

KIC 005774375

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})
005774375-01	OBS	7740.01	1.549975	132.675707	43478.3	3.500	3654.9	-1.0	2.06	5408	42.53	4976.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005774375-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—CENT_NOFITS

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.

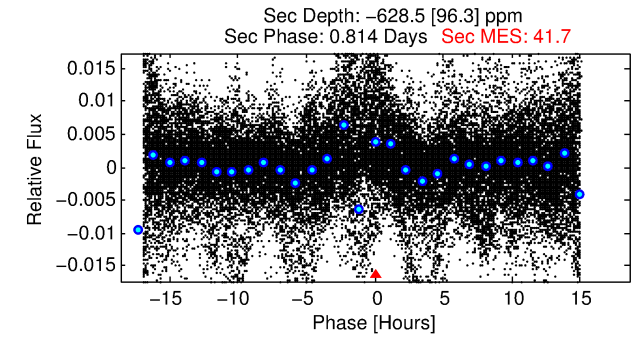
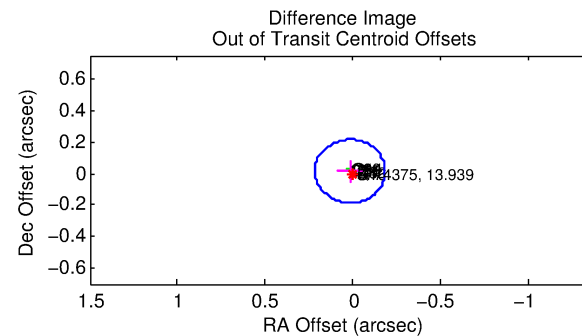
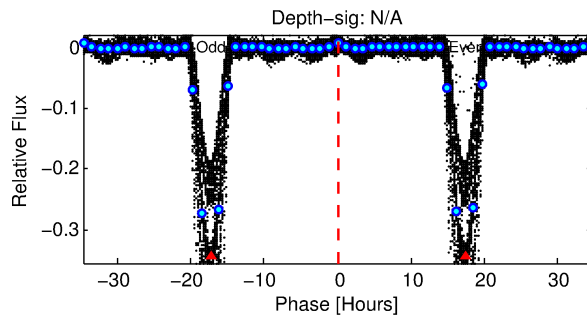
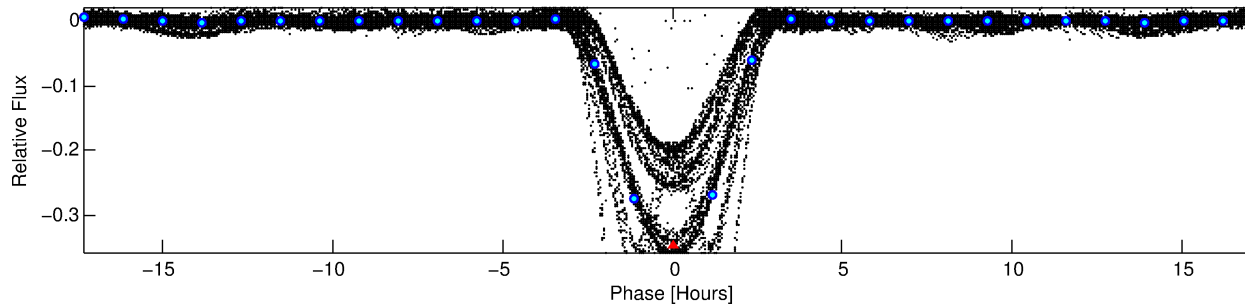
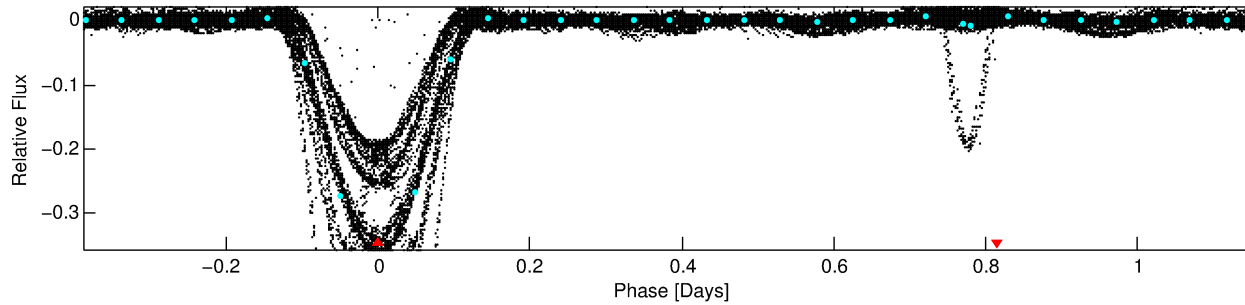
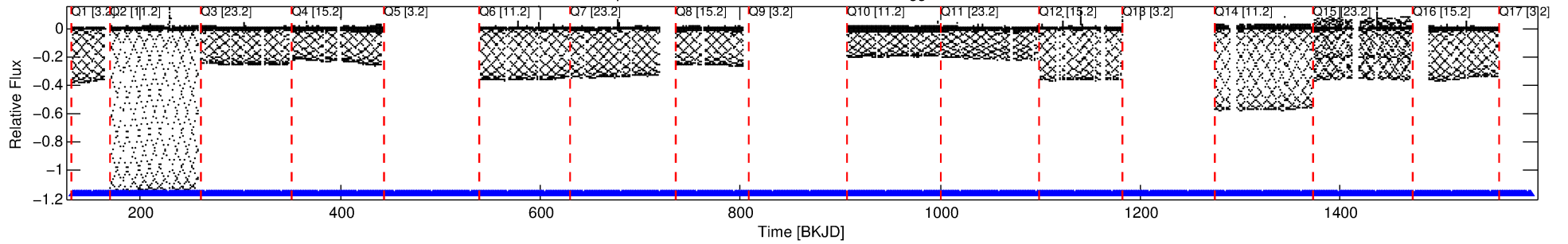
Ephemeris Match Information For 005774375-01

No Significant Match Found

DV One-Page Summary

KIC: 5774375 Candidate: 1 of 1 Period: 1.550 d

Kp: 13.94 R*: 2.06 Rs Teff: 5408.0 K Logg: 3.78 Fe/H: -0.520



TPS TCE Results:

Period = 1.54998 d
Epoch = 132.6757 BKJD

DV fit results are unavailable

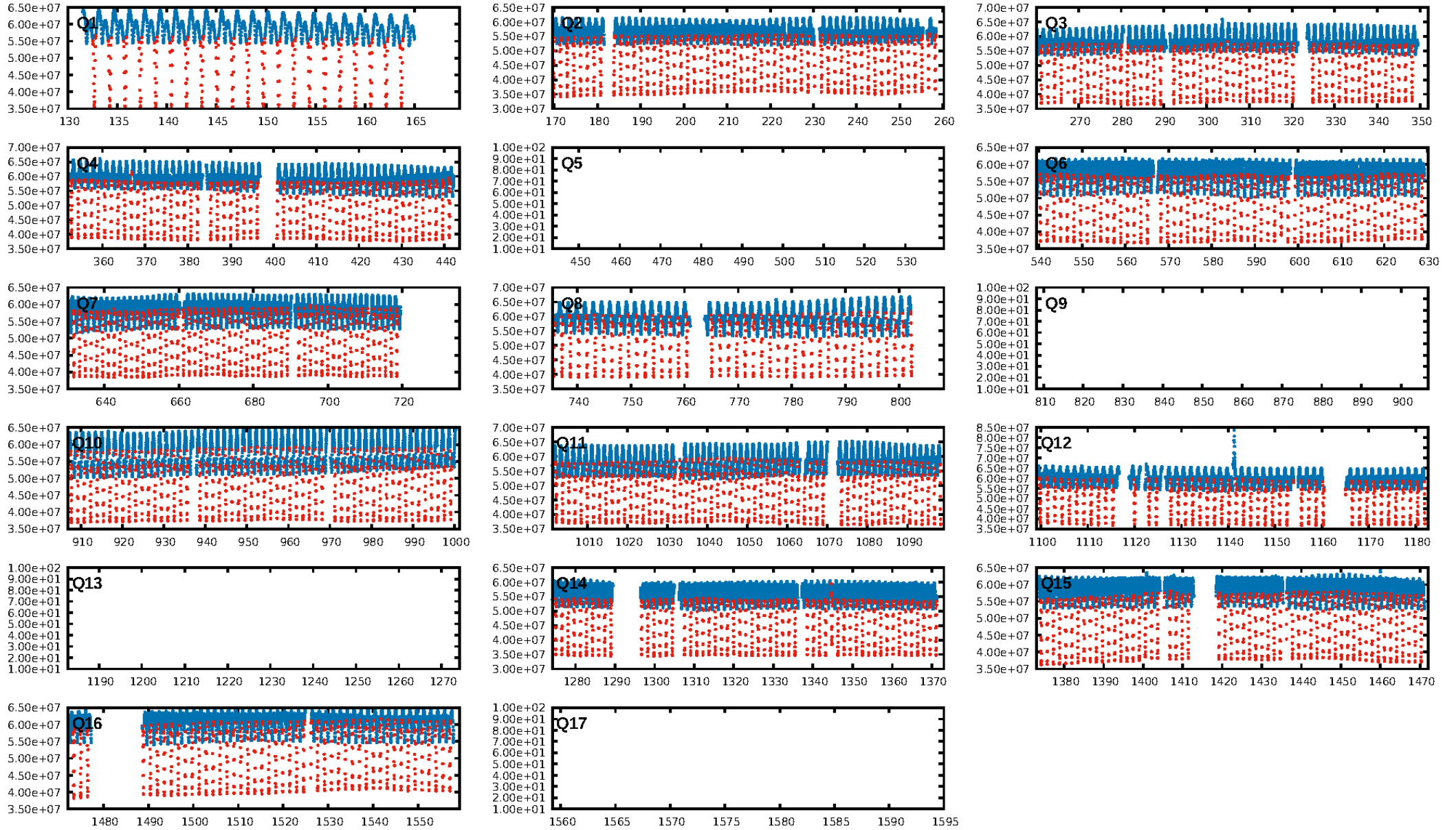
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [650/650]
GhostDiagnostic-chr: 0.9426
Centroid-sig: N/A
Centroid-so: 0.133 arcsec [403.12σ]
OotOffset-rm: 0.024 arcsec [0.35σ]
KicOffset-rm: 0.122 arcsec [1.81σ]
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]

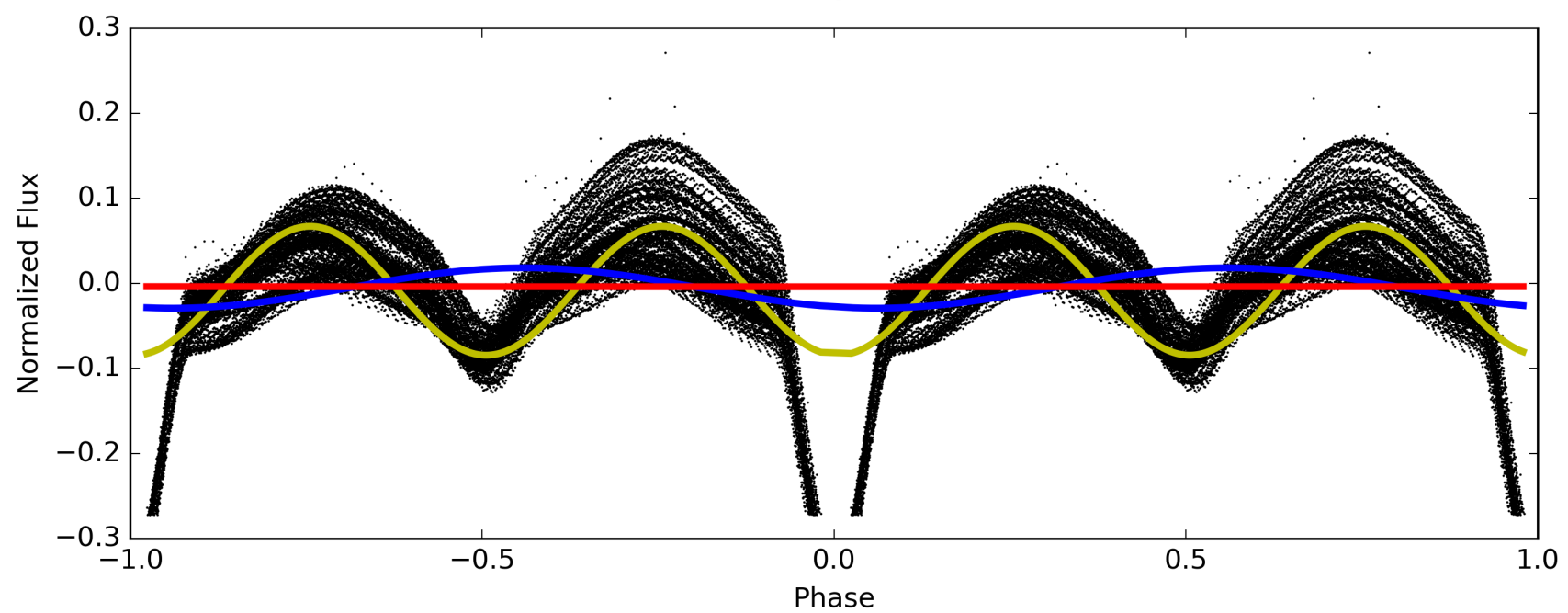
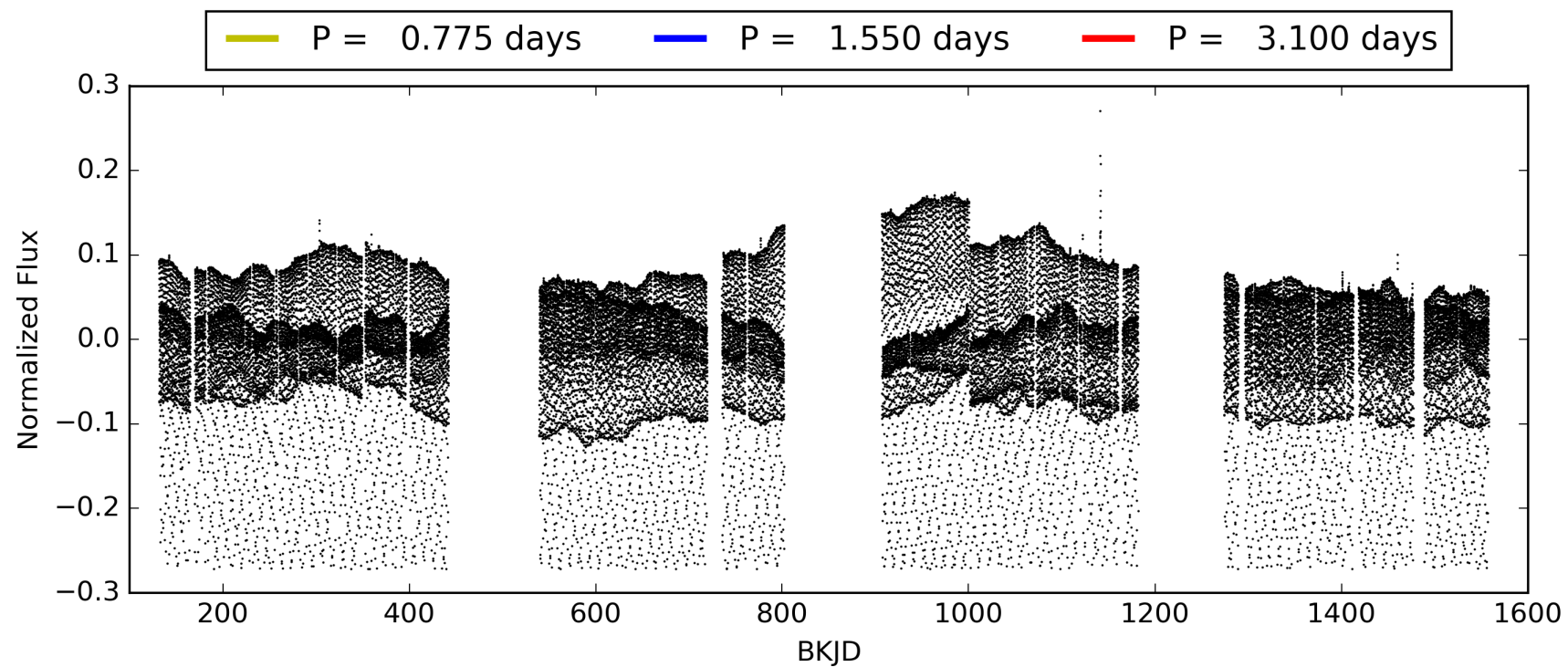
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 10:09:05 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005774375-01, PDC Light Curves

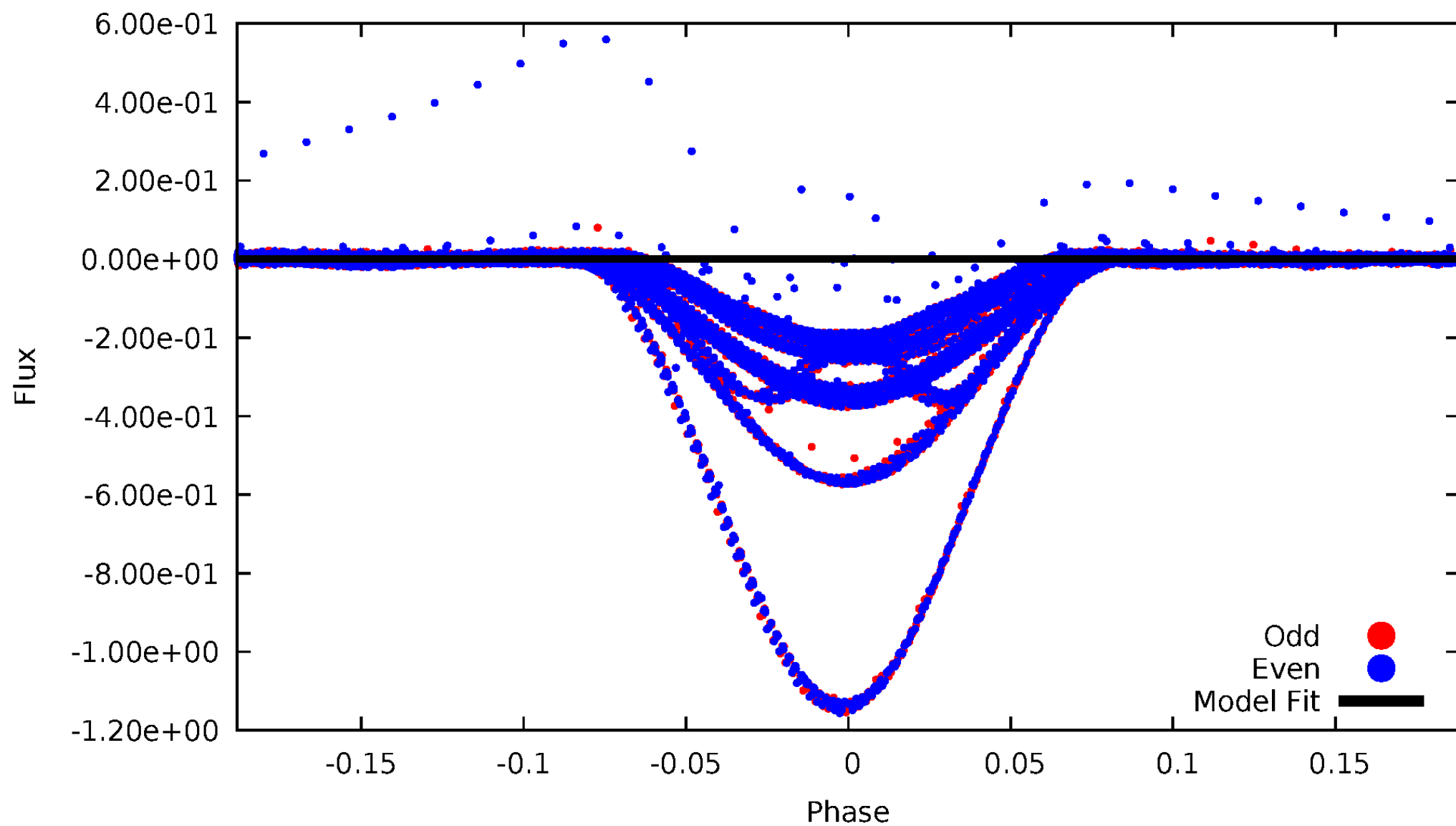


TCE 005774375-01



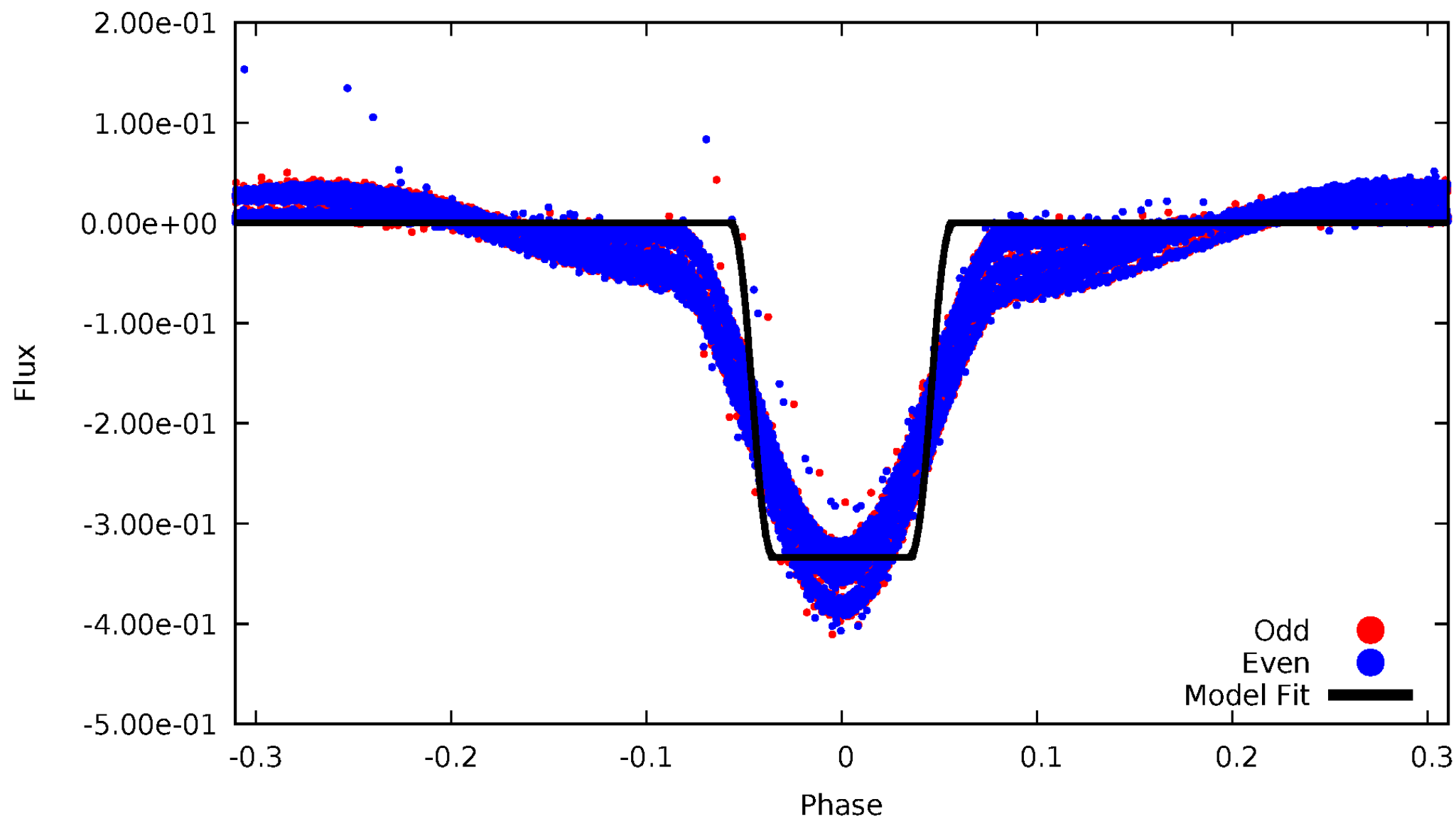
DV Odd/Even

TCE 005774375-01



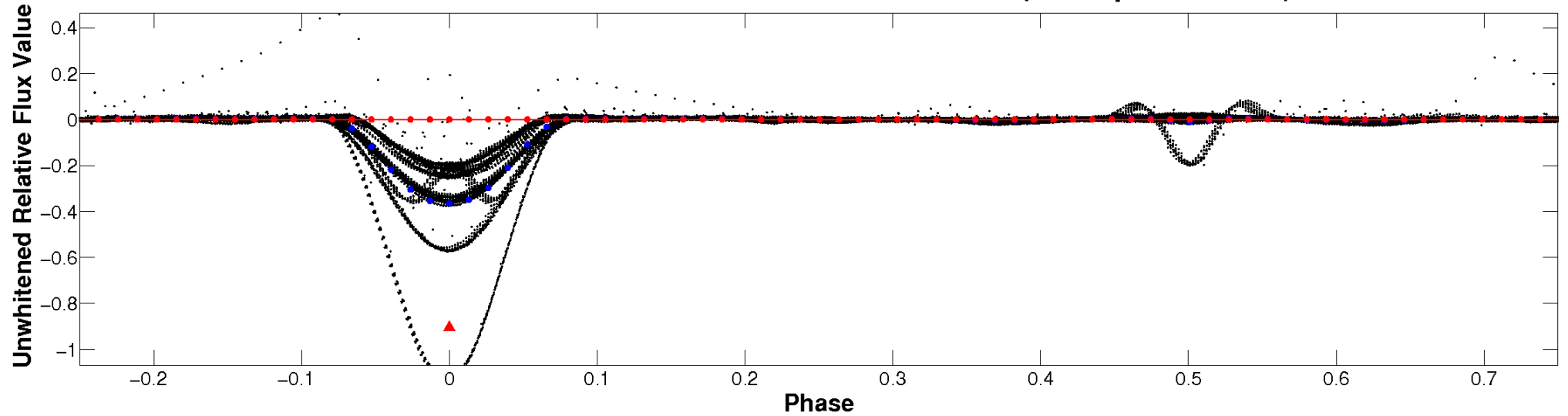
ALT Odd/Even

TCE 005774375-01



Non-Whitened Vs. Whitened Light Curve

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

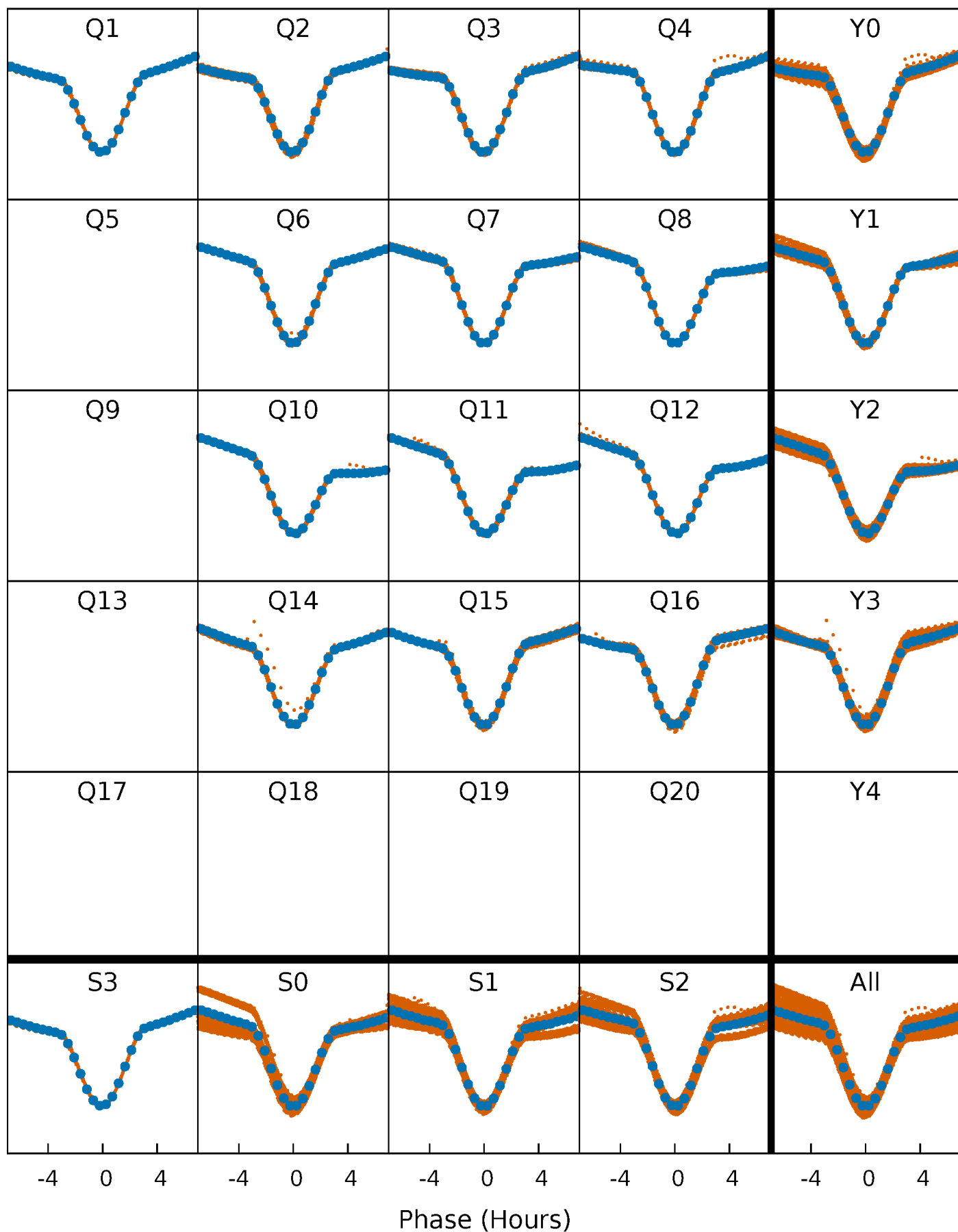


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



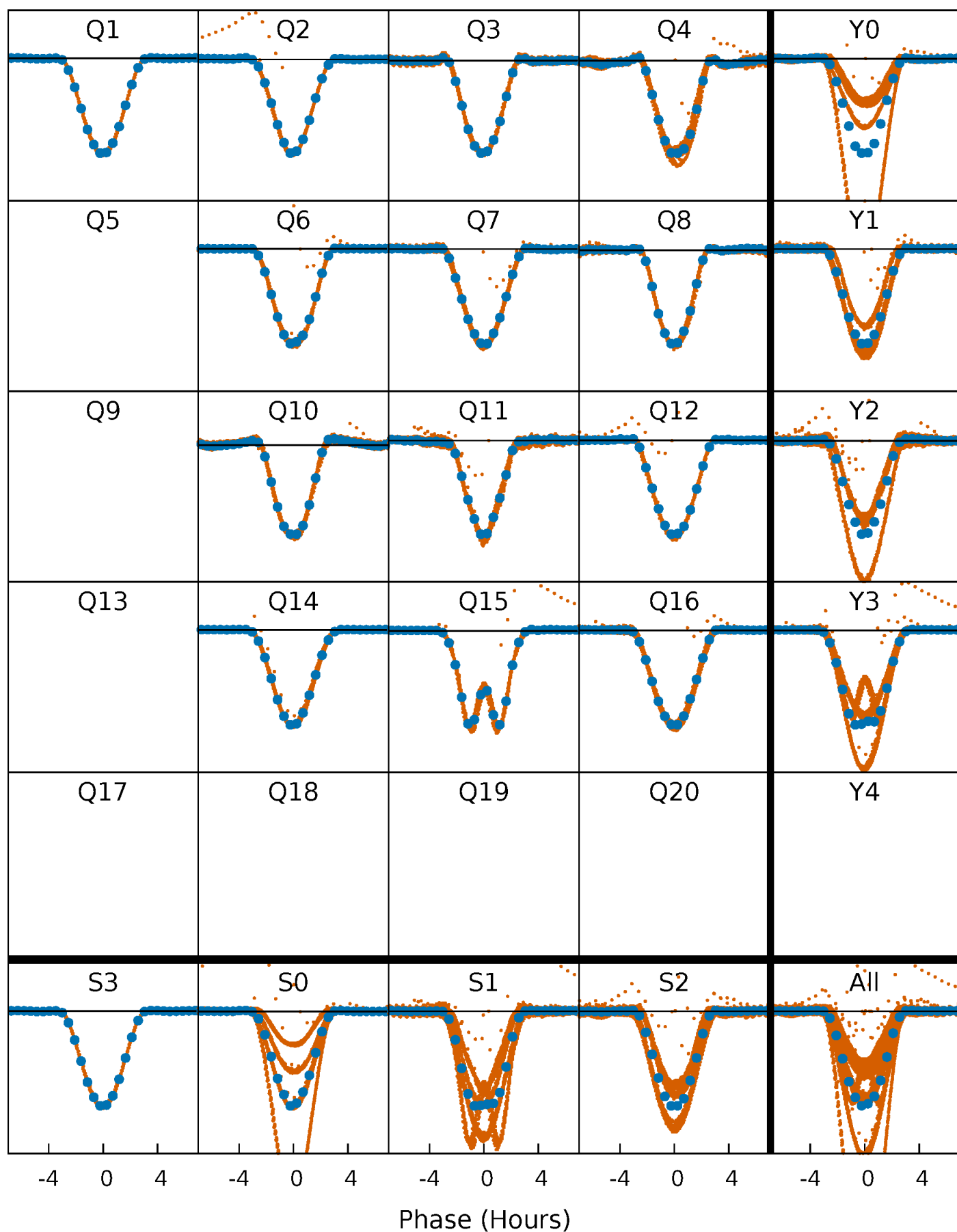
PDC Quarter-Phased Transit Curves

TCE 005774375-01 P= 1.549975 Days $T_0=132.675707$ (BKJD)



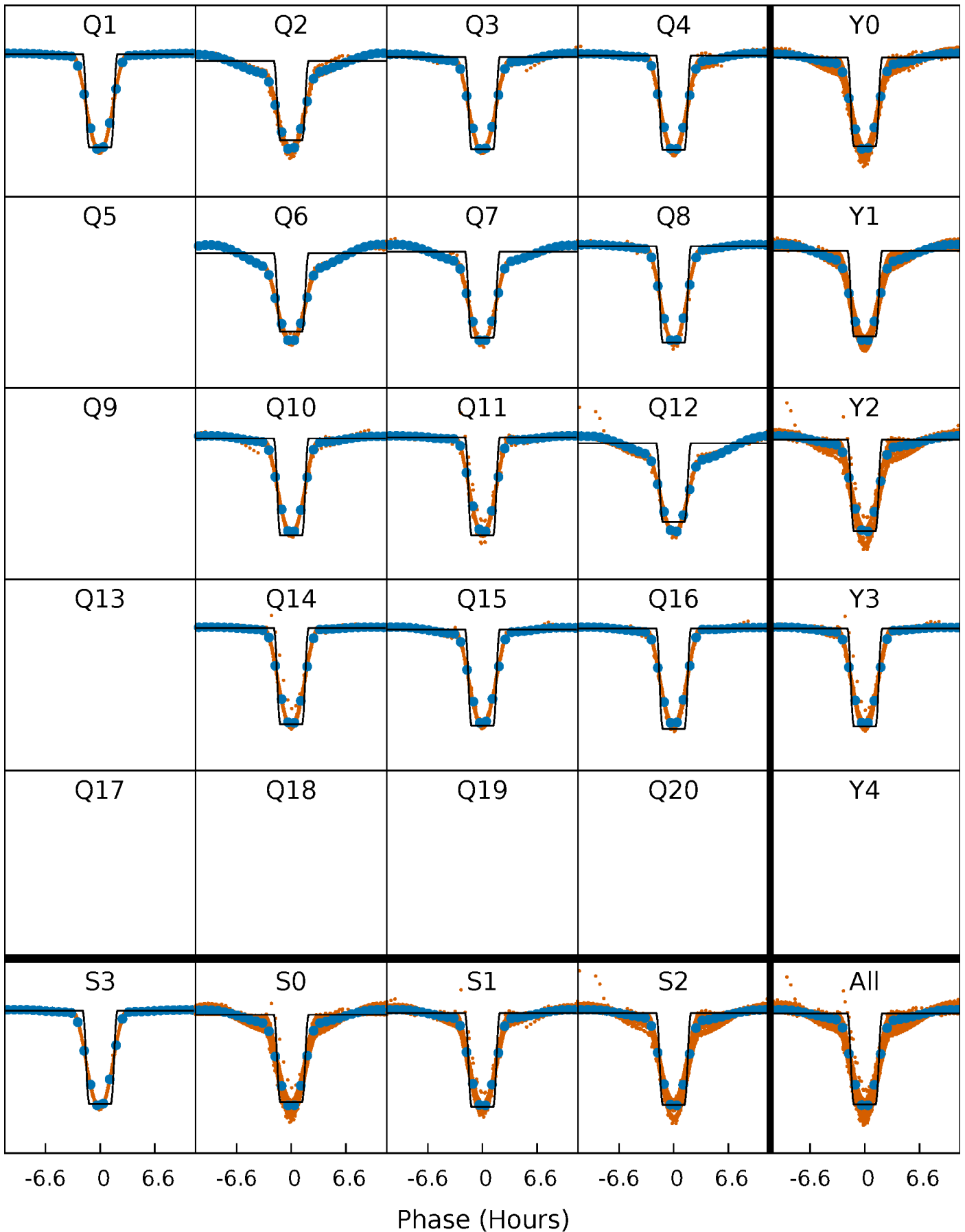
DV Quarter-Phased Transit Curves

TCE 005774375-01 P= 1.549975 Days $T_0=132.675707$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

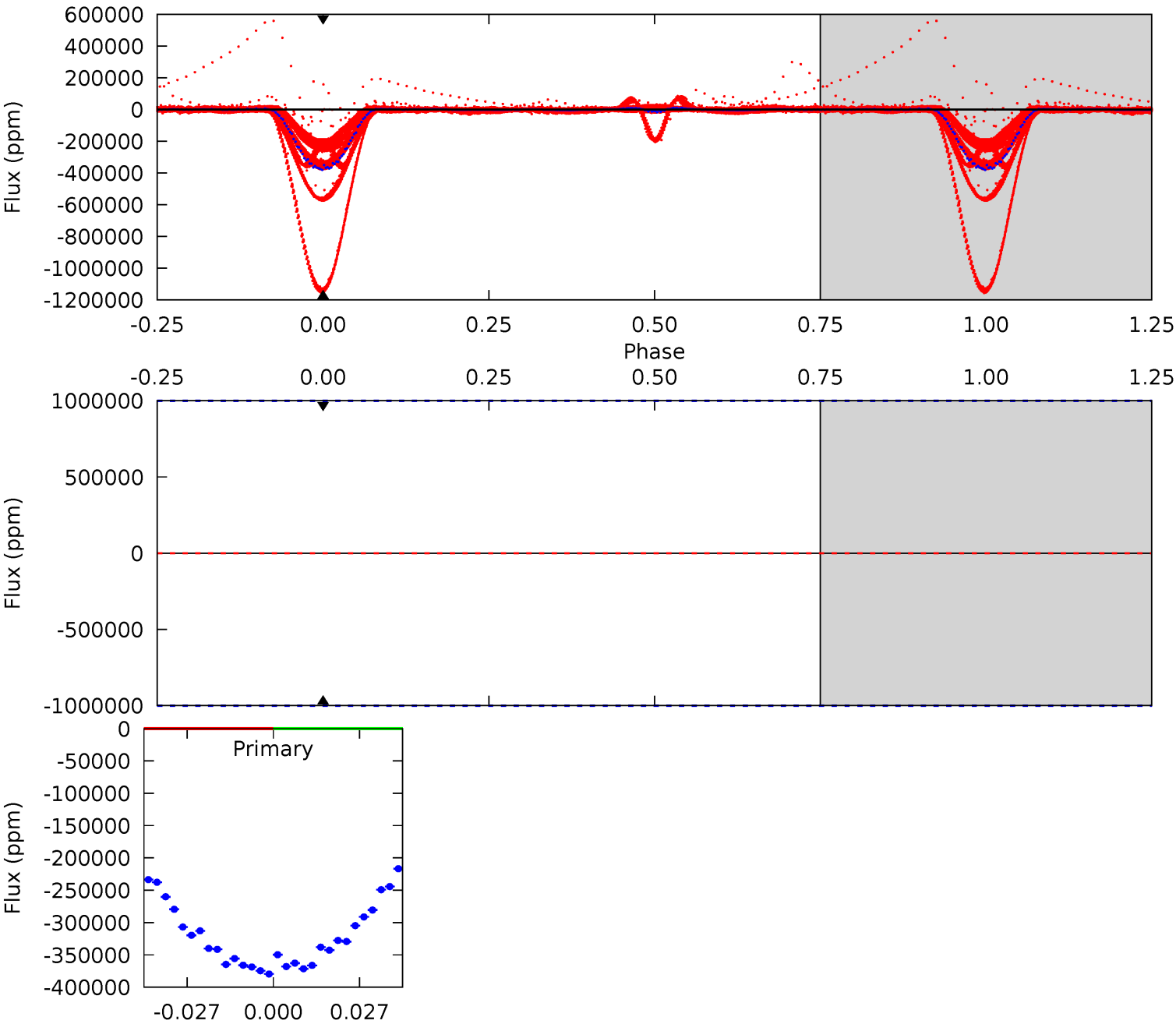
TCE 005774375-01 P= 1.549975 Days $T_0=132.675794$ (BKJD)



DV Model-Shift Uniqueness Test

005774375-01, P = 1.549975 Days, E = 131.125732 Days

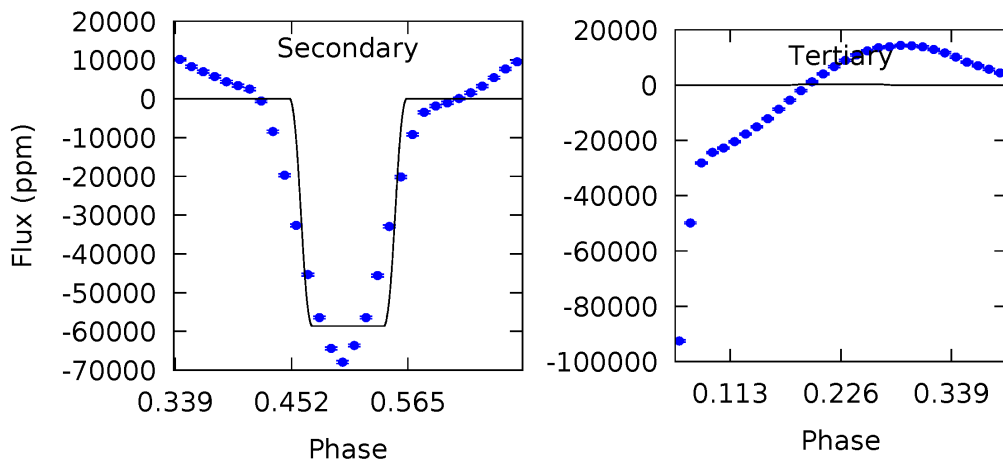
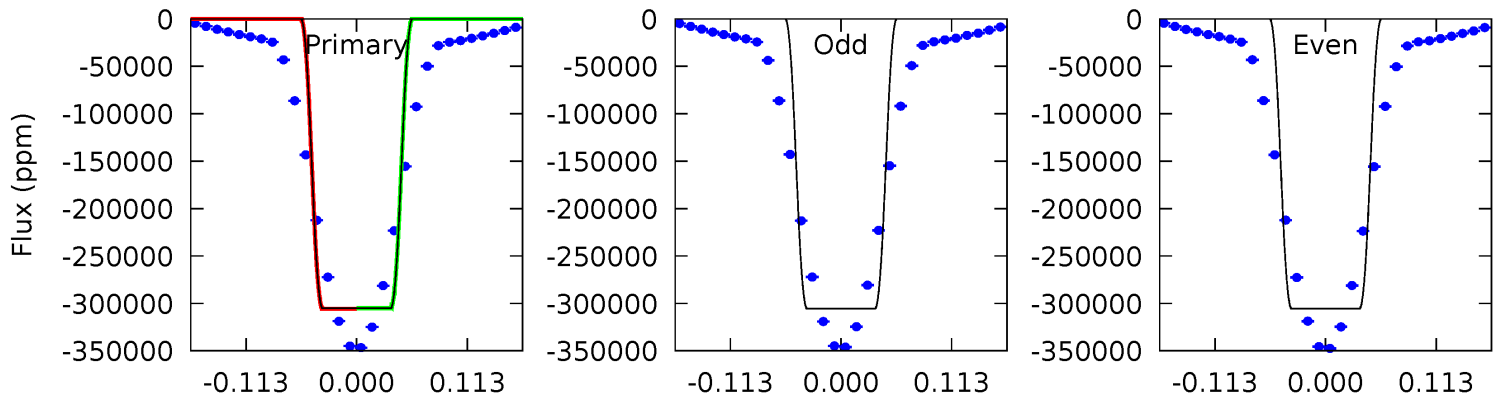
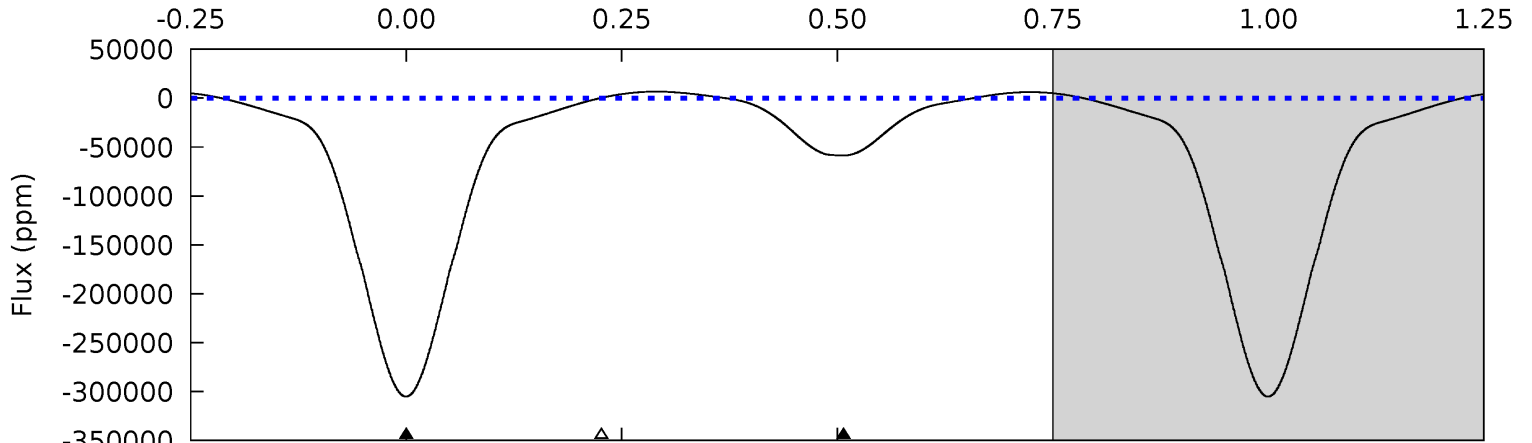
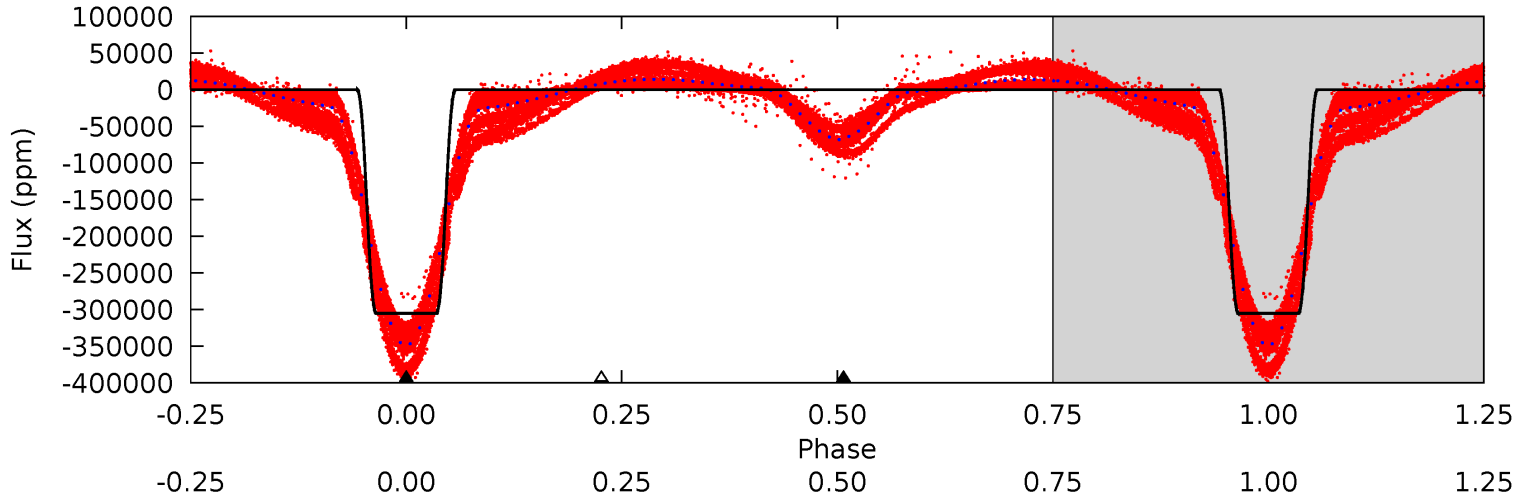
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005774375-01, P = 1.549975 Days, E = 131.125819 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1541	296.0	-1.54	0	4.54	1.58	49.9	1543	1541	297.5	296.0	0.38	1.03	0.02	1.84



Stellar Parameters For KIC 005774375

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5408^{+178}_{-162}	$3.777^{+0.777}_{-0.333}$	$-0.520^{+0.350}_{-0.250}$	$2.058^{+1.100}_{-1.344}$	$0.925^{+0.222}_{-0.182}$	$0.150^{+2.412}_{-0.110}$
	+3%/-3%	+21%/-9%	+67%/-48%	+53%/-65%	+24%/-20%	+1612%/-74%
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 005774375-01 / KOI 7740.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$39.64^{+32.47}_{-21.63}$	2954^{+453}_{-504}	-3402^{+10782}_{-3892}	$-0.249^{+33.632}_{-28.716}$
Alt.	-58605 ± 198	$127.10^{+48.37}_{-47.99}$	2977^{+391}_{-561}	3711^{+334}_{-291}	$1.390^{+2.004}_{-0.630}$

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 $A_{obs} \gg 1.0$

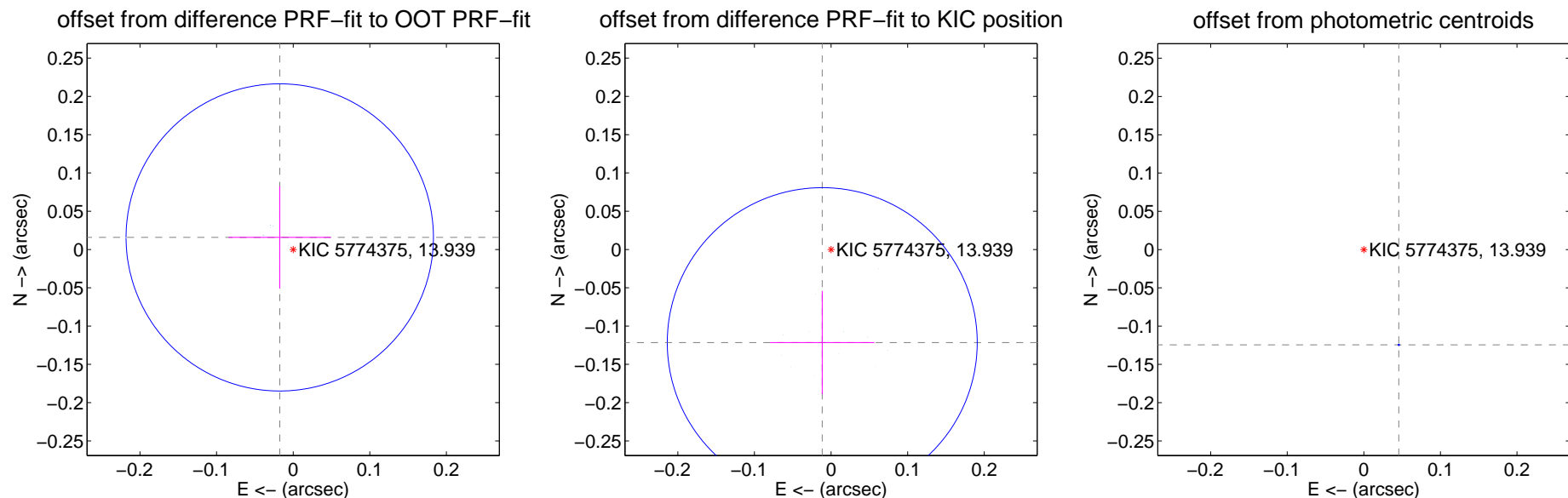
DV Centroid Data

Supplemental centroid analysis for 005774375-01. Kepler magnitude: 13.94. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

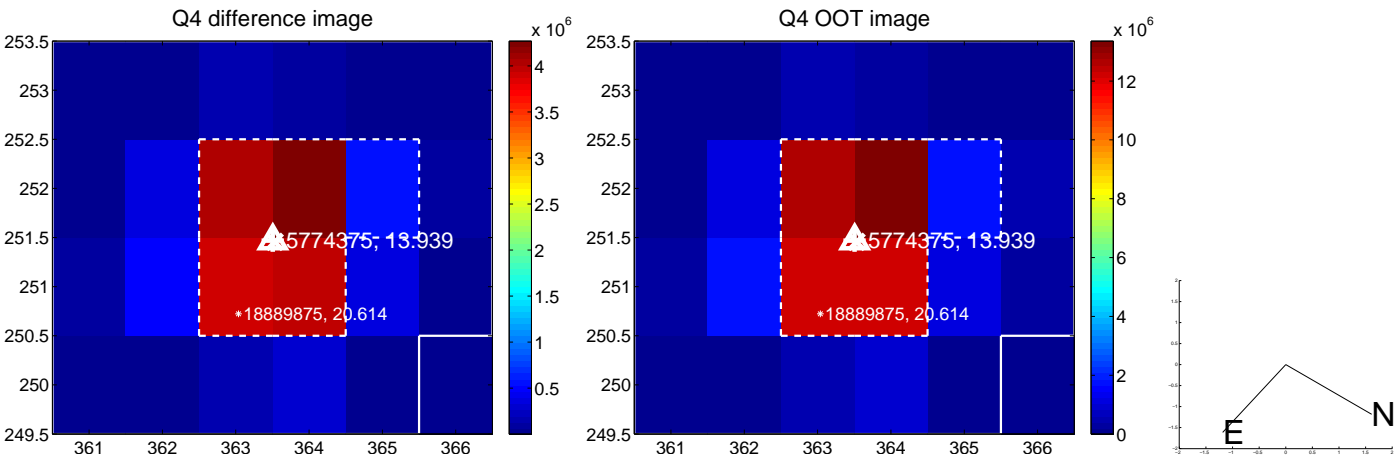
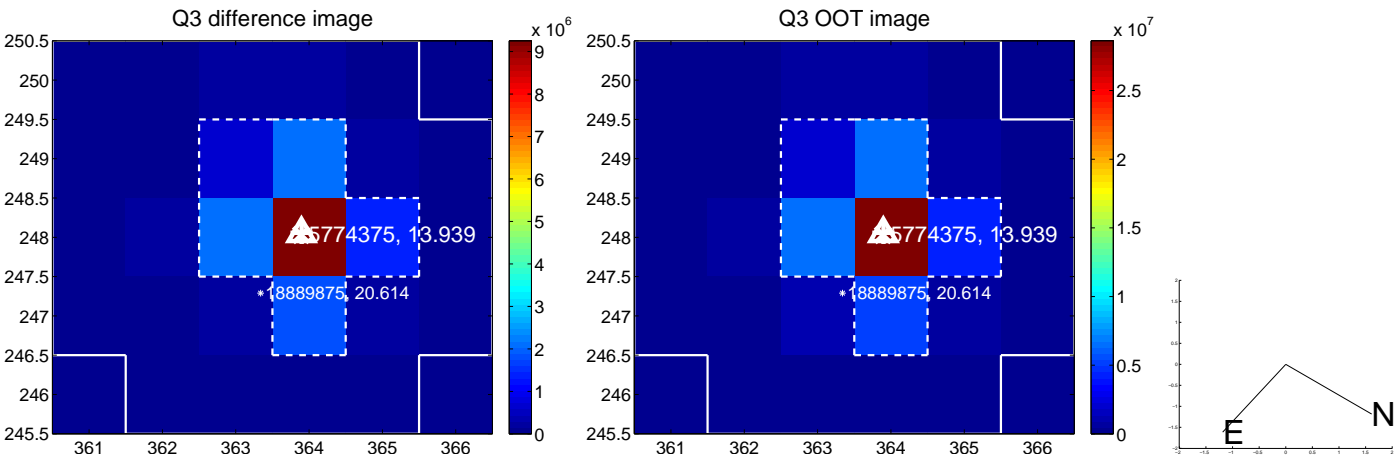
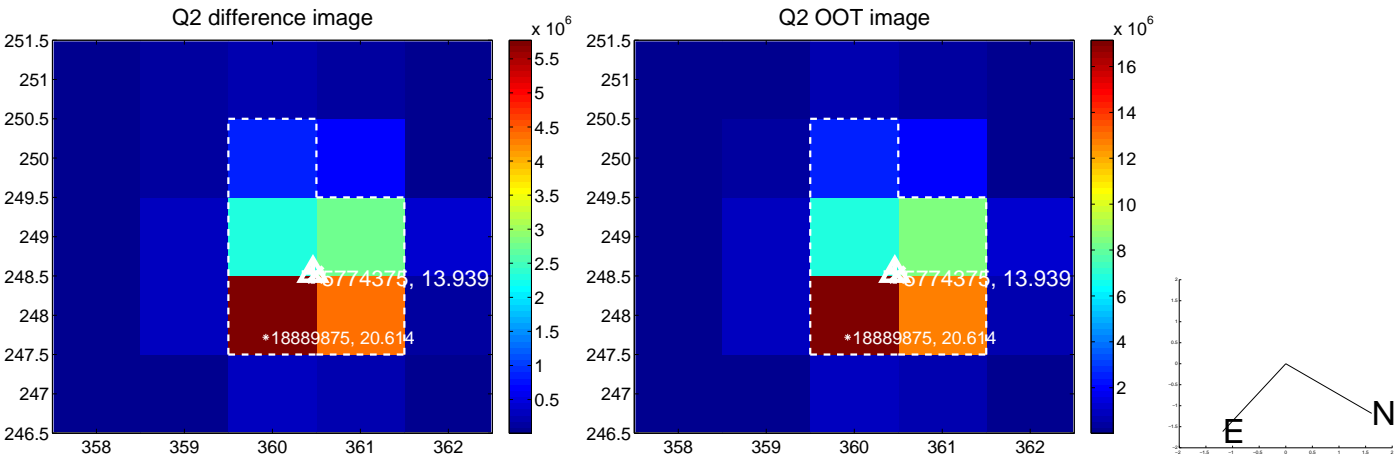
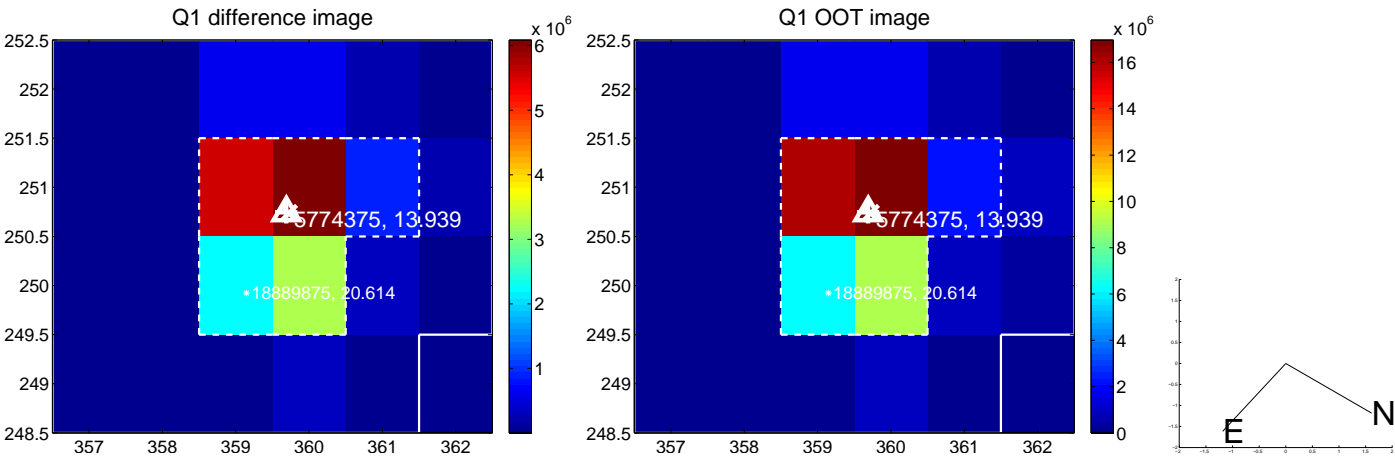
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.024 ± 0.067	0.35	0.018 ± 0.067	0.016 ± 0.067
PRF-fit source offset from KIC position	0.122 ± 0.067	1.81	0.011 ± 0.068	-0.122 ± 0.067
photometric centroid source offset	0.13 ± 0.00	403.12	-0.05 ± 0.00	-0.12 ± 0.00

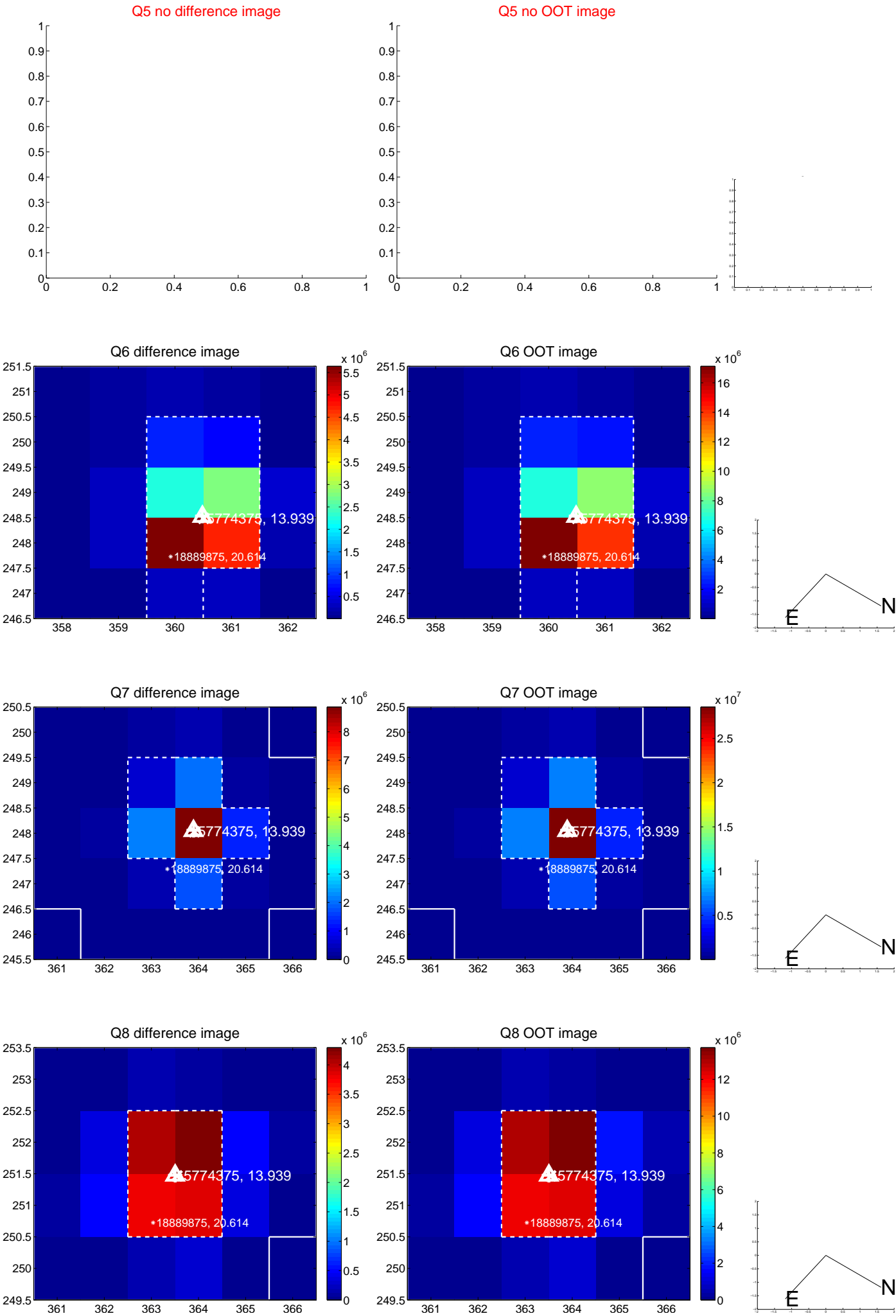


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

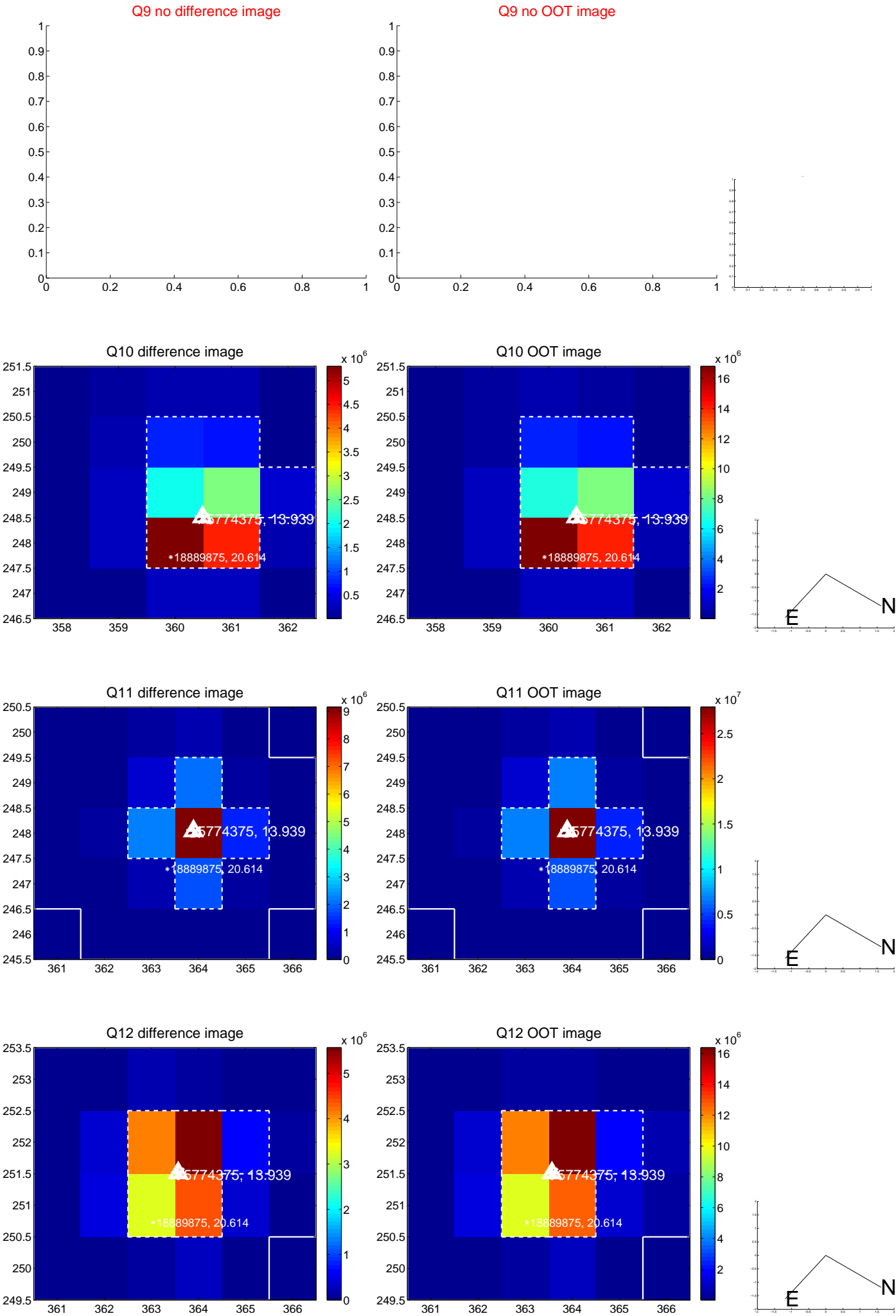
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



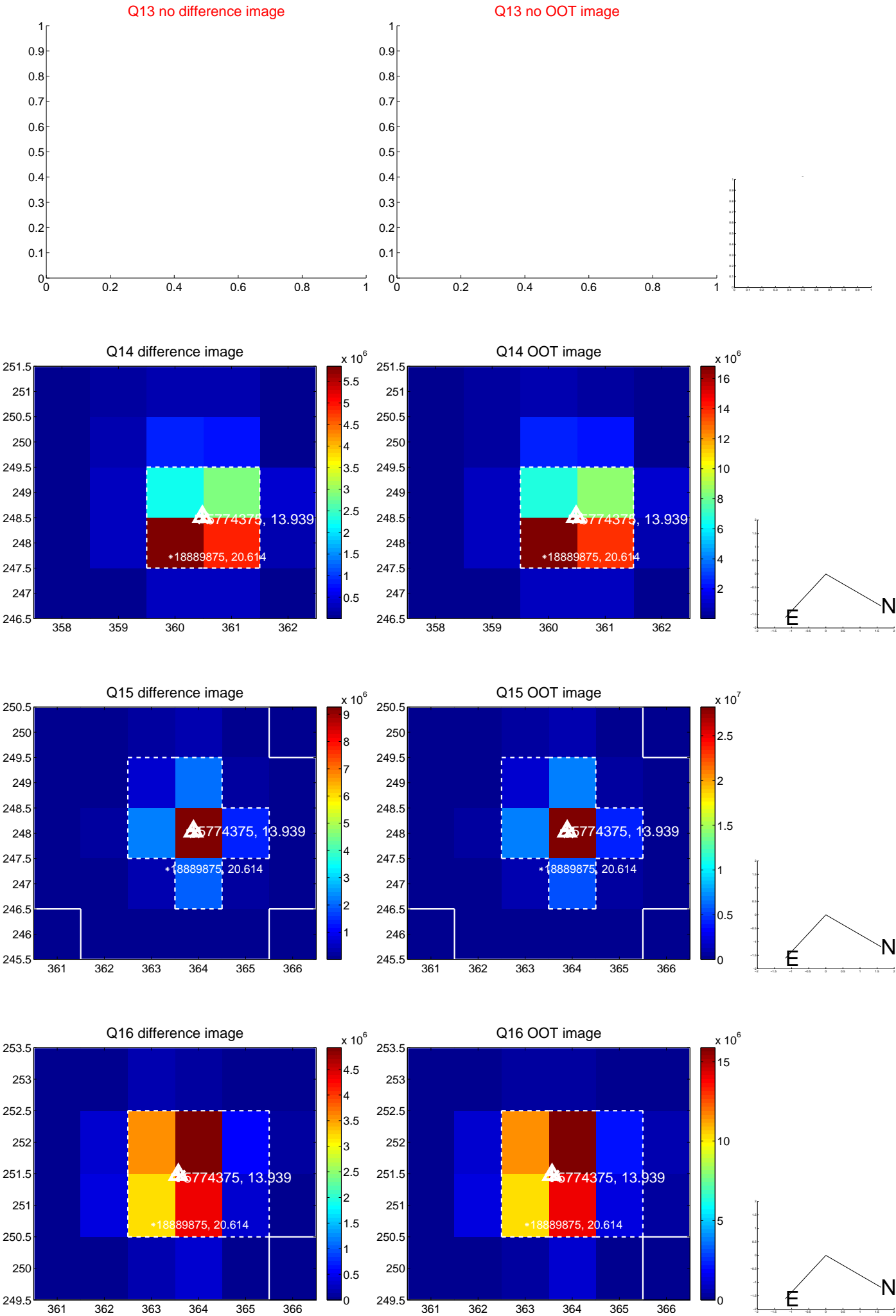
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



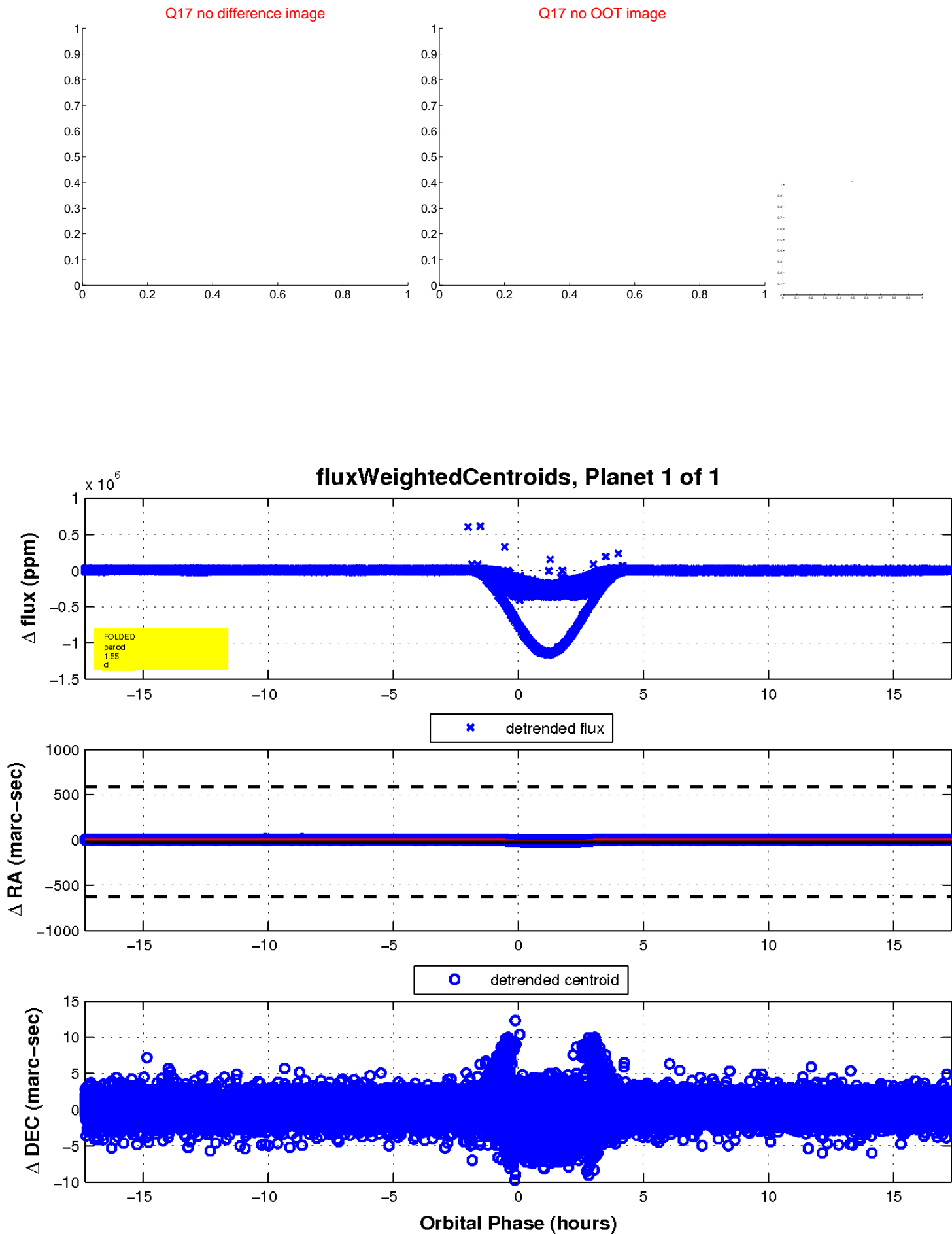
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

