

KIC 011243044

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})
011243044-01	OBS	No	370.290181	174.139092	866.8	3.875	7.2	7.7	0.94	5751	3.02	0.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011243044-01	OBS	FP	0.01	1	0	0	0	MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

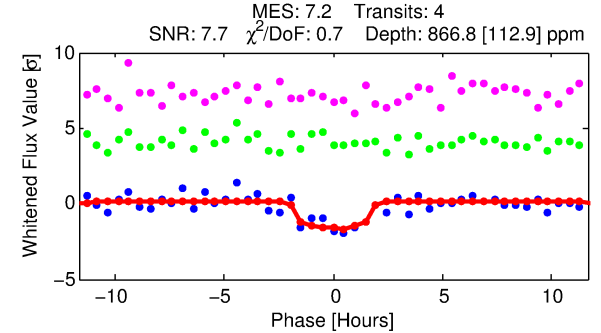
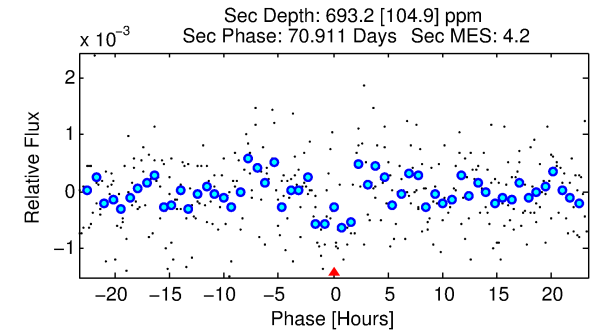
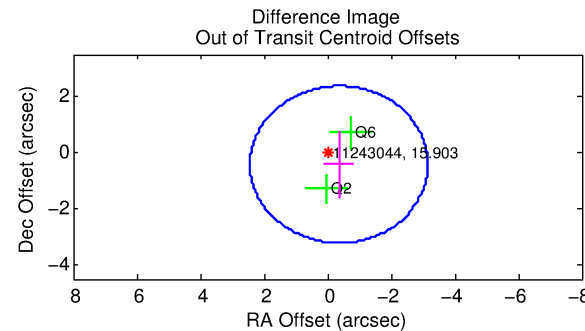
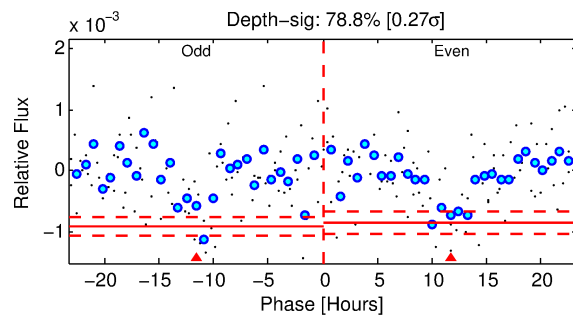
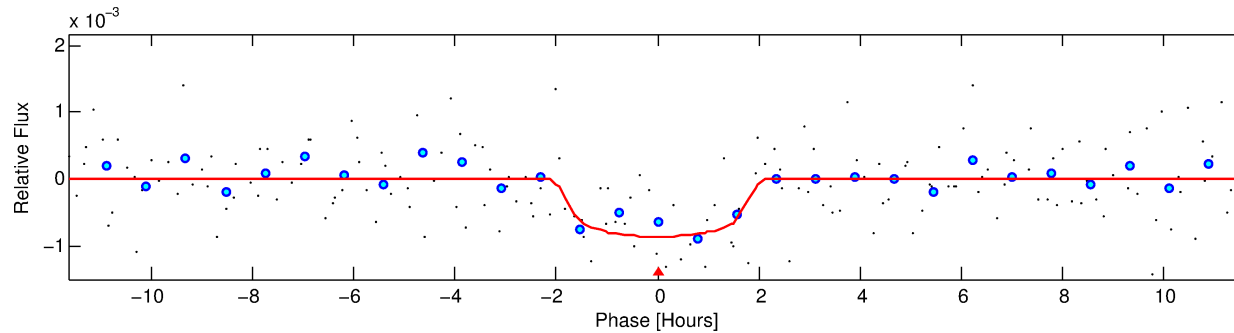
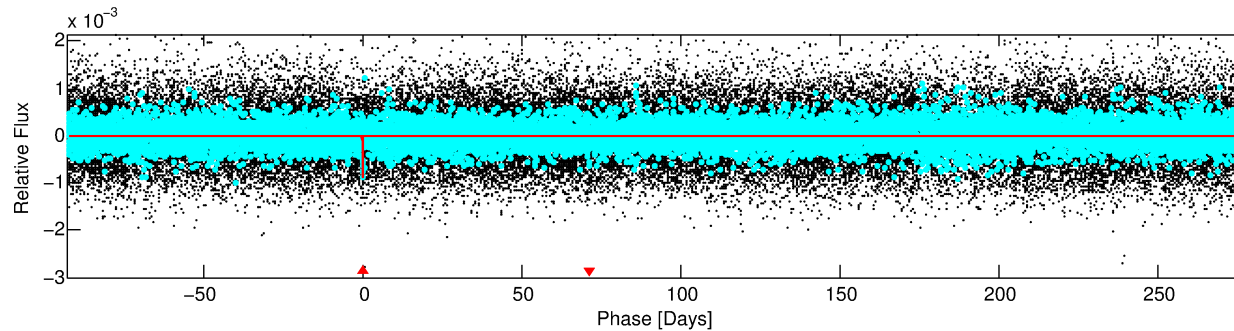
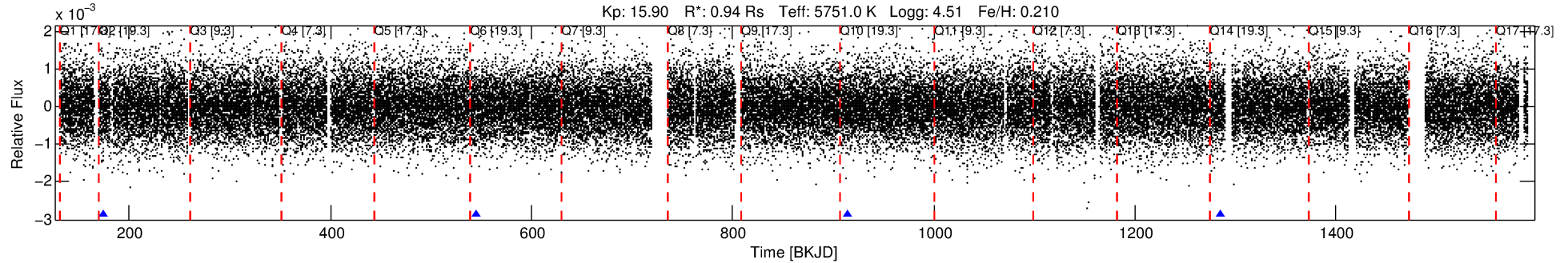
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011243044-01

No Significant Match Found

DV One-Page Summary

KIC: 11243044 Candidate: 1 of 1 Period: 370.290 d



DV Fit Results:

Period = 370.29018 [0.00510] d
Epoch = 174.1391 [0.0092] BKJD
Rp/R* = 0.0294 [0.0382]
a/R* = 511.47 [2808.24]
b = 0.75 [3.20]
Seff = 0.82 [0.33]
Teq = 243 [25] K
Rp = 3.02 [4.04] Re
a = 1.0290 [0.2647] AU
Ag = 44168.48 [116365.78] [0.38 σ]
Teffp = 5444 [3552] K [1.46 σ]

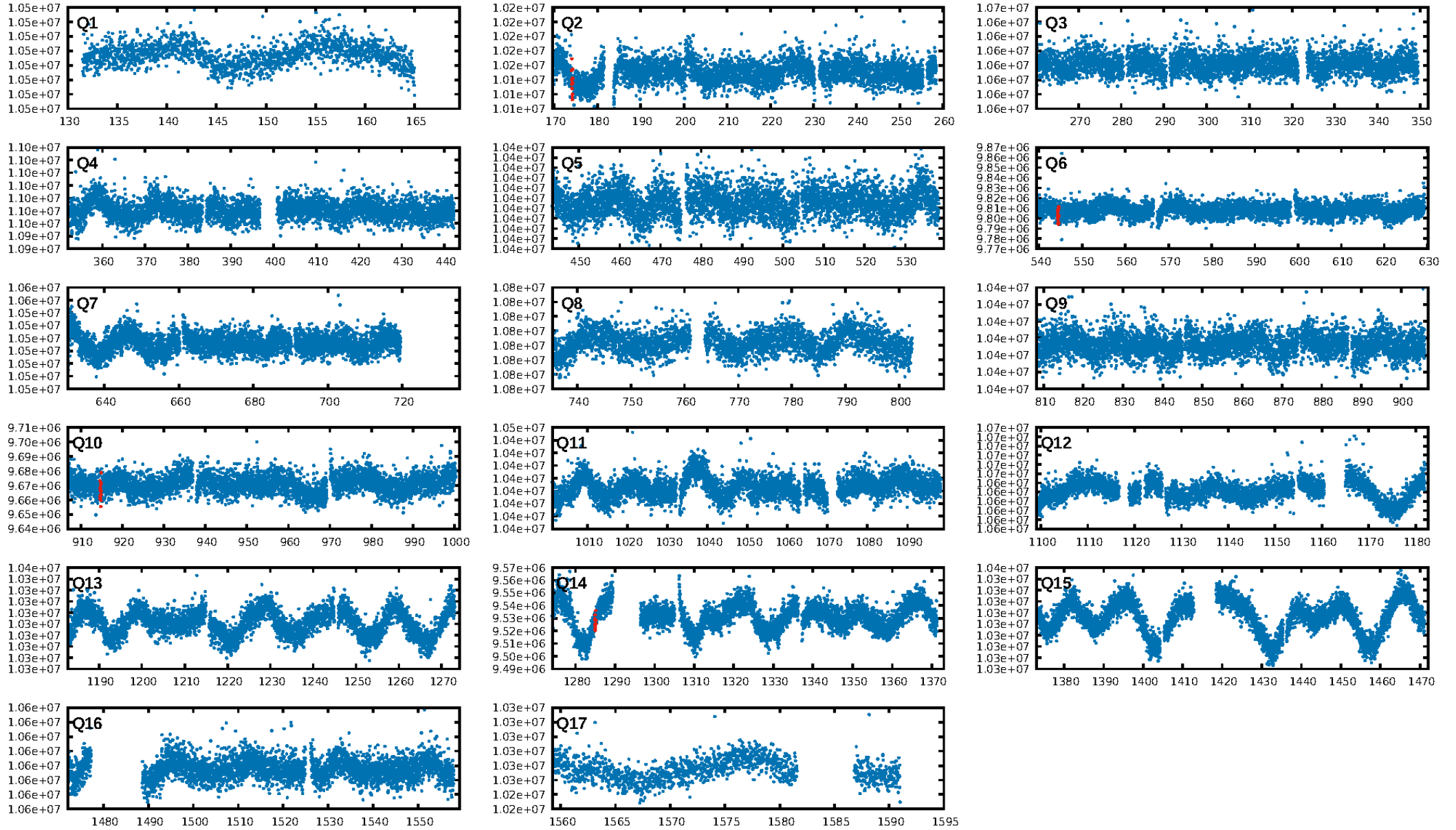
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 40.1%
ModelChiSquareGof-sig: 99.6%
Bootstrap-pfa: 2.90e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 2.519
Centroid-sig: 70.1%
Centroid-so: 1.042 arcsec [0.64 σ]
OotOffset-rm: 0.553 arcsec [0.59 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-rm: 0.664 arcsec [0.69 σ]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [4/4]

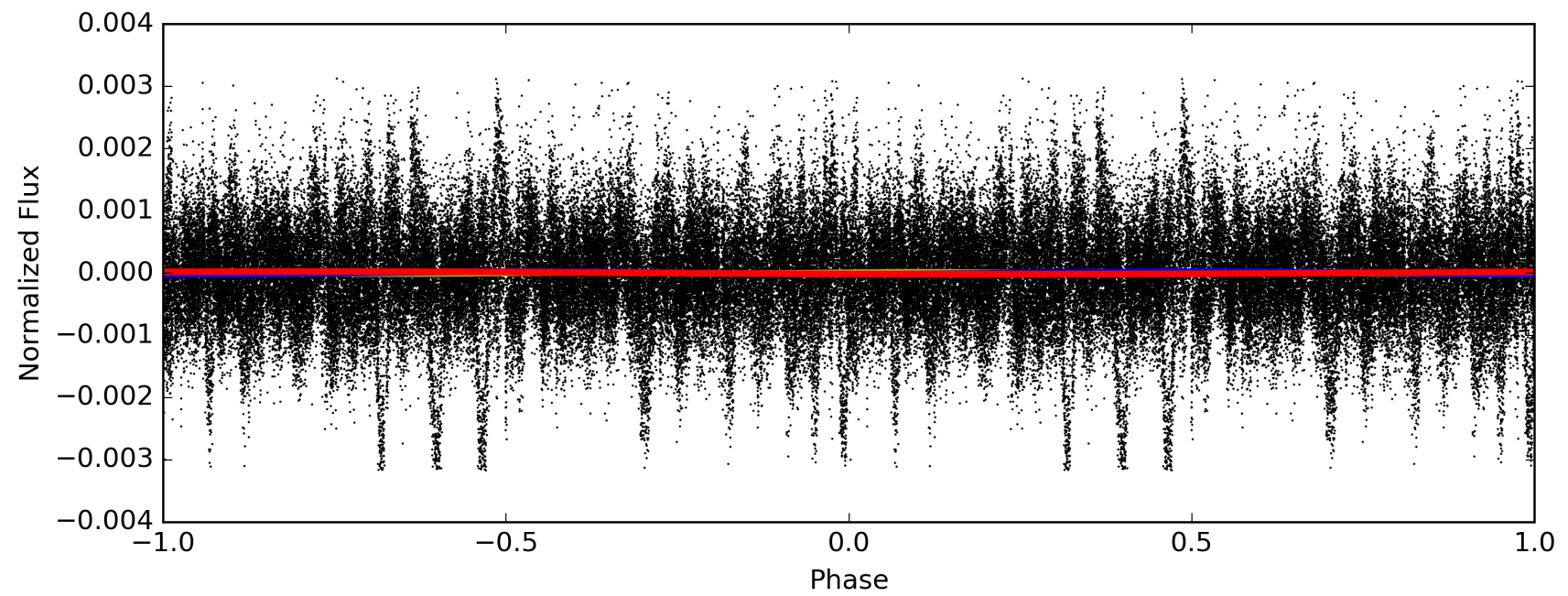
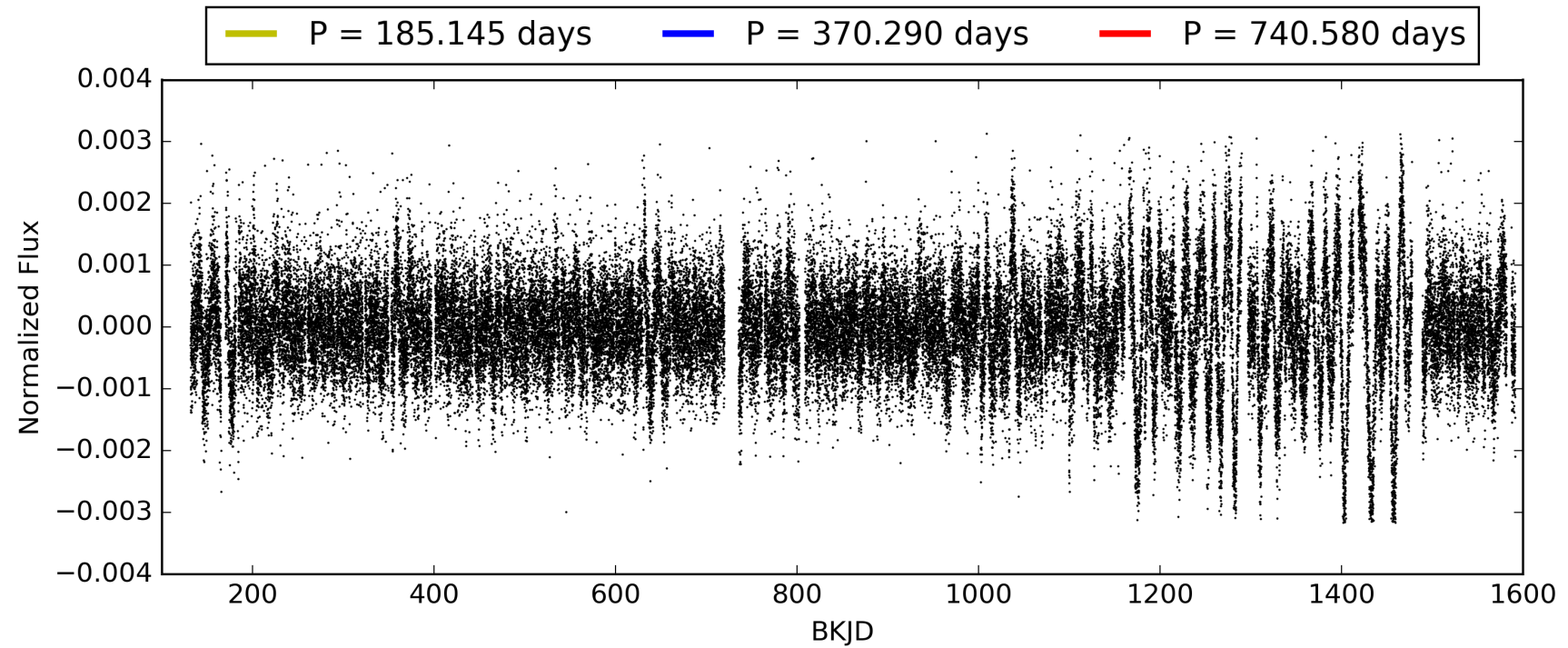
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:43:59 Z

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

TCE 011243044-01, PDC Light Curves

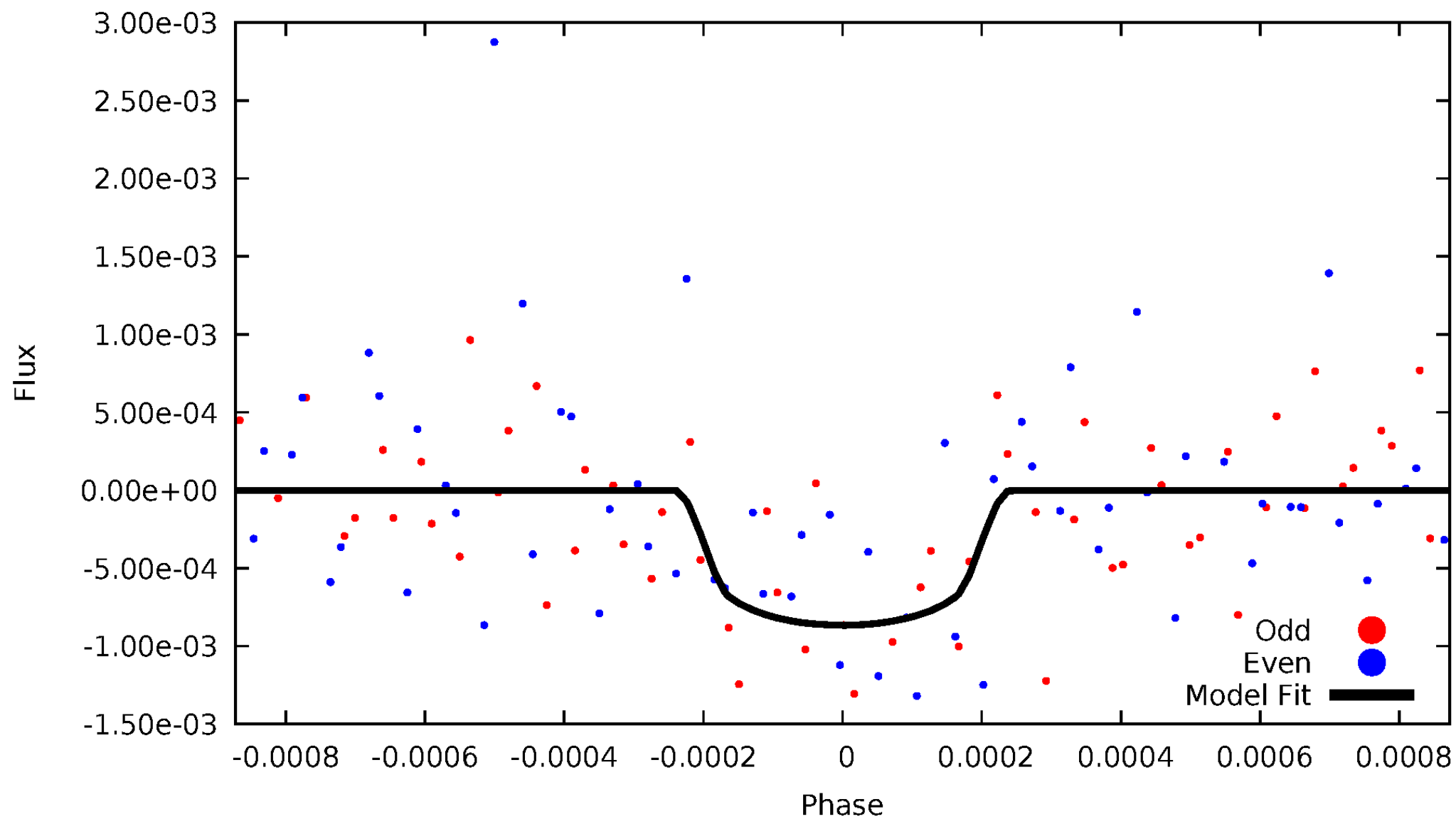


TCE 011243044-01



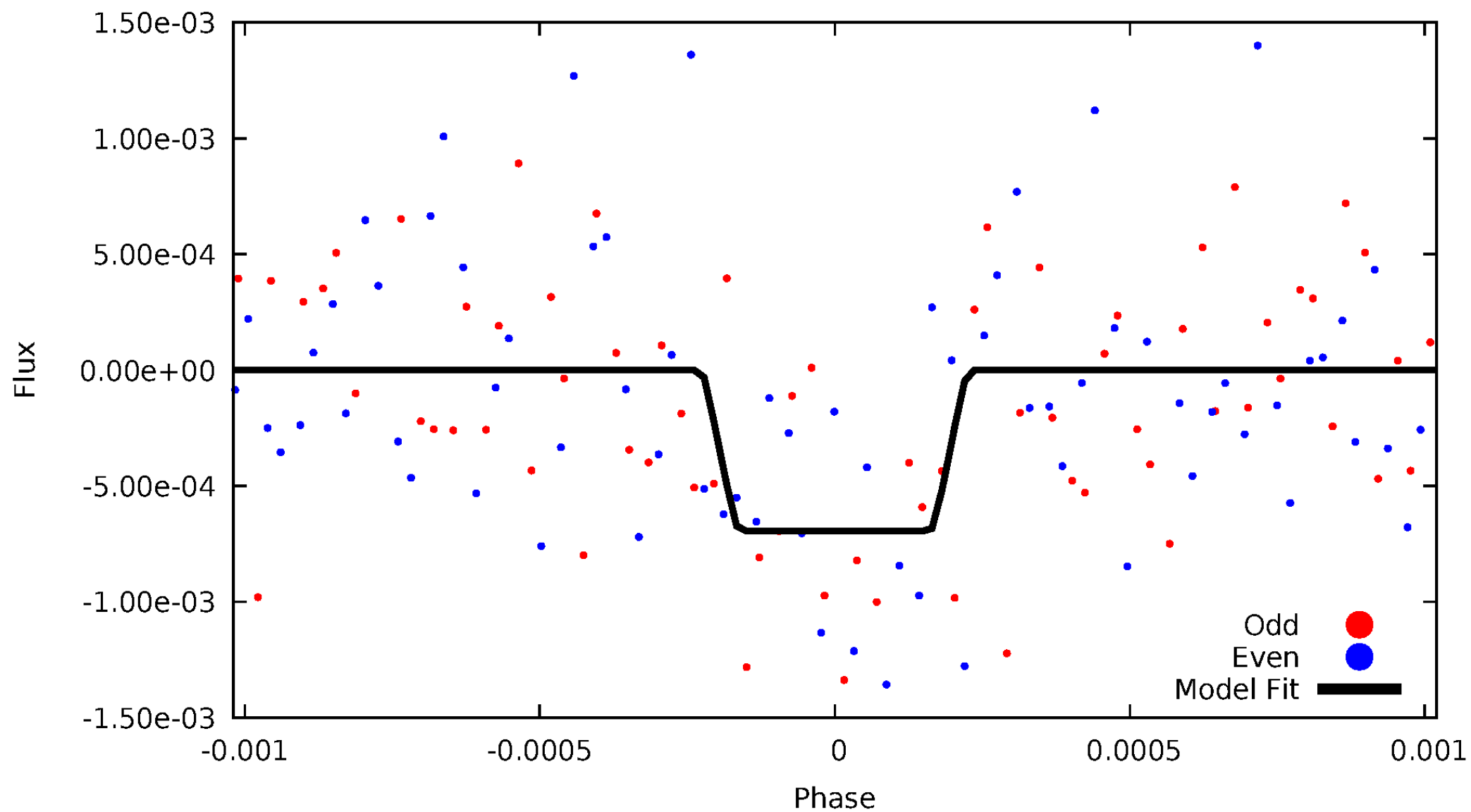
DV Odd/Even

TCE 011243044-01

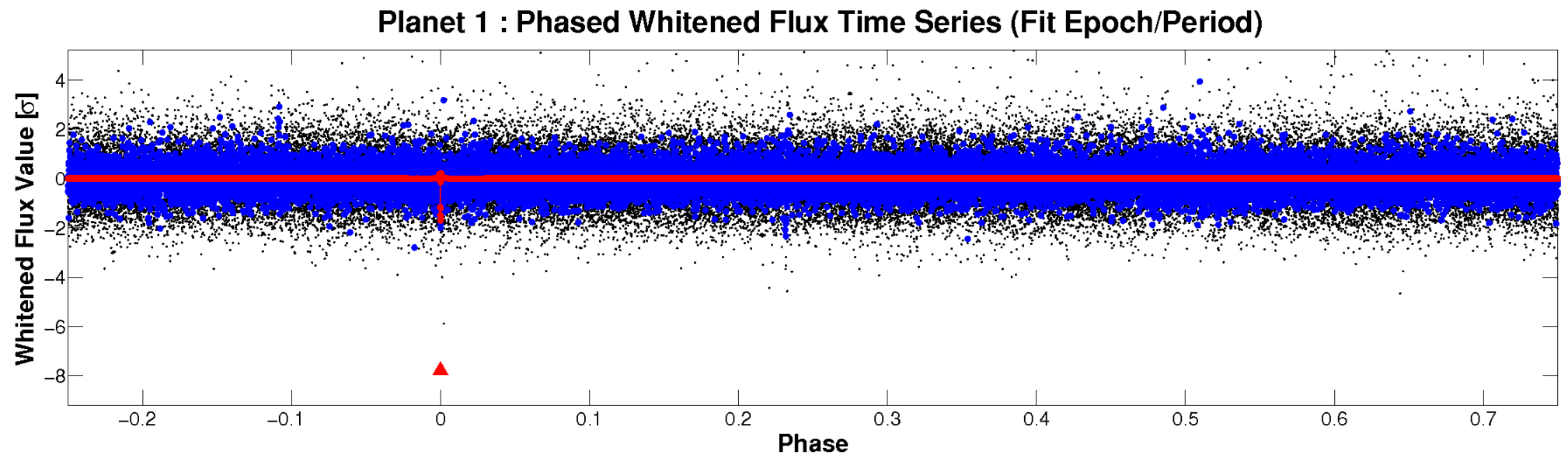
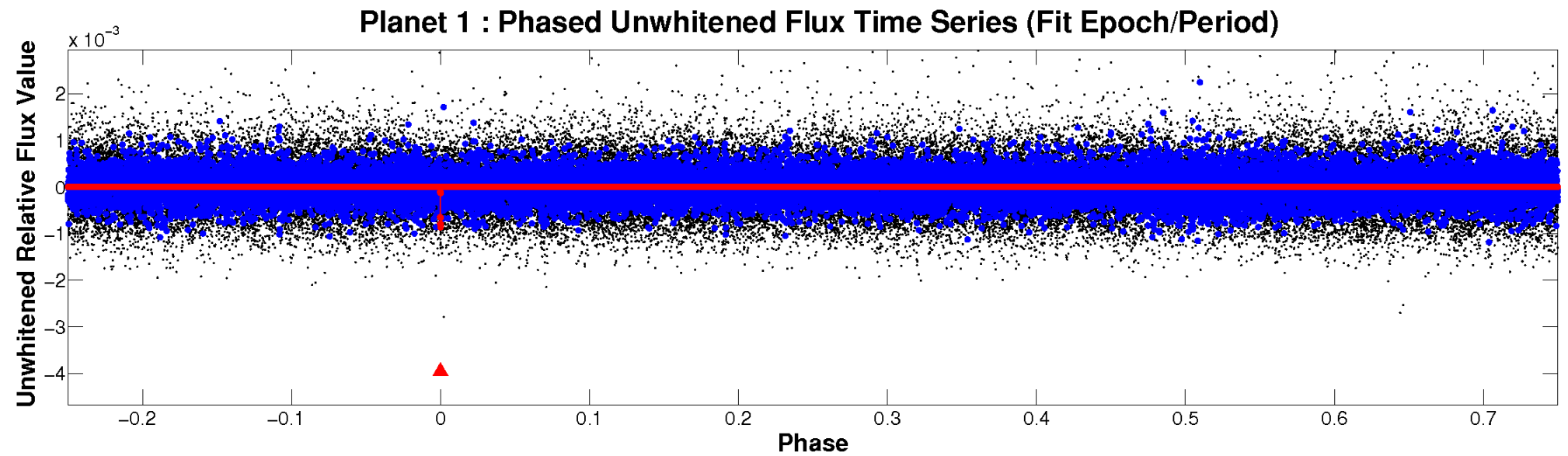


ALT Odd/Even

TCE 011243044-01

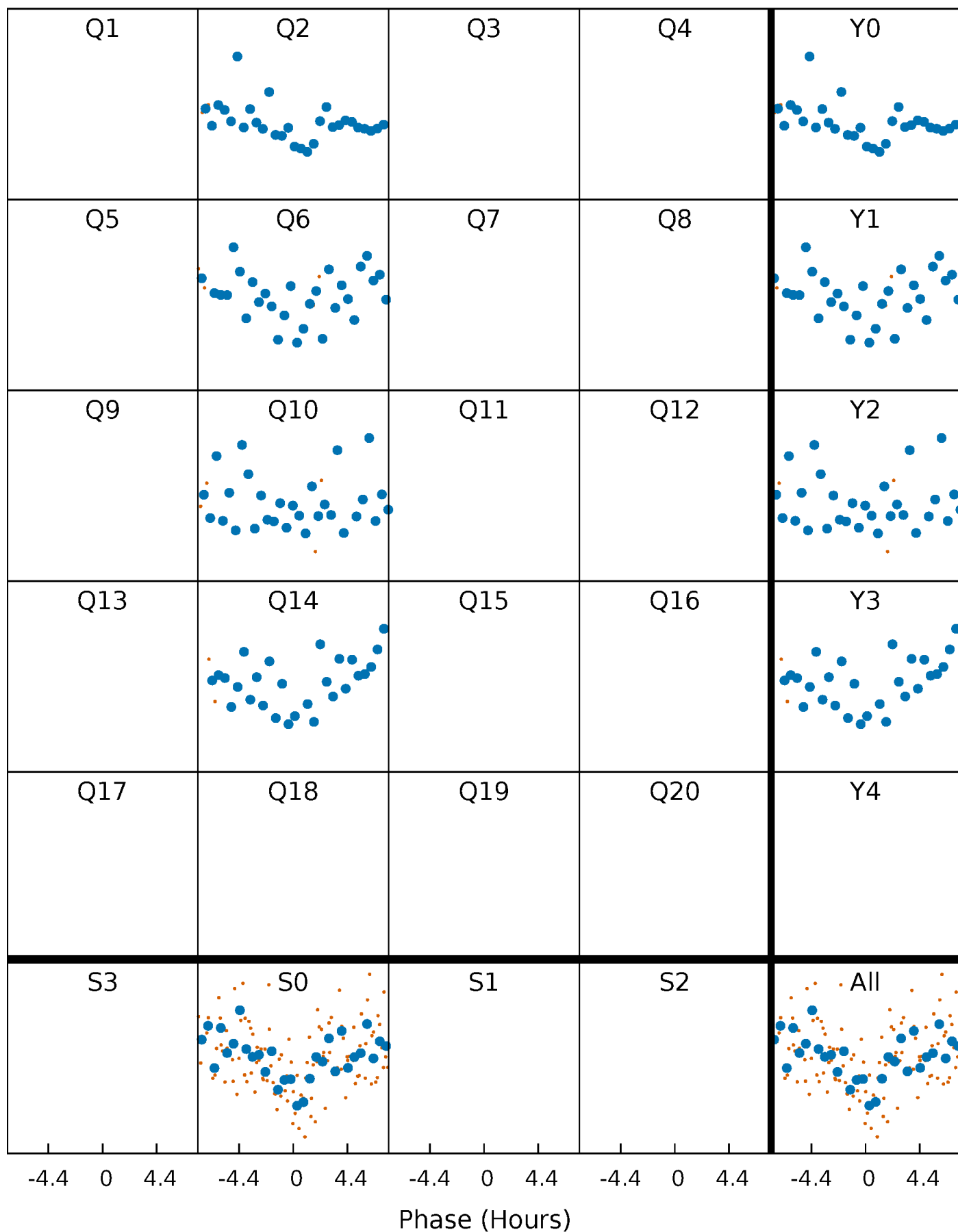


Non-Whitened Vs. Whitened Light Curve



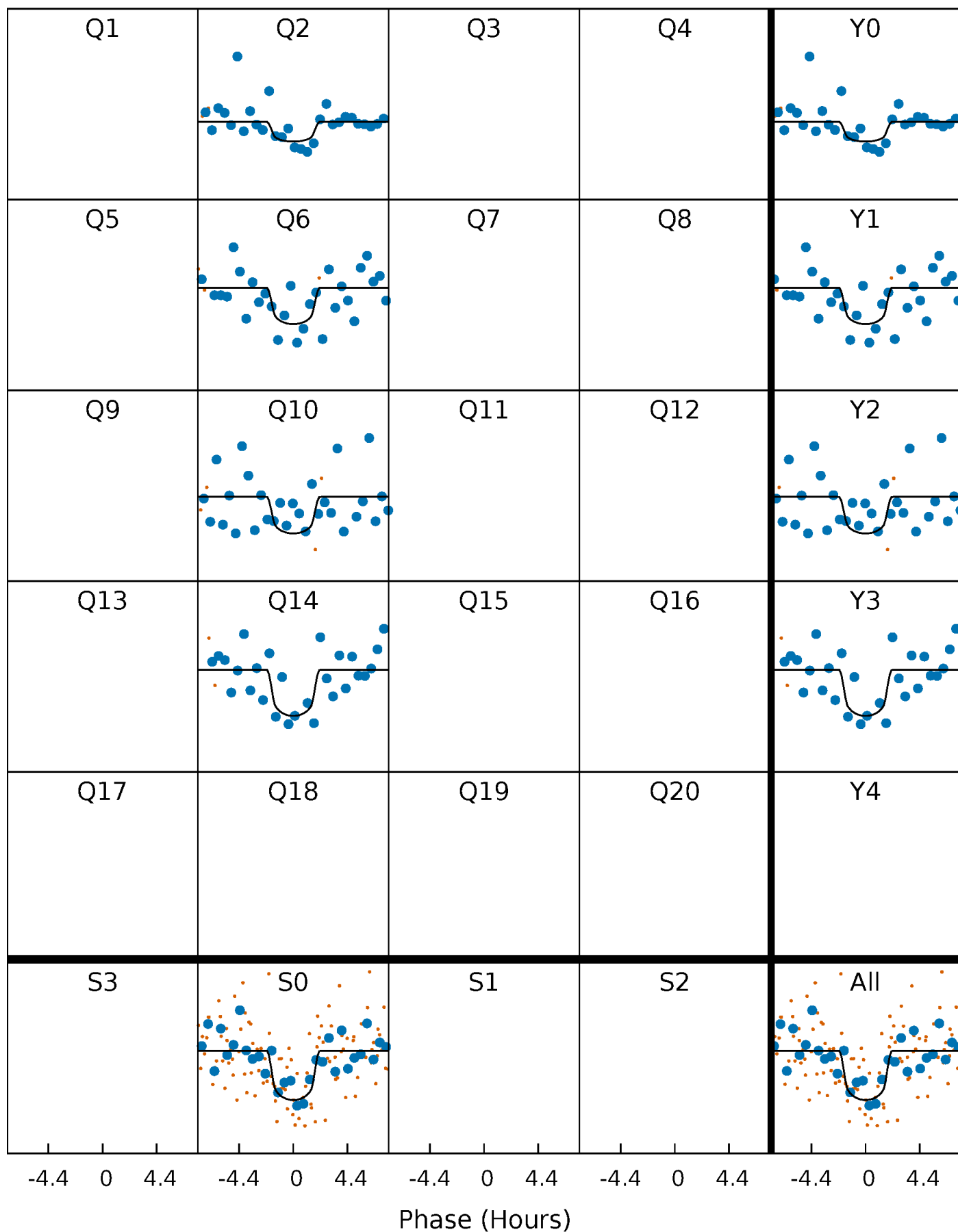
PDC Quarter-Phased Transit Curves

TCE 011243044-01 P=370.290182 Days $T_0=174.139092$ (BKJD)



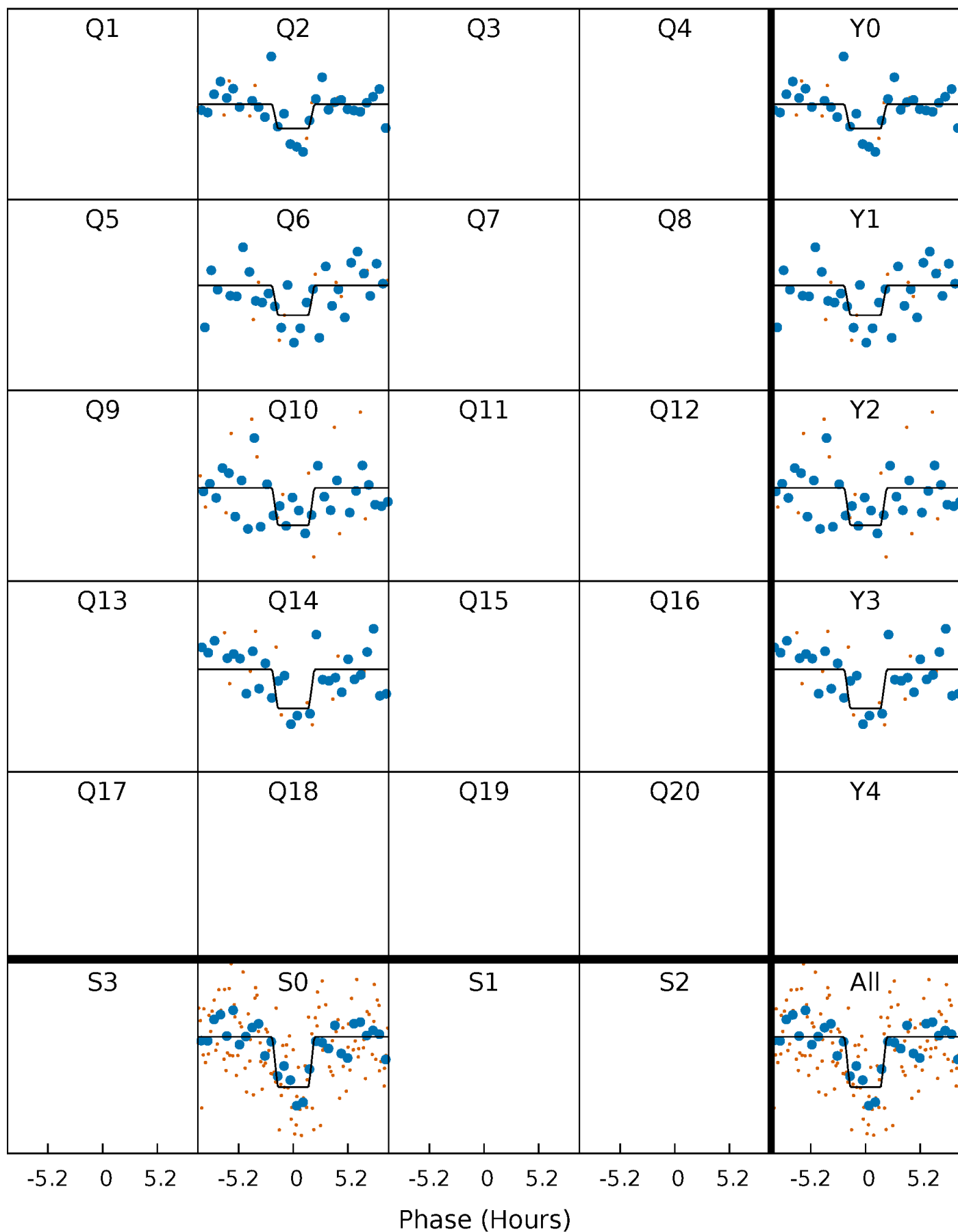
DV Quarter-Phased Transit Curves

TCE 011243044-01 P=370.290182 Days $T_0=174.139092$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

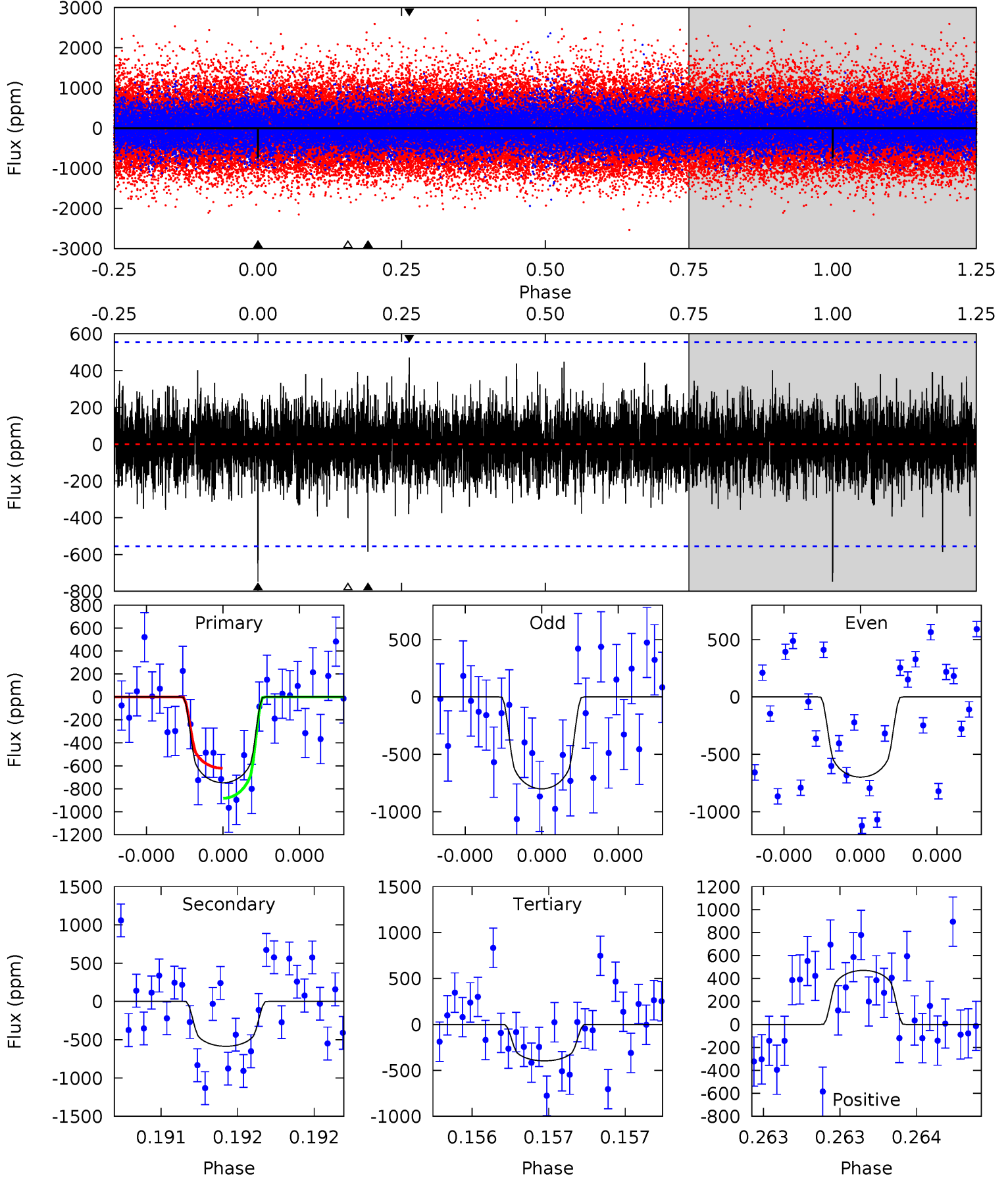
TCE 011243044-01 P=370.283352 Days $T_0=174.146299$ (BKJD)



DV Model-Shift Uniqueness Test

011243044-01, P = 370.290182 Days, E = 174.139092 Days

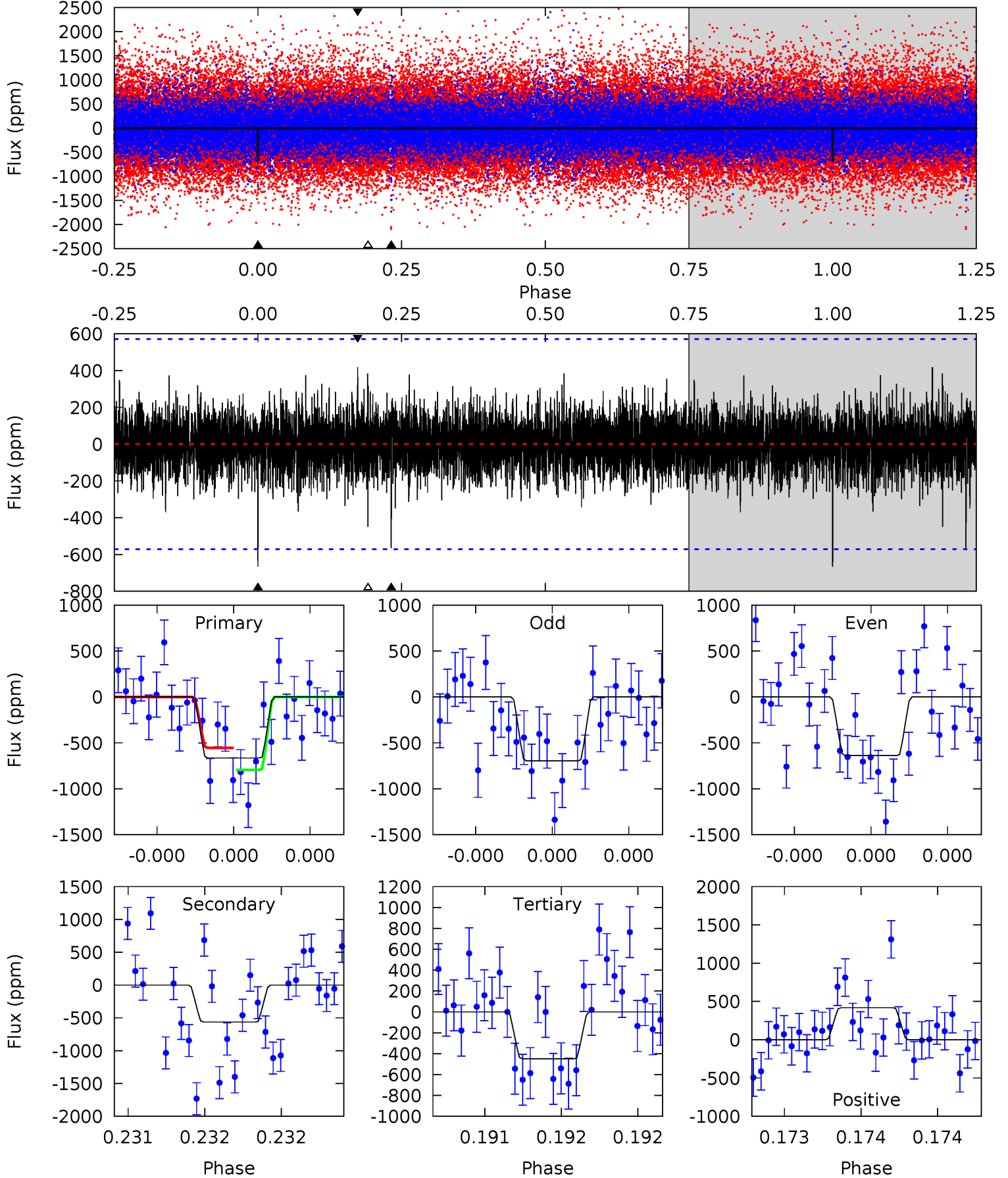
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.53	5.90	3.99	4.74	5.59	3.50	1.14	3.53	2.79	1.90	1.16	0.51	0.94	0.39	1.32



Alt Model-Shift Uniqueness Test

011243044-01, P = 370.283352 Days, E = 174.146299 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.52	5.53	4.39	4.09	5.59	3.51	1.01	2.13	2.43	1.13	1.43	0.29	0.97	0.39	1.17



Stellar Parameters For KIC 011243044

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5751^{+154}_{-188}	$4.514^{+0.037}_{-0.213}$	$0.210^{+0.200}_{-0.300}$	$0.943^{+0.281}_{-0.088}$	$1.060^{+0.100}_{-0.133}$	$1.777^{+0.352}_{-0.906}$
	+3%/-3%	+1%/-5%	+95%/-143%	+30%/-9%	+9%/-13%	+20%/-51%
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 011243044-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-586 ± 99	$4.63^{+3.45}_{-3.03}$	348^{+24}_{-17}	4526^{+3102}_{-859}	$15678^{+116193}_{-10610}$
Alt.	-564 ± 102	$4.07^{+4.01}_{-2.52}$	349^{+27}_{-17}	4717^{+2906}_{-1003}	$19115^{+118540}_{-14187}$

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 $A_{obs} \gg 1.0$

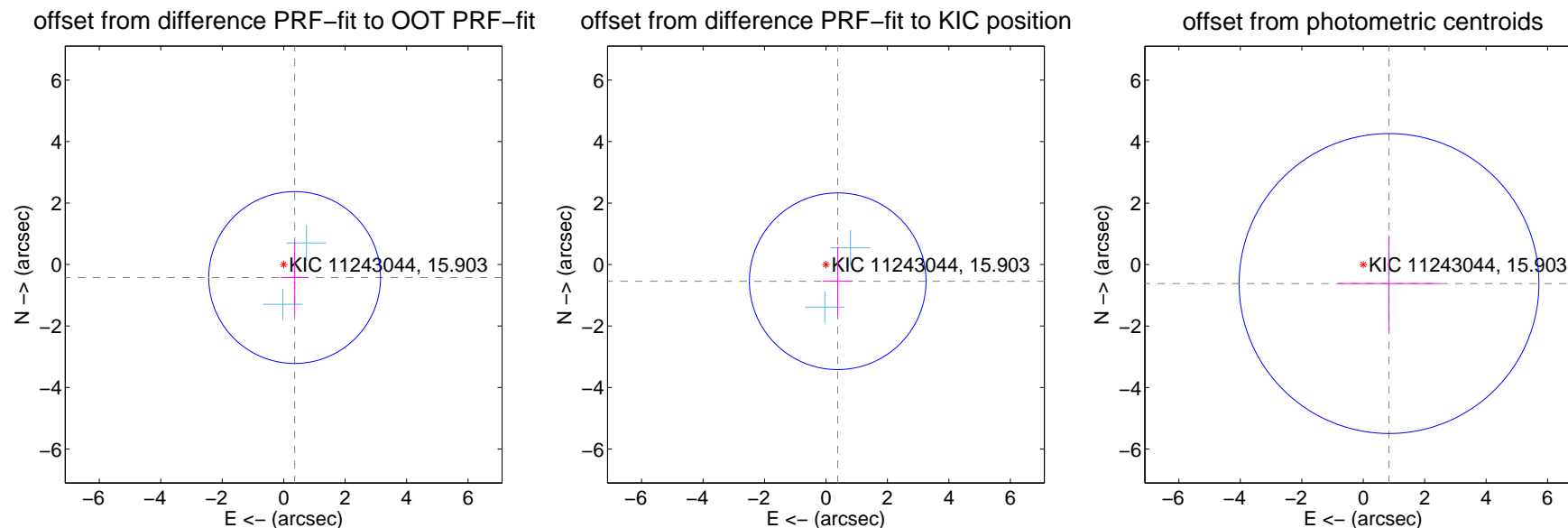
DV Centroid Data

Supplemental centroid analysis for 011243044-01. Kepler magnitude: 15.90. Transit SNR 7.70

There are 2 quarters with good PRF difference image offsets

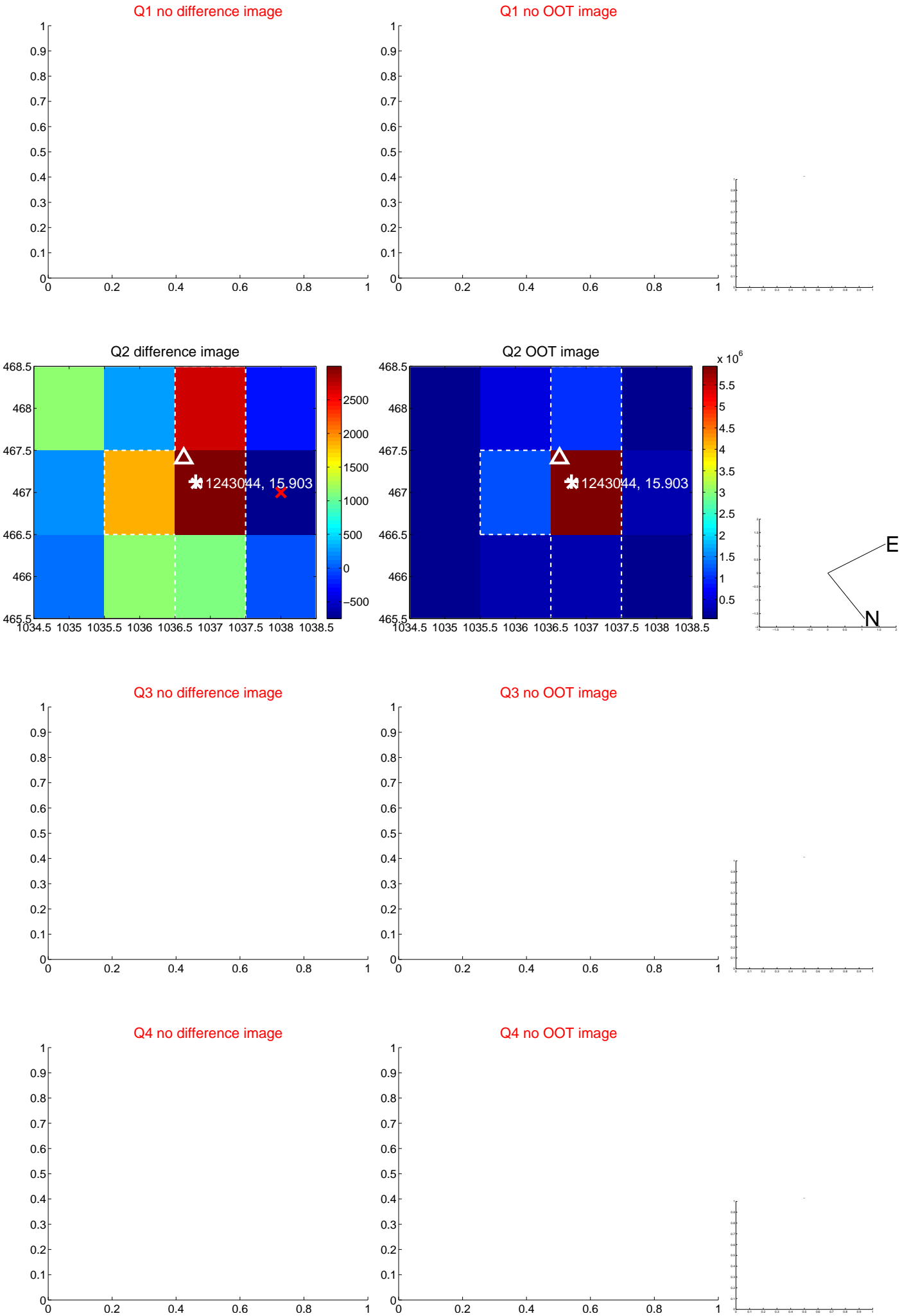
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.553 ± 0.932	0.59	-0.357 ± 0.454	-0.423 ± 1.157
PRF-fit source offset from KIC position	0.664 ± 0.958	0.69	-0.382 ± 0.492	-0.543 ± 1.119
photometric centroid source offset	1.04 ± 1.63	0.64	-0.84 ± 1.66	-0.62 ± 1.56

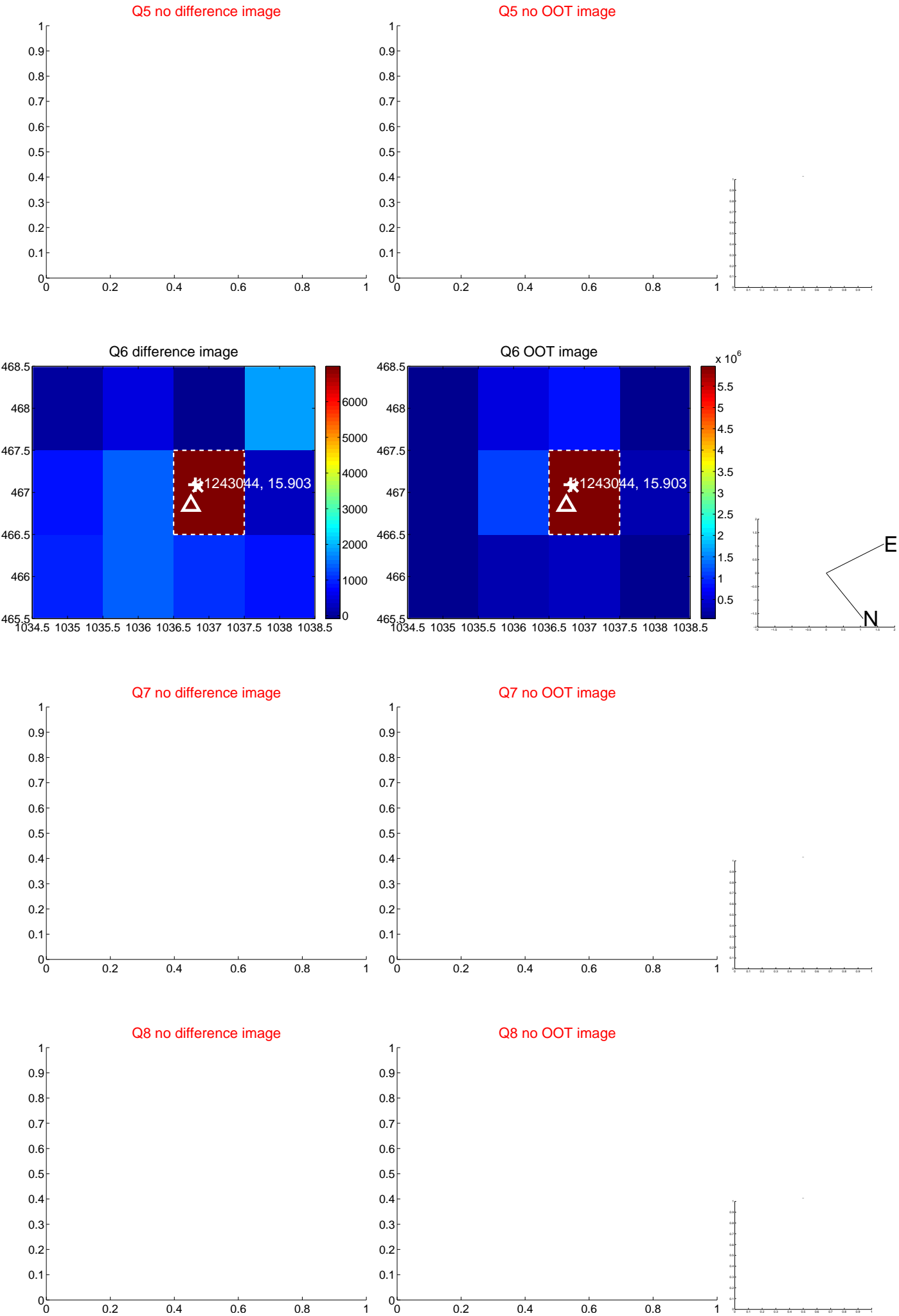


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

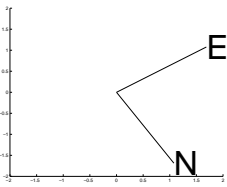
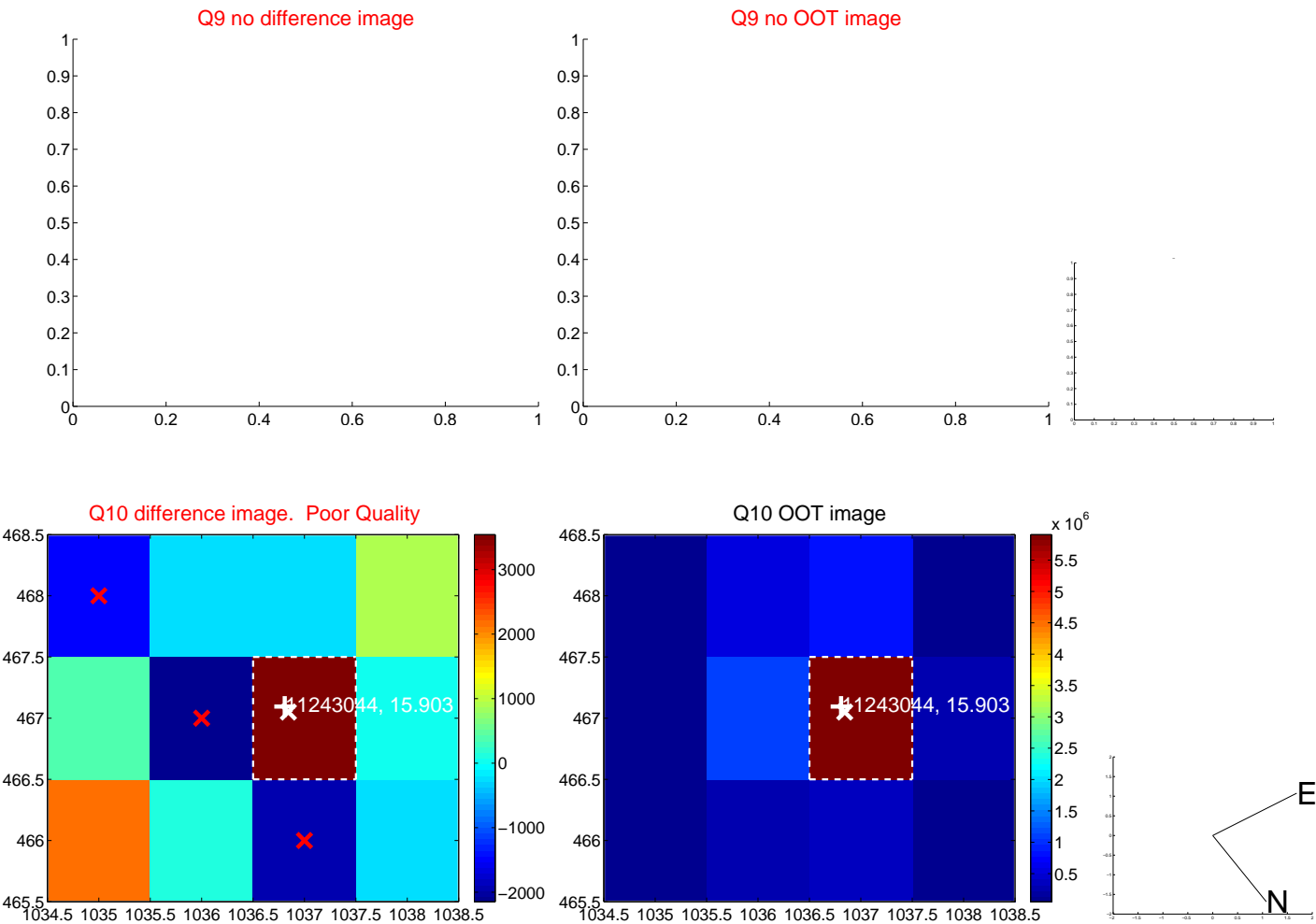
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



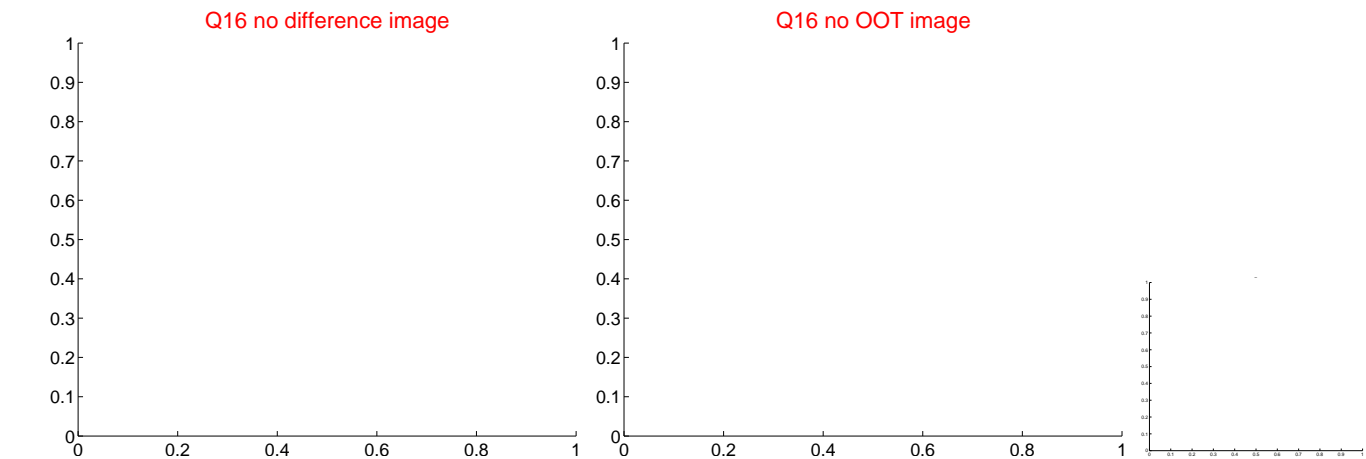
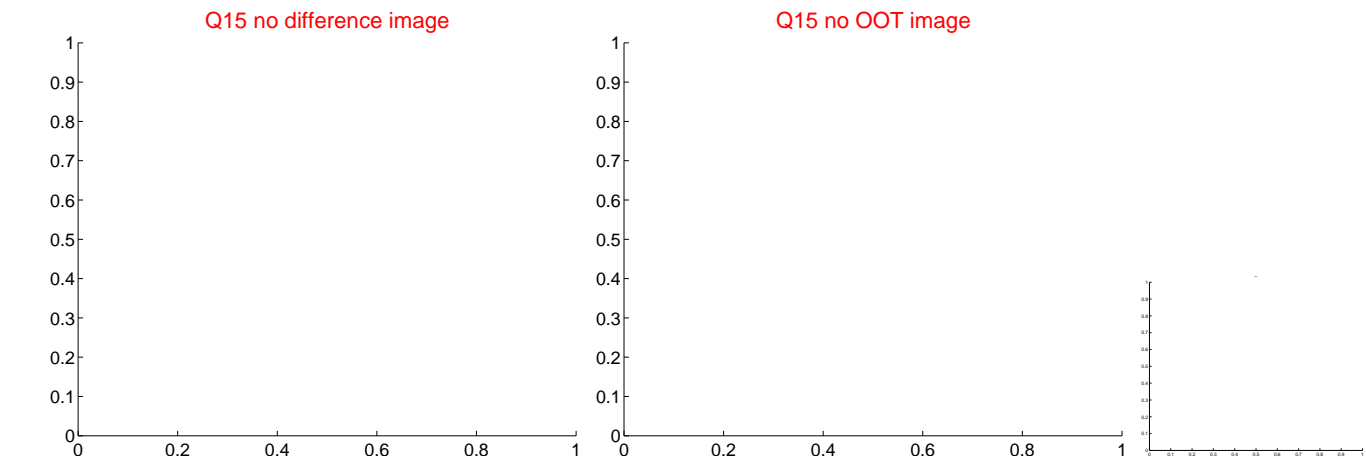
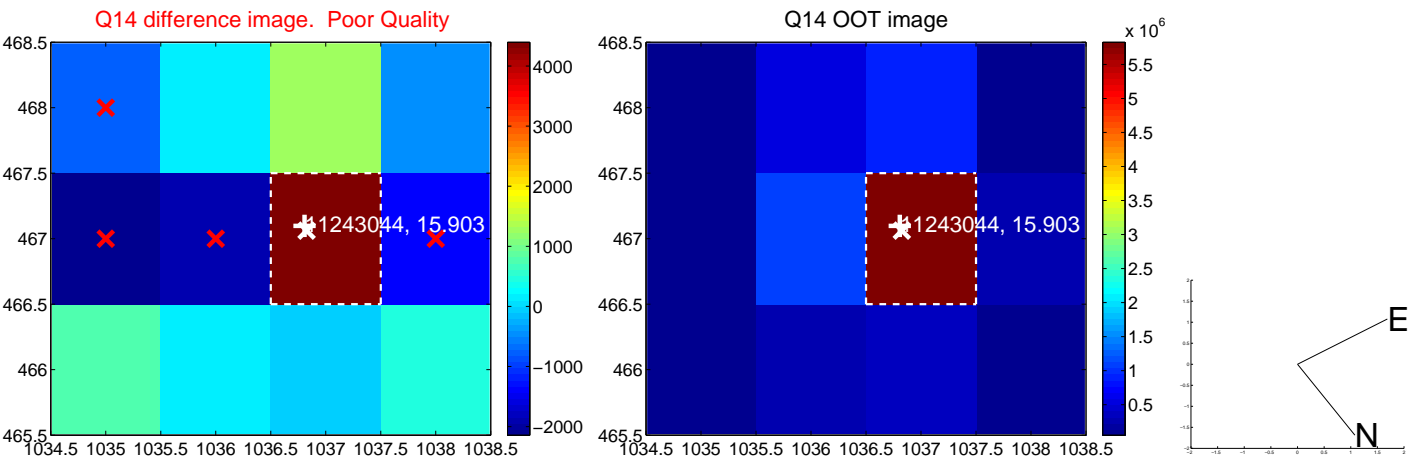
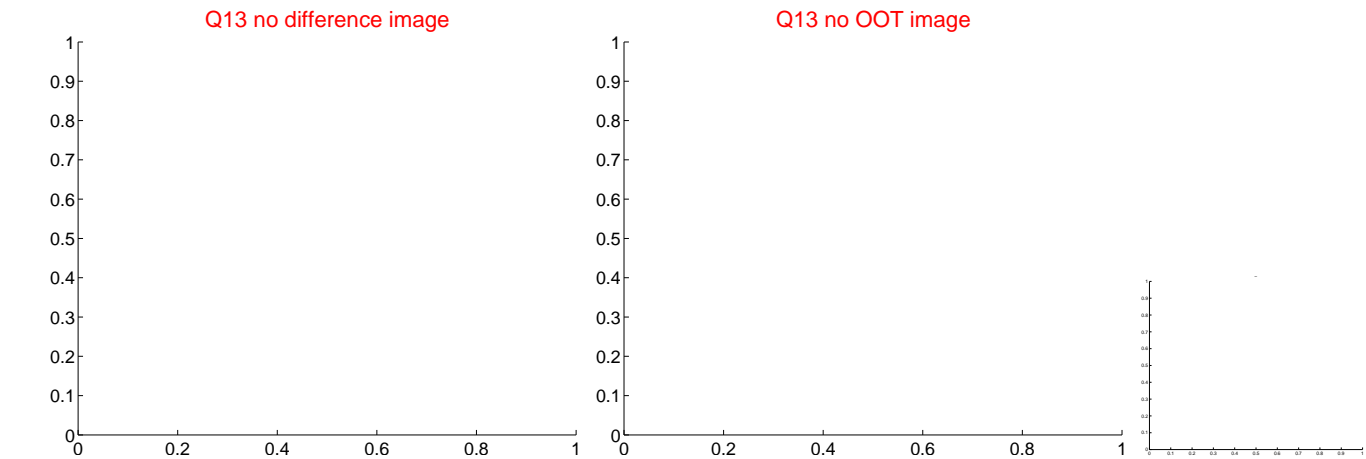
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



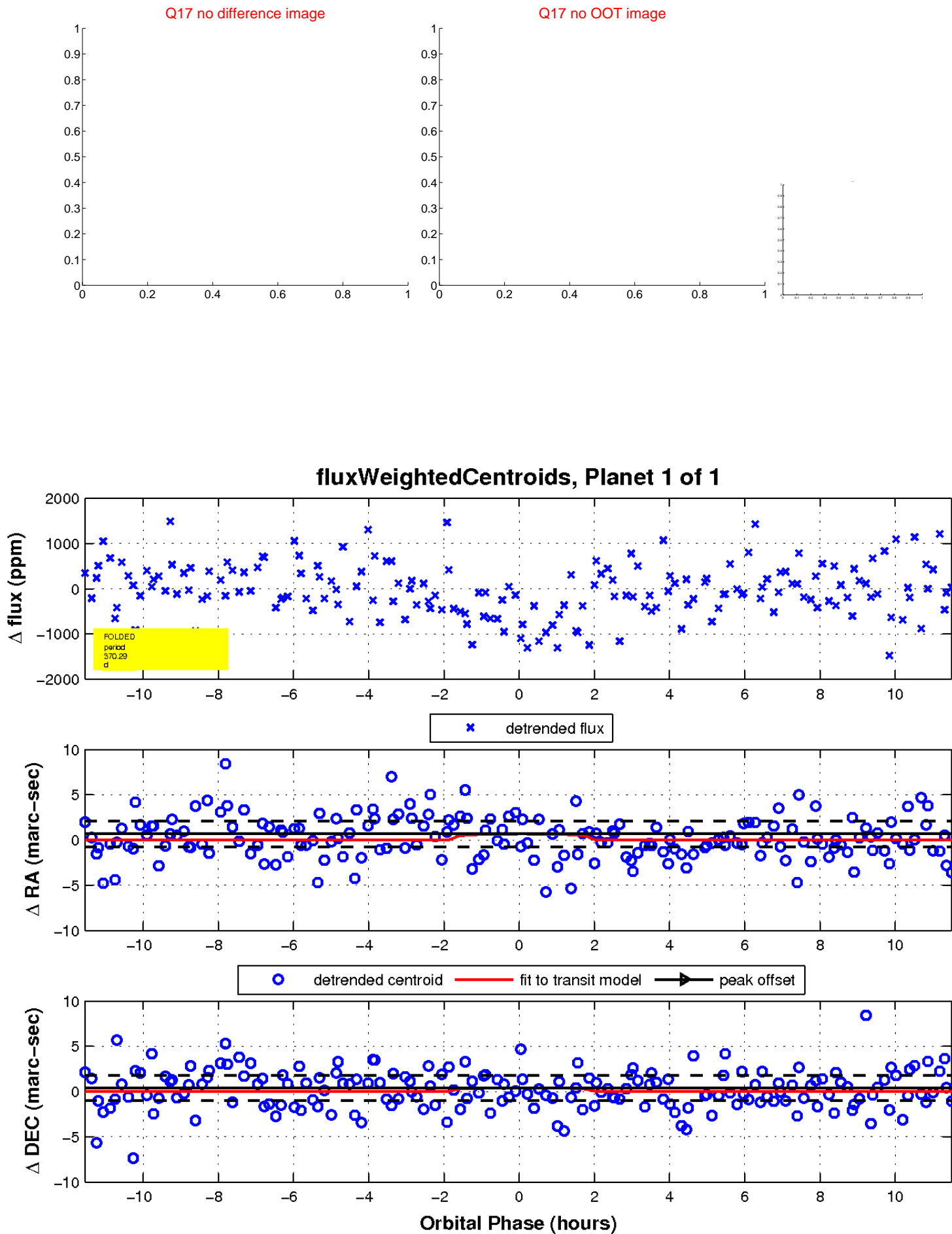
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

