

KIC 008179747

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})
008179747-01	OBS	5483.01	17.946327	136.947333	102785.0	8.152	4035.4	3394.9	1.72	5228	65.48	120.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008179747-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED

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.

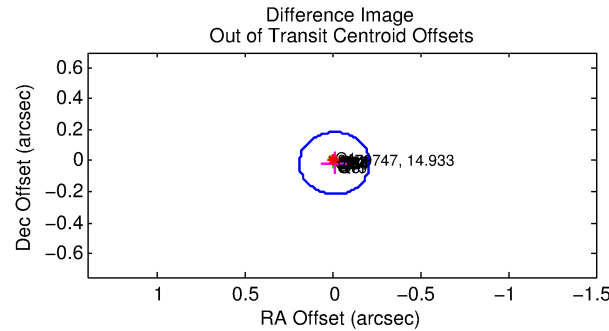
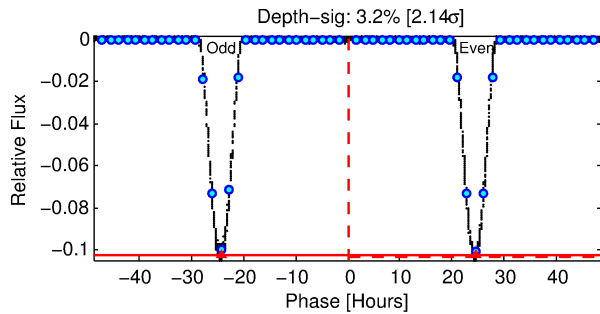
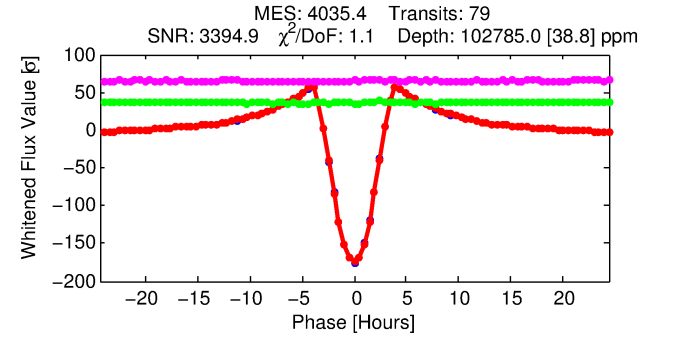
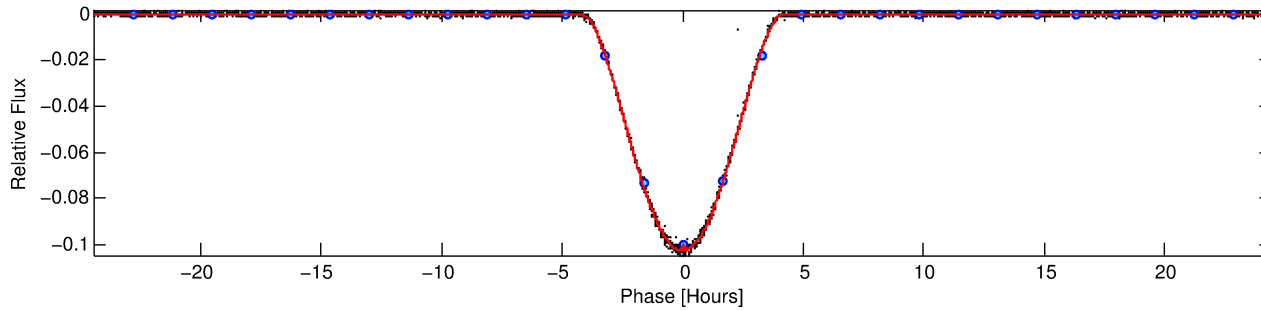
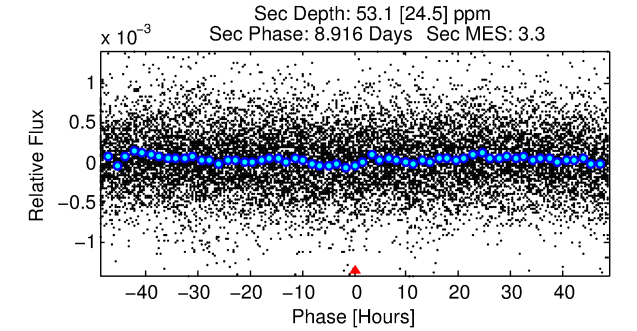
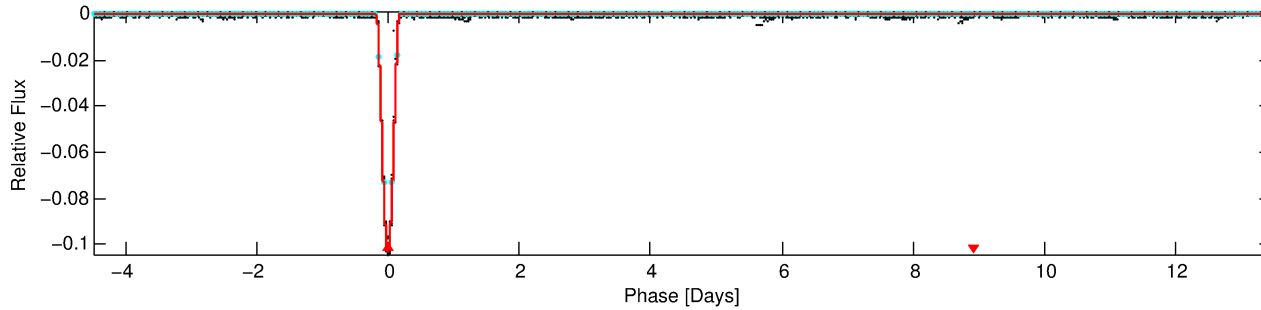
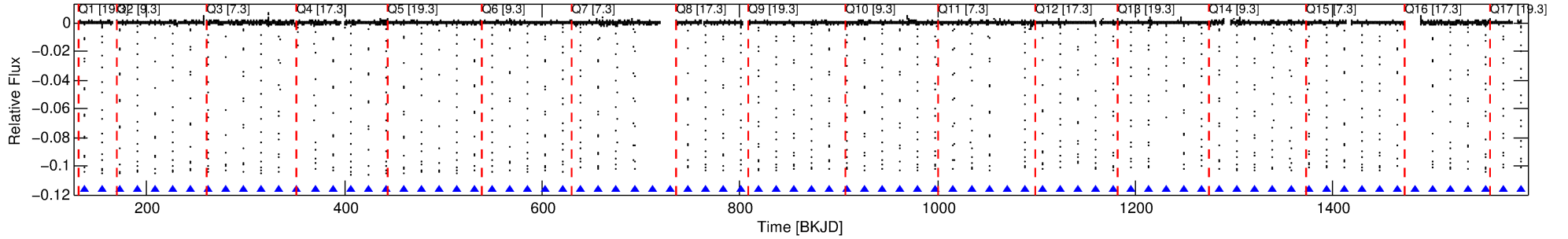
Ephemeris Match Information For 008179747-01

No Significant Match Found

DV One-Page Summary

KIC: 8179747 Candidate: 1 of 1 Period: 17.946 d
KOI: K05483.01 Corr: 0.999

Kp: 14.93 R*: 1.72 Rs Teff: 5228.0 K Logg: 3.91 Fe/H: -0.240



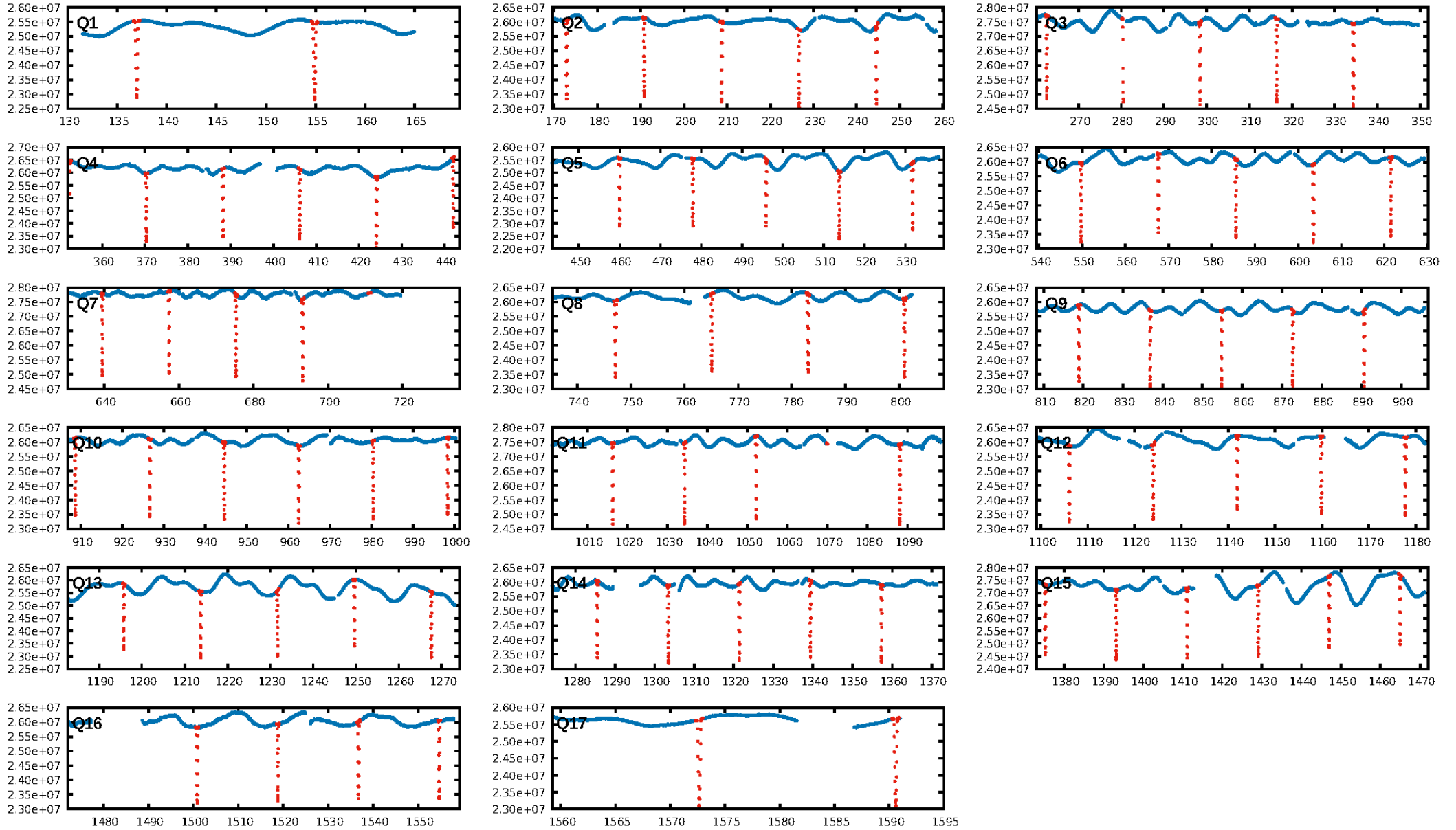
DV Fit Results:

Period = 17.94633 [0.00000] d
Epoch = 136.9473 [0.0000] BKJD
Rp/R* = 0.3485 [0.0010]
a/R* = 18.73 [0.01]
b = 0.76 [0.00]
Seff = 120.86 [134.35]
Teff = 845 [235] K
Rp = 65.48 [35.63] Re
a = 0.1281 [0.0814] AU
Ag = 0.11 [0.13] [-6.63σ]
Teffp = 756 [91] K [-0.35σ]

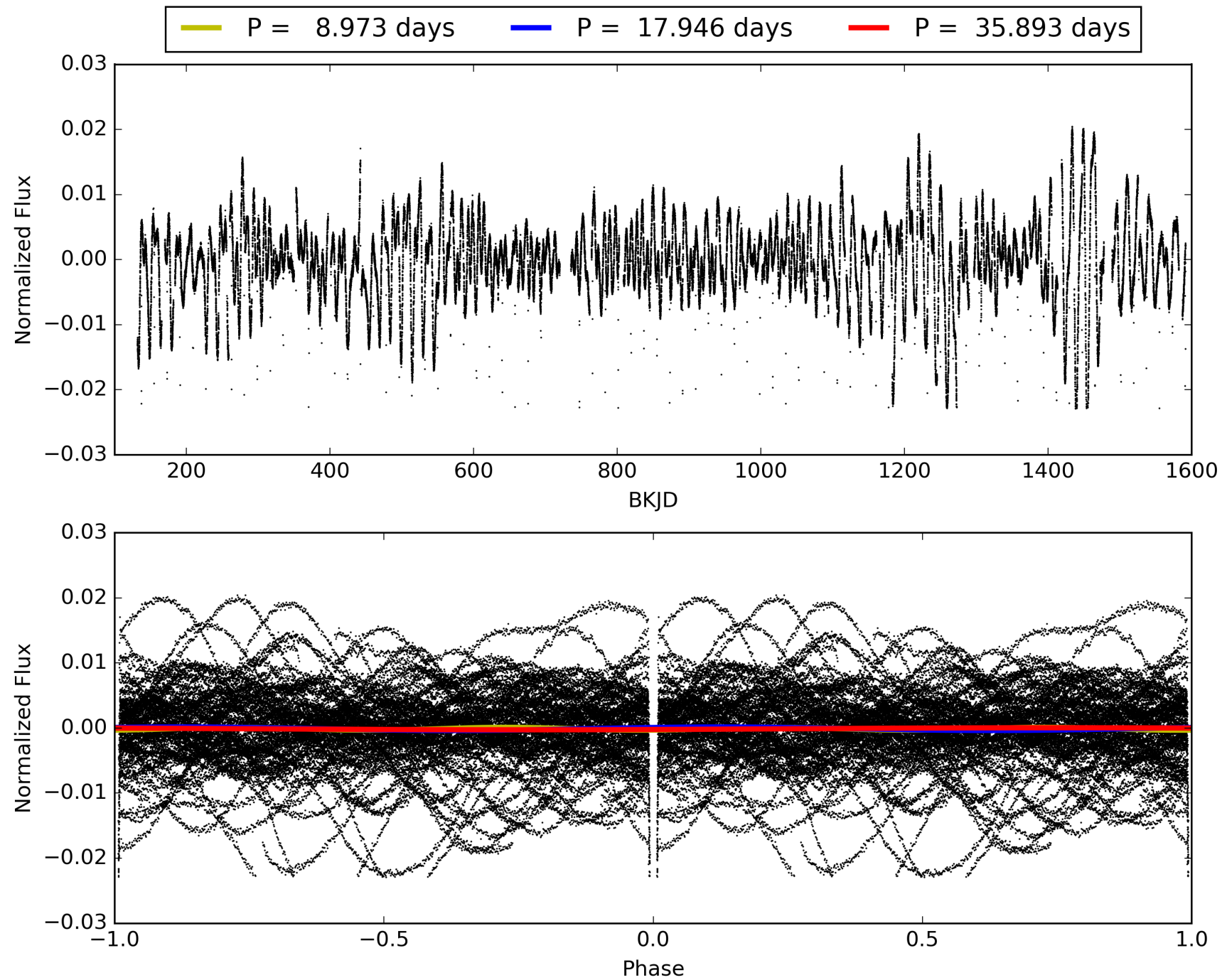
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [75/75]
GhostDiagnostic-chr: 3.066
Centroid-sig: 0.0%
Centroid-so: 0.164 arcsec [78.74σ]
OotOffset-rm: 0.019 arcsec [0.28σ]
KicOffset-rm: 0.062 arcsec [0.91σ]
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 008179747-01, PDC Light Curves

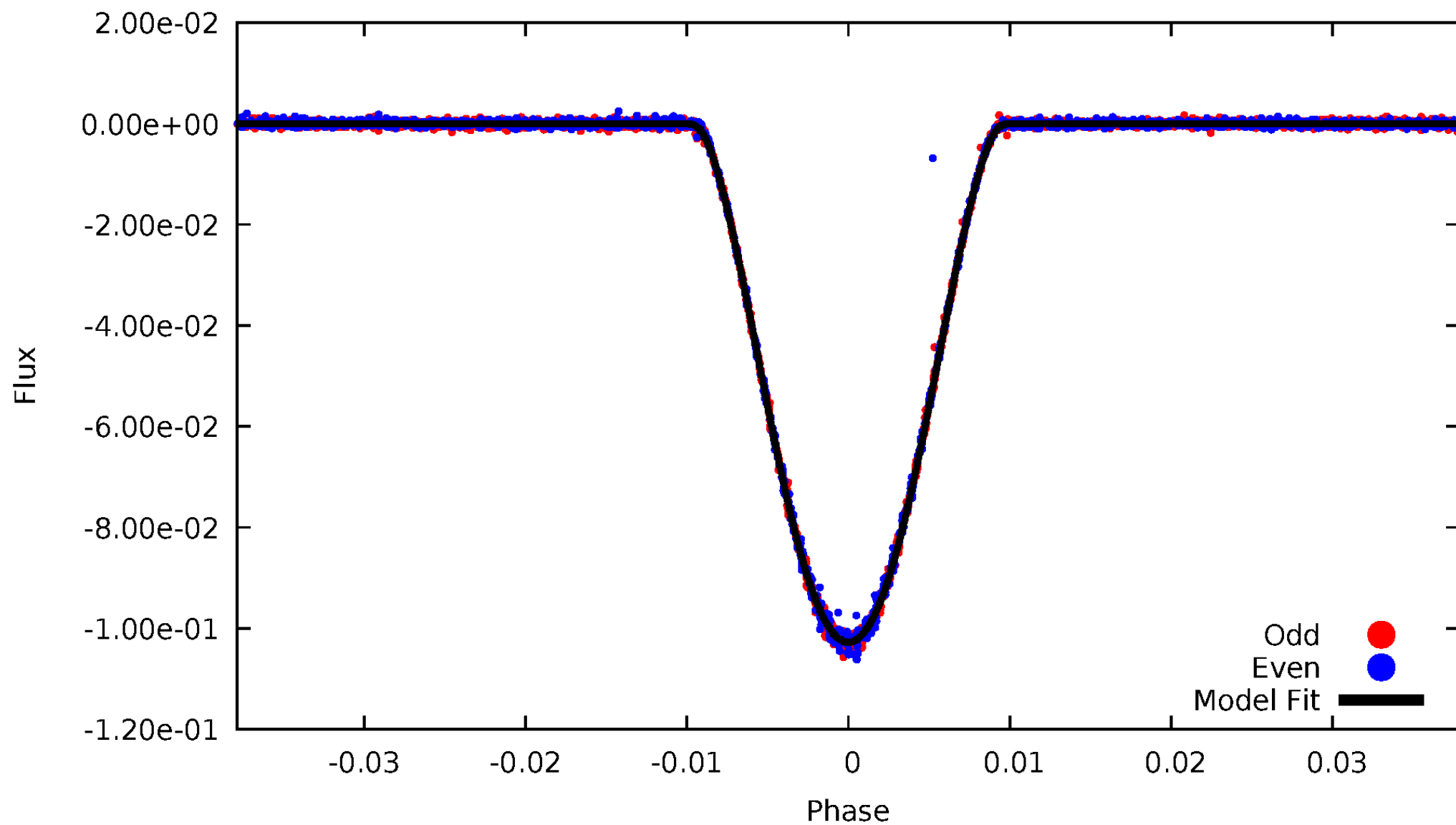


TCE 008179747-01



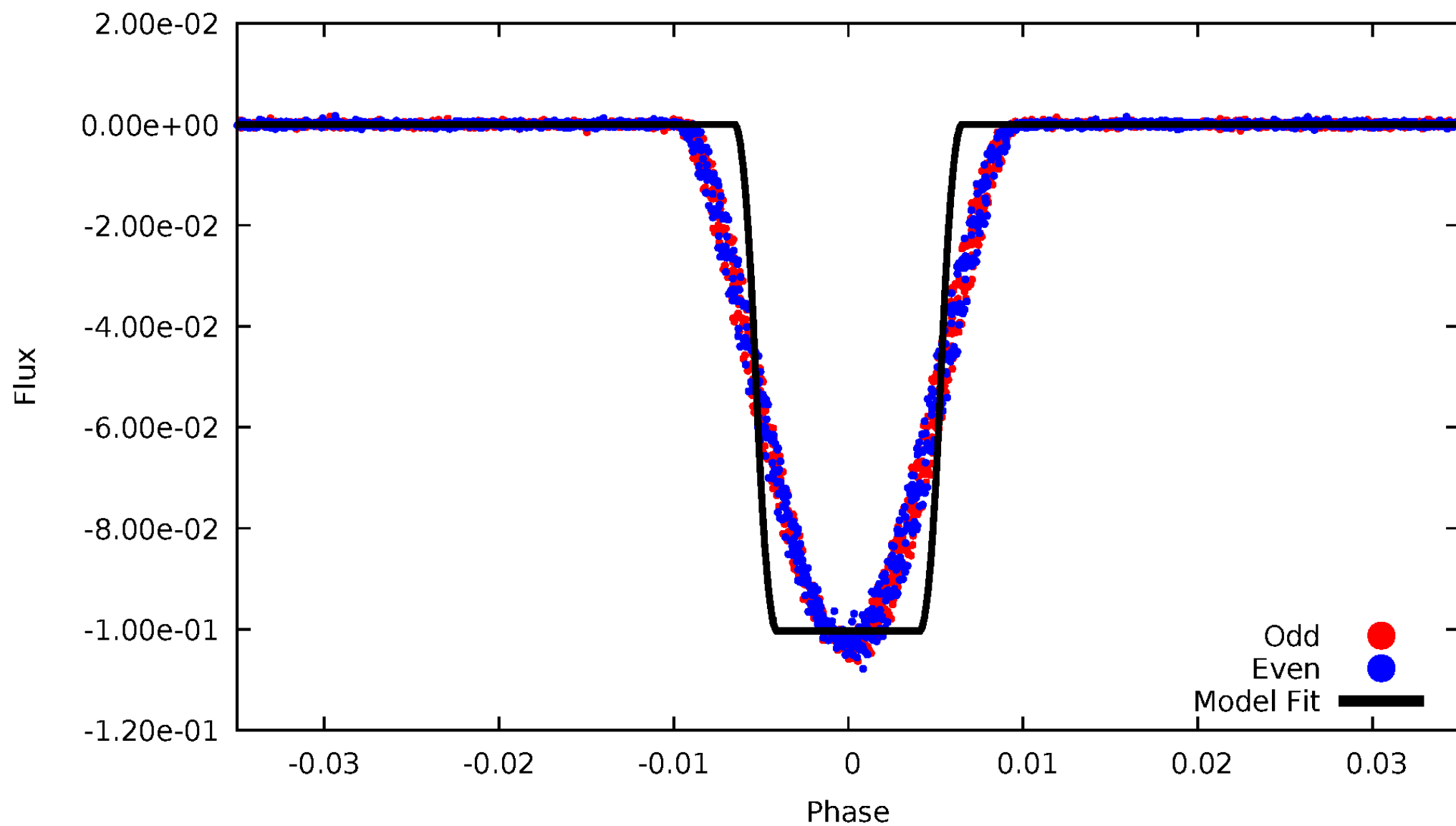
DV Odd/Even

TCE 008179747-01



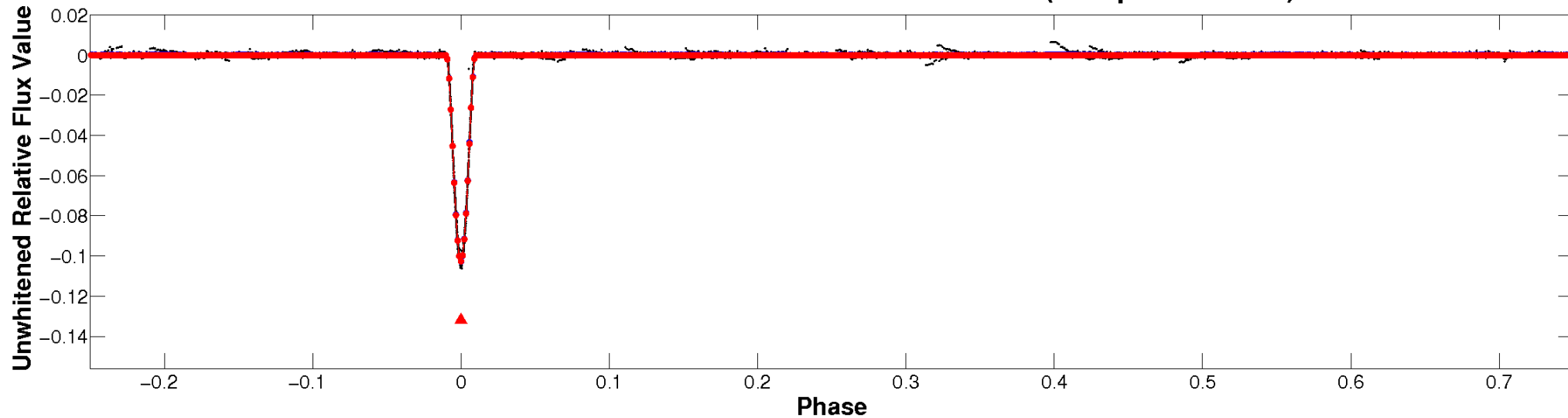
ALT Odd/Even

TCE 008179747-01

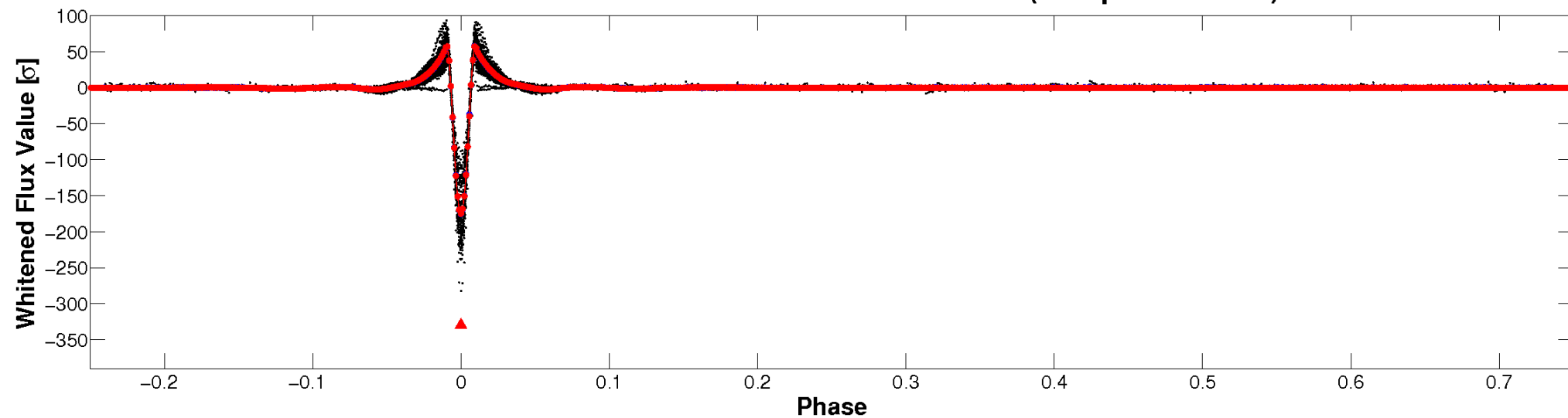


Non-Whitened Vs. Whitened Light Curve

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

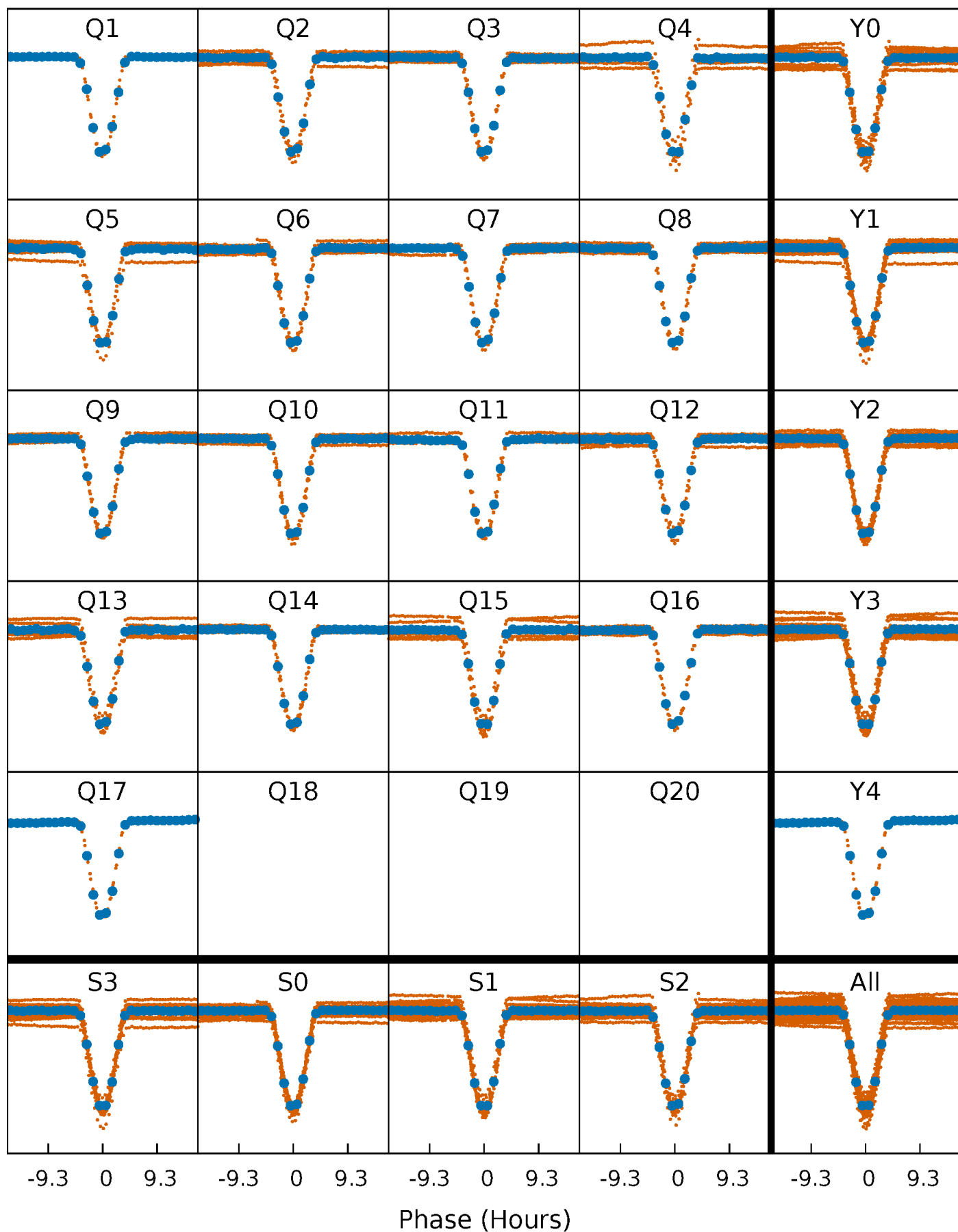


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



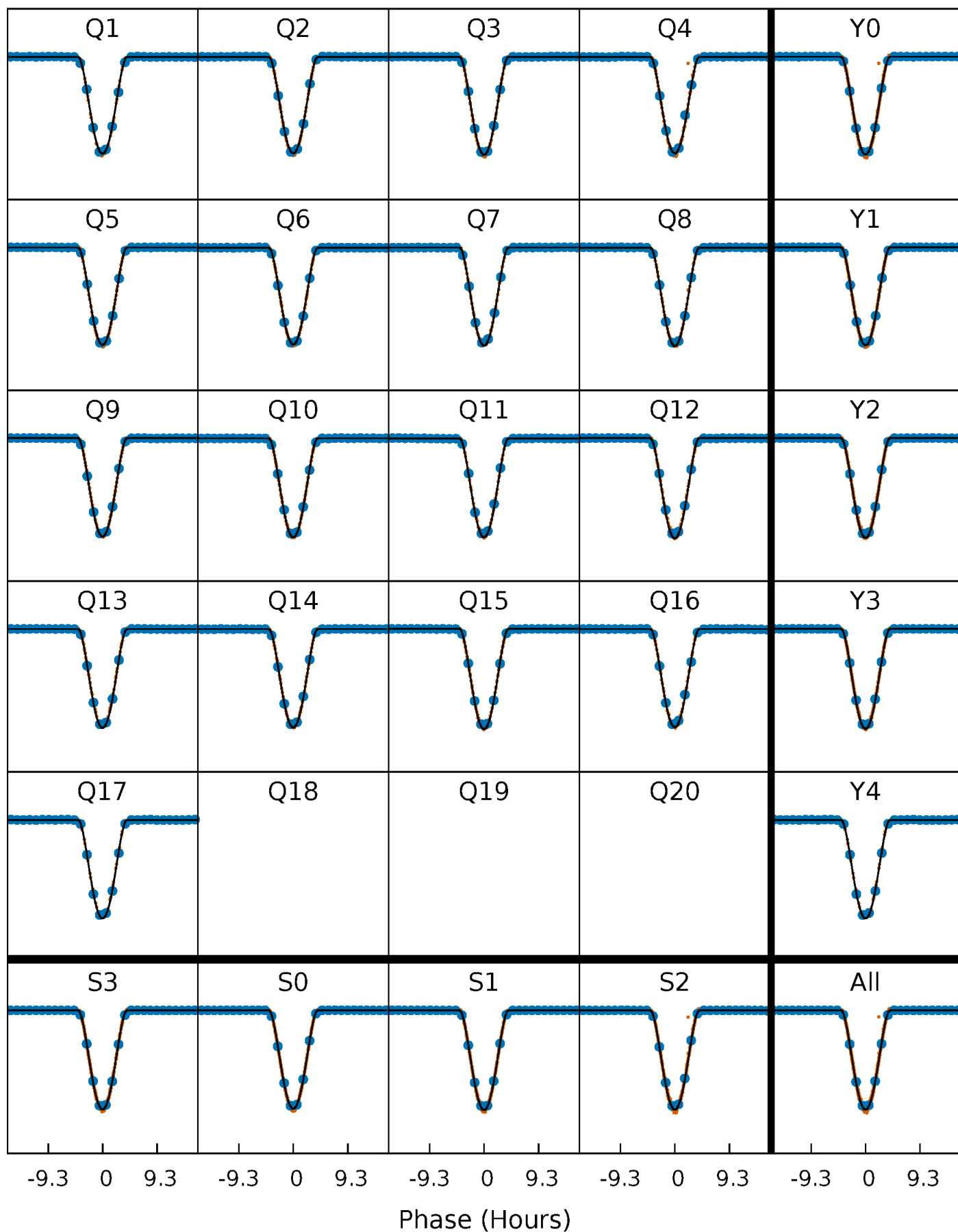
PDC Quarter-Phased Transit Curves

TCE 008179747-01 P= 17.946327 Days $T_0=136.947333$ (BKJD)



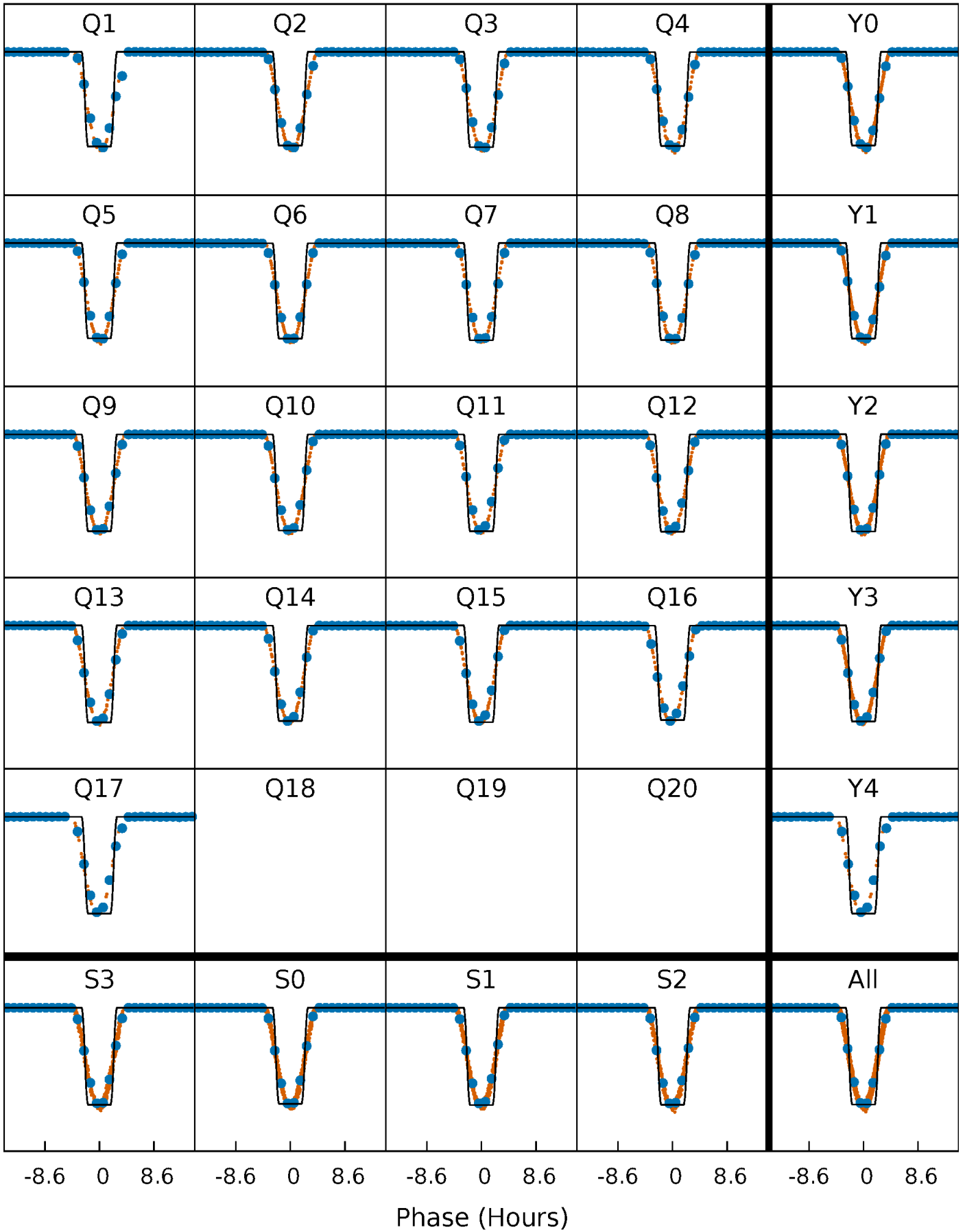
DV Quarter-Phased Transit Curves

TCE 008179747-01 P= 17.946327 Days $T_0=136.947333$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

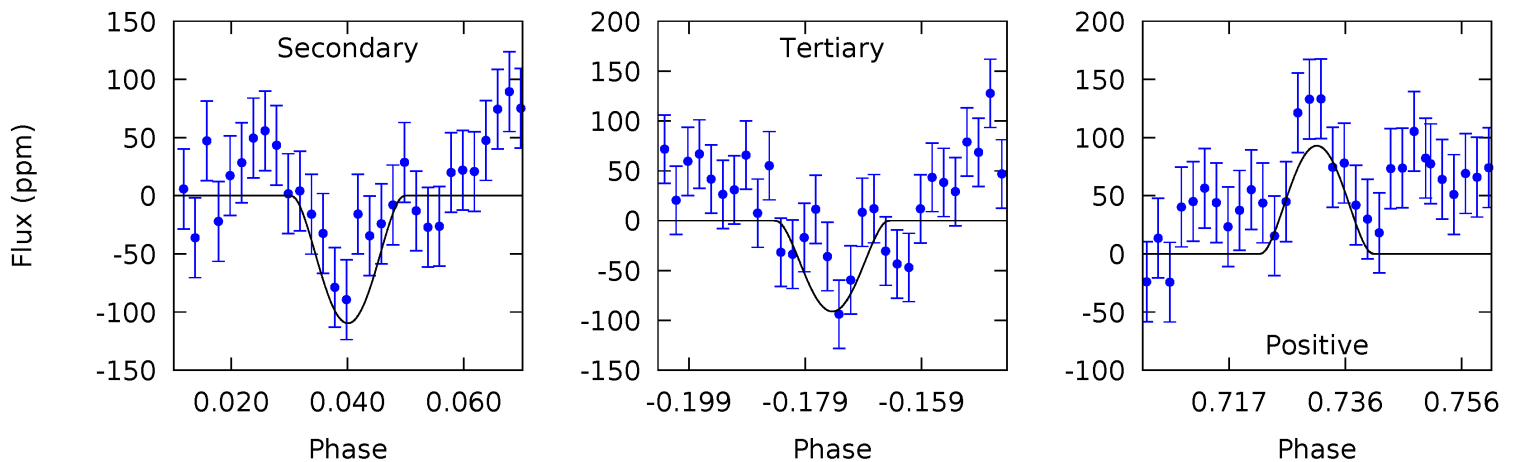
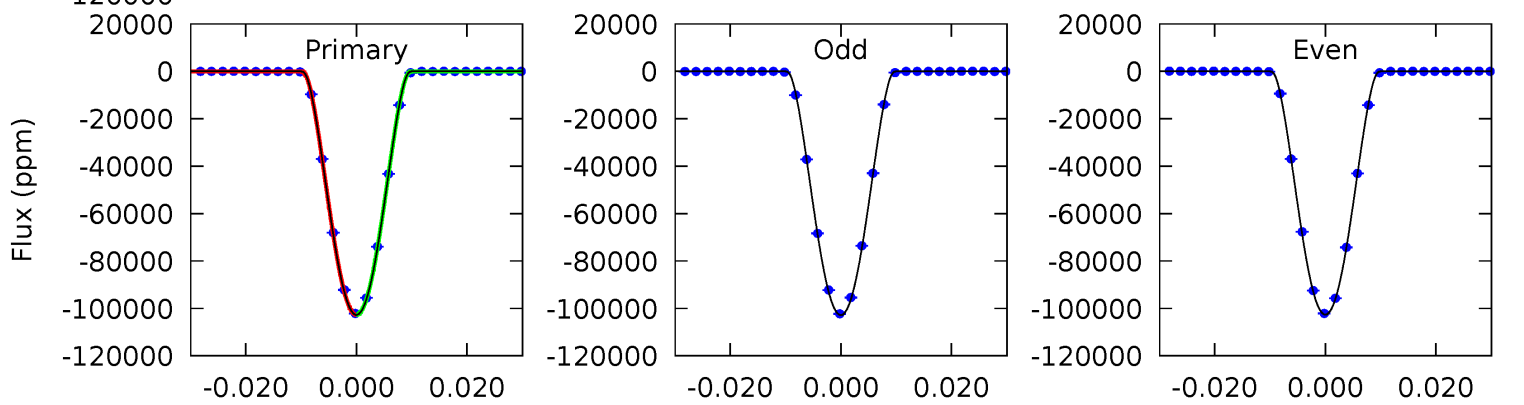
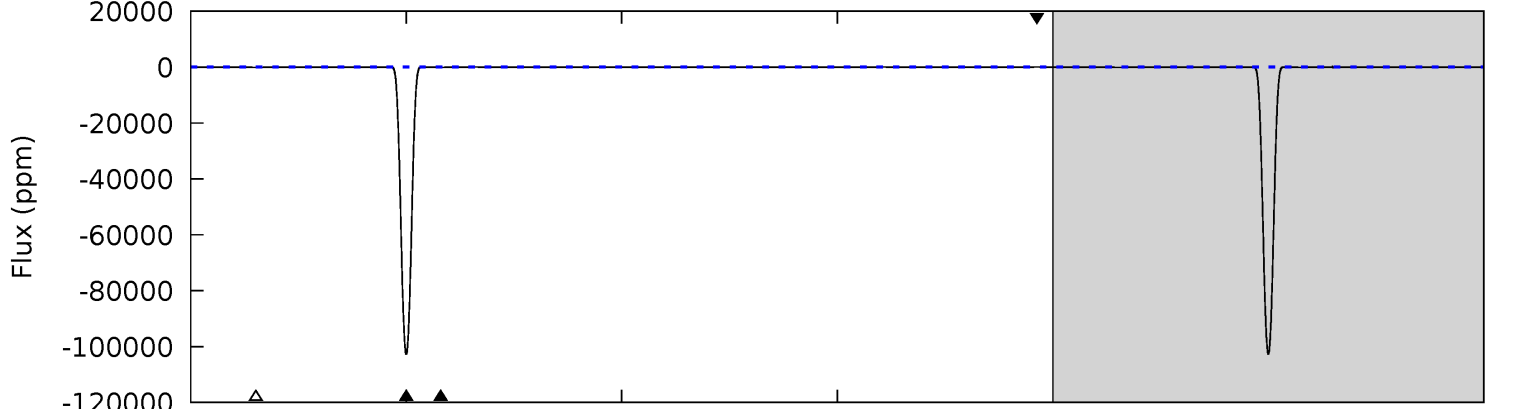
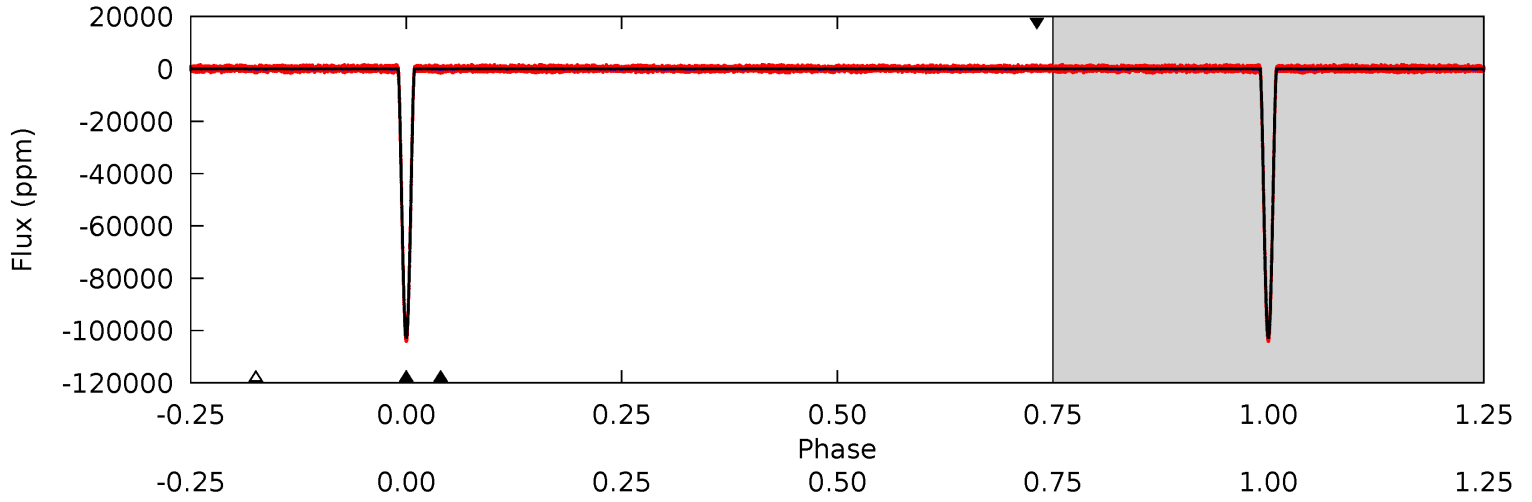
TCE 008179747-01 P= 17.946551 Days $T_0=136.937917$ (BKJD)



DV Model-Shift Uniqueness Test

008179747-01, P = 17.946327 Days, E = 119.001006 Days

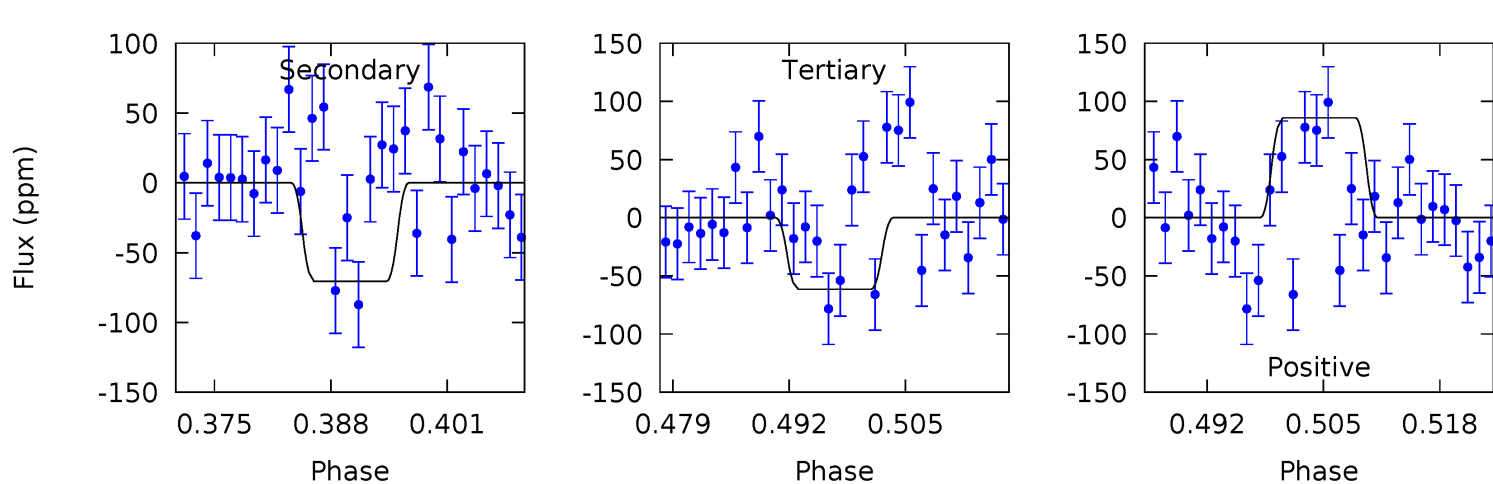
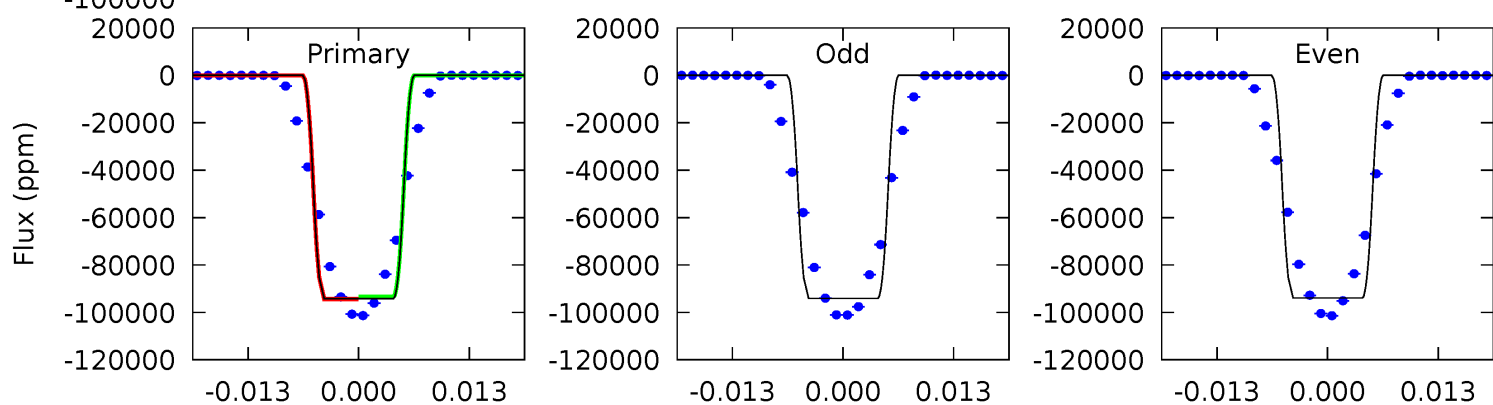
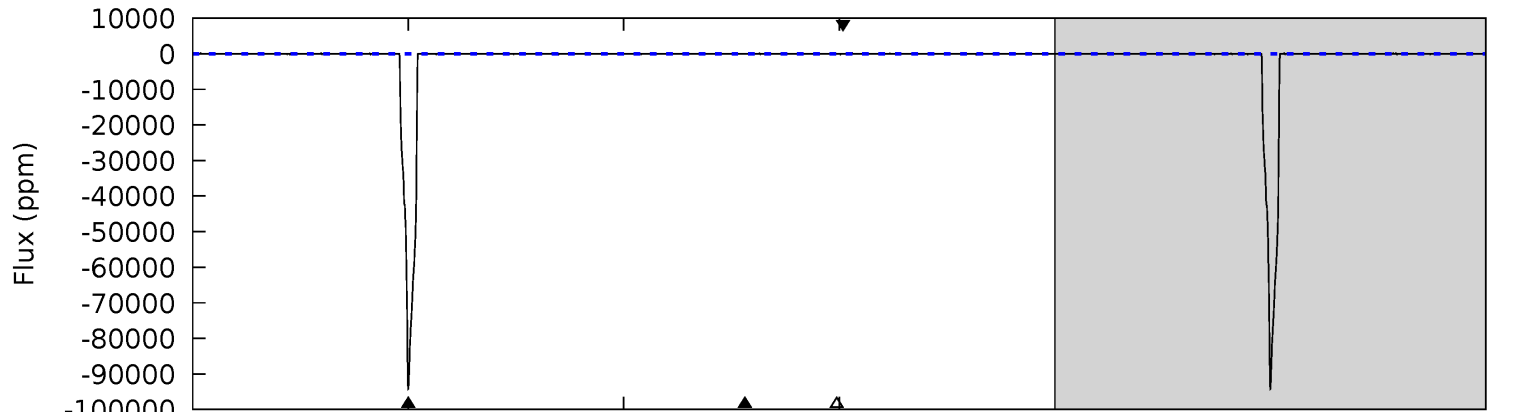
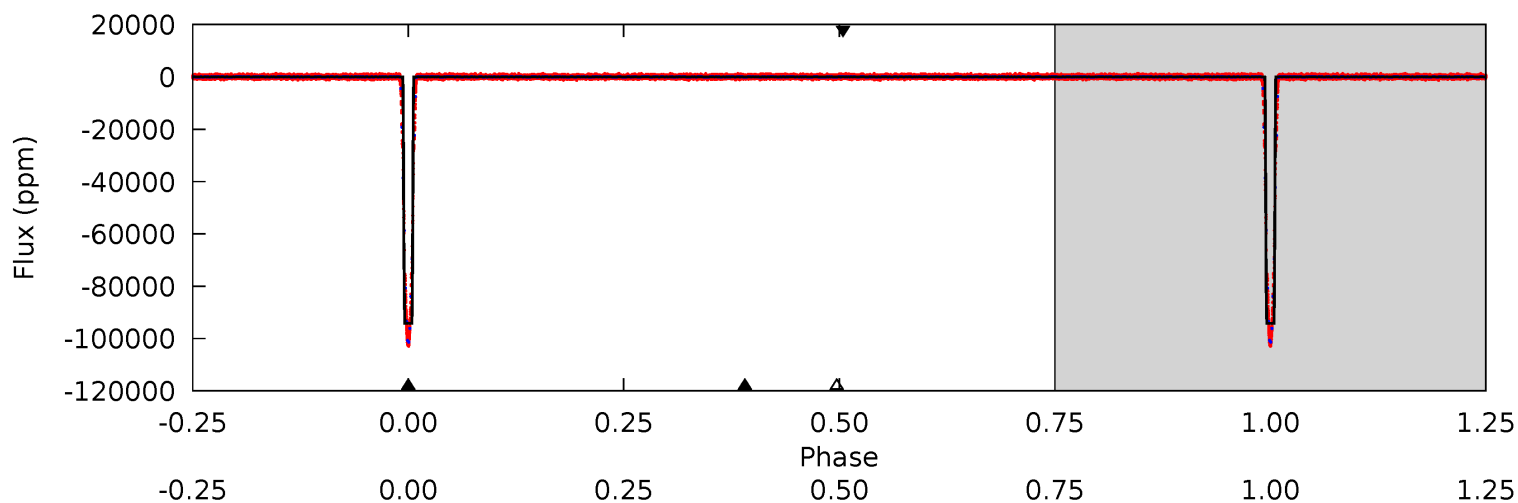
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9142	9.76	8.11	8.27	4.89	2.33	3.07	9134	9134	1.65	1.49	9.05	0.99	0.00	2.25



Alt Model-Shift Uniqueness Test

008179747-01, P = 17.946551 Days, E = 118.991366 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4837	3.62	3.16	4.41	4.98	2.49	1.05	4834	4833	0.46	-0.79	3.60	1.00	0.00	24.8



Stellar Parameters For KIC 008179747

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5228^{+174}_{-158}	$3.906^{+0.679}_{-0.291}$	$-0.240^{+0.350}_{-0.250}$	$1.722^{+0.937}_{-0.937}$	$0.872^{+0.090}_{-0.135}$	$0.240^{+2.485}_{-0.153}$
	+3%/-3%	+17%/-7%	+146%/-104%	+54%/-54%	+10%/-15%	+1034%/-63%
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 008179747-01 / KOI 5483.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-110 ± 11	$62.25^{+18.75}_{-19.36}$	1162^{+162}_{-189}	-1667^{+3433}_{-259}	$0.245^{+0.265}_{-0.098}$
Alt.	-70 ± 19	$56.85^{+17.02}_{-15.40}$	1160^{+160}_{-168}	-1761^{+3380}_{-208}	$0.191^{+0.181}_{-0.091}$

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

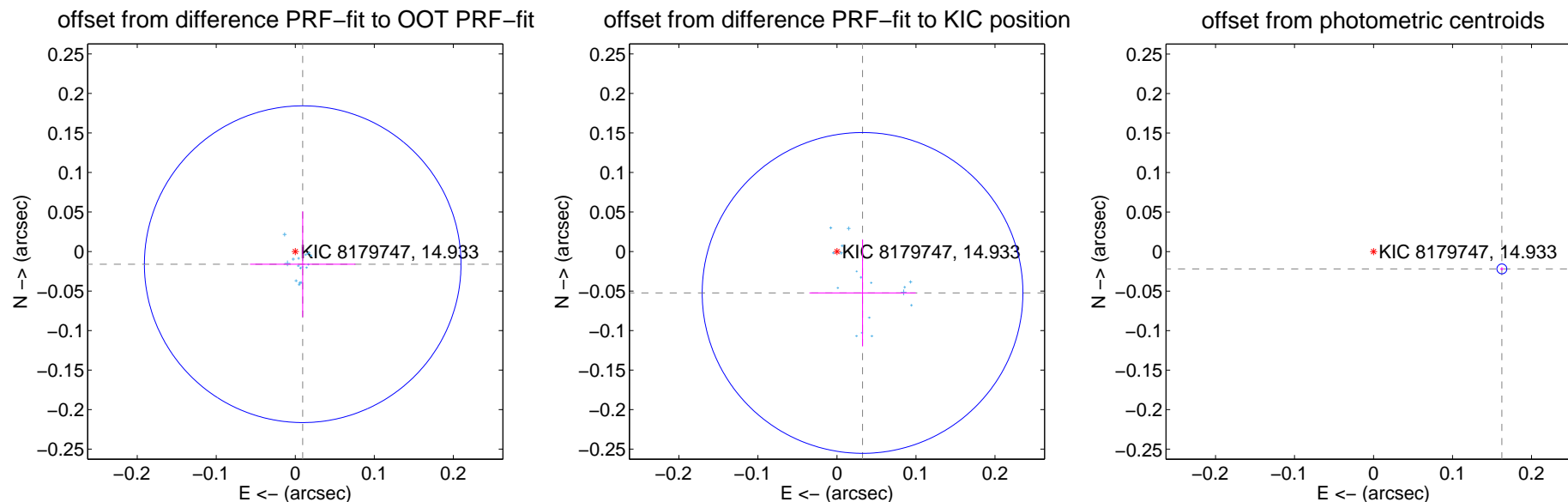
DV Centroid Data

Supplemental centroid analysis for 008179747-01. Kepler magnitude: 14.93. Transit SNR 3394.89

There are 17 quarters with good PRF difference image offsets

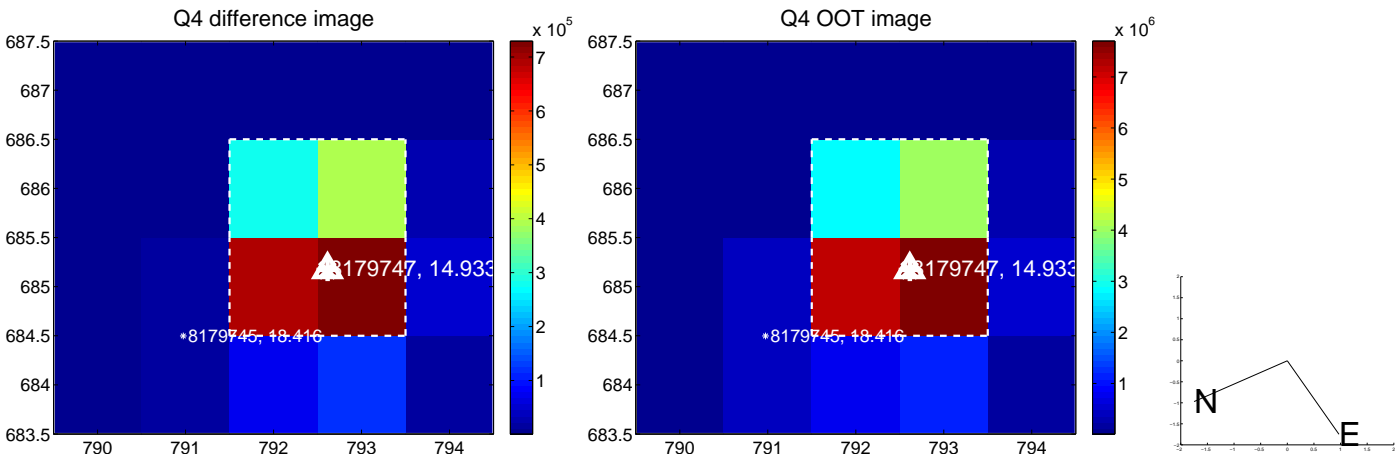
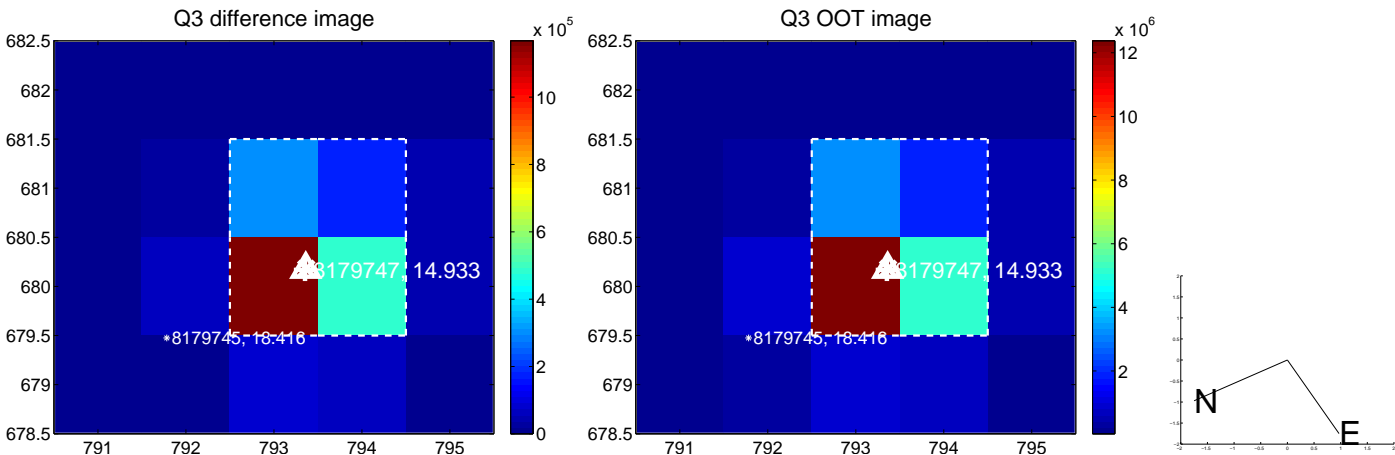
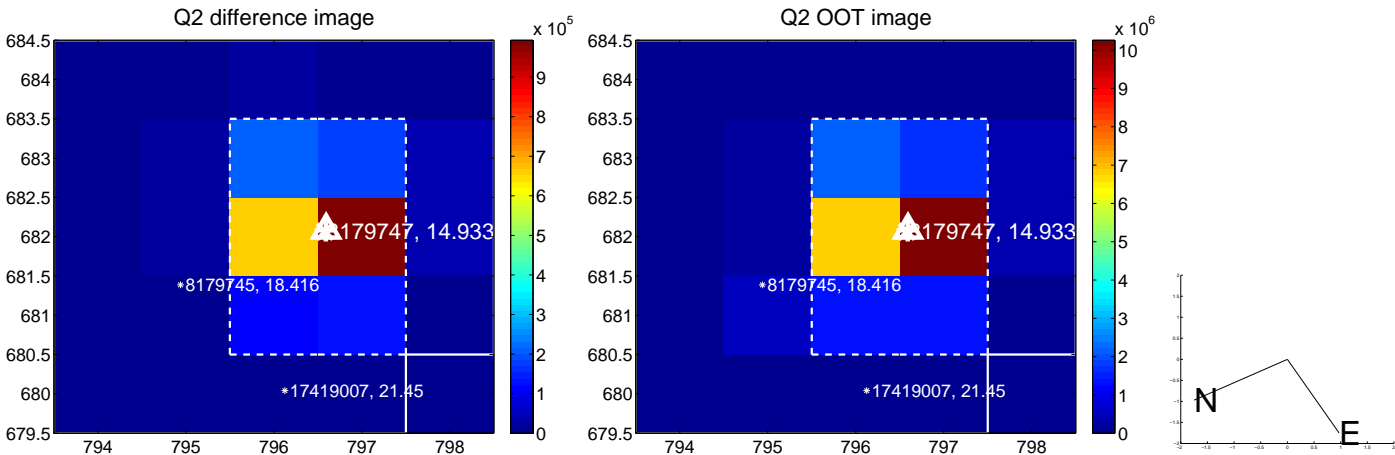
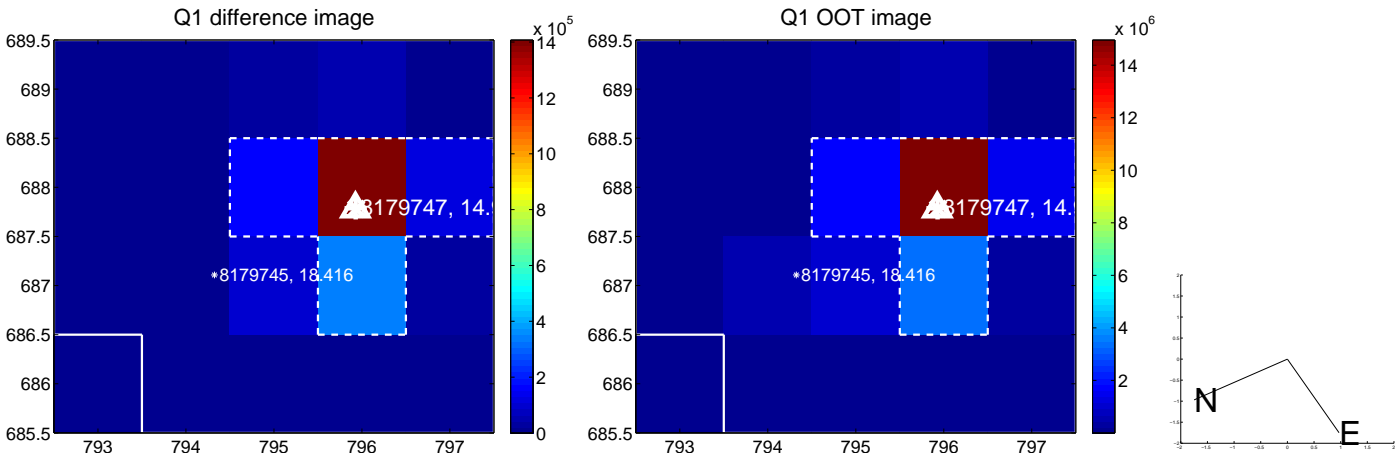
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.019 ± 0.067	0.28	-0.009 ± 0.067	-0.016 ± 0.067
PRF-fit source offset from KIC position	0.062 ± 0.068	0.91	-0.032 ± 0.067	-0.052 ± 0.067
photometric centroid source offset	0.16 ± 0.00	78.74	-0.16 ± 0.00	-0.02 ± 0.00

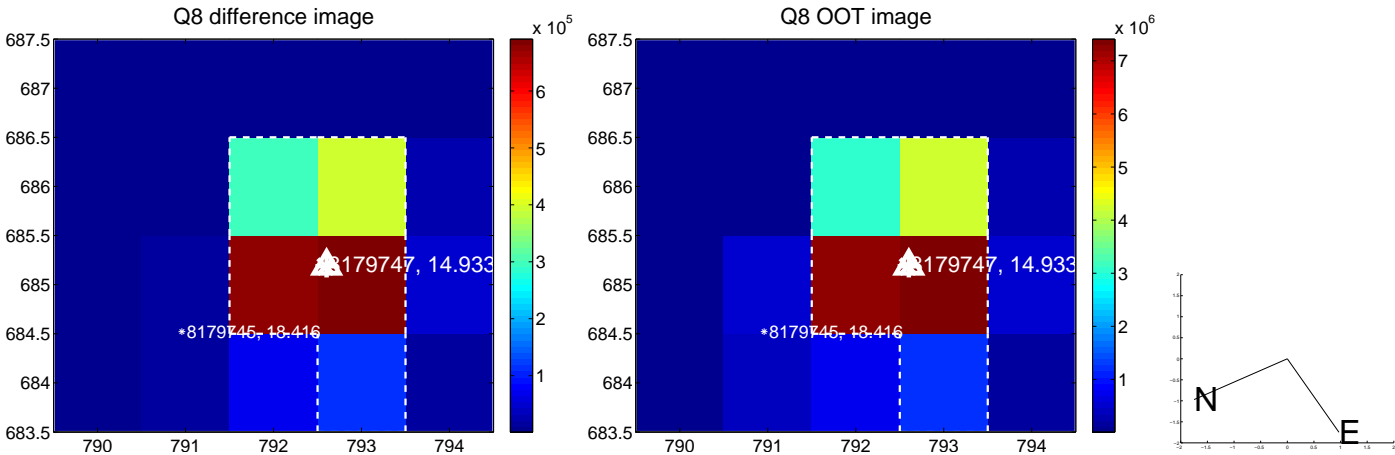
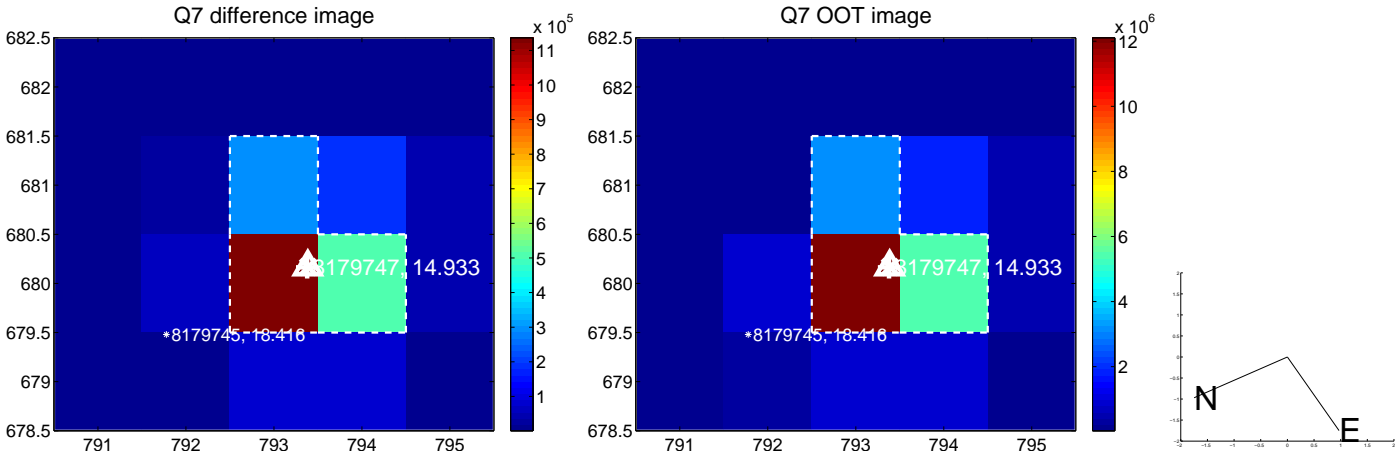
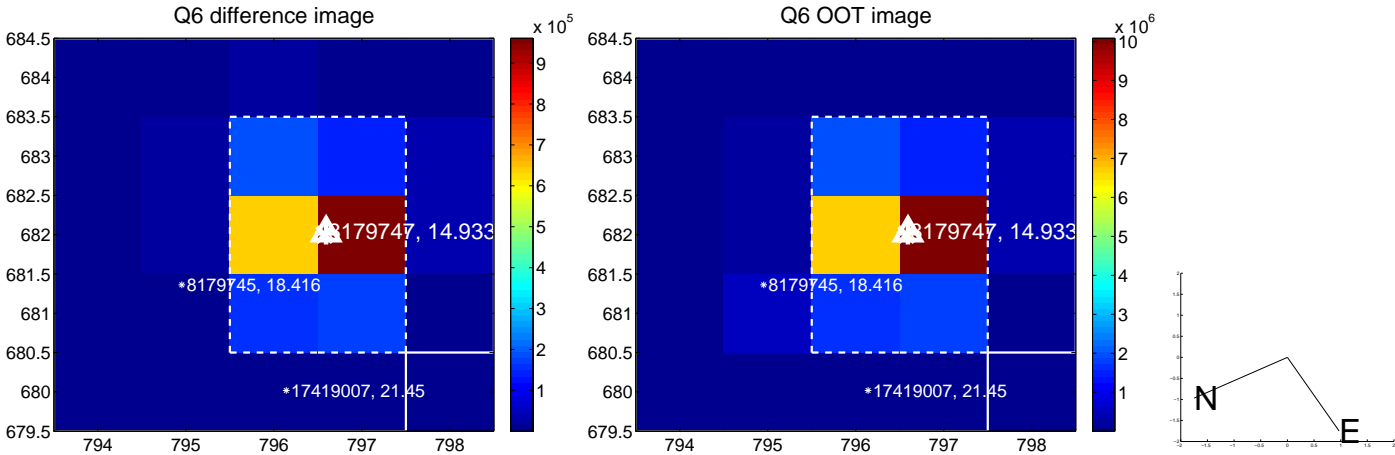
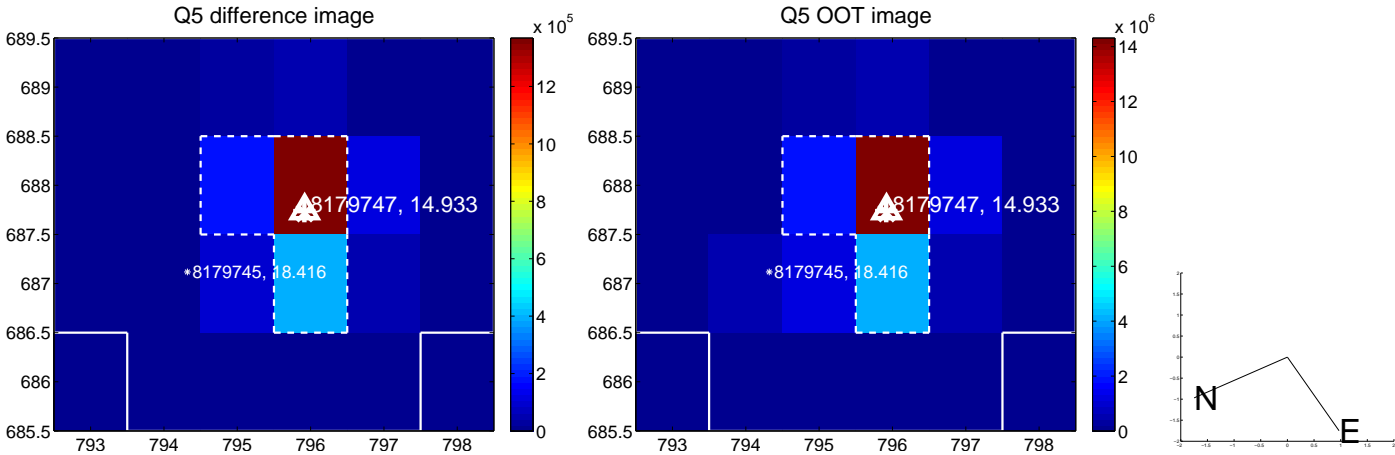


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

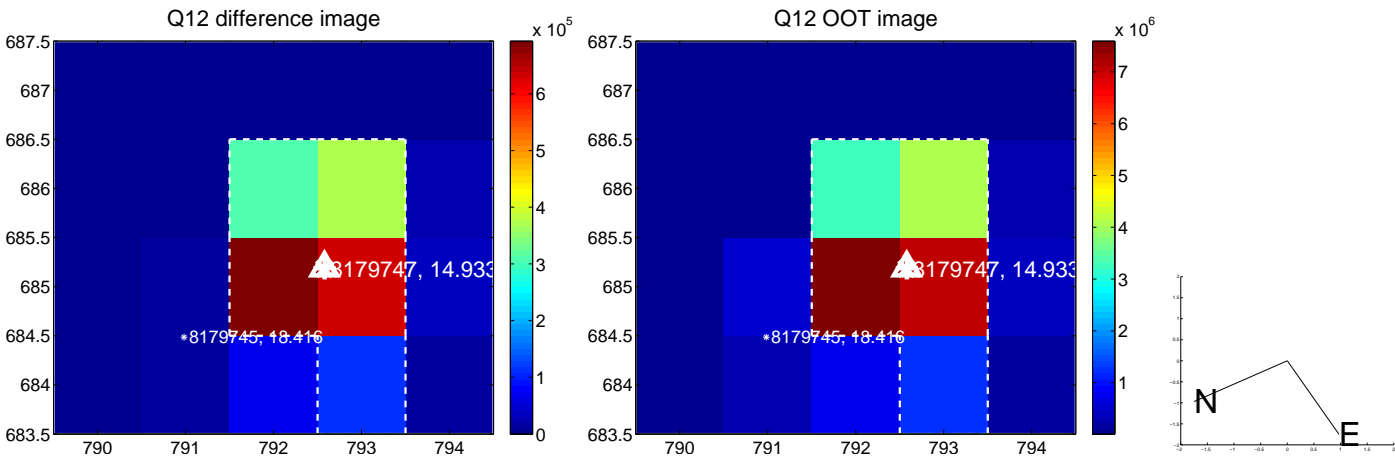
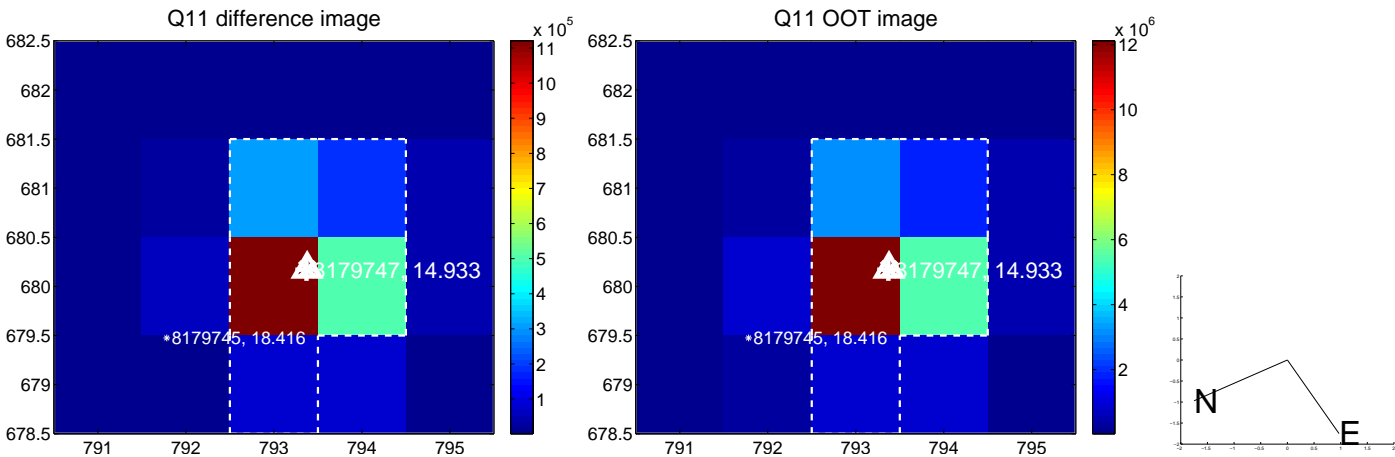
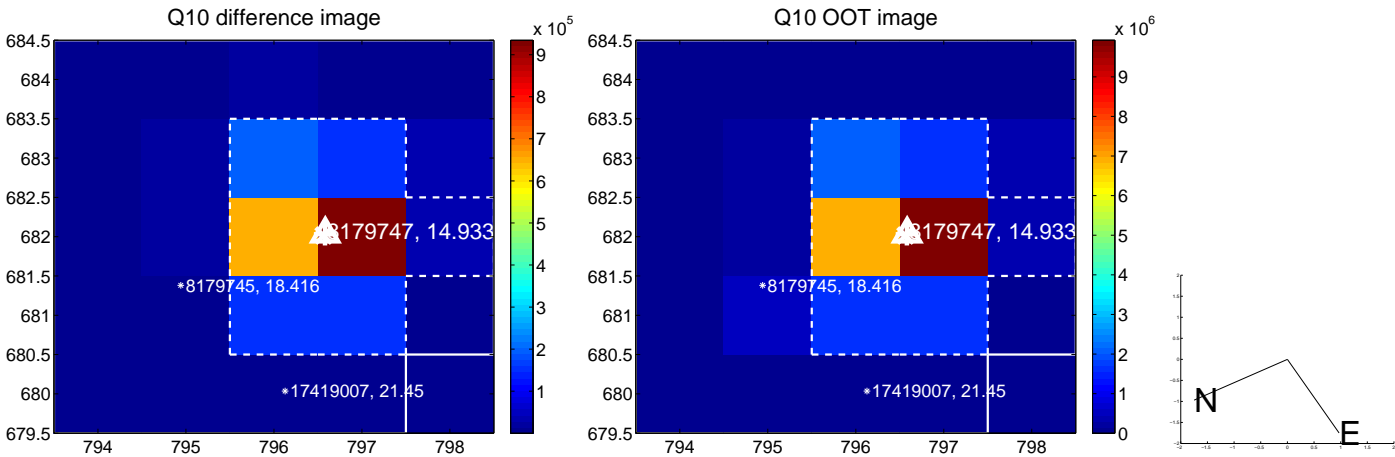
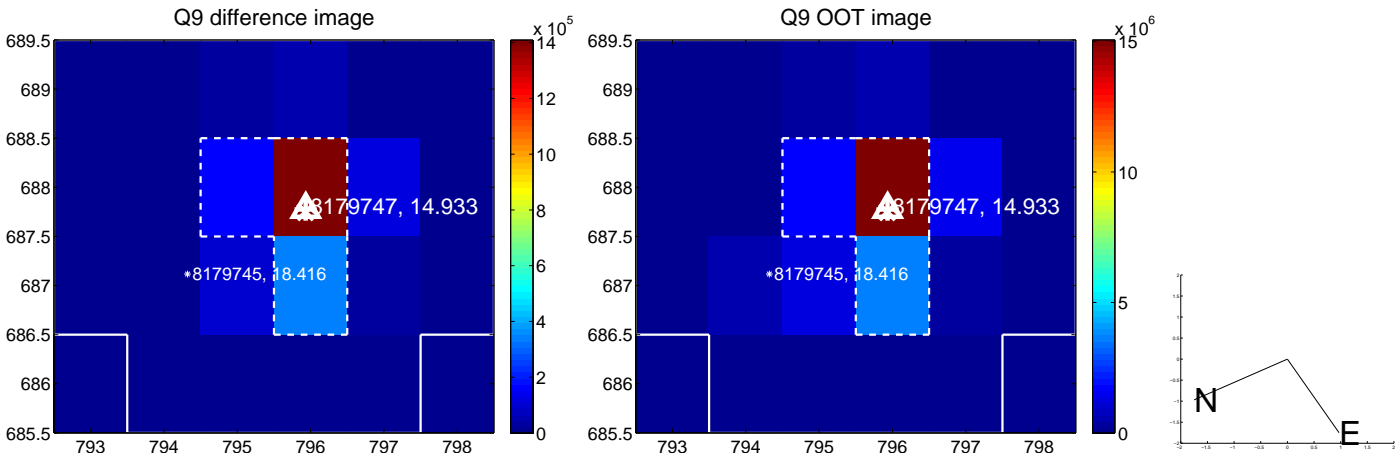
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



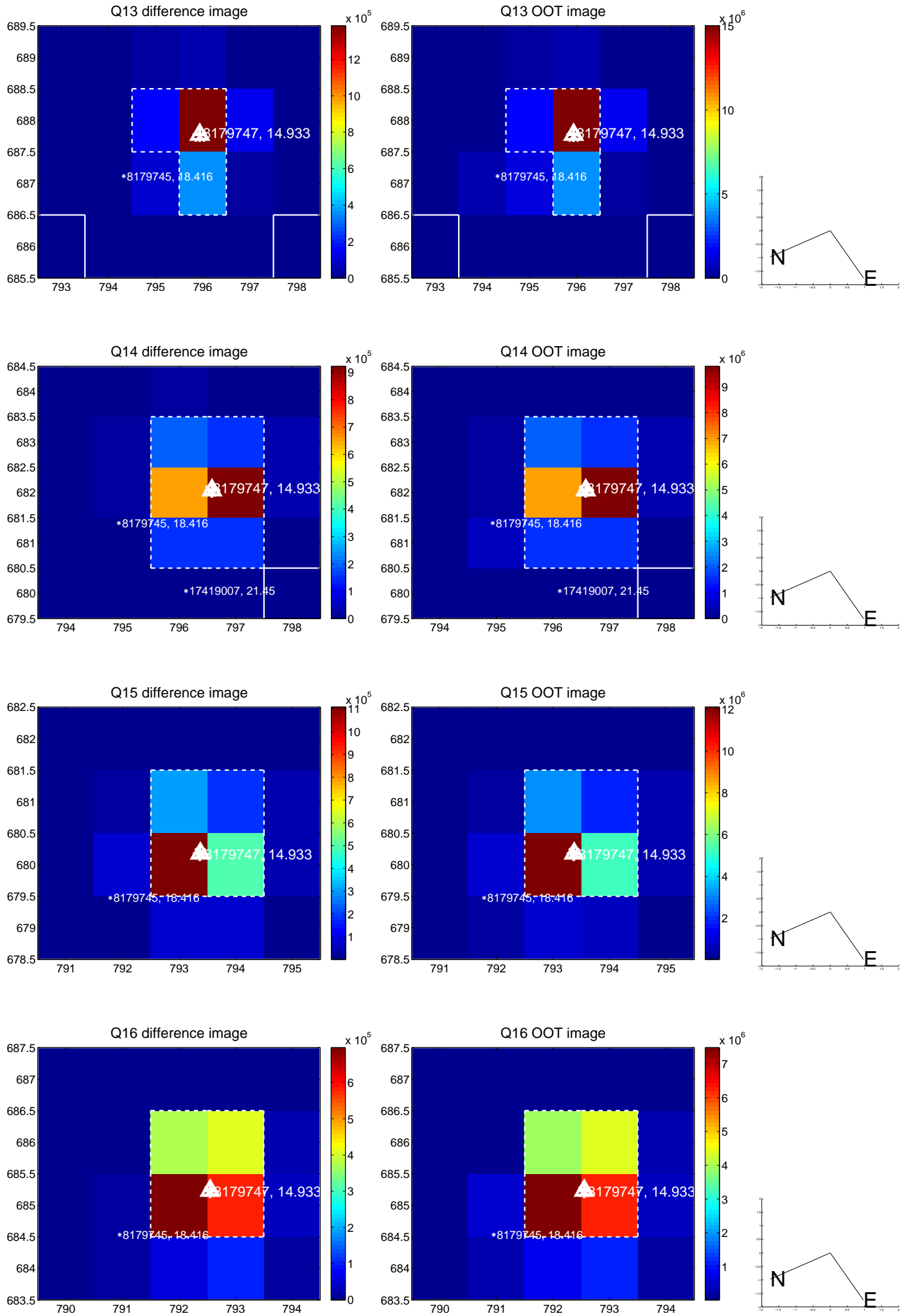
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



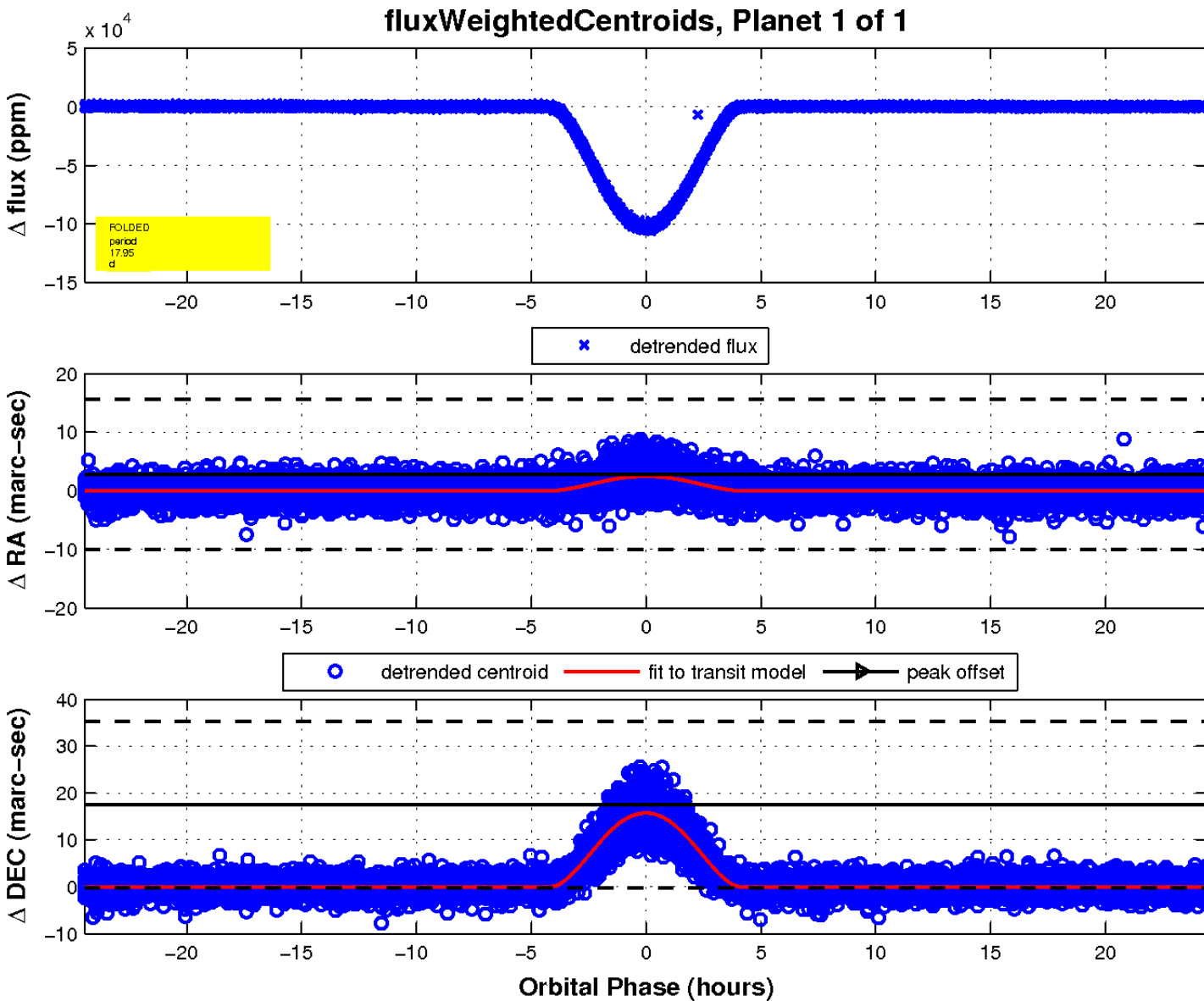
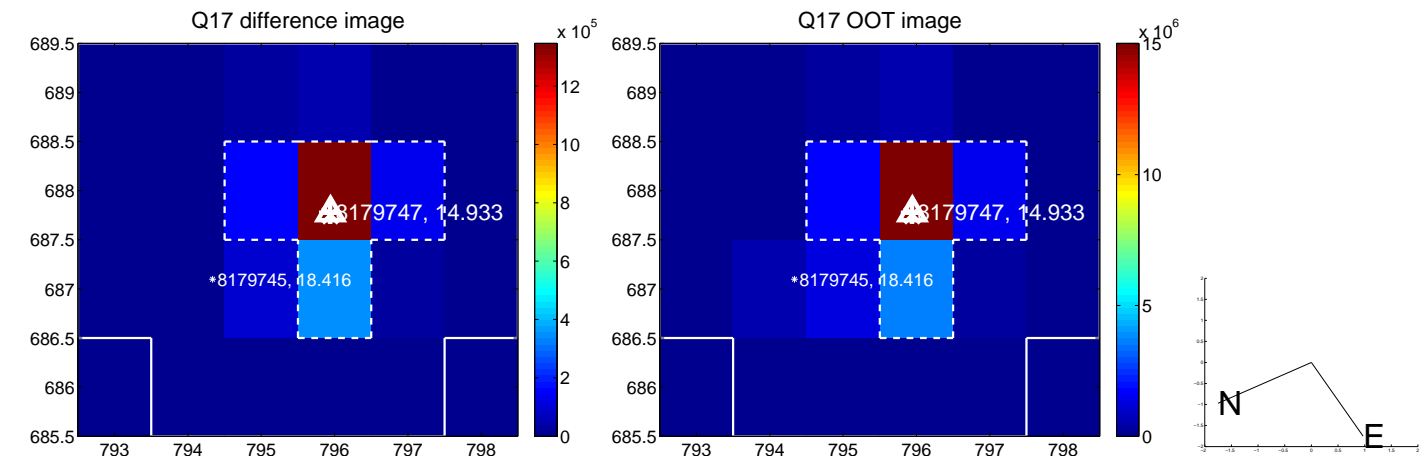
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

