

KIC 006390824

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})
006390824-01	OBS	1234.01	0.973539	131.551667	198.1	1.585	18.9	19.3	0.86	6084	1.43	2565.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006390824-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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 006390824-01

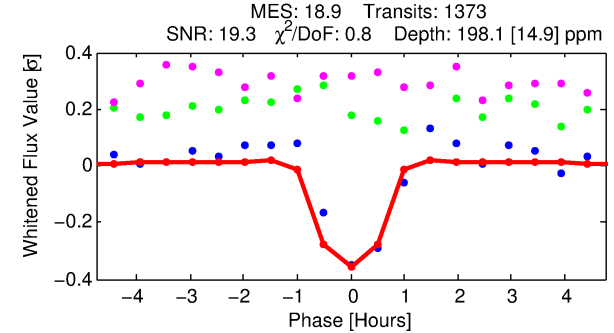
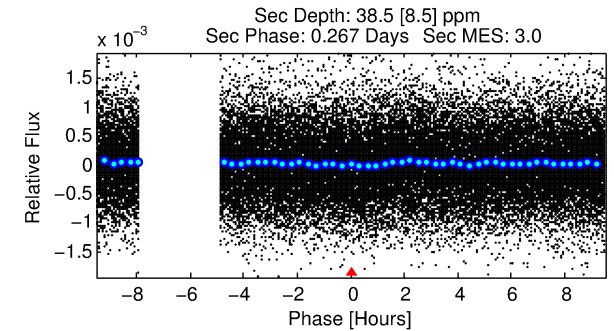
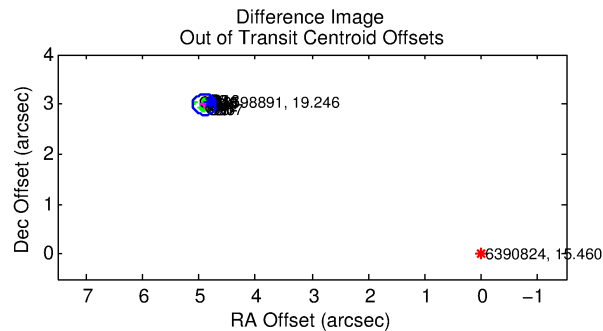
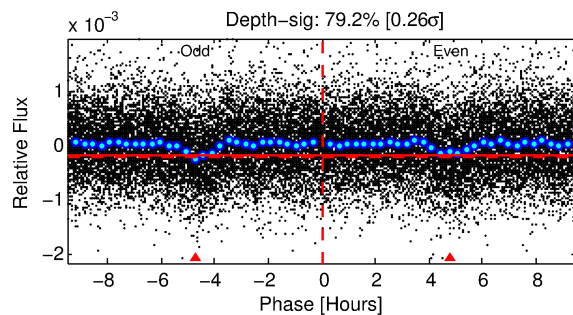
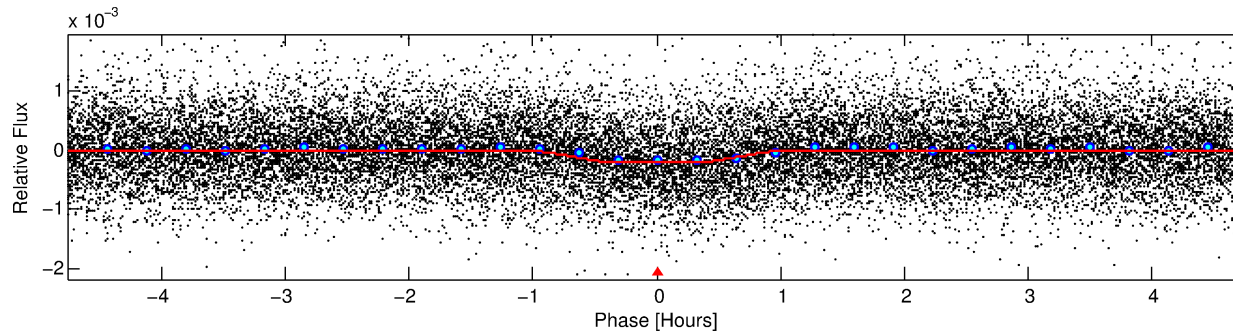
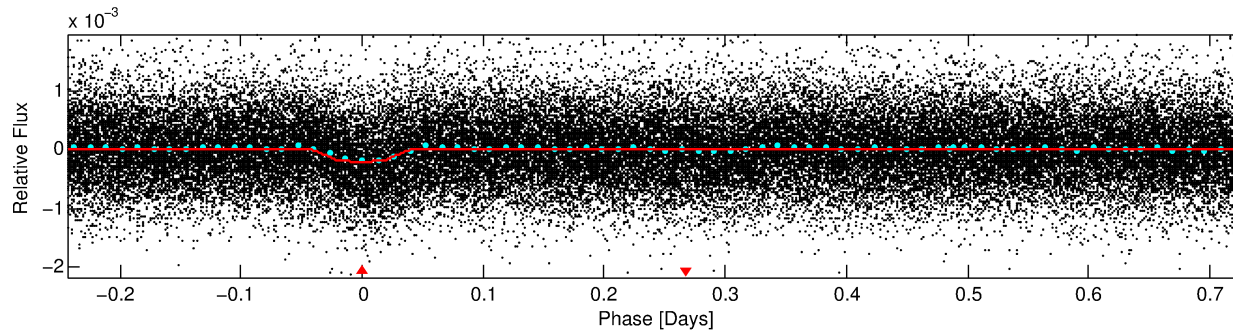
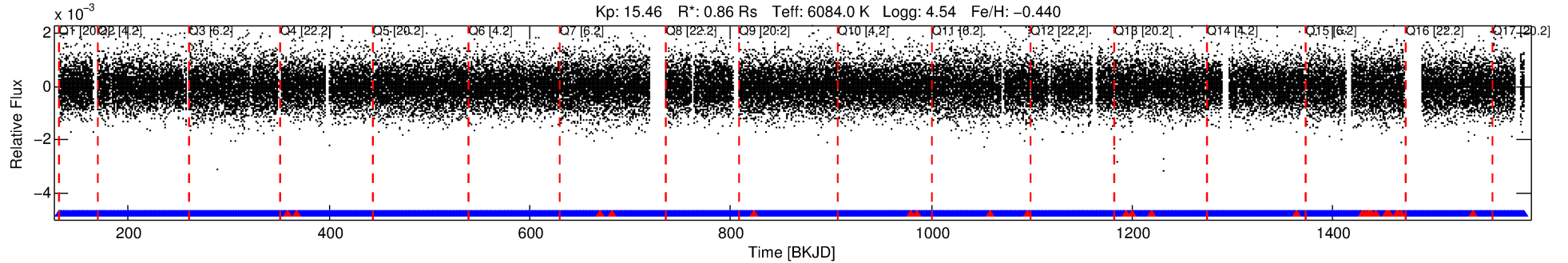
No Significant Match Found

DV One-Page Summary

KIC: 6390824 Candidate: 1 of 1 Period: 0.974 d

KOI: K01234.01 Corr: 0.843

Kp: 15.46 R*: 0.86 Rs Teff: 6084.0 K Logg: 4.54 Fe/H: -0.440



DV Fit Results:

Period = 0.97354 [0.00001] d
Epoch = 131.5517 [0.0012] BKJD
Rp/R* = 0.0152 [0.0057]
a/R* = 2.39 [4.00]
b = 0.90 [0.43]
Seff = 2565.59 [969.42]
Teq = 1815 [171] K
Rp = 1.43 [0.67] Re
a = 0.0189 [0.0045] AU
Ag = 3.70 [3.17] [0.85σ]
Teff = 3891 [773] K [2.62σ]

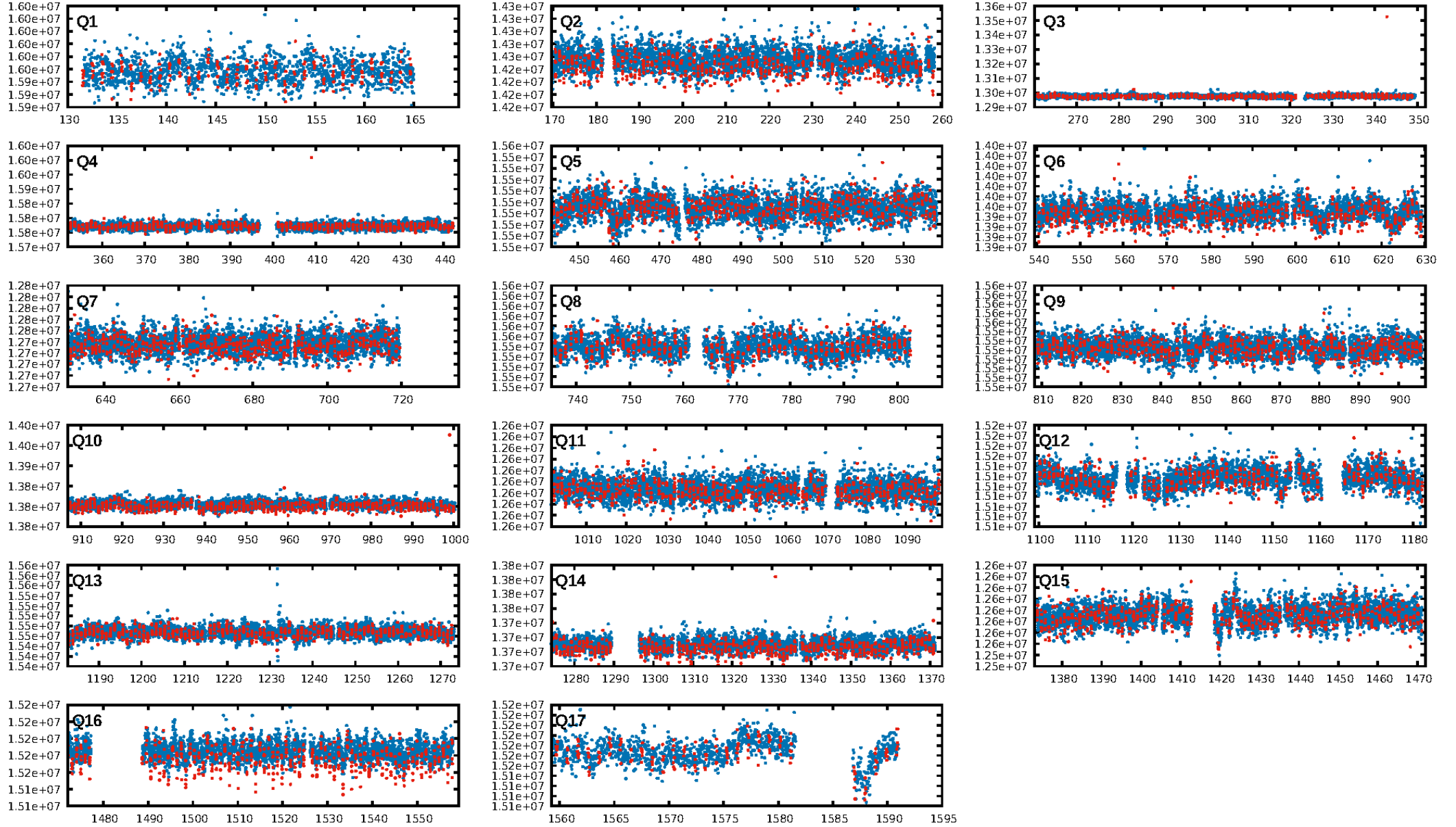
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.05e-75
RollingBand-fgt: 0.98 [1283/1310]
GhostDiagnostic-chr: -1.126
Centroid-sig: 0.0%
Centroid-so: 12.523 arcsec [19.67σ]
OotOffset-rm: 5.748 arcsec [83.92σ]
KicOffset-rm: 5.767 arcsec [82.93σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

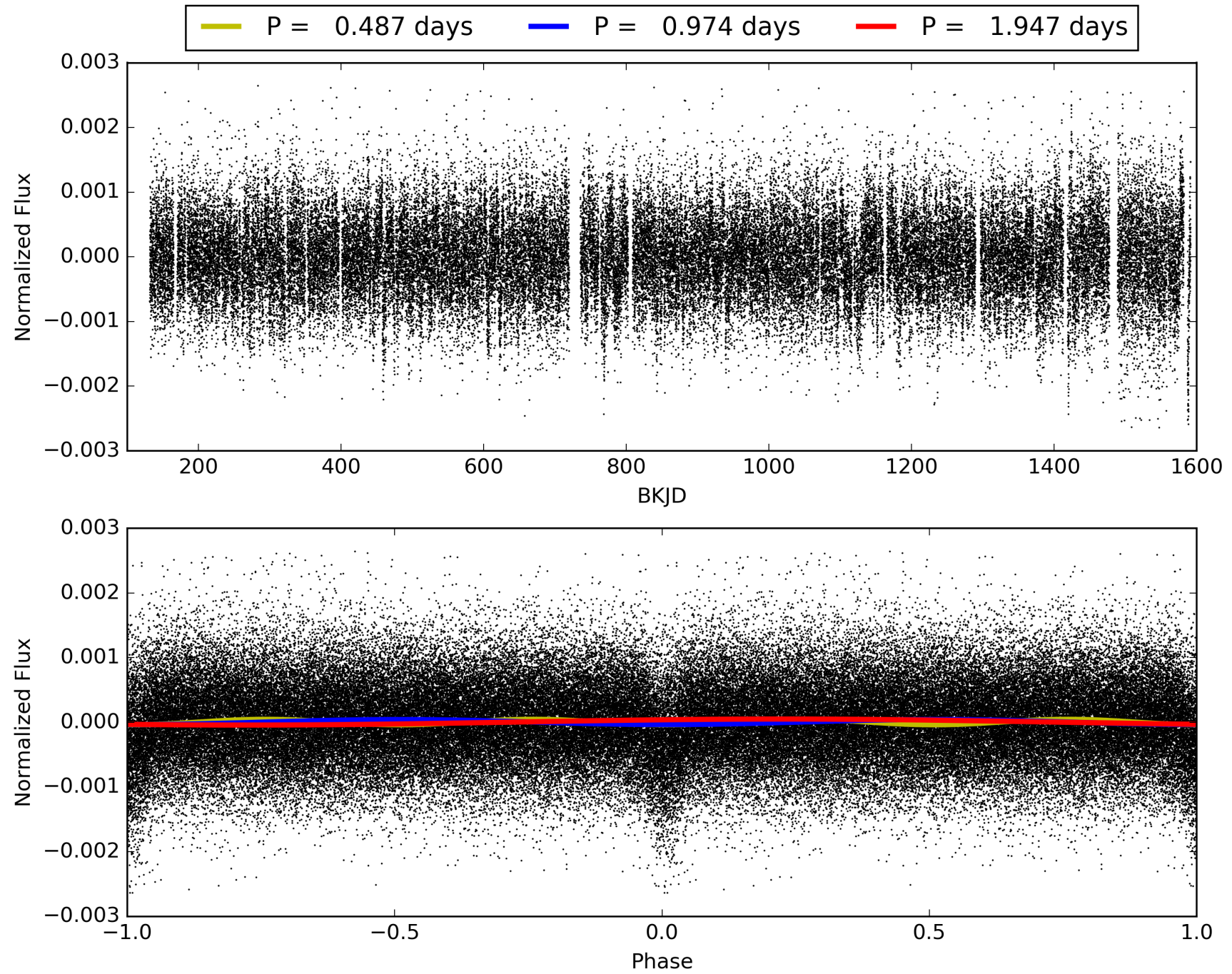
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:58:10 Z

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

TCE 006390824-01, PDC Light Curves

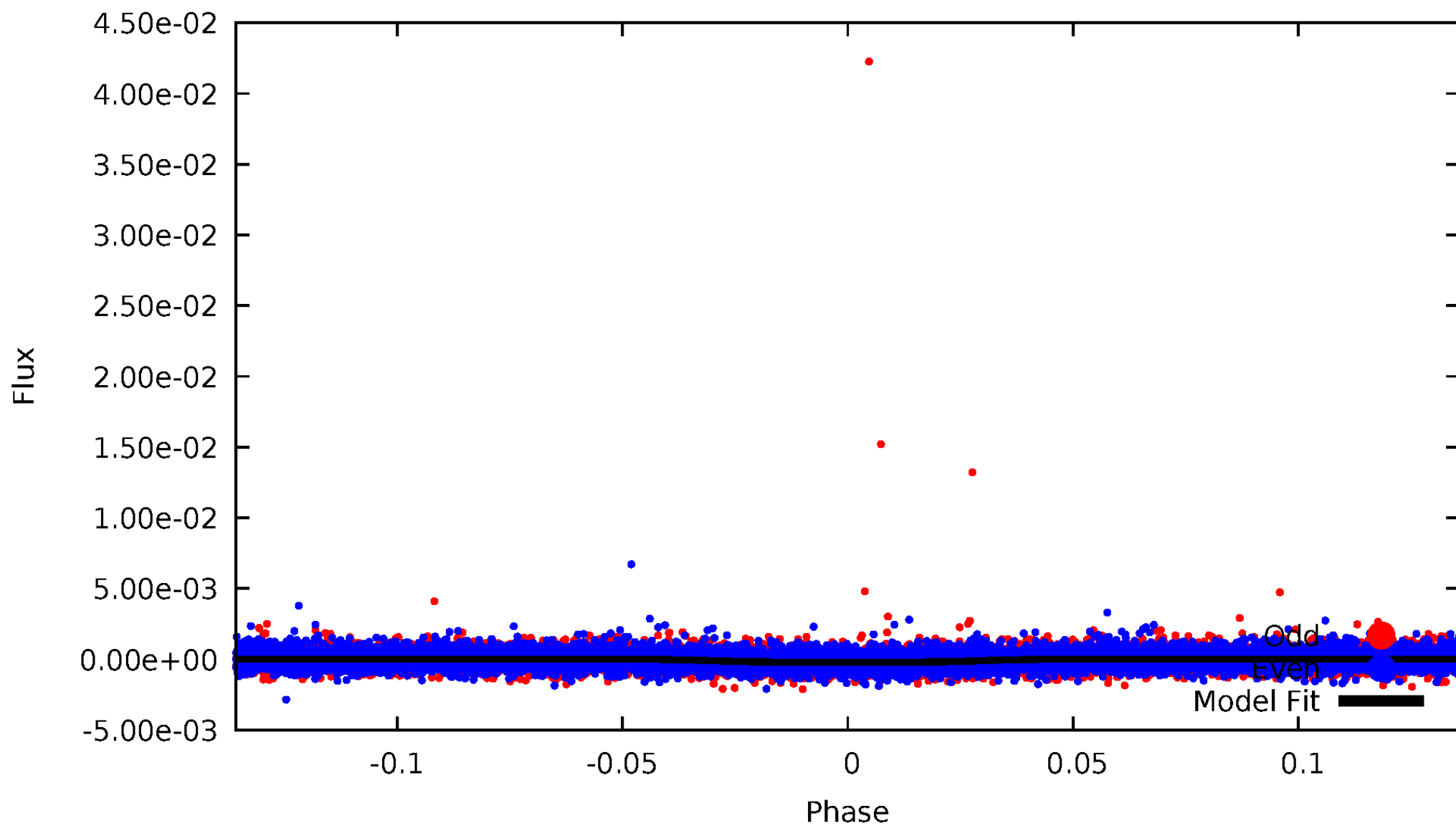


TCE 006390824-01



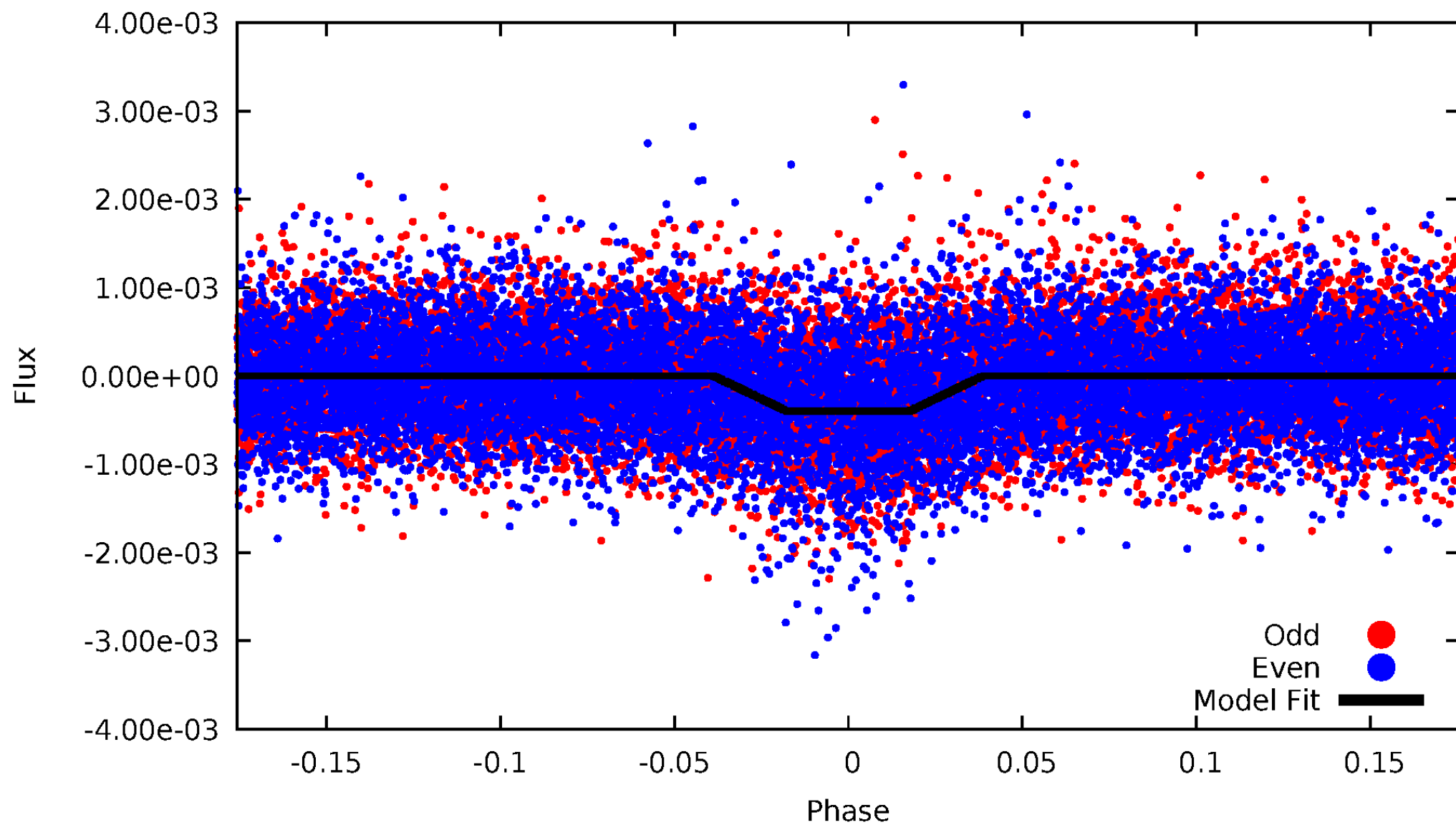
DV Odd/Even

TCE 006390824-01



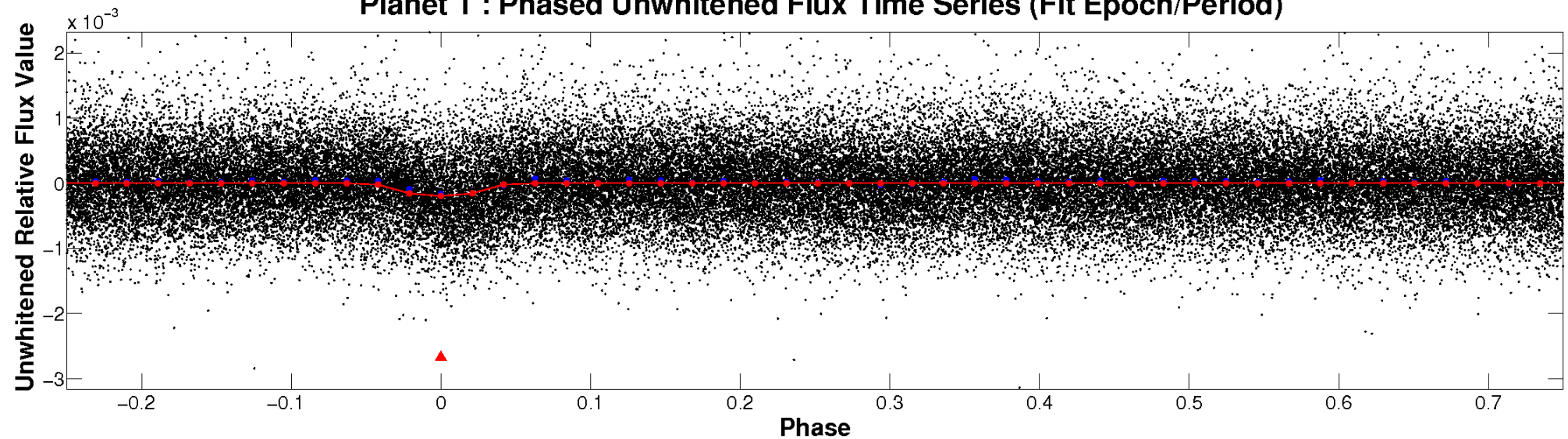
ALT Odd/Even

TCE 006390824-01

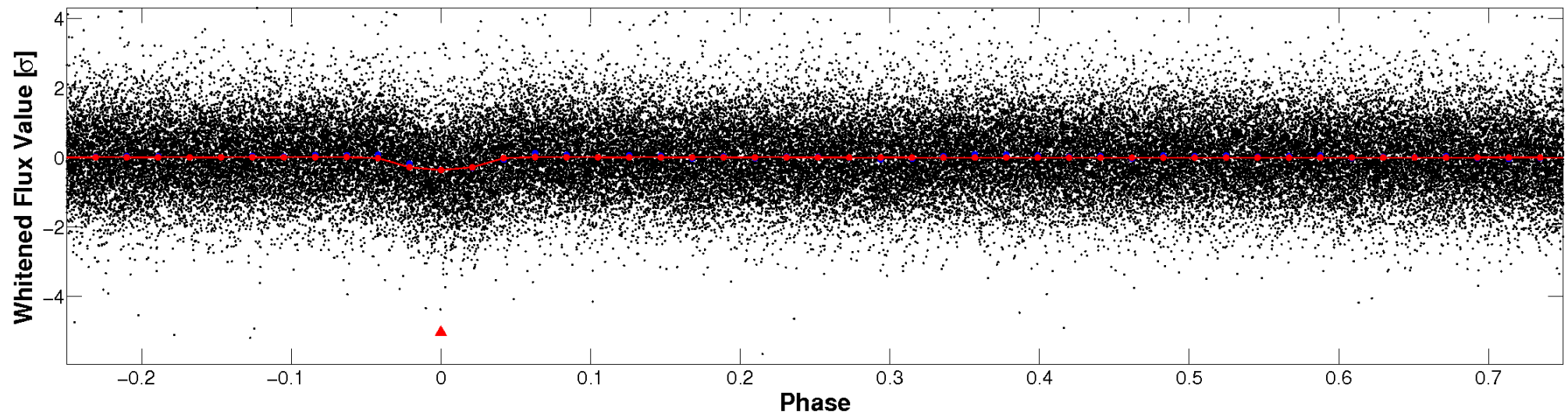


Non-Whitened Vs. Whitened Light Curve

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

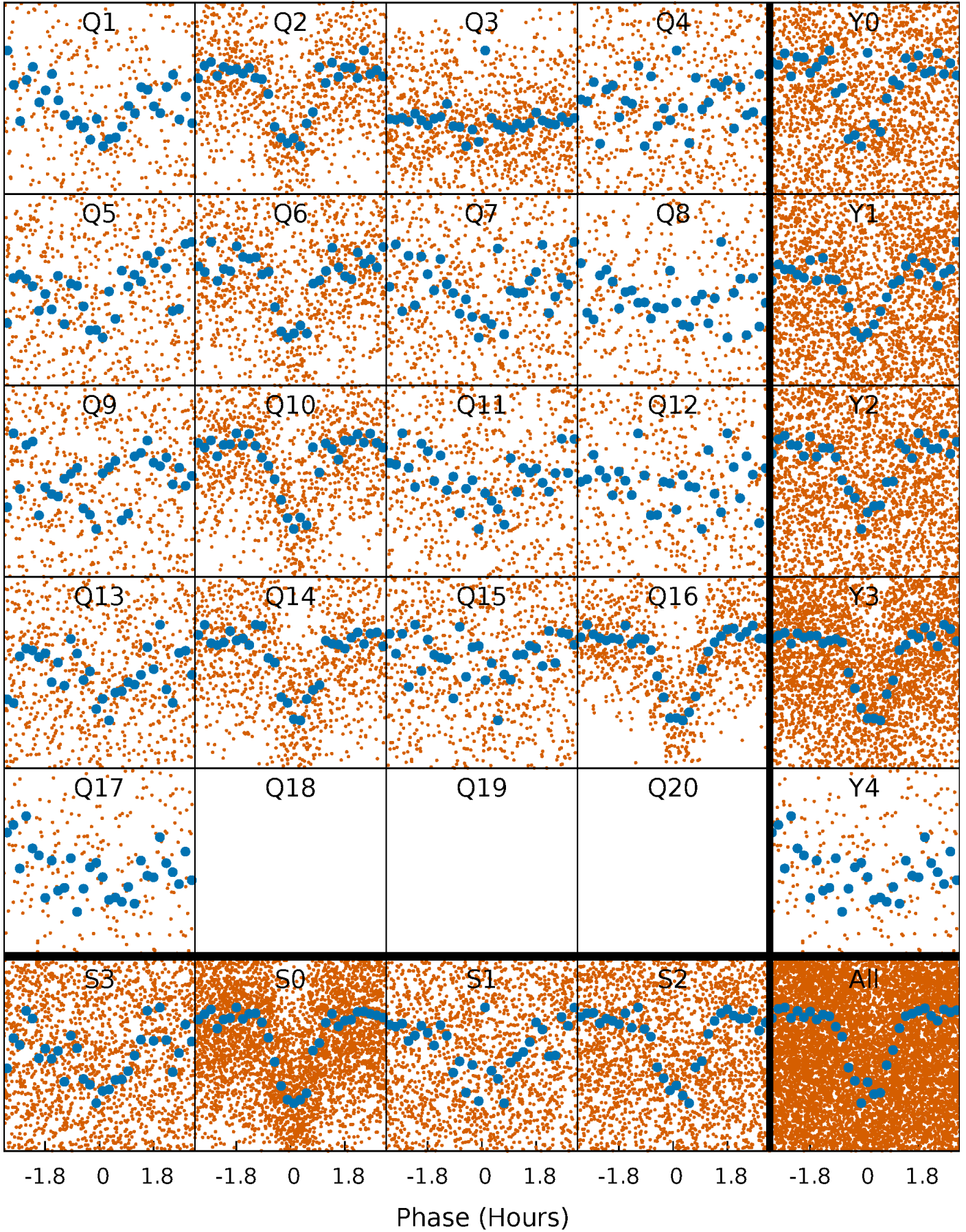


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



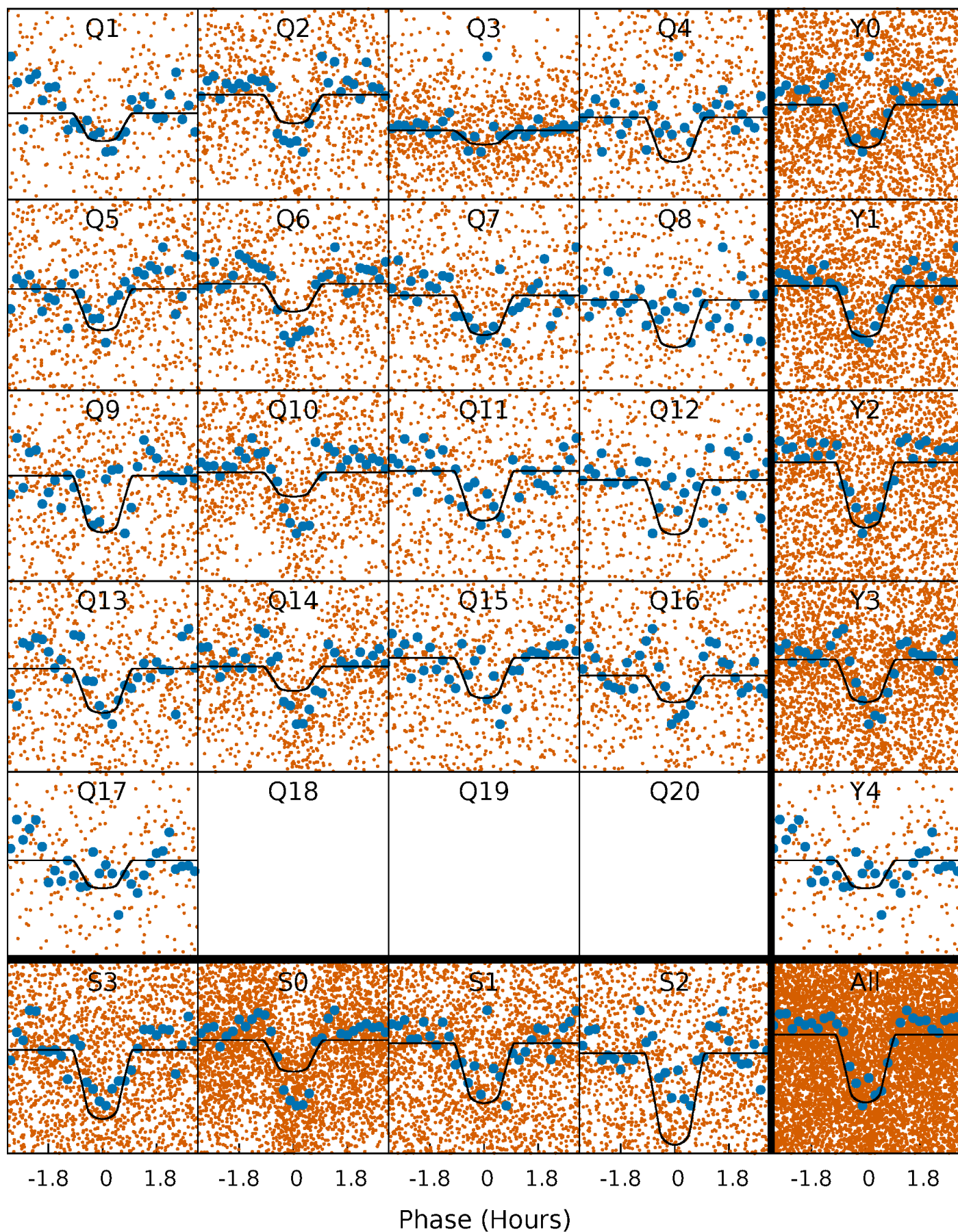
PDC Quarter-Phased Transit Curves

TCE 006390824-01 P= 0.973539 Days $T_0=131.551667$ (BKJD)



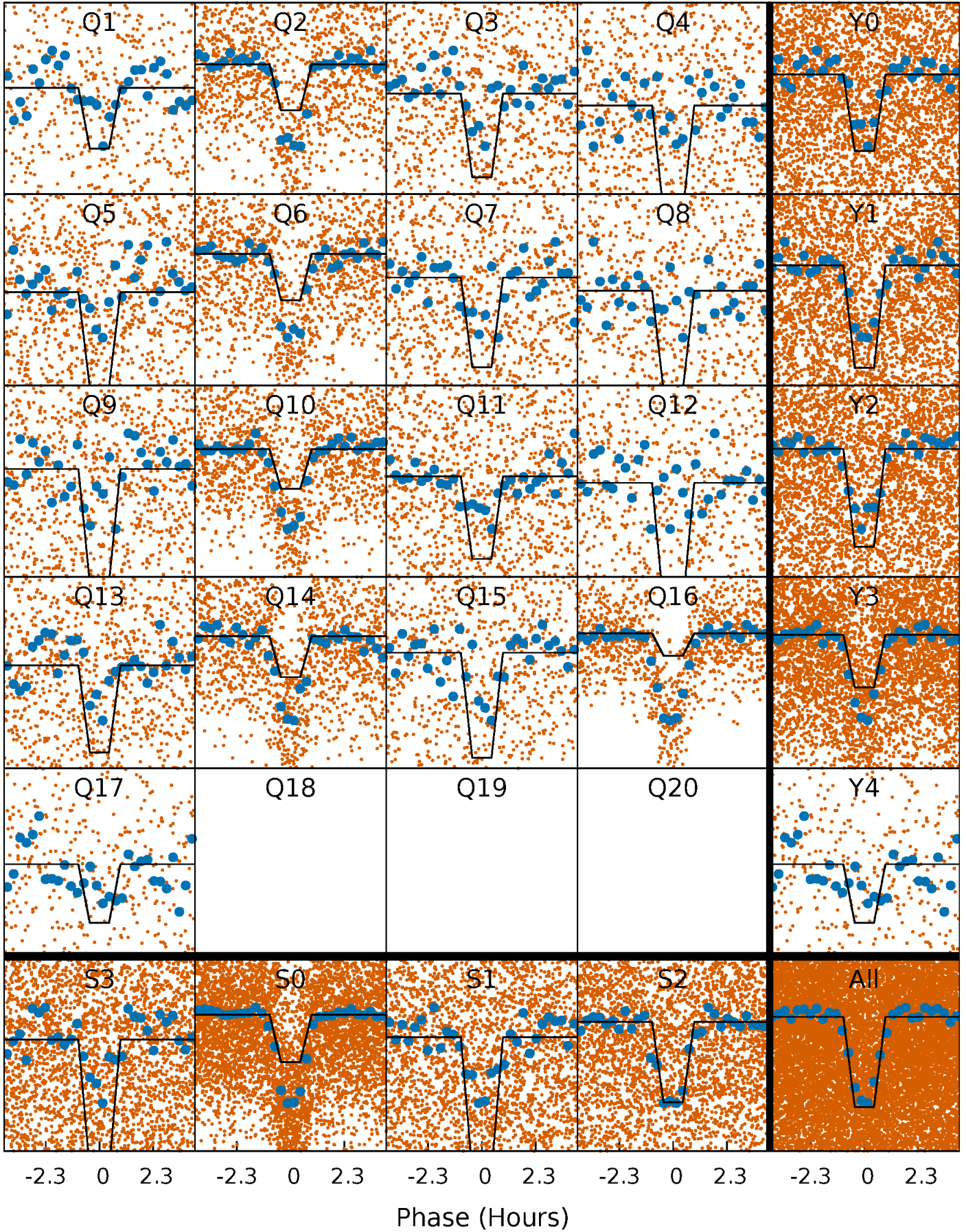
DV Quarter-Phased Transit Curves

TCE 006390824-01 P= 0.973539 Days $T_0=131.551667$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

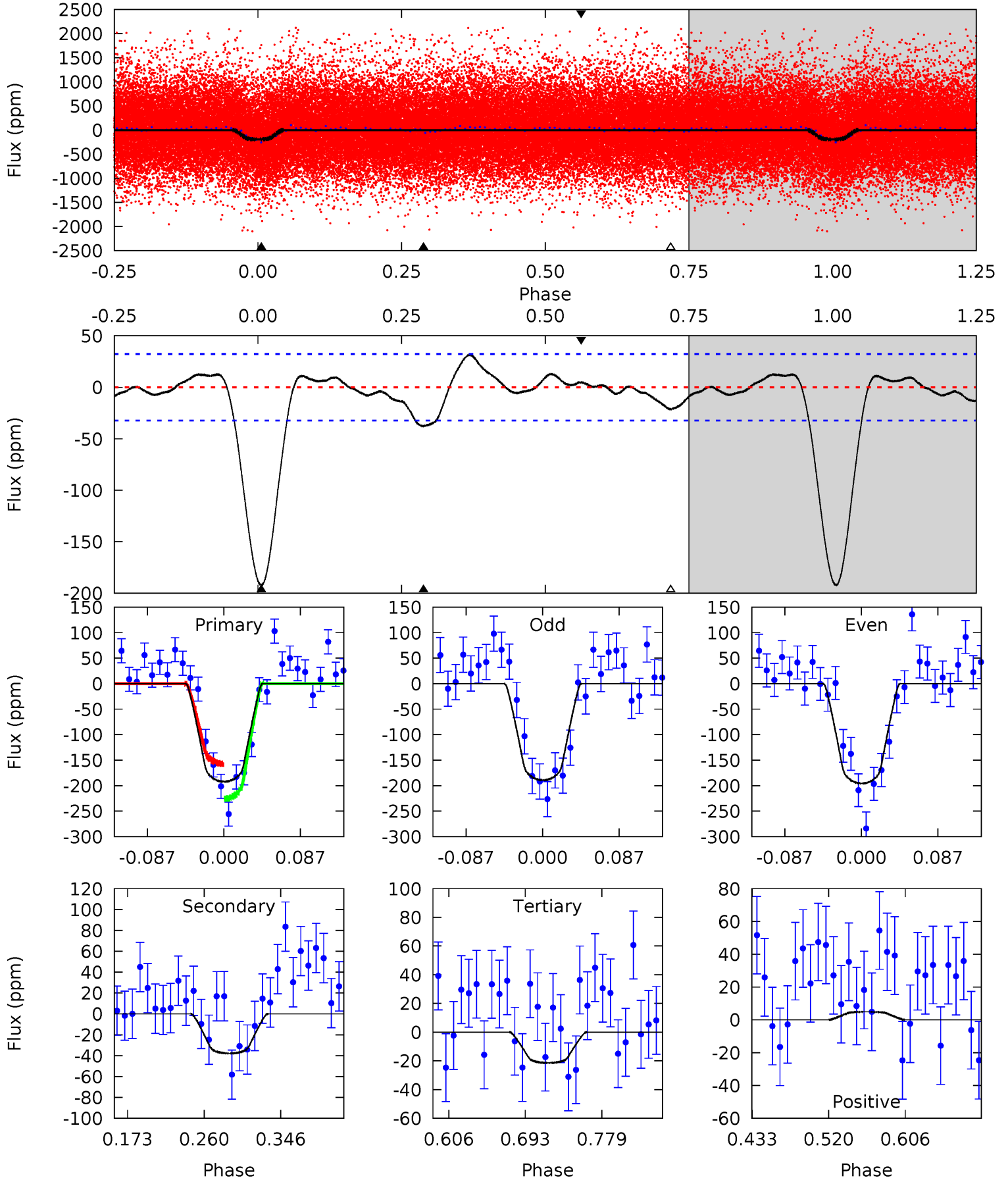
TCE 006390824-01 P= 0.973551 Days $T_0=131.547687$ (BKJD)



DV Model-Shift Uniqueness Test

006390824-01, P = 0.973539 Days, E = 130.578128 Days

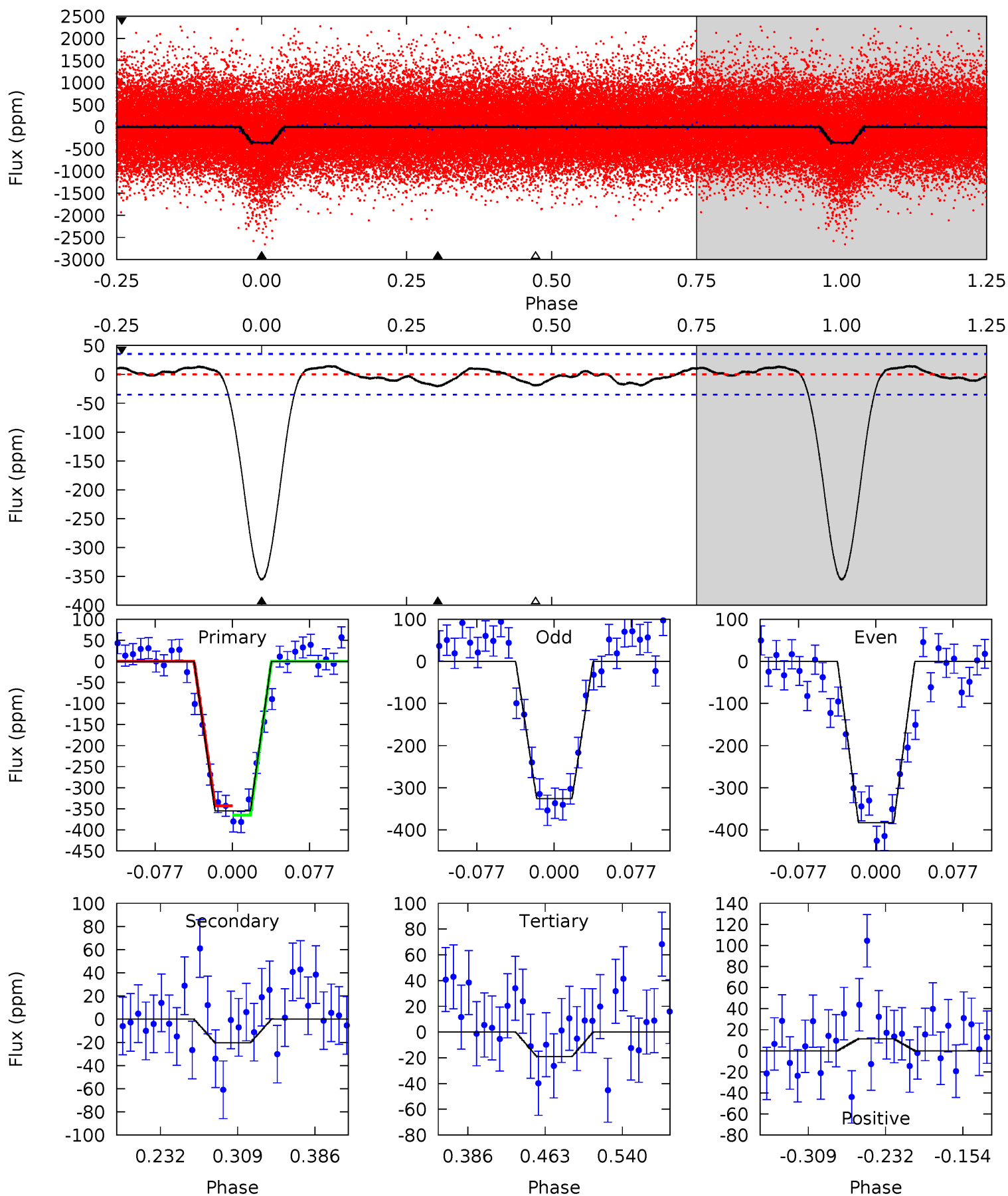
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.3	5.39	3.05	0.70	4.59	1.71	1.26	24.3	26.6	2.34	4.69	0.45	0.86	0.14	4.86



Alt Model-Shift Uniqueness Test

006390824-01, P = 0.973551 Days, E = 130.574136 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.5	2.67	2.49	1.49	4.62	1.77	1.19	44.0	45.0	0.18	1.18	3.70	1.15	0.04	1.44



Stellar Parameters For KIC 006390824

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6084^{+171}_{-214}	$4.542^{+0.048}_{-0.192}$	$-0.440^{+0.300}_{-0.300}$	$0.863^{+0.246}_{-0.077}$	$0.944^{+0.108}_{-0.118}$	$2.071^{+0.397}_{-1.044}$
	+3%/-4%	+1%/-4%	+68%/-68%	+29%/-9%	+11%/-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 006390824-01 / KOI 1234.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-38 ± 7	$1.50^{+0.62}_{-0.58}$	2580^{+179}_{-114}	4053^{+864}_{-520}	$3.115^{+5.330}_{-1.559}$
Alt.	-20 ± 8	$1.94^{+0.64}_{-0.55}$	2587^{+163}_{-131}	3220^{+505}_{-578}	$0.998^{+1.140}_{-0.541}$

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

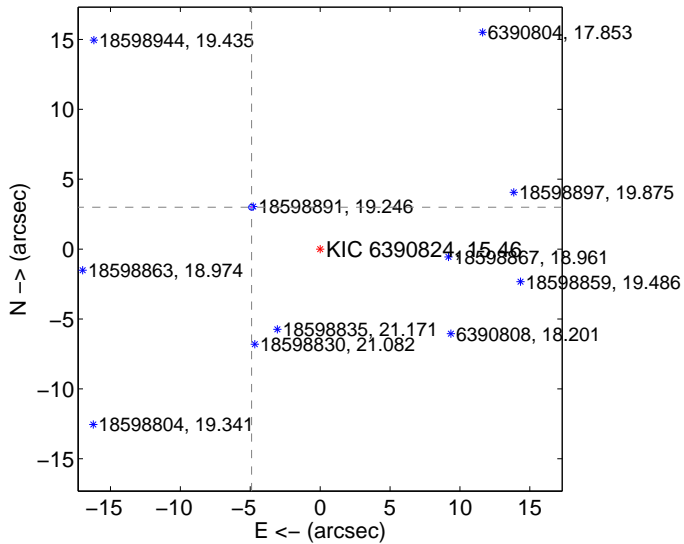
Supplemental centroid analysis for 006390824-01. Kepler magnitude: 15.46. Transit SNR 19.32

There are 17 quarters with good PRF difference image offsets

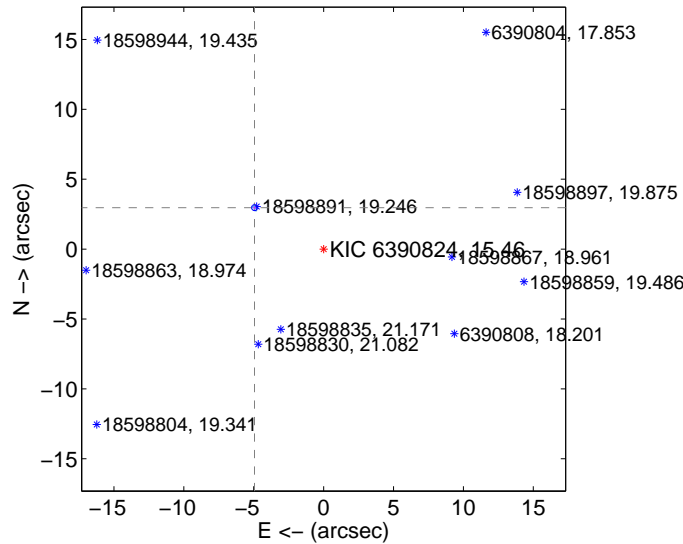
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.748 ± 0.069	83.92	4.908 ± 0.068	2.993 ± 0.069
PRF-fit source offset from KIC position	5.767 ± 0.070	82.93	4.946 ± 0.068	2.965 ± 0.070
photometric centroid source offset	12.52 ± 0.64	19.67	7.93 ± 0.63	9.69 ± 0.64

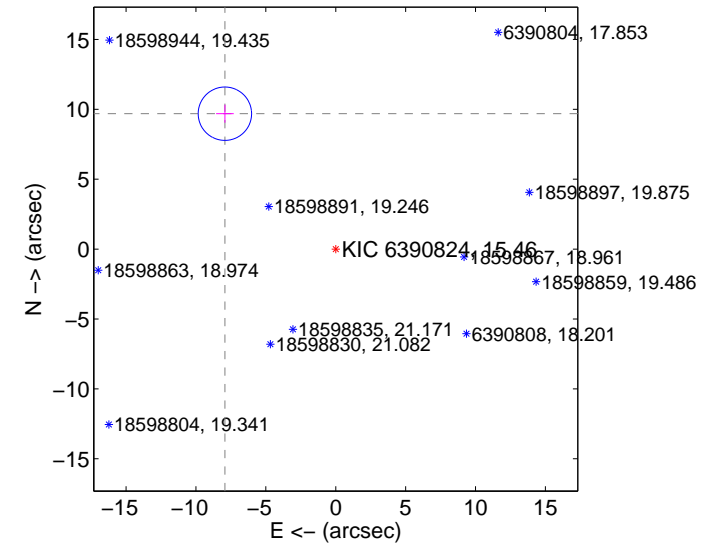
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

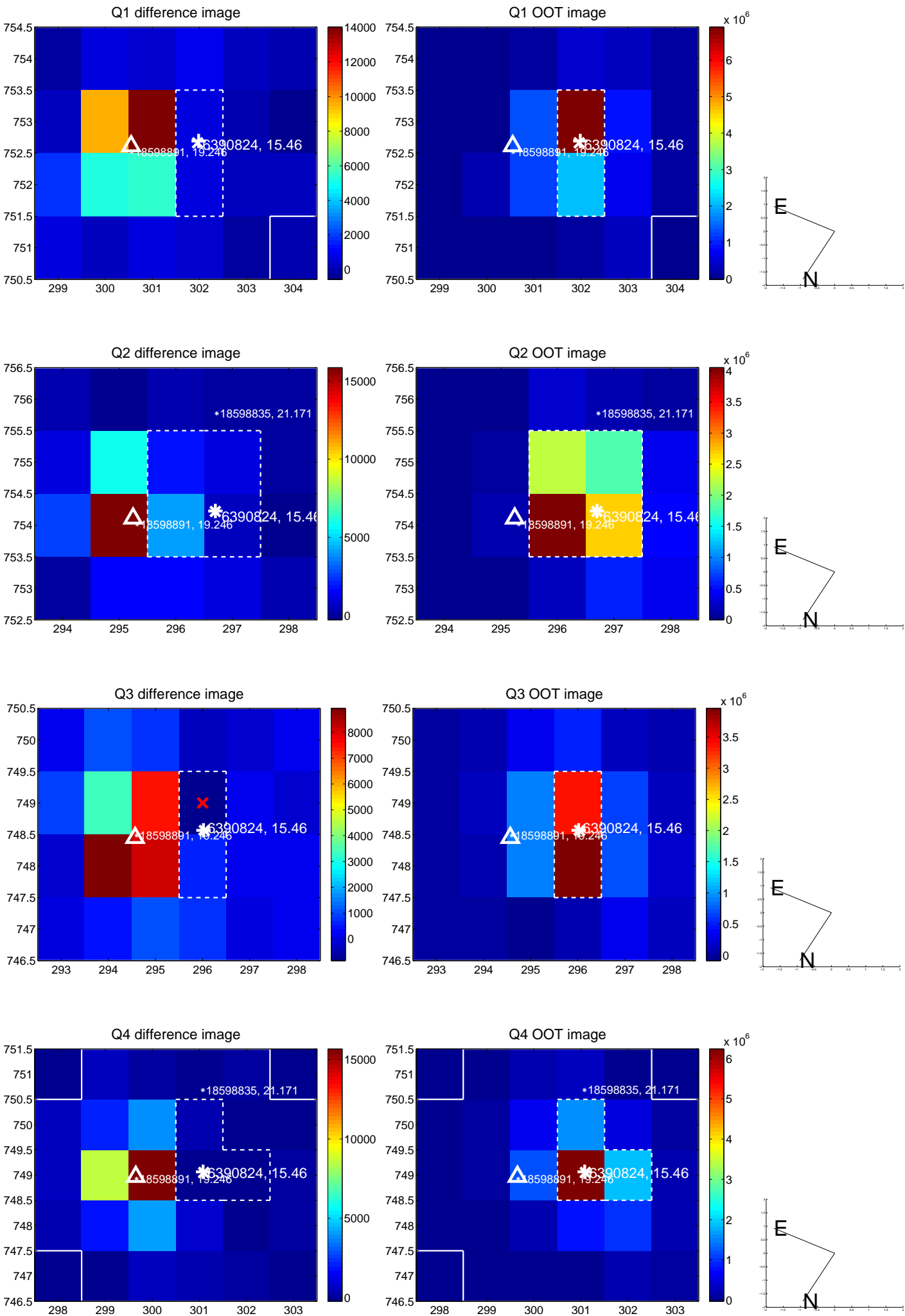


offset from photometric centroids

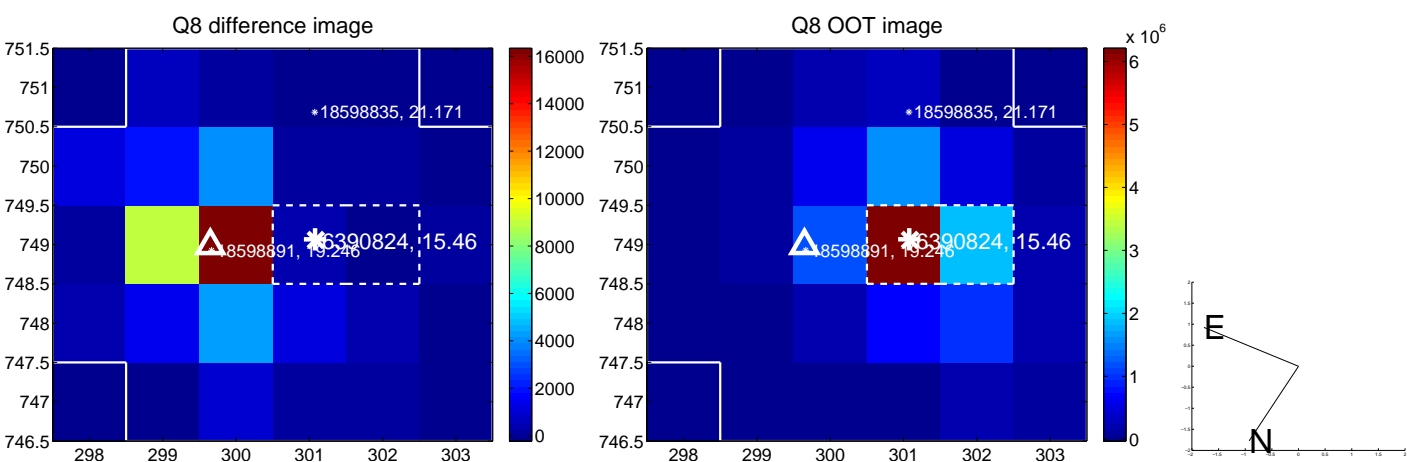
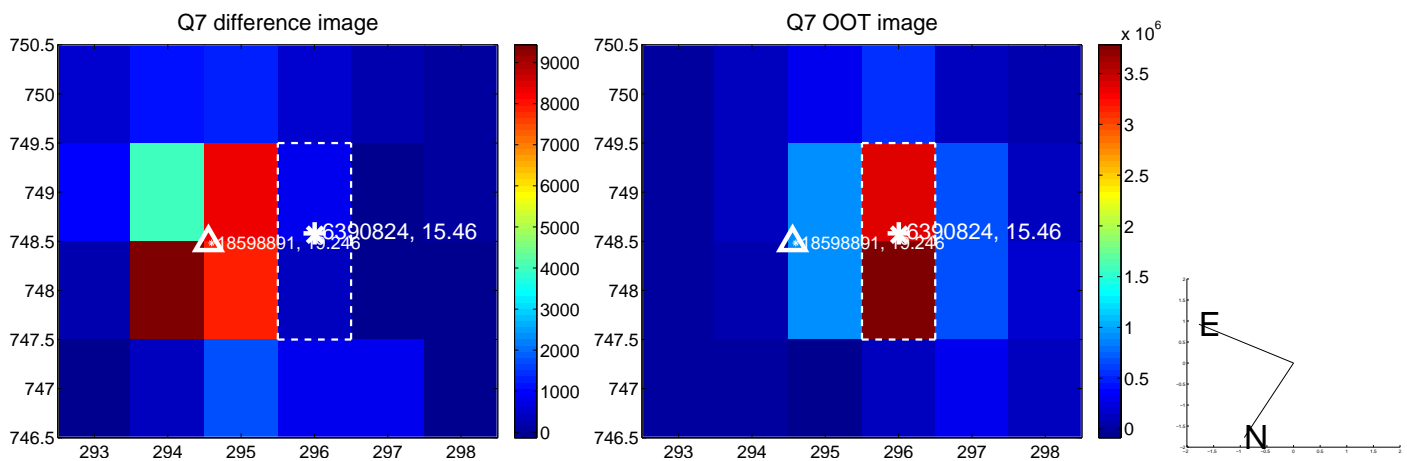
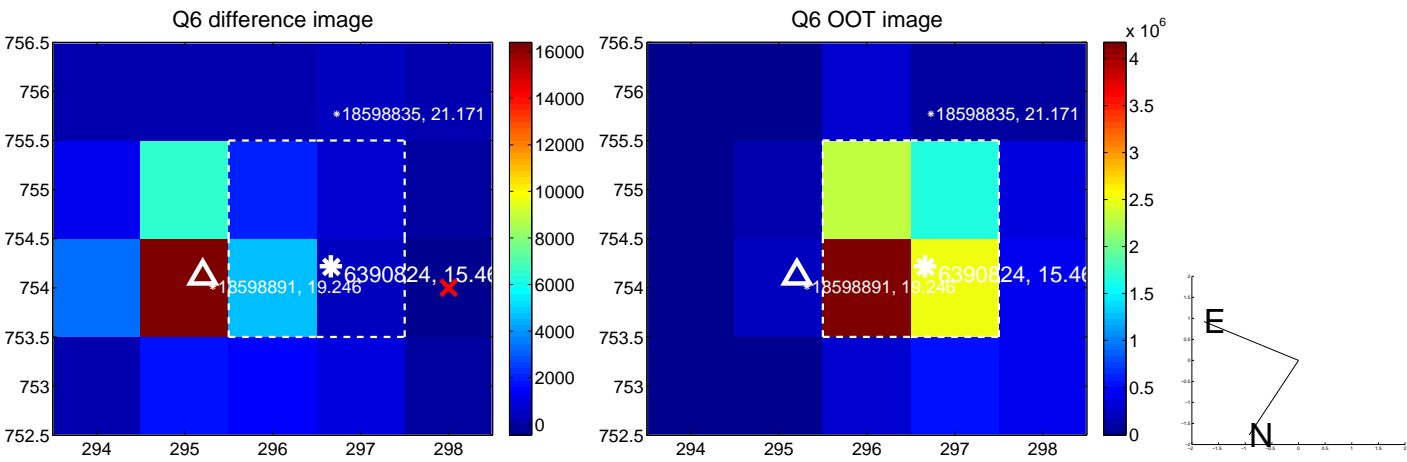
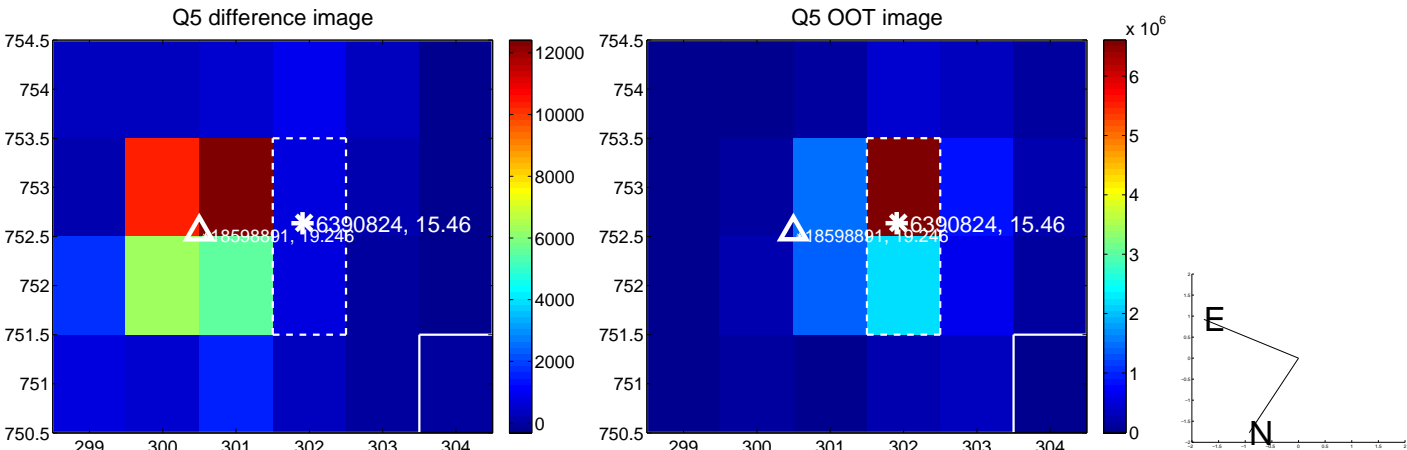


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

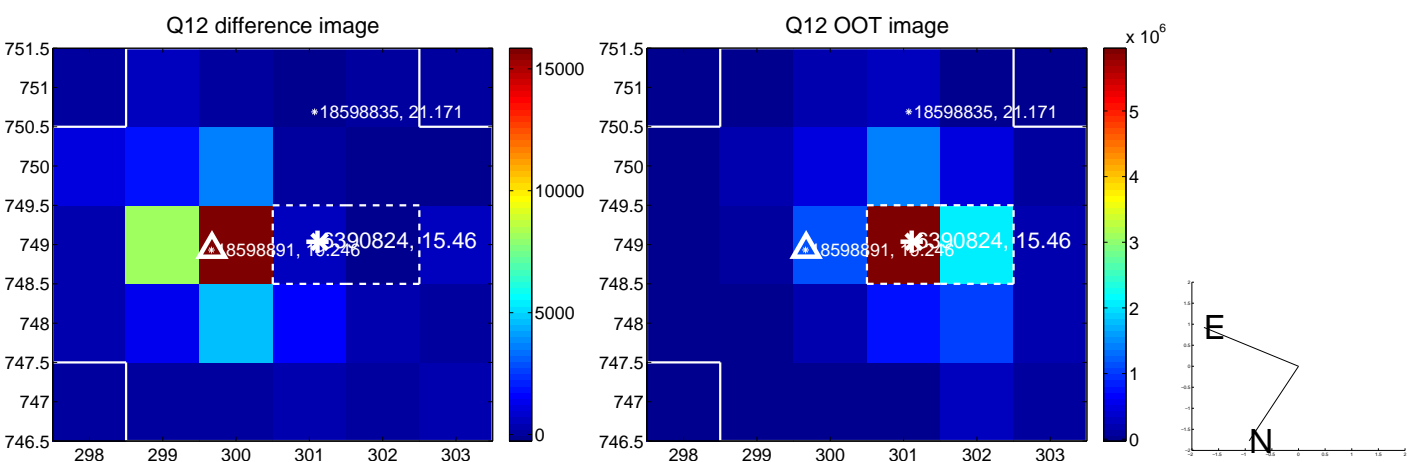
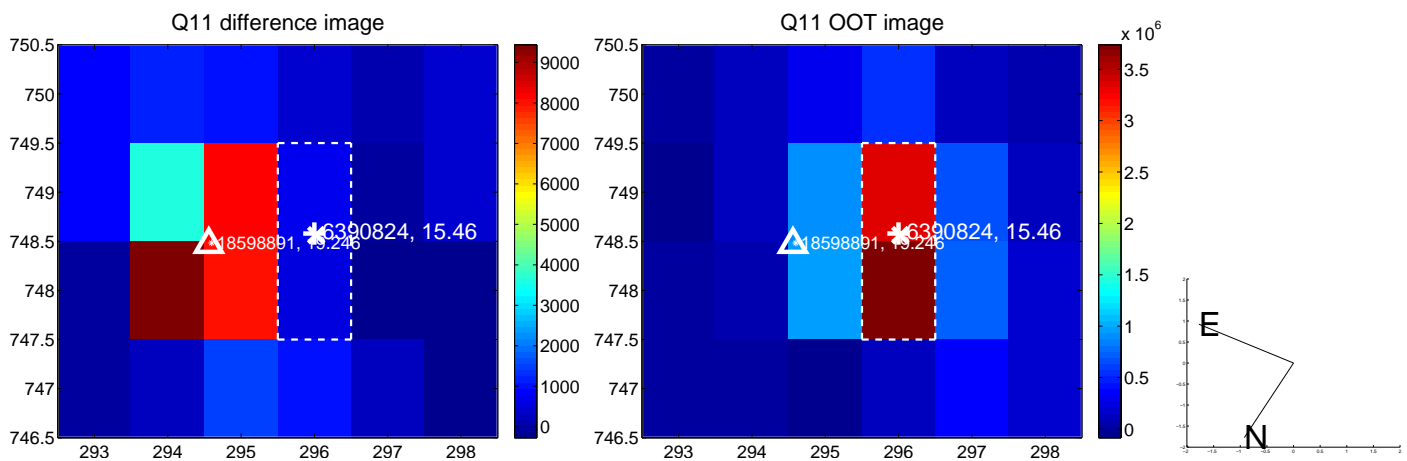
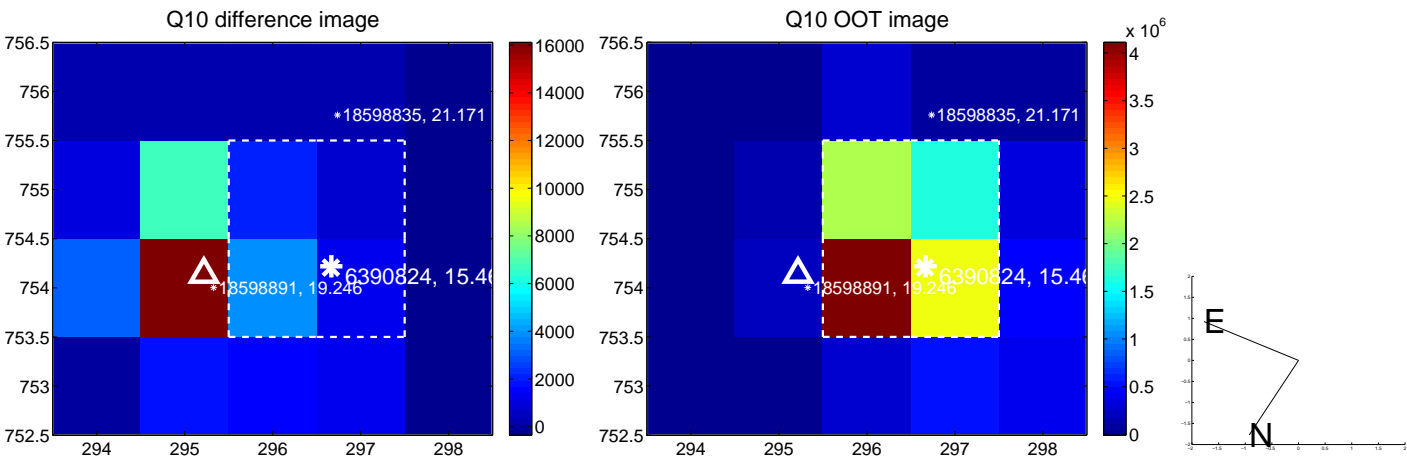
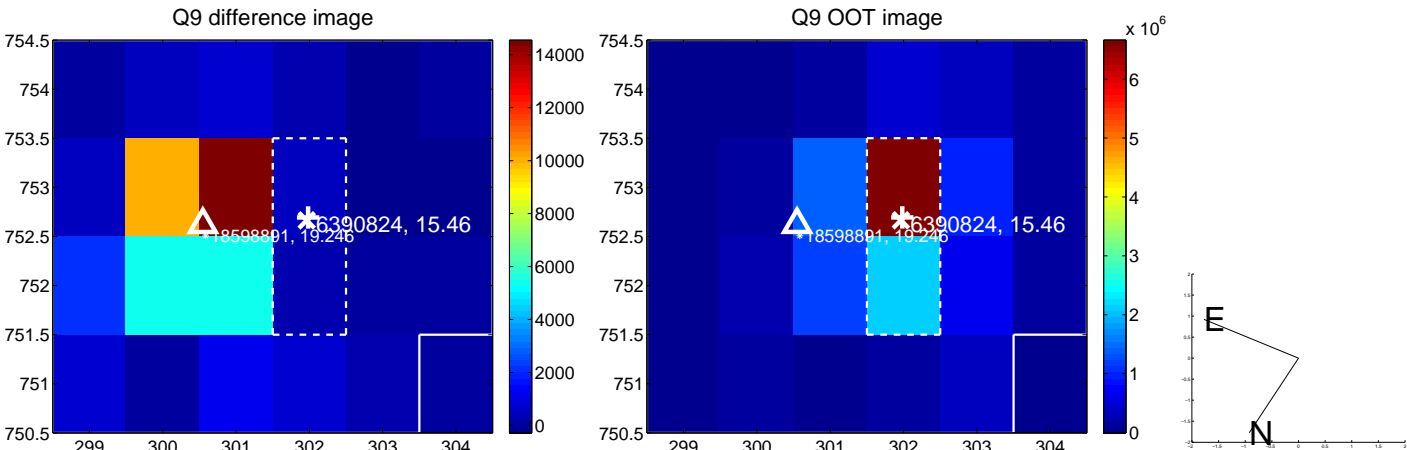
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



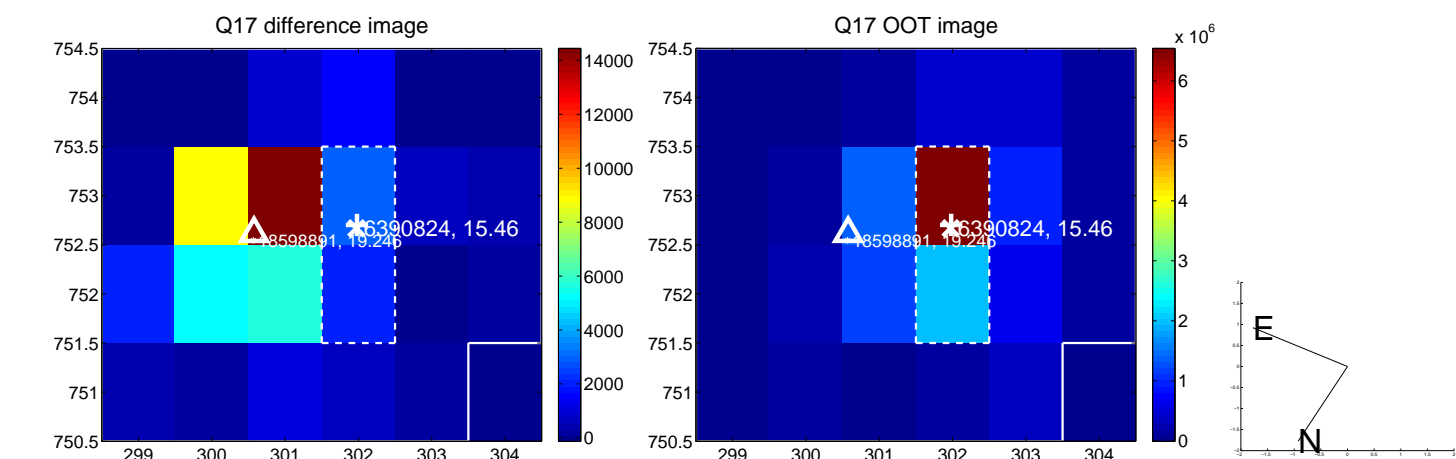
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



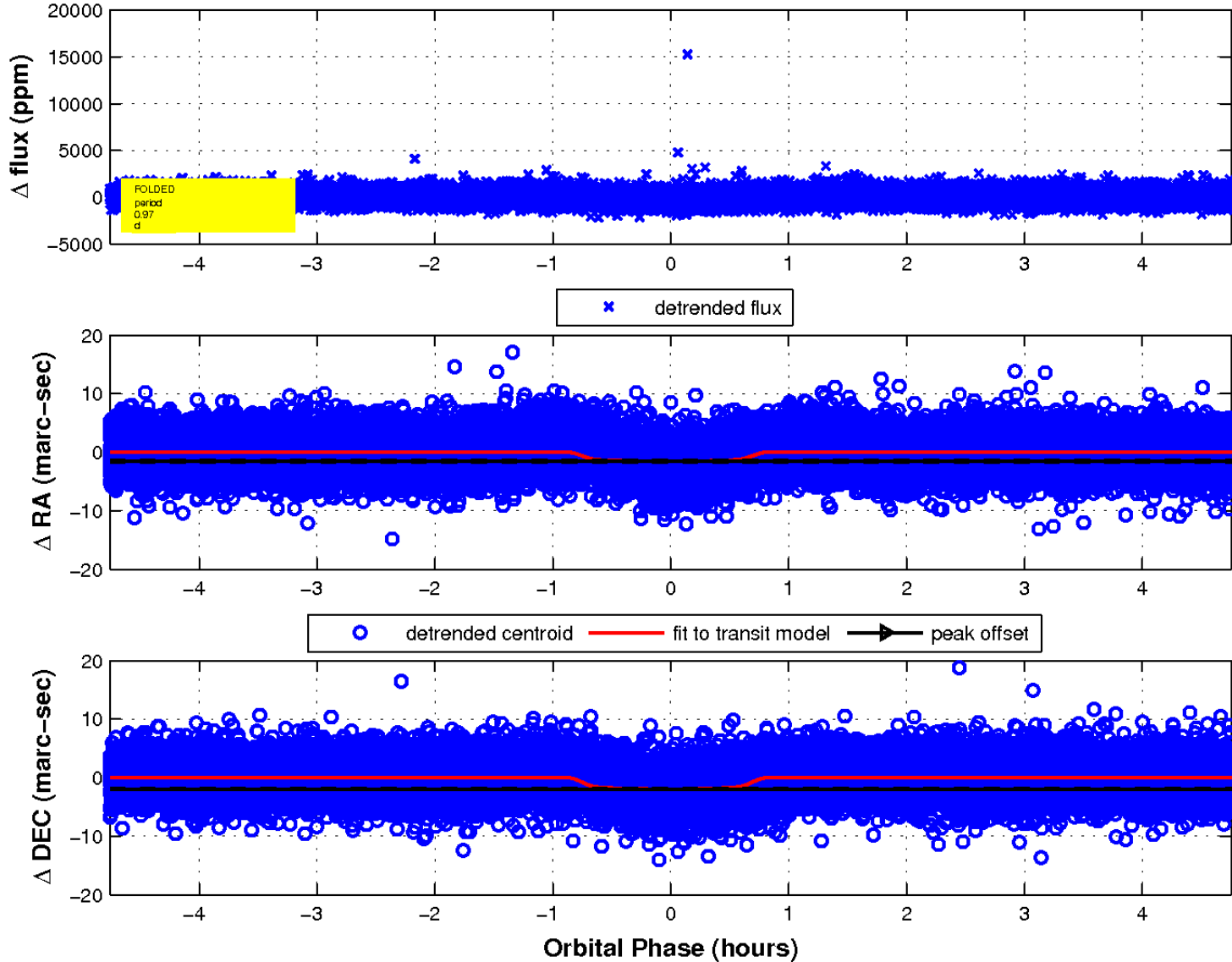
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

