

KIC 007835171

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})
007835171-01	OBS	No	368.758210	232.695591	2379.7	21.306	9.0	11.6	0.86	5799	7.92	0.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007835171-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—MOD_NONUNIQ_DV—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.

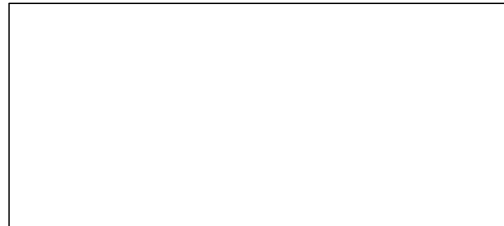
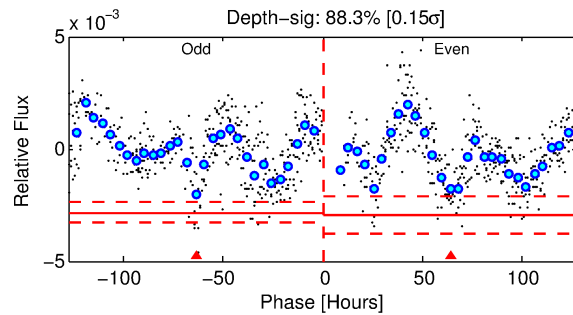
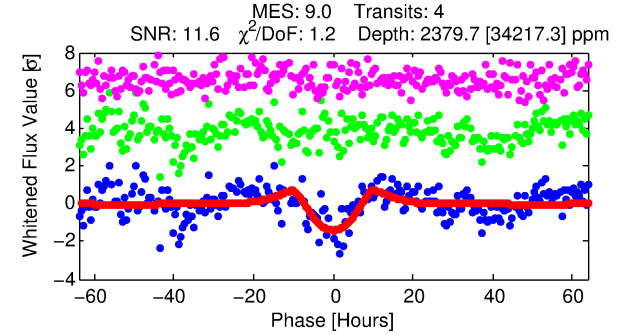
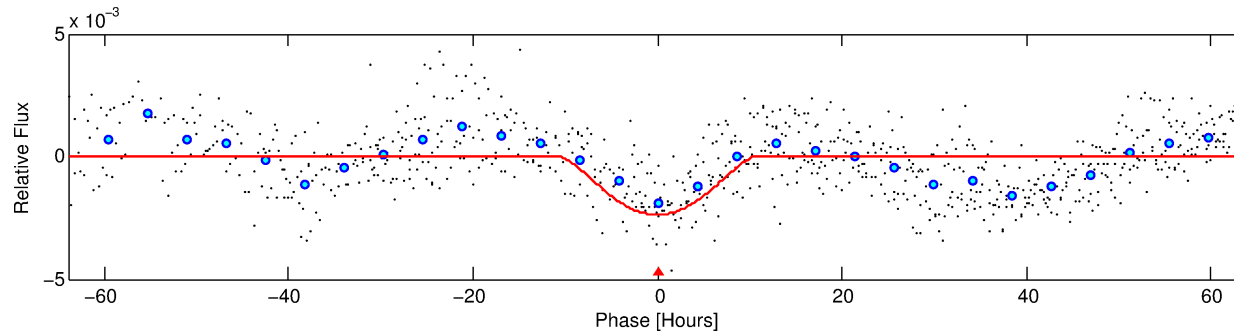
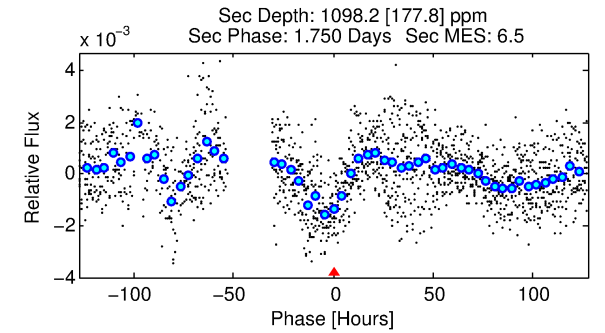
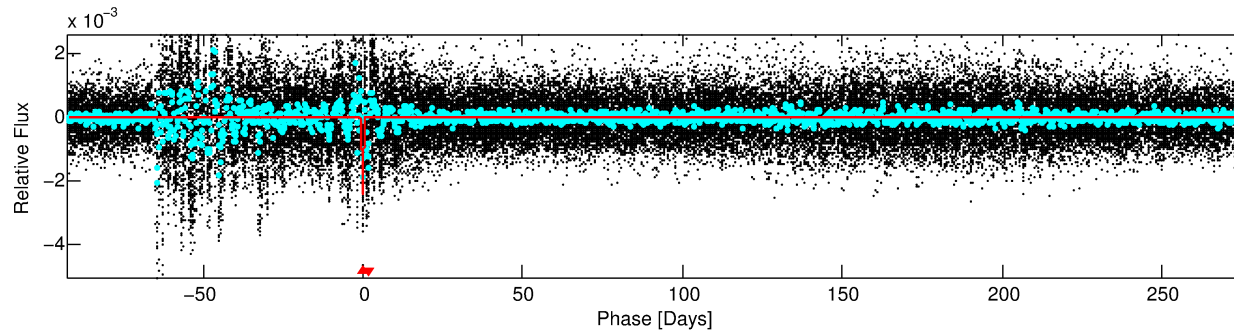
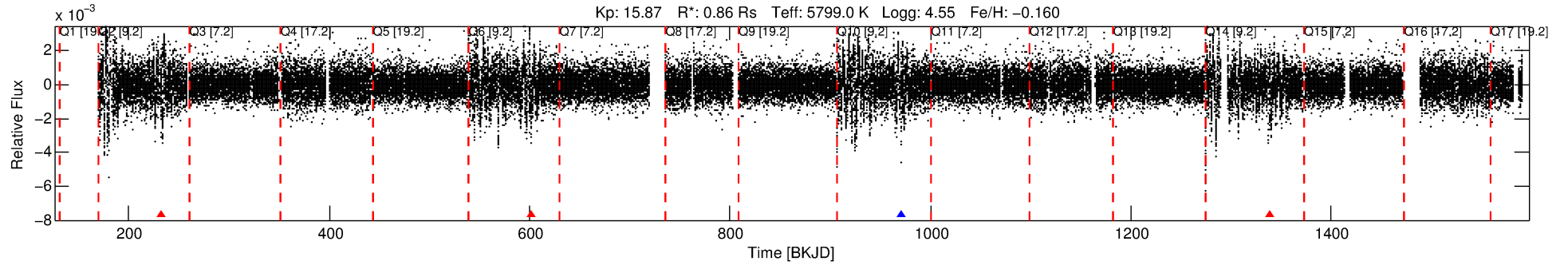
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007835171-01

No Significant Match Found

DV One-Page Summary

KIC: 7835171 Candidate: 1 of 1 Period: 368.758 d



DV Fit Results:

Period = 368.75821 [0.01526] d
Epoch = 232.6956 [0.0289] BKJD
Rp/R* = 0.0844 [0.1899]
a/R* = 55.45 [26.46]
b = 1.00 [0.54]
Seff = 0.76 [0.28]
Teq = 238 [22] K
Rp = 7.92 [17.94] Re
a = 0.9905 [0.2261] AU
Ag = 9459.09 [42733.67] [0.22σ]
Teffp = 3635 [4095] K [0.83σ]

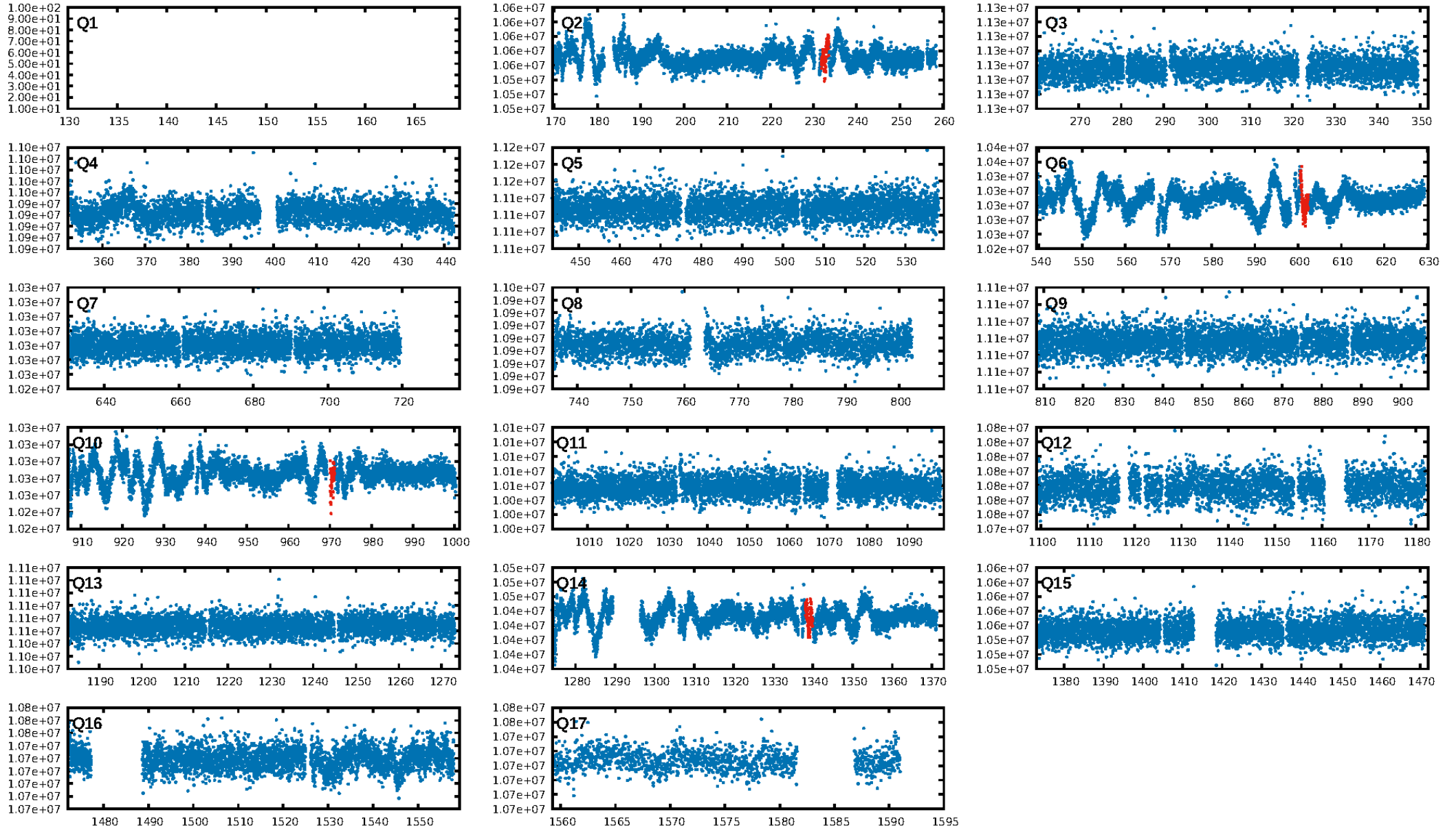
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.4%
ModelChiSquareGoF-sig: 97.1%
Bootstrap-pfa: 2.61e-11
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 1.358
Centroid-sig: 0.0%
Centroid-so: 7.085 arcsec [5.15σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

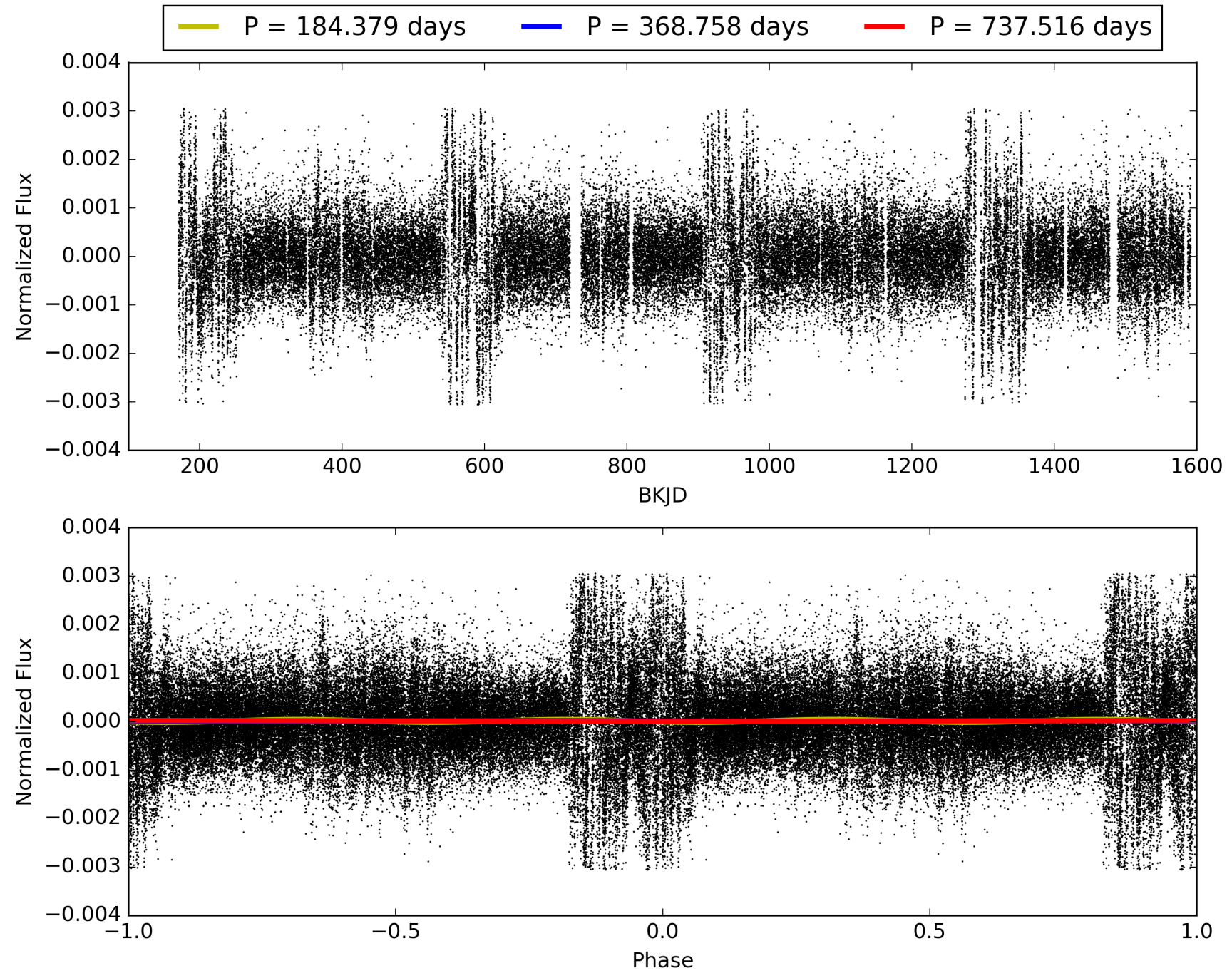
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:52:53 Z

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

TCE 007835171-01, PDC Light Curves

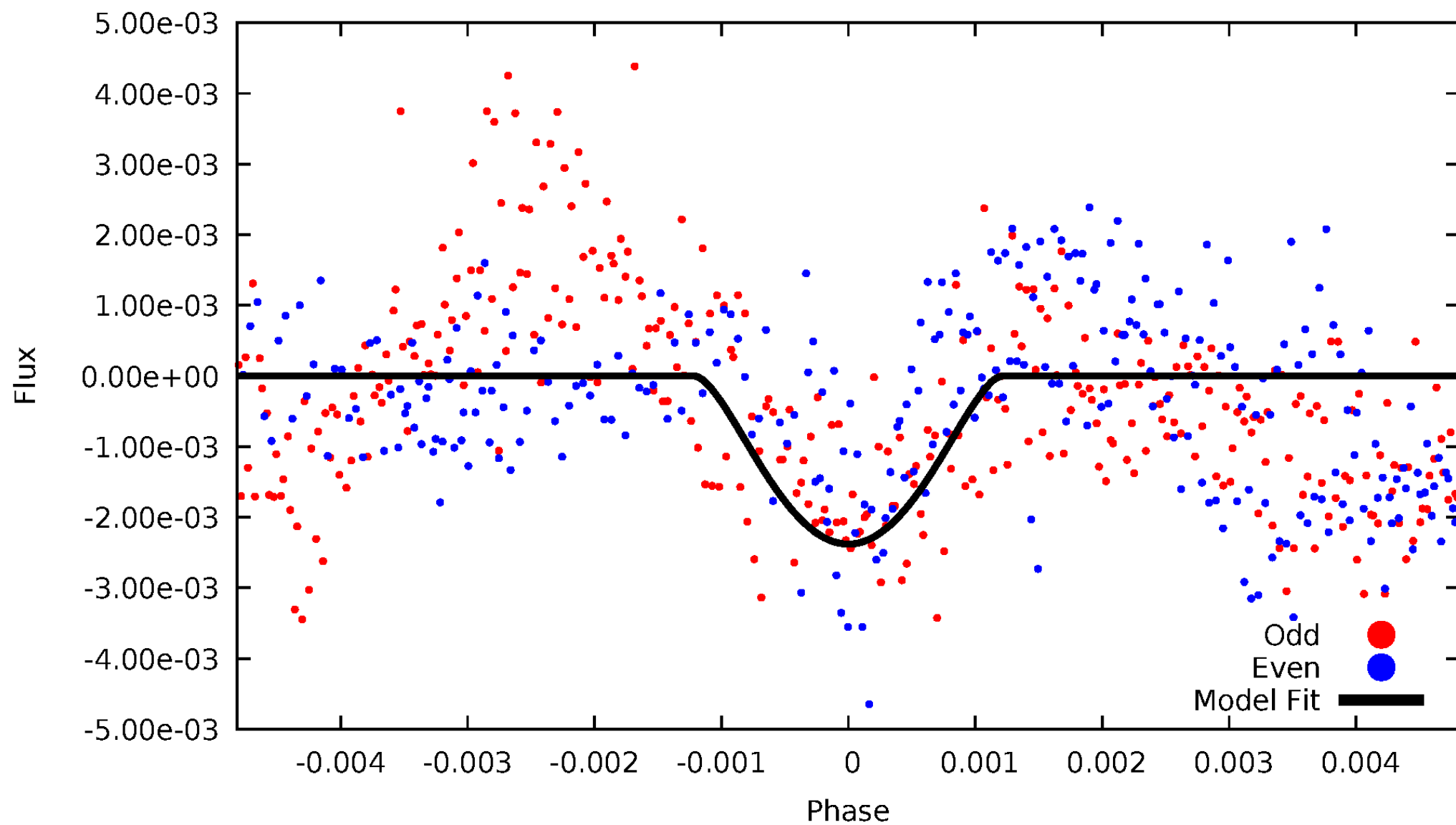


TCE 007835171-01



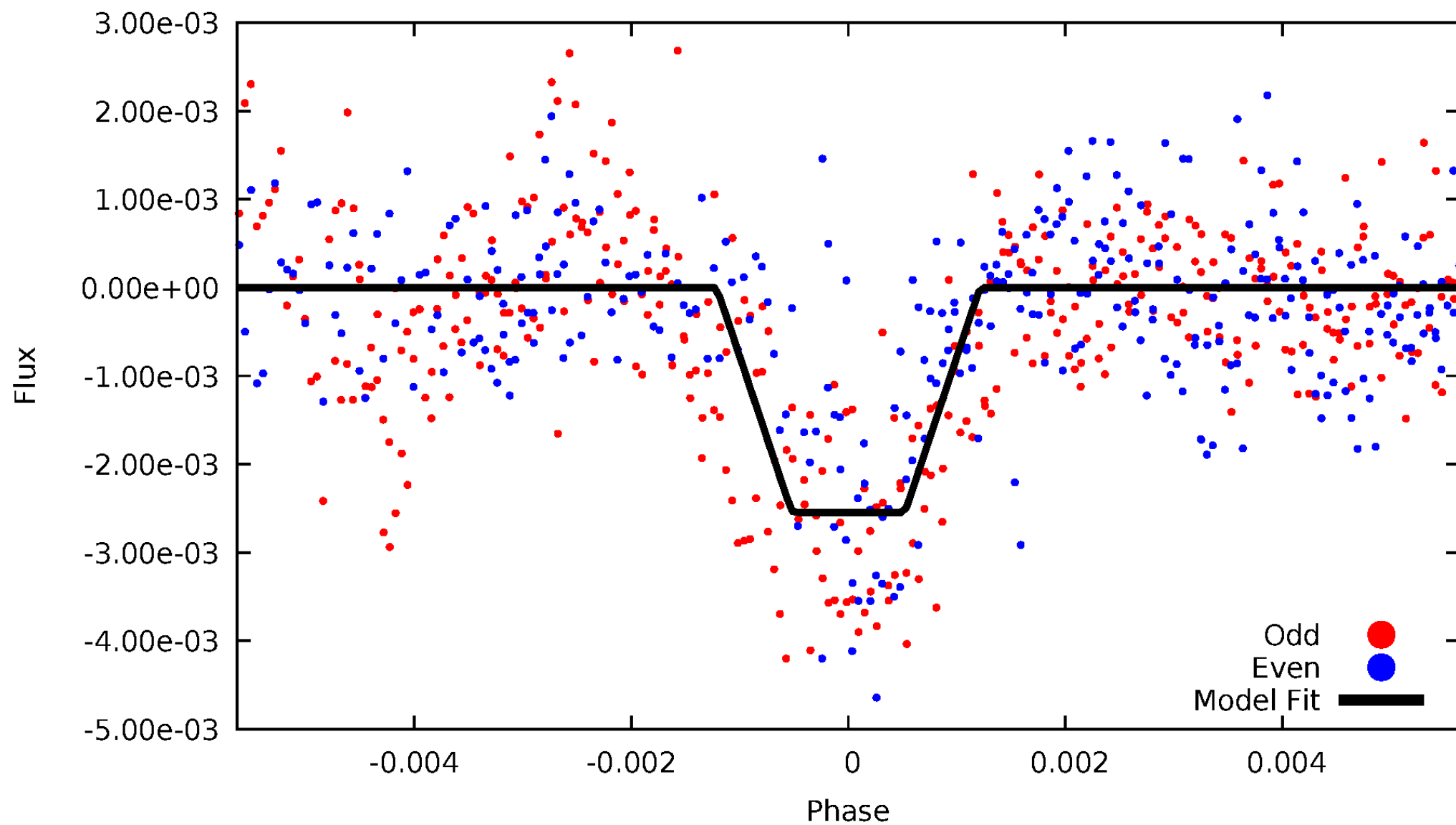
DV Odd/Even

TCE 007835171-01



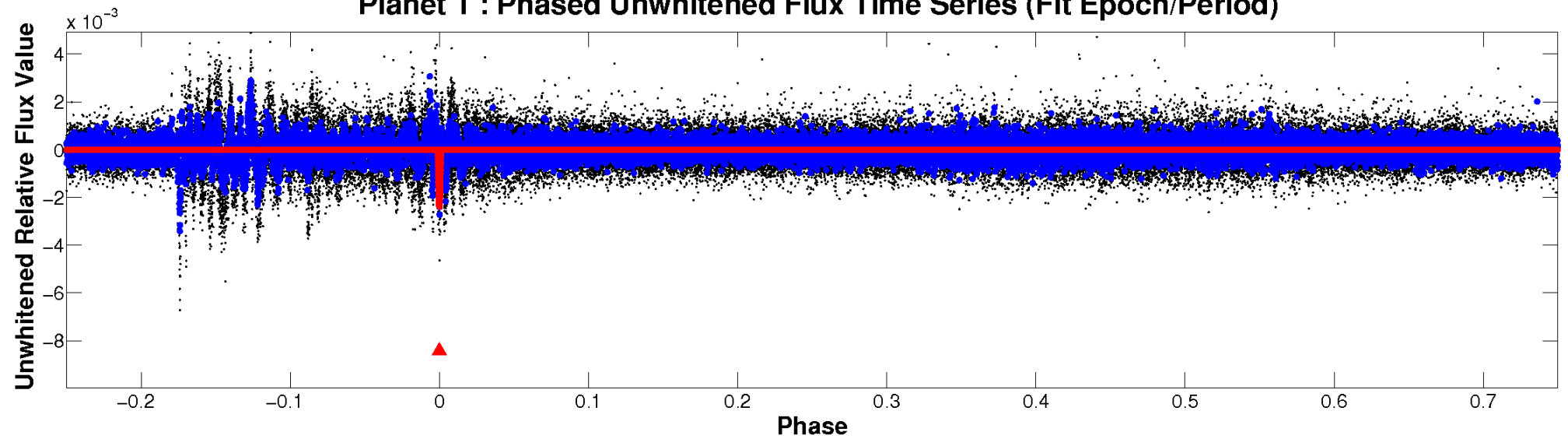
ALT Odd/Even

TCE 007835171-01

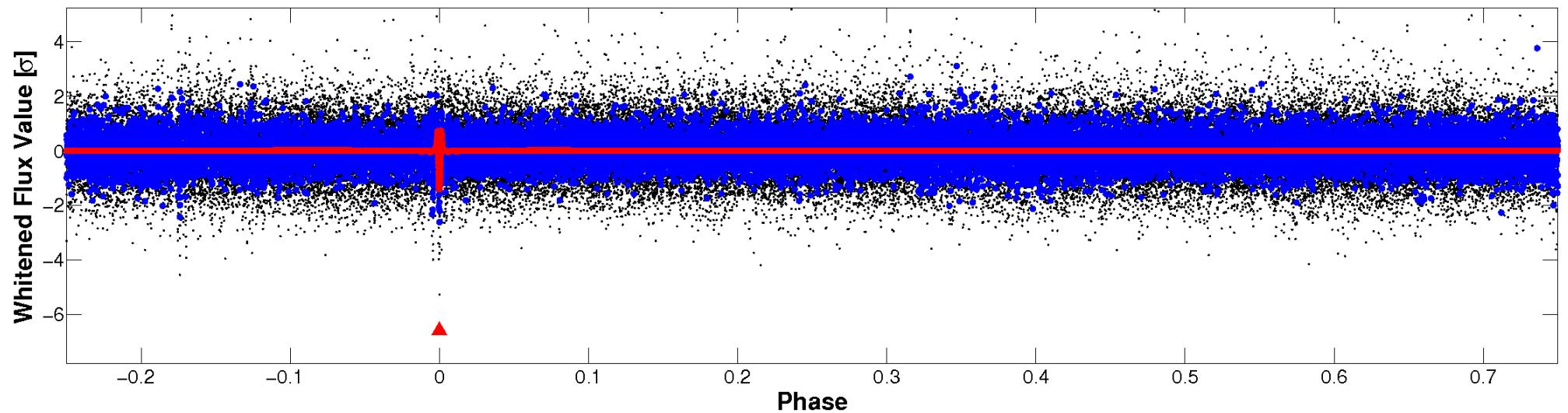


Non-Whitened Vs. Whitened Light Curve

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

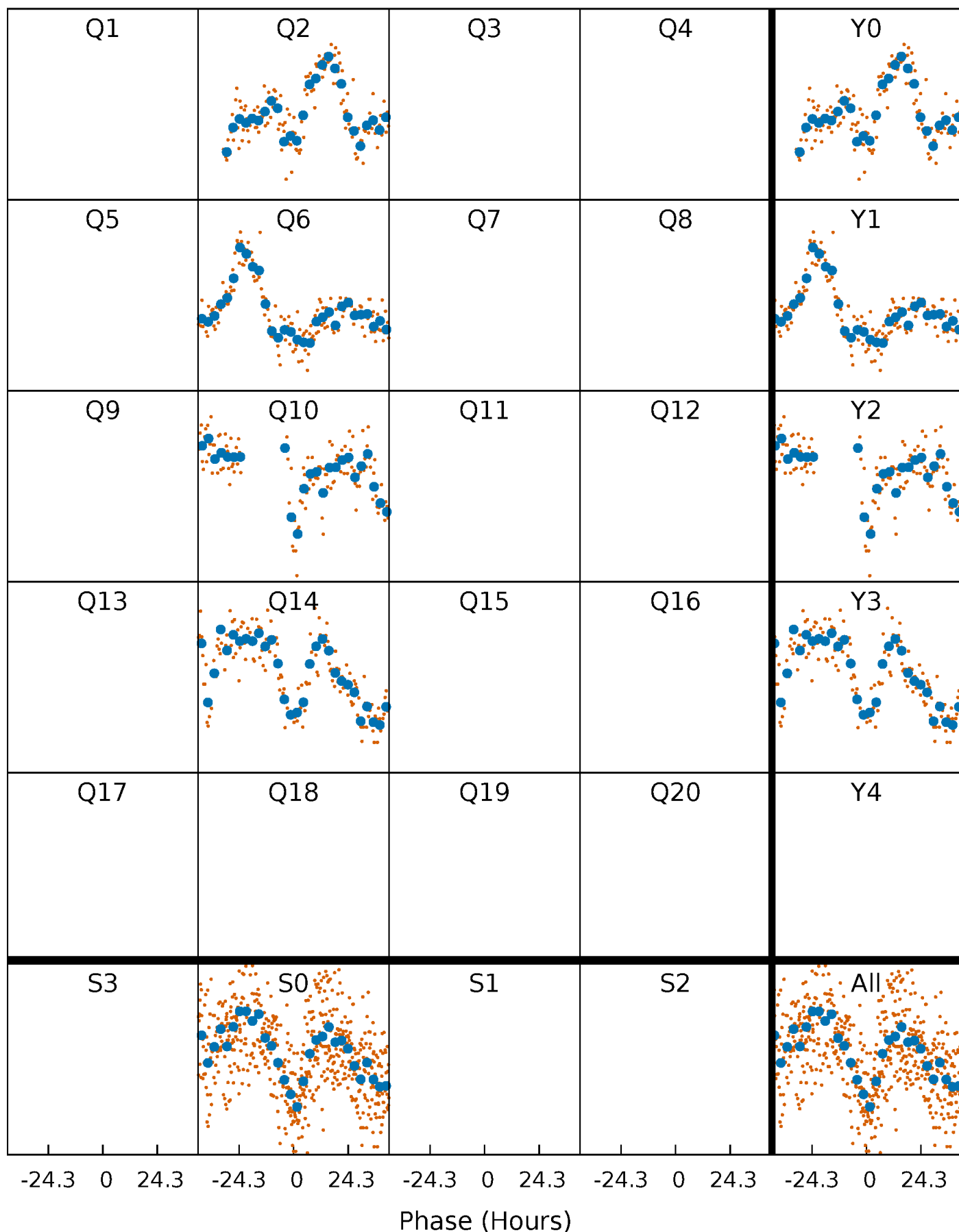


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



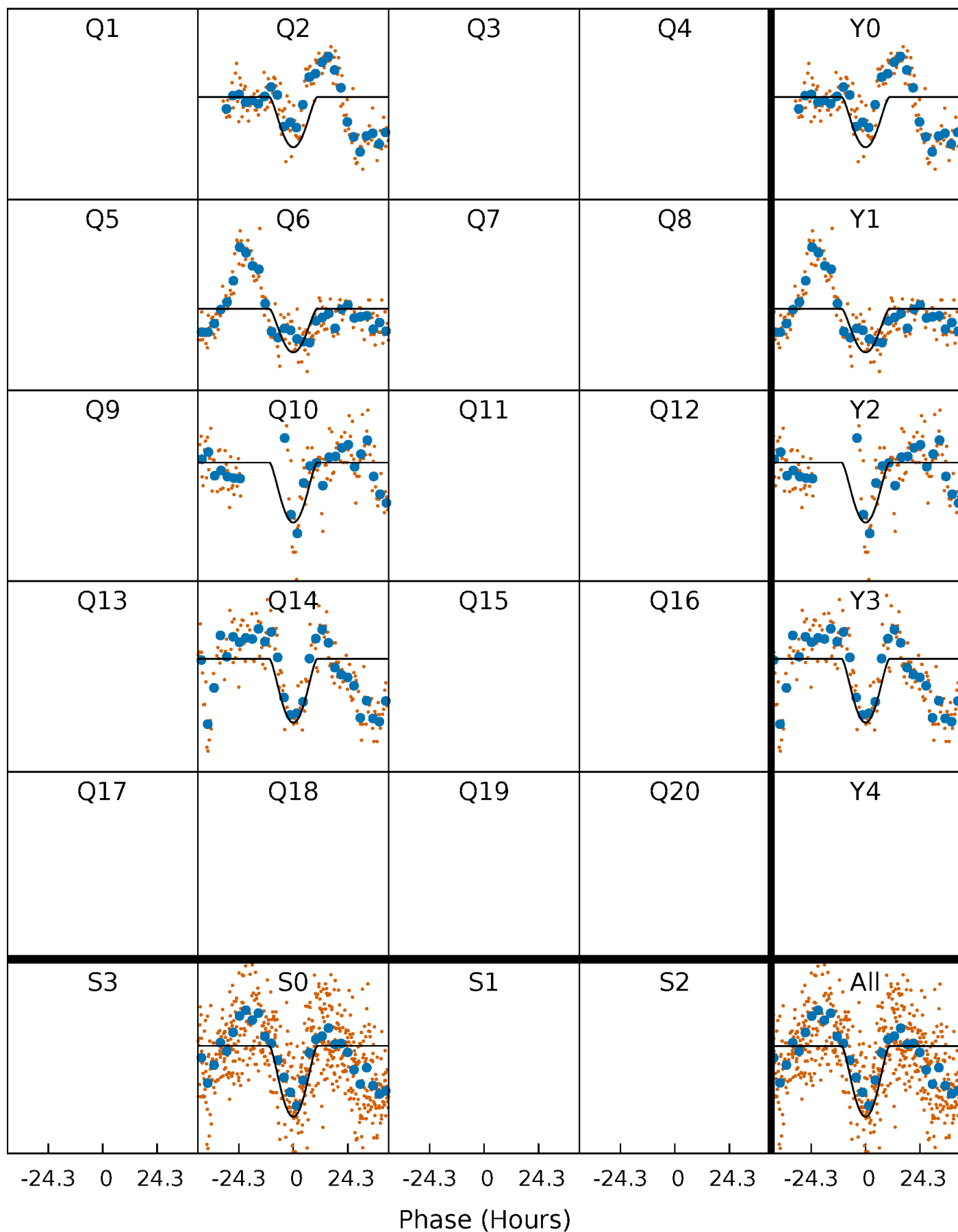
PDC Quarter-Phased Transit Curves

TCE 007835171-01 P=368.758210 Days $T_0=232.695591$ (BKJD)



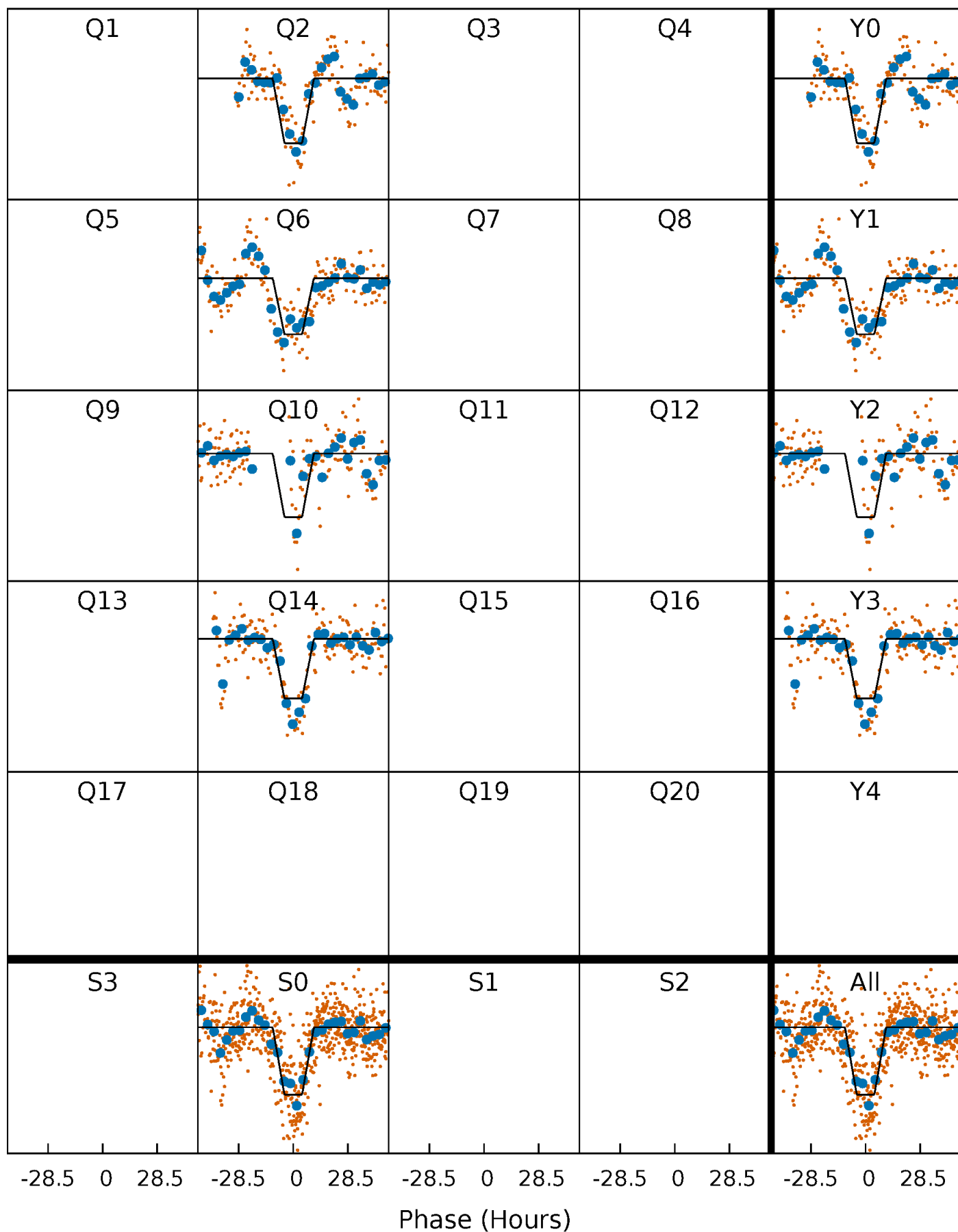
DV Quarter-Phased Transit Curves

TCE 007835171-01 P=368.758210 Days $T_0=232.695591$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

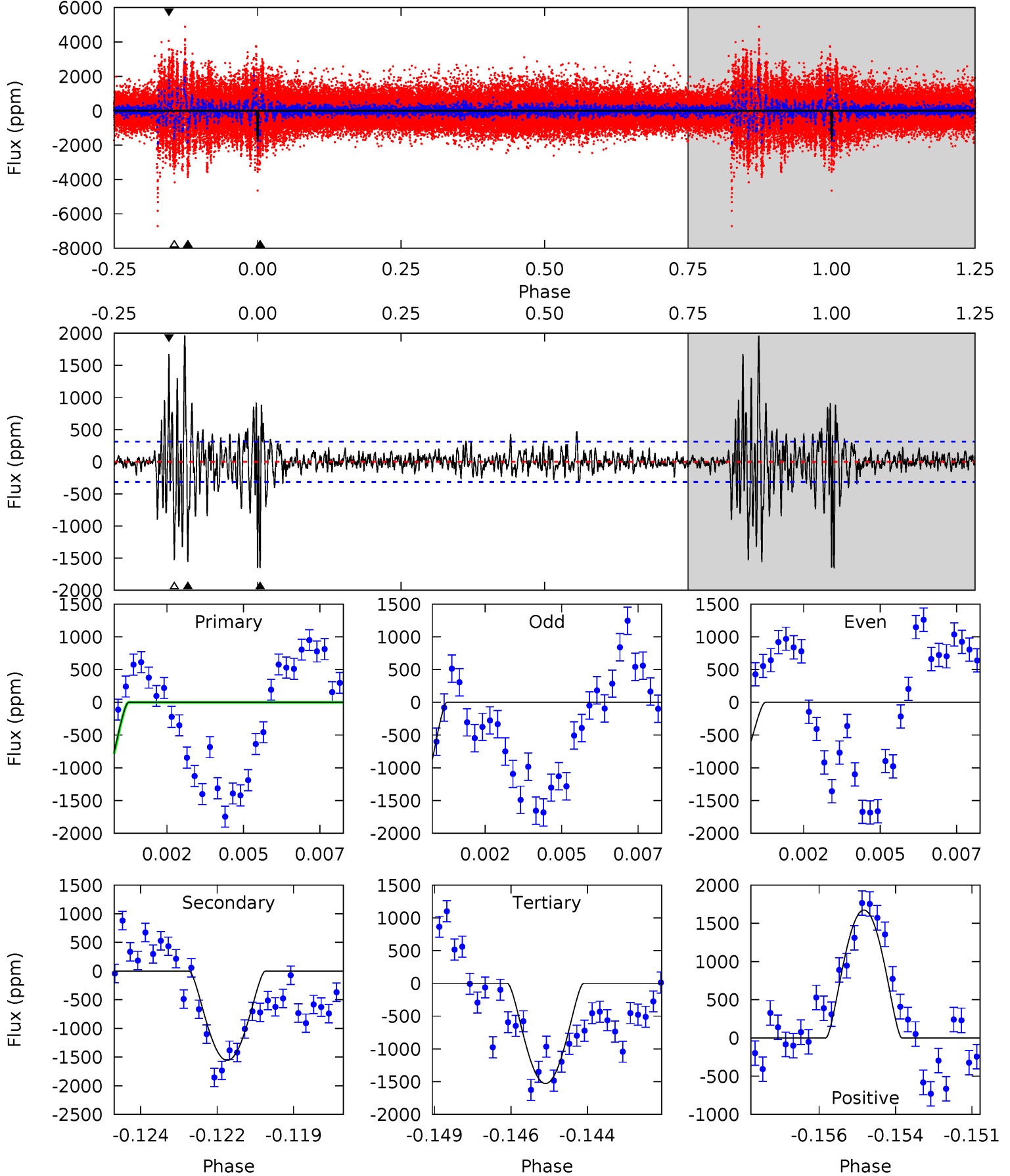
TCE 007835171-01 P=368.764457 Days $T_0=232.648166$ (BKJD)



DV Model-Shift Uniqueness Test

007835171-01, P = 368.758210 Days, E = 232.695591 Days

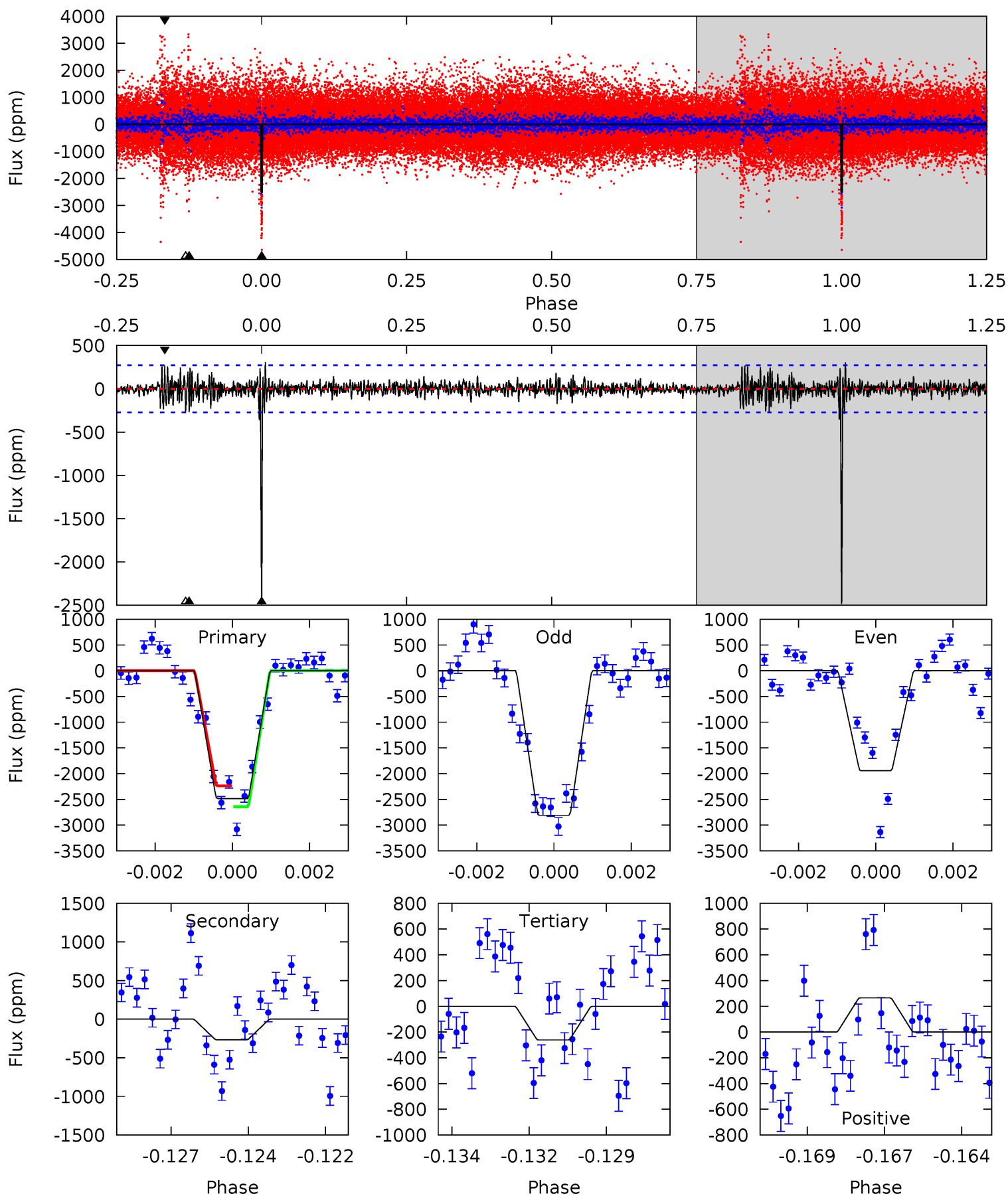
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.9	26.3	25.8	28.2	5.29	3.03	4.18	2.11	-0.34	0.49	-1.96	4.78	0.91	0.54	1.69



Alt Model-Shift Uniqueness Test

007835171-01, P = 368.764457 Days, E = 232.648166 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.4	5.19	5.09	5.17	5.29	3.02	1.10	43.3	43.2	0.10	0.02	8.36	0.99	0.11	3.94



Stellar Parameters For KIC 007835171

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5799^{+155}_{-190}	$4.548^{+0.033}_{-0.187}$	$-0.160^{+0.300}_{-0.300}$	$0.860^{+0.229}_{-0.076}$	$0.955^{+0.102}_{-0.123}$	$2.112^{+0.389}_{-1.044}$
	+3%/-3%	+1%/-4%	+188%/-188%	+27%/-9%	+11%/-13%	+18%/-49%
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 007835171-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1558 ± 59	$15.68^{+15.61}_{-10.36}$	341^{+21}_{-15}	3396^{+1642}_{-599}	3366^{+26061}_{-2518}
Alt.	-266 ± 51	$14.56^{+15.53}_{-9.60}$	343^{+20}_{-16}	2719^{+946}_{-443}	671^{+4619}_{-515}

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

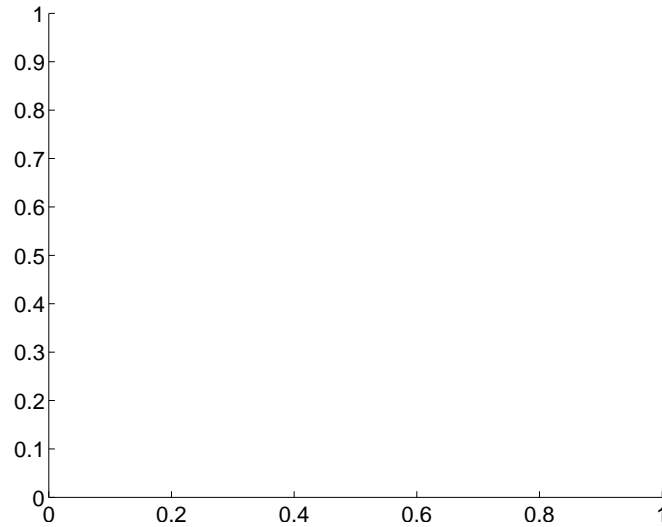
Supplemental centroid analysis for 007835171-01. Kepler magnitude: 15.87. Transit SNR 11.56

There are 0 quarters with good PRF difference image offsets

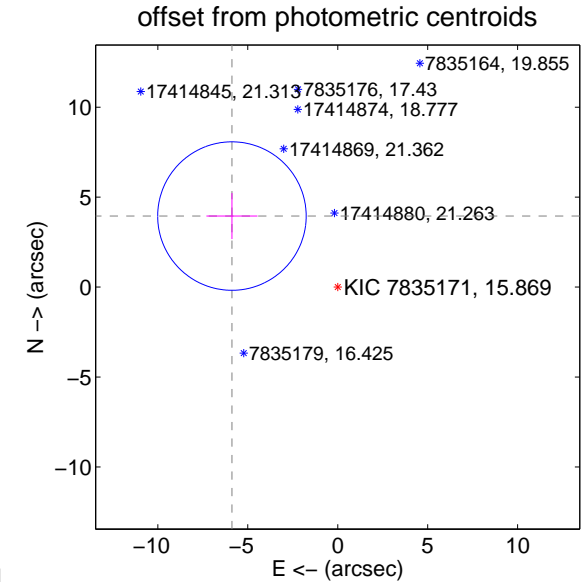
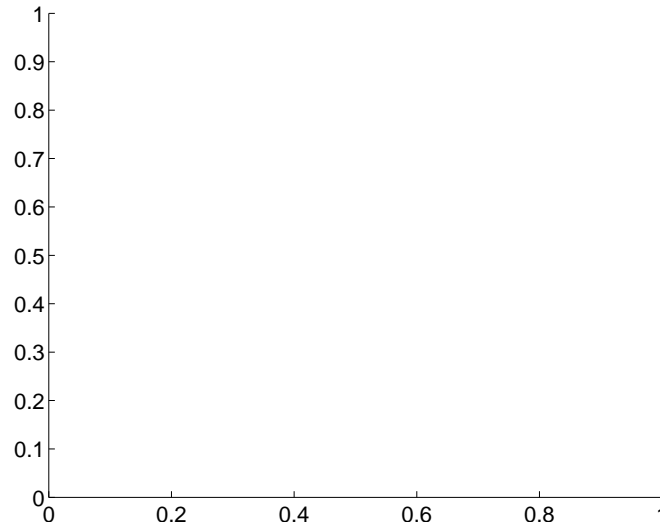
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	7.08 ± 1.38	5.15	5.88 ± 1.42	3.95 ± 1.28

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.



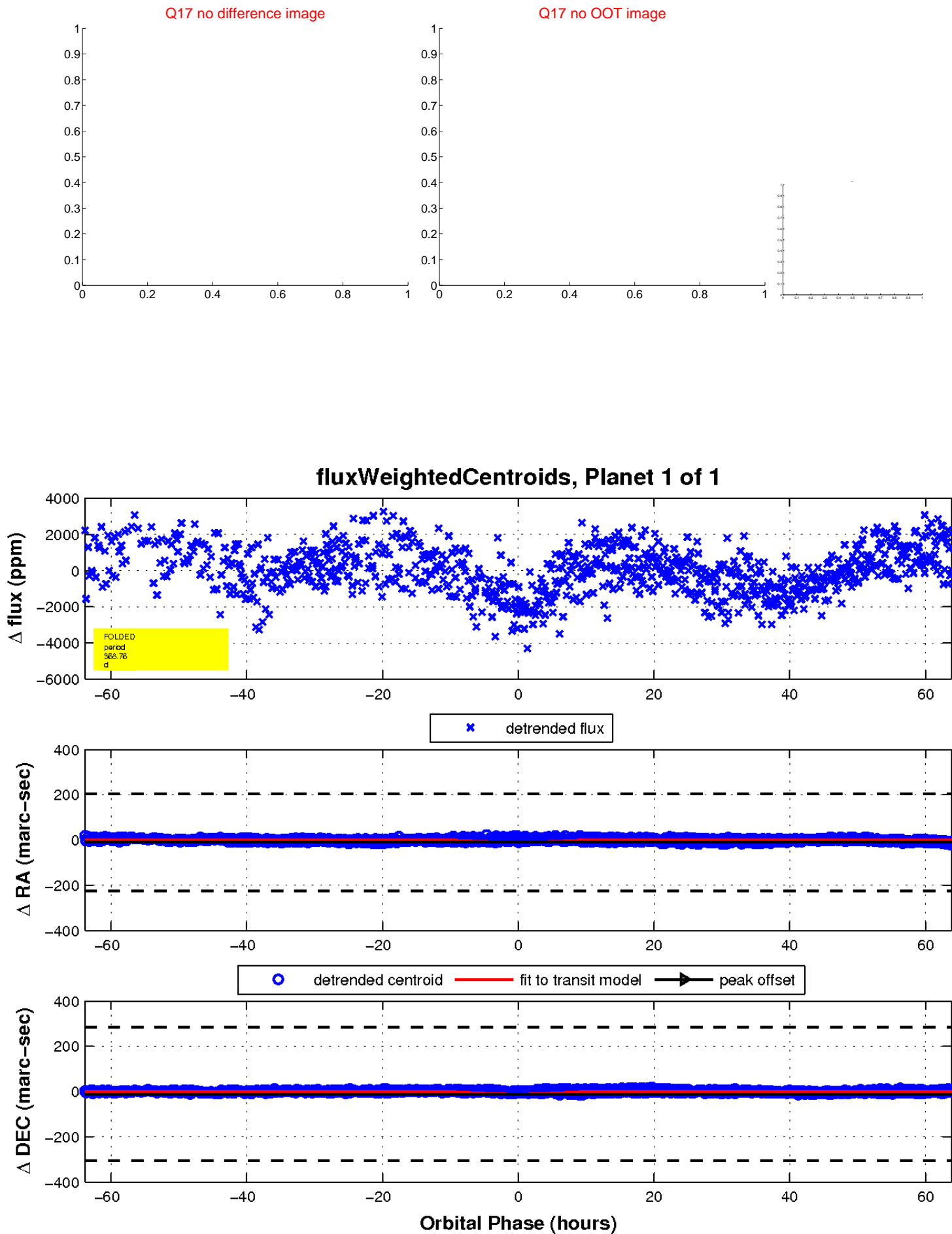
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

