

KIC 000892772

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})
000892772-01	OBS	1009.01	5.092590	133.454258	239.7	3.642	15.2	15.3	0.75	5037	1.41	120.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
000892772-01	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 000892772-01

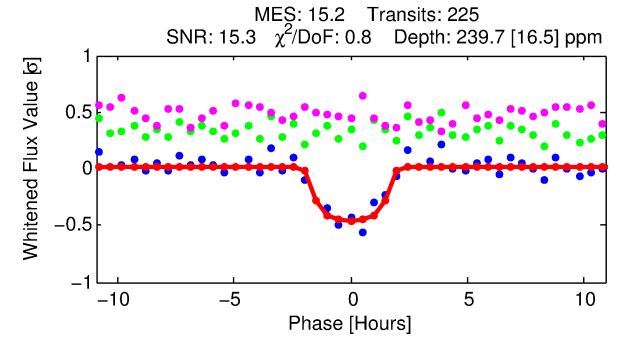
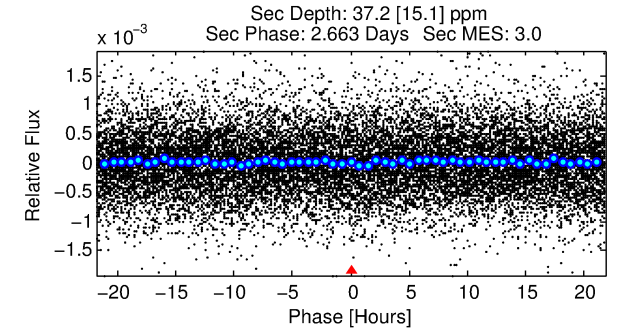
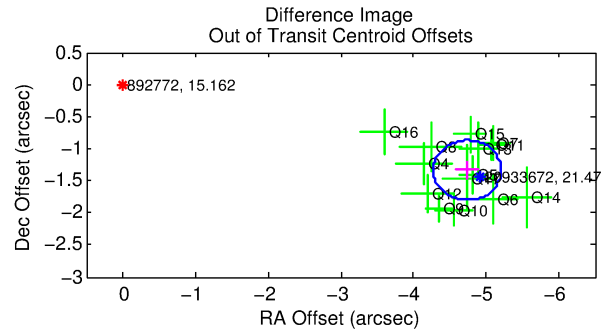
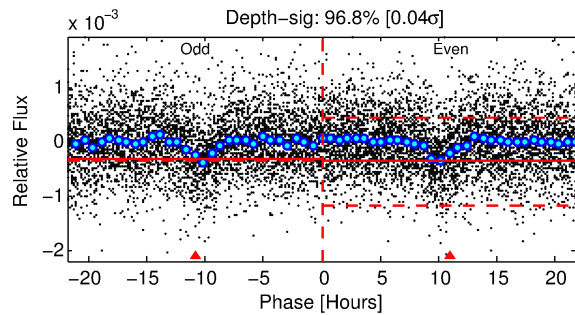
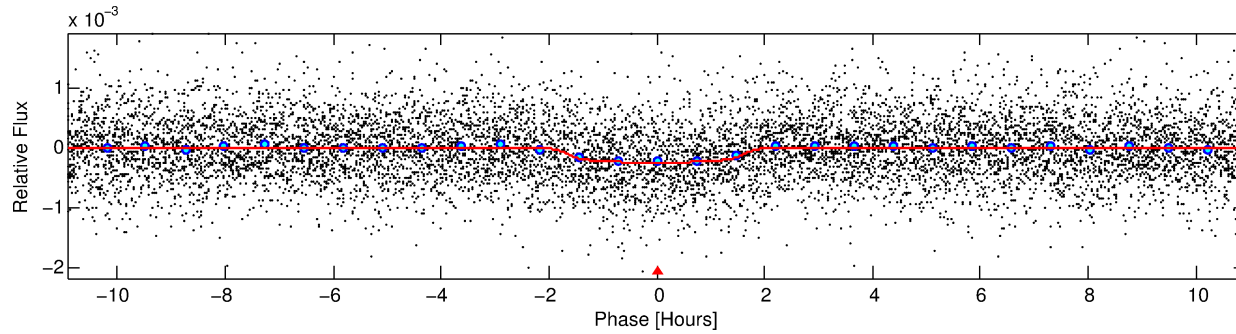
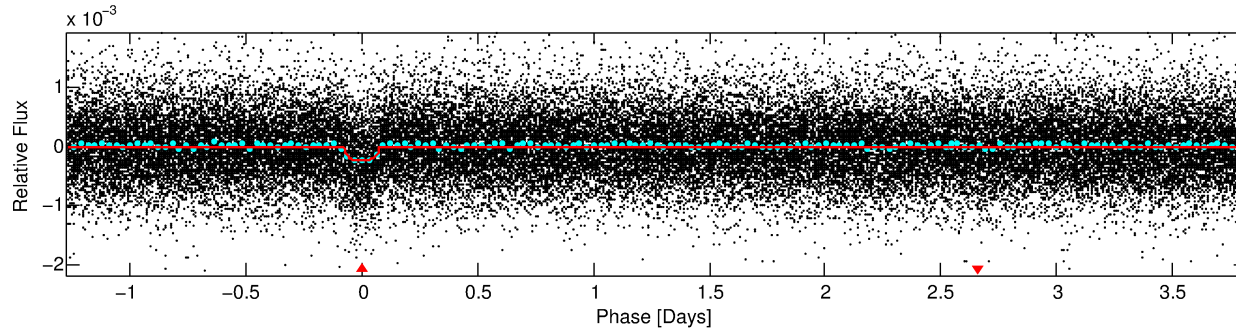
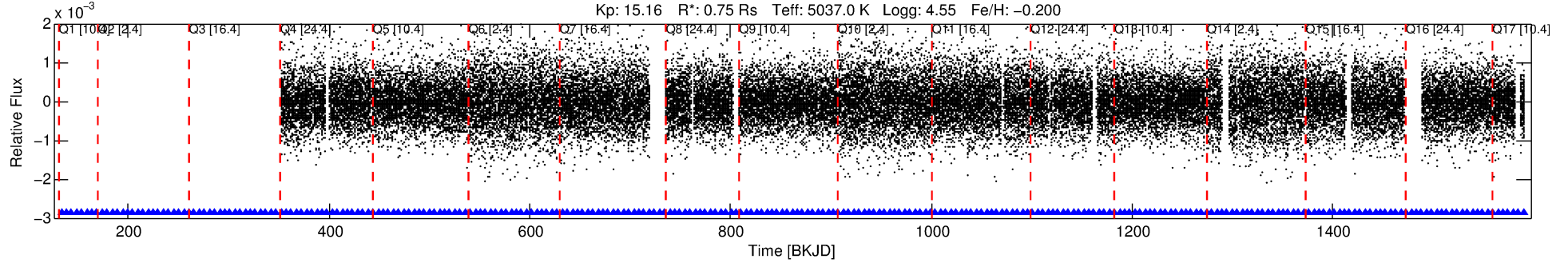
No Significant Match Found

DV One-Page Summary

KIC: 892772 Candidate: 1 of 1 Period: 5.093 d

KOI: K01009.01 Corr: 0.927

Kp: 15.16 R*: 0.75 Rs Teff: 5037.0 K Logg: 4.55 Fe/H: -0.200



DV Fit Results:

Period = 5.09259 [0.00003] d
Epoch = 133.4543 [0.0046] BKJD
Rp/R* = 0.0172 [0.0062]
a/R* = 5.16 [7.26]
b = 0.90 [0.32]
Seff = 120.07 [23.34]
Teq = 844 [41] K
Rp = 1.41 [0.53] Re
a = 0.0520 [0.0046] AU
Ag = 27.88 [23.26] [1.16σ]
Teff = 2999 [627] K [3.43σ]

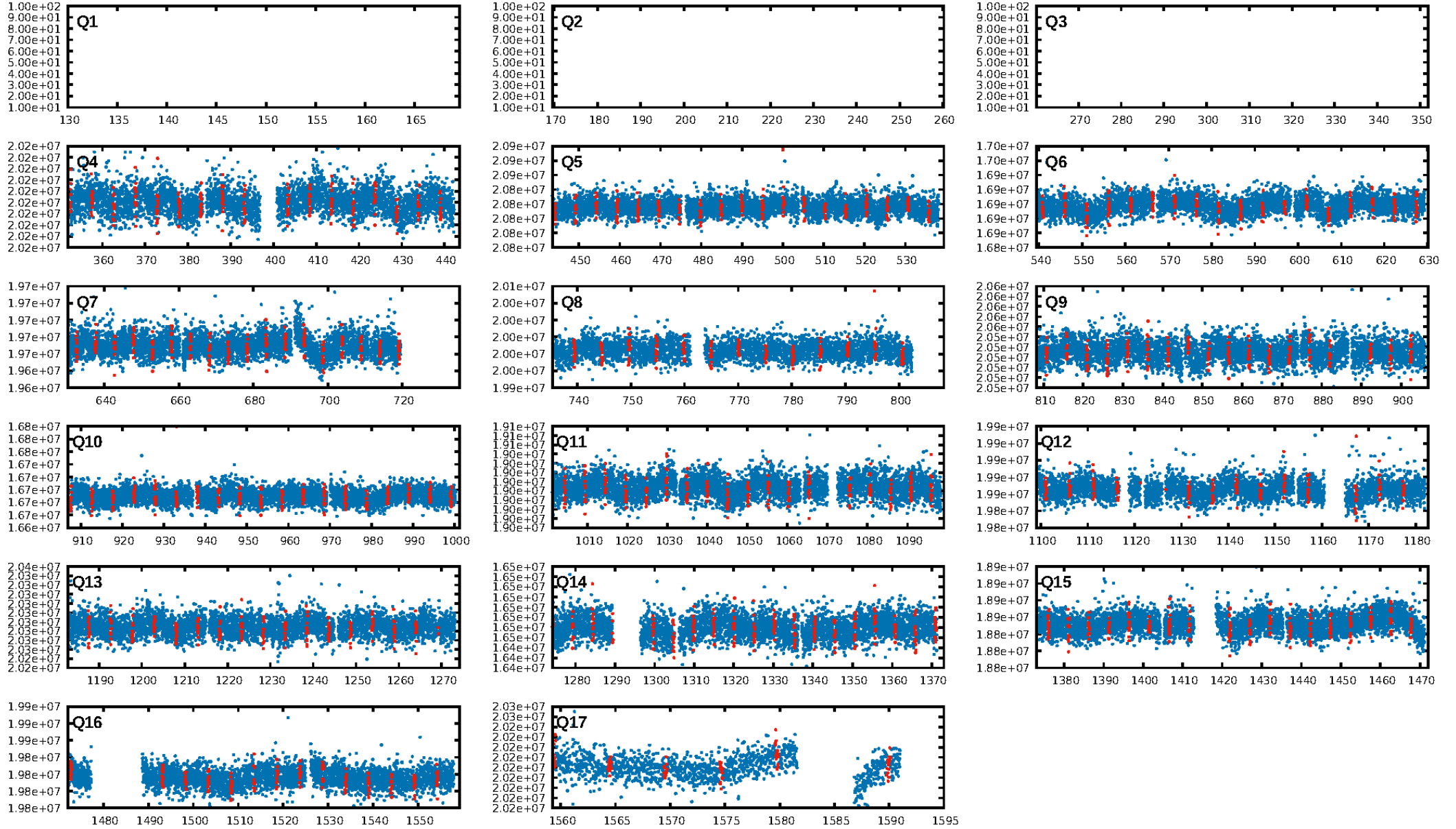
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.47e-51
RollingBand-fgt: 1.00 [219/219]
GhostDiagnostic-chr: 0.08184
Centroid-sig: 0.0%
Centroid-so: 8.645 arcsec [9.84σ]
OotOffset-rm: 4.922 arcsec [31.60σ]
KicOffset-rm: 5.193 arcsec [33.32σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

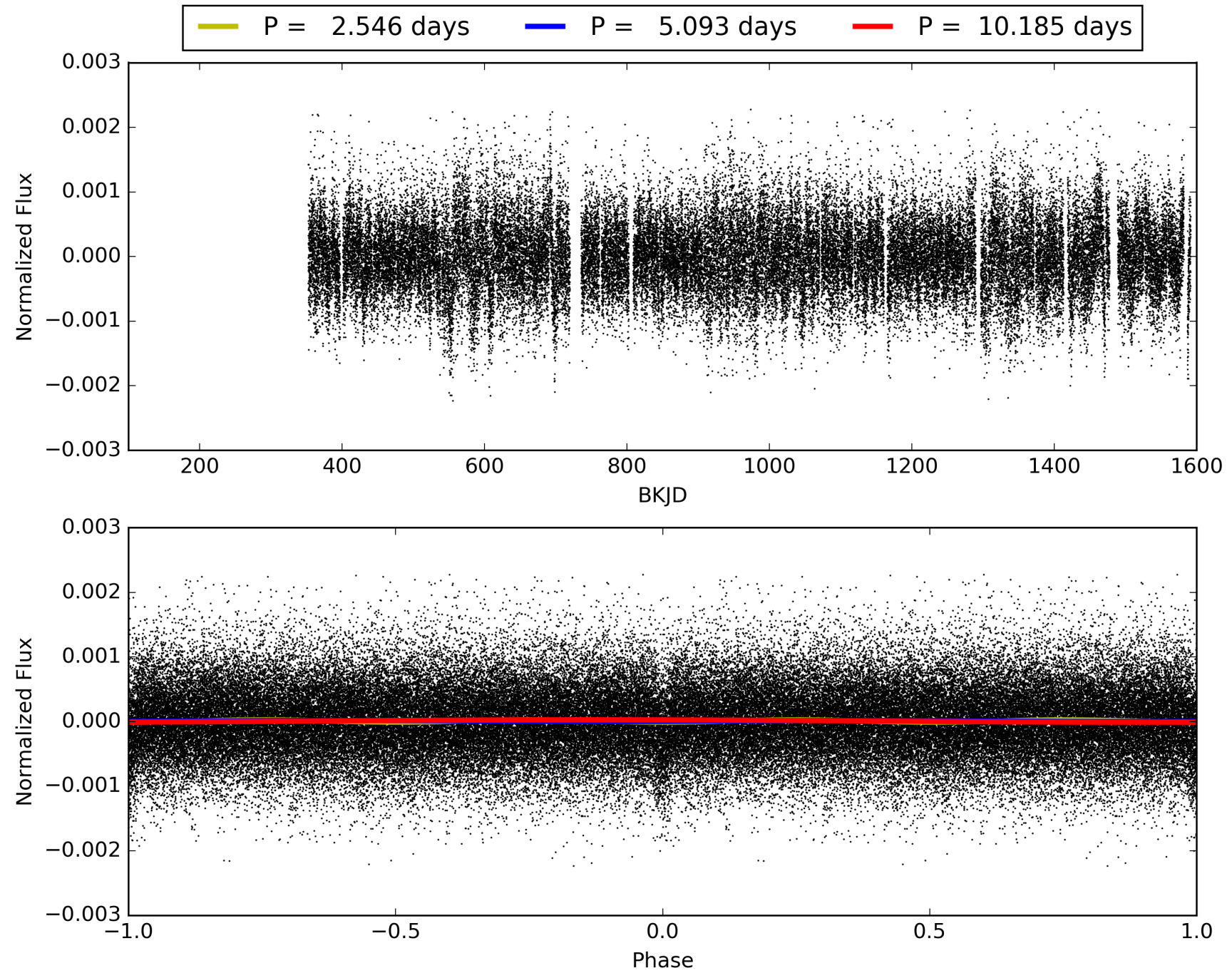
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:32:26 Z

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

TCE 000892772-01, PDC Light Curves

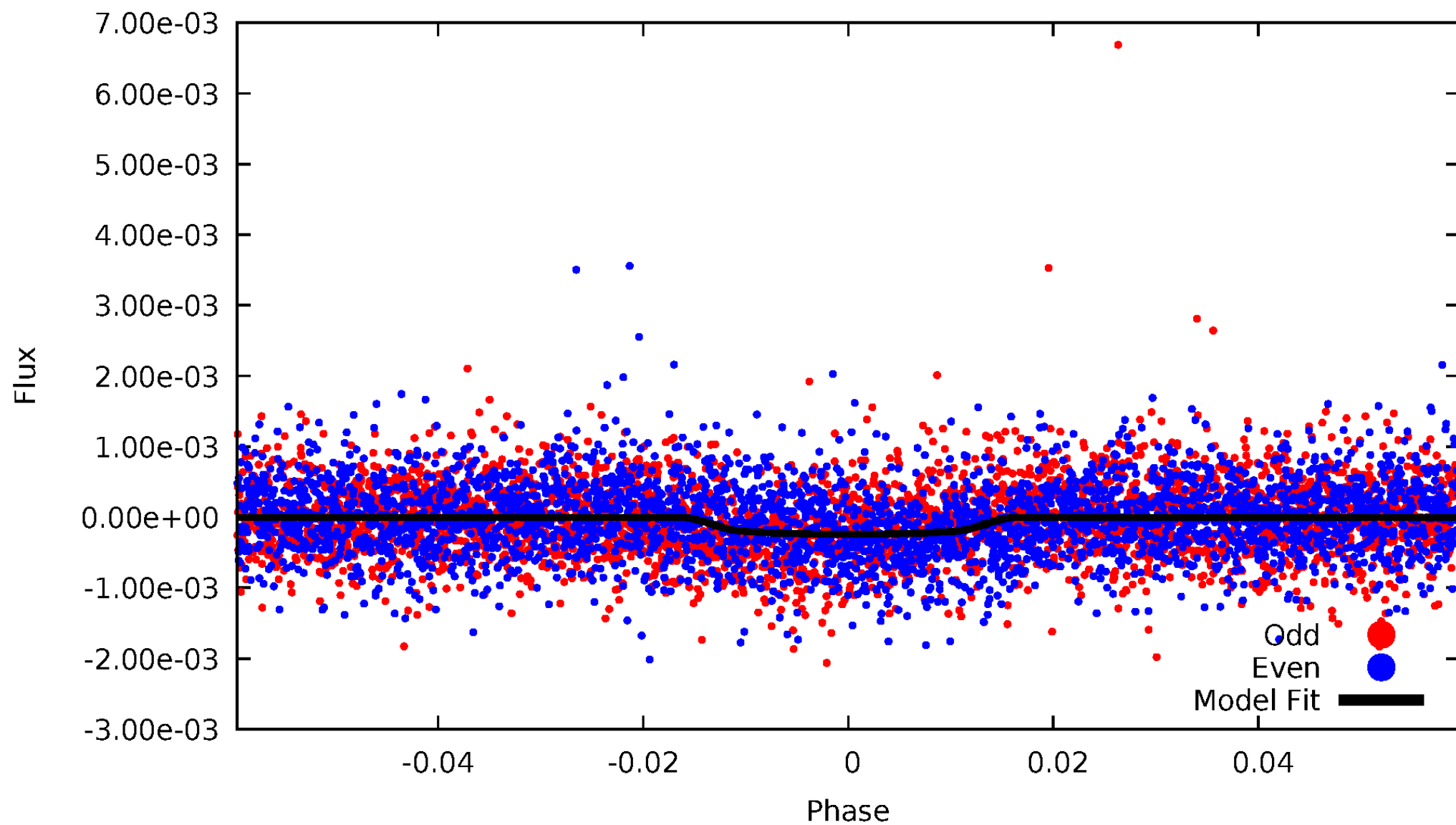


TCE 000892772-01



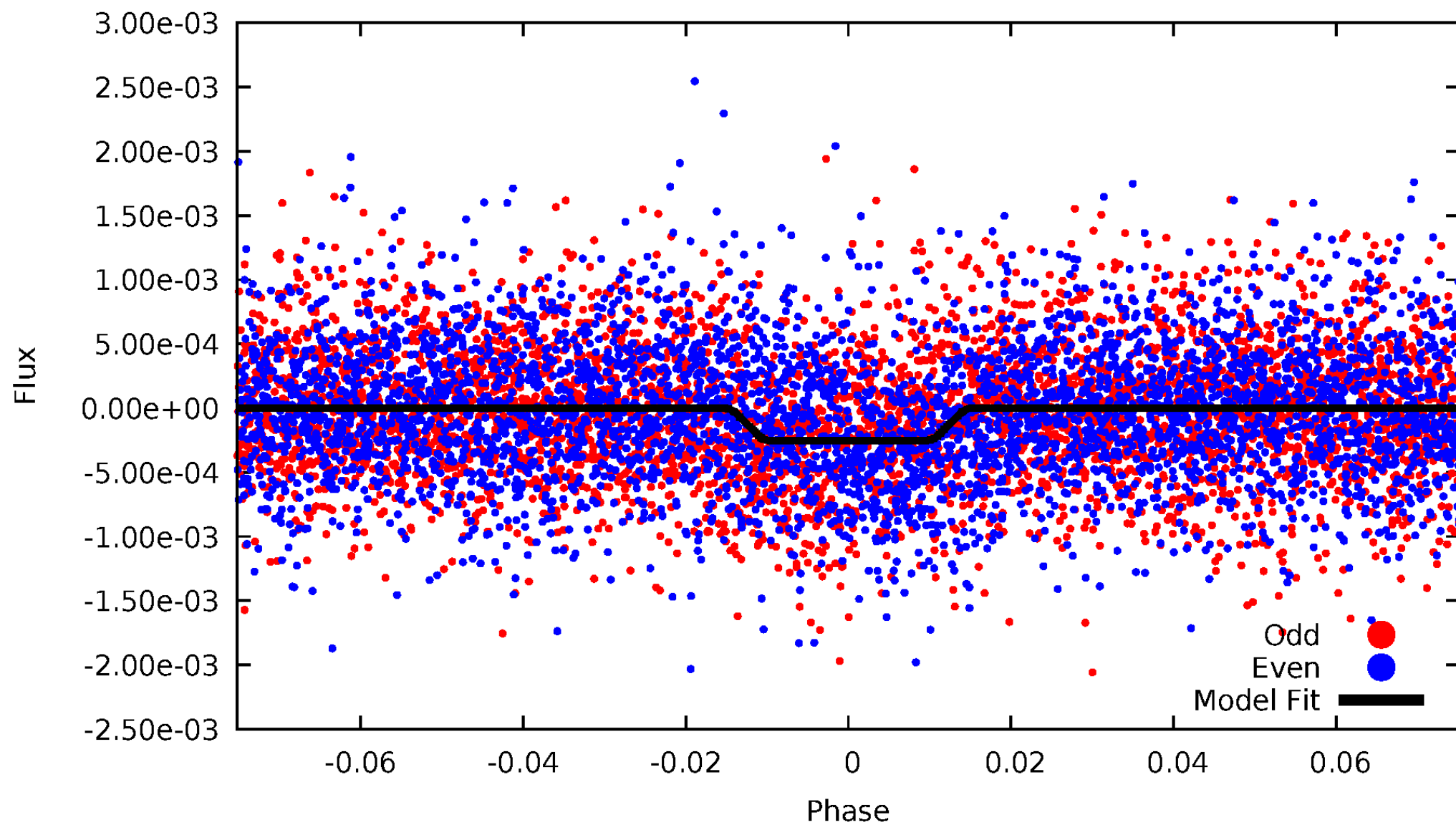
DV Odd/Even

TCE 000892772-01



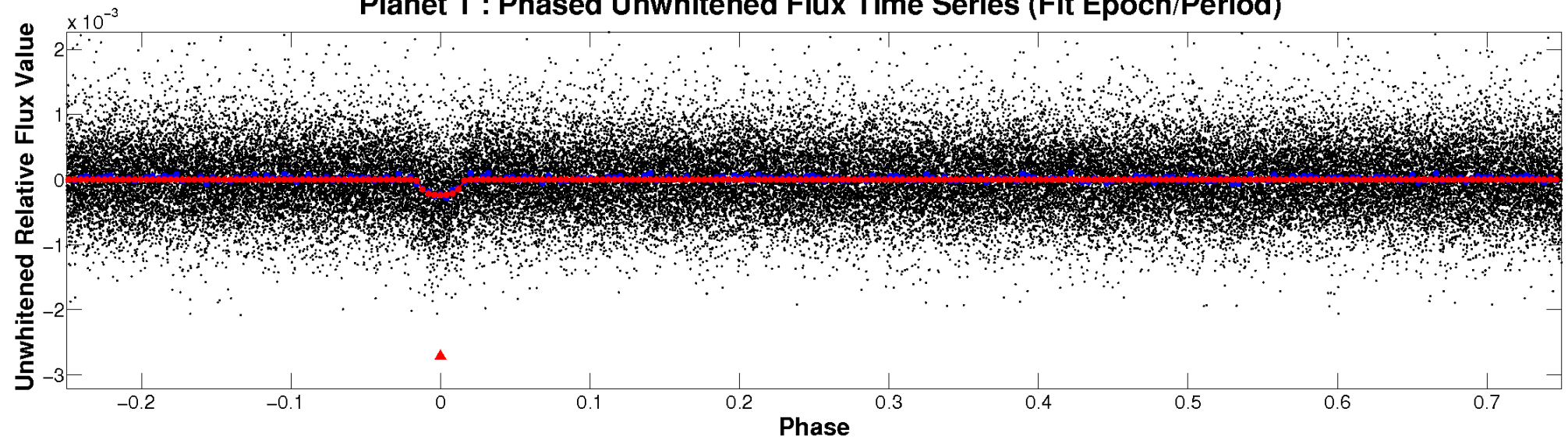
ALT Odd/Even

TCE 000892772-01

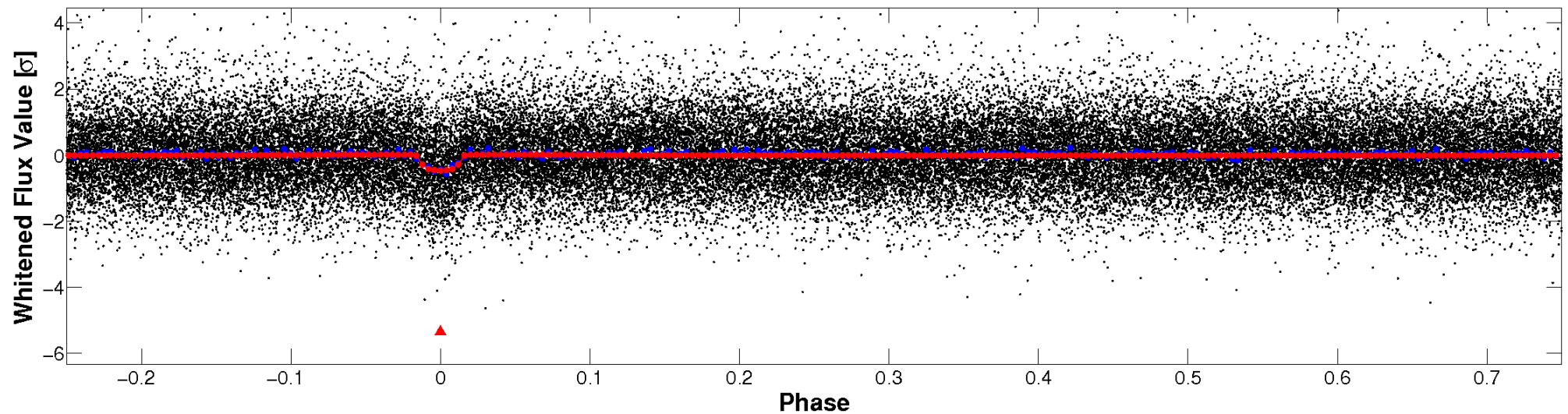


Non-Whitened Vs. Whitened Light Curve

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

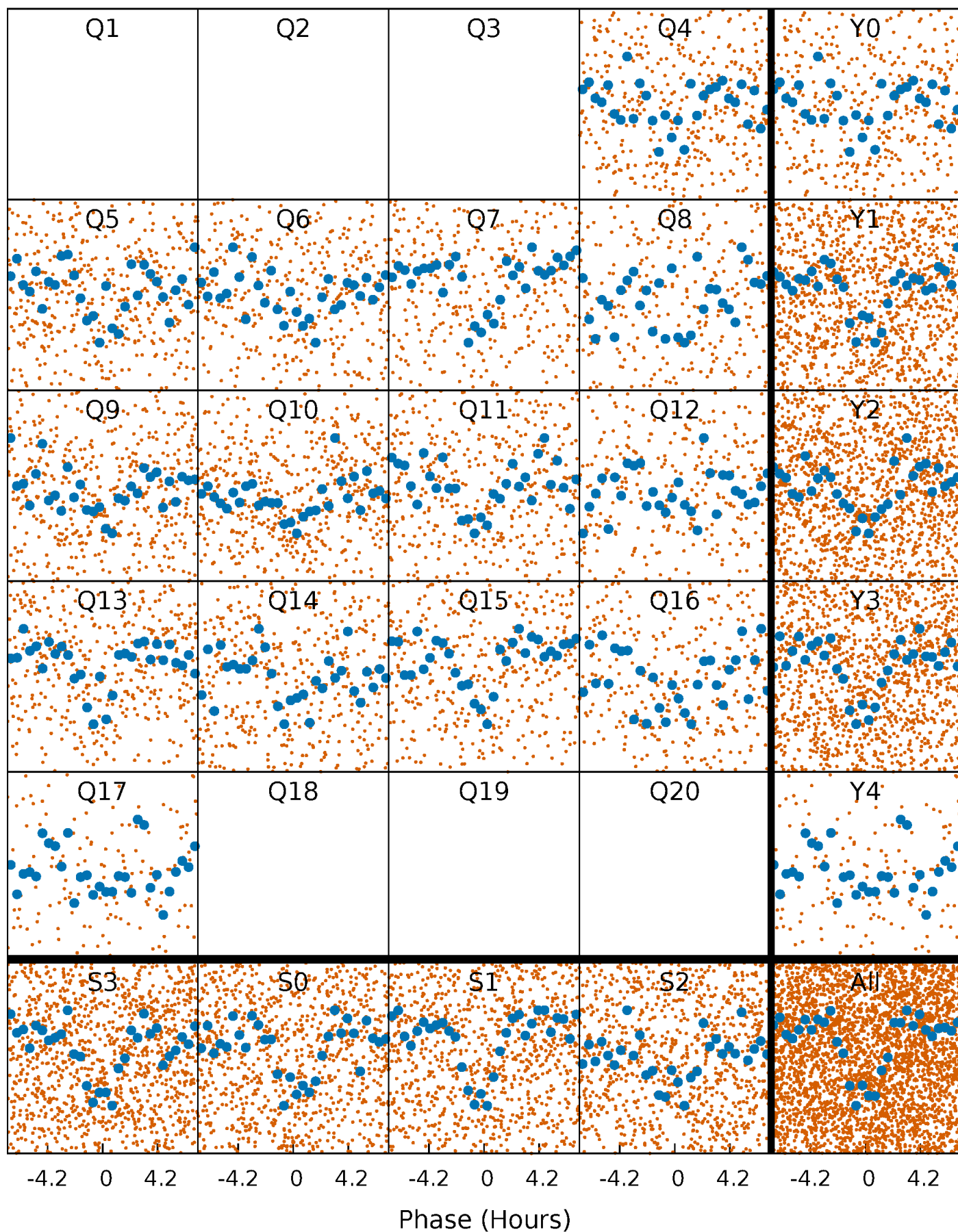


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



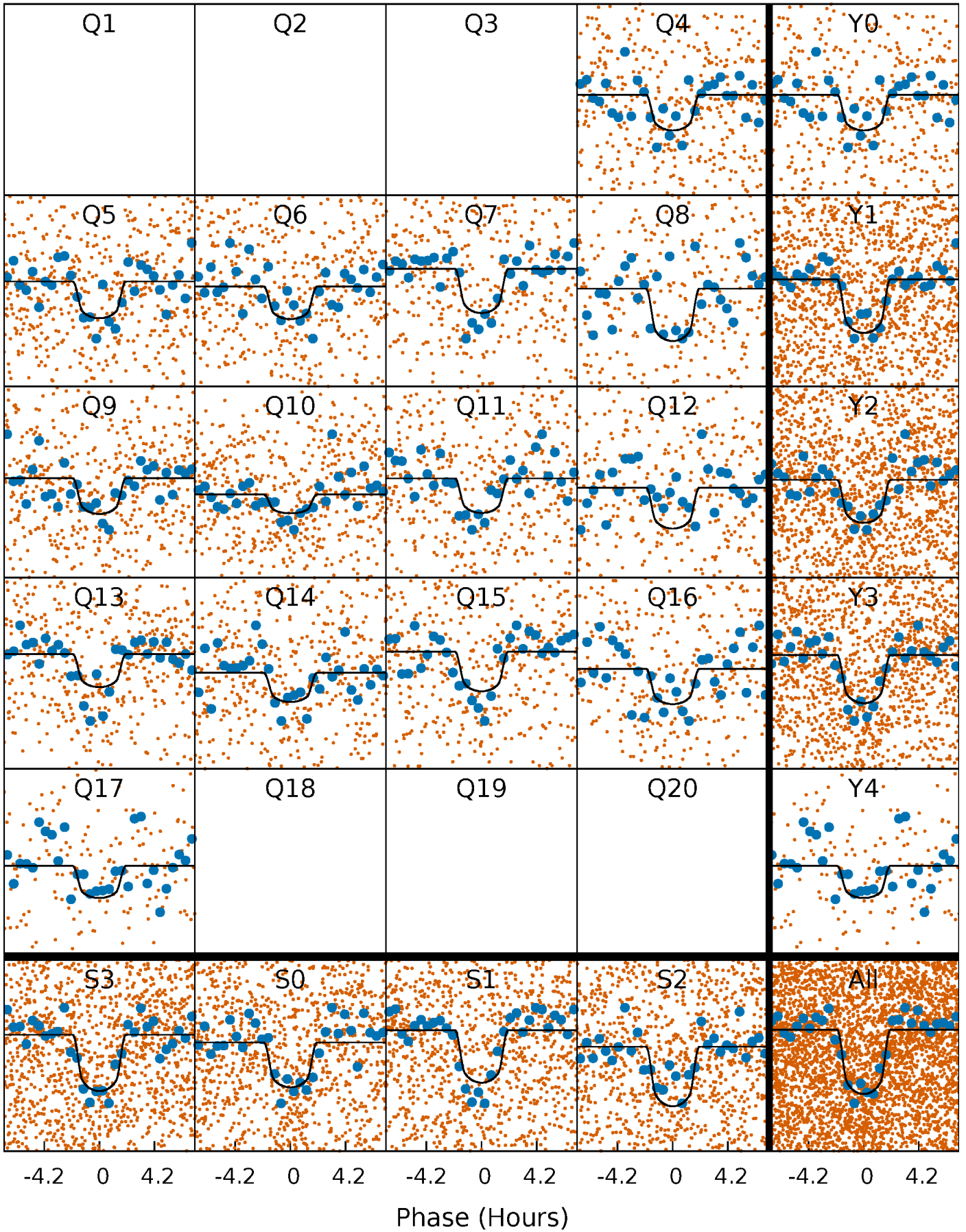
PDC Quarter-Phased Transit Curves

TCE 000892772-01 P= 5.092590 Days $T_0=133.454258$ (BKJD)



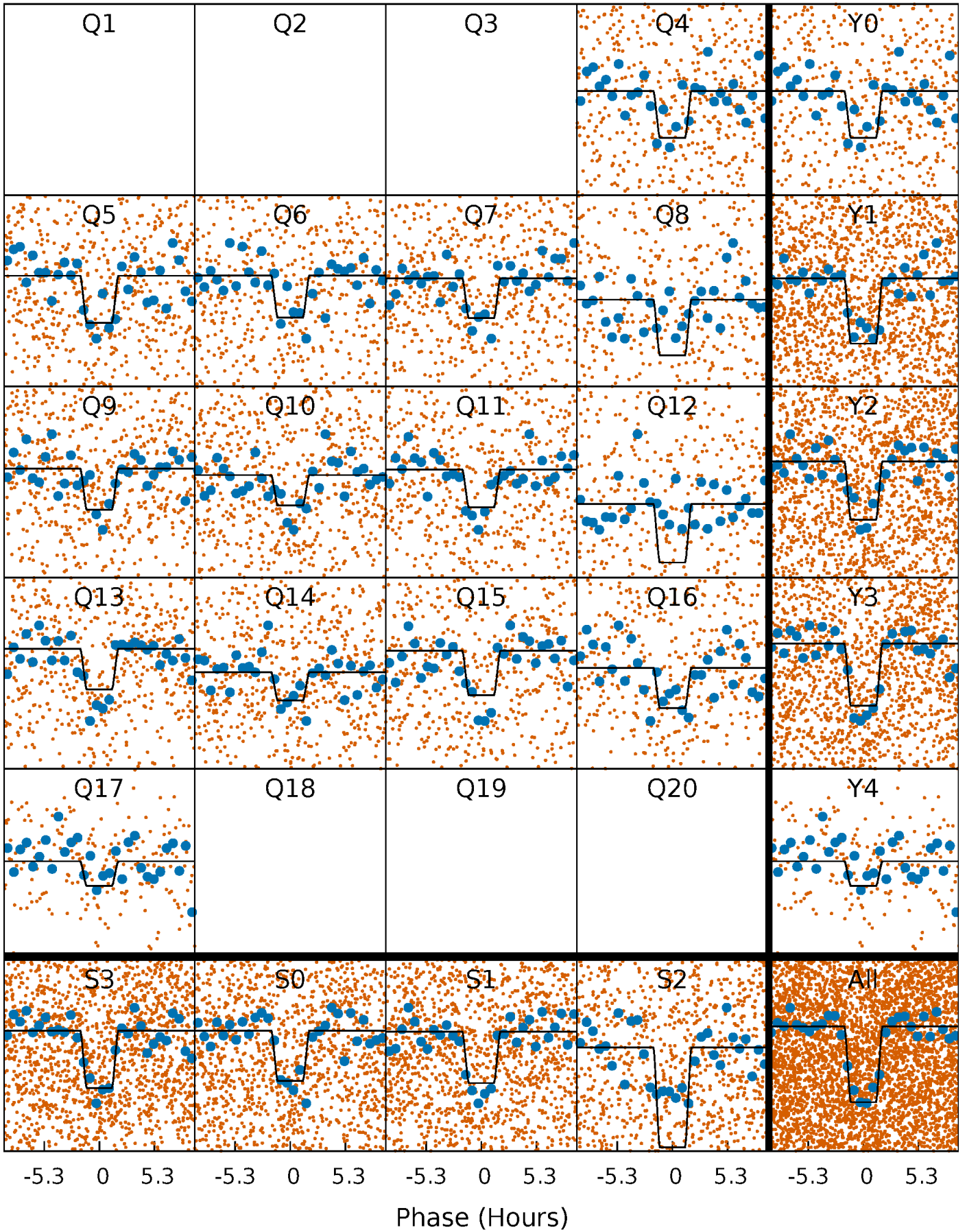
DV Quarter-Phased Transit Curves

TCE 000892772-01 P= 5.092590 Days $T_0=133.454258$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

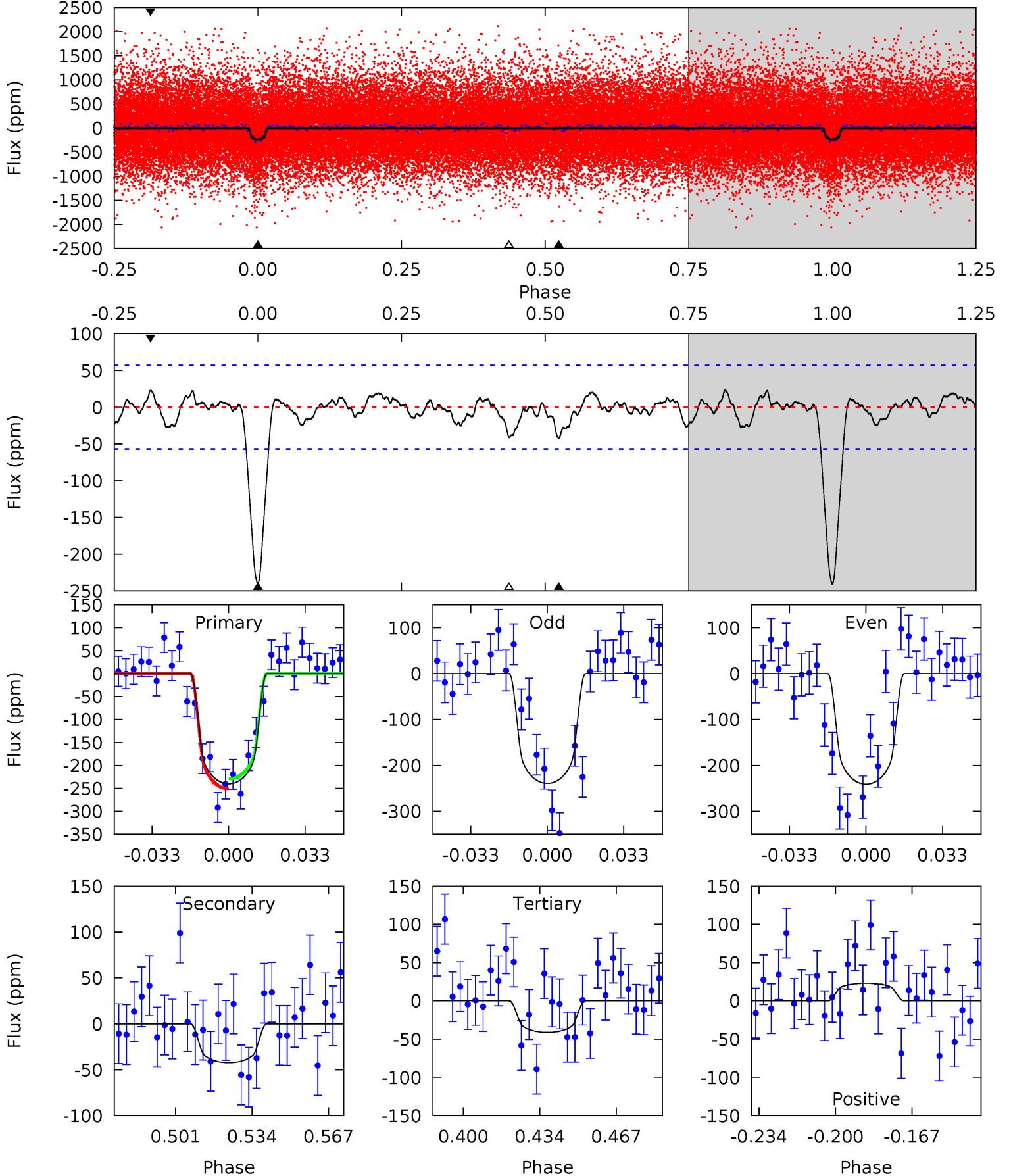
TCE 000892772-01 P= 5.092532 Days $T_0=133.459715$ (BKJD)



DV Model-Shift Uniqueness Test

000892772-01, P = 5.092590 Days, E = 133.454258 Days

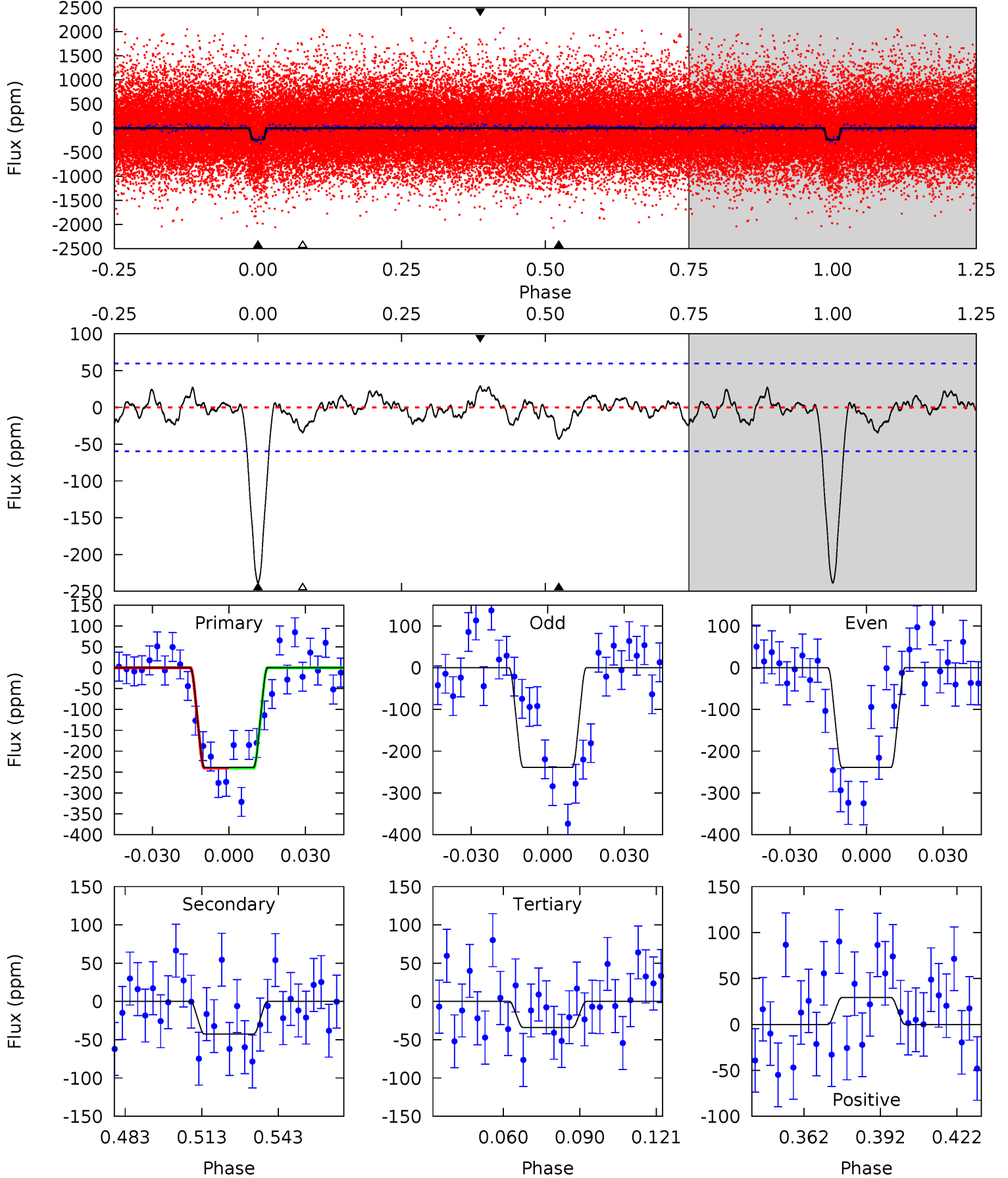
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.3	3.57	3.47	1.94	4.79	2.13	1.02	16.8	18.3	0.10	1.63	0.07	0.97	0.09	0.91



Alt Model-Shift Uniqueness Test

000892772-01, P = 5.092532 Days, E = 133.459715 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	3.44	2.74	2.35	4.81	2.17	0.95	16.5	16.9	0.70	1.09	0.02	0.93	0.11	0.02



Stellar Parameters For KIC 000892772

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5037^{+181}_{-181}	$4.547^{+0.072}_{-0.054}$	$-0.200^{+0.300}_{-0.300}$	$0.751^{+0.079}_{-0.079}$	$0.727^{+0.095}_{-0.055}$	$2.414^{+0.736}_{-0.472}$
	+4%/-4%	+2%/-1%	+150%/-150%	+11%/-11%	+13%/-8%	+30%/-20%
Source	KIC0	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 000892772-01 / KOI 1009.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-42 ± 12	$1.42^{+0.48}_{-0.53}$	1178^{+54}_{-59}	3526^{+644}_{-375}	32^{+50}_{-16}
Alt.	-43 ± 12	$1.29^{+0.50}_{-0.53}$	1179^{+53}_{-59}	3633^{+802}_{-431}	39^{+73}_{-21}

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 $A_{obs} \gg 1.0$

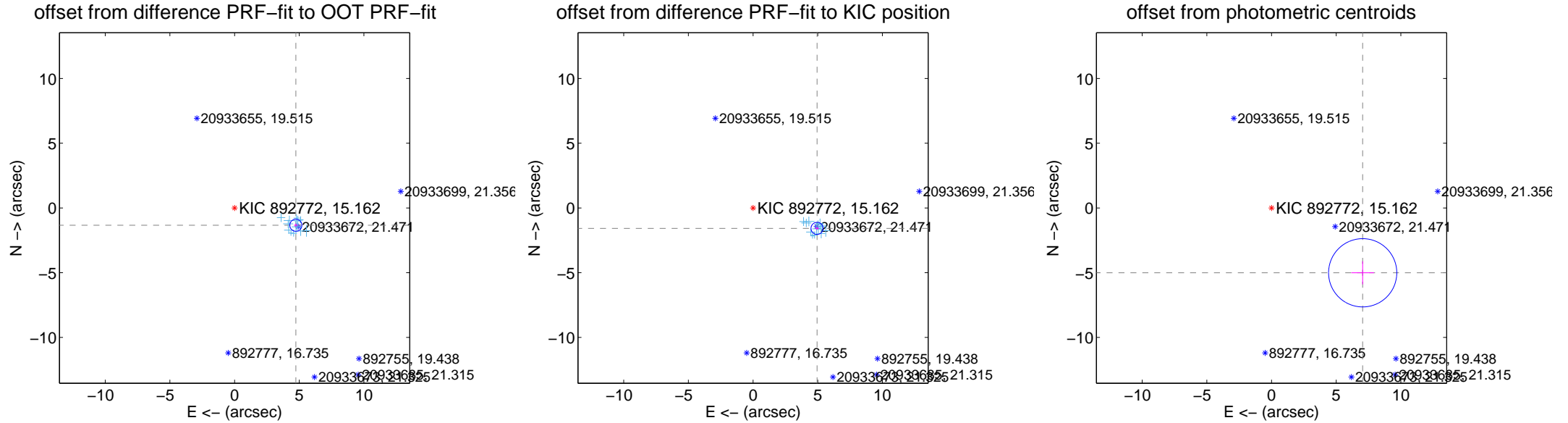
DV Centroid Data

Supplemental centroid analysis for 000892772-01. Kepler magnitude: 15.16. Transit SNR 15.34

There are 14 quarters with good PRF difference image offsets

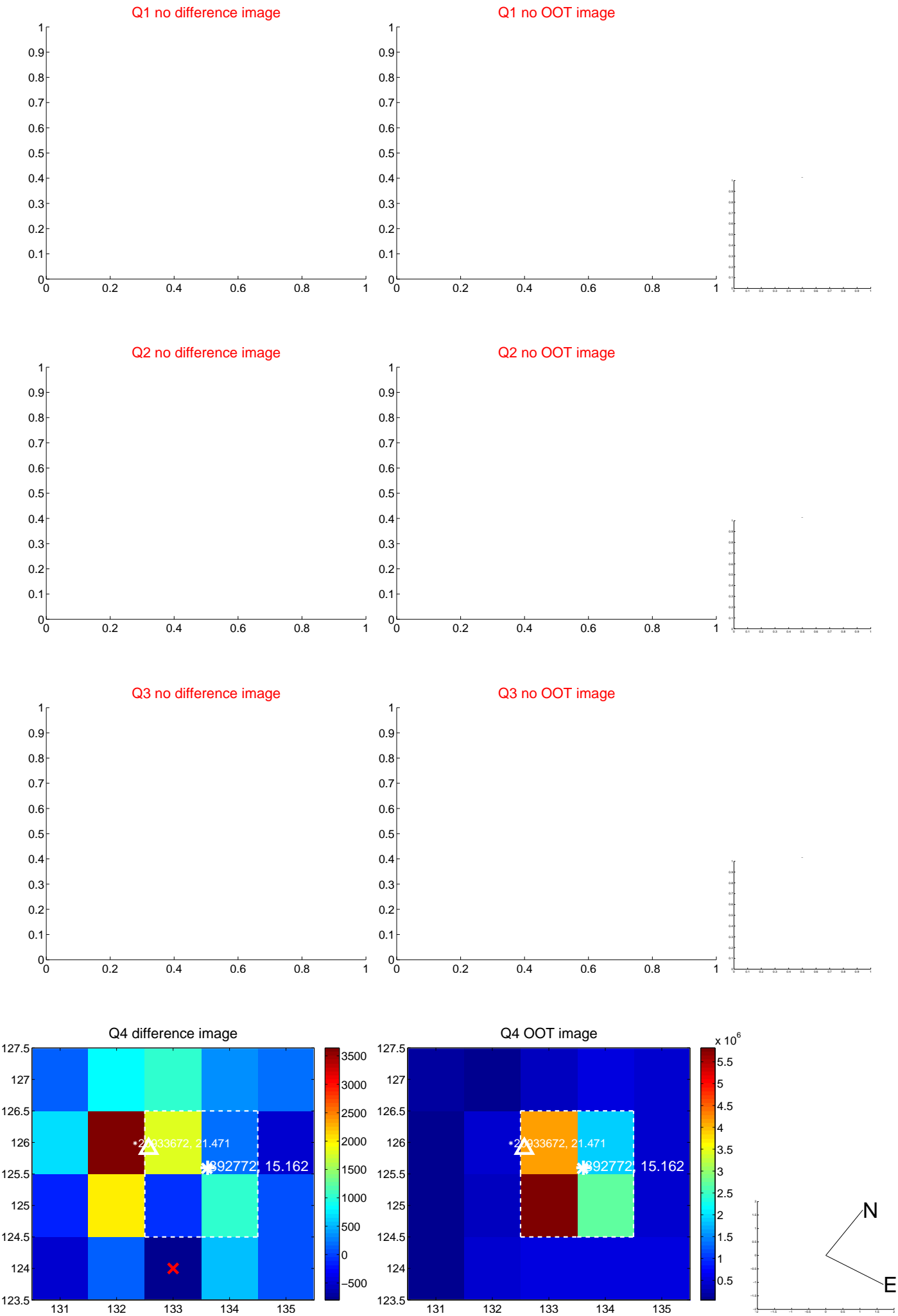
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.922 ± 0.156	31.60	-4.737 ± 0.155	-1.337 ± 0.128
PRF-fit source offset from KIC position	5.193 ± 0.156	33.32	-4.948 ± 0.151	-1.576 ± 0.119
photometric centroid source offset	8.65 ± 0.88	9.84	-7.05 ± 0.87	-5.01 ± 0.89

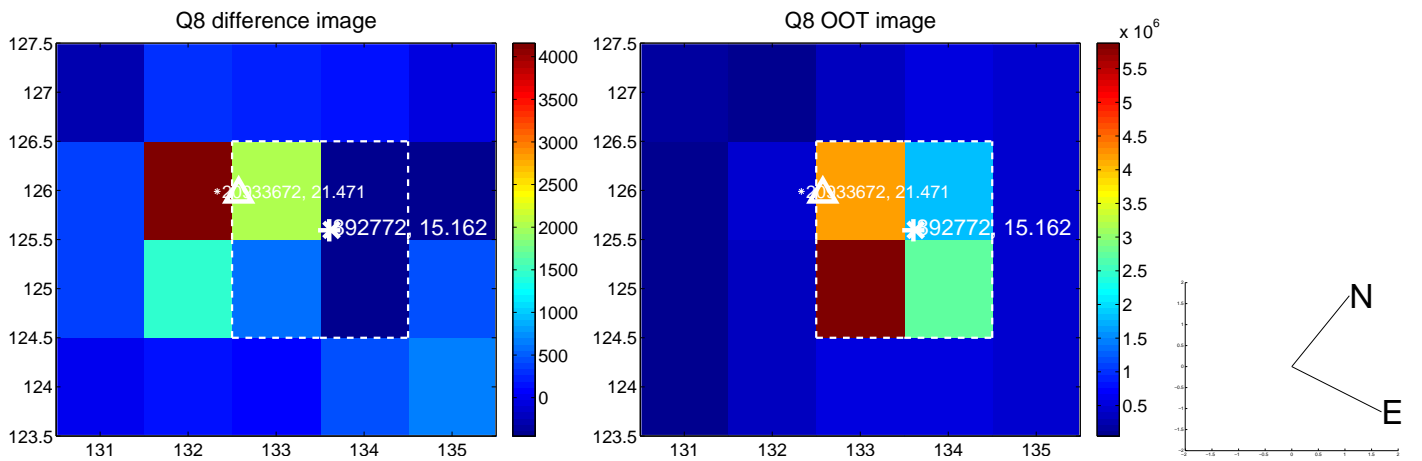
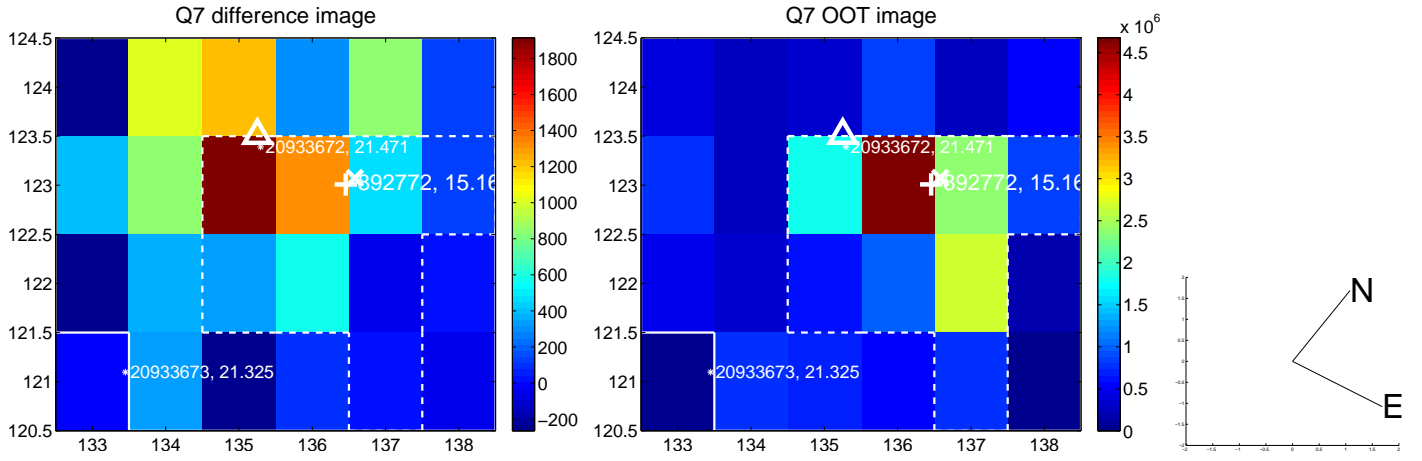
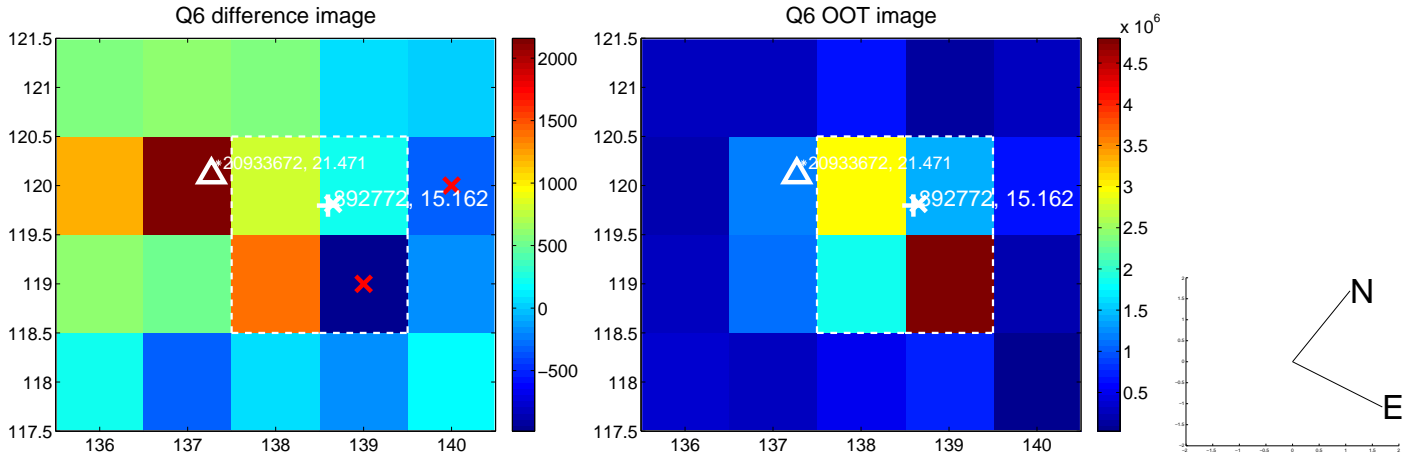
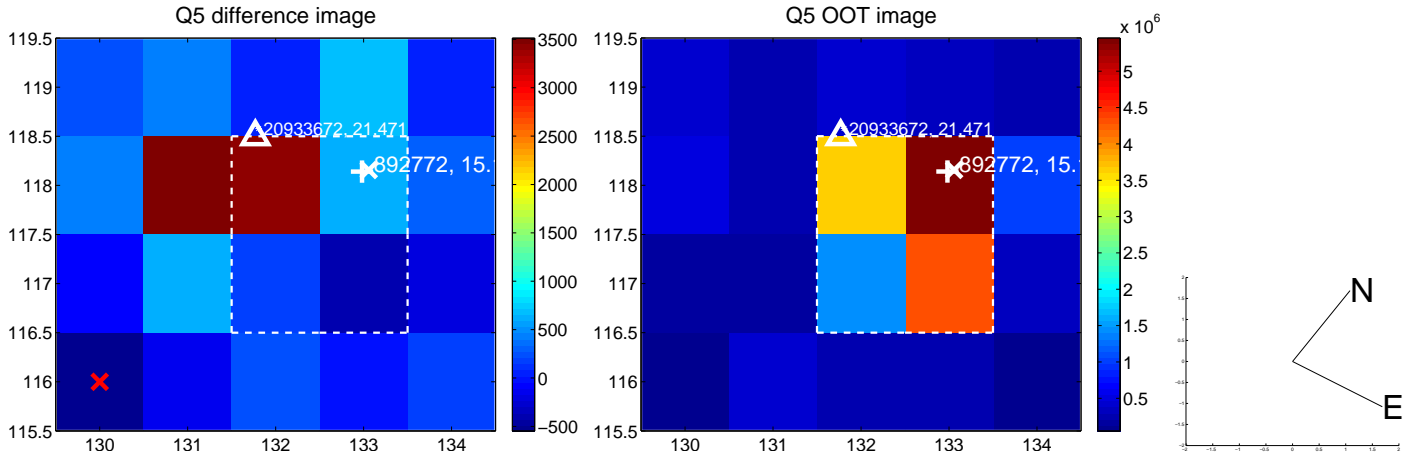


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

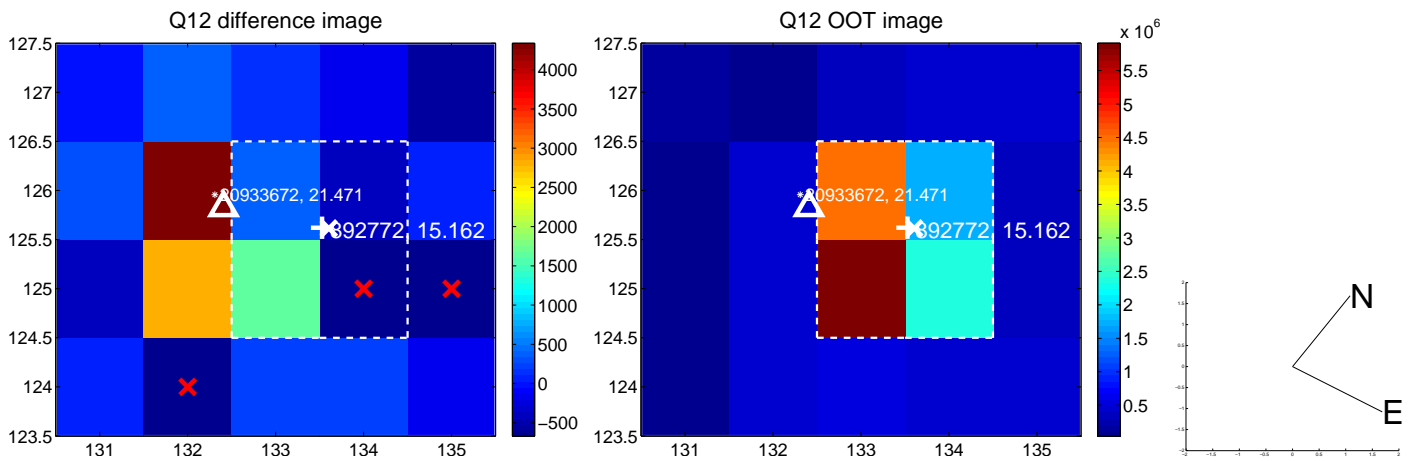
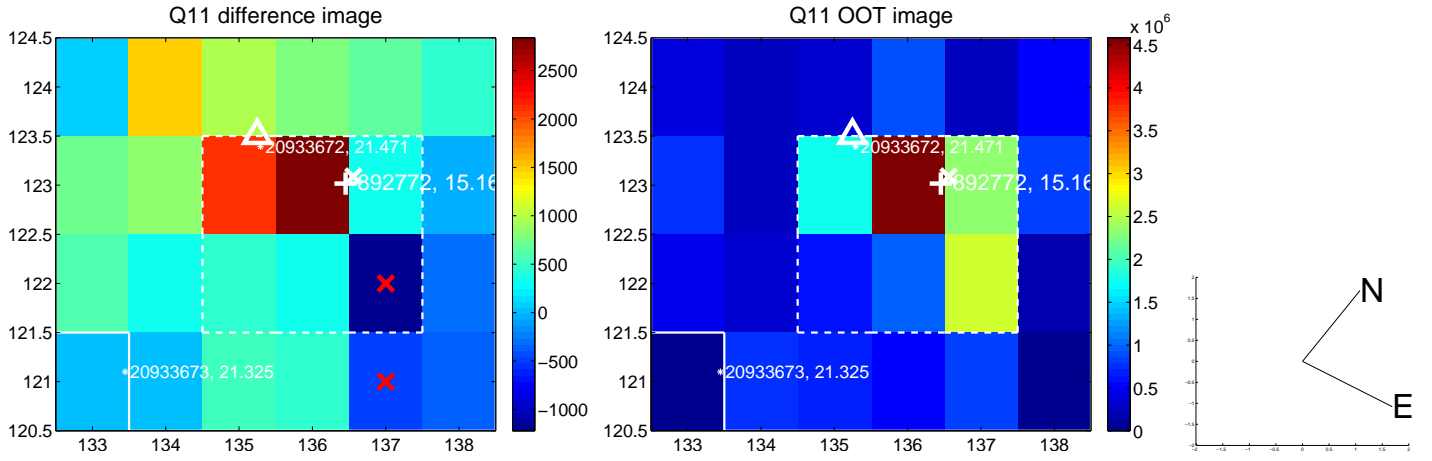
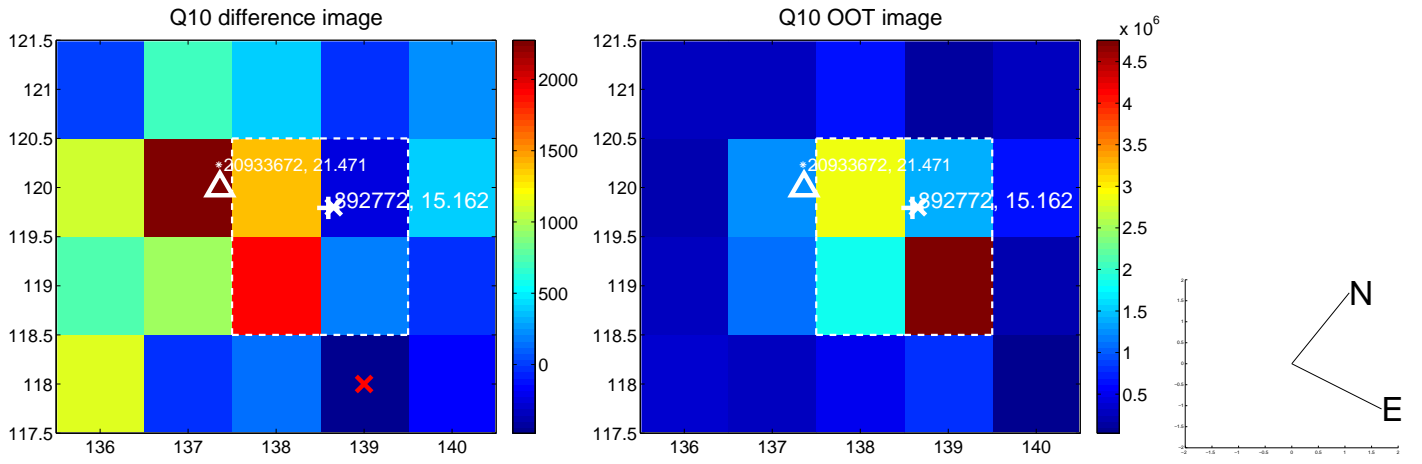
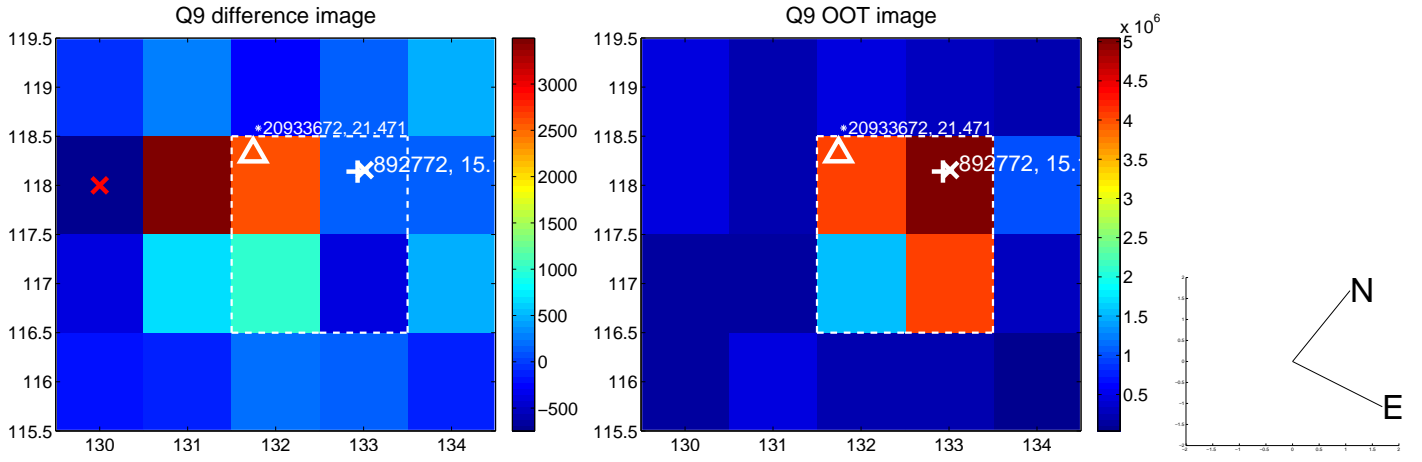
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



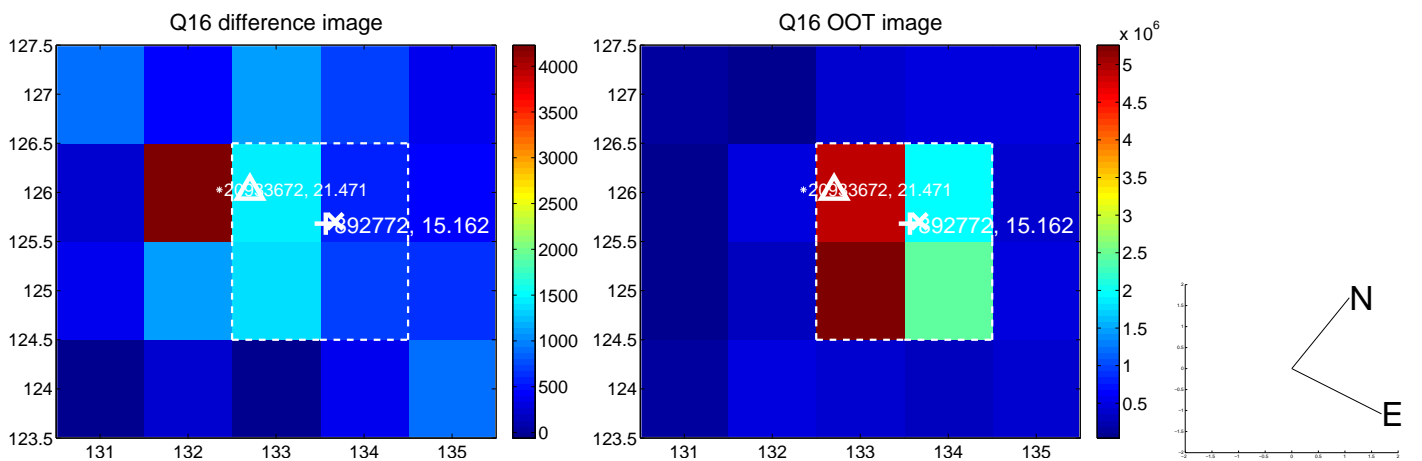
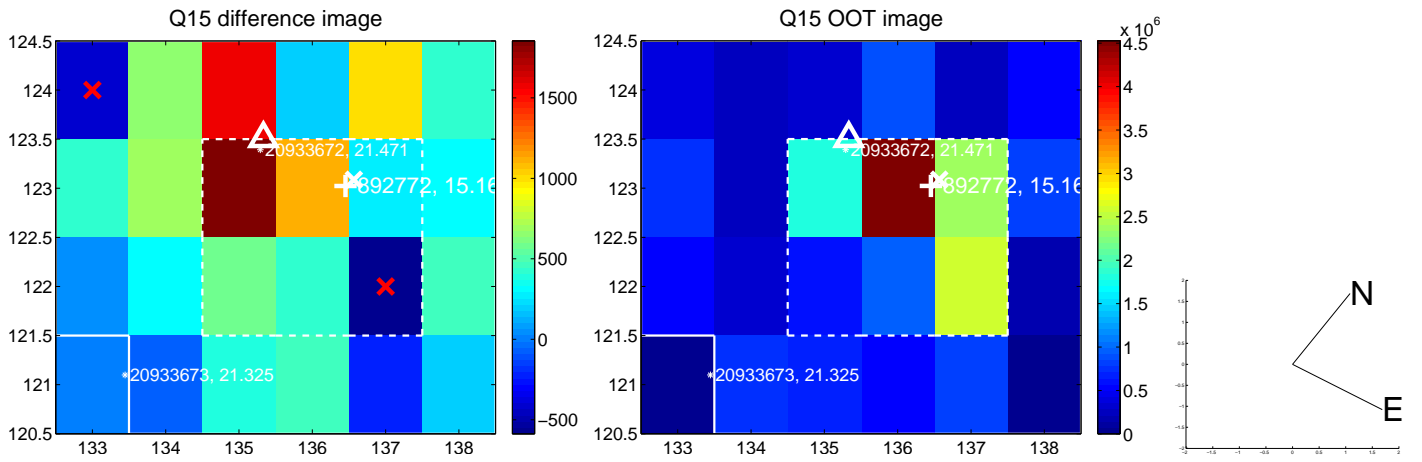
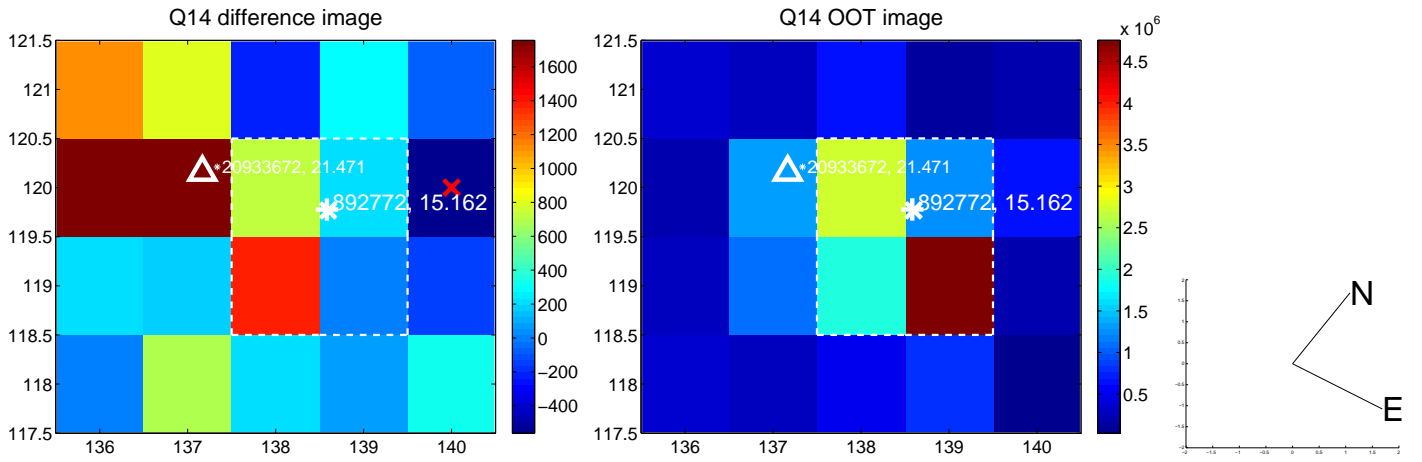
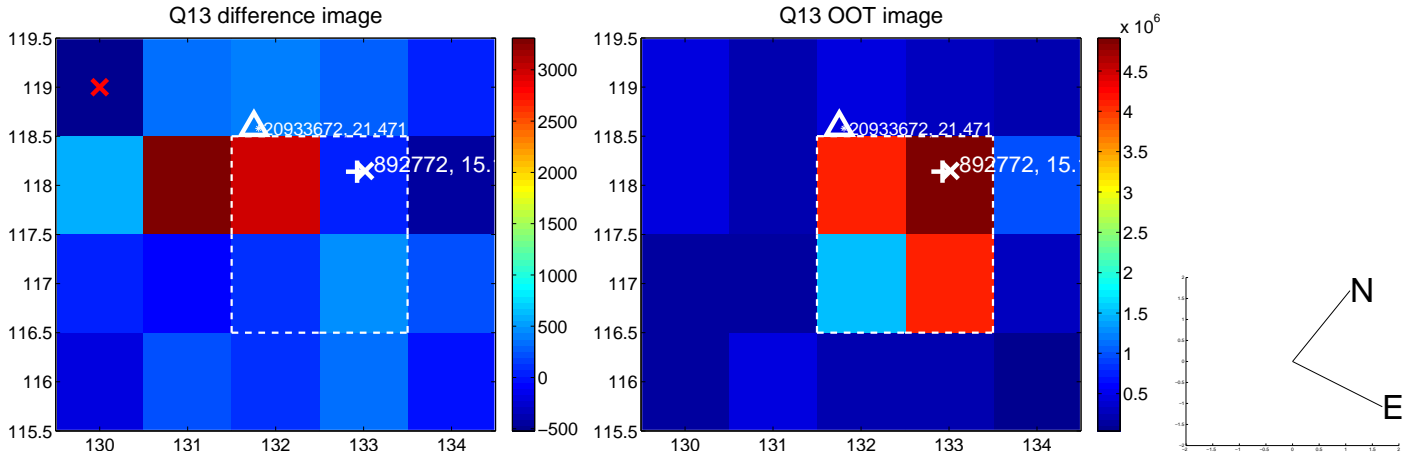
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



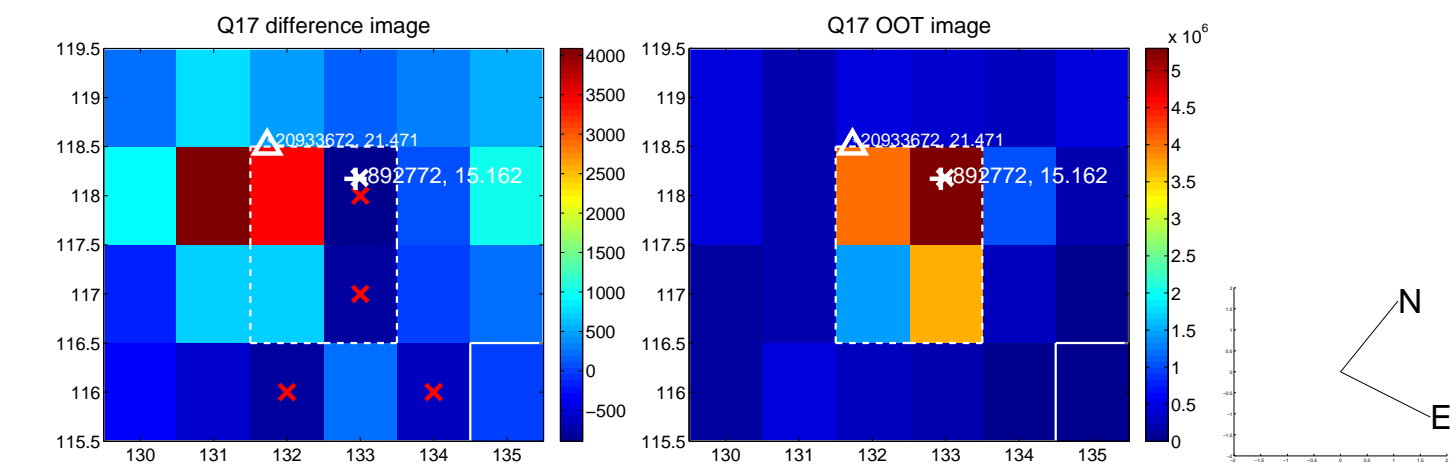
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



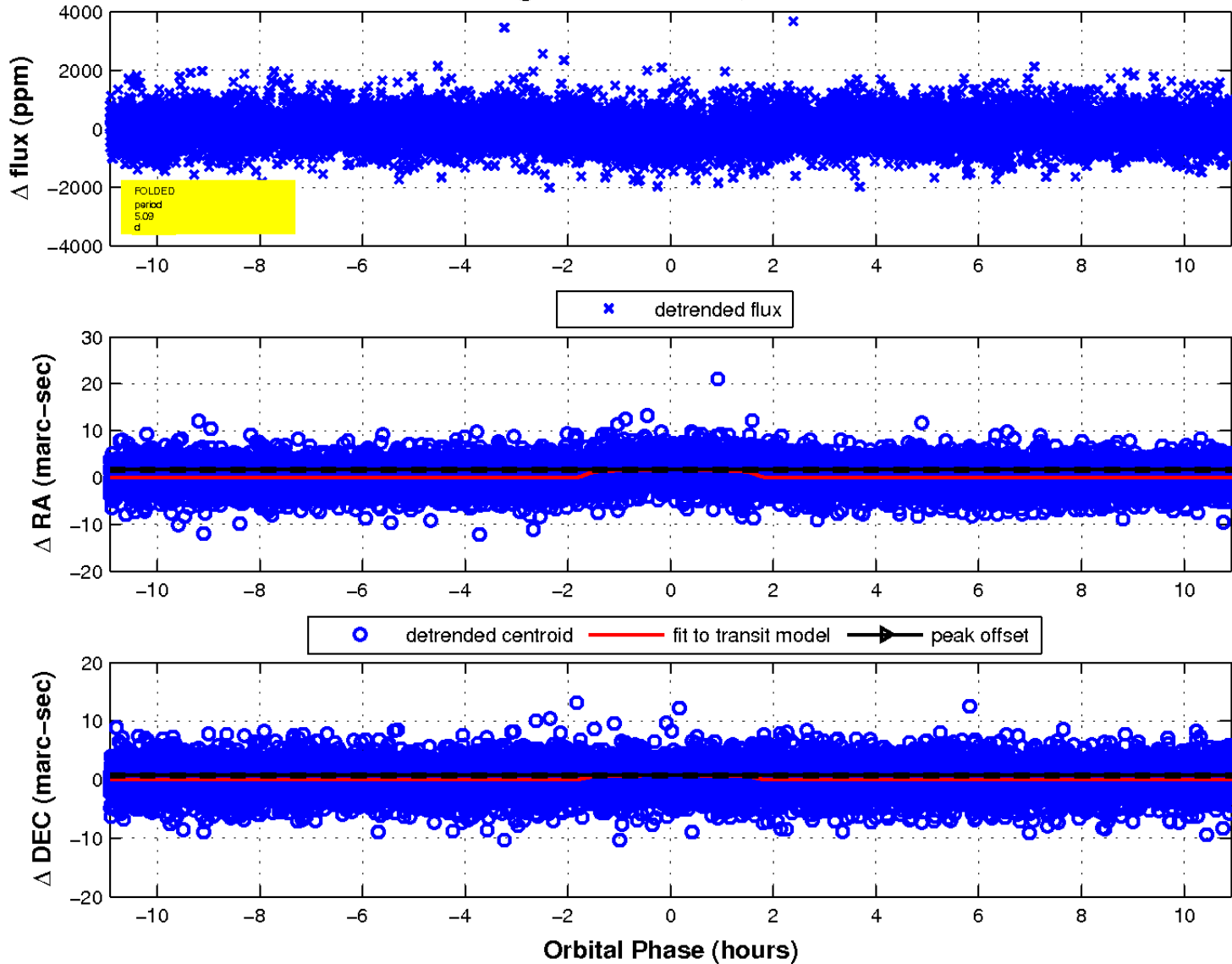
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

