

KIC 003343226

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})
003343226-01	OBS	No	509.371906	157.485774	282.1	19.069	8.3	8.2	0.91	6003	1.78	0.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003343226-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

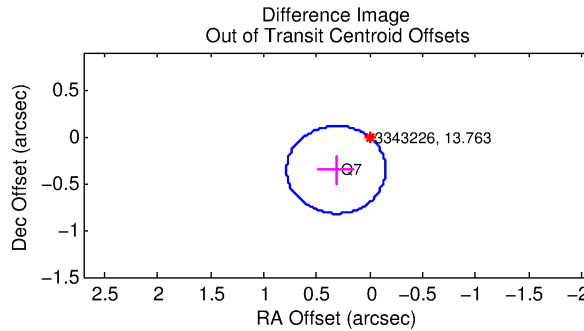
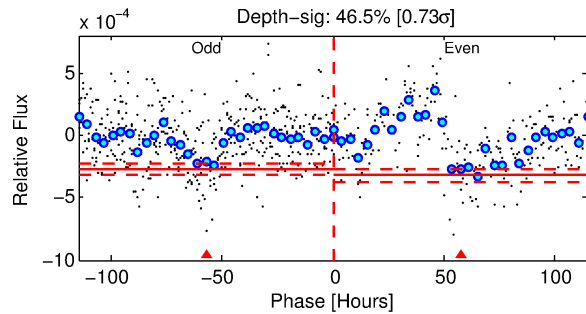
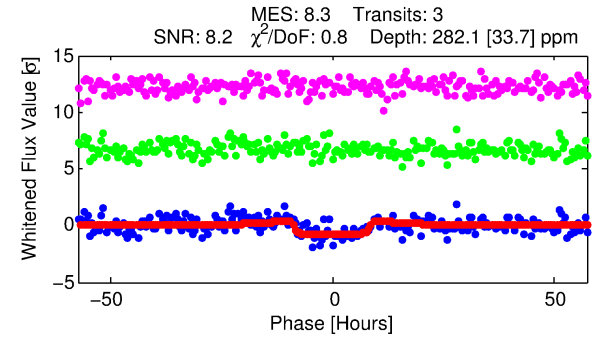
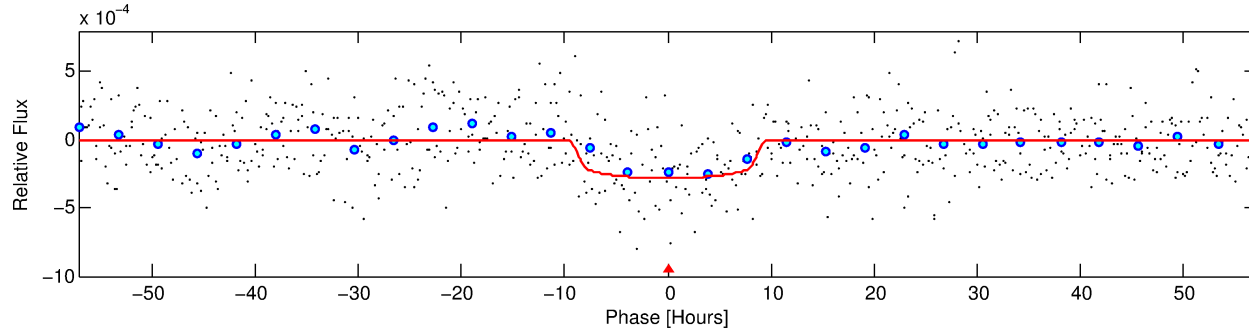
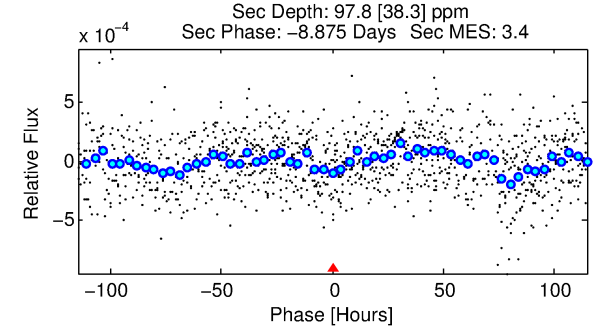
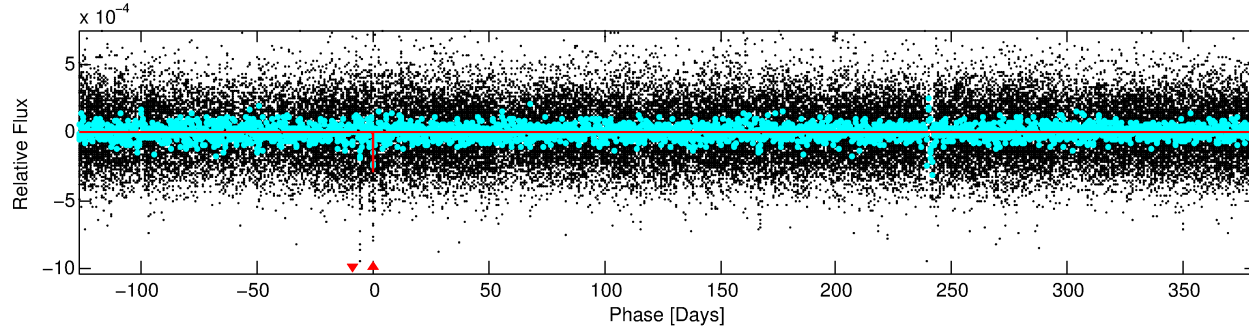
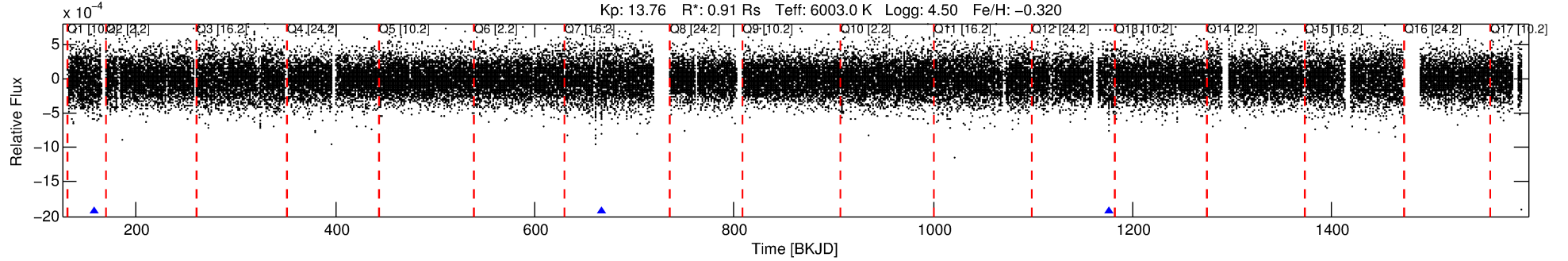
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003343226-01

No Significant Match Found

DV One-Page Summary

KIC: 3343226 Candidate: 1 of 1 Period: 509.372 d



DV Fit Results:

Period = 509.37191 [0.01837] d
Epoch = 157.4858 [0.0249] BKJD
Rp/R* = 0.0180 [0.0023]
a/R* = 100.54 [55.34]
b = 0.89 [0.13]
Seff = 0.64 [0.24]
Teq = 228 [22] K
Rp = 1.78 [0.57] Re
a = 1.2259 [0.3042] AU
Ag = 25635.83 [15066.07] [1.70 σ]
Teffp = 4454 [535] K [7.89 σ]

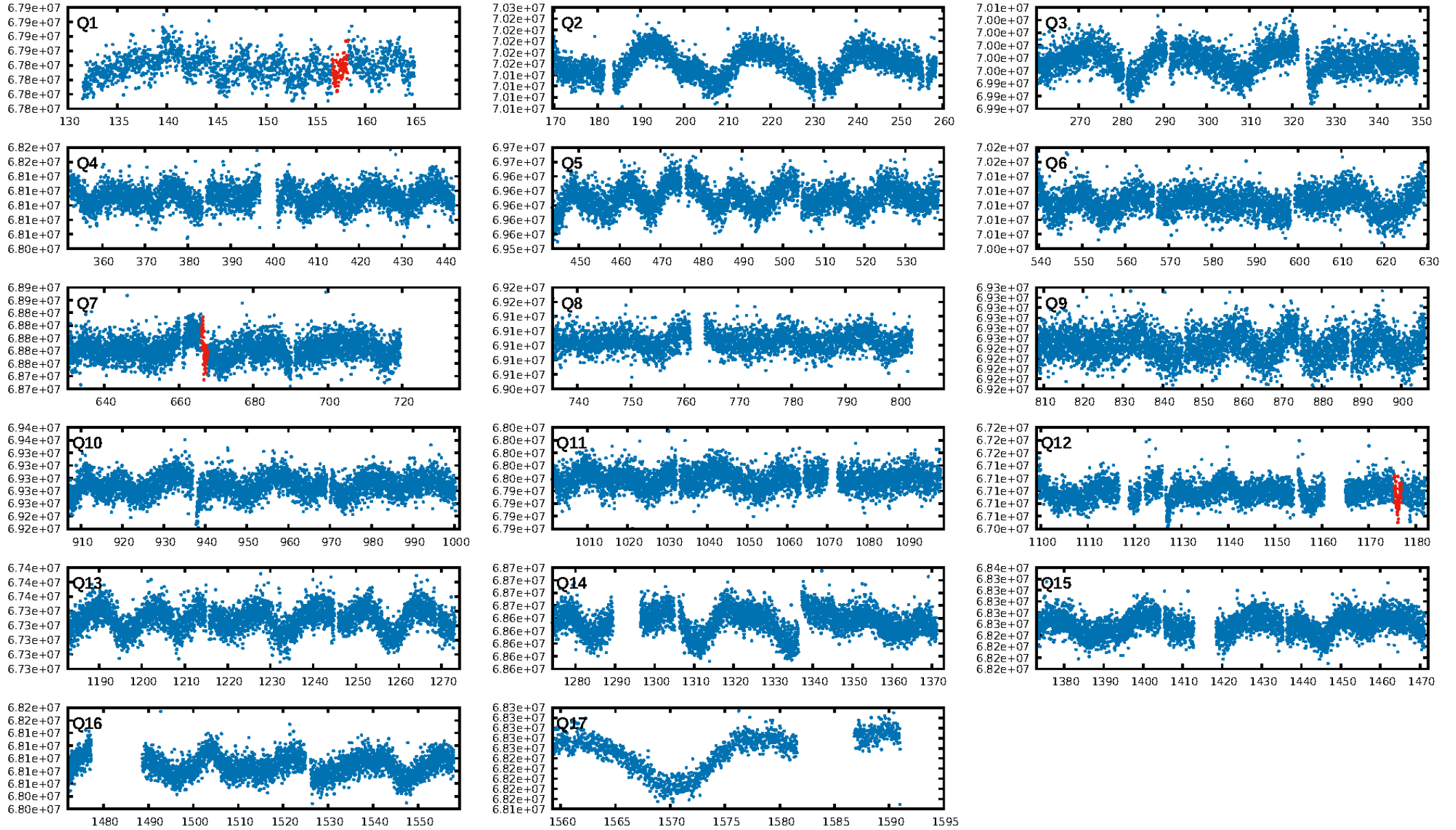
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.25e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.9153
Centroid-sig: 23.4%
Centroid-so: 1.307 arcsec [1.00 σ]
OotOffset-rm: 0.474 arcsec [3.05 σ]
KicOffset-rm: 0.569 arcsec [3.68 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

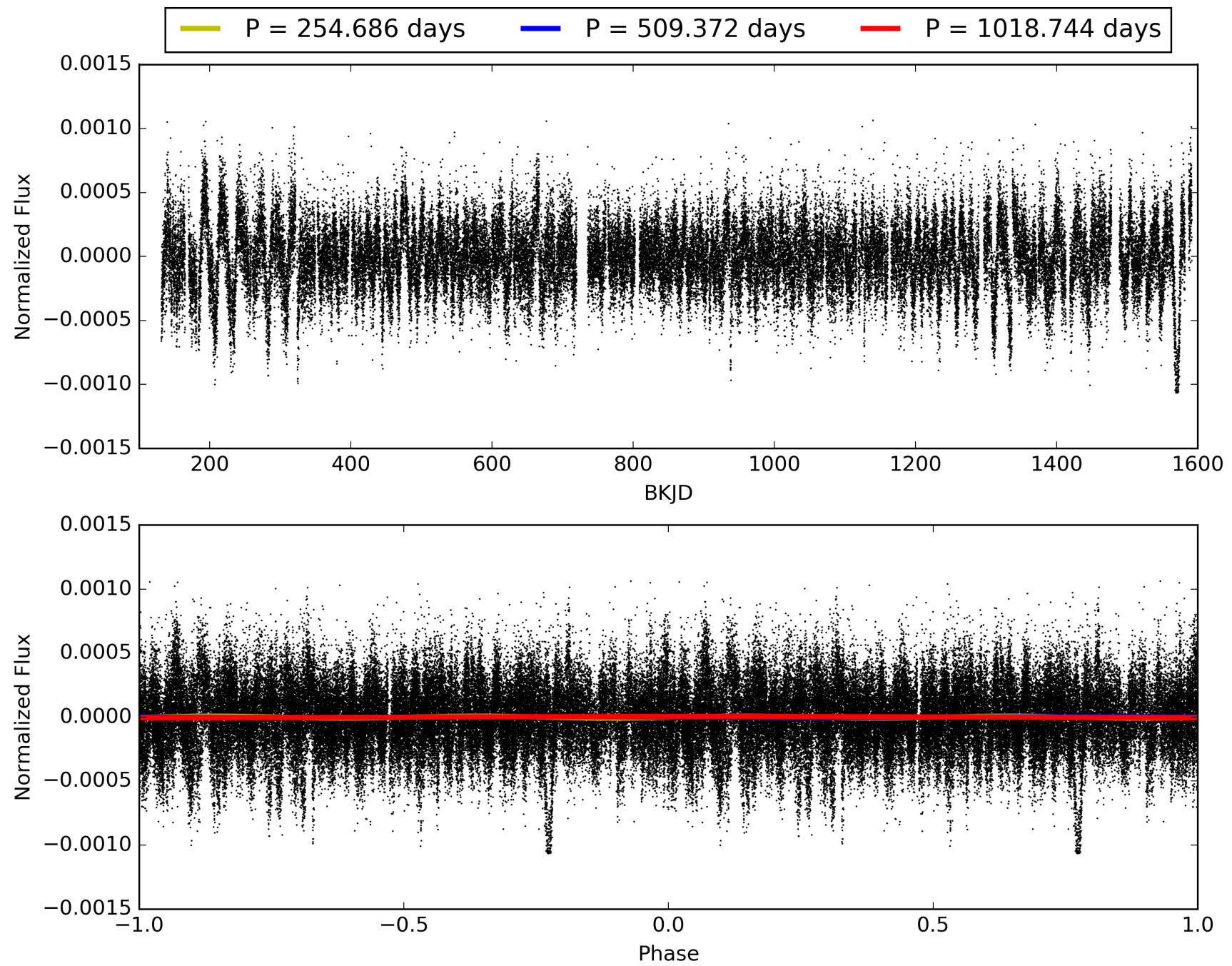
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:42:00 Z

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

TCE 003343226-01, PDC Light Curves

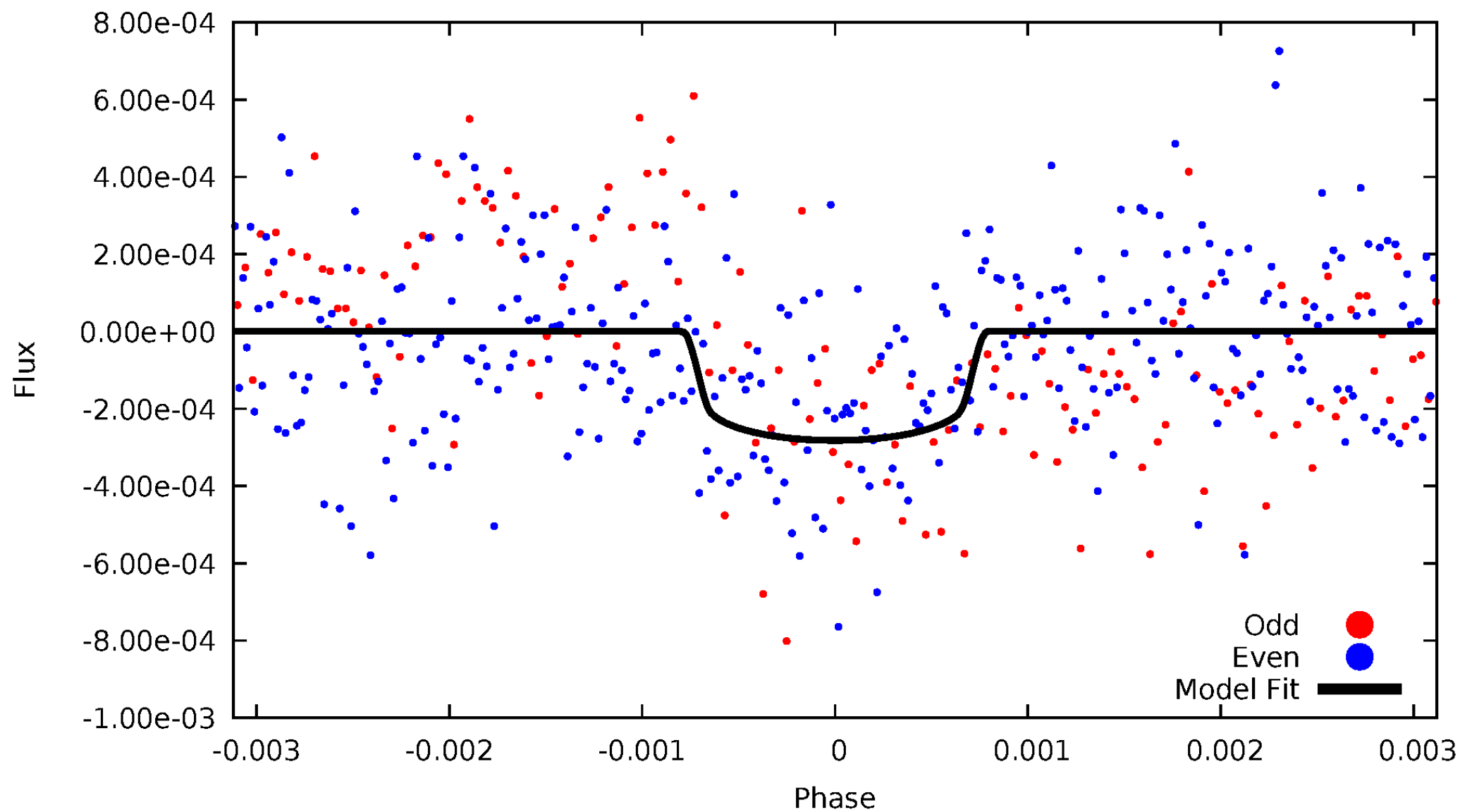


TCE 003343226-01



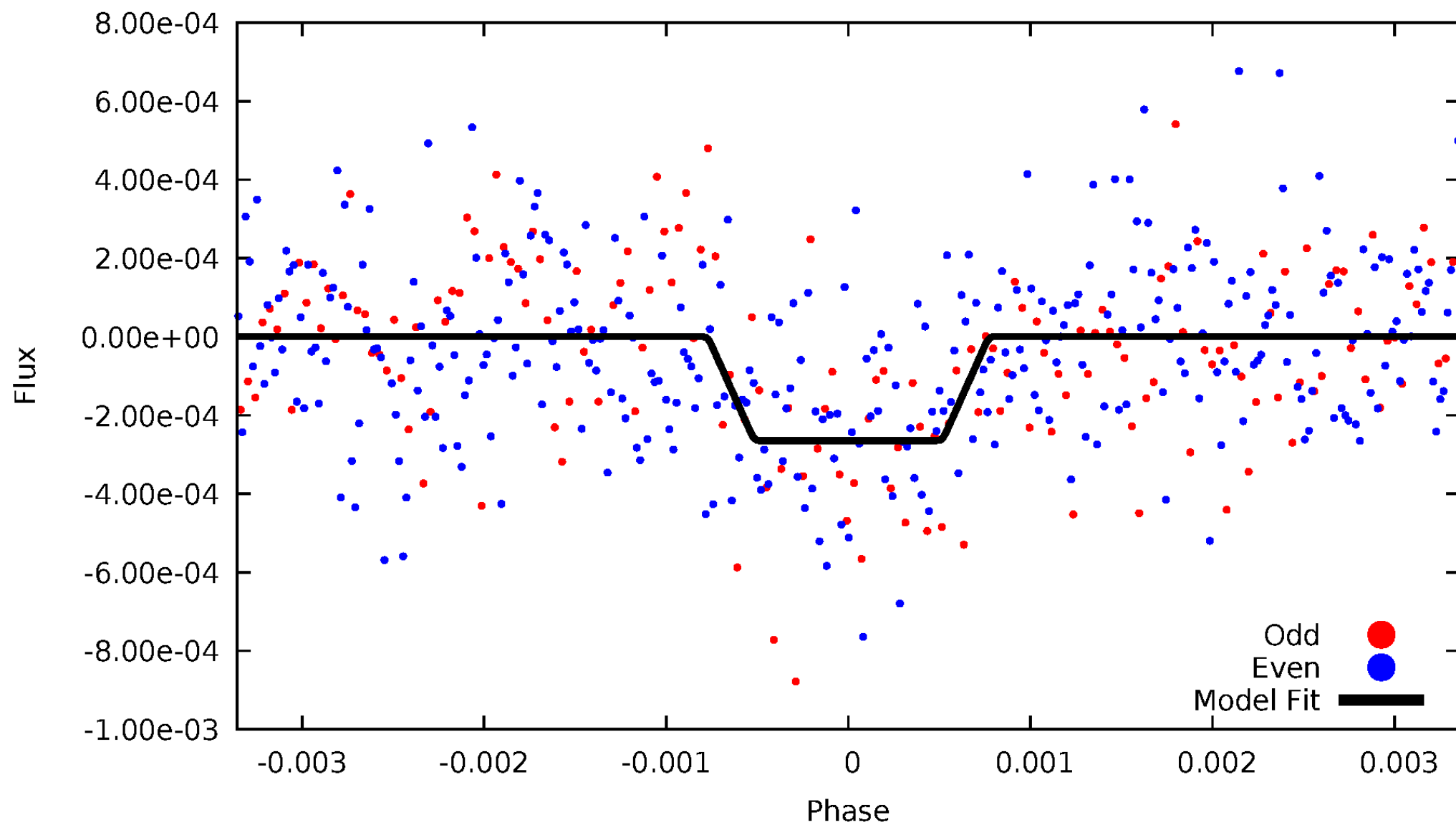
DV Odd/Even

TCE 003343226-01



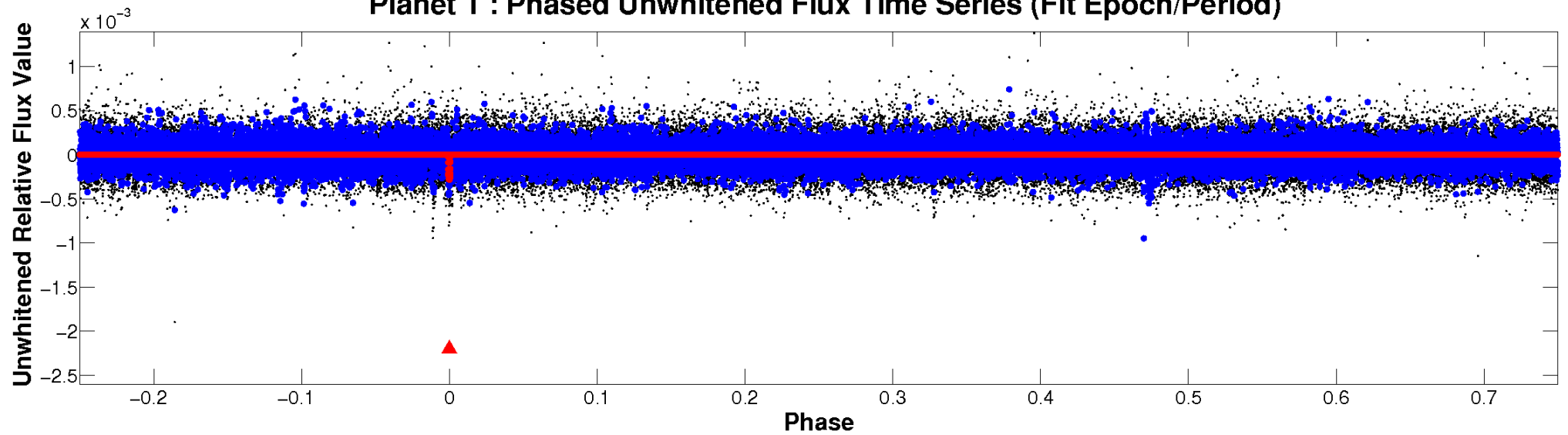
ALT Odd/Even

TCE 003343226-01

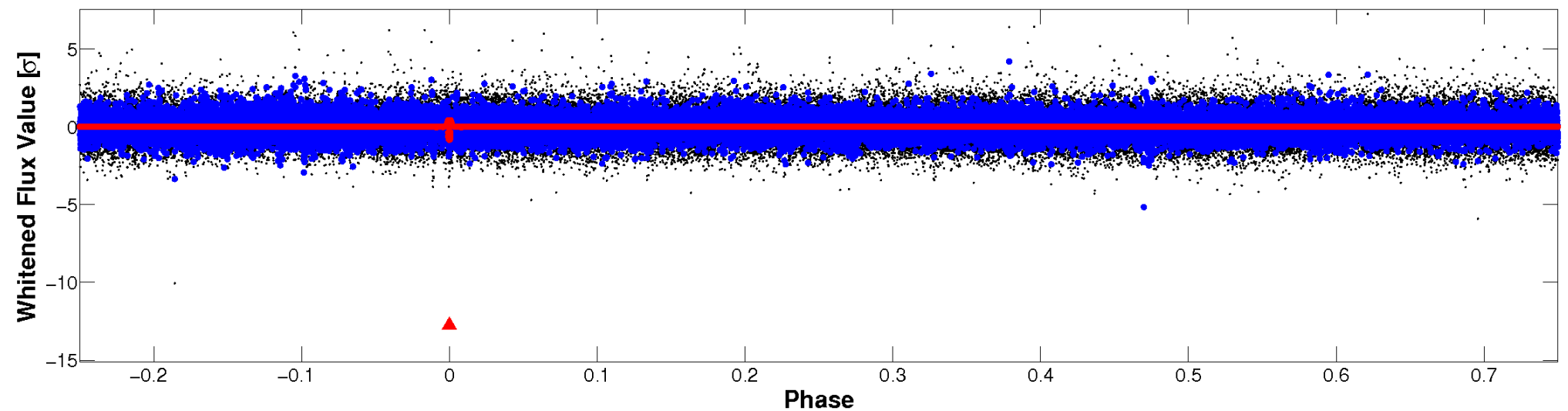


Non-Whitened Vs. Whitened Light Curve

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

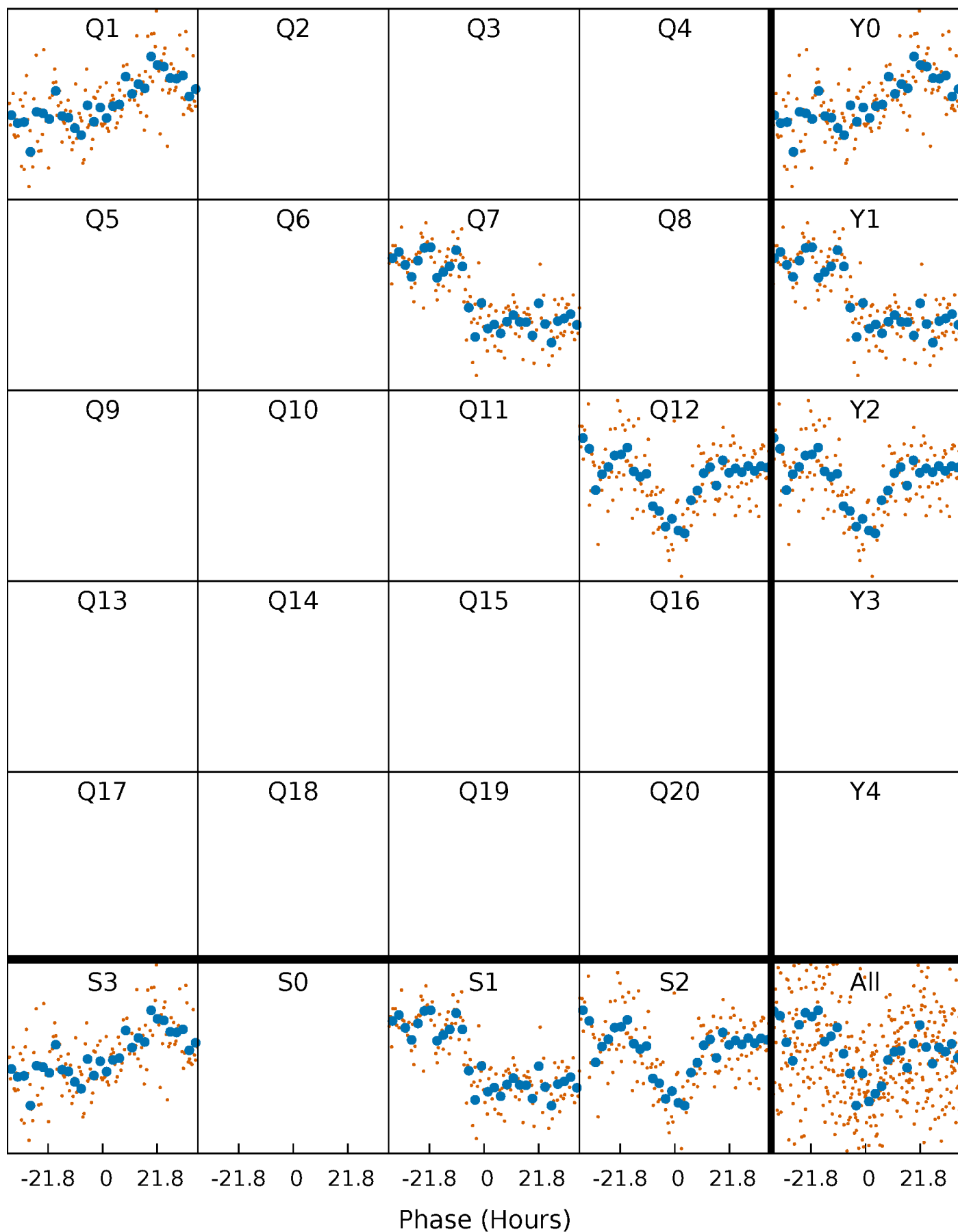


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



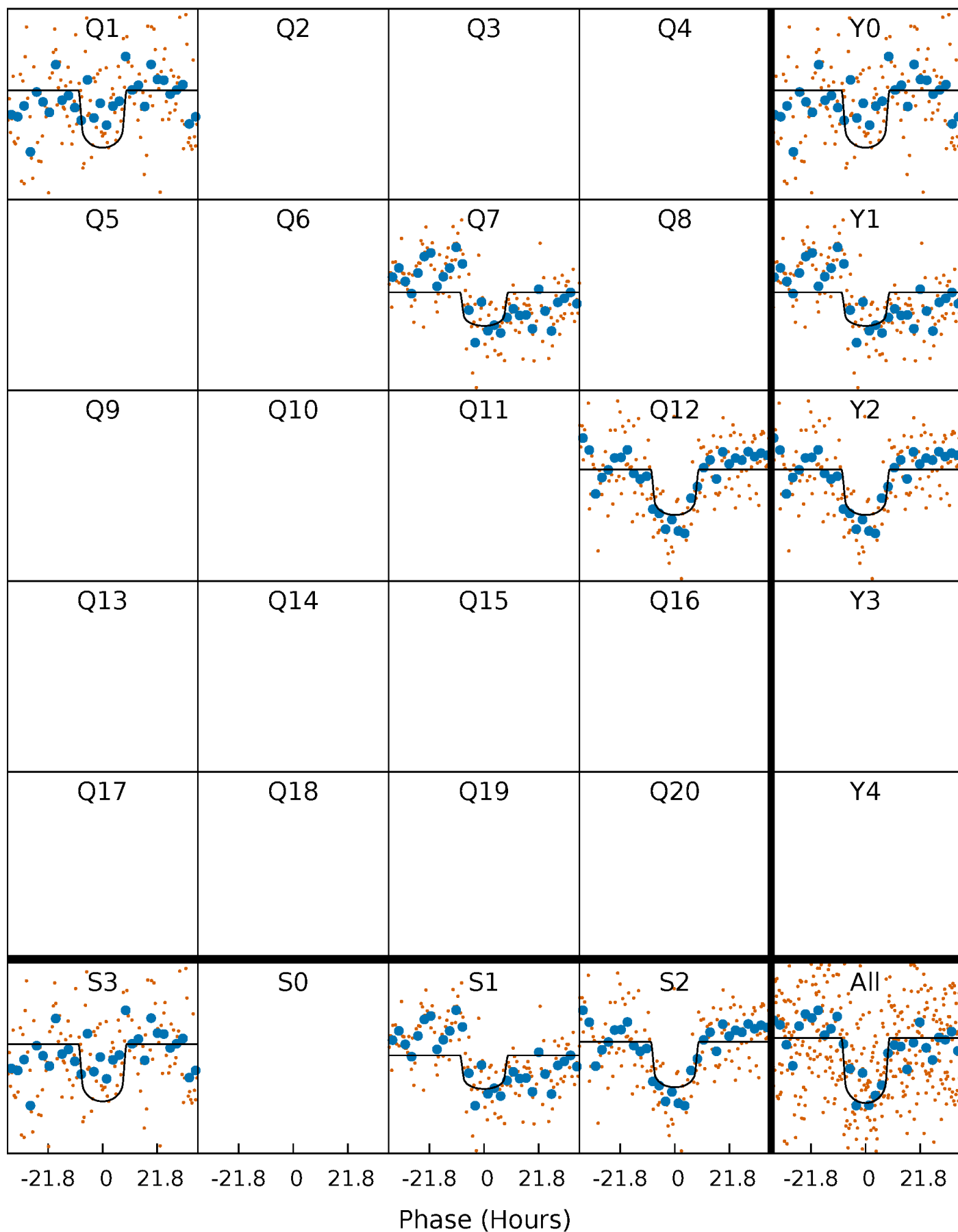
PDC Quarter-Phased Transit Curves

TCE 003343226-01 P=509.371906 Days $T_0=157.485774$ (BKJD)



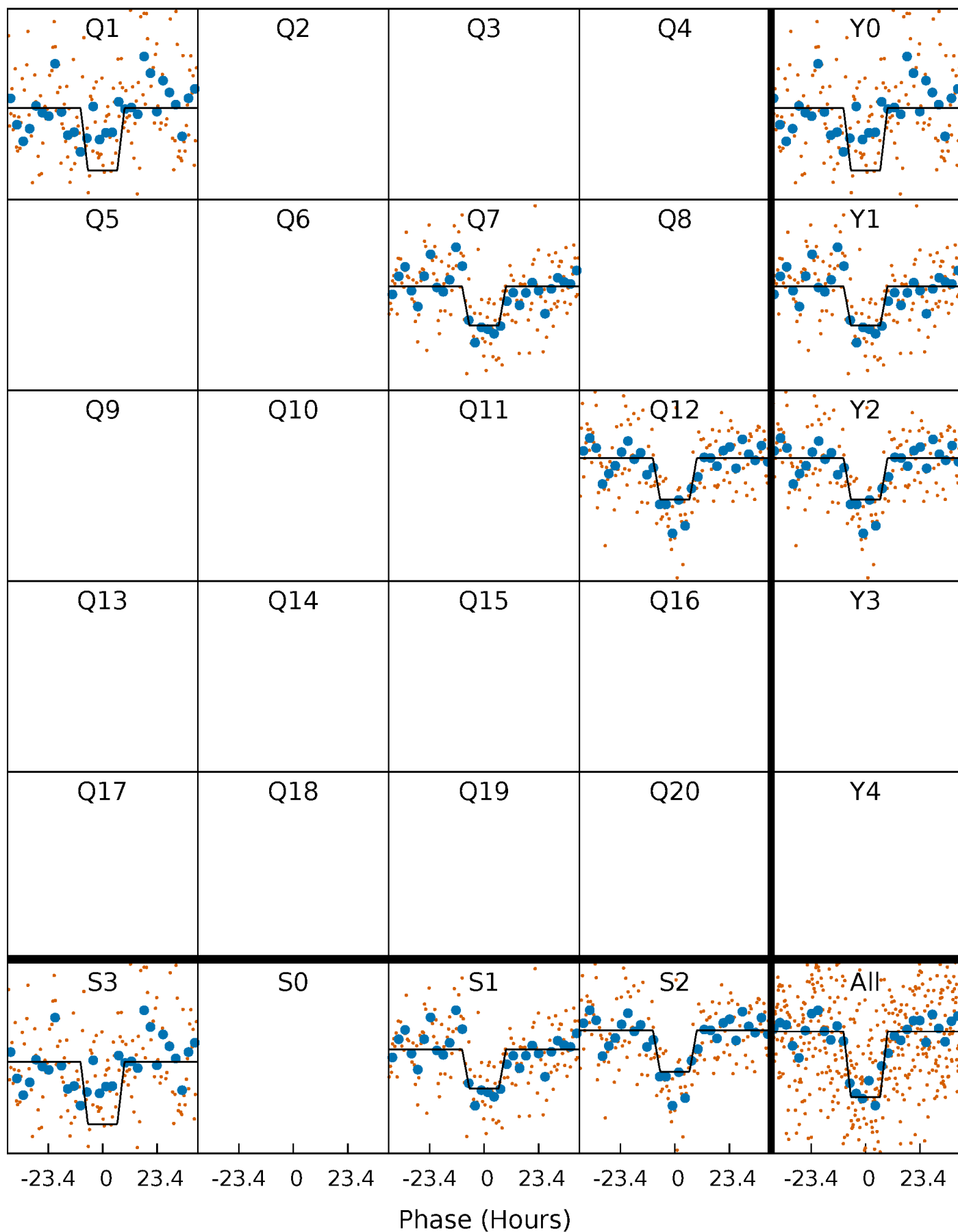
DV Quarter-Phased Transit Curves

TCE 003343226-01 P=509.371906 Days $T_0=157.485774$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

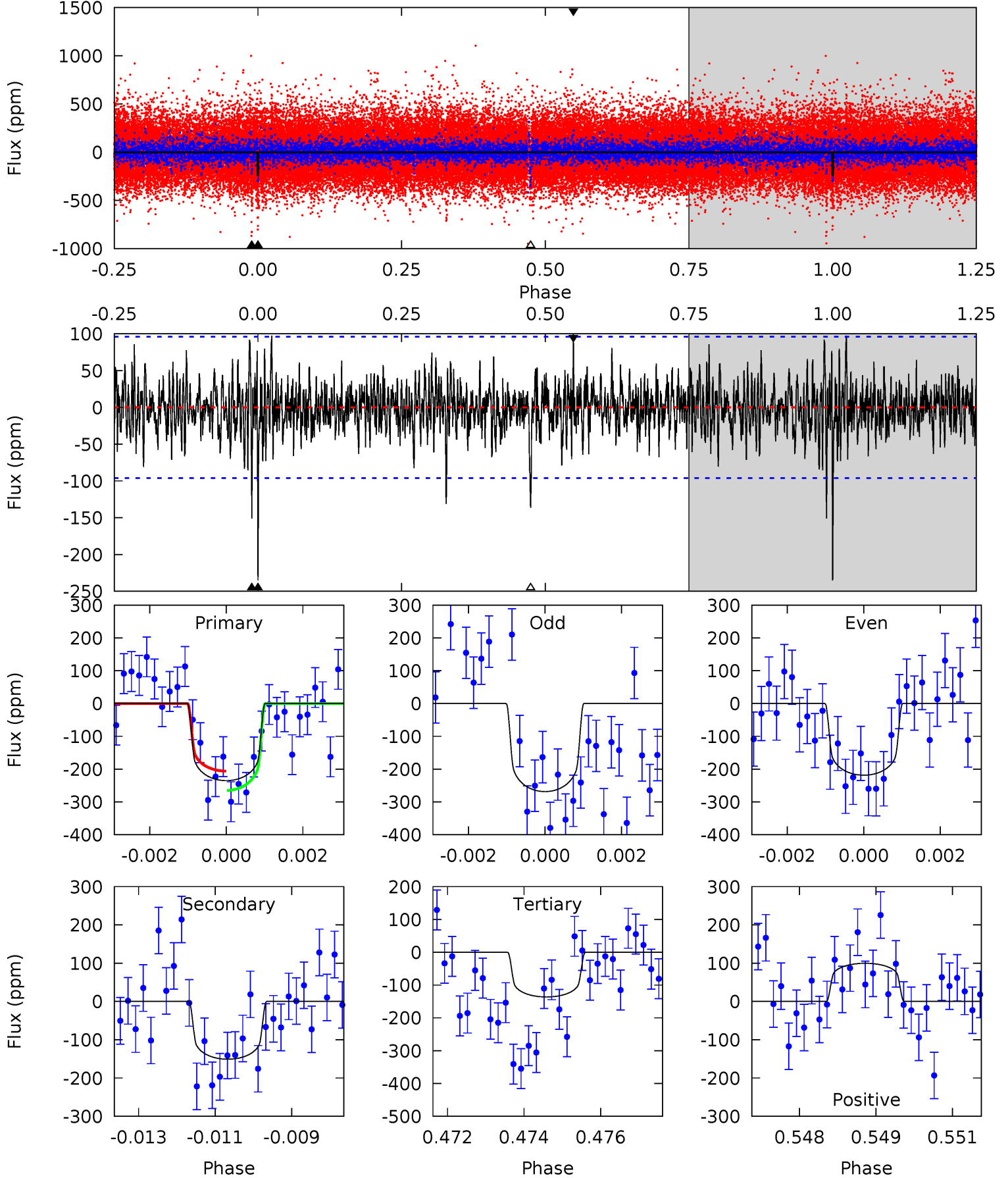
TCE 003343226-01 P=509.320105 Days $T_0=157.556430$ (BKJD)



DV Model-Shift Uniqueness Test

003343226-01, P = 509.371906 Days, E = 157.485774 Days

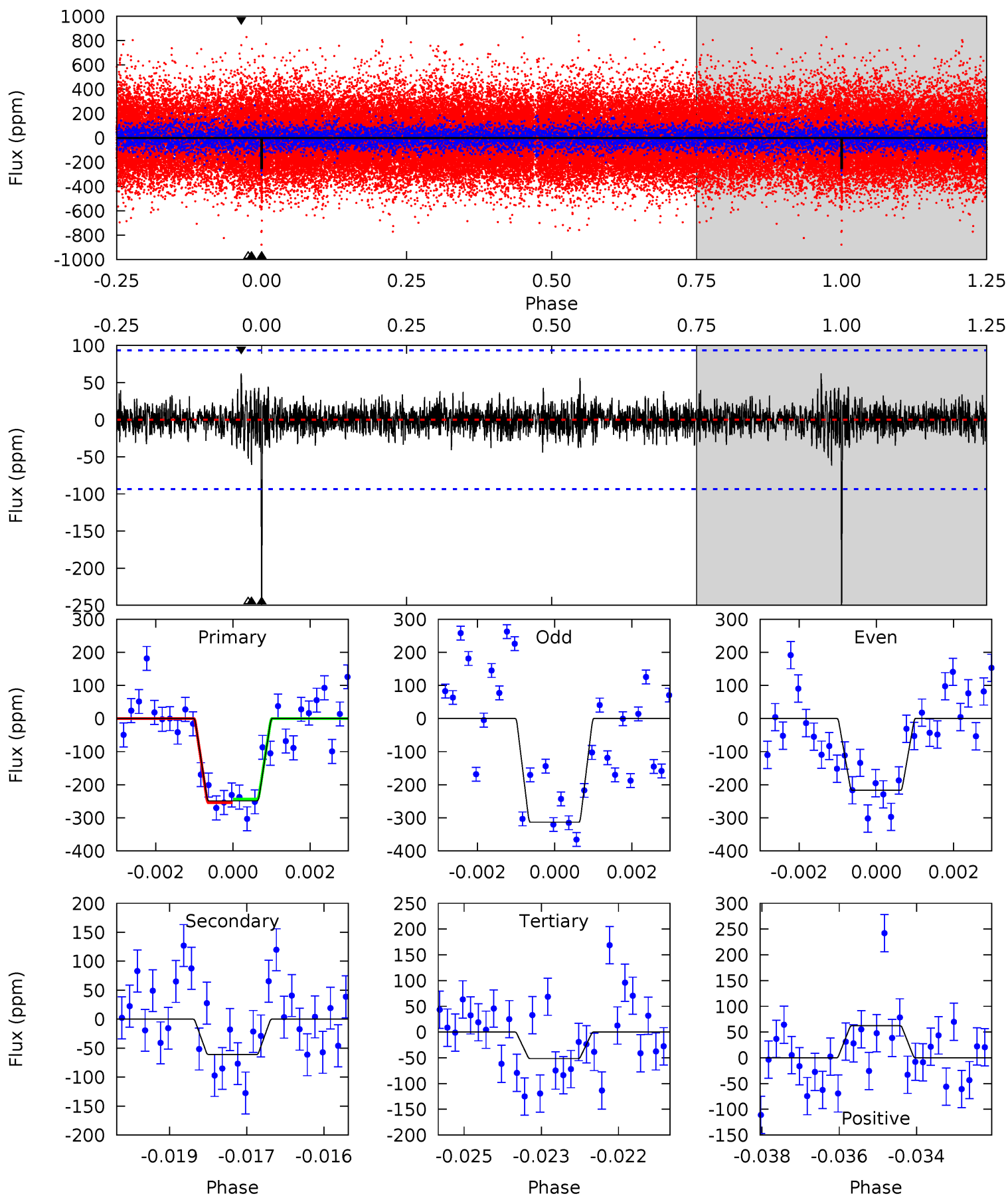
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	8.43	7.62	5.57	5.37	3.16	1.49	5.53	7.58	0.81	2.86	1.33	0.88	0.30	1.65



Alt Model-Shift Uniqueness Test

003343226-01, P = 509.320105 Days, E = 157.556430 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	3.49	2.96	3.57	5.37	3.16	0.73	11.3	10.7	0.54	-0.08	2.66	0.79	0.20	0.33



Stellar Parameters For KIC 003343226

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6003^{+162}_{-180}	$4.500^{+0.065}_{-0.195}$	$-0.320^{+0.300}_{-0.300}$	$0.906^{+0.269}_{-0.090}$	$0.947^{+0.117}_{-0.106}$	$1.793^{+0.480}_{-0.905}$
	+3%/-3%	+1%/-4%	+94%/-94%	+30%/-10%	+12%/-11%	+27%/-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 003343226-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-151 ± 18	$1.83^{+0.34}_{-0.29}$	322^{+22}_{-16}	5044^{+376}_{-317}	36476^{+15089}_{-10553}
Alt.	-61 ± 17	$1.65^{+0.35}_{-0.25}$	322^{+24}_{-14}	4350^{+353}_{-329}	17414^{+9533}_{-6526}

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

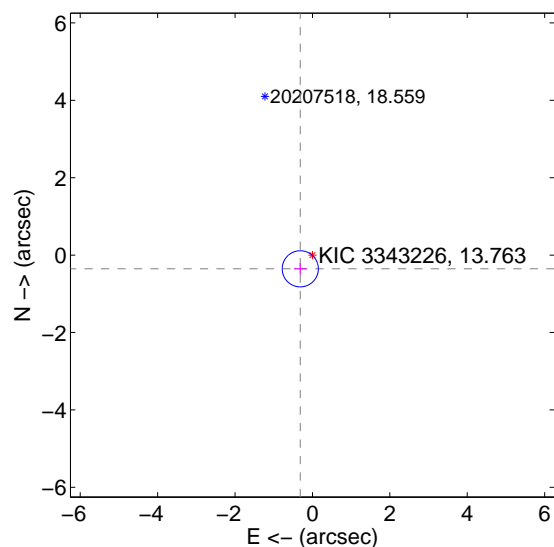
Supplemental centroid analysis for 003343226-01. Kepler magnitude: 13.76. Transit SNR 8.25

There are 1 quarters with good PRF difference image offsets

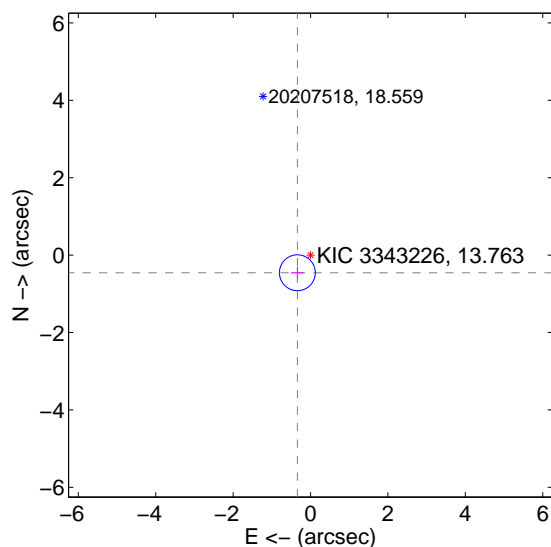
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.474 ± 0.156	3.05	0.314 ± 0.164	-0.355 ± 0.149
PRF-fit source offset from KIC position	0.569 ± 0.154	3.68	0.340 ± 0.164	-0.456 ± 0.149
photometric centroid source offset	1.31 ± 1.30	1.00	0.90 ± 1.32	-0.94 ± 1.29

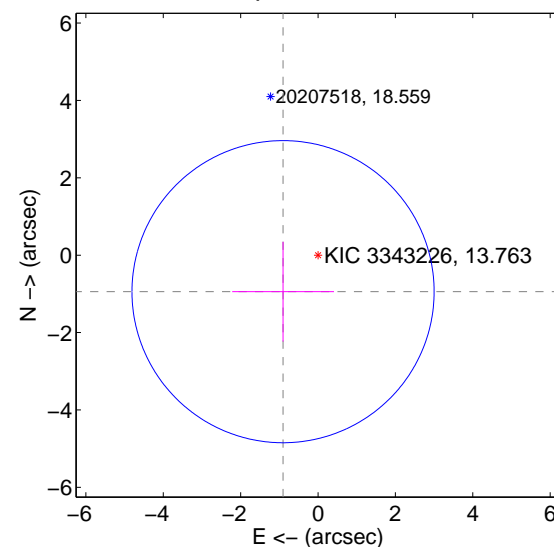
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

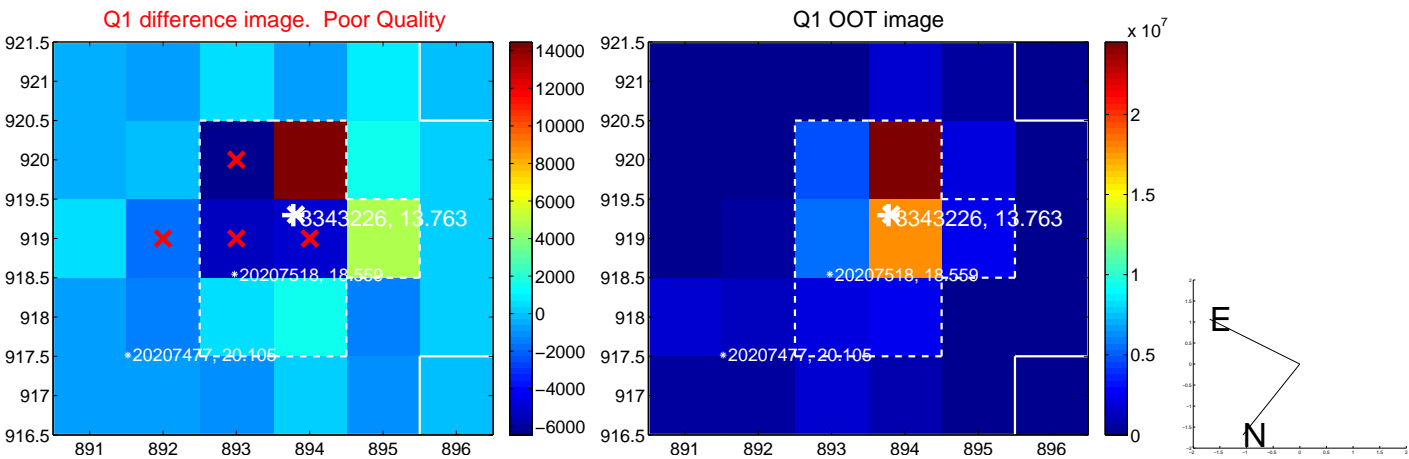


offset from photometric centroids

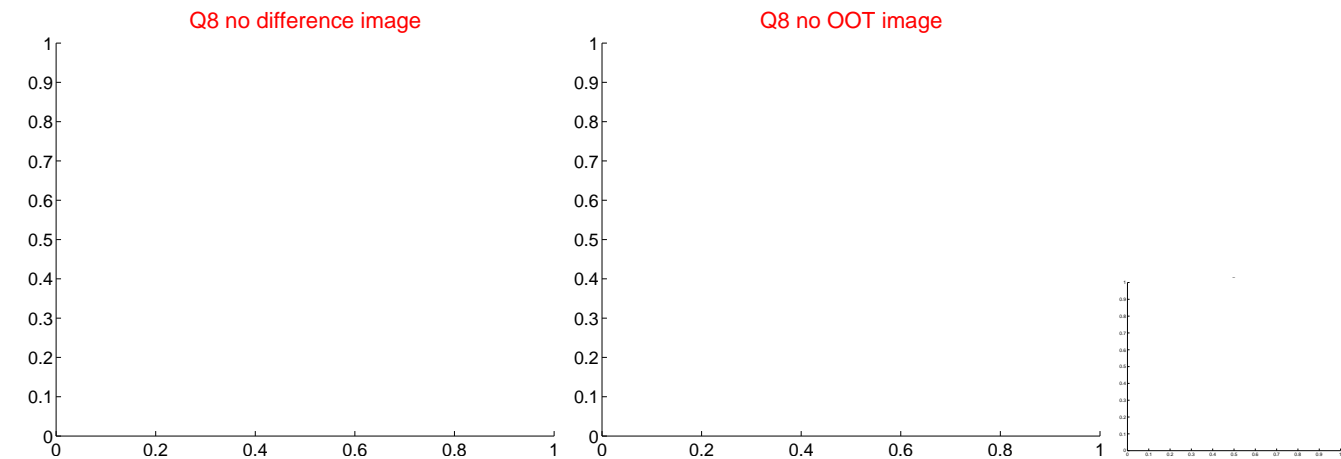
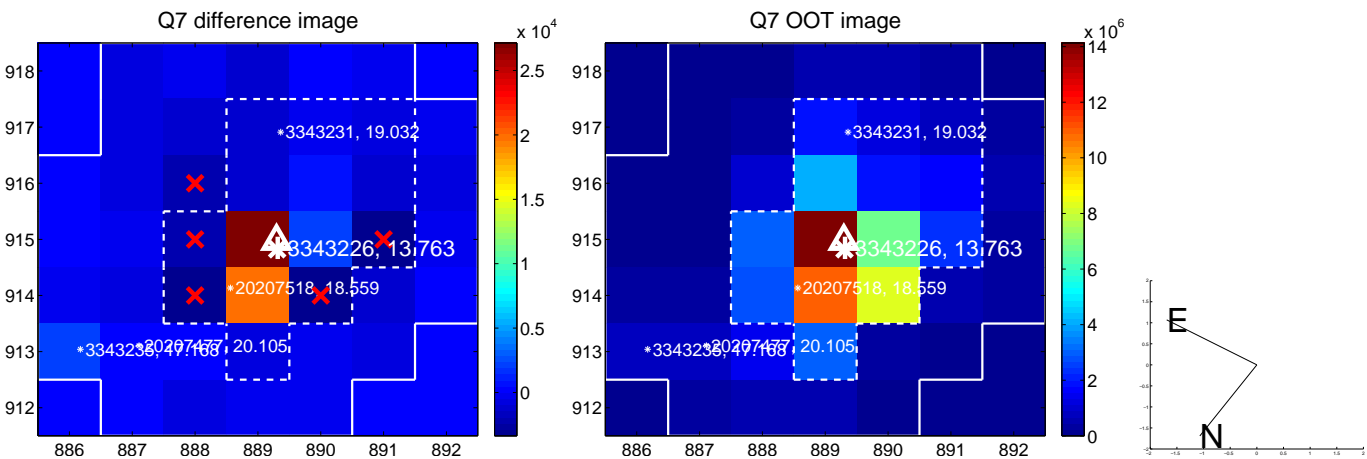


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



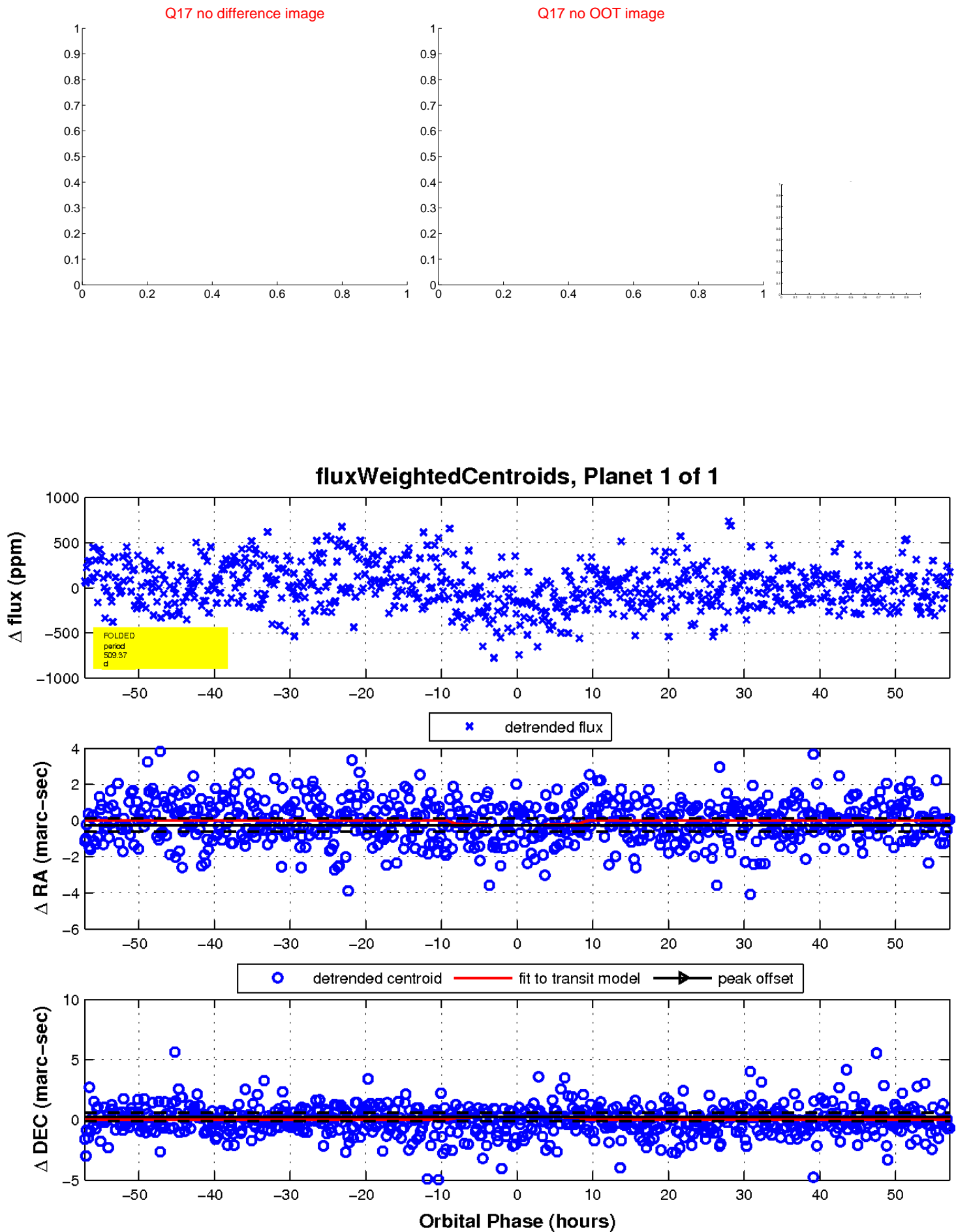
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

