}_{-15}	4771^{+3277}_{-914}	$29052^{+198197}_{-20378}$

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 $A_{obs} \gg 1.0$

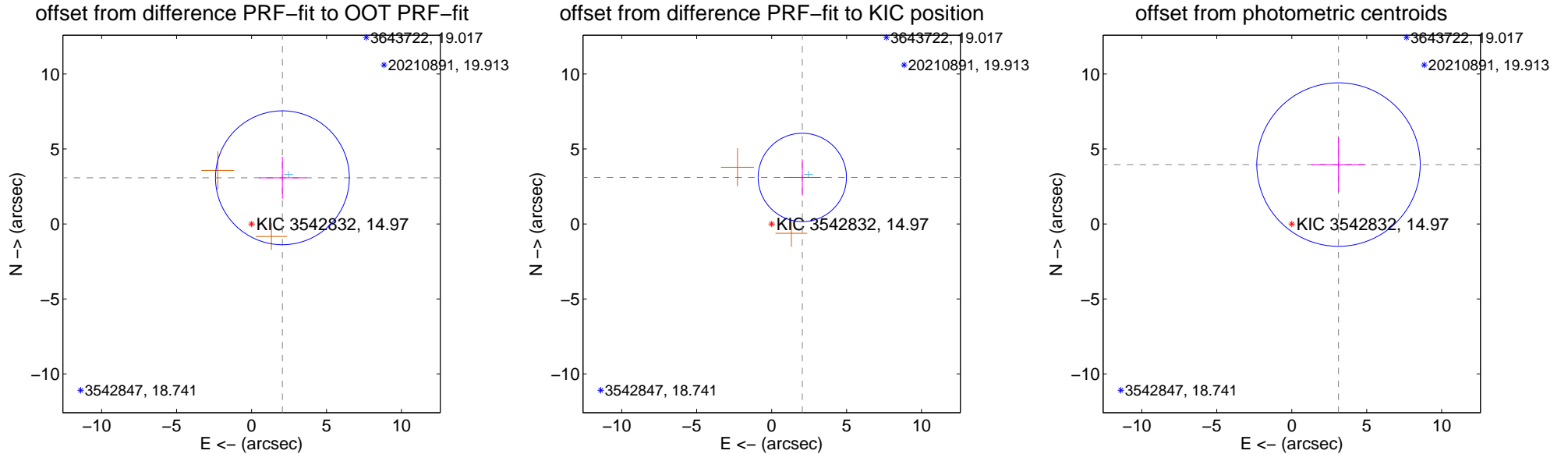
DV Centroid Data

Supplemental centroid analysis for 003542832-01. Kepler magnitude: 14.97. Transit SNR 7.71

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.705 ± 1.488	2.49	-2.060 ± 1.572	3.079 ± 1.394
PRF-fit source offset from KIC position	3.715 ± 0.982	3.78	-2.045 ± 1.237	3.102 ± 1.210
photometric centroid source offset	5.04 ± 1.82	2.77	-3.12 ± 1.81	3.96 ± 1.82

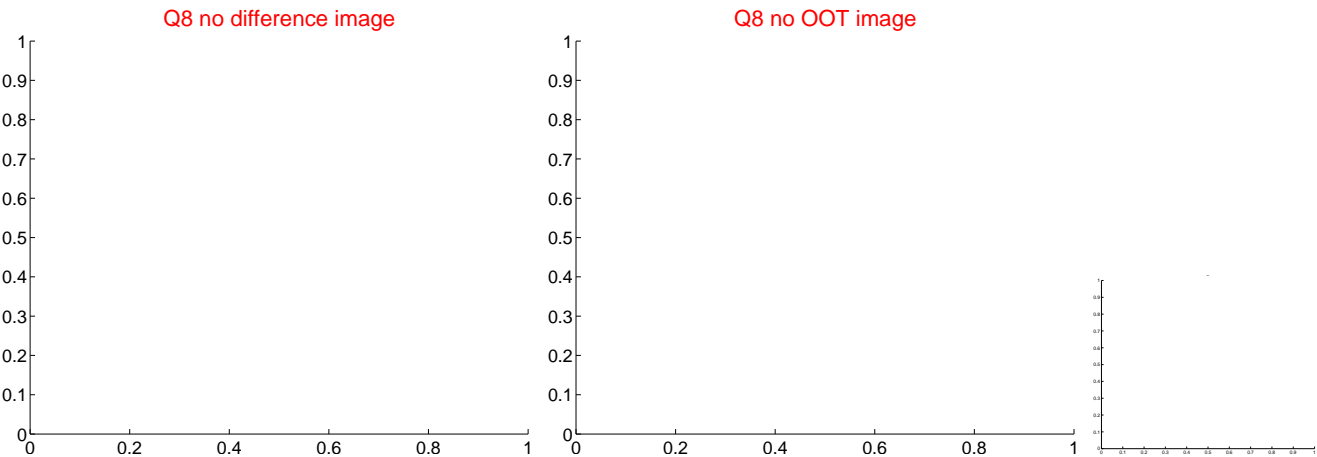
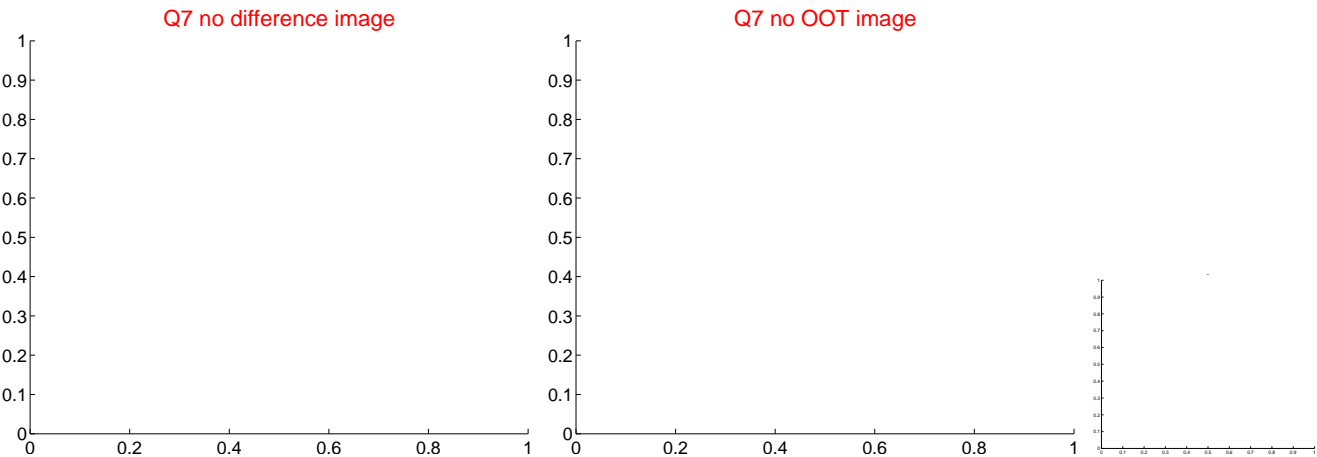
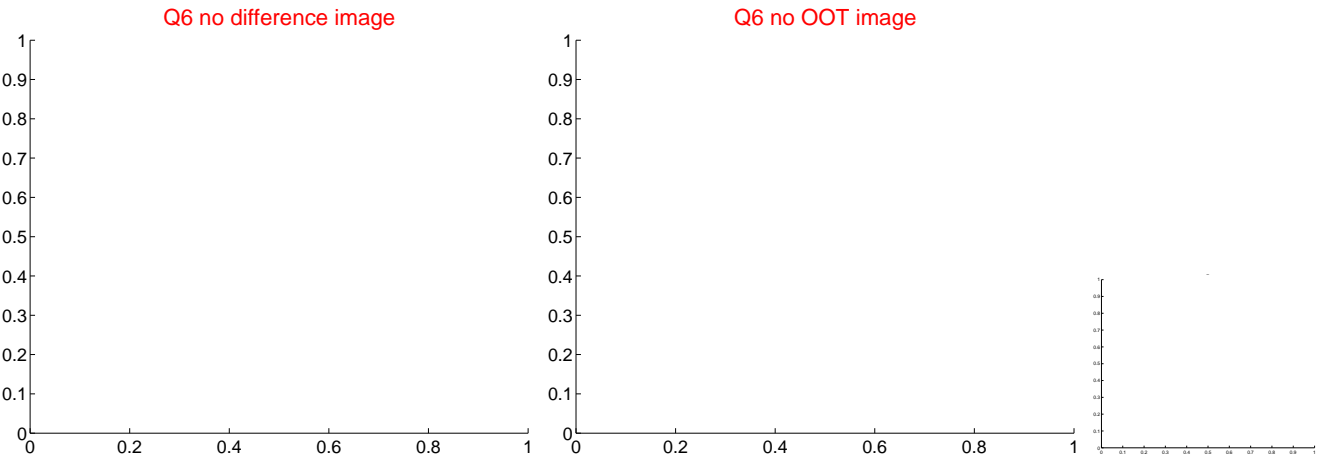
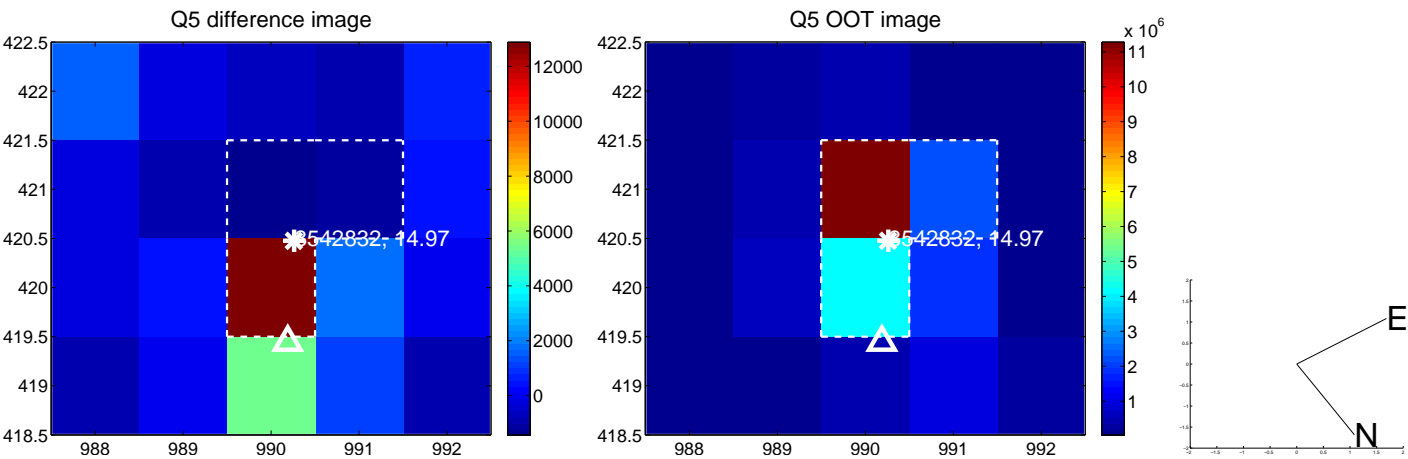


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

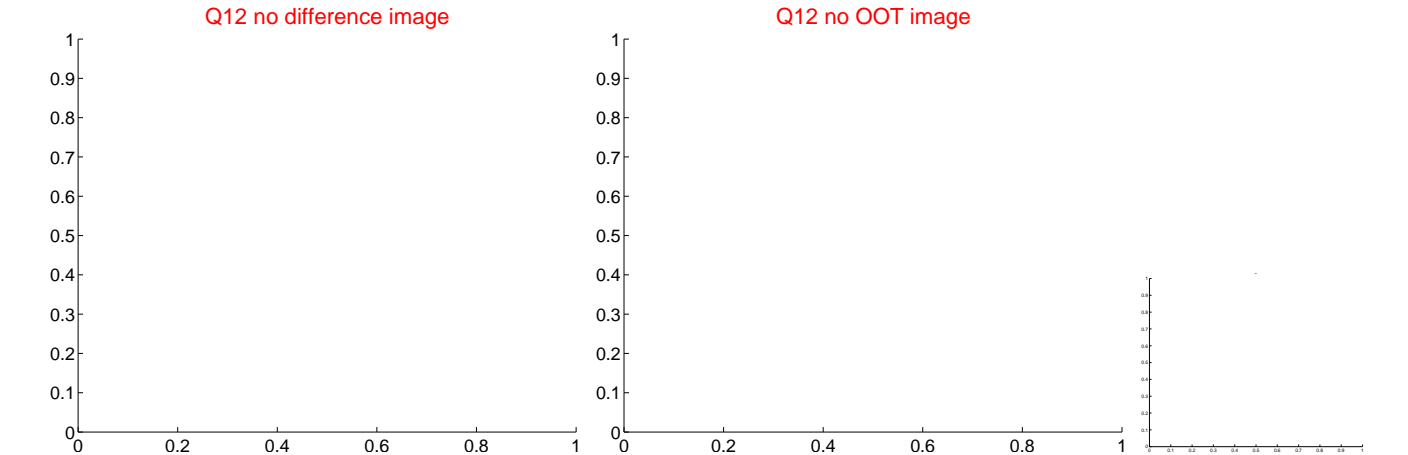
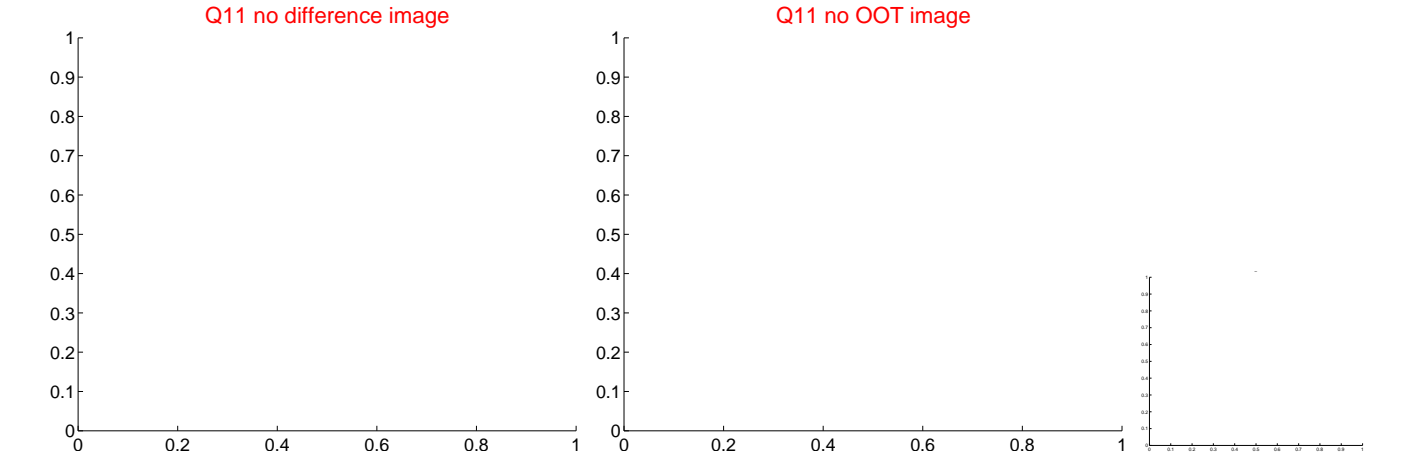
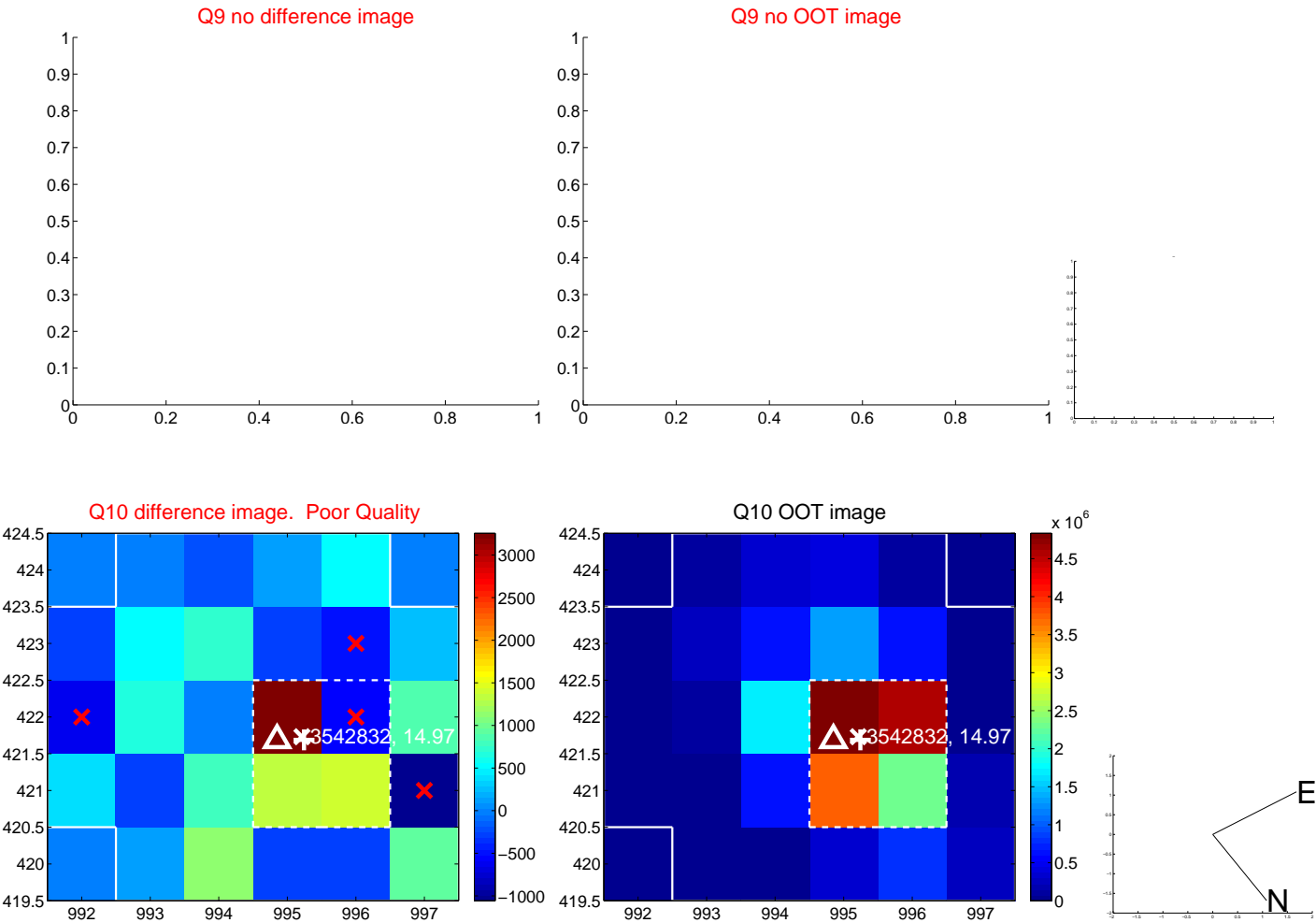
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



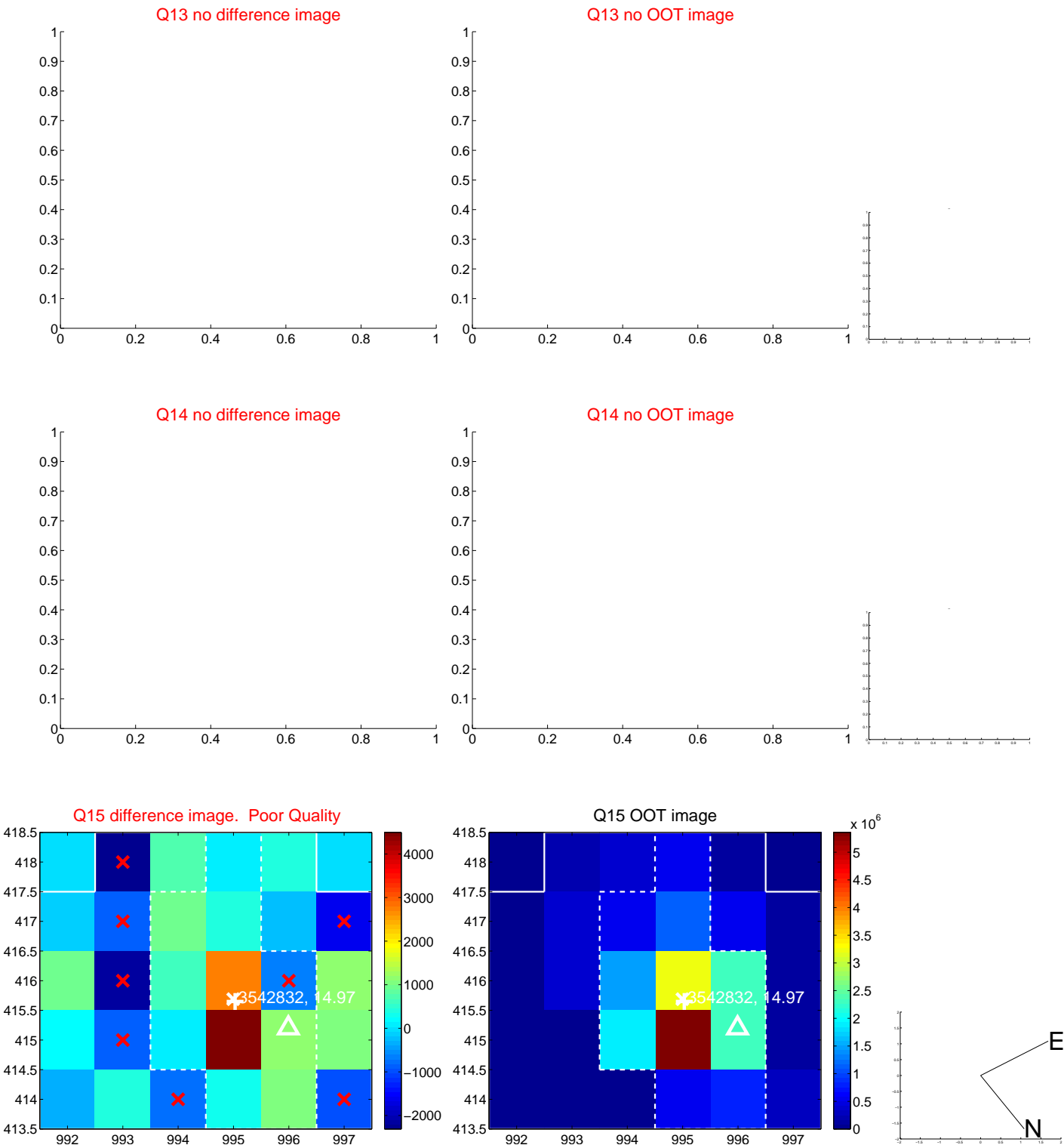
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



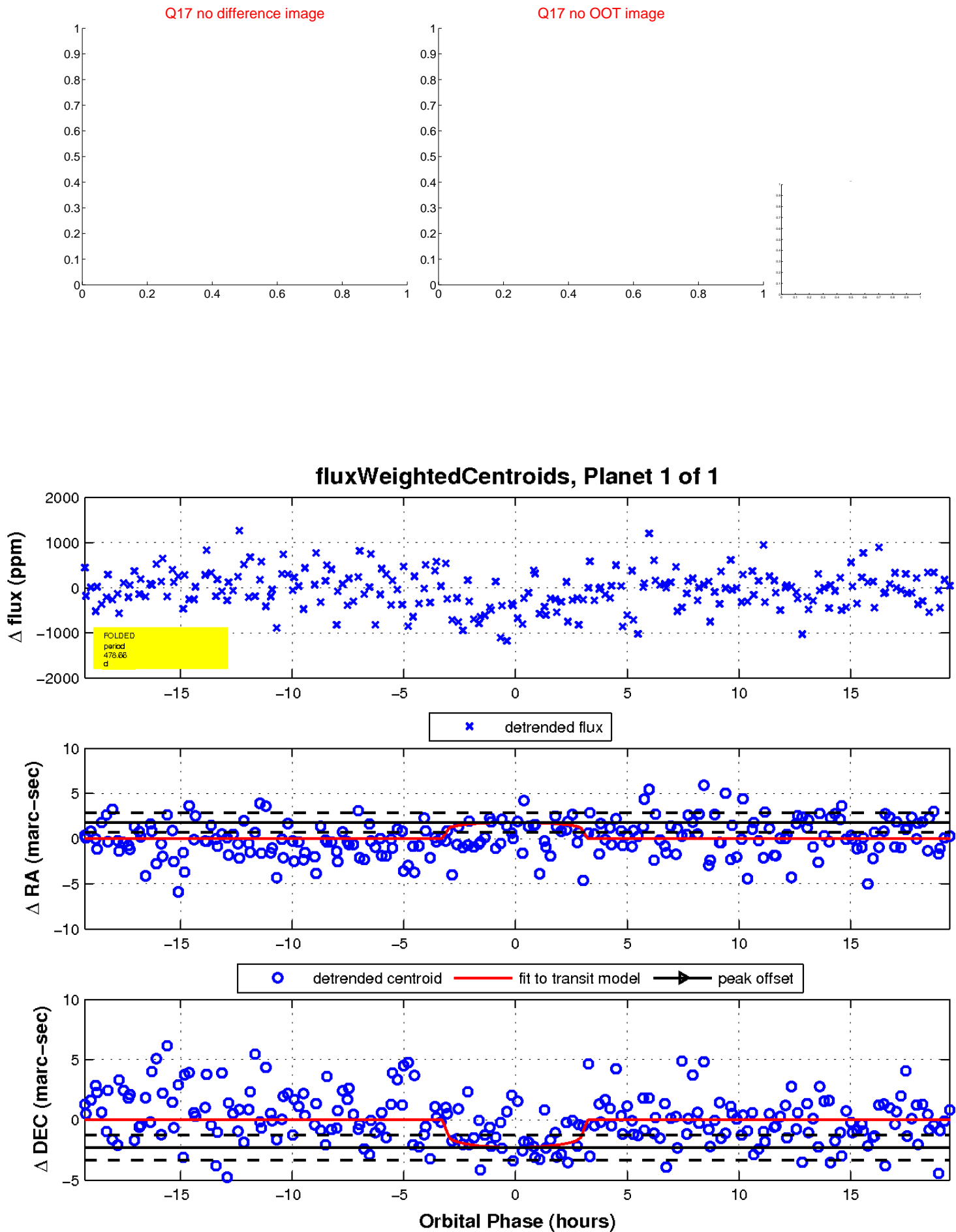
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

