

KIC 006197038

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})
006197038-01	OBS	6144.01	9.751688	138.540444	333424.5	15.793	3081.9	2873.9	3.15	5147	181.34	801.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006197038-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT

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.

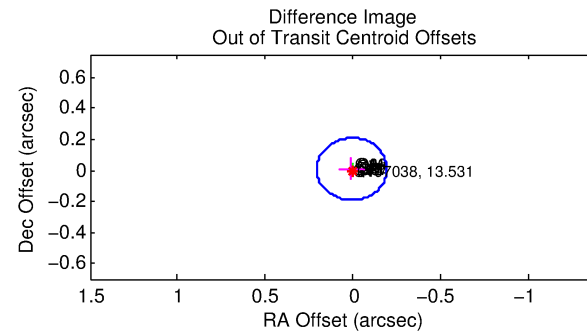
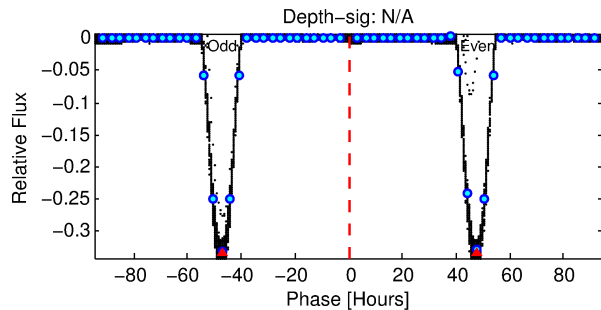
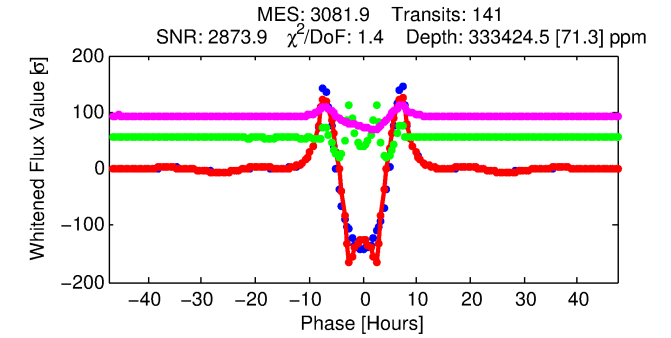
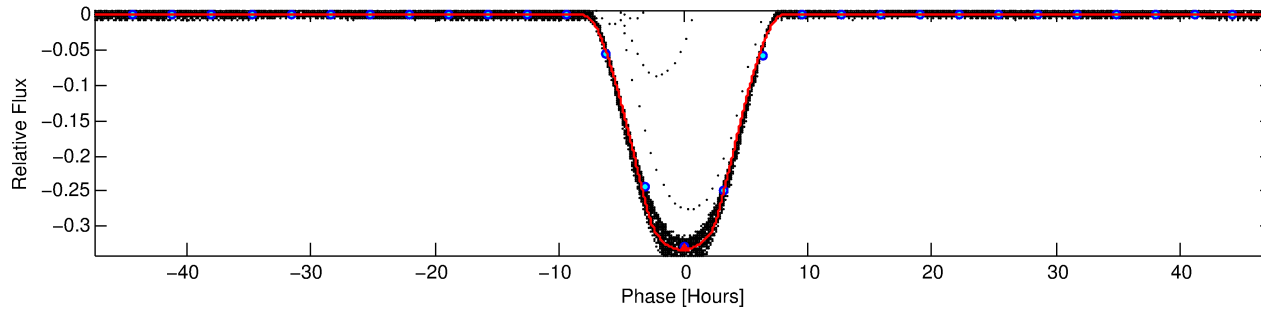
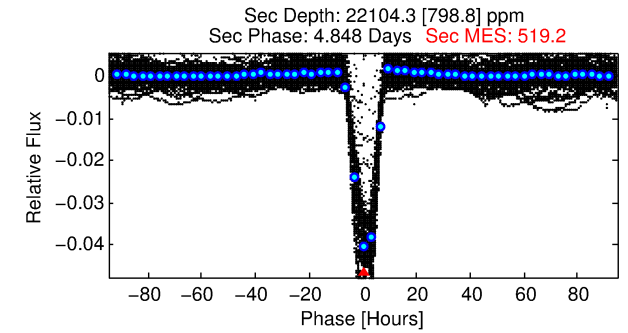
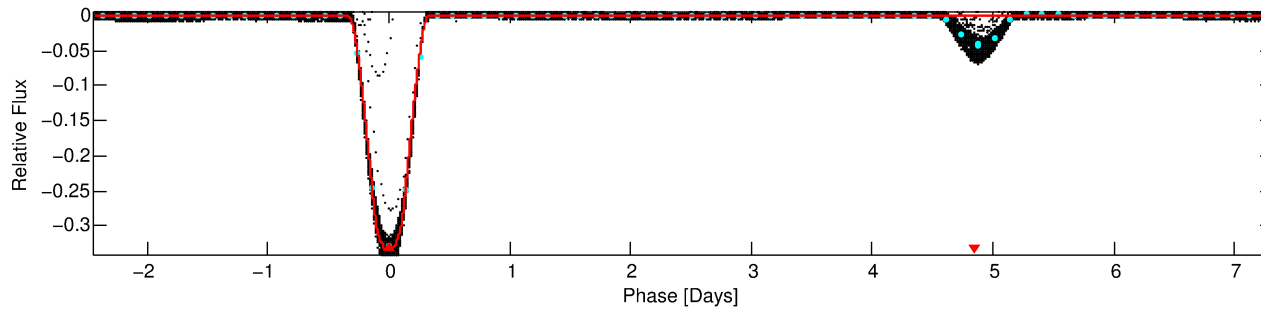
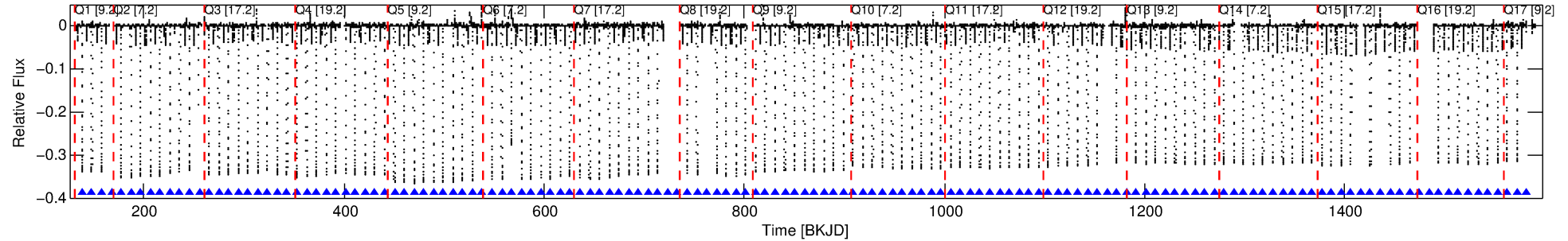
Ephemeris Match Information For 006197038-01

No Significant Match Found

DV One-Page Summary

KIC: 6197038 Candidate: 1 of 1 Period: 9.752 d
KOI: K06144.01 Corr: 0.950

Kp: 13.53 R*: 3.15 Rs Teff: 5147.0 K Logg: 3.42 Fe/H: -0.540



DV Fit Results:

Period = 9.75169 [0.00000] d
Epoch = 138.5404 [0.0000] BKJD
Rp/R* = 0.5284 [0.0001]
a/R* = 7.26 [0.00]
b = 0.00 [0.54]
Seff = 801.84 [437.63]
Teff = 1357 [185] K
Rp = 181.34 [84.47] Re
a = 0.0881 [0.0335] AU
Ag = 2.87 [1.54] [1.21σ]
Teffp = 2730 [73] K [6.90σ]

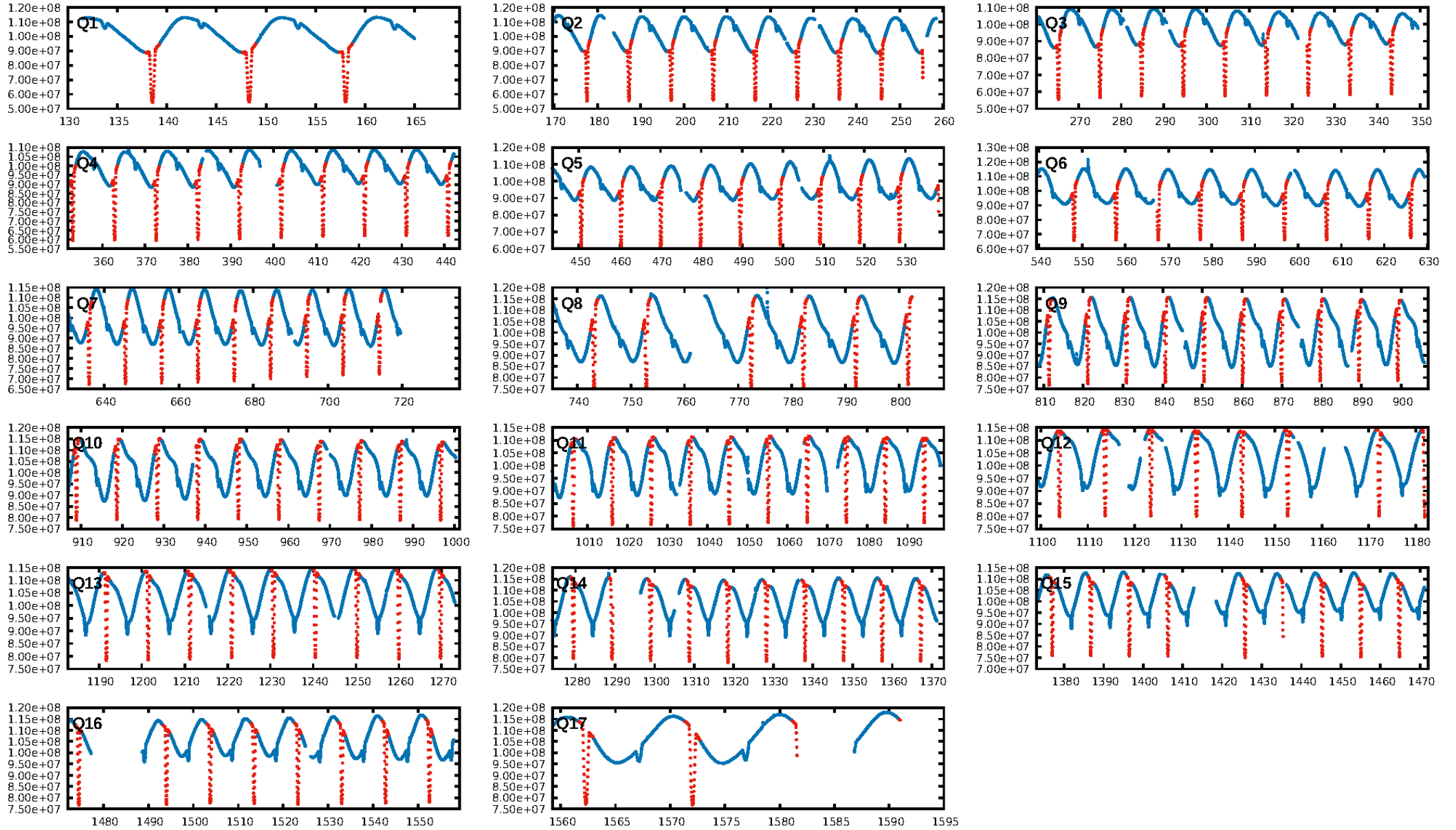
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [135/135]
GhostDiagnostic-chr: 0.9874
Centroid-sig: 0.0%
Centroid-so: 0.132 arcsec [405.15σ]
OotOffset-rm: 0.013 arcsec [0.19σ]
KicOffset-rm: 0.096 arcsec [1.43σ]
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]

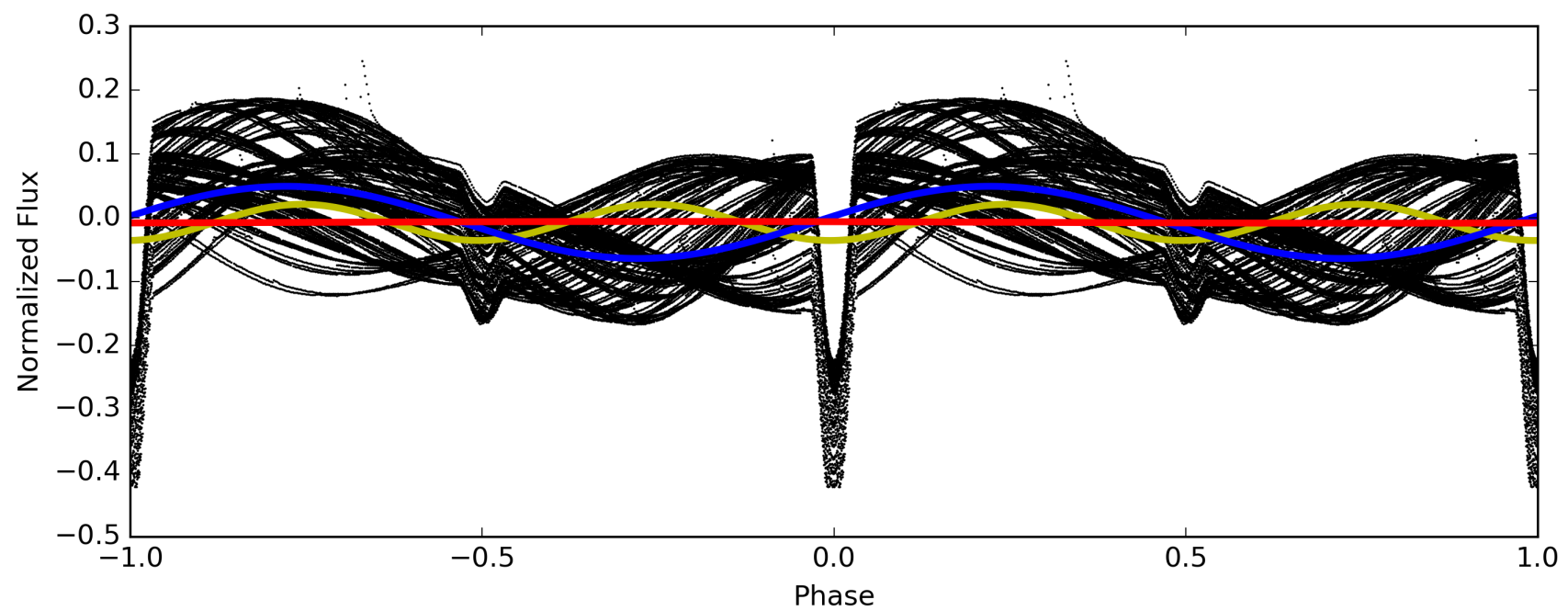
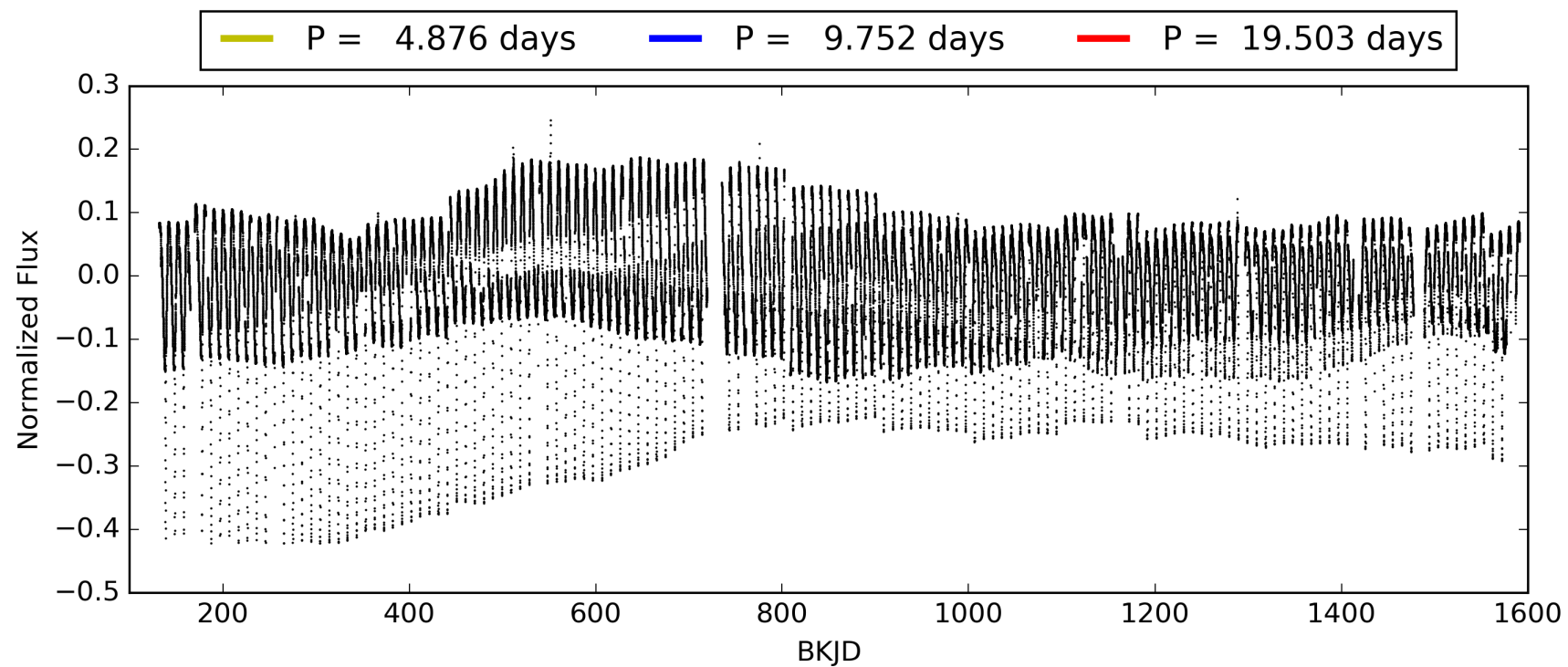
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:43:08 Z

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

TCE 006197038-01, PDC Light Curves

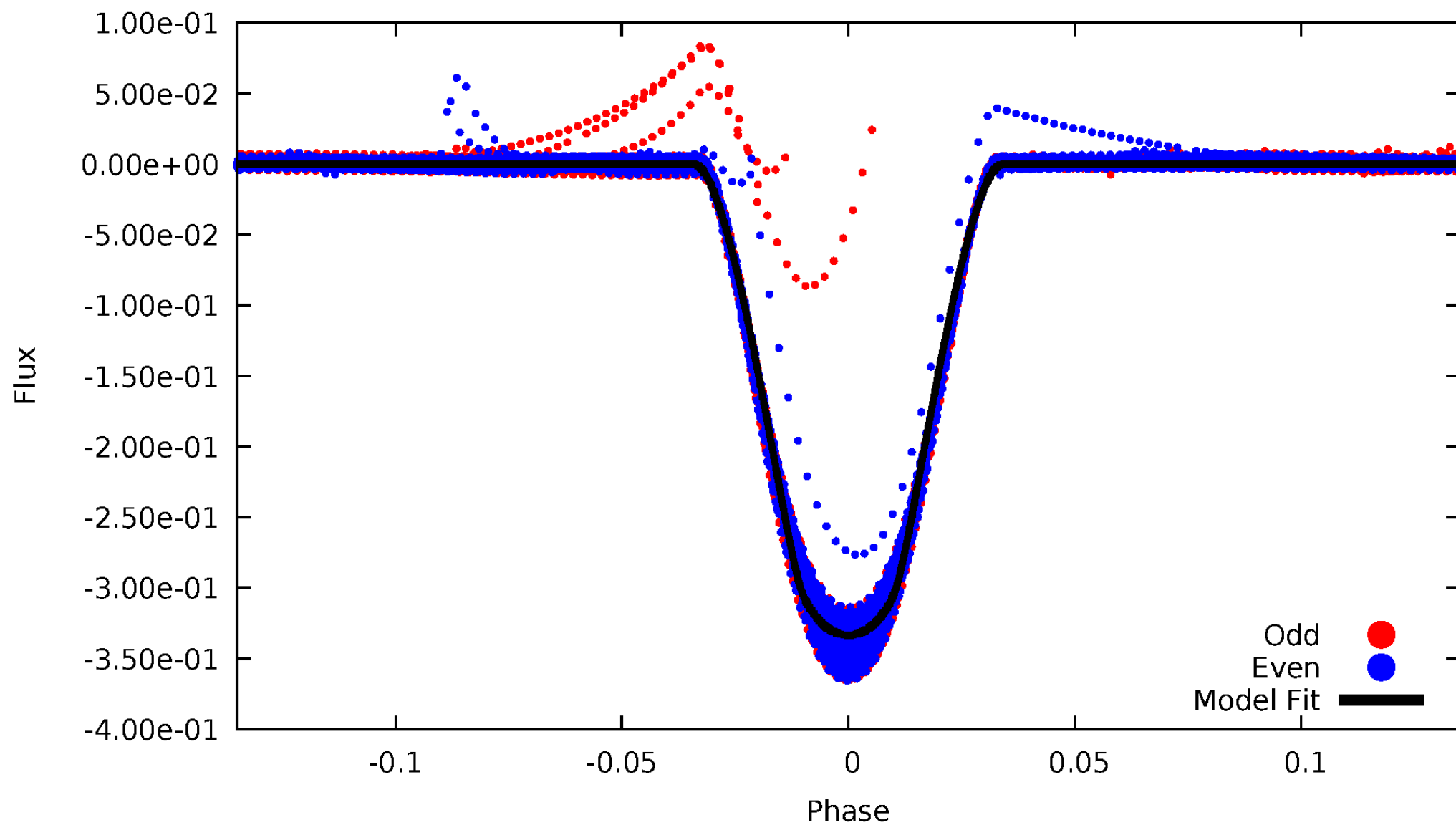


TCE 006197038-01



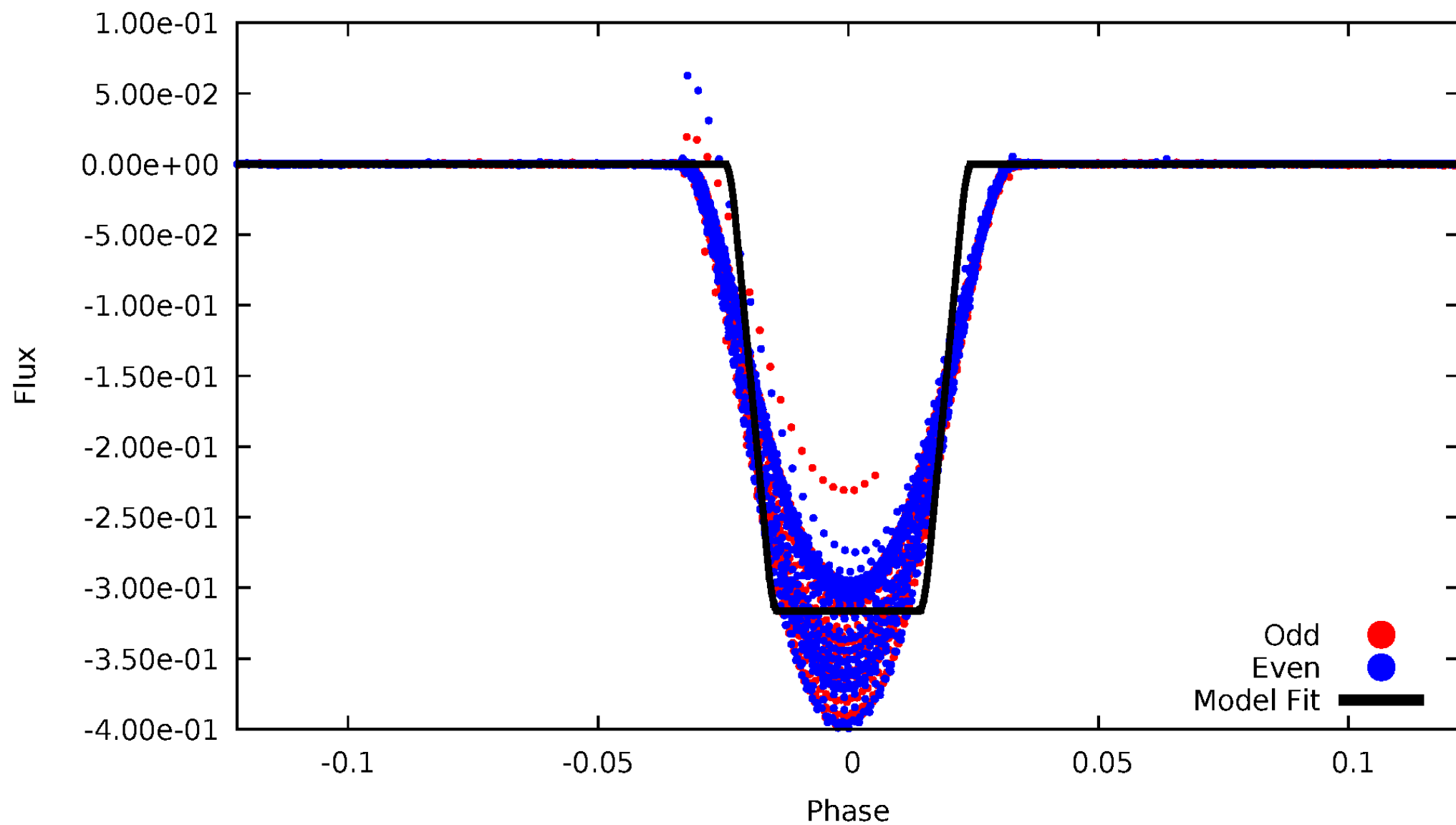
DV Odd/Even

TCE 006197038-01



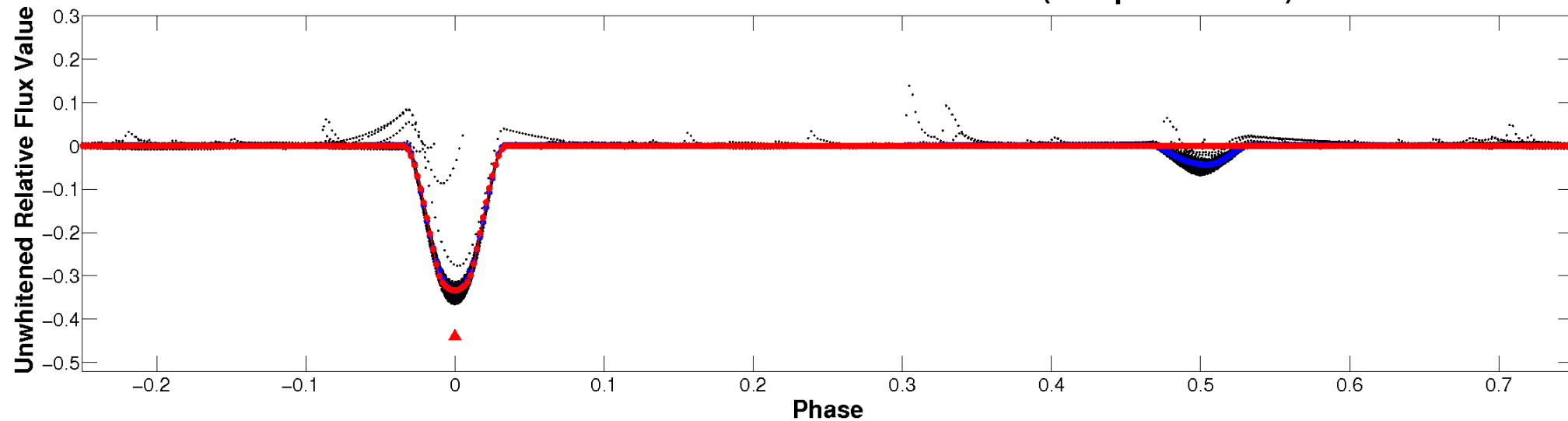
ALT Odd/Even

TCE 006197038-01

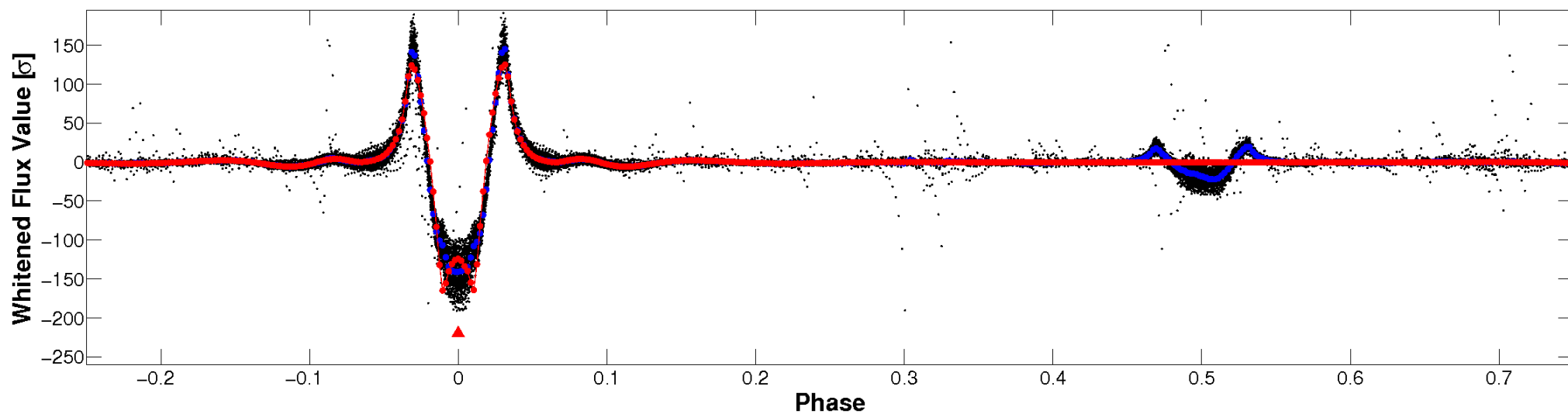


Non-Whitened Vs. Whitened Light Curve

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

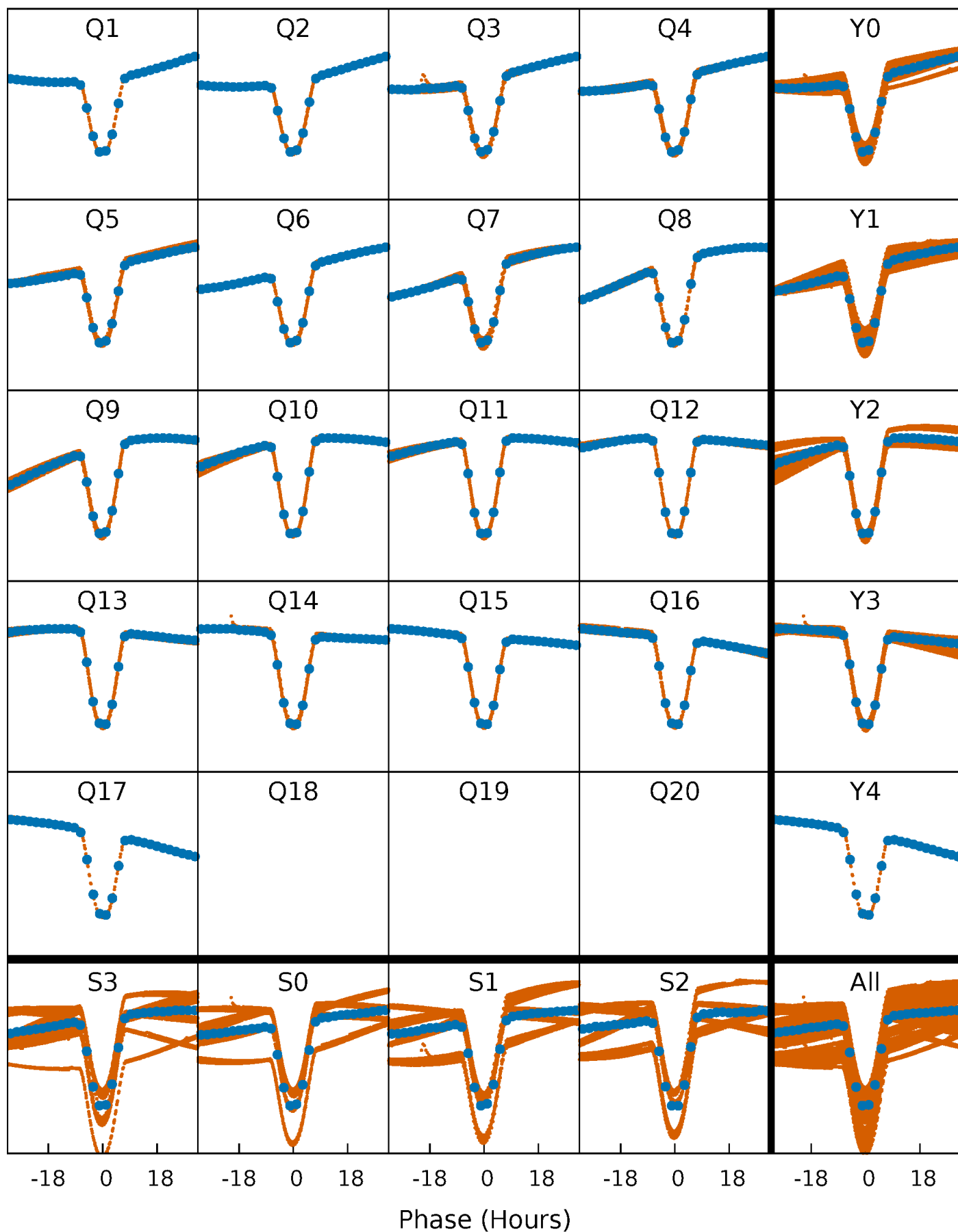


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



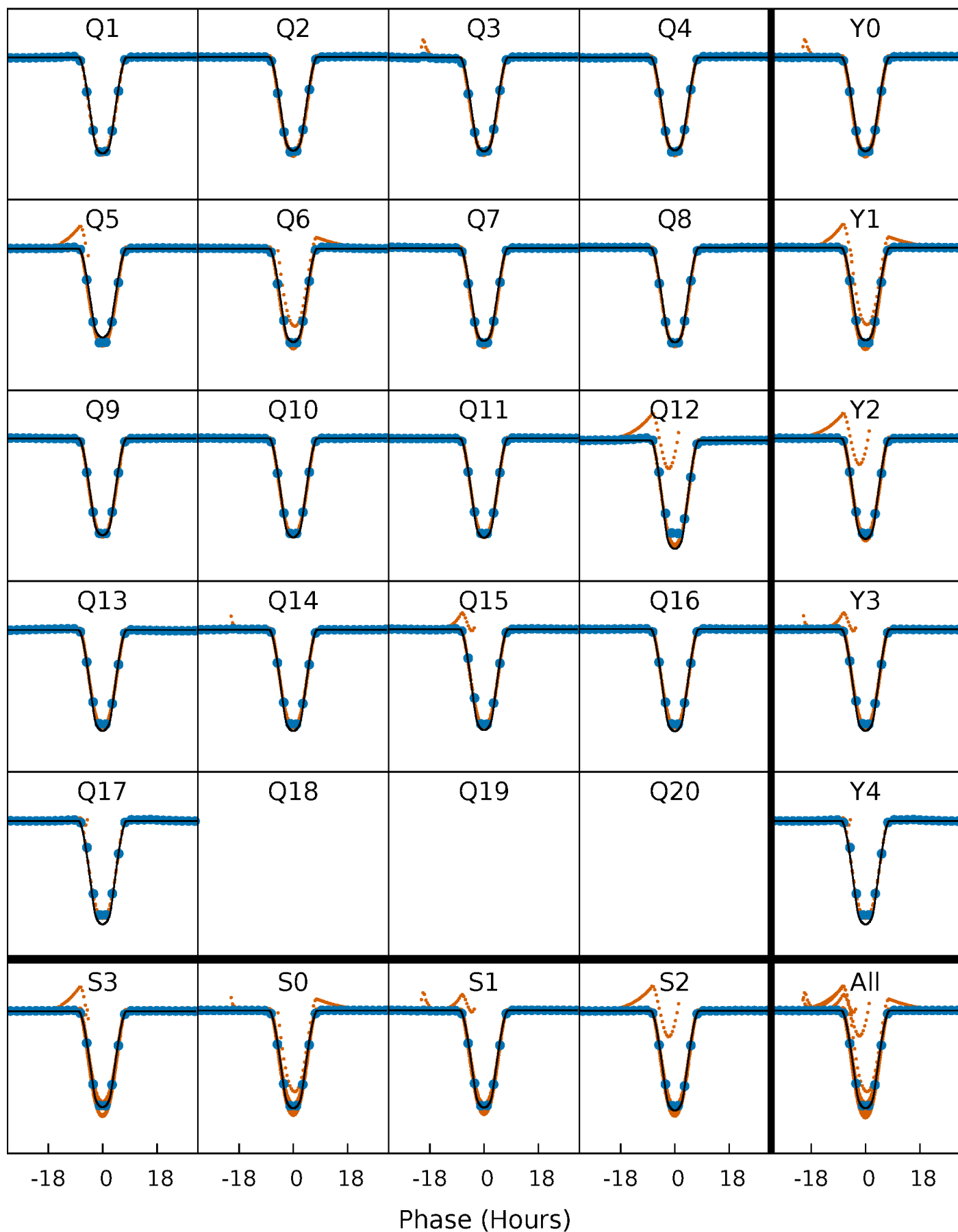
PDC Quarter-Phased Transit Curves

TCE 006197038-01 P= 9.751688 Days $T_0=138.540444$ (BKJD)



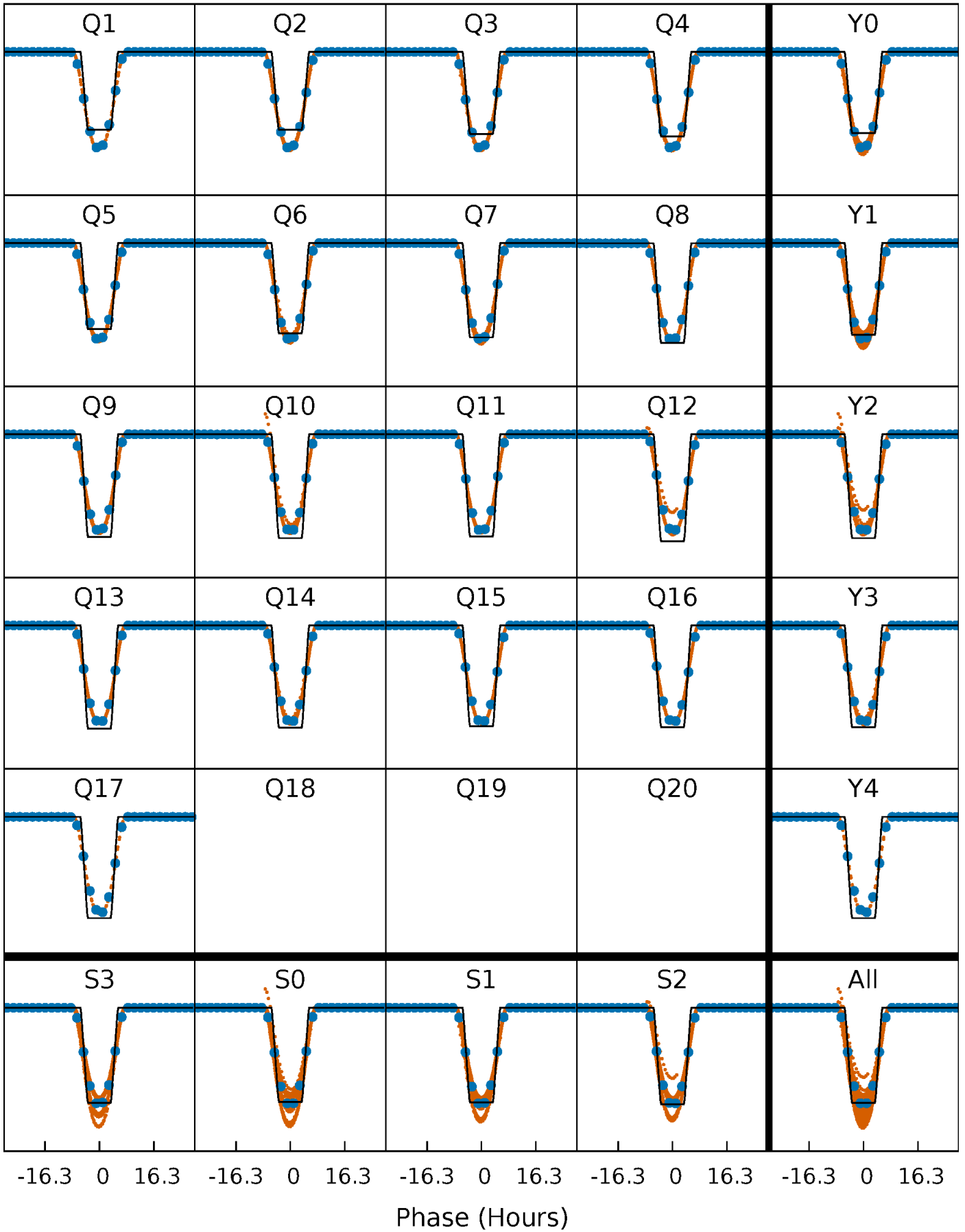
DV Quarter-Phased Transit Curves

TCE 006197038-01 P= 9.751688 Days $T_0=138.540444$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

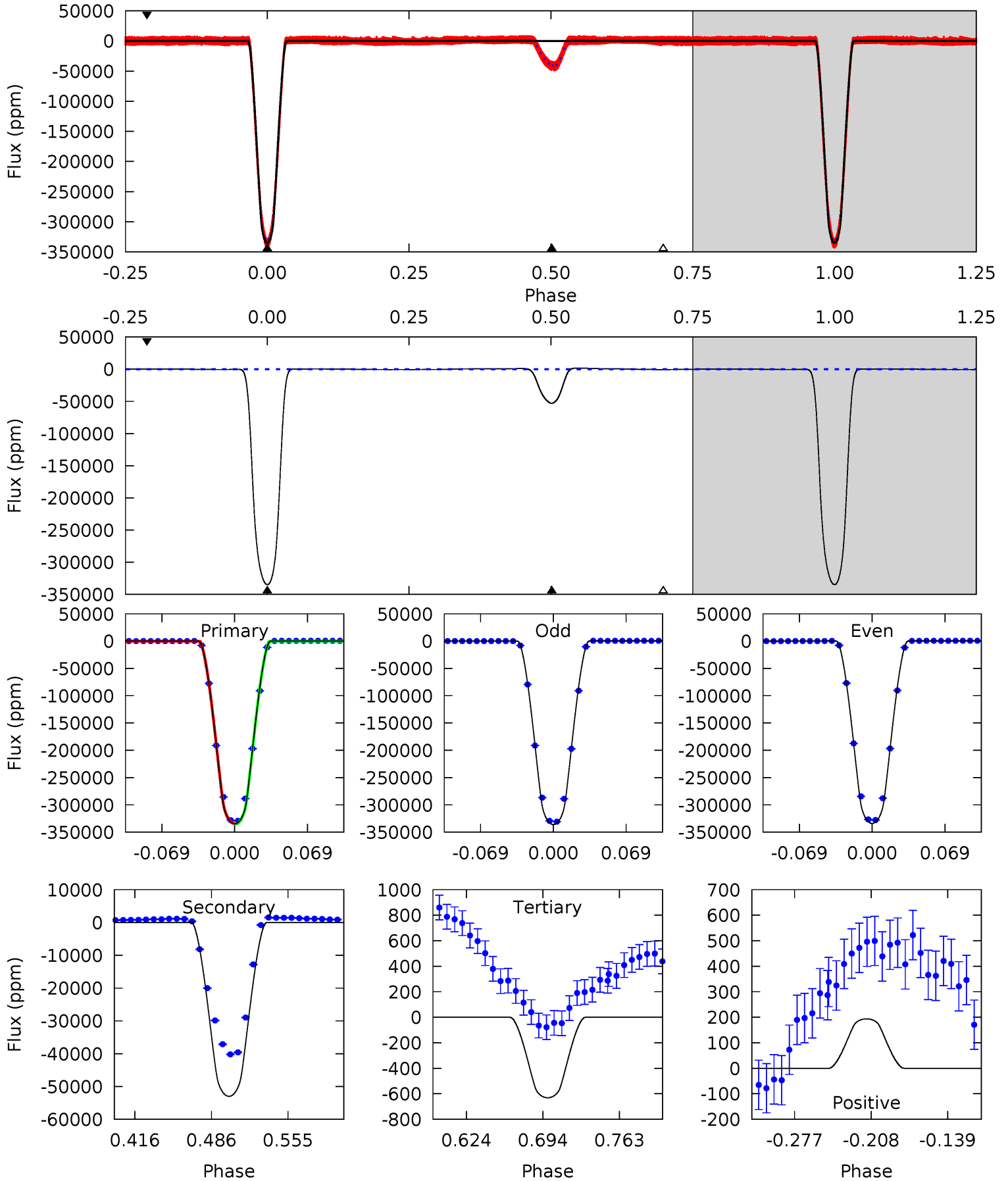
TCE 006197038-01 P= 9.751638 Days $T_0=138.544021$ (BKJD)



DV Model-Shift Uniqueness Test

006197038-01, P = 9.751688 Days, E = 128.788756 Days

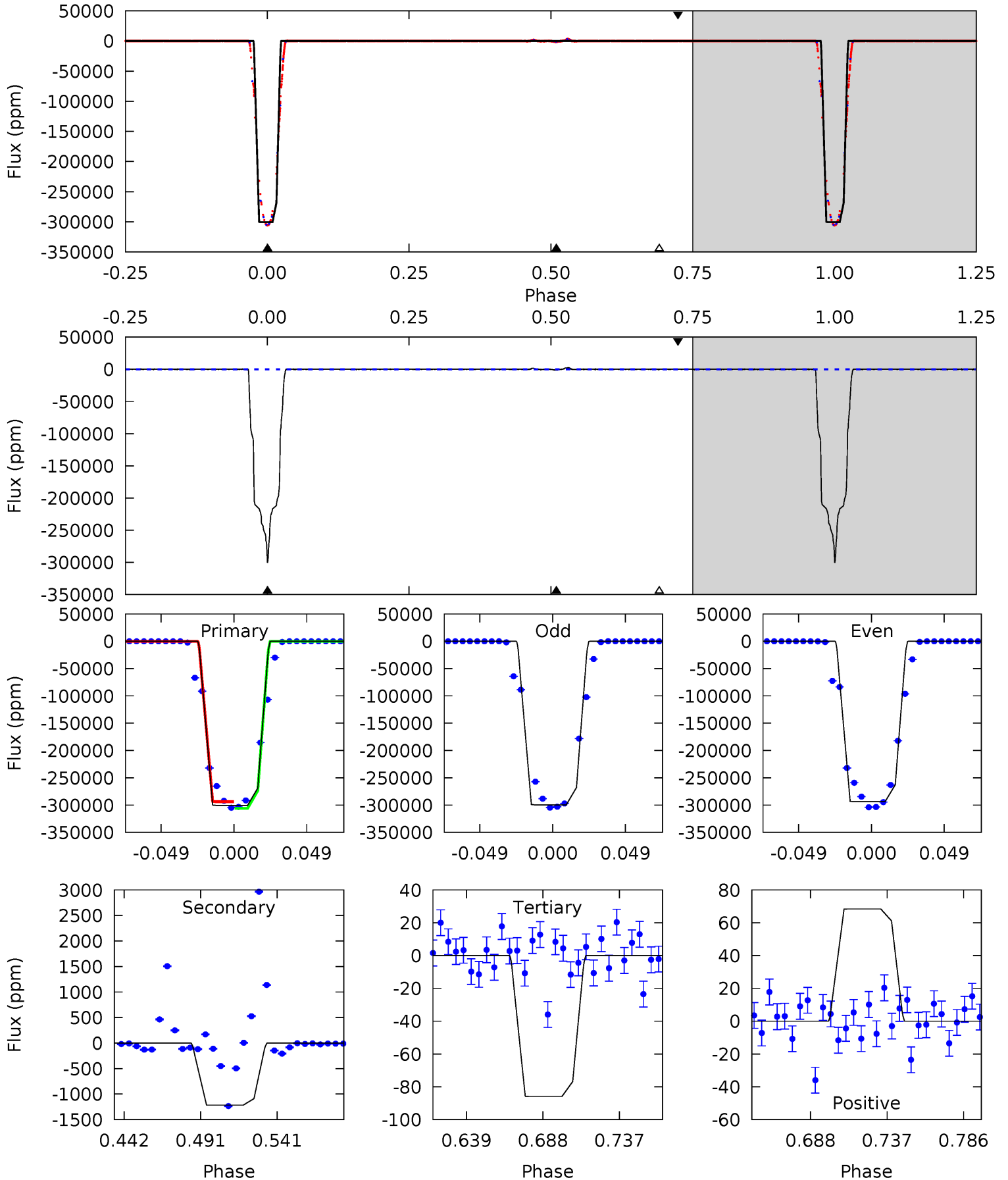
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9317	1475	17.6	5.39	4.64	1.82	11.8	9300	9312	1457	1469	29.9	0.97	0.00	26.0



Alt Model-Shift Uniqueness Test

006197038-01, P = 9.751638 Days, E = 128.792383 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18811	76.2	5.38	4.28	4.71	1.97	1.71	18806	18807	70.8	71.9	181.3	1.08	0.01	0



Stellar Parameters For KIC 006197038

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5147^{+129}_{-116}	$3.424^{+0.285}_{-0.285}$	$-0.540^{+0.300}_{-0.250}$	$3.145^{+1.465}_{-0.976}$	$0.957^{+0.282}_{-0.113}$	$0.043^{+0.082}_{-0.029}$
	+3%/-2%	+8%/-8%	+56%/-46%	+47%/-31%	+29%/-12%	+190%/-67%
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 006197038-01 / KOI 6144.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-52988 ± 36	$184.99^{+51.04}_{-33.54}$	1900^{+245}_{-182}	3760^{+69}_{-66}	$7.226^{+3.403}_{-2.653}$
Alt.	-1217 ± 16	$196.33^{+51.61}_{-33.24}$	1908^{+213}_{-176}	-2260^{+195}_{-181}	$0.136^{+0.060}_{-0.046}$

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 $A_{obs} \gg 1.0$

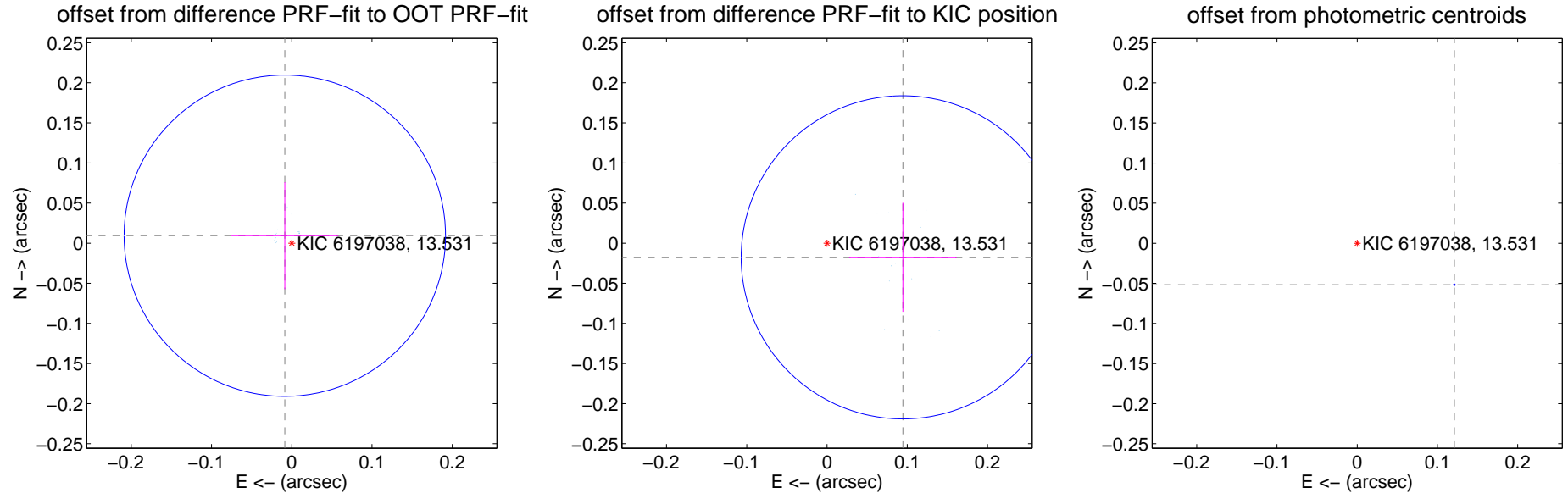
DV Centroid Data

Supplemental centroid analysis for 006197038-01. Kepler magnitude: 13.53. Transit SNR 2873.94

There are 17 quarters with good PRF difference image offsets

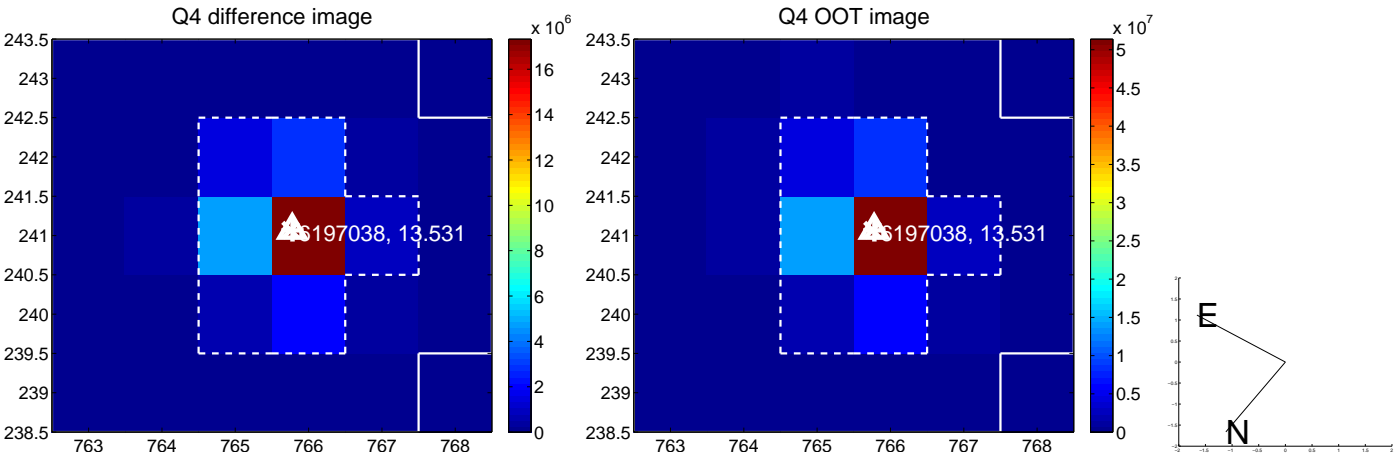
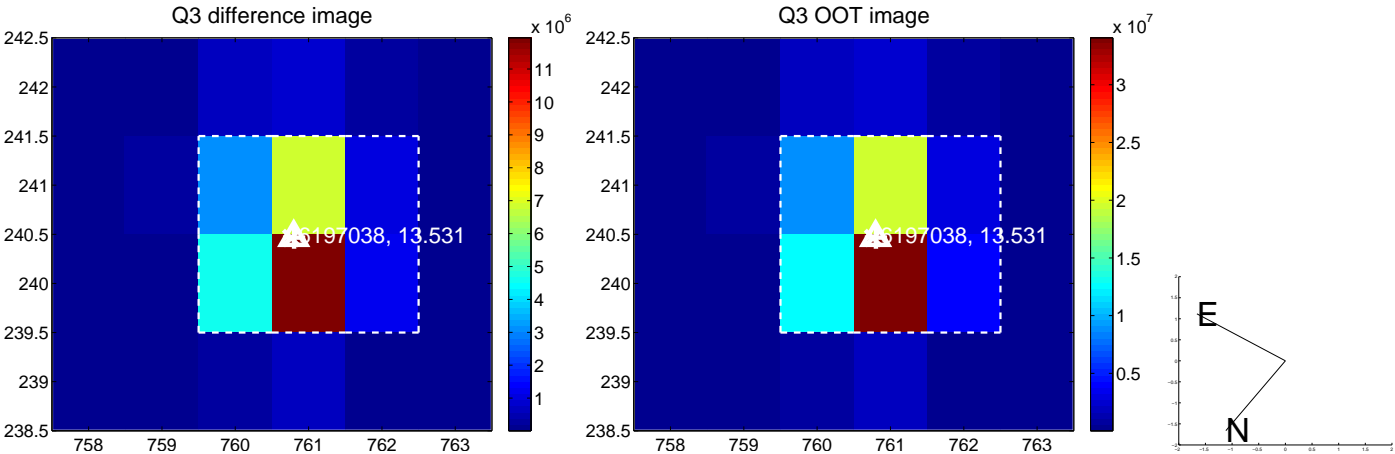
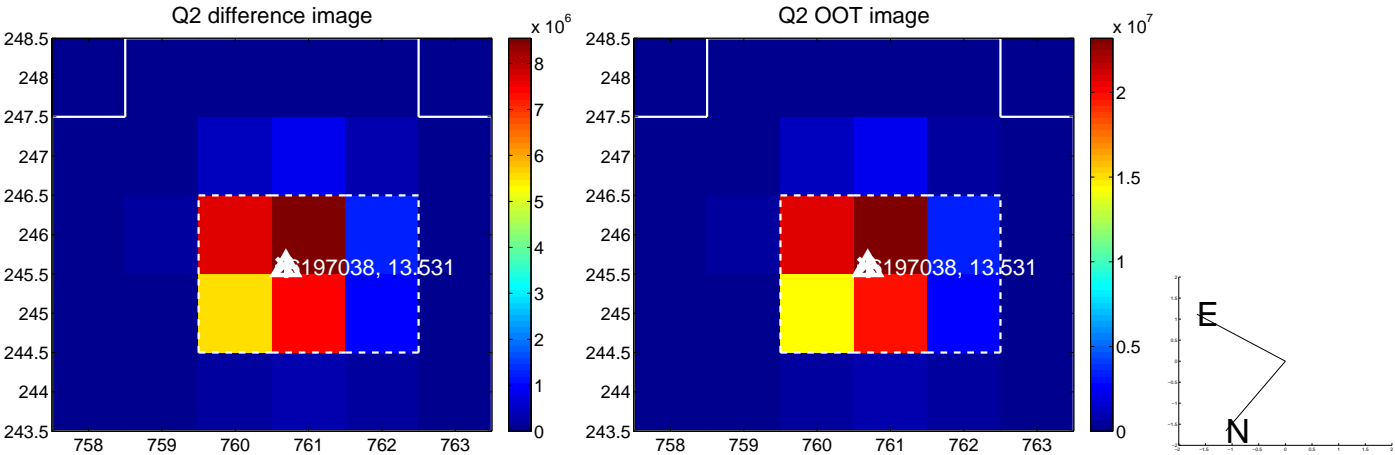
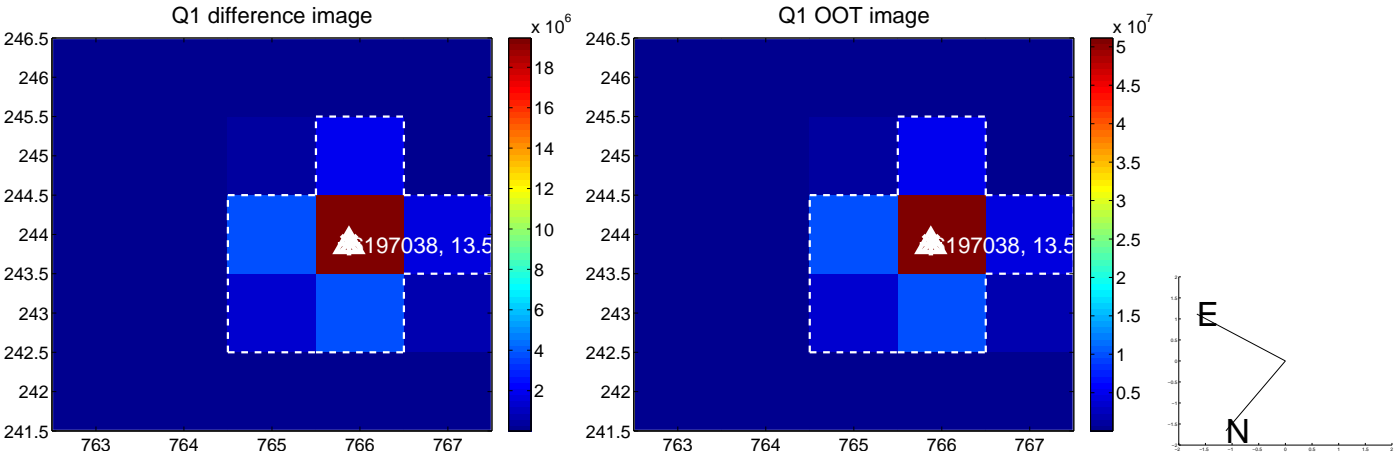
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.013 ± 0.067	0.19	0.009 ± 0.067	0.009 ± 0.067
PRF-fit source offset from KIC position	0.096 ± 0.067	1.43	-0.095 ± 0.067	-0.018 ± 0.068
photometric centroid source offset	0.13 ± 0.00	405.15	-0.12 ± 0.00	-0.05 ± 0.00

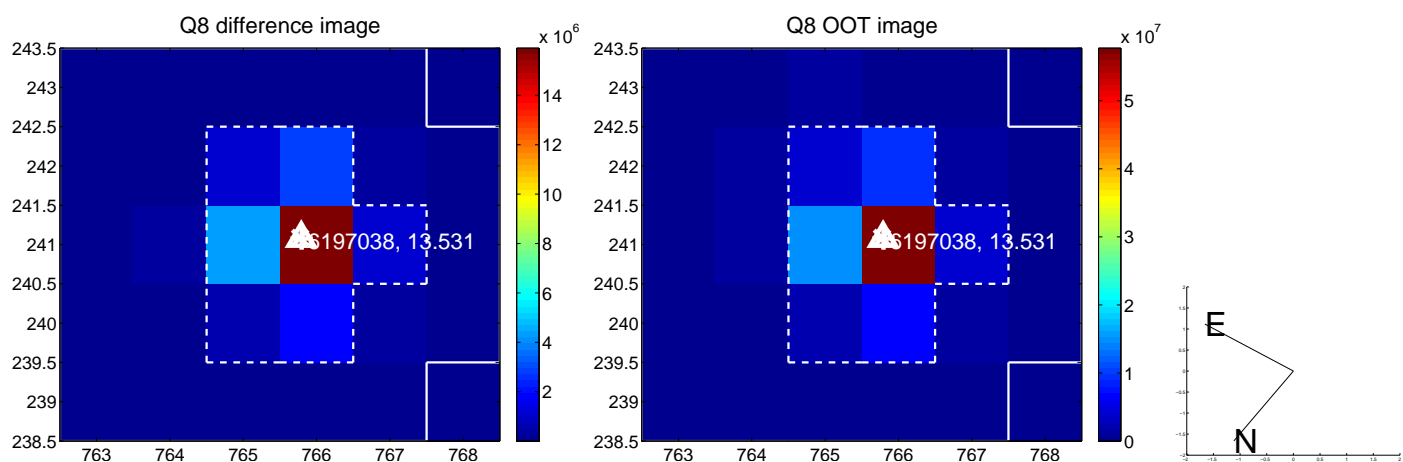
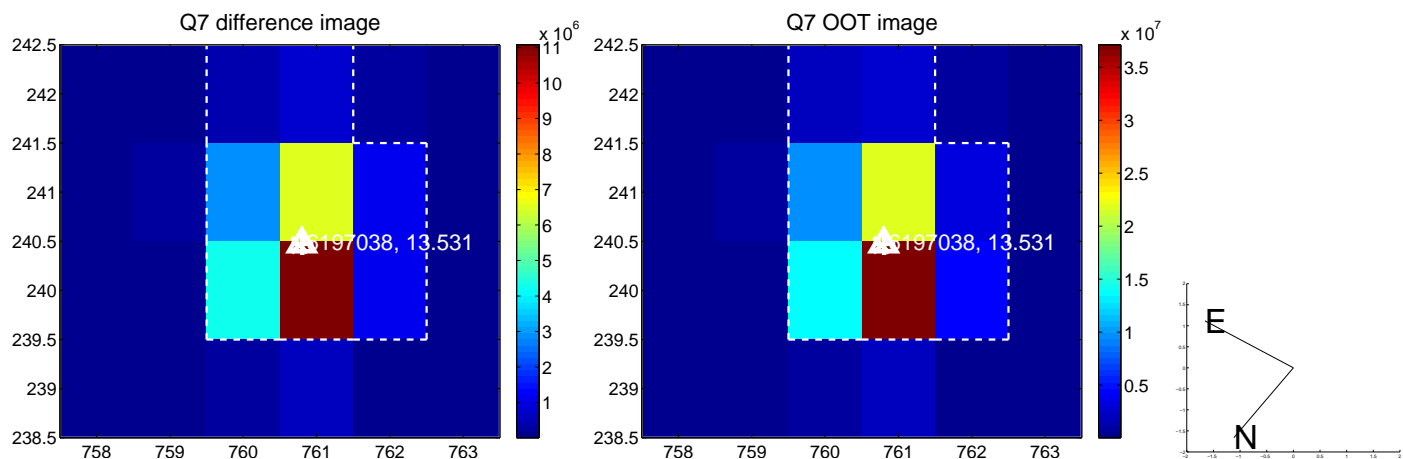
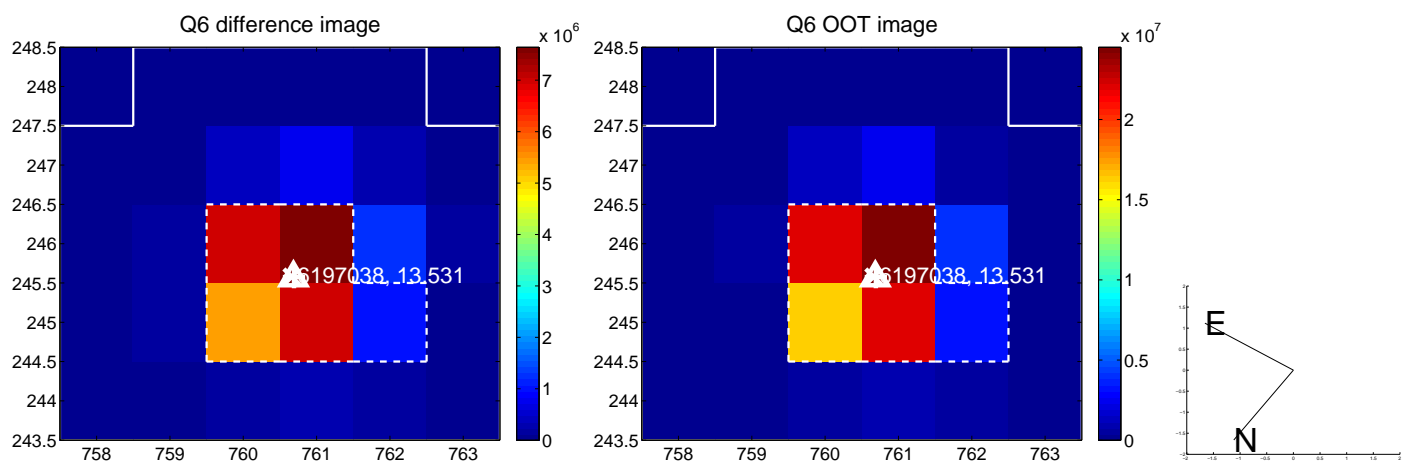
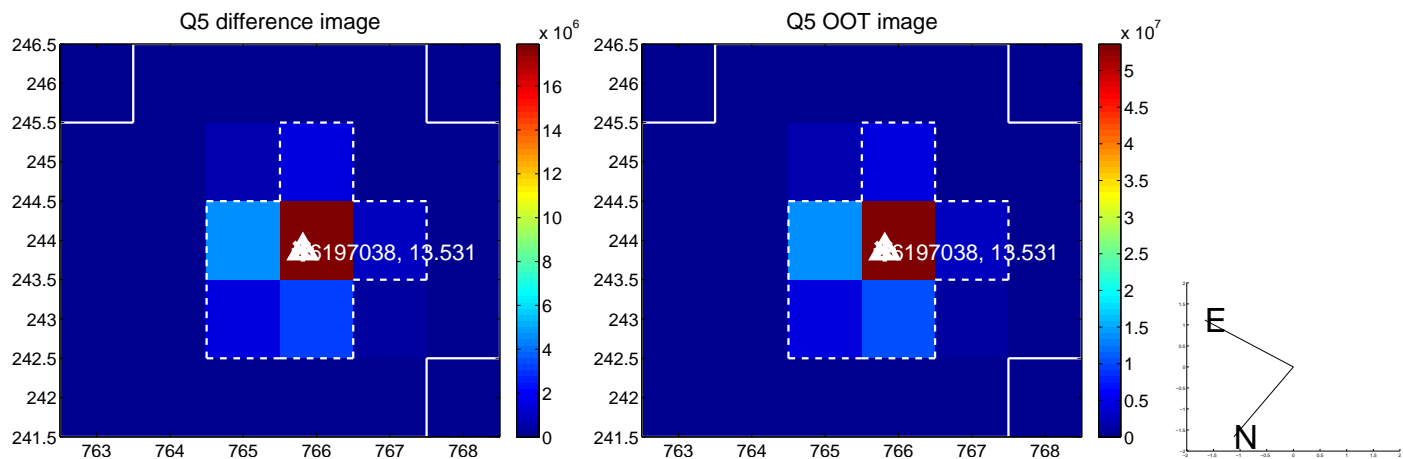


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

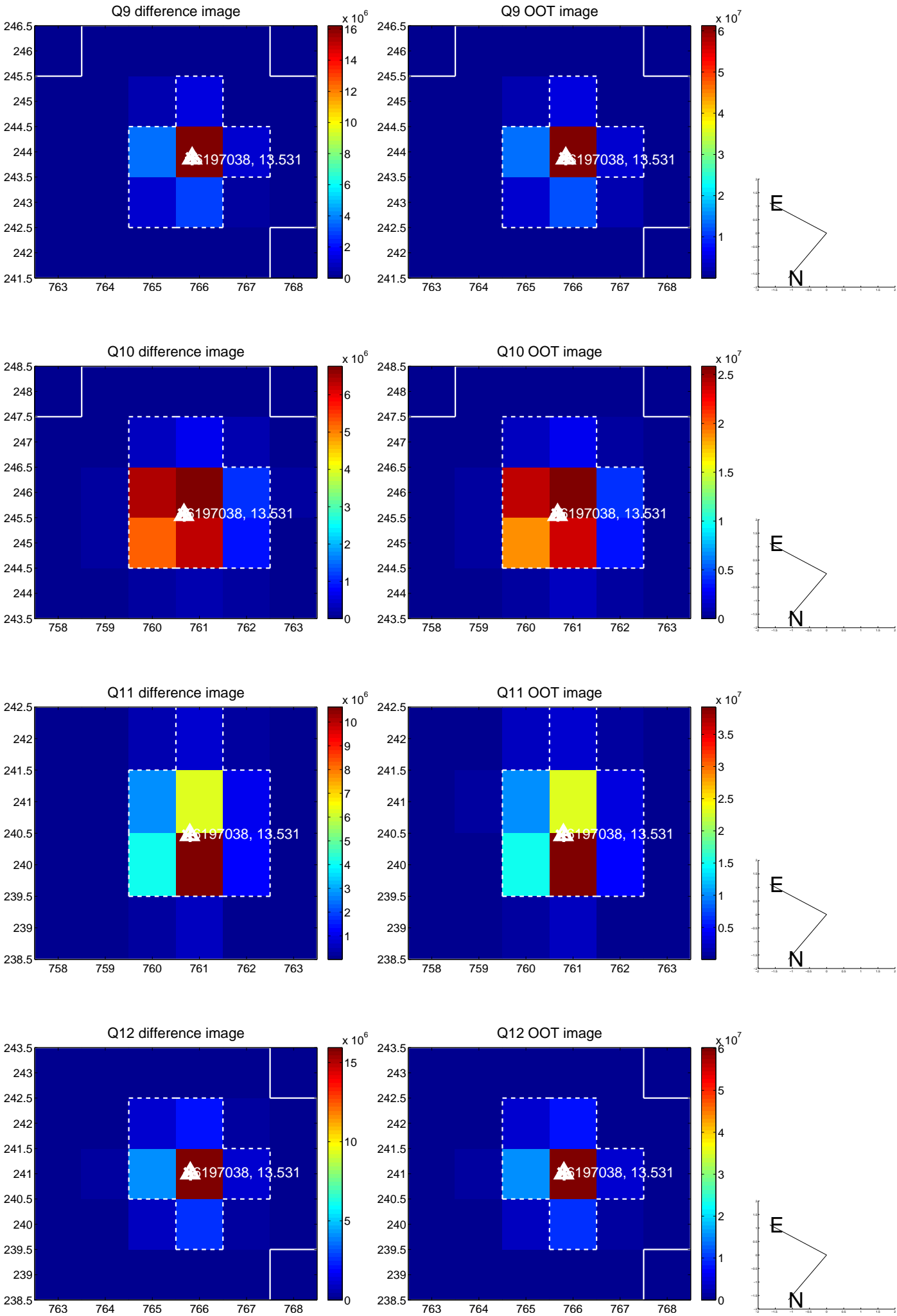
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



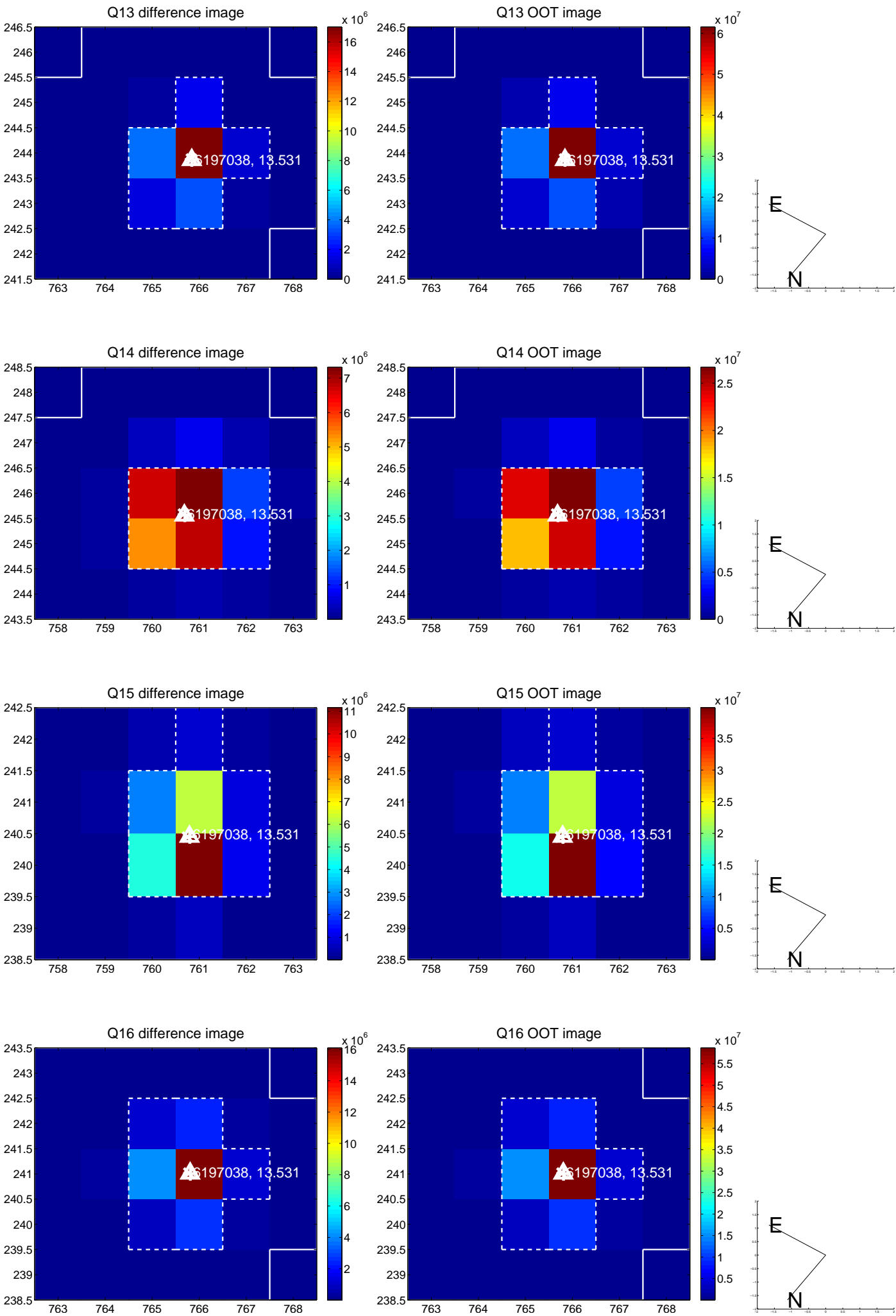
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



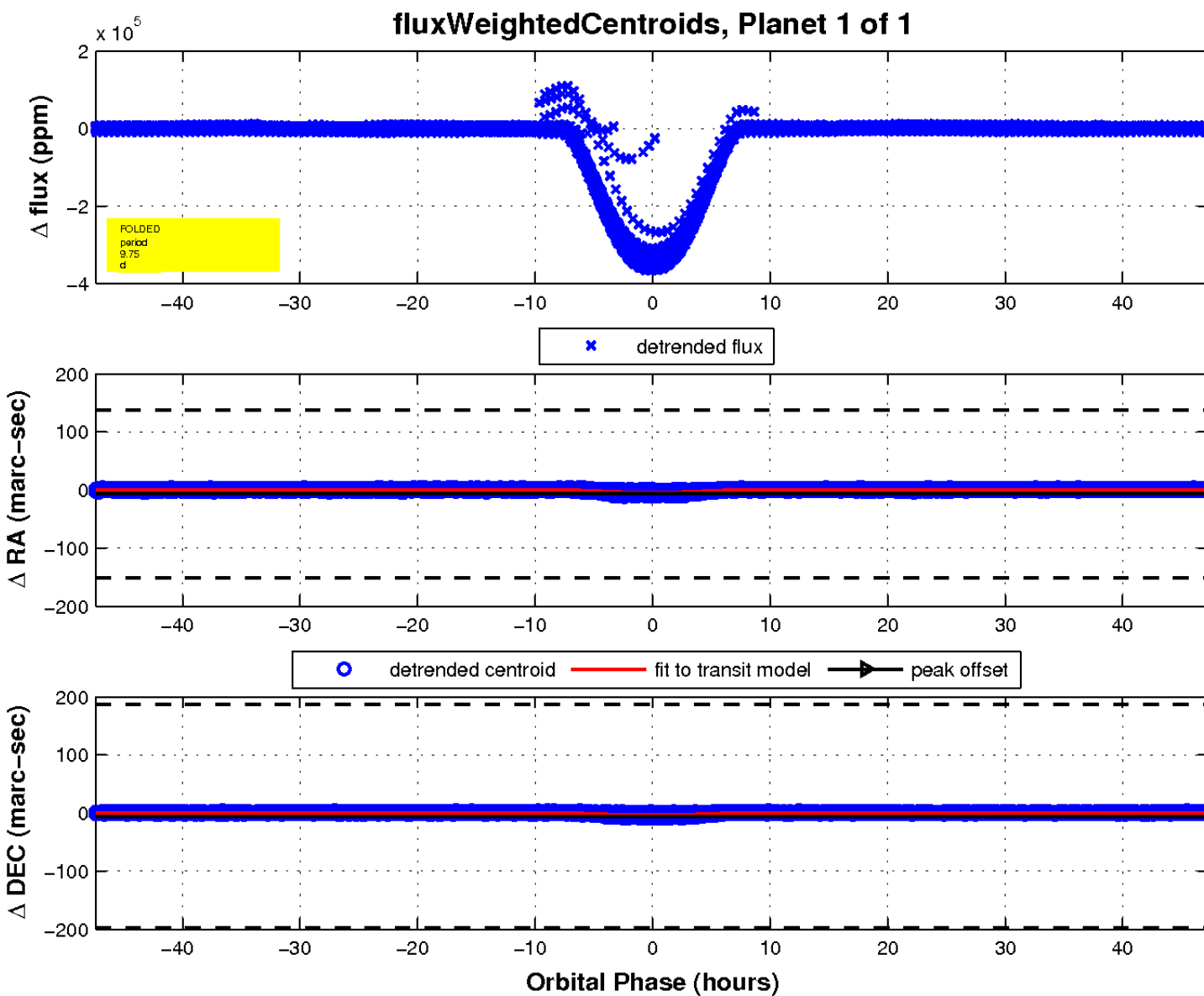
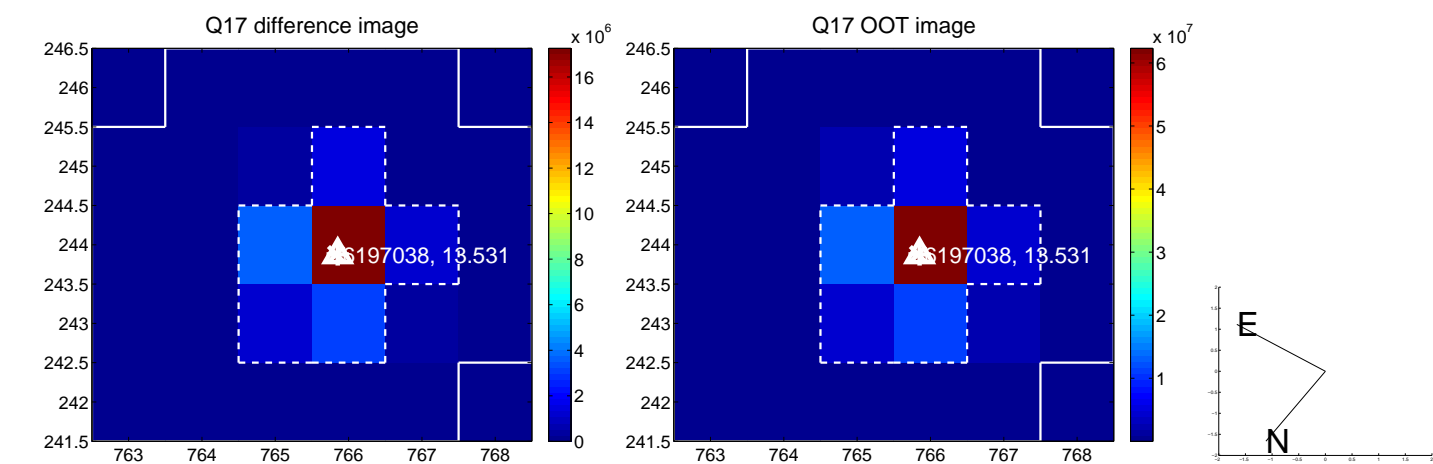
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

