

KIC 006038752

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})
006038752-01	OBS	No	363.118287	167.372198	1569.5	24.402	9.3	10.8	1.03	6258	6.77	1.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006038752-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

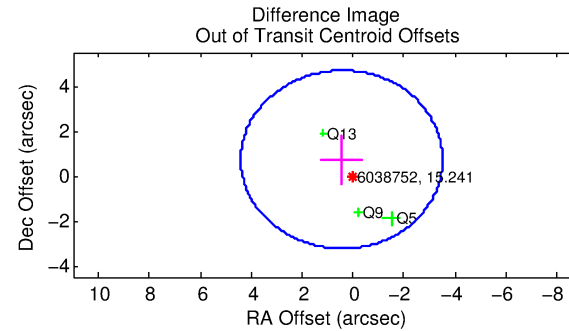
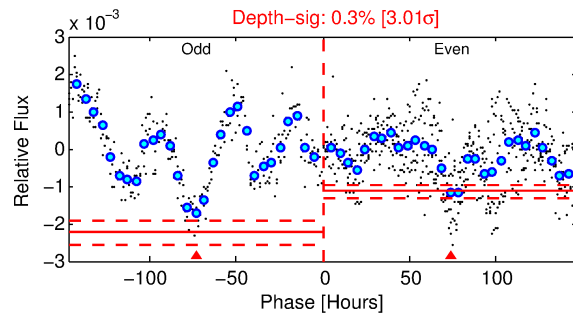
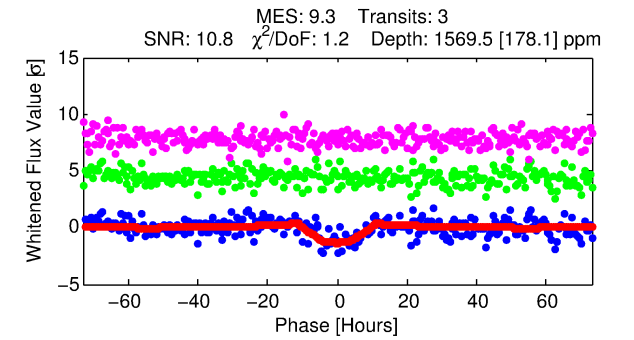
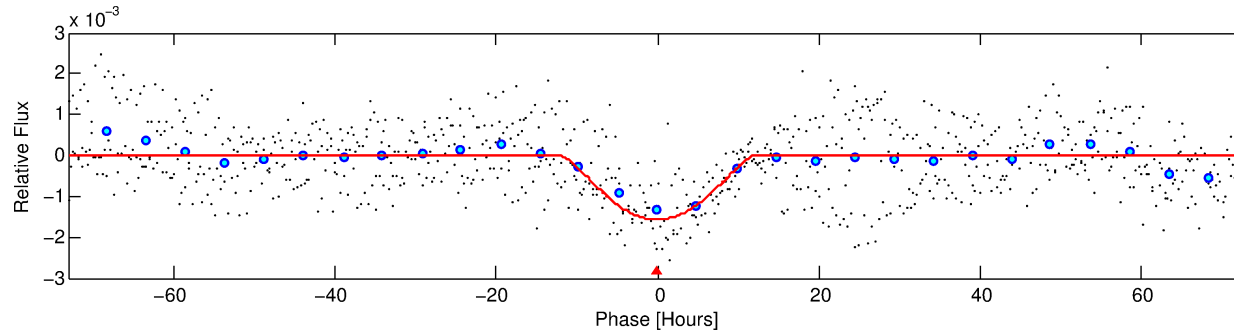
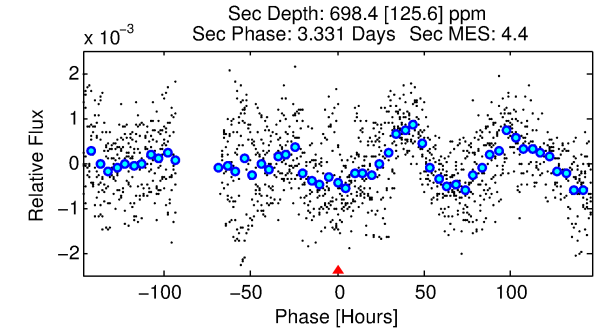
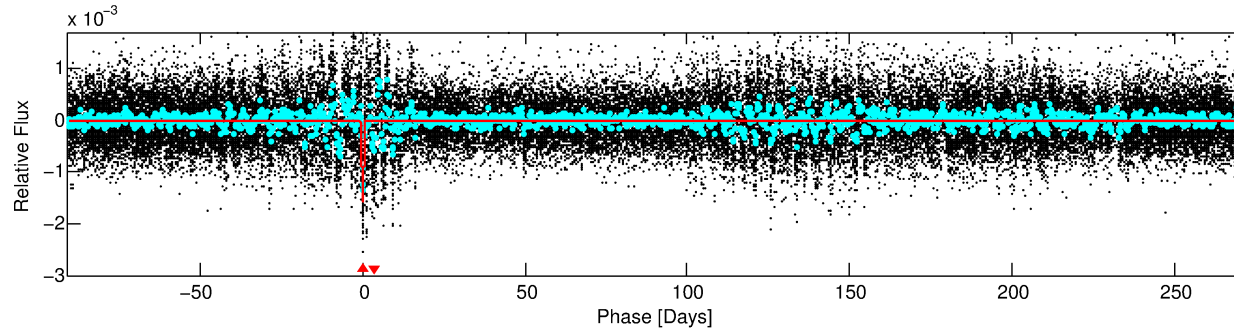
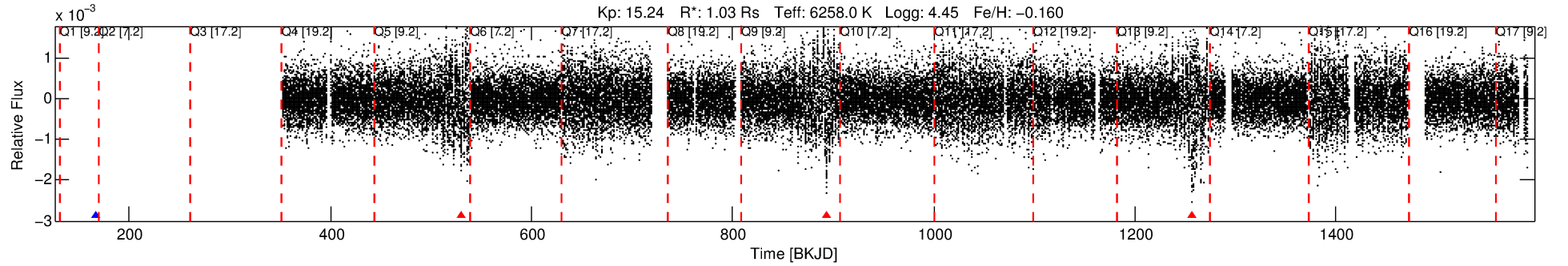
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006038752-01

No Significant Match Found

DV One-Page Summary

KIC: 6038752 Candidate: 1 of 1 Period: 363.118 d



DV Fit Results:

Period = 363.11829 [0.03160] d
Epoch = 167.3722 [0.0657] BKJD
Rp/R* = 0.0602 [0.0816]
a/R* = 43.82 [16.48]
b = 0.99 [0.13]
Seff = 1.39 [0.62]
Teq = 277 [31] K
Rp = 6.77 [9.46] Re
a = 1.0254 [0.2909] AU
Ag = 8816.49 [24236.45] [0.36σ]
Teff = 4147 [2824] K [1.37σ]

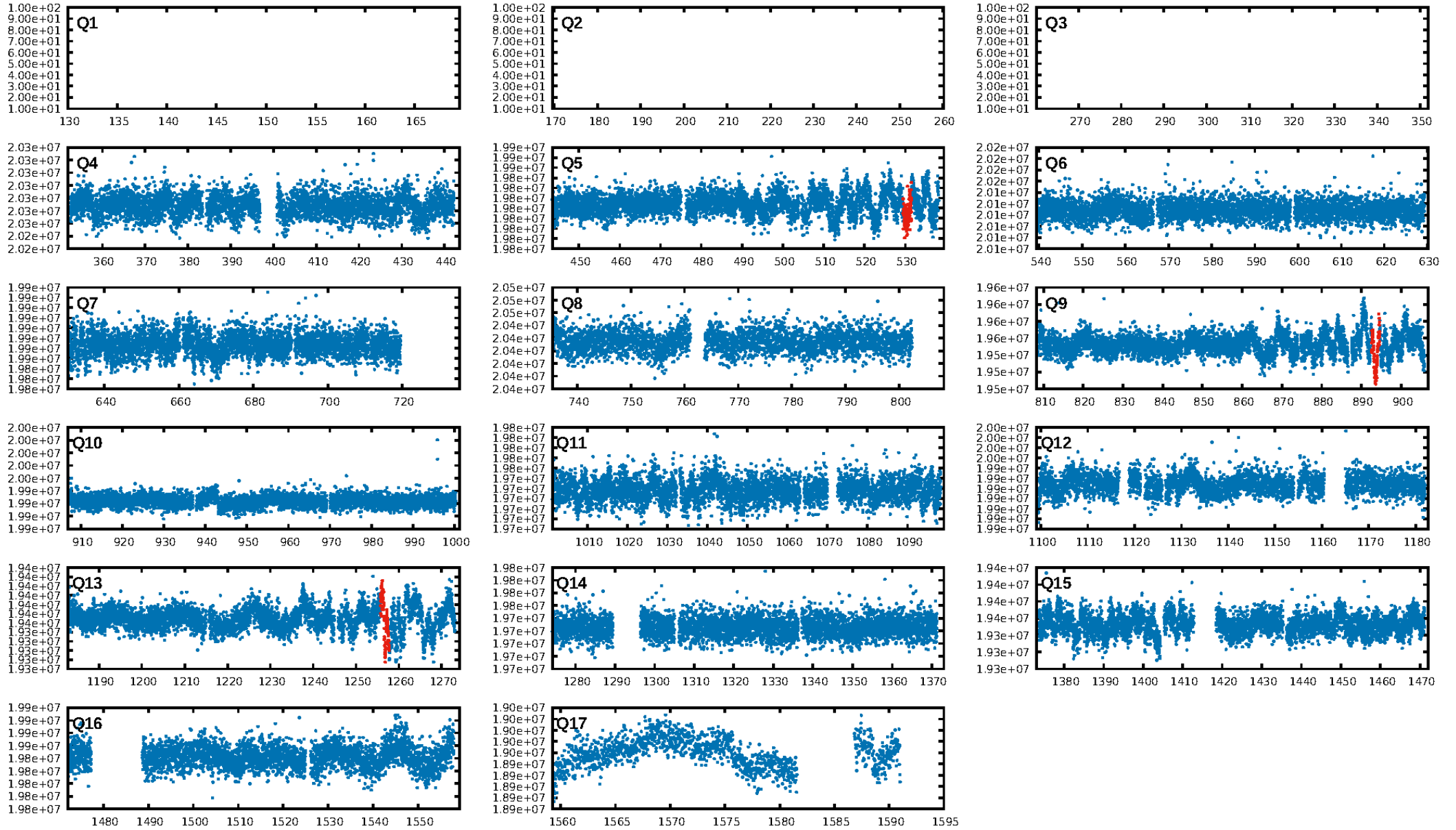
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.8%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: 2.64e-12
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 3.358
Centroid-sig: 1.5%
Centroid-so: 3.346 arcsec [2.15σ]
OotOffset-rm: 0.850 arcsec [0.64σ]
KicOffset-rm: 0.732 arcsec [0.60σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

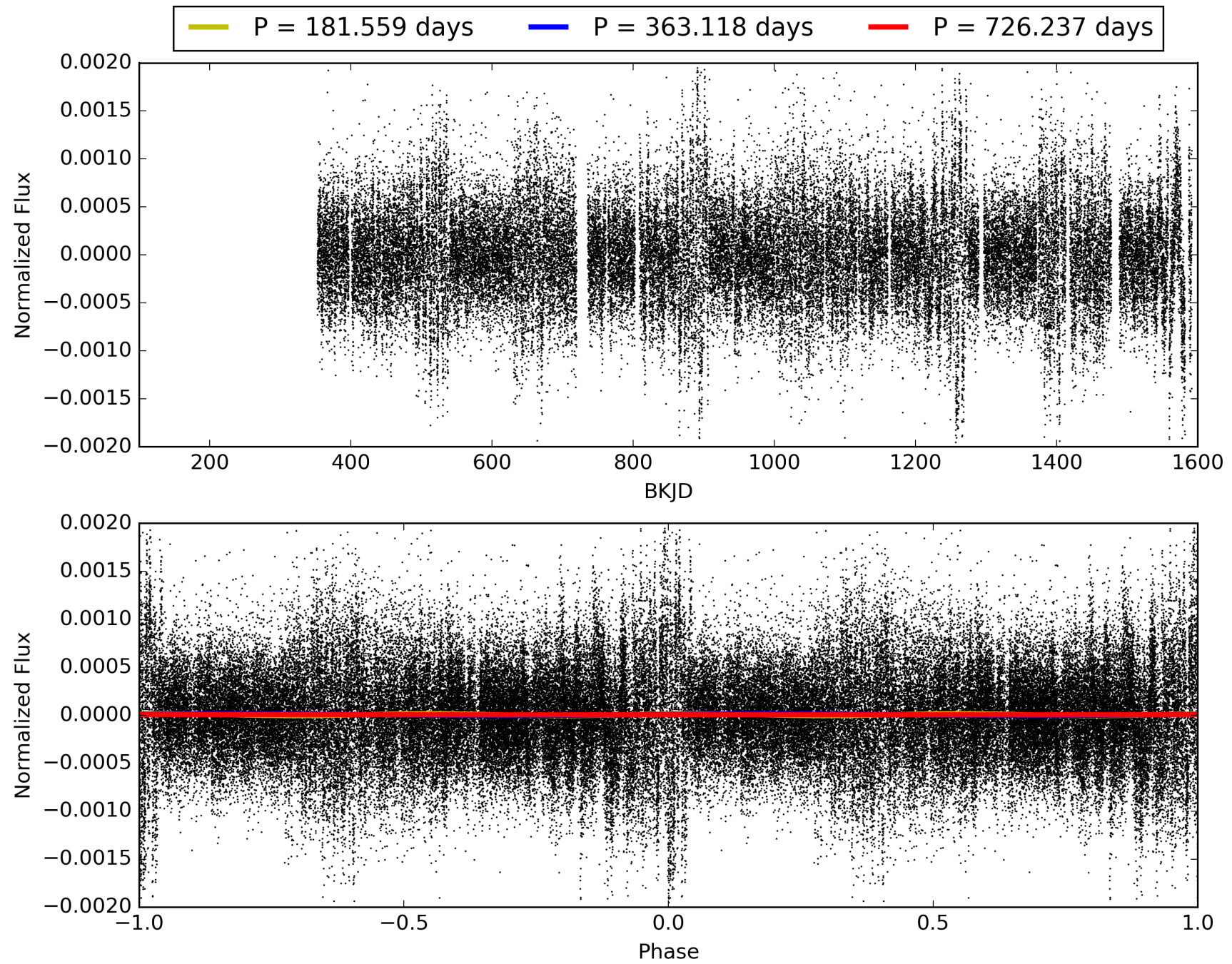
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:05:36 Z

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

TCE 006038752-01, PDC Light Curves

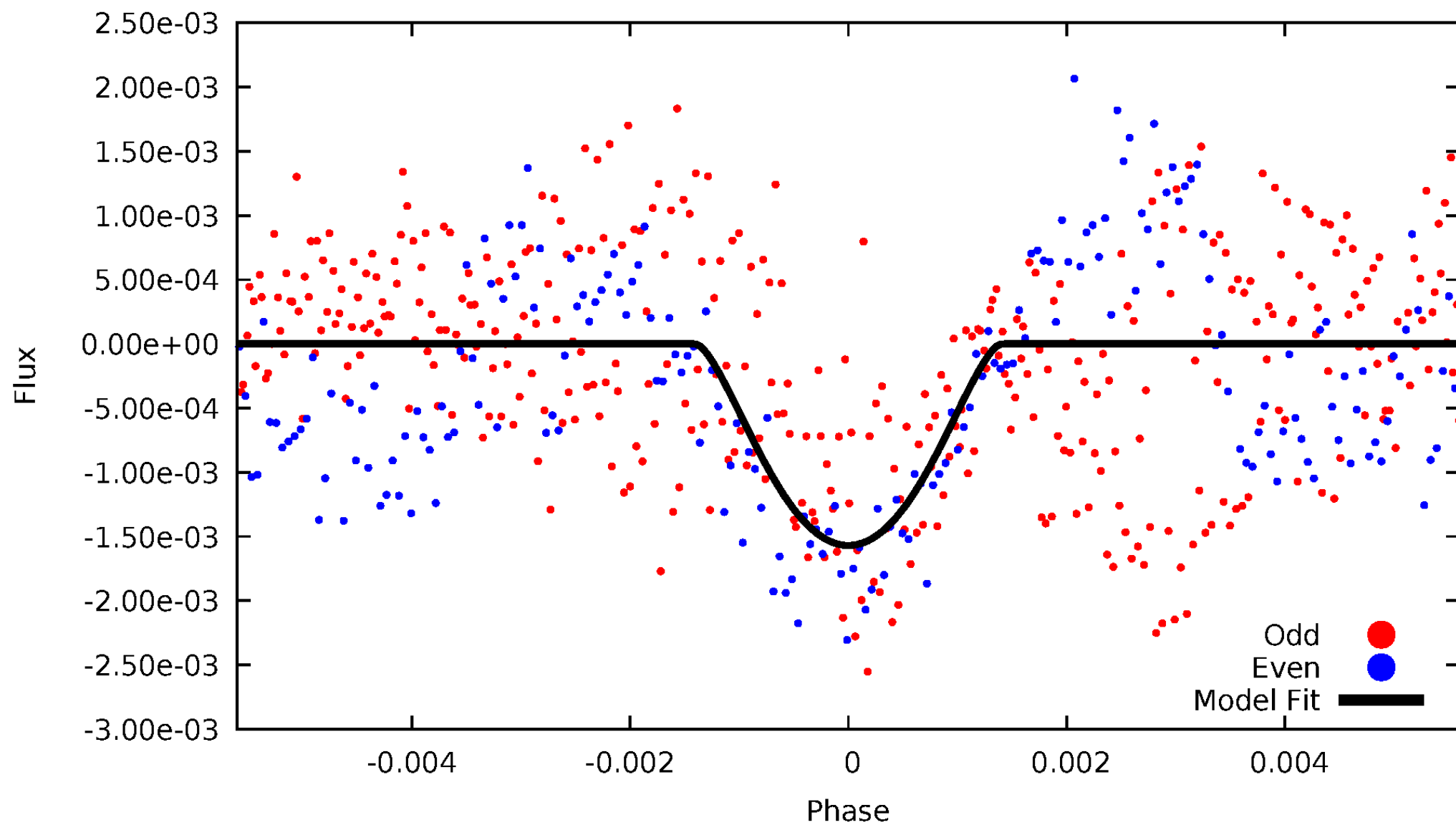


TCE 006038752-01



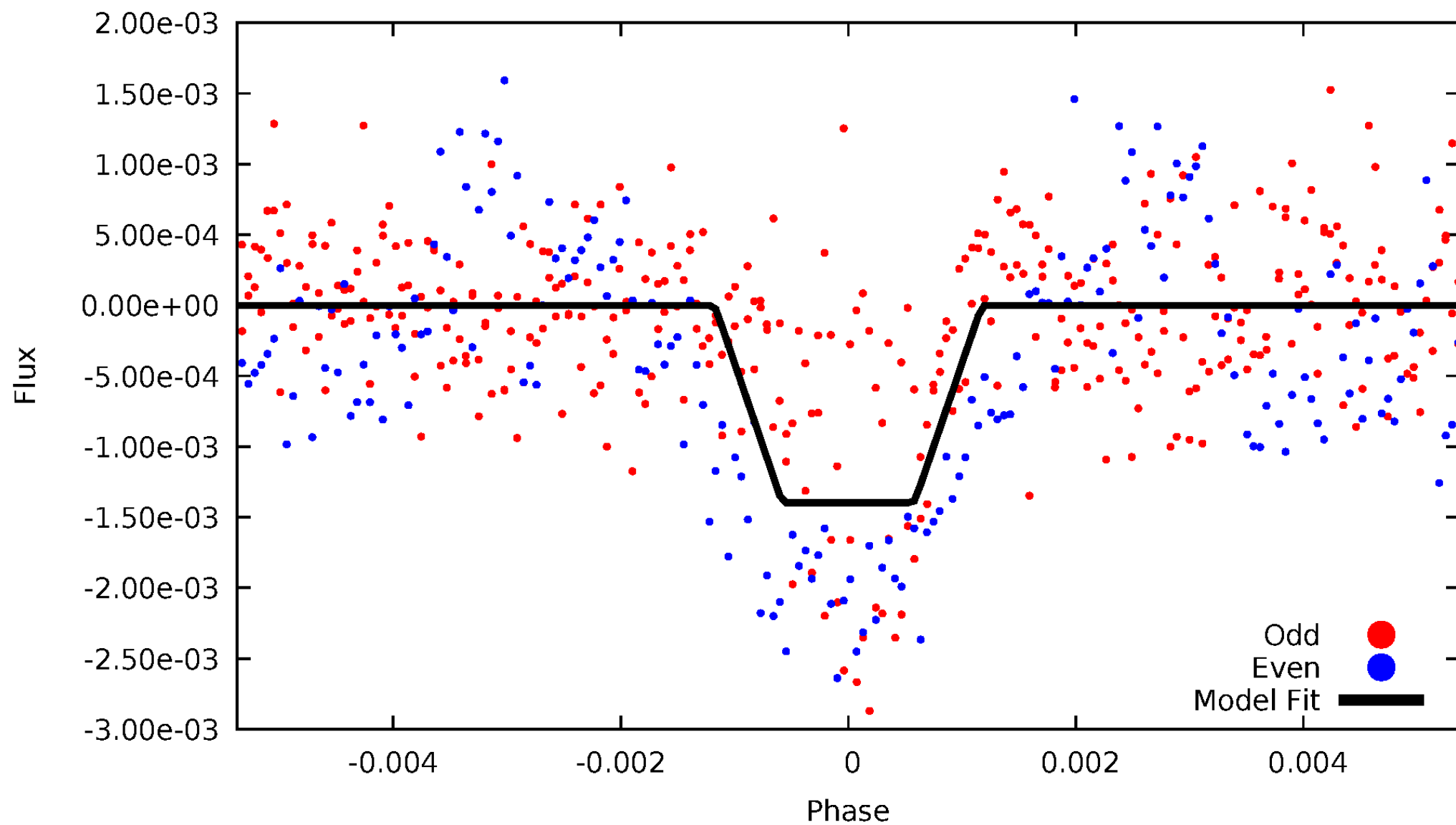
DV Odd/Even

TCE 006038752-01



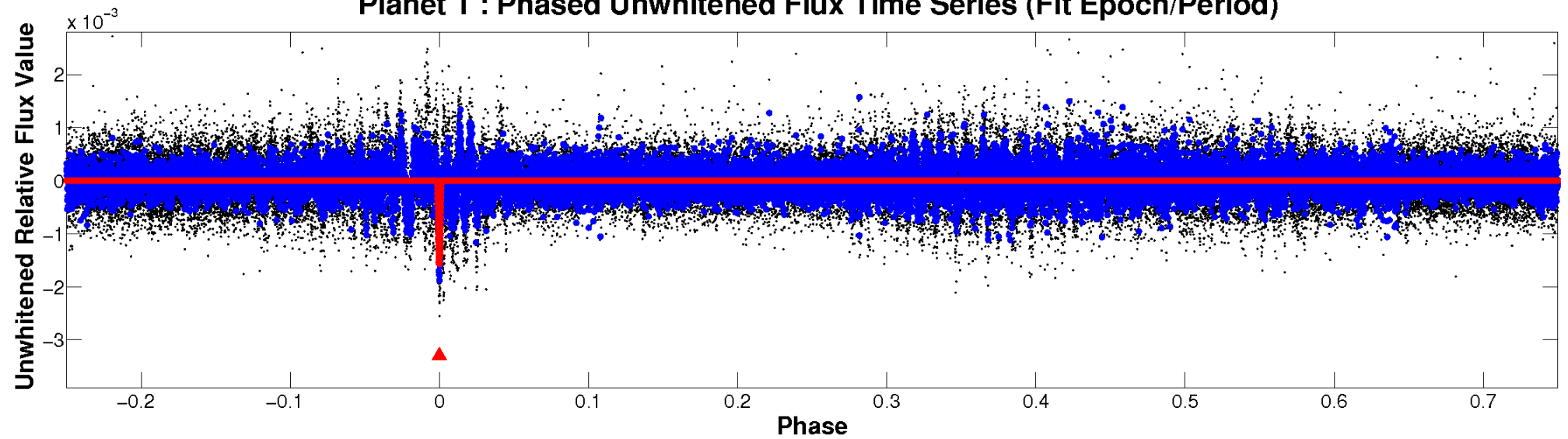
ALT Odd/Even

TCE 006038752-01

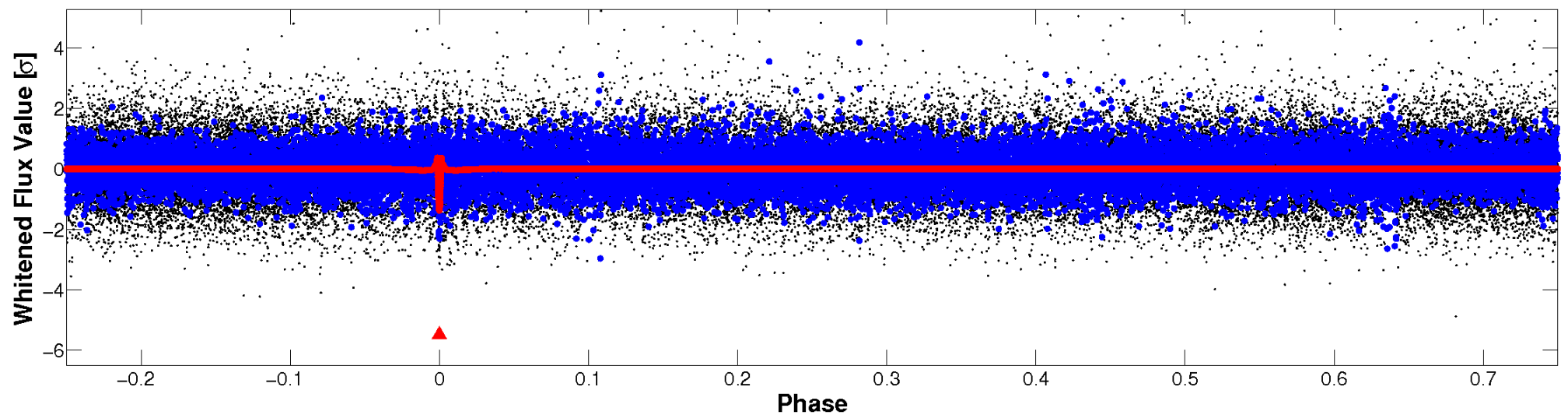


Non-Whitened Vs. Whitened Light Curve

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

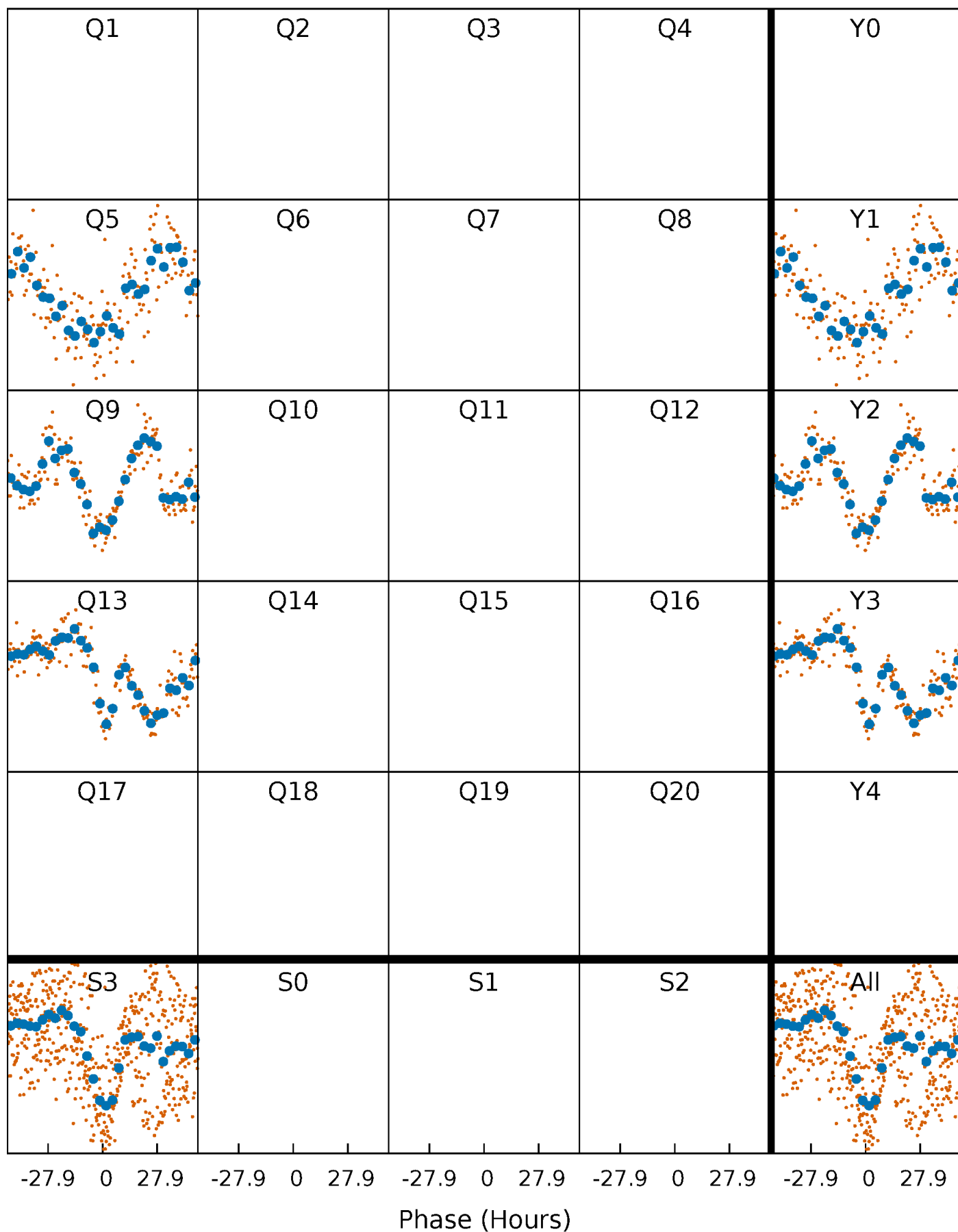


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



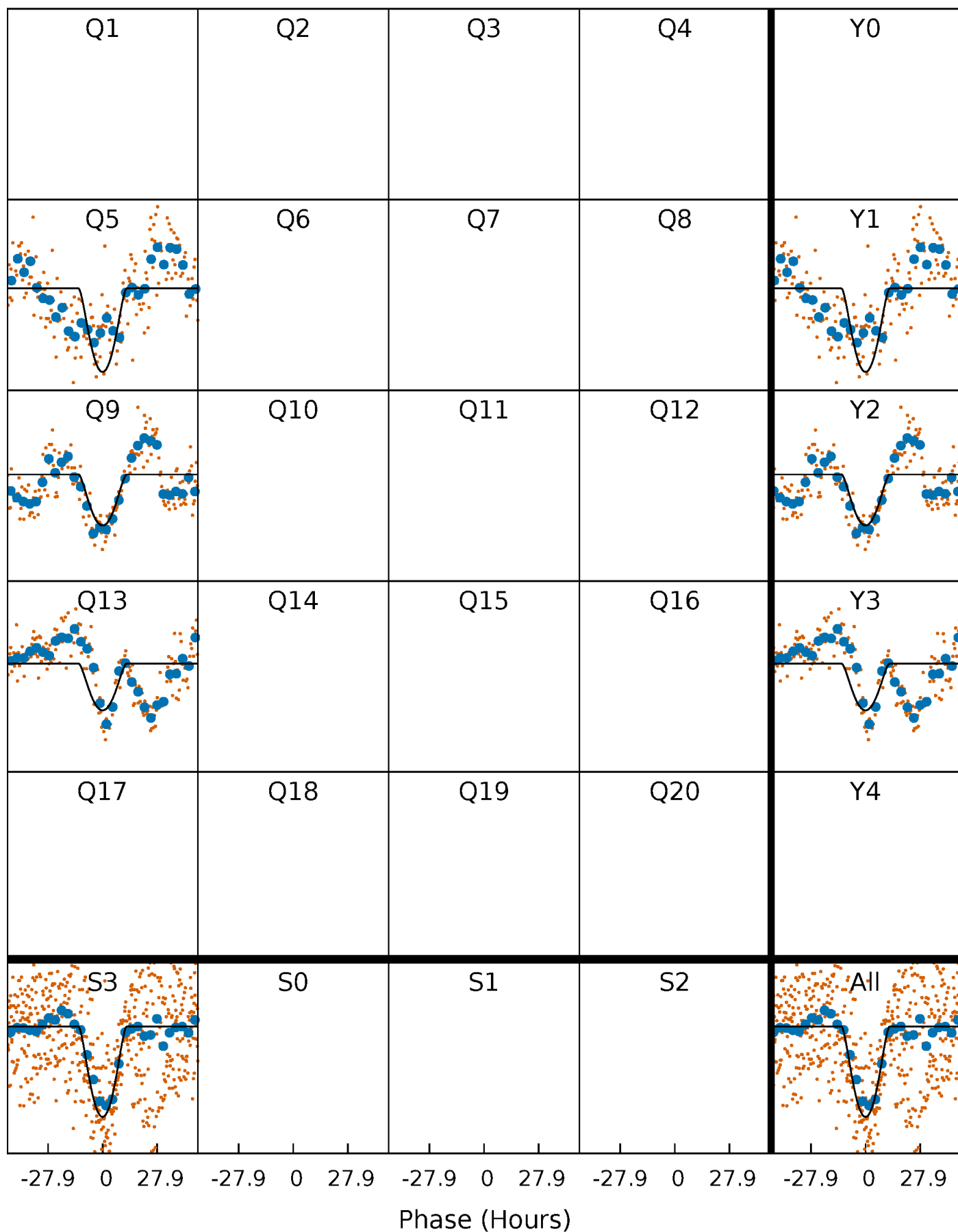
PDC Quarter-Phased Transit Curves

TCE 006038752-01 P=363.118287 Days $T_0=167.372198$ (BKJD)



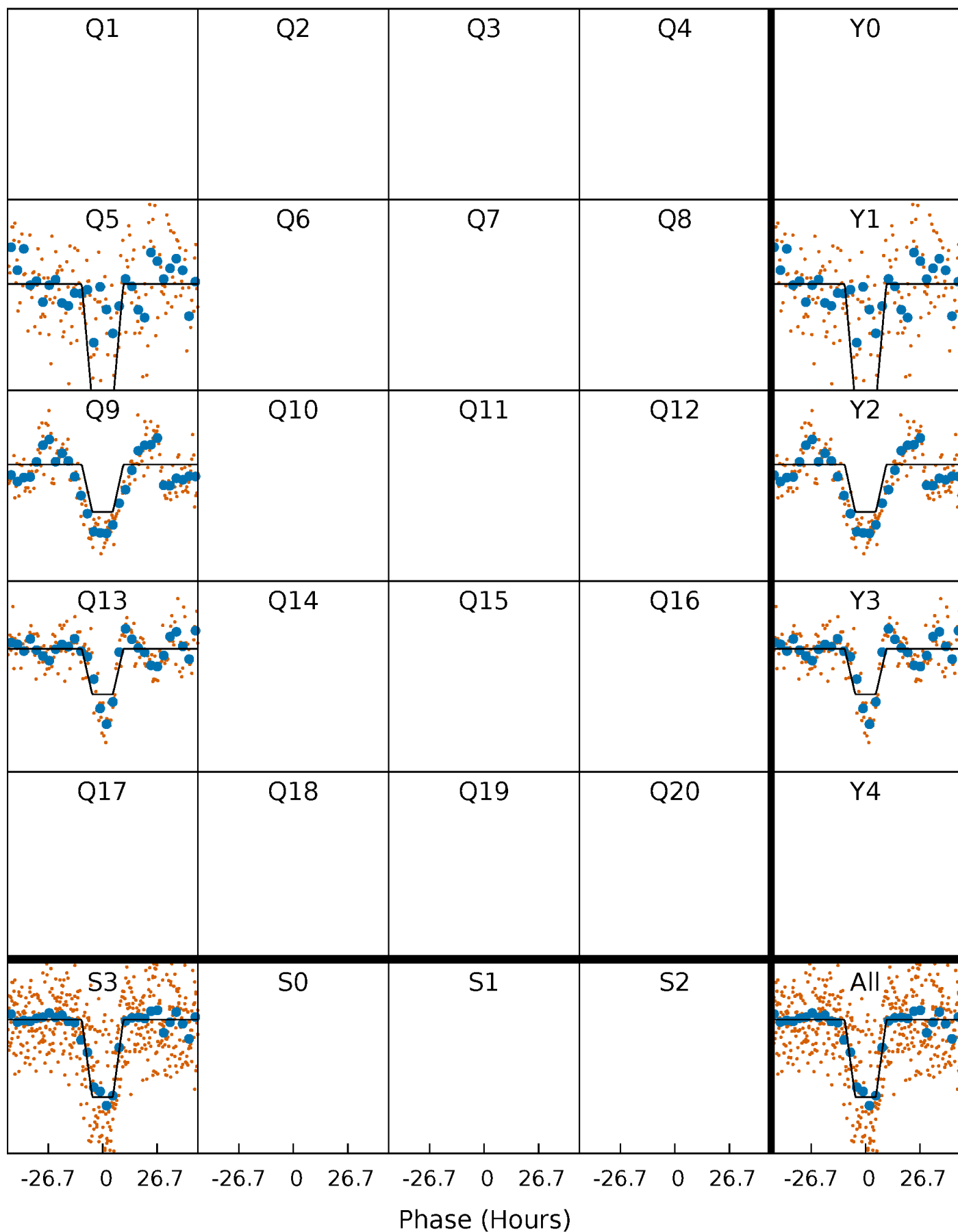
DV Quarter-Phased Transit Curves

TCE 006038752-01 P=363.118287 Days $T_0=167.372198$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

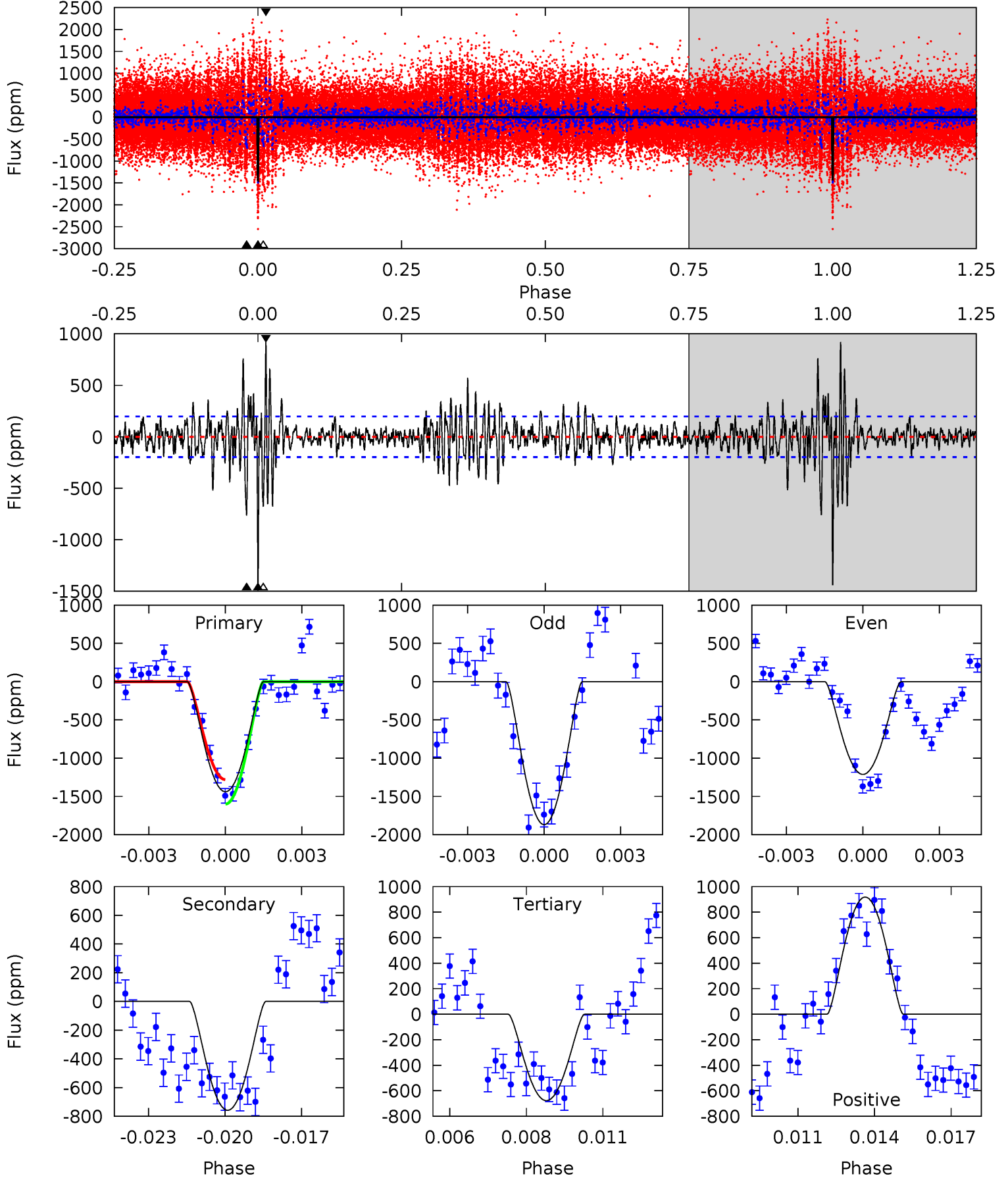
TCE 006038752-01 P=363.083928 Days $T_0=167.471869$ (BKJD)



DV Model-Shift Uniqueness Test

006038752-01, P = 363.118287 Days, E = 167.372198 Days

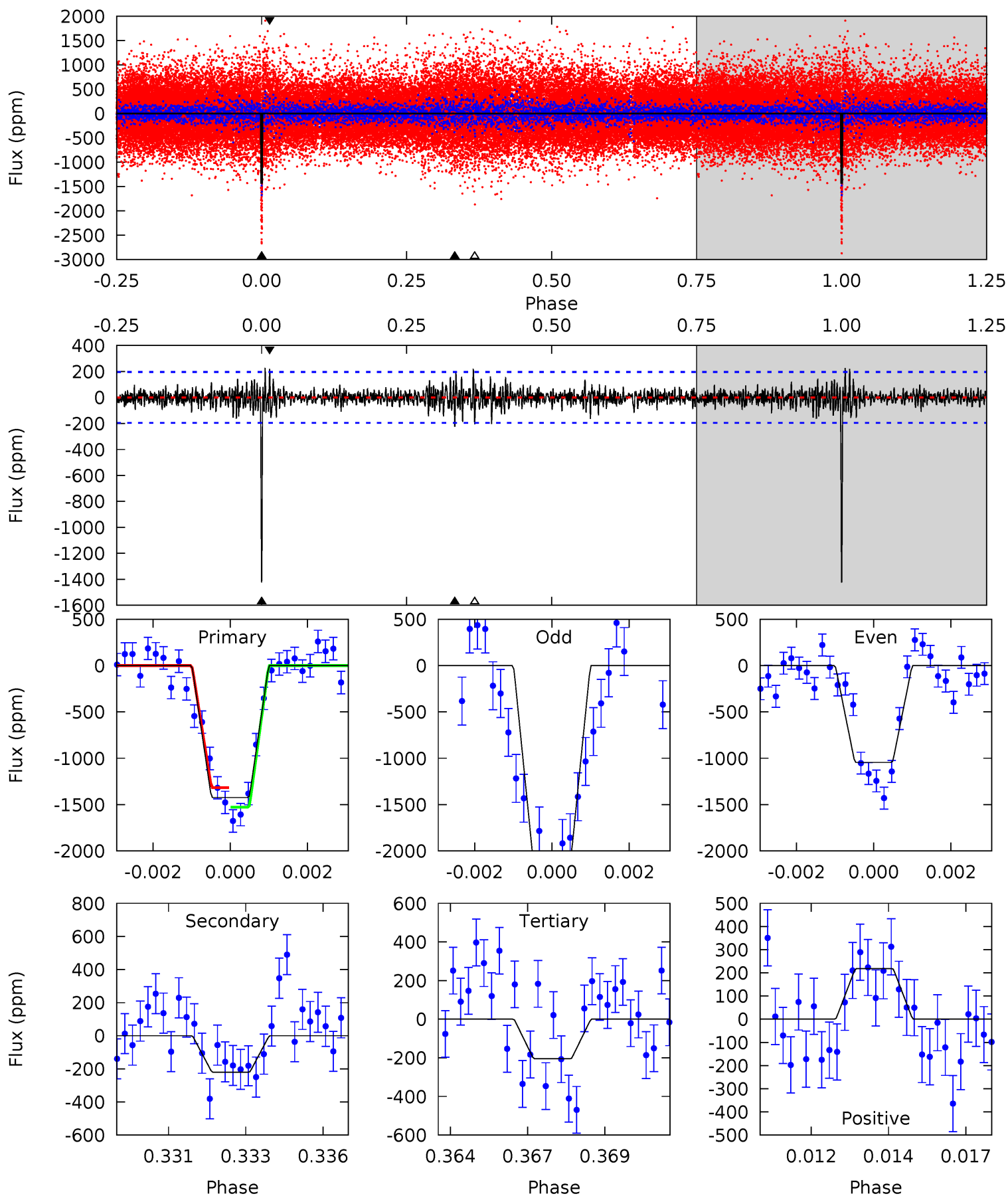
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.4	20.2	18.1	24.5	5.26	2.99	3.79	20.3	13.9	2.16	-4.28	8.29	1.06	0.39	4.25



Alt Model-Shift Uniqueness Test

006038752-01, $P = 363.083928$ Days, $E = 167.471869$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.5	5.96	5.55	5.90	5.30	3.04	1.21	32.9	32.6	0.41	0.05	13.4	0.85	0.14	2.86



Stellar Parameters For KIC 006038752

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6258^{+197}_{-263}	$4.449^{+0.056}_{-0.224}$	$-0.160^{+0.250}_{-0.300}$	$1.031^{+0.349}_{-0.116}$	$1.087^{+0.154}_{-0.139}$	$1.398^{+0.427}_{-0.773}$
	+3%/-4%	+1%/-5%	+156%/-188%	+34%/-11%	+14%/-13%	+31%/-55%
Source	KIC0	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 006038752-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-758 ± 37	$9.89^{+9.05}_{-6.01}$	395^{+34}_{-22}	3946^{+1794}_{-747}	4326^{+23806}_{-3139}
Alt.	-220 ± 37	$8.47^{+7.73}_{-5.60}$	395^{+31}_{-21}	3363^{+1639}_{-577}	1728^{+13946}_{-1269}

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 $A_{obs} \gg 1.0$

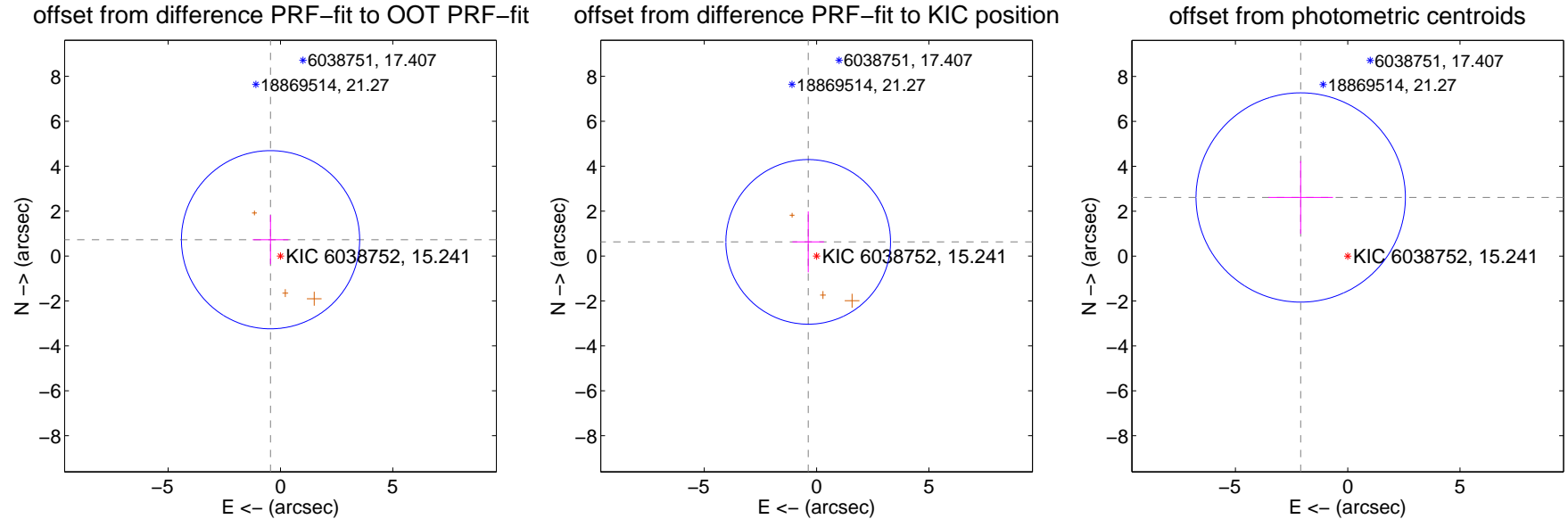
DV Centroid Data

Supplemental centroid analysis for 006038752-01. Kepler magnitude: 15.24. Transit SNR 10.77

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.850 ± 1.322	0.64	0.441 ± 0.792	0.726 ± 1.094
PRF-fit source offset from KIC position	0.732 ± 1.221	0.60	0.373 ± 0.704	0.630 ± 1.357
photometric centroid source offset	3.35 ± 1.55	2.15	2.09 ± 1.44	2.61 ± 1.62

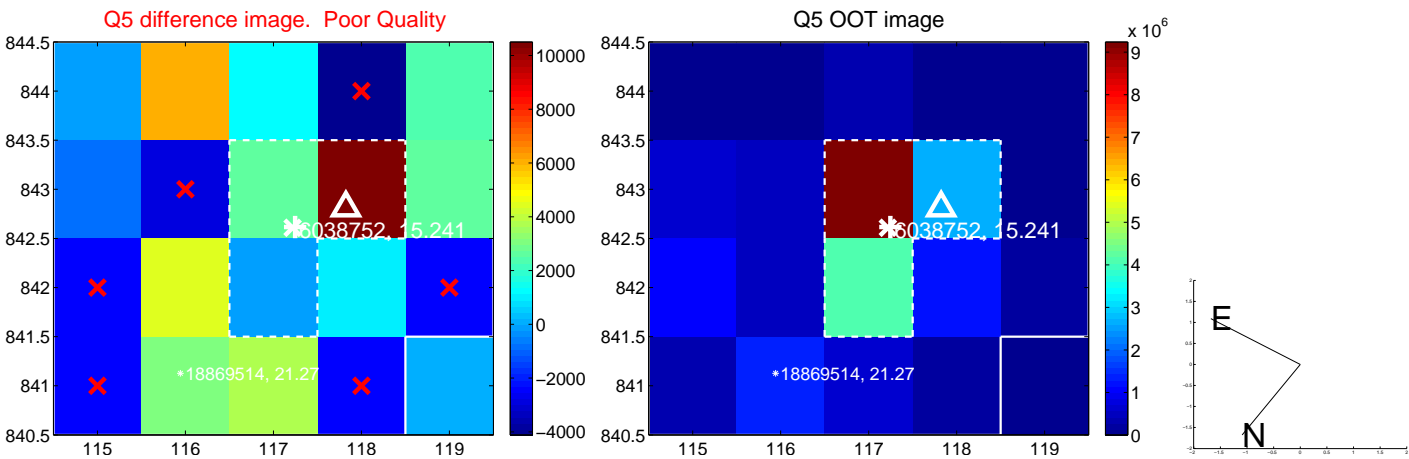


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

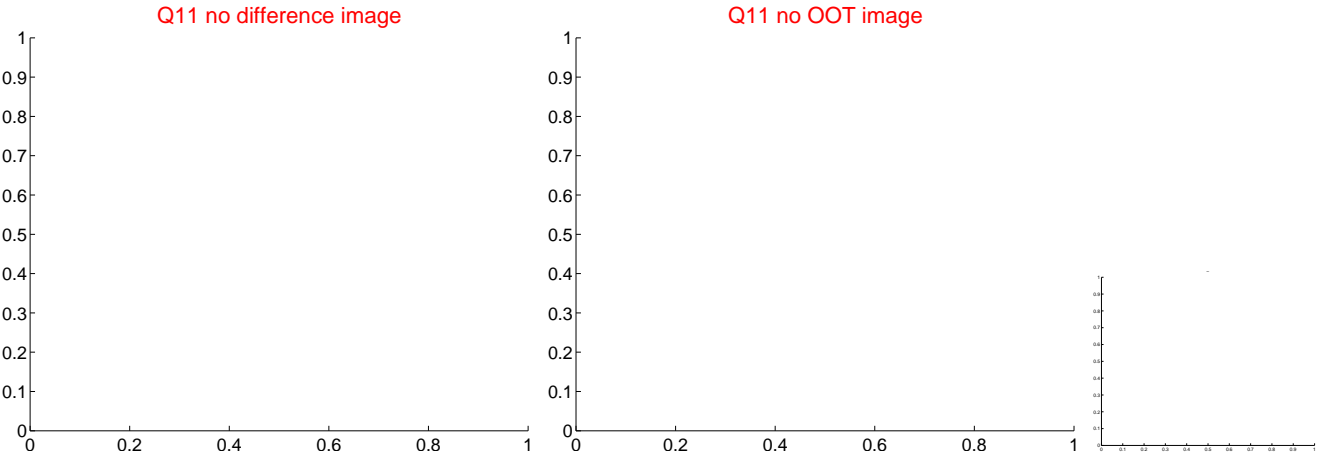
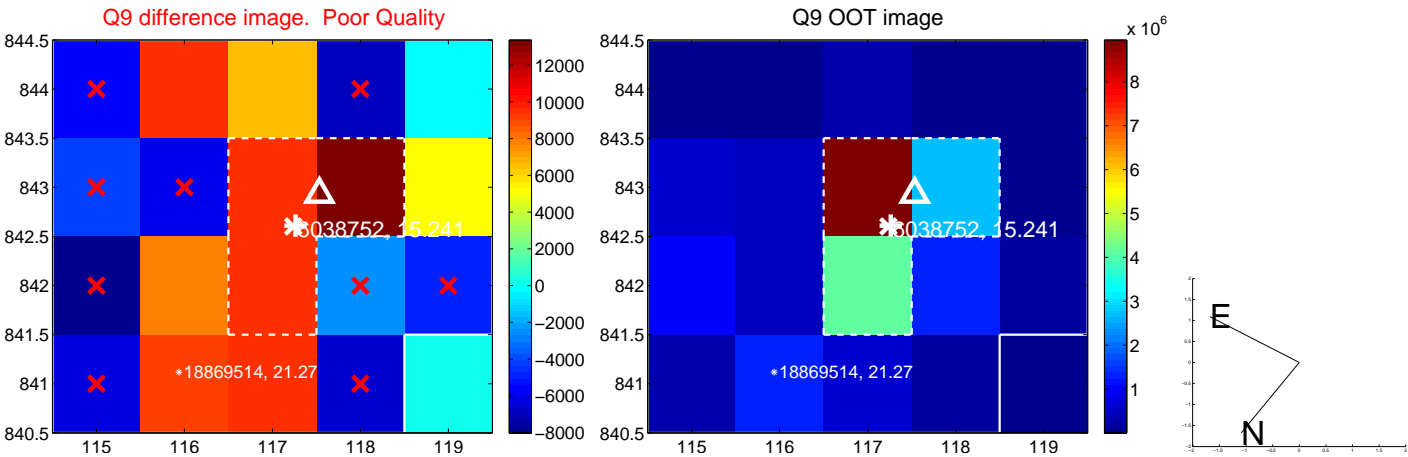
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



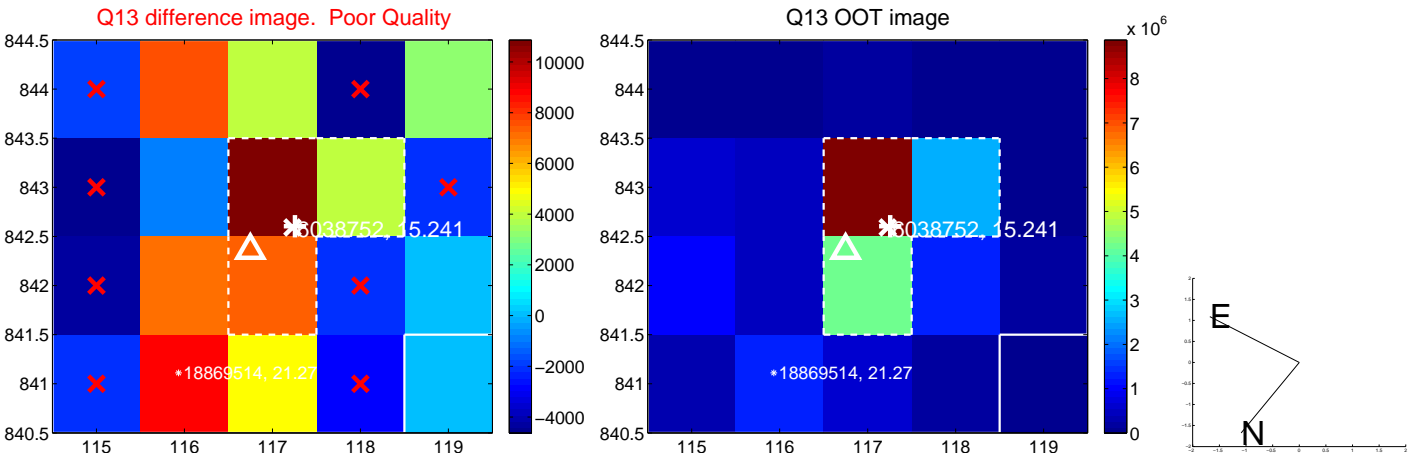
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



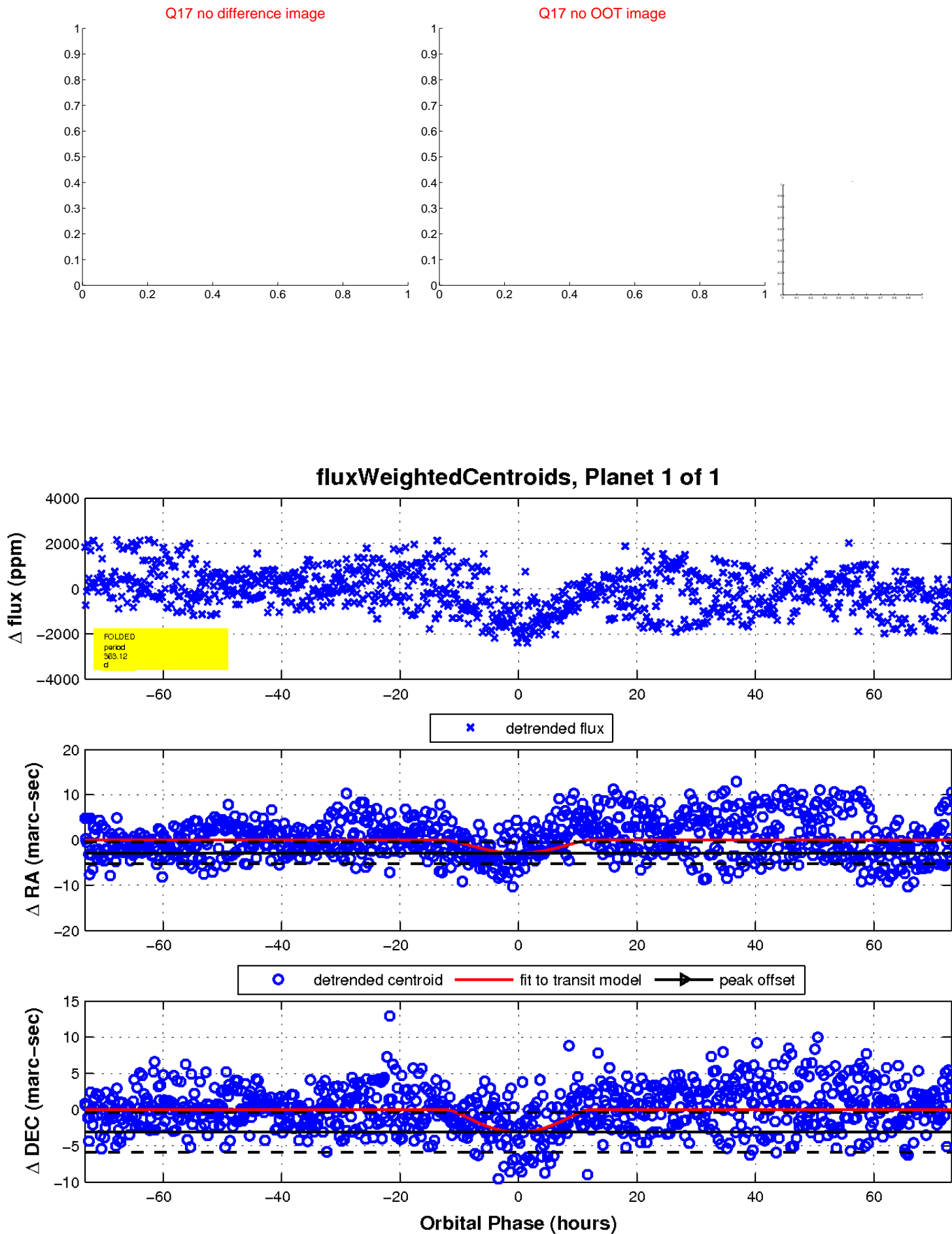
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

