

KIC 005005618

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})
005005618-01	OBS	No	343.816129	286.242006	275.4	56.938	84.8	18.4	2.03	6006	3.76	4.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005005618-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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 005005618-01

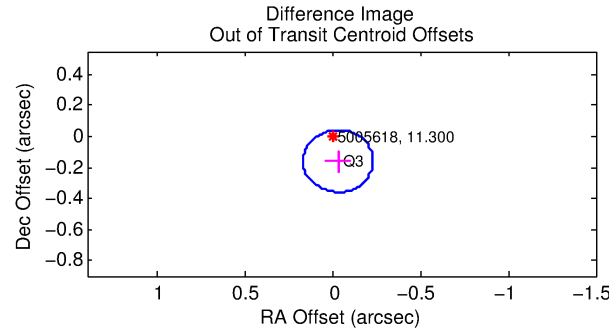
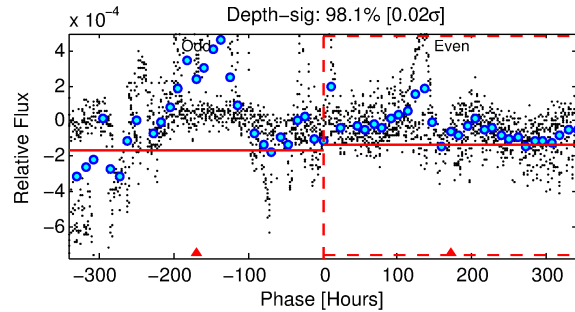
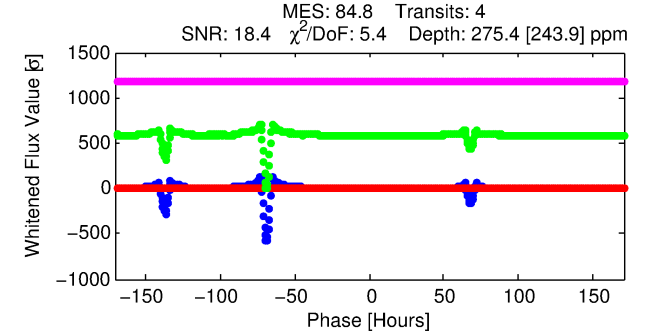
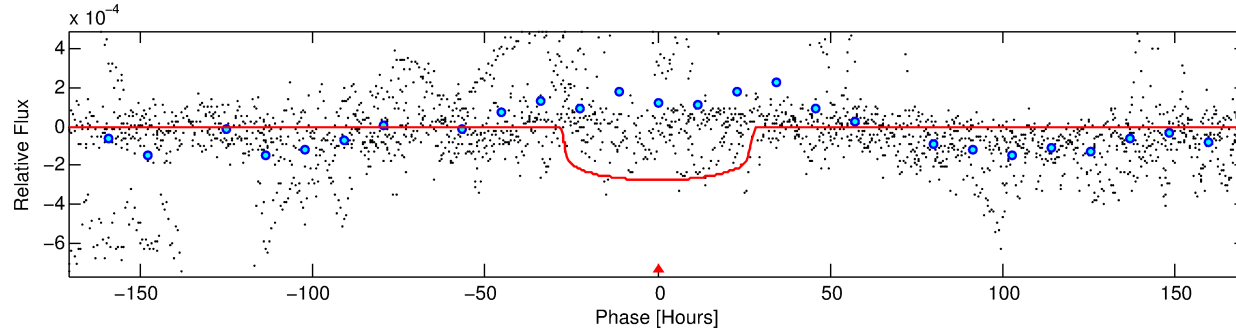
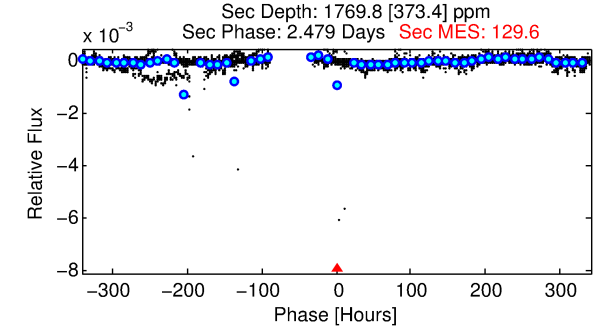
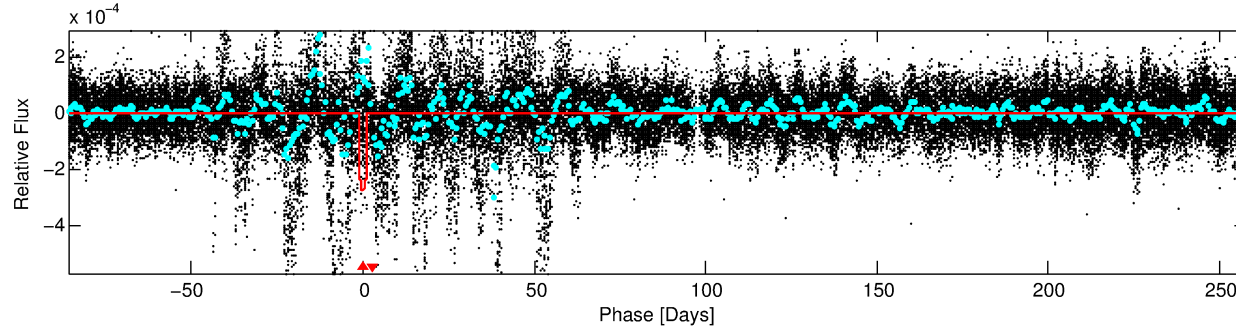
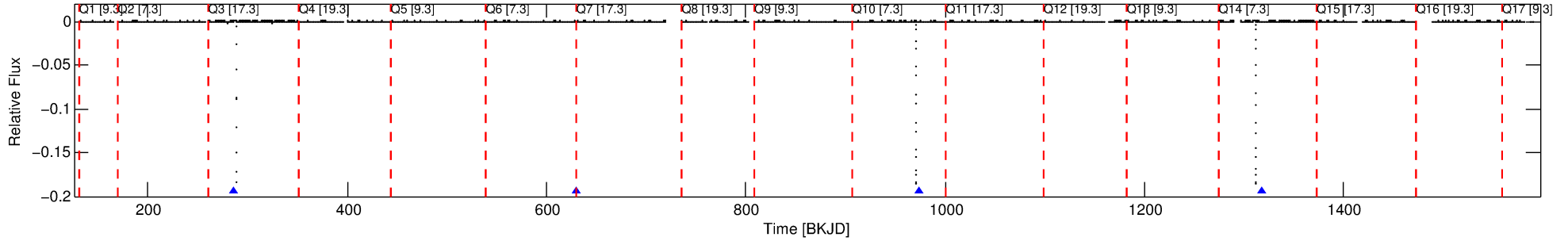
No Significant Match Found

DV One-Page Summary

KIC: 5005618 Candidate: 1 of 1 Period: 343.816 d

KOI: K03186 Corr: No Ephemeris Match

Kp: 11.30 R*: 2.03 Rs Teff: 6006.0 K Logg: 3.95 Fe/H: 0.260



DV Fit Results:

Period = 343.81613 [0.19812] d
Epoch = 286.2420 [0.3396] BKJD
Rp/R* = 0.0169 [0.0108]
a/R* = 28.42 [57.59]
b = 0.81 [0.87]
Seff = 4.29 [1.43]
Teq = 367 [31] K
Rp = 3.76 [2.55] Re
a = 1.0601 [0.2241] AU
Ag = 77549.30 [103430.98] [0.75σ]
Teffp = 9467 [3062] K [2.97σ]

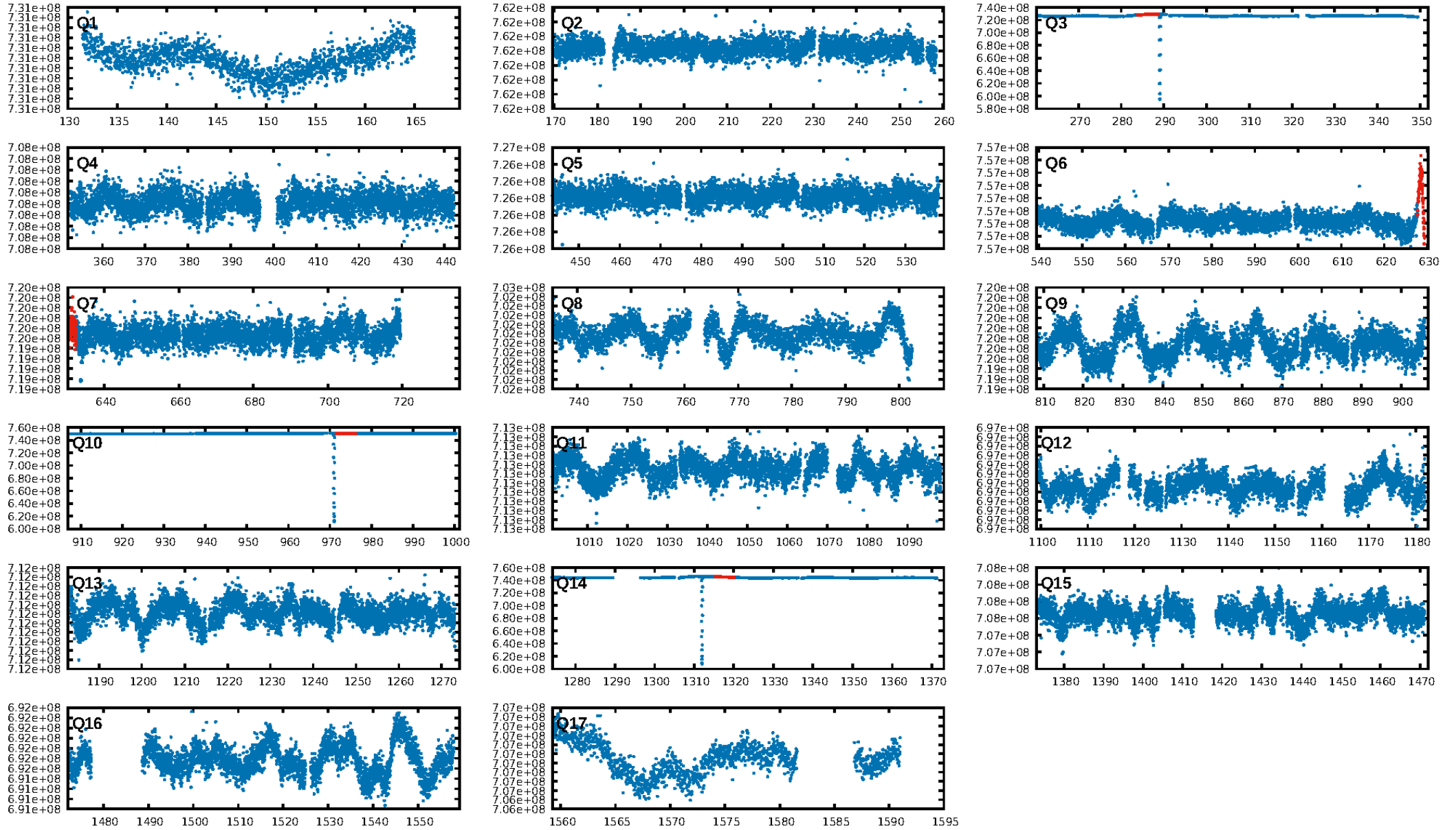
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 11.35
Centroid-sig: 0.0%
Centroid-so: 0.799 arcsec [2.53σ]
OotOffset-rm: 0.161 arcsec [2.42σ]
KicOffset-rm: 0.136 arcsec [2.04σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

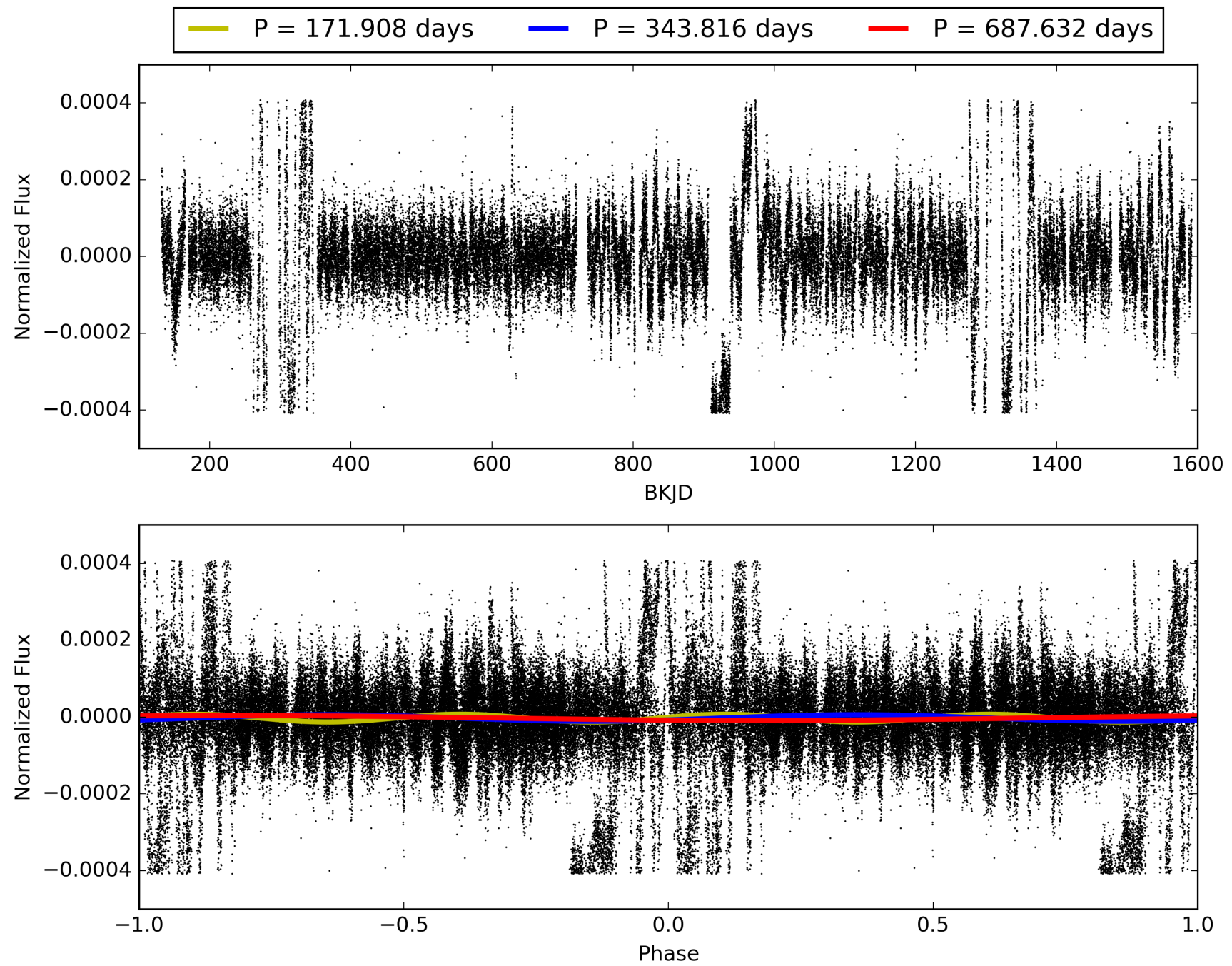
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:08:24 Z

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

TCE 005005618-01, PDC Light Curves

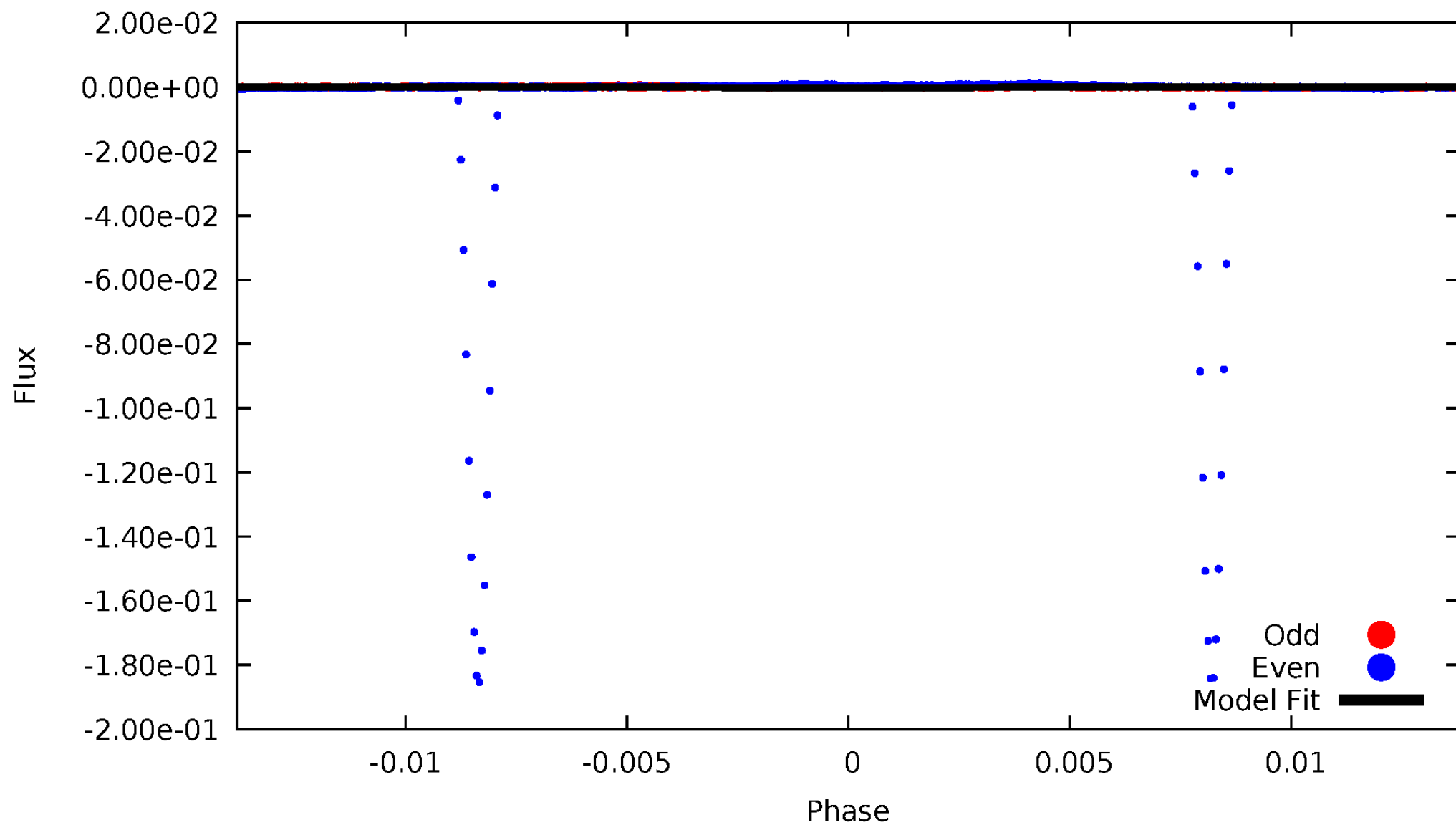


TCE 005005618-01



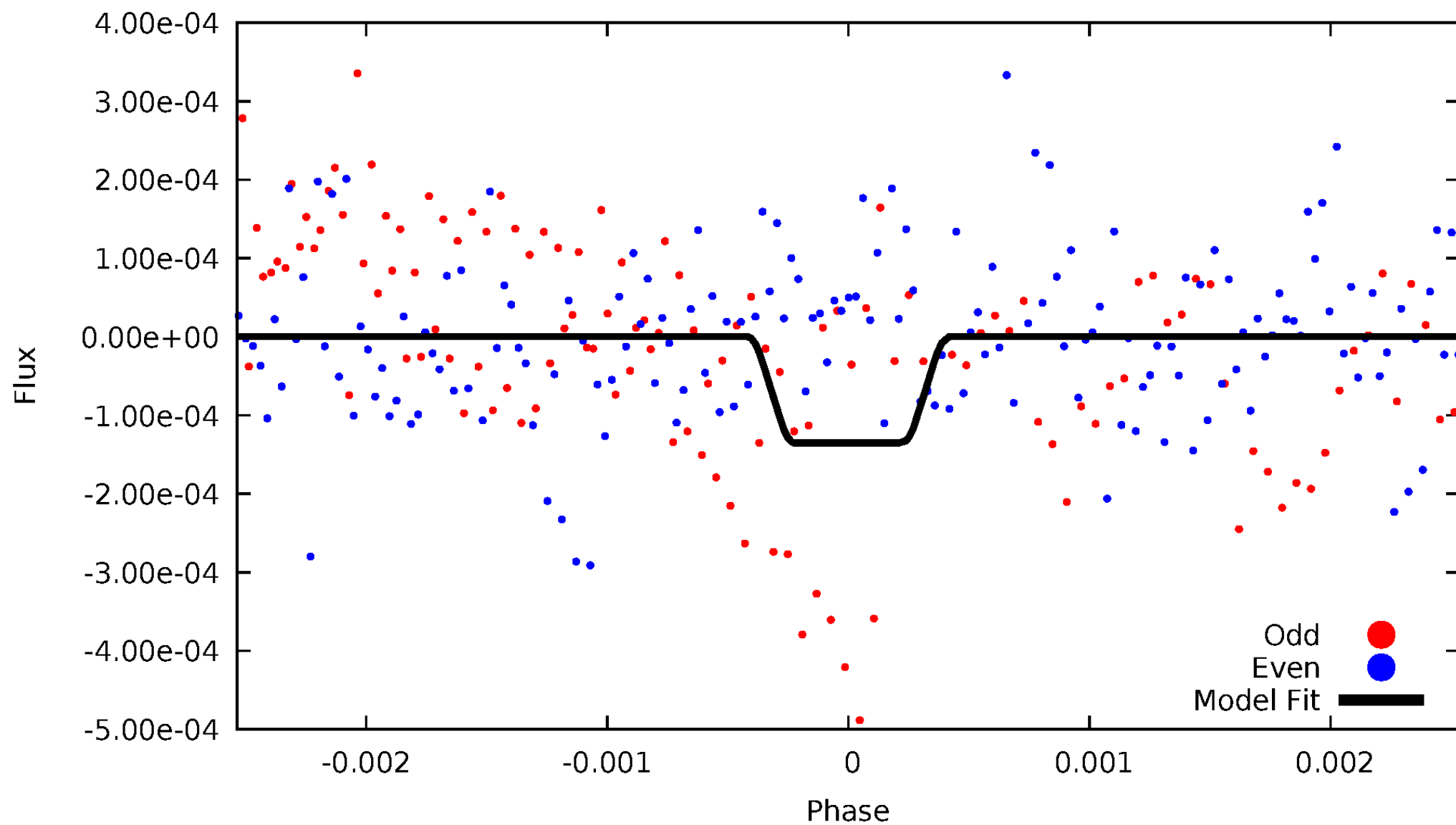
DV Odd/Even

TCE 005005618-01



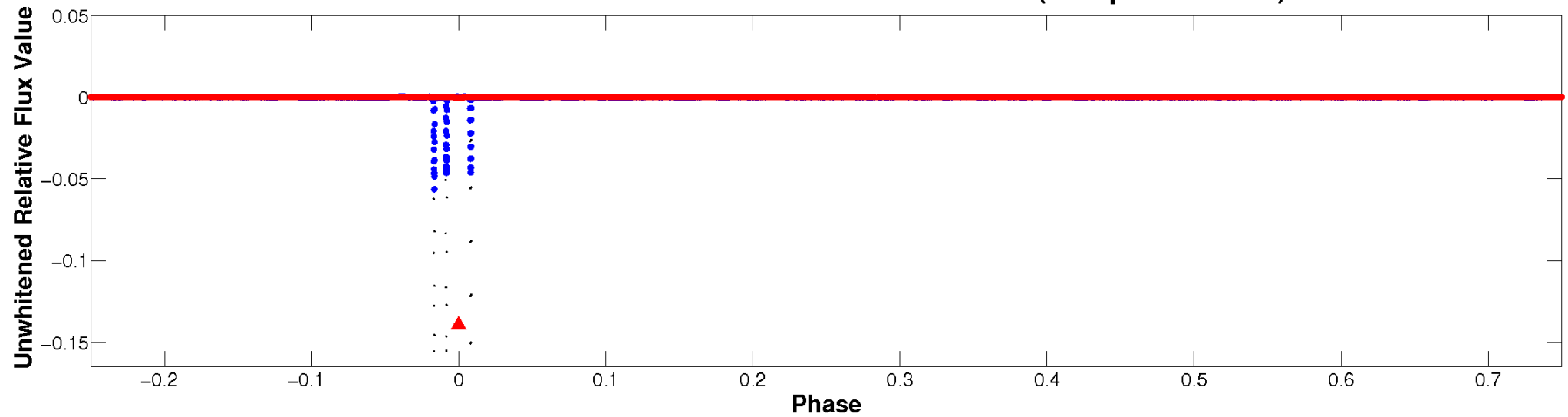
ALT Odd/Even

TCE 005005618-01

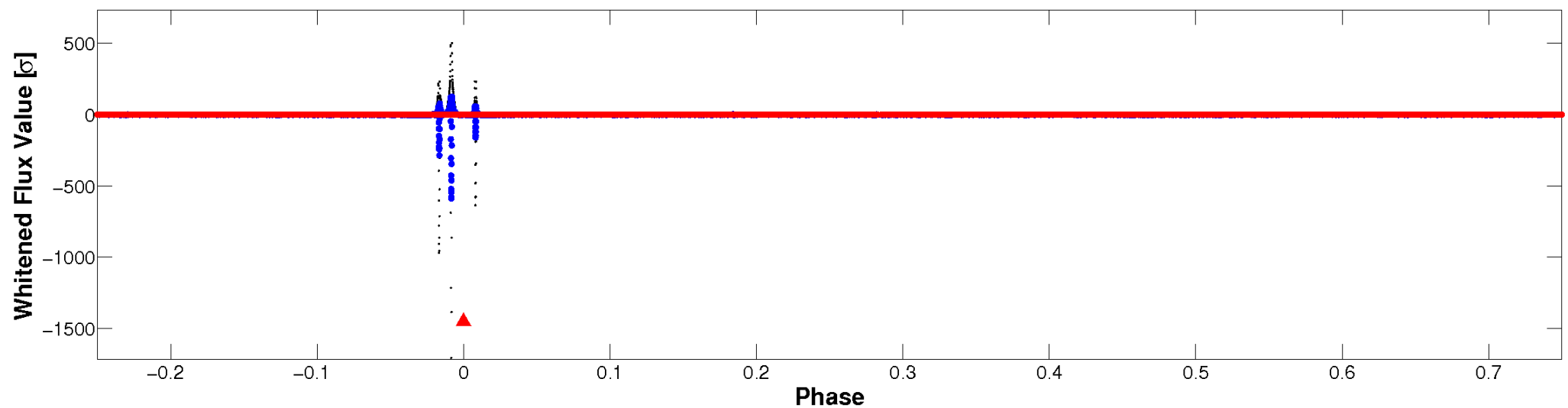


Non-Whitened Vs. Whitened Light Curve

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

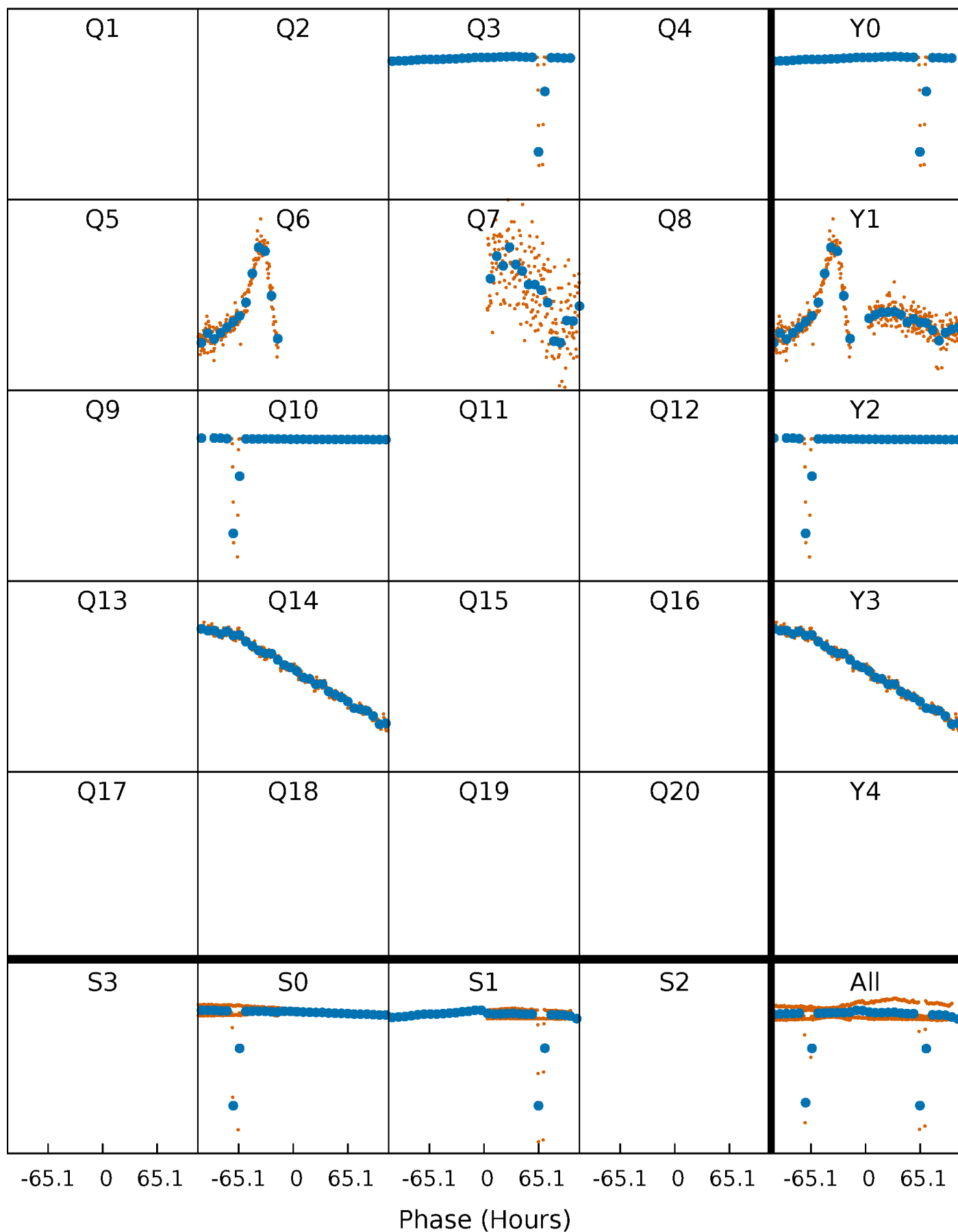


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



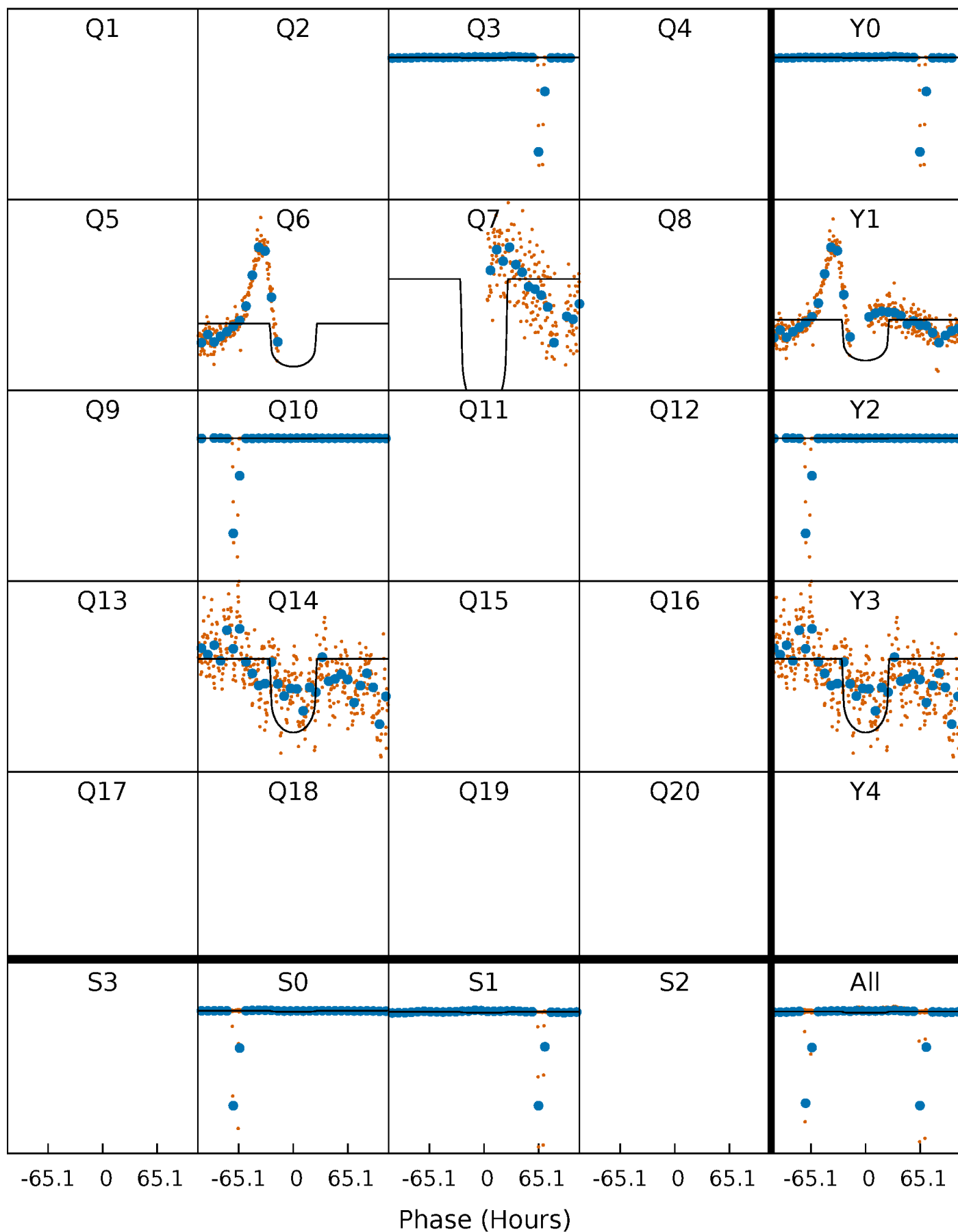
PDC Quarter-Phased Transit Curves

TCE 005005618-01 P=343.816129 Days $T_0=286.242006$ (BKJD)



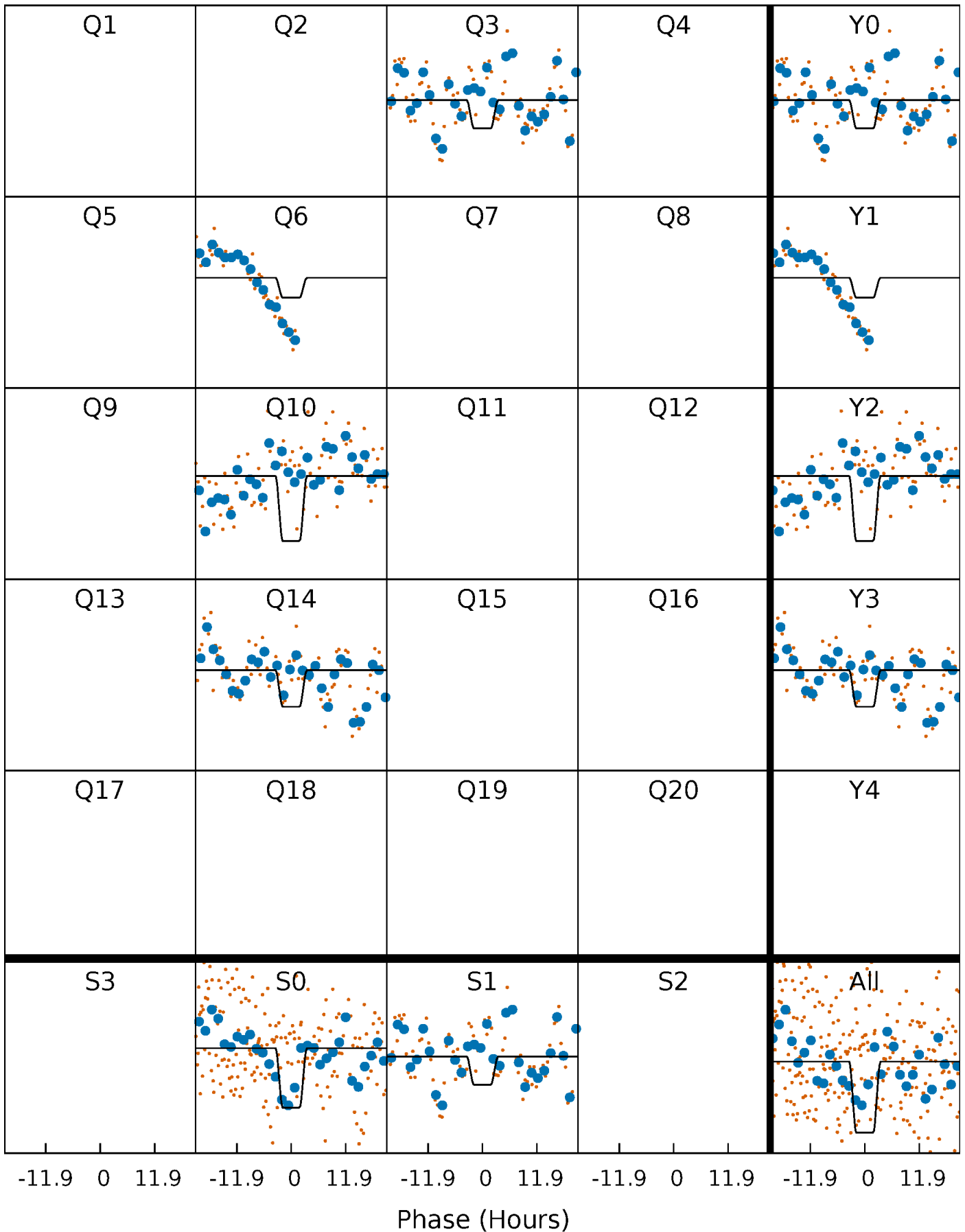
DV Quarter-Phased Transit Curves

TCE 005005618-01 P=343.816129 Days $T_0=286.242006$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

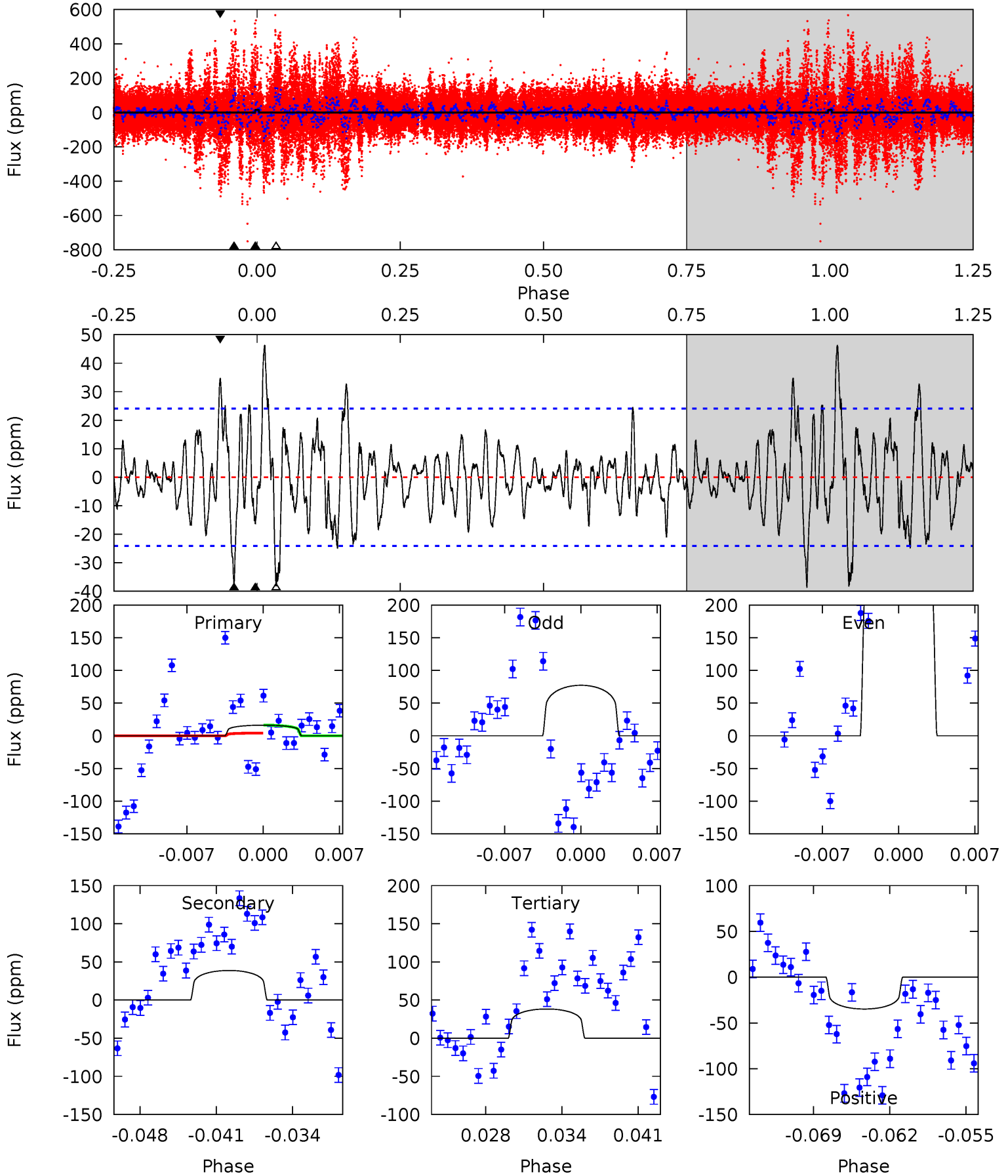
TCE 005005618-01 P=343.290619 Days $T_0=285.846949$ (BKJD)



DV Model-Shift Uniqueness Test

005005618-01, P = 343.816129 Days, E = 286.242006 Days

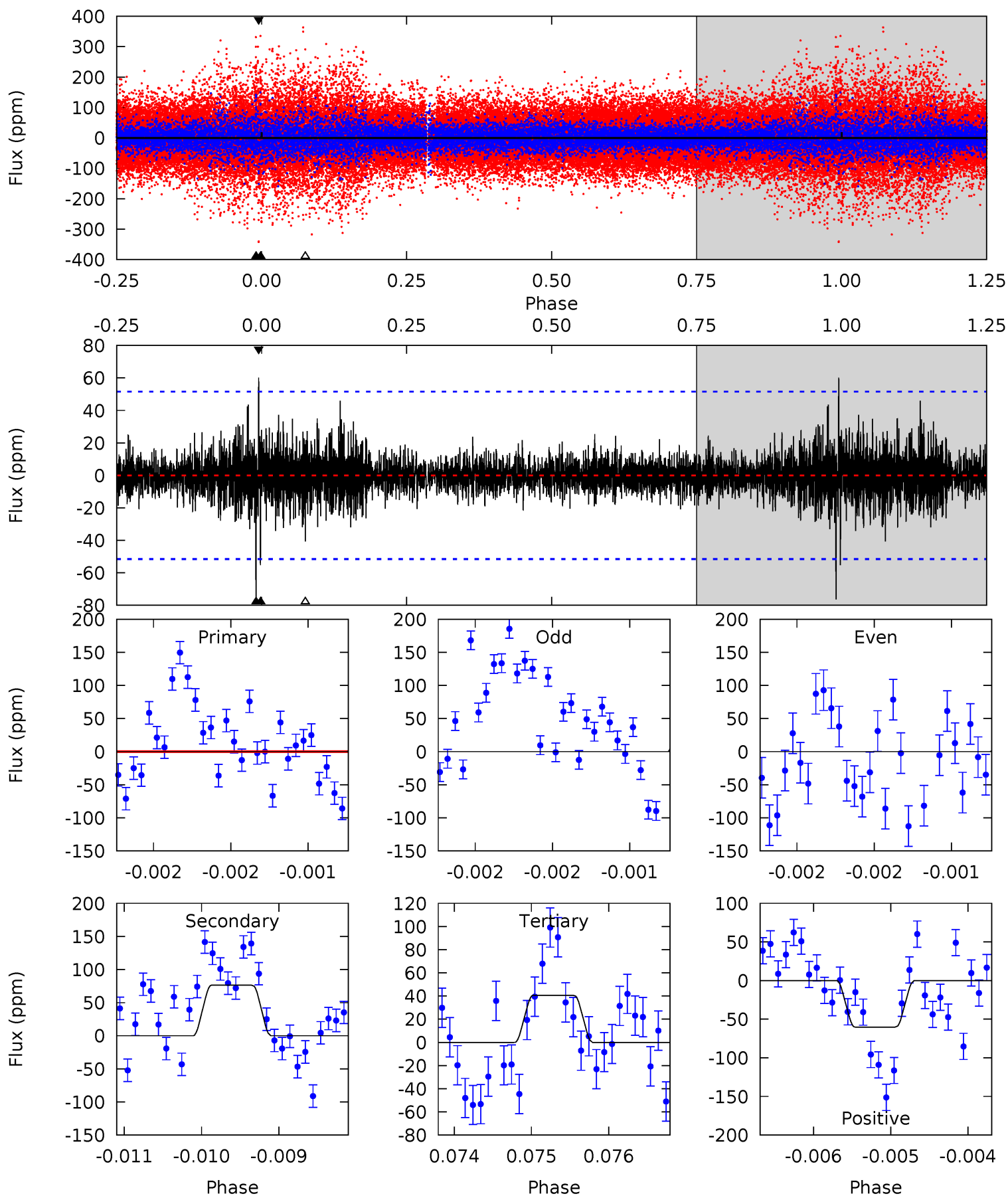
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.44	8.21	8.11	7.37	5.10	2.70	2.19	-4.67	-3.93	0.10	0.84	23.1	3.52	0.54	1.30



Alt Model-Shift Uniqueness Test

005005618-01, P = 343.290619 Days, E = 285.846949 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.63	8.13	4.32	6.41	5.48	3.34	0.92	-2.69	-4.78	3.81	1.72	6.46	-16.6	0.44	0



Stellar Parameters For KIC 005005618

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6006^{+81}_{-81}	$3.950^{+0.189}_{-0.081}$	$0.260^{+0.150}_{-0.150}$	$2.033^{+0.313}_{-0.469}$	$1.346^{+0.149}_{-0.164}$	$0.226^{+0.237}_{-0.060}$
	+1%/-1%	+5%/-2%	+58%/-58%	+15%/-23%	+11%/-12%	+105%/-26%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005005618-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-39 ± 5	$3.80^{+2.64}_{-2.21}$	508^{+21}_{-29}	3898^{+1516}_{-585}	1677^{+7381}_{-1126}
Alt.	-76 ± 9	$2.88^{+2.25}_{-1.79}$	508^{+21}_{-30}	4953^{+3119}_{-972}	5592^{+35519}_{-3790}

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

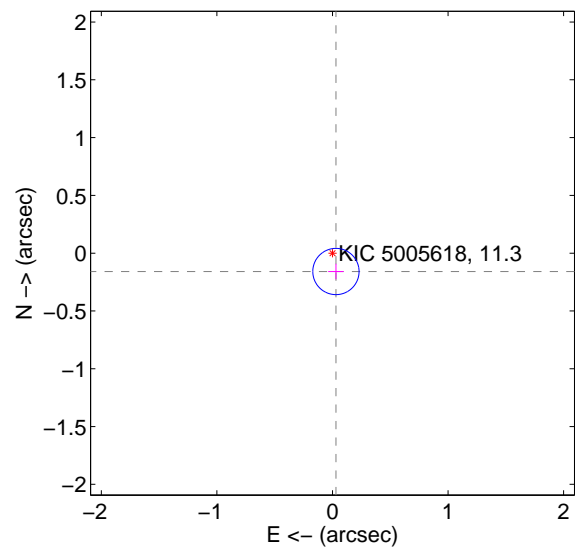
Supplemental centroid analysis for 005005618-01. **Kepler magnitude: 11.30.** Transit SNR 18.37

There are 0 quarters with good PRF difference image offsets

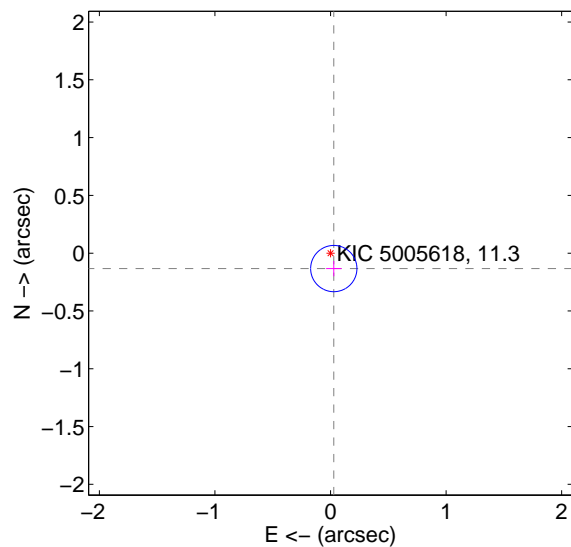
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.161 ± 0.067	2.42	-0.030 ± 0.067	-0.159 ± 0.067
PRF-fit source offset from KIC position	0.136 ± 0.067	2.04	-0.028 ± 0.067	-0.133 ± 0.067
photometric centroid source offset	0.80 ± 0.32	2.53	-0.38 ± 0.38	-0.70 ± 0.29

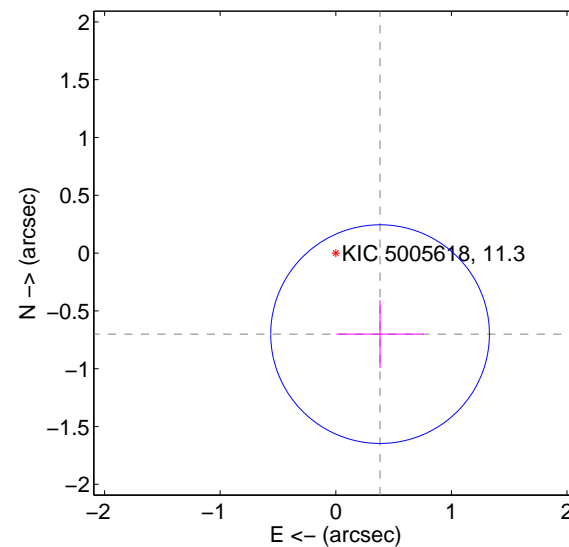
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

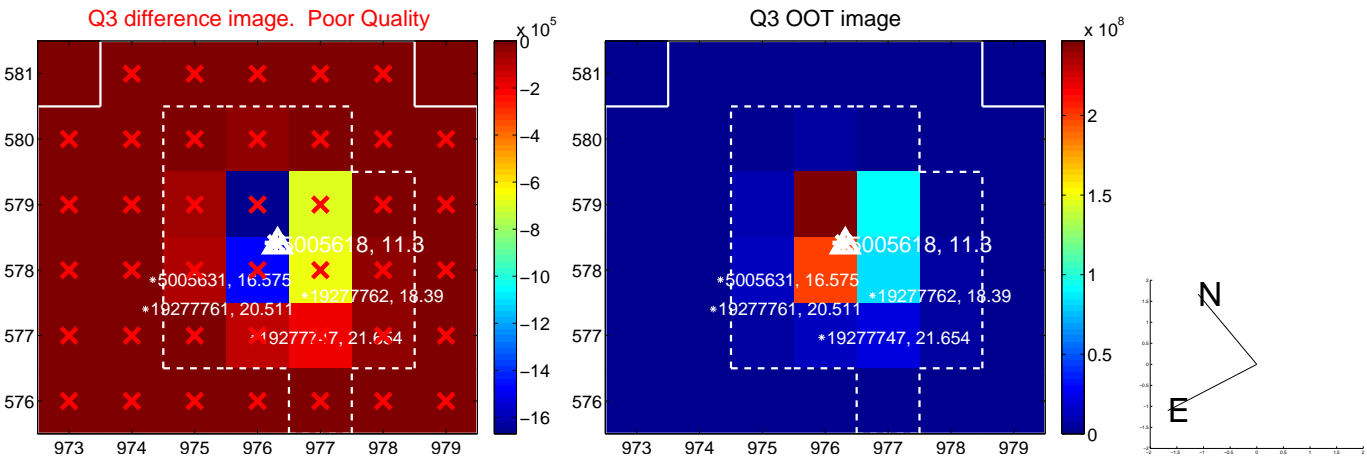


offset from photometric centroids



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.



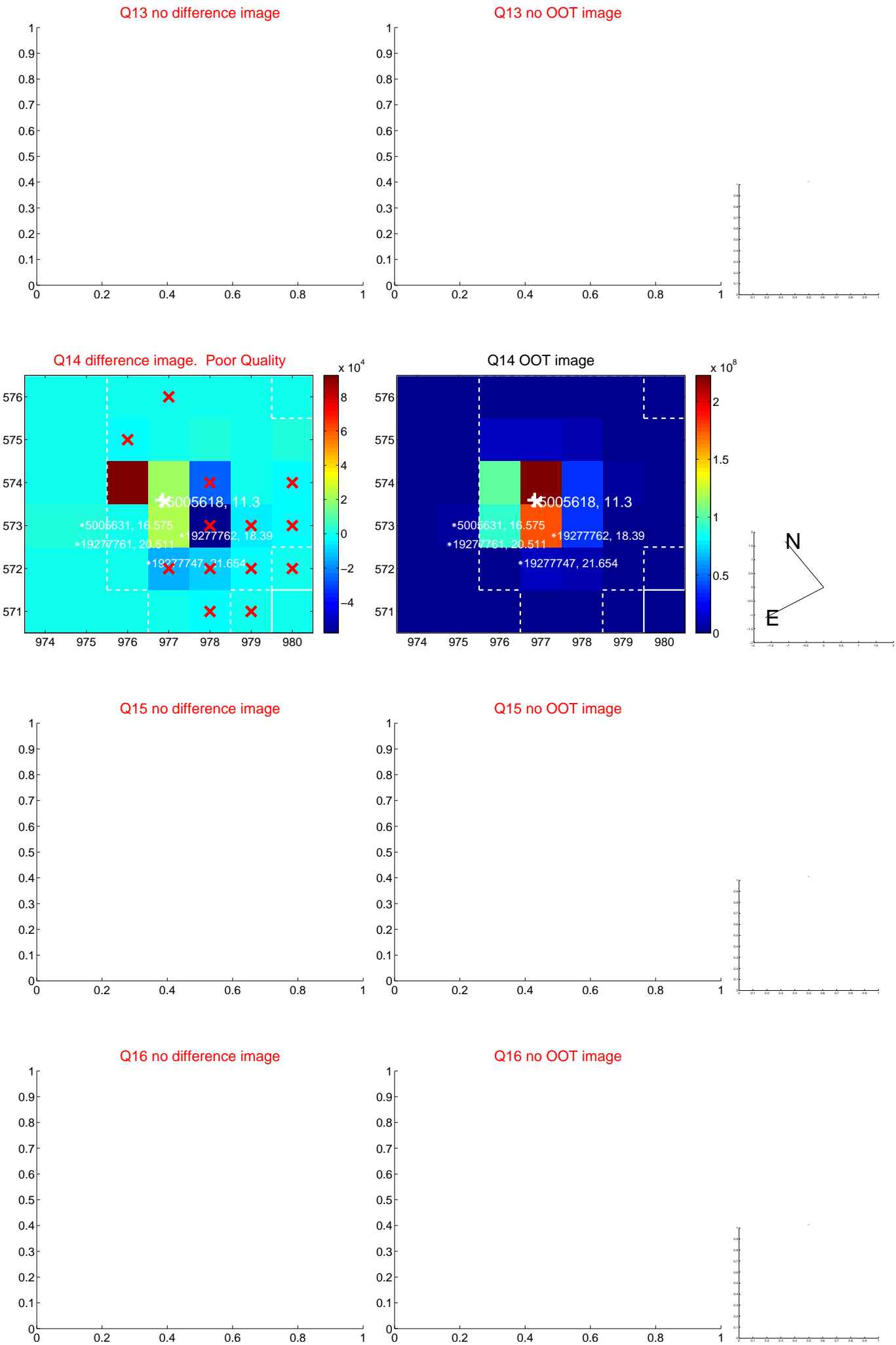
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



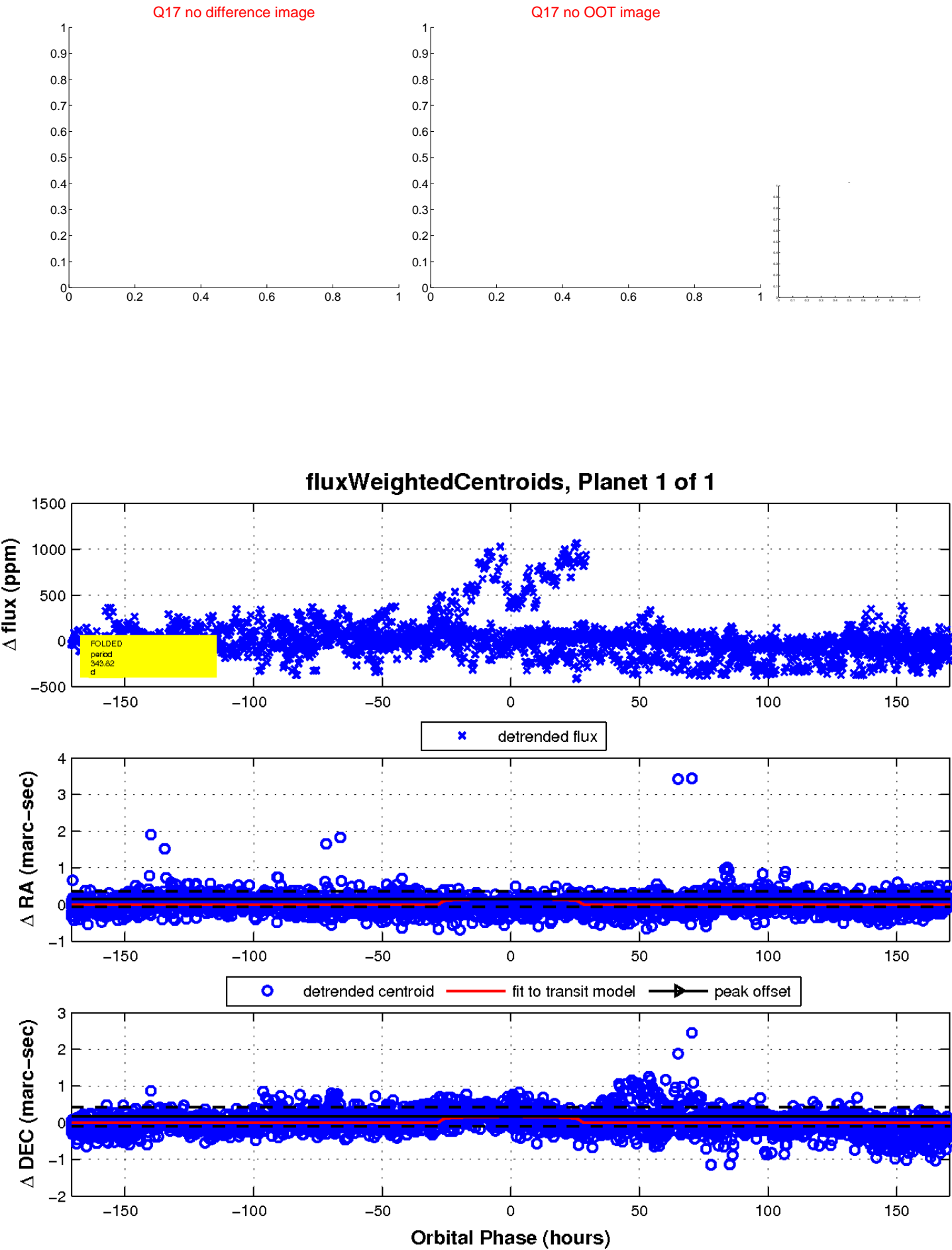
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

