

KIC 003441340

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})
003441340-01	OBS	6335.01	0.806213	131.767430	37.0	1.230	8.5	10.2	1.00	6122	0.72	4149.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003441340-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_ALT—CENT_RESOLVED_OFFSET

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 003441340-01

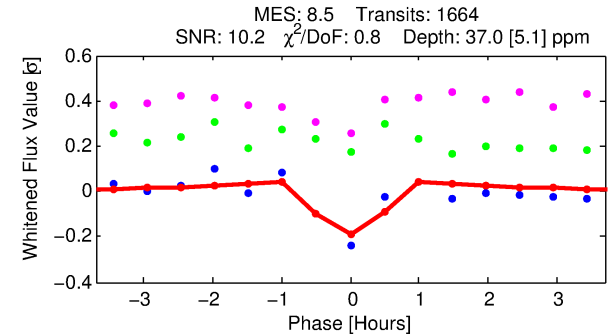
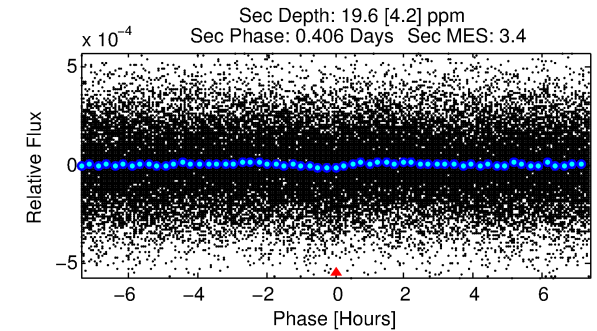
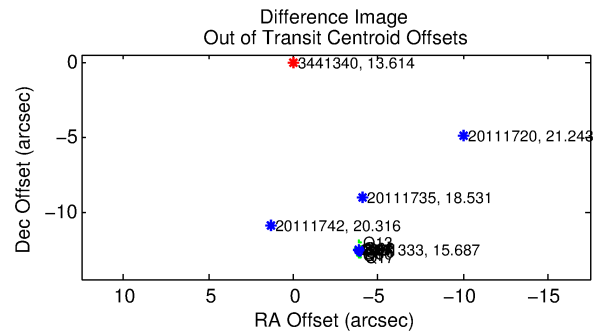
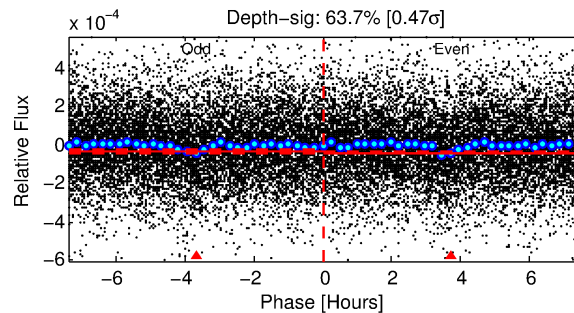
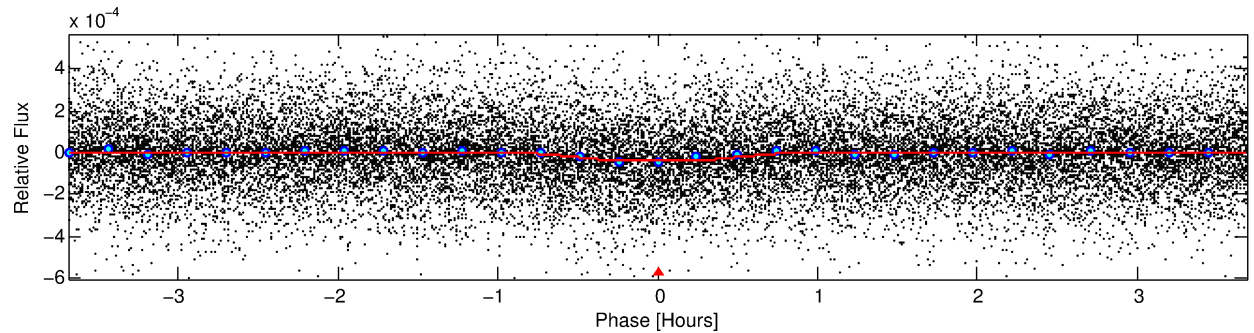
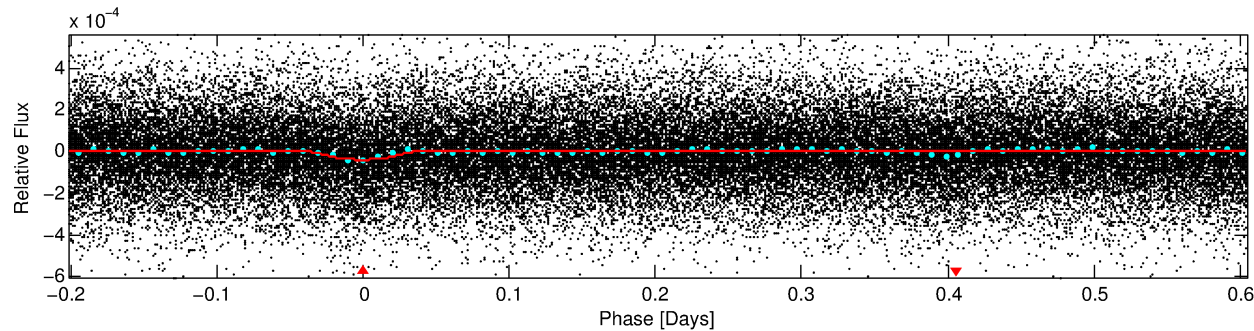
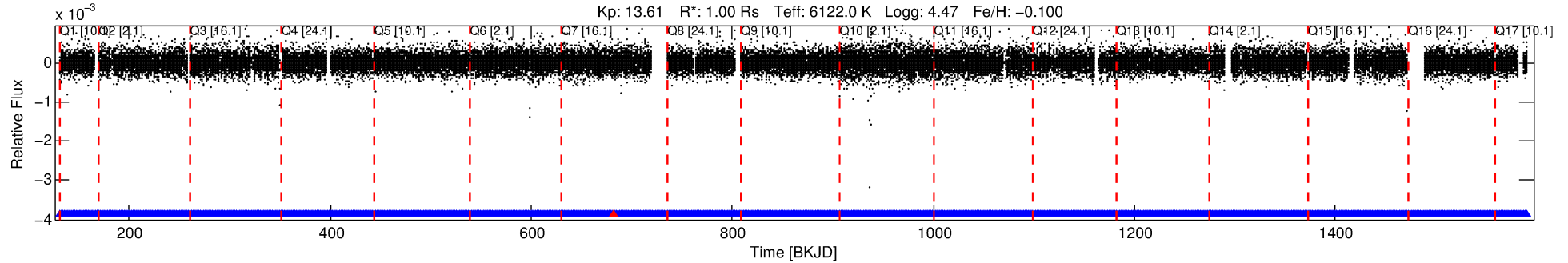
No Significant Match Found

DV One-Page Summary

KIC: 3441340 Candidate: 1 of 1 Period: 0.806 d

KOI: K06335 Corr: No Ephemeris Match

Kp: 13.61 R*: 1.00 Rs Teff: 6122.0 K Logg: 4.47 Fe/H: -0.100



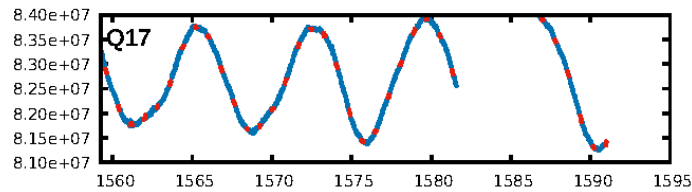
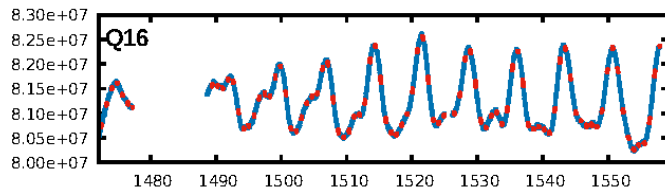
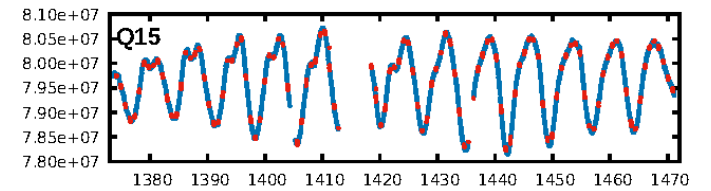
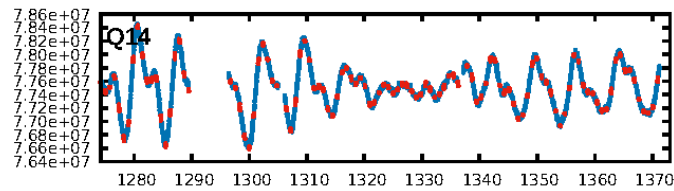
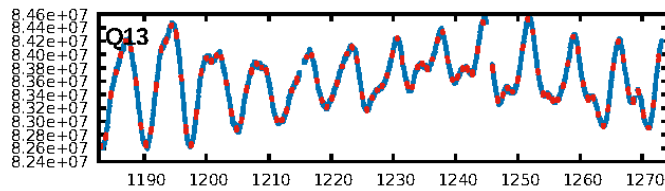
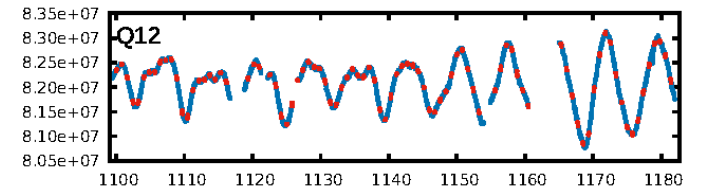
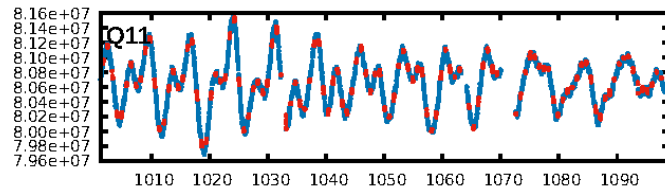
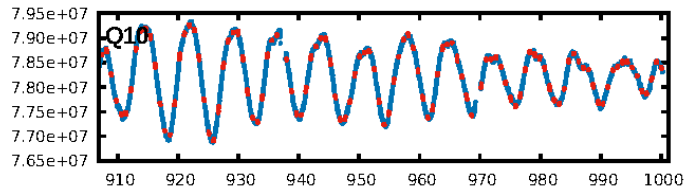
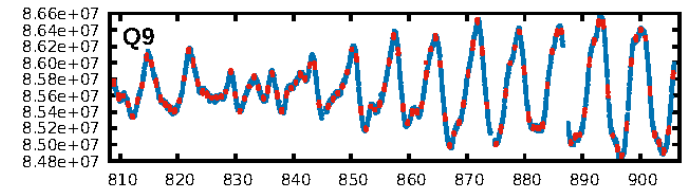
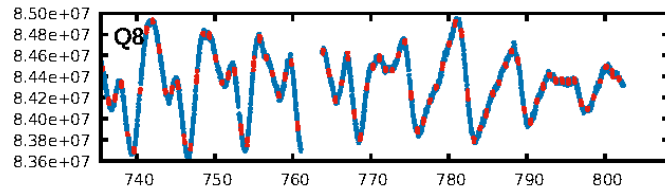
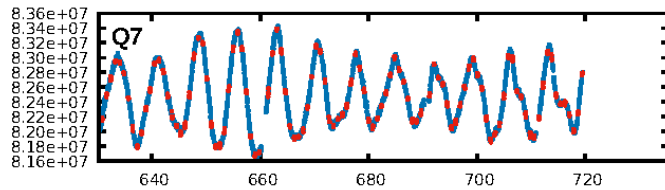
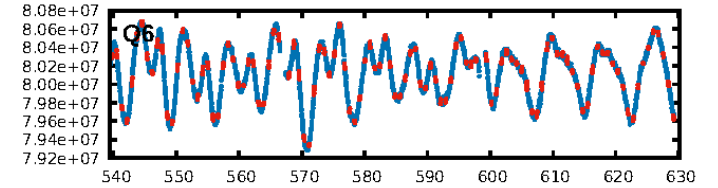
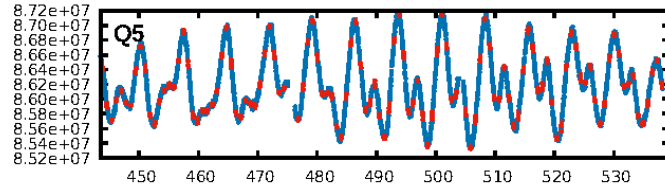
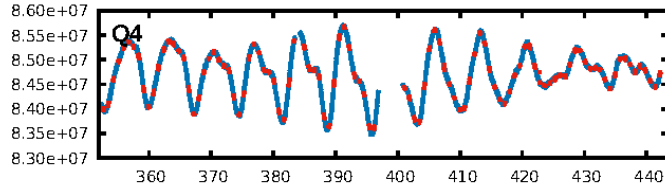
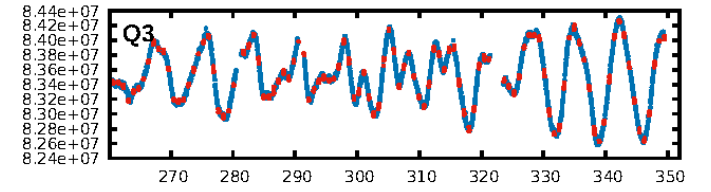
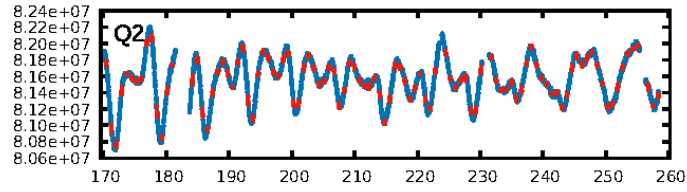
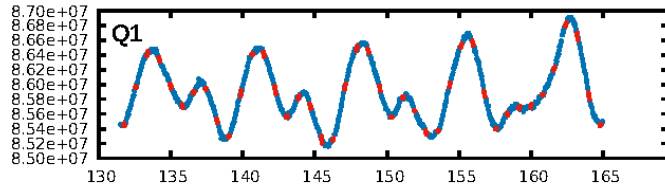
DV Fit Results:

Period = 0.80621 [0.00001] d
Epoch = 131.7674 [0.0017] BKJD
Rp/R* = 0.0066 [0.0018]
a/R* = 2.42 [2.74]
b = 0.90 [0.28]
Seff = 4149.93 [1785.23]
Teq = 2047 [220] K
Rp = 0.72 [0.30] Re
a = 0.0173 [0.0048] AU
Ag = 6.28 [4.43] [1.19σ]
Teffp = 5009 [732] K [3.88σ]

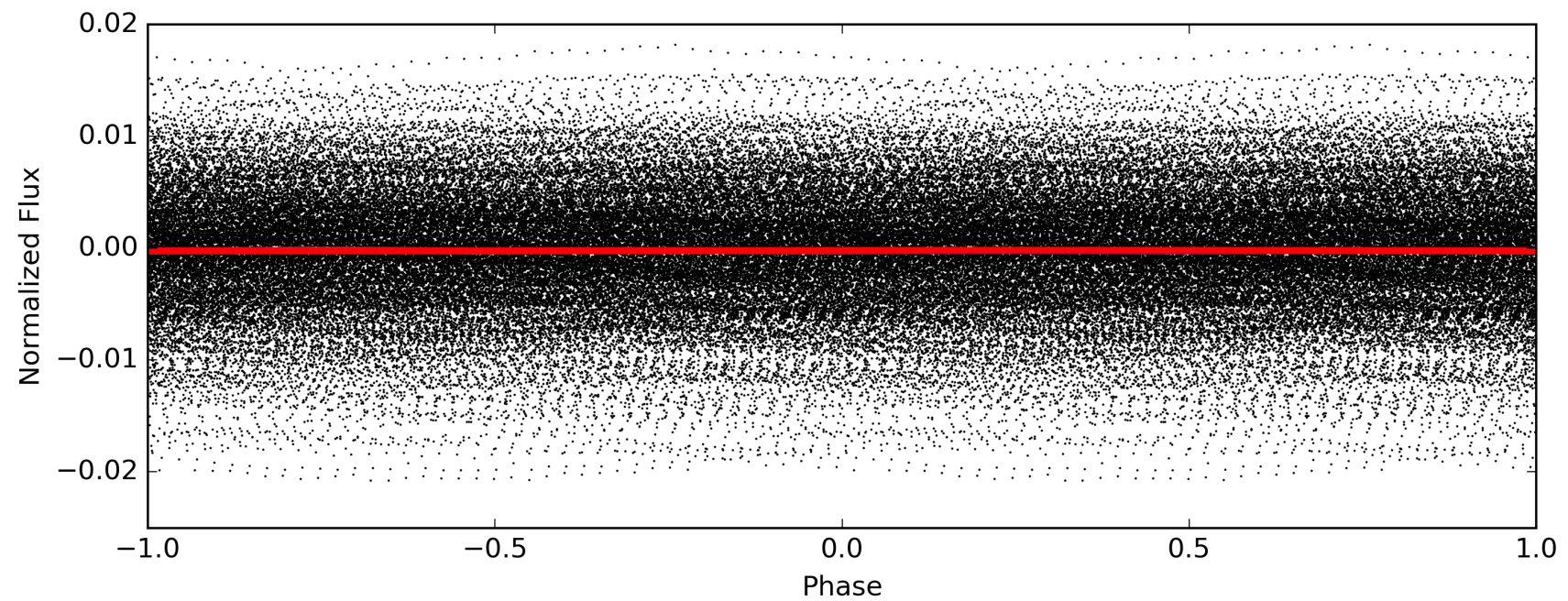
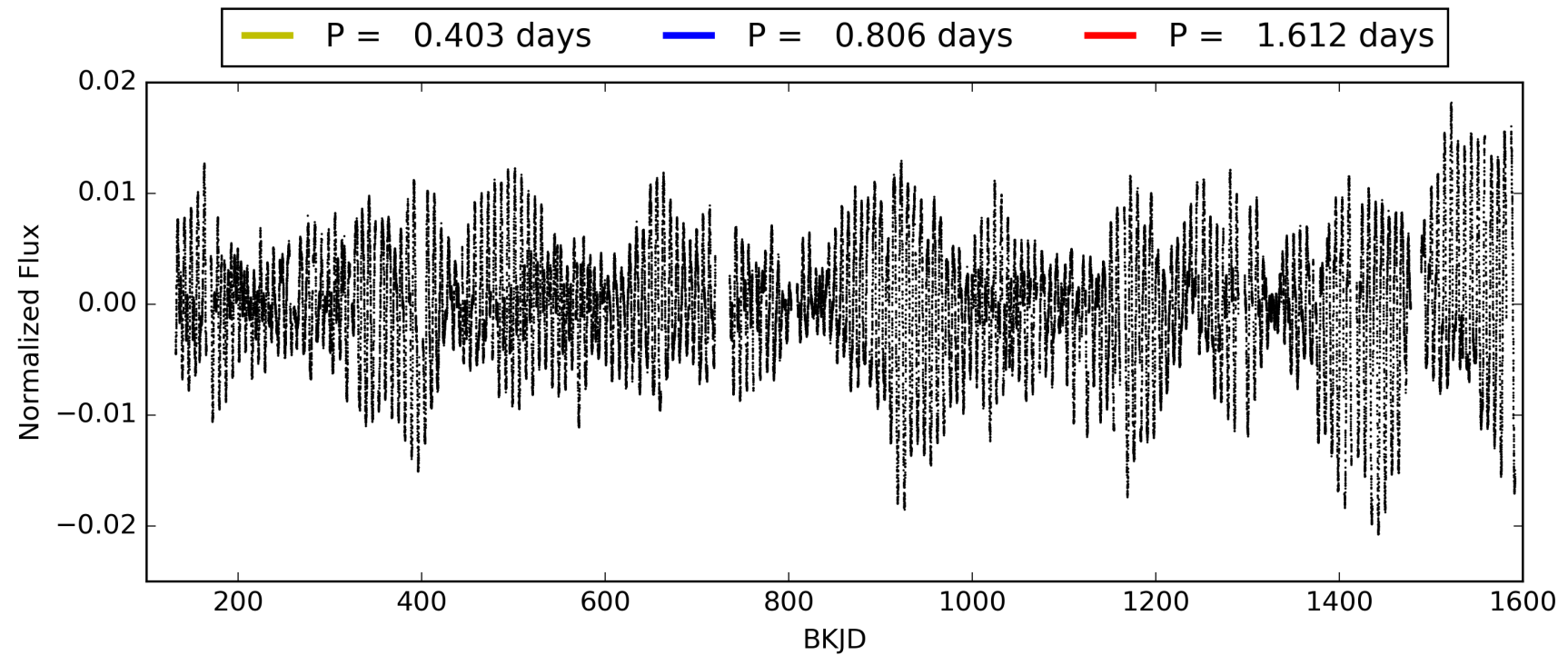
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.04e-16
RollingBand-fgt: 1.00 [1587/1588]
GhostDiagnostic-chr: -0.8727
Centroid-sig: 0.0%
Centroid-so: 6.357 arcsec [5.62σ]
OotOffset-rm: 13.218 arcsec [150.31σ]
KicOffset-rm: 13.172 arcsec [149.64σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 003441340-01, PDC Light Curves

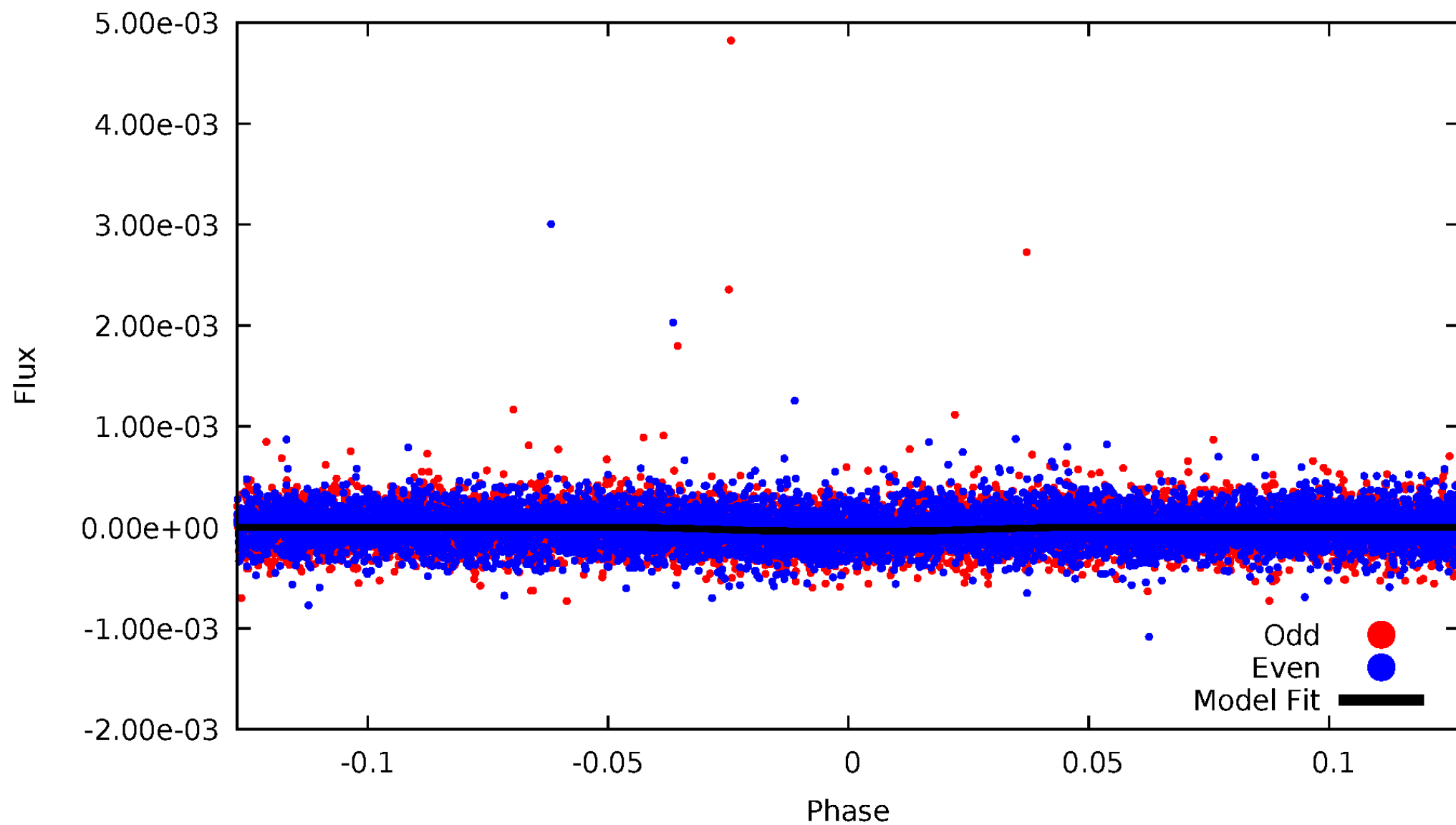


TCE 003441340-01



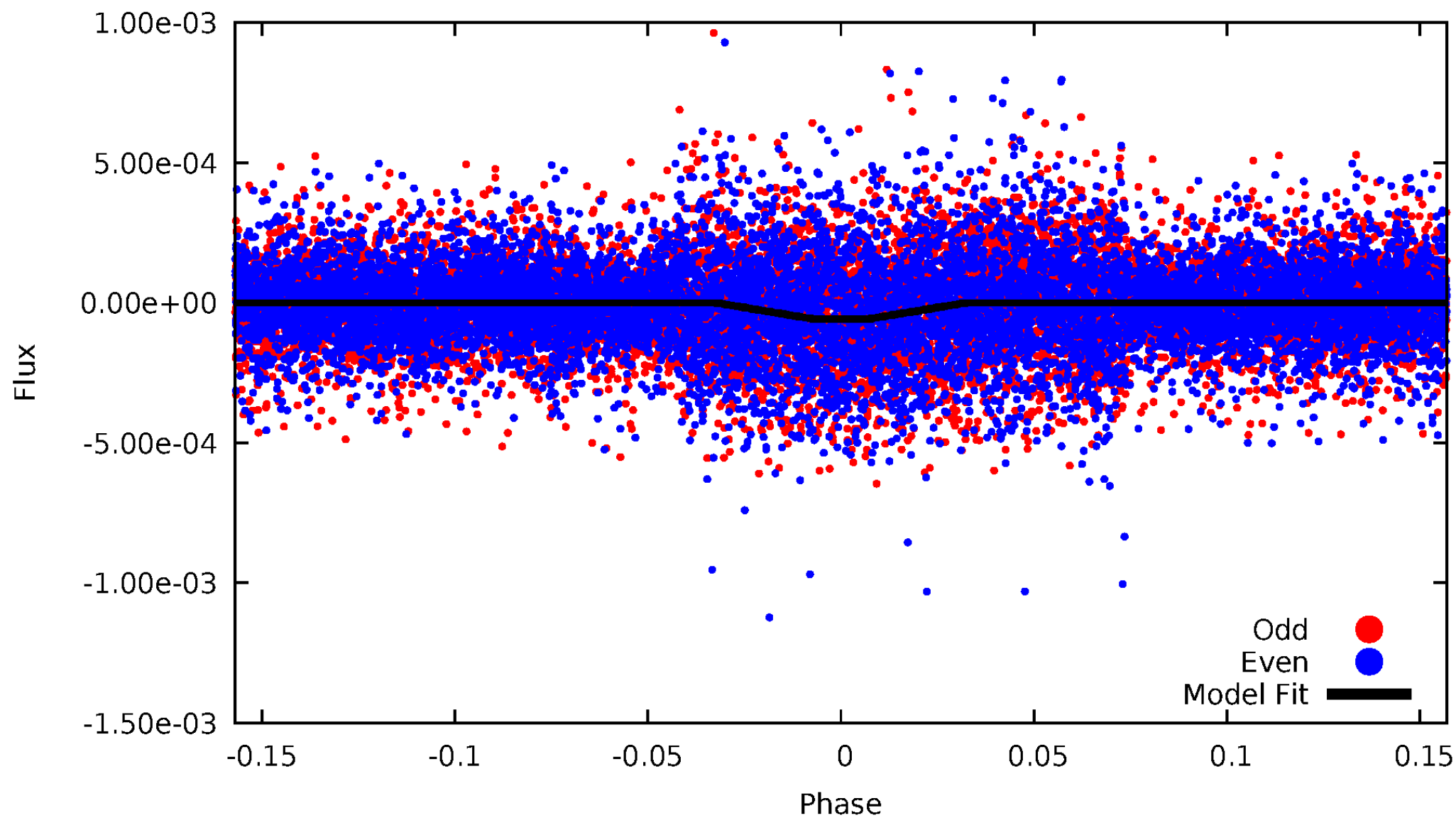
DV Odd/Even

TCE 003441340-01



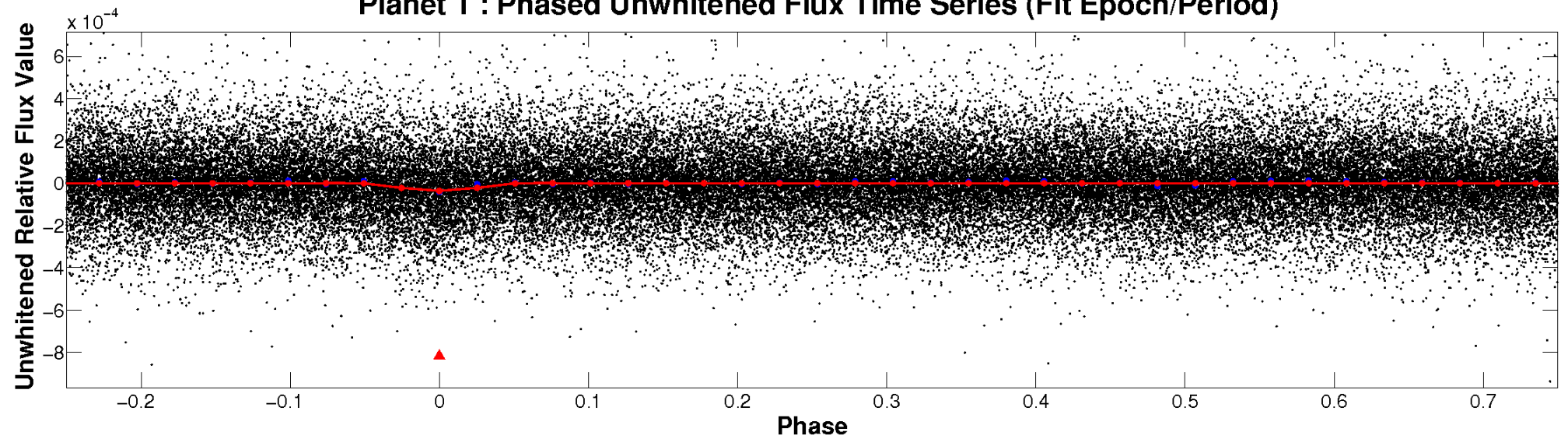
ALT Odd/Even

TCE 003441340-01

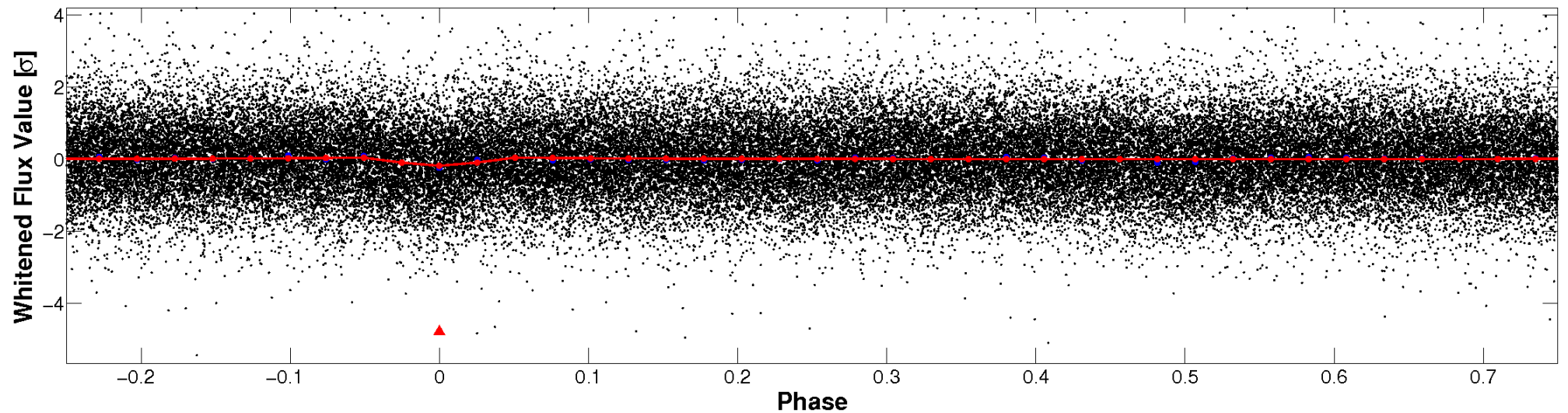


Non-Whitened Vs. Whitened Light Curve

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

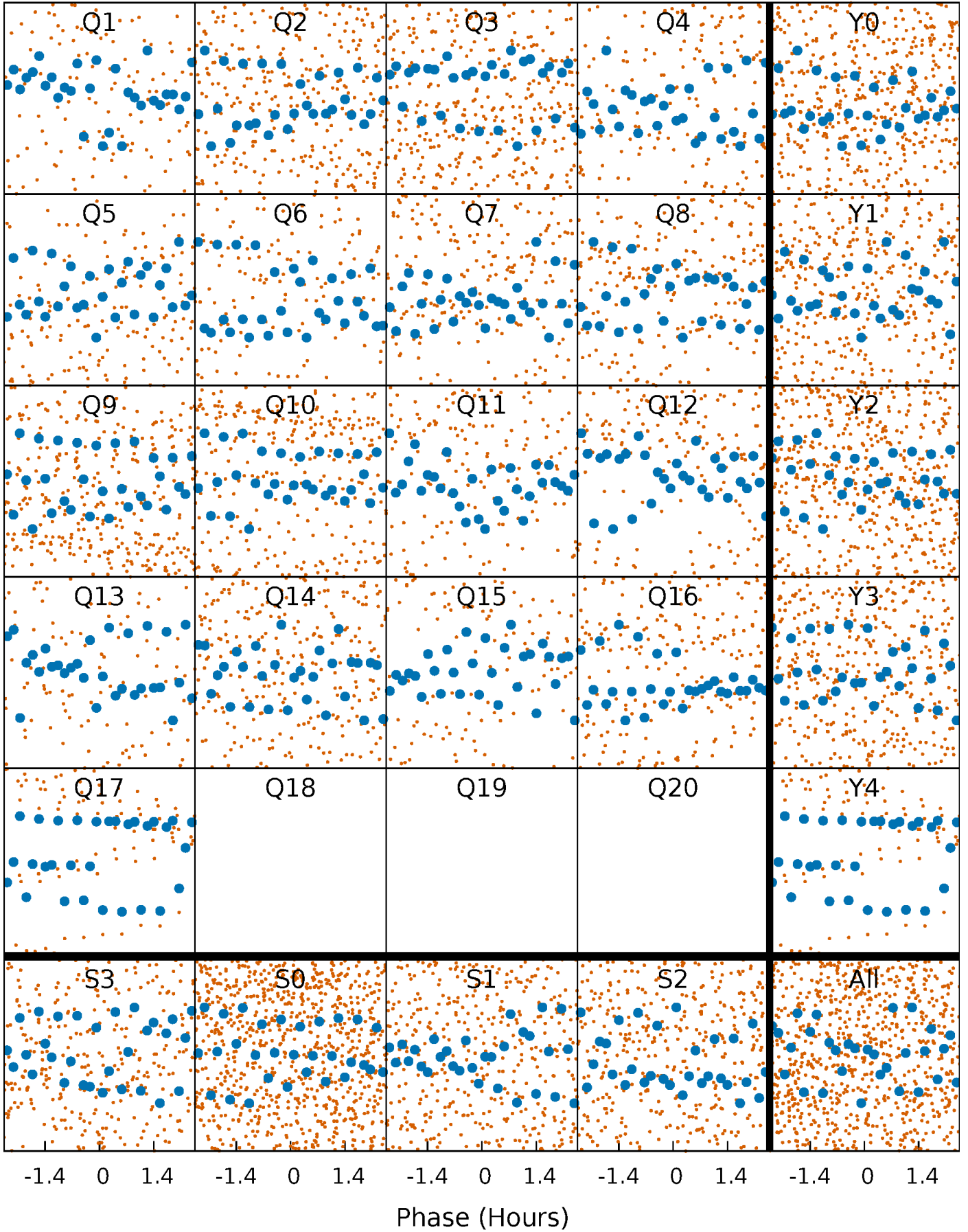


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



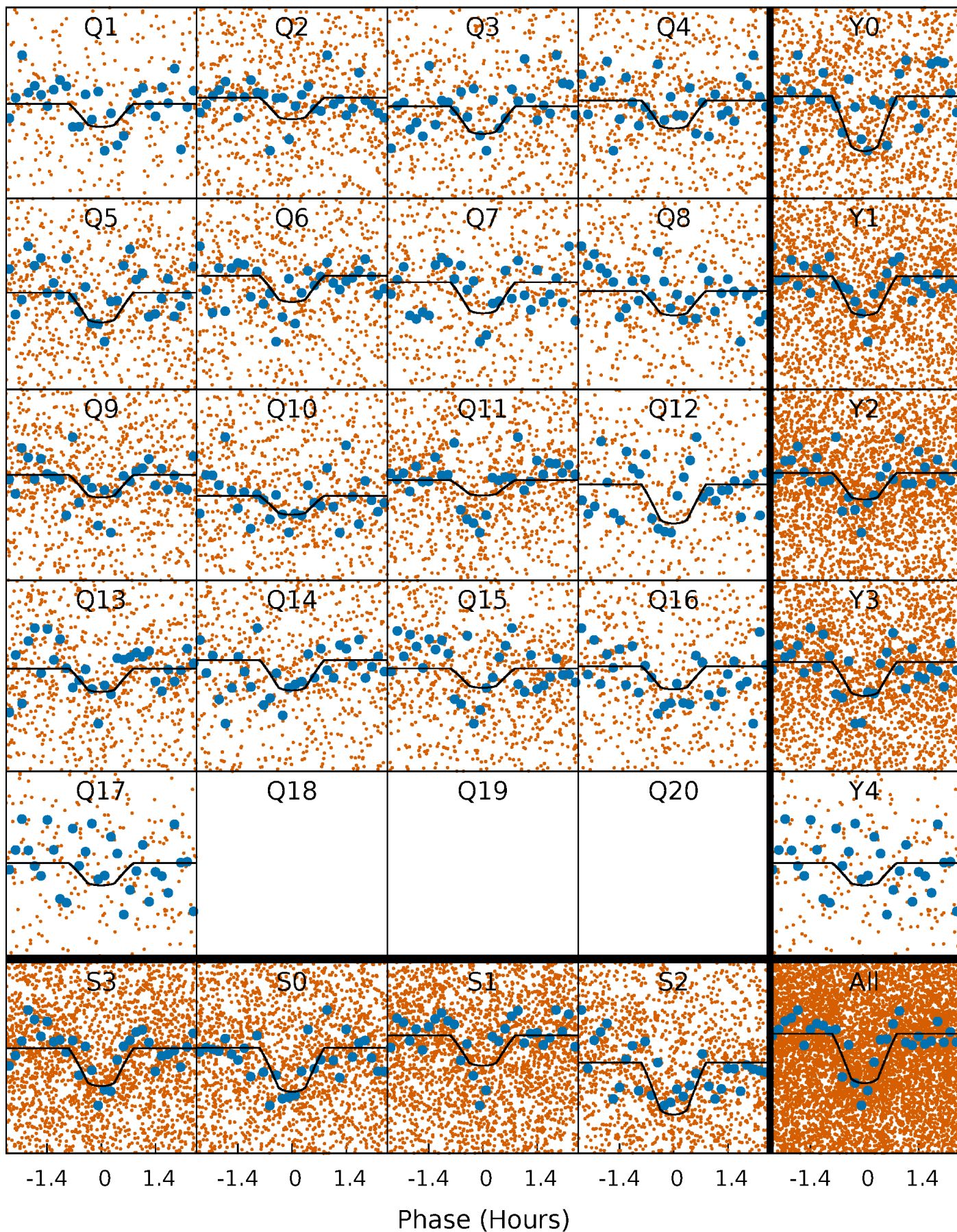
PDC Quarter-Phased Transit Curves

TCE 003441340-01 P= 0.806213 Days $T_0=131.767430$ (BKJD)



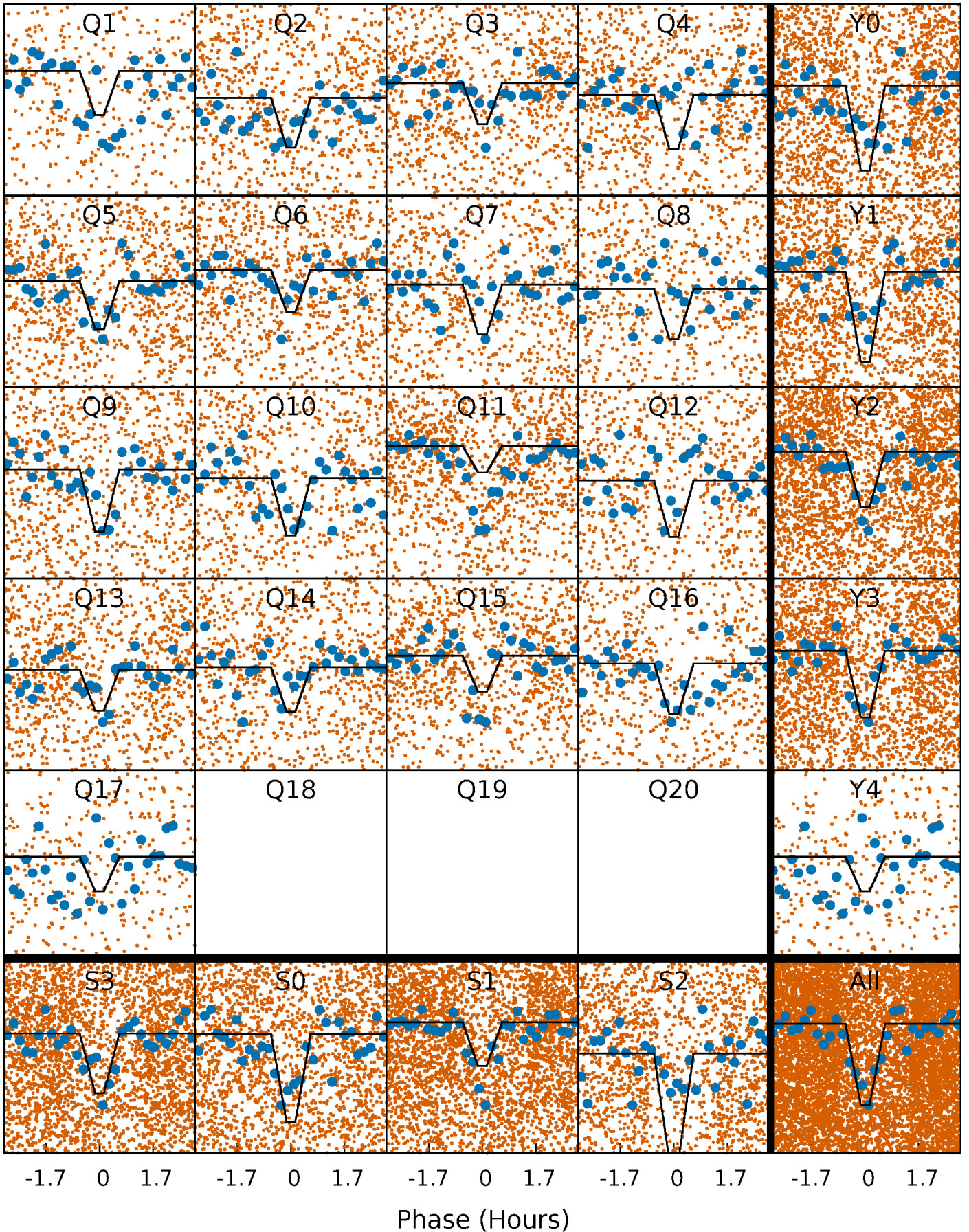
DV Quarter-Phased Transit Curves

TCE 003441340-01 P= 0.806213 Days $T_0=131.767430$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

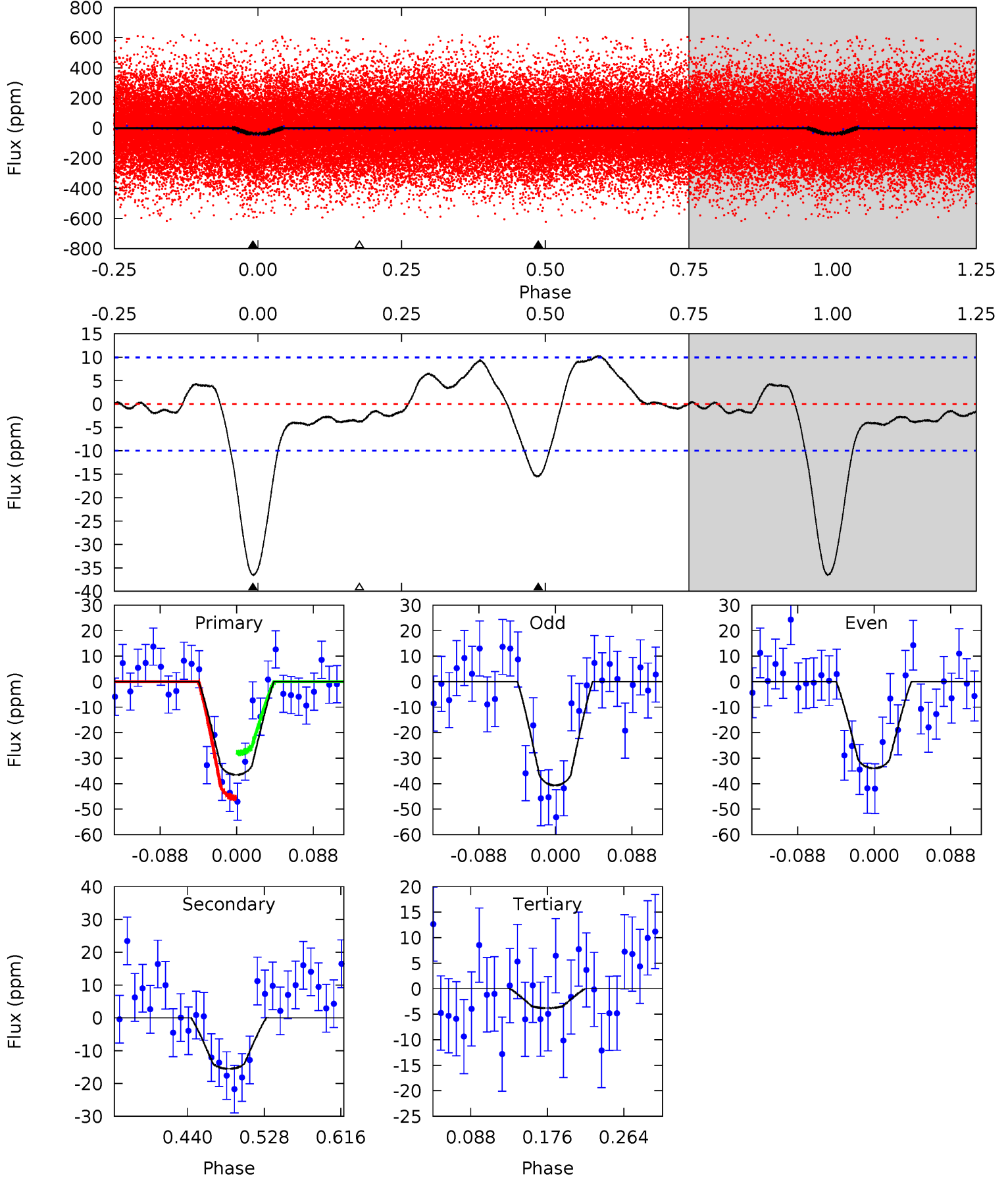
TCE 003441340-01 P= 0.806208 Days $T_0=131.765666$ (BKJD)



DV Model-Shift Uniqueness Test

003441340-01, P = 0.806213 Days, E = 130.961217 Days

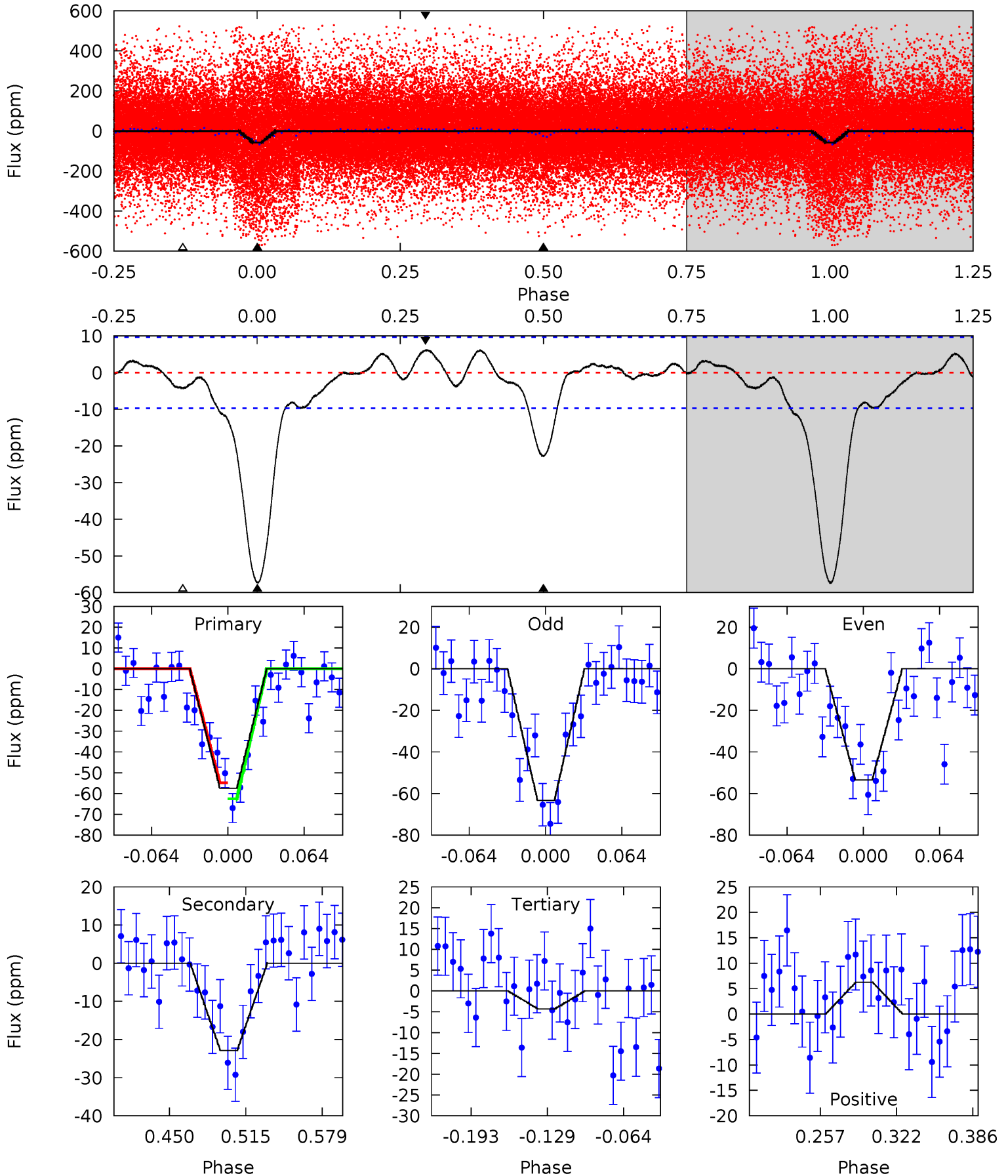
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	7.15	1.75	0	4.59	1.71	1.88	15.1	16.9	5.40	7.15	1.55	0.93	0.22	4.05



Alt Model-Shift Uniqueness Test

003441340-01, P = 0.806208 Days, E = 130.959458 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.5	11.0	2.06	2.99	4.66	1.85	1.68	25.5	24.5	8.89	7.96	2.36	1.08	0.10	1.86



Stellar Parameters For KIC 003441340

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+165}_{-184}	$4.471^{+0.054}_{-0.229}$	$-0.100^{+0.250}_{-0.350}$	$0.996^{+0.324}_{-0.108}$	$1.070^{+0.139}_{-0.153}$	$1.526^{+0.346}_{-0.856}$
	+3%/-3%	+1%/-5%	+250%/-350%	+33%/-11%	+13%/-14%	+23%/-56%
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 003441340-01 / KOI 6335.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-16 ± 2	$0.75^{+0.26}_{-0.21}$	2931^{+211}_{-144}	4762^{+738}_{-504}	$4.401^{+3.944}_{-1.933}$
Alt.	-23 ± 2	$0.87^{+0.25}_{-0.22}$	2922^{+214}_{-131}	4879^{+658}_{-460}	$4.784^{+3.927}_{-1.737}$

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

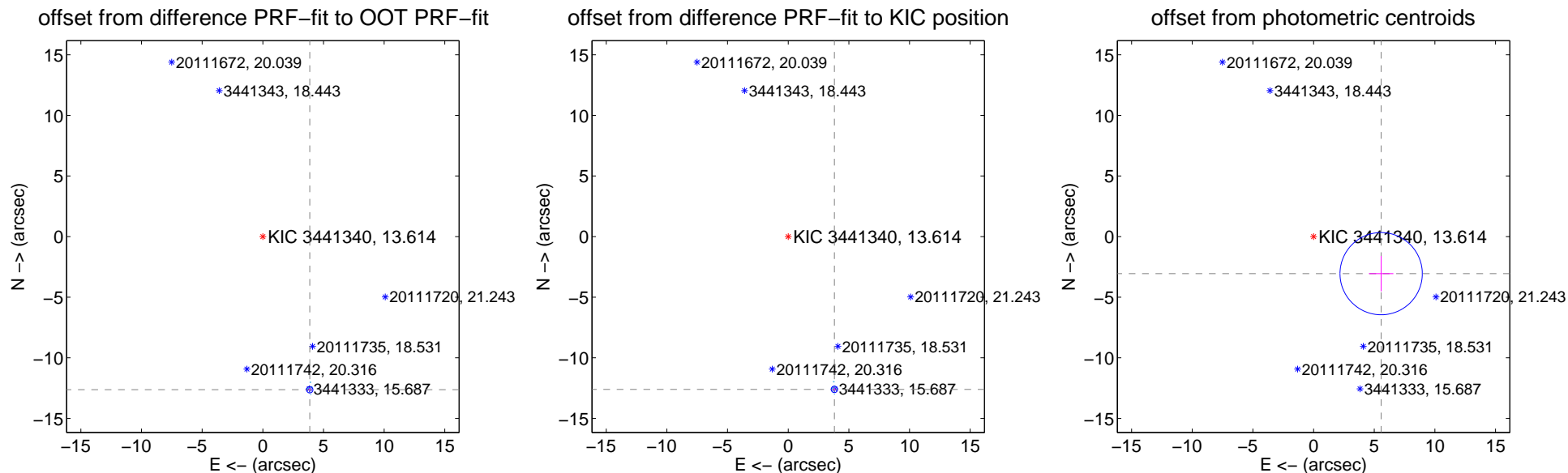
DV Centroid Data

Supplemental centroid analysis for 003441340-01. Kepler magnitude: 13.61. Transit SNR 10.23

There are 16 quarters with good PRF difference image offsets

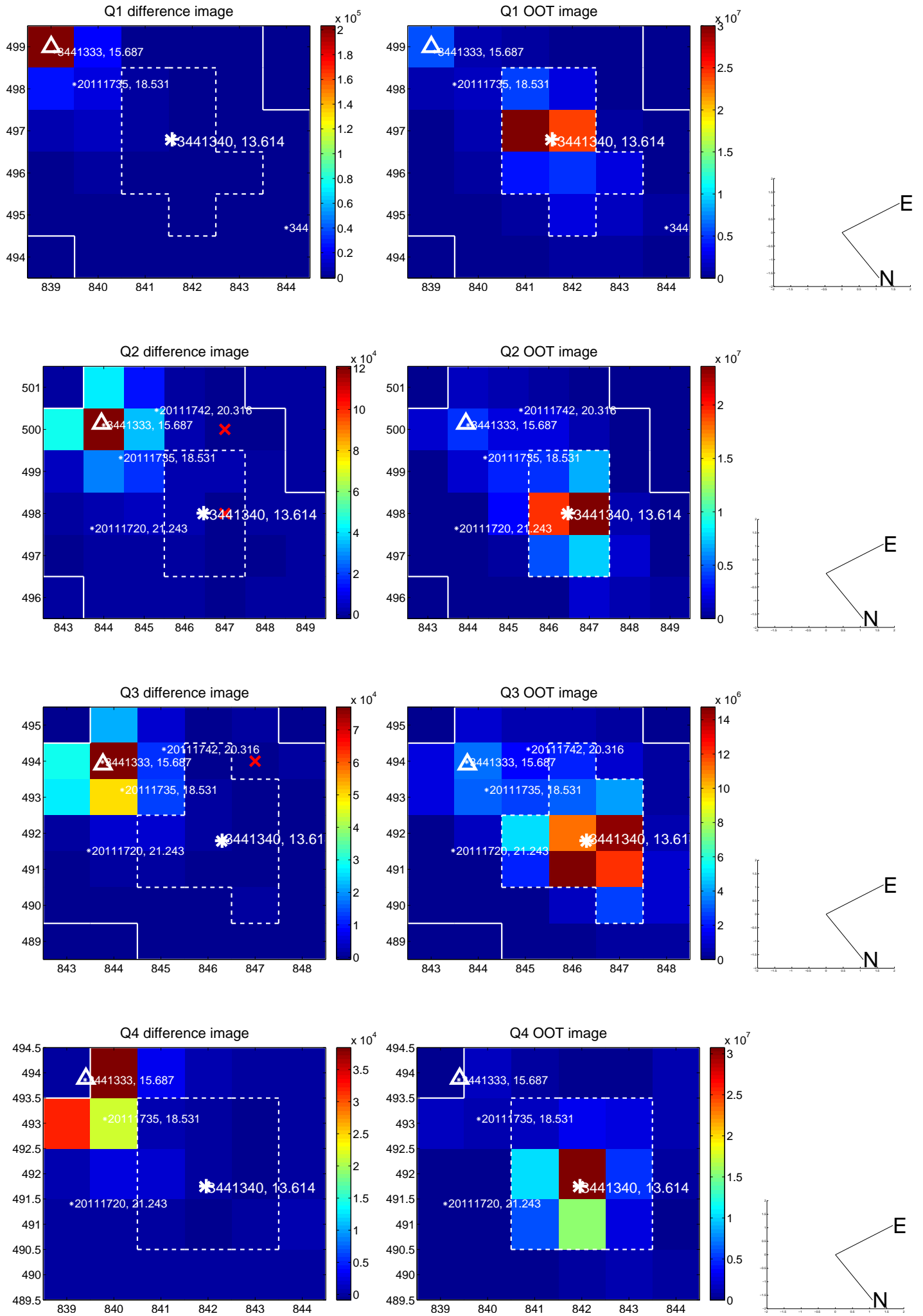
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	13.218 \pm 0.088	150.31	-3.868 \pm 0.069	-12.639 \pm 0.090
PRF-fit source offset from KIC position	13.172 \pm 0.088	149.64	-3.806 \pm 0.068	-12.611 \pm 0.090
photometric centroid source offset	6.36 \pm 1.13	5.62	-5.57 \pm 1.01	-3.06 \pm 1.46

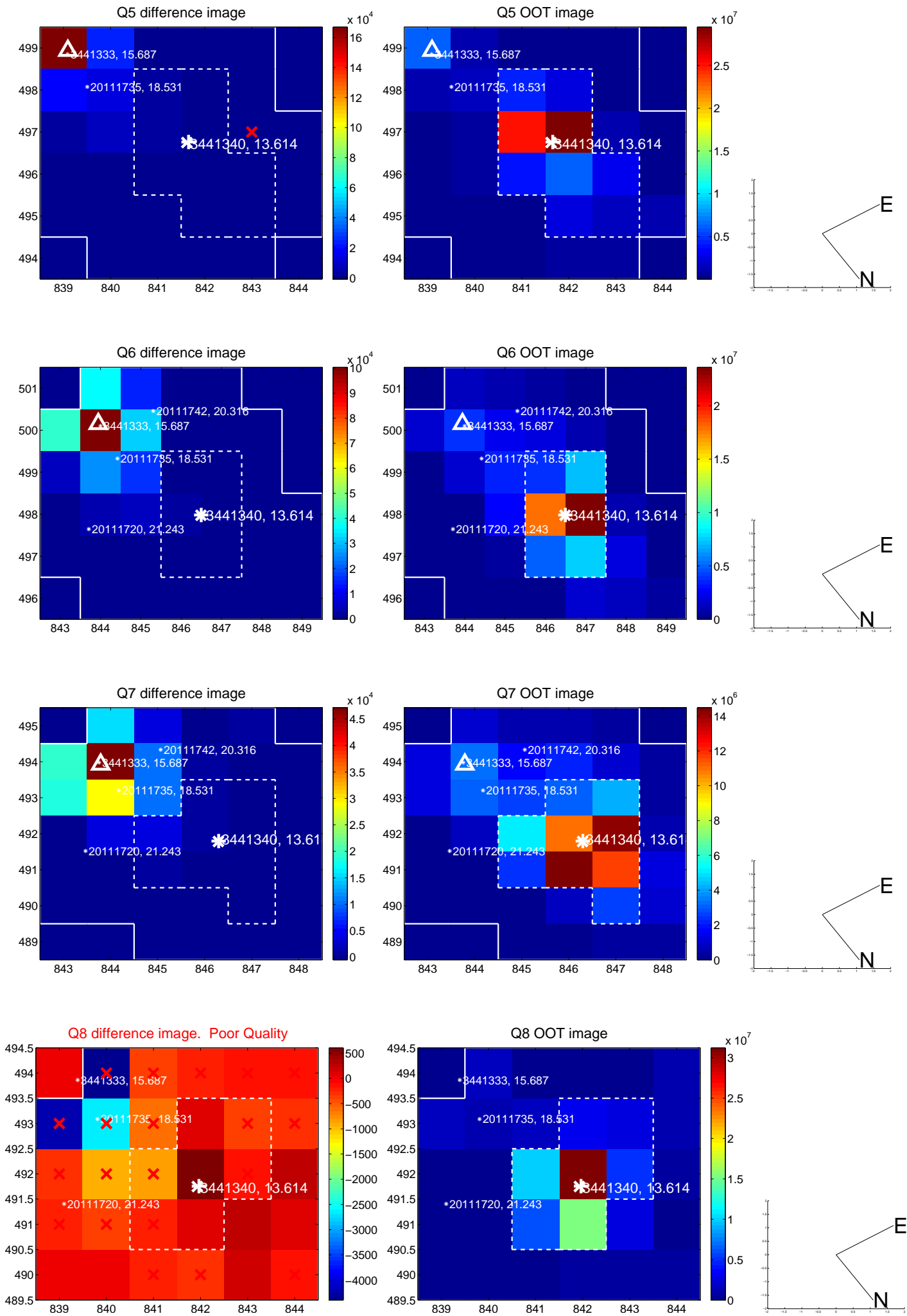


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

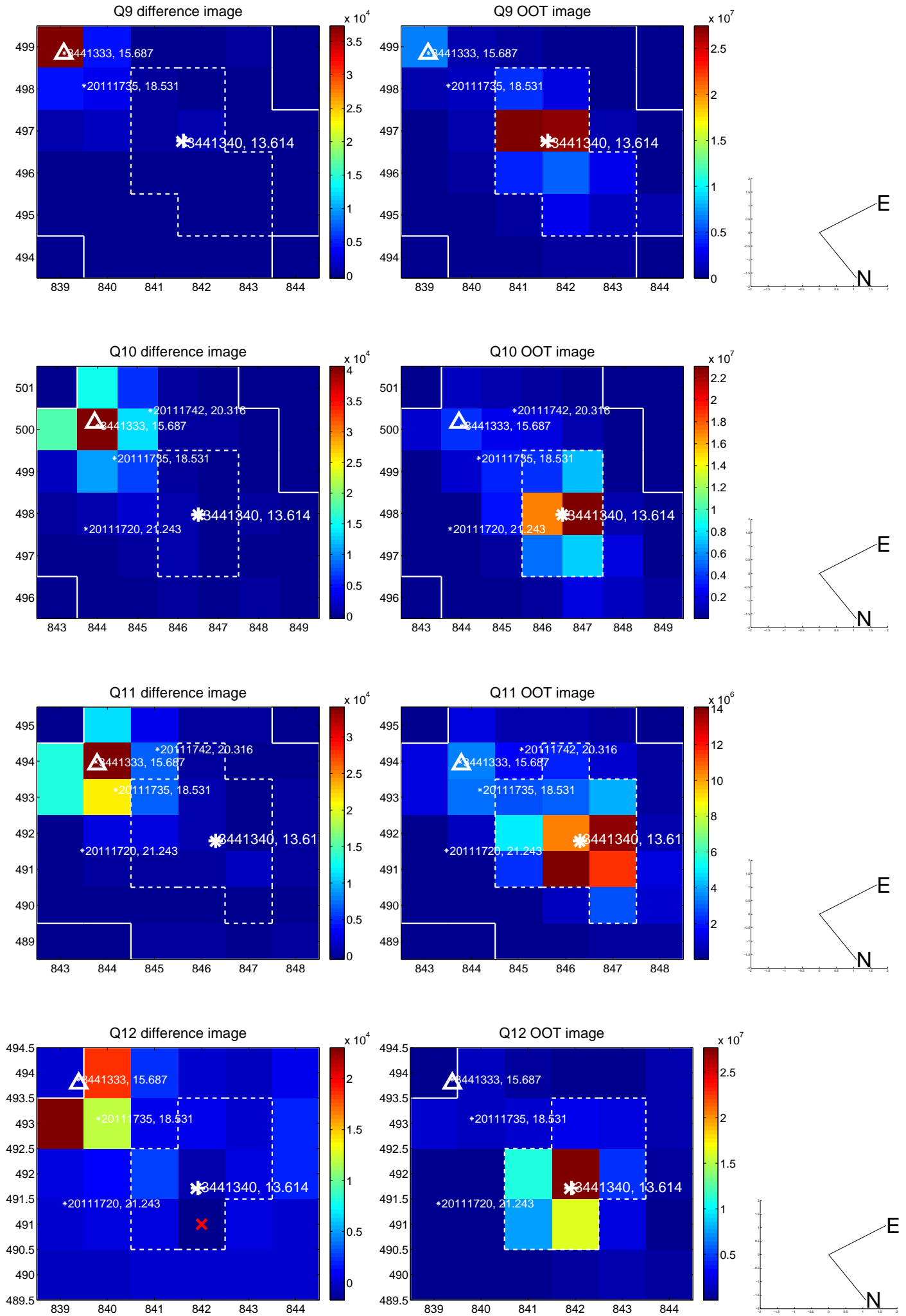
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



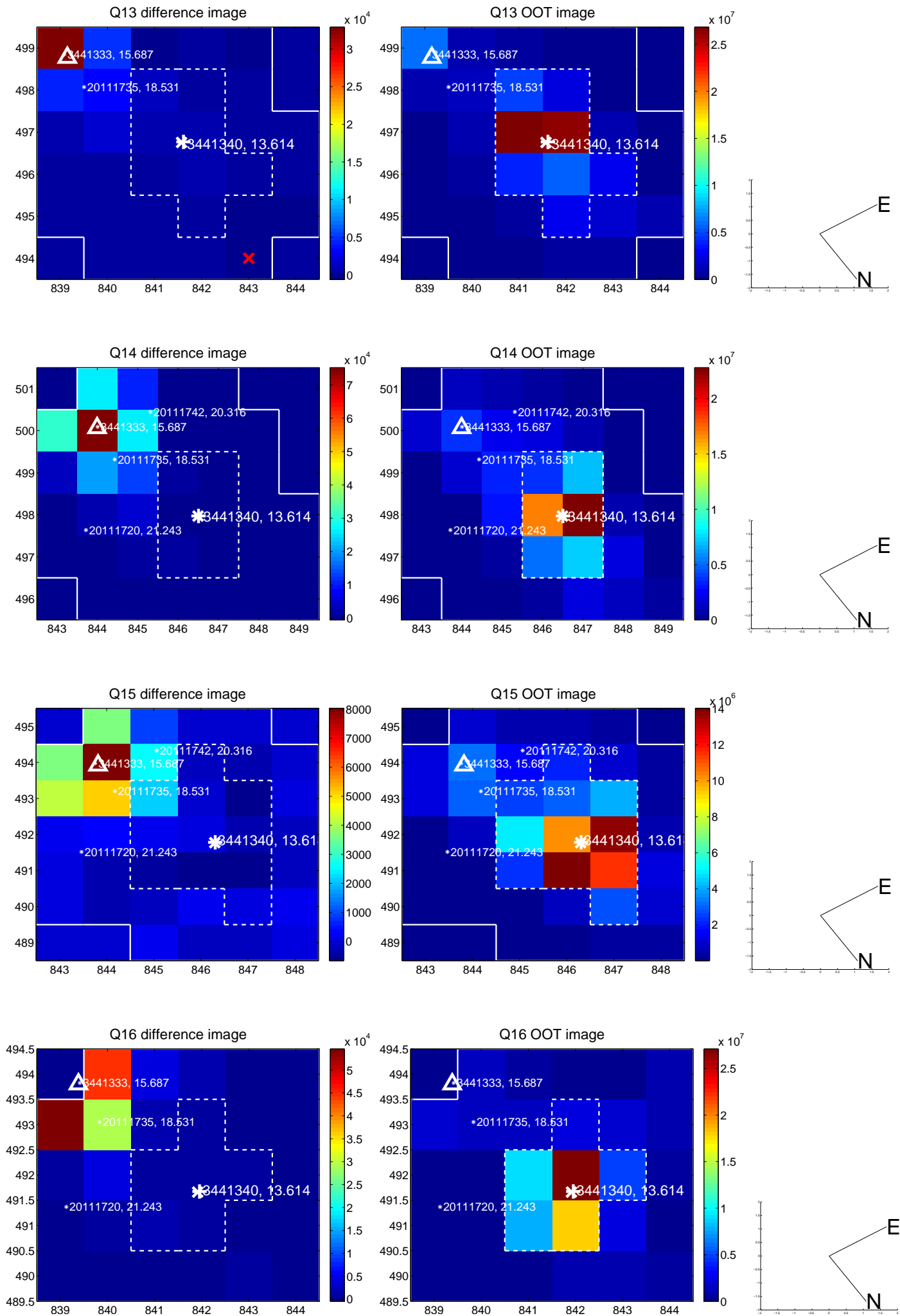
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



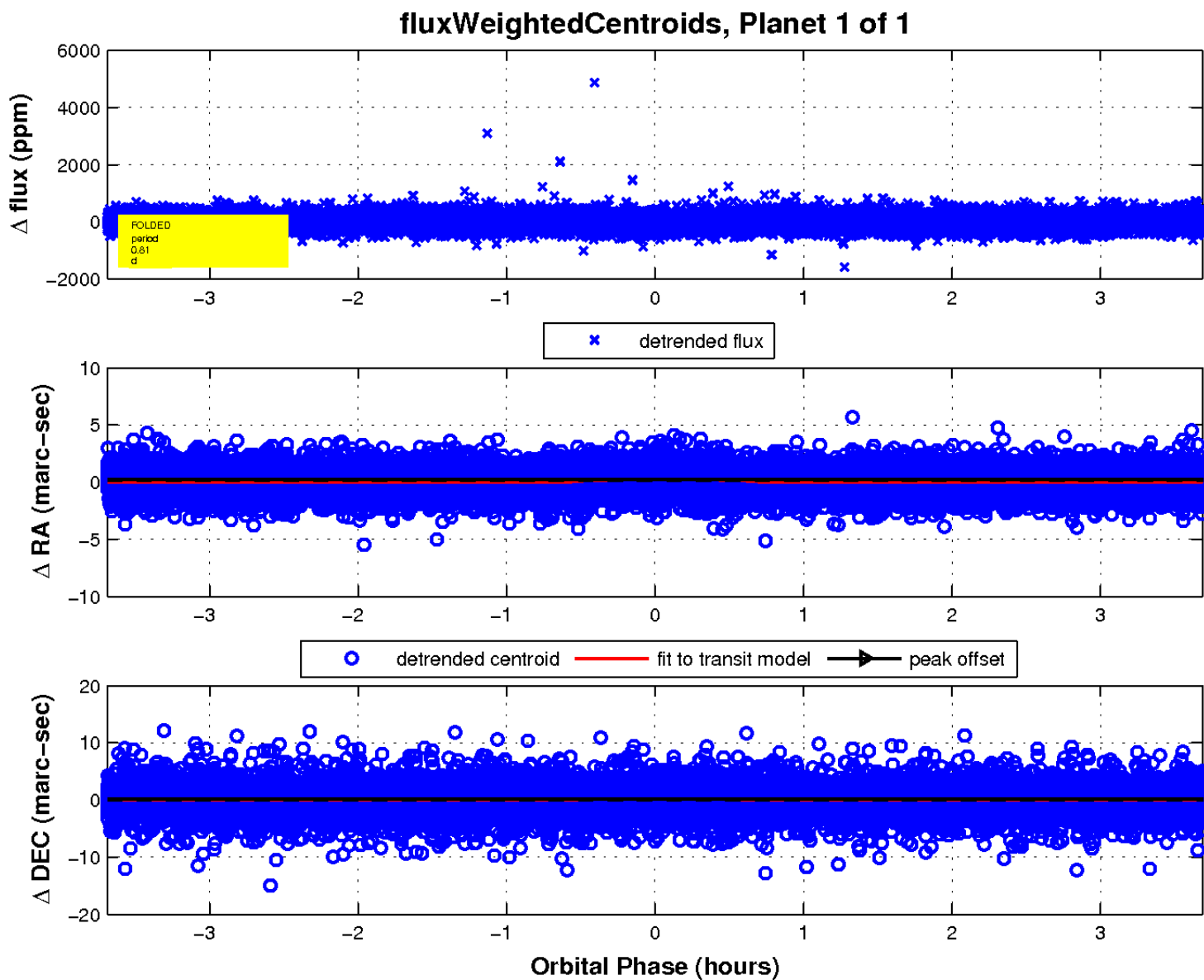
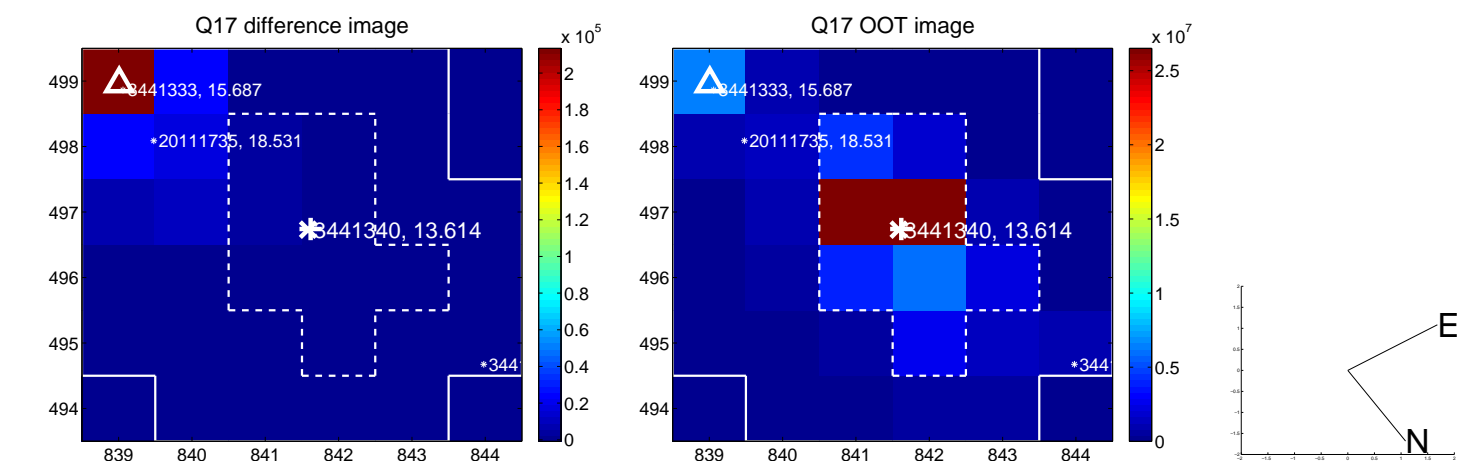
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

