

KIC 009032388

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})
009032388-01	OBS	No	360.936035	152.661707	395.7	10.613	9.2	4.2	0.65	4297	1.54	0.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009032388-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_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.

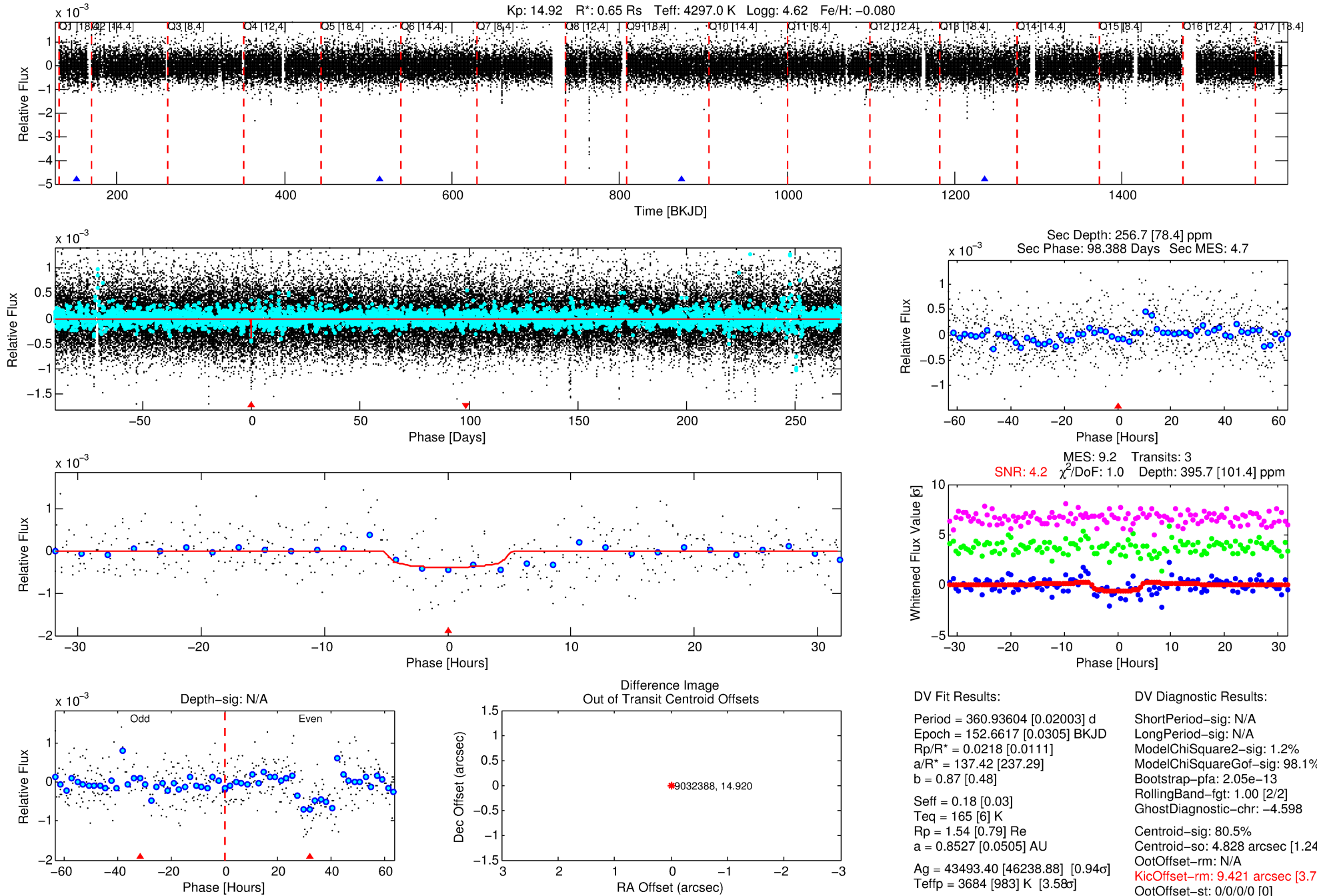
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009032388-01

No Significant Match Found

DV One-Page Summary

KIC: 9032388 Candidate: 1 of 1 Period: 360.936 d



DV Fit Results:

Period = 360.93604 [0.02003] d
Epoch = 152.6617 [0.0305] BKJD
Rp/R* = 0.0218 [0.0111]
a/R* = 137.42 [237.29]
b = 0.87 [0.48]
Seff = 0.18 [0.03]
Teq = 165 [6] K
Rp = 1.54 [0.79] Re
a = 0.8527 [0.0505] AU
Ag = 43493.40 [46238.88] [0.94σ]
Teffp = 3684 [983] K [3.58σ]

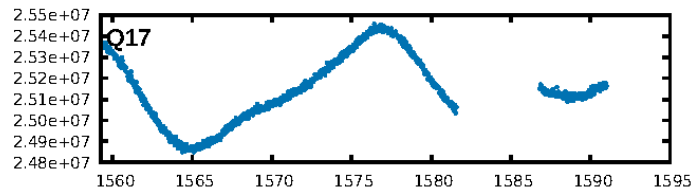
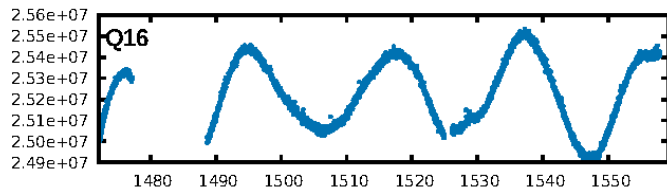
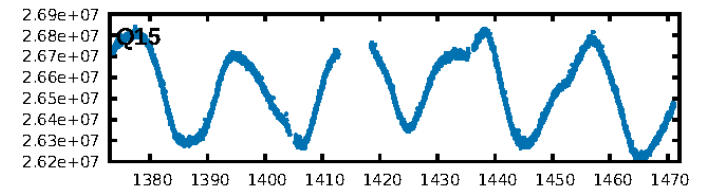
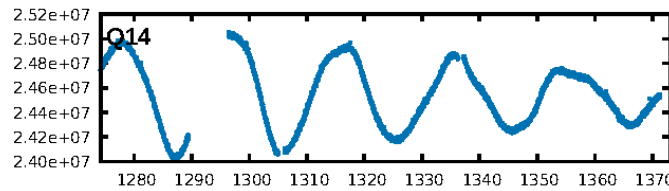
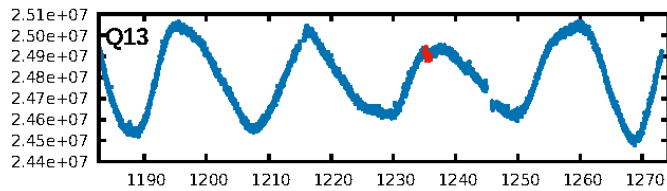
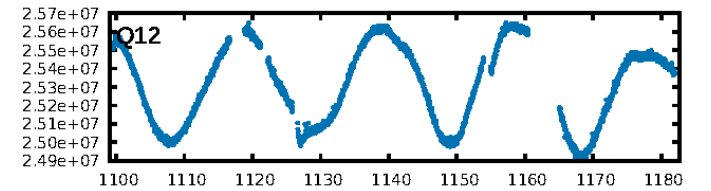
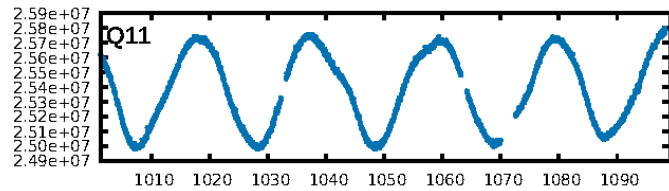
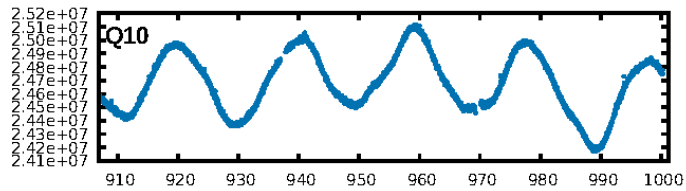
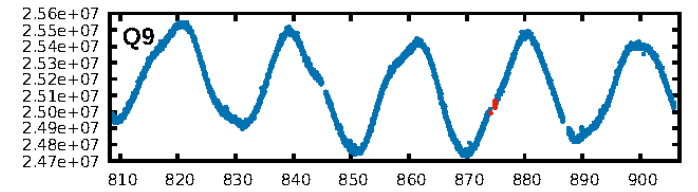
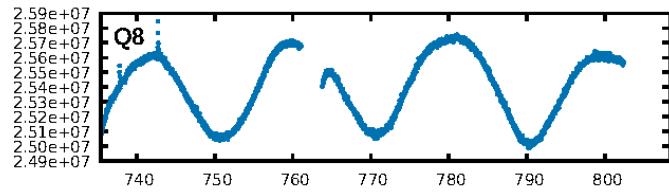
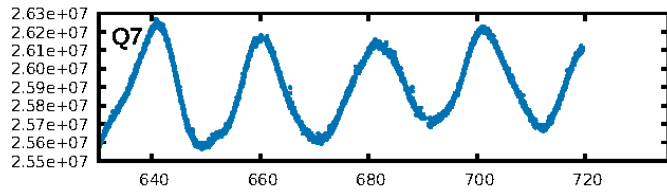
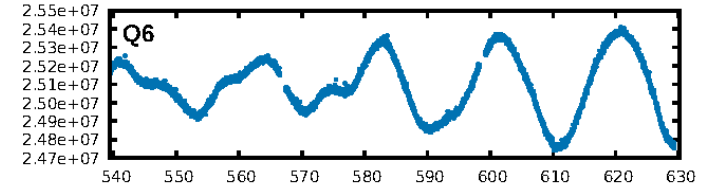
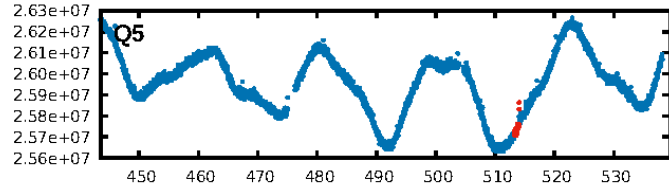
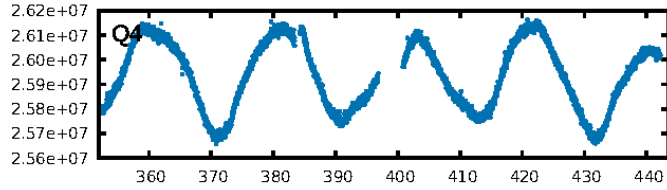
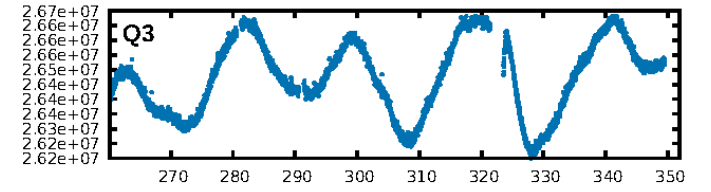
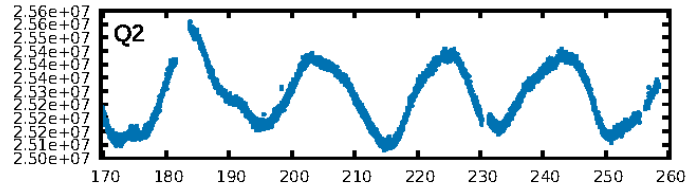
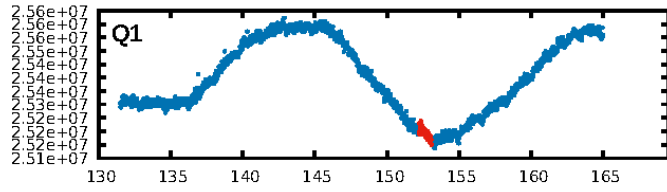
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.2%
ModelChiSquareGoF-sig: 98.1%
Bootstrap-pfa: 2.05e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -4.598
Centroid-sig: 80.5%
Centroid-so: 4.828 arcsec [1.24σ]
OotOffset-rm: N/A
KicOffset-rm: 9.421 arcsec [3.79σ]
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

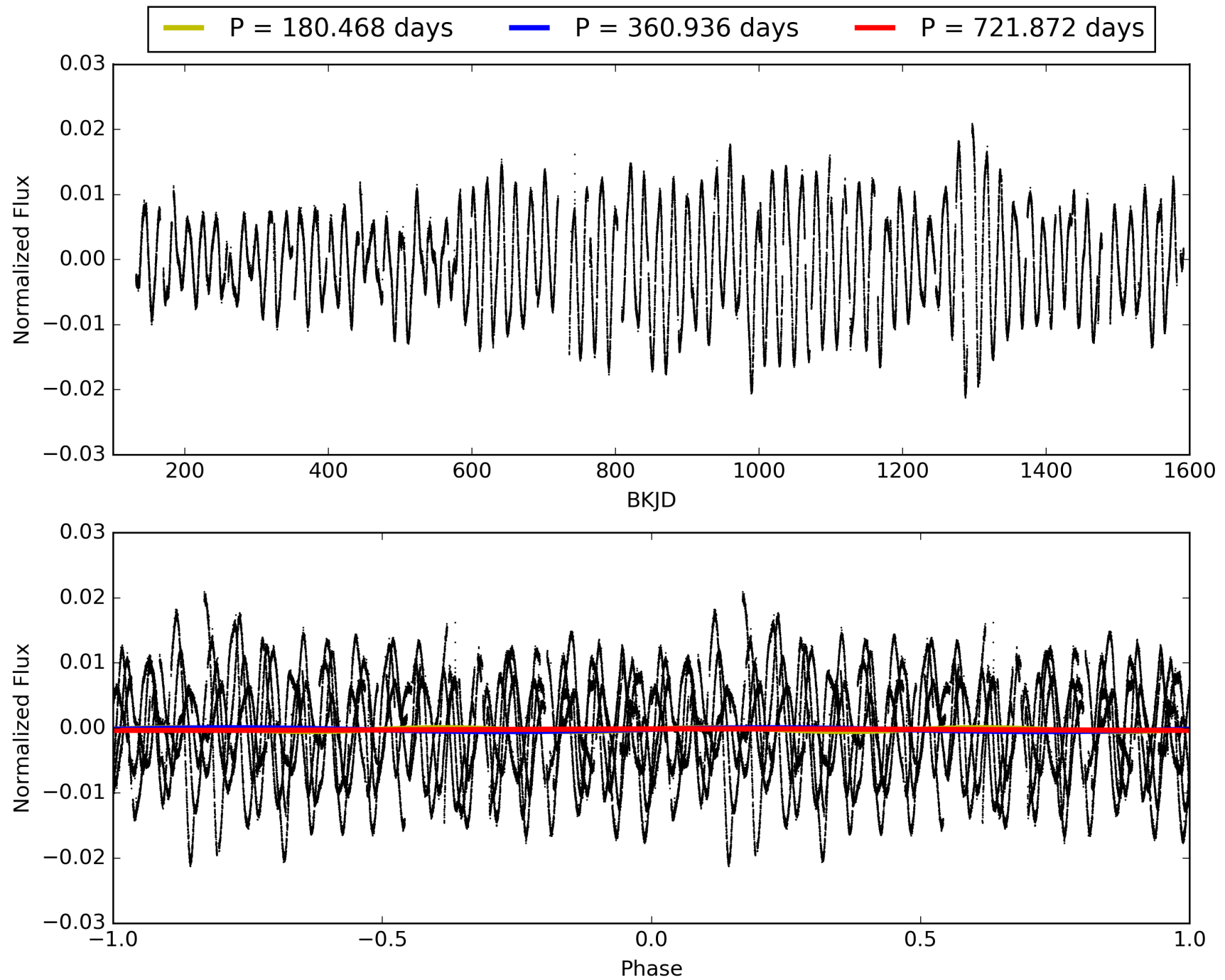
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:28:21 Z

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

TCE 009032388-01, PDC Light Curves

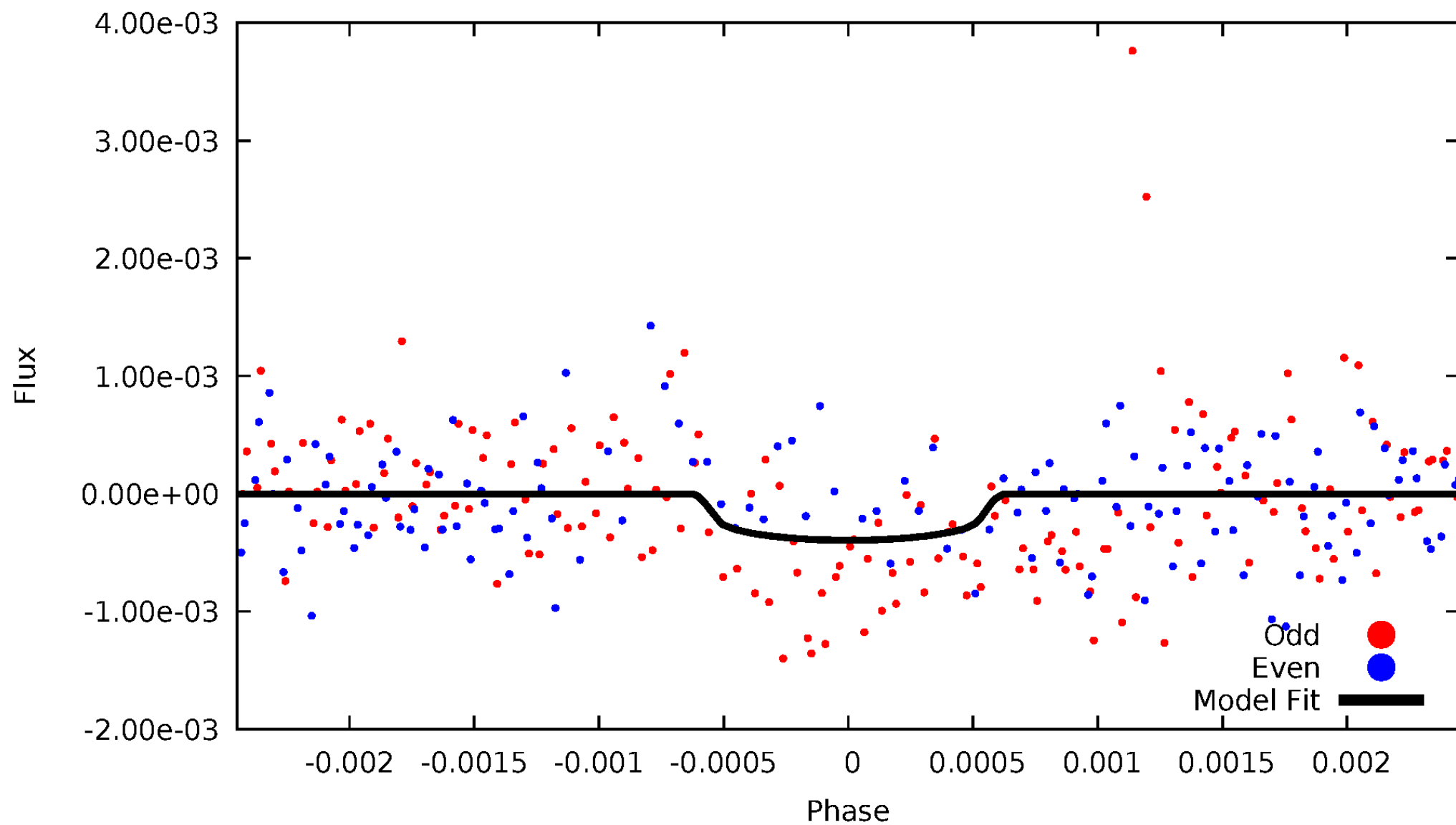


TCE 009032388-01



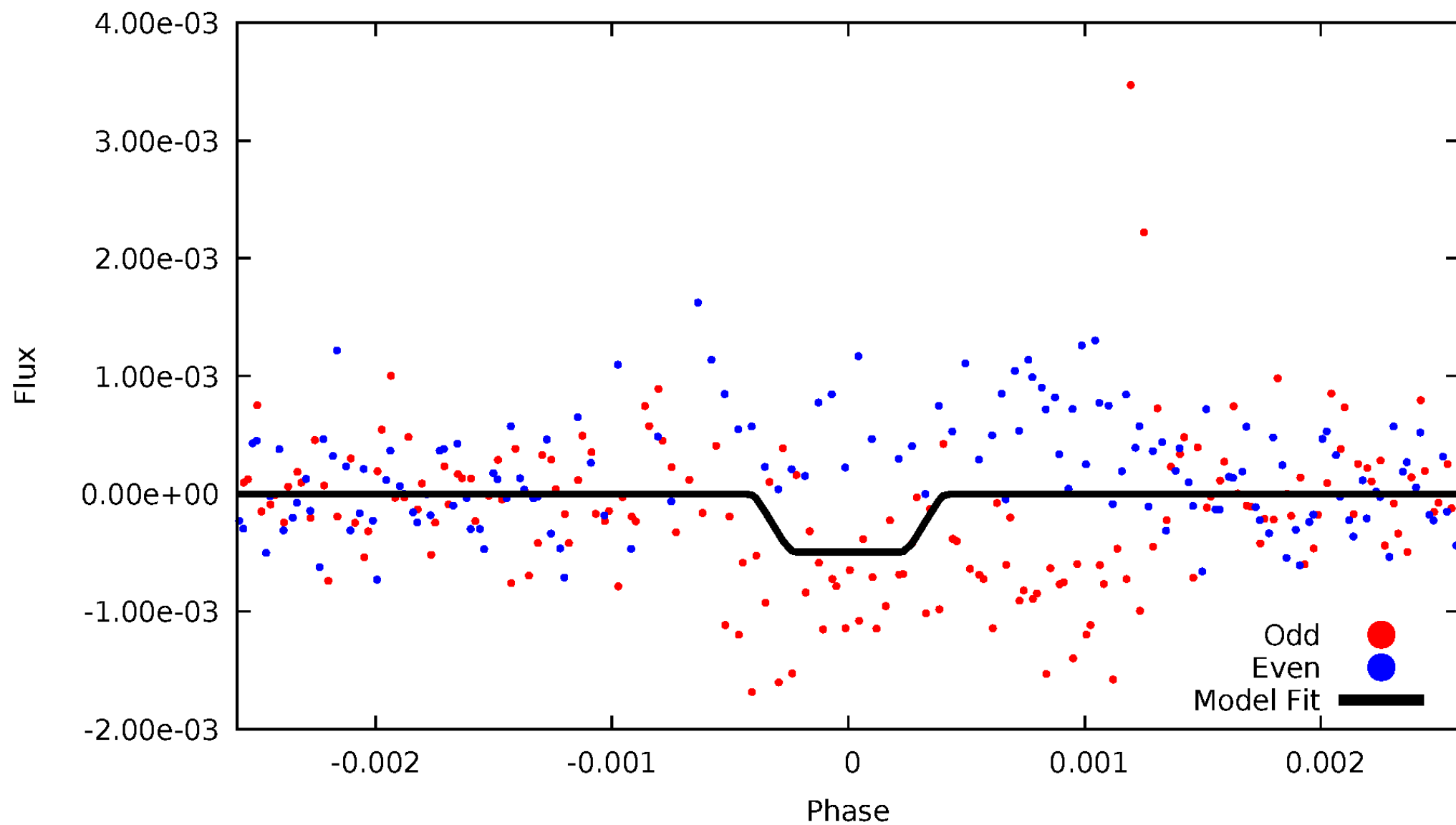
DV Odd/Even

TCE 009032388-01



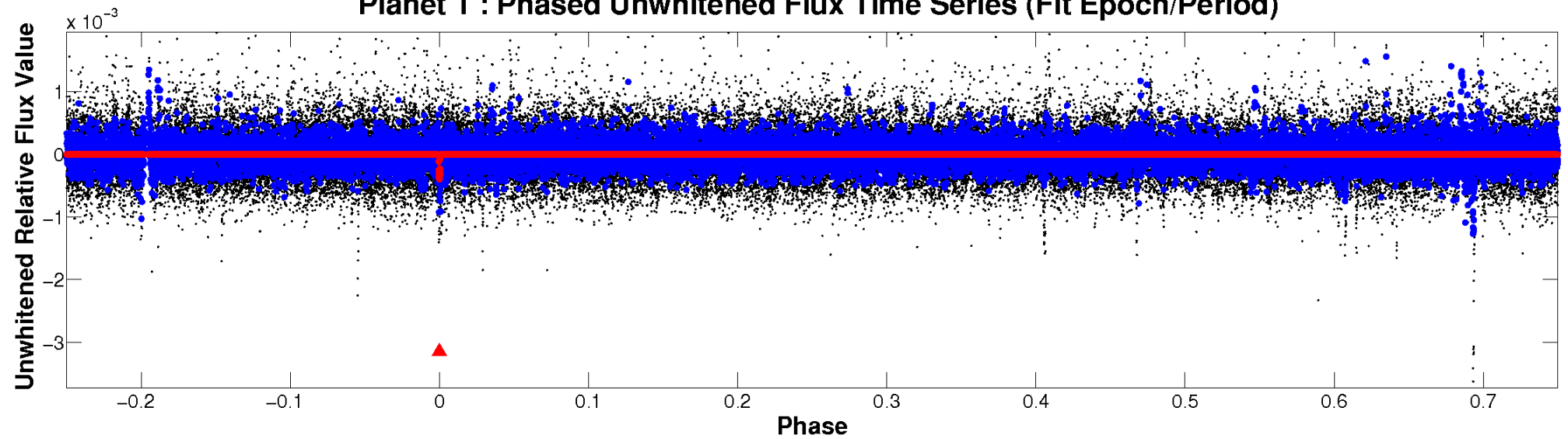
ALT Odd/Even

TCE 009032388-01

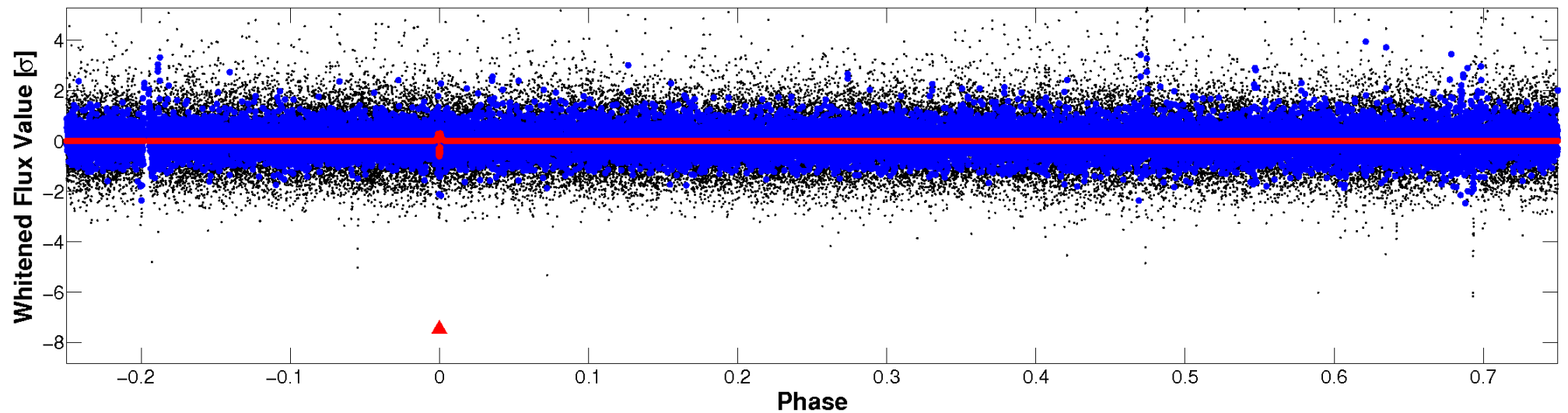


Non-Whitened Vs. Whitened Light Curve

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

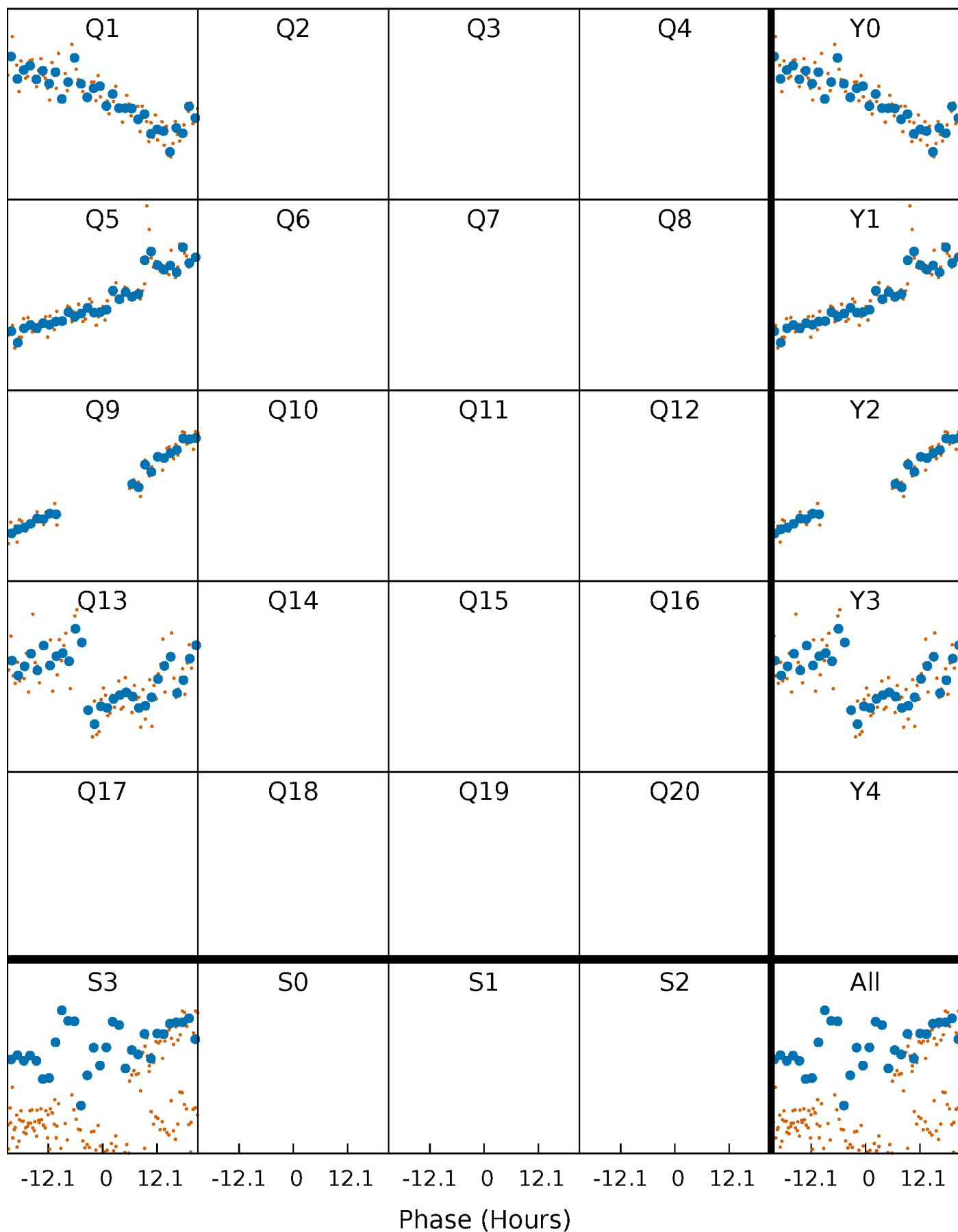


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



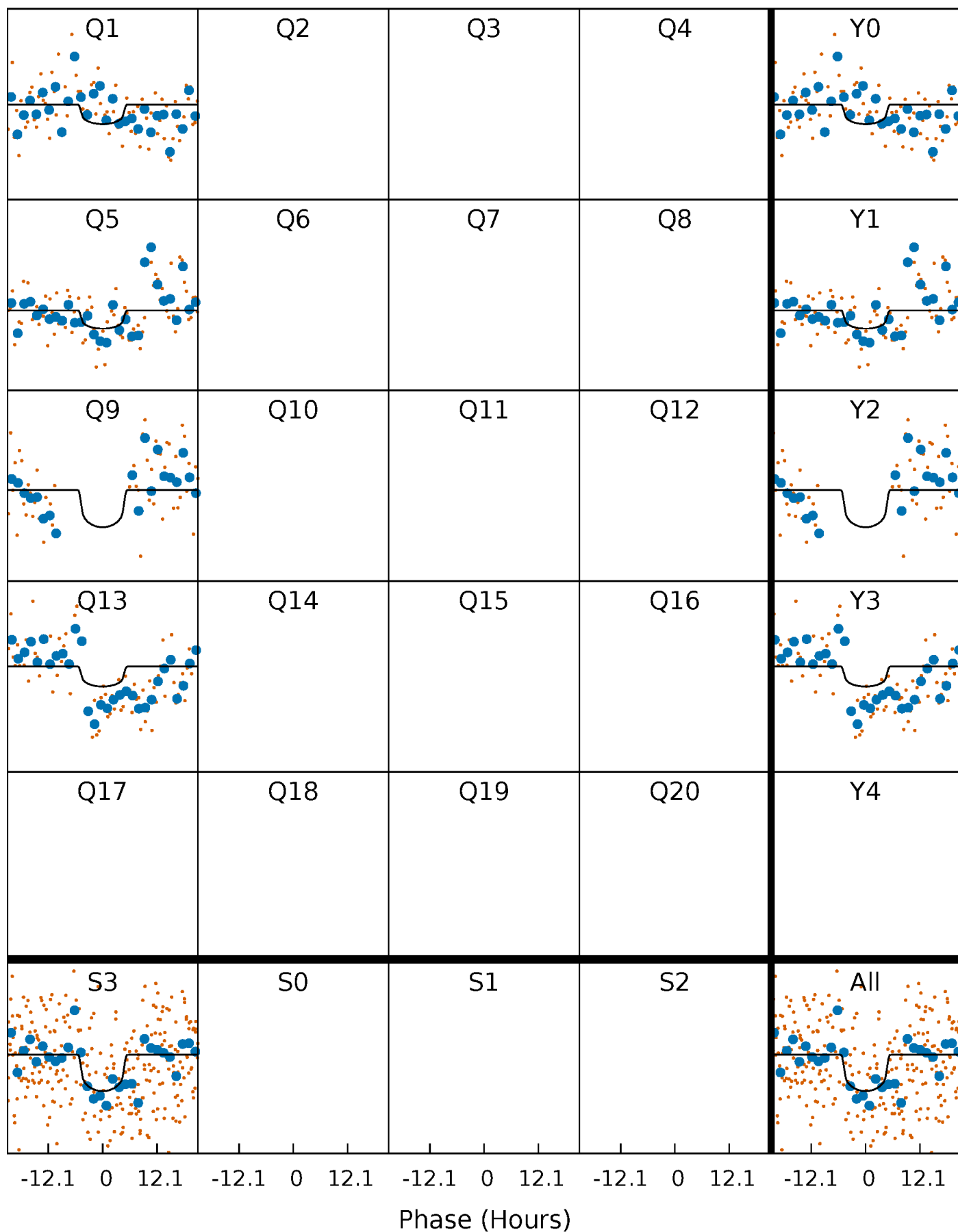
PDC Quarter-Phased Transit Curves

TCE 009032388-01 P=360.936035 Days $T_0=152.661707$ (BKJD)



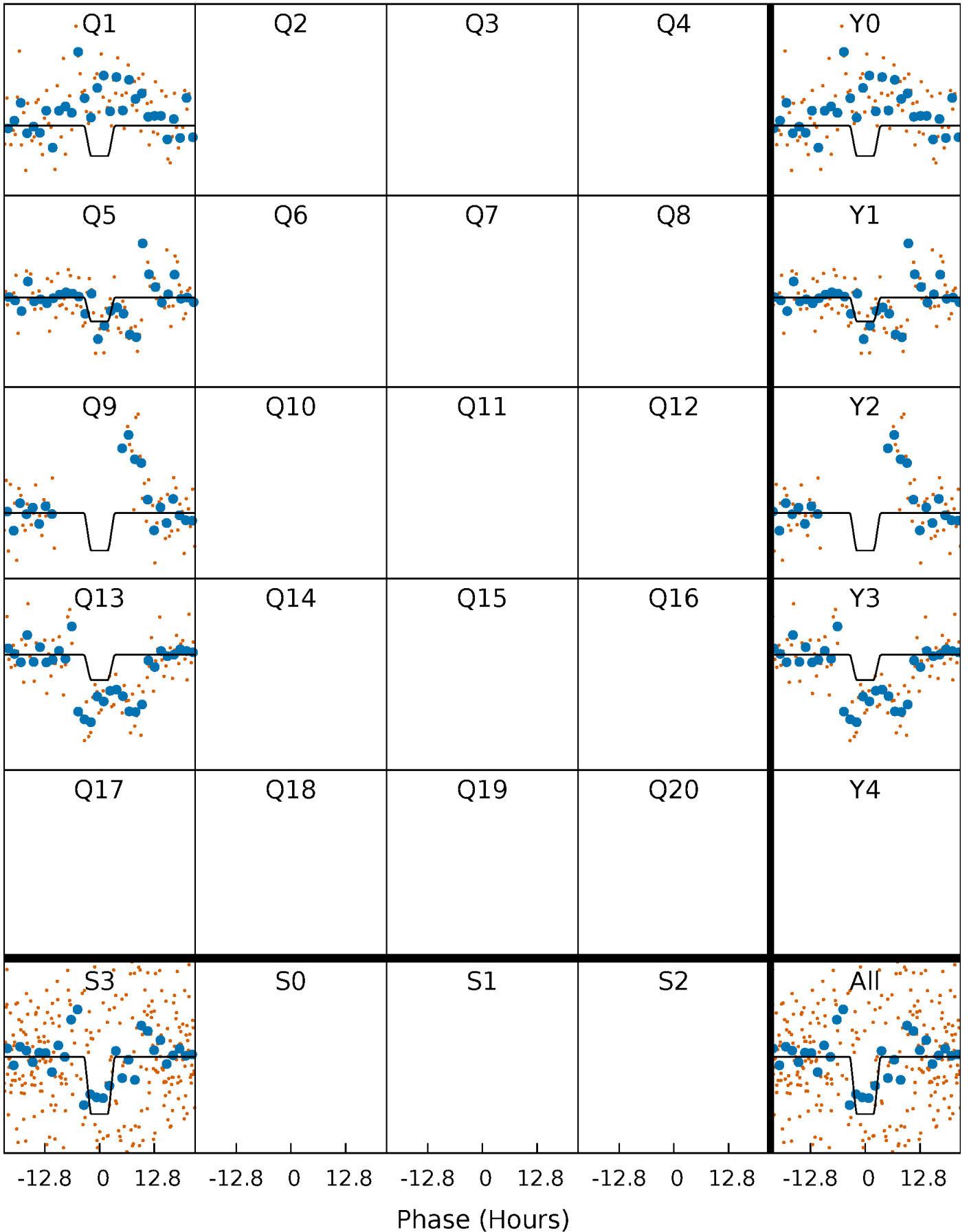
DV Quarter-Phased Transit Curves

TCE 009032388-01 $P=360.936035$ Days $T_0=152.661707$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

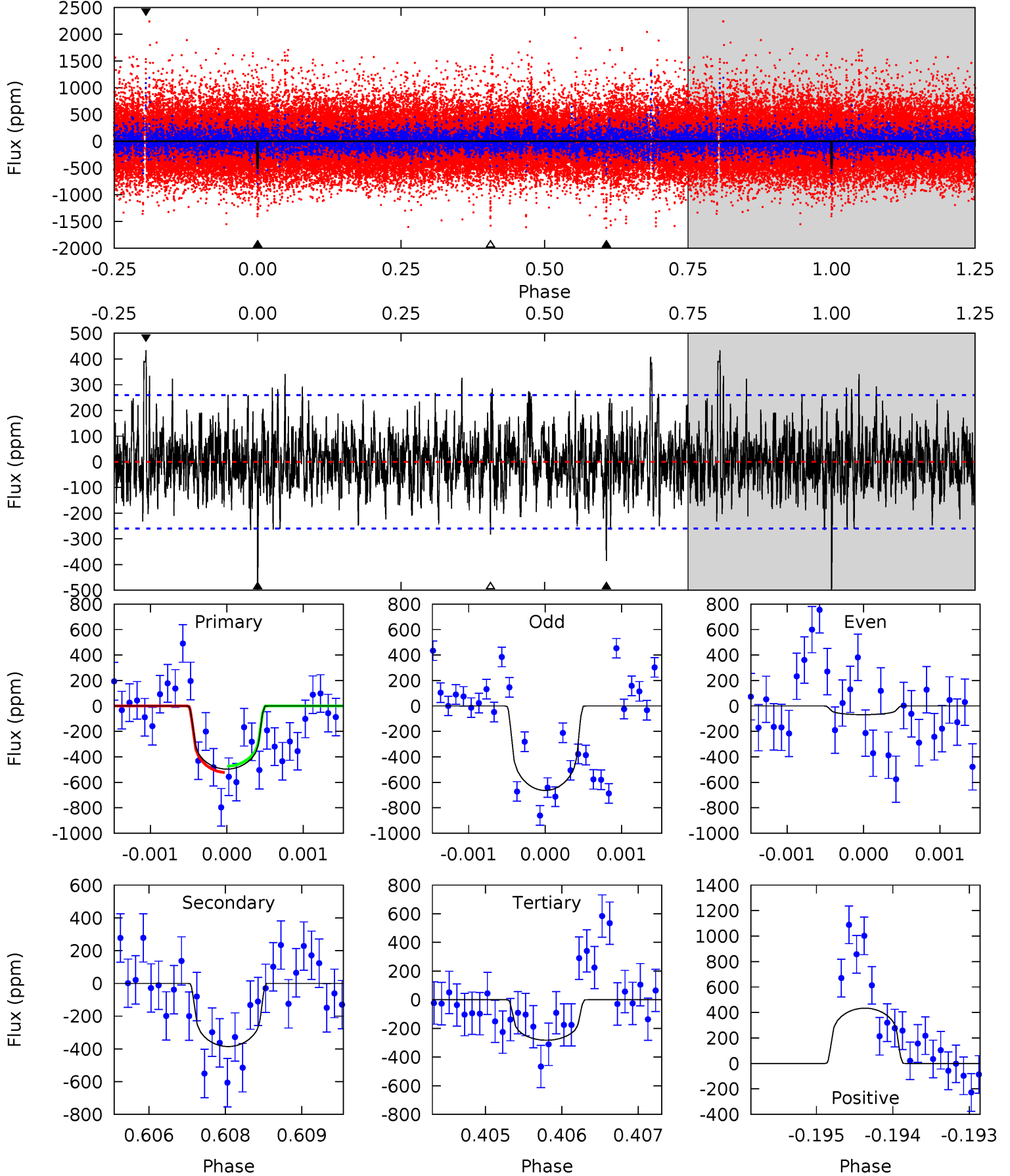
TCE 009032388-01 P=360.972460 Days $T_0=152.605164$ (BKJD)



DV Model-Shift Uniqueness Test

009032388-01, $P = 360.936035$ Days, $E = 152.661707$ Days

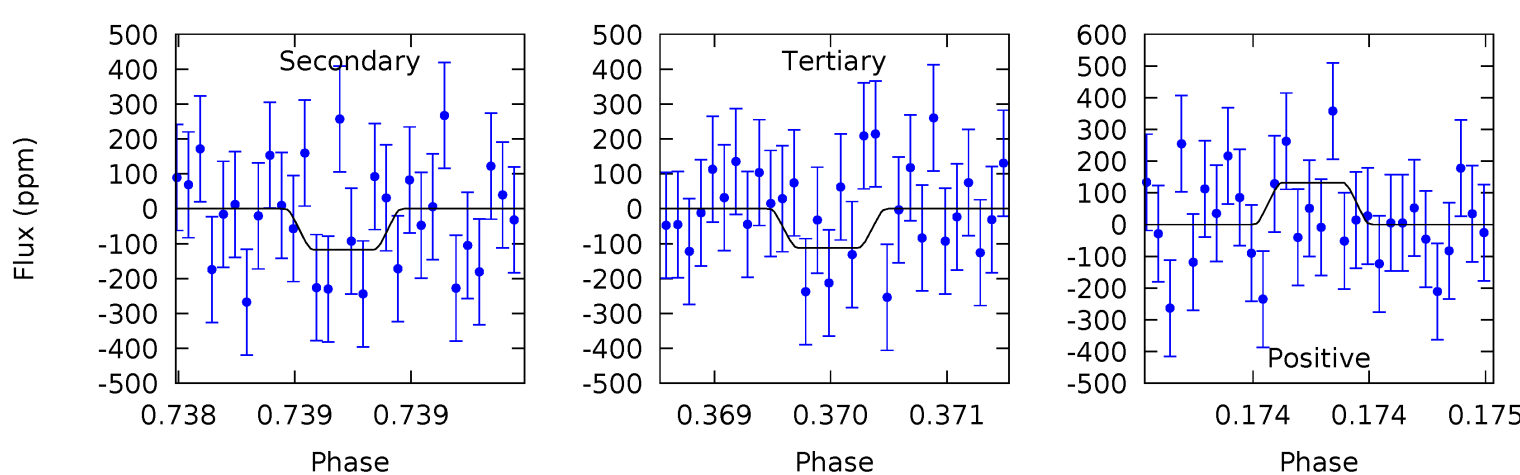
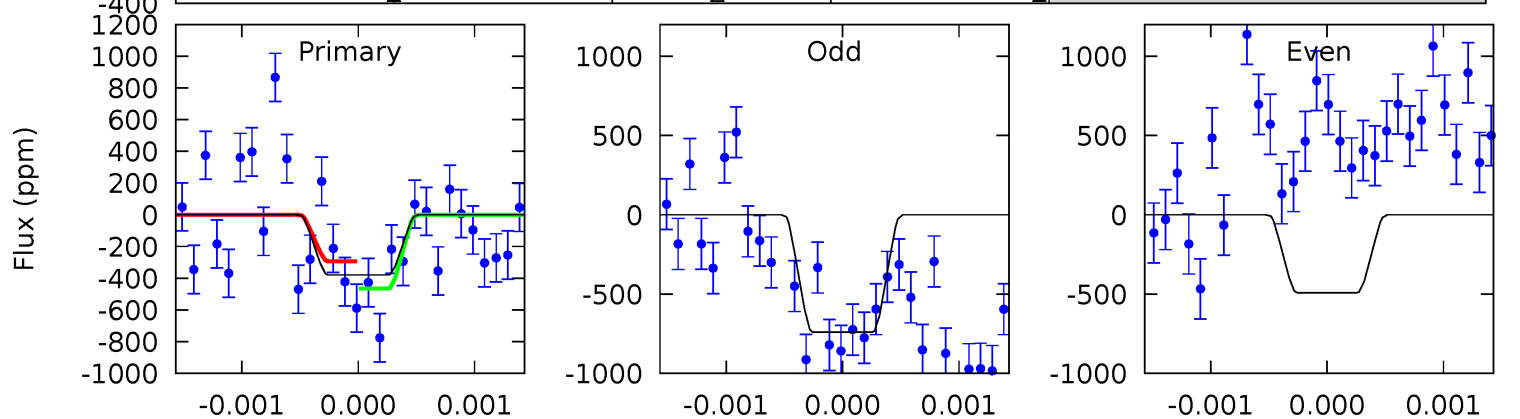
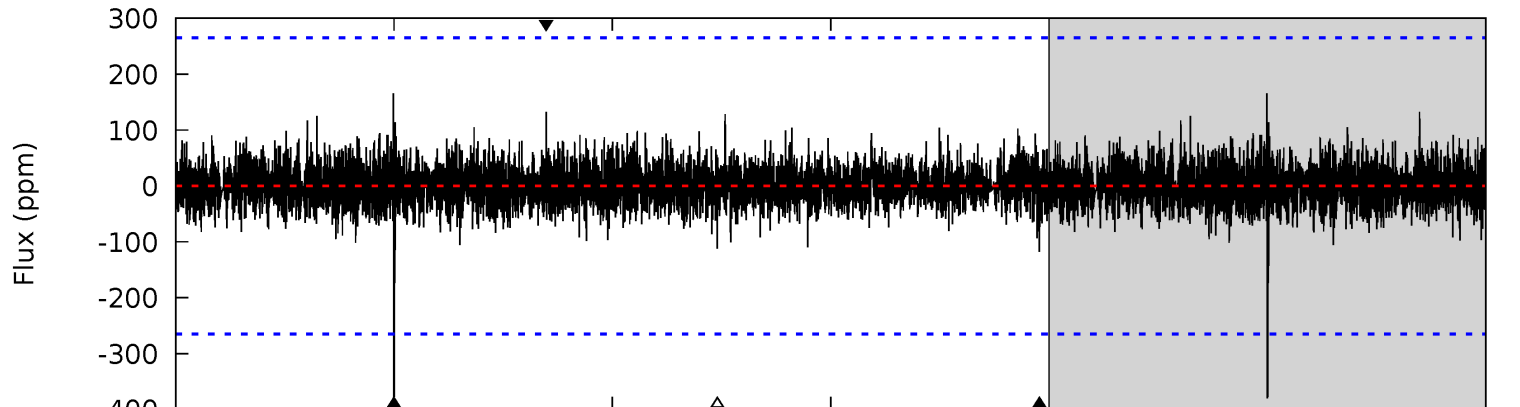
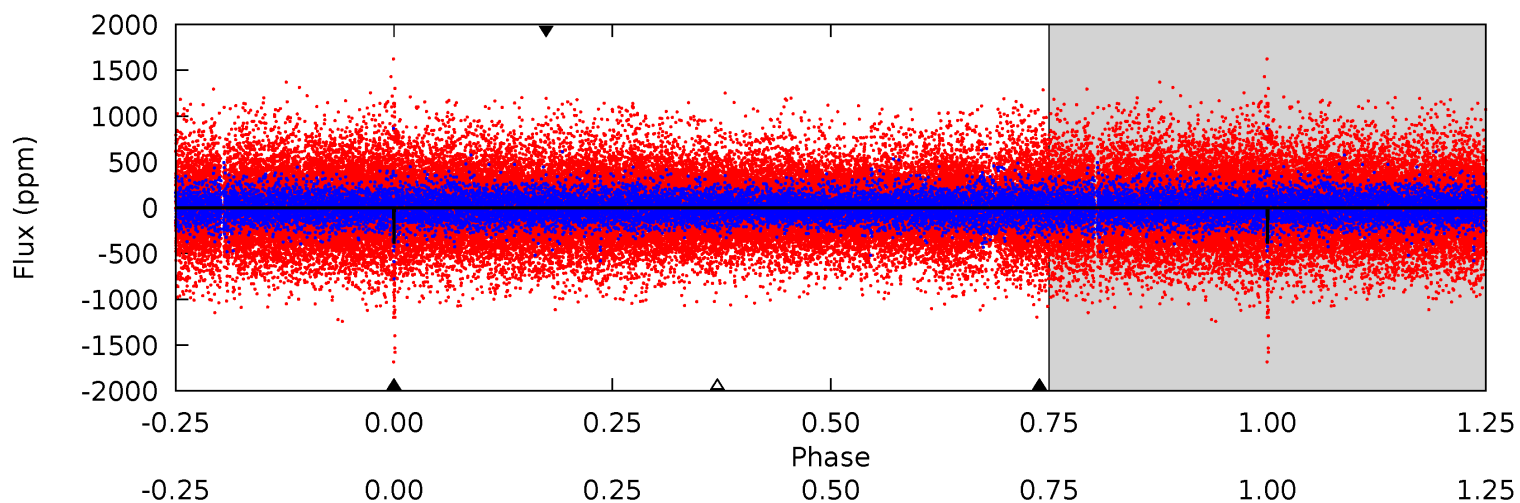
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	8.04	5.89	9.05	5.41	3.23	1.87	4.45	1.30	2.15	-1.01	5.99	1.03	0.47	0.52



Alt Model-Shift Uniqueness Test

009032388-01, P = 360.972460 Days, E = 152.605164 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.85	2.43	2.31	2.74	5.48	3.34	0.57	5.54	5.12	0.12	-0.31	2.49	0.70	0.30	1.77



Stellar Parameters For KIC 009032388

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4297^{+116}_{-141}	$4.620^{+0.048}_{-0.015}$	$-0.080^{+0.150}_{-0.150}$	$0.646^{+0.026}_{-0.045}$	$0.634^{+0.042}_{-0.034}$	$3.318^{+0.627}_{-0.222}$
	+3%/-3%	+1%/-0%	+188%/-188%	+4%/-7%	+7%/-5%	+19%/-7%
Source	PHO1	KIC0	SPE15	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 009032388-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-386 ± 48	$1.53^{+0.77}_{-0.67}$	229^{+8}_{-8}	4089^{+1088}_{-518}	$64682^{+146133}_{-35338}$
Alt.	-117 ± 48	$1.59^{+0.77}_{-0.75}$	229^{+8}_{-9}	3333^{+769}_{-434}	18135^{+47727}_{-10885}

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 $A_{obs} \gg 1.0$

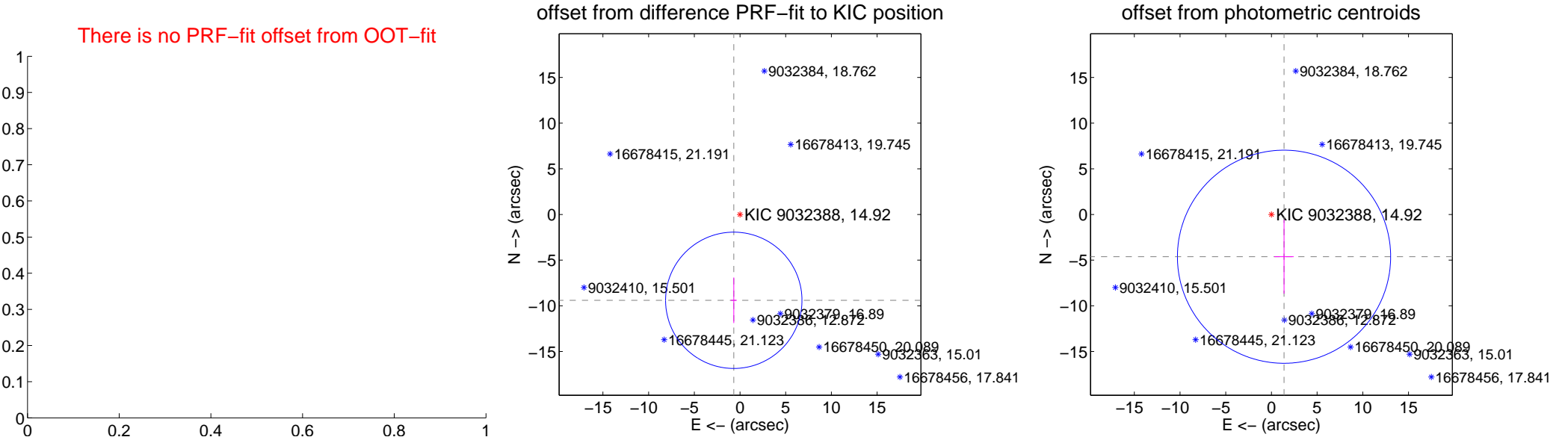
DV Centroid Data

Supplemental centroid analysis for 009032388-01. Kepler magnitude: 14.92. Transit SNR 4.24

There are 0 quarters with good PRF difference image offsets

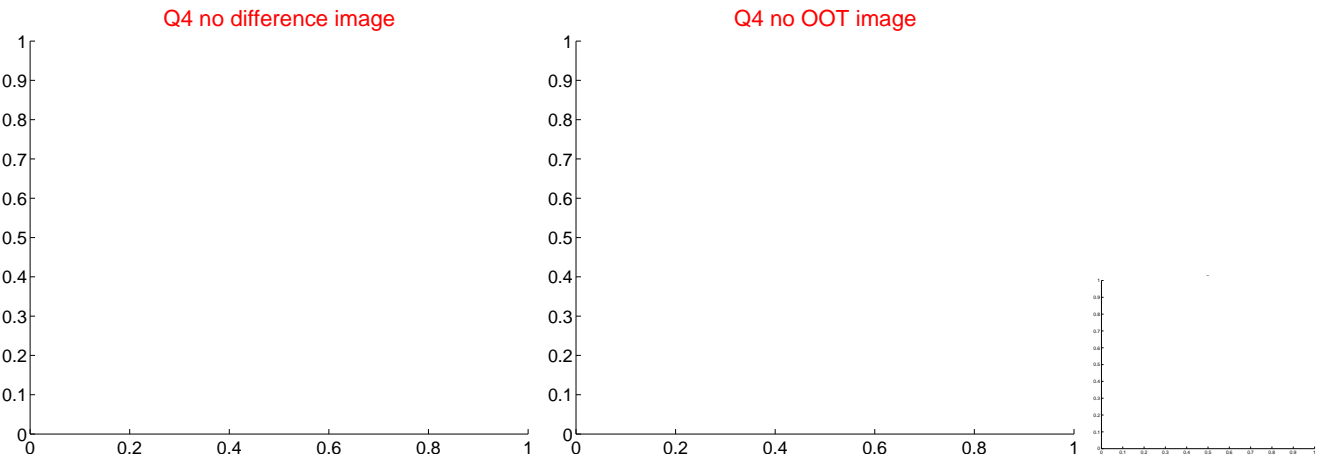
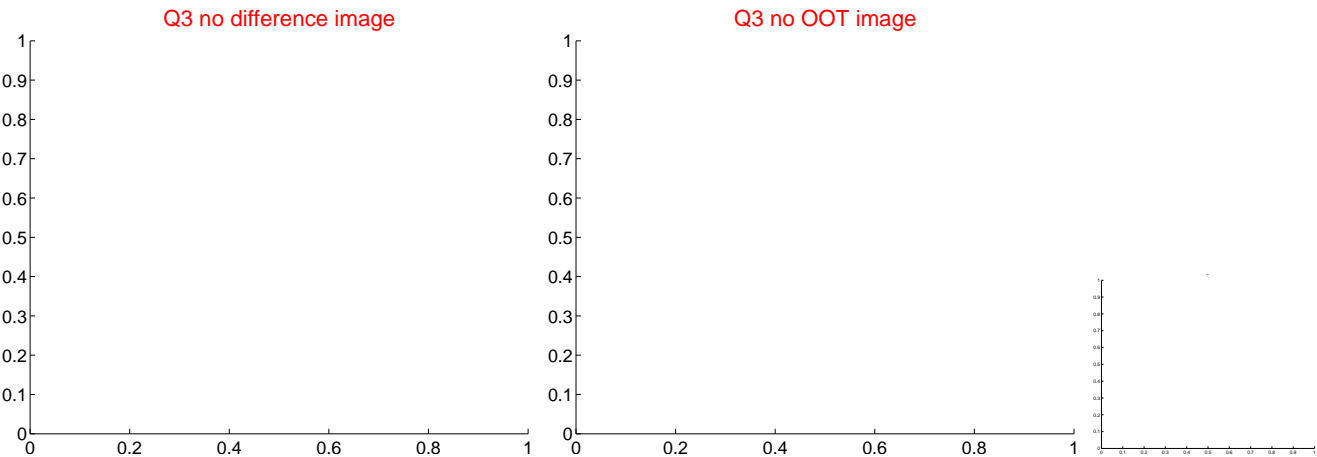
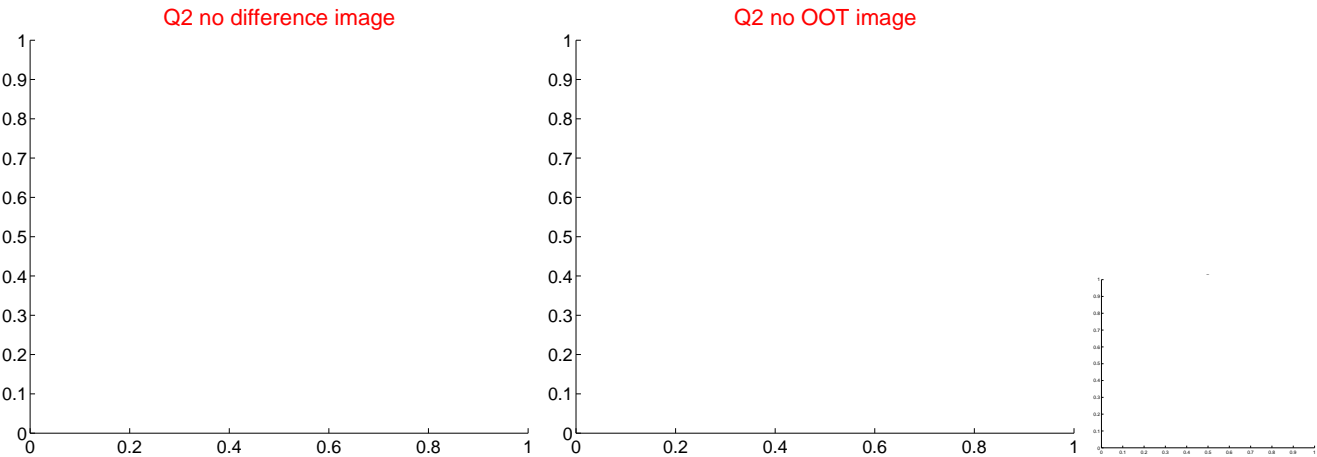
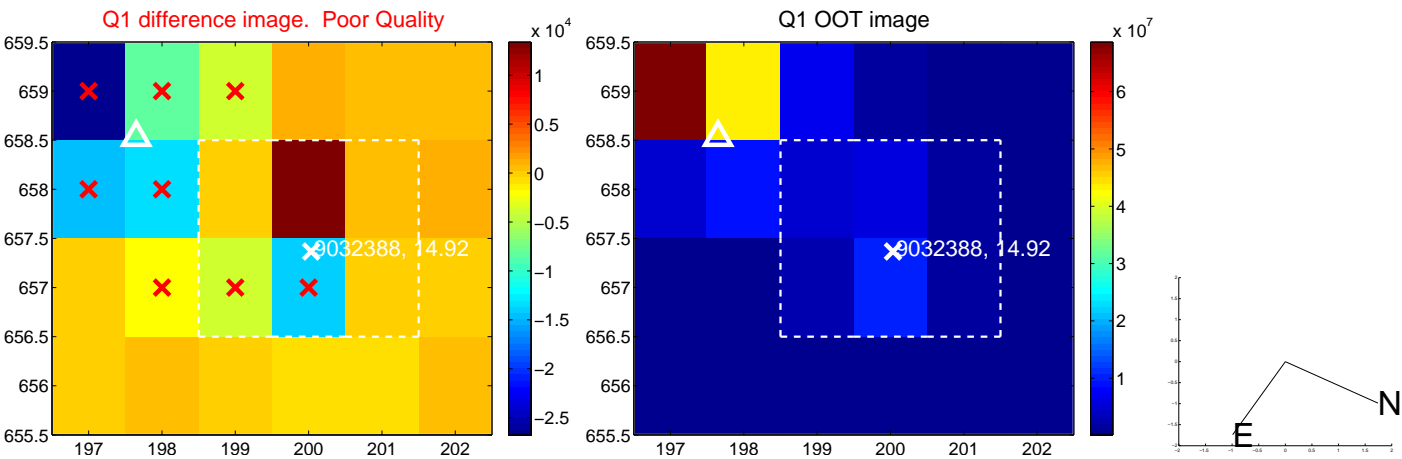
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	9.421 ± 2.487	3.79	0.681 ± 0.333	-9.396 ± 2.494
photometric centroid source offset	4.83 ± 3.89	1.24	-1.38 ± 1.06	-4.63 ± 4.05

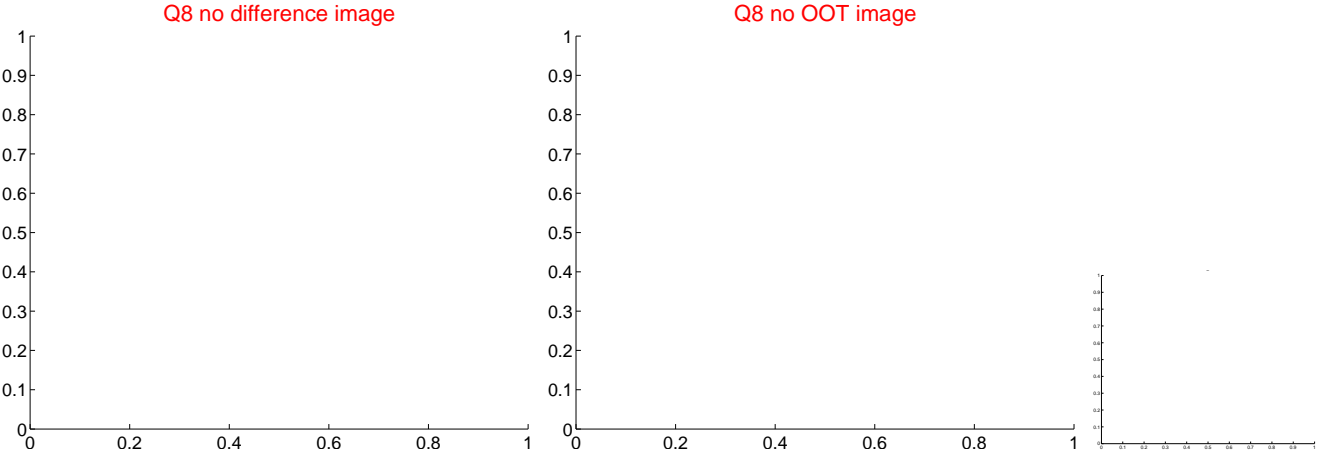
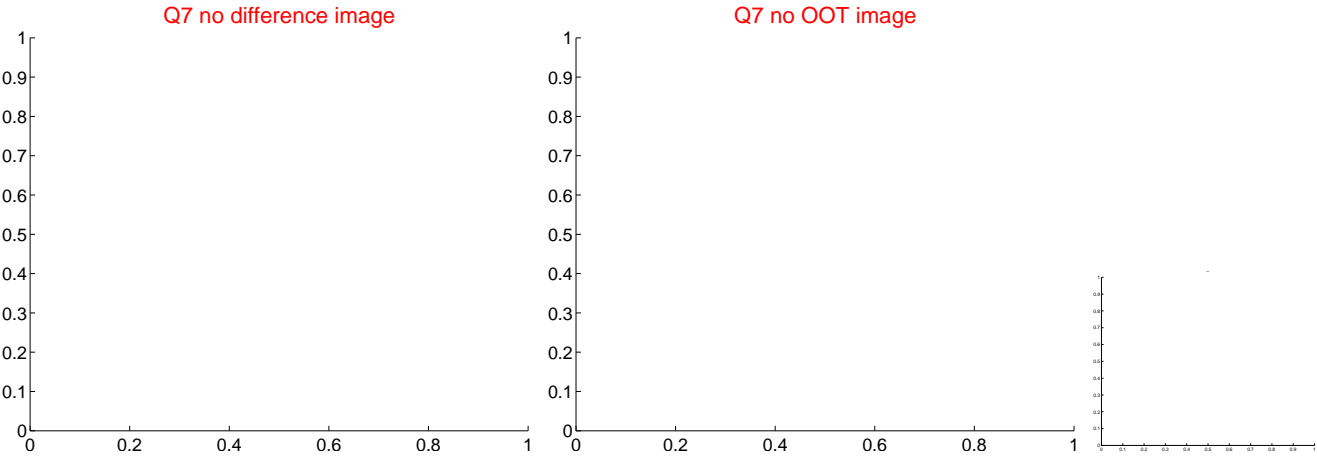
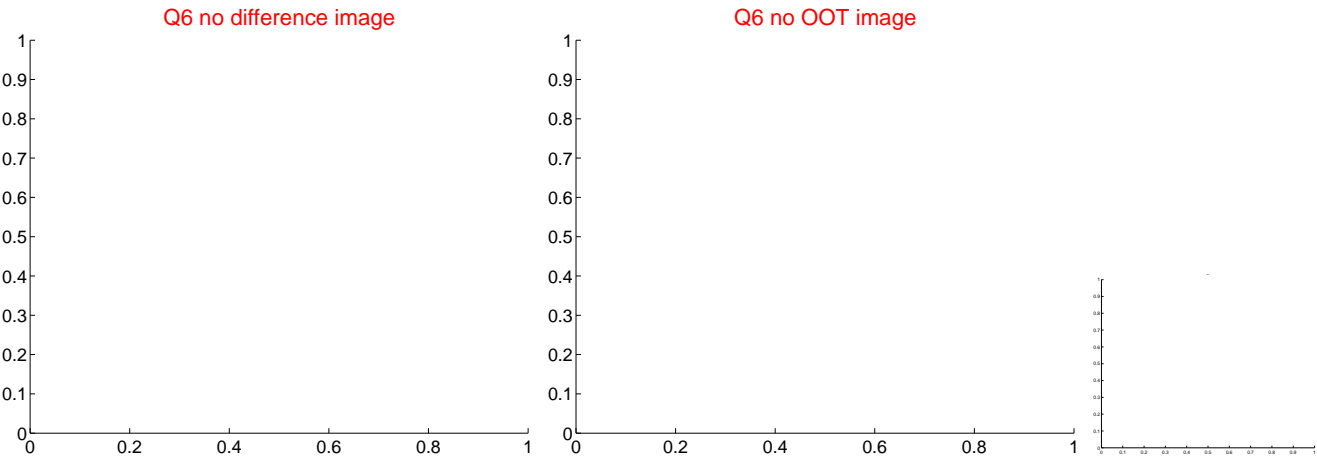
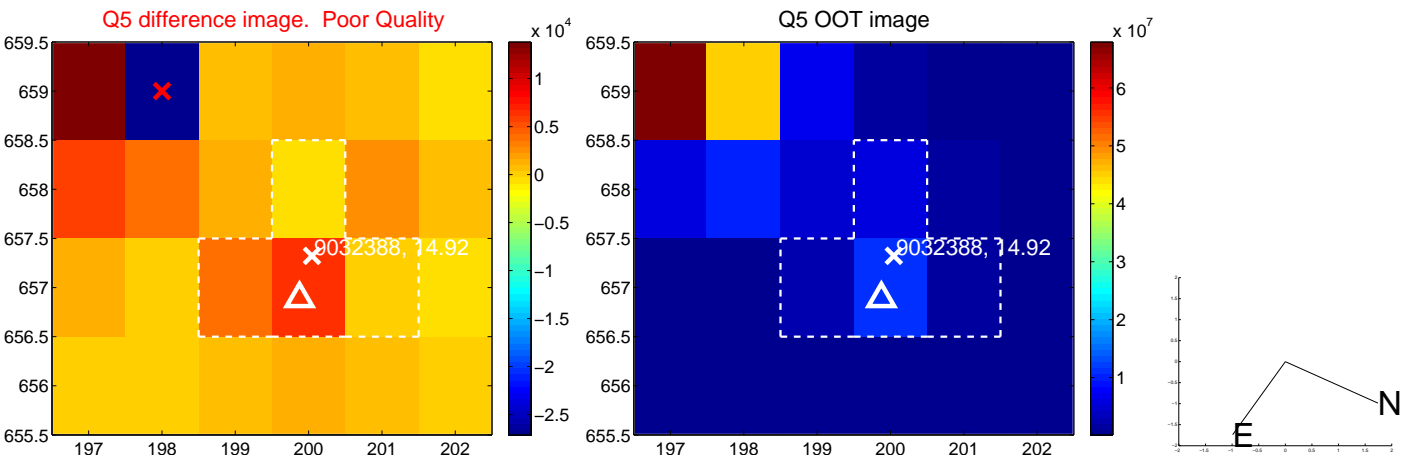


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



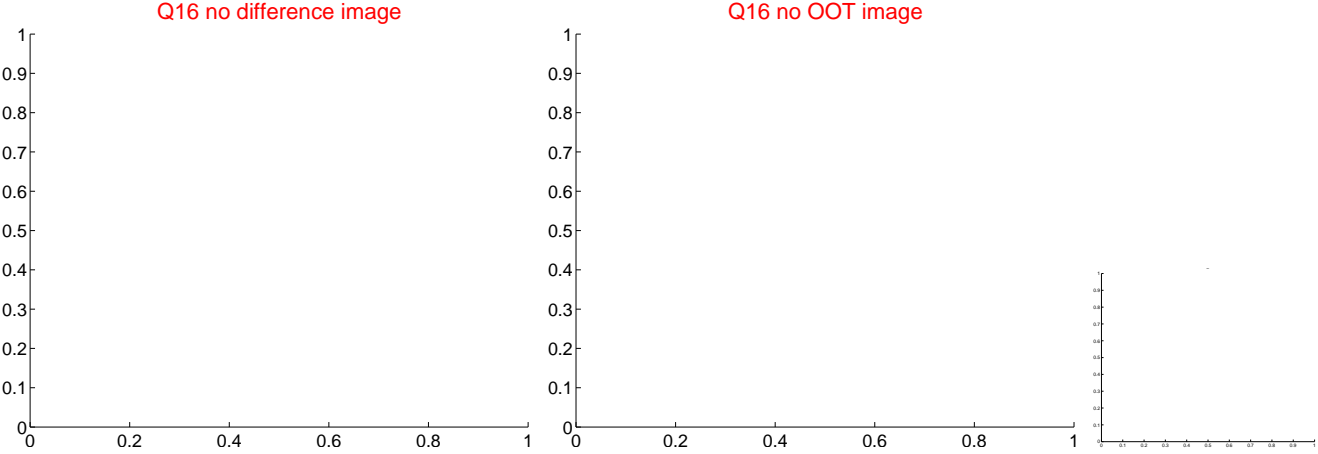
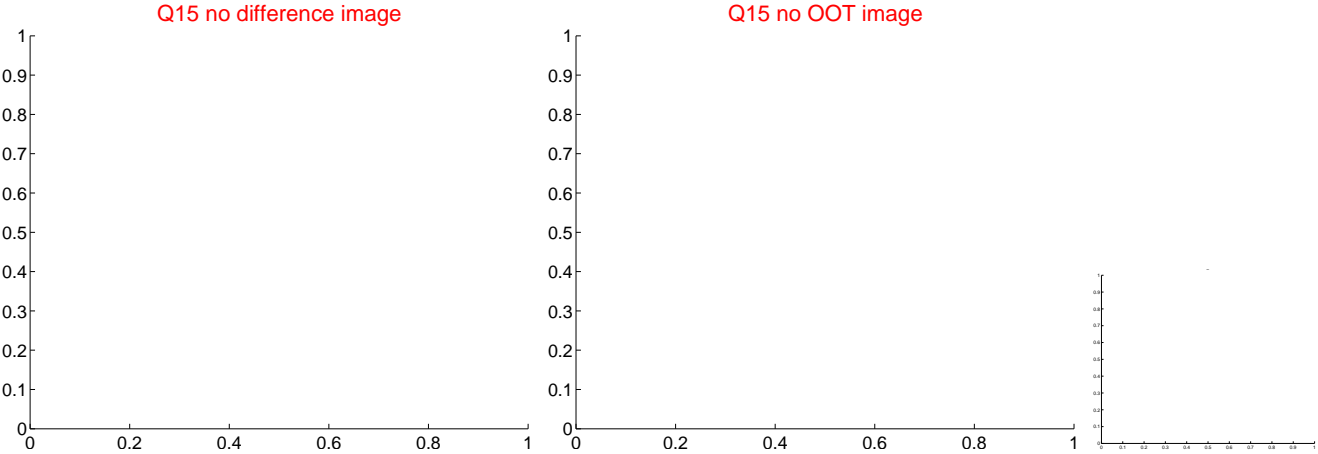
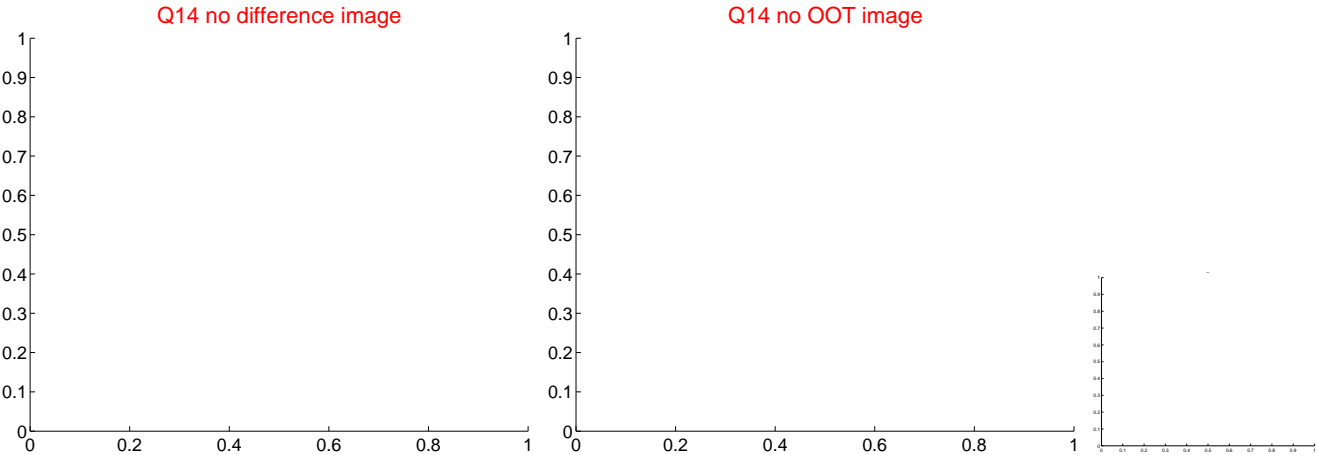
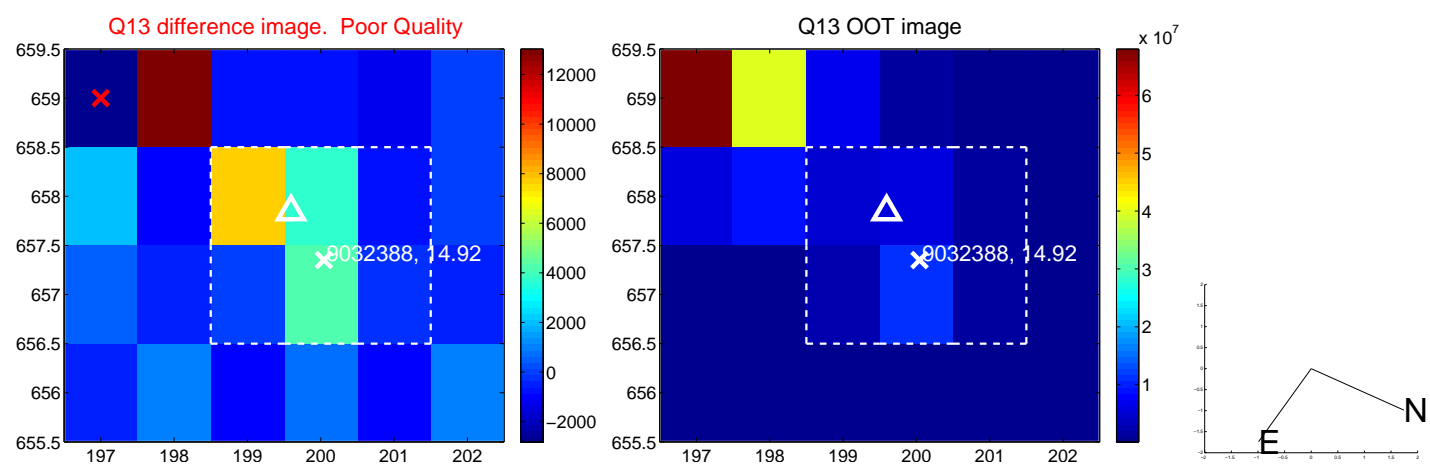
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



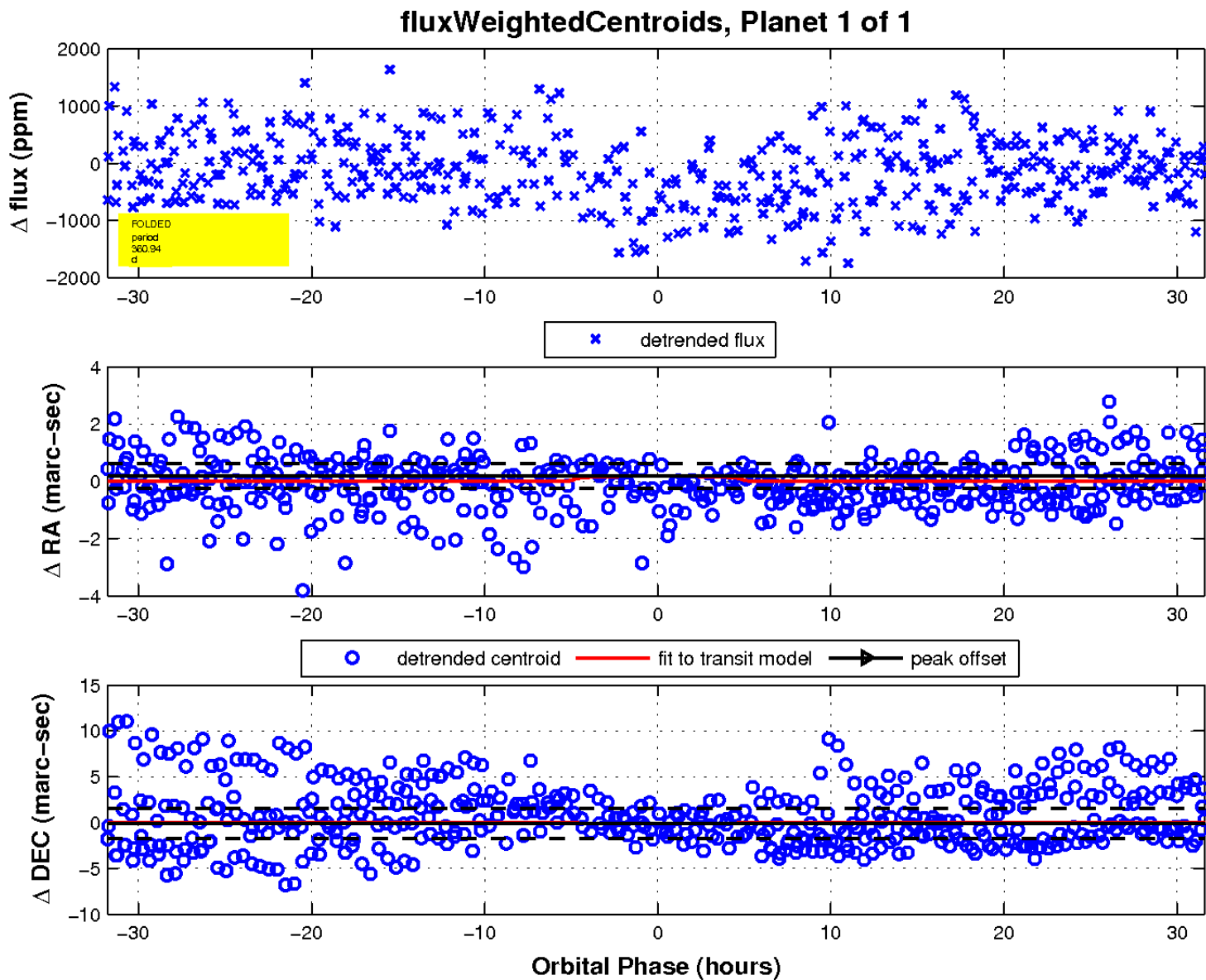
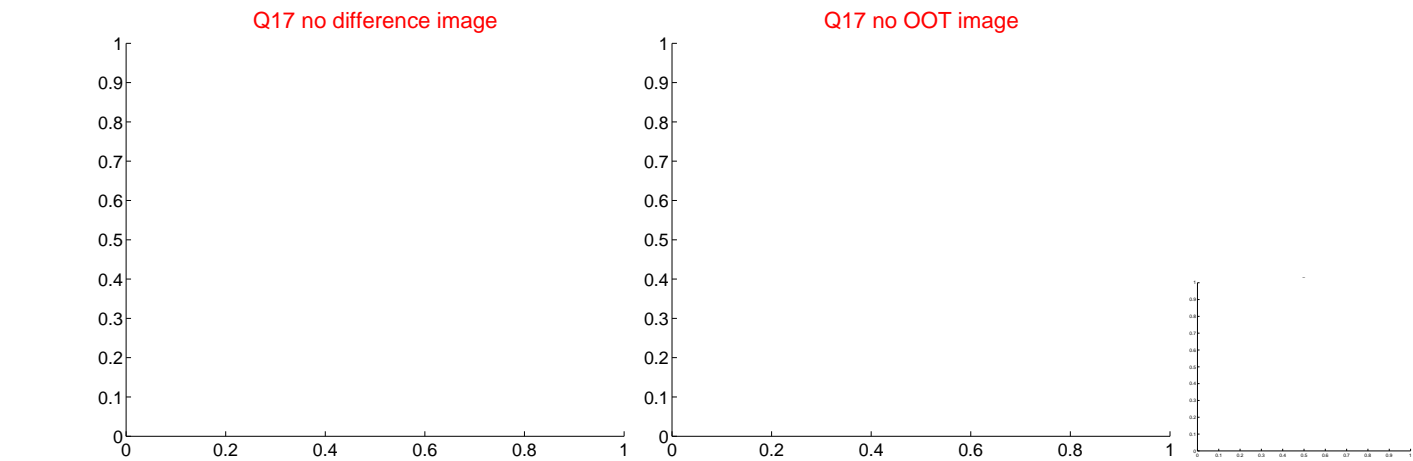
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

