

KIC 011045383

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})
011045383-01	OBS	1645.01	41.166767	158.918006	5299.6	2.198	198.6	195.9	0.81	5193	9.81	9.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011045383-01	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 011045383-01

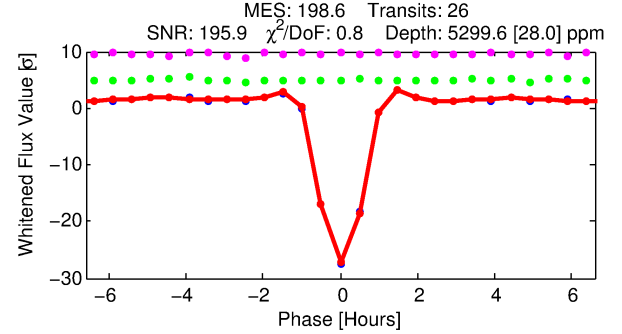
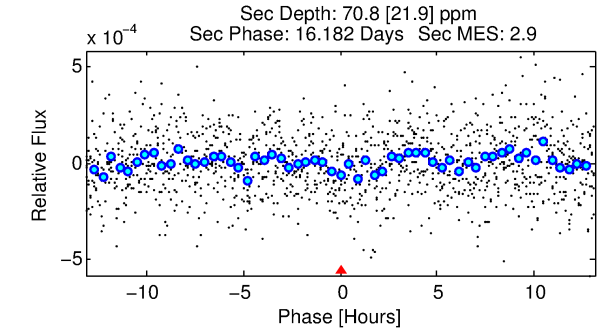
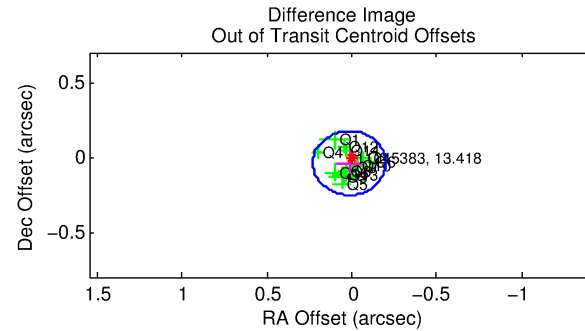
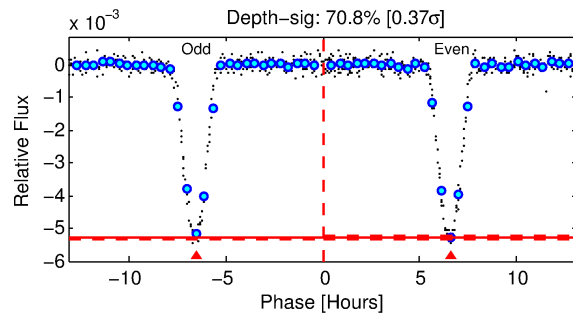
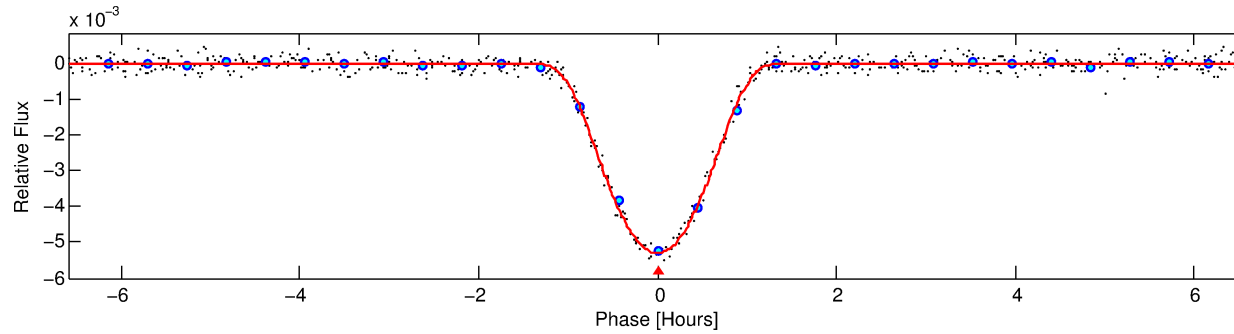
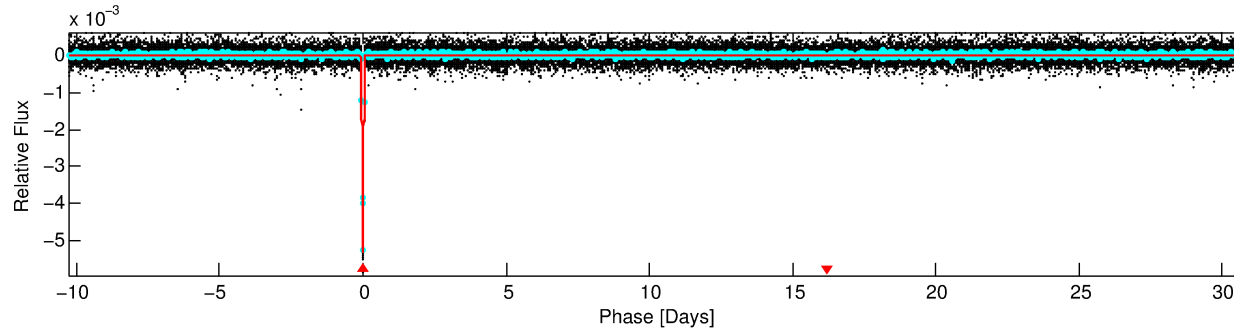
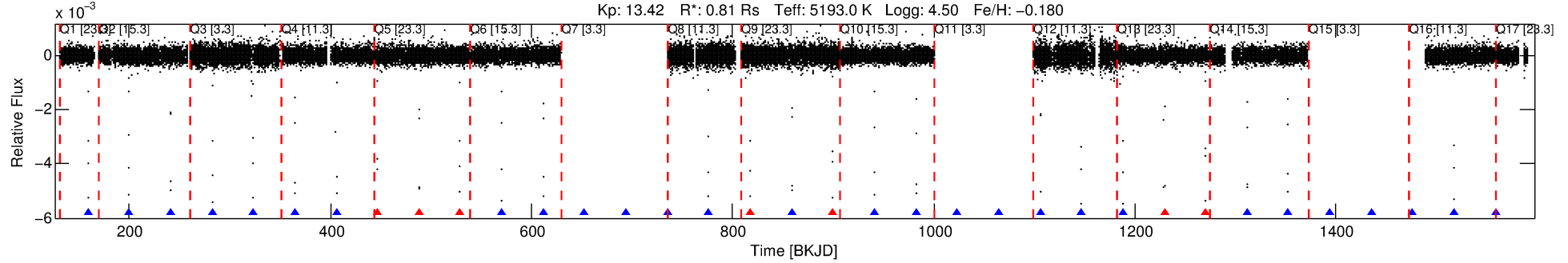
No Significant Match Found

DV One-Page Summary

KIC: 11045383 Candidate: 1 of 1 Period: 41.167 d

KOI: K01645.01 Corr: 0.995

Kp: 13.42 R*: 0.81 Rs Teff: 5193.0 K Logg: 4.50 Fe/H: -0.180



DV Fit Results:

Period = 41.16677 [0.00001] d
Epoch = 158.9180 [0.0002] BKJD
Rp/R* = 0.1117 [0.0176]
a/R* = 75.95 [2.75]
b = 0.98 [0.03]
Seff = 9.37 [1.89]
Teq = 446 [23] K
Rp = 9.81 [1.95] Re
a = 0.2123 [0.0228] AU
Ag = 18.23 [8.59] [2.01σ]
Teffp = 1425 [163] K [5.95σ]

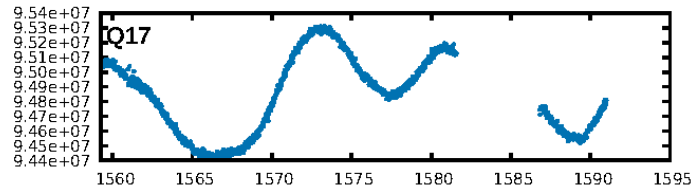
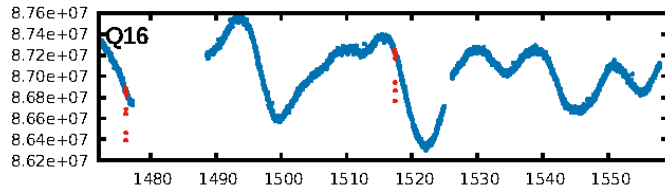
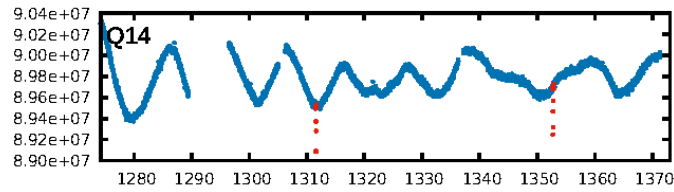
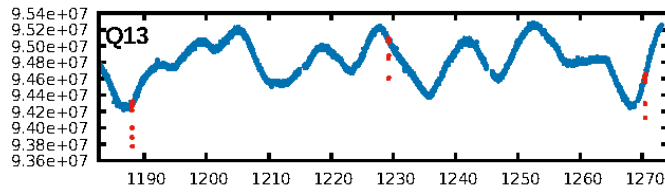
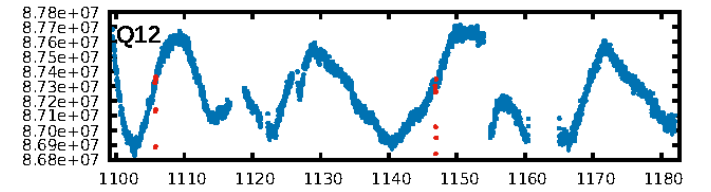
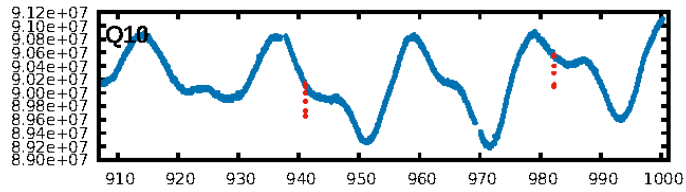
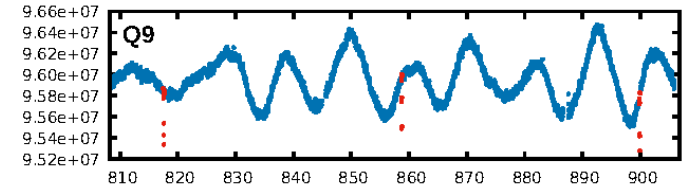
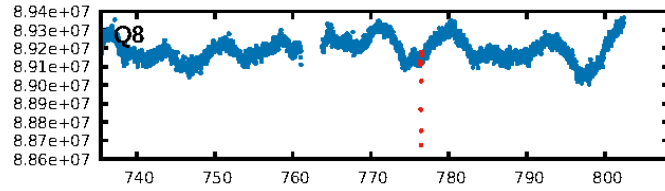
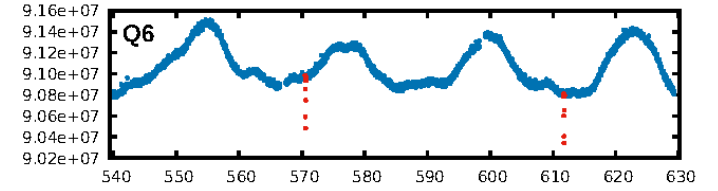
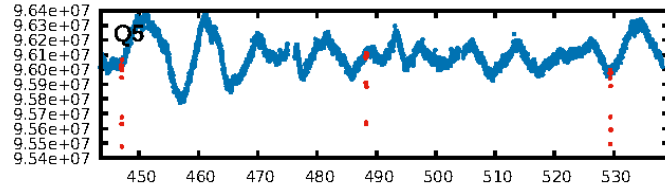
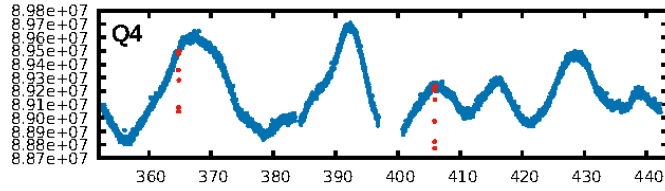
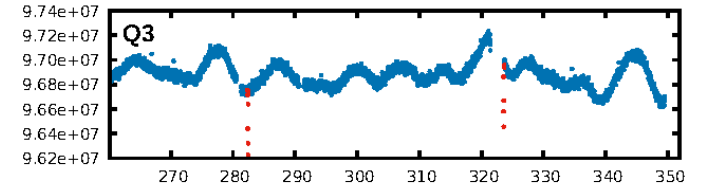
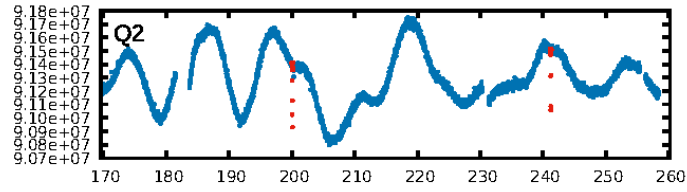
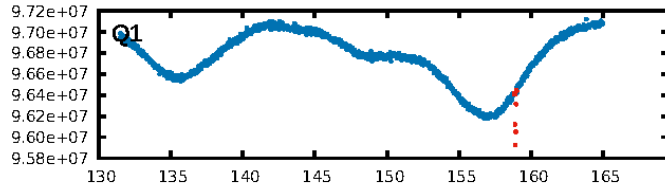
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 87.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.72 [18/25]
GhostDiagnostic-chr: 5.643
Centroid-sig: 0.0%
Centroid-so: 0.276 arcsec [4.63σ]
OotOffset-rm: 0.043 arcsec [0.60σ]
OotOffset-st: 4/1/4/4 [13]
KicOffset-rm: 0.252 arcsec [3.41σ]
KicOffset-st: 4/1/4/4 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

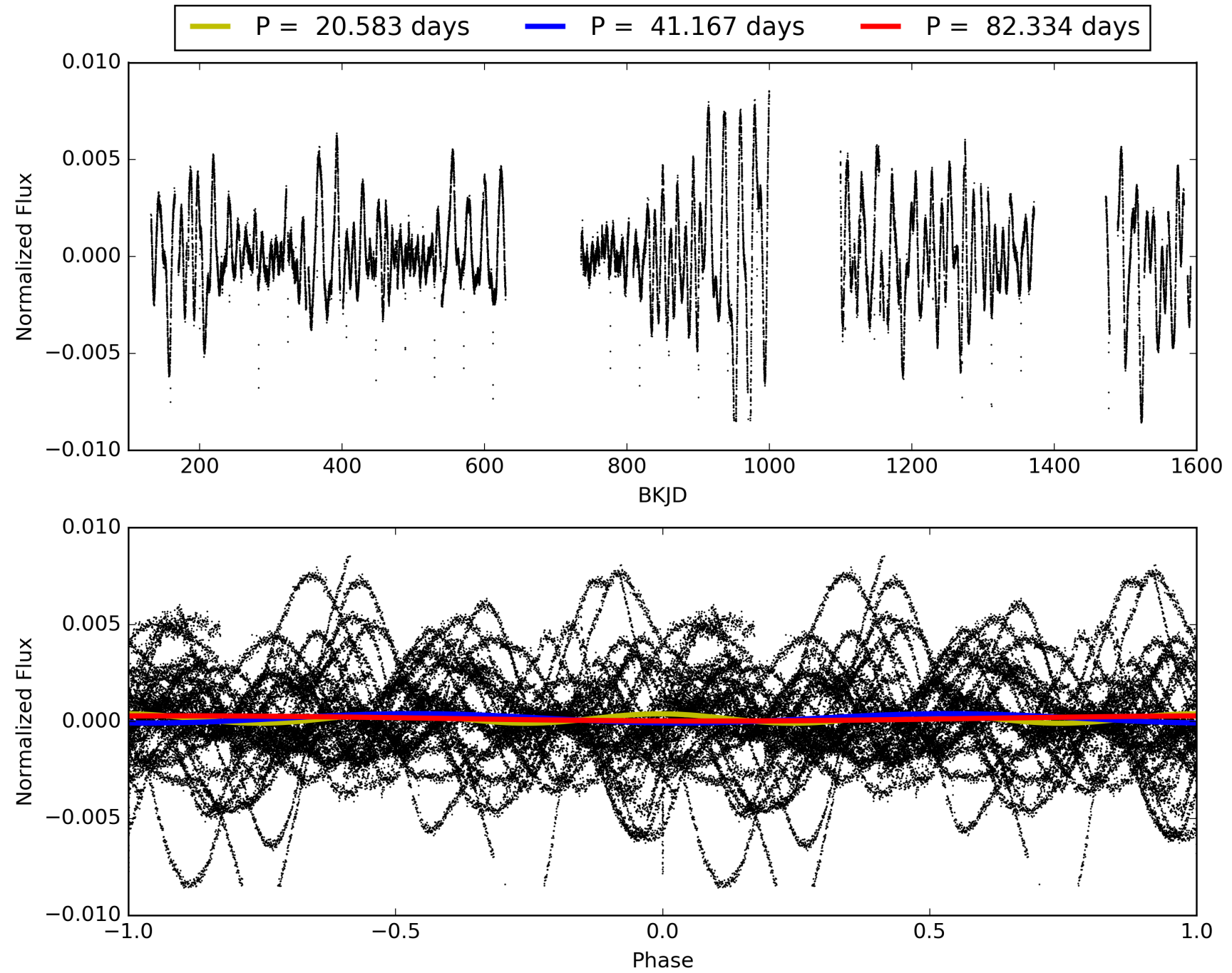
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:25:37 Z

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

TCE 011045383-01, PDC Light Curves

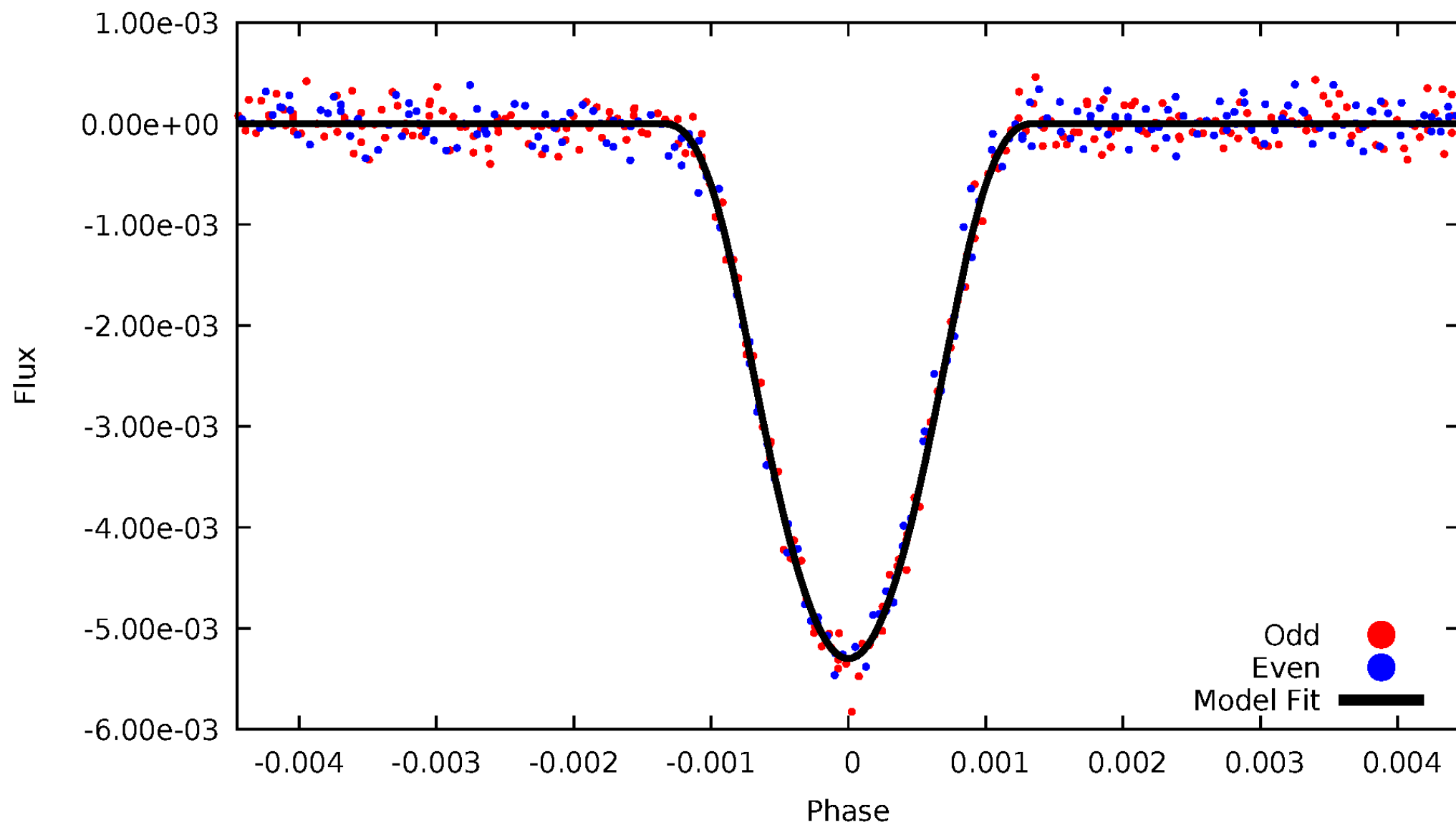


TCE 011045383-01



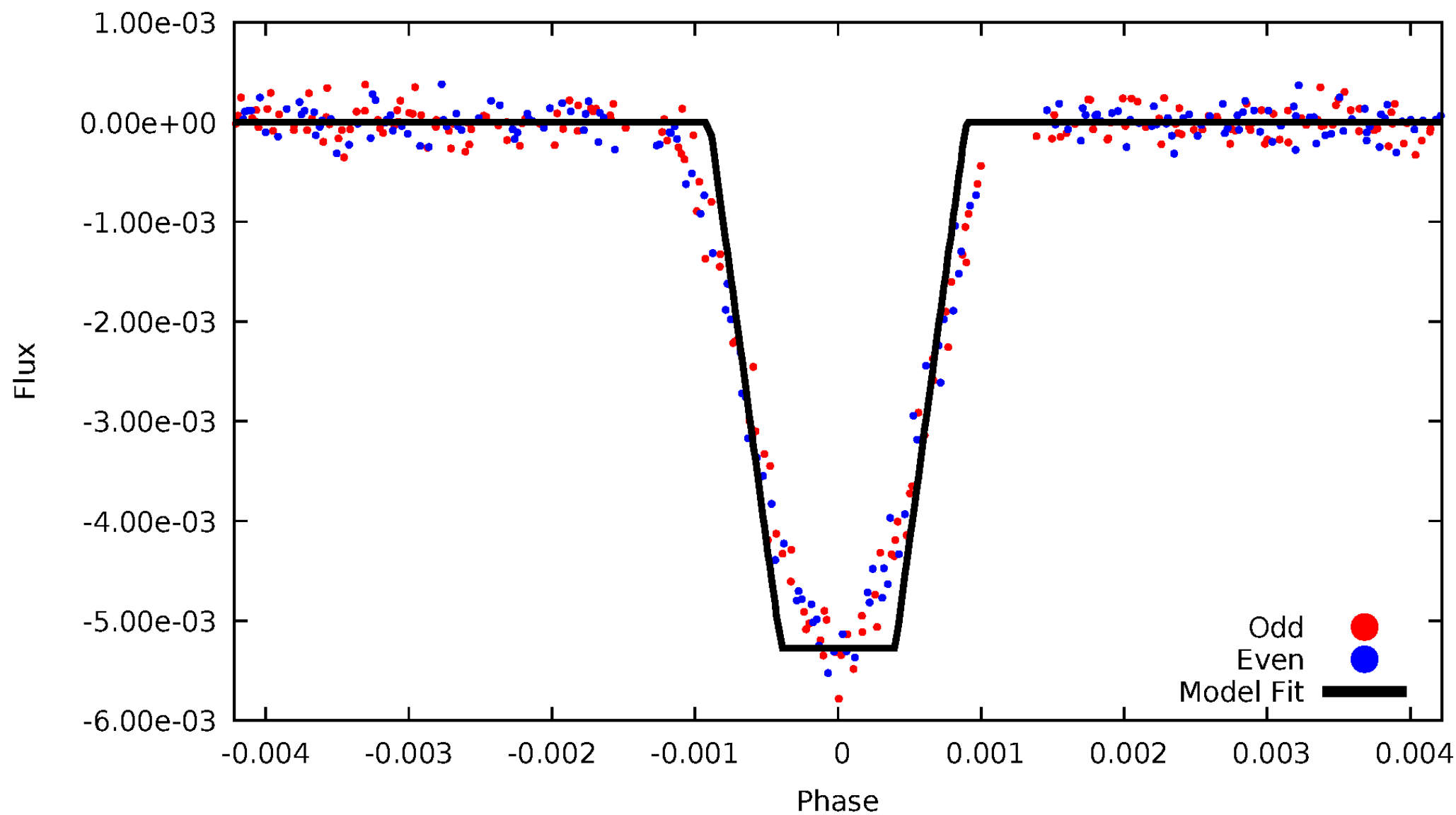
DV Odd/Even

TCE 011045383-01



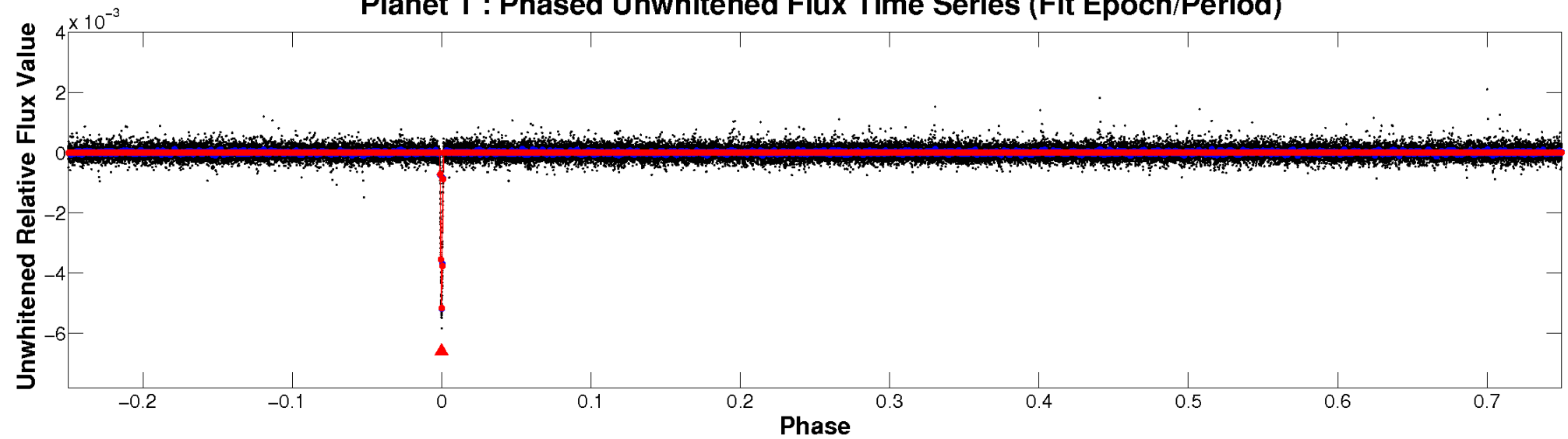
ALT Odd/Even

TCE 011045383-01

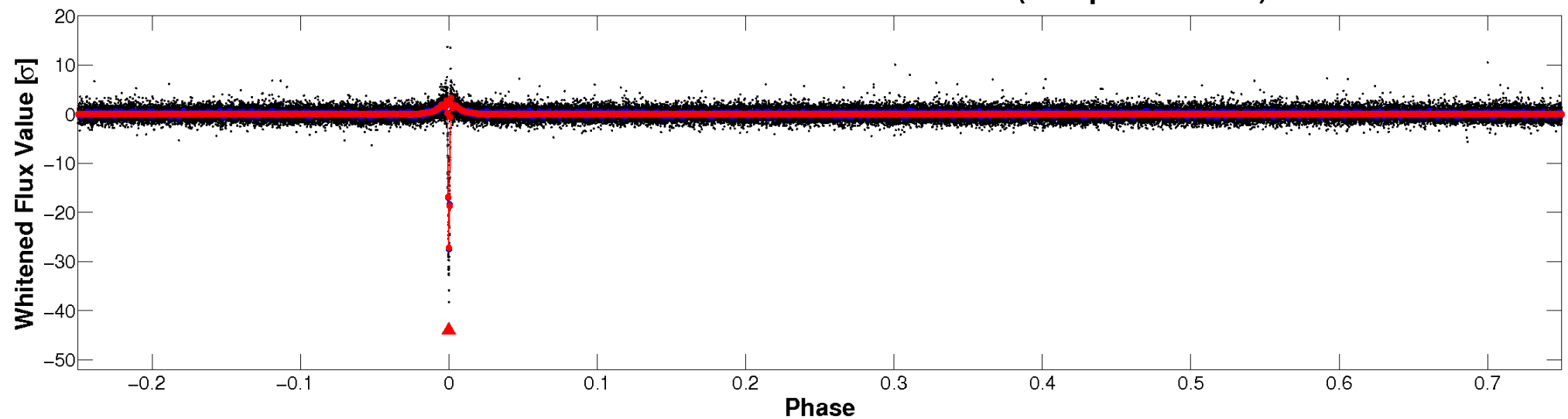


Non-Whitened Vs. Whitened Light Curve

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

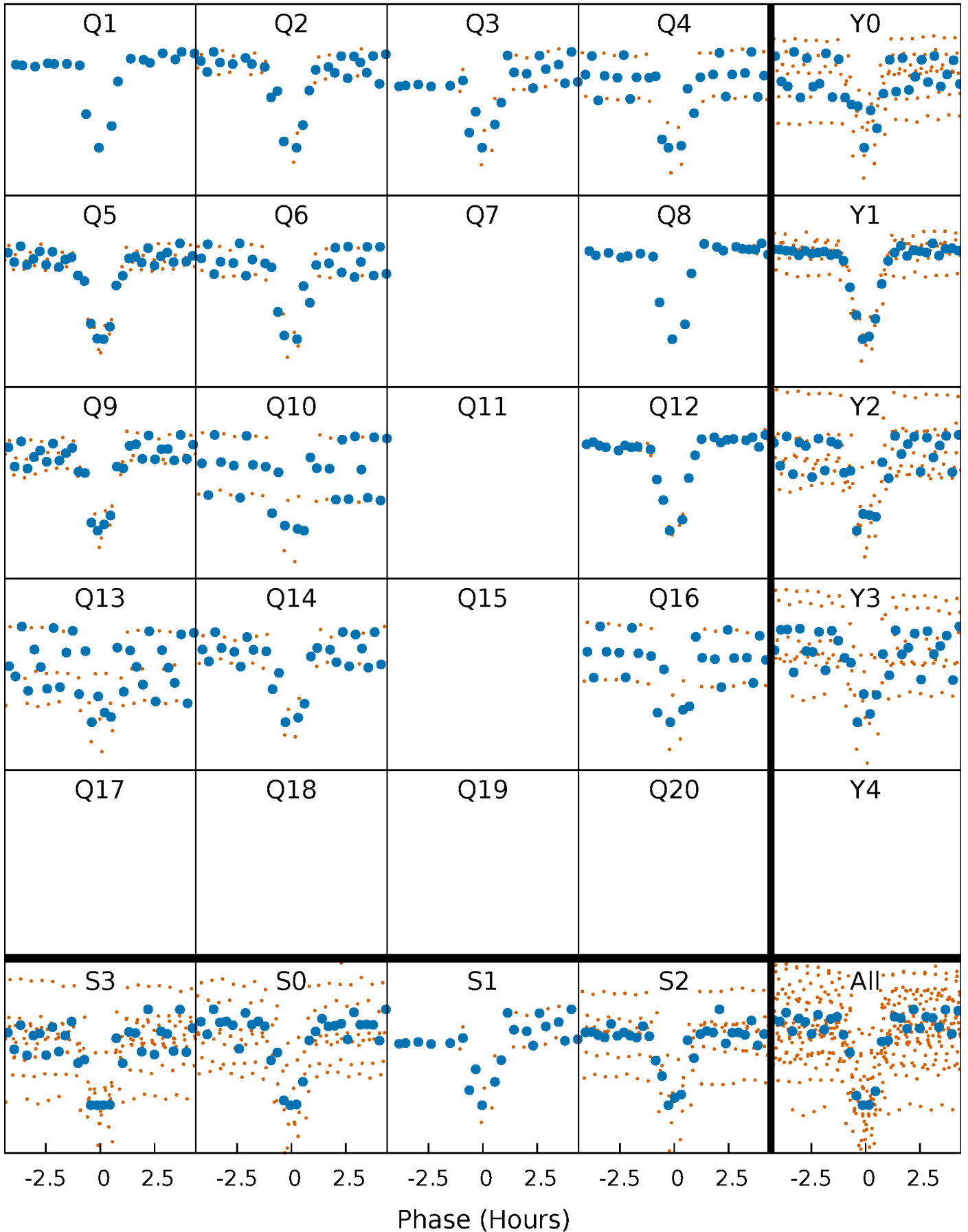


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



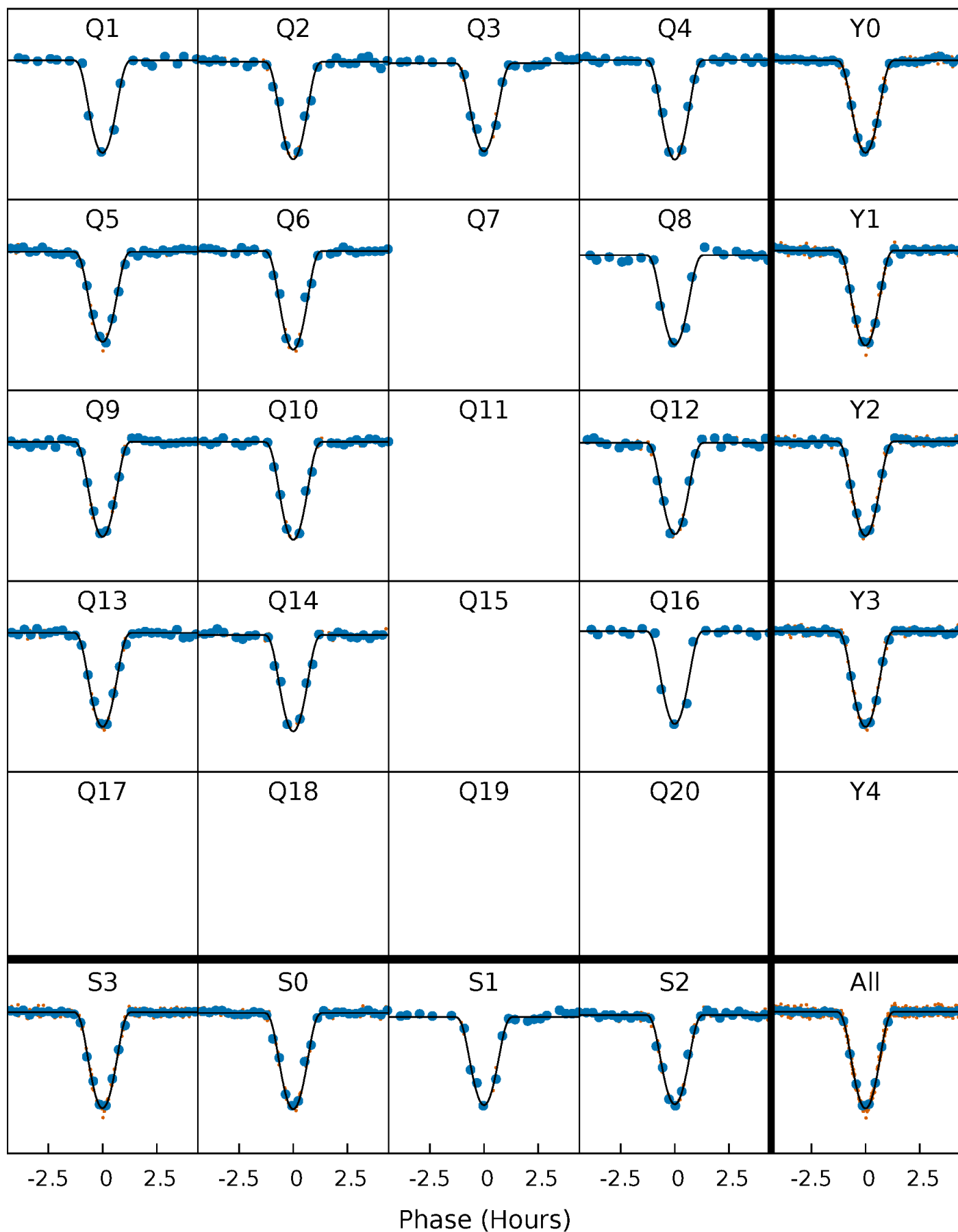
PDC Quarter-Phased Transit Curves

TCE 011045383-01 P= 41.166767 Days $T_0=158.918006$ (BKJD)



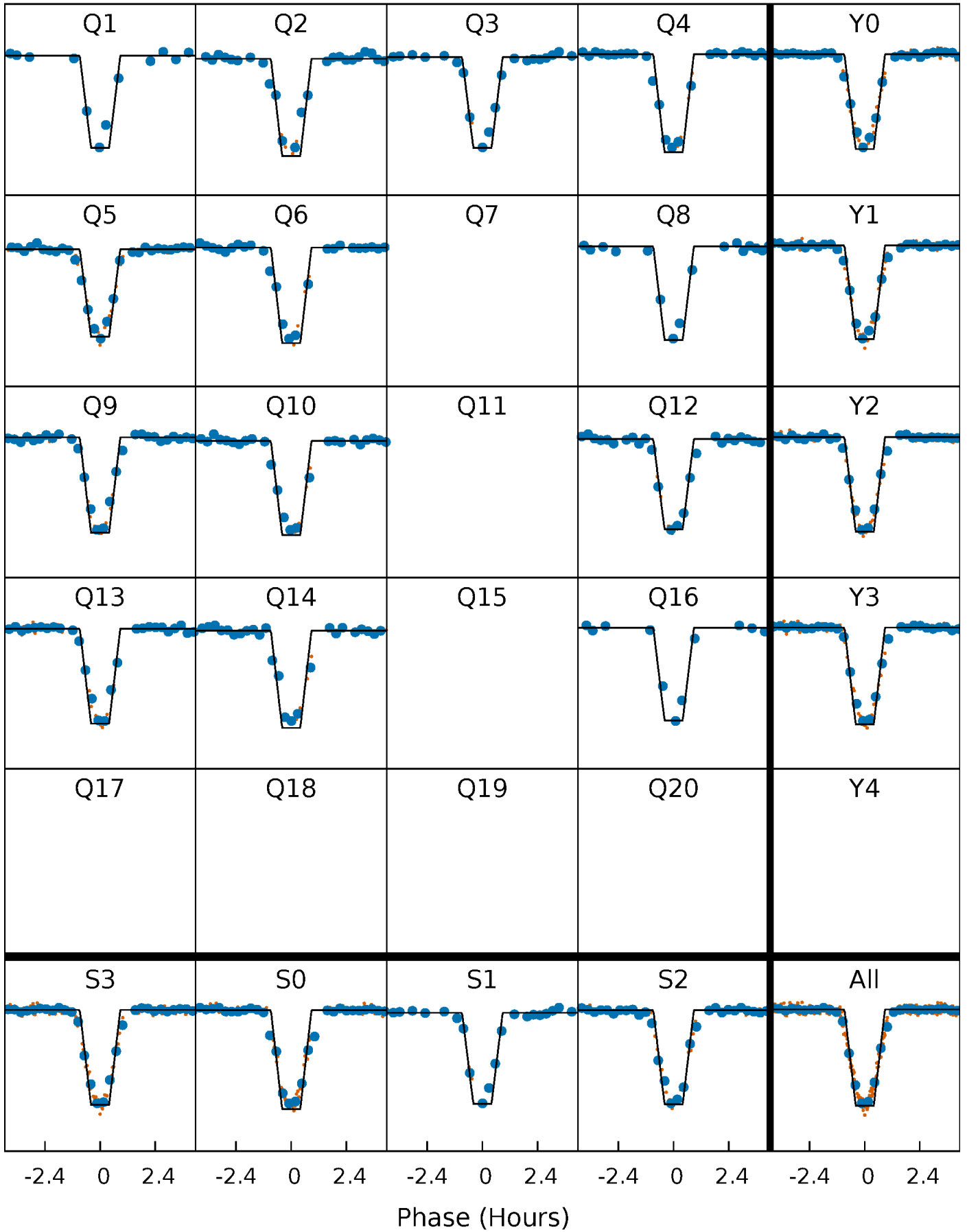
DV Quarter-Phased Transit Curves

TCE 011045383-01 P= 41.166767 Days $T_0=158.918006$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

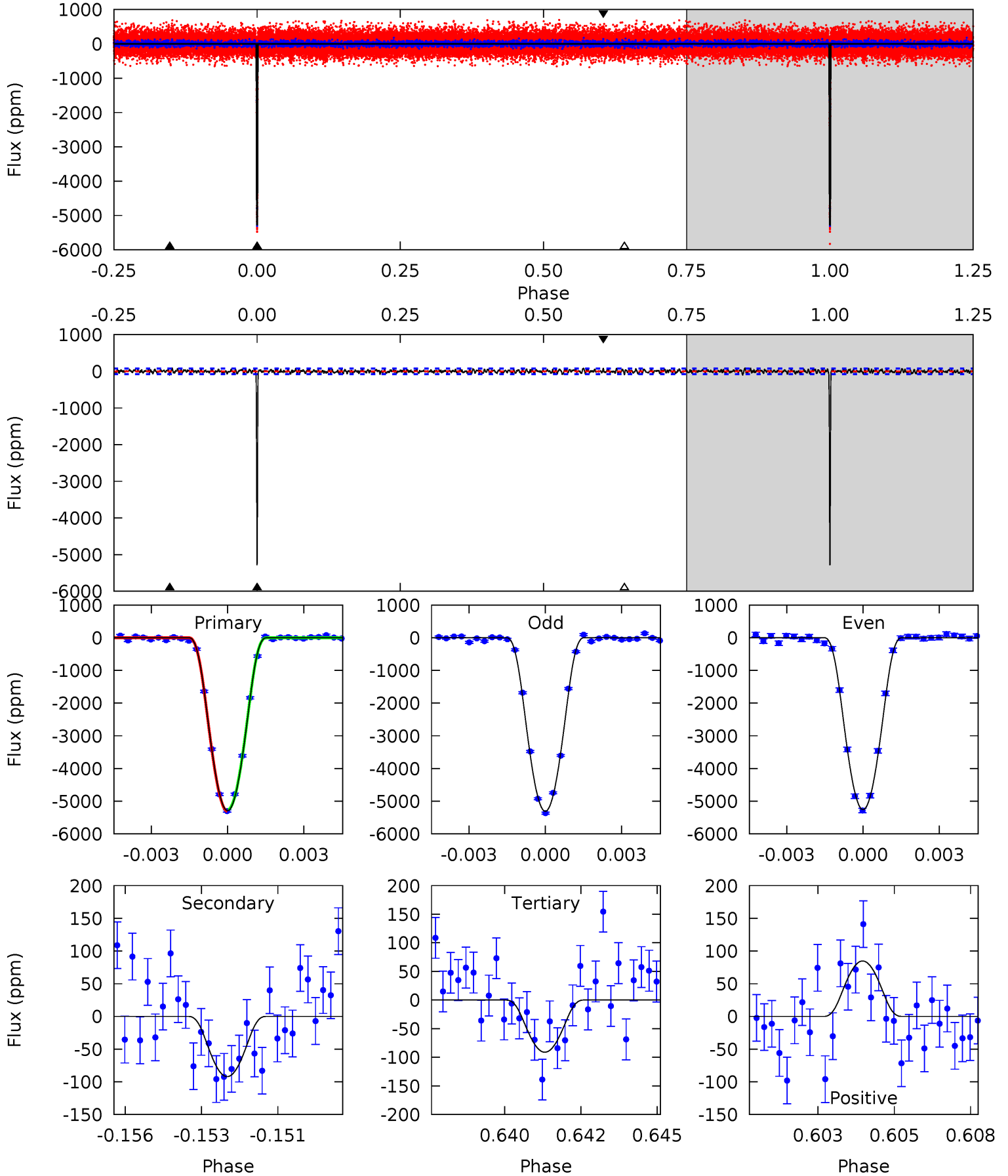
TCE 011045383-01 P= 41.166650 Days $T_0=158.919599$ (BKJD)



DV Model-Shift Uniqueness Test

011045383-01, $P = 41.166767$ Days, $E = 117.751239$ Days

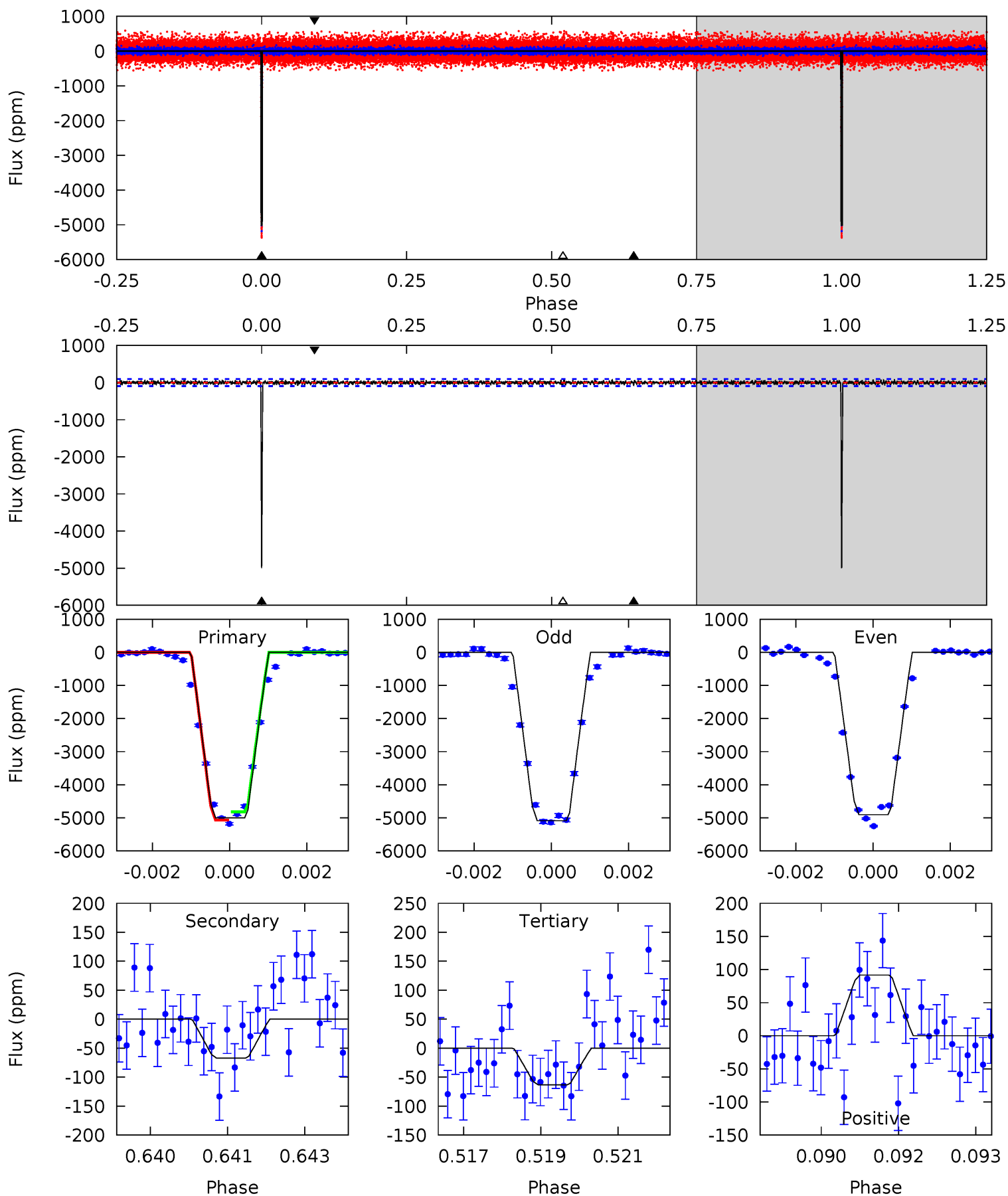
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
366.5	6.38	6.31	5.87	5.28	3.01	1.95	360.2	360.6	0.06	0.51	1.77	1.00	0.02	1.69



Alt Model-Shift Uniqueness Test

011045383-01, P = 41.166650 Days, E = 117.752949 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
280.7	3.76	3.55	5.14	5.35	3.12	1.24	277.2	275.6	0.22	-1.38	4.96	1.00	0.02	6.77



Stellar Parameters For KIC 011045383

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5193^{+154}_{-138}	$4.503^{+0.093}_{-0.076}$	$-0.180^{+0.300}_{-0.300}$	$0.805^{+0.087}_{-0.097}$	$0.753^{+0.104}_{-0.052}$	$2.032^{+0.826}_{-0.494}$
	+3%/-3%	+2%/-2%	+167%/-167%	+11%/-12%	+14%/-7%	+41%/-24%
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 011045383-01 / KOI 1645.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-92 ± 14	$9.75^{+1.79}_{-1.60}$	621^{+25}_{-24}	2391^{+117}_{-102}	24^{+11}_{-7}
Alt.	-67 ± 18	$6.33^{+1.67}_{-1.59}$	622^{+26}_{-26}	2557^{+201}_{-172}	40^{+36}_{-17}

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 $A_{obs} \gg 1.0$

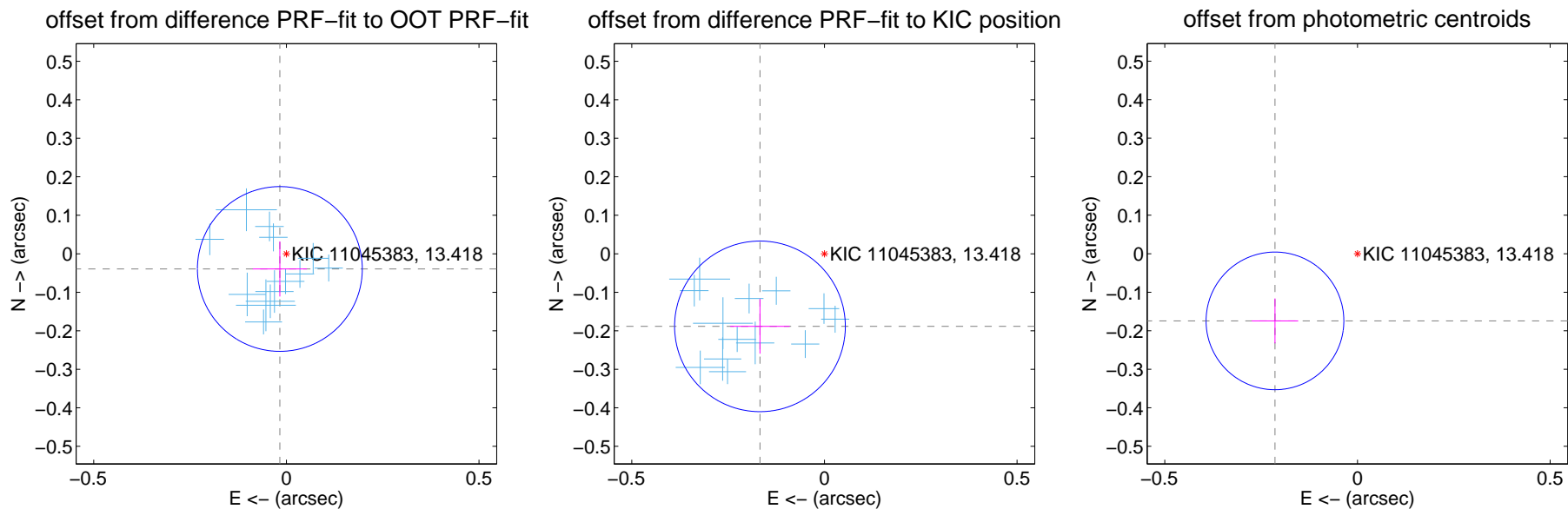
DV Centroid Data

Supplemental centroid analysis for 011045383-01. Kepler magnitude: 13.42. Transit SNR 195.94

There are 13 quarters with good PRF difference image offsets

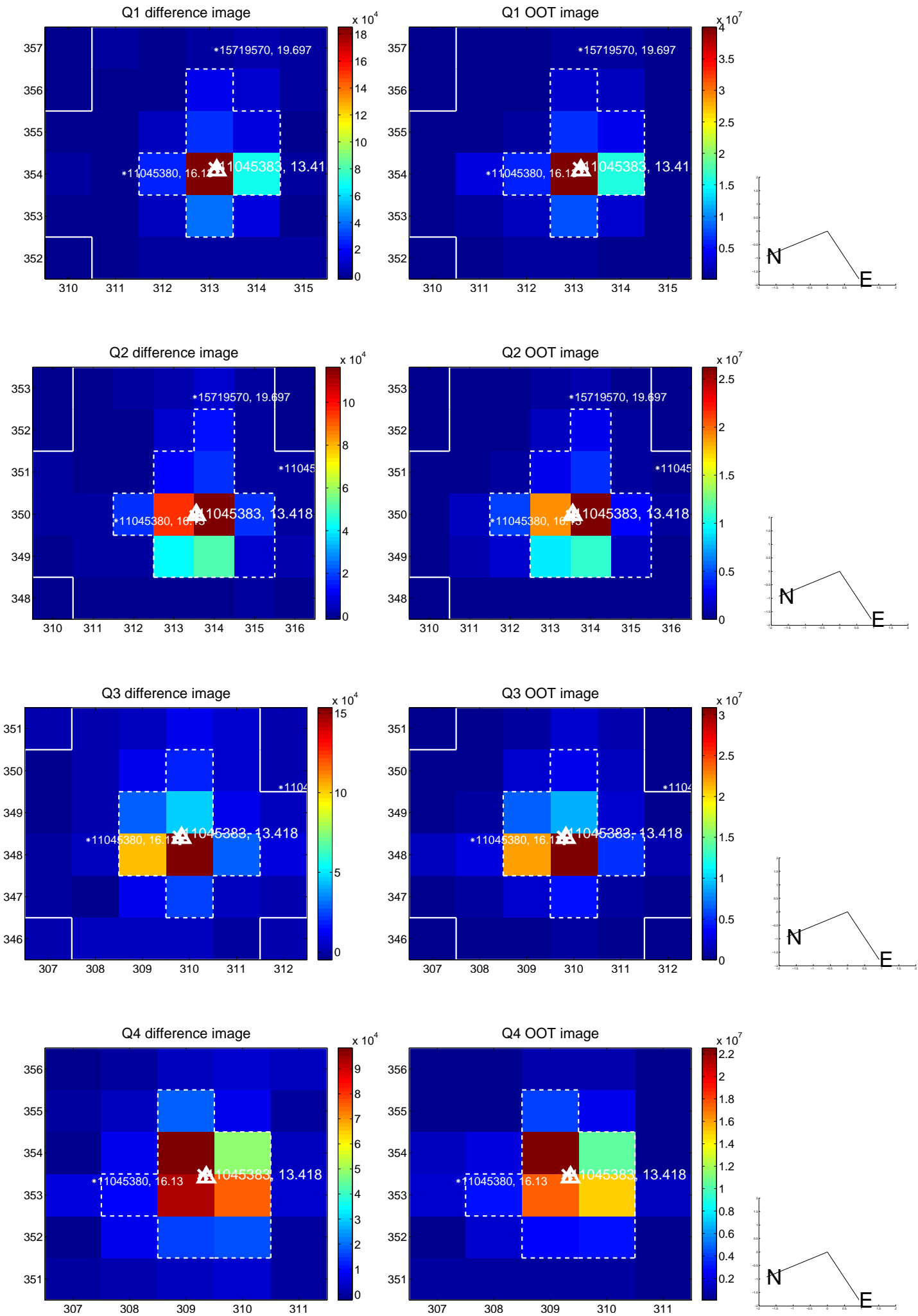
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.043 ± 0.071	0.60	0.017 ± 0.070	-0.039 ± 0.072
PRF-fit source offset from KIC position	0.252 ± 0.074	3.41	0.167 ± 0.077	-0.188 ± 0.071
photometric centroid source offset	0.28 ± 0.06	4.63	0.21 ± 0.06	-0.17 ± 0.06

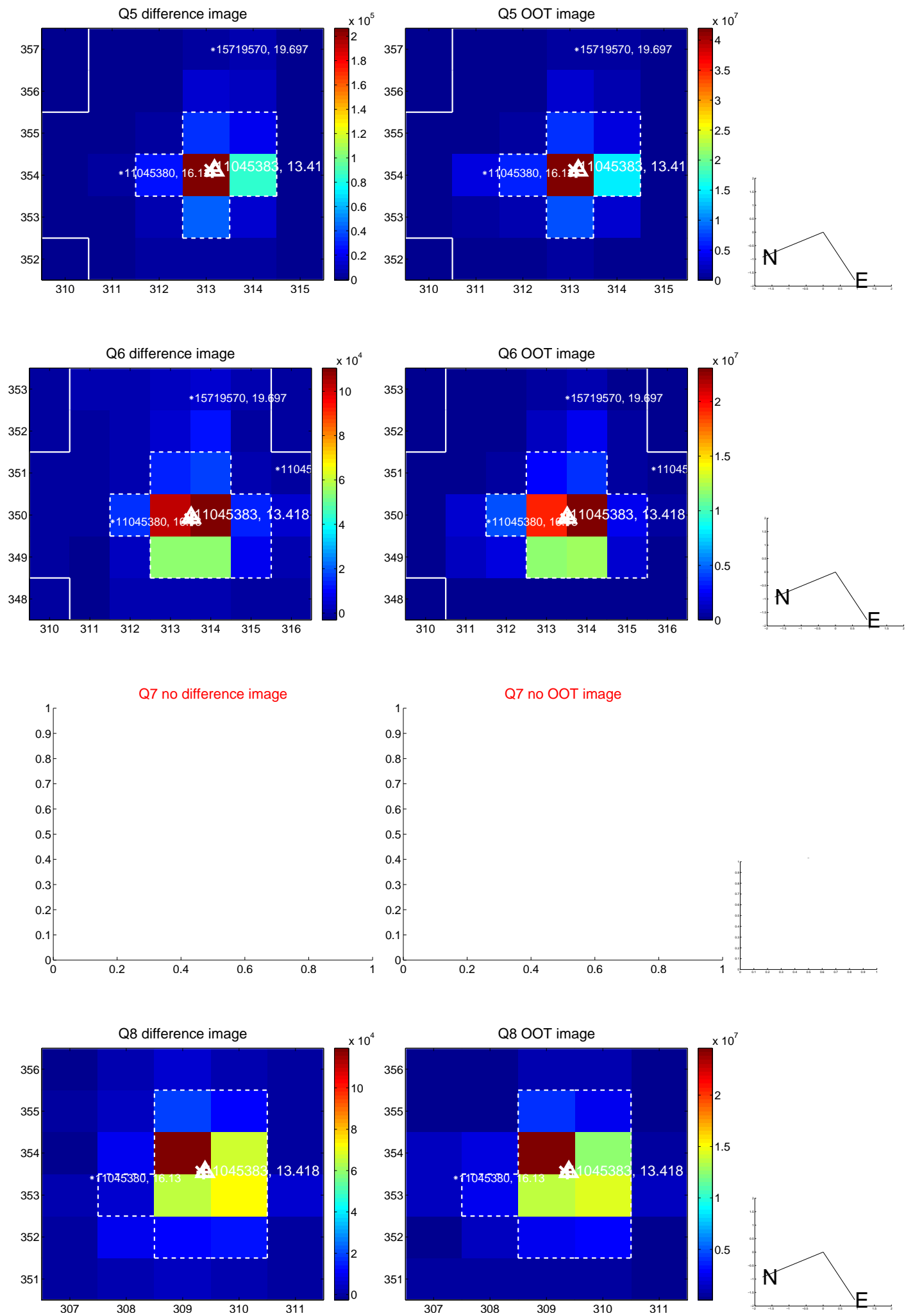


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

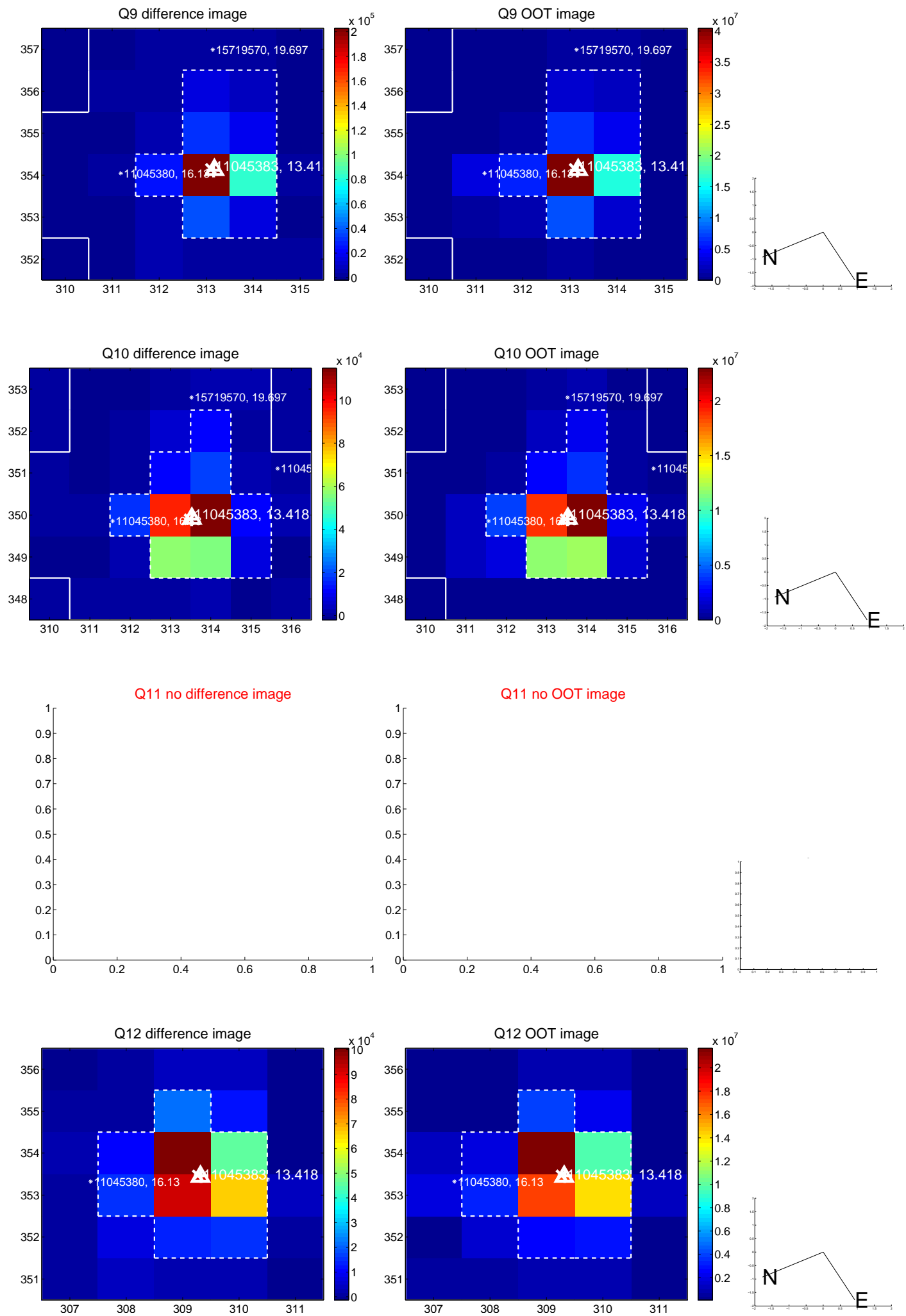
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



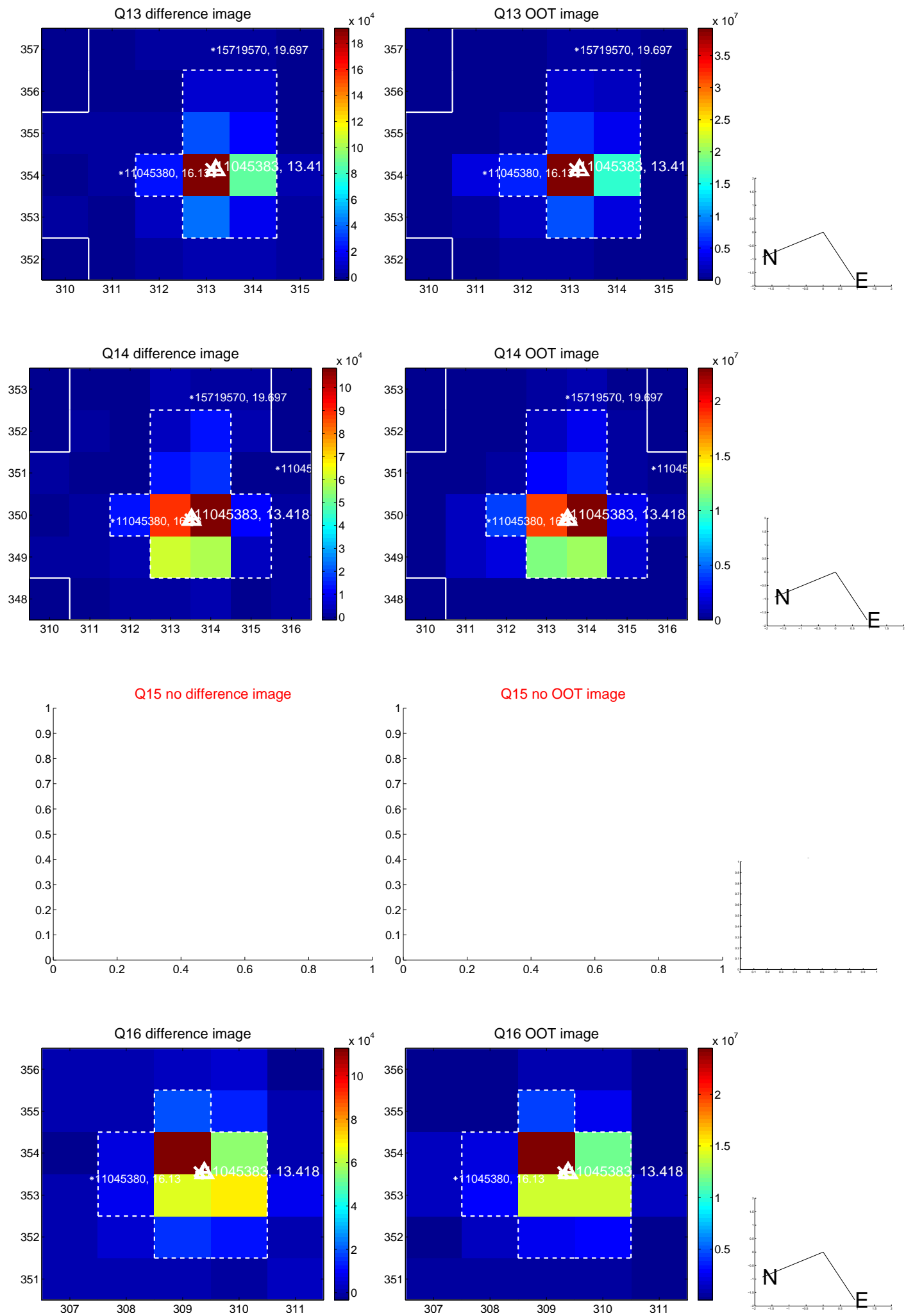
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



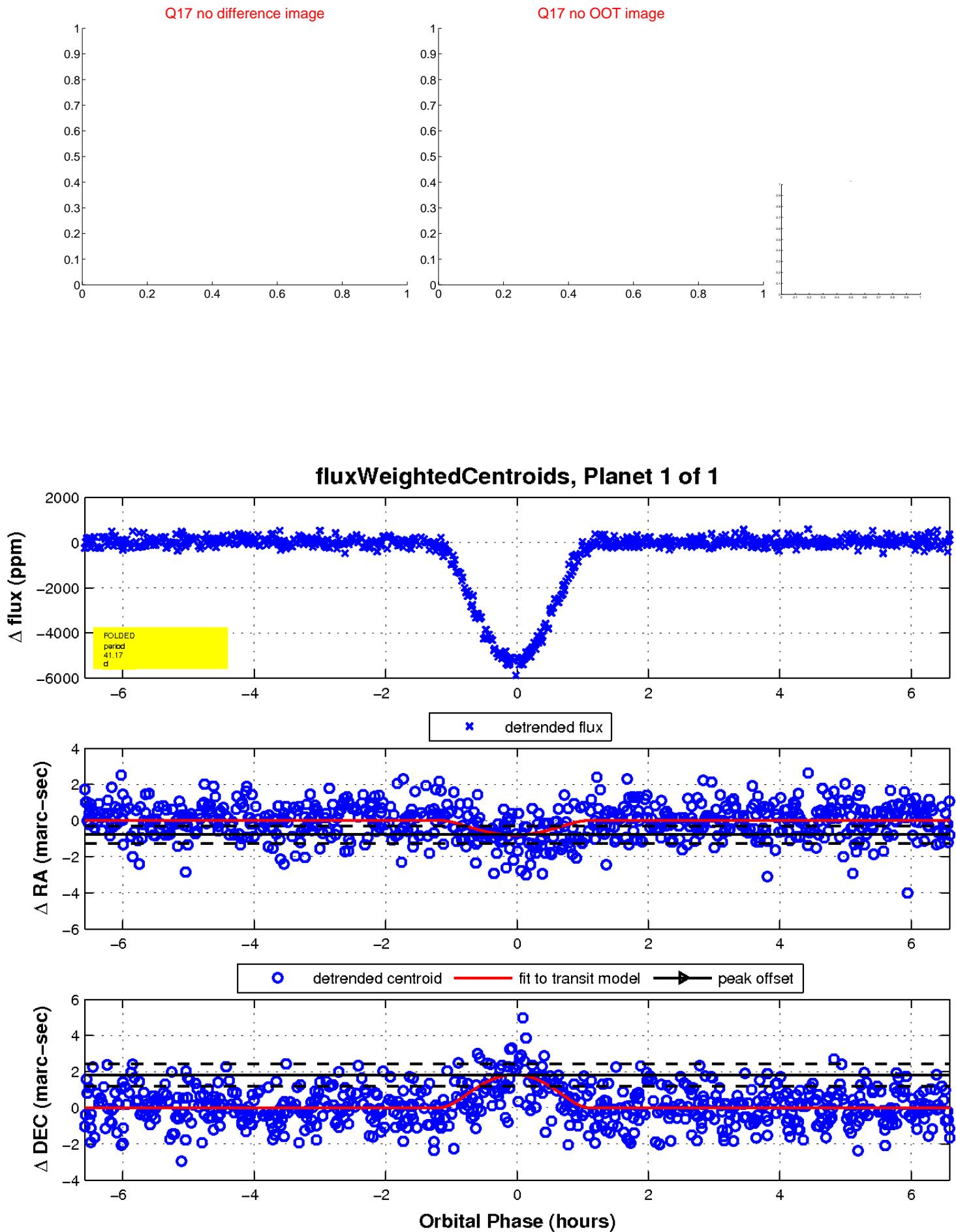
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

