

KIC 011446443

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})
011446443-01	OBS	0001.01	2.470613	132.645726	14221.2	1.797	6468.0	6930.3	0.96	5820	13.24	761.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011446443-01	OBS	PC	0.81	0	0	0	0	CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

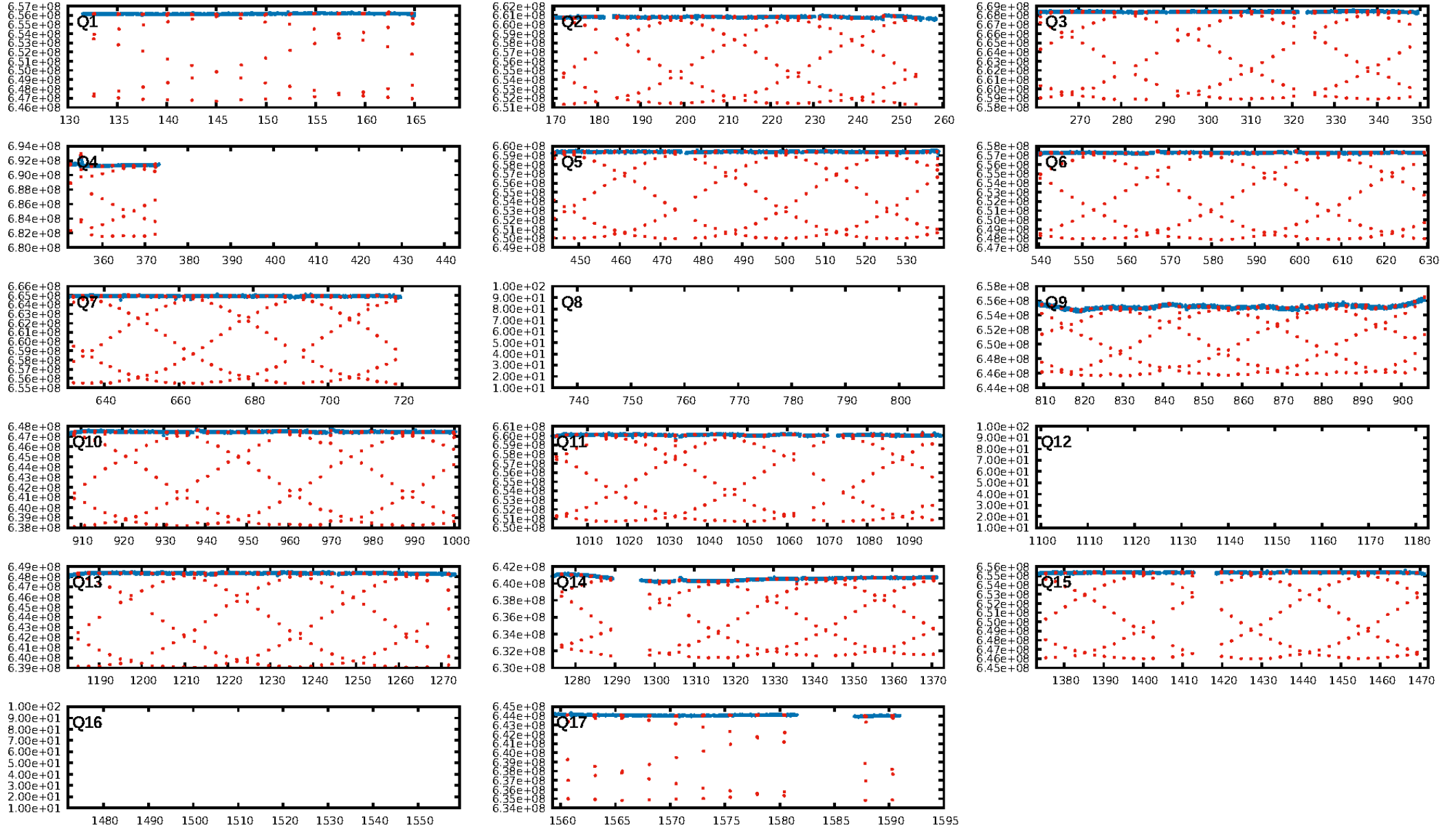
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

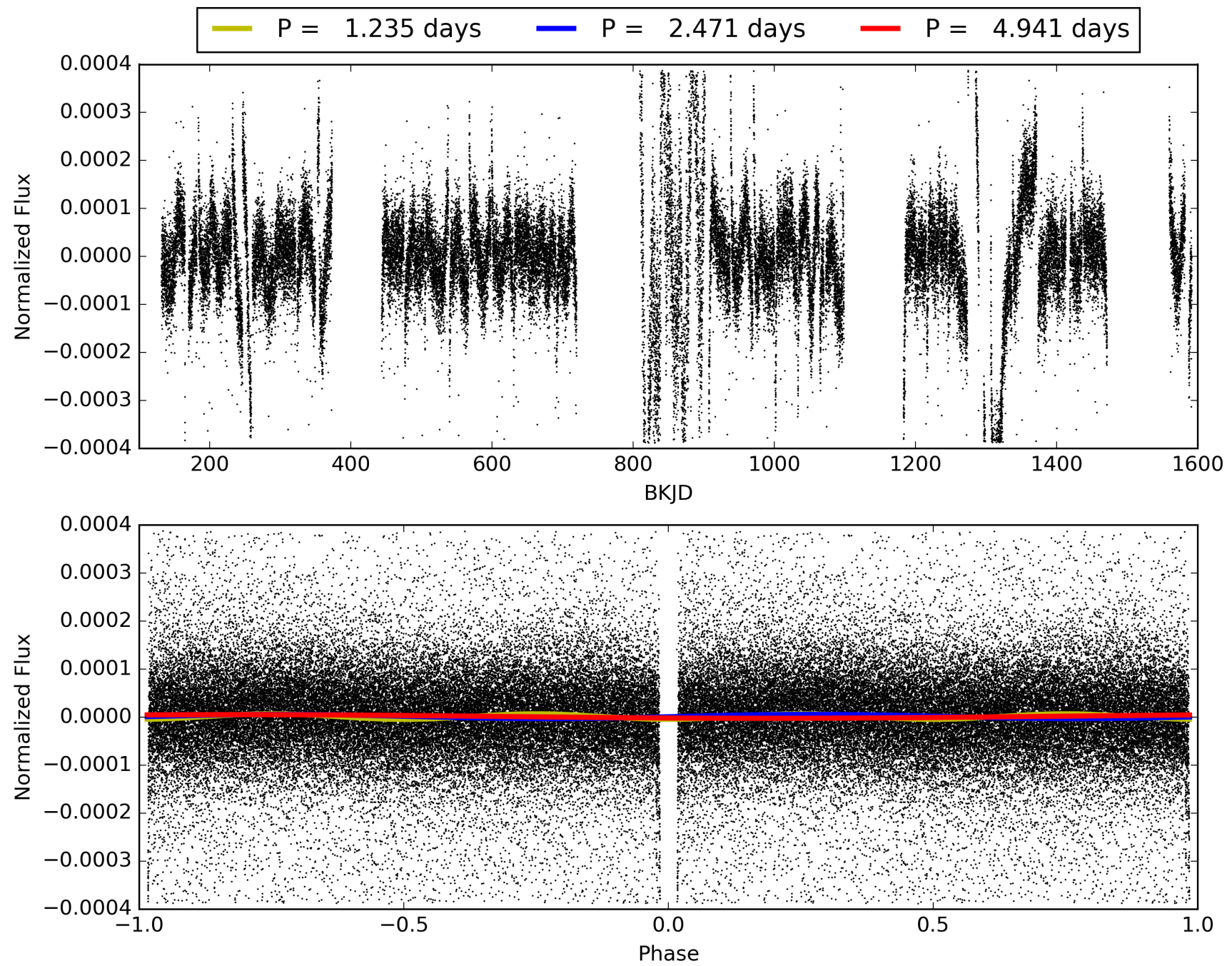
Ephemeris Match Information For 011446443-01

No Significant Match Found

TCE 011446443-01, PDC Light Curves

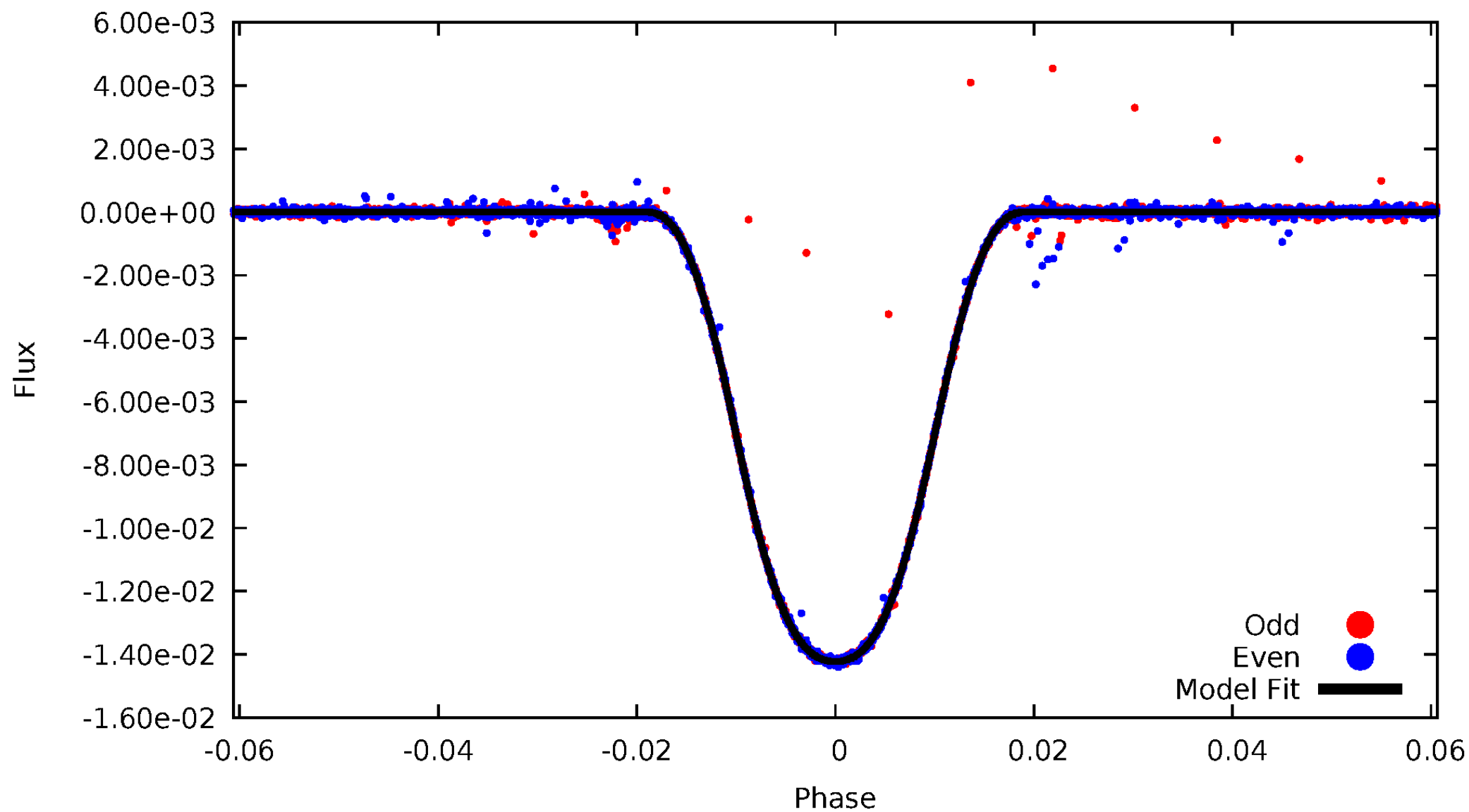


TCE 011446443-01



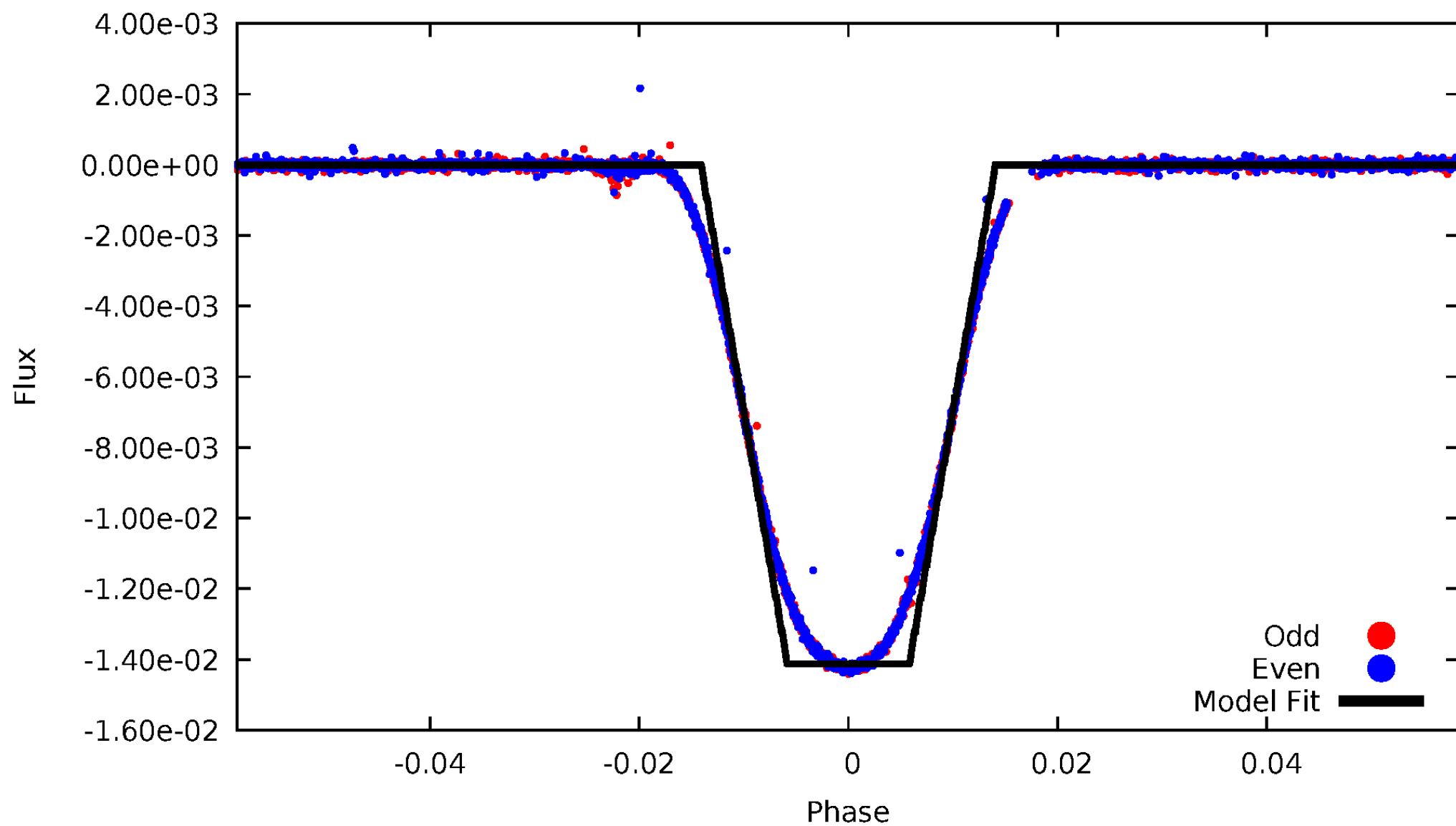
DV Odd/Even

TCE 011446443-01



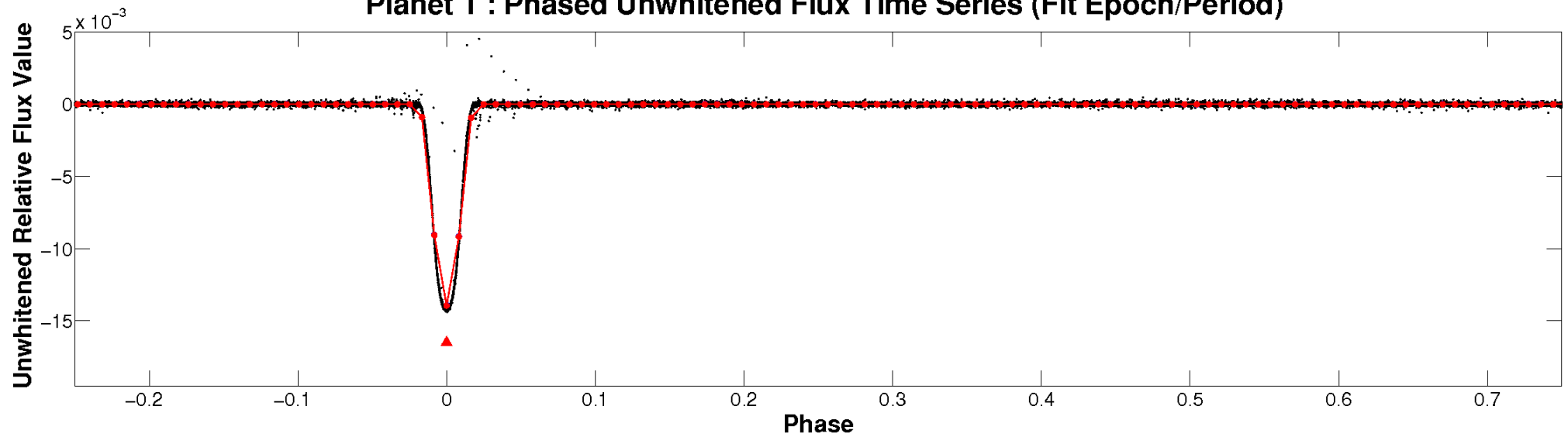
ALT Odd/Even

TCE 011446443-01

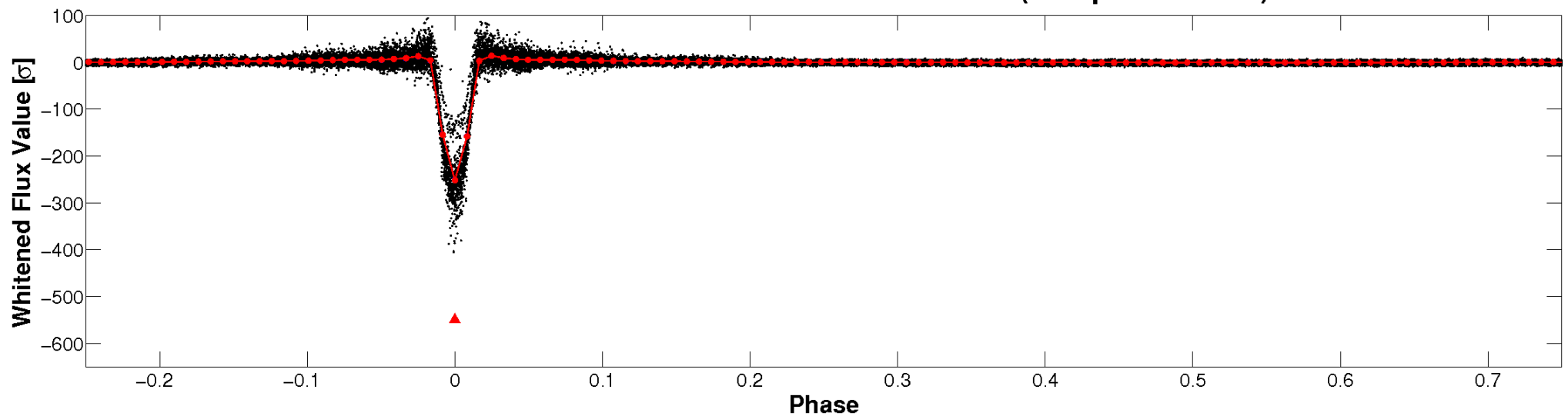


Non-Whitened Vs. Whitened Light Curve

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

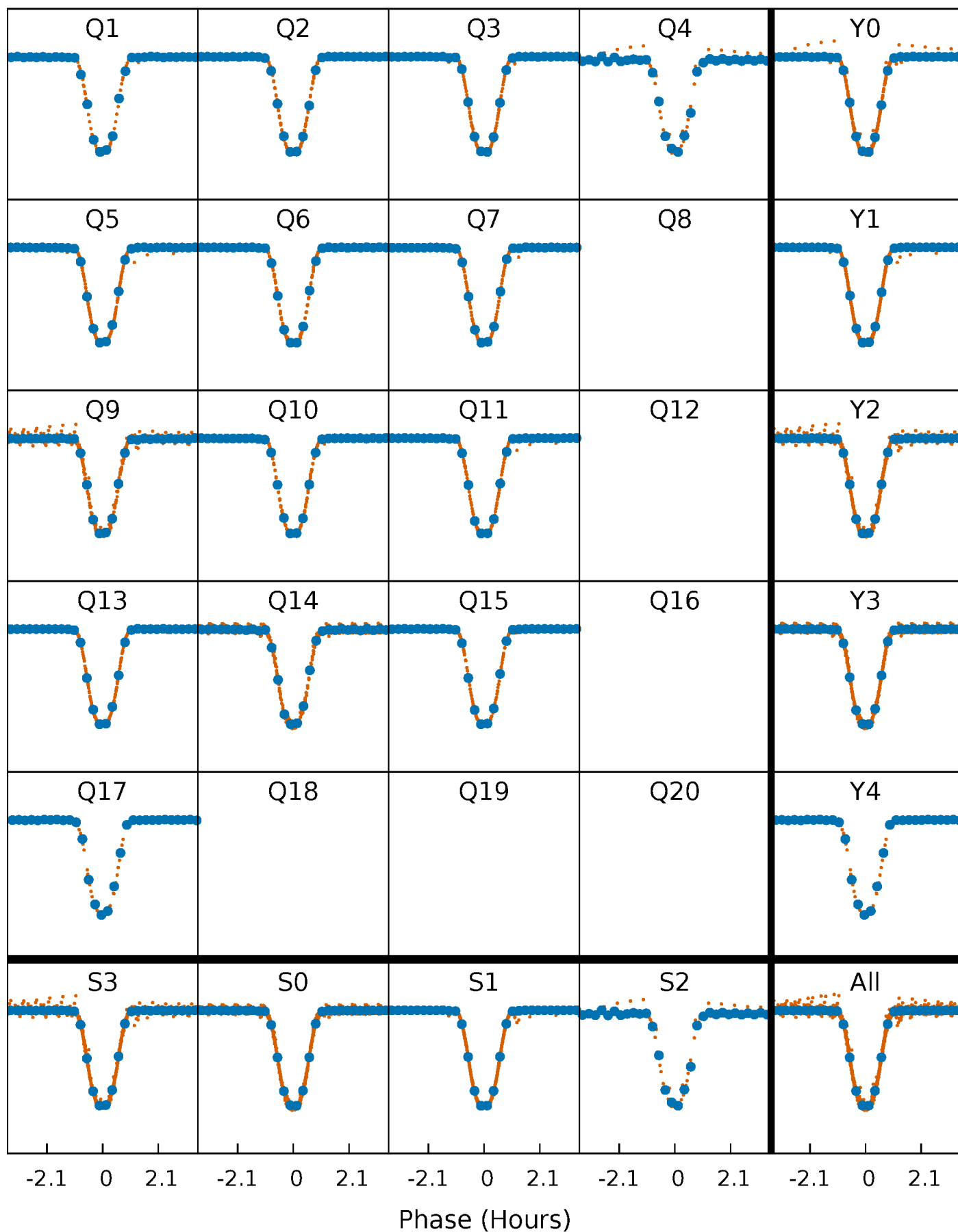


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



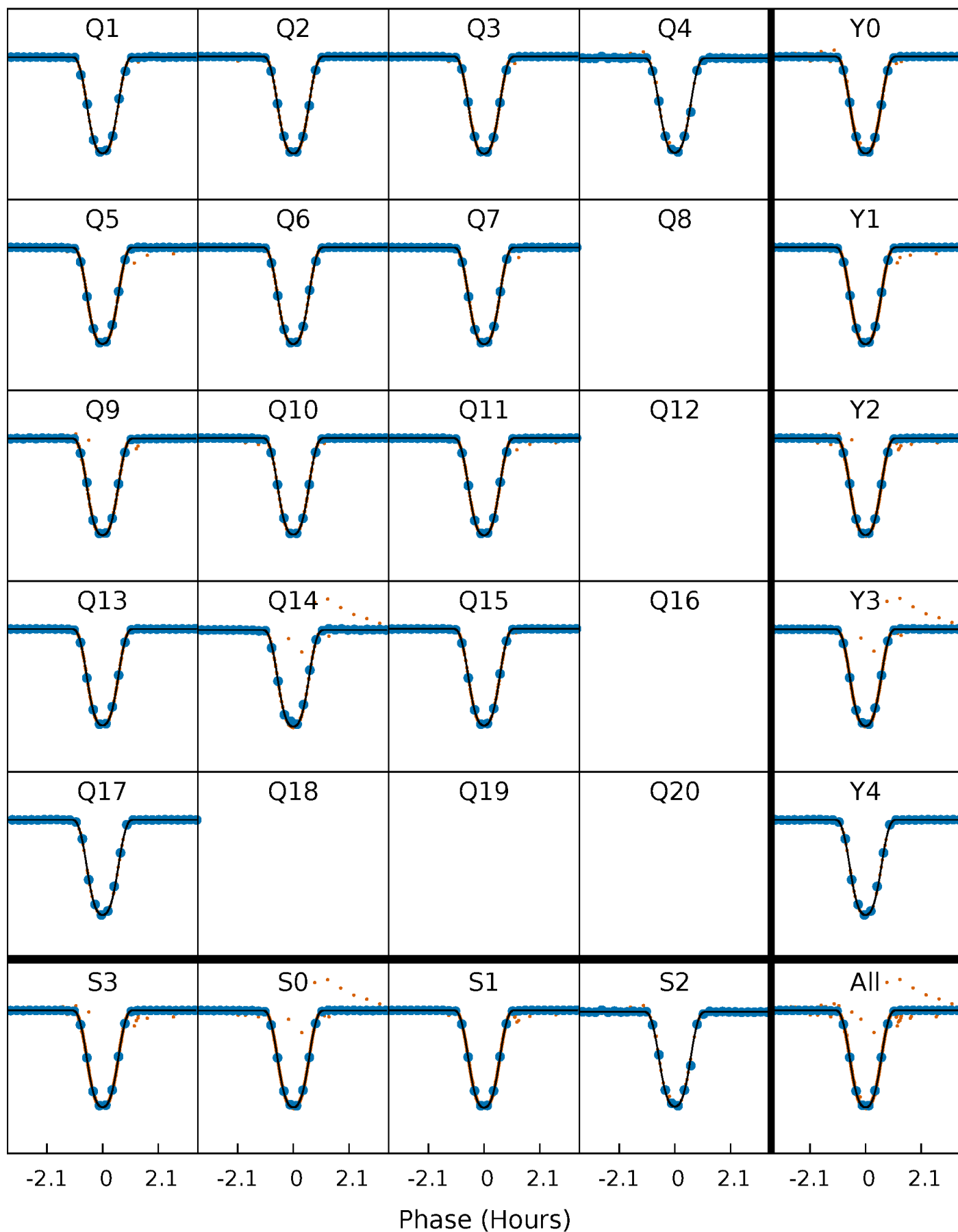
PDC Quarter-Phased Transit Curves

TCE 011446443-01 P= 2.470613 Days $T_0=132.645726$ (BKJD)



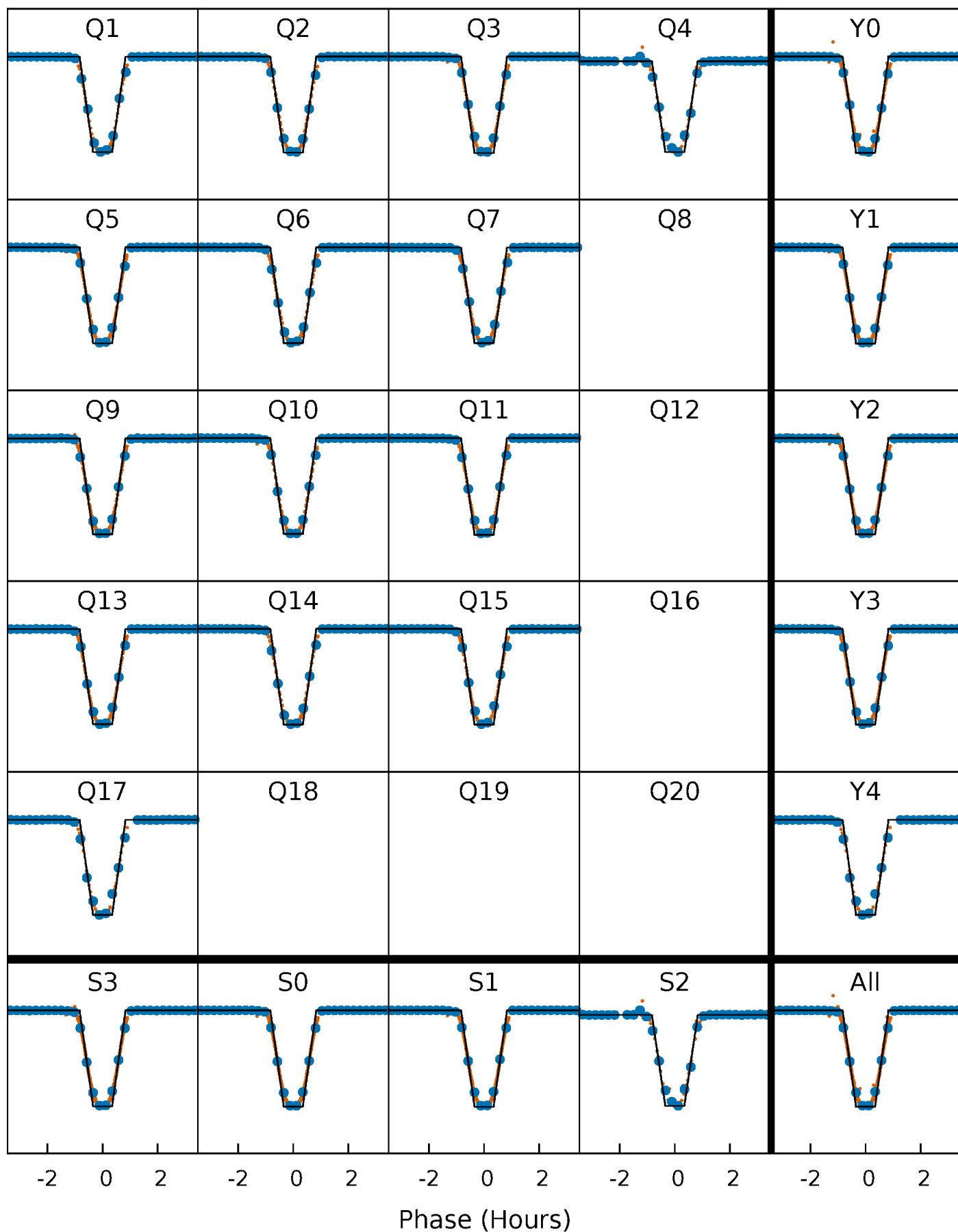
DV Quarter-Phased Transit Curves

TCE 011446443-01 P= 2.470613 Days $T_0=132.645726$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

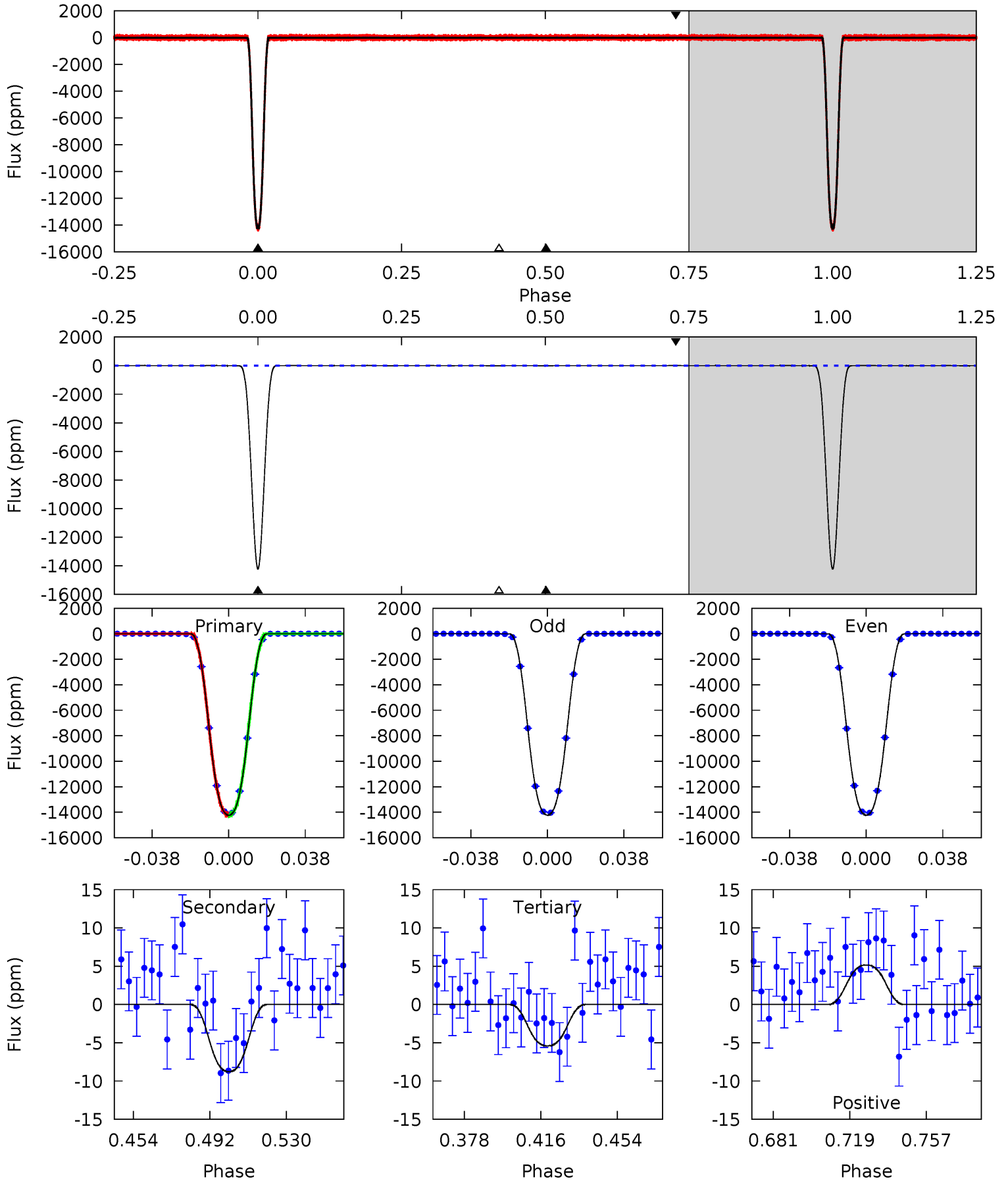
TCE 011446443-01 P= 2.470614 Days $T_0=132.645487$ (BKJD)



DV Model-Shift Uniqueness Test

011446443-01, P = 2.470613 Days, E = 130.175113 Days

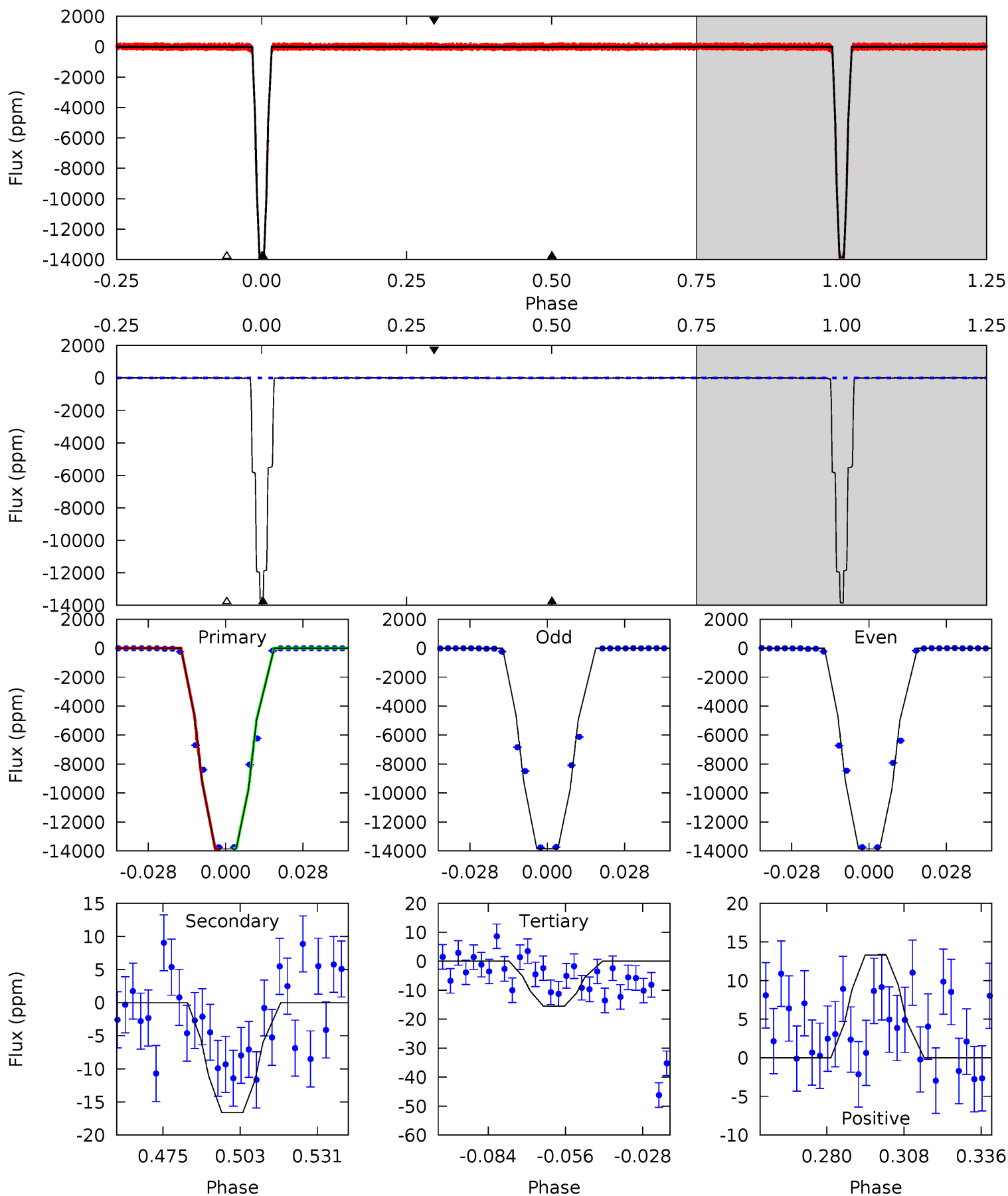
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11173	6.90	4.25	4.06	4.76	2.08	1.81	11168	11169	2.65	2.84	1.17	1.00	0.00	1.87



Alt Model-Shift Uniqueness Test

011446443-01, P = 2.470614 Days, E = 130.174873 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4146	4.97	4.64	3.98	4.83	2.20	1.58	4141	4142	0.33	0.99	0.69	1.00	0.00	0



Stellar Parameters For KIC 011446443

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5820^{+78}_{-78}	$4.457^{+0.024}_{-0.024}$	$-0.060^{+0.150}_{-0.150}$	$0.964^{+0.038}_{-0.038}$	$0.971^{+0.062}_{-0.056}$	$1.526^{+0.147}_{-0.134}$
	+1%/-1%	+1%/-1%	+250%/-250%	+4%/-4%	+6%/-6%	+10%/-9%
Source	SPE72	AST8	SPE72	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011446443-01 / KOI 0001.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9 ± 1	$13.27^{+0.35}_{-0.34}$	1872^{+31}_{-30}	-2382^{+21}_{-21}	$0.034^{+0.006}_{-0.005}$
Alt.	-17 ± 3	$12.51^{+0.34}_{-0.33}$	1871^{+30}_{-31}	-2339^{+28}_{-26}	$0.073^{+0.015}_{-0.014}$

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

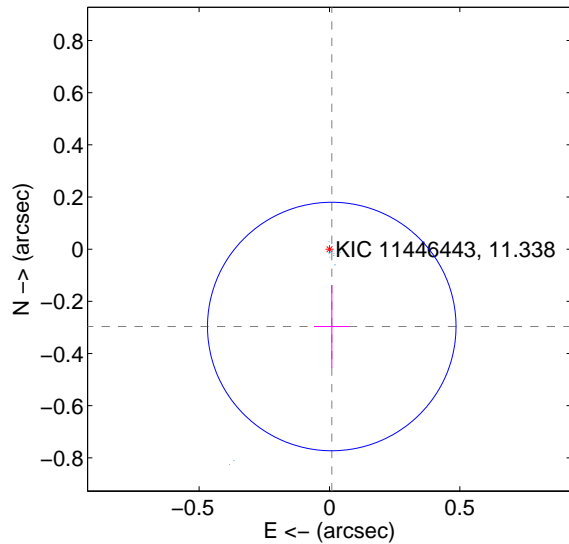
Supplemental centroid analysis for 011446443-01. **Kepler magnitude: 11.34.** Transit SNR 6930.34

There are 14 quarters with good PRF difference image offsets

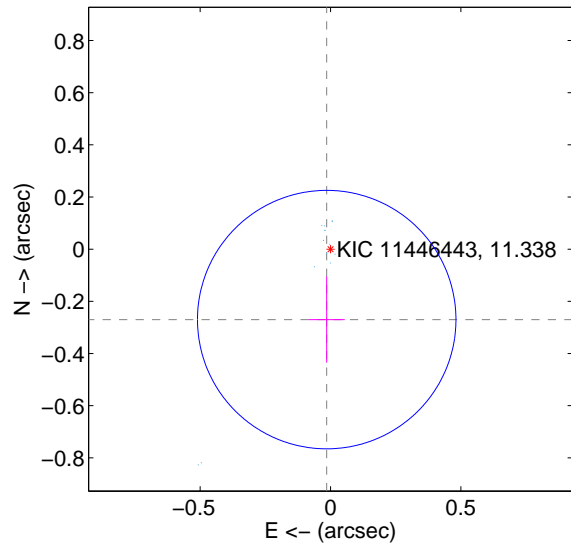
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.297 ± 0.159	1.87	-0.009 ± 0.068	-0.297 ± 0.159
PRF-fit source offset from KIC position	0.270 ± 0.165	1.64	0.015 ± 0.069	-0.270 ± 0.165
photometric centroid source offset	0.11 ± 0.00	62.09	-0.02 ± 0.00	0.11 ± 0.00

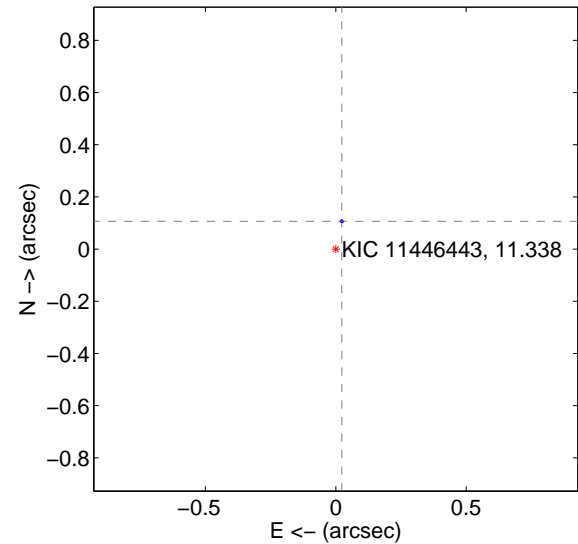
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

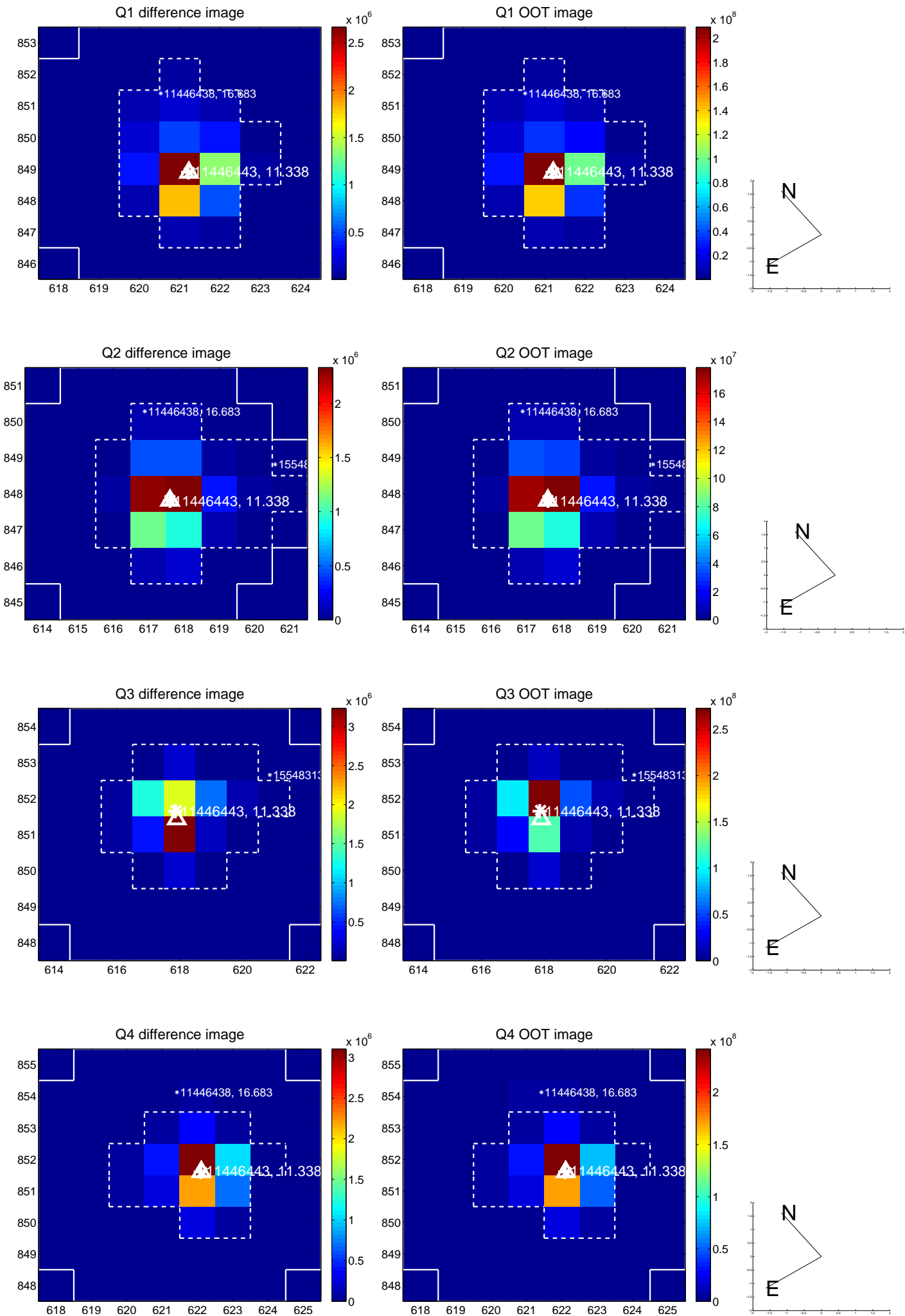


offset from photometric centroids

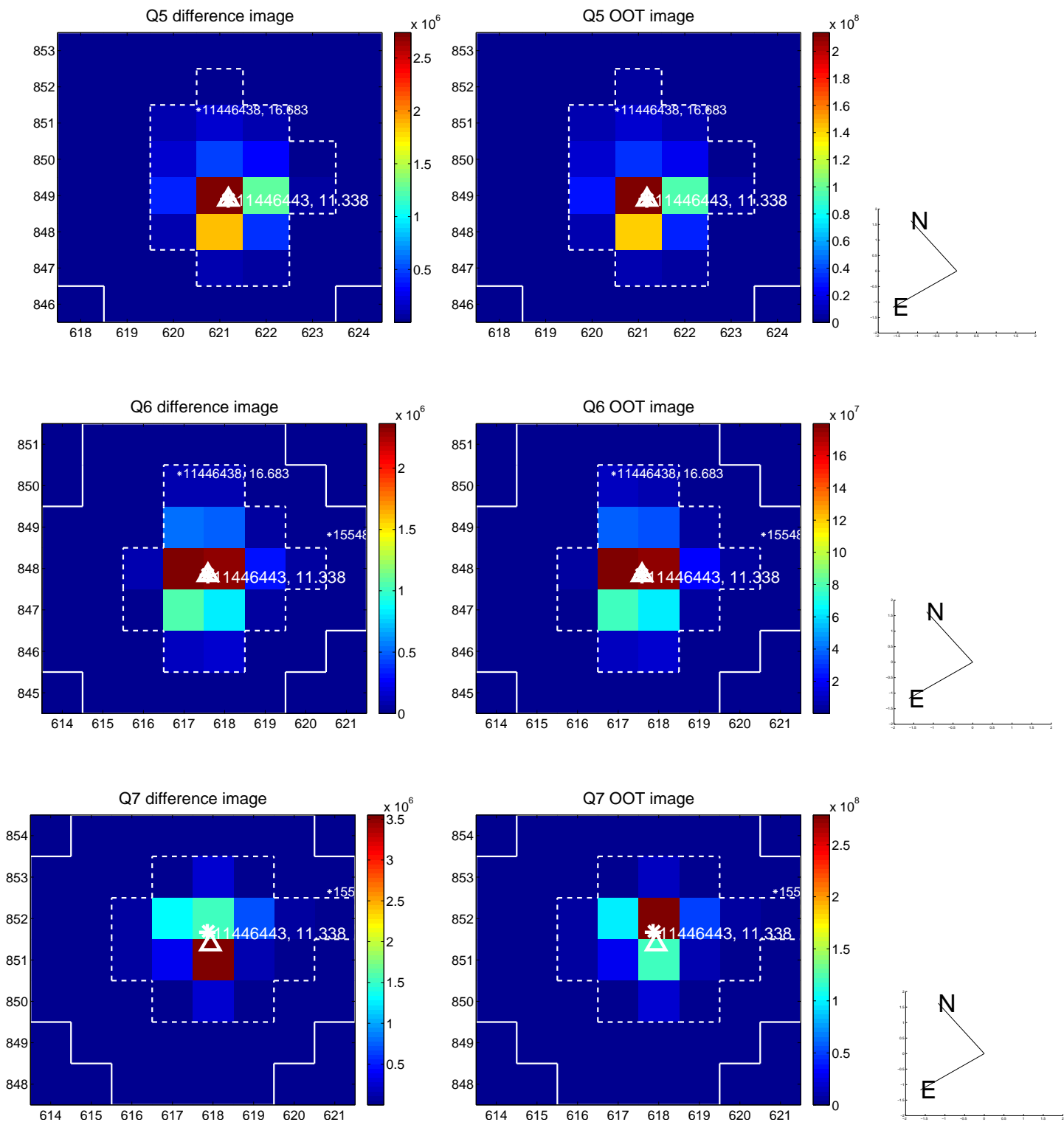


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

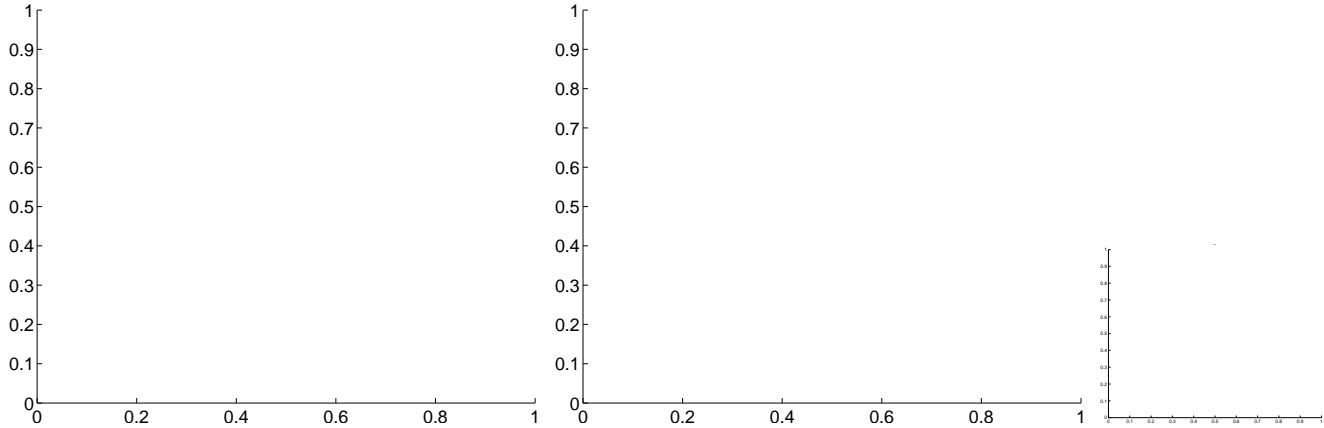


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

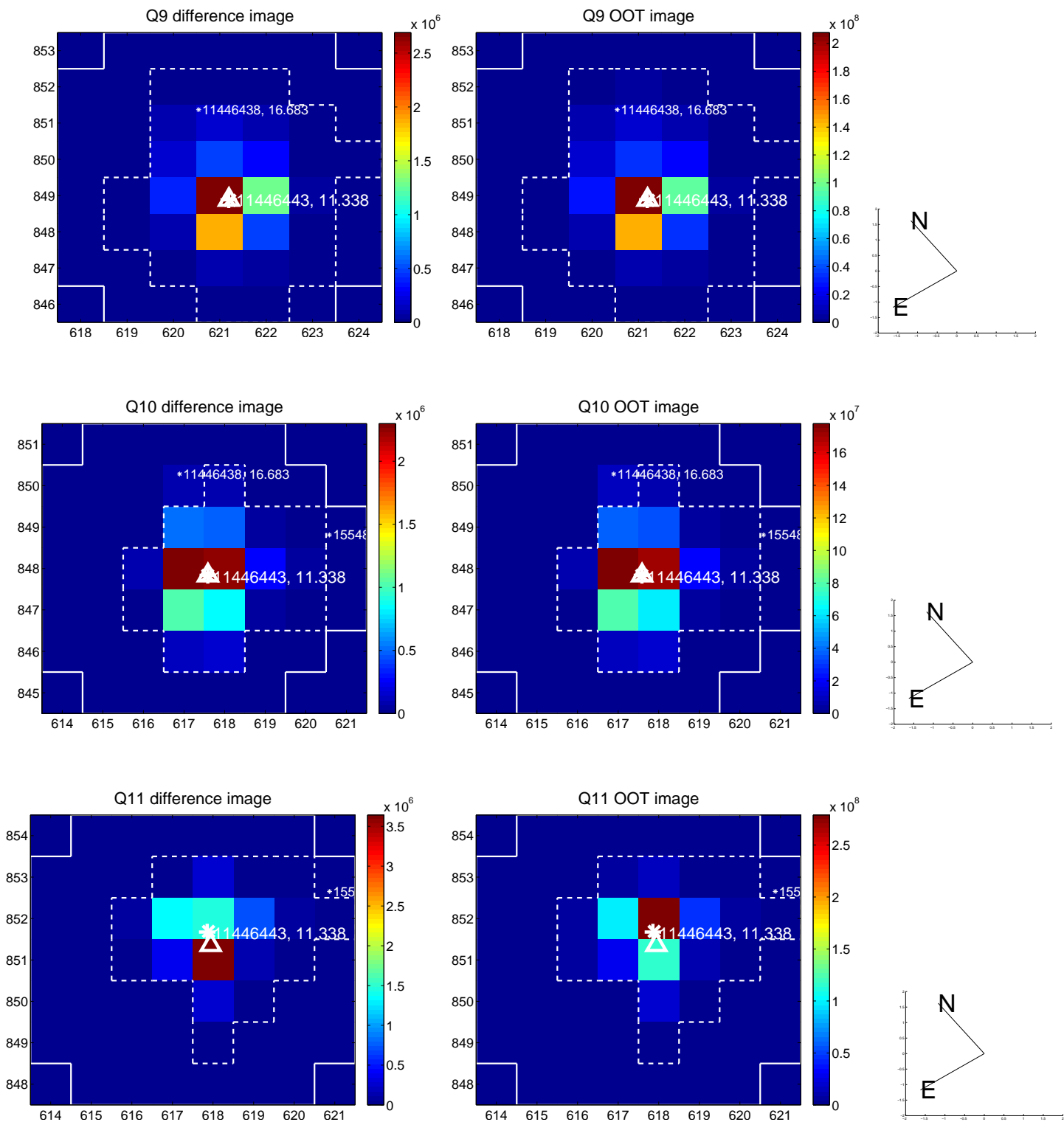


Q8 no difference image

Q8 no OOT image

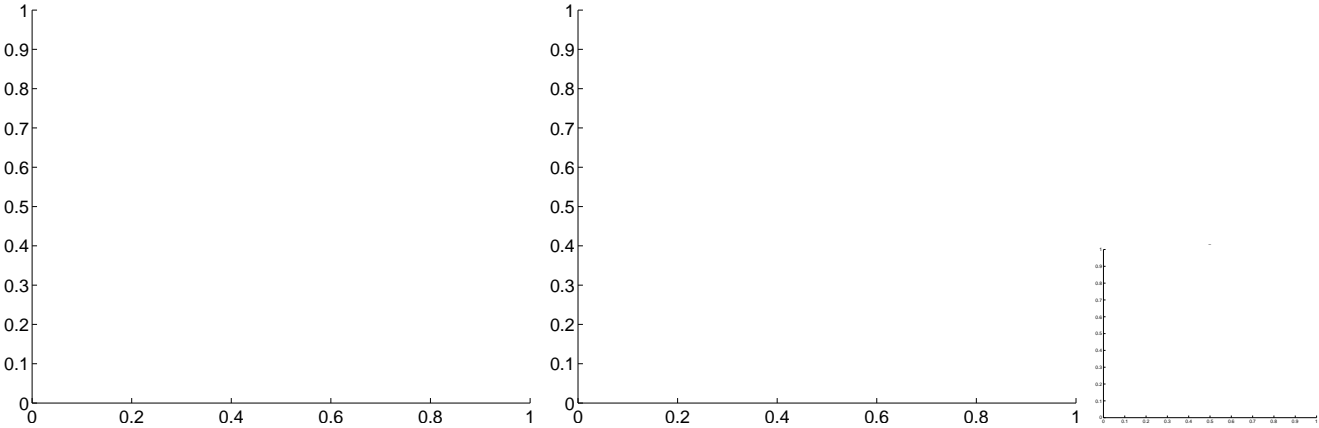


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

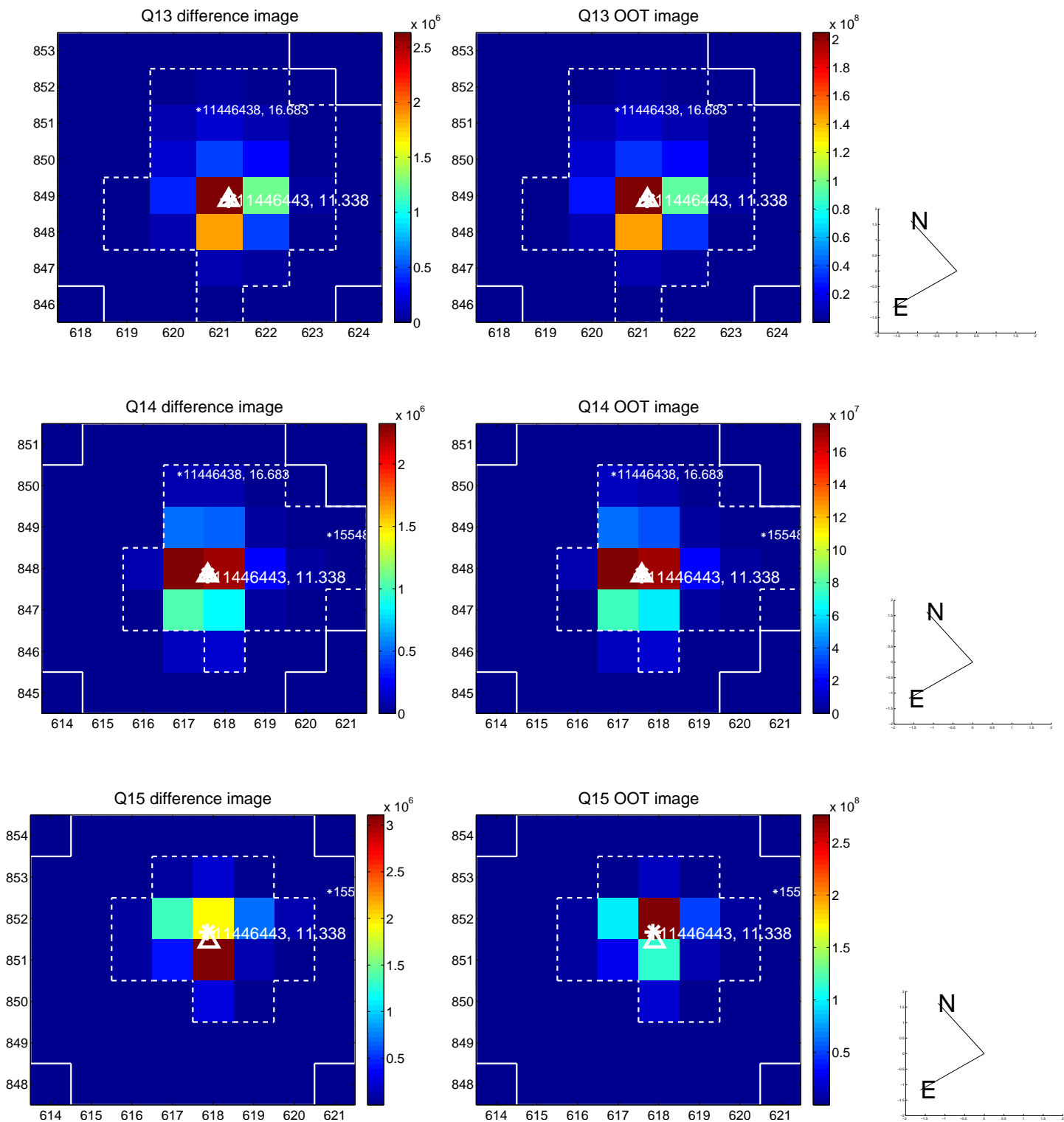


Q12 no difference image

Q12 no OOT image

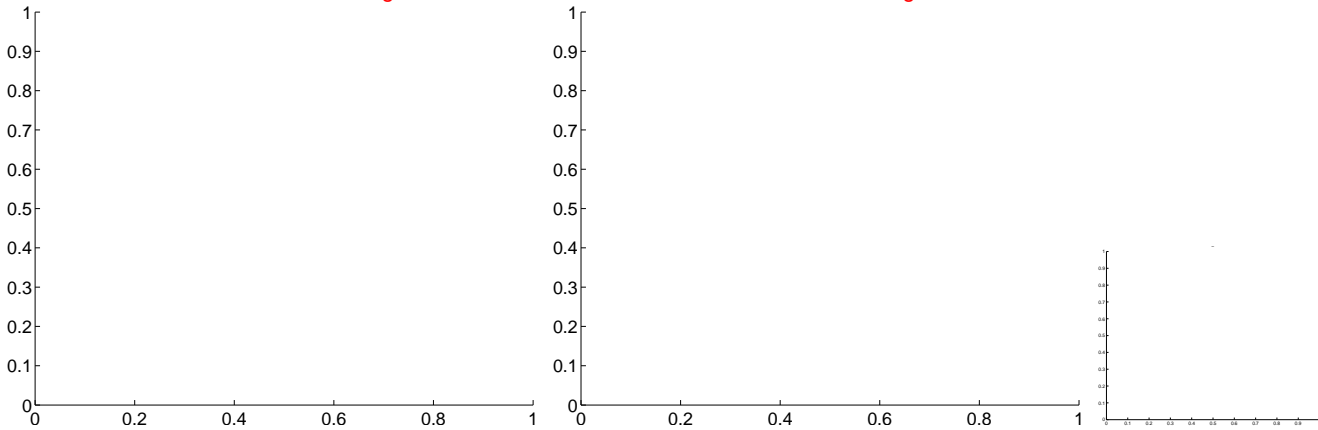


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

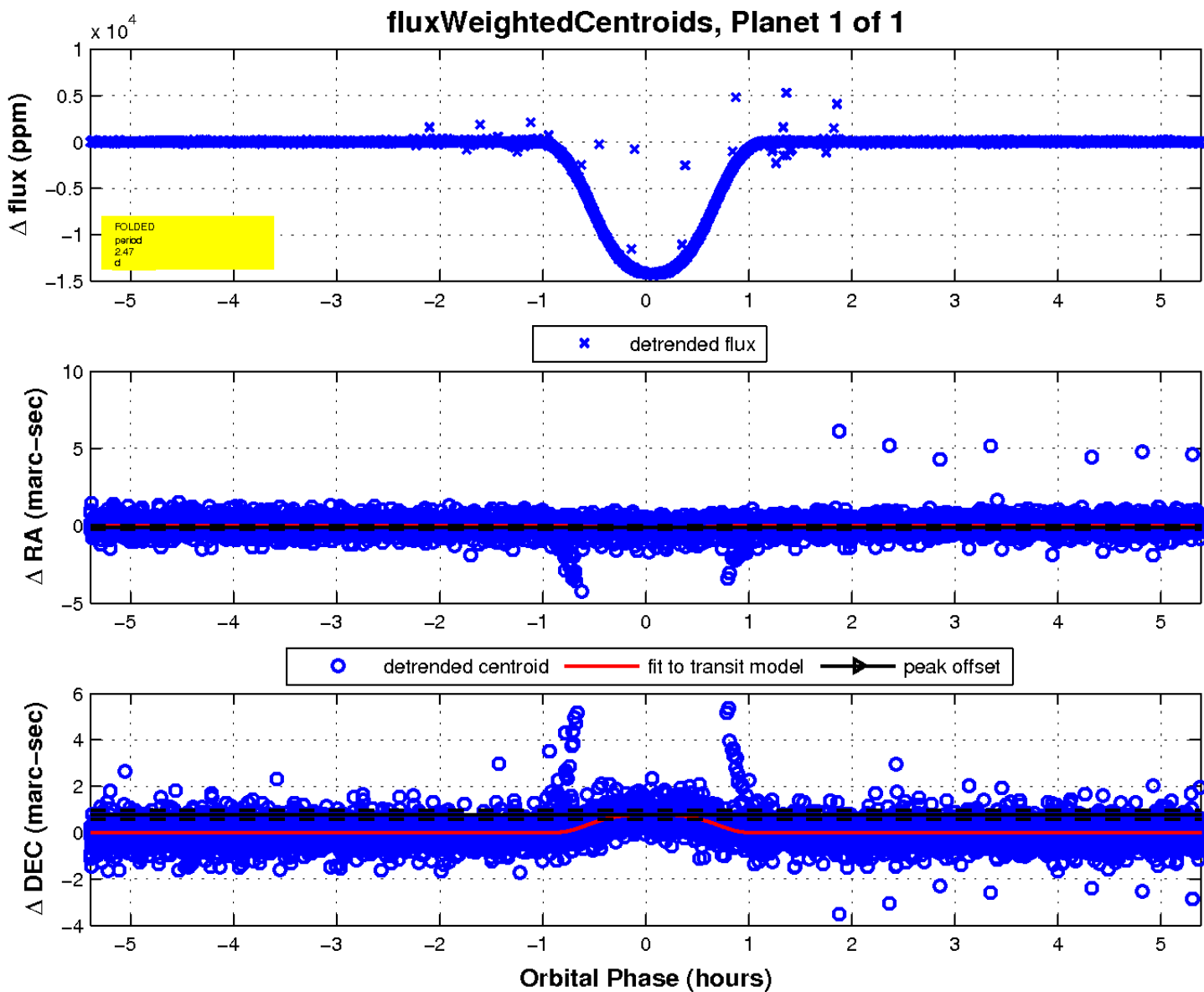
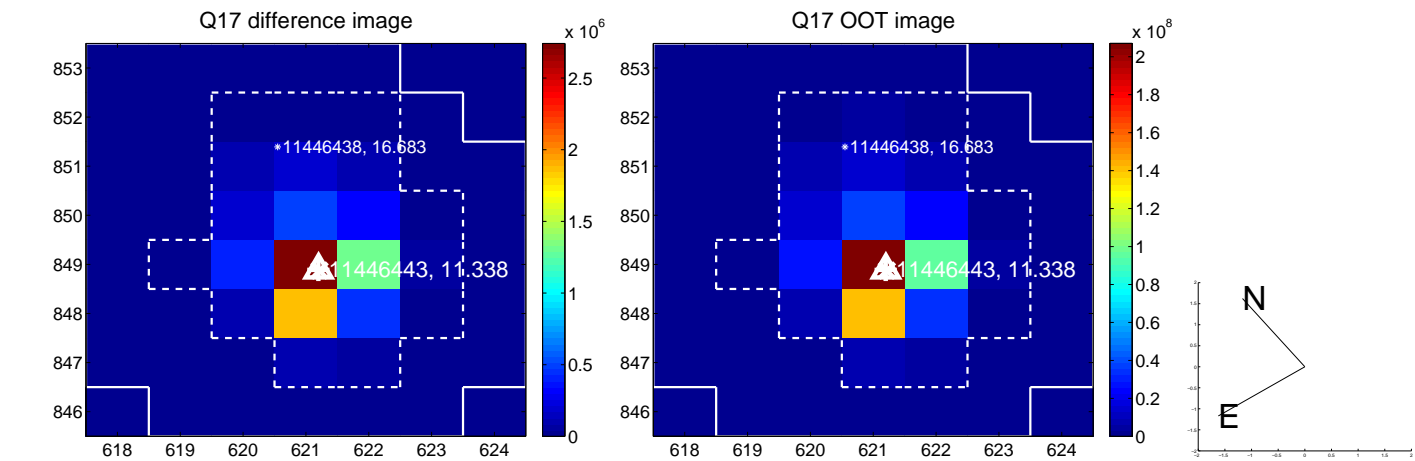


Q16 no difference image

Q16 no OOT image



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



UKIRT Image

Declination

