

KIC 008171739

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})
008171739-01	OBS	No	212.881986	333.700003	1255.3	7.923	7.3	7.4	1.02	5470	4.32	1.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008171739-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE—ALL_TRANS_CHASES—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

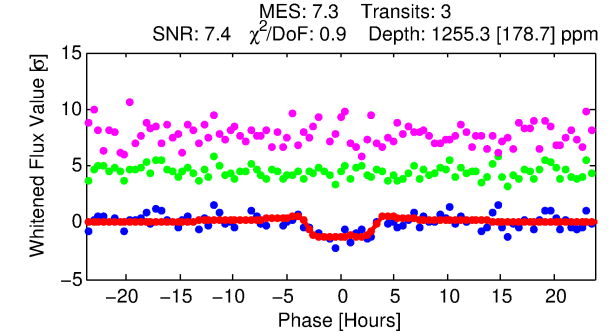
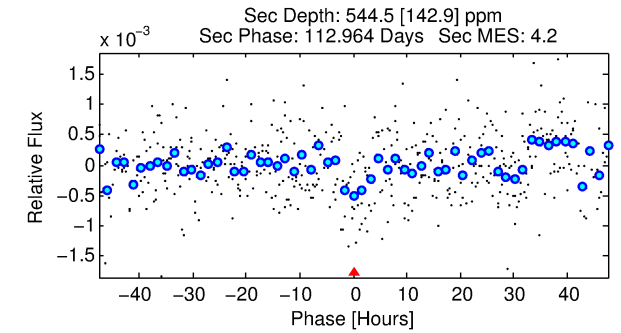
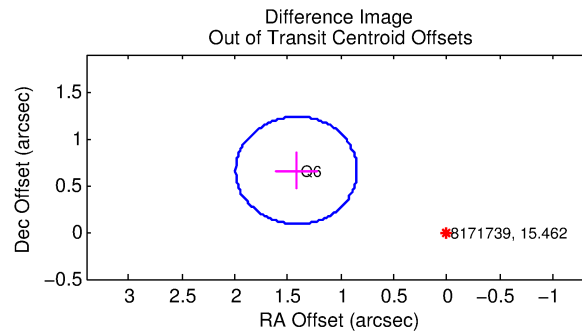
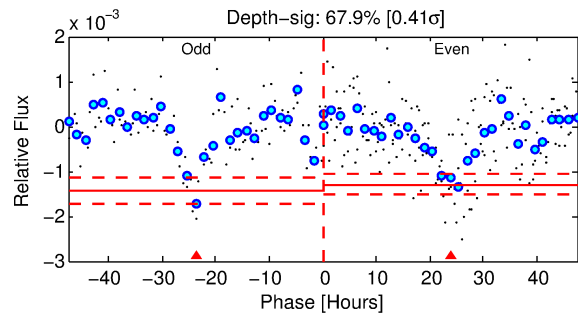
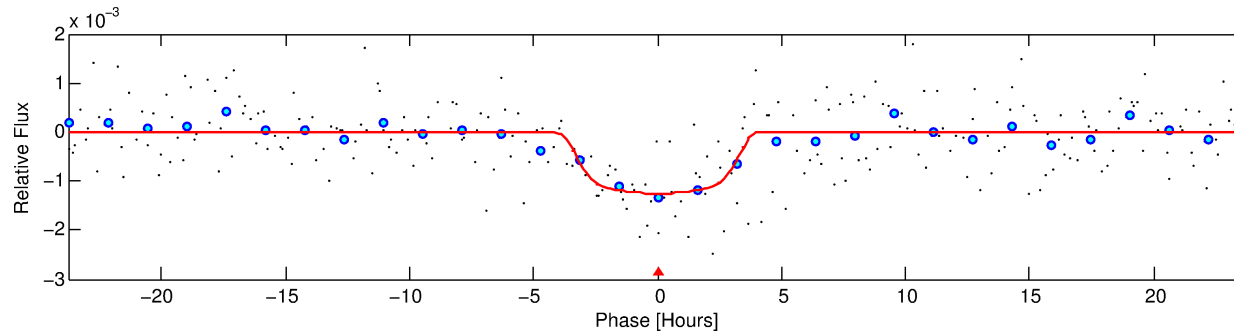
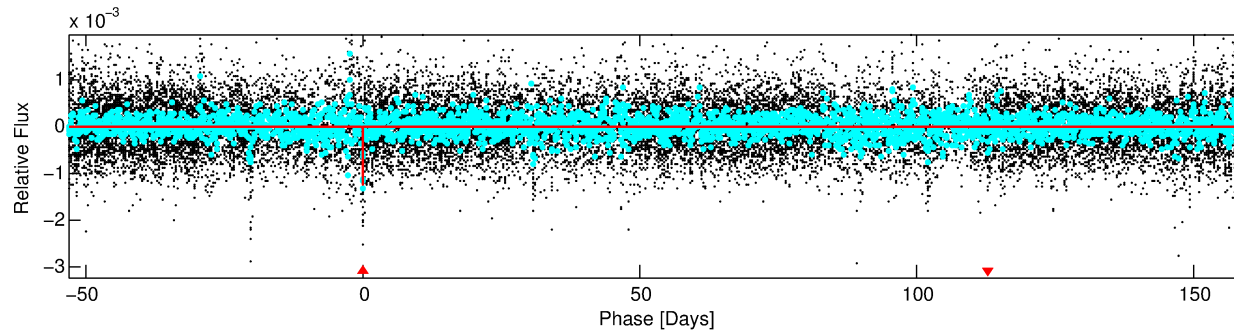
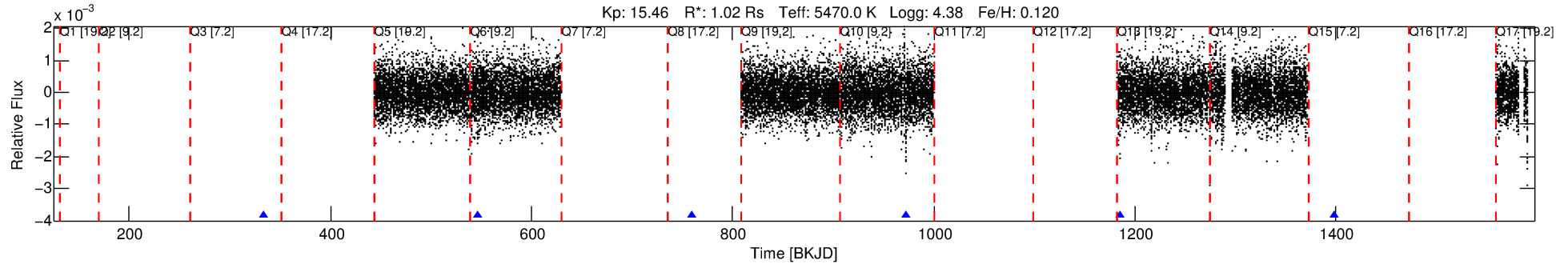
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008171739-01

No Significant Match Found

DV One-Page Summary

KIC: 8171739 Candidate: 1 of 1 Period: 212.882 d



DV Fit Results:

Period = 212.88199 [0.00685] d
Epoch = 333.7000 [0.0204] BKJD
Rp/R* = 0.0389 [0.0047]
a/R* = 107.35 [38.51]
b = 0.90 [0.08]
Seff = 1.83 [0.67]
Teq = 296 [27] K
Rp = 4.32 [1.28] Re
a = 0.6731 [0.1548] AU
Ag = 7278.59 [3582.40] [2.03 σ]
Teffp = 4234 [408] K [9.64 σ]

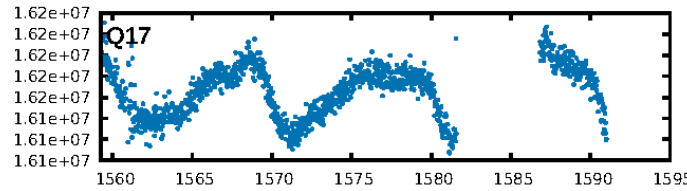
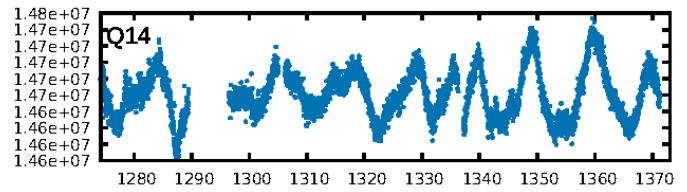
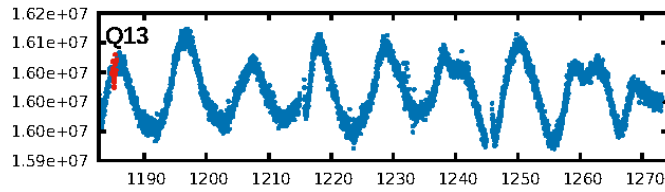
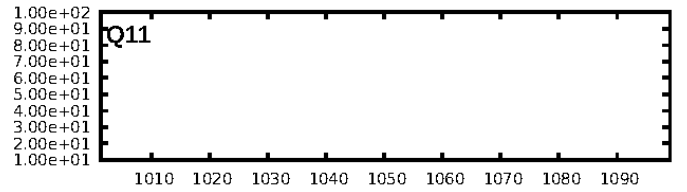
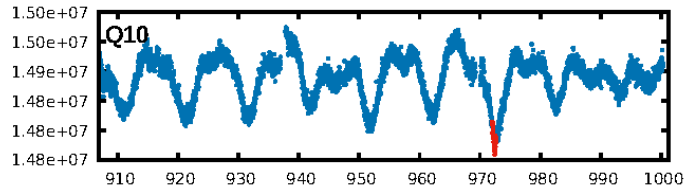
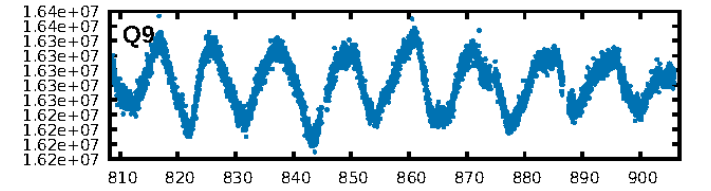
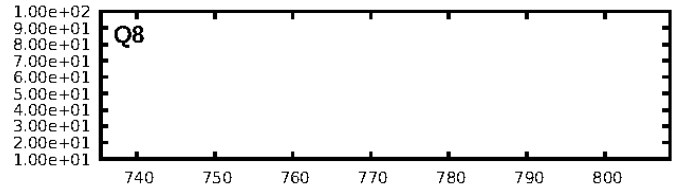
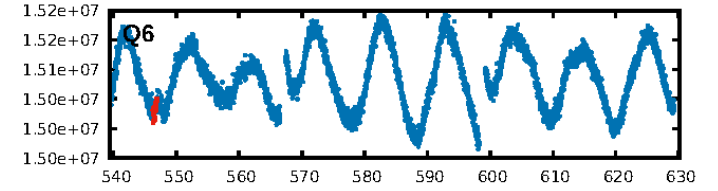
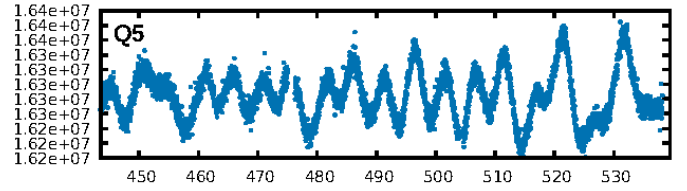
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 49.9%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 6.06e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.02459
Centroid-sig: 92.7%
Centroid-so: 0.219 arcsec [0.13 σ]
OotOffset-rm: 1.562 arcsec [8.17 σ]
KicOffset-rm: 1.641 arcsec [8.58 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

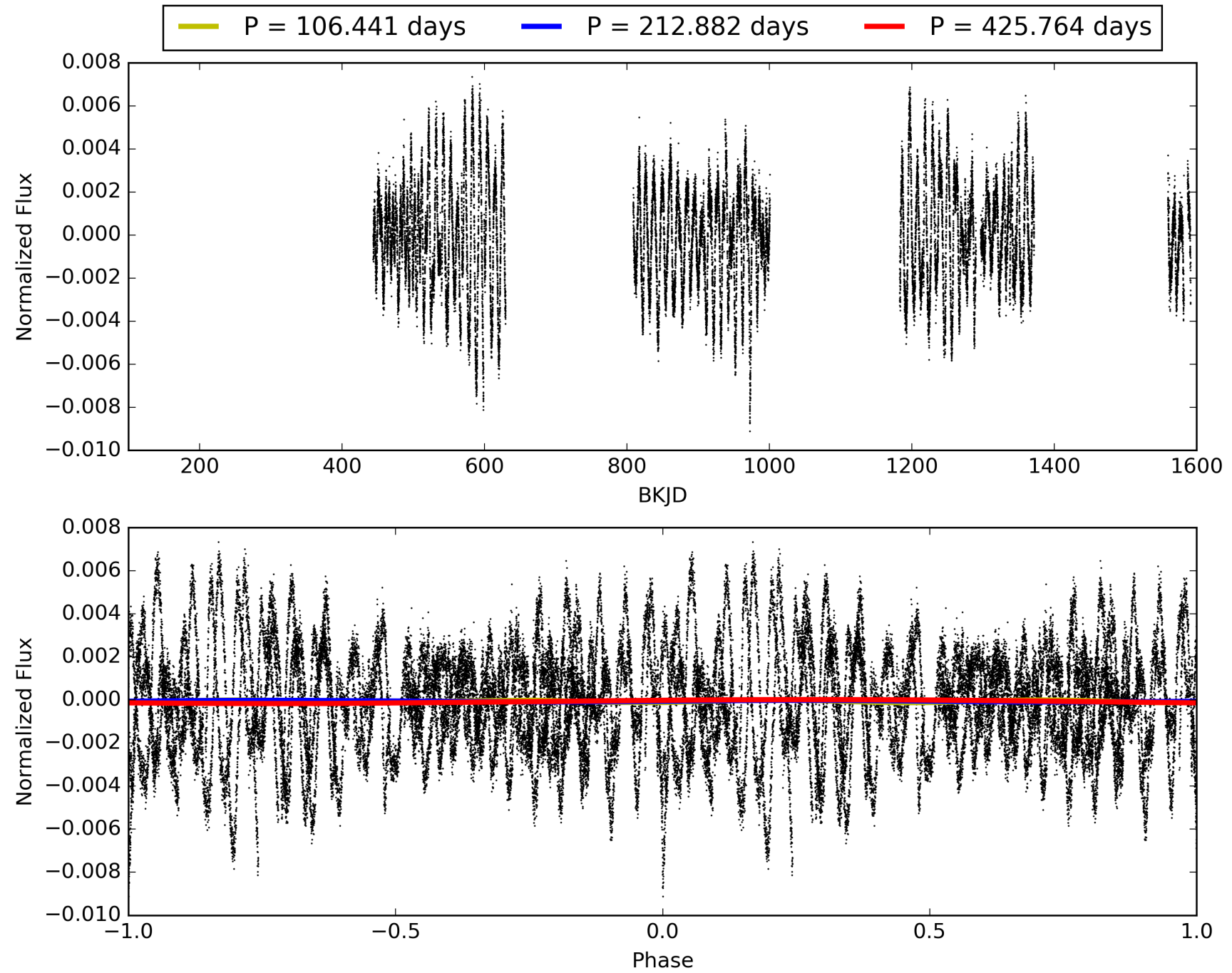
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:44:56 Z

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

TCE 008171739-01, PDC Light Curves

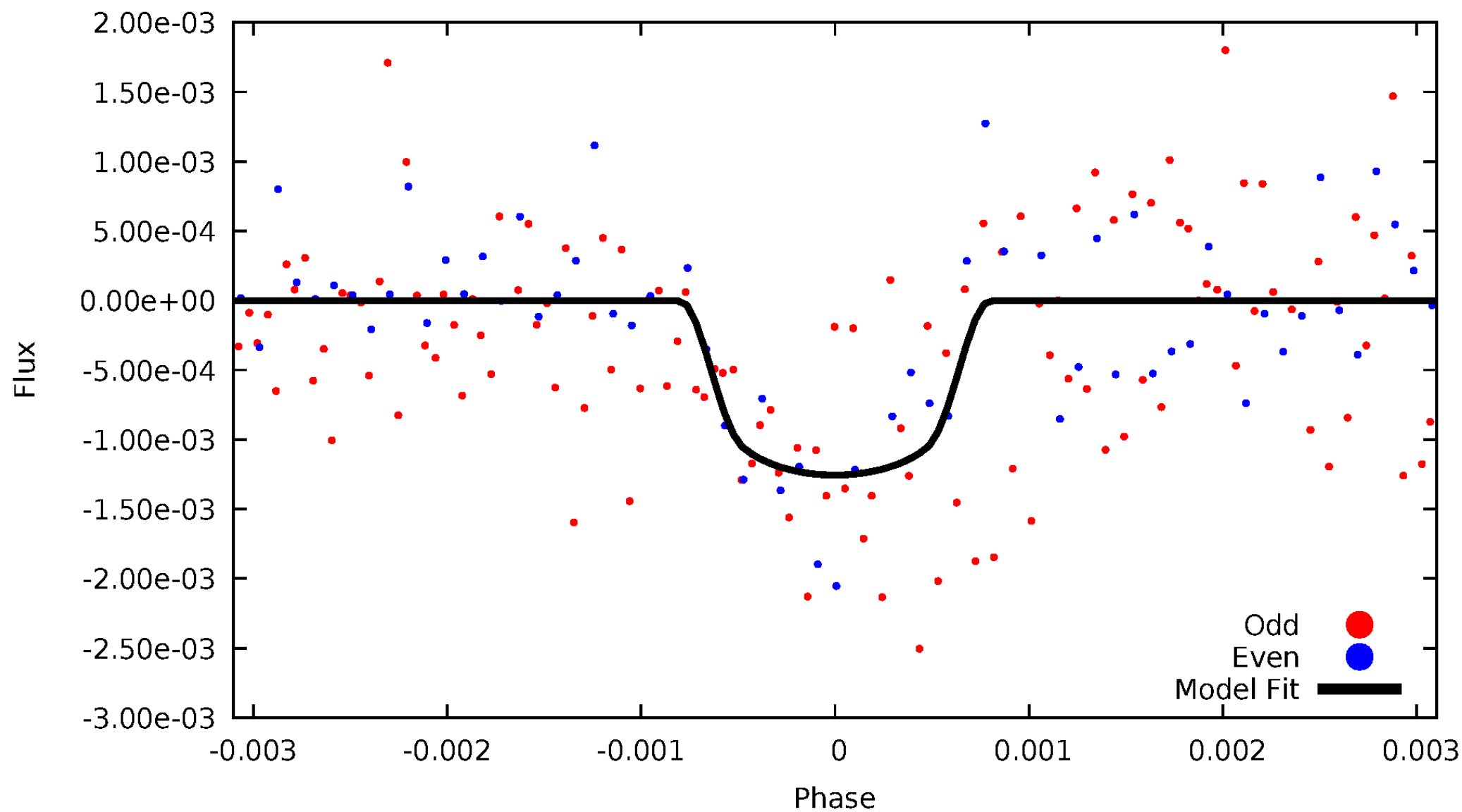


TCE 008171739-01



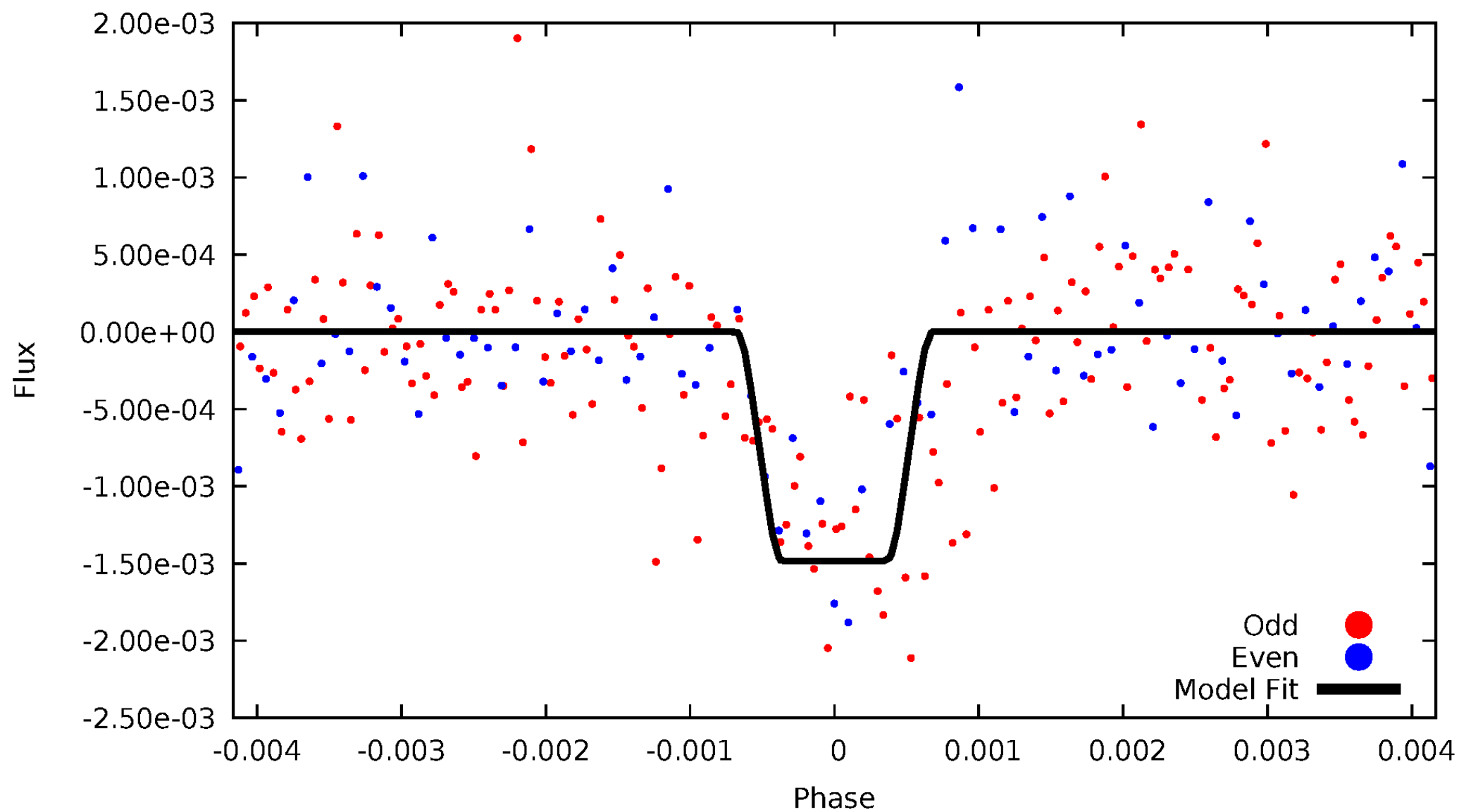
DV Odd/Even

TCE 008171739-01



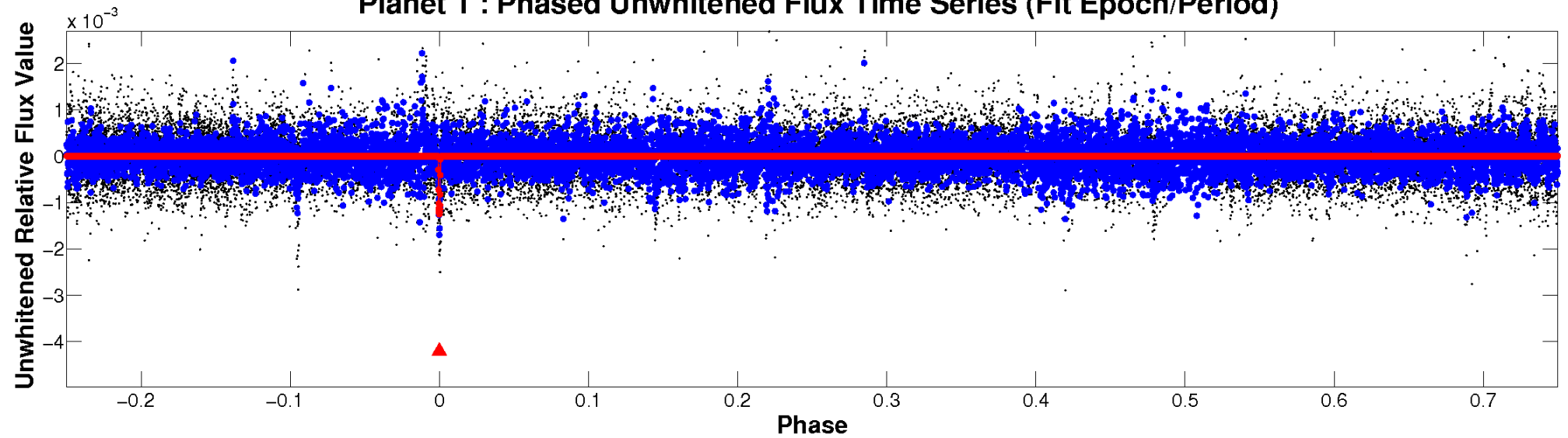
ALT Odd/Even

TCE 008171739-01

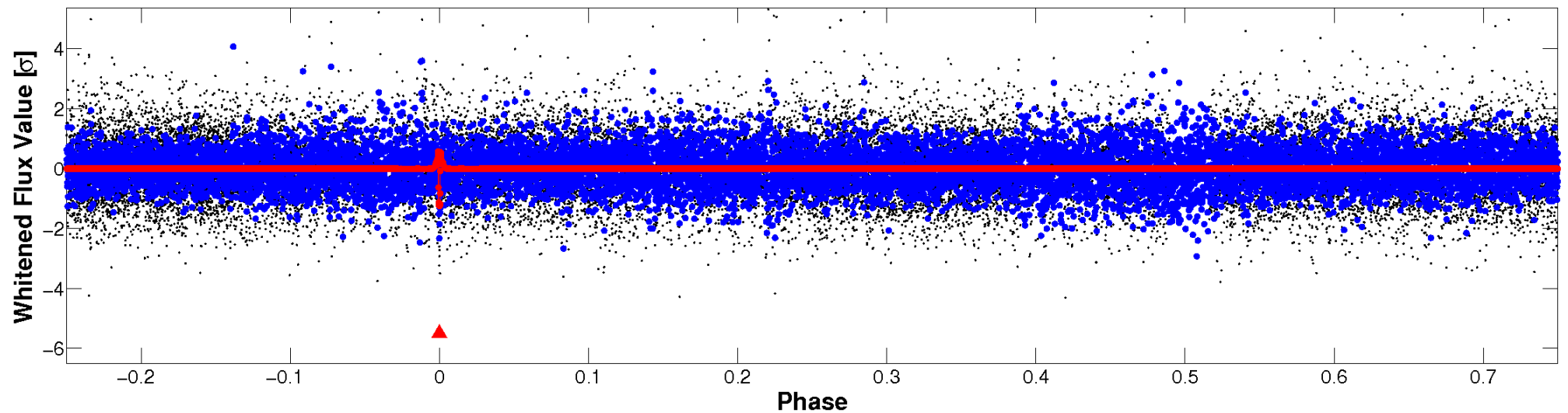


Non-Whitened Vs. Whitened Light Curve

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

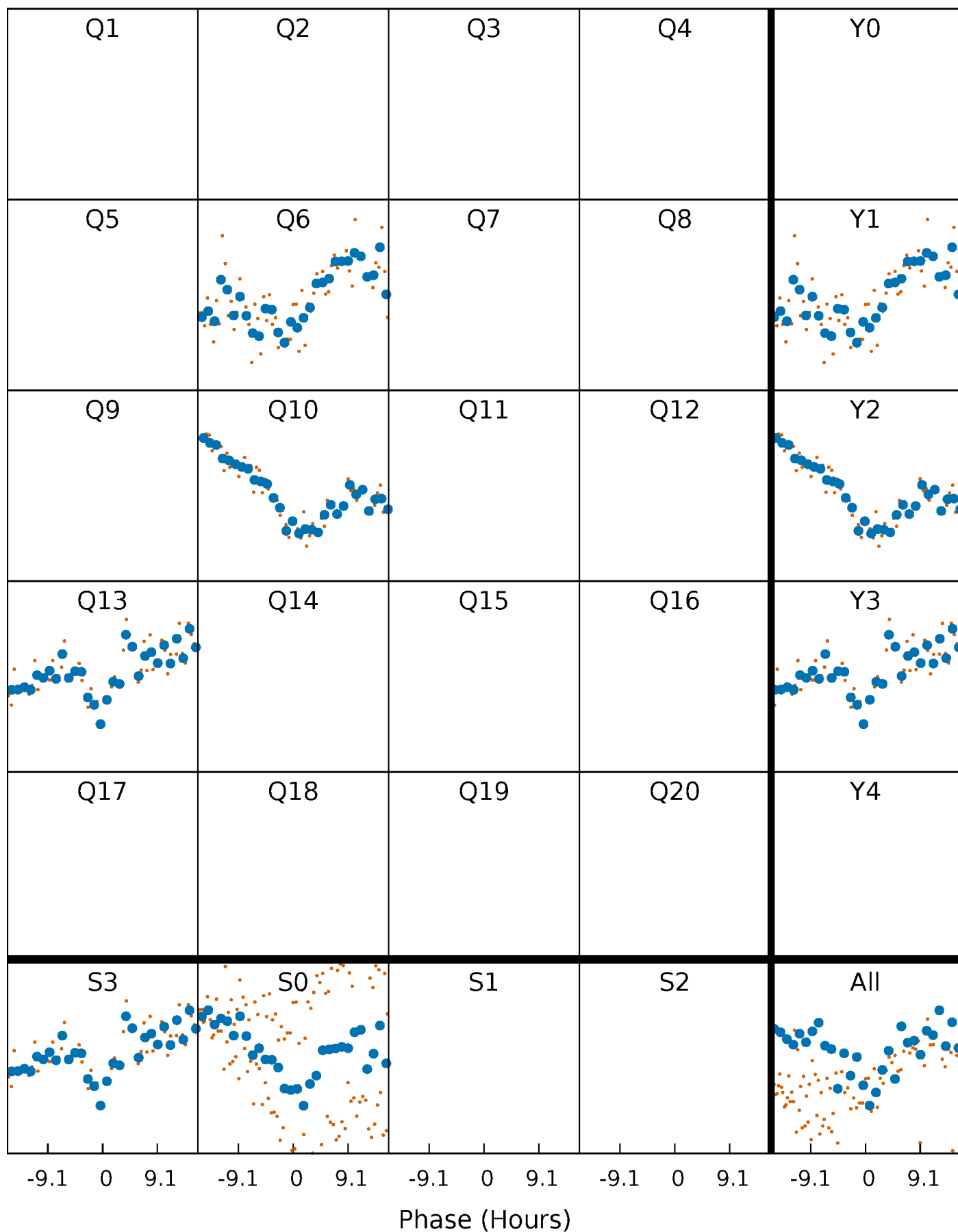


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



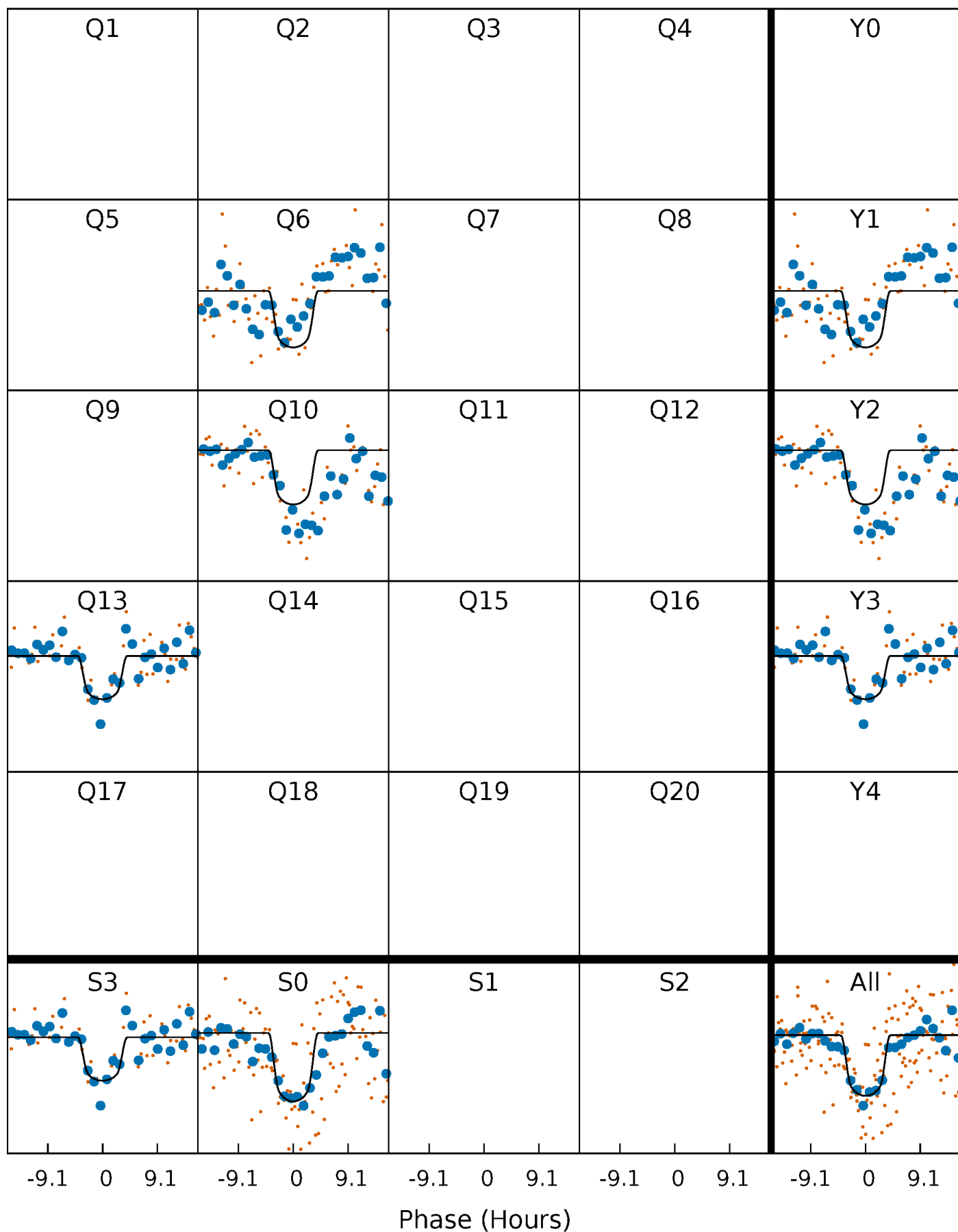
PDC Quarter-Phased Transit Curves

TCE 008171739-01 P=212.881986 Days $T_0=333.700003$ (BKJD)



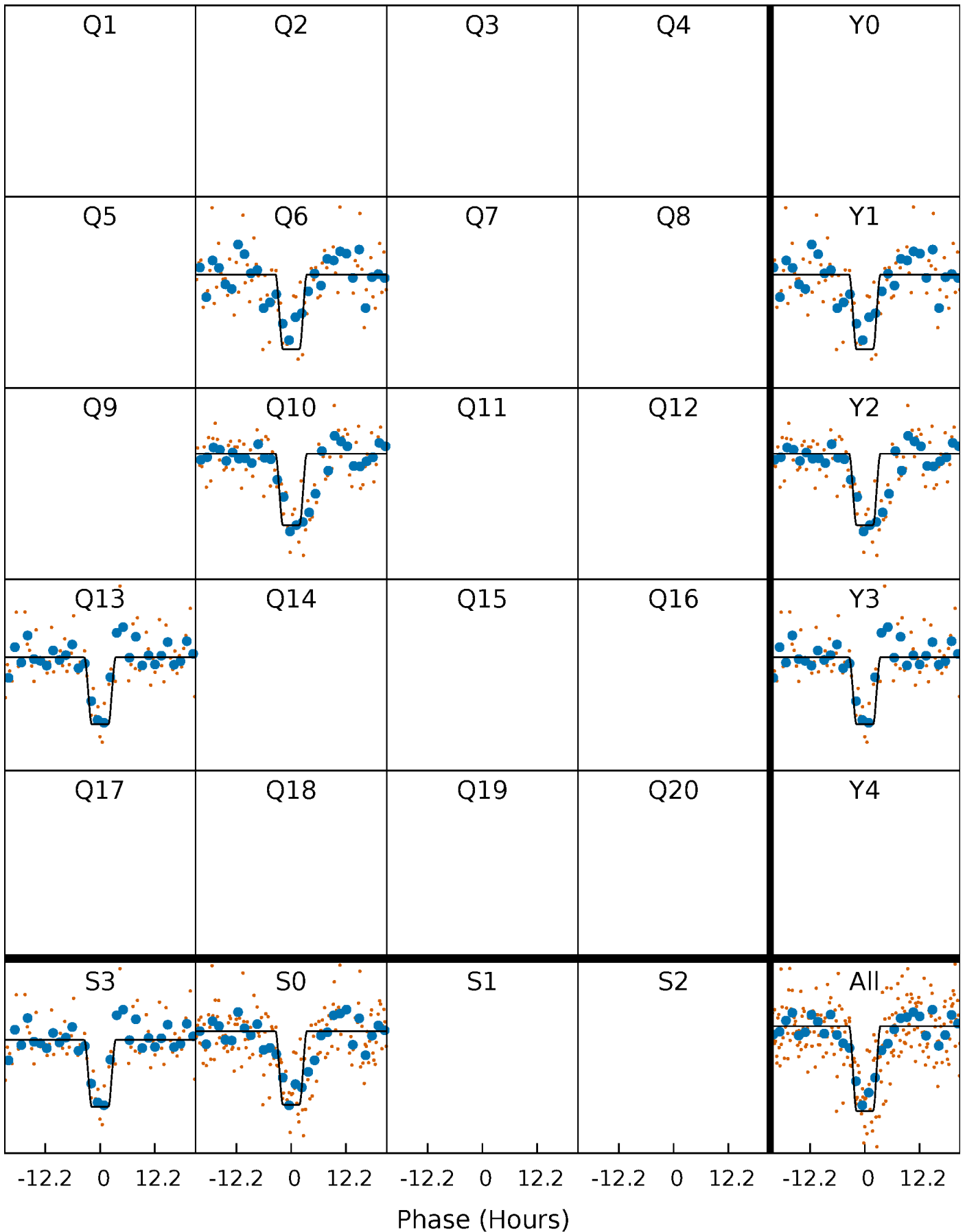
DV Quarter-Phased Transit Curves

TCE 008171739-01 P=212.881986 Days $T_0=333.700003$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

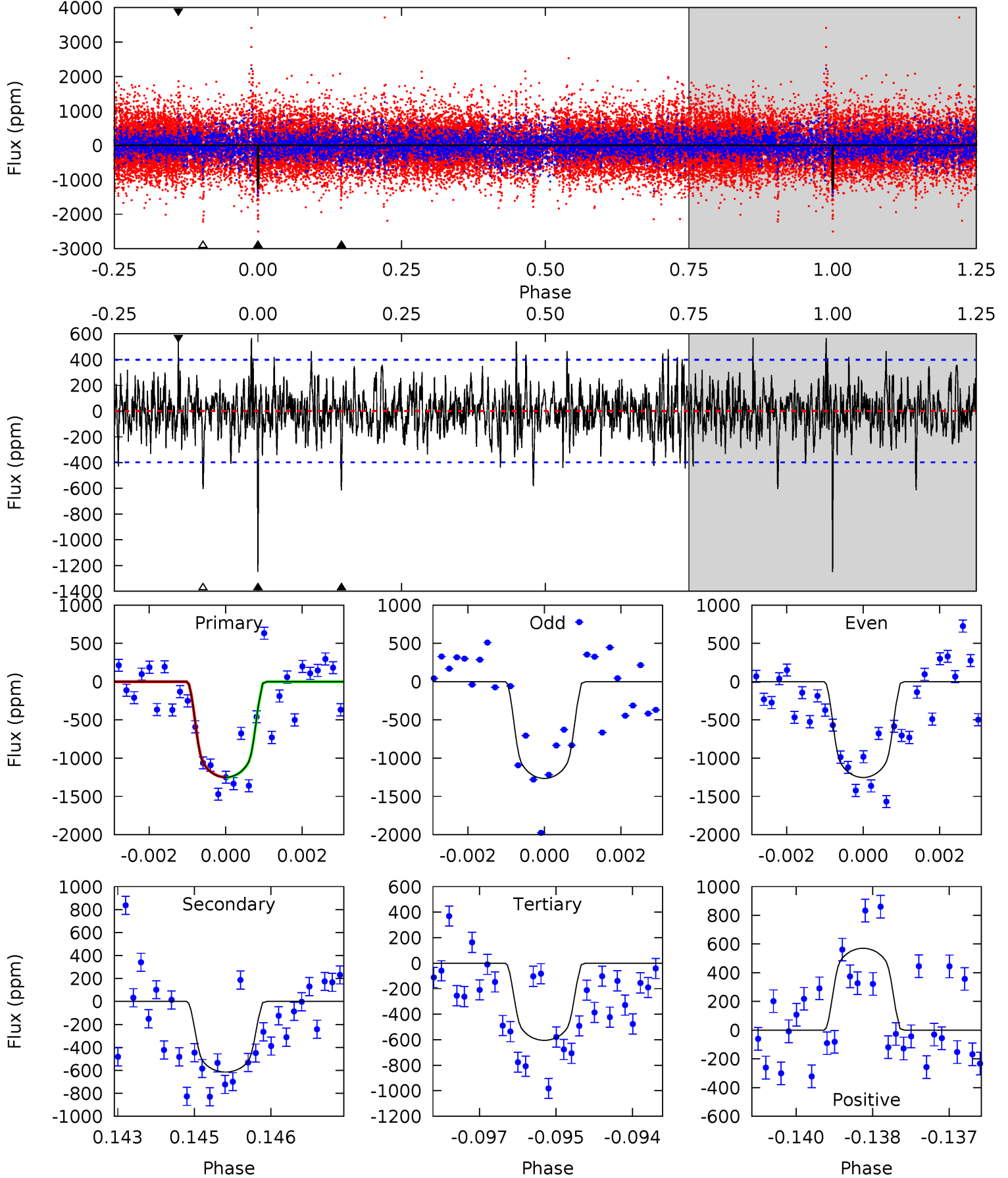
TCE 008171739-01 P=212.883639 Days $T_0=333.674918$ (BKJD)



DV Model-Shift Uniqueness Test

008171739-01, P = 212.881986 Days, E = 333.700003 Days

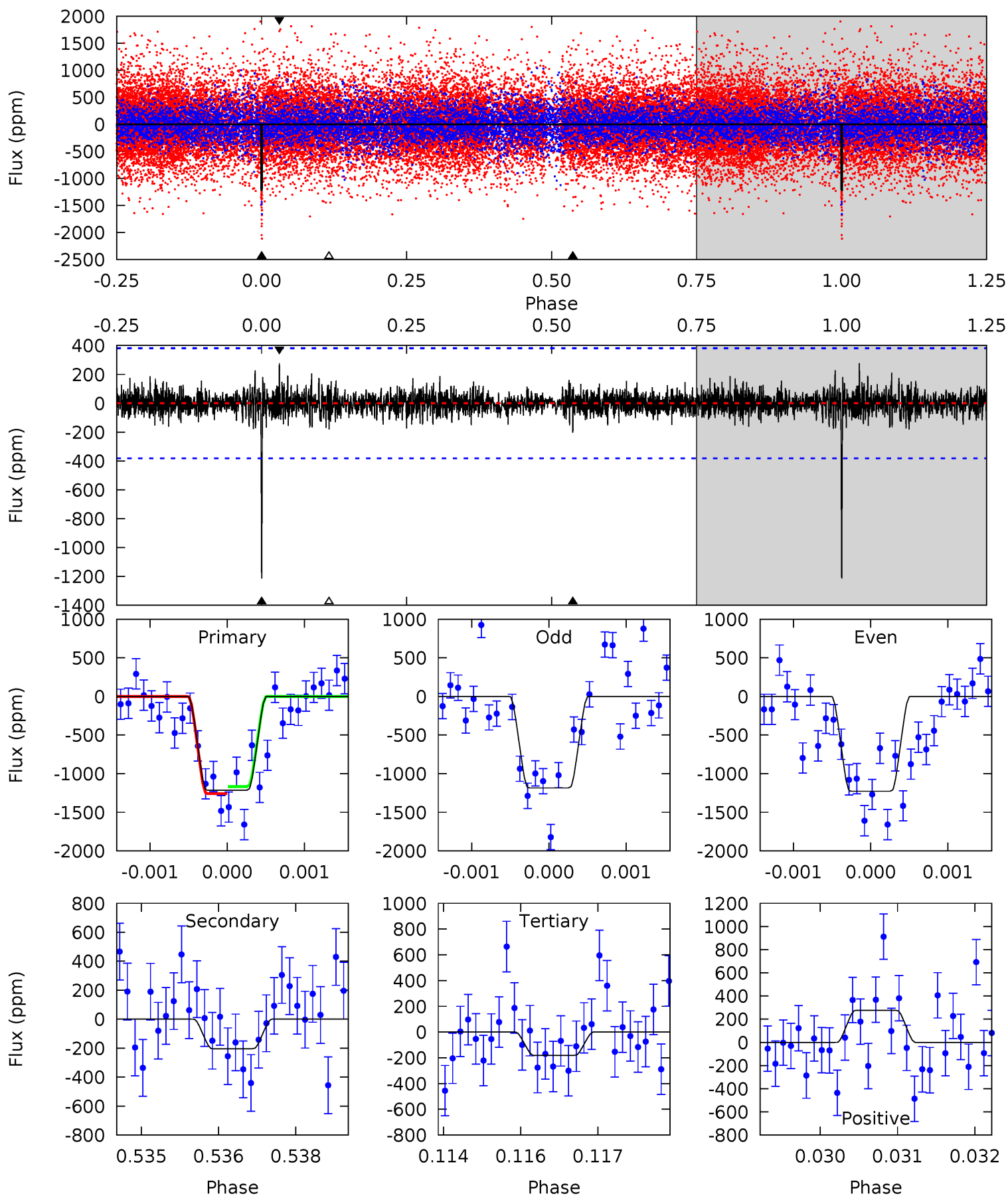
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	8.28	8.15	7.69	5.37	3.16	1.89	8.70	9.16	0.13	0.60	0.08	0.99	0.31	0.04



Alt Model-Shift Uniqueness Test

008171739-01, P = 212.883639 Days, E = 333.674918 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	2.88	2.57	3.91	5.40	3.21	0.75	14.6	13.3	0.31	-1.03	0.29	1.02	0.19	0.64



Stellar Parameters For KIC 008171739

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5470^{+197}_{-180}	$4.377^{+0.153}_{-0.187}$	$0.120^{+0.250}_{-0.300}$	$1.016^{+0.274}_{-0.160}$	$0.898^{+0.101}_{-0.074}$	$1.204^{+0.856}_{-0.578}$
	+4%/-3%	+3%/-4%	+208%/-250%	+27%/-16%	+11%/-8%	+71%/-48%
Source	KIC0	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 008171739-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-615 ± 74	$4.33^{+0.90}_{-0.67}$	417^{+30}_{-25}	4529^{+318}_{-257}	8207^{+3368}_{-2584}
Alt.	-204 ± 71	$4.31^{+0.84}_{-0.69}$	415^{+32}_{-27}	3708^{+268}_{-288}	2685^{+1455}_{-1158}

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 $A_{obs} \gg 1.0$

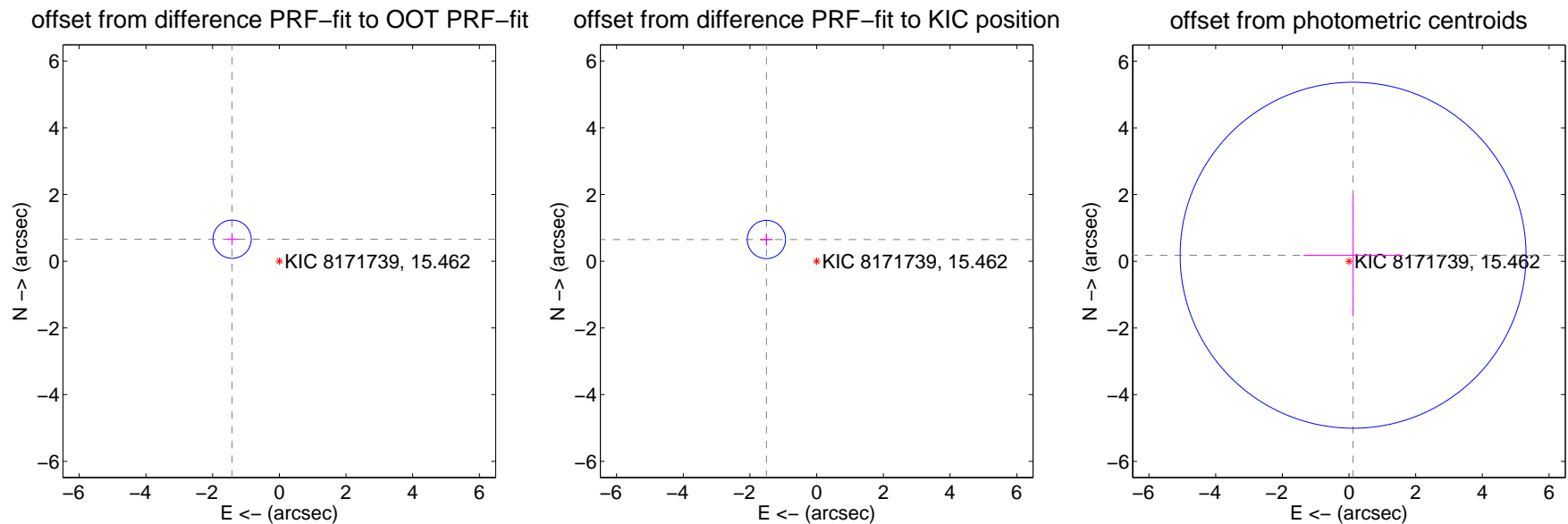
DV Centroid Data

Supplemental centroid analysis for 008171739-01. Kepler magnitude: 15.46. Transit SNR 7.44

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.562 ± 0.191	8.17	1.416 ± 0.192	0.659 ± 0.185
PRF-fit source offset from KIC position	1.641 ± 0.191	8.58	1.507 ± 0.192	0.651 ± 0.185
photometric centroid source offset	0.22 ± 1.73	0.13	-0.12 ± 1.49	0.18 ± 1.83



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.

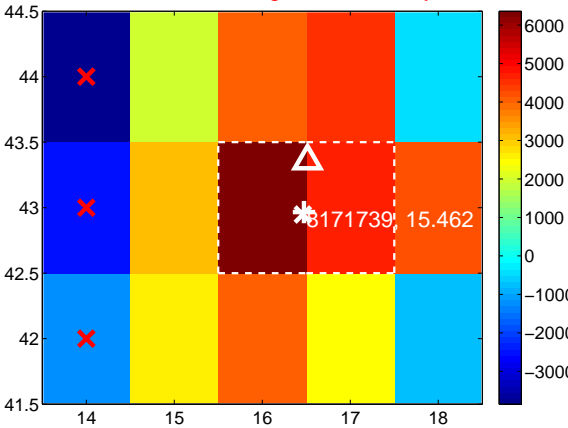
Q5 no difference image



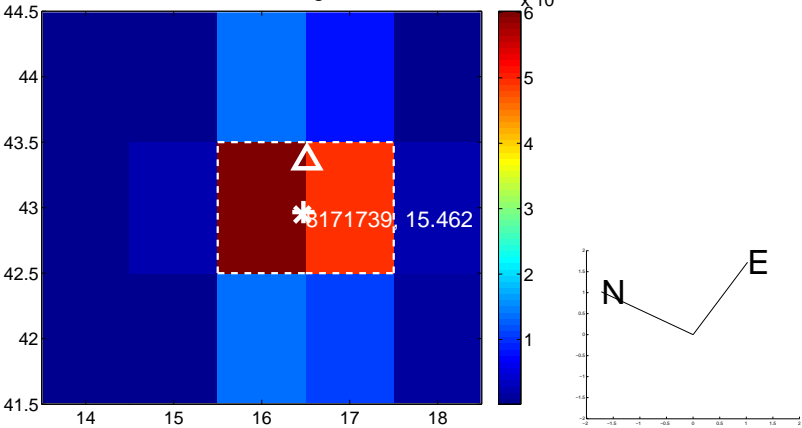
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



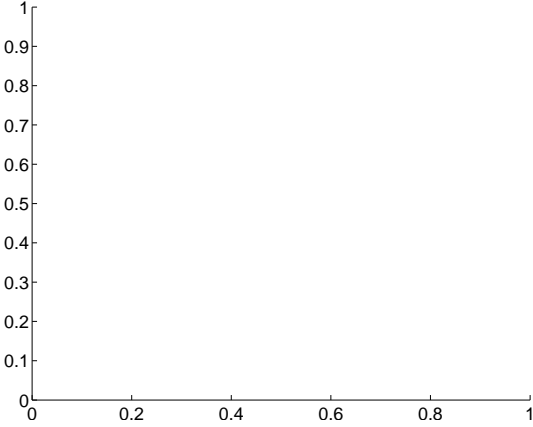
Q7 no difference image



Q7 no OOT image



Q8 no difference image



Q8 no OOT image



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

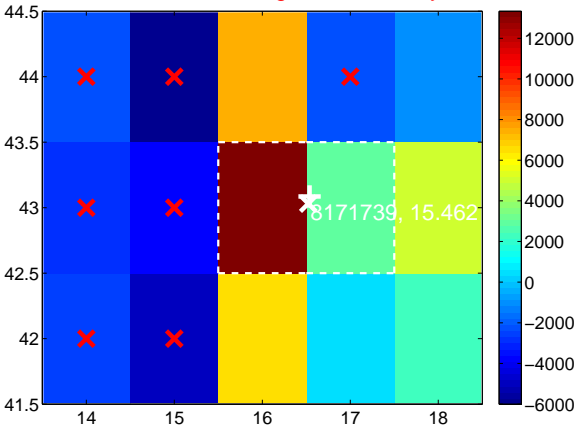
Q9 no difference image



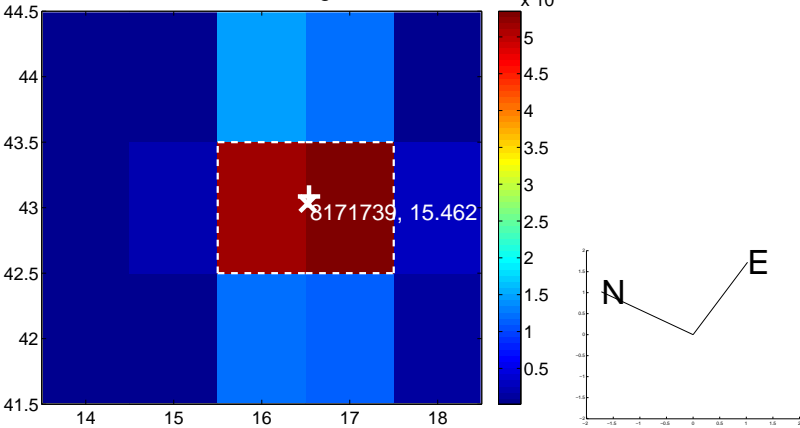
Q9 no OOT image



Q10 difference image. Poor Quality



Q10 OOT image



Q11 no difference image



Q11 no OOT image



Q12 no difference image



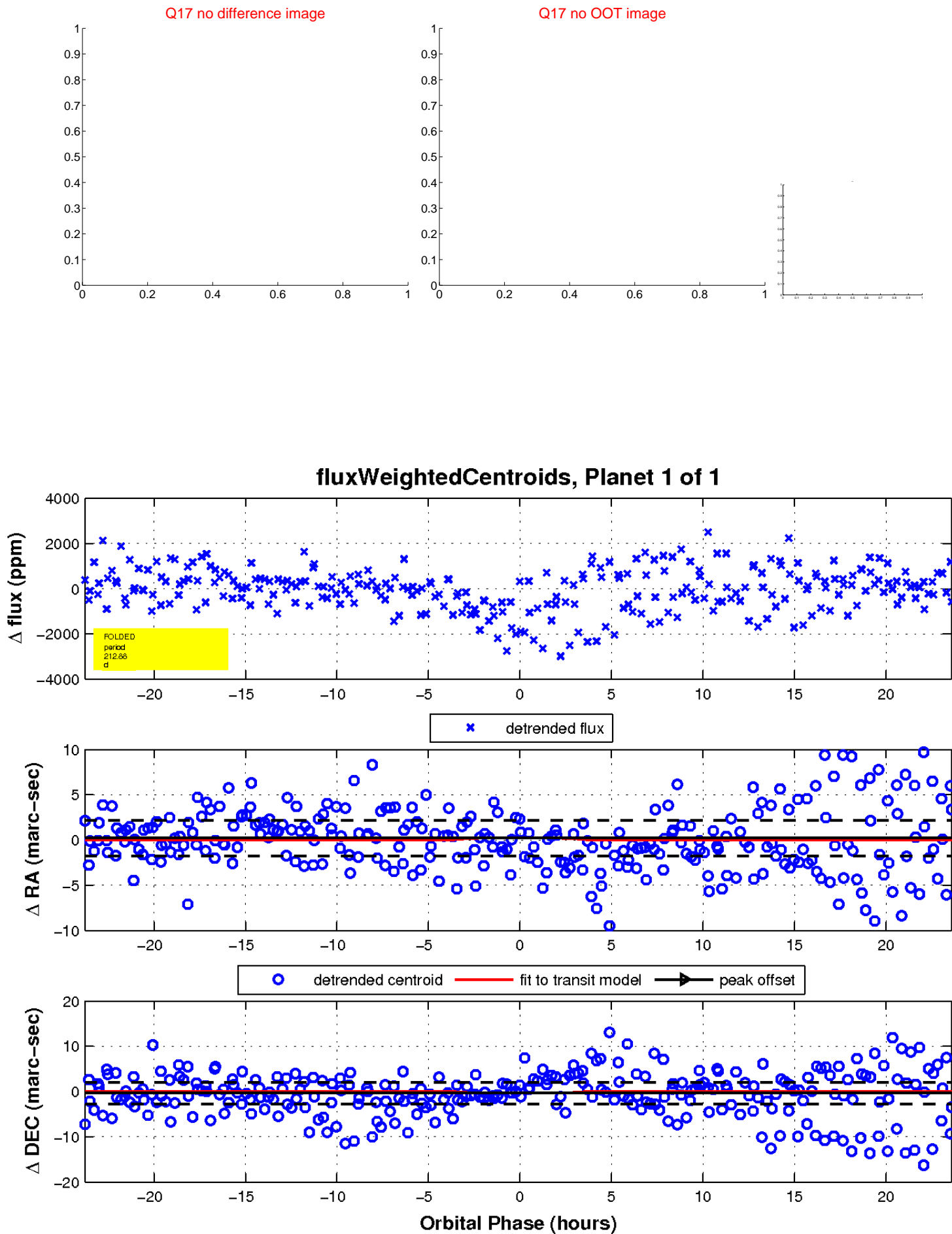
Q12 no OOT image



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

