

KIC 003544694

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})
003544694-01	OBS	3629.01	1.922859	132.737791	100600.4	3.682	2233.6	1606.2	1.30	6408	64.07	2641.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003544694-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—CENT_KIC_POS

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.

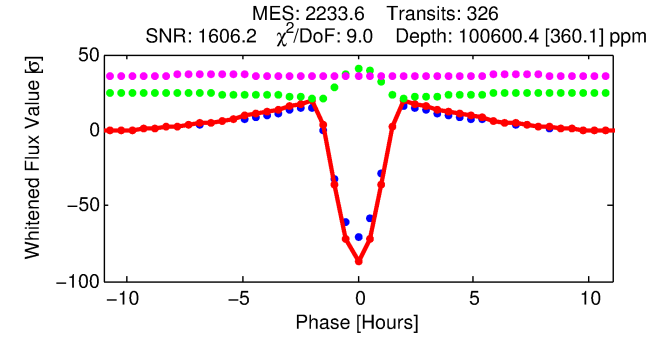
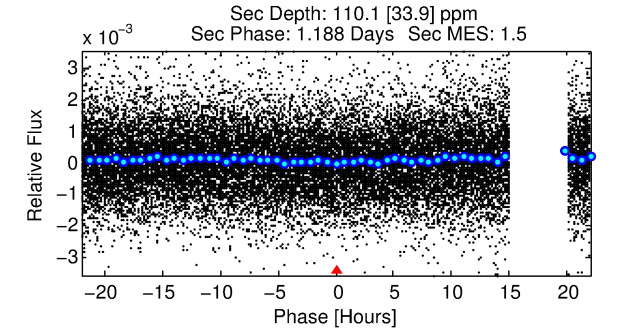
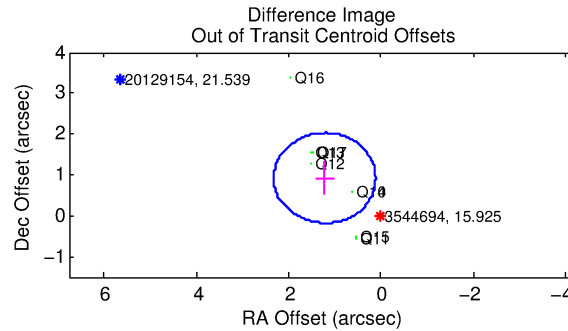
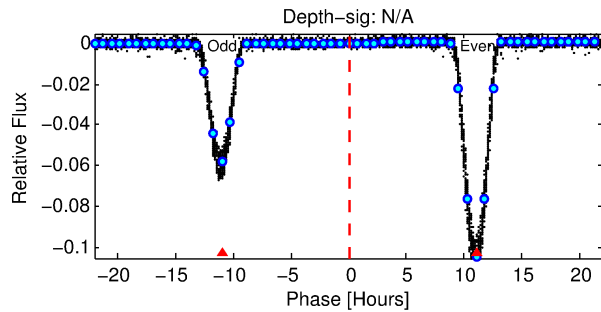
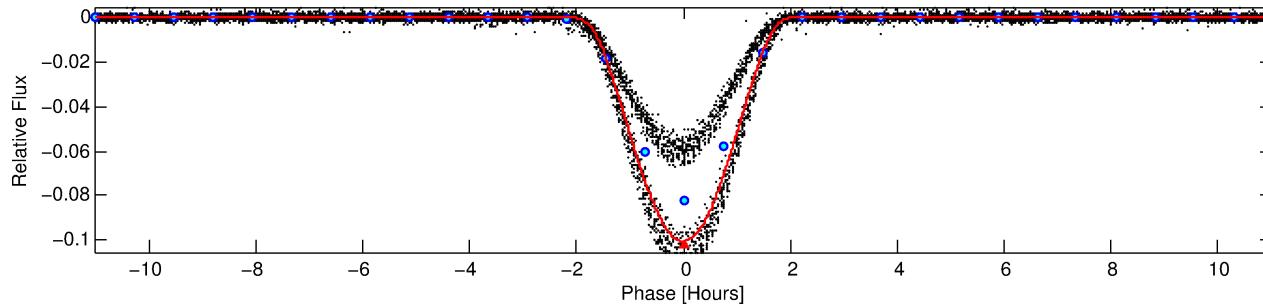
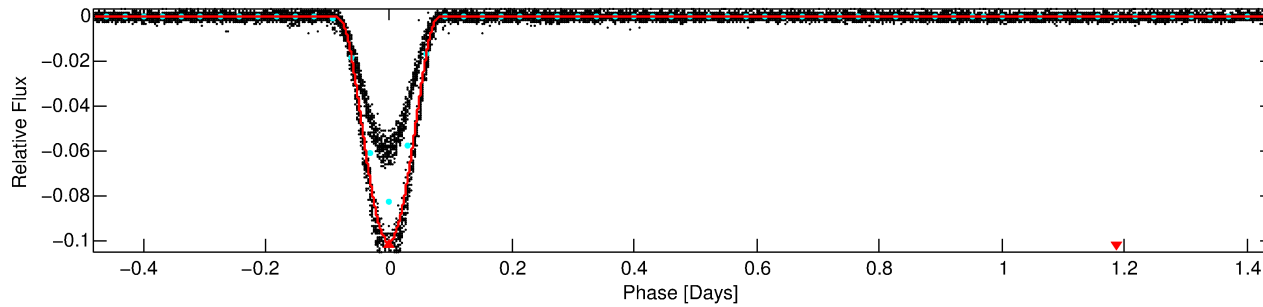
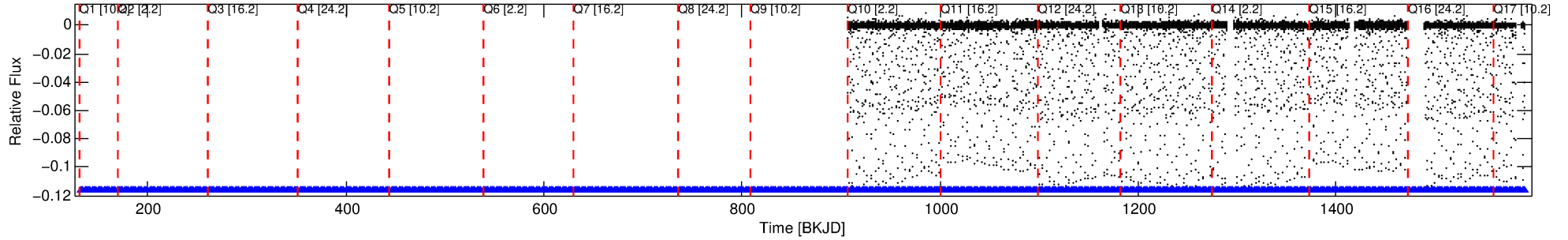
Ephemeris Match Information For 003544694-01

No Significant Match Found

DV One-Page Summary

KIC: 3544694 Candidate: 1 of 1 Period: 1.923 d
KOI: K03629.01 Corr: 0.990

Kp: 15.93 R*: 1.30 Rs Teff: 6408.0 K Logg: 4.25 Fe/H: -0.220



DV Fit Results:

Period = 1.92286 [0.00000] d
Epoch = 132.7378 [0.0001] BKJD
Rp/R* = 0.4506 [0.0983]
a/R* = 4.55 [0.07]
b = 0.94 [0.14]
Seff = 2641.30 [999.94]
Teff = 1828 [173] K
Rp = 64.07 [23.93] Re
a = 0.0312 [0.0077] AU
Ag = 0.01 [0.01] [-107.67σ]
Teffp = 978 [135] K [-3.87σ]

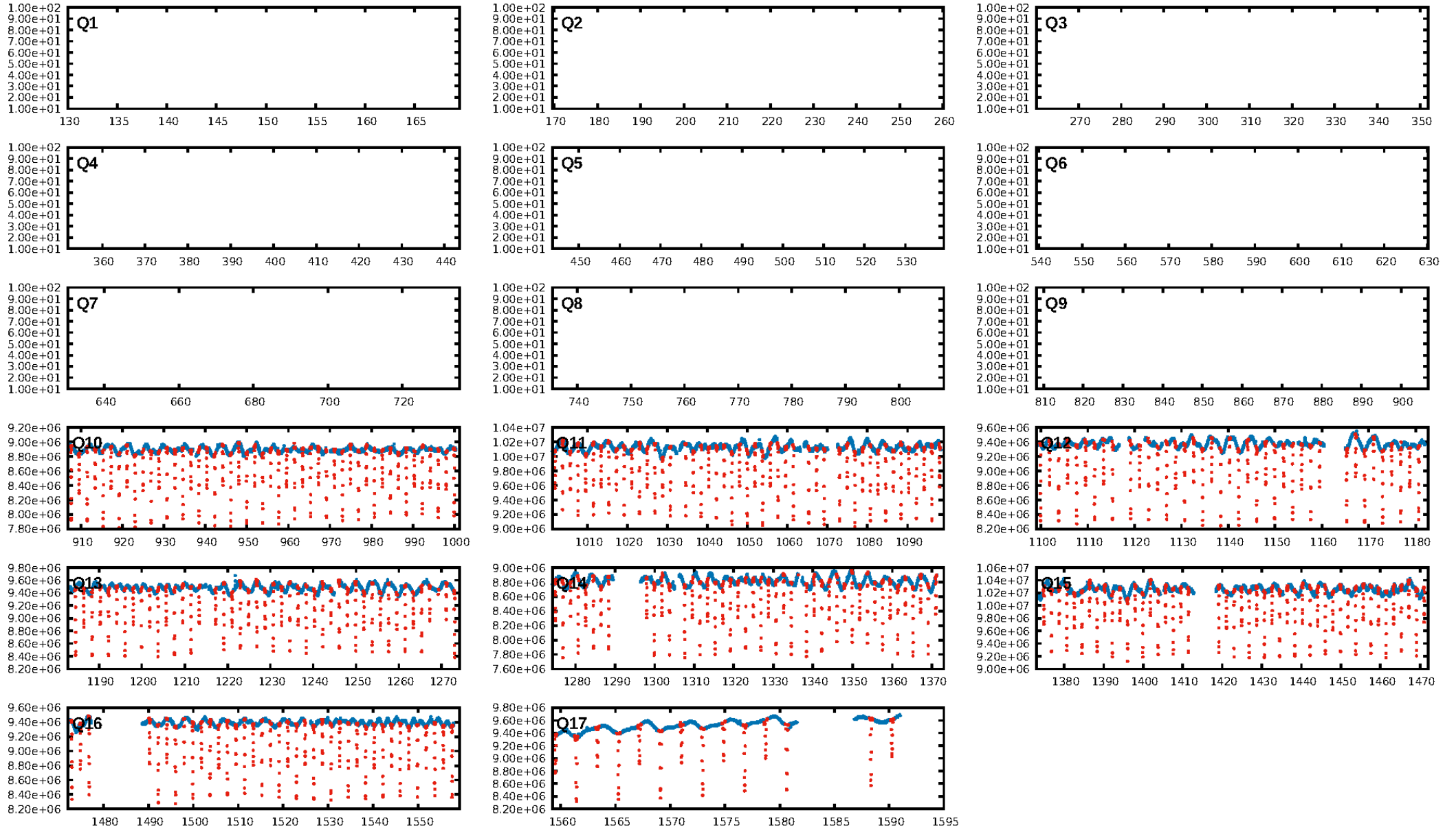
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [312/312]
GhostDiagnostic-chr: 2.032
Centroid-sig: 0.0%
Centroid-so: 0.933 arcsec [209.09σ]
OotOffset-rm: 1.531 arcsec [4.16σ]
KicOffset-rm: 0.086 arcsec [1.25σ]
OotOffset-st: 2/2/2/2 [8]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

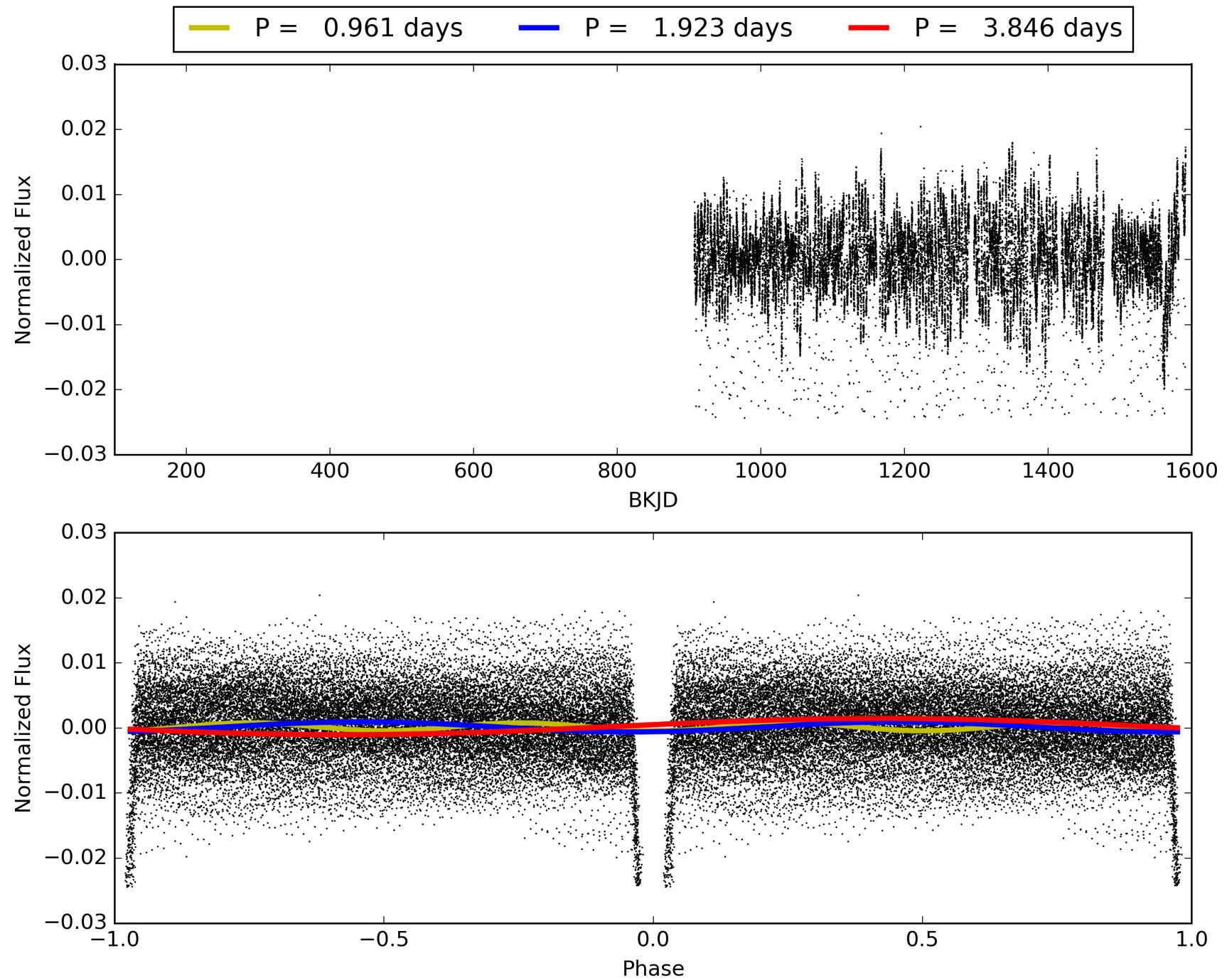
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:42:10 Z

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

TCE 003544694-01, PDC Light Curves

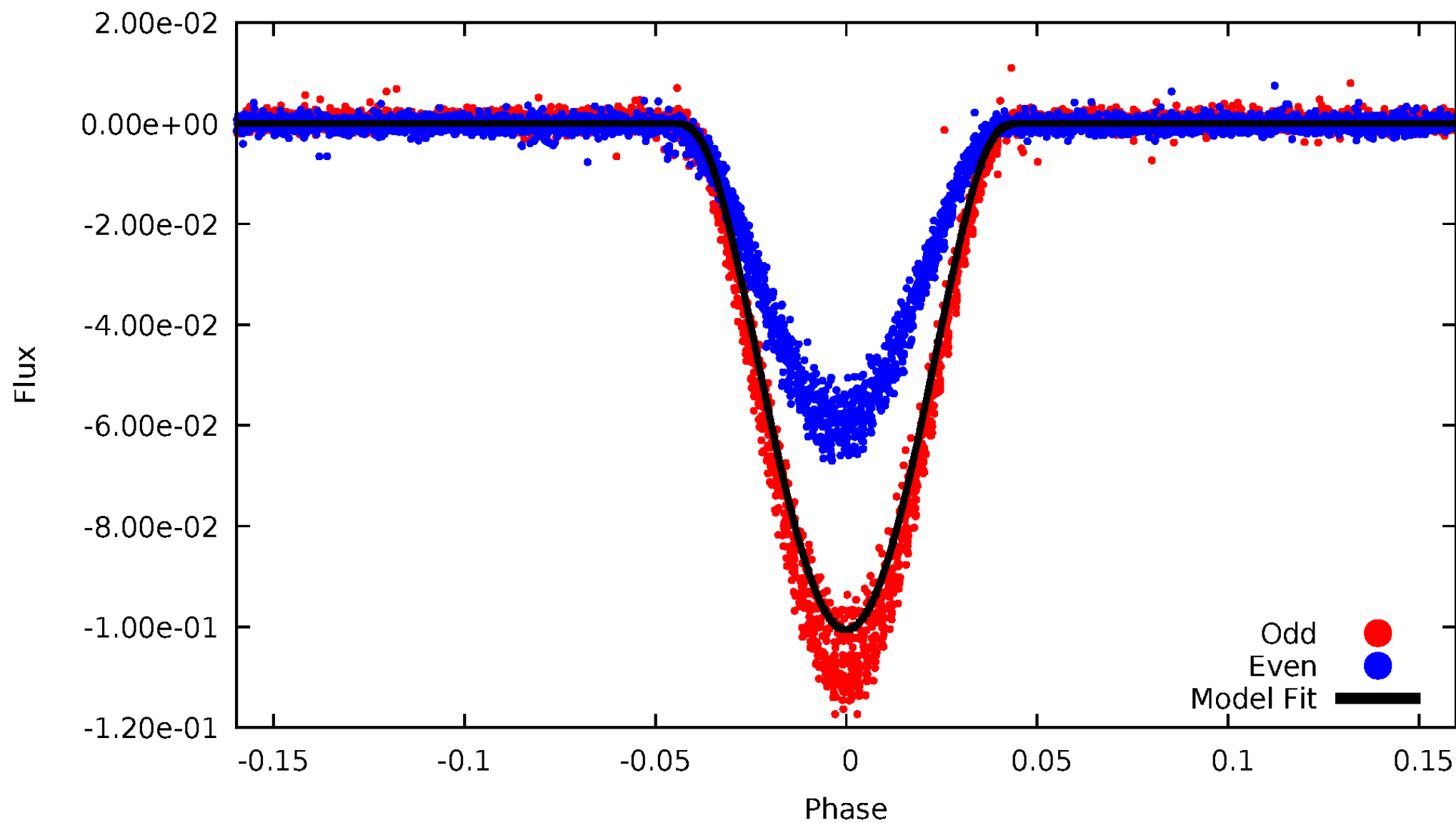


TCE 003544694-01



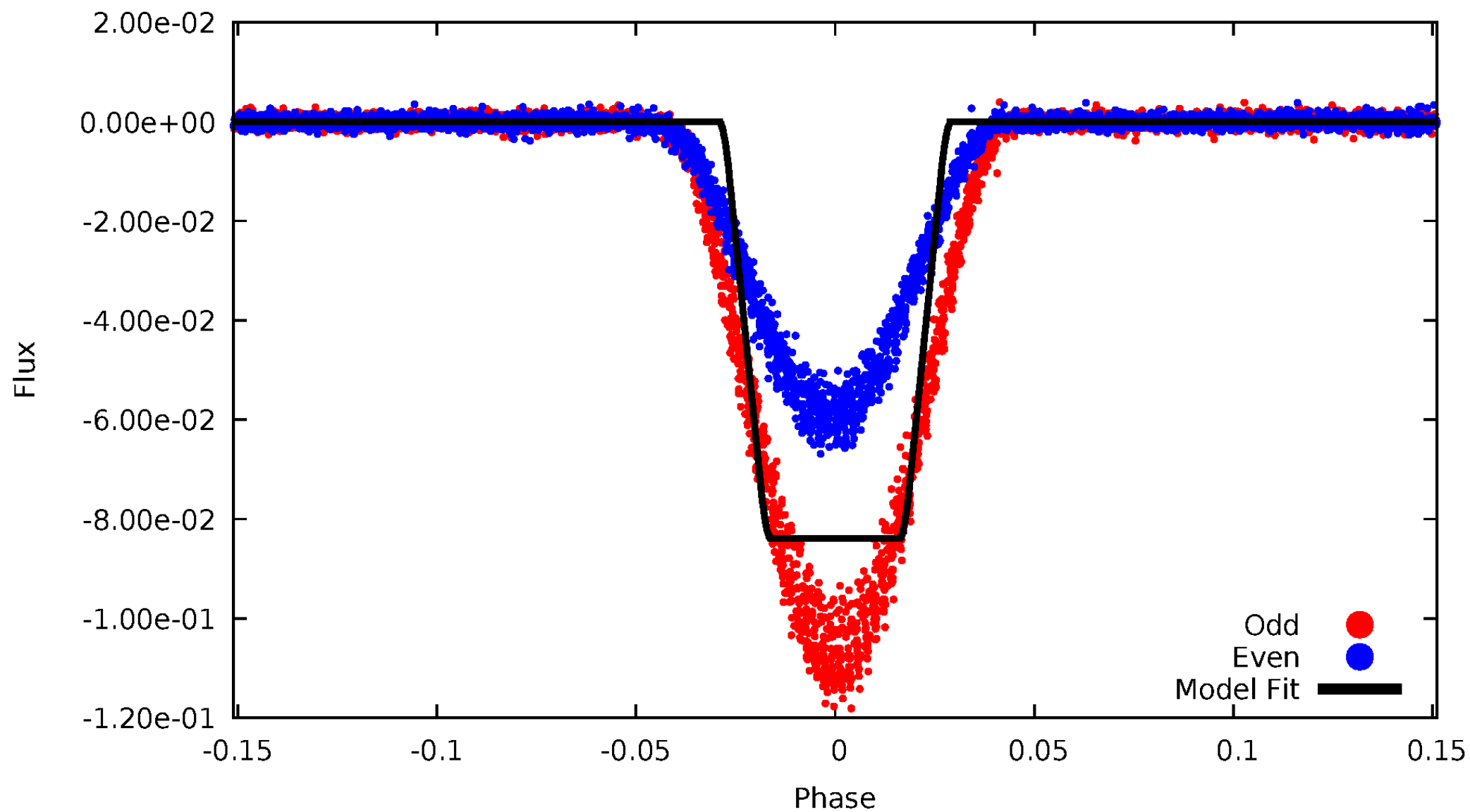
DV Odd/Even

TCE 003544694-01



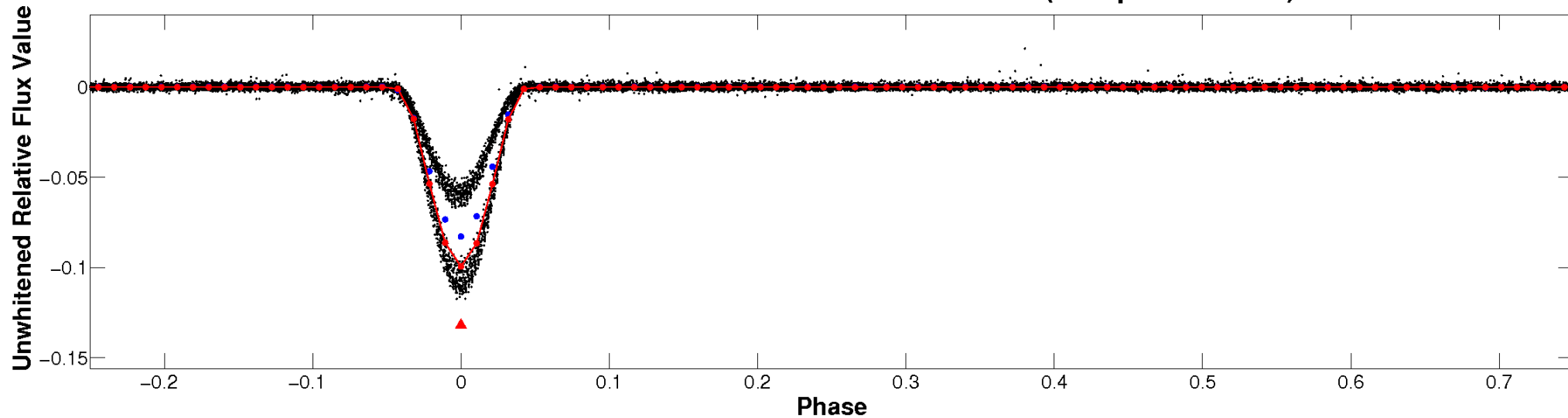
ALT Odd/Even

TCE 003544694-01

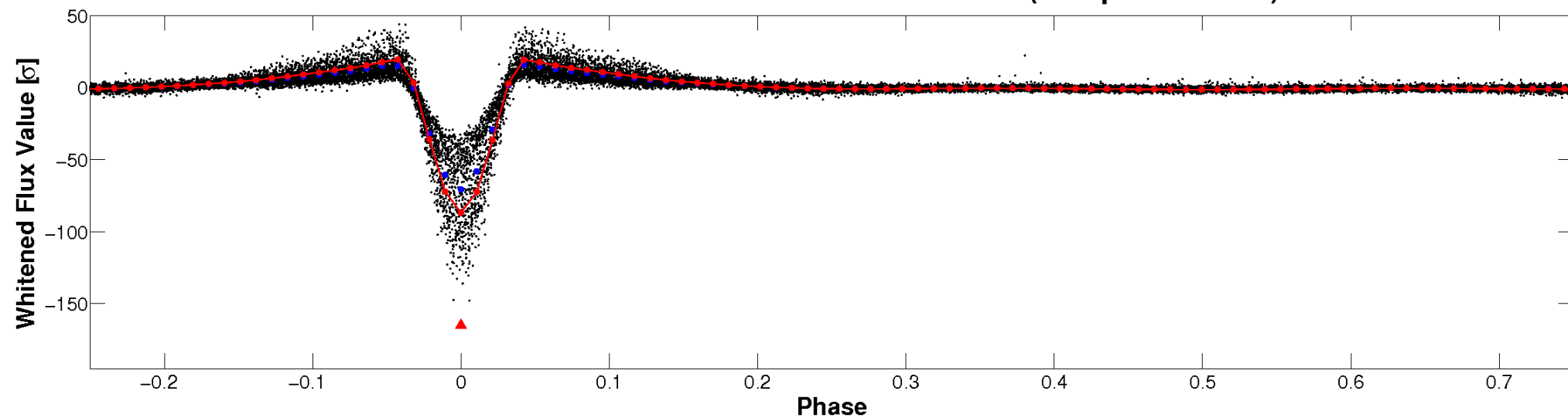


Non-Whitened Vs. Whitened Light Curve

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

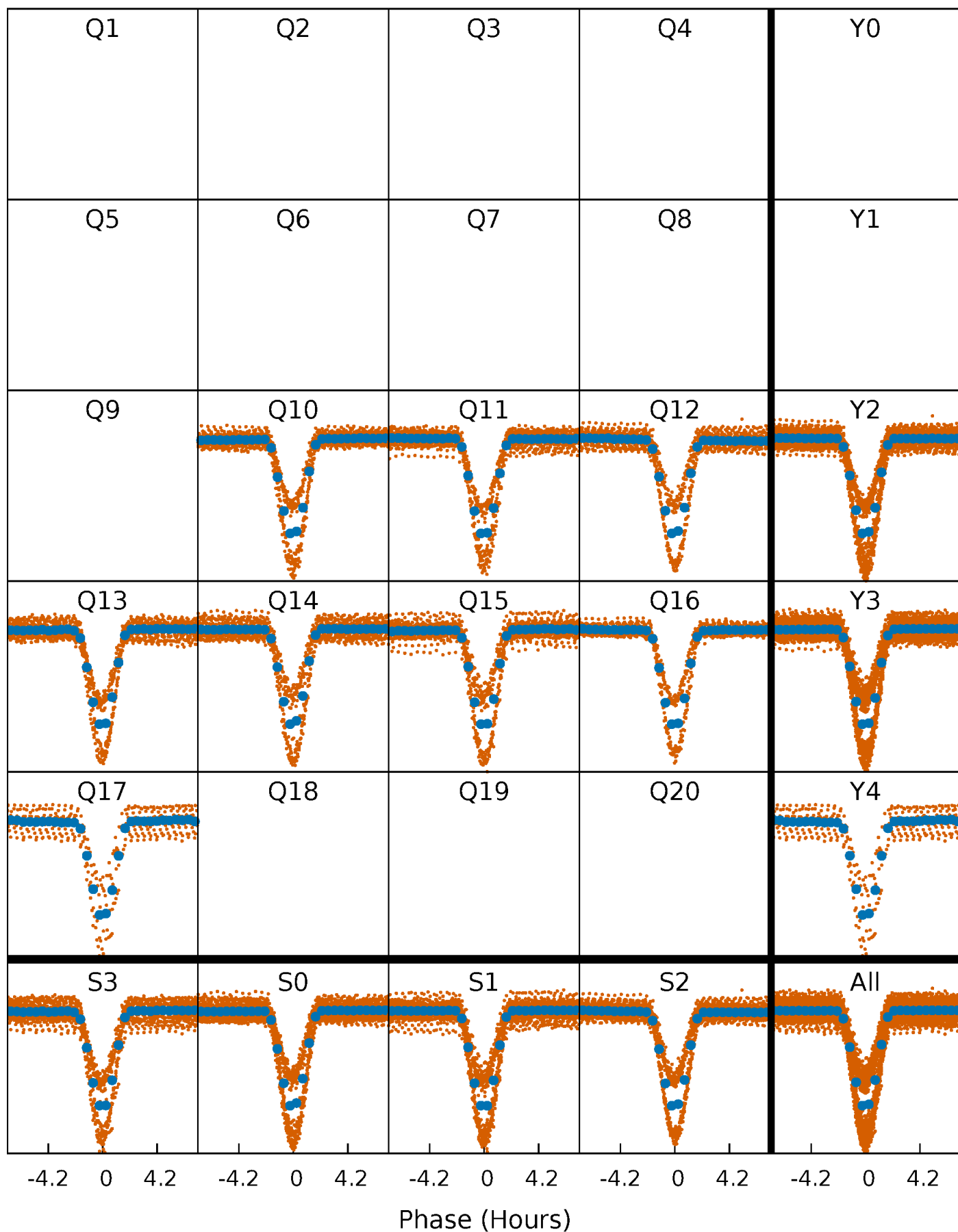


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



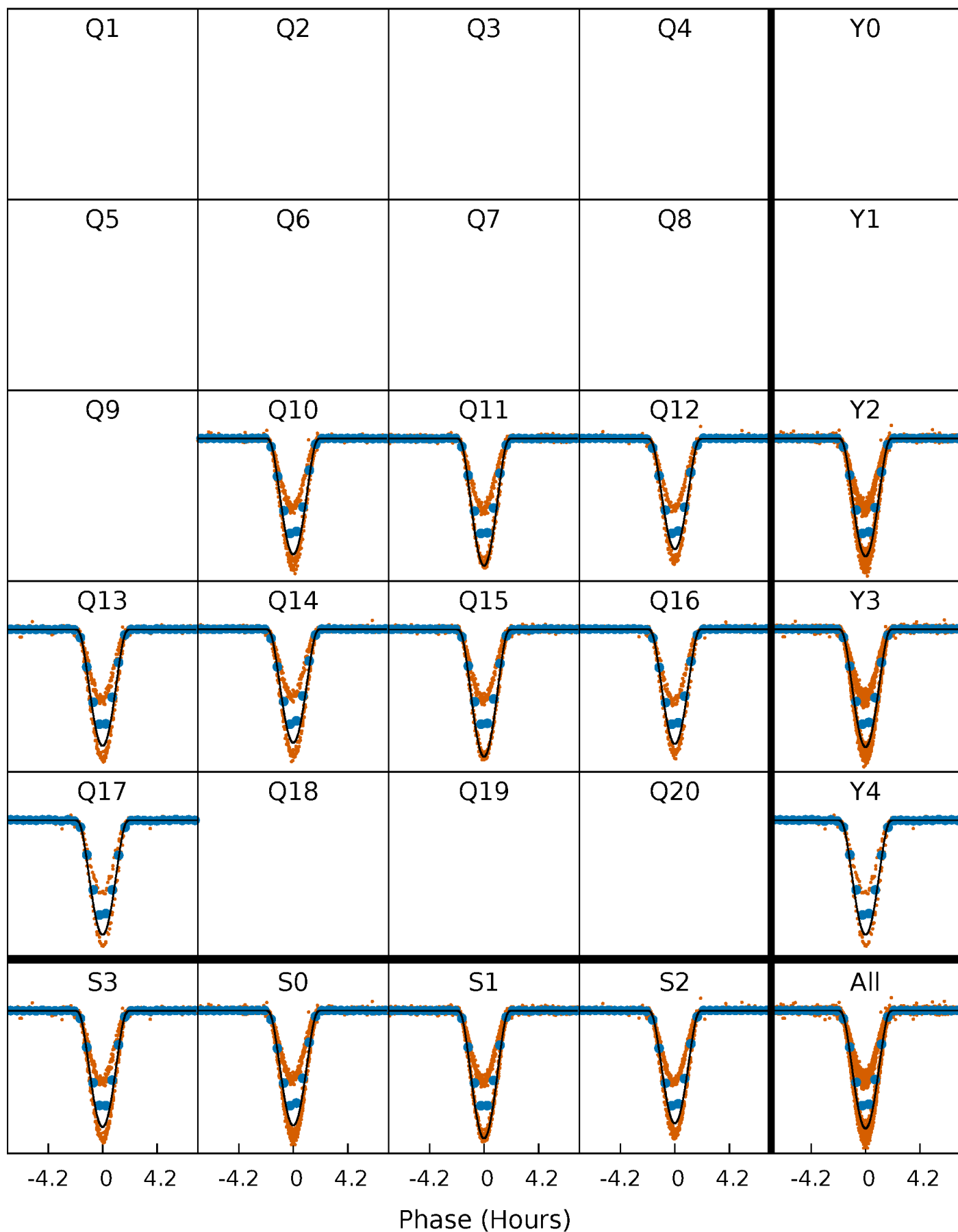
PDC Quarter-Phased Transit Curves

TCE 003544694-01 P= 1.922859 Days $T_0=132.737790$ (BKJD)



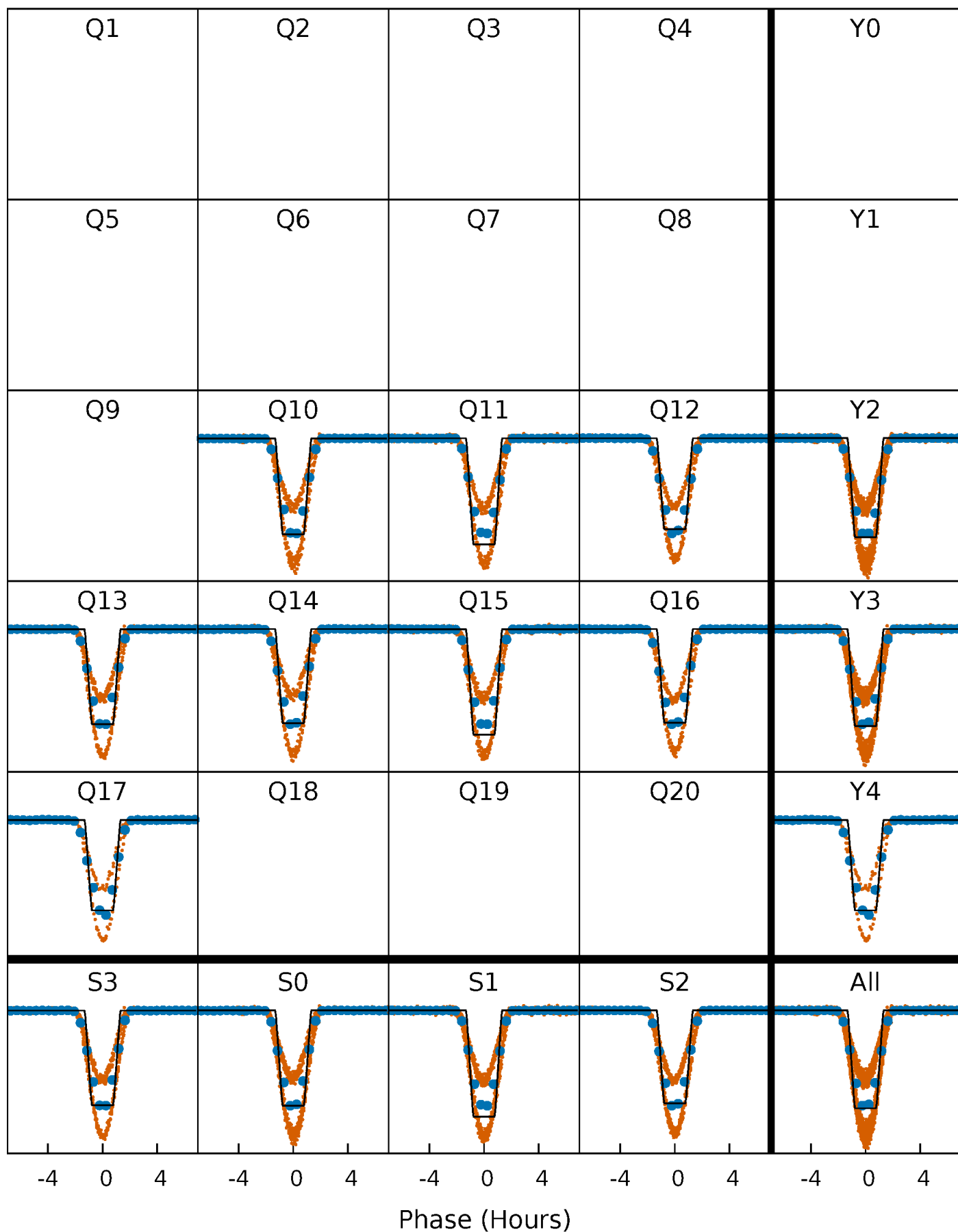
DV Quarter-Phased Transit Curves

TCE 003544694-01 P= 1.922859 Days $T_0=132.737790$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

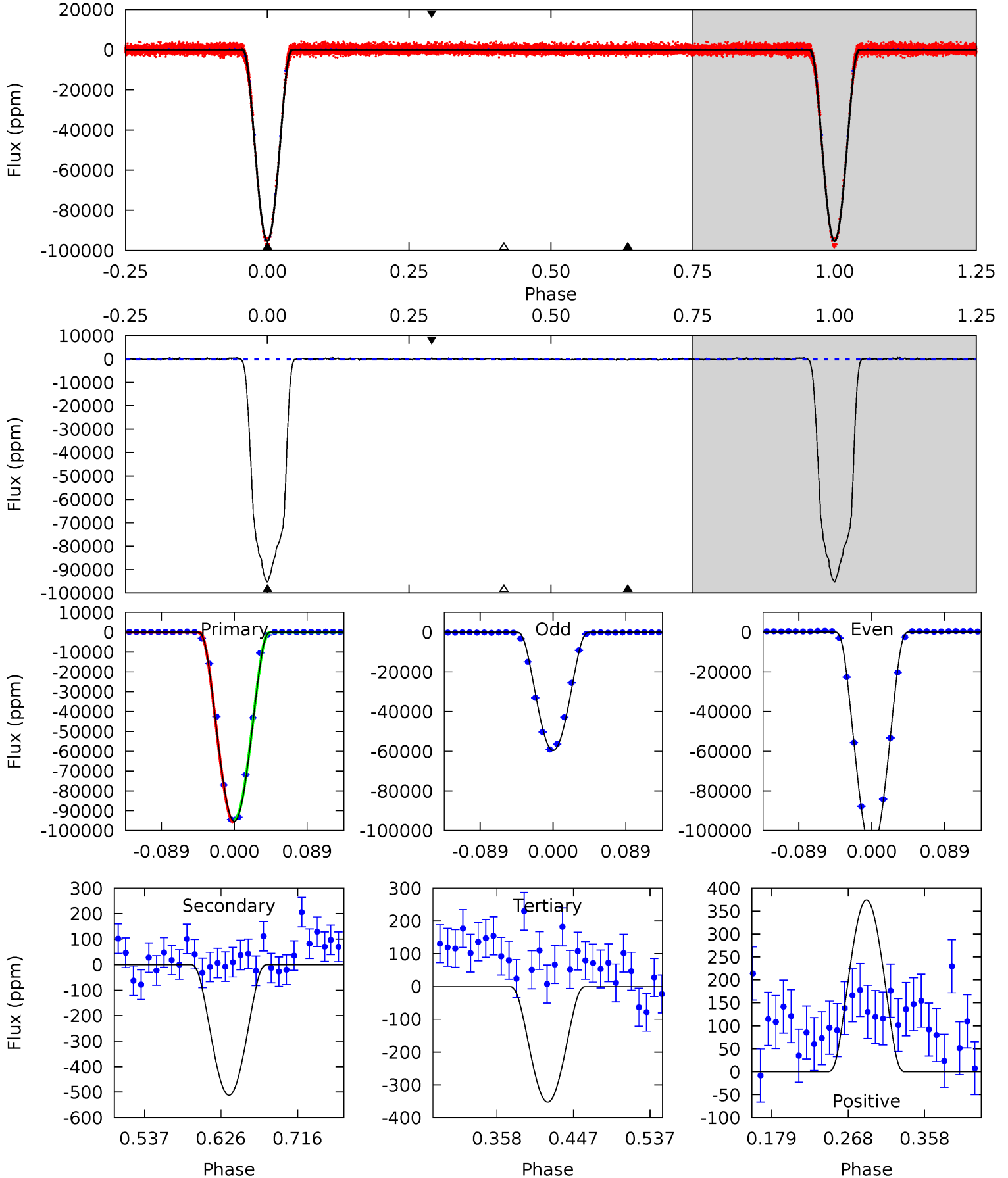
TCE 003544694-01 P= 1.922866 Days $T_0=132.732783$ (BKJD)



DV Model-Shift Uniqueness Test

003544694-01, P = 1.922859 Days, E = 132.737790 Days

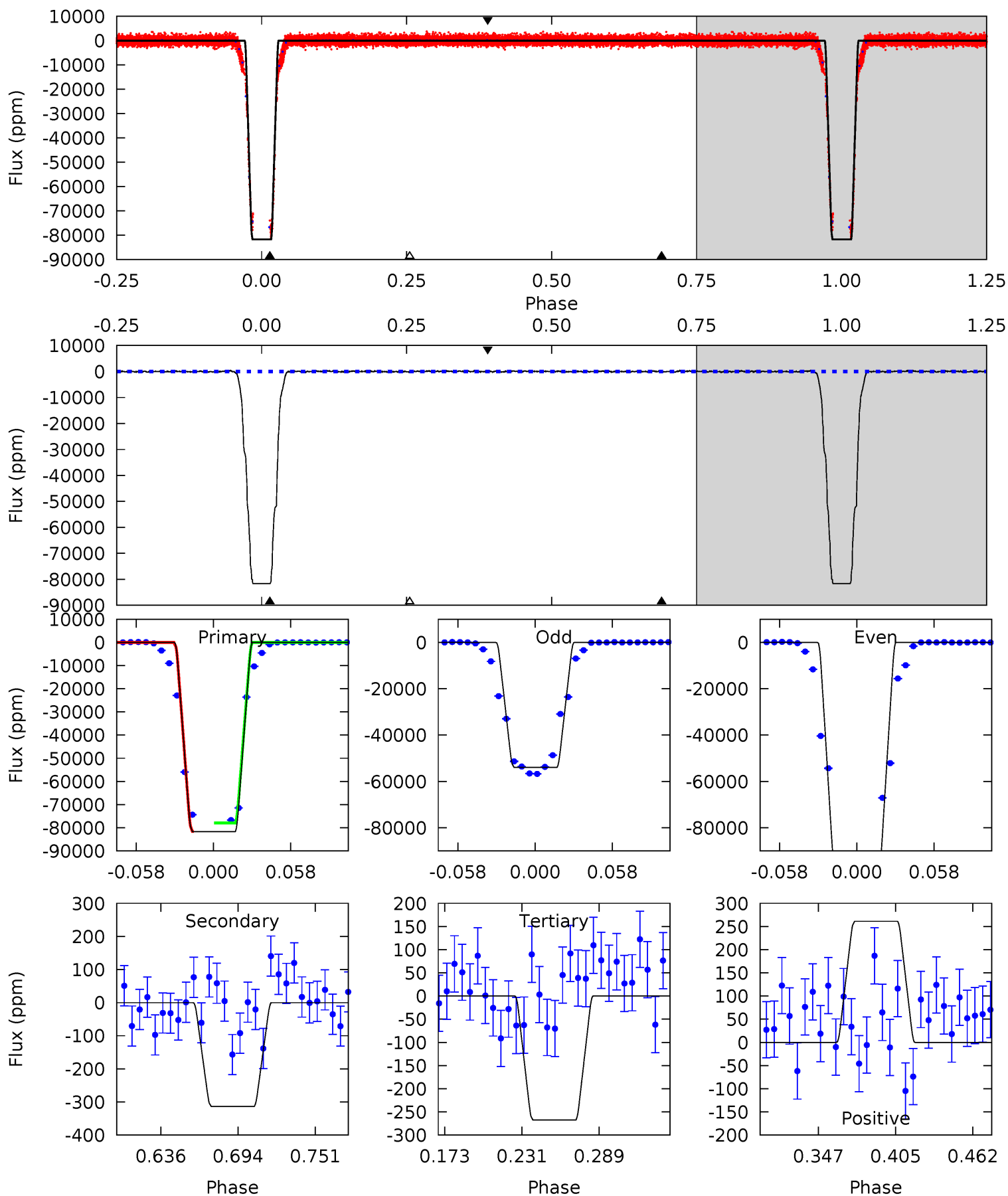
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2760	14.8	10.2	10.8	4.59	1.70	4.38	2750	2749	4.62	4.01	1141	0.87	0.01	0



Alt Model-Shift Uniqueness Test

003544694-01, P = 1.922866 Days, E = 132.732783 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1221	4.68	4.00	3.90	4.68	1.90	1.63	1217	1217	0.69	0.78	618.9	0.89	0.00	0



Stellar Parameters For KIC 003544694

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6408^{+181}_{-227}	$4.246^{+0.153}_{-0.187}$	$-0.220^{+0.250}_{-0.300}$	$1.303^{+0.395}_{-0.263}$	$1.087^{+0.193}_{-0.129}$	$0.692^{+0.536}_{-0.350}$
	+3%/-4%	+4%/-4%	+114%/-136%	+30%/-20%	+18%/-12%	+77%/-51%
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 003544694-01 / KOI 3629.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-513 ± 35	$64.96^{+18.78}_{-15.70}$	2565^{+192}_{-178}	-2726^{+139}_{-146}	$0.065^{+0.050}_{-0.025}$
Alt.	-314 ± 67	$42.42^{+15.75}_{-14.37}$	2554^{+201}_{-167}	-2678^{+332}_{-158}	$0.091^{+0.126}_{-0.046}$

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

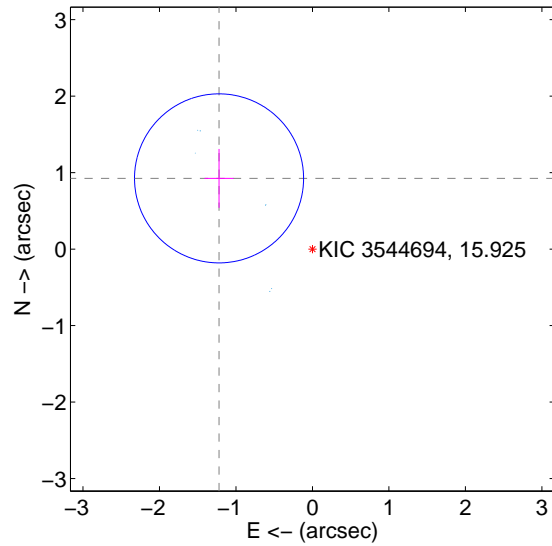
Supplemental centroid analysis for 003544694-01. Kepler magnitude: 15.93. Transit SNR 1606.17

There are 8 quarters with good PRF difference image offsets

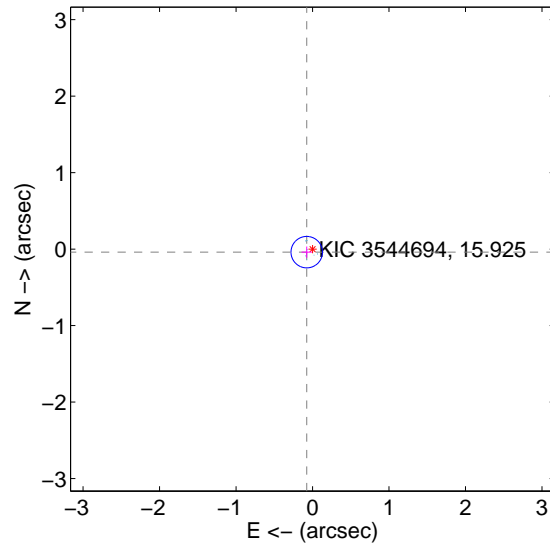
The OOT PRF centroid is offset from the target star catalog position by about 2.22 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.531 ± 0.368	4.16	1.221 ± 0.190	0.924 ± 0.385
PRF-fit source offset from KIC position	0.086 ± 0.069	1.25	0.076 ± 0.067	-0.040 ± 0.073
photometric centroid source offset	0.93 ± 0.00	209.09	-0.61 ± 0.00	-0.71 ± 0.01

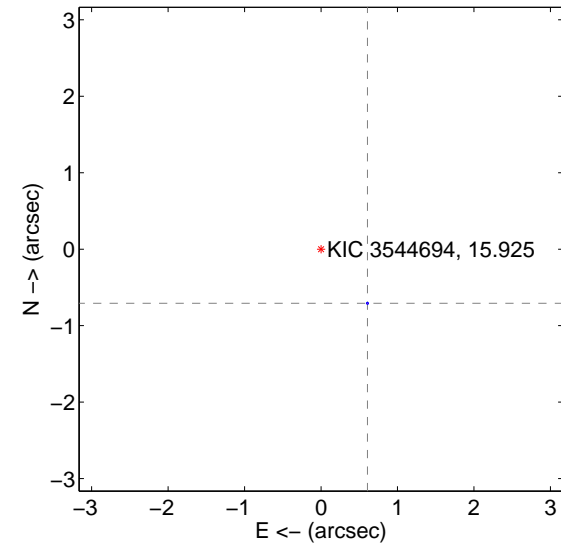
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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.

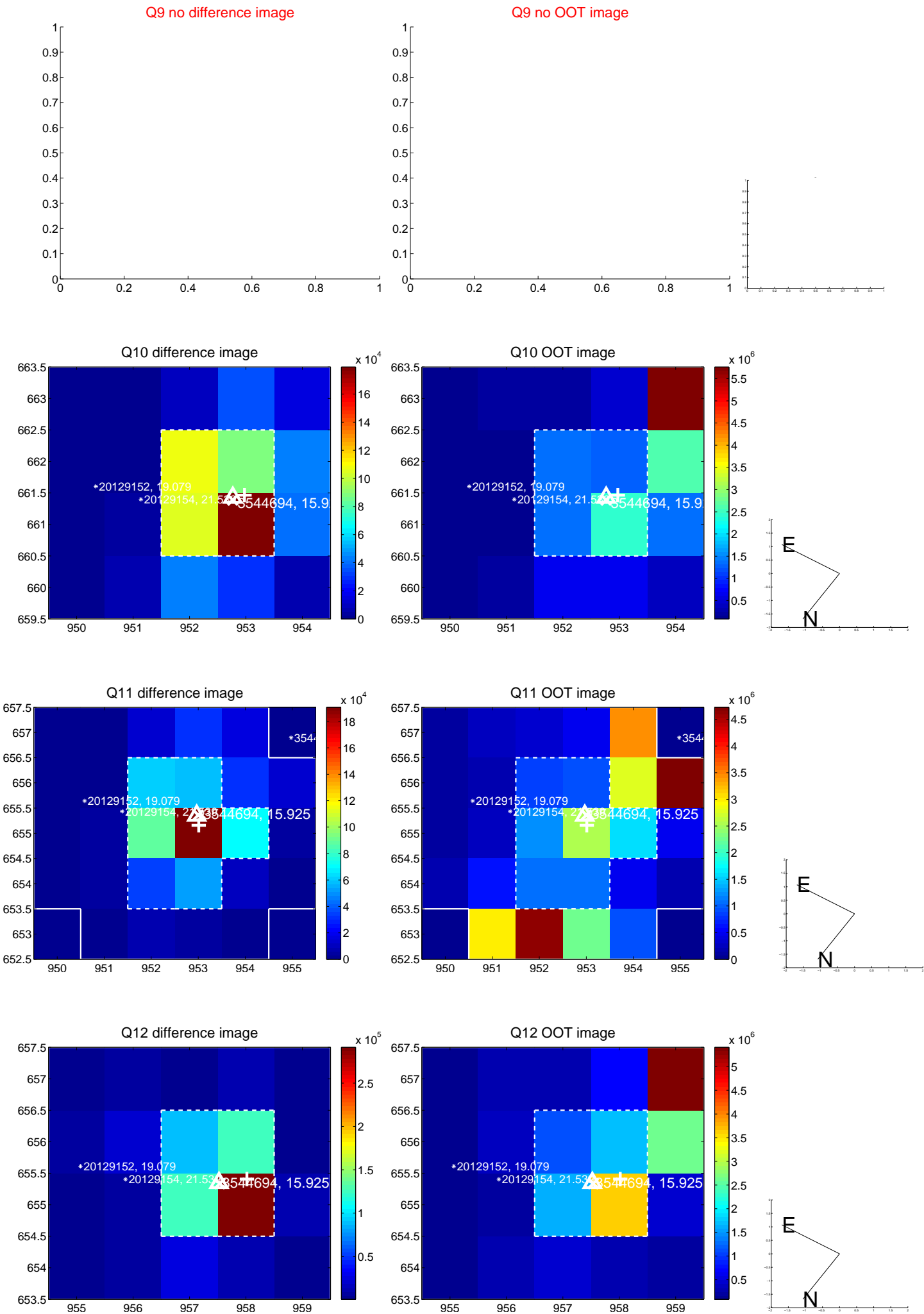
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



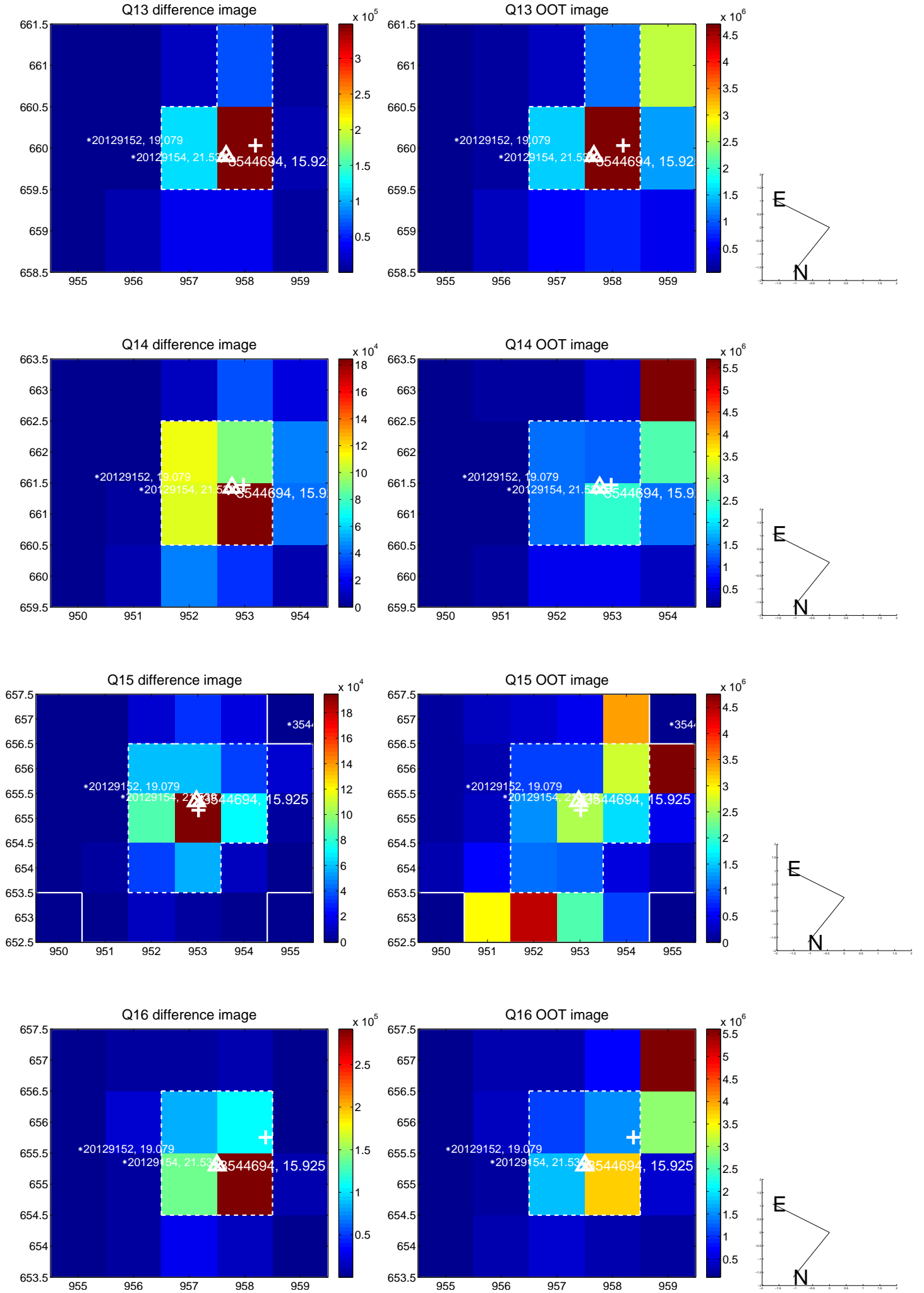
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

