

KIC 004345697

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})
004345697-01	OBS	No	294.220643	262.553676	605.5	3.697	7.4	7.3	0.92	5746	2.53	1.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004345697-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—MOD_NONUNIQ_ALT—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.

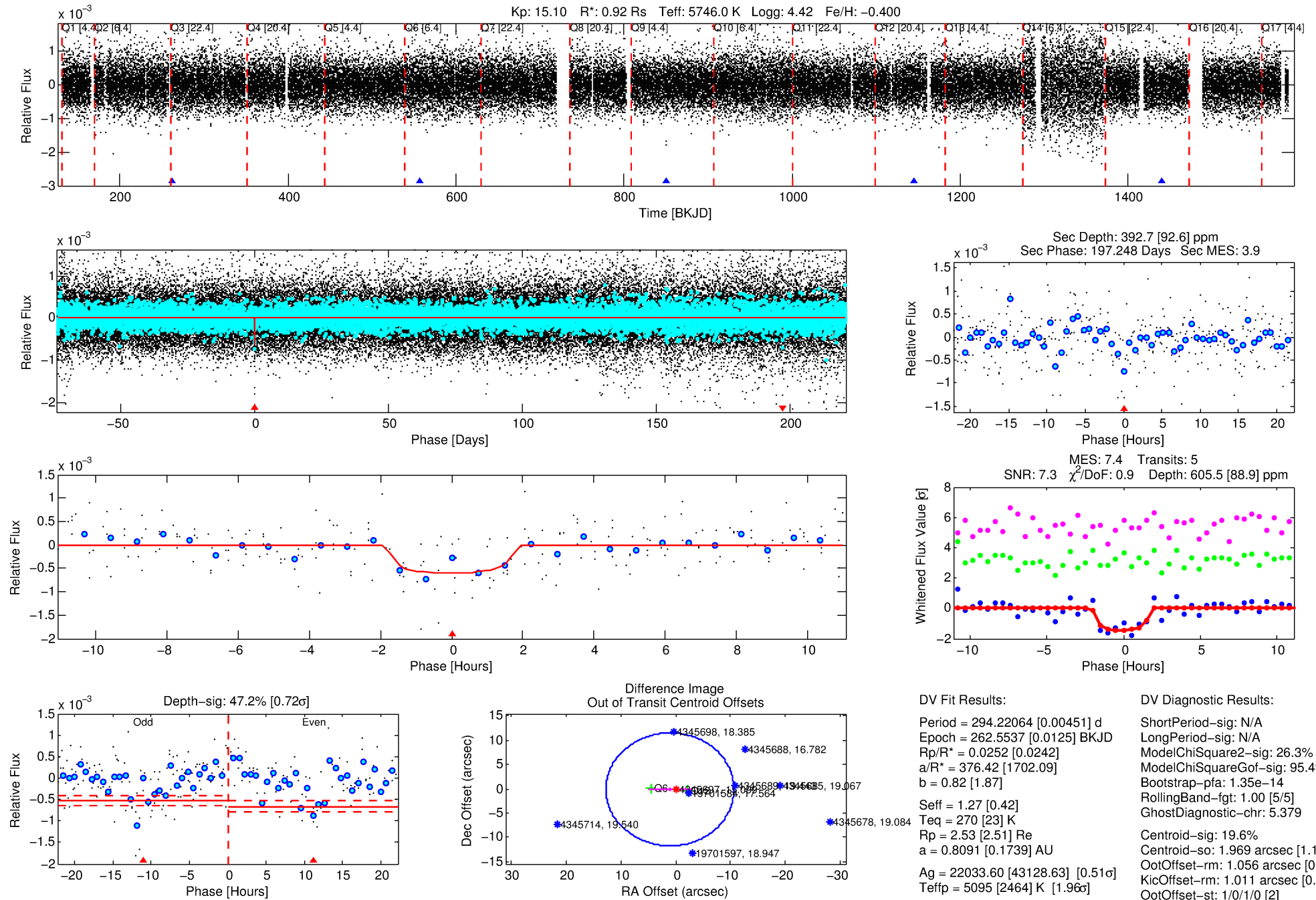
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004345697-01

No Significant Match Found

DV One-Page Summary

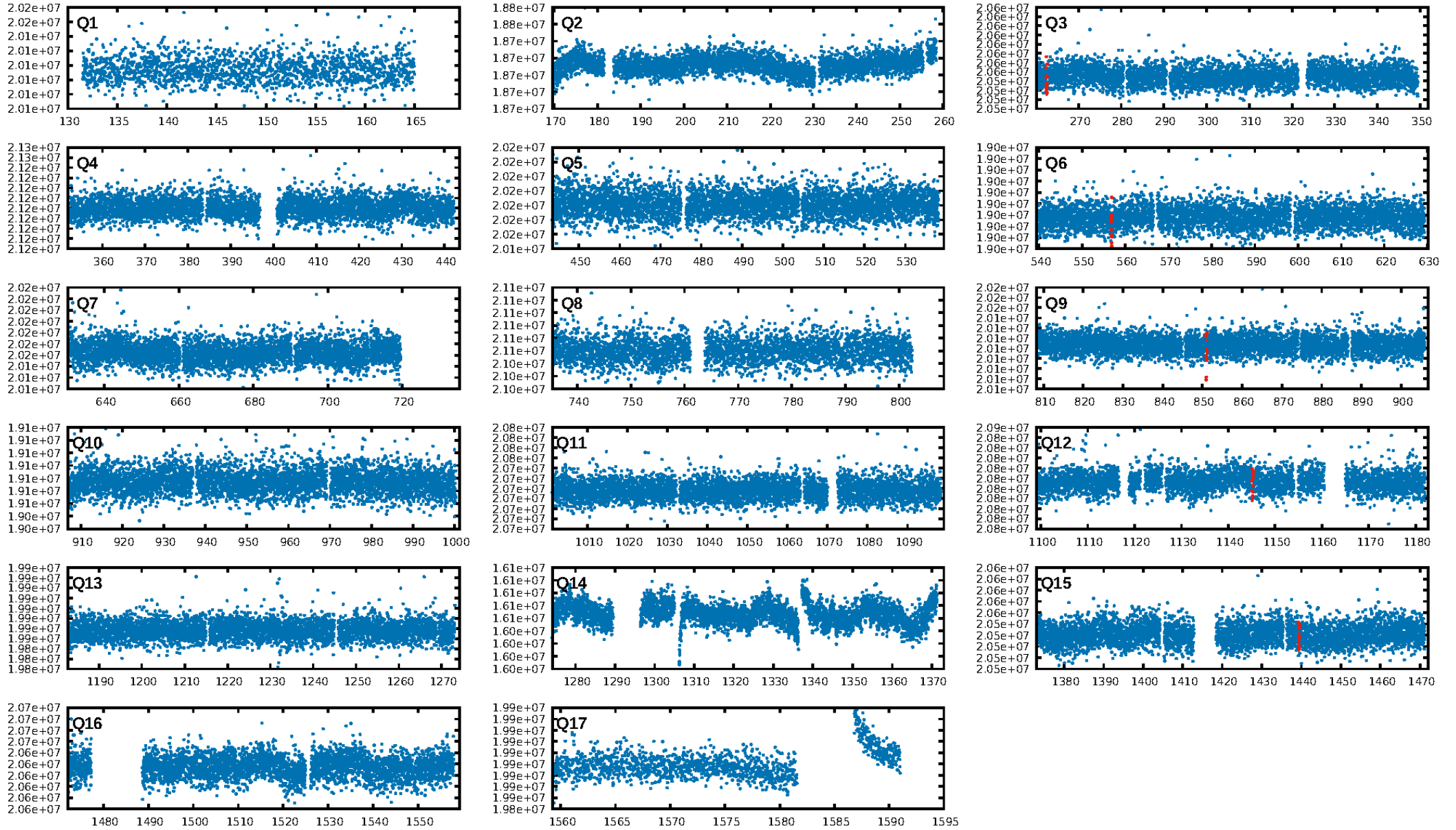
KIC: 4345697 Candidate: 1 of 1 Period: 294.221 d



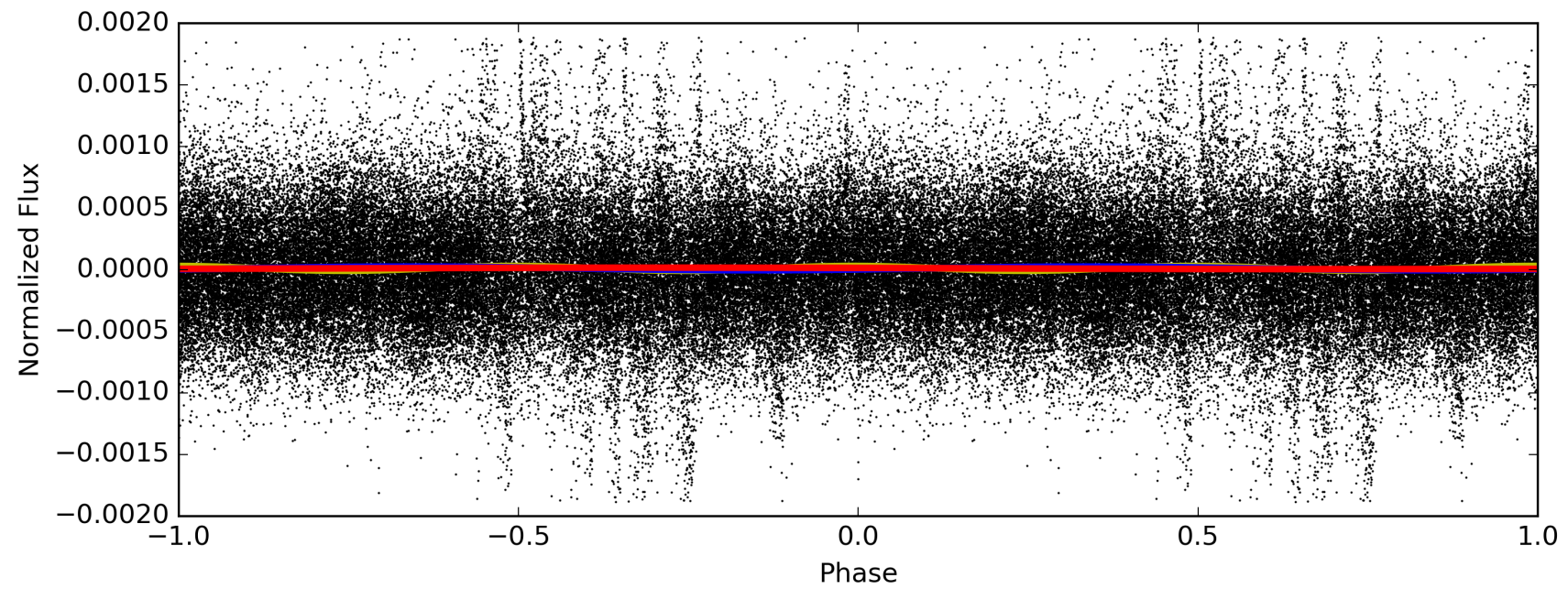
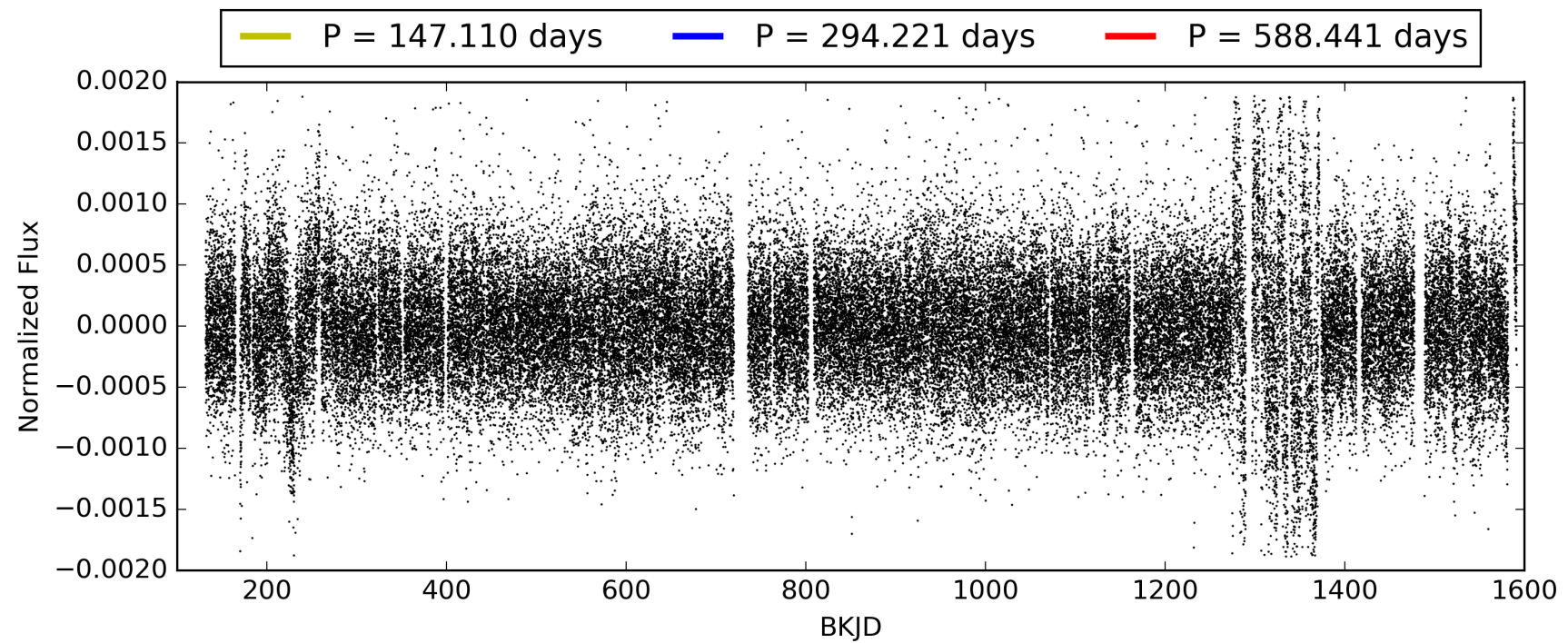
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:52:18 Z

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

TCE 004345697-01, PDC Light Curves

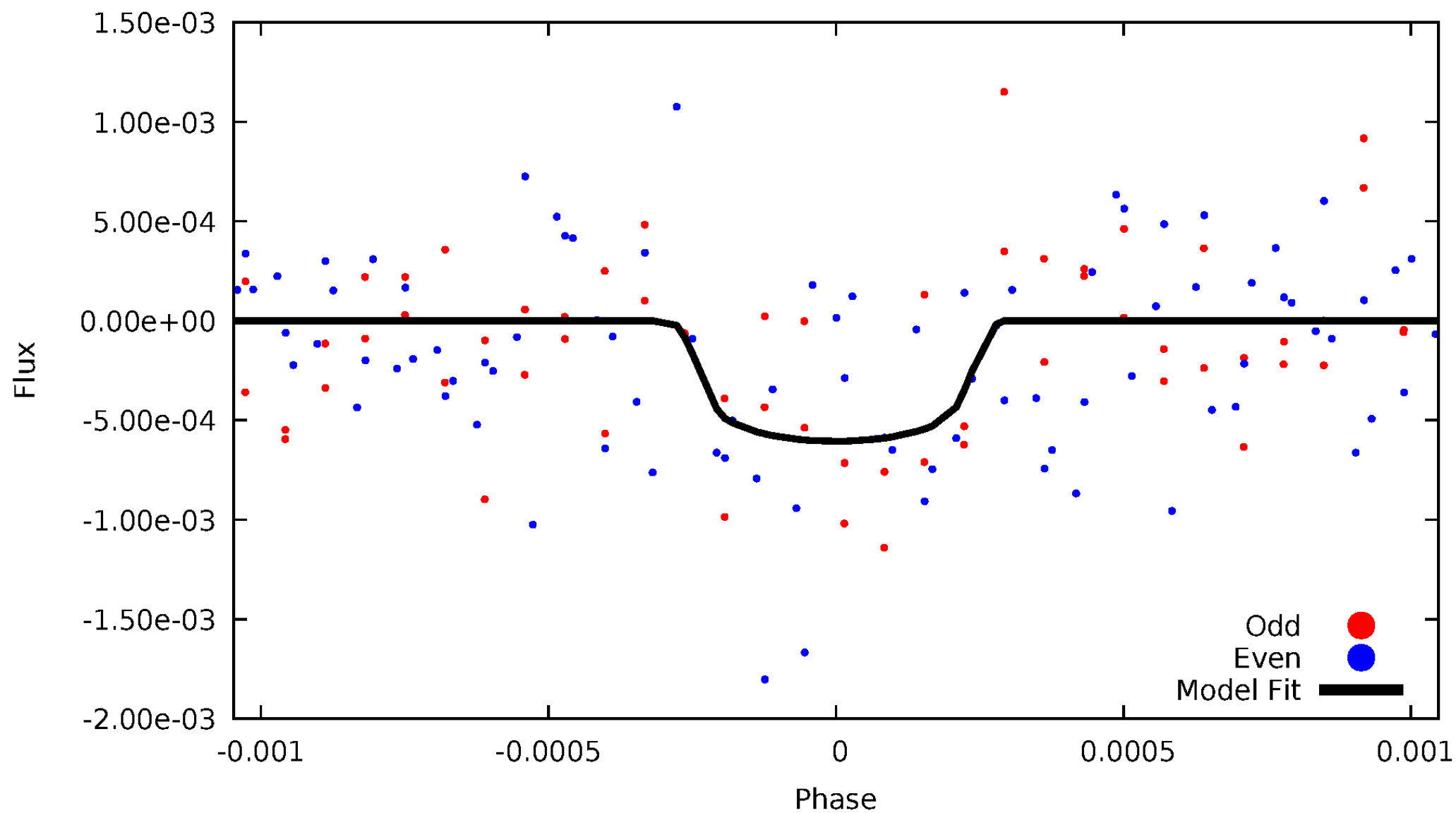


TCE 004345697-01



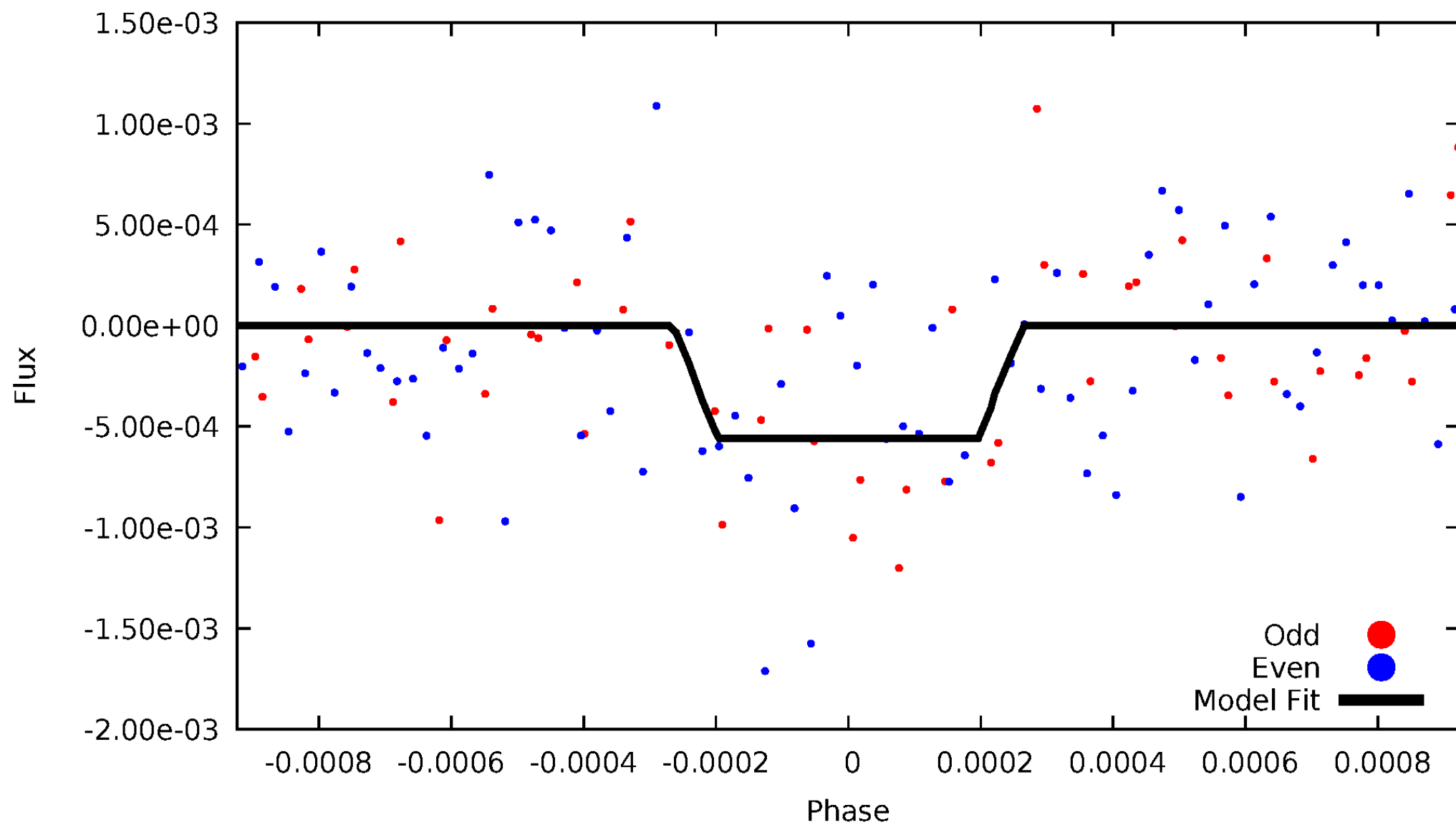
DV Odd/Even

TCE 004345697-01



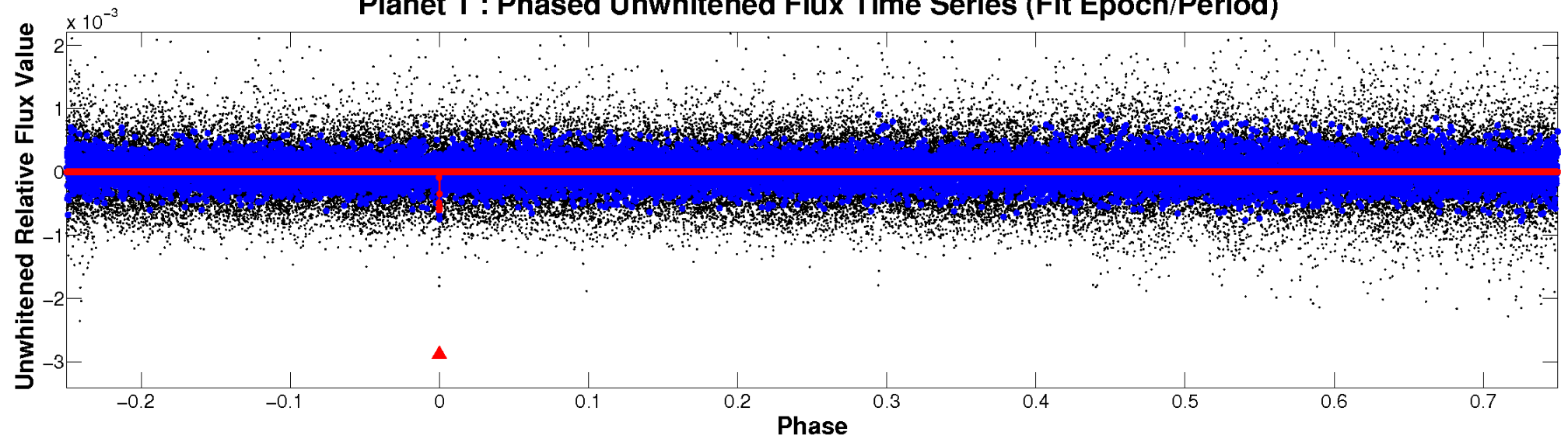
ALT Odd/Even

TCE 004345697-01

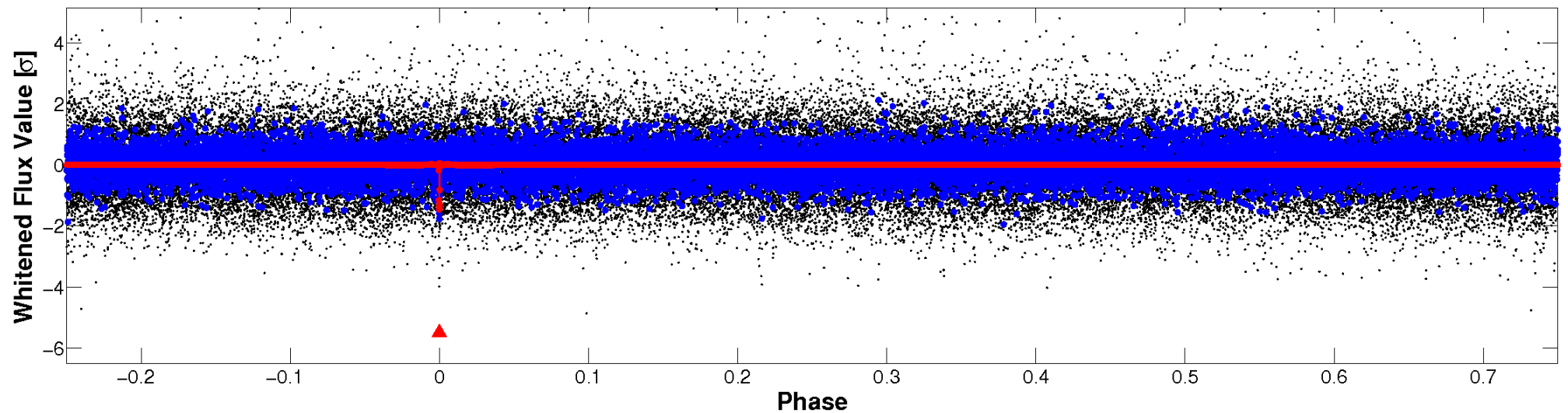


Non-Whitened Vs. Whitened Light Curve

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

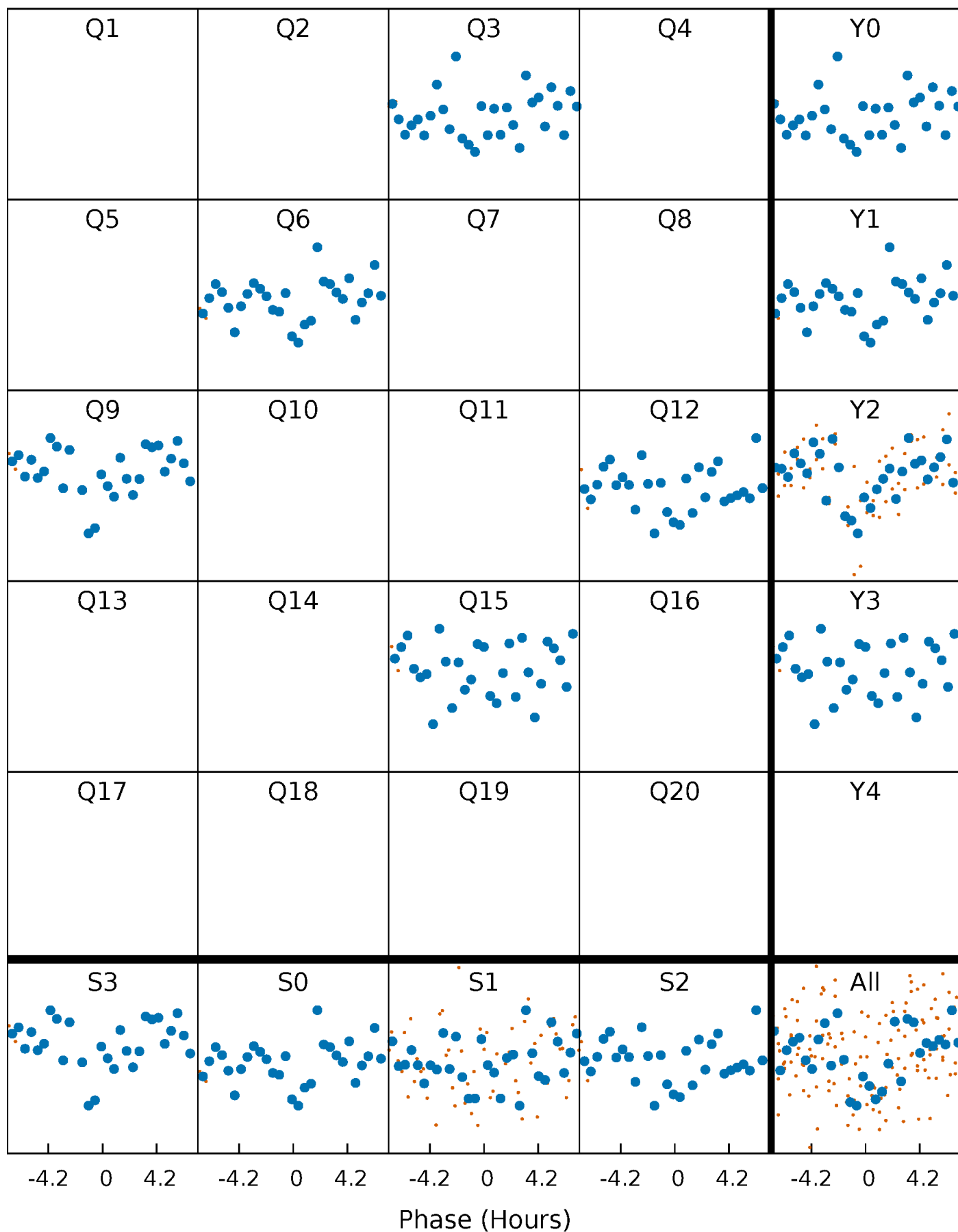


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



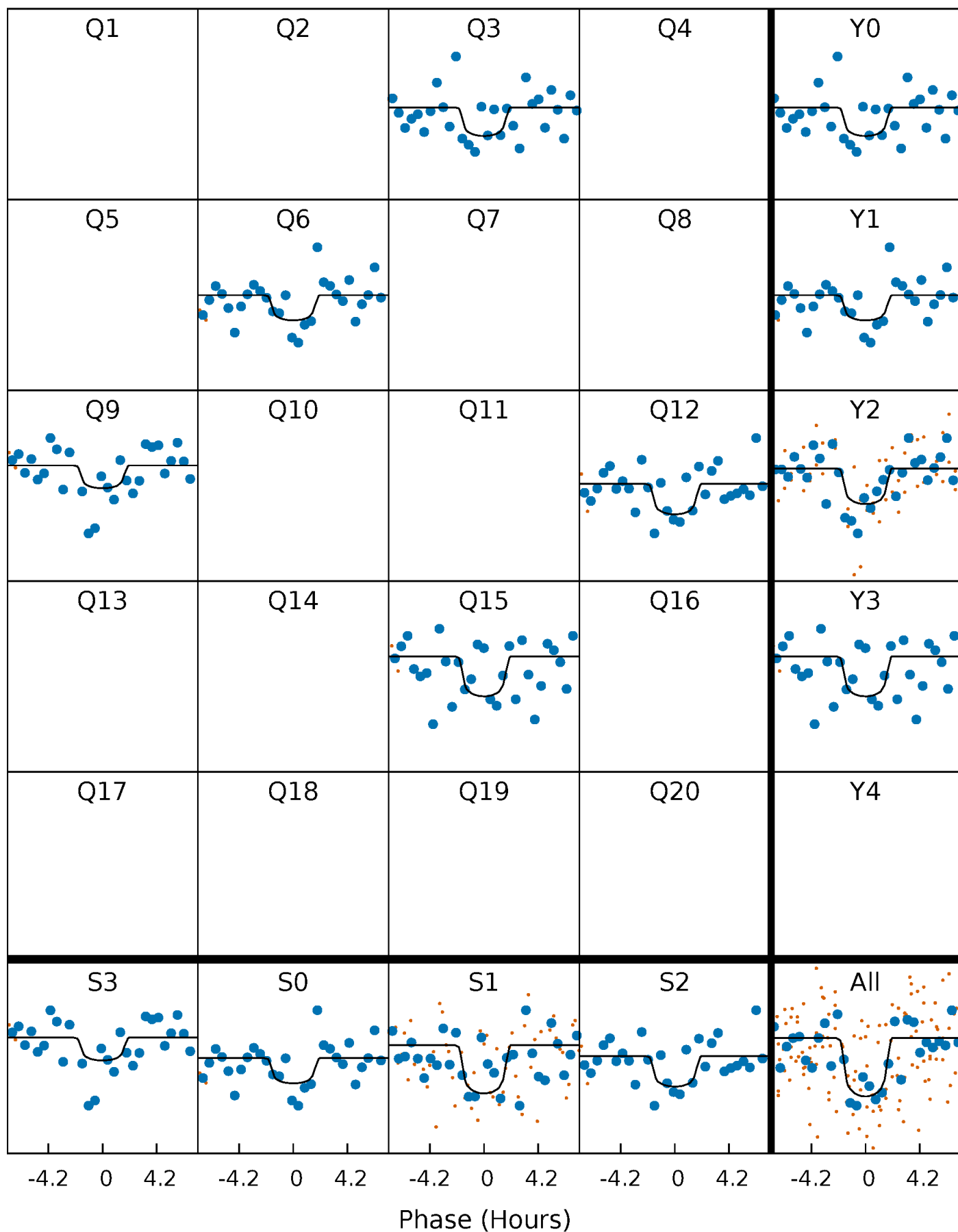
PDC Quarter-Phased Transit Curves

TCE 004345697-01 $P=294.220643$ Days $T_0=262.553676$ (BKJD)



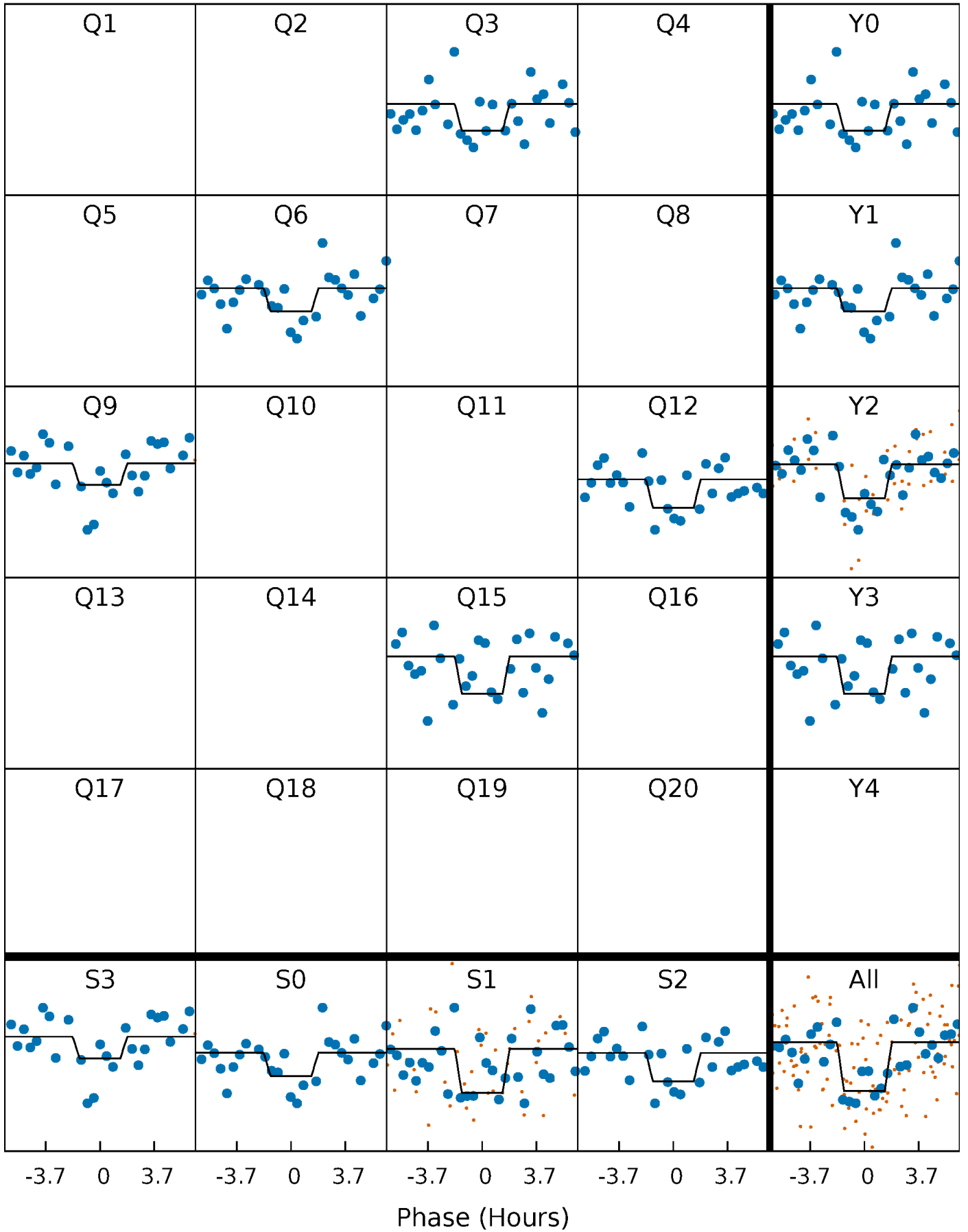
DV Quarter-Phased Transit Curves

TCE 004345697-01 $P=294.220643$ Days $T_0=262.553676$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

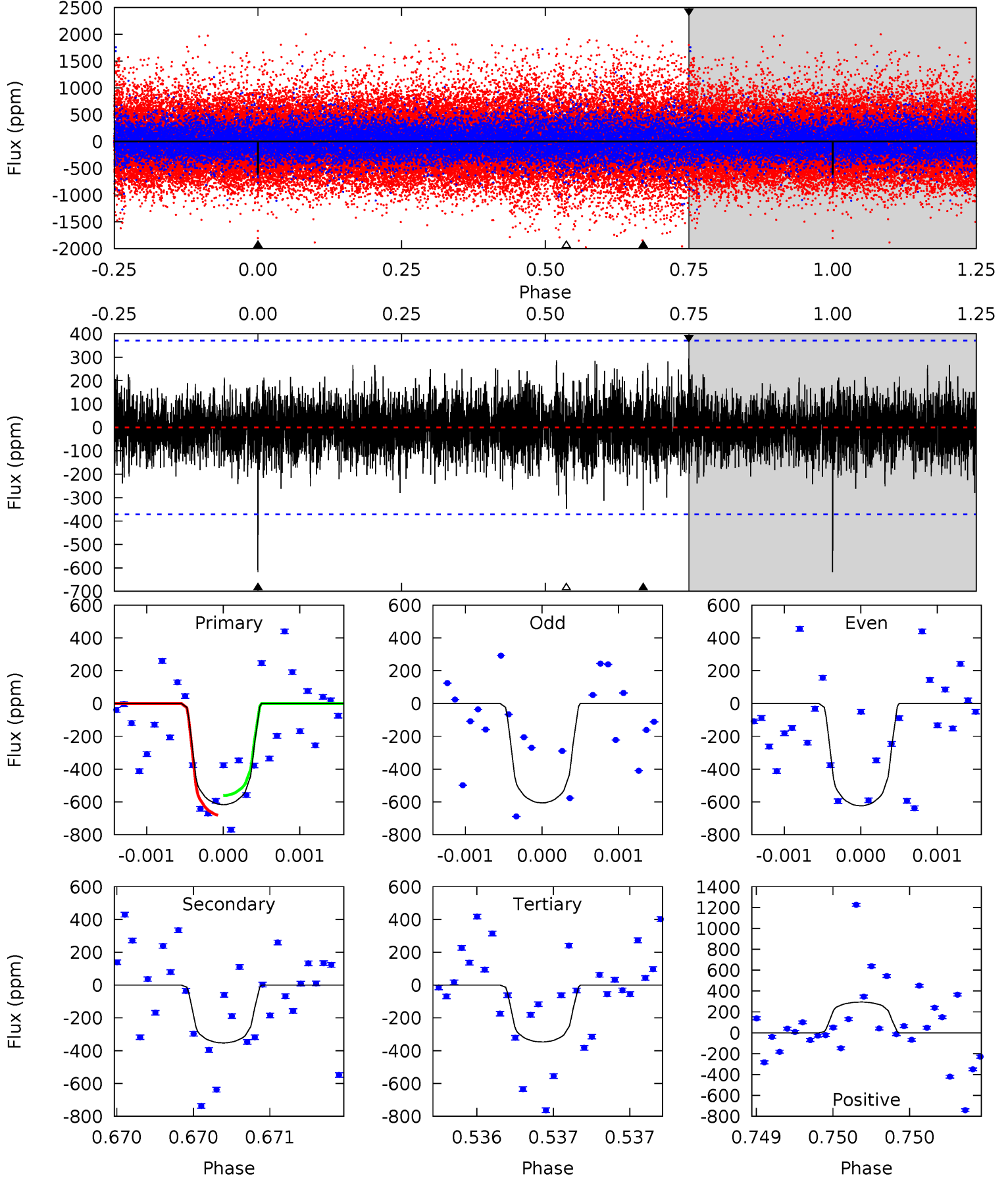
TCE 004345697-01 P=294.219063 Days $T_0=262.557436$ (BKJD)



DV Model-Shift Uniqueness Test

004345697-01, P = 294.220643 Days, E = 262.553676 Days

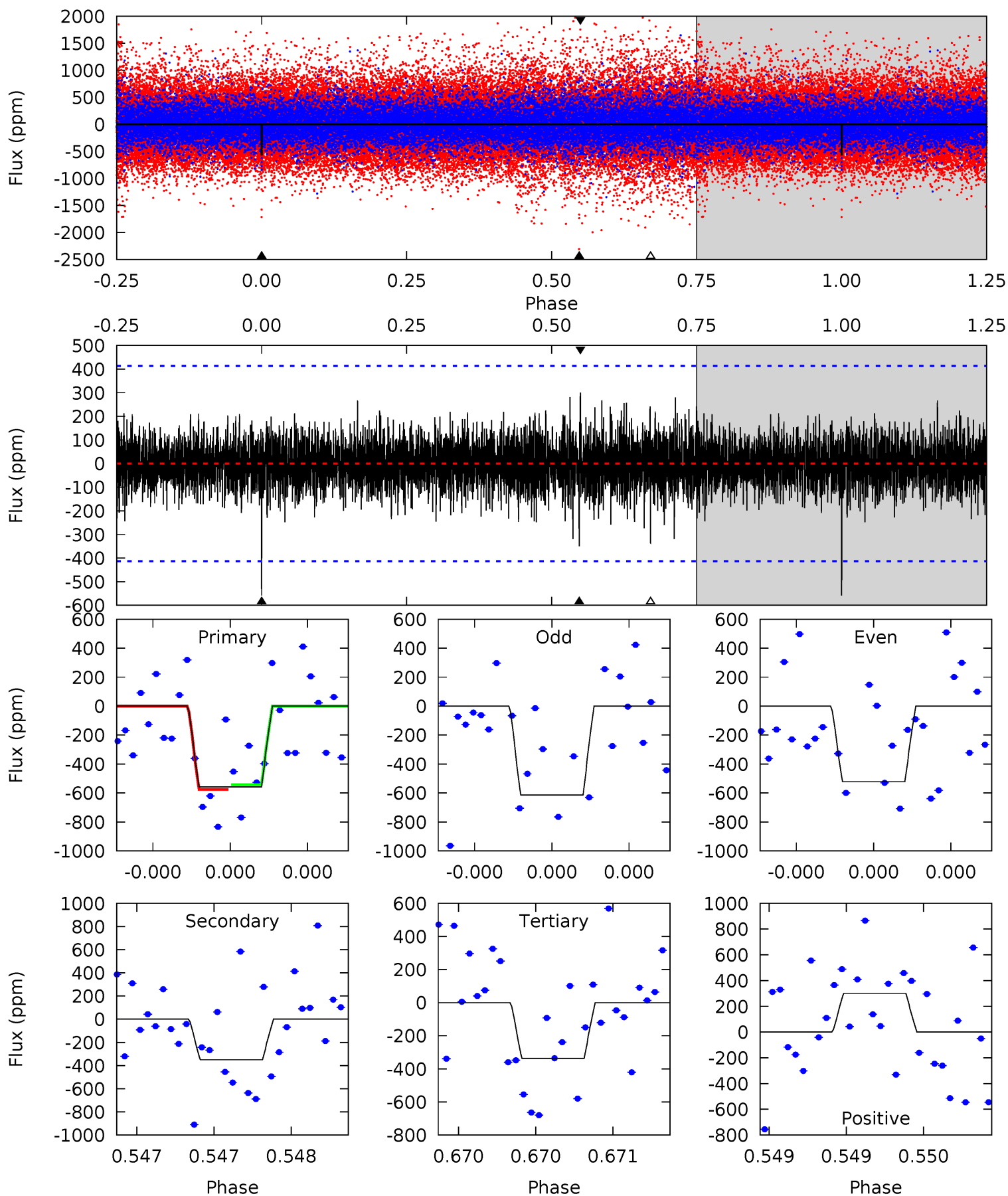
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.22	5.27	5.18	4.40	5.55	3.44	1.19	4.03	4.82	0.09	0.87	0.14	1.12	0.32	0.89



Alt Model-Shift Uniqueness Test

004345697-01, P = 294.219063 Days, E = 262.557436 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.54	4.72	4.54	4.06	5.58	3.49	1.02	3.00	3.49	0.18	0.67	0.62	1.03	0.35	0.22



Stellar Parameters For KIC 004345697

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5746^{+155}_{-155}	$4.421^{+0.128}_{-0.176}$	$-0.400^{+0.300}_{-0.300}$	$0.921^{+0.231}_{-0.135}$	$0.817^{+0.114}_{-0.061}$	$1.473^{+0.848}_{-0.688}$
	+3%/-3%	+3%/-4%	+75%/-75%	+25%/-15%	+14%/-7%	+58%/-47%
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 004345697-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-353 ± 67	$3.09^{+2.44}_{-1.90}$	380^{+27}_{-21}	4712^{+2467}_{-921}	14103^{+72318}_{-9926}
Alt.	-350 ± 74	$2.94^{+2.41}_{-1.82}$	381^{+26}_{-22}	4725^{+2941}_{-927}	14347^{+89033}_{-9955}

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

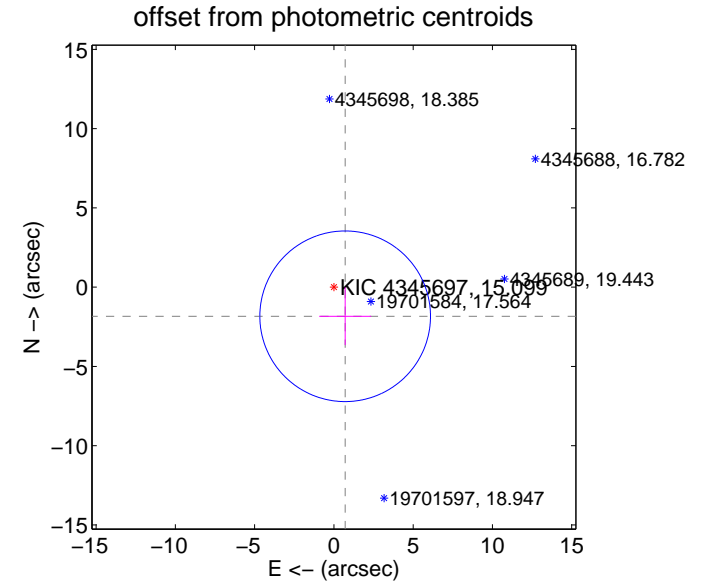
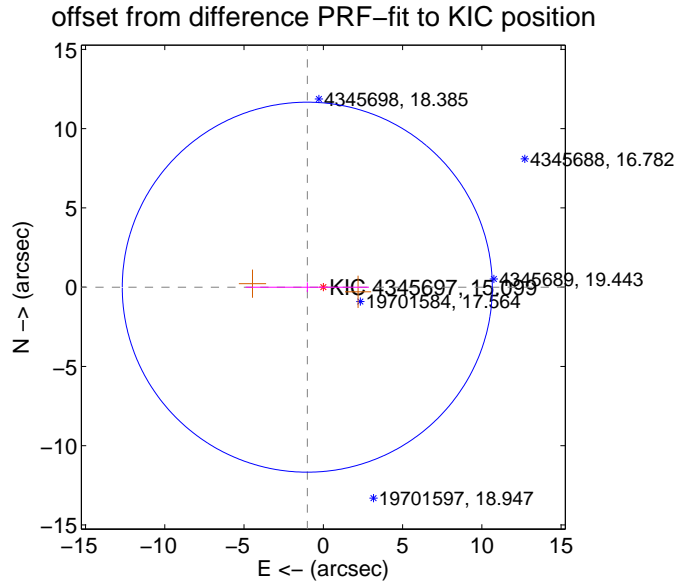
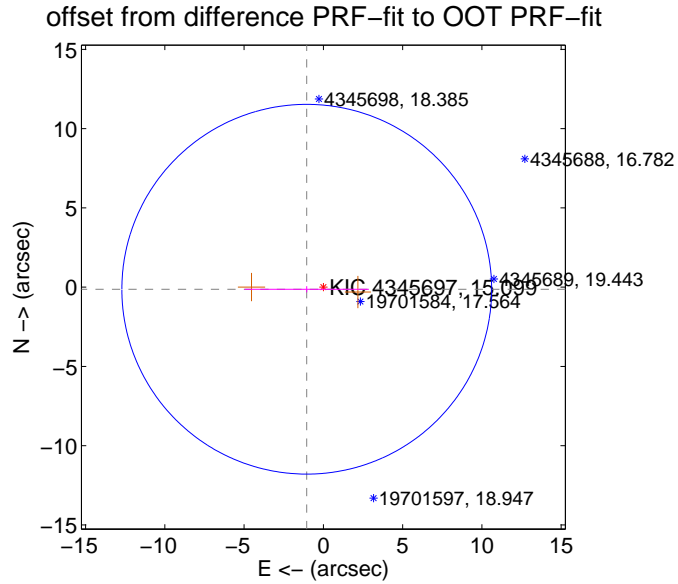
DV Centroid Data

Supplemental centroid analysis for 004345697-01. Kepler magnitude: 15.10. Transit SNR 7.26

There are 0 quarters with good PRF difference image offsets

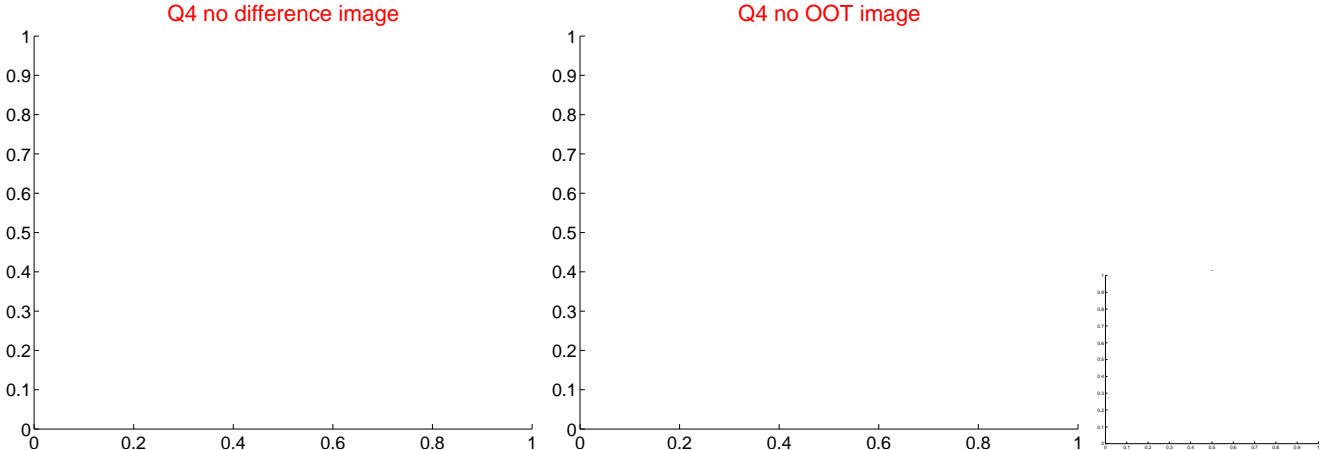
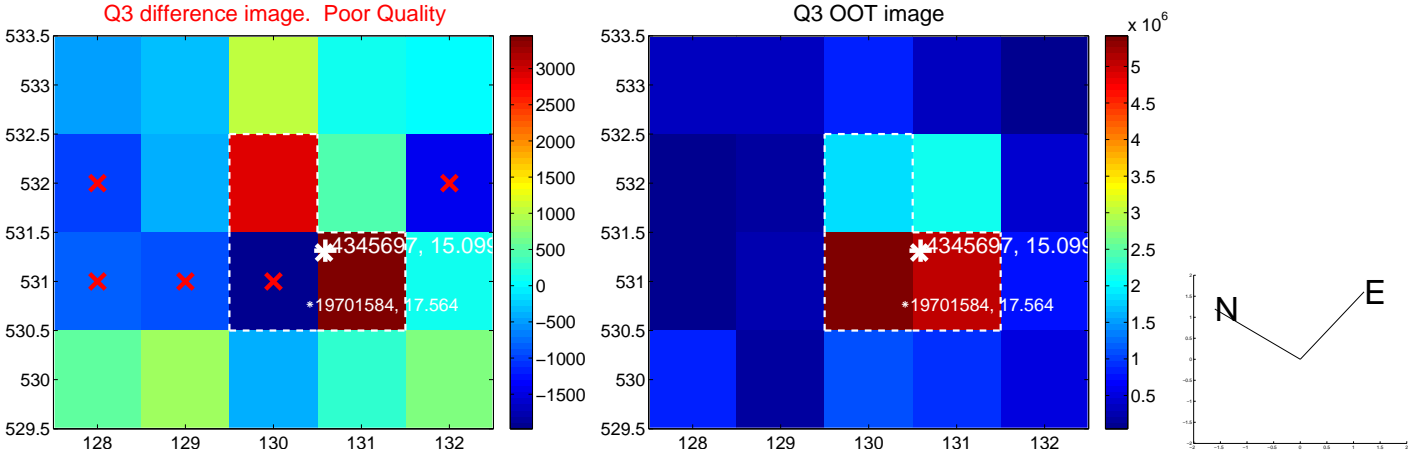
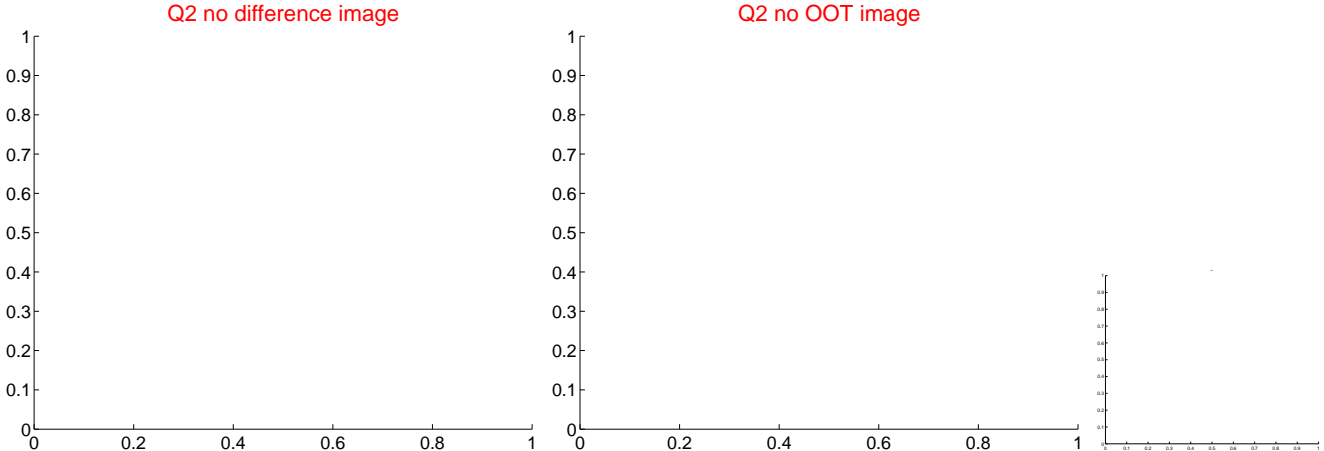
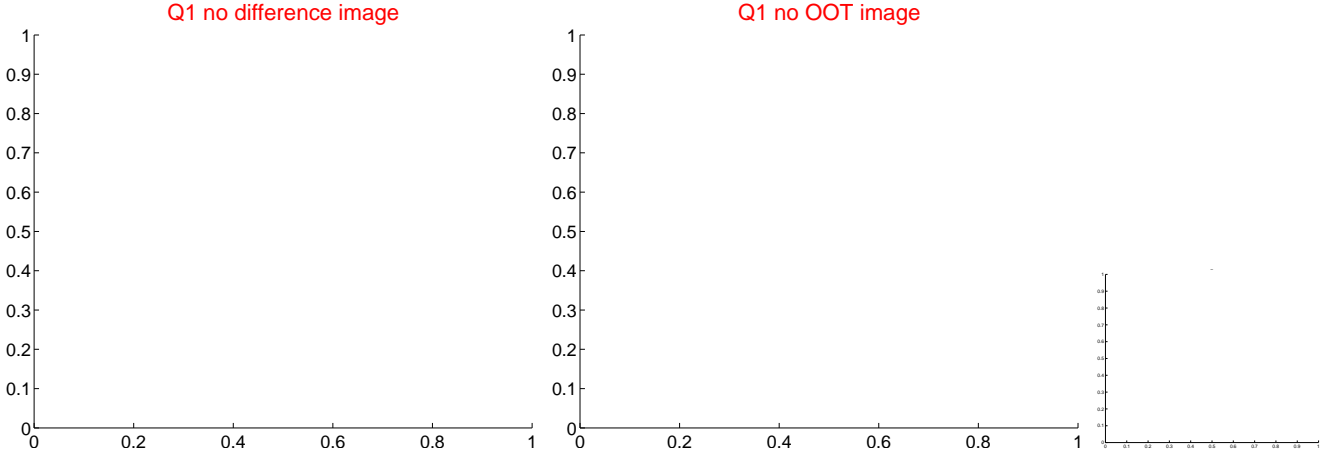
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.056 ± 3.887	0.27	1.048 ± 3.917	-0.130 ± 0.195
PRF-fit source offset from KIC position	1.011 ± 3.889	0.26	1.011 ± 3.889	-0.001 ± 0.302
photometric centroid source offset	1.97 ± 1.79	1.10	-0.71 ± 1.64	-1.84 ± 1.82

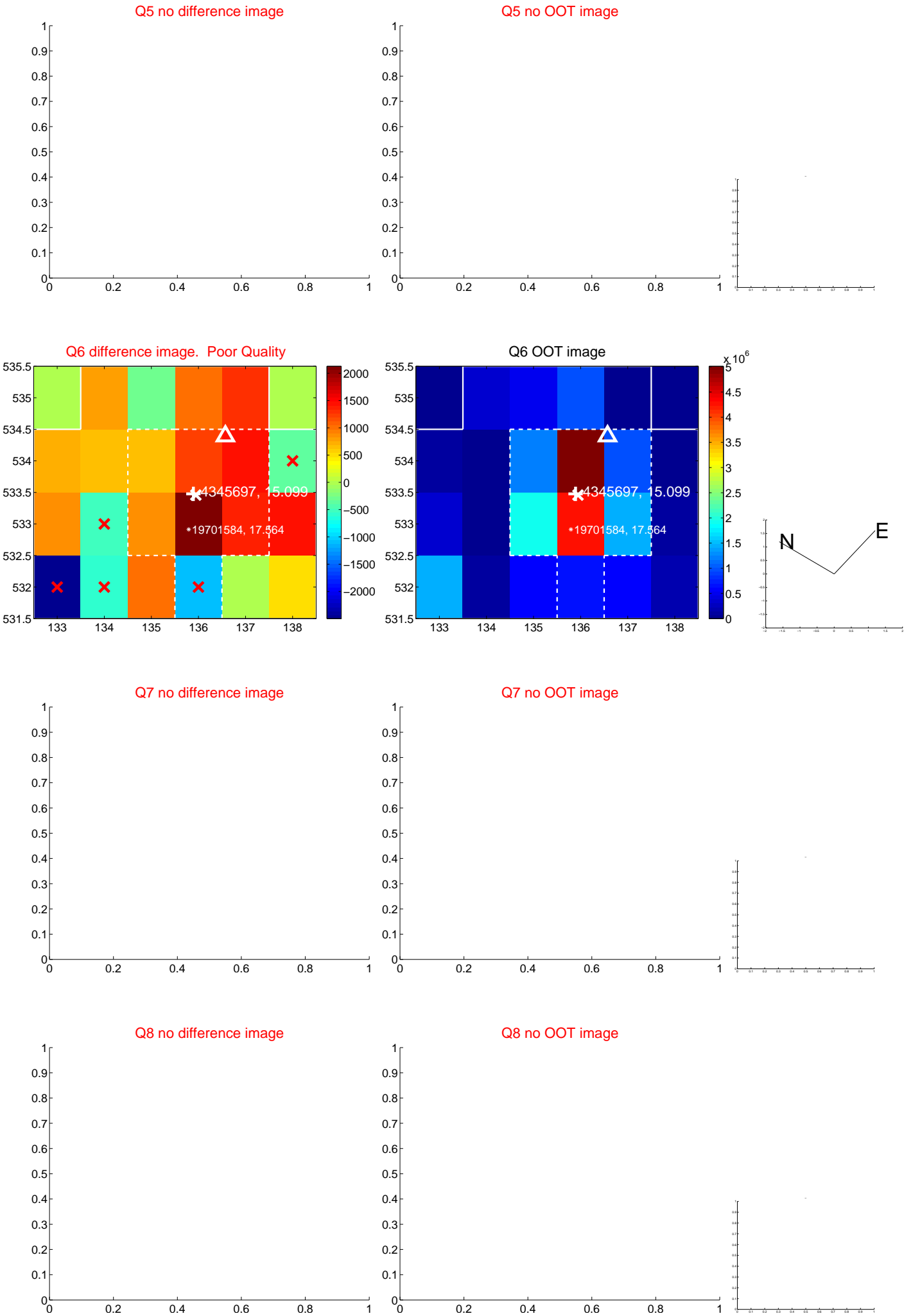


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

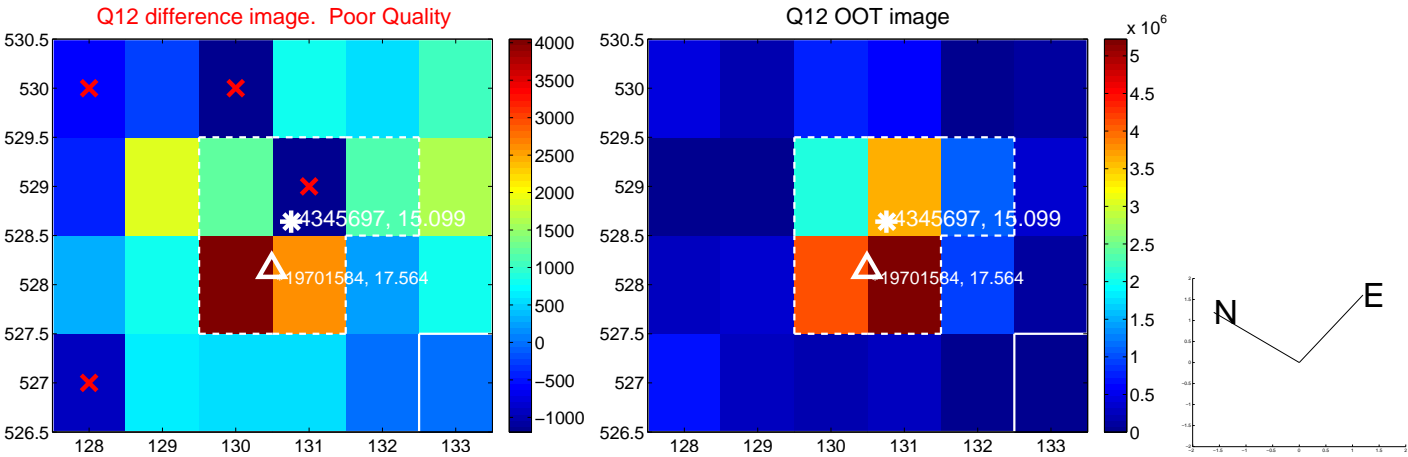
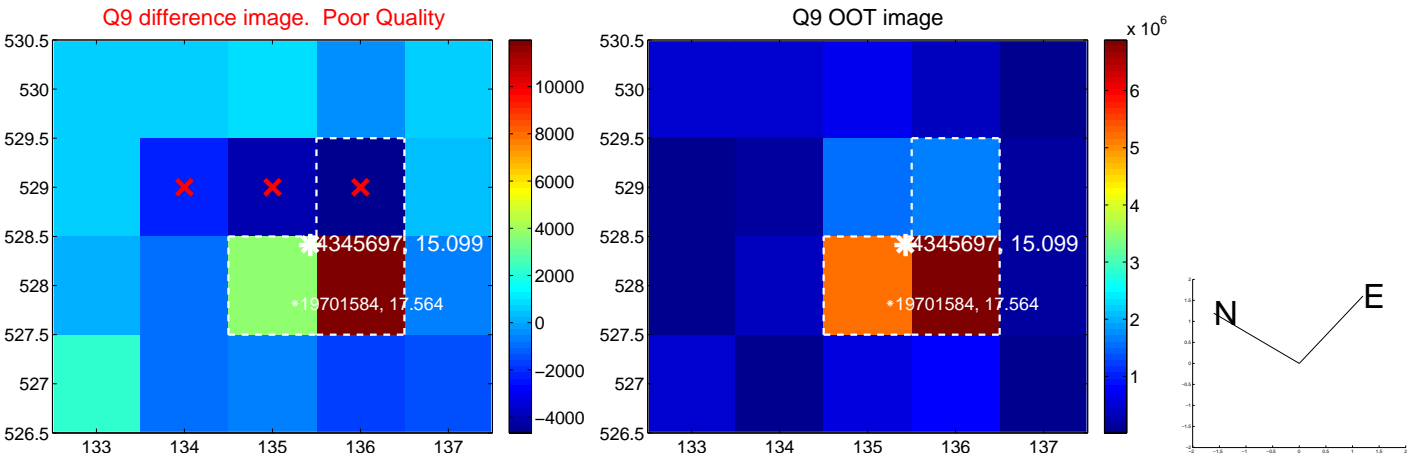
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



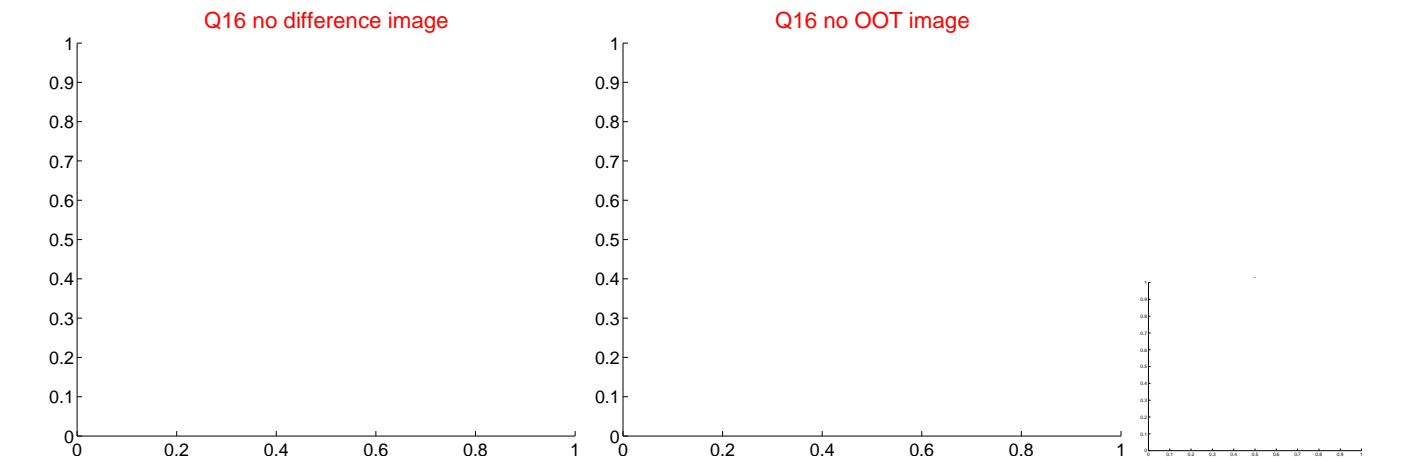
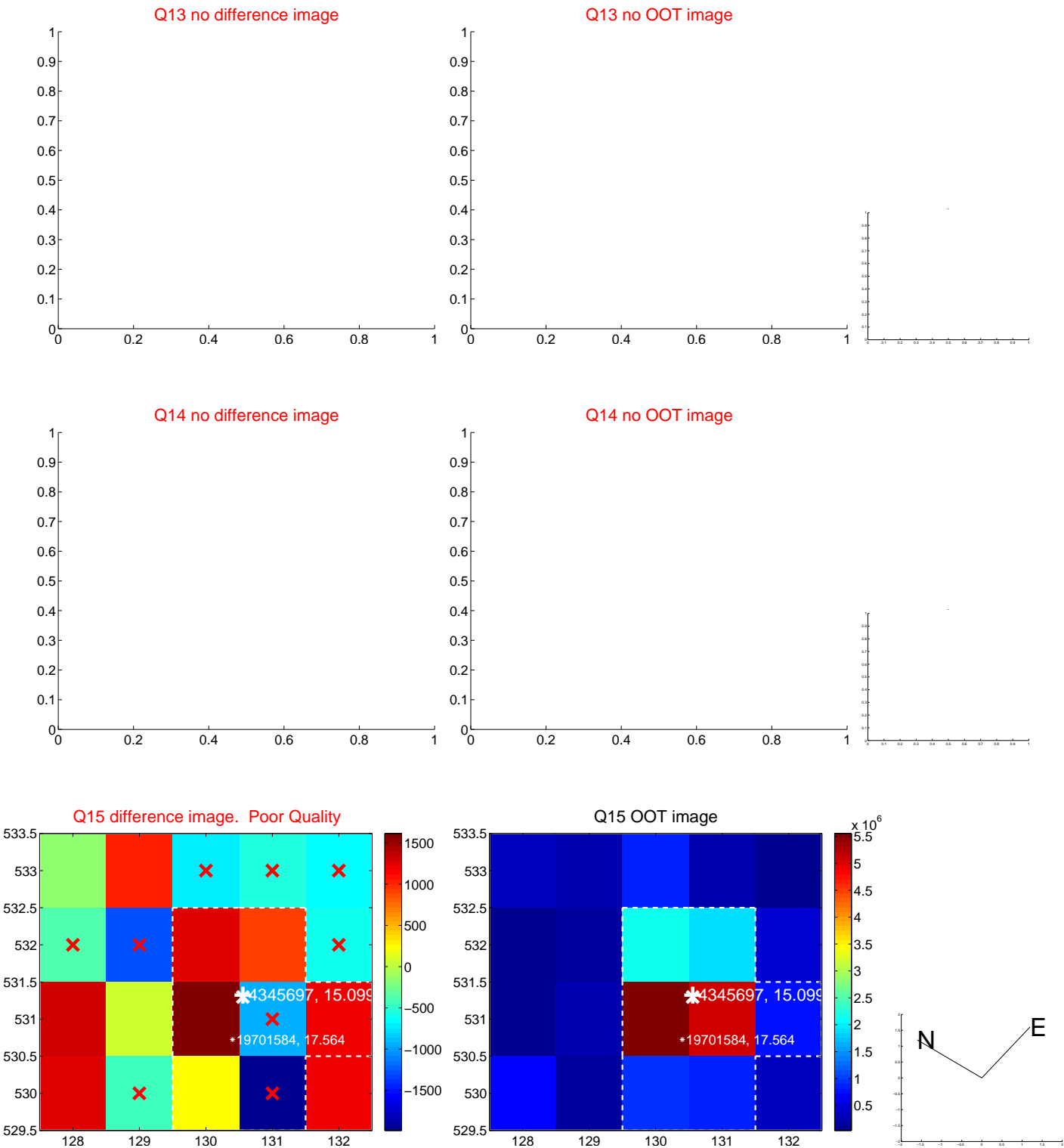
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



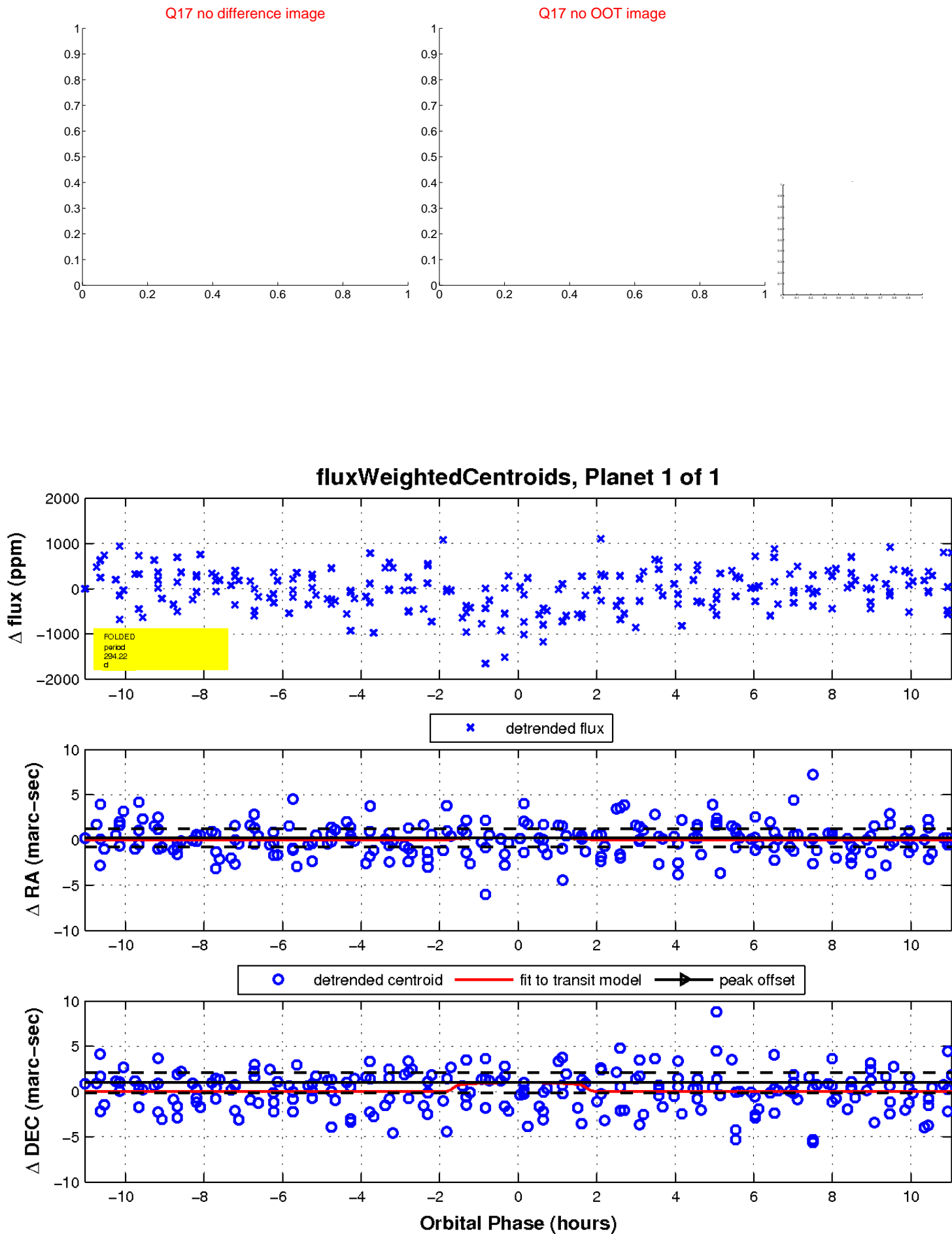
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

