

KIC 012060710

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})
012060710-01	OBS	No	394.960367	306.314143	575.6	4.890	10.0	5.8	0.42	3598	1.11	0.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012060710-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

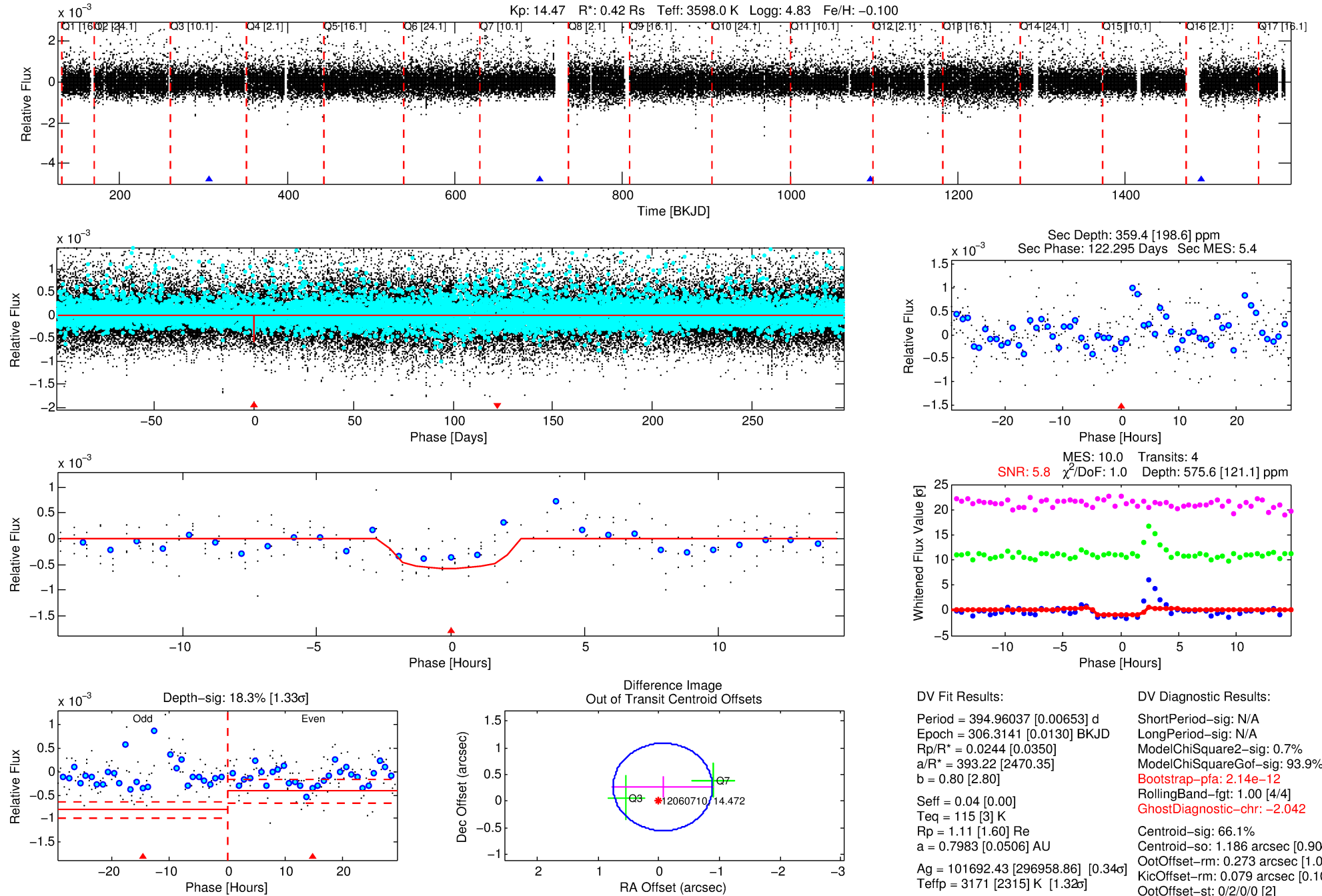
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012060710-01

No Significant Match Found

DV One-Page Summary

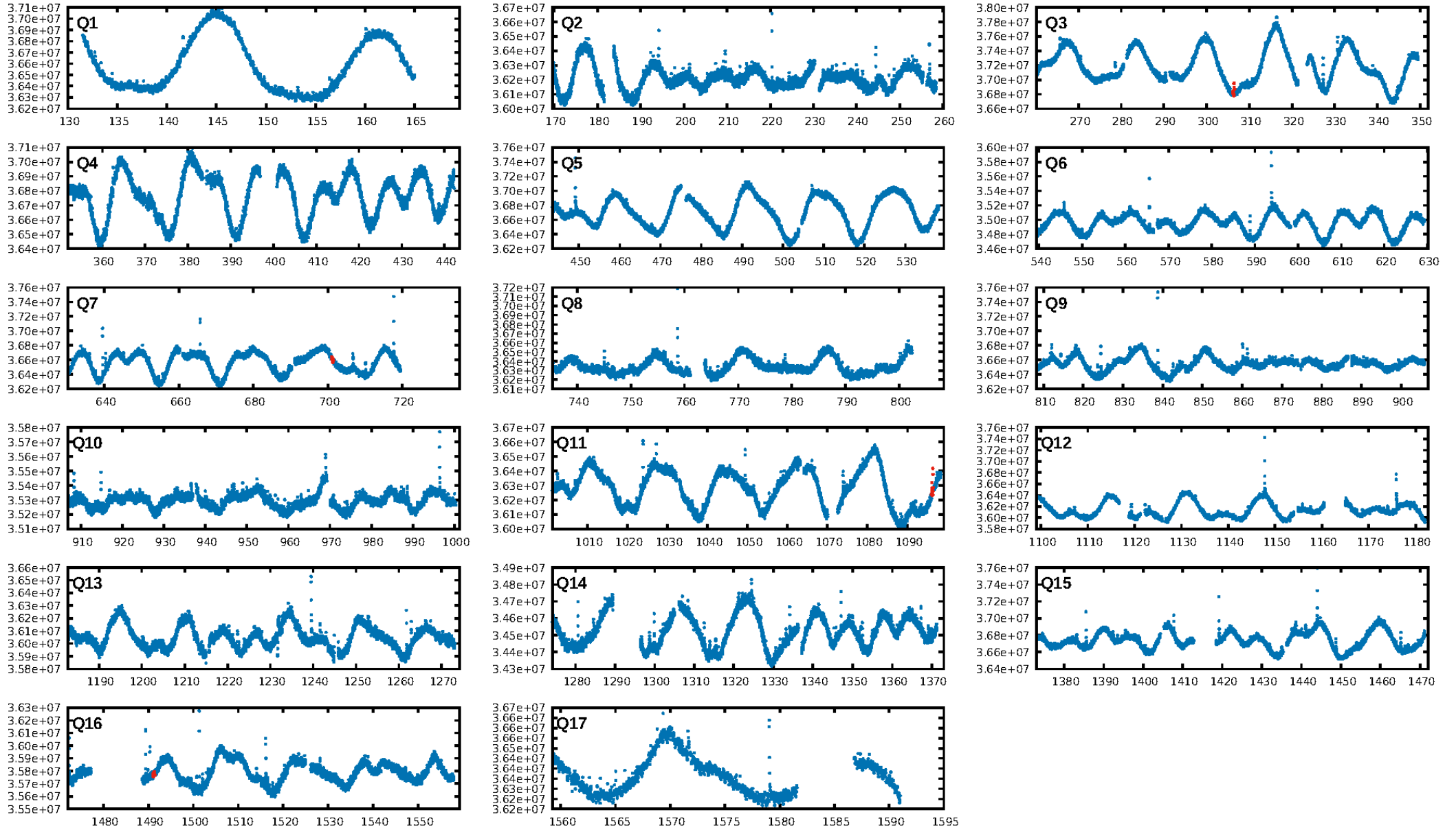
KIC: 12060710 Candidate: 1 of 1 Period: 394.960 d



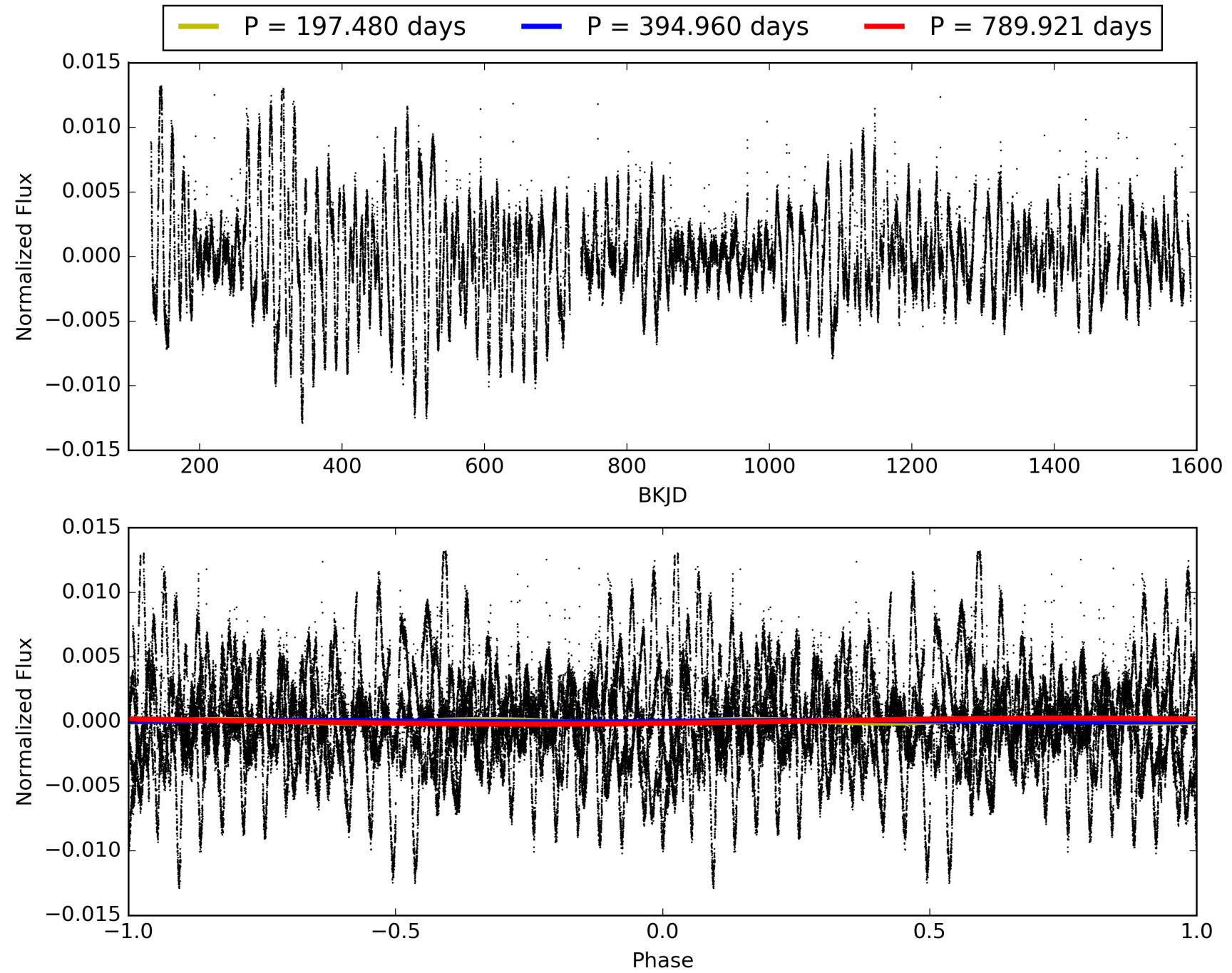
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:54:35 Z

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

TCE 012060710-01, PDC Light Curves

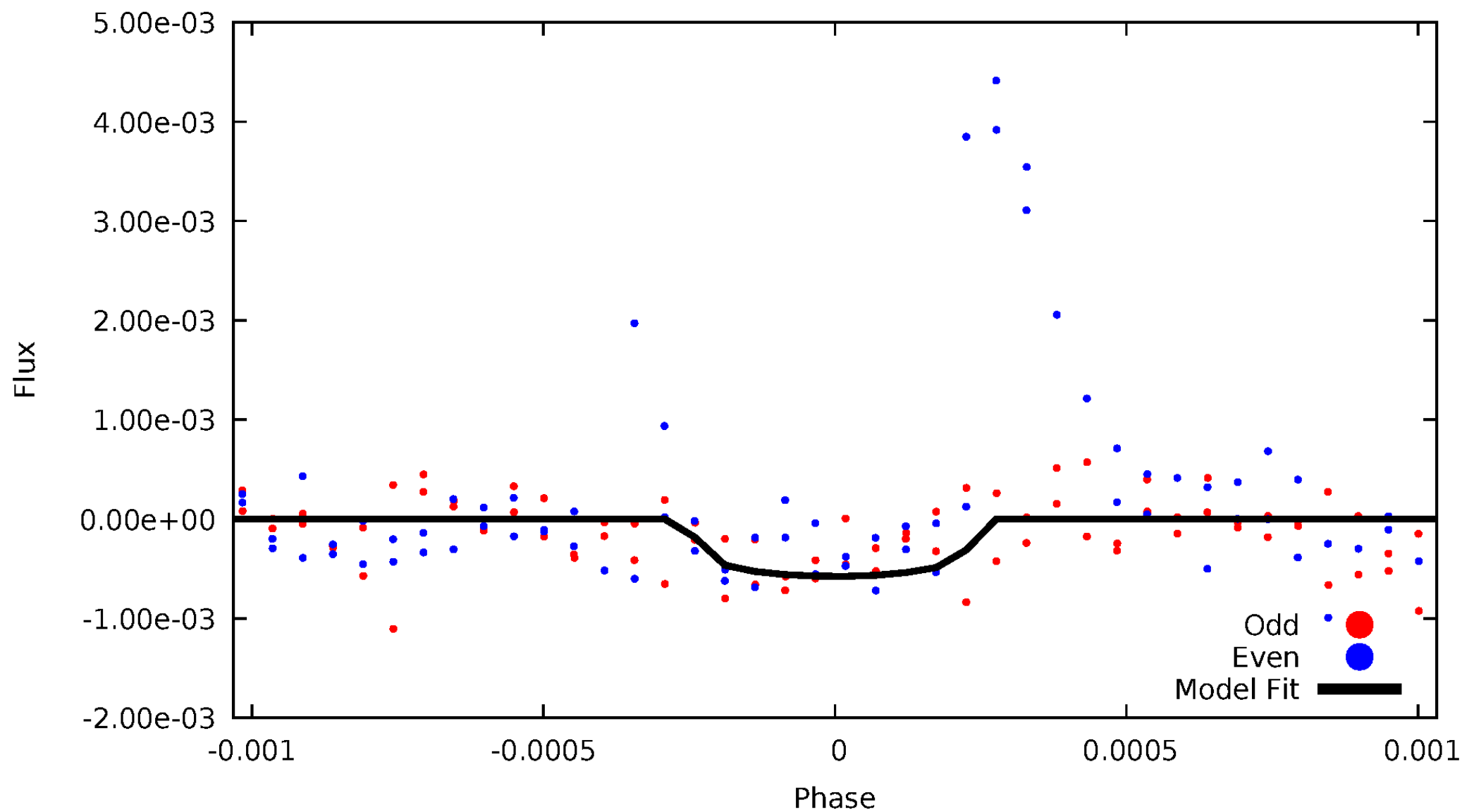


TCE 012060710-01



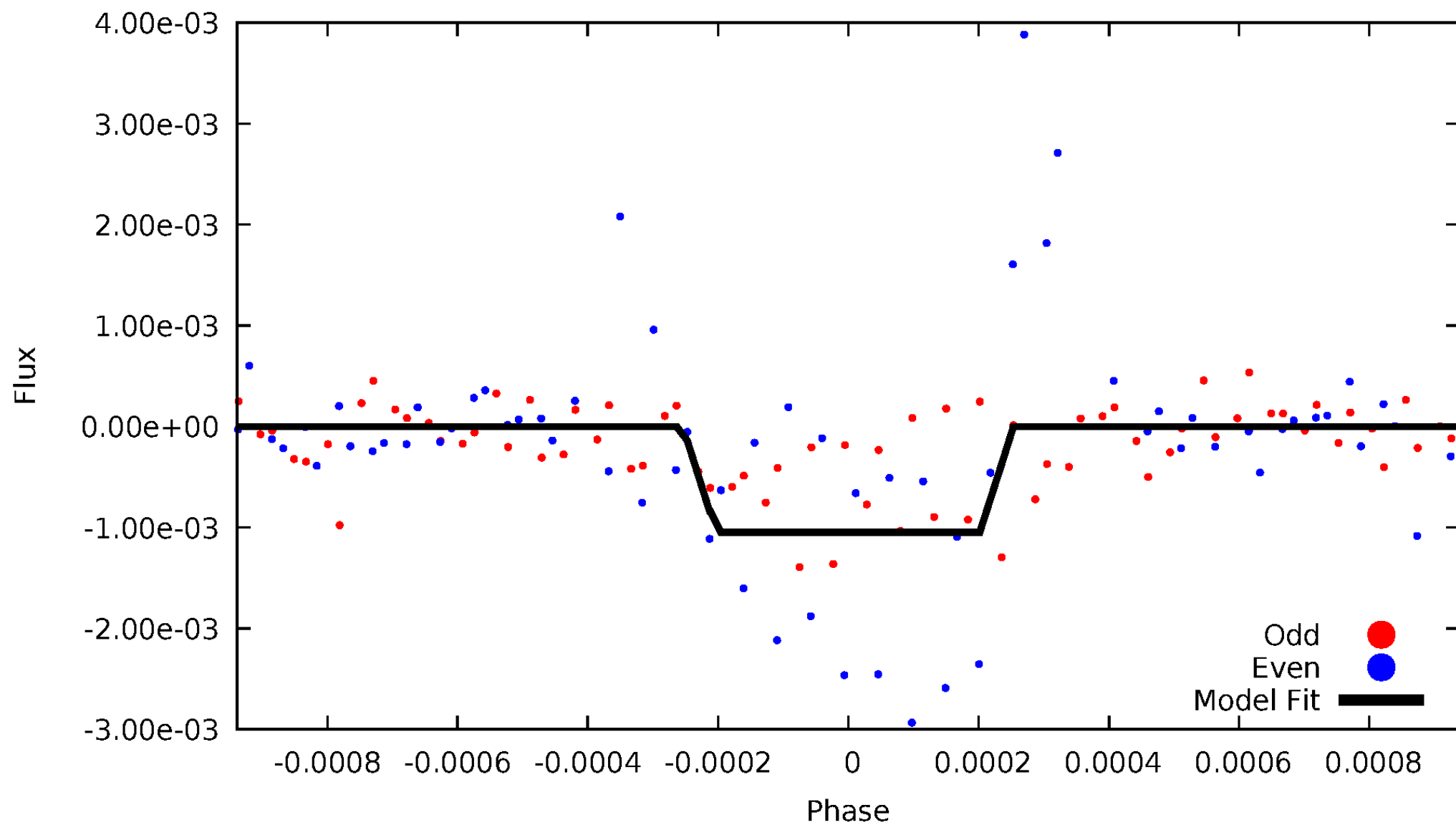
DV Odd/Even

TCE 012060710-01



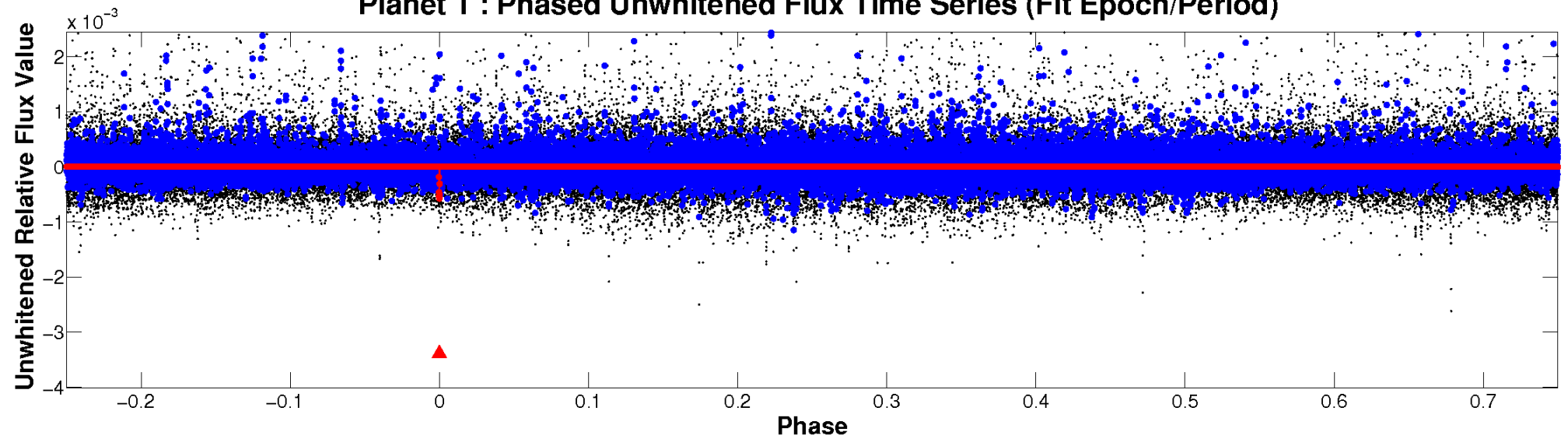
ALT Odd/Even

TCE 012060710-01

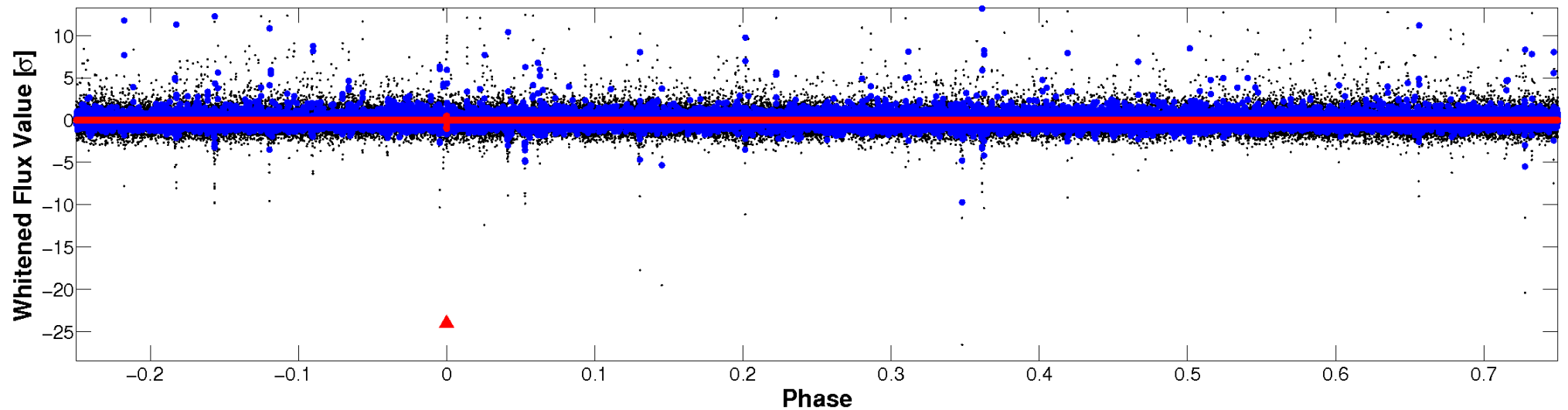


Non-Whitened Vs. Whitened Light Curve

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

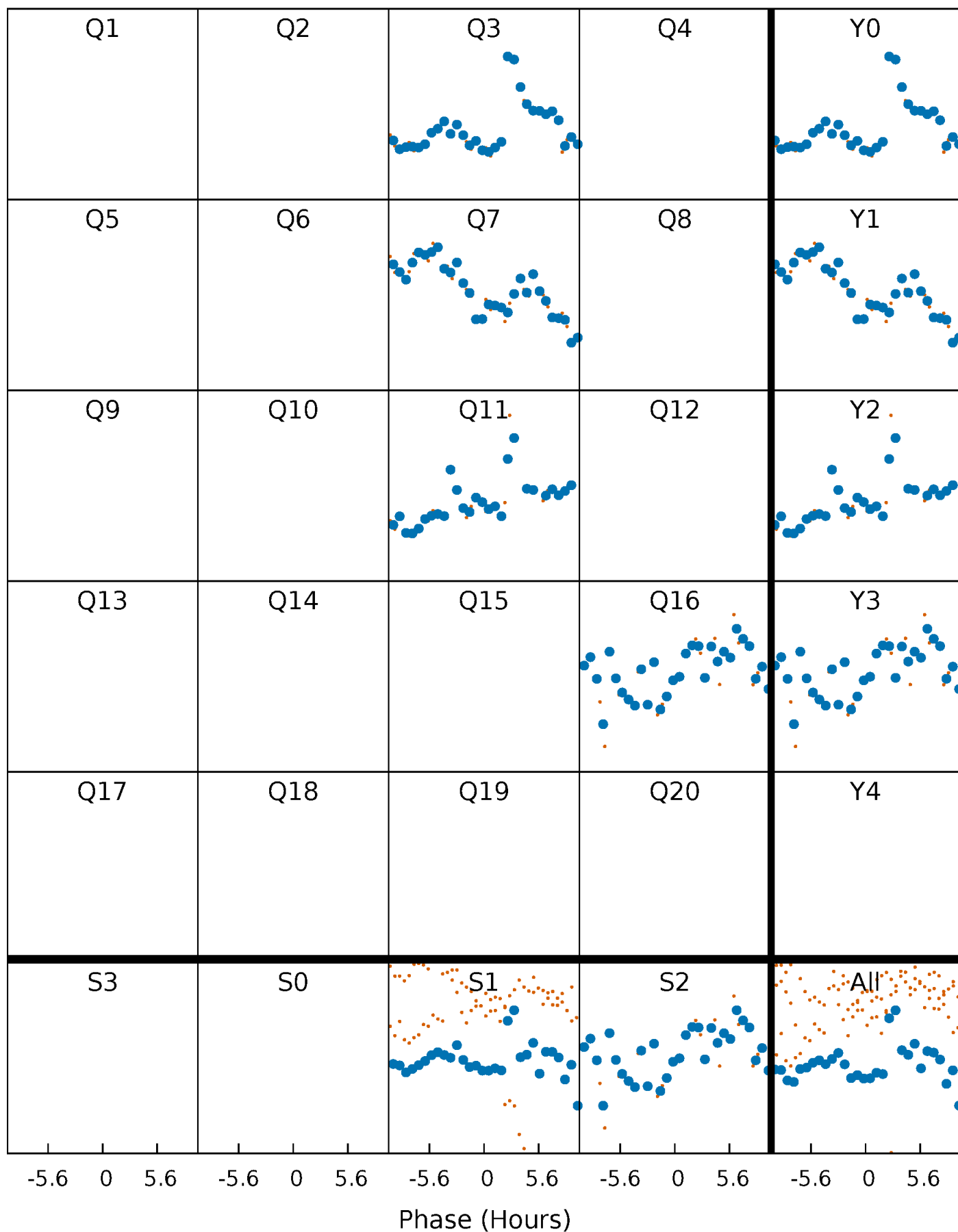


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



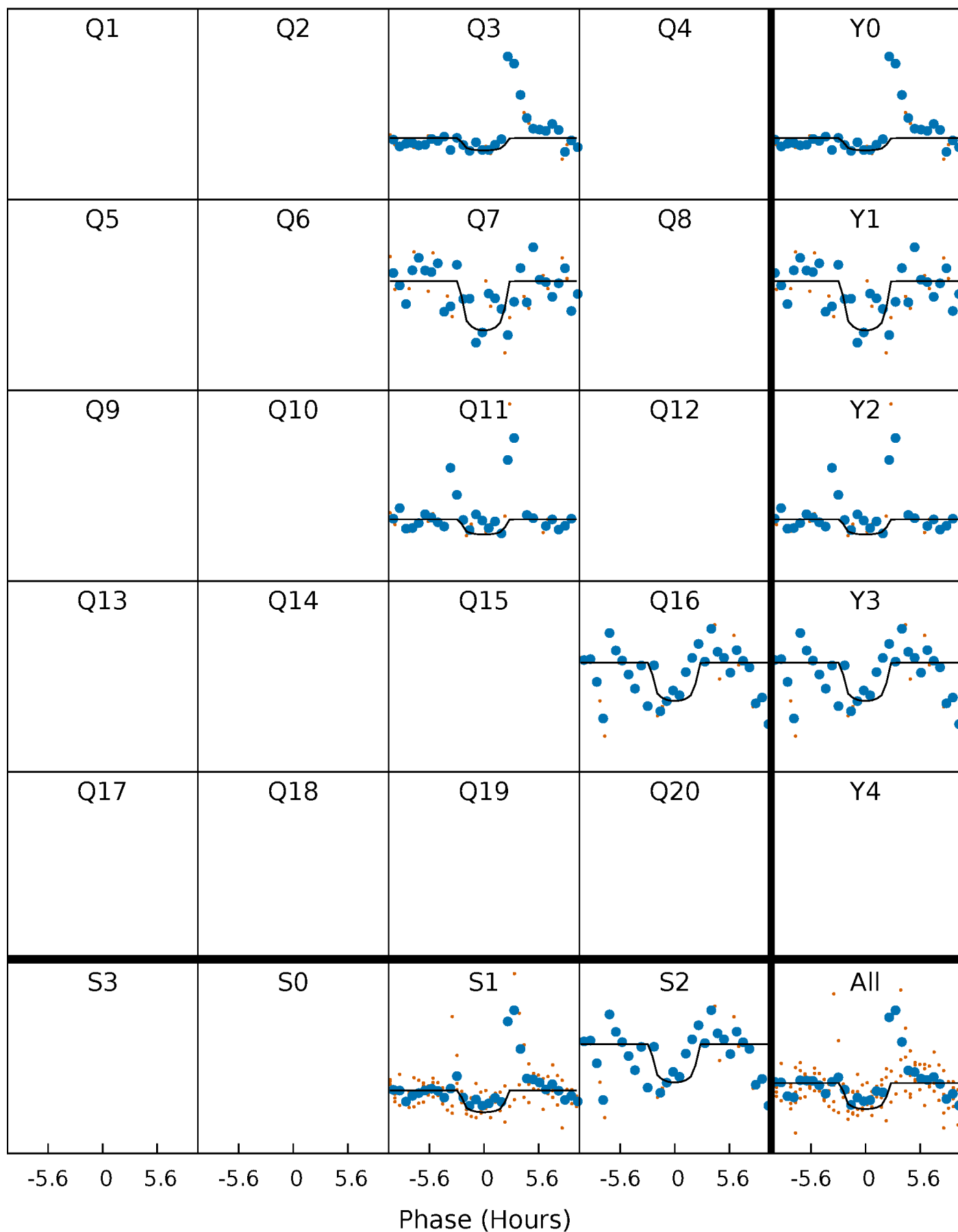
PDC Quarter-Phased Transit Curves

TCE 012060710-01 P=394.960367 Days $T_0=306.314143$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 012060710-01 P=394.960367 Days $T_0=306.314143$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

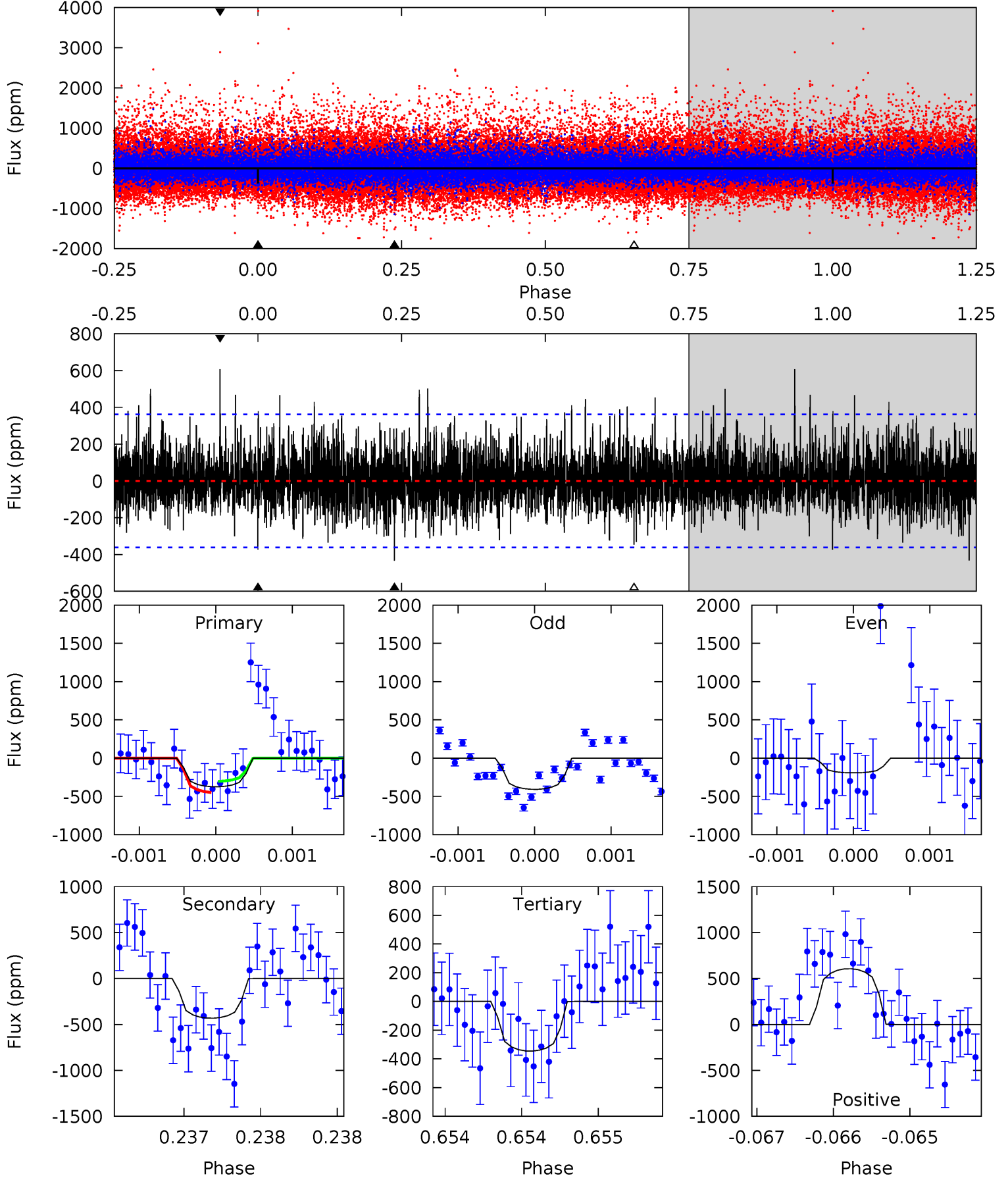
TCE 012060710-01 P=394.967092 Days $T_0=306.303329$ (BKJD)



DV Model-Shift Uniqueness Test

012060710-01, P = 394.960367 Days, E = 306.314143 Days

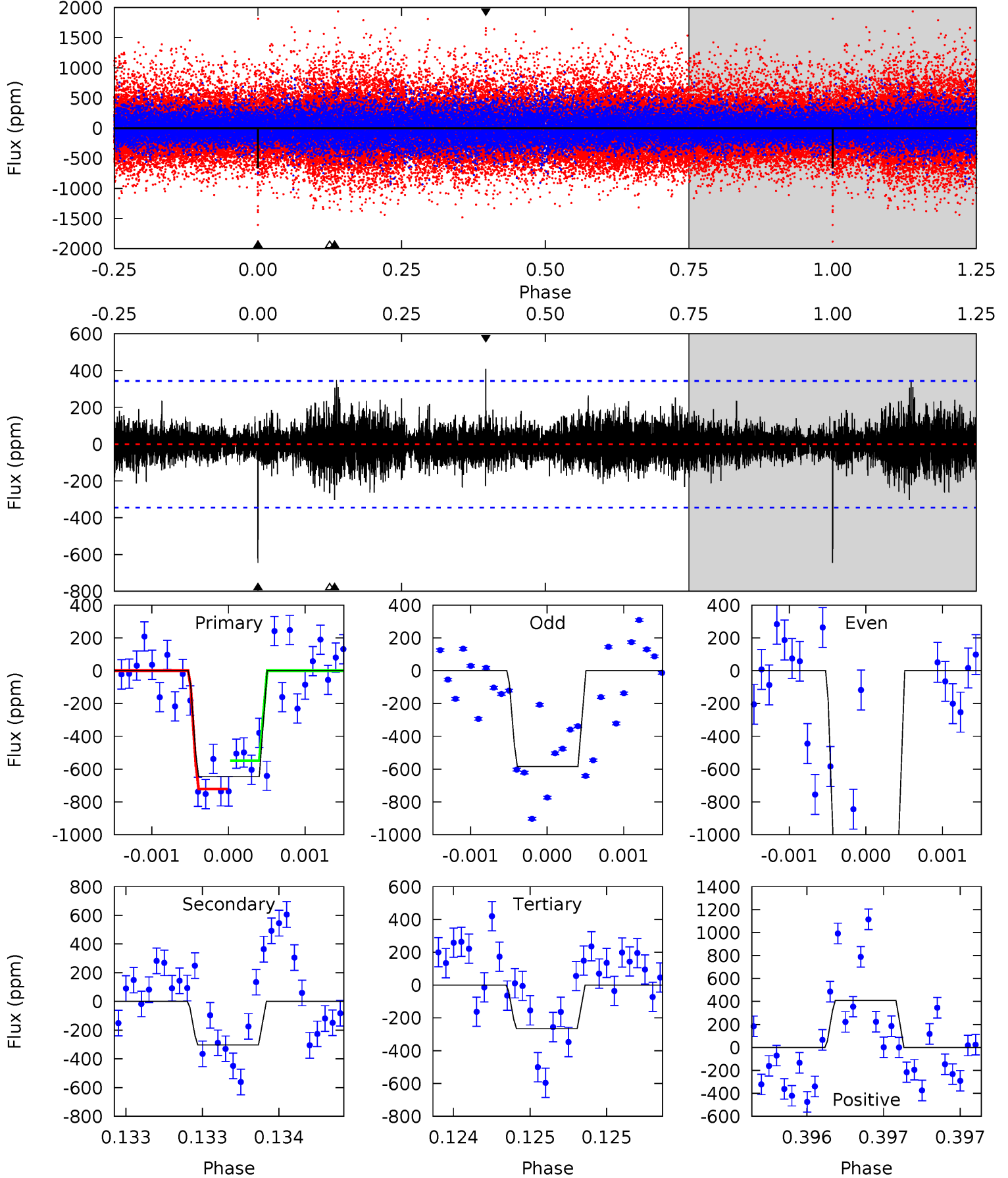
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.74	6.63	5.30	9.30	5.55	3.45	1.69	0.43	-3.57	1.32	-2.68	1.52	0.98	0.58	1.12



Alt Model-Shift Uniqueness Test

012060710-01, P = 394.967092 Days, E = 306.303329 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	4.90	4.30	6.61	5.57	3.48	1.11	6.15	3.84	0.61	-1.70	6.75	1.32	0.39	1.41



Stellar Parameters For KIC 012060710

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3598^{+46}_{-50}	$4.834^{+0.035}_{-0.028}$	$-0.100^{+0.100}_{-0.100}$	$0.418^{+0.027}_{-0.036}$	$0.435^{+0.029}_{-0.036}$	$8.396^{+1.624}_{-1.013}$
	+1%/-1%	+1%/-1%	+100%/-100%	+6%/-9%	+7%/-8%	+19%/-12%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 012060710-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-432 ± 65	$1.63^{+1.46}_{-1.15}$	160^{+3}_{-3}	3079^{+1476}_{-513}	$58171^{+601193}_{-42571}$
Alt.	-303 ± 62	$1.86^{+1.52}_{-1.18}$	160^{+3}_{-3}	2804^{+962}_{-400}	$30661^{+186979}_{-21522}$

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

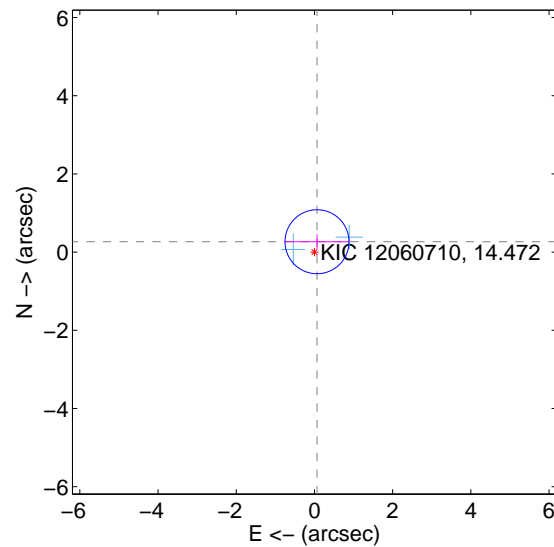
Supplemental centroid analysis for 012060710-01. Kepler magnitude: 14.47. Transit SNR 5.78

There are 2 quarters with good PRF difference image offsets

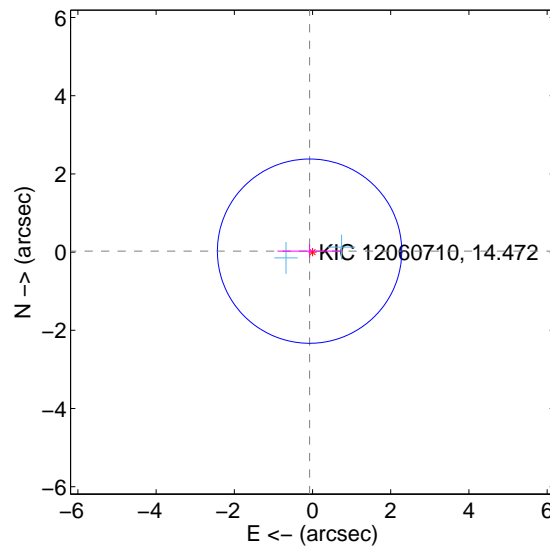
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.273 ± 0.273	1.00	-0.066 ± 0.830	0.265 ± 0.192
PRF-fit source offset from KIC position	0.079 ± 0.785	0.10	0.075 ± 0.823	0.024 ± 0.170
photometric centroid source offset	1.19 ± 1.32	0.90	1.12 ± 1.30	-0.40 ± 1.49

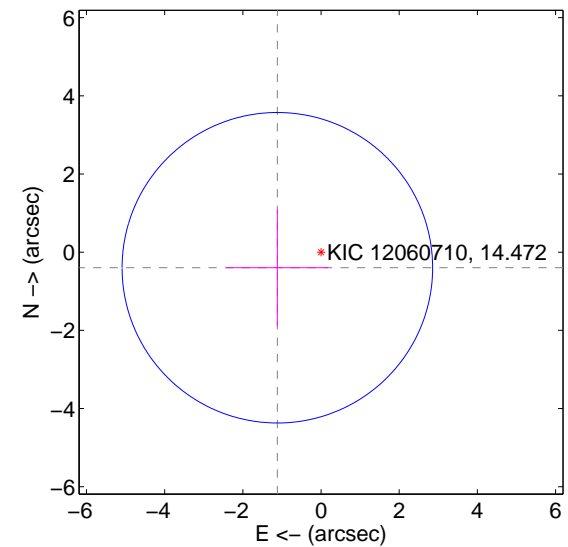
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

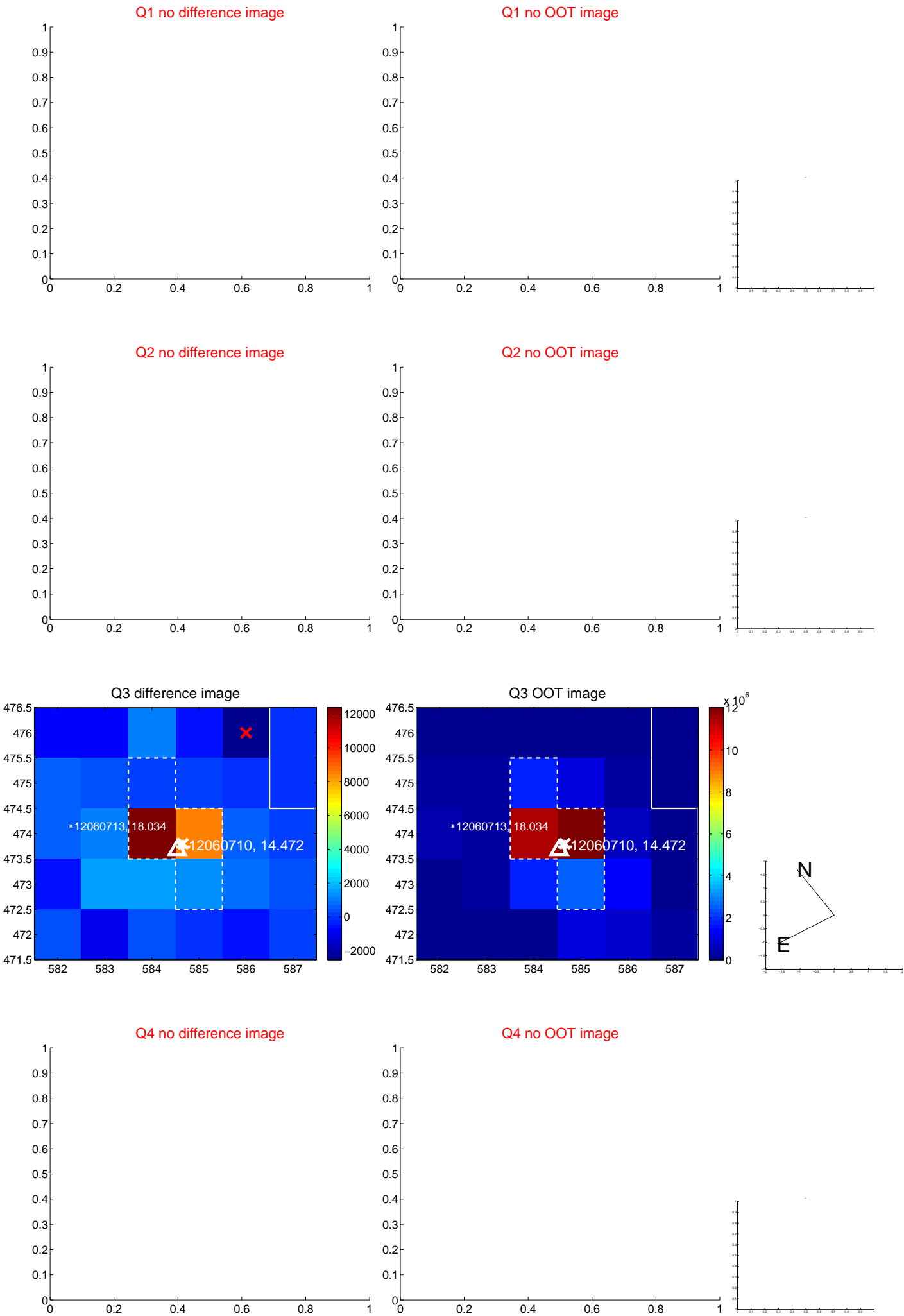


offset from photometric centroids

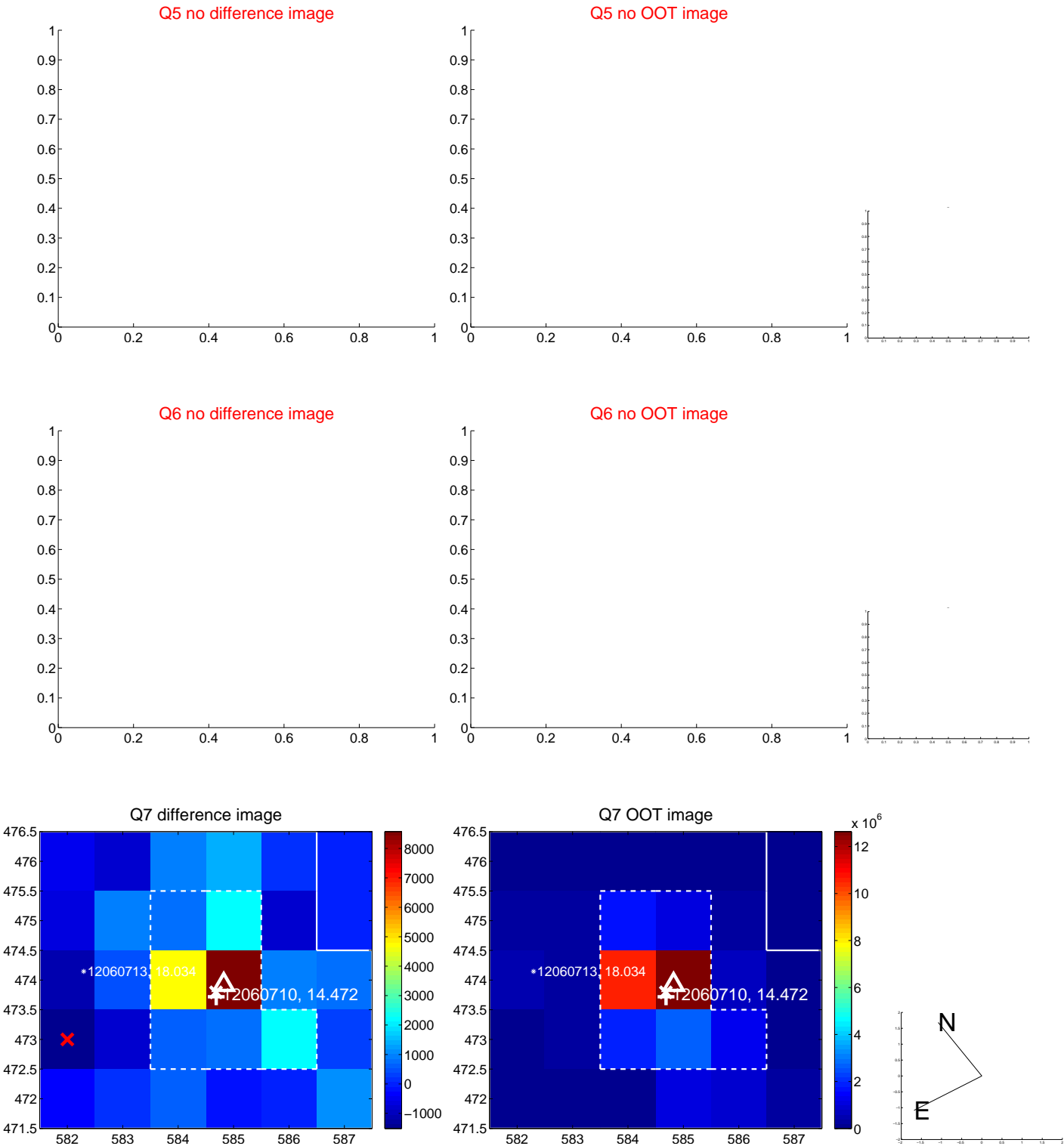


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



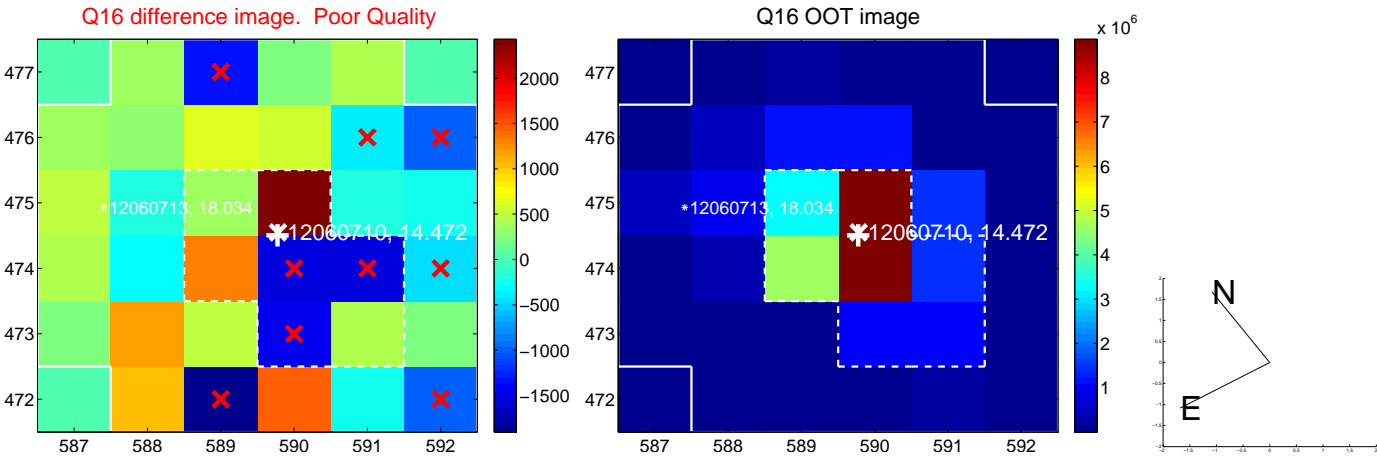
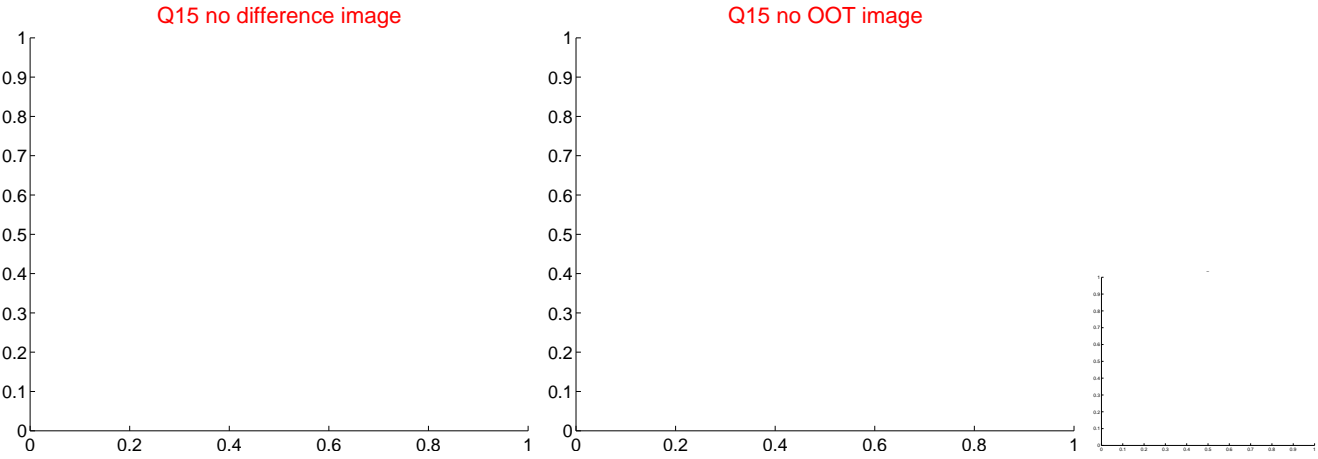
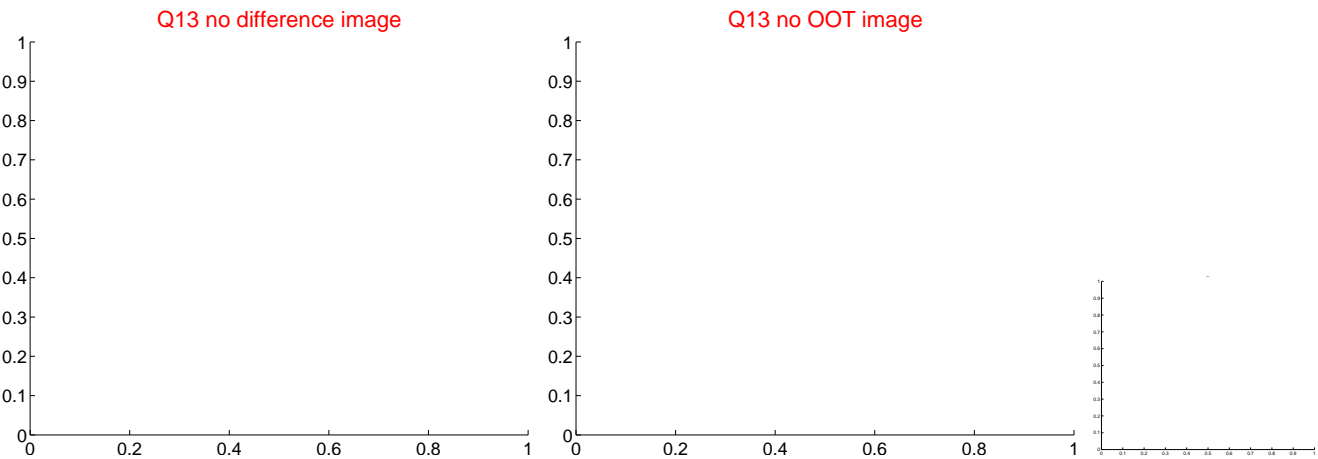
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



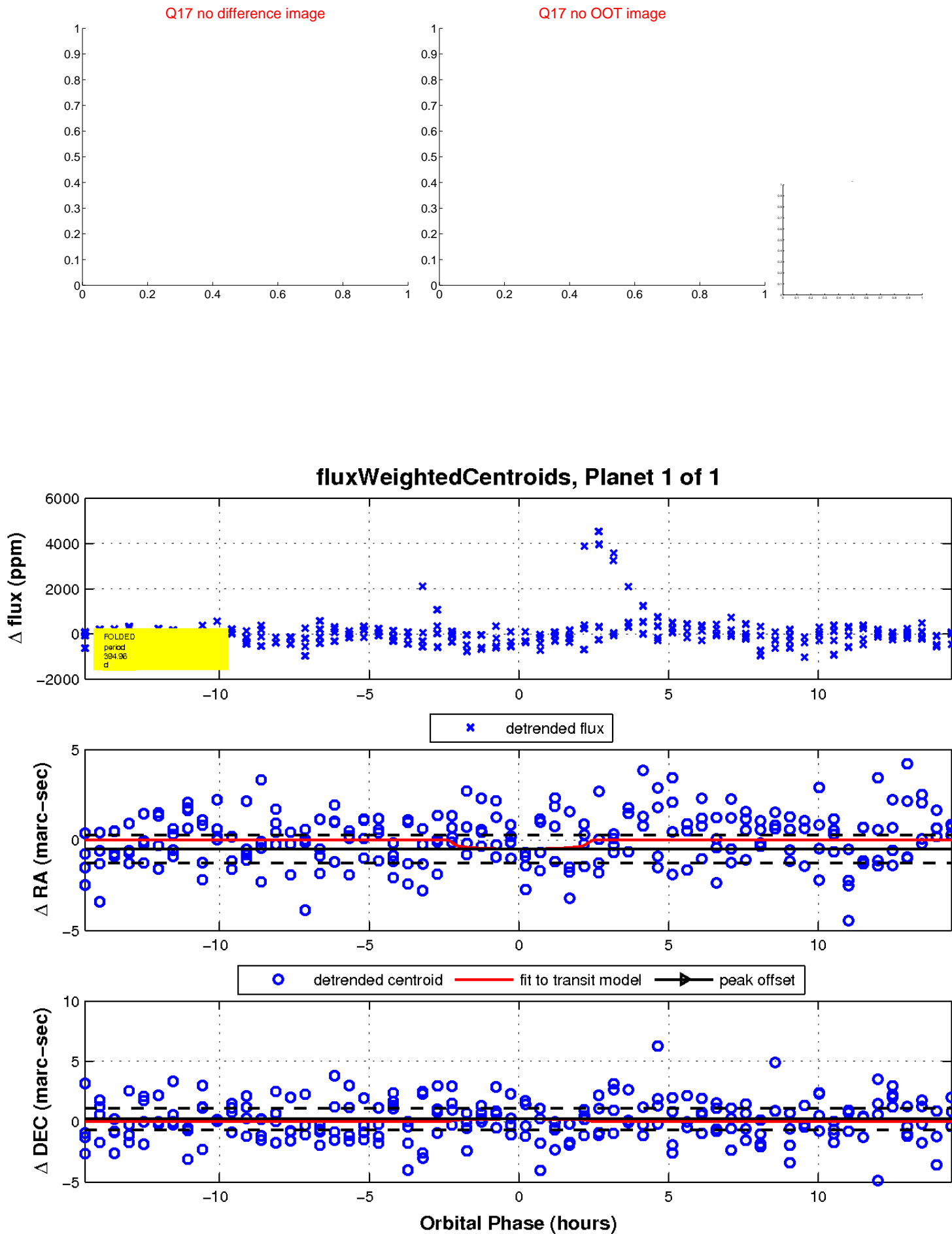
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

