

KIC 003838496

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})
003838496-01	OBS	3700.01	2.990258	133.107726	236571.0	7.782	1437.7	962.3	1.00	5780	53.48	605.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003838496-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—CENT_KIC_POS

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.

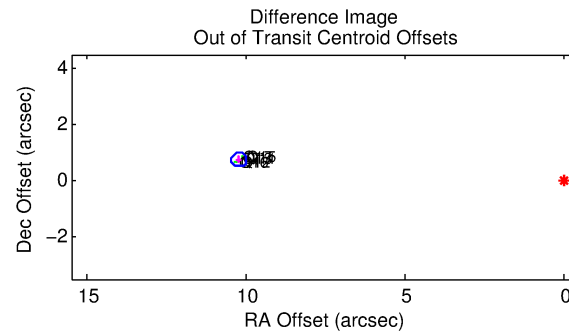
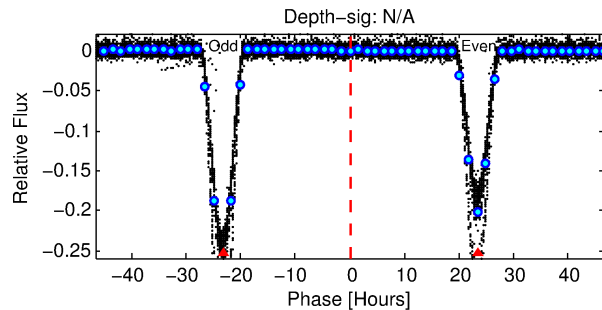
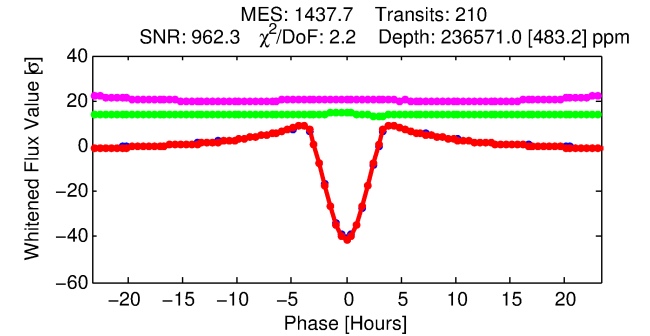
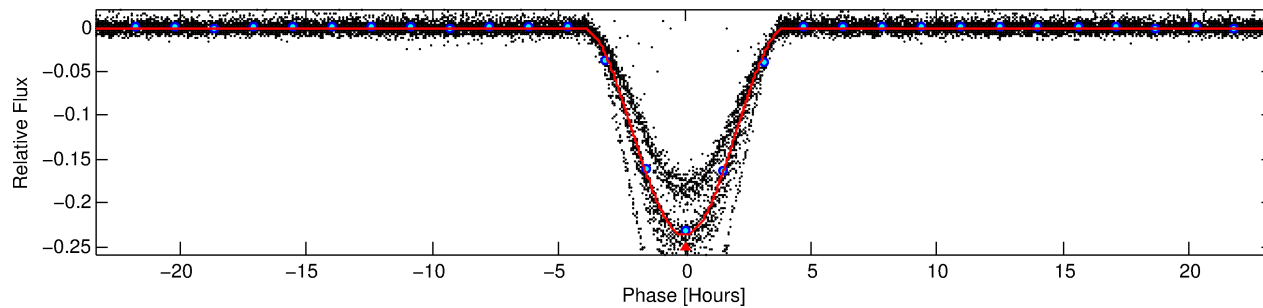
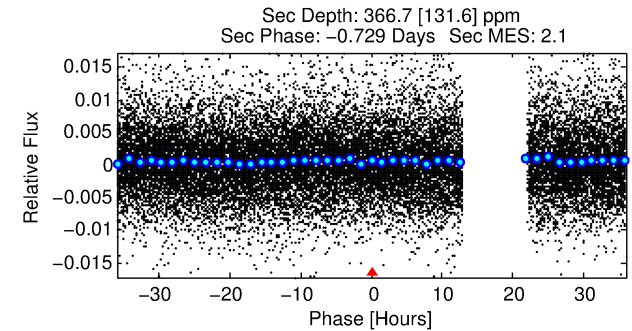
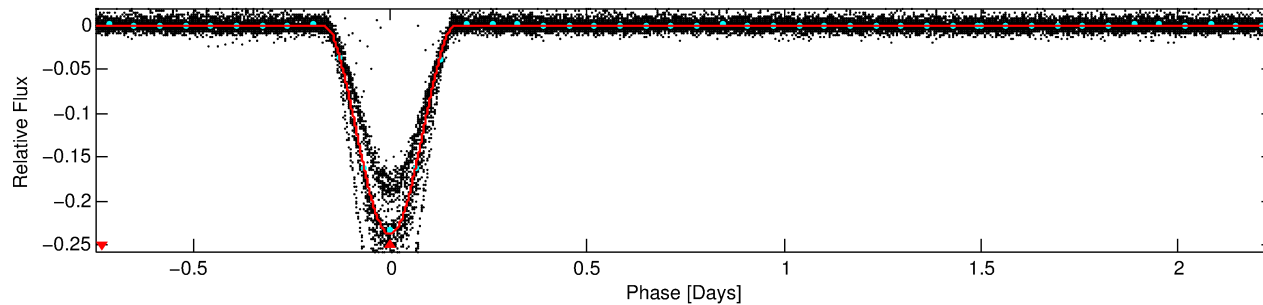
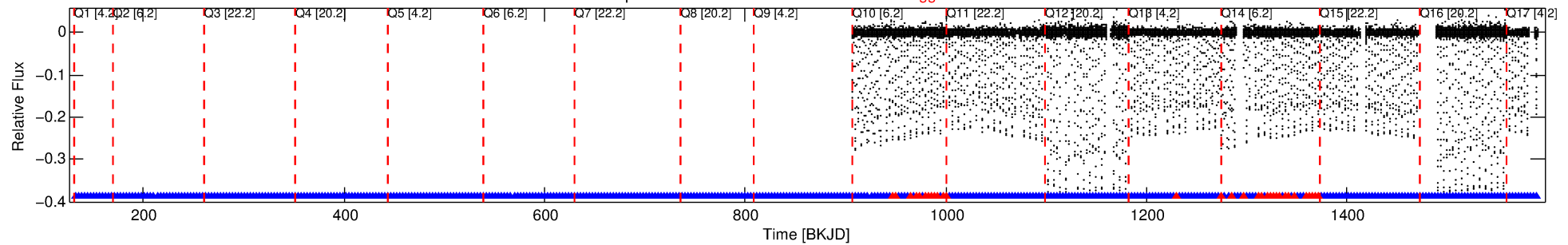
Ephemeris Match Information For 003838496-01

No Significant Match Found

DV One-Page Summary

KIC: 3838496 Candidate: 1 of 1 Period: 2.990 d
KOI: K03700.01 Corr: 0.991

Kp: 17.90 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



DV Fit Results:

Period = 2.99026 [0.00000] d
Epoch = 133.1077 [0.0004] BKJD
Rp/R* = 0.4901 [0.0047]
a/R* = 4.14 [0.01]
b = 0.59 [0.01]
Seff = 605.80 [0.00]
Teq = 1265 [0] K
Rp = 53.48 [0.51] Re
a = 0.0406 [0.0000] AU
Ag = 0.12 [0.04] [-21.12σ]
Teffp = 1143 [103] K [-1.19σ]

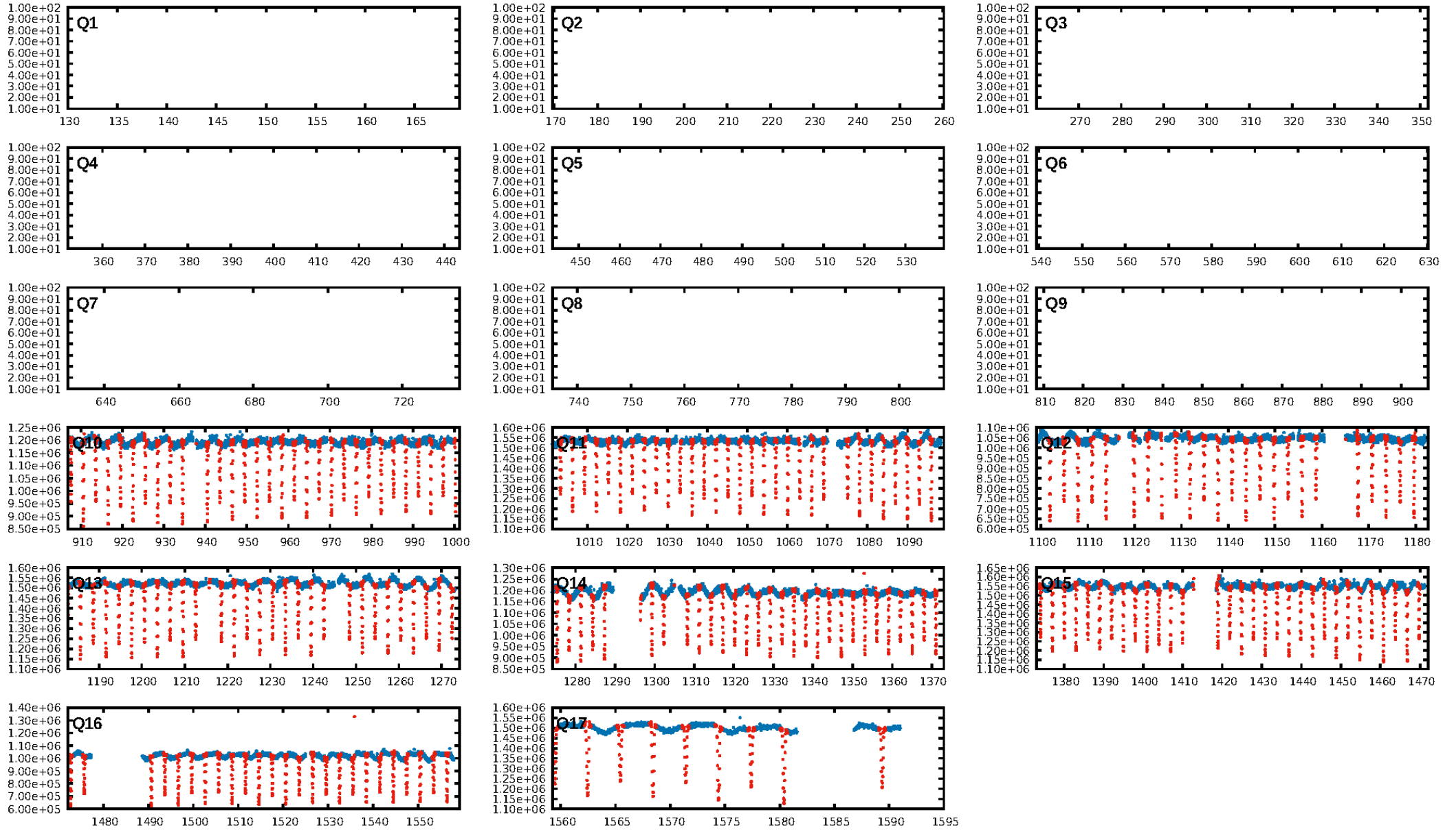
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.85 [170/201]
GhostDiagnostic-chr: 2.768
Centroid-sig: 0.0%
Centroid-so: 2.051 arcsec [239.85σ]
OotOffset-rm: 10.263 arcsec [127.93σ]
KicOffset-rm: 0.355 arcsec [4.62σ]
OotOffset-st: 0/2/2/2 [6]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

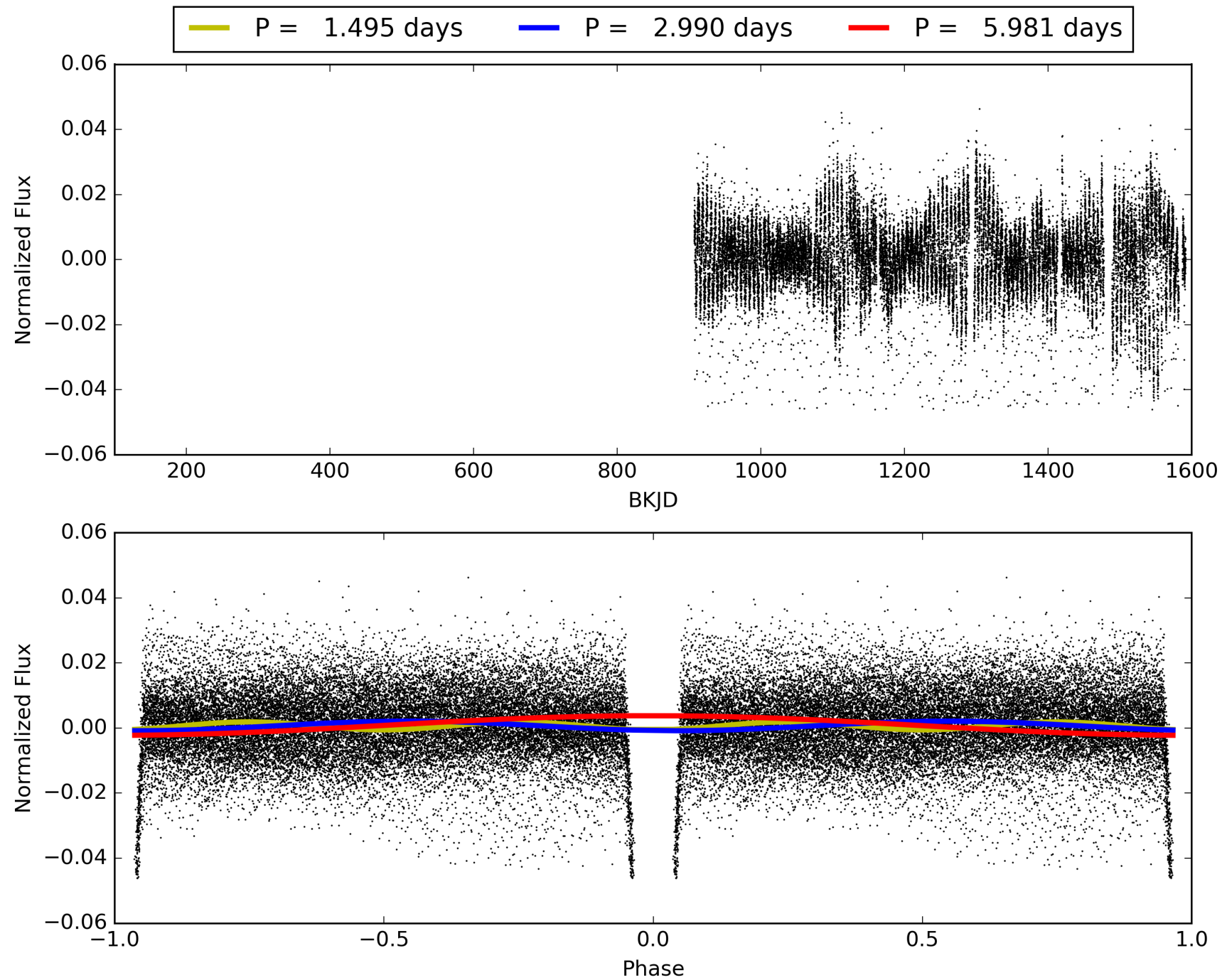
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:35:44 Z

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

TCE 003838496-01, PDC Light Curves

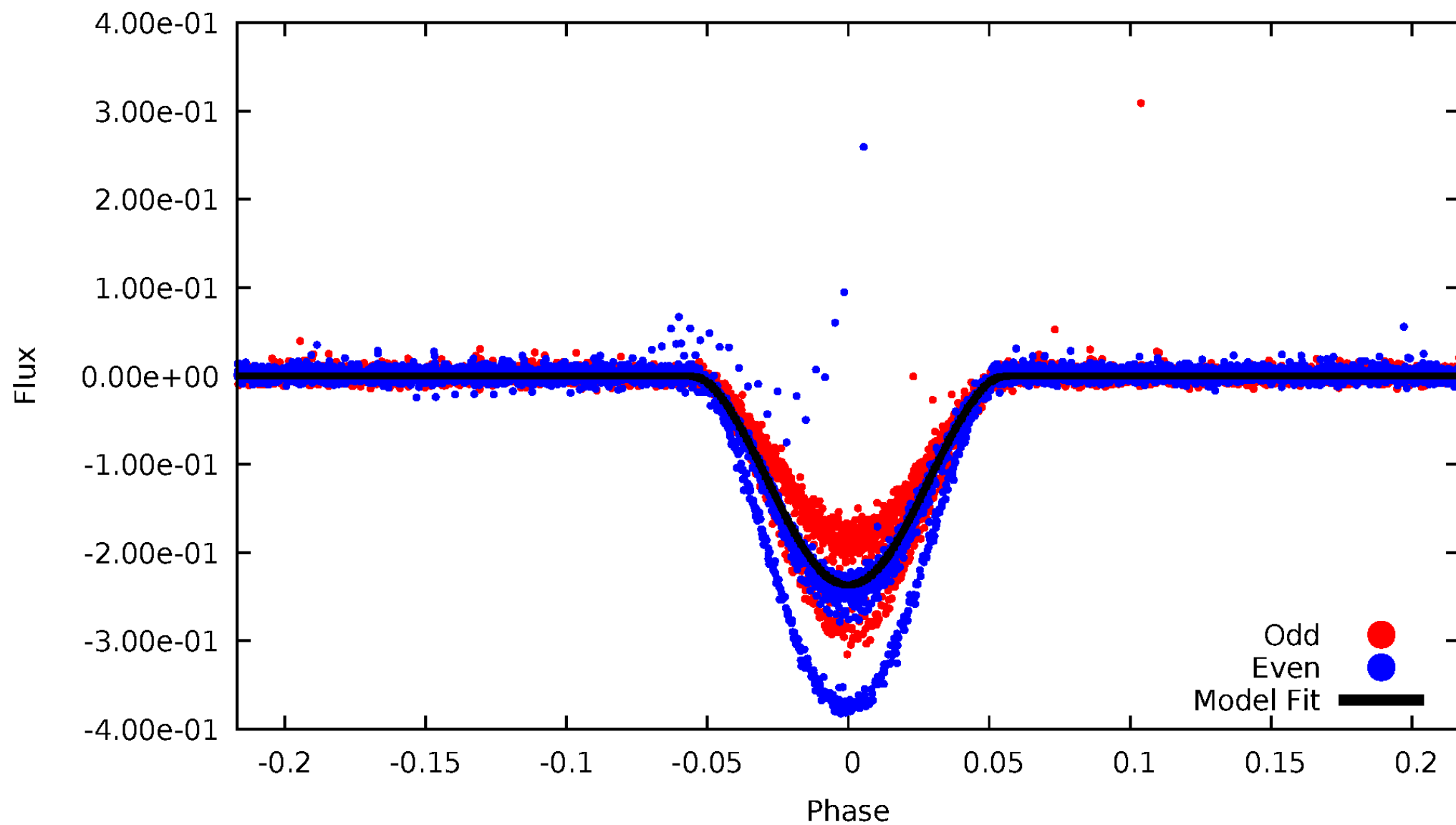


TCE 003838496-01



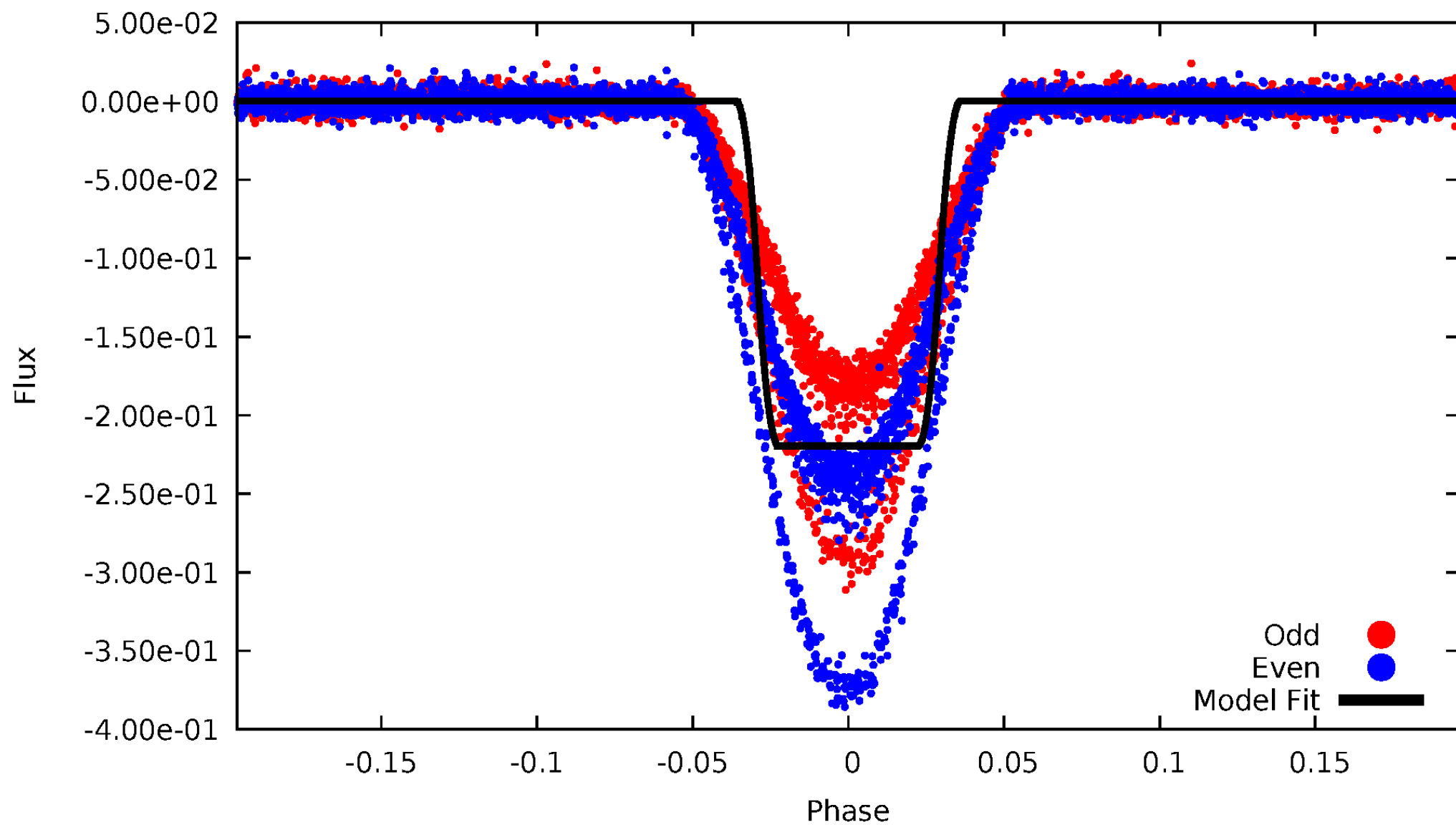
DV Odd/Even

TCE 003838496-01



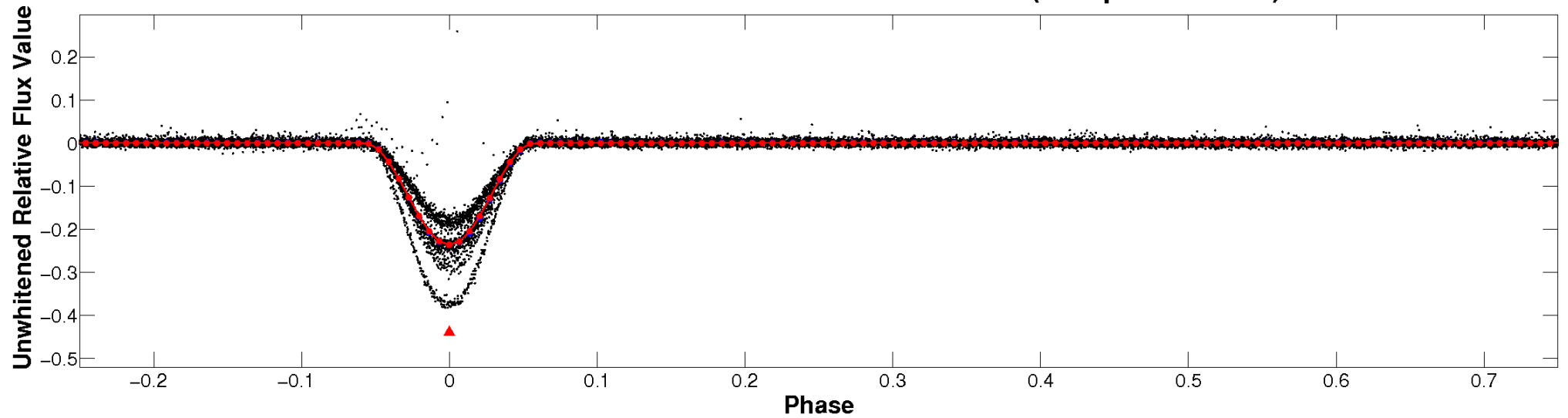
ALT Odd/Even

TCE 003838496-01

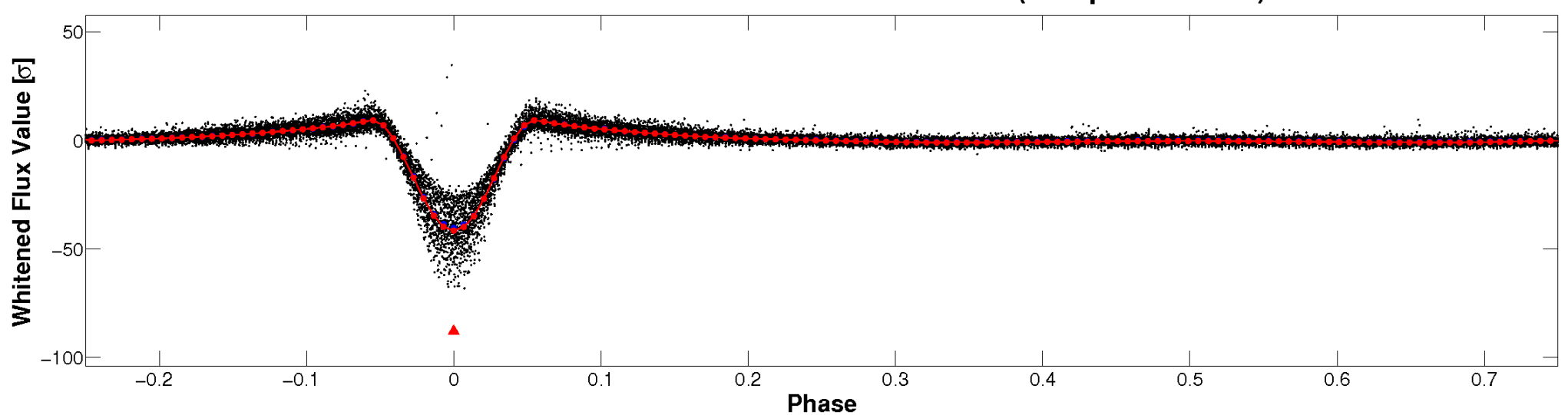


Non-Whitened Vs. Whitened Light Curve

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

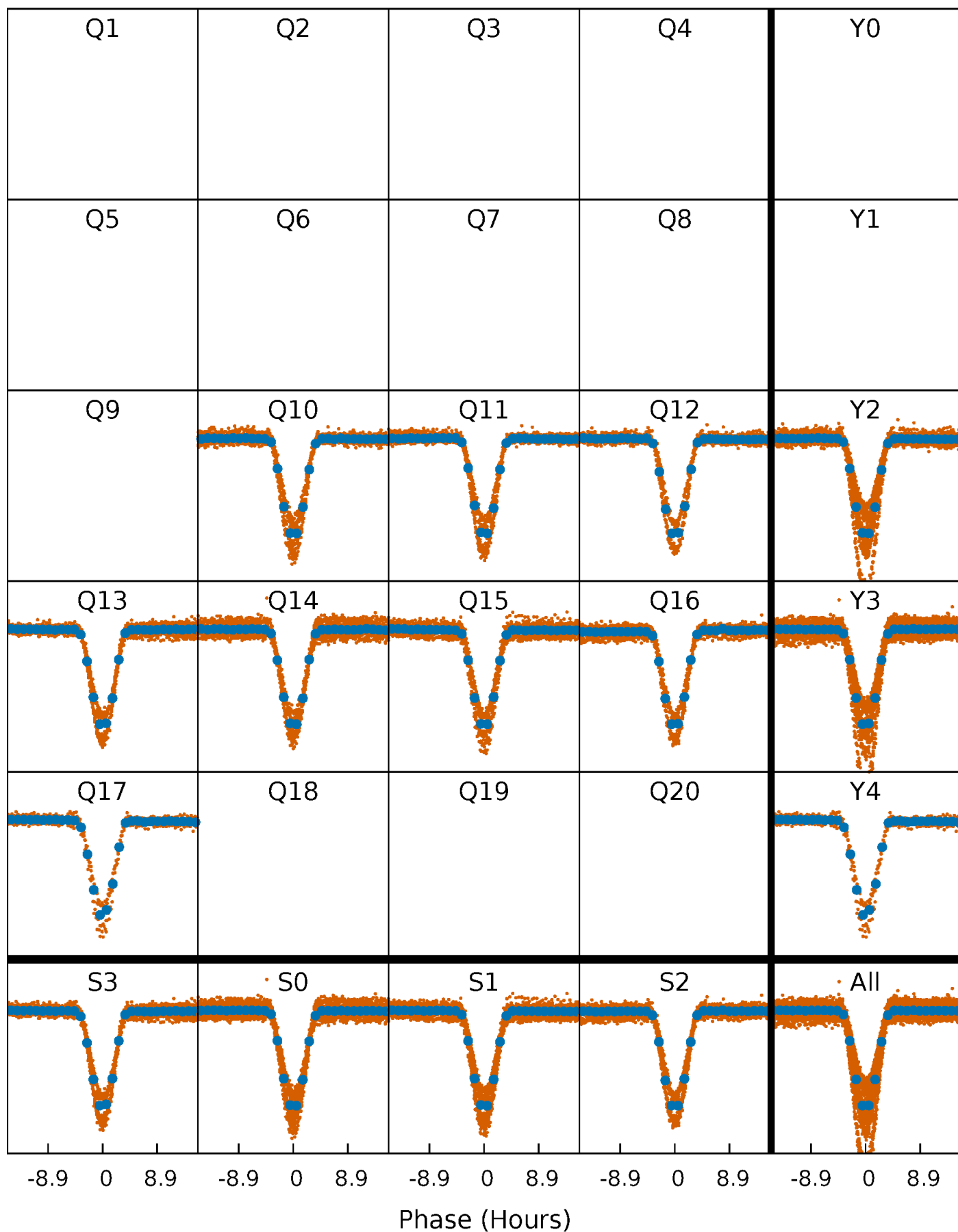


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



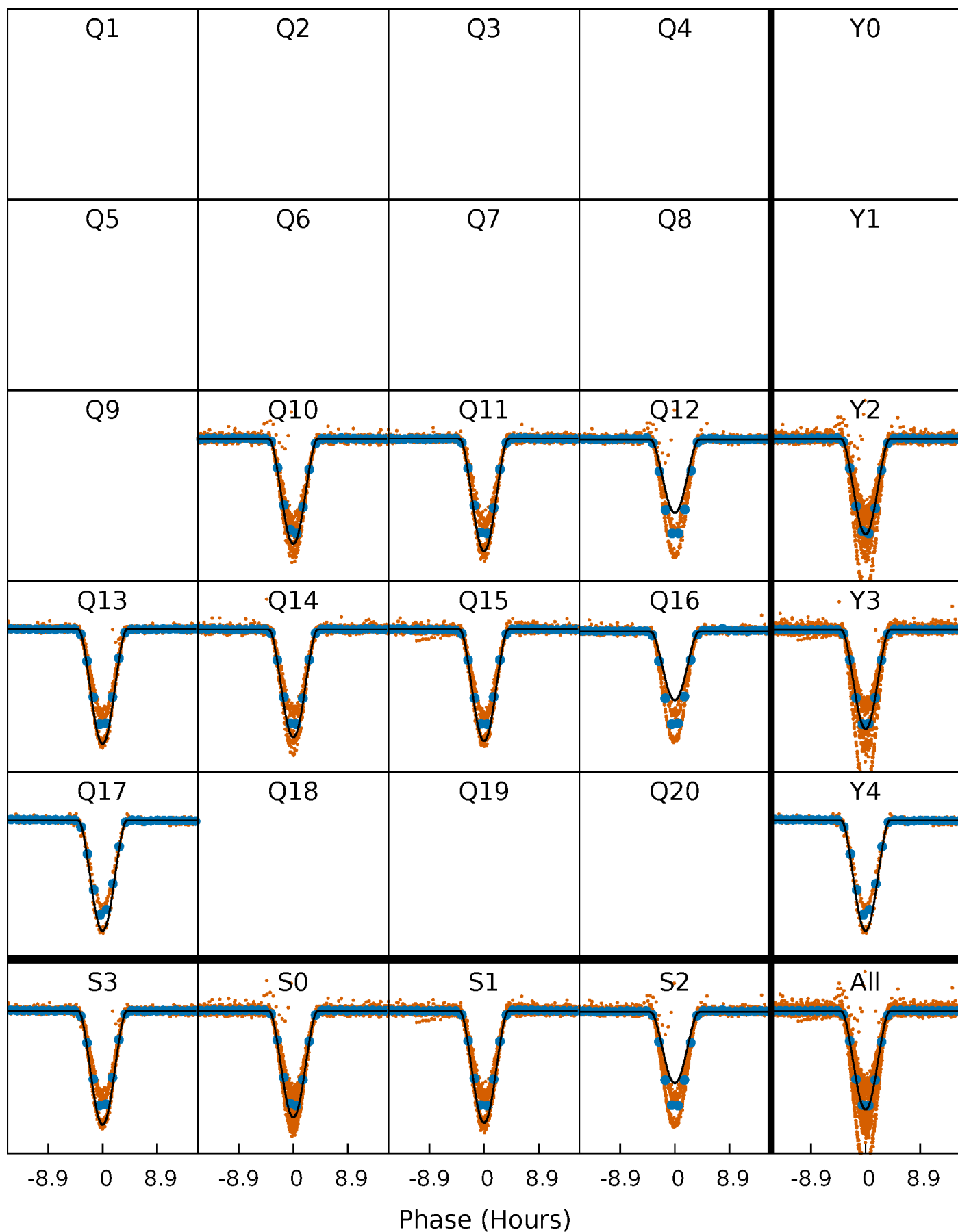
PDC Quarter-Phased Transit Curves

TCE 003838496-01 P= 2.990258 Days $T_0=133.107726$ (BKJD)



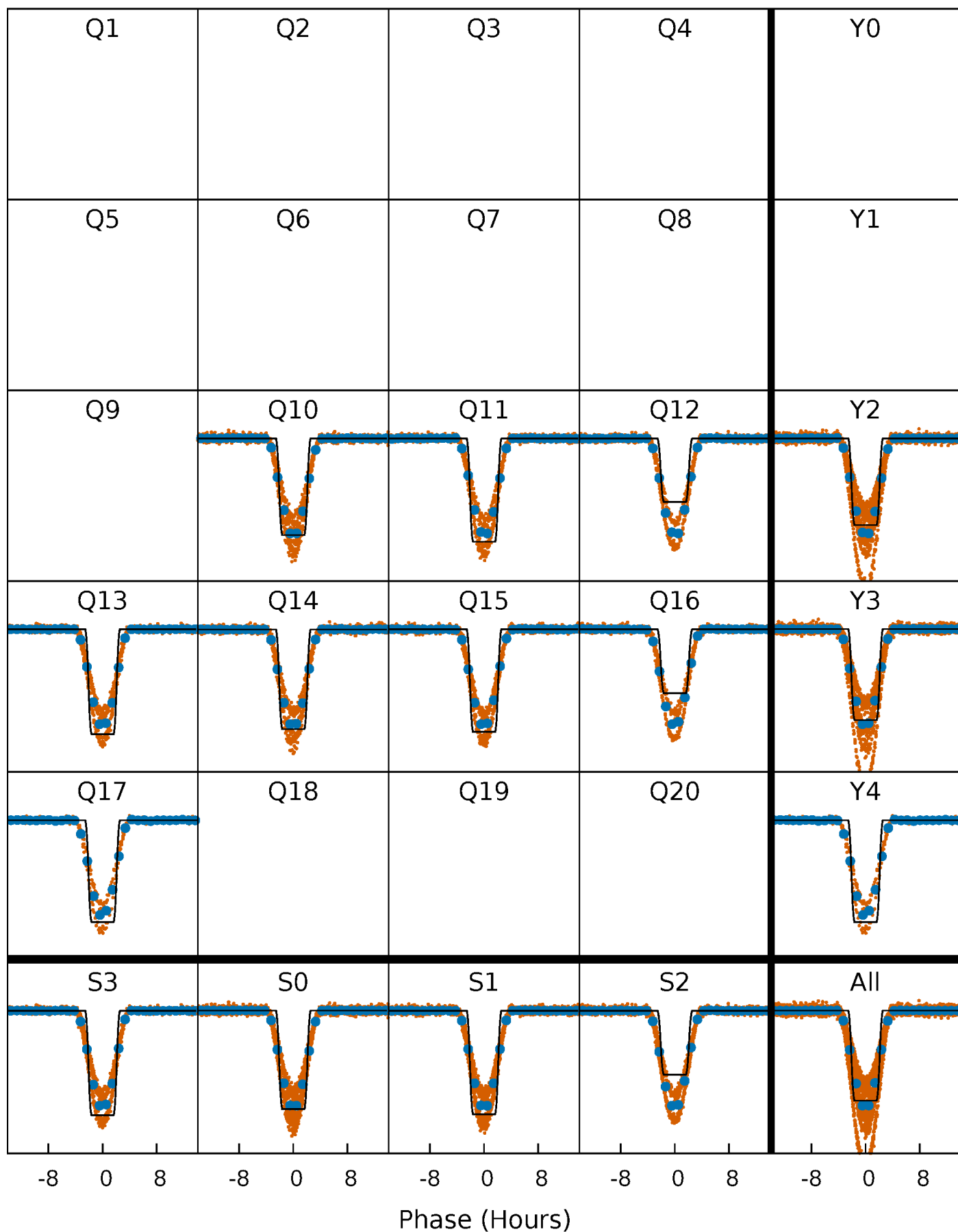
DV Quarter-Phased Transit Curves

TCE 003838496-01 P= 2.990258 Days $T_0=133.107726$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

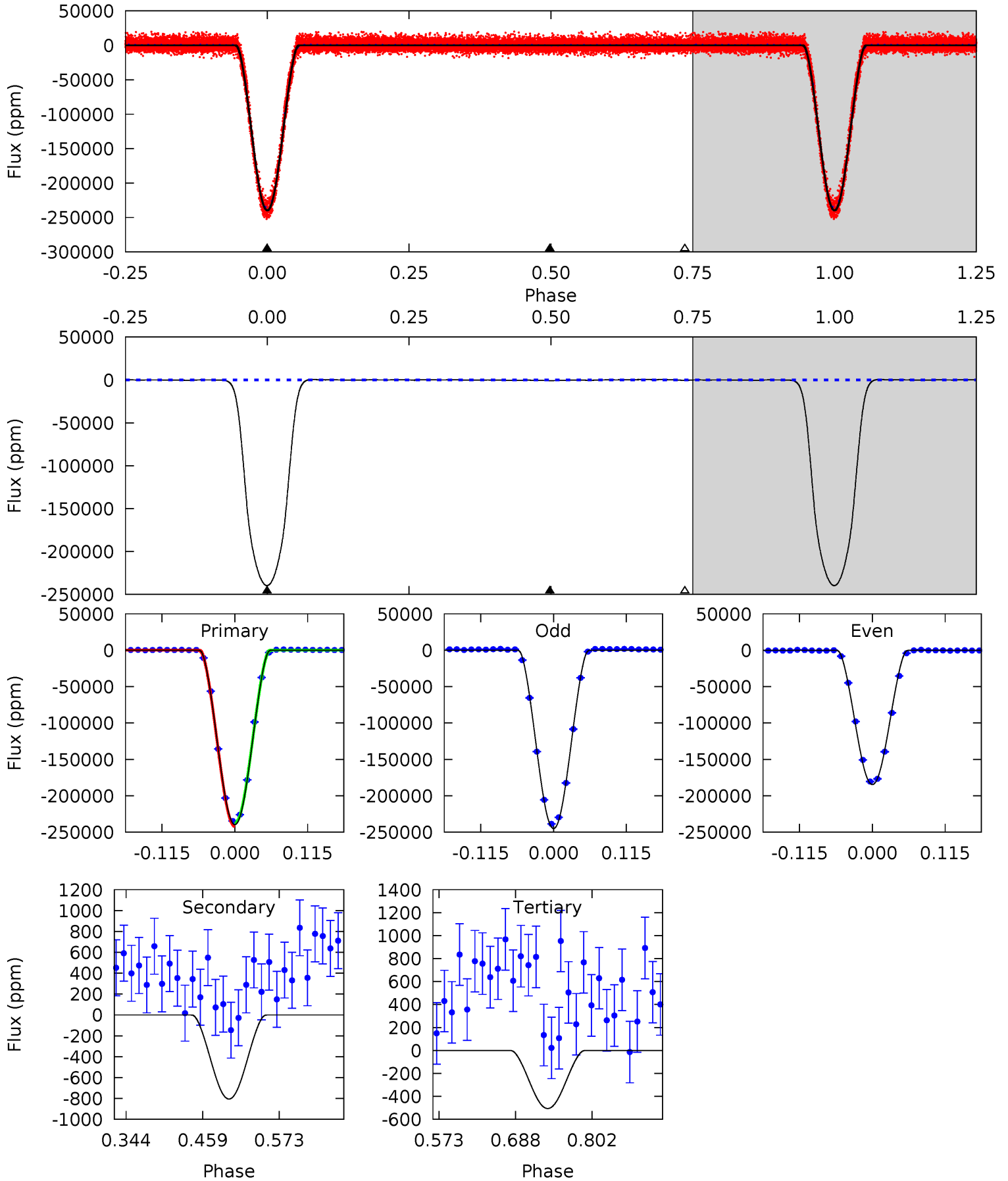
TCE 003838496-01 P= 2.990266 Days $T_0=133.105465$ (BKJD)



DV Model-Shift Uniqueness Test

003838496-01, P = 2.990258 Days, E = 133.107726 Days

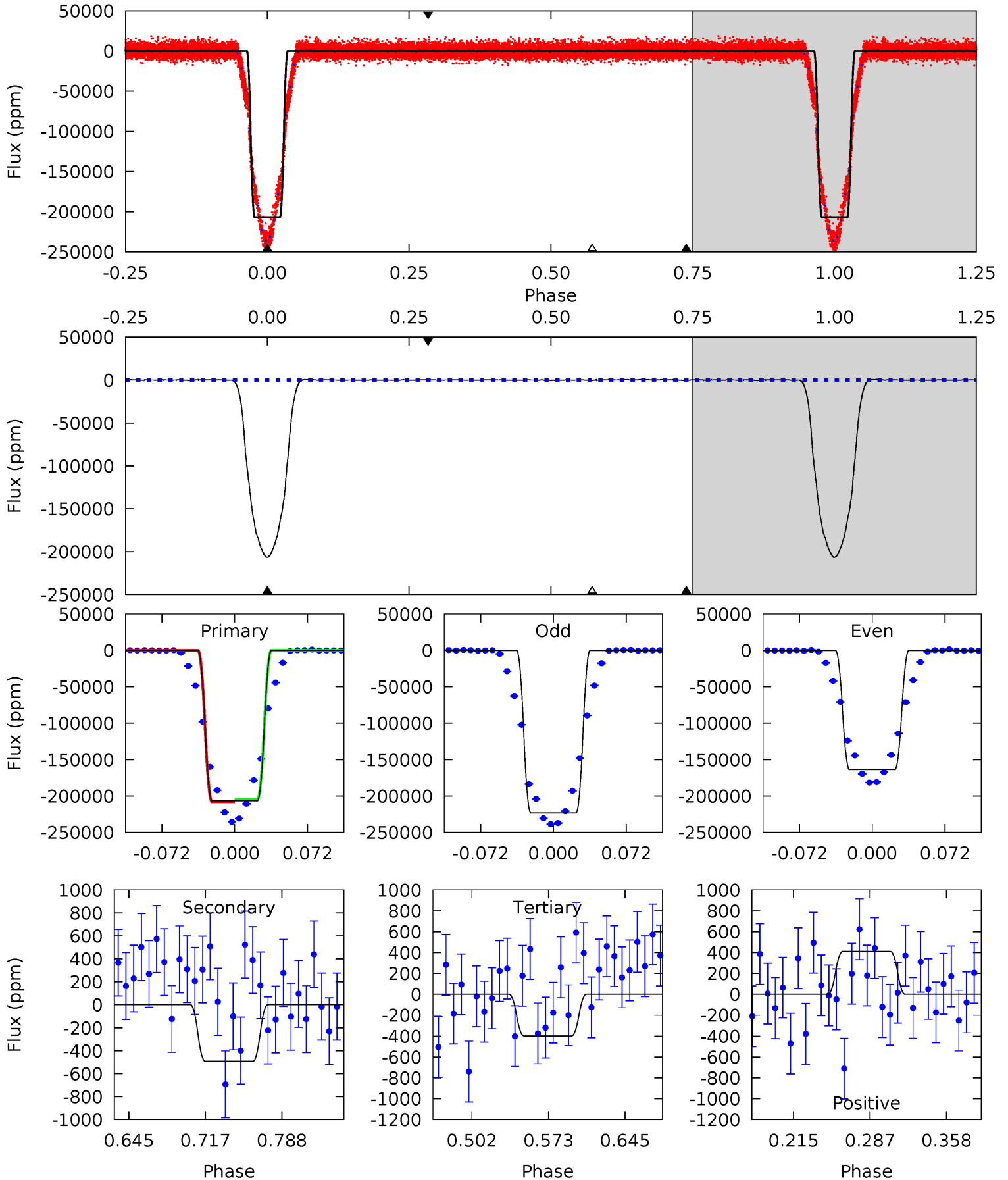
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2282	7.67	4.82	0	4.54	1.58	1.91	2277	2282	2.85	7.67	335.6	1.01	0.00	0



Alt Model-Shift Uniqueness Test

003838496-01, P = 2.990266 Days, E = 133.105465 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1276	3.04	2.46	2.54	4.63	1.80	1.14	1274	1274	0.59	0.51	228.7	1.02	0.00	0



Stellar Parameters For KIC 003838496

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 003838496-01 / KOI 3700.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-806 ± 105	$53.71^{+3.60}_{-3.79}$	1769^{+85}_{-83}	-1930^{+3408}_{-146}	$0.253^{+0.050}_{-0.042}$
Alt.	-493 ± 162	$51.54^{+3.45}_{-3.77}$	1769^{+81}_{-75}	-2143^{+156}_{-112}	$0.169^{+0.064}_{-0.059}$

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 $A_{obs} \gg 1.0$

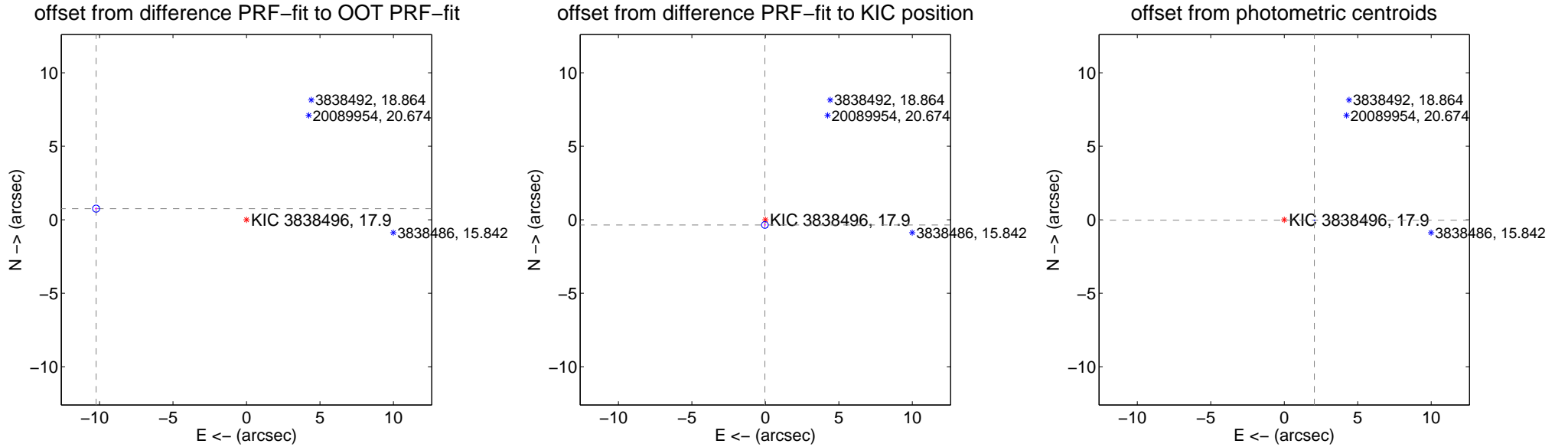
DV Centroid Data

Supplemental centroid analysis for 003838496-01. Kepler magnitude: 17.90. Transit SNR 962.30

There are 8 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 10.21 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.263 ± 0.080	127.93	10.235 ± 0.080	0.756 ± 0.077
PRF-fit source offset from KIC position	0.355 ± 0.077	4.62	0.033 ± 0.072	-0.353 ± 0.076
photometric centroid source offset	2.05 ± 0.01	239.85	-2.05 ± 0.01	-0.03 ± 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.

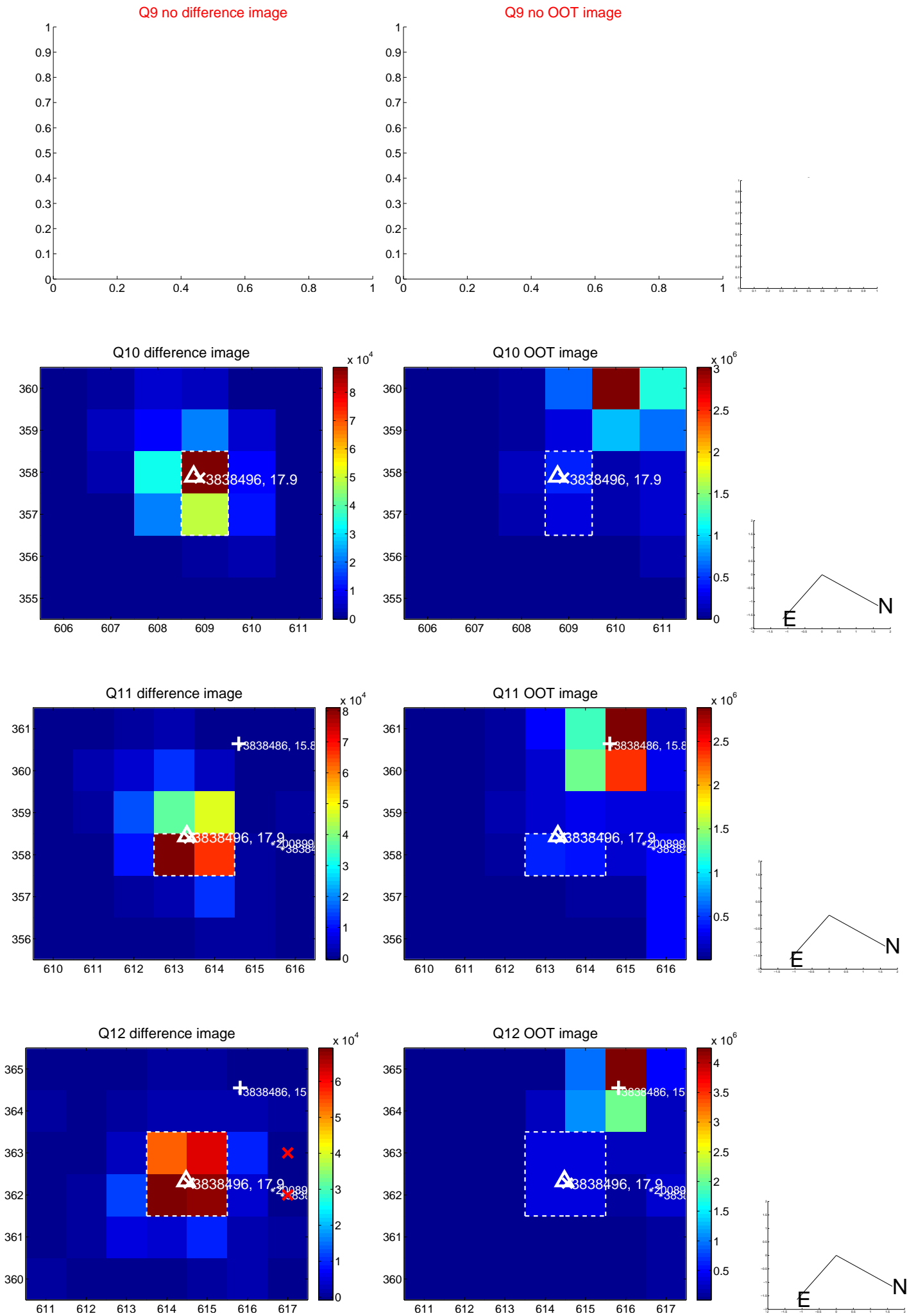
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



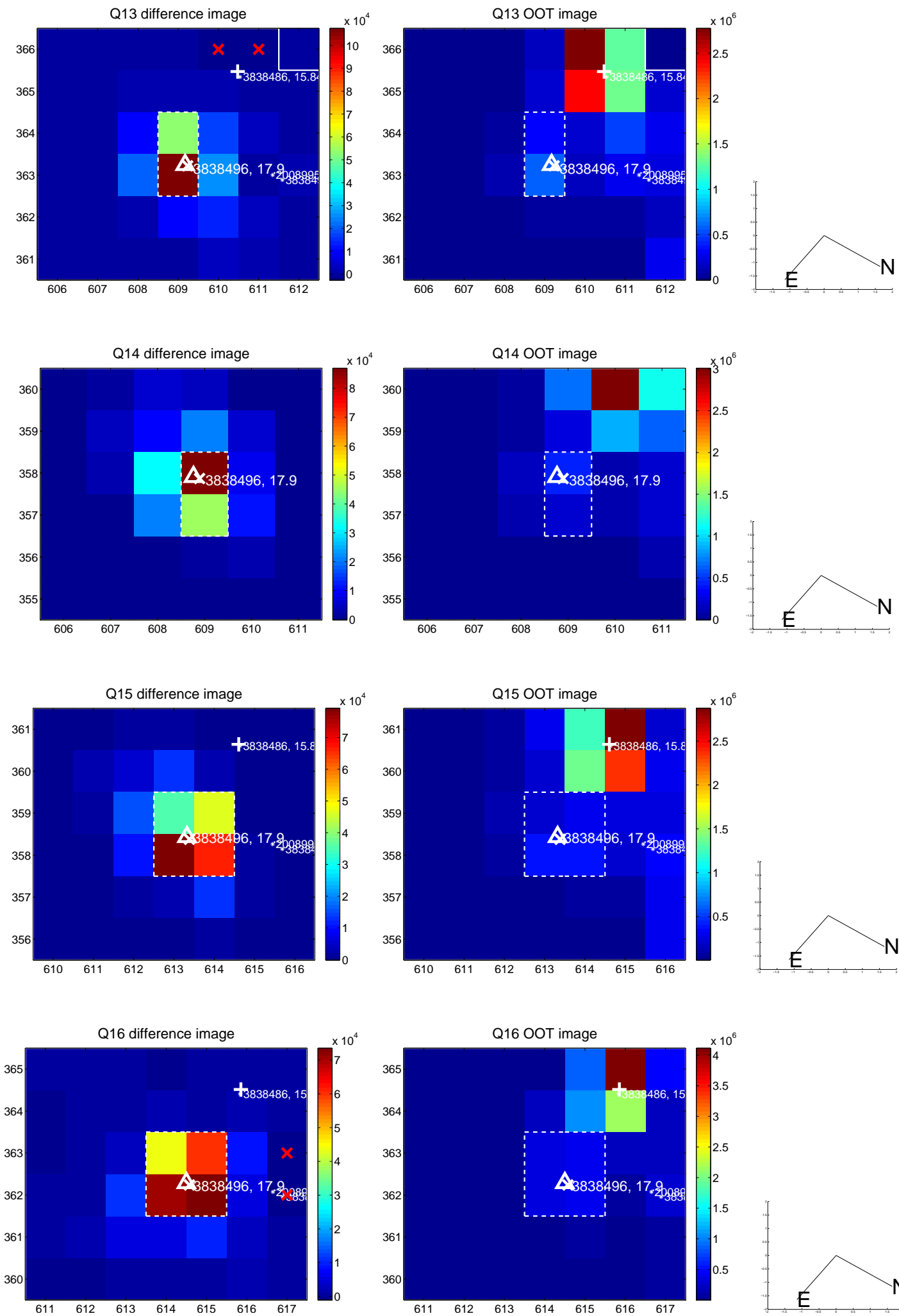
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



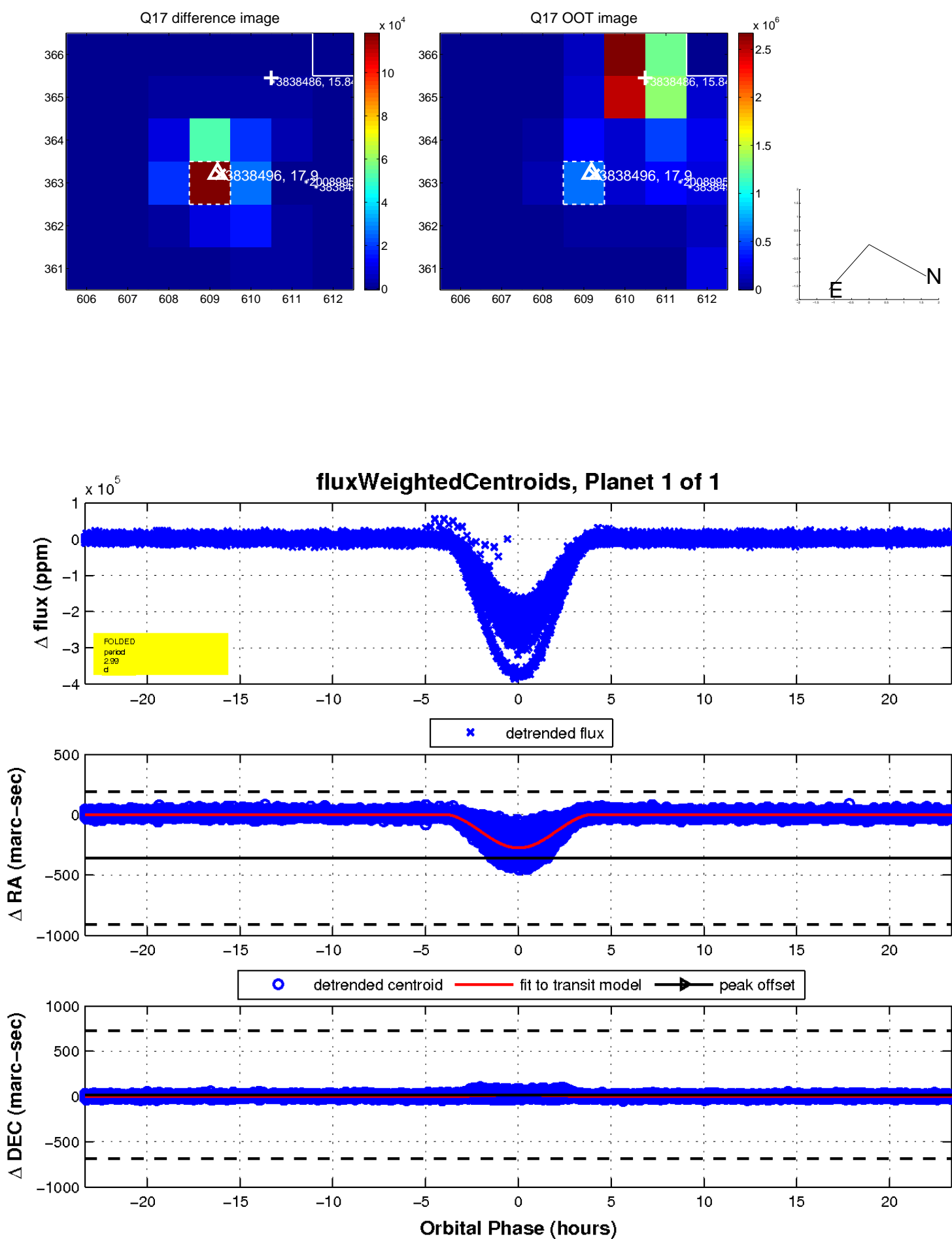
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

