

KIC 011392017

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})
011392017-01	OBS	1653.01	2.455735	133.026535	186.6	2.540	15.0	15.4	2.31	5148	3.81	3025.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011392017-01	OBS	FP	0.00	0	0	1	0	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.

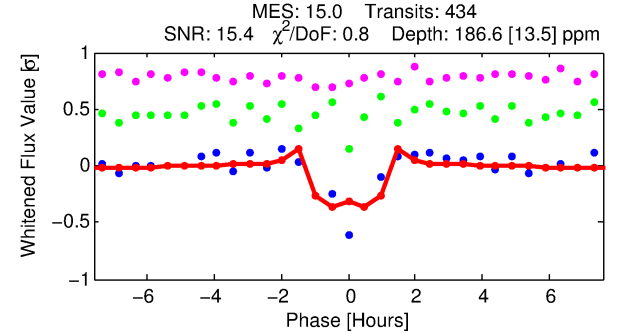
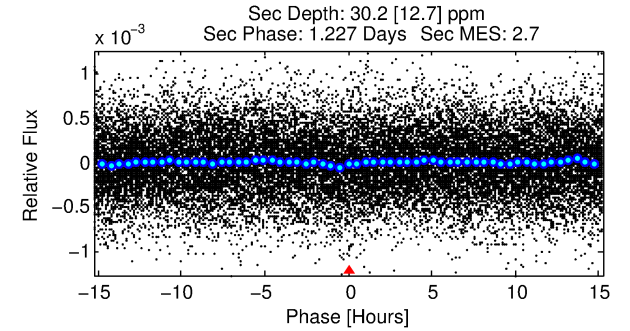
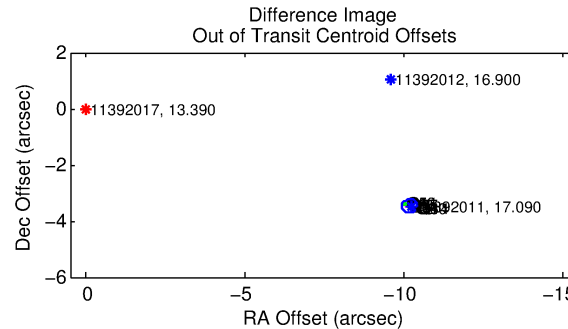
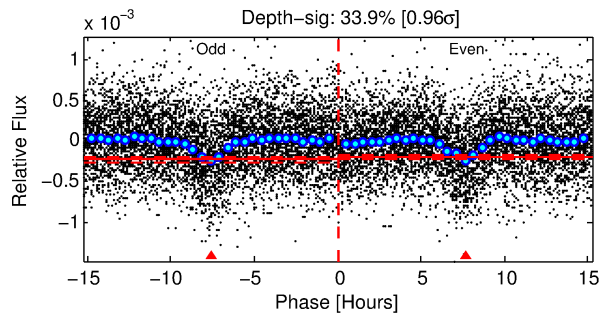
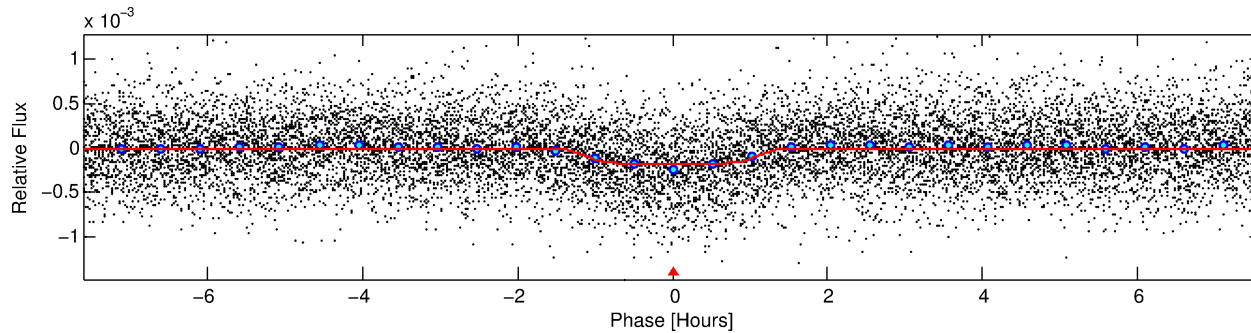
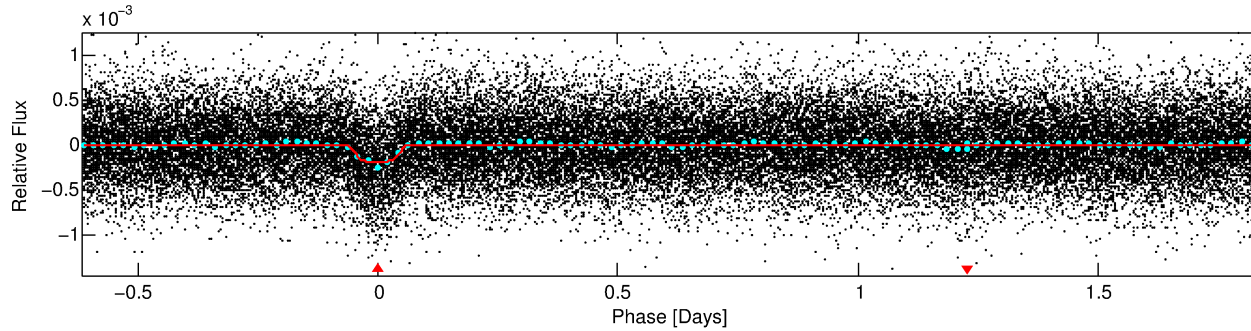
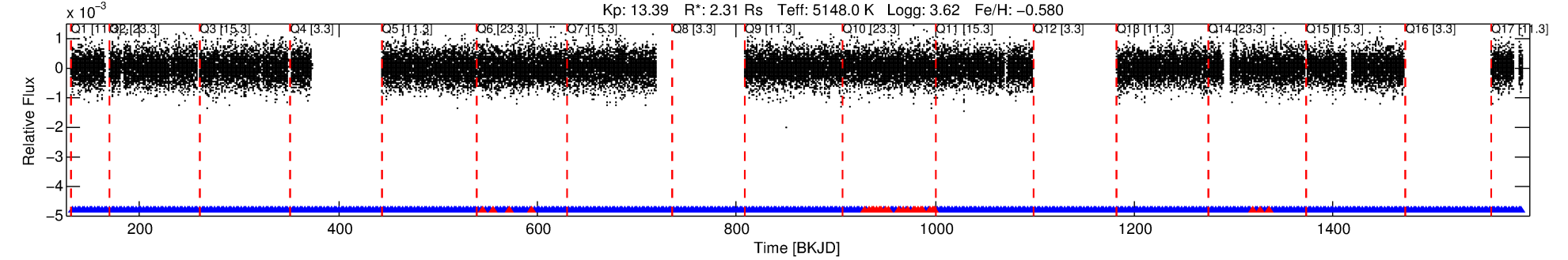
Ephemeris Match Information For 011392017-01

No Significant Match Found

DV One-Page Summary

KIC: 11392017 Candidate: 1 of 1 Period: 2.456 d
KOI: K01653.01 Corr: 0.909

Kp: 13.39 R*: 2.31 Rs Teff: 5148.0 K Logg: 3.62 Fe/H: -0.580



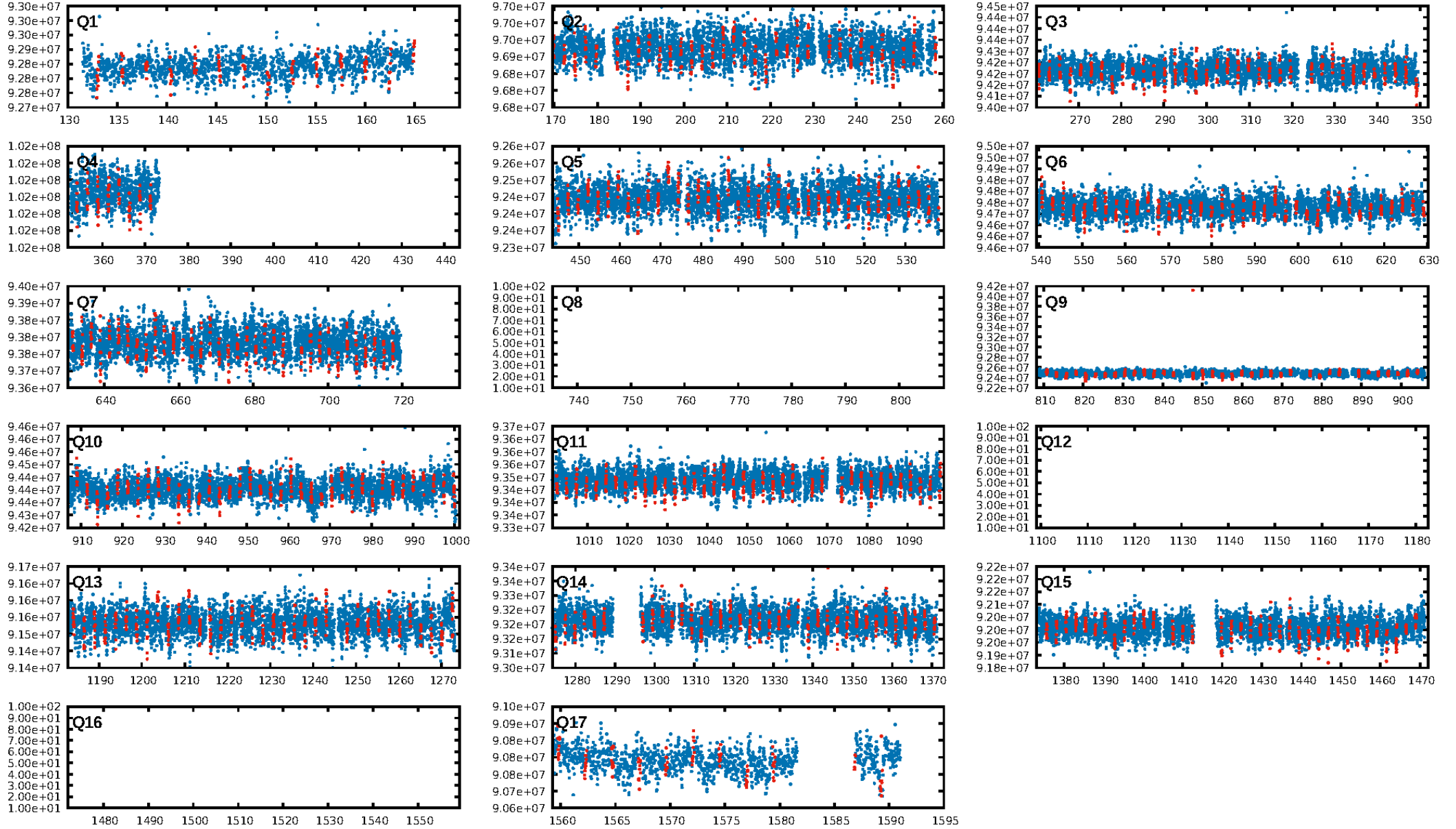
DV Fit Results:

Period = 2.45573 [0.00001] d
Epoch = 133.0265 [0.0012] BKJD
Rp/R* = 0.0151 [0.0030]
a/R* = 3.56 [2.80]
b = 0.90 [0.18]
Seff = 3025.40 [4873.02]
Teq = 1891 [762] K
Rp = 3.81 [2.87] Re
a = 0.0334 [0.0303] AU
Ag = 1.27 [2.18] [0.13σ]
Teff = 3106 [459] K [1.37σ]

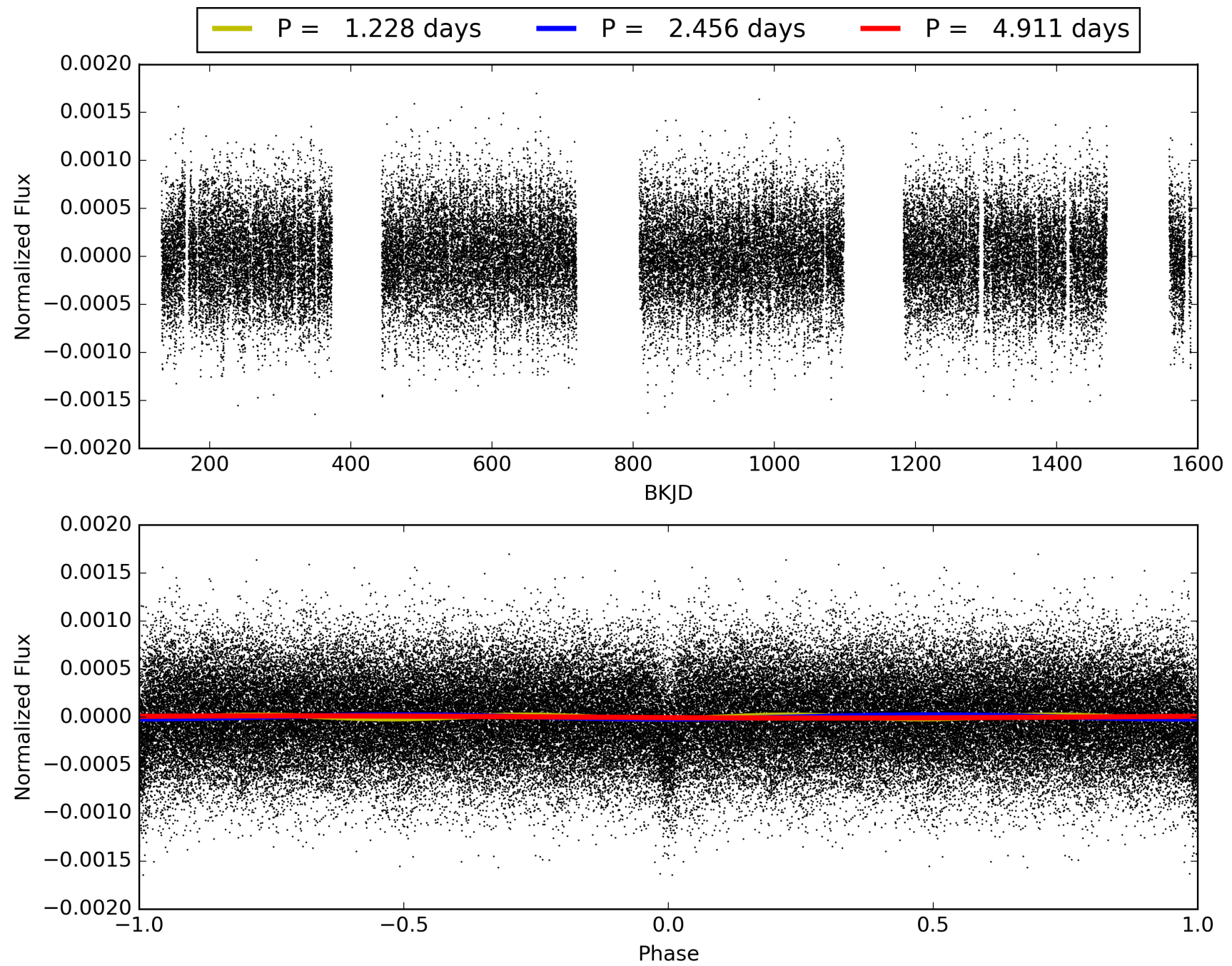
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.04e-41
RollingBand-fgt: 0.93 [374/401]
GhostDiagnostic-chr: -0.3333
Centroid-sig: 0.0%
Centroid-so: 181.847 arcsec [511.26σ]
OotOffset-rm: 10.738 arcsec [131.56σ]
KicOffset-rm: 10.696 arcsec [152.90σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011392017-01, PDC Light Curves

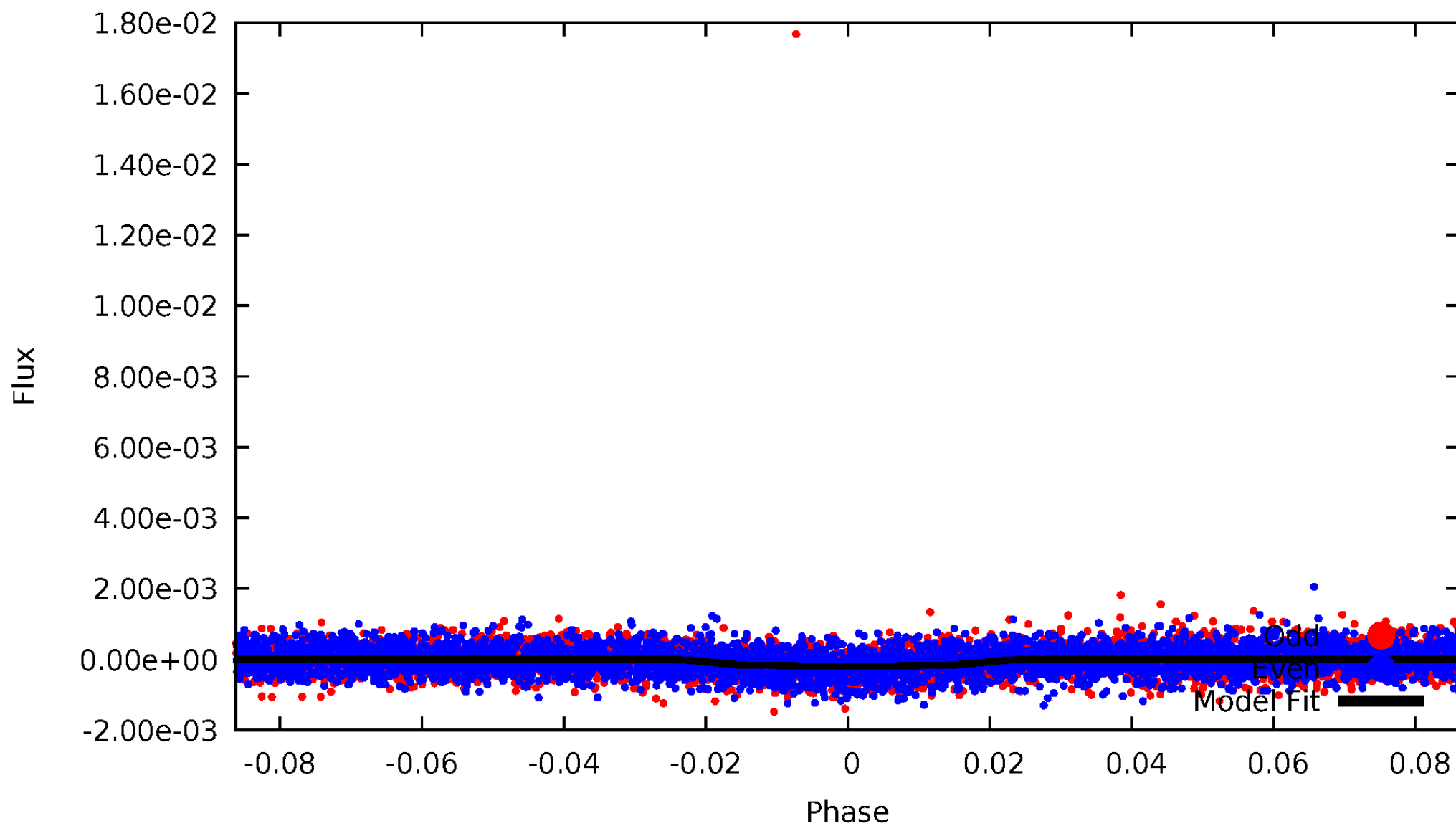


TCE 011392017-01



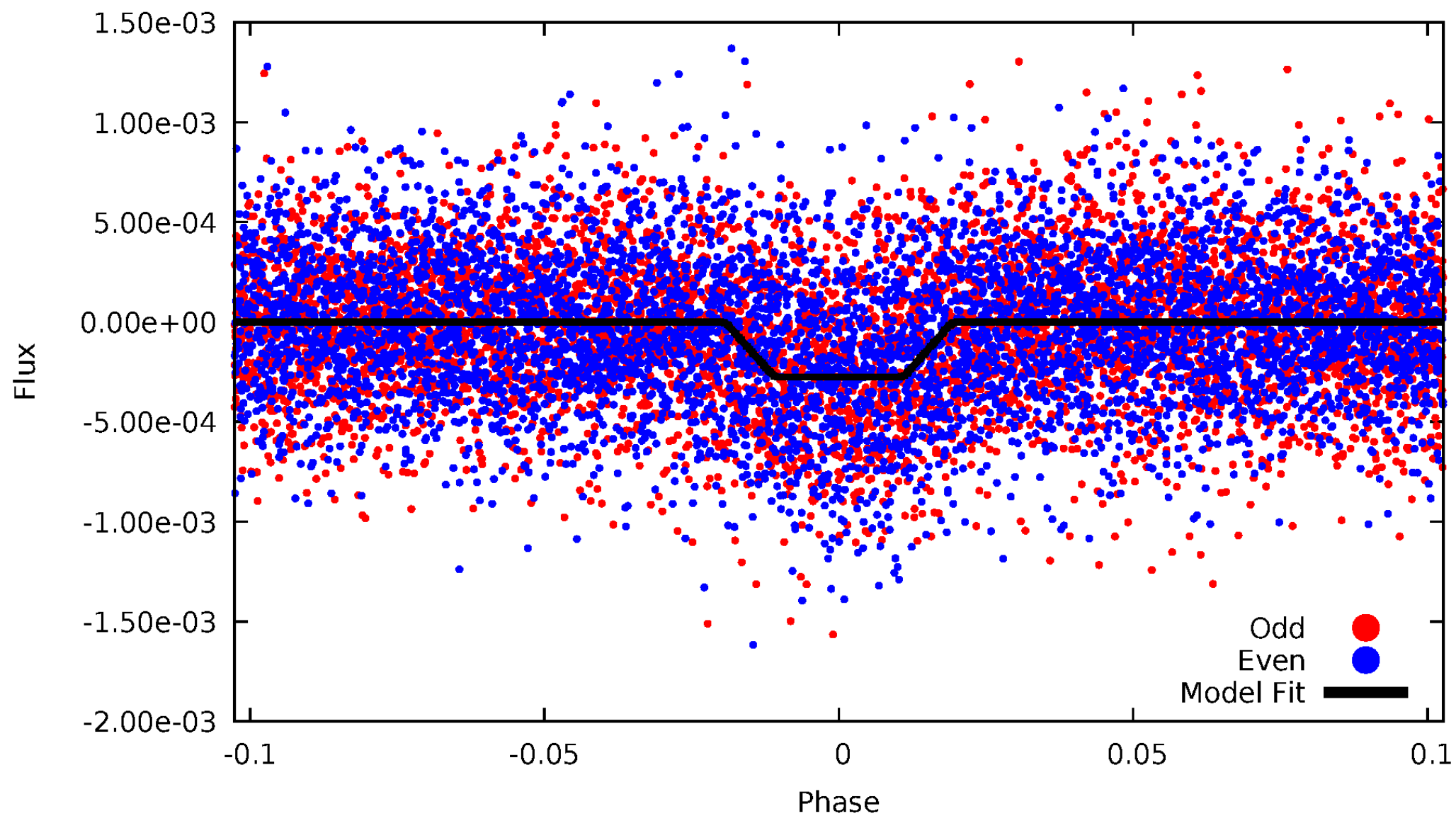
DV Odd/Even

TCE 011392017-01

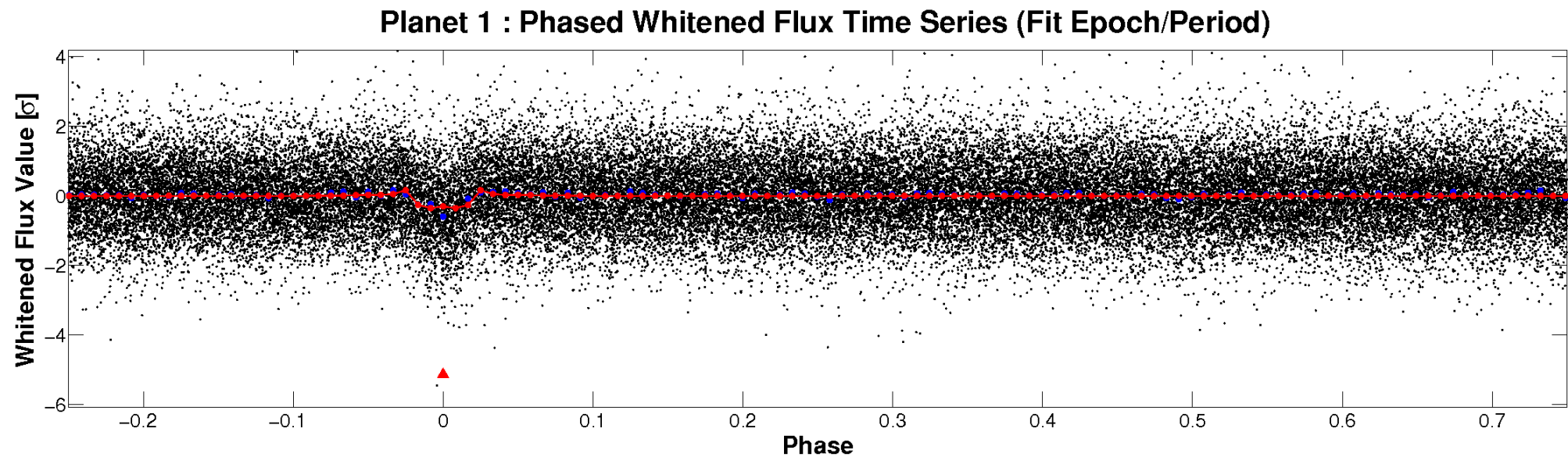
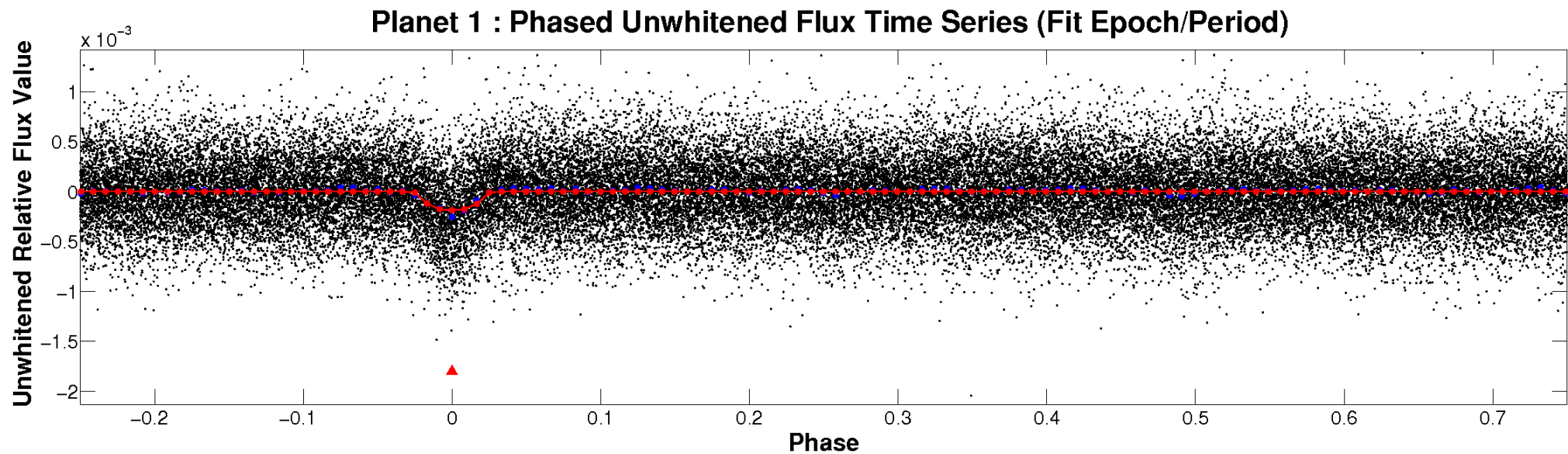


ALT Odd/Even

TCE 011392017-01

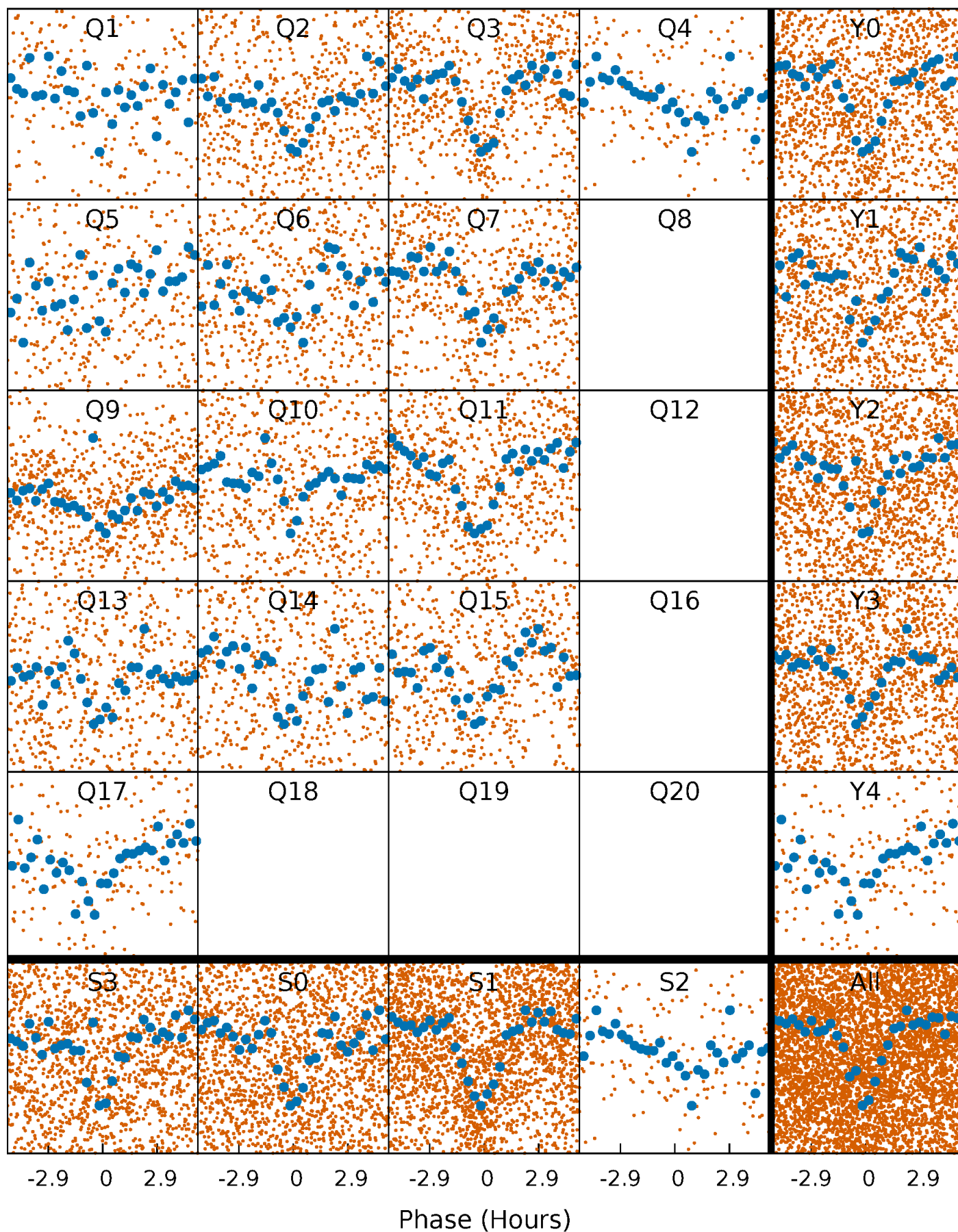


Non-Whitened Vs. Whitened Light Curve



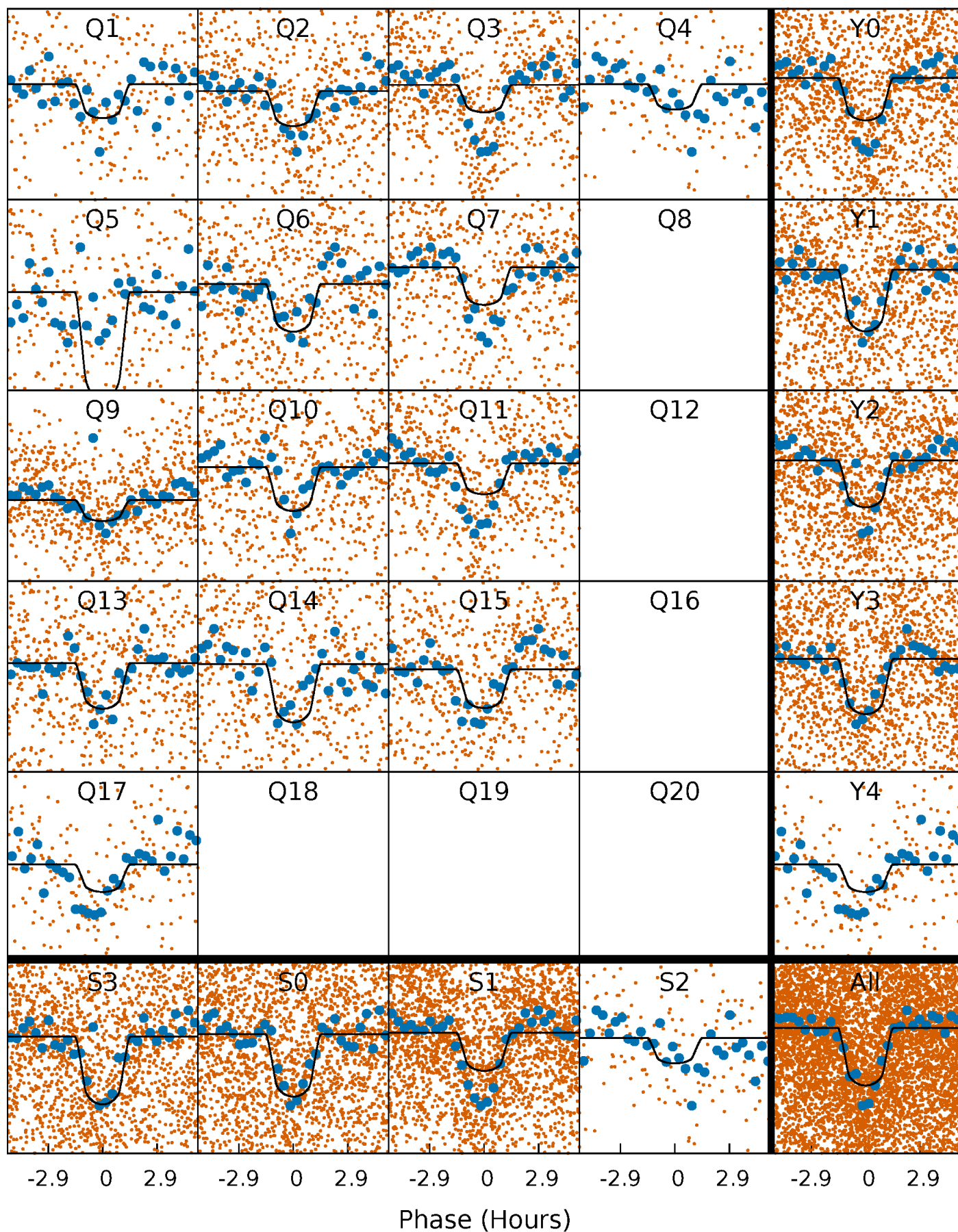
PDC Quarter-Phased Transit Curves

TCE 011392017-01 P= 2.455735 Days $T_0=133.026535$ (BKJD)



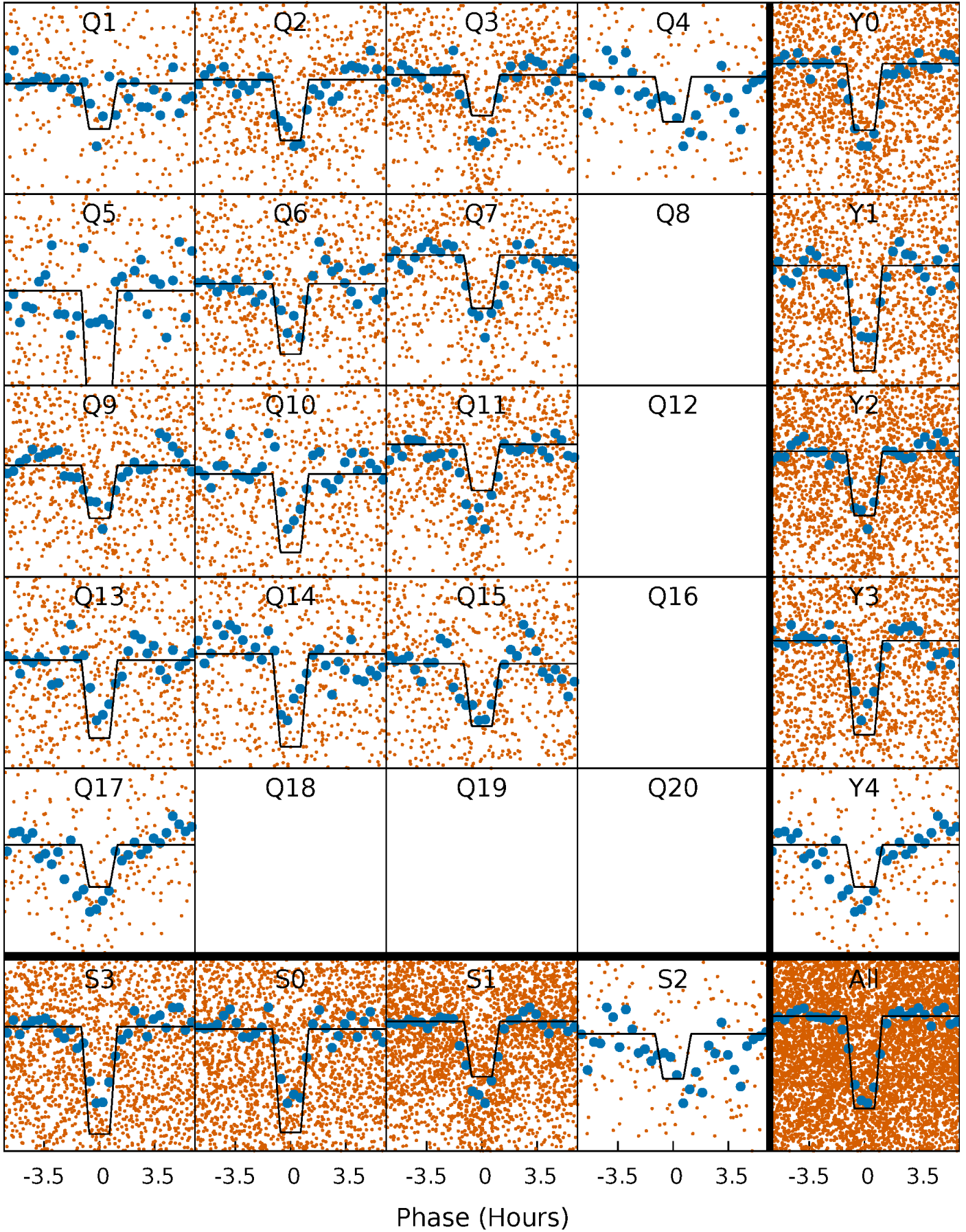
DV Quarter-Phased Transit Curves

TCE 011392017-01 P= 2.455735 Days $T_0=133.026535$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

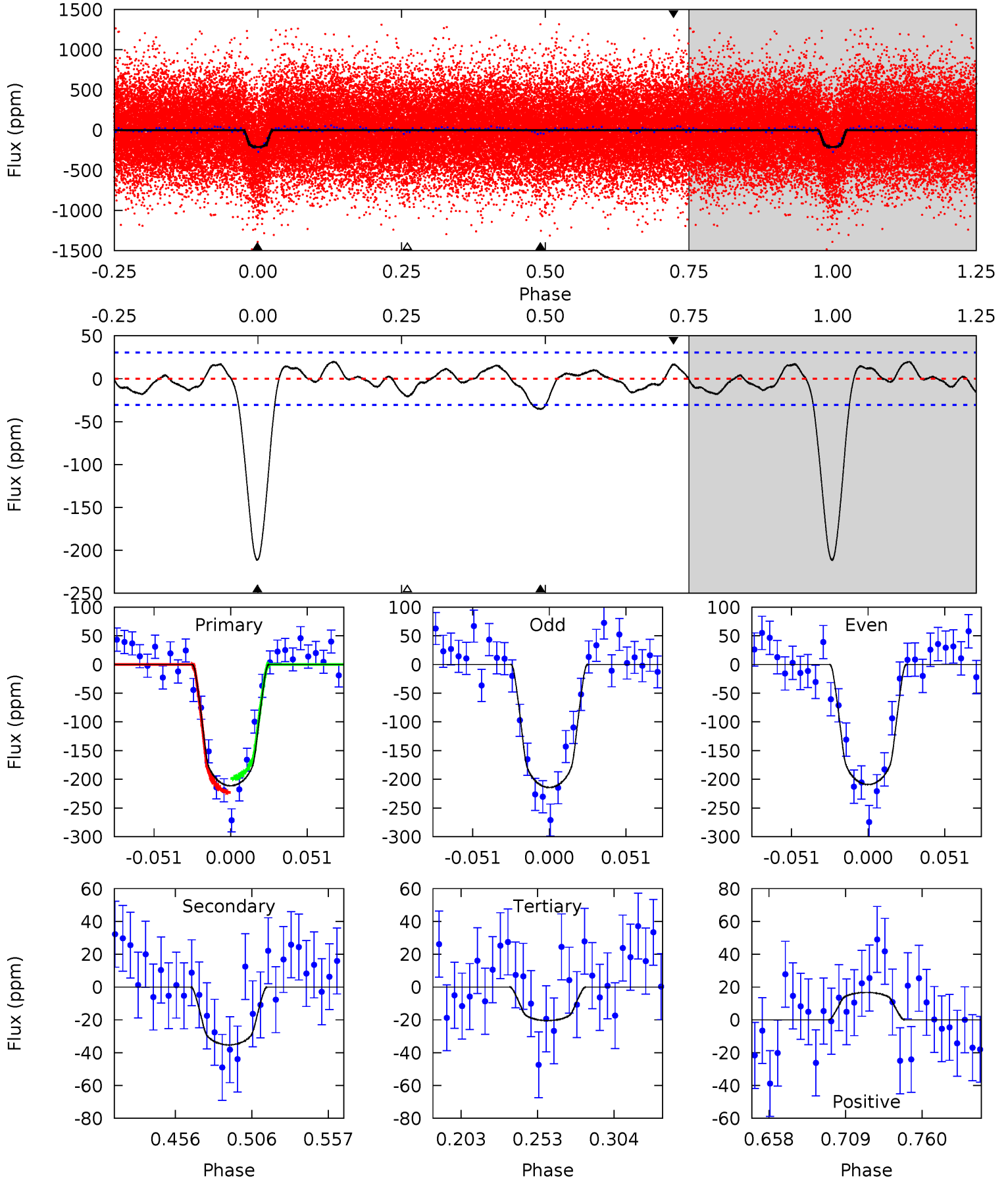
TCE 011392017-01 P= 2.455713 Days $T_0=133.029159$ (BKJD)



DV Model-Shift Uniqueness Test

011392017-01, P = 2.455735 Days, E = 130.570800 Days

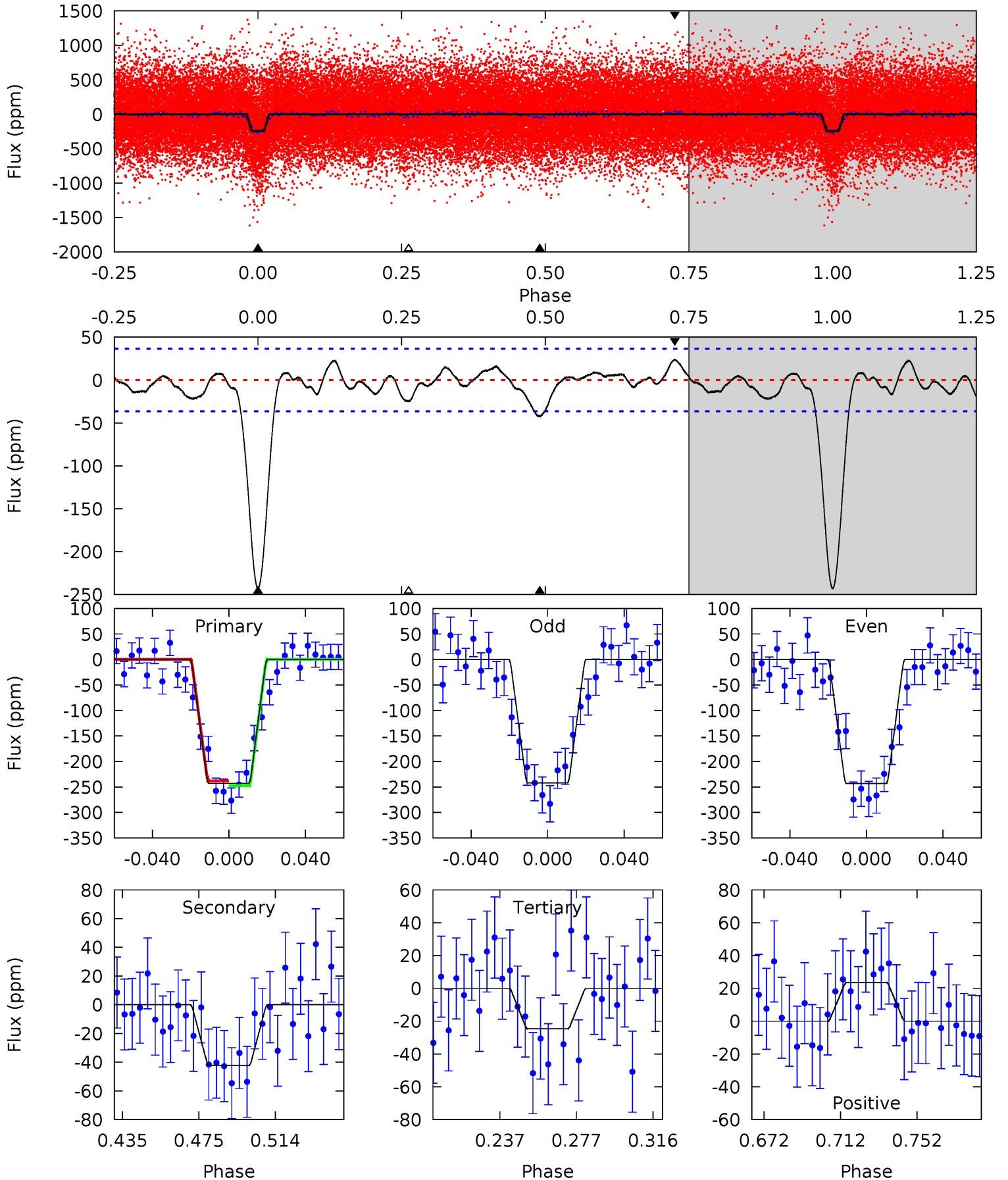
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.5	5.43	3.15	2.57	4.71	1.95	1.47	29.4	30.0	2.28	2.86	0.40	0.96	0.09	1.87



Alt Model-Shift Uniqueness Test

011392017-01, P = 2.455713 Days, E = 130.573446 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.7	5.52	3.22	3.07	4.76	2.06	1.30	28.5	28.6	2.29	2.45	0.08	0.95	0.09	0.59



Stellar Parameters For KIC 011392017

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5148^{+141}_{-128}	$3.624^{+0.998}_{-0.333}$	$-0.580^{+0.300}_{-0.250}$	$2.314^{+1.377}_{-1.684}$	$0.822^{+0.270}_{-0.145}$	$0.093^{+3.574}_{-0.071}$
	+3%/-2%	+28%/-9%	+52%/-43%	+60%/-73%	+33%/-18%	+3822%/-76%
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 011392017-01 / KOI 1653.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-35 ± 6	$3.59^{+1.63}_{-1.41}$	2592^{+362}_{-509}	3513^{+350}_{-314}	$1.778^{+2.889}_{-0.953}$
Alt.	-42 ± 8	$4.13^{+1.61}_{-1.64}$	2616^{+389}_{-525}	3481^{+324}_{-302}	$1.590^{+2.679}_{-0.814}$

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

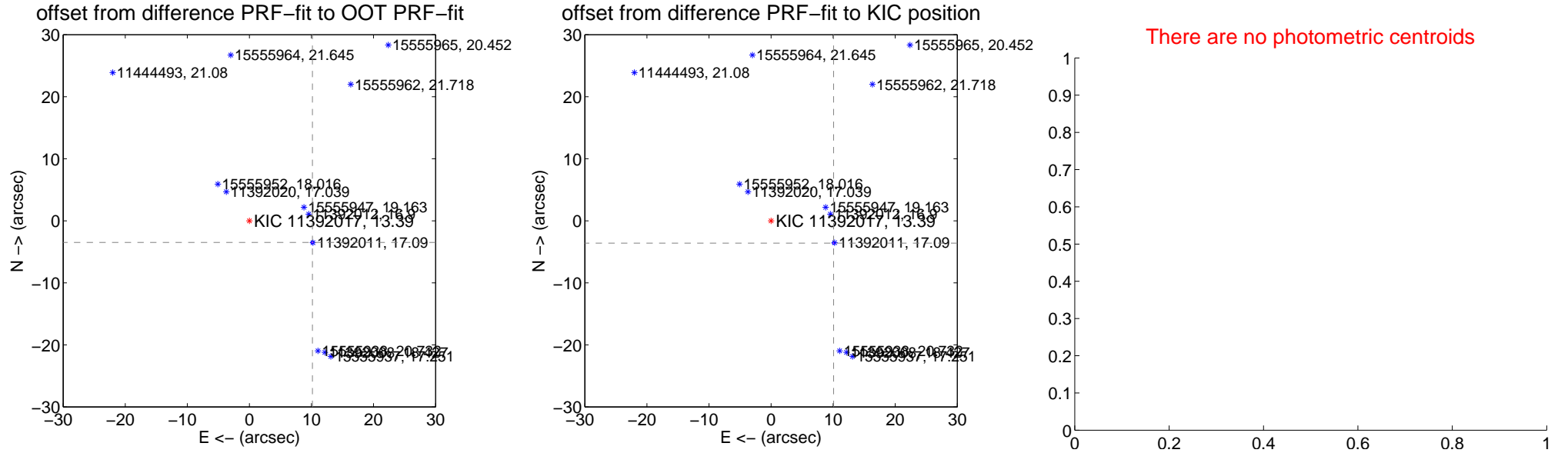
DV Centroid Data

Supplemental centroid analysis for 011392017-01. Kepler magnitude: 13.39. Transit SNR 15.43

There are 14 quarters with good PRF difference image offsets

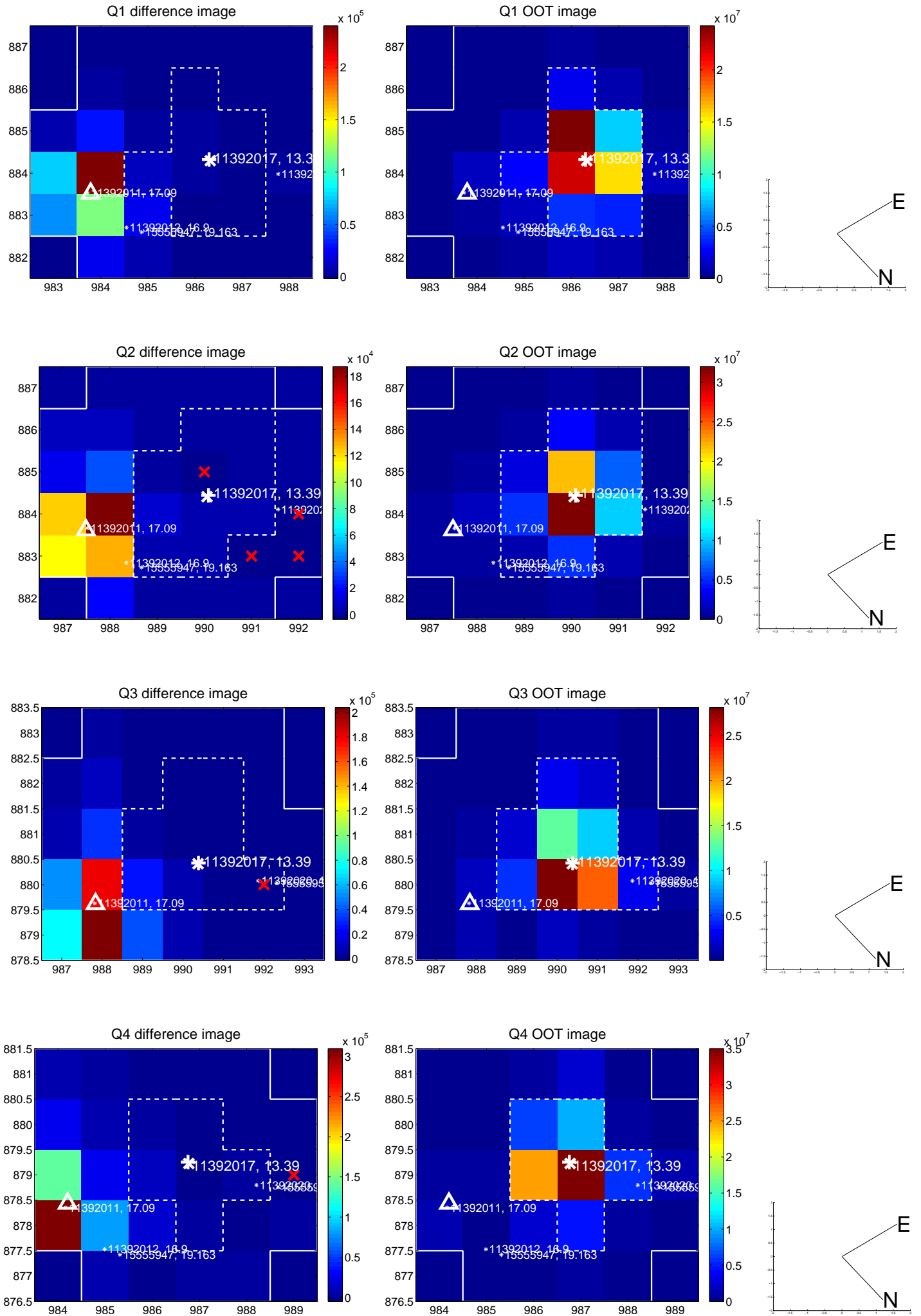
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.738 \pm 0.082	131.56	-10.157 \pm 0.083	-3.484 \pm 0.070
PRF-fit source offset from KIC position	10.696 \pm 0.070	152.90	-10.074 \pm 0.070	-3.593 \pm 0.070
photometric centroid source offset	—	—	—	—

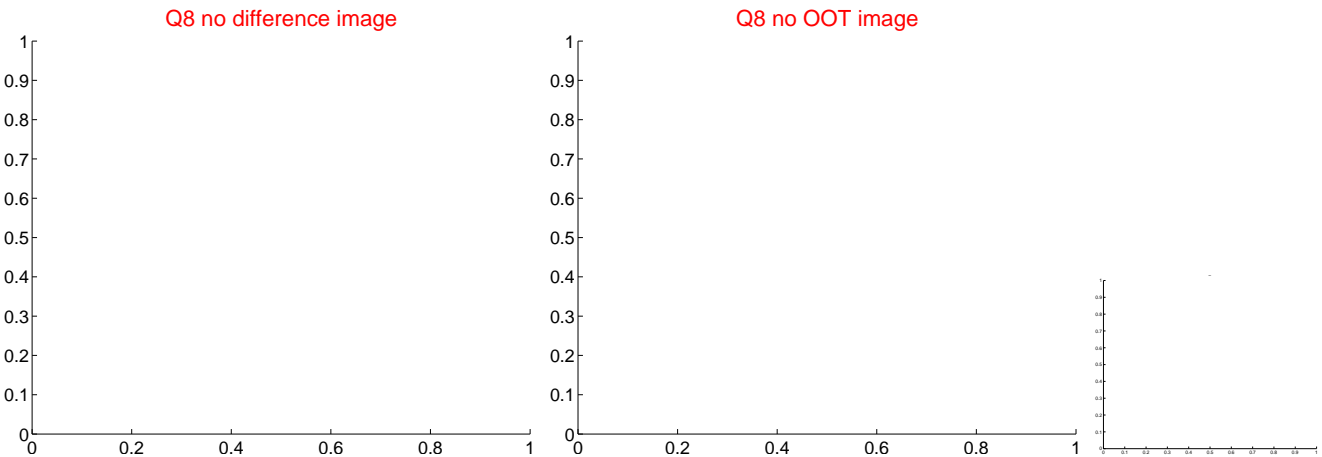
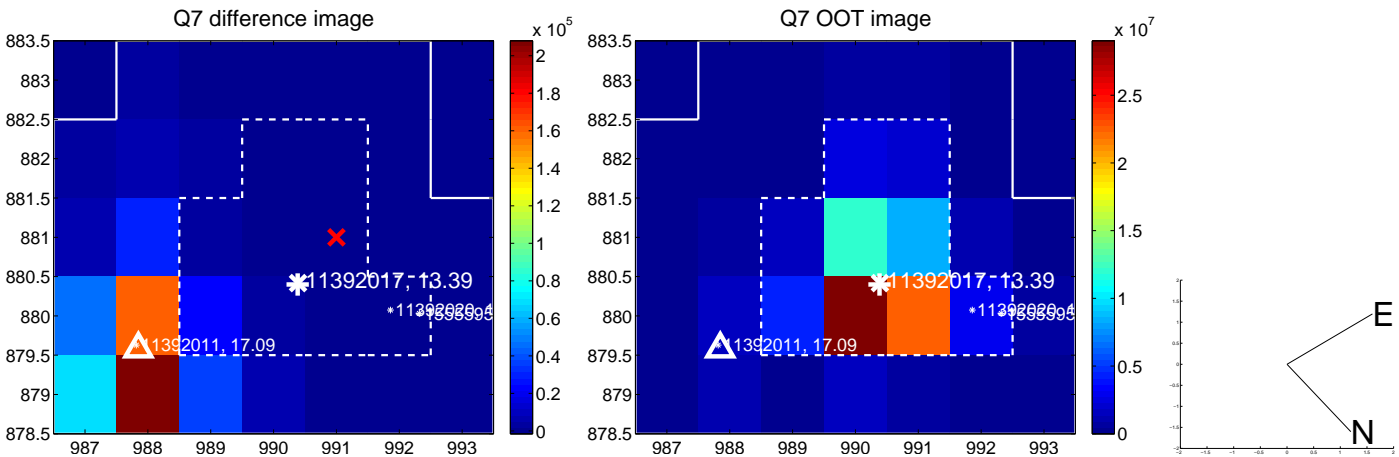
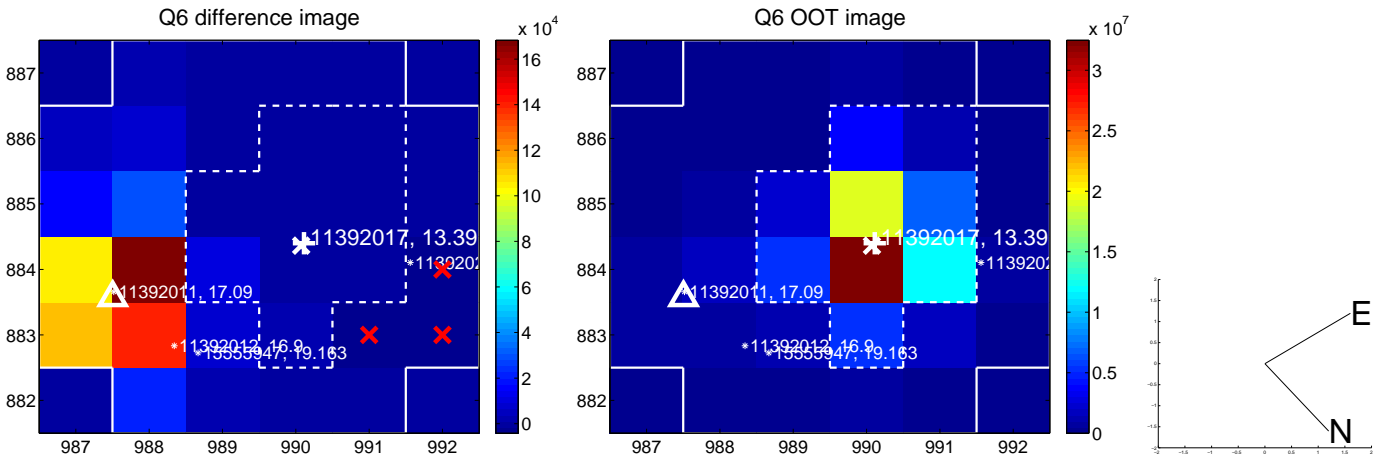
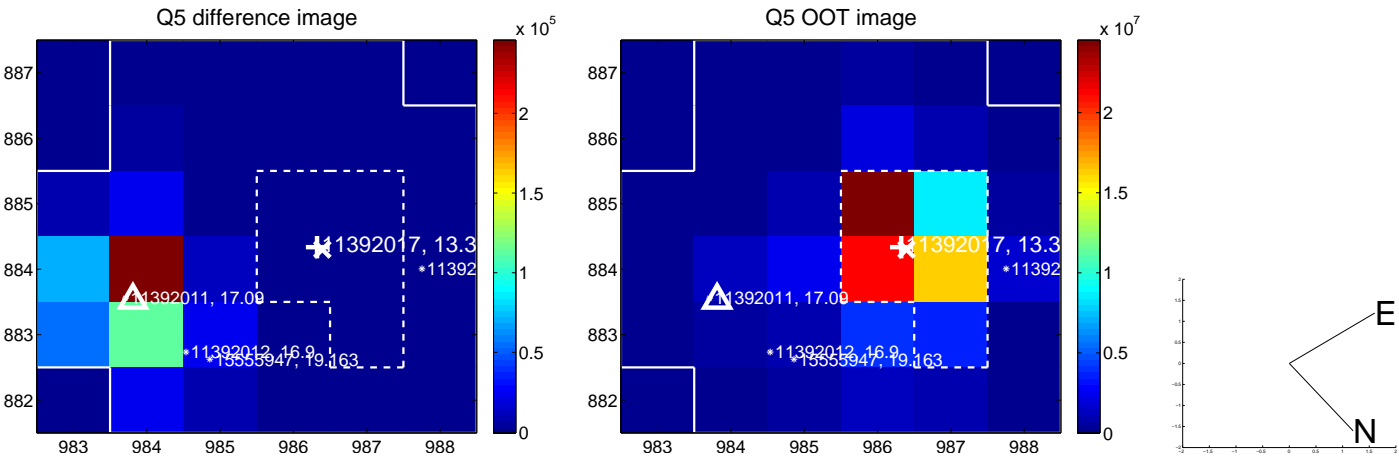


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

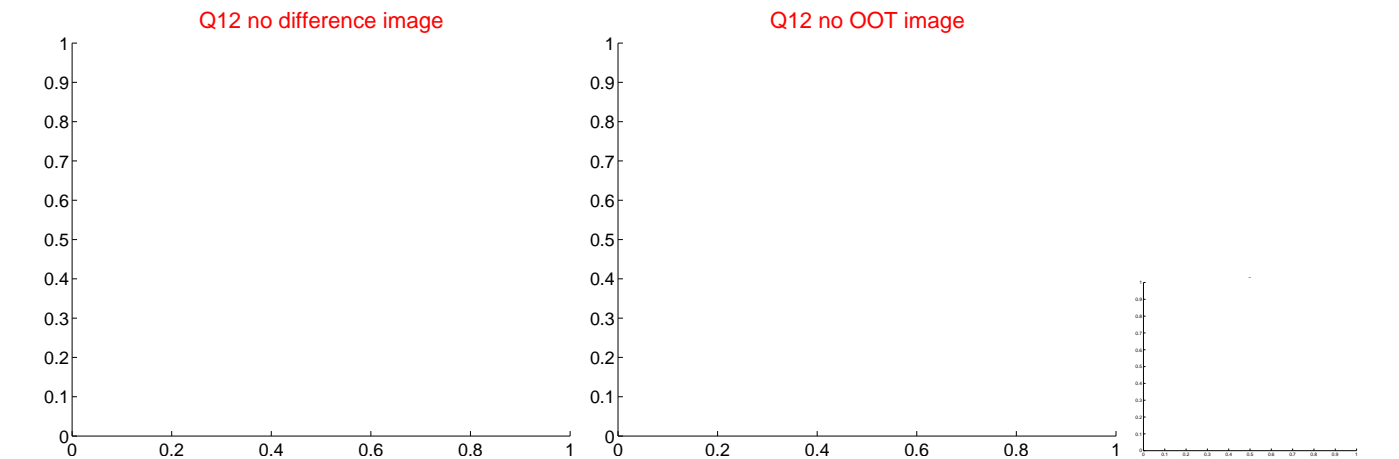
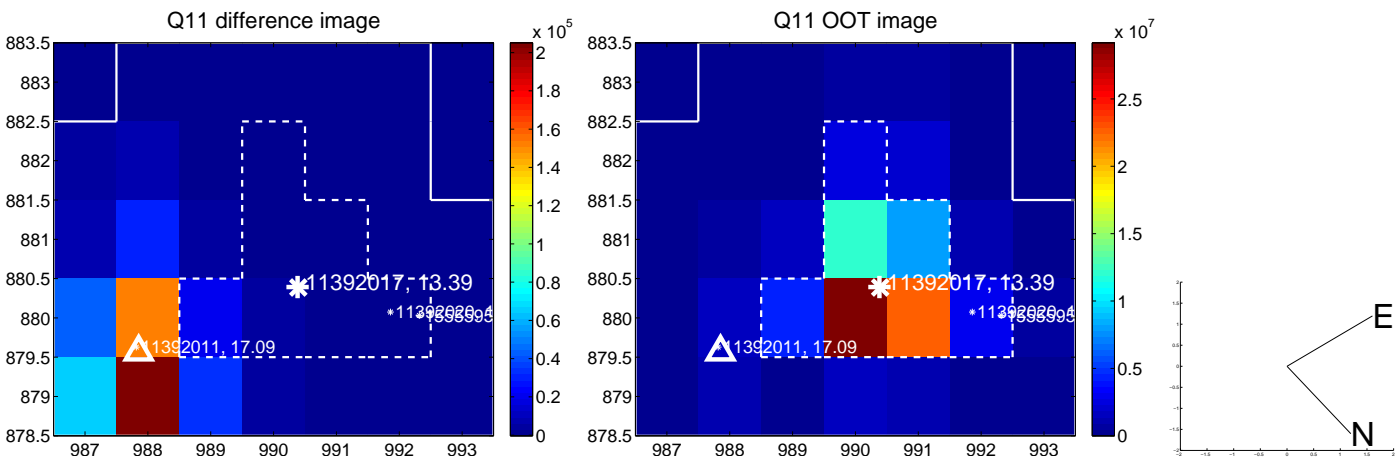
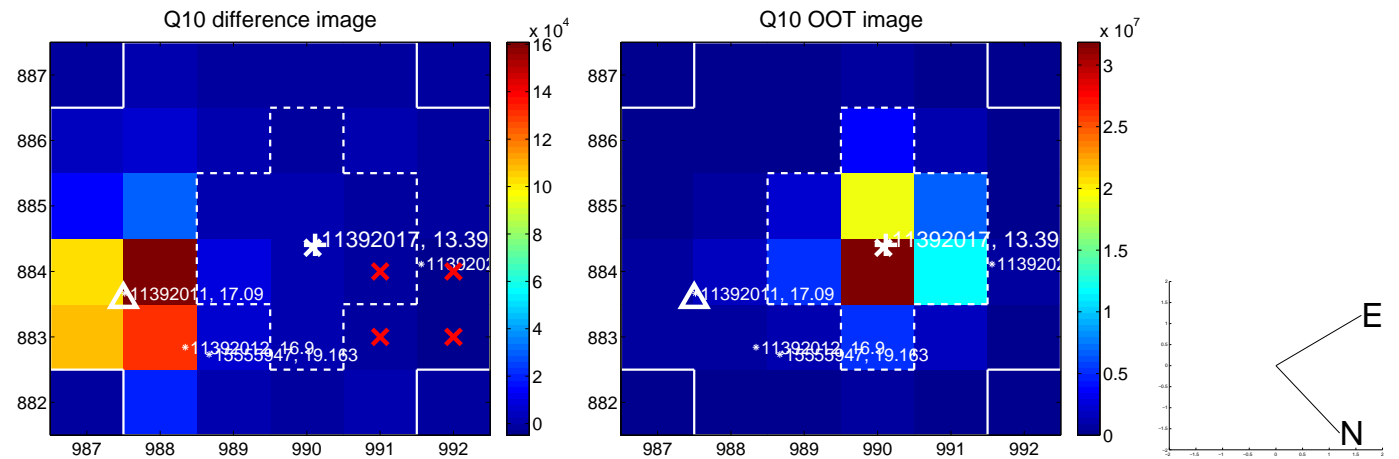
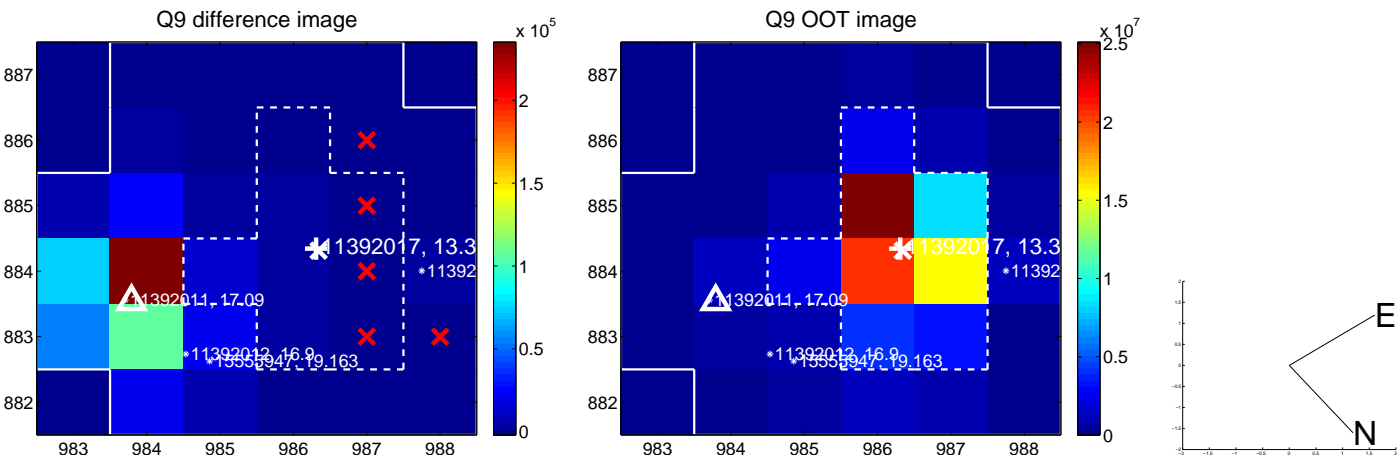
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



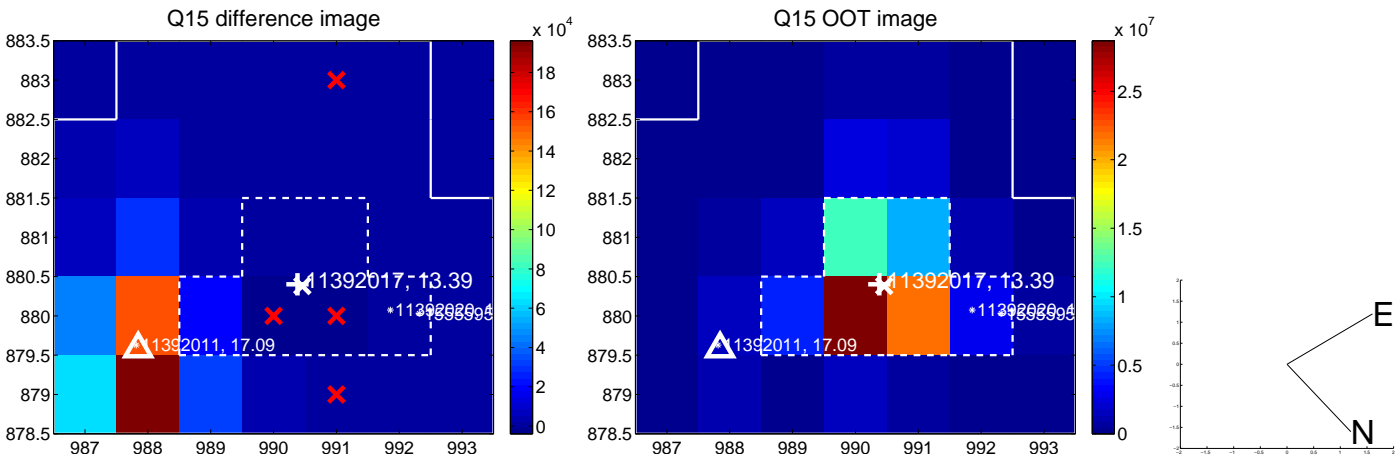
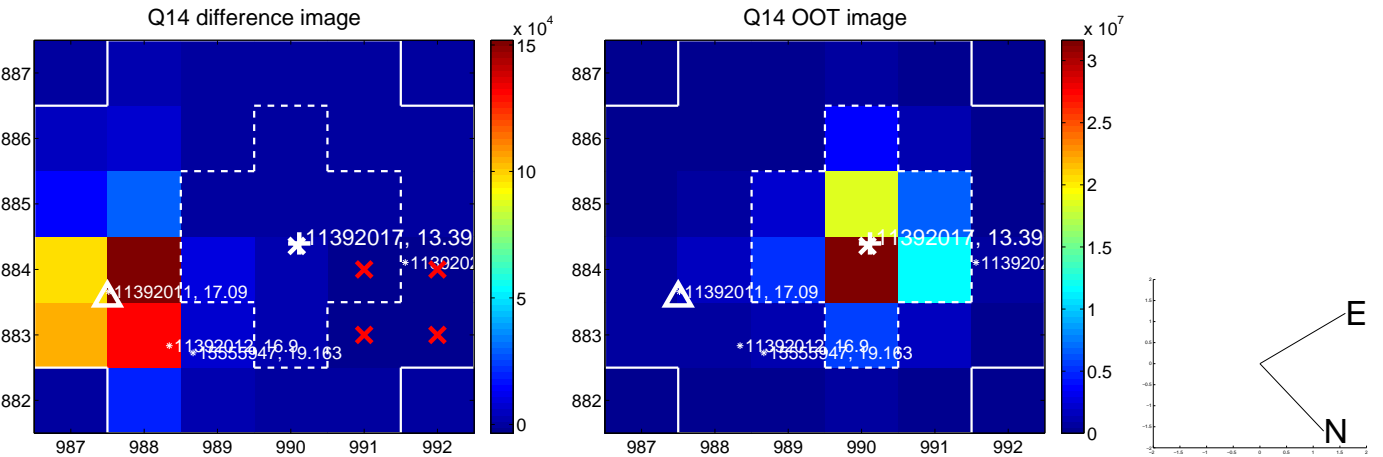
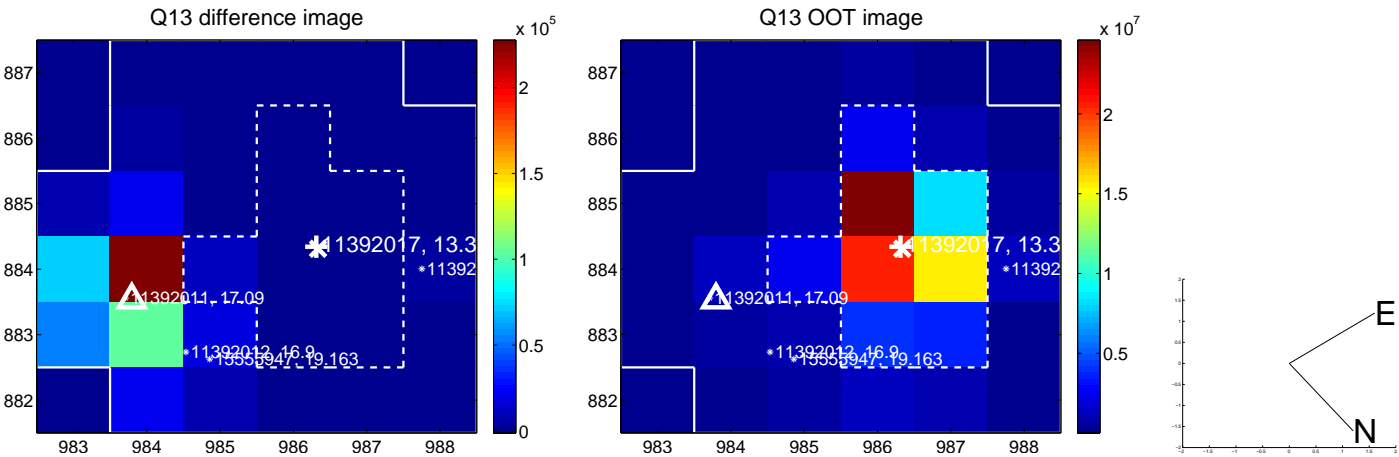
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

