

KIC 006363494

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})
006363494-01	OBS	3634.01	0.907817	131.911260	60133.6	3.319	4258.9	2488.6	2.41	9954	73.77	82538.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006363494-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—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.

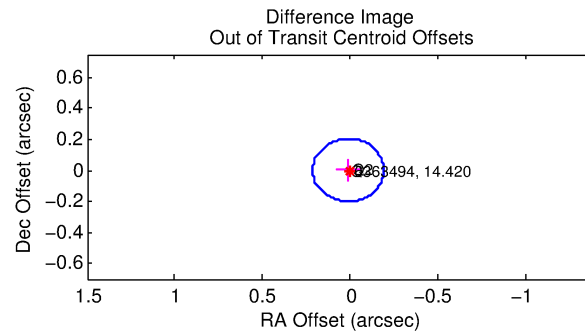
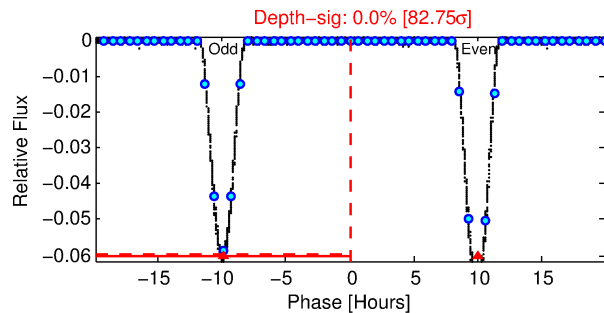
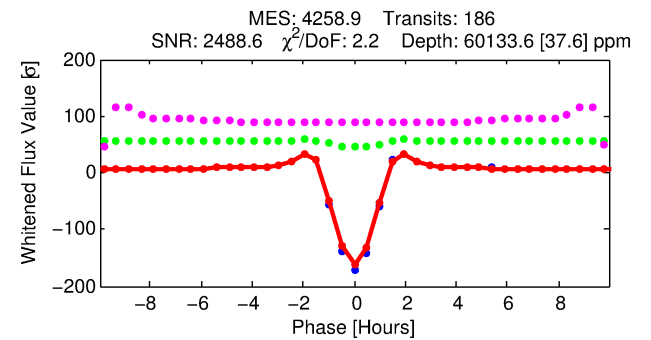
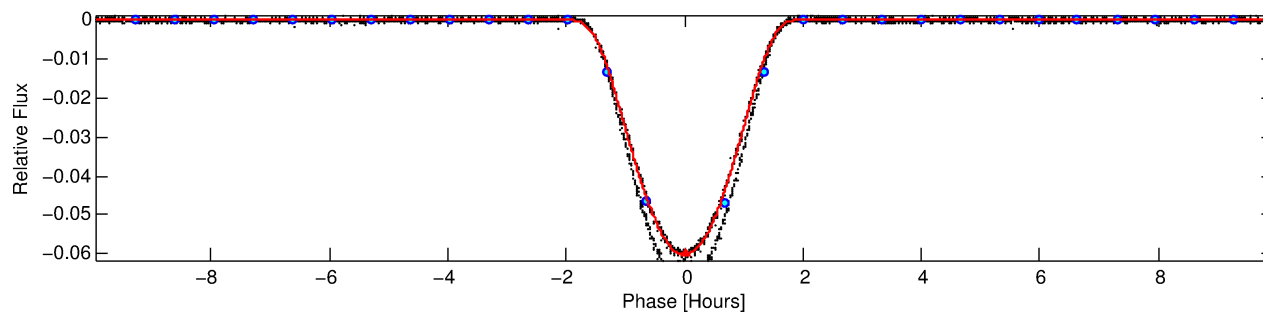
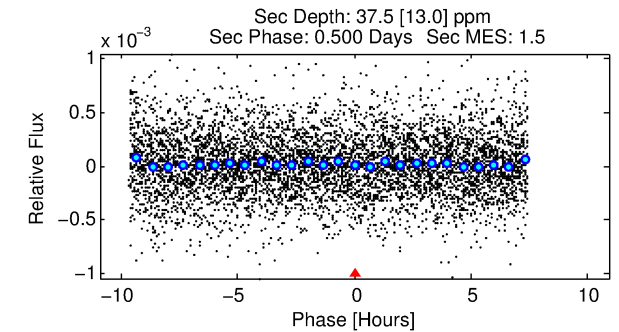
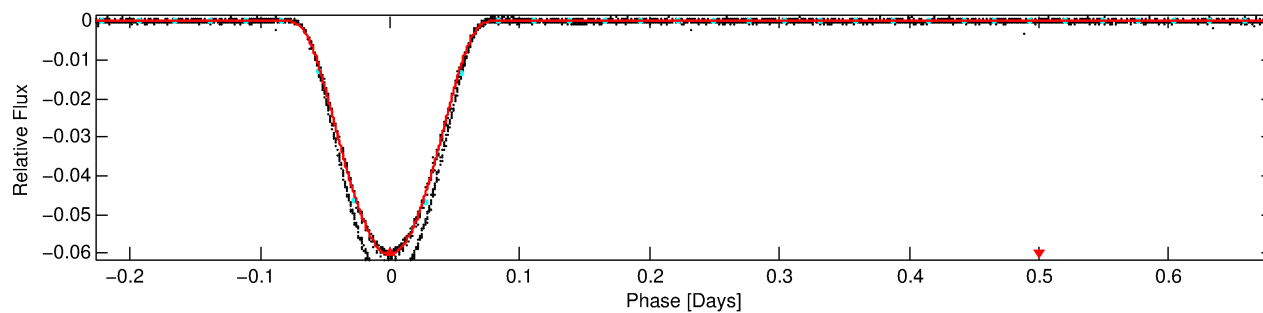
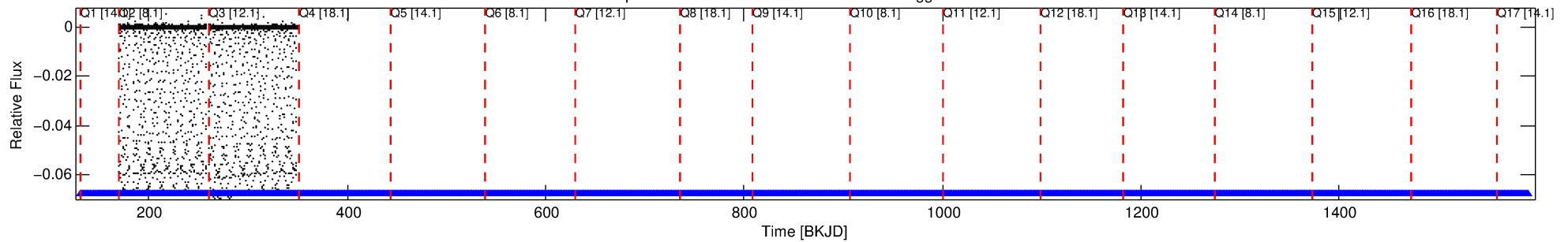
Ephemeris Match Information For 006363494-01

No Significant Match Found

DV One-Page Summary

KIC: 6363494 Candidate: 1 of 1 Period: 0.908 d
KOI: K03634 Corr: No Ephemeris Match

Kp: 14.42 R*: 2.41 Rs Teff: 9954.0 K Logg: 4.07 Fe/H: 0.070



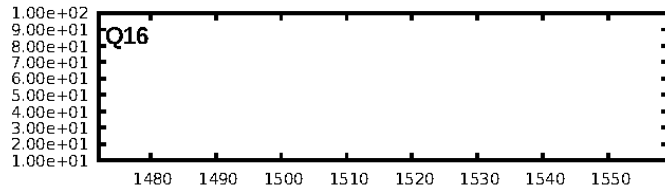
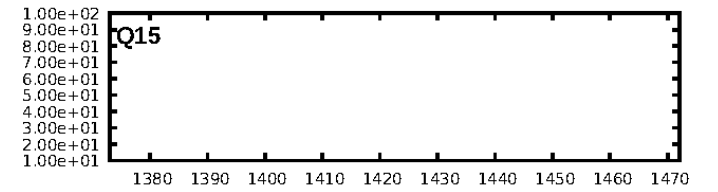
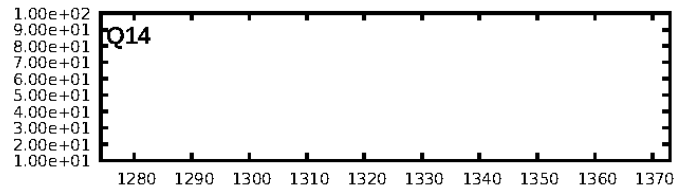
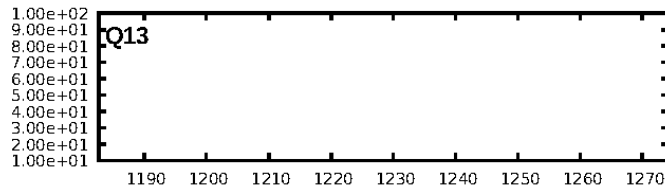
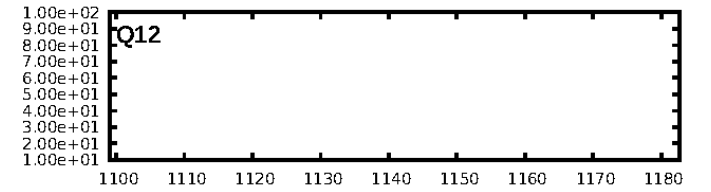
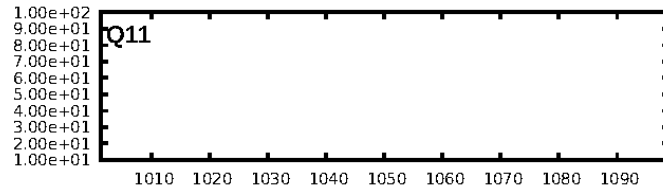
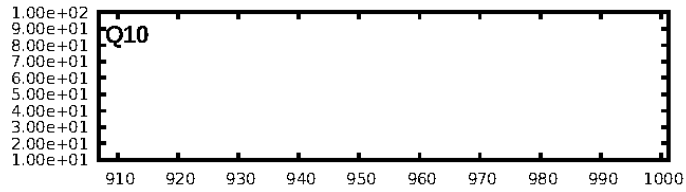
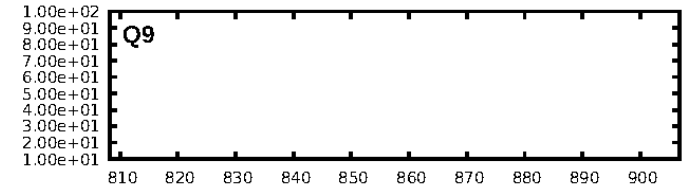
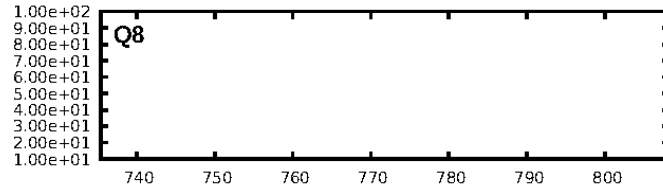
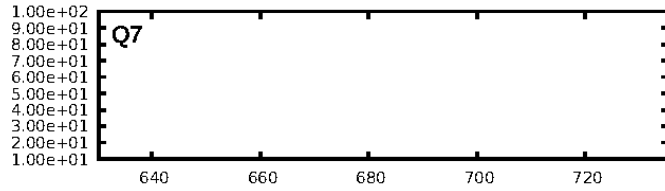
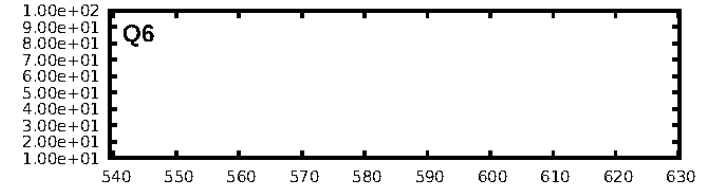
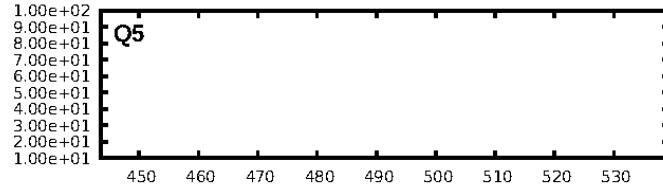
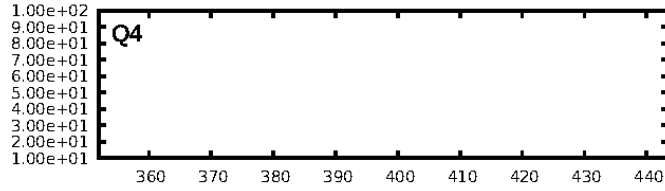
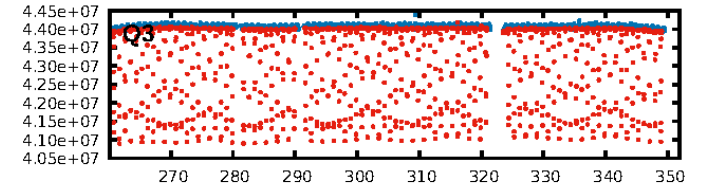
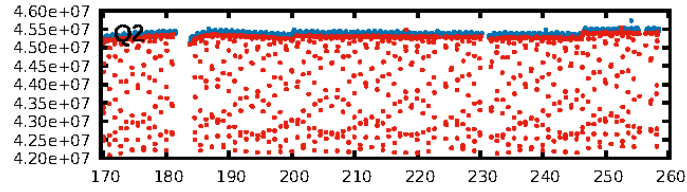
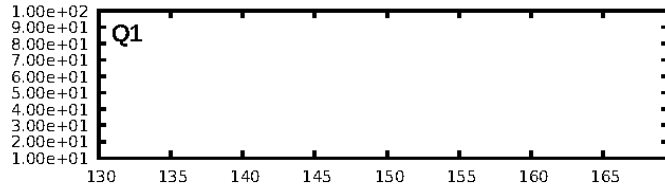
DV Fit Results:

Period = 0.90782 [0.00000] d
Epoch = 131.9113 [0.0000] BKJD
Rp/R* = 0.2808 [0.0017]
a/R* = 2.26 [0.00]
b = 0.84 [0.00]
Seff = 82538.80 [35490.40]
Teq = 4322 [465] K
Rp = 73.77 [25.16] Re
a = 0.0249 [0.0069] AU
Ag = 0.00 [0.00] [-811.82σ]
Teffp = 1470 [142] K [-5.87σ]

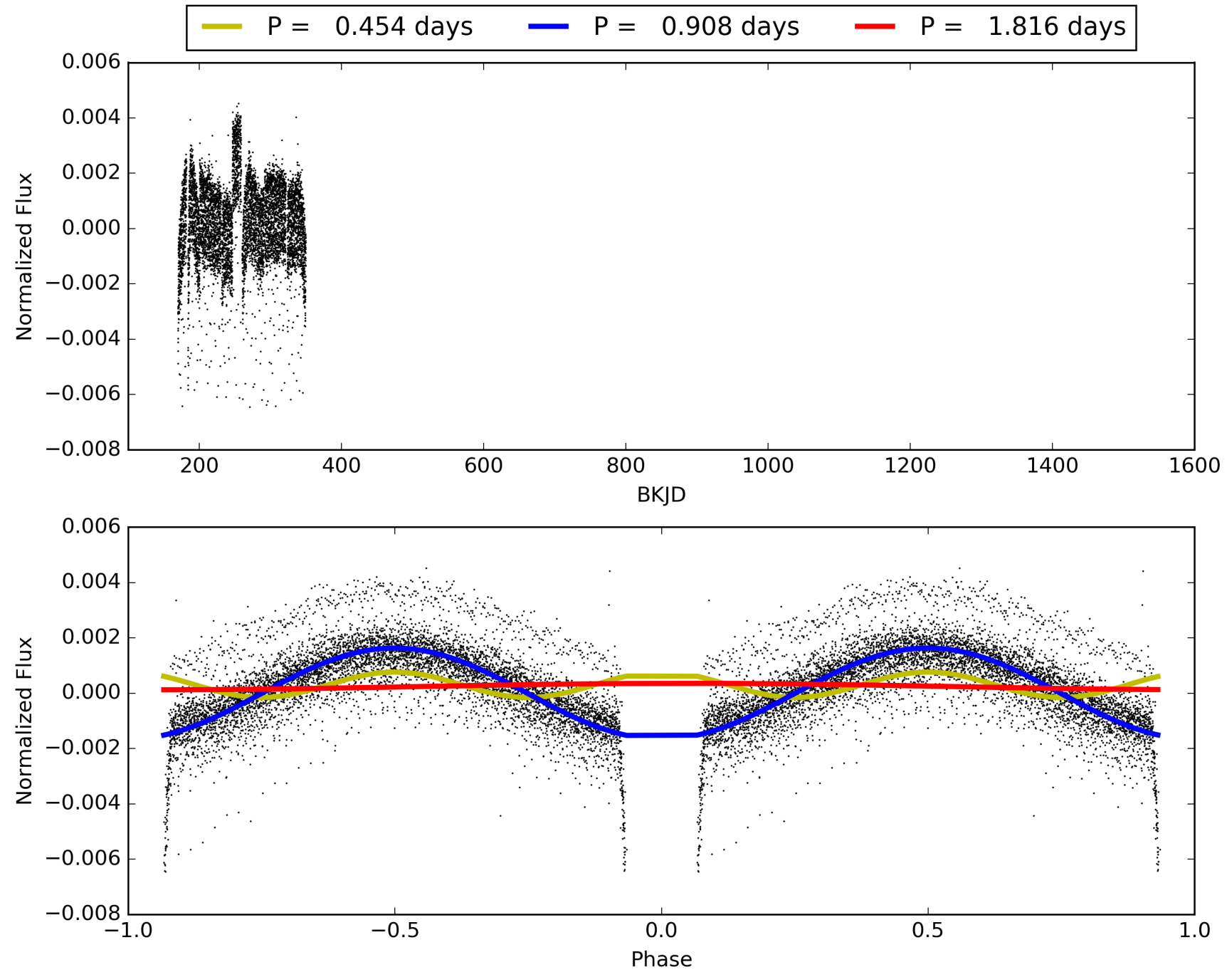
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [186/186]
GhostDiagnostic-chr: 1.749
Centroid-sig: 0.0%
Centroid-so: 0.070 arcsec [27.36σ]
OotOffset-rm: 0.013 arcsec [0.19σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-rm: 0.043 arcsec [0.40σ]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 006363494-01, PDC Light Curves

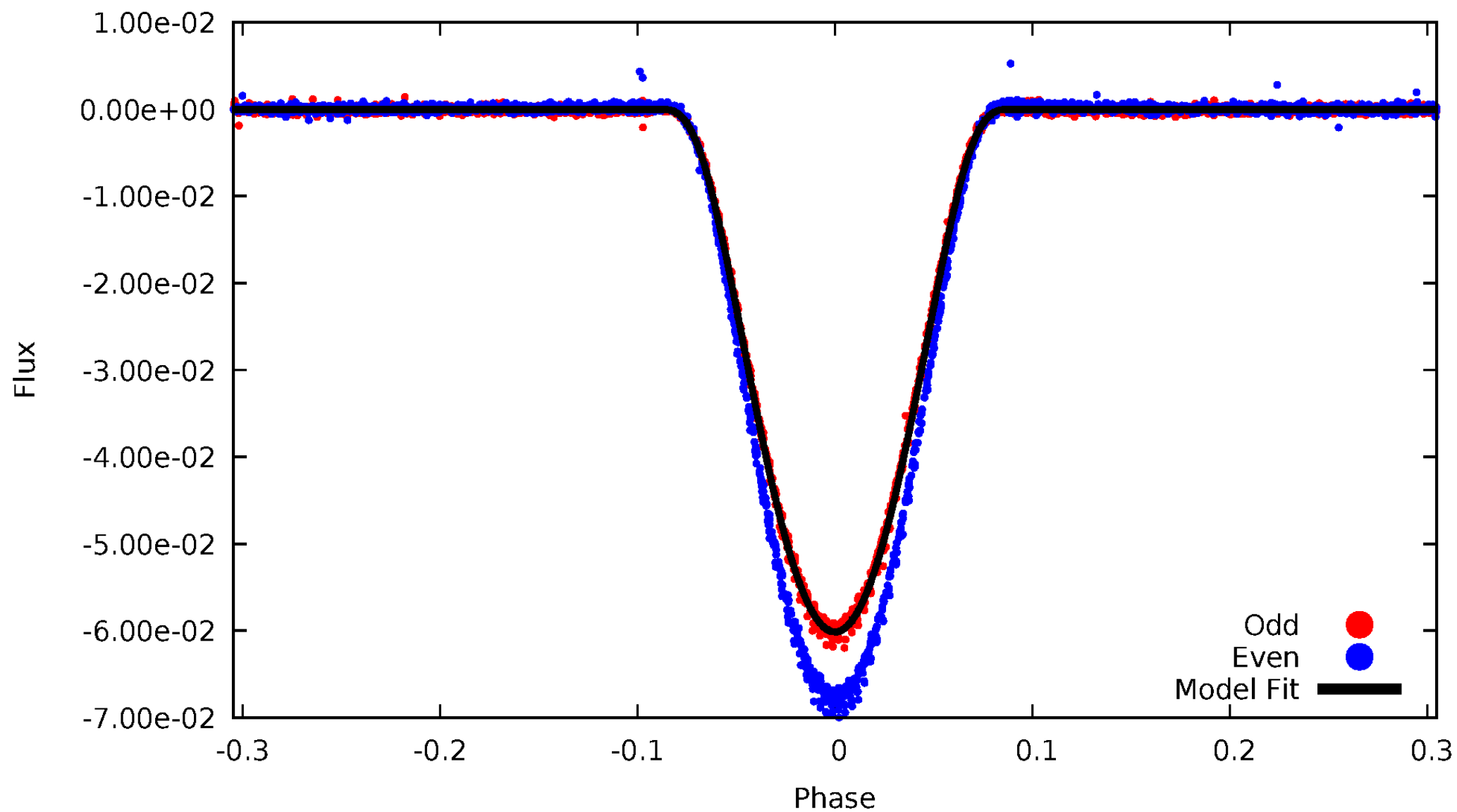


TCE 006363494-01



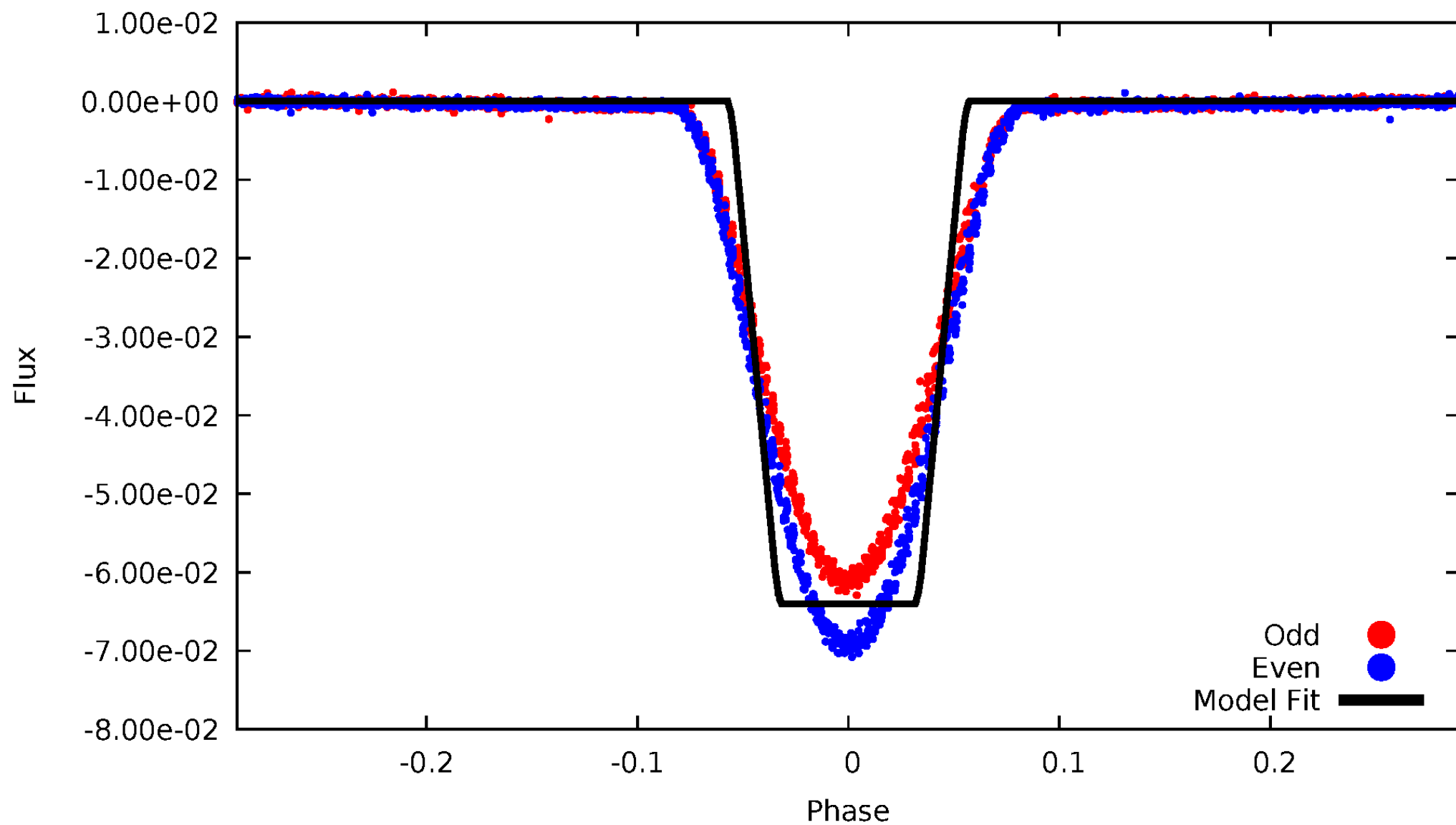
DV Odd/Even

TCE 006363494-01



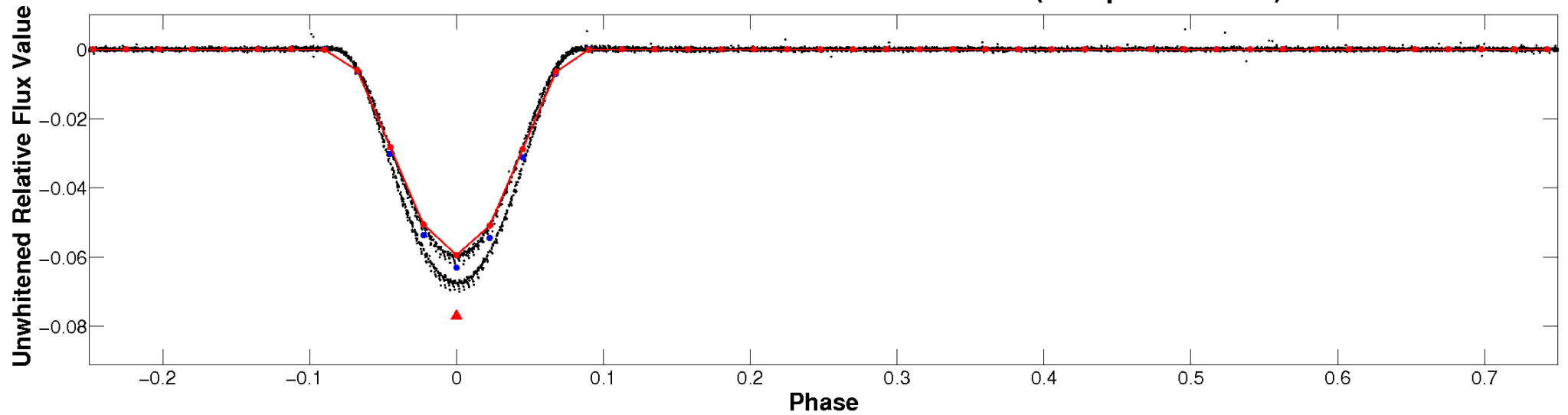
ALT Odd/Even

TCE 006363494-01

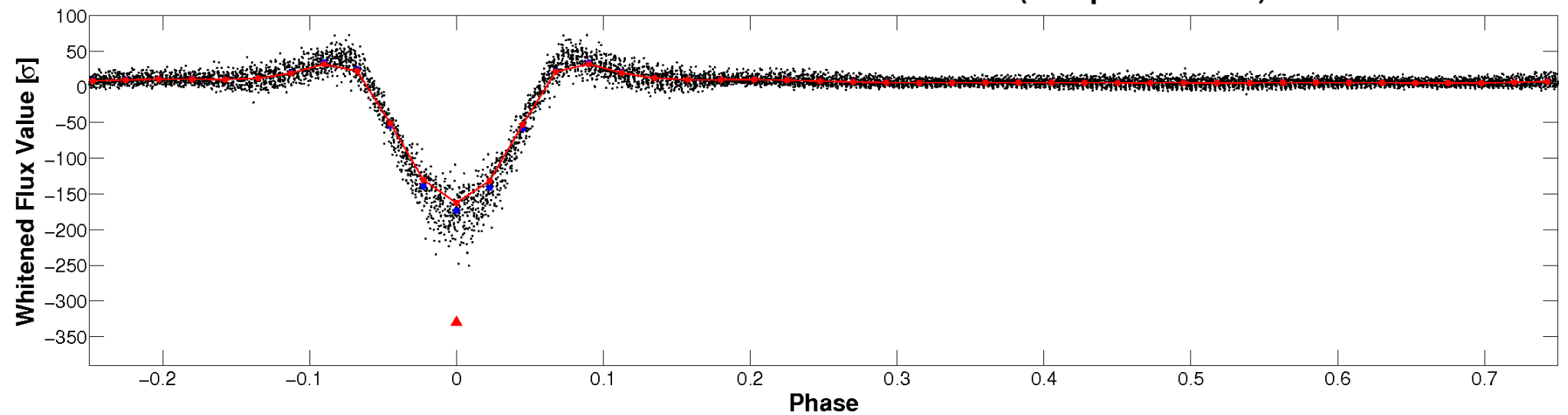


Non-Whitened Vs. Whitened Light Curve

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

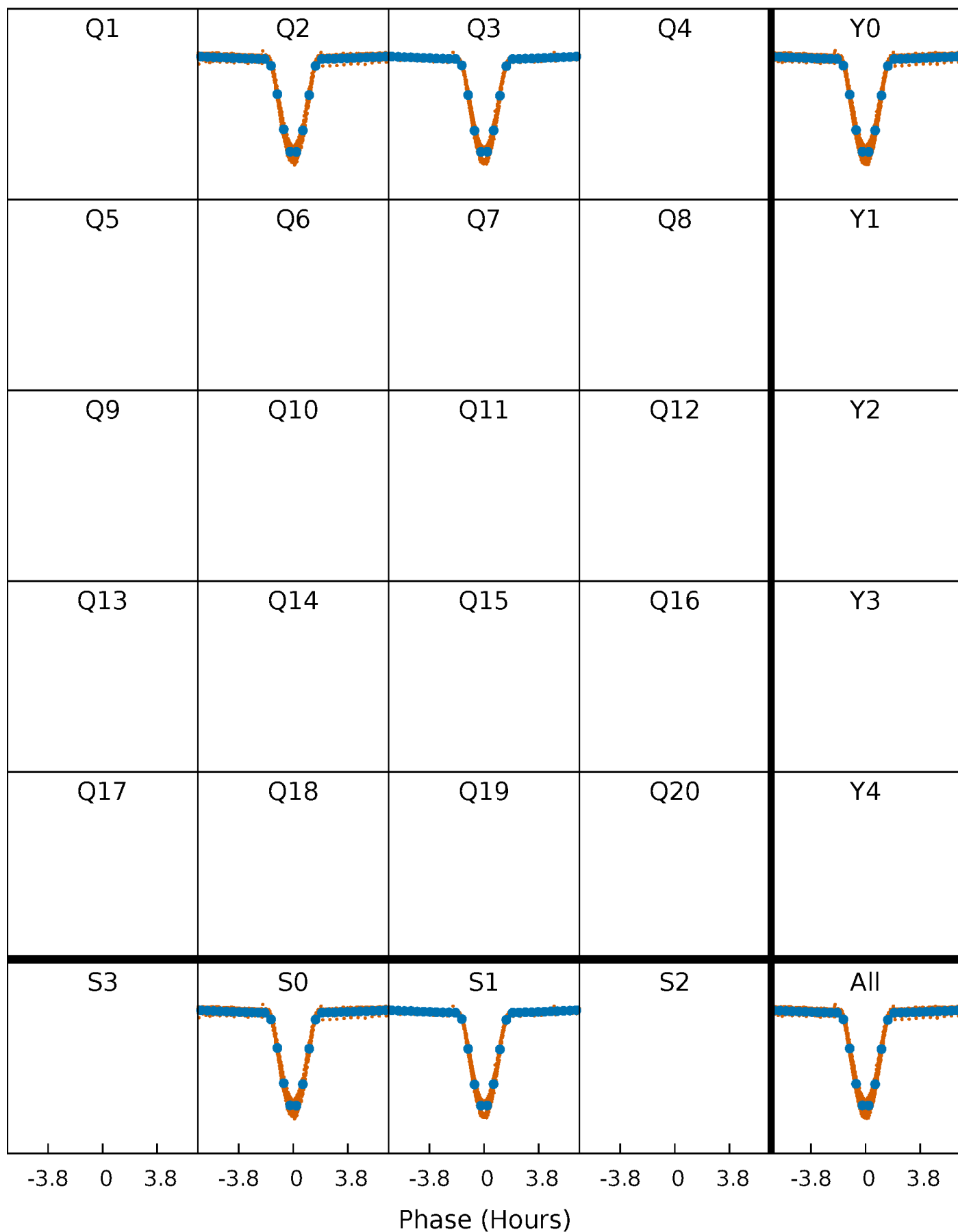


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



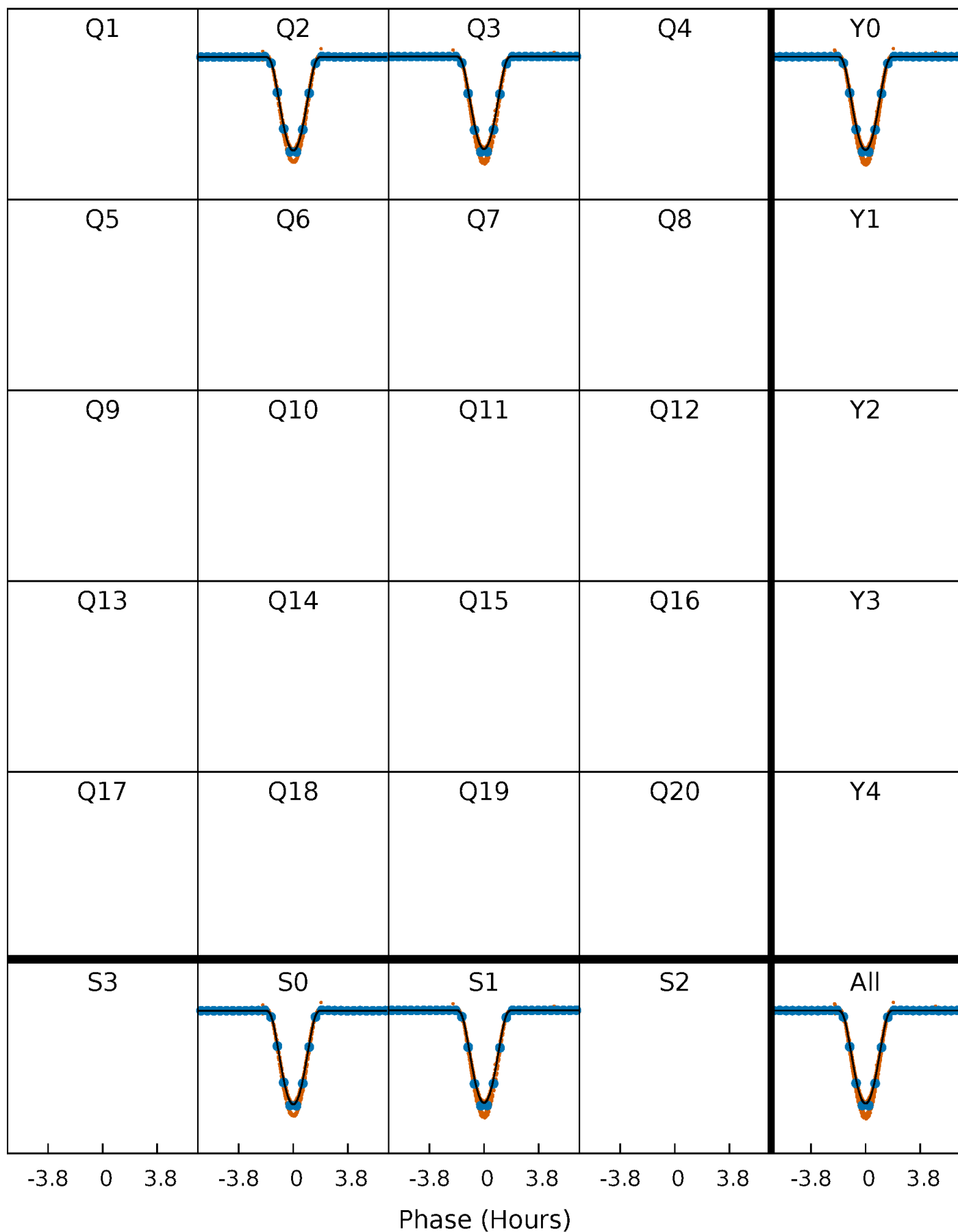
PDC Quarter-Phased Transit Curves

TCE 006363494-01 P= 0.907817 Days $T_0=131.911259$ (BKJD)



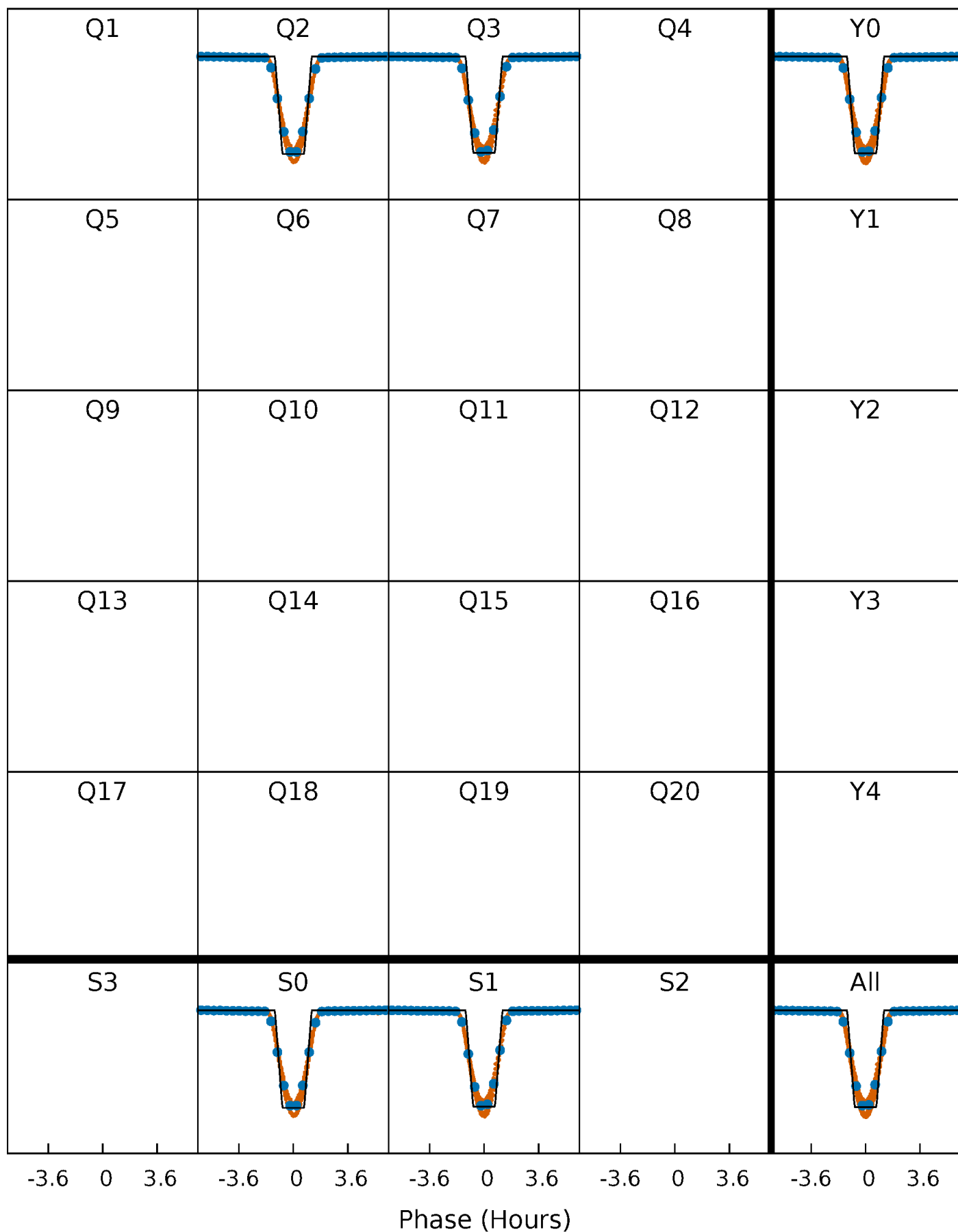
DV Quarter-Phased Transit Curves

TCE 006363494-01 P= 0.907817 Days $T_0=131.911259$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

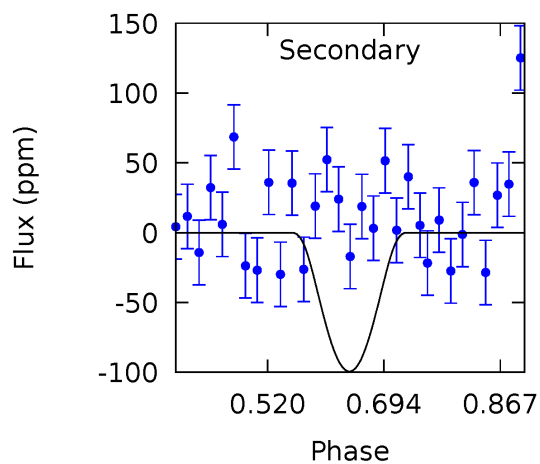
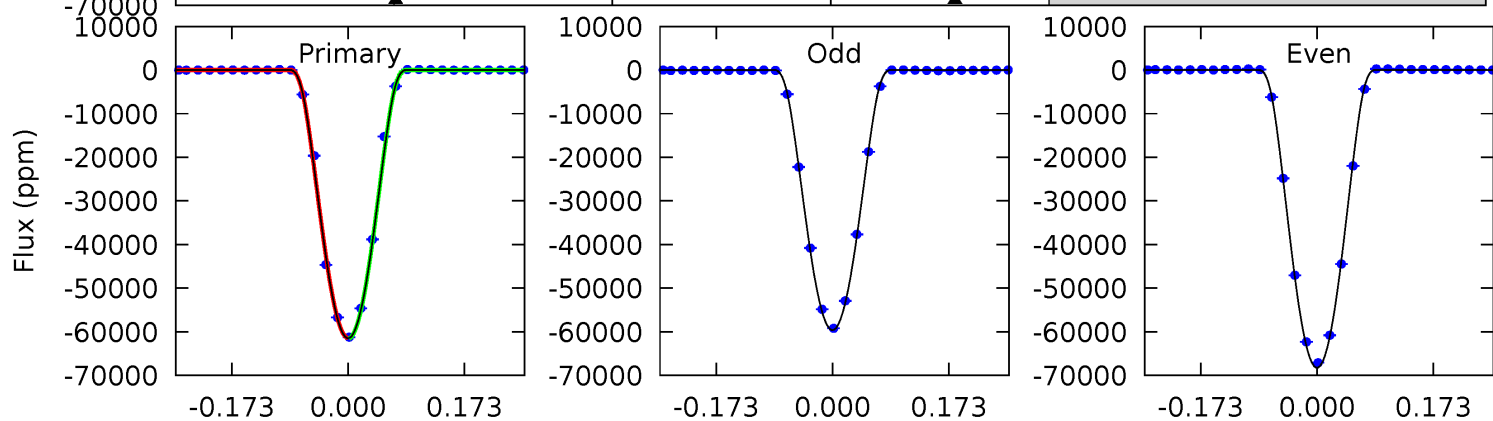
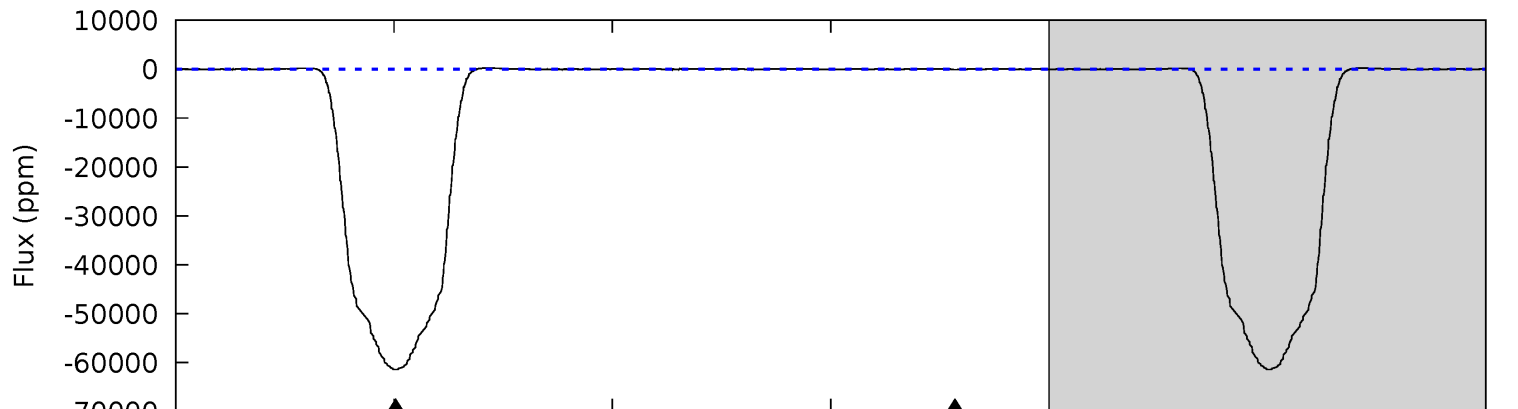
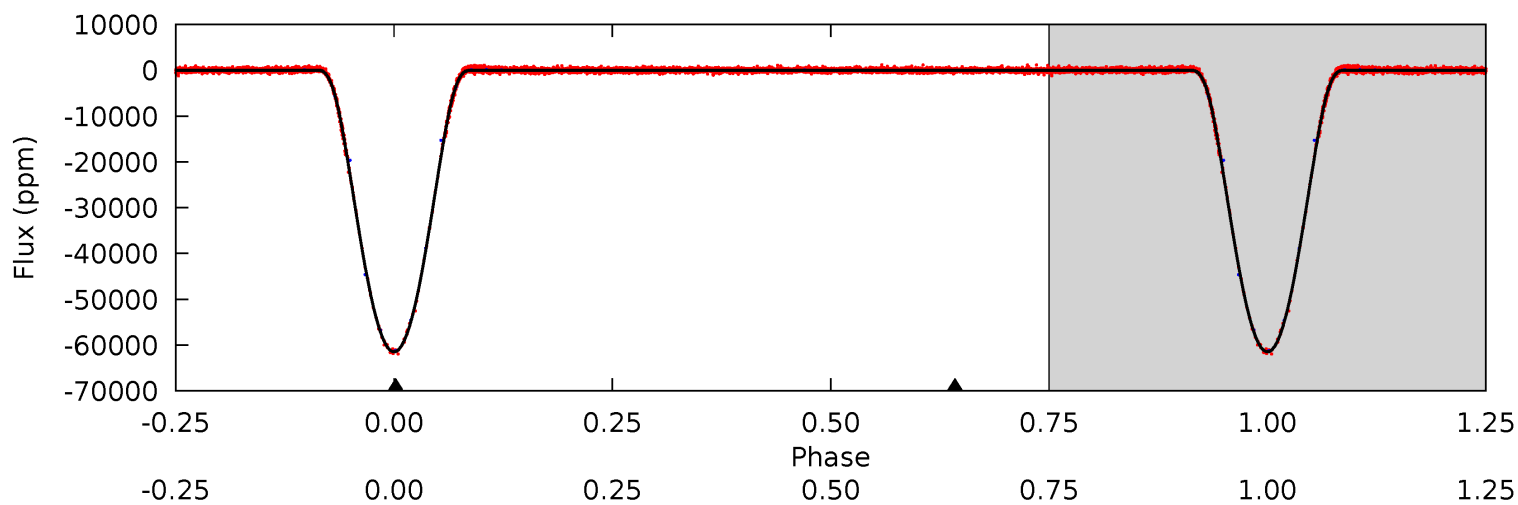
TCE 006363494-01 P= 0.907836 Days $T_0=131.908545$ (BKJD)



DV Model-Shift Uniqueness Test

006363494-01, P = 0.907817 Days, E = 131.911259 Days

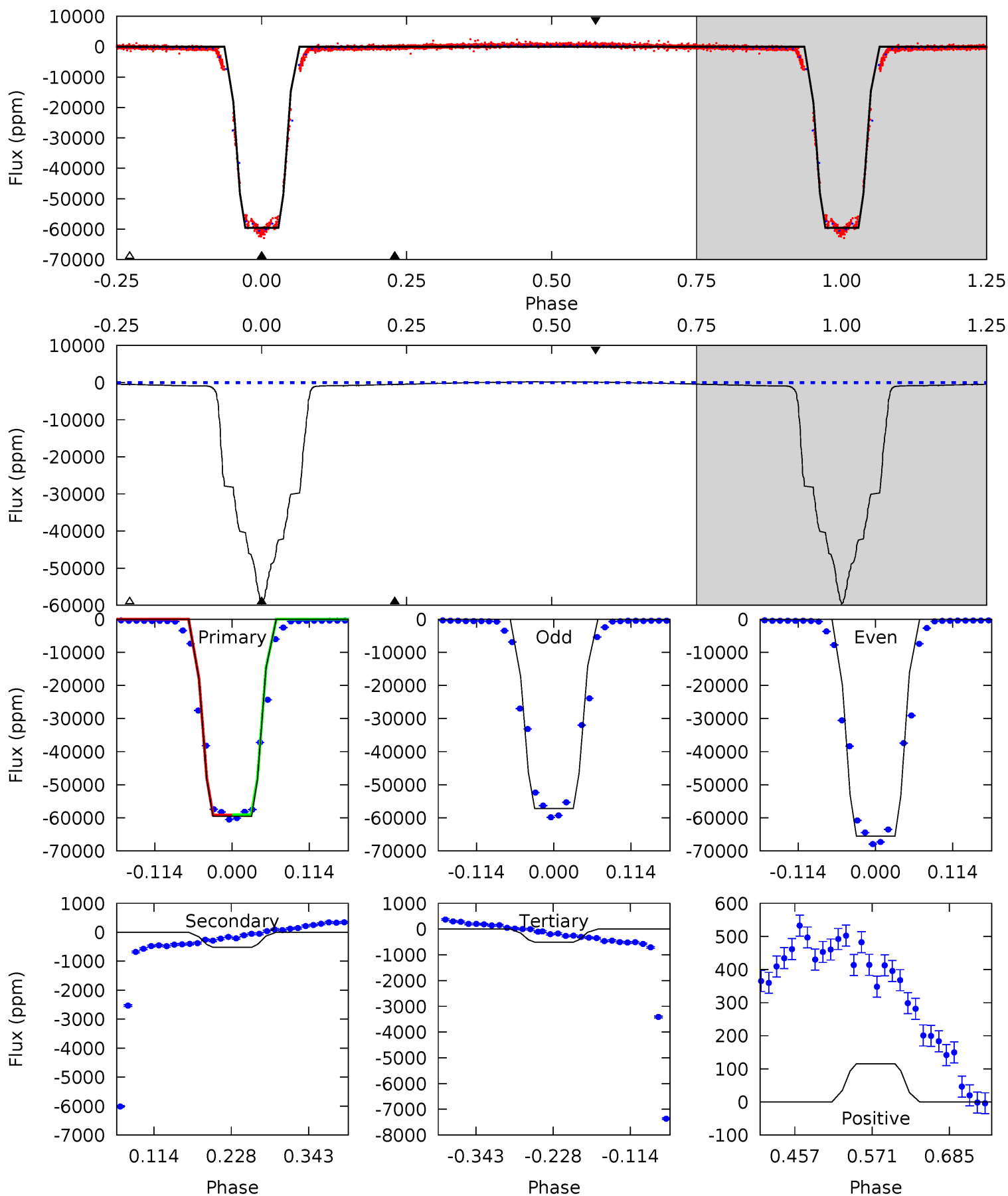
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5195	8.40	0	0	4.45	1.36	2.94	5195	5195	8.40	8.40	553.9	1.04	0.00	0



Alt Model-Shift Uniqueness Test

006363494-01, P = 0.907836 Days, E = 131.908545 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1999	17.4	17.1	3.87	4.54	1.58	11.5	1981	1995	0.30	13.6	183.0	1.02	0.00	1.47



Stellar Parameters For KIC 006363494

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9954^{+284}_{-426}	$4.070^{+0.210}_{-0.210}$	$0.070^{+0.150}_{-0.600}$	$2.408^{+0.821}_{-0.821}$	$2.485^{+0.367}_{-0.681}$	$0.251^{+0.323}_{-0.141}$
	+3%/-4%	+5%/-5%	+214%/-857%	+34%/-34%	+15%/-27%	+129%/-56%
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 006363494-01 / KOI 3634.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-99 ± 12	$74.58^{+13.22}_{-12.86}$	6057^{+531}_{-529}	-4698^{+322}_{-330}	$0.006^{+0.002}_{-0.002}$
Alt.	-520 ± 30	$66.73^{+11.21}_{-11.66}$	6024^{+547}_{-526}	-4564^{+334}_{-371}	$0.040^{+0.016}_{-0.011}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

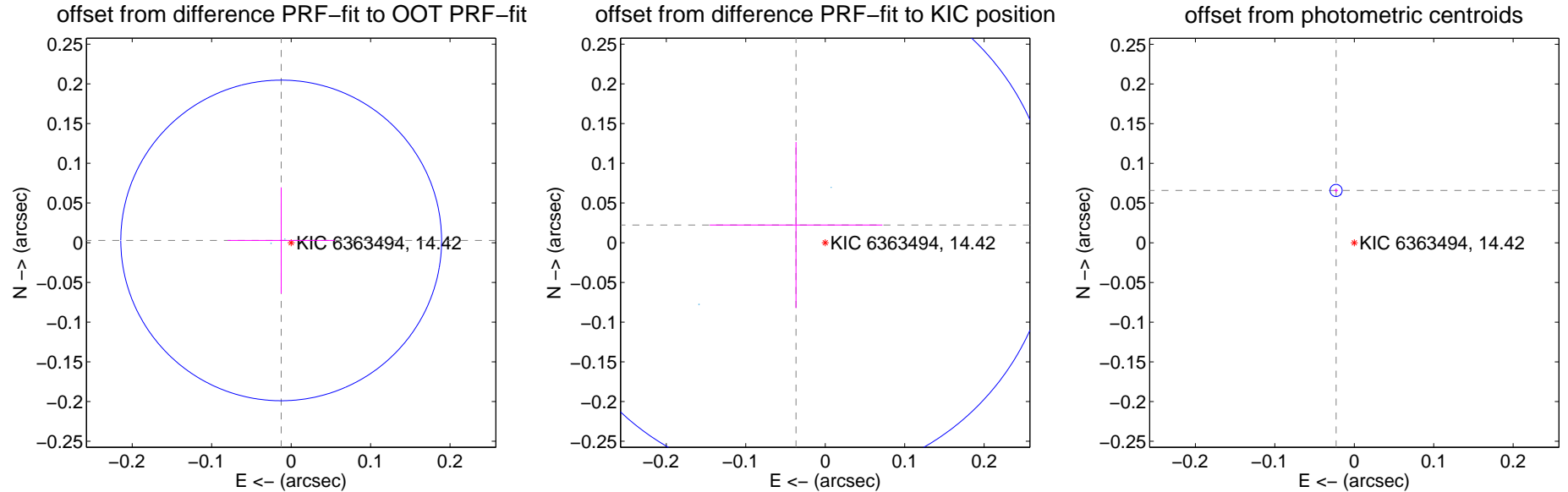
DV Centroid Data

Supplemental centroid analysis for 006363494-01. Kepler magnitude: 14.42. Transit SNR 2488.59

There are 2 quarters with good PRF difference image offsets

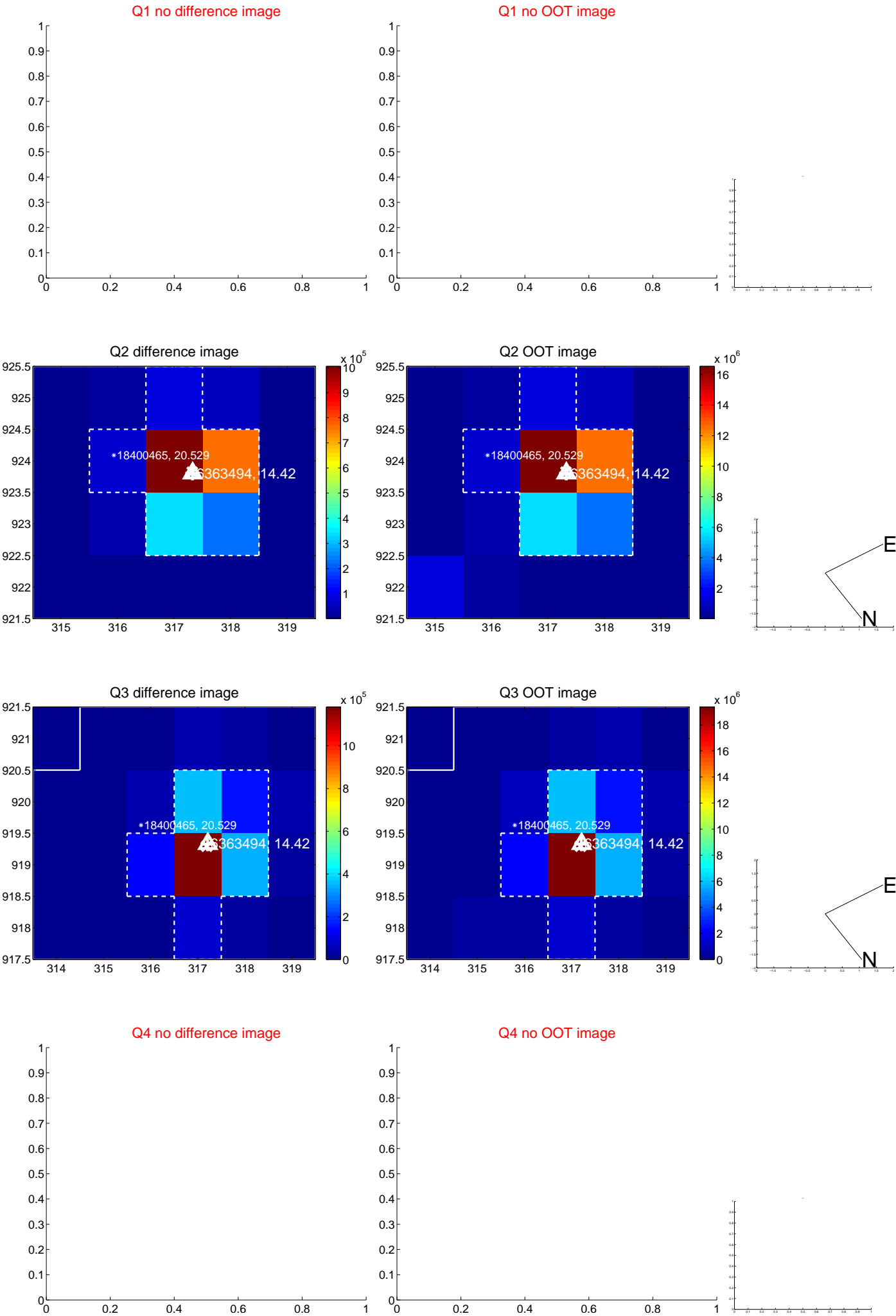
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.013 ± 0.067	0.19	0.012 ± 0.067	0.003 ± 0.067
PRF-fit source offset from KIC position	0.043 ± 0.108	0.40	0.037 ± 0.109	0.022 ± 0.104
photometric centroid source offset	0.07 ± 0.00	27.36	0.02 ± 0.00	0.07 ± 0.00

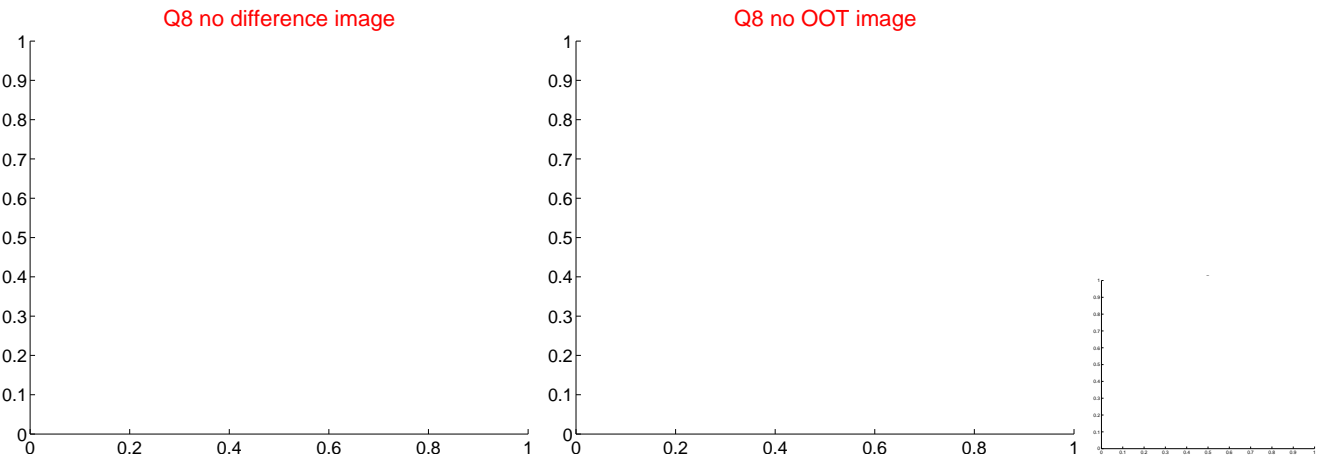


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



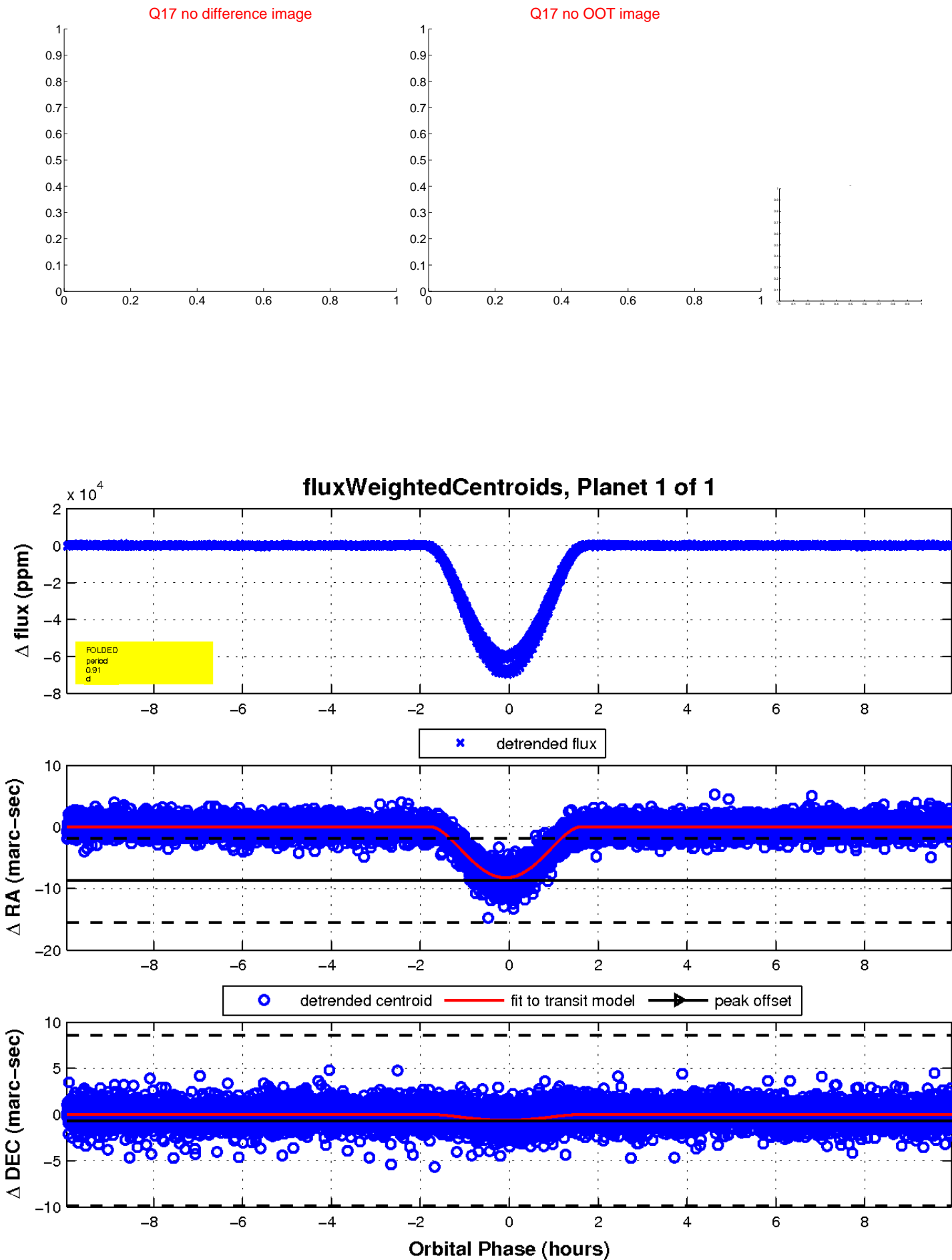
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

