

KIC 006038087

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})
006038087-01	OBS	No	503.099119	379.880372	537.9	7.838	9.4	8.2	0.80	5535	1.98	0.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006038087-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

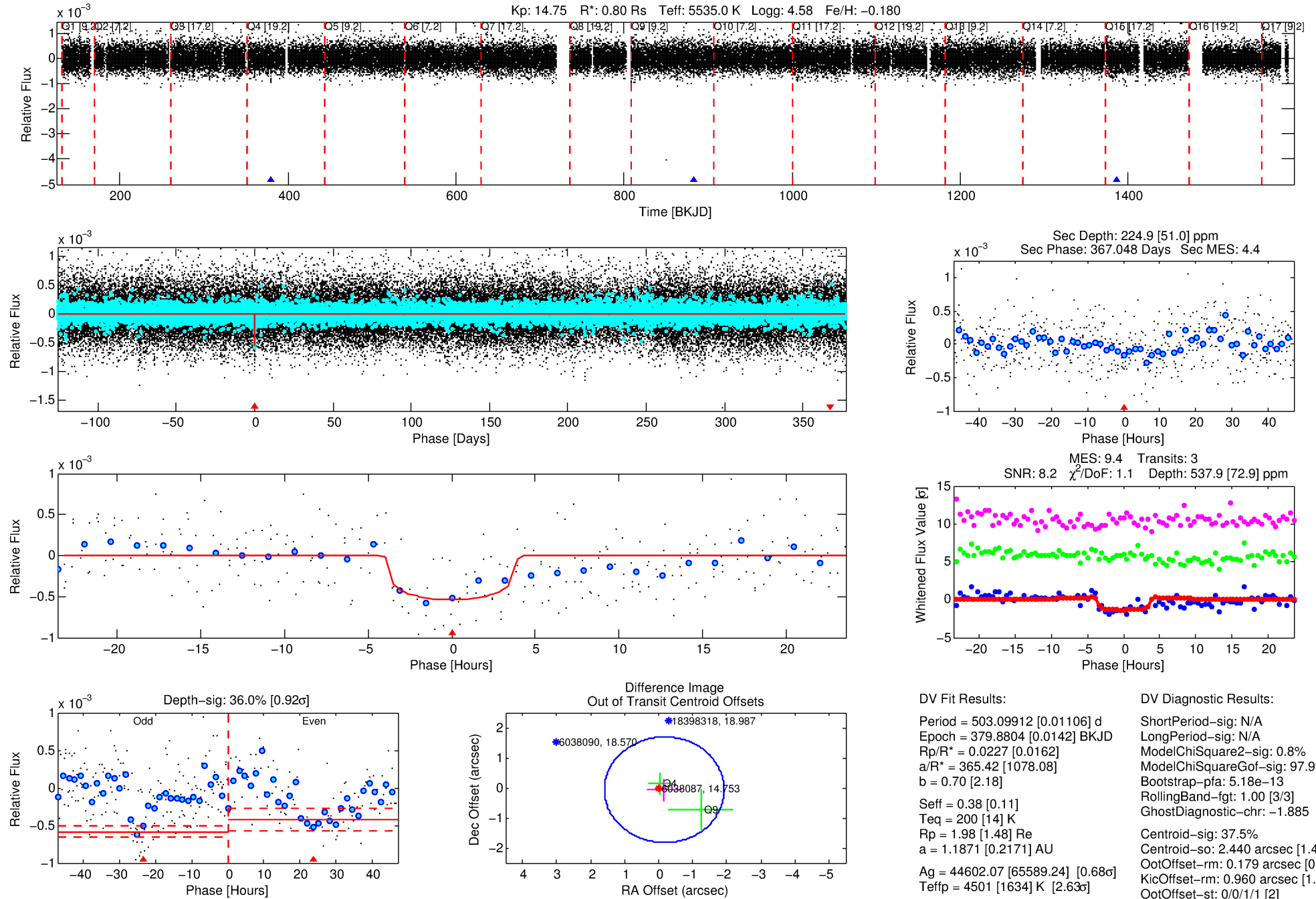
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006038087-01

No Significant Match Found

DV One-Page Summary

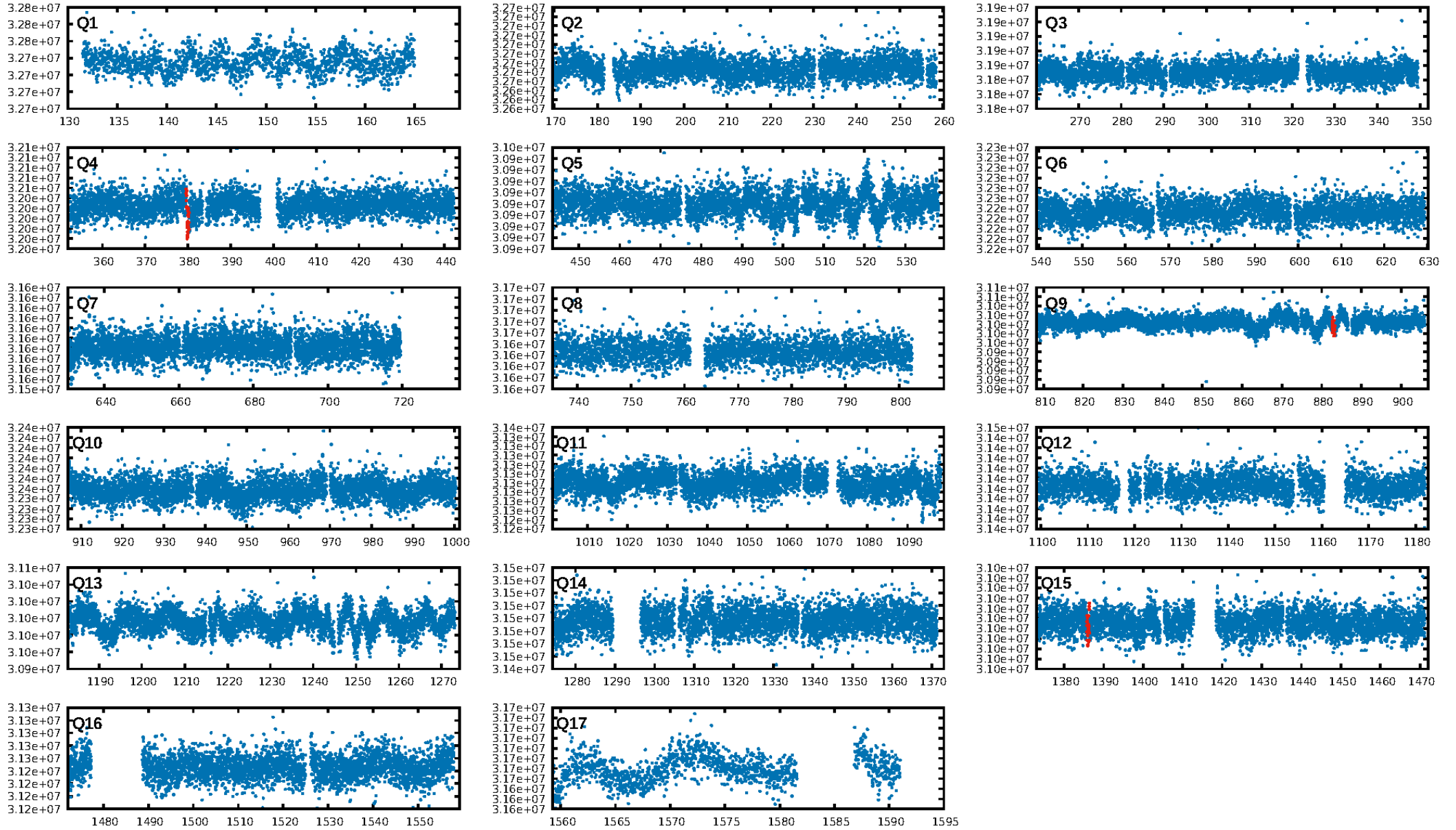
KIC: 6038087 Candidate: 1 of 1 Period: 503.099 d



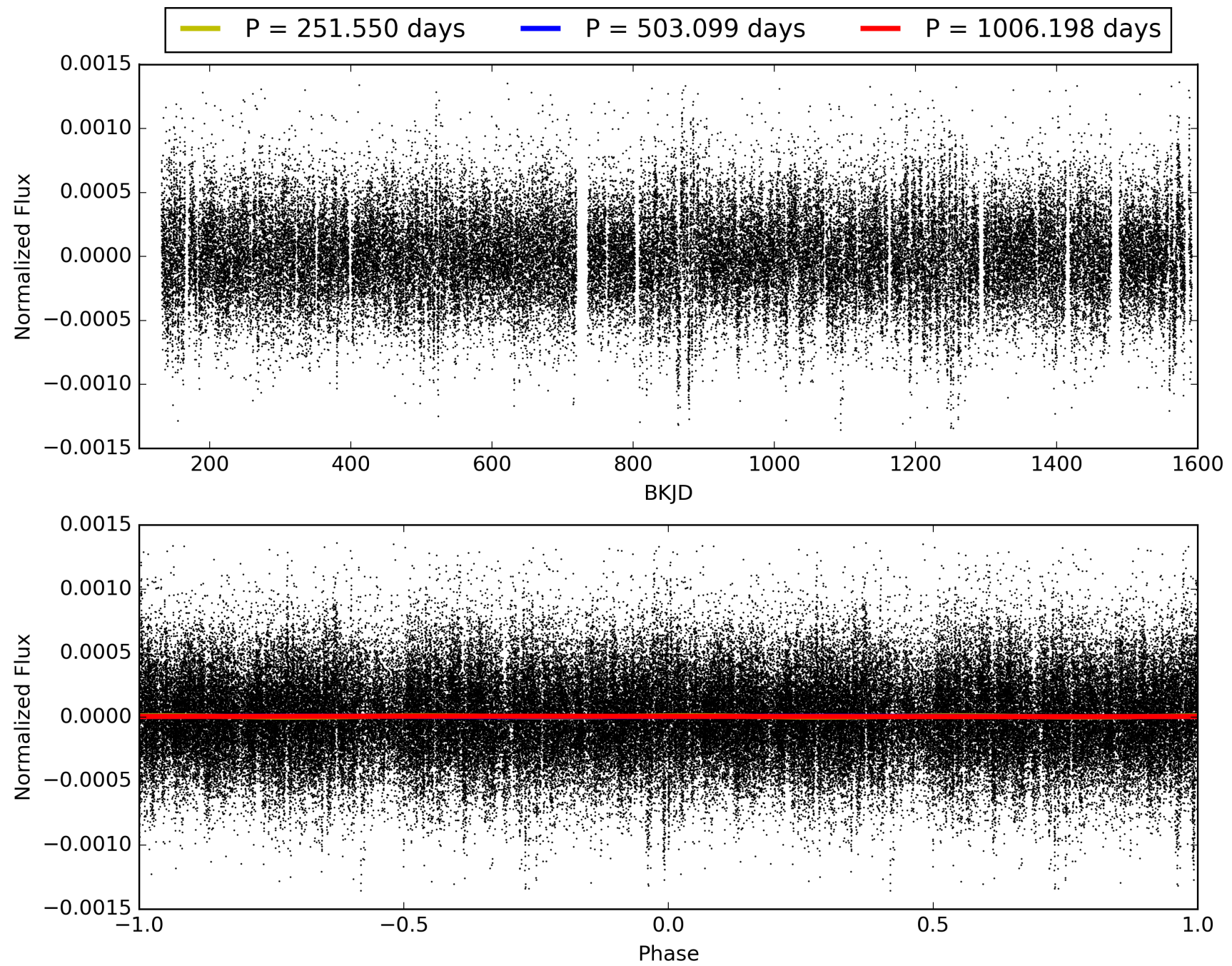
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:31:06 Z

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

TCE 006038087-01, PDC Light Curves

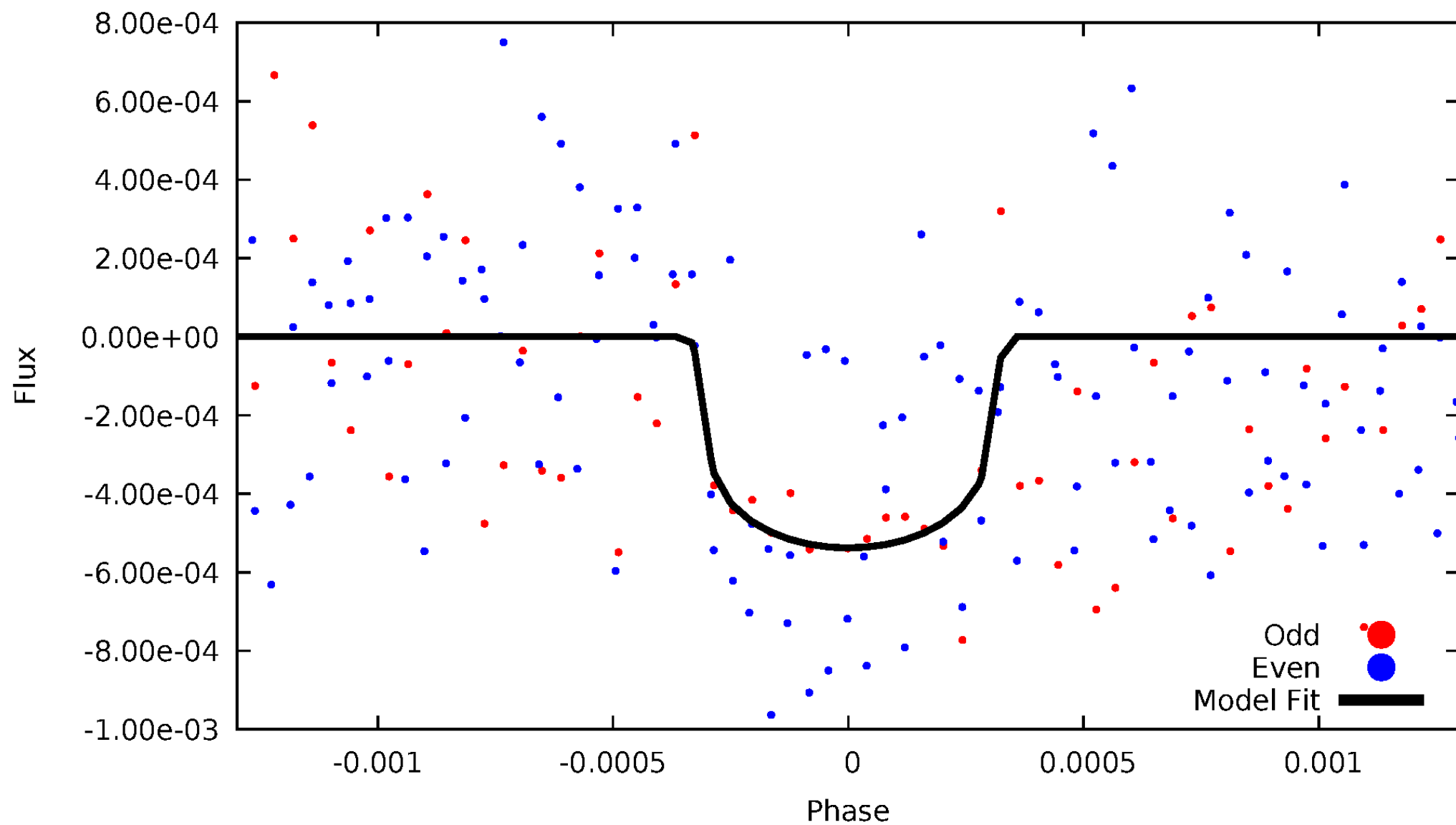


TCE 006038087-01



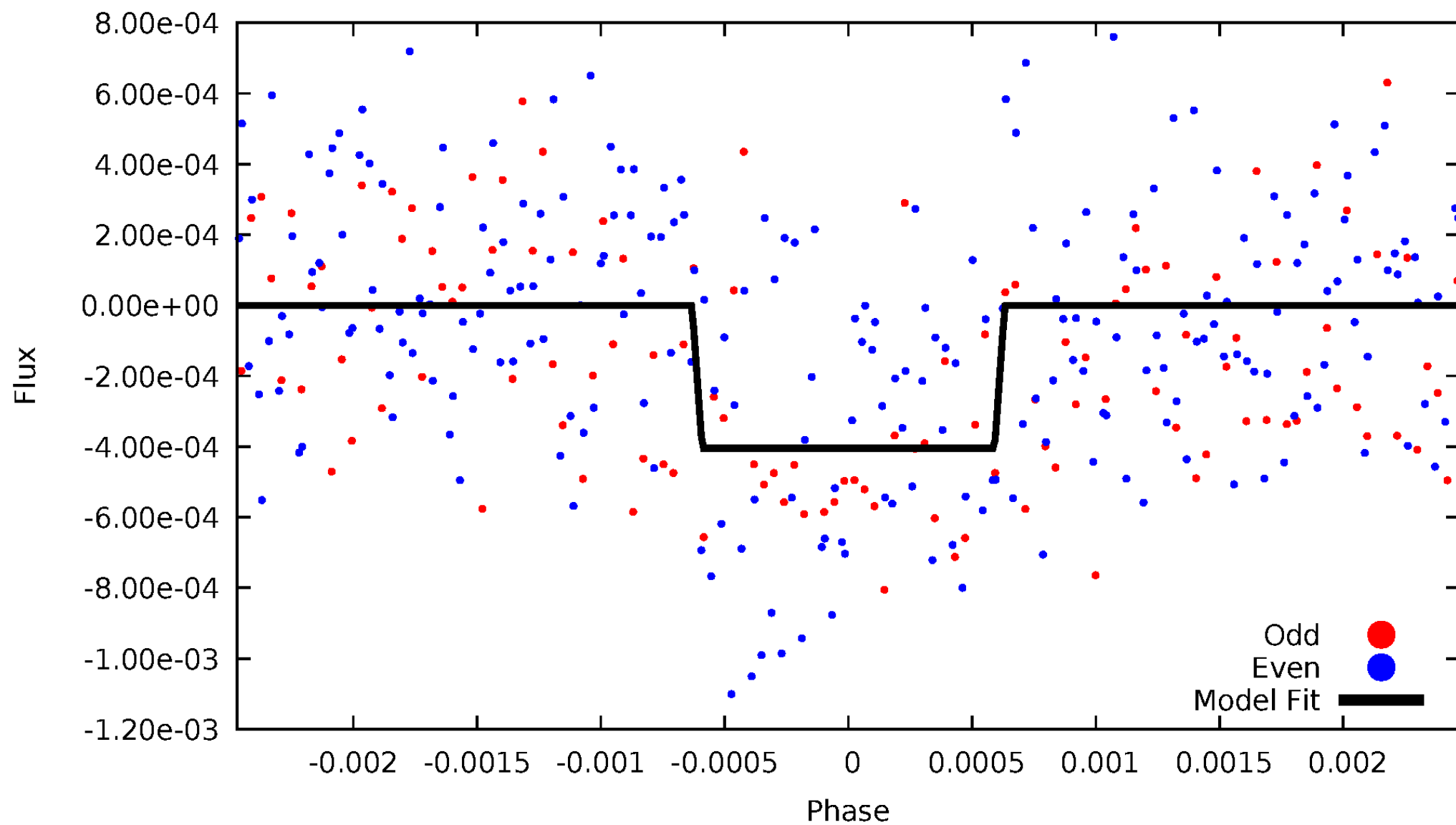
DV Odd/Even

TCE 006038087-01



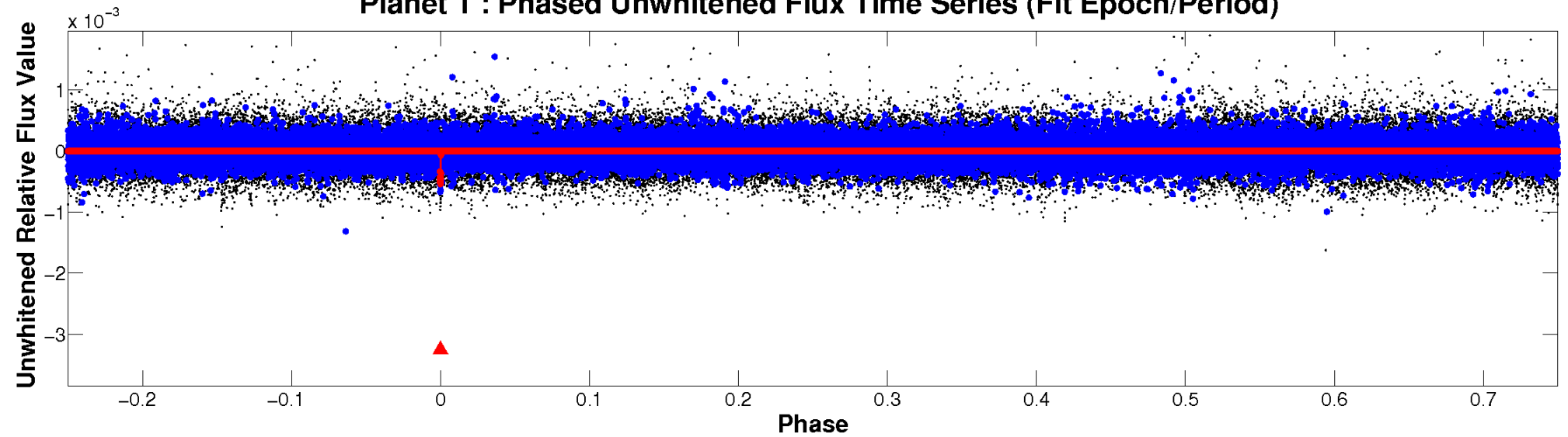
ALT Odd/Even

TCE 006038087-01

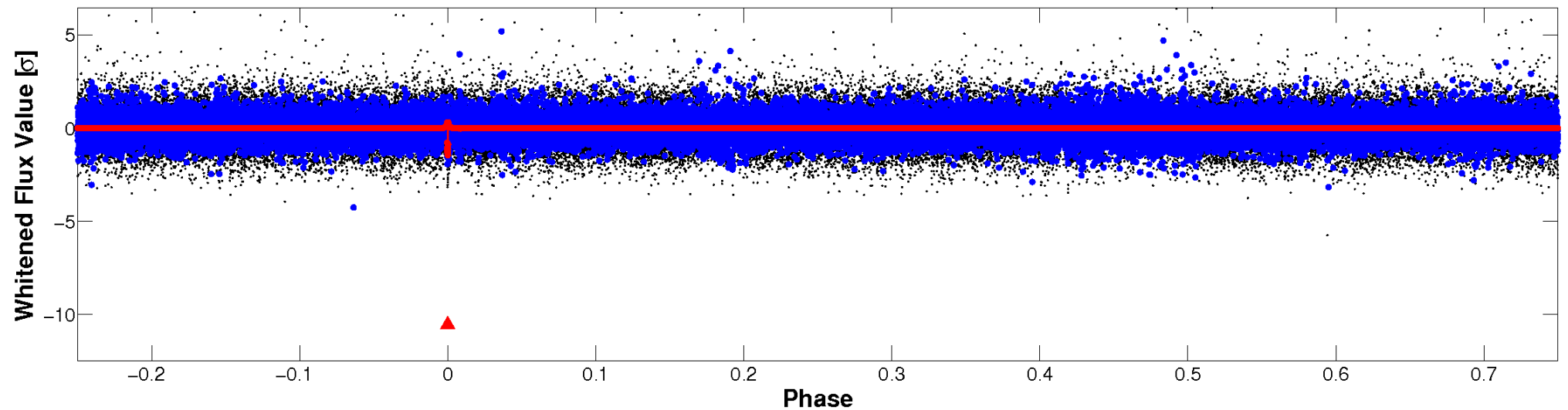


Non-Whitened Vs. Whitened Light Curve

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

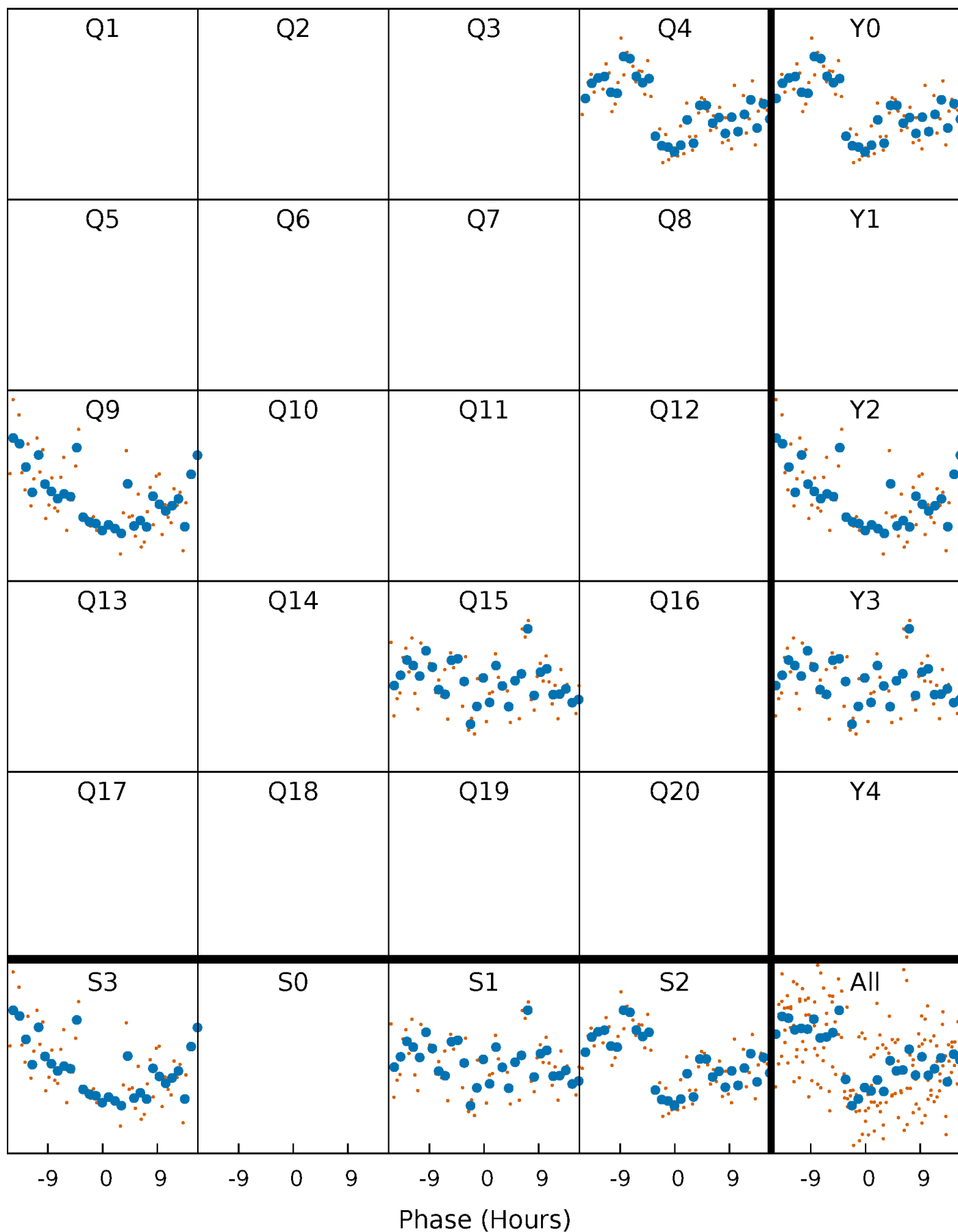


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



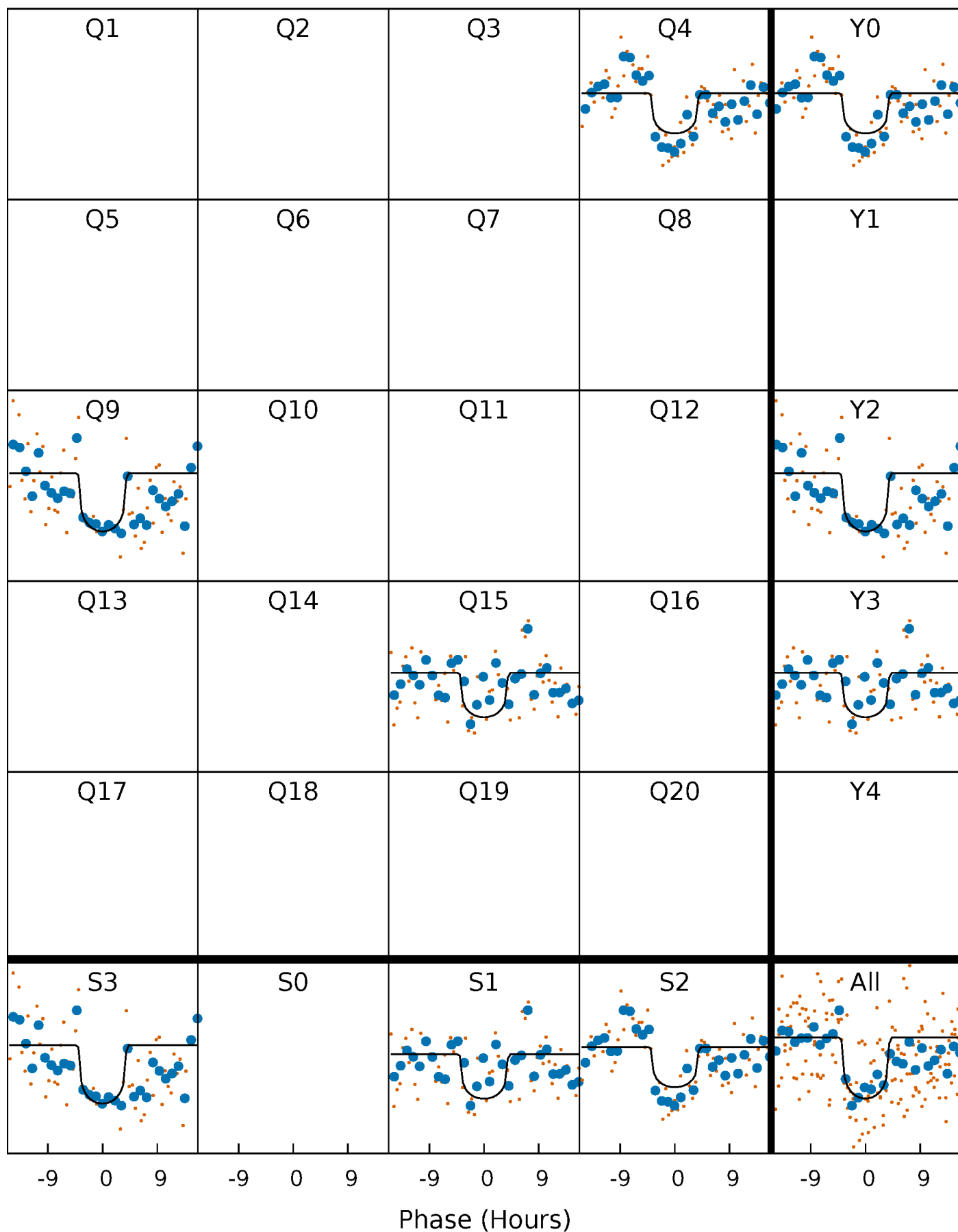
PDC Quarter-Phased Transit Curves

TCE 006038087-01 P=503.099119 Days $T_0=379.880372$ (BKJD)



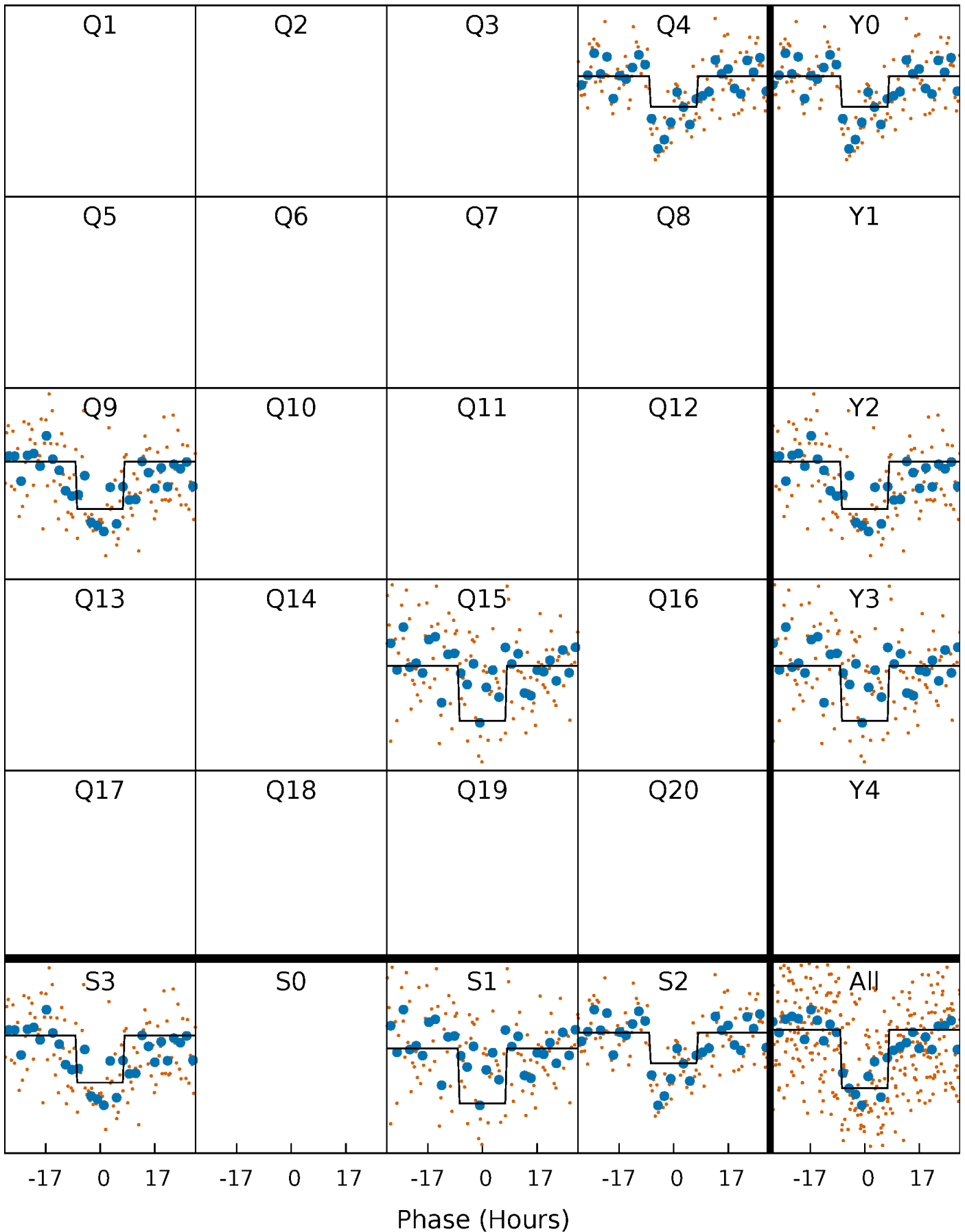
DV Quarter-Phased Transit Curves

TCE 006038087-01 P=503.099119 Days $T_0=379.880372$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

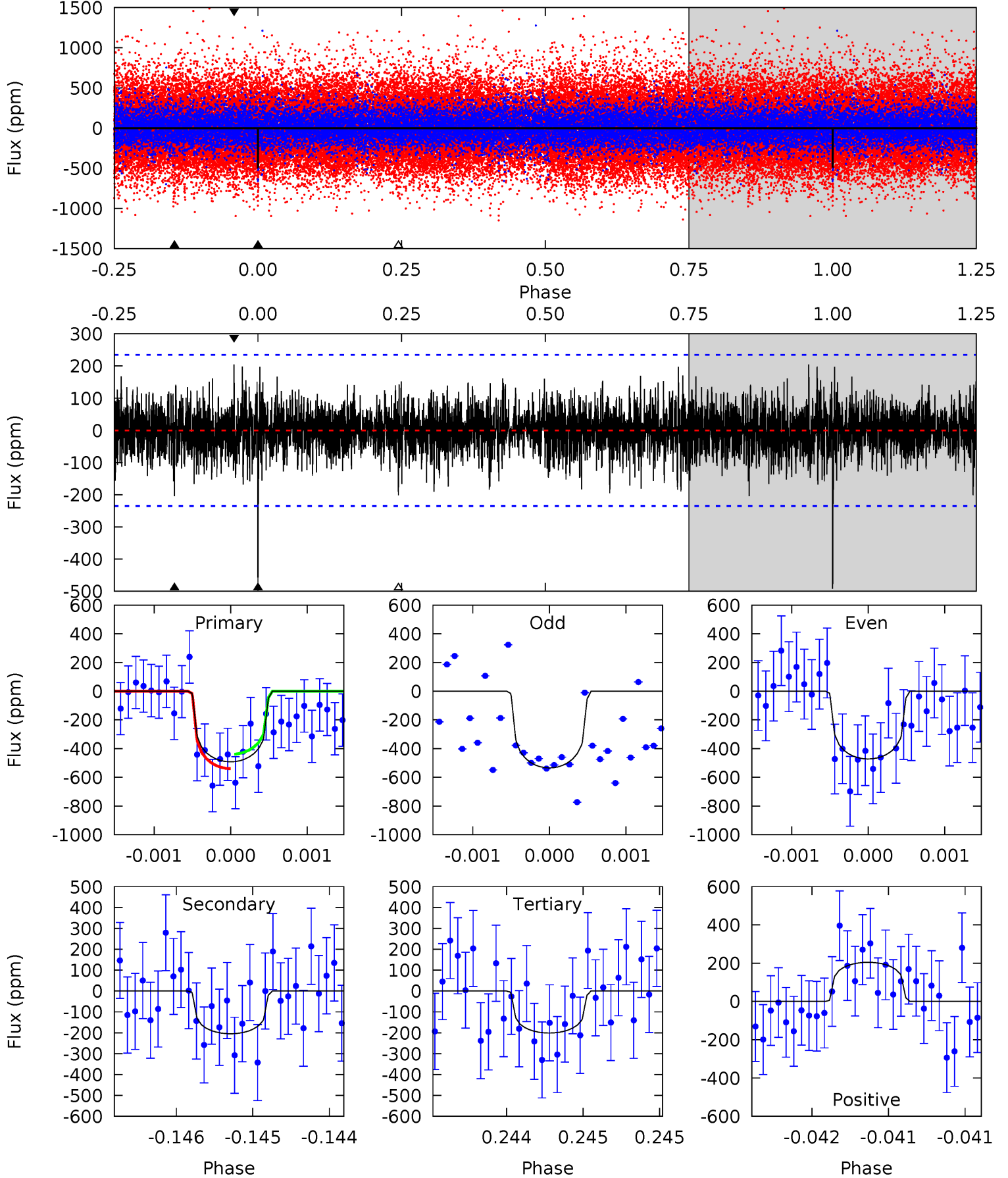
TCE 006038087-01 P=502.992513 Days $T_0=380.035428$ (BKJD)



DV Model-Shift Uniqueness Test

006038087-01, P = 503.099119 Days, E = 379.880372 Days

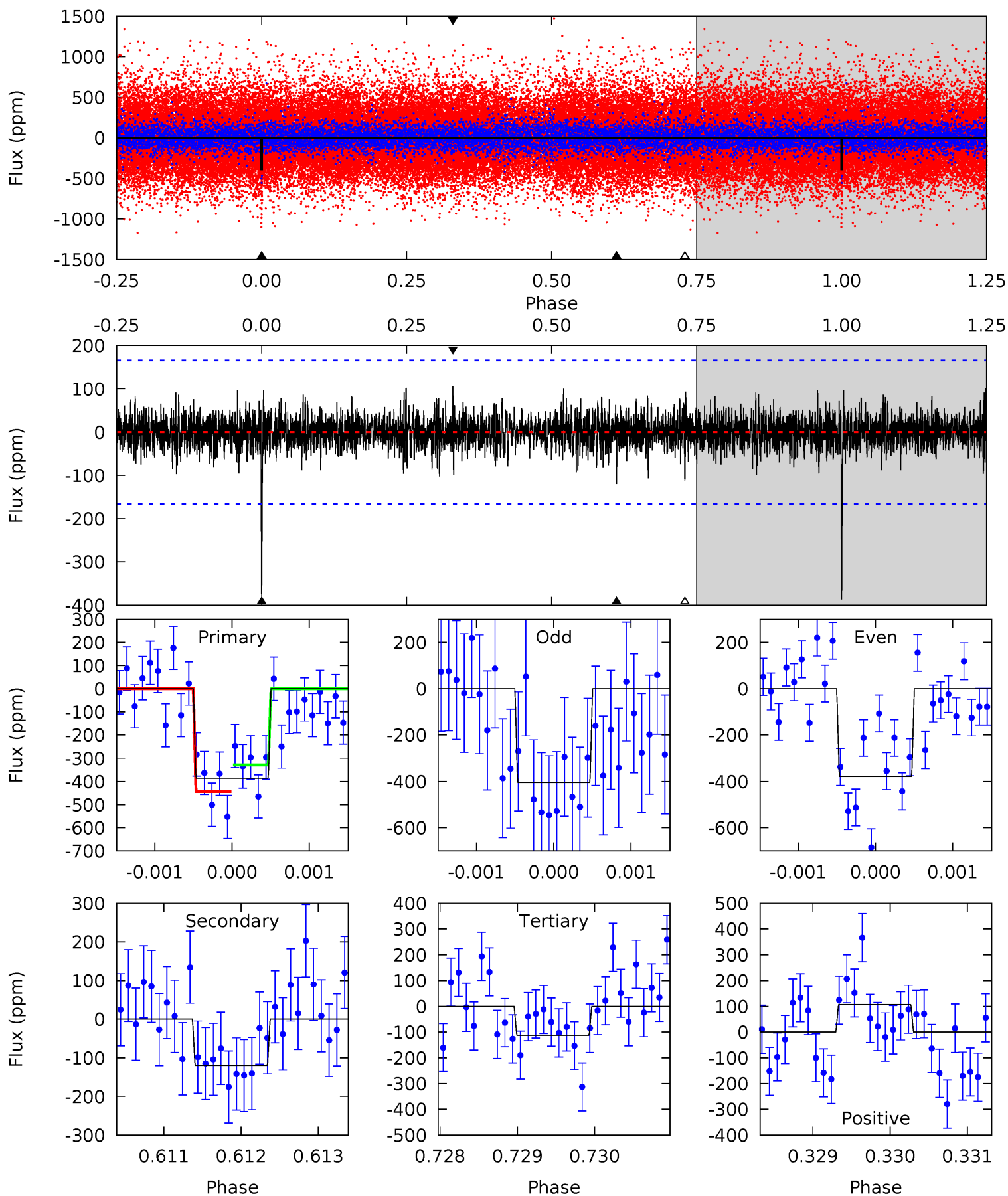
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	4.82	4.74	4.82	5.53	3.41	1.29	6.84	6.77	0.08	0.00	0.68	0.92	0.29	1.18



Alt Model-Shift Uniqueness Test

006038087-01, P = 502.992513 Days, E = 380.035428 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	3.91	3.66	3.48	5.41	3.23	0.91	8.97	9.15	0.24	0.43	0.40	0.95	0.22	1.87



Stellar Parameters For KIC 006038087

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5535^{+166}_{-166}	$4.578^{+0.038}_{-0.142}$	$-0.180^{+0.300}_{-0.300}$	$0.799^{+0.176}_{-0.063}$	$0.887^{+0.081}_{-0.102}$	$2.449^{+0.467}_{-1.051}$
	+3%/-3%	+1%/-3%	+167%/-167%	+22%/-8%	+9%/-11%	+19%/-43%
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 006038087-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-205 ± 42	$2.25^{+1.43}_{-1.25}$	285^{+14}_{-12}	4391^{+1838}_{-716}	$30575^{+130199}_{-19473}$
Alt.	-120 ± 31	$2.02^{+1.43}_{-1.20}$	284^{+14}_{-12}	4118^{+2007}_{-722}	$21931^{+118428}_{-14672}$

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

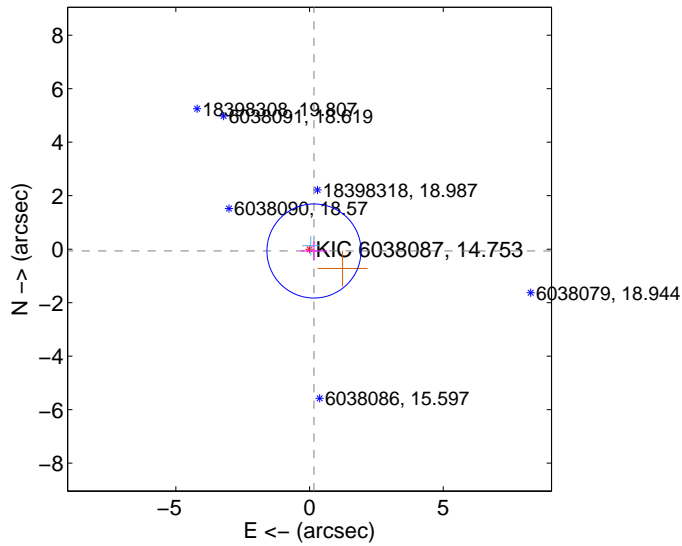
Supplemental centroid analysis for 006038087-01. Kepler magnitude: 14.75. Transit SNR 8.21

There are 1 quarters with good PRF difference image offsets

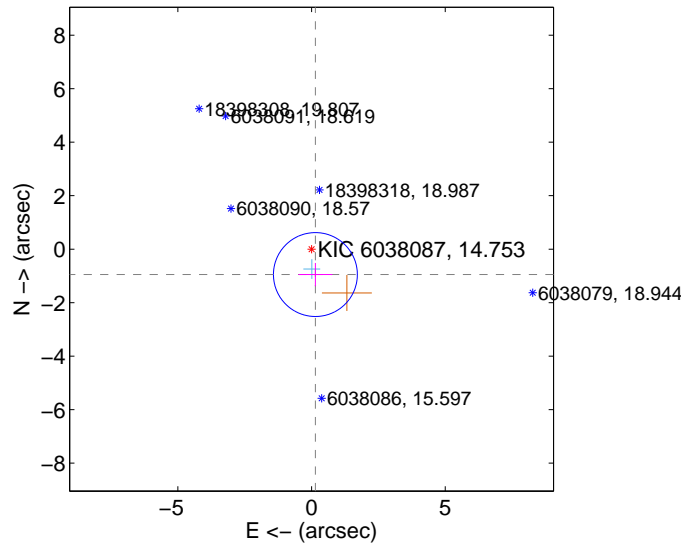
The direct PRF centroid is offset from the target star catalog position by about 0.92 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.179 ± 0.586	0.31	-0.166 ± 0.491	-0.068 ± 0.354
PRF-fit source offset from KIC position	0.960 ± 0.523	1.84	-0.144 ± 0.632	-0.950 ± 0.434
photometric centroid source offset	2.44 ± 1.70	1.44	-1.87 ± 1.74	-1.57 ± 1.64

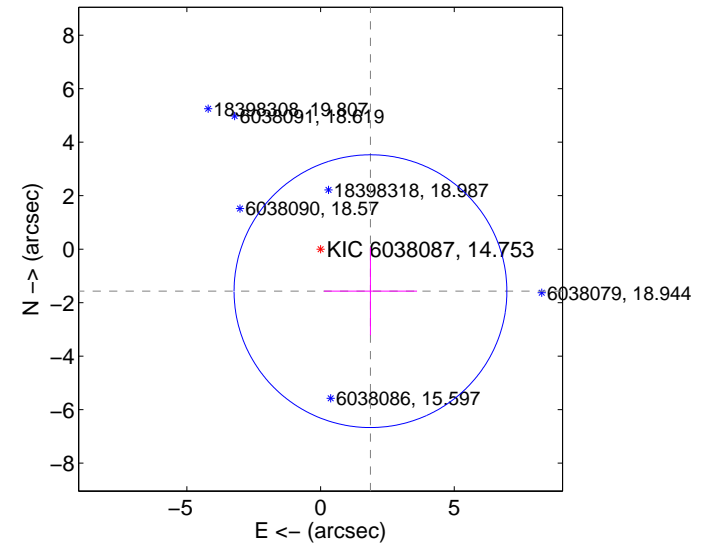
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

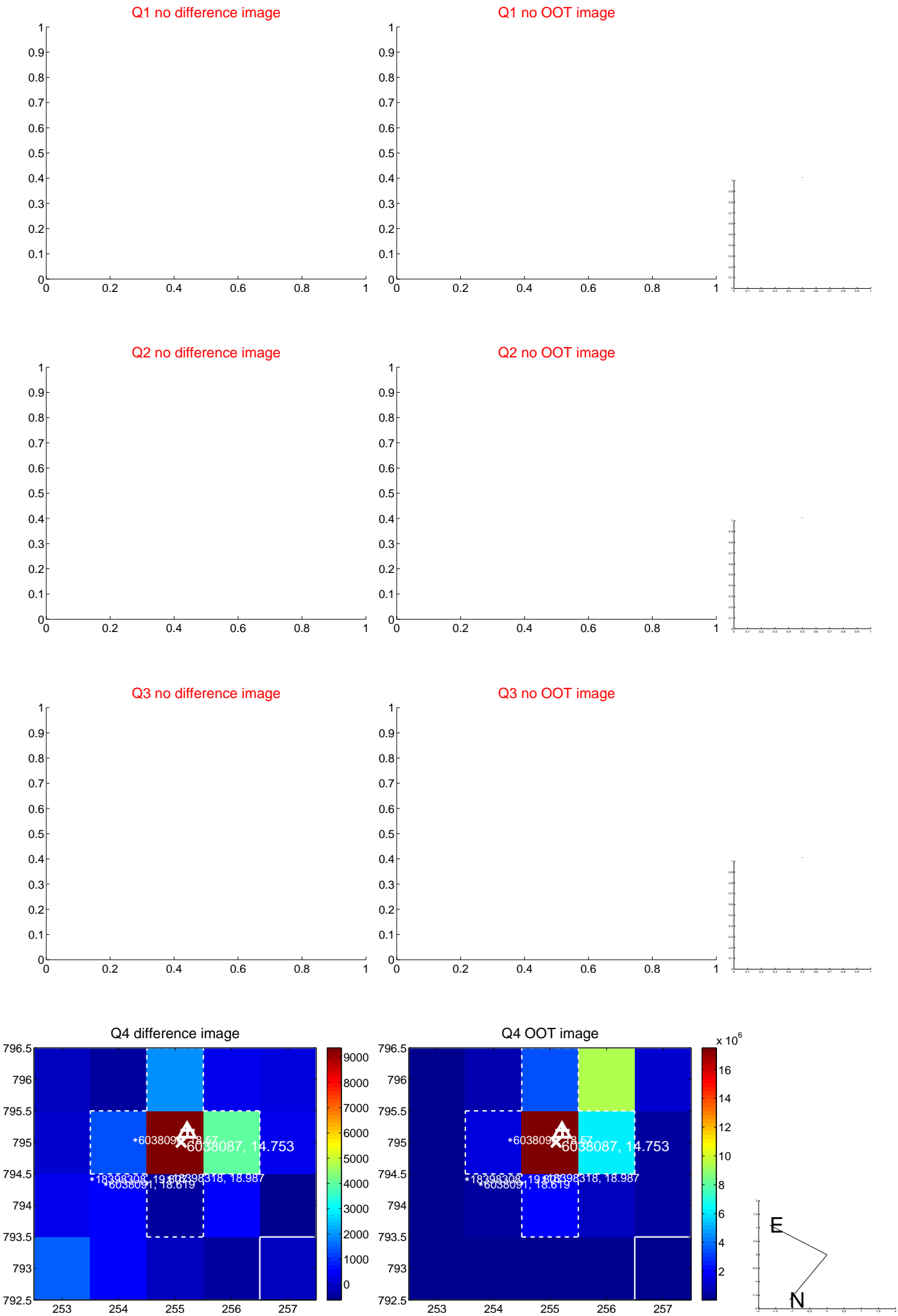


offset from photometric centroids



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.

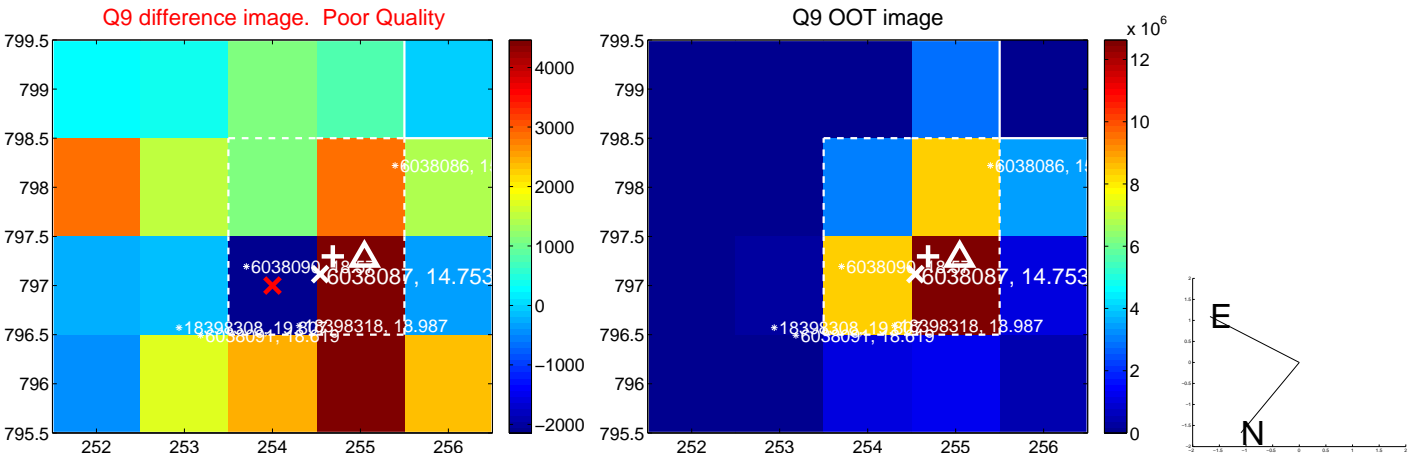
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



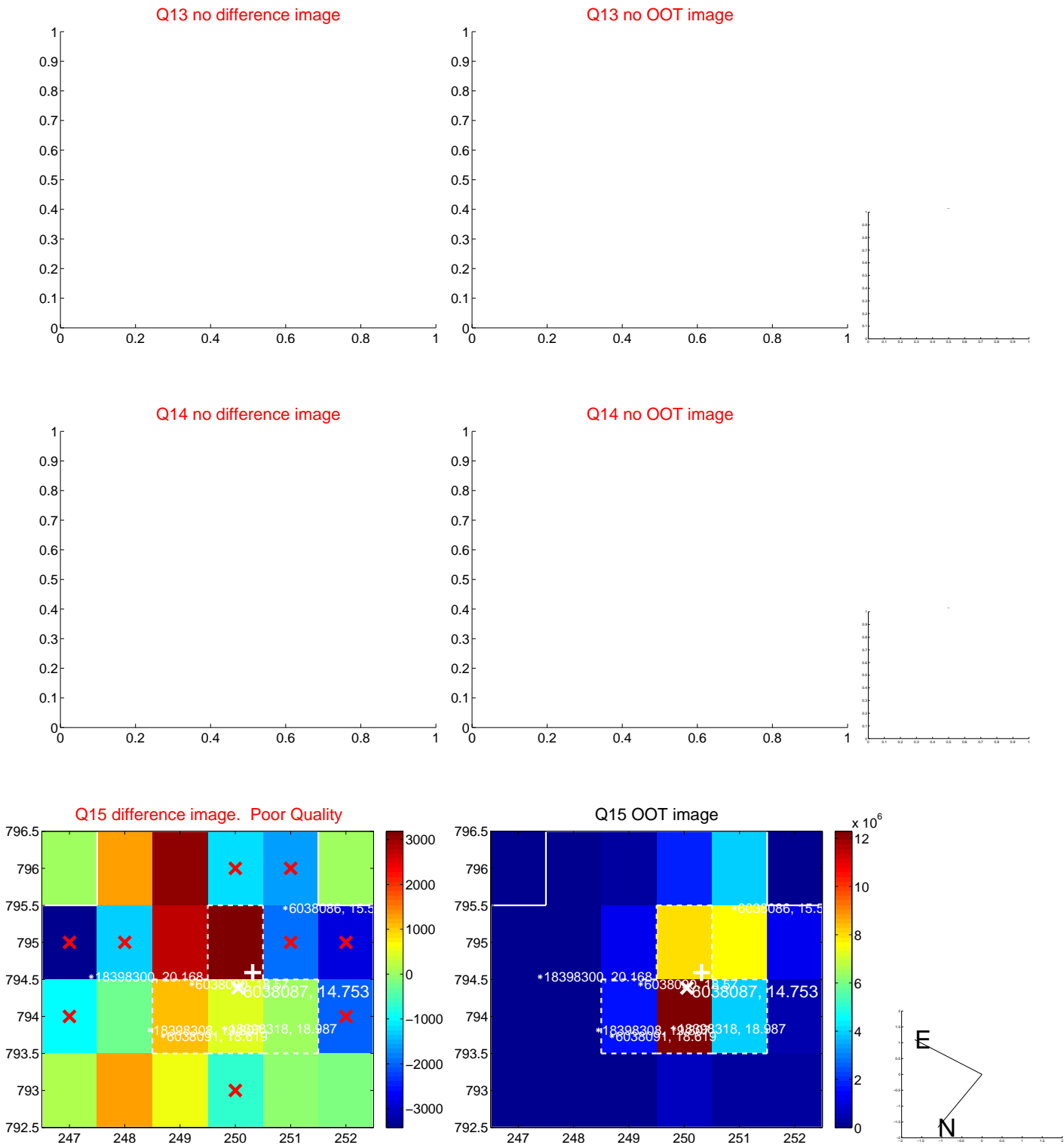
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



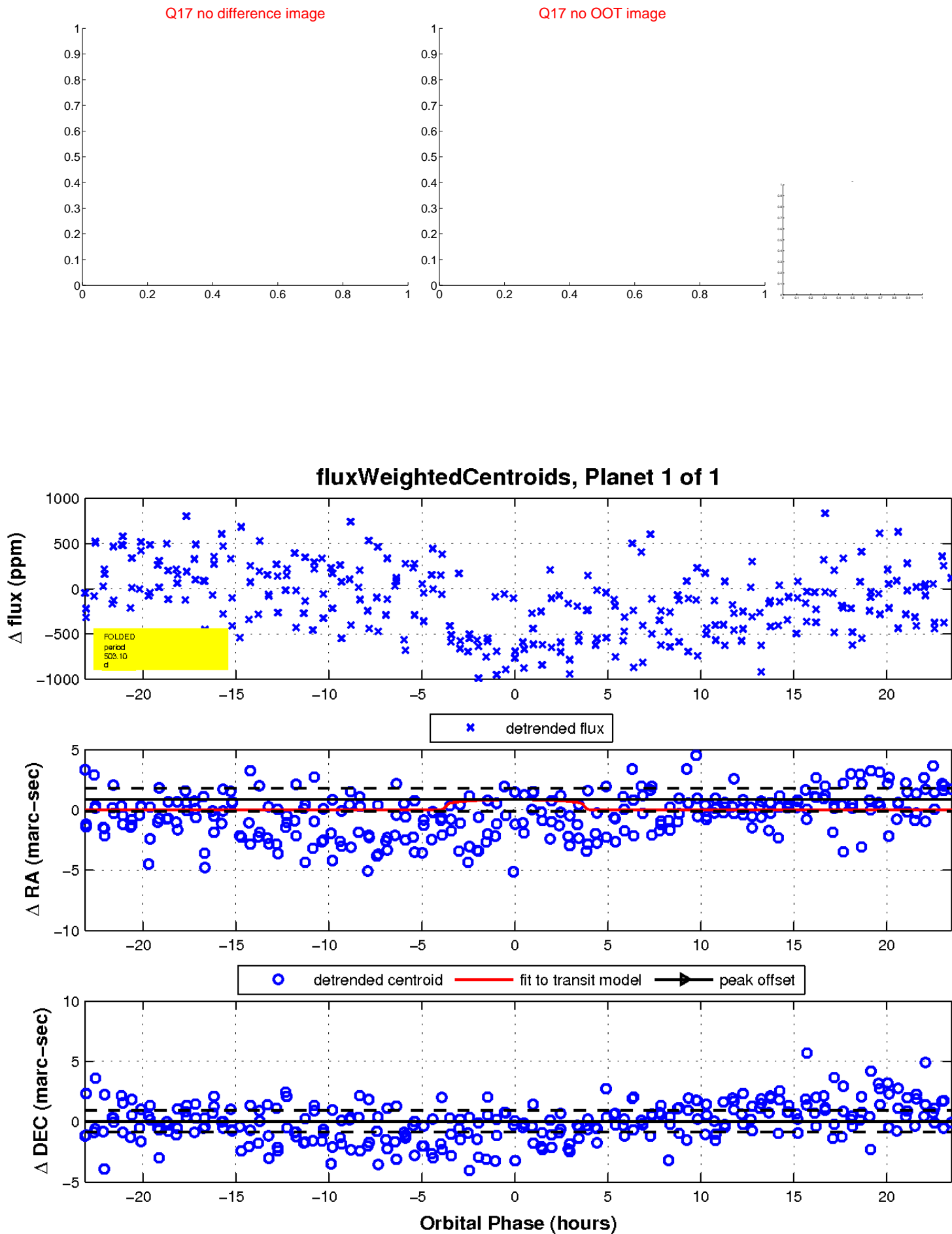
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

