

KIC 009345933

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})
009345933-01	OBS	3264.01	13.015156	134.747294	298.1	3.592	8.9	9.3	0.64	4794	1.34	22.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009345933-01	OBS	PC	0.86	0	0	0	0	NO_COMMENT

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 009345933-01

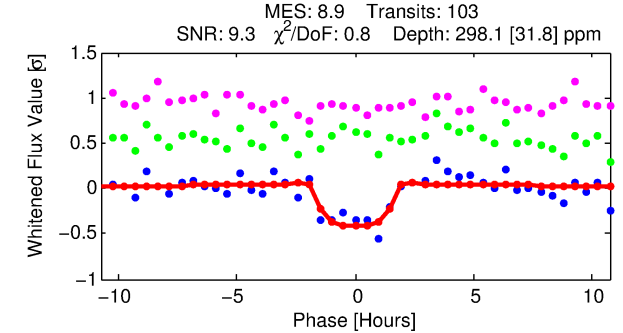
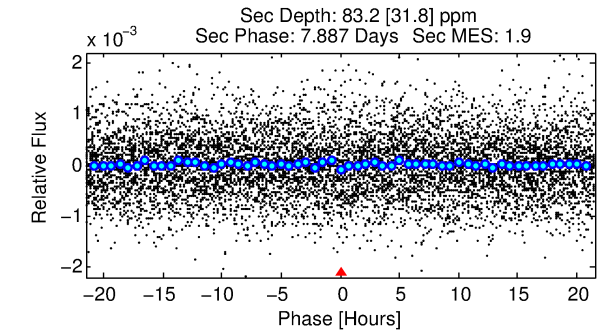
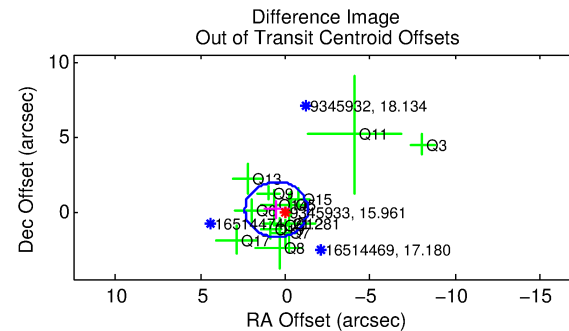
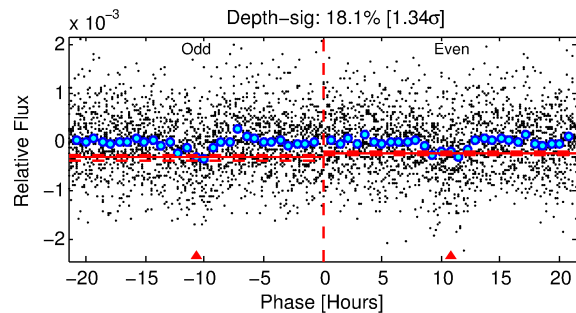
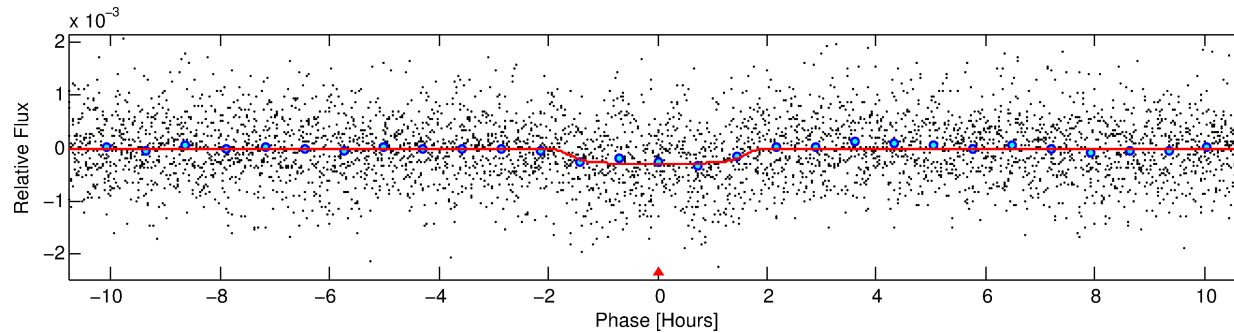
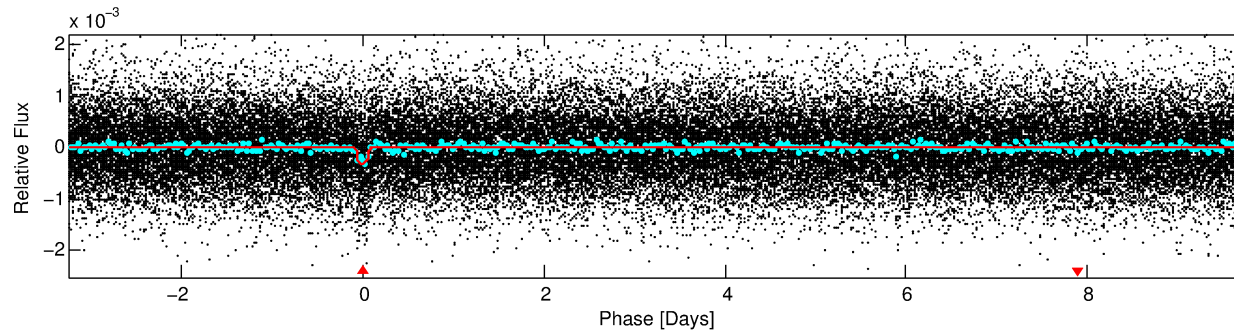
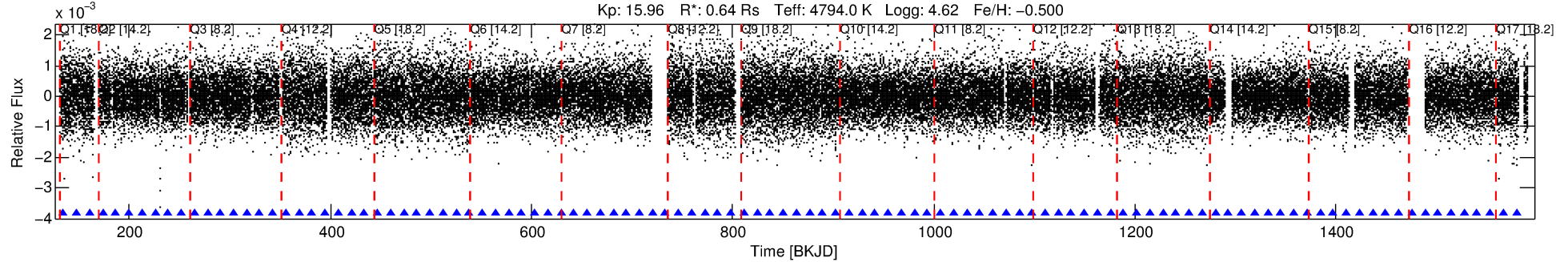
No Significant Match Found

DV One-Page Summary

KIC: 9345933 Candidate: 1 of 1 Period: 13.015 d

KOI: K03264.01 Corr: 0.985

Kp: 15.96 R*: 0.64 Rs Teff: 4794.0 K Logg: 4.62 Fe/H: -0.500



DV Fit Results:

Period = 13.01516 [0.00012] d
Epoch = 134.7473 [0.0074] BKJD
Rp/R* = 0.0192 [0.0093]
a/R* = 13.56 [25.29]
b = 0.89 [0.43]
Seff = 22.66 [3.66]
Teq = 556 [22] K
Rp = 1.35 [0.67] Re
a = 0.0929 [0.0069] AU
Ag = 218.39 [229.93] [0.95σ]
Teffp = 3307 [871] K [3.16σ]

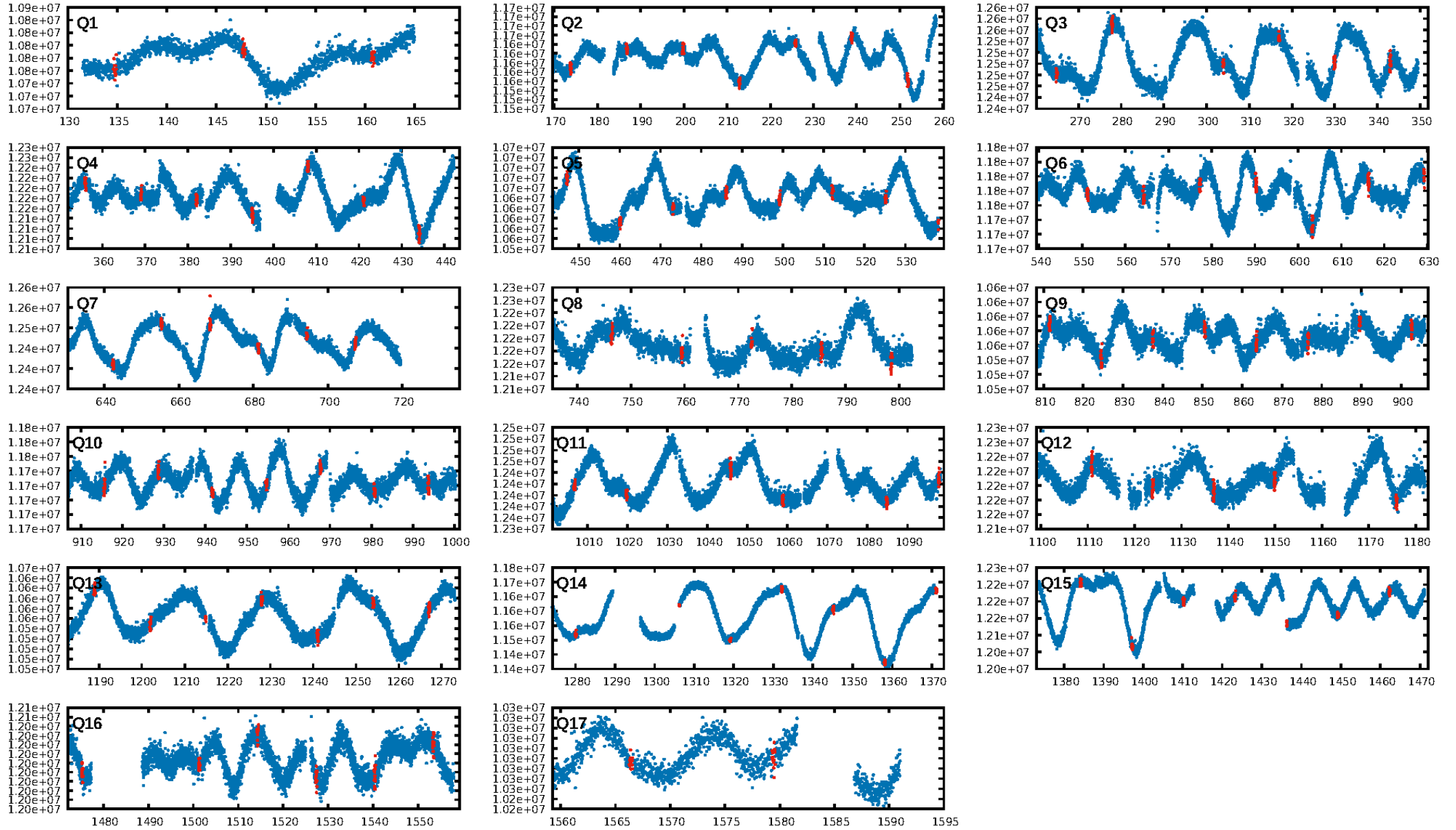
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 93.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.25e-19
RollingBand-fgt: 1.00 [98/98]
GhostDiagnostic-chr: 1.656
Centroid-sig: 0.9%
Centroid-so: 1.886 arcsec [1.64σ]
OotOffset-rm: 0.536 arcsec [0.87σ]
KicOffset-rm: 0.191 arcsec [0.23σ]
OotOffset-st: 4/4/2/4 [14]
KicOffset-st: 4/4/2/4 [14]
DiffImageQuality-fgm: 0.43 [6/14]
DiffImageOverlap-fno: 1.00 [17/17]

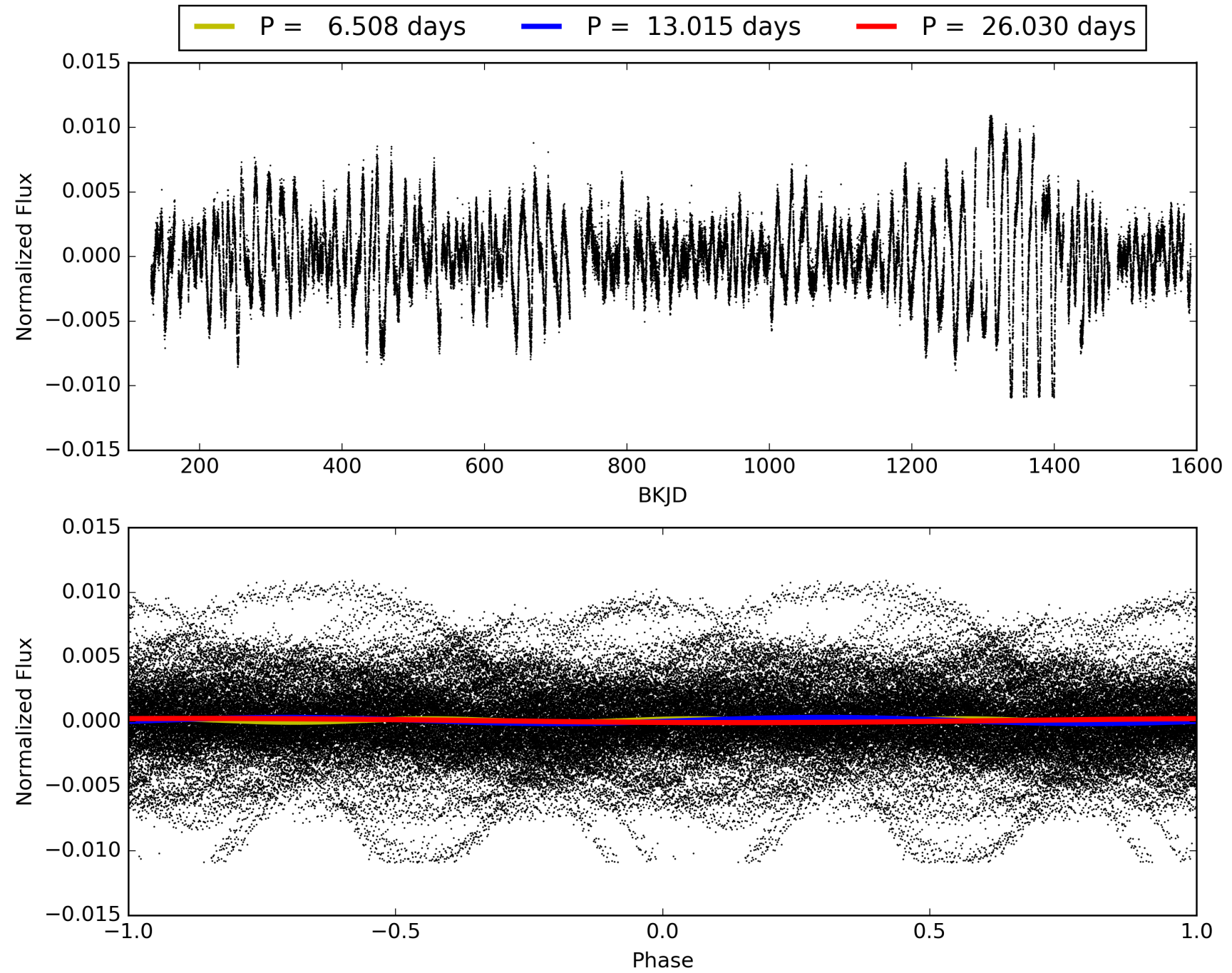
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:49:35 Z

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

TCE 009345933-01, PDC Light Curves

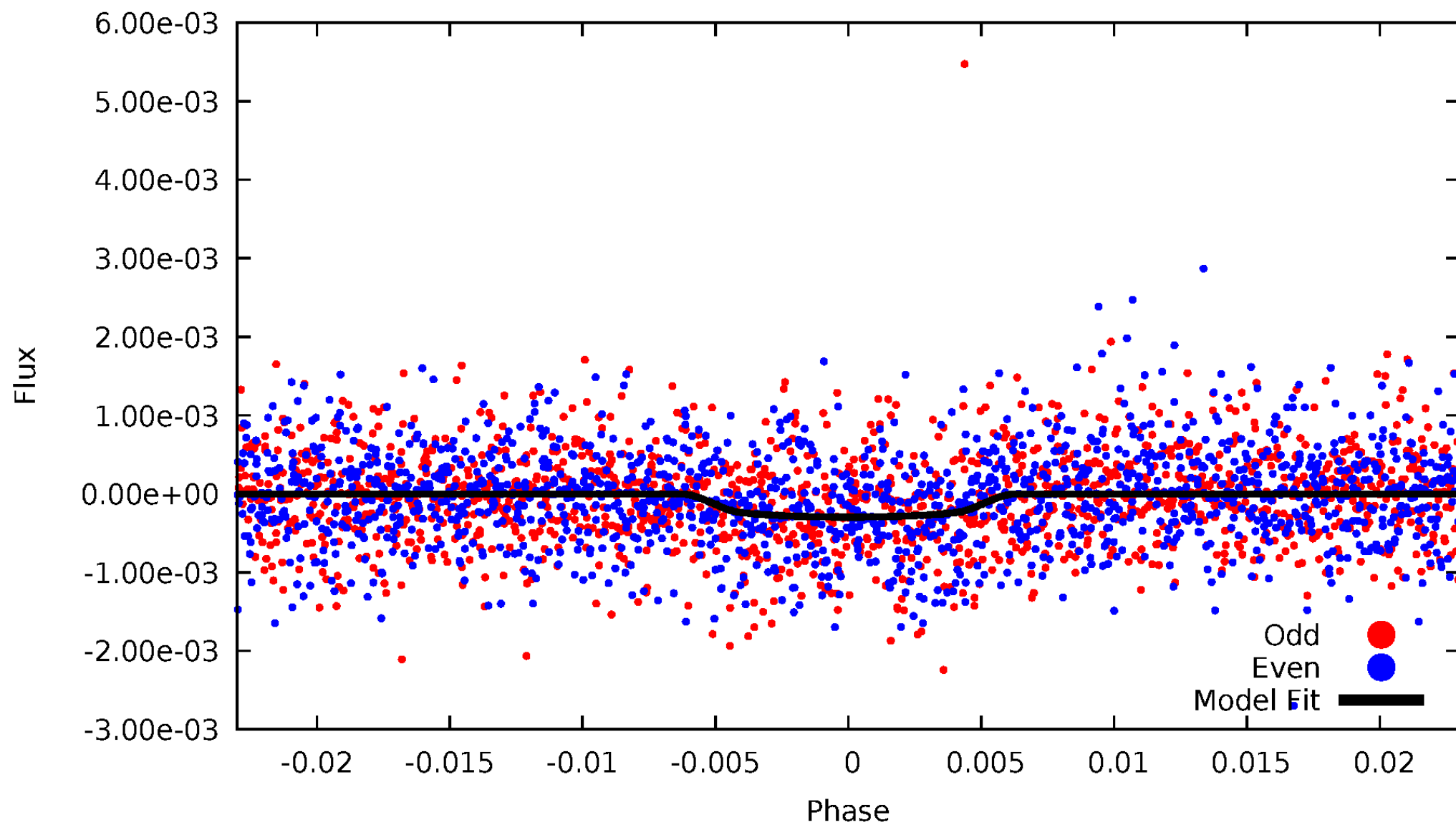


TCE 009345933-01



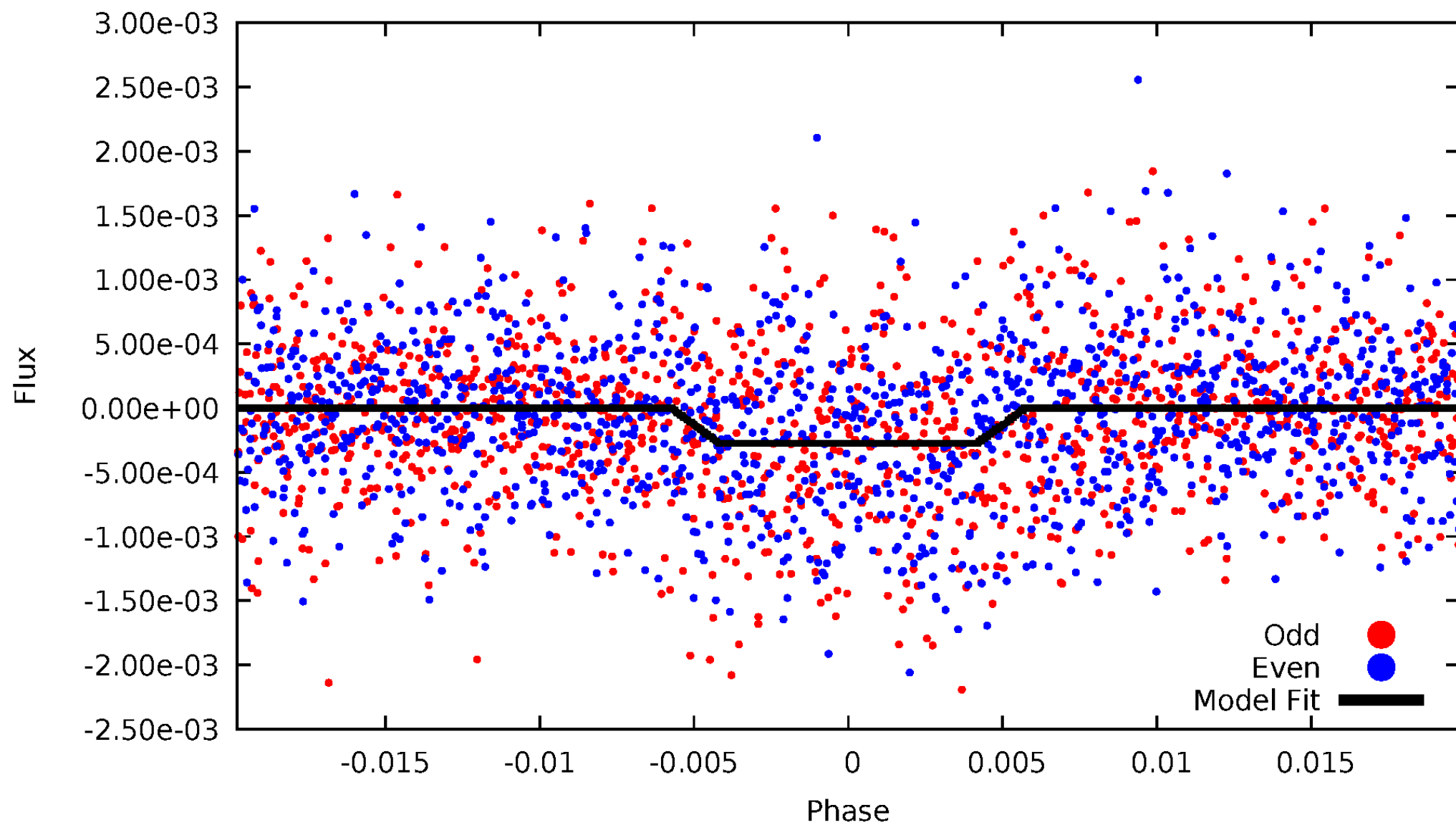
DV Odd/Even

TCE 009345933-01



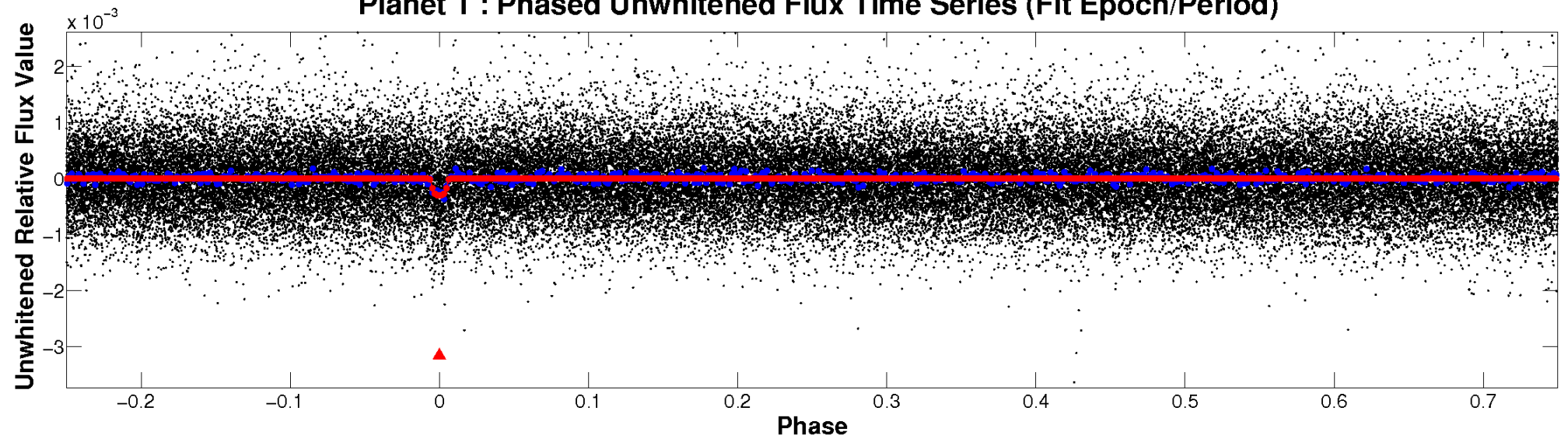
ALT Odd/Even

TCE 009345933-01

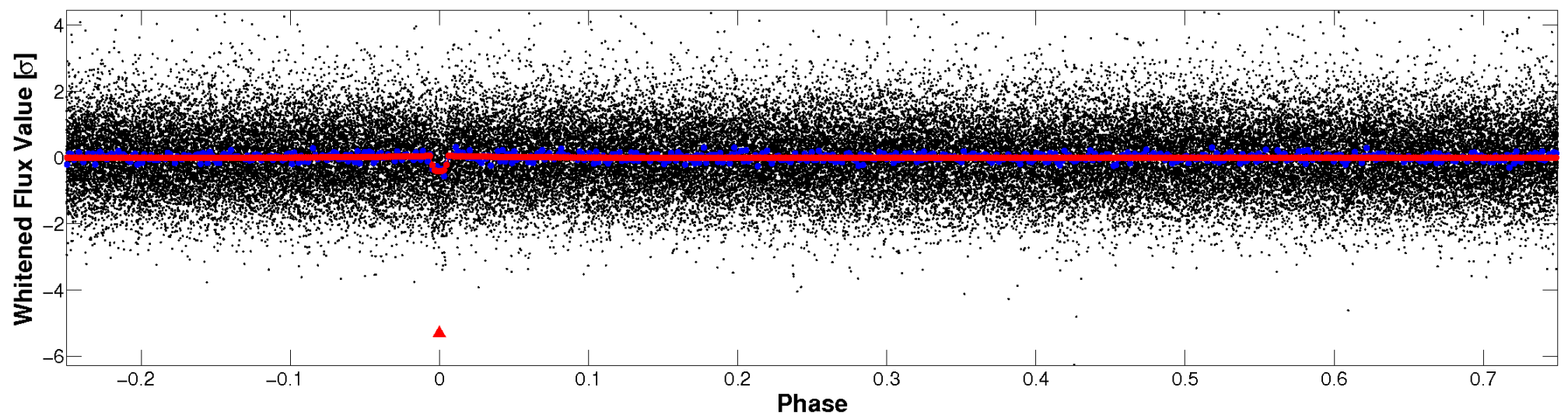


Non-Whitened Vs. Whitened Light Curve

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

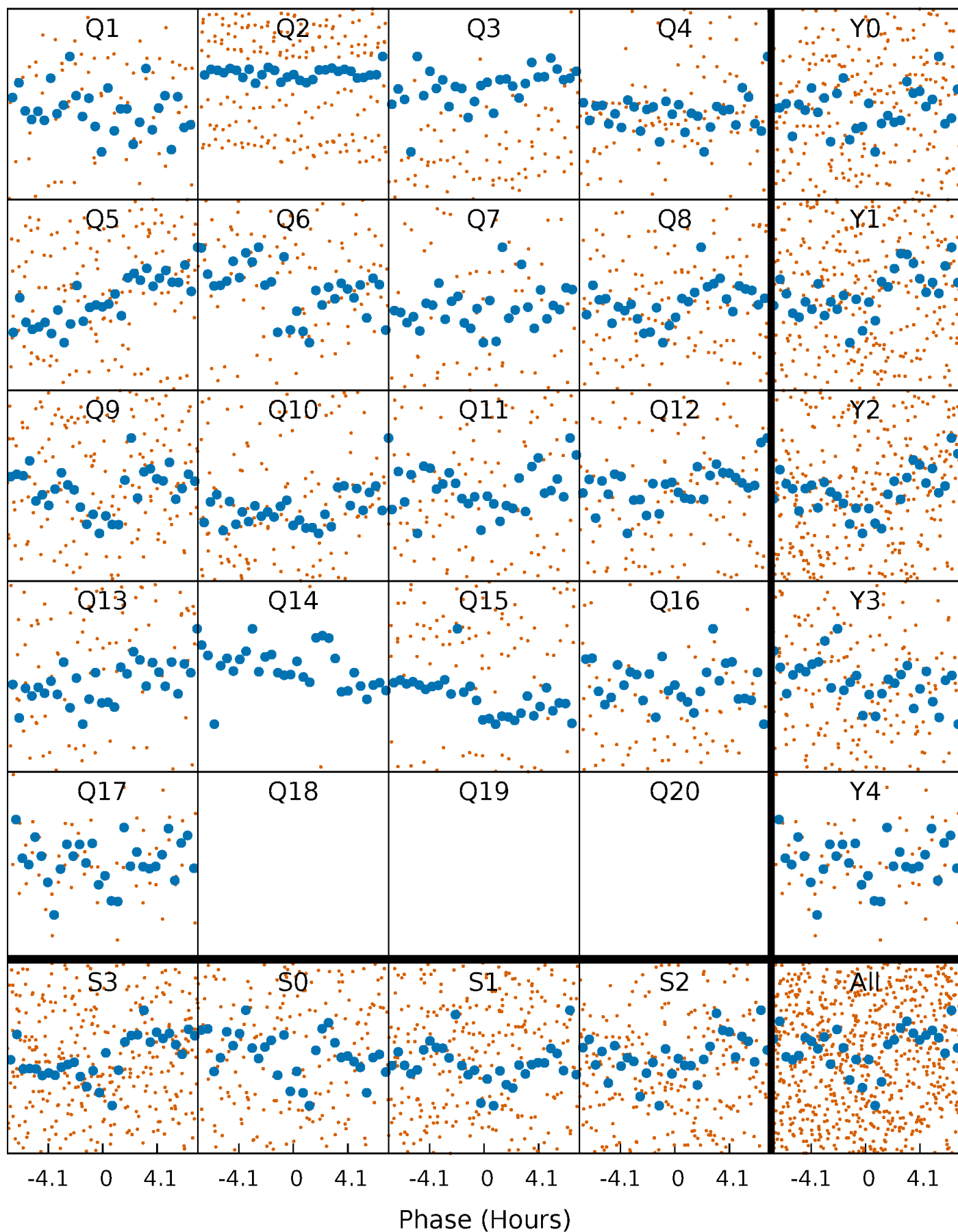


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



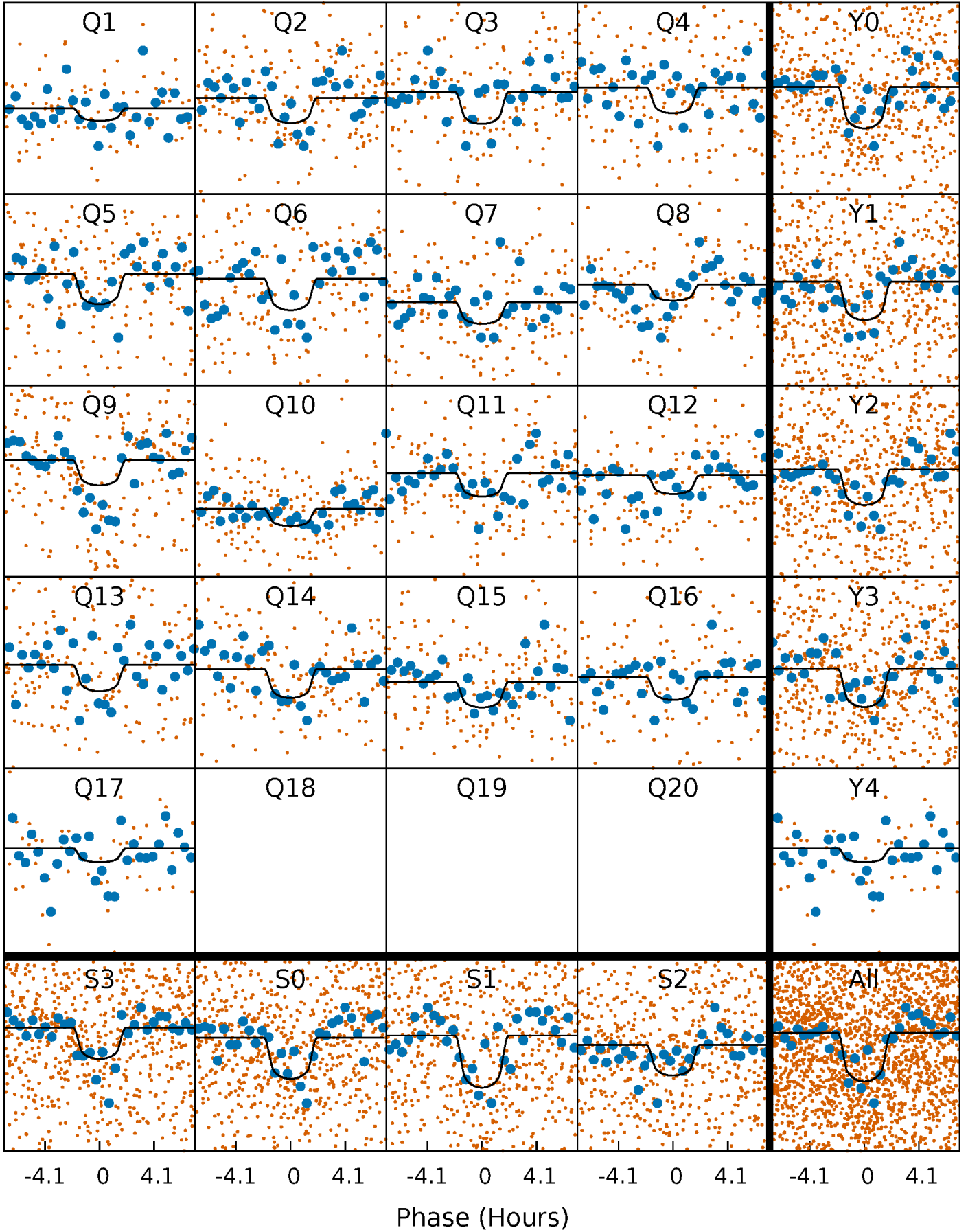
PDC Quarter-Phased Transit Curves

TCE 009345933-01 P= 13.015156 Days $T_0=134.747294$ (BKJD)



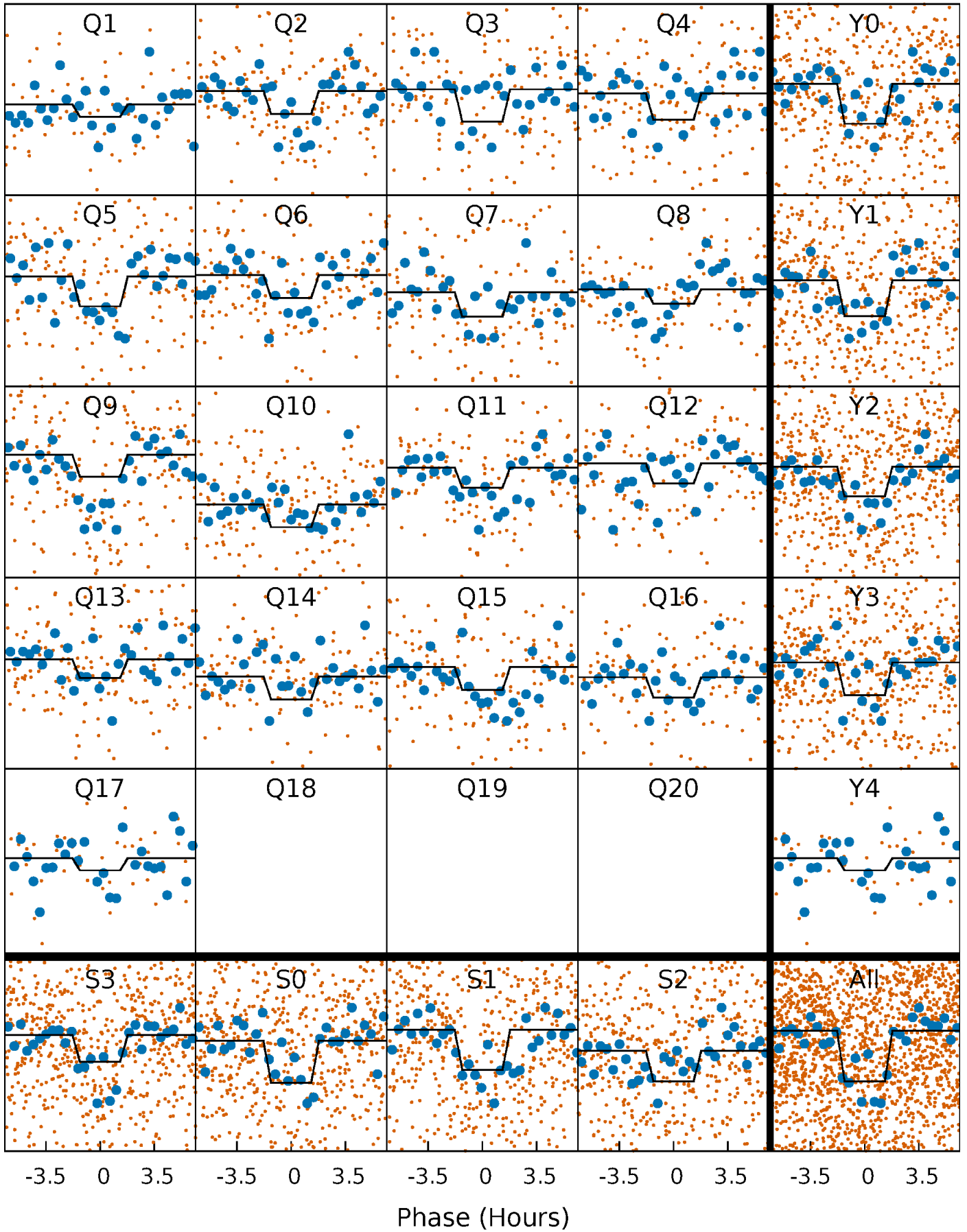
DV Quarter-Phased Transit Curves

TCE 009345933-01 $P = 13.015156$ Days $T_0 = 134.747294$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

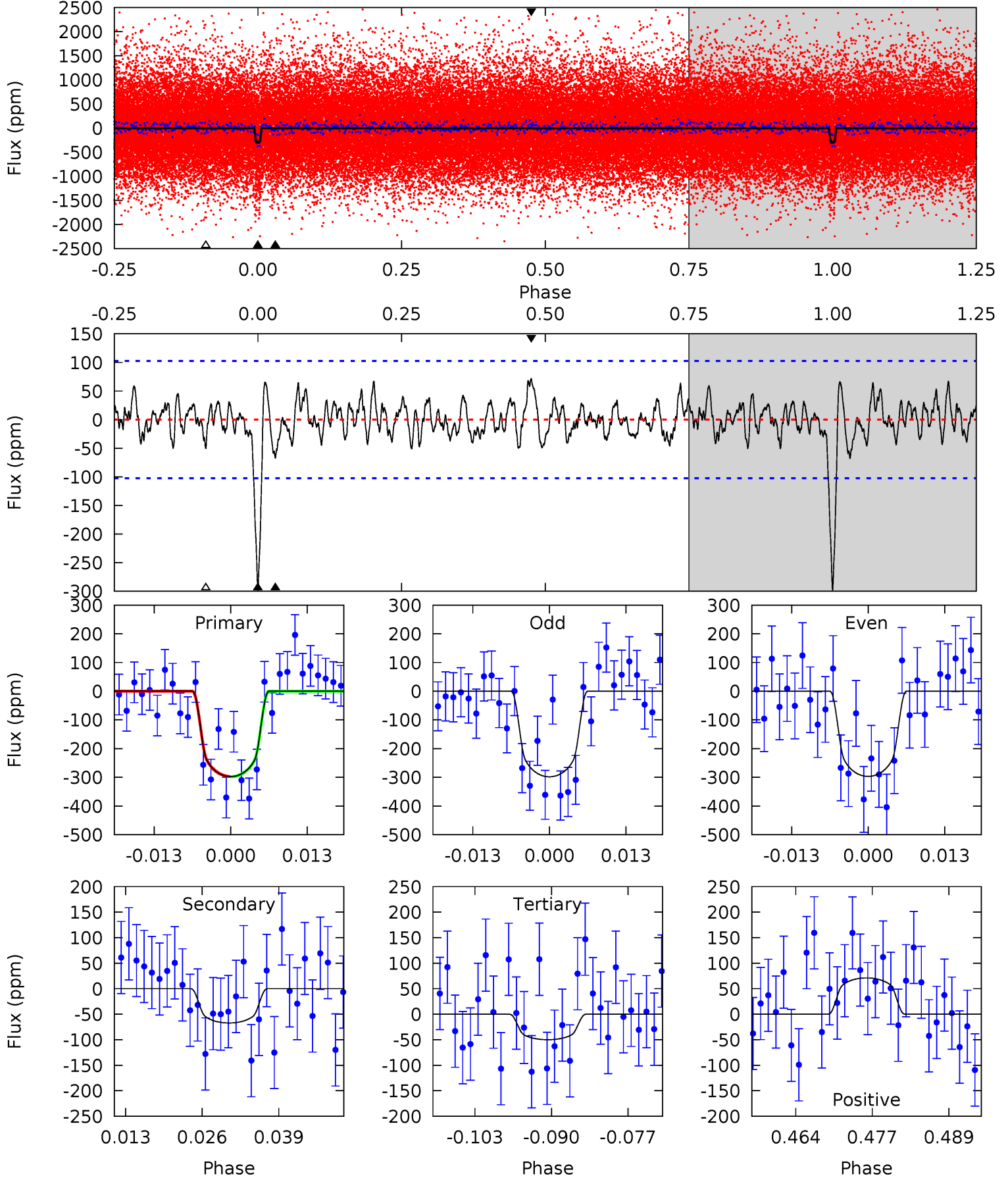
TCE 009345933-01 P= 13.015129 Days $T_0=134.749063$ (BKJD)



DV Model-Shift Uniqueness Test

009345933-01, P = 13.015156 Days, E = 121.732138 Days

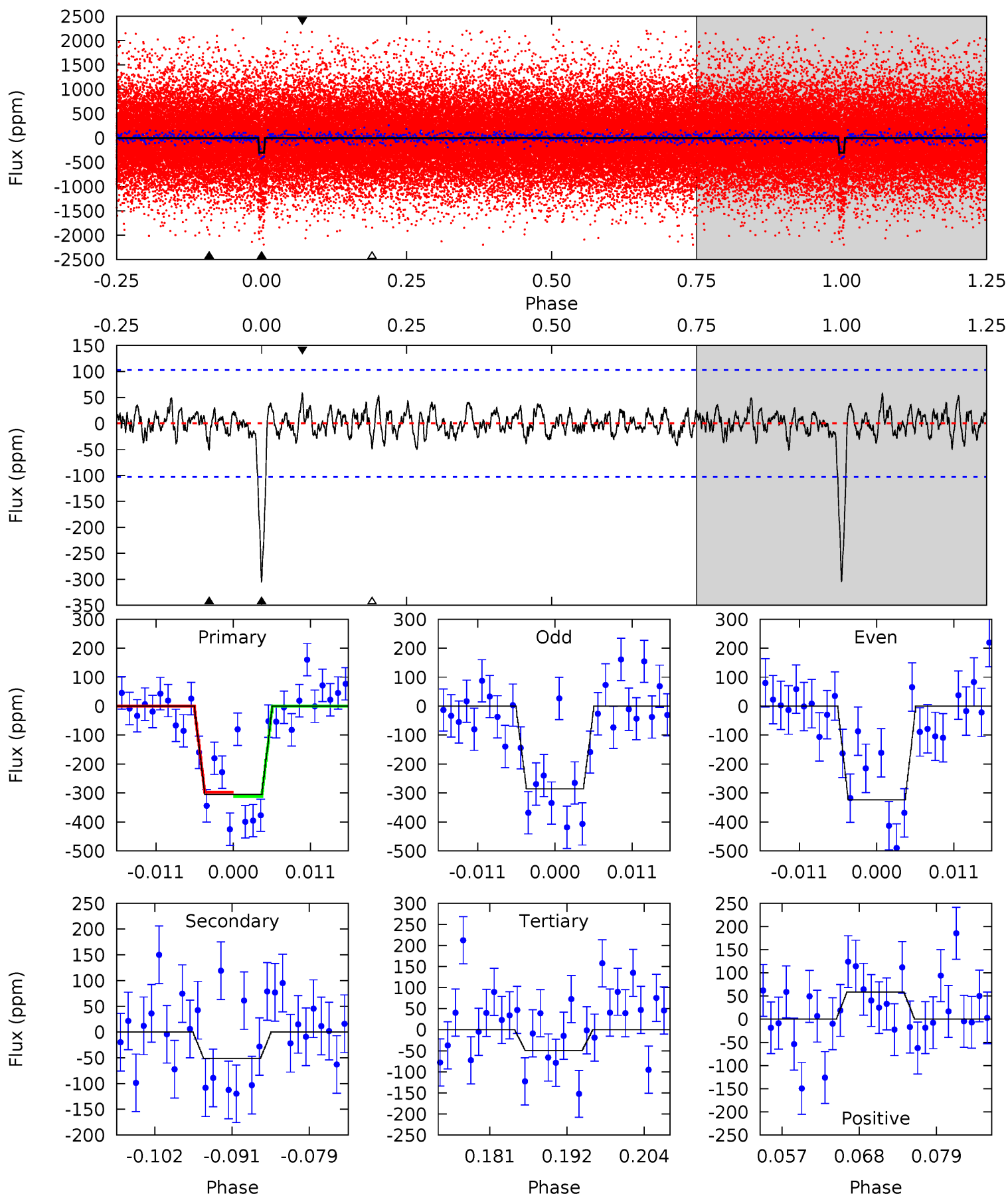
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	3.27	2.43	3.45	4.98	2.49	1.19	12.0	11.0	0.84	-0.19	0.03	1.07	0.19	0.02



Alt Model-Shift Uniqueness Test

009345933-01, $P = 13.015129$ Days, $E = 121.733934$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	2.48	2.40	2.85	5.00	2.53	0.88	12.4	12.0	0.08	-0.37	0.93	0.95	0.16	0.36



Stellar Parameters For KIC 009345933

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4794^{+144}_{-144}	$4.622^{+0.059}_{-0.032}$	$-0.500^{+0.300}_{-0.300}$	$0.643^{+0.057}_{-0.057}$	$0.632^{+0.076}_{-0.041}$	$3.344^{+0.800}_{-0.483}$
	+3%/-3%	+1%/-1%	+60%/-60%	+9%/-9%	+12%/-6%	+24%/-14%
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 009345933-01 / KOI 3264.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-67 ± 21	$1.38^{+0.60}_{-0.62}$	774^{+28}_{-31}	3504^{+729}_{-404}	173^{+356}_{-98}
Alt.	-51 ± 21	$1.20^{+0.63}_{-0.62}$	773^{+26}_{-25}	3457^{+1085}_{-502}	163^{+609}_{-108}

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

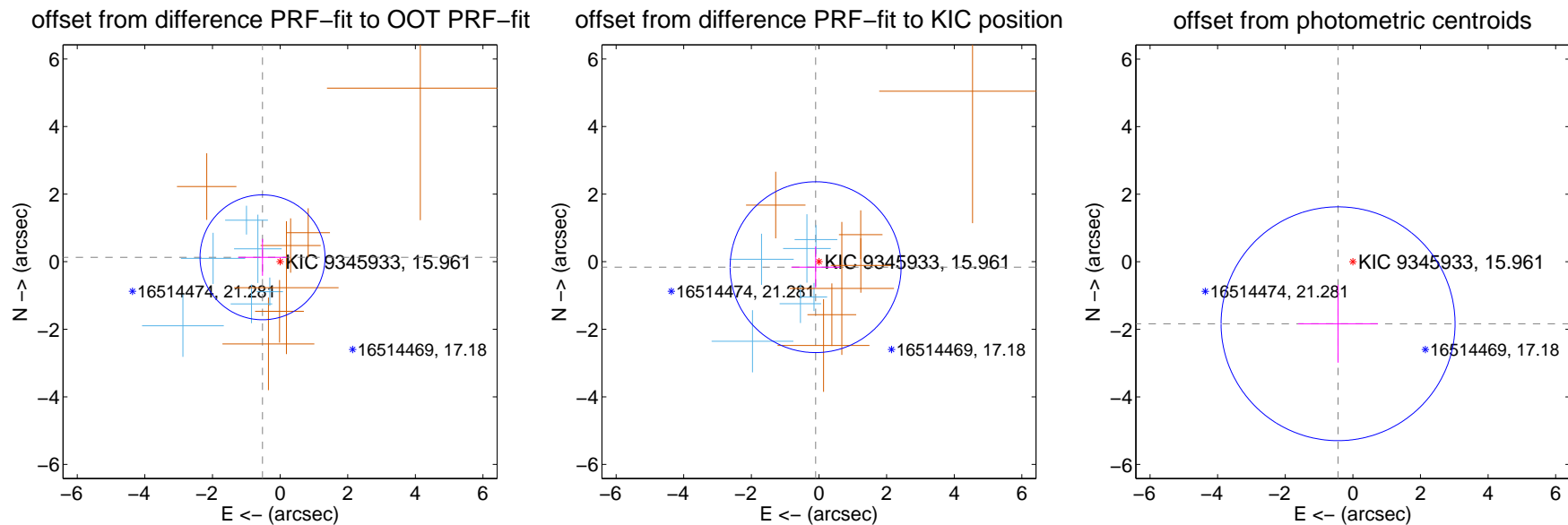
DV Centroid Data

Supplemental centroid analysis for 009345933-01. Kepler magnitude: 15.96. Transit SNR 9.33

There are 6 quarters with good PRF difference image offsets

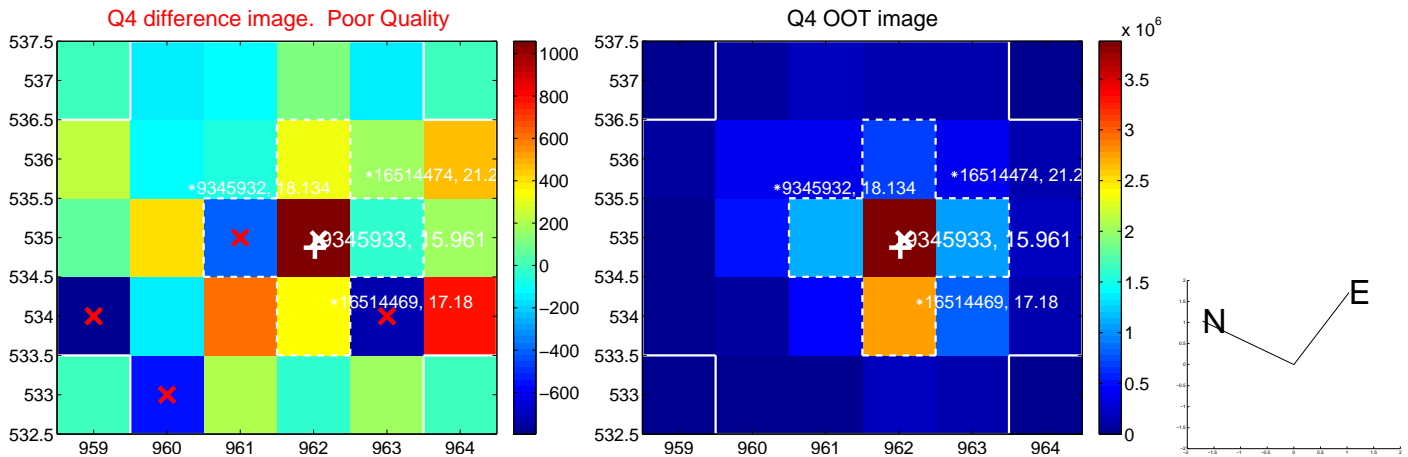
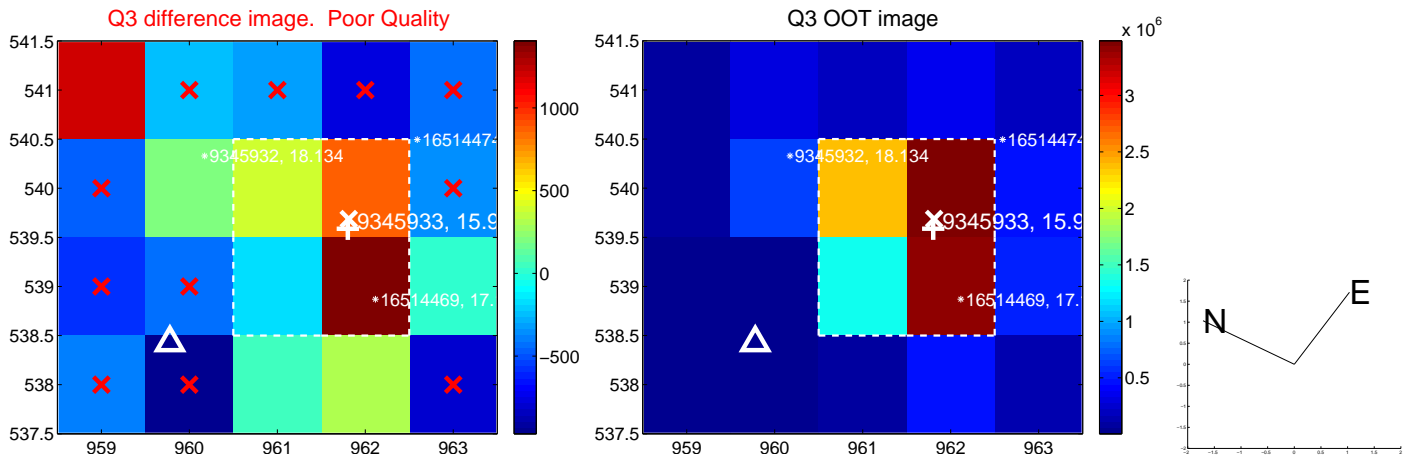
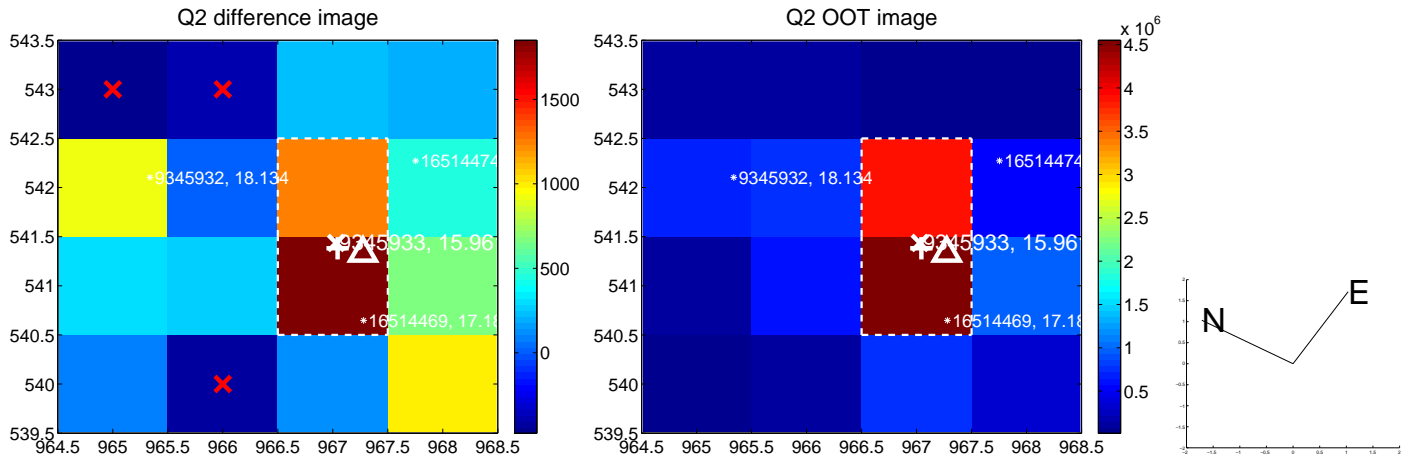
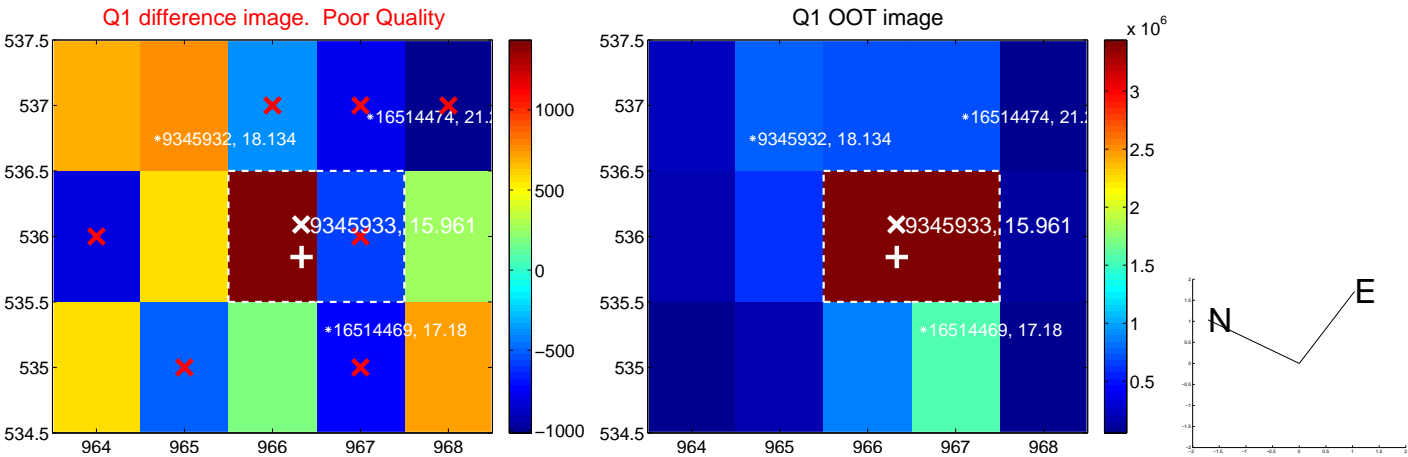
The direct PRF centroid is offset from the target star catalog position by about 1.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.536 ± 0.616	0.87	0.520 ± 0.720	0.130 ± 0.546
PRF-fit source offset from KIC position	0.191 ± 0.843	0.23	0.100 ± 0.720	-0.162 ± 0.613
photometric centroid source offset	1.89 ± 1.15	1.64	0.44 ± 1.18	-1.84 ± 1.15

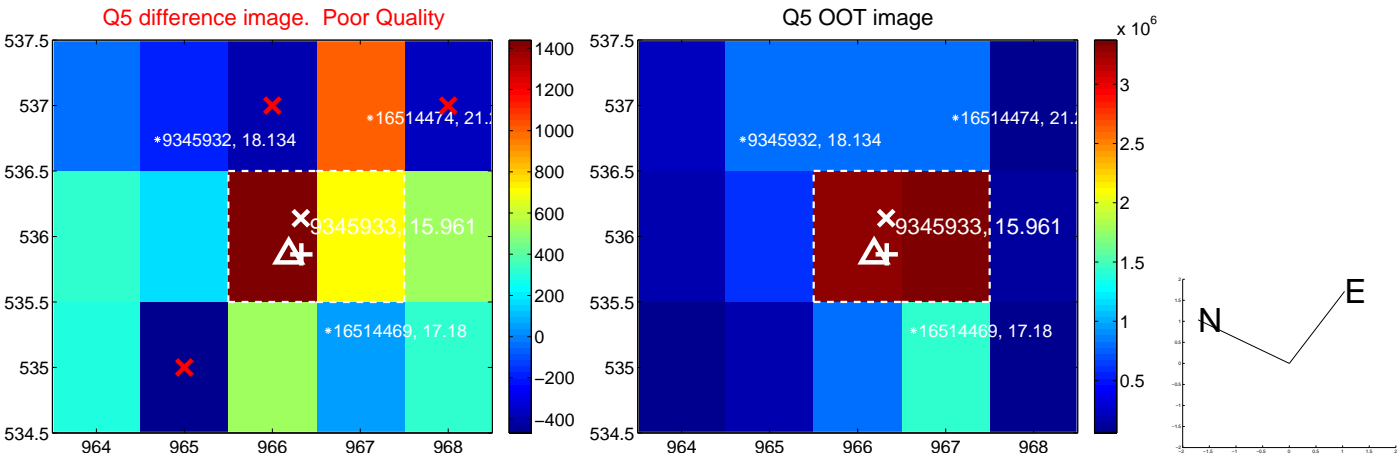


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

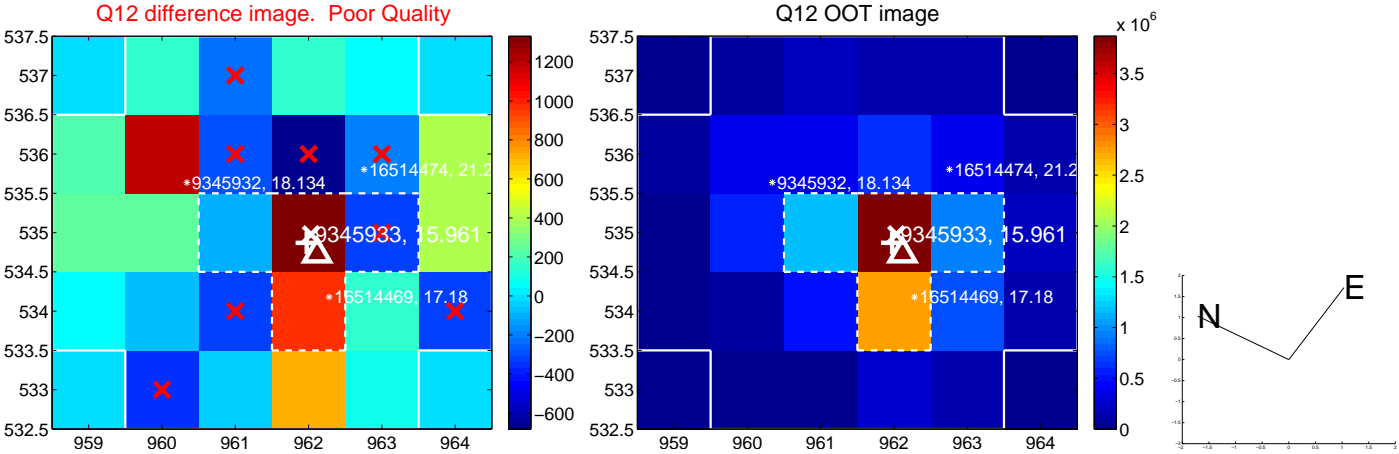
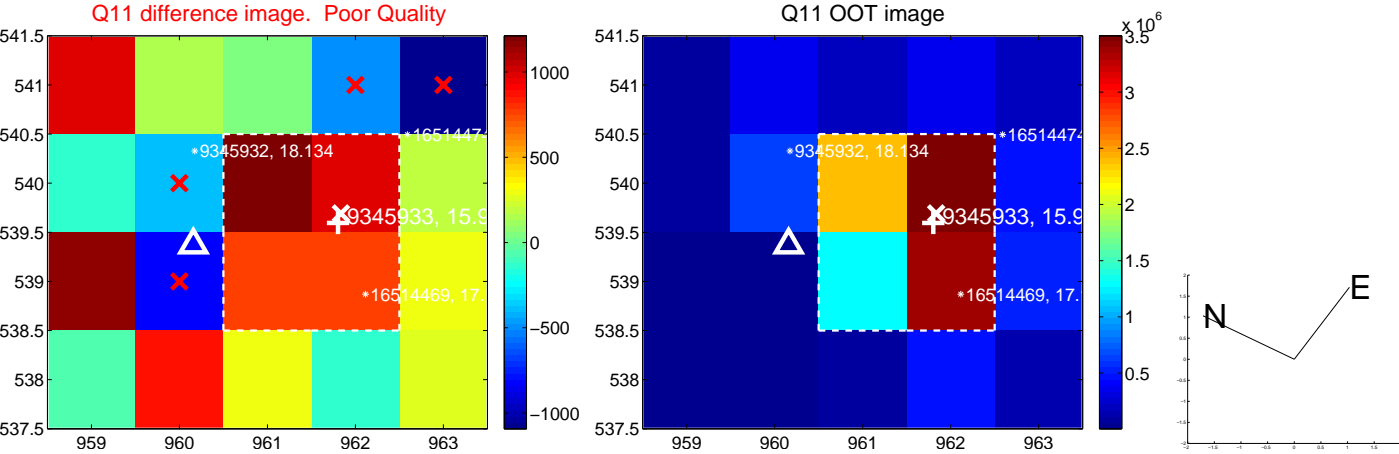
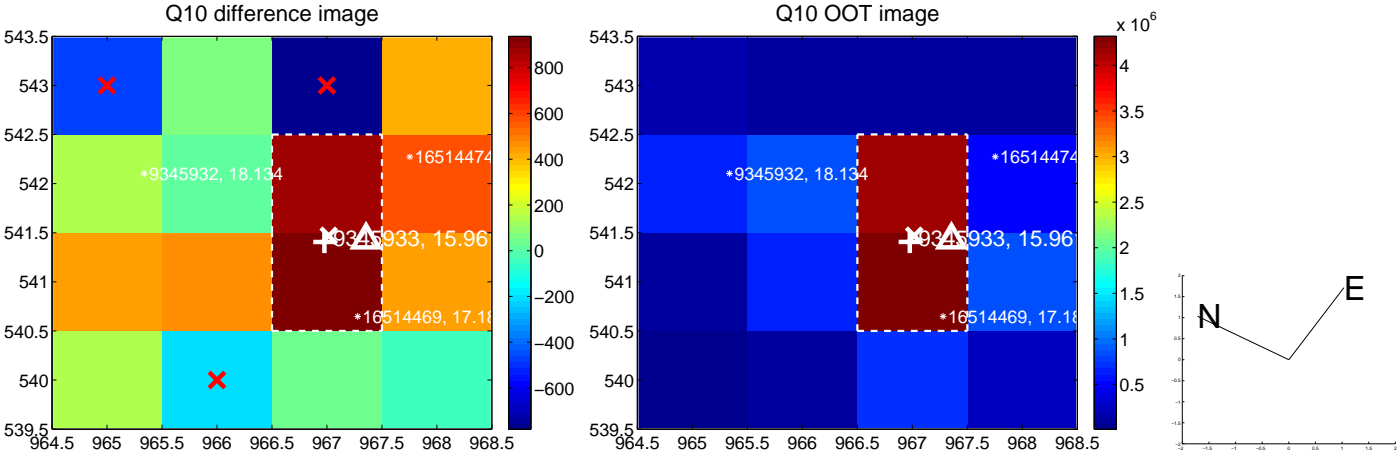
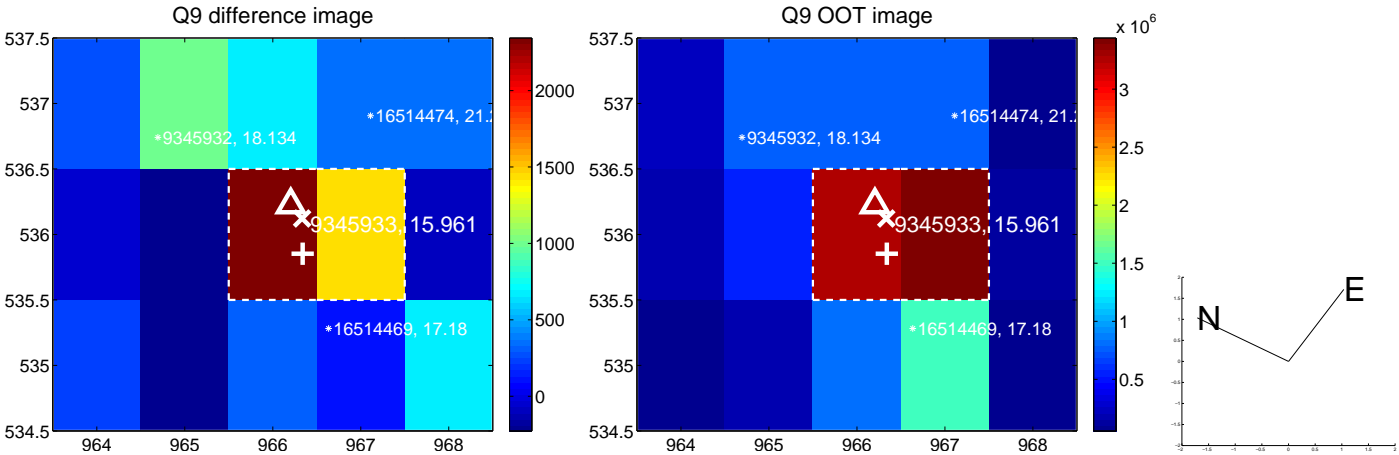
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



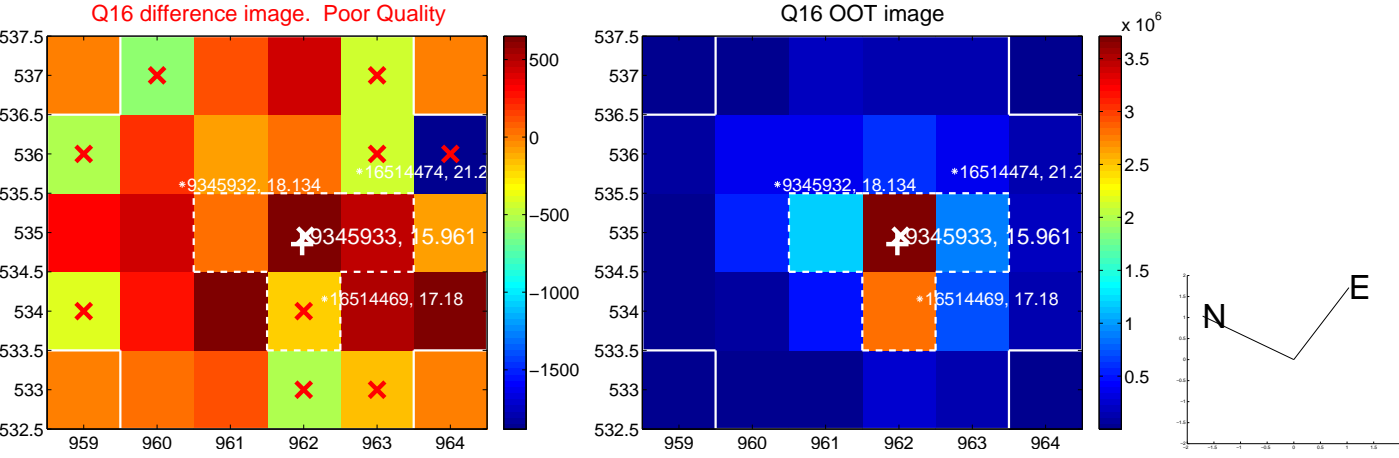
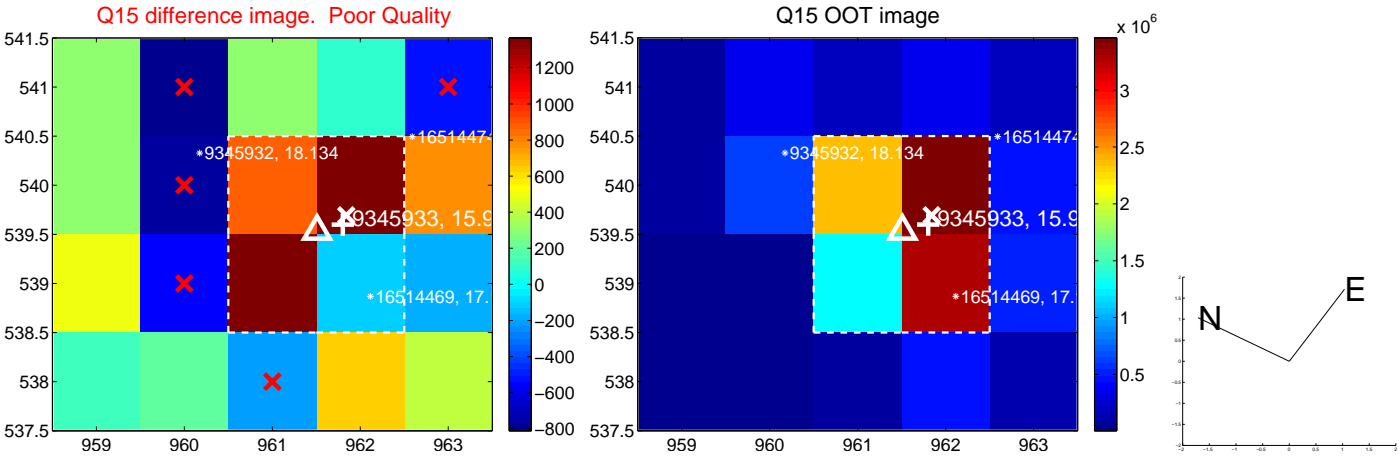
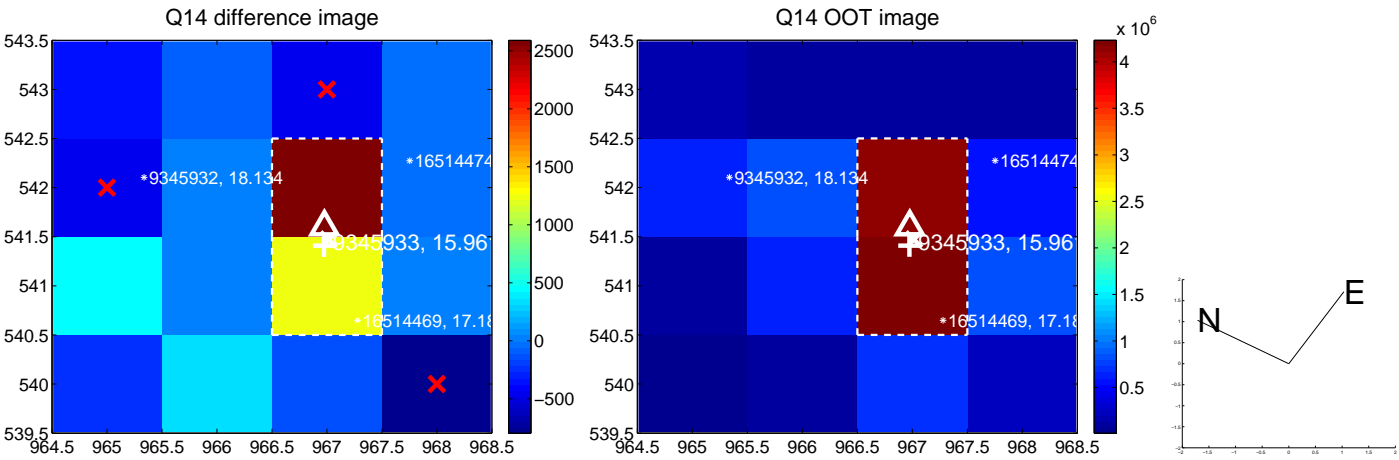
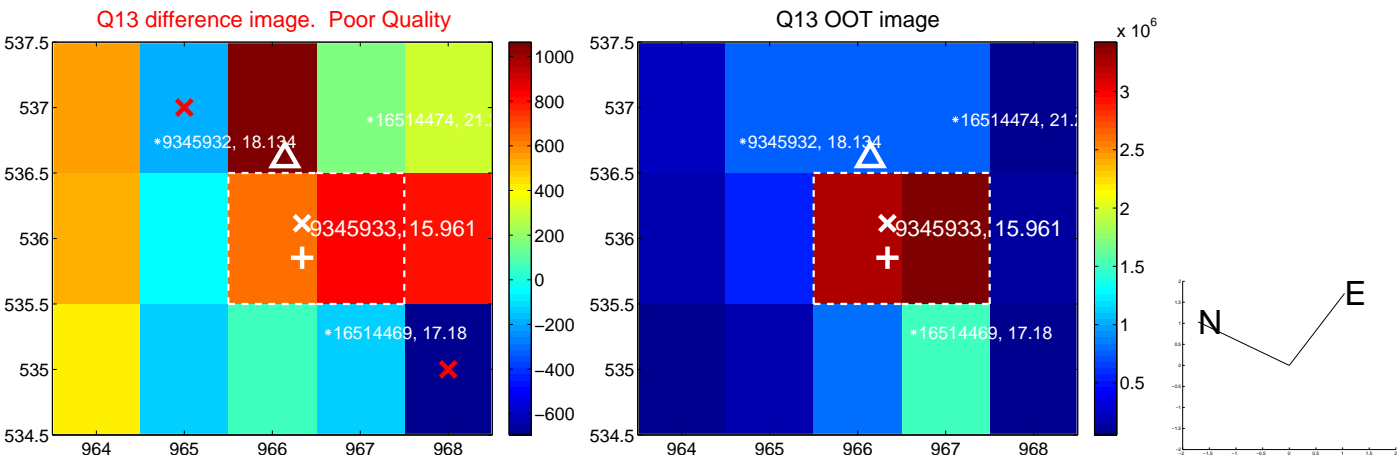
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



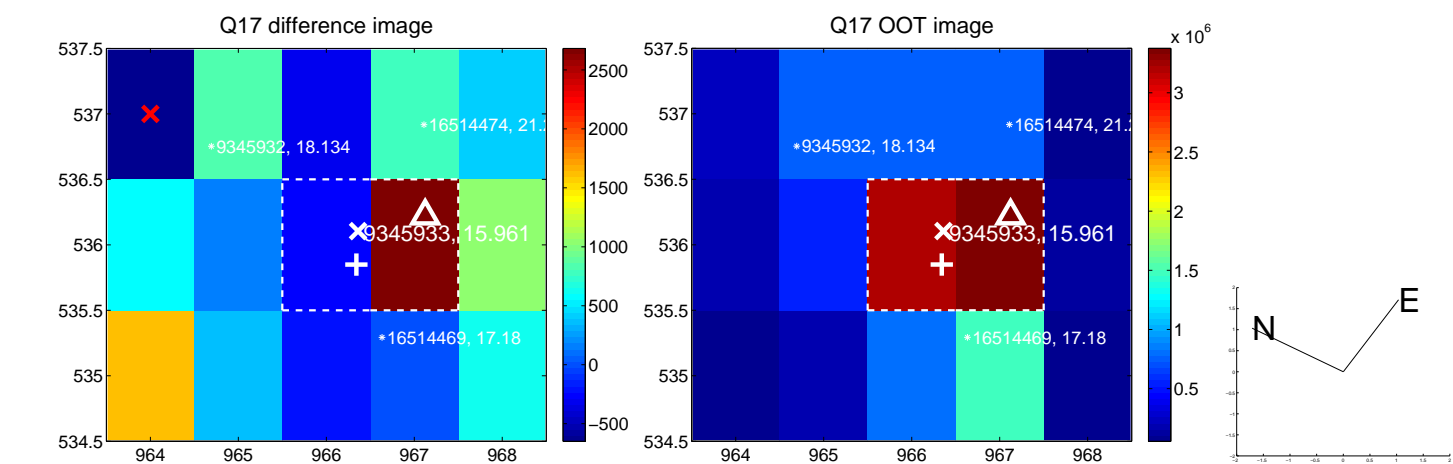
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



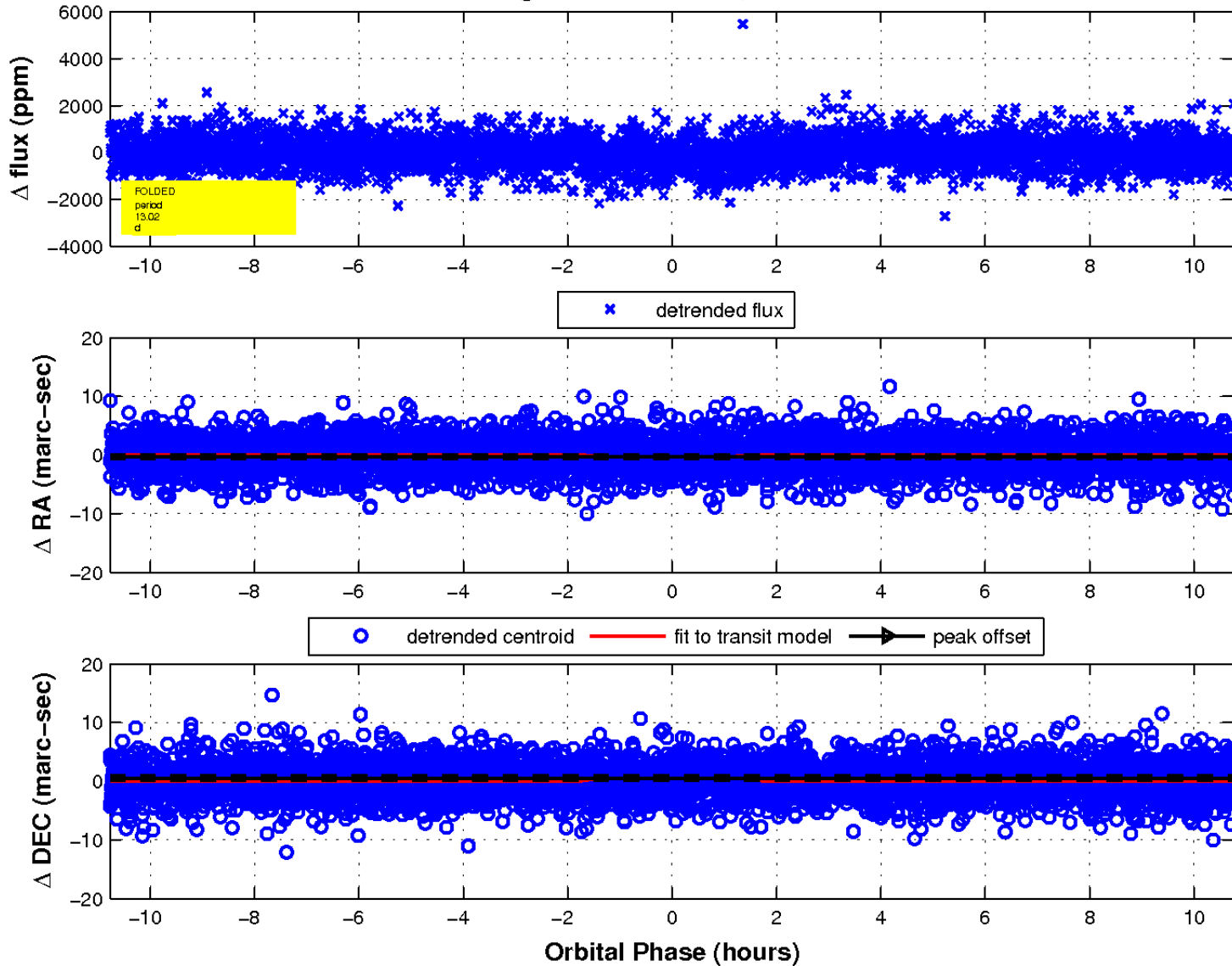
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

