

KIC 003230095

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})
003230095-01	OBS	7647.01	7.047140	132.744035	139.4	2.828	8.2	9.0	0.78	5496	0.98	105.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003230095-01	OBS	FP	0.00	0	0	1	1	HALO_GHOST—EPHEM_MATCH

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

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

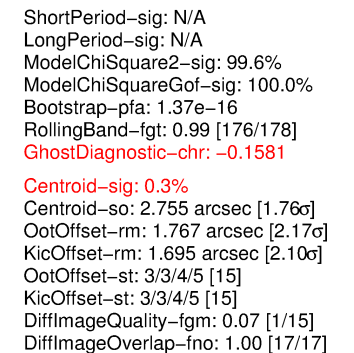
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003230095-01

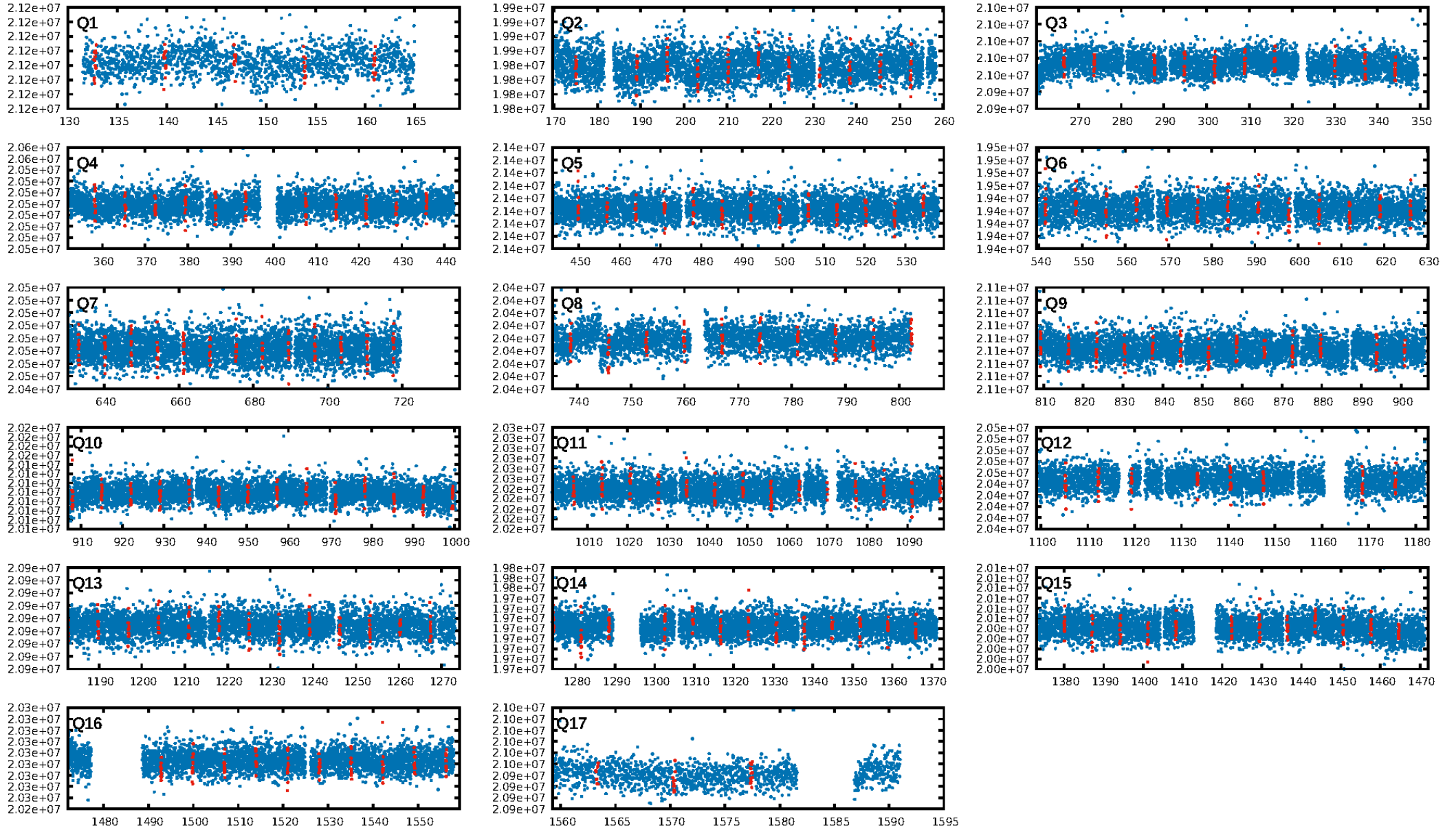
TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
003230095-01	3230095	6311.01	3230227	1:1	83.4	-11	-18	9.00	15.13	505.47	Direct-PRF	0	0.21	0.22

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

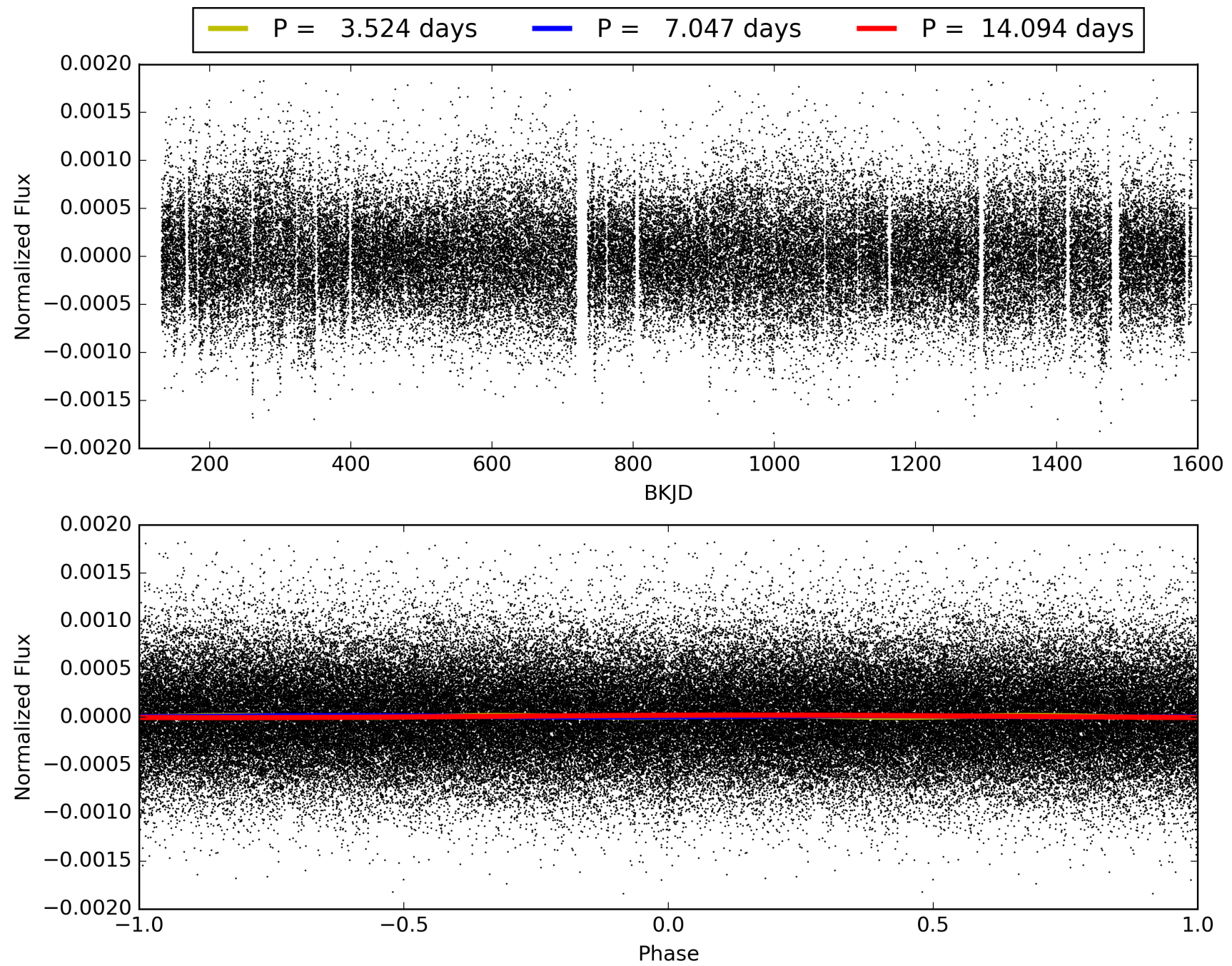
KIC: 3230095 Candidate: 1 of 1 Period: 7.047 d



TCE 003230095-01, PDC Light Curves

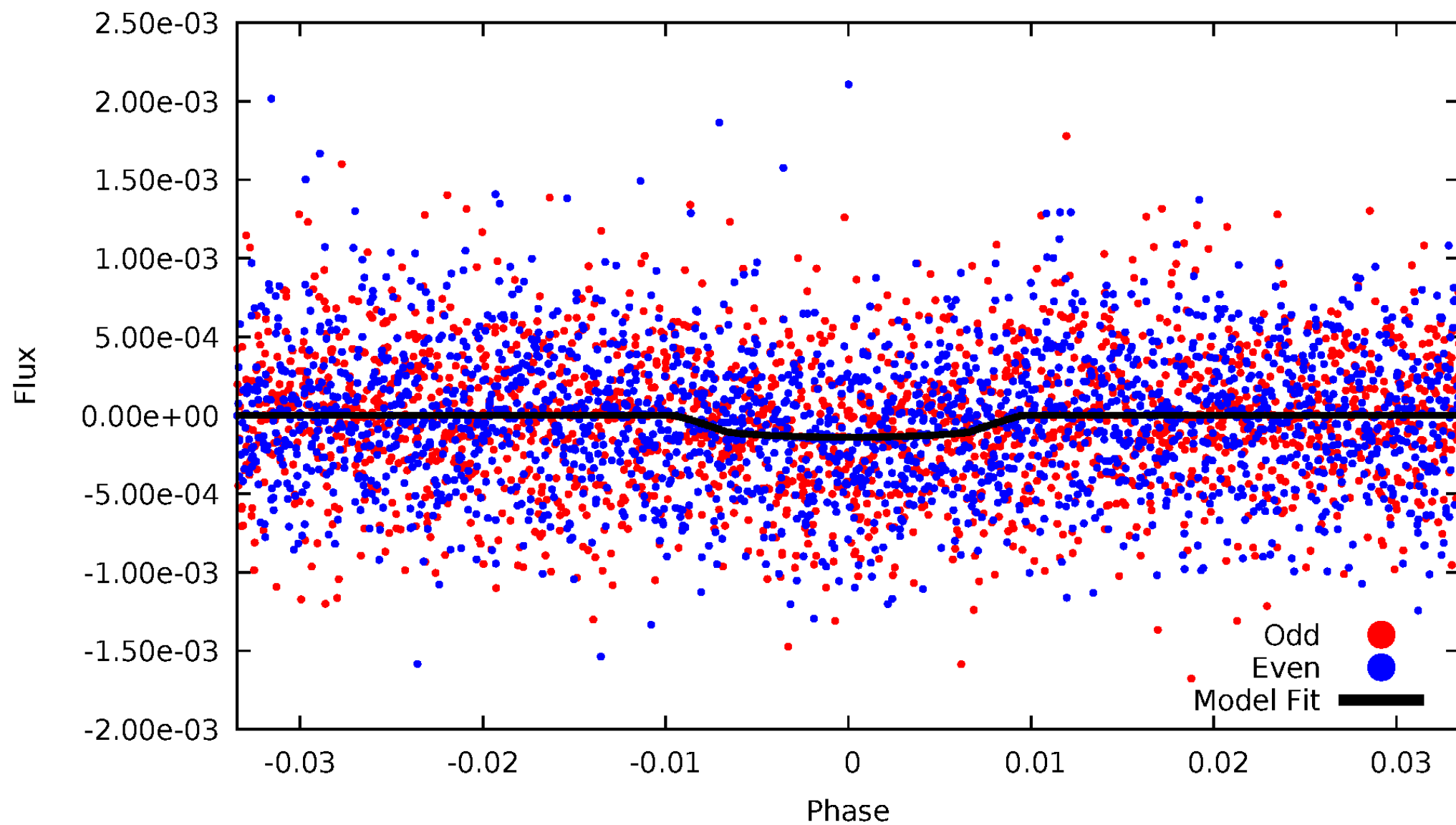


TCE 003230095-01



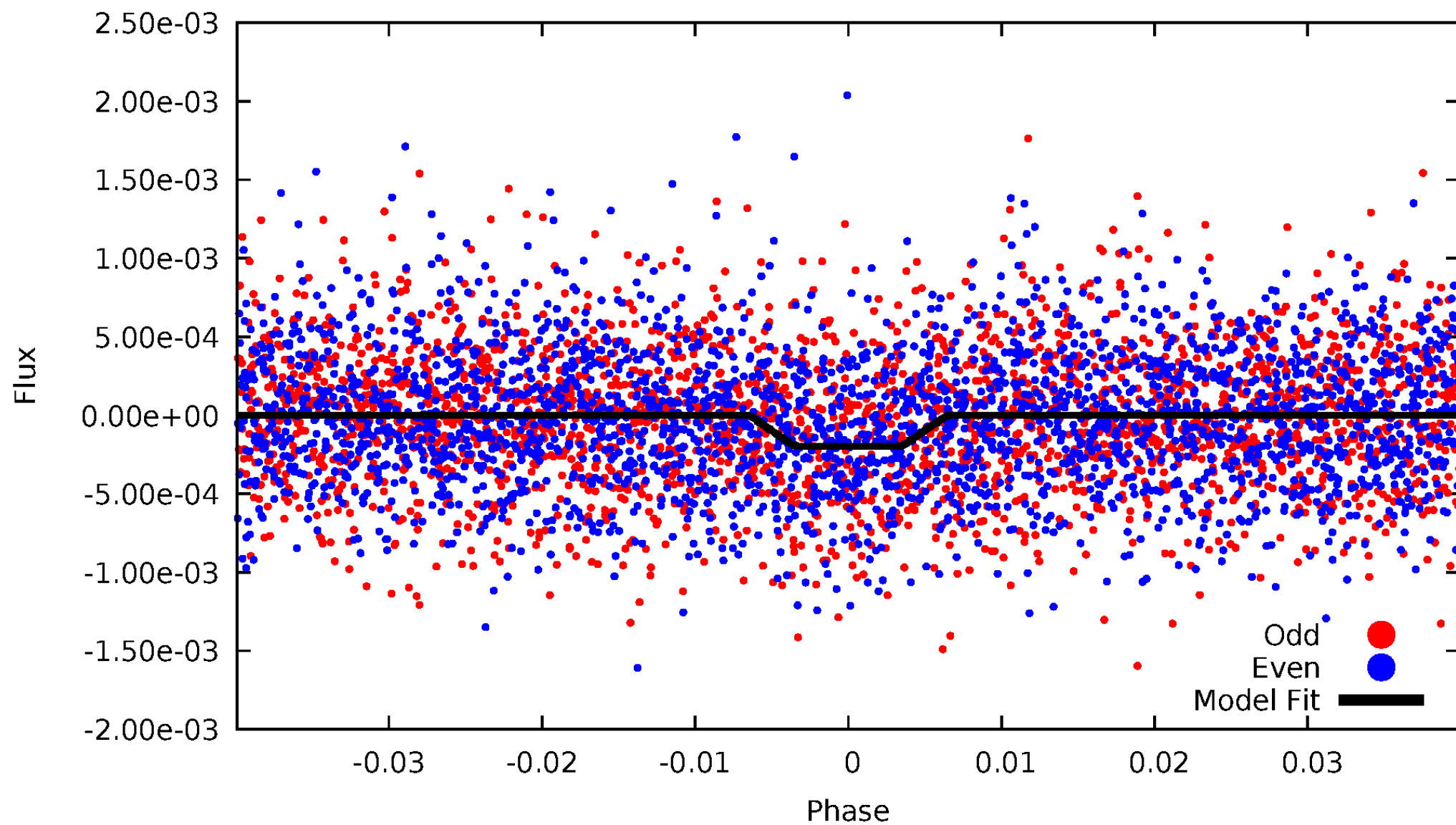
DV Odd/Even

TCE 003230095-01



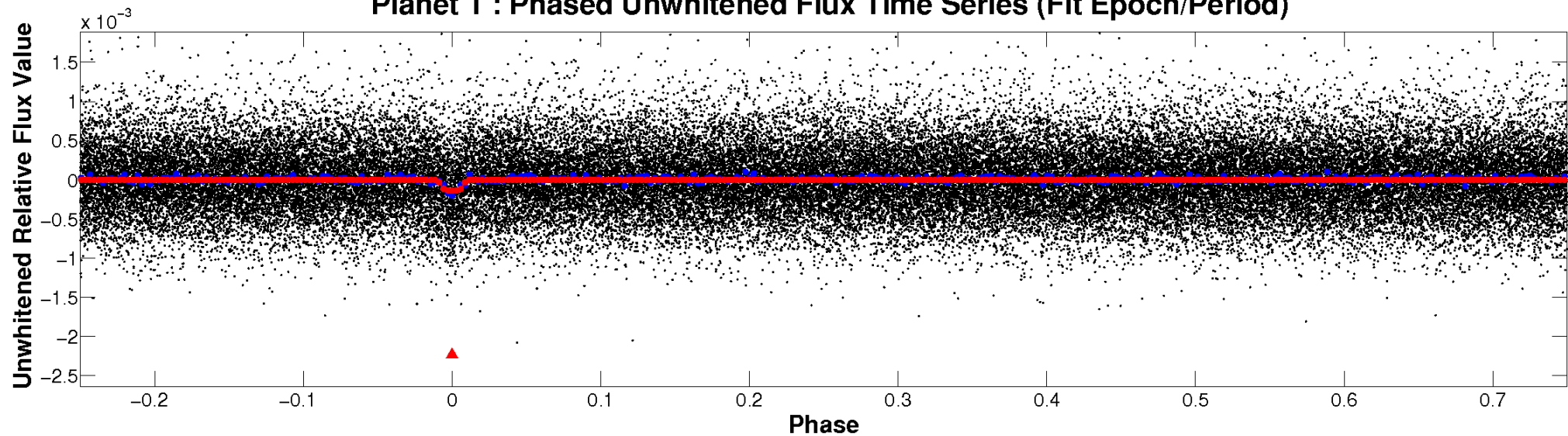
ALT Odd/Even

TCE 003230095-01

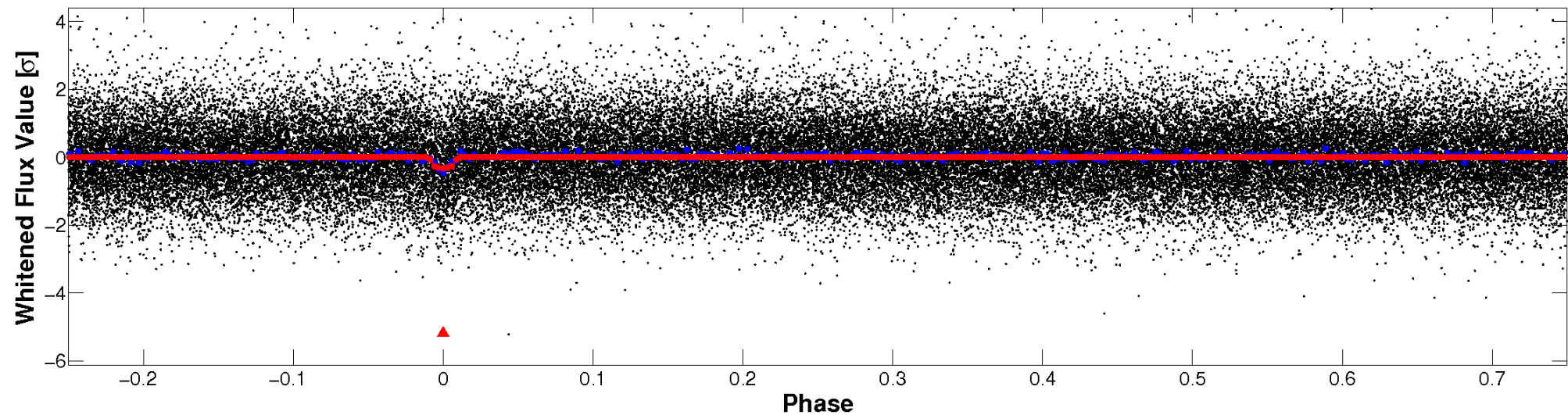


Non-Whitened Vs. Whitened Light Curve

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

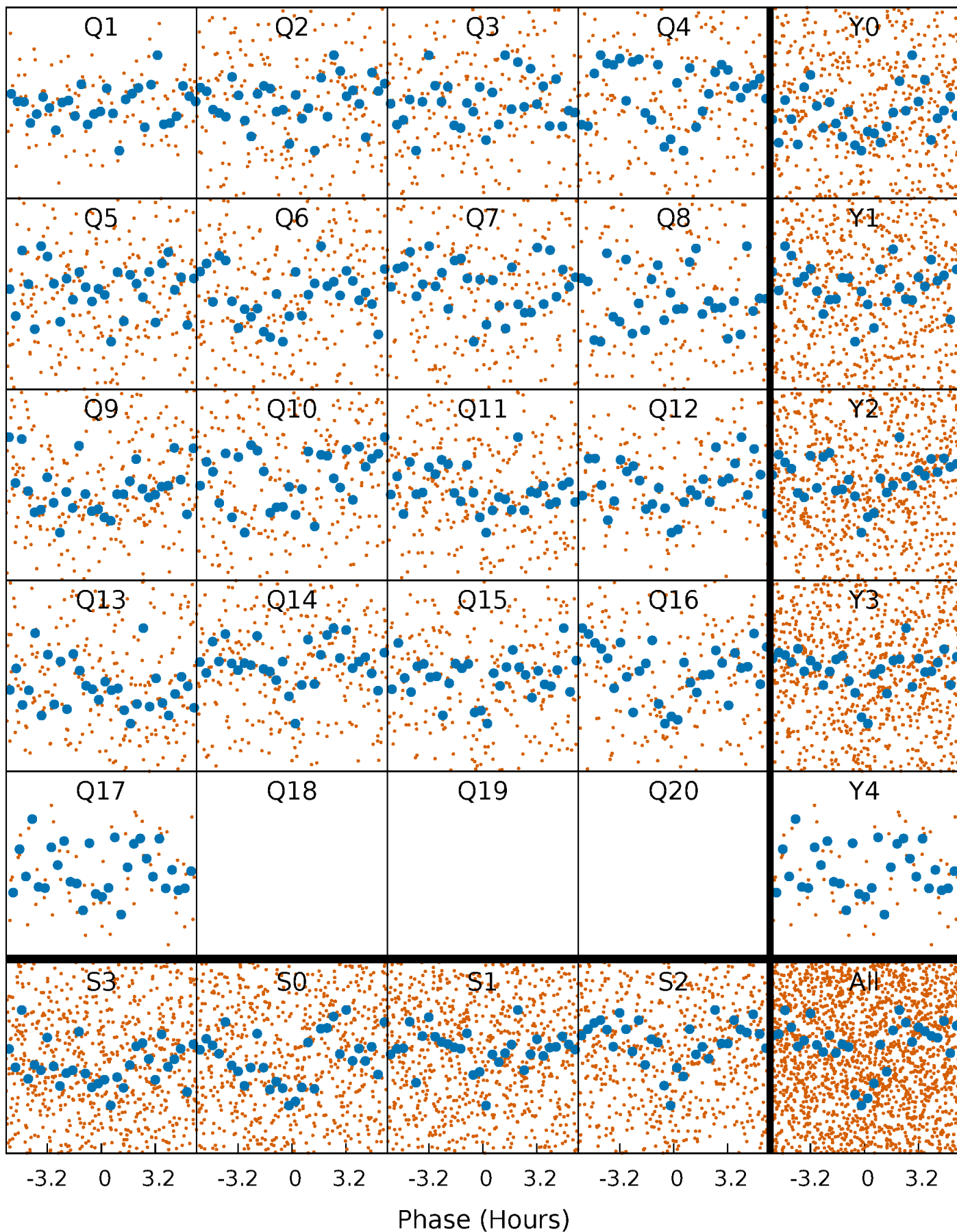


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



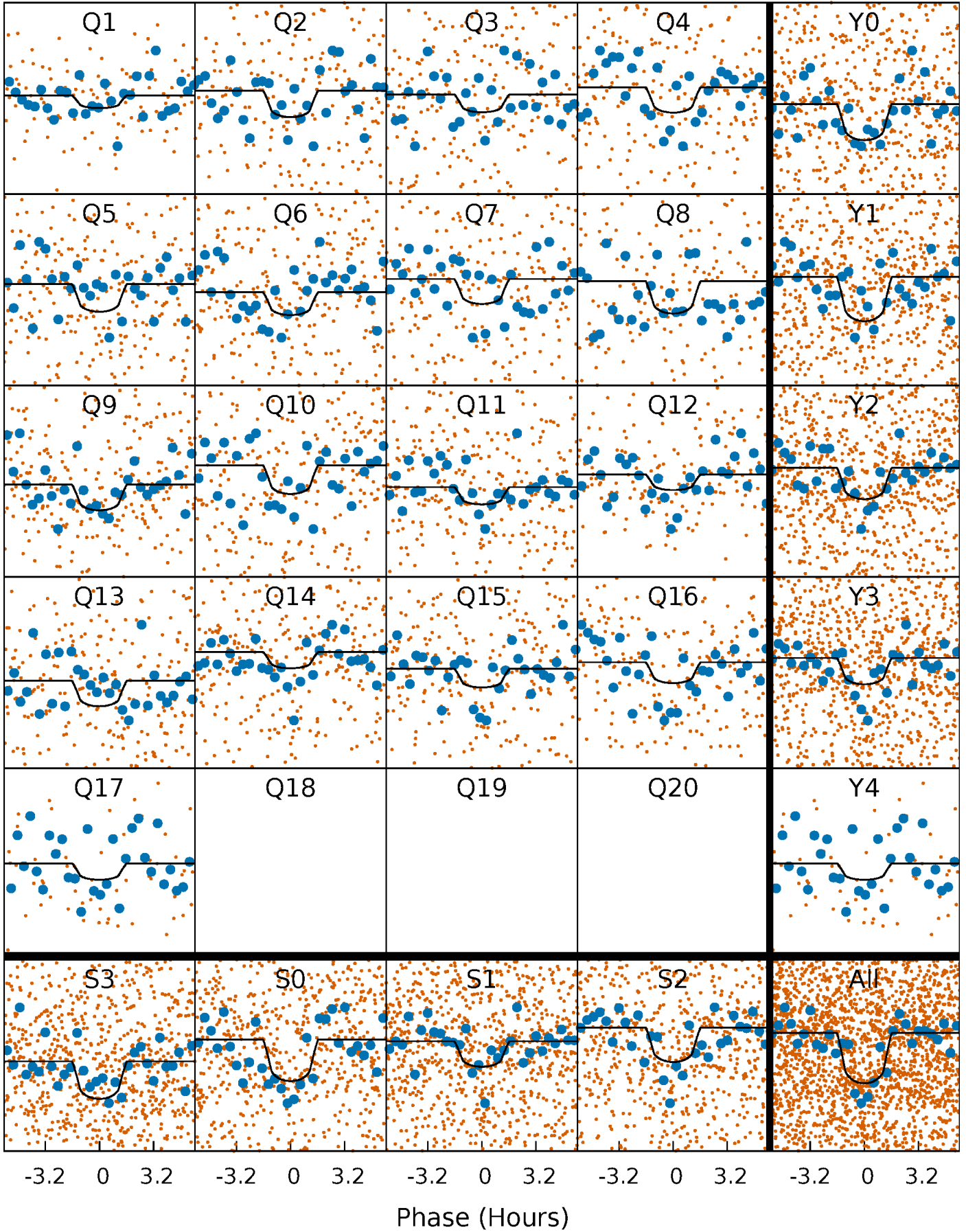
PDC Quarter-Phased Transit Curves

TCE 003230095-01 P= 7.047140 Days $T_0=132.744035$ (BKJD)



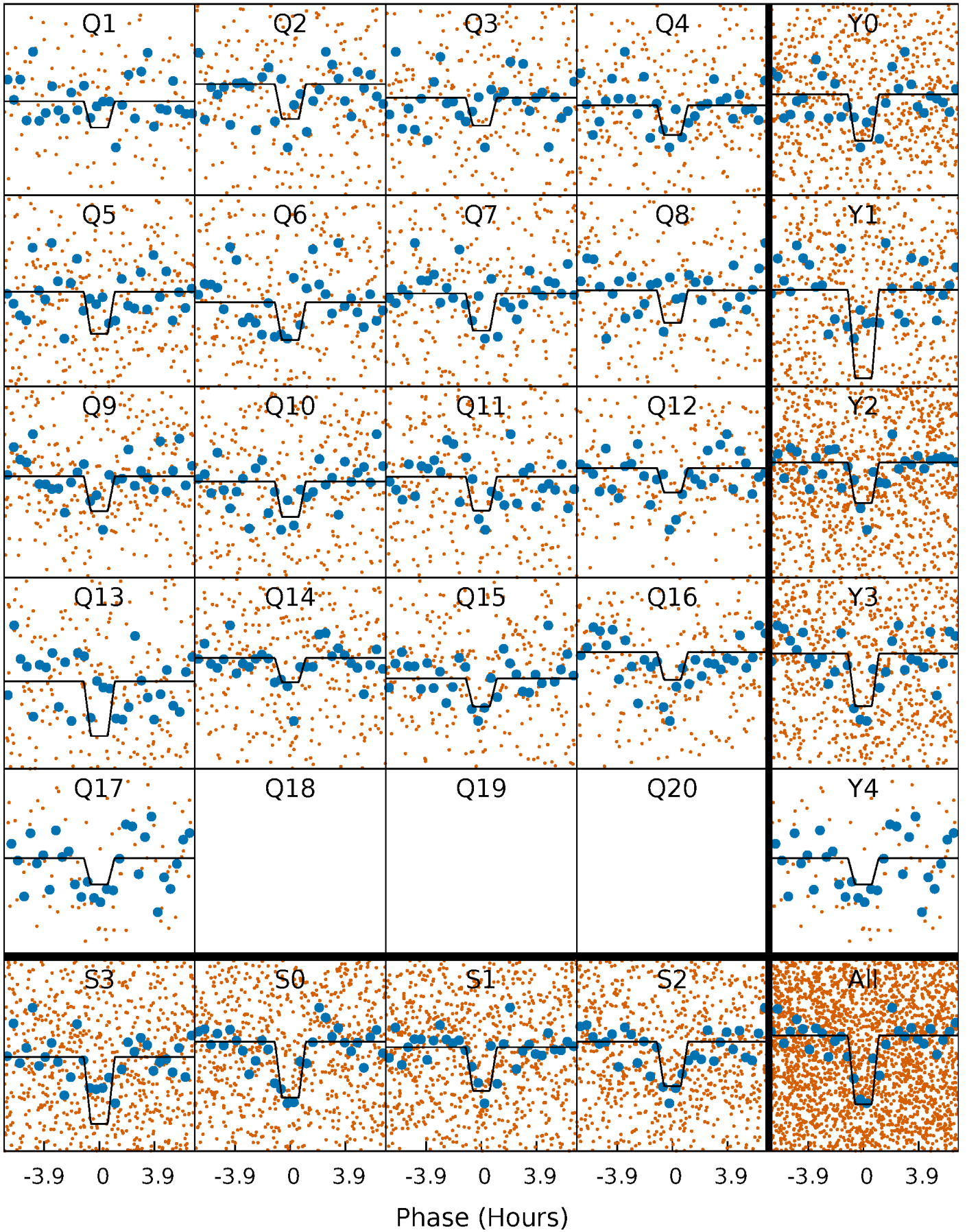
DV Quarter-Phased Transit Curves

TCE 003230095-01 P= 7.047140 Days $T_0=132.744035$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

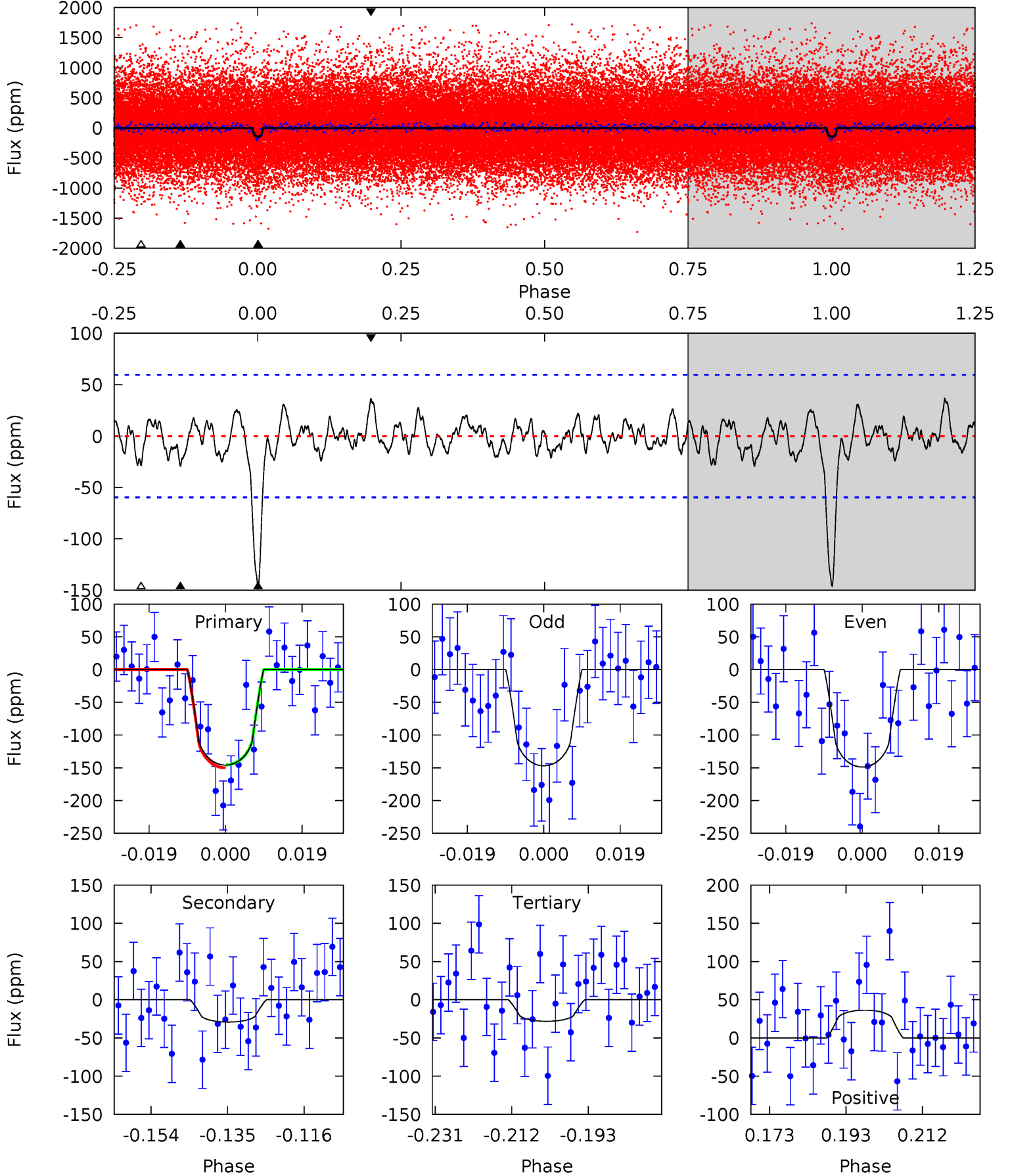
TCE 003230095-01 P= 7.047155 Days $T_0=132.742940$ (BKJD)



DV Model-Shift Uniqueness Test

003230095-01, P = 7.047140 Days, E = 125.696895 Days

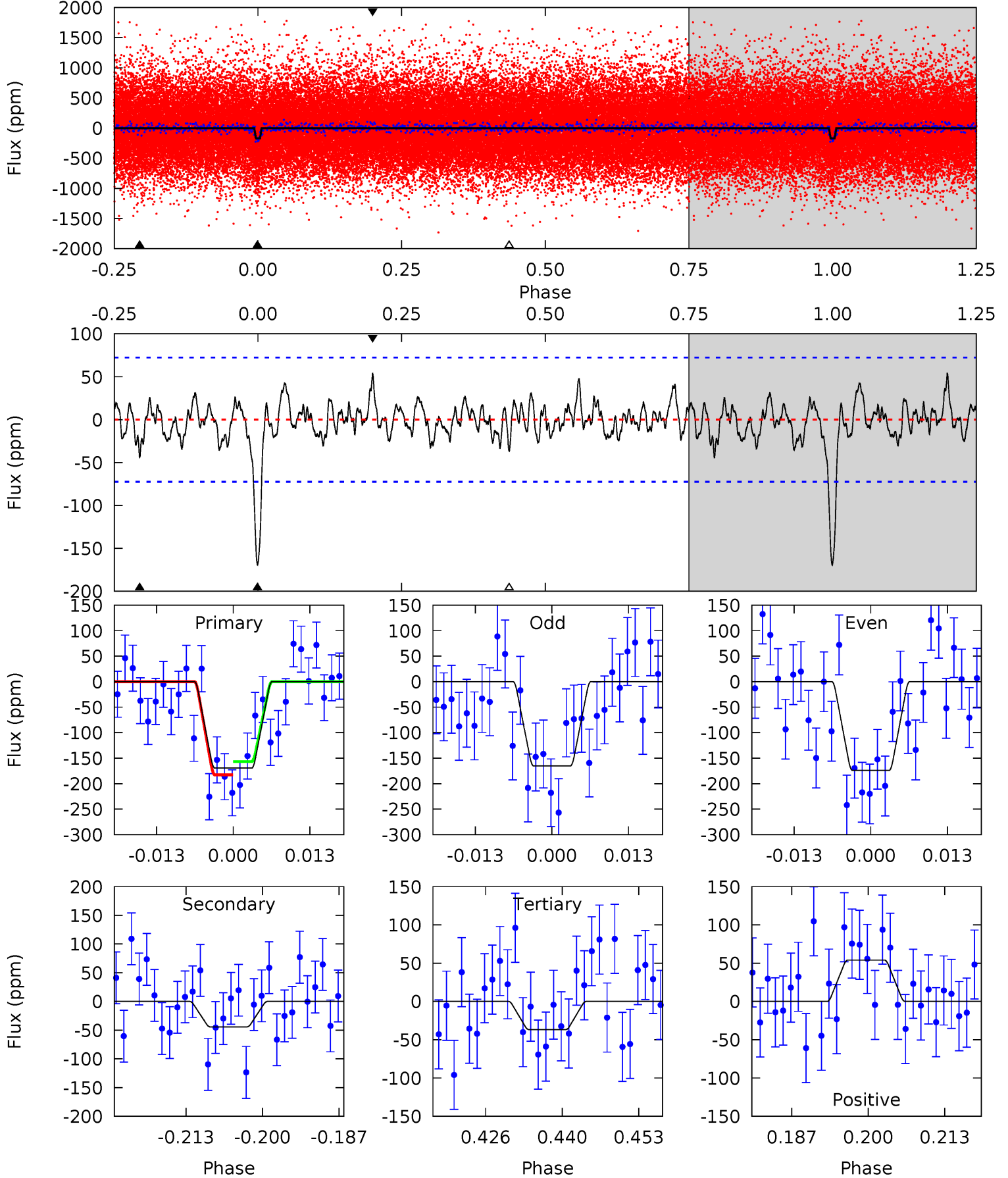
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	2.40	2.32	2.99	4.90	2.34	1.00	9.67	9.00	0.08	-0.59	0.08	0.82	0.20	0.18



Alt Model-Shift Uniqueness Test

003230095-01, P = 7.047155 Days, E = 125.695785 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	3.03	2.52	3.70	4.97	2.47	1.07	9.11	7.92	0.51	-0.67	0.30	0.90	0.24	0.89



Stellar Parameters For KIC 003230095

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5496^{+149}_{-166}	$4.592^{+0.037}_{-0.120}$	$-0.240^{+0.300}_{-0.300}$	$0.776^{+0.141}_{-0.065}$	$0.869^{+0.074}_{-0.102}$	$2.619^{+0.446}_{-0.988}$
	+3%/-3%	+1%/-3%	+125%/-125%	+18%/-8%	+9%/-12%	+17%/-38%
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 003230095-01 / KOI 7647.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-29 ± 12	$1.31^{+1.23}_{-0.84}$	1159^{+53}_{-43}	3624^{+1787}_{-691}	38^{+287}_{-29}
Alt.	-44 ± 15	$1.53^{+1.18}_{-0.94}$	1158^{+56}_{-46}	3714^{+1767}_{-624}	44^{+284}_{-30}

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

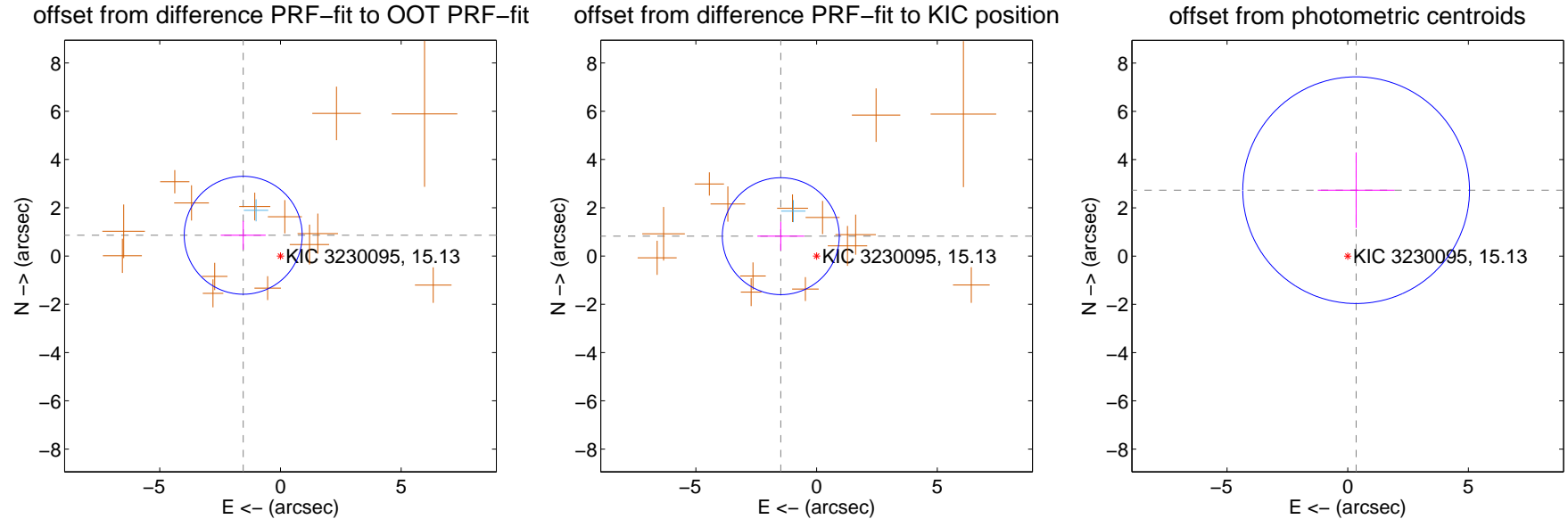
DV Centroid Data

Supplemental centroid analysis for 003230095-01. Kepler magnitude: 15.13. Transit SNR 8.96

There are 1 quarters with good PRF difference image offsets

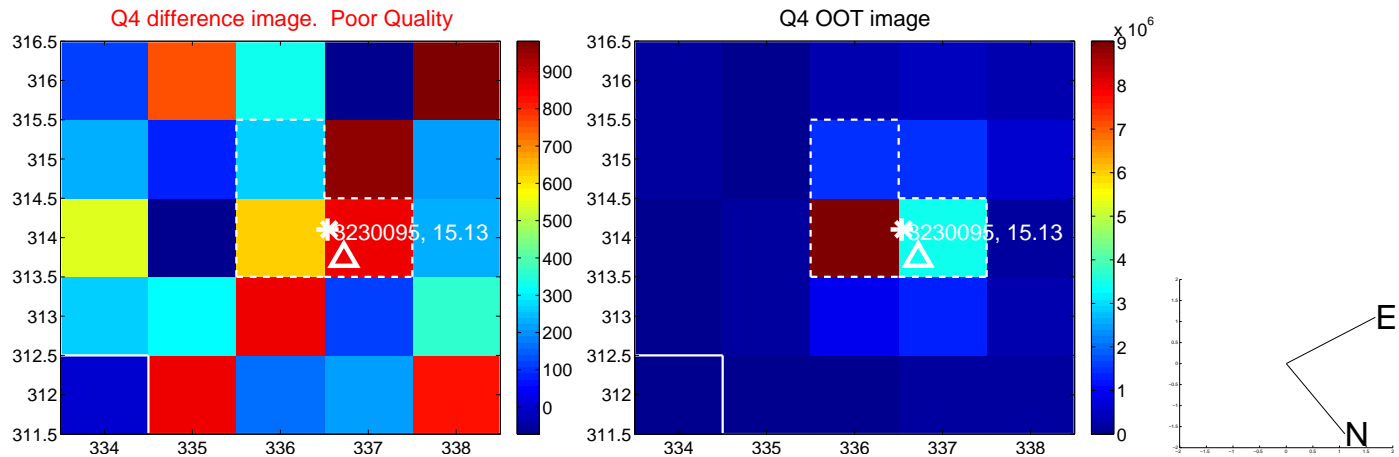
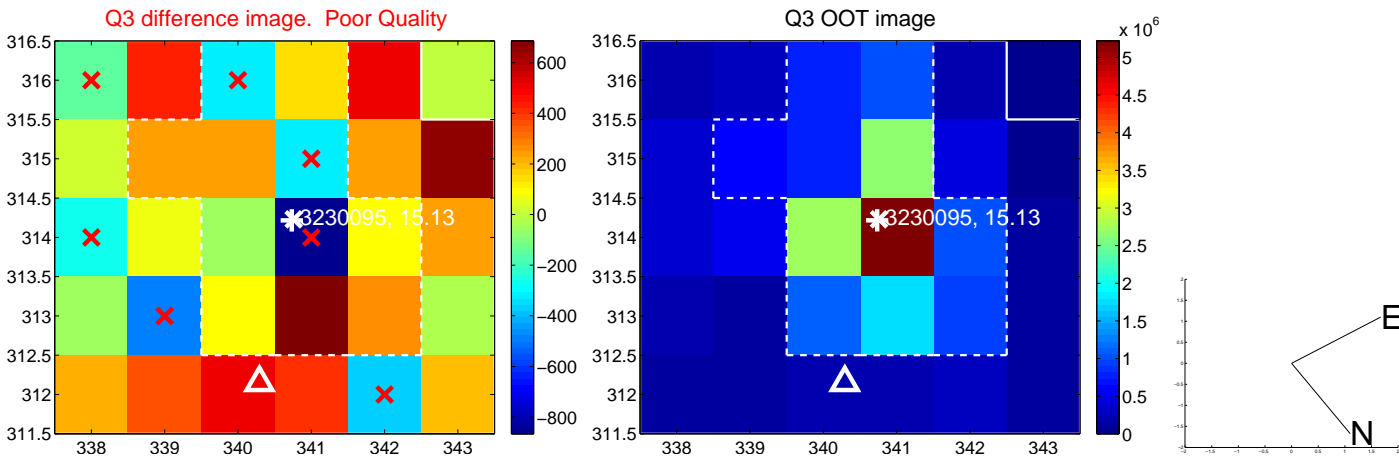
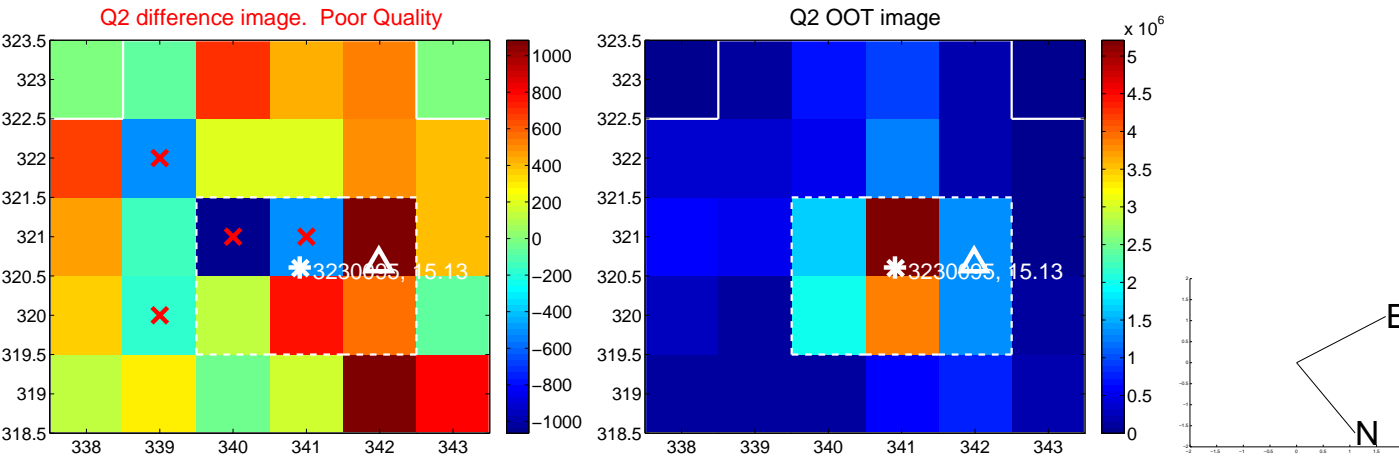
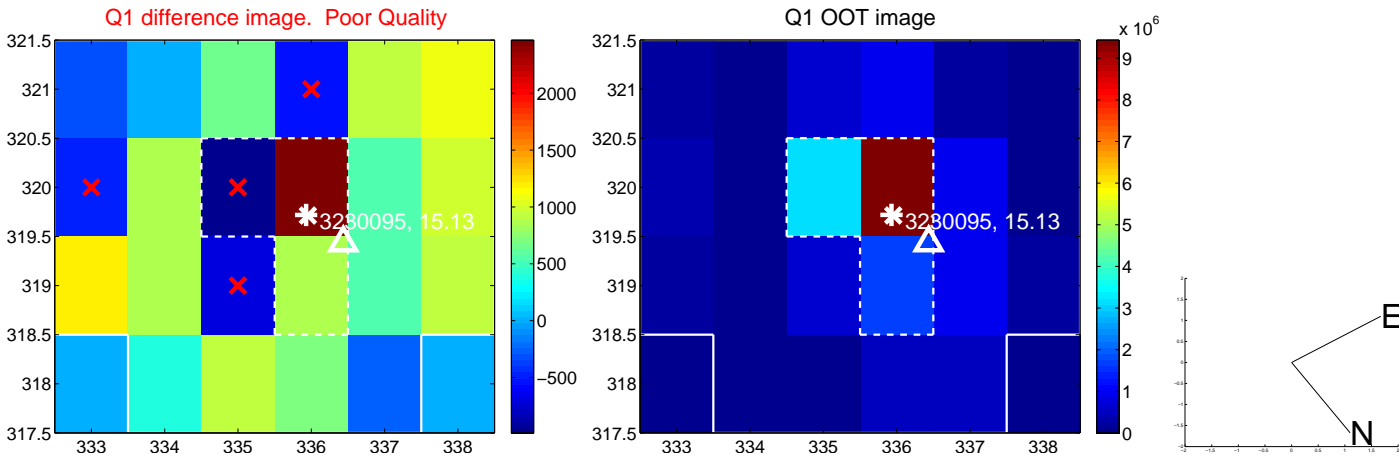
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.767 ± 0.814	2.17	1.543 ± 0.933	0.860 ± 0.597
PRF-fit source offset from KIC position	1.695 ± 0.808	2.10	1.482 ± 0.972	0.822 ± 0.592
photometric centroid source offset	2.75 ± 1.57	1.76	-0.35 ± 1.59	2.73 ± 1.57

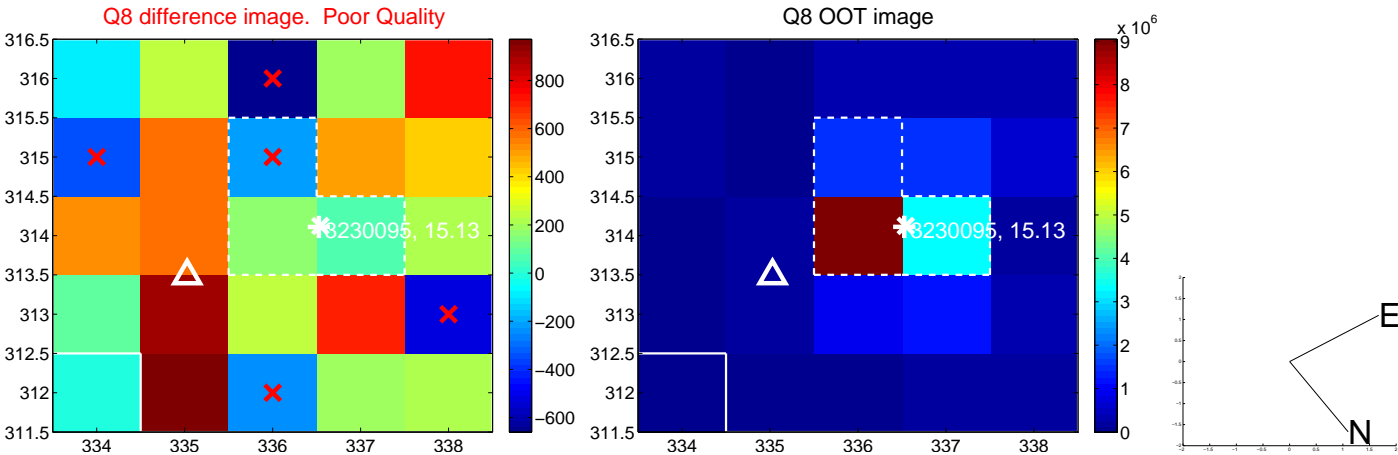
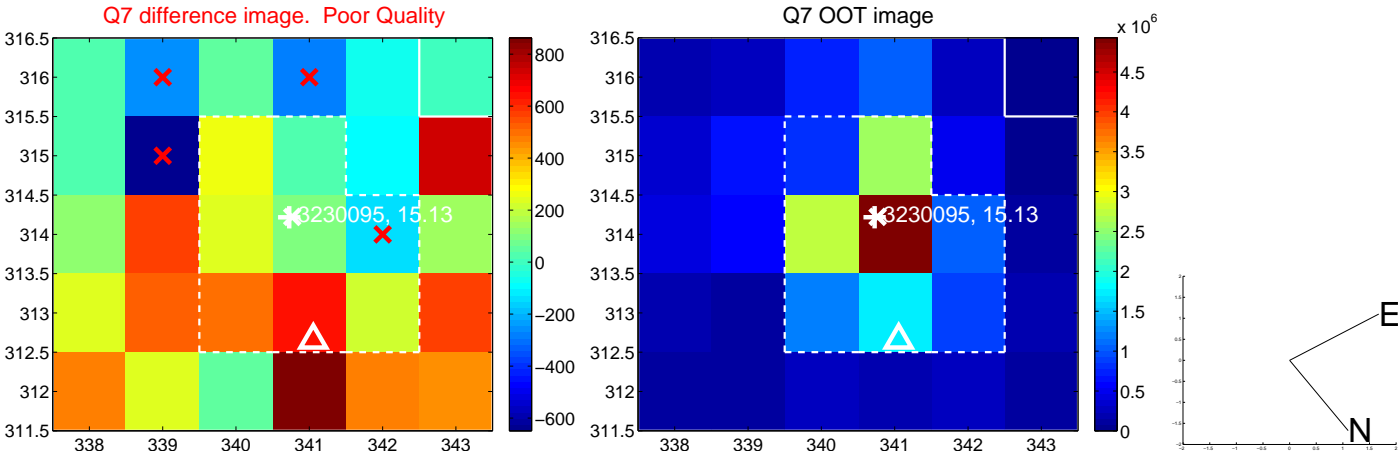
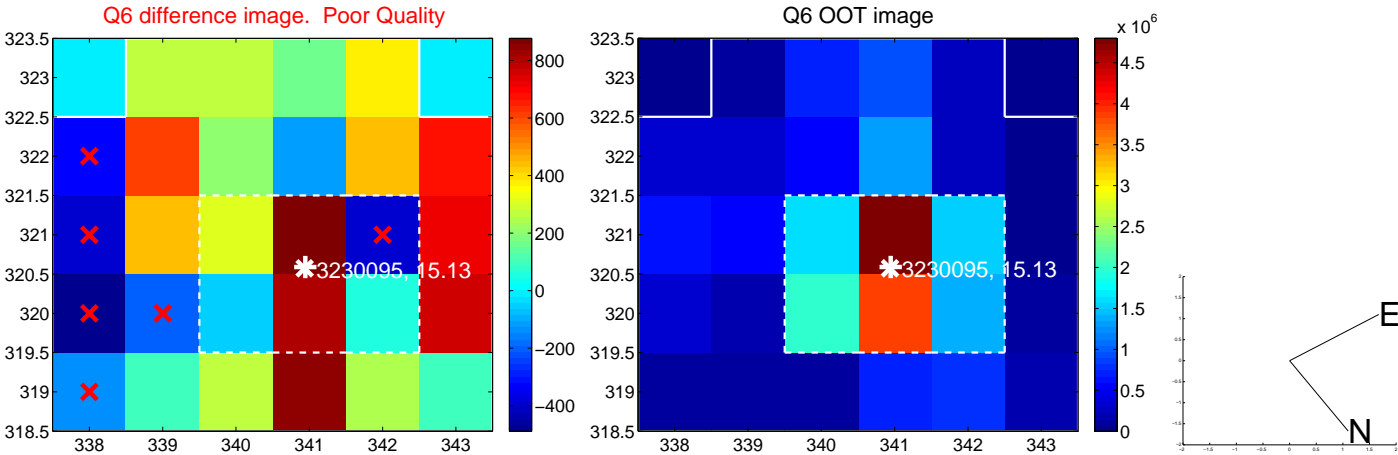
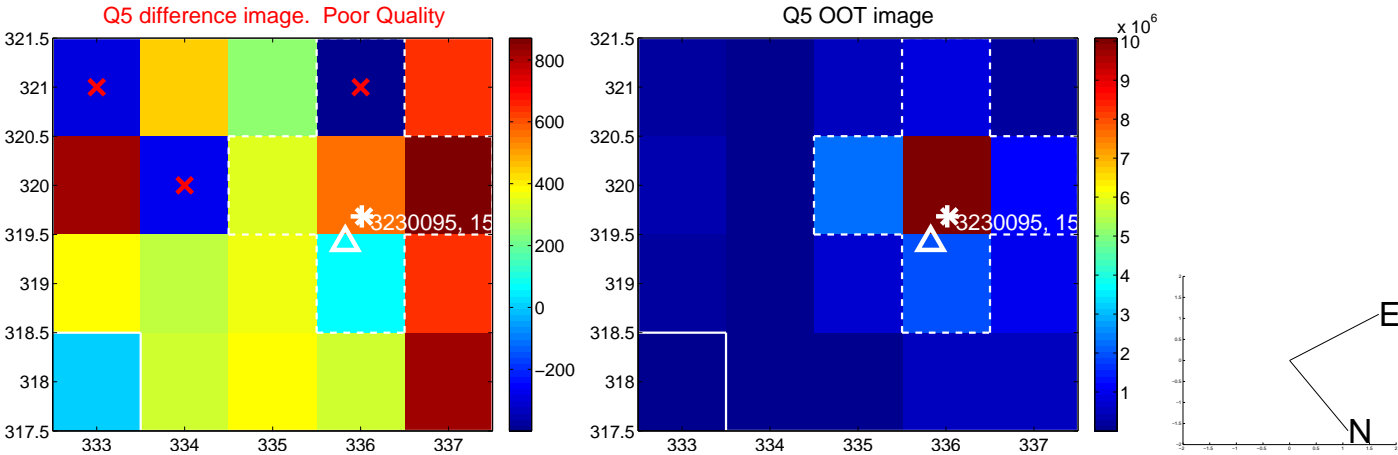


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

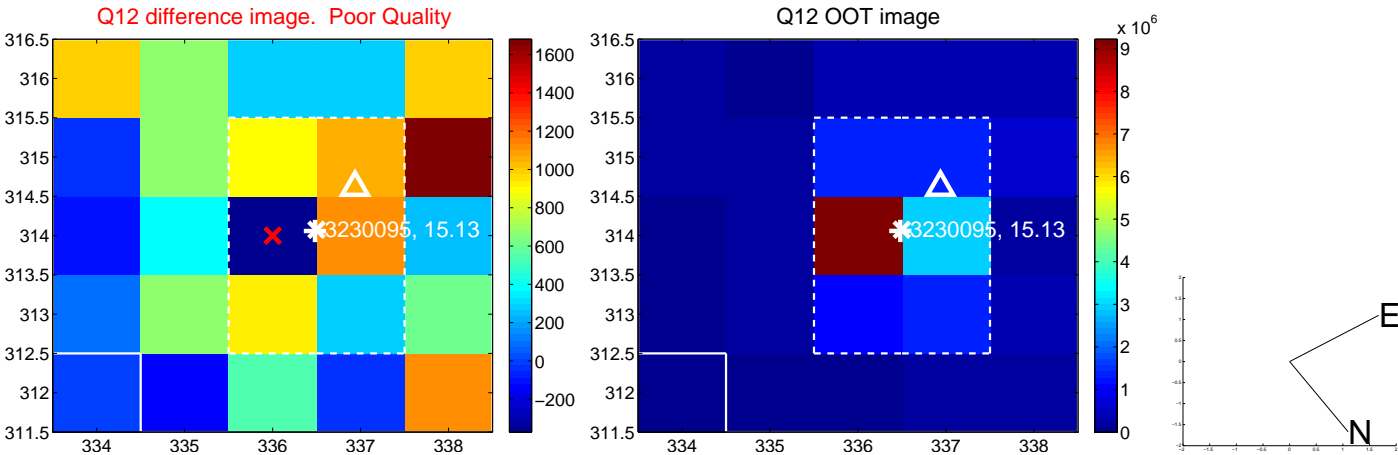
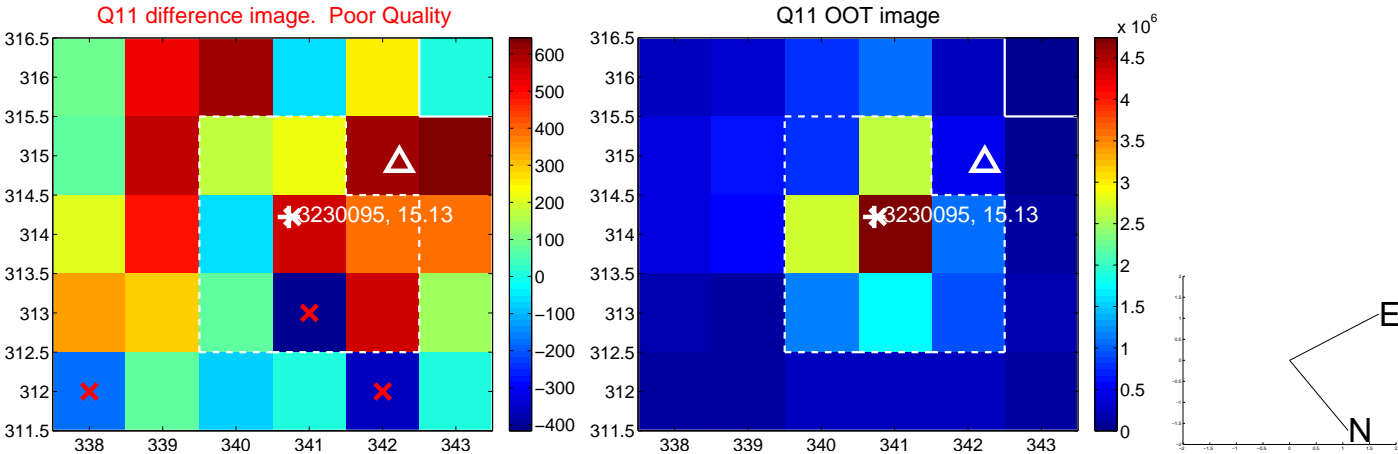
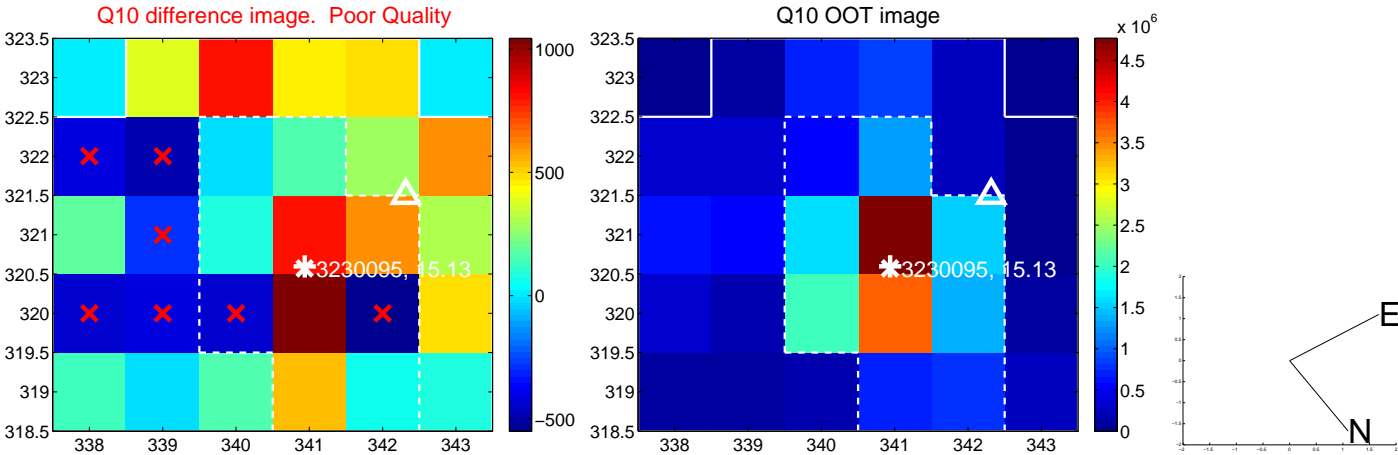
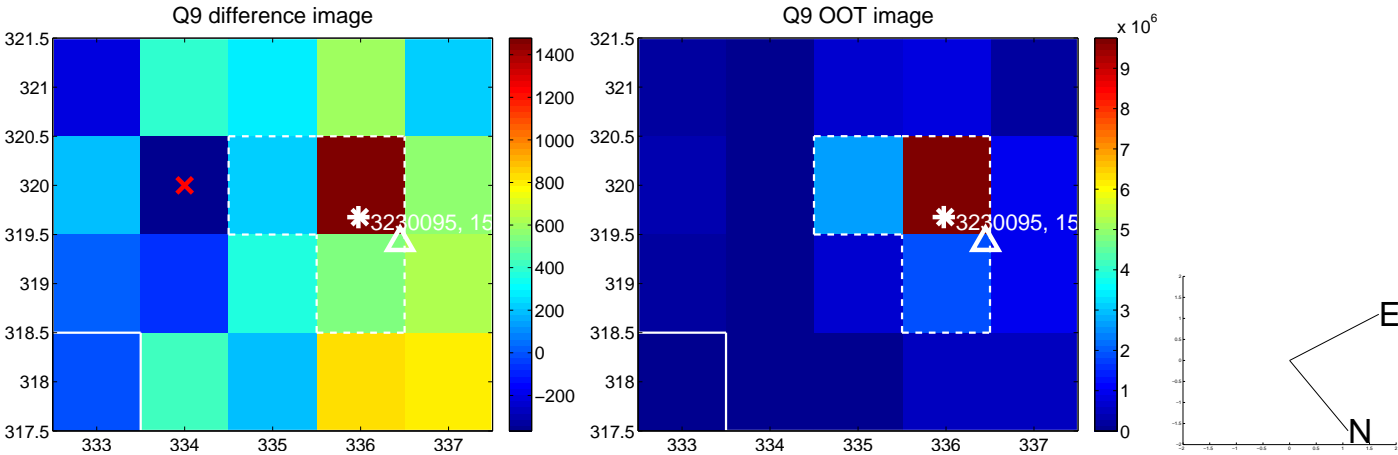
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



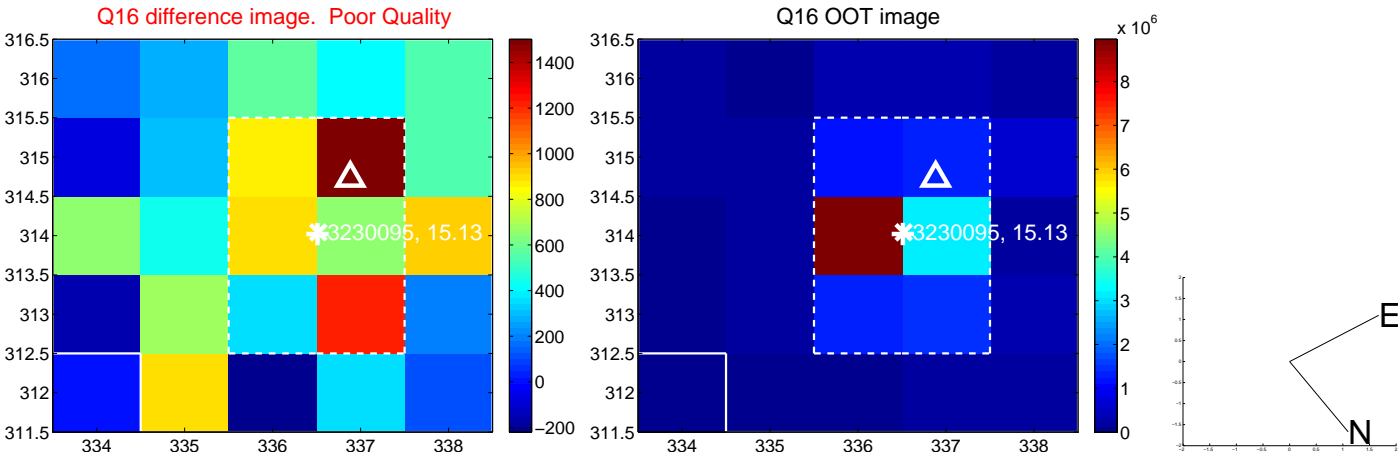
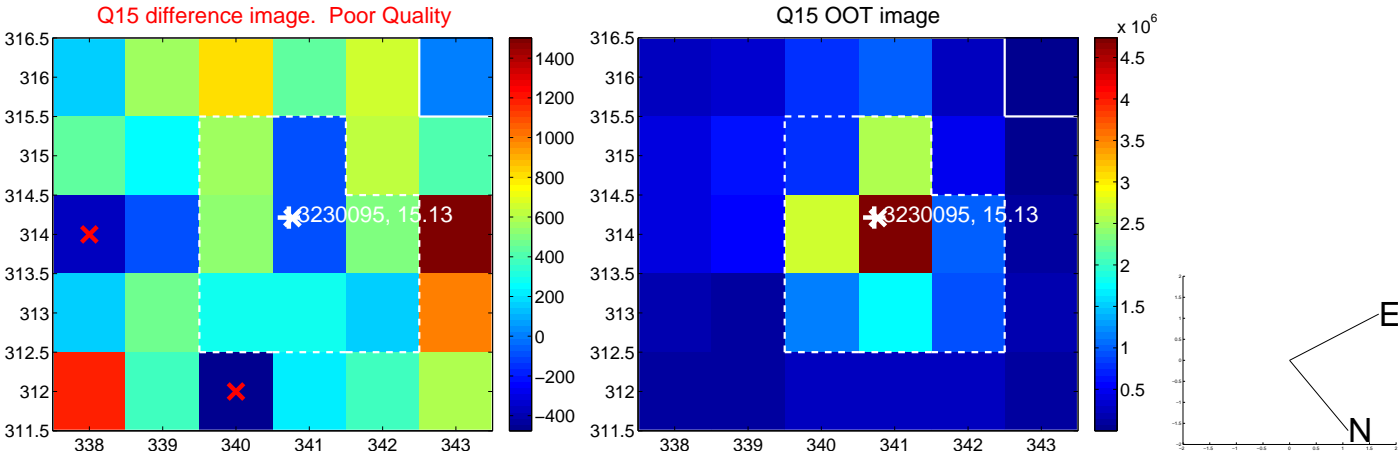
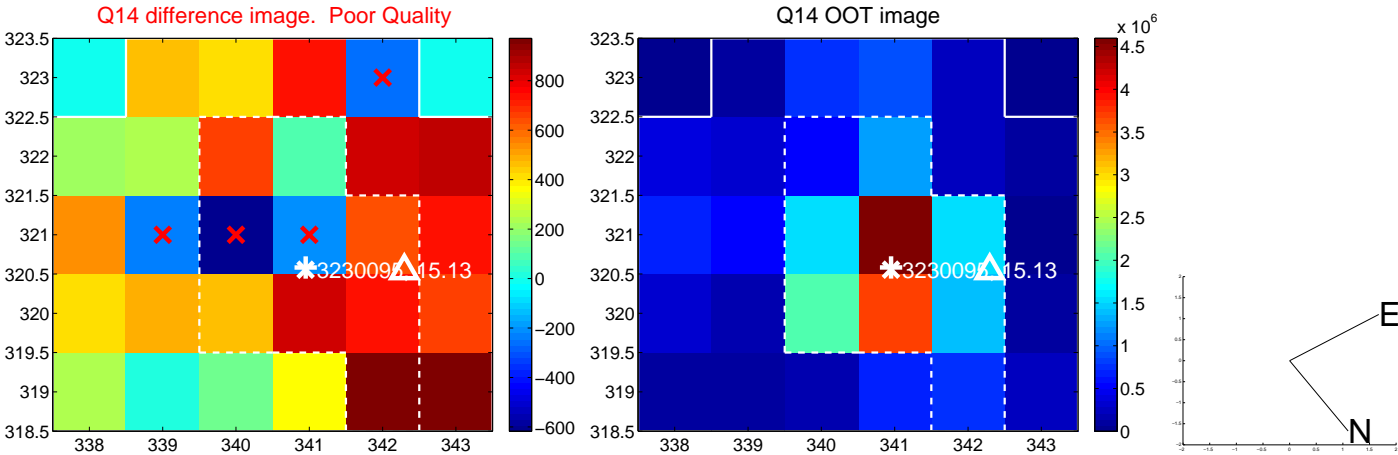
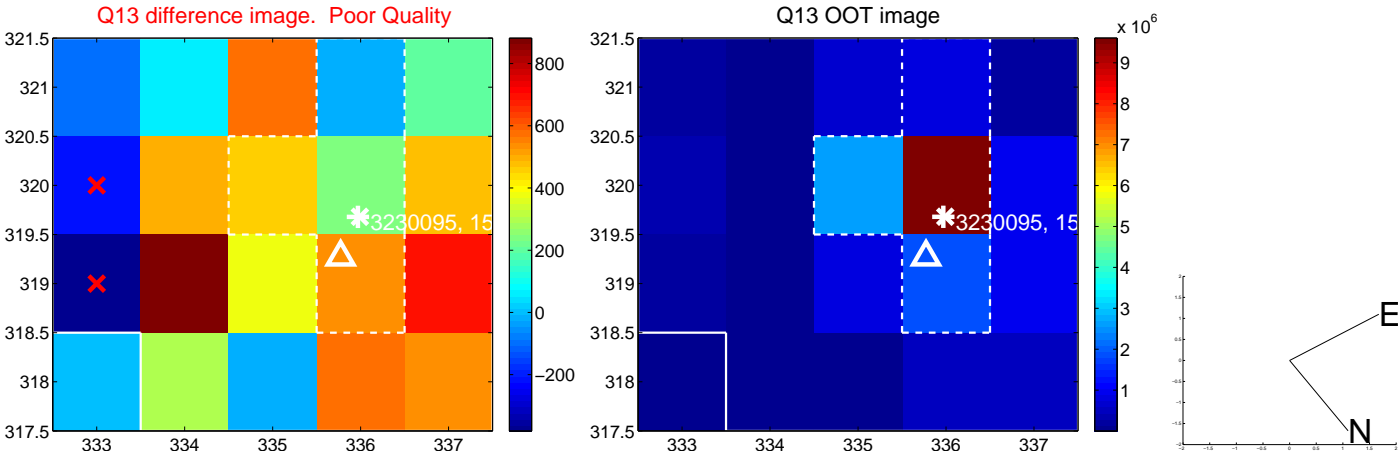
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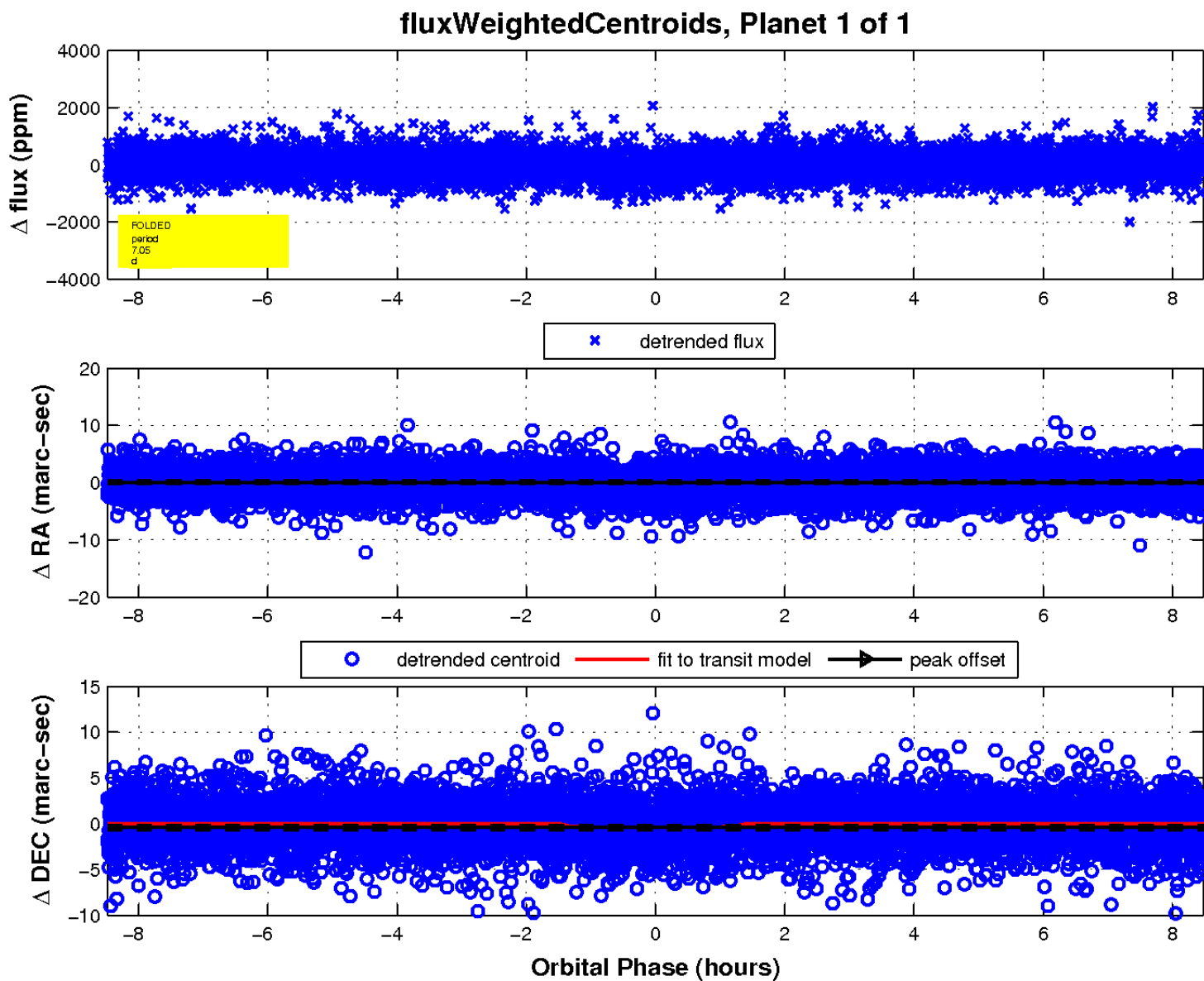
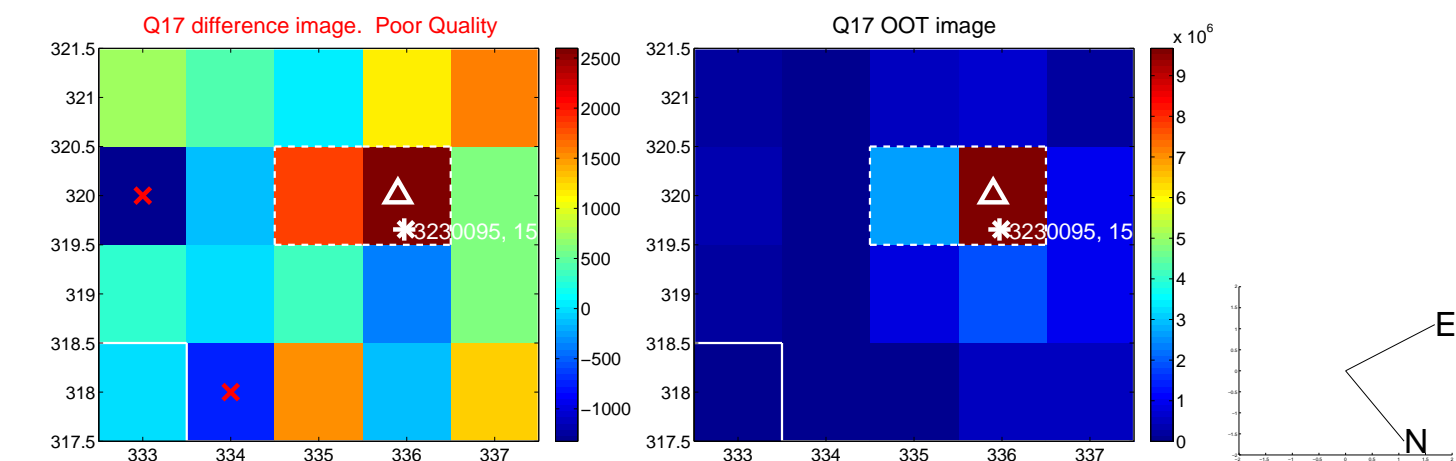
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UKIRT Image

Declination

