

KIC 007347797

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})
007347797-01	OBS	No	382.819391	497.638002	1201.6	3.547	11.4	7.0	0.51	4447	1.93	0.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007347797-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_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.

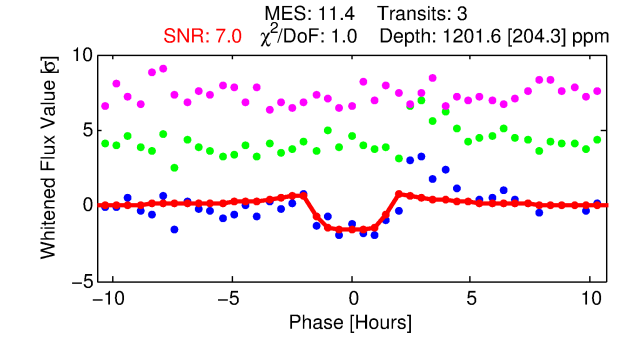
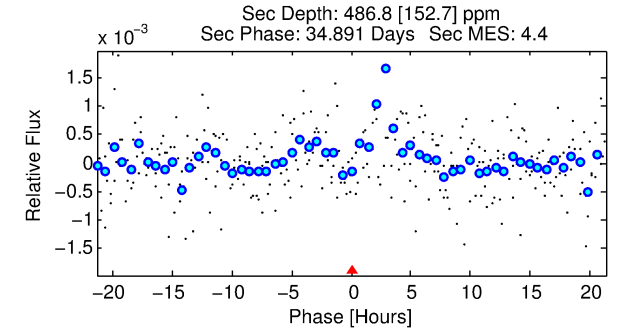
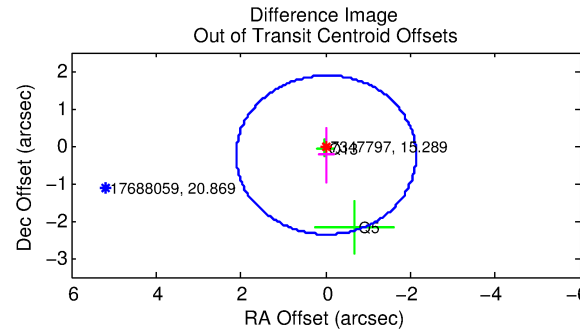
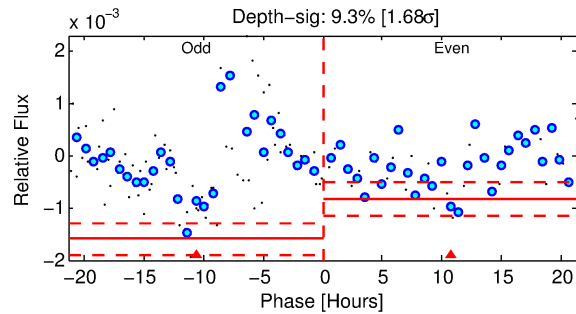
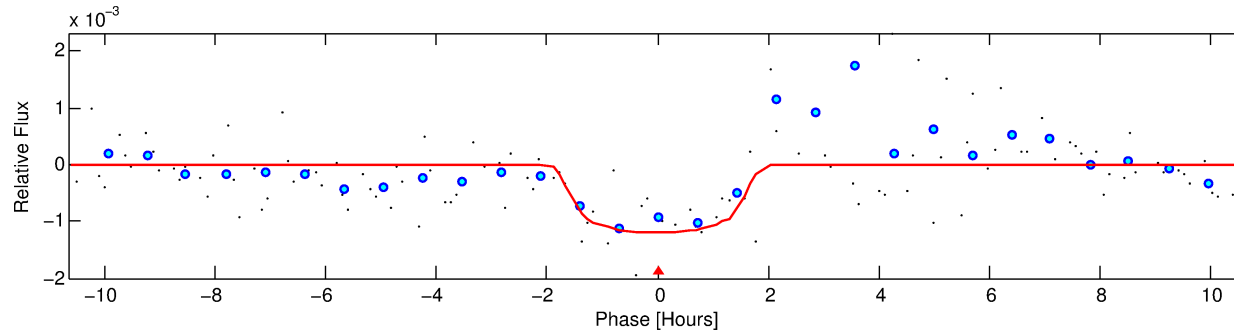
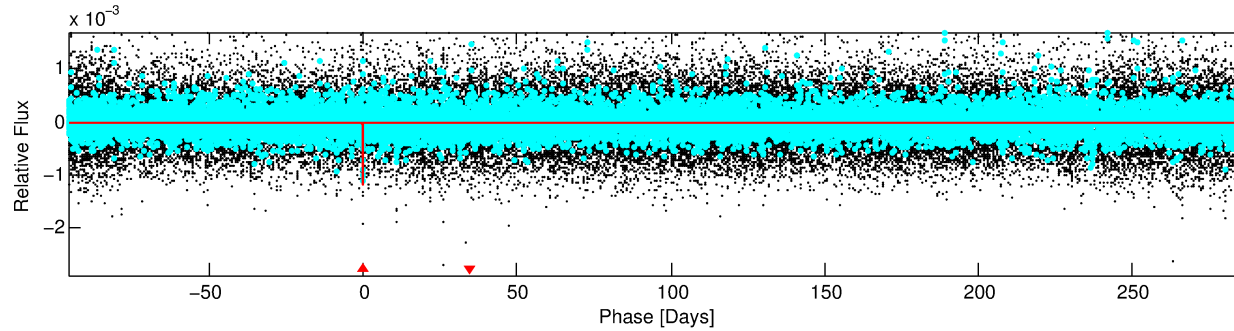
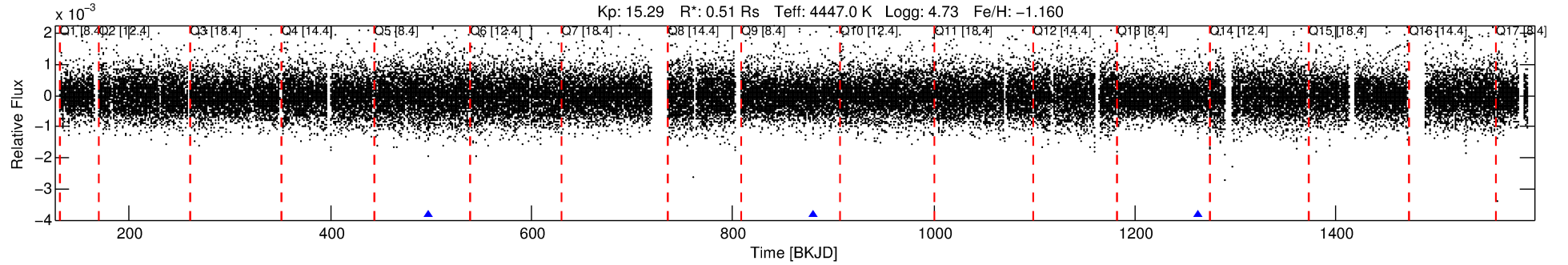
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007347797-01

No Significant Match Found

DV One-Page Summary

KIC: 7347797 Candidate: 1 of 1 Period: 382.819 d



DV Fit Results:

Period = 382.81939 [0.00668] d
Epoch = 497.6380 [0.0100] BKJD
Rp/R* = 0.0345 [0.0376]
a/R* = 589.95 [2609.19]
b = 0.75 [2.66]
Seff = 0.13 [0.02]
Teq = 154 [6] K
Rp = 1.93 [2.11] Re
a = 0.8264 [0.0583] AU
Ag = 49114.32 [108215.11] [0.45 σ]
Teffp = 3554 [1959] K [1.74 σ]

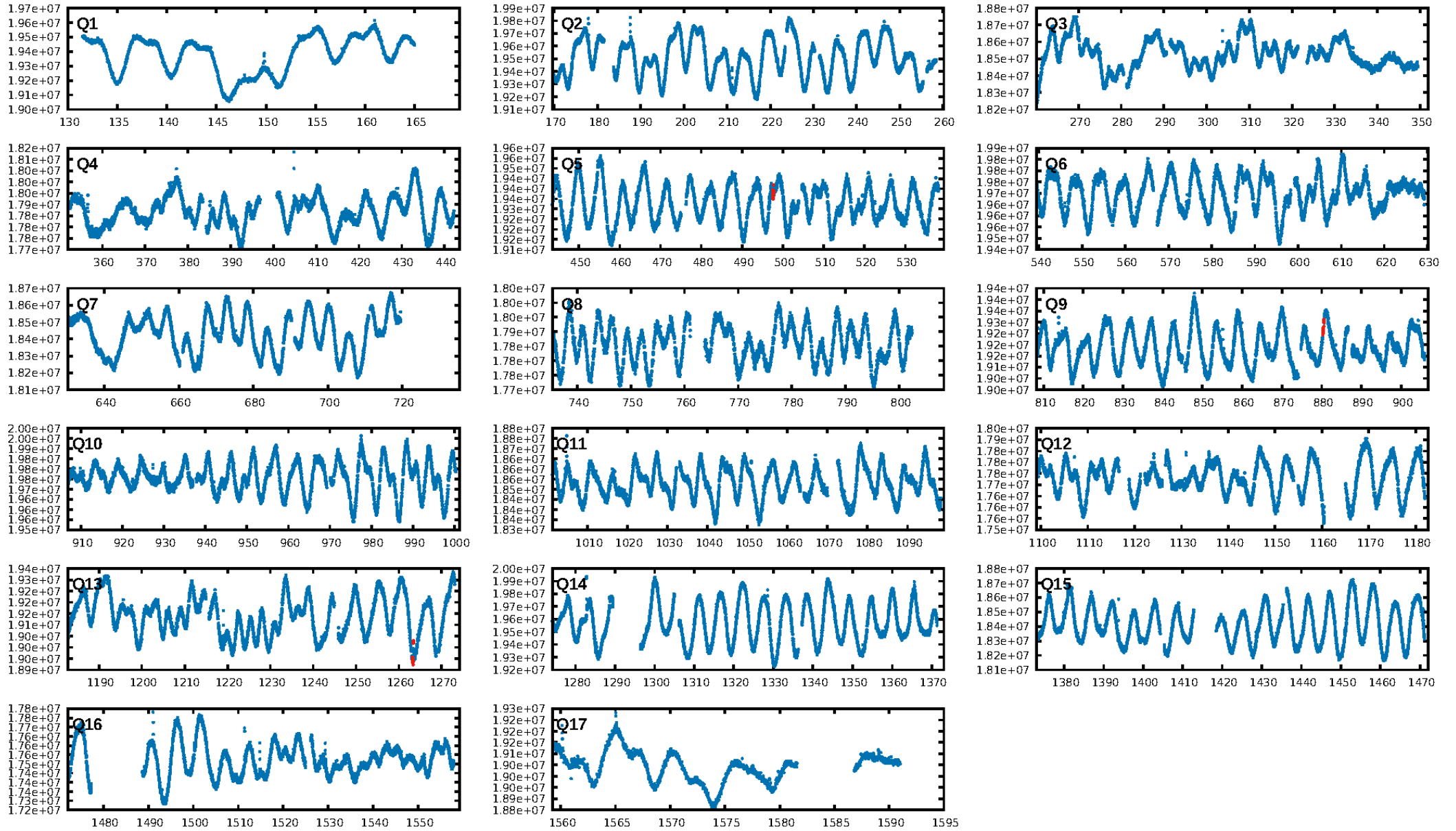
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 21.1%
ModelChiSquareGof-sig: 85.6%
Bootstrap-pfa: 4.07e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.106
Centroid-sig: 29.6%
Centroid-so: 1.254 arcsec [1.07 σ]
OotOffset-rm: 0.242 arcsec [0.34 σ]
KicOffset-rm: 0.364 arcsec [0.34 σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

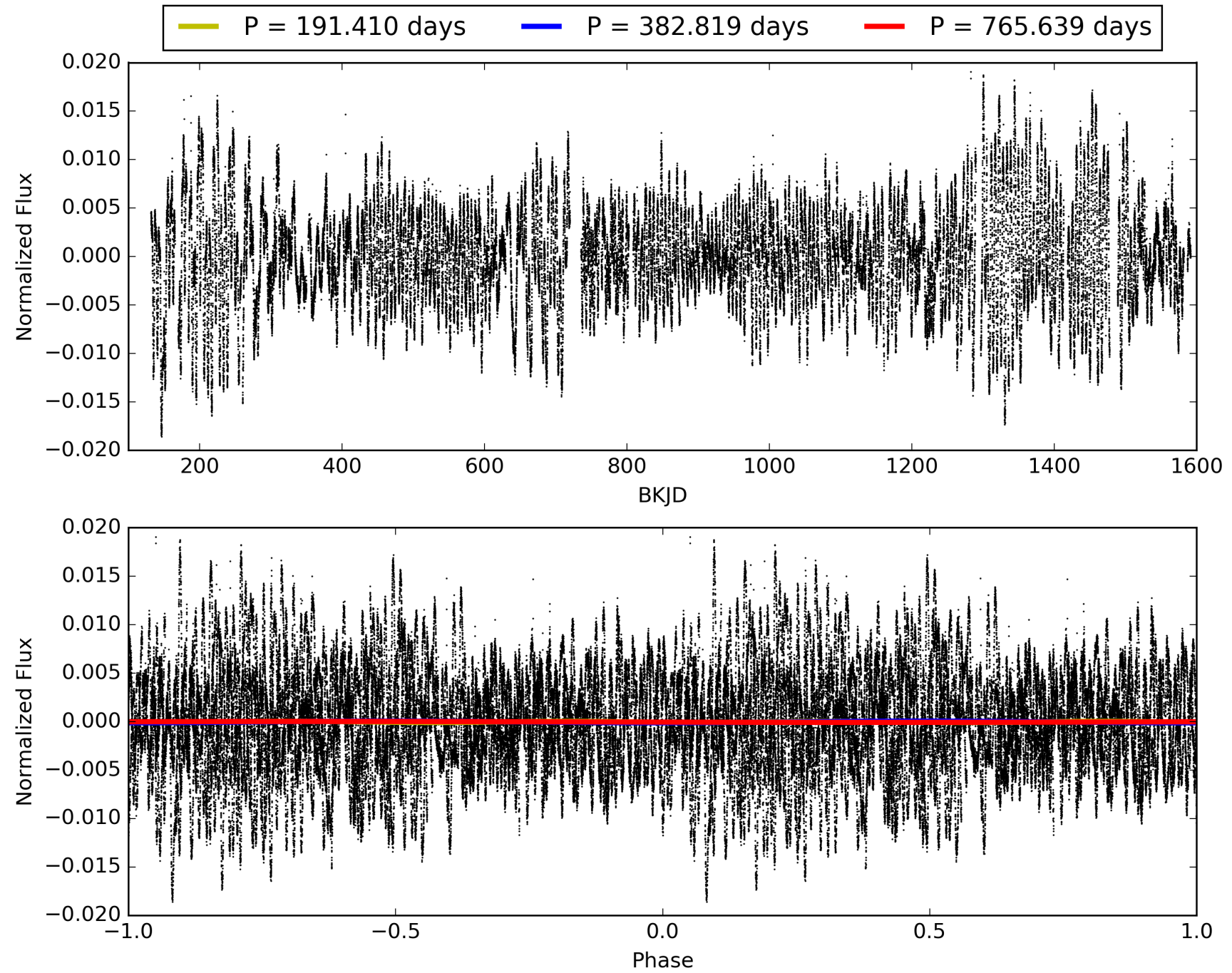
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:28:19 Z

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

TCE 007347797-01, PDC Light Curves

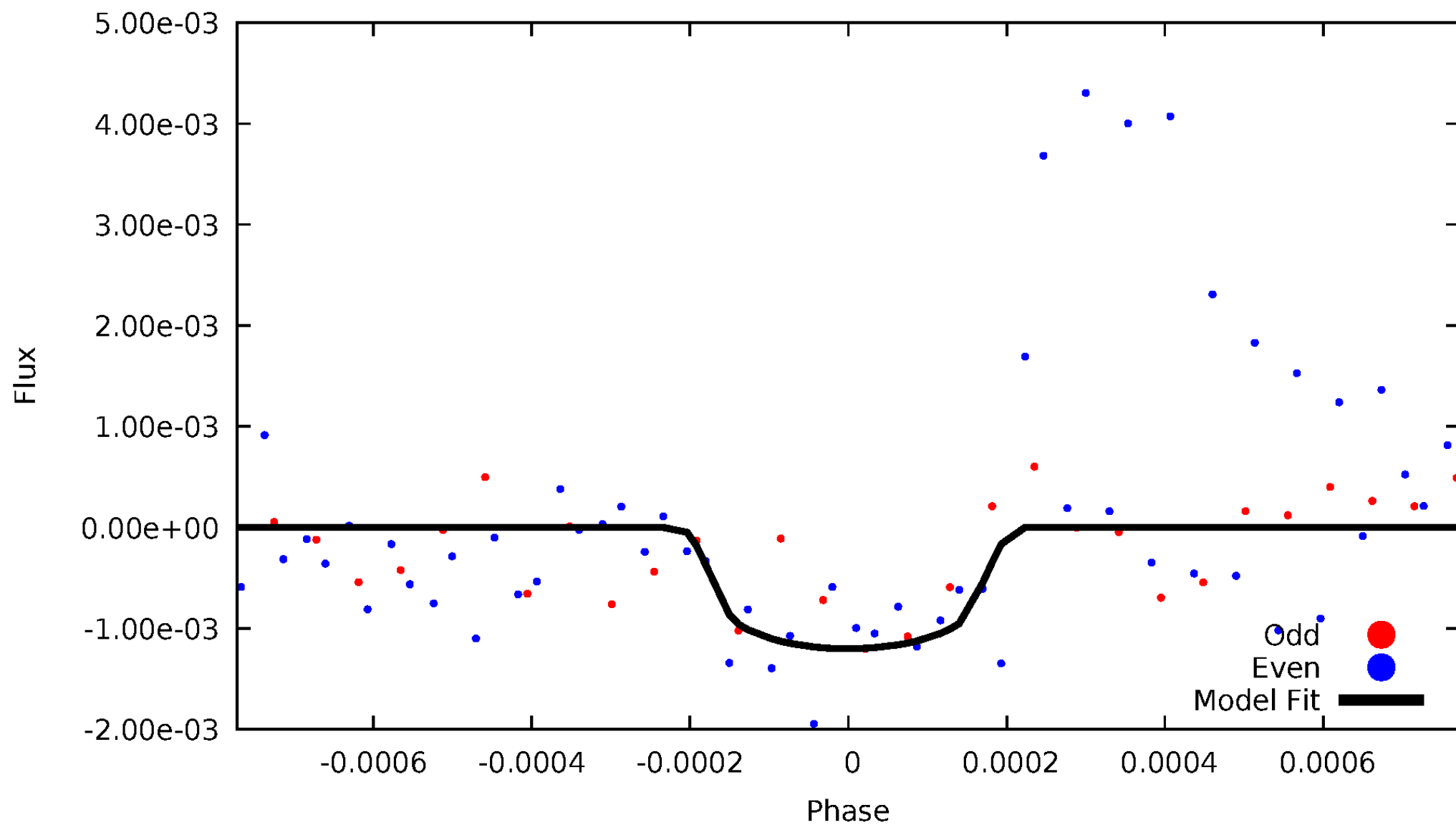


TCE 007347797-01



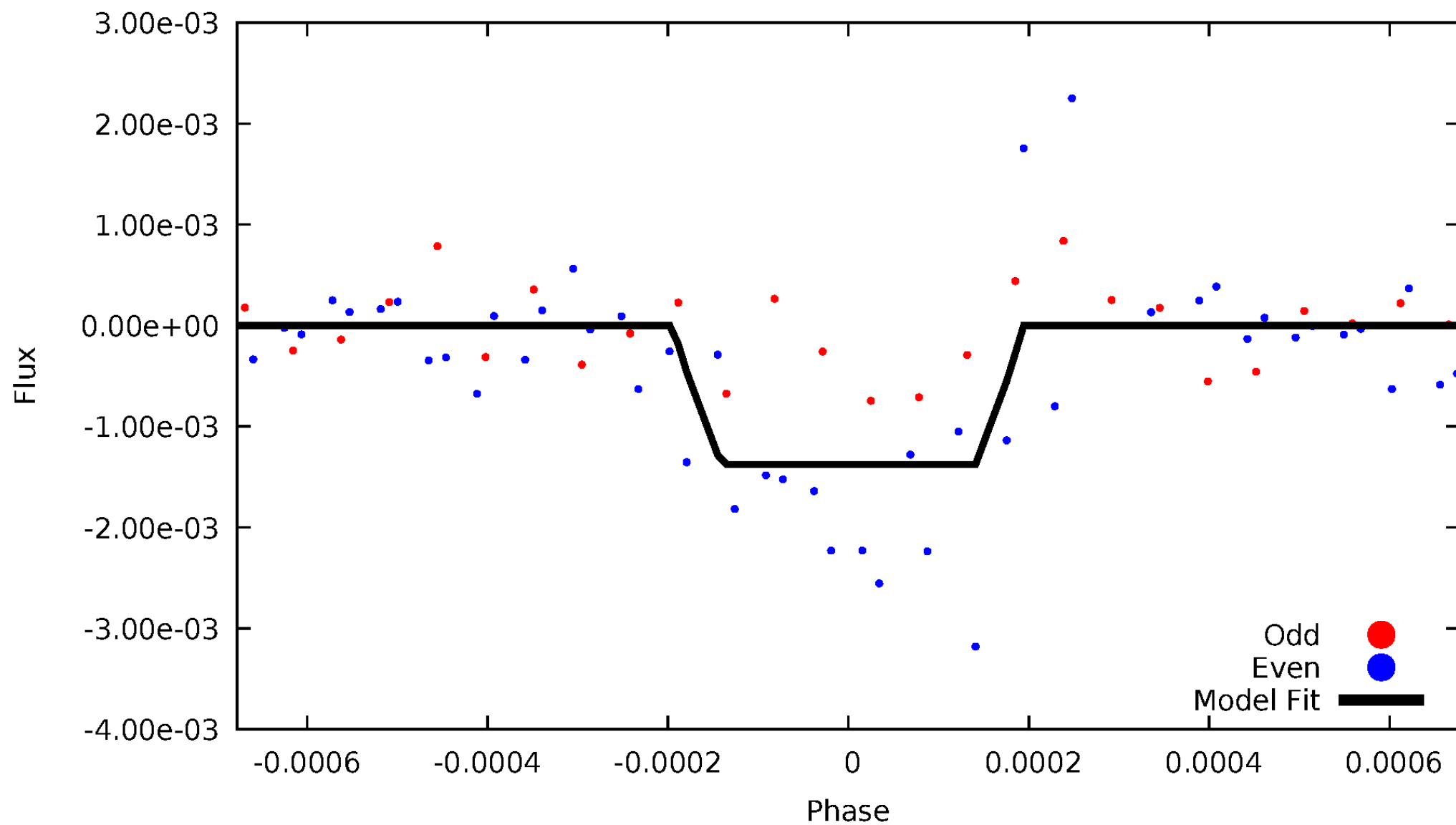
DV Odd/Even

TCE 007347797-01



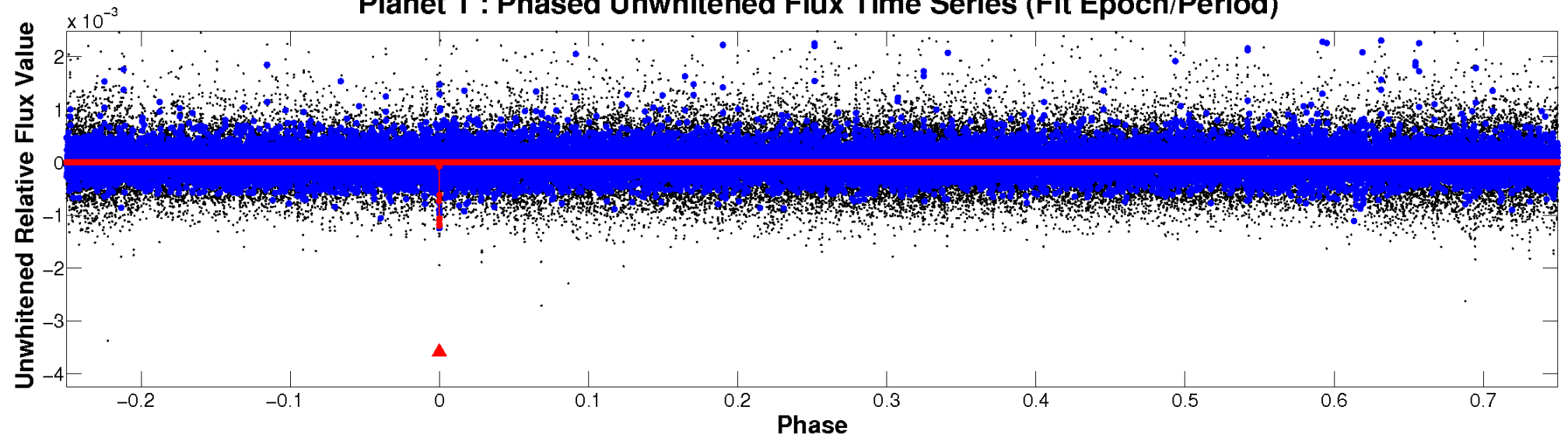
ALT Odd/Even

TCE 007347797-01

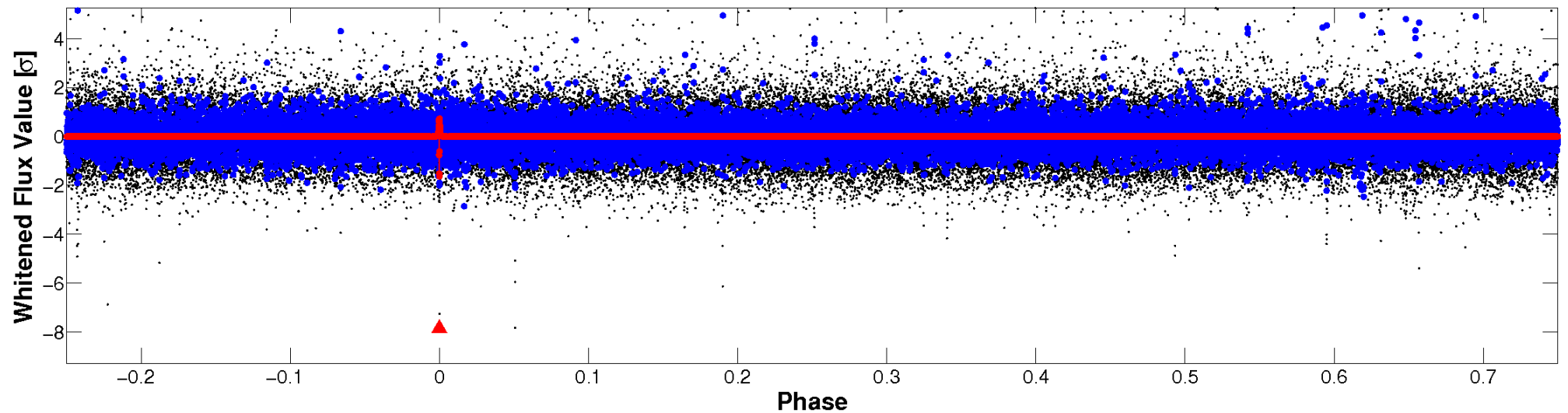


Non-Whitened Vs. Whitened Light Curve

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

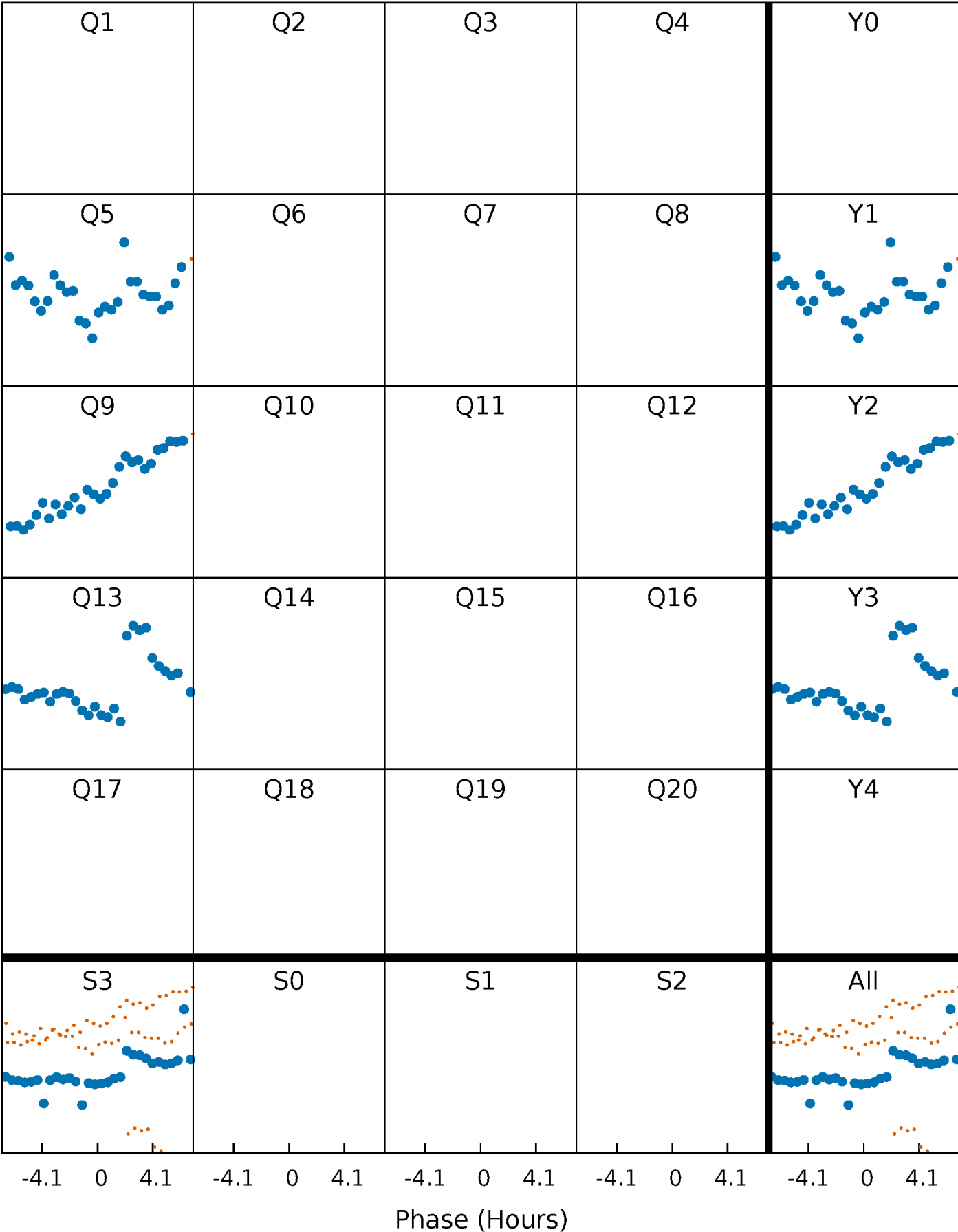


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



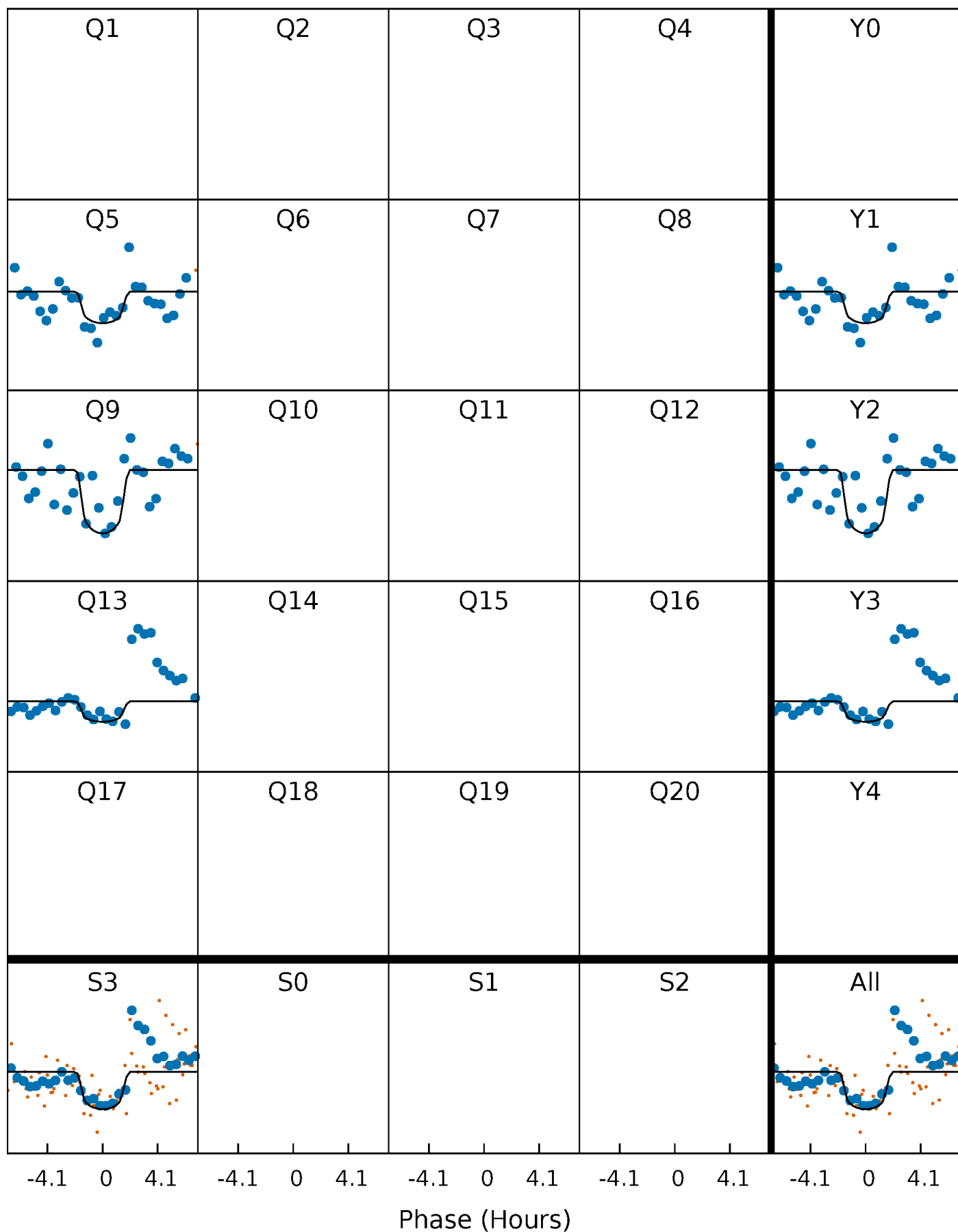
PDC Quarter-Phased Transit Curves

TCE 007347797-01 P=382.819391 Days T₀=497.638002 (BKJD)



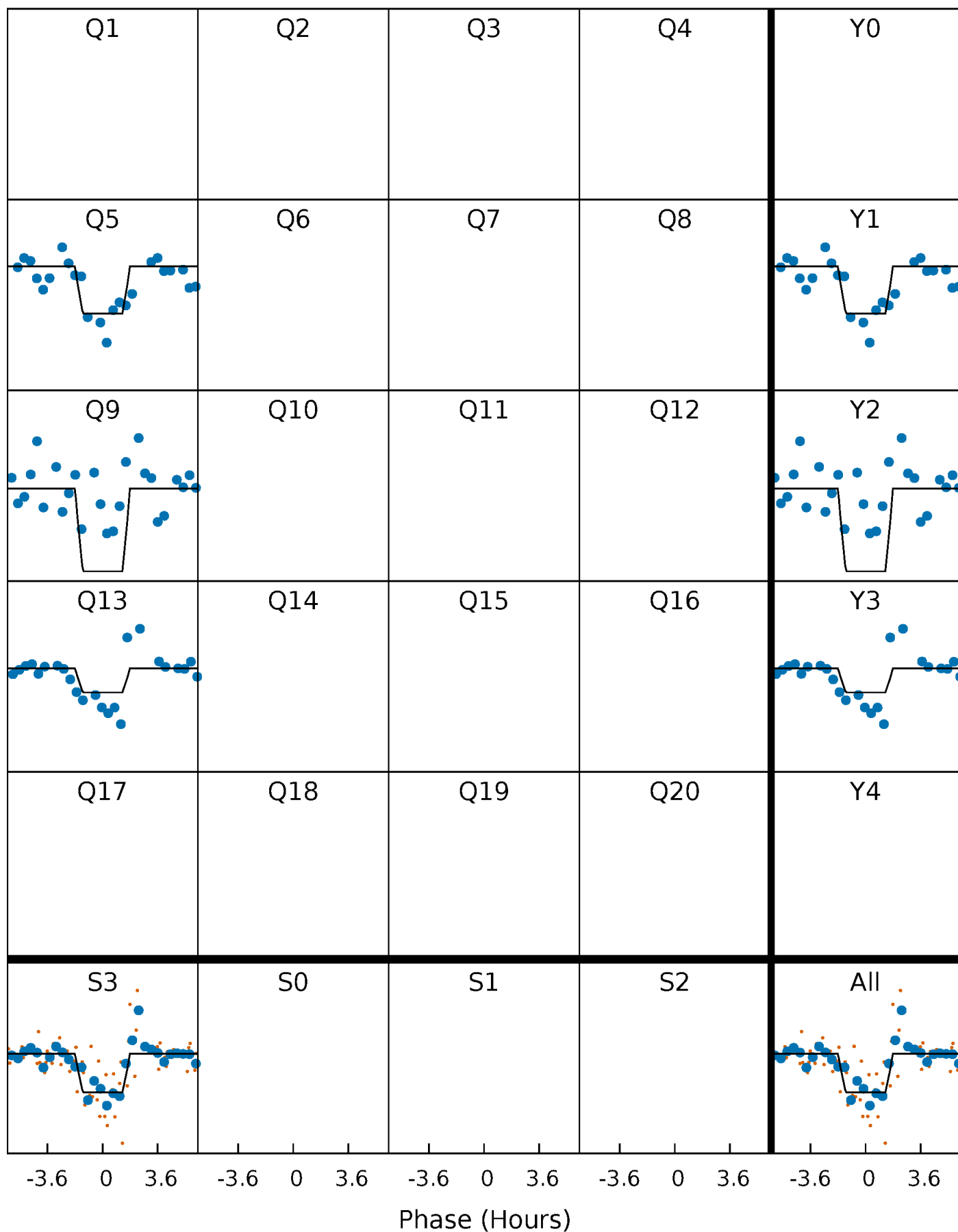
DV Quarter-Phased Transit Curves

TCE 007347797-01 P=382.819391 Days $T_0=497.638002$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

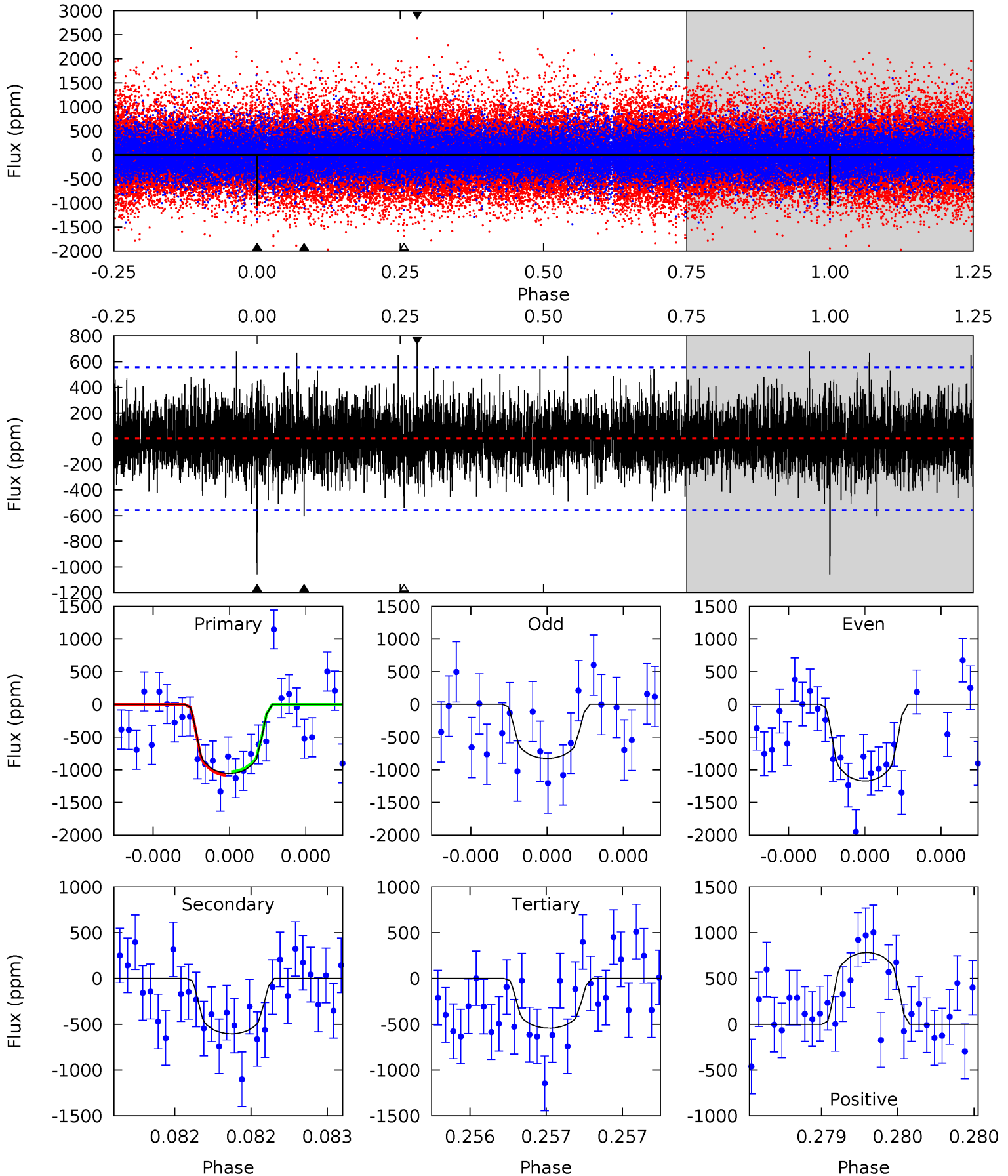
TCE 007347797-01 P=382.840691 Days $T_0=497.615394$ (BKJD)



DV Model-Shift Uniqueness Test

007347797-01, P = 382.819391 Days, E = 114.818611 Days

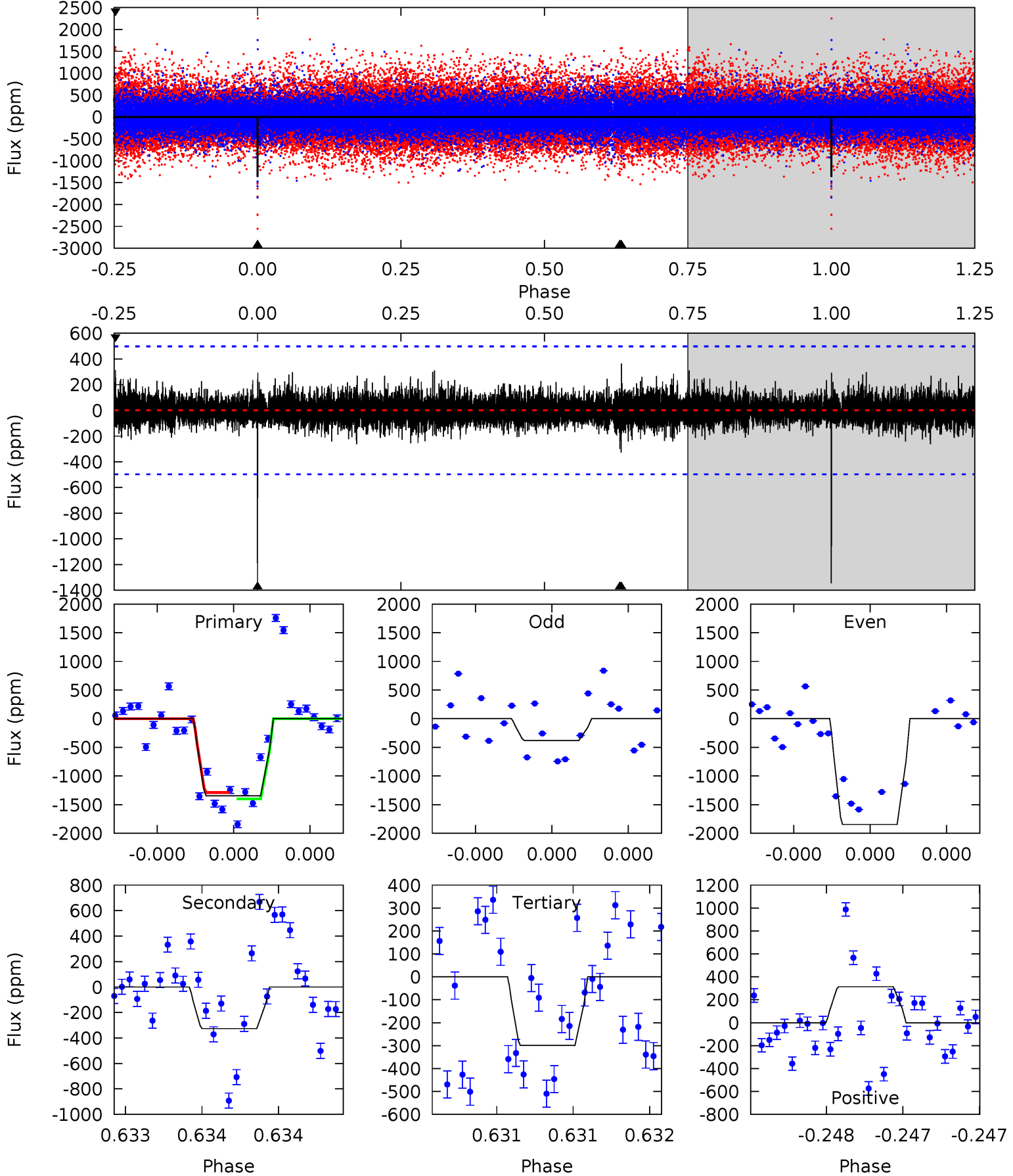
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	6.10	5.47	7.89	5.61	3.54	1.50	5.19	2.77	0.63	-1.79	1.66	1.05	0.43	0.29



Alt Model-Shift Uniqueness Test

007347797-01, P = 382.840691 Days, E = 114.774703 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	3.69	3.38	3.54	5.62	3.56	0.76	11.8	11.7	0.31	0.15	8.01	0.97	0.21	0.61



Stellar Parameters For KIC 007347797

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4447^{+133}_{-146}	$4.730^{+0.056}_{-0.032}$	$-1.160^{+0.300}_{-0.300}$	$0.512^{+0.036}_{-0.043}$	$0.513^{+0.037}_{-0.031}$	$5.387^{+1.342}_{-0.656}$
	+3%/-3%	+1%/-1%	+26%/-26%	+7%/-8%	+7%/-6%	+25%/-12%
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 007347797-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-604 ± 99	$2.42^{+1.80}_{-1.52}$	215^{+7}_{-8}	3630^{+1664}_{-589}	$40108^{+242867}_{-27604}$
Alt.	-327 ± 88	$2.51^{+1.96}_{-1.55}$	215^{+8}_{-7}	3256^{+1304}_{-501}	$19274^{+115358}_{-13408}$

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 $A_{obs} \gg 1.0$

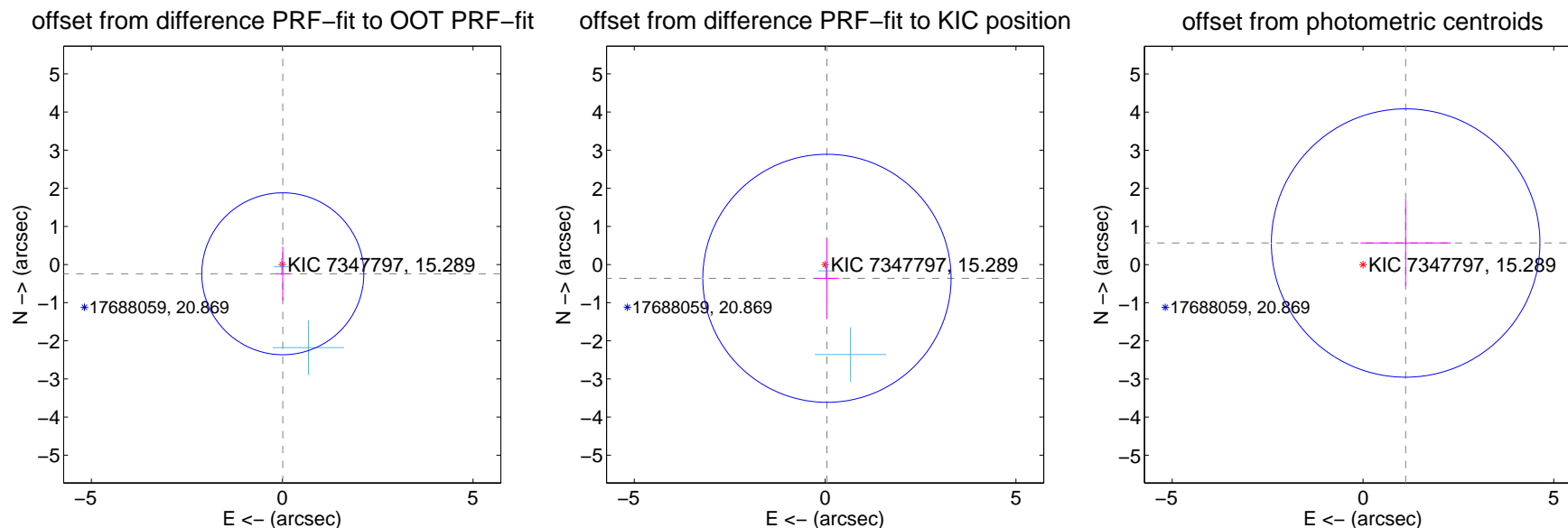
DV Centroid Data

Supplemental centroid analysis for 007347797-01. Kepler magnitude: 15.29. Transit SNR 7.01

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.242 ± 0.708	0.34	-0.015 ± 0.182	-0.242 ± 0.709
PRF-fit source offset from KIC position	0.364 ± 1.084	0.34	-0.048 ± 0.316	-0.361 ± 1.053
photometric centroid source offset	1.25 ± 1.17	1.07	-1.12 ± 1.19	0.57 ± 1.12

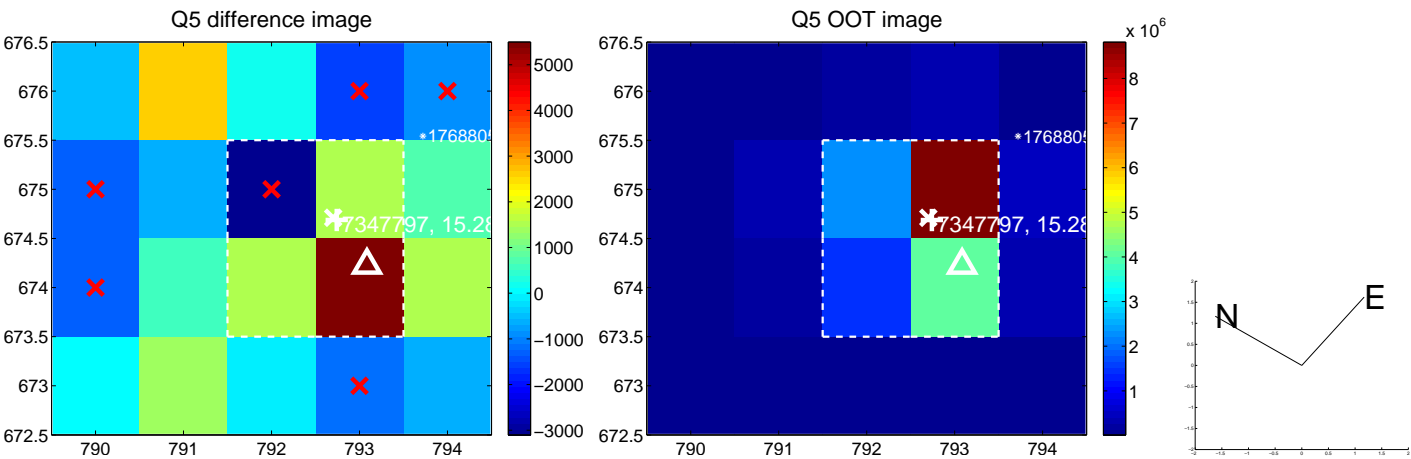


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

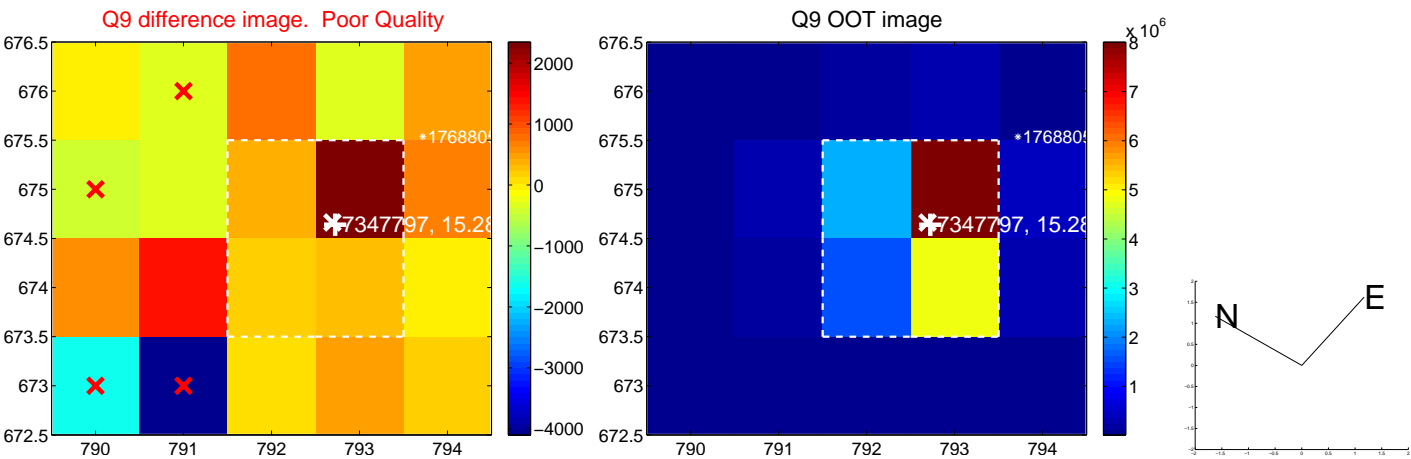
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



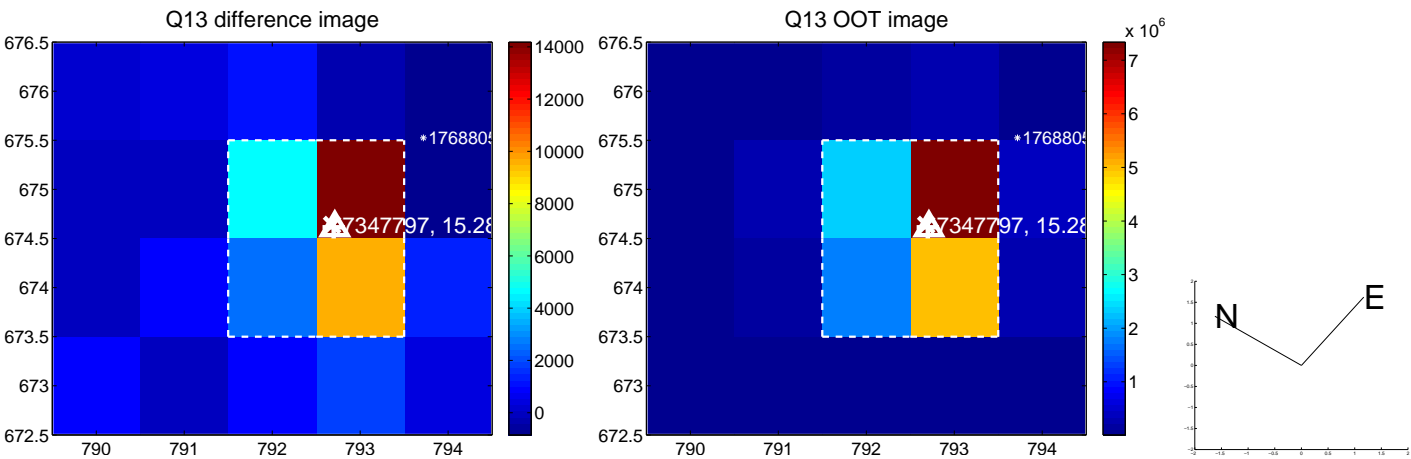
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



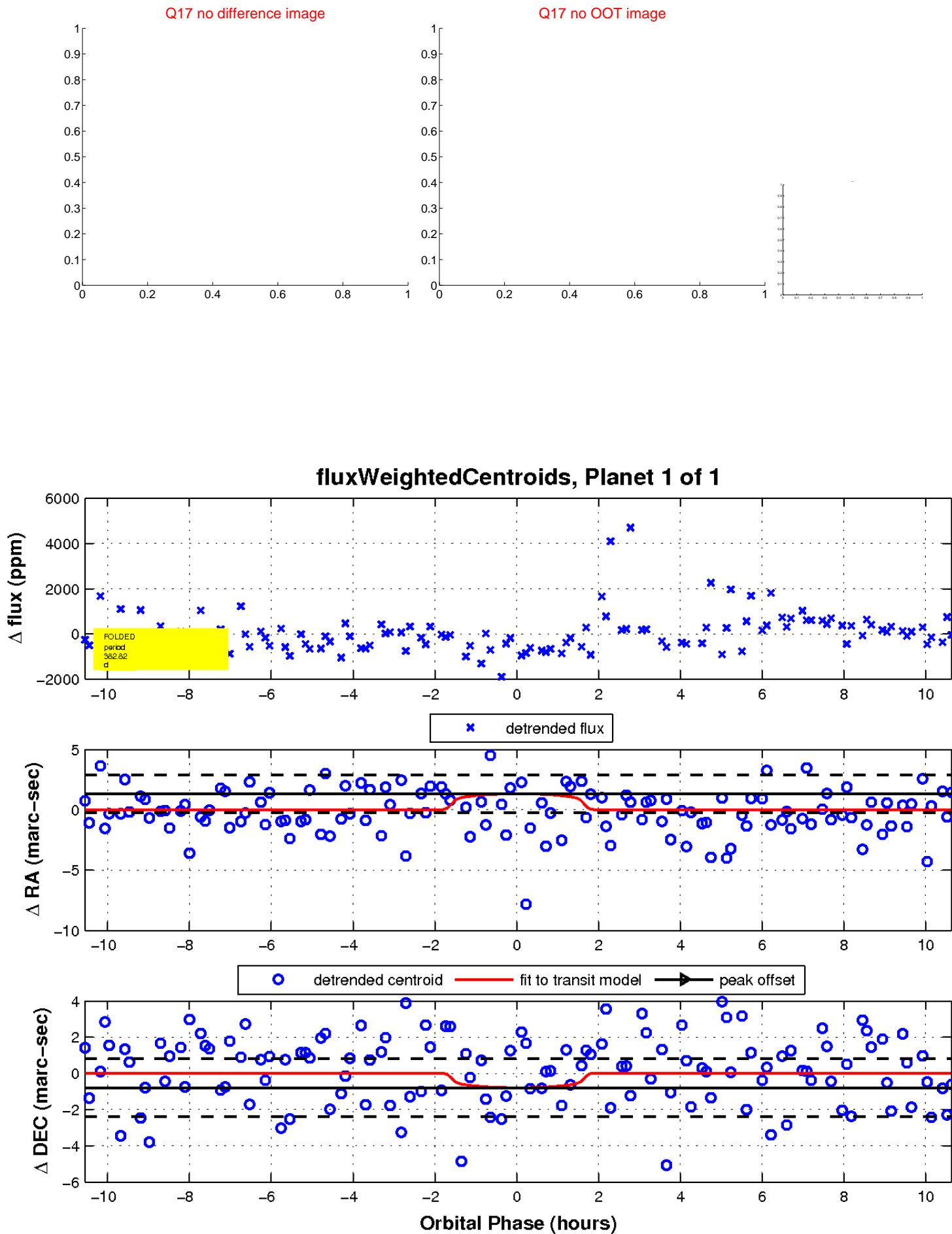
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

