

KIC 009244171

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})
009244171-01	OBS	No	0.839800	131.636170	78.1	8.101	12.9	5.7	1.13	5562	1.01	3797.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009244171-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS

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

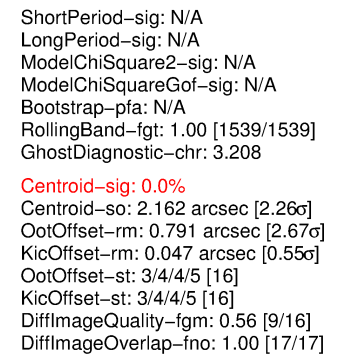
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

Ephemeris Match Information For 009244171-01

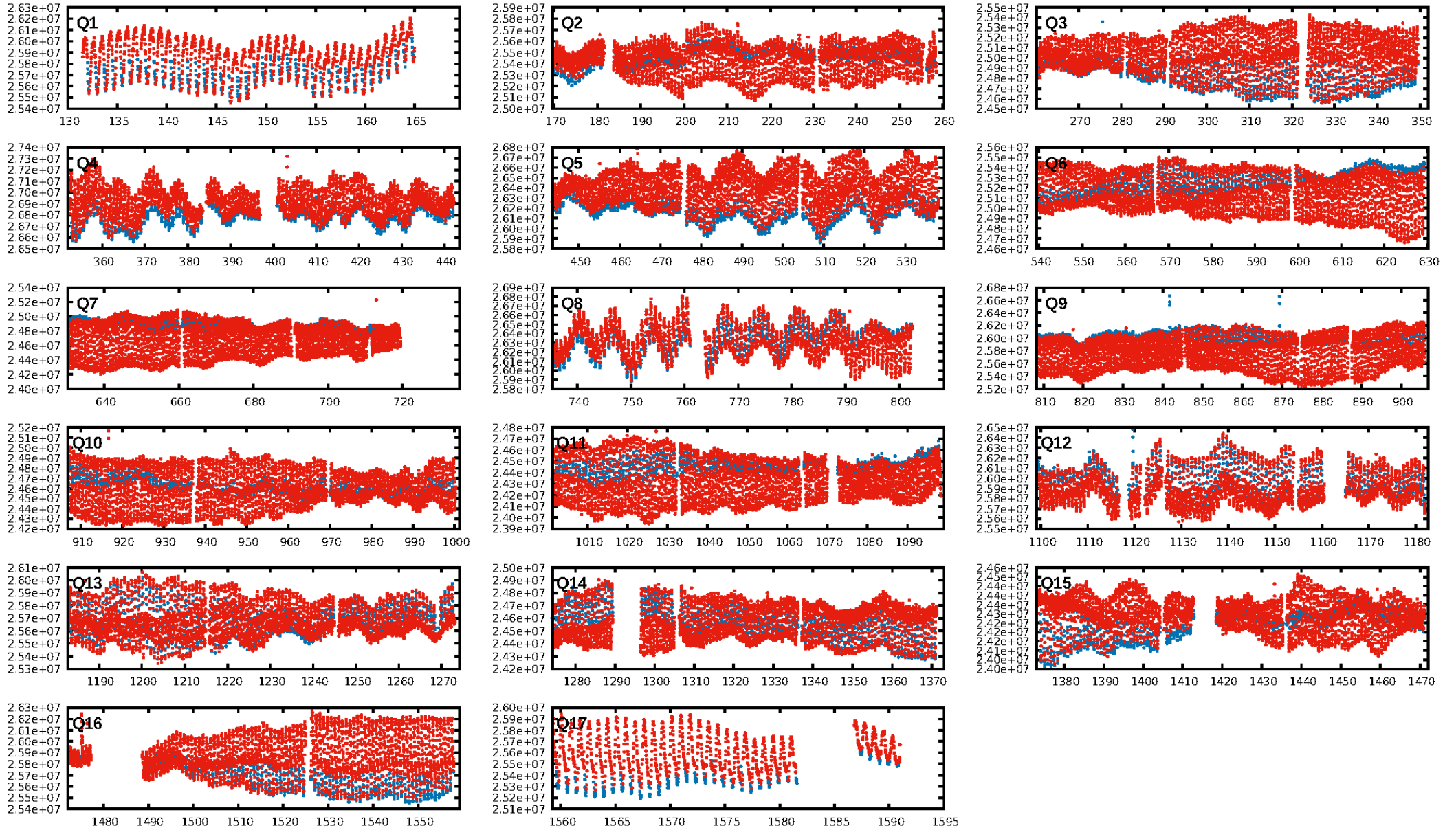
No Significant Match Found

KIC: 9244171 Candidate: 1 of 1 Period: 0.840 d

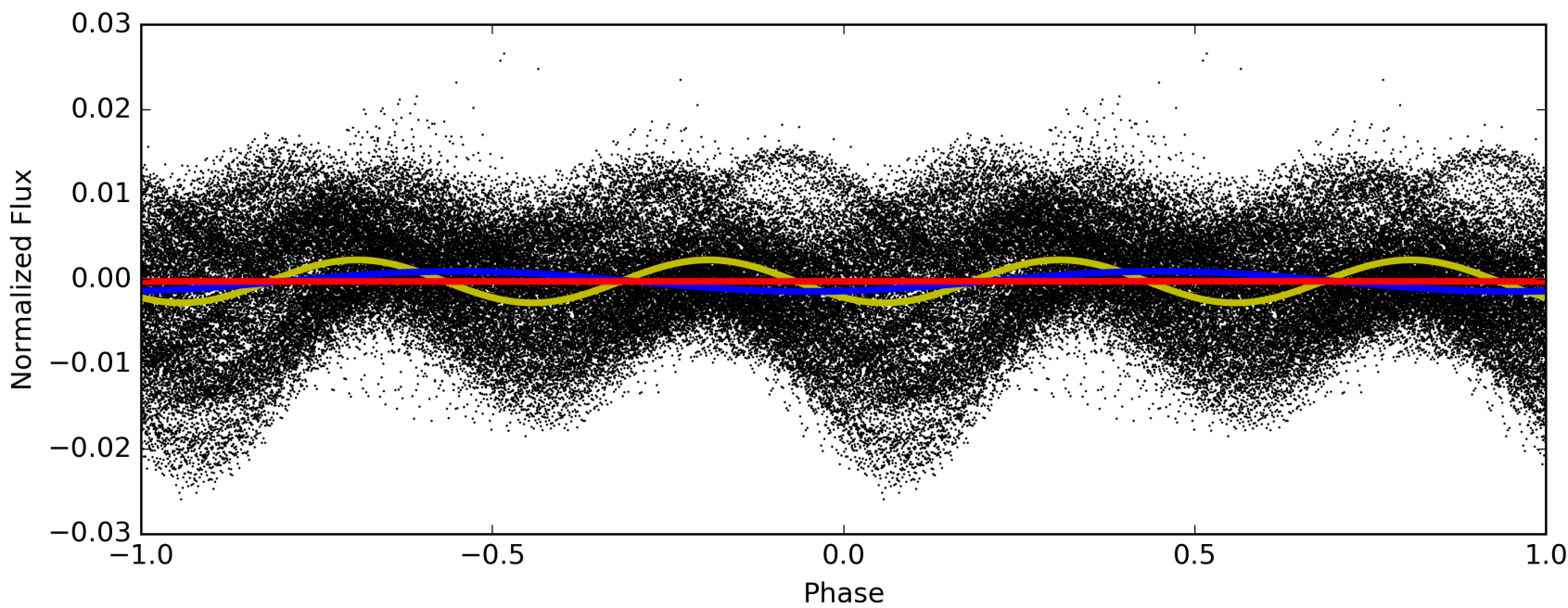
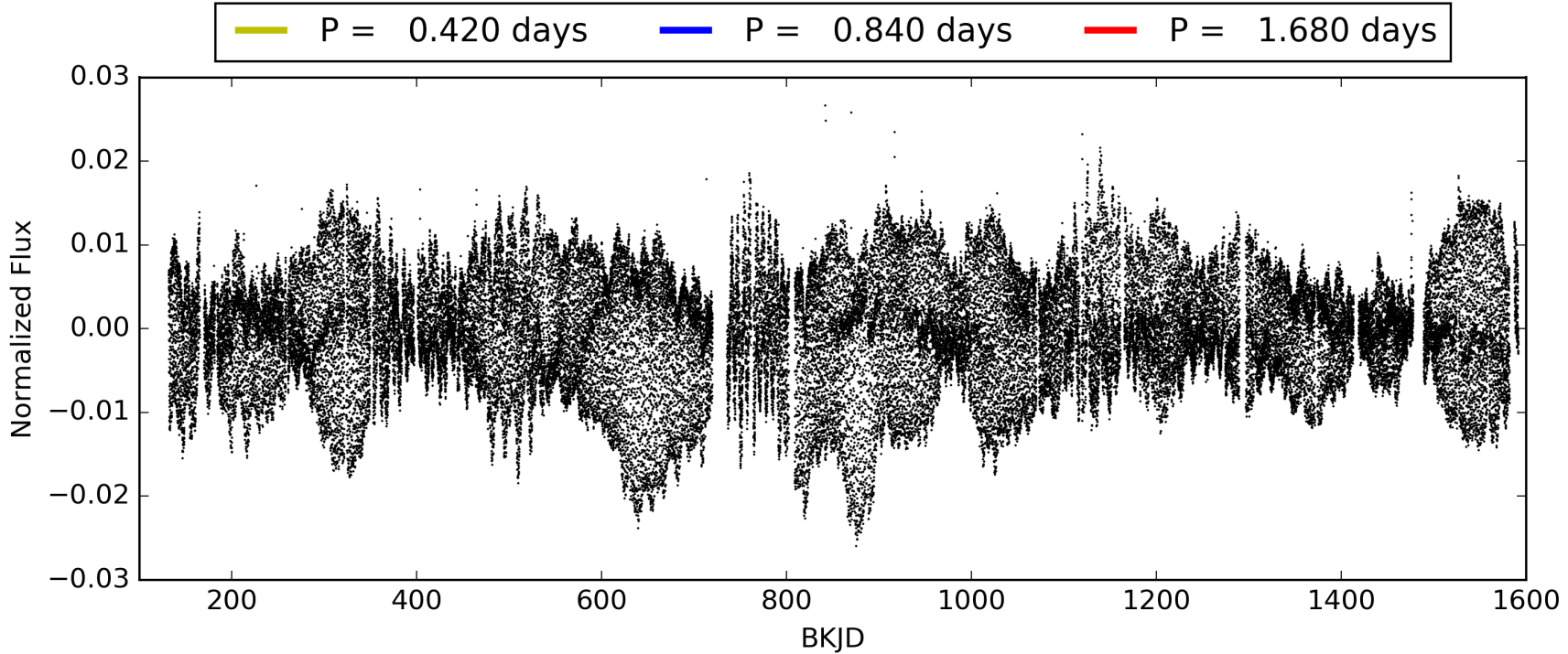


This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 009244171-01, PDC Light Curves

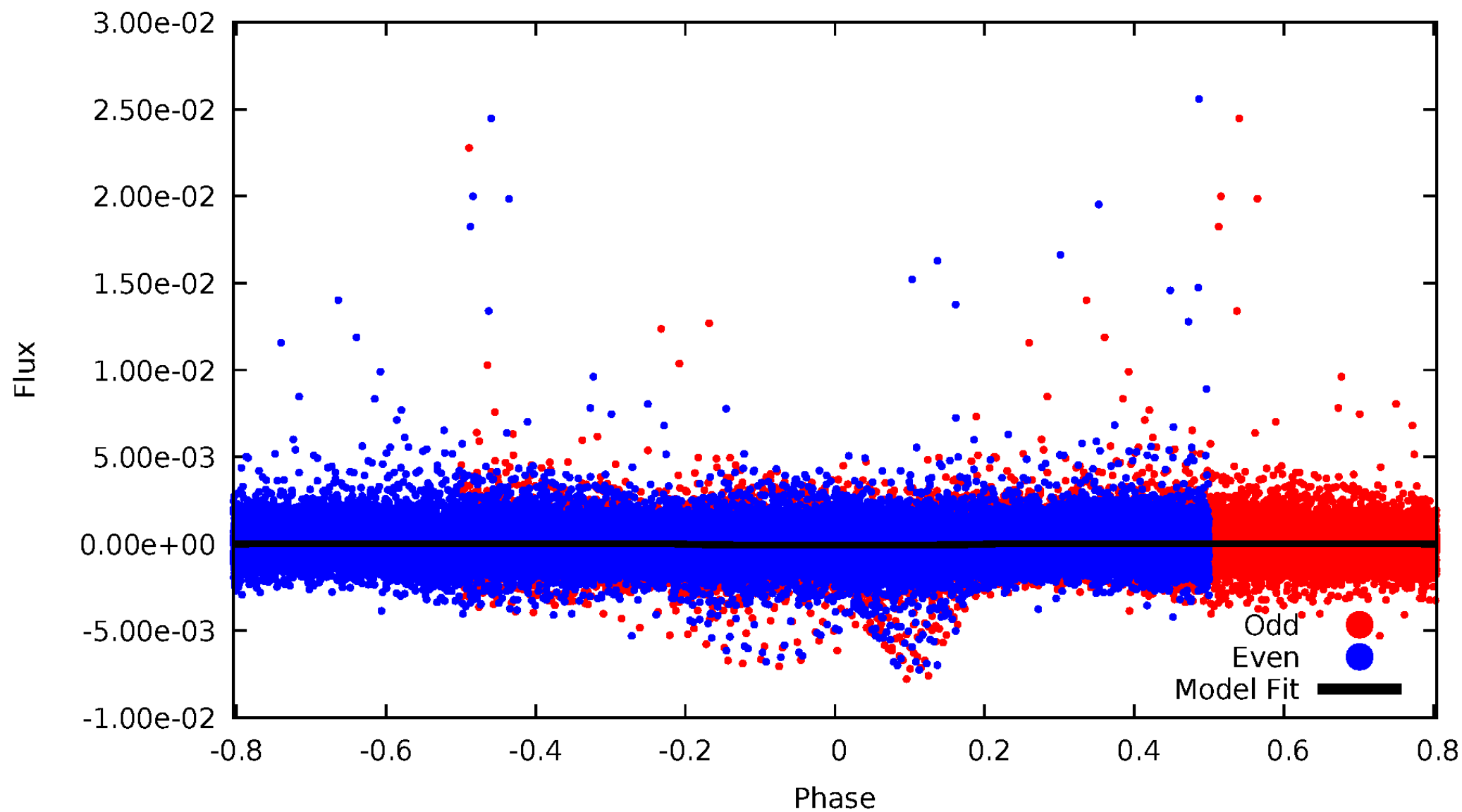


TCE 009244171-01



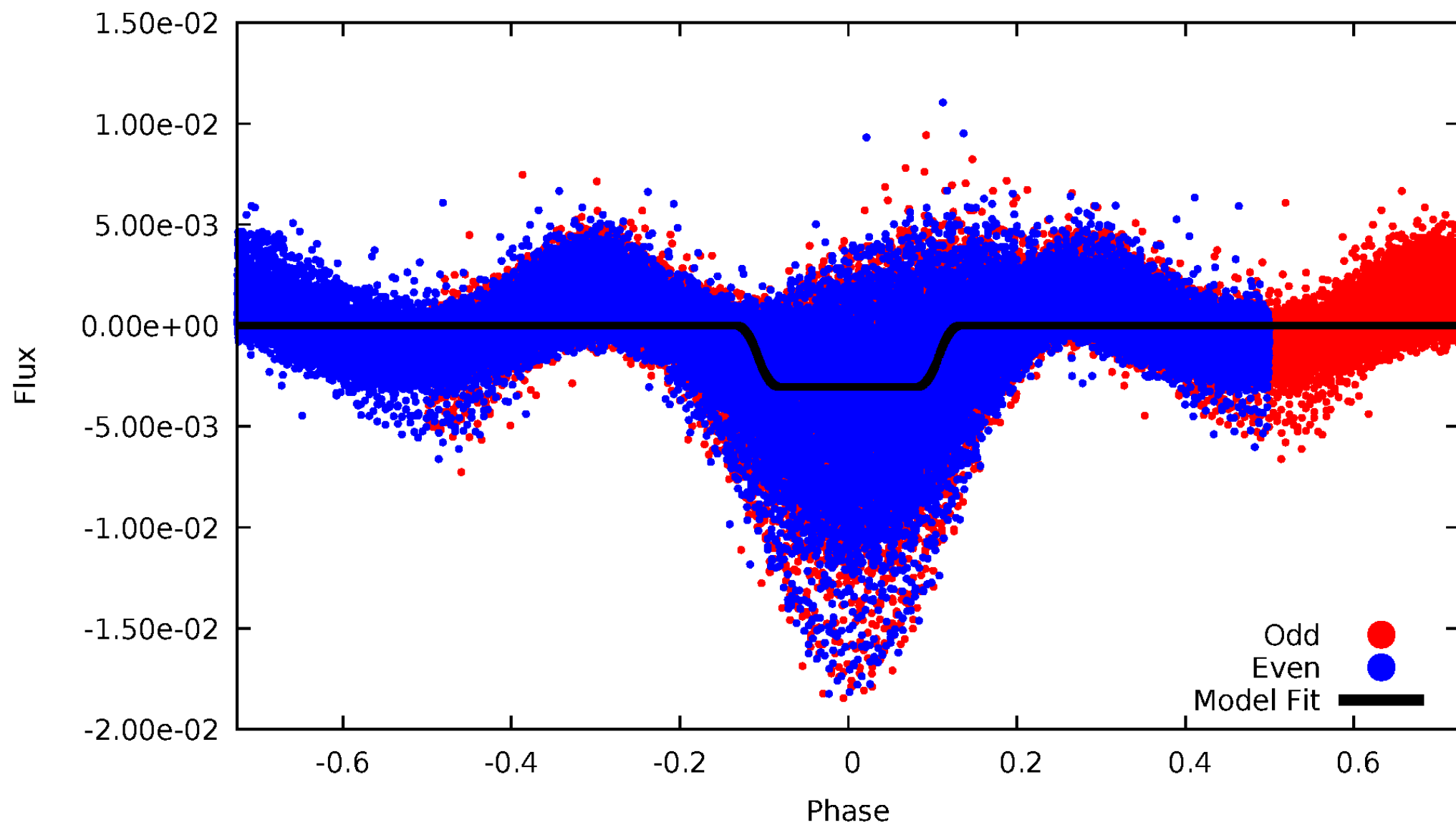
DV Odd/Even

TCE 009244171-01



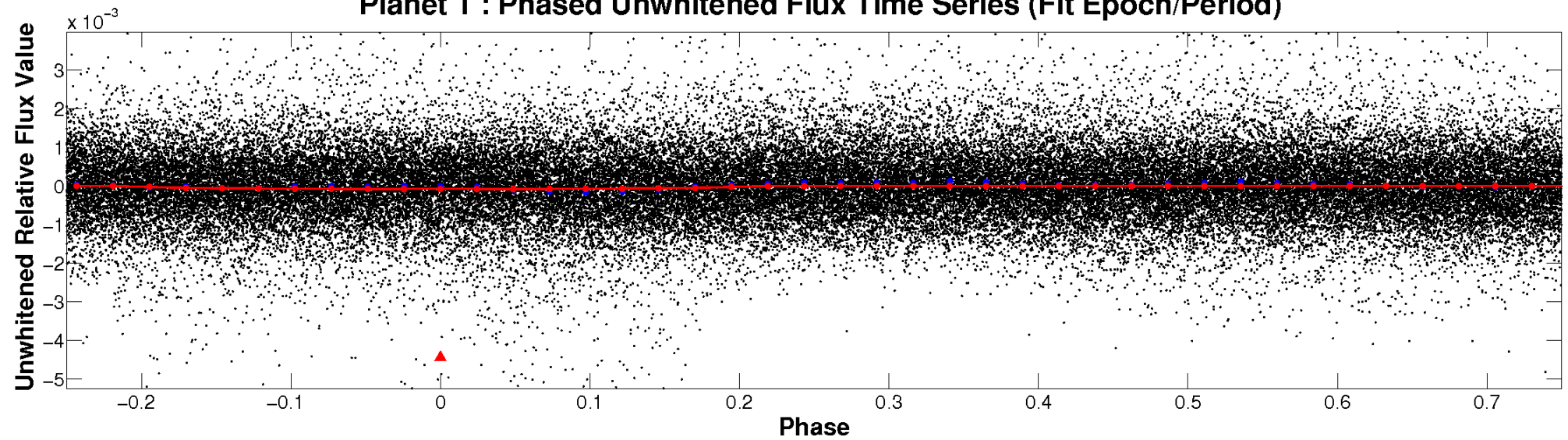
ALT Odd/Even

TCE 009244171-01

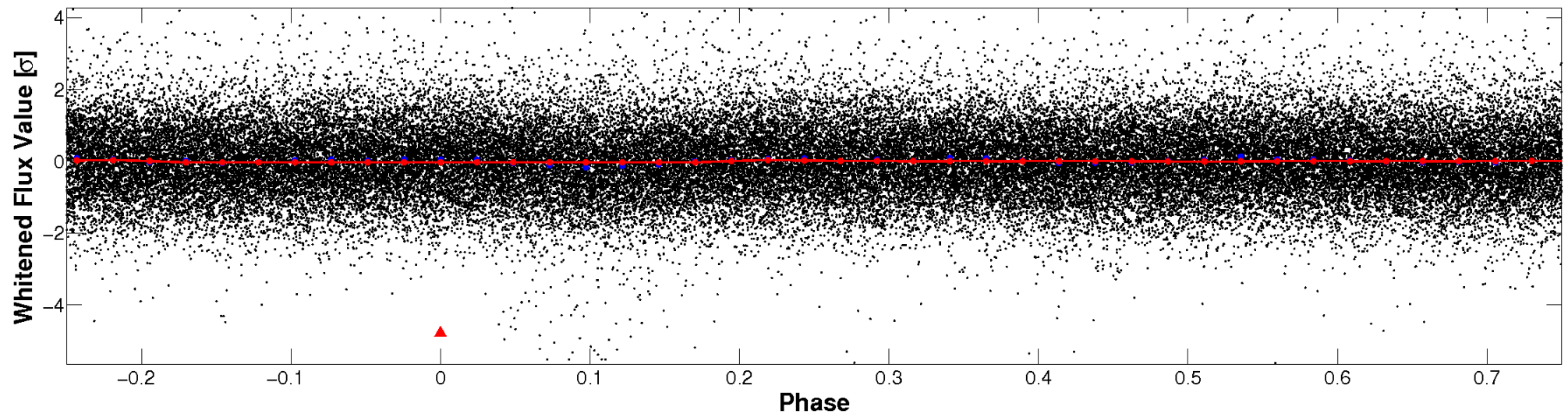


Non-Whitened Vs. Whitened Light Curve

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

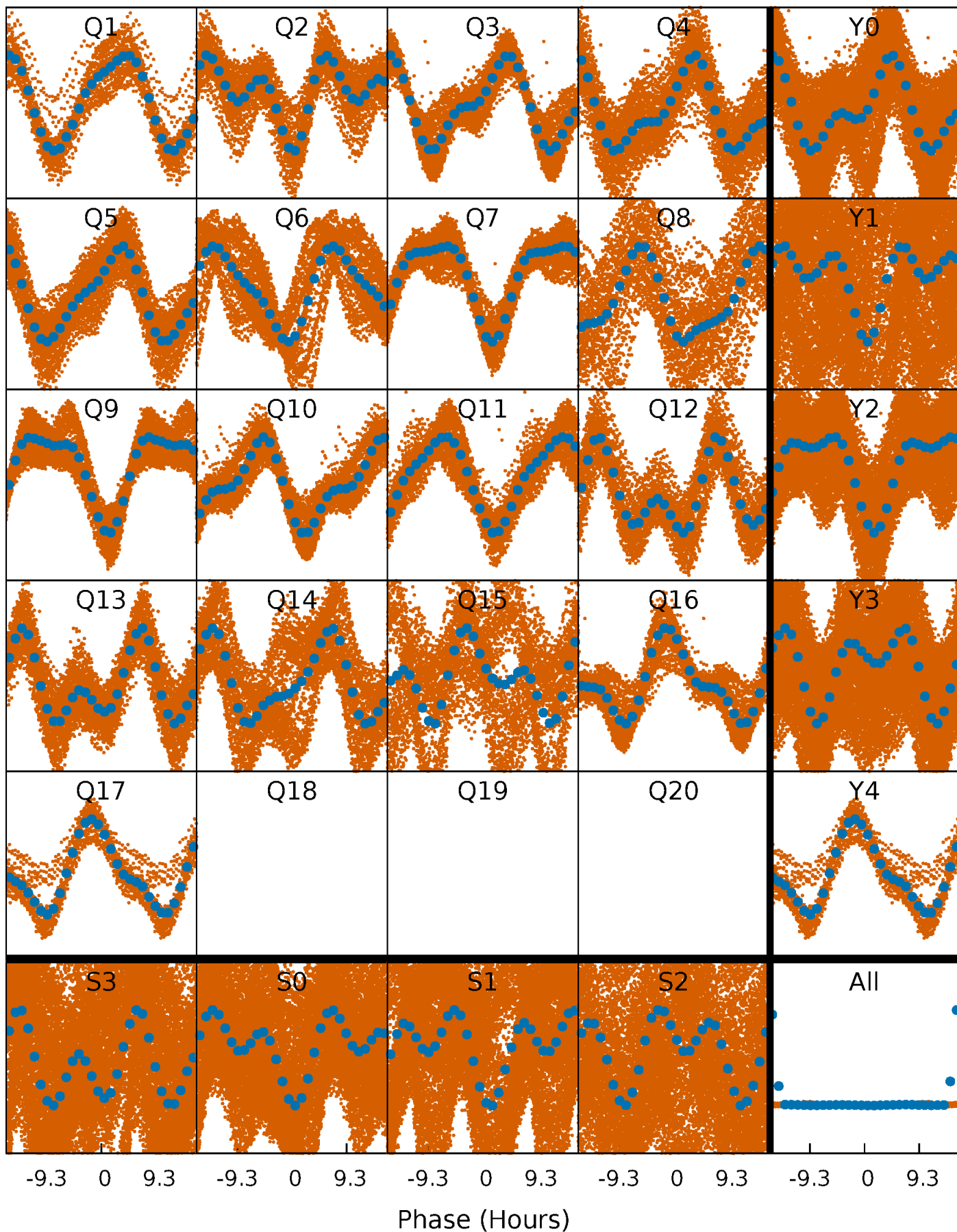


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



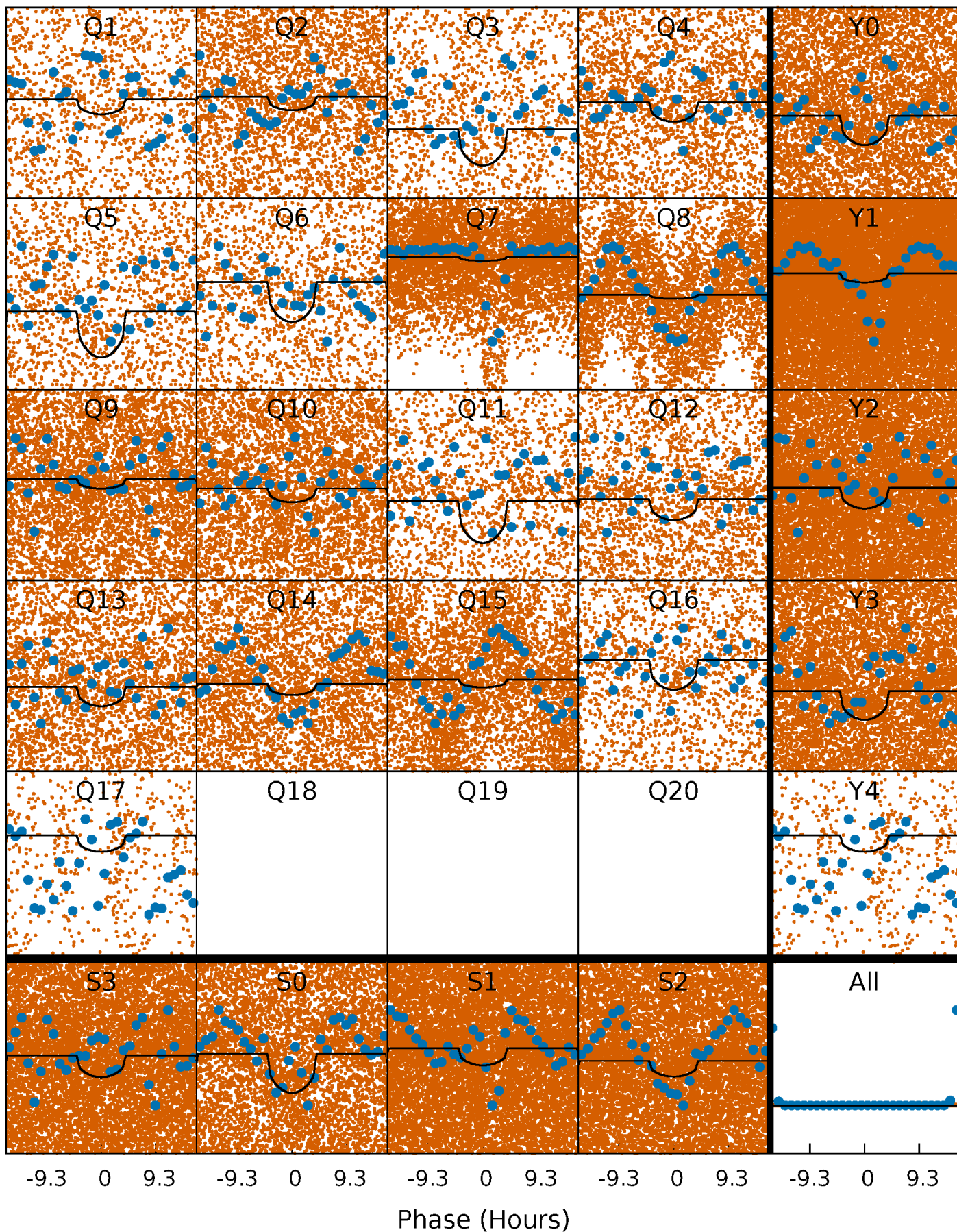
PDC Quarter-Phased Transit Curves

TCE 009244171-01 P= 0.839800 Days $T_0=131.636170$ (BKJD)



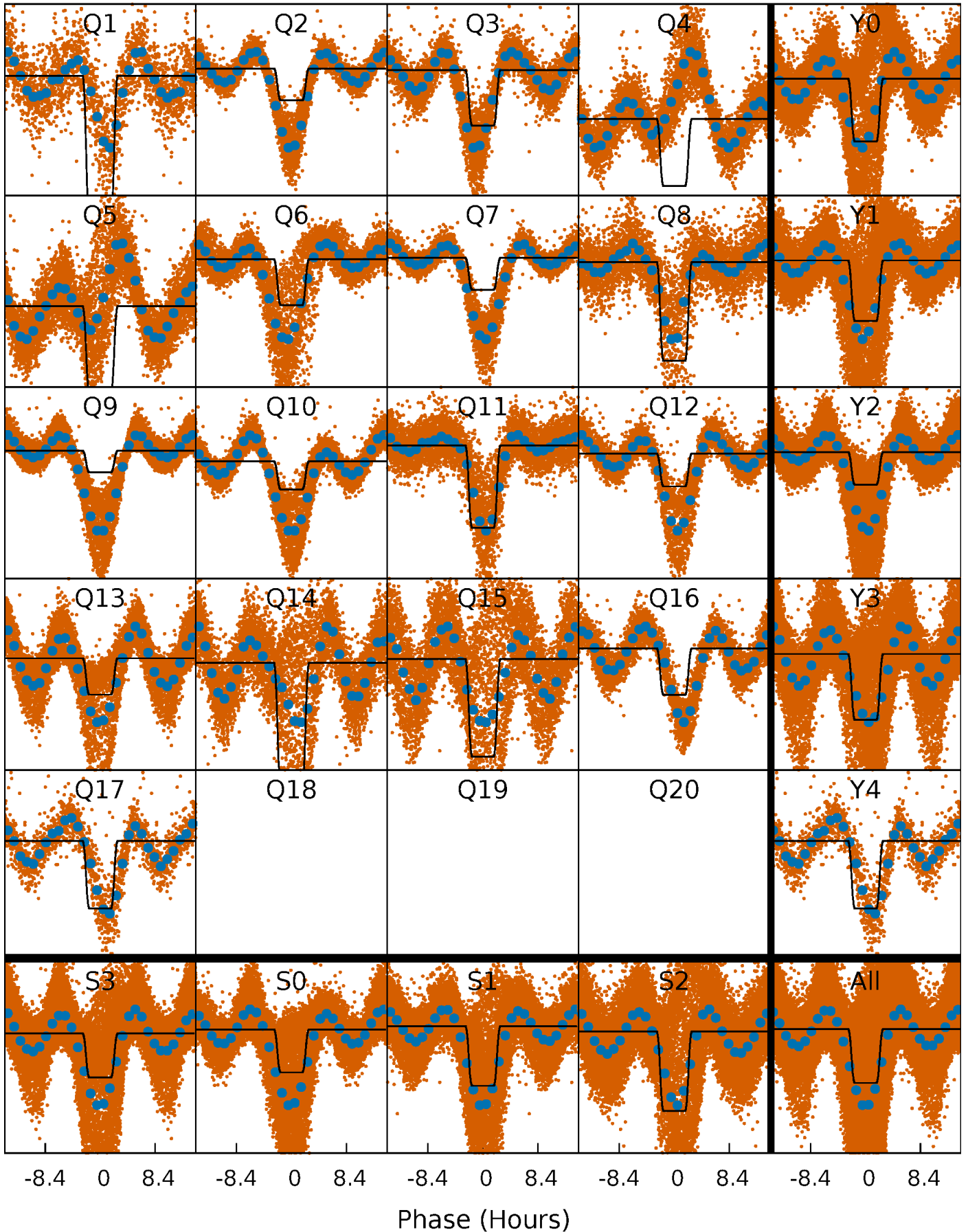
DV Quarter-Phased Transit Curves

TCE 009244171-01 P= 0.839800 Days $T_0=131.636170$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

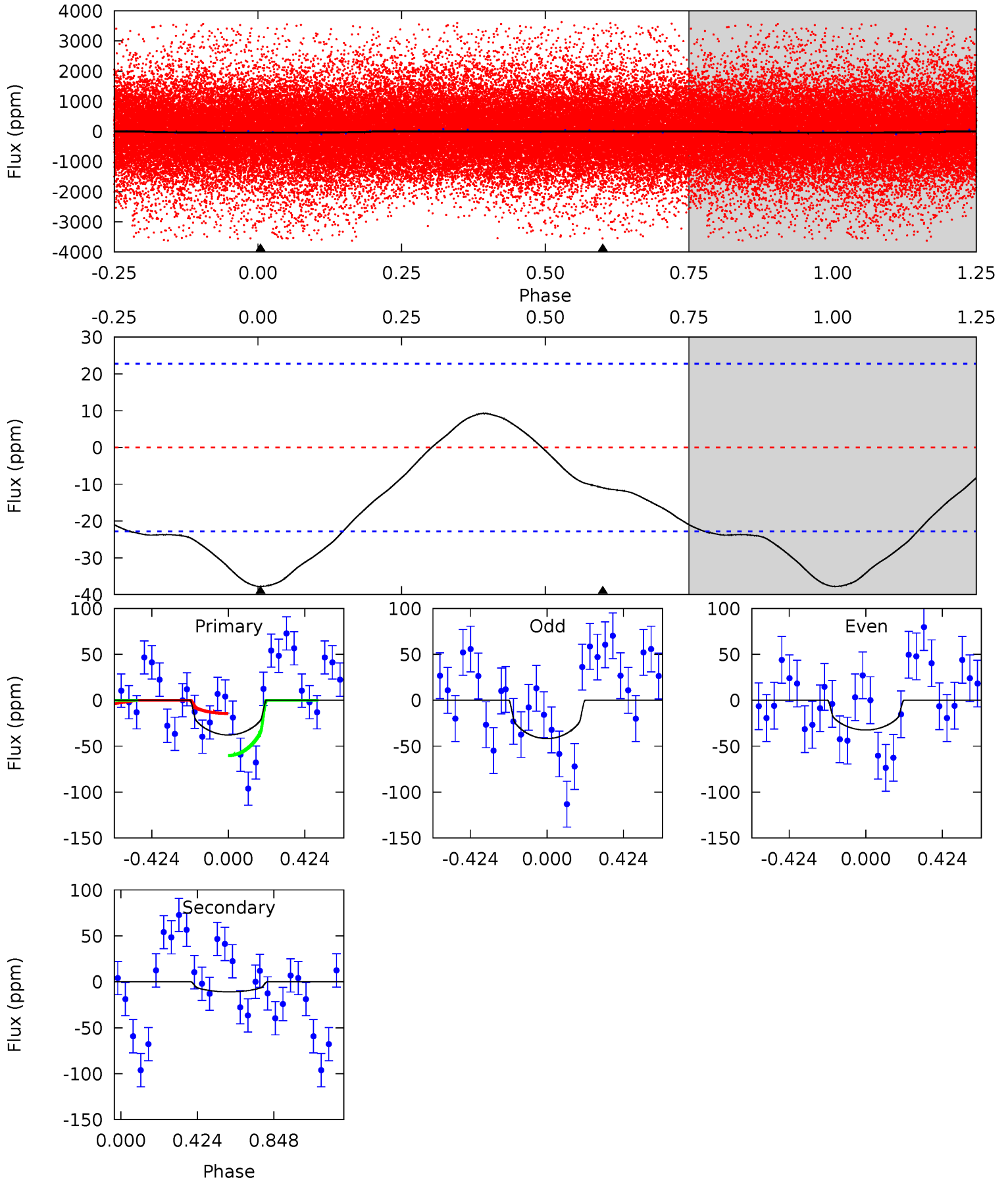
TCE 009244171-01 P= 0.839839 Days $T_0=131.661864$ (BKJD)



DV Model-Shift Uniqueness Test

009244171-01, P = 0.839800 Days, E = 130.796370 Days

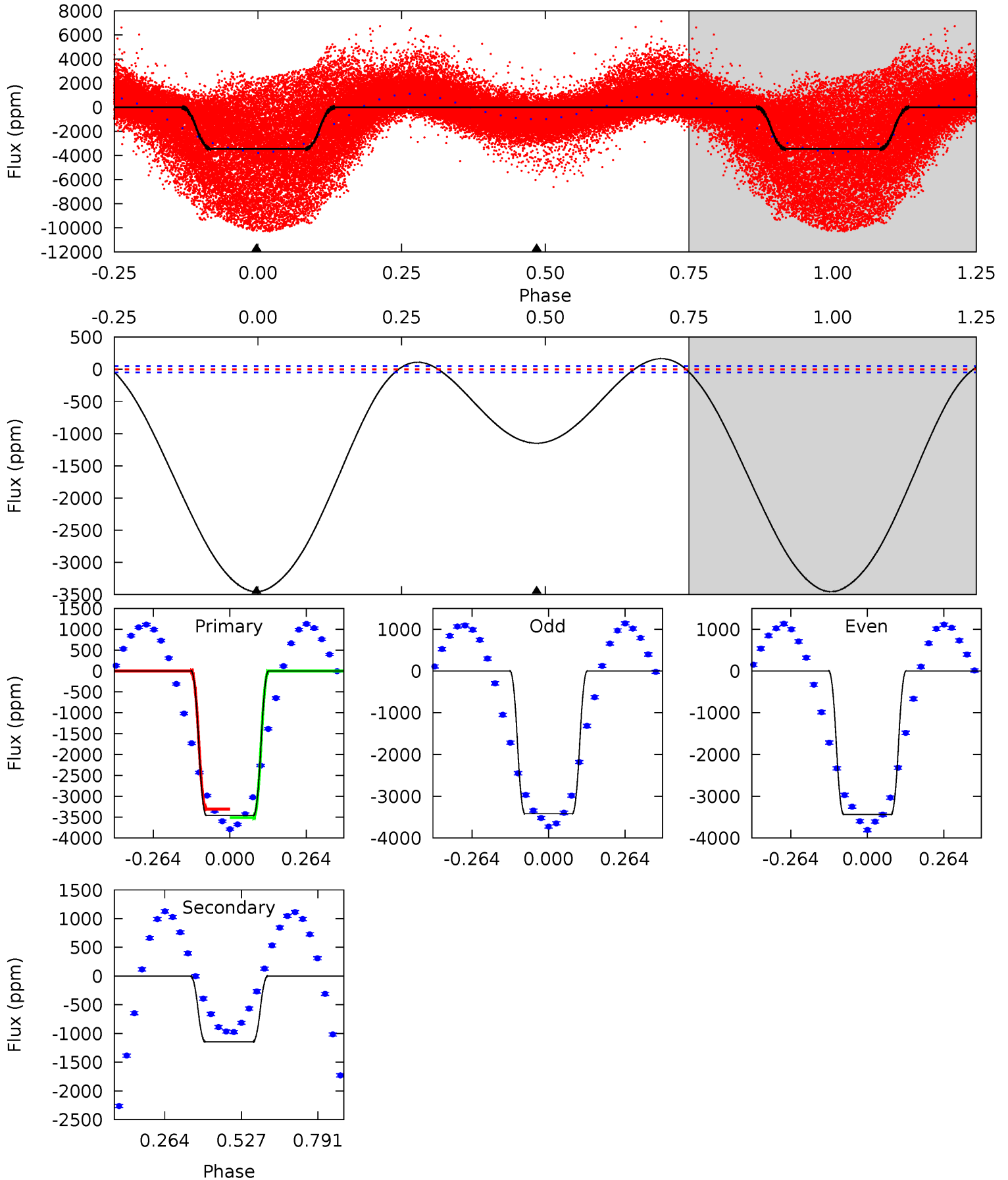
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.05	2.04	0	0	4.25	0.80	0.81	7.05	7.05	2.04	2.04	0.87	3.27	0.20	4.24



Alt Model-Shift Uniqueness Test

009244171-01, P = 0.839839 Days, E = 130.822025 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
311.3	103.4	0	0	4.36	1.12	10.3	311.3	311.3	103.4	103.4	0.79	1.17	0.05	9.05



Stellar Parameters For KIC 009244171

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5562^{+150}_{-150}	$4.299^{+0.204}_{-0.185}$	$0.120^{+0.250}_{-0.250}$	$1.132^{+0.304}_{-0.248}$	$0.930^{+0.104}_{-0.075}$	$0.903^{+0.907}_{-0.460}$
	+3%/-3%	+5%/-4%	+208%/-208%	+27%/-22%	+11%/-8%	+101%/-51%
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 009244171-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 5	$1.07^{+0.67}_{-0.57}$	2801^{+184}_{-190}	3585^{+1360}_{-934}	$1.393^{+5.032}_{-0.968}$
Alt.	-1148 ± 11	$6.78^{+1.23}_{-1.08}$	2789^{+215}_{-192}	4453^{+225}_{-202}	$3.960^{+1.629}_{-1.025}$

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

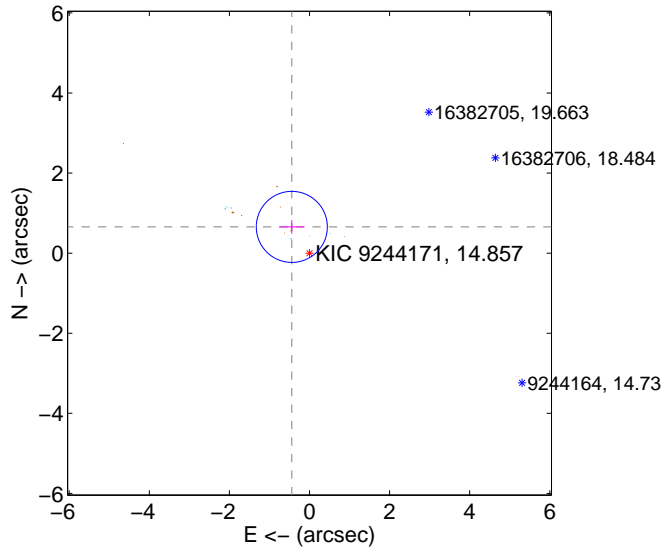
Supplemental centroid analysis for 009244171-01. Kepler magnitude: 14.86. Transit SNR 5.72

There are 9 quarters with good PRF difference image offsets

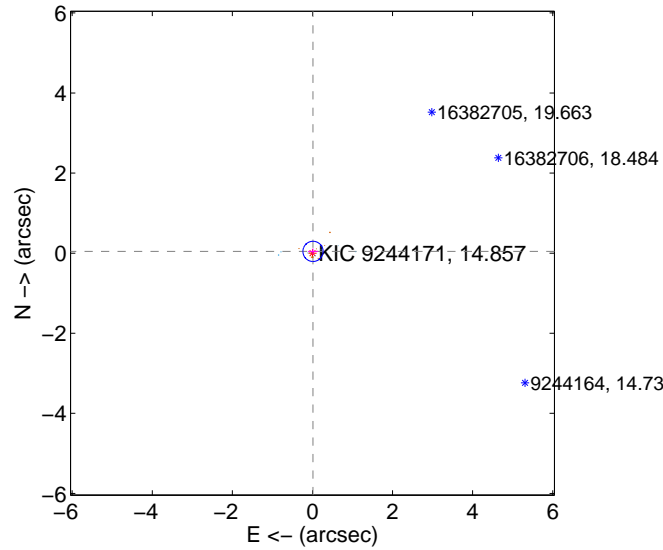
The direct PRF centroid is offset from the target star catalog position by about 0.72 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.791 ± 0.296	2.67	0.441 ± 0.316	0.656 ± 0.168
PRF-fit source offset from KIC position	0.047 ± 0.084	0.55	-0.014 ± 0.125	0.044 ± 0.075
photometric centroid source offset	2.16 ± 0.96	2.26	1.97 ± 0.98	-0.88 ± 0.82

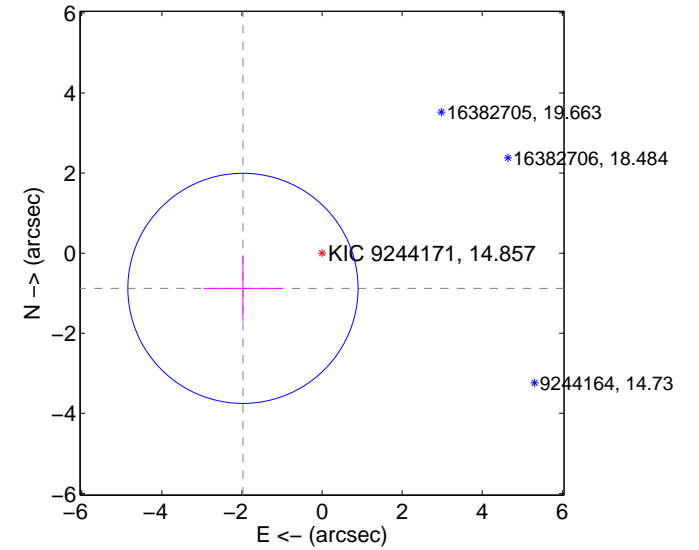
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

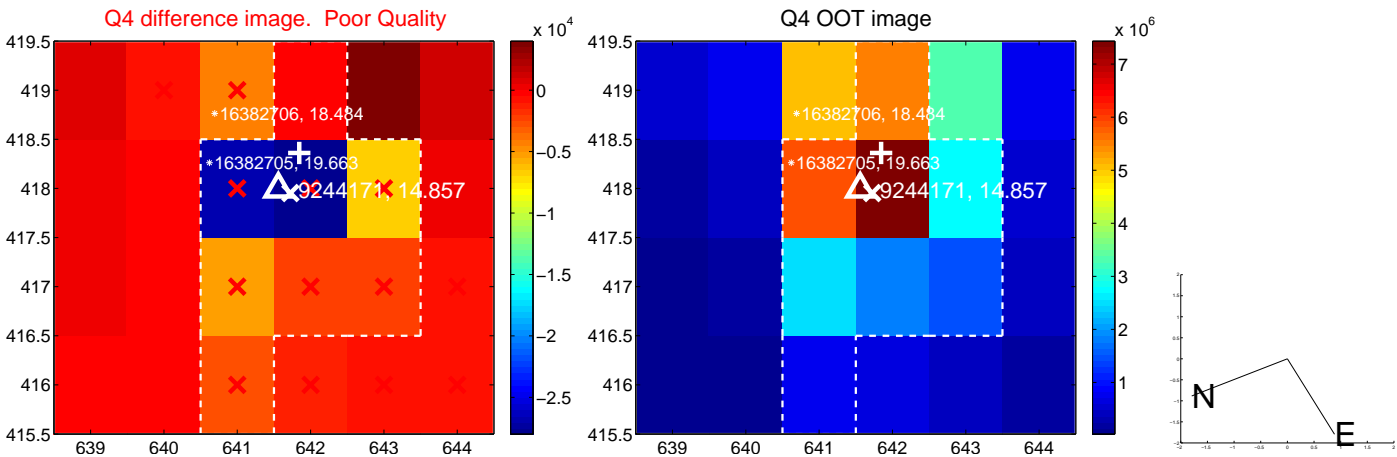
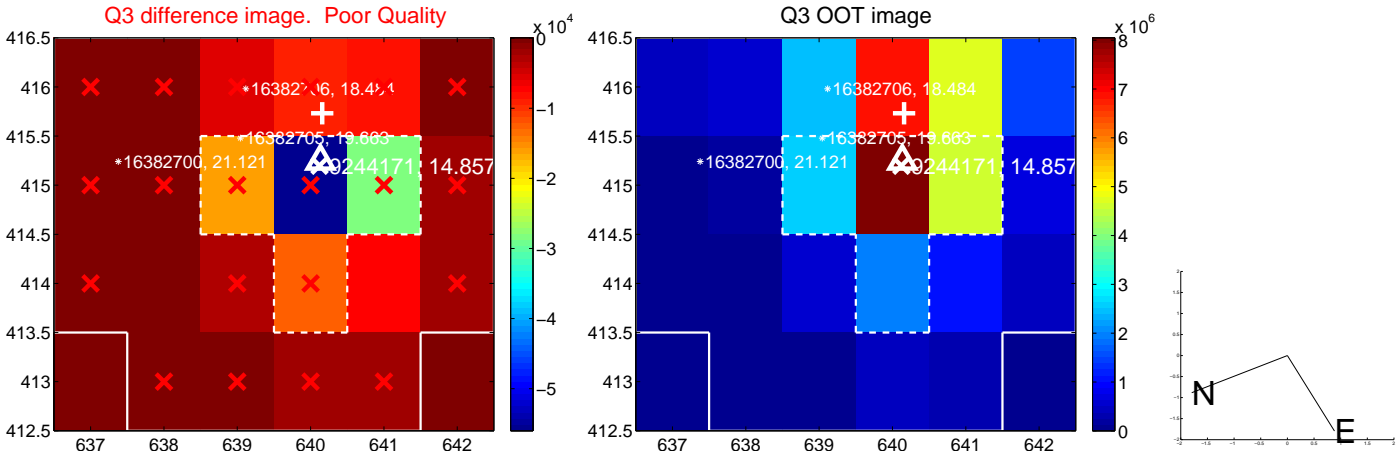
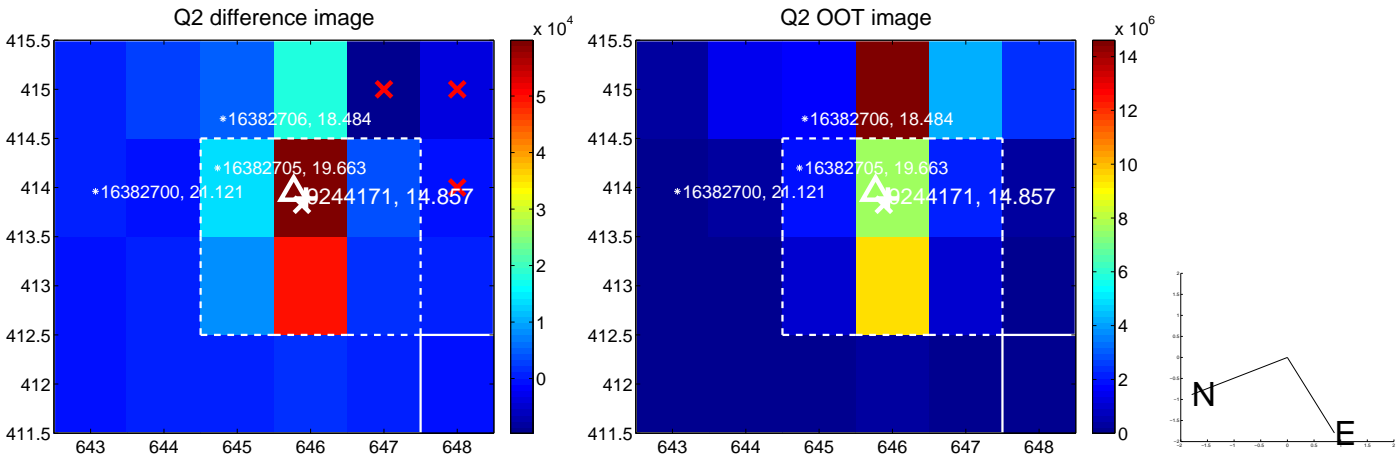
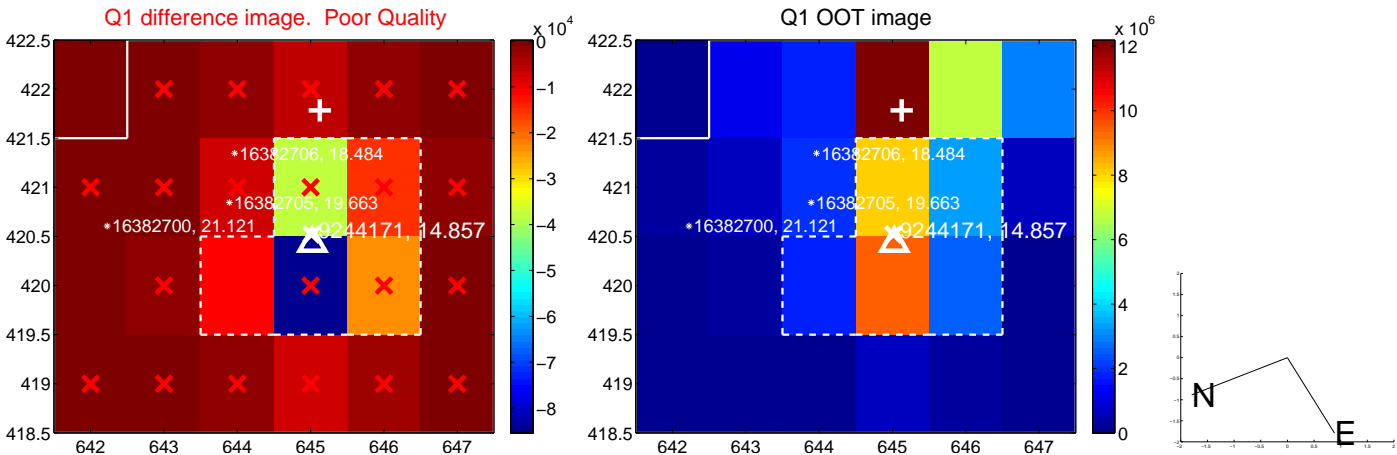


offset from photometric centroids

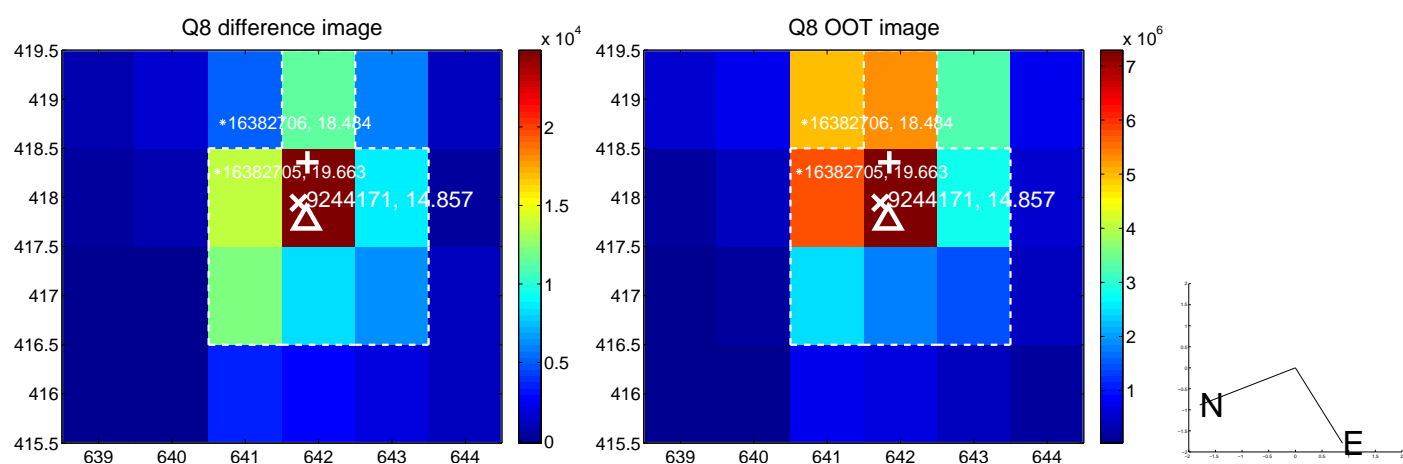
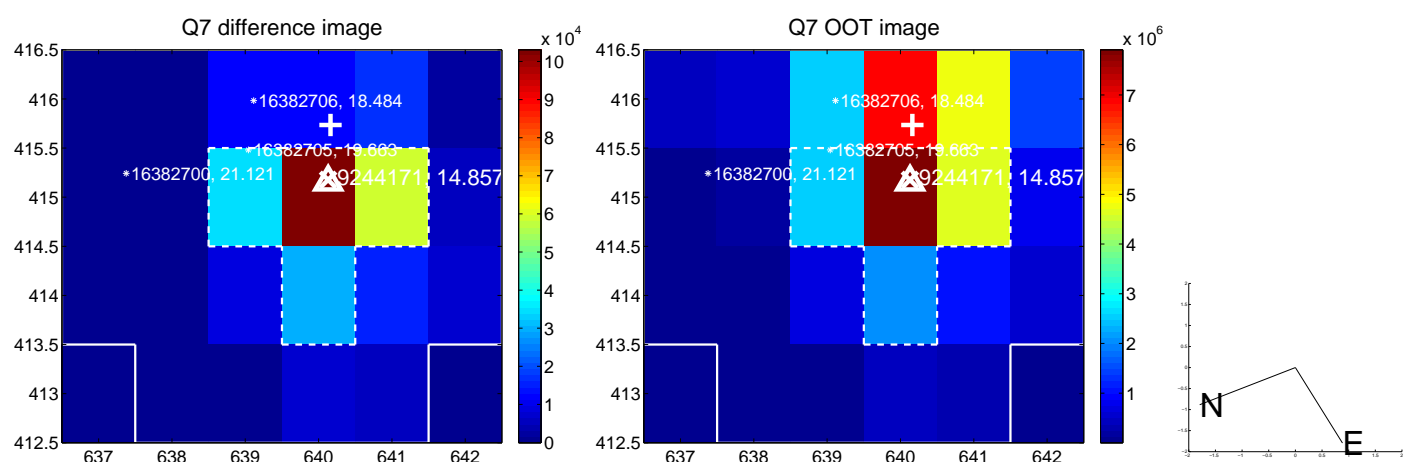
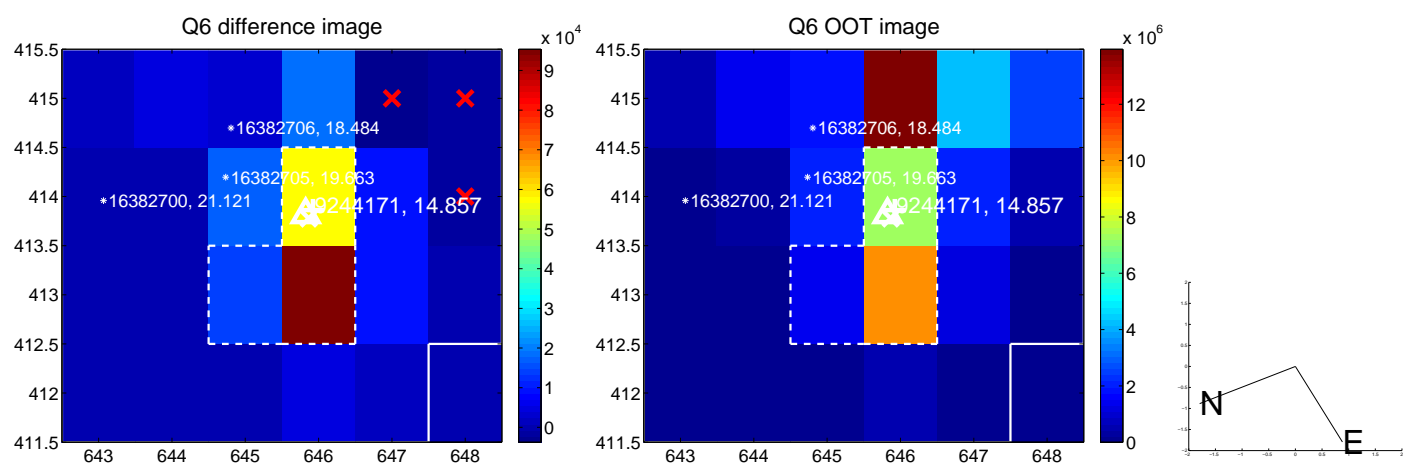
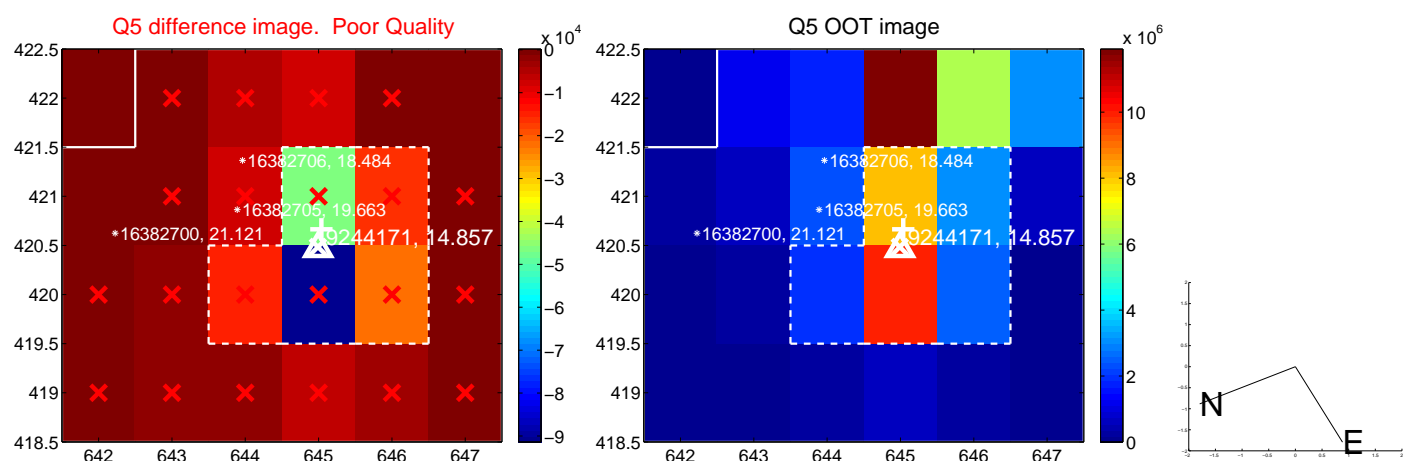


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

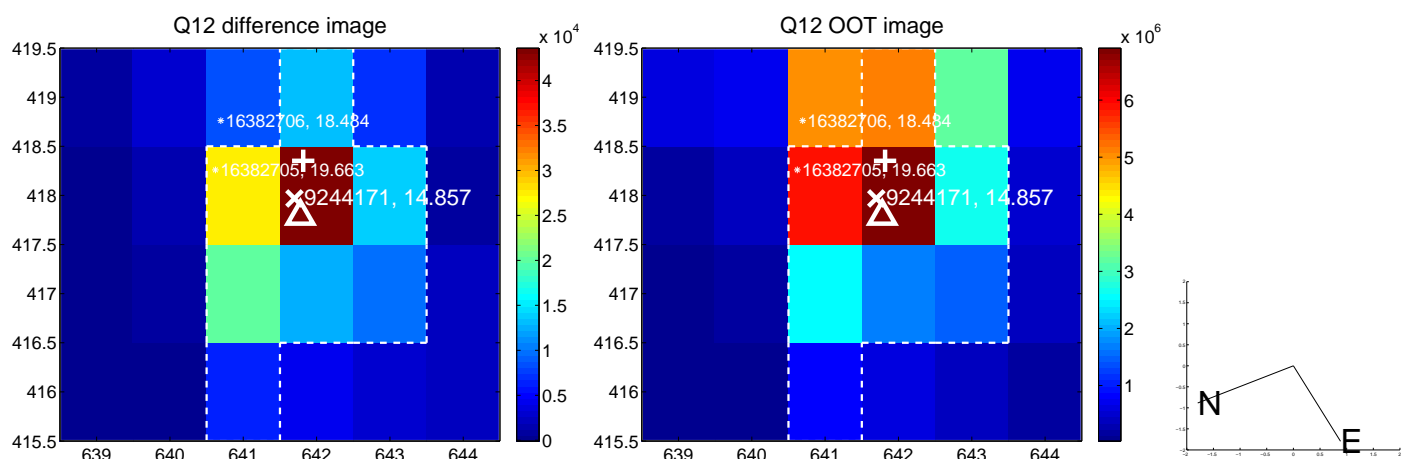
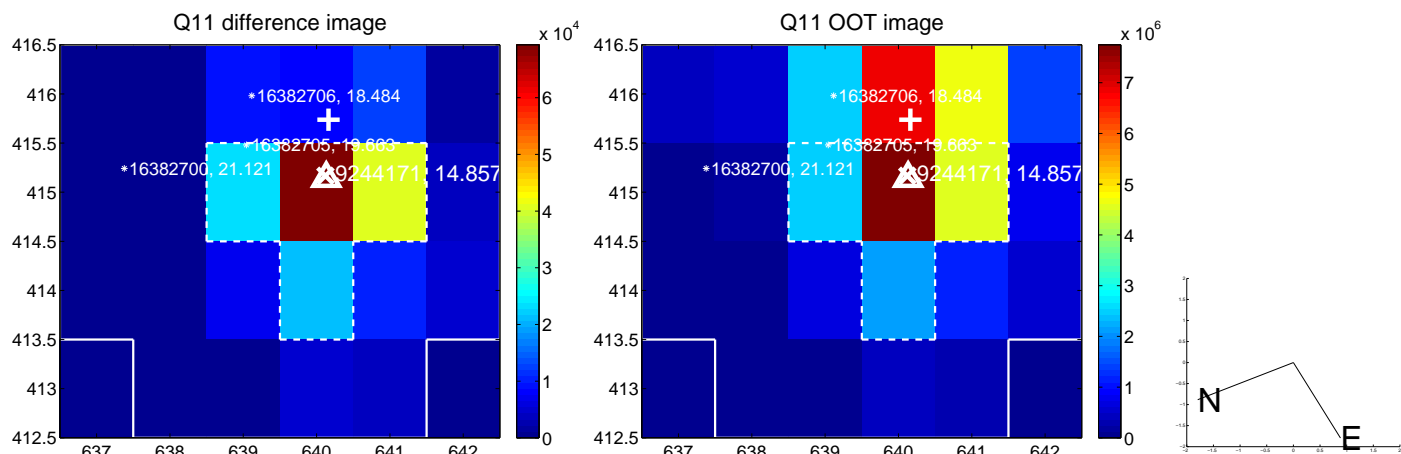
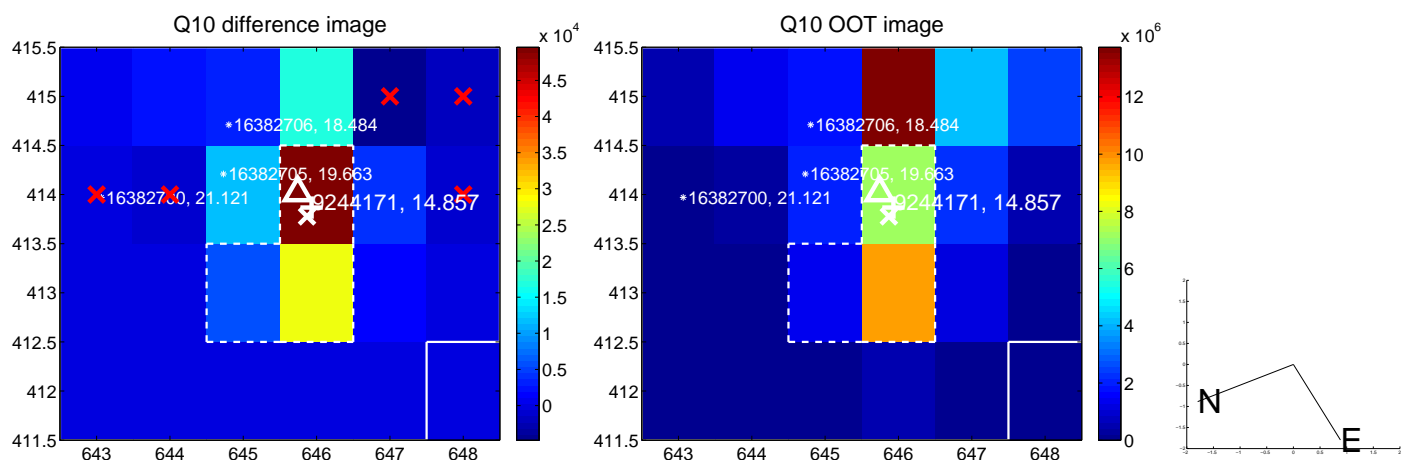
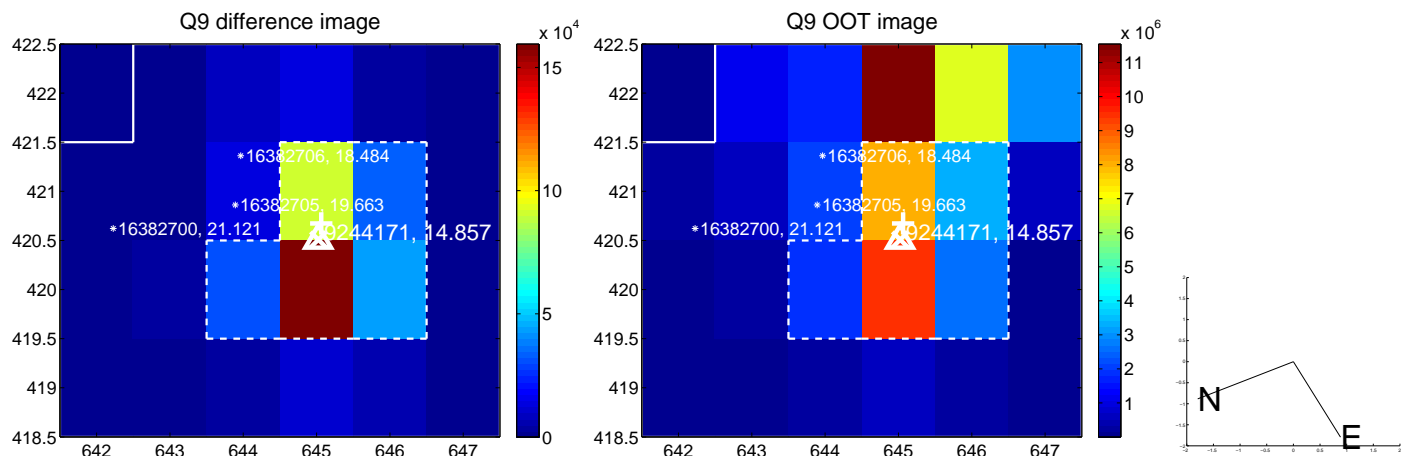
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



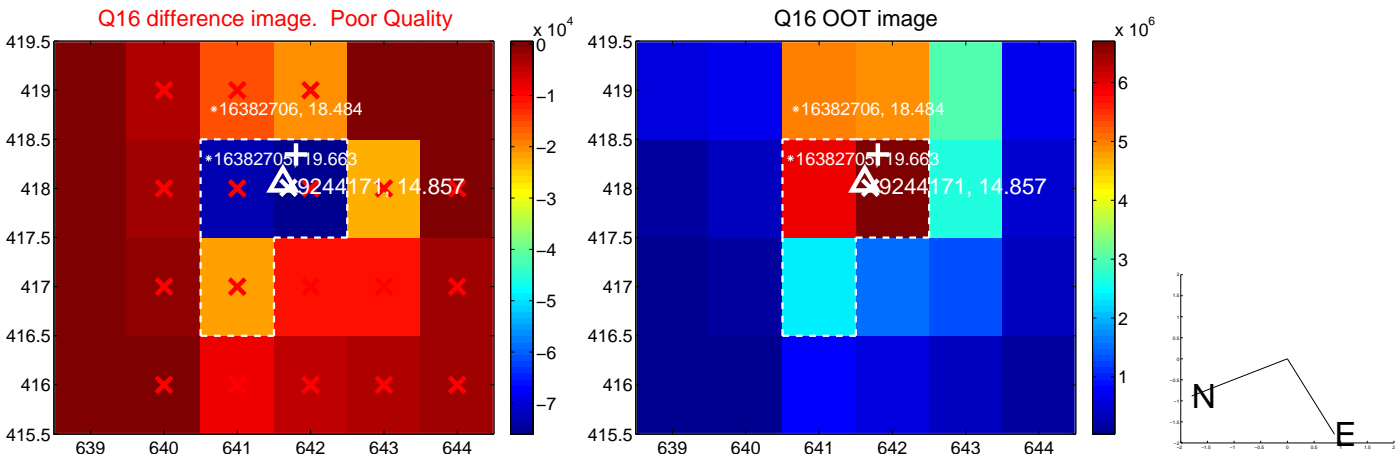
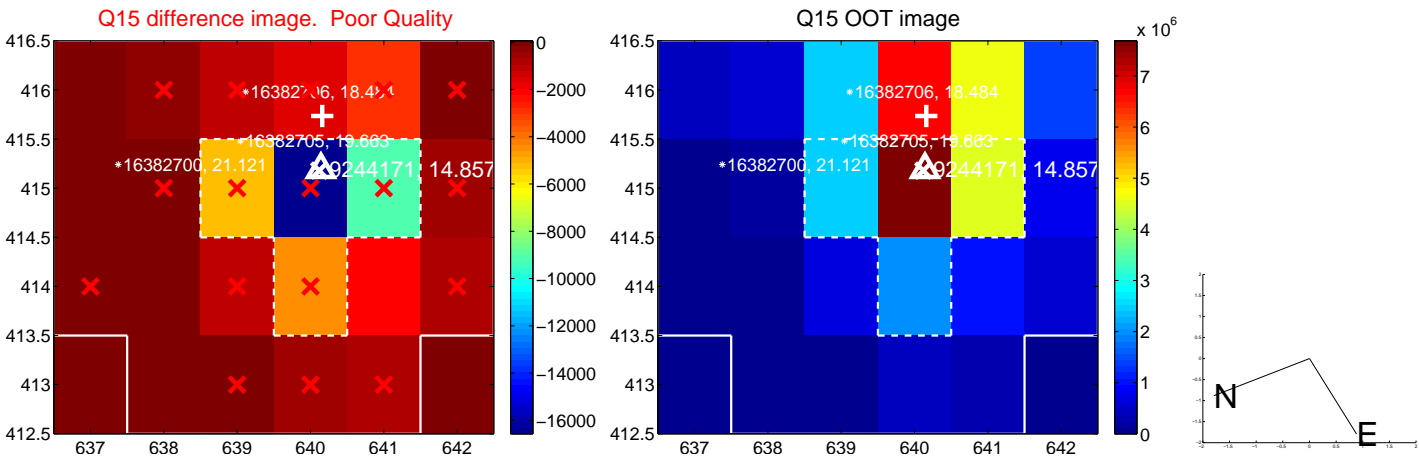
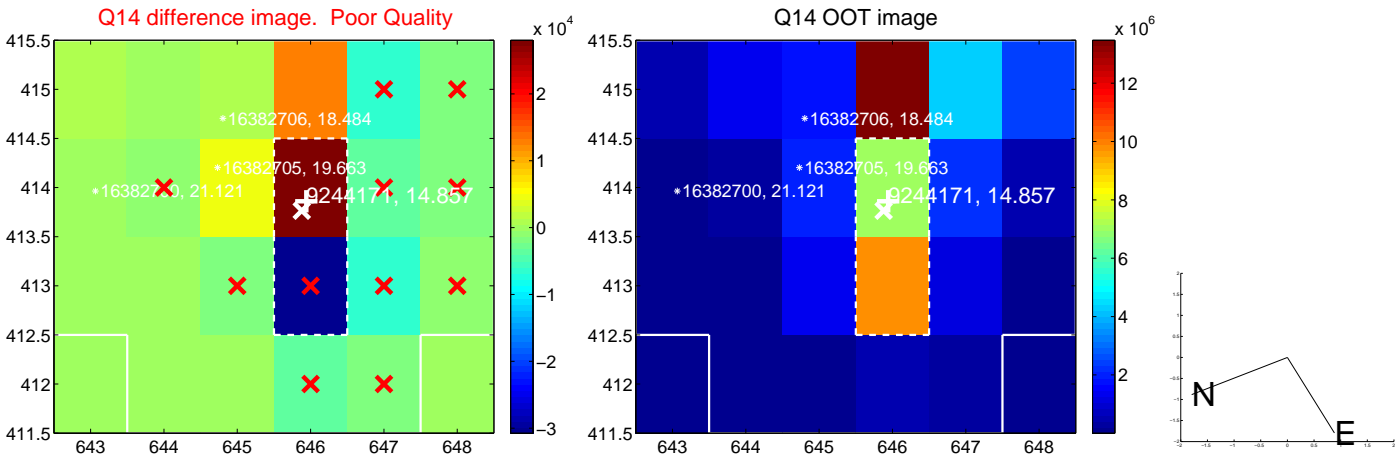
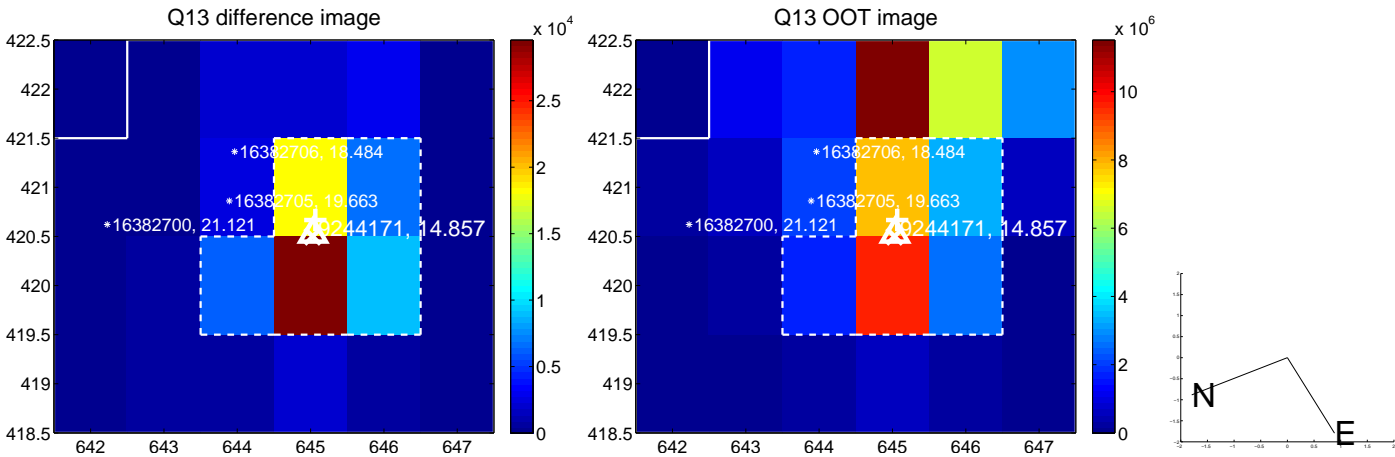
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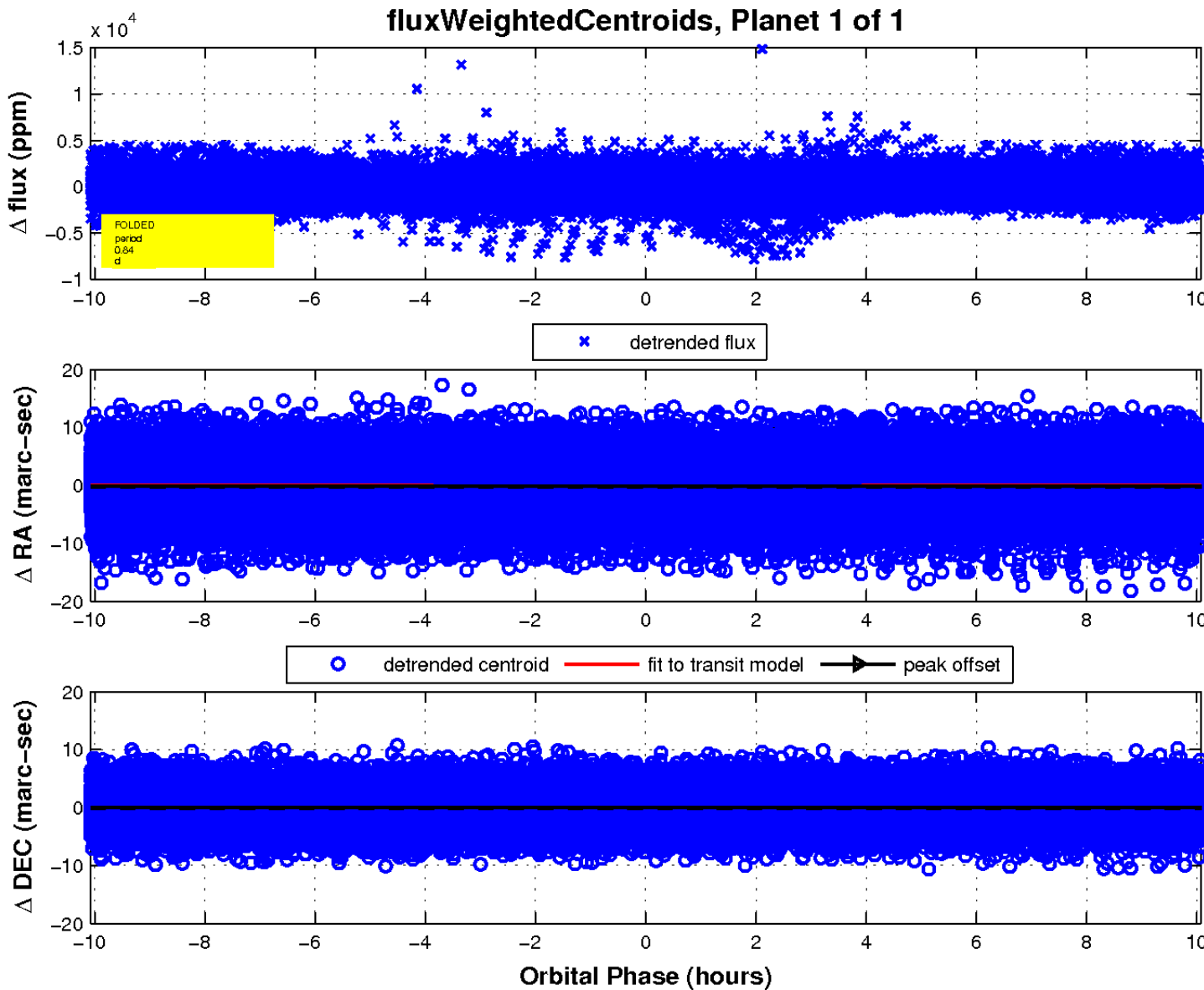
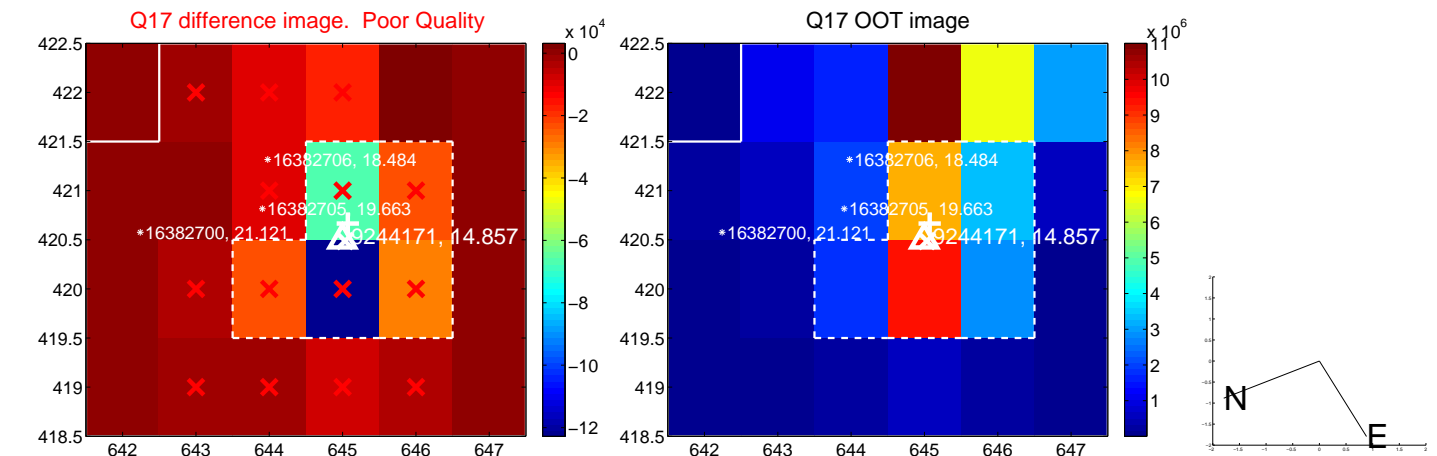
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UKIRT Image

Declination

