

KIC 008243448

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})
008243448-01	OBS	No	369.177079	233.163498	907.0	25.677	8.2	9.9	1.04	5792	3.97	1.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008243448-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA—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.

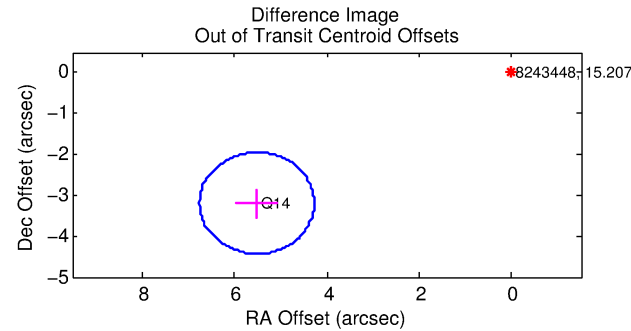
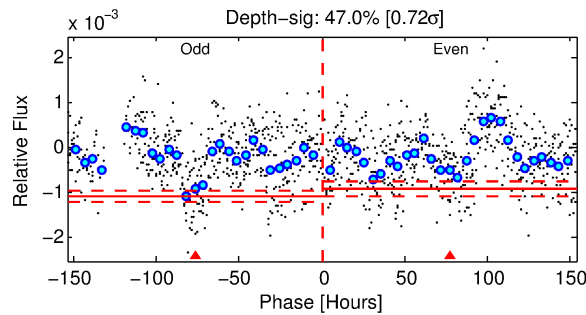
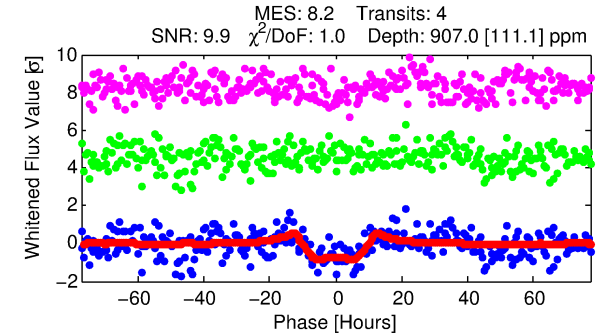
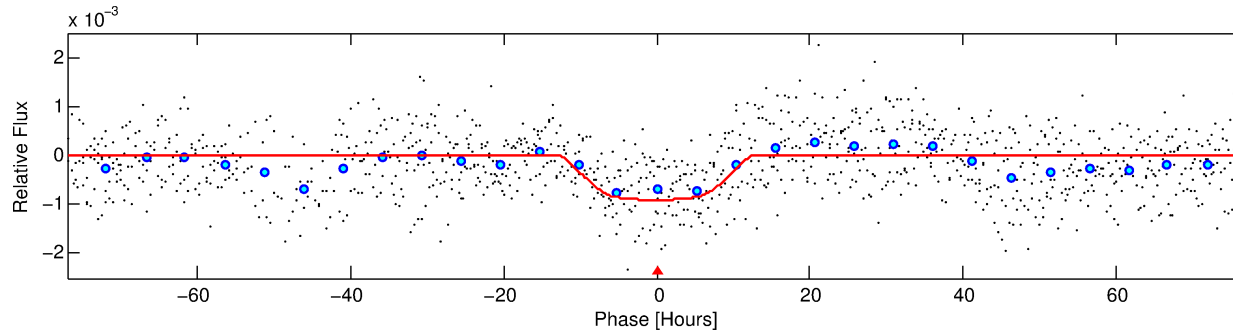
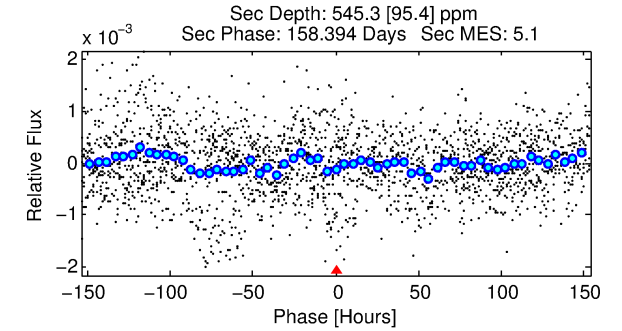
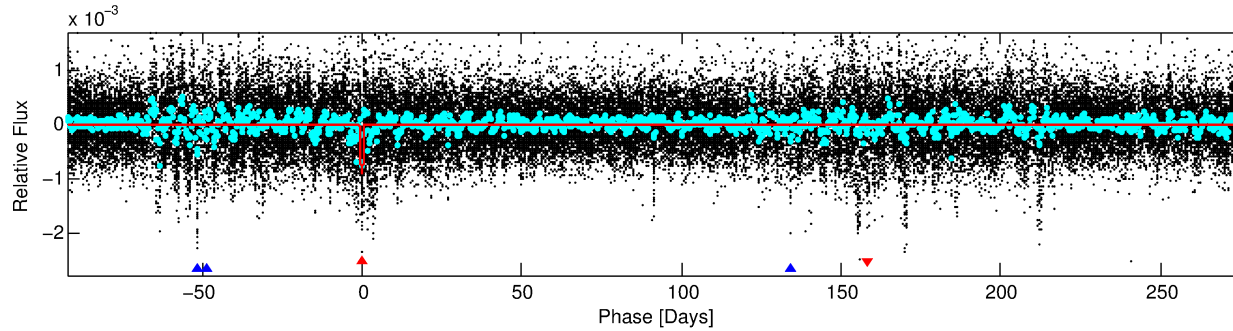
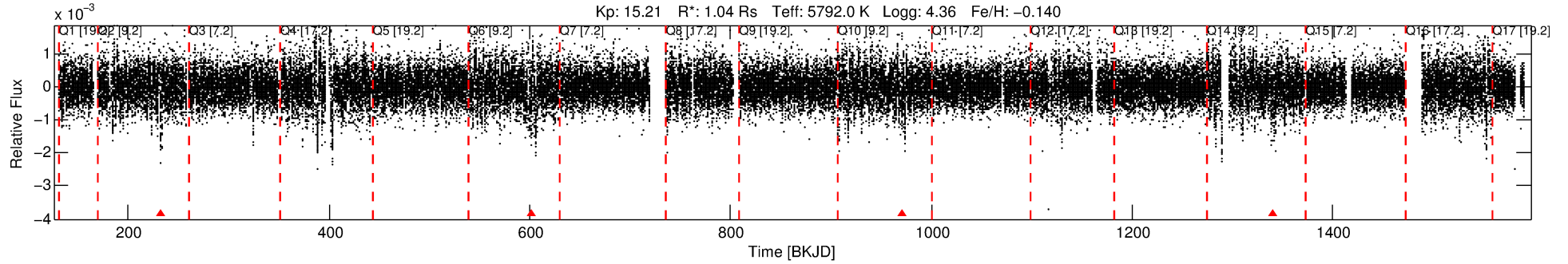
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008243448-01

No Significant Match Found

DV One-Page Summary

KIC: 8243448 Candidate: 1 of 2 Period: 369.177 d



DV Fit Results:

Period = 369.17708 [0.01893] d
Epoch = 233.1635 [0.0341] BKJD
Rp/R* = 0.0348 [0.0026]
a/R* = 45.87 [6.58]
b = 0.95 [0.02]
Seff = 1.15 [0.42]
Teq = 264 [24] K
Rp = 3.97 [1.14] Re
a = 0.9787 [0.2288] AU
Ag = 18267.28 [7522.44] [2.43σ]
Teff = 4744 [309] K [14.47σ]

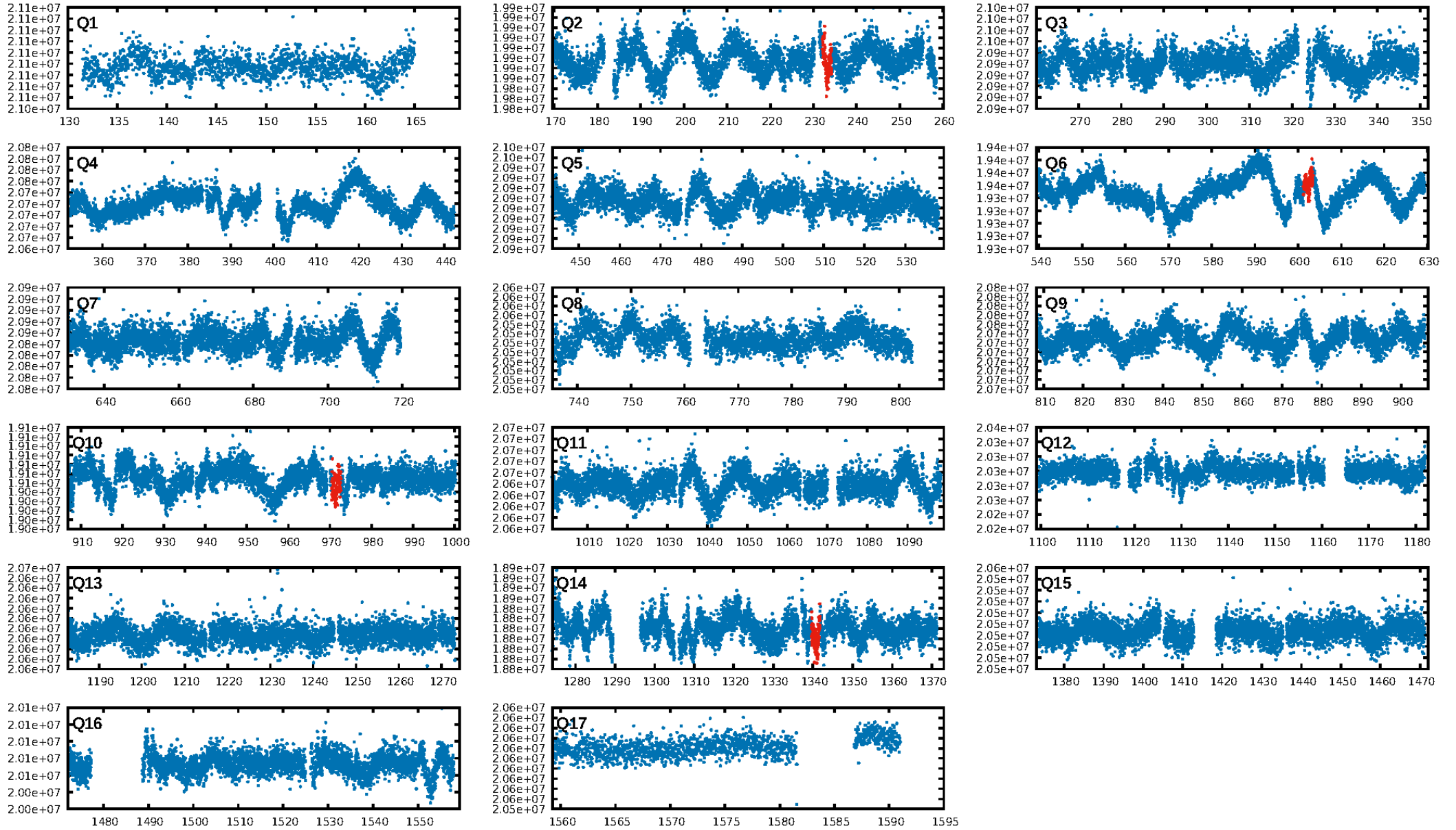
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [147.61σ]
ModelChiSquare2-sig: 15.5%
ModelChiSquareGoF-sig: 99.8%
Bootstrap-pfa: 8.68e-10
RollingBand-fgt: 0.00 [0/4]
GhostDiagnostic-chr: 0.3524
Centroid-sig: 0.0%
Centroid-so: 5.004 arcsec [2.55σ]
OotOffset-rm: 6.370 arcsec [15.41σ]
KicOffset-rm: 6.467 arcsec [15.66σ]
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]

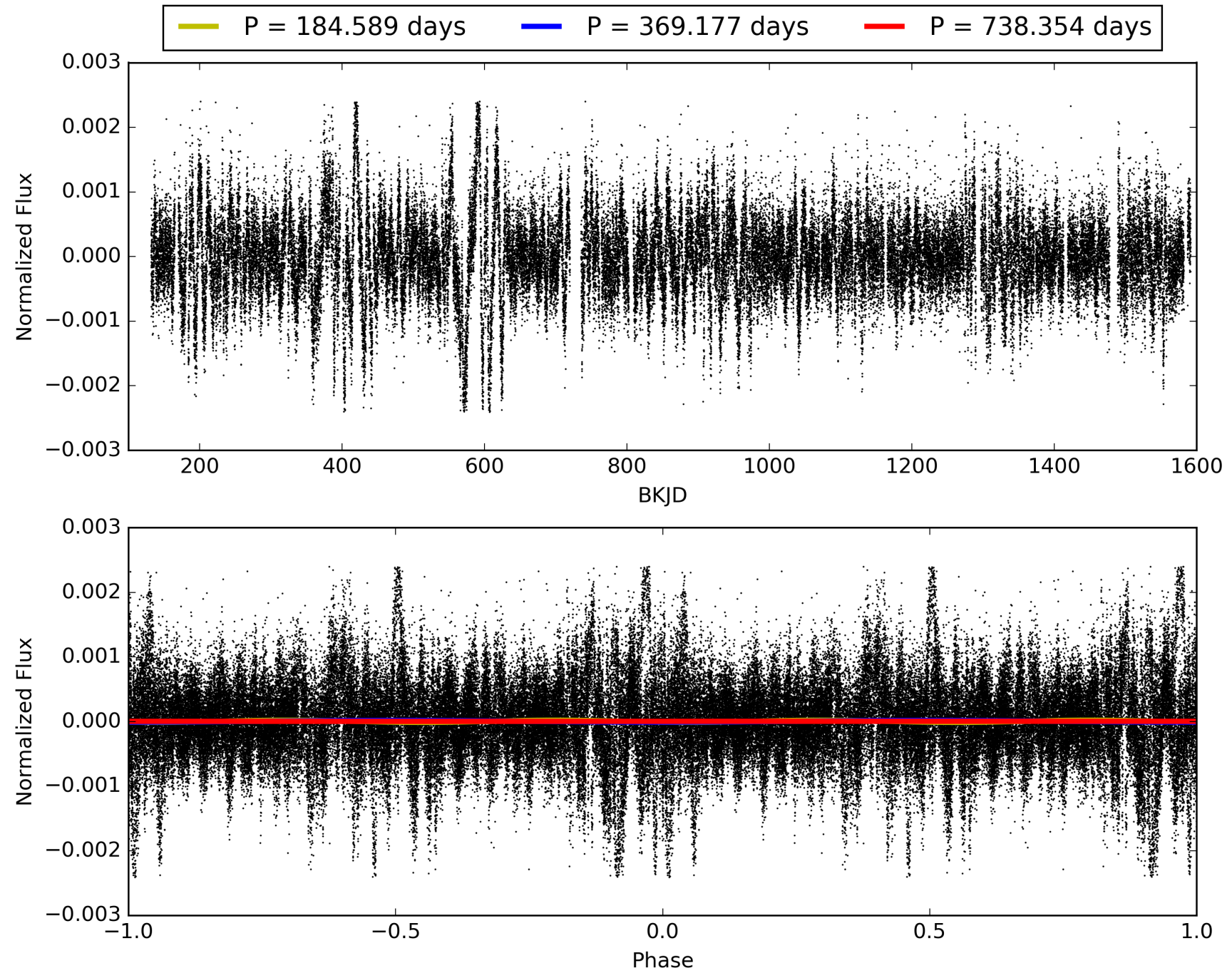
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:41:52 Z

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

TCE 008243448-01, PDC Light Curves

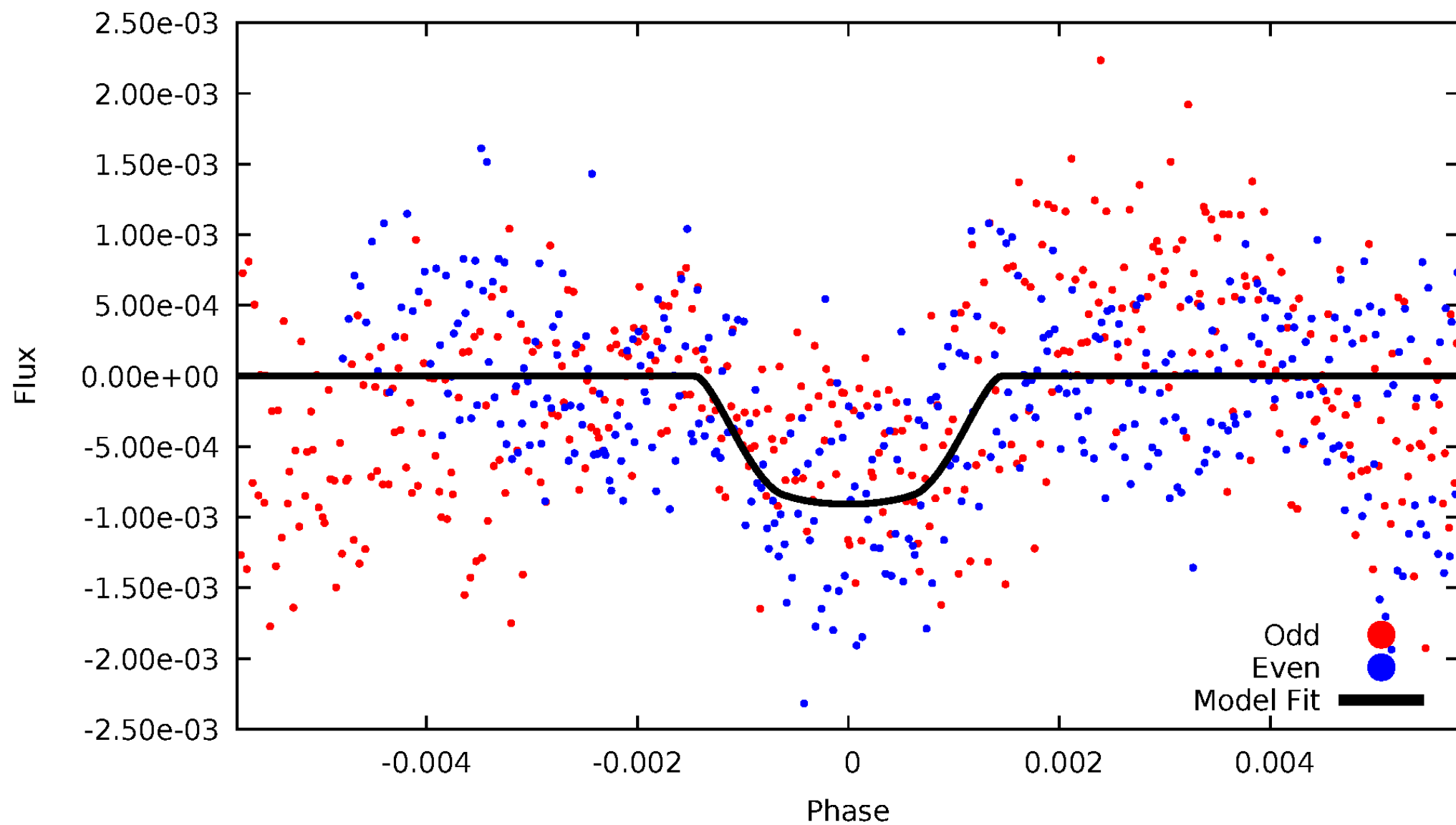


TCE 008243448-01



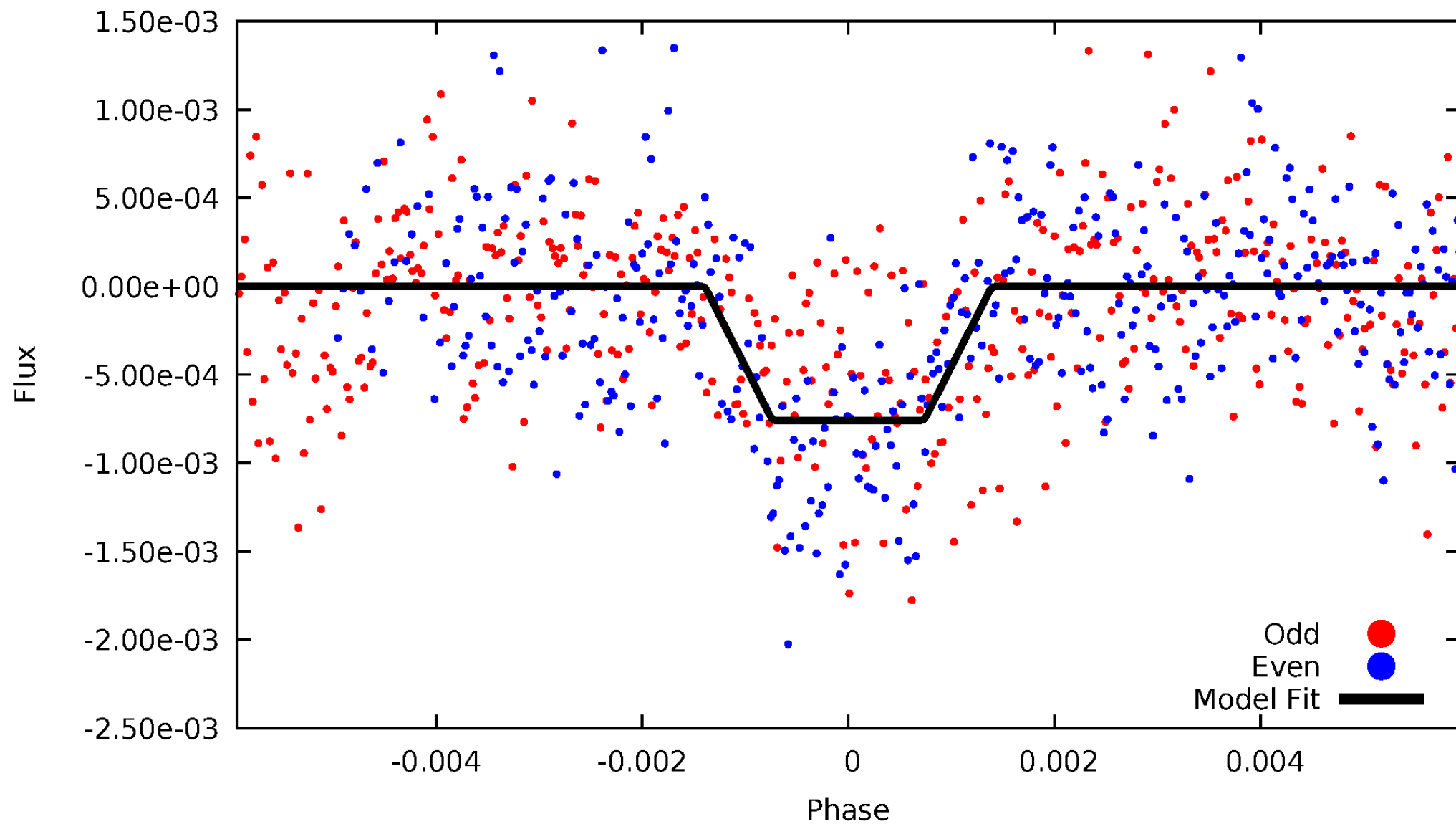
DV Odd/Even

TCE 008243448-01



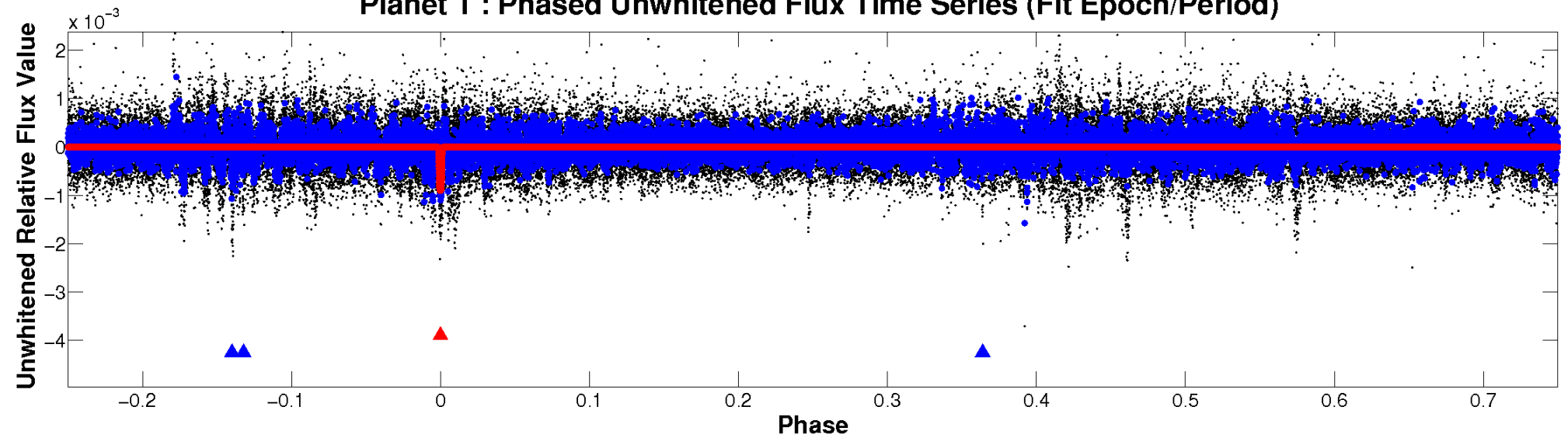
ALT Odd/Even

TCE 008243448-01

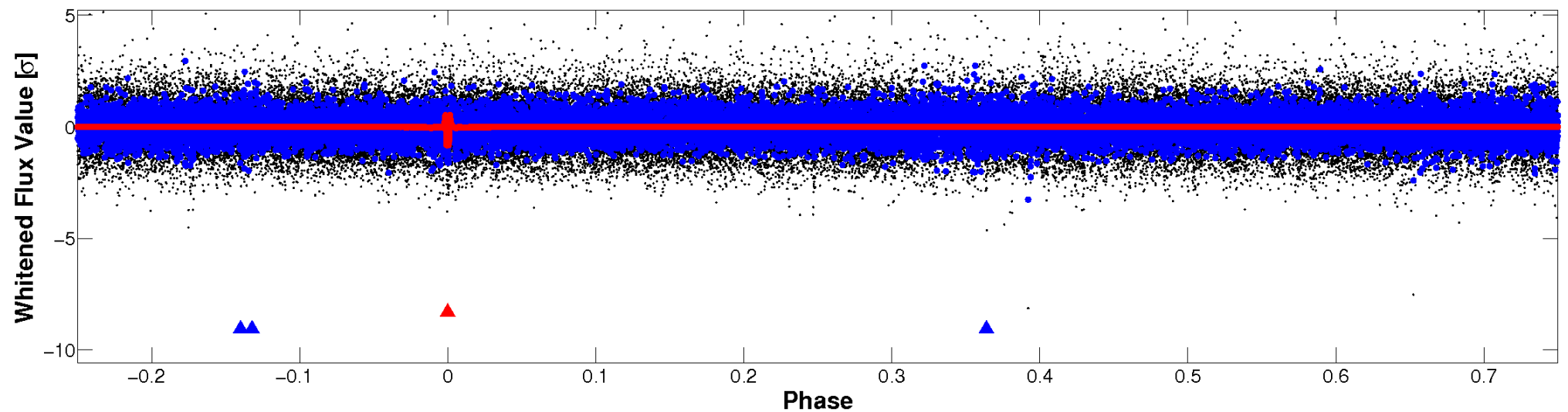


Non-Whitened Vs. Whitened Light Curve

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

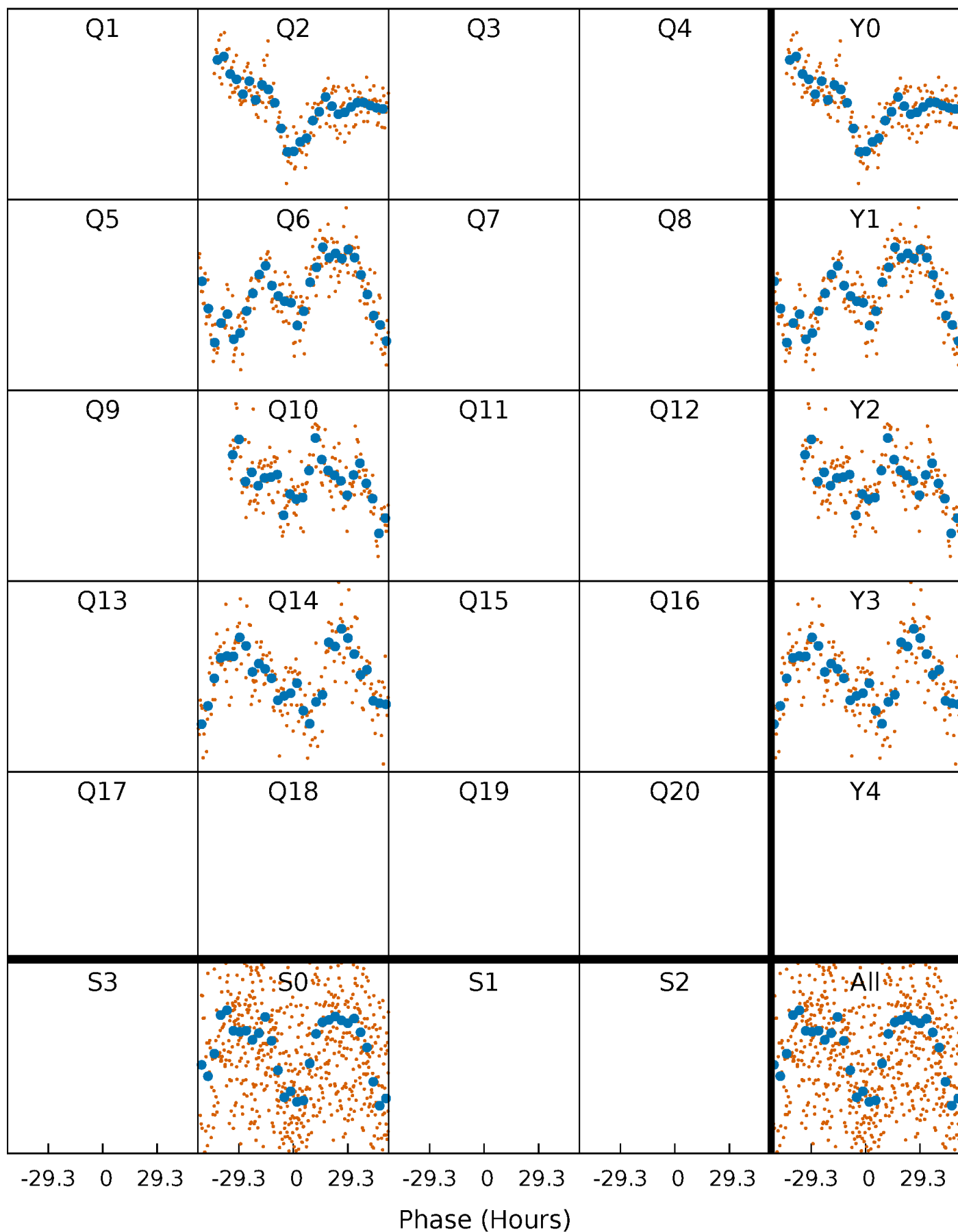


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



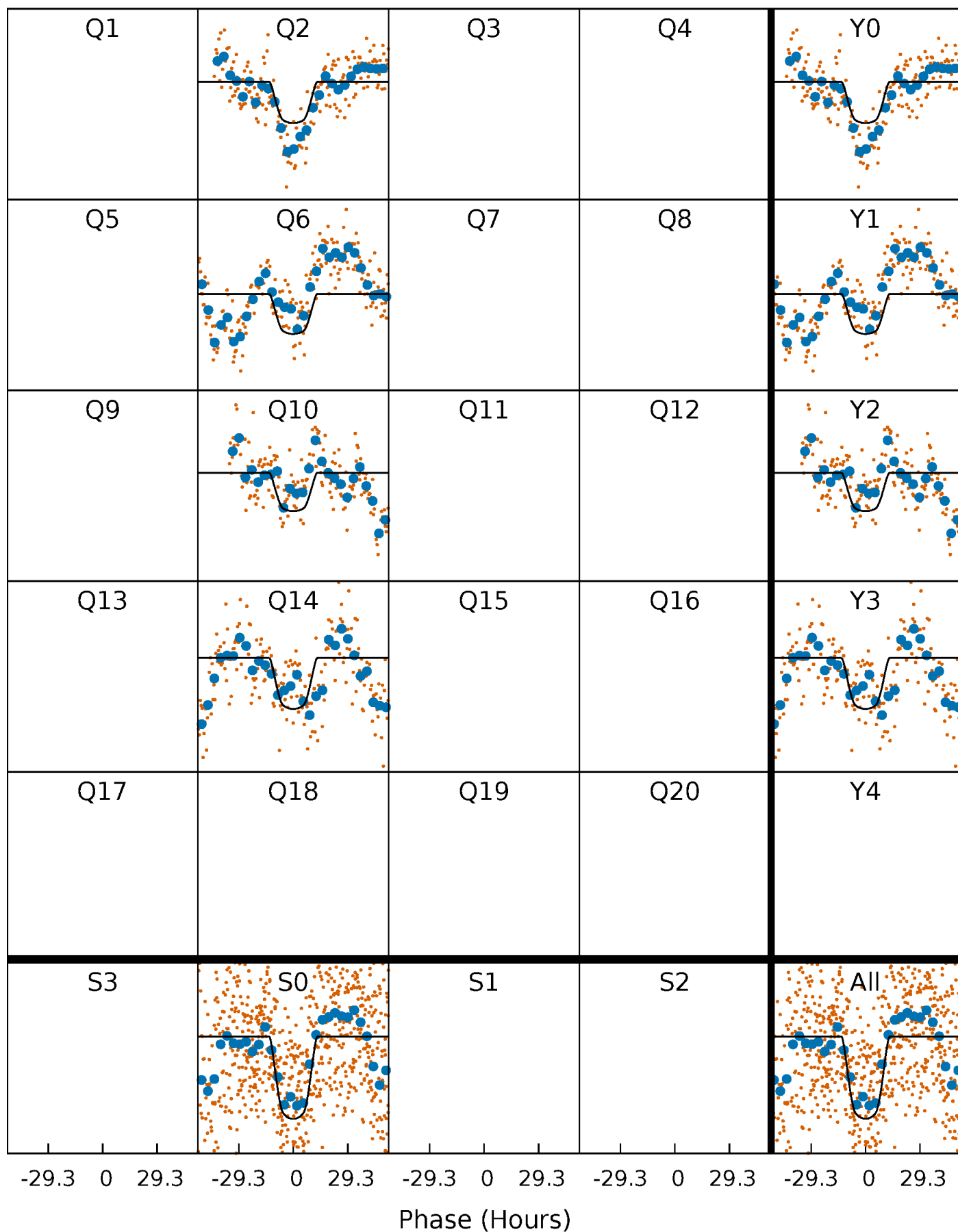
PDC Quarter-Phased Transit Curves

TCE 008243448-01 $P=369.177079$ Days $T_0=233.163498$ (BKJD)



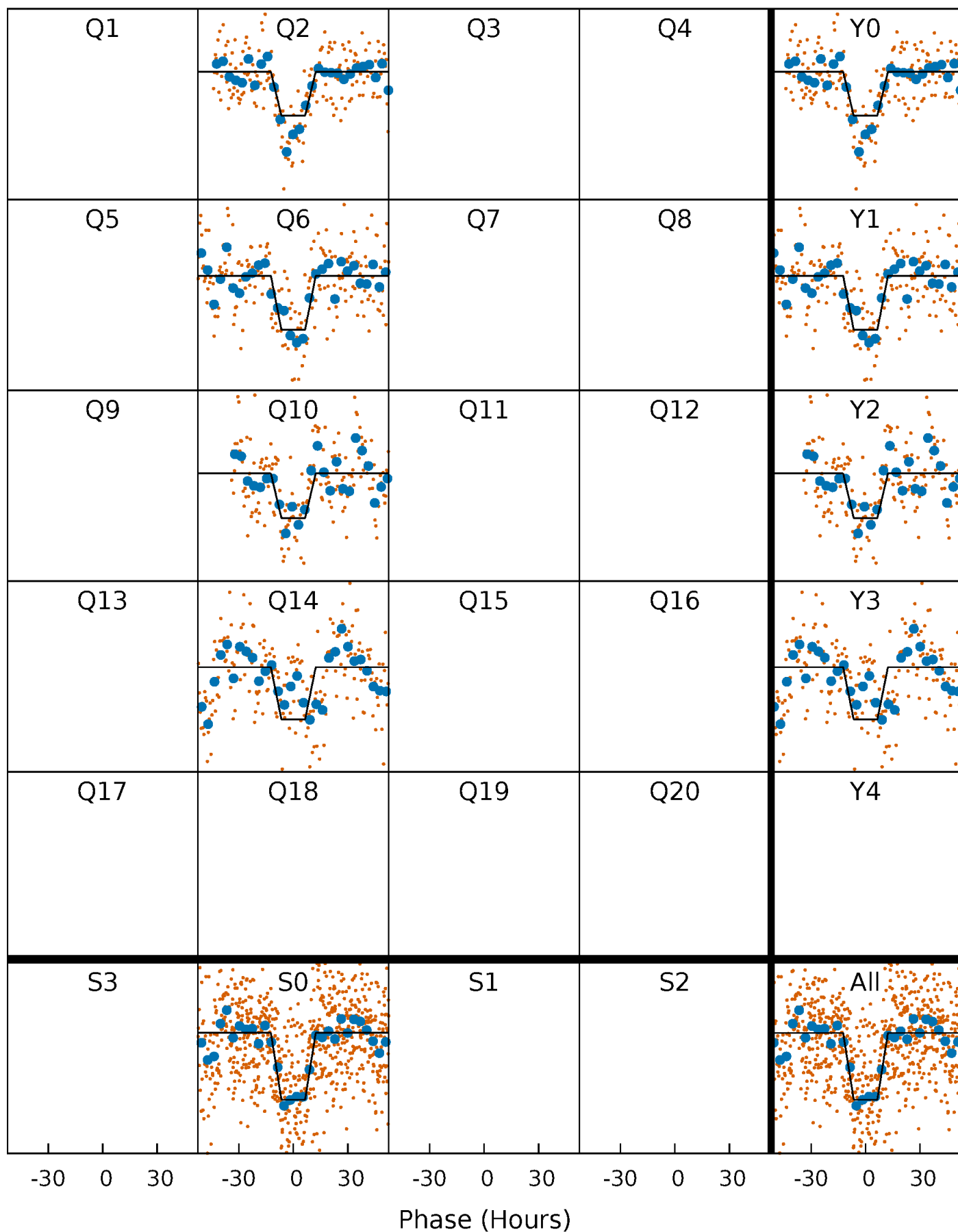
DV Quarter-Phased Transit Curves

TCE 008243448-01 P=369.177079 Days $T_0=233.163498$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

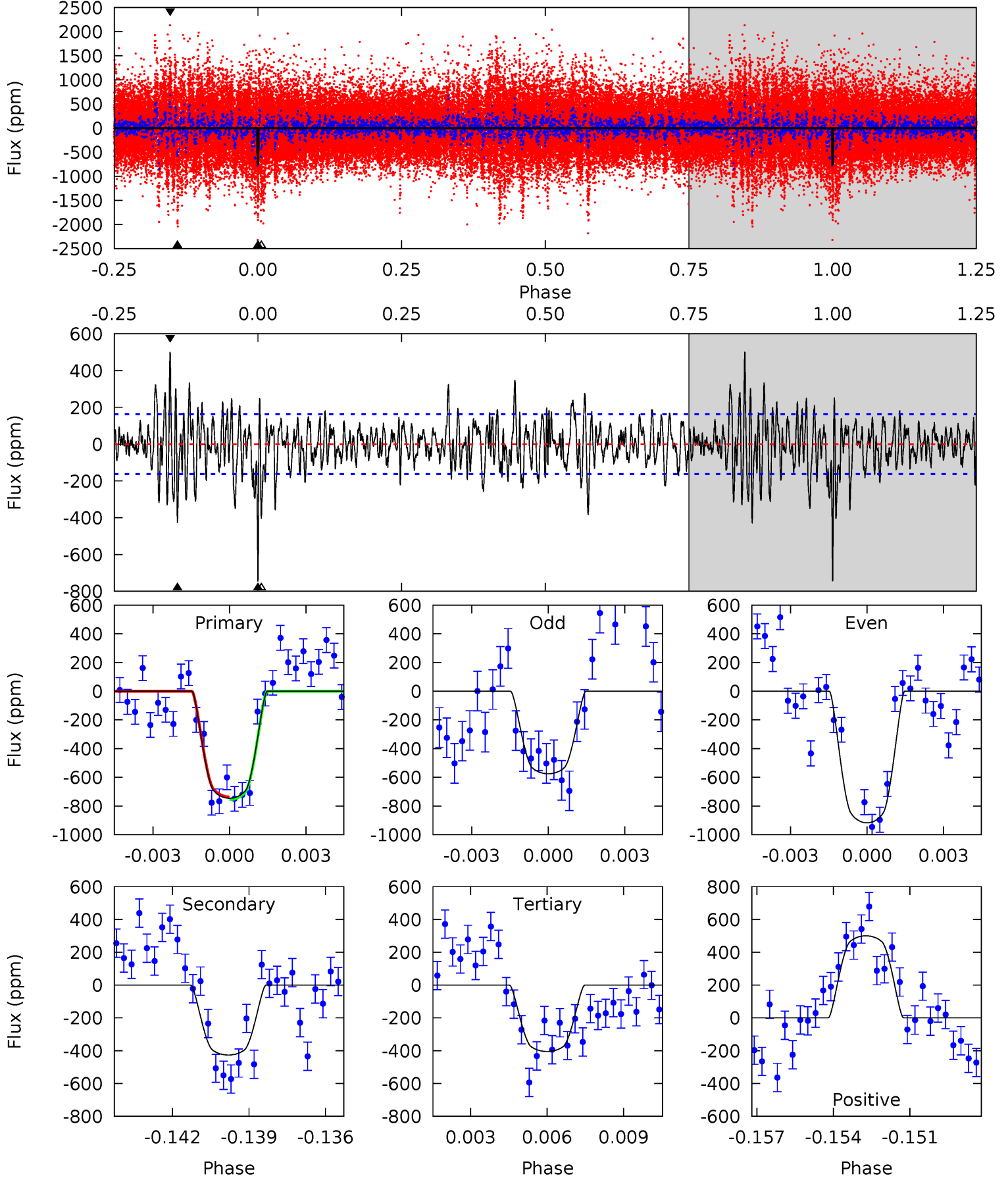
TCE 008243448-01 P=369.139073 Days $T_0=233.223719$ (BKJD)



DV Model-Shift Uniqueness Test

008243448-01, P = 369.177079 Days, E = 233.163498 Days

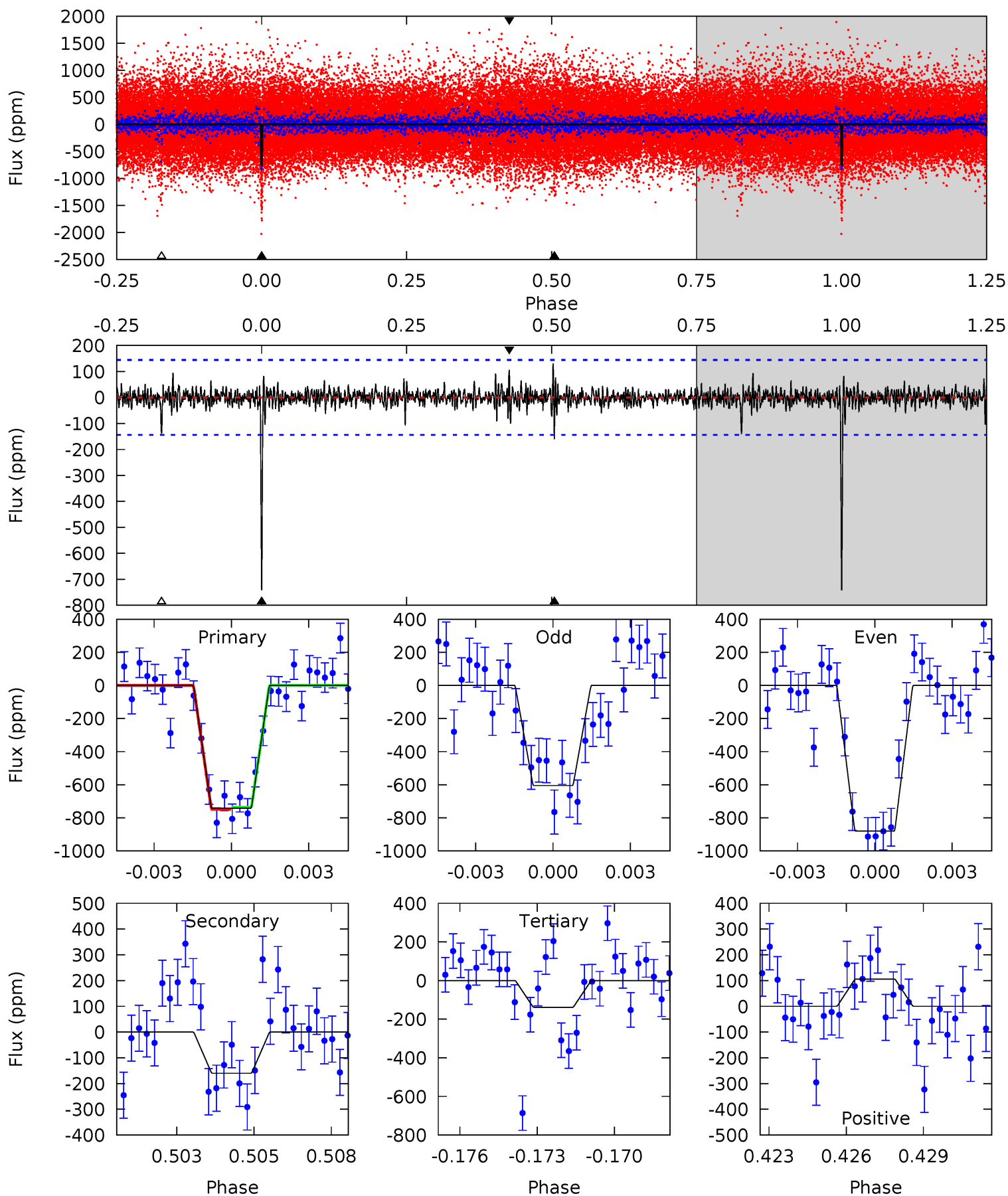
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.1	13.8	13.1	16.2	5.25	2.97	3.58	11.0	7.94	0.70	-2.38	5.54	1.30	0.40	0.30



Alt Model-Shift Uniqueness Test

008243448-01, P = 369.139073 Days, E = 233.223719 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.1	5.83	5.04	3.86	5.26	2.98	0.83	22.1	23.2	0.79	1.97	5.02	0.99	0.15	0.22



Stellar Parameters For KIC 008243448

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5792^{+157}_{-175}	$4.363^{+0.153}_{-0.187}$	$-0.140^{+0.300}_{-0.300}$	$1.044^{+0.289}_{-0.193}$	$0.918^{+0.126}_{-0.095}$	$1.136^{+0.804}_{-0.543}$
	+3%/-3%	+4%/-4%	+214%/-214%	+28%/-18%	+14%/-10%	+71%/-48%
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 008243448-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-427 ± 31	$4.01^{+0.65}_{-0.53}$	369^{+27}_{-20}	4603^{+193}_{-192}	13814^{+4721}_{-3405}
Alt.	-160 ± 27	$3.16^{+0.58}_{-0.48}$	370^{+25}_{-25}	4176^{+245}_{-227}	8259^{+3796}_{-2552}

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

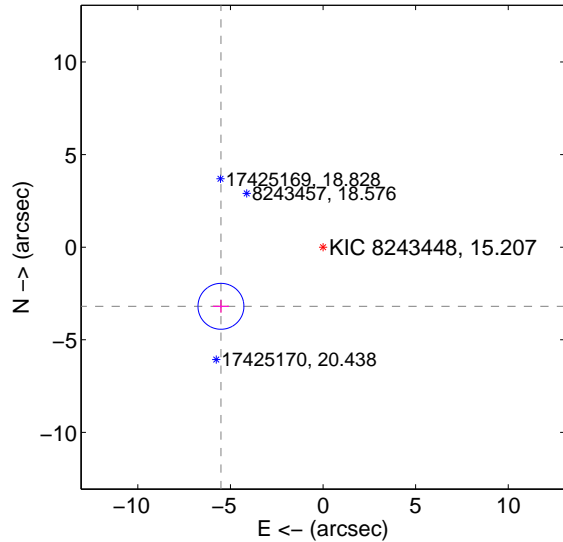
Supplemental centroid analysis for 008243448-01. Kepler magnitude: 15.21. Transit SNR 9.85

There are 0 quarters with good PRF difference image offsets

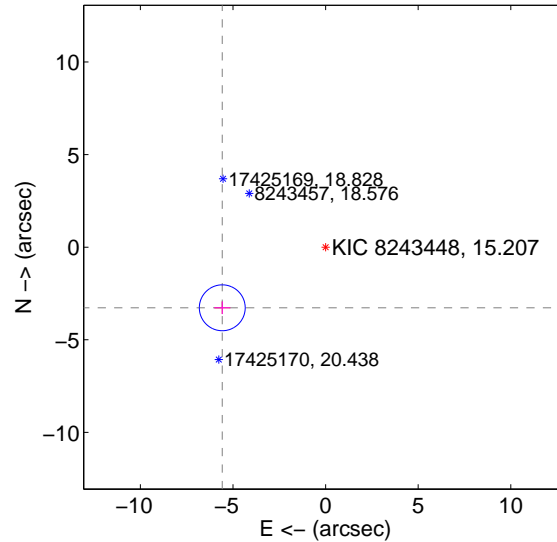
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.370 ± 0.413	15.41	5.512 ± 0.434	-3.193 ± 0.343
PRF-fit source offset from KIC position	6.467 ± 0.413	15.66	5.578 ± 0.434	-3.273 ± 0.343
photometric centroid source offset	5.00 ± 1.96	2.55	-1.73 ± 1.88	-4.70 ± 1.97

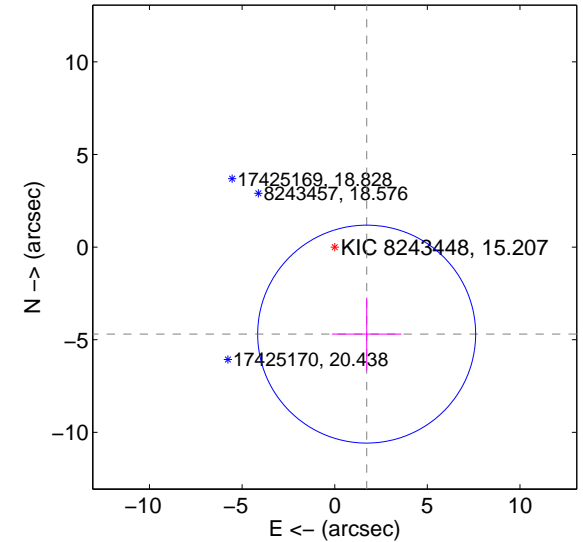
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

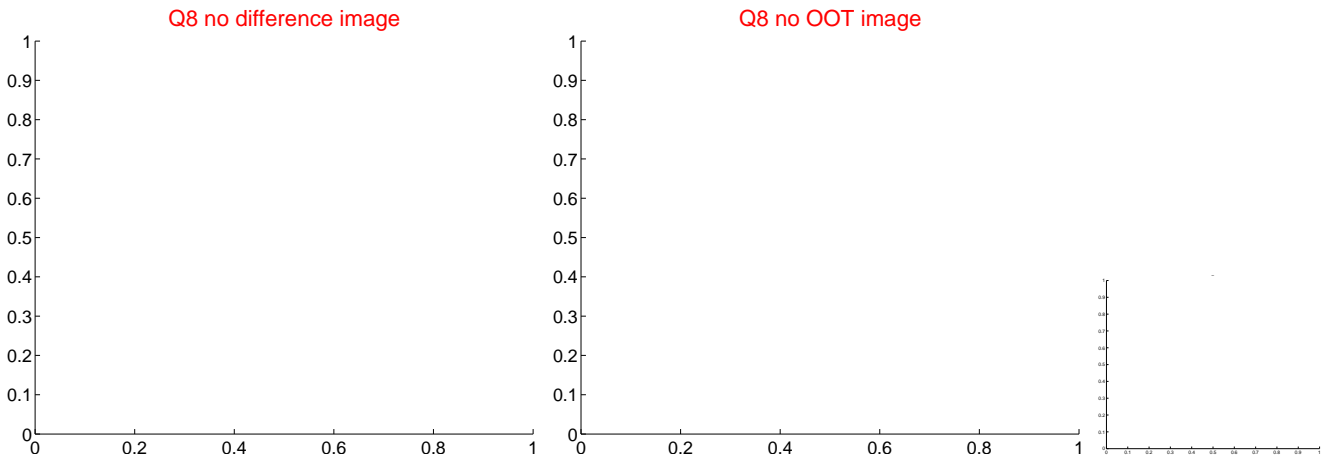
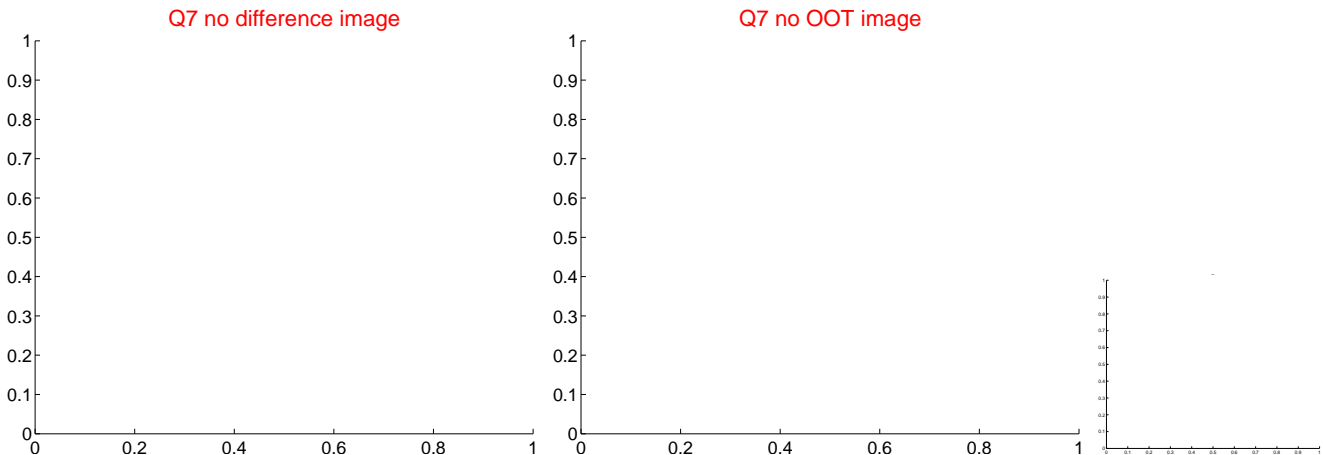
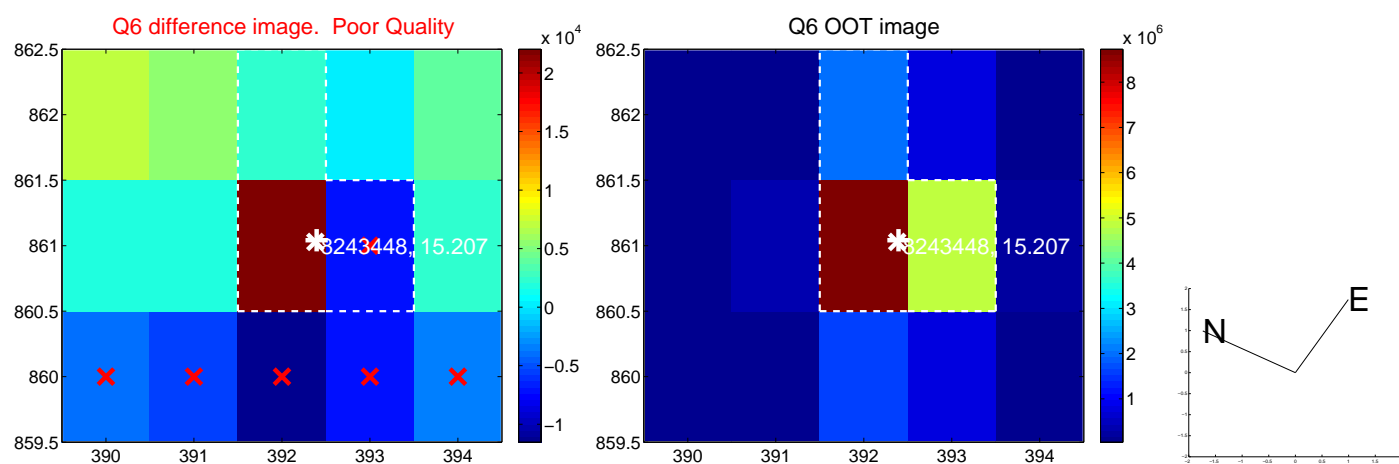
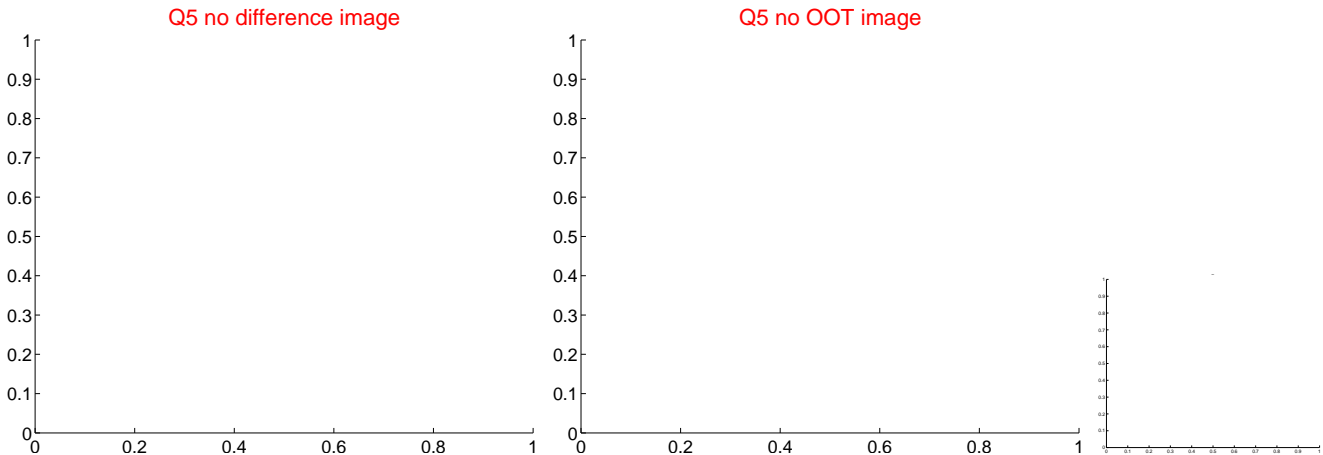


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

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



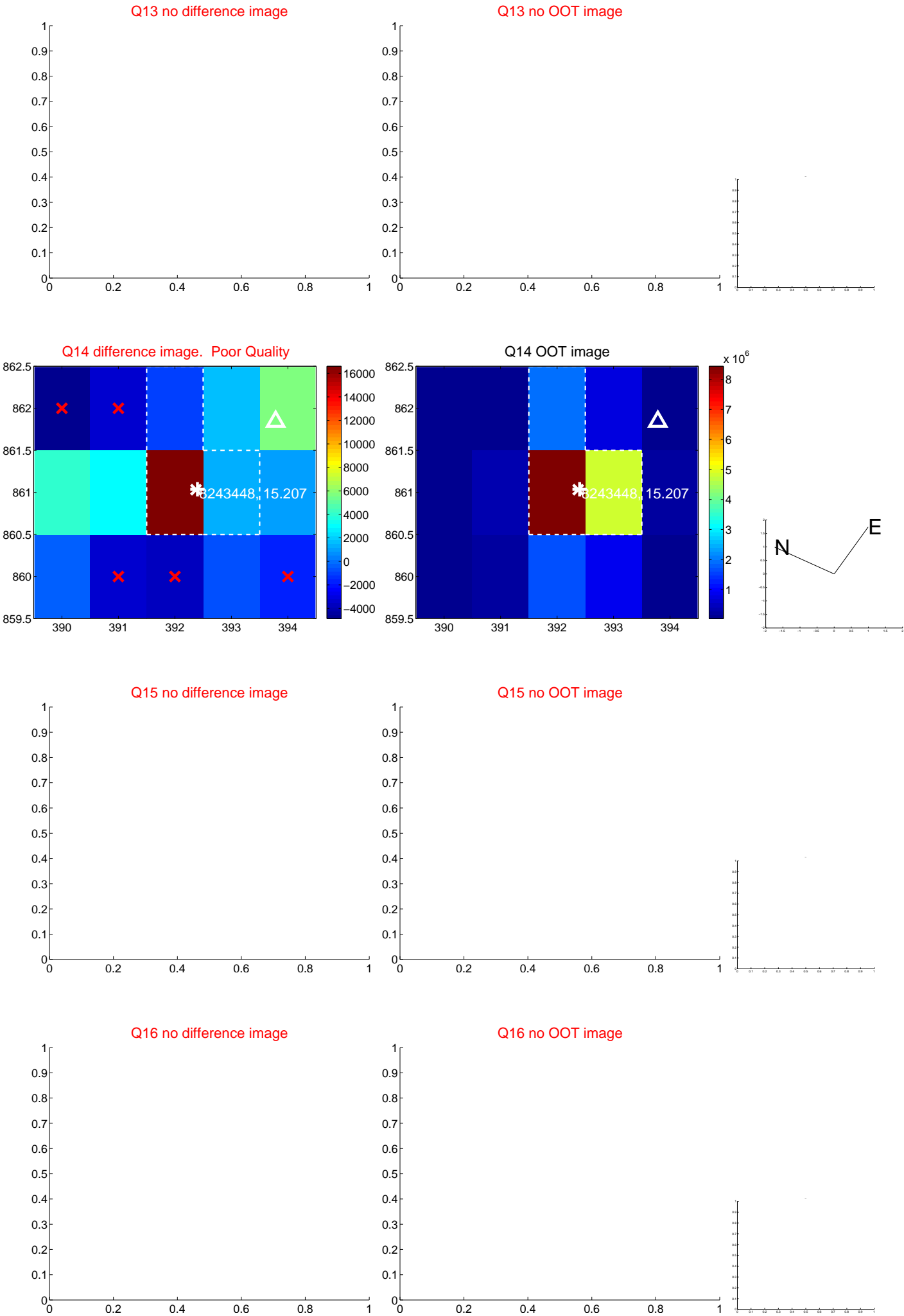
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



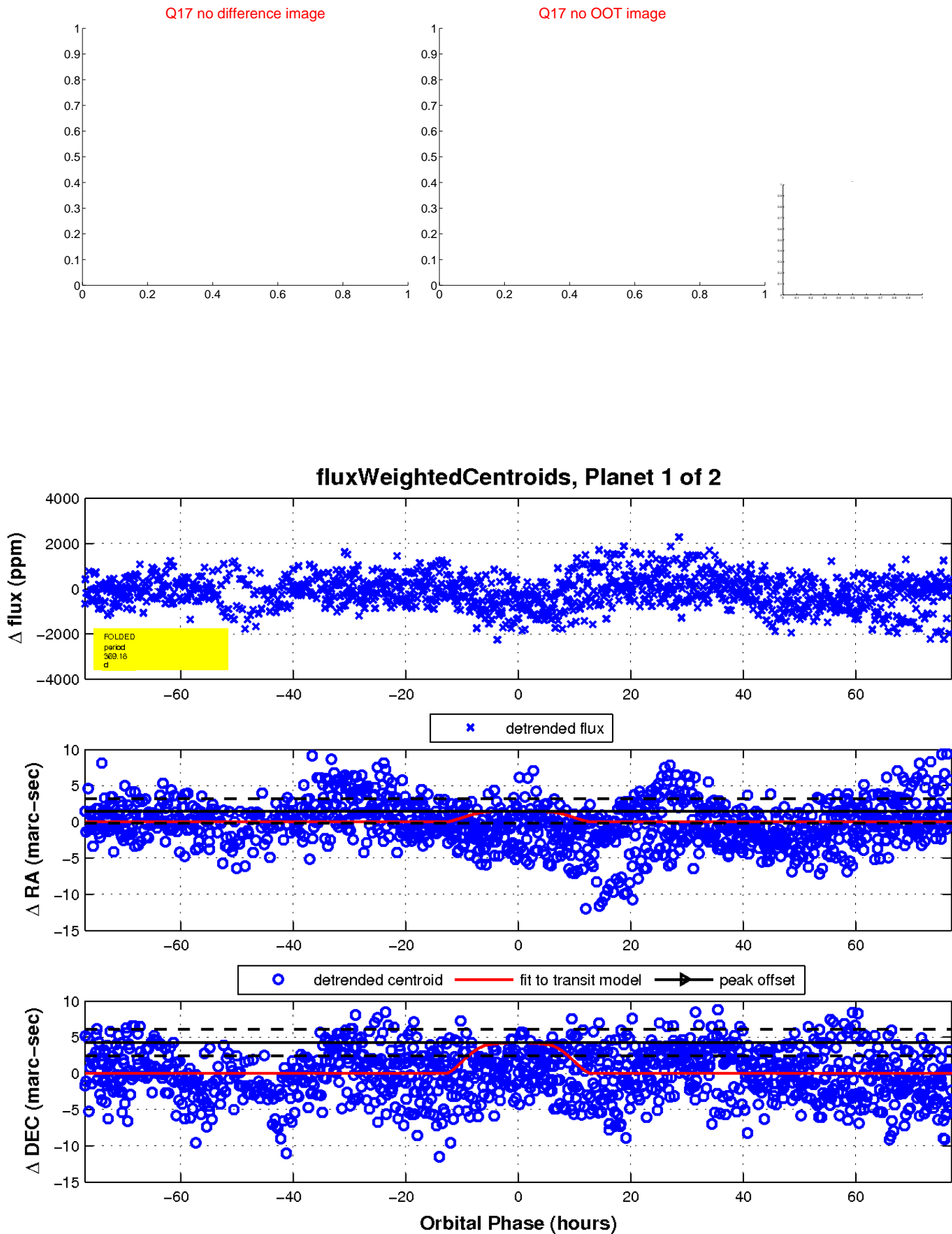
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

