

KIC 003733123

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})
003733123-01	OBS	No	4.757312	133.334028	151.4	2.155	7.7	7.8	7.04	4878	10.61	7866.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003733123-01	OBS	FP	0.00	1	0	0	0	LPP_ALT—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.

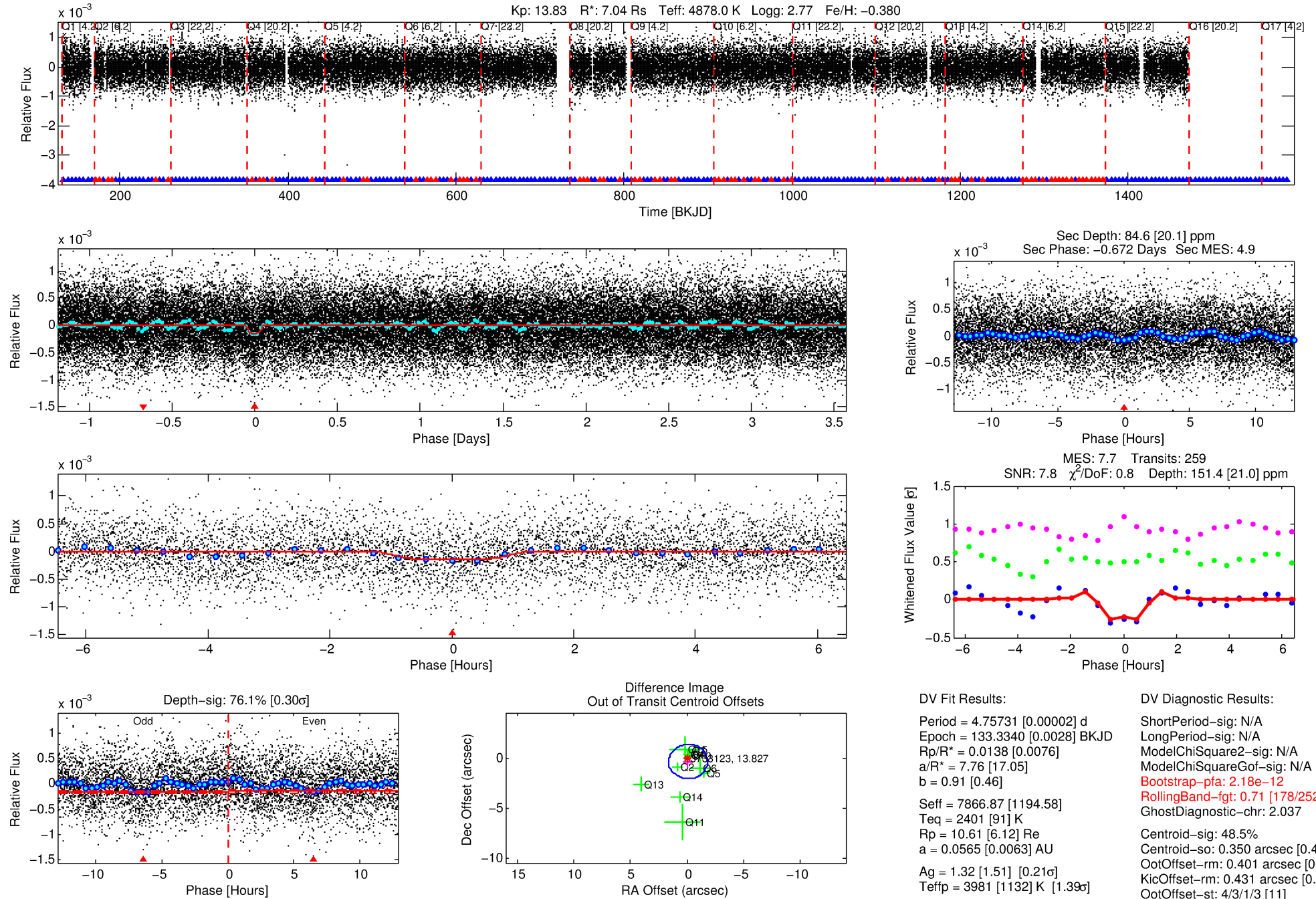
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003733123-01

No Significant Match Found

DV One-Page Summary

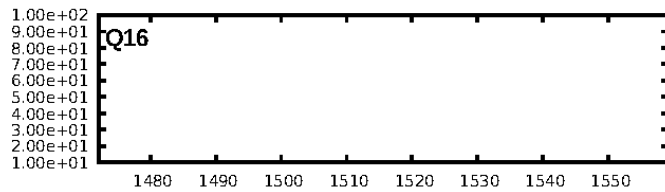
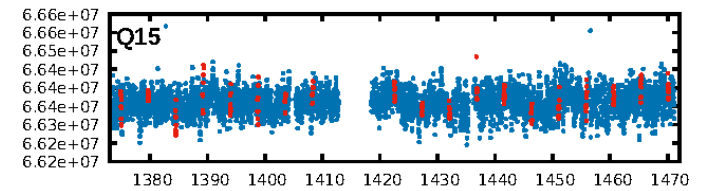
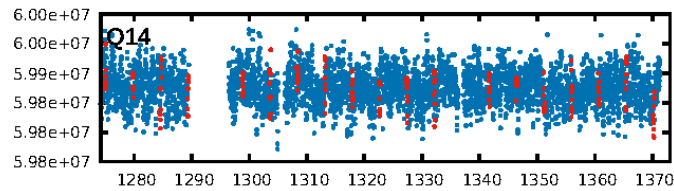
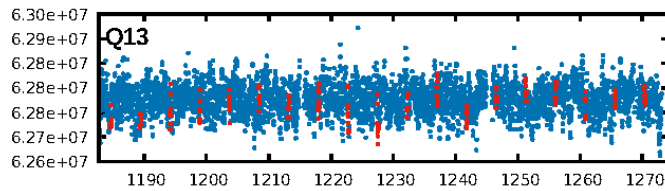
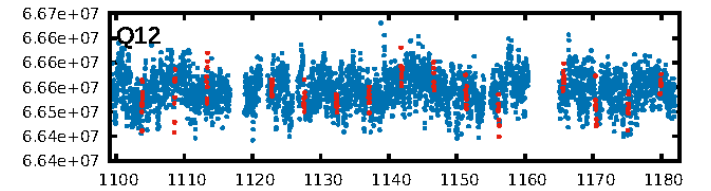
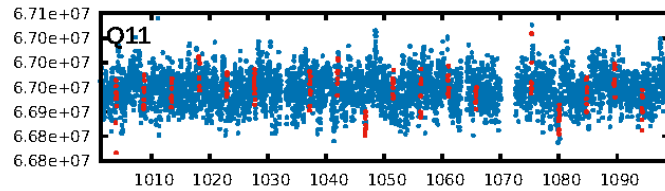
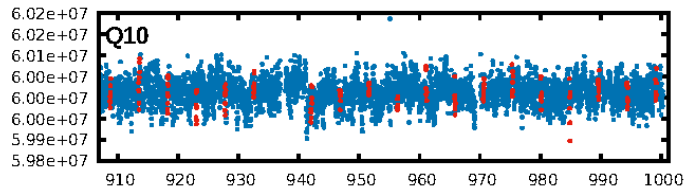
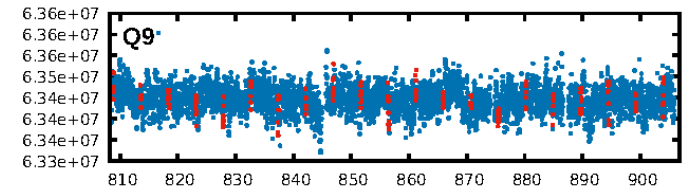
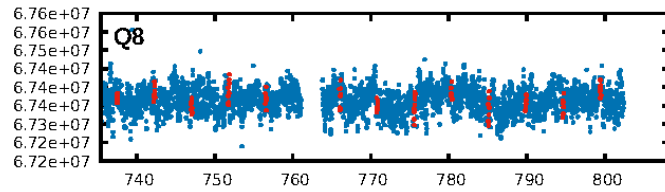
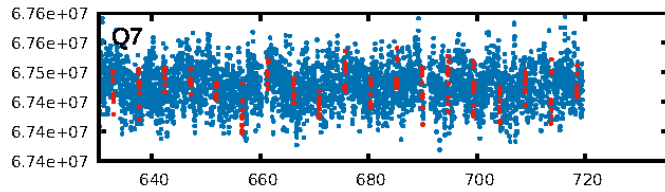
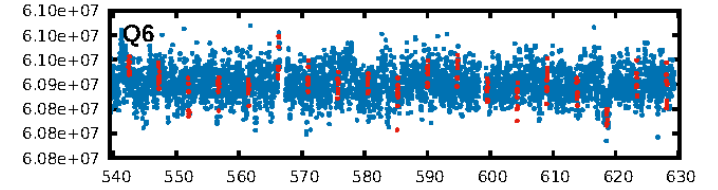
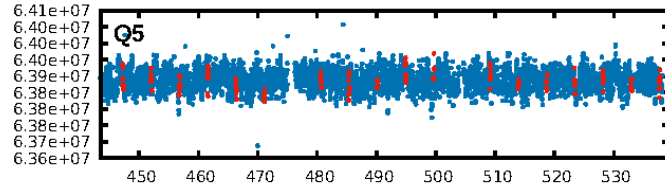
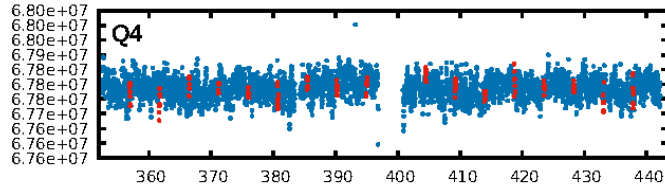
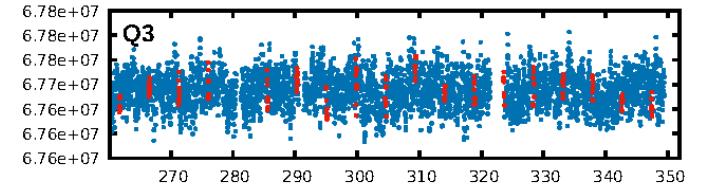
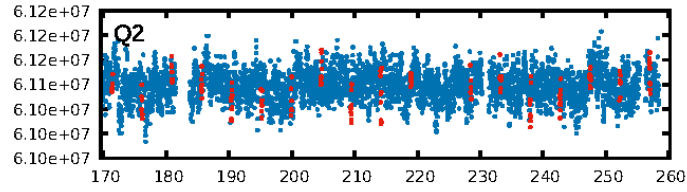
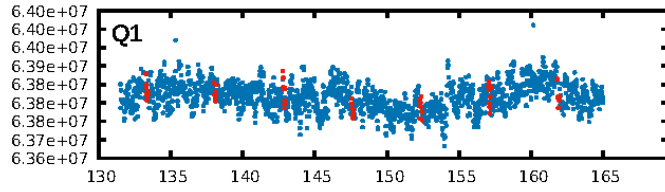
KIC: 3733123 Candidate: 1 of 1 Period: 4.757 d



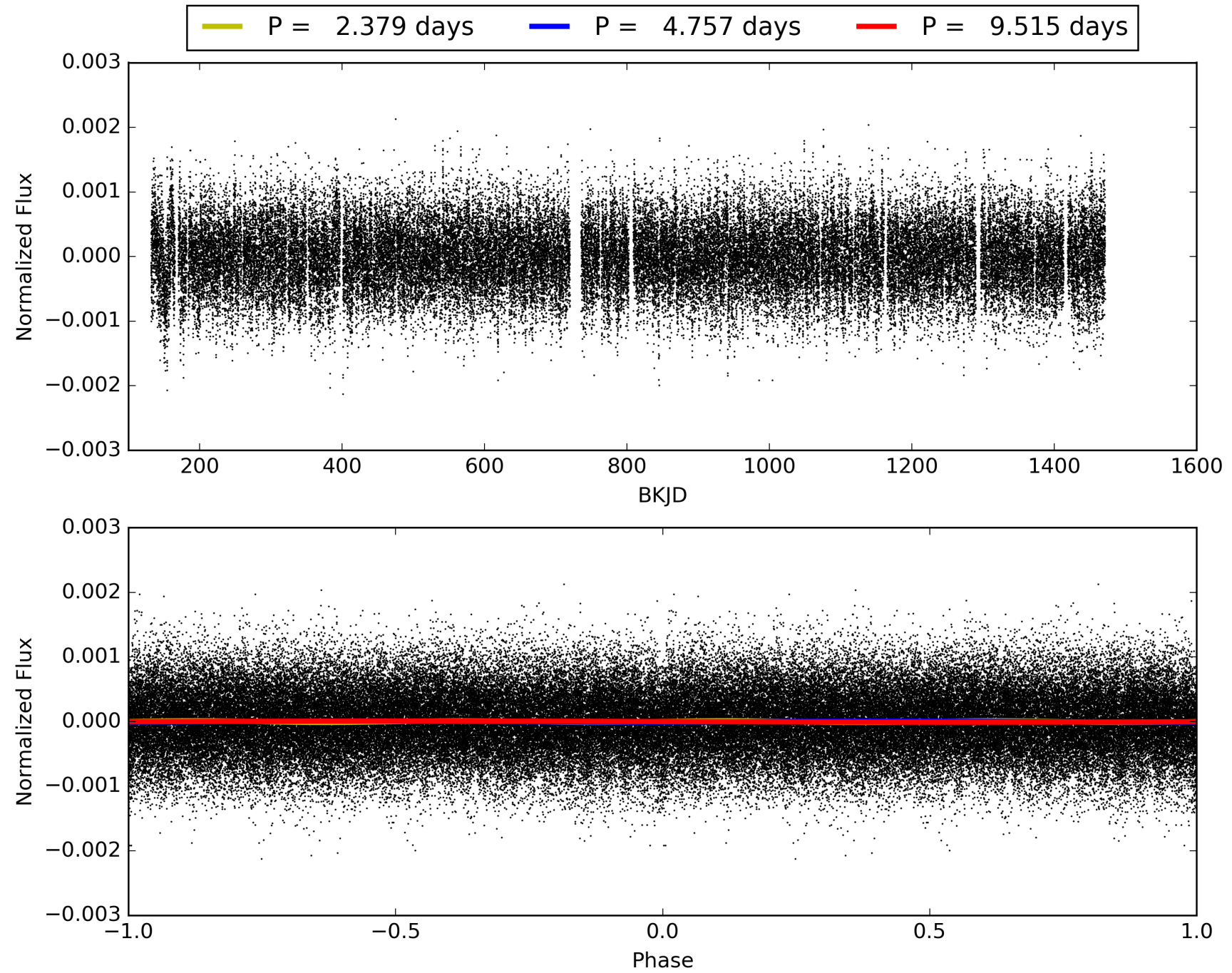
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:23:00 Z

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

TCE 003733123-01, PDC Light Curves

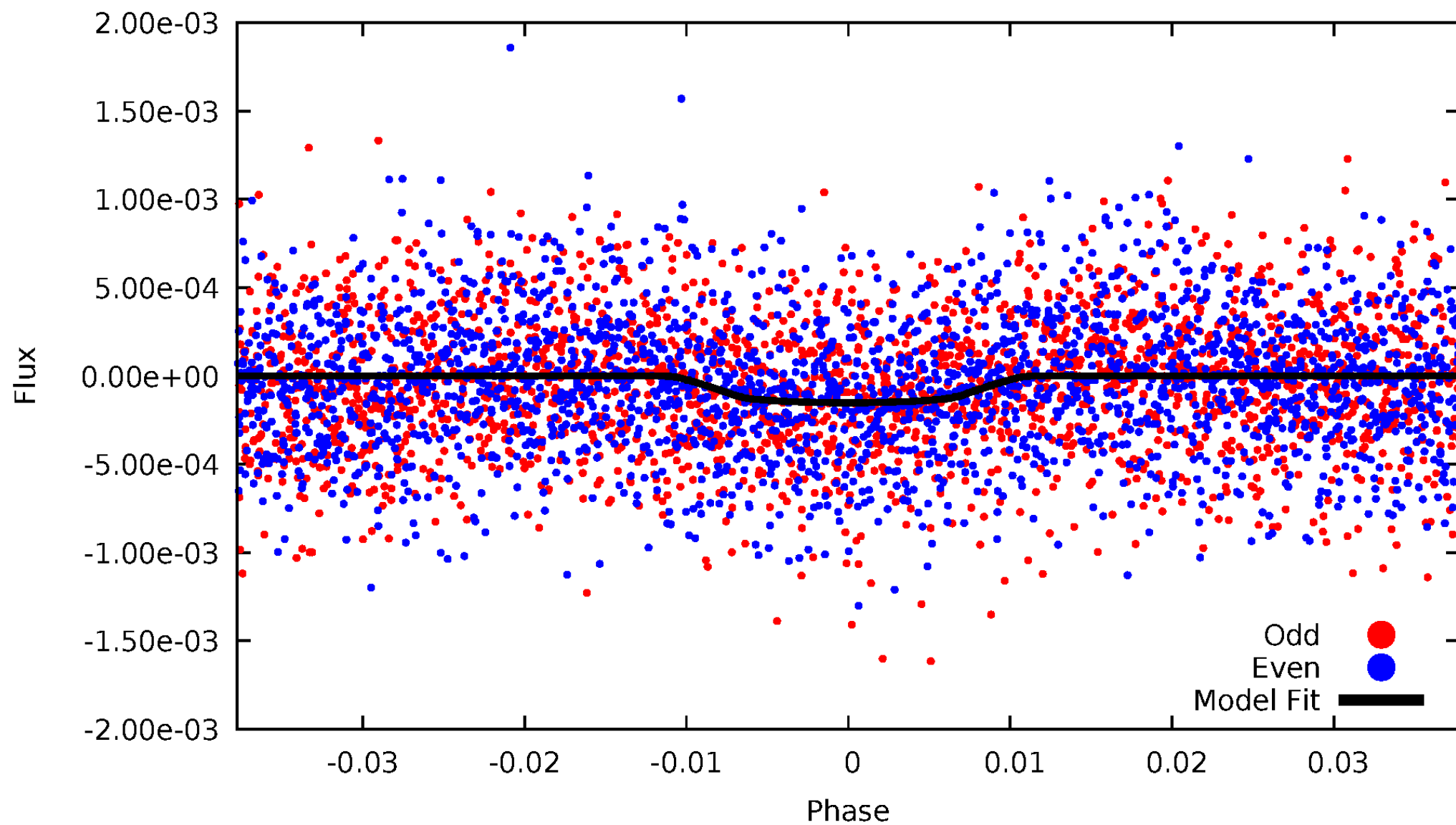


TCE 003733123-01



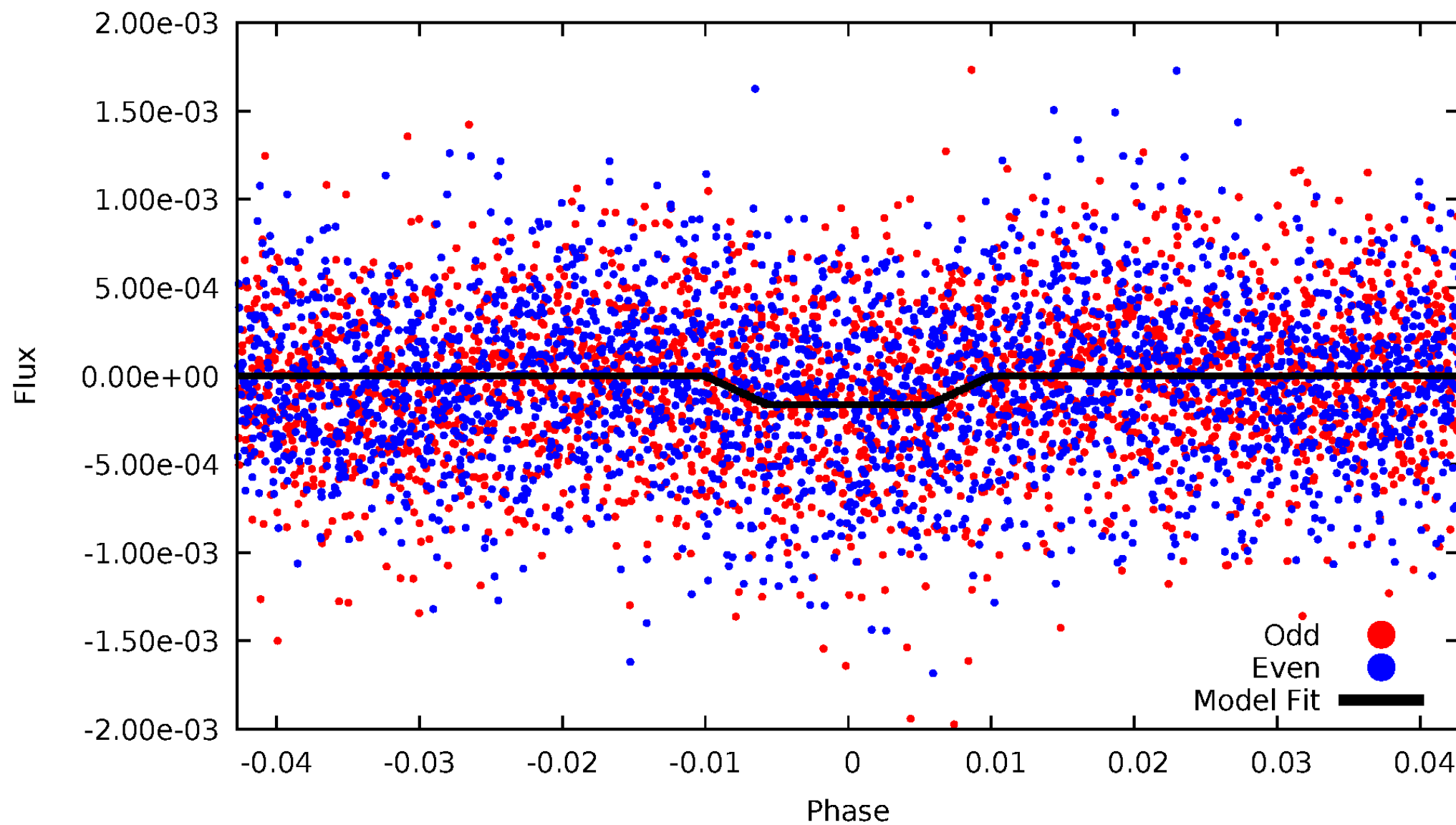
DV Odd/Even

TCE 003733123-01



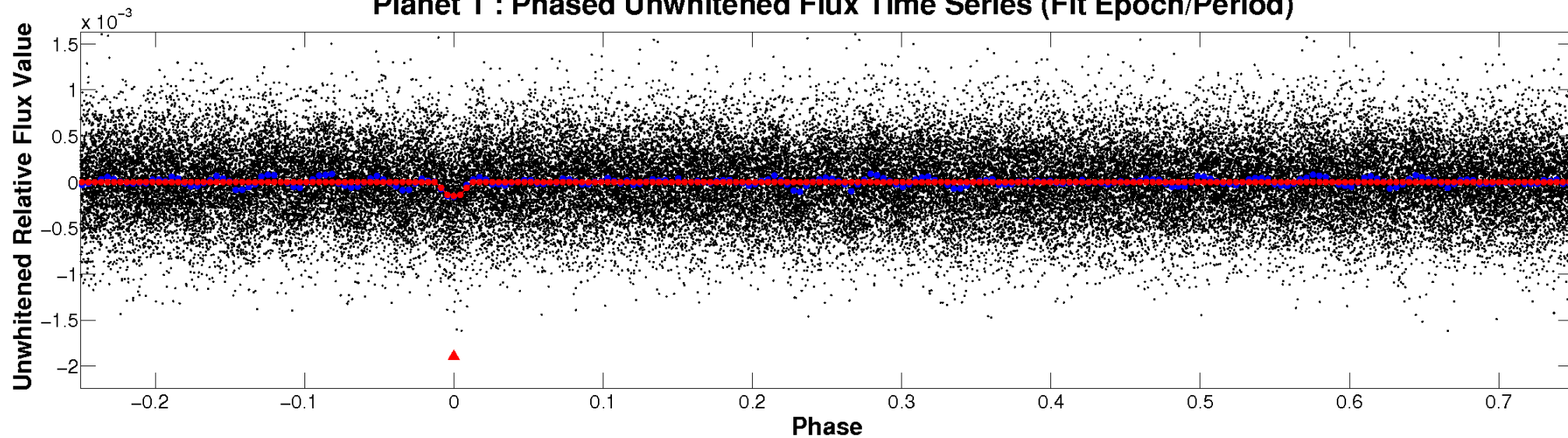
ALT Odd/Even

TCE 003733123-01

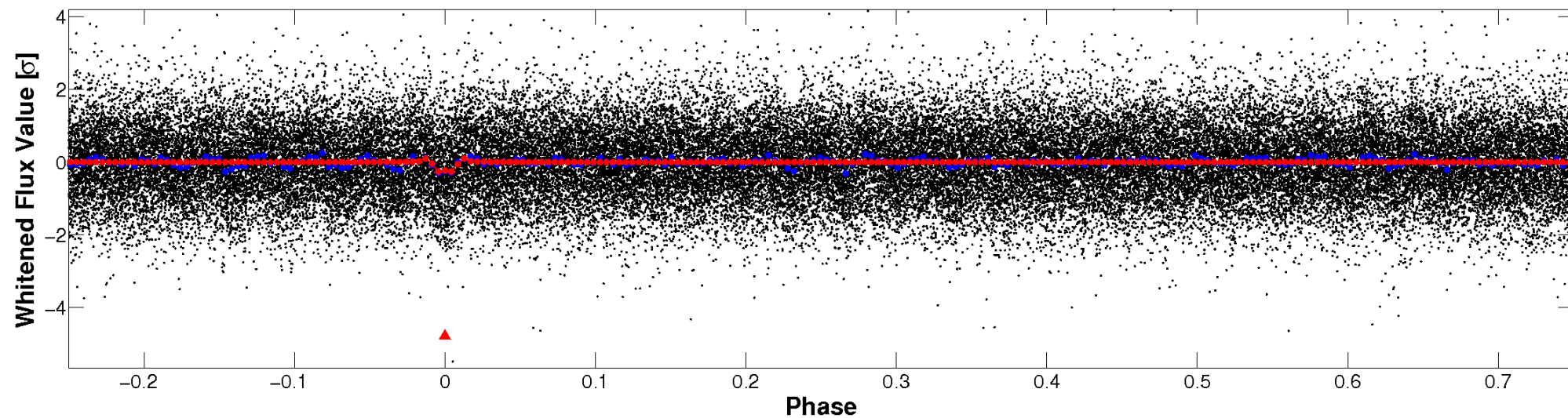


Non-Whitened Vs. Whitened Light Curve

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

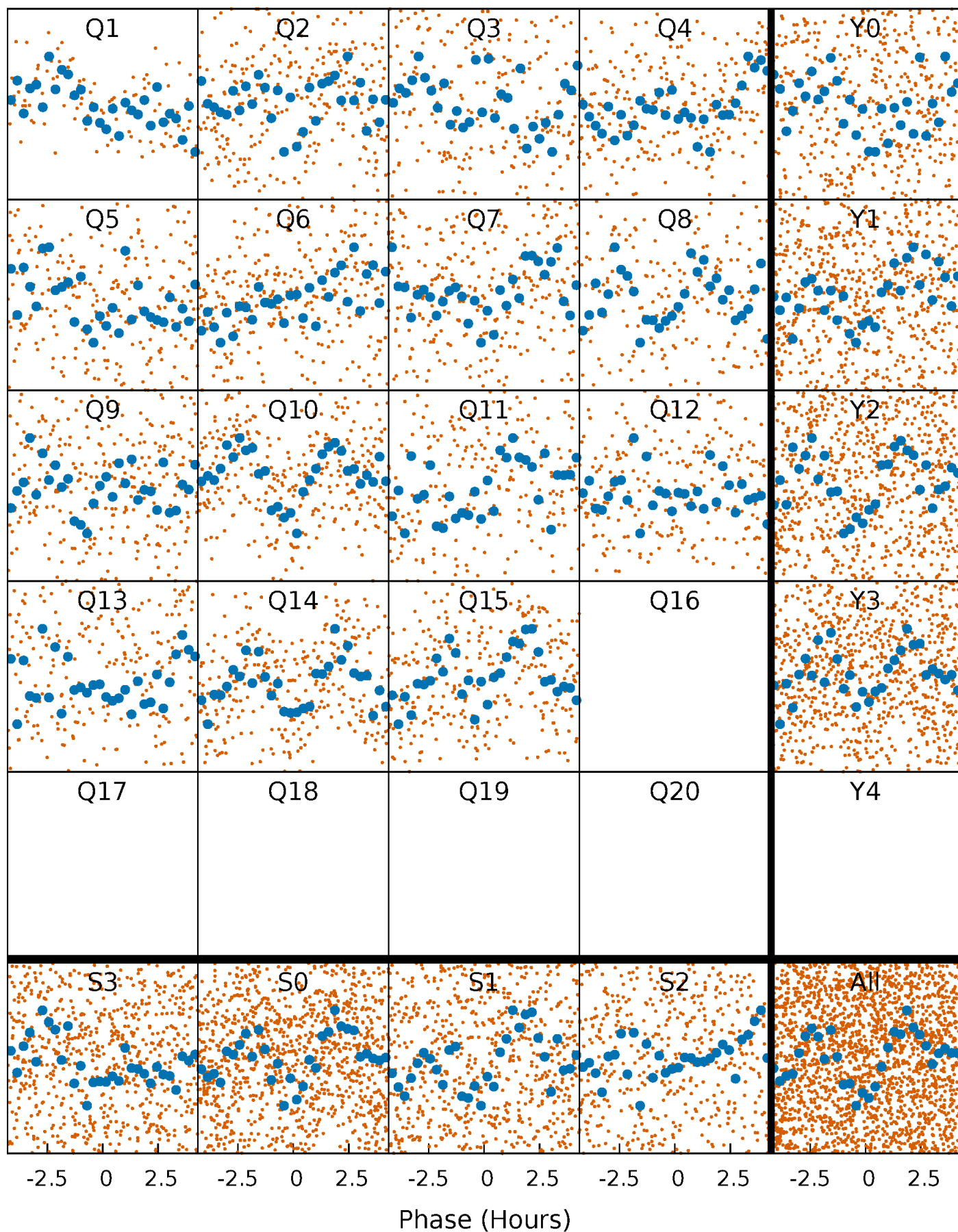


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



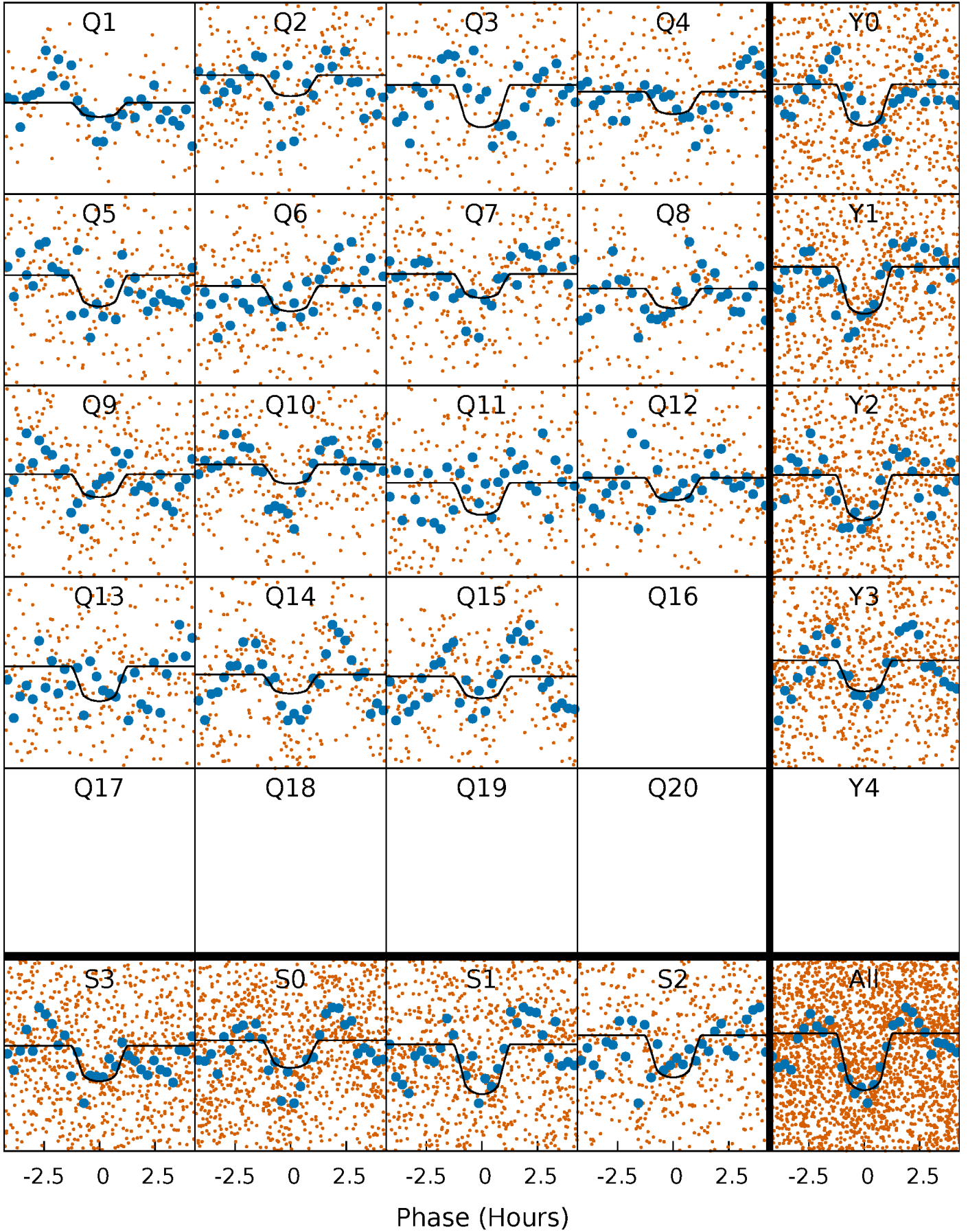
PDC Quarter-Phased Transit Curves

TCE 003733123-01 P= 4.757312 Days $T_0=133.334028$ (BKJD)



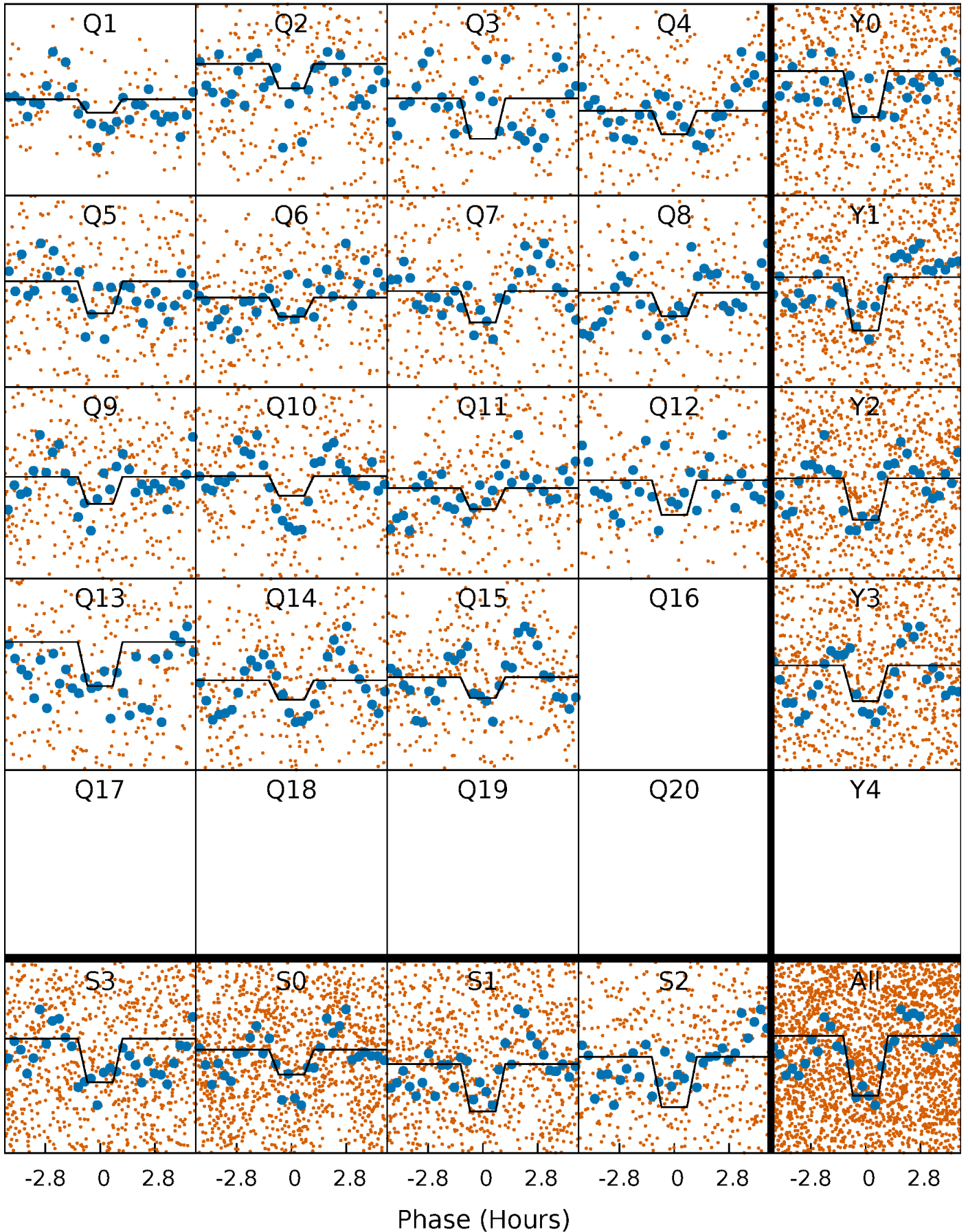
DV Quarter-Phased Transit Curves

TCE 003733123-01 $P = 4.757312$ Days $T_0 = 133.334028$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

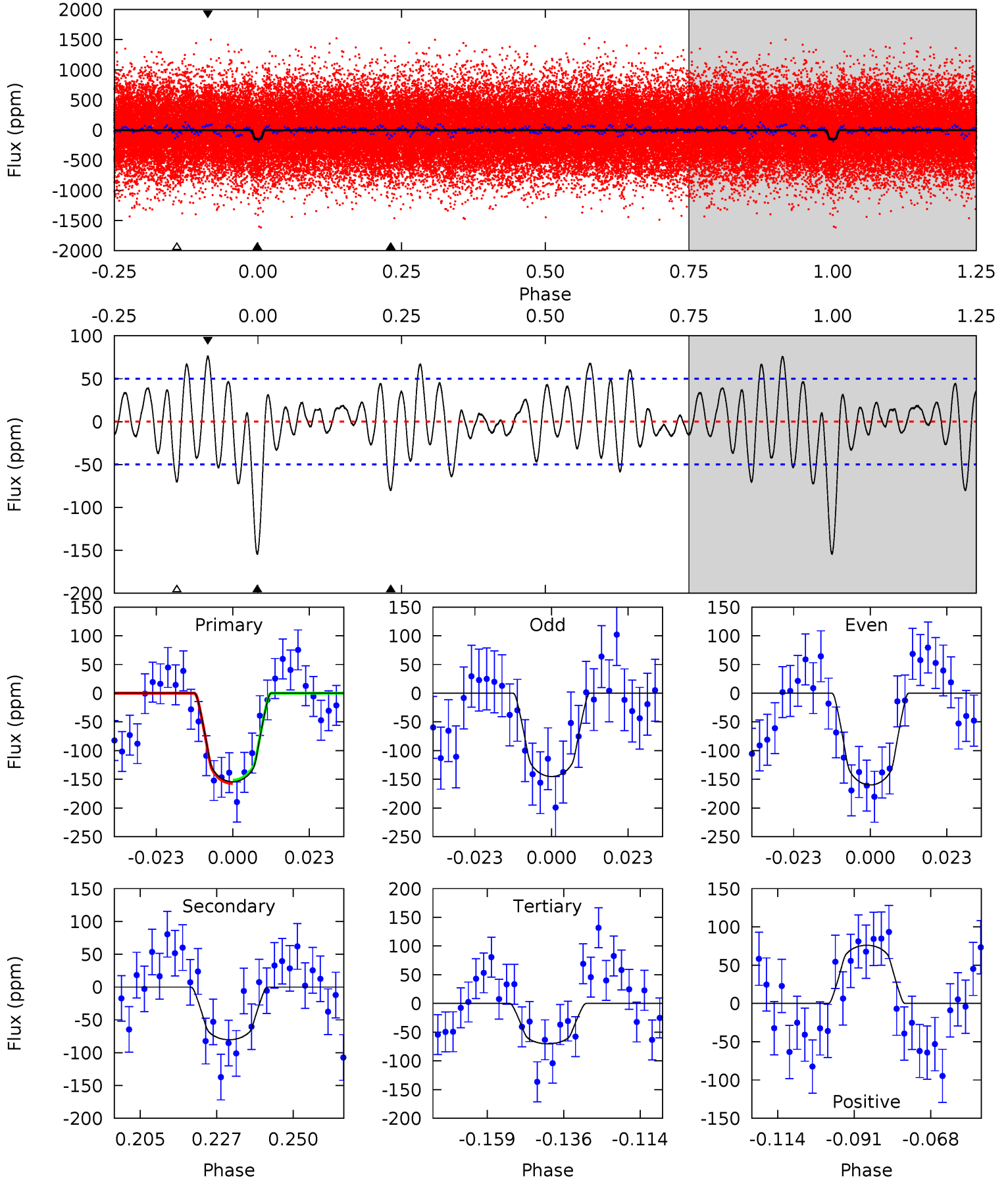
TCE 003733123-01 P= 4.757234 Days $T_0=133.337292$ (BKJD)



DV Model-Shift Uniqueness Test

003733123-01, P = 4.757312 Days, E = 128.576716 Days

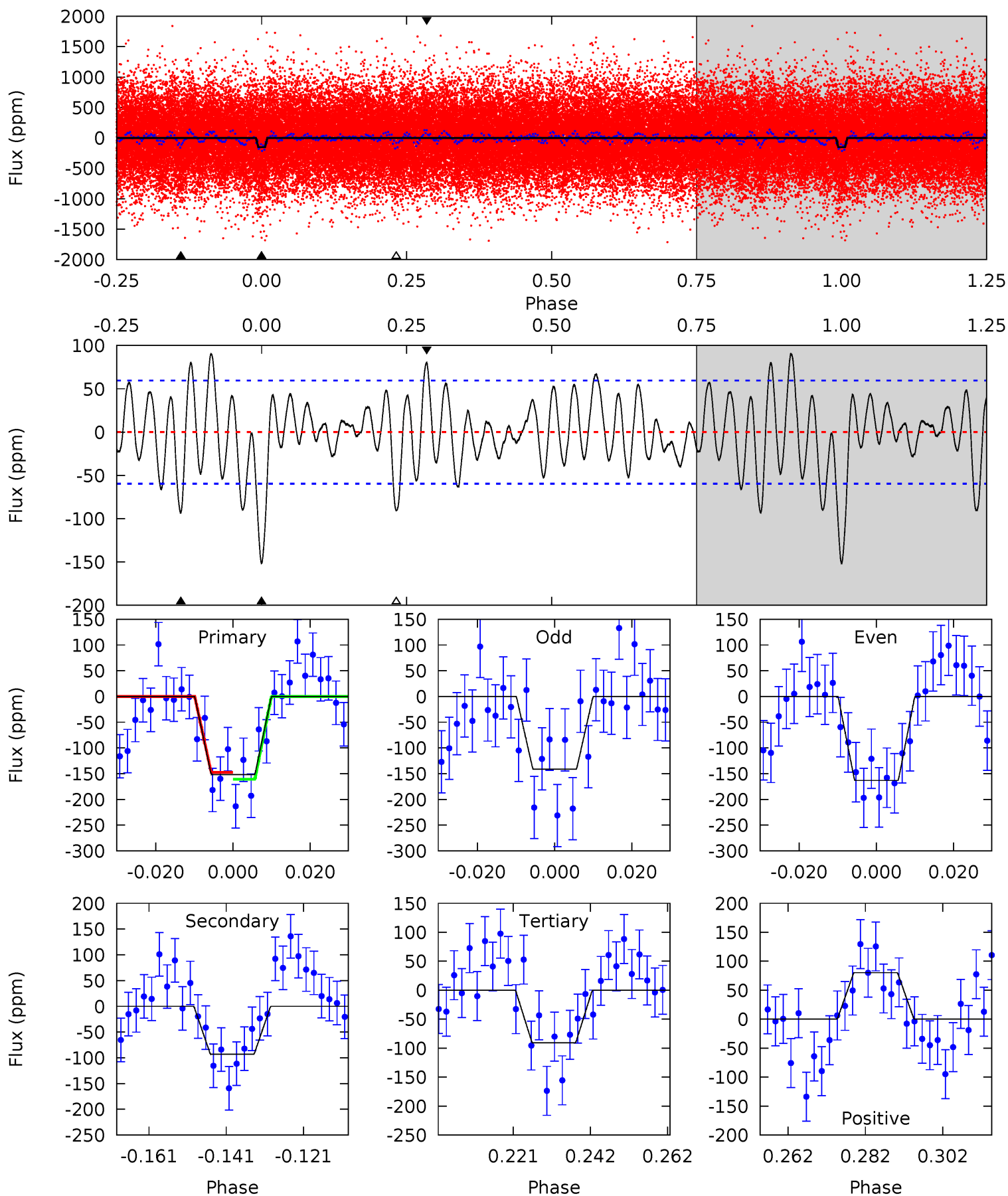
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	7.84	6.86	7.42	4.87	2.28	2.75	8.19	7.64	0.97	0.41	0.72	1.28	0.33	0.28



Alt Model-Shift Uniqueness Test

003733123-01, P = 4.757234 Days, E = 128.580058 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	7.65	7.44	6.60	4.89	2.32	2.72	5.01	5.85	0.21	1.05	0.89	1.17	0.37	0.54



Stellar Parameters For KIC 003733123

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4878^{+117}_{-98}	$2.770^{+0.030}_{-0.030}$	$-0.380^{+0.250}_{-0.200}$	$7.041^{+1.144}_{-0.528}$	$1.064^{+0.366}_{-0.157}$	$0.004^{+0.001}_{-0.001}$
	+2%/-2%	+1%/-1%	+66%/-53%	+16%/-7%	+34%/-15%	+13%/-16%
Source	PHO1	AST9	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 003733123-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-80 ± 10	$10.85^{+5.69}_{-5.55}$	3358^{+110}_{-86}	3907^{+1458}_{-826}	$1.234^{+3.720}_{-0.721}$
Alt.	-93 ± 12	$10.36^{+5.89}_{-5.31}$	3354^{+108}_{-85}	4118^{+1646}_{-852}	$1.541^{+5.098}_{-0.919}$

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

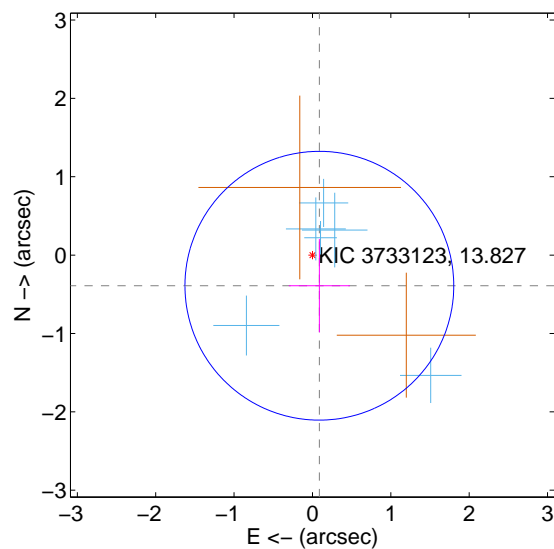
Supplemental centroid analysis for 003733123-01. Kepler magnitude: 13.83. Transit SNR 7.77

There are 6 quarters with good PRF difference image offsets

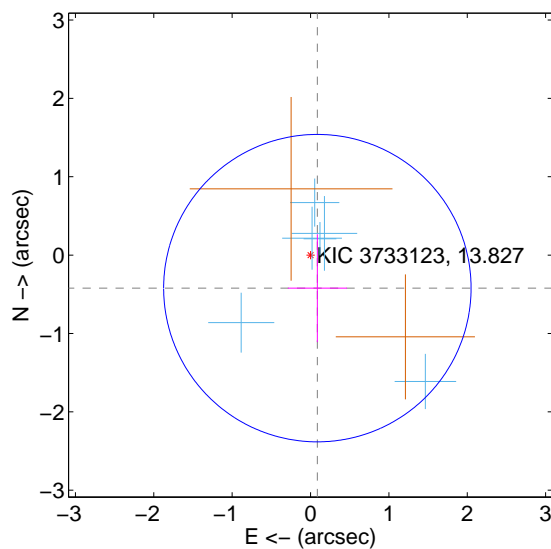
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.401 ± 0.572	0.70	-0.088 ± 0.390	-0.391 ± 0.595
PRF-fit source offset from KIC position	0.431 ± 0.654	0.66	-0.087 ± 0.378	-0.422 ± 0.689
photometric centroid source offset	0.35 ± 0.74	0.47	0.09 ± 0.64	0.34 ± 0.75

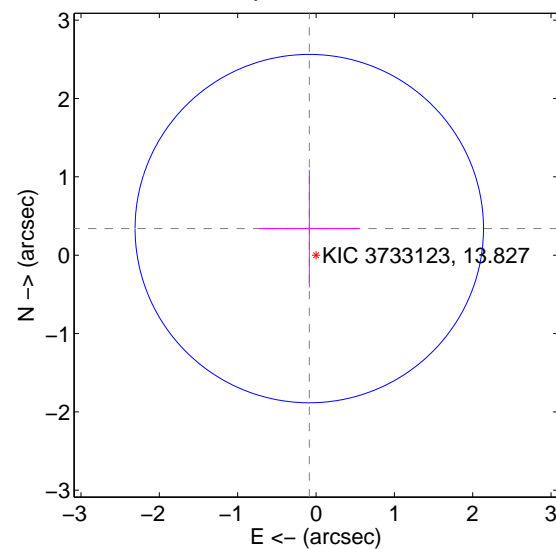
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

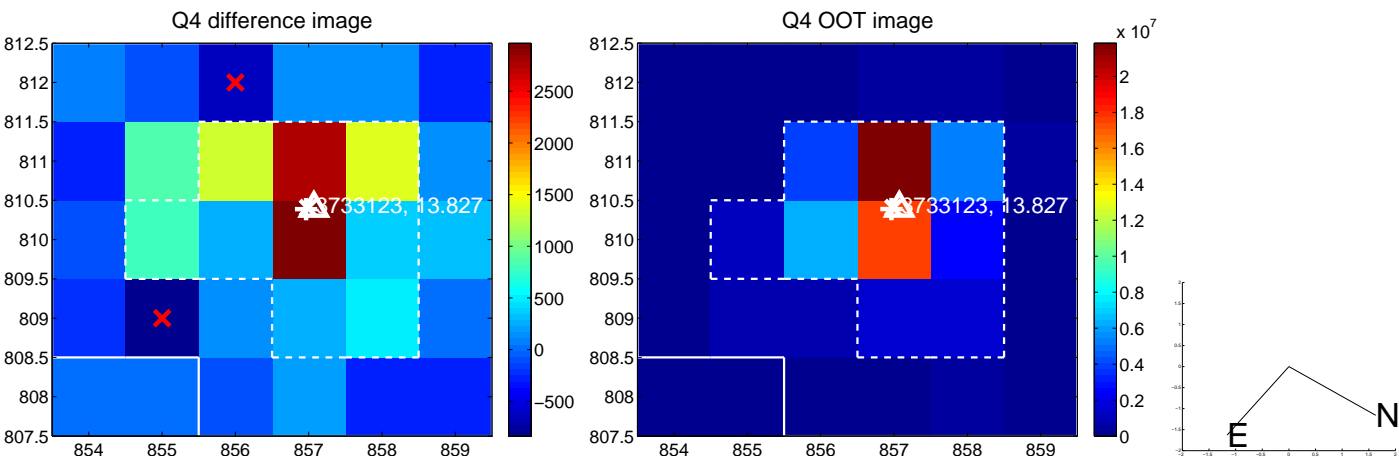
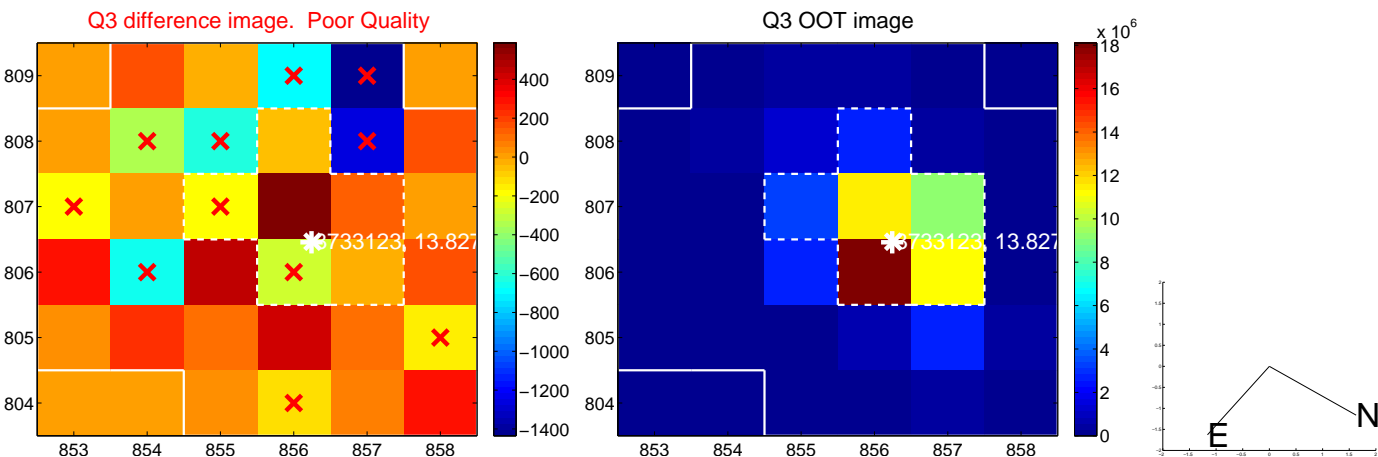
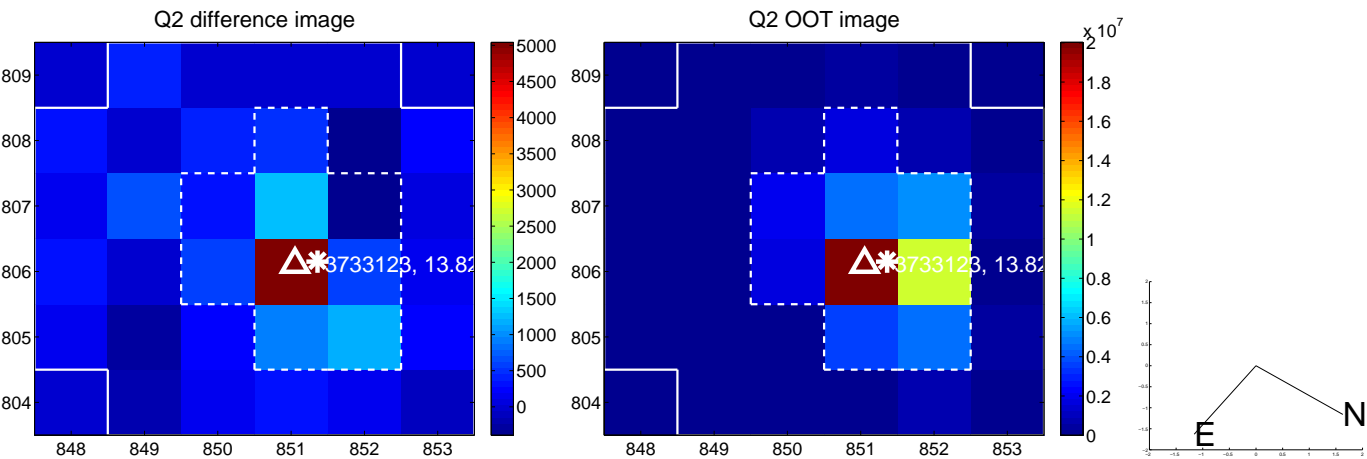
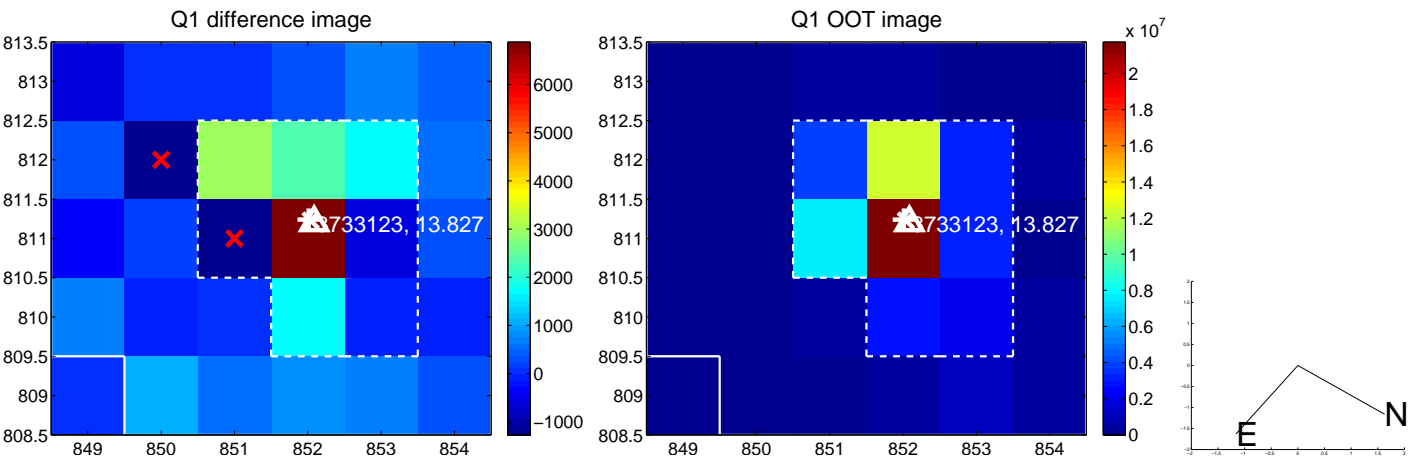


offset from photometric centroids

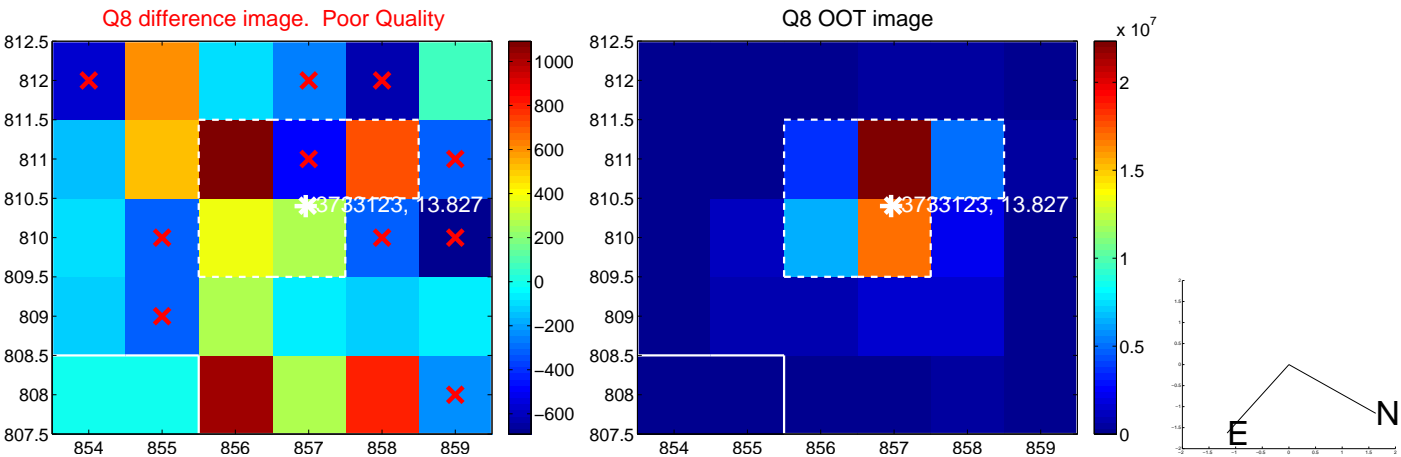
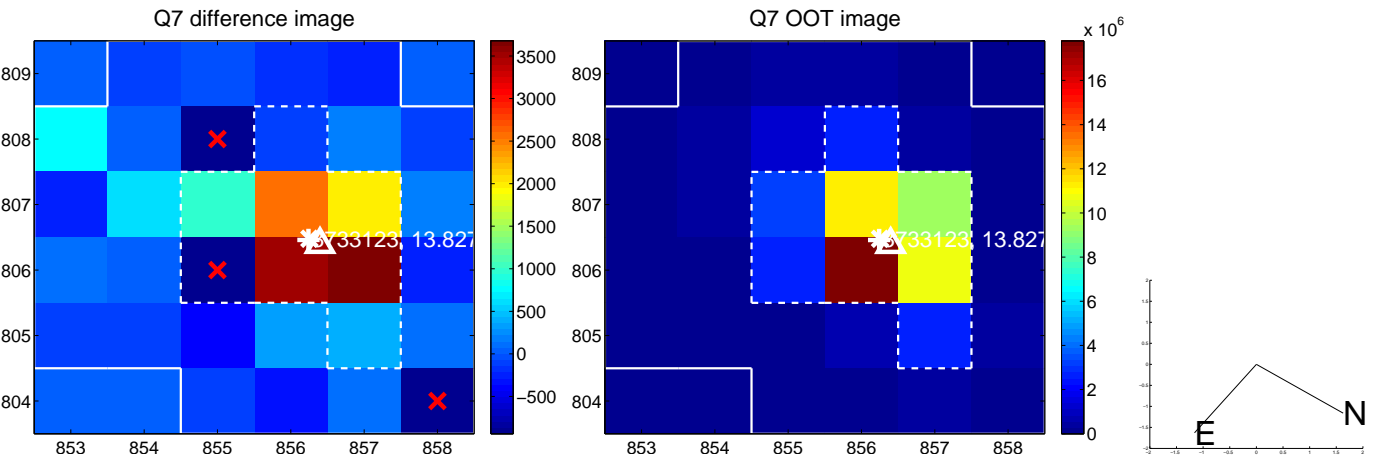
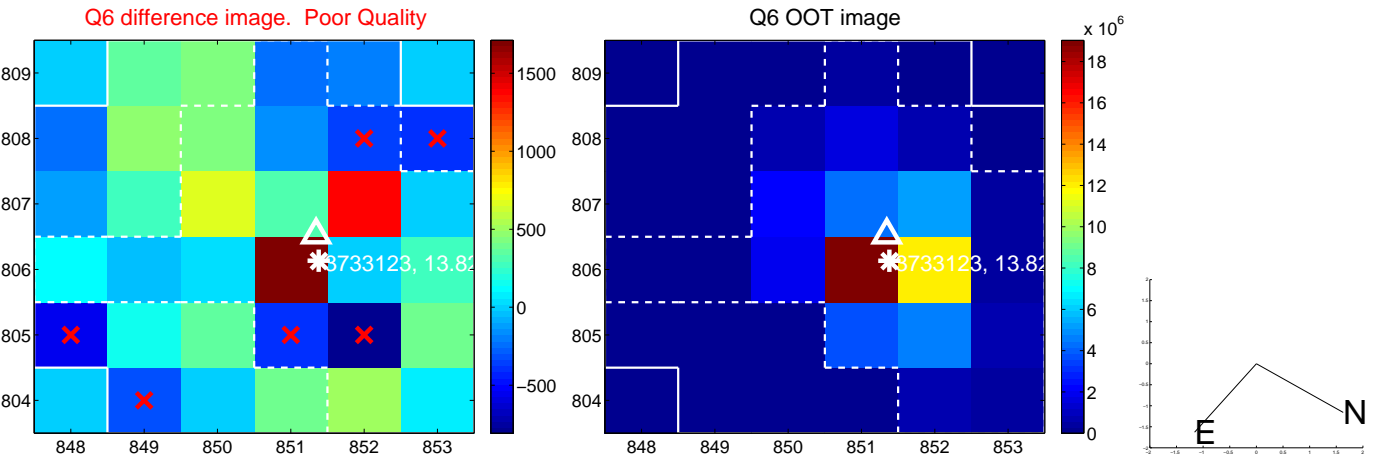
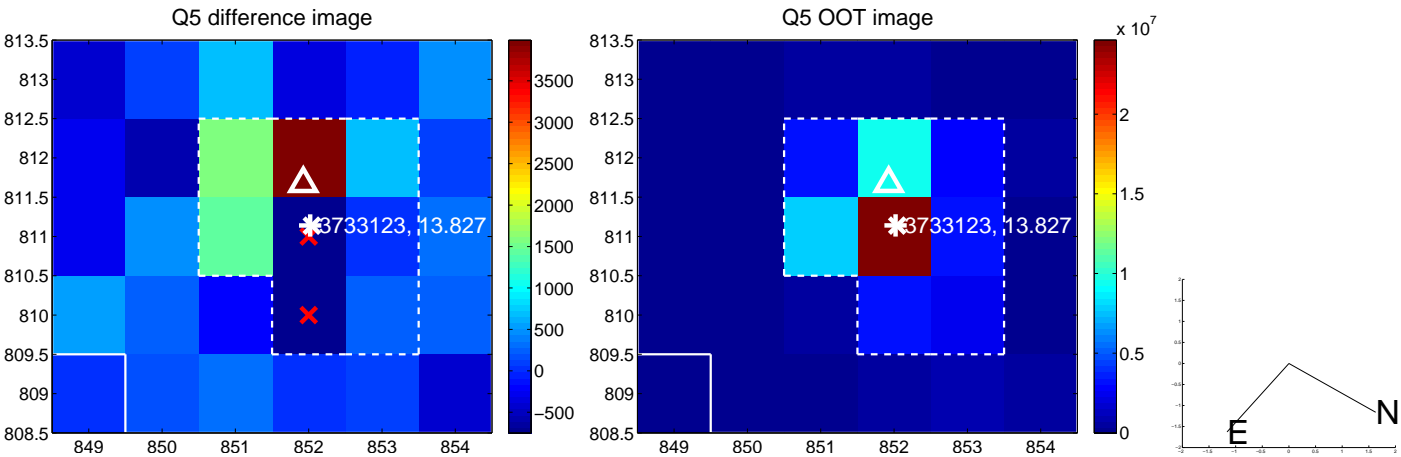


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

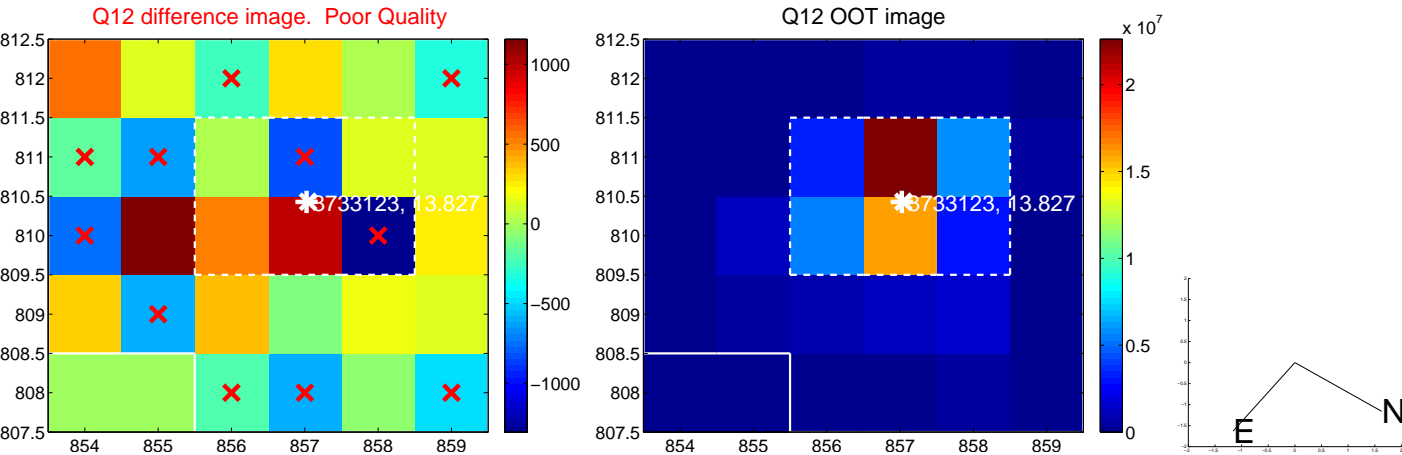
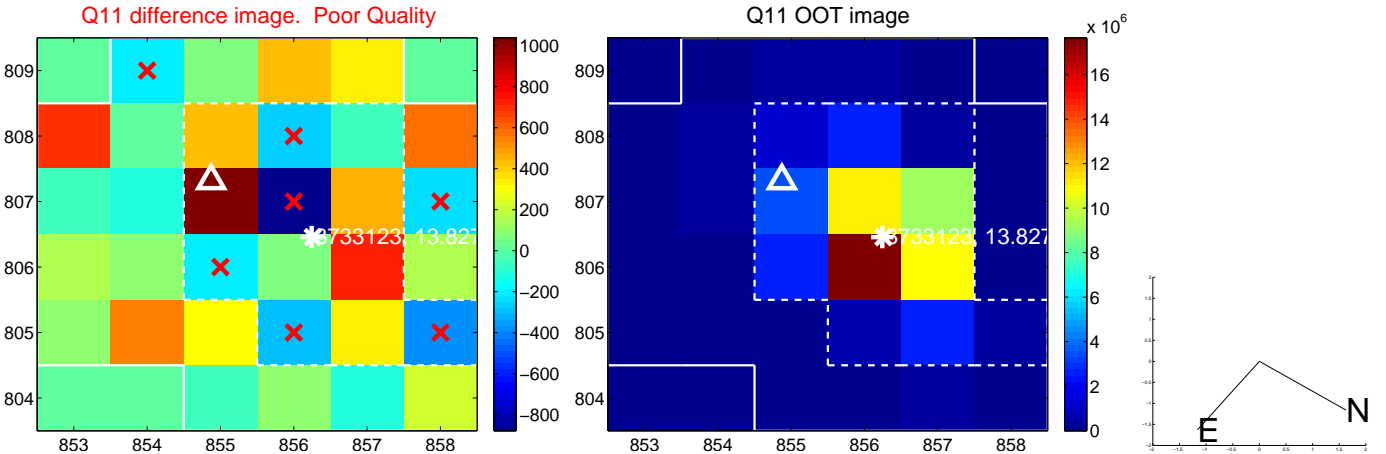
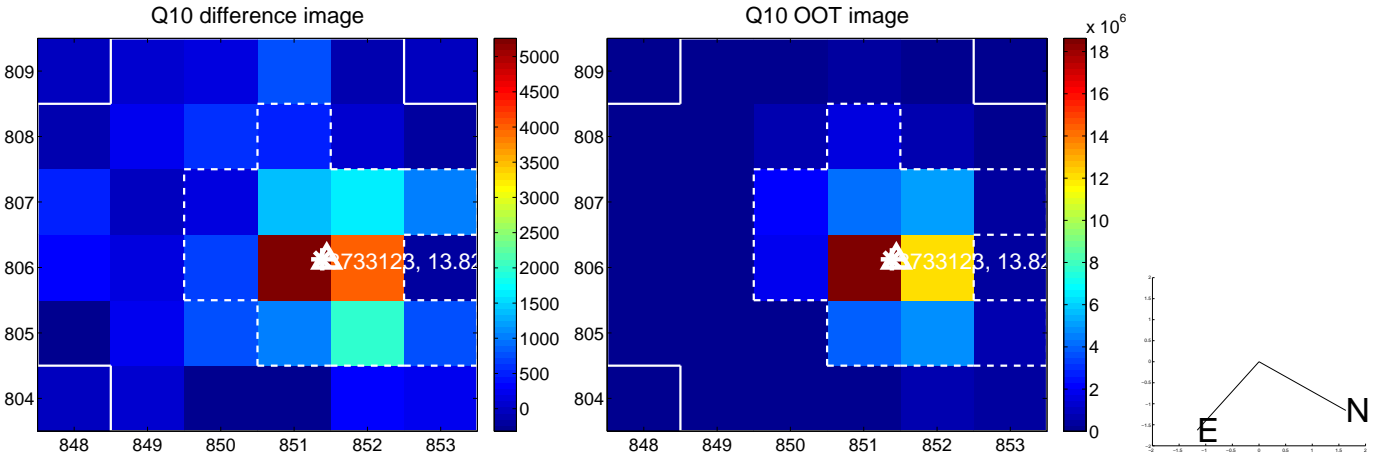
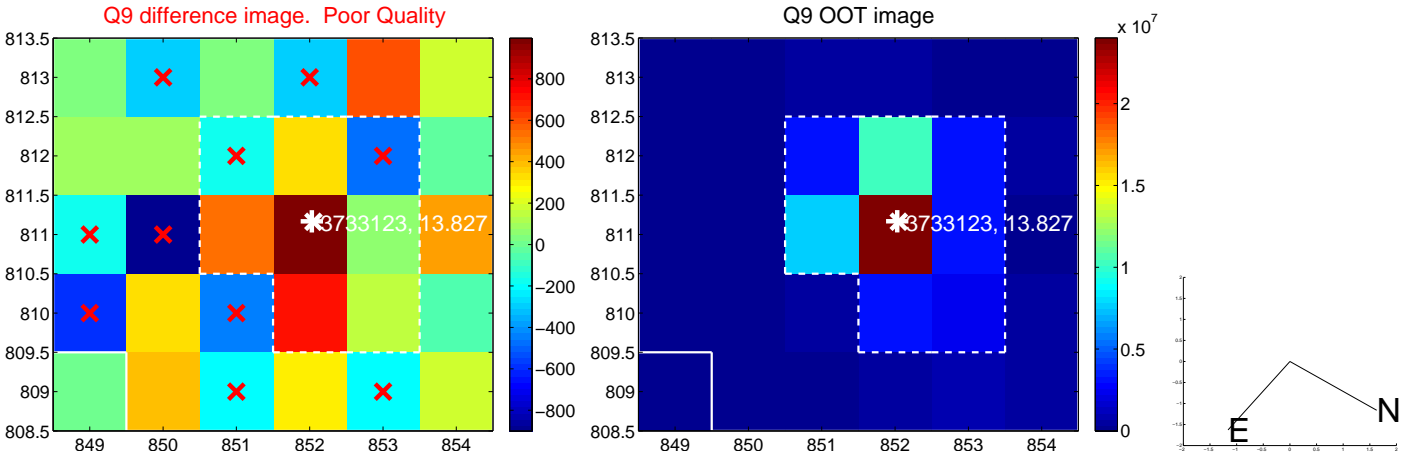
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



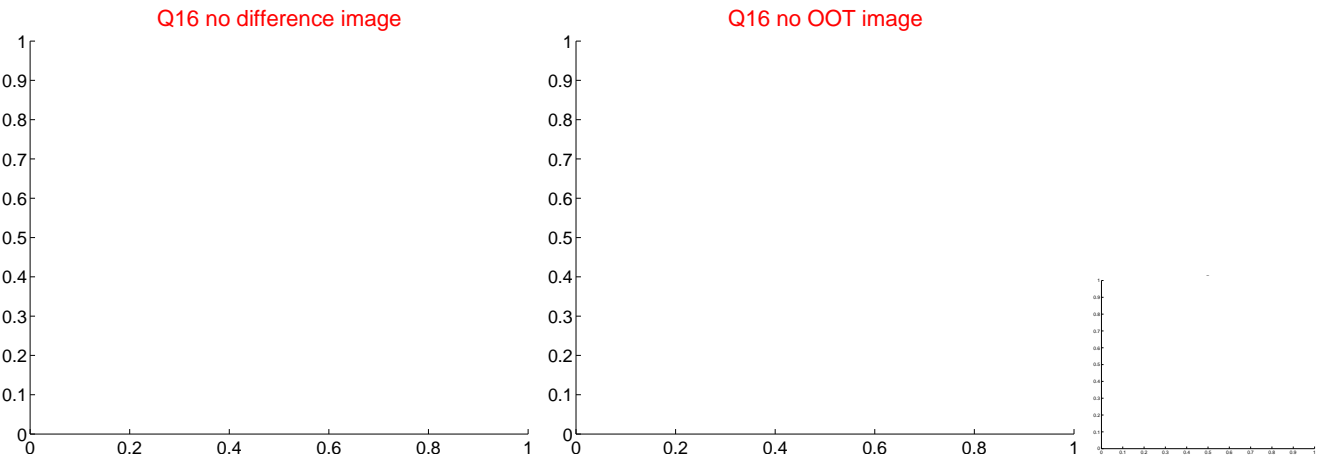
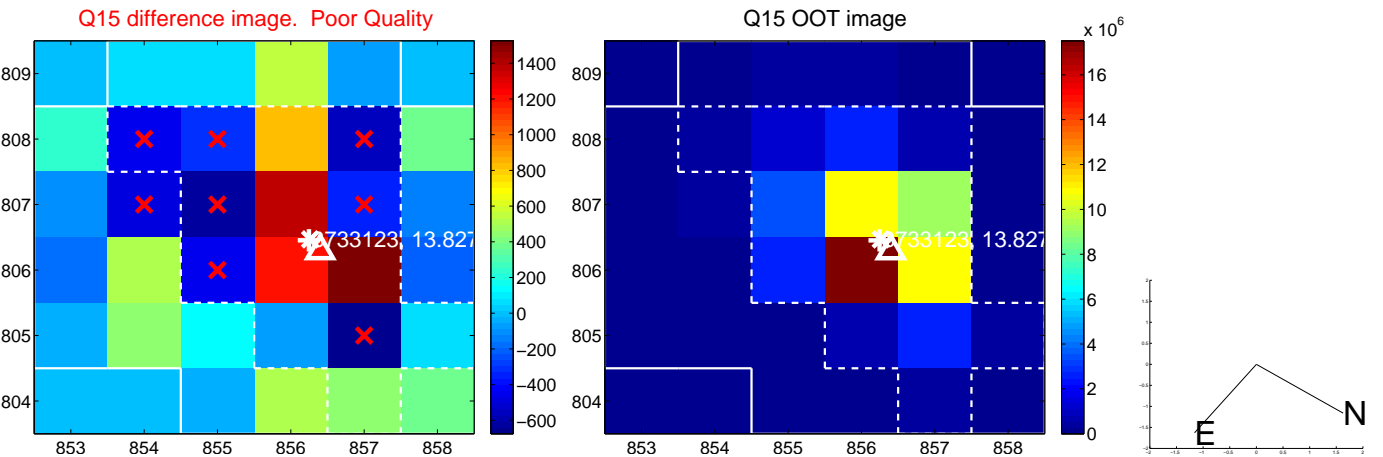
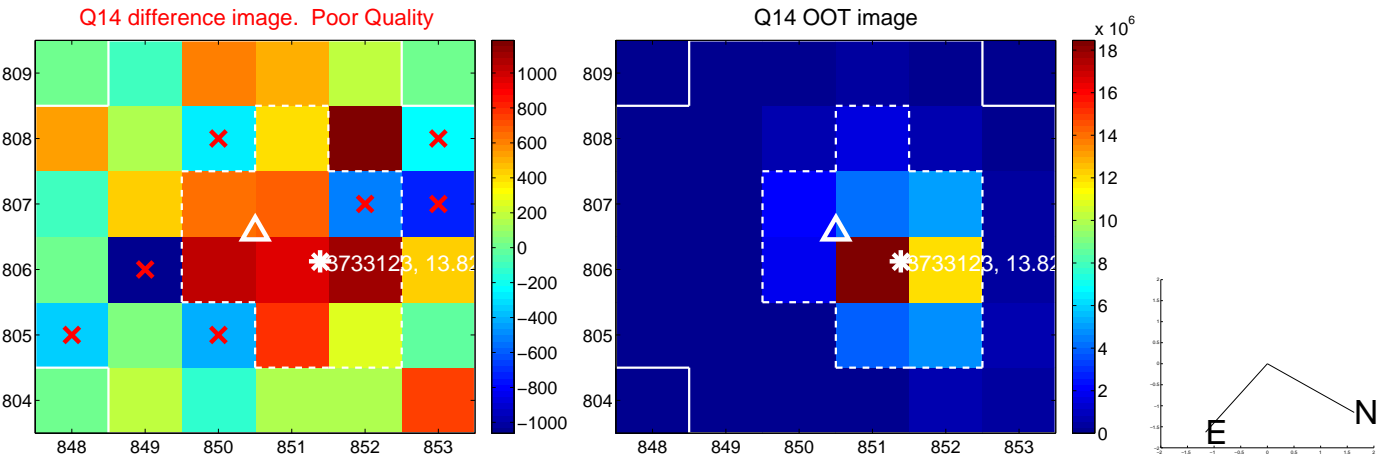
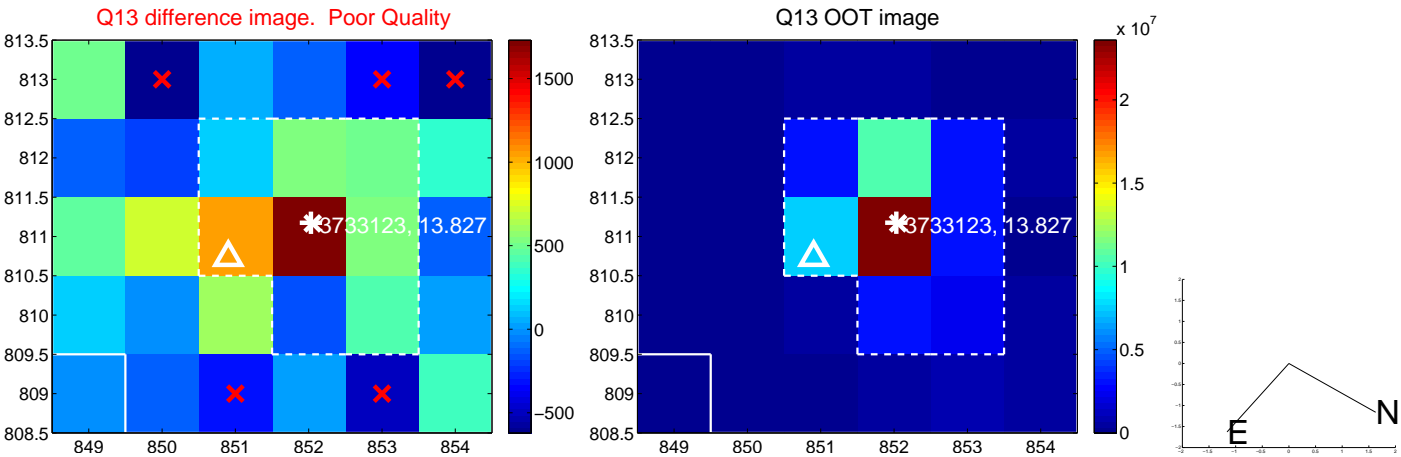
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



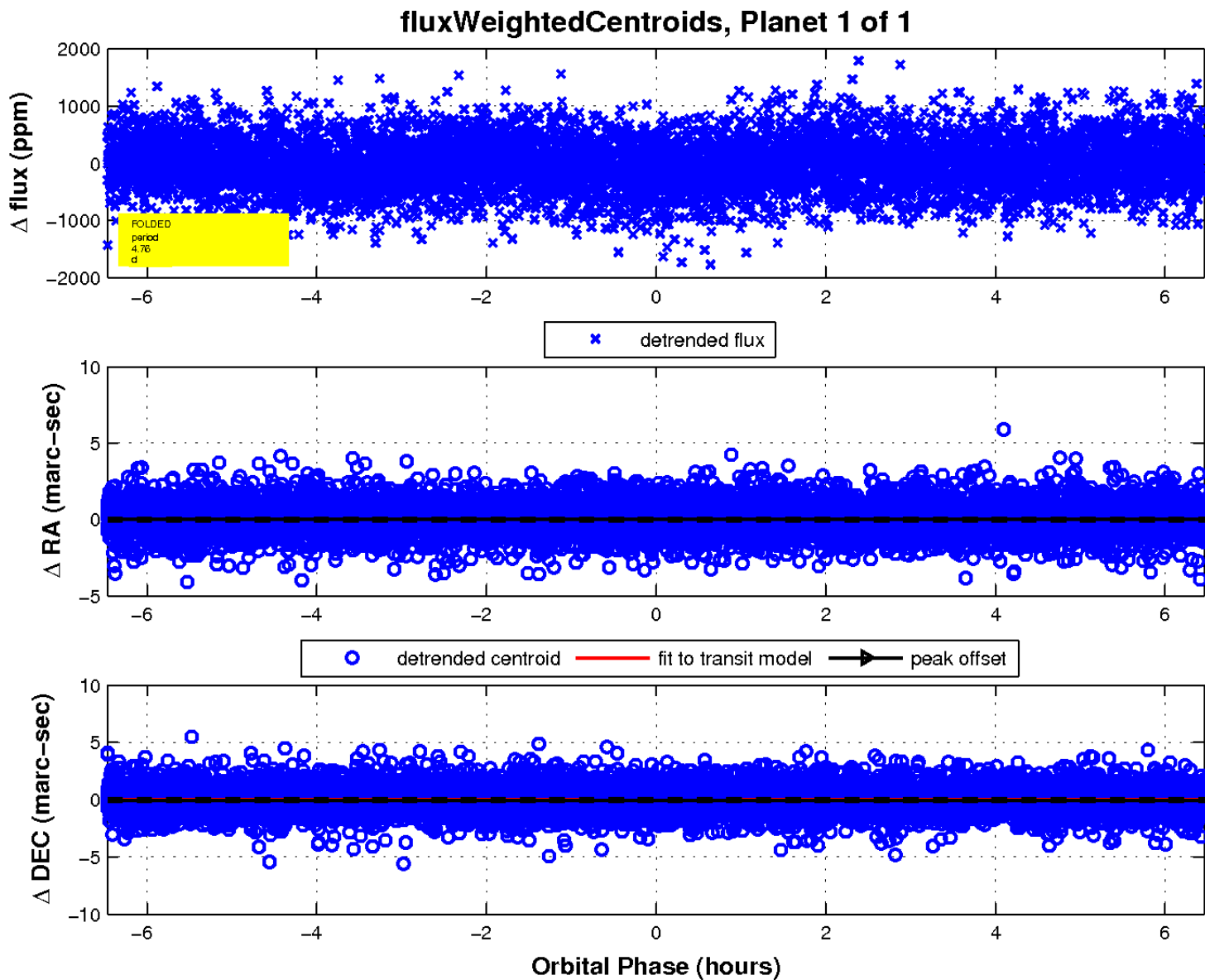
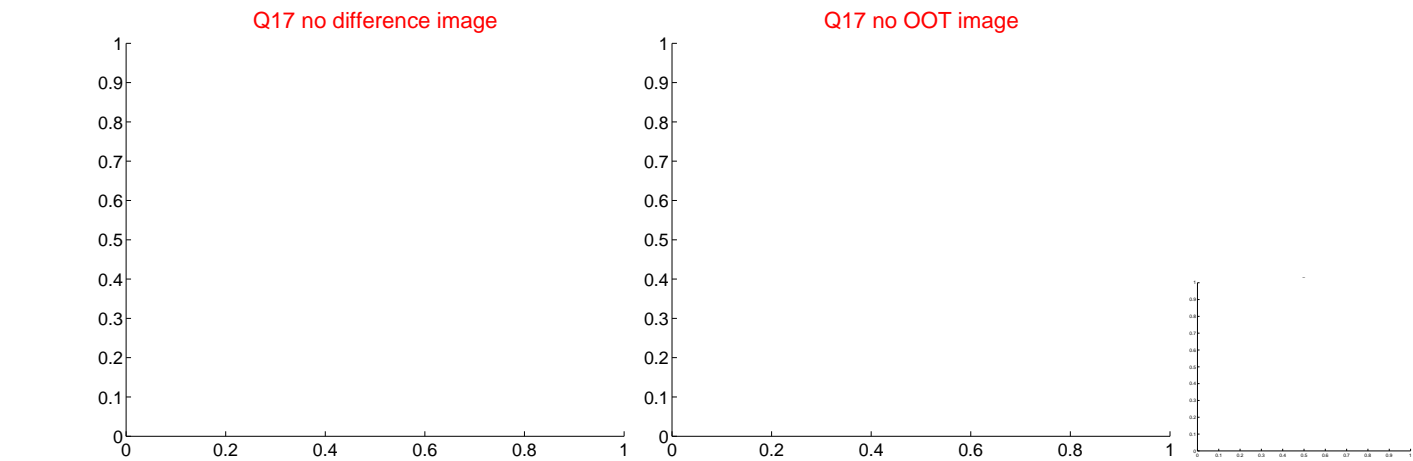
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

