

KIC 008374896

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})
008374896-02	OBS	No	375.020037	225.573638	821.7	10.000	7.4	8.0	0.79	5559	2.32	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008374896-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

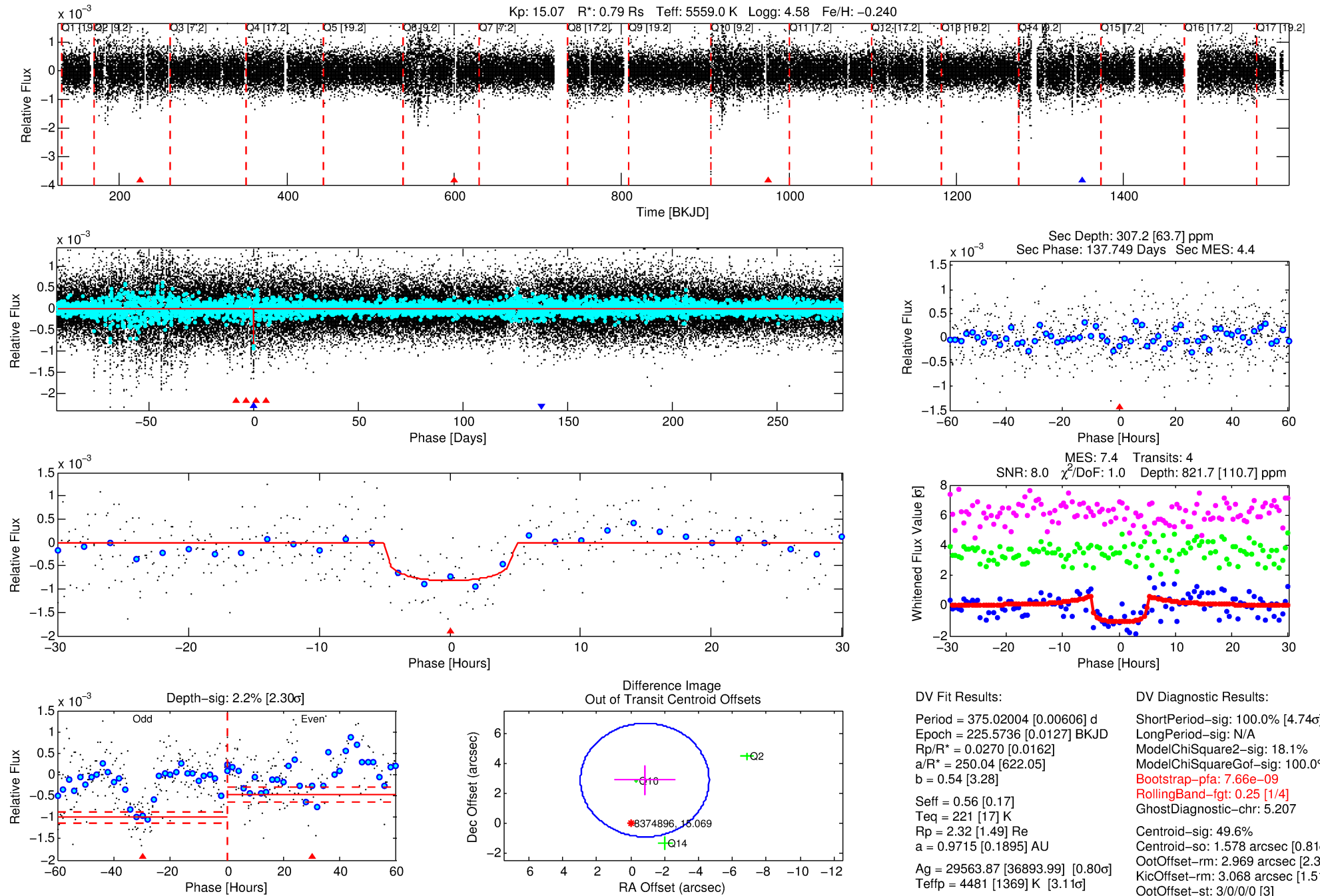
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008374896-02

No Significant Match Found

DV One-Page Summary

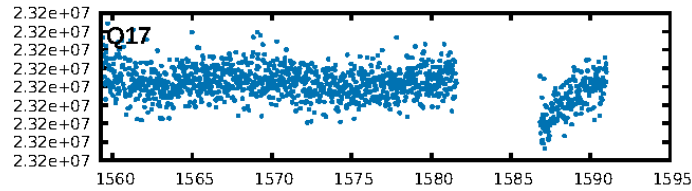
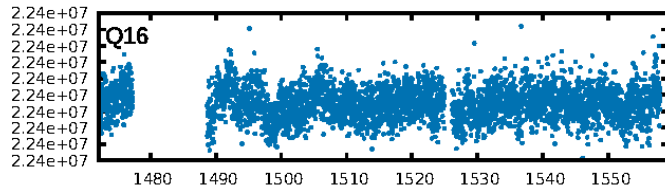
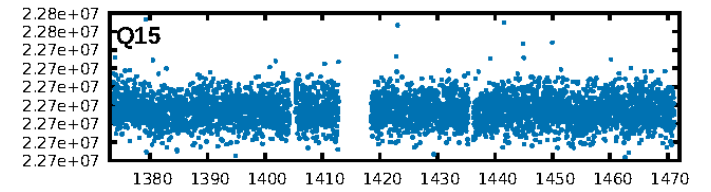
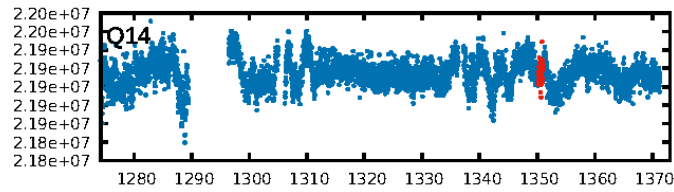
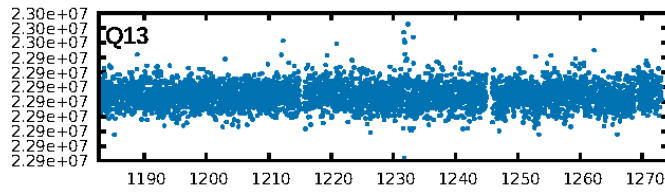
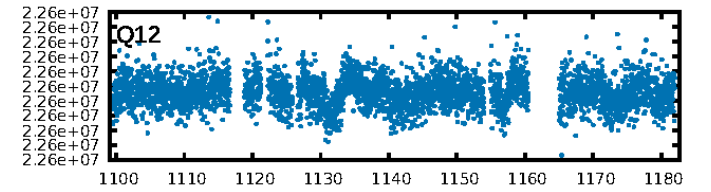
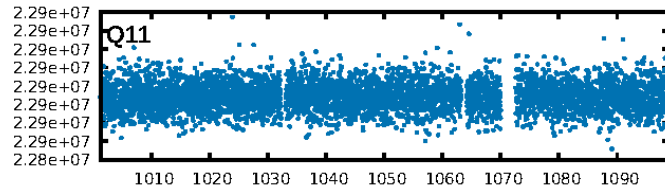
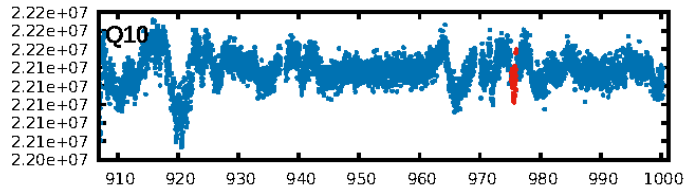
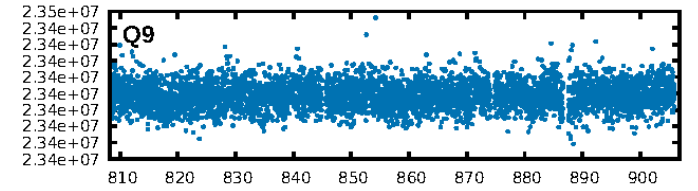
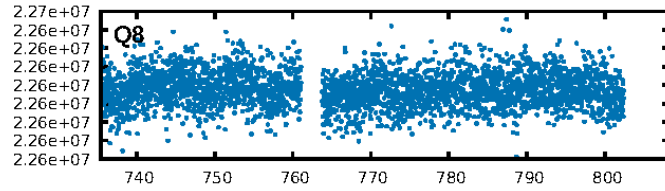
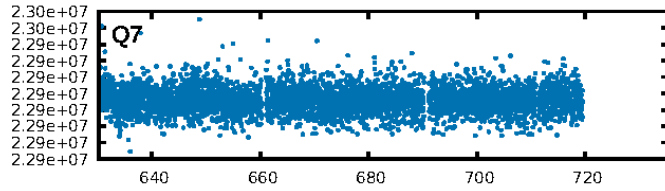
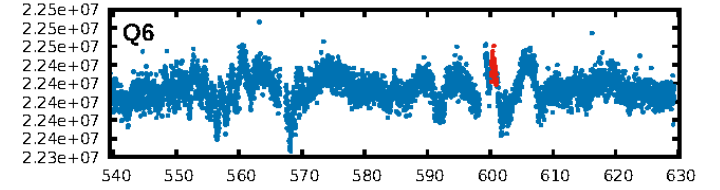
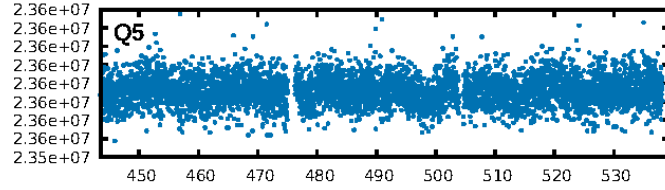
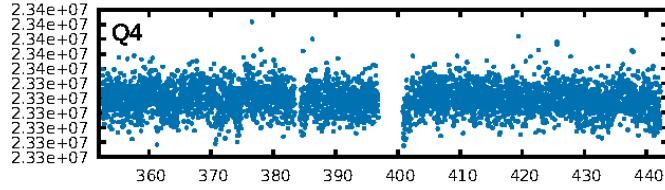
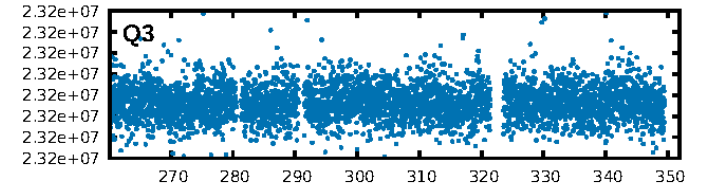
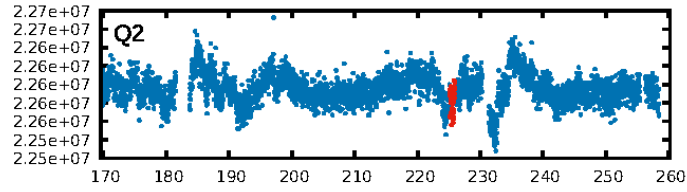
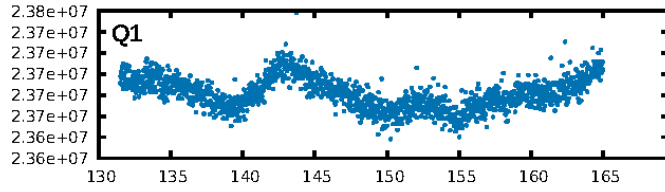
KIC: 8374896 Candidate: 2 of 2 Period: 375.020 d



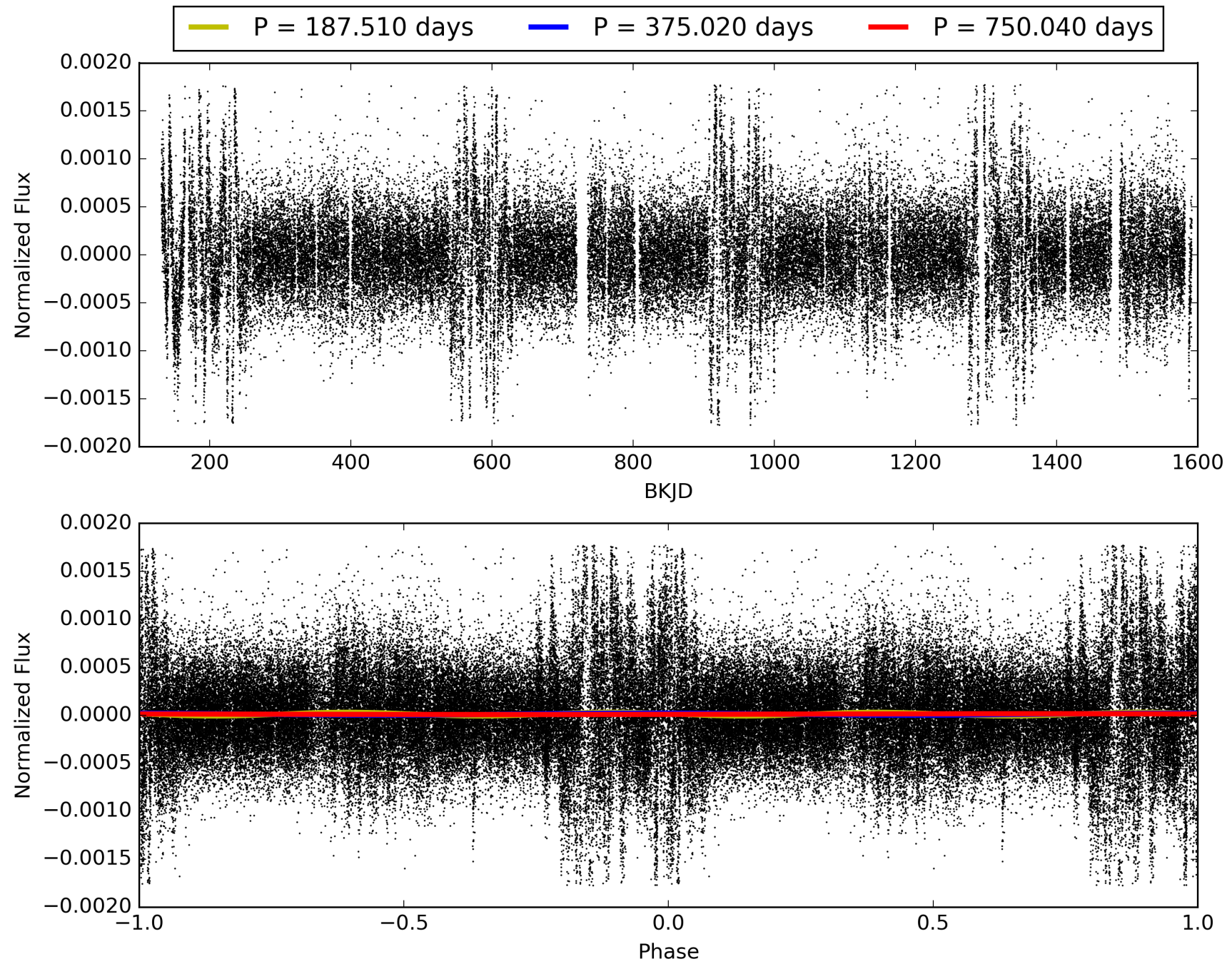
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:53:29 Z

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

TCE 008374896-02, PDC Light Curves

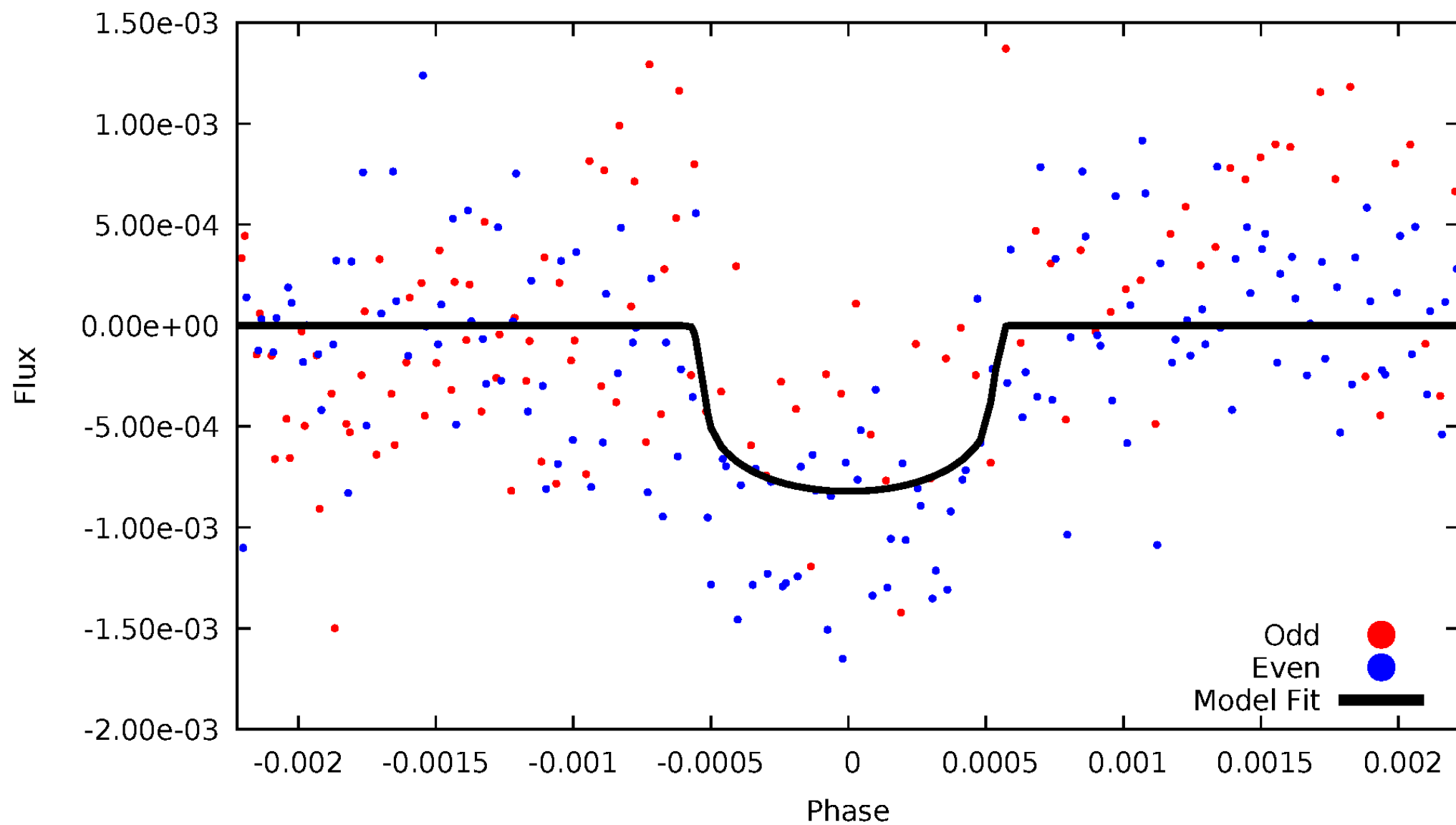


TCE 008374896-02



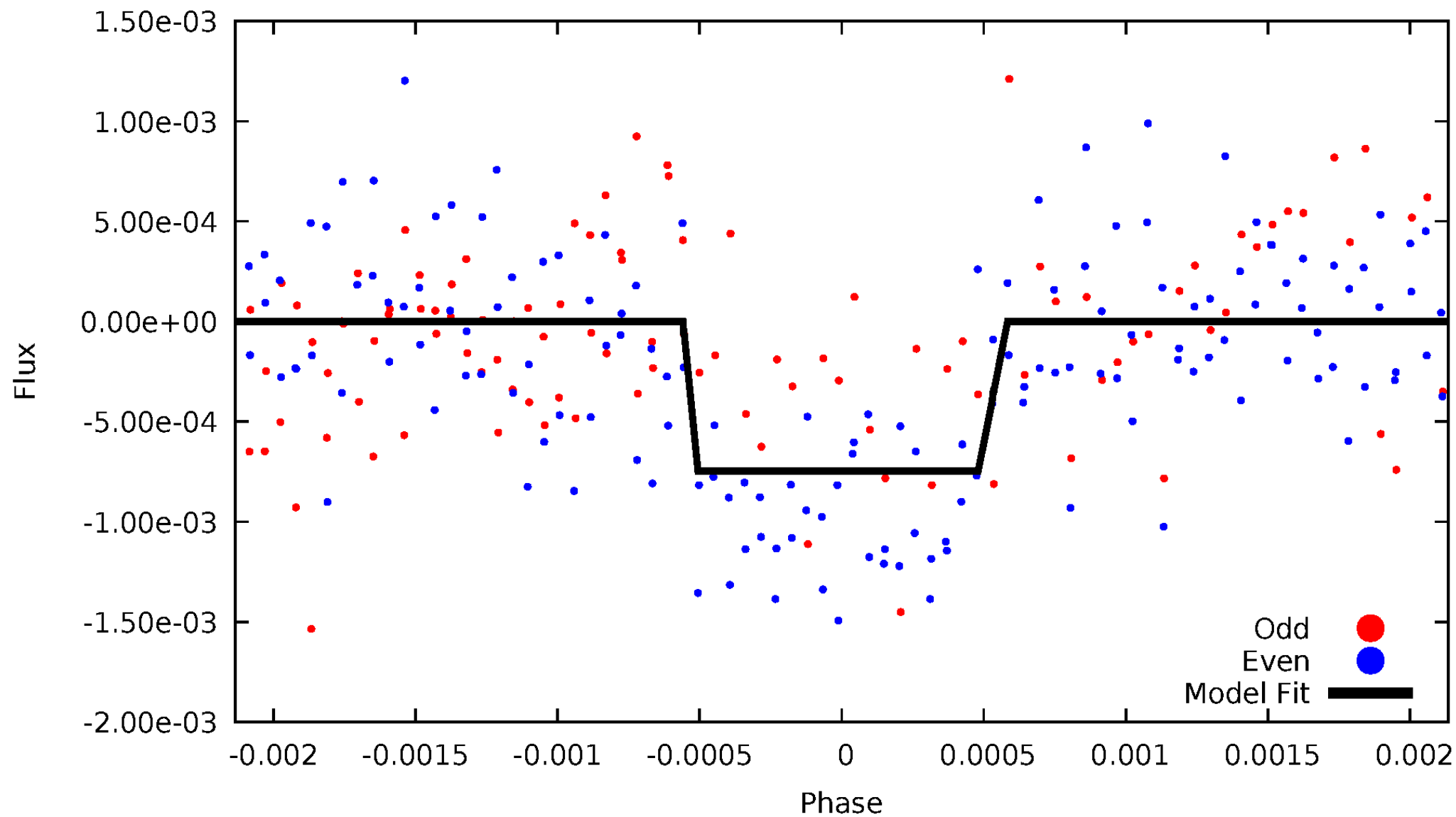
DV Odd/Even

TCE 008374896-02



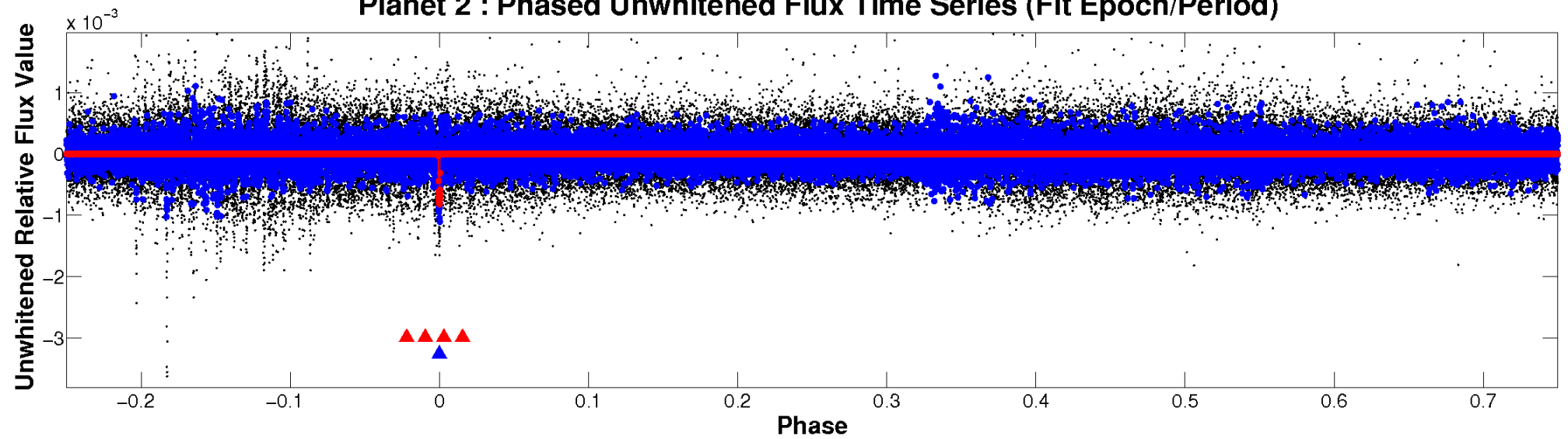
ALT Odd/Even

TCE 008374896-02

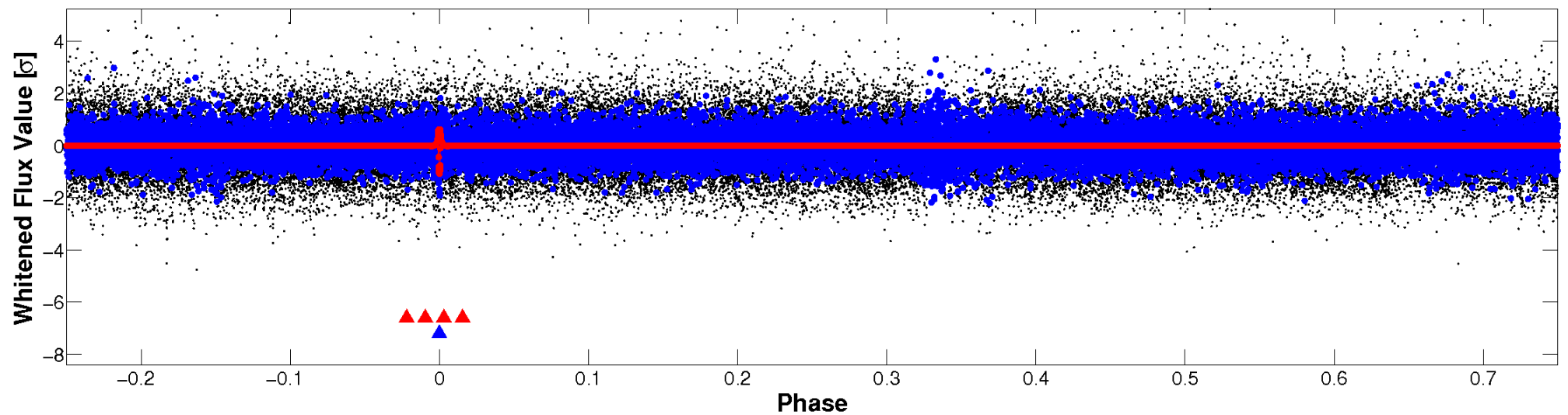


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

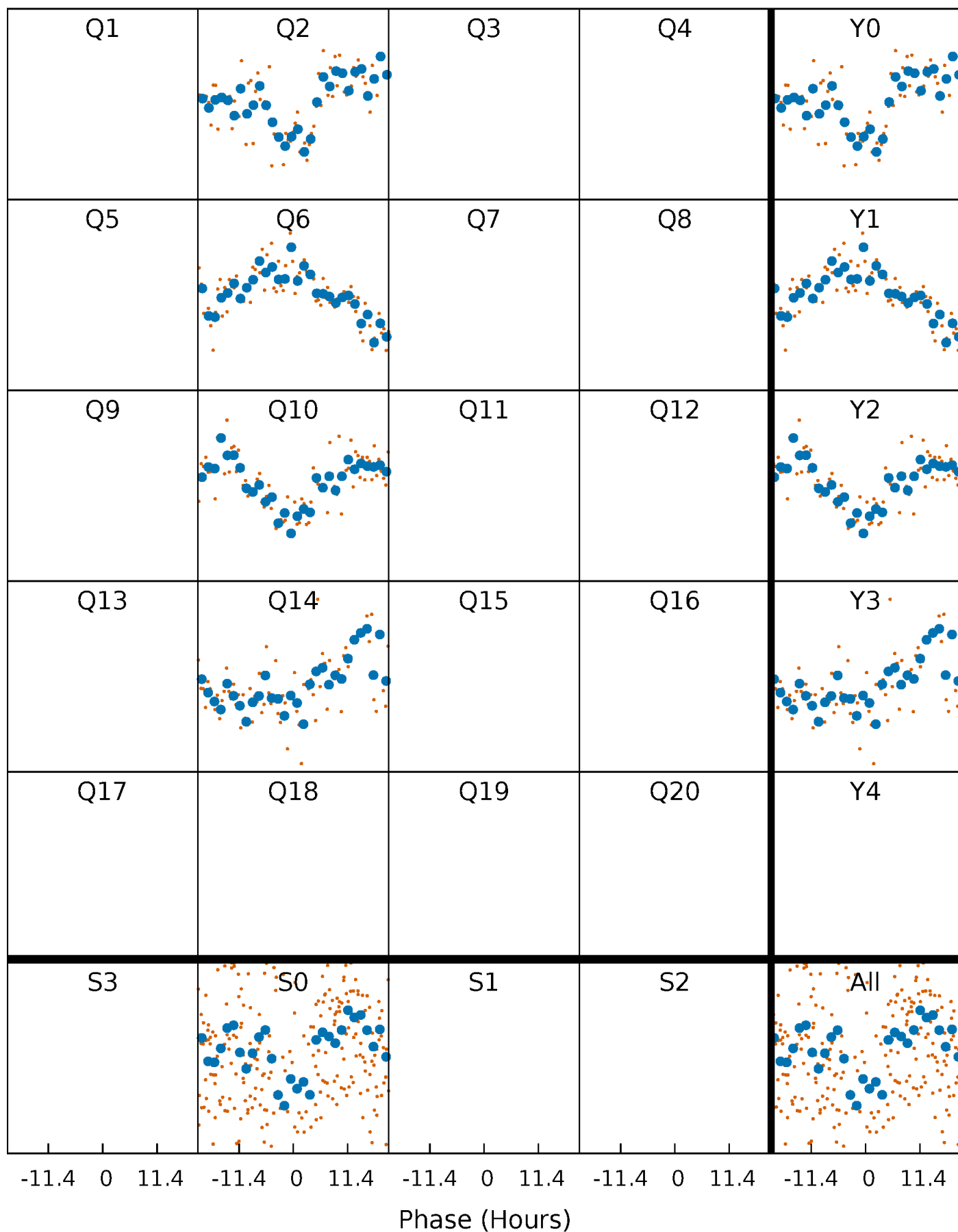


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



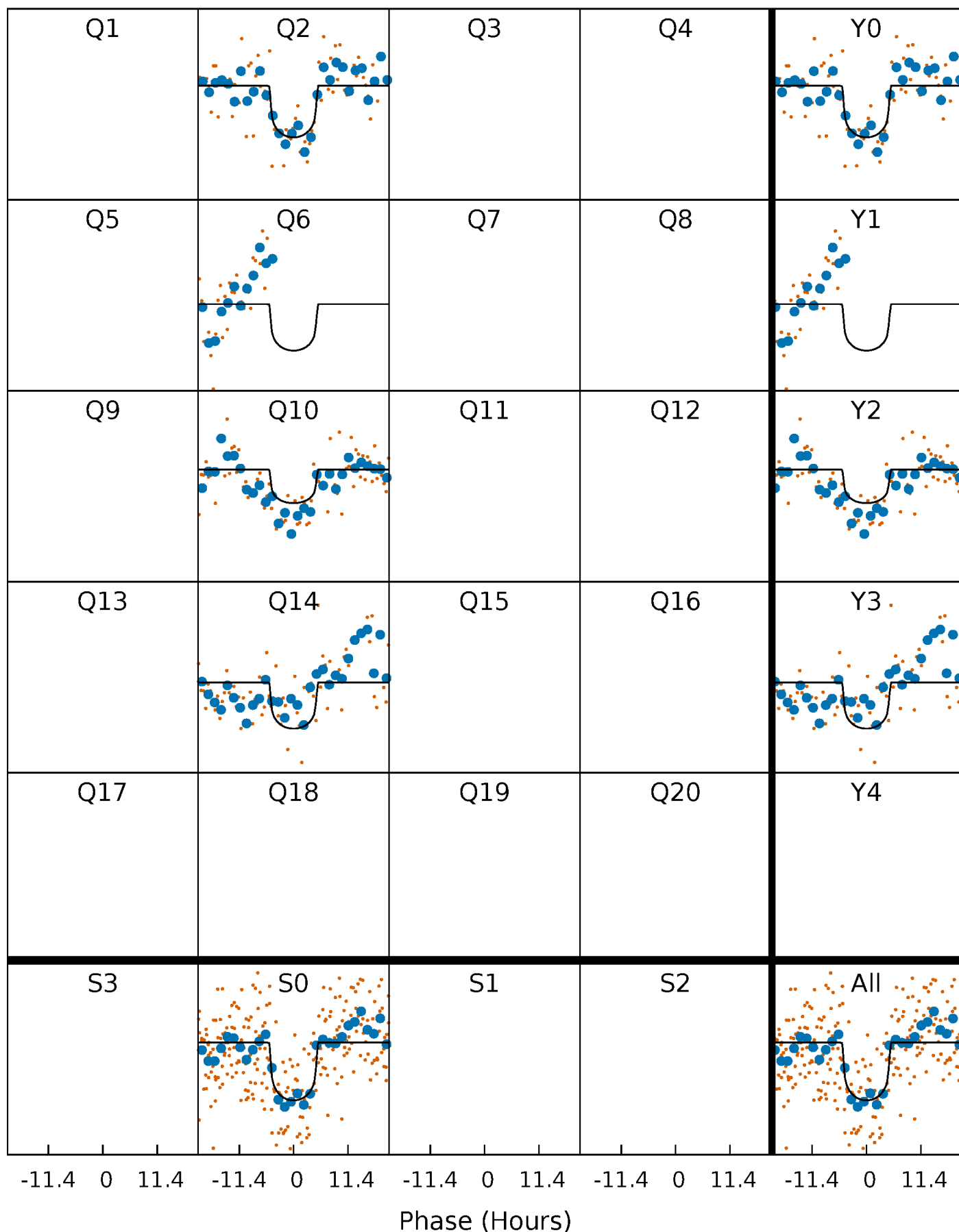
PDC Quarter-Phased Transit Curves

TCE 008374896-02 $P=375.020038$ Days $T_0=225.573638$ (BKJD)



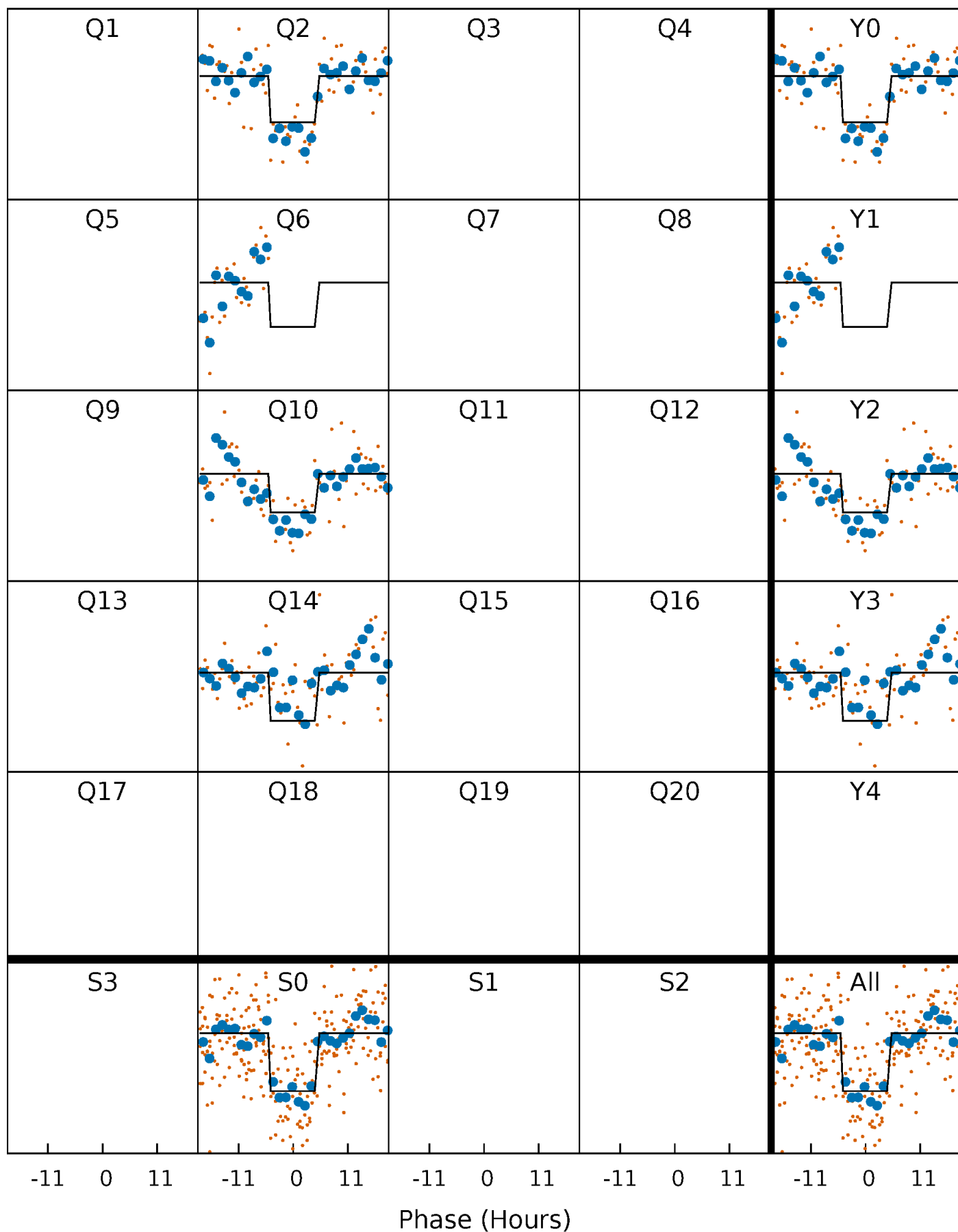
DV Quarter-Phased Transit Curves

TCE 008374896-02 $P=375.020038$ Days $T_0=225.573638$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

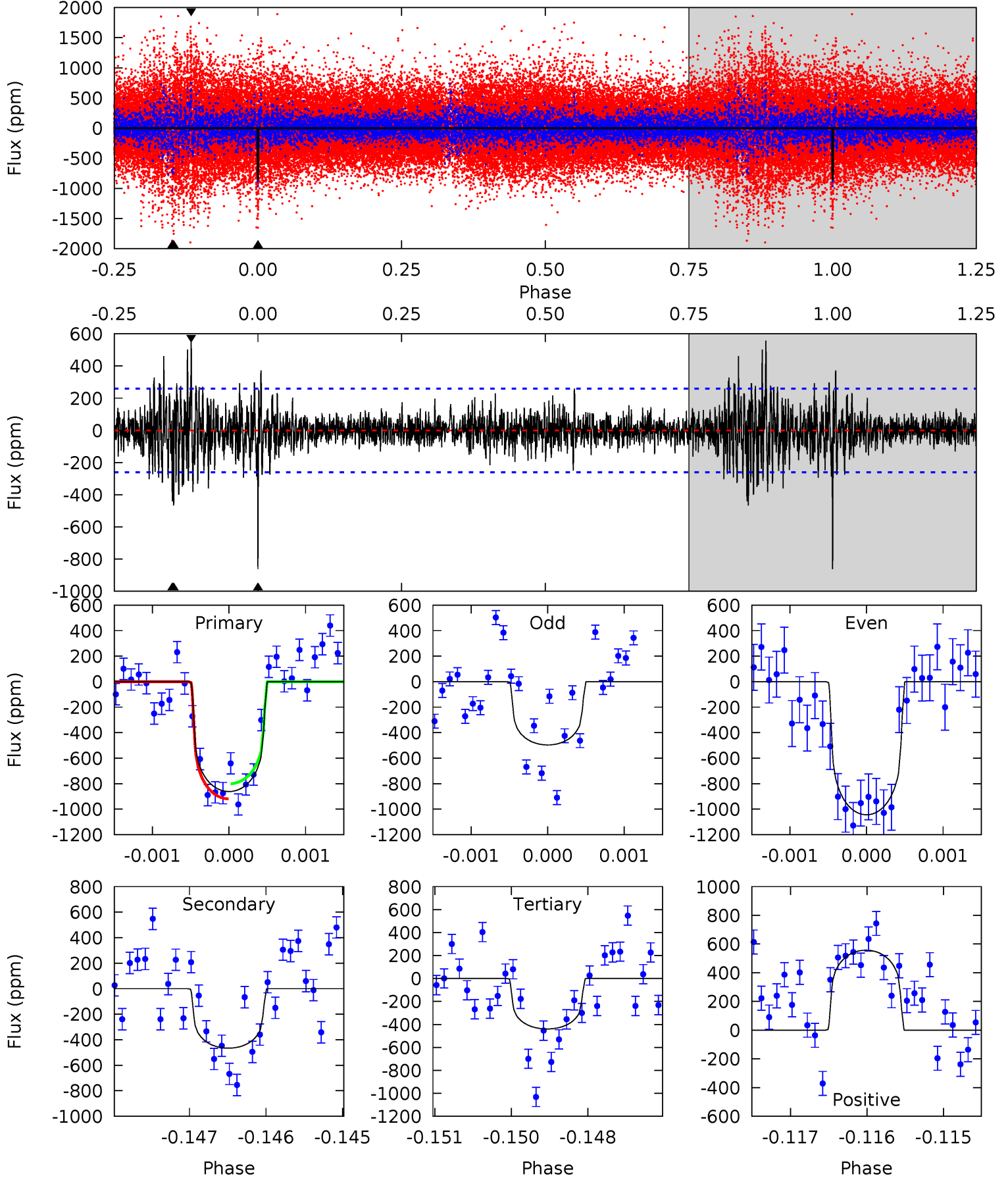
TCE 008374896-02 P=375.017127 Days $T_0=225.576002$ (BKJD)



DV Model-Shift Uniqueness Test

008374896-02, P = 375.020038 Days, E = 225.573638 Days

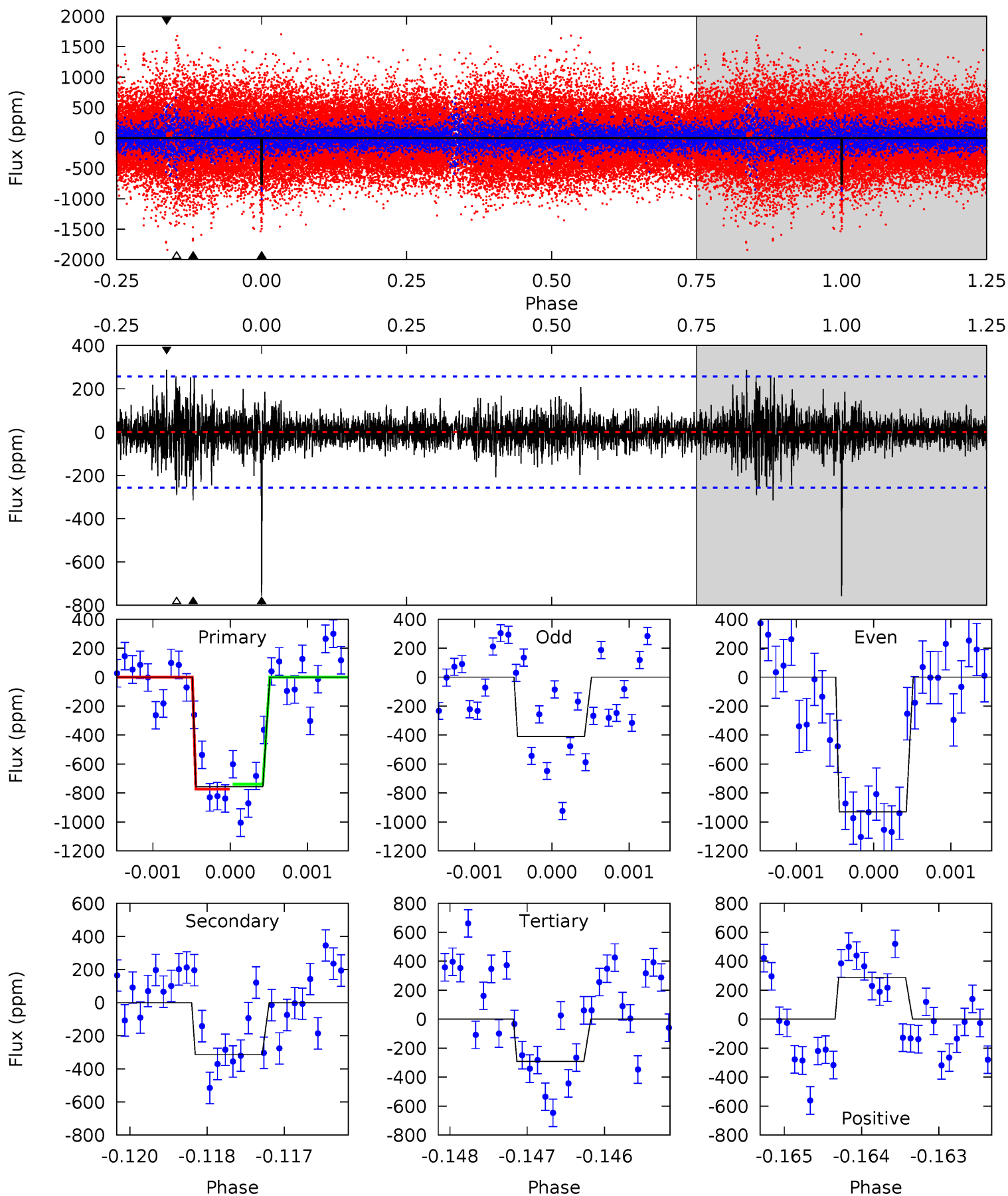
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.0	9.73	9.17	11.6	5.43	3.25	1.79	8.80	6.35	0.56	-1.90	5.41	0.95	0.39	1.24



Alt Model-Shift Uniqueness Test

008374896-02, P = 375.017127 Days, E = 225.576002 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	6.65	6.17	6.09	5.43	3.25	1.12	9.85	9.93	0.49	0.56	5.22	0.84	0.28	0.37



Stellar Parameters For KIC 008374896

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5559^{+167}_{-150}	$4.583^{+0.038}_{-0.152}$	$-0.240^{+0.300}_{-0.300}$	$0.789^{+0.185}_{-0.062}$	$0.876^{+0.091}_{-0.100}$	$2.508^{+0.495}_{-1.051}$
	+3%/-3%	+1%/-3%	+125%/-125%	+23%/-8%	+10%/-11%	+20%/-42%
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 008374896-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-466 ± 48	$2.41^{+1.51}_{-1.22}$	315^{+18}_{-13}	5033^{+1916}_{-853}	$41032^{+121330}_{-25580}$
Alt.	-314 ± 47	$2.62^{+1.37}_{-1.32}$	315^{+18}_{-13}	4486^{+1723}_{-619}	23148^{+74213}_{-13051}

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

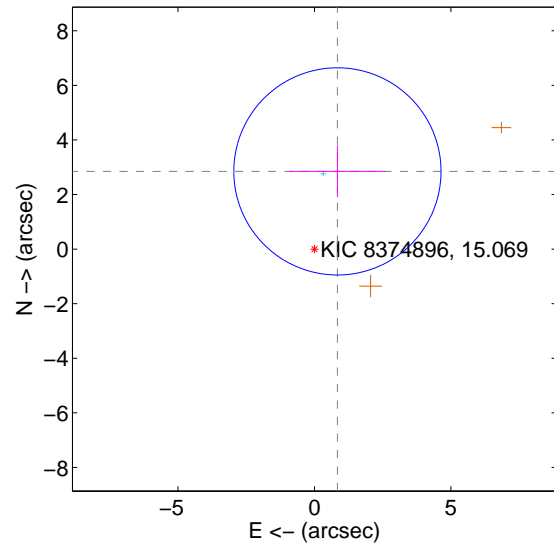
Supplemental centroid analysis for 008374896-02. Kepler magnitude: 15.07. Transit SNR 7.99

There are 1 quarters with good PRF difference image offsets

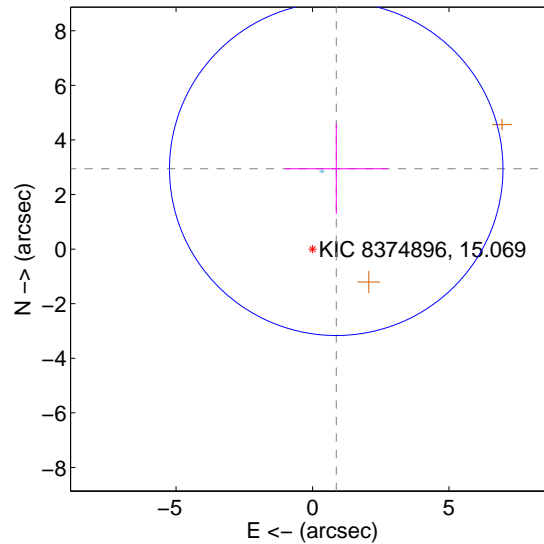
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.969 ± 1.265	2.35	-0.842 ± 1.750	2.847 ± 0.943
PRF-fit source offset from KIC position	3.068 ± 2.036	1.51	-0.869 ± 1.882	2.943 ± 1.655
photometric centroid source offset	1.58 ± 1.94	0.81	-0.45 ± 2.04	1.51 ± 1.93

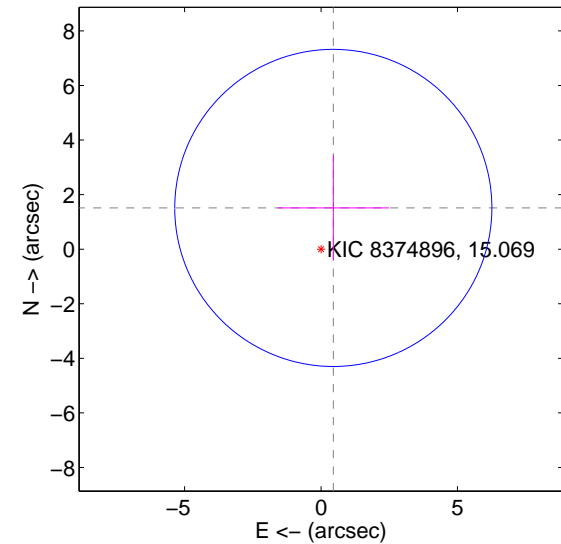
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

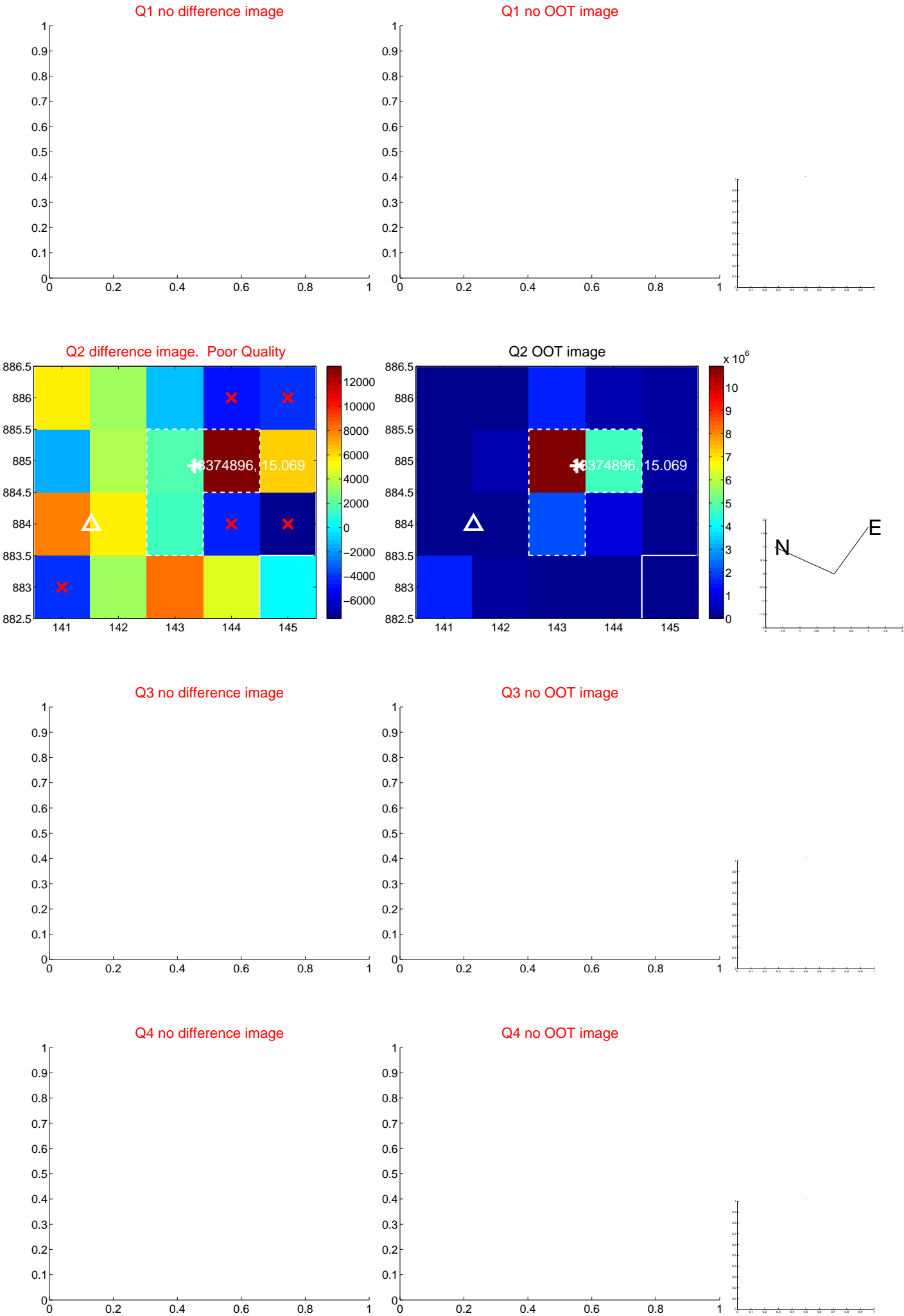


offset from photometric centroids



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.

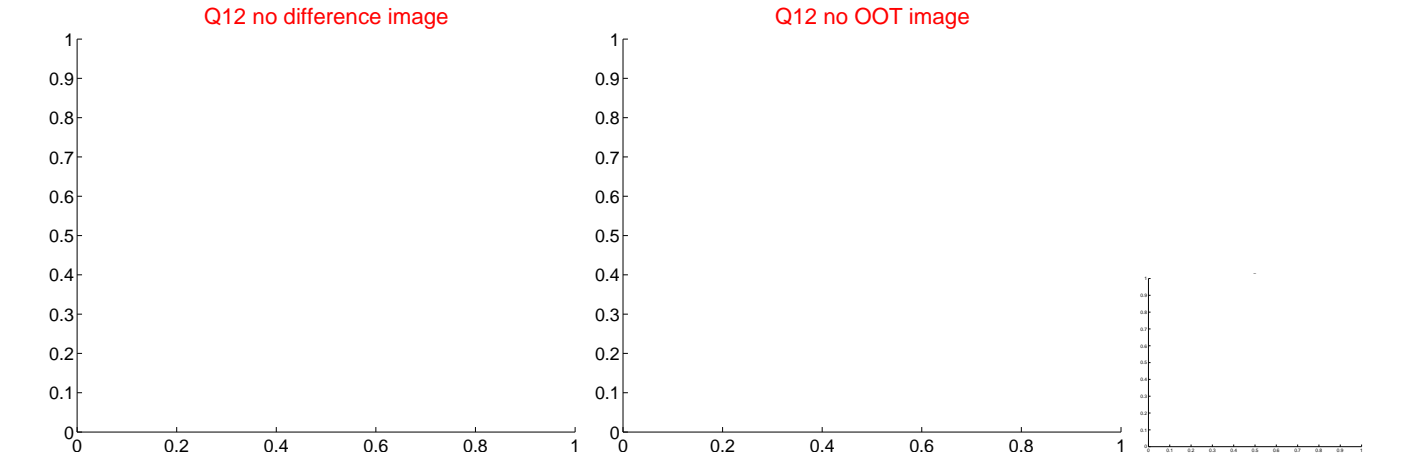
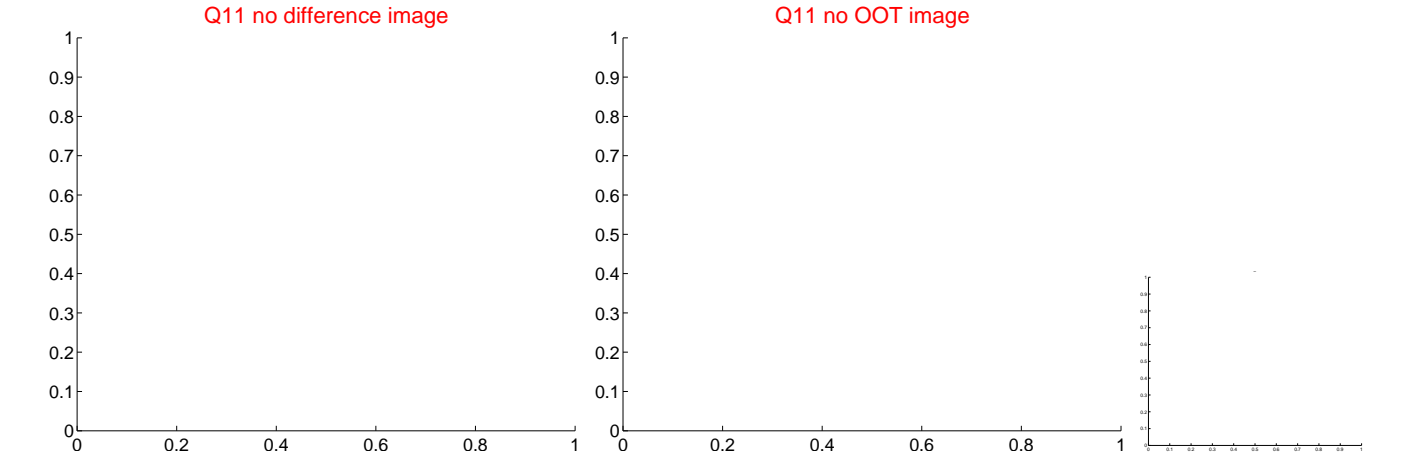
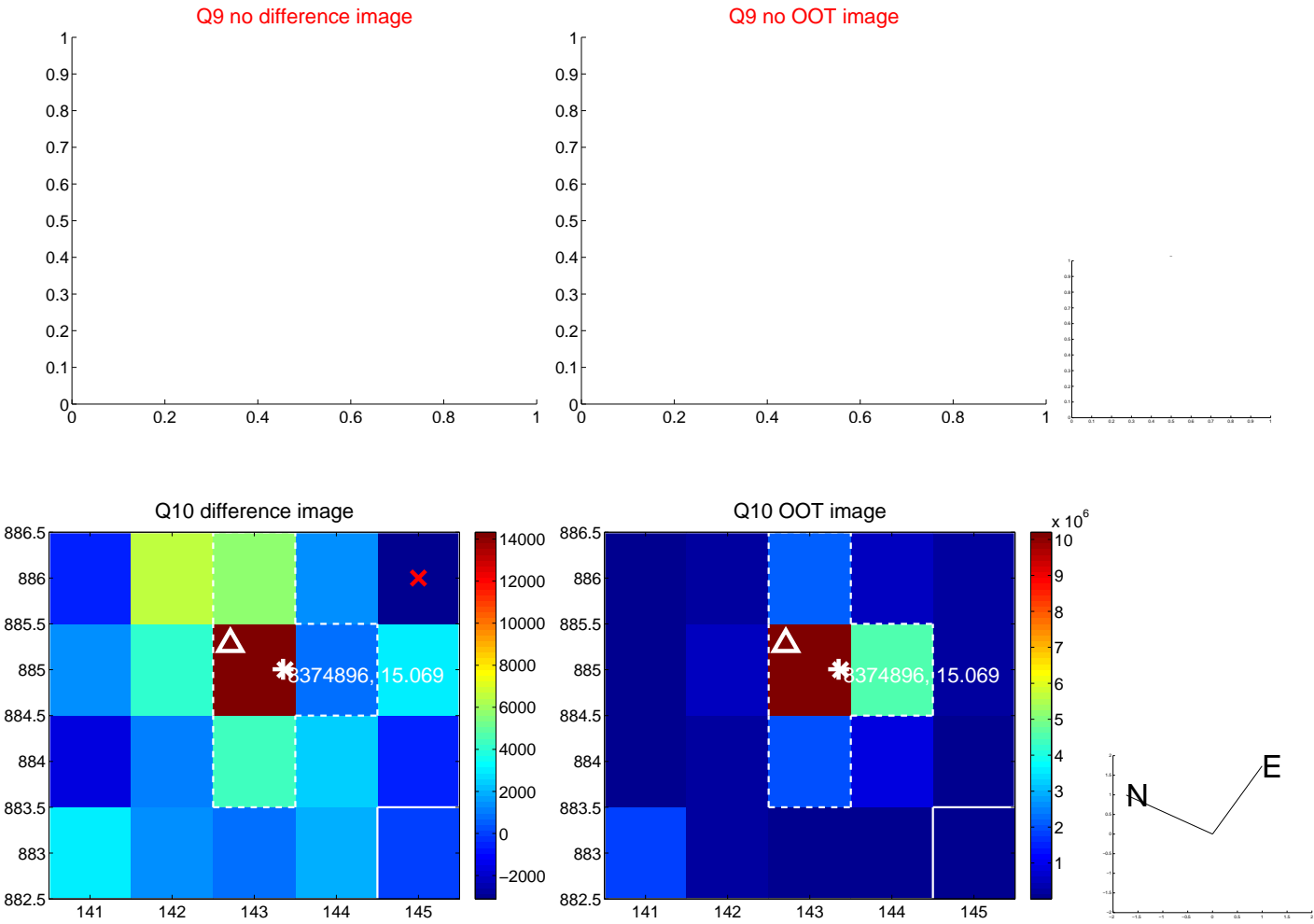
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



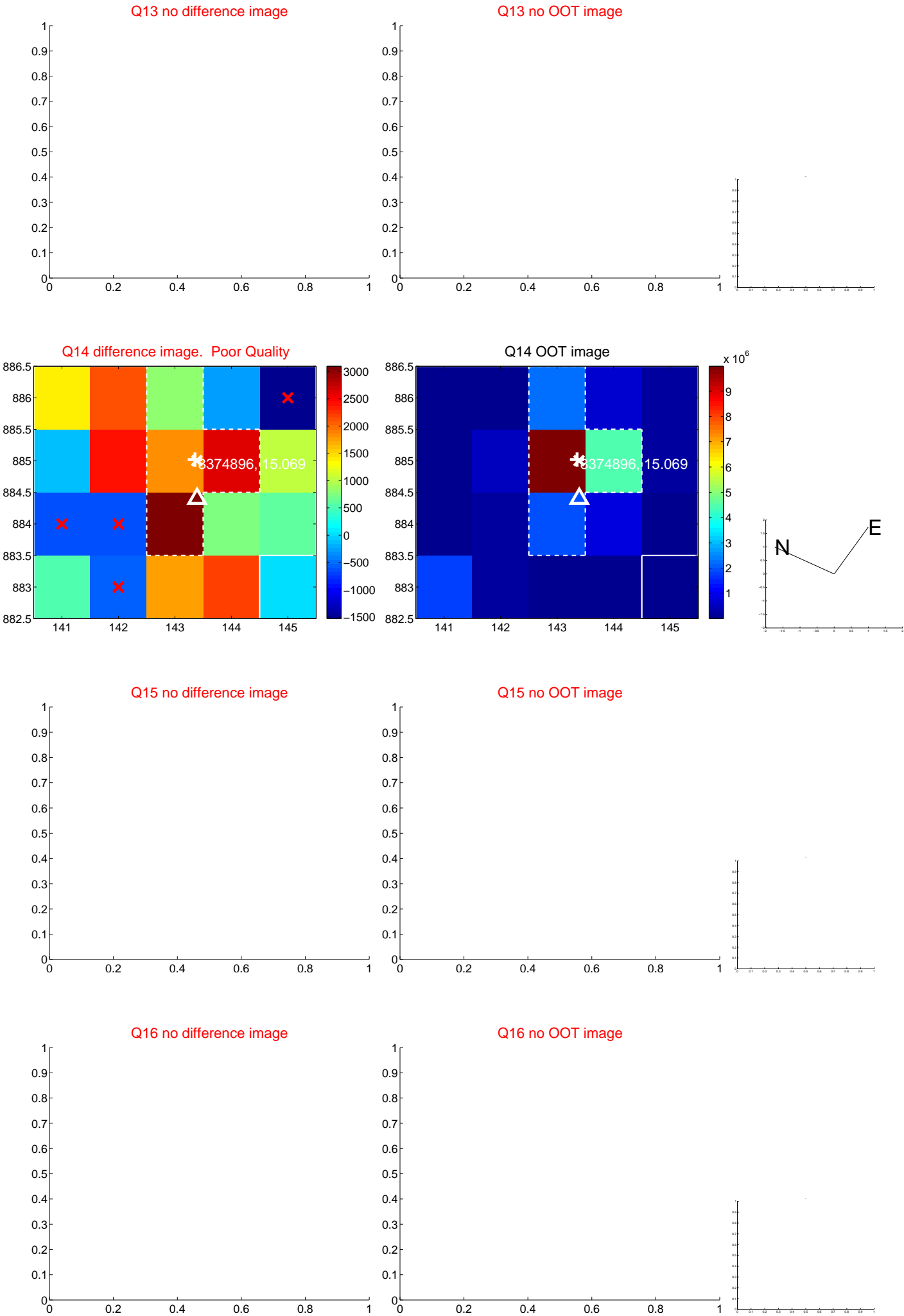
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



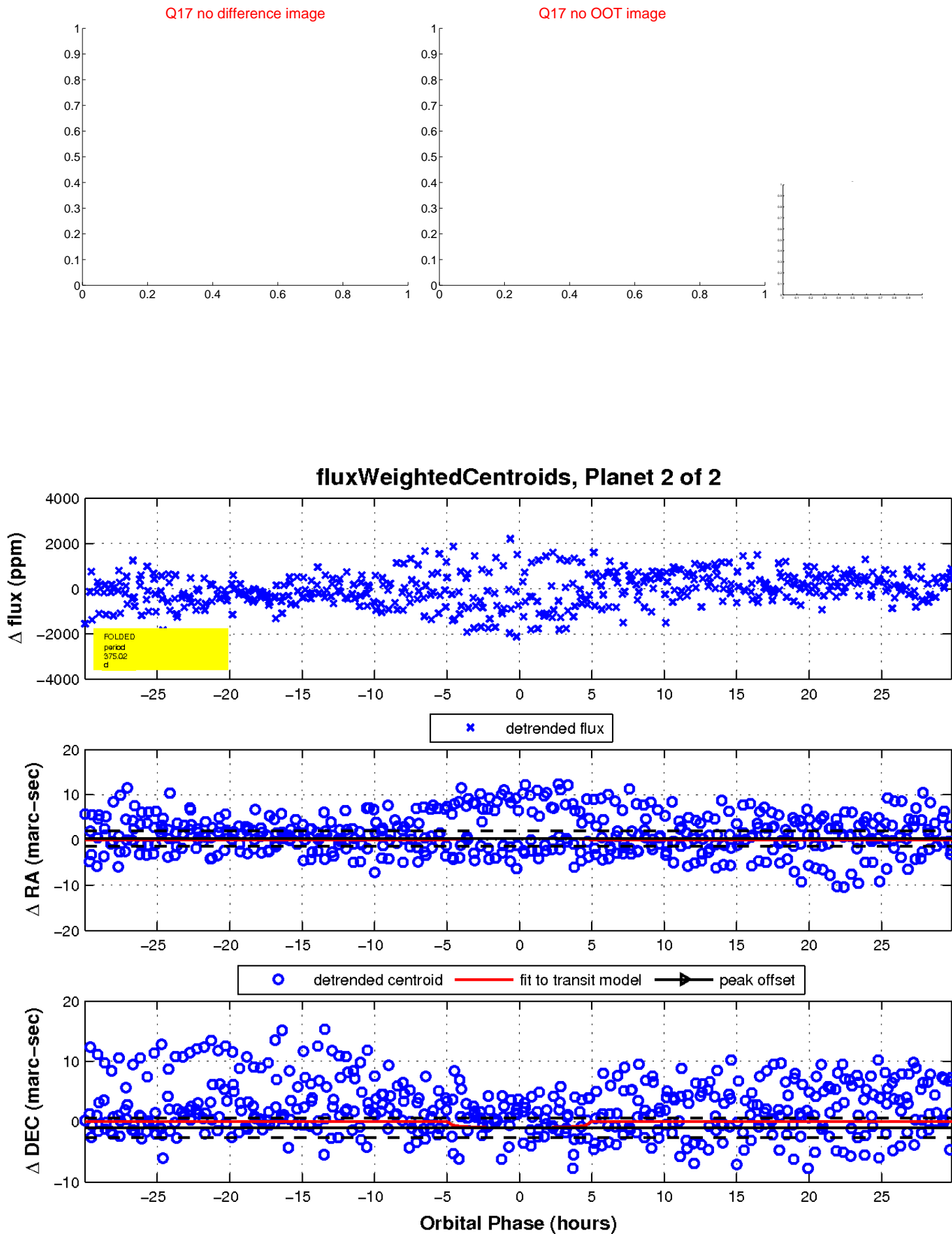
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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

Declination

