

KIC 006390243

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})
006390243-01	OBS	No	1.470018	132.014009	18.0	2.669	7.2	6.7	2.45	8433	1.20	25971.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006390243-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

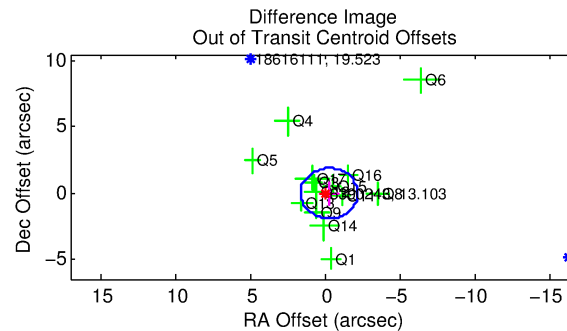
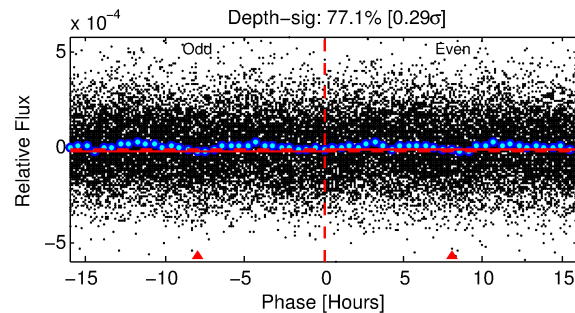
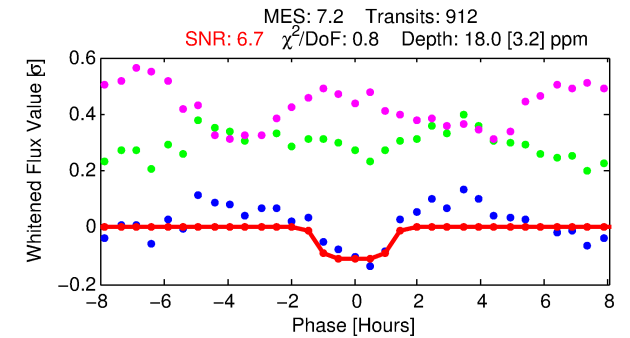
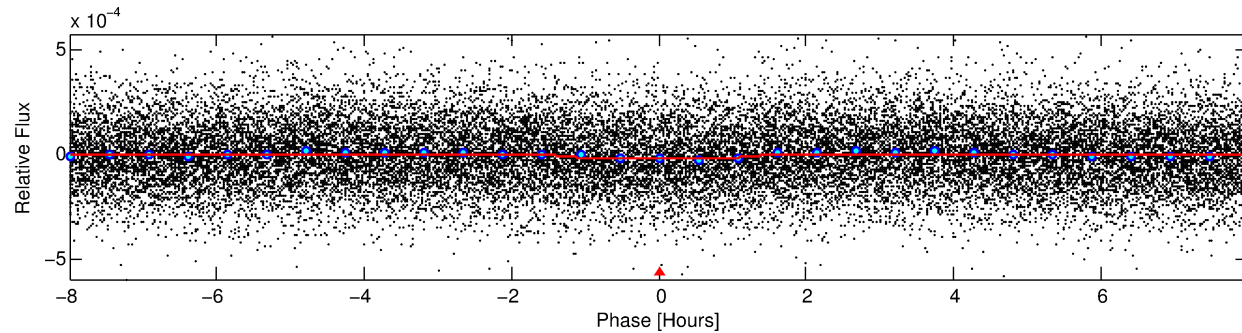
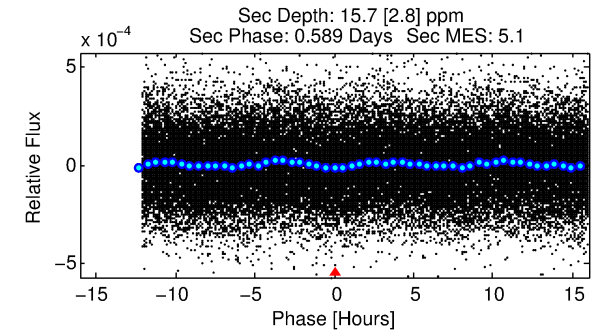
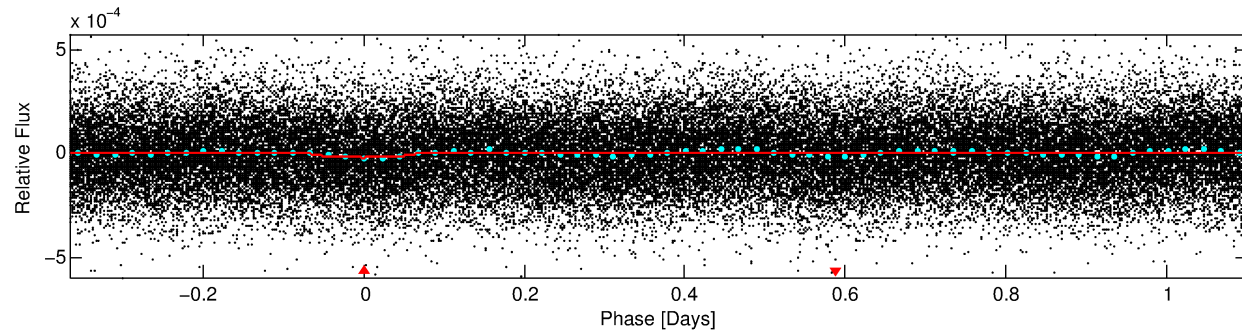
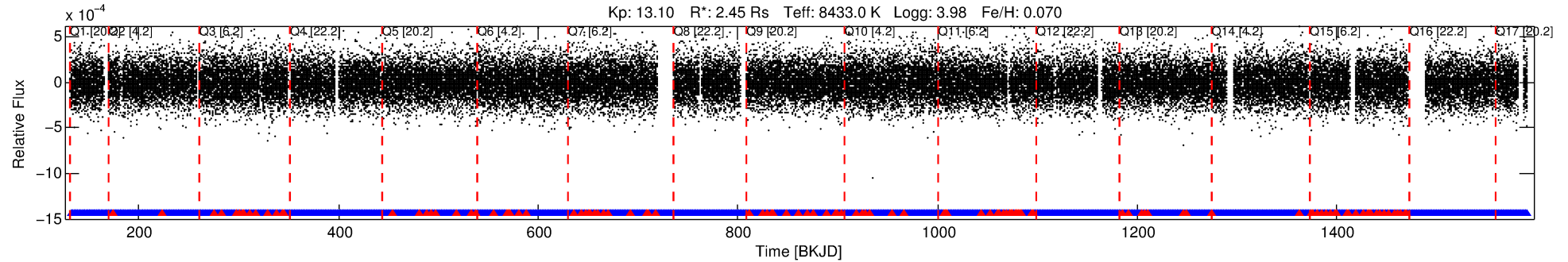
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006390243-01

No Significant Match Found

DV One-Page Summary

KIC: 6390243 Candidate: 1 of 1 Period: 1.470 d



DV Fit Results:

Period = 1.47002 [0.00002] d
Epoch = 132.0140 [0.0053] BKJD
Rp/R* = 0.0045 [0.0018]
a/R* = 2.16 [4.30]
b = 0.89 [0.59]
Seff = 25971.87 [10942.17]
Teq = 3237 [341] K
Rp = 1.20 [0.60] Re
a = 0.0324 [0.0085] AU
Ag = 6.31 [5.65] [0.94σ]
Teffp = 7933 [1639] K [2.80σ]

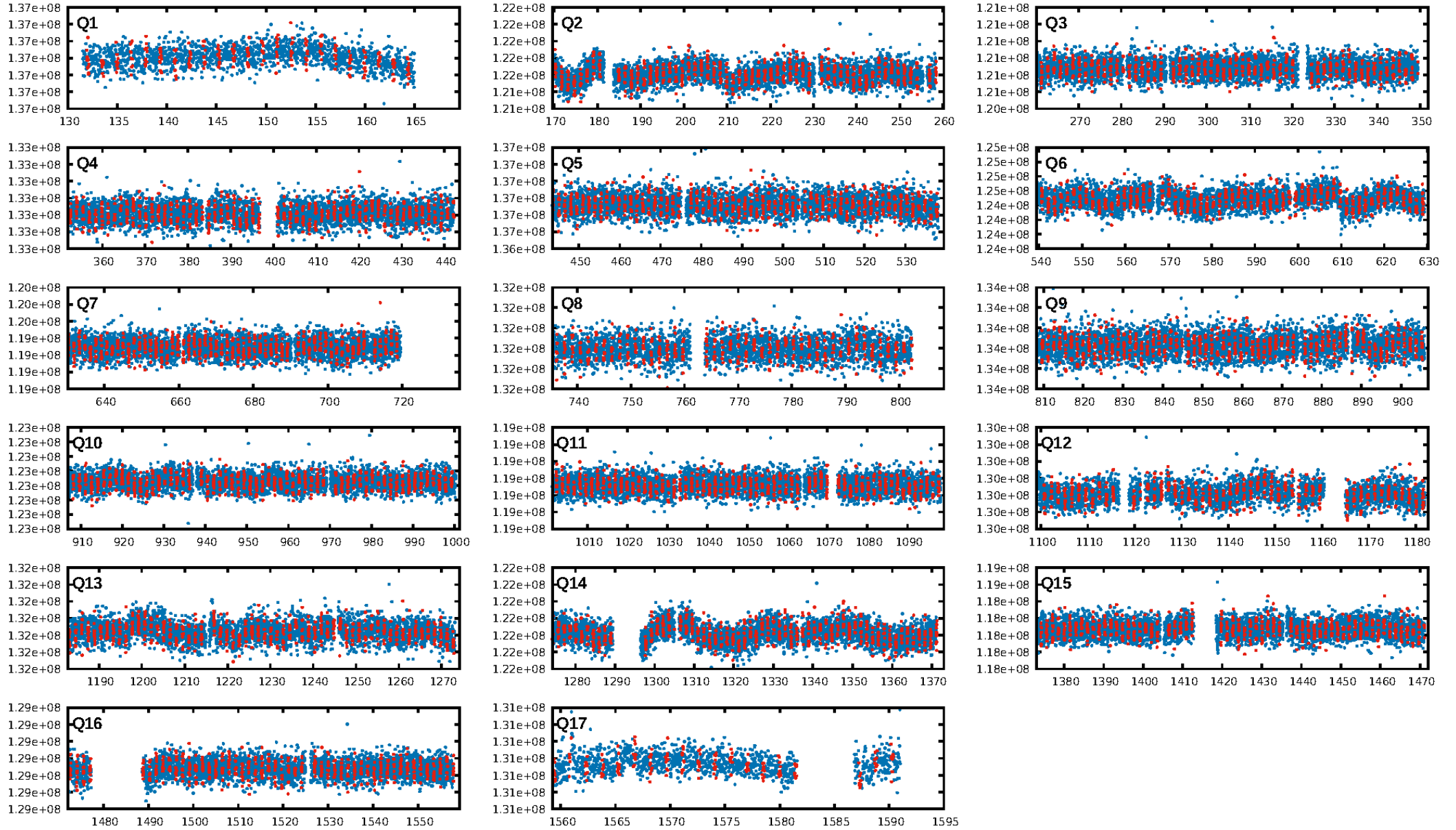
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.49e-12
RollingBand-fgt: 0.87 [758/870]
GhostDiagnostic-chr: 5.199
Centroid-sig: 10.7%
Centroid-so: 2.546 arcsec [1.41σ]
OotOffset-rm: 0.295 arcsec [0.46σ]
KicOffset-rm: 0.436 arcsec [0.64σ]
OotOffset-st: 2/3/4/5 [14]
KicOffset-st: 2/3/4/5 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 1.00 [17/17]

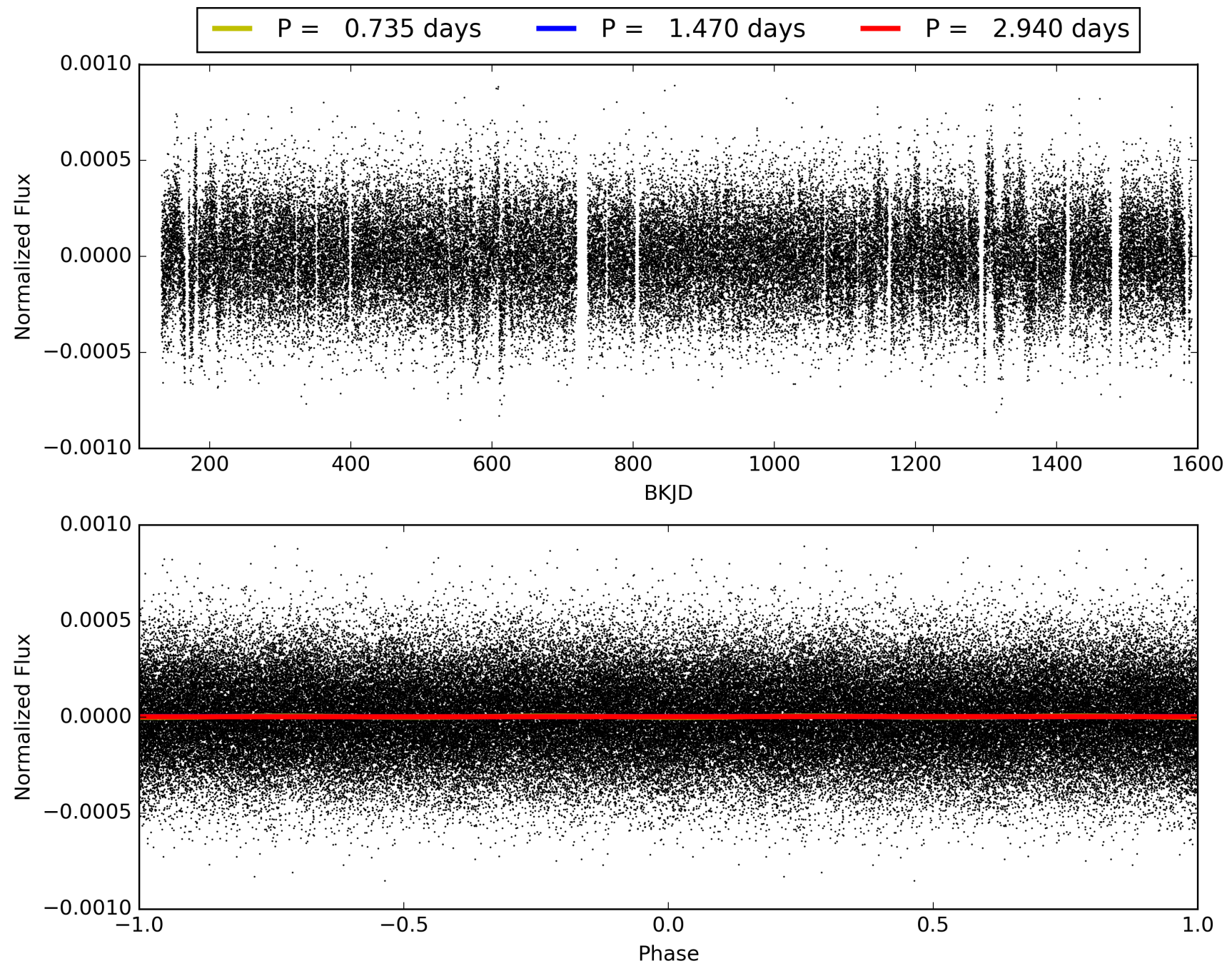
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:55:42 Z

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

TCE 006390243-01, PDC Light Curves

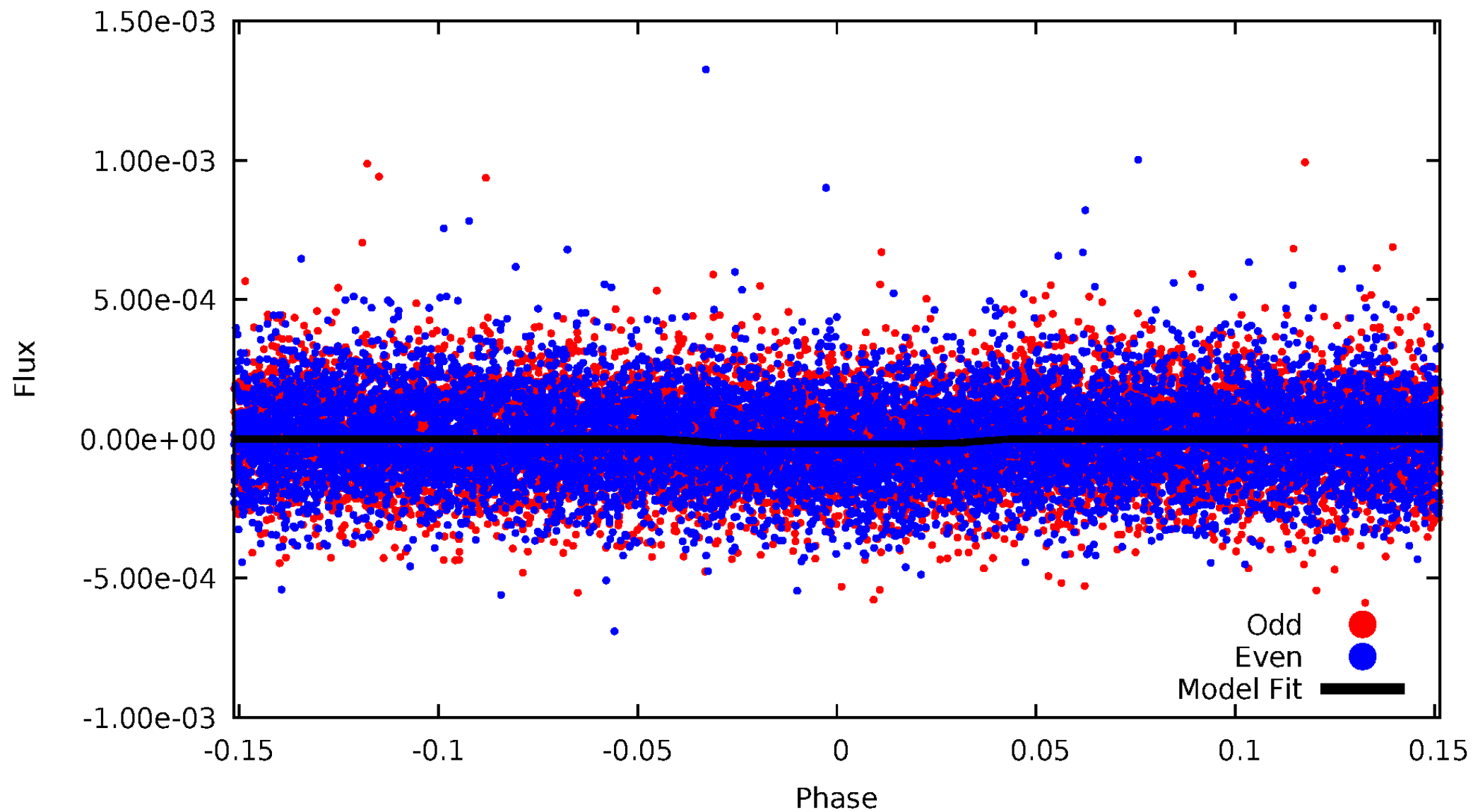


TCE 006390243-01



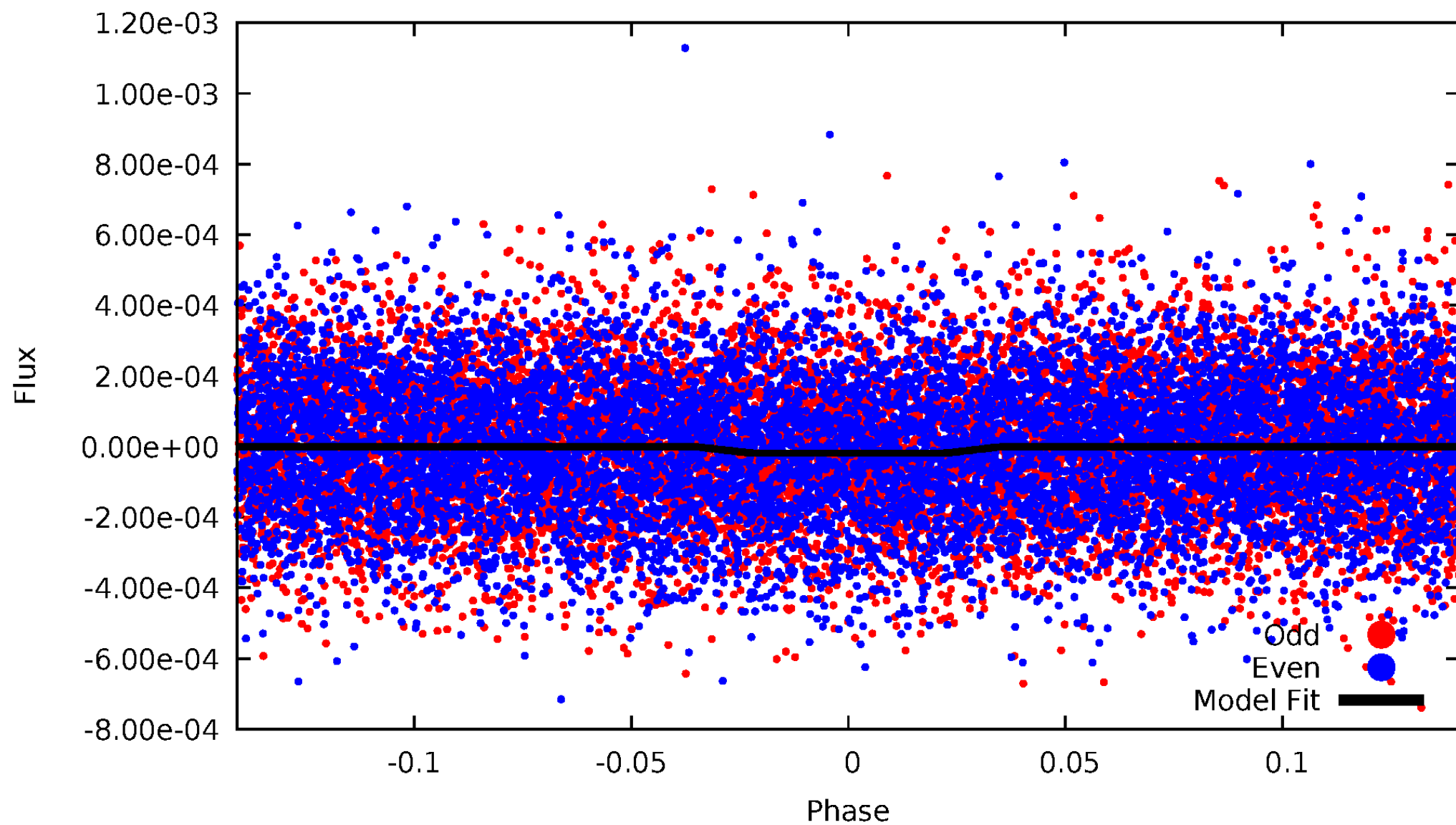
DV Odd/Even

TCE 006390243-01



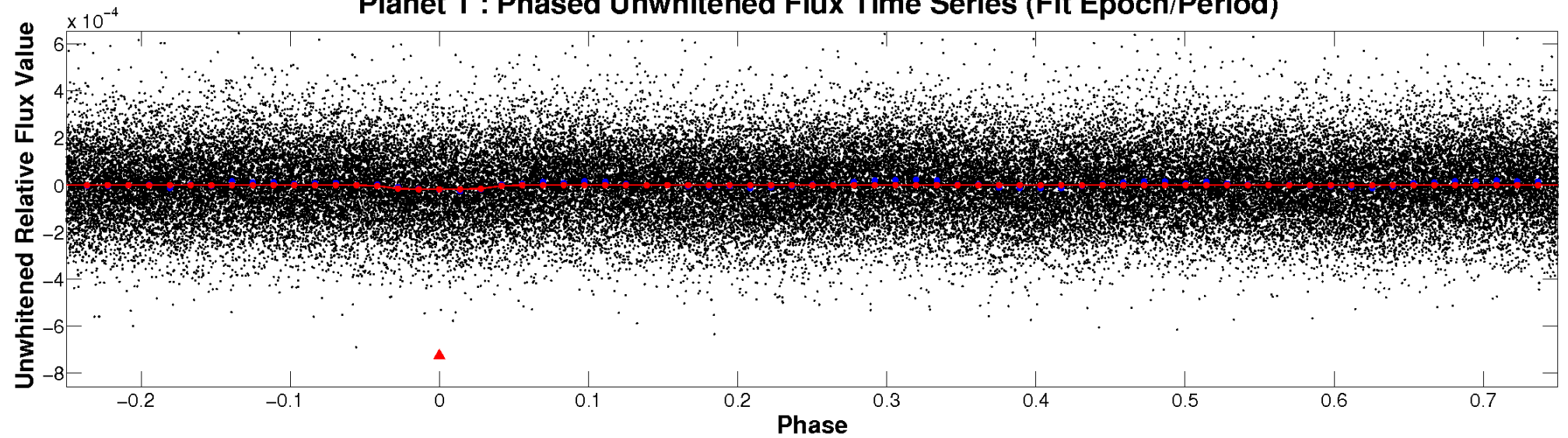
ALT Odd/Even

TCE 006390243-01

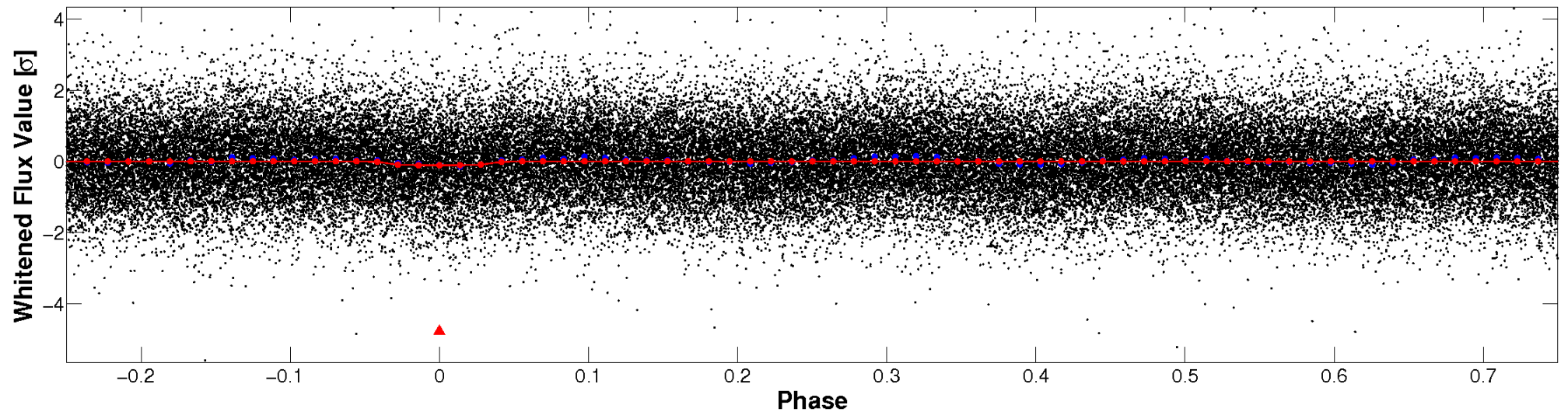


Non-Whitened Vs. Whitened Light Curve

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

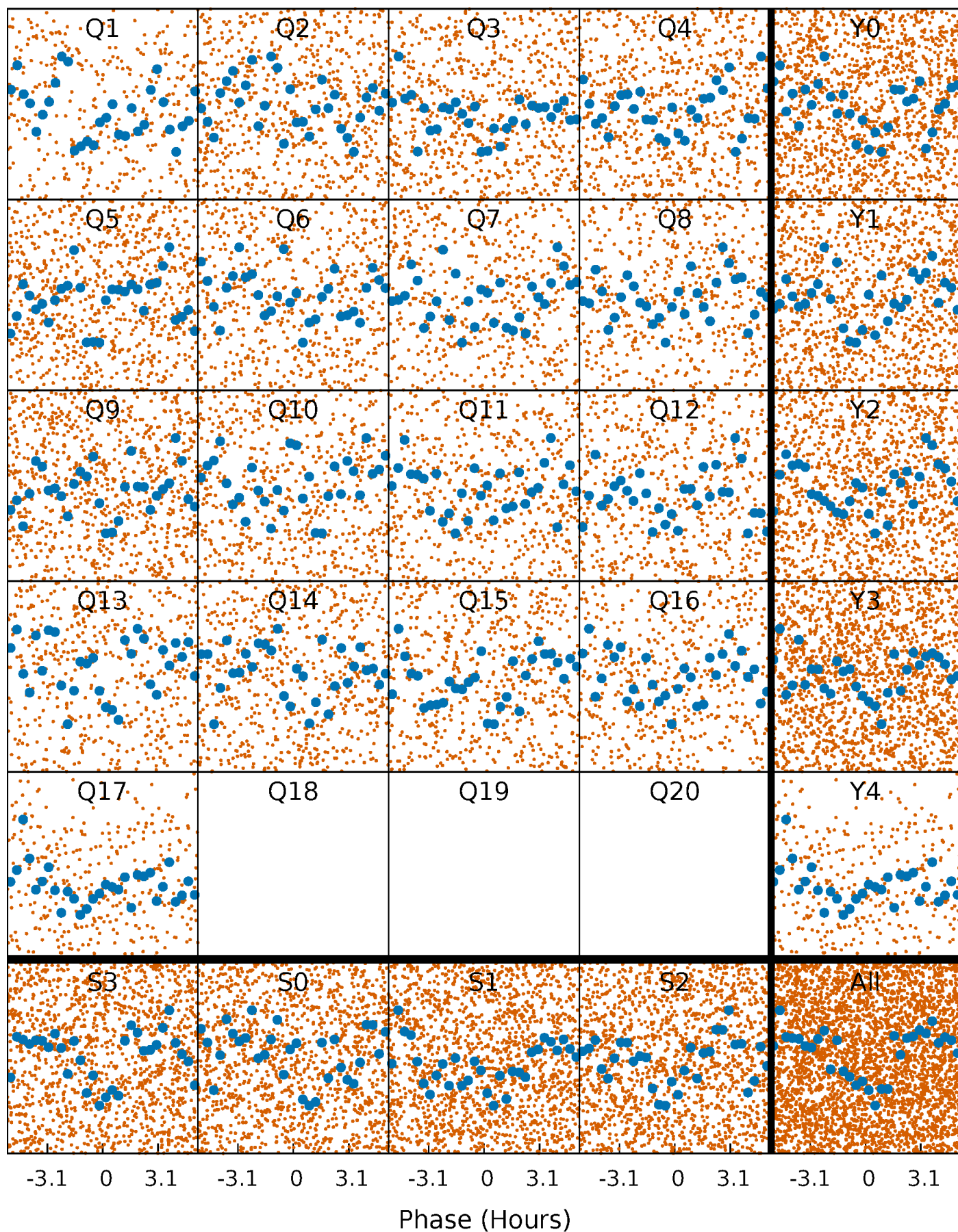


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



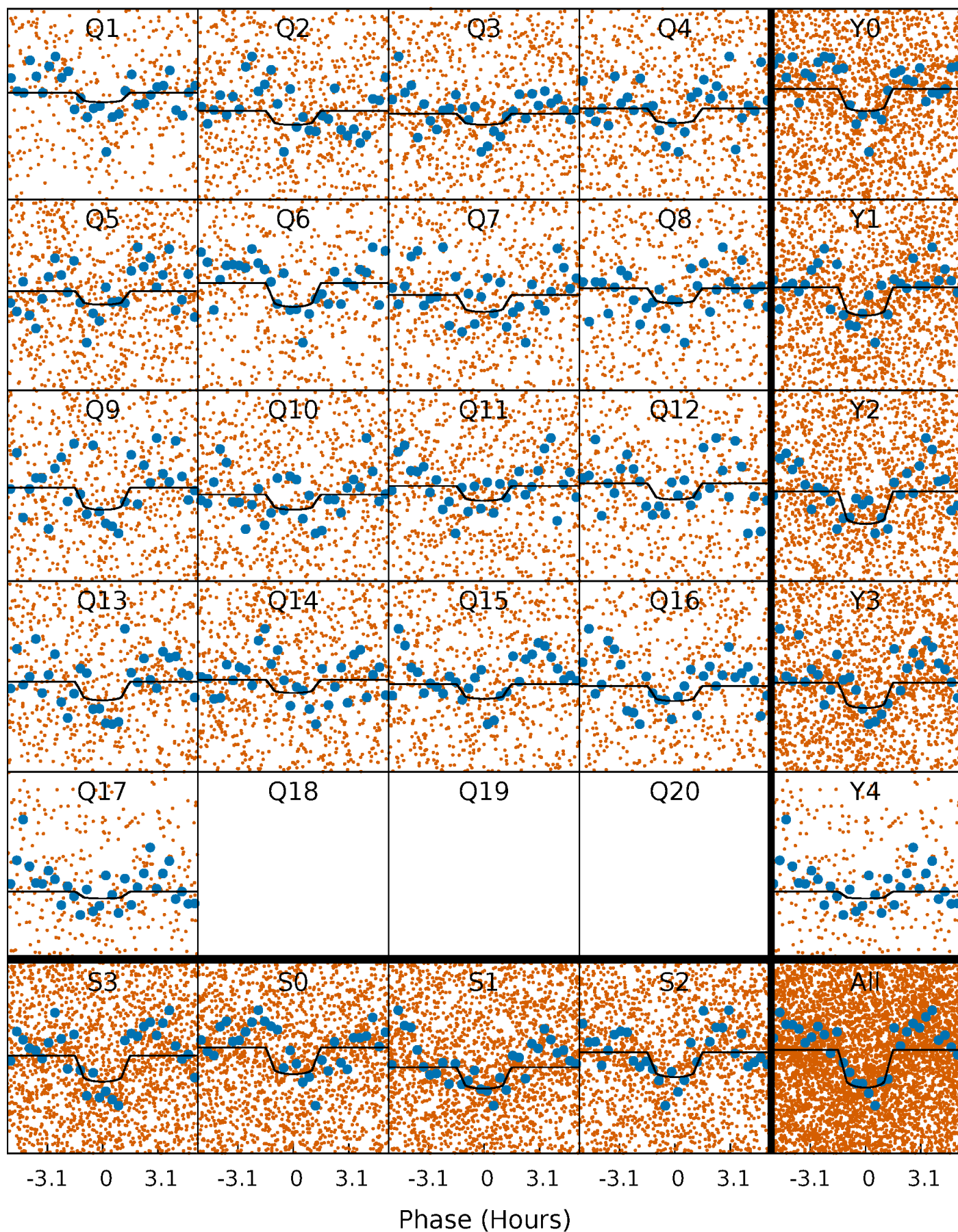
PDC Quarter-Phased Transit Curves

TCE 006390243-01 P= 1.470018 Days $T_0=132.014009$ (BKJD)



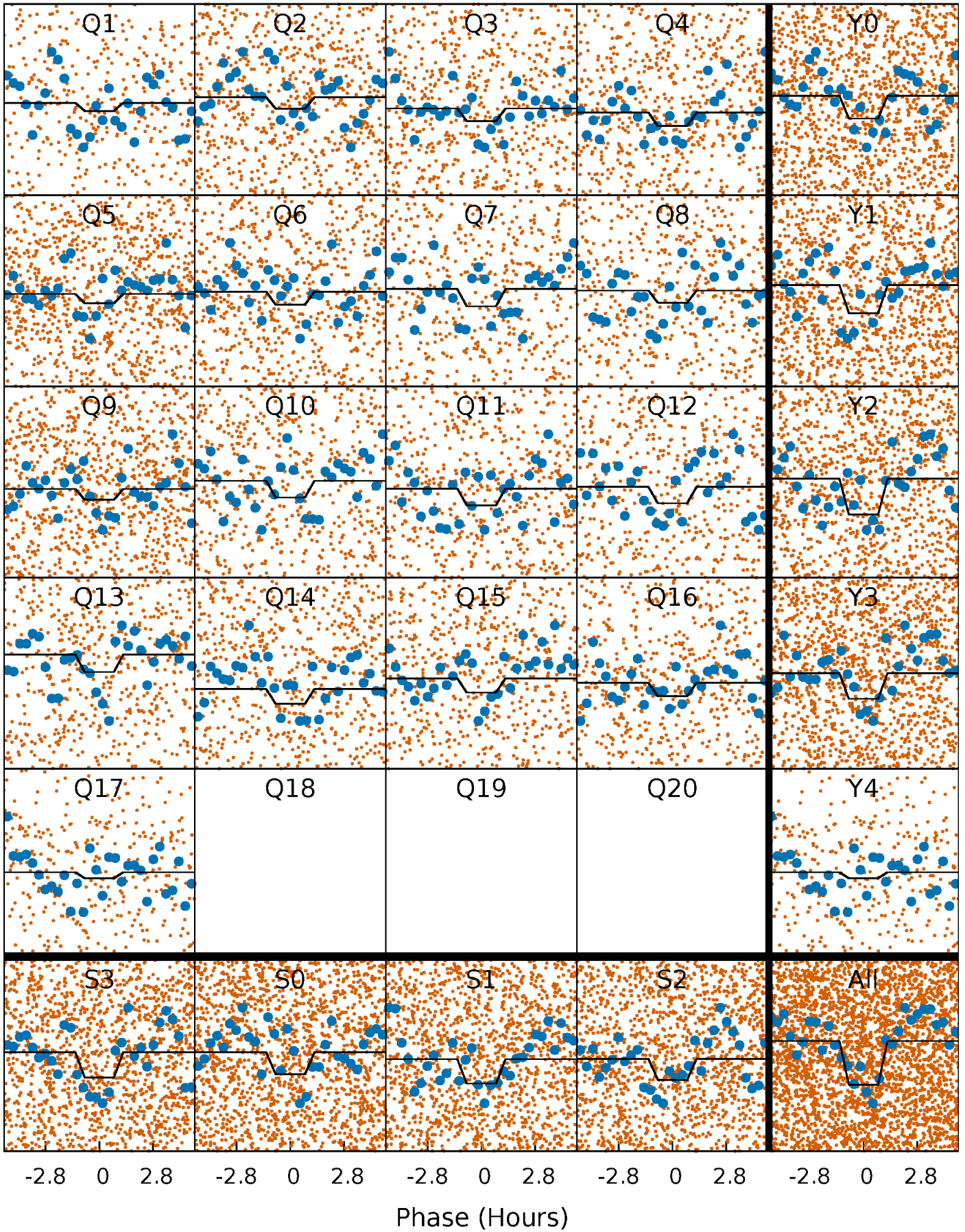
DV Quarter-Phased Transit Curves

TCE 006390243-01 P= 1.470018 Days $T_0=132.014009$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

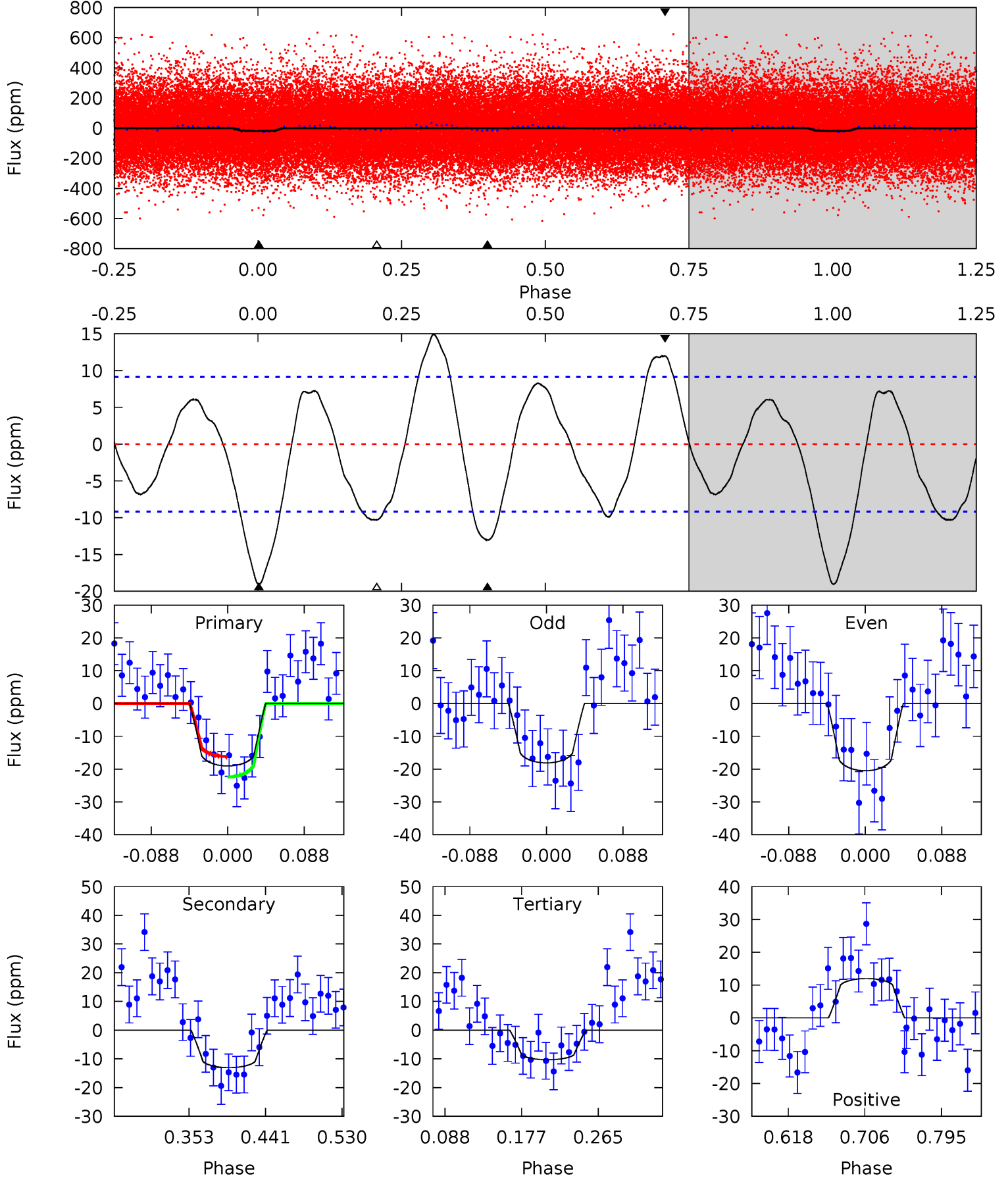
TCE 006390243-01 P= 1.470041 Days $T_0=132.011789$ (BKJD)



DV Model-Shift Uniqueness Test

006390243-01, P = 1.470018 Days, E = 130.543991 Days

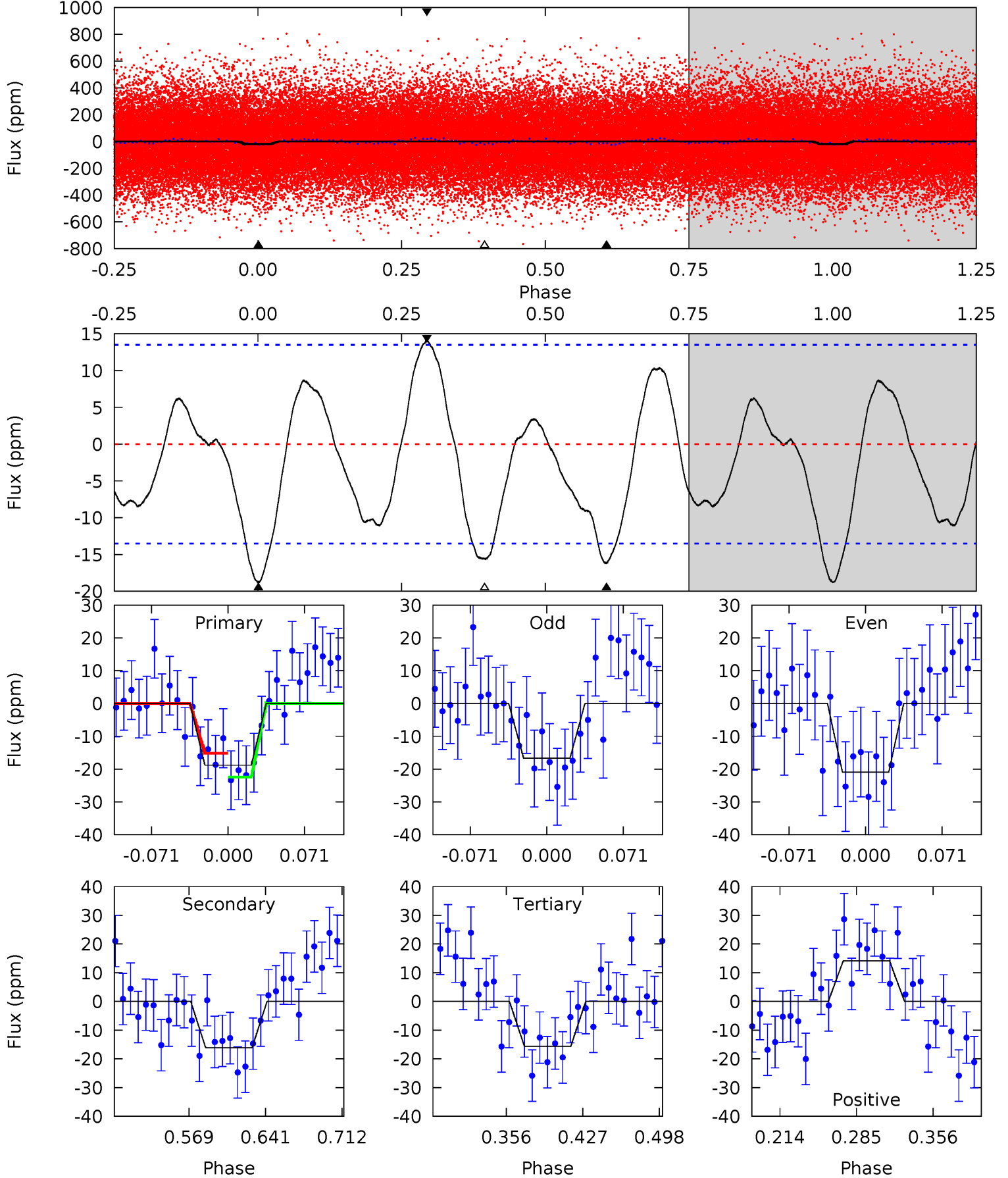
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.55	6.54	5.17	6.01	4.59	1.70	3.48	4.38	3.54	1.38	0.54	0.60	1.06	0.44	1.57



Alt Model-Shift Uniqueness Test

006390243-01, P = 1.470041 Days, E = 130.541748 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.45	5.55	5.37	4.85	4.64	1.80	2.58	1.08	1.61	0.18	0.70	0.73	1.17	0.43	1.25



Stellar Parameters For KIC 006390243

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8433^{+233}_{-366}	$3.980^{+0.210}_{-0.122}$	$0.070^{+0.250}_{-0.550}$	$2.450^{+0.511}_{-0.766}$	$2.089^{+0.333}_{-0.500}$	$0.200^{+0.282}_{-0.074}$
	+3%/-4%	+5%/-3%	+357%/-786%	+21%/-31%	+16%/-24%	+141%/-37%
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 006390243-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-13 ± 2	$1.14^{+0.51}_{-0.45}$	4459^{+285}_{-327}	7240^{+2941}_{-1200}	$5.748^{+10.108}_{-2.966}$
Alt.	-16 ± 3	$1.15^{+0.52}_{-0.45}$	4461^{+304}_{-344}	7792^{+3040}_{-1521}	$7.072^{+11.414}_{-3.814}$

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 $A_{\text{obs}} \gg 1.0$

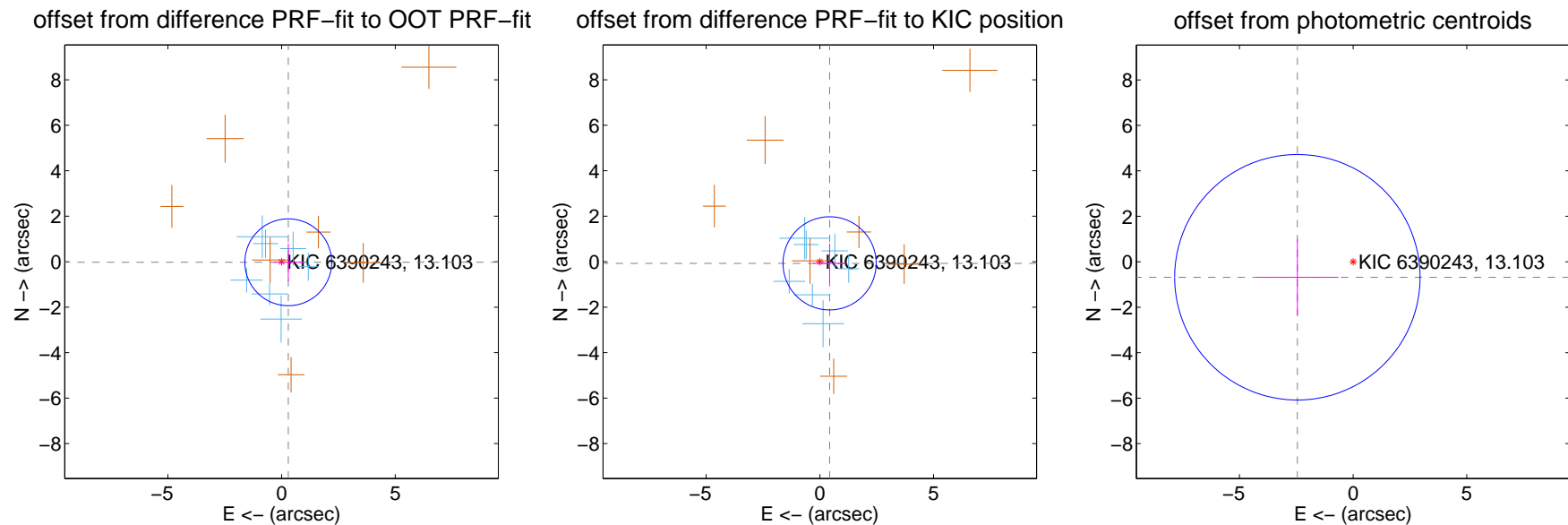
DV Centroid Data

Supplemental centroid analysis for 006390243-01. Kepler magnitude: 13.10. Transit SNR 6.73

There are 7 quarters with good PRF difference image offsets

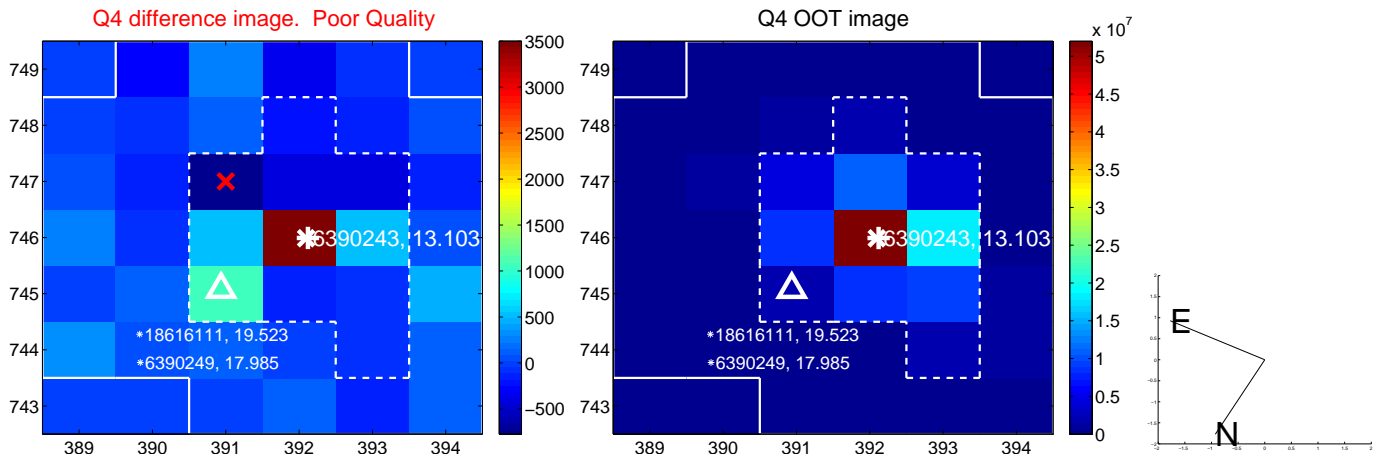
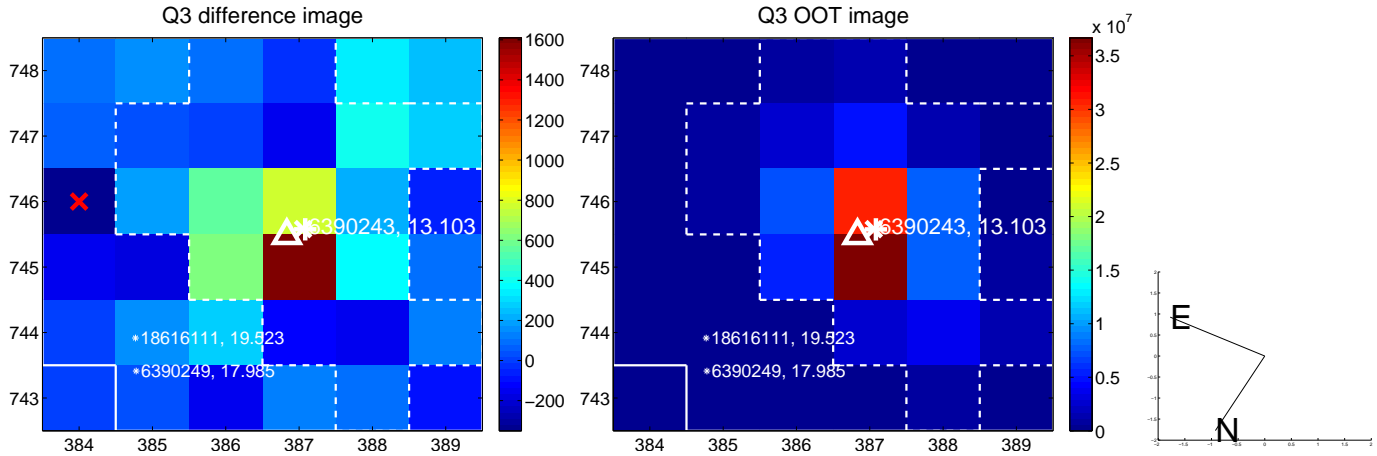
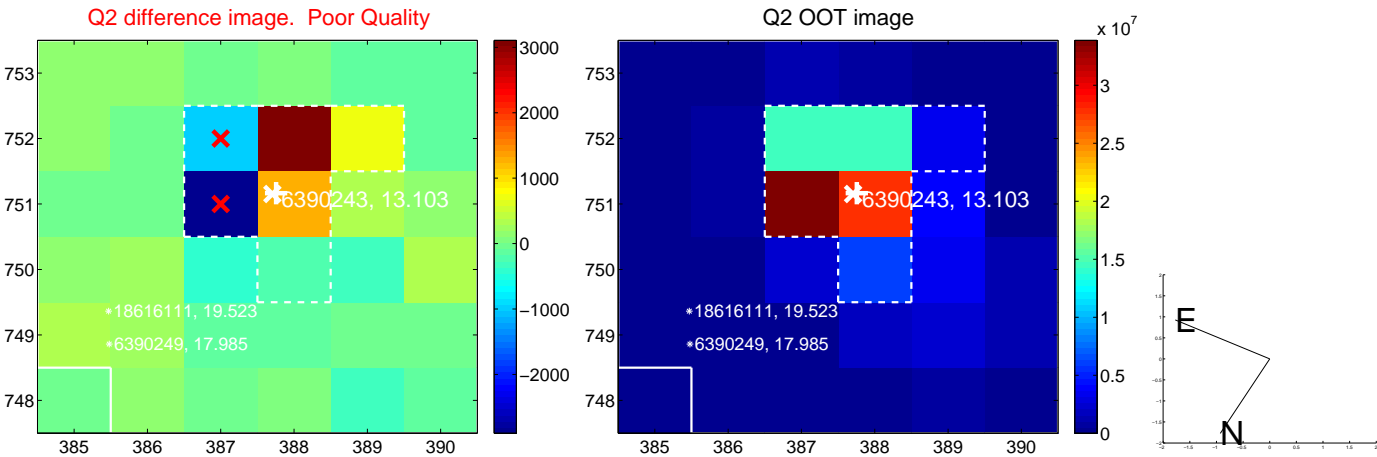
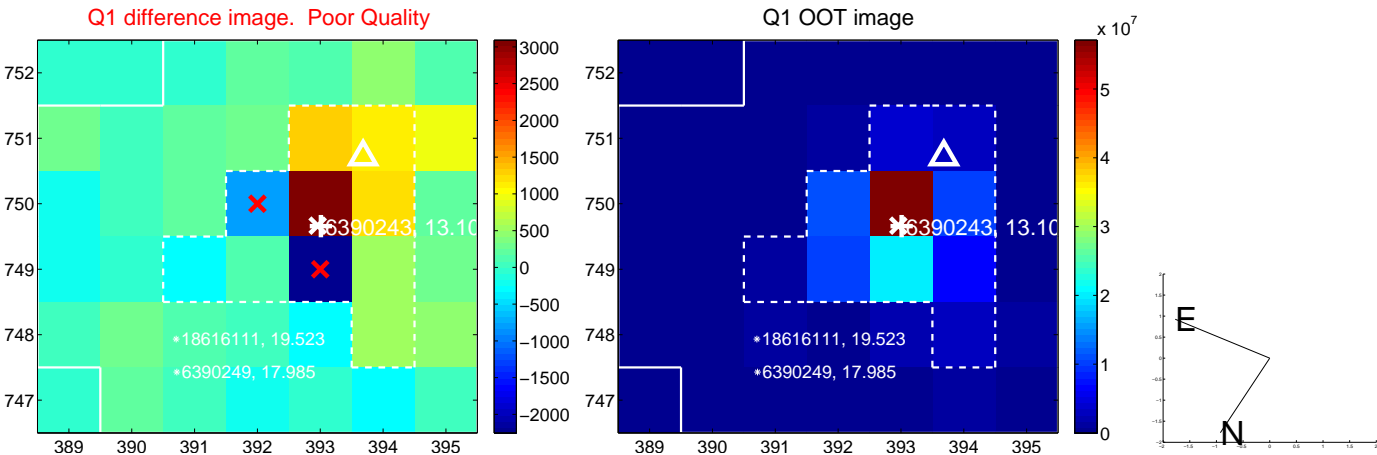
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.295 ± 0.636	0.46	-0.294 ± 0.650	-0.026 ± 0.826
PRF-fit source offset from KIC position	0.436 ± 0.683	0.64	-0.430 ± 0.724	-0.072 ± 0.869
photometric centroid source offset	2.55 ± 1.80	1.41	2.45 ± 1.81	-0.68 ± 1.68

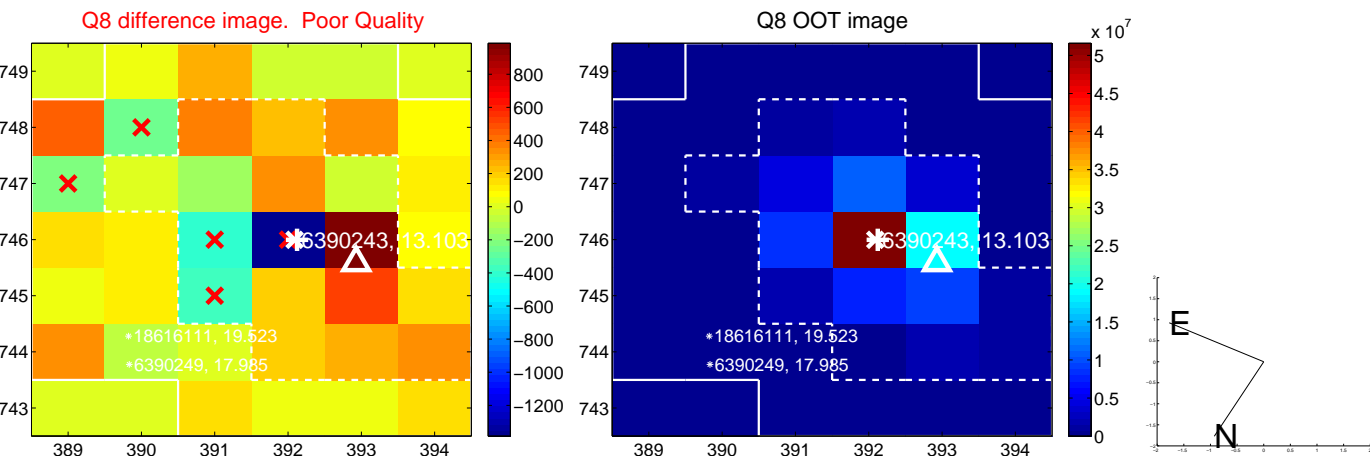
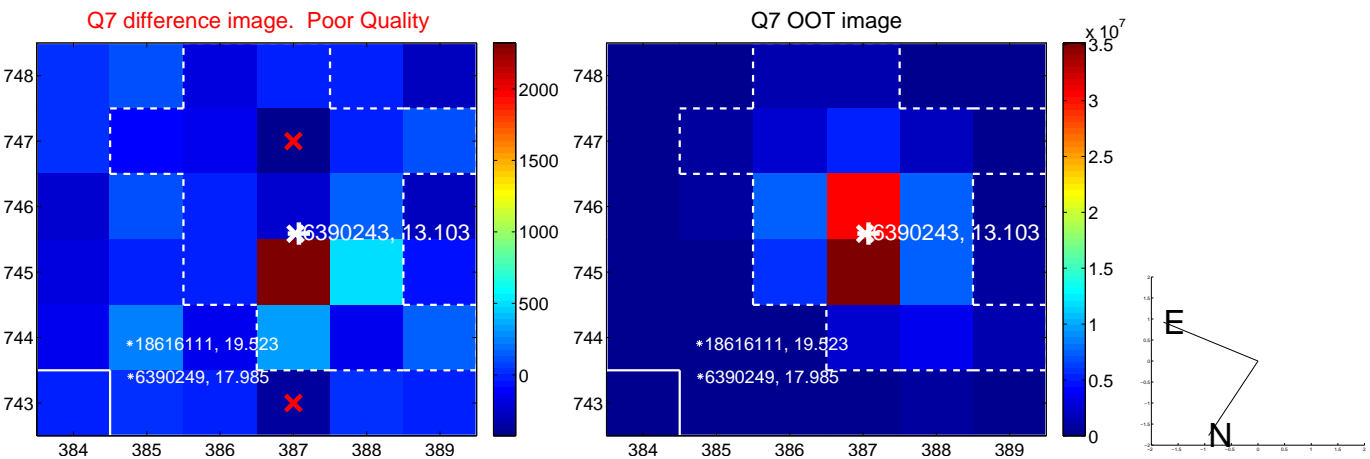
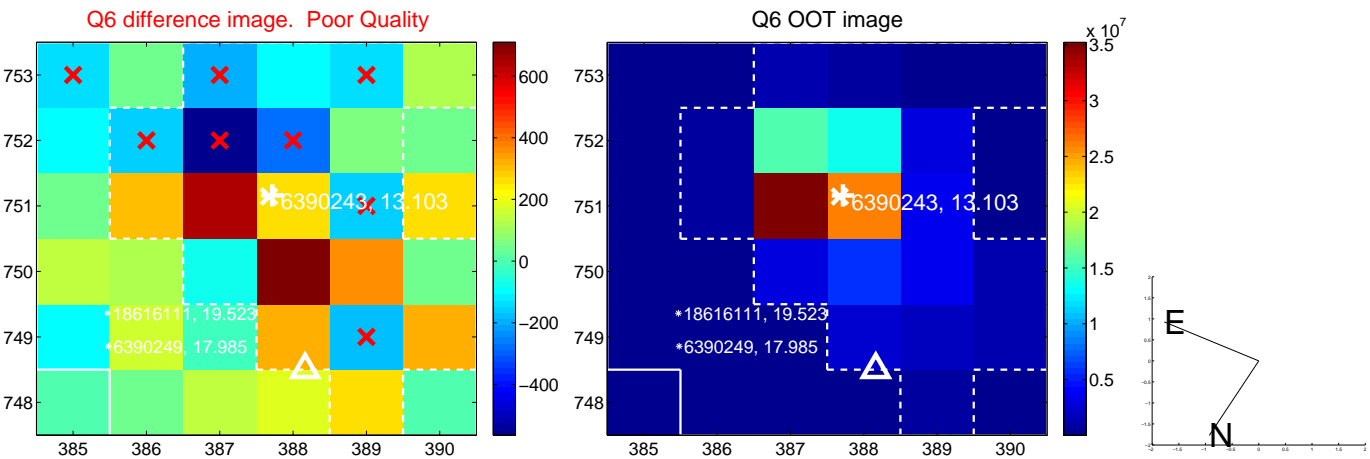
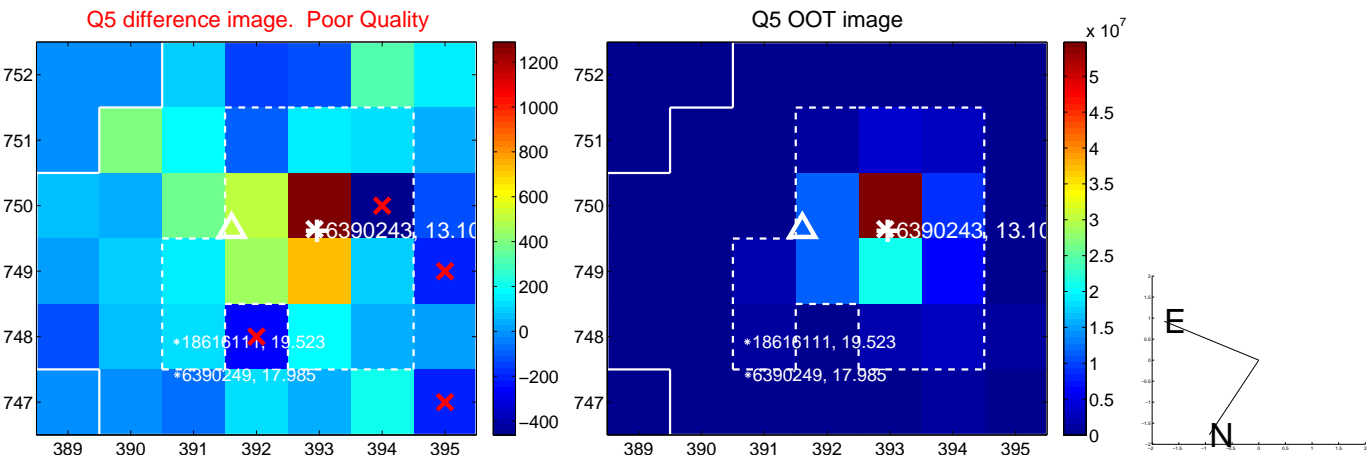


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

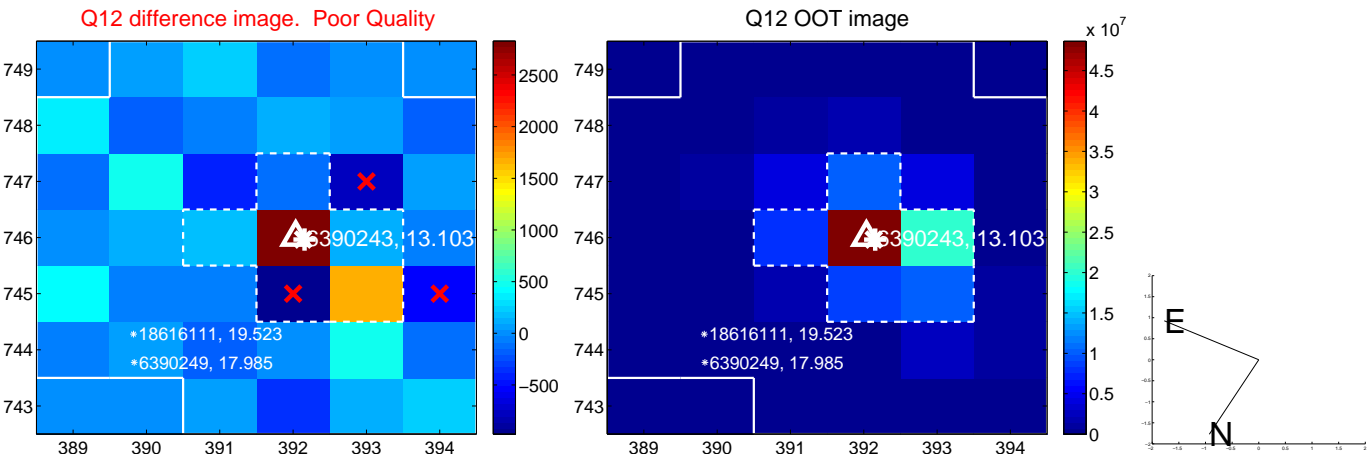
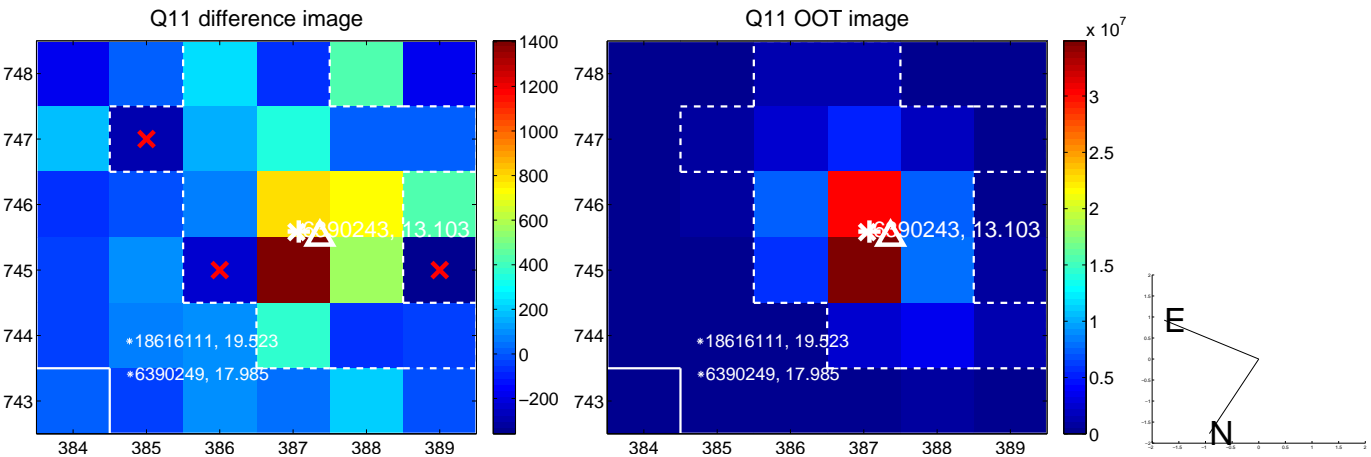
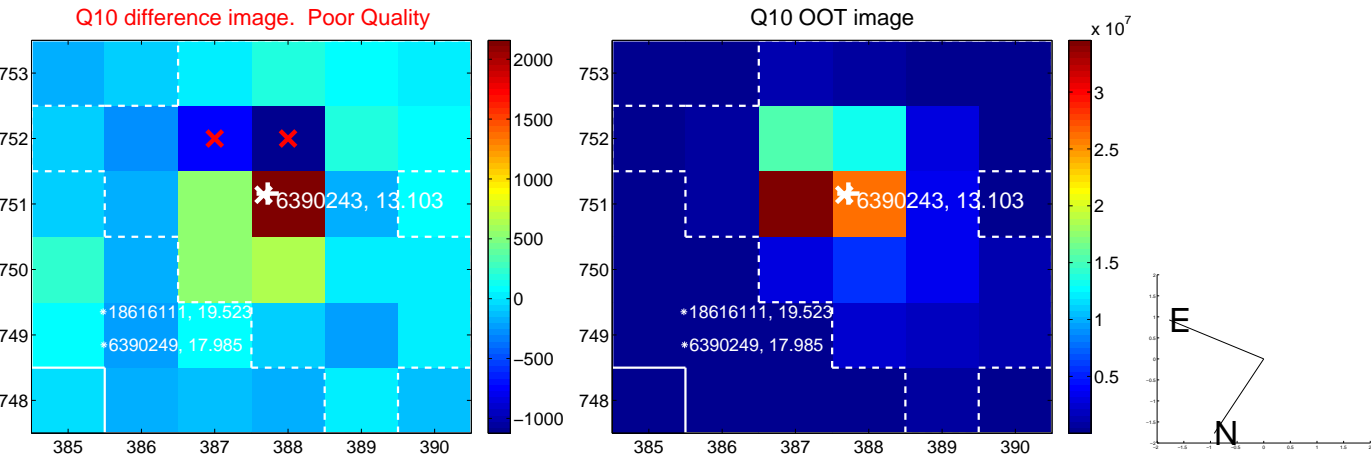
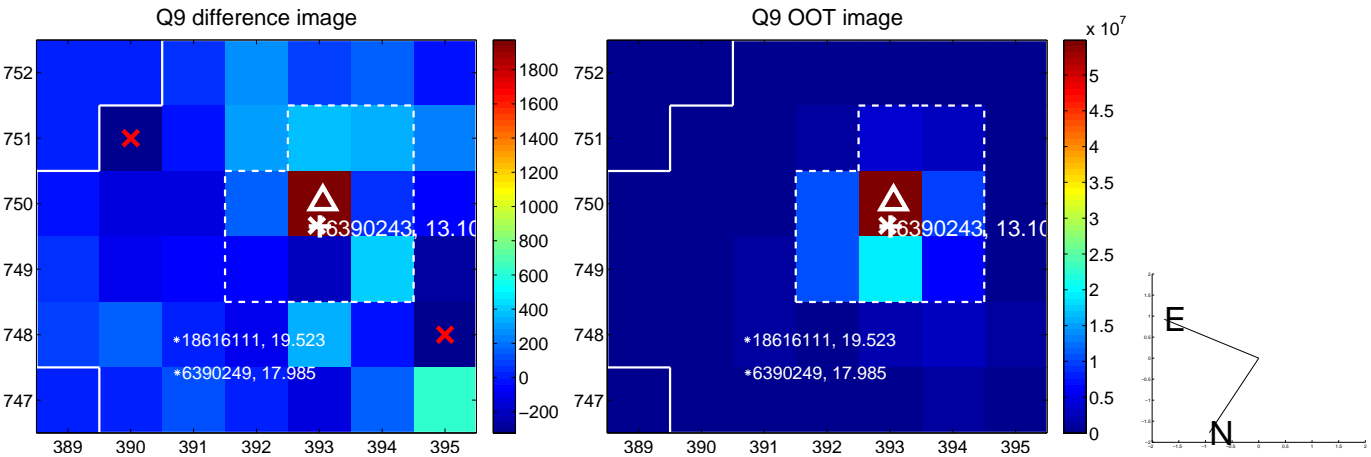
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



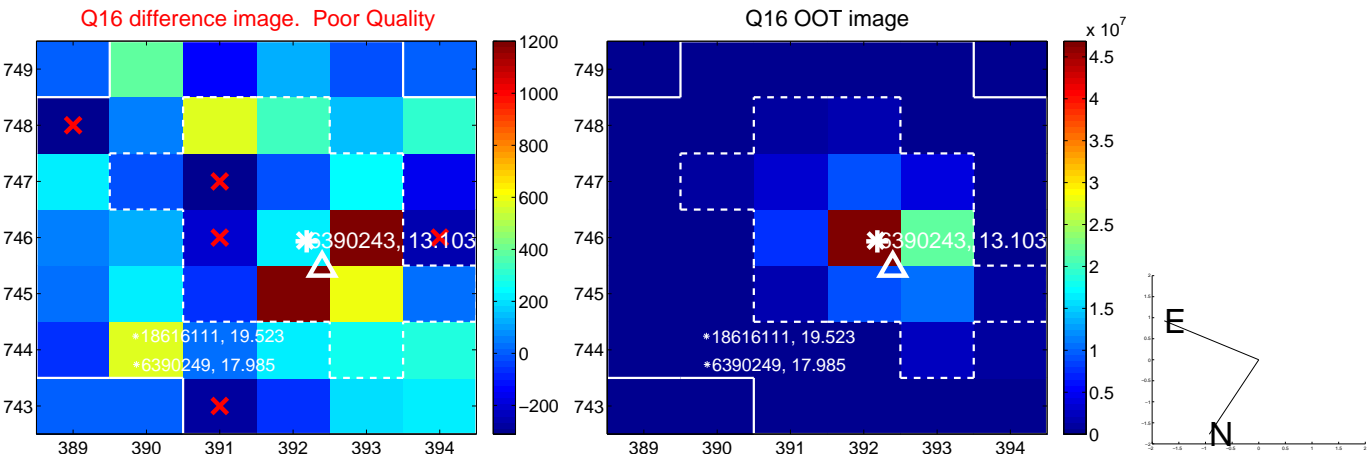
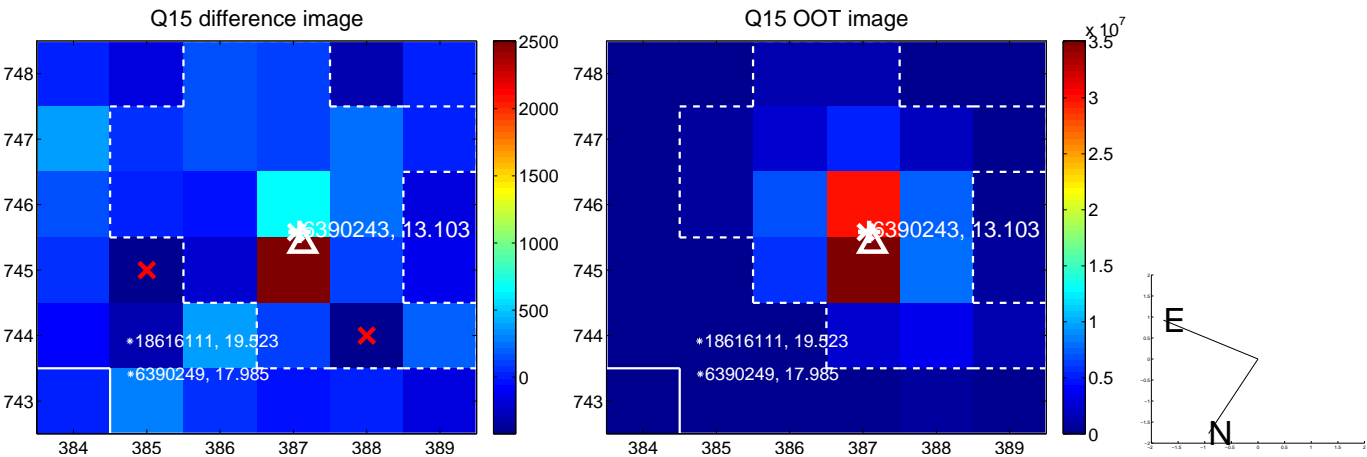
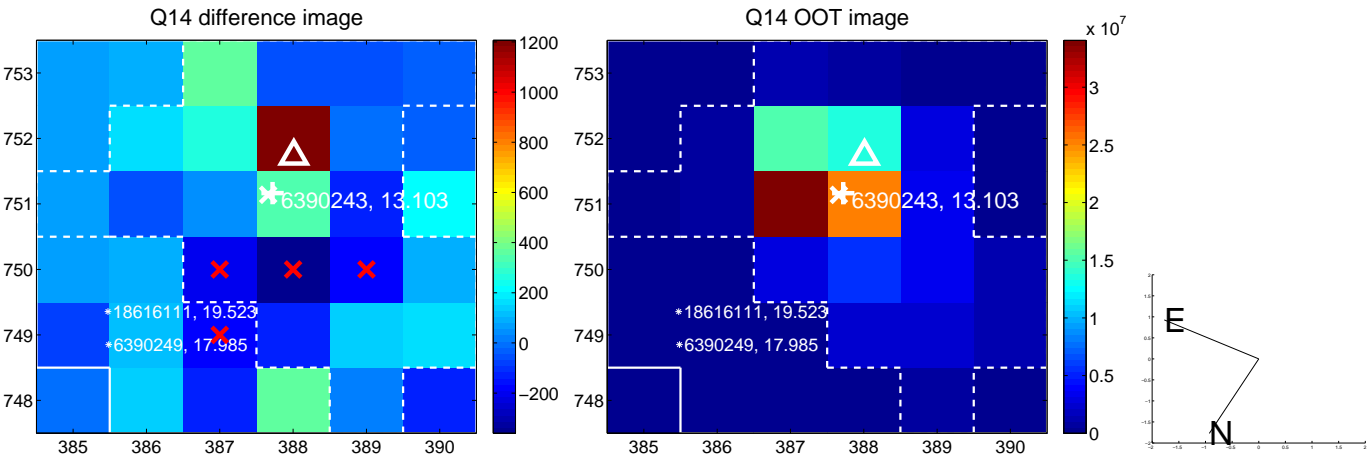
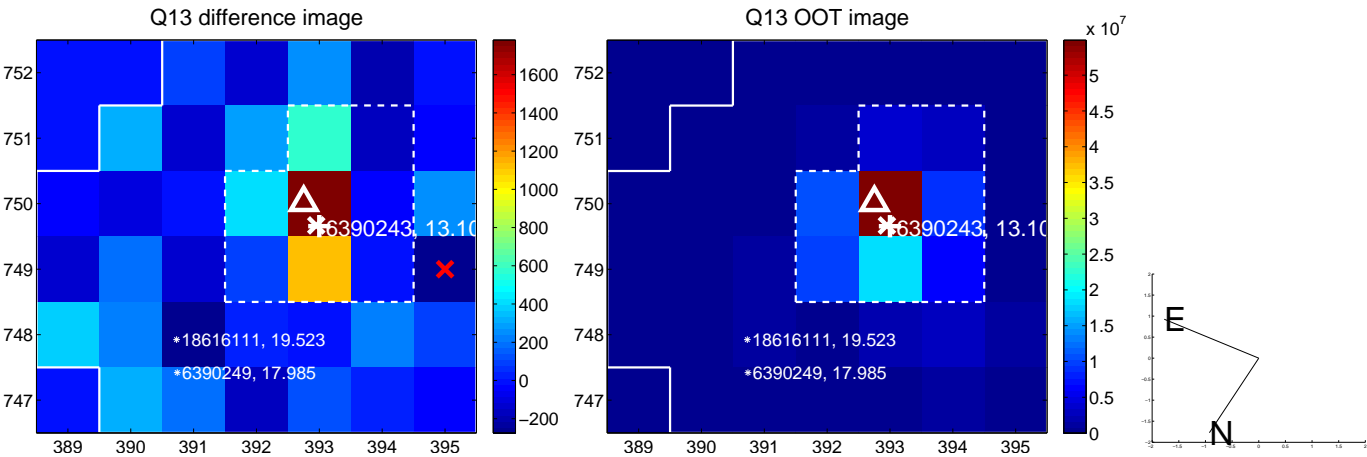
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



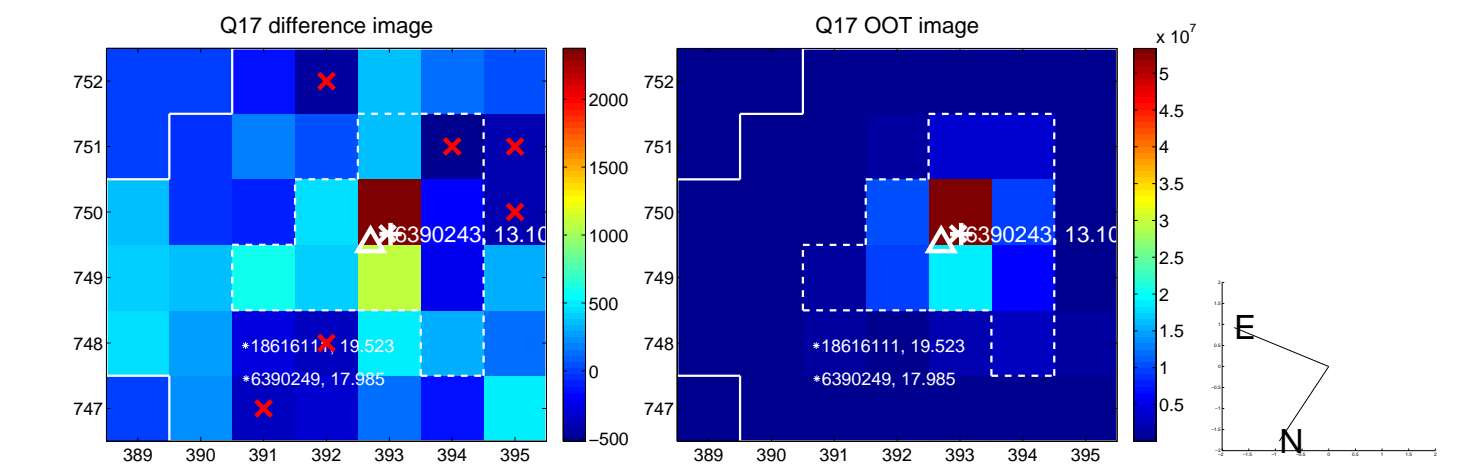
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



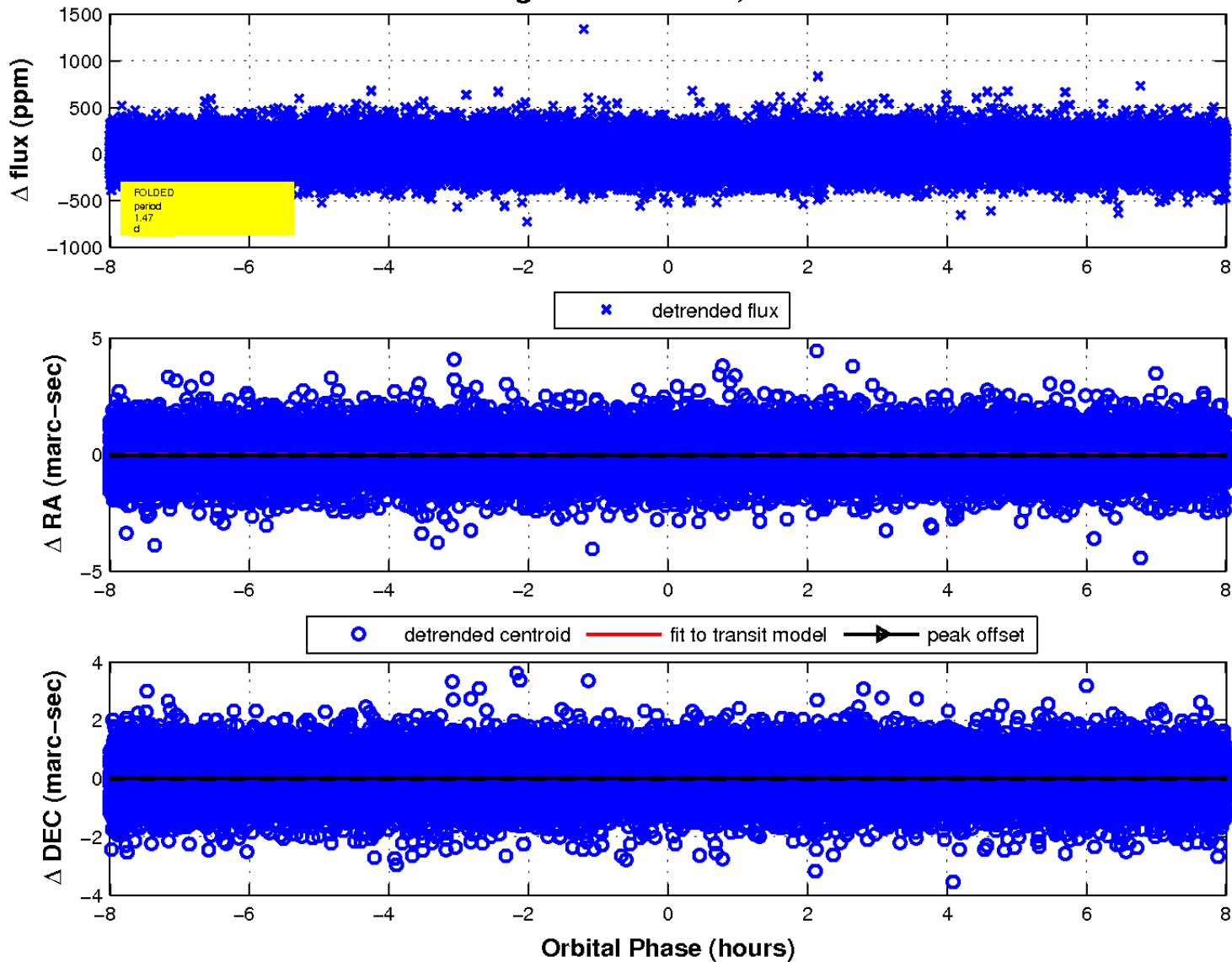
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

