

KIC 003322943

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})
003322943-01	OBS	No	544.011898	337.863314	1094.8	9.079	9.9	8.0	0.56	3967	1.90	0.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003322943-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

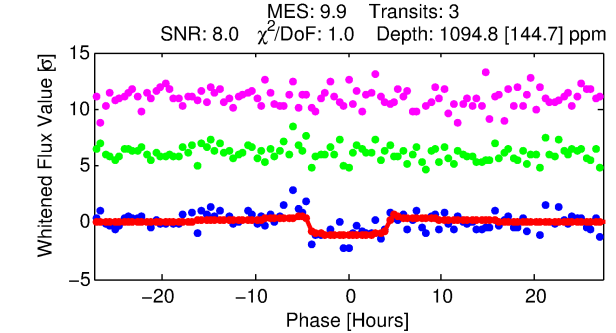
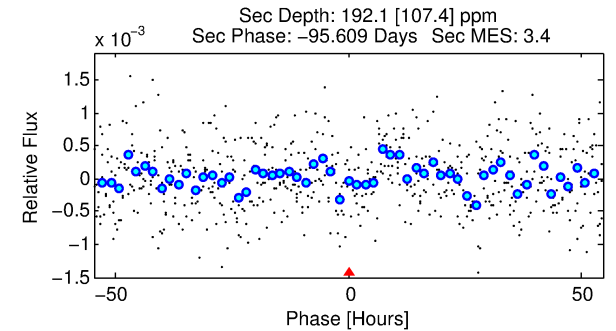
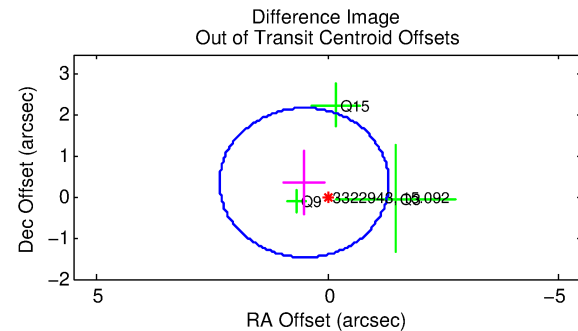
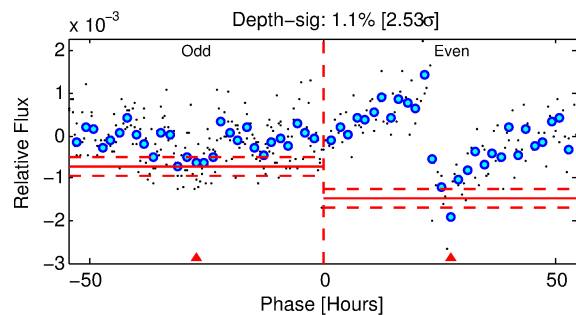
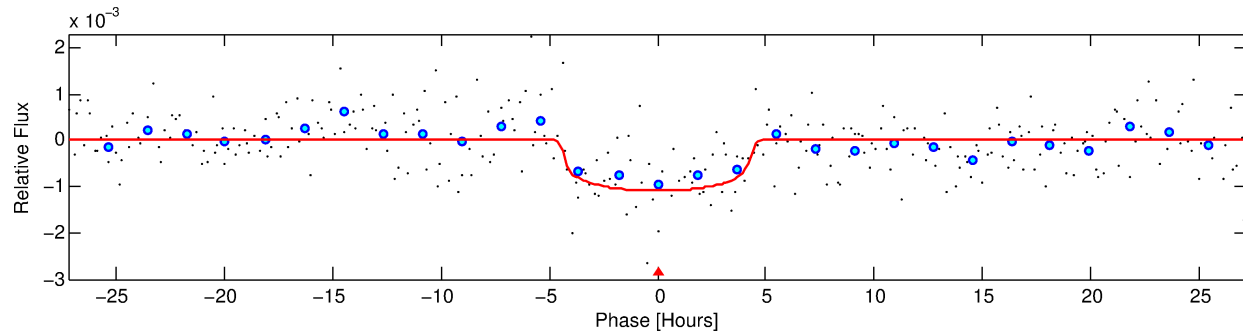
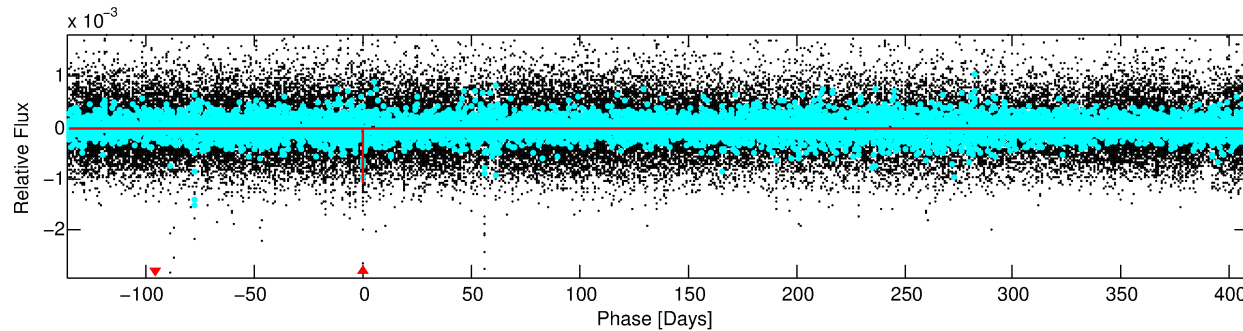
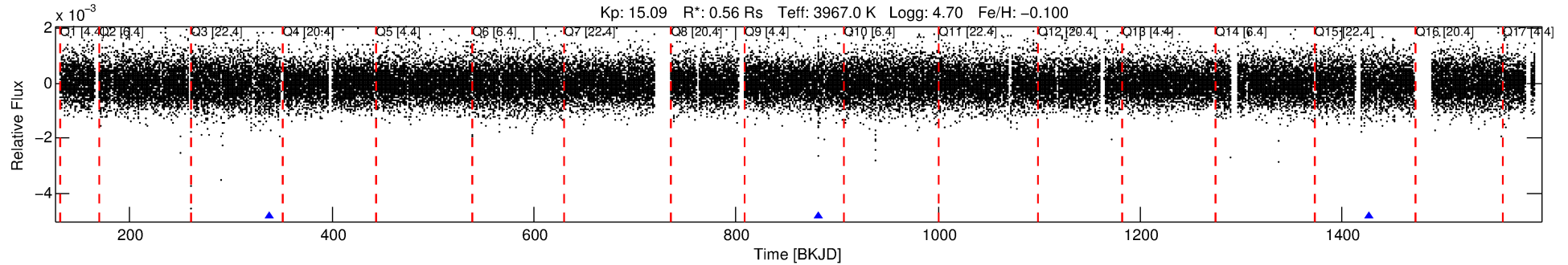
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003322943-01

No Significant Match Found

DV One-Page Summary

KIC: 3322943 Candidate: 1 of 1 Period: 544.012 d



DV Fit Results:

Period = 544.01190 [0.00876] d
Epoch = 337.8633 [0.0123] BKJD
Rp/R* = 0.0311 [0.0157]
a/R* = 401.68 [804.99]
b = 0.54 [2.63]
Seff = 0.06 [0.01]
Teq = 126 [3] K
Rp = 1.90 [0.97] Re
a = 1.0812 [0.0549] AU
Ag = 34276.47 [39699.33] [0.86σ]
Teffp = 2650 [767] K [3.29σ]

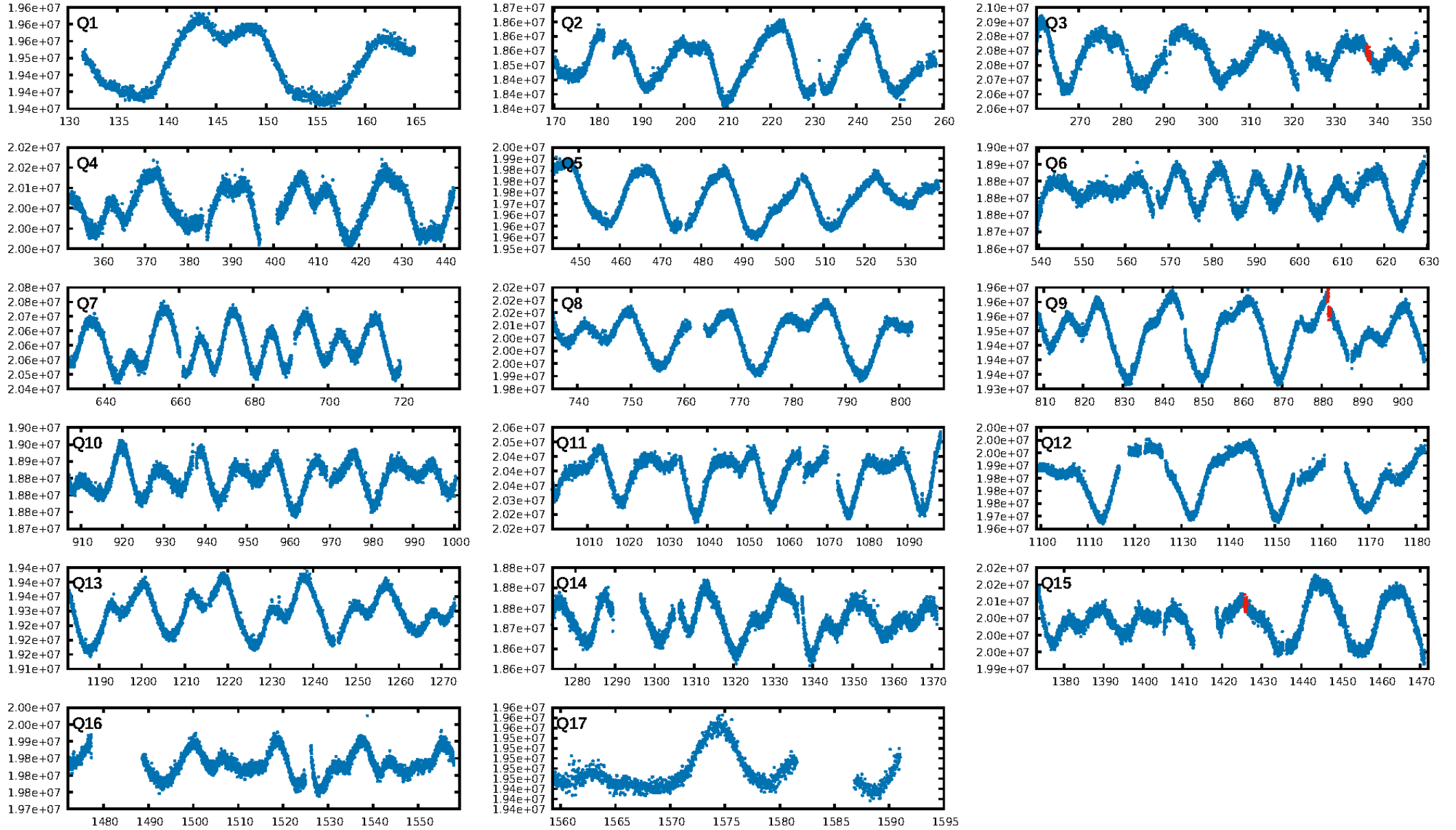
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 16.6%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 6.22e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.699
Centroid-sig: 61.7%
Centroid-so: 1.475 arcsec [1.92σ]
OotOffset-rm: 0.618 arcsec [1.01σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-rm: 0.701 arcsec [1.32σ]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

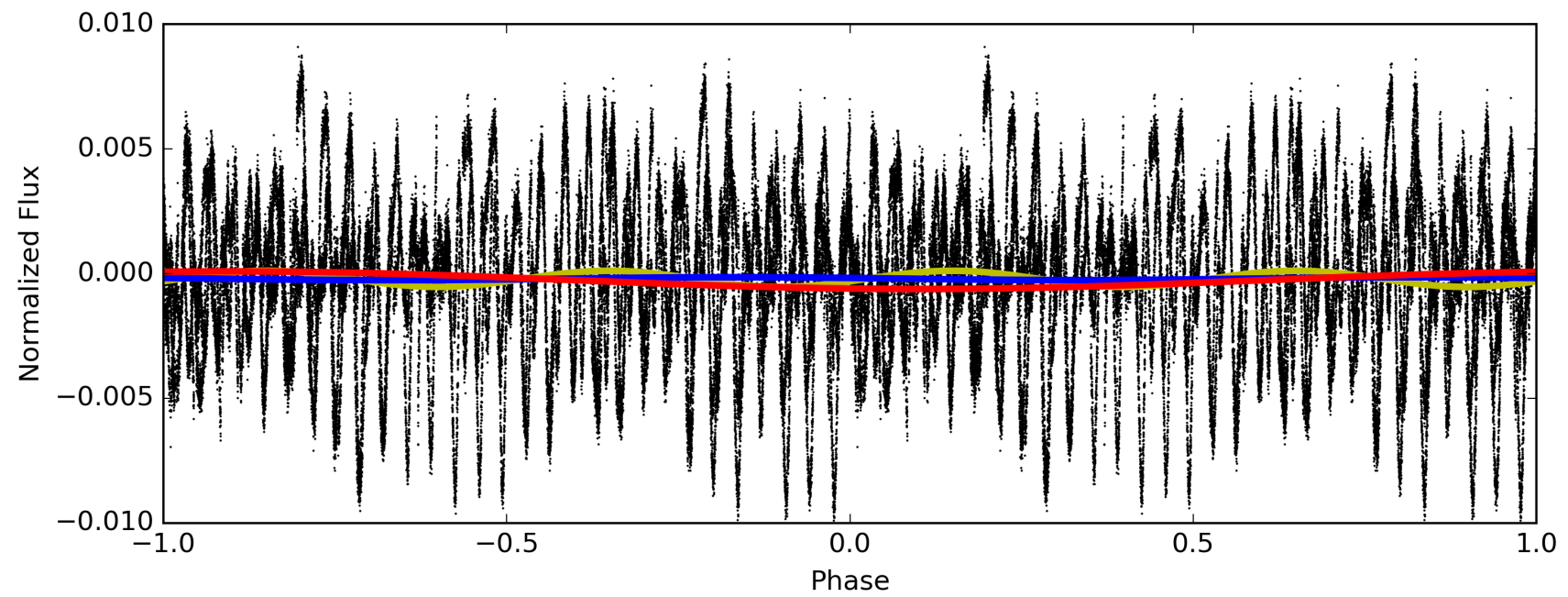
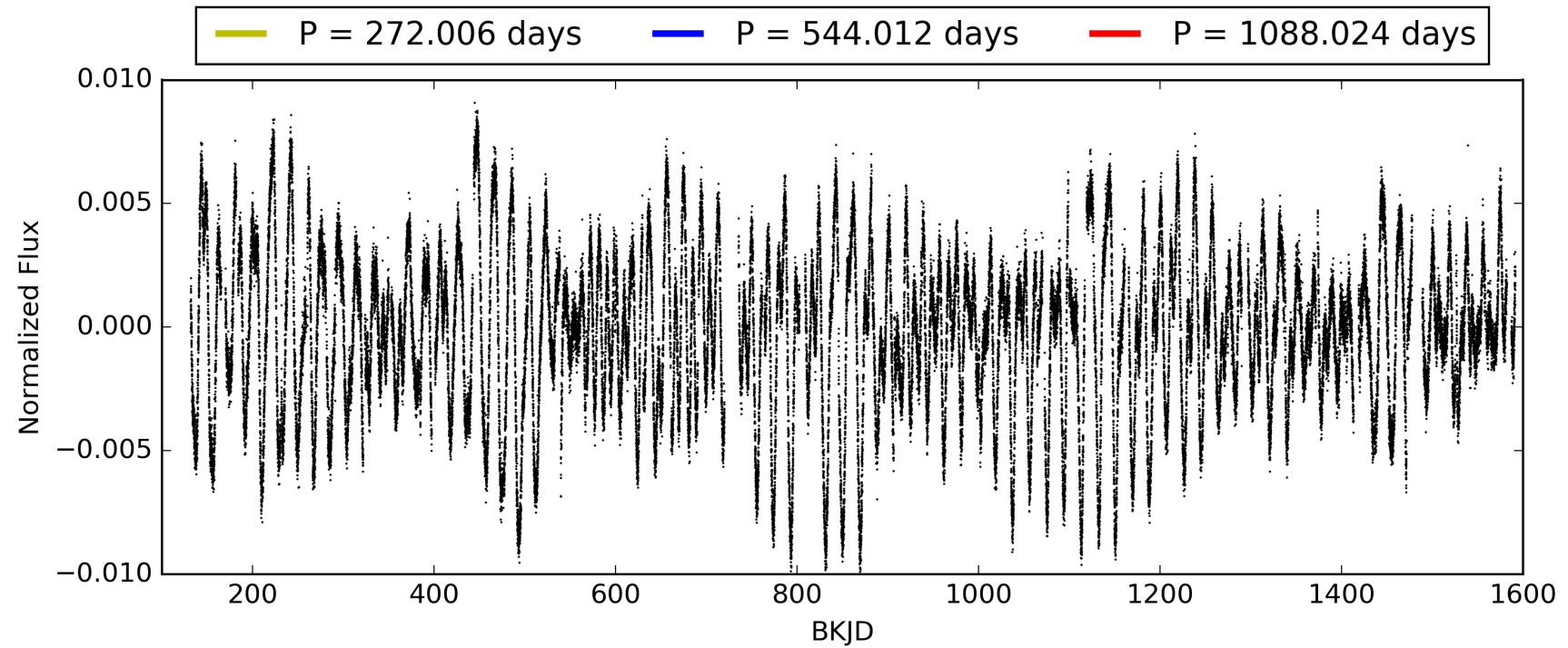
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:42:23 Z

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

TCE 003322943-01, PDC Light Curves

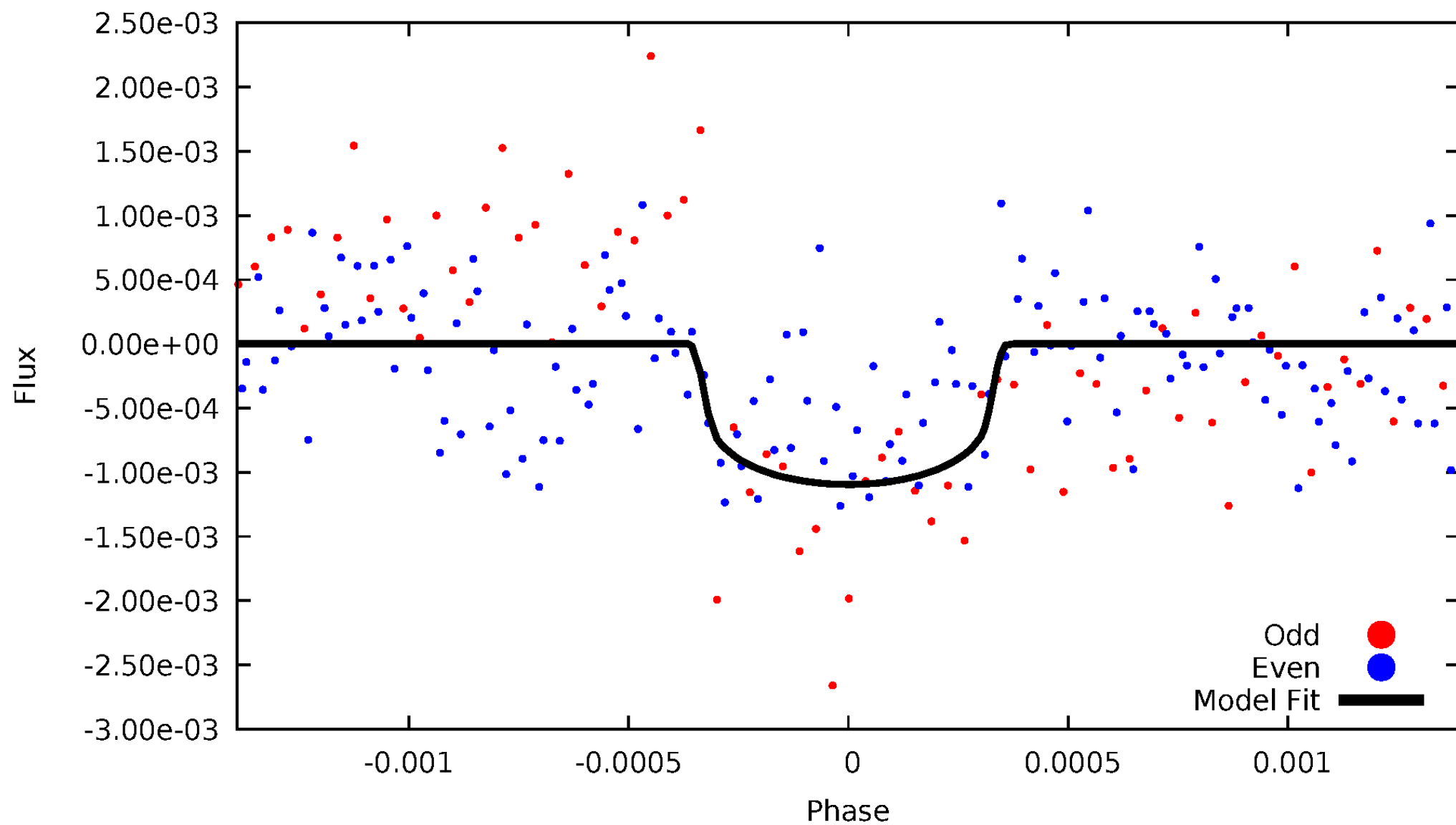


TCE 003322943-01



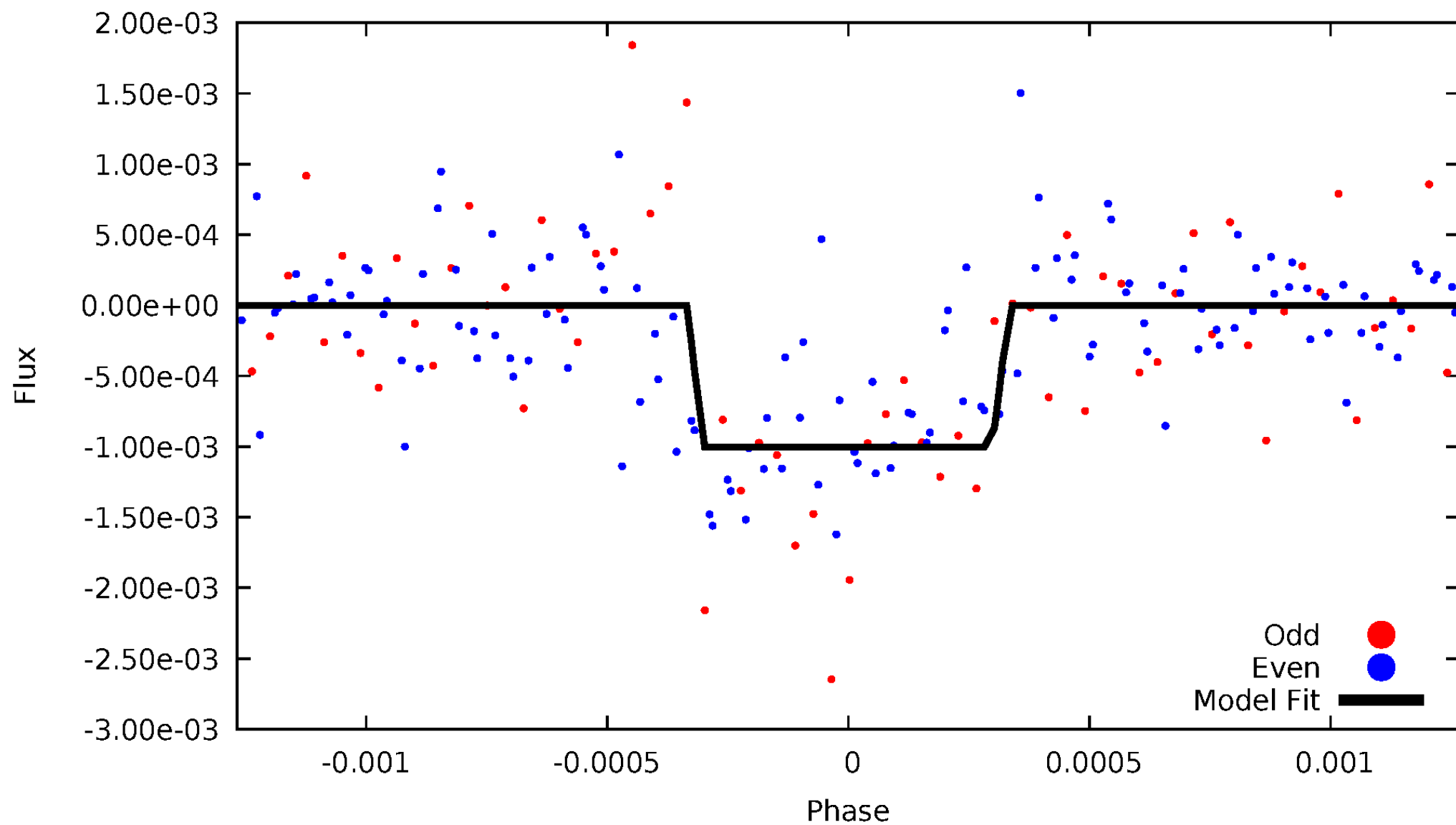
DV Odd/Even

TCE 003322943-01



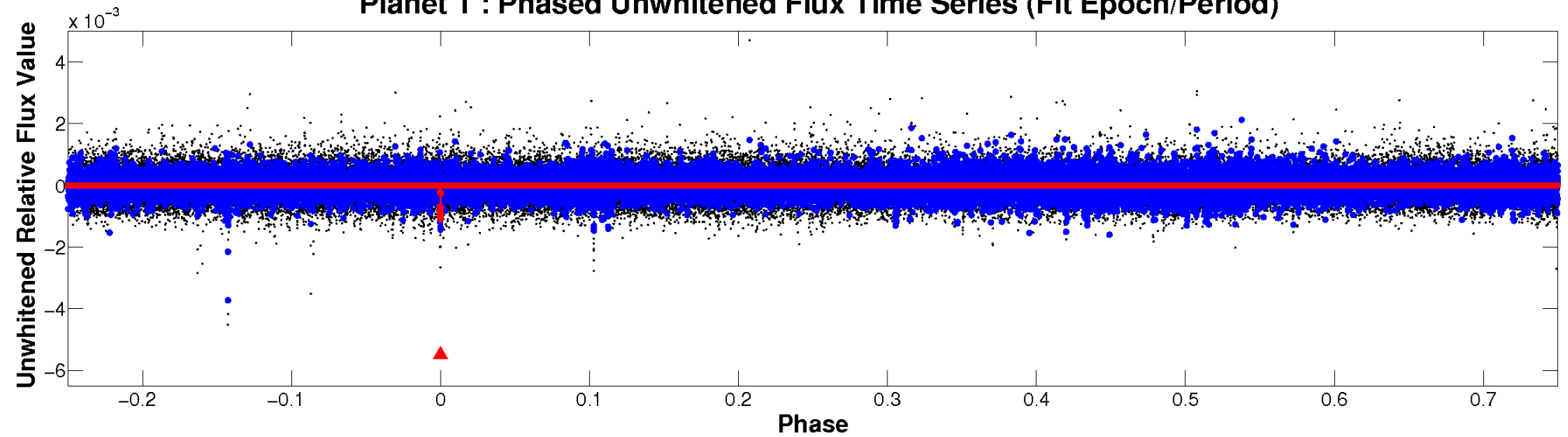
ALT Odd/Even

TCE 003322943-01

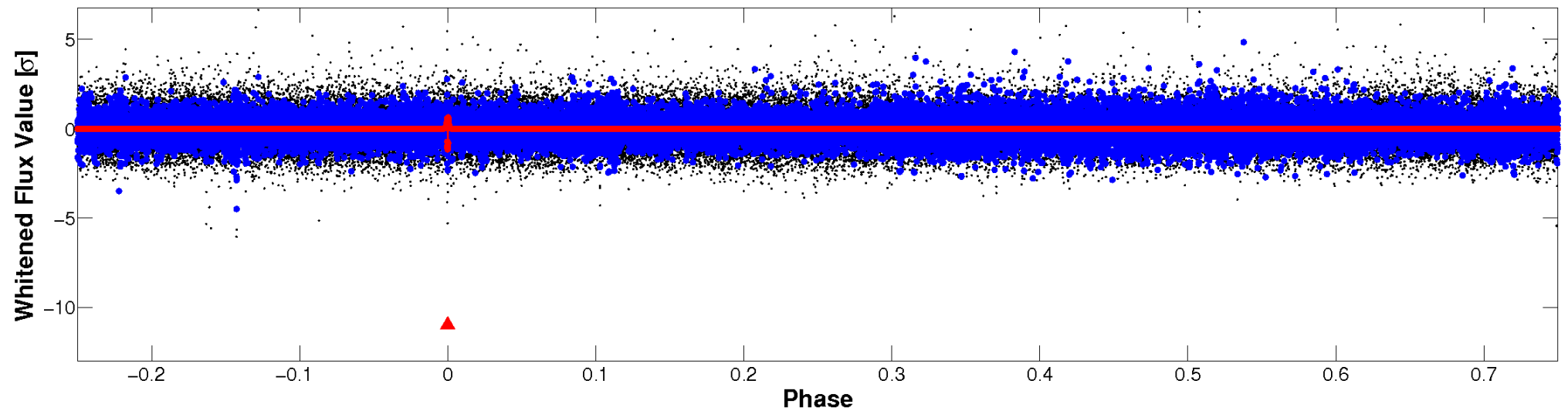


Non-Whitened Vs. Whitened Light Curve

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

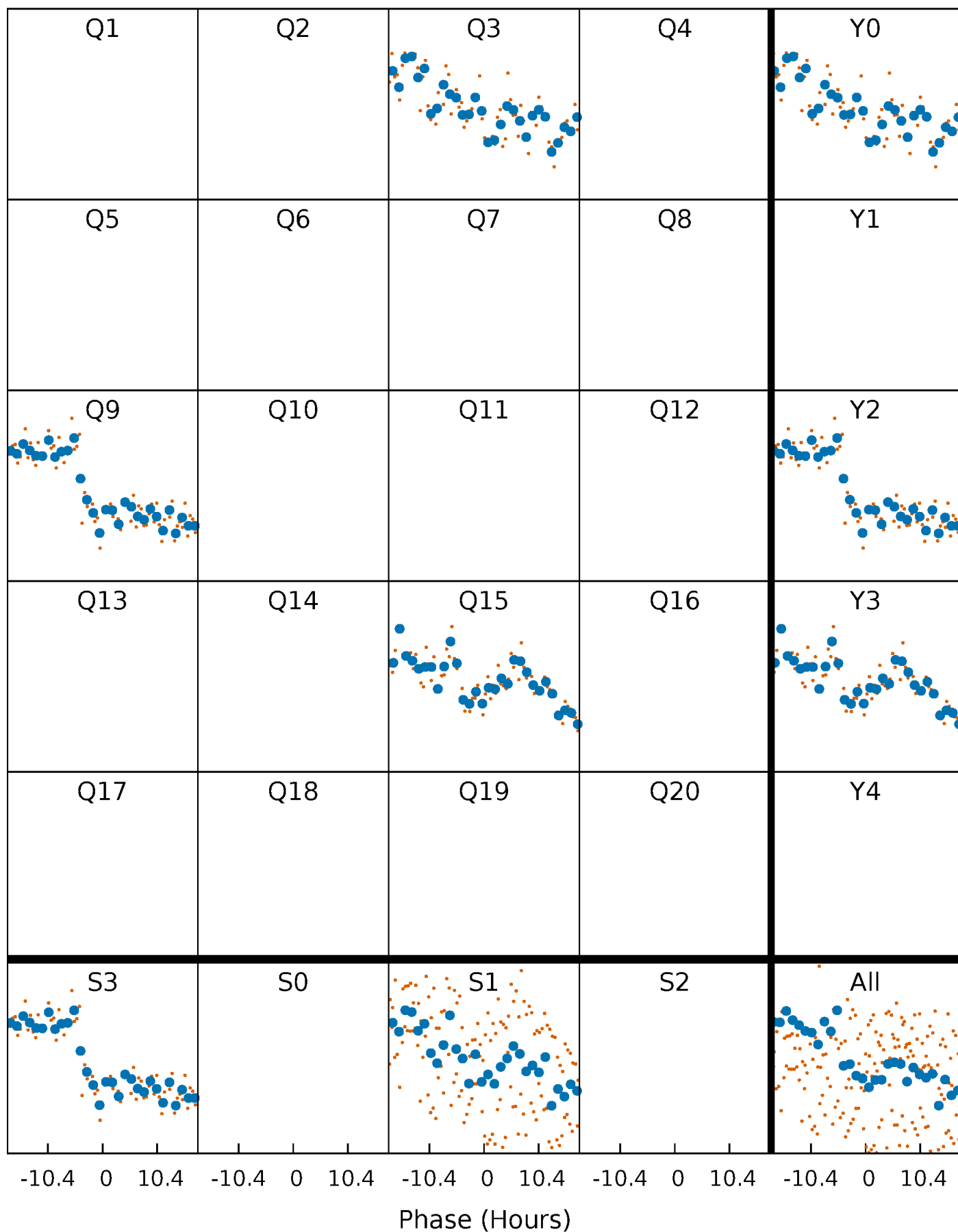


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



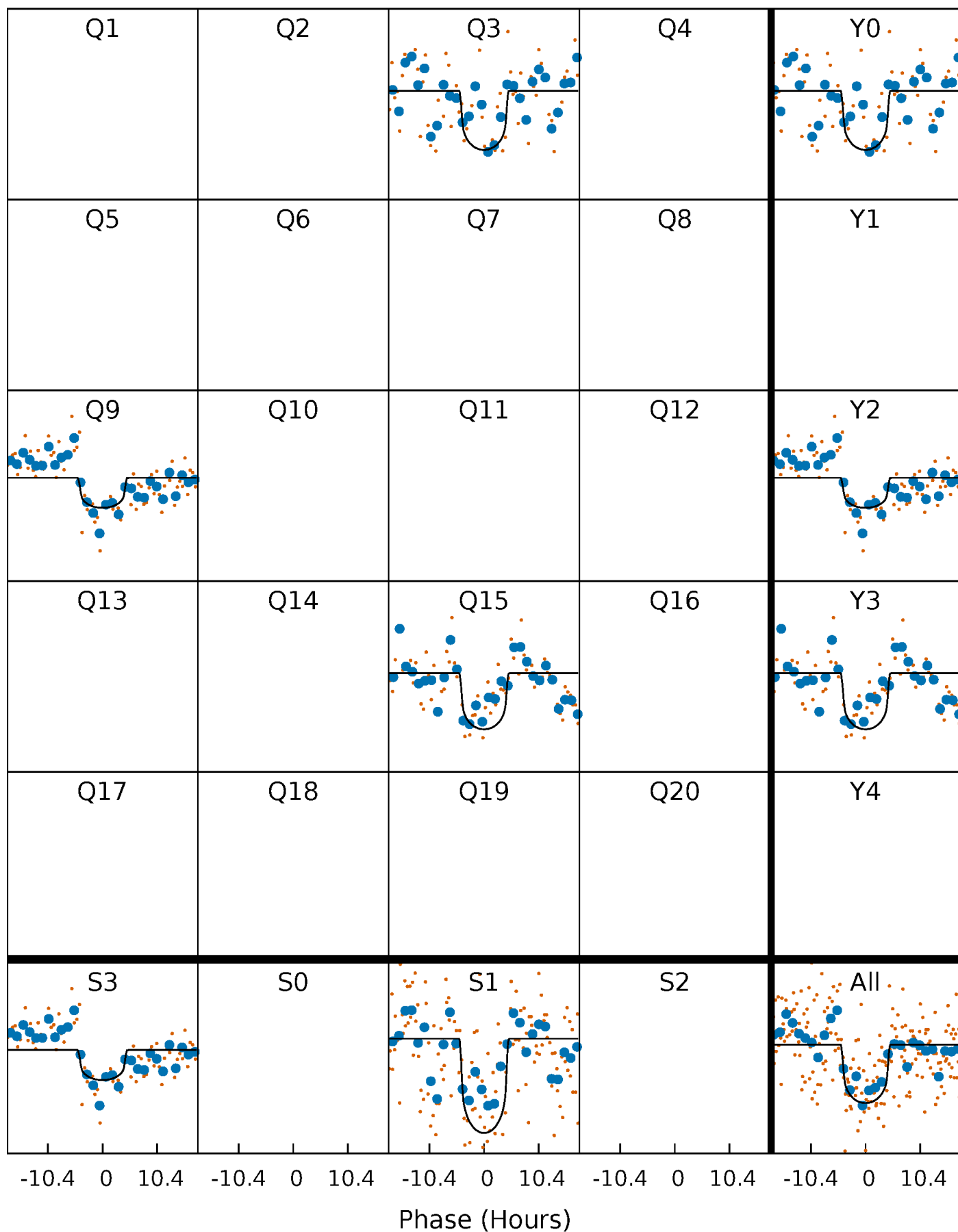
PDC Quarter-Phased Transit Curves

TCE 003322943-01 P=544.011898 Days $T_0=337.863314$ (BKJD)



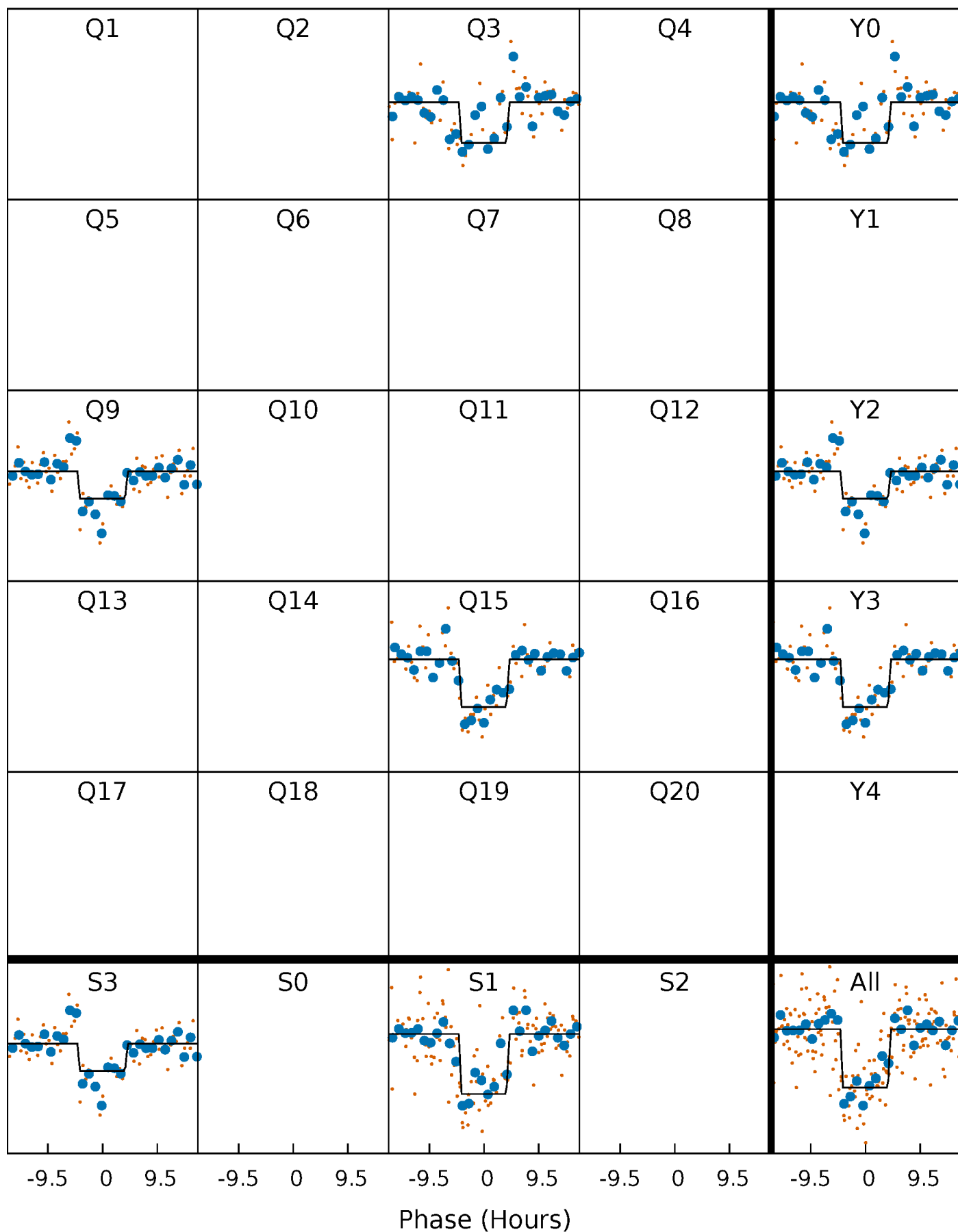
DV Quarter-Phased Transit Curves

TCE 003322943-01 P=544.011898 Days $T_0=337.863314$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

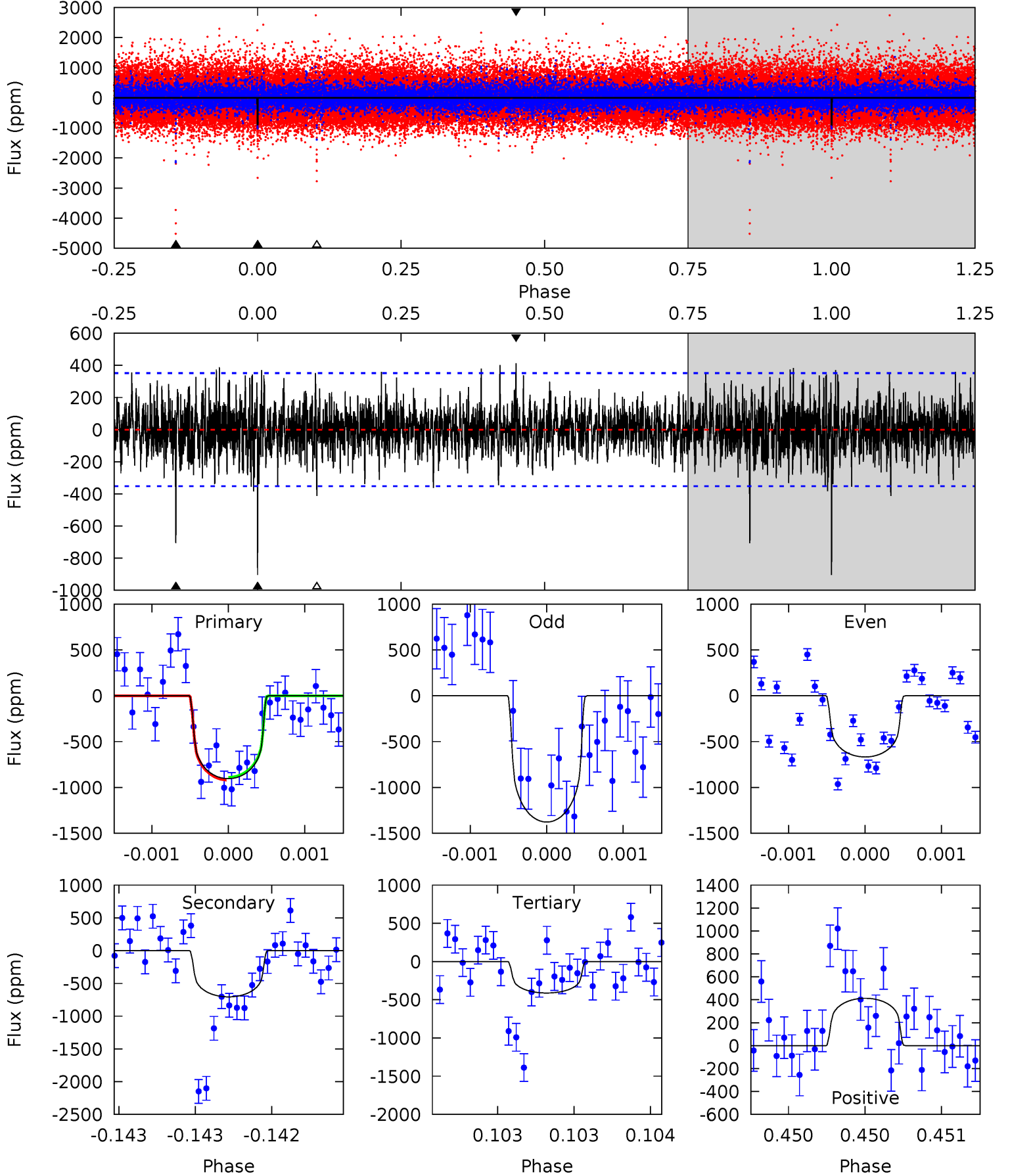
TCE 003322943-01 P=544.016290 Days $T_0=337.858307$ (BKJD)



DV Model-Shift Uniqueness Test

003322943-01, P = 544.011898 Days, E = 337.863314 Days

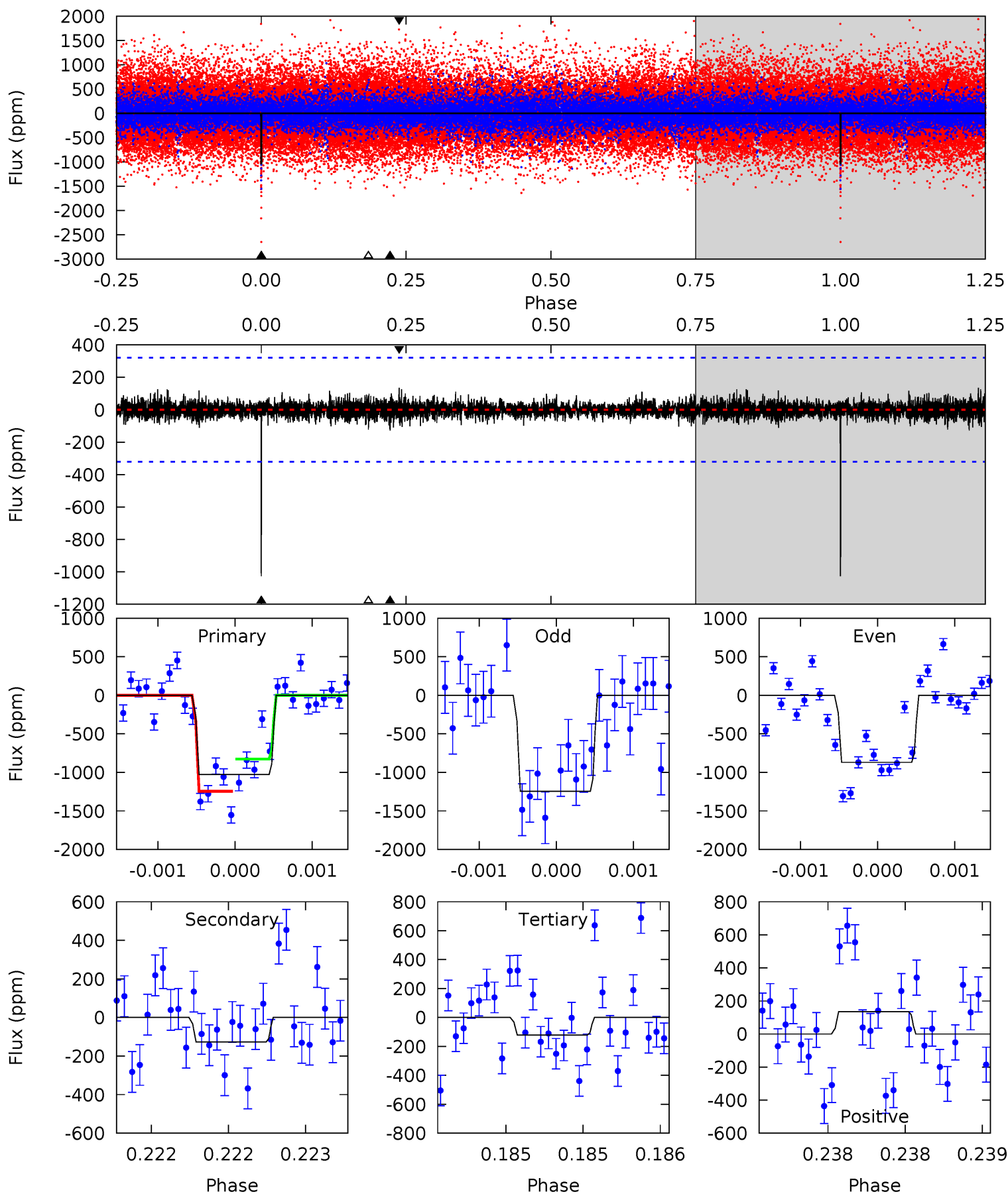
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	11.1	6.45	6.46	5.51	3.38	1.66	7.71	7.69	4.61	4.59	5.36	1.22	0.31	0.23



Alt Model-Shift Uniqueness Test

003322943-01, P = 544.016290 Days, E = 337.858307 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	2.19	2.10	2.32	5.53	3.41	0.48	15.6	15.4	0.09	-0.13	3.10	0.96	0.12	3.61



Stellar Parameters For KIC 003322943

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3967^{+63}_{-71}	$4.697^{+0.033}_{-0.023}$	$-0.100^{+0.200}_{-0.200}$	$0.560^{+0.033}_{-0.037}$	$0.569^{+0.035}_{-0.039}$	$4.576^{+0.679}_{-0.451}$
	+2%/-2%	+1%/-0%	+200%/-200%	+6%/-7%	+6%/-7%	+15%/-10%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 003322943-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-706 ± 64	$1.93^{+1.00}_{-0.89}$	175^{+4}_{-4}	3735^{+1005}_{-477}	$123417^{+307435}_{-71129}$
Alt.	-127 ± 58	$1.94^{+0.97}_{-0.91}$	176^{+4}_{-4}	2860^{+579}_{-350}	21245^{+50176}_{-13960}

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

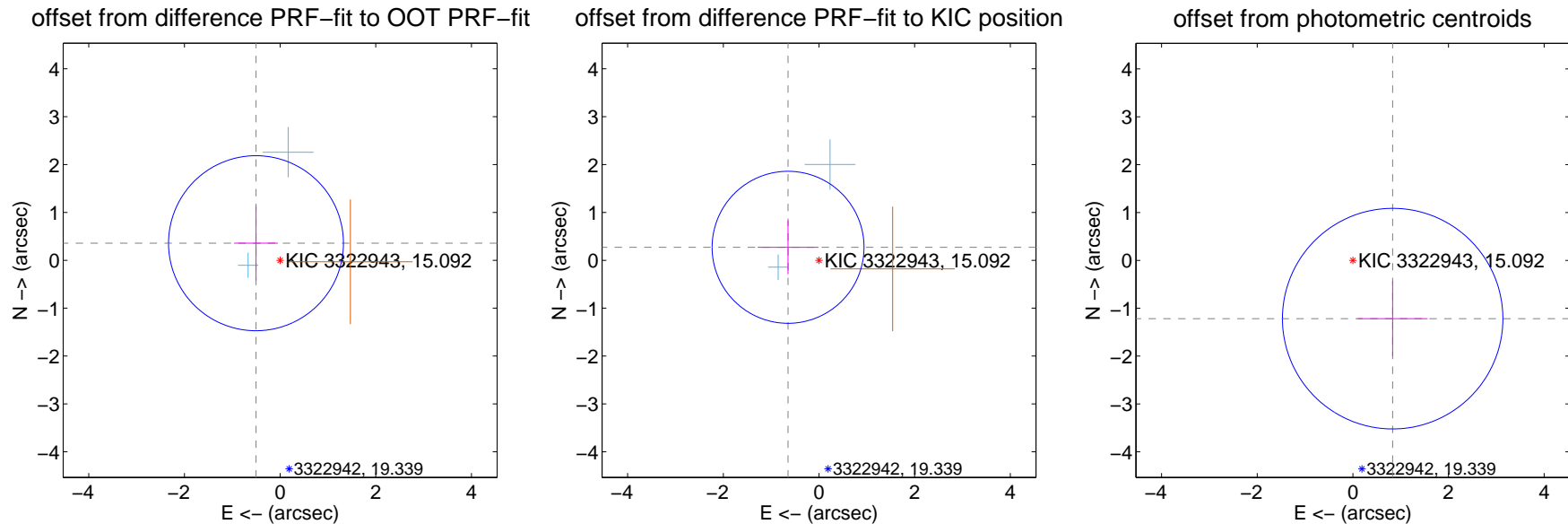
DV Centroid Data

Supplemental centroid analysis for 003322943-01. Kepler magnitude: 15.09. Transit SNR 7.96

There are 2 quarters with good PRF difference image offsets

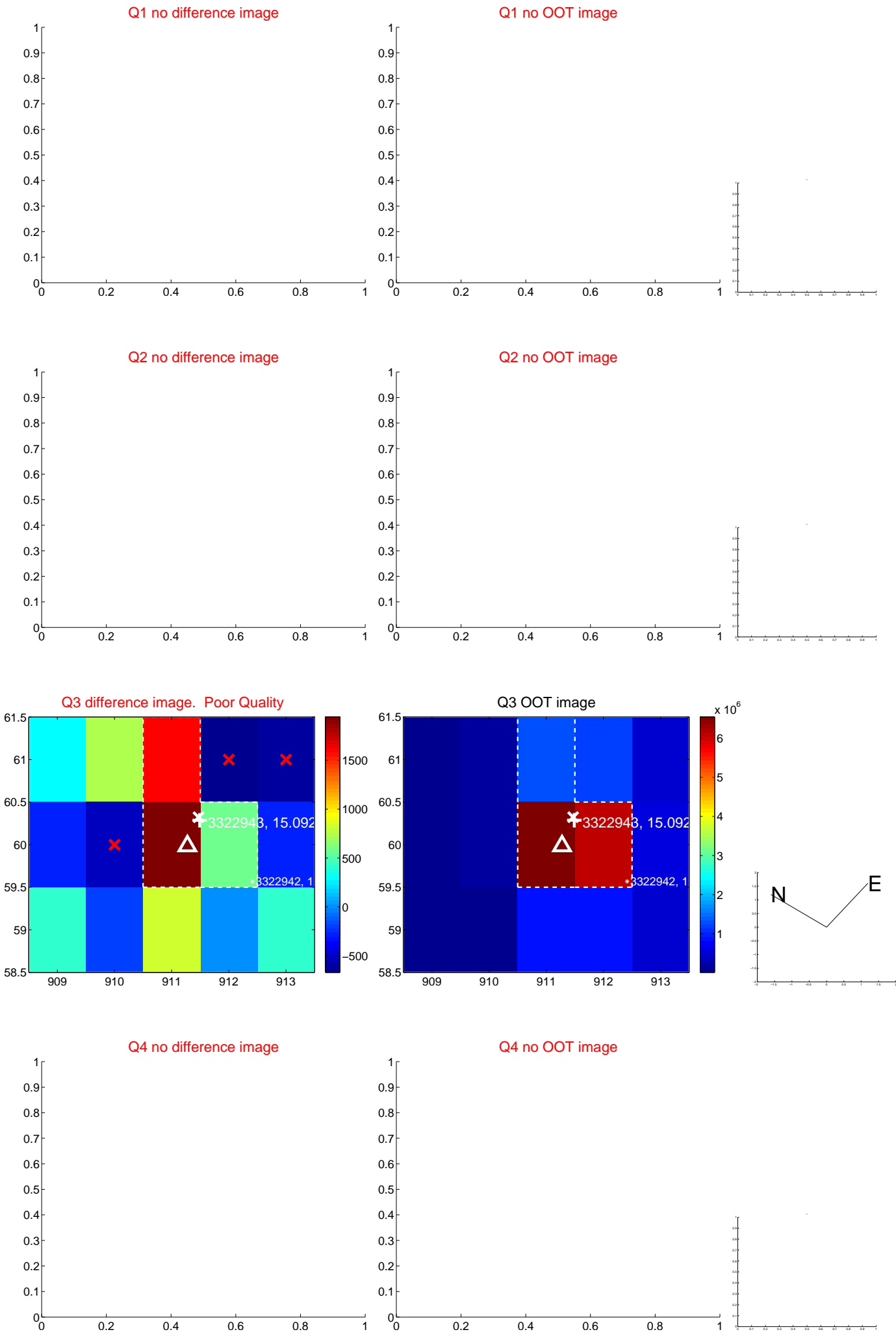
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.618 ± 0.609	1.01	0.504 ± 0.459	0.357 ± 0.779
PRF-fit source offset from KIC position	0.701 ± 0.529	1.32	0.646 ± 0.634	0.271 ± 0.563
photometric centroid source offset	1.47 ± 0.77	1.92	-0.83 ± 0.73	-1.22 ± 0.78



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.

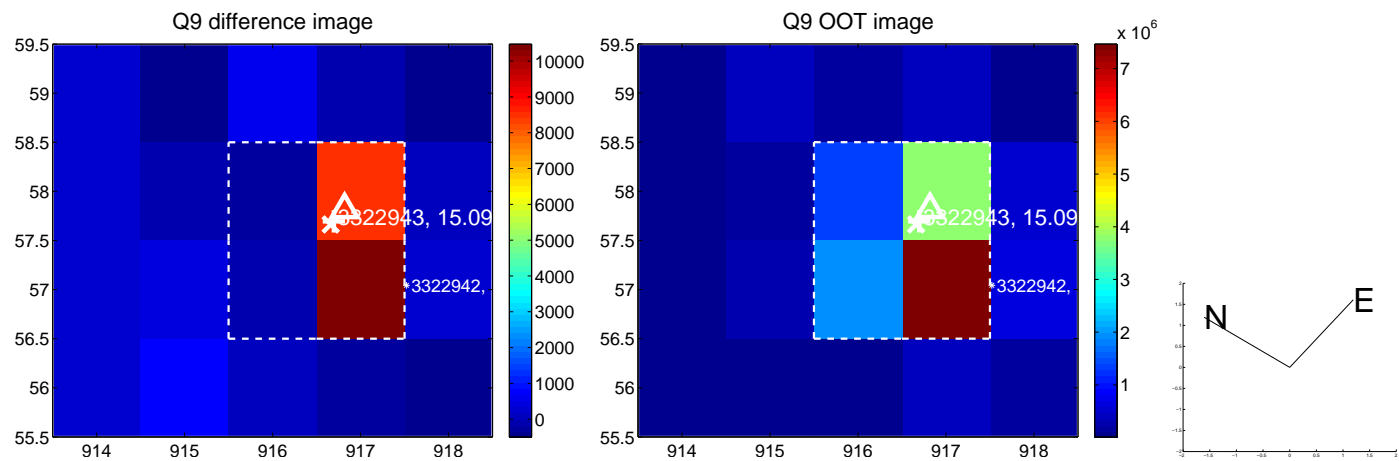
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



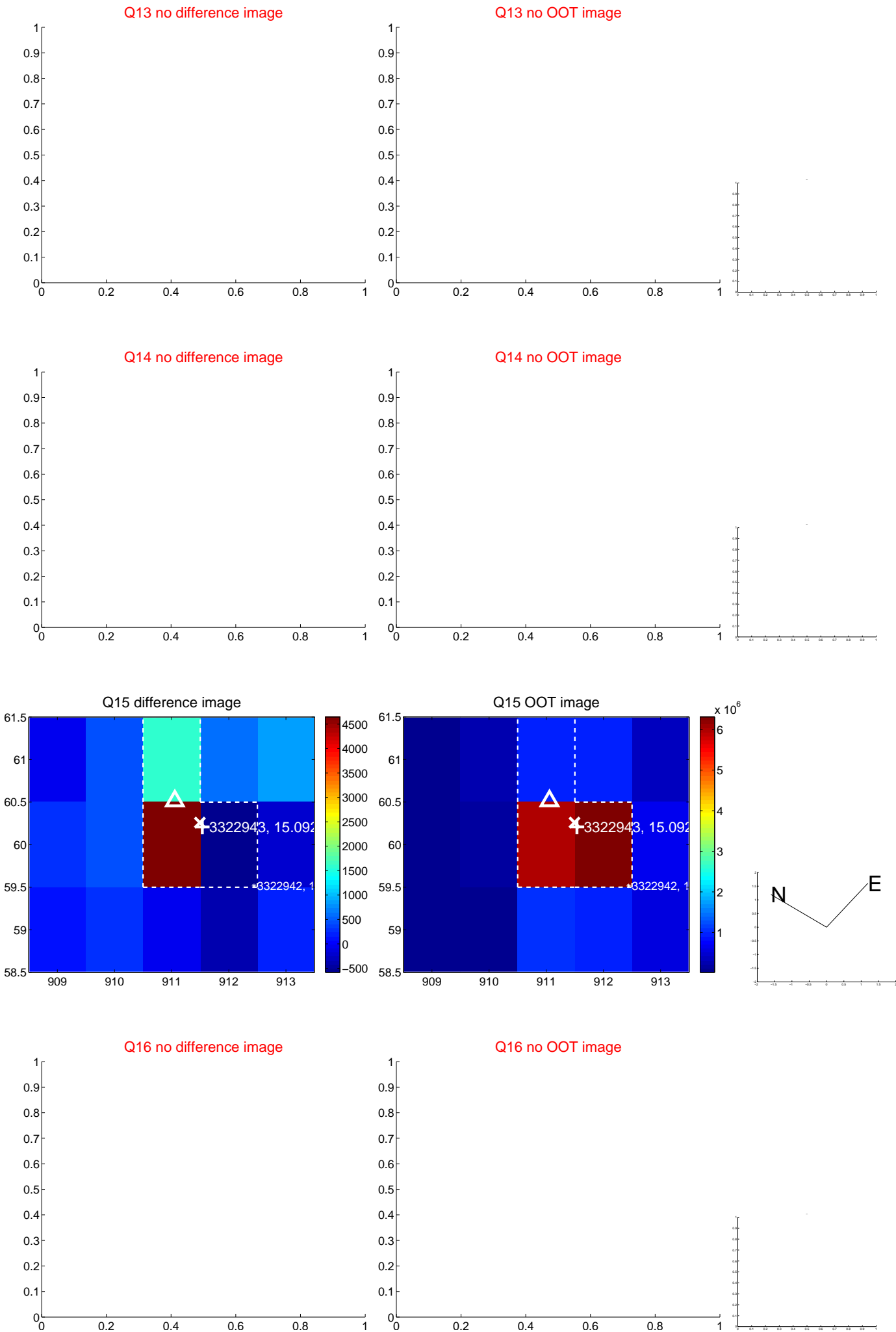
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



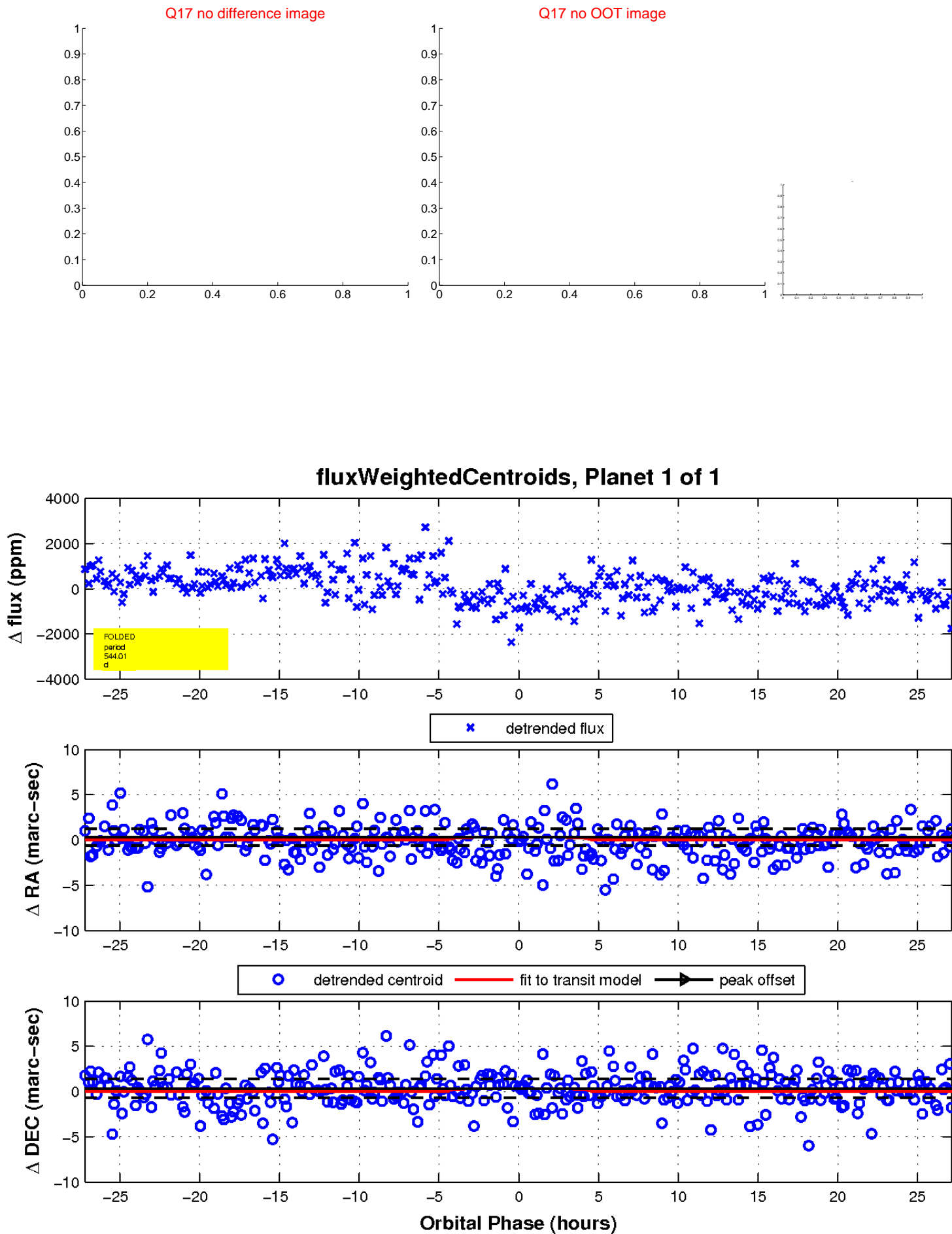
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

