

KIC 007017372

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})
007017372-01	OBS	3689.01	5.240914	136.024204	8514.0	3.407	365.3	372.4	1.30	6452	12.91	719.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007017372-01	OBS	PC	1.00	0	0	0	0	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.

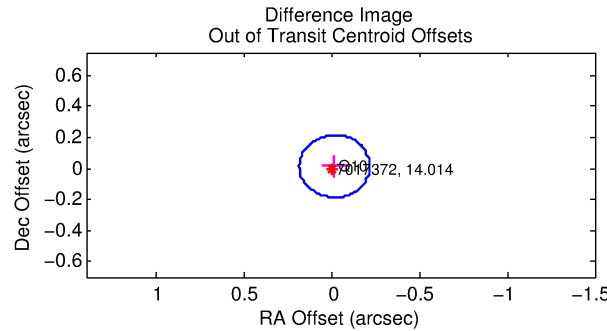
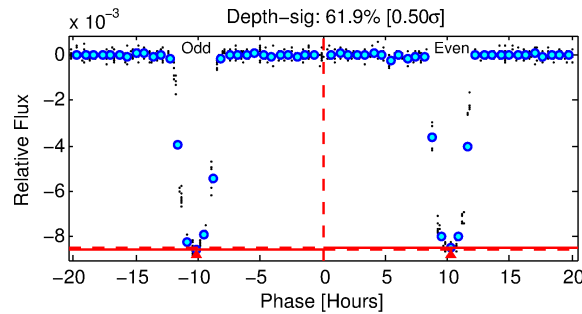
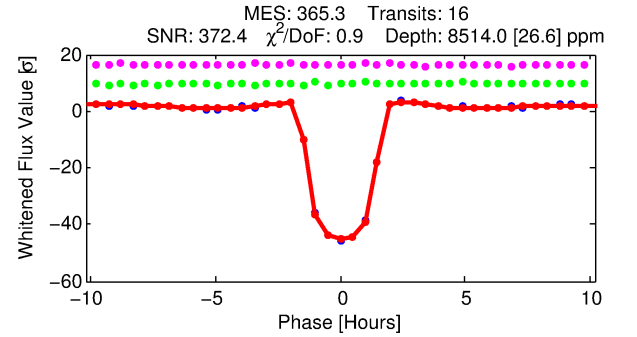
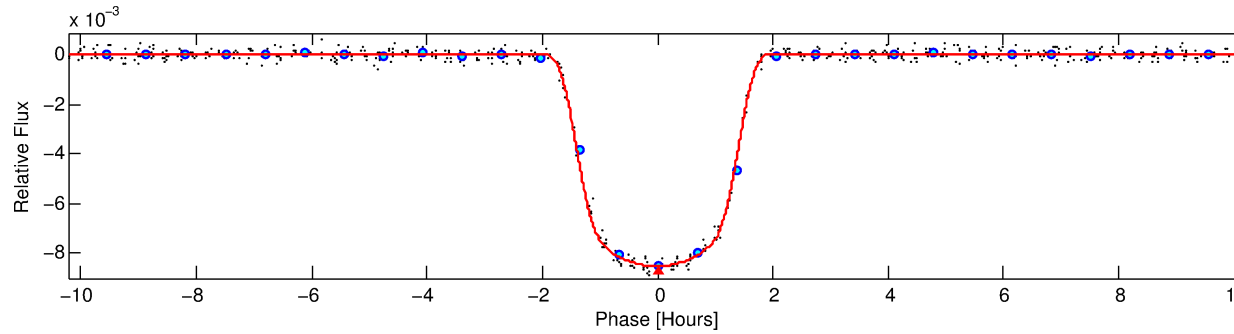
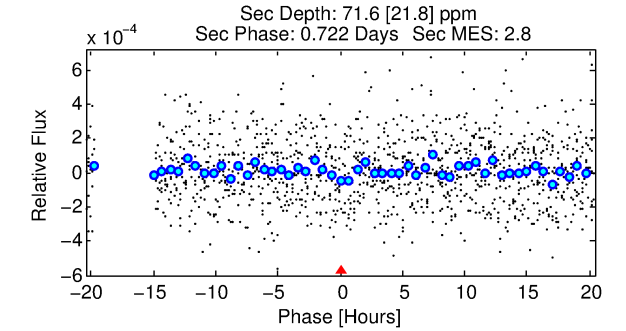
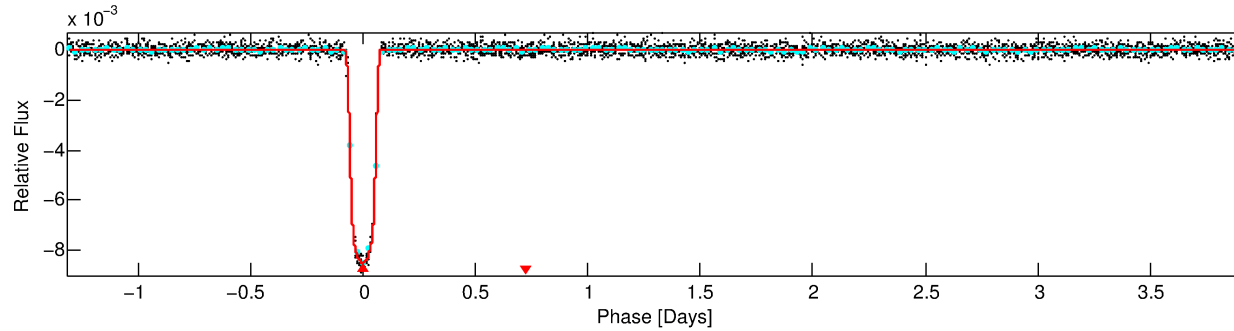
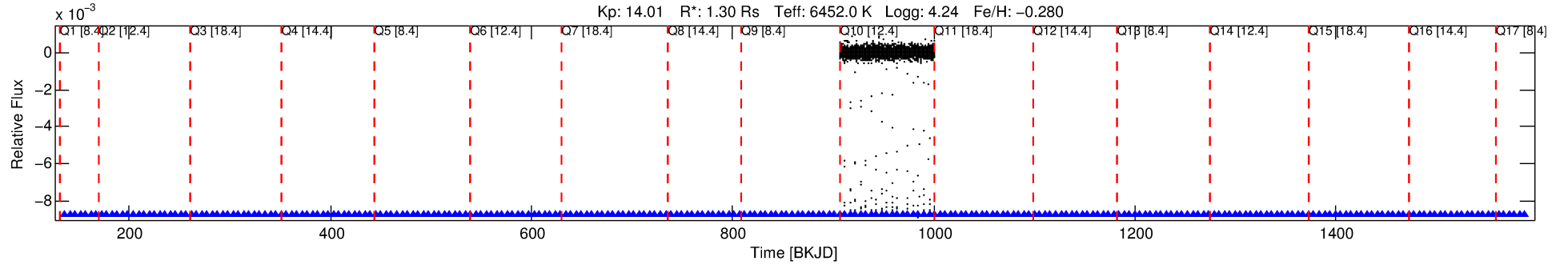
Ephemeris Match Information For 007017372-01

No Significant Match Found

DV One-Page Summary

KIC: 7017372 Candidate: 1 of 1 Period: 5.241 d

KOI: K03689.01 Corr: 0.995



DV Fit Results:

Period = 5.24091 [0.00000] d
Epoch = 136.0242 [0.0004] BKJD
Rp/R* = 0.0906 [0.0006]
a/R* = 9.88 [0.35]
b = 0.70 [0.03]
Seff = 719.23 [275.89]
Teq = 1321 [127] K
Rp = 12.91 [3.91] Re
a = 0.0606 [0.0150] AU
Ag = 0.87 [0.40] [-0.32σ]
Teffp = 1971 [169] K [3.08σ]

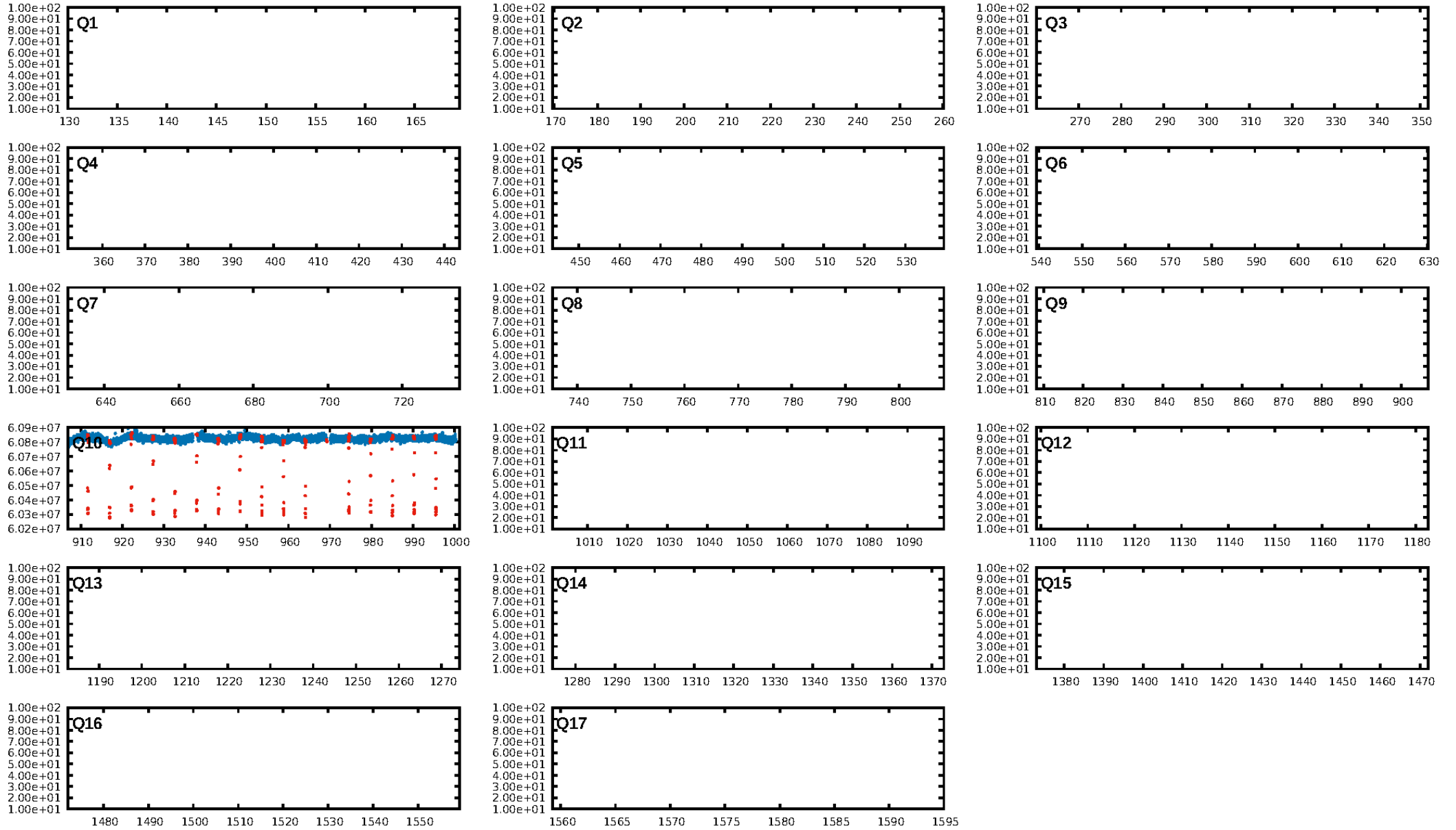
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 35.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: 8.272
Centroid-sig: 16.9%
Centroid-so: 0.194 arcsec [6.65σ]
OotOffset-rm: 0.021 arcsec [0.32σ]
KicOffset-rm: 0.084 arcsec [1.26σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

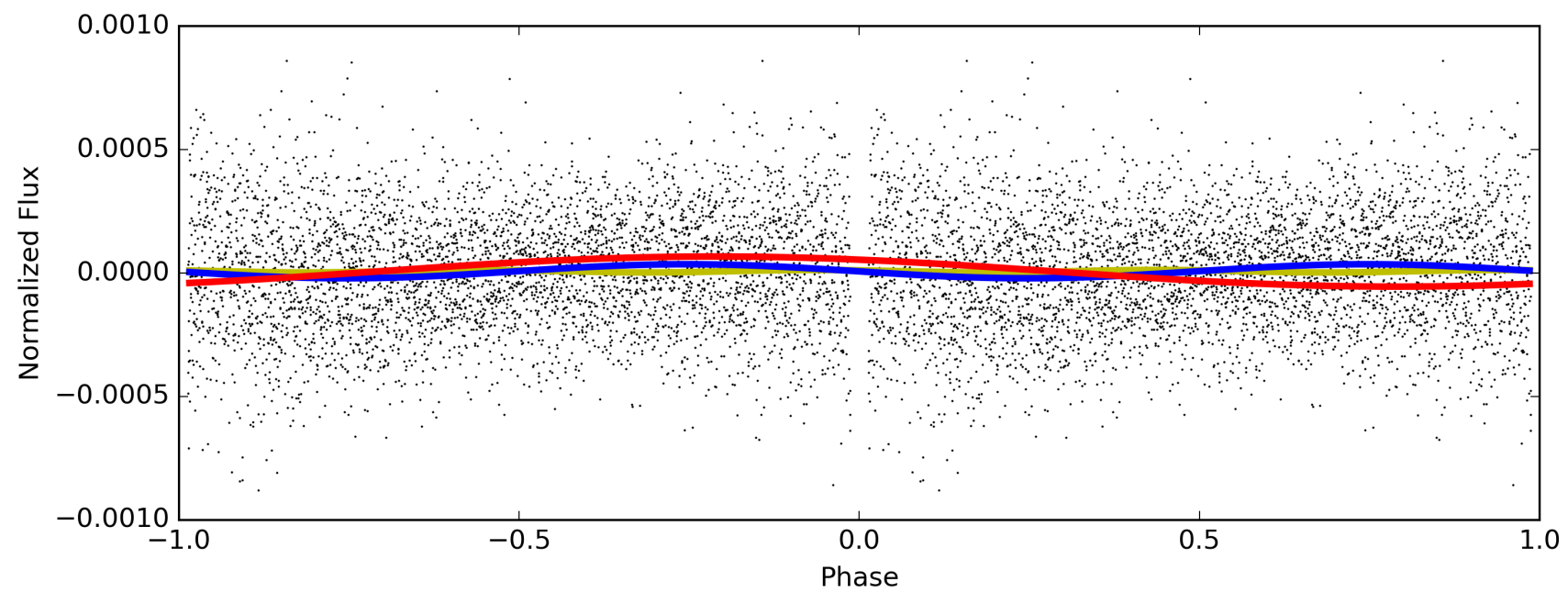
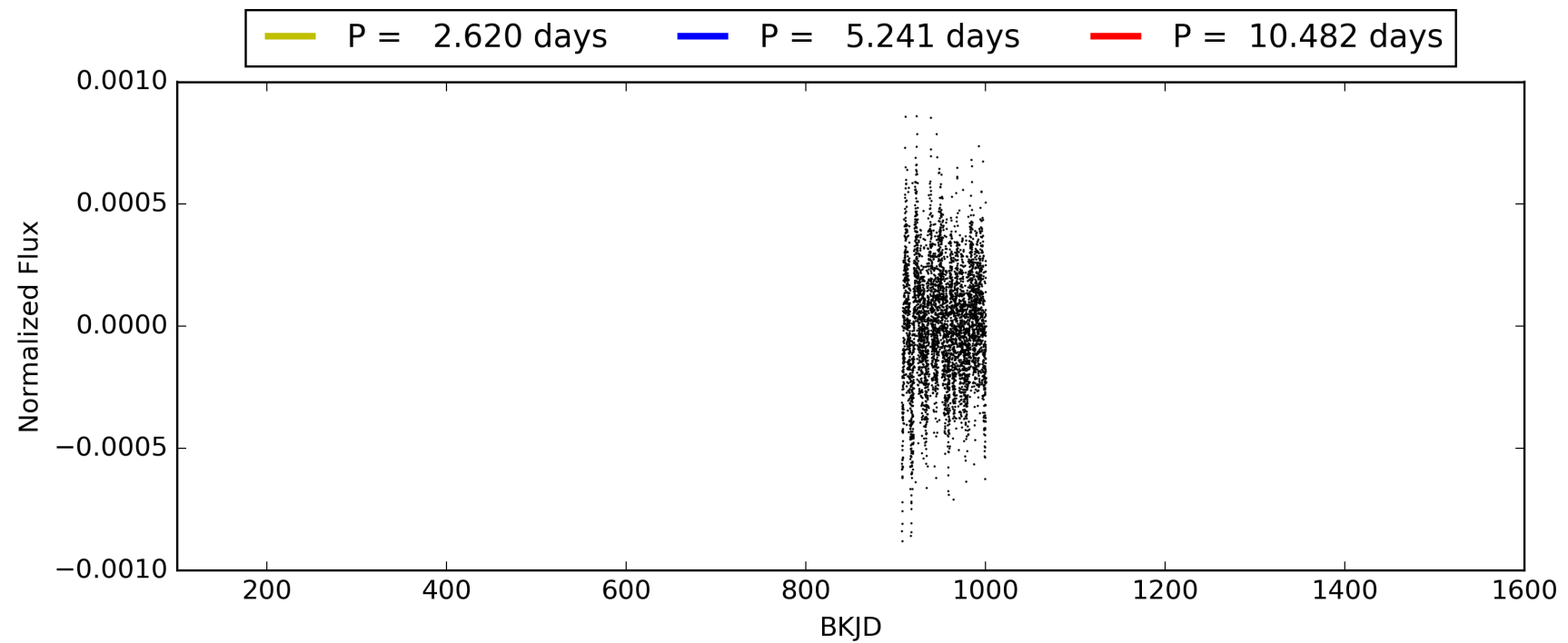
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:49:17 Z

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

TCE 007017372-01, PDC Light Curves

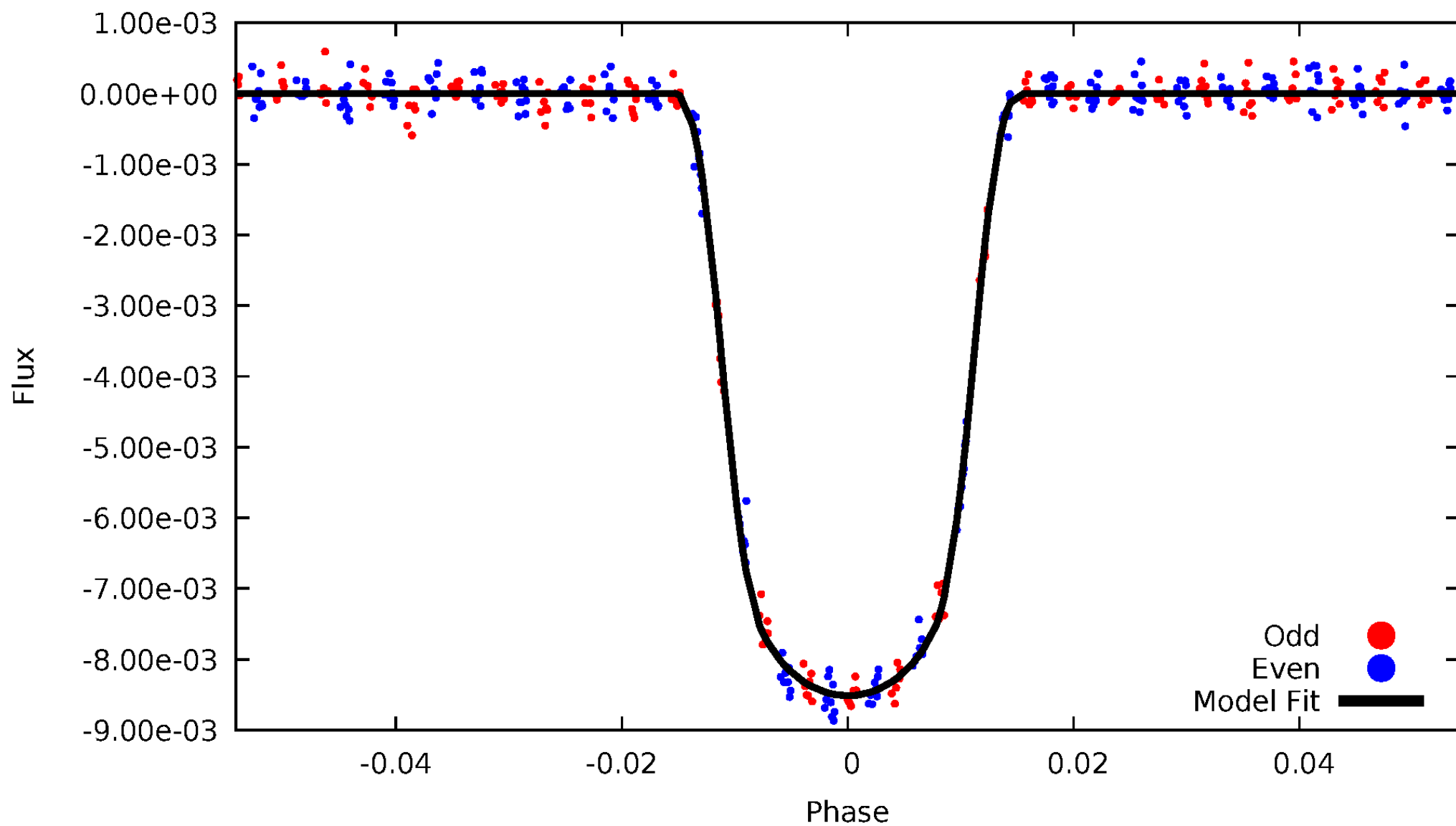


TCE 007017372-01



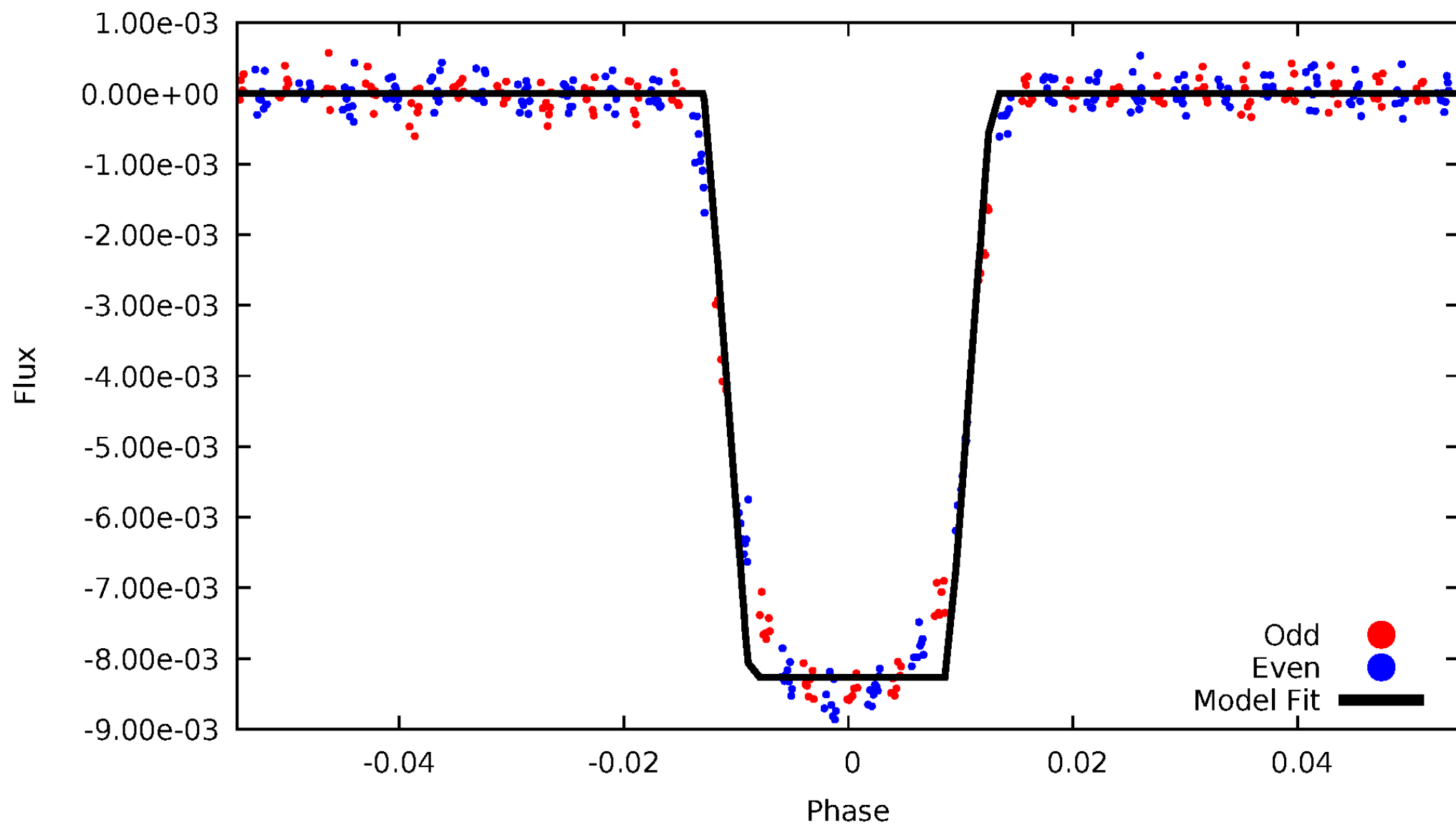
DV Odd/Even

TCE 007017372-01

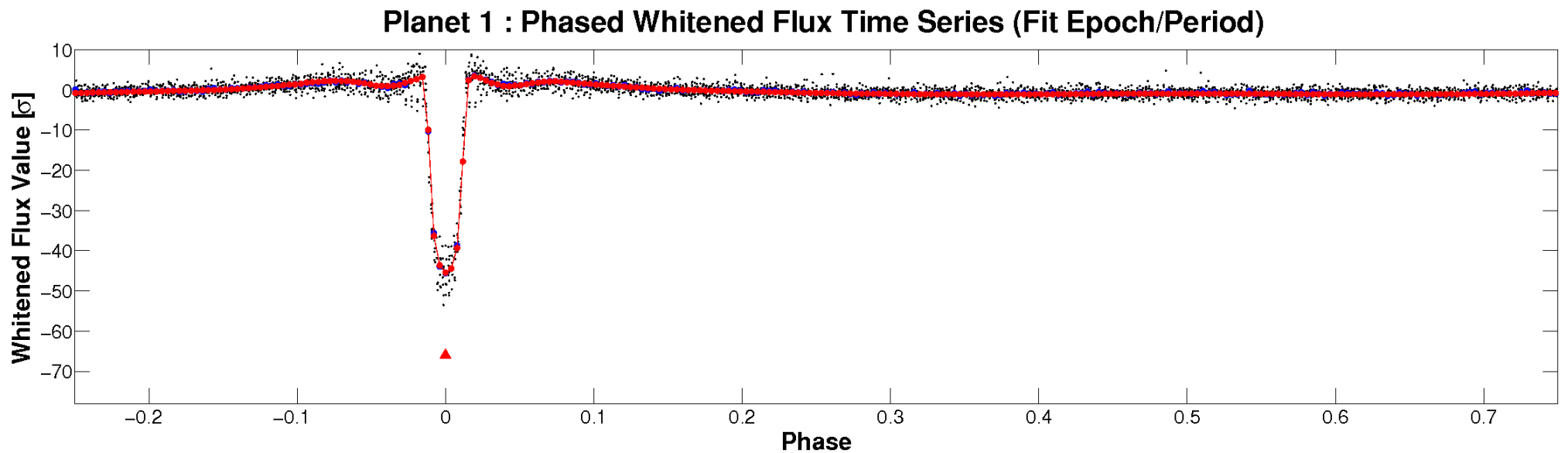
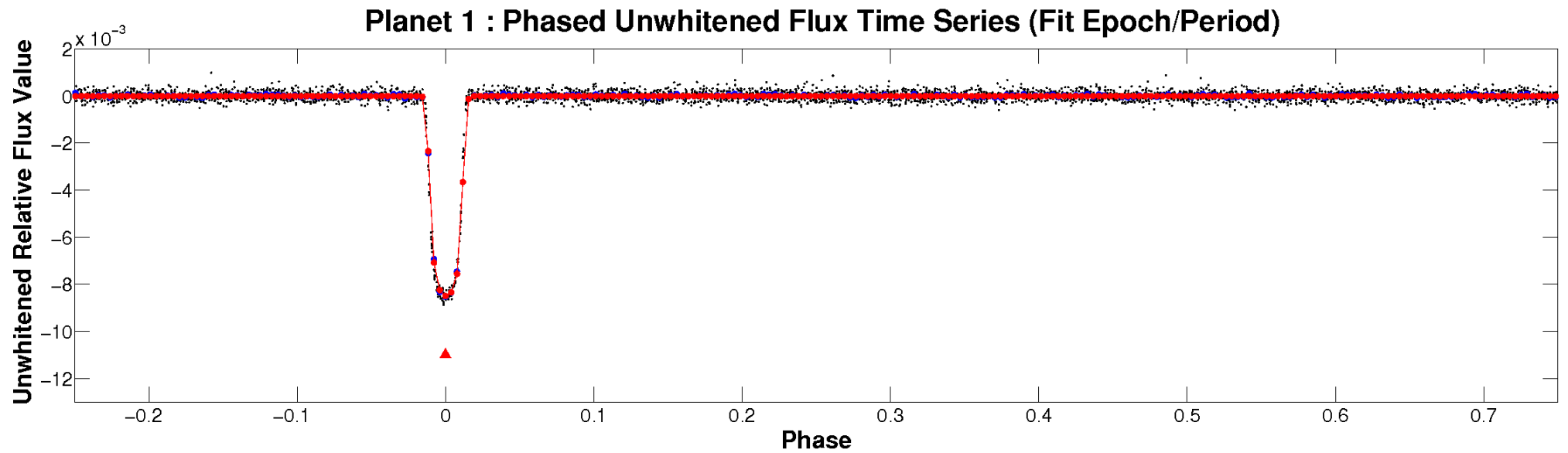


ALT Odd/Even

TCE 007017372-01

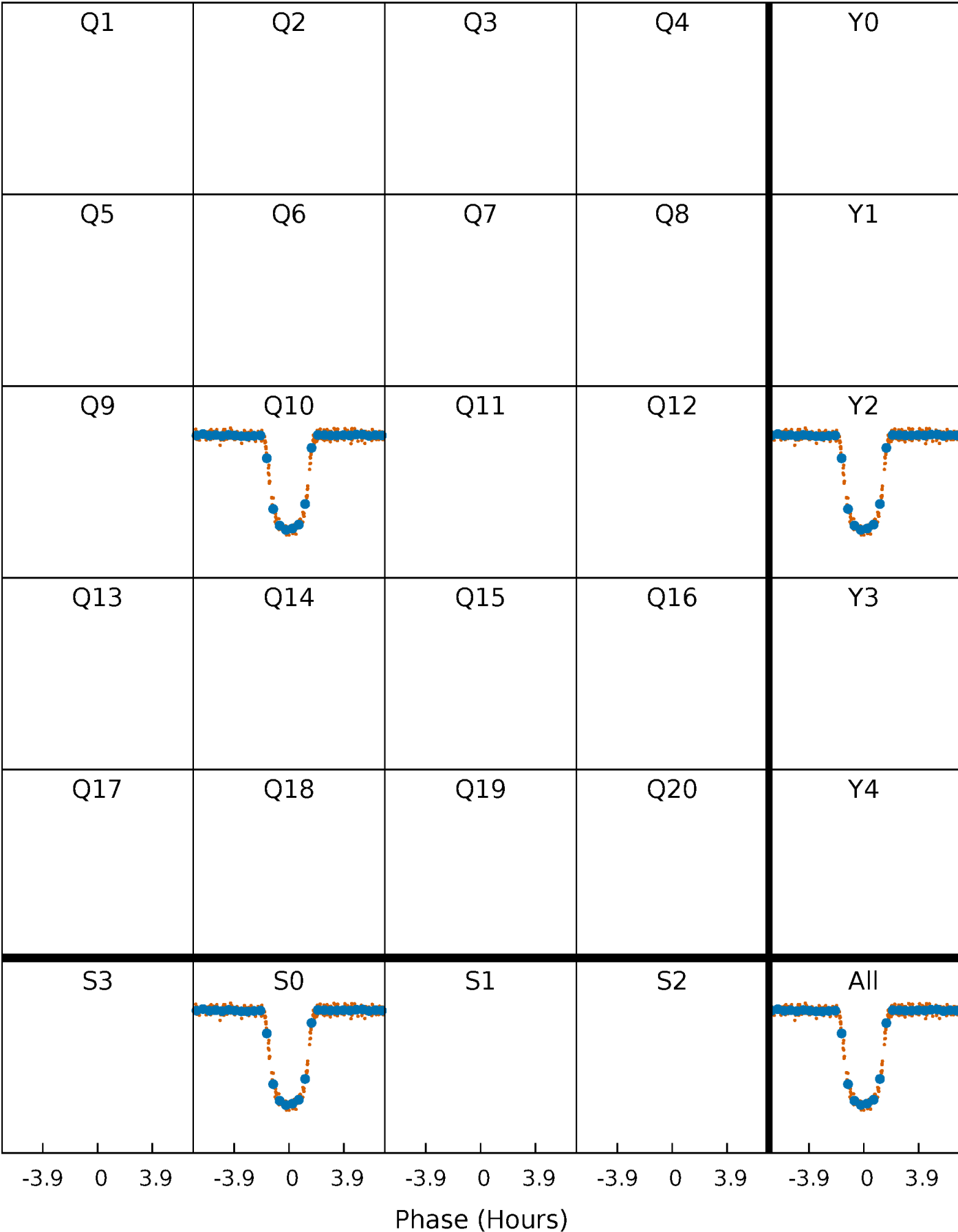


Non-Whitened Vs. Whitened Light Curve



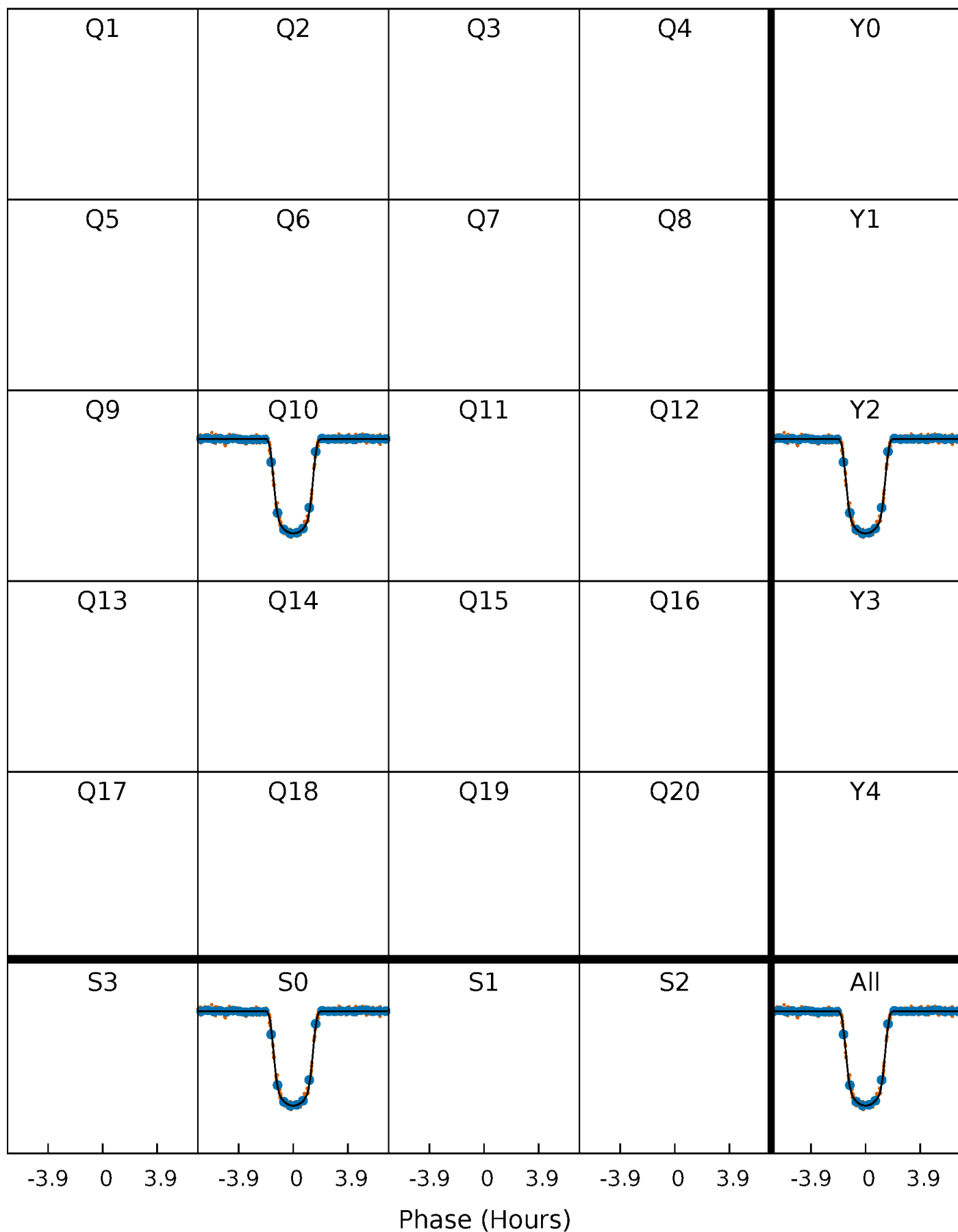
PDC Quarter-Phased Transit Curves

TCE 007017372-01 P= 5.240914 Days T₀=136.024204 (BKJD)



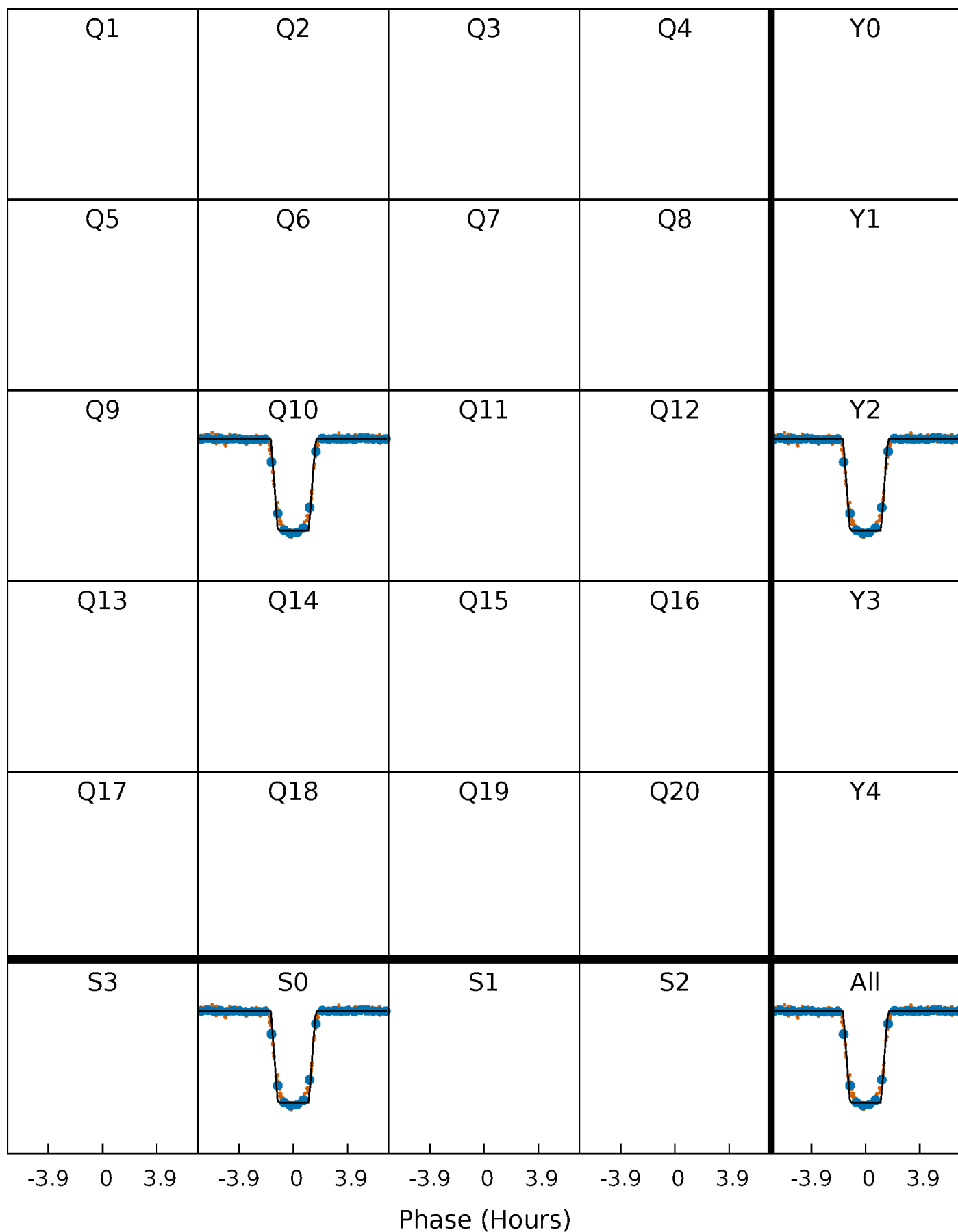
DV Quarter-Phased Transit Curves

TCE 007017372-01 P= 5.240914 Days $T_0=136.024204$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

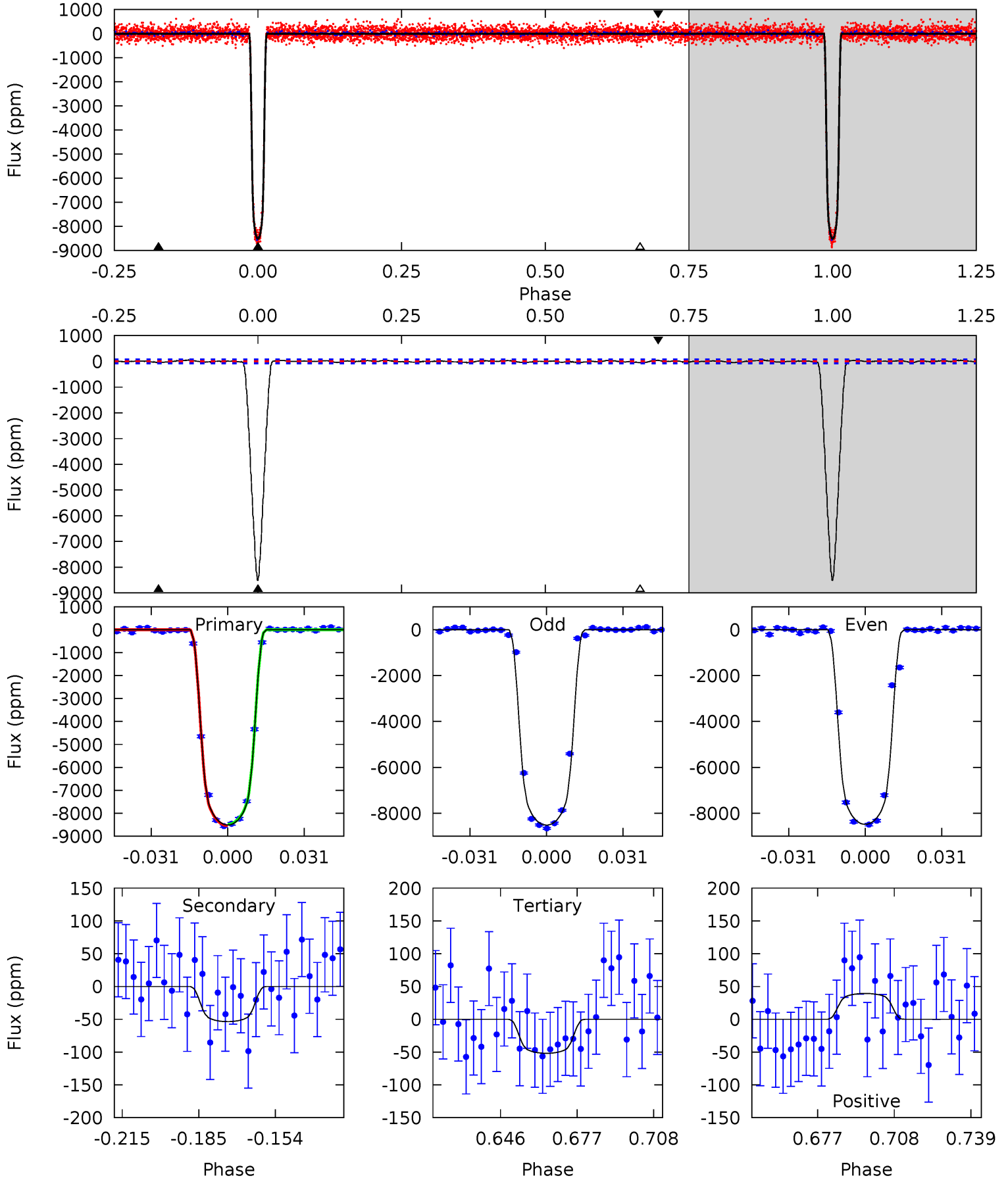
TCE 007017372-01 P= 5.240861 Days $T_0=136.032540$ (BKJD)



DV Model-Shift Uniqueness Test

007017372-01, P = 5.240914 Days, E = 136.024204 Days

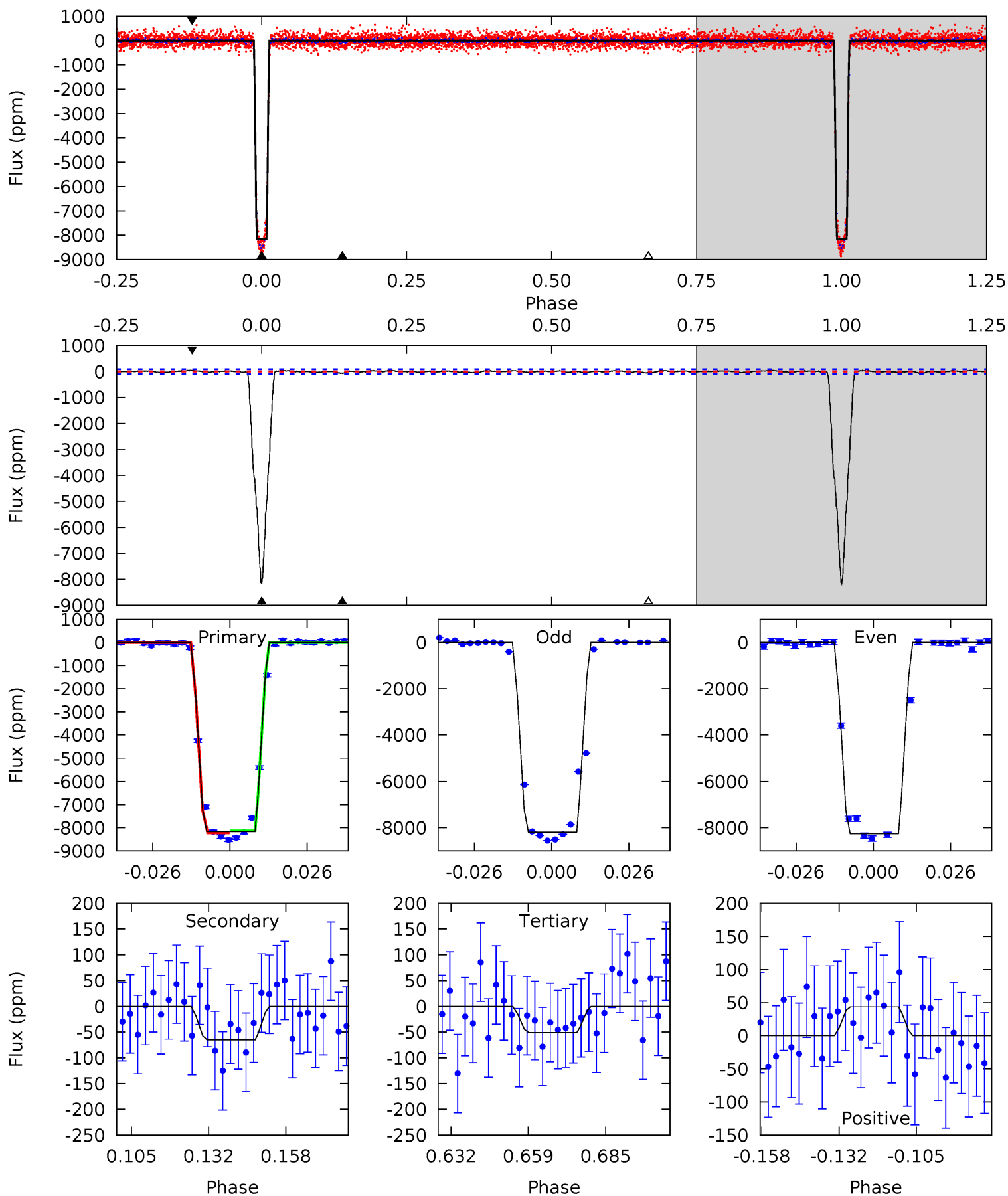
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
528.1	3.33	3.22	2.44	4.81	2.16	1.29	524.9	525.7	0.10	0.89	0.97	1.00	0.01	1.80



Alt Model-Shift Uniqueness Test

007017372-01, P = 5.240861 Days, E = 136.032540 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
431.5	3.43	2.68	2.30	4.84	2.22	1.00	428.9	429.3	0.75	1.13	1.76	1.00	0.01	2.16



Stellar Parameters For KIC 007017372

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6452^{+181}_{-250}	$4.241^{+0.170}_{-0.187}$	$-0.280^{+0.250}_{-0.300}$	$1.305^{+0.395}_{-0.263}$	$1.079^{+0.177}_{-0.129}$	$0.684^{+0.542}_{-0.354}$
	+3%/-4%	+4%/-4%	+89%/-107%	+30%/-20%	+16%/-12%	+79%/-52%
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 007017372-01 / KOI 3689.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-54 ± 16	$12.88^{+2.11}_{-1.45}$	1841^{+135}_{-128}	2418^{+165}_{-267}	$0.616^{+0.287}_{-0.220}$
Alt.	-65 ± 19	$12.97^{+2.23}_{-1.55}$	1837^{+148}_{-124}	2520^{+146}_{-192}	$0.755^{+0.340}_{-0.260}$

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 $A_{obs} \gg 1.0$

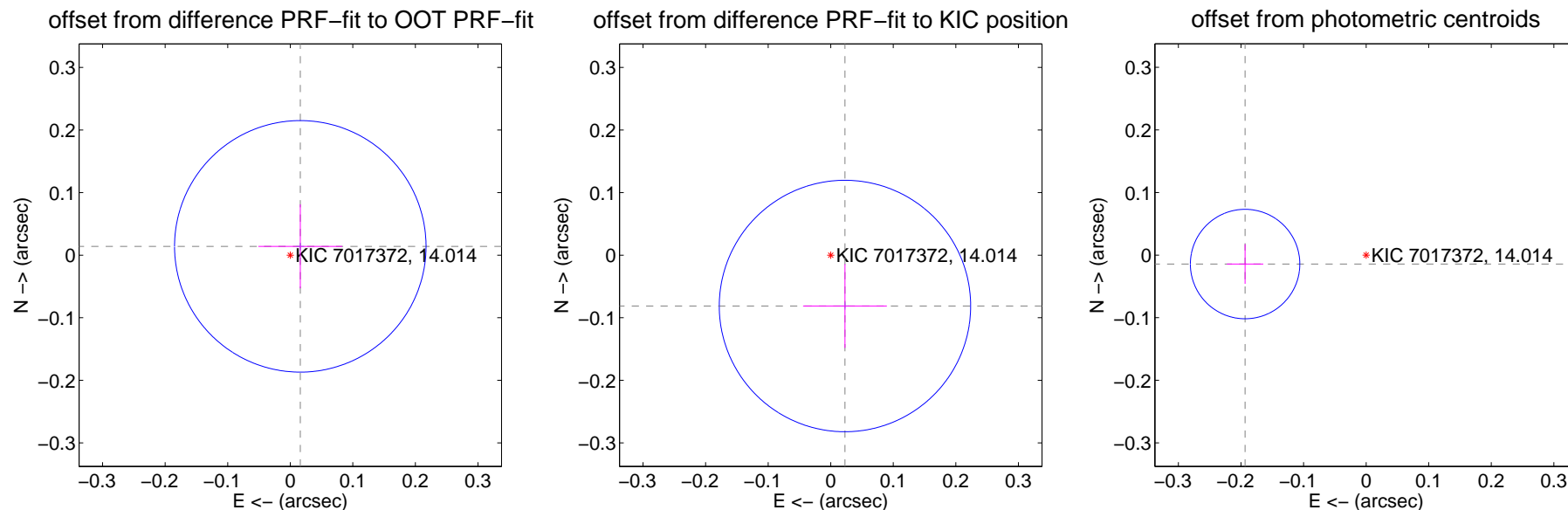
DV Centroid Data

Supplemental centroid analysis for 007017372-01. Kepler magnitude: 14.01. Transit SNR 372.36

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.021 ± 0.067	0.32	-0.016 ± 0.067	0.014 ± 0.067
PRF-fit source offset from KIC position	0.084 ± 0.067	1.26	-0.023 ± 0.067	-0.081 ± 0.067
photometric centroid source offset	0.19 ± 0.03	6.65	0.19 ± 0.03	-0.01 ± 0.03



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.

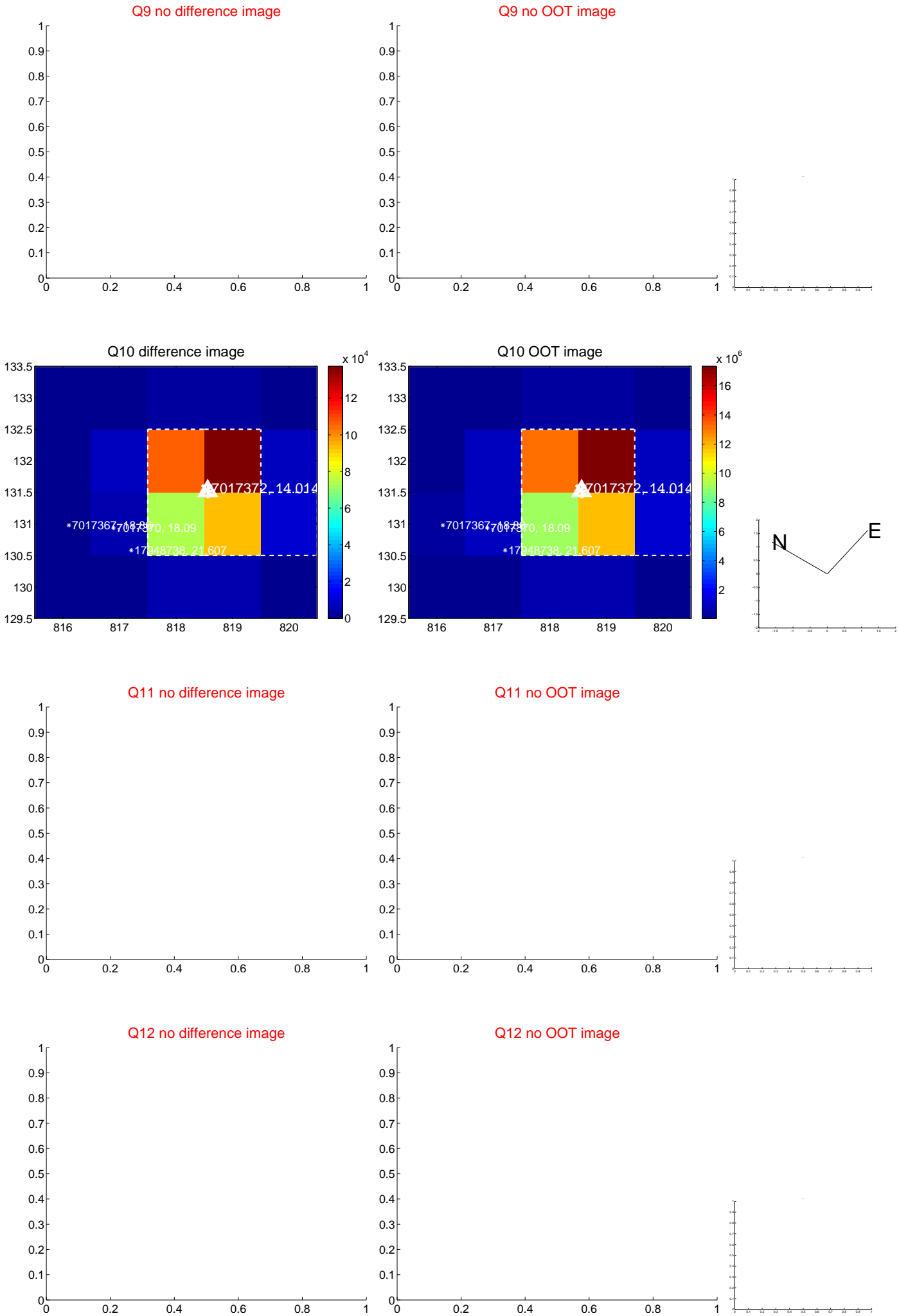
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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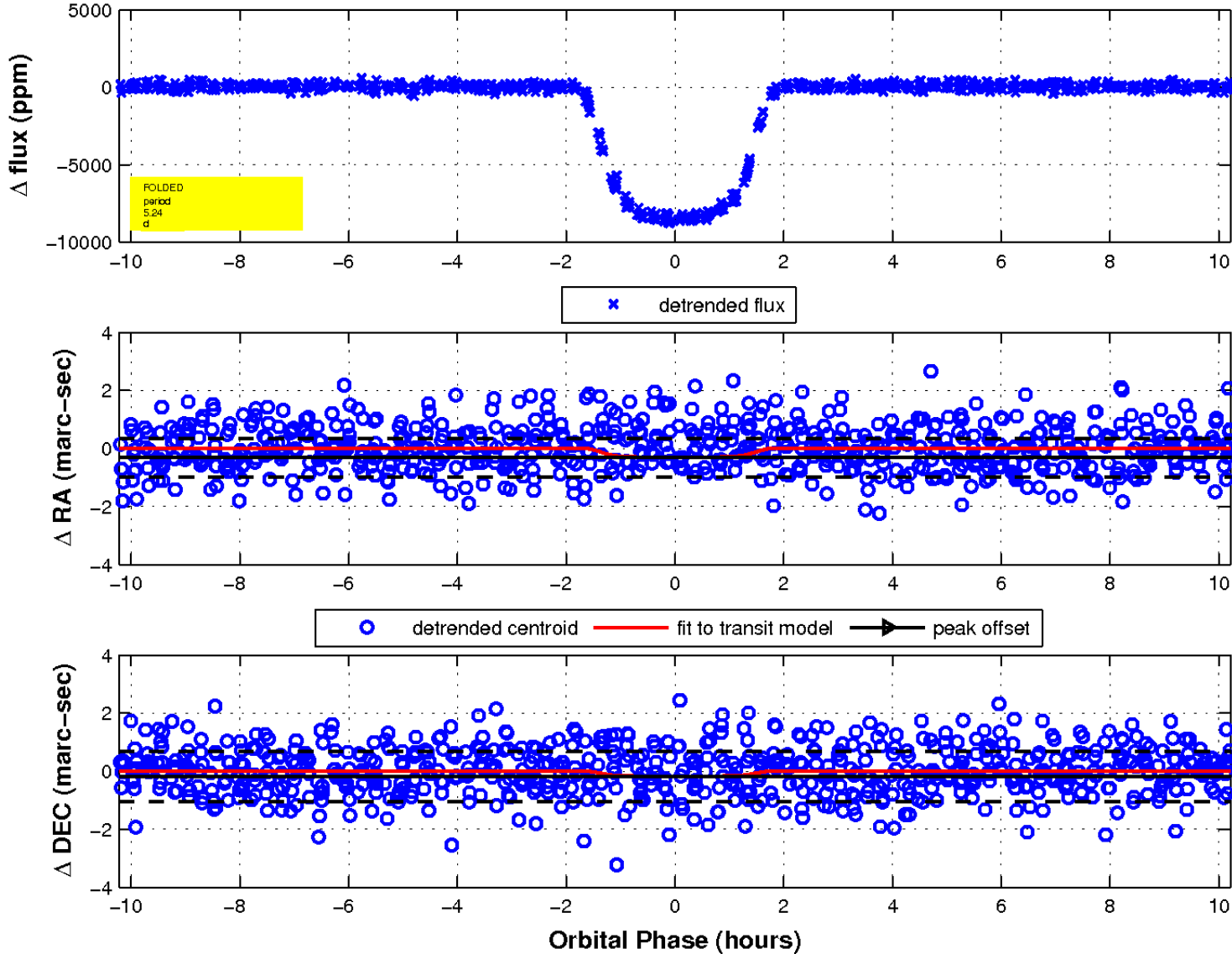
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

