

KIC 008374341

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})
008374341-01	OBS	No	371.310963	229.633882	1115.2	17.511	8.5	8.6	0.87	5755	3.46	0.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008374341-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

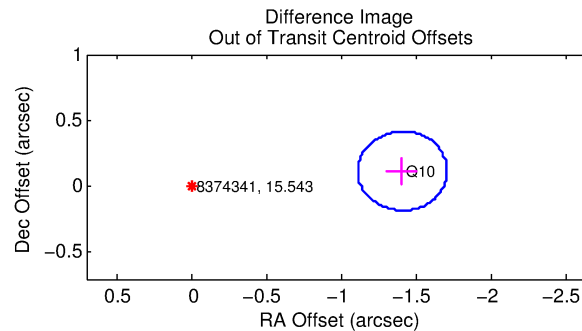
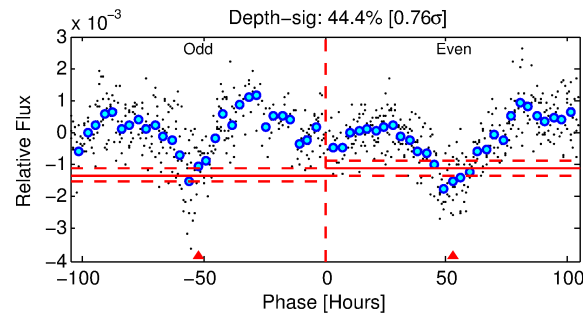
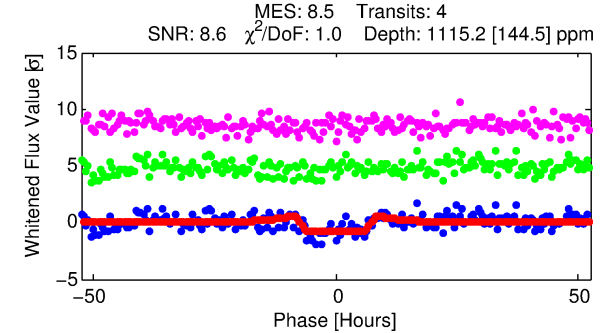
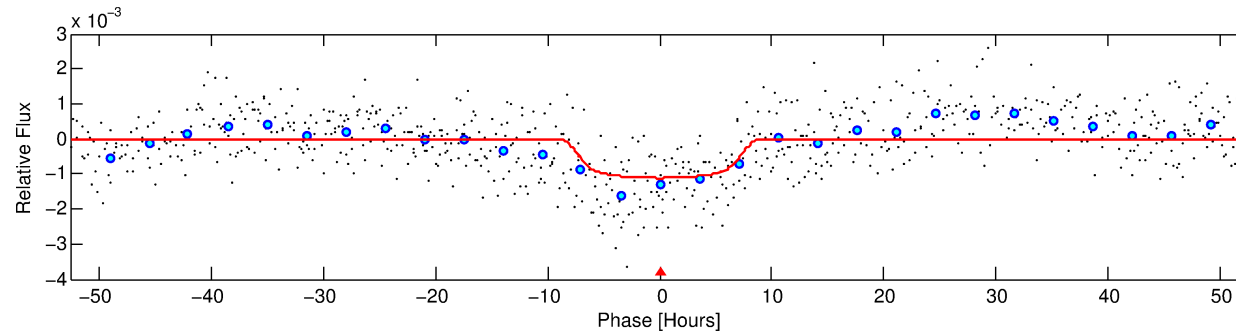
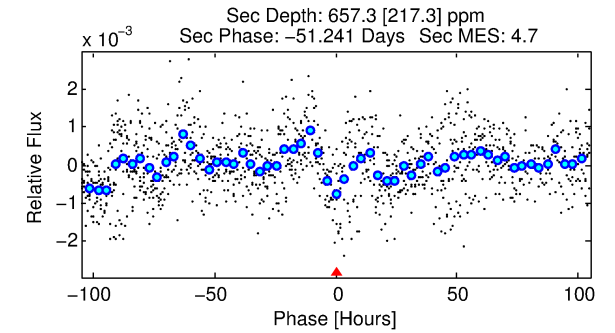
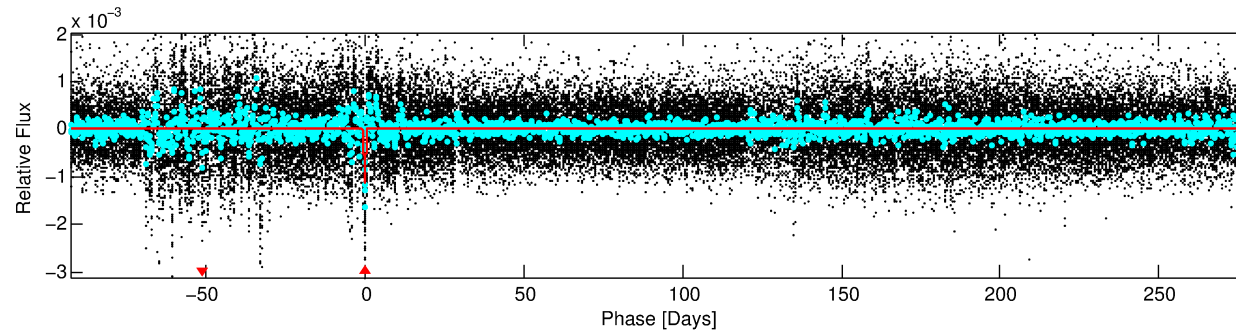
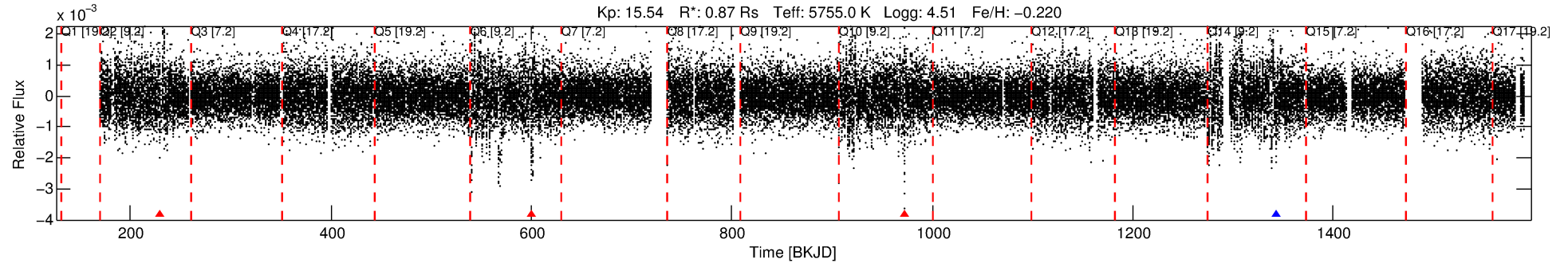
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008374341-01

No Significant Match Found

DV One-Page Summary

KIC: 8374341 Candidate: 1 of 1 Period: 371.311 d



DV Fit Results:

Period = 371.31096 [0.01281] d
Epoch = 229.6339 [0.0240] BKJD
Rp/R* = 0.0364 [0.0032]
a/R* = 82.80 [19.72]
b = 0.90 [0.05]
Seff = 0.78 [0.28]
Teq = 240 [21] K
Rp = 3.46 [1.04] Re
a = 0.9777 [0.2300] AU
Ag = 28849.92 [14525.43] [1.99σ]
Teff = 4831 [476] K [9.64σ]

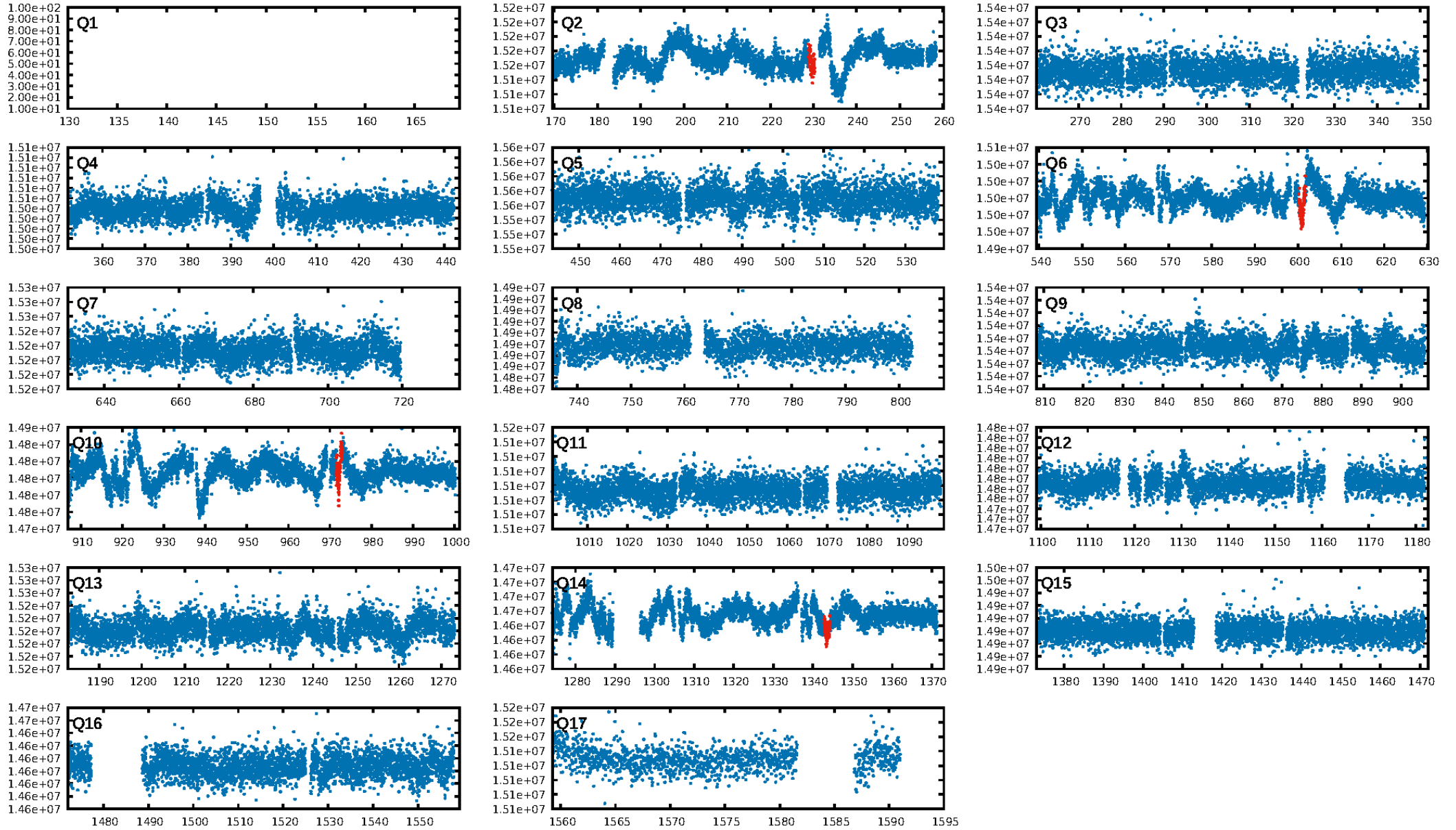
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 53.6%
ModelChiSquareGoF-sig: 99.6%
Bootstrap-pfa: 4.27e-10
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 2.524
Centroid-sig: 0.9%
Centroid-so: 4.515 arcsec [1.64σ]
OotOffset-rm: 1.416 arcsec [14.21σ]
KicOffset-rm: 1.389 arcsec [13.93σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

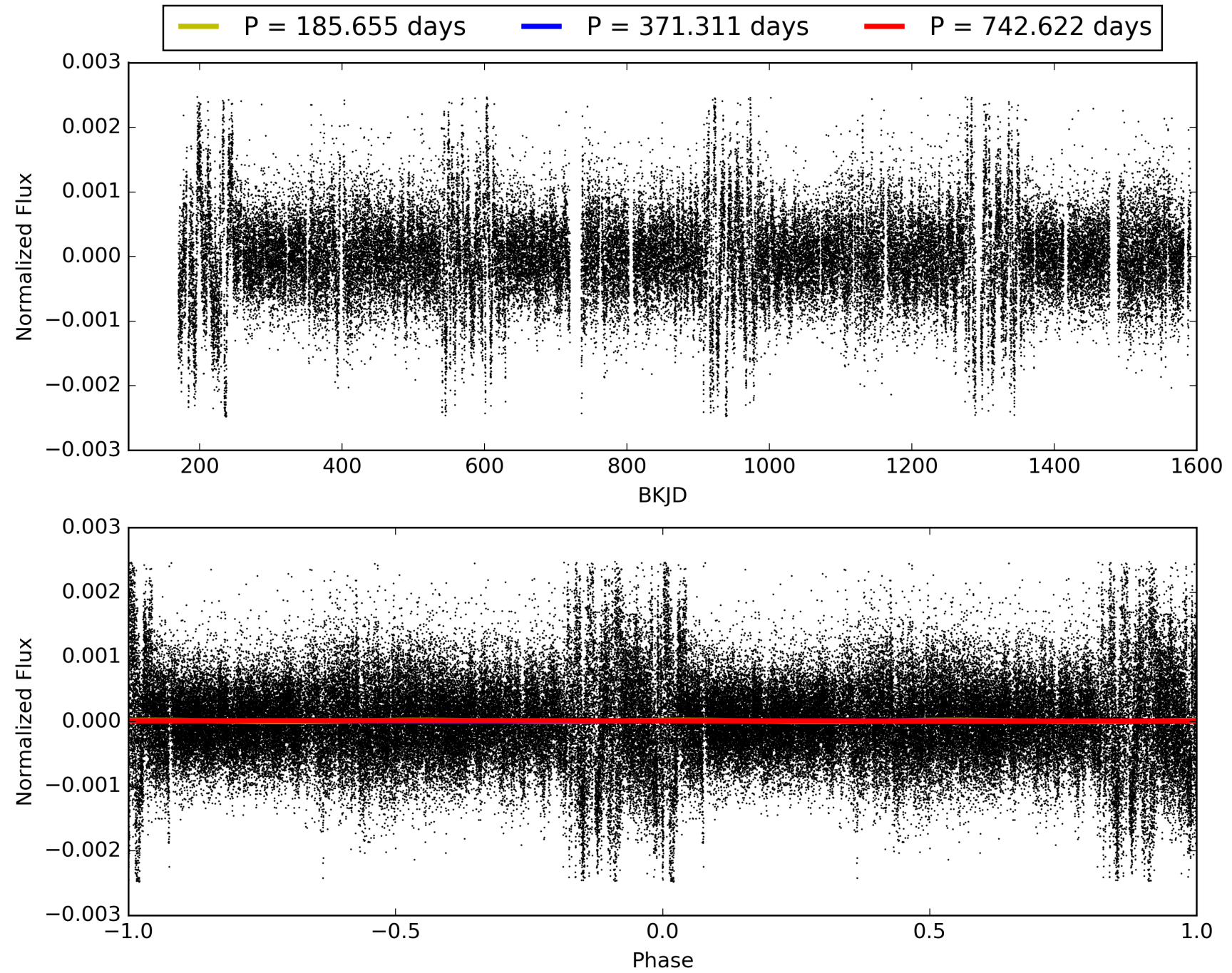
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:50:21 Z

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

TCE 008374341-01, PDC Light Curves

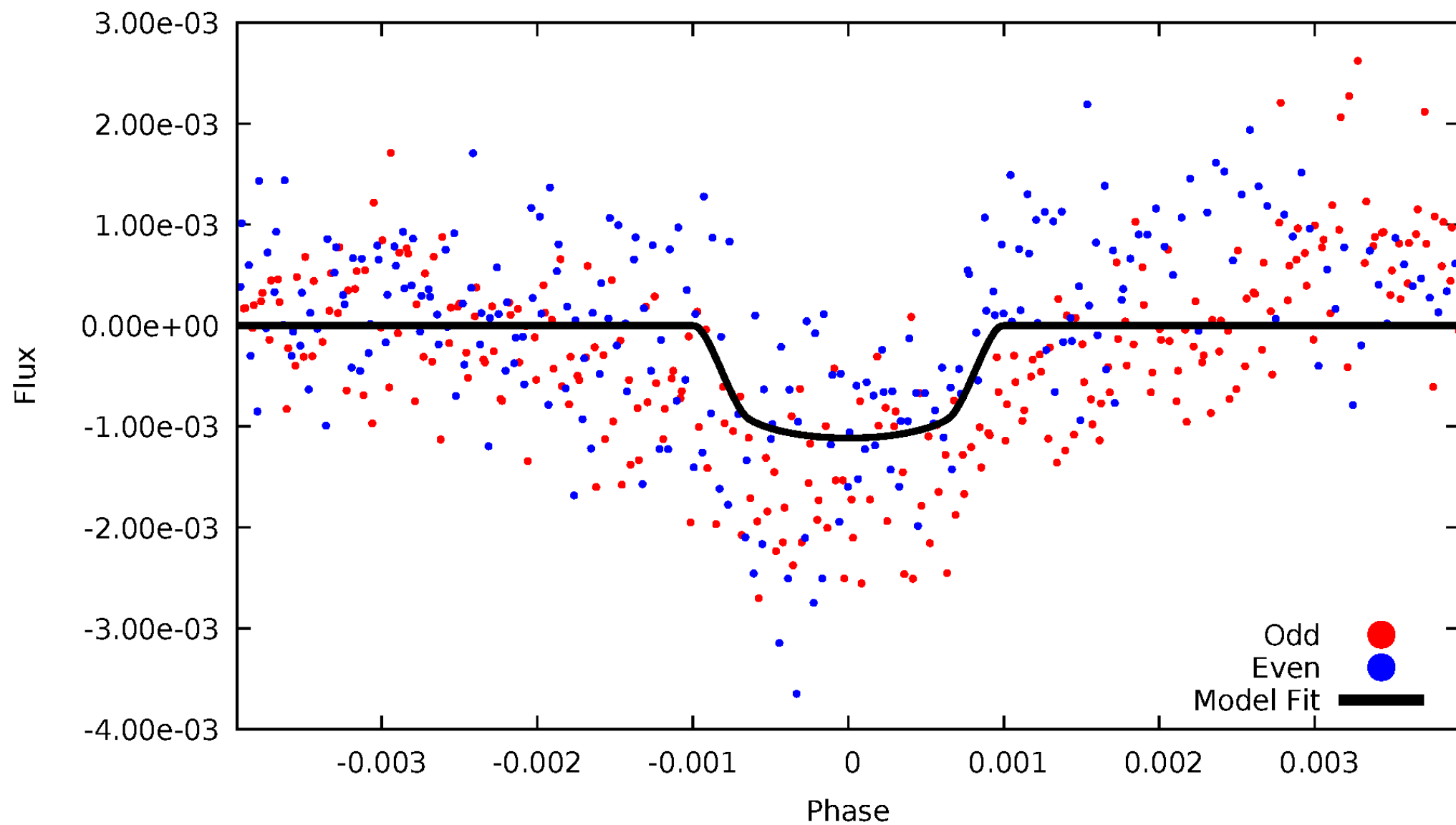


TCE 008374341-01



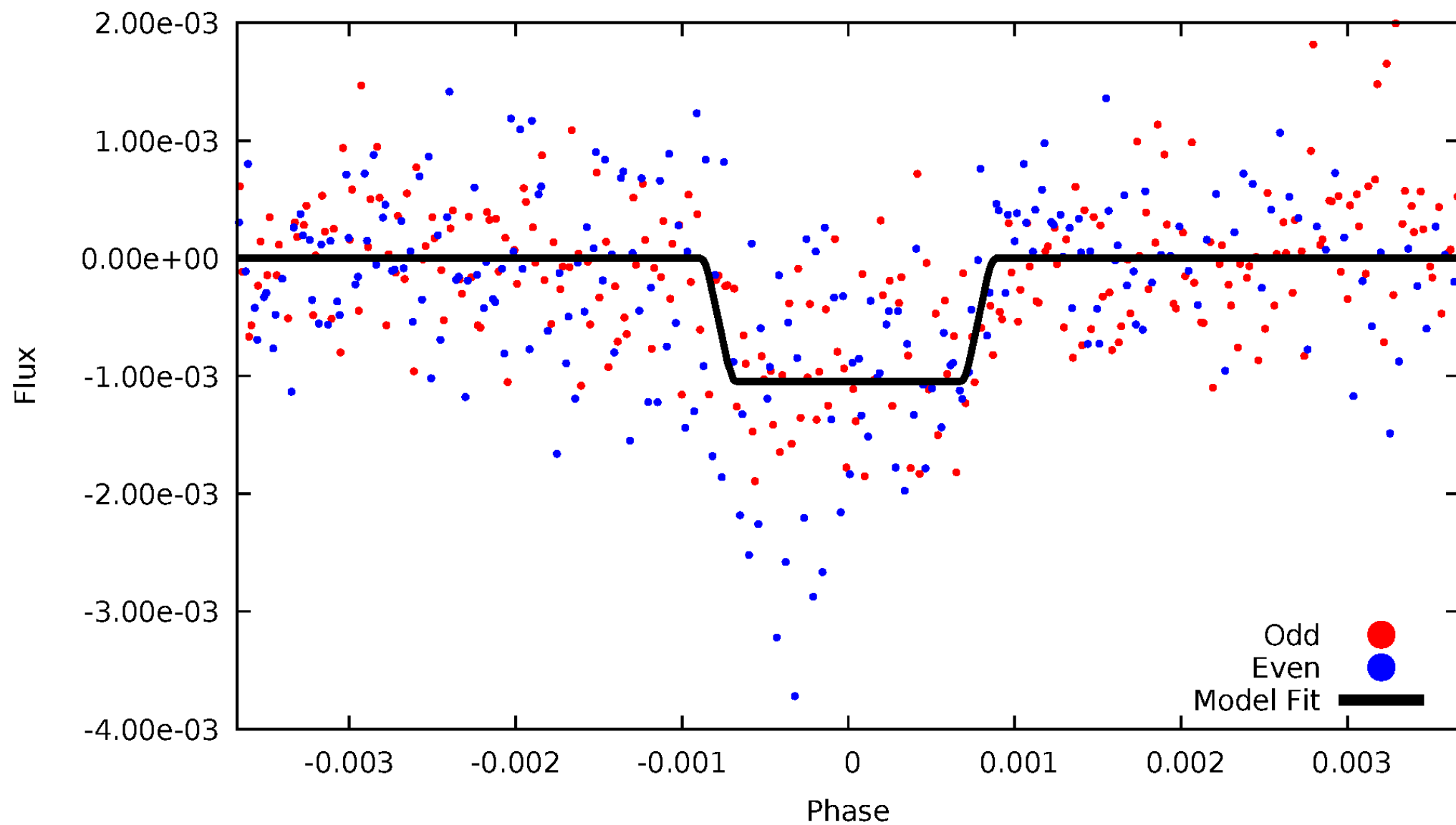
DV Odd/Even

TCE 008374341-01



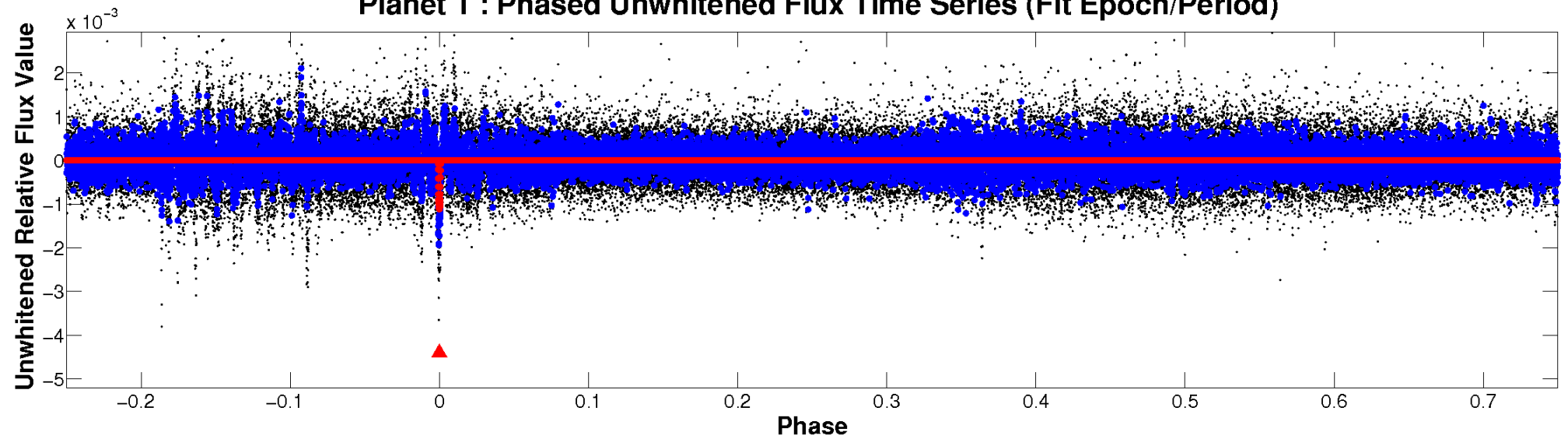
ALT Odd/Even

TCE 008374341-01

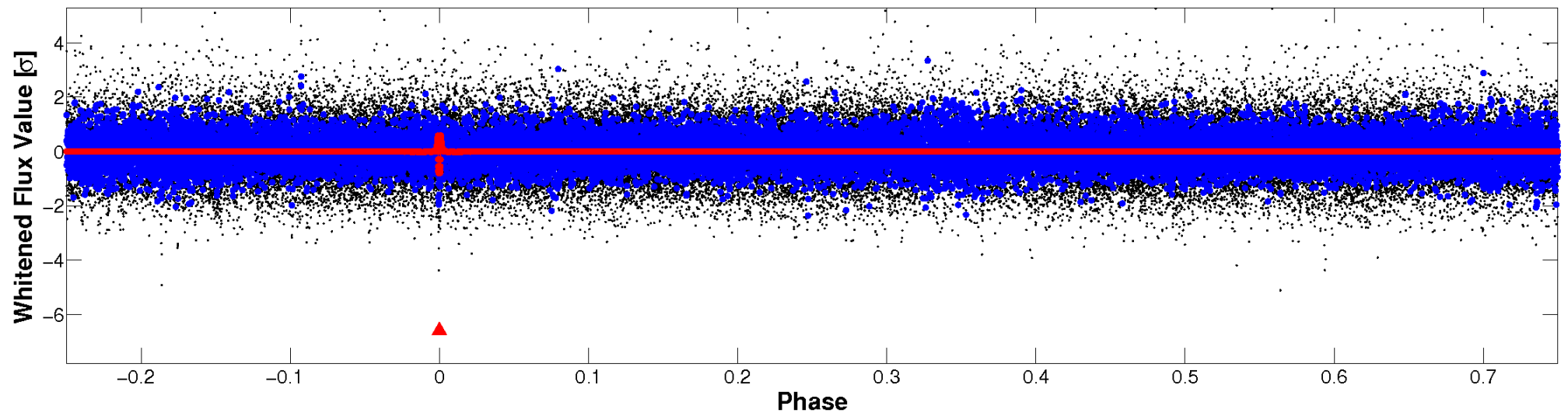


Non-Whitened Vs. Whitened Light Curve

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

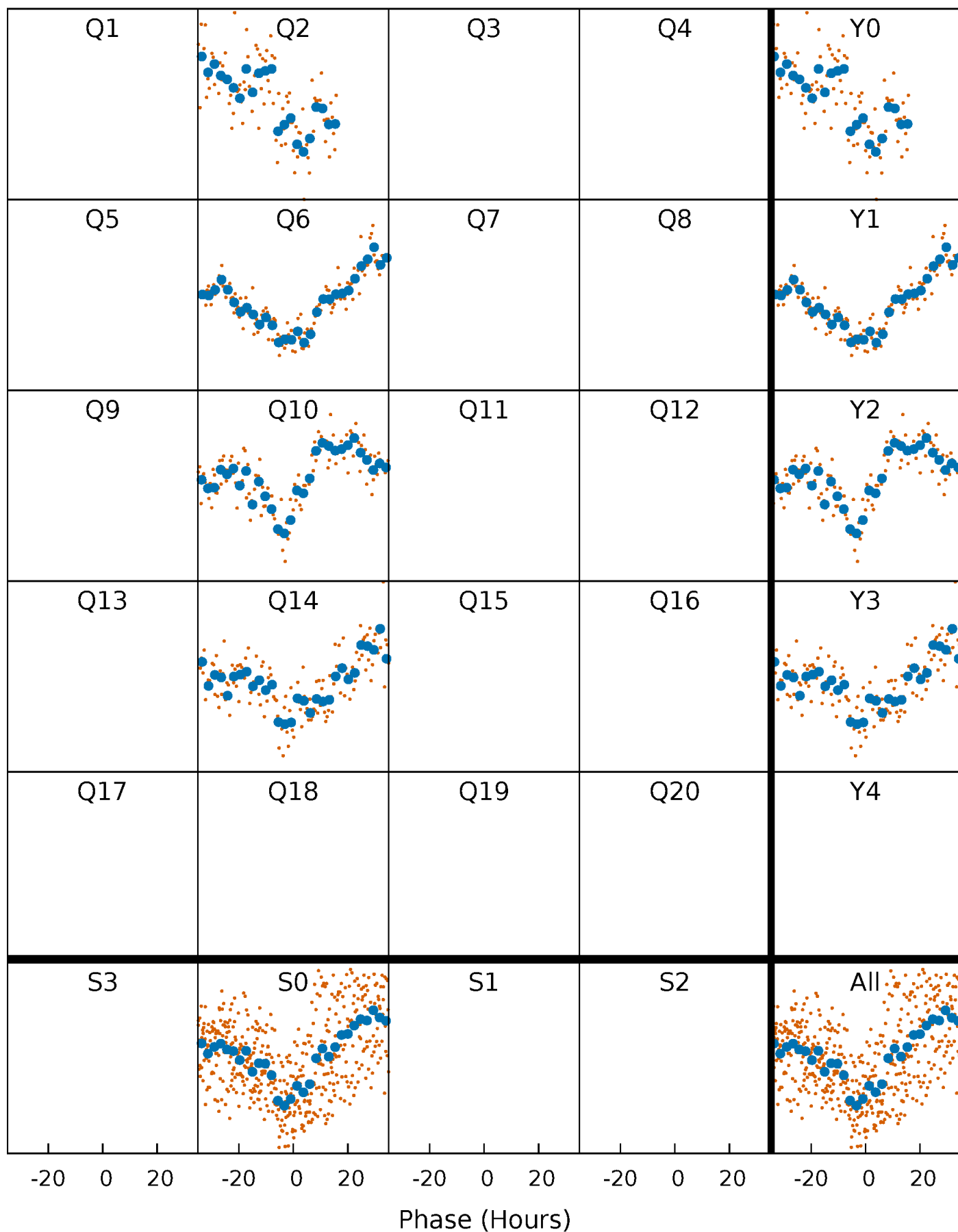


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



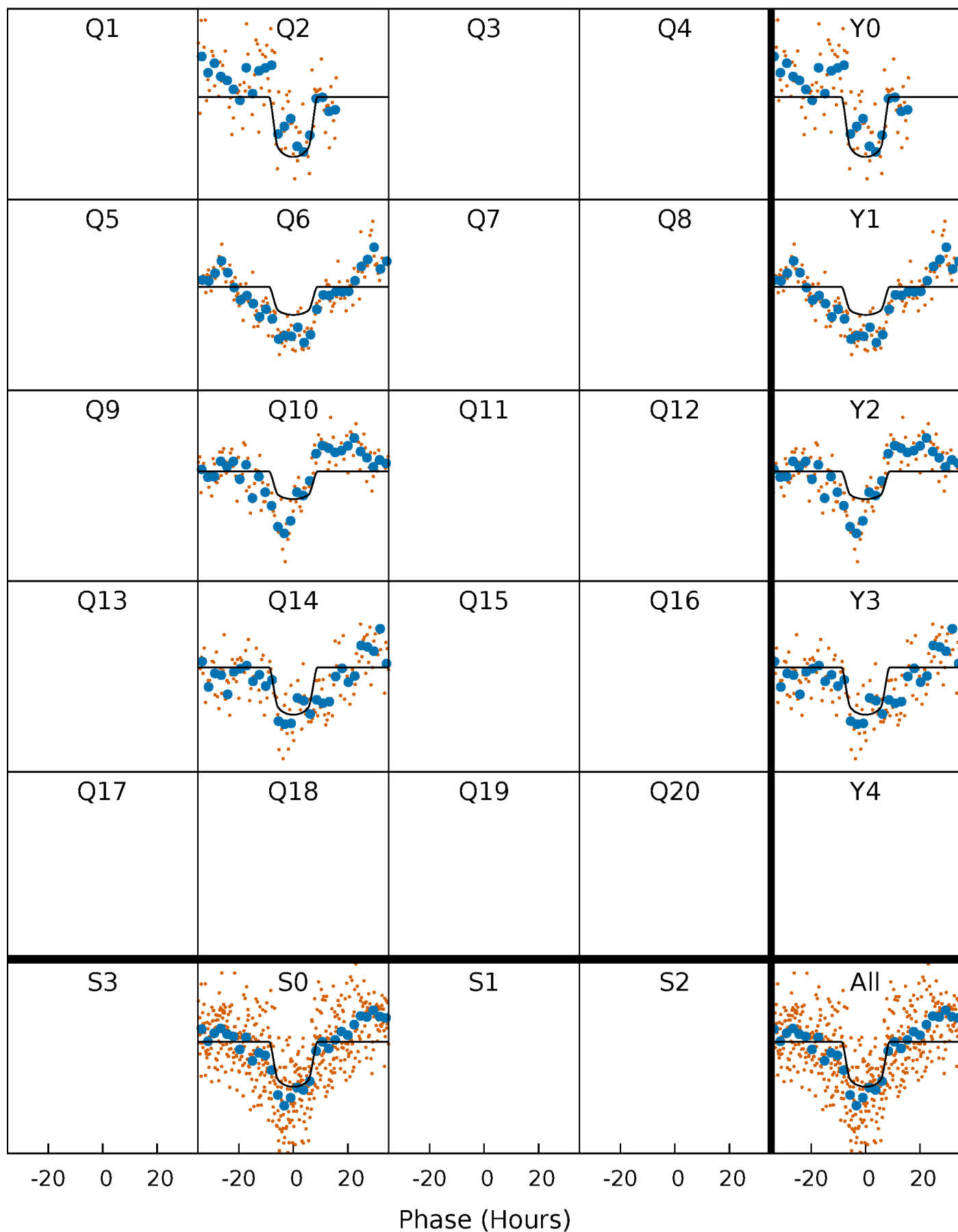
PDC Quarter-Phased Transit Curves

TCE 008374341-01 P=371.310963 Days $T_0=229.633882$ (BKJD)



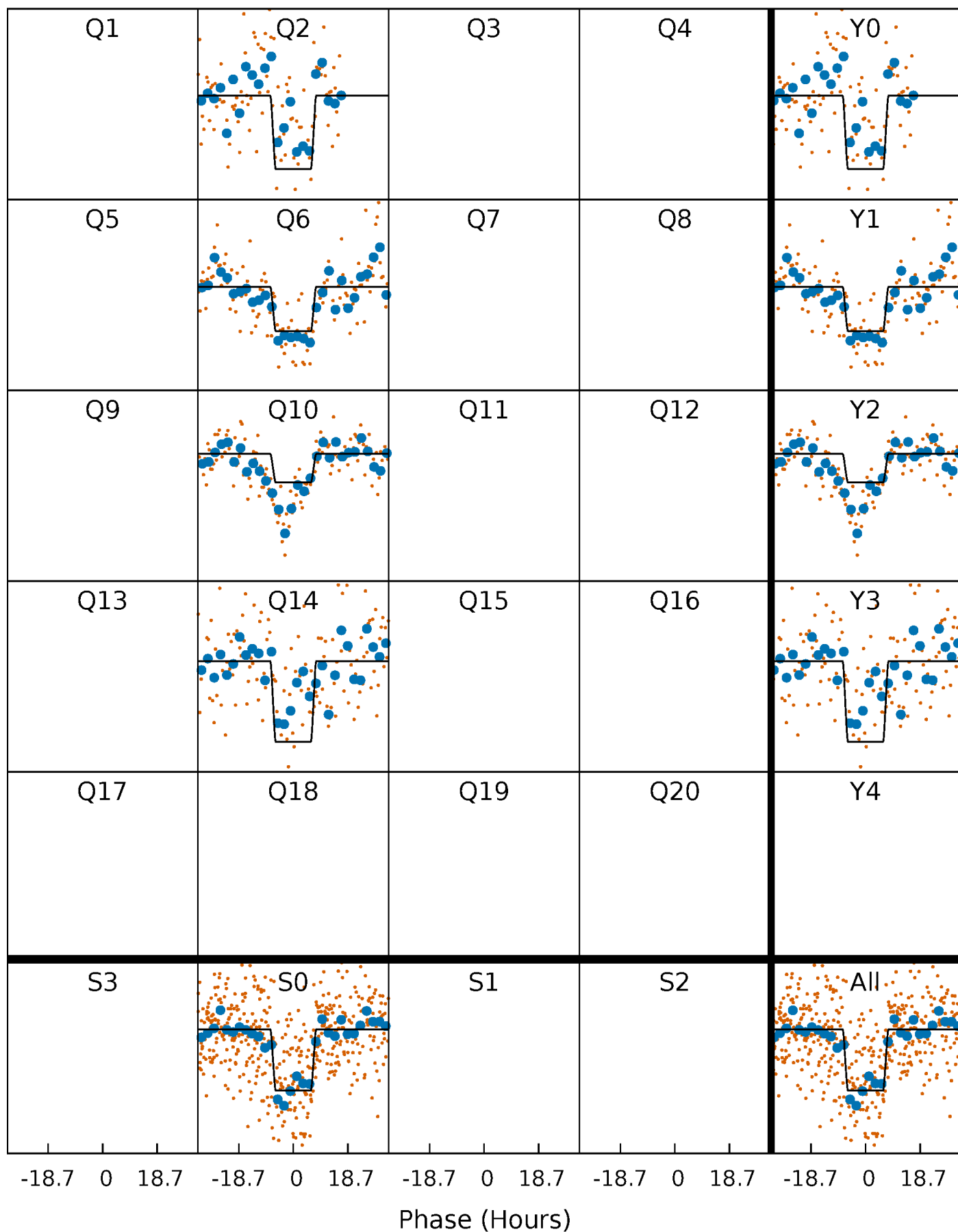
DV Quarter-Phased Transit Curves

TCE 008374341-01 P=371.310963 Days $T_0=229.633882$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

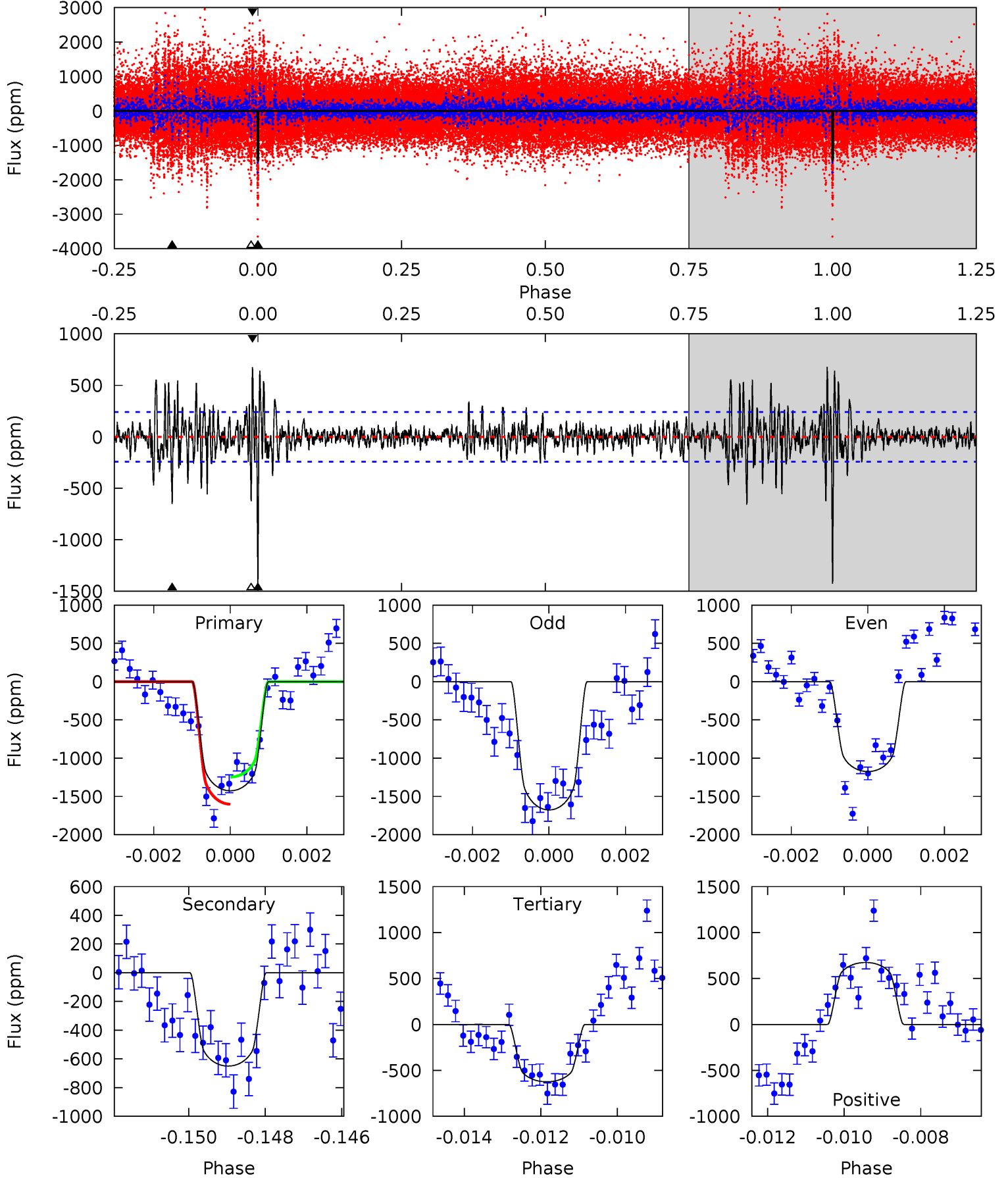
TCE 008374341-01 P=371.311841 Days $T_0=229.627681$ (BKJD)



DV Model-Shift Uniqueness Test

008374341-01, P = 371.310963 Days, E = 229.633882 Days

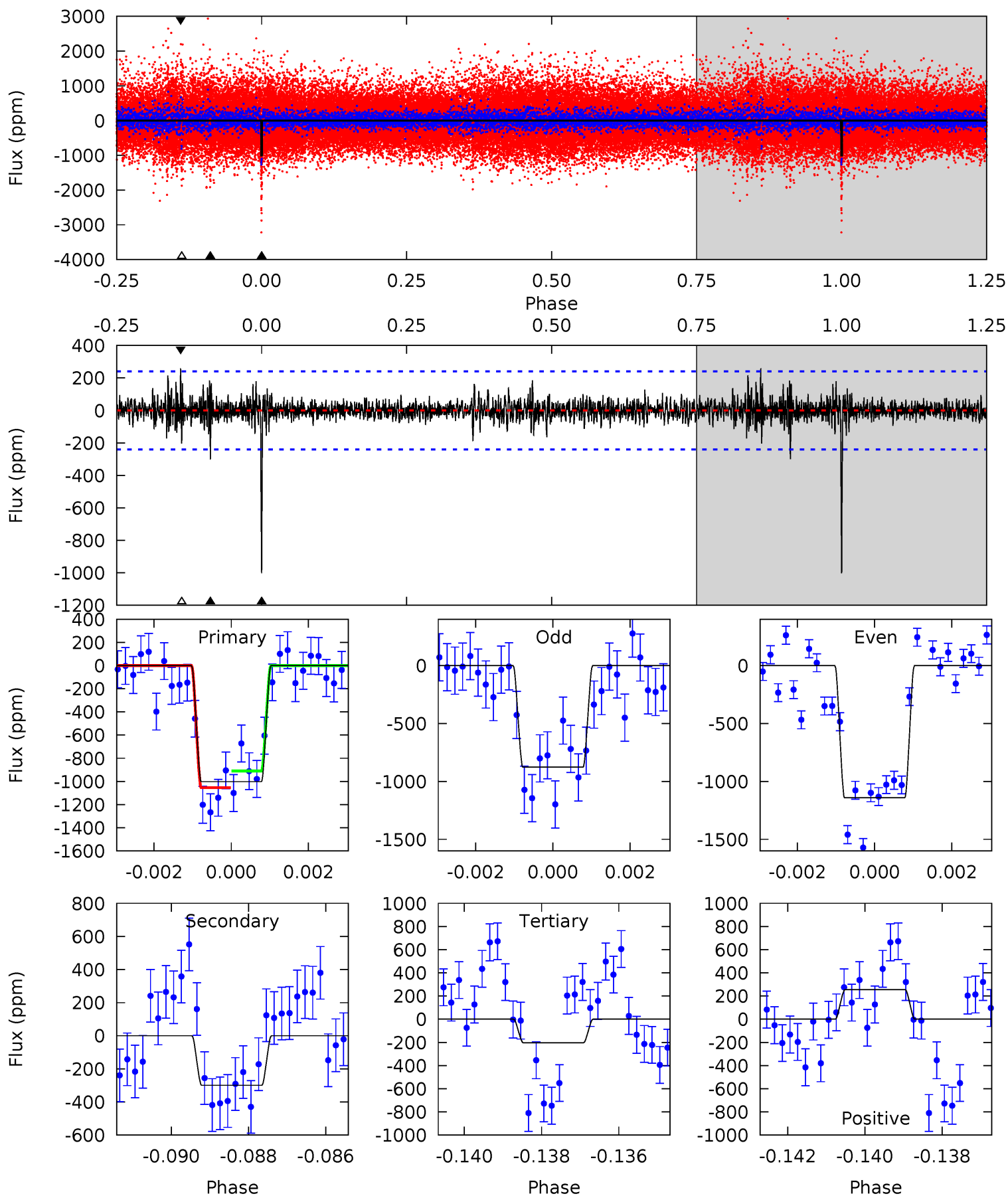
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.5	14.4	13.8	14.9	5.33	3.09	2.63	17.7	16.6	0.57	-0.54	5.49	1.00	0.32	3.91



Alt Model-Shift Uniqueness Test

008374341-01, P = 371.311841 Days, E = 229.627681 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	6.66	4.53	5.66	5.35	3.13	0.96	17.8	16.7	2.13	1.01	2.95	1.17	0.20	1.59



Stellar Parameters For KIC 008374341

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5755^{+155}_{-172}	$4.513^{+0.060}_{-0.180}$	$-0.220^{+0.300}_{-0.300}$	$0.872^{+0.249}_{-0.083}$	$0.906^{+0.110}_{-0.090}$	$1.922^{+0.491}_{-0.956}$
	+3%/-3%	+1%/-4%	+136%/-136%	+29%/-10%	+12%/-10%	+26%/-50%
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 008374341-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-650 ± 45	$3.56^{+0.56}_{-0.41}$	340^{+22}_{-15}	4918^{+248}_{-234}	26862^{+7369}_{-6800}
Alt.	-299 ± 45	$3.19^{+0.48}_{-0.41}$	340^{+22}_{-16}	4402^{+266}_{-228}	15250^{+5736}_{-4206}

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 $A_{\text{obs}} \gg 1.0$

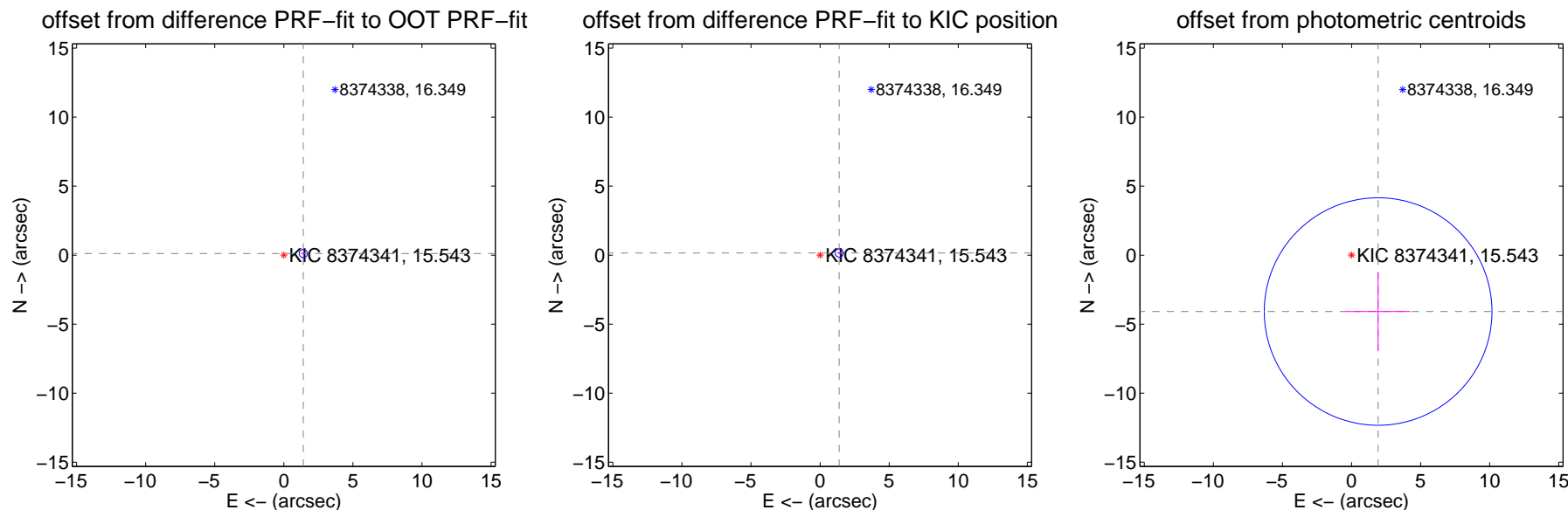
DV Centroid Data

Supplemental centroid analysis for 008374341-01. Kepler magnitude: 15.54. Transit SNR 8.59

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.416 ± 0.100	14.21	-1.412 ± 0.100	0.117 ± 0.103
PRF-fit source offset from KIC position	1.389 ± 0.100	13.93	-1.380 ± 0.100	0.158 ± 0.103
photometric centroid source offset	4.51 ± 2.75	1.64	-1.93 ± 2.34	-4.08 ± 2.83



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.

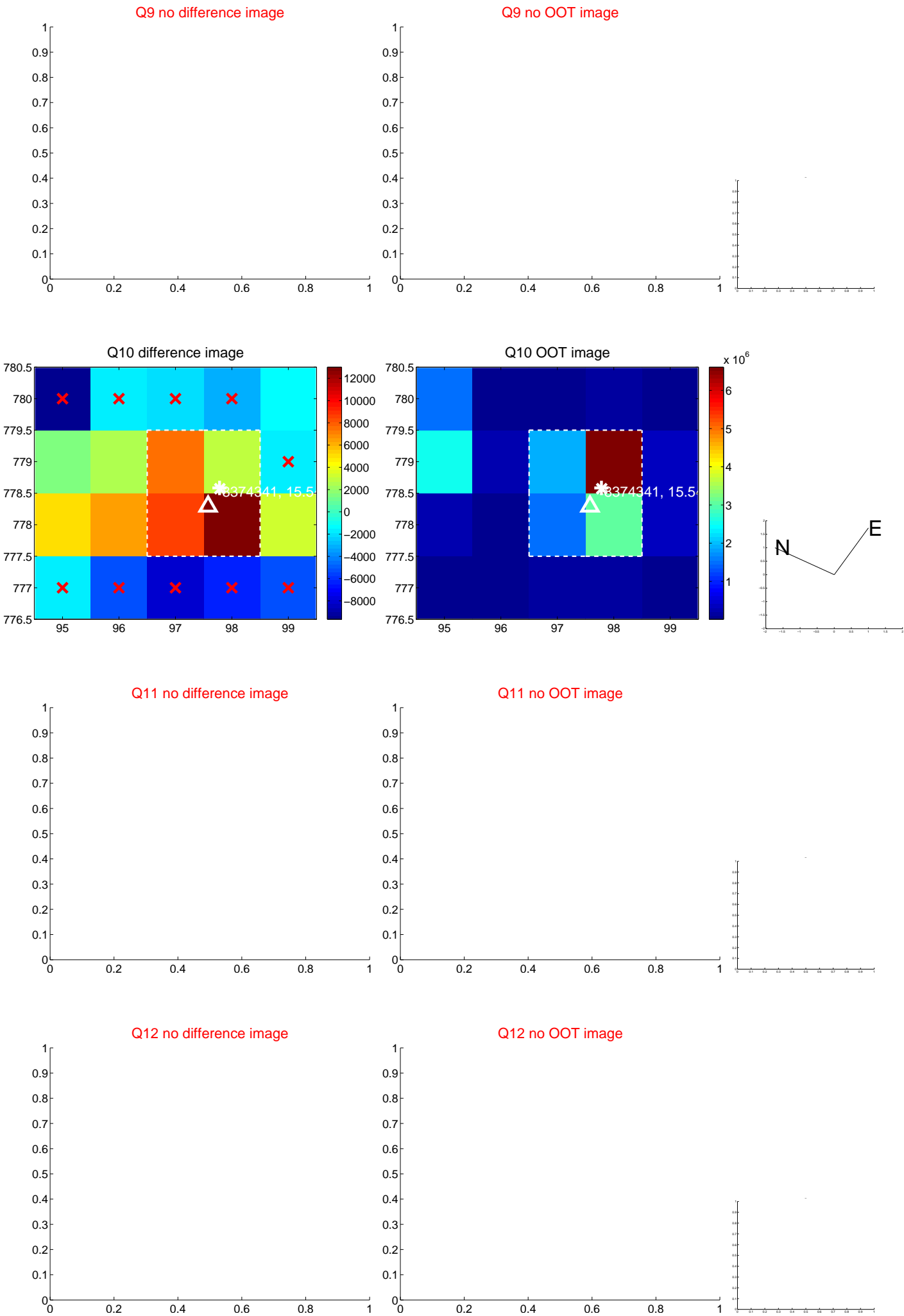
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



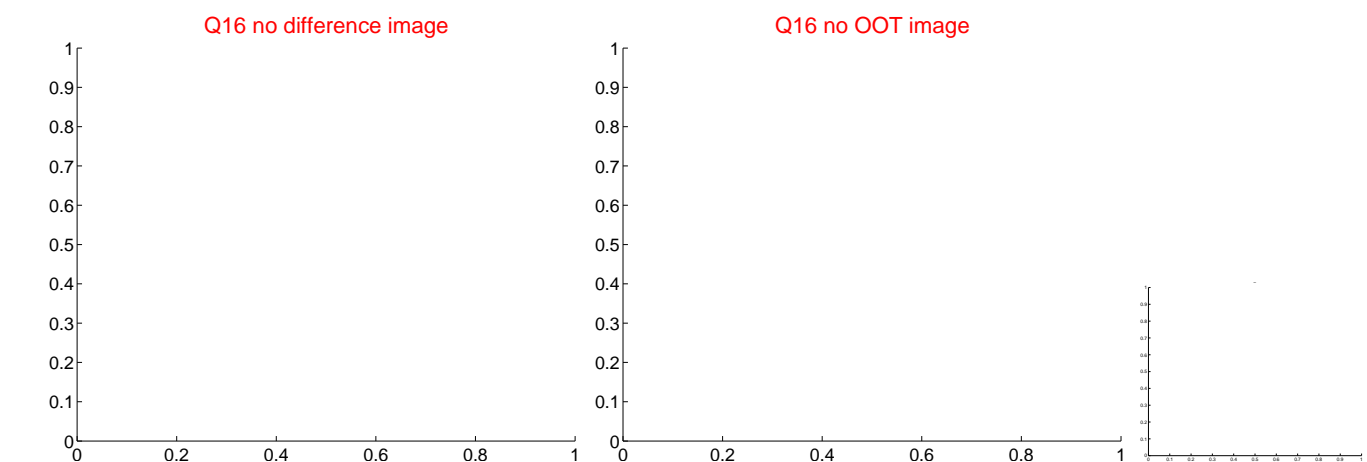
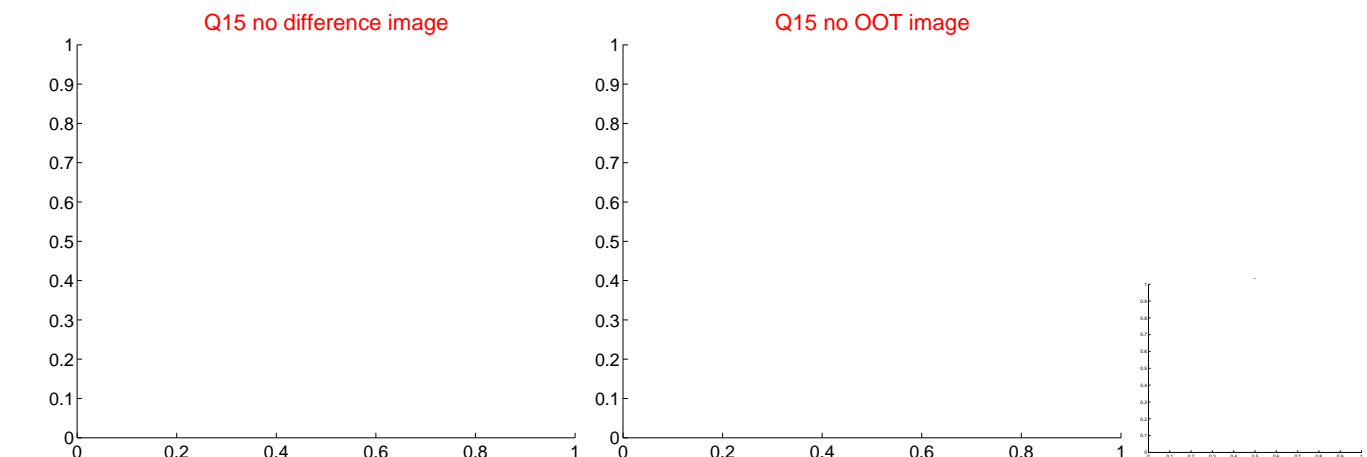
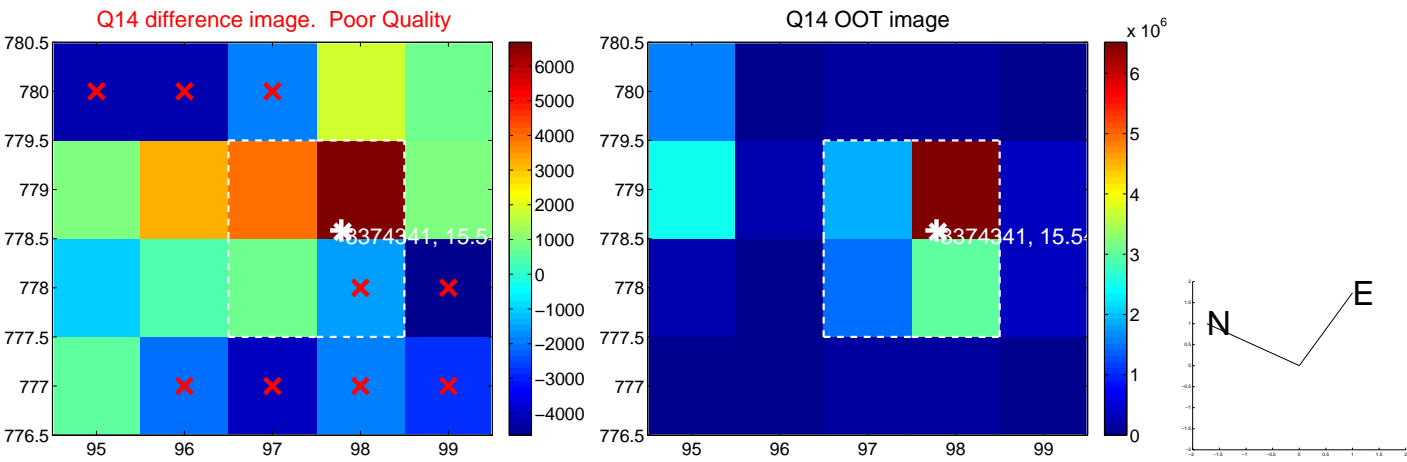
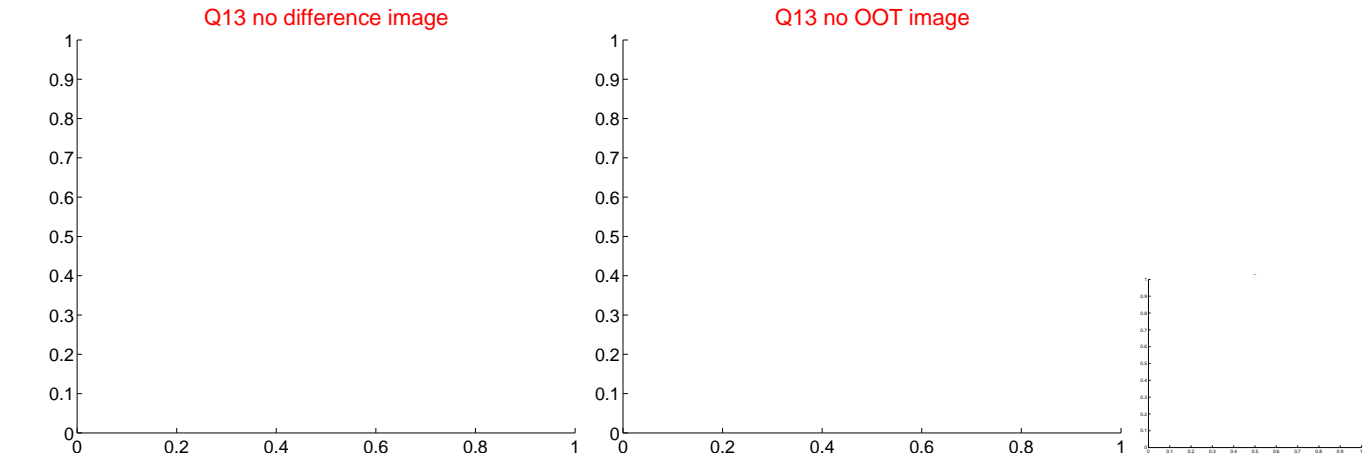
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



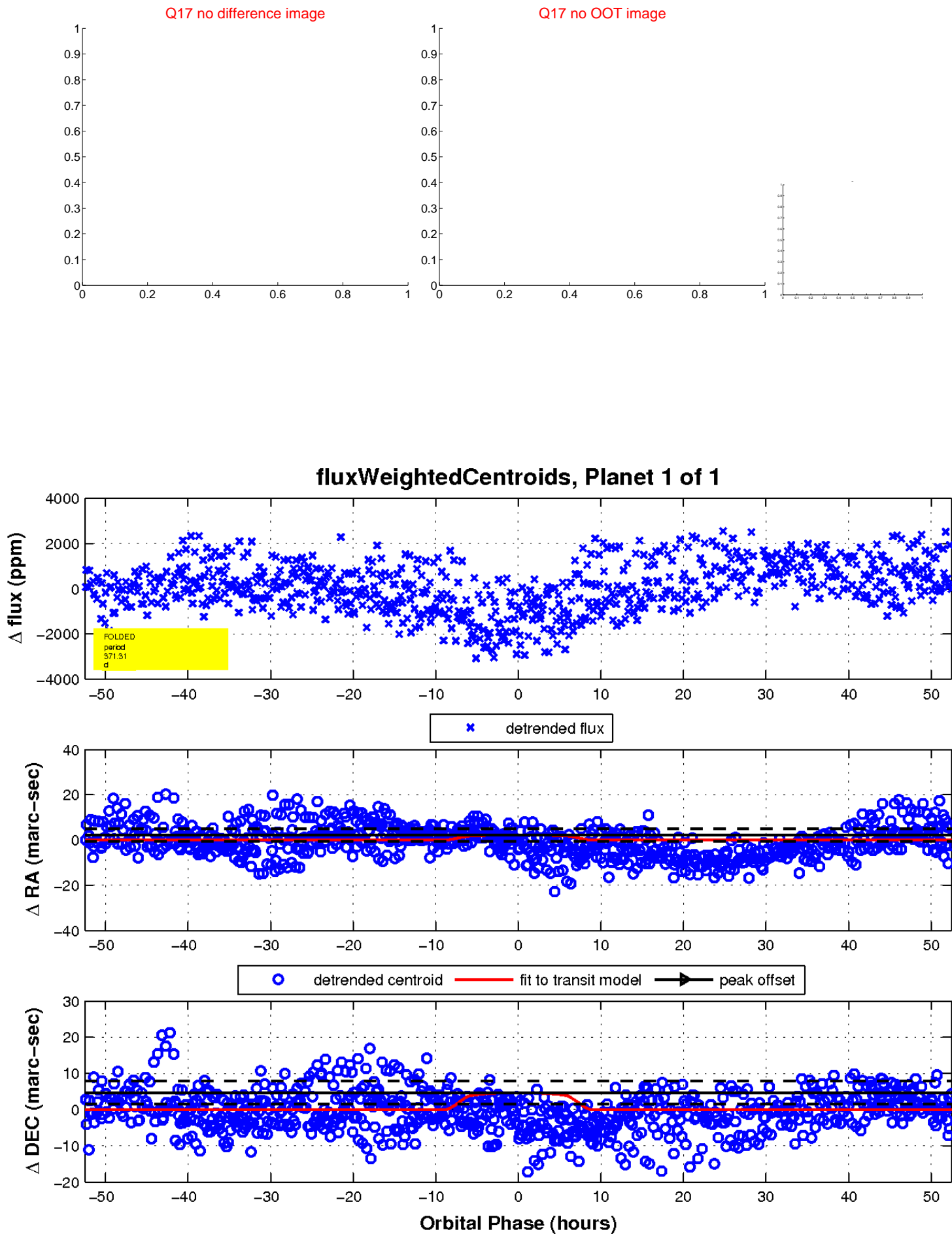
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

