

KIC 004908495

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})
004908495-01	OBS	6468.01	1.560164	132.366748	214792.4	3.441	17090.7	7907.3	0.75	4926	43.57	530.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004908495-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—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.

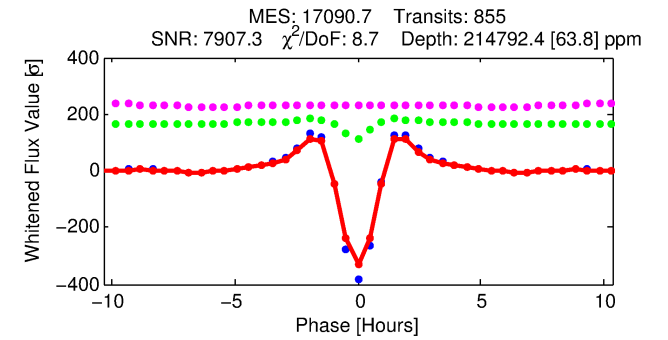
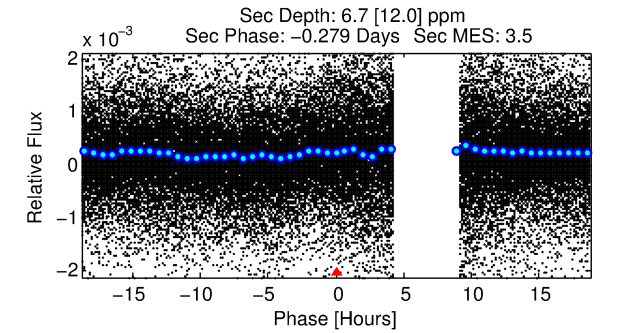
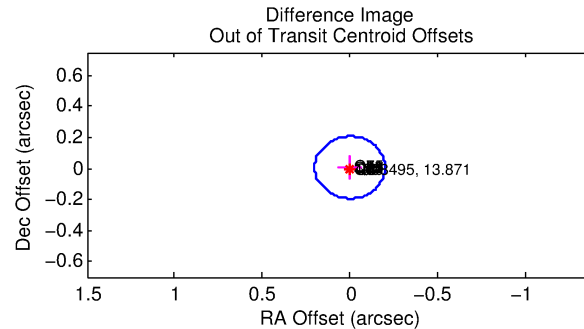
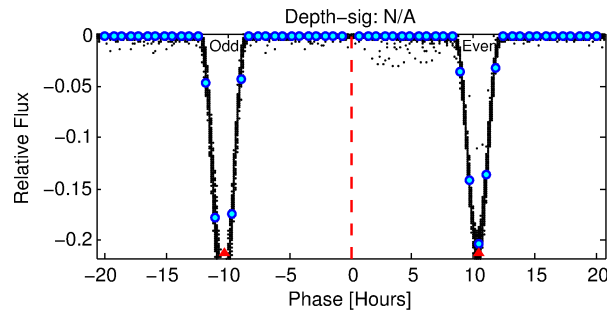
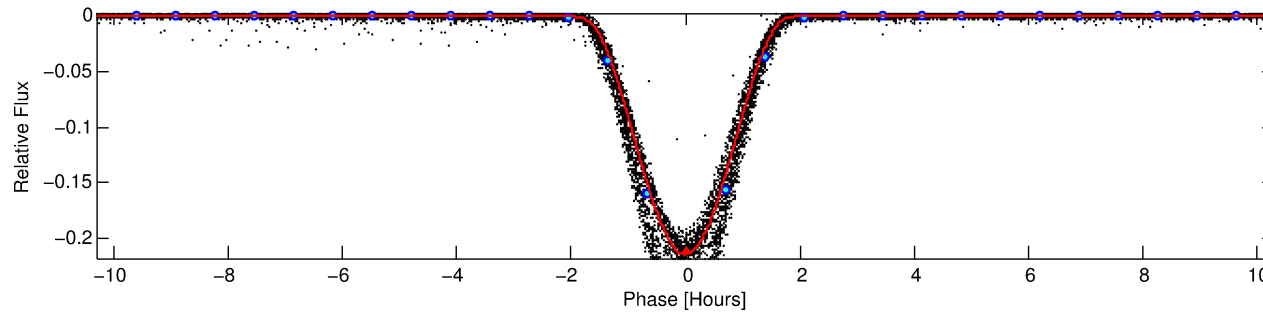
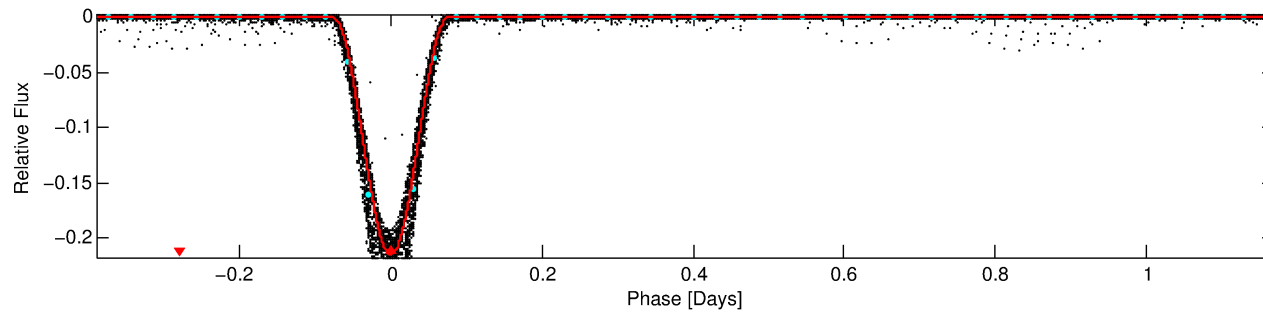
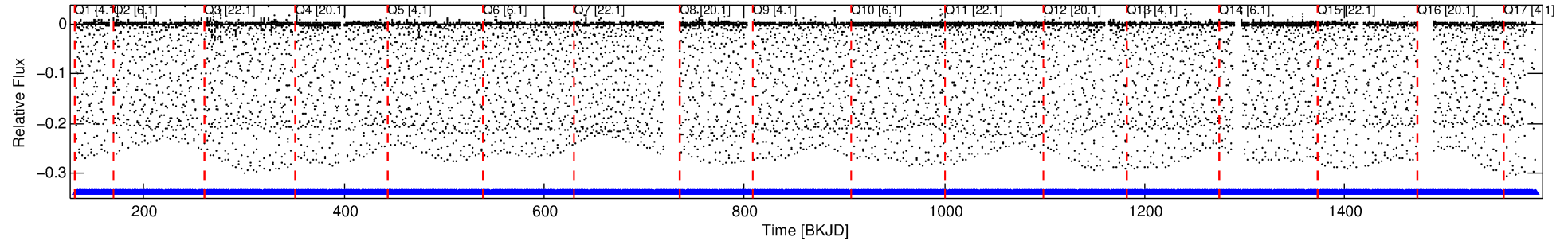
Ephemeris Match Information For 004908495-01

No Significant Match Found

DV One-Page Summary

KIC: 4908495 Candidate: 1 of 1 Period: 1.560 d
KOI: K06468.01 Corr: 0.990

Kp: 13.87 R*: 0.75 Rs Teff: 4926.0 K Logg: 4.55 Fe/H: -0.120



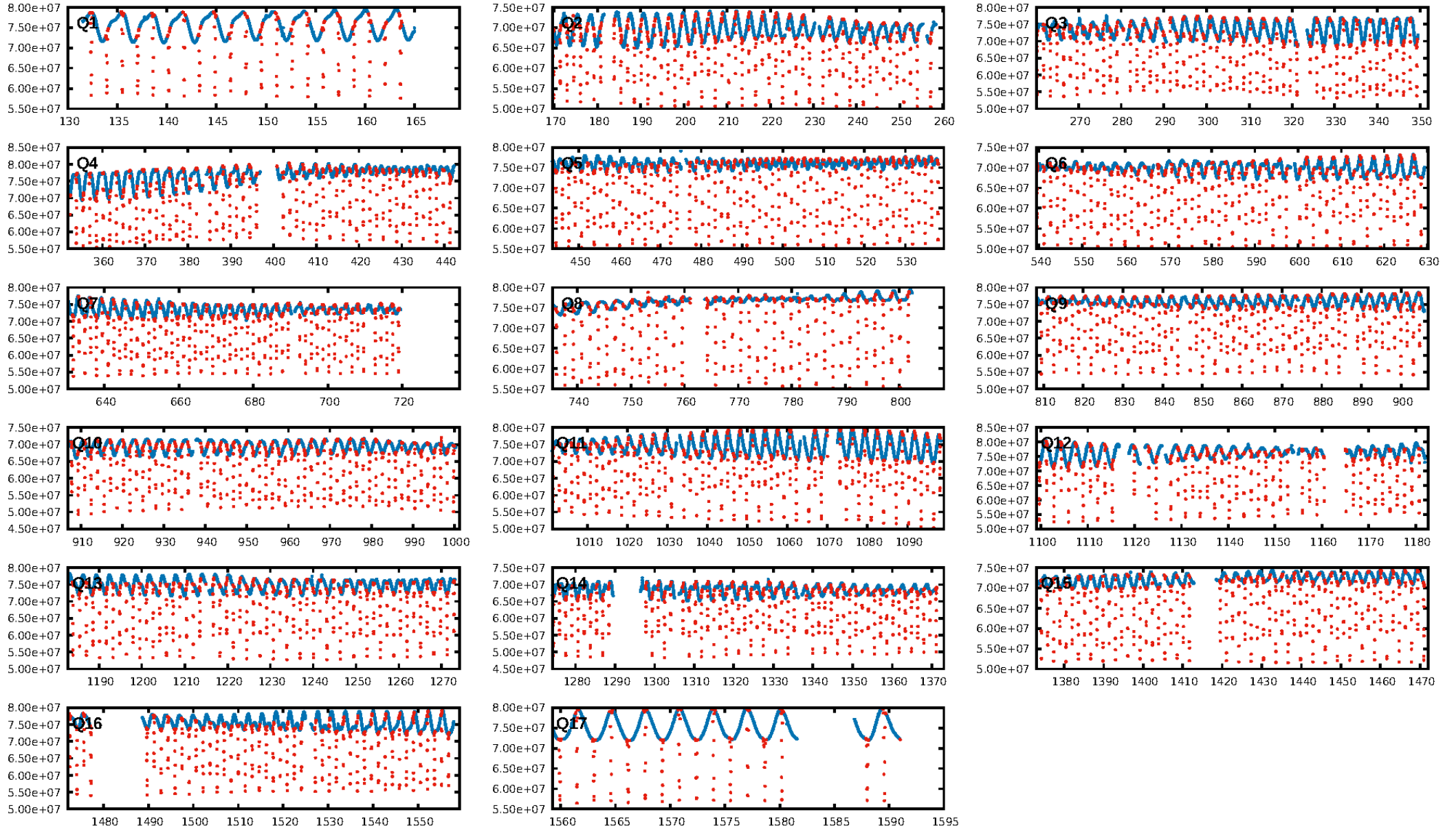
DV Fit Results:

Period = 1.56016 [0.00000] d
Epoch = 132.3667 [0.0000] BKJD
Rp/R* = 0.5331 [0.0116]
a/R* = 4.79 [0.01]
b = 0.73 [0.02]
Seff = 530.03 [93.86]
Teq = 1223 [54] K
Rp = 43.57 [4.58] Re
a = 0.0236 [0.0021] AU
Ag = 0.00 [0.00] [-514.19σ]
Teffp = 344 [153] K [-5.42σ]

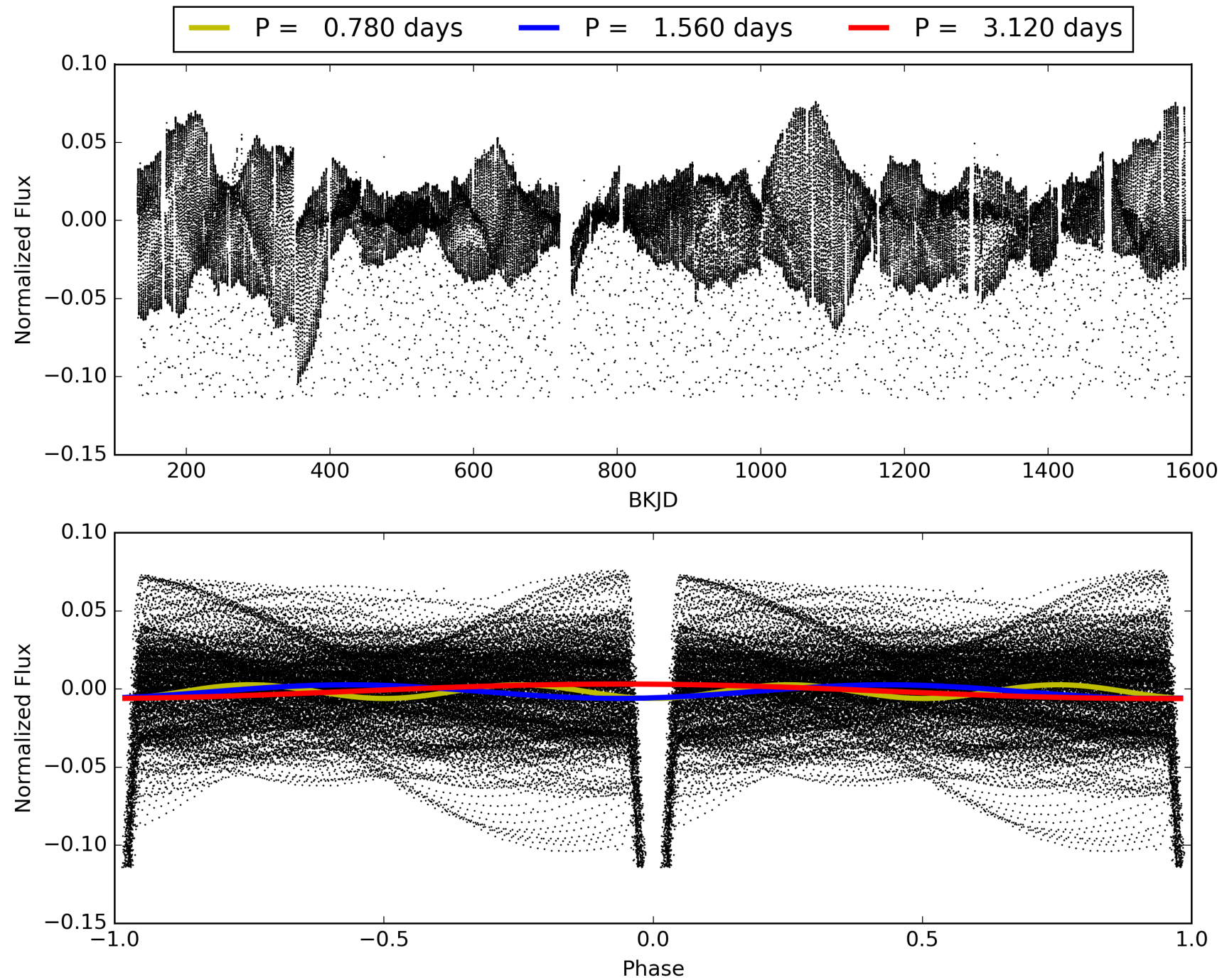
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [818/818]
GhostDiagnostic-chr: 1.324
Centroid-sig: N/A
Centroid-so: 0.266 arcsec [792.80σ]
OotOffset-rm: 0.007 arcsec [0.10σ]
KicOffset-rm: 0.218 arcsec [3.25σ]
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 004908495-01, PDC Light Curves

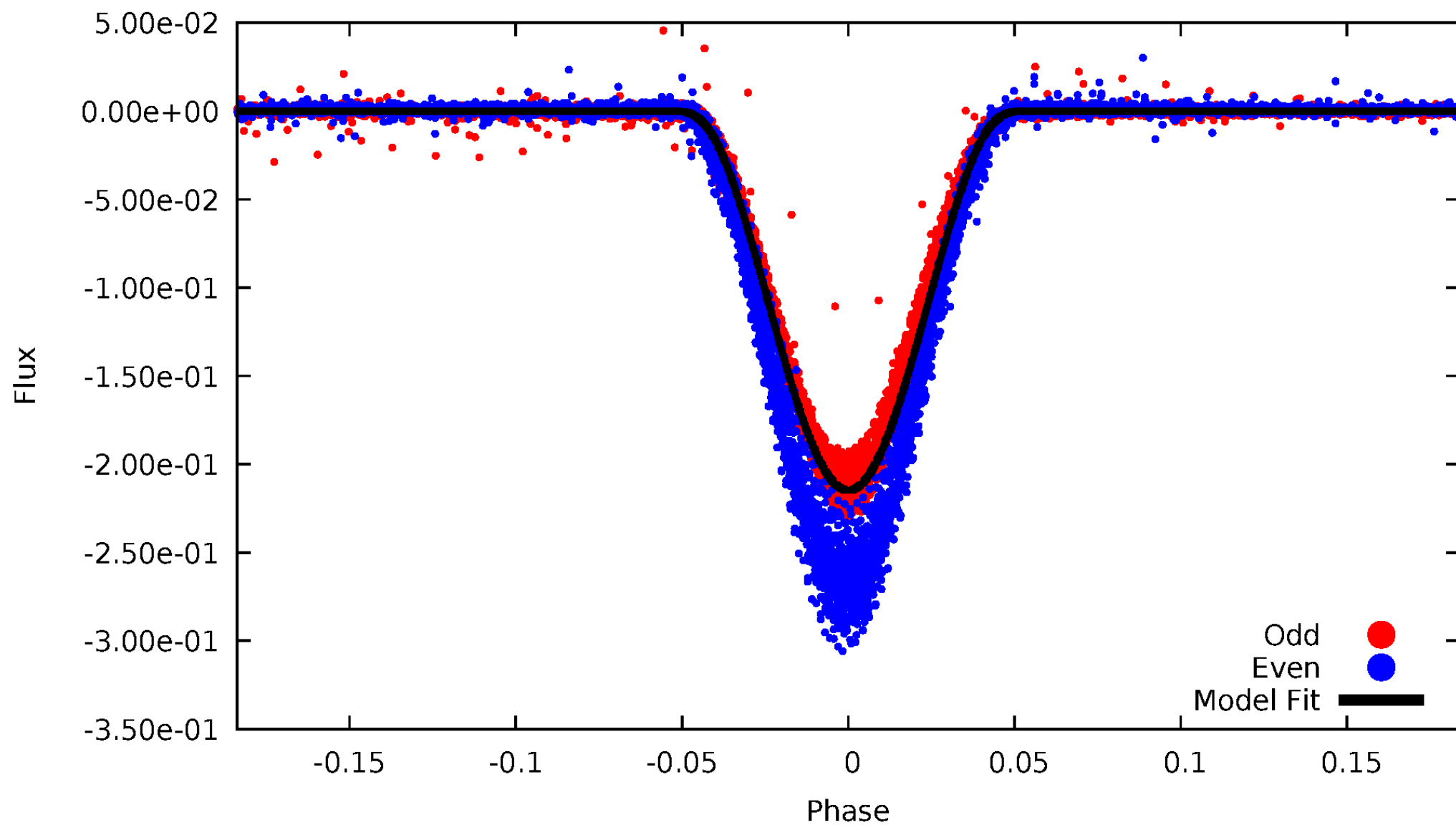


TCE 004908495-01



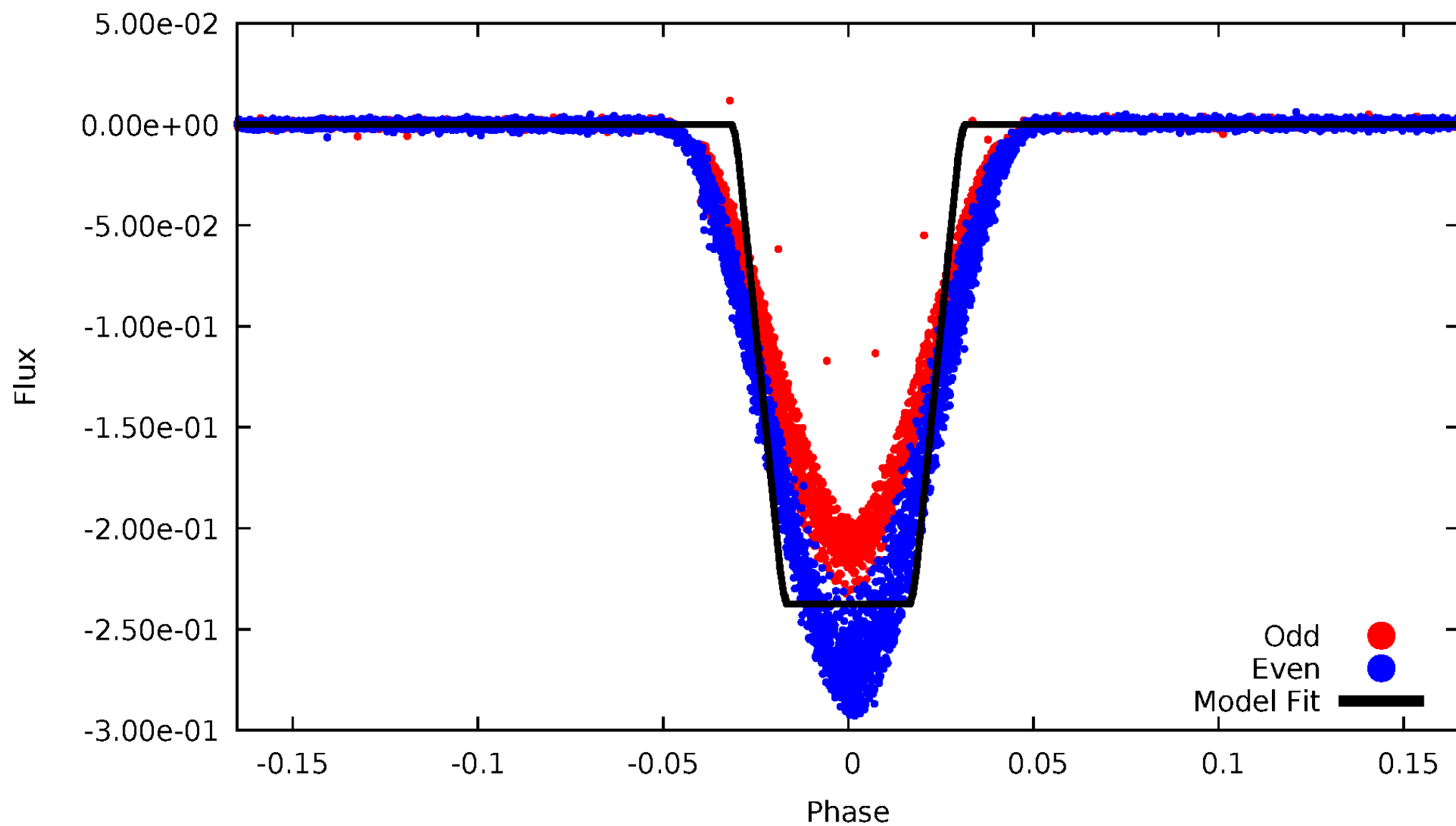
DV Odd/Even

TCE 004908495-01



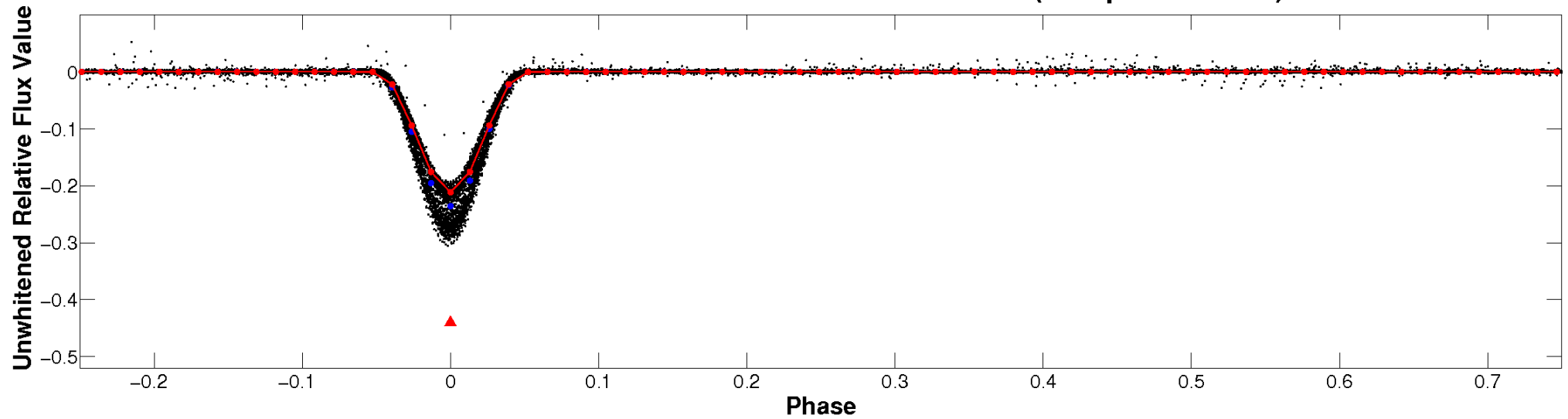
ALT Odd/Even

TCE 004908495-01

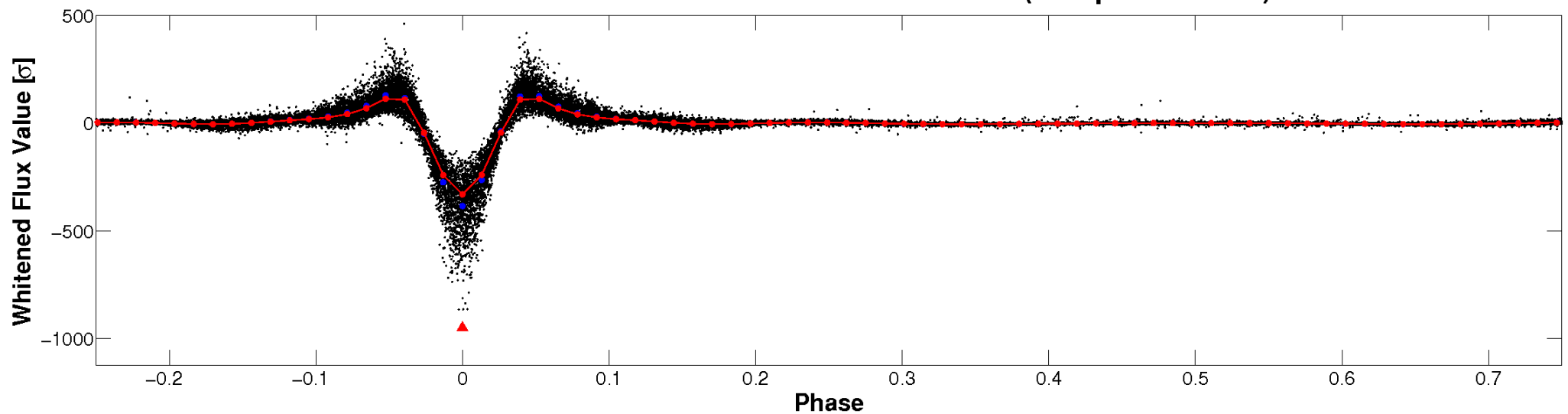


Non-Whitened Vs. Whitened Light Curve

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

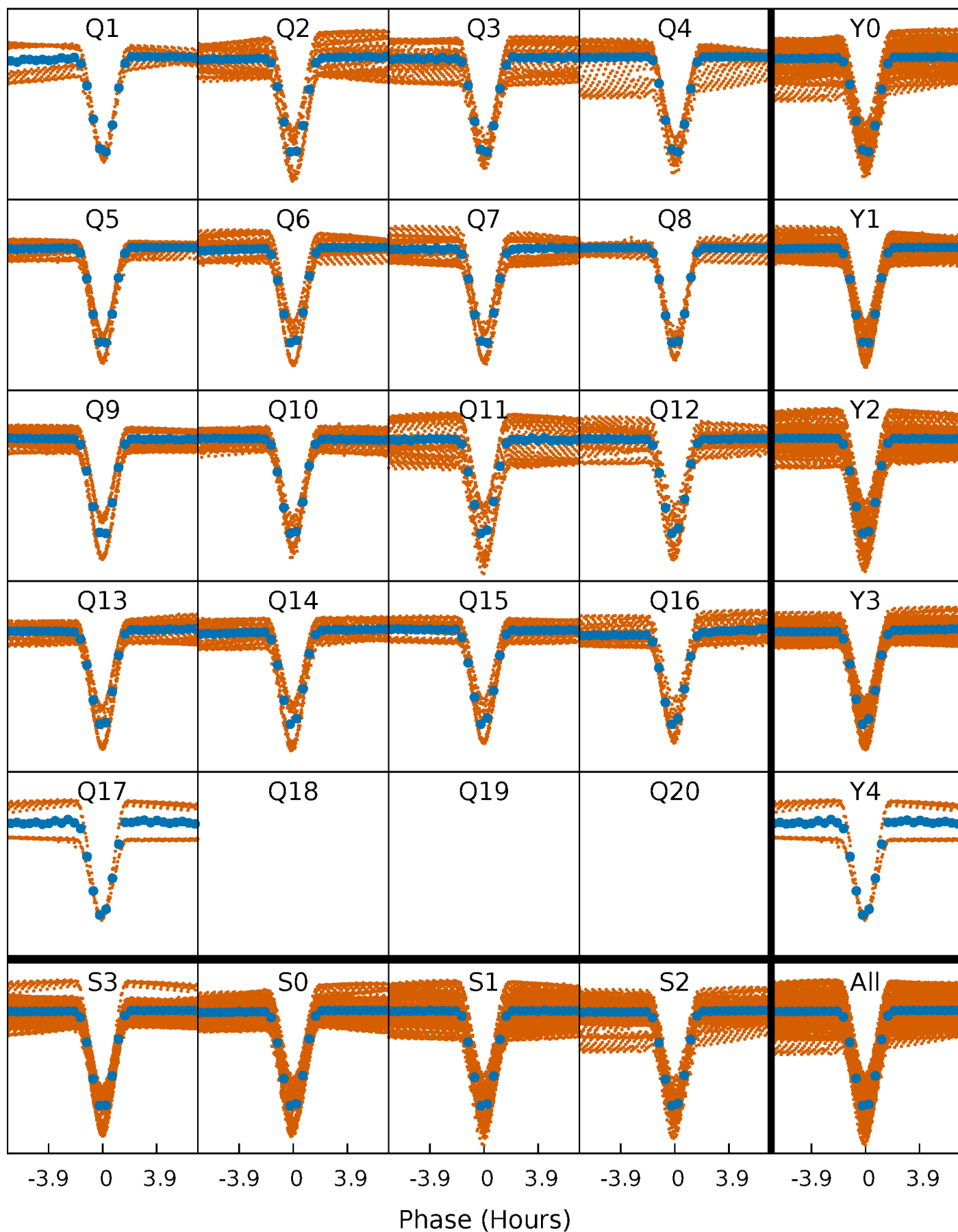


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



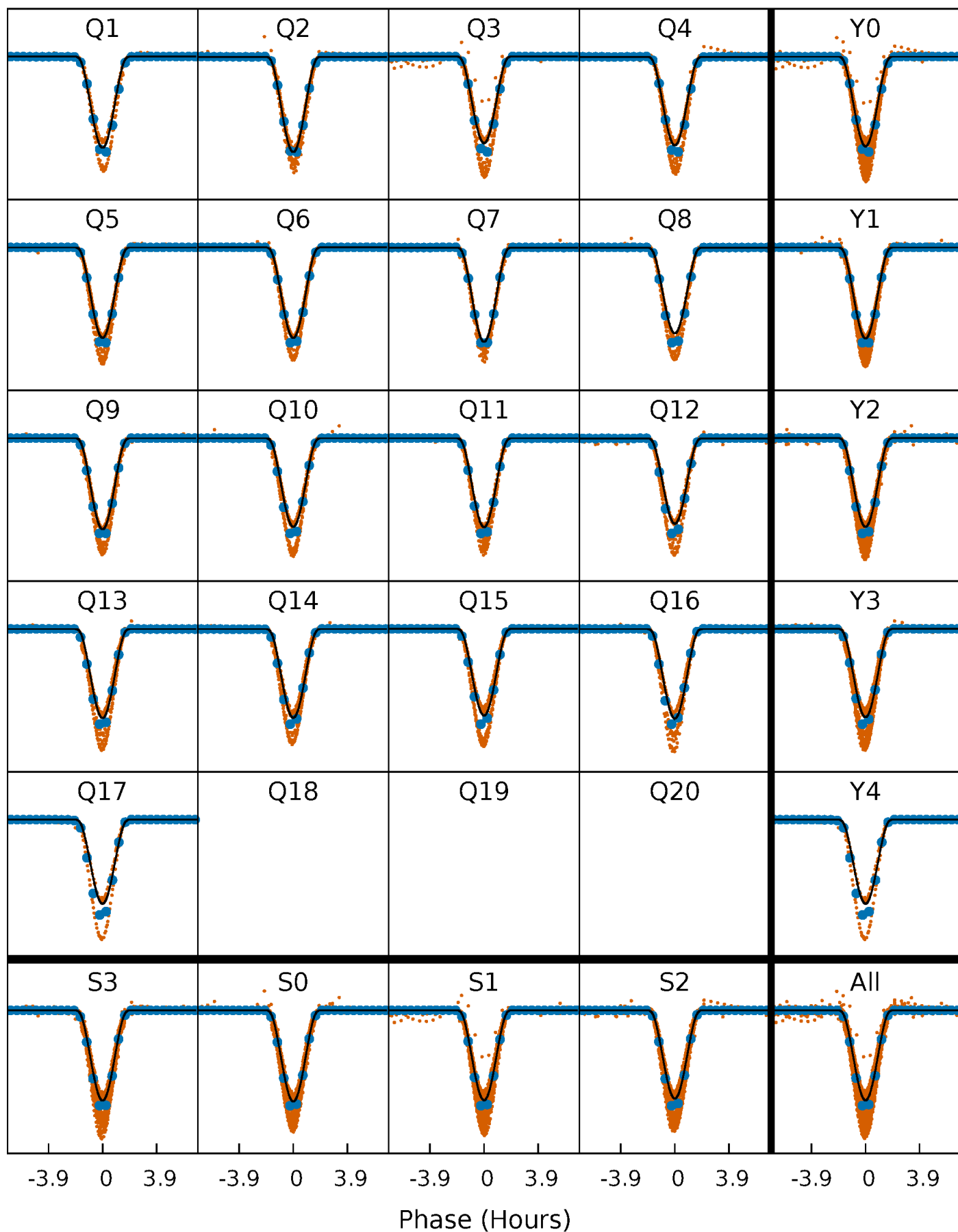
PDC Quarter-Phased Transit Curves

TCE 004908495-01 P= 1.560164 Days $T_0=132.366748$ (BKJD)



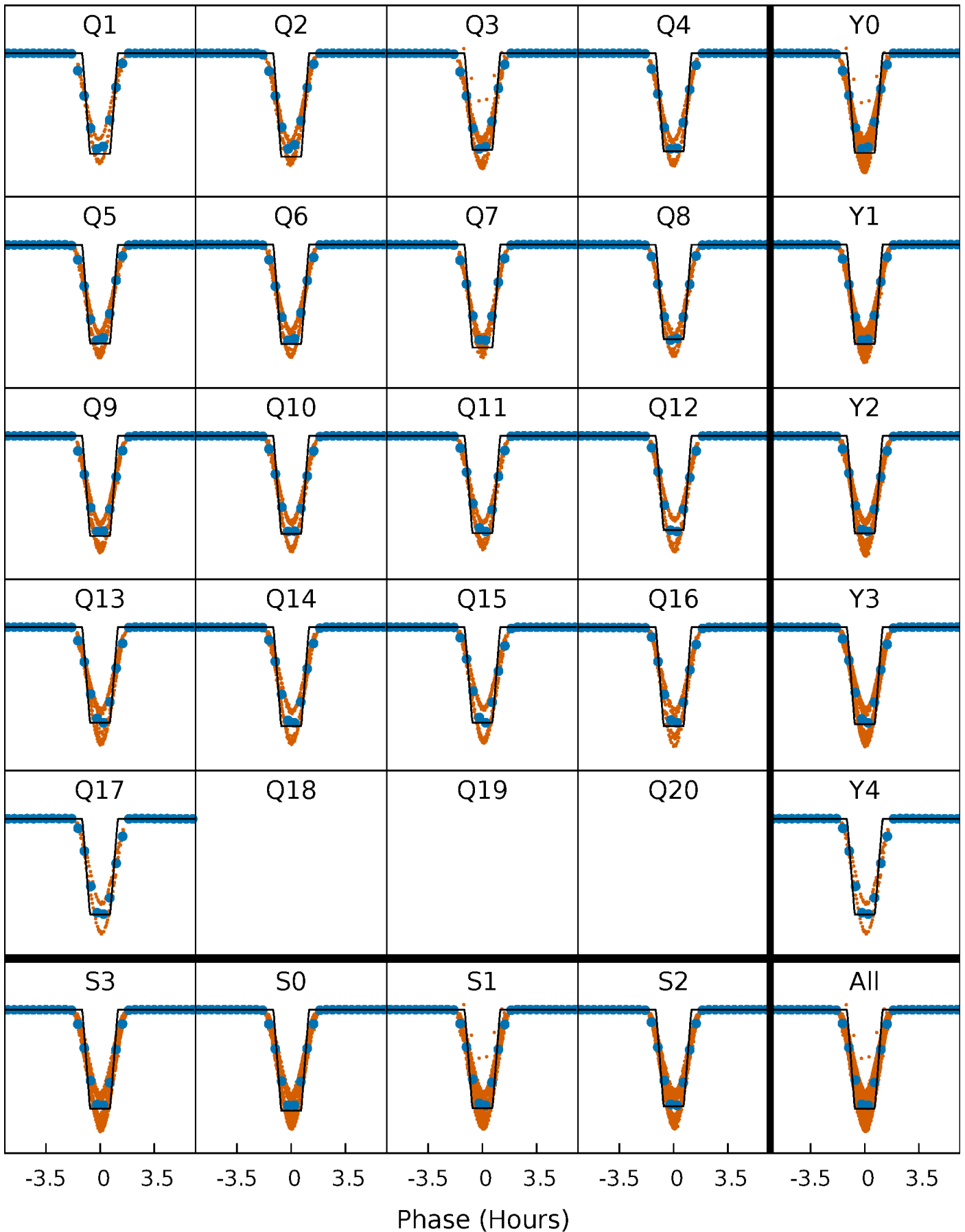
DV Quarter-Phased Transit Curves

TCE 004908495-01 P= 1.560164 Days $T_0=132.366748$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

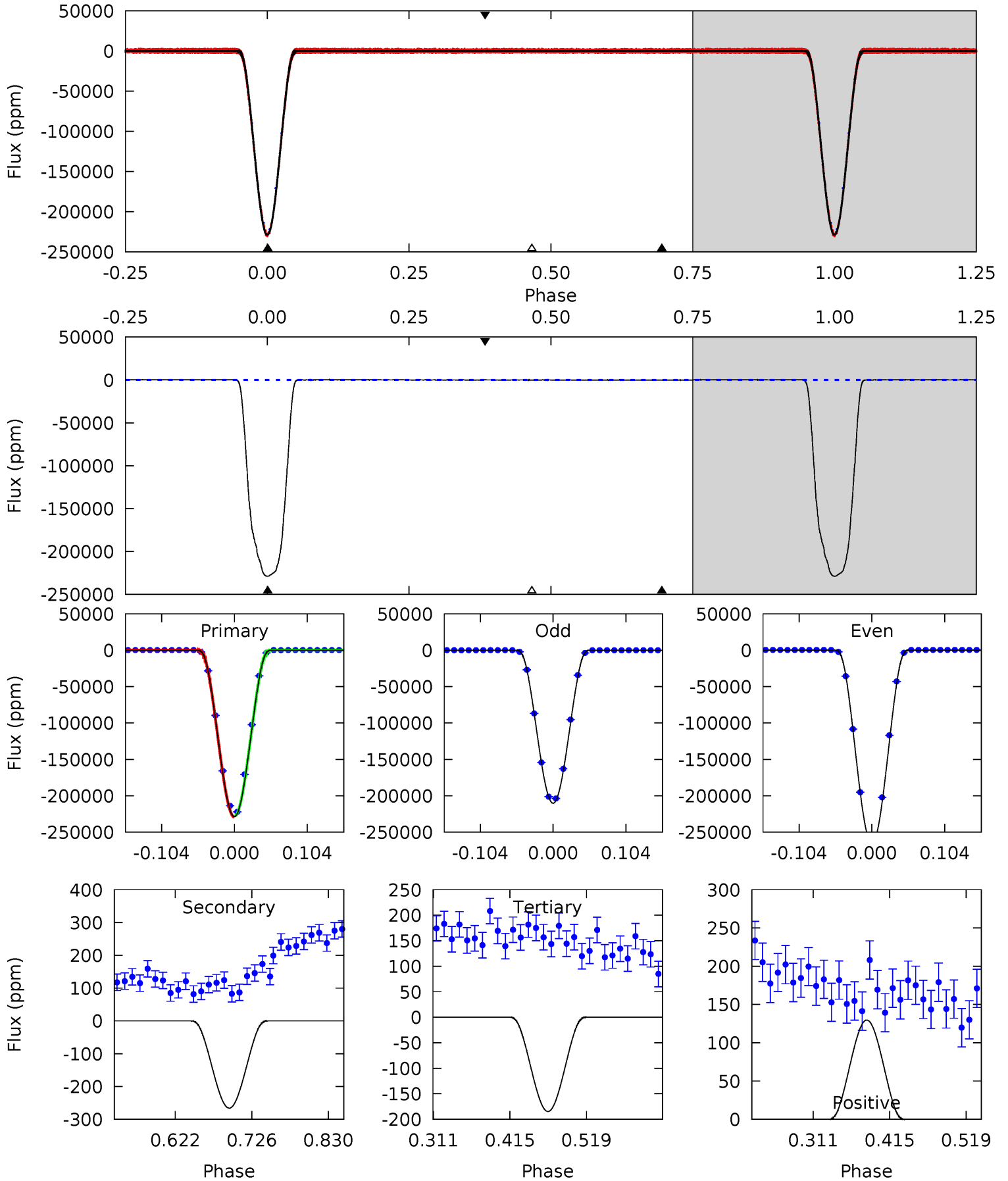
TCE 004908495-01 P= 1.560152 Days $T_0=132.370982$ (BKJD)



DV Model-Shift Uniqueness Test

004908495-01, P = 1.560164 Days, E = 130.806584 Days

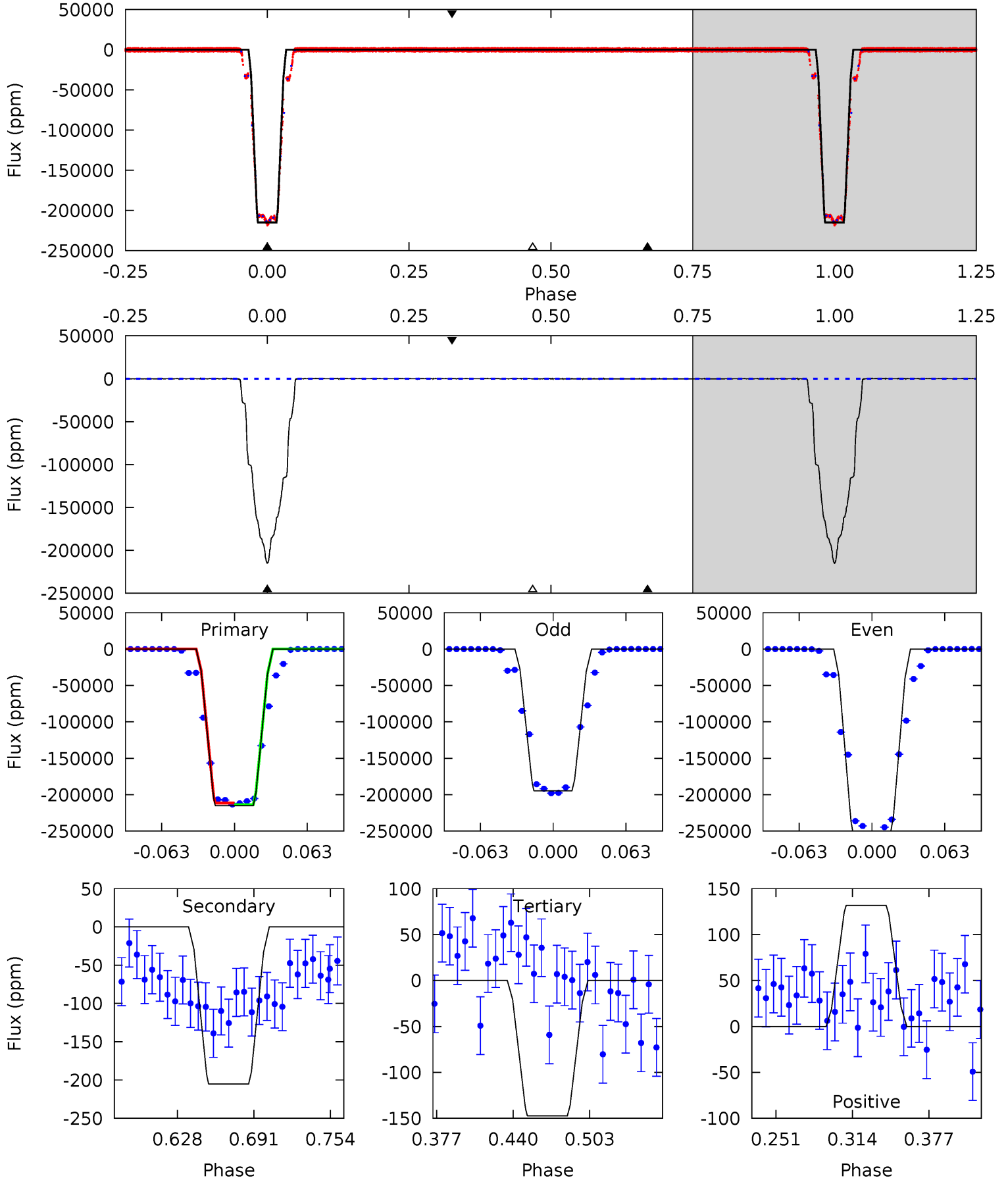
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12940	15.0	10.4	7.34	4.56	1.63	5.69	12929	12932	4.60	7.71	1856	1.04	0.00	0



Alt Model-Shift Uniqueness Test

004908495-01, P = 1.560152 Days, E = 130.810830 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4755	4.54	3.26	2.91	4.66	1.86	1.18	4752	4752	1.28	1.62	806.7	1.02	0.00	0



Stellar Parameters For KIC 004908495

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4926^{+133}_{-148}	$4.548^{+0.072}_{-0.044}$	$-0.120^{+0.300}_{-0.300}$	$0.749^{+0.063}_{-0.077}$	$0.724^{+0.085}_{-0.054}$	$2.421^{+0.790}_{-0.386}$
	+3%/-3%	+2%/-1%	+250%/-250%	+8%/-10%	+12%/-7%	+33%/-16%
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 004908495-01 / KOI 6468.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-266 ± 18	$43.60^{+2.51}_{-2.72}$	1702^{+65}_{-64}	-2252^{+47}_{-44}	$0.044^{+0.006}_{-0.005}$
Alt.	-205 ± 45	$39.82^{+2.22}_{-2.58}$	1703^{+60}_{-63}	-2255^{+45}_{-43}	$0.040^{+0.010}_{-0.009}$

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

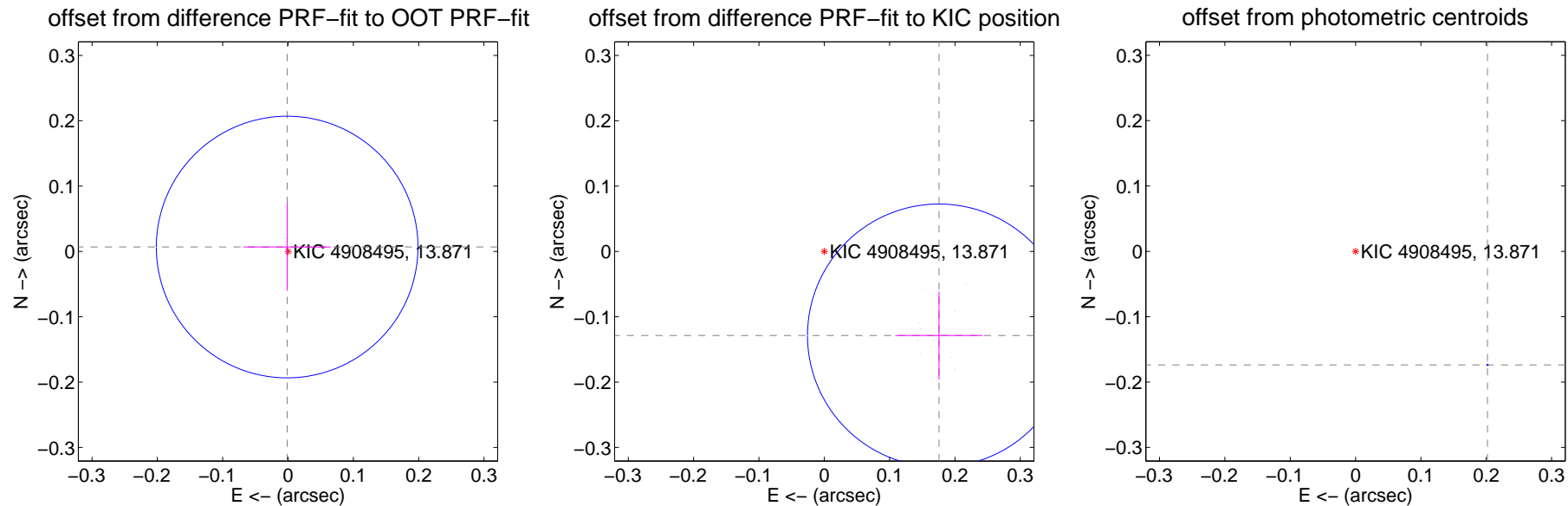
DV Centroid Data

Supplemental centroid analysis for 004908495-01. Kepler magnitude: 13.87. Transit SNR 7907.29

There are 17 quarters with good PRF difference image offsets

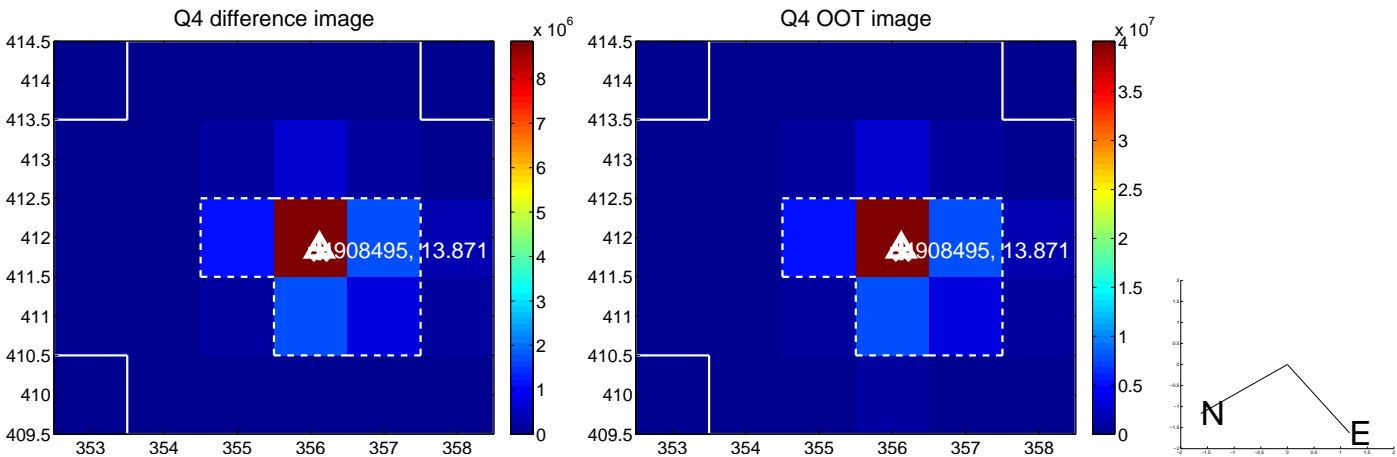
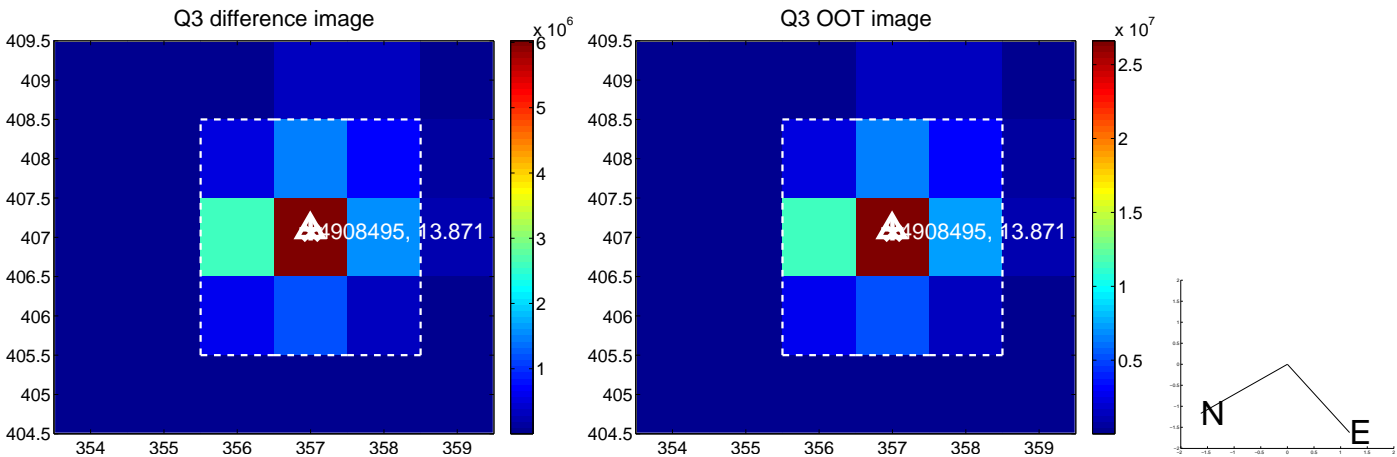
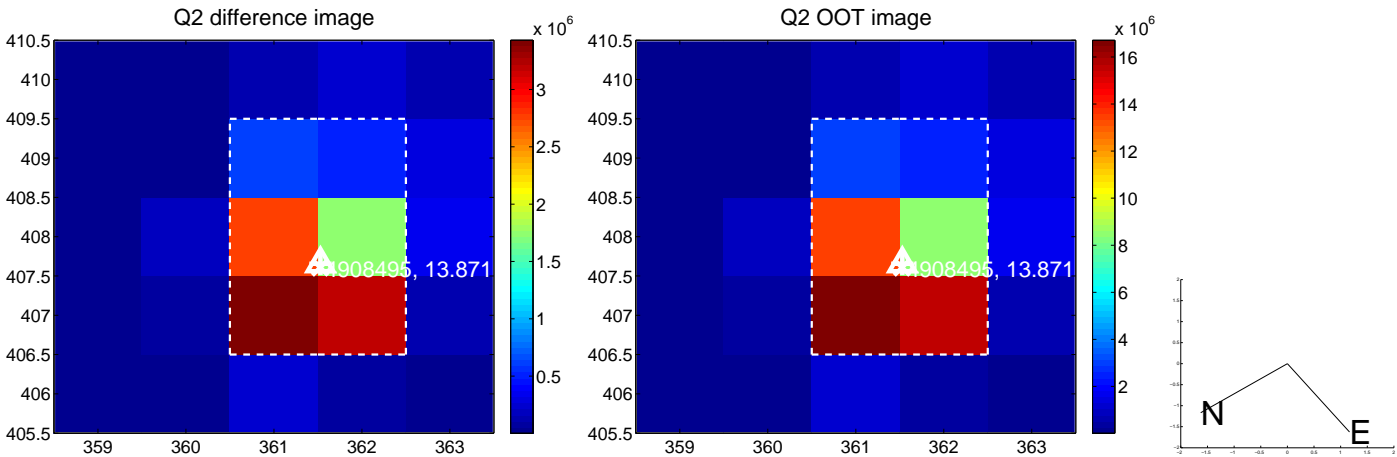
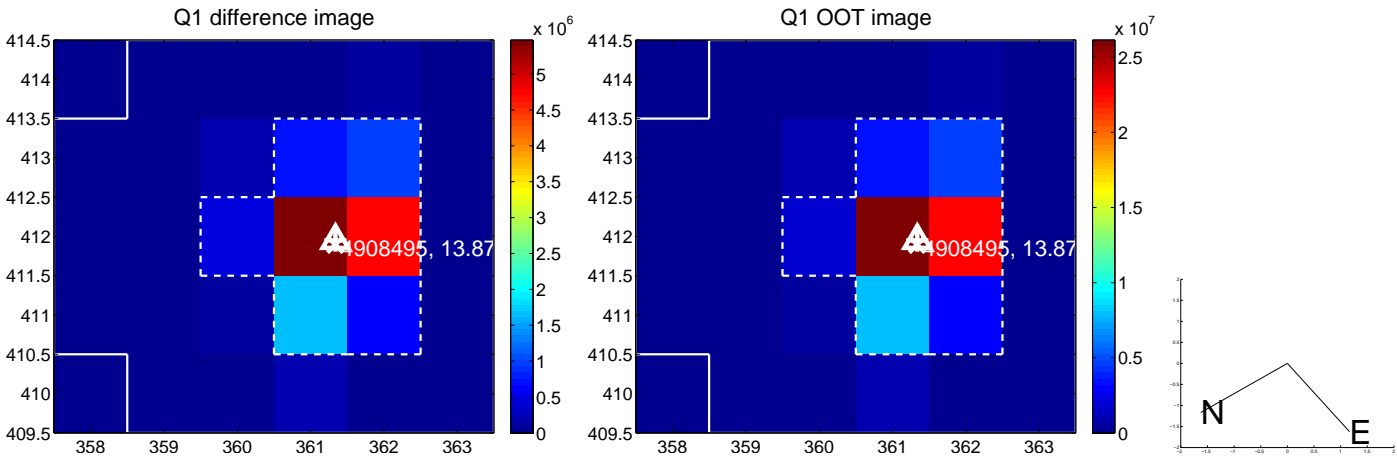
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.007 ± 0.067	0.10	0.001 ± 0.067	0.007 ± 0.067
PRF-fit source offset from KIC position	0.218 ± 0.067	3.25	-0.176 ± 0.067	-0.129 ± 0.067
photometric centroid source offset	0.27 ± 0.00	792.80	-0.20 ± 0.00	-0.17 ± 0.00

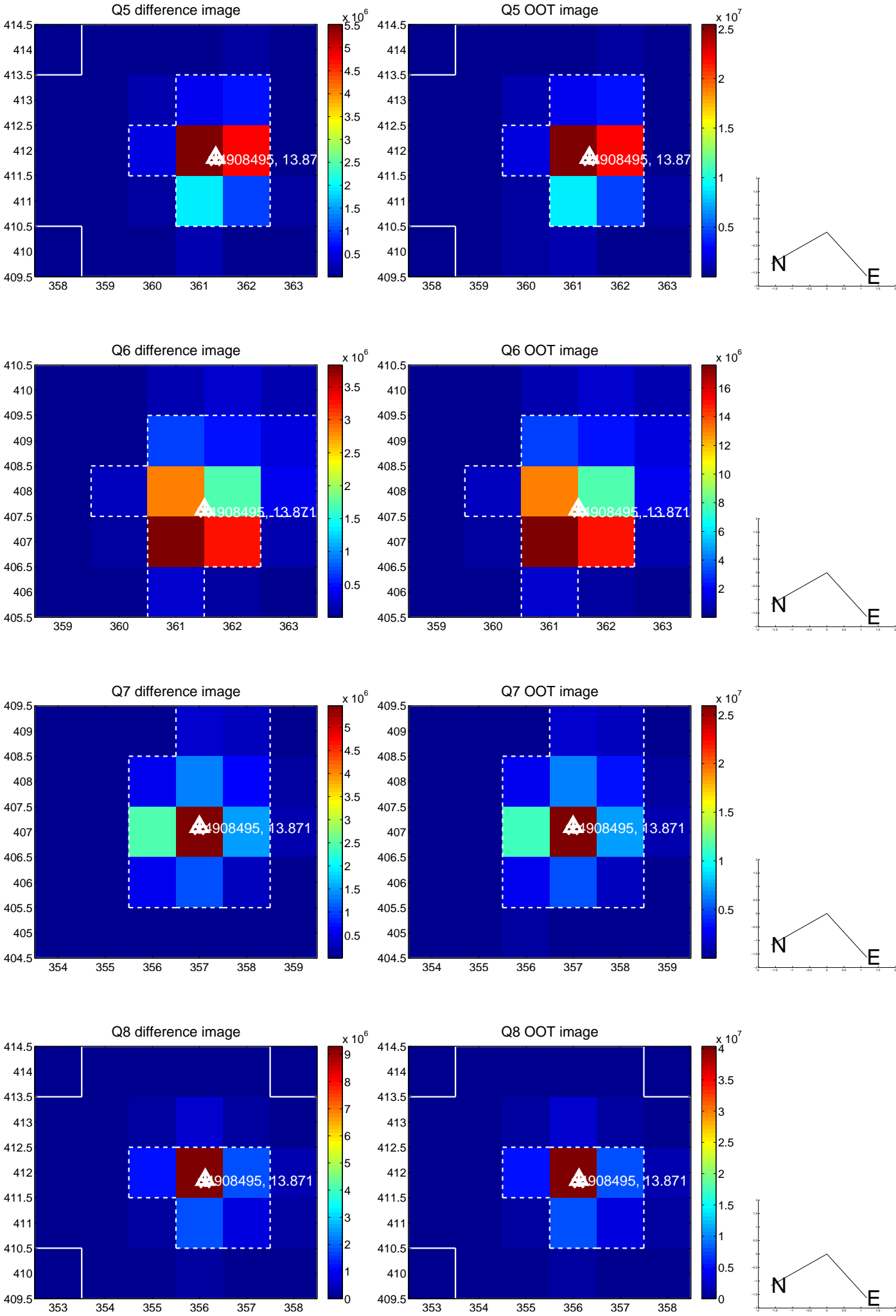


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

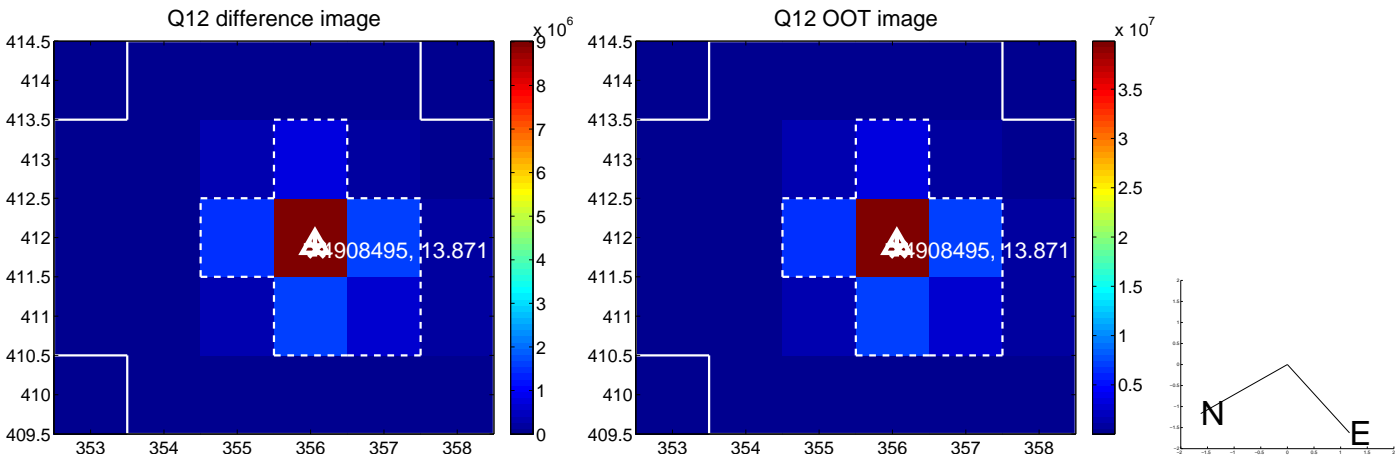
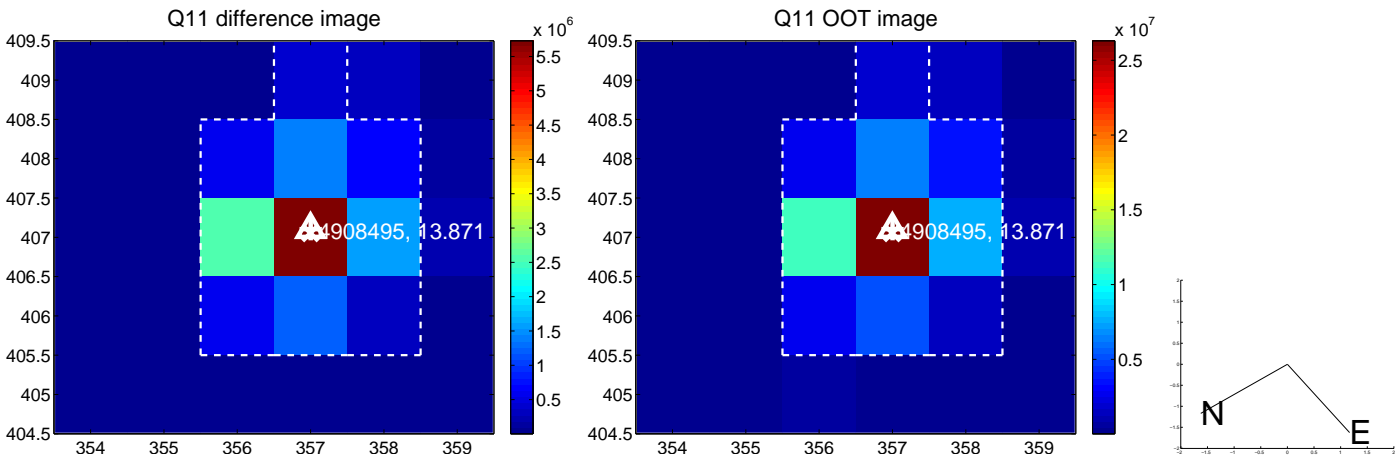
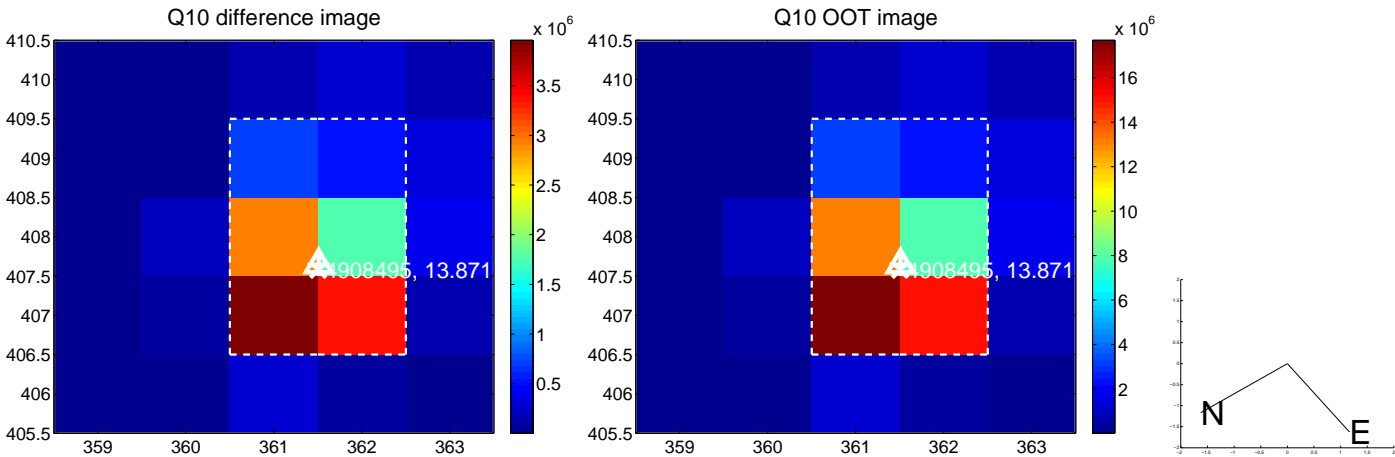
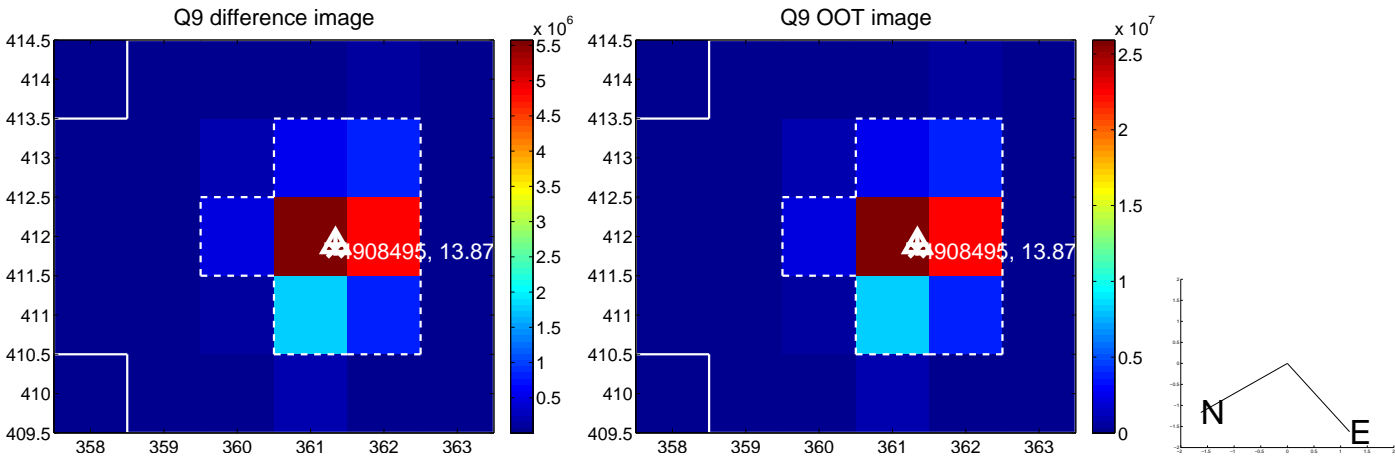
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



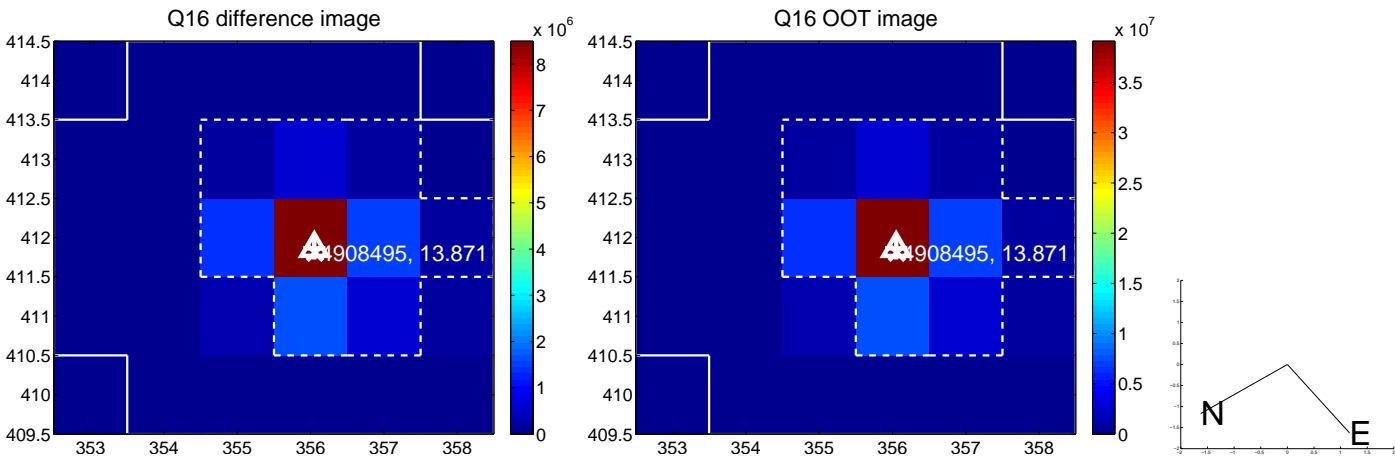
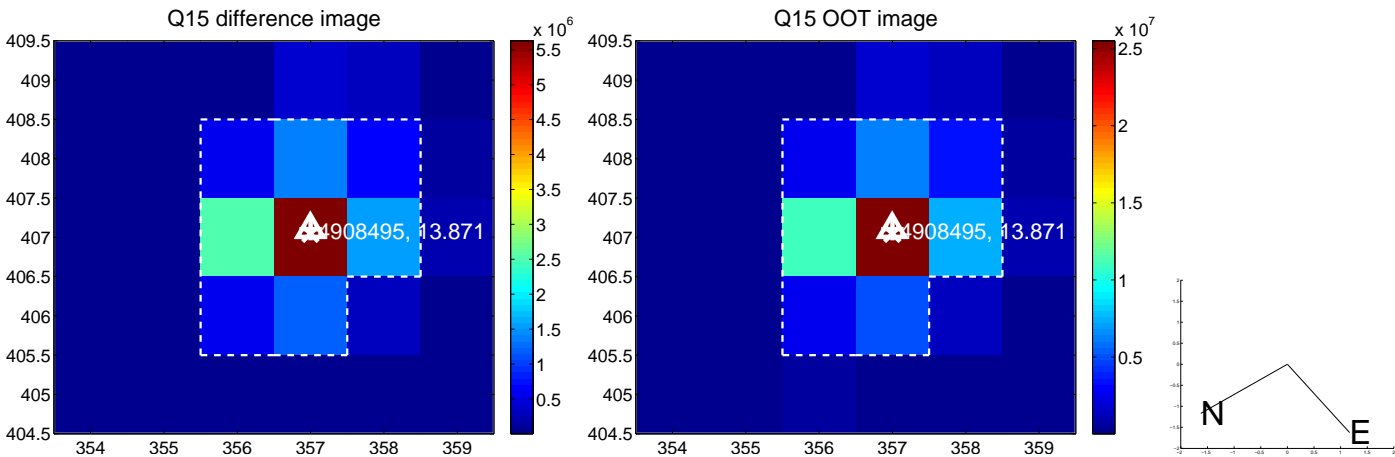
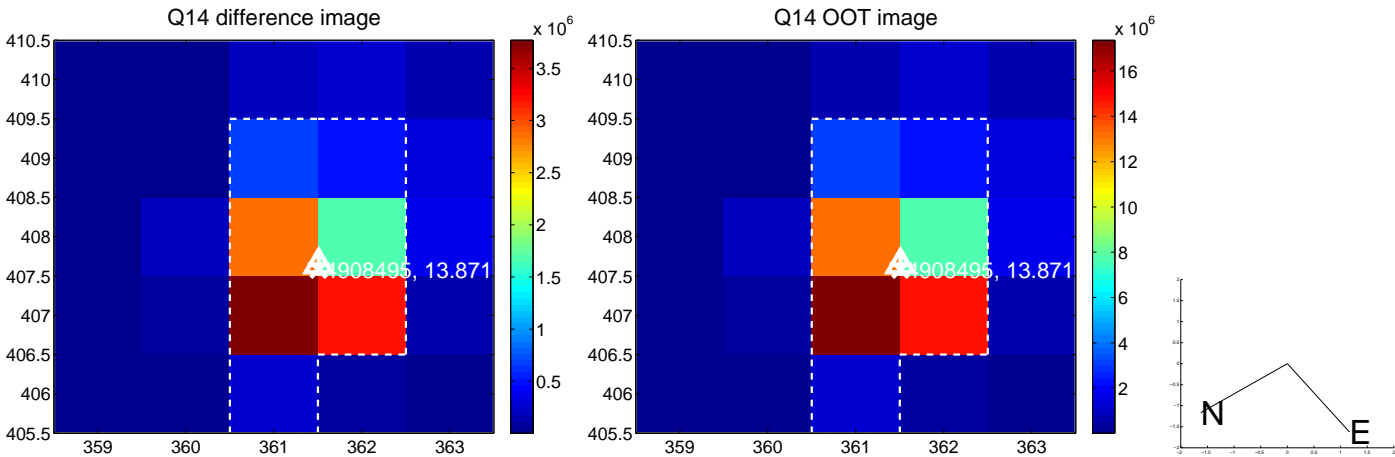
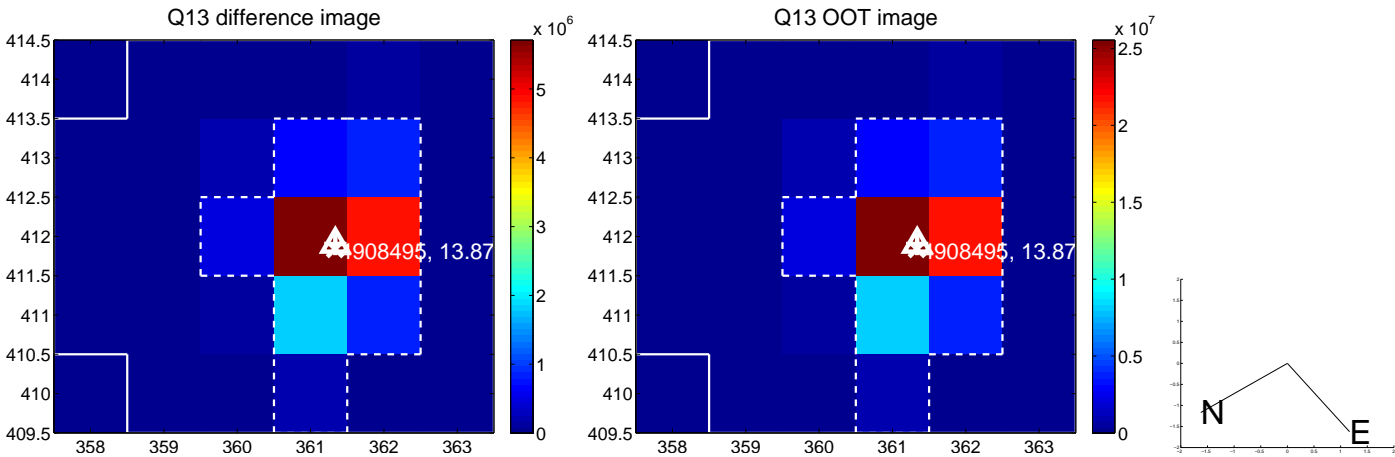
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



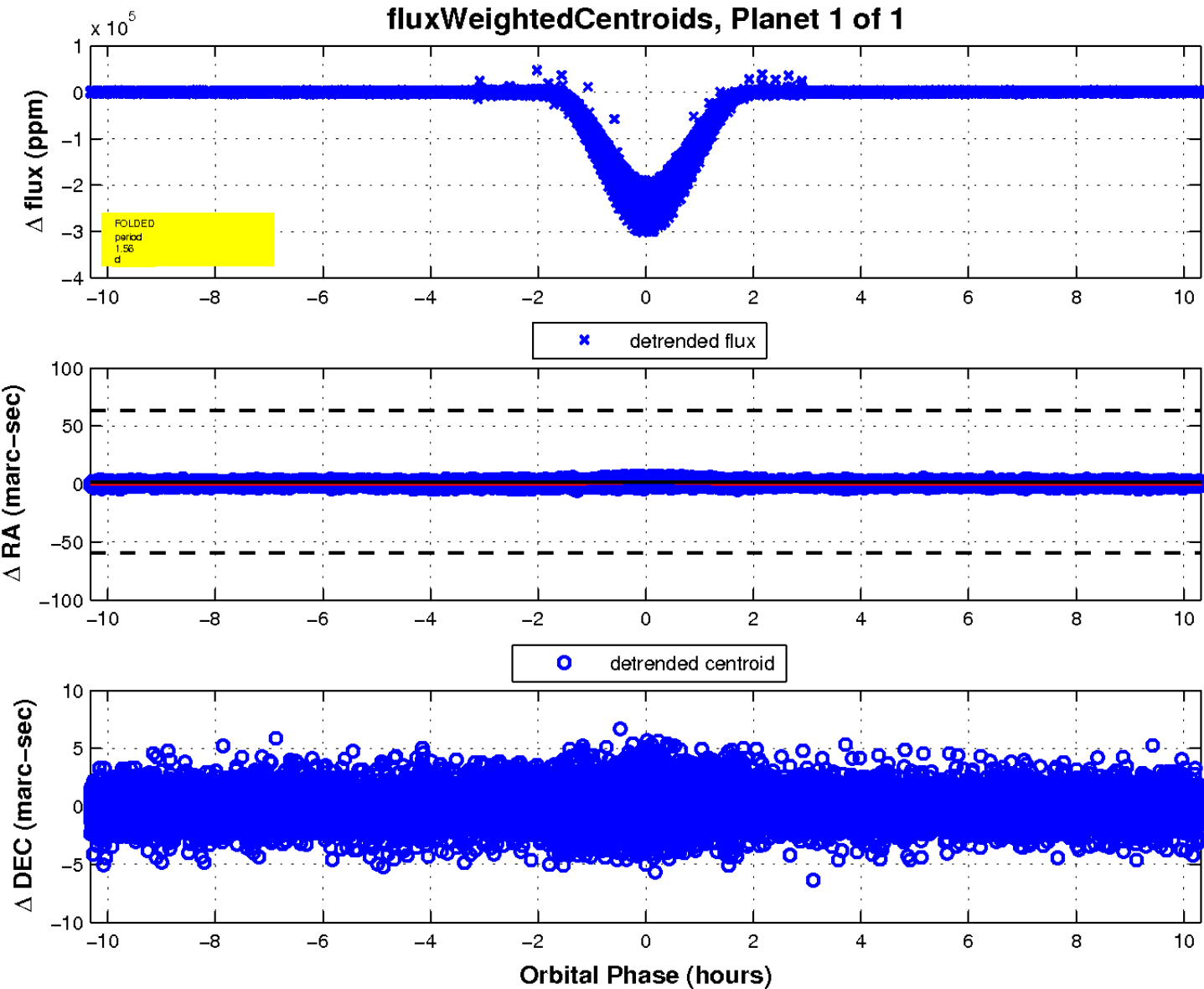
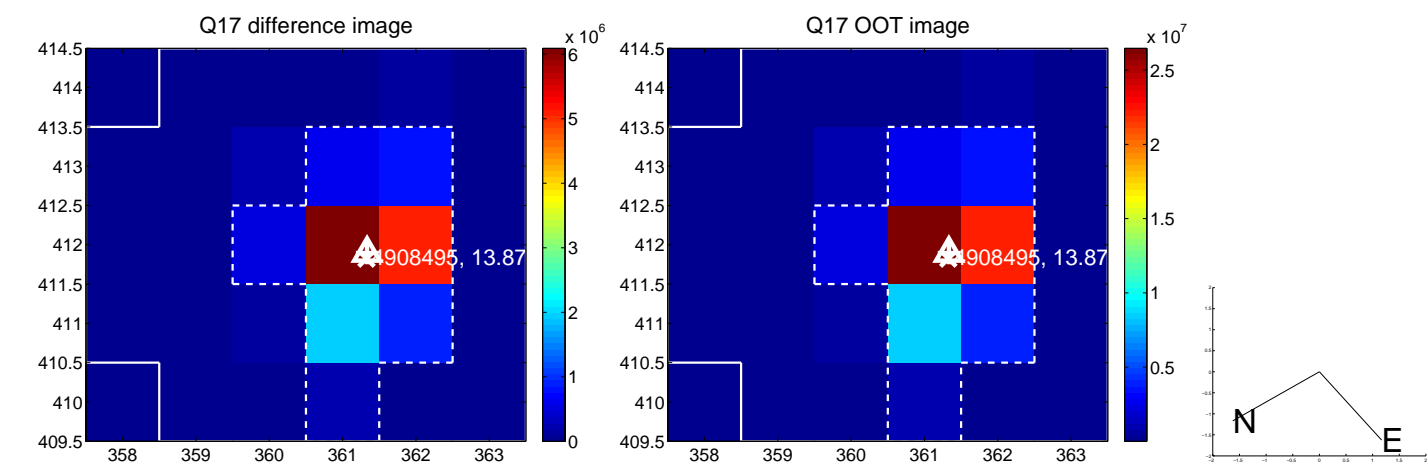
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

