

KIC 006546327

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})
006546327-01	OBS	No	0.599667	131.755022	21.4	3.998	15.0	10.2	1.84	7753	0.89	39587.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006546327-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

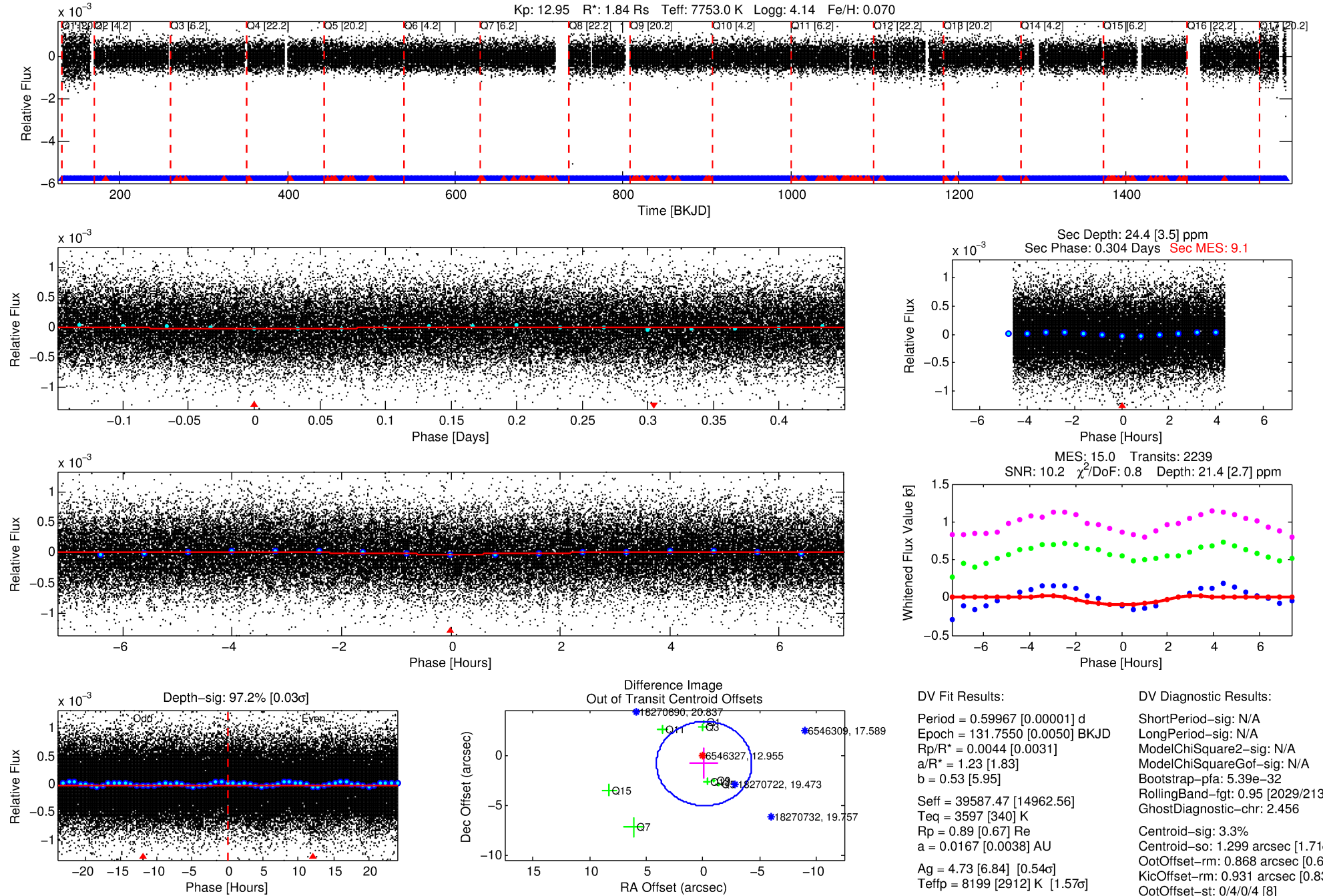
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006546327-01

No Significant Match Found

DV One-Page Summary

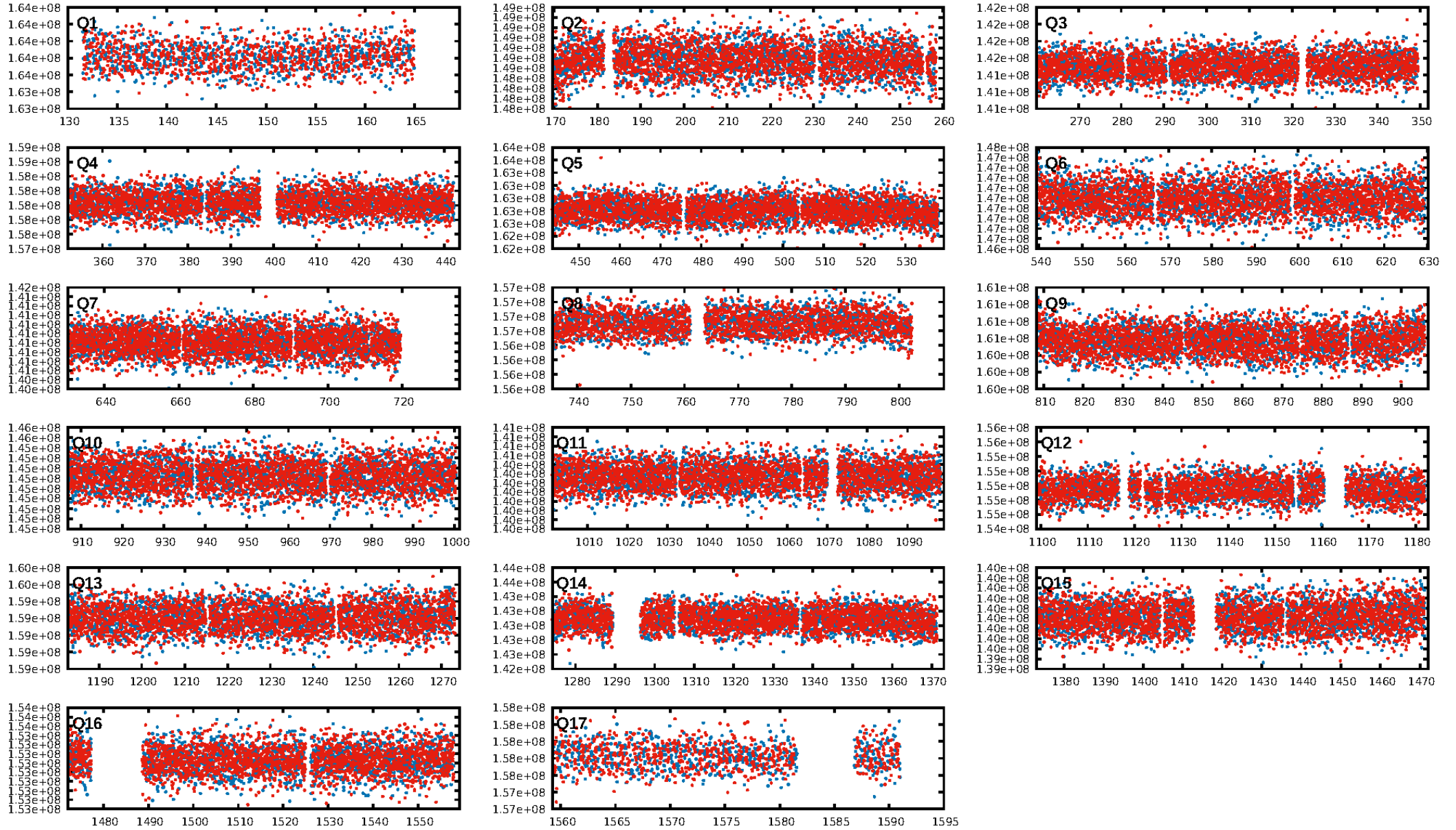
KIC: 6546327 Candidate: 1 of 1 Period: 0.600 d



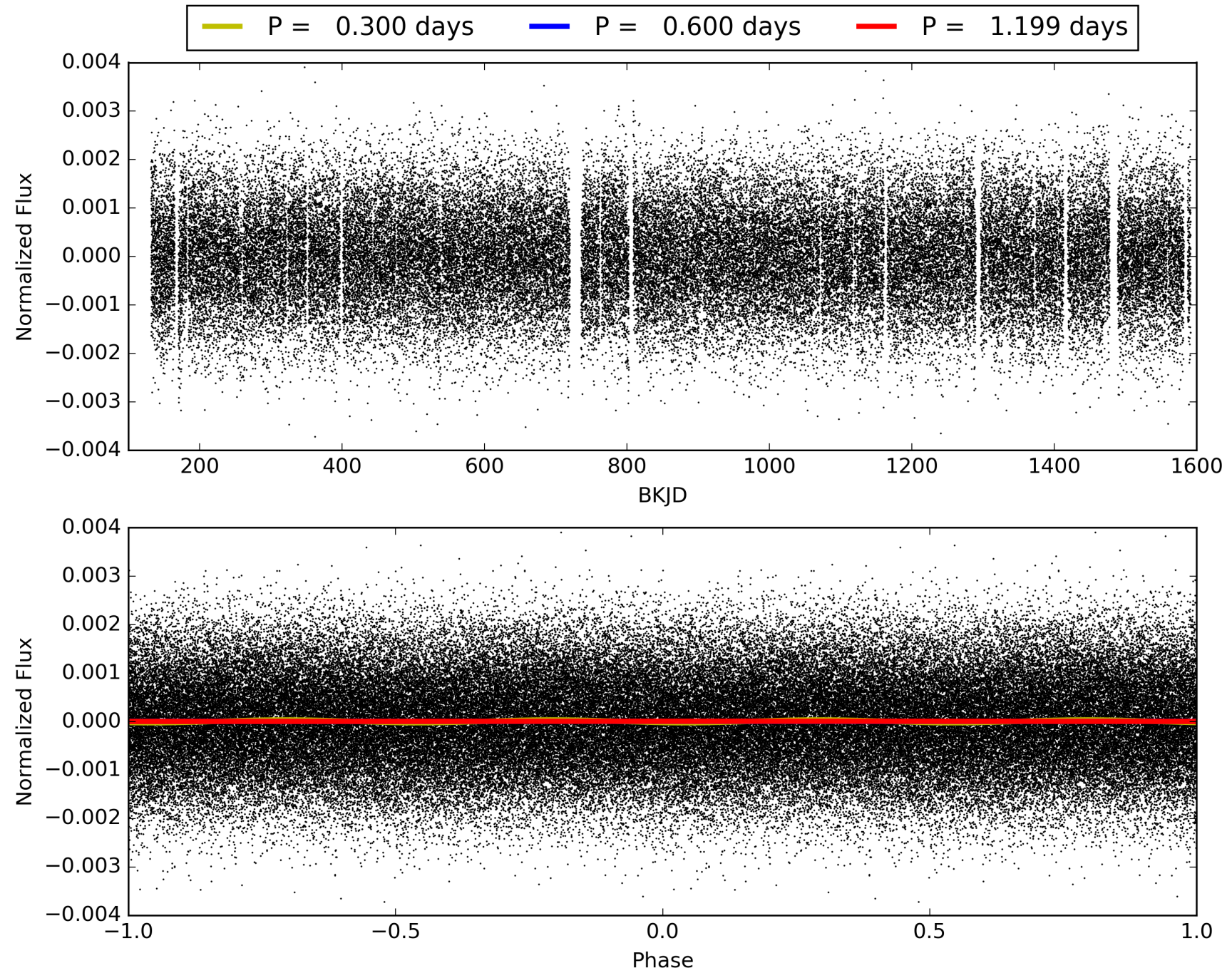
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:29:34 Z

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

TCE 006546327-01, PDC Light Curves

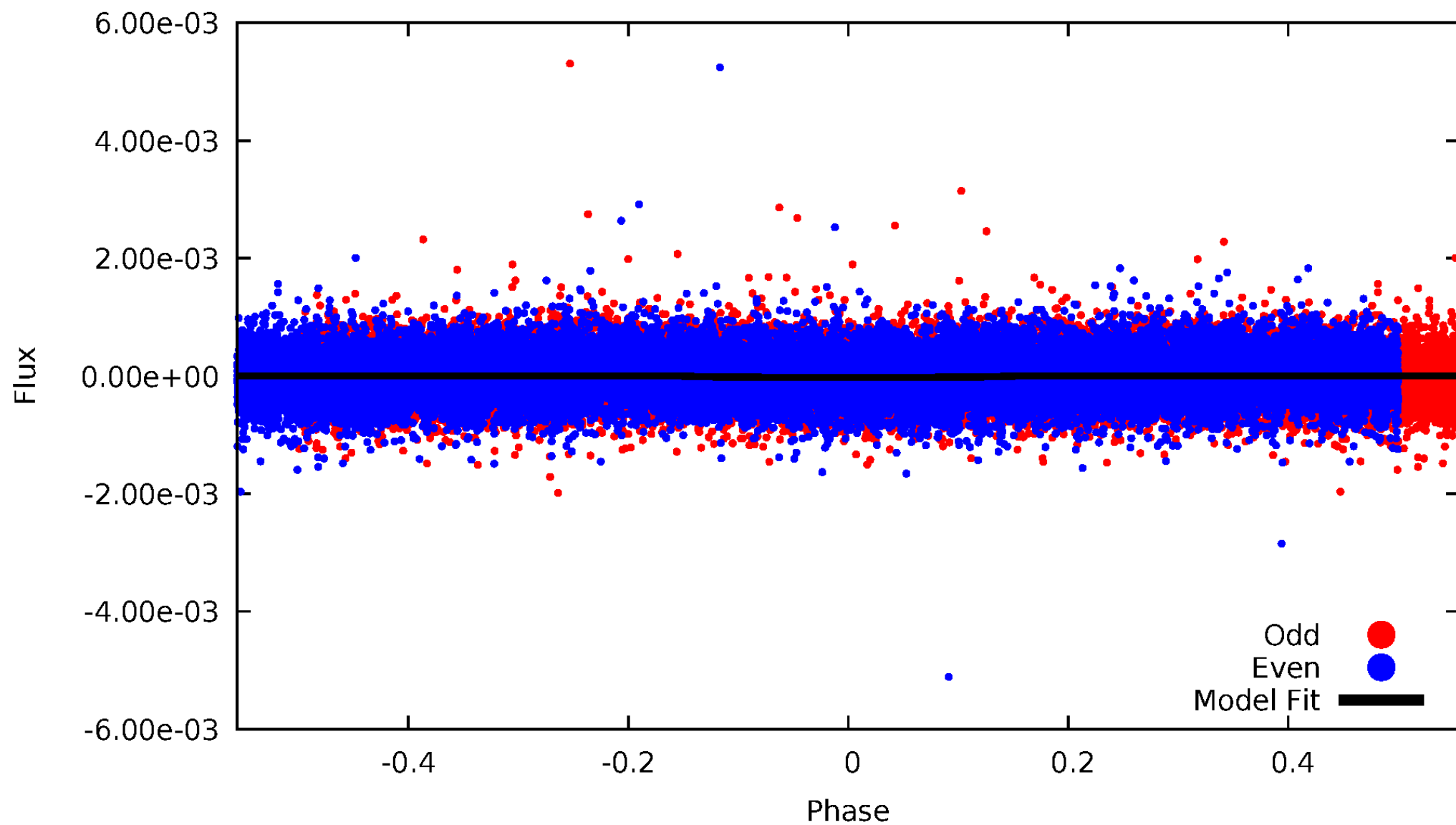


TCE 006546327-01



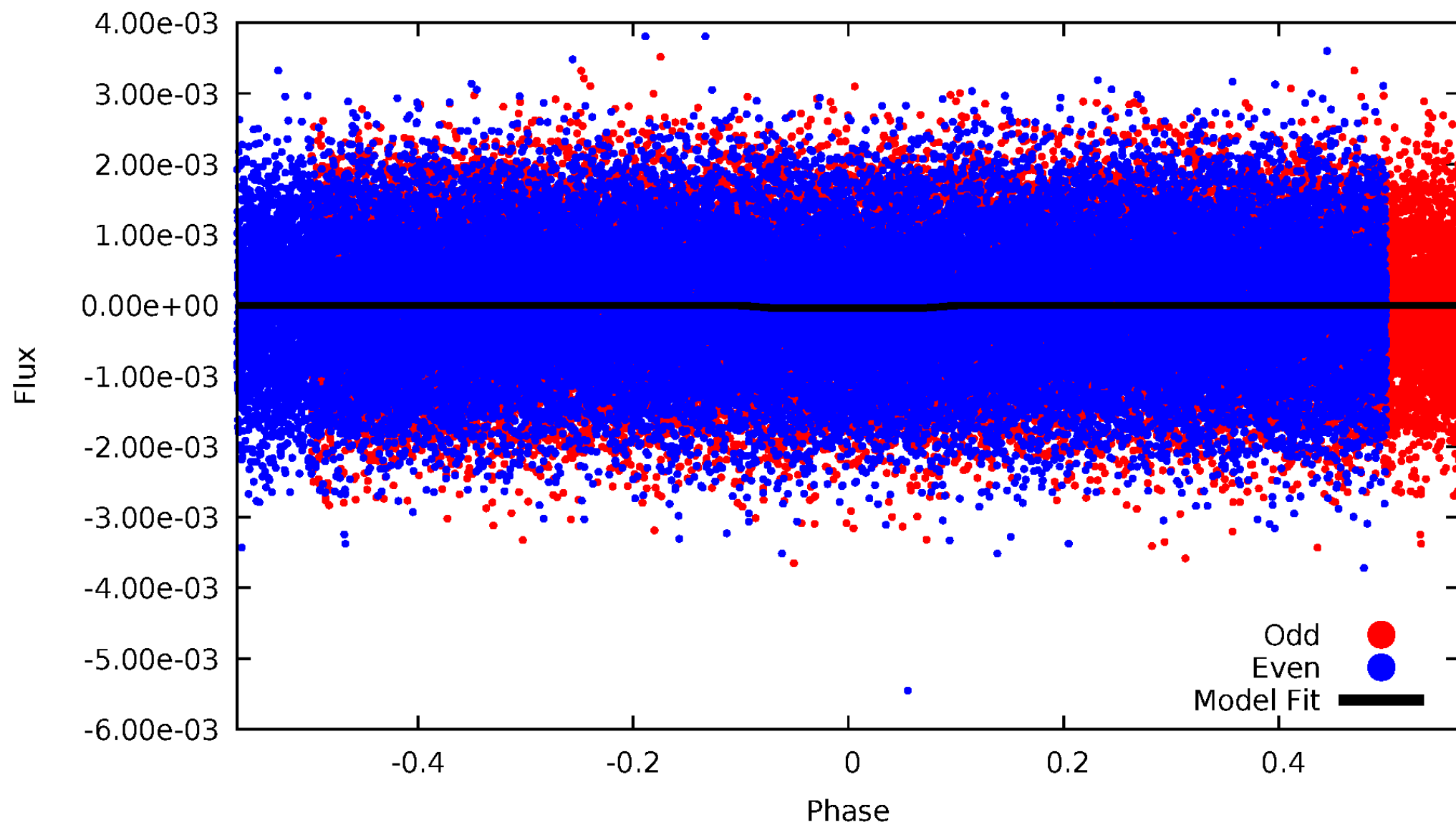
DV Odd/Even

TCE 006546327-01



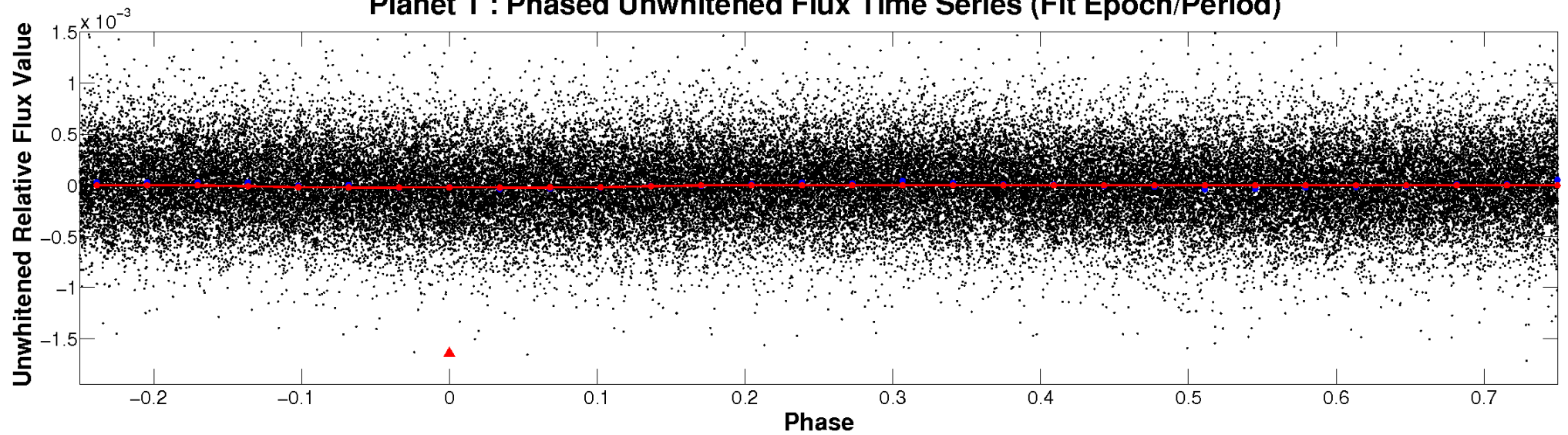
ALT Odd/Even

TCE 006546327-01

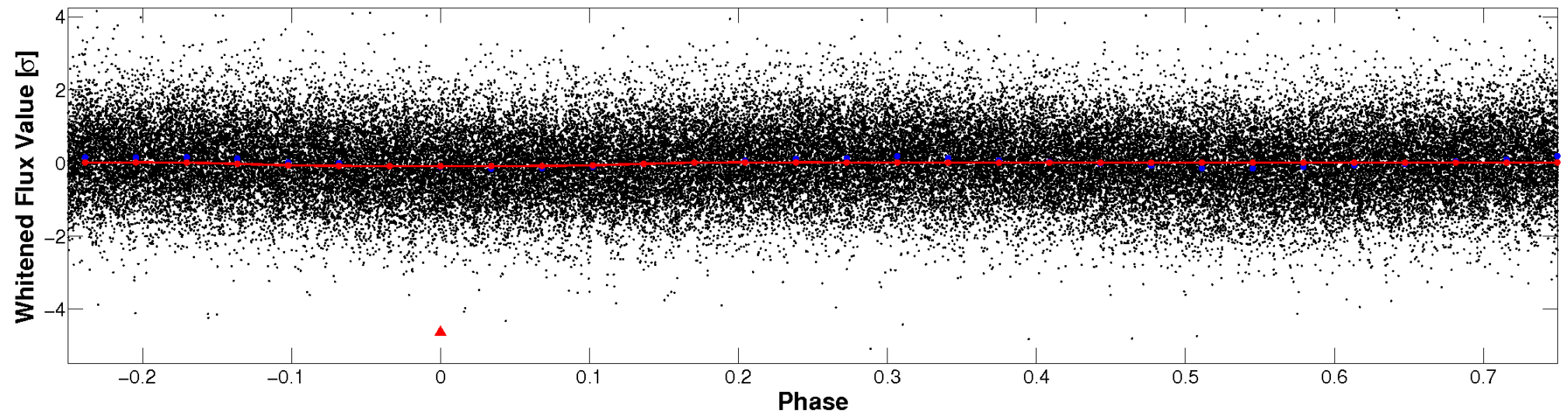


Non-Whitened Vs. Whitened Light Curve

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

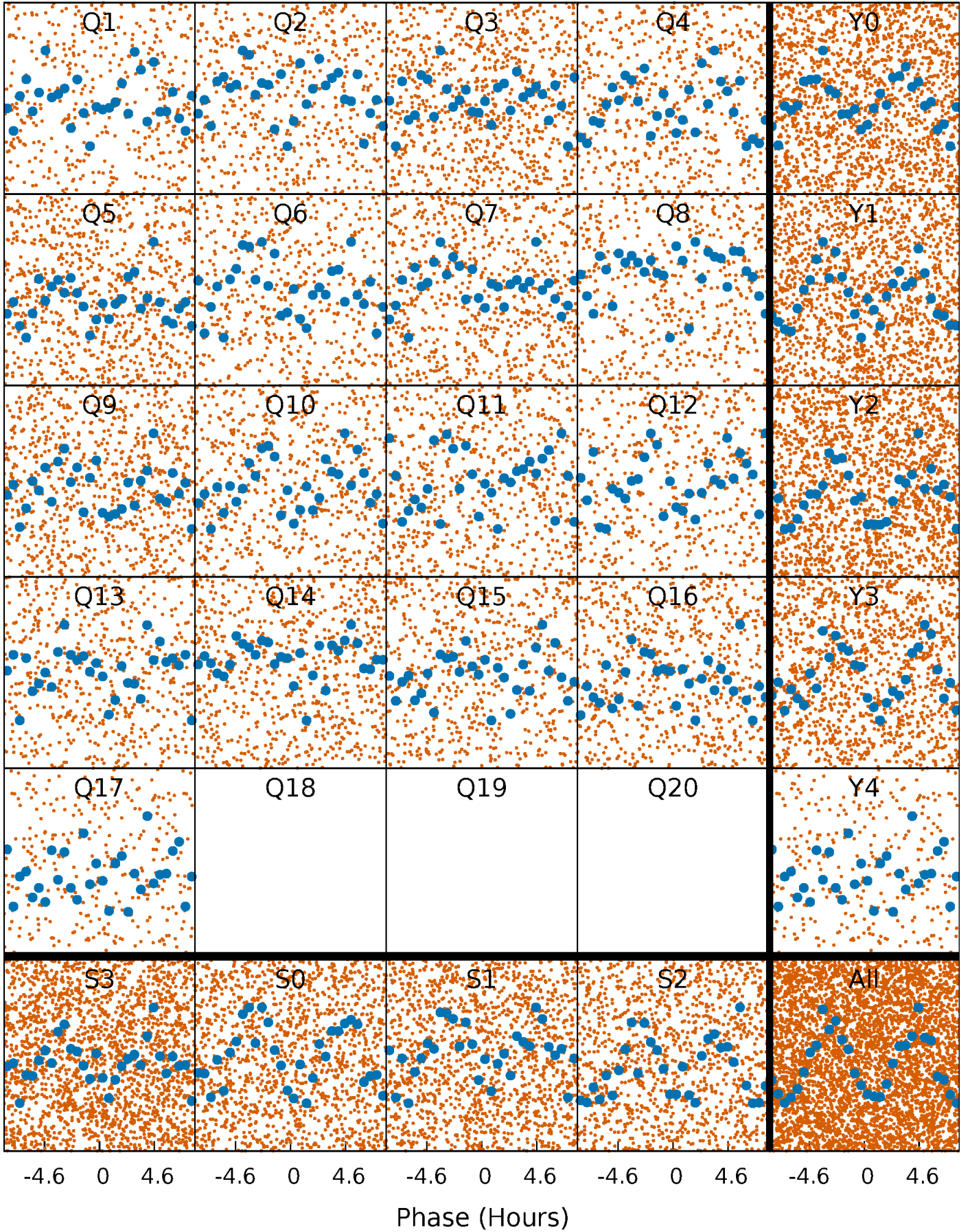


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



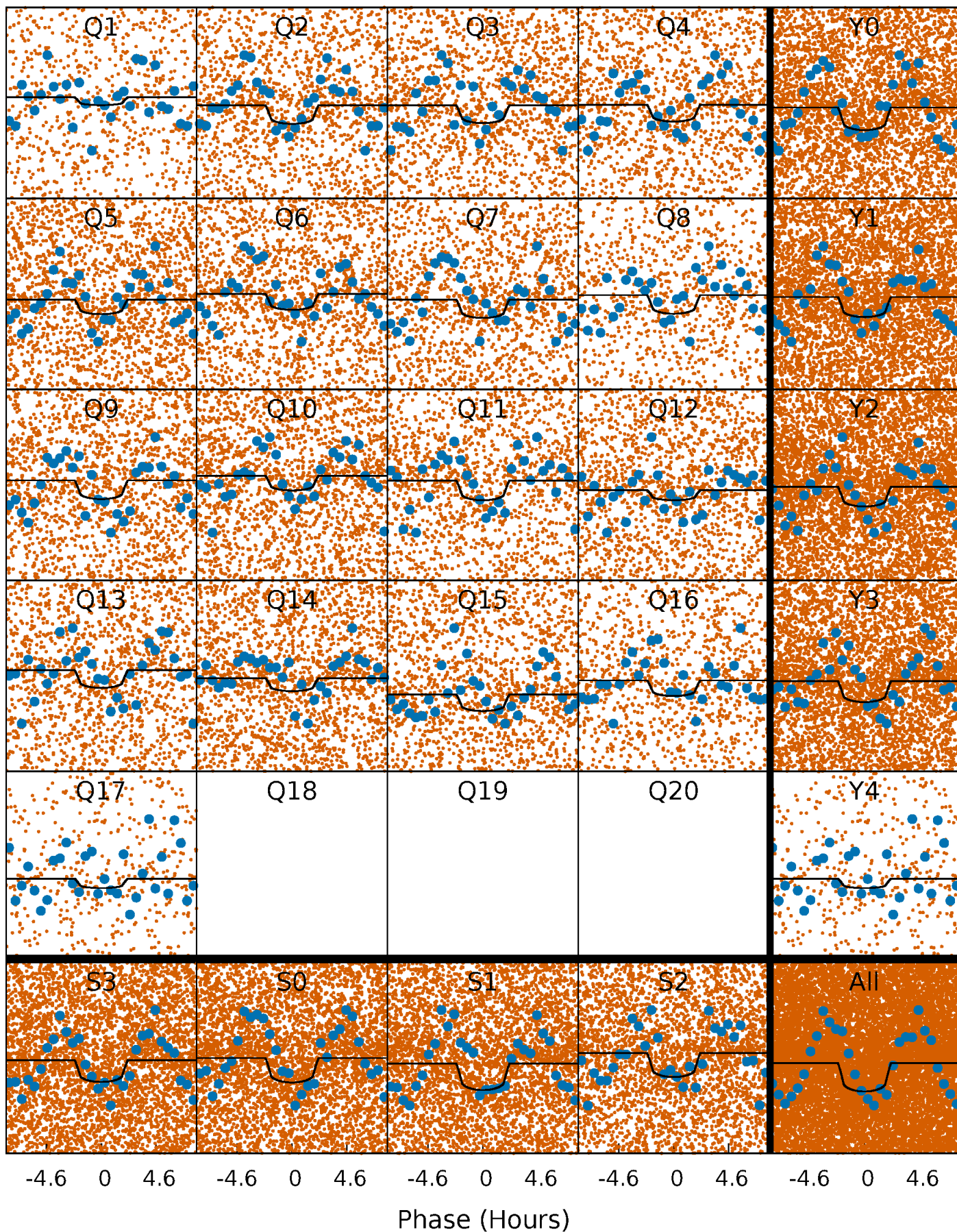
PDC Quarter-Phased Transit Curves

TCE 006546327-01 P= 0.599667 Days $T_0=131.755022$ (BKJD)



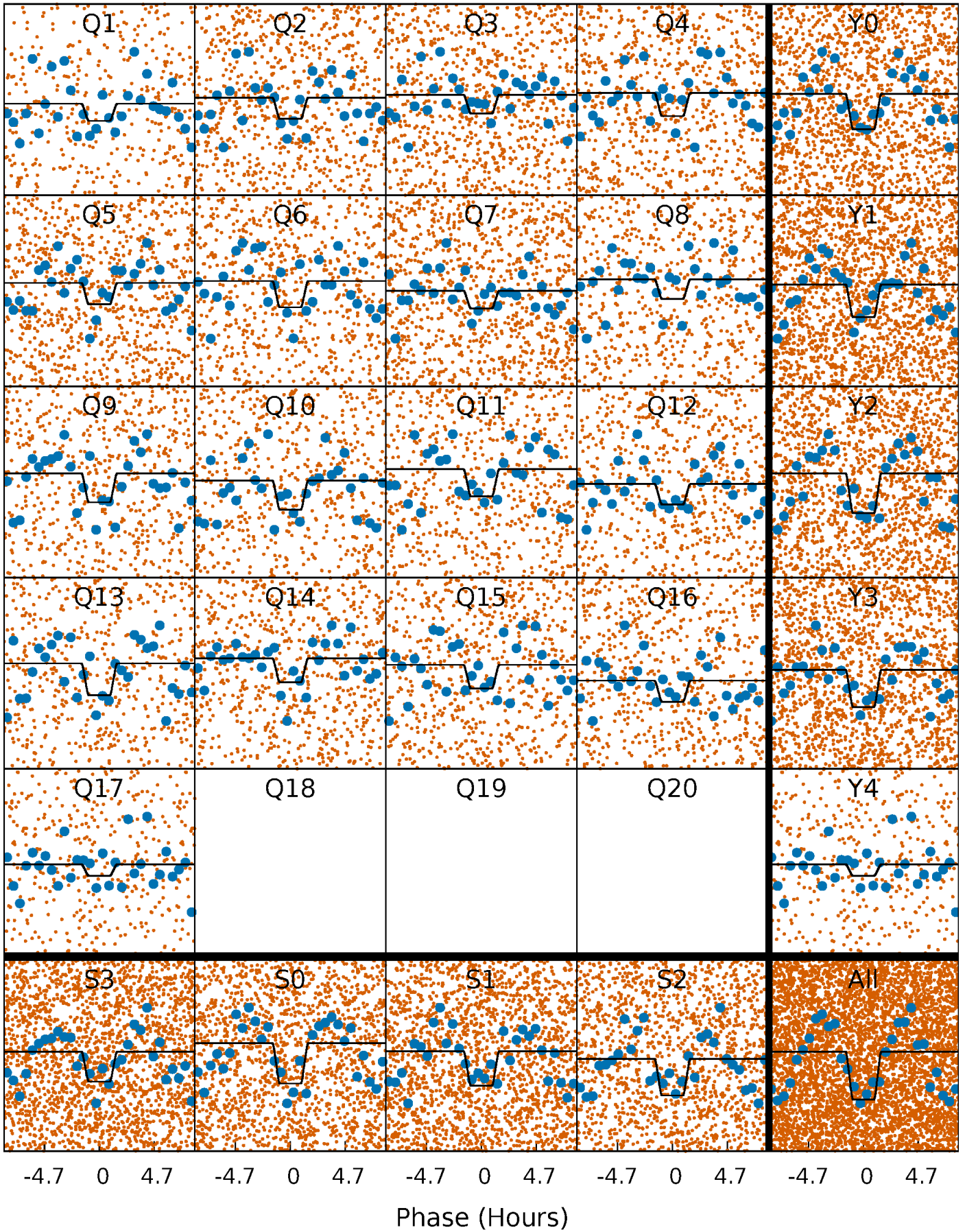
DV Quarter-Phased Transit Curves

TCE 006546327-01 P= 0.599667 Days $T_0=131.755022$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

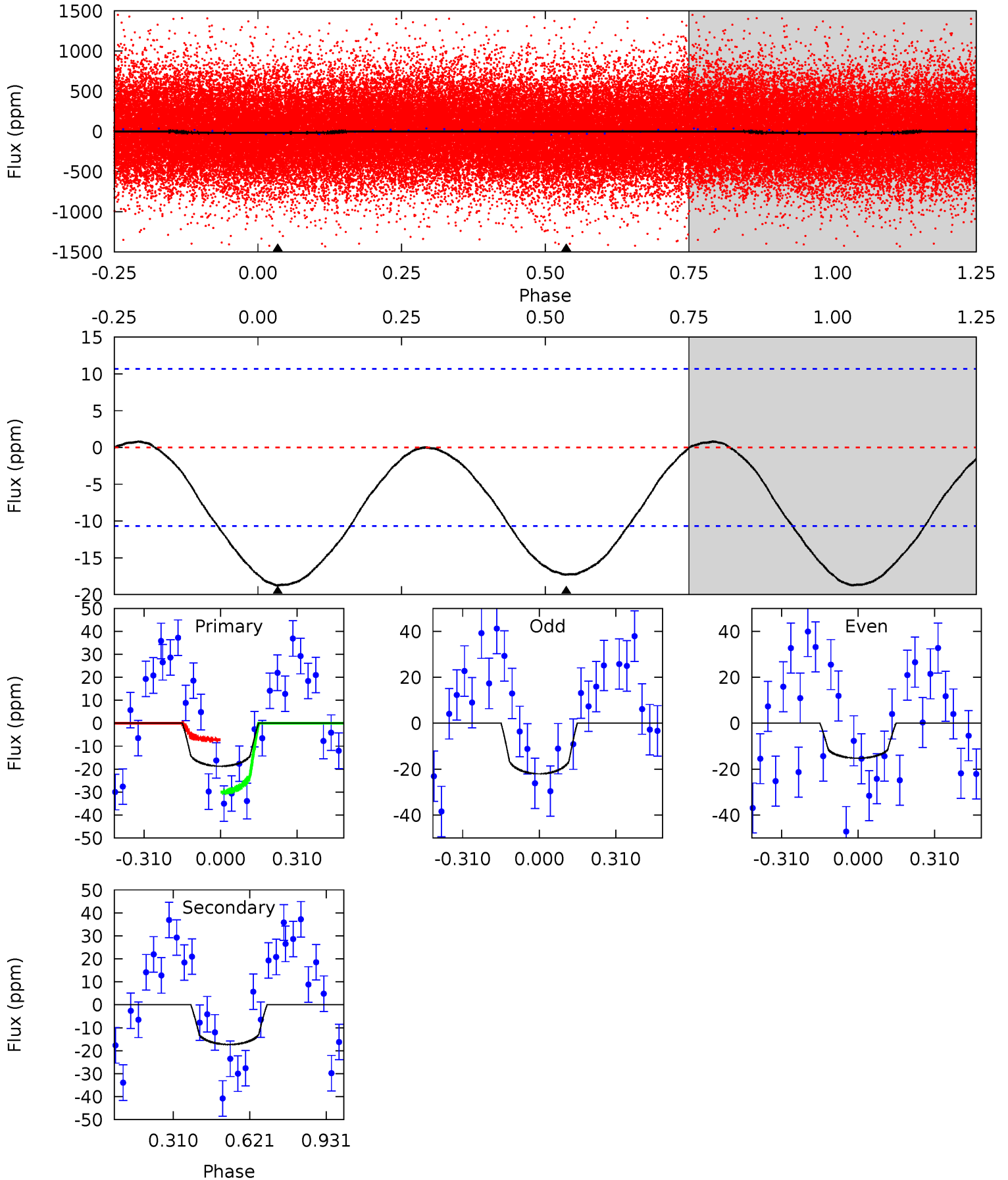
TCE 006546327-01 P= 0.599701 Days $T_0=131.741688$ (BKJD)



DV Model-Shift Uniqueness Test

006546327-01, P = 0.599667 Days, E = 131.155355 Days

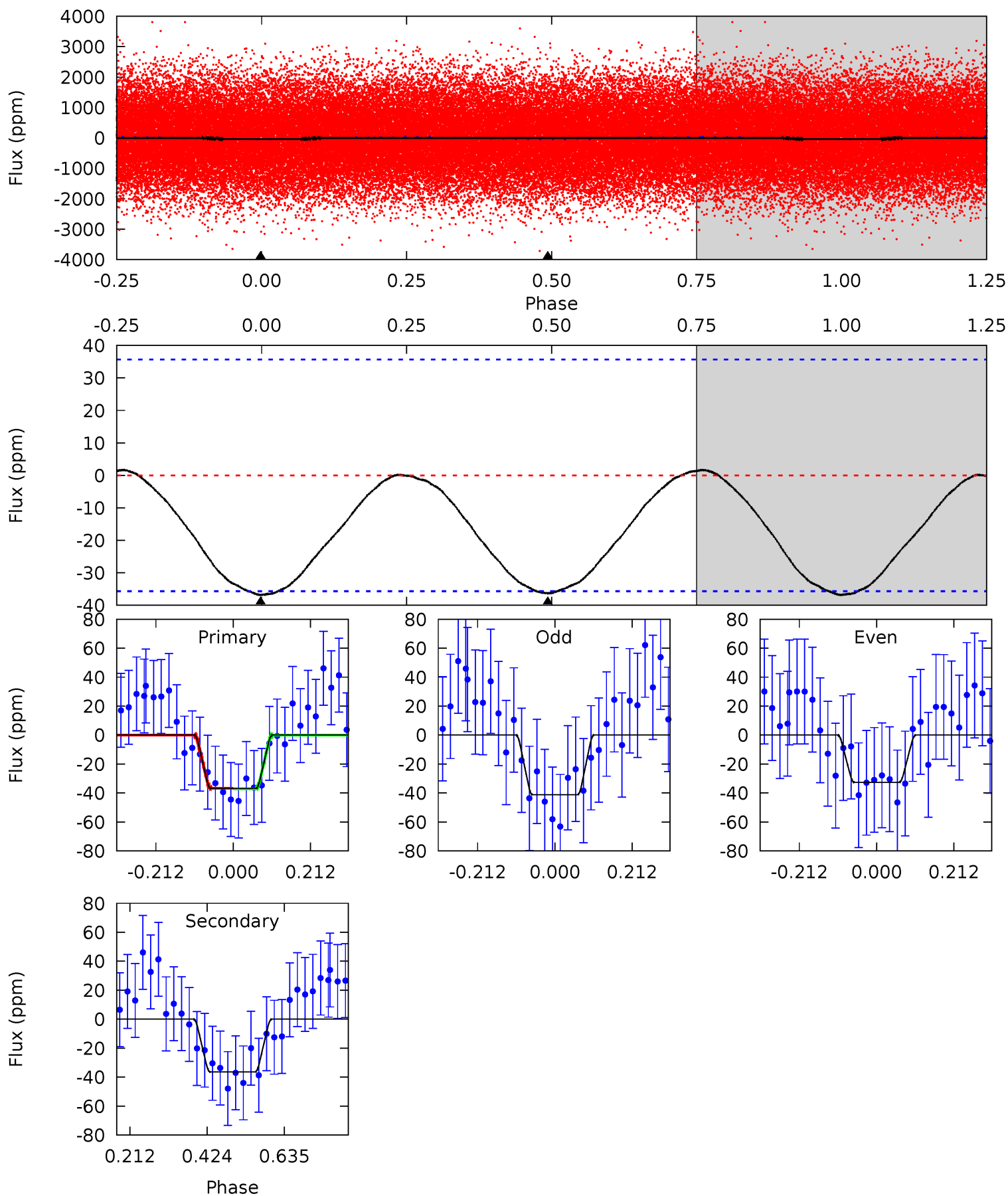
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.58	7.00	0	0	4.32	1.01	0.20	7.58	7.58	7.00	7.00	1.38	0.94	0.04	4.60



Alt Model-Shift Uniqueness Test

006546327-01, P = 0.599701 Days, E = 131.141987 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.56	4.50	0	0	4.40	1.25	0.12	4.56	4.56	4.50	4.50	0.53	0.93	0.04	0.03



Stellar Parameters For KIC 006546327

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7753^{+214}_{-349}	$4.142^{+0.098}_{-0.182}$	$0.070^{+0.200}_{-0.400}$	$1.845^{+0.498}_{-0.332}$	$1.723^{+0.204}_{-0.271}$	$0.386^{+0.206}_{-0.182}$
	+3%/-5%	+2%/-4%	+286%/-571%	+27%/-18%	+12%/-16%	+53%/-47%
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 006546327-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-17 ± 2	$0.98^{+0.63}_{-0.57}$	5057^{+331}_{-305}	6829^{+5494}_{-1717}	$2.687^{+13.034}_{-1.700}$
Alt.	-36 ± 8	$1.38^{+0.67}_{-0.64}$	5070^{+374}_{-293}	6981^{+3921}_{-1502}	$2.839^{+7.091}_{-1.633}$

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

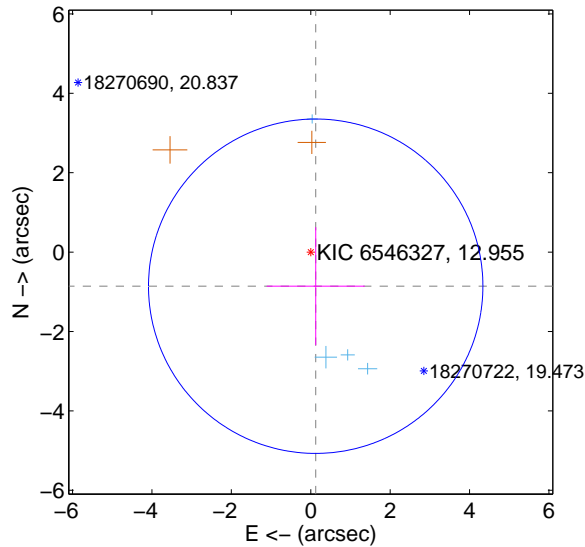
Supplemental centroid analysis for 006546327-01. Kepler magnitude: 12.96. Transit SNR 10.18

There are 4 quarters with good PRF difference image offsets

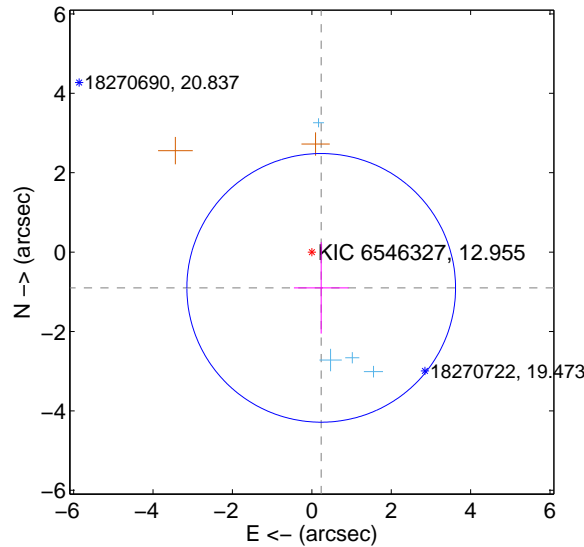
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.868 ± 1.404	0.62	-0.125 ± 1.234	-0.859 ± 1.488
PRF-fit source offset from KIC position	0.931 ± 1.128	0.83	-0.236 ± 0.688	-0.901 ± 1.152
photometric centroid source offset	1.30 ± 0.76	1.71	1.28 ± 0.76	0.19 ± 0.62

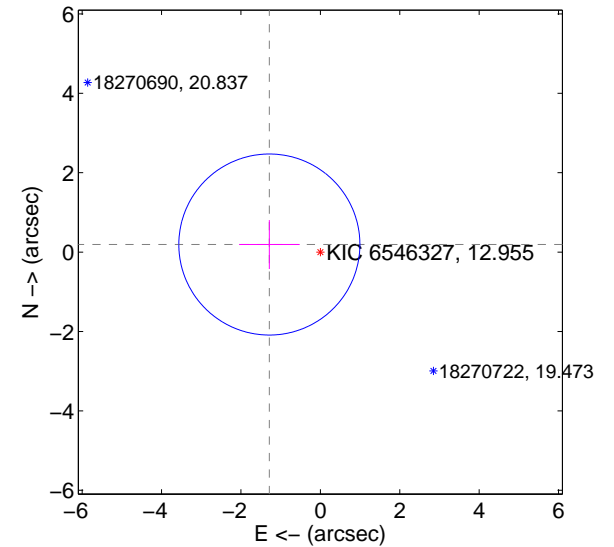
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

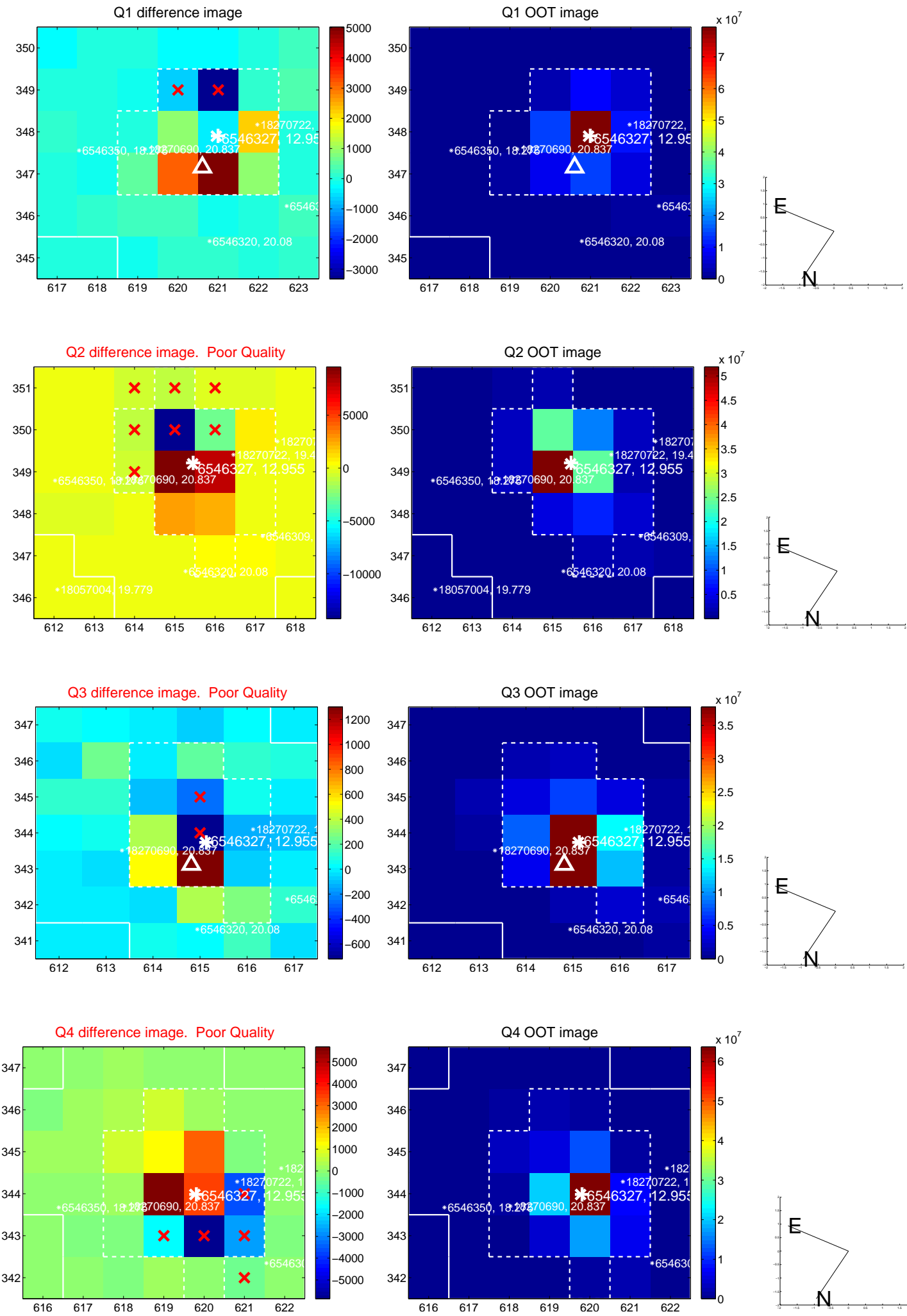


offset from photometric centroids

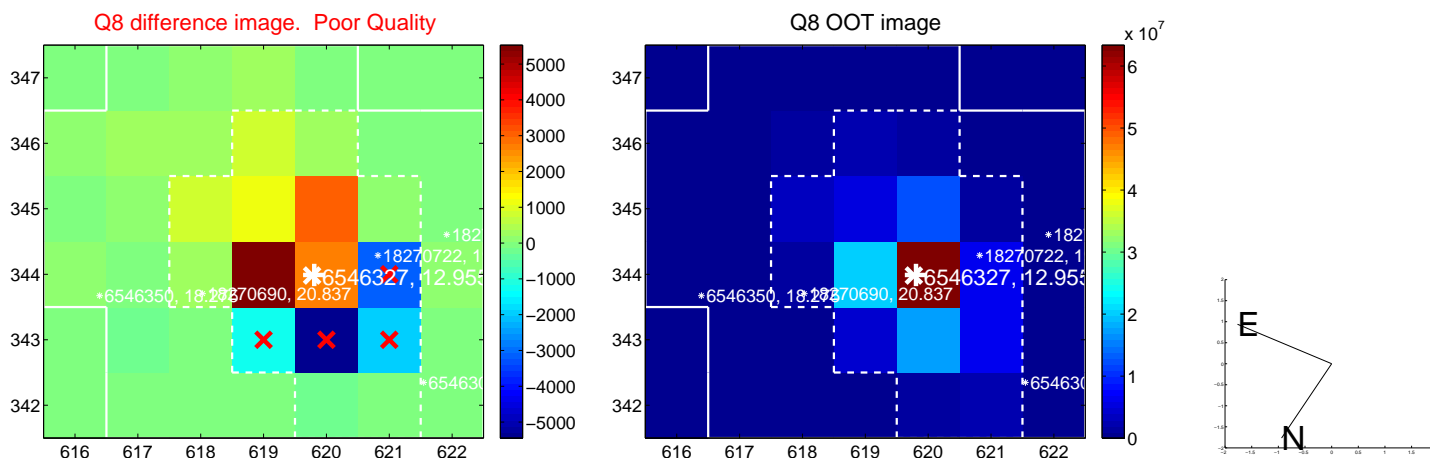
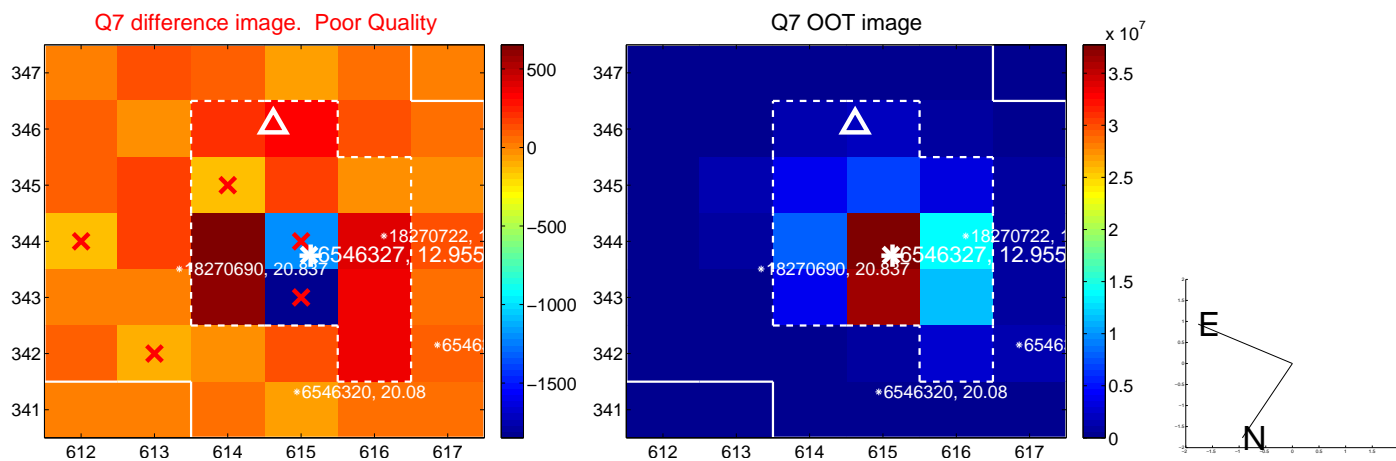
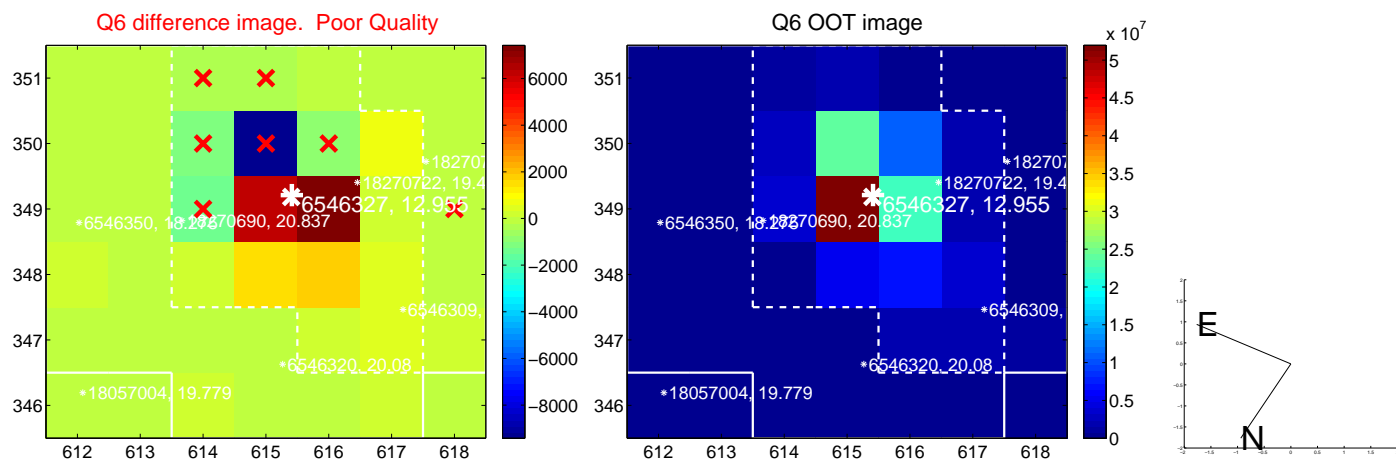
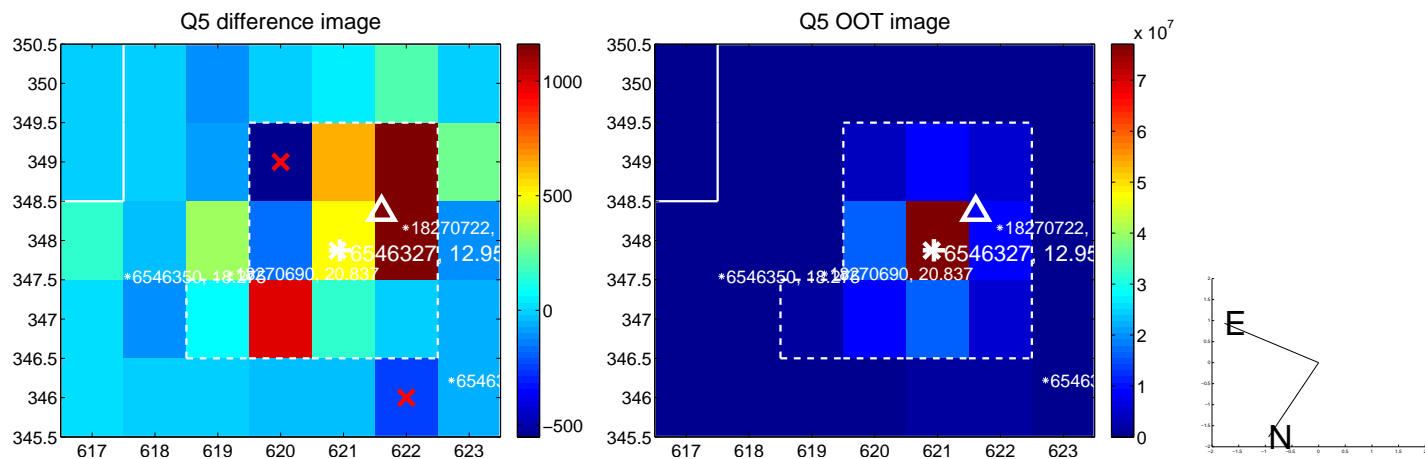


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

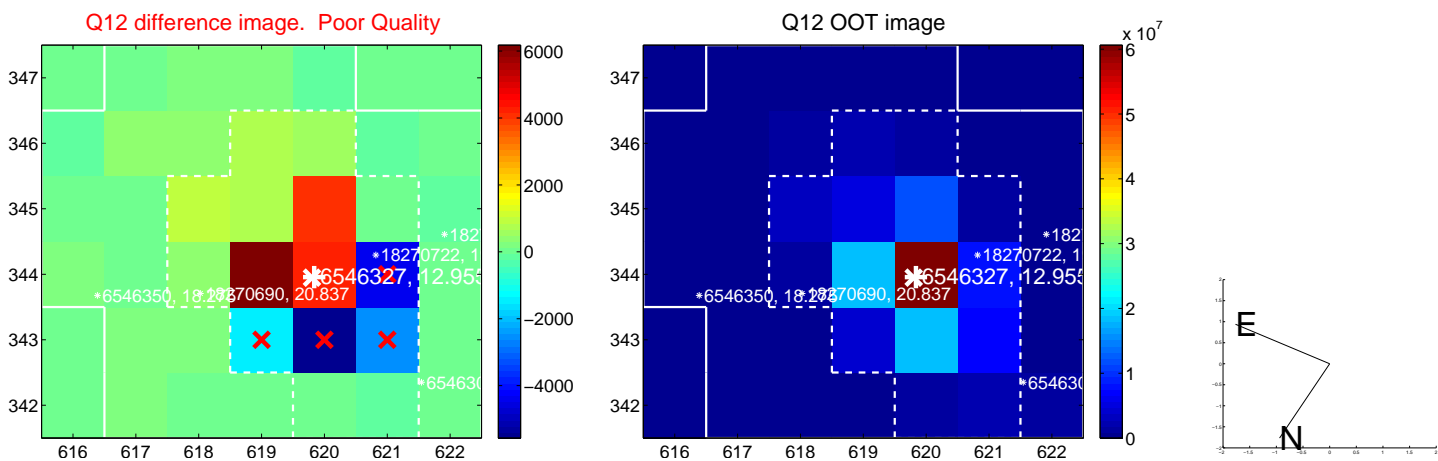
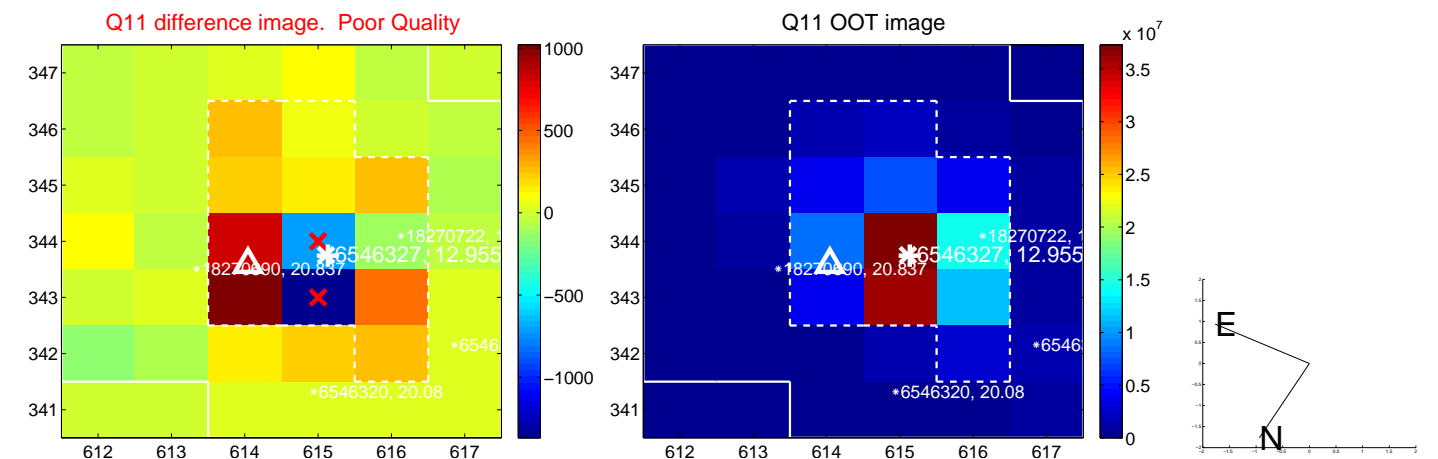
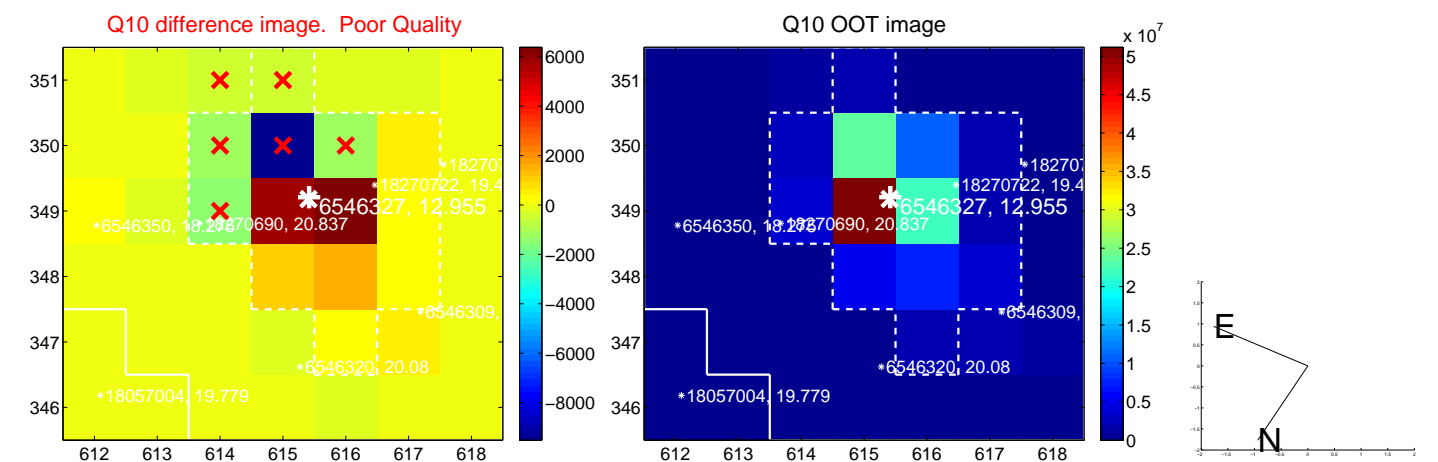
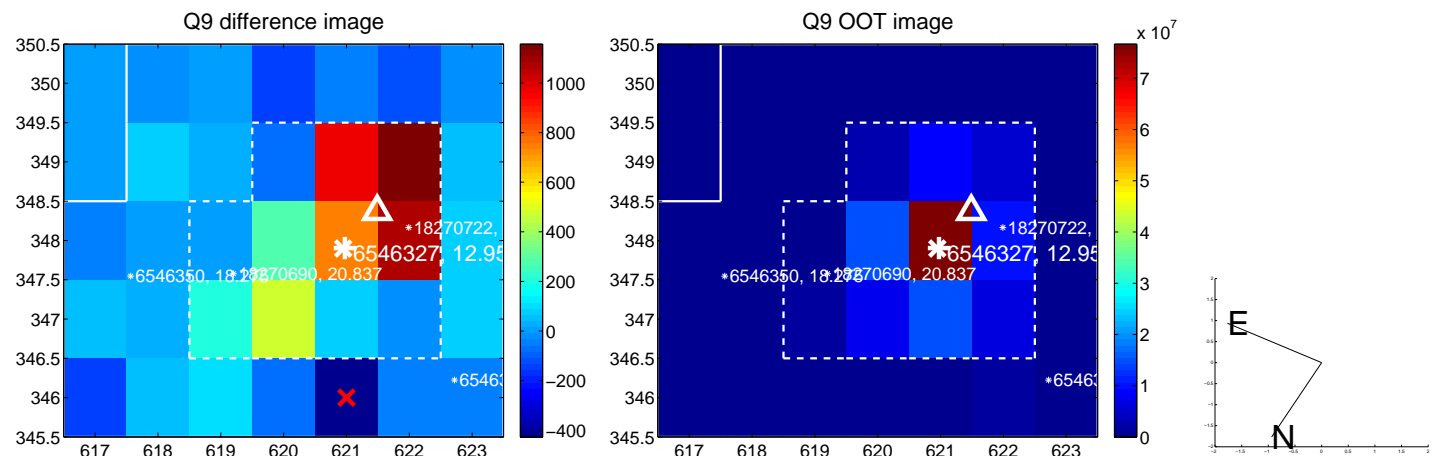
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



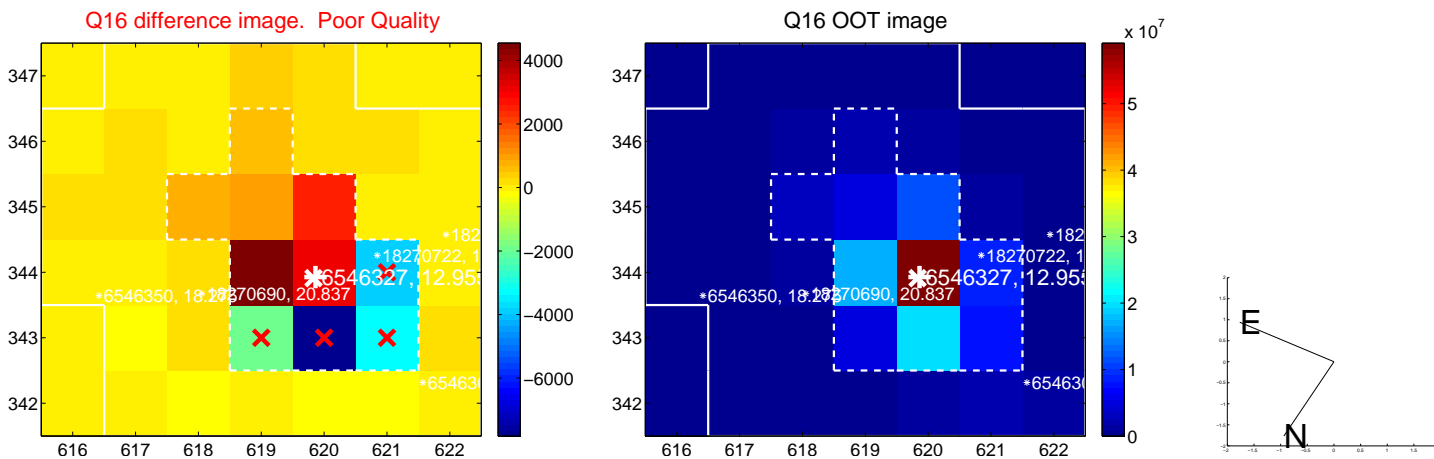
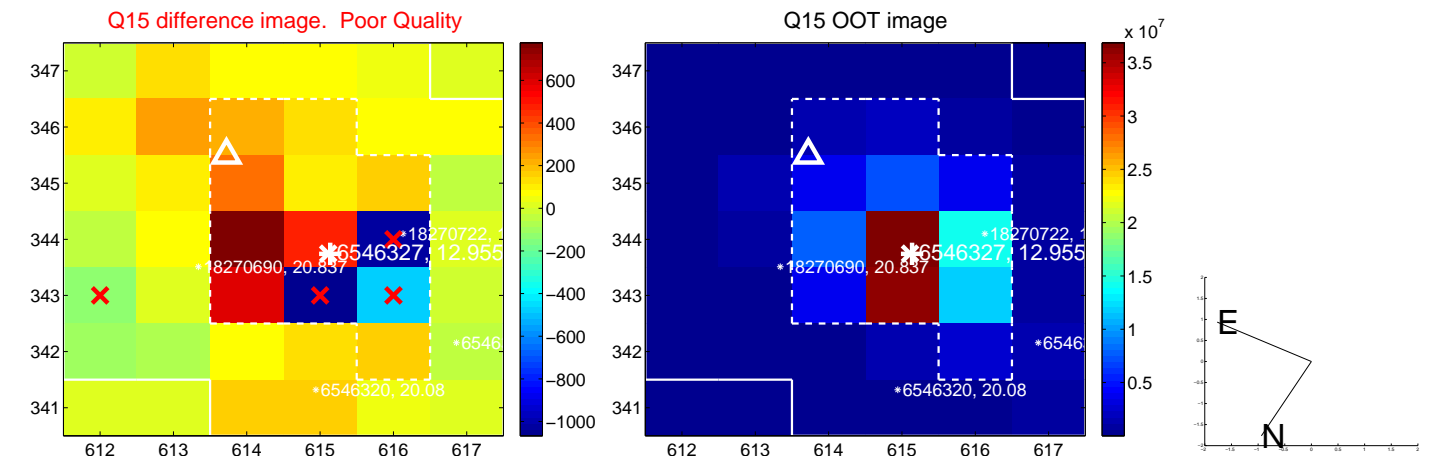
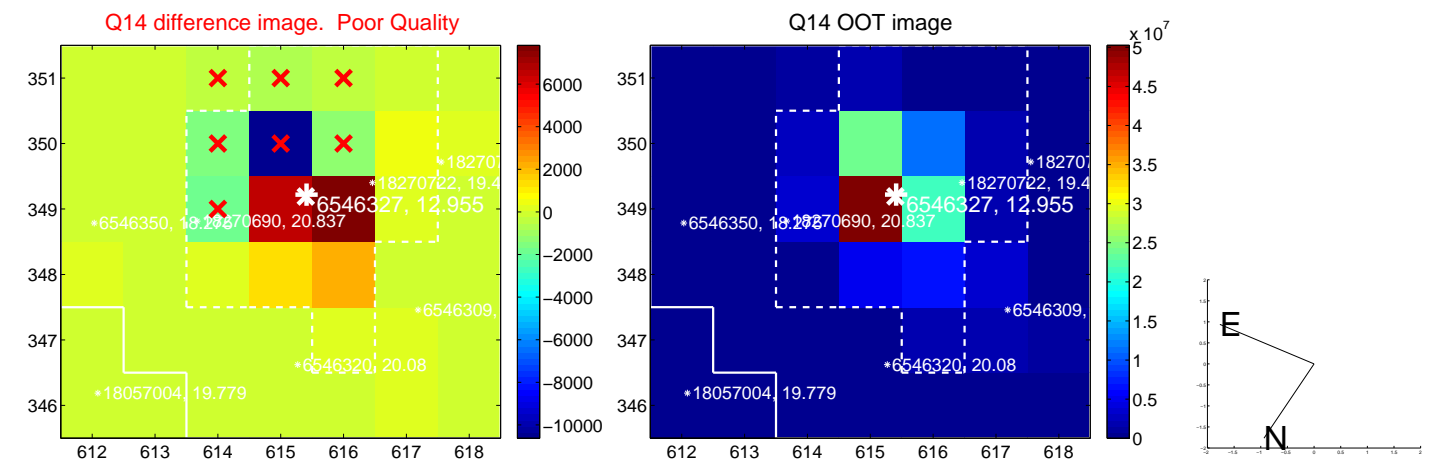
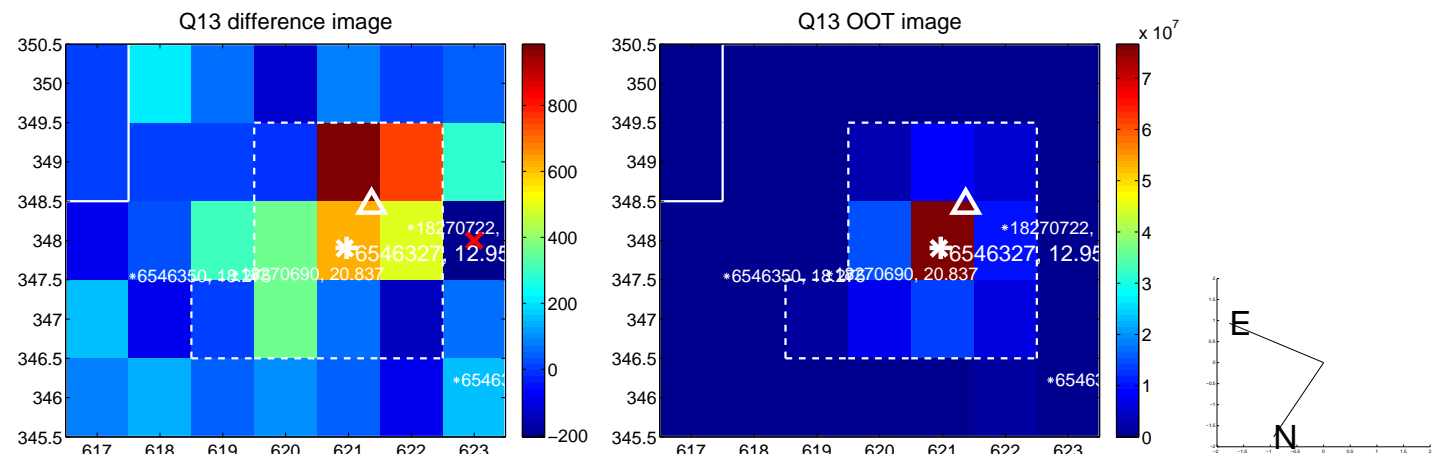
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



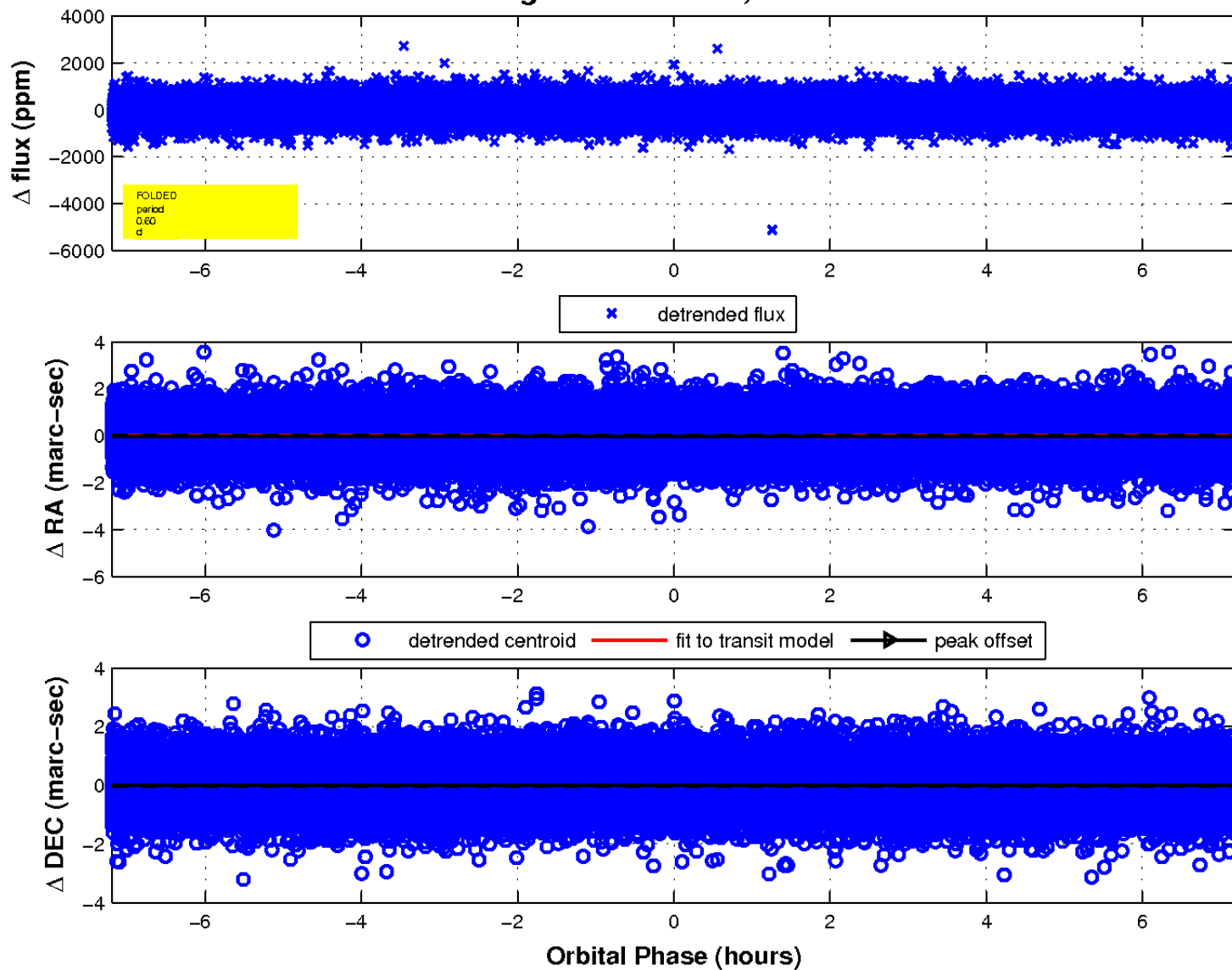
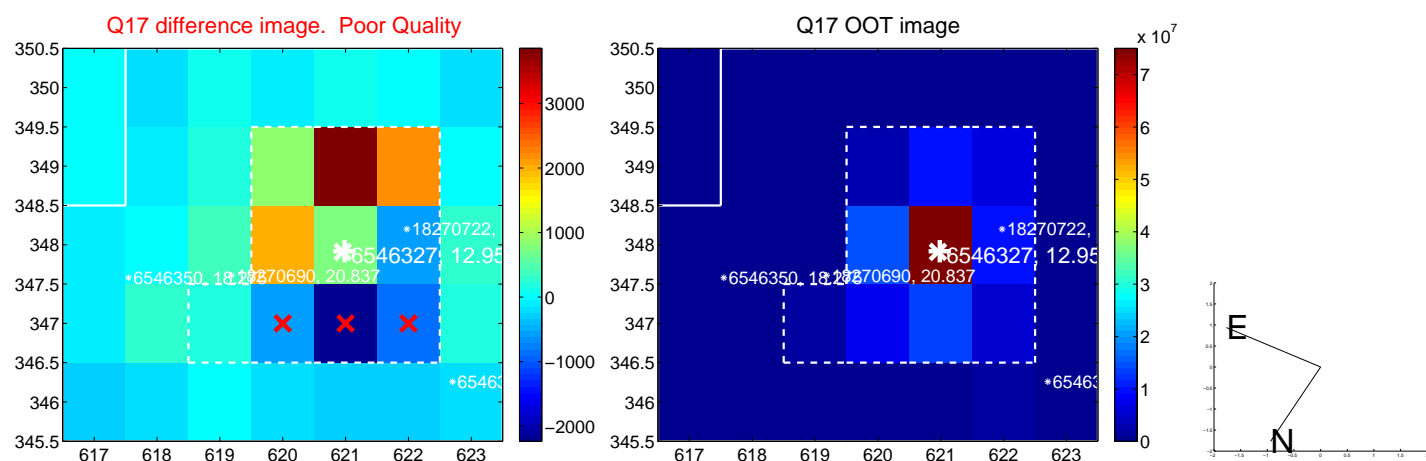
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

