

KIC 010924365

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})
010924365-01	OBS	No	423.461450	301.712577	516.0	6.734	7.2	7.3	1.12	6419	2.74	1.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010924365-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

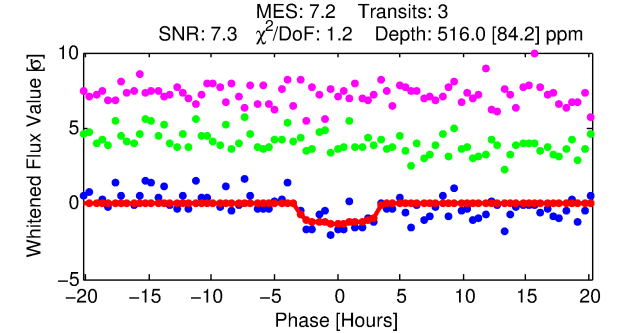
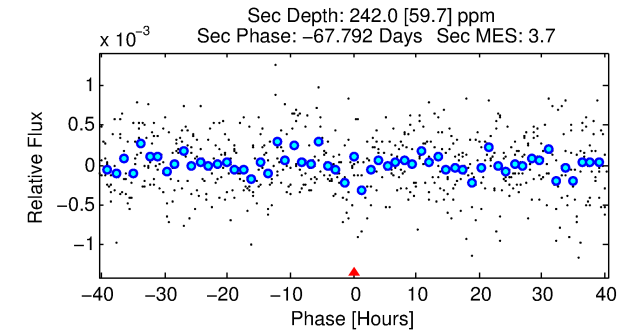
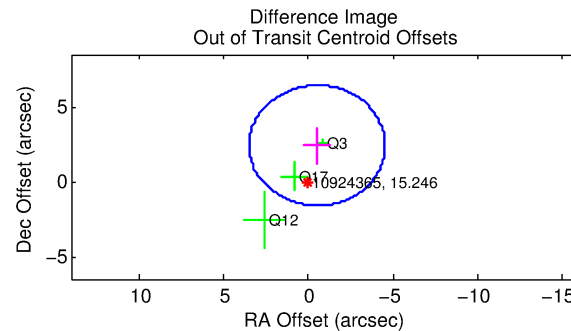
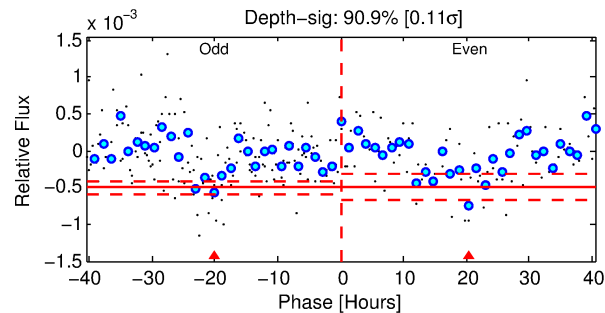
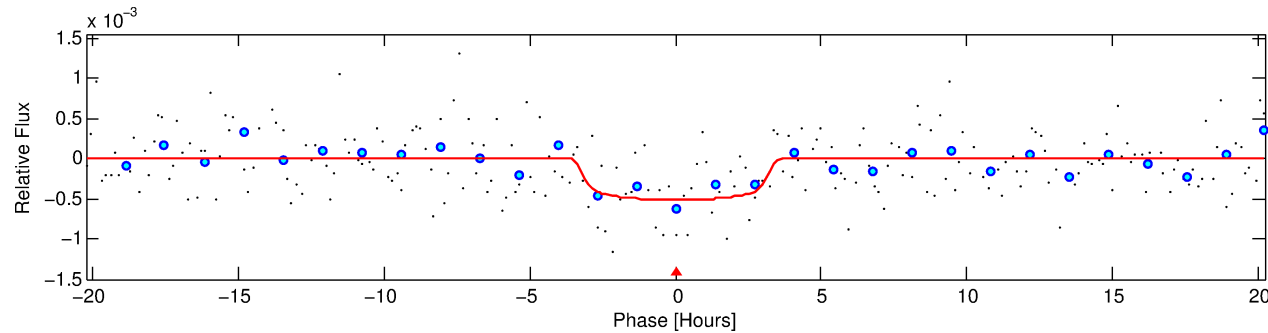
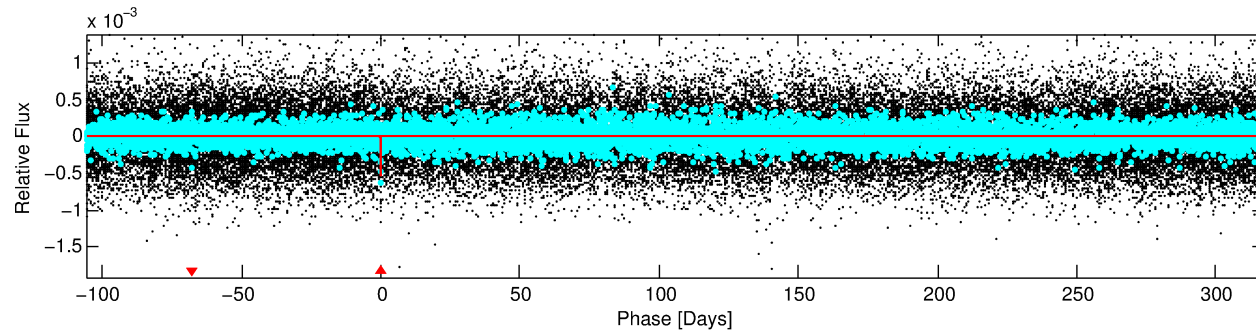
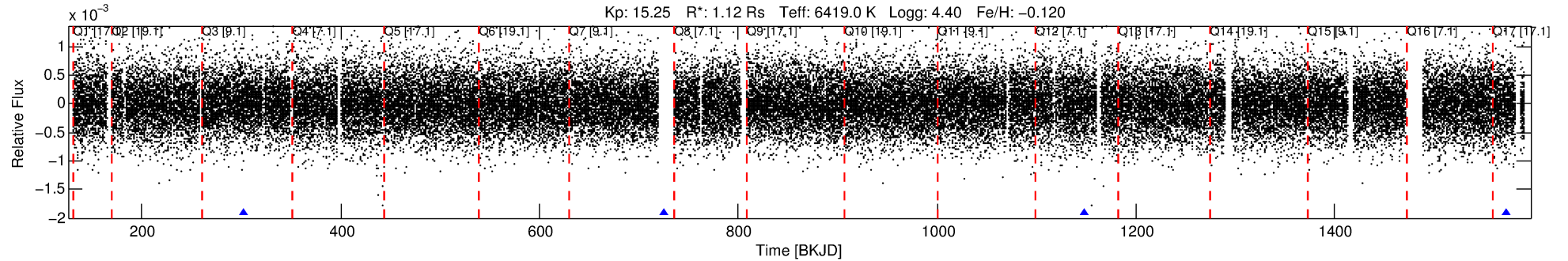
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010924365-01

No Significant Match Found

DV One-Page Summary

KIC: 10924365 Candidate: 1 of 1 Period: 423.461 d



DV Fit Results:

Period = 423.46145 [0.00813] d
Epoch = 301.7126 [0.0157] BKJD
Rp/R* = 0.0224 [0.0190]
a/R* = 347.12 [1561.29]
b = 0.72 [2.99]
Seff = 1.42 [0.53]
Teff = 279 [26] K
Rp = 2.74 [2.46] Re
a = 1.1587 [0.2823] AU
Ag = 23777.24 [41614.07] [0.57 σ]
Teffp = 5348 [2300] K [2.20 σ]

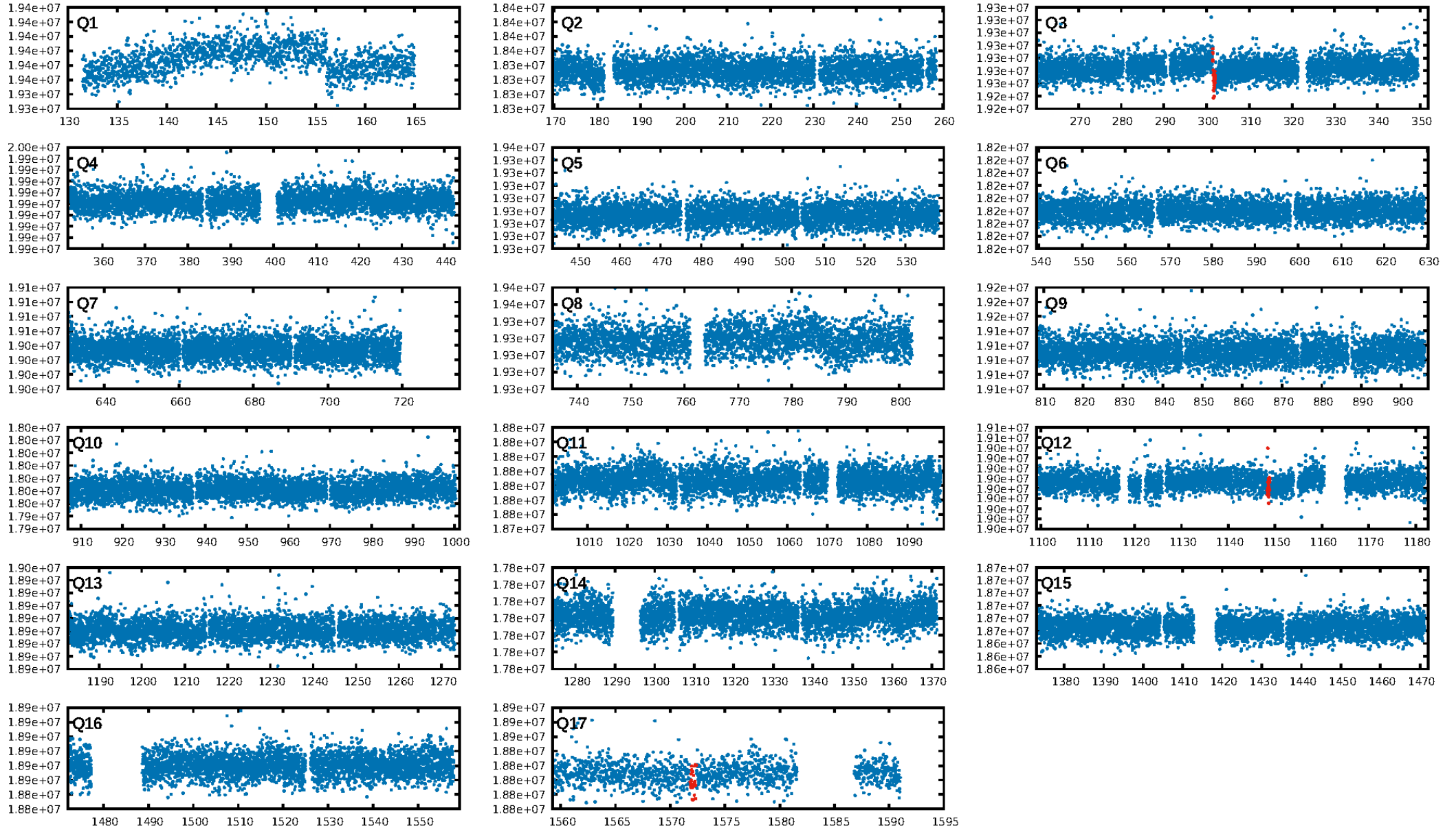
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 10.1%
ModelChiSquareGof-sig: 80.5%
Bootstrap-pfa: 2.93e-11
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 19.62
Centroid-sig: 30.1%
Centroid-so: 1.756 arcsec [0.85 σ]
OotOffset-rm: 2.468 arcsec [1.85 σ]
KicOffset-rm: 2.411 arcsec [1.57 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

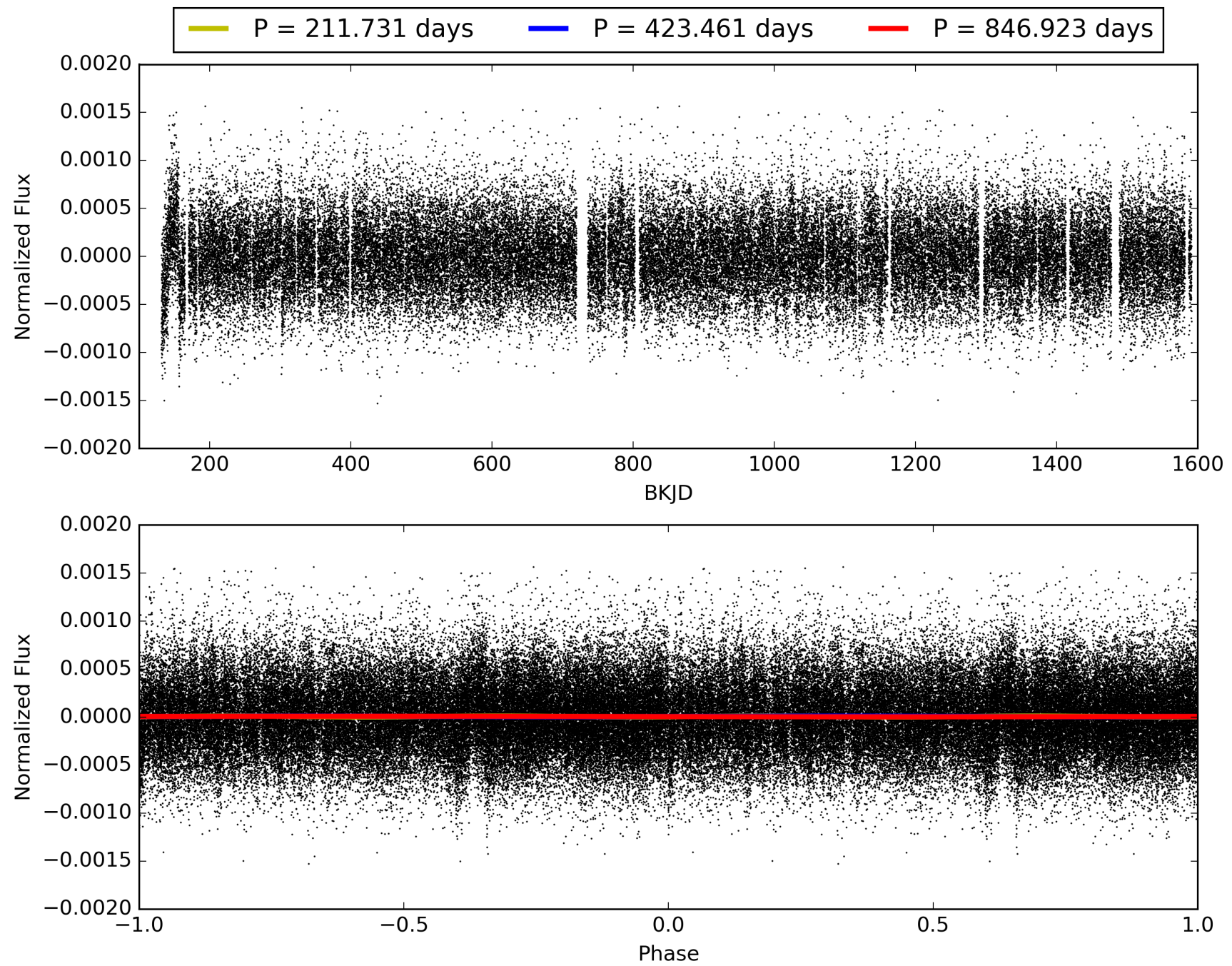
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:14:44 Z

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

TCE 010924365-01, PDC Light Curves

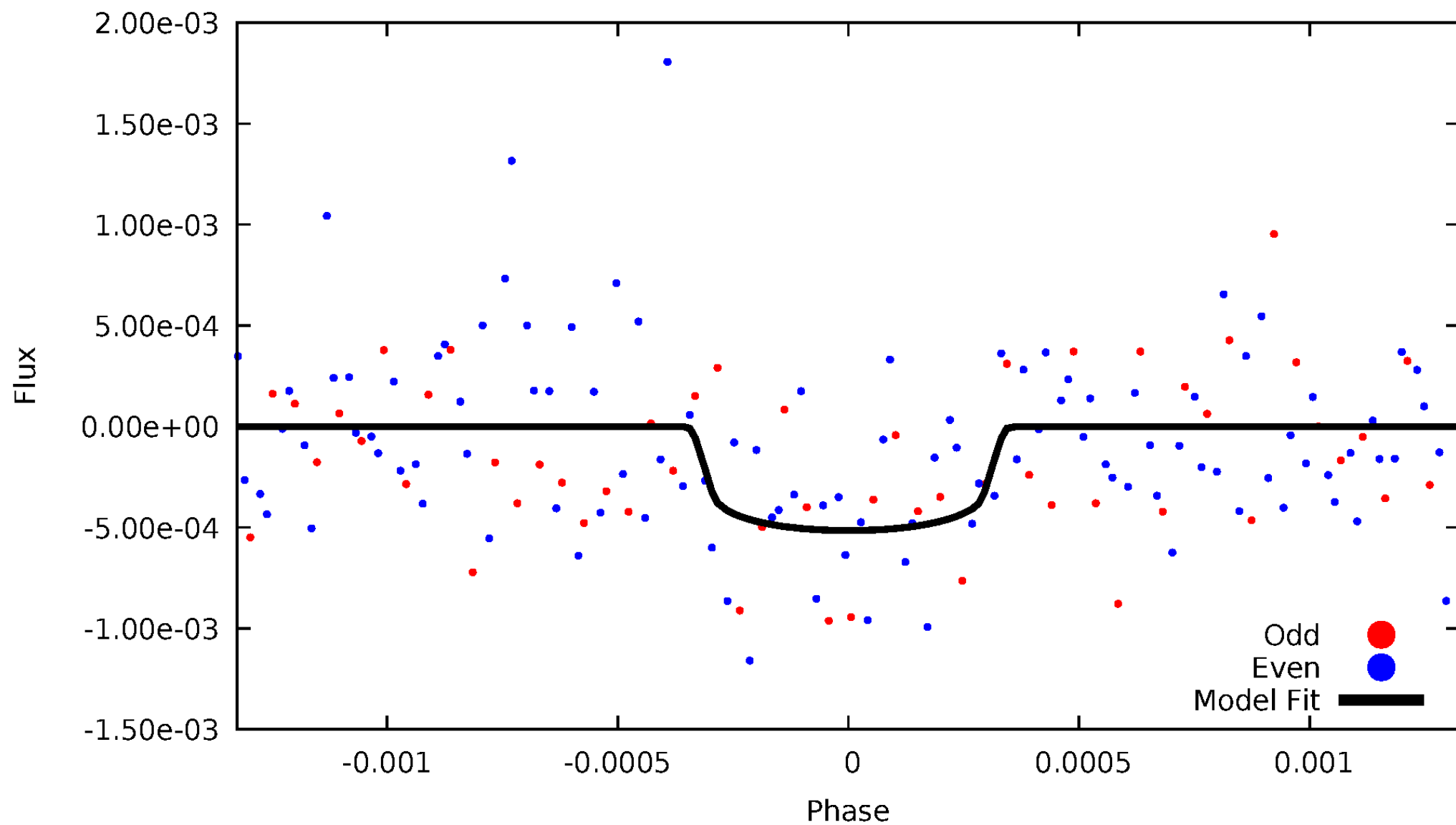


TCE 010924365-01



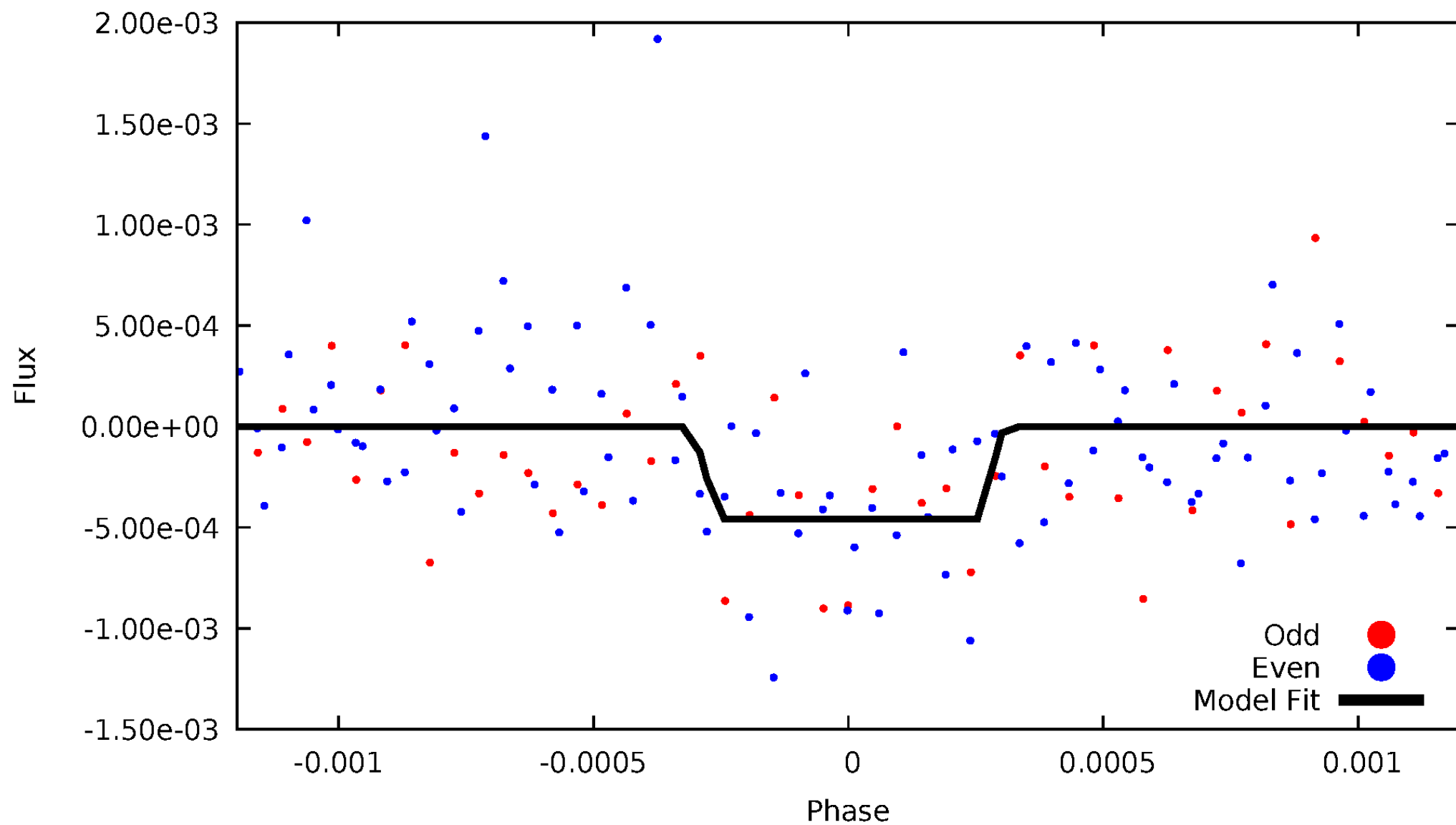
DV Odd/Even

TCE 010924365-01



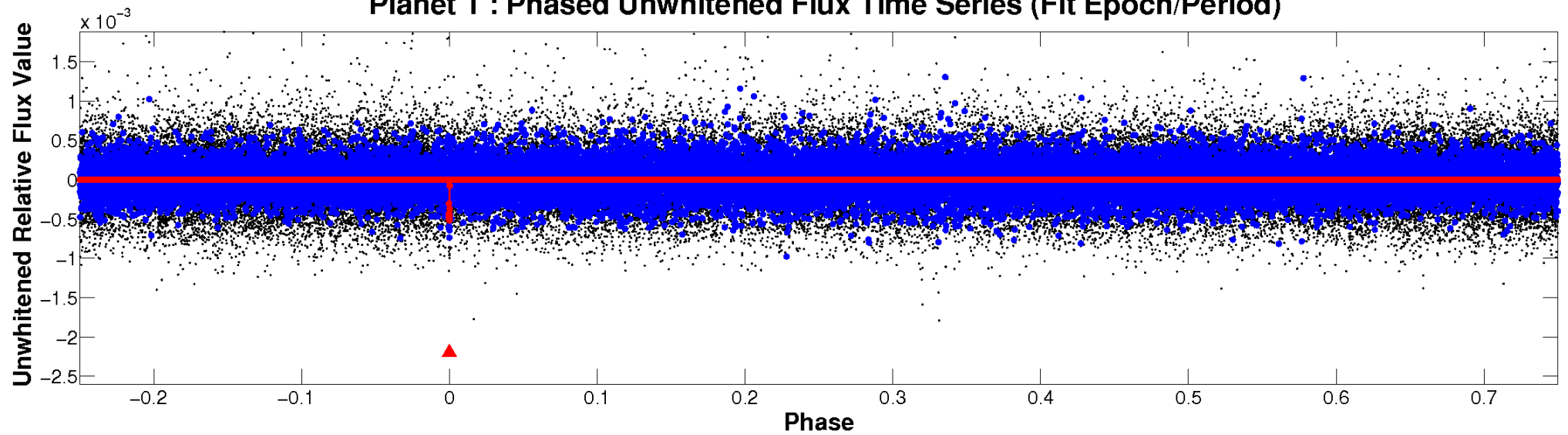
ALT Odd/Even

TCE 010924365-01

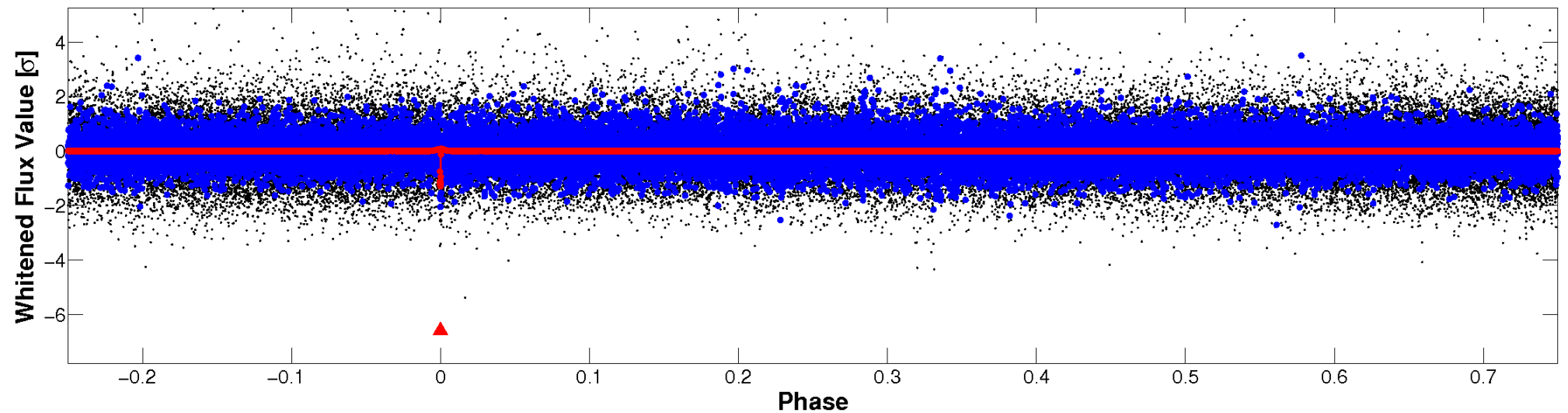


Non-Whitened Vs. Whitened Light Curve

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

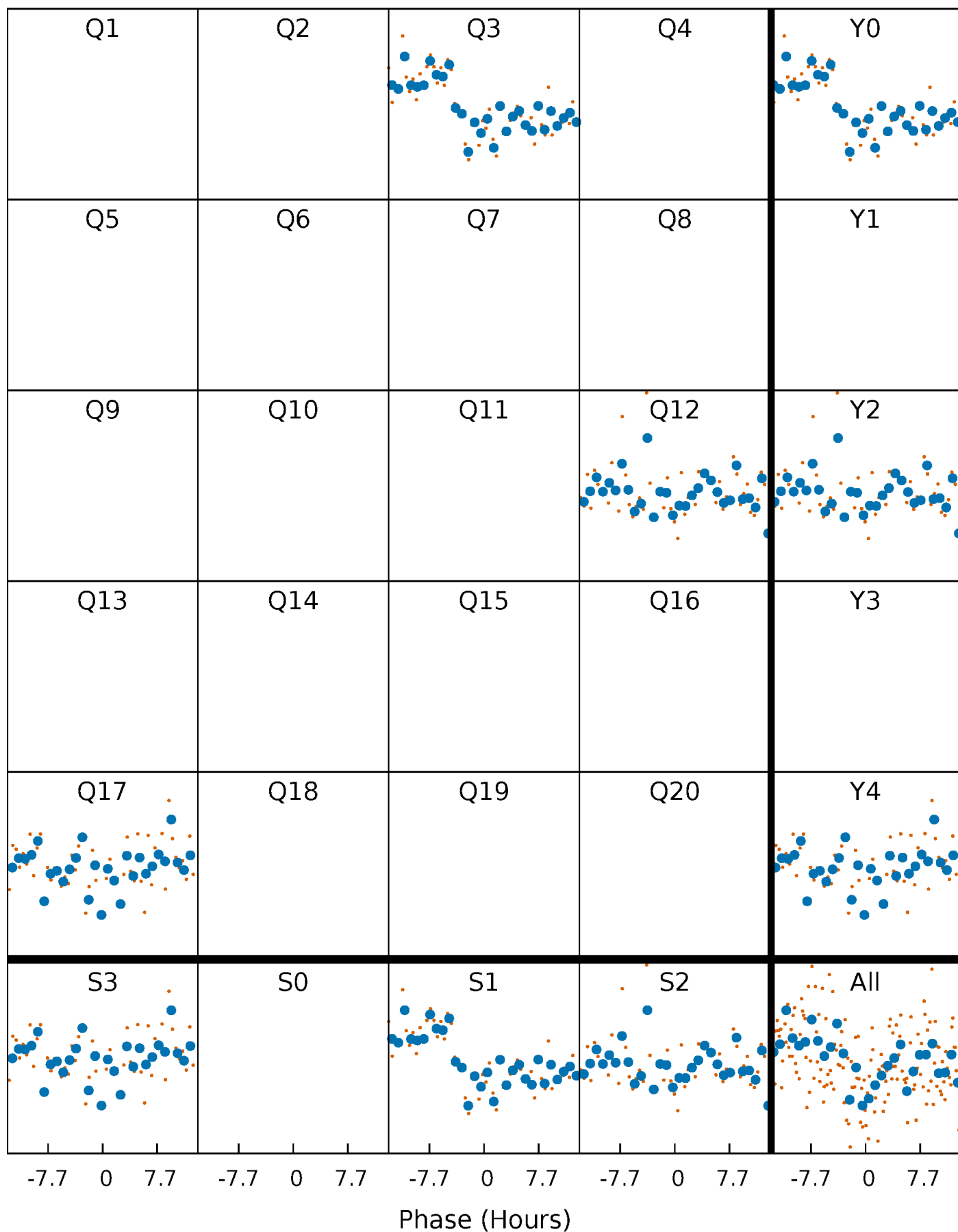


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



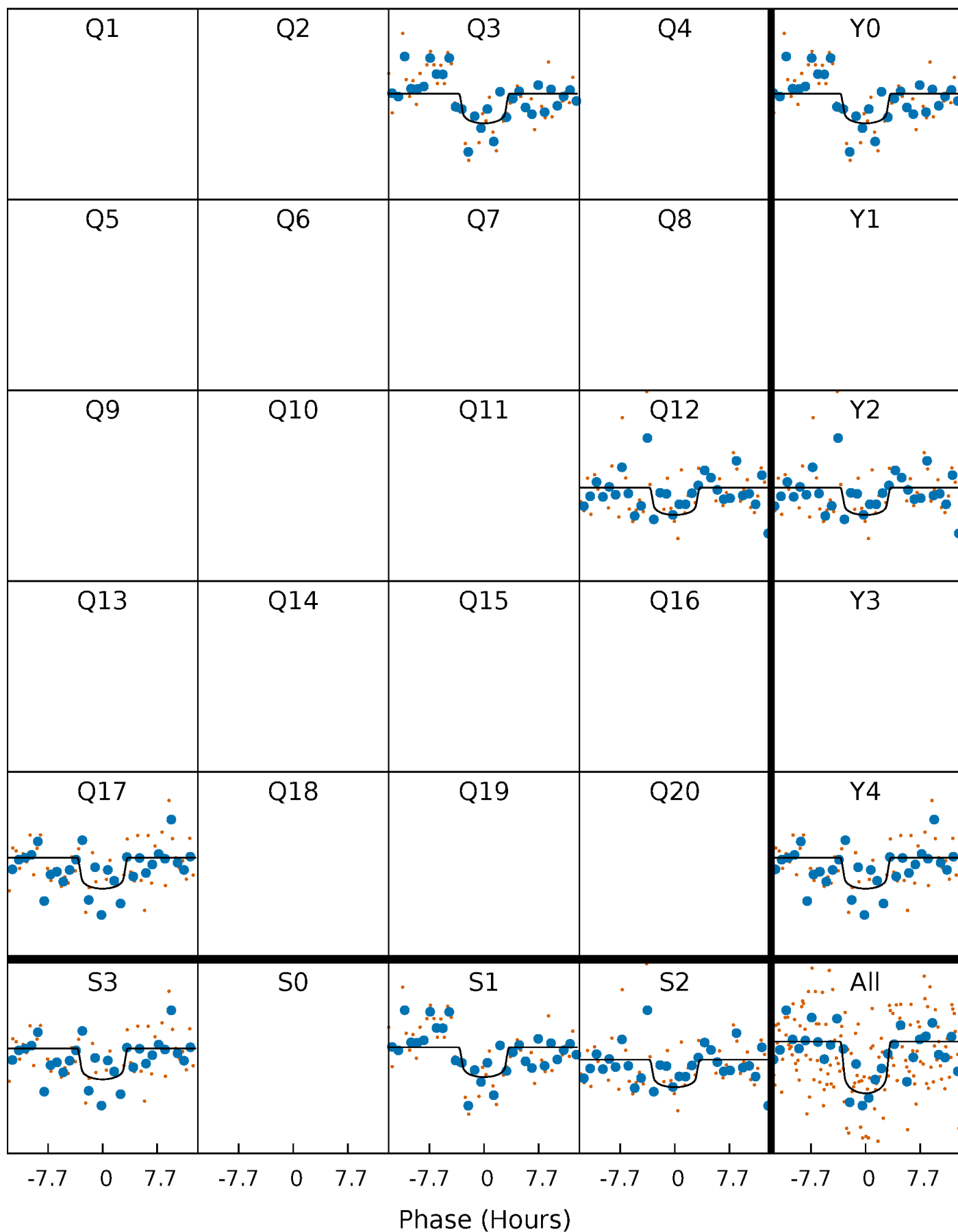
PDC Quarter-Phased Transit Curves

TCE 010924365-01 P=423.461450 Days $T_0=301.712577$ (BKJD)



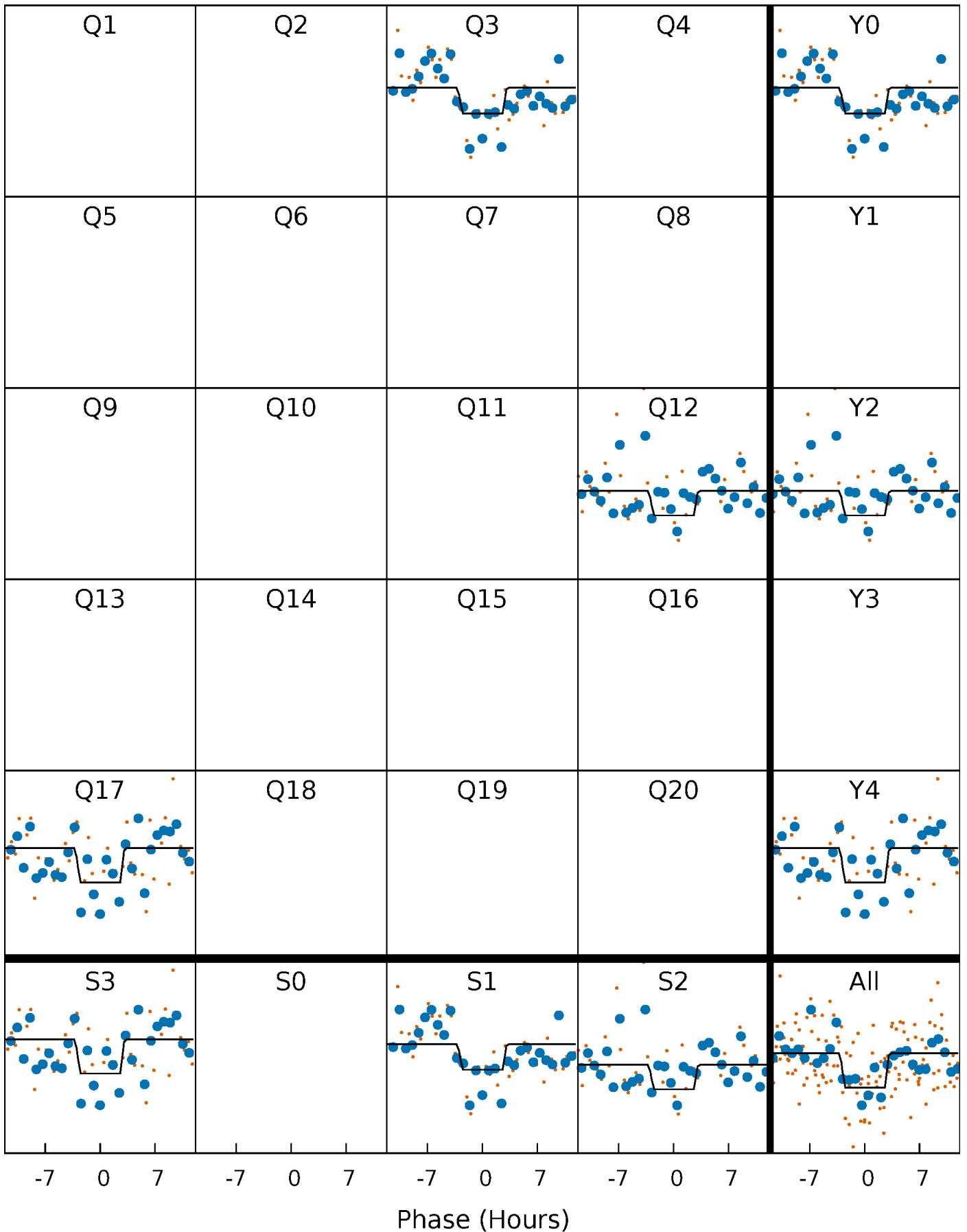
DV Quarter-Phased Transit Curves

TCE 010924365-01 P=423.461450 Days $T_0=301.712577$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

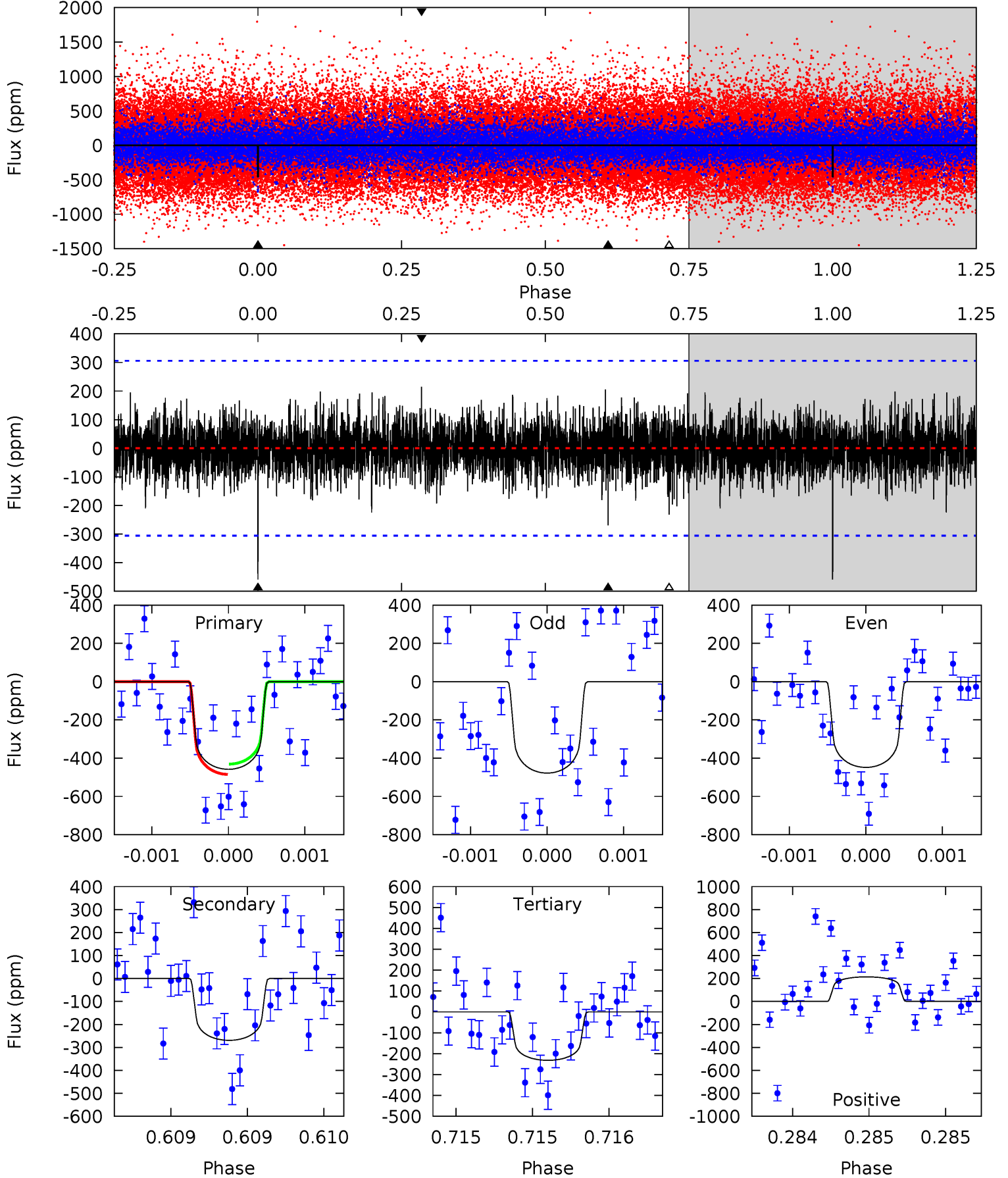
TCE 010924365-01 P=423.471909 Days $T_0=301.684013$ (BKJD)



DV Model-Shift Uniqueness Test

010924365-01, P = 423.461450 Days, E = 301.712577 Days

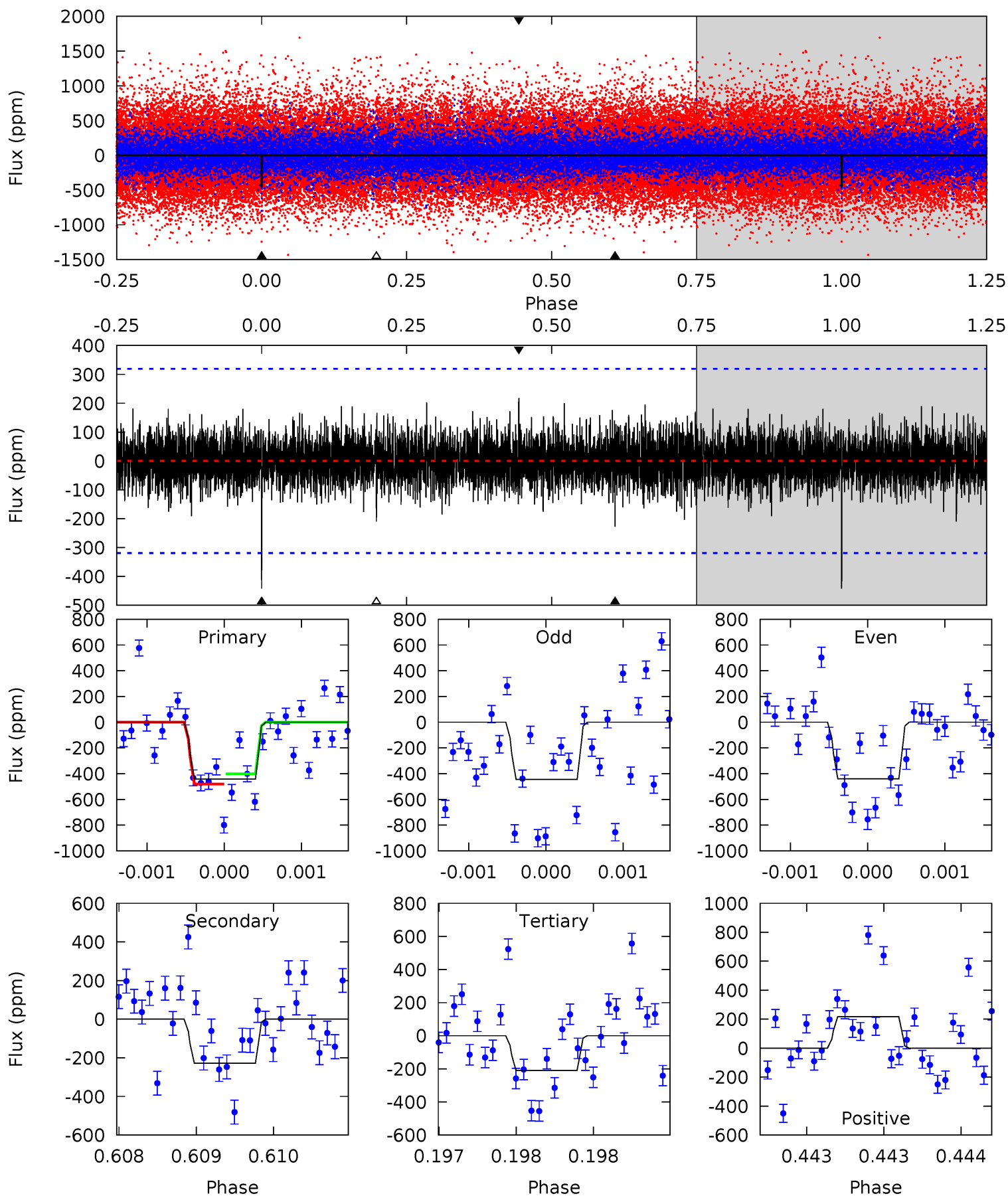
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.28	4.86	4.19	3.87	5.52	3.39	1.08	4.08	4.41	0.67	0.99	0.25	0.96	0.32	0.48



Alt Model-Shift Uniqueness Test

010924365-01, P = 423.471909 Days, E = 301.684013 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.66	3.96	3.63	3.78	5.53	3.42	0.96	4.03	3.88	0.32	0.18	0.04	0.99	0.33	0.69



Stellar Parameters For KIC 010924365

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6419^{+153}_{-211}	$4.402^{+0.062}_{-0.188}$	$-0.120^{+0.250}_{-0.300}$	$1.121^{+0.330}_{-0.141}$	$1.156^{+0.162}_{-0.146}$	$1.157^{+0.382}_{-0.558}$
	+2%/-3%	+1%/-4%	+208%/-250%	+29%/-13%	+14%/-13%	+33%/-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 010924365-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-269 ± 55	$3.33^{+2.36}_{-2.11}$	397^{+28}_{-21}	5136^{+3716}_{-1010}	$17429^{+112239}_{-11686}$
Alt.	-228 ± 58	$3.06^{+2.37}_{-1.84}$	396^{+27}_{-19}	5134^{+3275}_{-1072}	17114^{+86504}_{-11804}

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 $A_{obs} \gg 1.0$

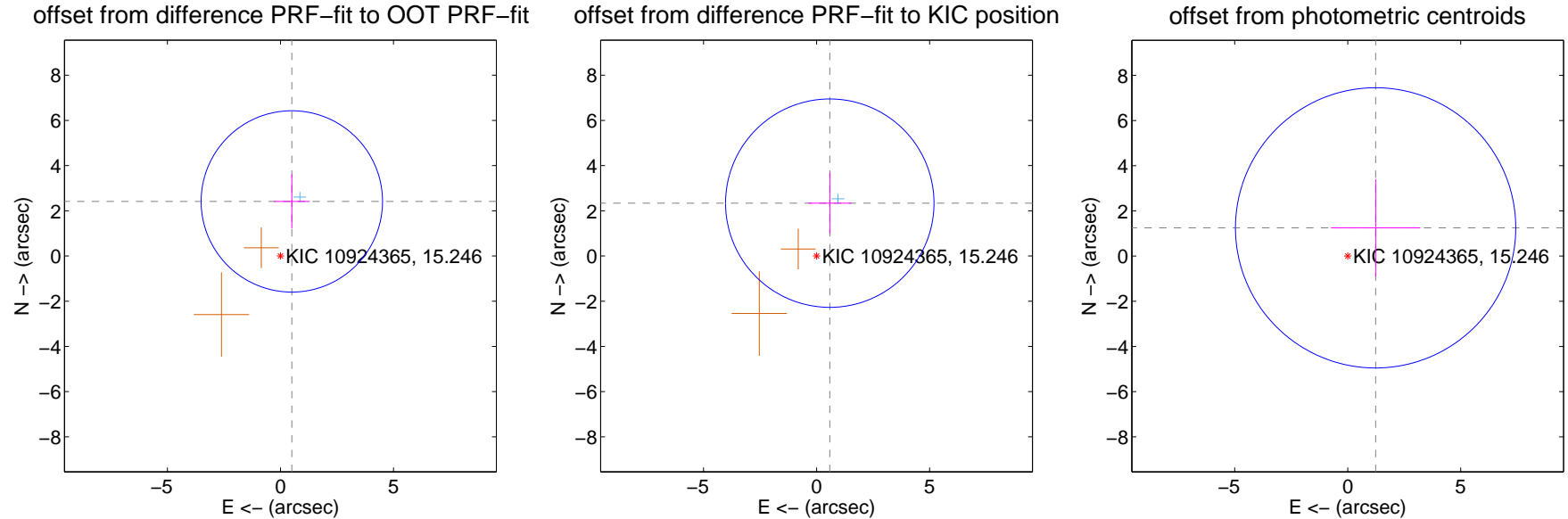
DV Centroid Data

Supplemental centroid analysis for 010924365-01. Kepler magnitude: 15.25. Transit SNR 7.26

There are 1 quarters with good PRF difference image offsets

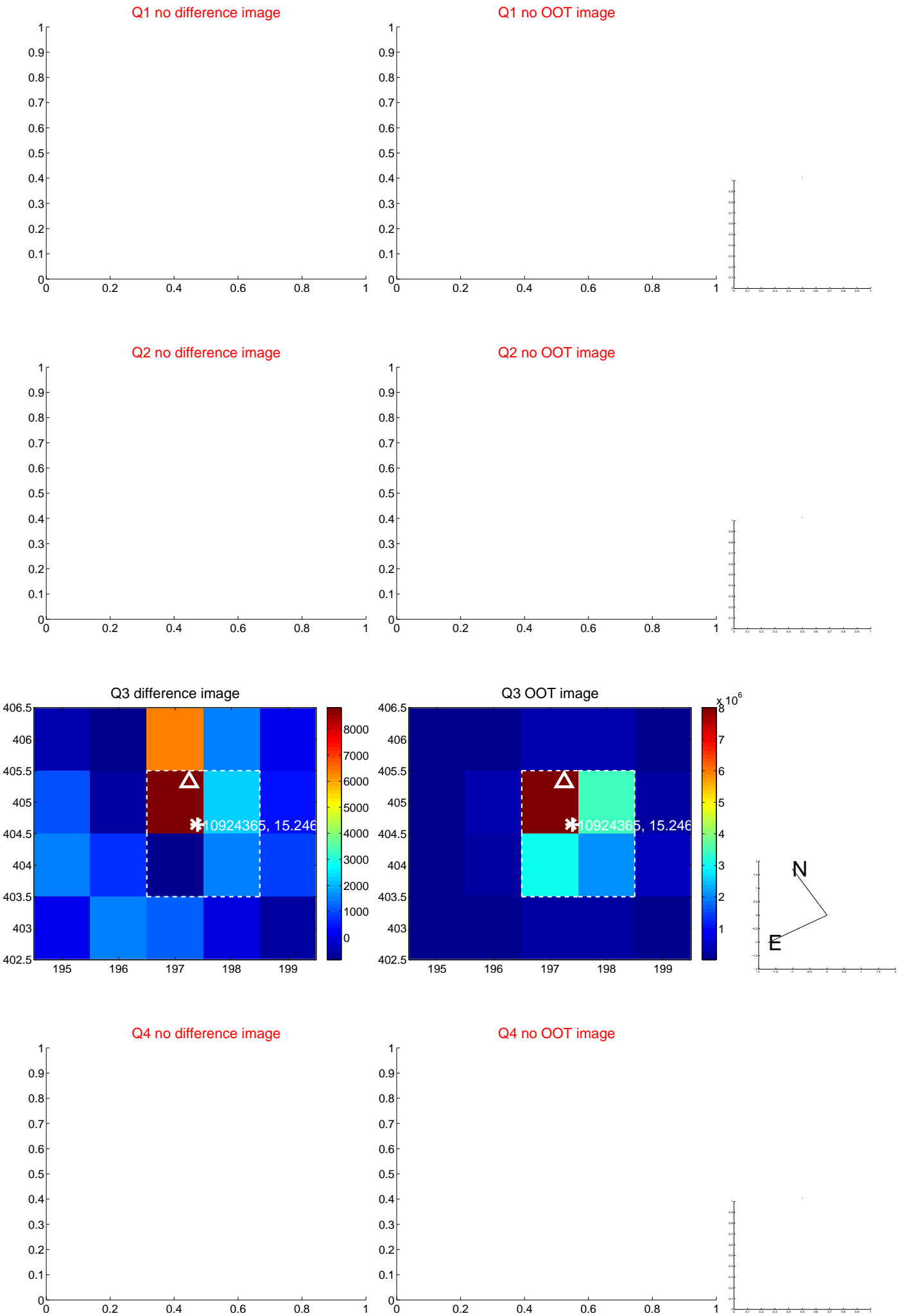
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.468 ± 1.337	1.85	-0.503 ± 0.792	2.416 ± 1.202
PRF-fit source offset from KIC position	2.411 ± 1.537	1.57	-0.584 ± 0.958	2.339 ± 1.346
photometric centroid source offset	1.76 ± 2.07	0.85	-1.23 ± 1.98	1.25 ± 2.15



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.

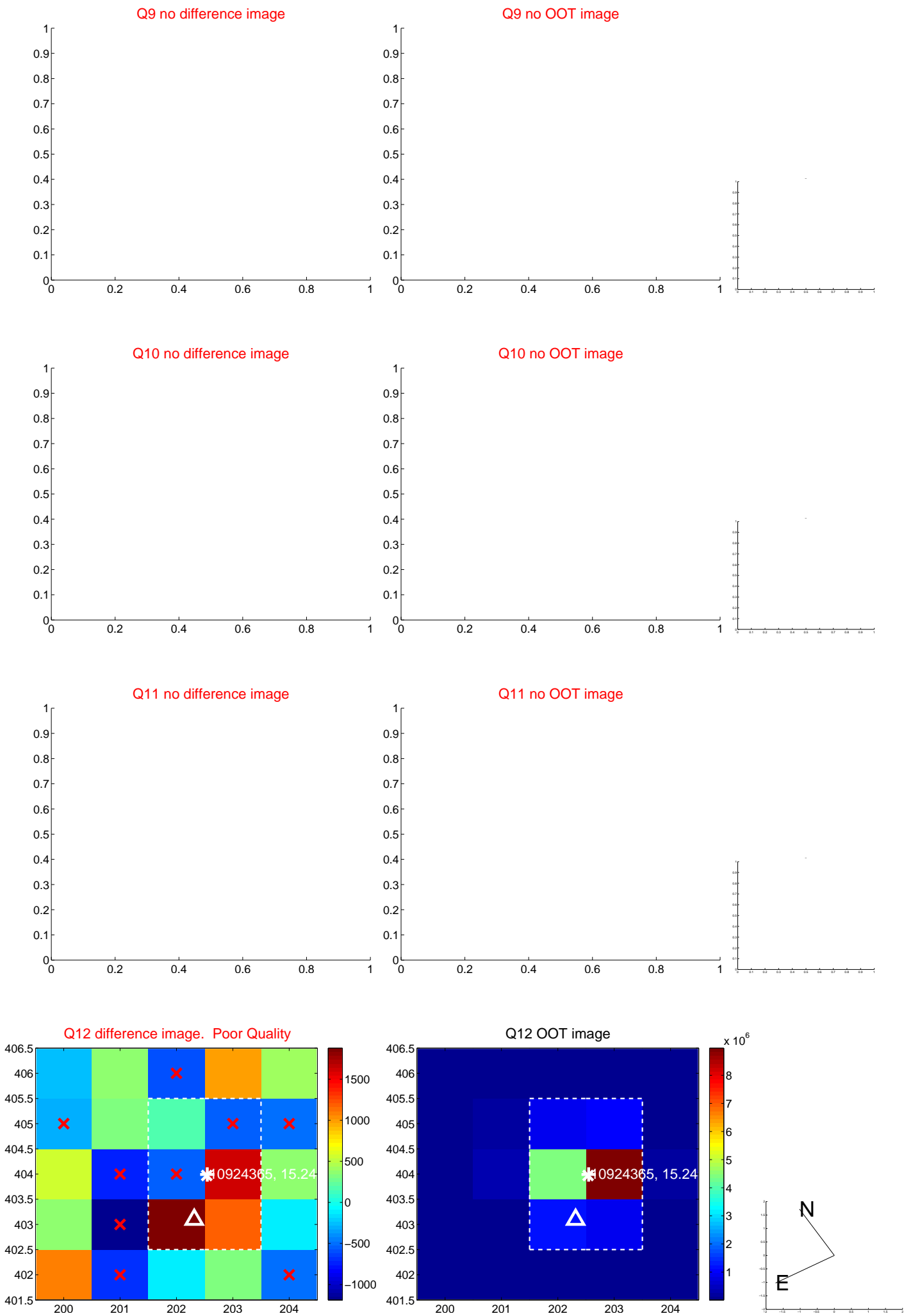
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



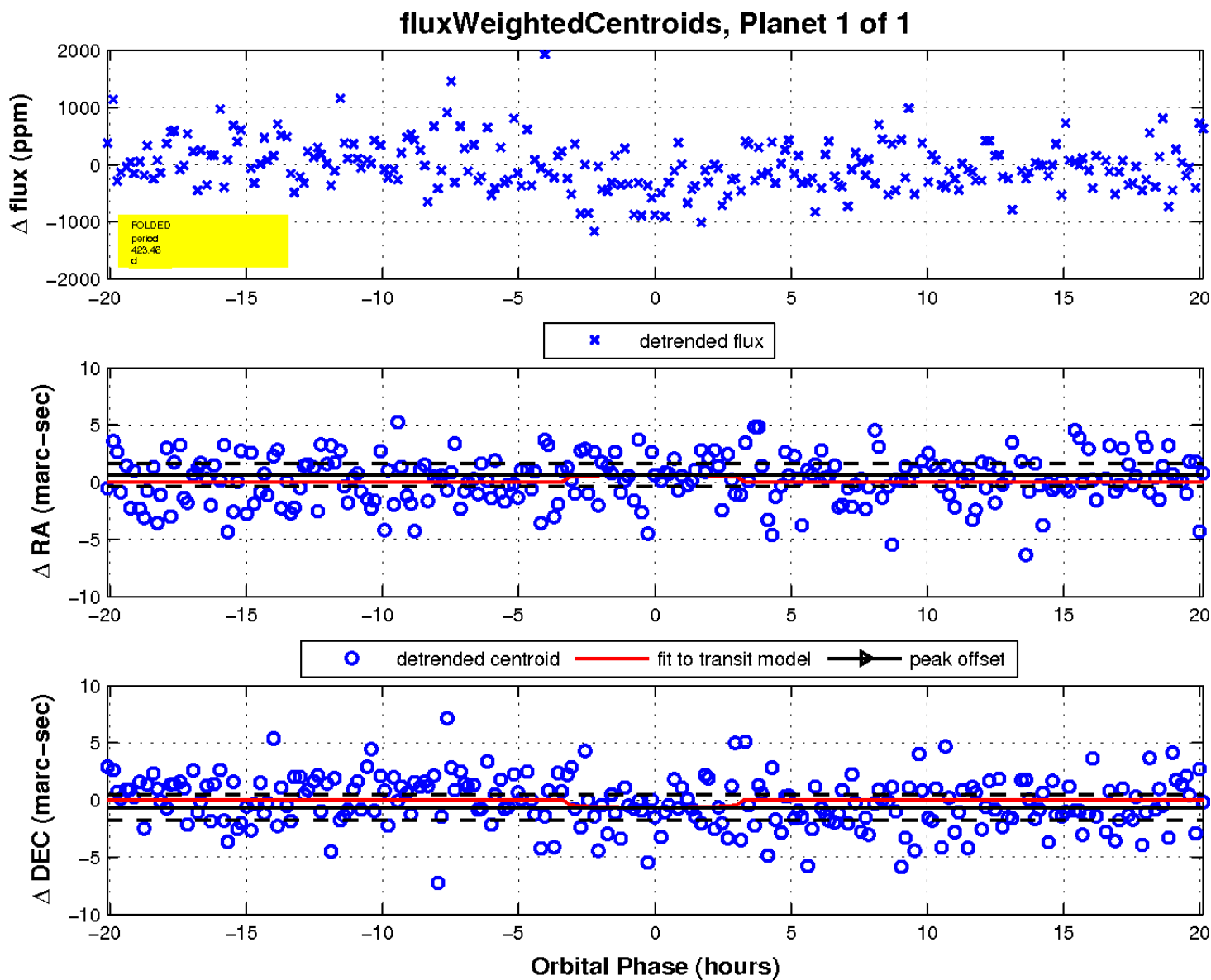
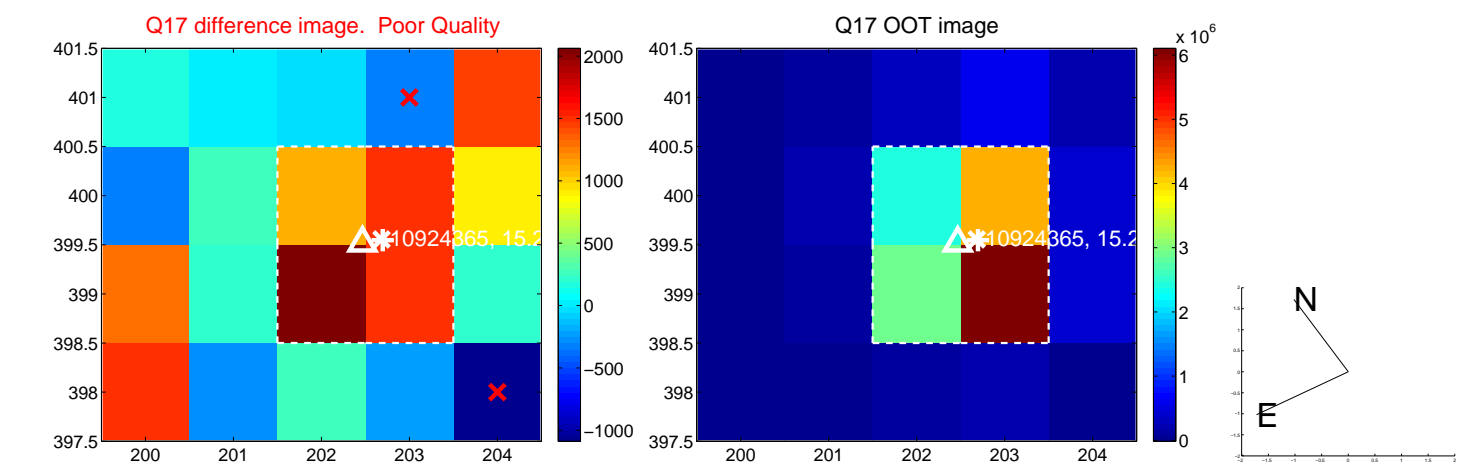
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Declination

