

KIC 006670075

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})
006670075-01	OBS	2382.01	0.759702	131.769928	27.1	1.052	12.9	14.6	2.09	8621	1.27	51158.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006670075-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_ALT—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.

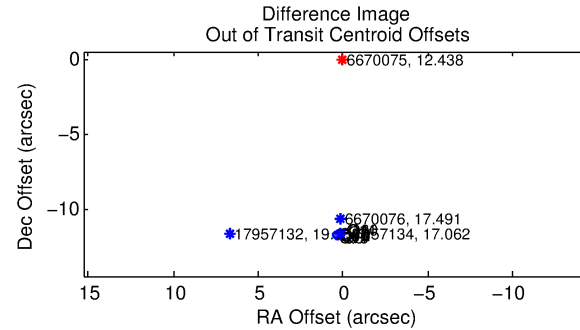
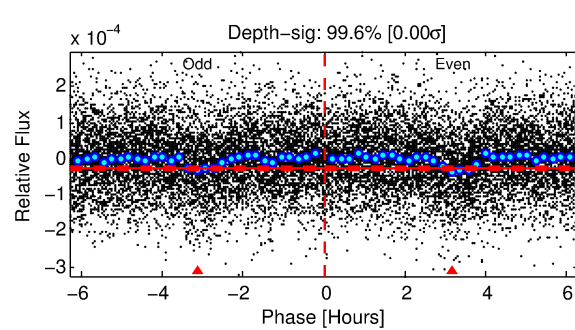
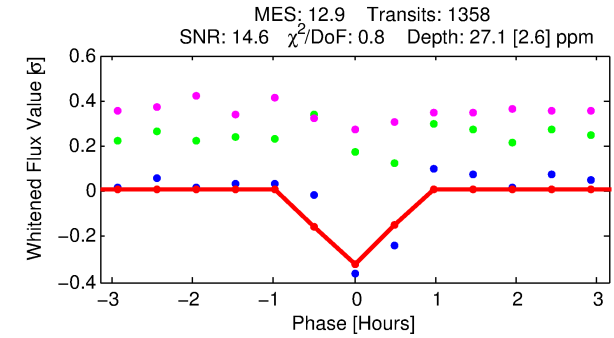
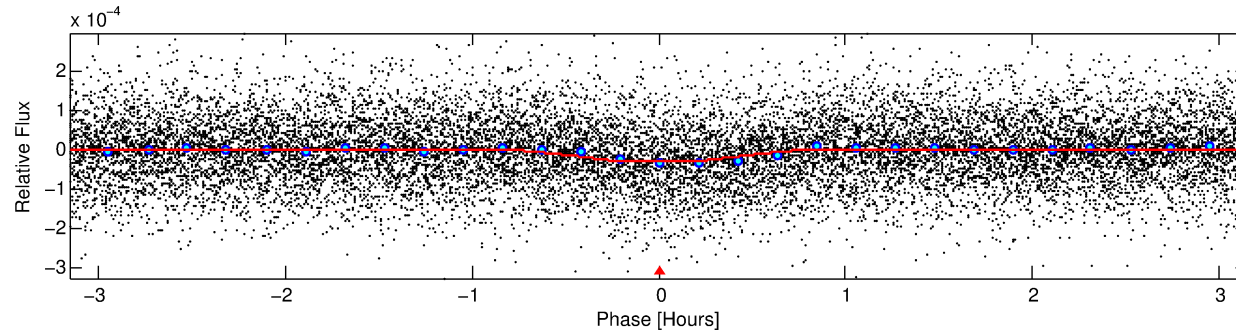
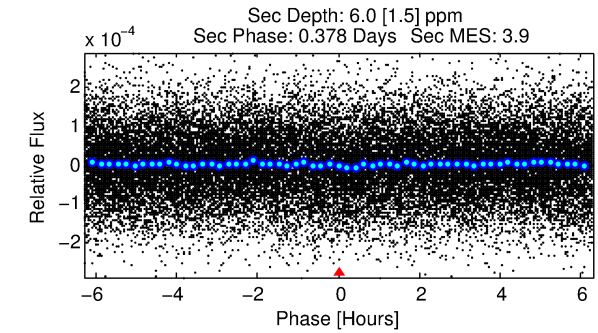
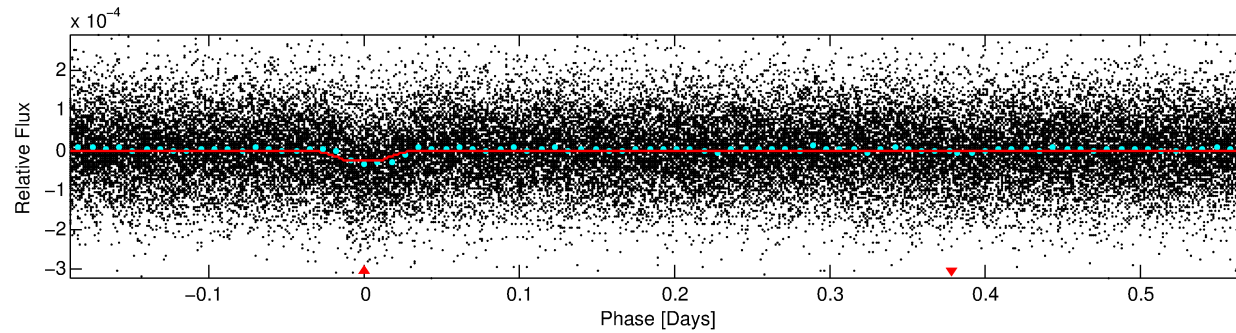
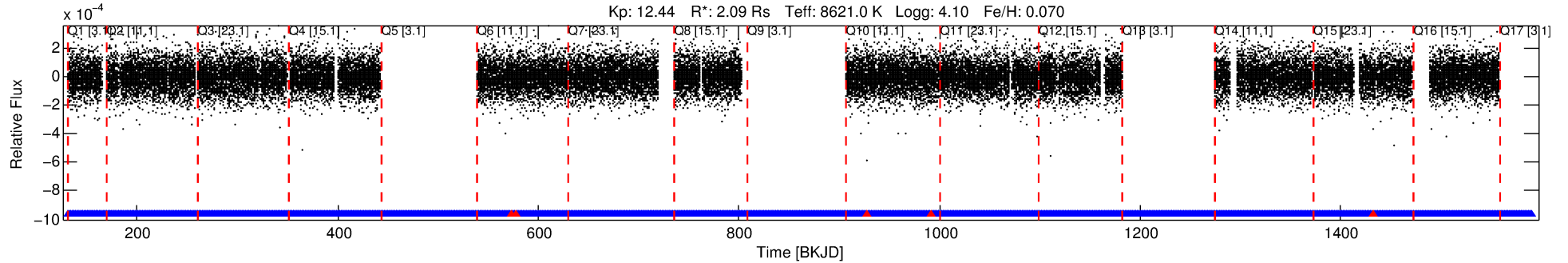
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006670075-01

No Significant Match Found

DV One-Page Summary

KIC: 6670075 Candidate: 1 of 1 Period: 0.760 d
KOI: K02382.01 Corr: 0.912



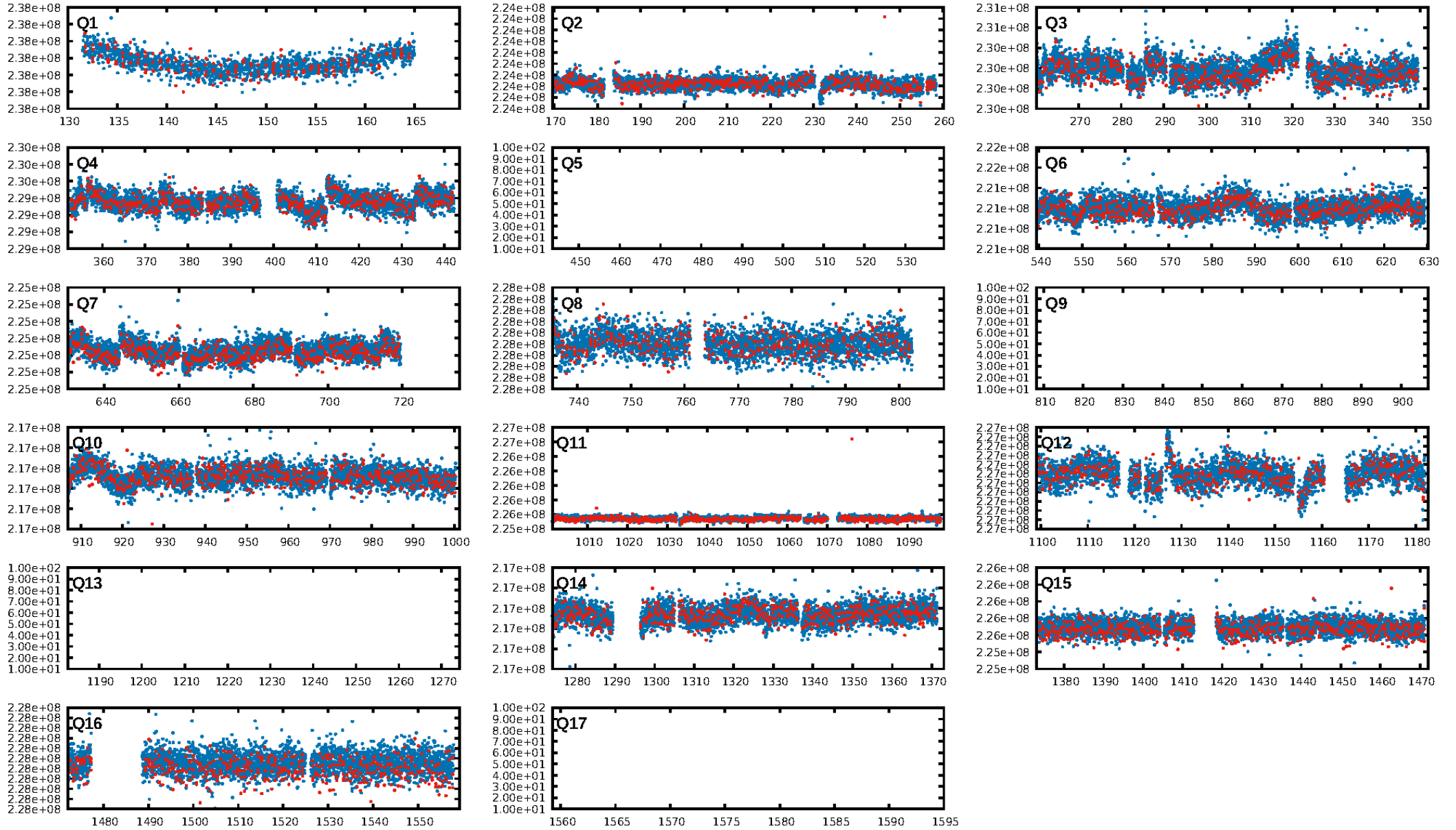
DV Fit Results:

Period = 0.75970 [0.00001] d
Epoch = 131.7699 [0.0012] BKJD
Rp/R* = 0.0056 [0.0007]
a/R* = 2.65 [1.81]
b = 0.90 [0.17]
Seff = 51158.59 [18281.81]
Teff = 3835 [343] K
Rp = 1.27 [0.38] Re
a = 0.0206 [0.0045] AU
Ag = 0.87 [0.41] [-0.31σ]
Teffp = 5733 [578] K [2.8σ]

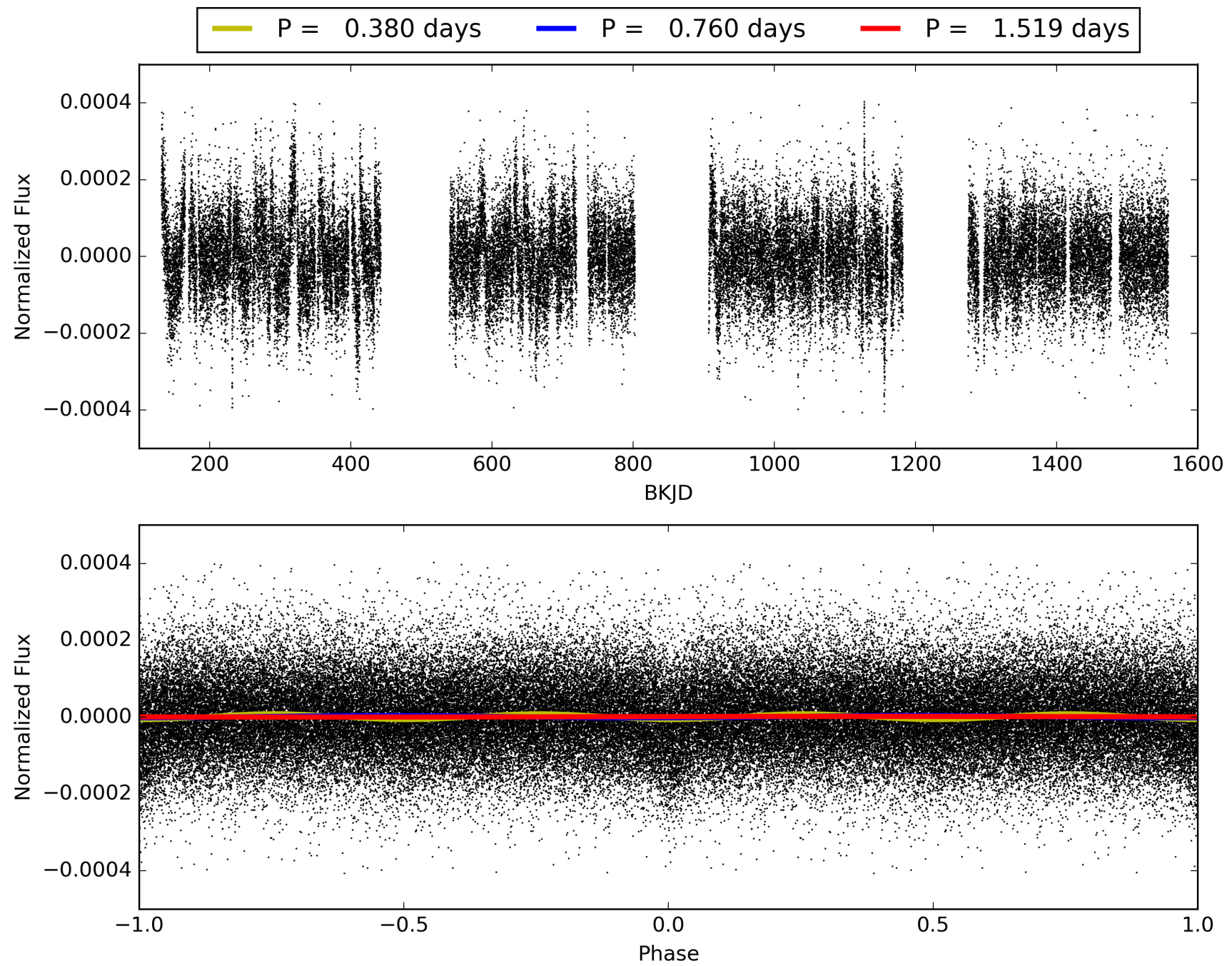
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.39e-36
RollingBand-fgt: 1.00 [1309/1314]
GhostDiagnostic-chr: -0.2213
Centroid-sig: 0.0%
Centroid-so: 195.070 arcsec [209.16σ]
OotOffset-rm: 11.806 arcsec [145.82σ]
KicOffset-rm: 11.775 arcsec [145.04σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 006670075-01, PDC Light Curves

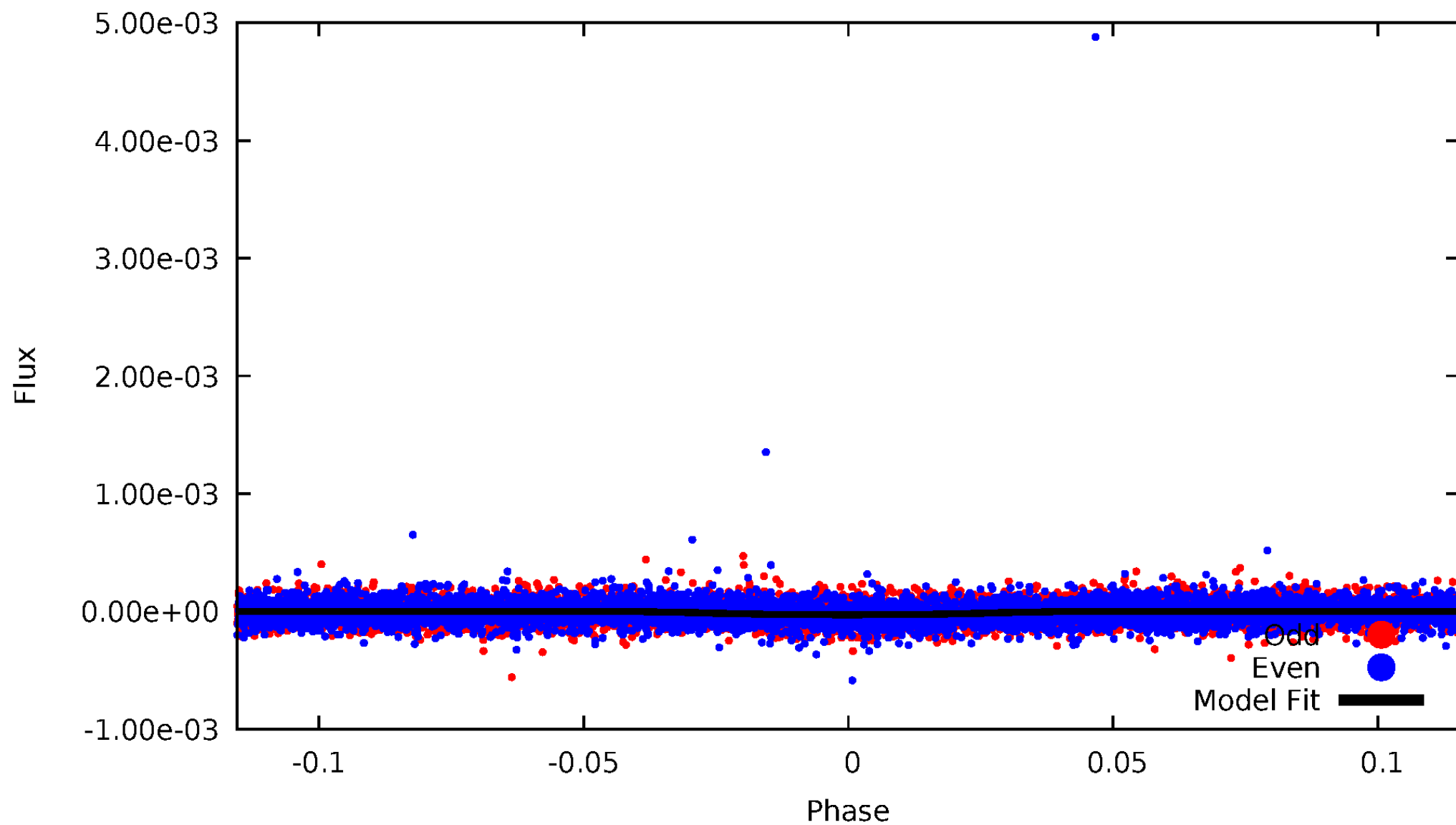


TCE 006670075-01



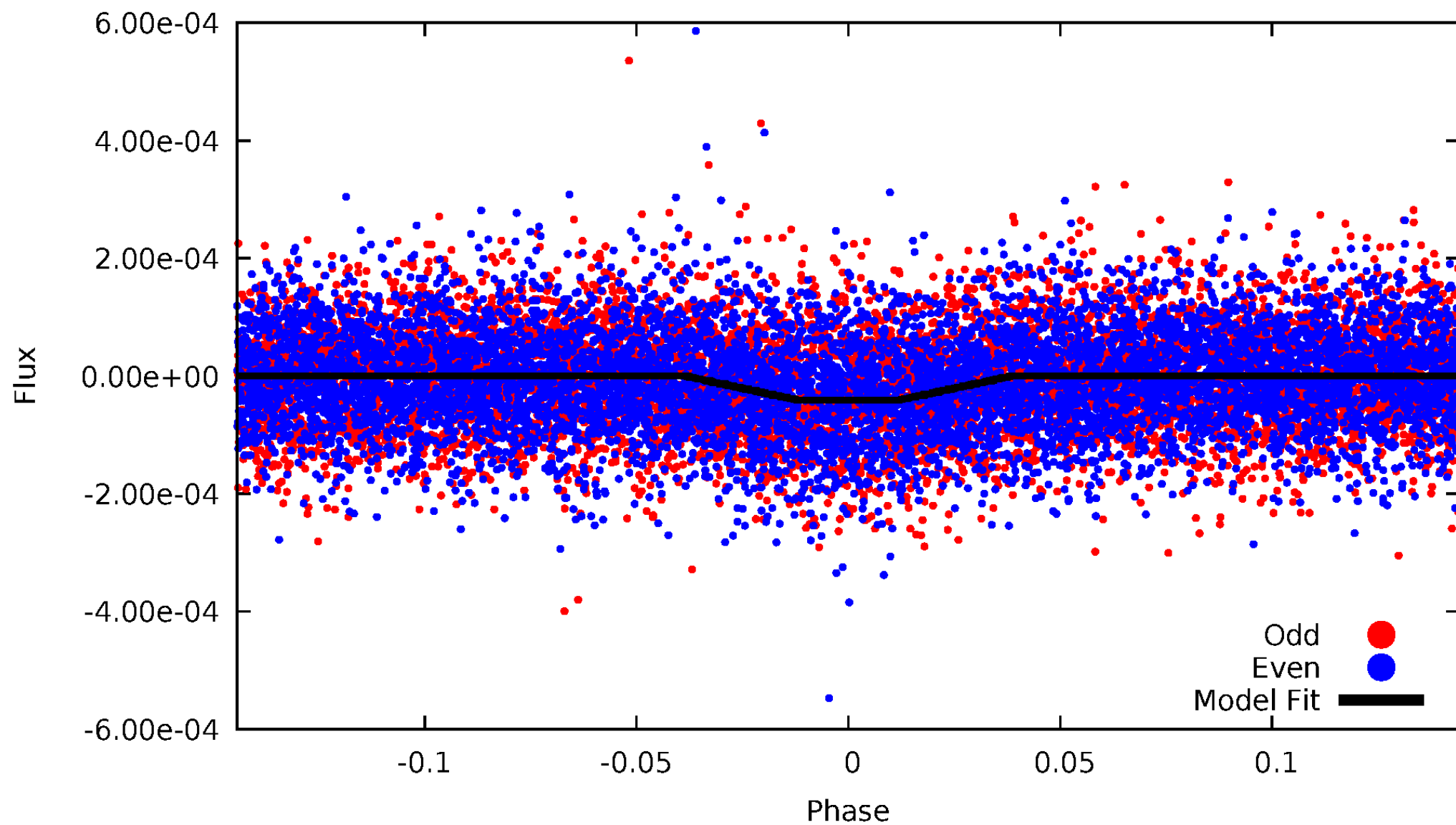
DV Odd/Even

TCE 006670075-01



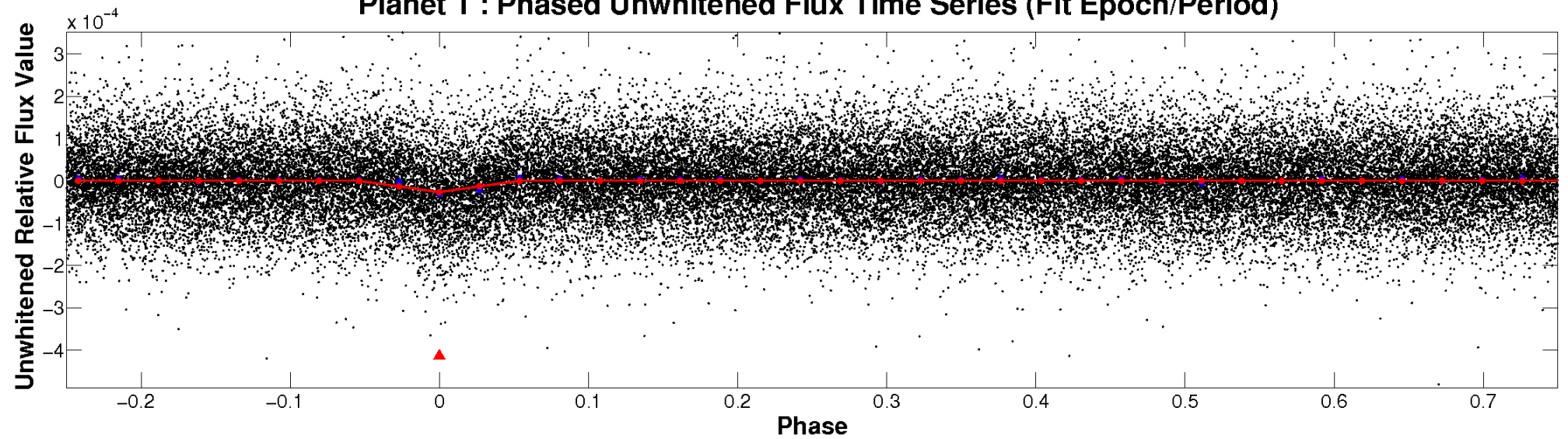
ALT Odd/Even

TCE 006670075-01

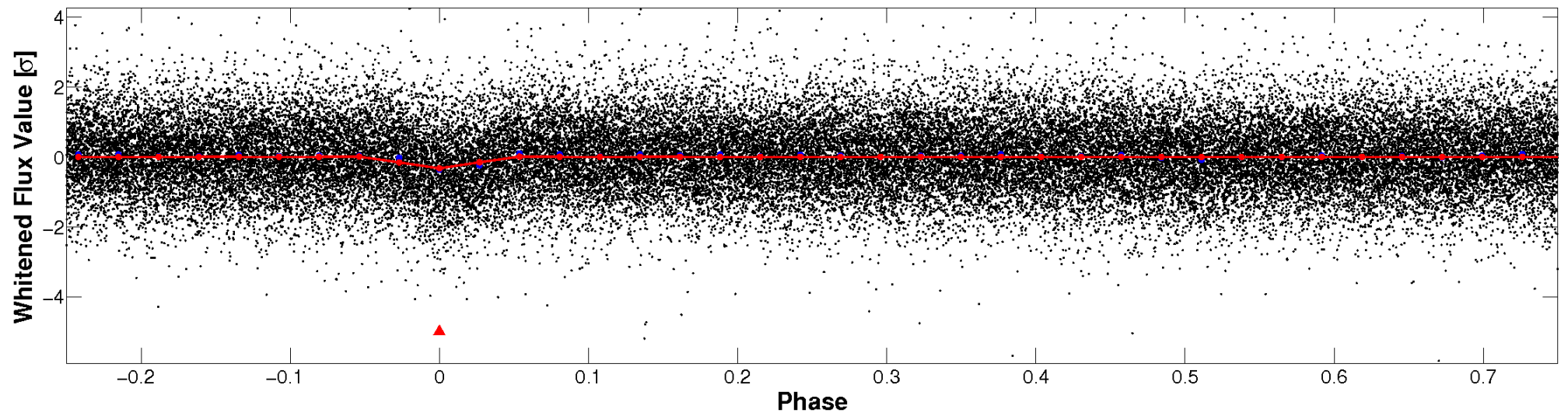


Non-Whitened Vs. Whitened Light Curve

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

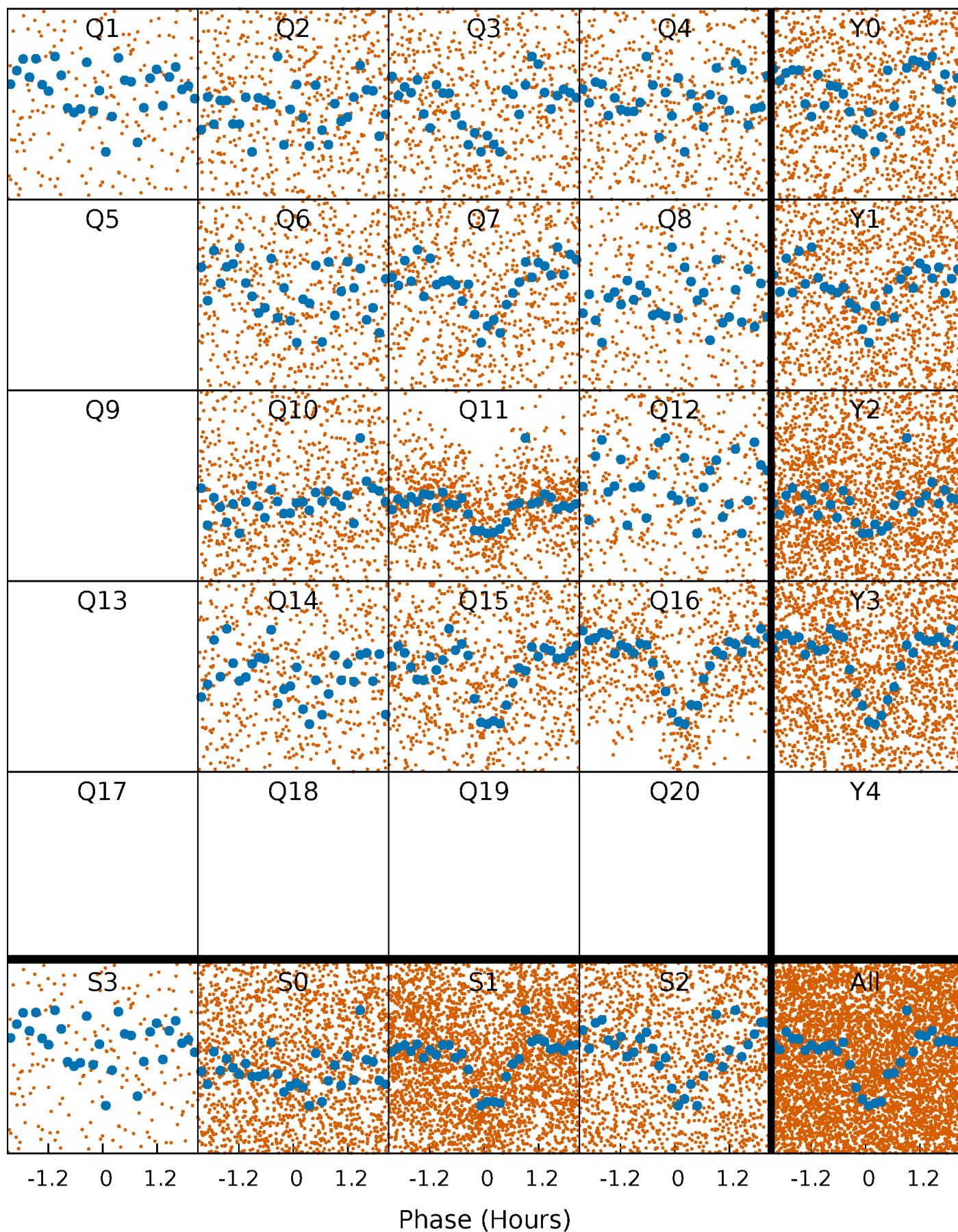


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



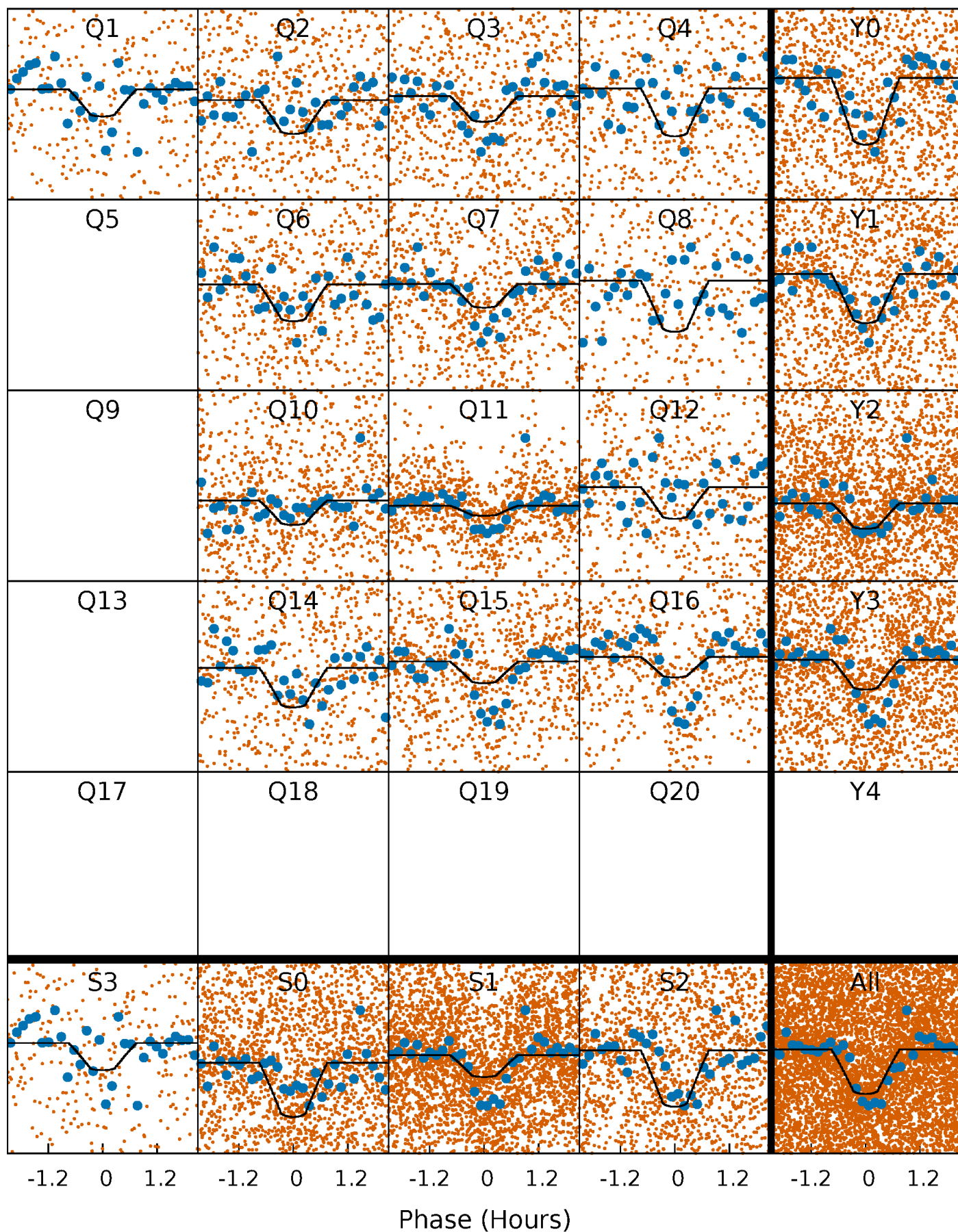
PDC Quarter-Phased Transit Curves

TCE 006670075-01 P= 0.759702 Days $T_0=131.769928$ (BKJD)



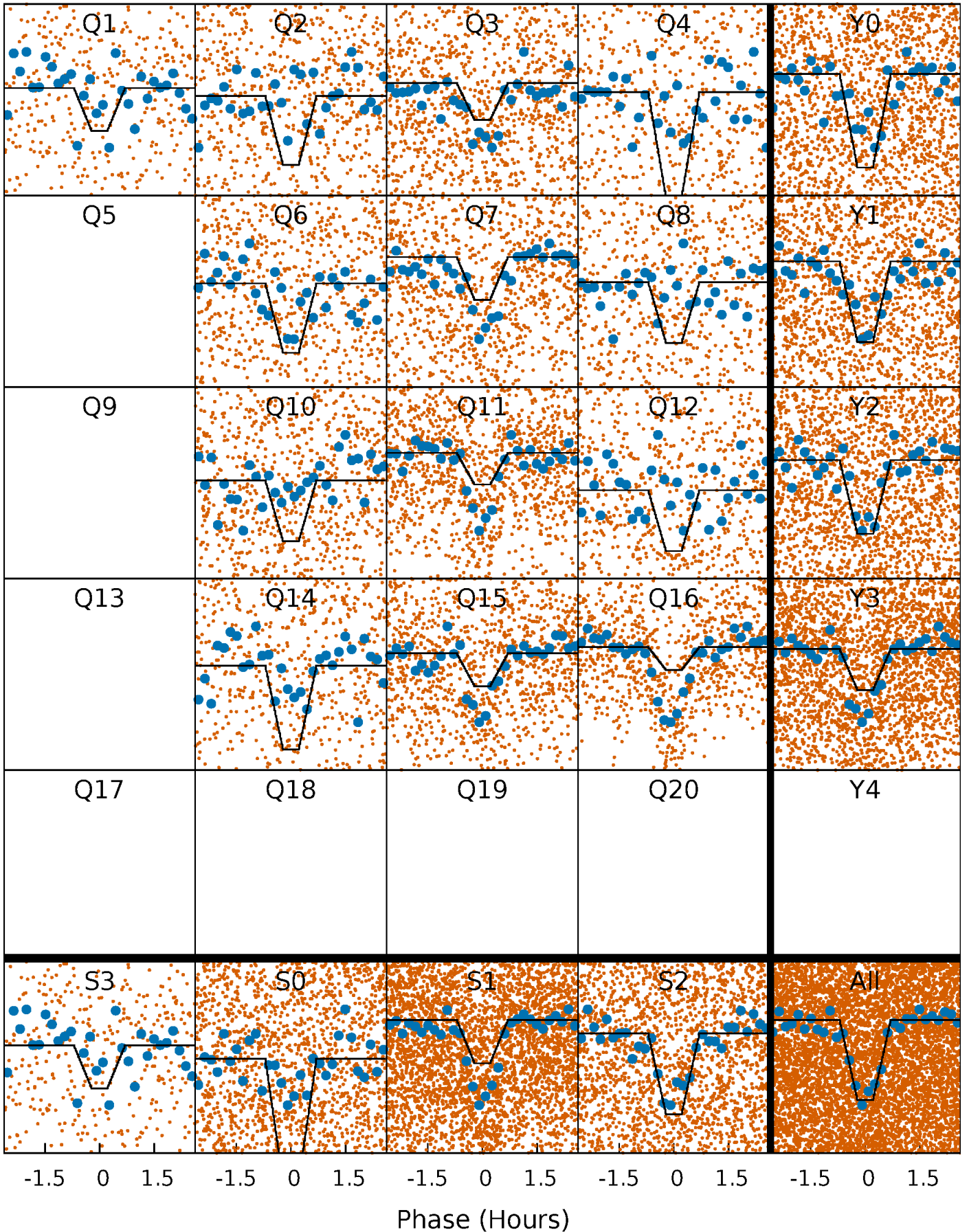
DV Quarter-Phased Transit Curves

TCE 006670075-01 P= 0.759702 Days $T_0=131.769928$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

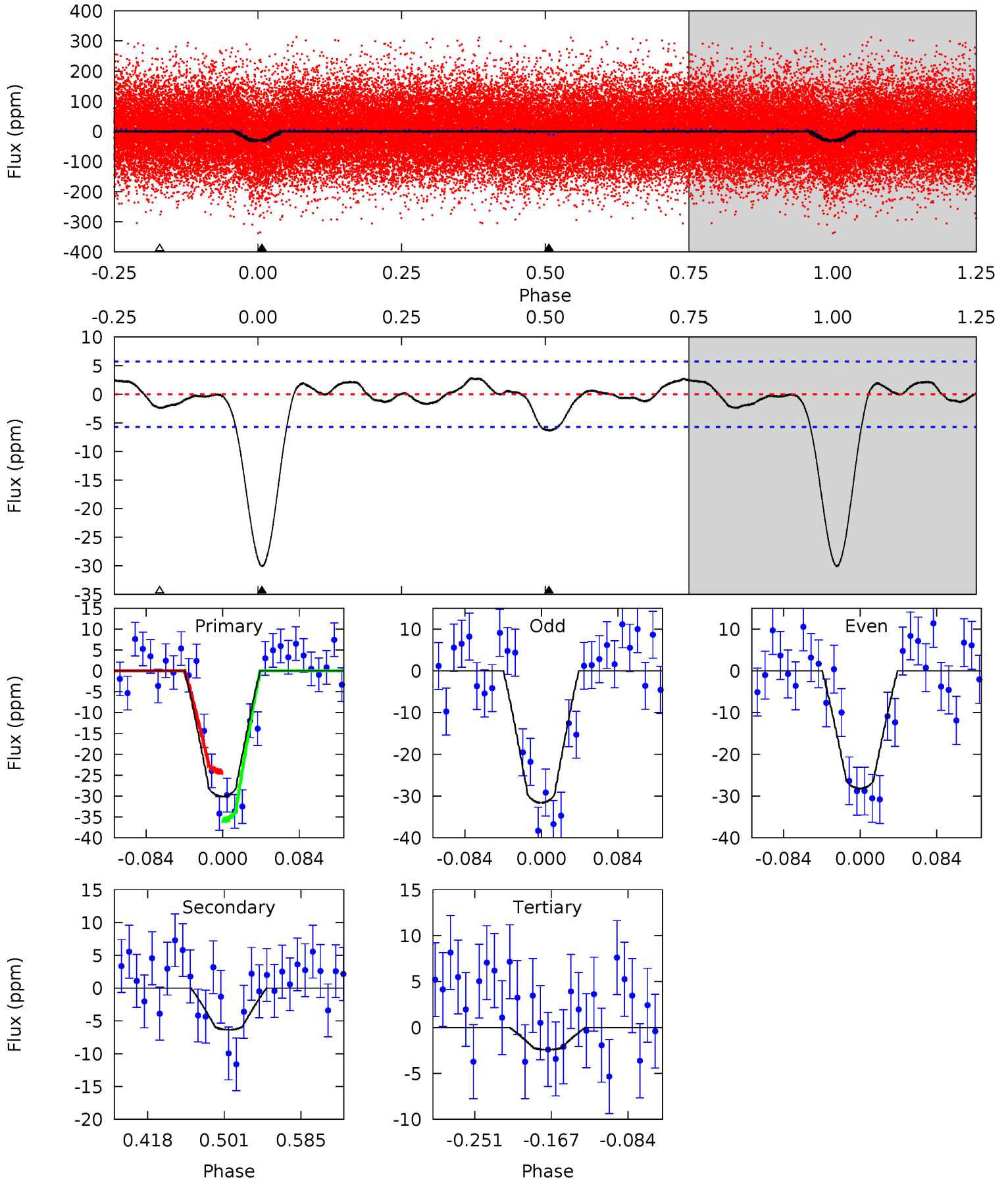
TCE 006670075-01 P= 0.759711 Days $T_0=131.764586$ (BKJD)



DV Model-Shift Uniqueness Test

006670075-01, P = 0.759702 Days, E = 131.010226 Days

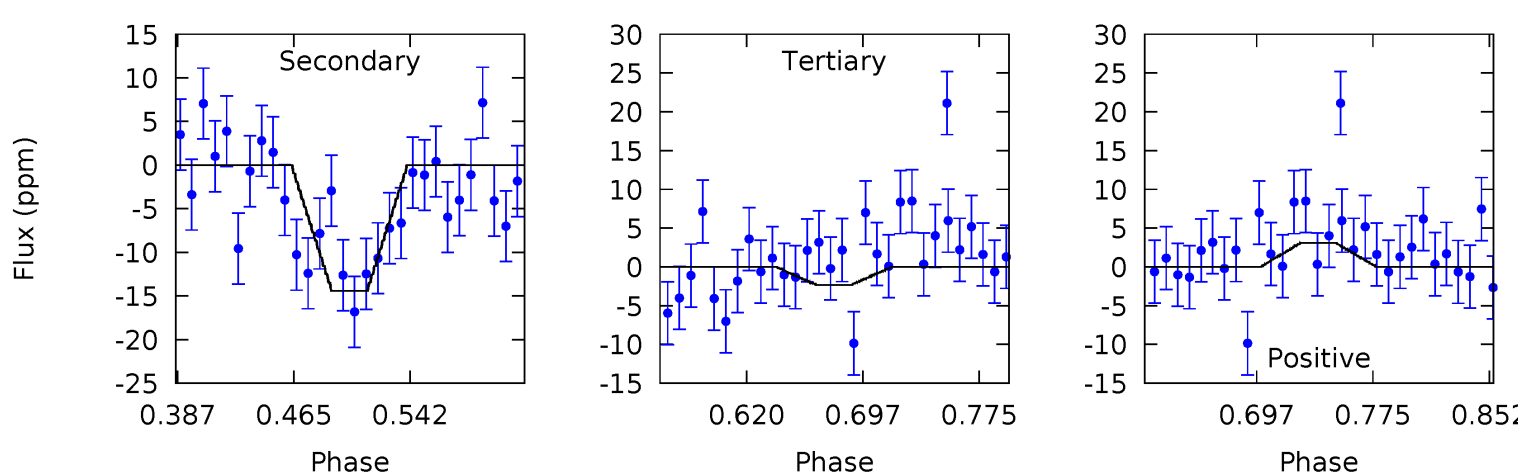
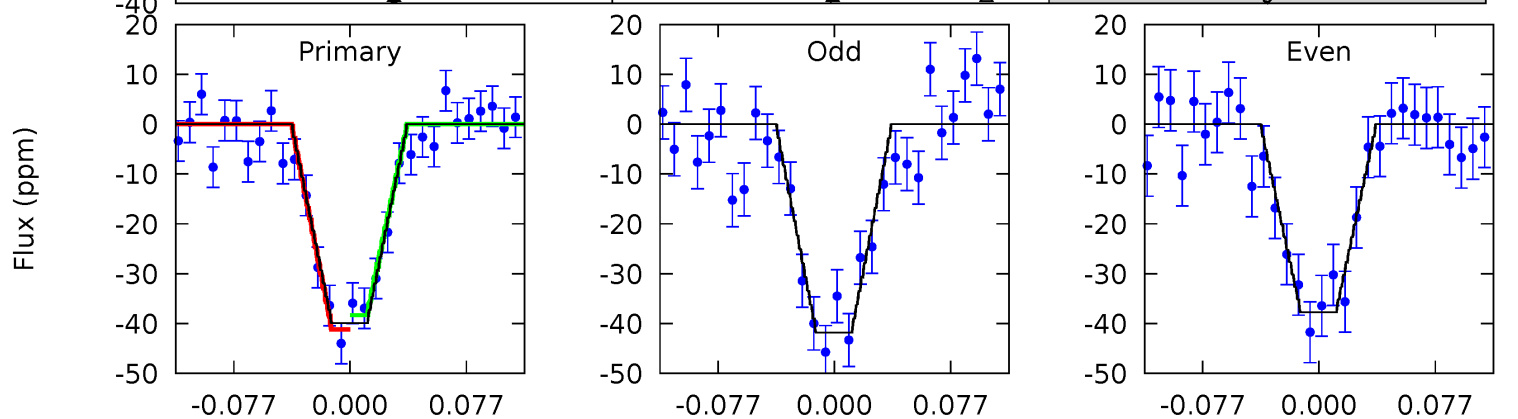
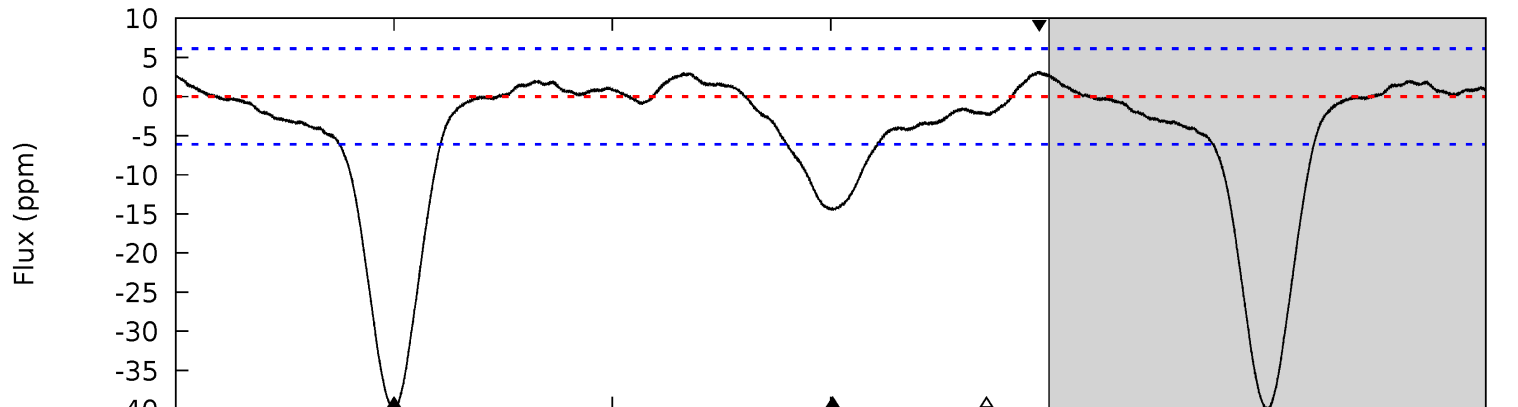
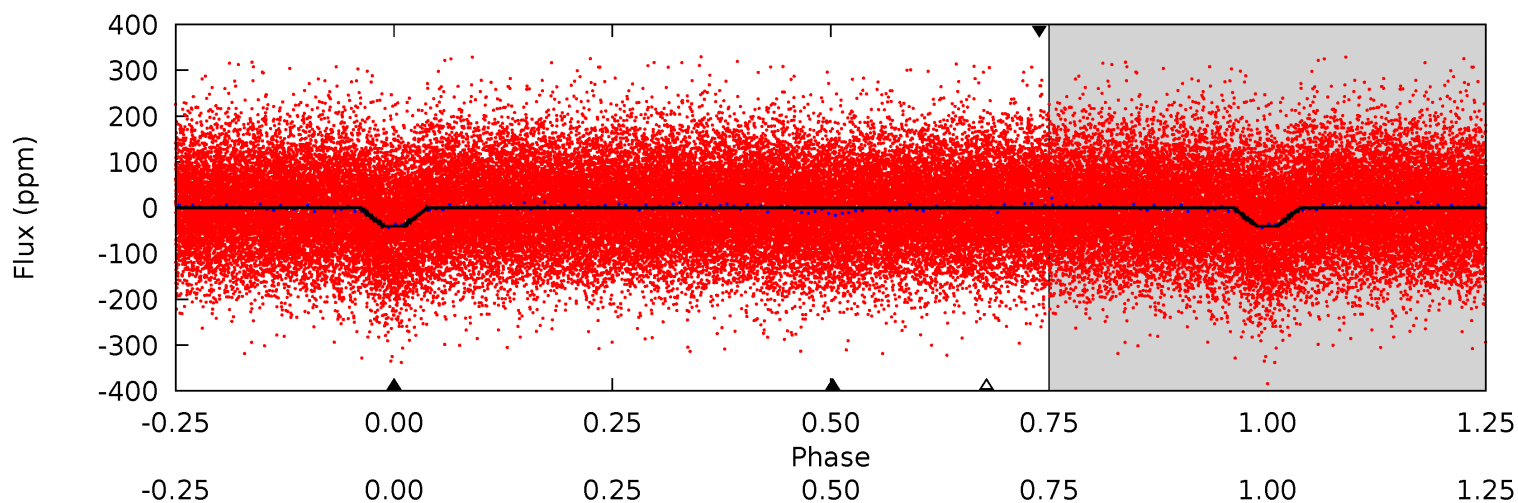
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	5.09	1.94	0	4.60	1.73	1.12	22.2	24.2	3.16	5.09	1.38	0.94	0.09	4.68



Alt Model-Shift Uniqueness Test

006670075-01, P = 0.759711 Days, E = 131.004875 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.2	10.9	1.75	2.33	4.62	1.77	1.49	28.4	27.8	9.15	8.57	1.53	0.98	0.07	1.09



Stellar Parameters For KIC 006670075

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8621^{+235}_{-404}	$4.101^{+0.131}_{-0.160}$	$0.070^{+0.250}_{-0.550}$	$2.094^{+0.564}_{-0.462}$	$2.018^{+0.357}_{-0.436}$	$0.309^{+0.210}_{-0.147}$
	+3%/-5%	+3%/-4%	+357%/-786%	+27%/-22%	+18%/-22%	+68%/-48%
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 006670075-01 / KOI 2382.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6 ± 1	$1.28^{+0.26}_{-0.22}$	5386^{+339}_{-379}	5048^{+575}_{-607}	$0.882^{+0.439}_{-0.309}$
Alt.	-14 ± 1	$1.47^{+0.24}_{-0.23}$	5347^{+359}_{-374}	5982^{+495}_{-411}	$1.551^{+0.586}_{-0.428}$

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

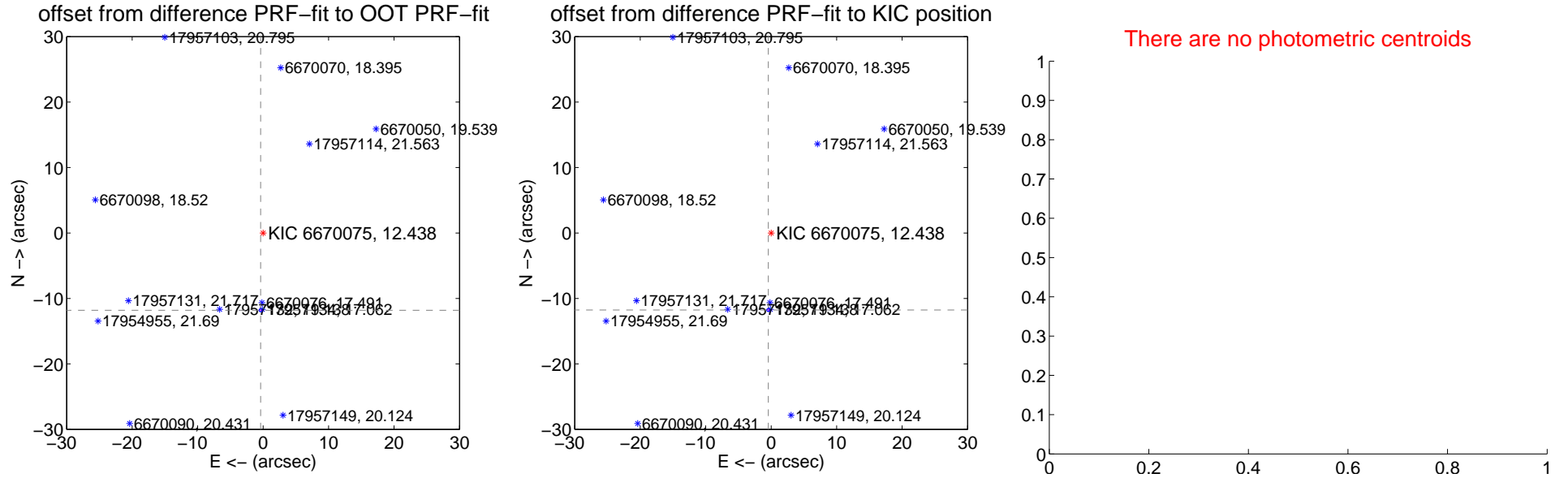
DV Centroid Data

Supplemental centroid analysis for 006670075-01. Kepler magnitude: 12.44. Transit SNR 14.59

There are 13 quarters with good PRF difference image offsets

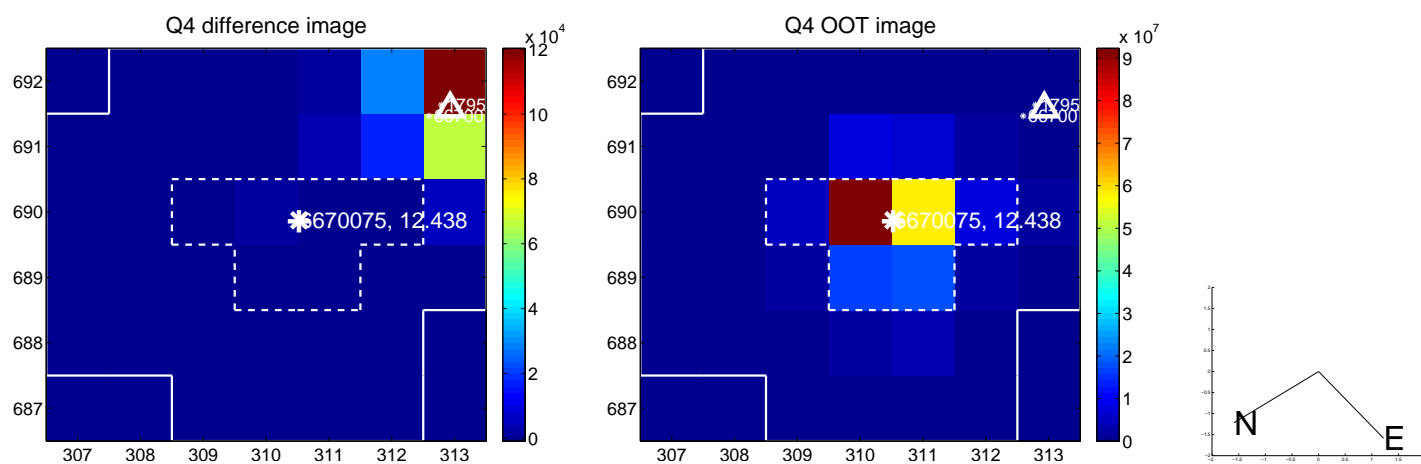
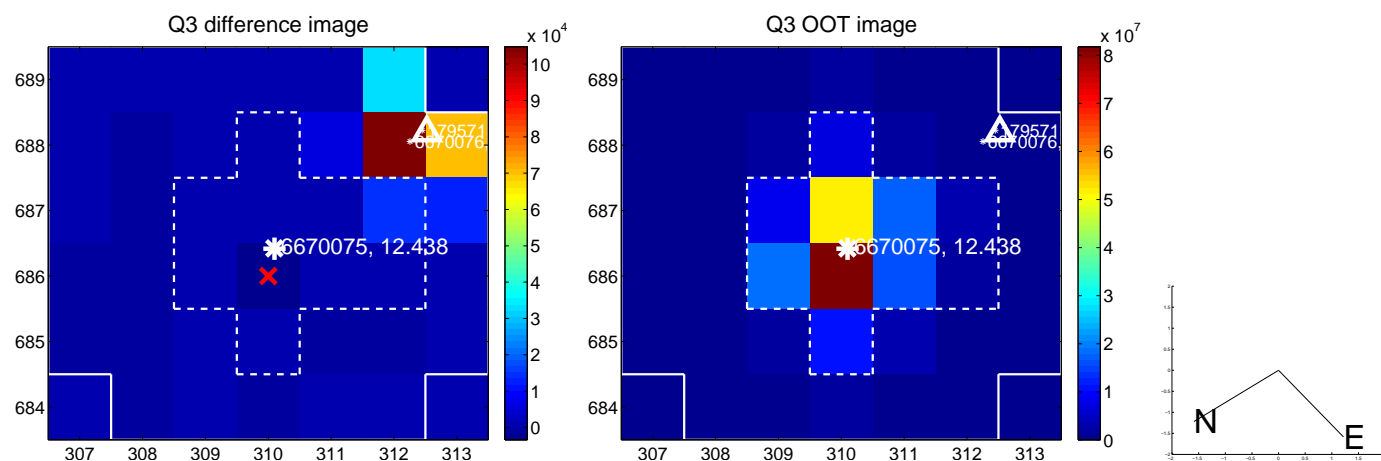
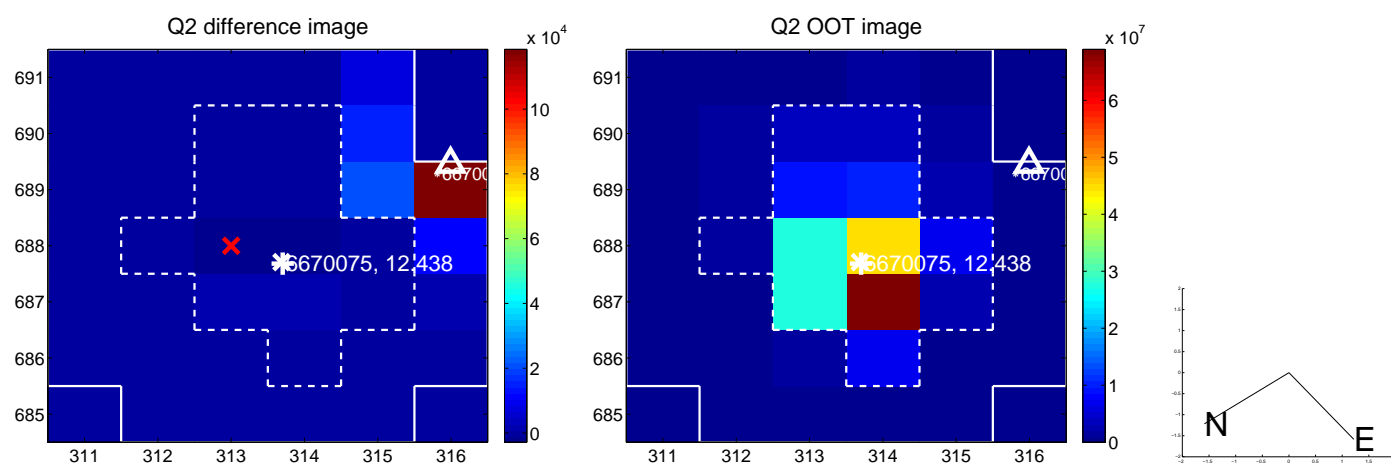
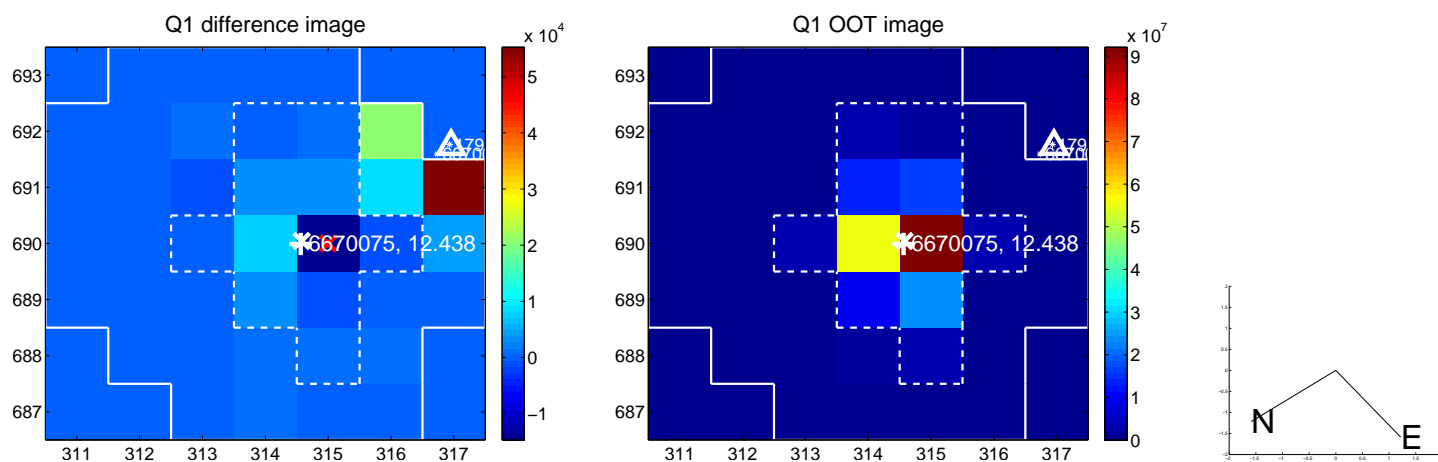
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.806 \pm 0.081	145.82	0.370 ± 0.086	-11.800 ± 0.080
PRF-fit source offset from KIC position	11.775 \pm 0.081	145.04	0.432 ± 0.090	-11.767 ± 0.080
photometric centroid source offset	—	—	—	—

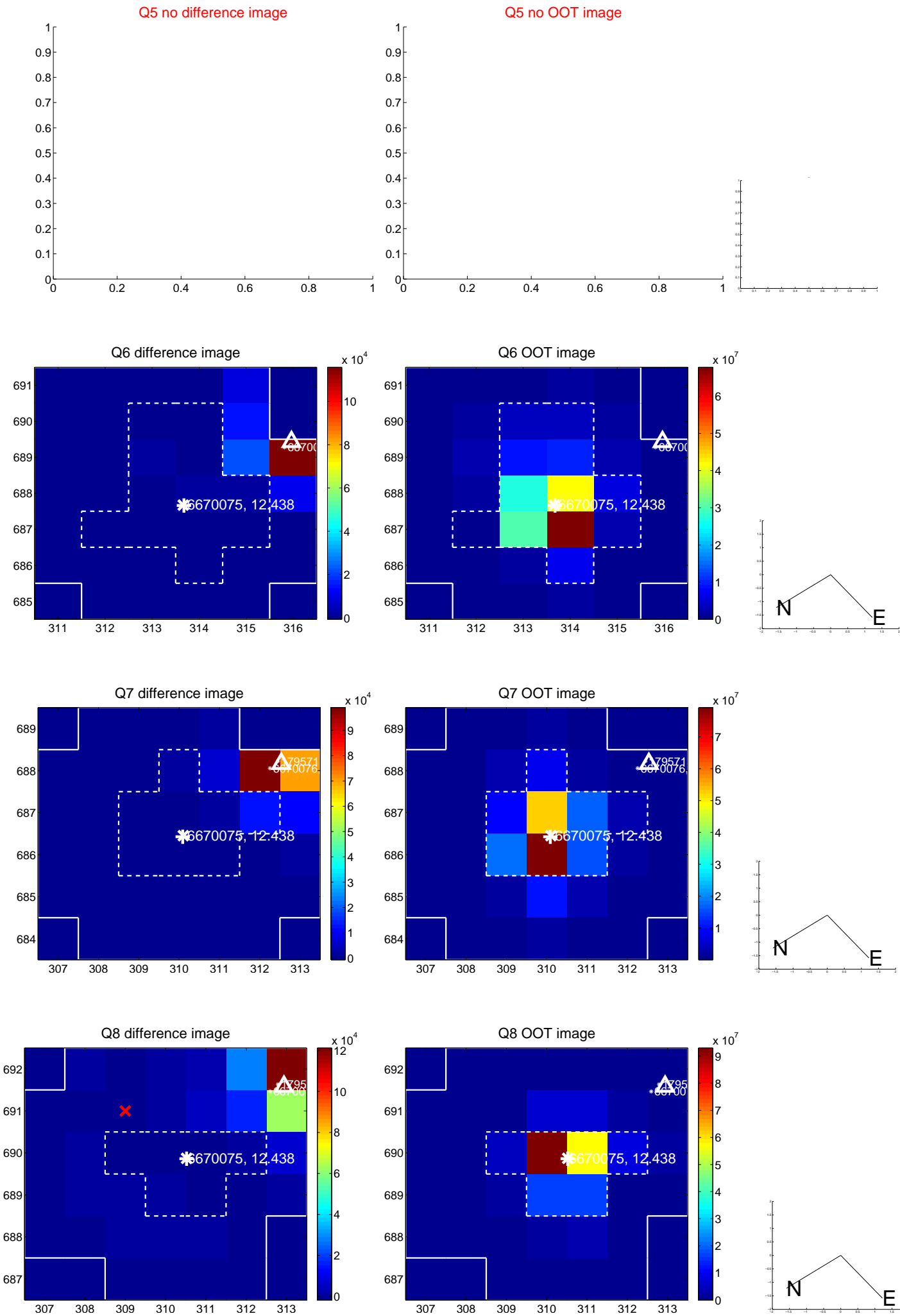


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

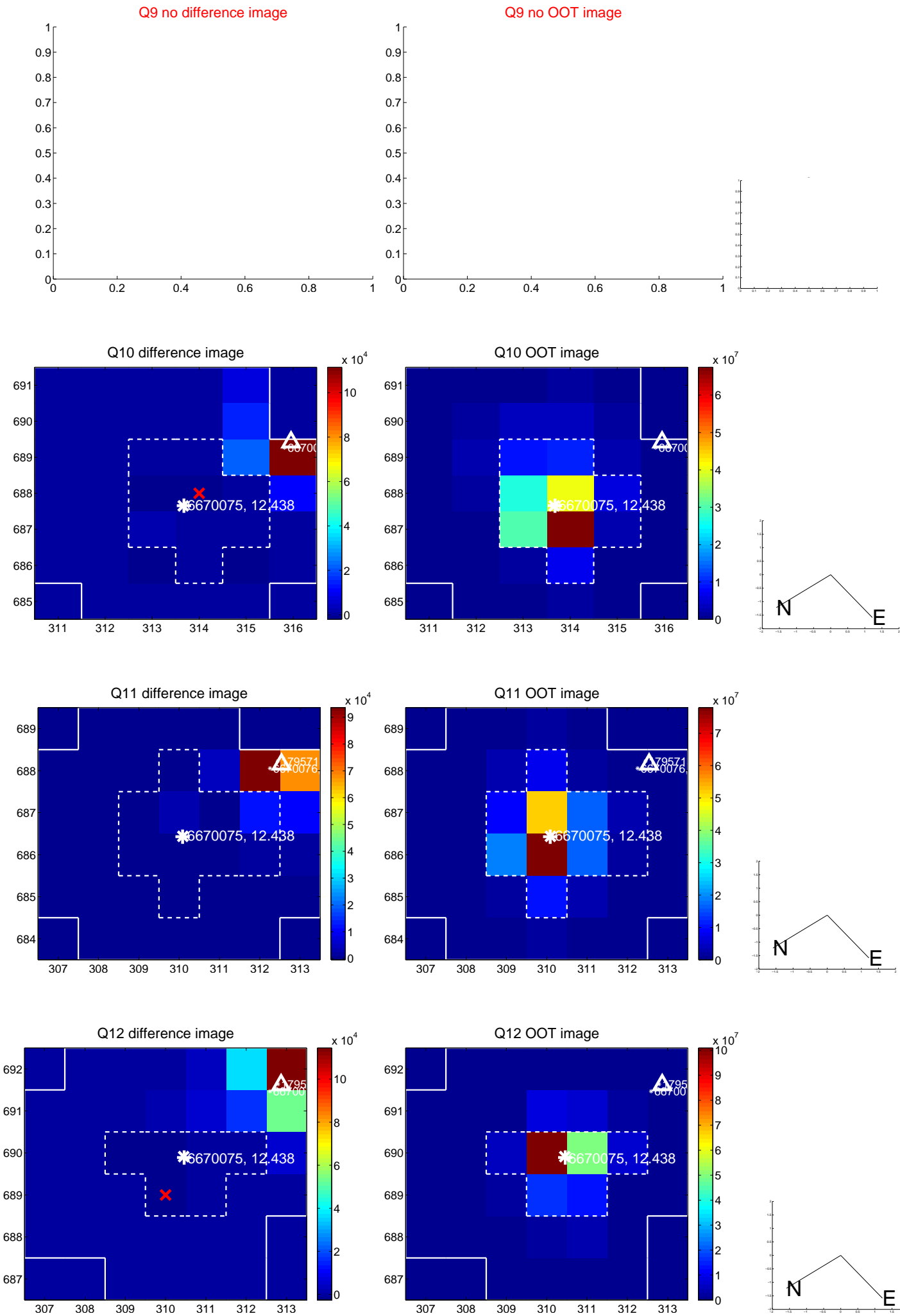
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



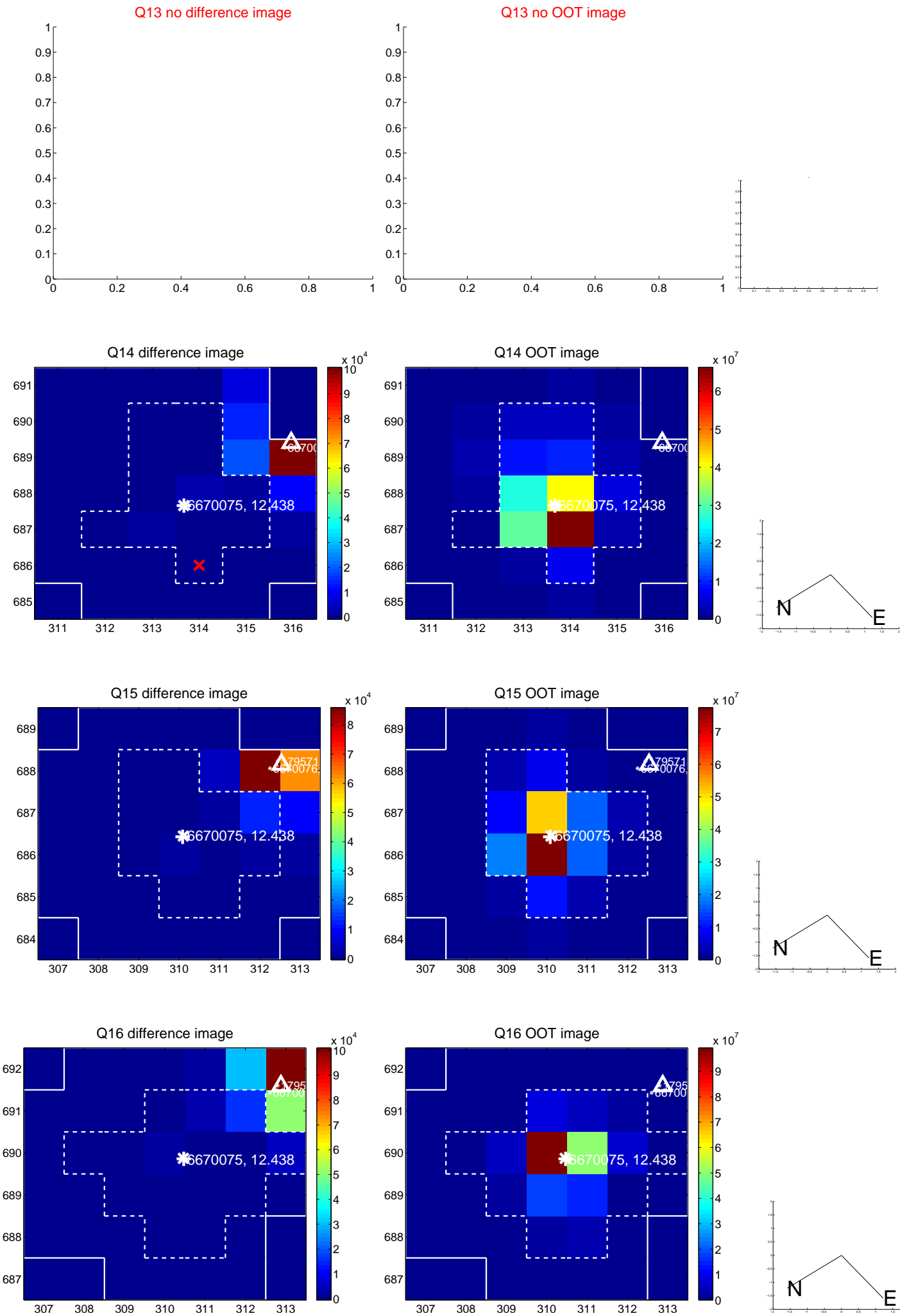
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



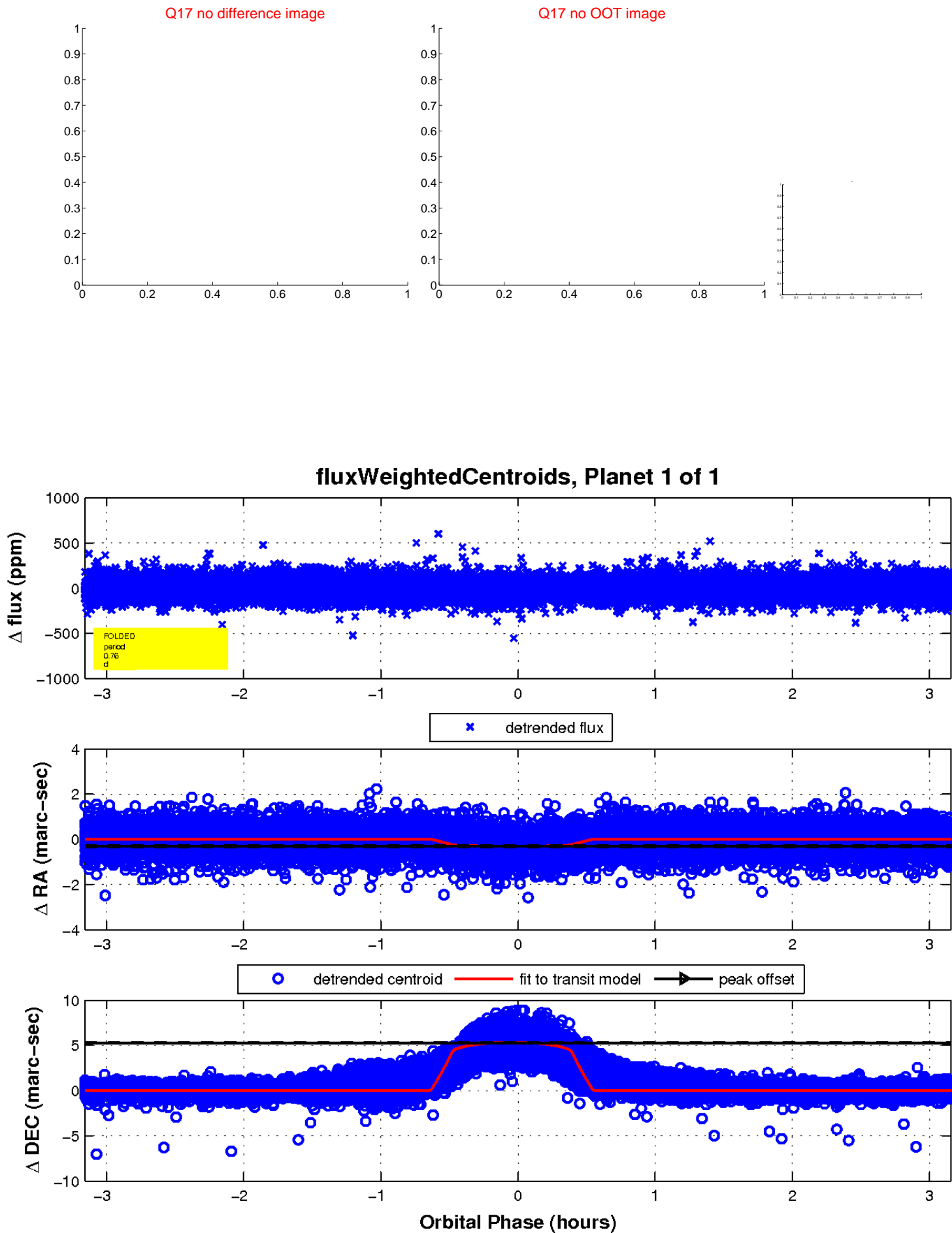
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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Declination