

KIC 008248939

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})
008248939-01	OBS	0061.01	1.633429	132.866014	176.9	2.192	66.7	60.8	1.09	6283	1.71	2221.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008248939-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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.

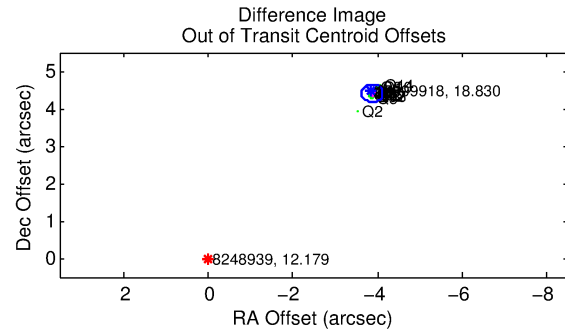
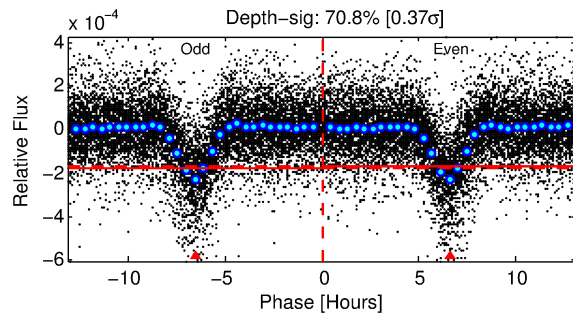
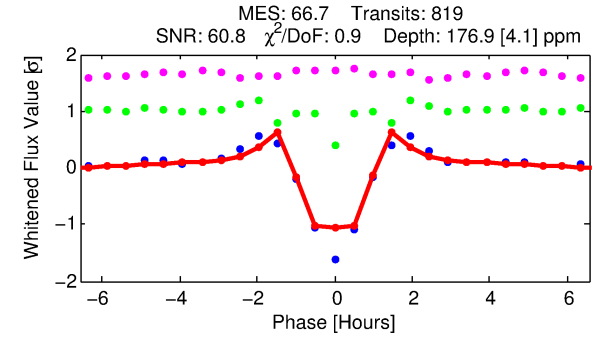
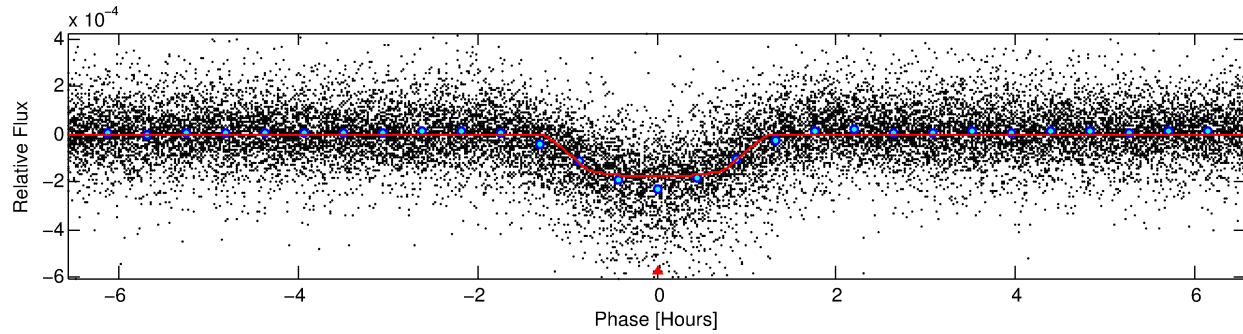
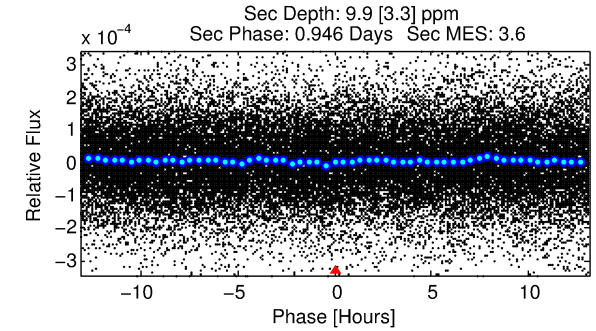
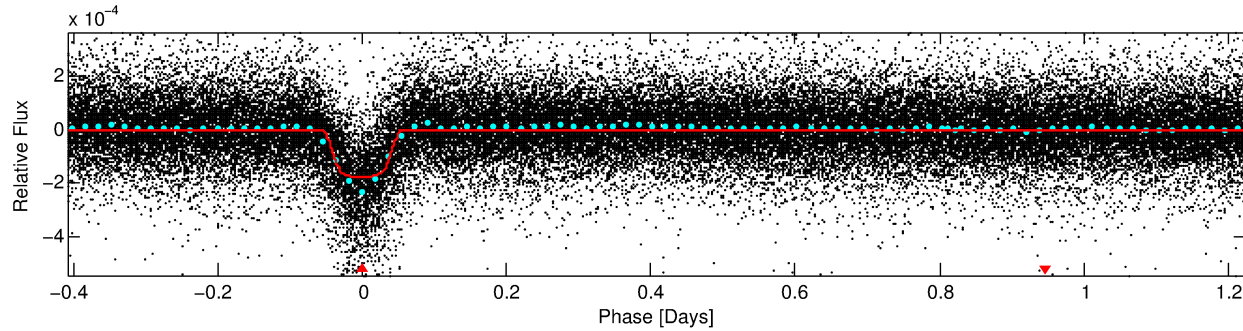
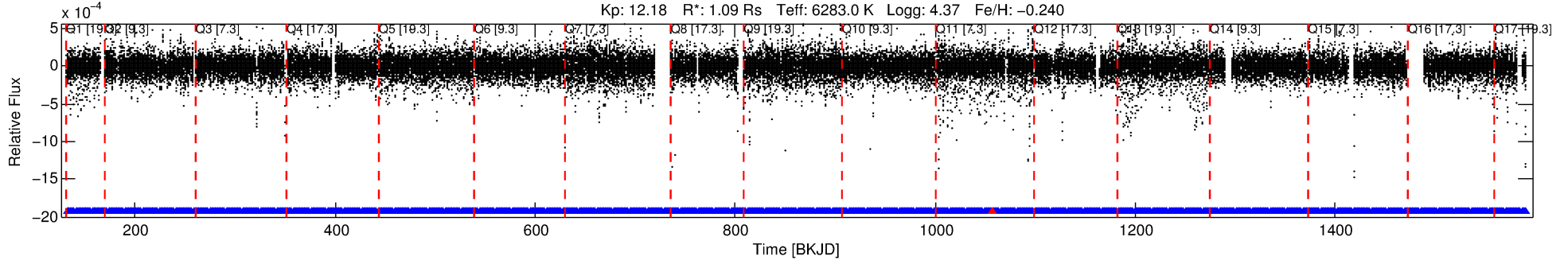
Ephemeris Match Information For 008248939-01

No Significant Match Found

DV One-Page Summary

KIC: 8248939 Candidate: 1 of 1 Period: 1.633 d
KOI: K00061.01 Corr: 0.778

Kp: 12.18 R*: 1.09 Rs Teff: 6283.0 K Logg: 4.37 Fe/H: -0.240



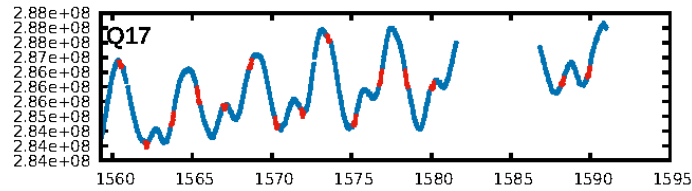
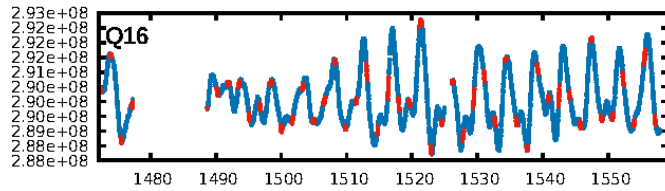
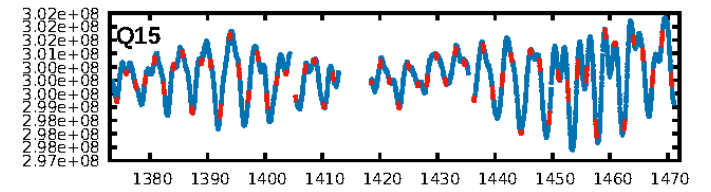
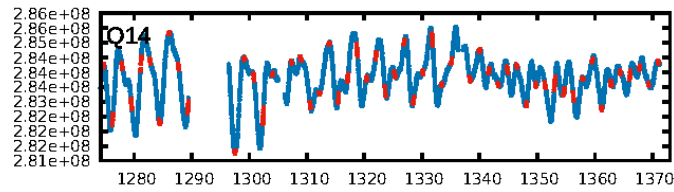
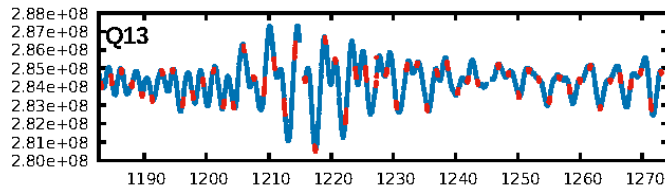
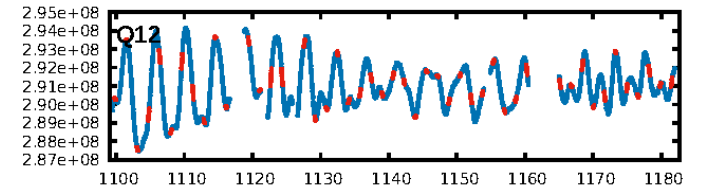
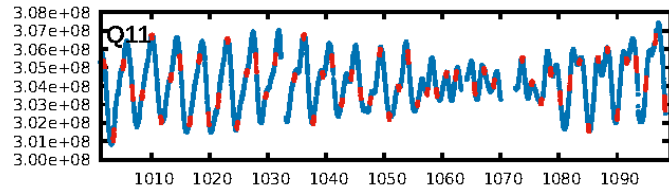
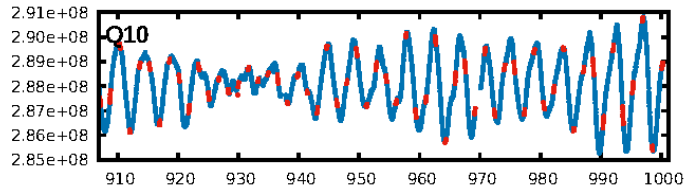
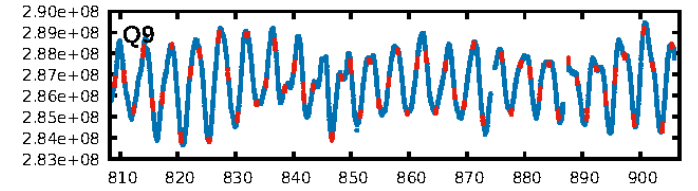
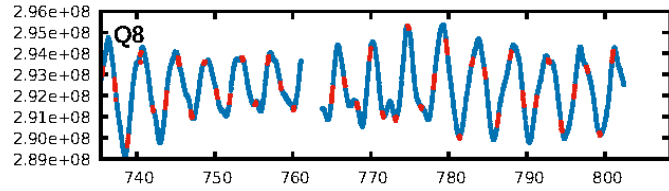
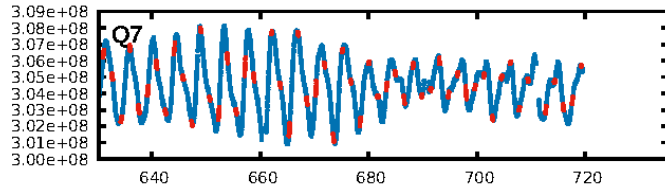
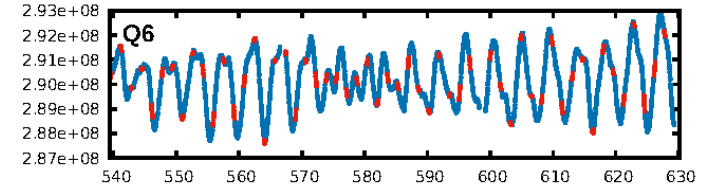
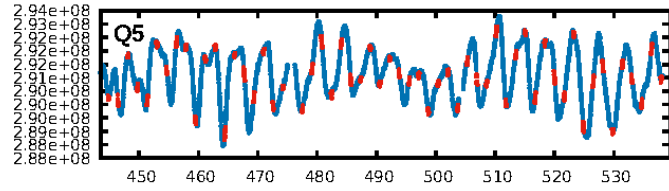
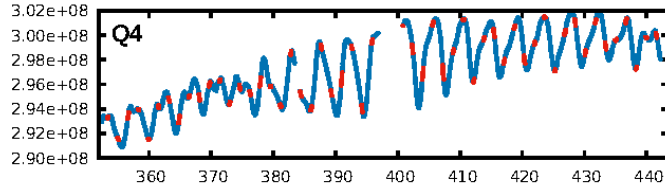
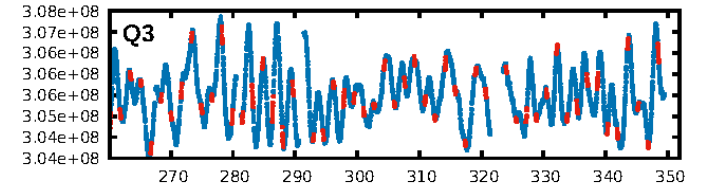
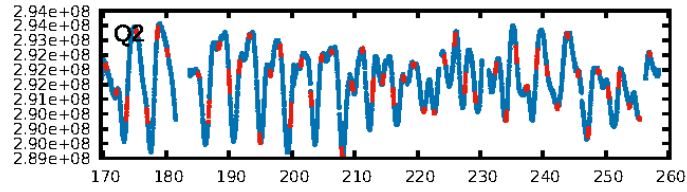
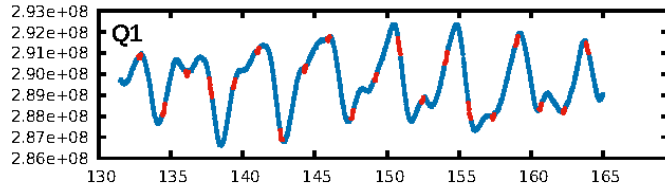
DV Fit Results:

Period = 1.63343 [0.00000] d
Epoch = 132.8660 [0.0003] BKJD
Rp/R* = 0.0144 [0.0008]
a/R* = 2.76 [0.74]
b = 0.91 [0.06]
Seff = 2221.50 [887.68]
Teq = 1751 [175] K
Rp = 1.71 [0.56] Re
a = 0.0274 [0.0072] AU
Ag = 1.39 [0.71] [0.54σ]
Teffp = 2937 [285] K [3.55σ]

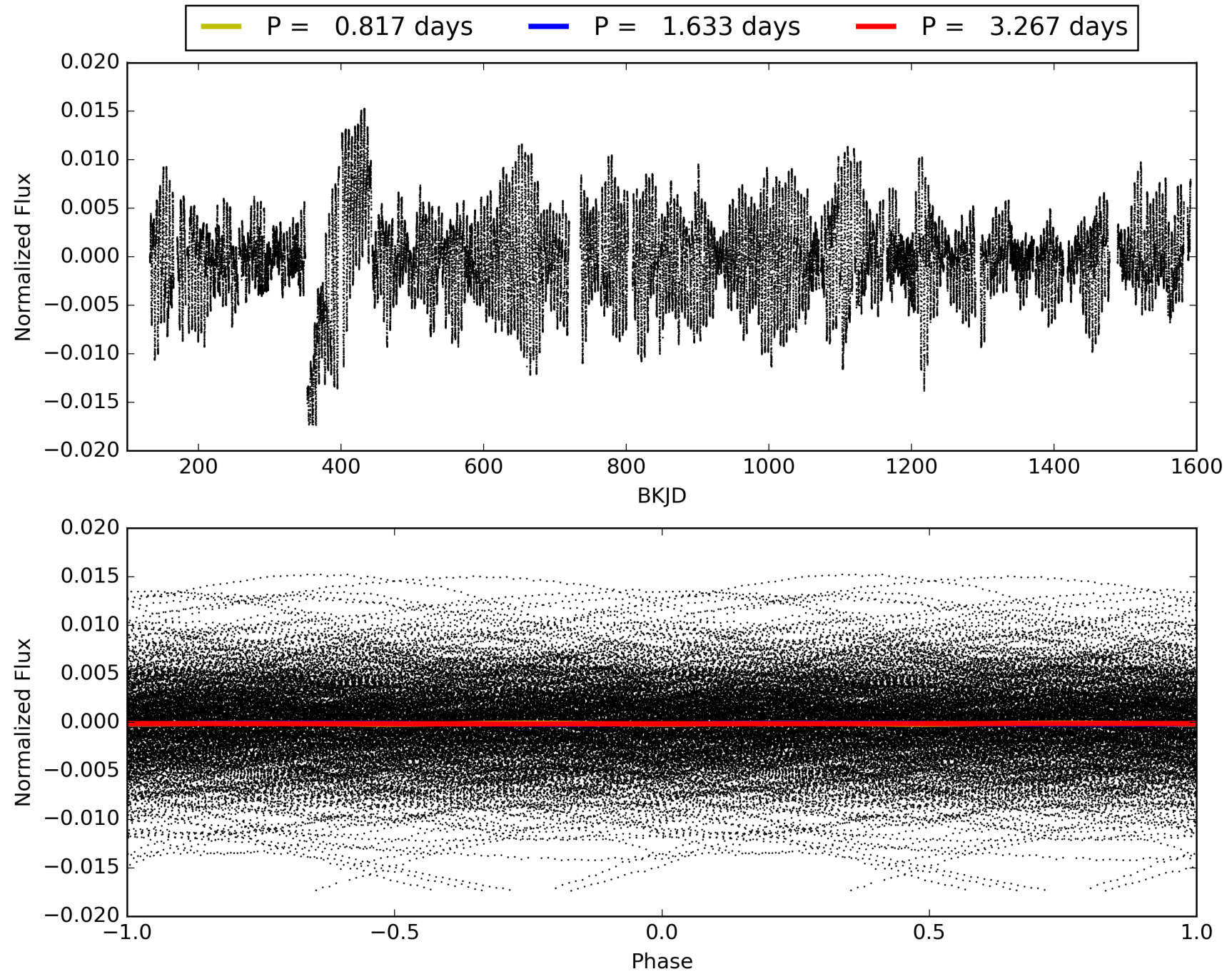
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [783/784]
GhostDiagnostic-chr: 0.01892
Centroid-sig: 0.0%
Centroid-so: 26.591 arcsec [299.97σ]
OotOffset-rm: 5.866 arcsec [73.30σ]
KicOffset-rm: 5.901 arcsec [73.55σ]
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]

TCE 008248939-01, PDC Light Curves

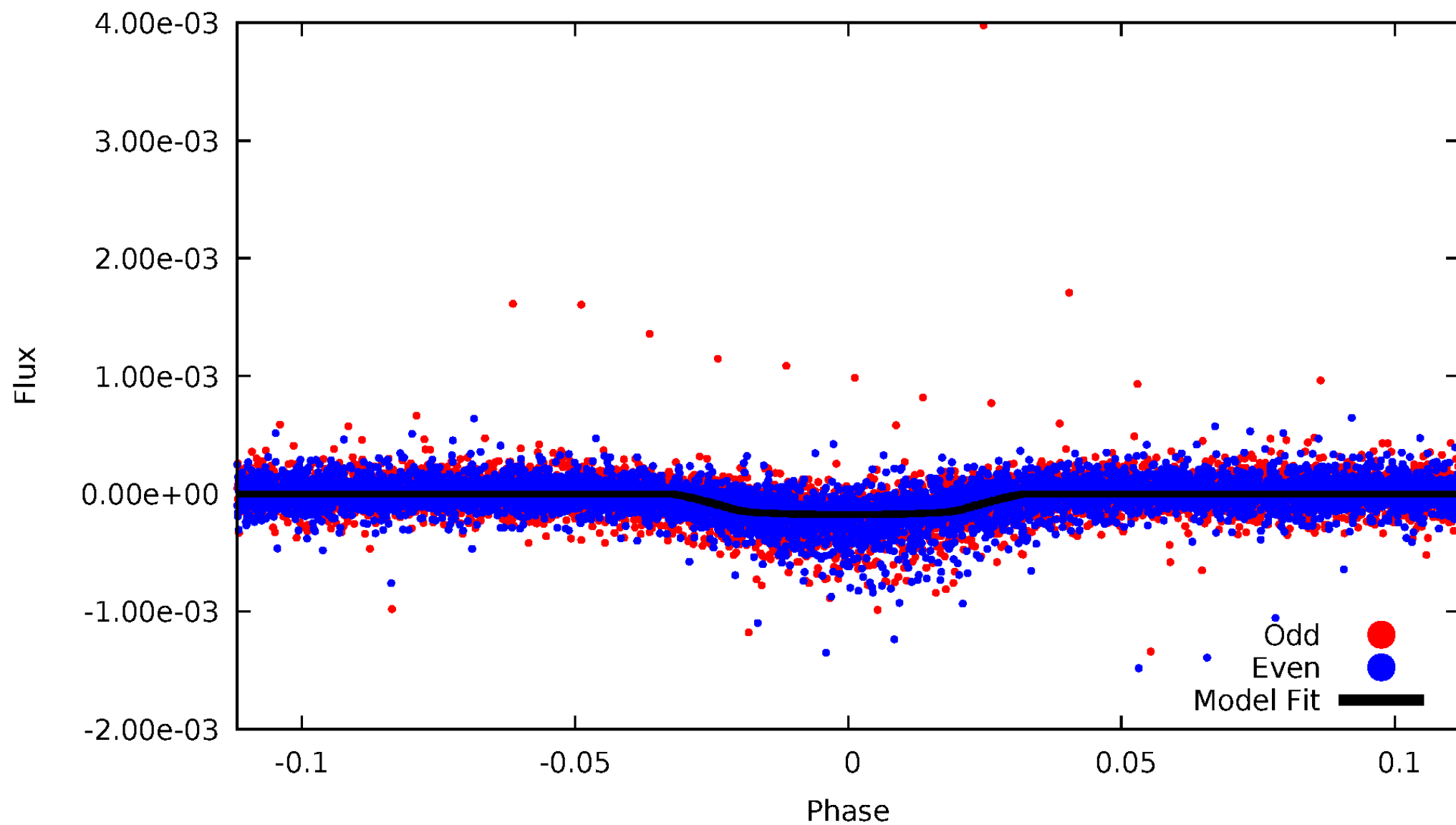


TCE 008248939-01



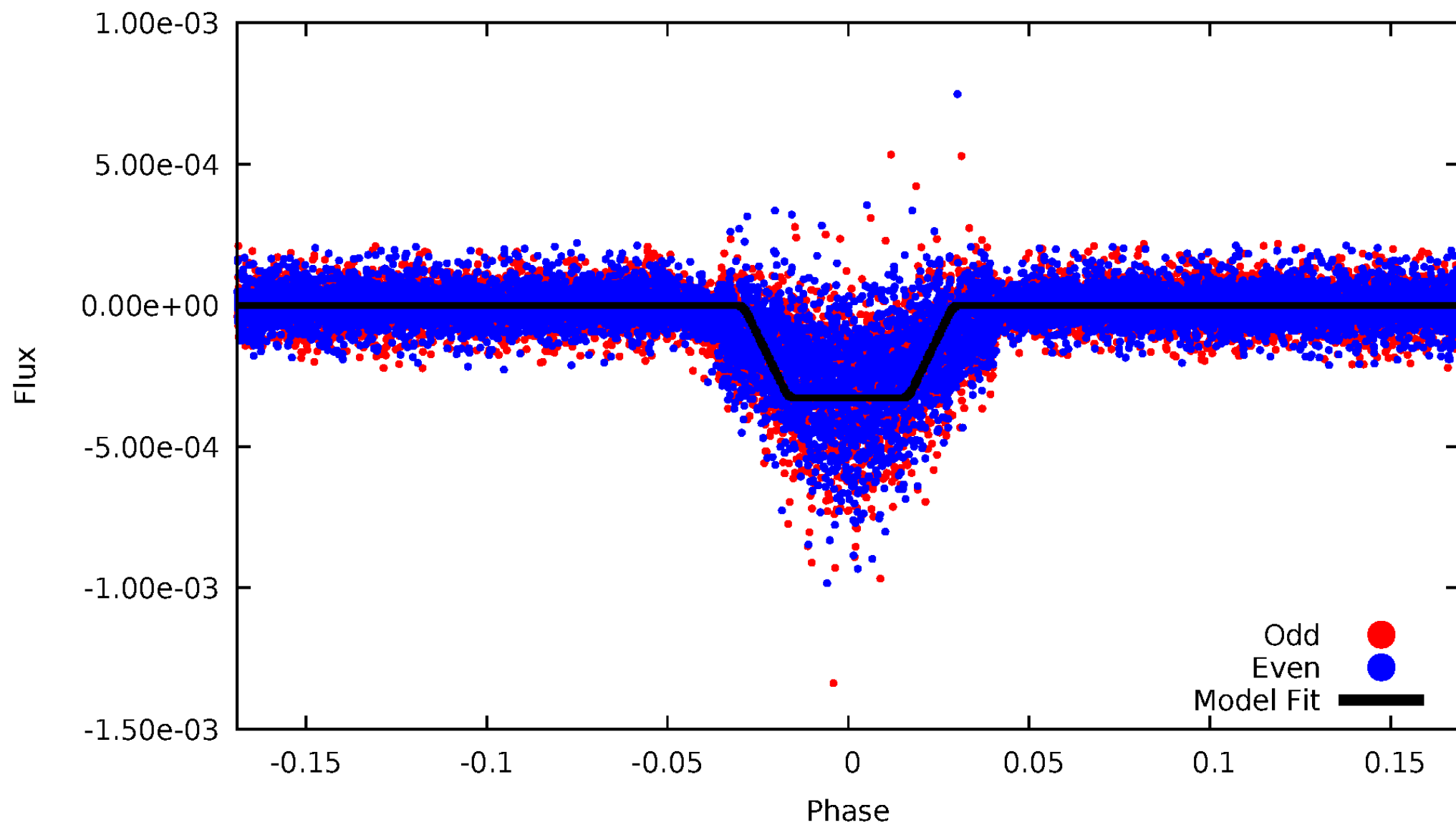
DV Odd/Even

TCE 008248939-01



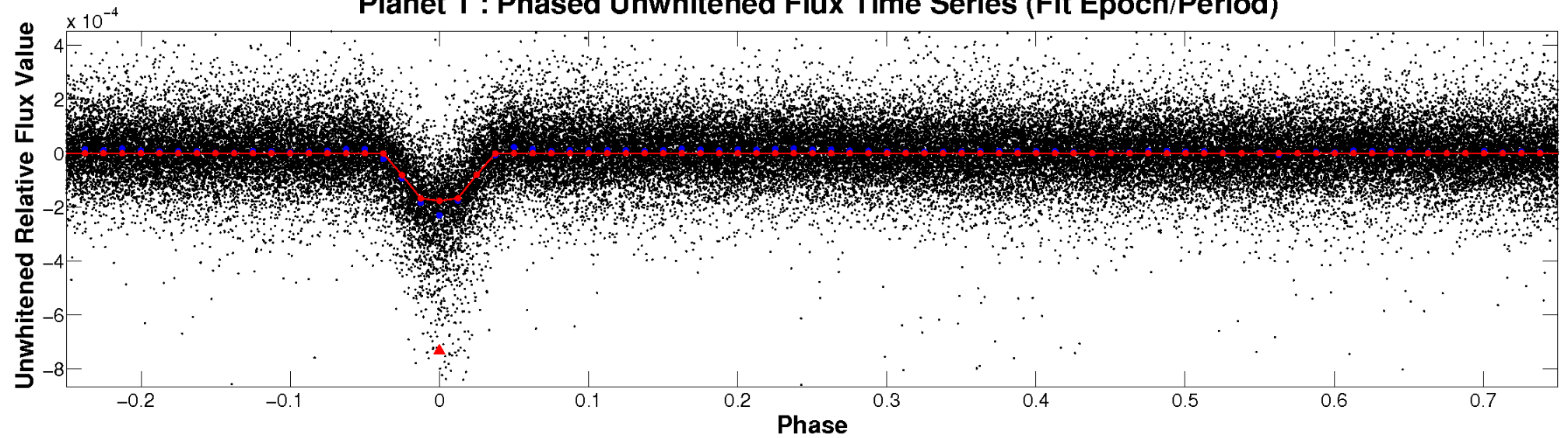
ALT Odd/Even

TCE 008248939-01

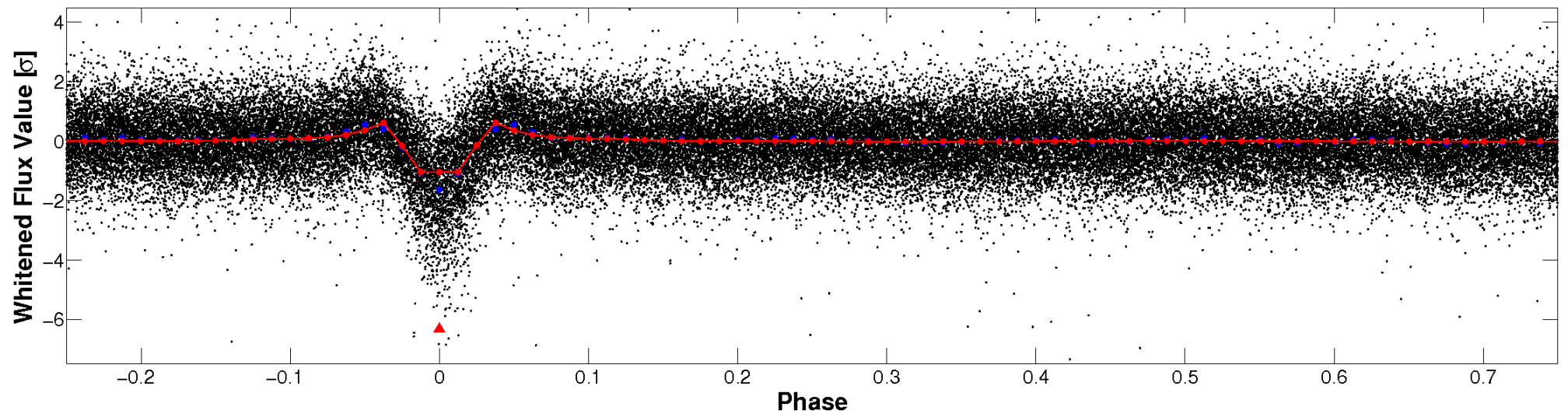


Non-Whitened Vs. Whitened Light Curve

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

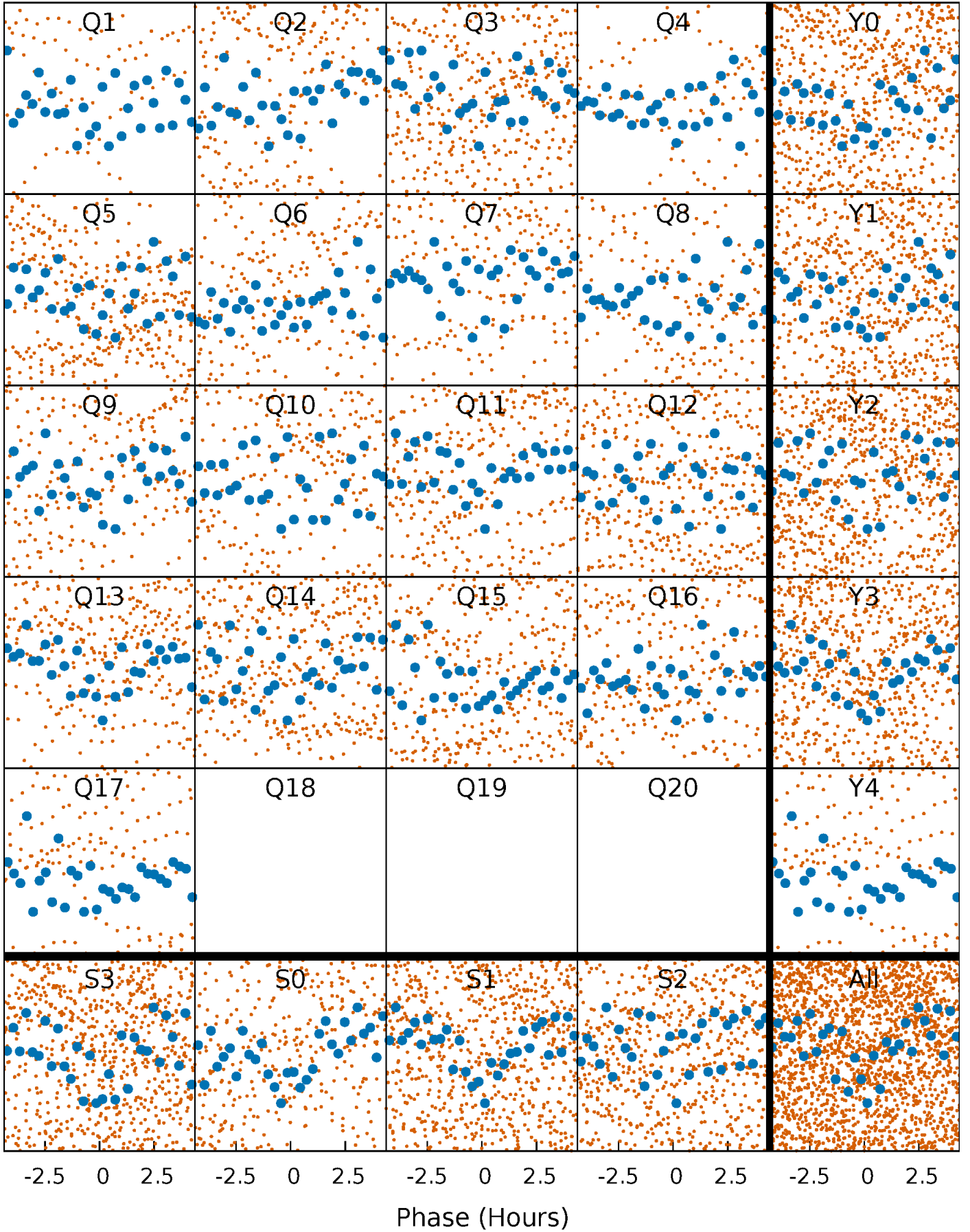


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



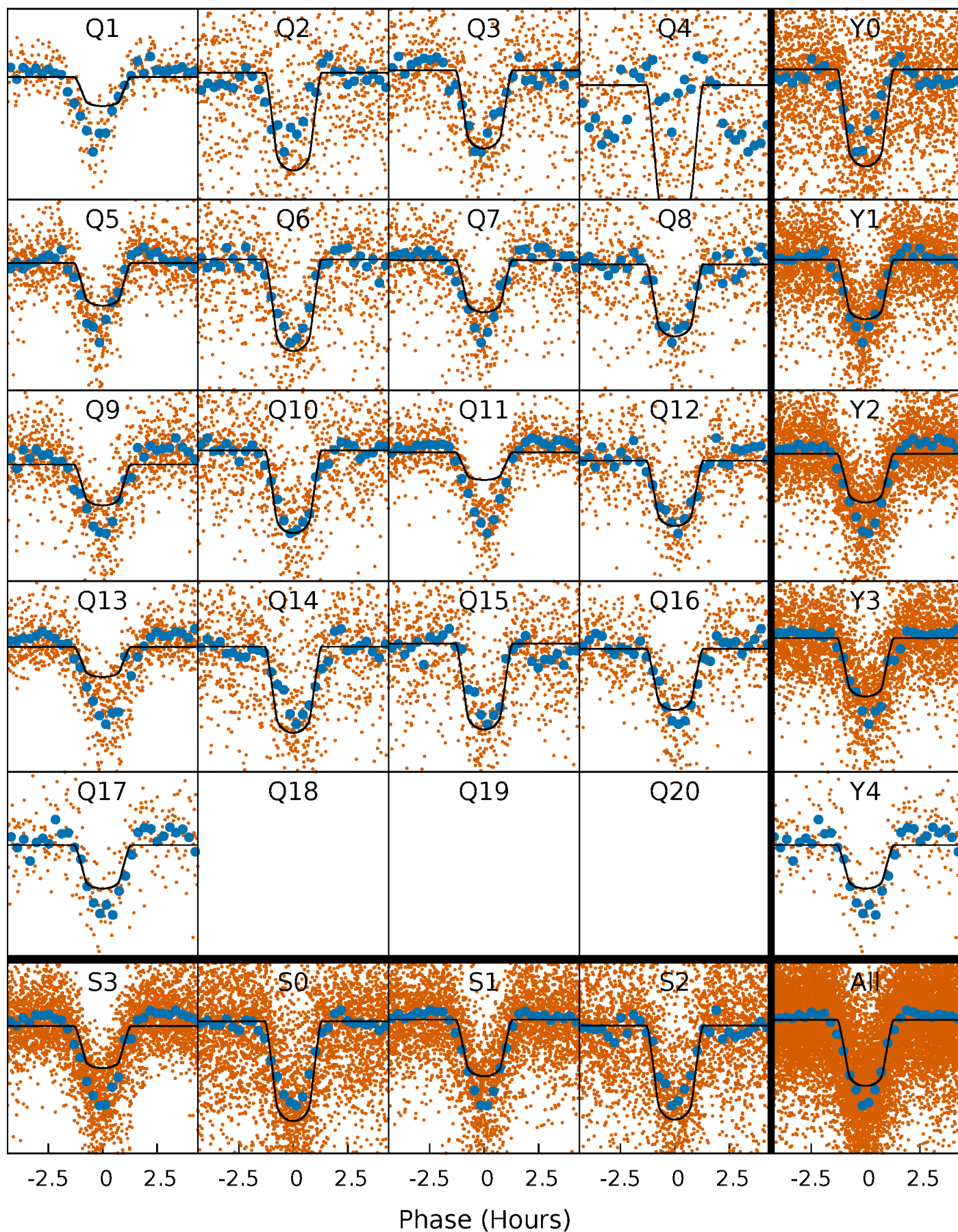
PDC Quarter-Phased Transit Curves

TCE 008248939-01 P= 1.633429 Days $T_0=132.866014$ (BKJD)



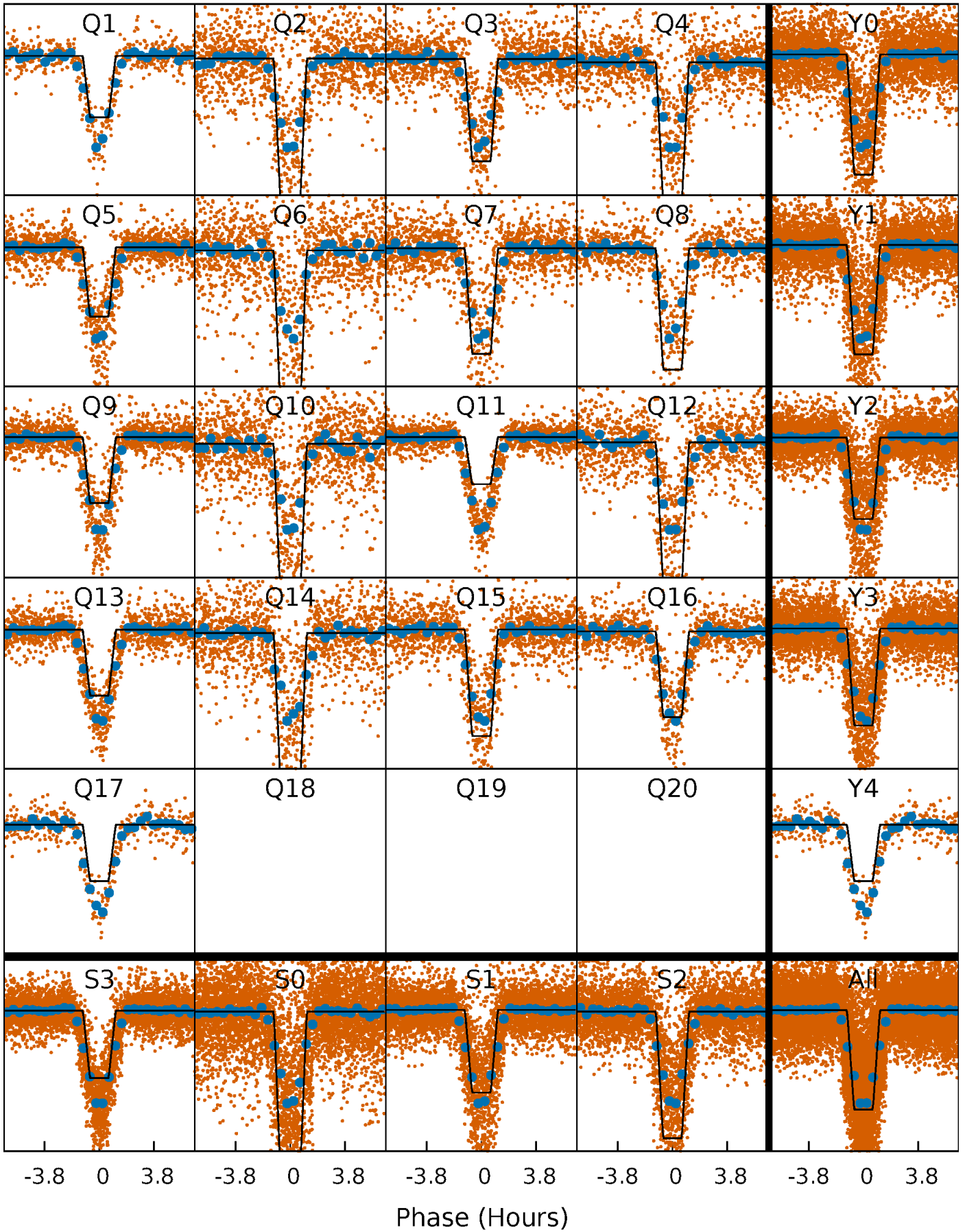
DV Quarter-Phased Transit Curves

TCE 008248939-01 P= 1.633429 Days $T_0=132.866014$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

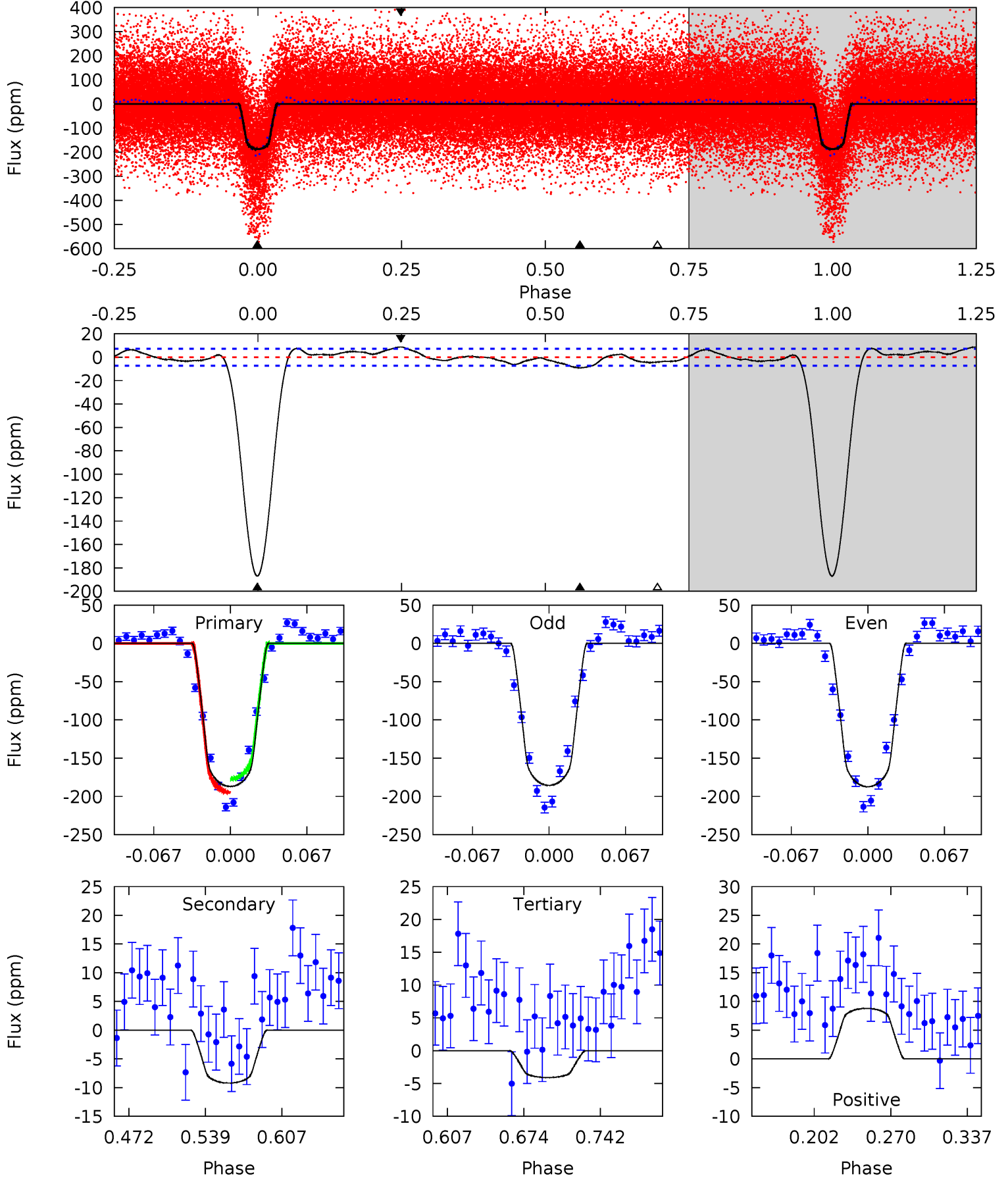
TCE 008248939-01 P= 1.633456 Days $T_0=132.854391$ (BKJD)



DV Model-Shift Uniqueness Test

008248939-01, P = 1.633429 Days, E = 131.232585 Days

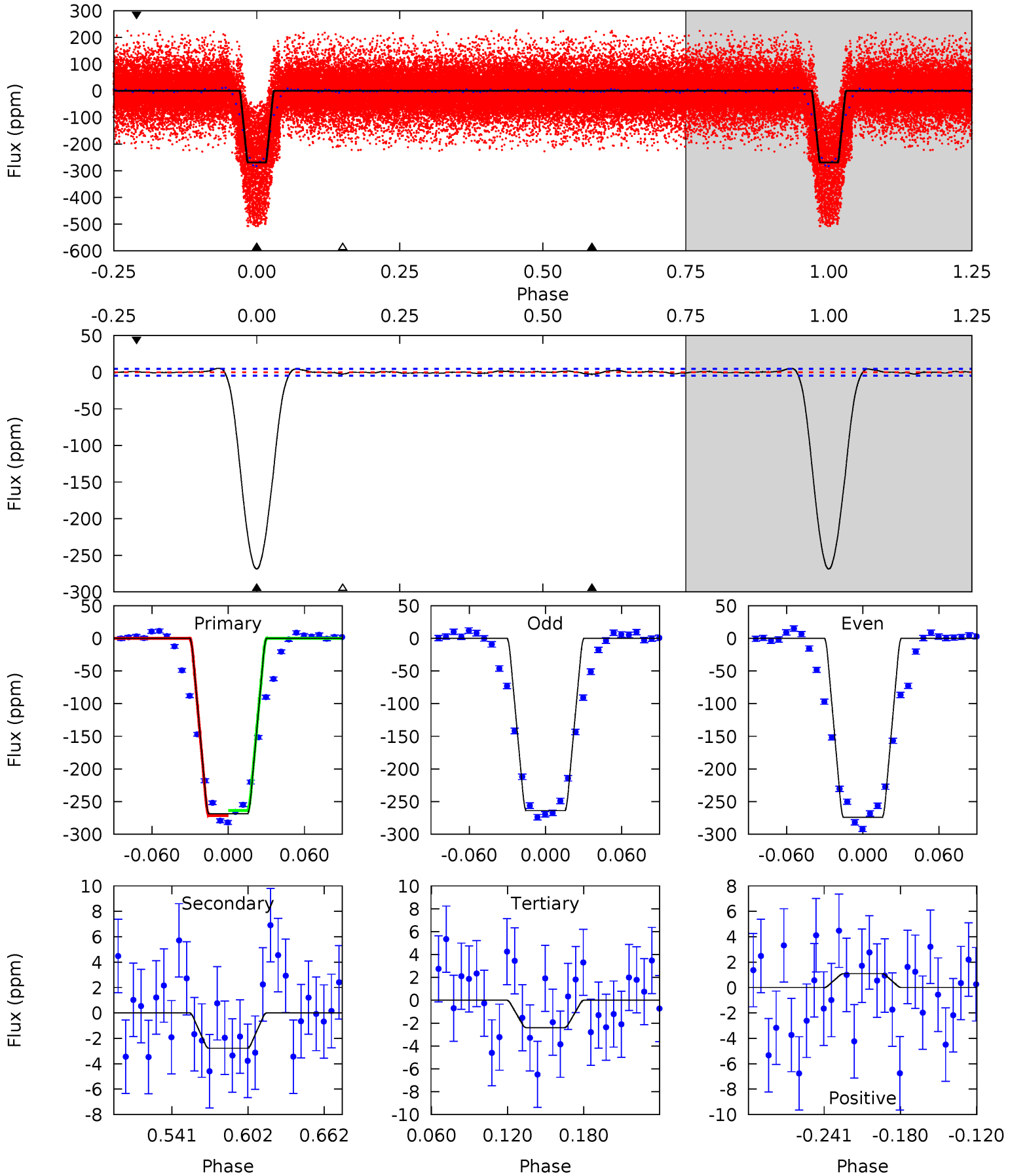
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
120.8	5.95	2.64	5.68	4.65	1.83	2.34	118.2	115.1	3.31	0.27	0.54	1.10	0.04	0



Alt Model-Shift Uniqueness Test

008248939-01, P = 1.633456 Days, E = 131.220935 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
266.2	2.76	2.37	1.09	4.67	1.88	1.27	263.8	265.1	0.39	1.67	5.04	1.09	0.02	3.80



Stellar Parameters For KIC 008248939

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6283^{+197}_{-241}	$4.372^{+0.105}_{-0.195}$	$-0.240^{+0.250}_{-0.300}$	$1.091^{+0.353}_{-0.151}$	$1.019^{+0.173}_{-0.115}$	$1.105^{+0.528}_{-0.573}$
	+3%/-4%	+2%/-4%	+104%/-125%	+32%/-14%	+17%/-11%	+48%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008248939-01 / KOI 0061.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9 ± 2	$1.74^{+0.28}_{-0.19}$	2460^{+188}_{-147}	3254^{+145}_{-158}	$1.224^{+0.450}_{-0.330}$
Alt.	-3 ± 1	$2.18^{+0.38}_{-0.22}$	2462^{+177}_{-140}	-2308^{+4470}_{-314}	$0.232^{+0.106}_{-0.098}$

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

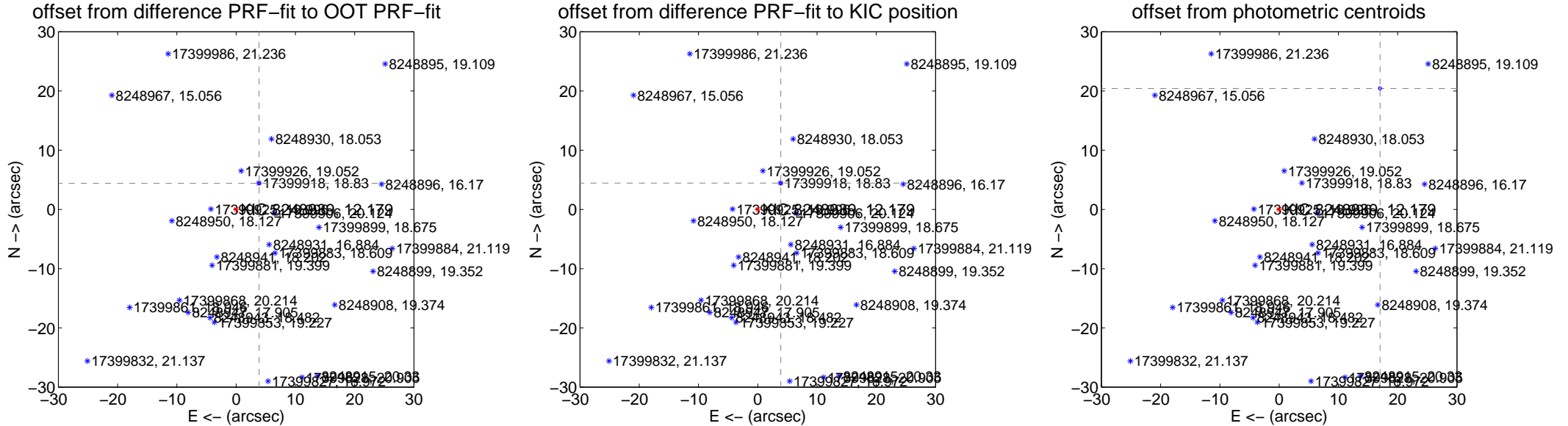
DV Centroid Data

Supplemental centroid analysis for 008248939-01. Kepler magnitude: 12.18. Transit SNR 60.78

There are 17 quarters with good PRF difference image offsets

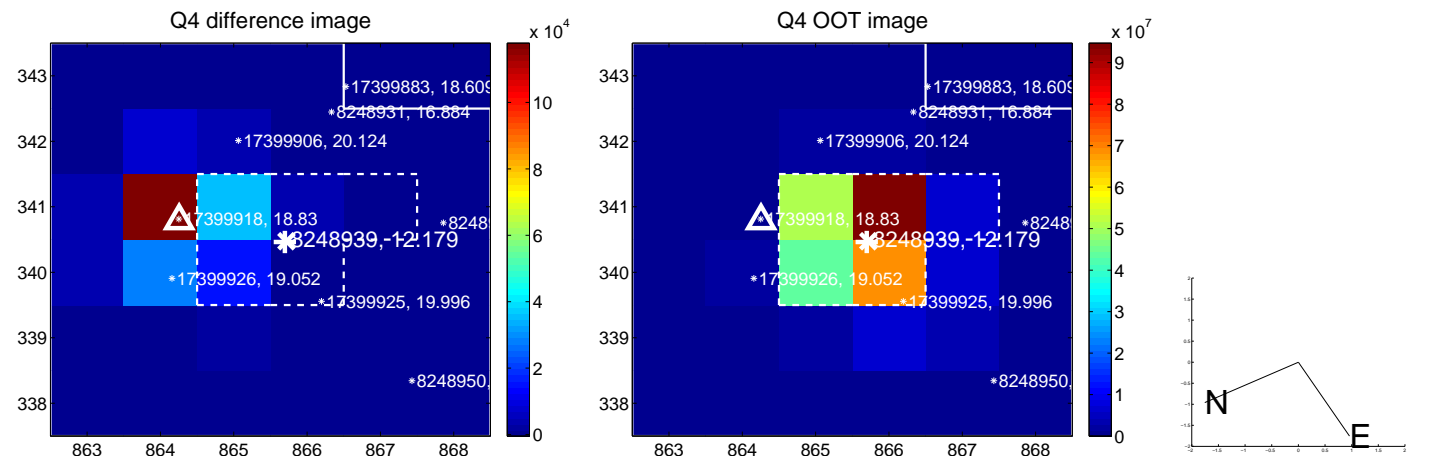
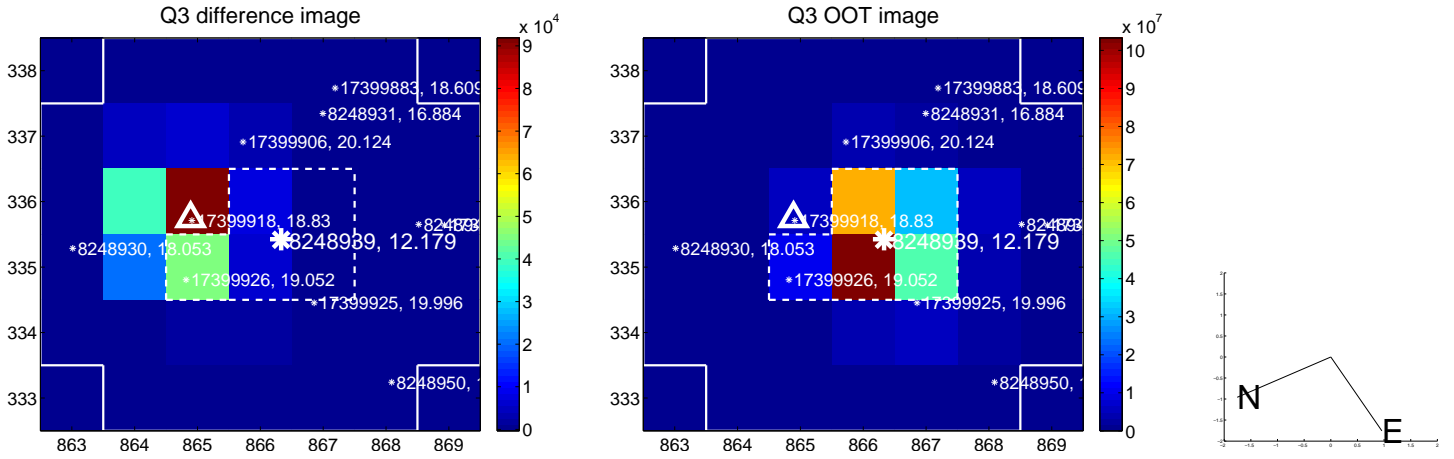
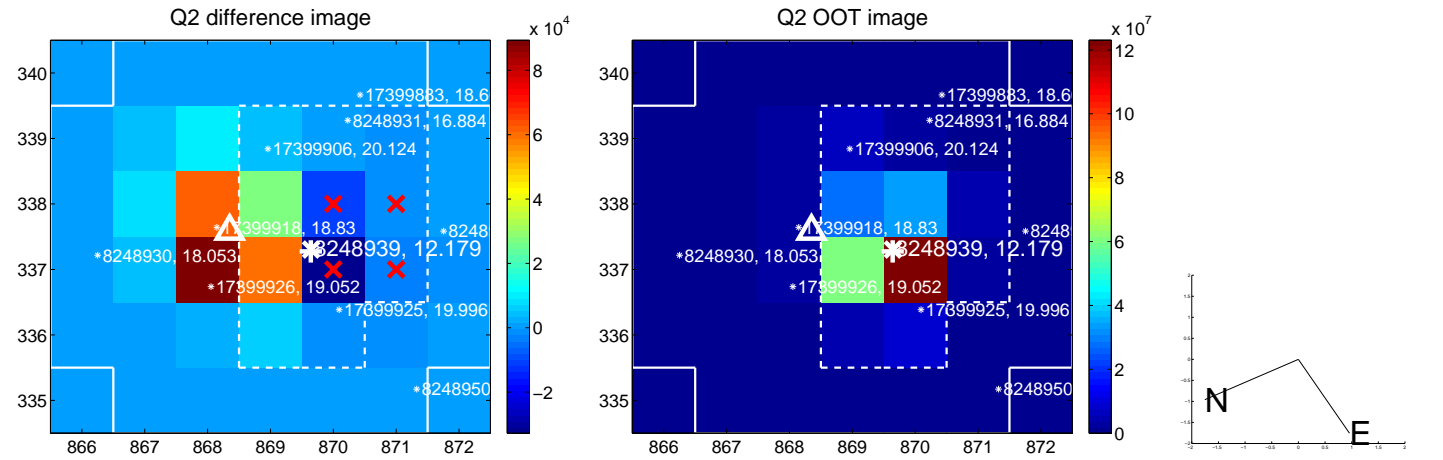
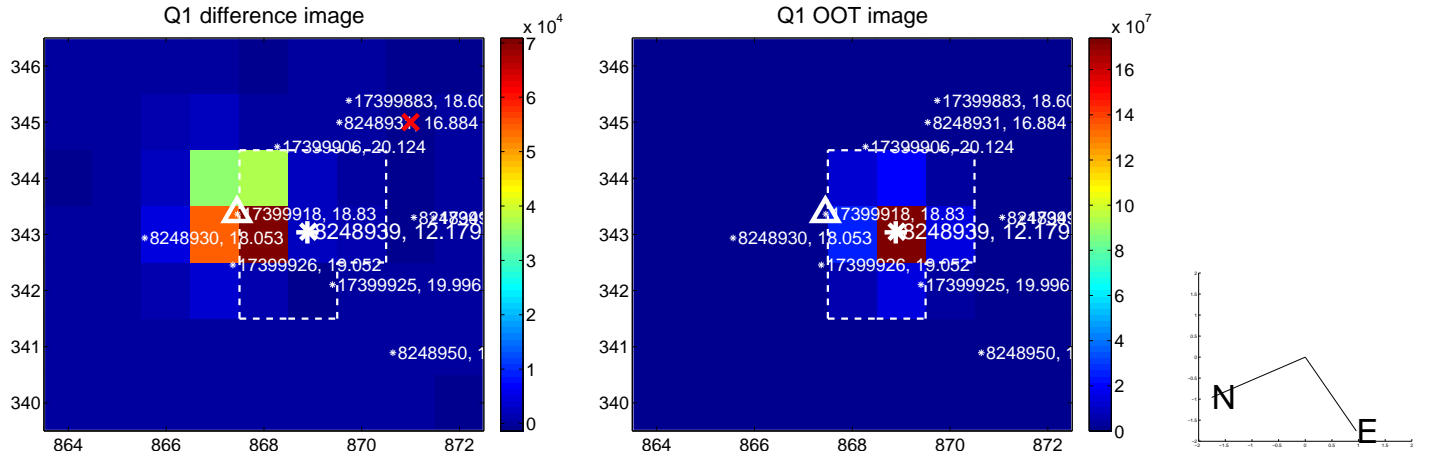
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.866 \pm 0.080	73.30	-3.873 \pm 0.072	4.405 \pm 0.076
PRF-fit source offset from KIC position	5.901 \pm 0.080	73.55	-3.878 \pm 0.072	4.448 \pm 0.076
photometric centroid source offset	26.59 \pm 0.09	299.97	-17.02 \pm 0.09	20.43 \pm 0.09

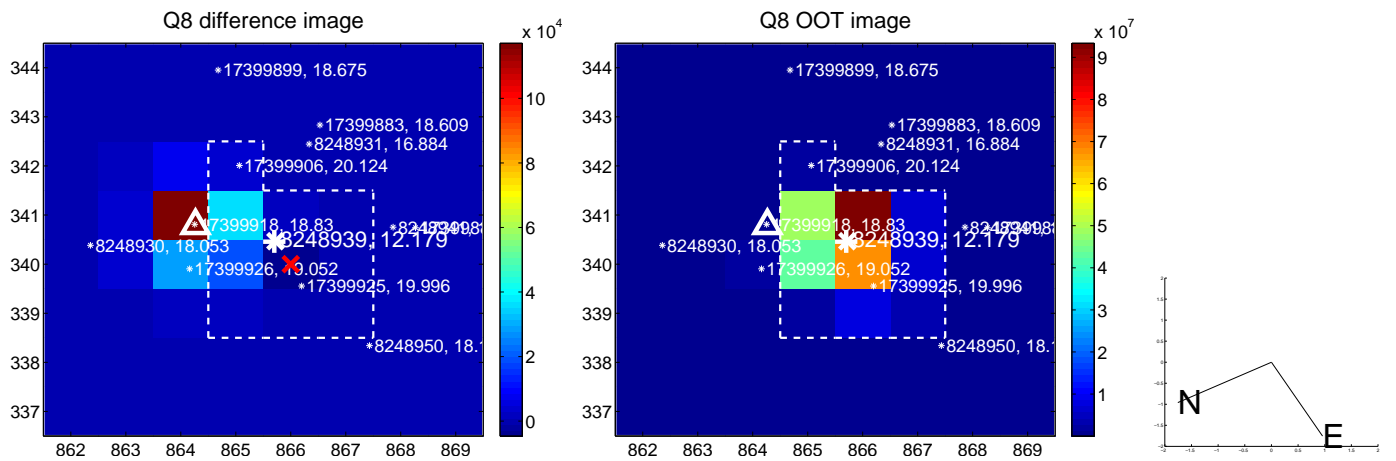
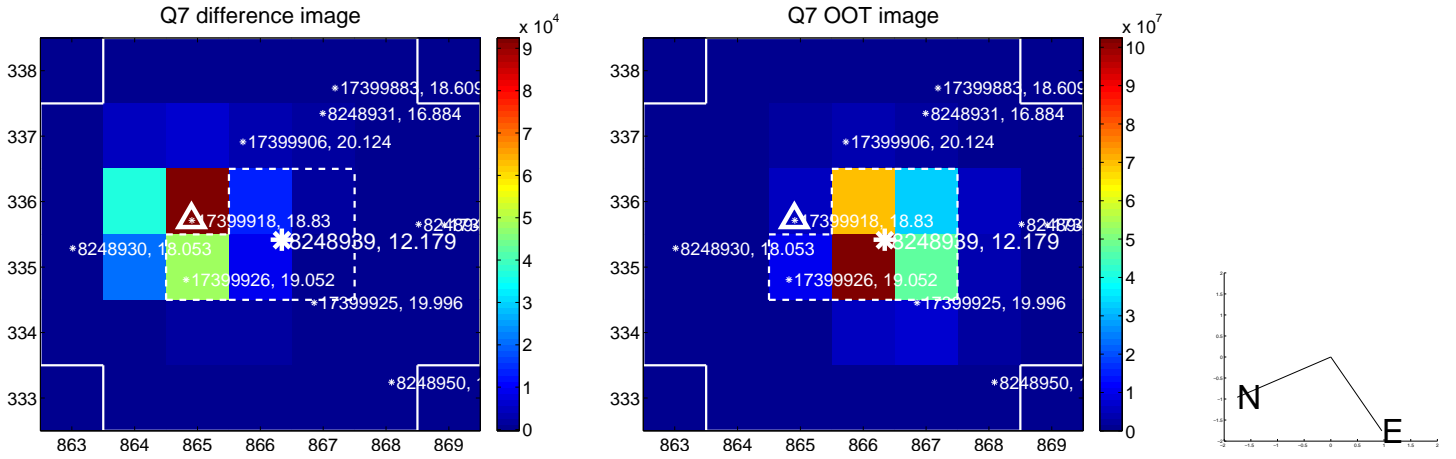
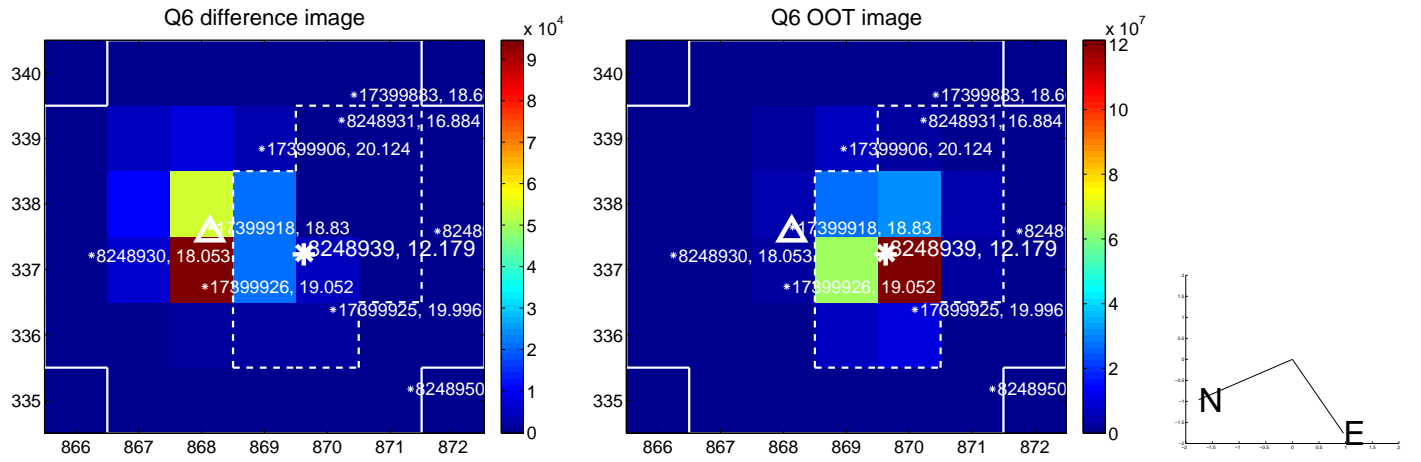
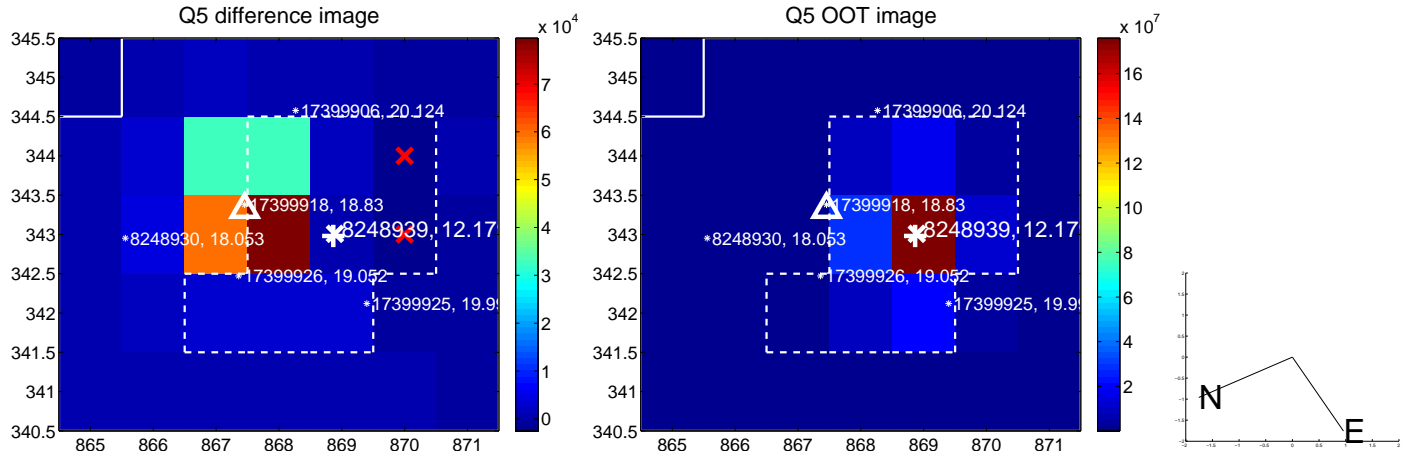


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

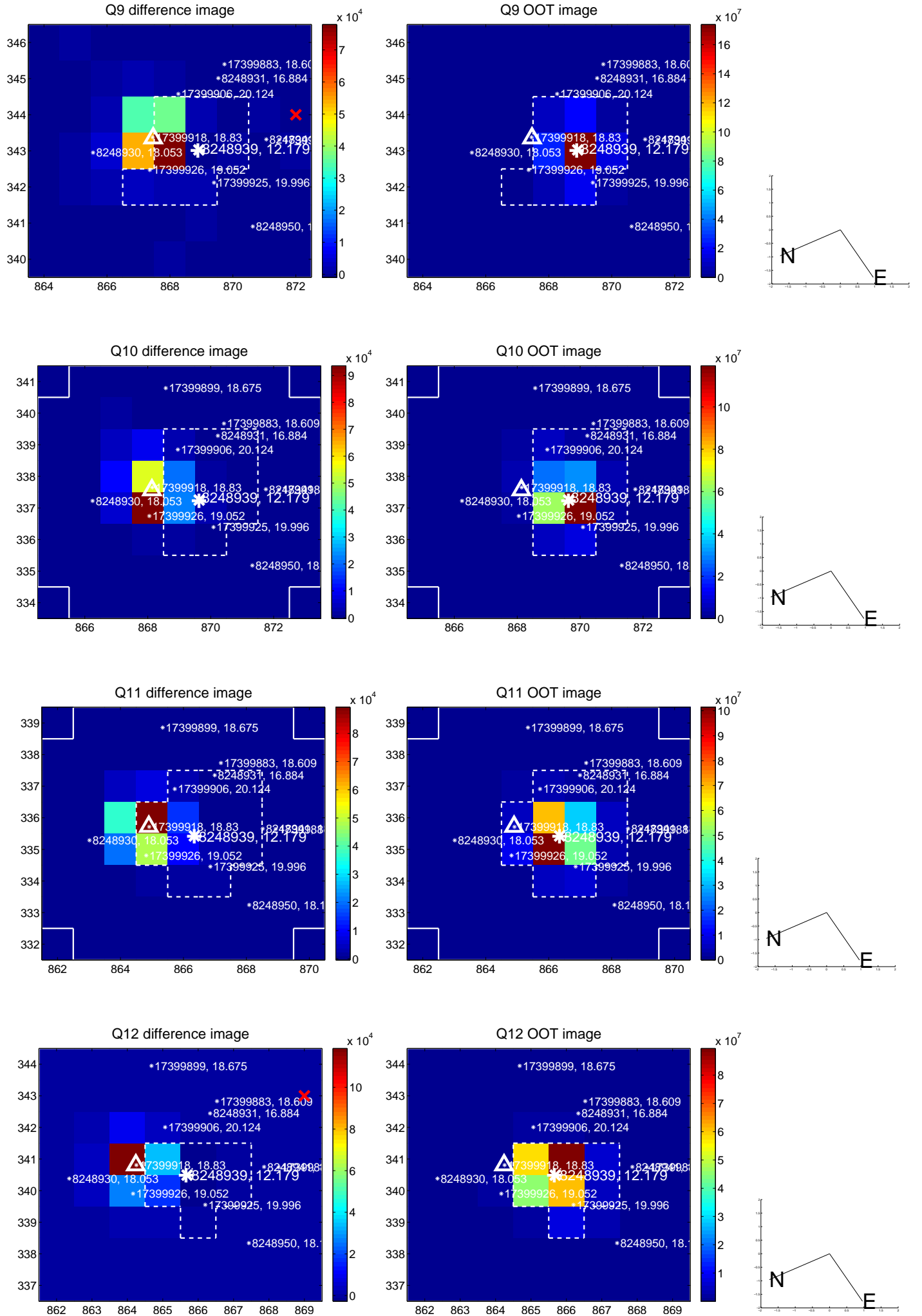
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



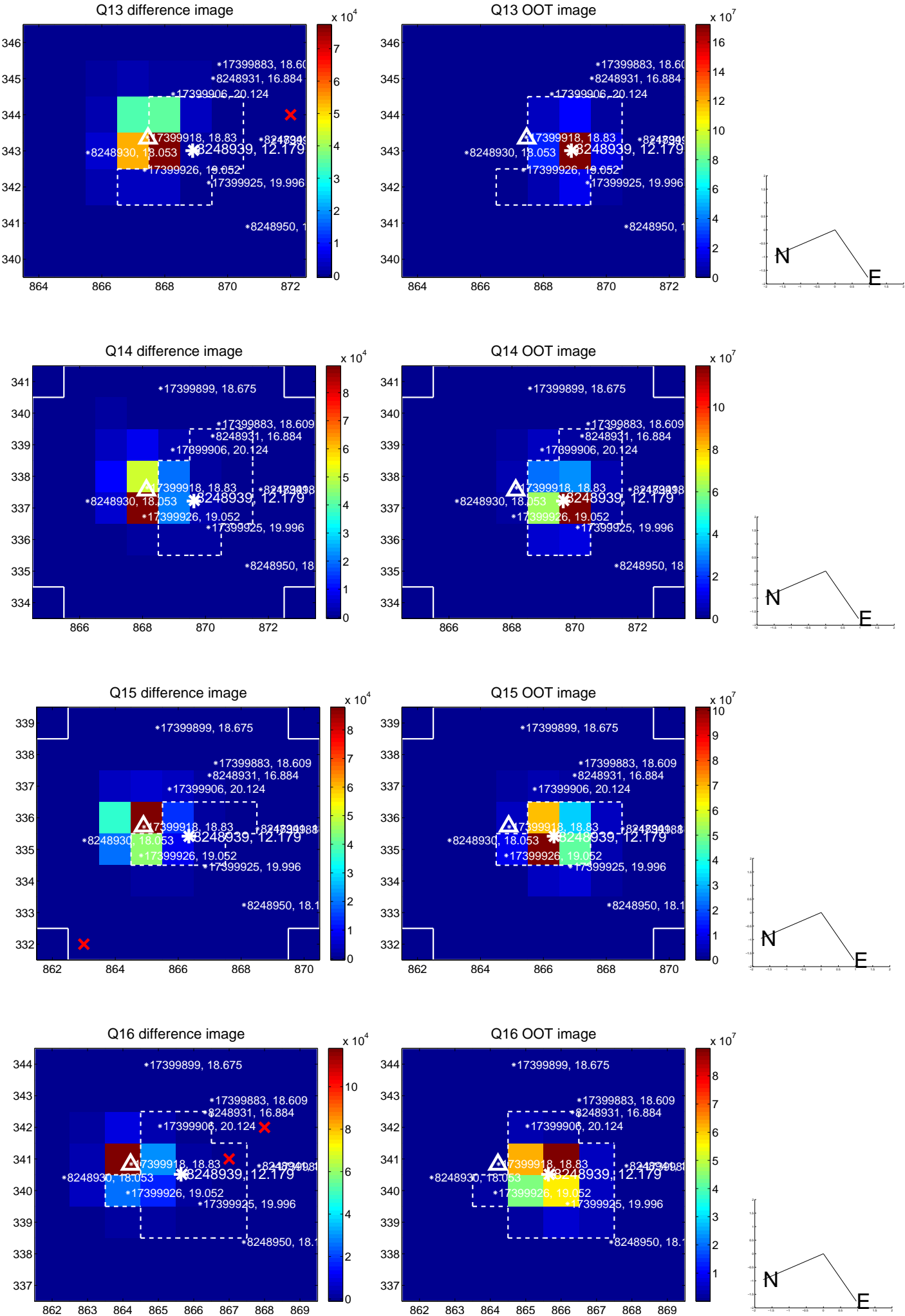
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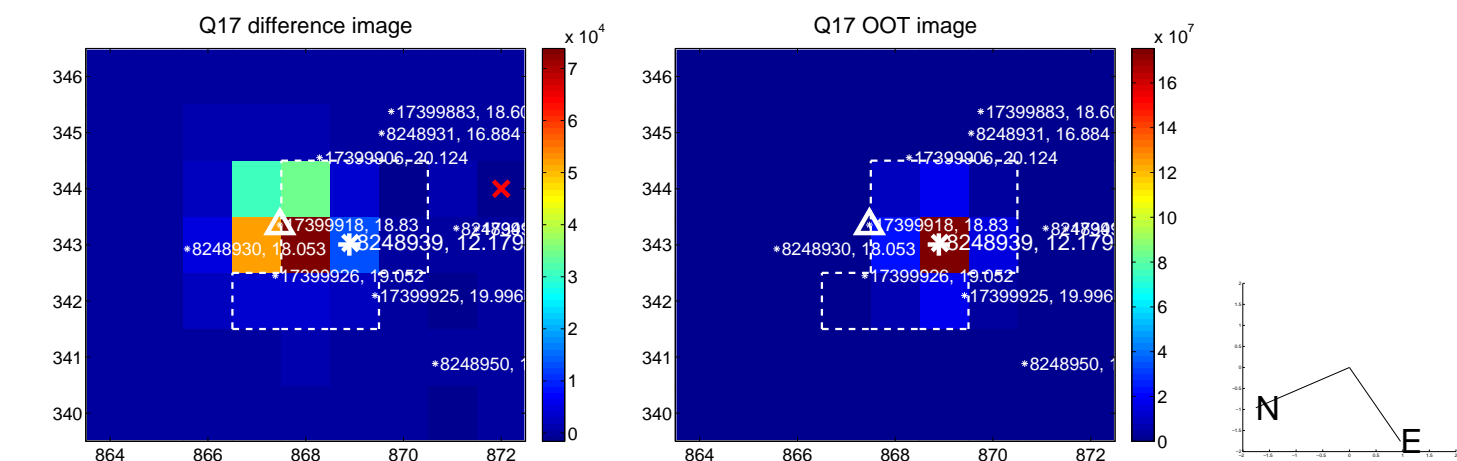
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



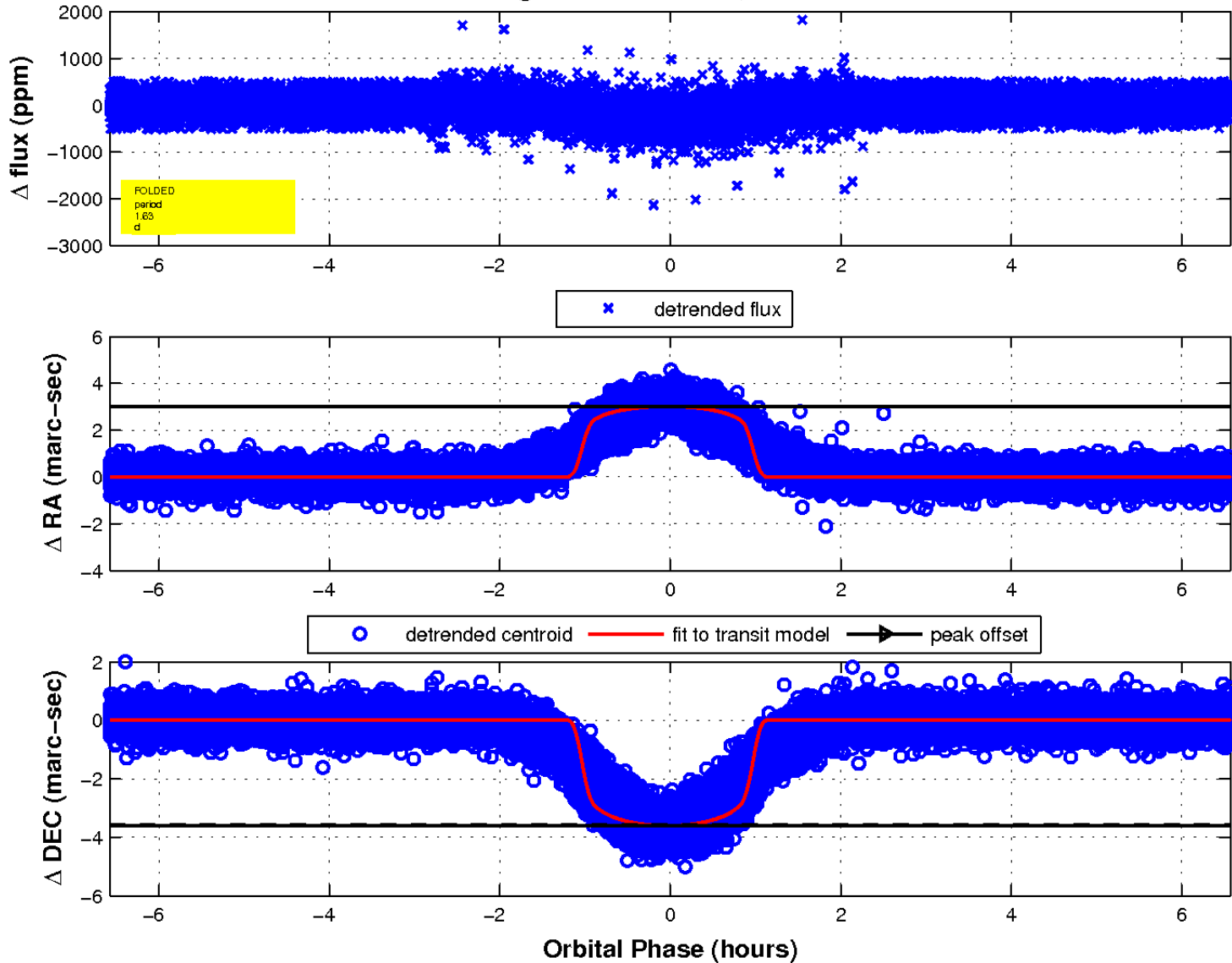
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

