

KIC 006037240

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})
006037240-01	OBS	No	487.087151	478.374733	895.1	3.879	7.1	7.3	0.76	5293	2.42	0.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006037240-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

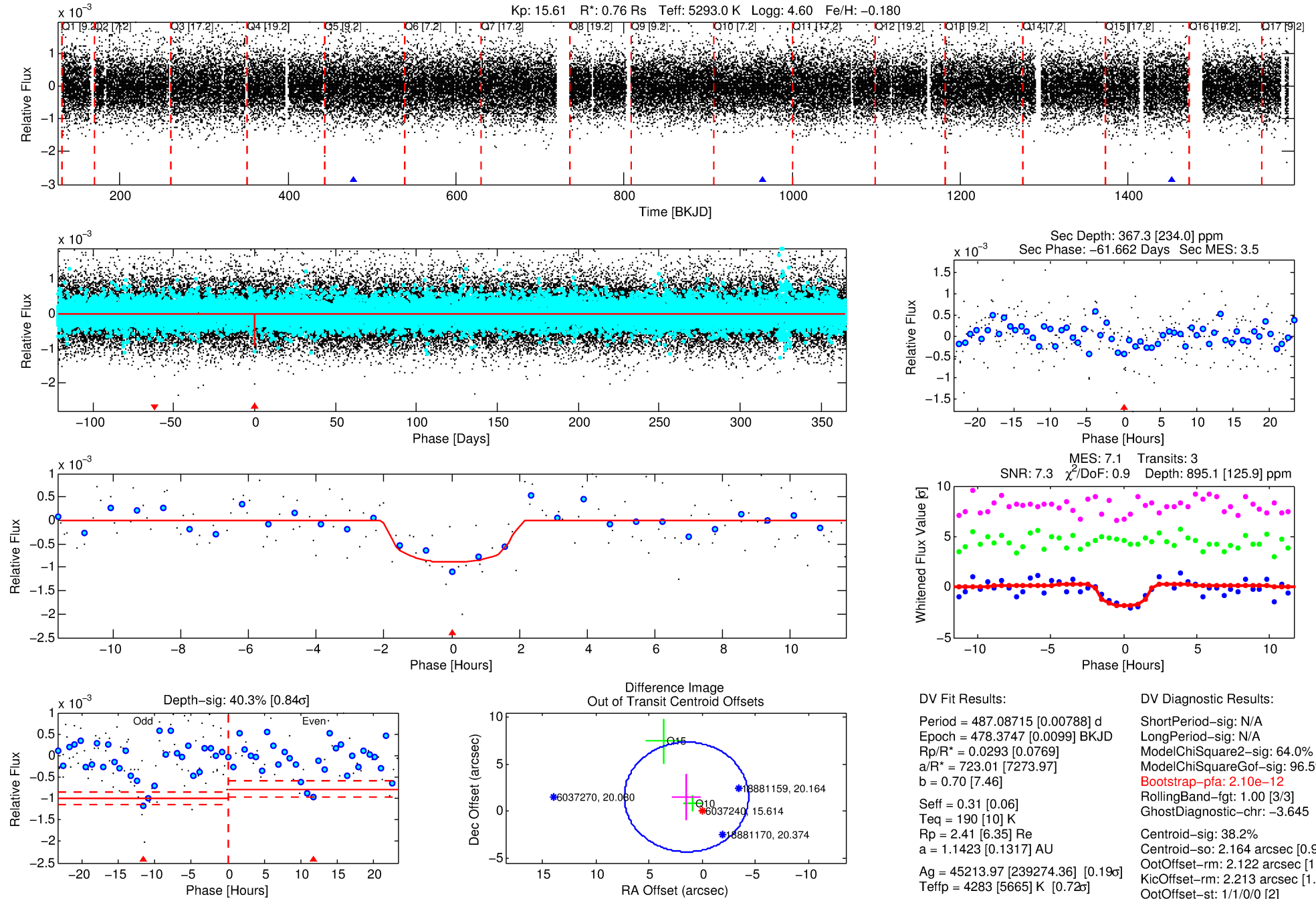
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006037240-01

No Significant Match Found

DV One-Page Summary

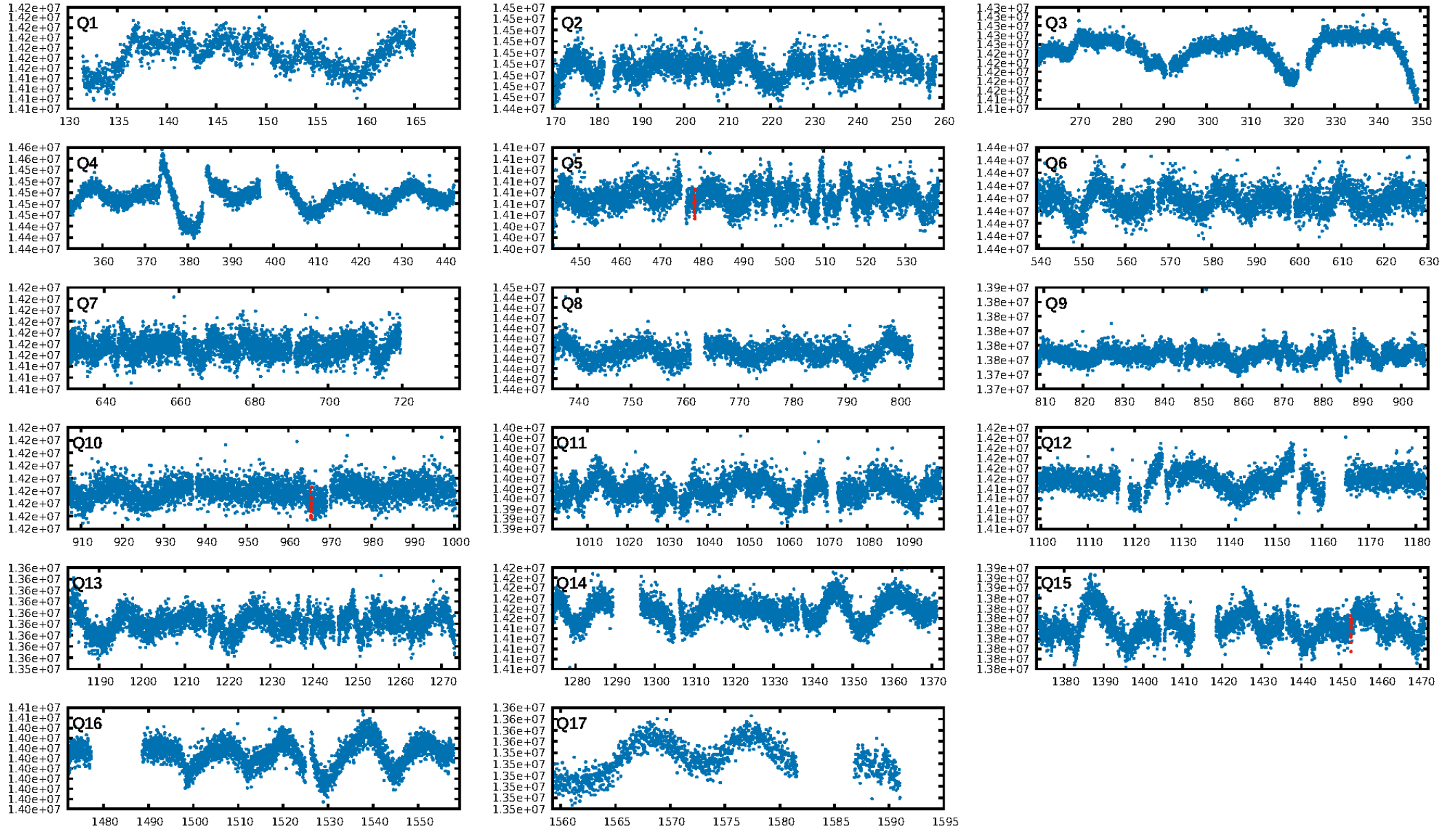
KIC: 6037240 Candidate: 1 of 1 Period: 487.087 d



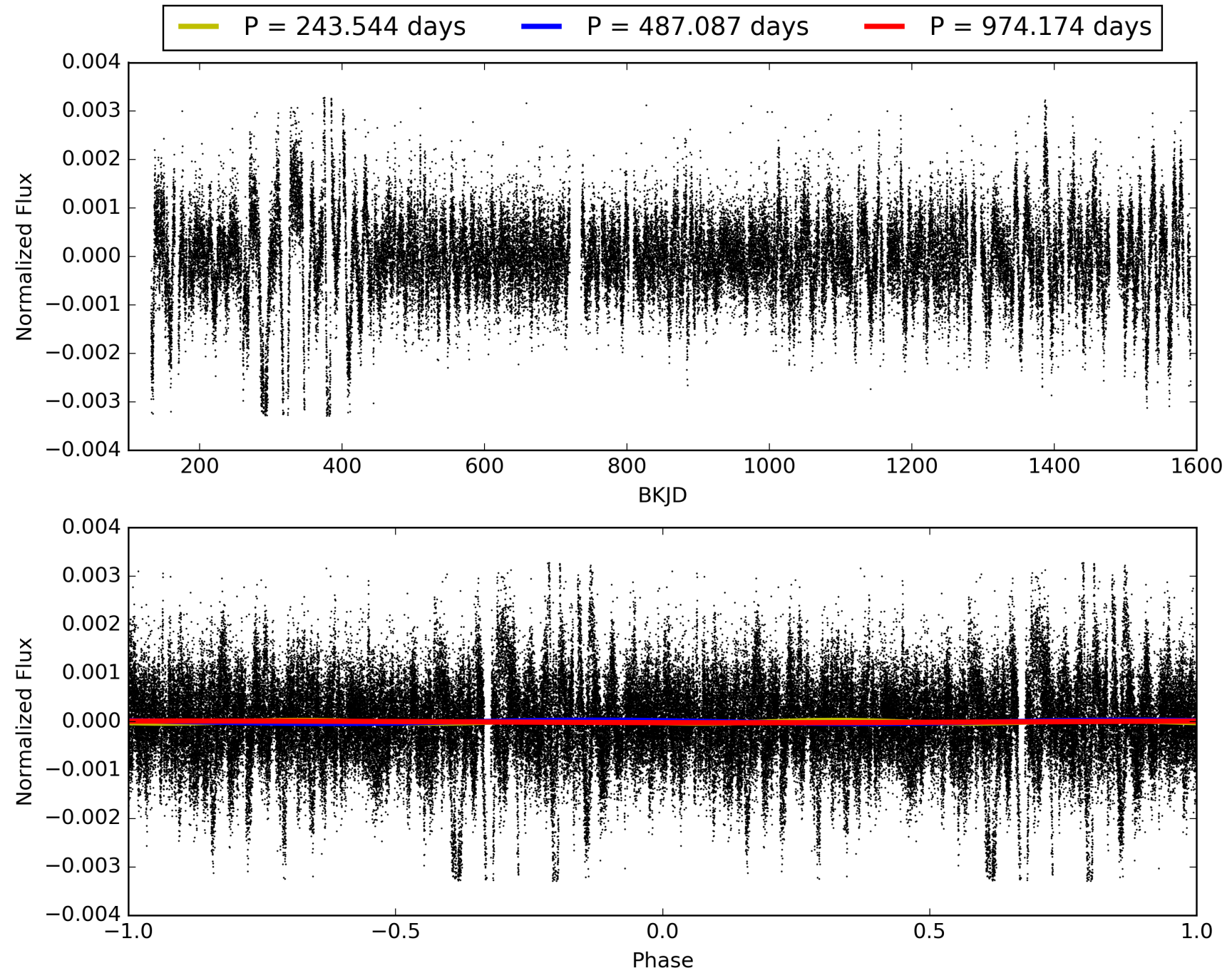
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:25:30 Z

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

TCE 006037240-01, PDC Light Curves

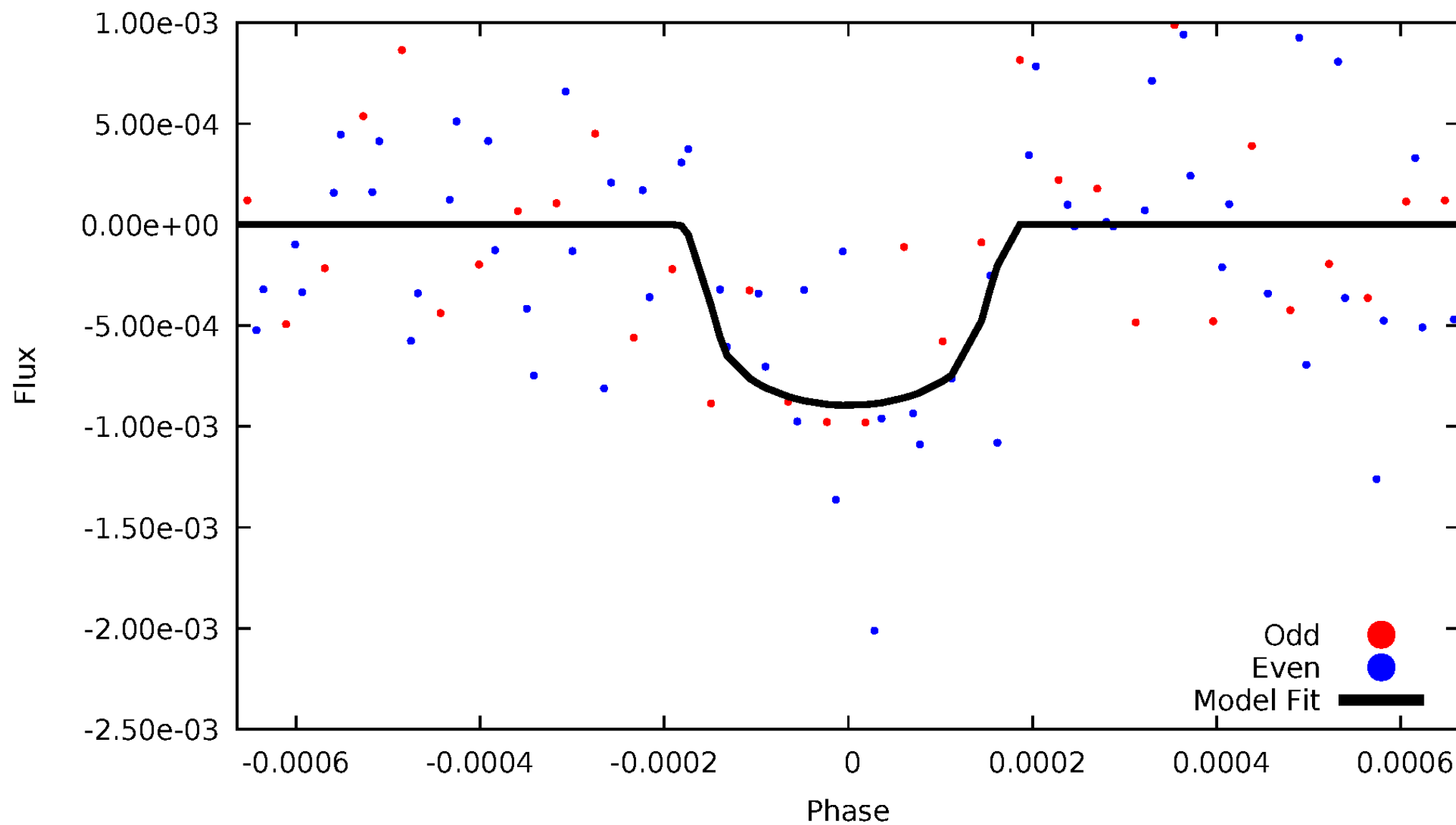


TCE 006037240-01



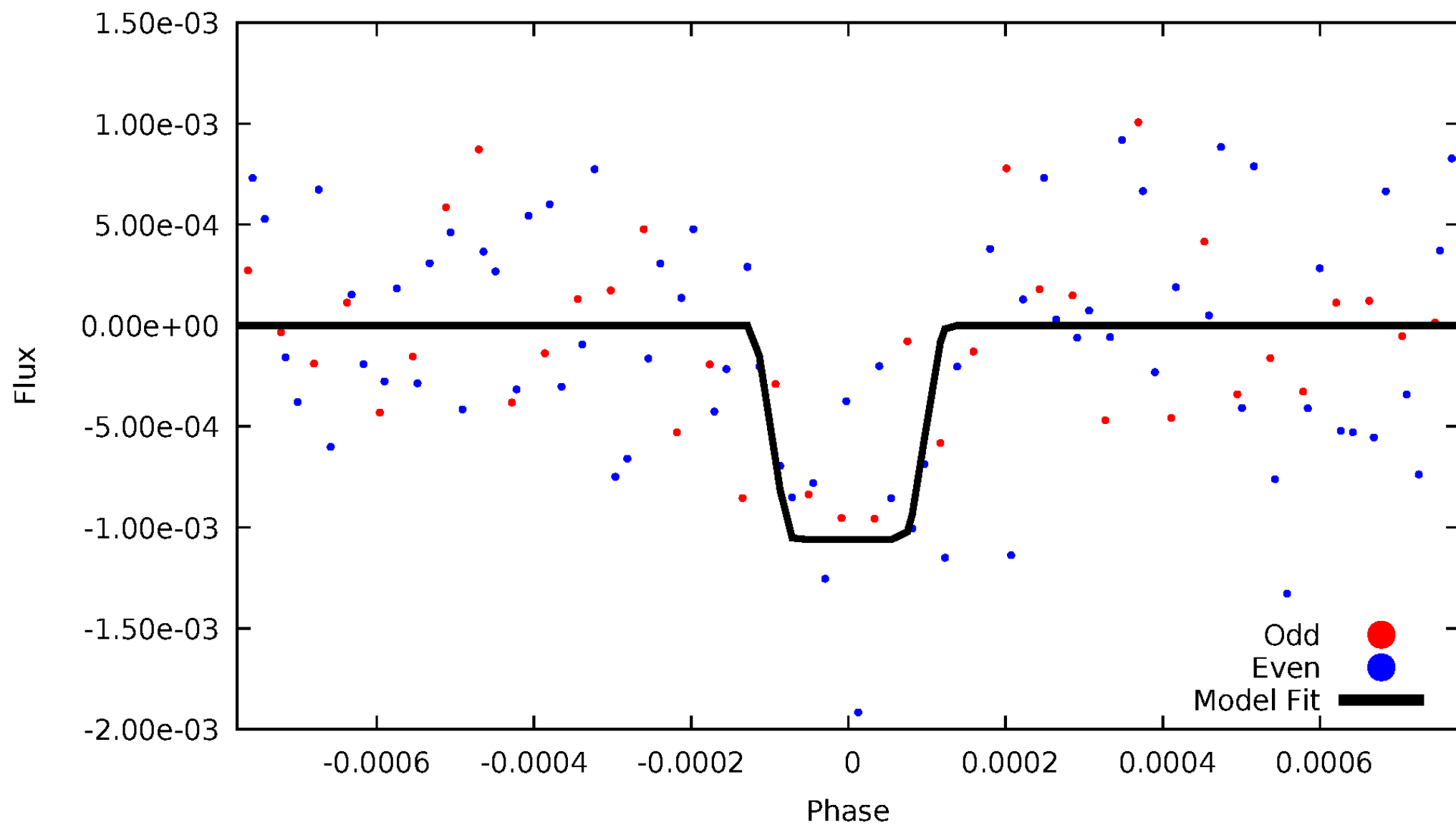
DV Odd/Even

TCE 006037240-01



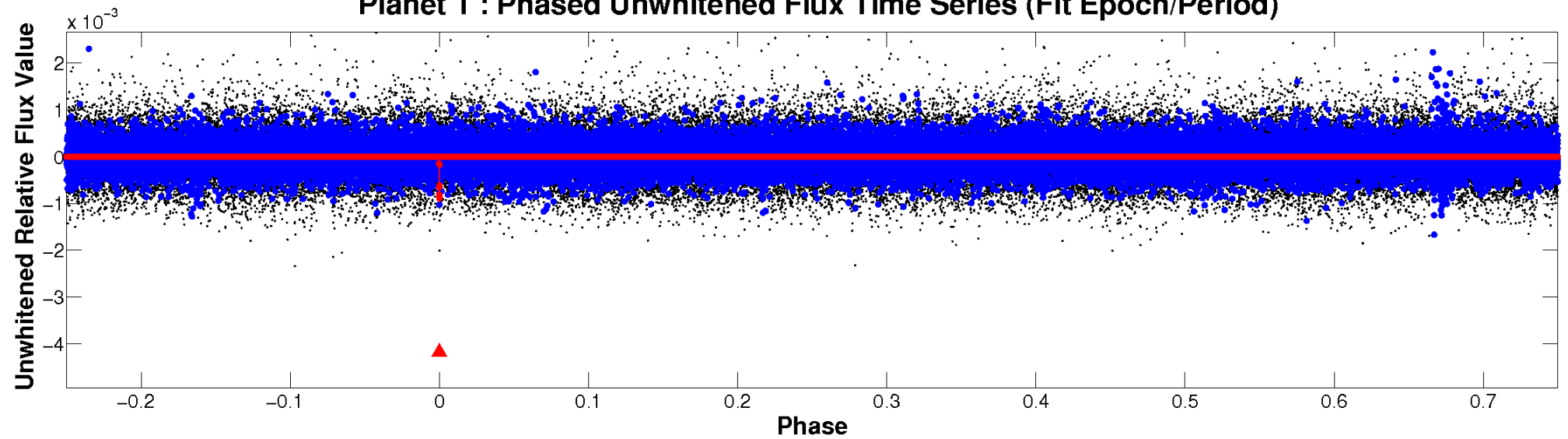
ALT Odd/Even

TCE 006037240-01

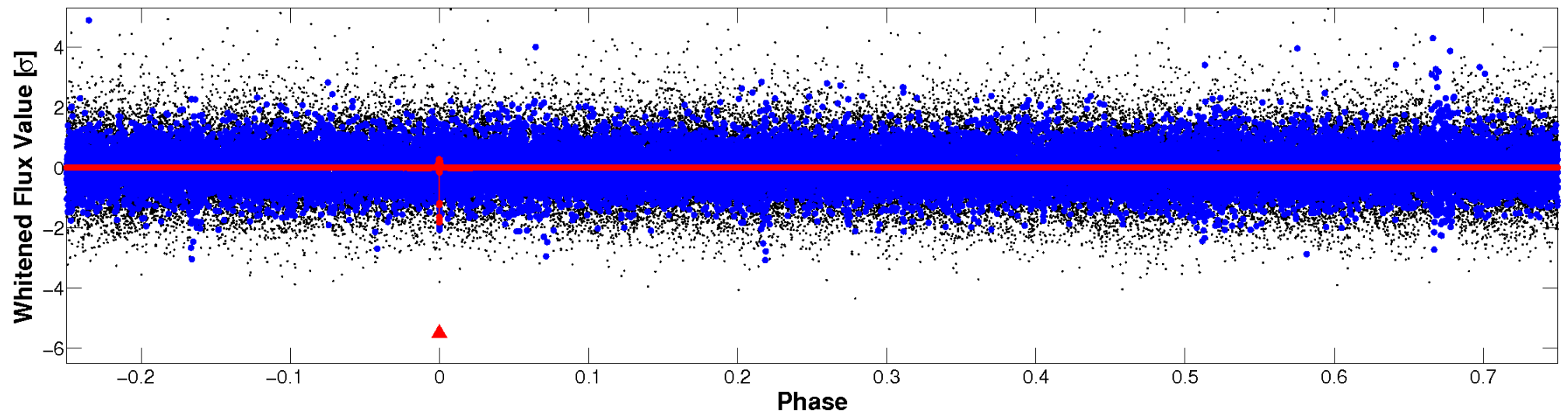


Non-Whitened Vs. Whitened Light Curve

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

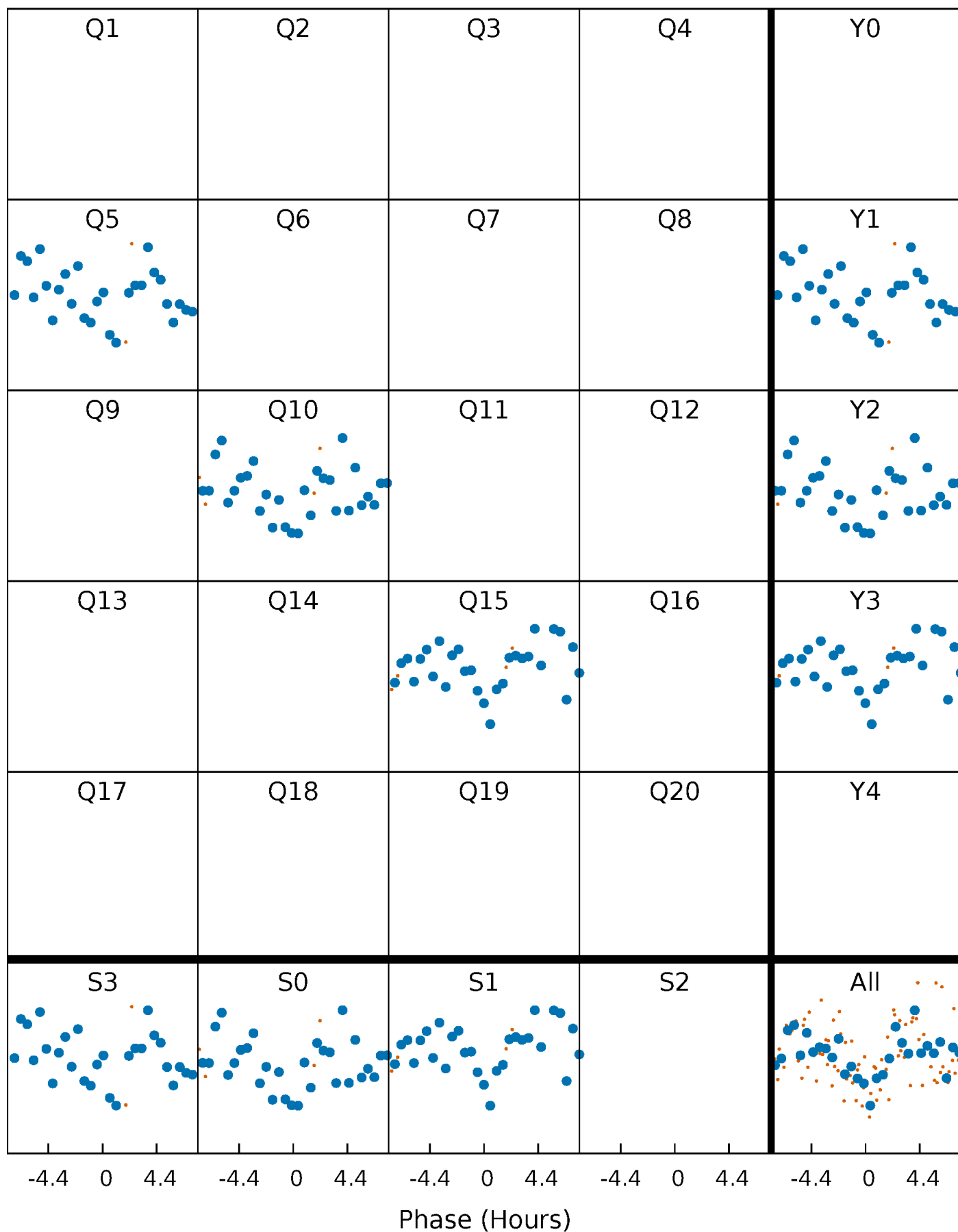


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



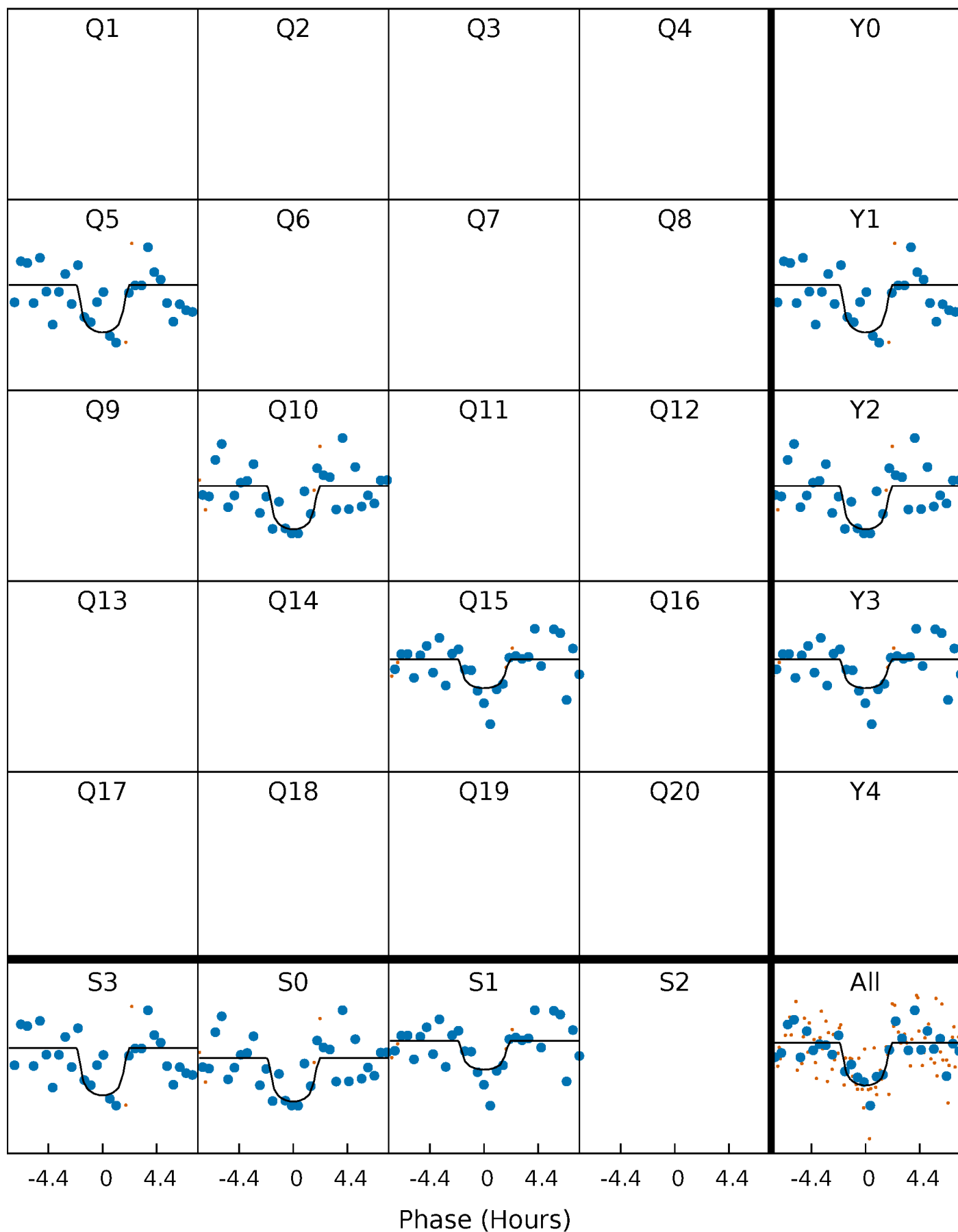
PDC Quarter-Phased Transit Curves

TCE 006037240-01 P=487.087151 Days $T_0=478.374733$ (BKJD)



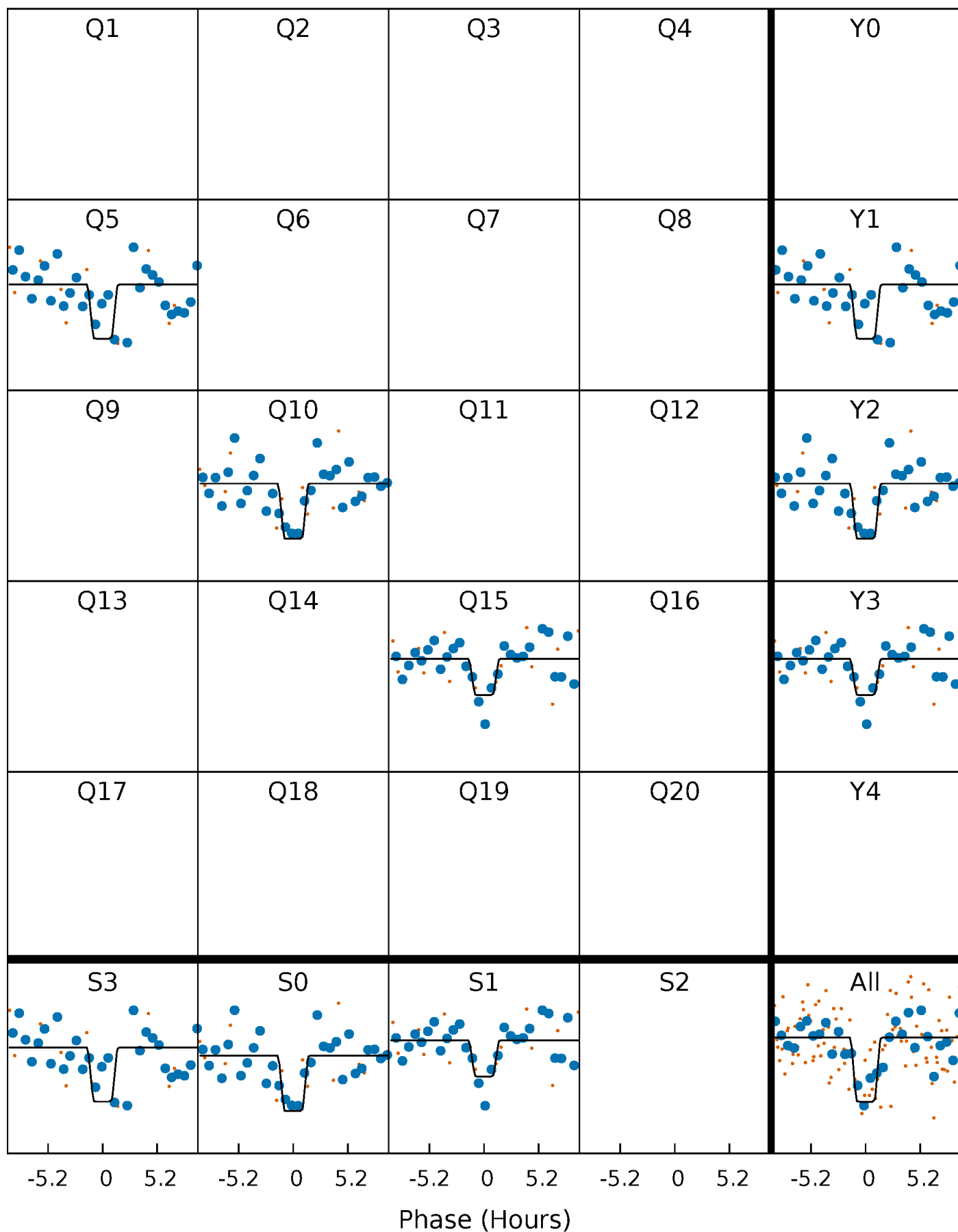
DV Quarter-Phased Transit Curves

TCE 006037240-01 P=487.087151 Days $T_0=478.374733$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

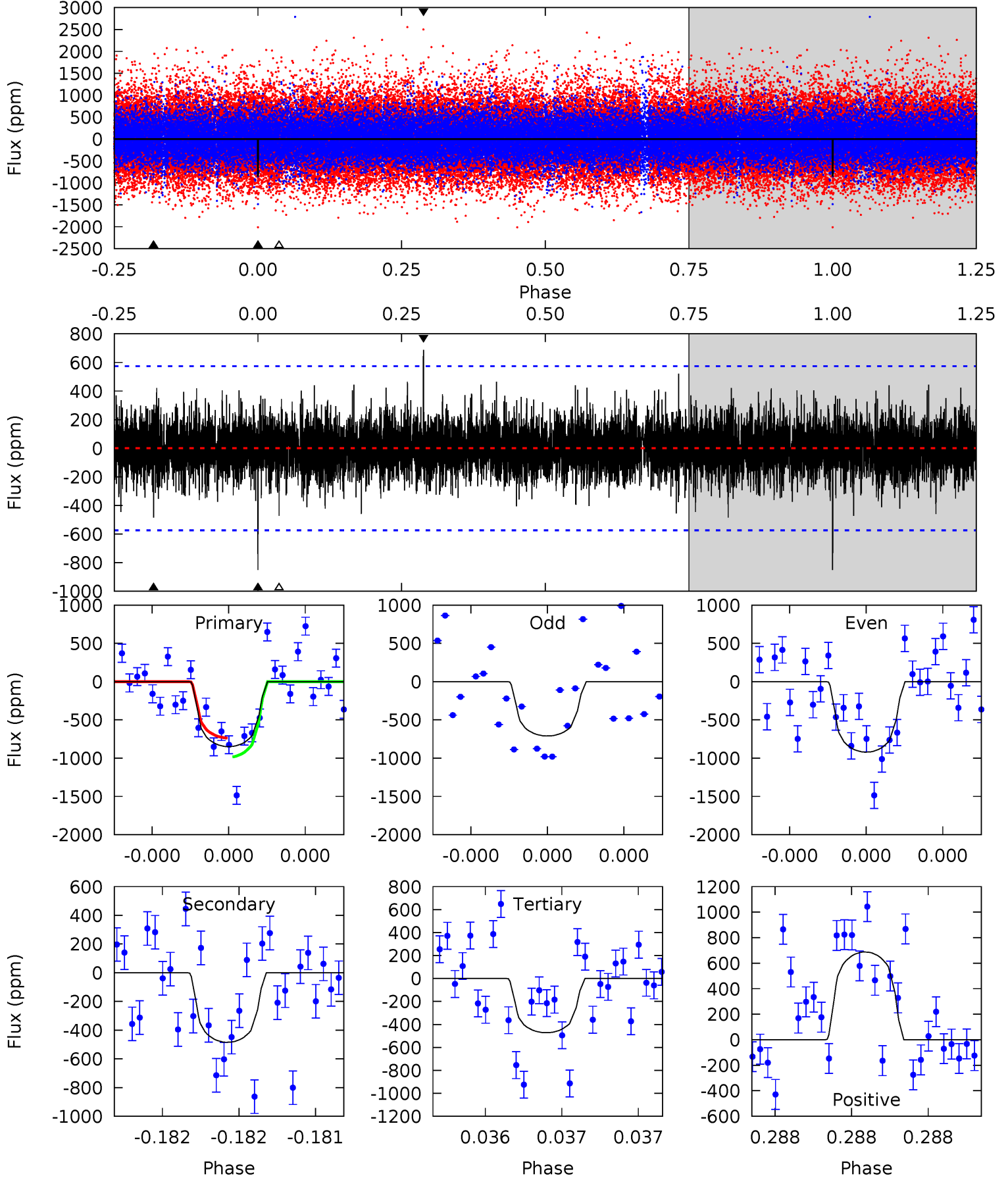
TCE 006037240-01 P=487.102014 Days $T_0=478.352698$ (BKJD)



DV Model-Shift Uniqueness Test

006037240-01, P = 487.087151 Days, E = 478.374733 Days

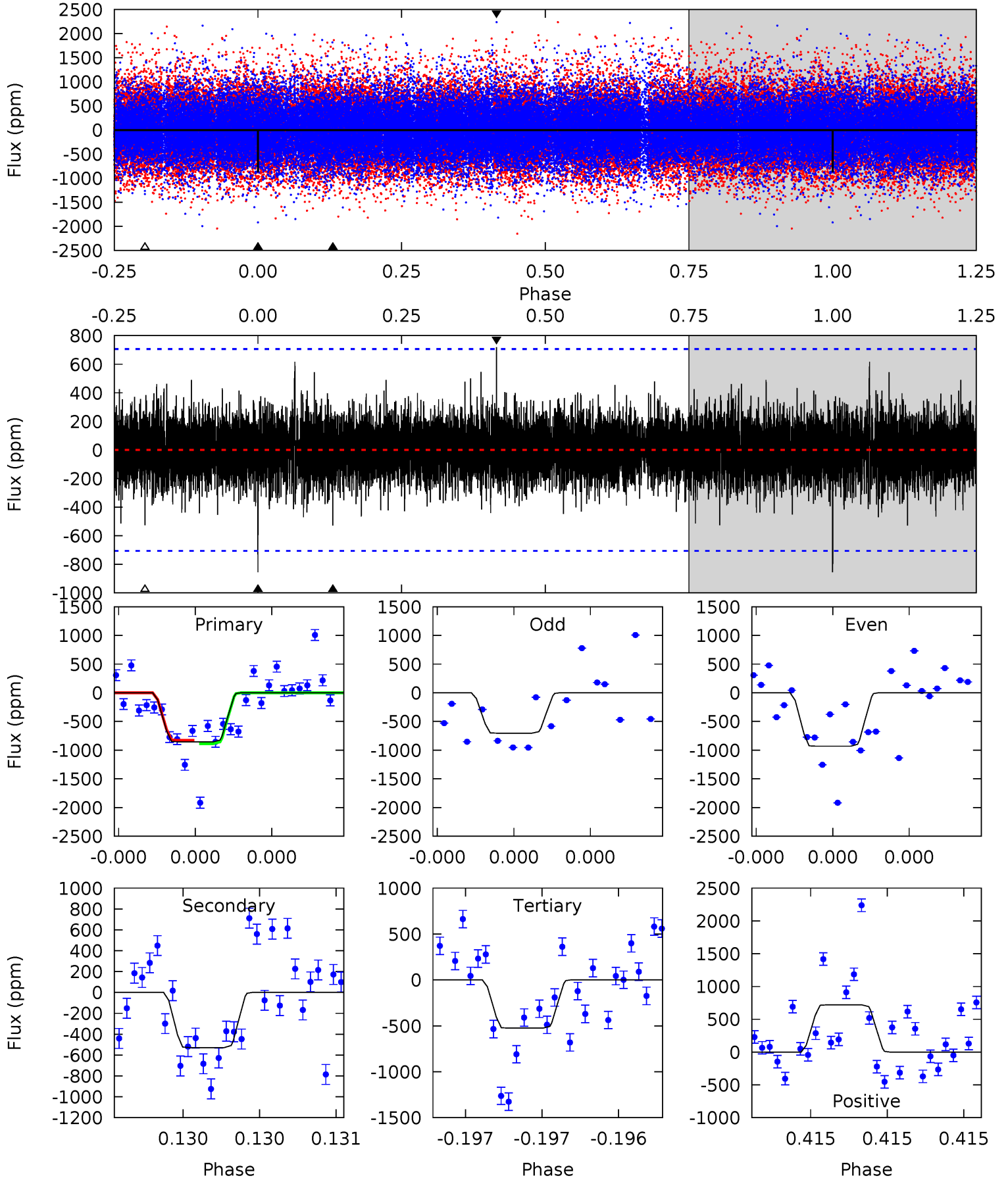
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.32	4.75	4.63	6.74	5.63	3.56	1.20	3.69	1.58	0.12	-1.99	0.99	1.18	0.45	1.21



Alt Model-Shift Uniqueness Test

006037240-01, P = 487.102014 Days, E = 478.352698 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.91	4.27	4.24	5.81	5.71	3.68	1.06	2.67	1.10	0.03	-1.54	0.86	1.22	0.46	0.24



Stellar Parameters For KIC 006037240

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5293^{+143}_{-159}	$4.604^{+0.032}_{-0.091}$	$-0.180^{+0.300}_{-0.300}$	$0.756^{+0.104}_{-0.069}$	$0.846^{+0.061}_{-0.104}$	$2.765^{+0.457}_{-0.830}$
	+3%/-3%	+1%/-2%	+167%/-167%	+14%/-9%	+7%/-12%	+17%/-30%
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 006037240-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-485 ± 102	$5.47^{+5.47}_{-3.76}$	269^{+11}_{-10}	3498^{+2001}_{-623}	$11284^{+105355}_{-8466}$
Alt.	-528 ± 124	$5.23^{+5.62}_{-3.42}$	269^{+11}_{-9}	3657^{+1898}_{-751}	$13793^{+107441}_{-10780}$

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

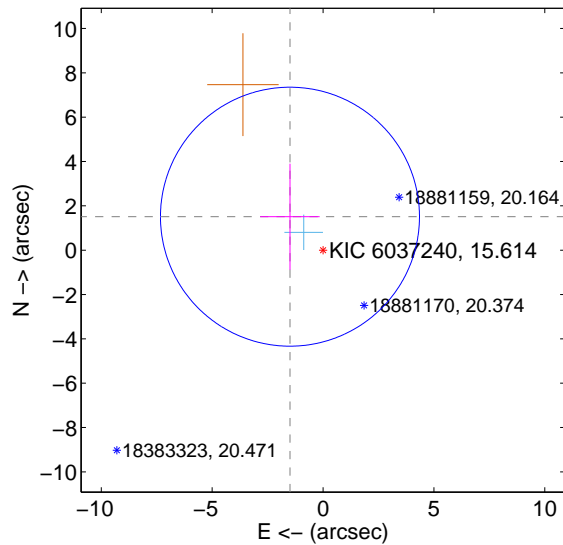
Supplemental centroid analysis for 006037240-01. Kepler magnitude: 15.61. Transit SNR 7.33

There are 1 quarters with good PRF difference image offsets

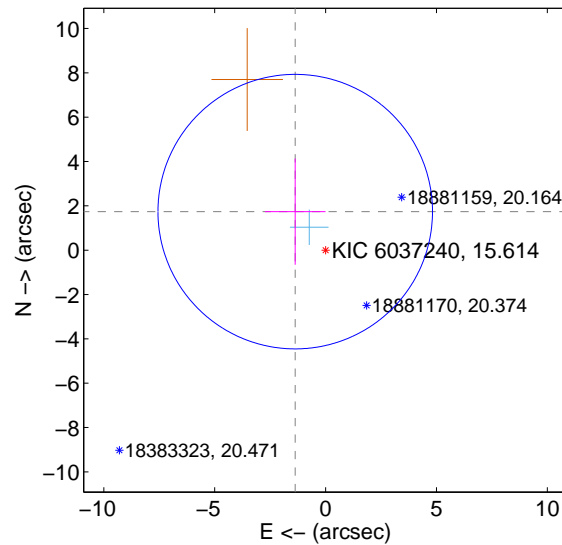
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.122 ± 1.947	1.09	1.491 ± 1.341	1.510 ± 2.394
PRF-fit source offset from KIC position	2.213 ± 2.064	1.07	1.369 ± 1.367	1.739 ± 2.396
photometric centroid source offset	2.16 ± 2.31	0.94	-1.73 ± 2.20	1.29 ± 2.49

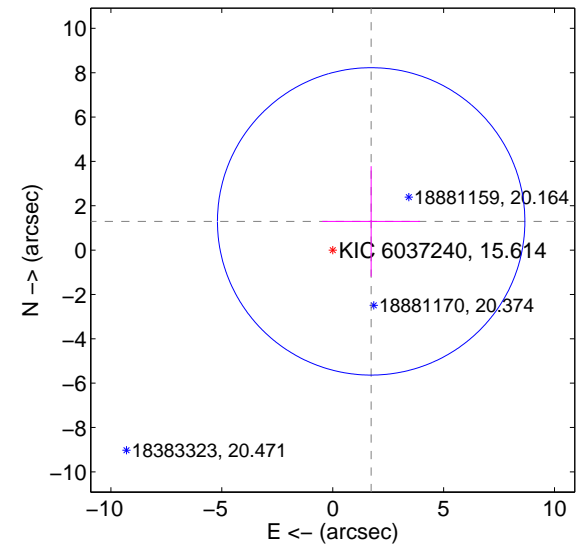
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

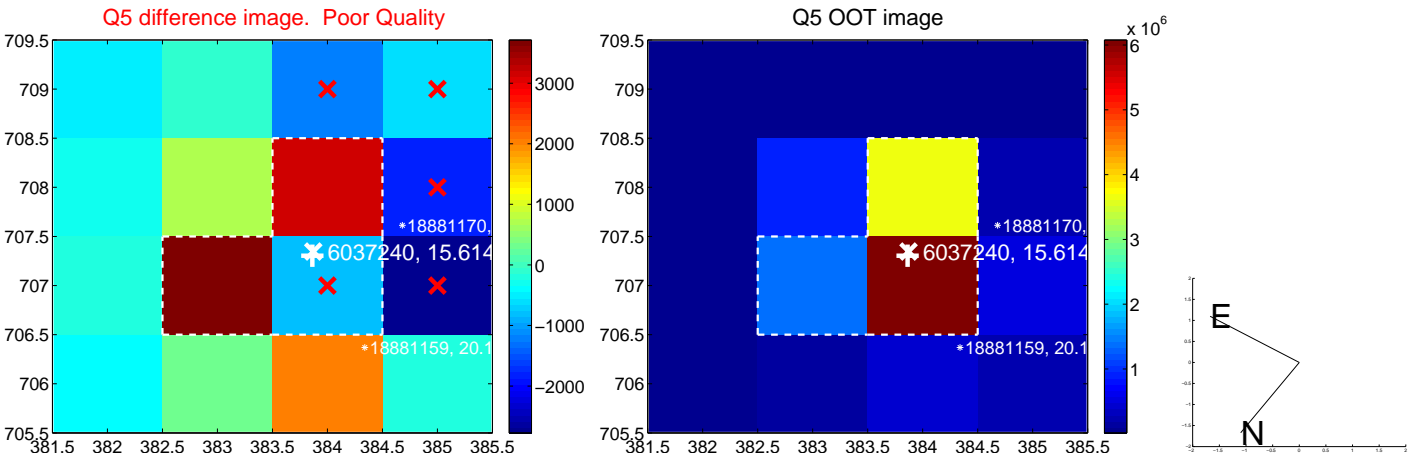


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

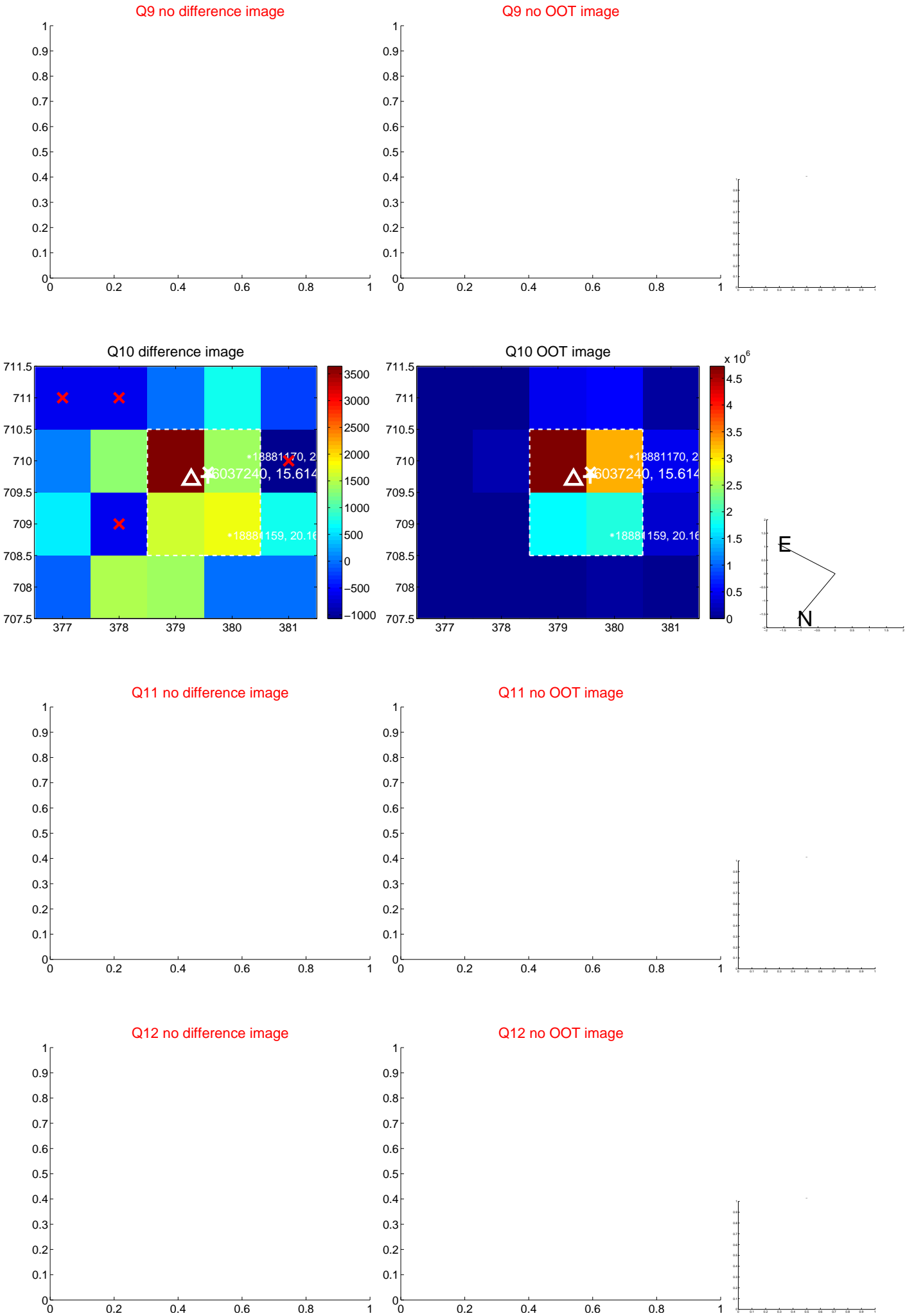
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



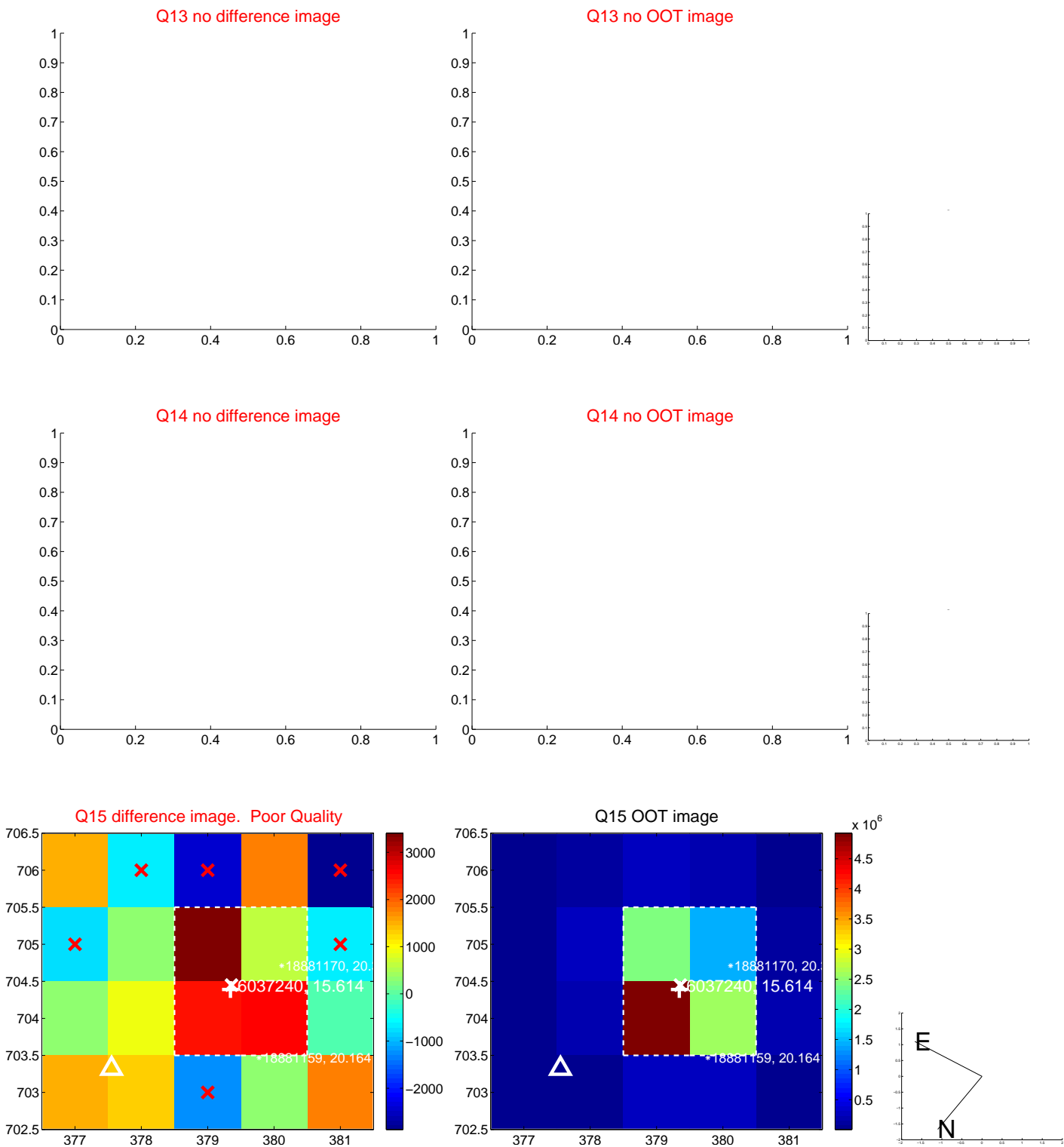
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



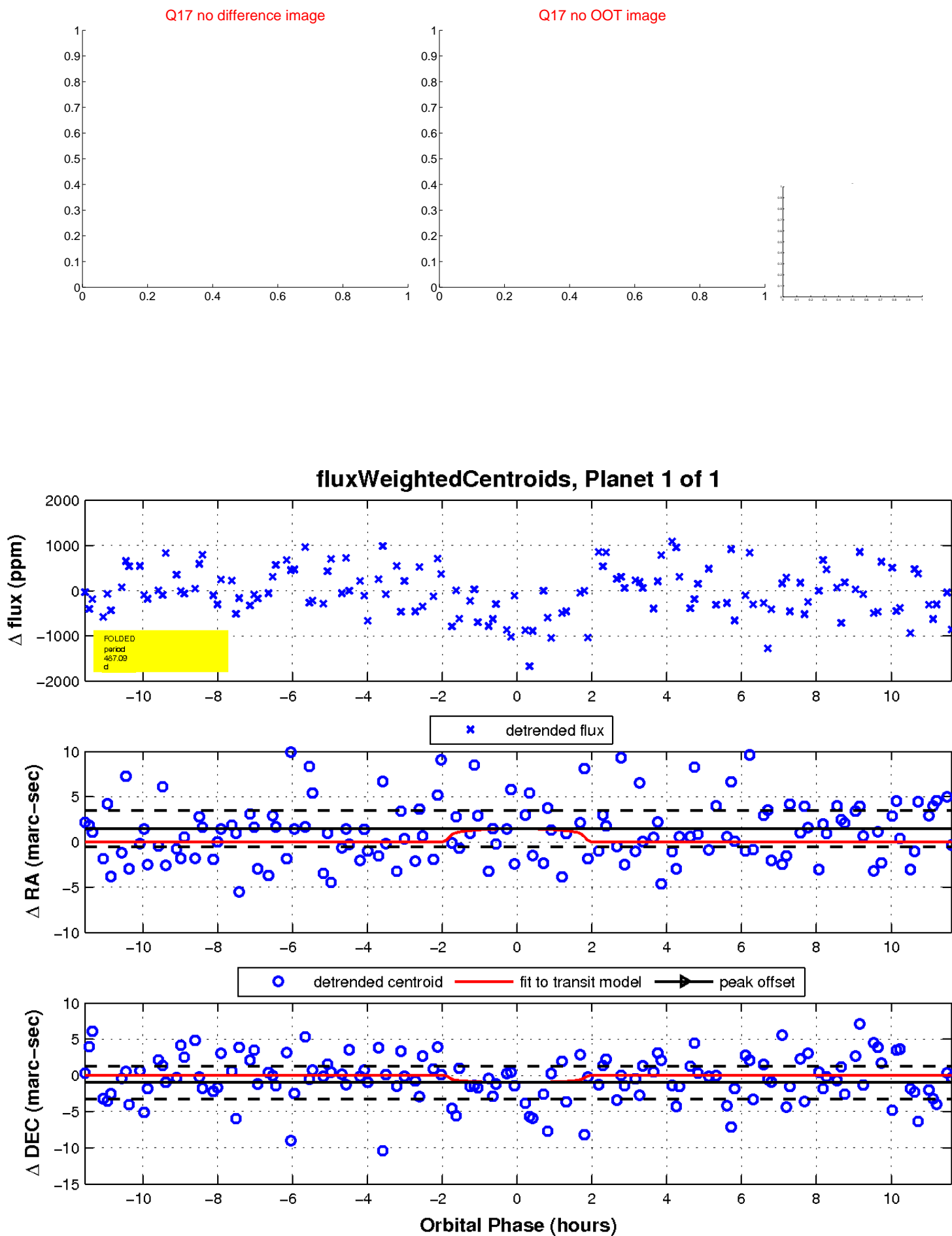
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white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

