

KIC 006501635

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})
006501635-01	OBS	0560.01	23.675228	131.925223	951.4	4.851	33.2	37.3	0.78	5309	2.89	18.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006501635-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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.

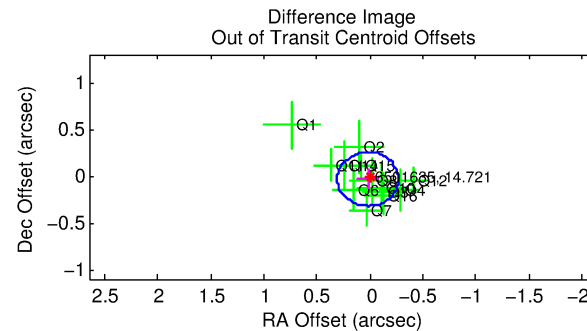
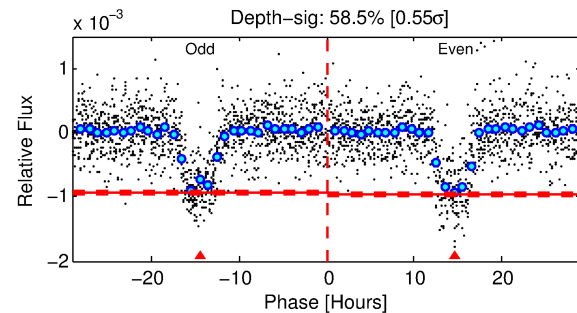
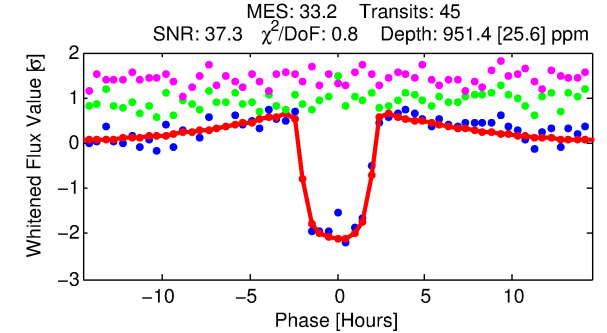
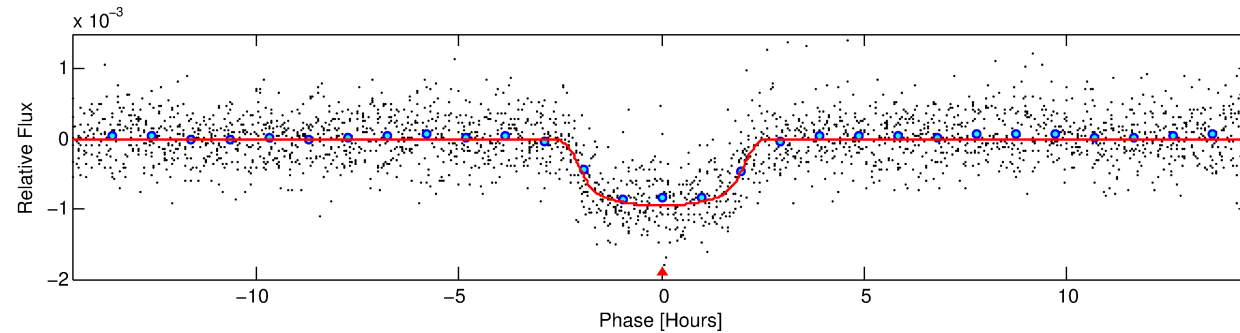
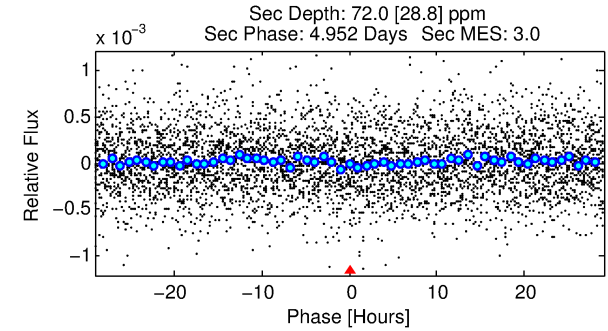
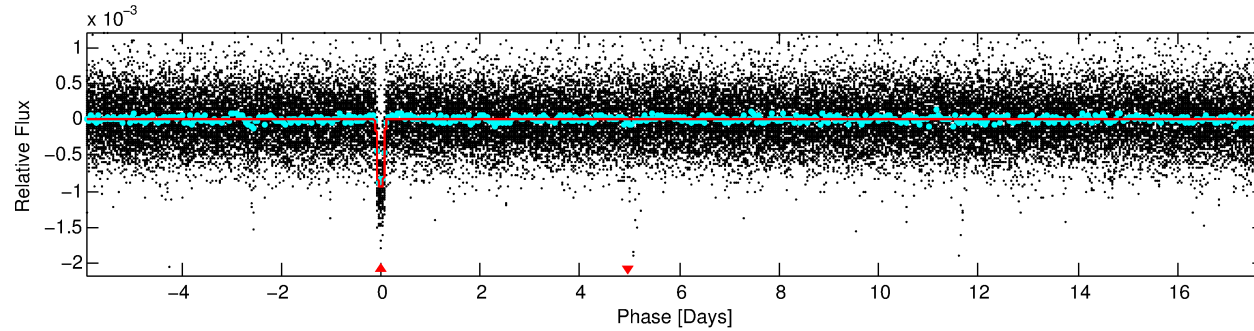
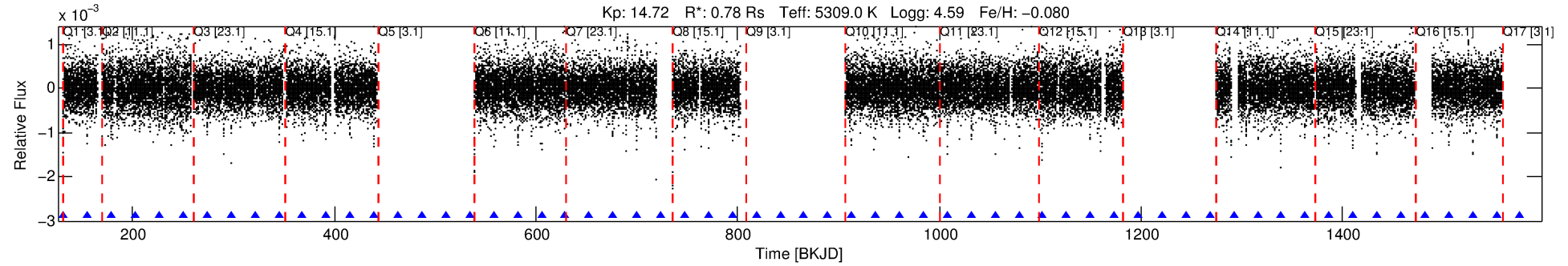
Ephemeris Match Information For 006501635-01

No Significant Match Found

DV One-Page Summary

KIC: 6501635 Candidate: 1 of 1 Period: 23.675 d

KOI: K00560.01 Corr: 0.975



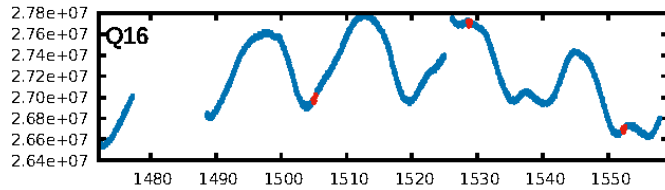
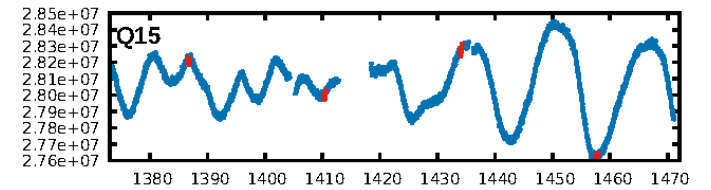
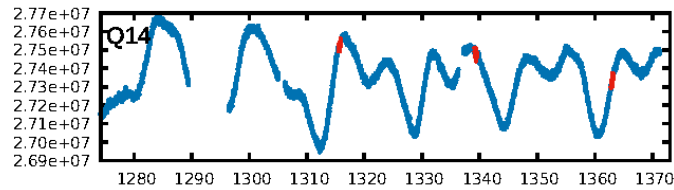
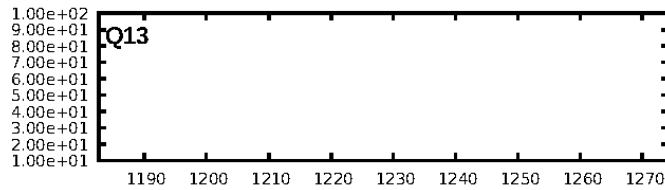
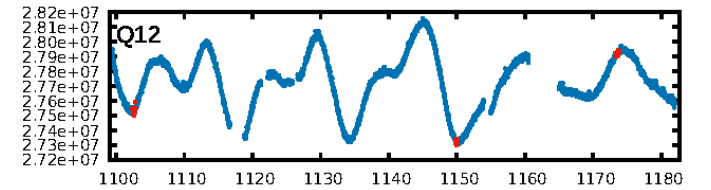
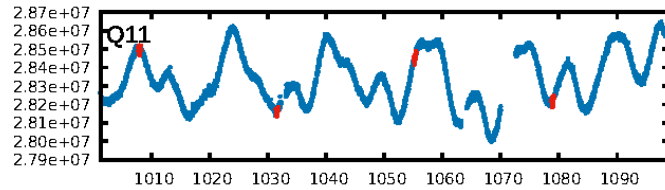
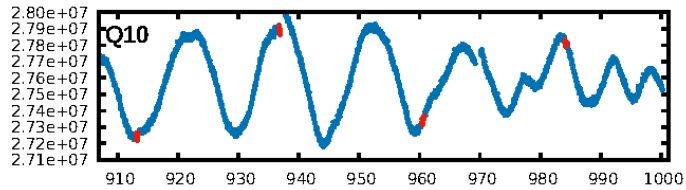
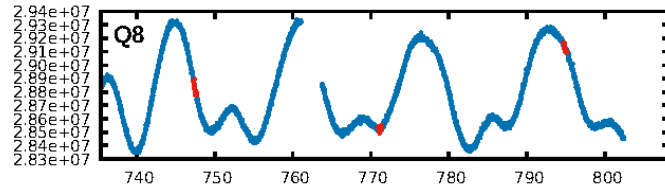
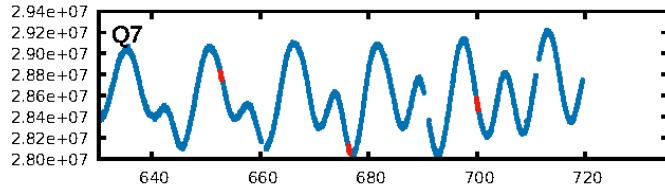
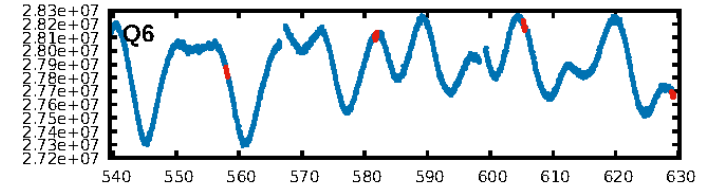
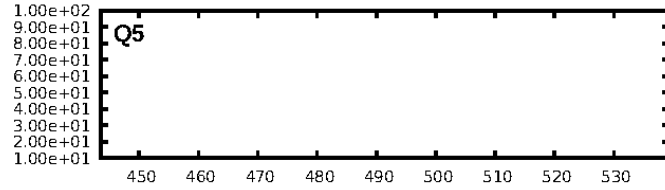
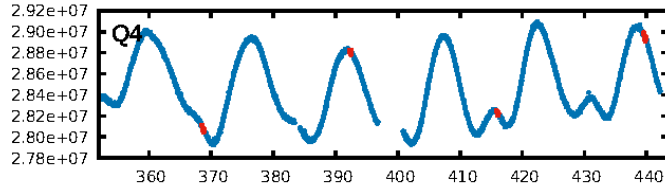
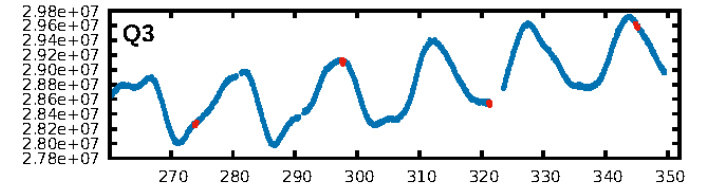
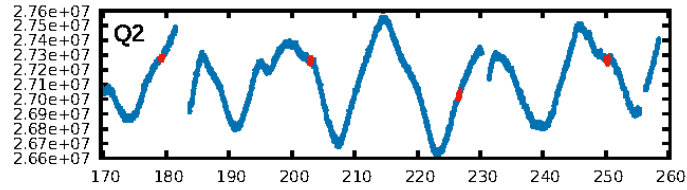
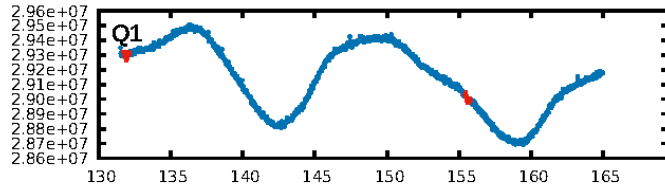
DV Fit Results:

Period = 23.67523 [0.00006] d
Epoch = 131.9252 [0.0021] BKJD
Rp/R* = 0.0339 [0.0013]
a/R* = 19.37 [2.72]
b = 0.89 [0.03]
Seff = 18.41 [3.89]
Teq = 528 [28] K
Rp = 2.89 [0.46] Re
a = 0.1536 [0.0197] AU
Ag = 112.16 [49.98] [2.22σ]
Teffp = 2658 [280] K [7.58σ]

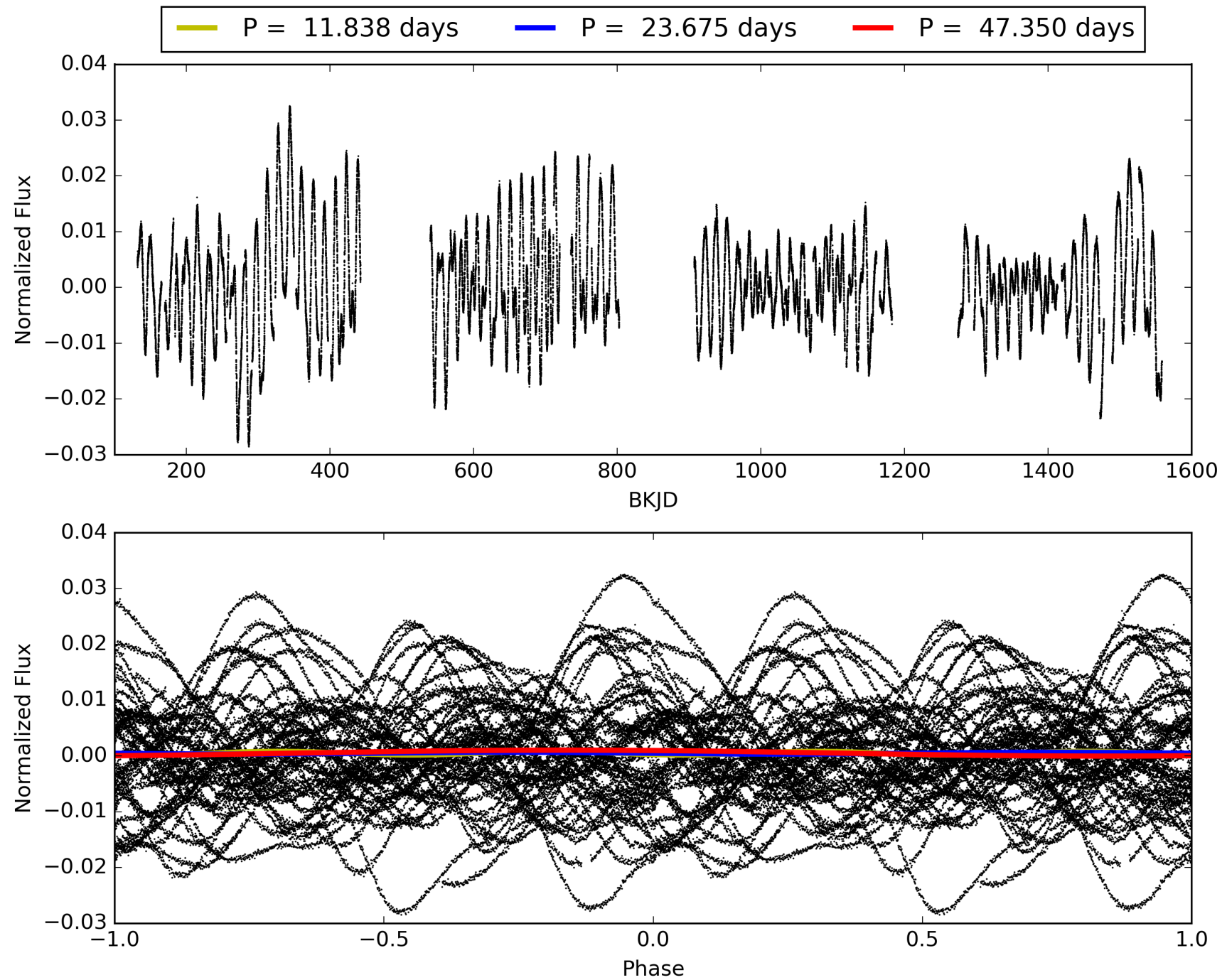
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 50.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.55e-179
RollingBand-fgt: 1.00 [43/43]
GhostDiagnostic-chr: 2.984
Centroid-sig: 0.0%
Centroid-so: 0.247 arcsec [0.70σ]
OotOffset-rm: 0.039 arcsec [0.40σ]
KicOffset-rm: 0.134 arcsec [1.27σ]
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 006501635-01, PDC Light Curves

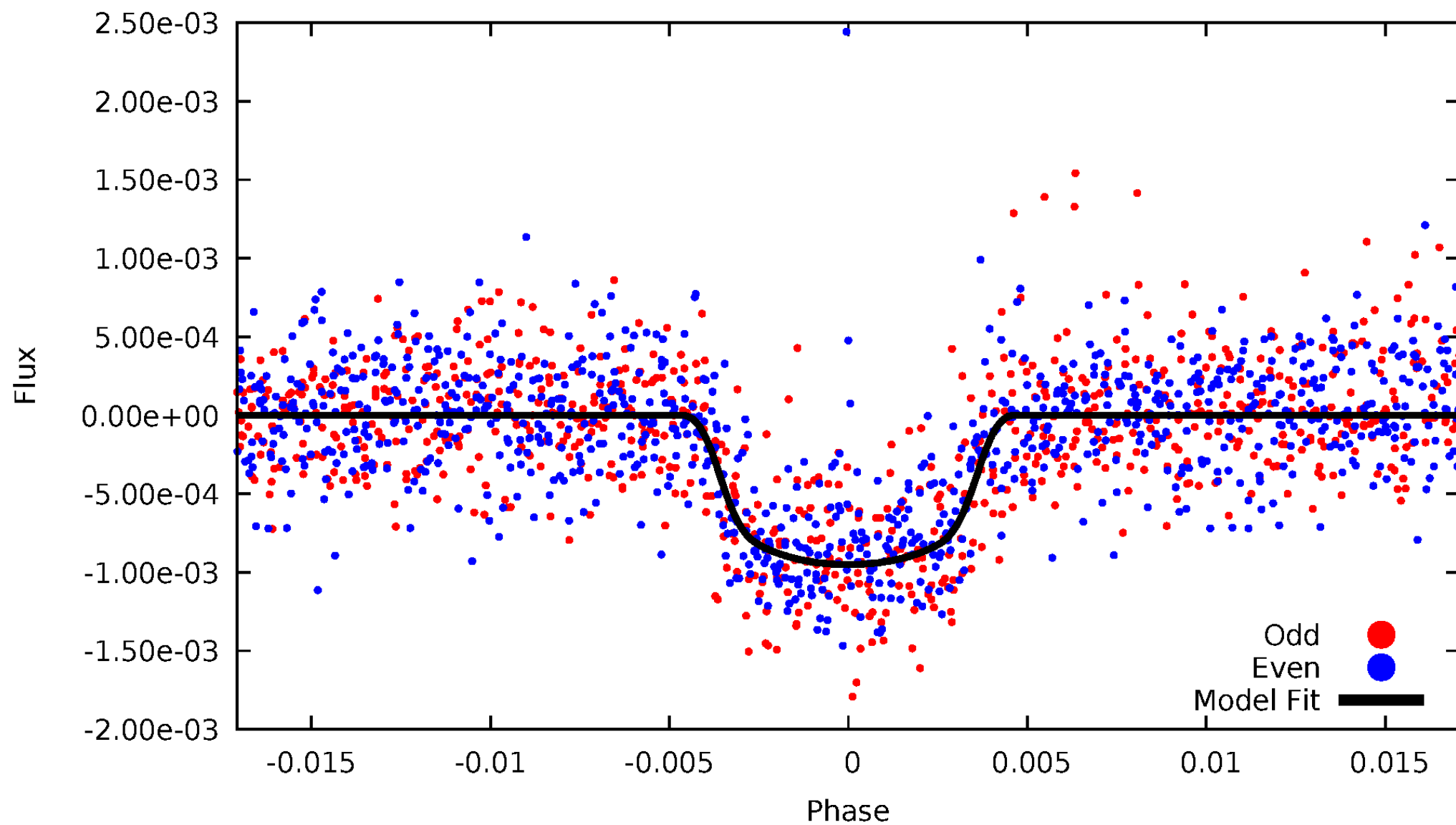


TCE 006501635-01



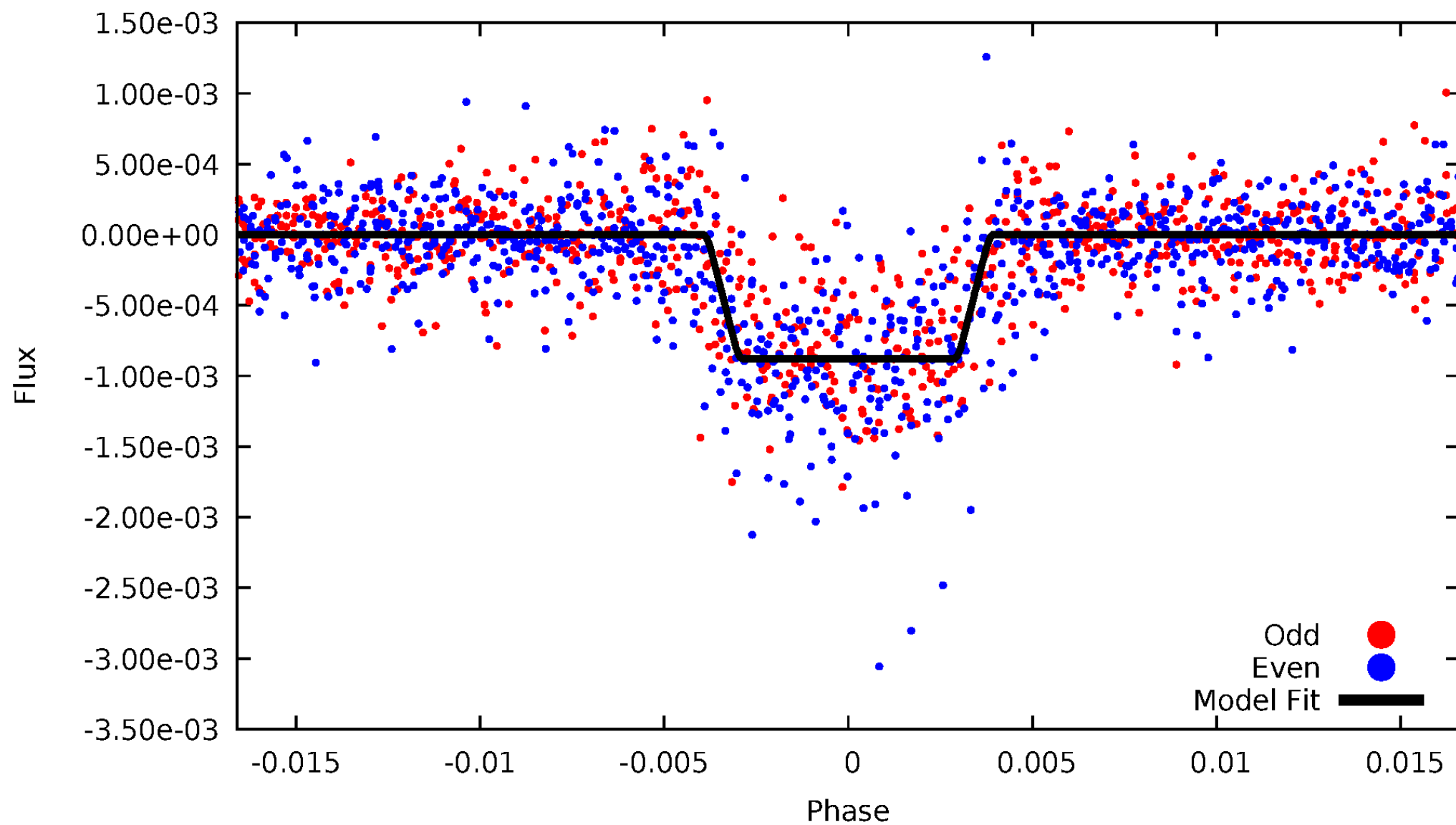
DV Odd/Even

TCE 006501635-01



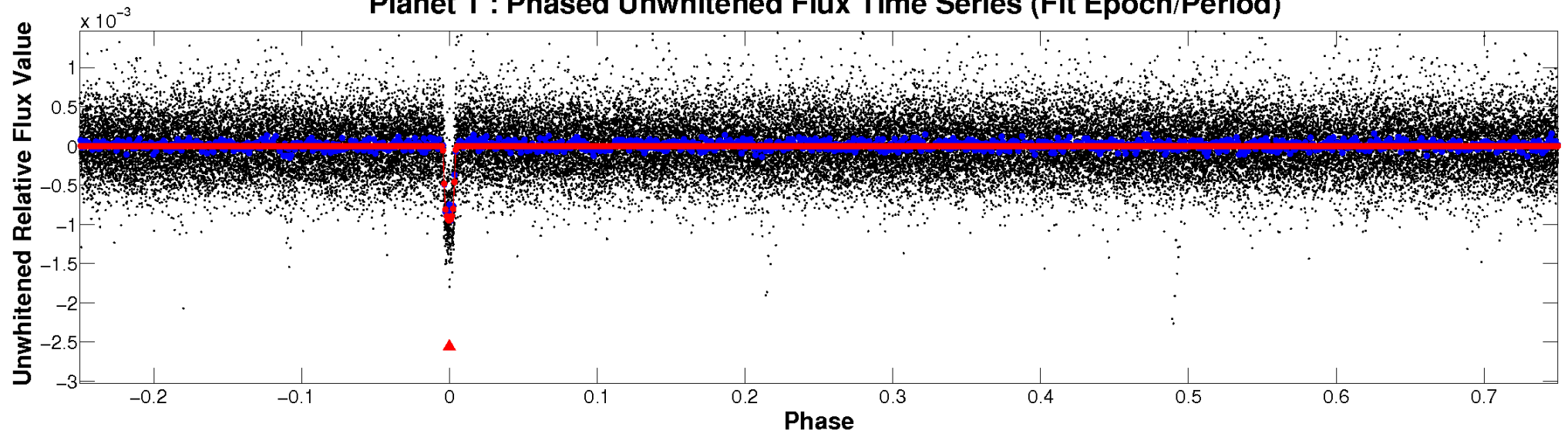
ALT Odd/Even

TCE 006501635-01

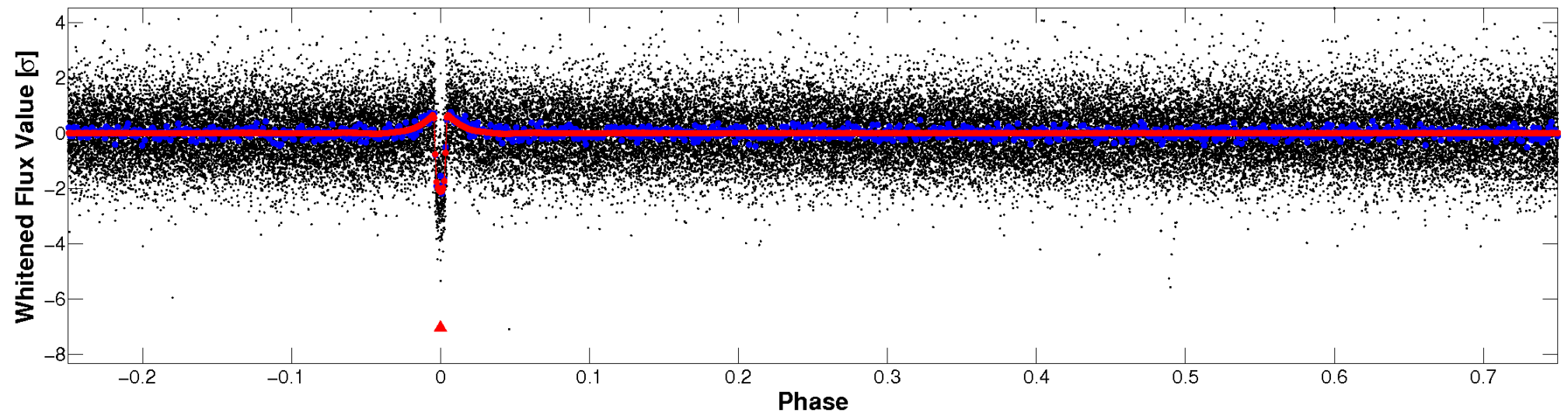


Non-Whitened Vs. Whitened Light Curve

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

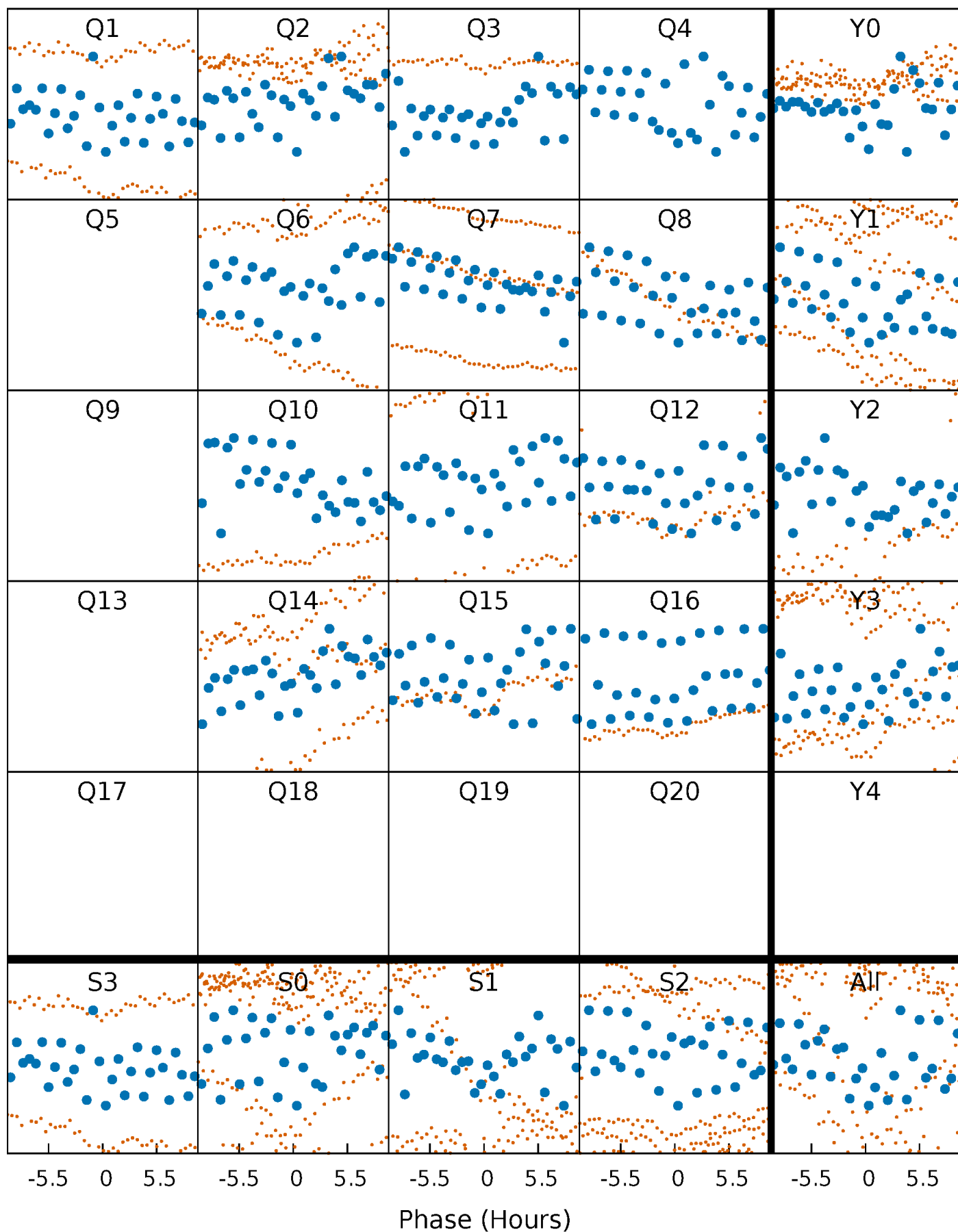


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



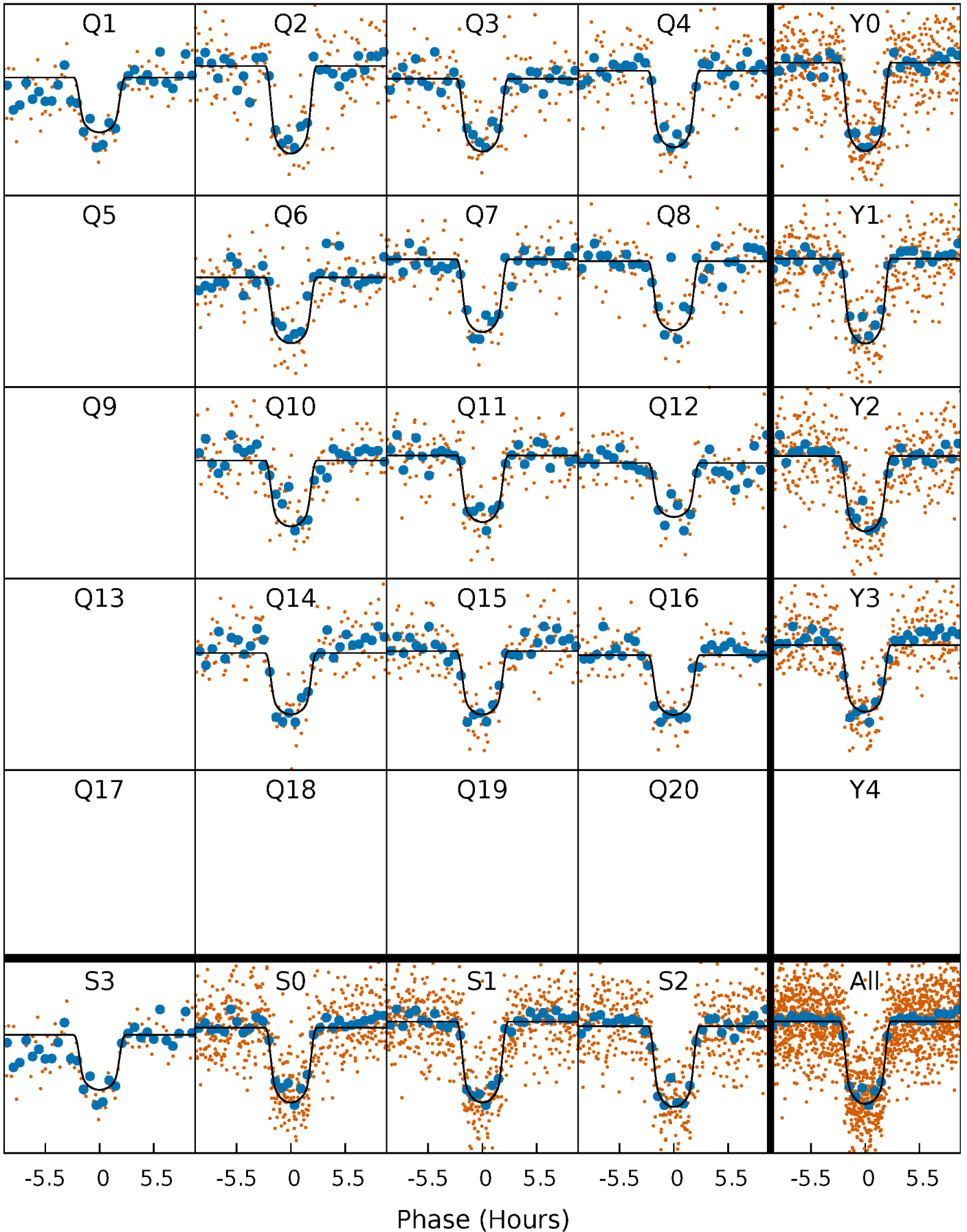
PDC Quarter-Phased Transit Curves

TCE 006501635-01 P= 23.675228 Days $T_0=131.925223$ (BKJD)



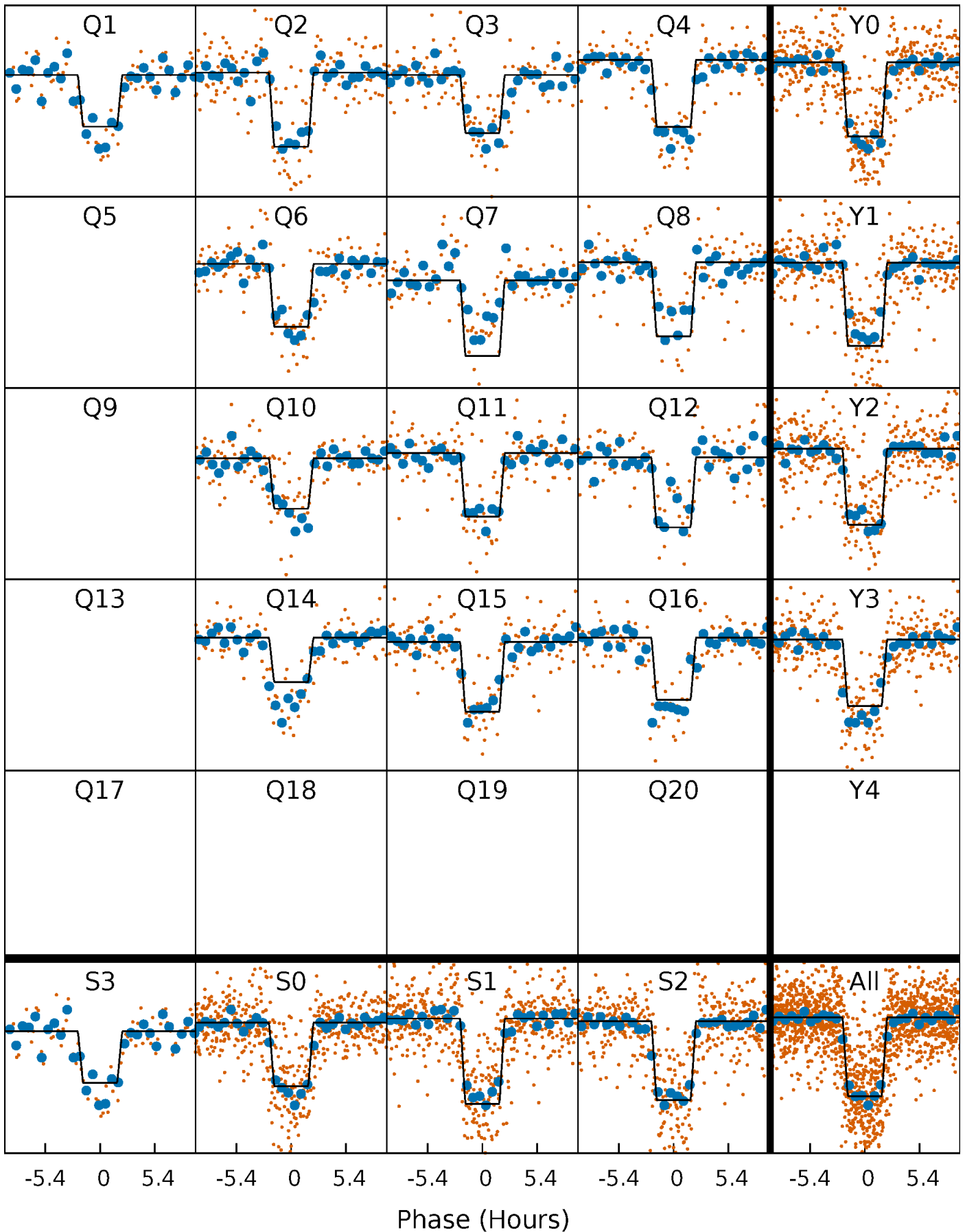
DV Quarter-Phased Transit Curves

TCE 006501635-01 P= 23.675228 Days $T_0=131.925223$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

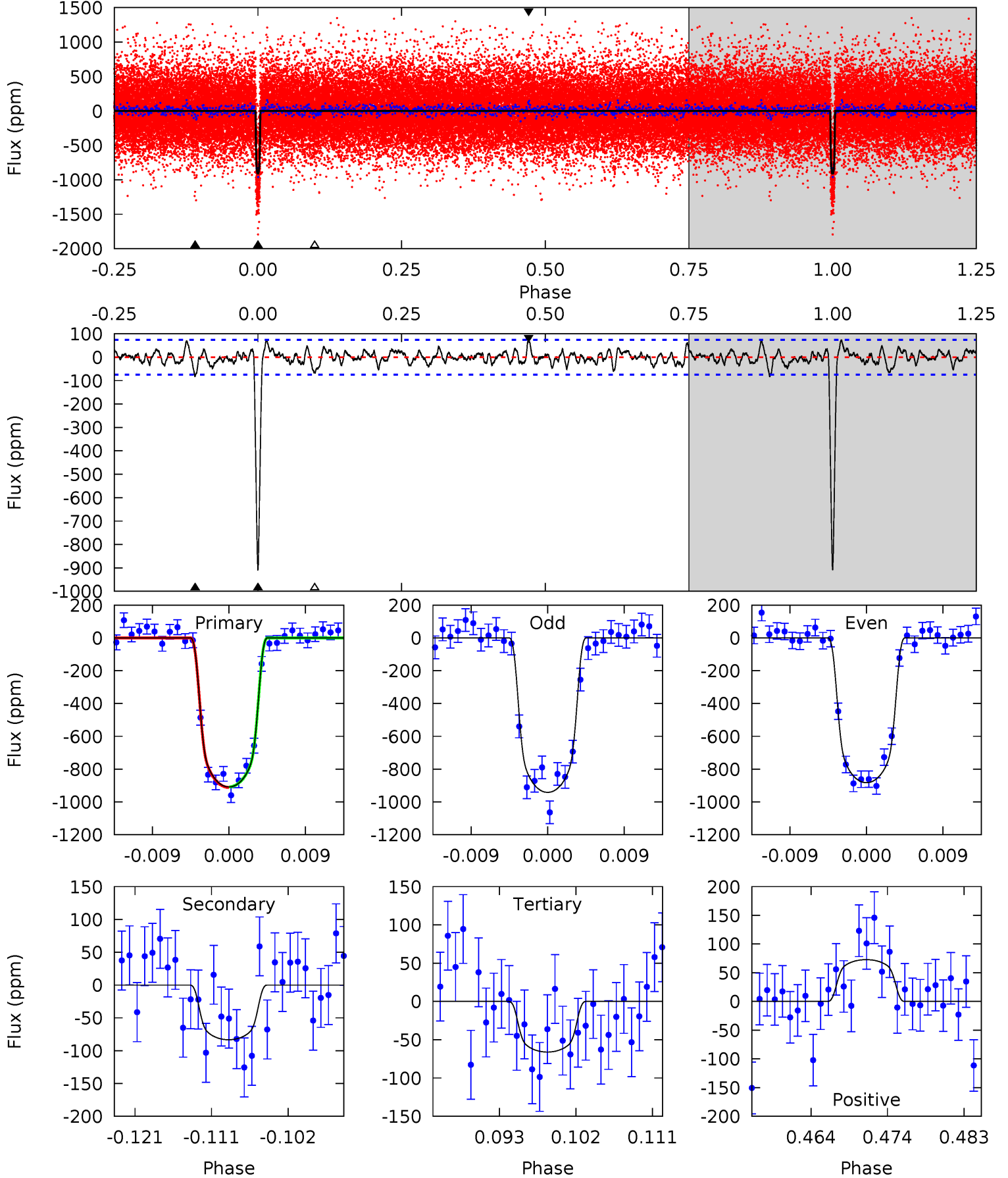
TCE 006501635-01 P= 23.675513 Days $T_0=131.917304$ (BKJD)



DV Model-Shift Uniqueness Test

006501635-01, $P = 23.675228$ Days, $E = 108.249995$ Days

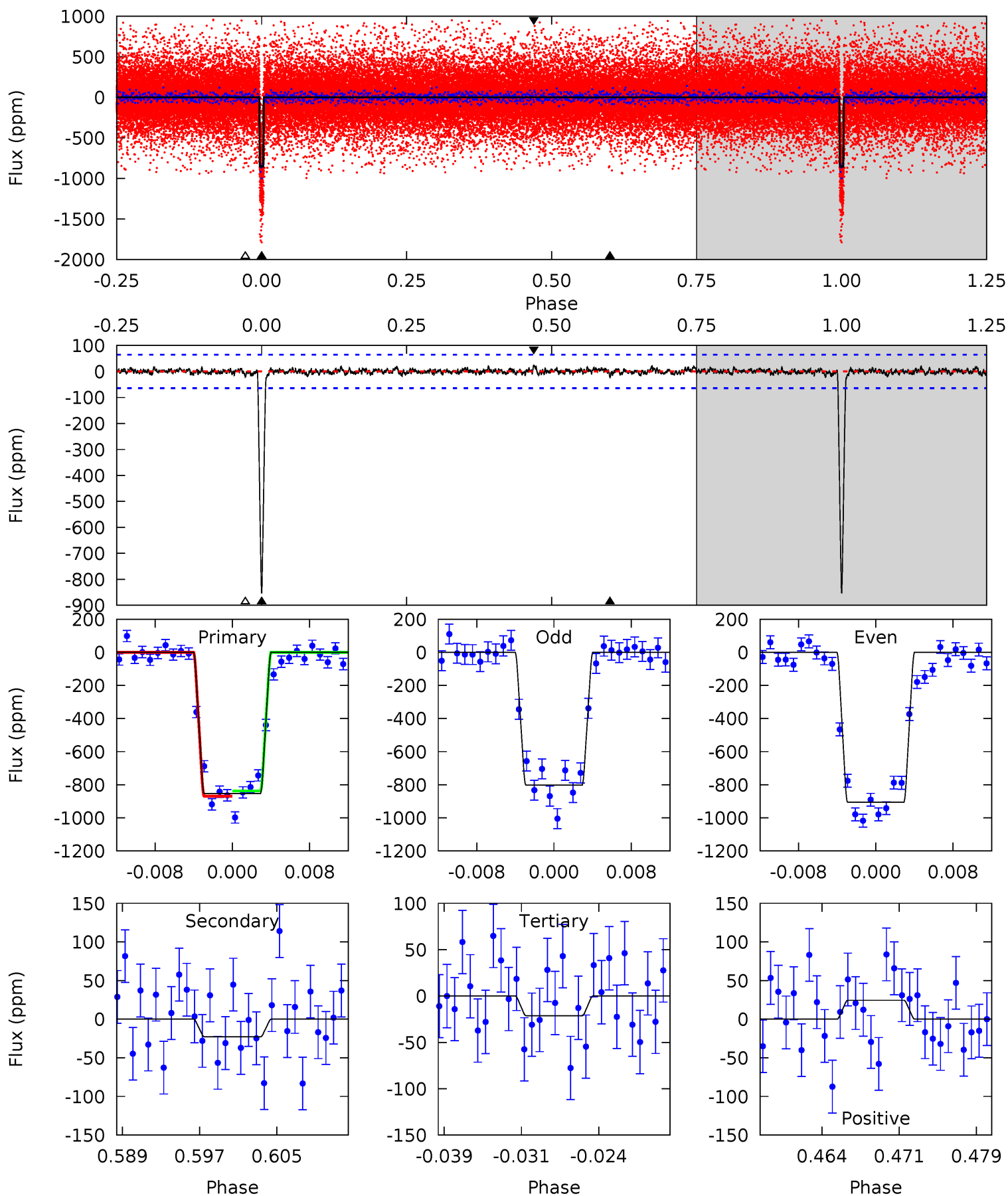
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
61.7	5.65	4.48	4.94	5.04	2.60	1.50	57.2	56.7	1.17	0.71	2.00	0.98	0.08	0



Alt Model-Shift Uniqueness Test

006501635-01, P = 23.675513 Days, E = 108.241791 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
67.2	1.79	1.67	1.92	5.07	2.66	0.52	65.5	65.2	0.12	-0.12	4.14	1.04	0.03	1.26



Stellar Parameters For KIC 006501635

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5309^{+143}_{-143}	$4.588^{+0.032}_{-0.097}$	$-0.080^{+0.300}_{-0.300}$	$0.781^{+0.122}_{-0.066}$	$0.869^{+0.061}_{-0.096}$	$2.566^{+0.443}_{-0.798}$
	+3%/-3%	+1%/-2%	+375%/-375%	+16%/-8%	+7%/-11%	+17%/-31%
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 006501635-01 / KOI 0560.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-83 ± 15	$2.93^{+0.25}_{-0.19}$	747^{+32}_{-27}	3292^{+113}_{-117}	124^{+28}_{-27}
Alt.	-23 ± 13	$2.57^{+0.23}_{-0.19}$	747^{+30}_{-28}	2824^{+208}_{-275}	43^{+28}_{-23}

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 $A_{obs} \gg 1.0$

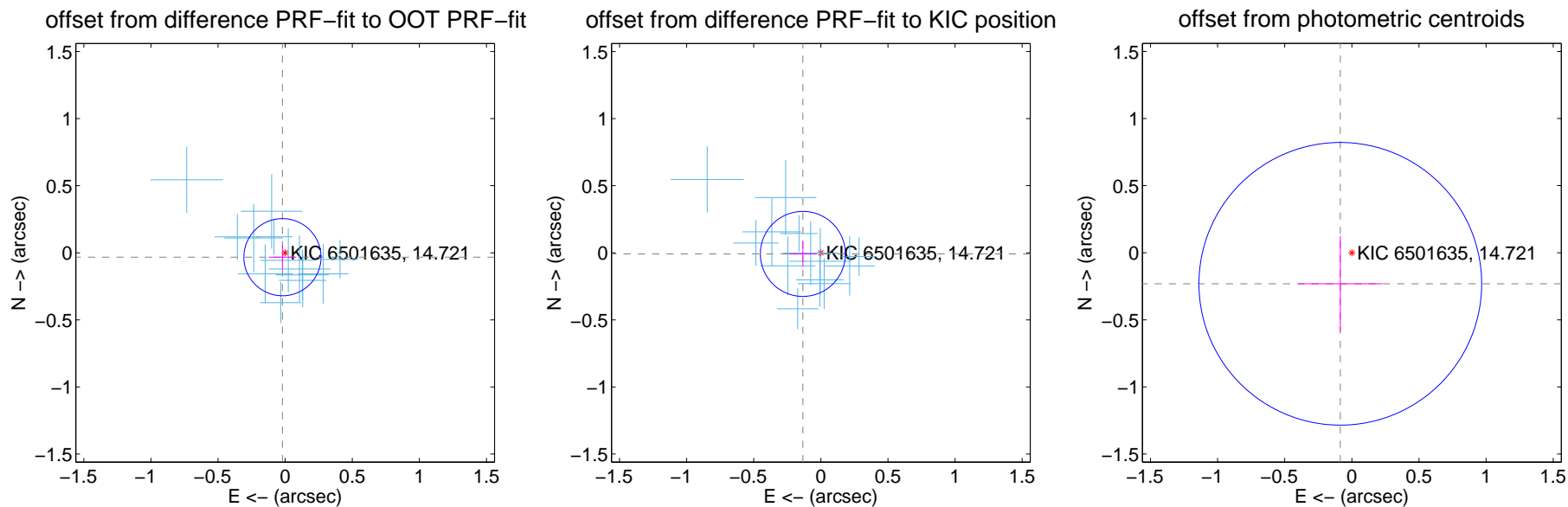
DV Centroid Data

Supplemental centroid analysis for 006501635-01. Kepler magnitude: 14.72. Transit SNR 37.33

There are 13 quarters with good PRF difference image offsets

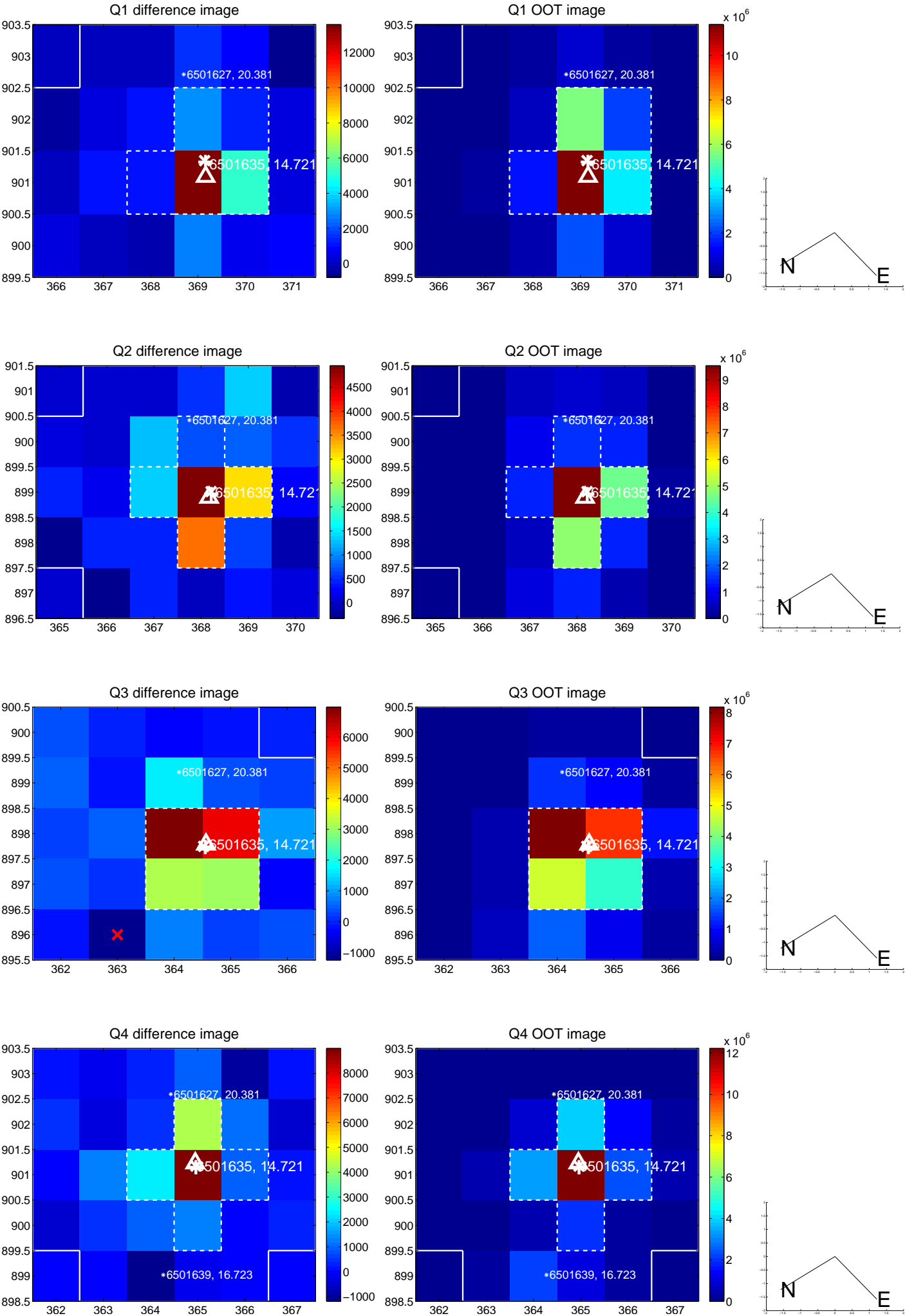
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.039 ± 0.096	0.40	0.020 ± 0.102	-0.033 ± 0.093
PRF-fit source offset from KIC position	0.134 ± 0.106	1.27	0.134 ± 0.106	-0.008 ± 0.097
photometric centroid source offset	0.25 ± 0.35	0.70	0.09 ± 0.31	-0.23 ± 0.36

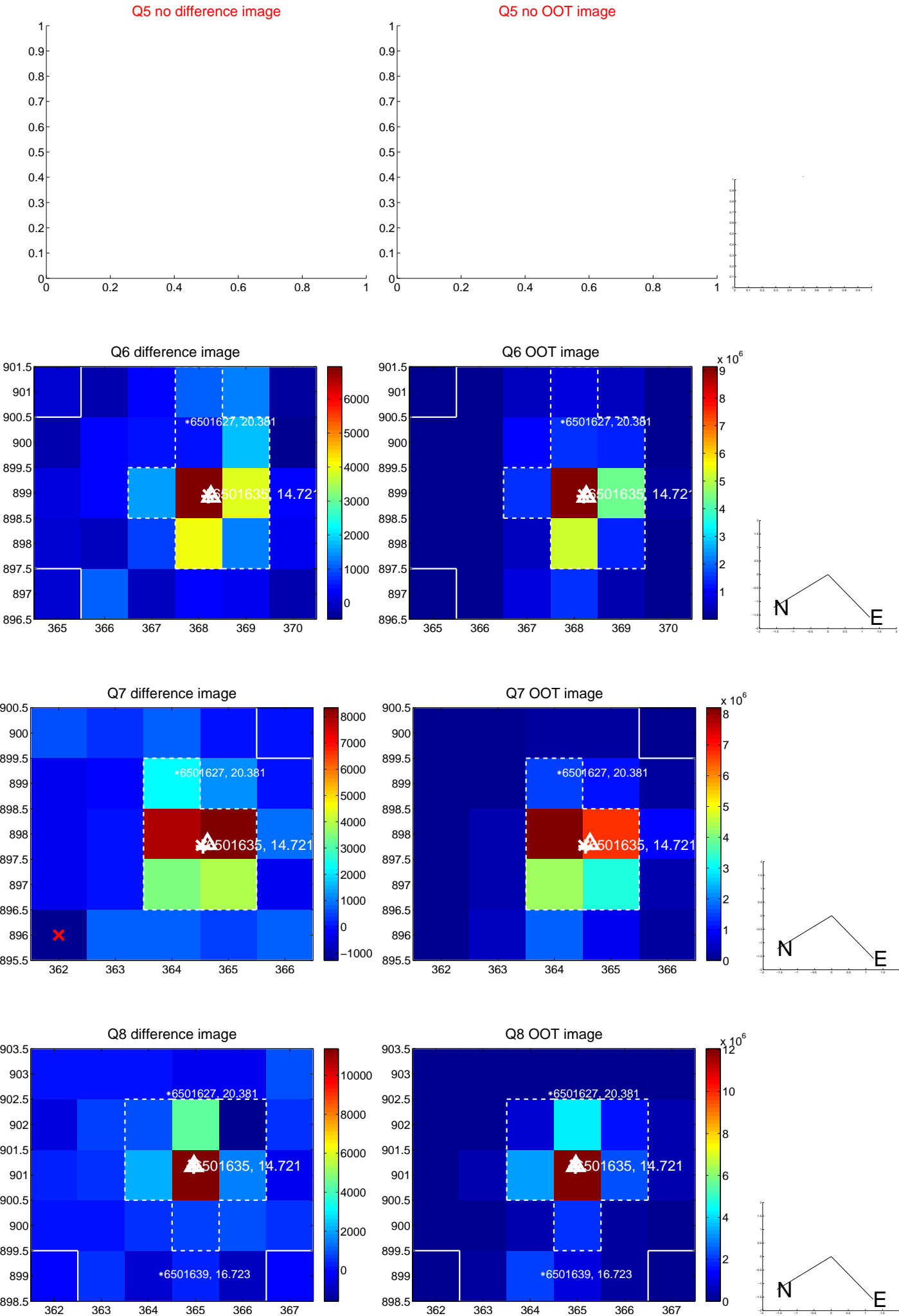


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

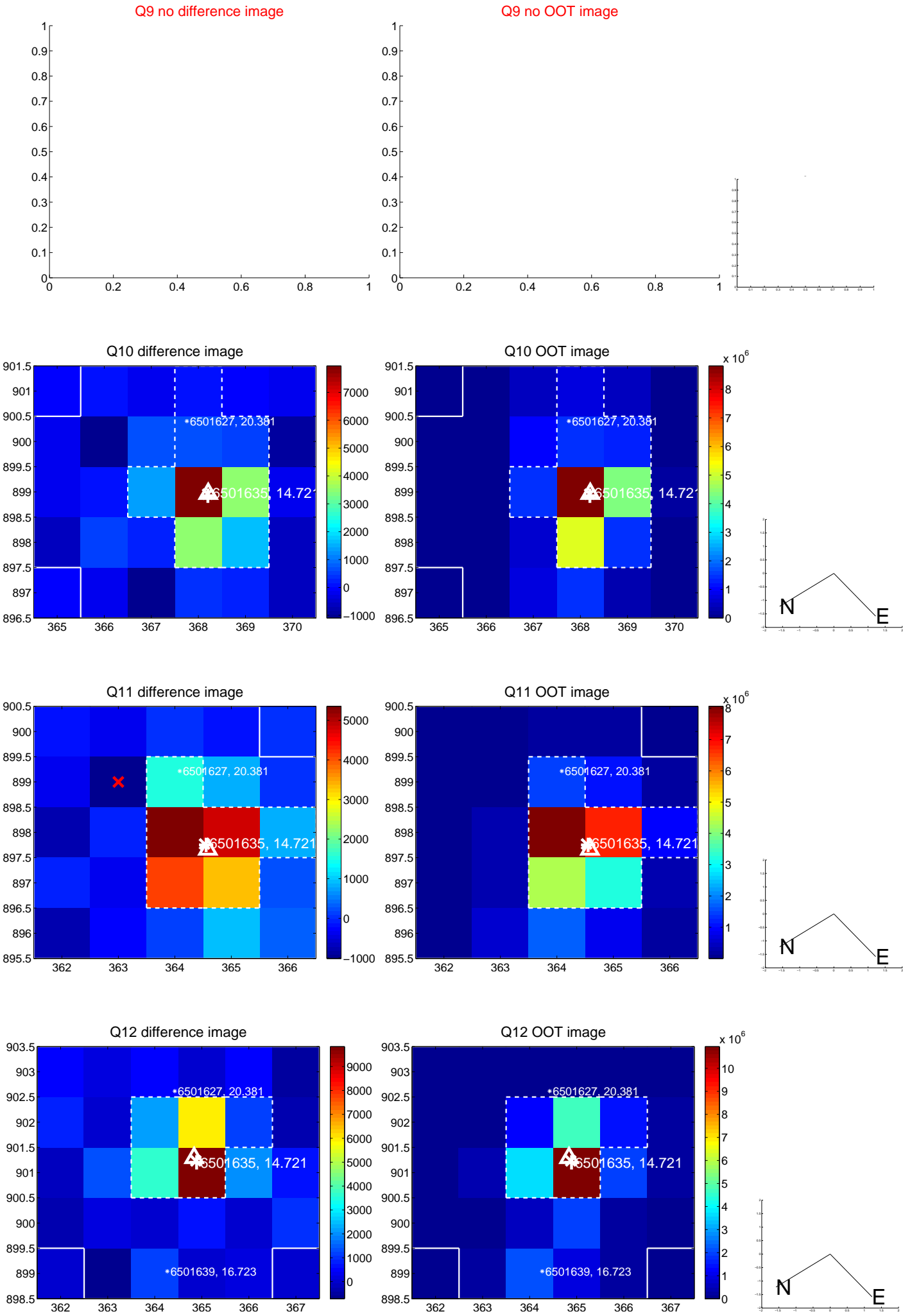
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



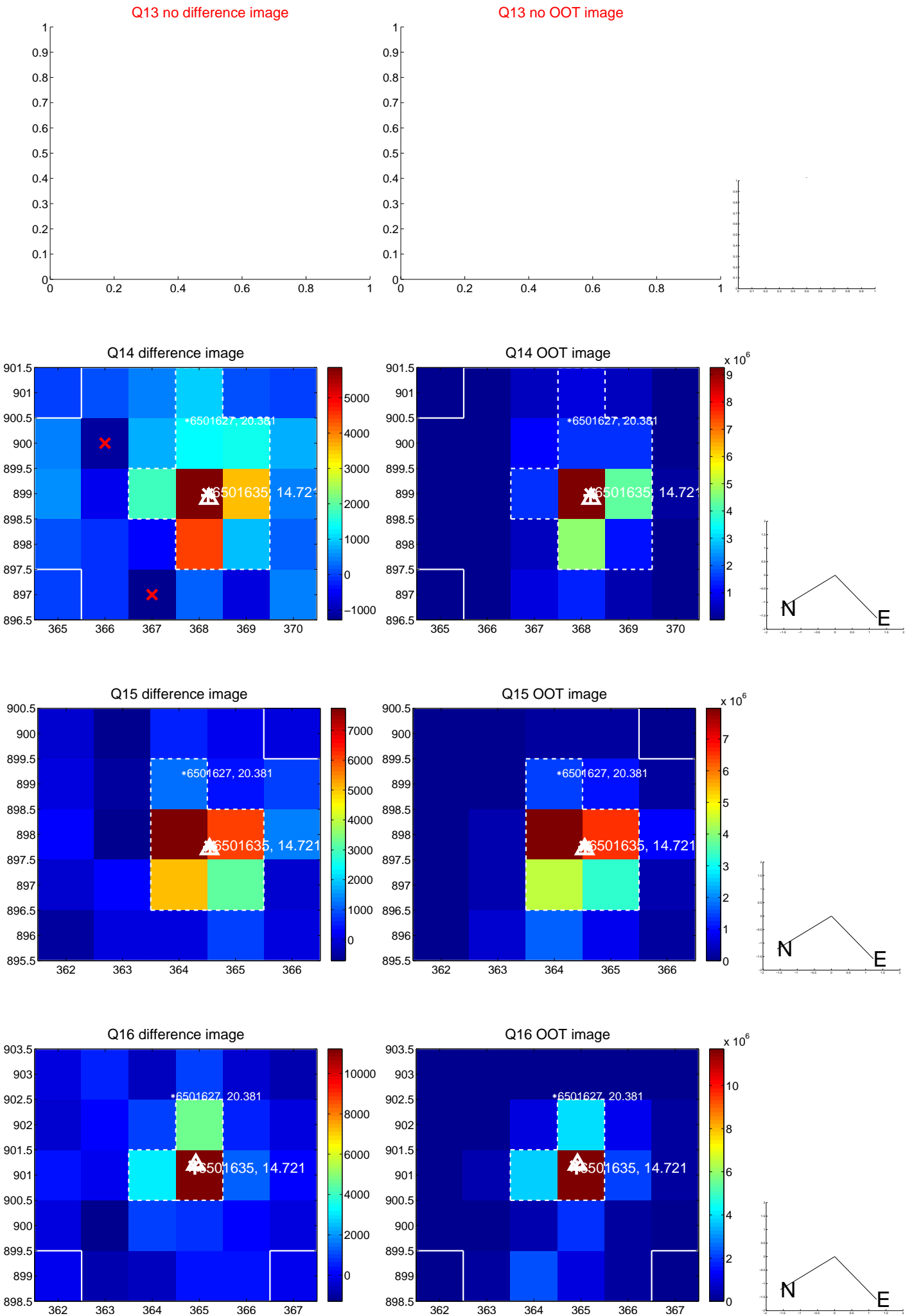
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



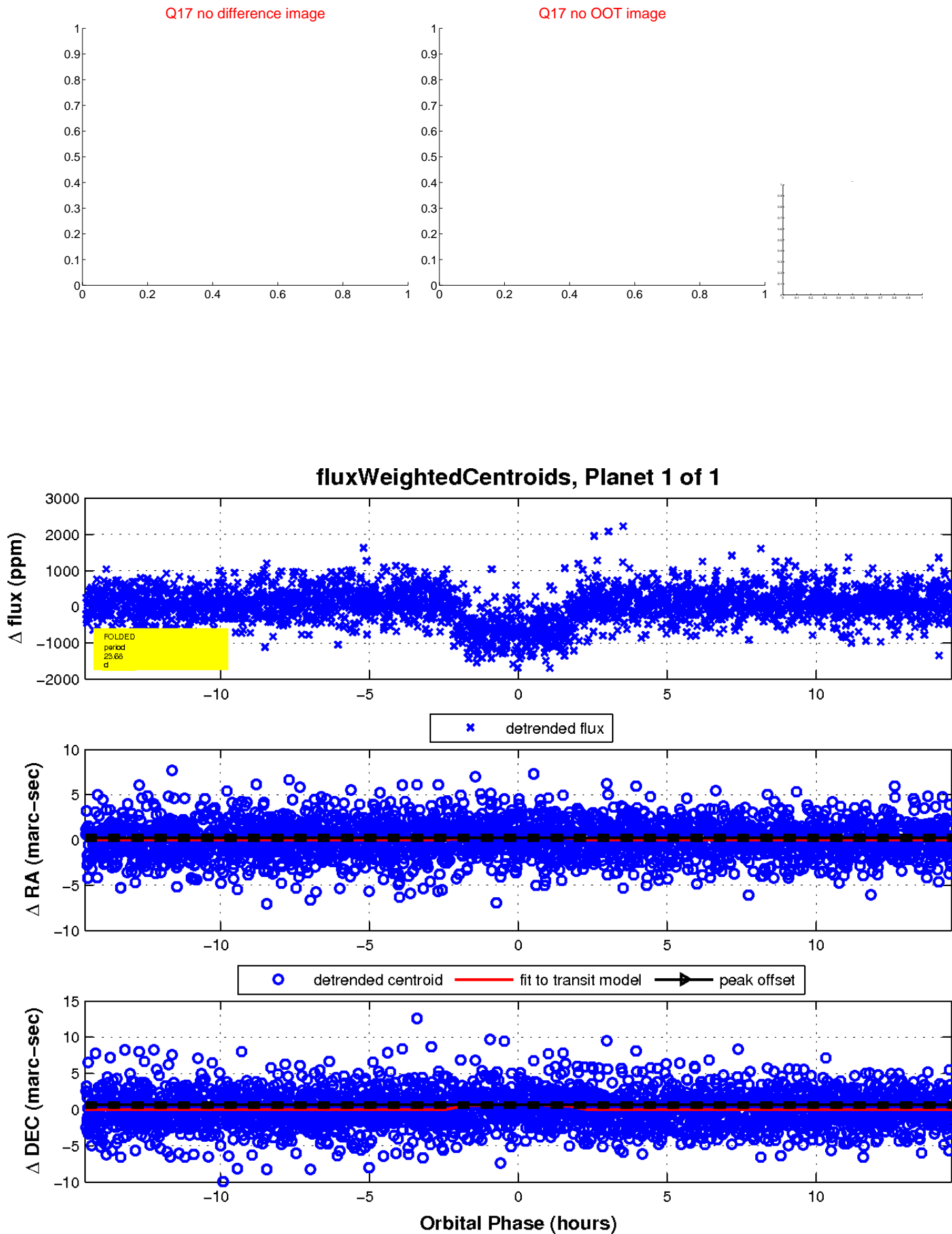
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

