

KIC 005084942

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})
005084942-01	OBS	0161.01	3.105508	133.210524	894.0	1.799	177.7	177.7	0.79	4989	2.78	218.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005084942-01	OBS	PC	1.00	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.

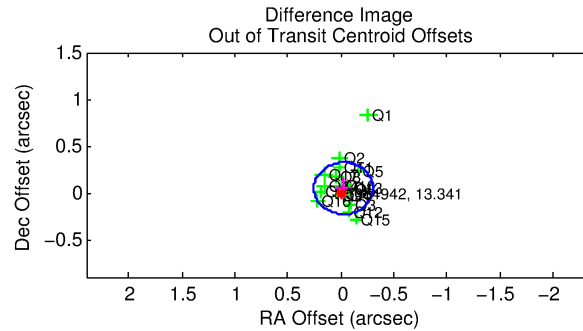
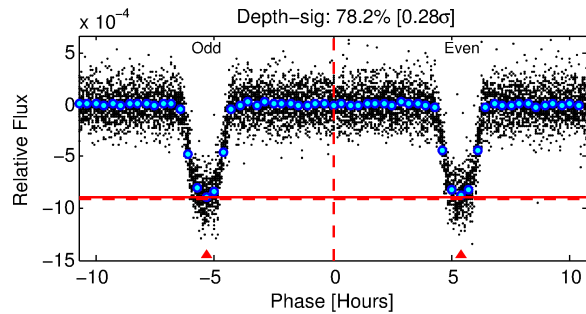
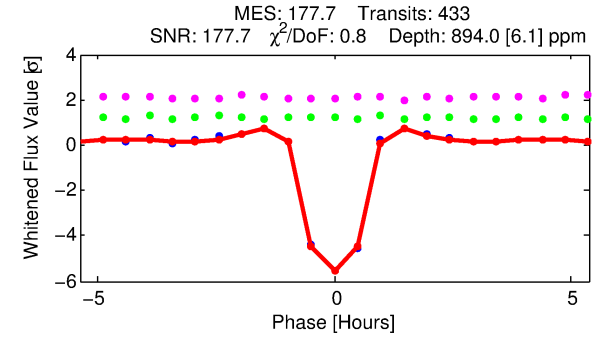
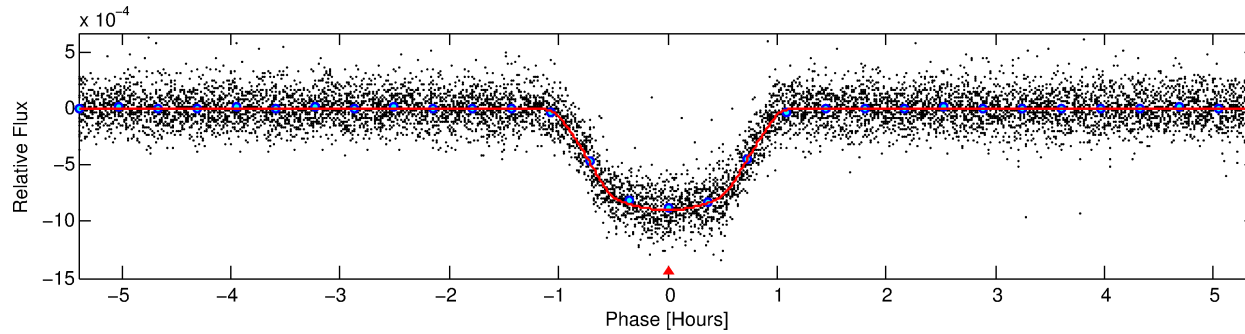
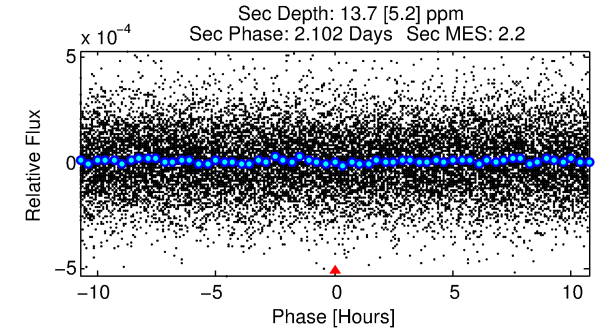
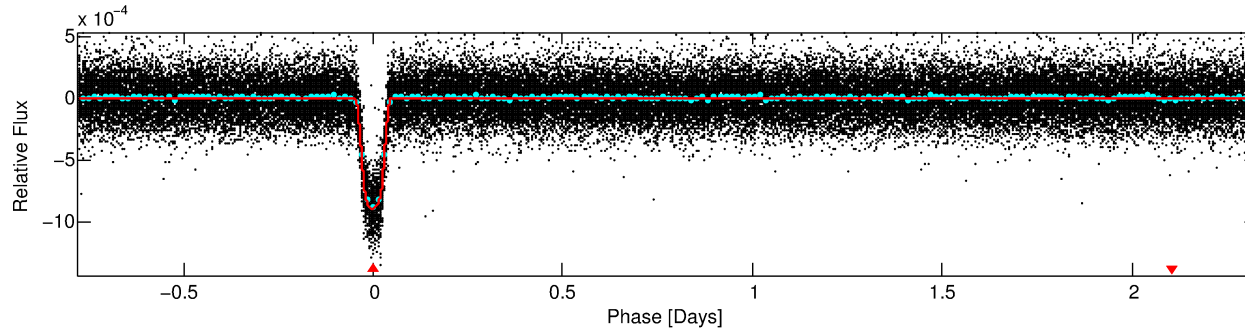
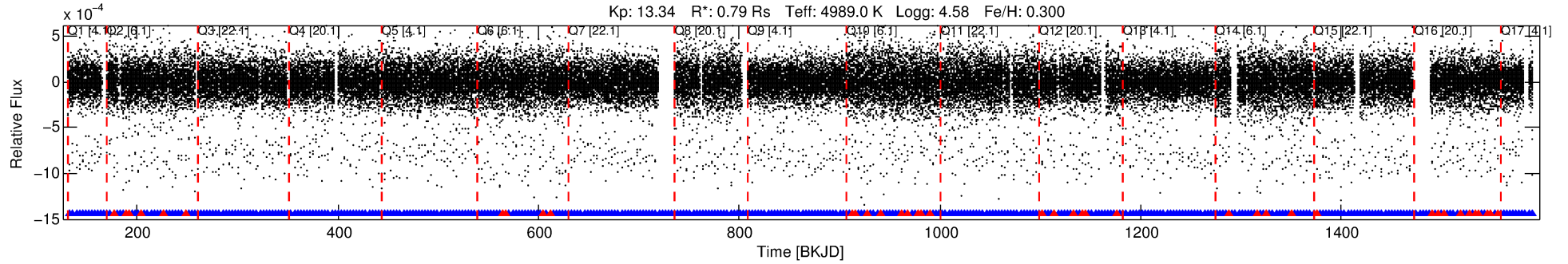
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005084942-01

No Significant Match Found

DV One-Page Summary

KIC: 5084942 Candidate: 1 of 1 Period: 3.106 d
KOI: K00161.01 Corr: 0.978



DV Fit Results:

Period = 3.10551 [0.00000] d
Epoch = 133.2105 [0.0002] BKJD
Rp/R* = 0.0322 [0.0013]
a/R* = 7.63 [1.10]
b = 0.86 [0.05]
Seff = 218.22 [30.36]
Teq = 980 [34] K
Rp = 2.78 [0.22] Re
a = 0.0399 [0.0026] AU
Ag = 1.55 [0.62] [0.88σ]
Teffp = 1690 [167] K [4.15σ]

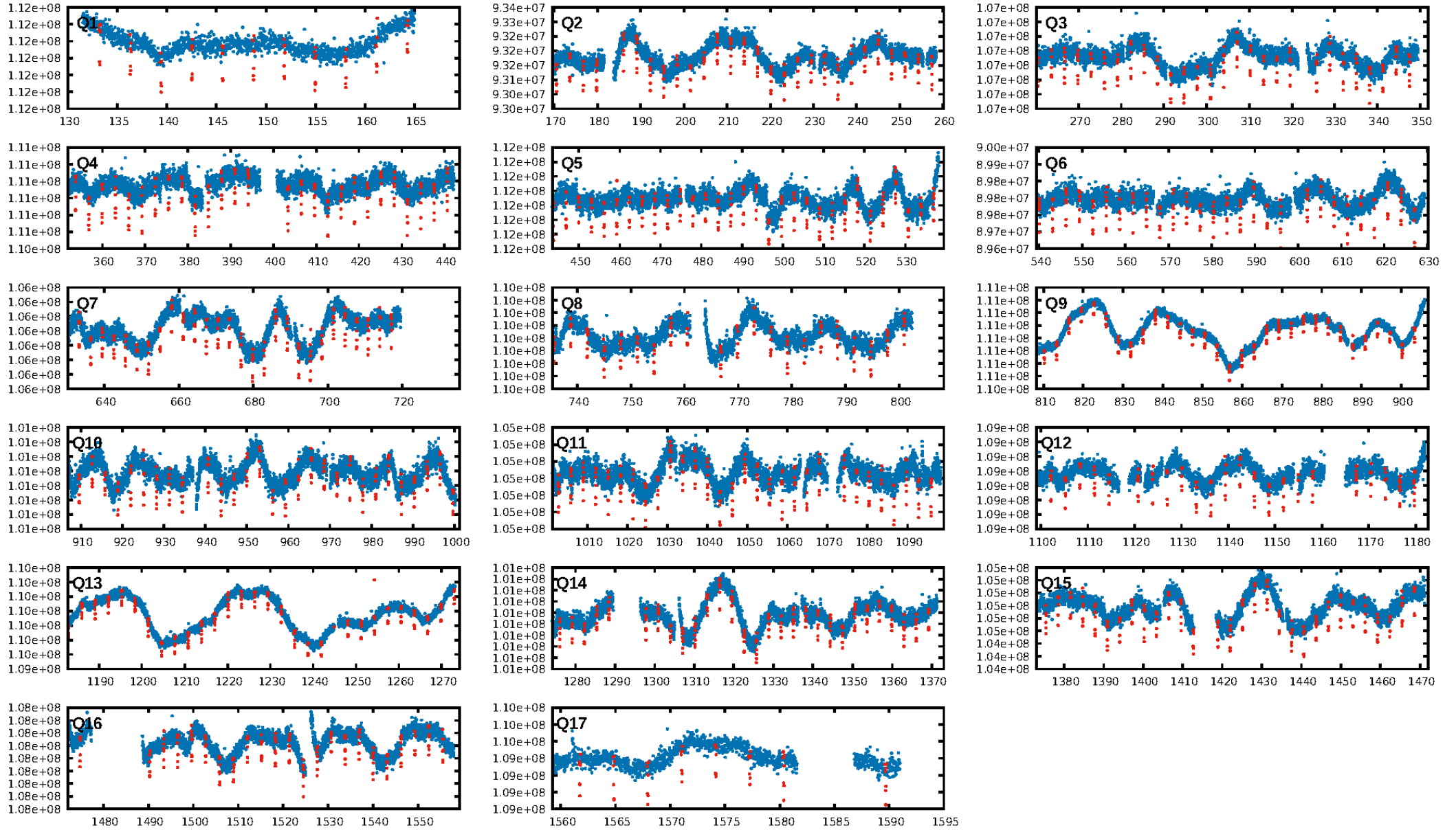
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.90 [374/414]
GhostDiagnostic-chr: 5.762
Centroid-sig: 25.6%
Centroid-so: 0.457 arcsec [7.92σ]
OotOffset-rm: 0.053 arcsec [0.58σ]
KicOffset-rm: 0.259 arcsec [3.06σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

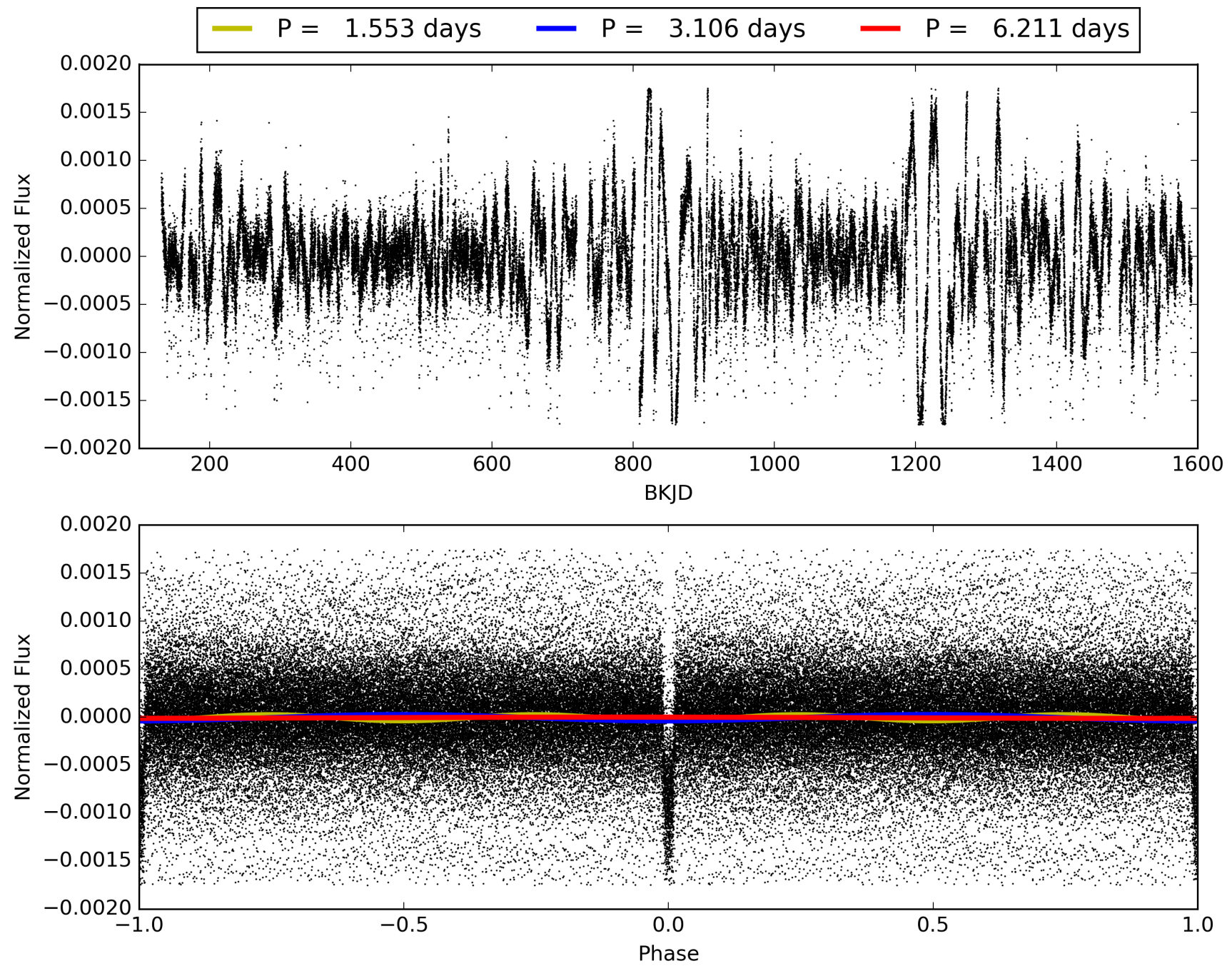
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:05:07 Z

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

TCE 005084942-01, PDC Light Curves

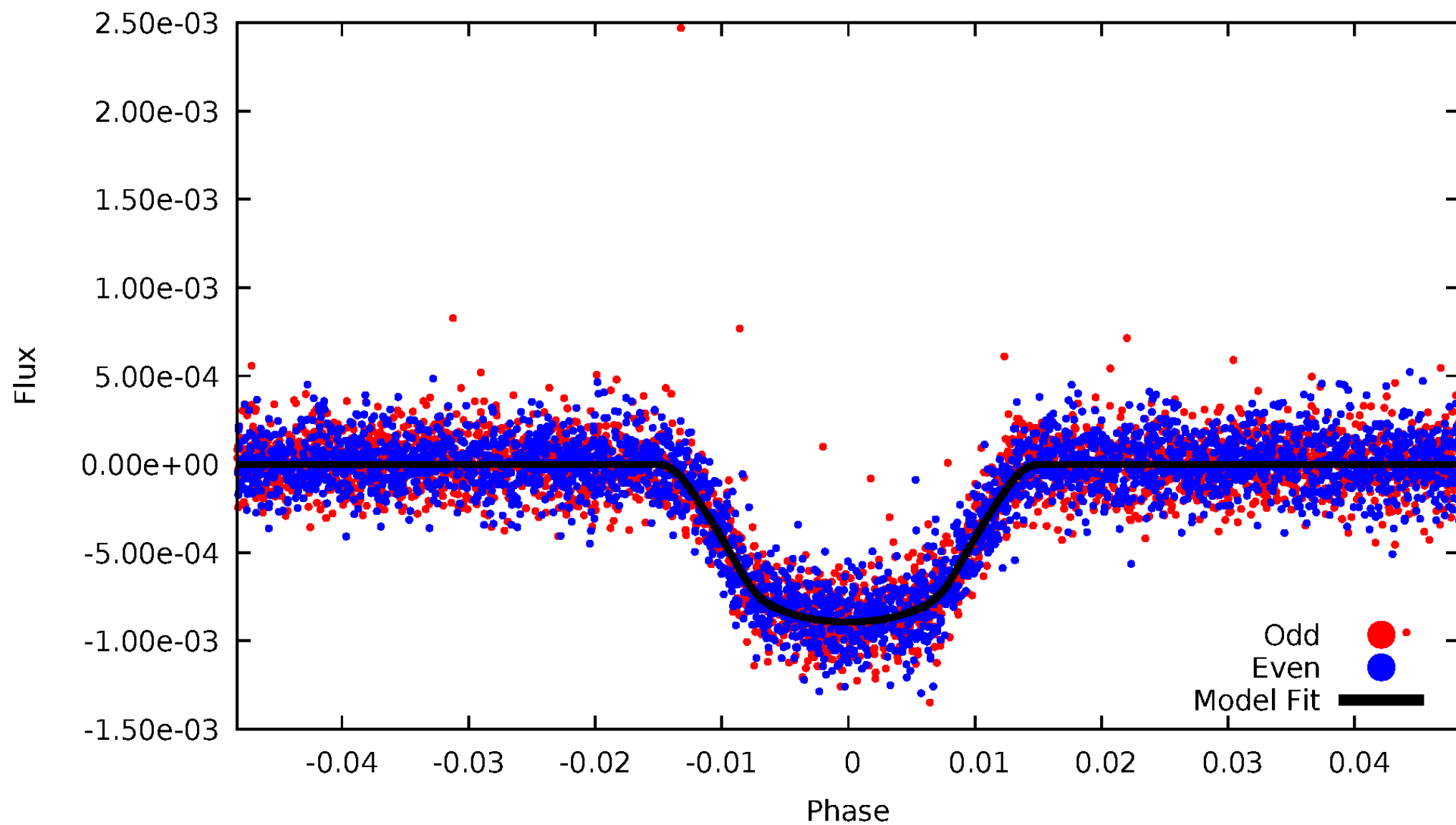


TCE 005084942-01



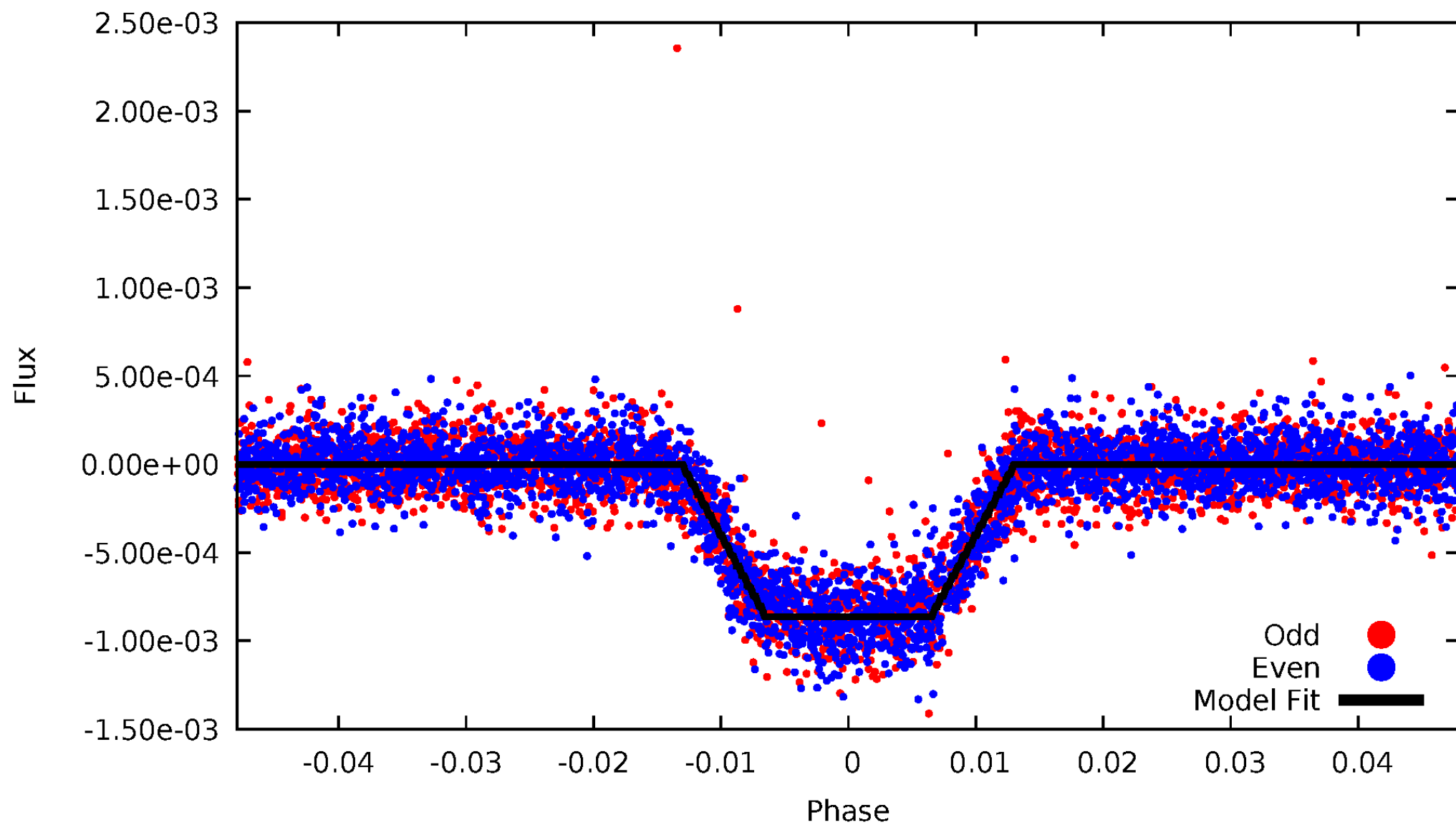
DV Odd/Even

TCE 005084942-01



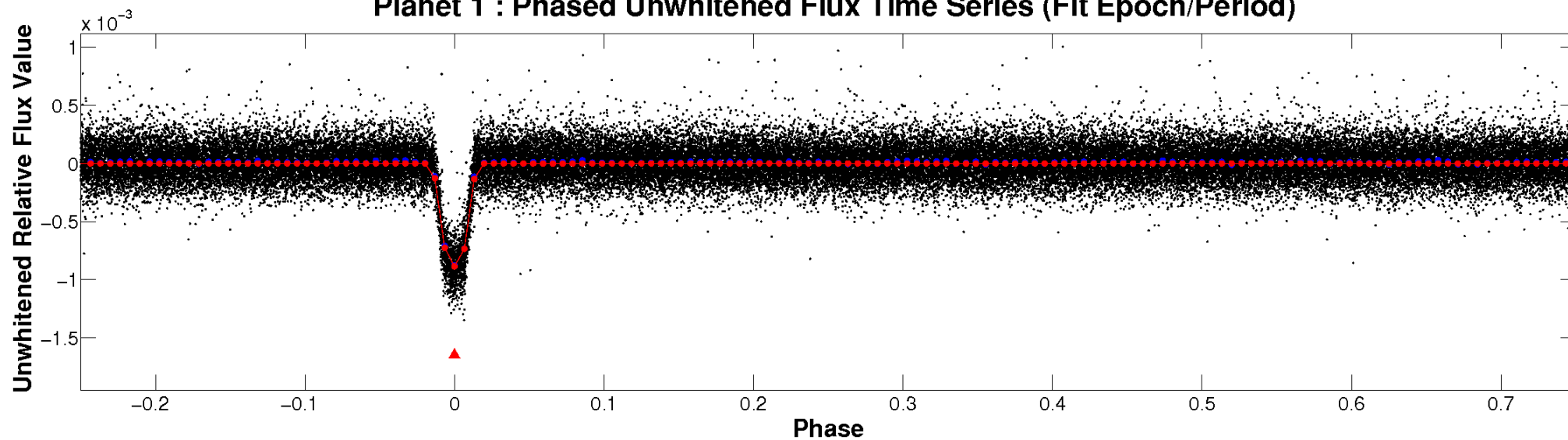
ALT Odd/Even

TCE 005084942-01

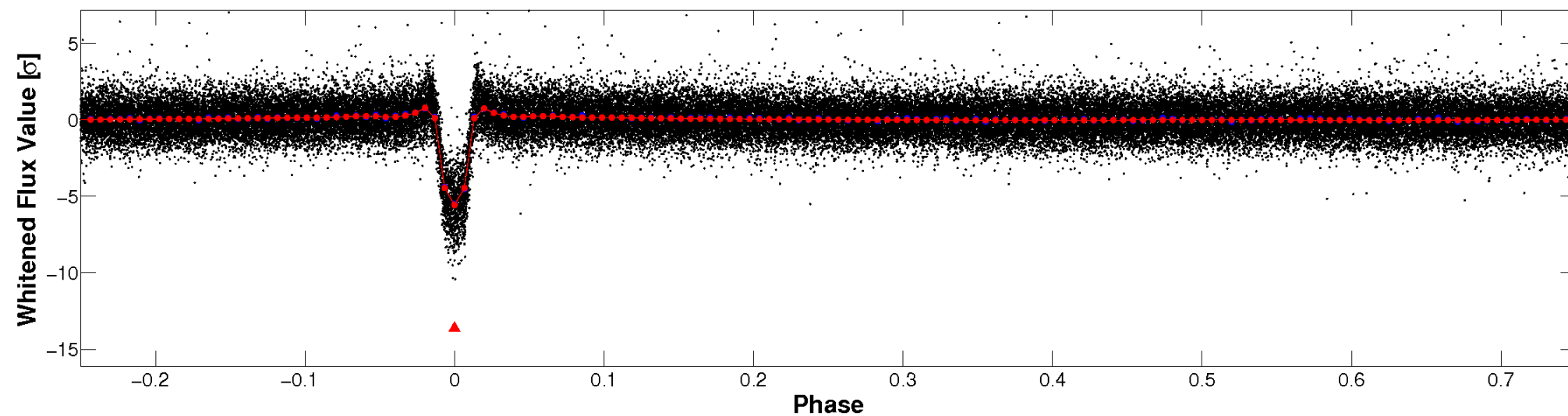


Non-Whitened Vs. Whitened Light Curve

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

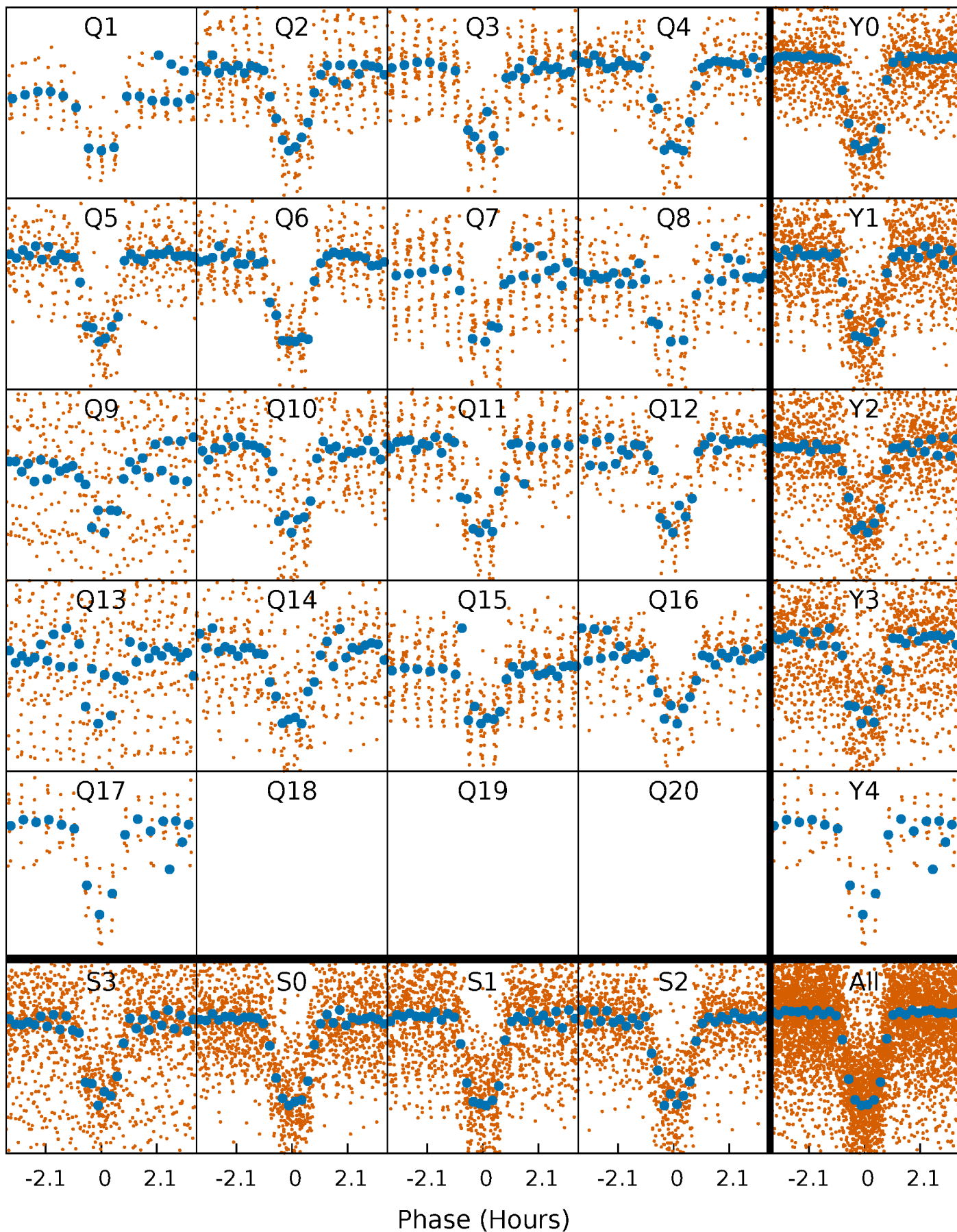


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



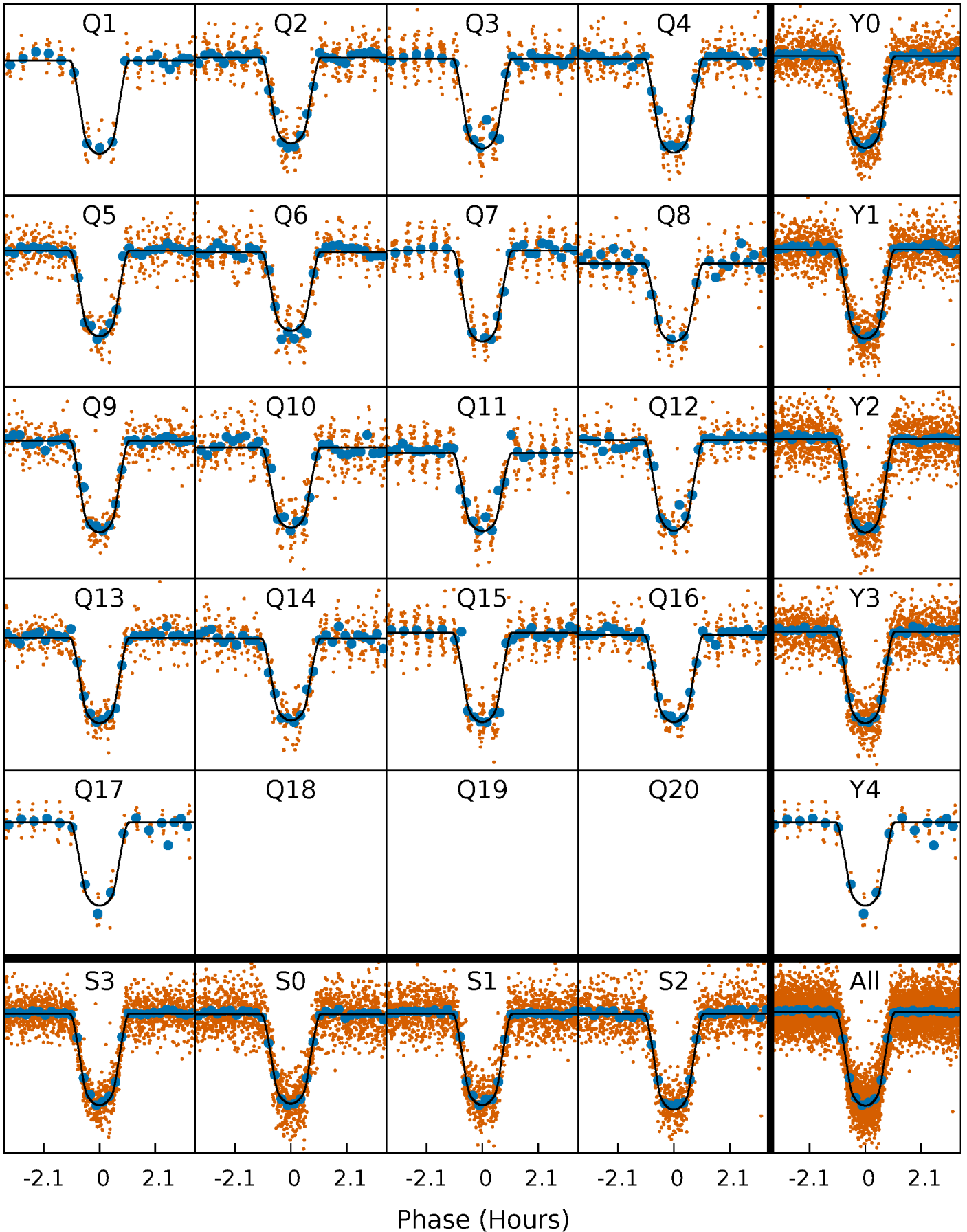
PDC Quarter-Phased Transit Curves

TCE 005084942-01 P= 3.105508 Days $T_0=133.210524$ (BKJD)



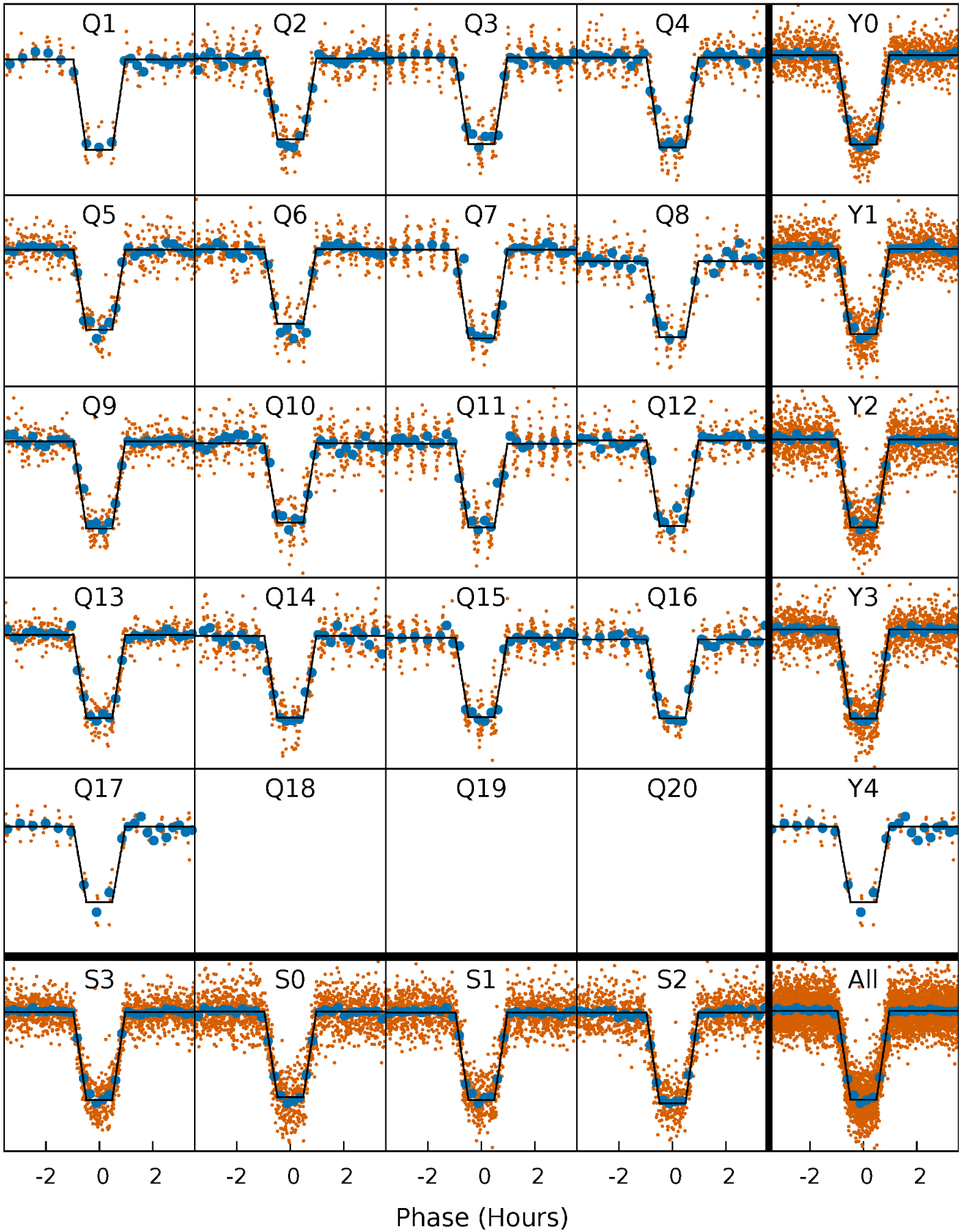
DV Quarter-Phased Transit Curves

TCE 005084942-01 P= 3.105508 Days $T_0=133.210524$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

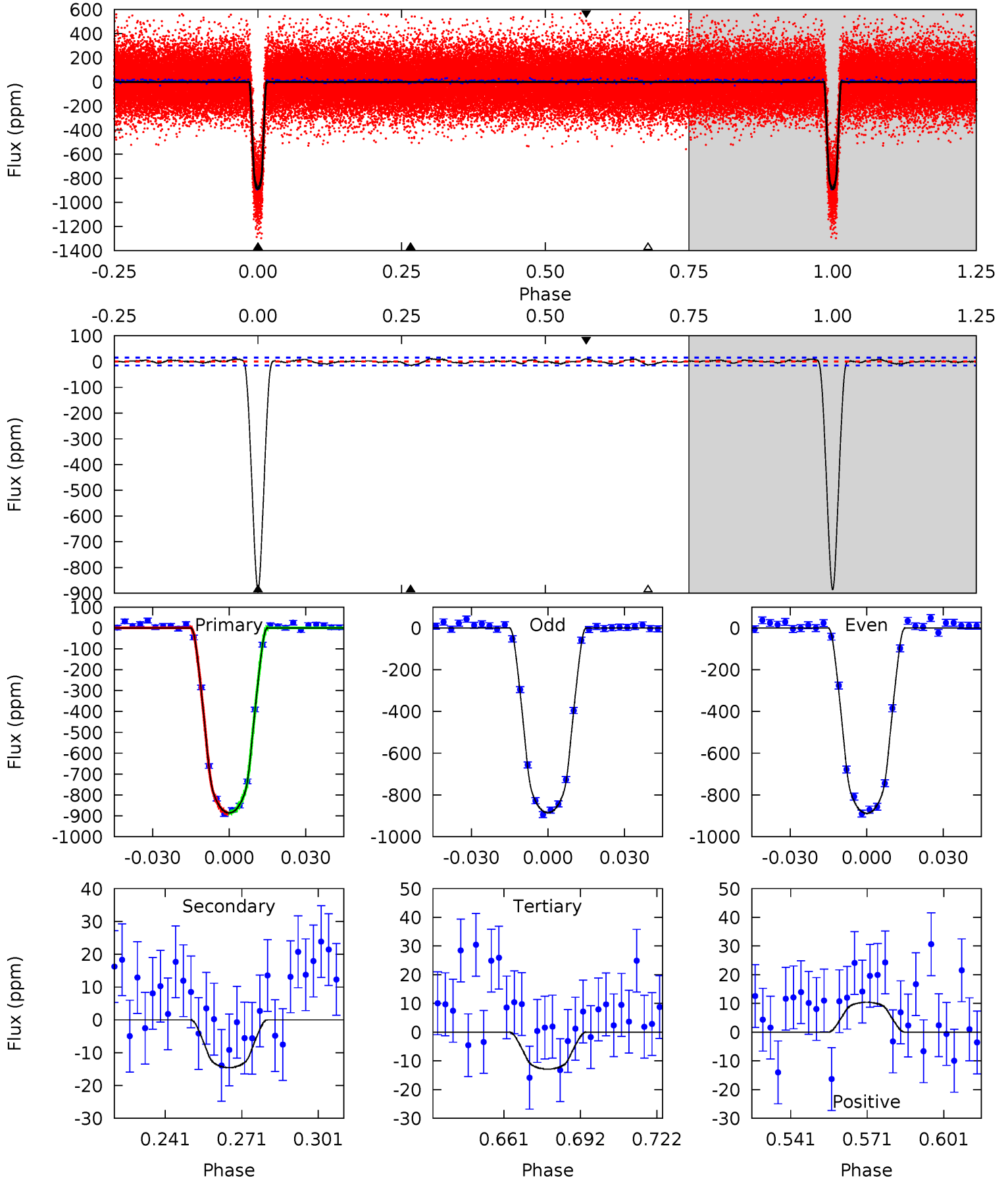
TCE 005084942-01 P= 3.105510 Days $T_0=133.210238$ (BKJD)



DV Model-Shift Uniqueness Test

005084942-01, P = 3.105508 Days, E = 130.105016 Days

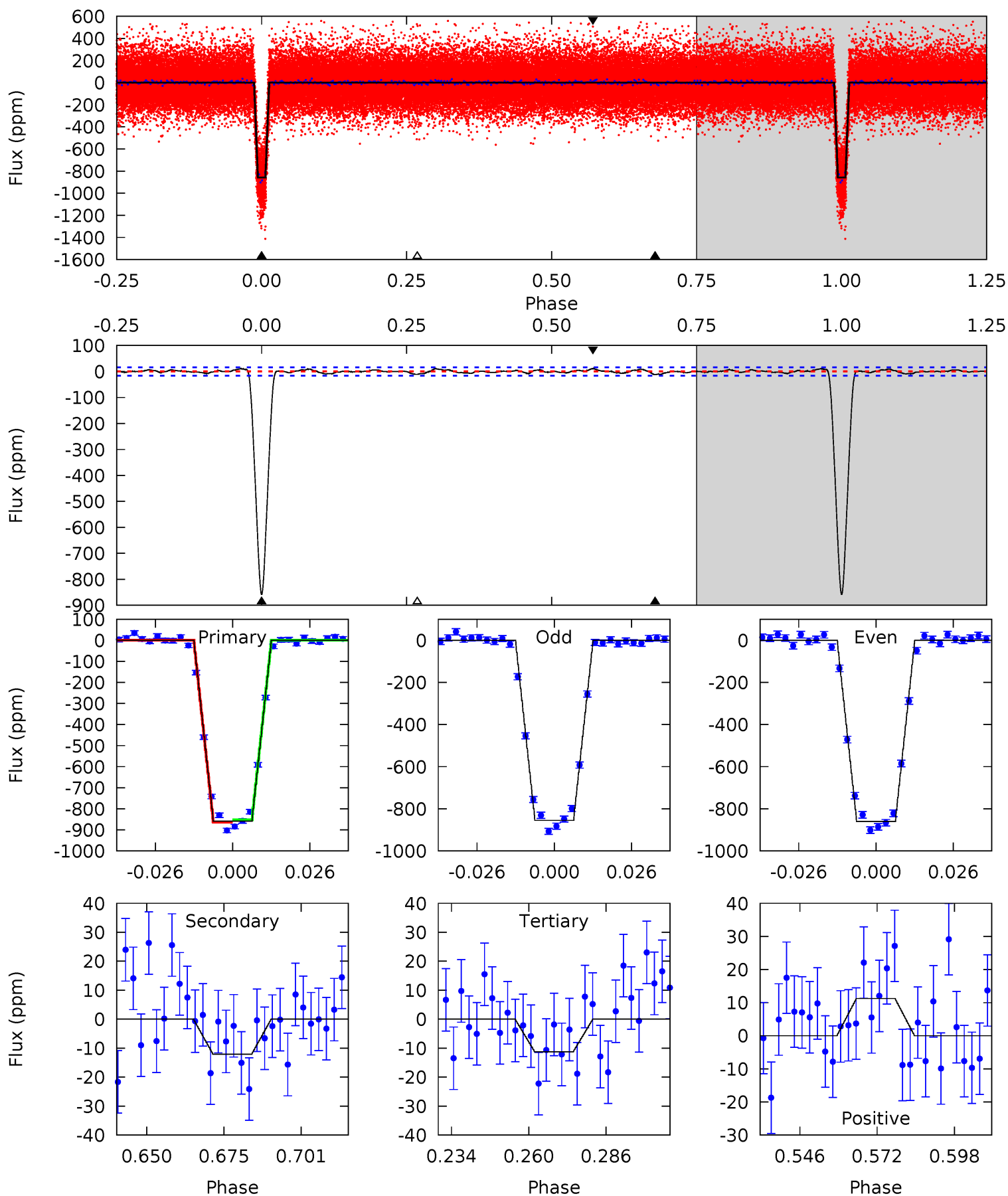
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
276.1	4.54	4.01	3.24	4.81	2.17	1.45	272.1	272.9	0.52	1.30	0.47	1.00	0.01	0.38



Alt Model-Shift Uniqueness Test

005084942-01, P = 3.105510 Days, E = 130.104728 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
256.6	3.62	3.36	3.37	4.84	2.23	1.31	253.2	253.2	0.26	0.26	0.85	1.00	0.01	1.70



Stellar Parameters For KIC 005084942

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4989^{+90}_{-110}	$4.585^{+0.012}_{-0.064}$	$0.300^{+0.150}_{-0.150}$	$0.791^{+0.052}_{-0.028}$	$0.878^{+0.021}_{-0.056}$	$2.499^{+0.178}_{-0.466}$
	+2%/-2%	+0%/-1%	+50%/-50%	+7%/-4%	+2%/-6%	+7%/-19%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 005084942-01 / KOI 0161.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-15 ± 3	$2.81^{+0.15}_{-0.14}$	1382^{+34}_{-36}	2465^{+94}_{-99}	$1.592^{+0.420}_{-0.369}$
Alt.	-12 ± 3	$2.56^{+0.16}_{-0.13}$	1381^{+36}_{-33}	2457^{+105}_{-121}	$1.555^{+0.495}_{-0.440}$

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

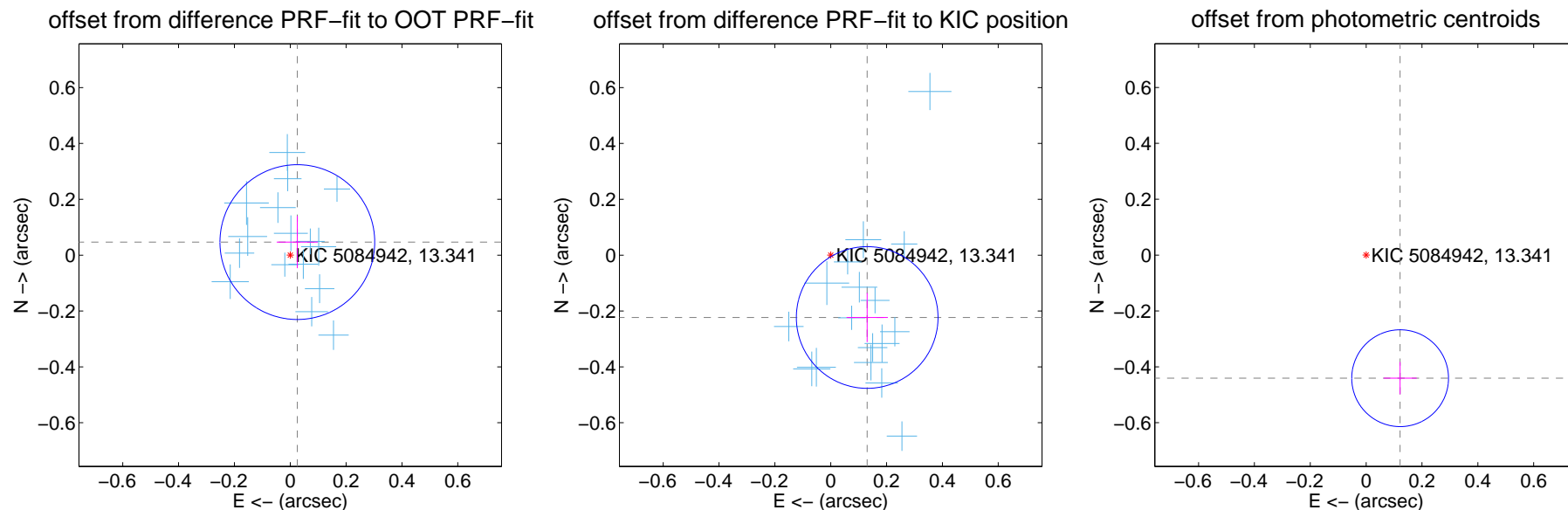
DV Centroid Data

Supplemental centroid analysis for 005084942-01. Kepler magnitude: 13.34. Transit SNR 177.69

There are 17 quarters with good PRF difference image offsets

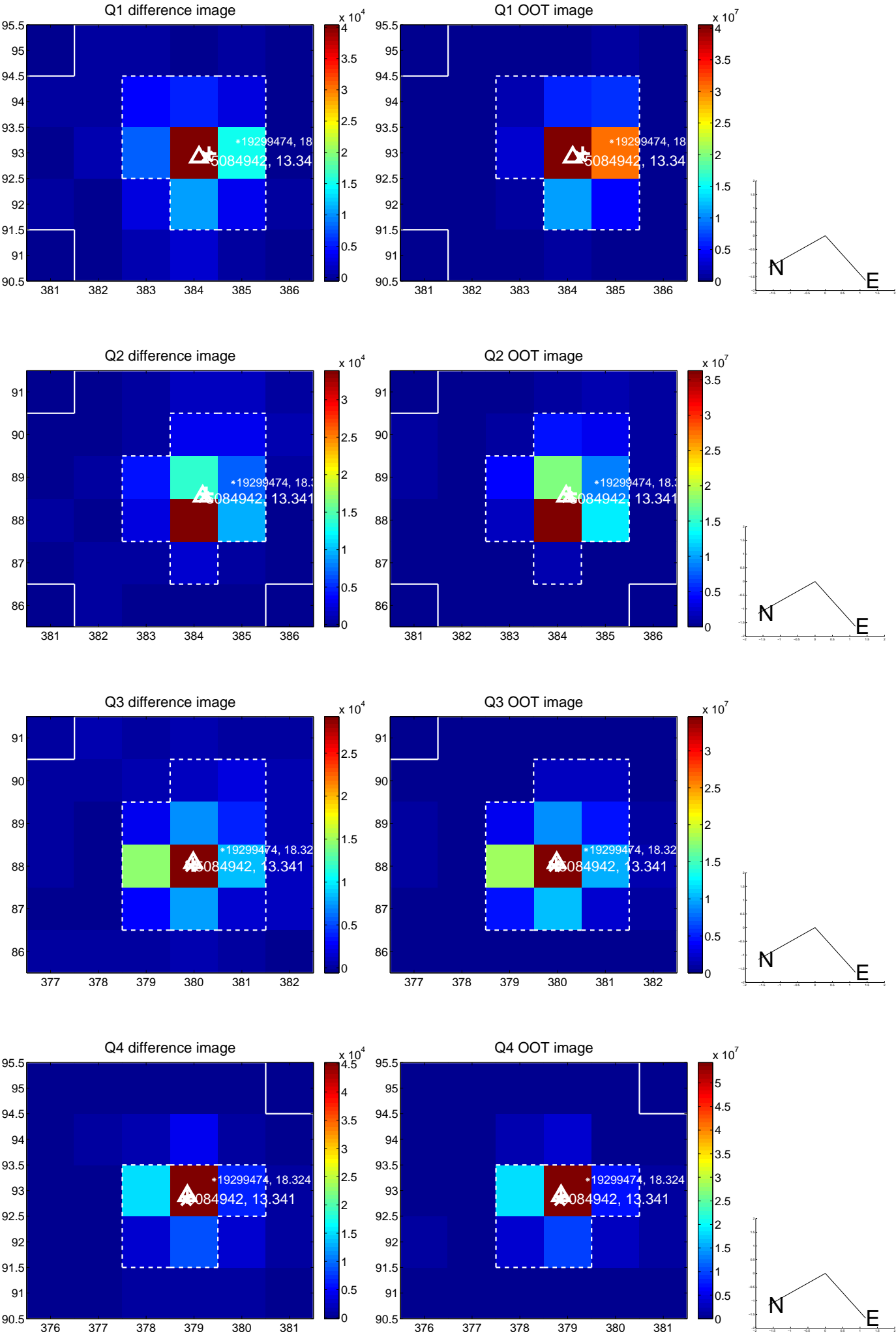
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.053 ± 0.092	0.58	-0.025 ± 0.074	0.047 ± 0.093
PRF-fit source offset from KIC position	0.259 ± 0.085	3.06	-0.131 ± 0.074	-0.223 ± 0.088
photometric centroid source offset	0.46 ± 0.06	7.92	-0.12 ± 0.06	-0.44 ± 0.06

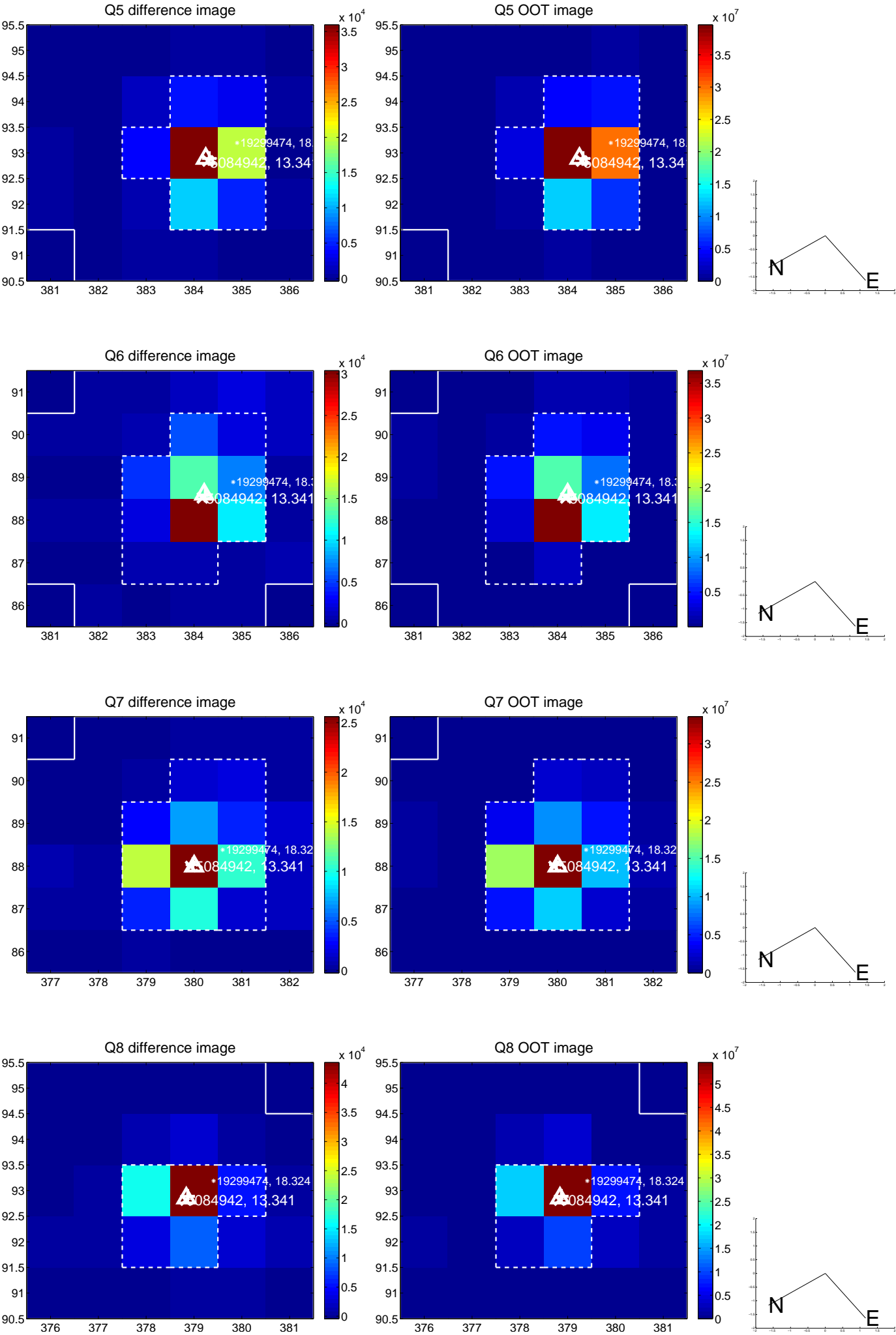


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

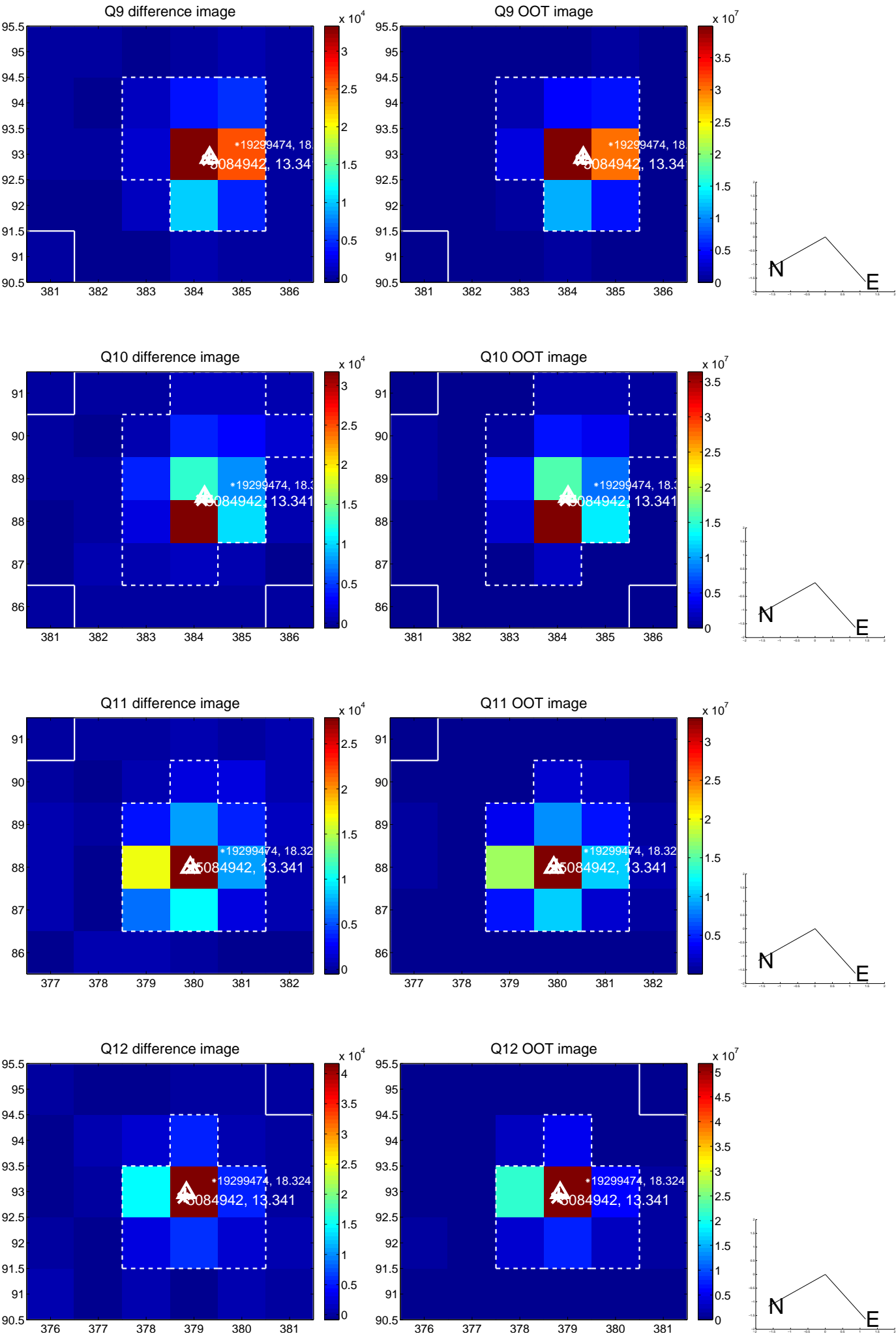
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



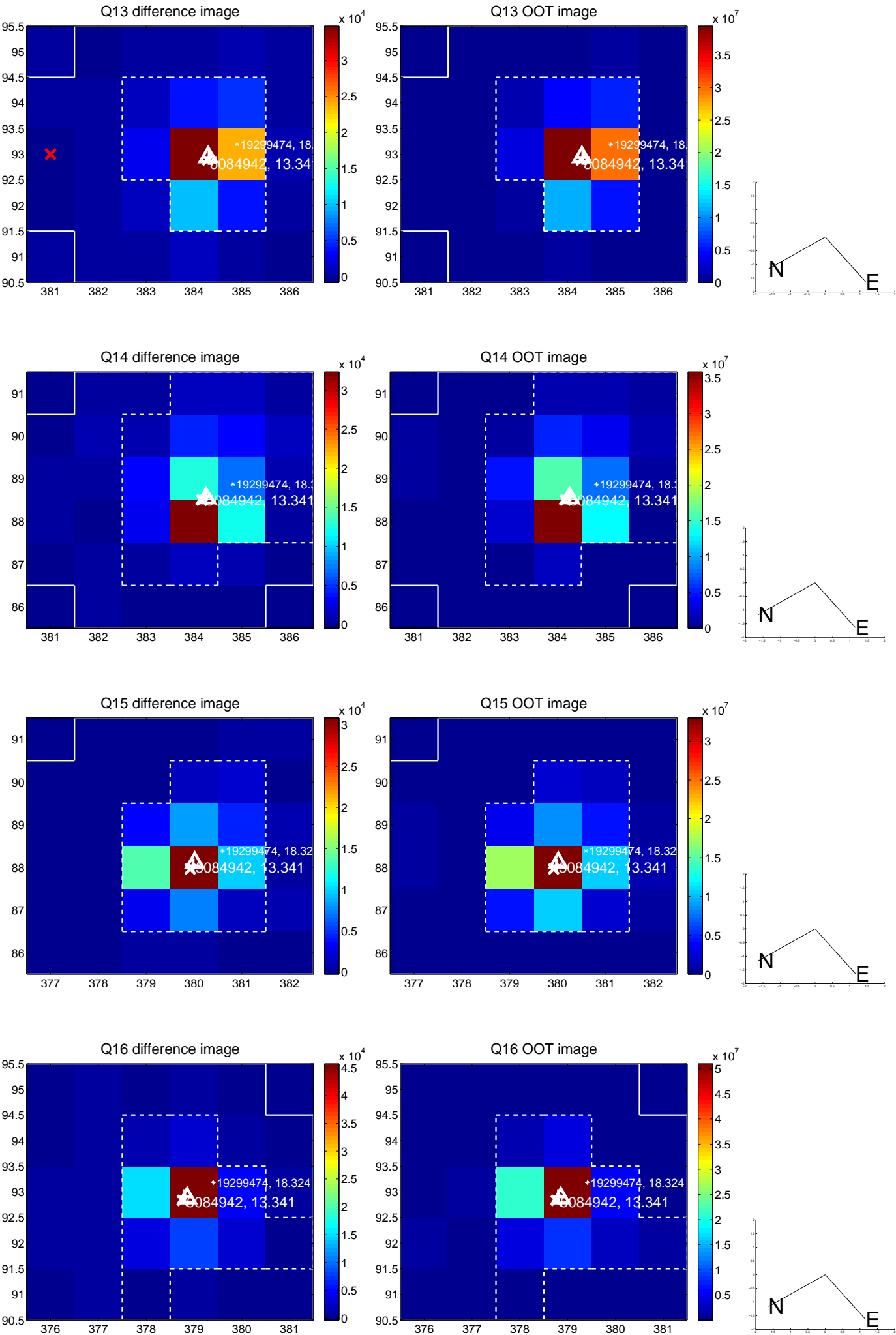
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



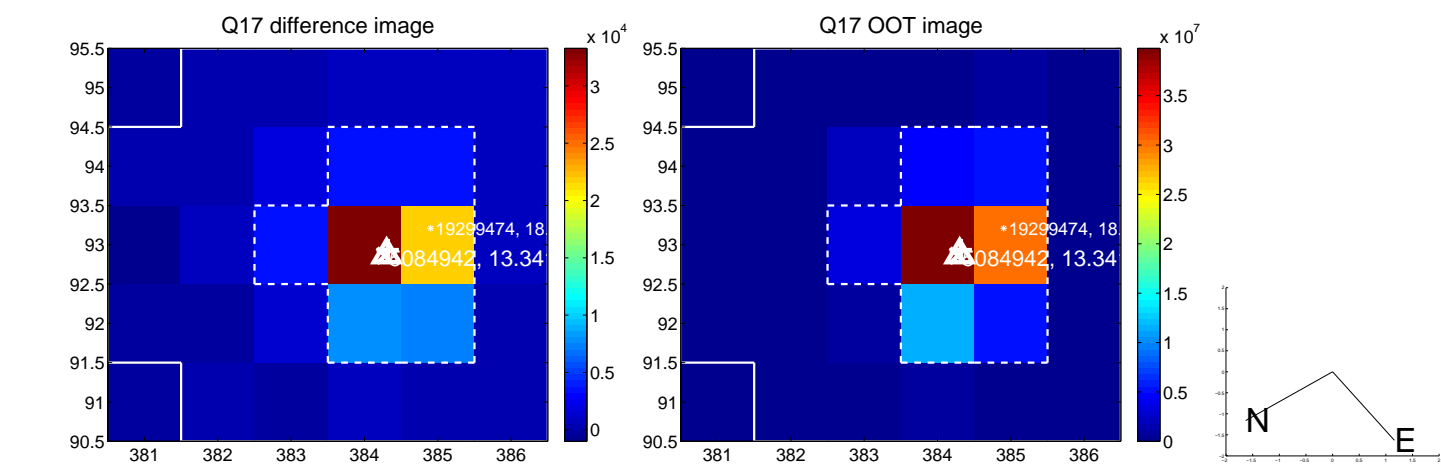
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



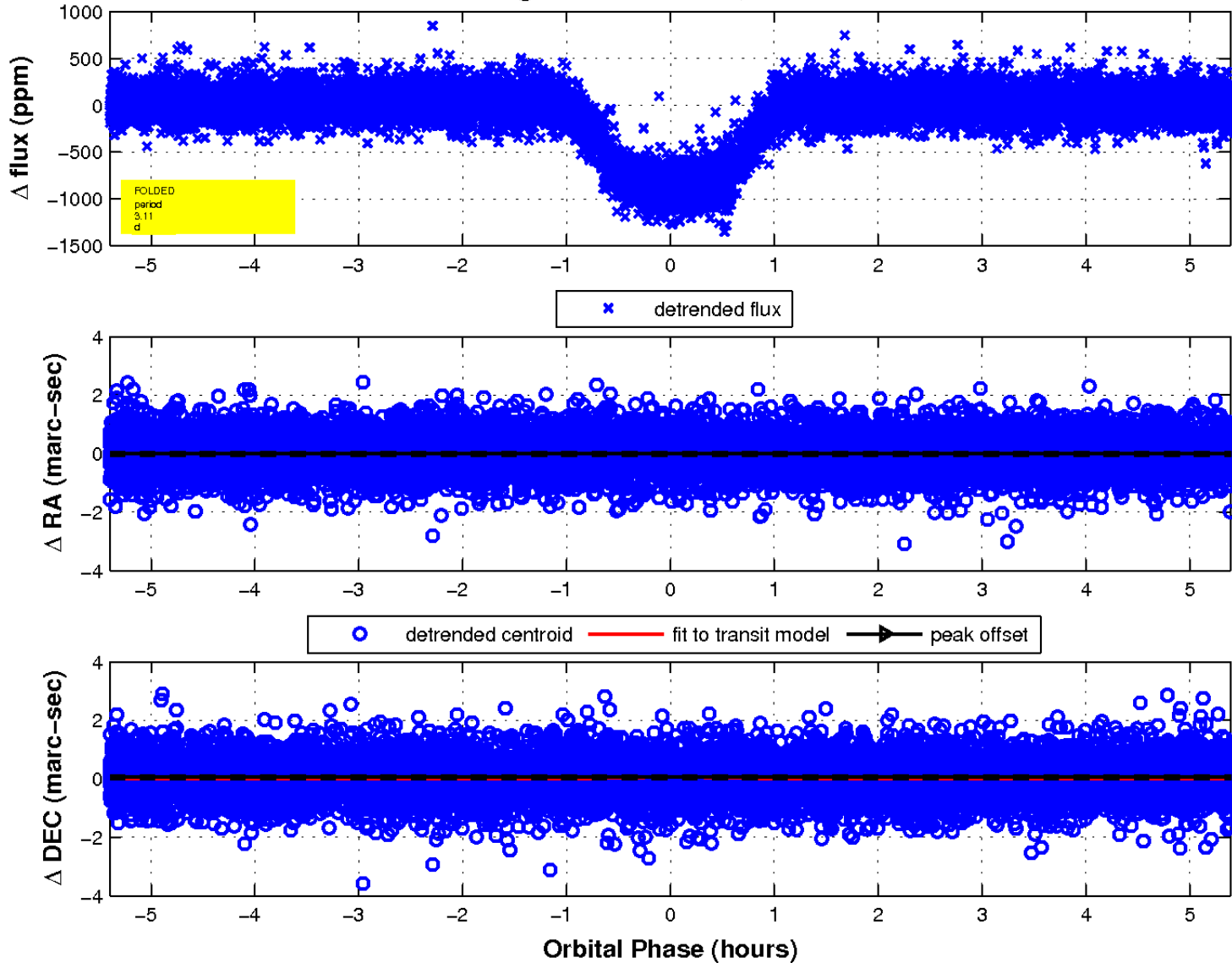
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

