

KIC 006634112

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})
006634112-01	OBS	5308.01	9.942229	133.847488	30937.3	2.465	1908.6	1636.1	0.84	5268	22.59	71.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006634112-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED

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.

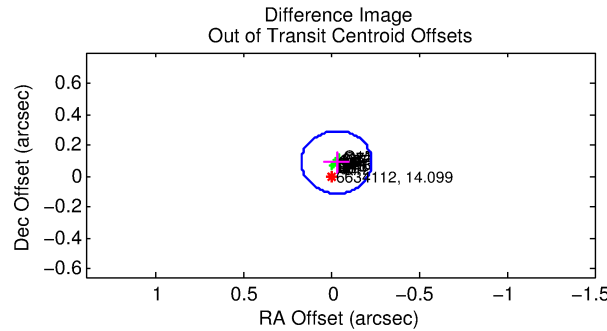
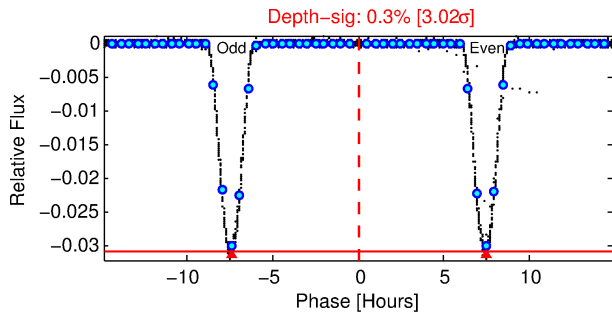
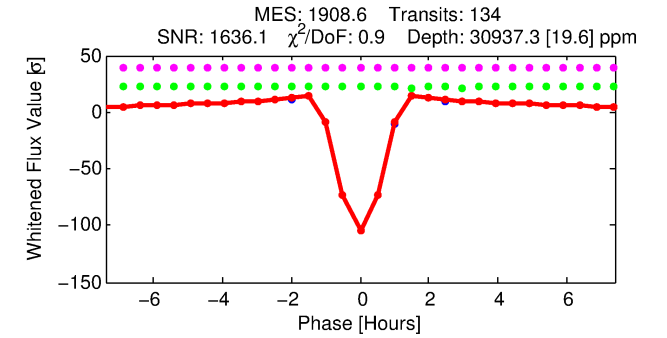
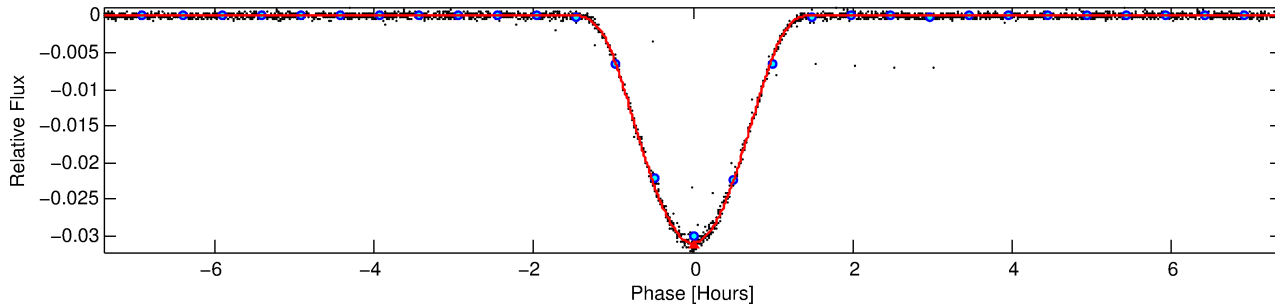
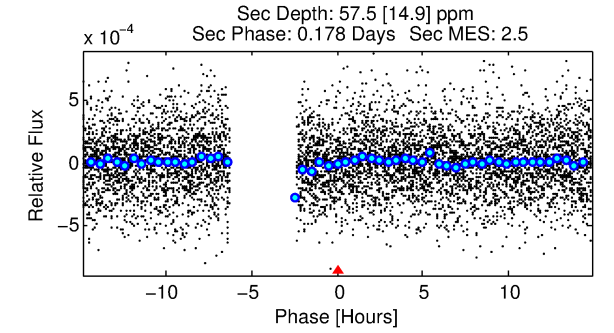
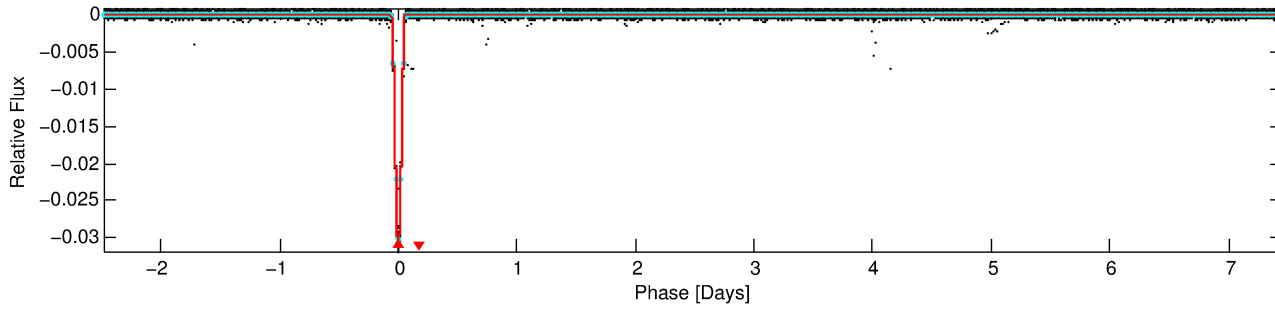
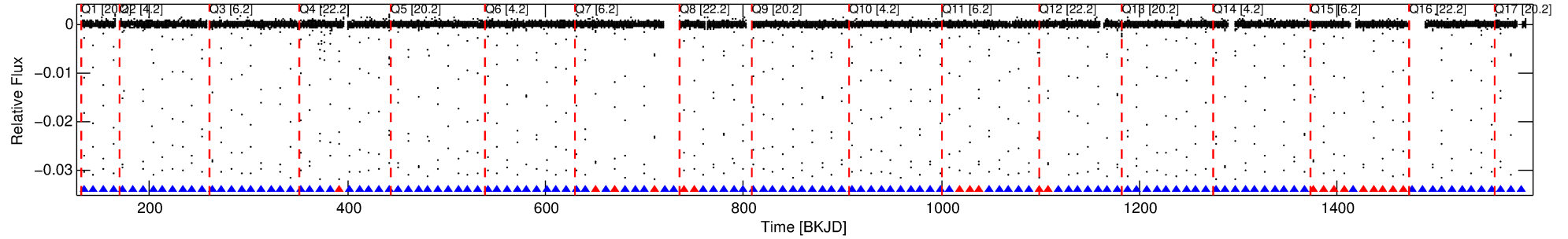
Ephemeris Match Information For 006634112-01

No Significant Match Found

DV One-Page Summary

KIC: 6634112 Candidate: 1 of 1 Period: 9.942 d
KOI: K05308.01 Corr: 0.998

Kp: 14.10 R*: 0.84 Rs Teff: 5268.0 K Logg: 4.47 Fe/H: -0.140



DV Fit Results:

Period = 9.94223 [0.00000] d
Epoch = 133.8475 [0.0000] BKJD
Rp/R* = 0.2455 [0.0066]
a/R* = 25.22 [0.08]
b = 0.94 [0.01]
Seff = 71.02 [20.52]
Teq = 740 [53] K
Rp = 22.58 [3.72] Re
a = 0.0831 [0.0134] AU
Ag = 0.43 [0.16] [-3.58σ]
Teffp = 926 [67] K [2.16σ]

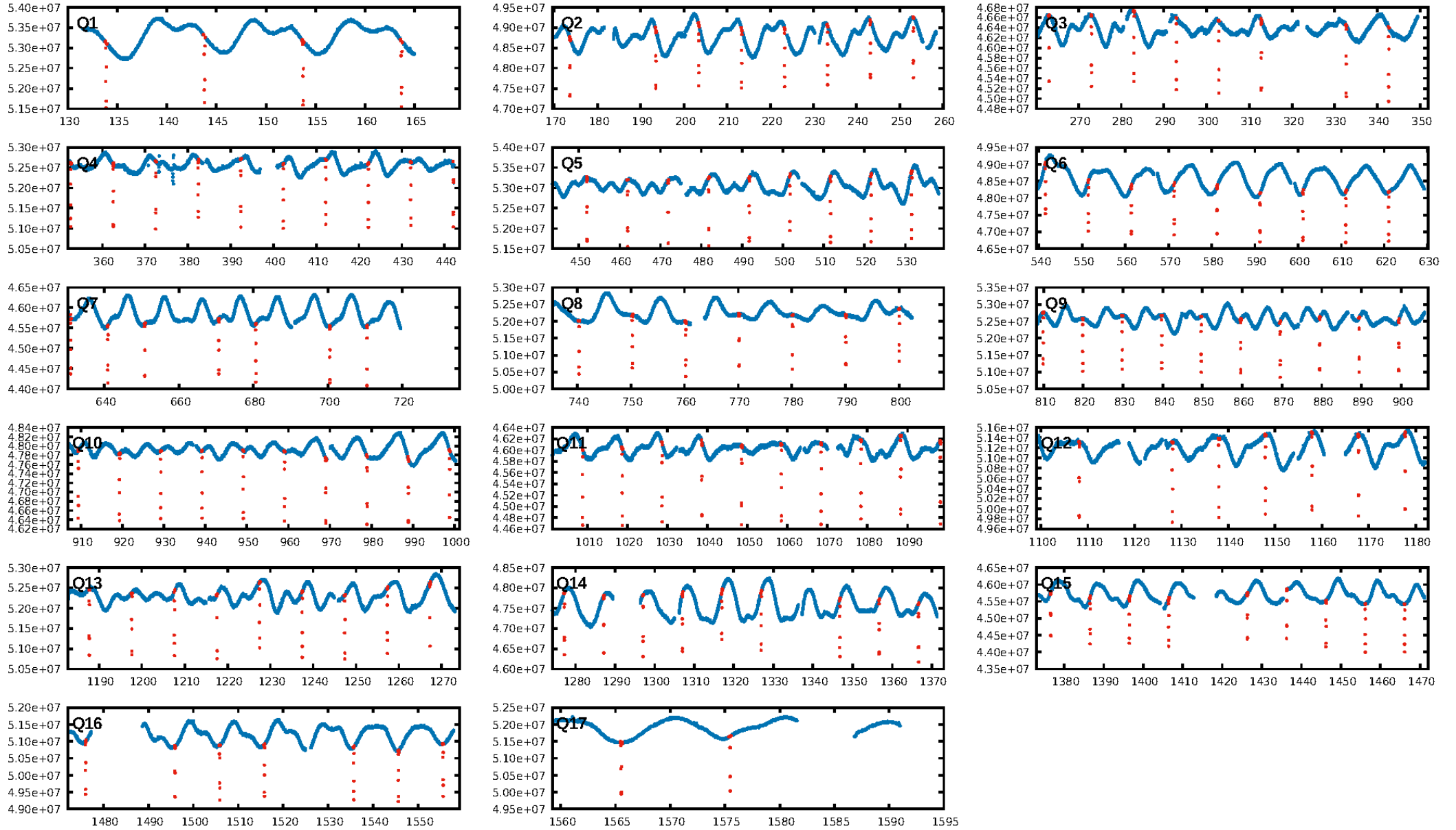
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.84 [108/128]
GhostDiagnostic-chr: 4.888
Centroid-sig: 0.0%
Centroid-so: 0.376 arcsec [57.84σ]
OotOffset-rm: 0.095 arcsec [1.42σ]
KicOffset-rm: 0.086 arcsec [1.27σ]
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]

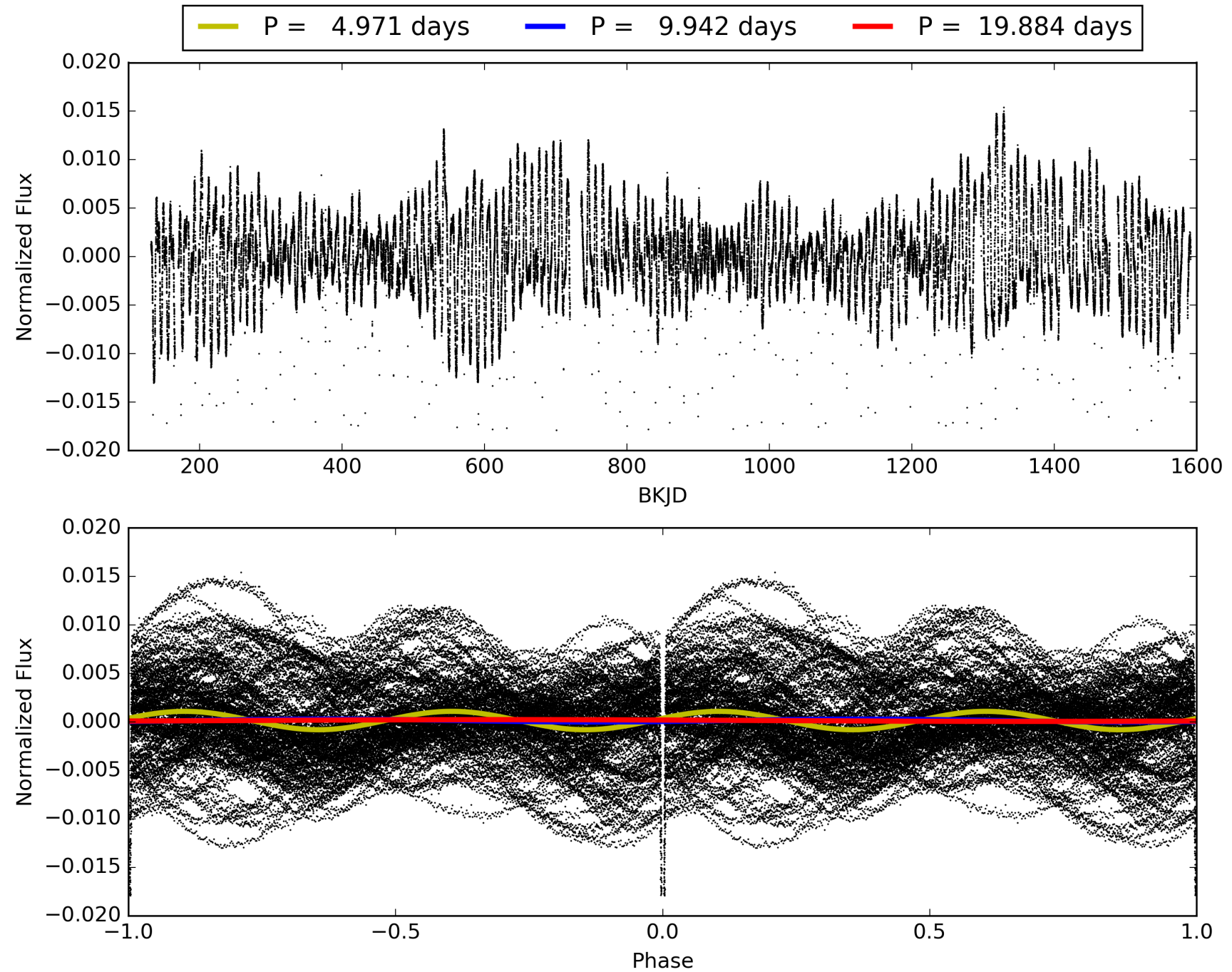
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:17:29 Z

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

TCE 006634112-01, PDC Light Curves

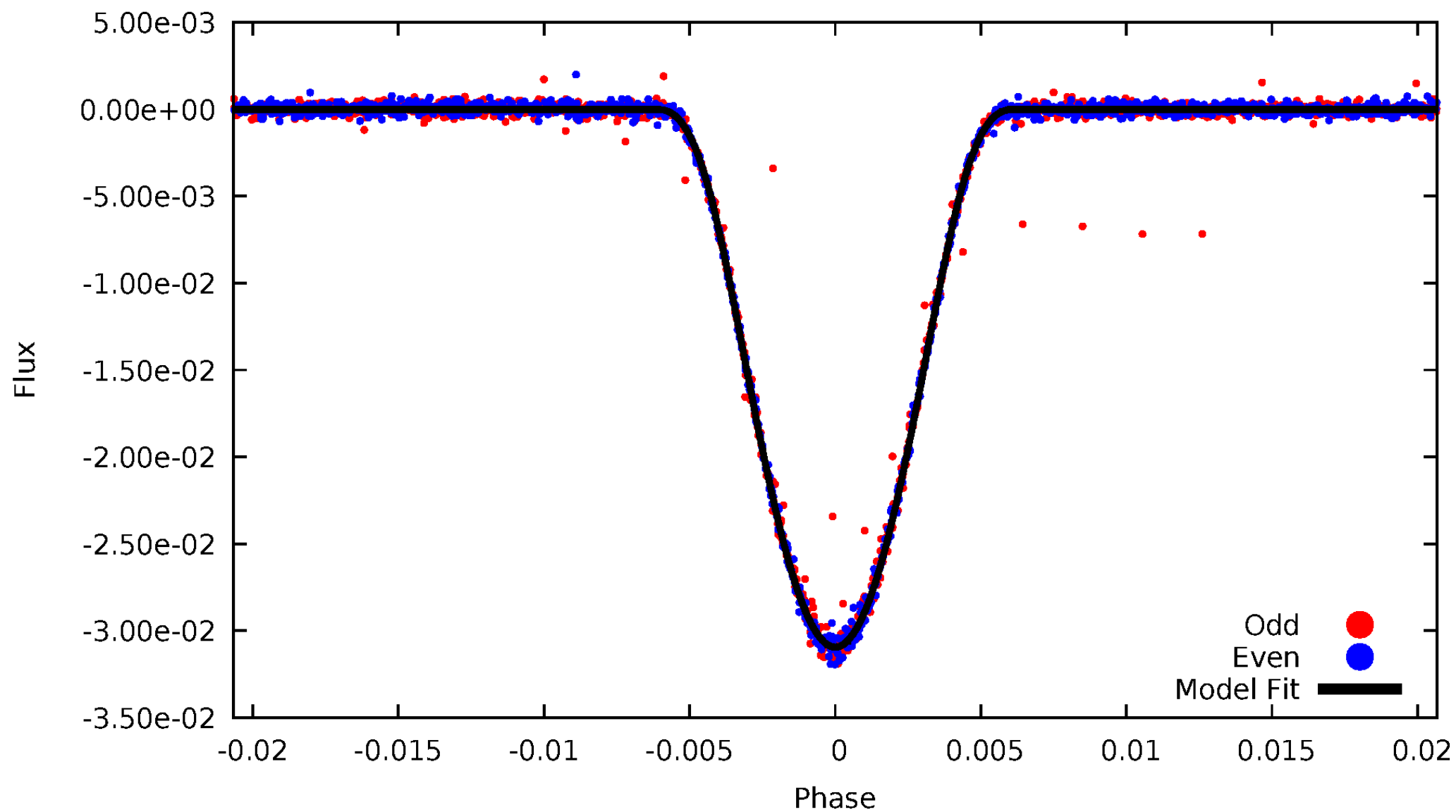


TCE 006634112-01



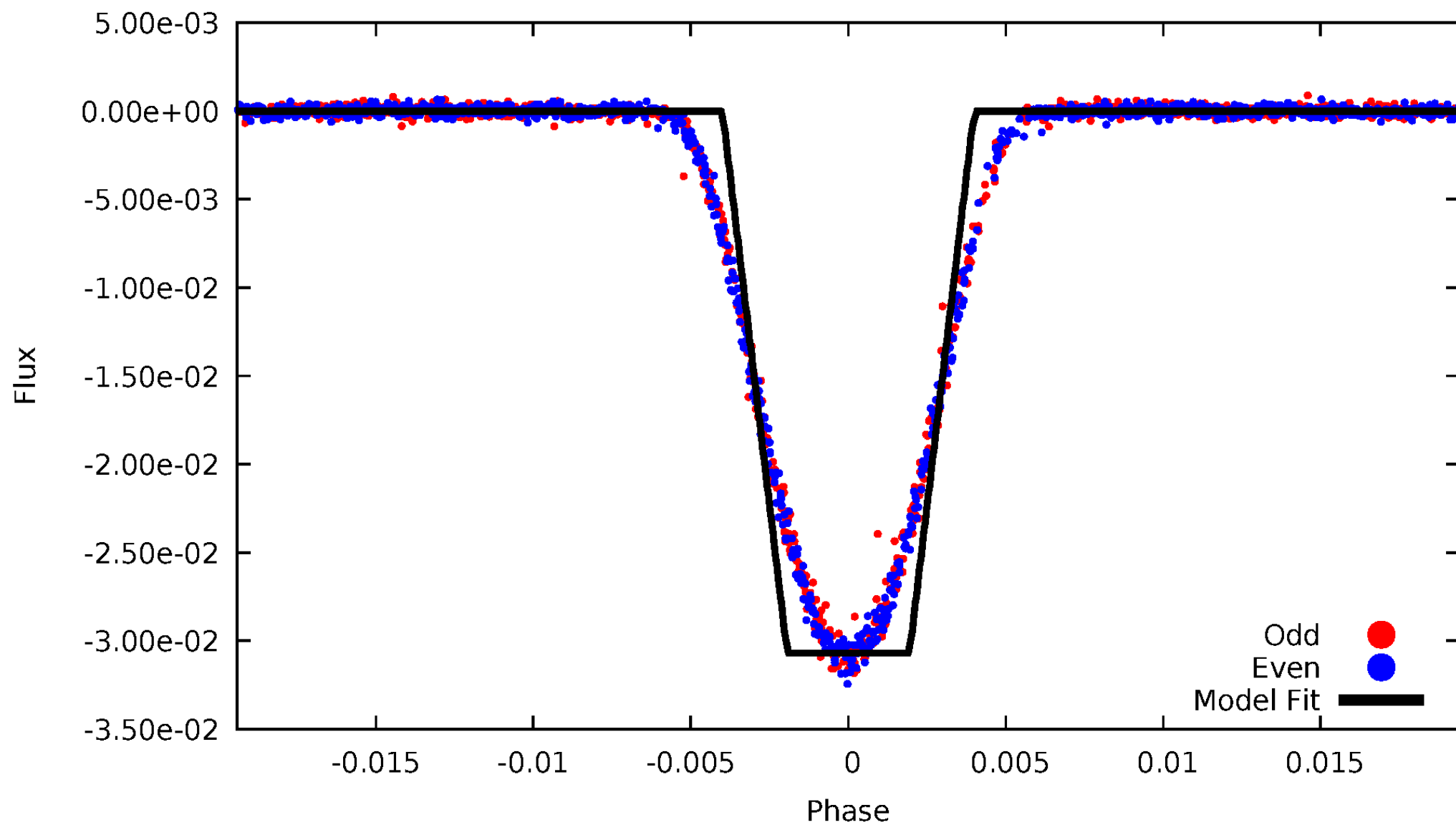
DV Odd/Even

TCE 006634112-01



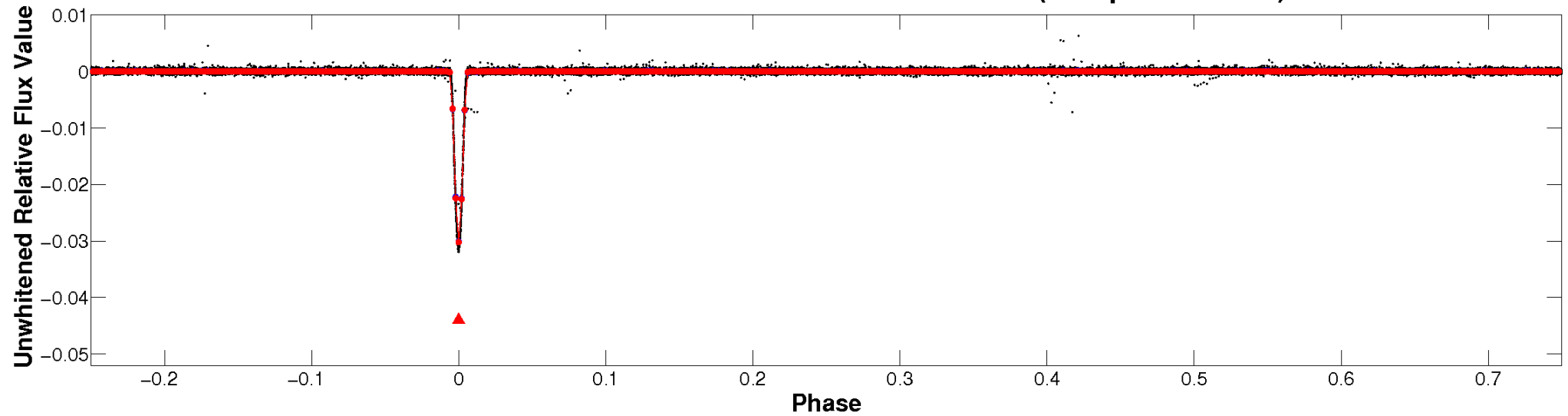
ALT Odd/Even

TCE 006634112-01

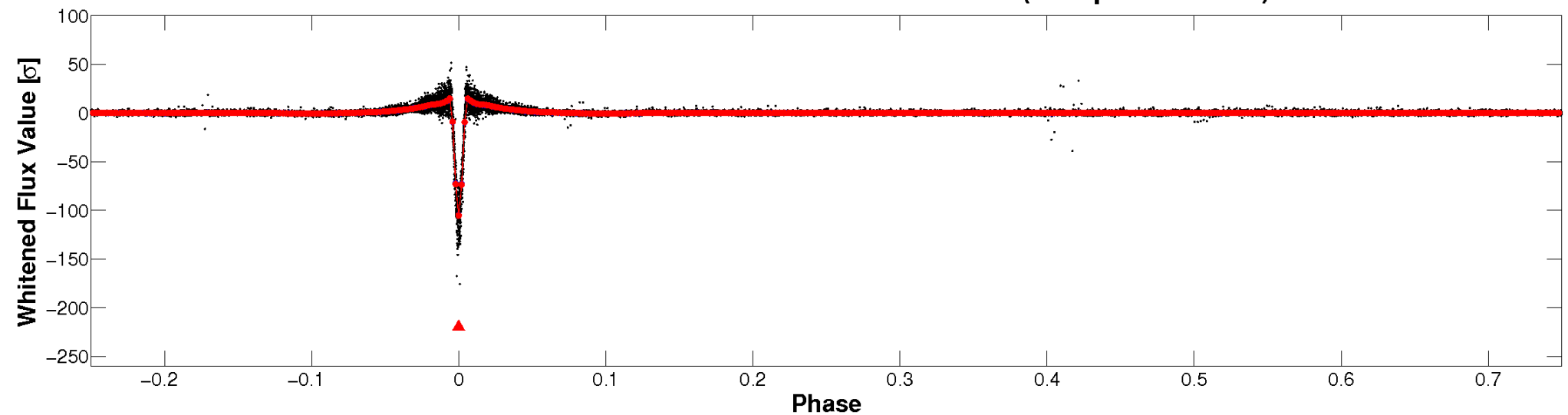


Non-Whitened Vs. Whitened Light Curve

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

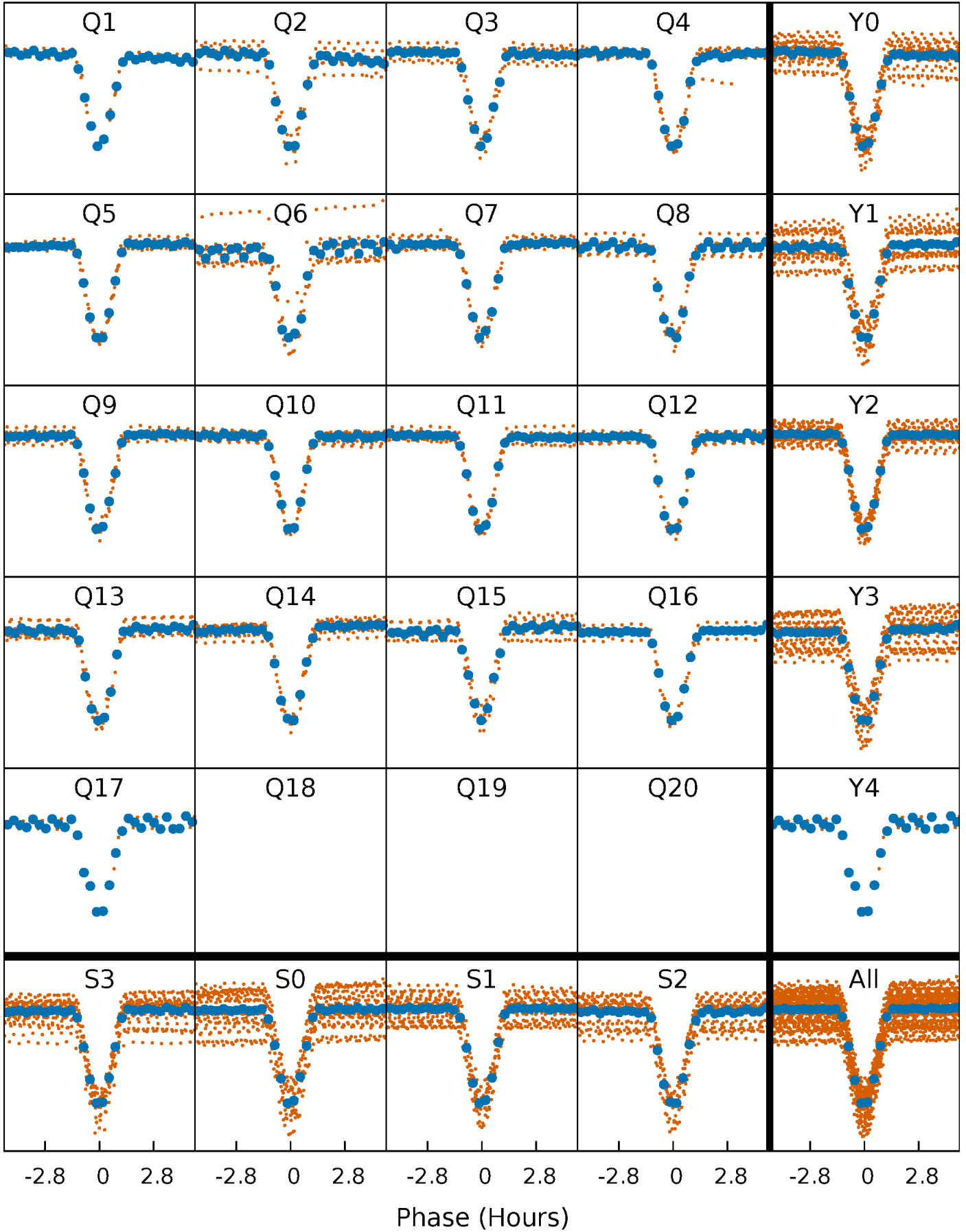


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



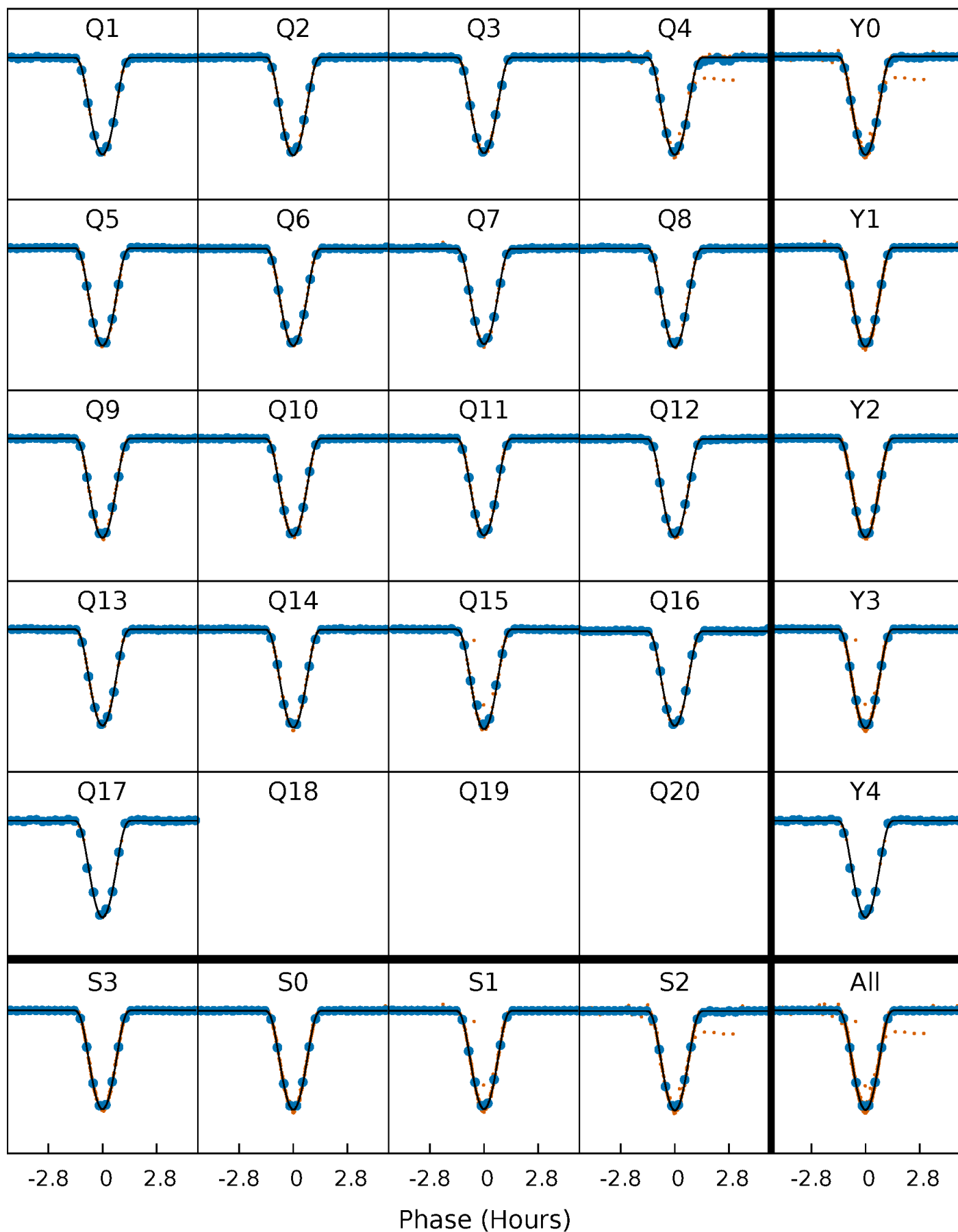
PDC Quarter-Phased Transit Curves

TCE 006634112-01 P= 9.942229 Days $T_0=133.847488$ (BKJD)



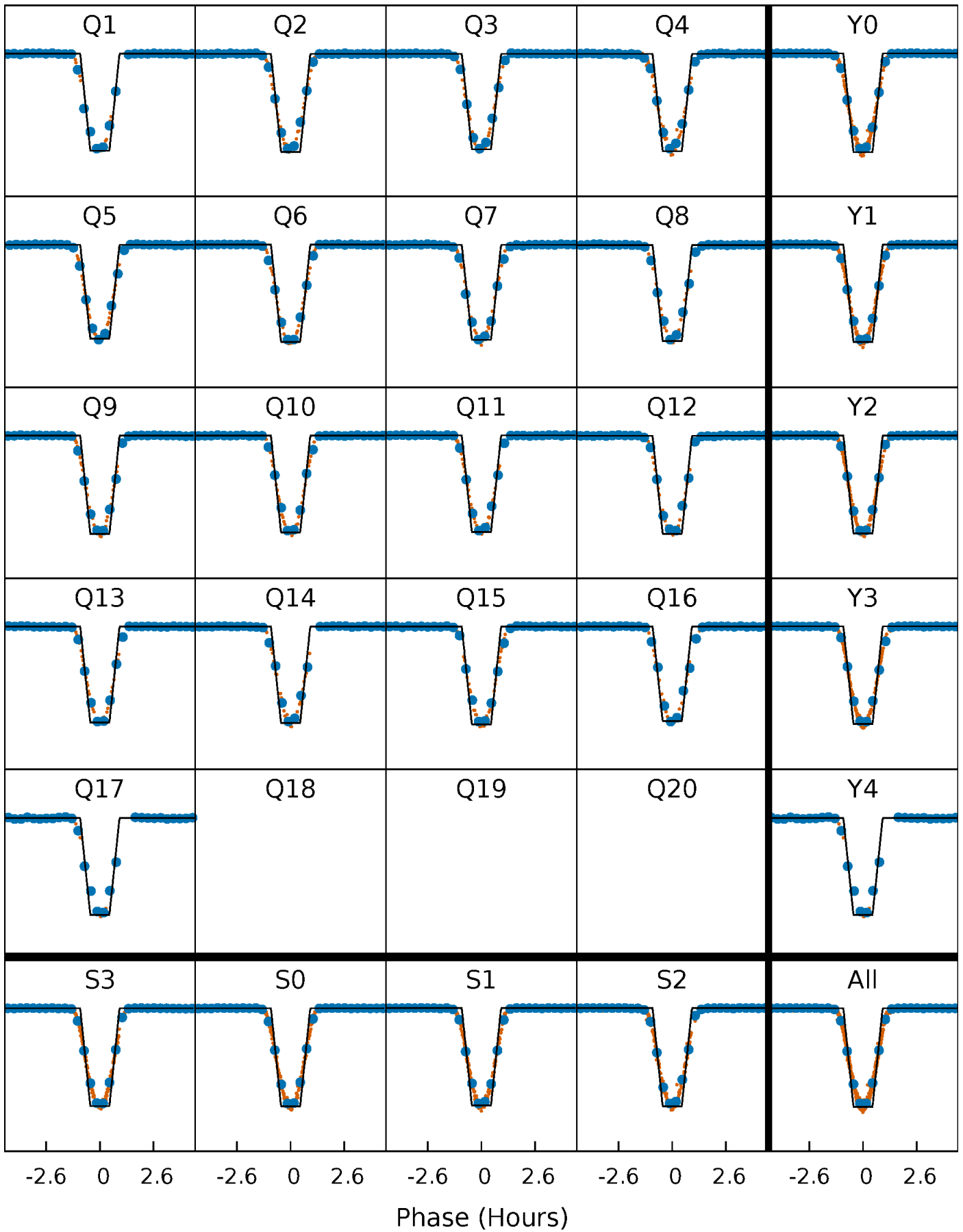
DV Quarter-Phased Transit Curves

TCE 006634112-01 P= 9.942229 Days $T_0=133.847488$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

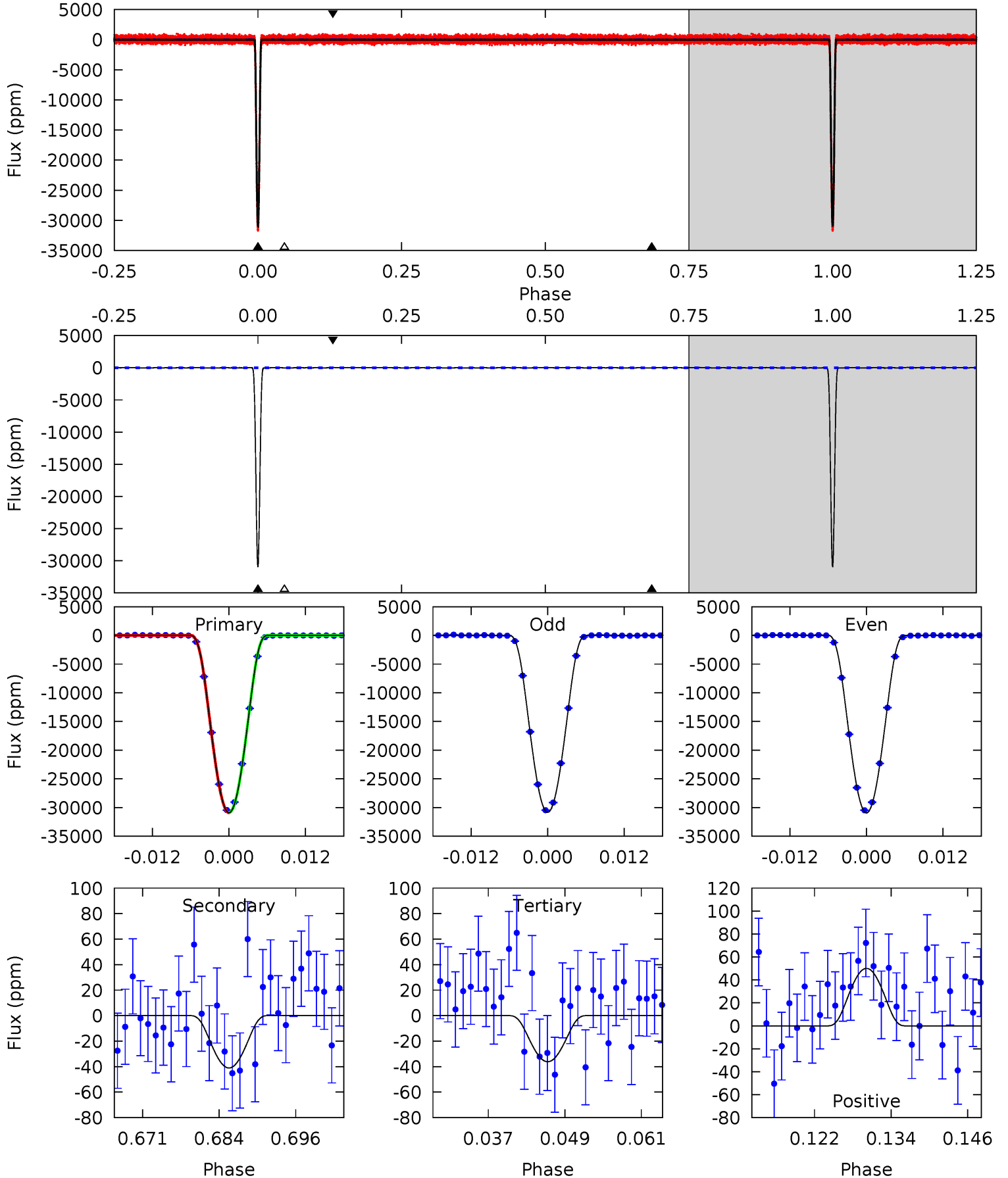
TCE 006634112-01 P= 9.942211 Days $T_0=133.848737$ (BKJD)



DV Model-Shift Uniqueness Test

006634112-01, P = 9.942229 Days, E = 123.905259 Days

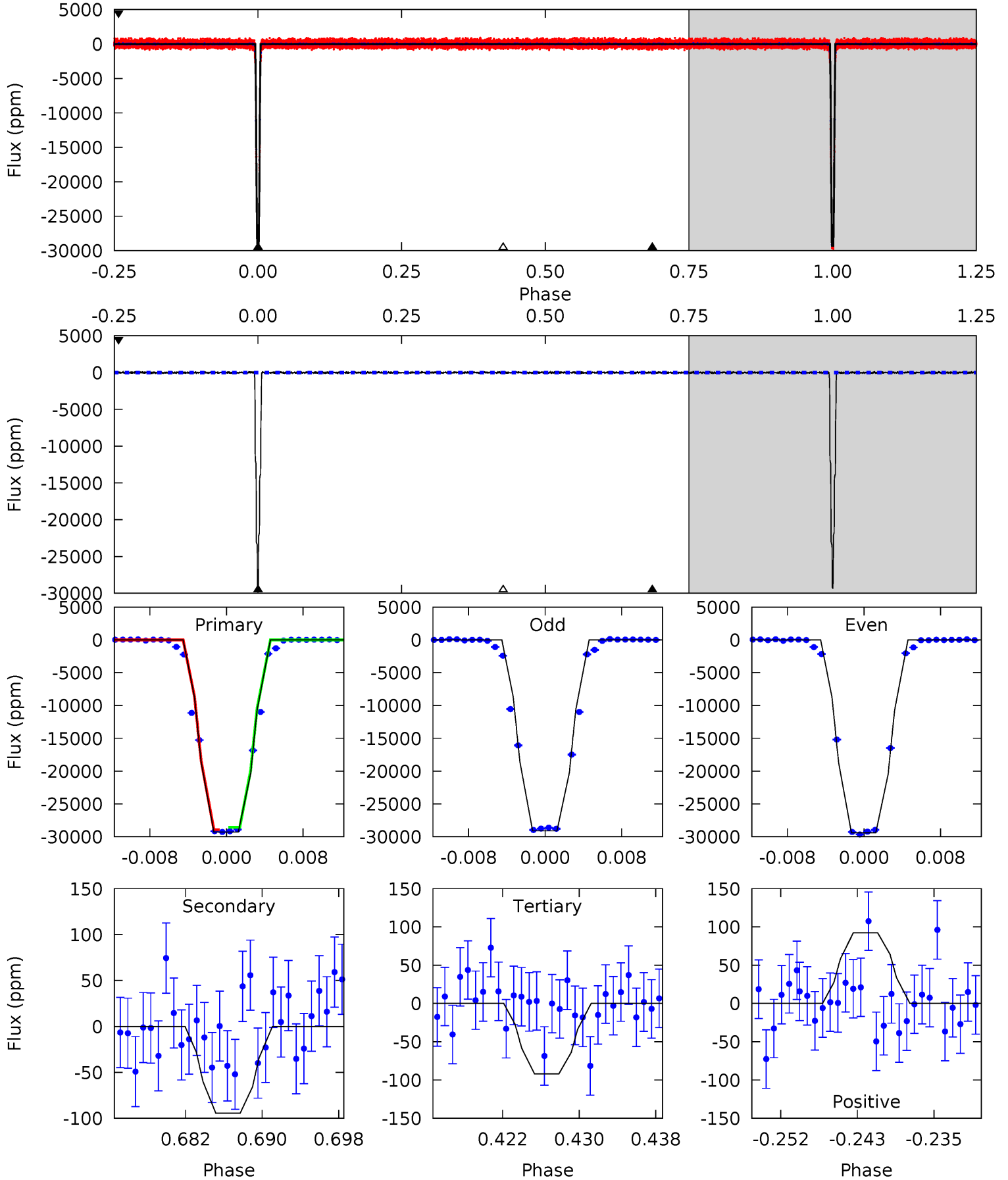
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3580	4.75	4.19	5.80	4.99	2.51	1.76	3576	3574	0.57	-1.04	6.62	1.00	0.00	0



Alt Model-Shift Uniqueness Test

006634112-01, P = 9.942211 Days, E = 123.906526 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1319	4.25	4.14	4.15	5.07	2.65	1.21	1315	1315	0.12	0.10	6.79	1.00	0.00	0



Stellar Parameters For KIC 006634112

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5268^{+158}_{-158}	$4.475^{+0.108}_{-0.156}$	$-0.140^{+0.300}_{-0.300}$	$0.843^{+0.137}_{-0.112}$	$0.775^{+0.112}_{-0.060}$	$1.821^{+0.885}_{-0.701}$
	+3%/-3%	+2%/-3%	+214%/-214%	+16%/-13%	+14%/-8%	+49%/-38%
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 006634112-01 / KOI 5308.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-41 ± 9	$23.01^{+2.64}_{-2.12}$	1040^{+60}_{-55}	-1350^{+3000}_{-339}	$0.294^{+0.087}_{-0.079}$
Alt.	-94 ± 22	$16.42^{+1.92}_{-1.57}$	1043^{+60}_{-52}	2120^{+74}_{-90}	$1.288^{+0.453}_{-0.351}$

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 $A_{obs} \gg 1.0$

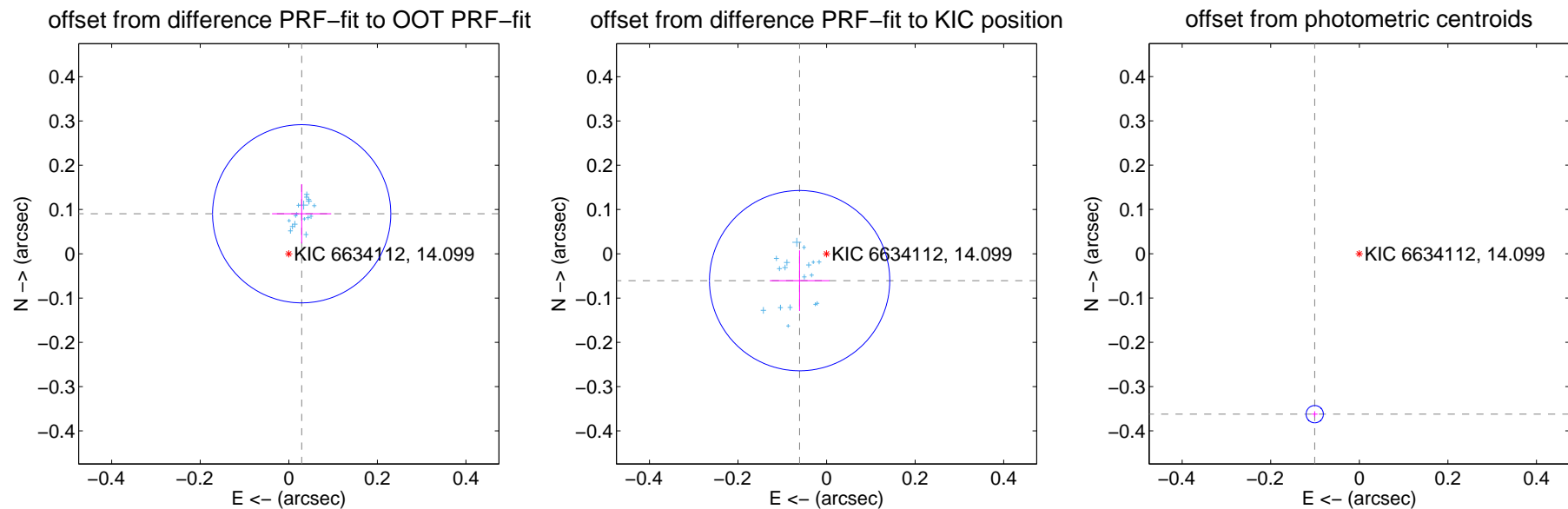
DV Centroid Data

Supplemental centroid analysis for 006634112-01. Kepler magnitude: 14.10. Transit SNR 1636.10

There are 17 quarters with good PRF difference image offsets

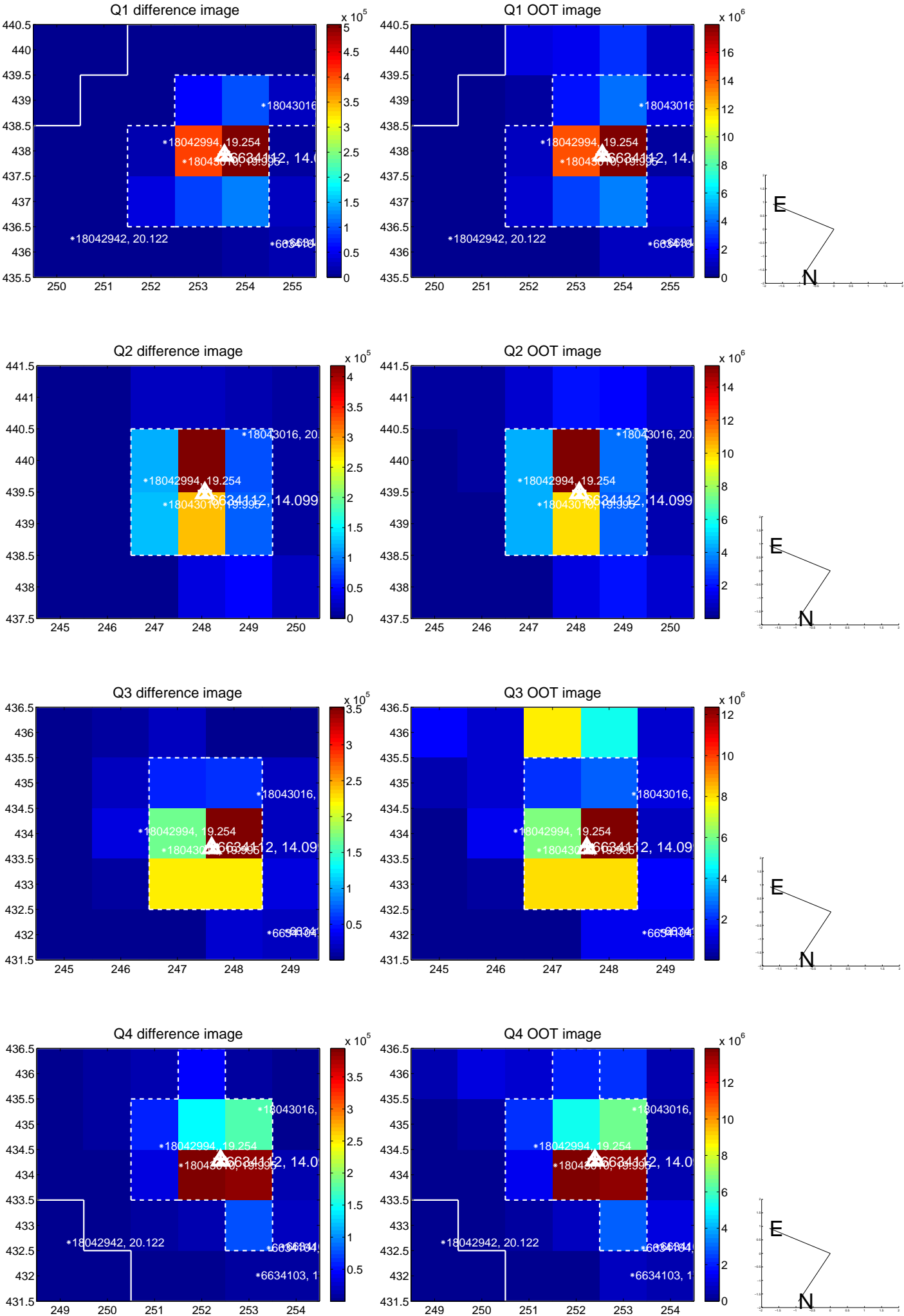
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.095 ± 0.067	1.42	-0.029 ± 0.067	0.090 ± 0.067
PRF-fit source offset from KIC position	0.086 ± 0.068	1.27	0.061 ± 0.067	-0.061 ± 0.068
photometric centroid source offset	0.38 ± 0.01	57.84	0.10 ± 0.01	-0.36 ± 0.01

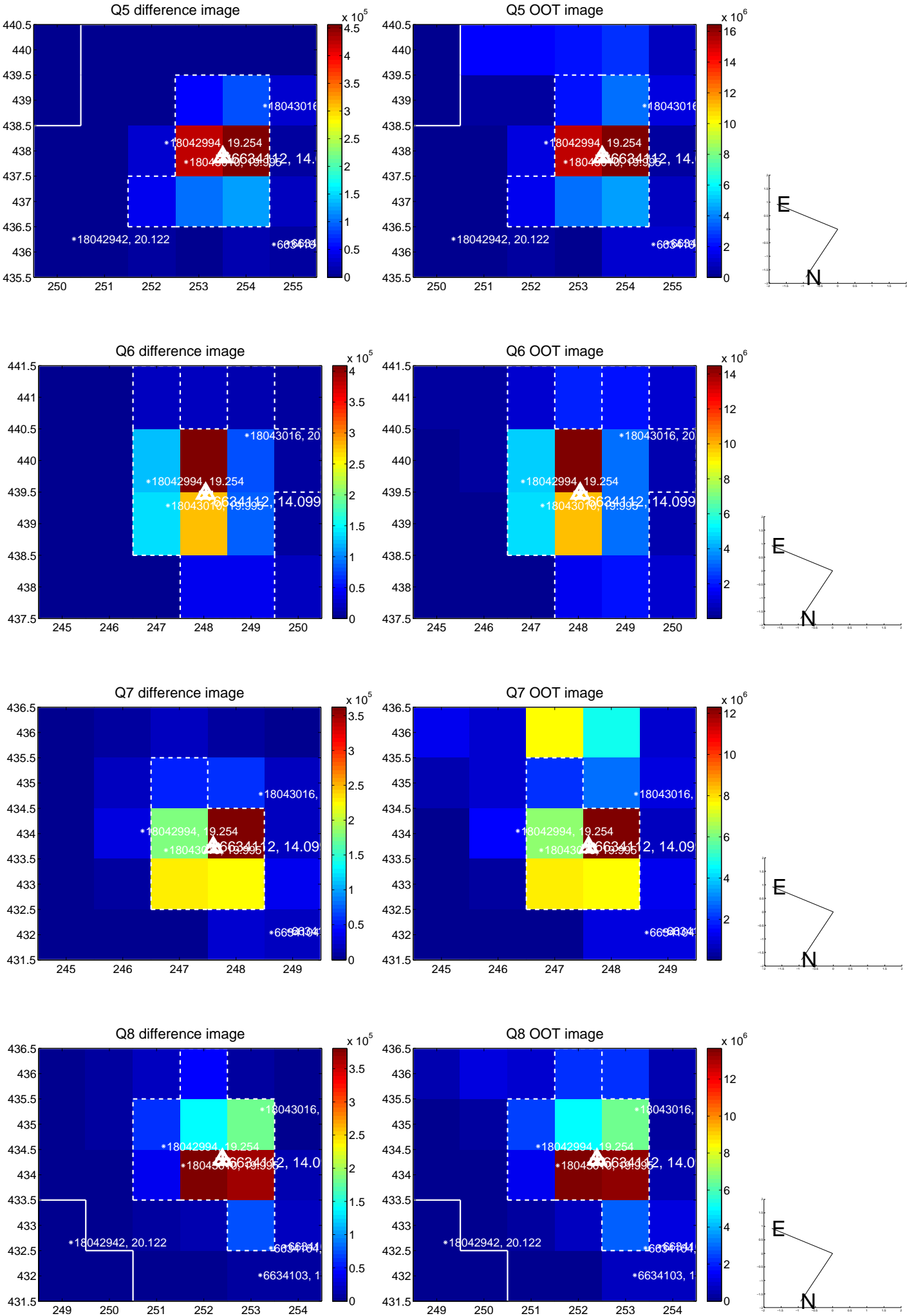


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

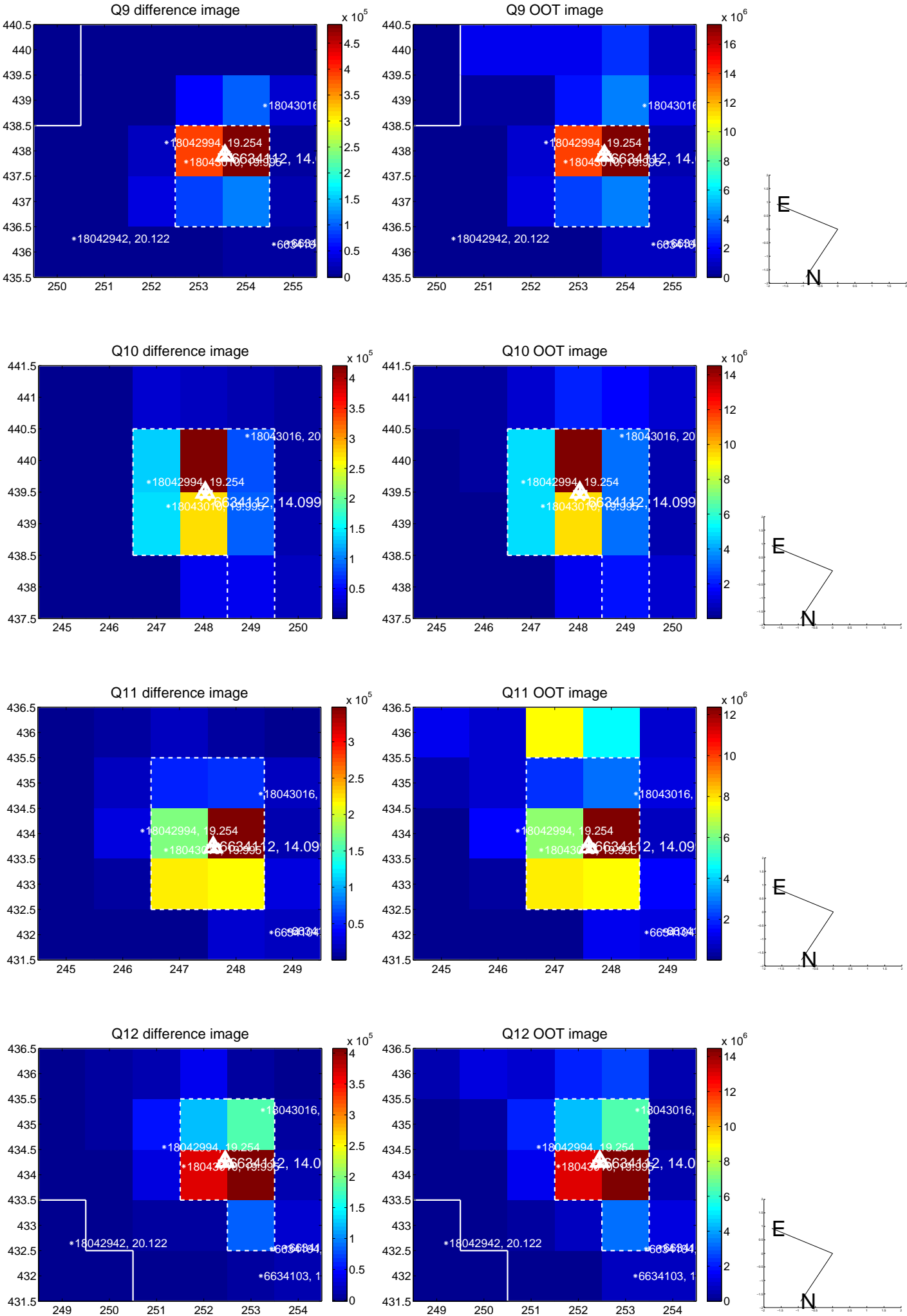
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



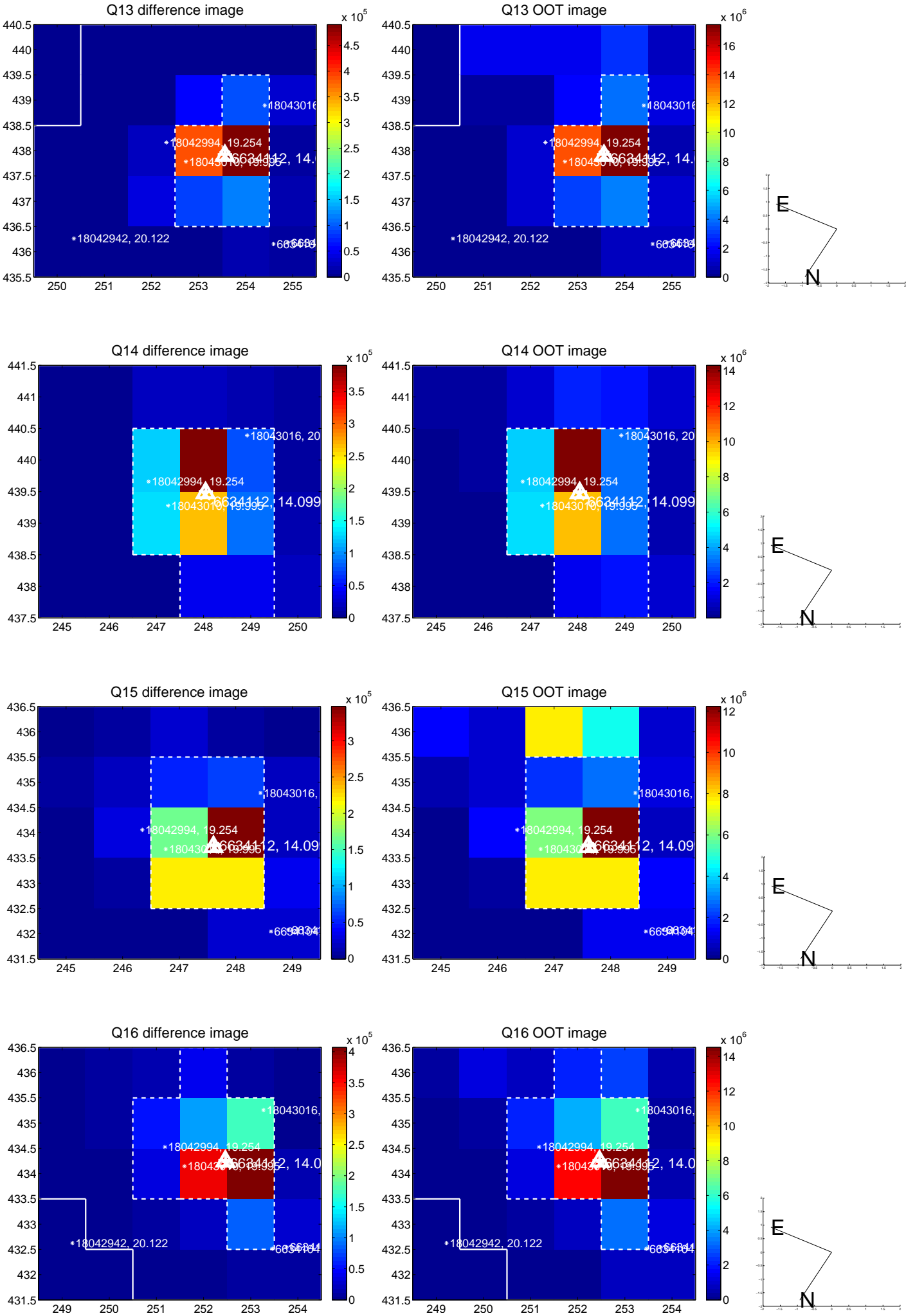
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



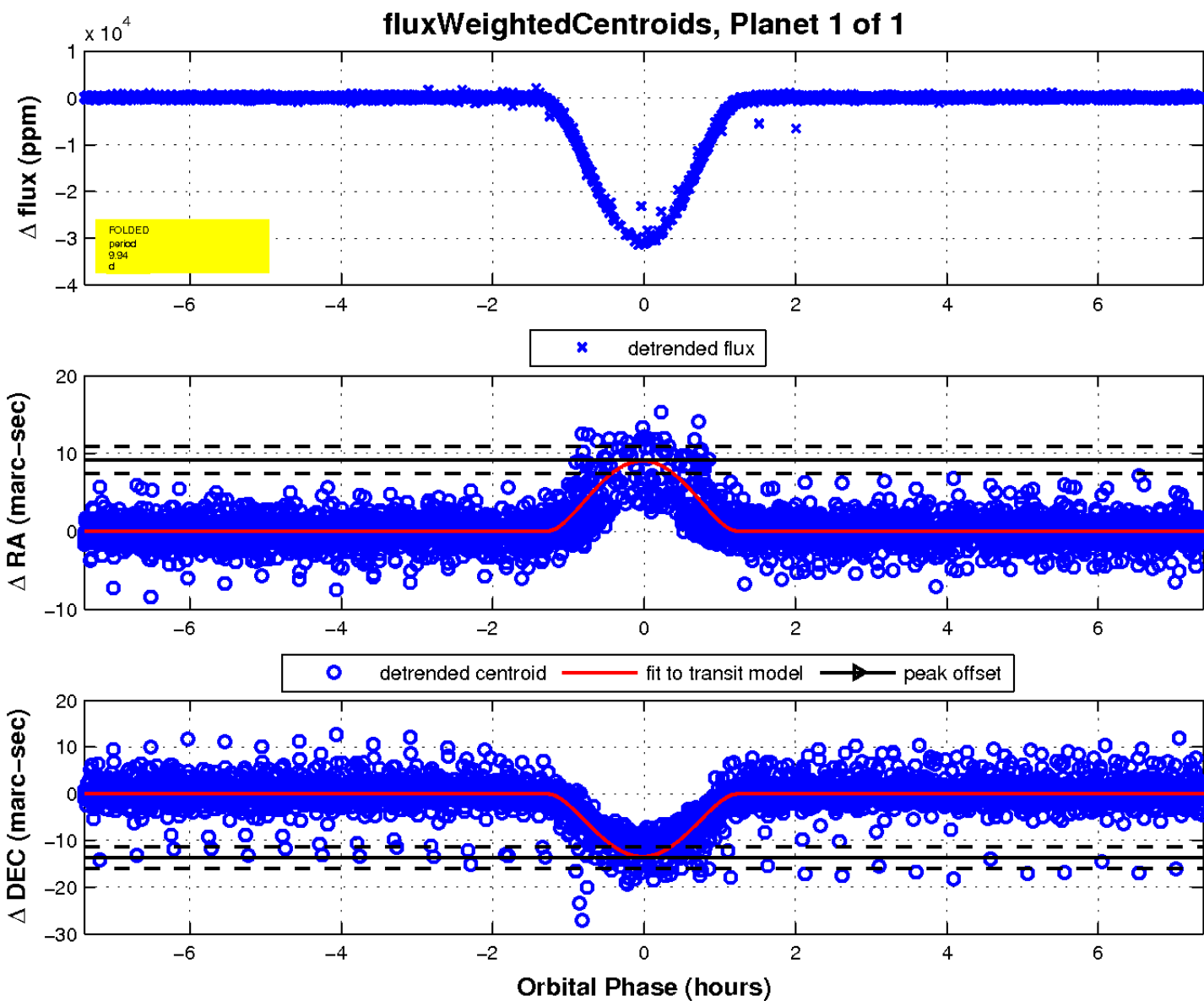
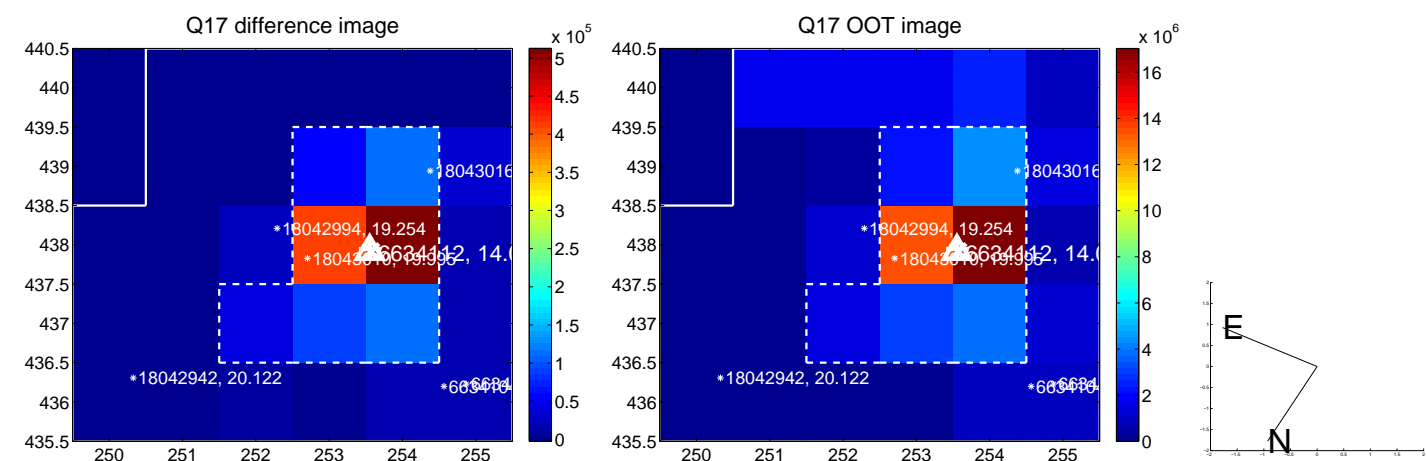
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

