

KIC 008175302

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})
008175302-01	OBS	No	368.705578	233.818296	462.2	30.548	7.9	8.4	0.95	6089	2.05	1.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008175302-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

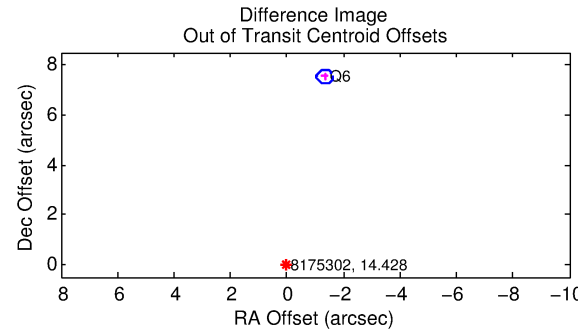
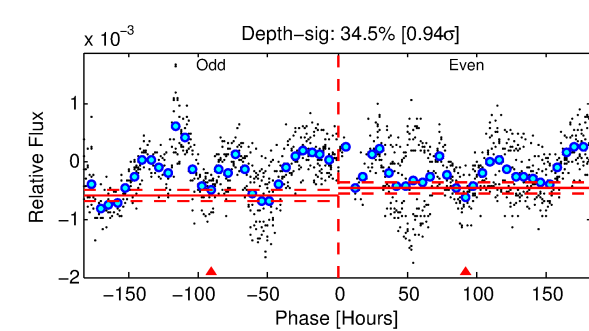
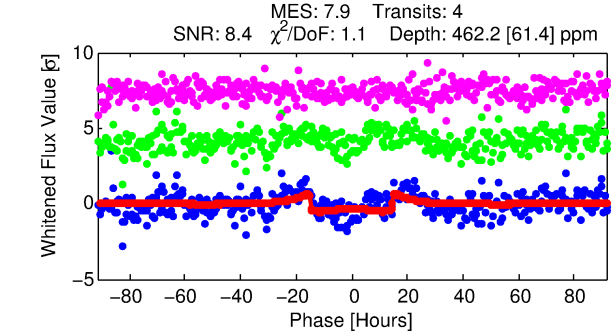
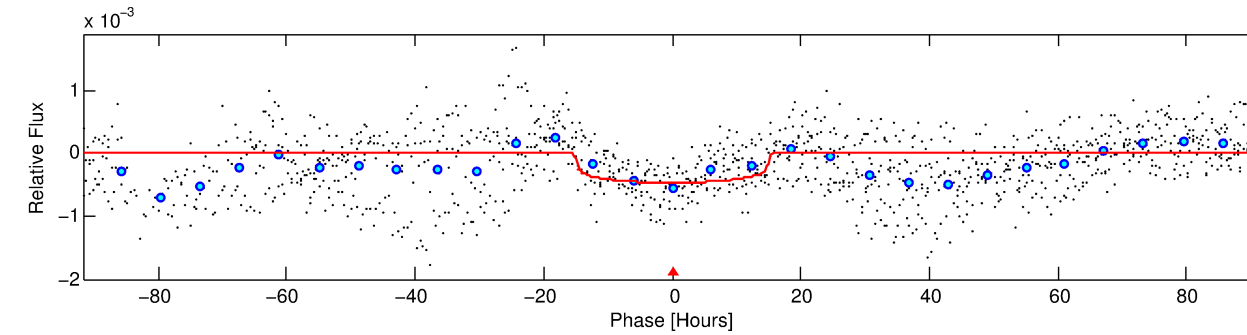
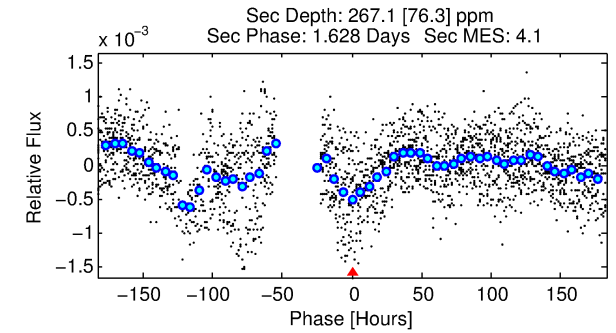
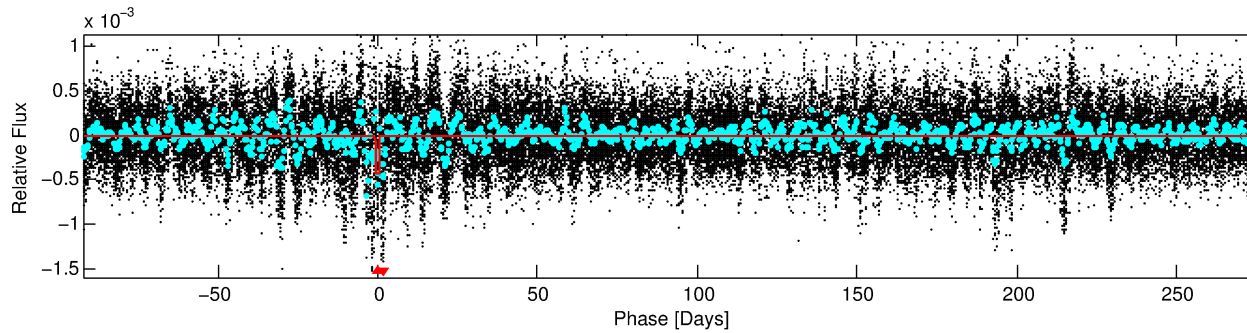
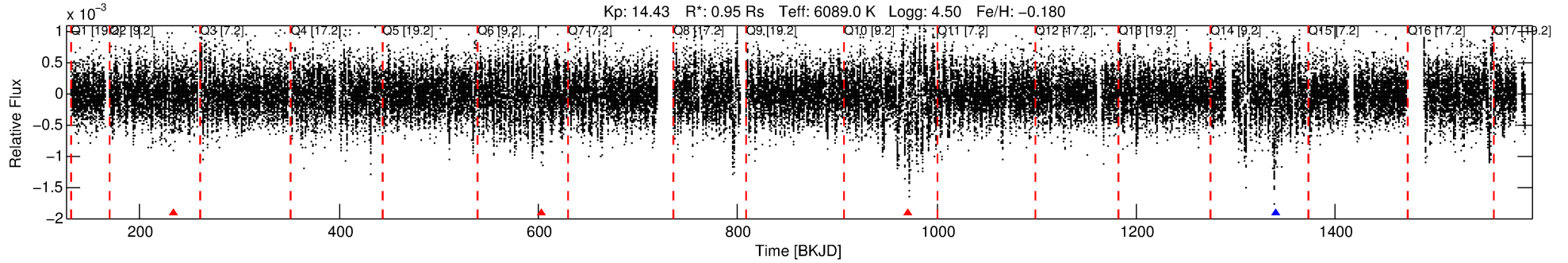
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008175302-01

No Significant Match Found

DV One-Page Summary

KIC: 8175302 Candidate: 1 of 1 Period: 368.706 d



DV Fit Results:

Period = 368.70558 [0.00989] d
Epoch = 233.8183 [0.0163] BKJD
Rp/R* = 0.0197 [0.0064]
a/R* = 92.46 [141.71]
b = 0.19 [8.02]
Seff = 1.08 [0.43]
Teq = 260 [26] K
Rp = 2.05 [0.91] Re
a = 1.0162 [0.2628] AU
Ag = 36268.42 [29089.57] [1.25σ]
Teffp = 5542 [996] K [5.30σ]

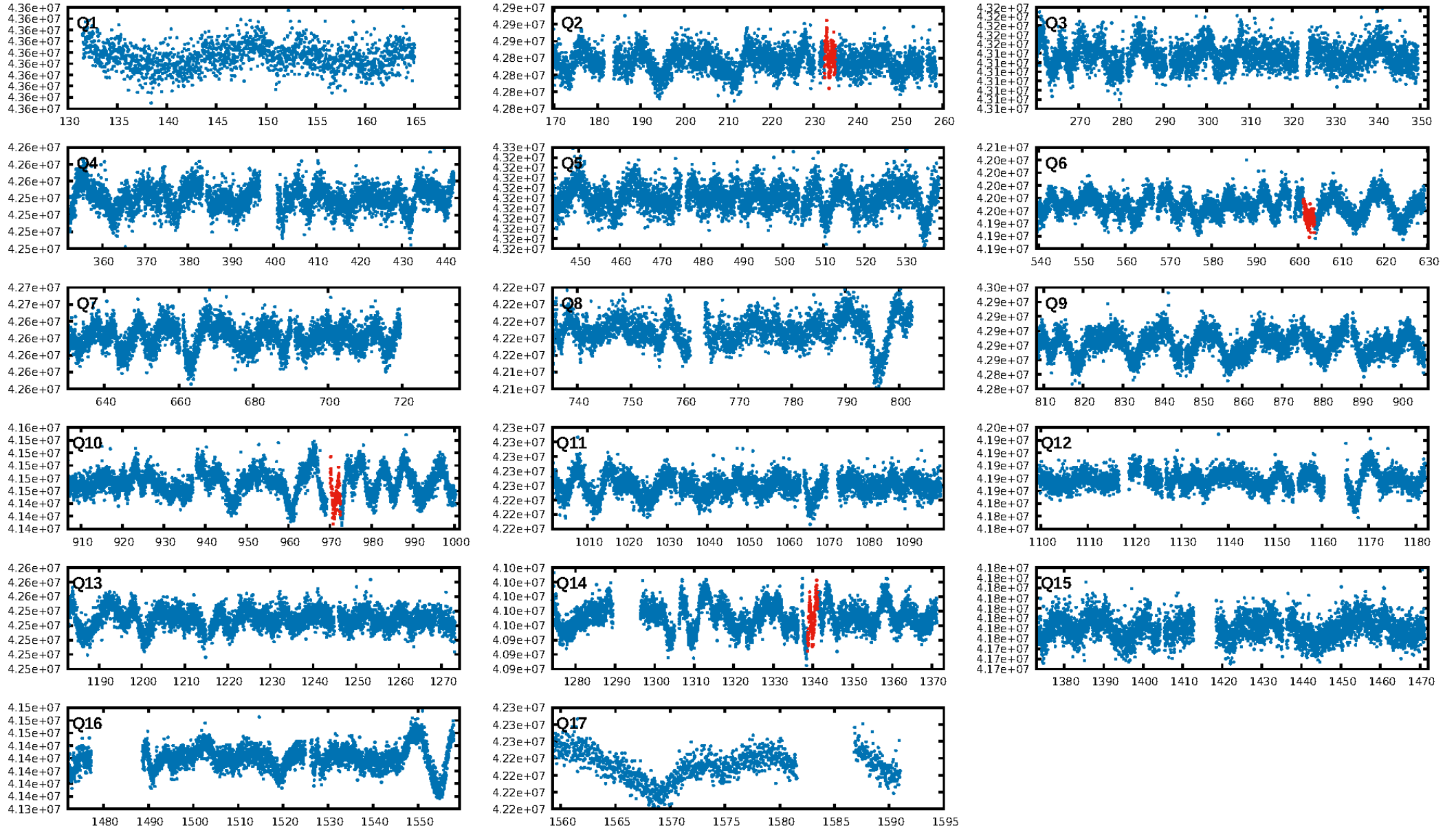
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 20.3%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 6.69e-09
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 0.3043
Centroid-sig: 0.1%
Centroid-so: 4.412 arcsec [2.16σ]
OotOffset-rm: 7.648 arcsec [83.78σ]
KicOffset-rm: 7.536 arcsec [82.56σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

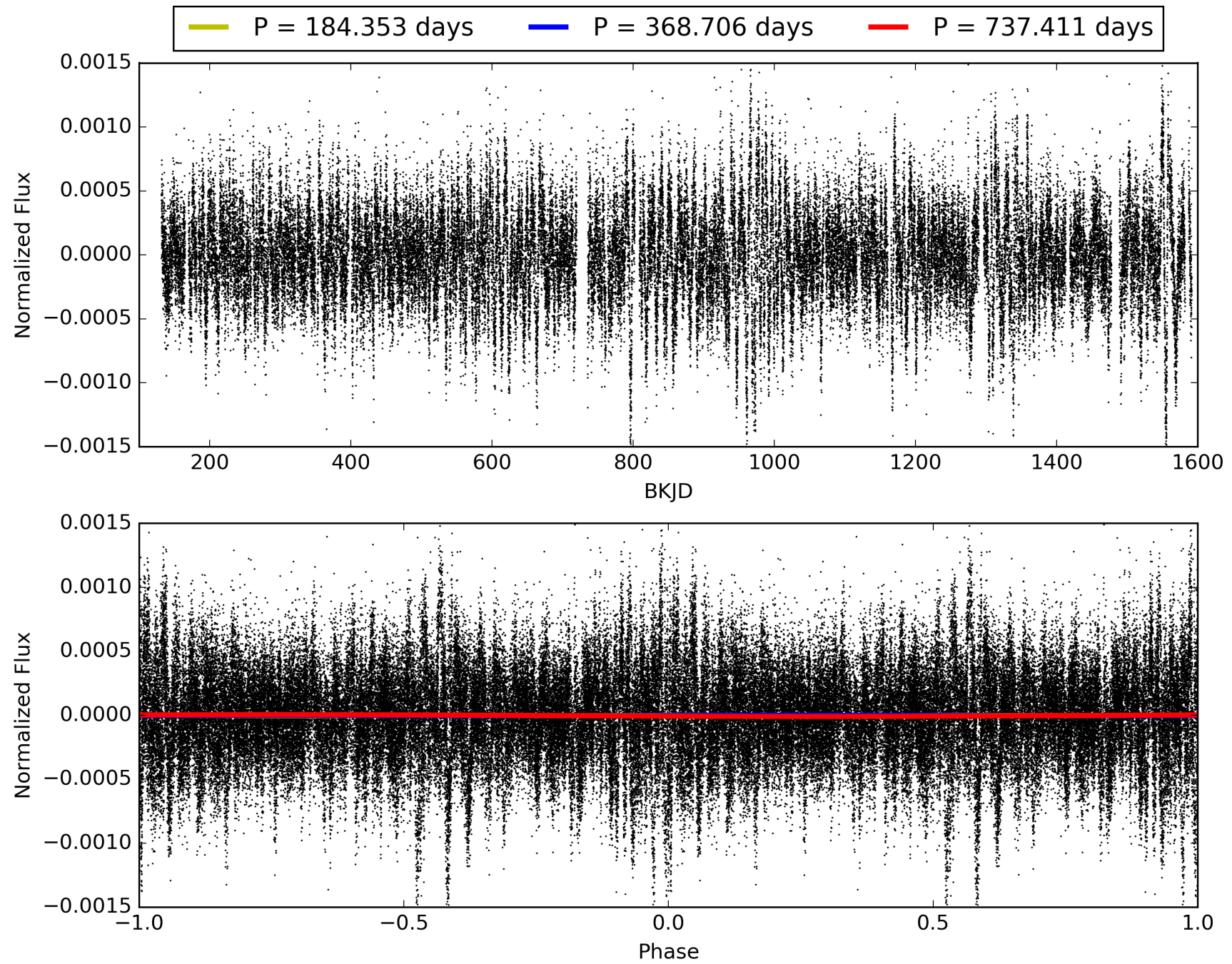
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:17:18 Z

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

TCE 008175302-01, PDC Light Curves

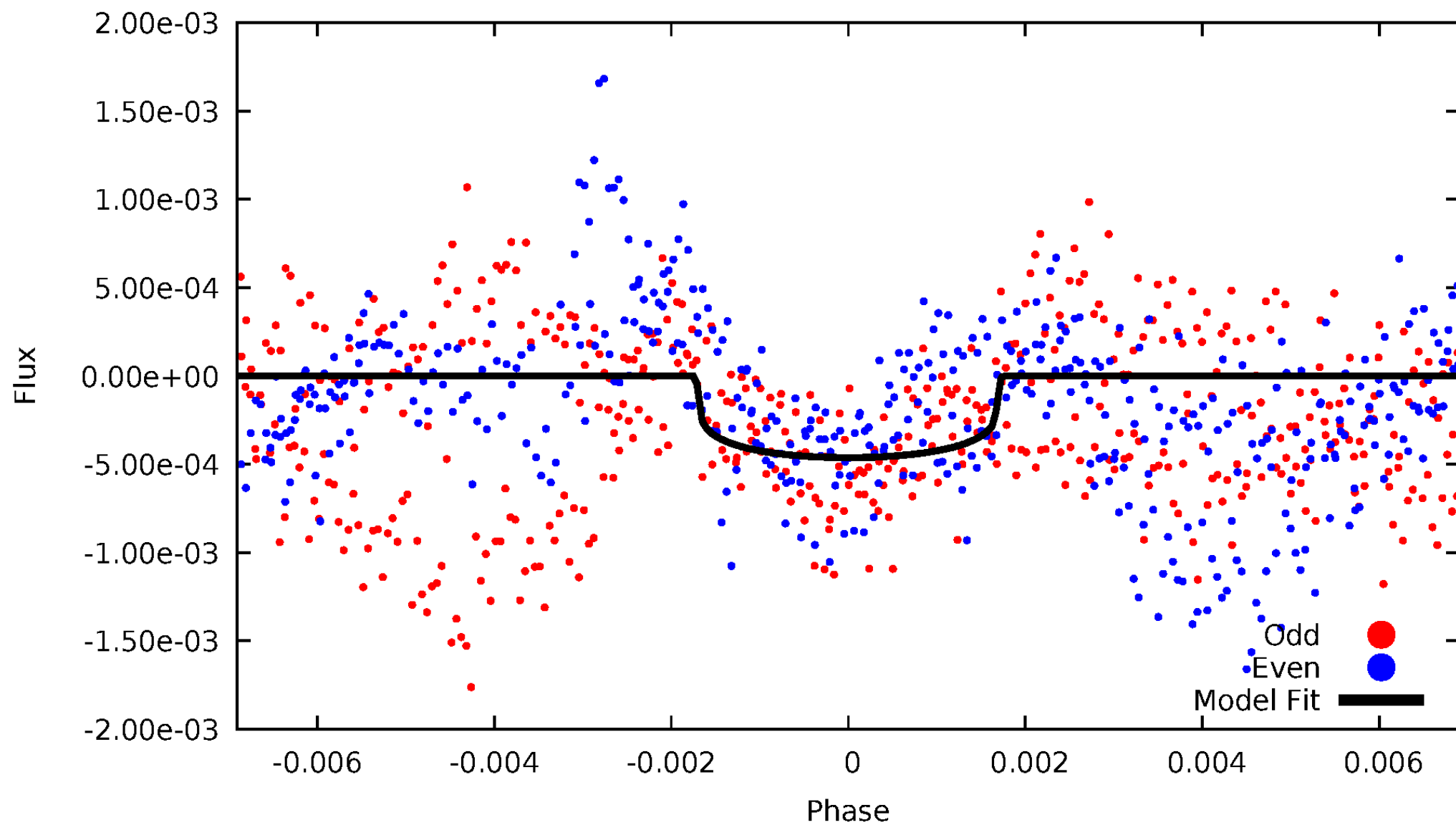


TCE 008175302-01



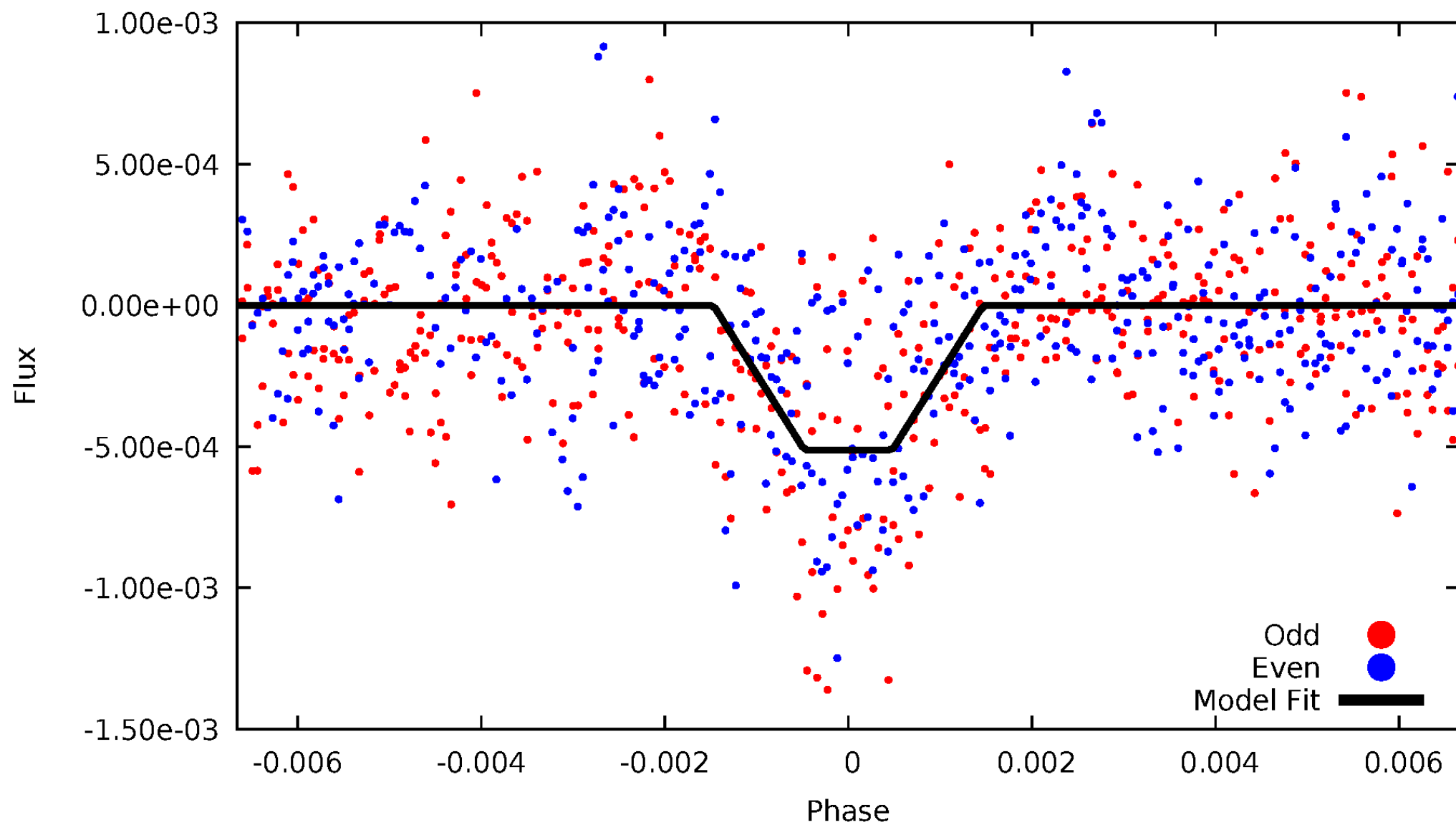
DV Odd/Even

TCE 008175302-01



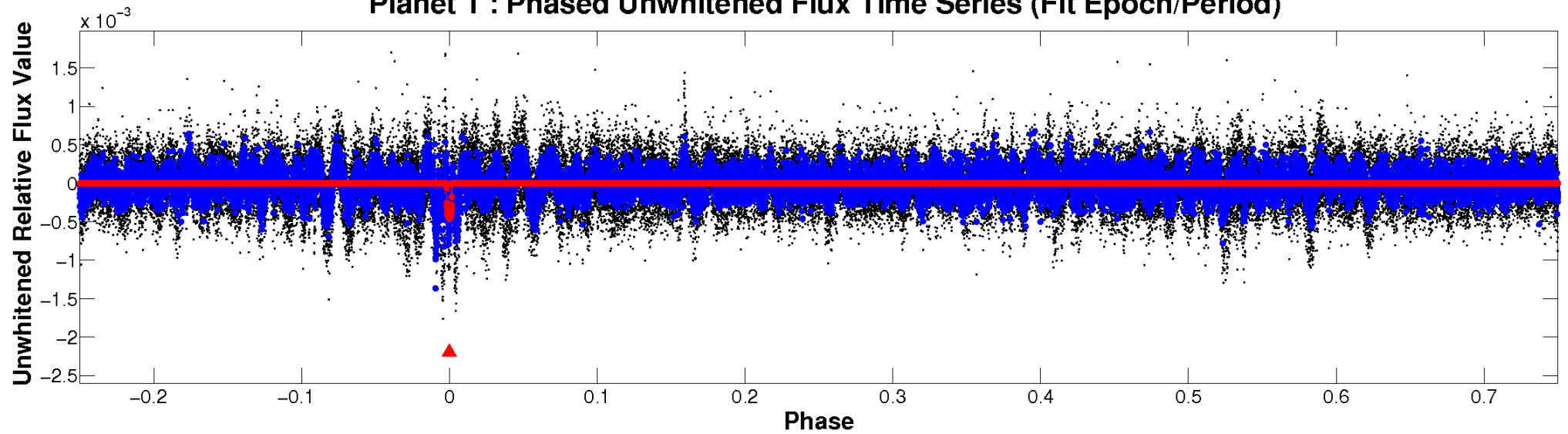
ALT Odd/Even

TCE 008175302-01

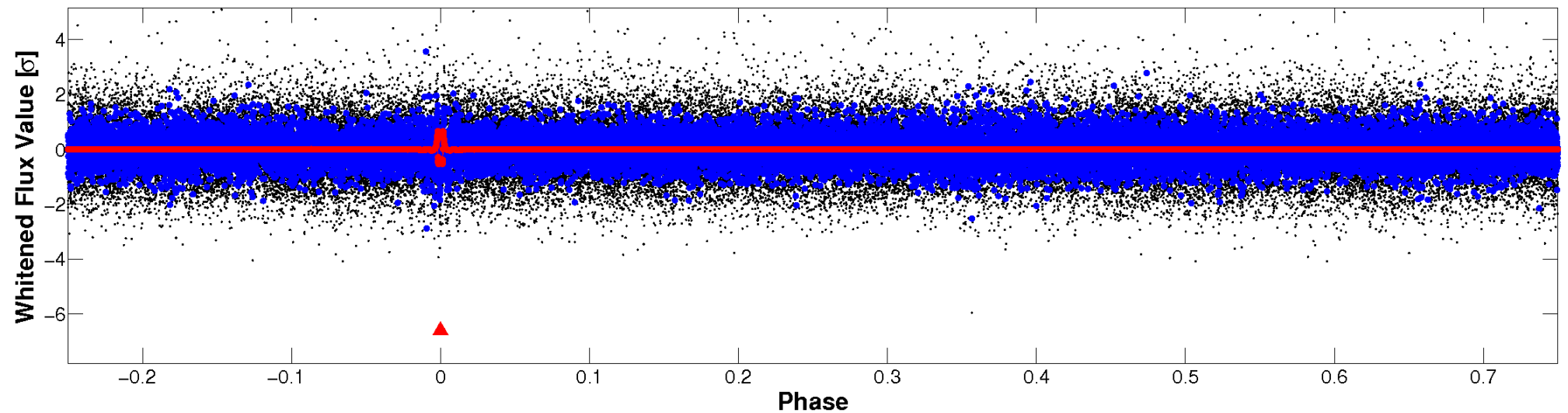


Non-Whitened Vs. Whitened Light Curve

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

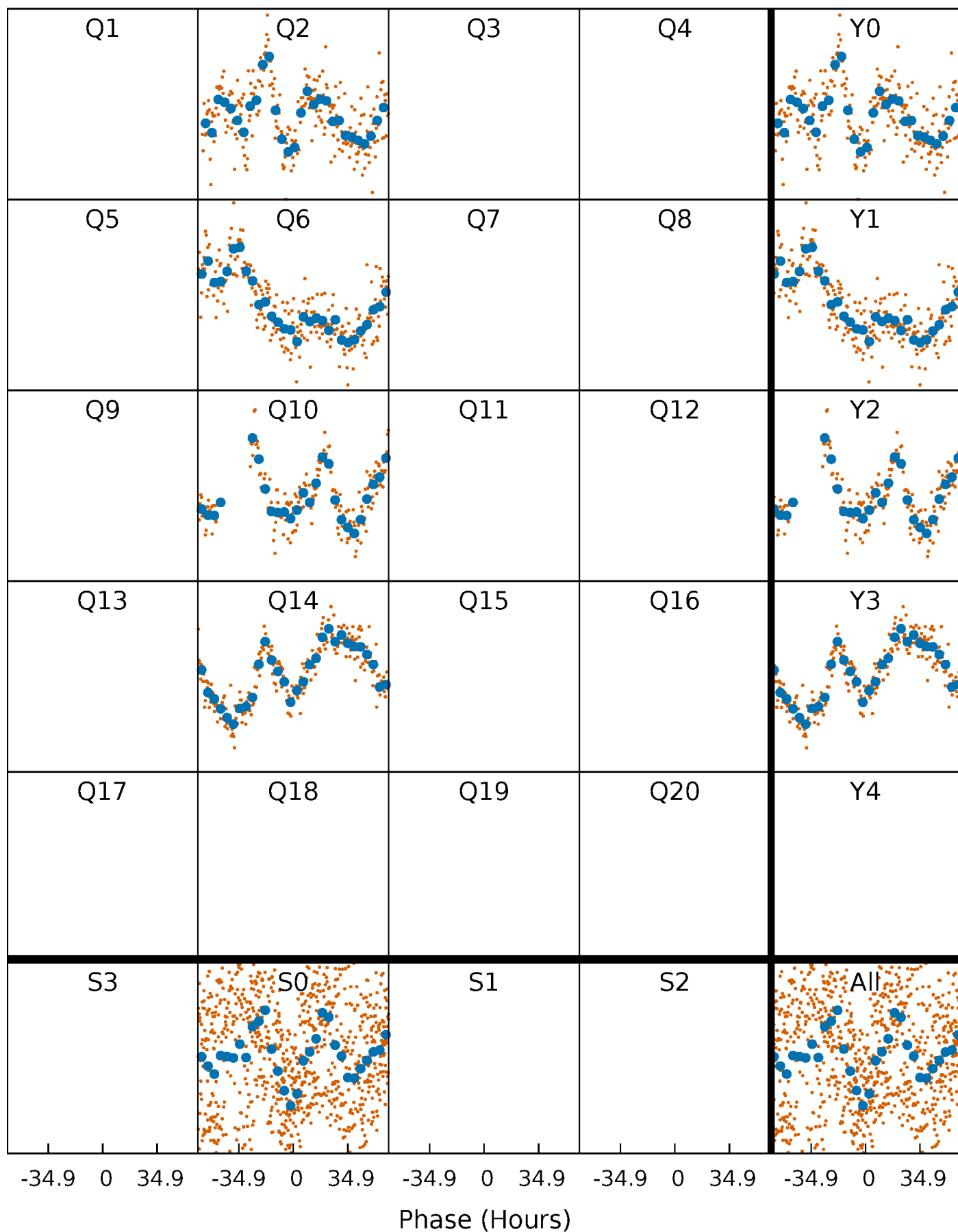


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



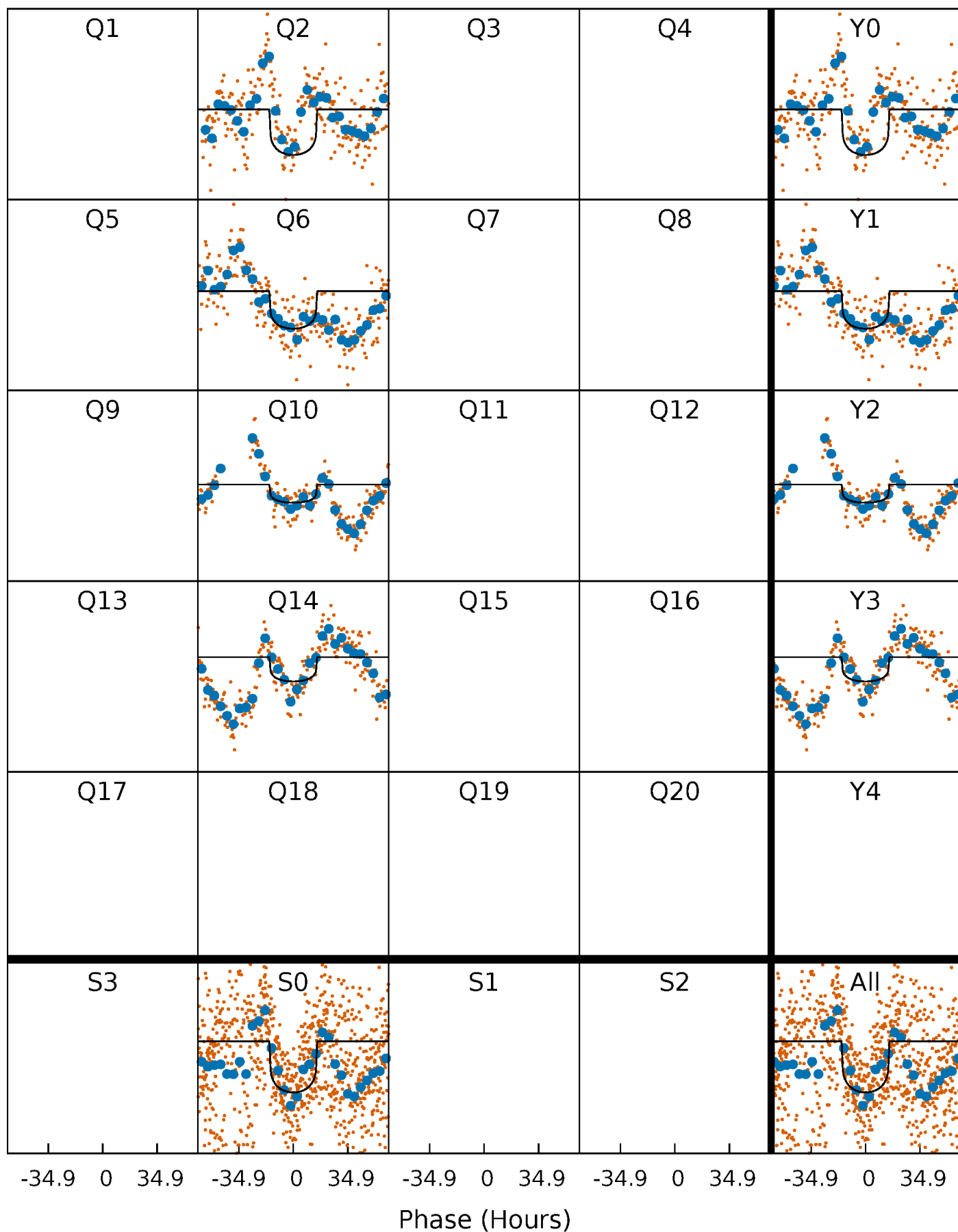
PDC Quarter-Phased Transit Curves

TCE 008175302-01 P=368.705578 Days $T_0=233.818296$ (BKJD)



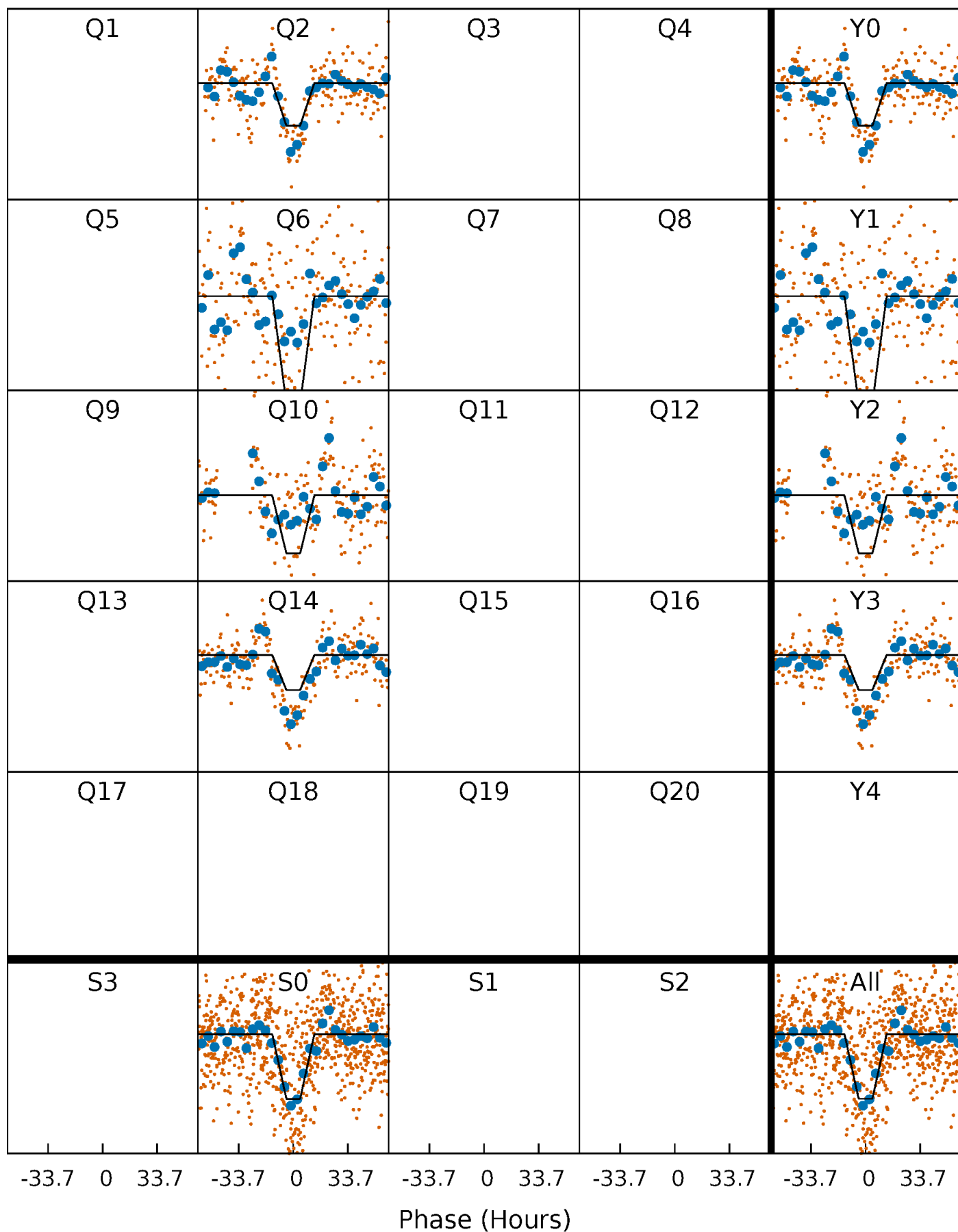
DV Quarter-Phased Transit Curves

TCE 008175302-01 P=368.705578 Days $T_0=233.818296$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

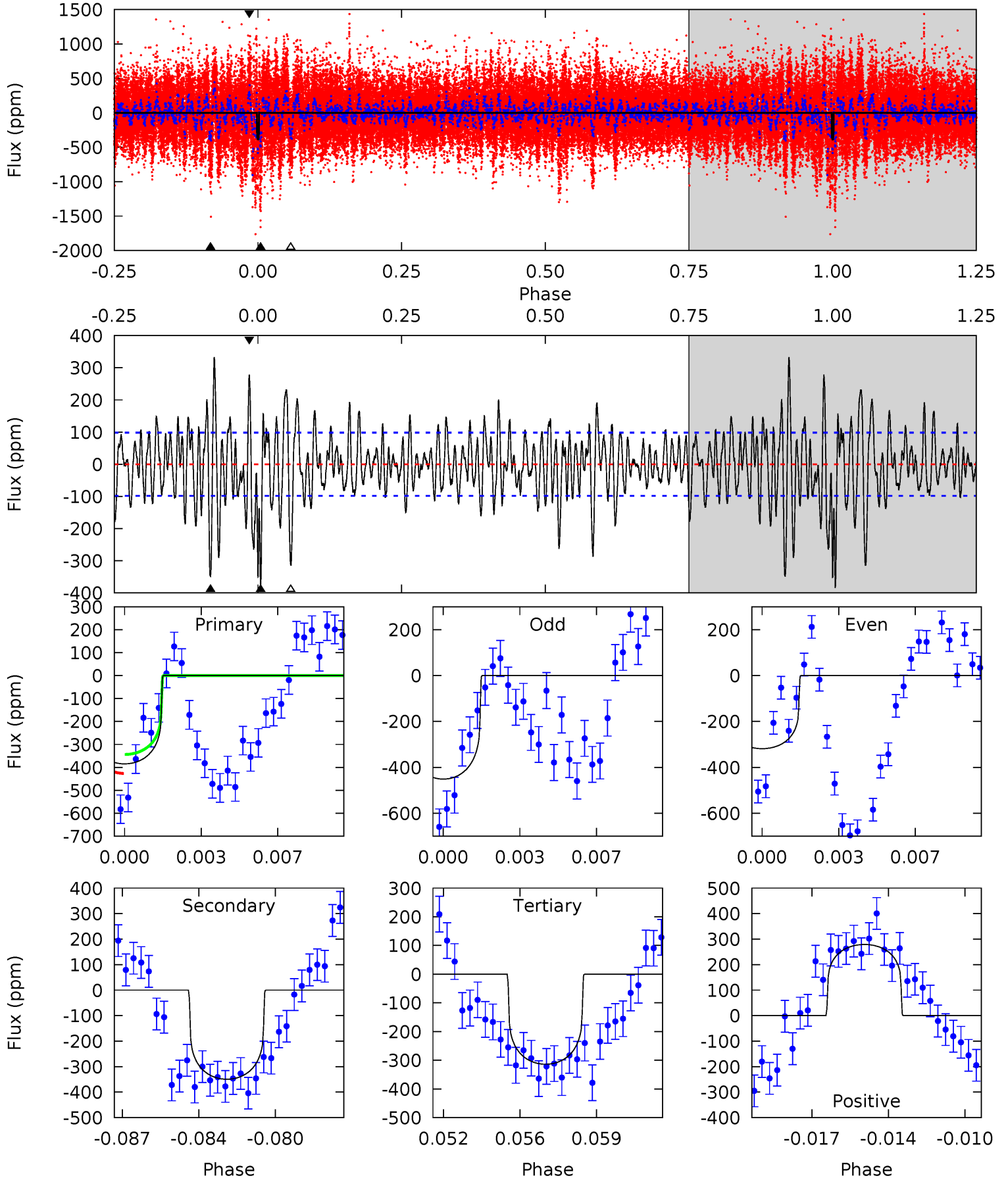
TCE 008175302-01 P=368.764457 Days $T_0=233.666034$ (BKJD)



DV Model-Shift Uniqueness Test

008175302-01, P = 368.705578 Days, E = 233.818296 Days

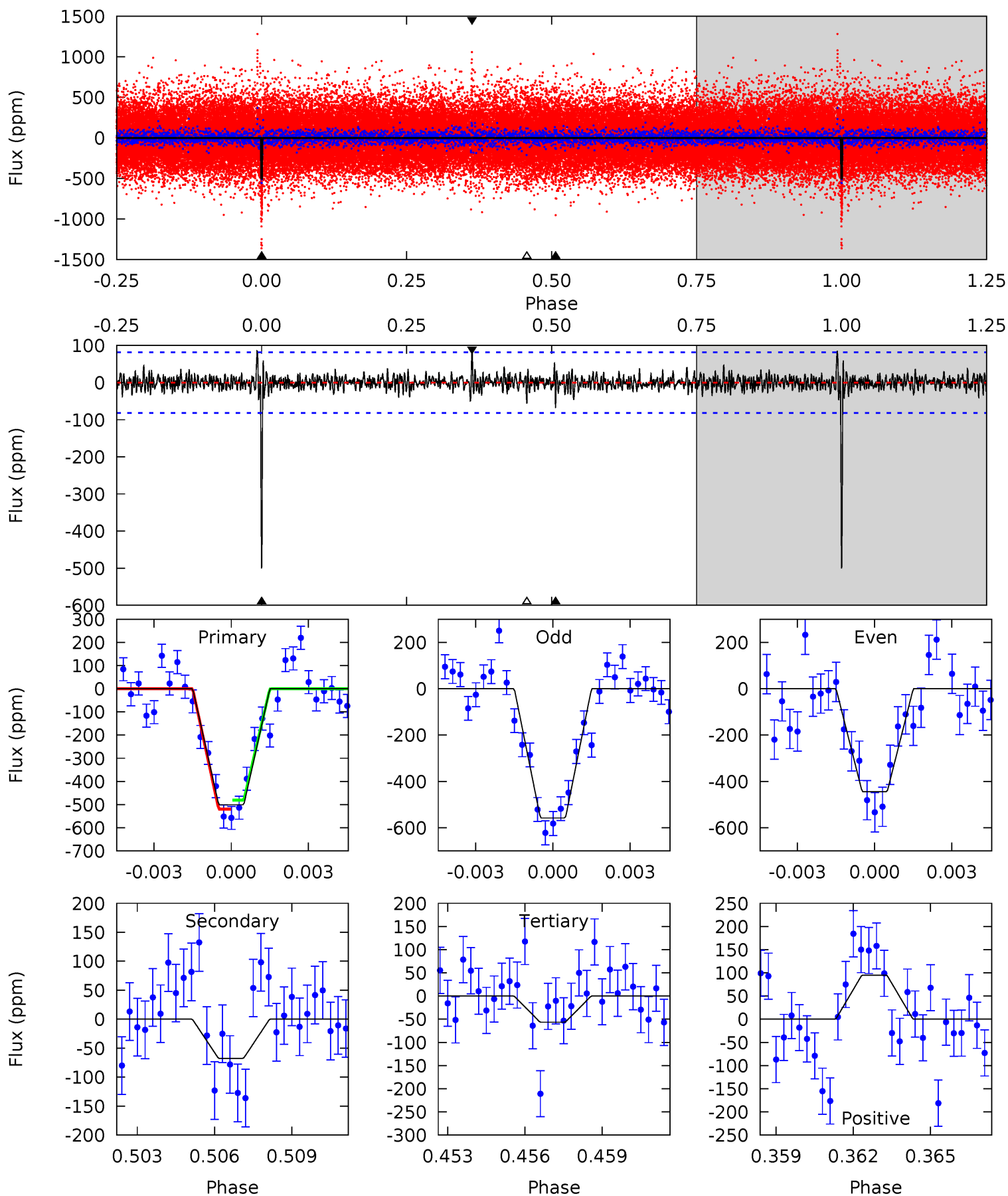
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	18.6	16.7	14.8	5.22	2.92	4.80	3.77	5.63	1.90	3.75	3.53	0.85	0.46	2.21



Alt Model-Shift Uniqueness Test

008175302-01, P = 368.764457 Days, E = 233.666034 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.2	4.35	3.64	6.11	5.26	2.97	0.92	28.6	26.1	0.71	-1.76	3.67	1.13	0.16	1.25



Stellar Parameters For KIC 008175302

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6089^{+163}_{-199}	$4.495^{+0.052}_{-0.208}$	$-0.180^{+0.250}_{-0.300}$	$0.950^{+0.290}_{-0.097}$	$1.031^{+0.126}_{-0.140}$	$1.692^{+0.368}_{-0.891}$
	+3%/-3%	+1%/-5%	+139%/-167%	+31%/-10%	+12%/-14%	+22%/-53%
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 008175302-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-349 ± 19	$2.12^{+0.77}_{-0.68}$	369^{+27}_{-16}	5962^{+1313}_{-811}	43632^{+50527}_{-20432}
Alt.	-68 ± 16	$2.41^{+0.80}_{-0.73}$	370^{+28}_{-17}	4008^{+576}_{-368}	6430^{+6631}_{-2945}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

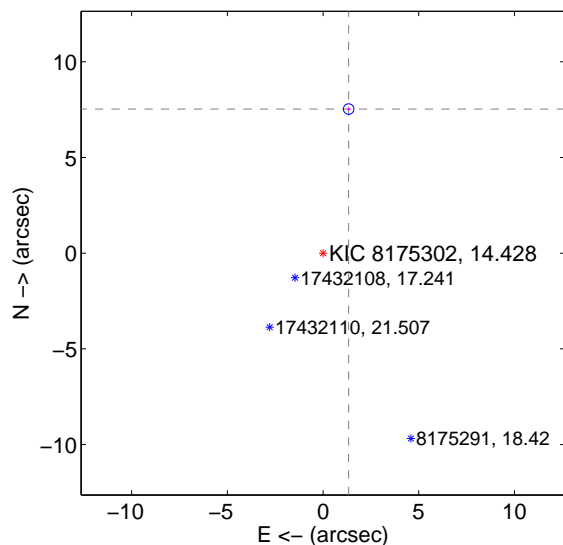
Supplemental centroid analysis for 008175302-01. Kepler magnitude: 14.43. Transit SNR 8.40

There are 0 quarters with good PRF difference image offsets

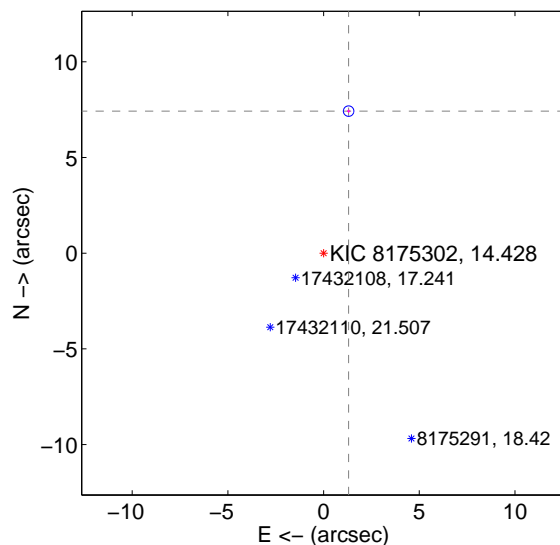
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.648 ± 0.091	83.78	-1.338 ± 0.093	7.530 ± 0.091
PRF-fit source offset from KIC position	7.536 ± 0.091	82.56	-1.308 ± 0.093	7.422 ± 0.091
photometric centroid source offset	4.41 ± 2.04	2.16	-0.05 ± 2.07	-4.41 ± 2.04

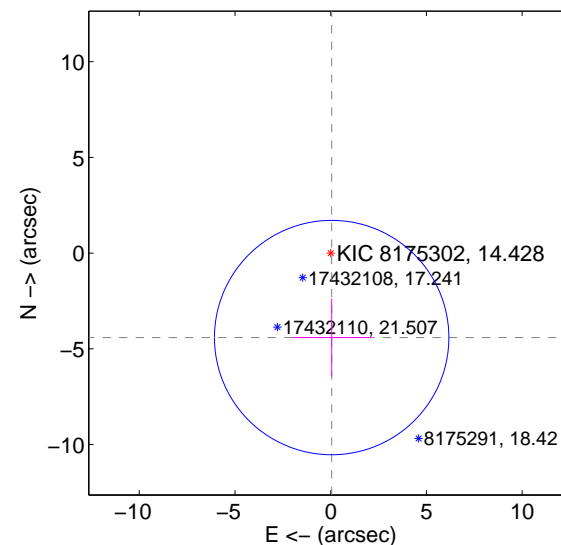
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

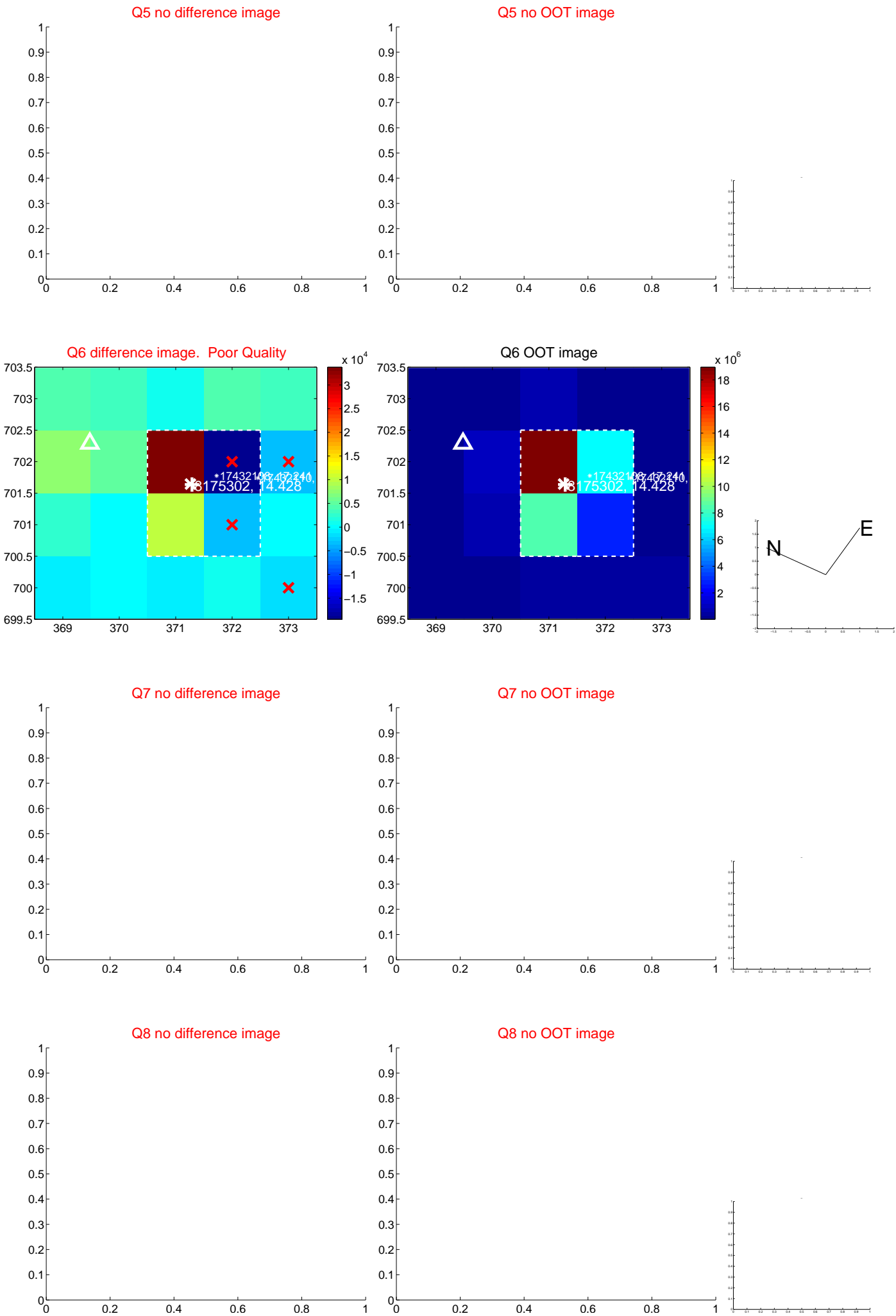


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



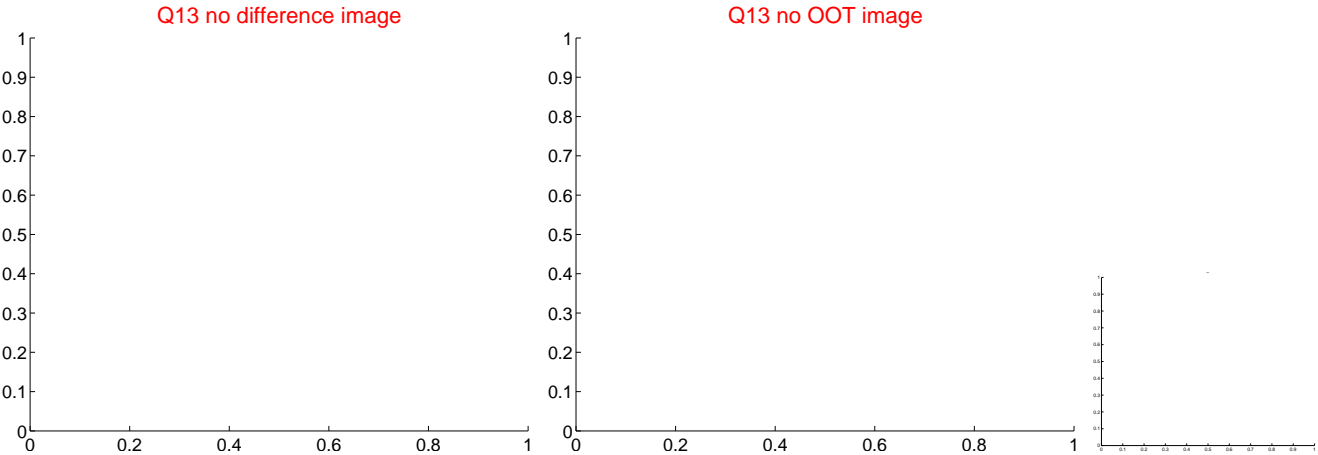
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



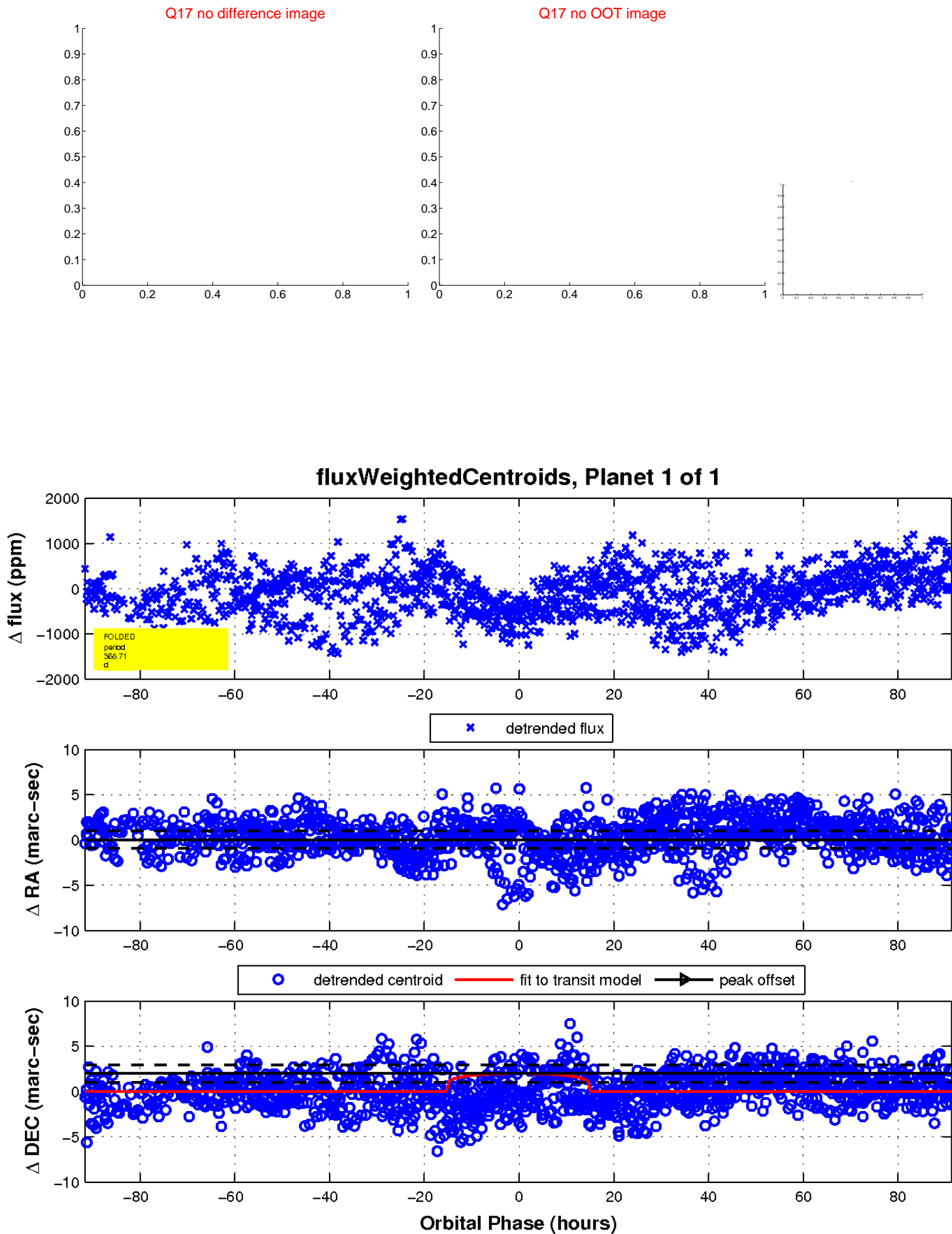
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

