

KIC 006967278

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})
006967278-02	OBS	6152.01	197.538284	244.477325	712.9	11.062	17.4	21.1	98.38	3599	586.95	2330.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006967278-02	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—DEEP_V_SHAPED—CENT_FEW_DIFFS

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 006967278-02

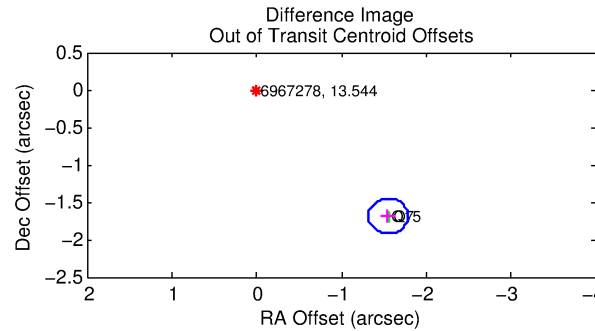
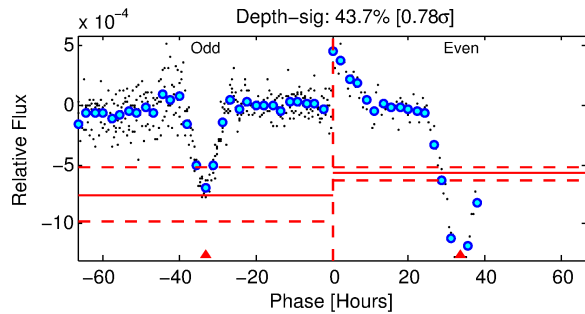
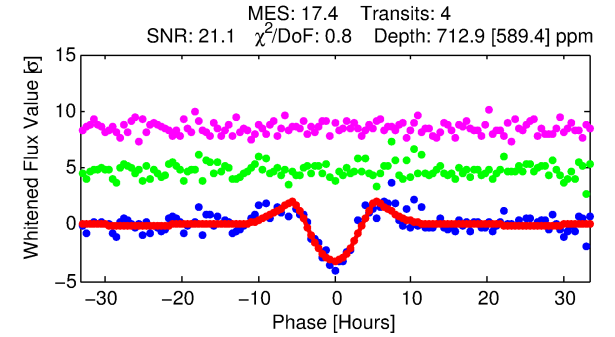
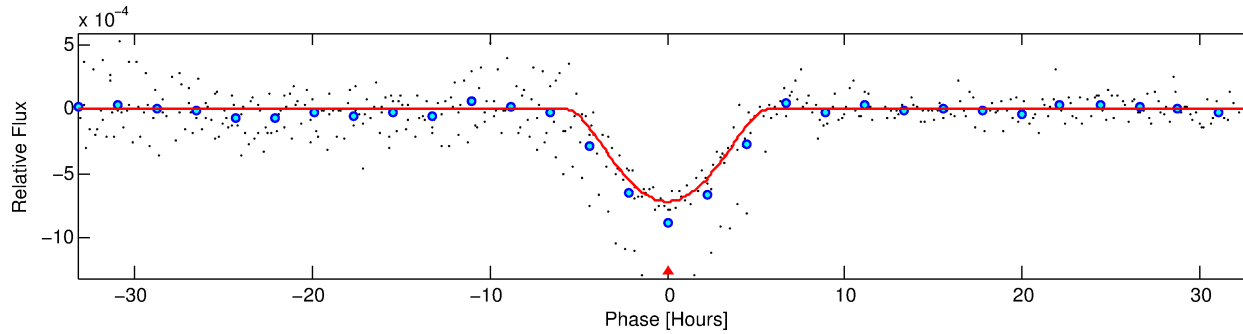
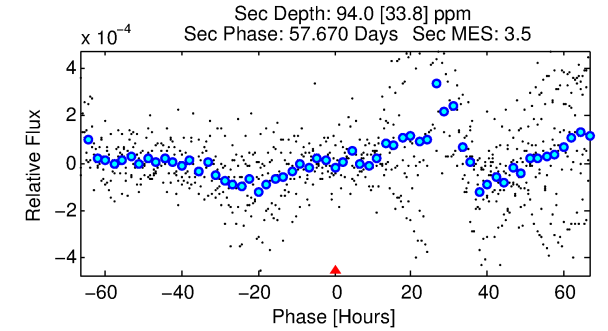
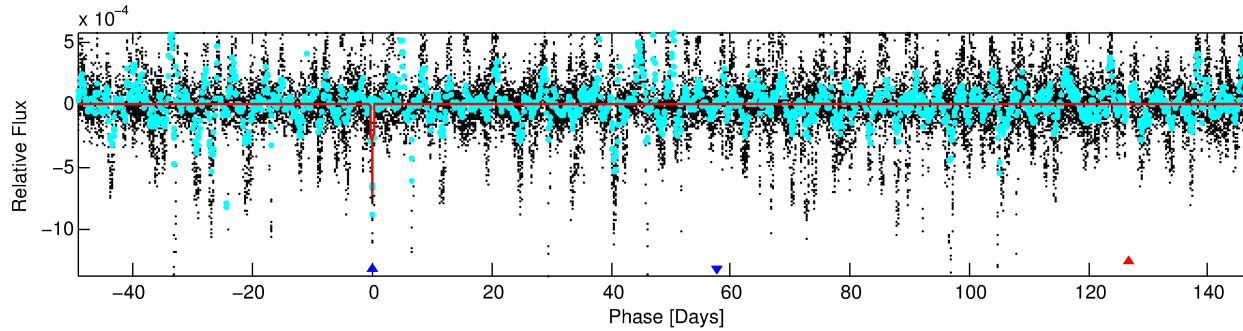
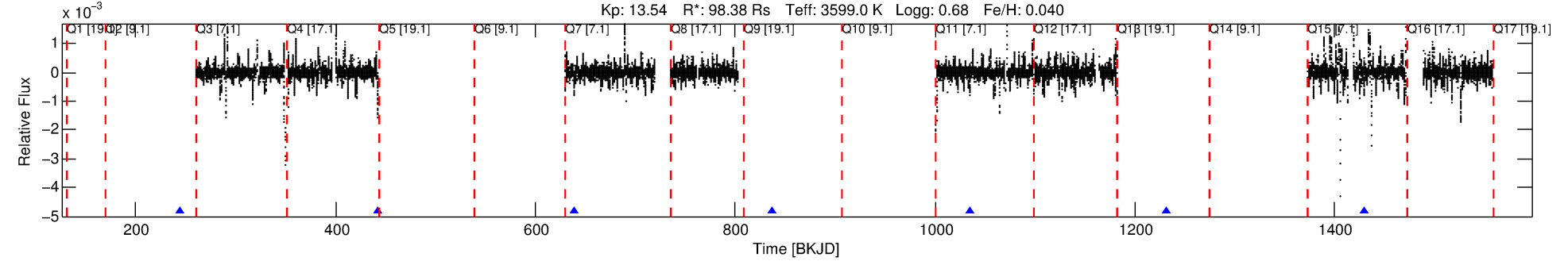
No Significant Match Found

DV One-Page Summary

KIC: 6967278 Candidate: 2 of 2 Period: 197.538 d

KOI: K06152 Corr: No Ephemeris Match

Kp: 13.54 R*: 98.38 Rs Teff: 3599.0 K Logg: 0.68 Fe/H: 0.040



DV Fit Results:

Period = 197.53828 [0.00264] d
Epoch = 244.4773 [0.0078] BKJD
Rp/R* = 0.0547 [0.0645]
a/R* = 45.74 [12.06]
b = 1.00 [0.06]
Seff = 2330.01 [400.37]
Teq = 1772 [76] K
Rp = 586.95 [700.79] Re
a = 0.7902 [0.1002] AU
Ag = 0.09 [0.22] [-4.05σ]
Teffp = 1516 [905] K [-0.28σ]

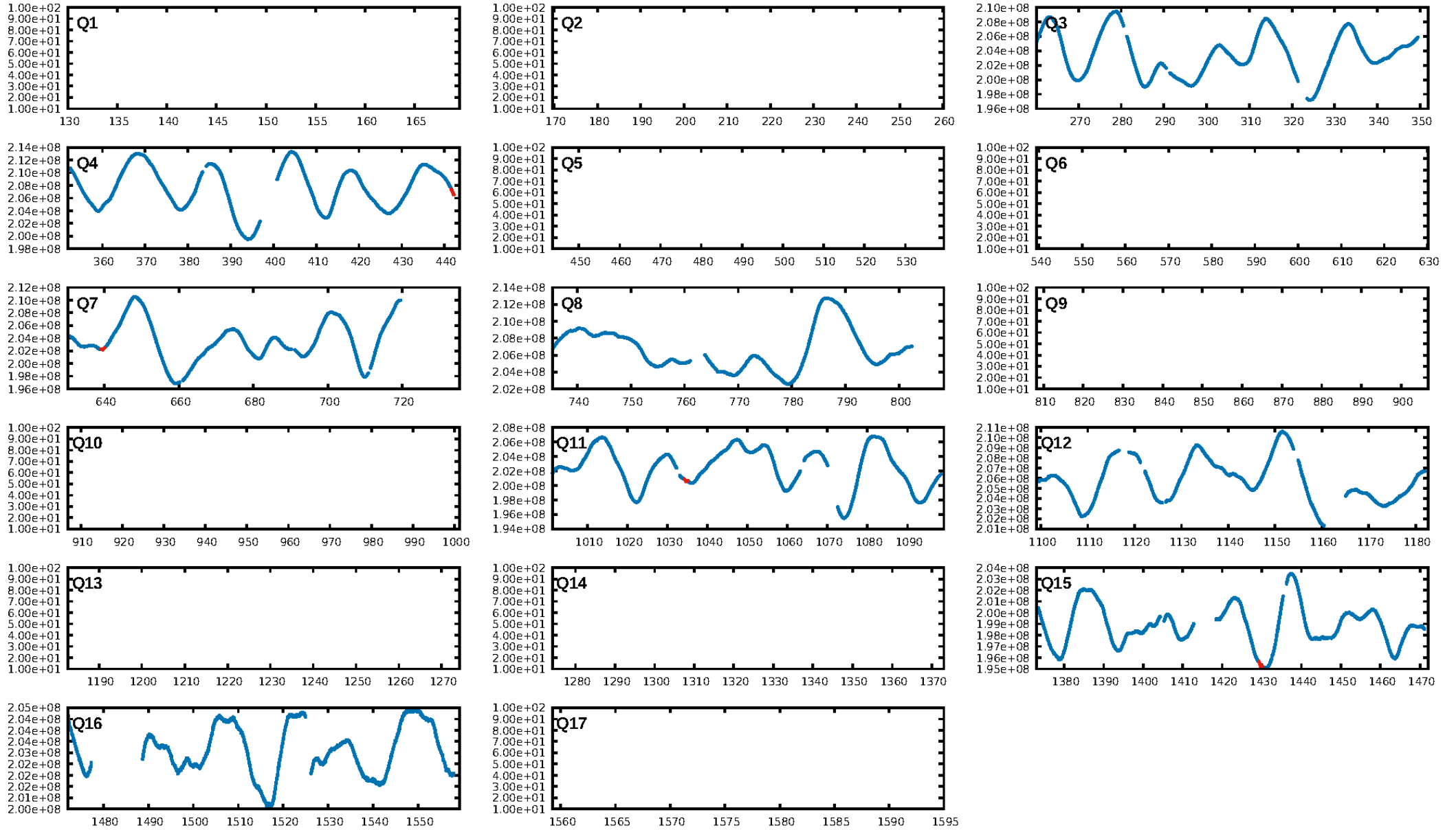
DV Diagnostic Results:

ShortPeriod-sig: 3.0% [0.04σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 68.6%
ModelChiSquareGof-sig: 98.7%
Bootstrap-pfa: 4.50e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.02
Centroid-sig: 0.0%
Centroid-so: 2.278 arcsec [5.33σ]
OotOffset-rm: 2.292 arcsec [29.41σ]
KicOffset-rm: 2.001 arcsec [21.32σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

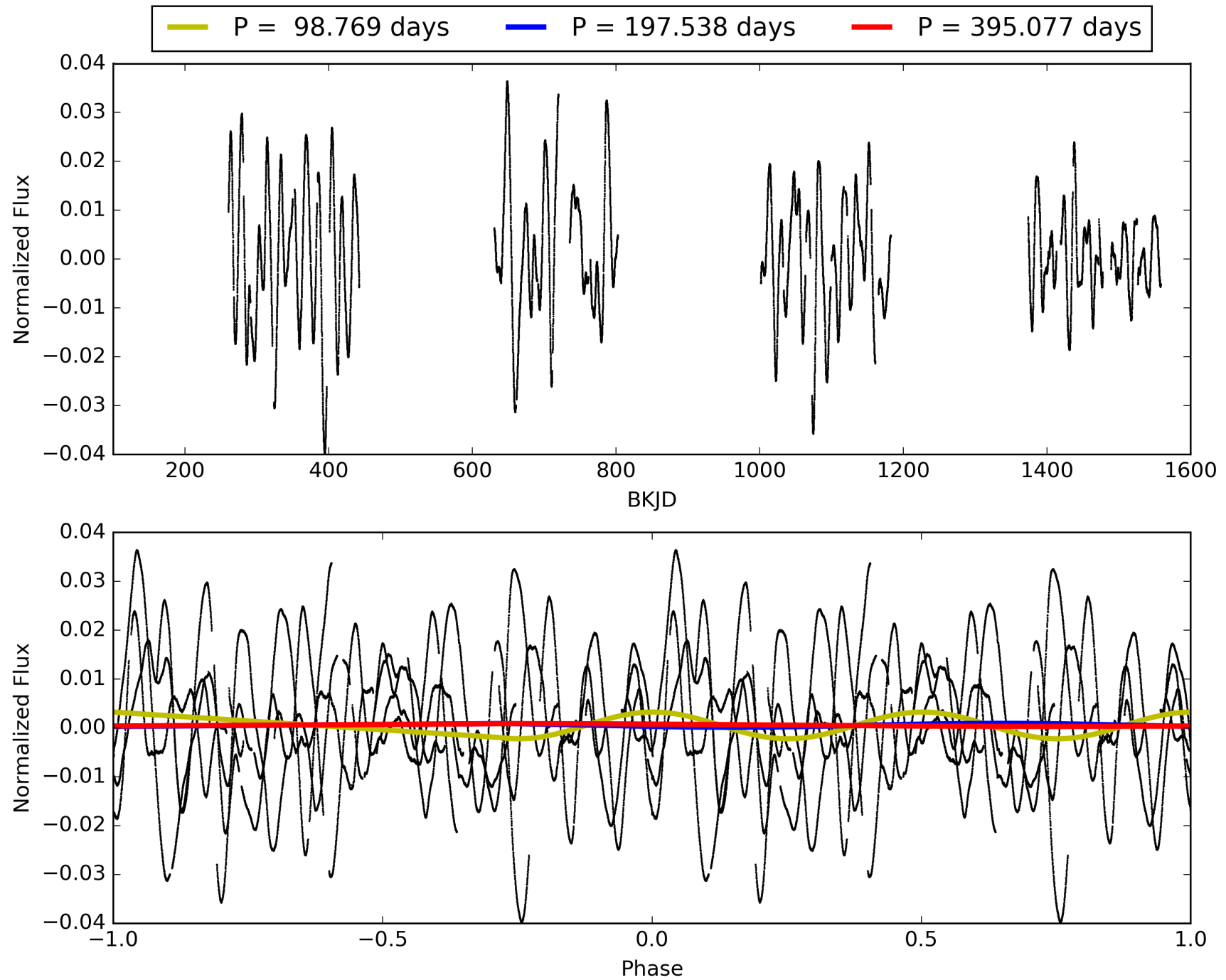
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:07:45 Z

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

TCE 006967278-02, PDC Light Curves

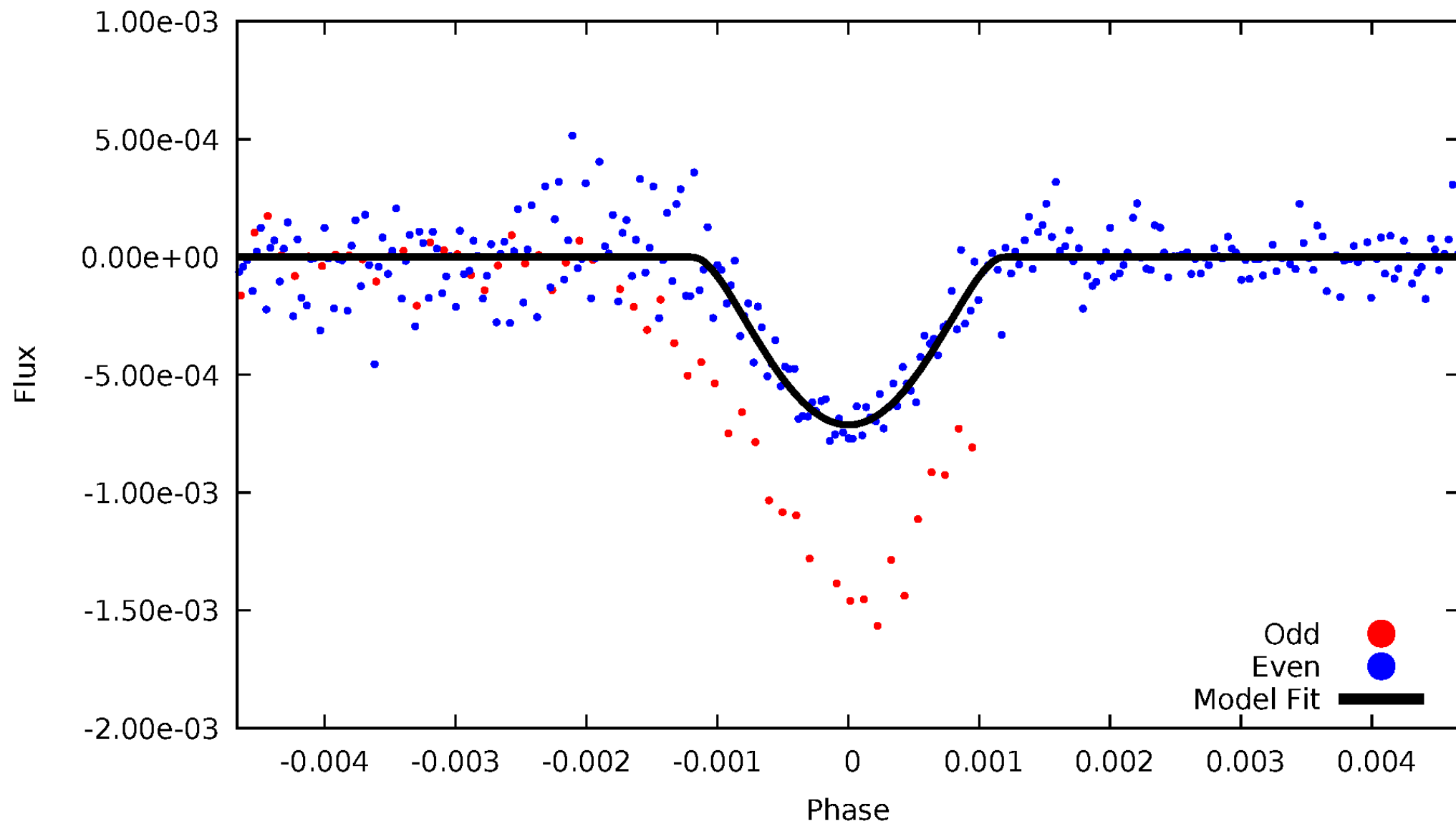


TCE 006967278-02



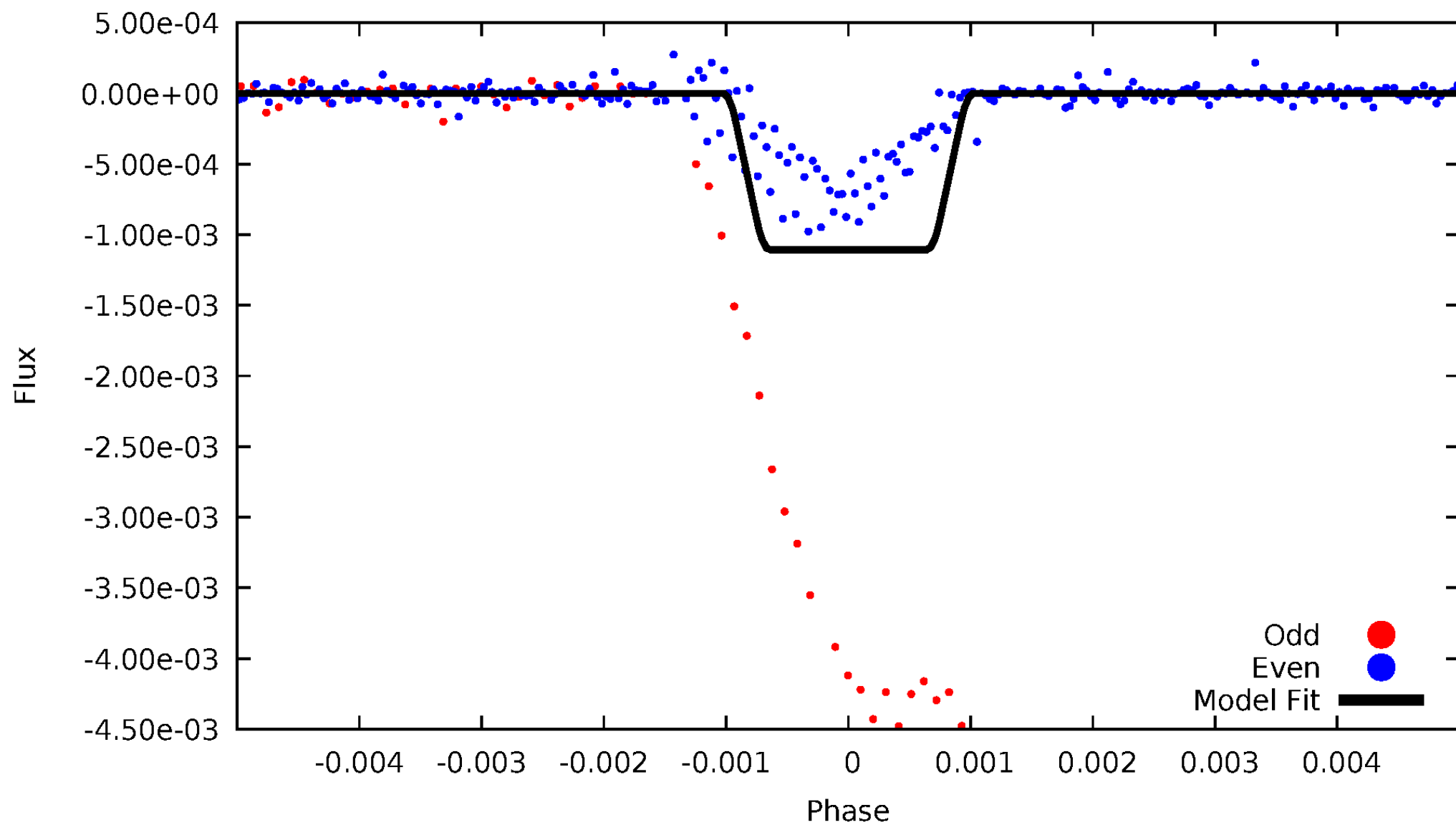
DV Odd/Even

TCE 006967278-02



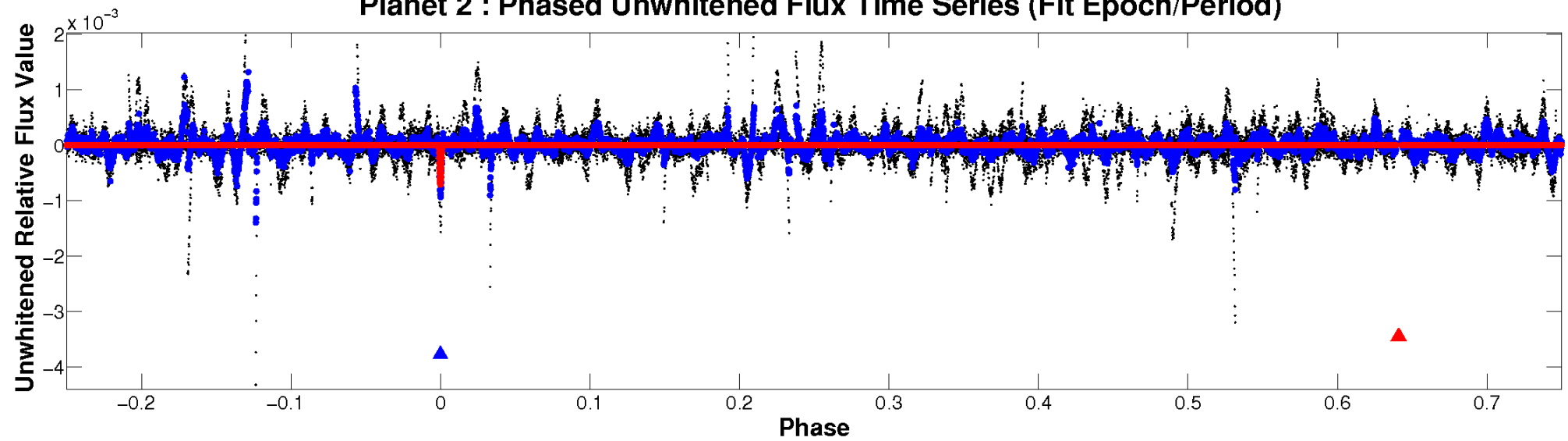
ALT Odd/Even

TCE 006967278-02

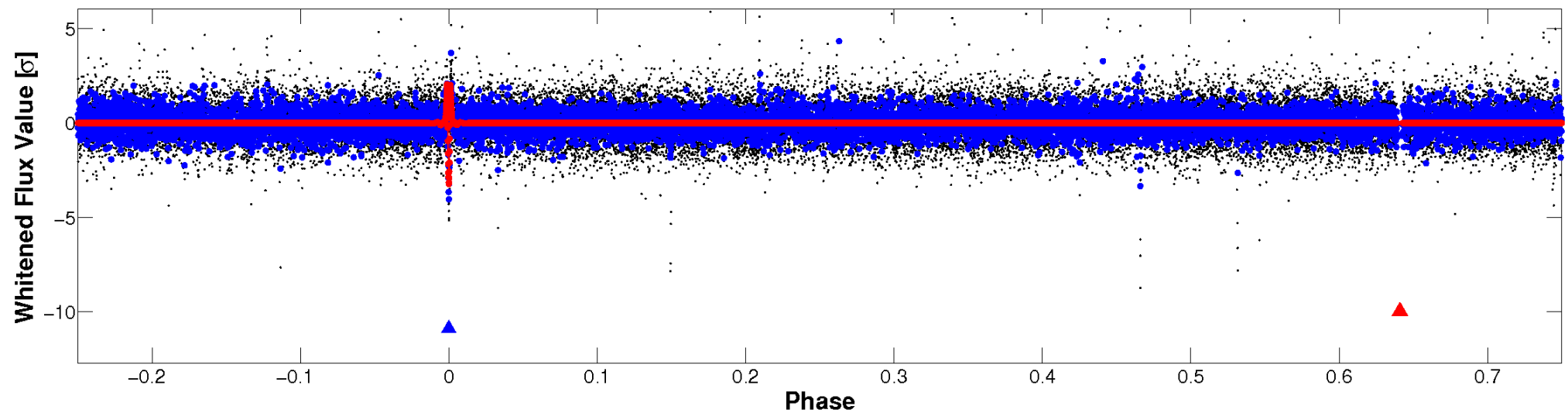


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

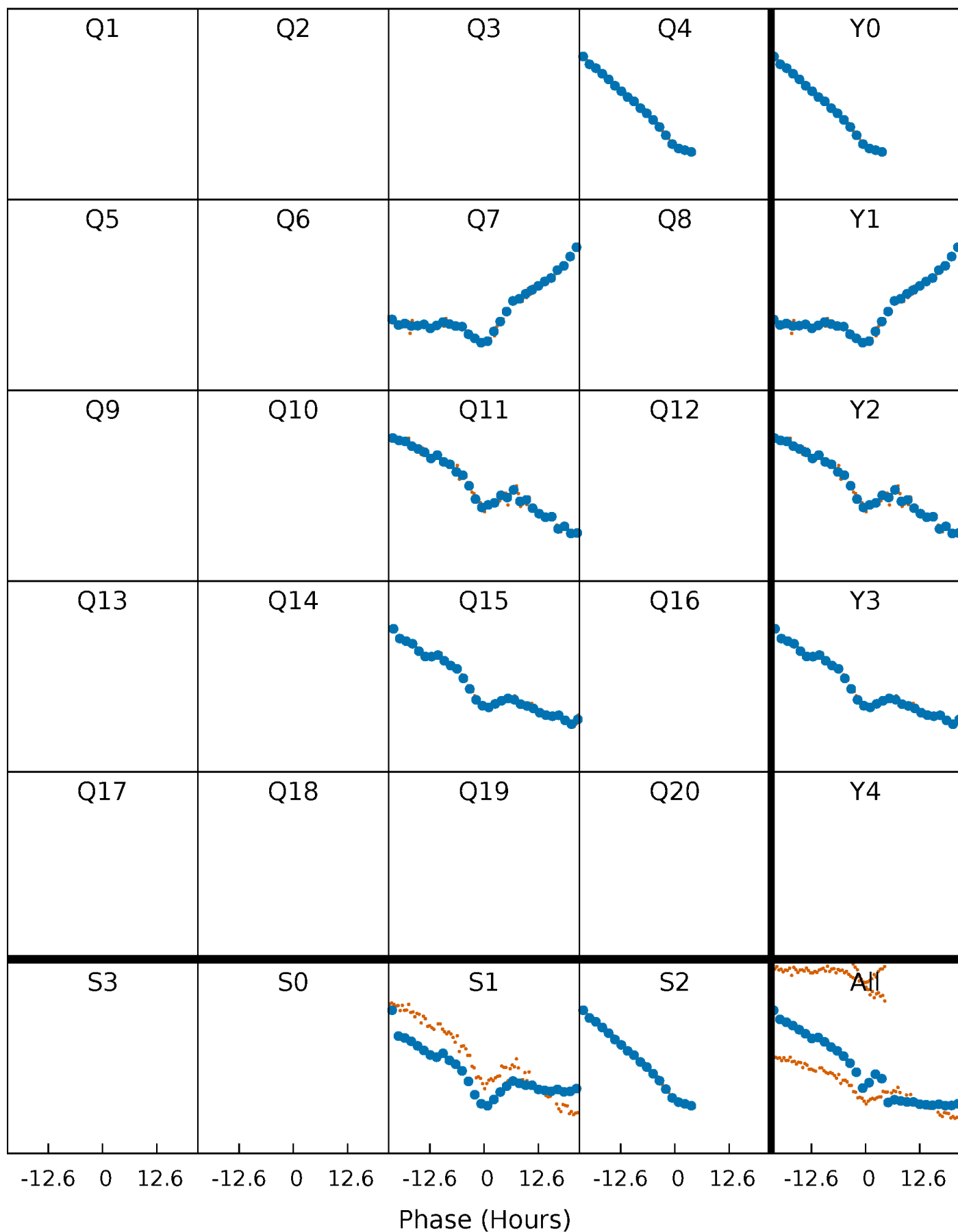


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



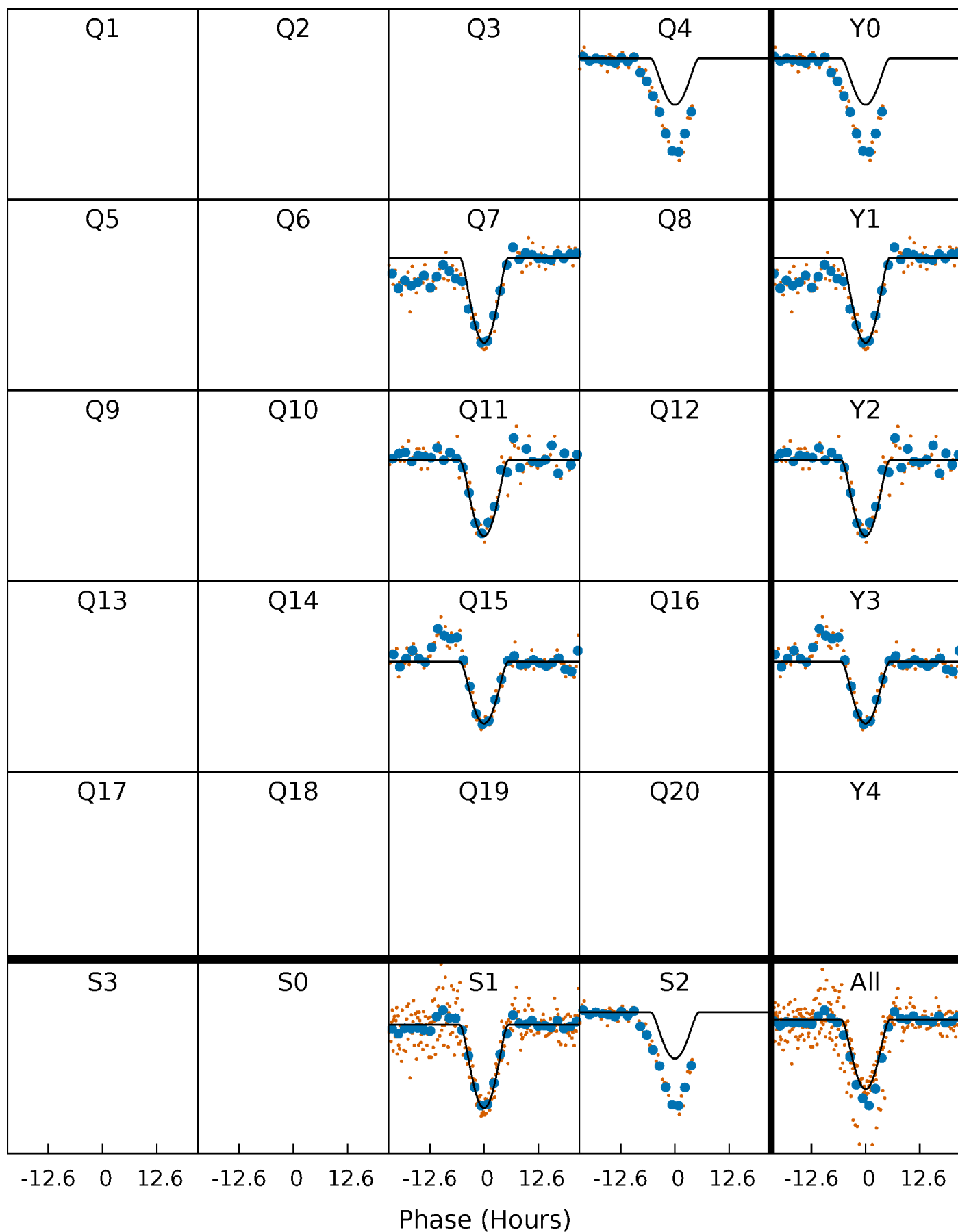
PDC Quarter-Phased Transit Curves

TCE 006967278-02 $P=197.538284$ Days $T_0=244.477325$ (BKJD)



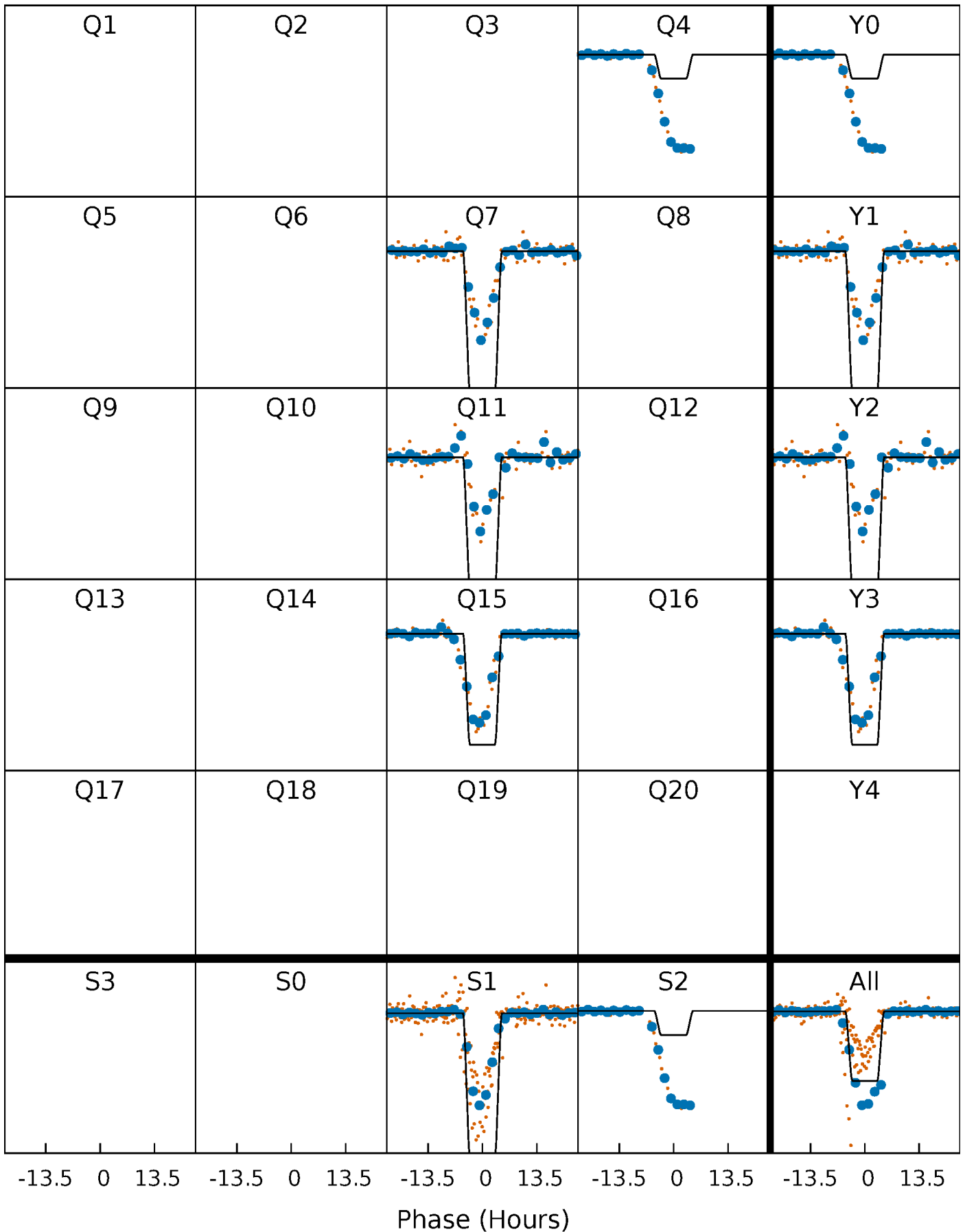
DV Quarter-Phased Transit Curves

TCE 006967278-02 $P=197.538284$ Days $T_0=244.477325$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

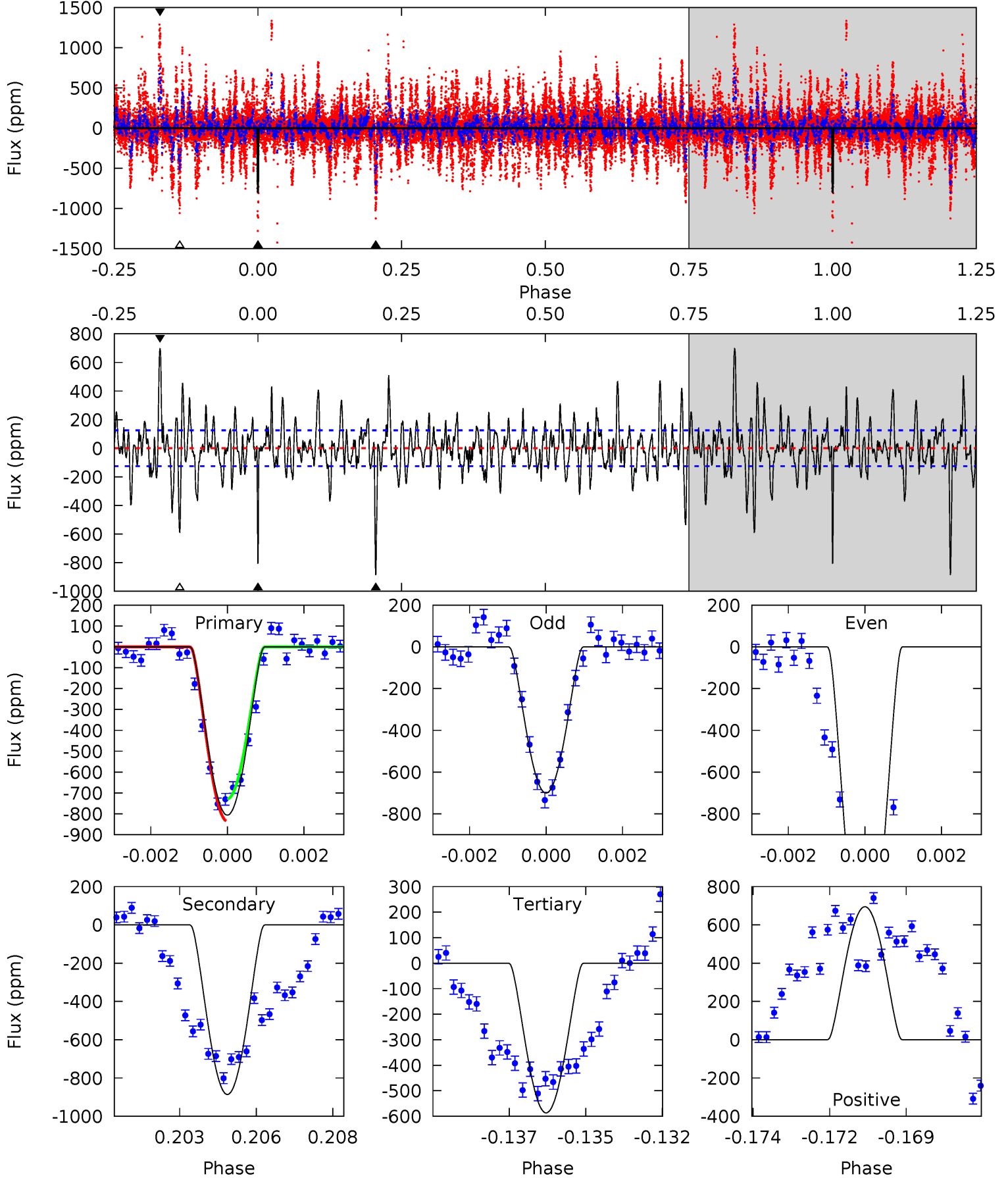
TCE 006967278-02 P=197.544847 Days $T_0=244.474361$ (BKJD)



DV Model-Shift Uniqueness Test

006967278-02, P = 197.538284 Days, E = 244.477325 Days

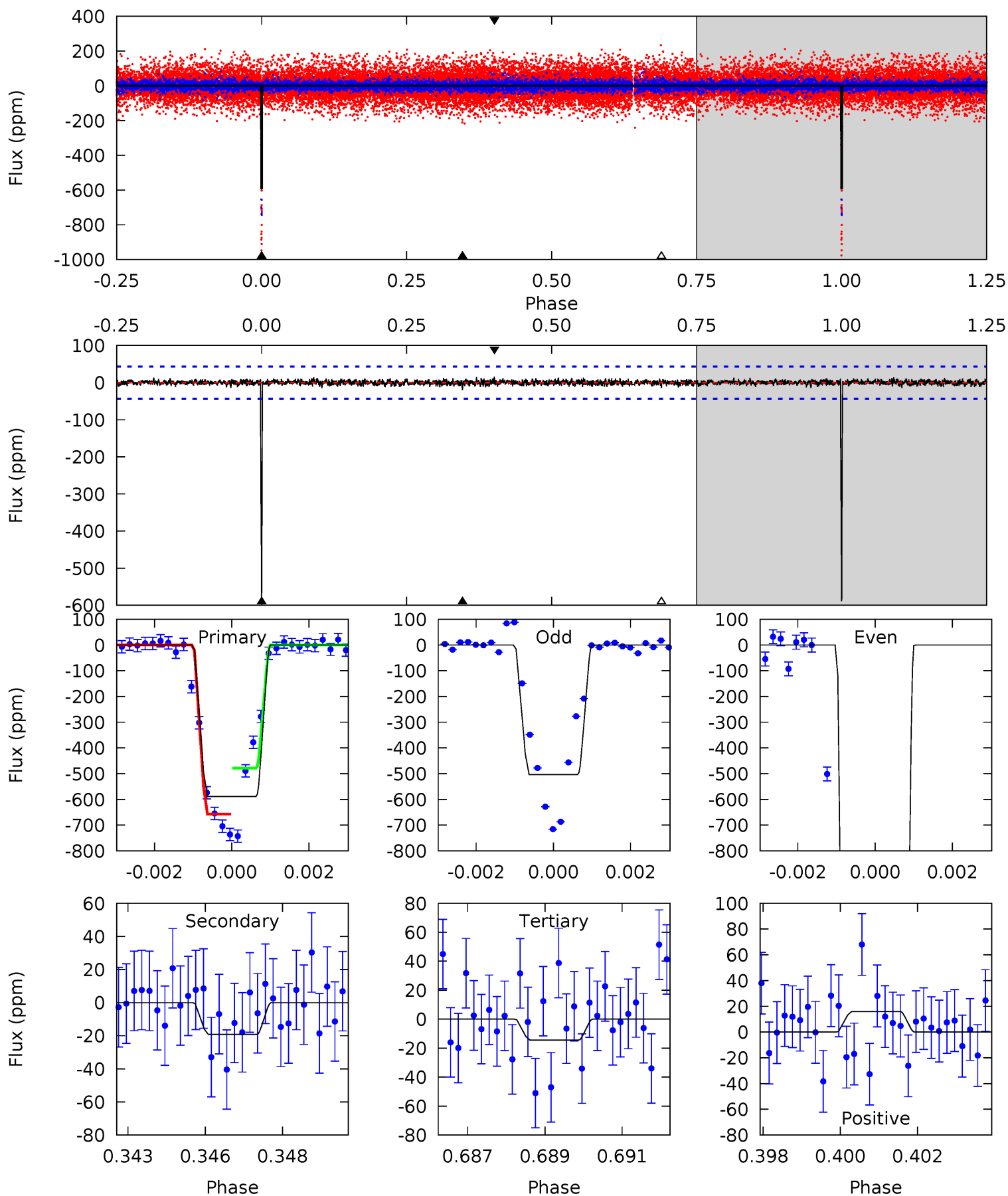
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.0	37.3	24.7	29.3	5.29	3.03	6.02	9.26	4.69	12.6	8.04	15.2	1.28	0.44	2.22



Alt Model-Shift Uniqueness Test

006967278-02, P = 197.544847 Days, E = 244.474361 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
72.5	2.36	1.77	1.95	5.32	3.09	0.47	70.8	70.6	0.59	0.40	191.1	2.25	0.03	0



Stellar Parameters For KIC 006967278

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3599^{+80}_{-98}	$0.679^{+0.030}_{-0.030}$	$0.040^{+0.200}_{-0.250}$	$98.380^{+3.247}_{-18.397}$	$1.688^{+0.064}_{-0.545}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+4%/-4%	+500%/-625%	+3%/-19%	+4%/-32%	+25%/-9%
Source	PHO54	AST54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006967278-02 / KOI 6152.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-886 ± 24	$740.05^{+601.48}_{-483.44}$	2479^{+60}_{-74}	2543^{+1246}_{-4880}	$0.557^{+3.934}_{-0.389}$
Alt.	-19 ± 8	$667.56^{+539.76}_{-444.52}$	2482^{+59}_{-79}	-2562^{+152}_{-63}	$0.013^{+0.112}_{-0.010}$

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 $A_{obs} \gg 1.0$

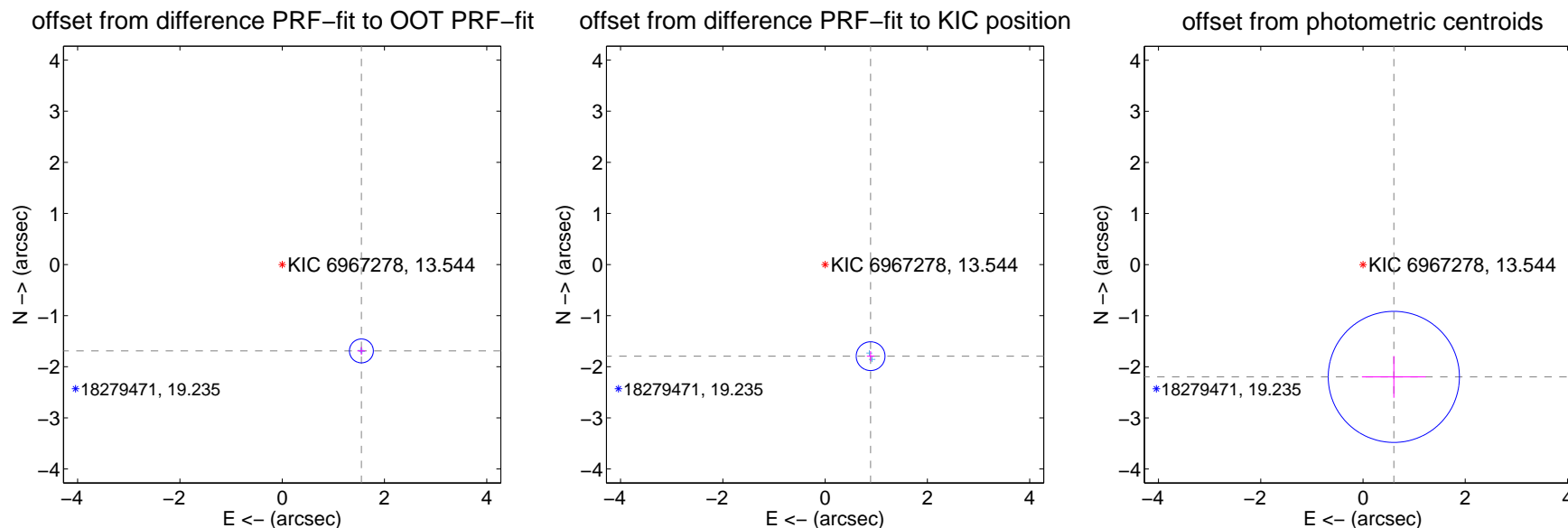
DV Centroid Data

Supplemental centroid analysis for 006967278-02. Kepler magnitude: 13.54. Transit SNR 21.05

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.64 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.292 ± 0.078	29.41	-1.548 ± 0.079	-1.690 ± 0.077
PRF-fit source offset from KIC position	2.001 ± 0.094	21.32	-0.889 ± 0.074	-1.793 ± 0.098
photometric centroid source offset	2.28 ± 0.43	5.33	-0.60 ± 0.62	-2.20 ± 0.41

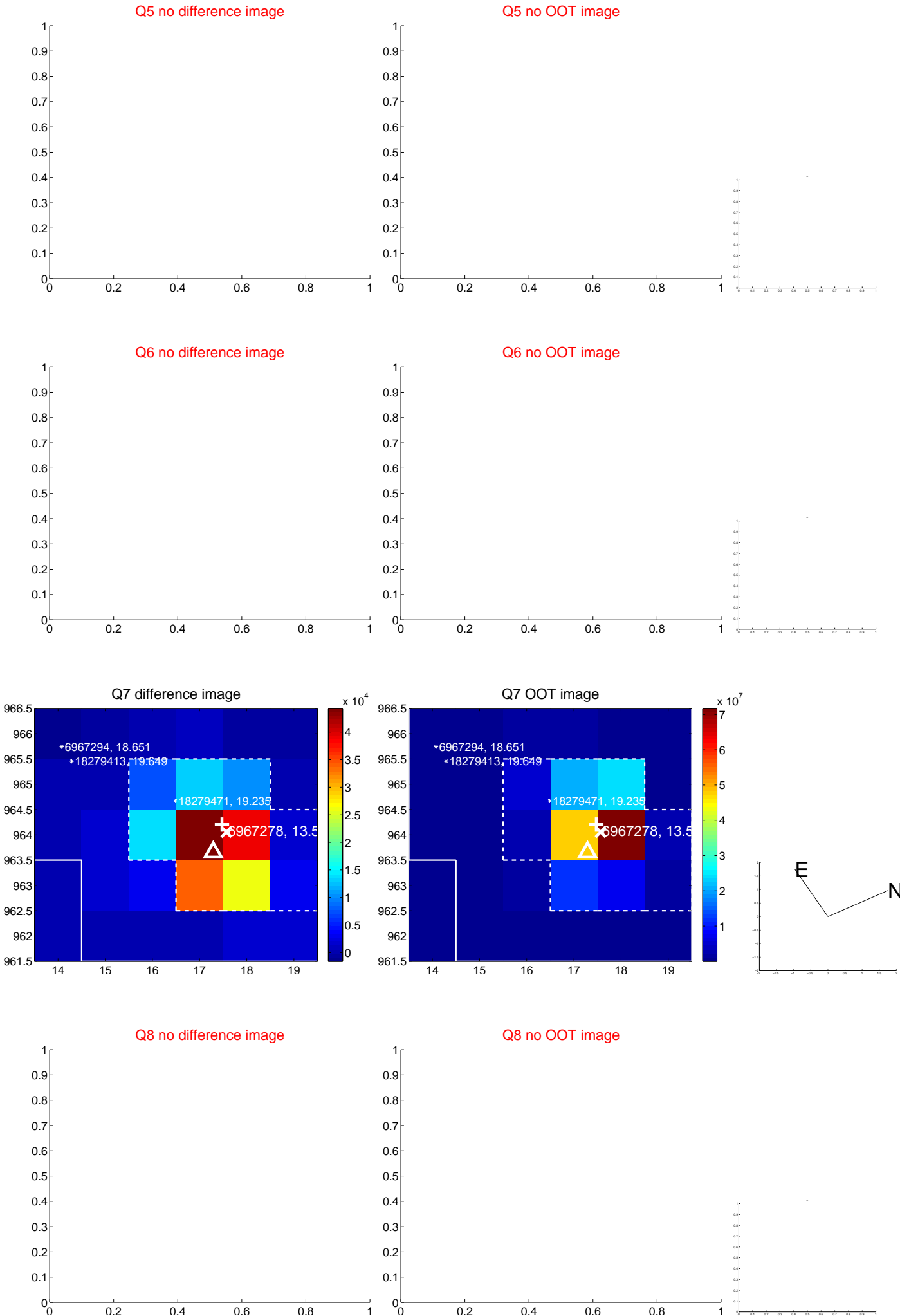


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



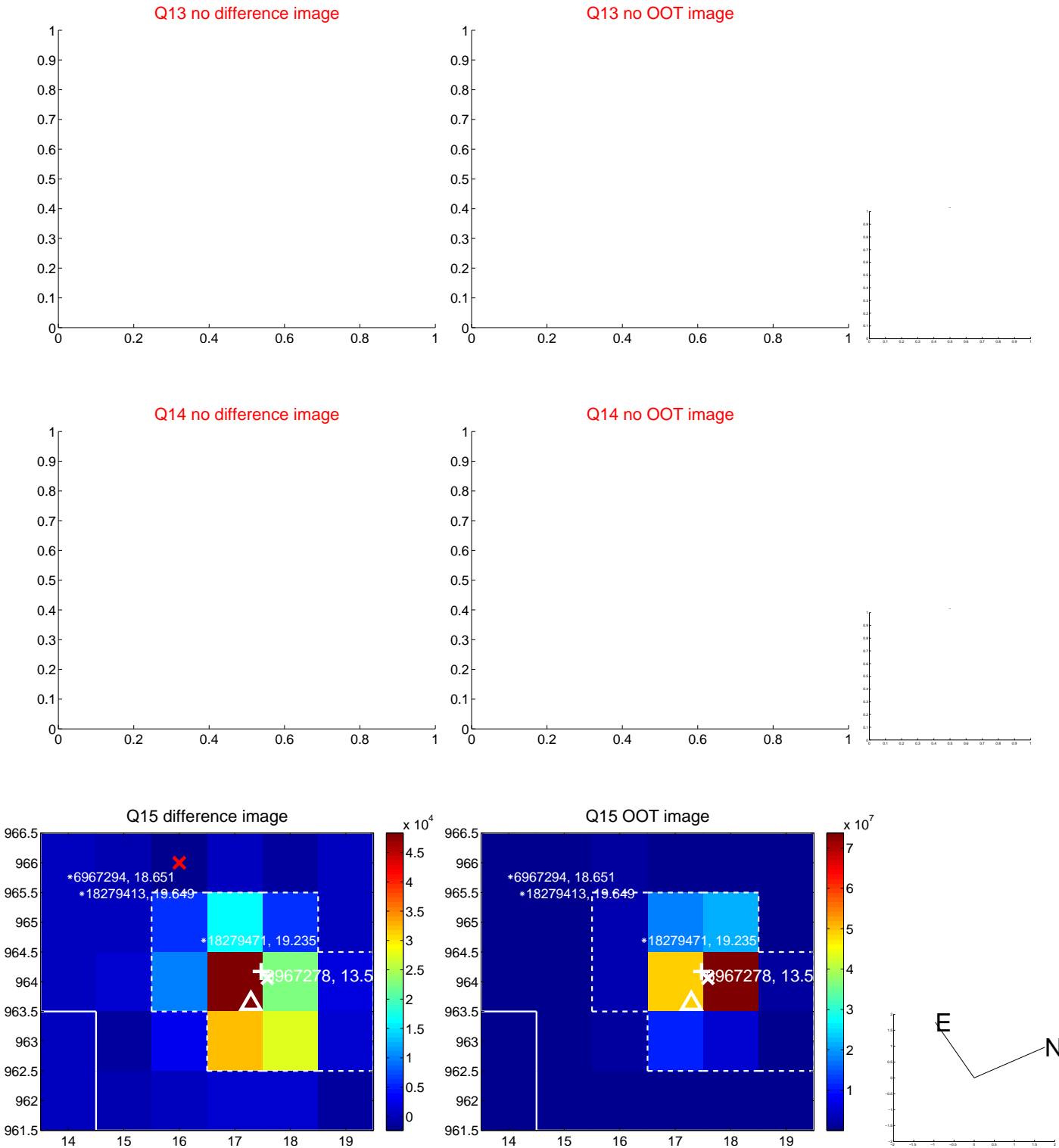
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



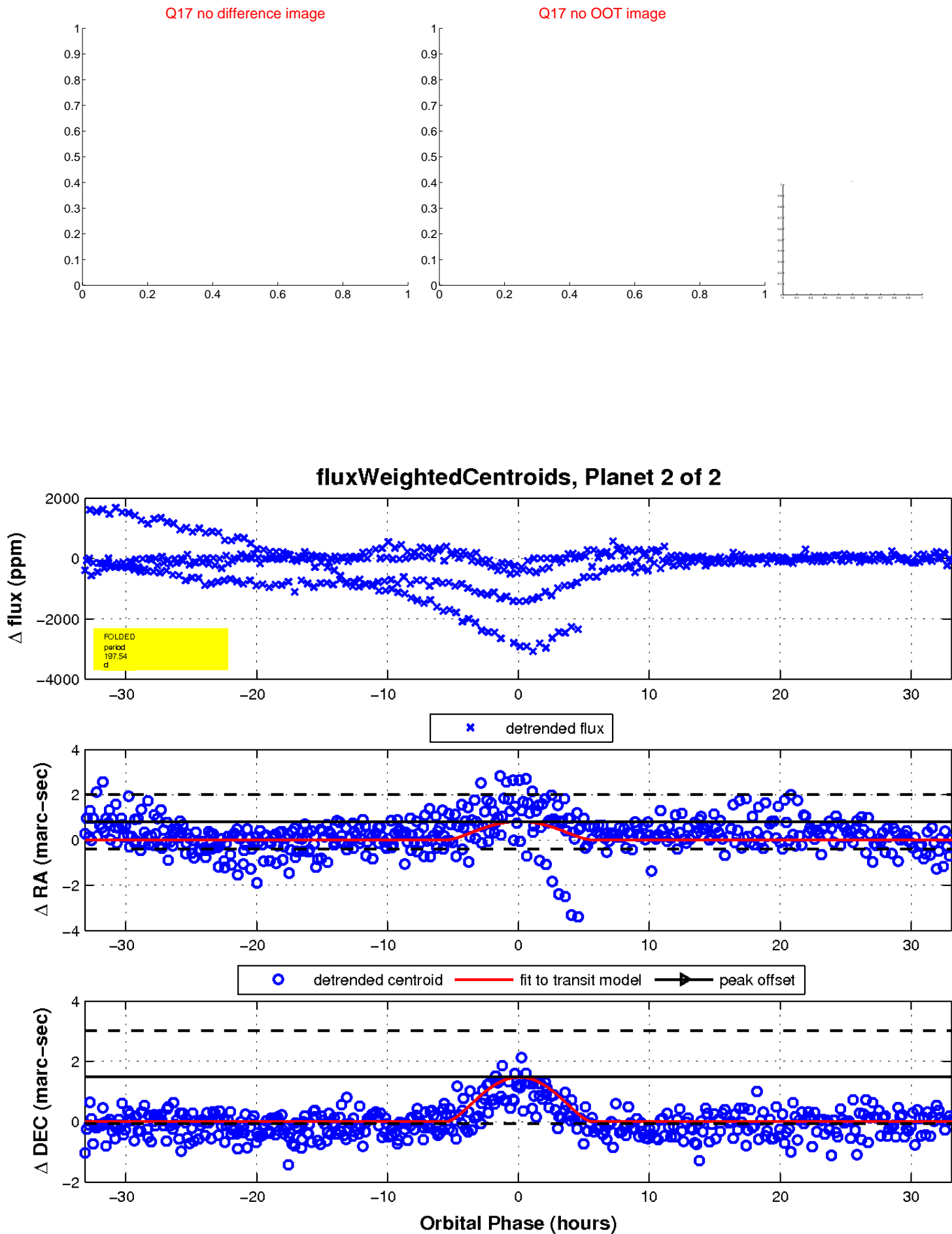
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

