

KIC 006038844

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})
006038844-01	OBS	No	351.191325	184.400366	1762.5	14.625	7.8	9.6	1.00	5773	5.38	0.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006038844-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--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.

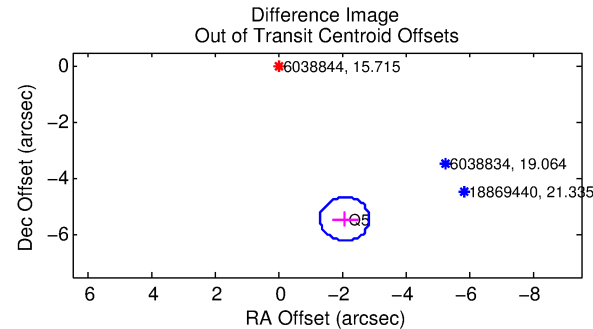
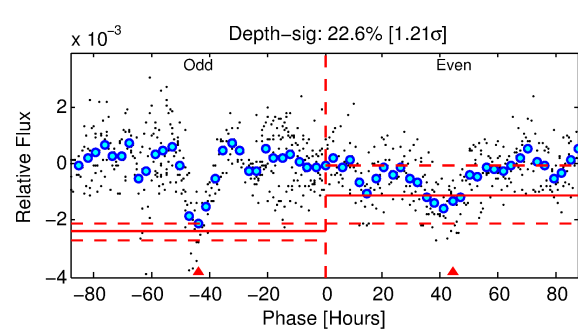
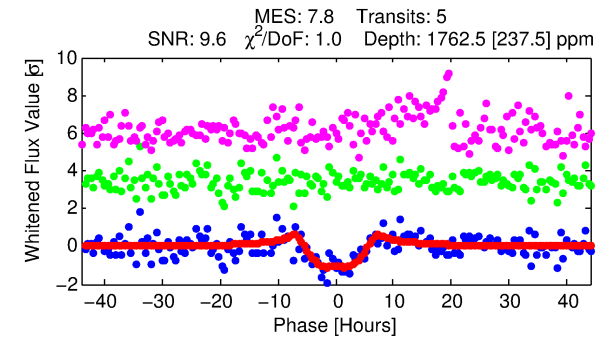
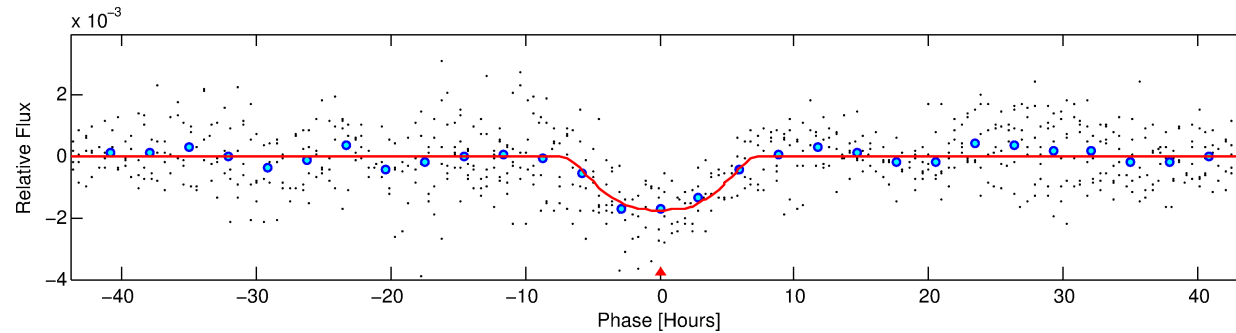
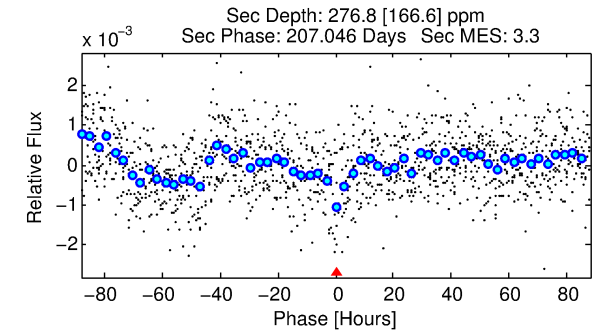
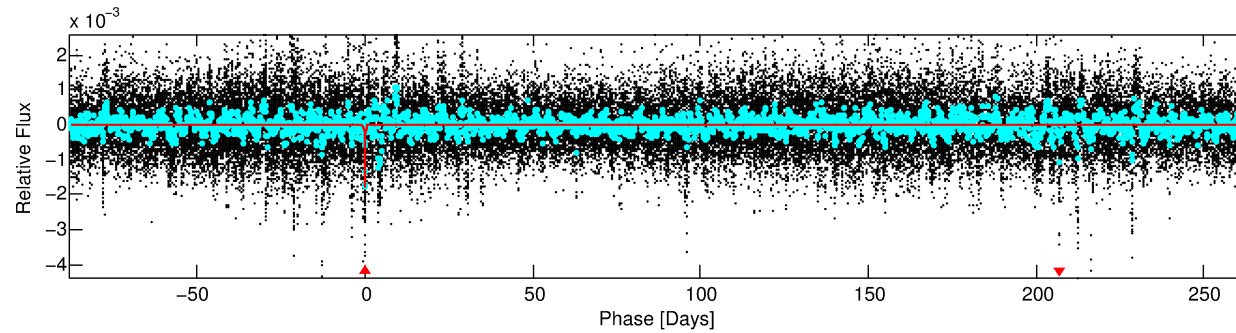
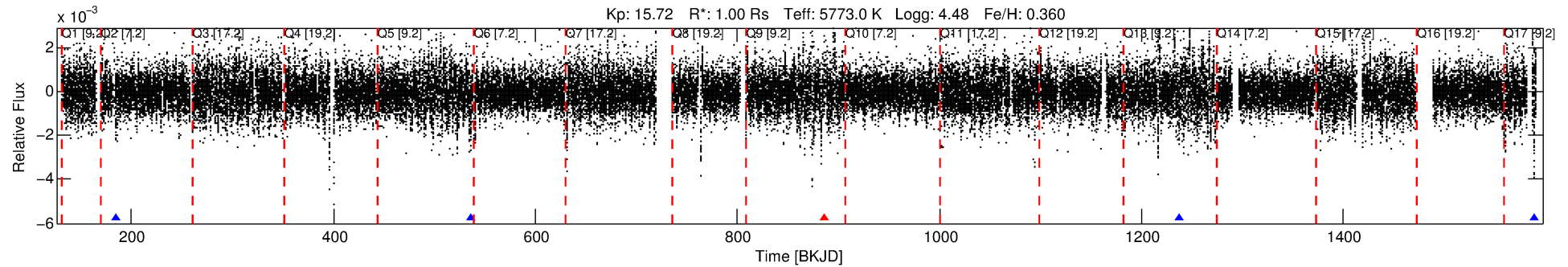
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006038844-01

No Significant Match Found

DV One-Page Summary

KIC: 6038844 Candidate: 1 of 1 Period: 351.191 d



DV Fit Results:

Period = 351.19132 [0.00848] d
Epoch = 184.4004 [0.0192] BKJD
Rp/R* = 0.0492 [0.0043]
a/R* = 83.45 [9.67]
b = 0.95 [0.02]
Seff = 0.98 [0.36]
Teq = 254 [24] K
Rp = 5.38 [1.54] Re
a = 1.0083 [0.2357] AU
Ag = 5340.97 [3824.09] [1.40σ]
Teff = 3357 [538] K [5.77σ]

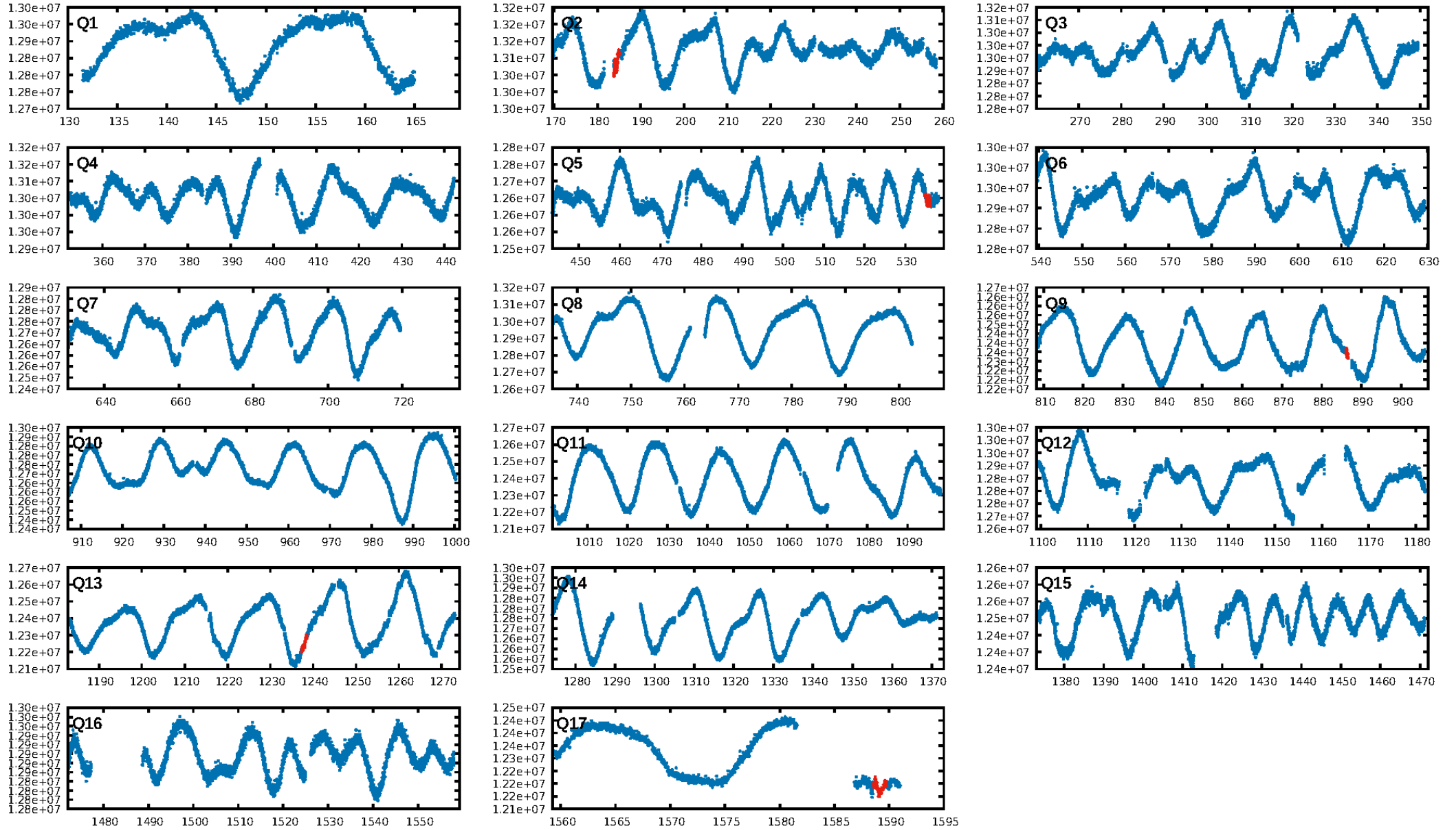
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.4%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 3.50e-10
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 16.56
Centroid-sig: 1.2%
Centroid-so: 2.708 arcsec [2.44σ]
OotOffset-rm: 5.814 arcsec [22.53σ]
KicOffset-rm: 5.798 arcsec [22.51σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

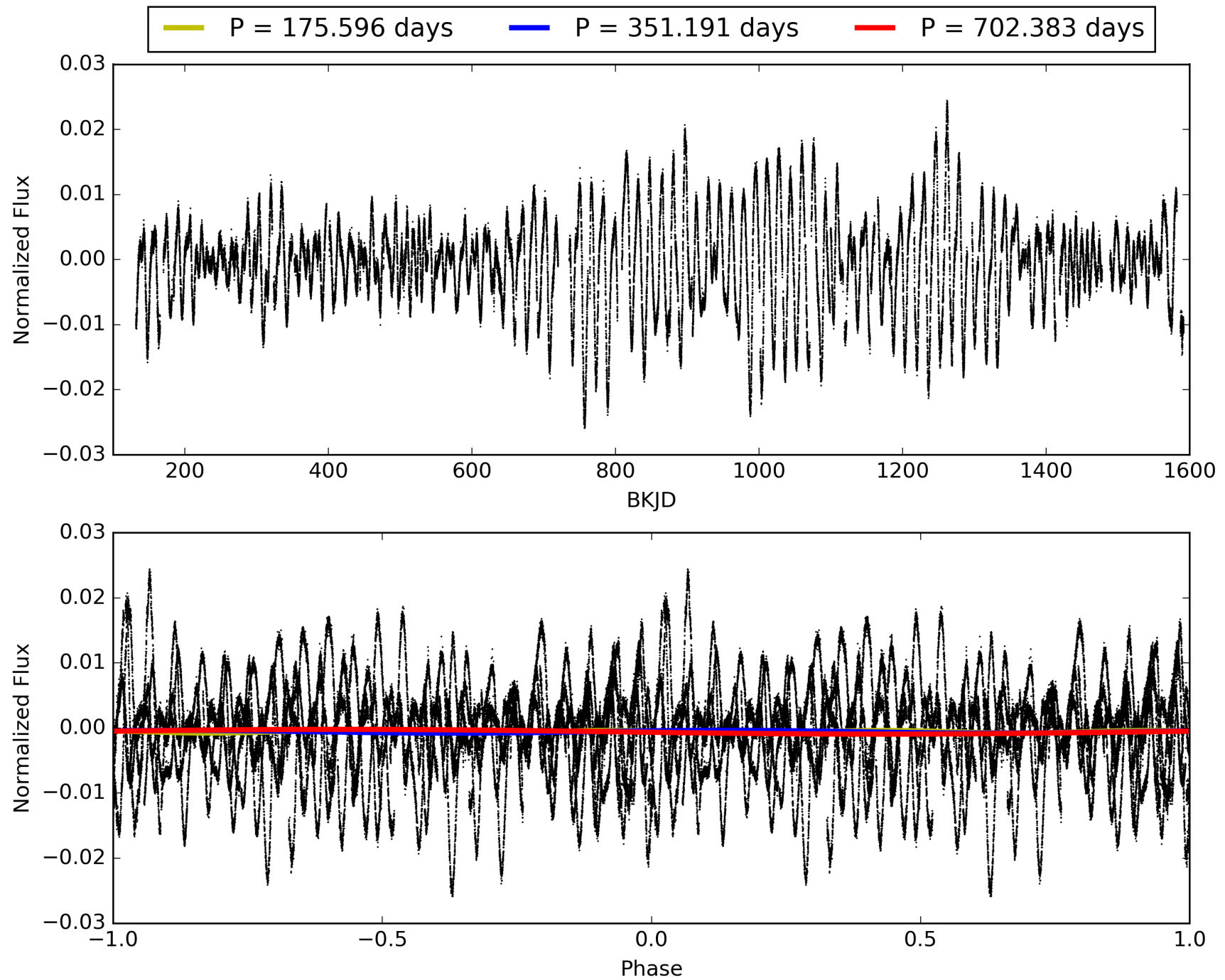
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:58:38 Z

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

TCE 006038844-01, PDC Light Curves

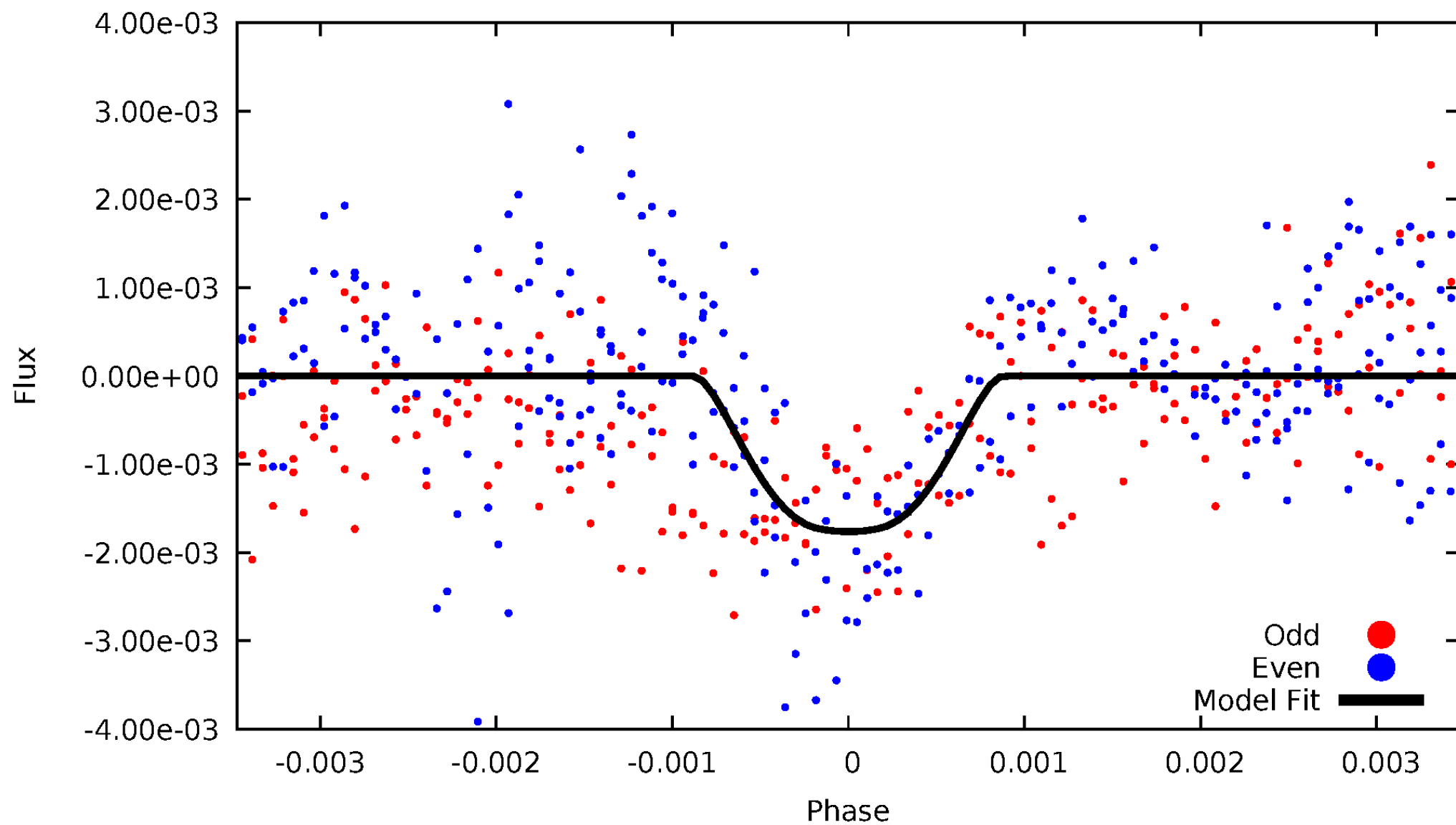


TCE 006038844-01



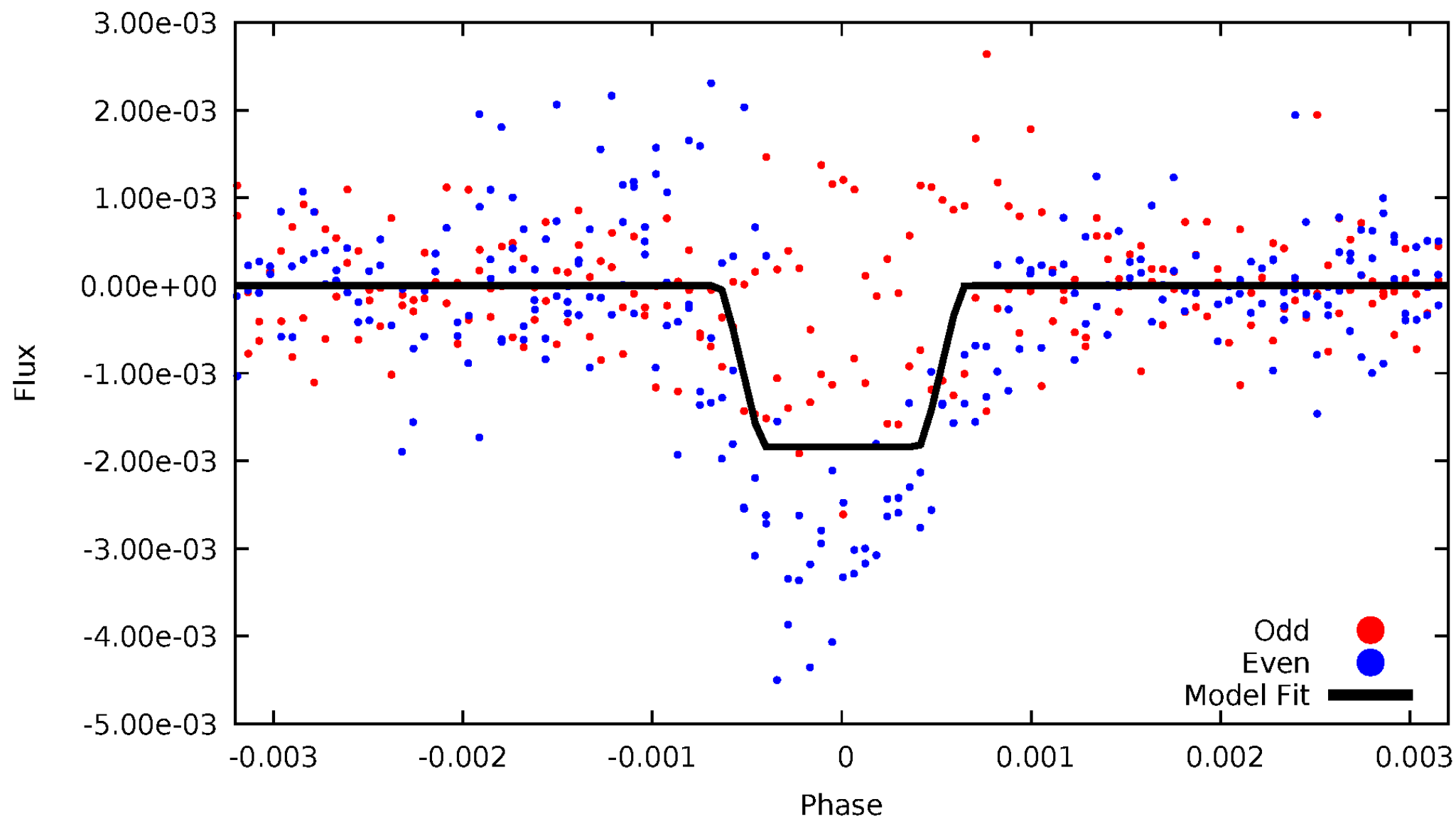
DV Odd/Even

TCE 006038844-01



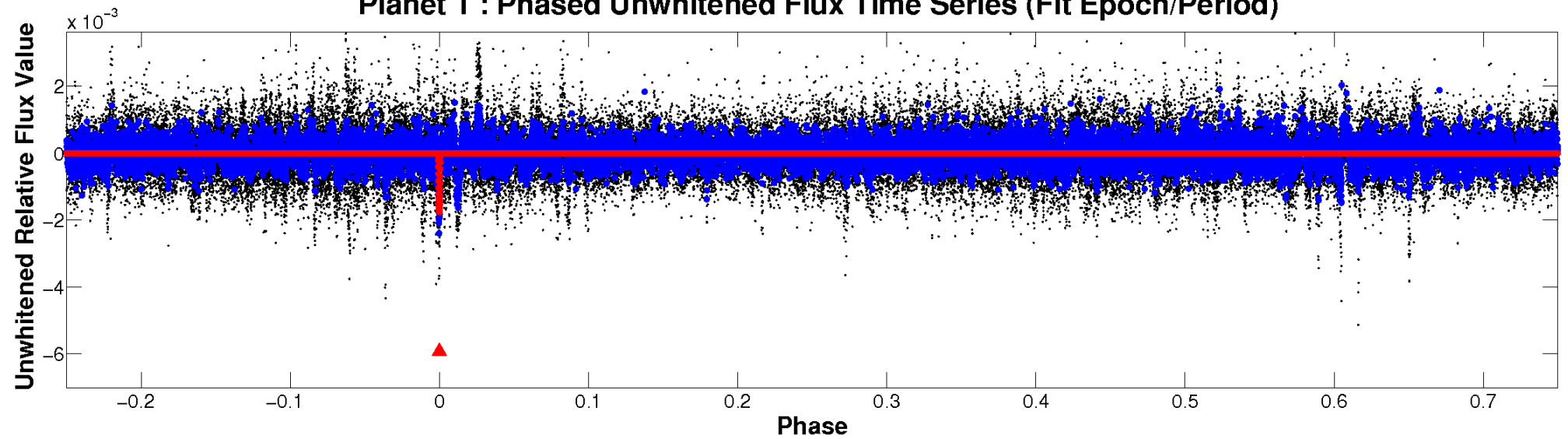
ALT Odd/Even

TCE 006038844-01

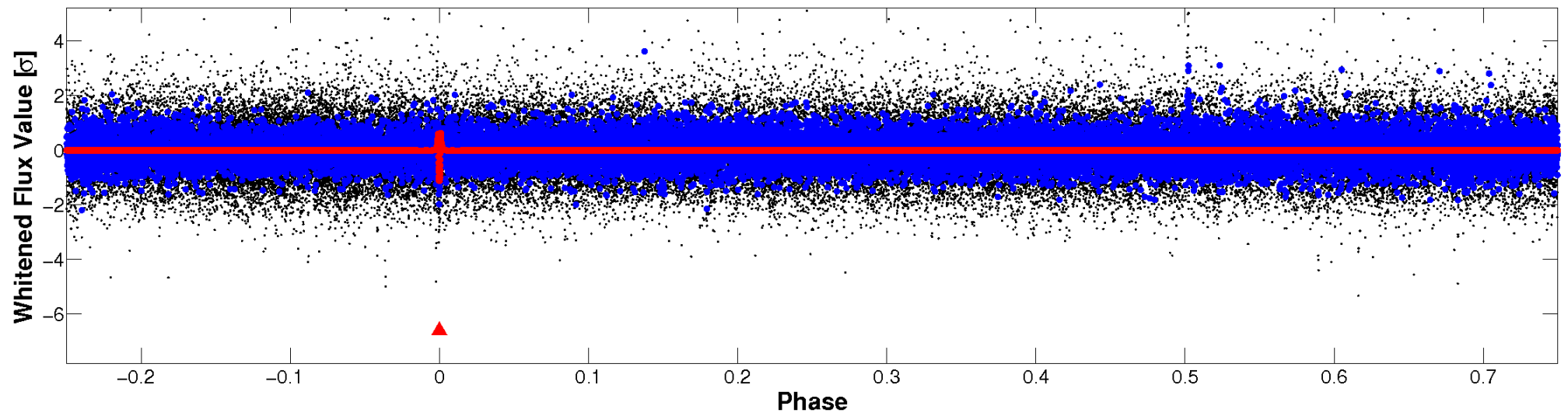


Non-Whitened Vs. Whitened Light Curve

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

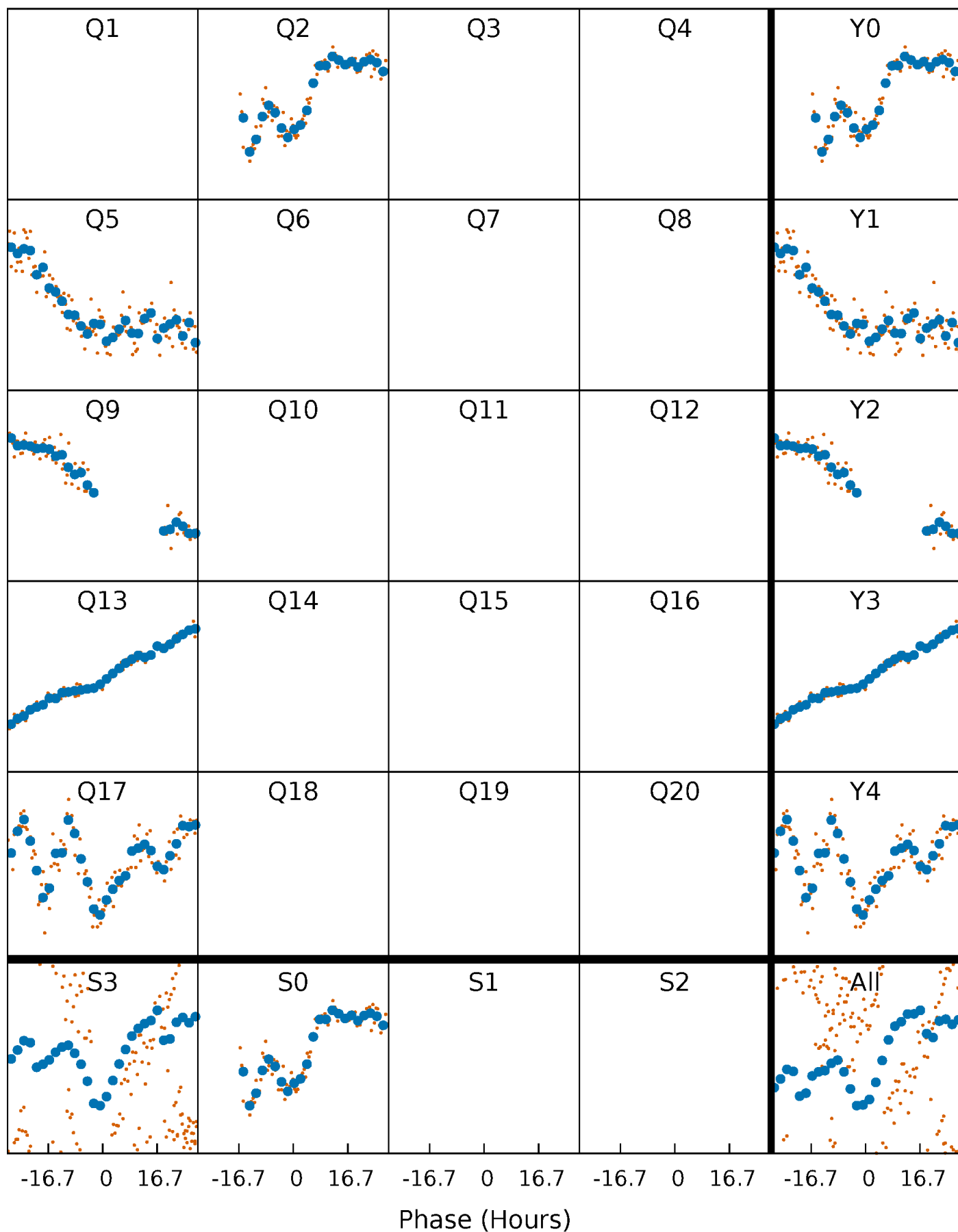


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



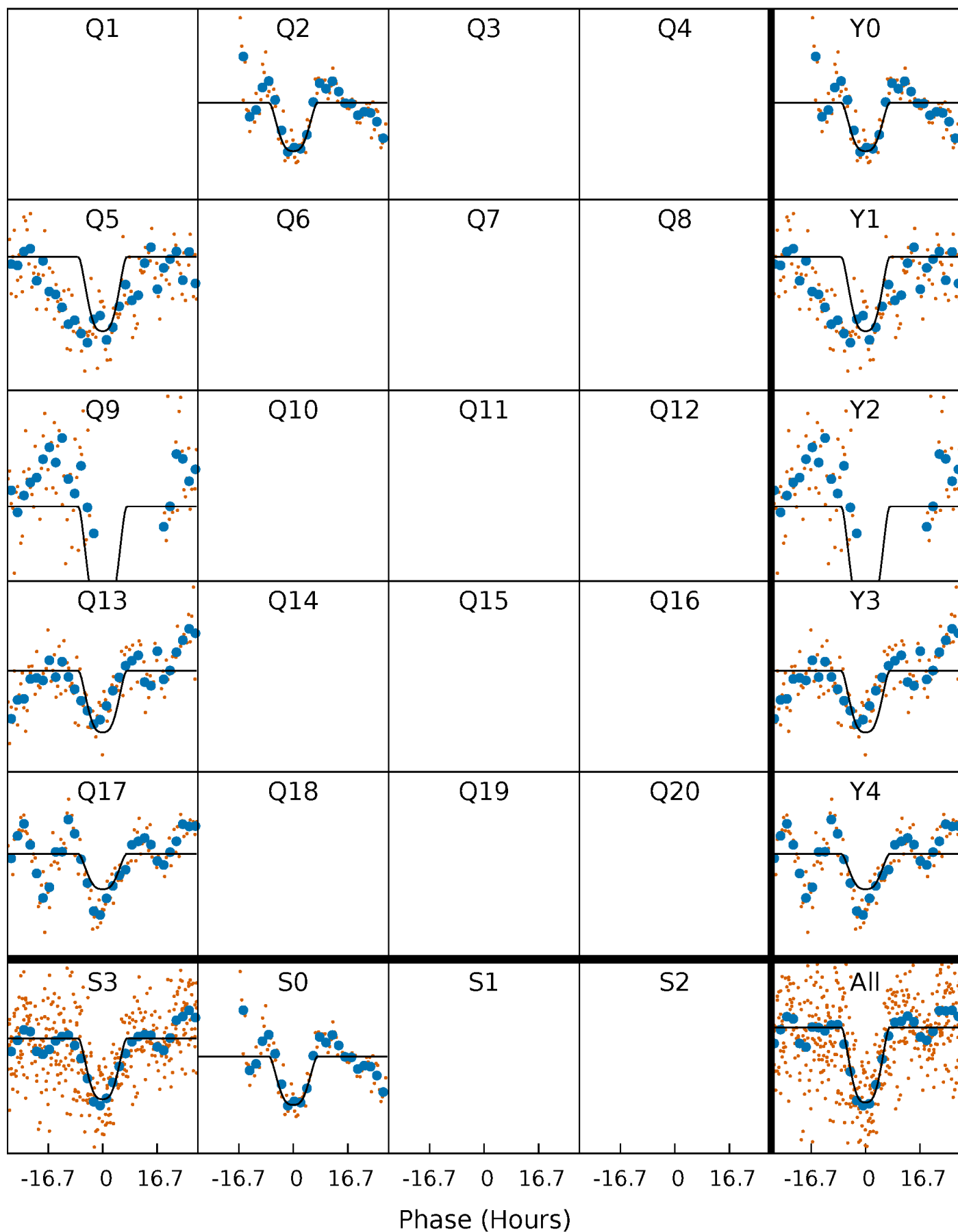
PDC Quarter-Phased Transit Curves

TCE 006038844-01 P=351.191325 Days $T_0=184.400366$ (BKJD)



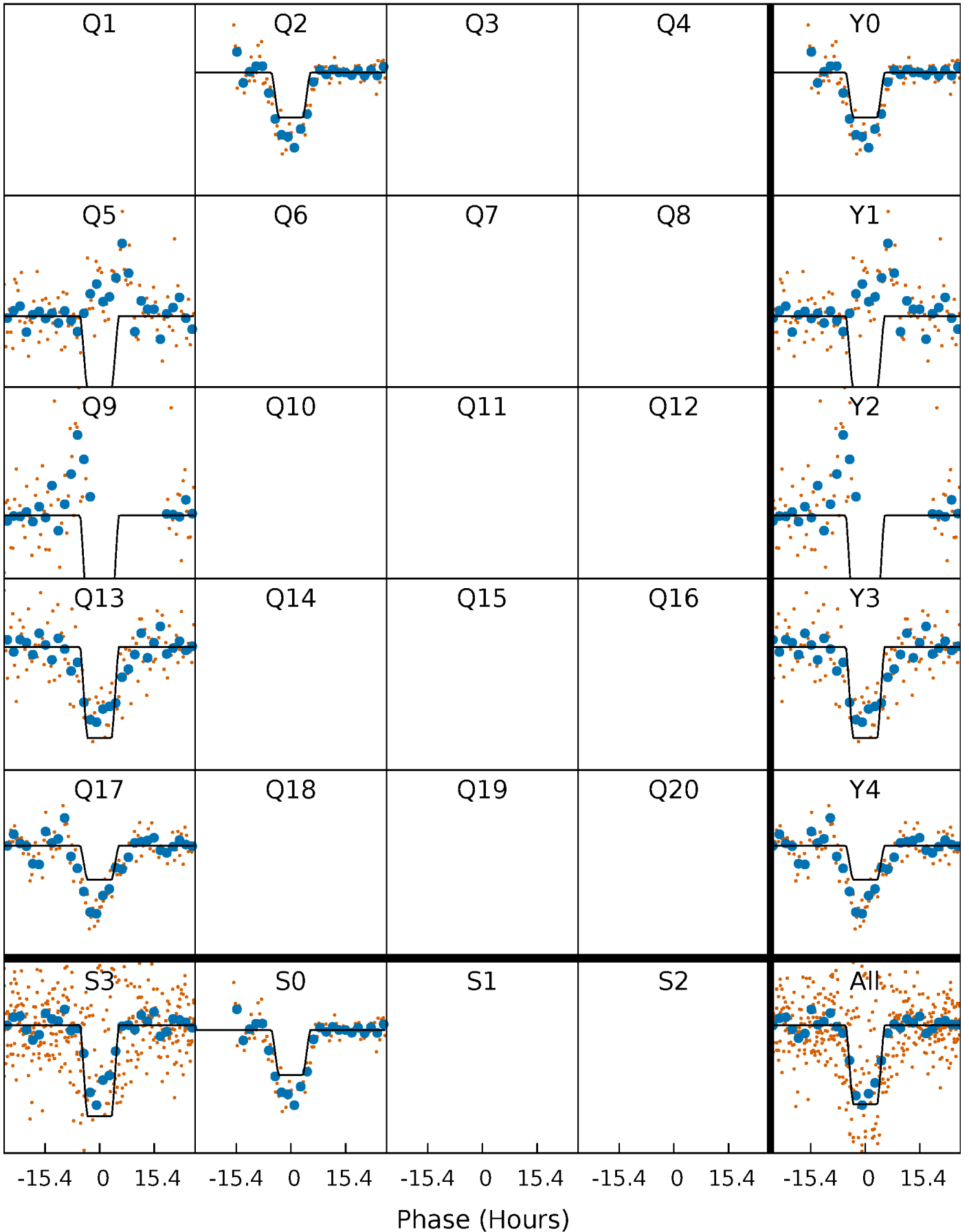
DV Quarter-Phased Transit Curves

TCE 006038844-01 P=351.191325 Days $T_0=184.400366$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

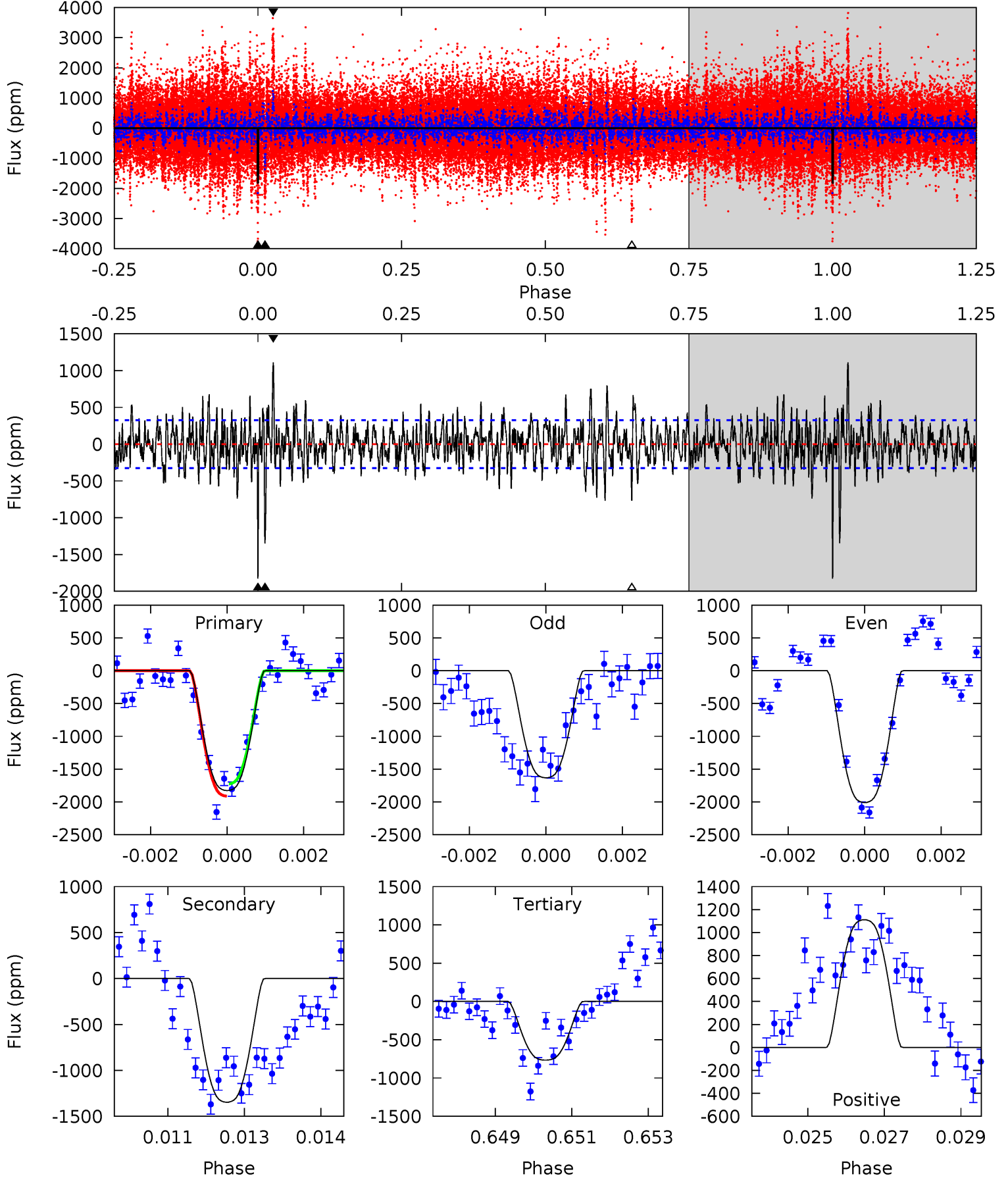
TCE 006038844-01 P=351.191596 Days $T_0=184.393499$ (BKJD)



DV Model-Shift Uniqueness Test

006038844-01, P = 351.191325 Days, E = 184.400366 Days

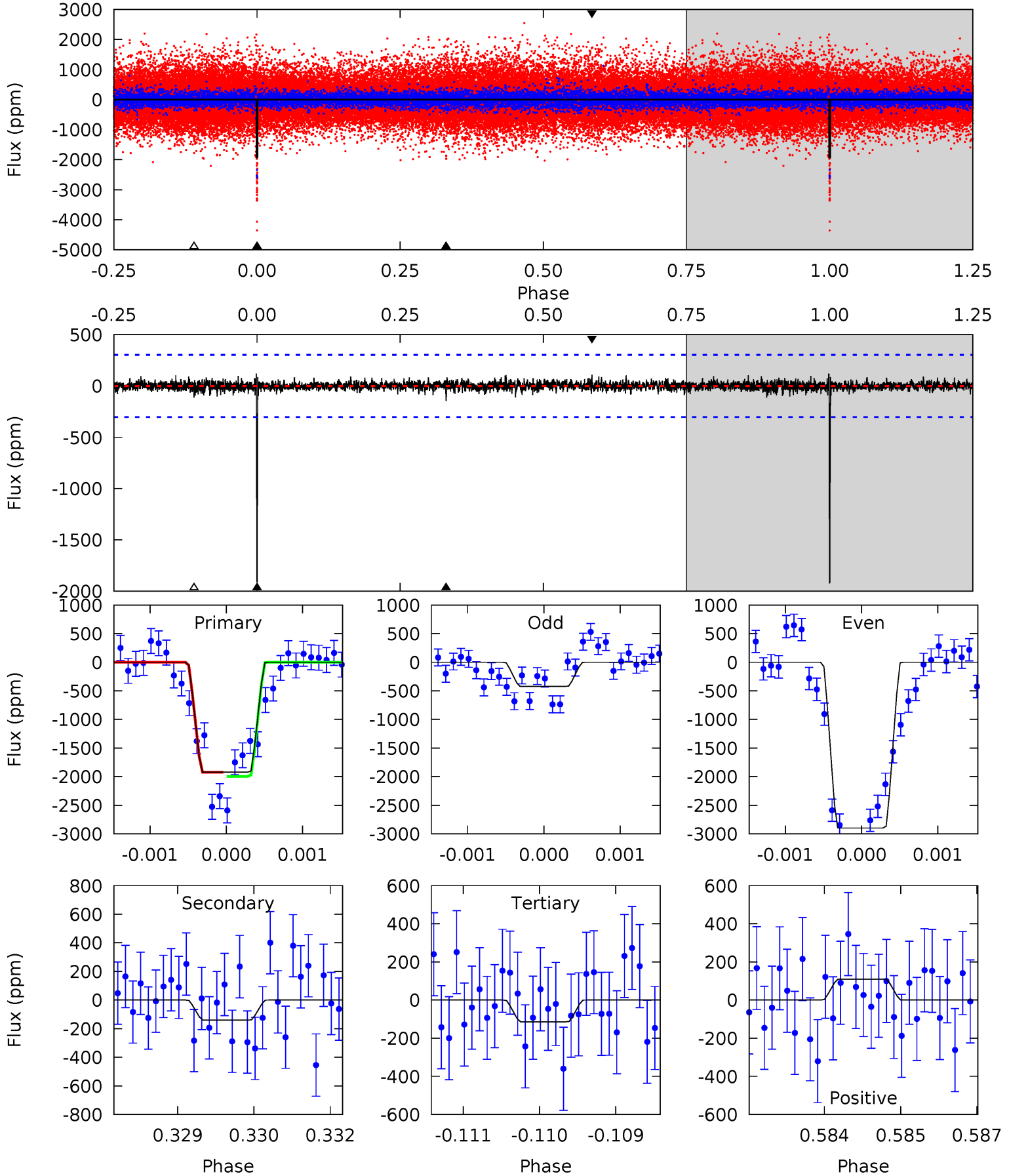
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.9	22.0	12.5	18.2	5.35	3.12	3.82	17.3	11.7	9.50	3.85	3.08	0.91	0.38	1.52



Alt Model-Shift Uniqueness Test

006038844-01, P = 351.191596 Days, E = 184.393499 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.4	2.50	2.04	1.96	5.41	3.22	0.46	32.4	32.4	0.46	0.54	23.7	0.78	0.06	0



Stellar Parameters For KIC 006038844

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5773^{+156}_{-191}	$4.480^{+0.048}_{-0.192}$	$0.360^{+0.100}_{-0.300}$	$1.003^{+0.273}_{-0.091}$	$1.110^{+0.100}_{-0.150}$	$1.548^{+0.384}_{-0.748}$
	+3%/-3%	+1%/-4%	+28%/-83%	+27%/-9%	+9%/-14%	+25%/-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 006038844-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1347 ± 61	$5.55^{+0.88}_{-0.66}$	360^{+27}_{-15}	5055^{+241}_{-230}	23973^{+6615}_{-5775}
Alt.	-140 ± 56	$4.87^{+0.77}_{-0.64}$	361^{+23}_{-17}	3497^{+245}_{-276}	3121^{+1776}_{-1313}

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

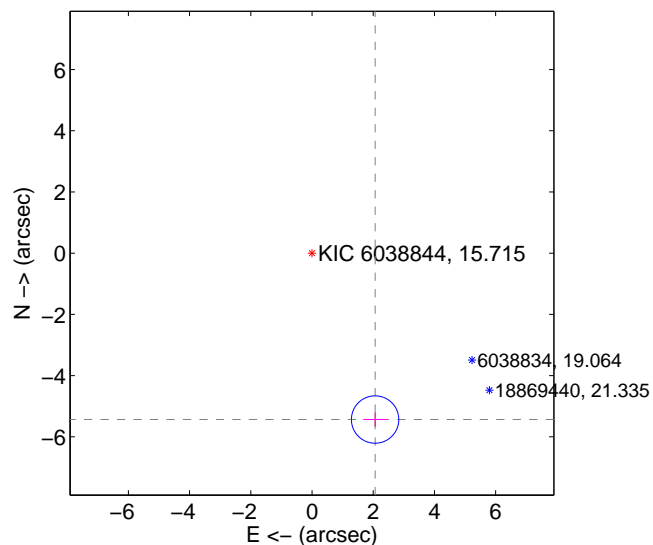
Supplemental centroid analysis for 006038844-01. Kepler magnitude: 15.71. Transit SNR 9.60

There are 0 quarters with good PRF difference image offsets

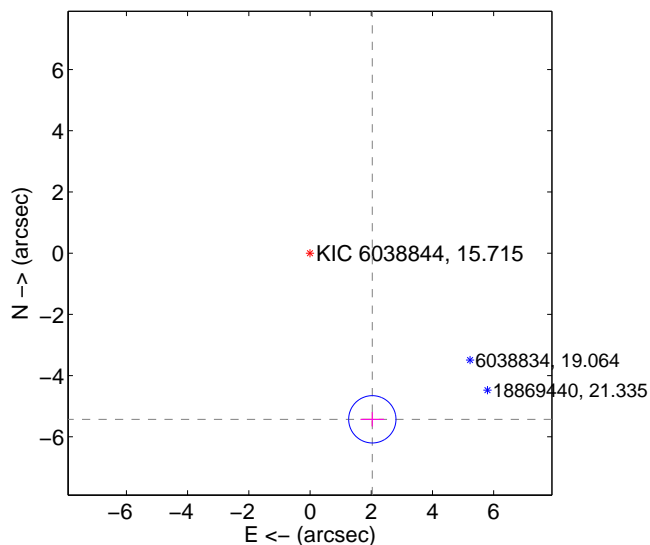
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.814 ± 0.258	22.53	-2.062 ± 0.383	-5.436 ± 0.235
PRF-fit source offset from KIC position	5.798 ± 0.258	22.51	-2.035 ± 0.383	-5.429 ± 0.235
photometric centroid source offset	2.71 ± 1.11	2.44	-2.59 ± 1.12	-0.77 ± 0.95

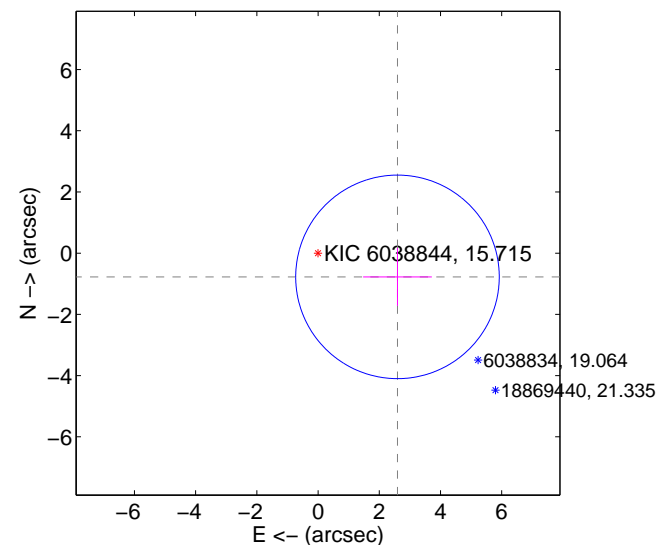
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

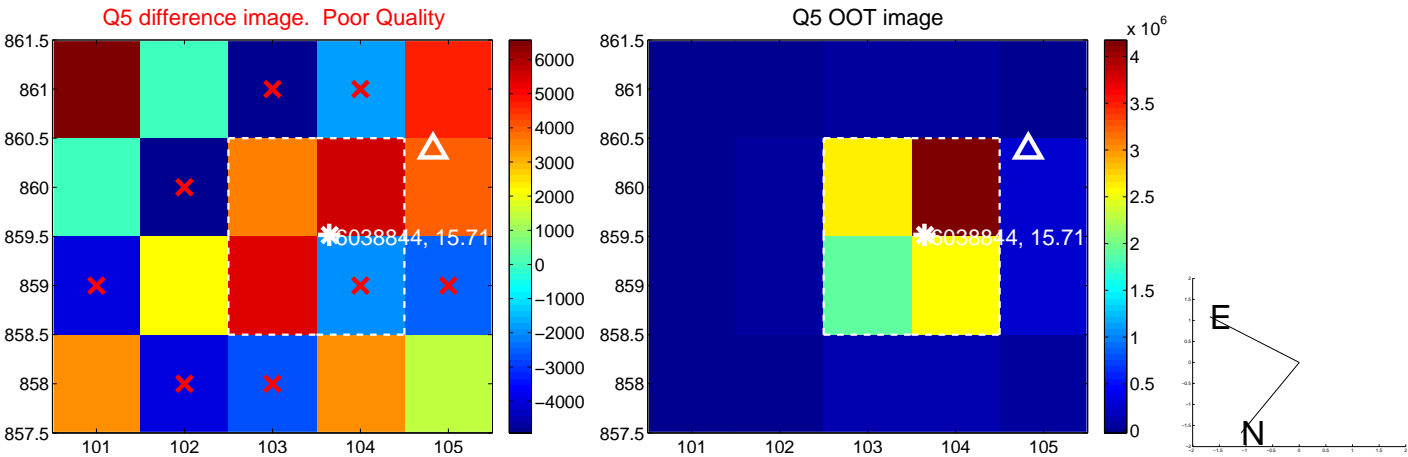


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



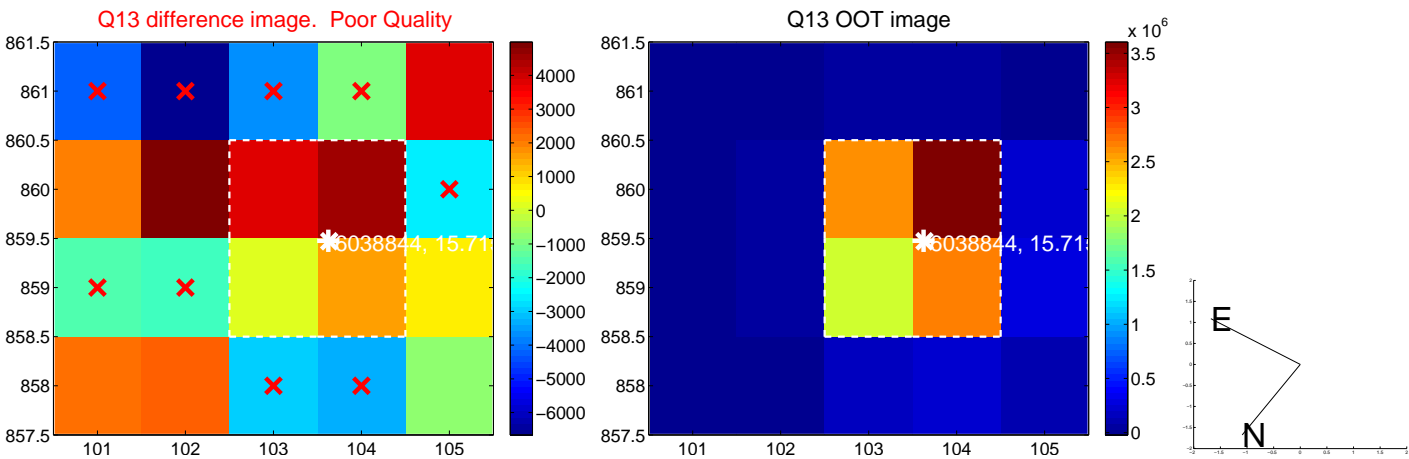
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



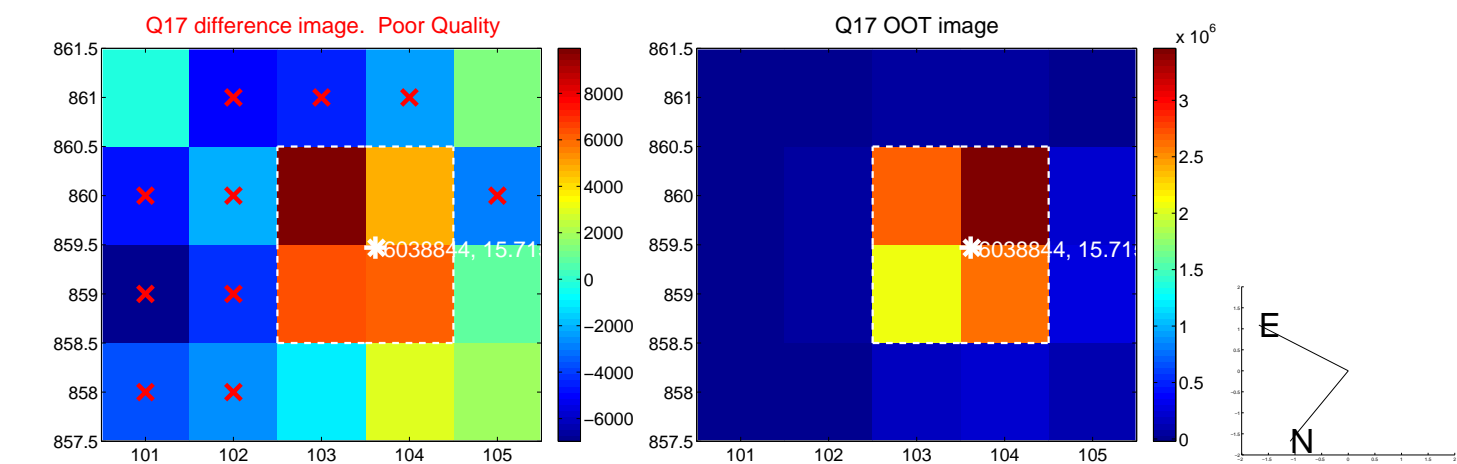
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



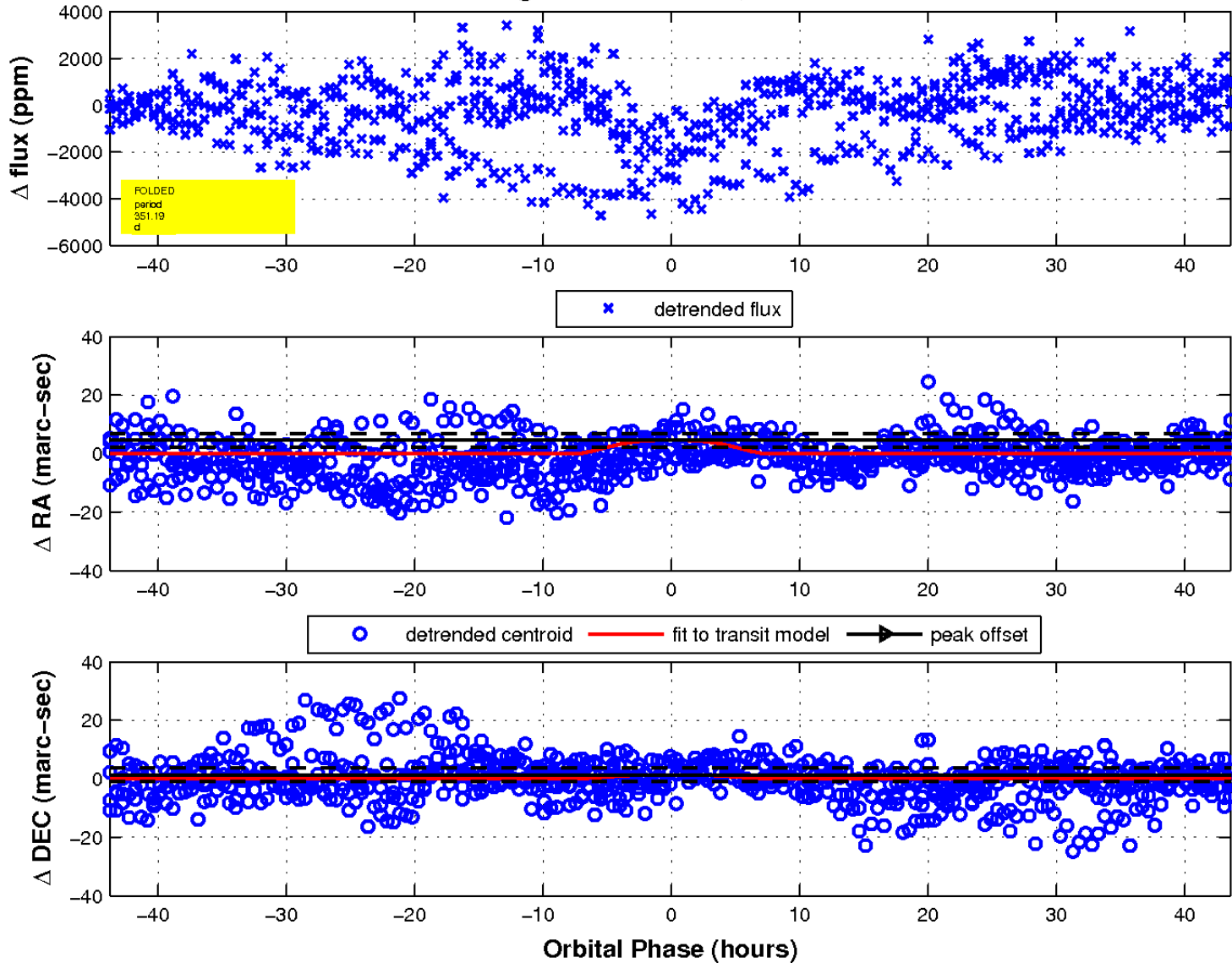
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

