

KIC 005008245

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})
005008245-01	OBS	3770.01	2.607261	131.832213	3141.8	2.679	175.4	170.3	1.24	6366	7.47	1406.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005008245-01	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.

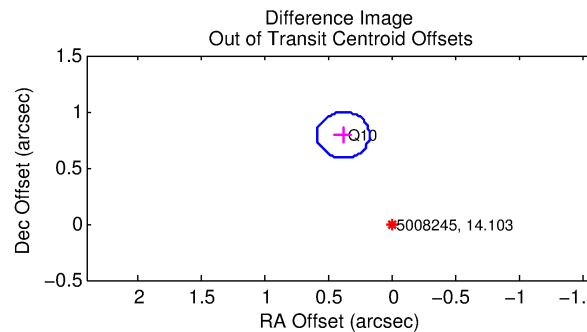
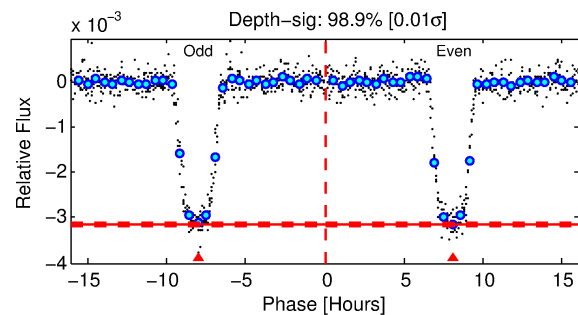
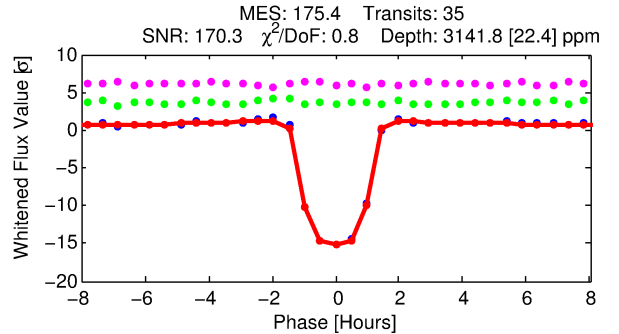
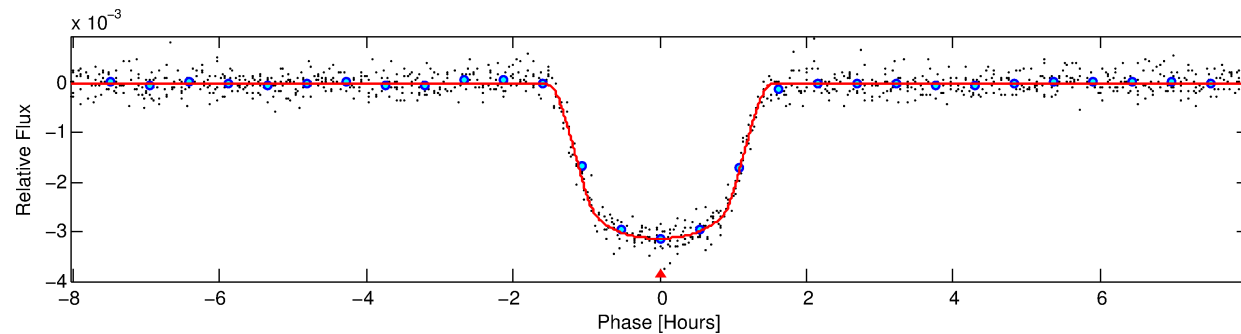
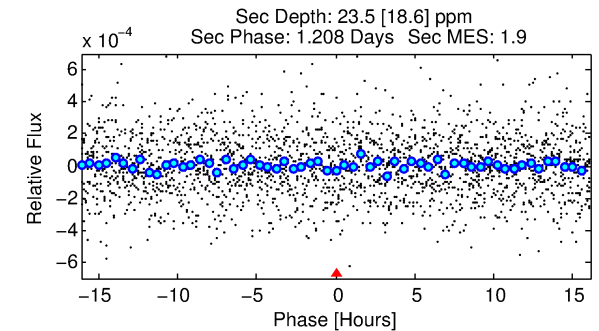
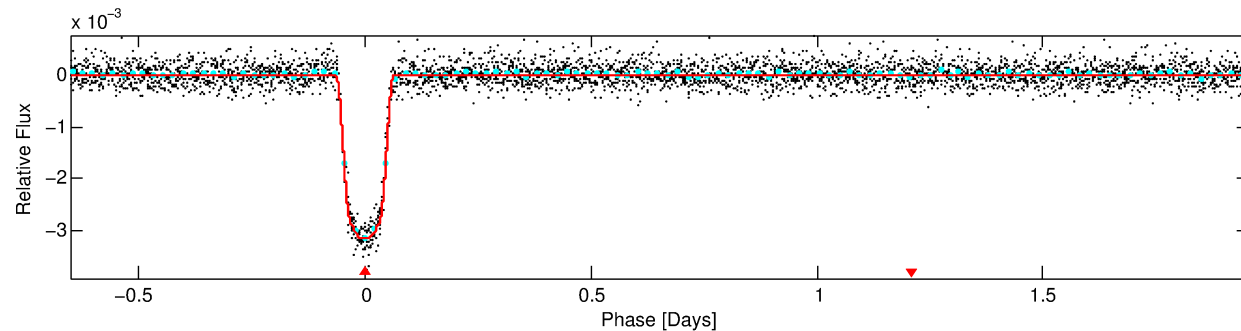
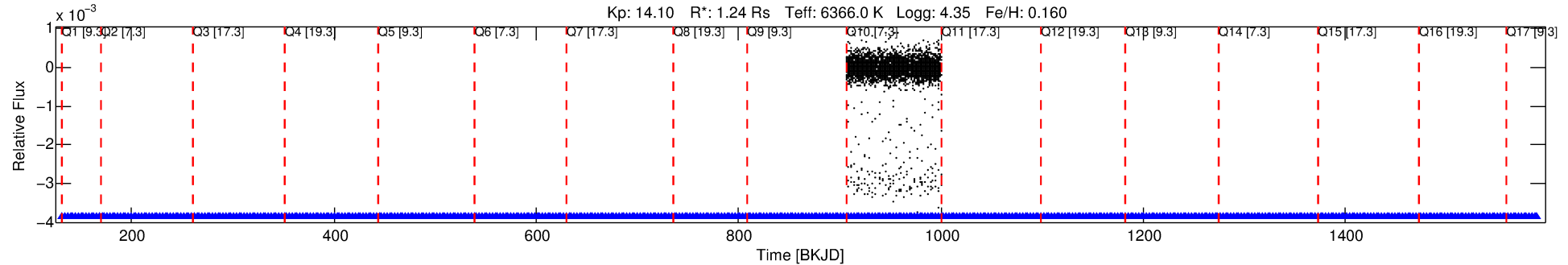
Ephemeris Match Information For 005008245-01

No Significant Match Found

DV One-Page Summary

KIC: 5008245 Candidate: 1 of 1 Period: 2.607 d
KOI: K03770.01 Corr: 0.941

Kp: 14.10 R*: 1.24 Rs Teff: 6366.0 K Logg: 4.35 Fe/H: 0.160



DV Fit Results:

Period = 2.60726 [0.00000] d
Epoch = 131.8322 [0.0003] BKJD
Rp/R* = 0.0554 [0.0014]
a/R* = 5.78 [0.67]
b = 0.72 [0.08]
Seff = 1406.46 [606.39]
Teq = 1562 [168] K
Rp = 7.47 [2.53] Re
a = 0.0400 [0.0112] AU
Ag = 0.37 [0.33] [-1.91σ]
Teffp = 1883 [382] K [0.77σ]

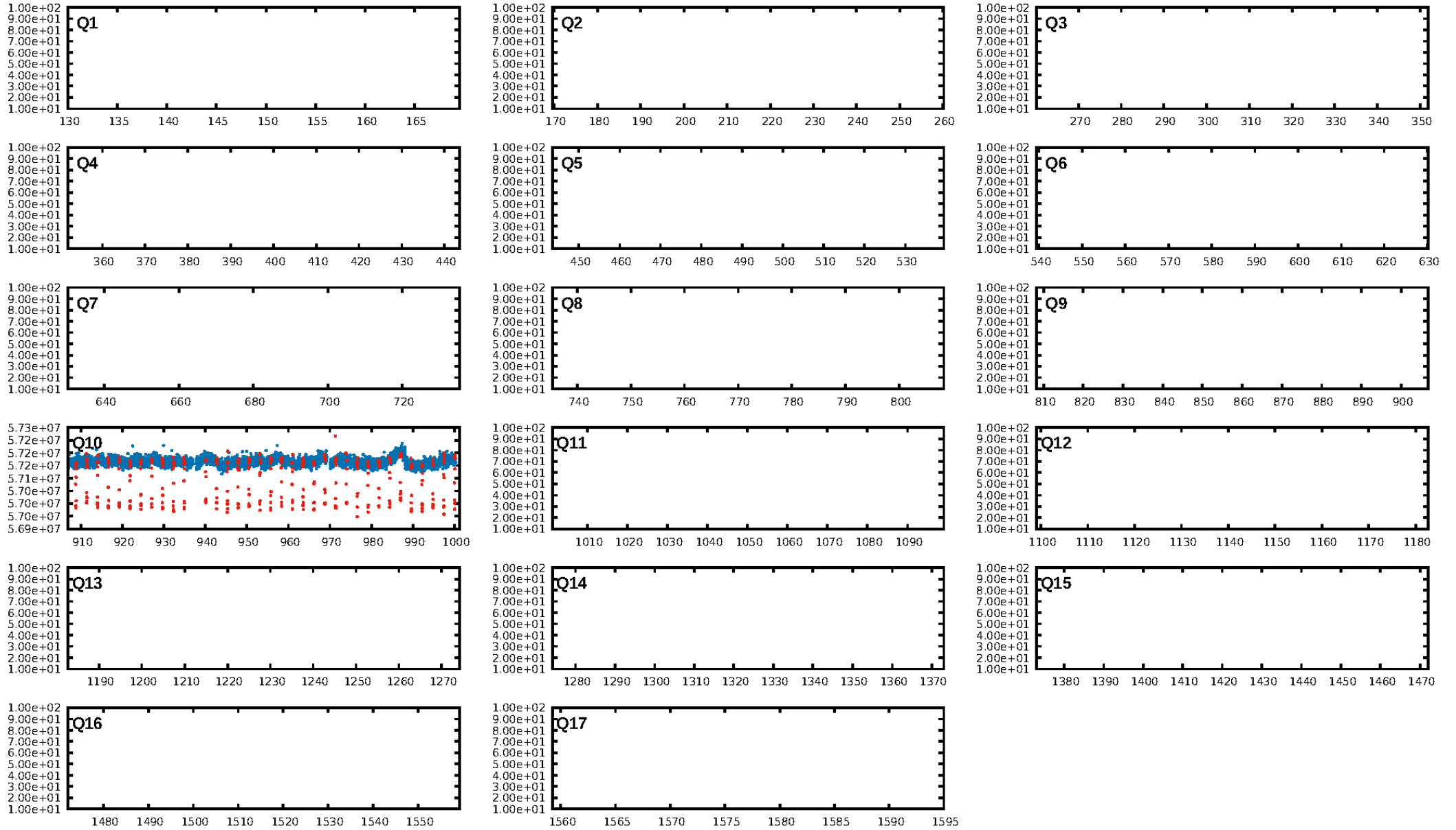
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [35/35]
GhostDiagnostic-chr: 7.51
Centroid-sig: 0.0%
Centroid-so: 0.617 arcsec [8.20σ]
OotOffset-rm: 0.876 arcsec [12.78σ]
KicOffset-rm: 0.886 arcsec [12.91σ]
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]

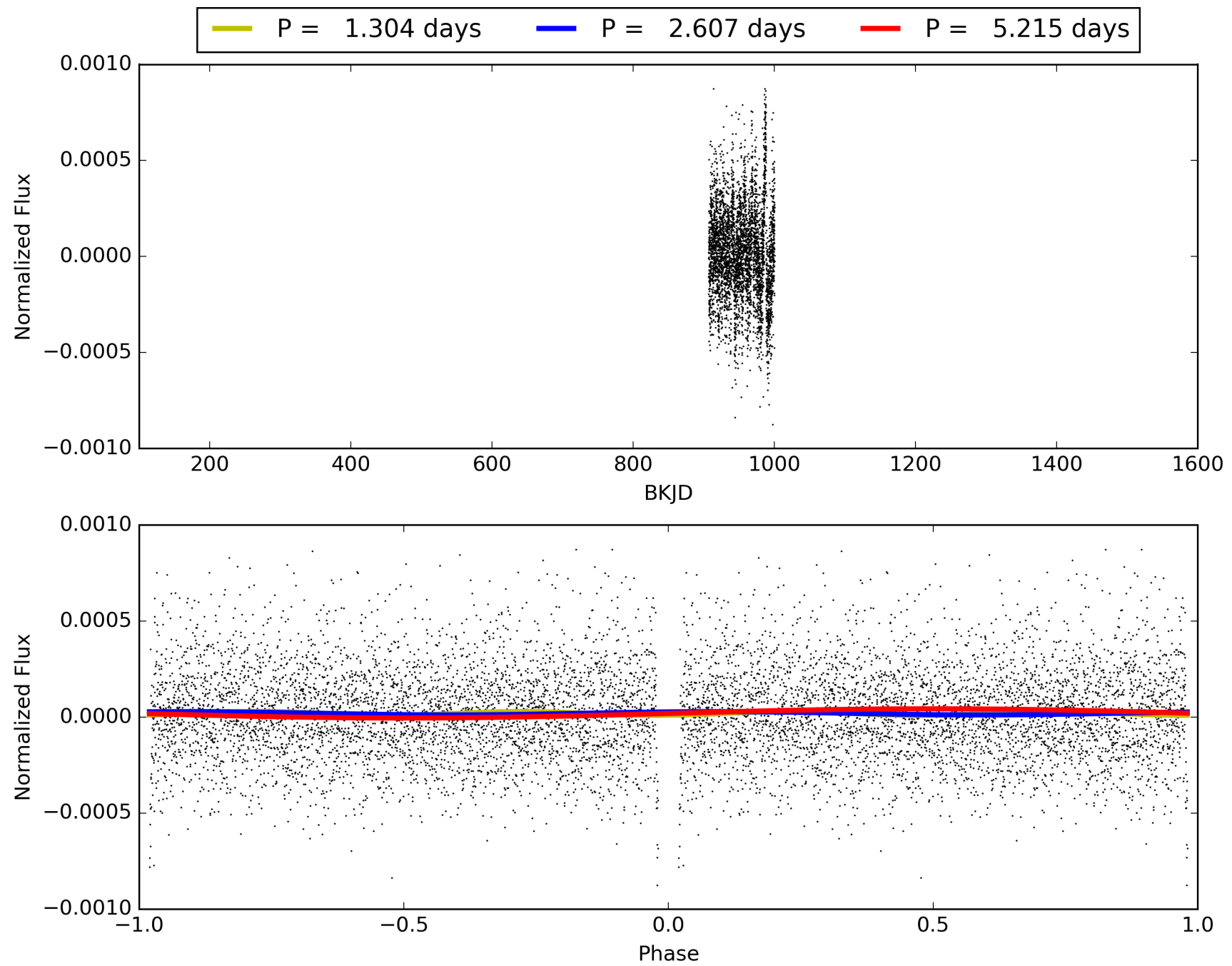
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:05:42 Z

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

TCE 005008245-01, PDC Light Curves

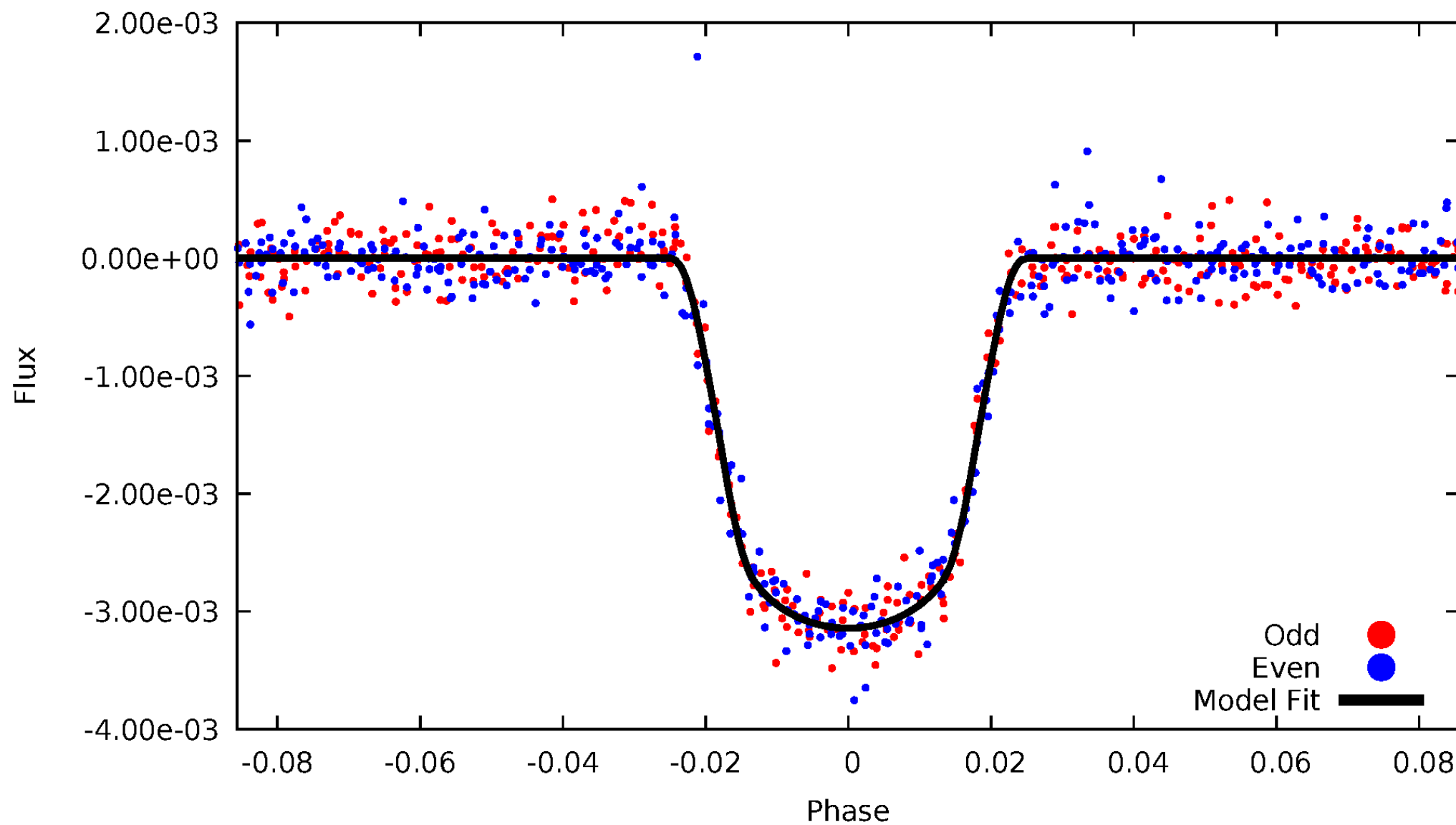


TCE 005008245-01



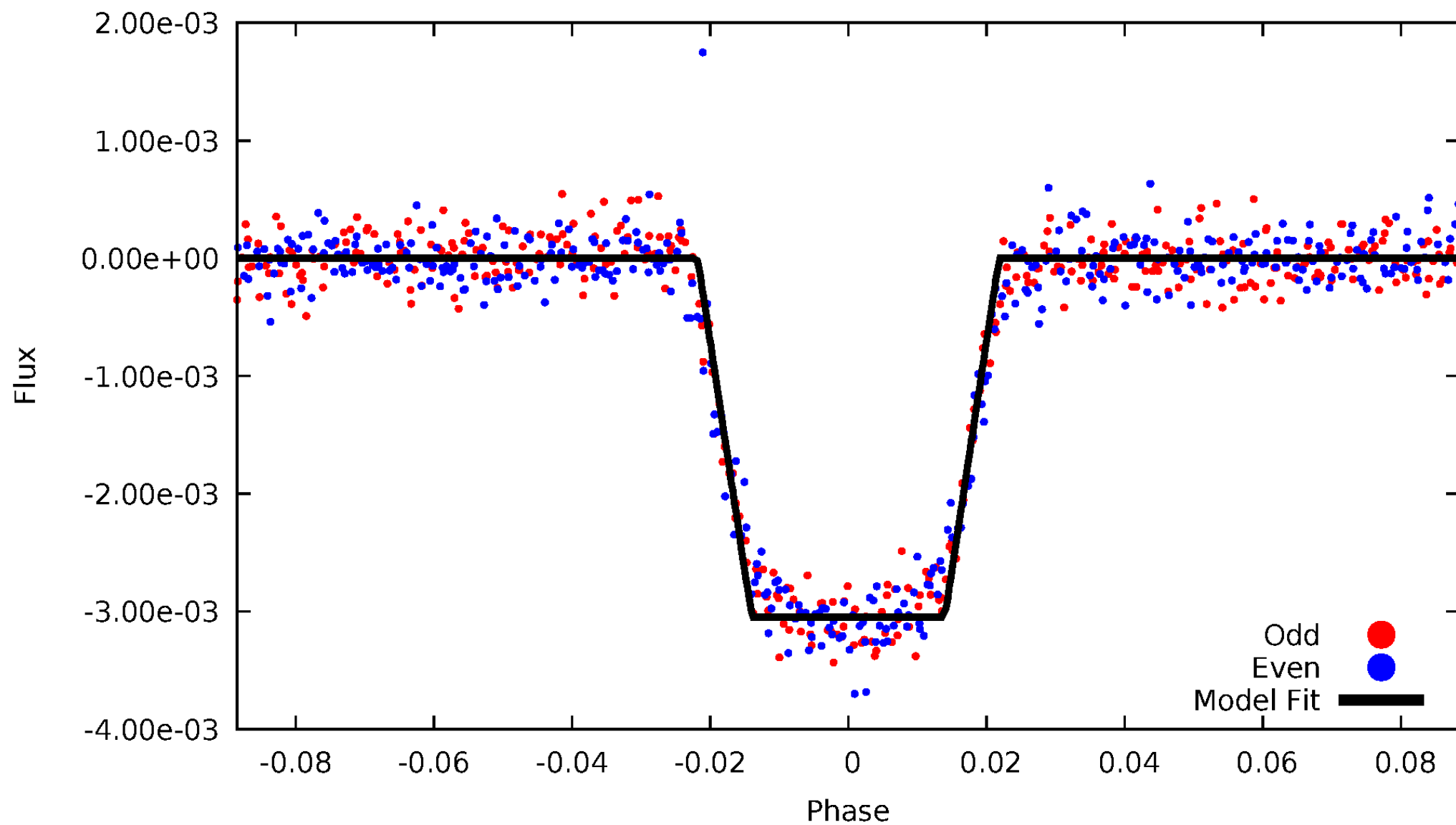
DV Odd/Even

TCE 005008245-01



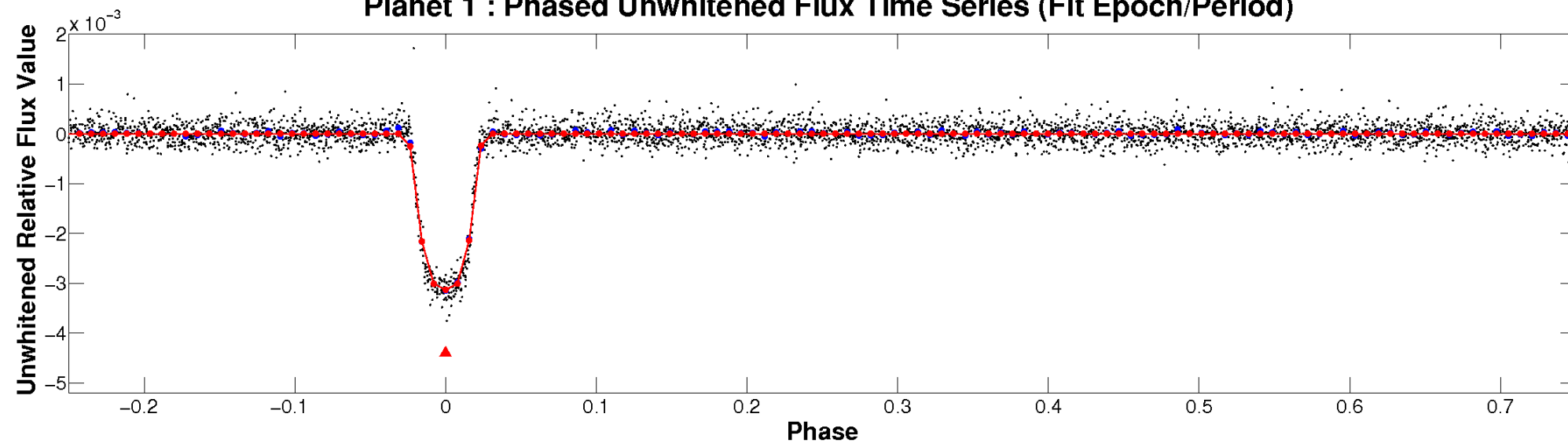
ALT Odd/Even

TCE 005008245-01

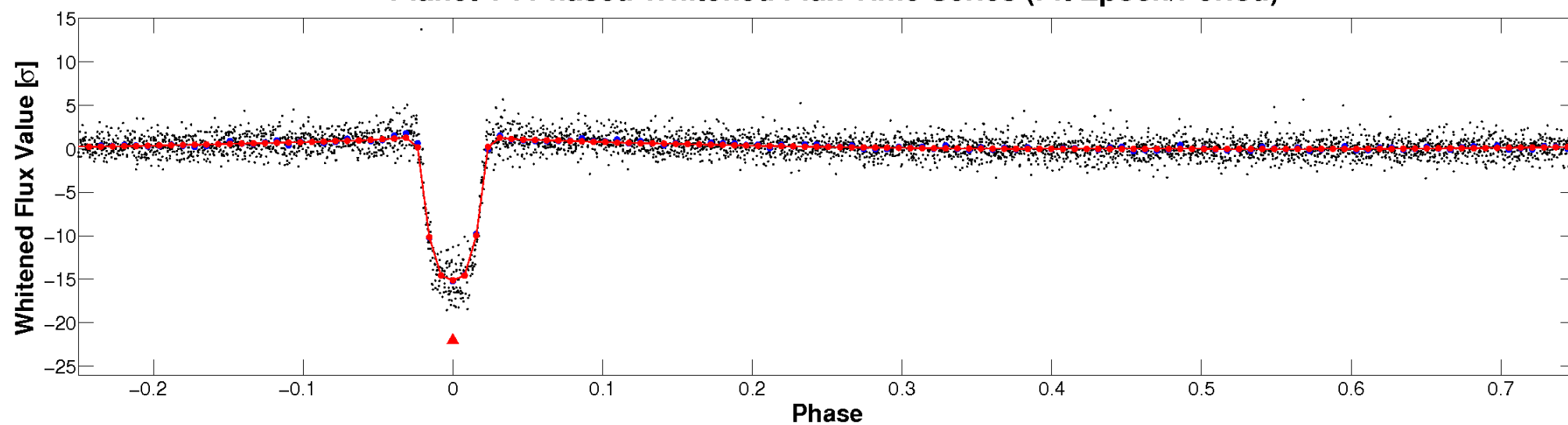


Non-Whitened Vs. Whitened Light Curve

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

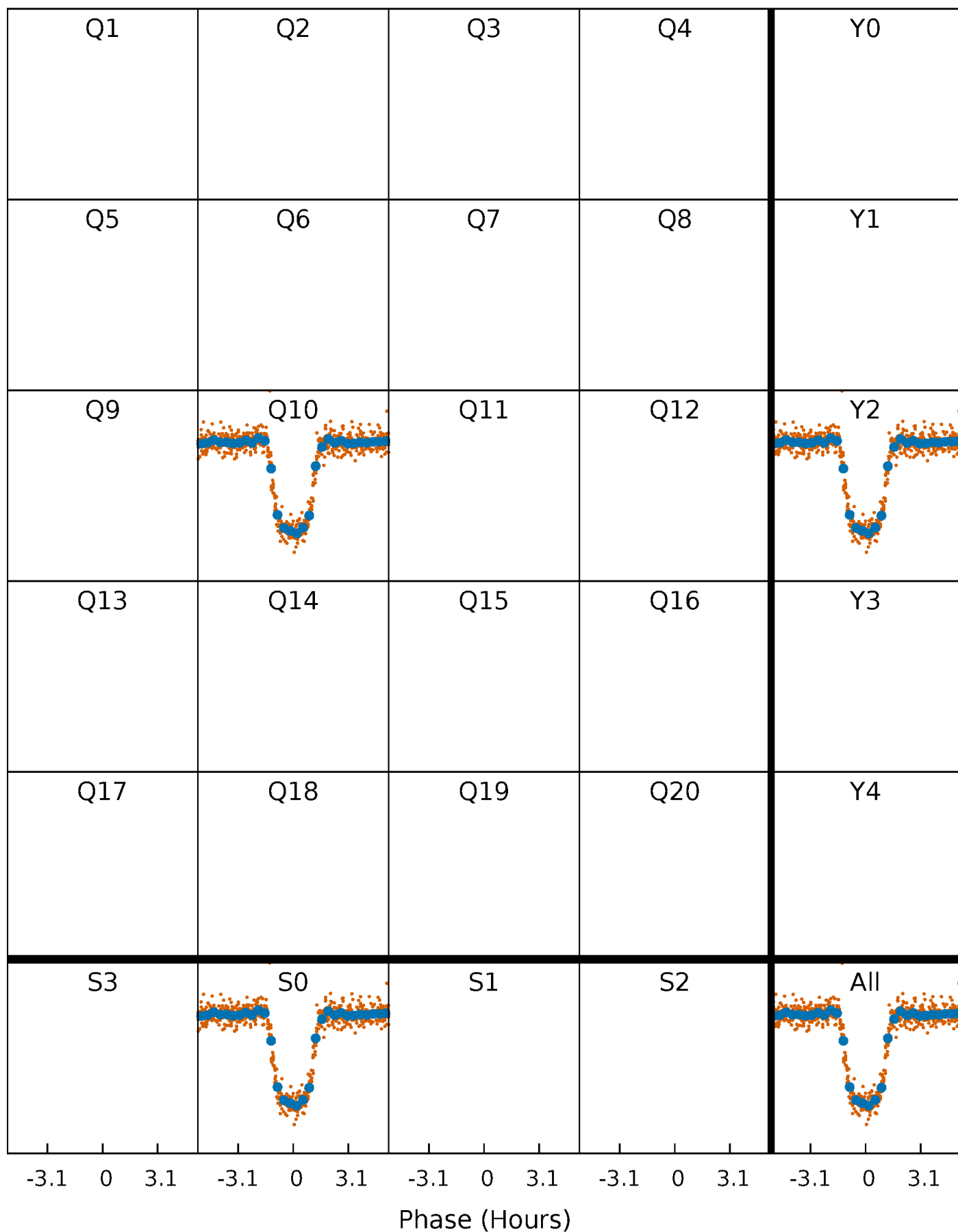


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



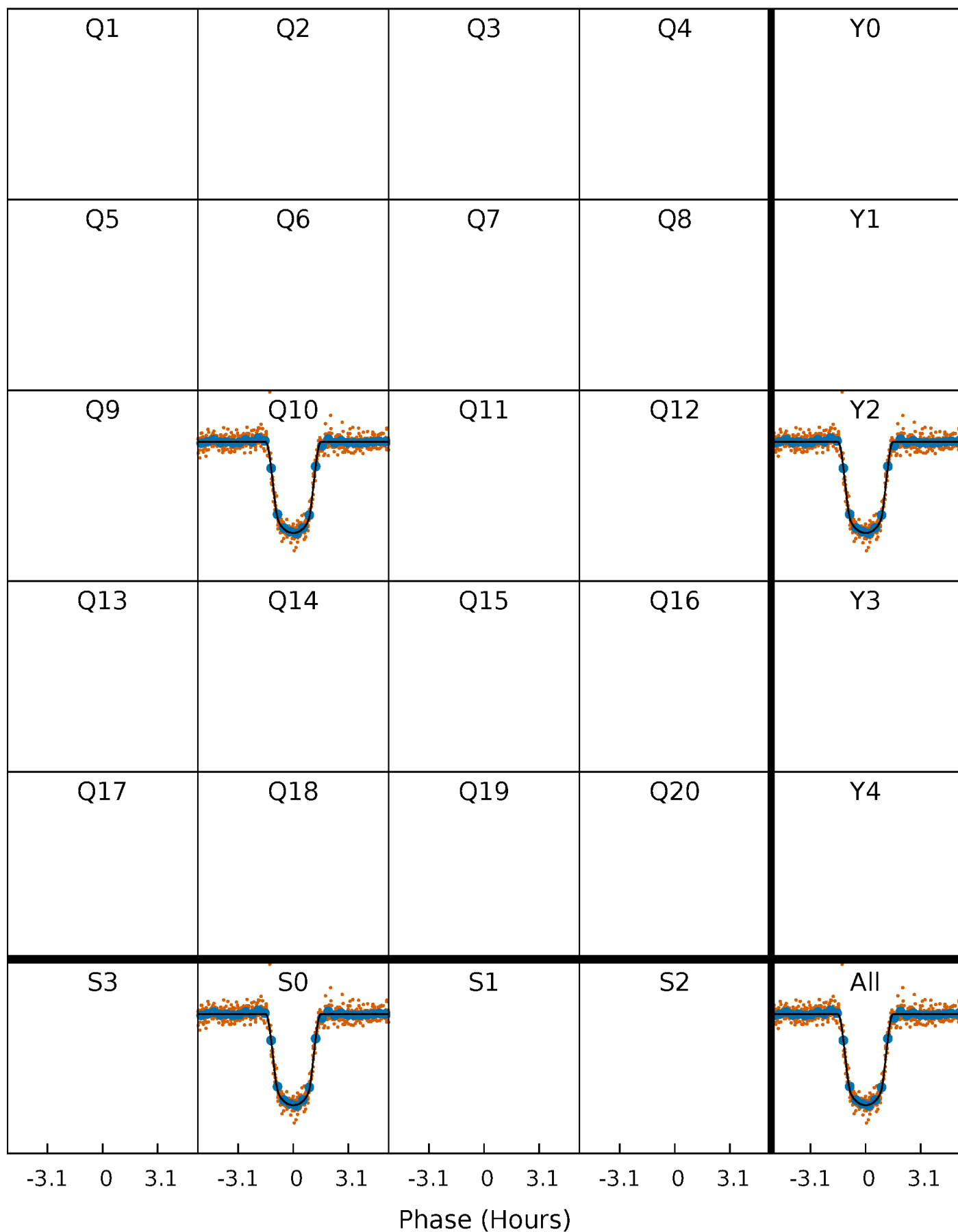
PDC Quarter-Phased Transit Curves

TCE 005008245-01 P= 2.607261 Days $T_0=131.832213$ (BKJD)



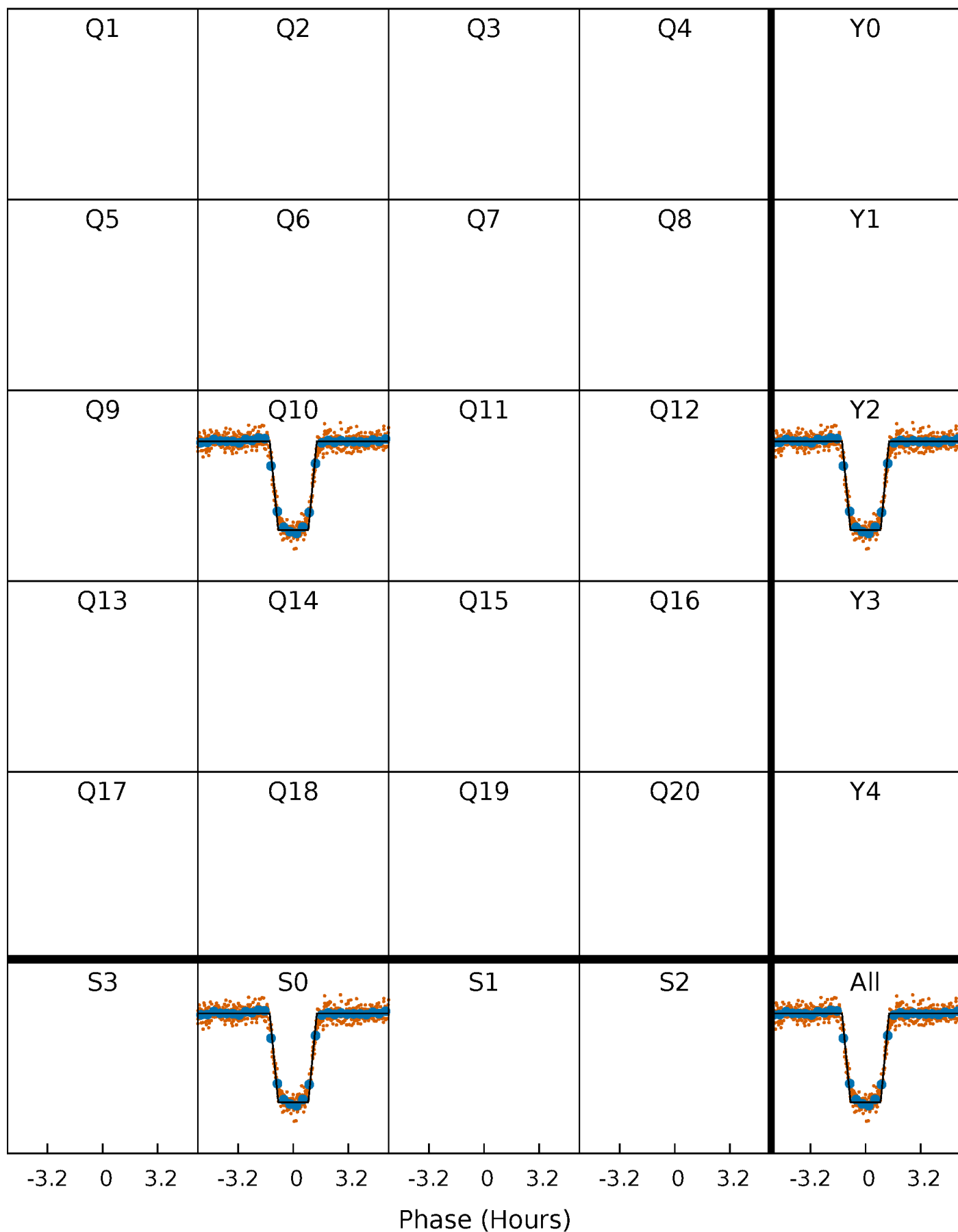
DV Quarter-Phased Transit Curves

TCE 005008245-01 P= 2.607261 Days $T_0=131.832213$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

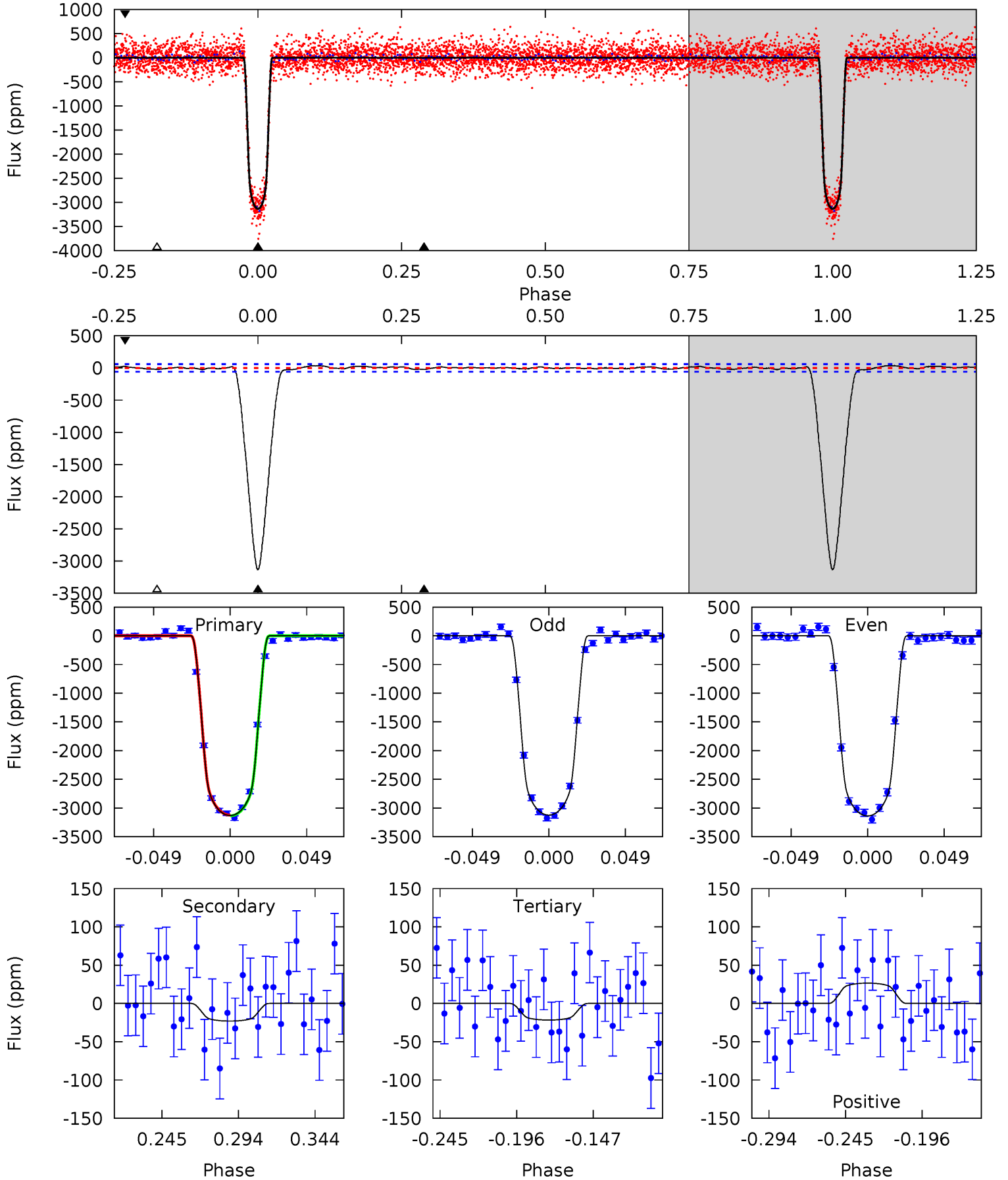
TCE 005008245-01 P= 2.607240 Days $T_0=131.838771$ (BKJD)



DV Model-Shift Uniqueness Test

005008245-01, P = 2.607261 Days, E = 131.832213 Days

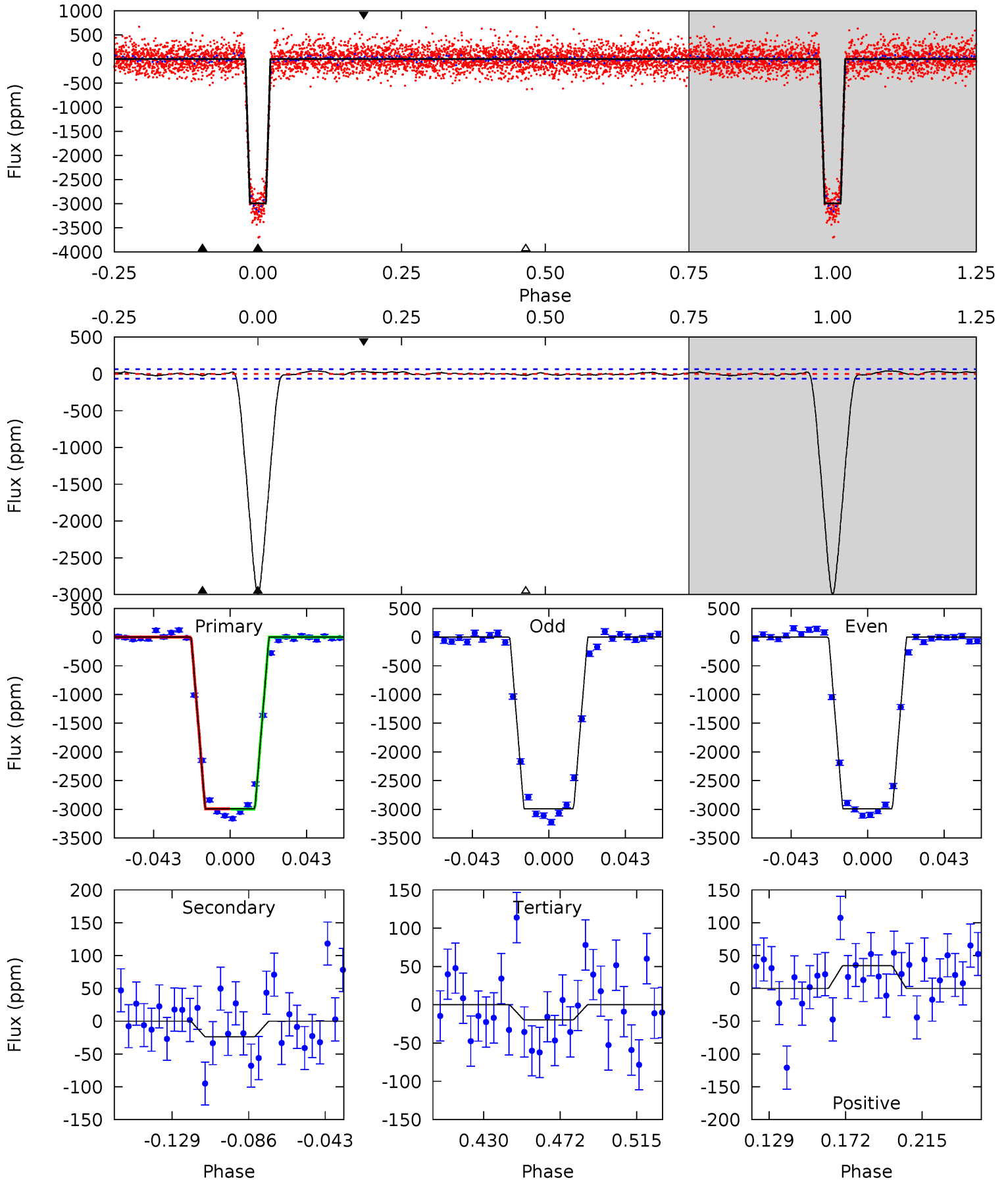
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
249.9	1.84	1.73	2.12	4.71	1.97	1.02	248.2	247.8	0.11	-0.28	0.59	1.00	0.01	0.49



Alt Model-Shift Uniqueness Test

005008245-01, P = 2.607240 Days, E = 131.838771 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
221.4	1.76	1.46	2.55	4.74	2.02	1.09	220.0	218.9	0.30	-0.79	0.02	1.00	0.01	0.19



Stellar Parameters For KIC 005008245

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6366^{+177}_{-243}	$4.352^{+0.073}_{-0.218}$	$0.160^{+0.200}_{-0.350}$	$1.236^{+0.417}_{-0.179}$	$1.257^{+0.182}_{-0.182}$	$0.939^{+0.353}_{-0.489}$
	+3%/-4%	+2%/-5%	+125%/-219%	+34%/-14%	+14%/-14%	+38%/-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 005008245-01 / KOI 3770.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-23 ± 13	$7.64^{+1.40}_{-0.69}$	2221^{+162}_{-121}	1891^{+646}_{-4354}	$0.316^{+0.218}_{-0.172}$
Alt.	-24 ± 14	$7.66^{+1.40}_{-0.73}$	2221^{+185}_{-134}	2043^{+498}_{-4546}	$0.331^{+0.225}_{-0.192}$

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 $A_{obs} \gg 1.0$

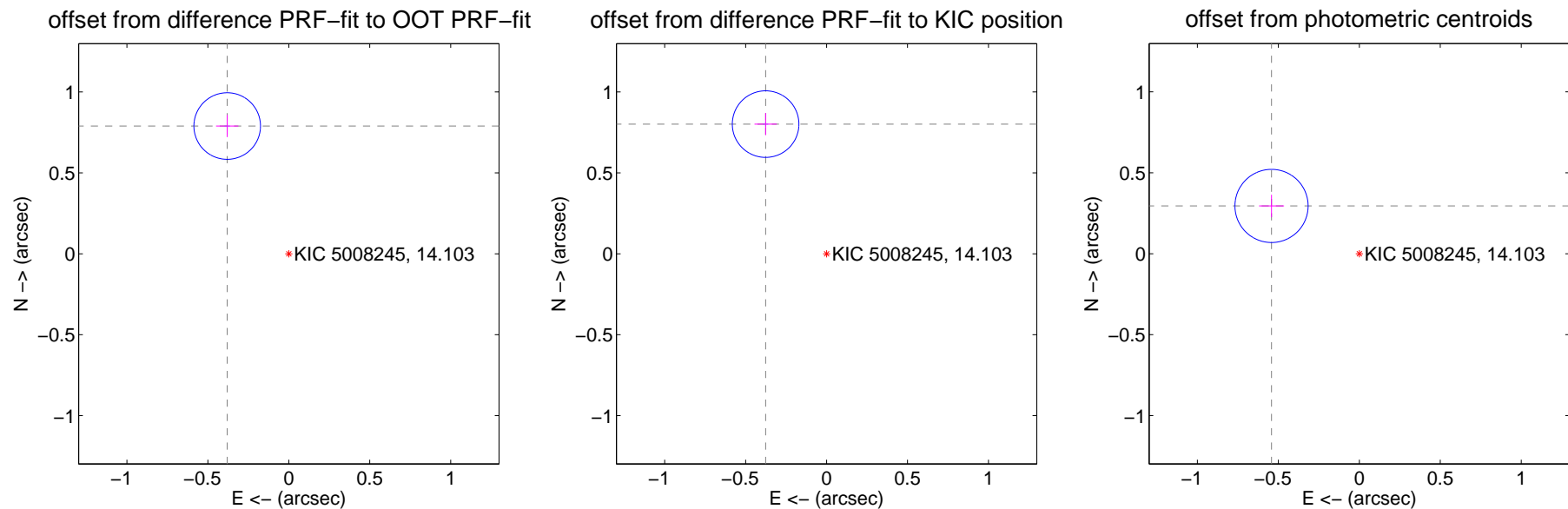
DV Centroid Data

Supplemental centroid analysis for 005008245-01. Kepler magnitude: 14.10. Transit SNR 170.25

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.876 ± 0.069	12.78	0.381 ± 0.069	0.789 ± 0.069
PRF-fit source offset from KIC position	0.886 ± 0.069	12.91	0.377 ± 0.069	0.801 ± 0.069
photometric centroid source offset	0.62 ± 0.08	8.20	0.54 ± 0.08	0.30 ± 0.07



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.

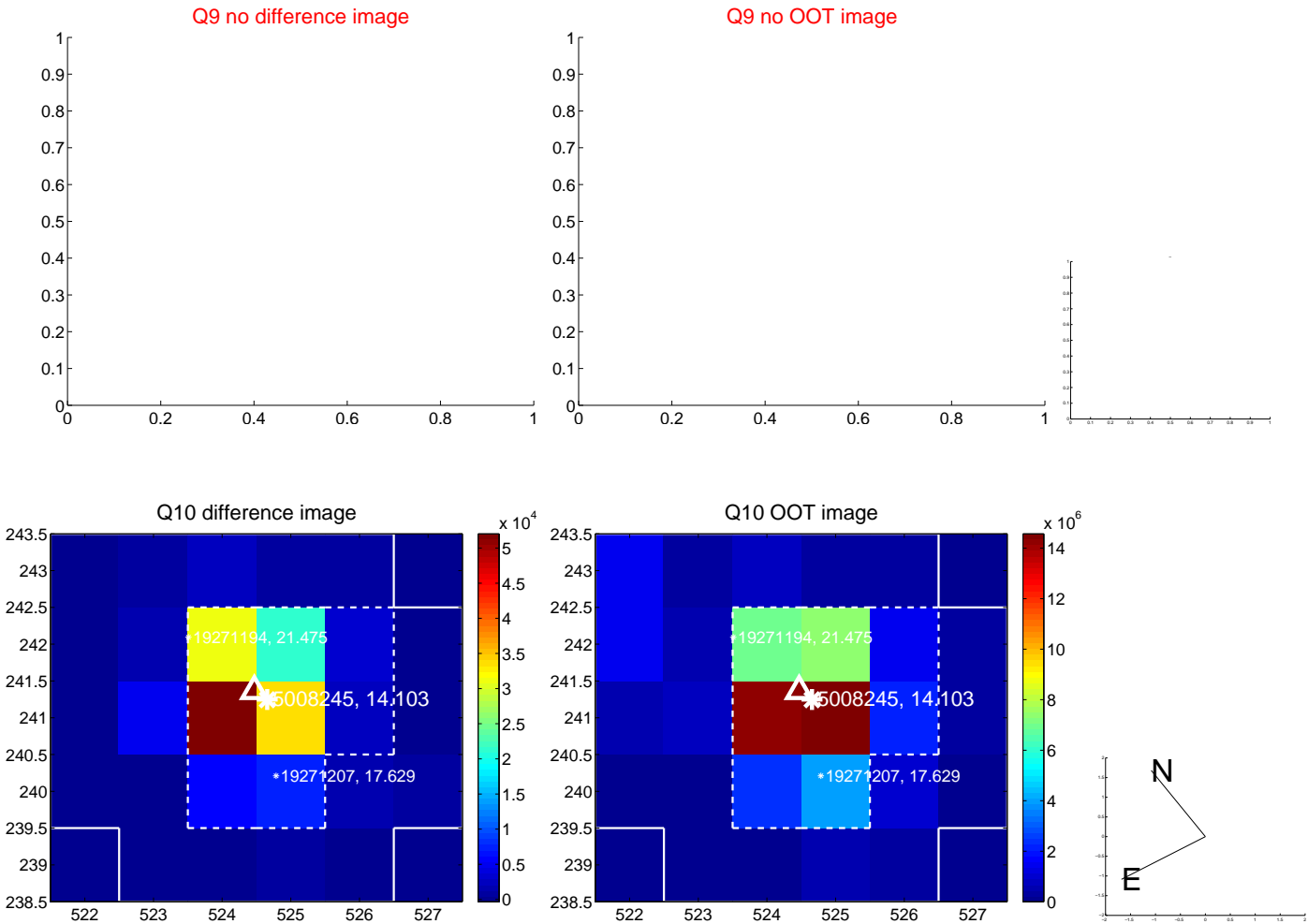
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



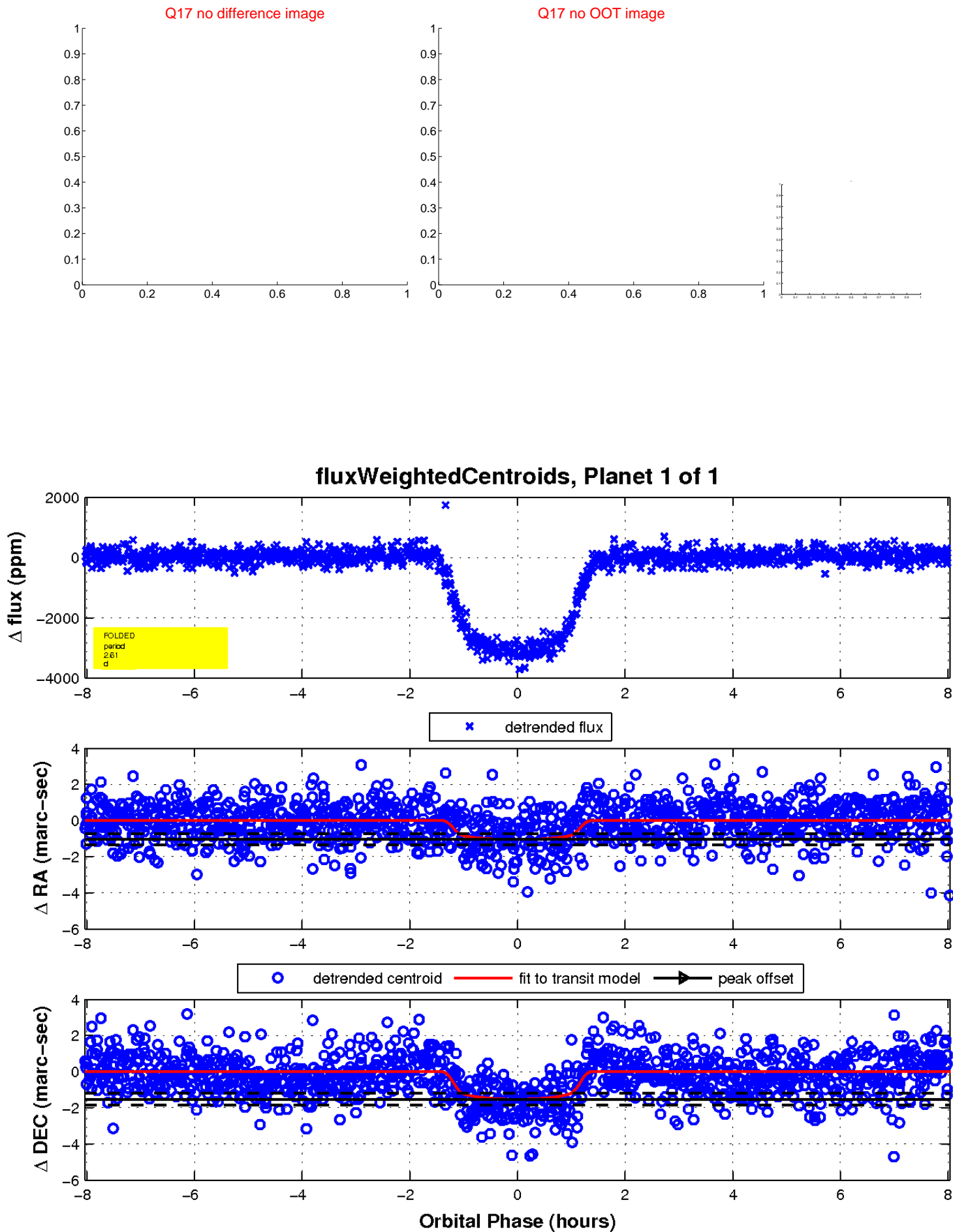
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

