

KIC 008172397

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})
008172397-01	OBS	No	572.612887	402.882738	628.2	18.828	7.5	7.0	1.11	6355	2.88	0.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008172397-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

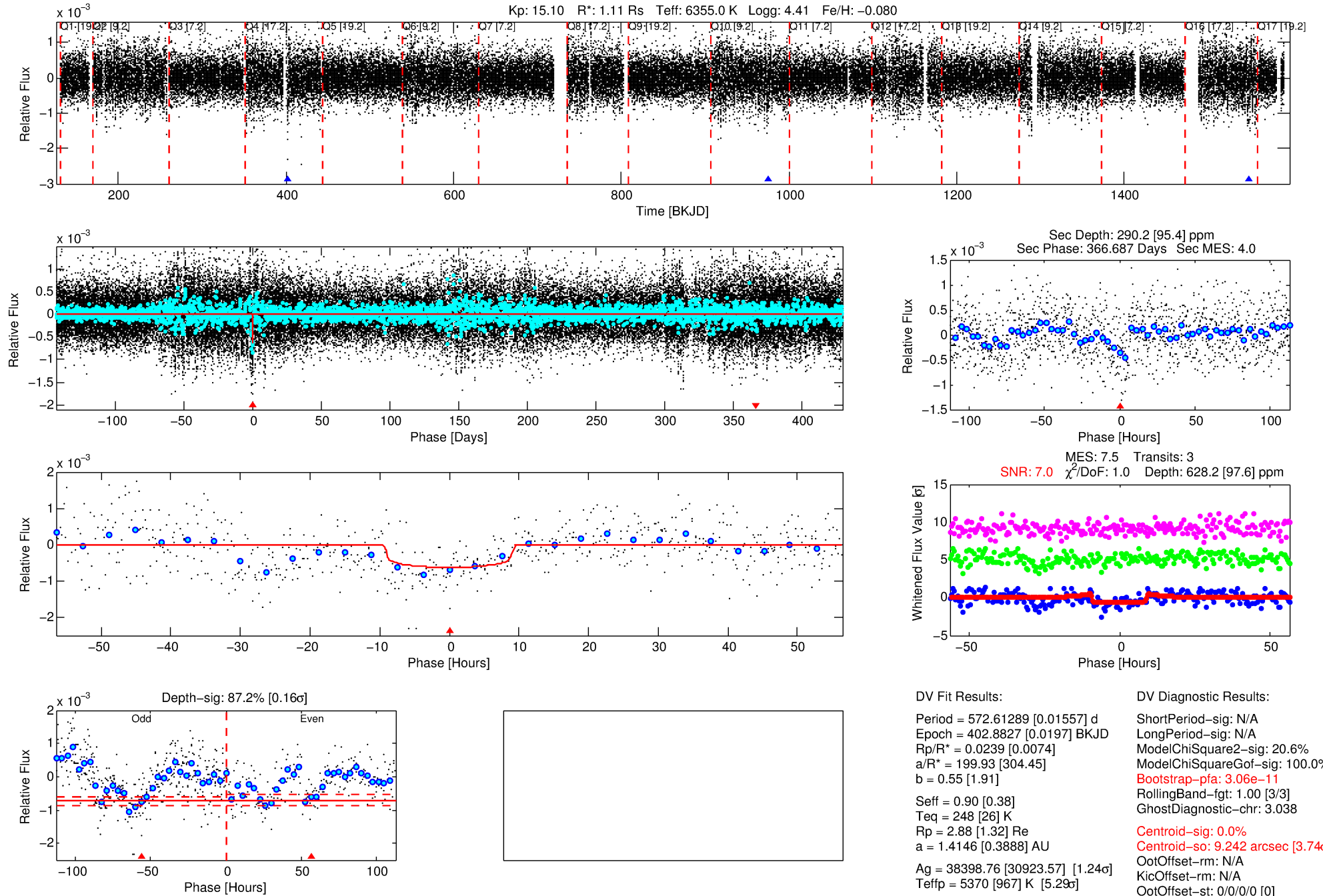
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008172397-01

No Significant Match Found

DV One-Page Summary

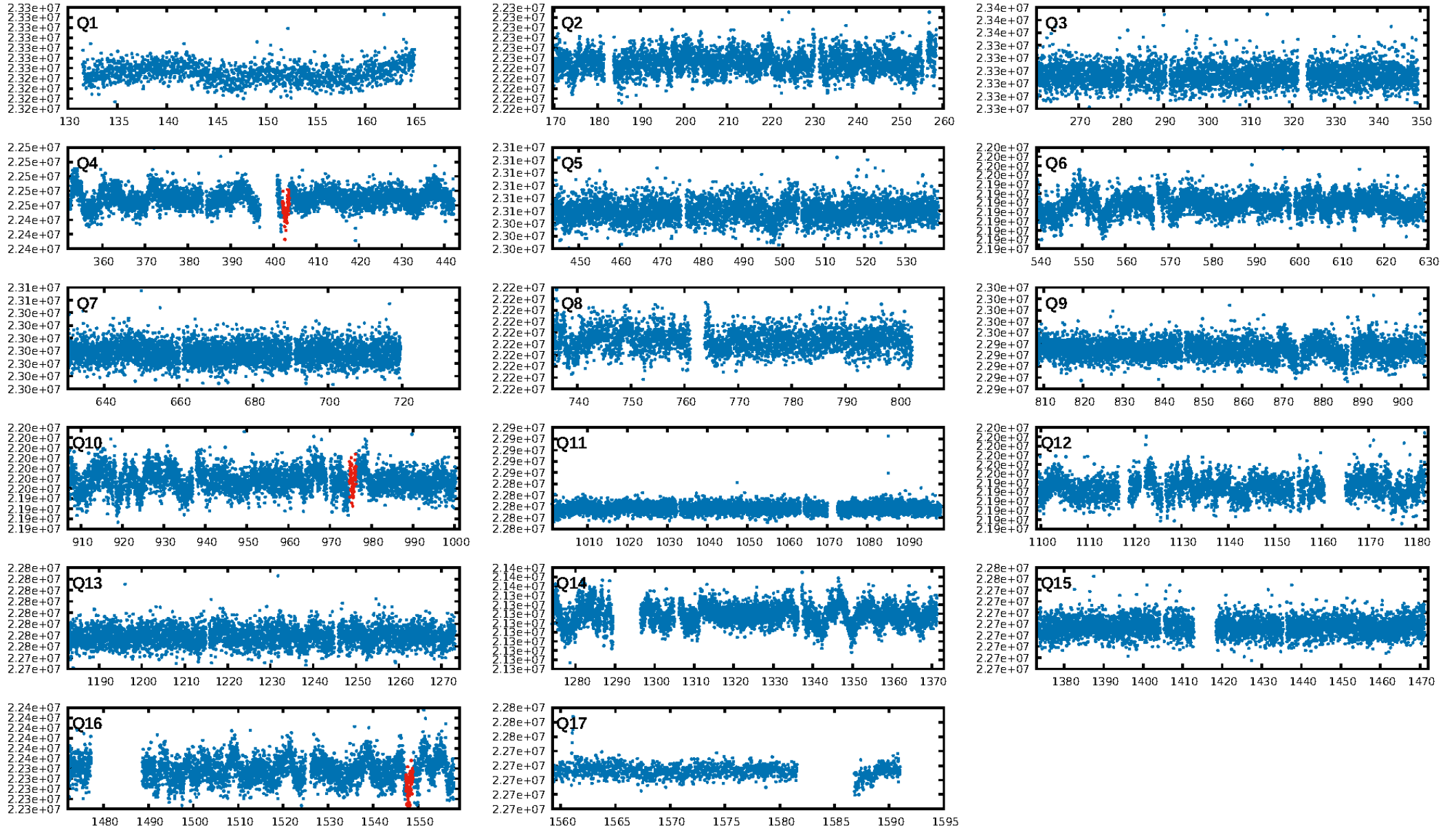
KIC: 8172397 Candidate: 1 of 1 Period: 572.613 d



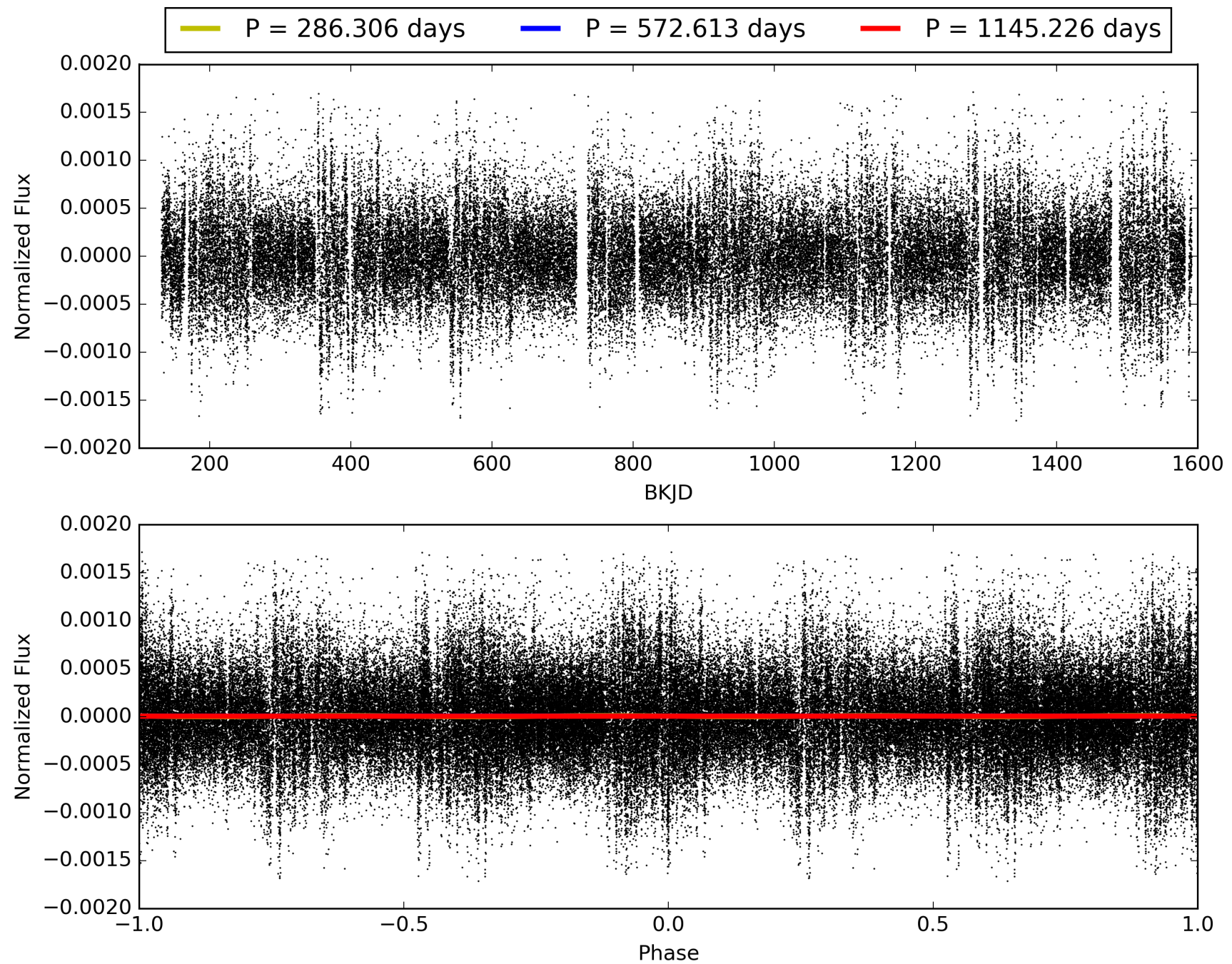
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:19:30 Z

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

TCE 008172397-01, PDC Light Curves

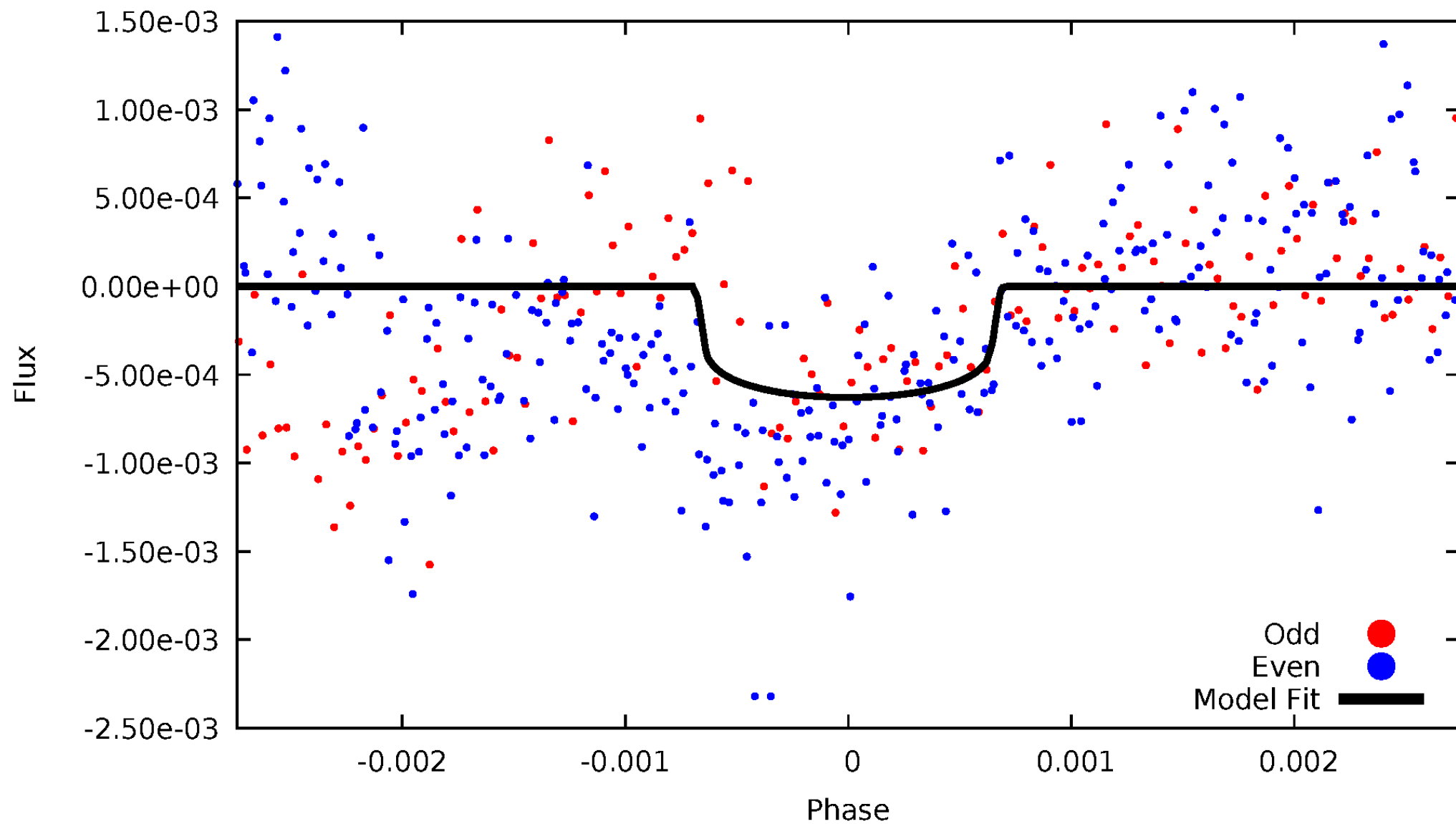


TCE 008172397-01



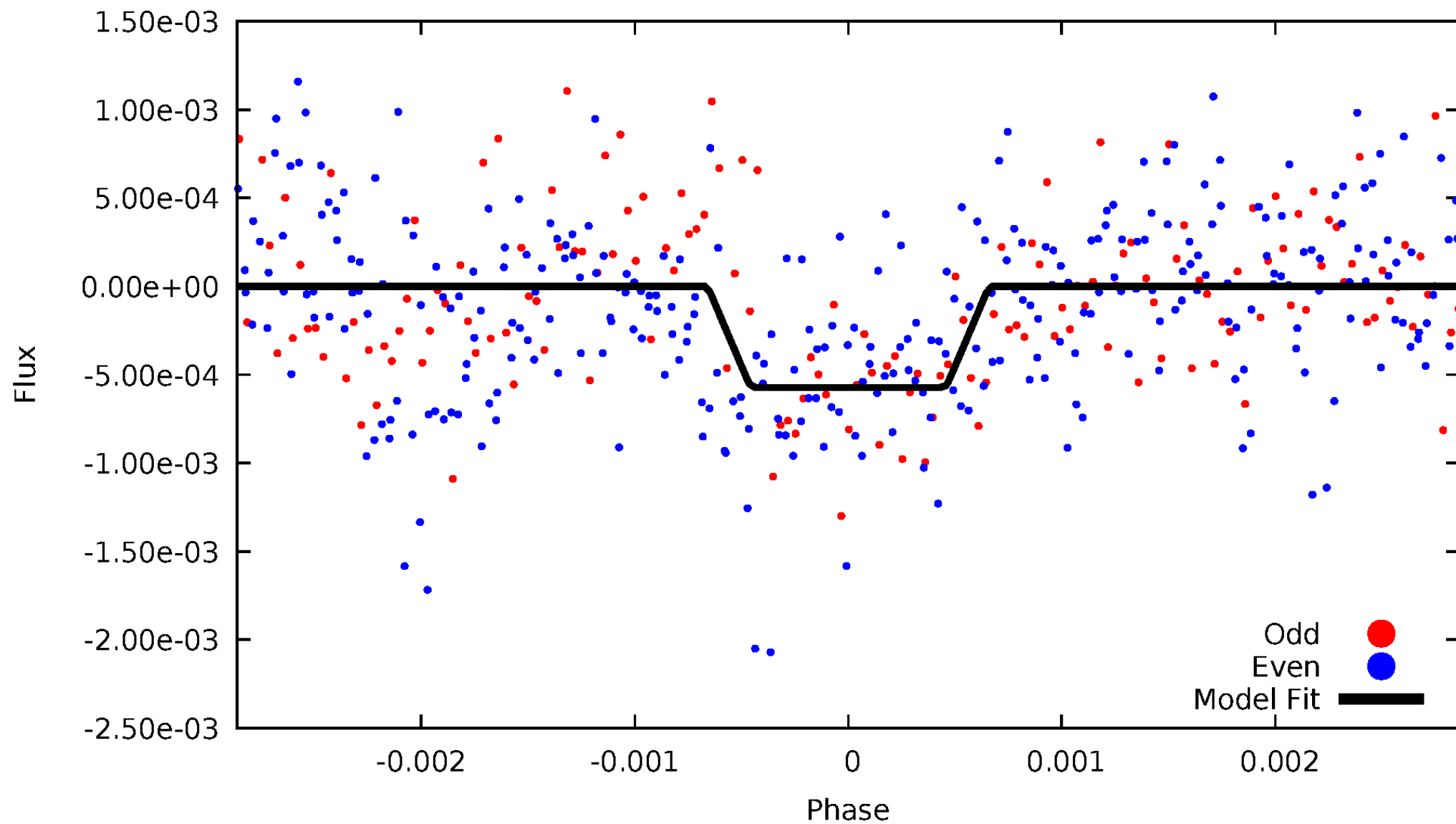
DV Odd/Even

TCE 008172397-01



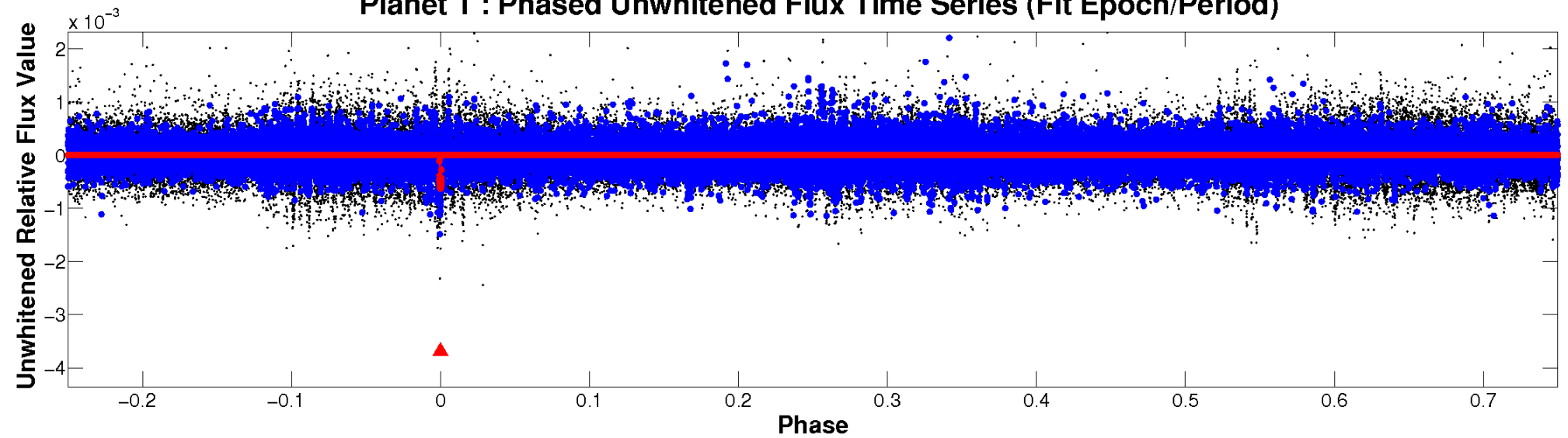
ALT Odd/Even

TCE 008172397-01

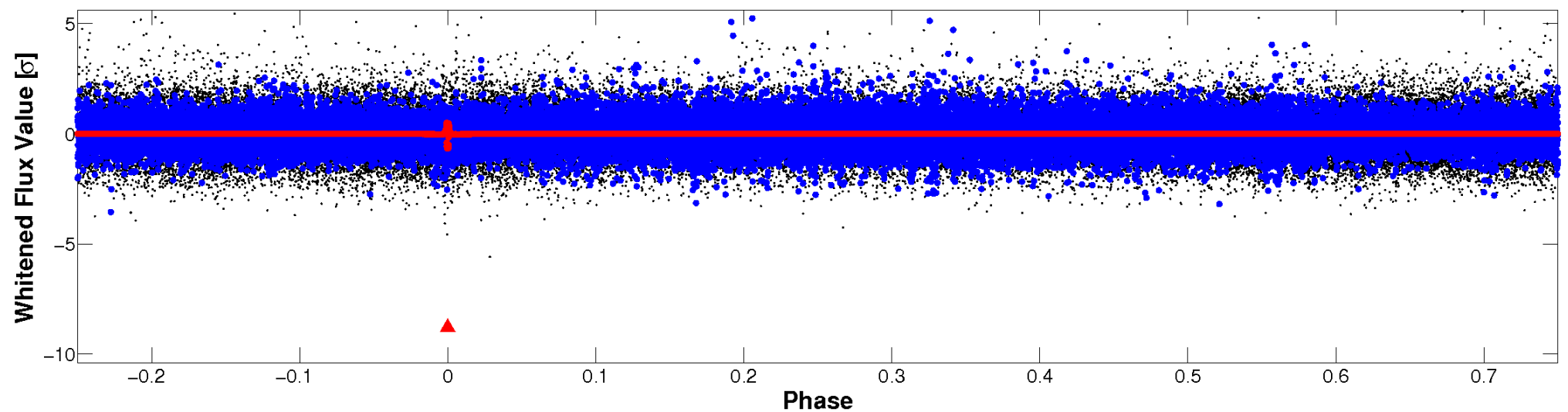


Non-Whitened Vs. Whitened Light Curve

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

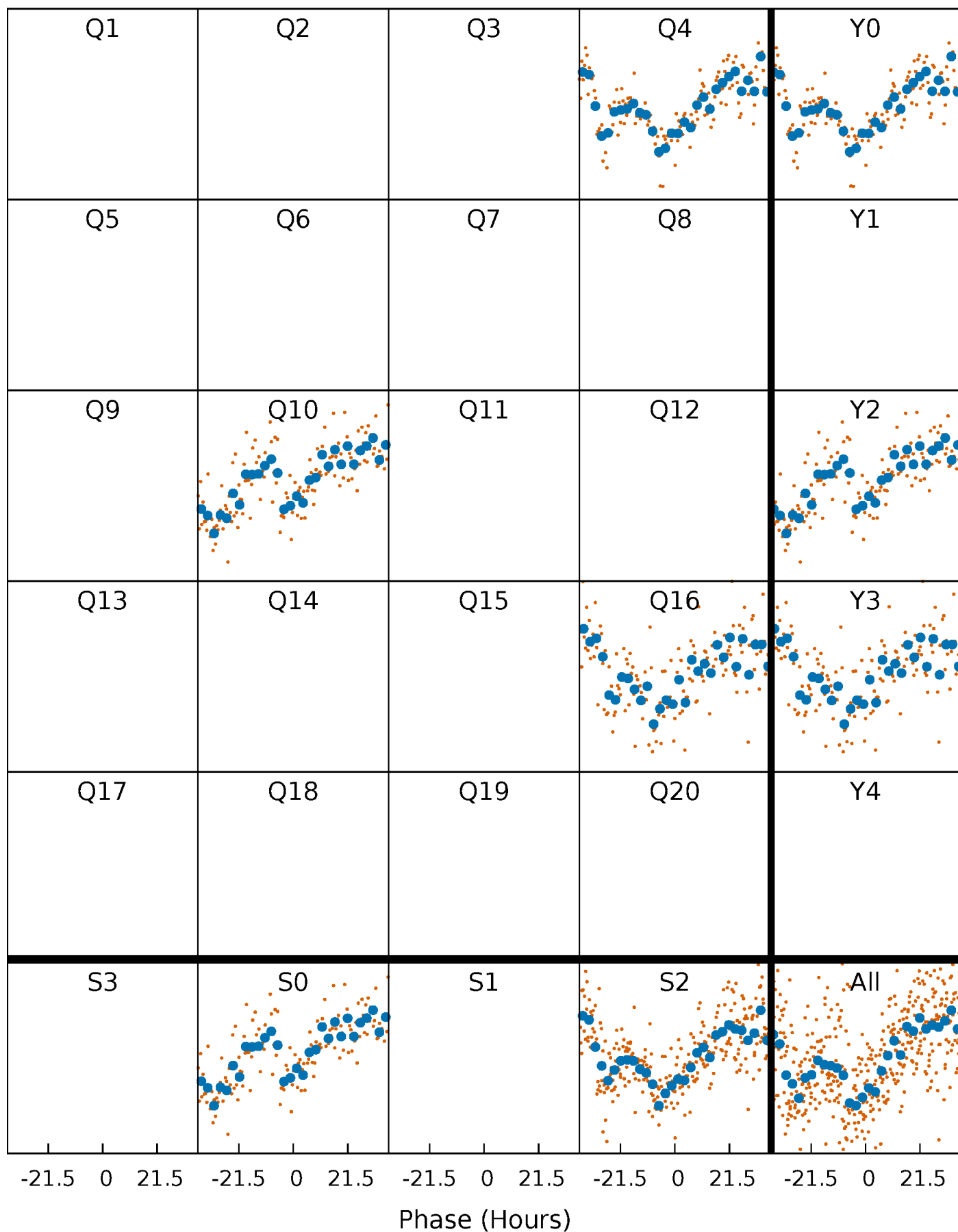


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



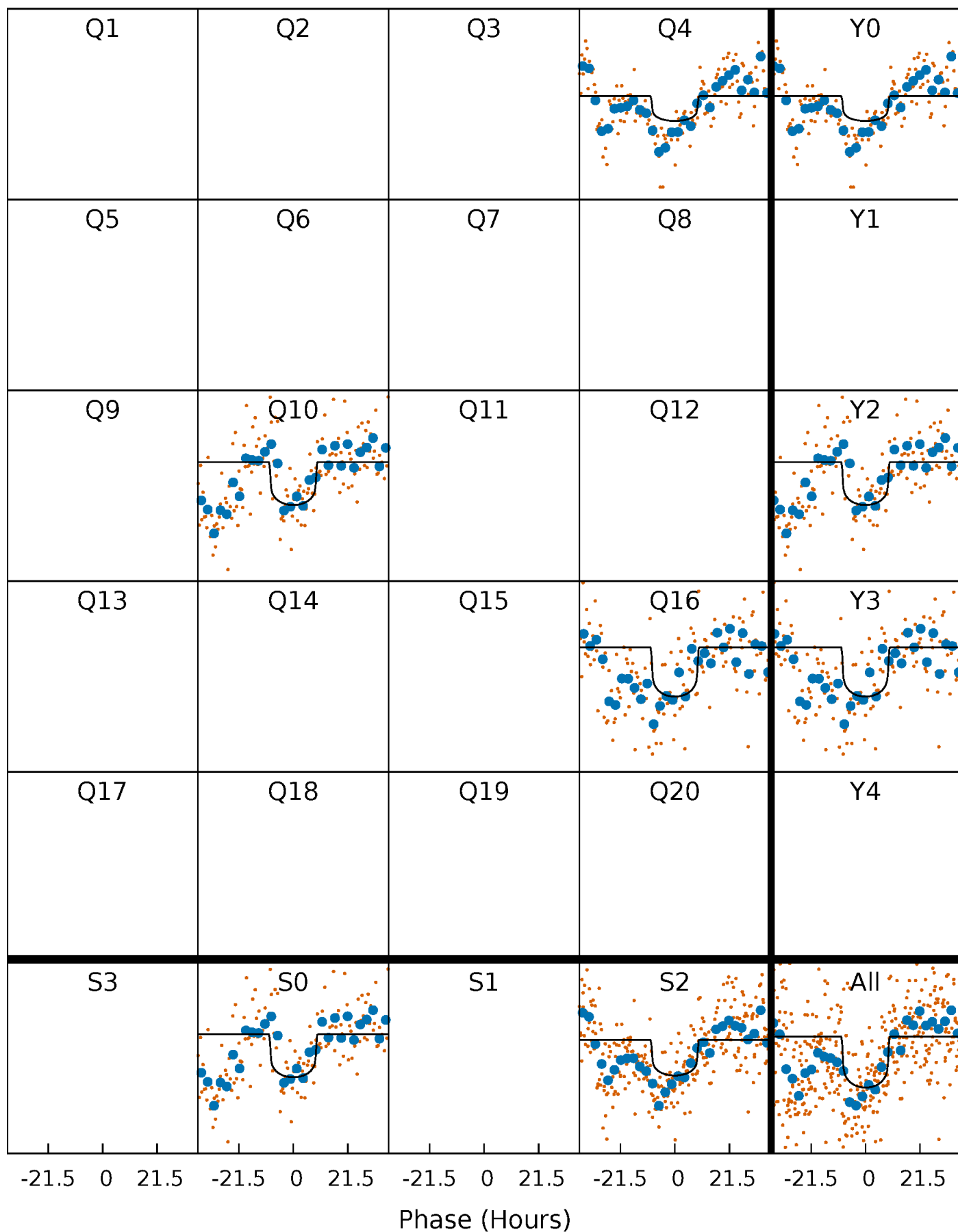
PDC Quarter-Phased Transit Curves

TCE 008172397-01 P=572.612887 Days $T_0=402.882738$ (BKJD)



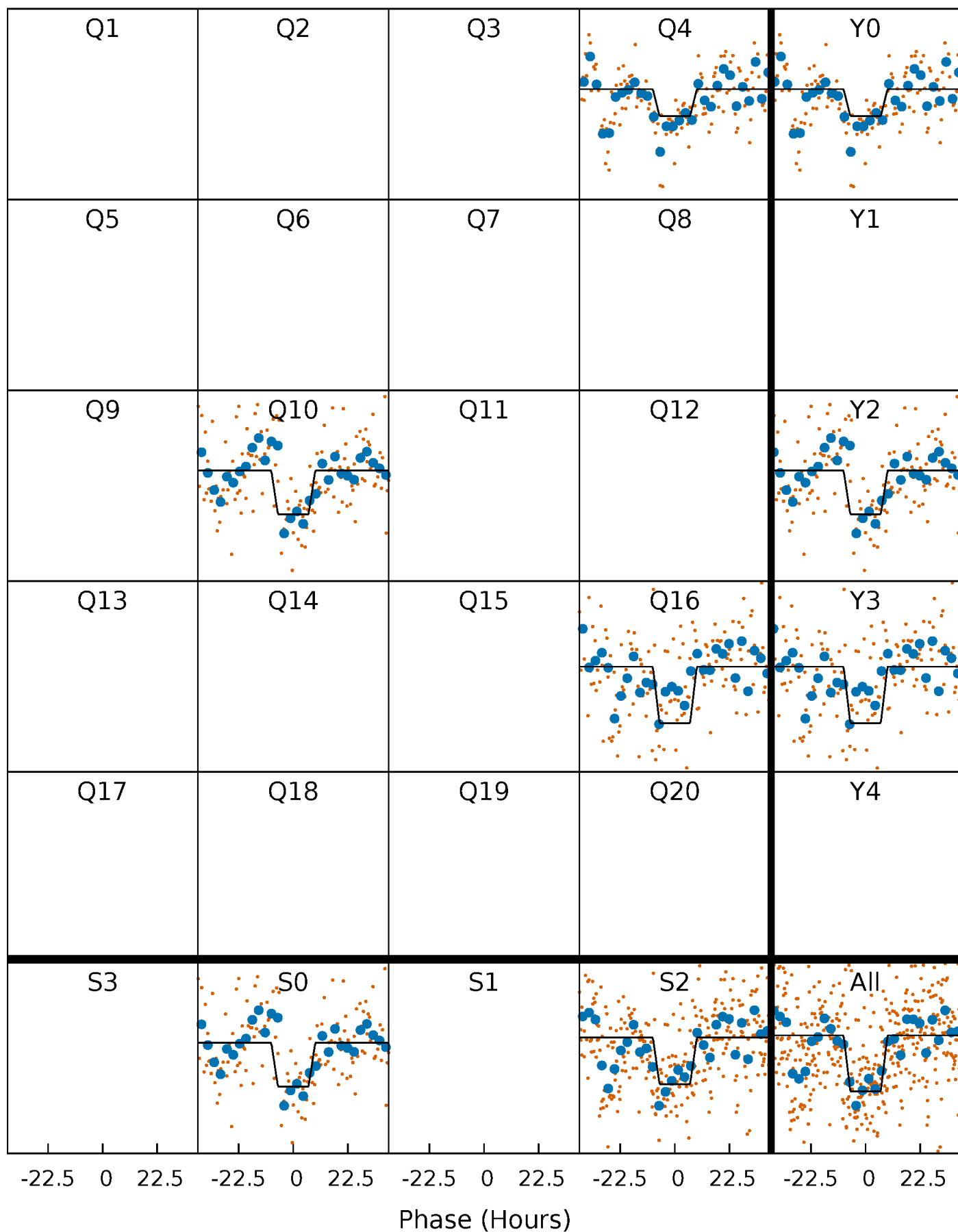
DV Quarter-Phased Transit Curves

TCE 008172397-01 $P=572.612887$ Days $T_0=402.882738$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

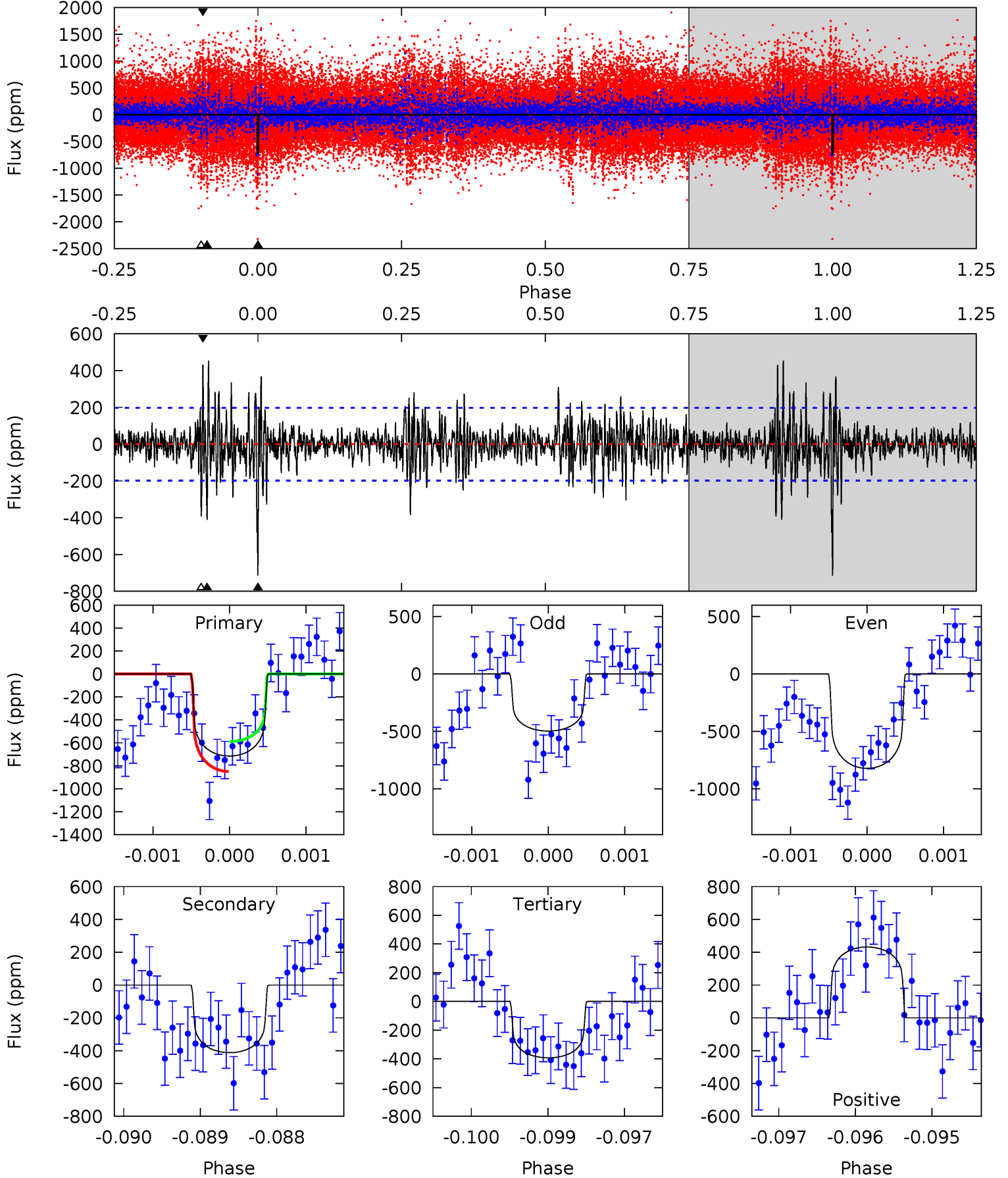
TCE 008172397-01 P=572.589218 Days $T_0=402.892259$ (BKJD)



DV Model-Shift Uniqueness Test

008172397-01, P = 572.612887 Days, E = 402.882738 Days

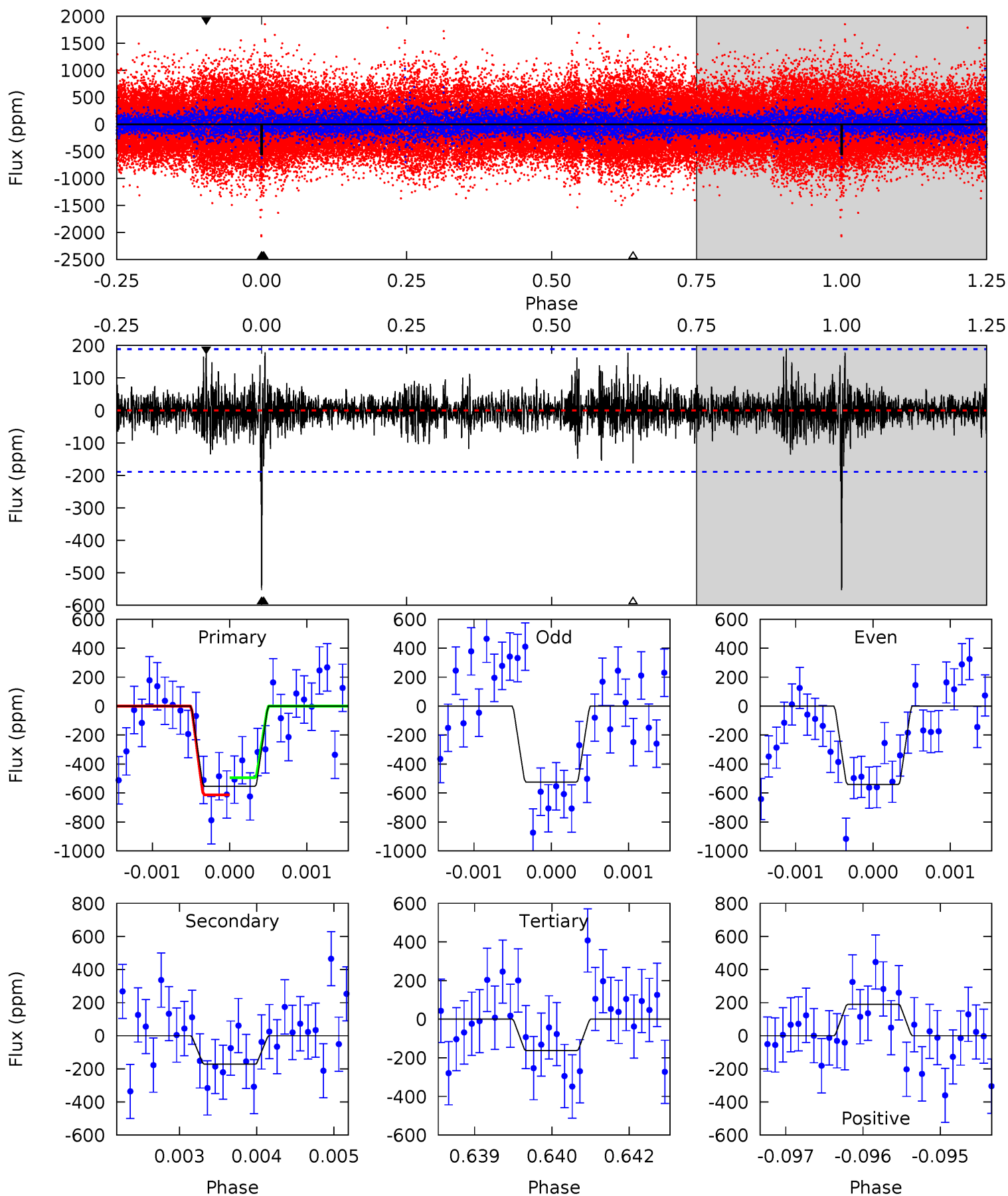
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.5	11.2	10.7	11.8	5.39	3.20	2.40	8.79	7.71	0.53	-0.54	4.17	1.15	0.39	3.57



Alt Model-Shift Uniqueness Test

008172397-01, P = 572.589218 Days, E = 402.892259 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.8	4.91	4.65	5.42	5.40	3.21	1.09	11.2	10.4	0.27	-0.51	0.22	1.06	0.26	1.70



Stellar Parameters For KIC 008172397

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6355^{+179}_{-246}	$4.410^{+0.070}_{-0.210}$	$-0.080^{+0.250}_{-0.300}$	$1.108^{+0.370}_{-0.148}$	$1.151^{+0.172}_{-0.157}$	$1.191^{+0.368}_{-0.665}$
	+3%/-4%	+2%/-5%	+312%/-375%	+33%/-13%	+15%/-14%	+31%/-56%
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 008172397-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-412 ± 37	$3.00^{+1.09}_{-0.94}$	353^{+30}_{-20}	5848^{+1262}_{-685}	48921^{+55433}_{-21810}
Alt.	-172 ± 35	$2.99^{+1.06}_{-0.91}$	353^{+26}_{-20}	4846^{+784}_{-567}	20966^{+22739}_{-10219}

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

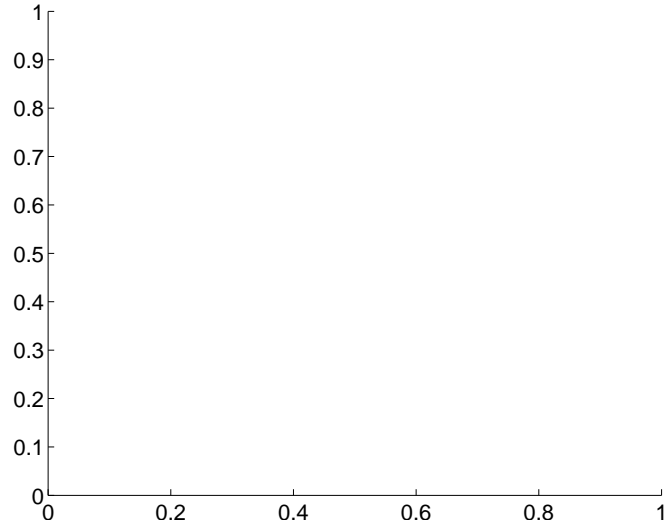
Supplemental centroid analysis for 008172397-01. Kepler magnitude: 15.10. Transit SNR 7.04

There are 0 quarters with good PRF difference image offsets

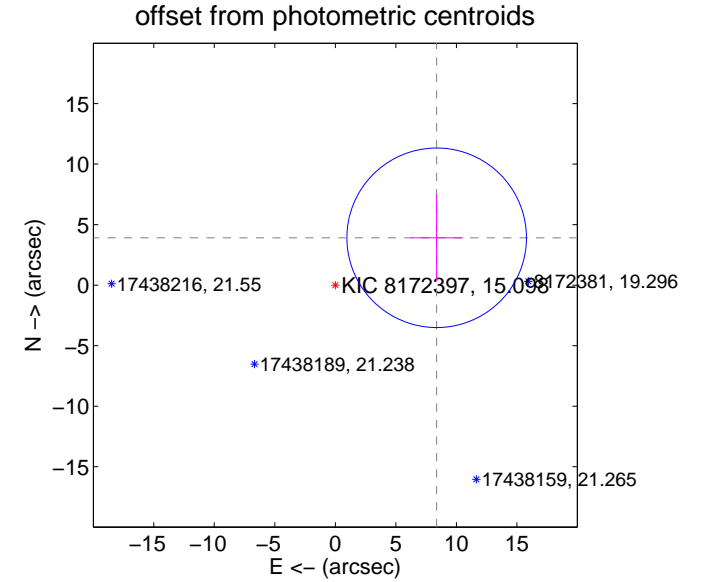
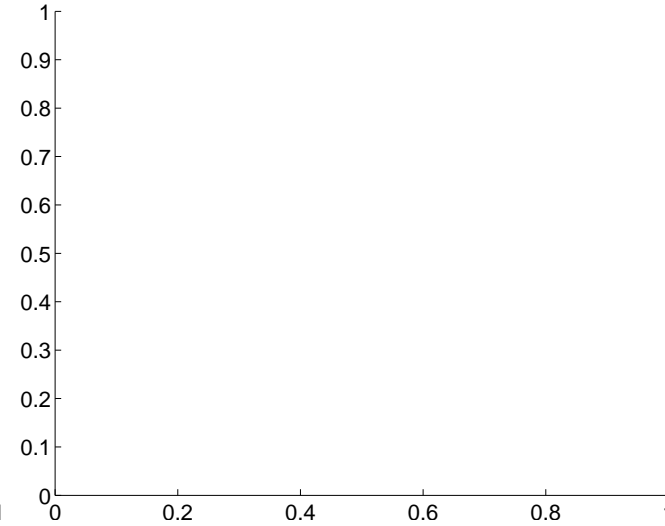
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	9.24 ± 2.47	3.74	-8.37 ± 2.15	3.91 ± 3.59

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



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.

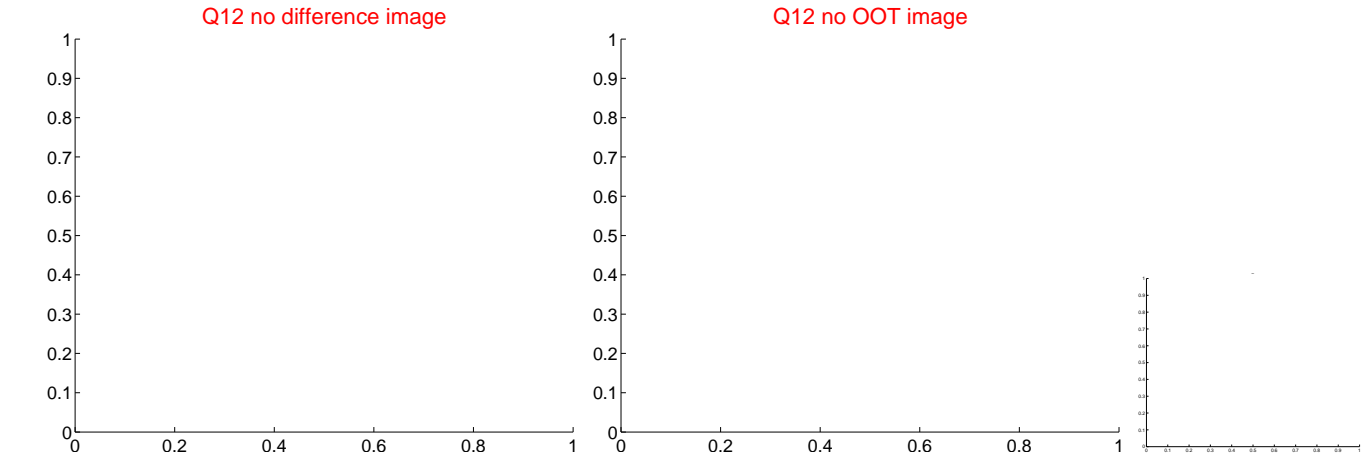
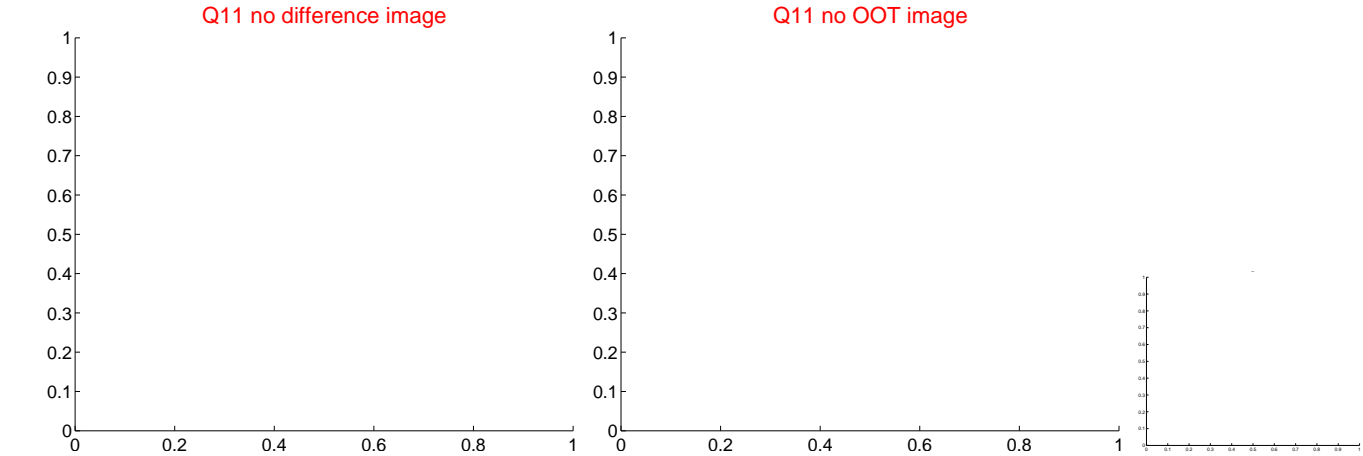
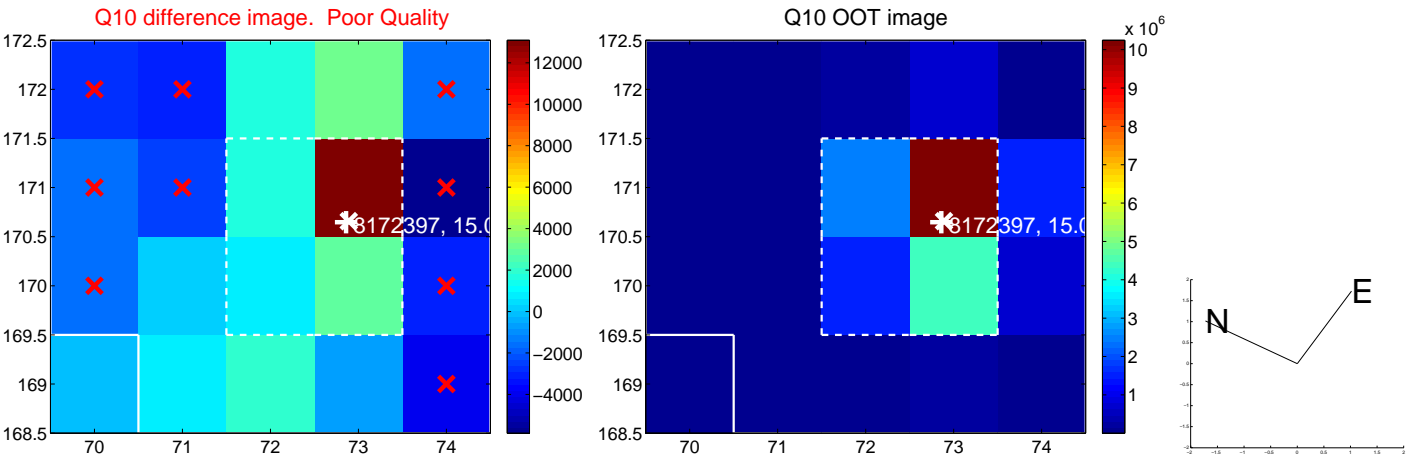
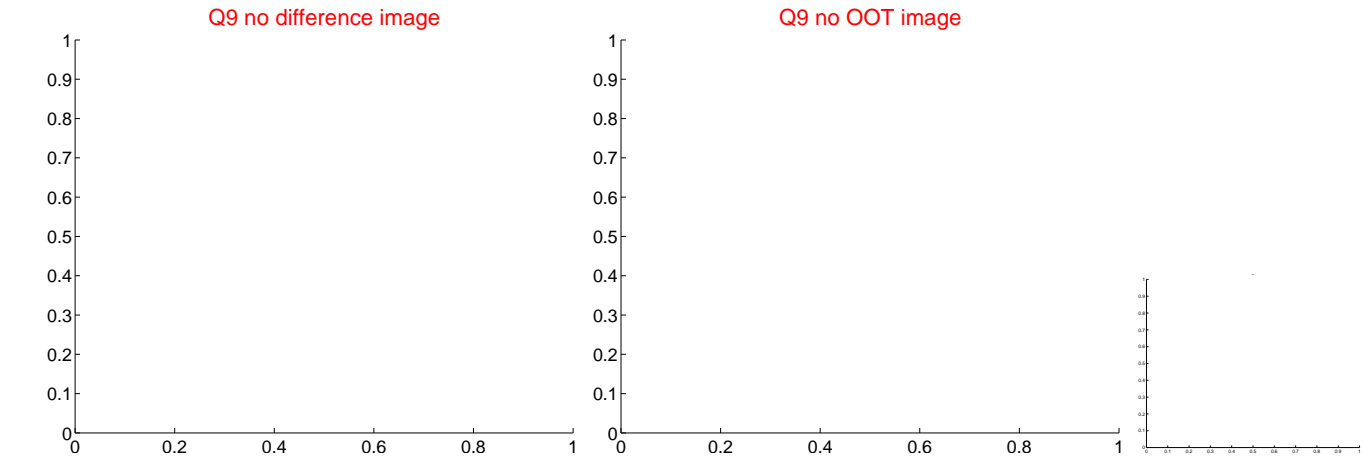
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



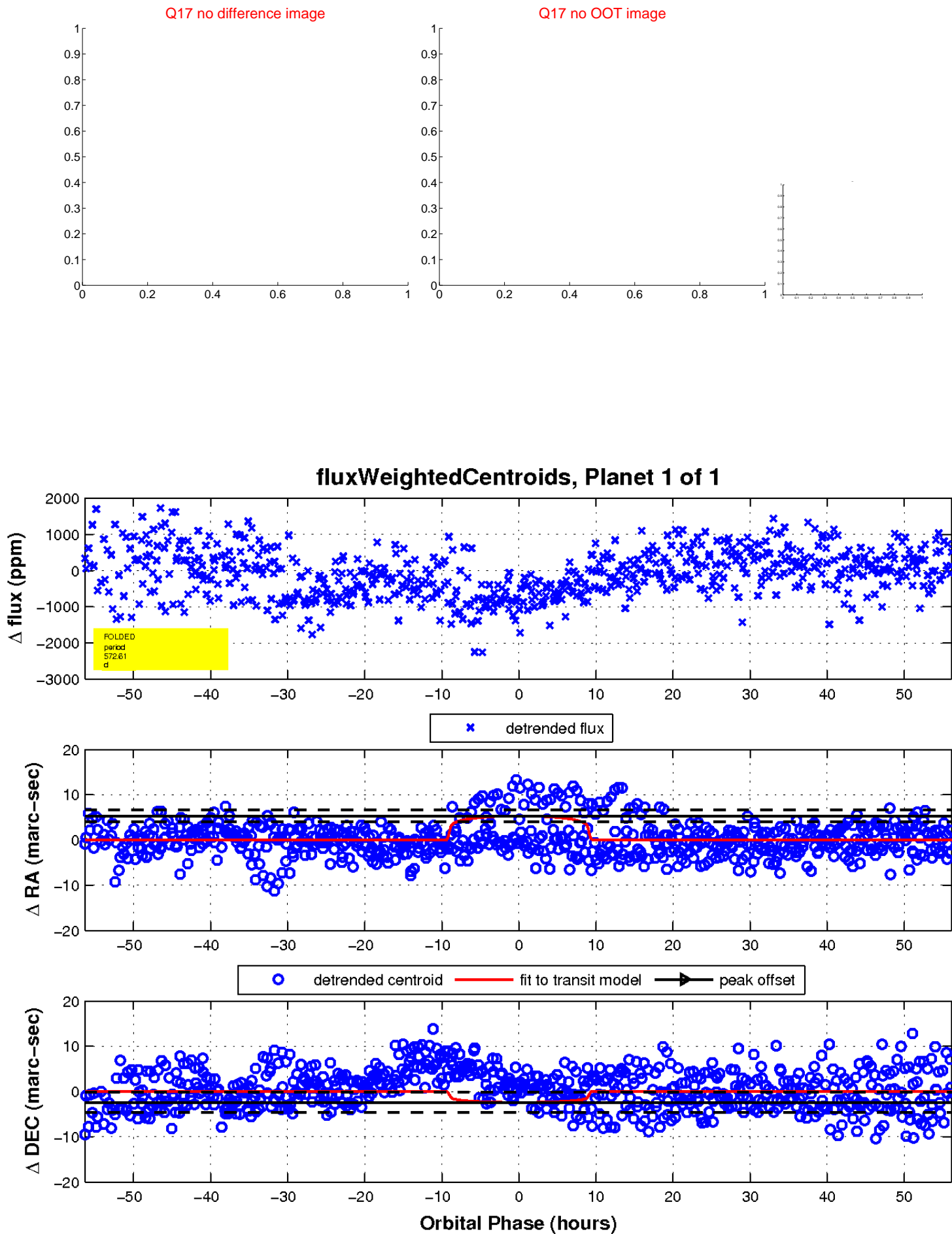
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white \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.



UKIRT Image

Declination

