

KIC 005954017

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})
005954017-02	OBS	No	319.814646	190.176199	891.5	17.227	8.1	7.6	0.55	3994	1.76	0.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005954017-02	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.

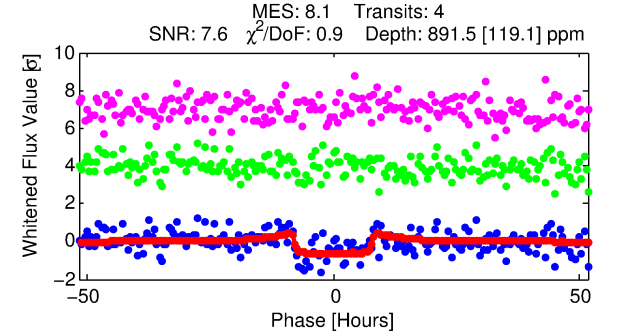
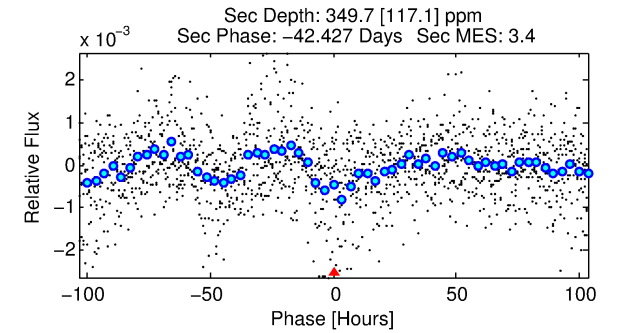
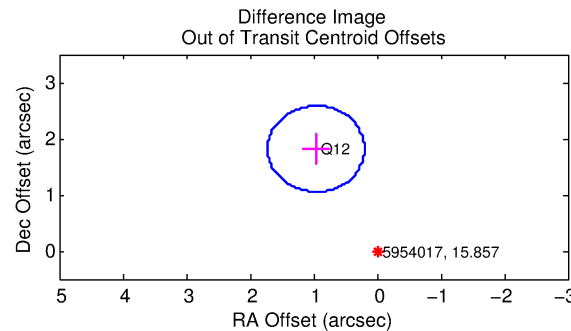
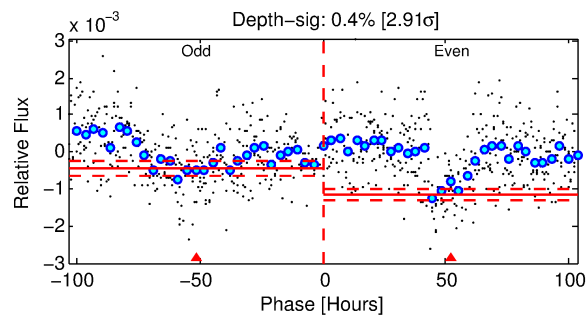
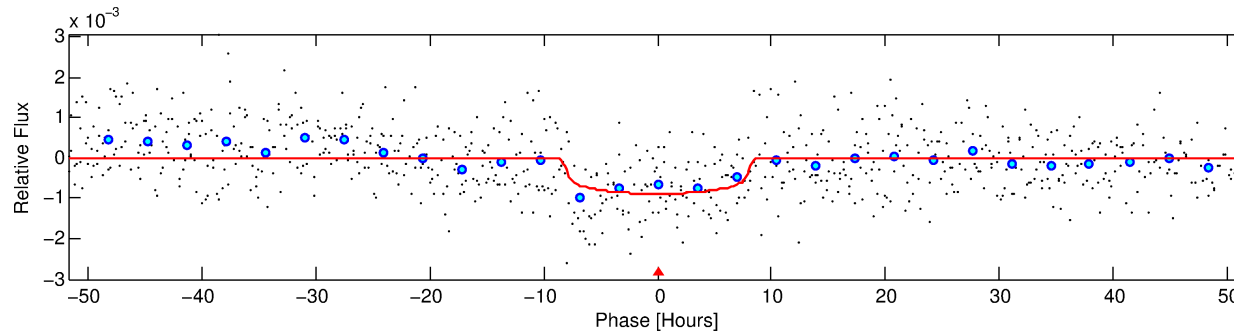
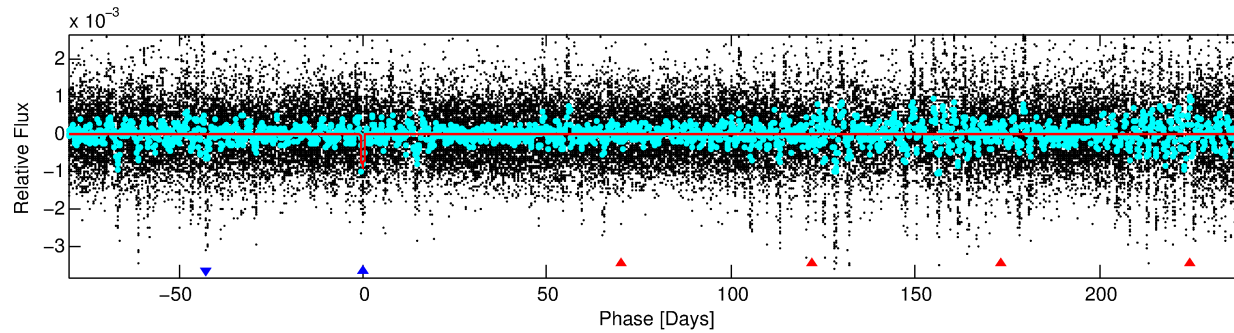
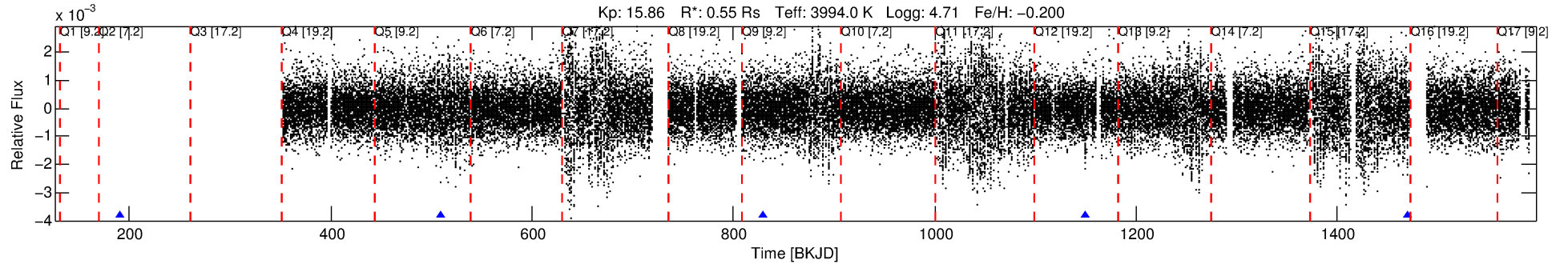
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005954017-02

No Significant Match Found

DV One-Page Summary

KIC: 5954017 Candidate: 2 of 2 Period: 319.815 d



DV Fit Results:

Period = 319.81465 [0.01171] d
Epoch = 190.1762 [0.0313] BKJD
Rp/R* = 0.0295 [0.0063]
a/R* = 103.54 [87.68]
b = 0.73 [0.56]
Seff = 0.12 [0.01]
Teq = 150 [4] K
Rp = 1.76 [0.40] Re
a = 0.7545 [0.0381] AU
Ag = 35184.65 [19254.32] [1.83 σ]
Teffp = 3183 [437] K [6.94 σ]

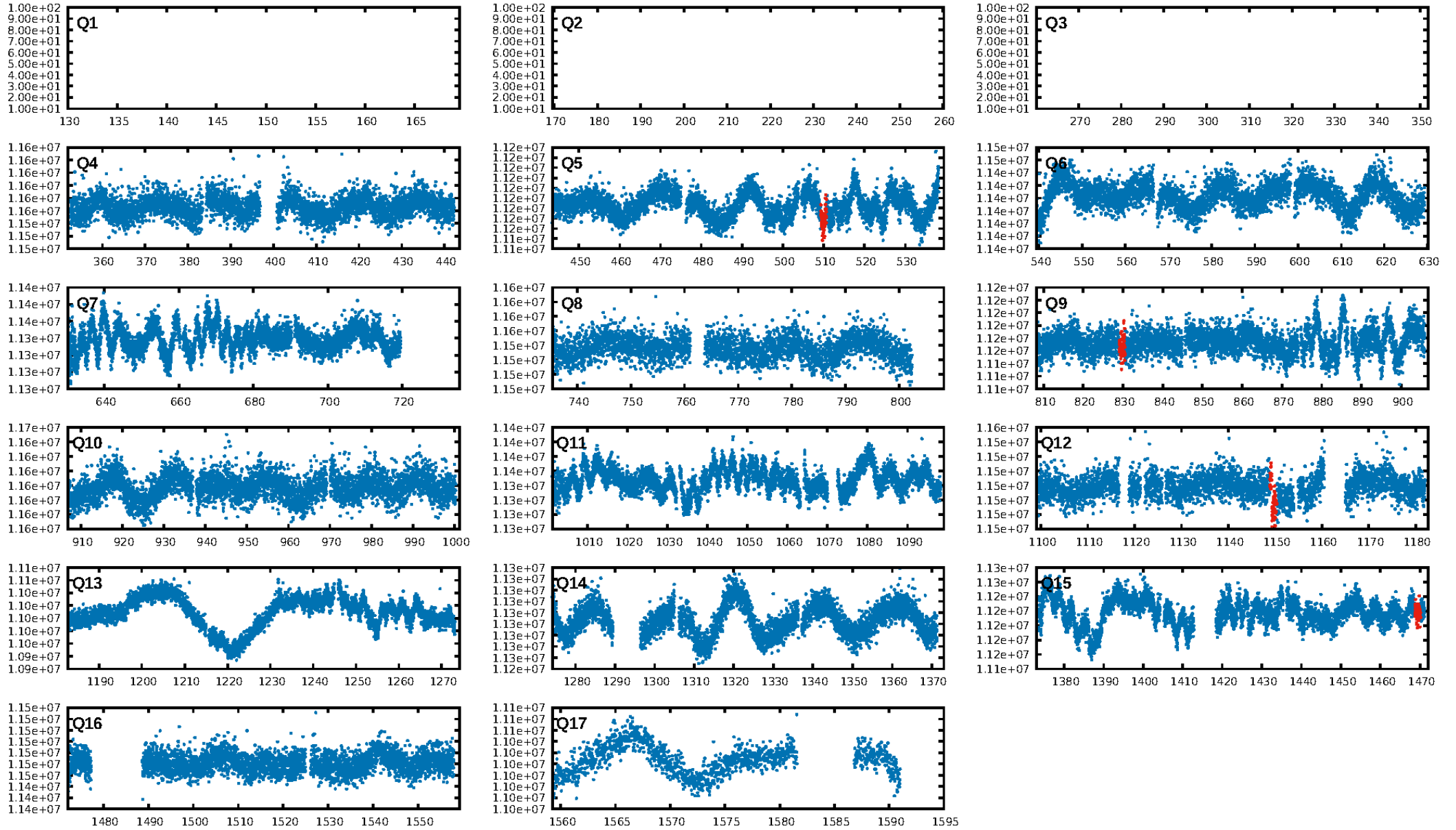
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [58.62 σ]
ModelChiSquare2-sig: 23.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.32e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.9549
Centroid-sig: 0.0%
Centroid-so: 6.978 arcsec [2.81 σ]
OotOffset-rm: 2.056 arcsec [8.07 σ]
KicOffset-rm: 2.041 arcsec [8.07 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [4/4]

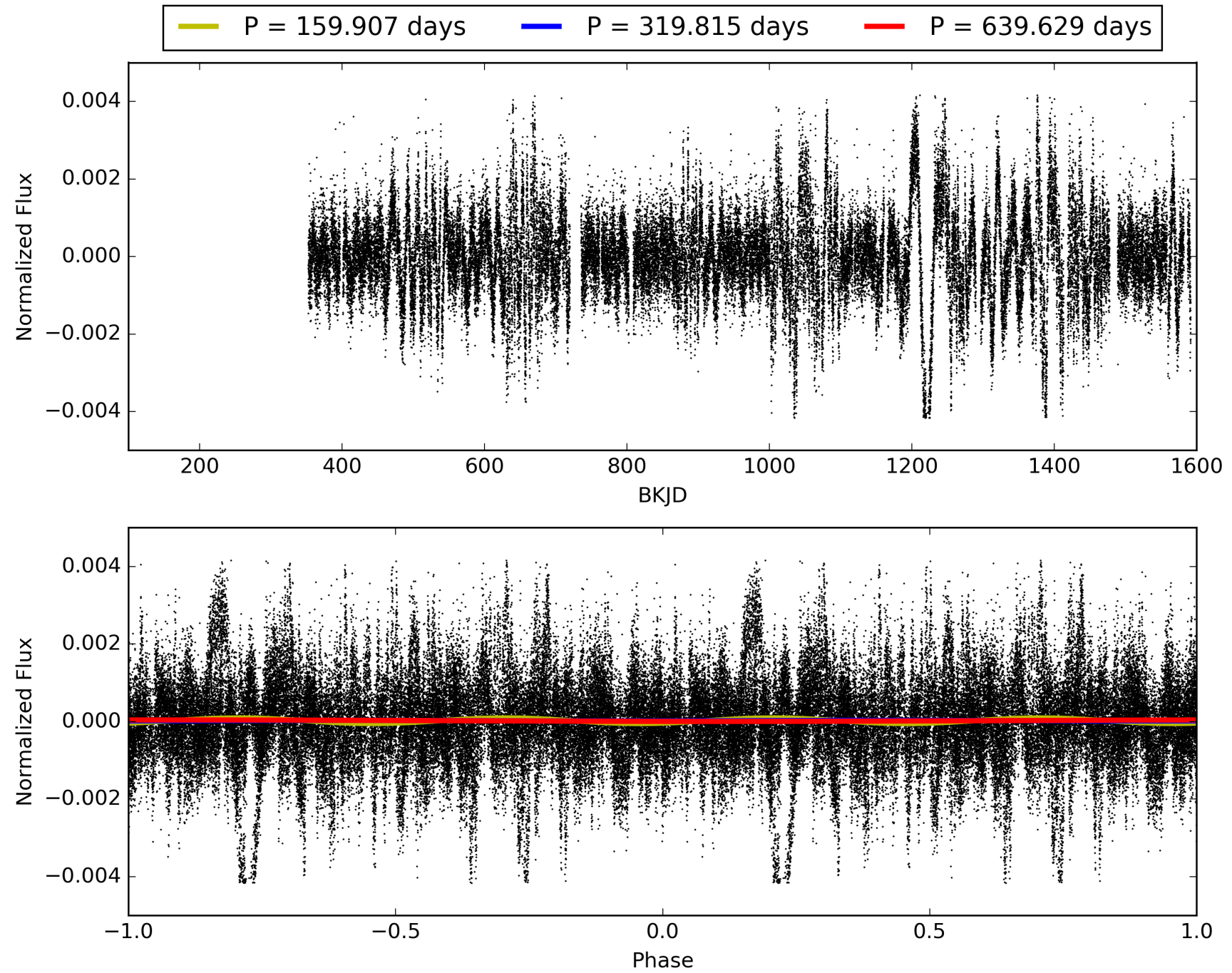
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:17:49 Z

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

TCE 005954017-02, PDC Light Curves

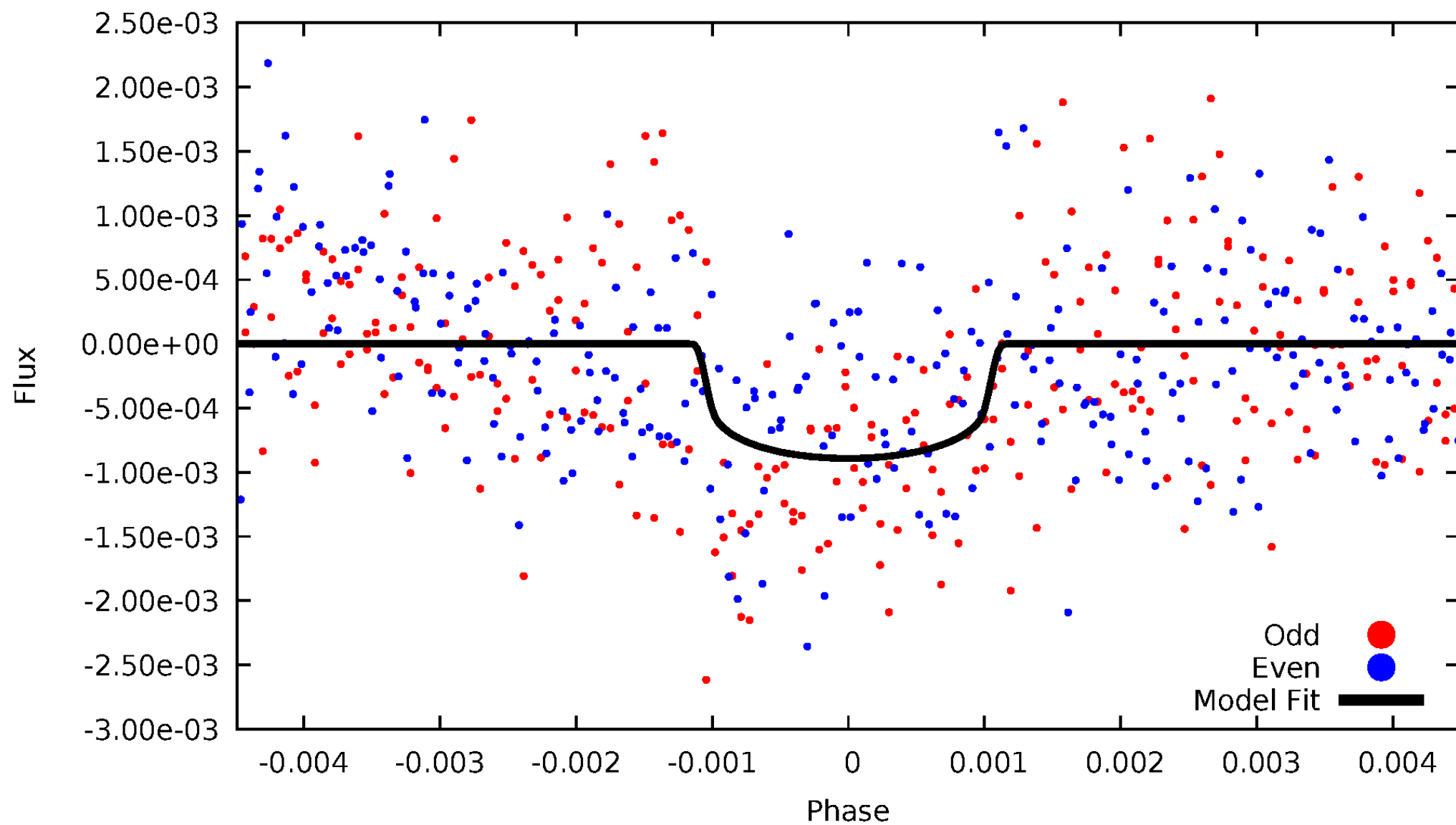


TCE 005954017-02



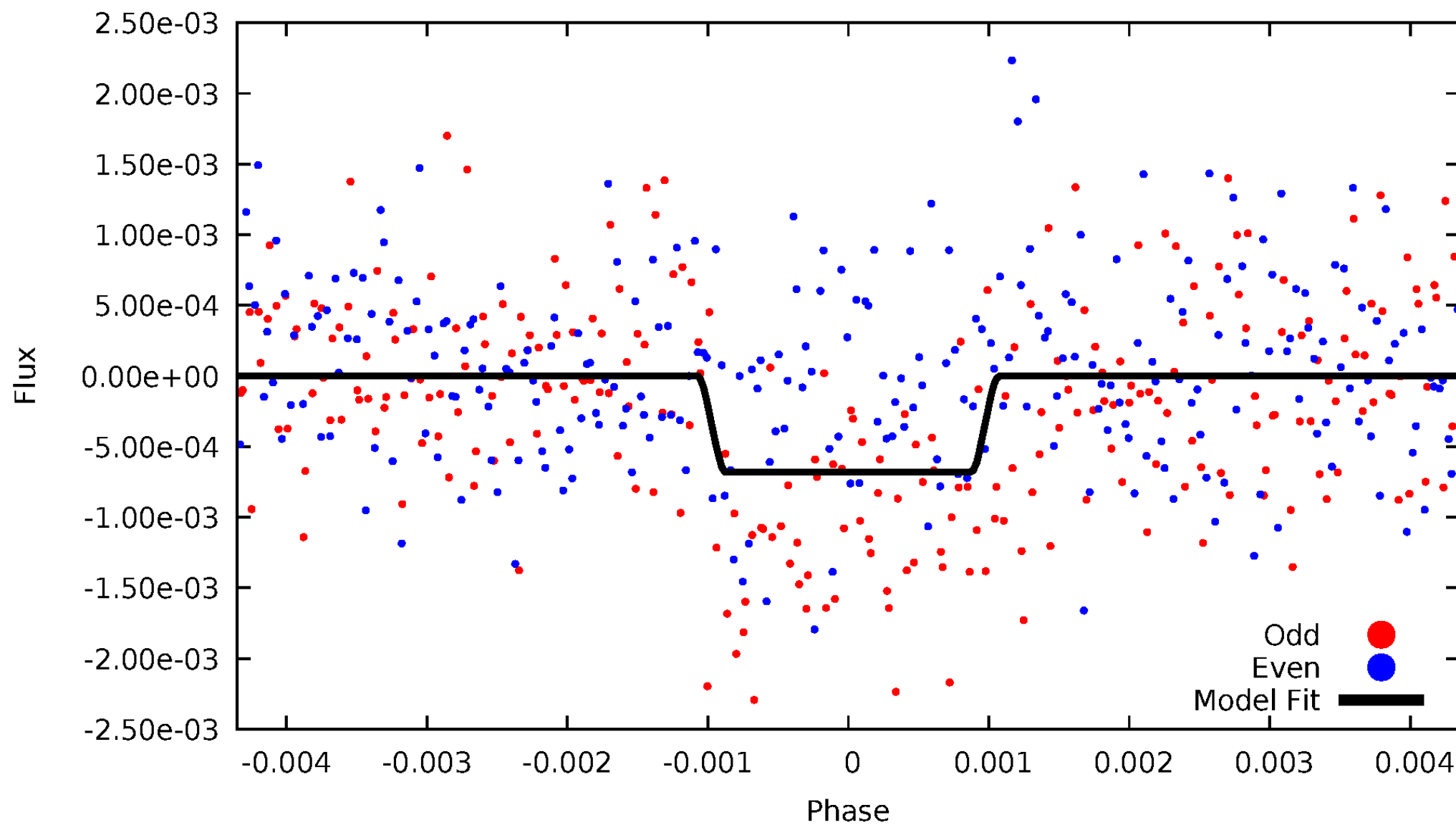
DV Odd/Even

TCE 005954017-02



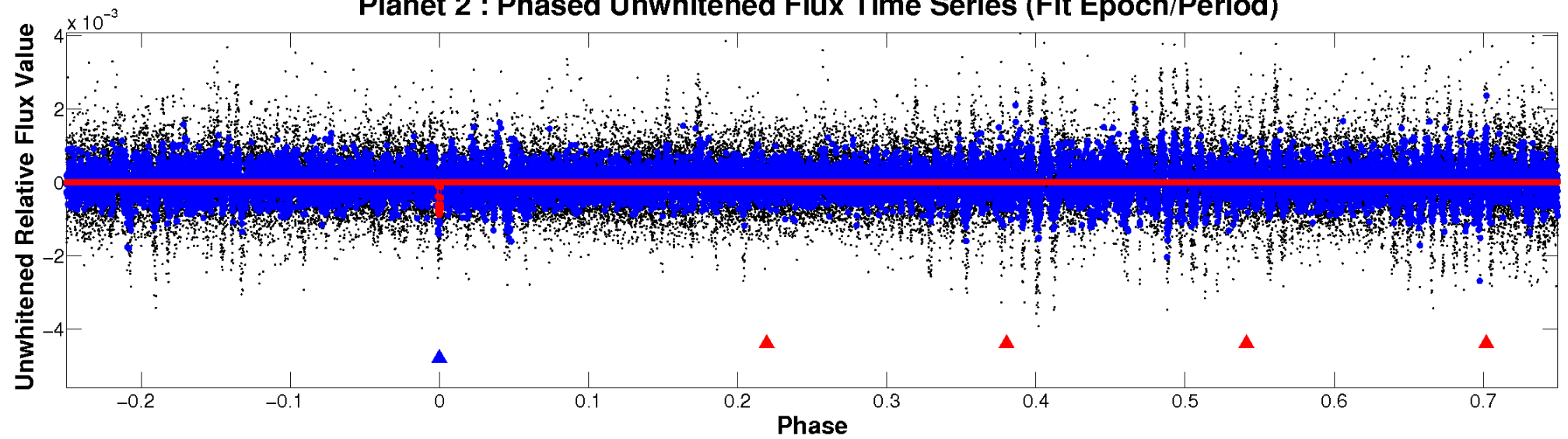
ALT Odd/Even

TCE 005954017-02

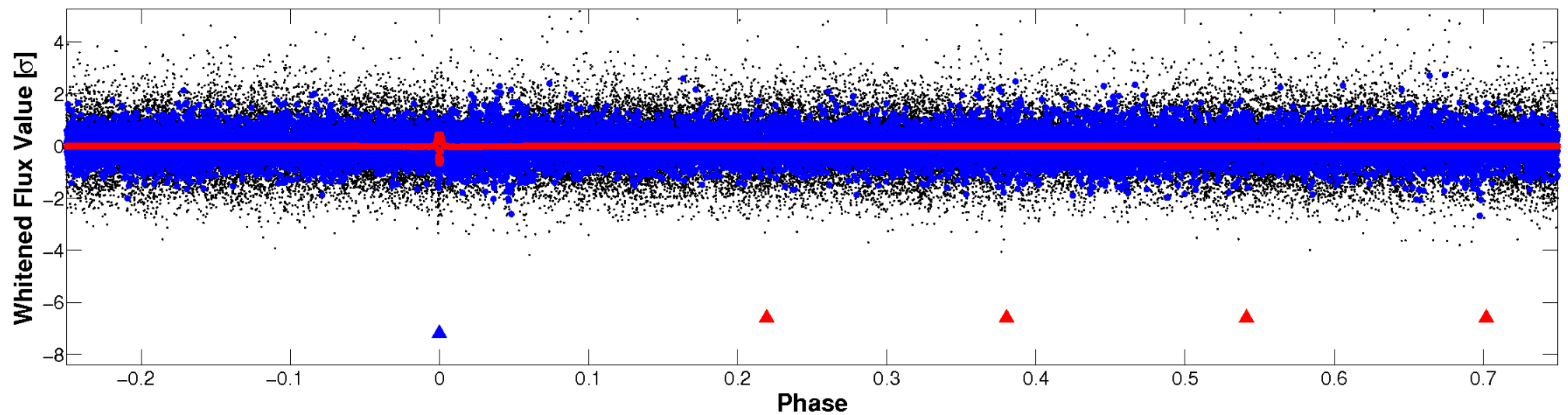


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

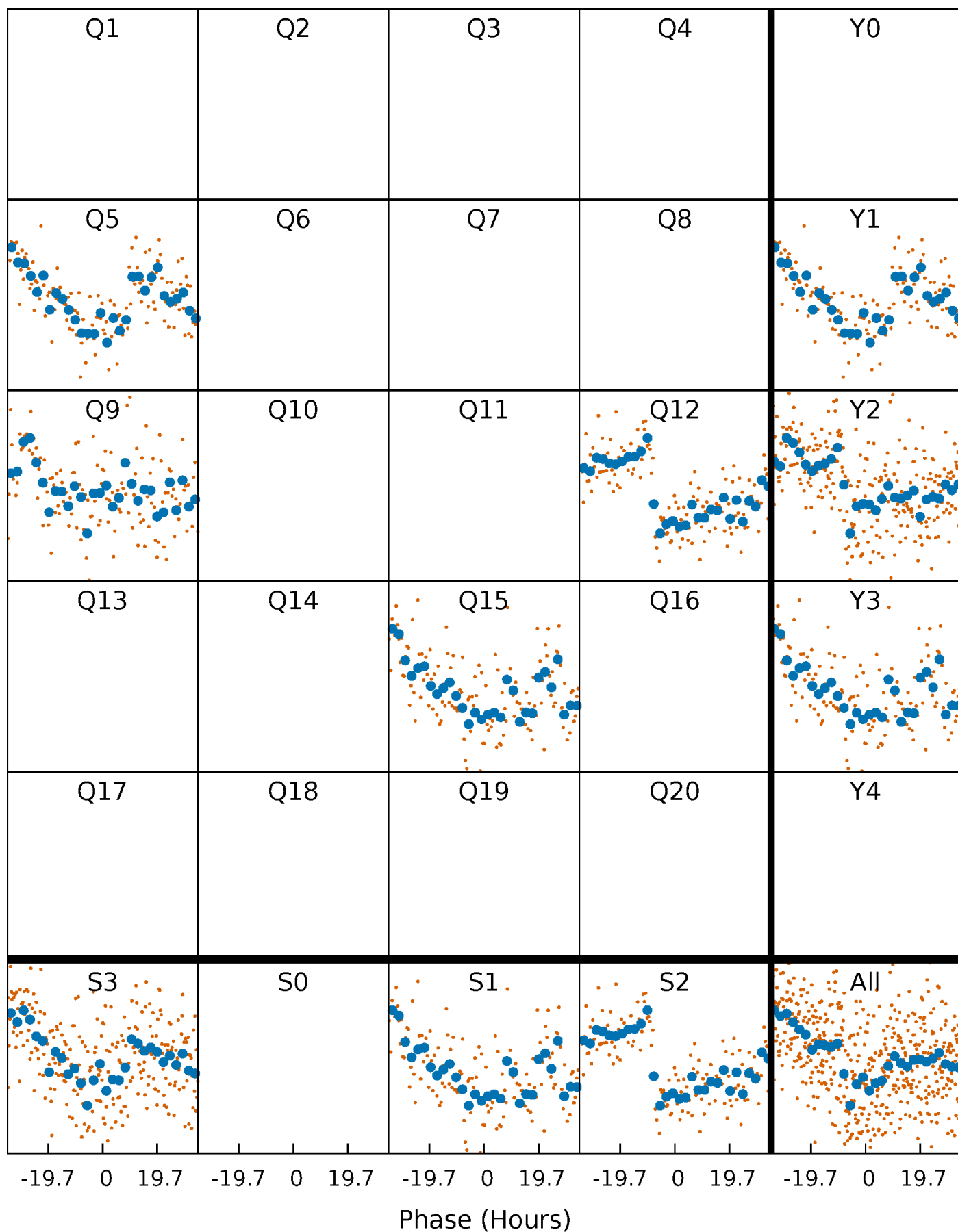


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



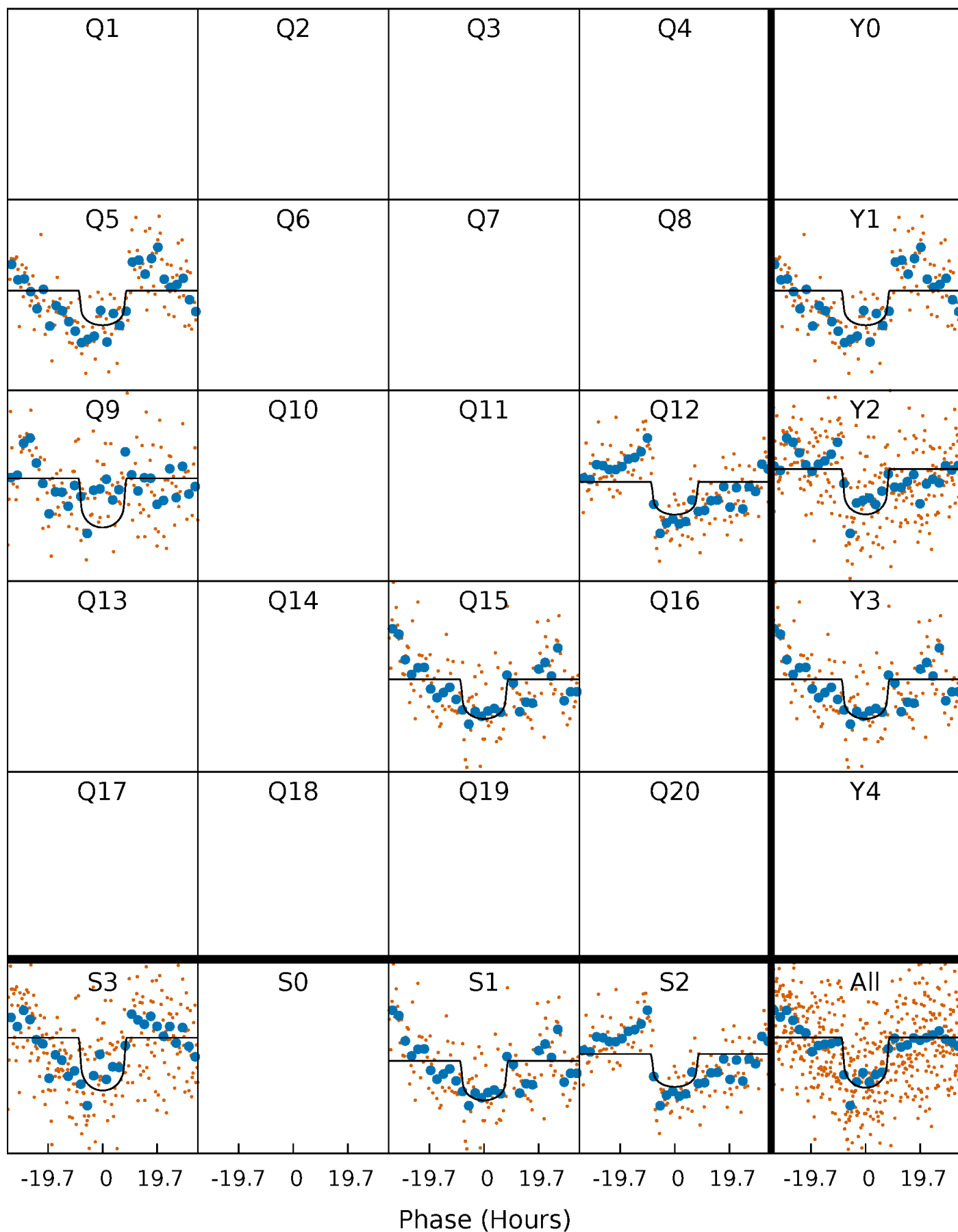
PDC Quarter-Phased Transit Curves

TCE 005954017-02 $P=319.814646$ Days $T_0=190.176199$ (BKJD)



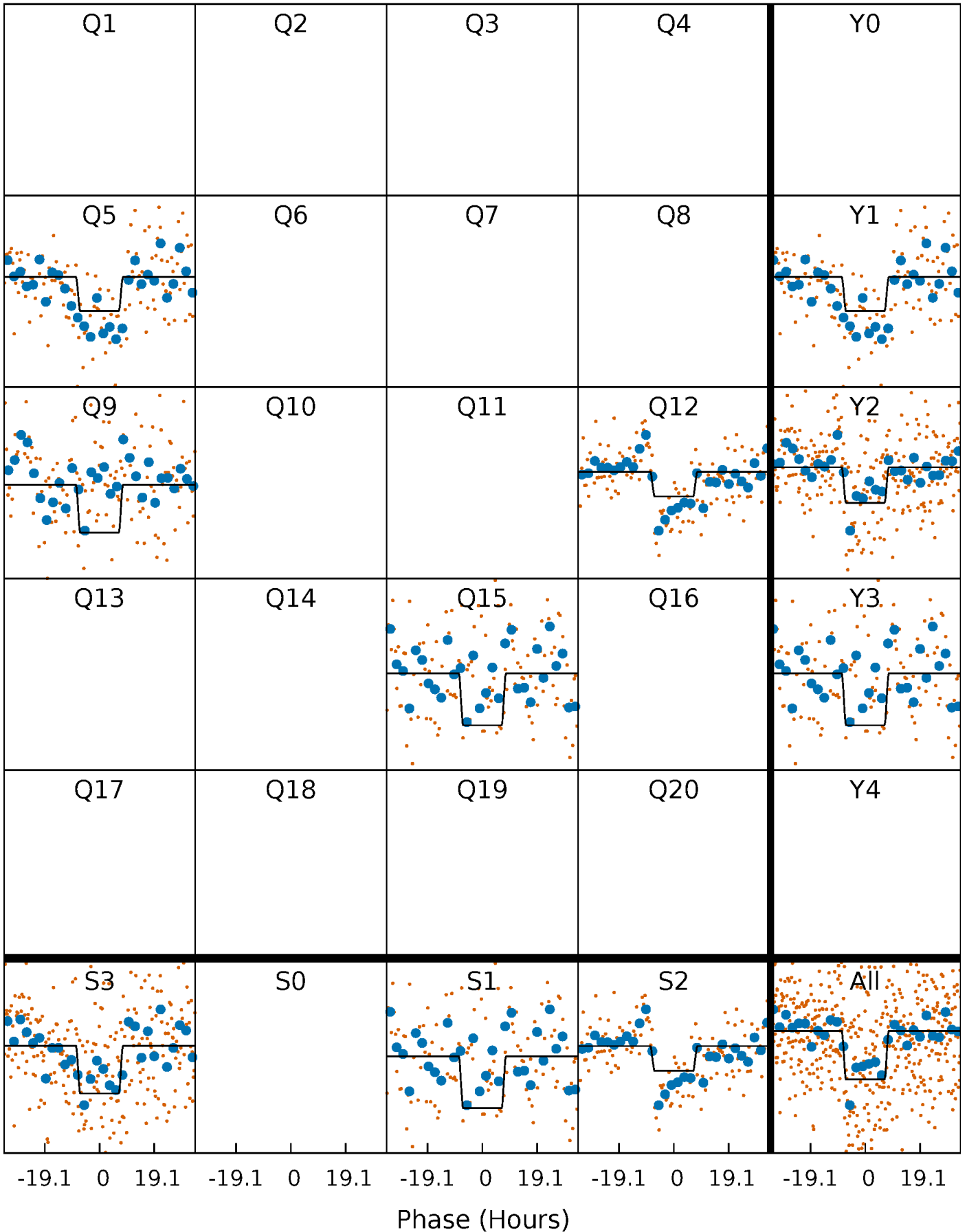
DV Quarter-Phased Transit Curves

TCE 005954017-02 $P=319.814646$ Days $T_0=190.176199$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

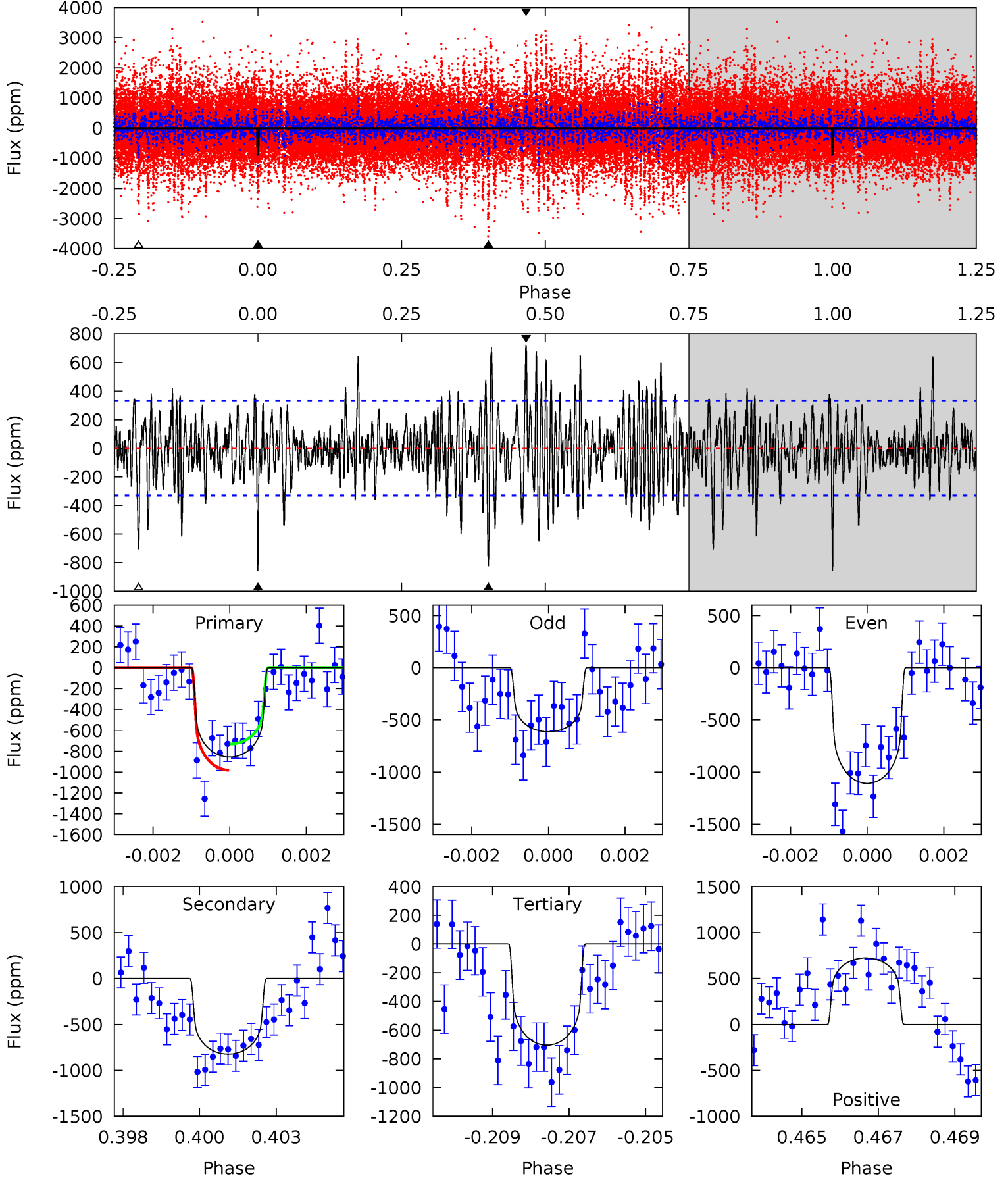
TCE 005954017-02 $P=319.812459$ Days $T_0=190.165363$ (BKJD)



DV Model-Shift Uniqueness Test

005954017-02, P = 319.814646 Days, E = 190.176199 Days

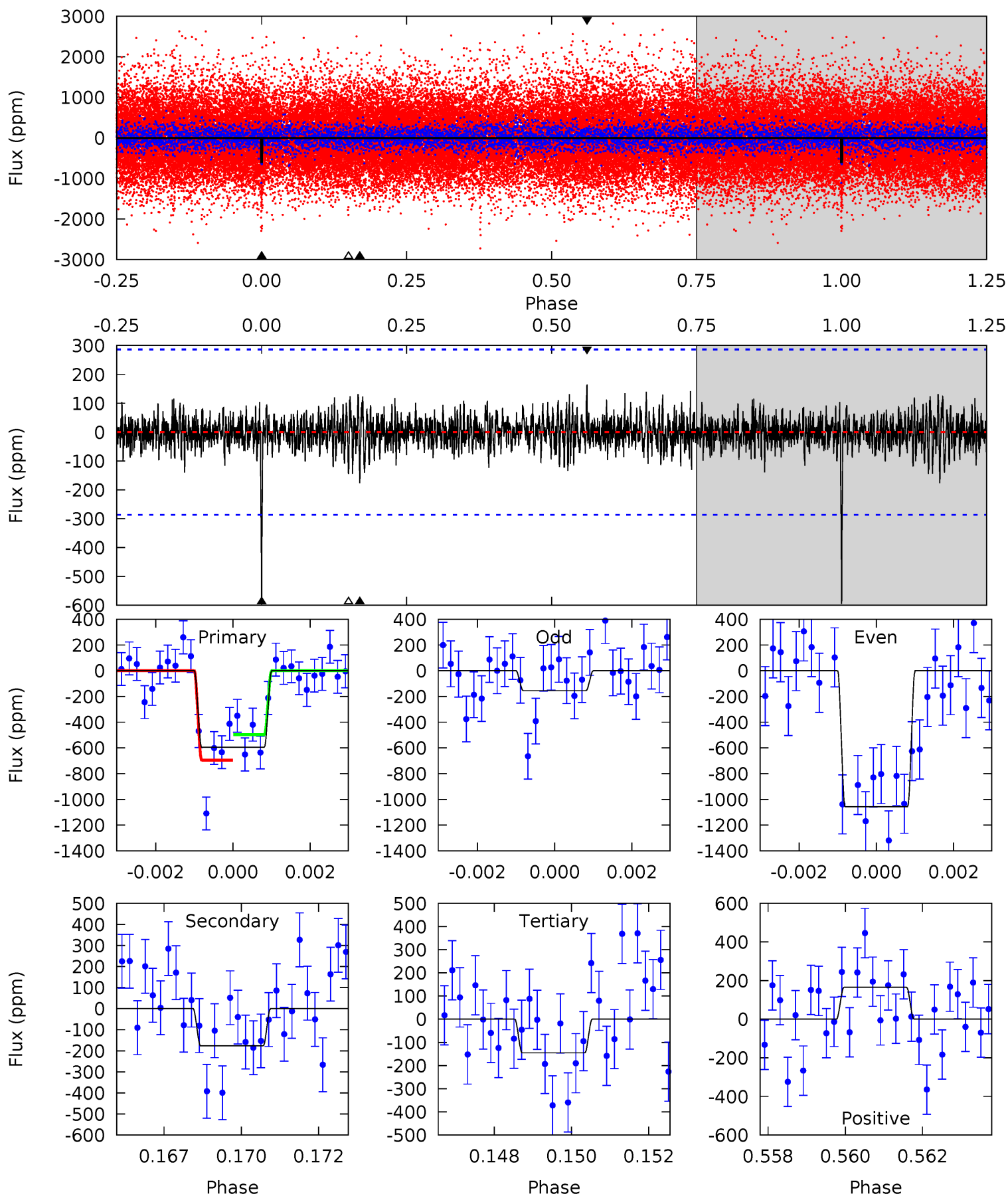
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	13.2	11.3	11.6	5.30	3.05	3.21	2.42	2.12	1.91	1.61	3.96	0.89	0.46	2.02



Alt Model-Shift Uniqueness Test

005954017-02, P = 319.812459 Days, E = 190.165363 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	3.27	2.70	3.06	5.31	3.07	0.77	8.34	7.98	0.57	0.21	8.36	0.98	0.22	1.84



Stellar Parameters For KIC 005954017

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3994^{+71}_{-79}	$4.707^{+0.030}_{-0.027}$	$-0.200^{+0.200}_{-0.200}$	$0.549^{+0.033}_{-0.037}$	$0.560^{+0.038}_{-0.038}$	$4.773^{+0.710}_{-0.511}$
	+2%/-2%	+1%/-1%	+100%/-100%	+6%/-7%	+7%/-7%	+15%/-11%
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 005954017-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-824 ± 62	$1.76^{+0.40}_{-0.39}$	210^{+5}_{-4}	3966^{+378}_{-291}	83924^{+56605}_{-29089}
Alt.	-176 ± 54	$1.58^{+0.36}_{-0.41}$	210^{+5}_{-5}	3194^{+335}_{-266}	21957^{+20372}_{-9693}

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 $A_{obs} \gg 1.0$

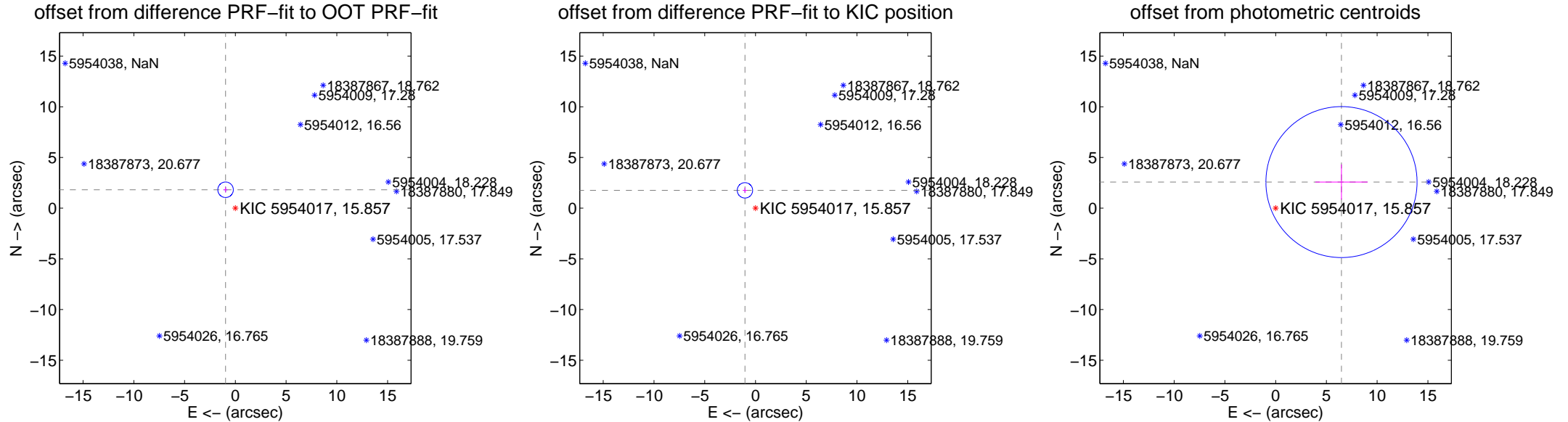
DV Centroid Data

Supplemental centroid analysis for 005954017-02. Kepler magnitude: 15.86. Transit SNR 7.56

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	2.056 ± 0.255	8.07	0.962 ± 0.213	1.817 ± 0.265
PRF-fit source offset from KIC position	2.041 ± 0.253	8.07	1.039 ± 0.213	1.757 ± 0.265
photometric centroid source offset	6.98 ± 2.48	2.81	-6.49 ± 2.58	2.57 ± 1.74

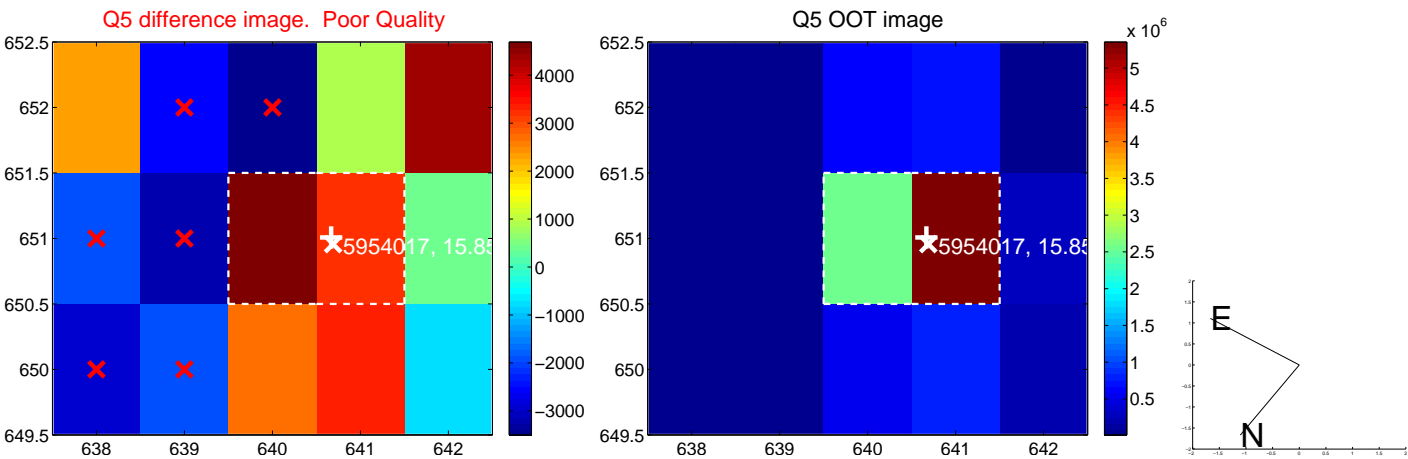


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

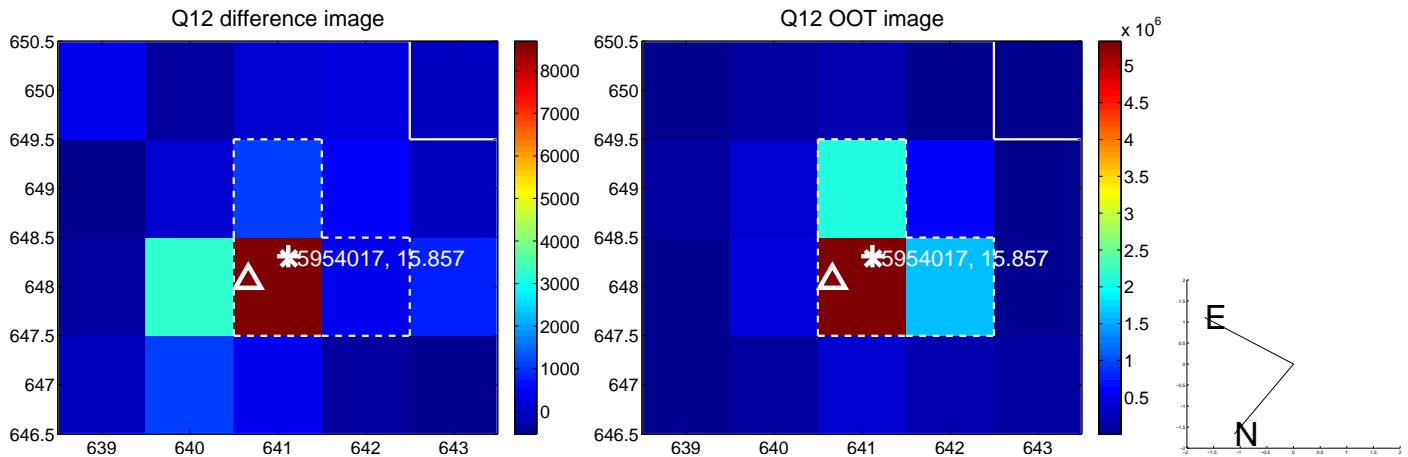
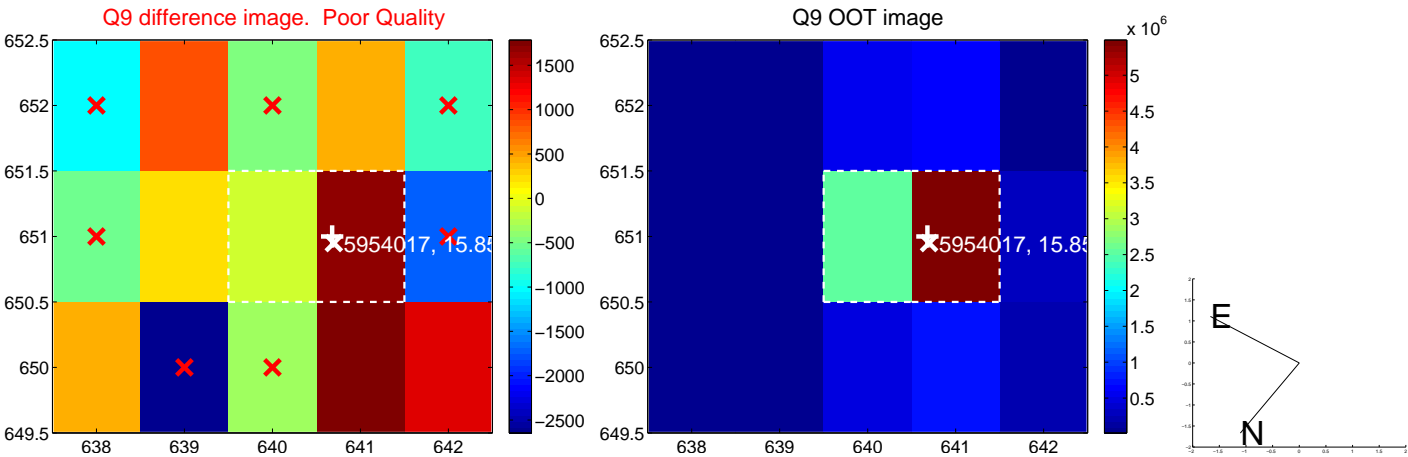
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



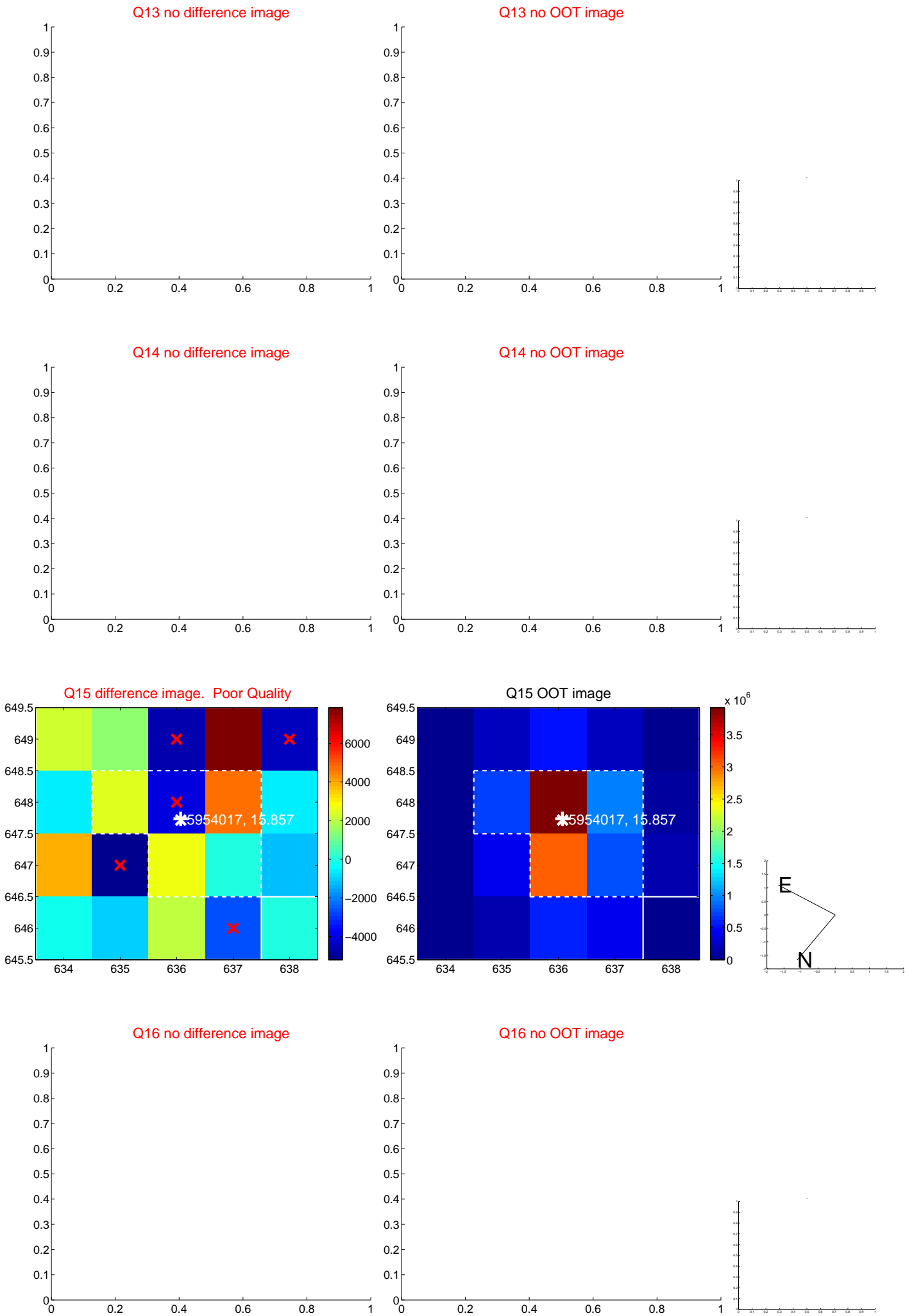
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



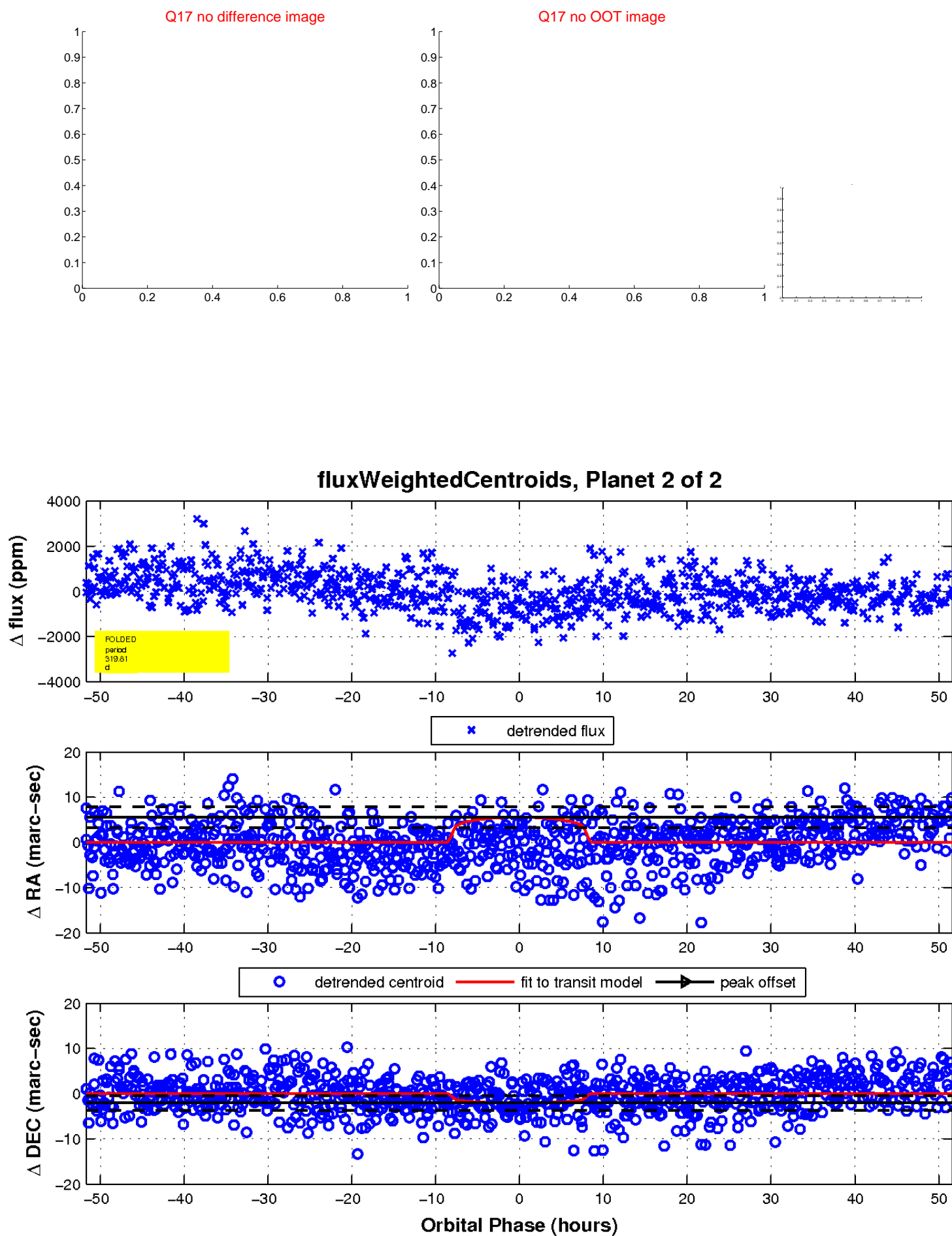
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

