

KIC 008264097

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})
008264097-01	OBS	3655.01	2.897422	132.044192	225854.9	3.454	1337.8	1011.7	1.00	5780	49.26	631.82
008264097-02	OBS	No	2.897413	133.496496	17841.5	3.418	108.0	109.2	1.00	5780	17.17	631.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264097-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—SEASONAL_DEPTH_DV—SEASONAL_DEPTH_ALT—CENT_KIC_POS
008264097-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—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.

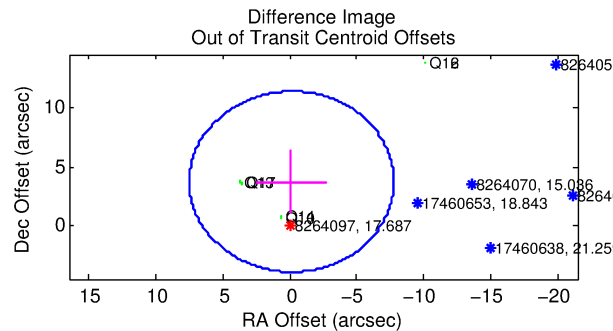
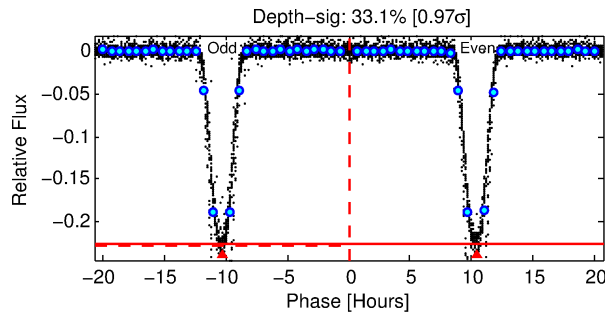
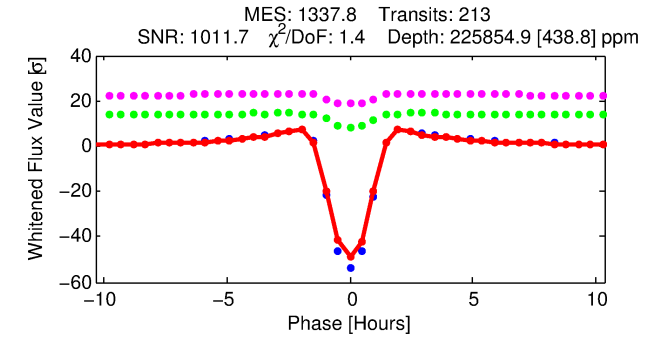
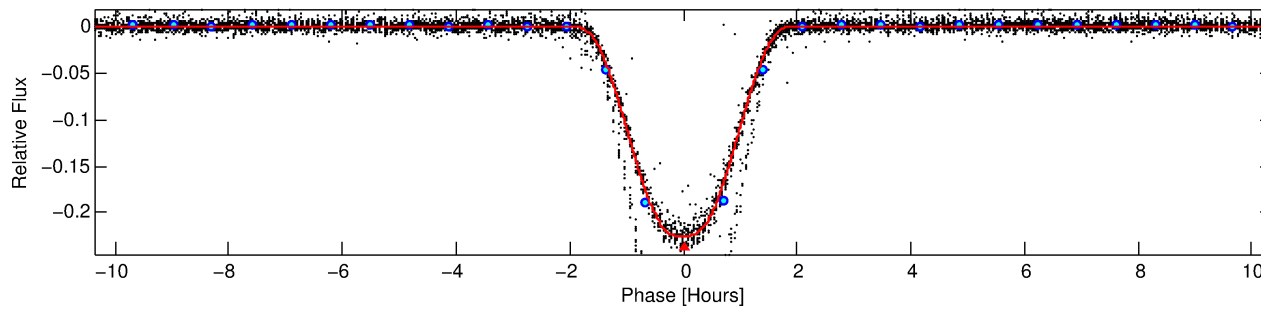
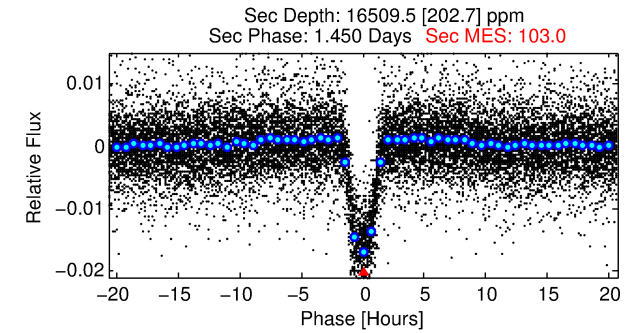
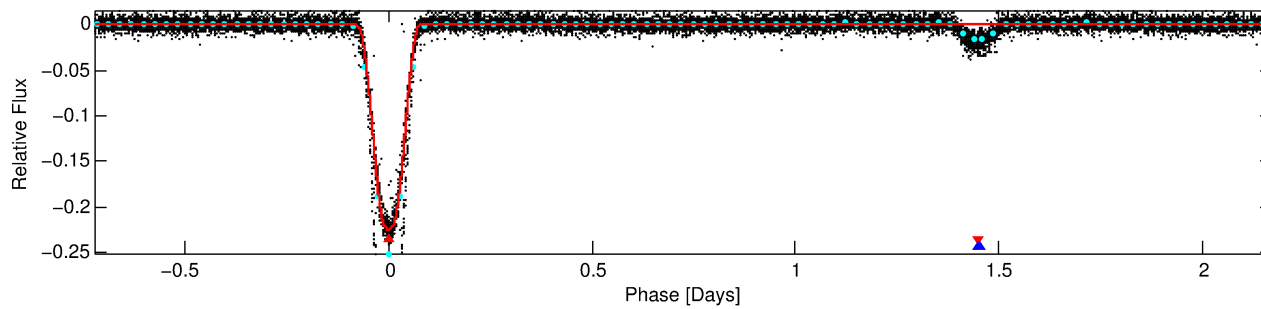
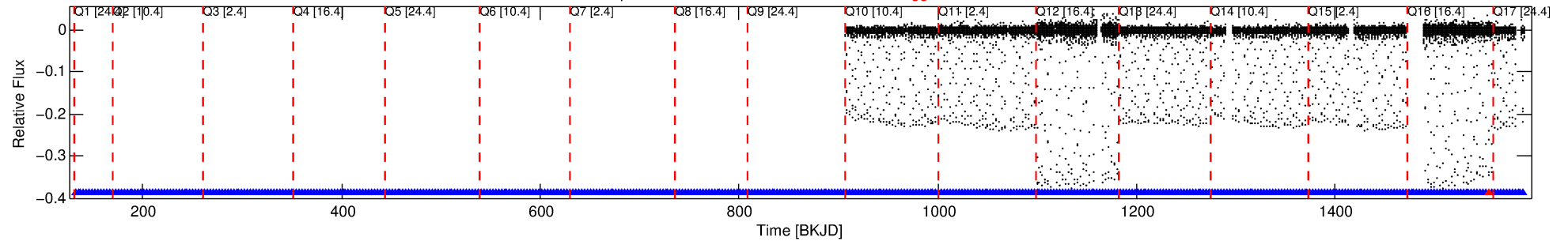
Ephemeris Match Information For 008264097-01

No Significant Match Found

DV One-Page Summary

KIC: 8264097 Candidate: 1 of 2 Period: 2.897 d
KOI: K03655.01 Corr: 0.983

Kp: 17.69 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



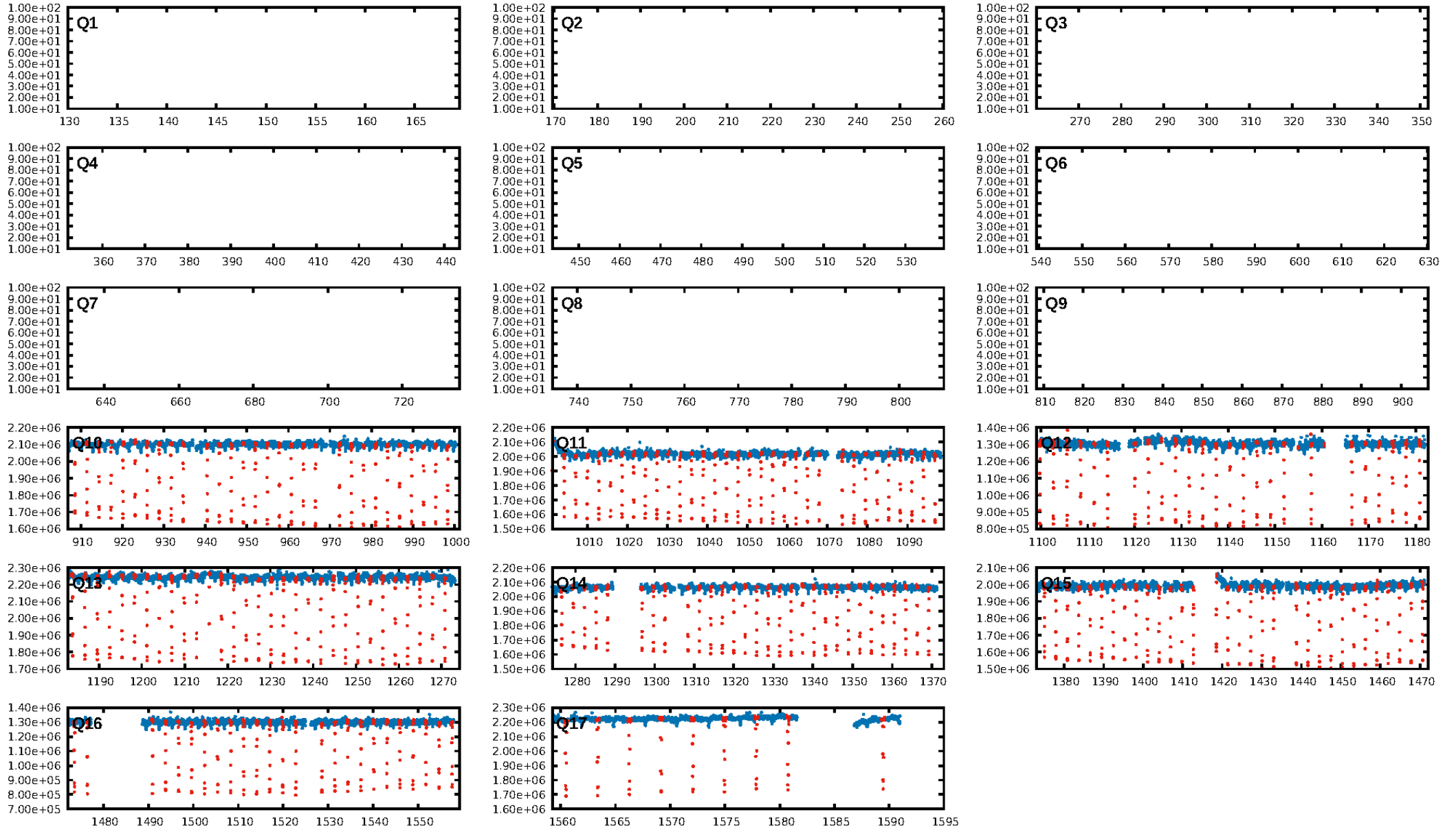
DV Fit Results:

Period = 2.89742 [0.00000] d
Epoch = 132.0442 [0.0001] BKJD
Rp/R* = 0.4514 [0.0006]
a/R* = 8.90 [0.02]
b = 0.44 [0.00]
Seff = 631.81 [0.00]
Teff = 1278 [0] K
Rp = 49.26 [0.07] Re
a = 0.0398 [0.0000] AU
Ag = 5.92 [0.07] [65.98σ]
Teffp = 3084 [10] K [185.87σ]

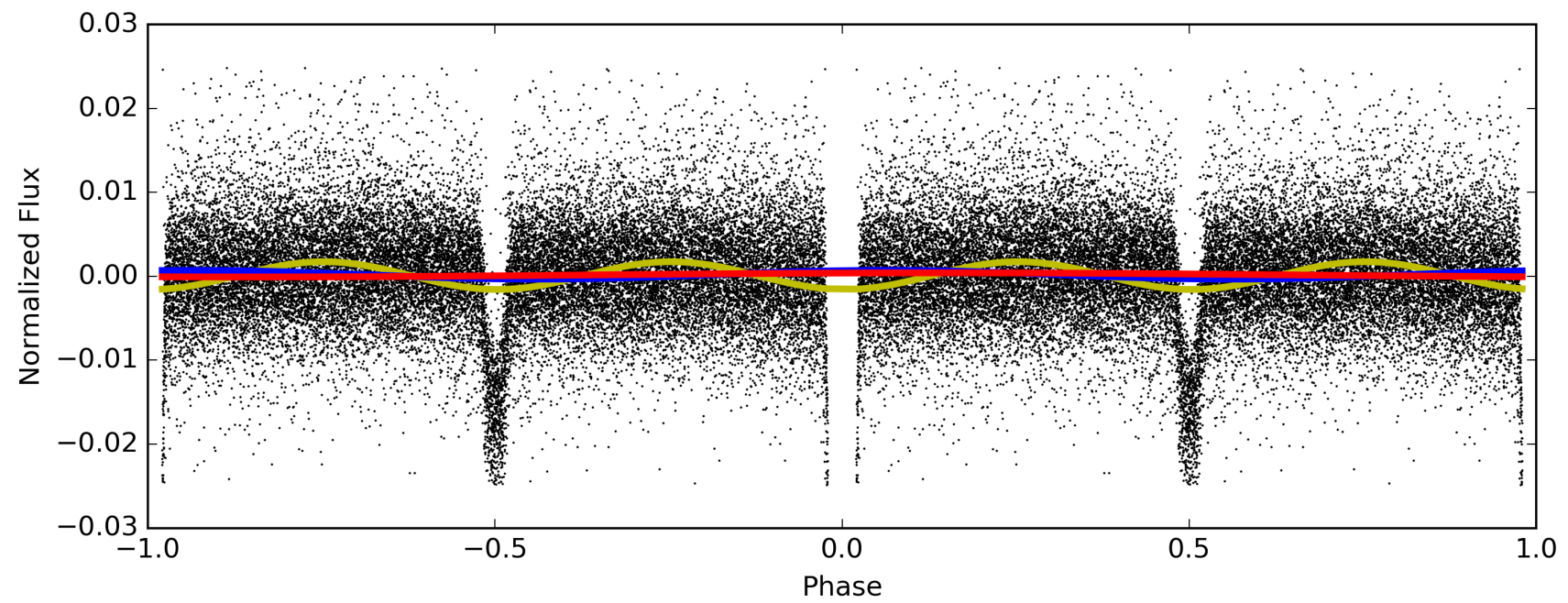
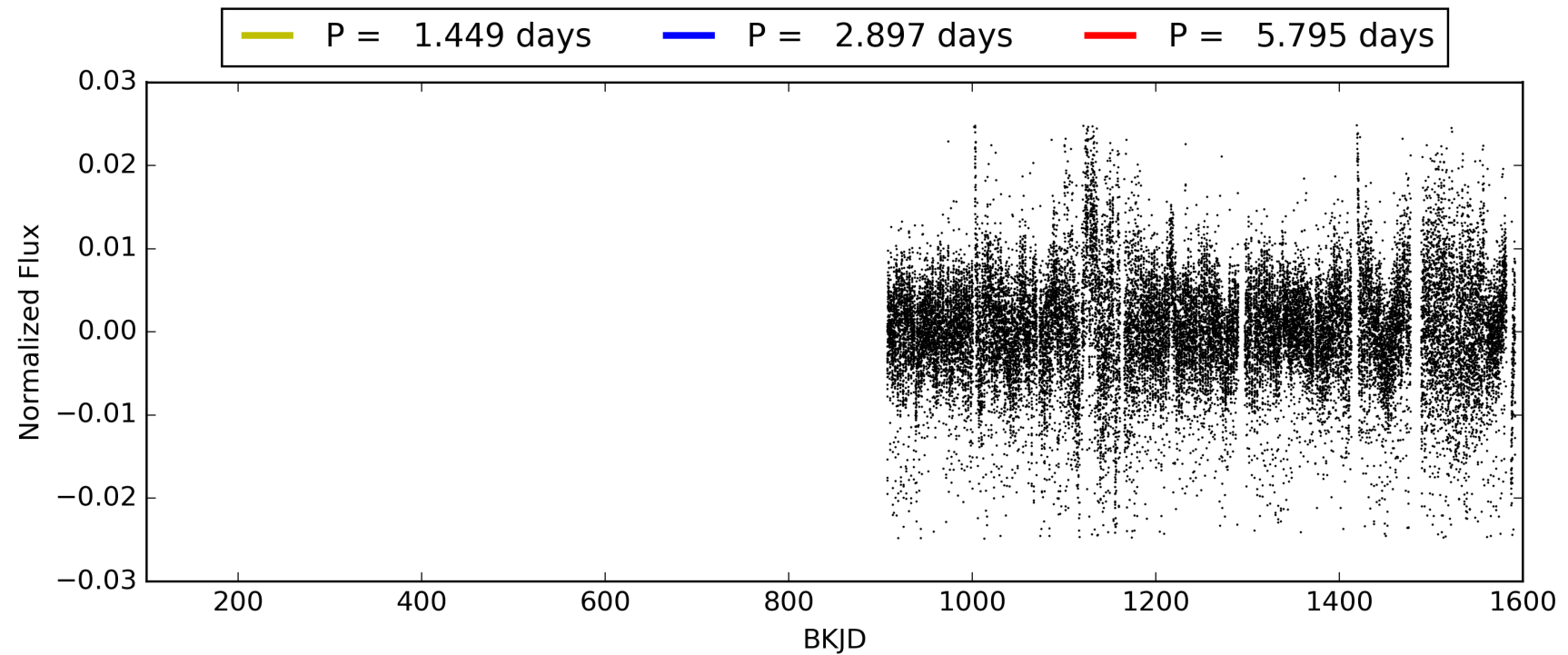
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [203/204]
GhostDiagnostic-chr: 3.339
Centroid-sig: N/A
Centroid-so: 1.444 arcsec [225.52σ]
OotOffset-rm: 3.731 arcsec [1.46σ]
KicOffset-rm: 0.320 arcsec [4.30σ]
OotOffset-st: 2/0/2/2 [6]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

TCE 008264097-01, PDC Light Curves

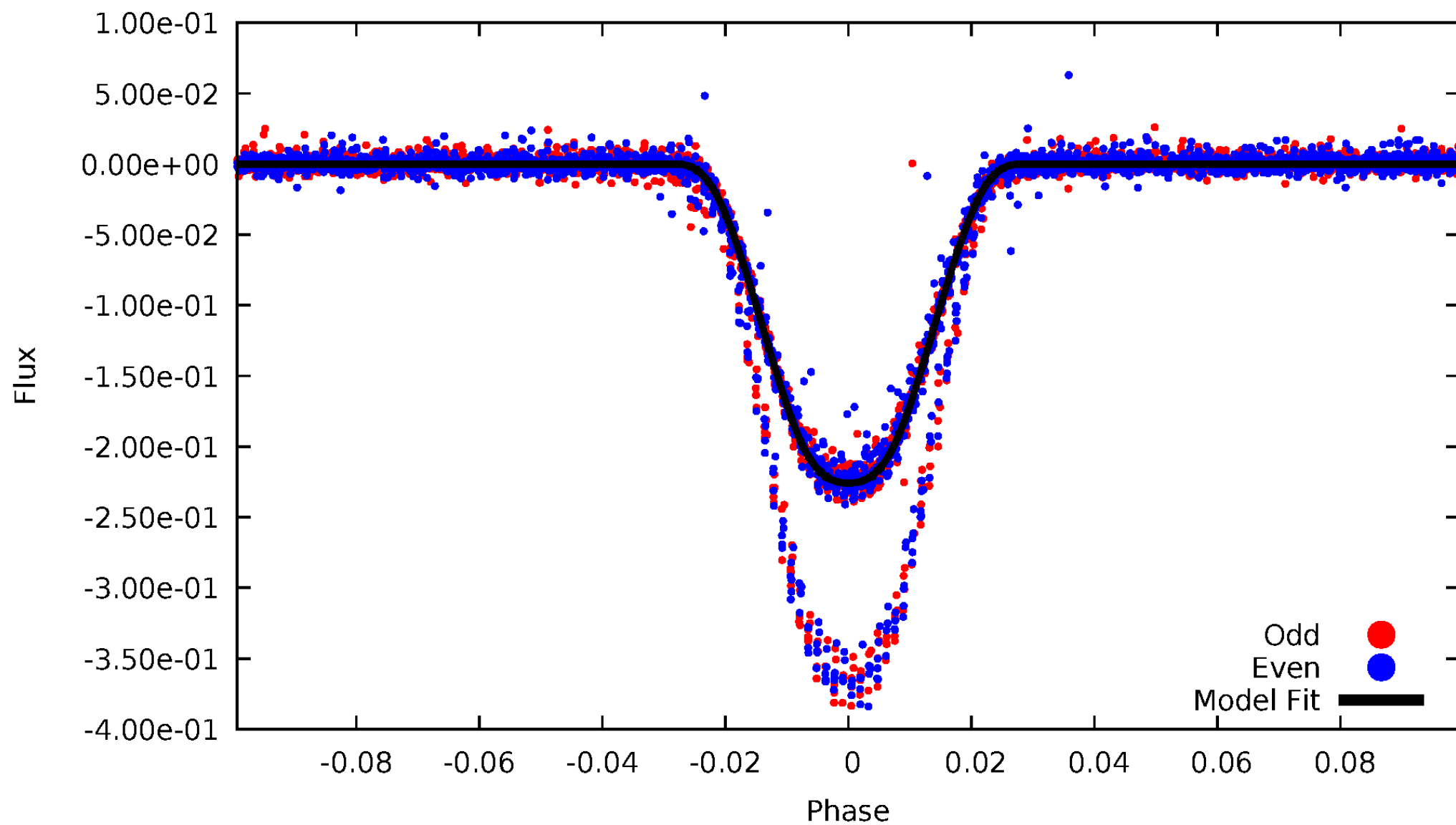


TCE 008264097-01



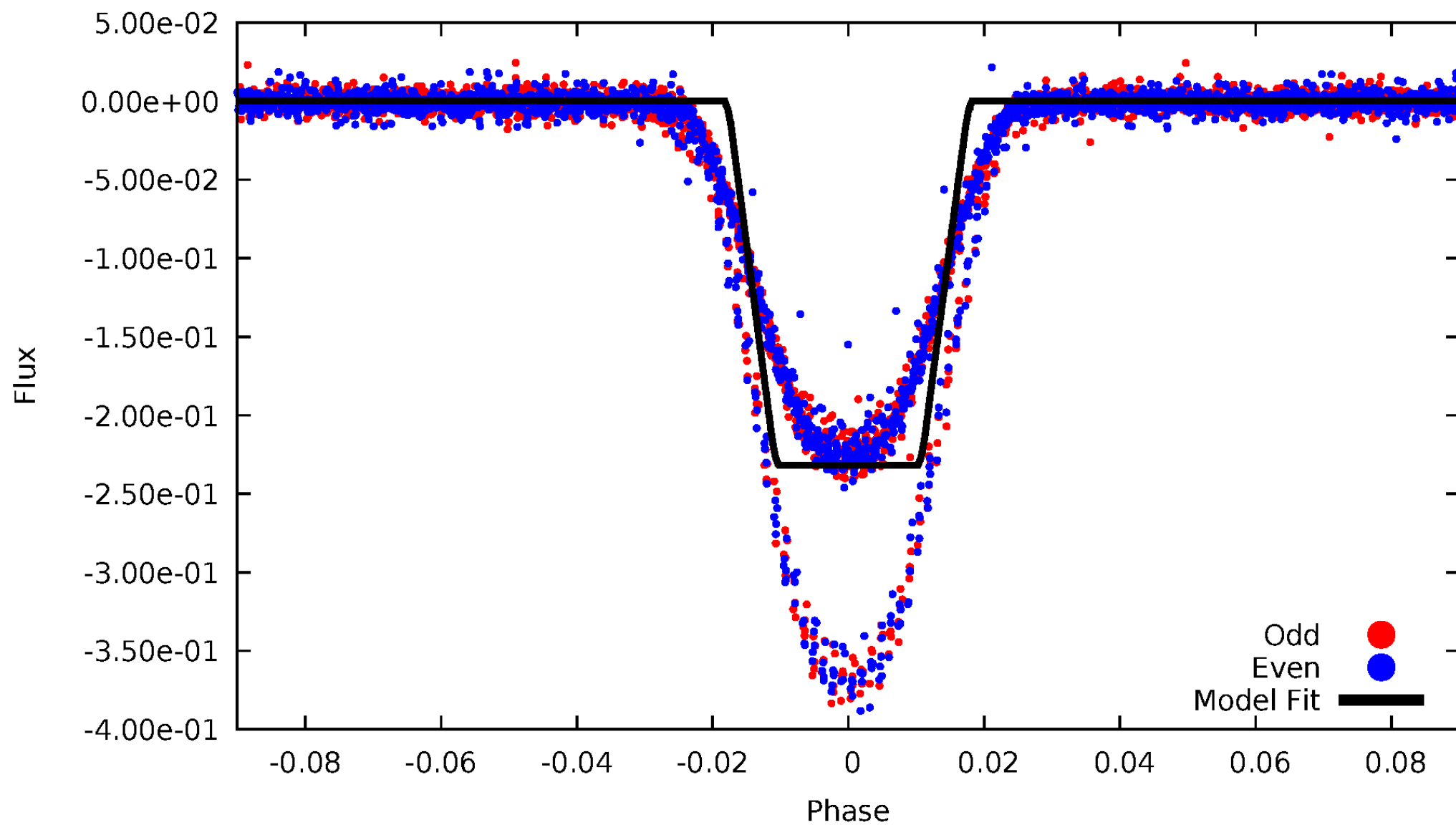
DV Odd/Even

TCE 008264097-01



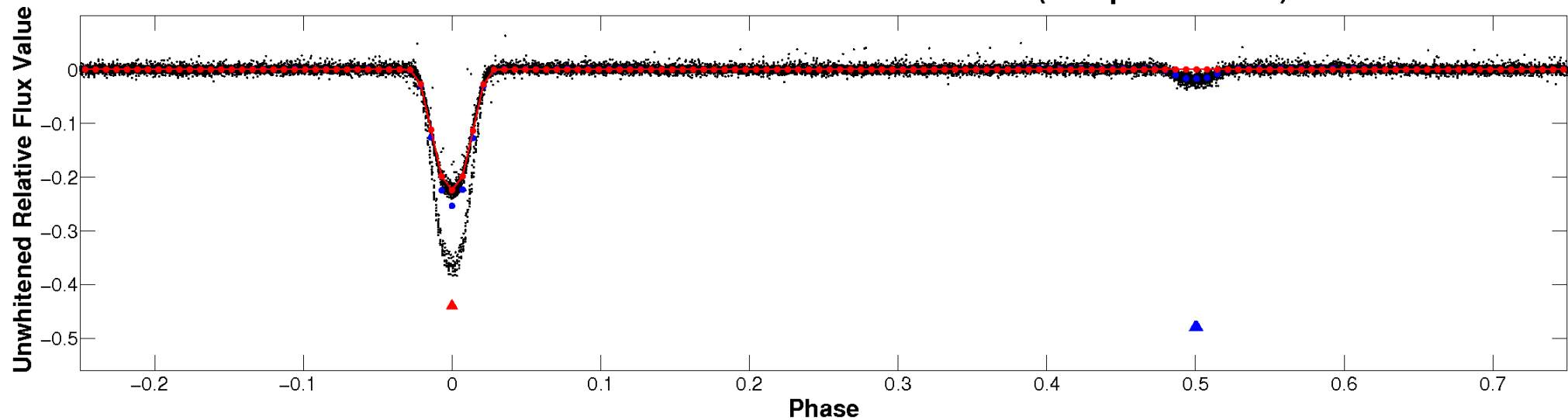
ALT Odd/Even

TCE 008264097-01

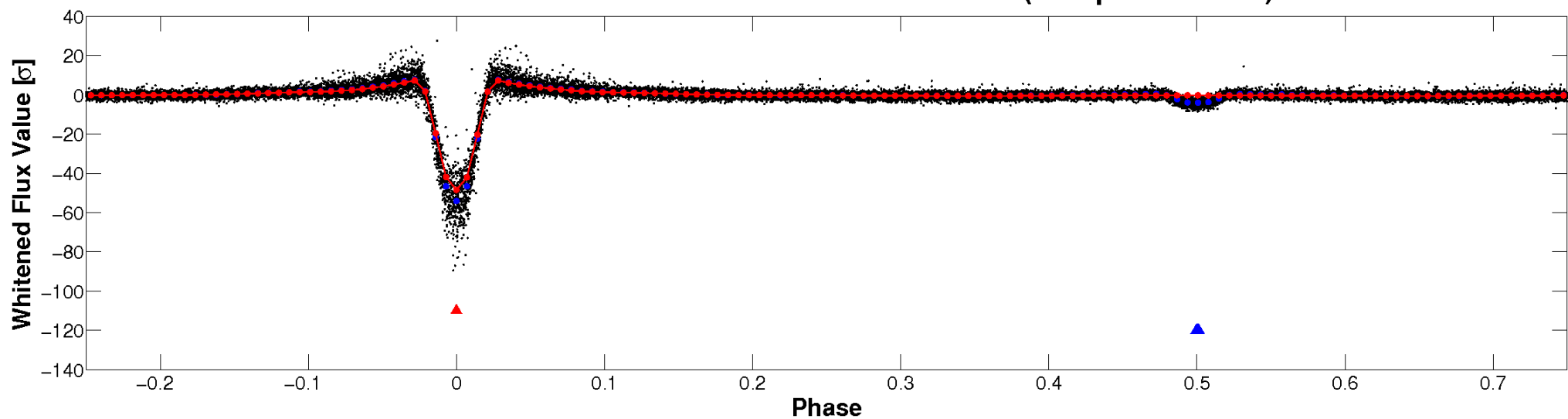


Non-Whitened Vs. Whitened Light Curve

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

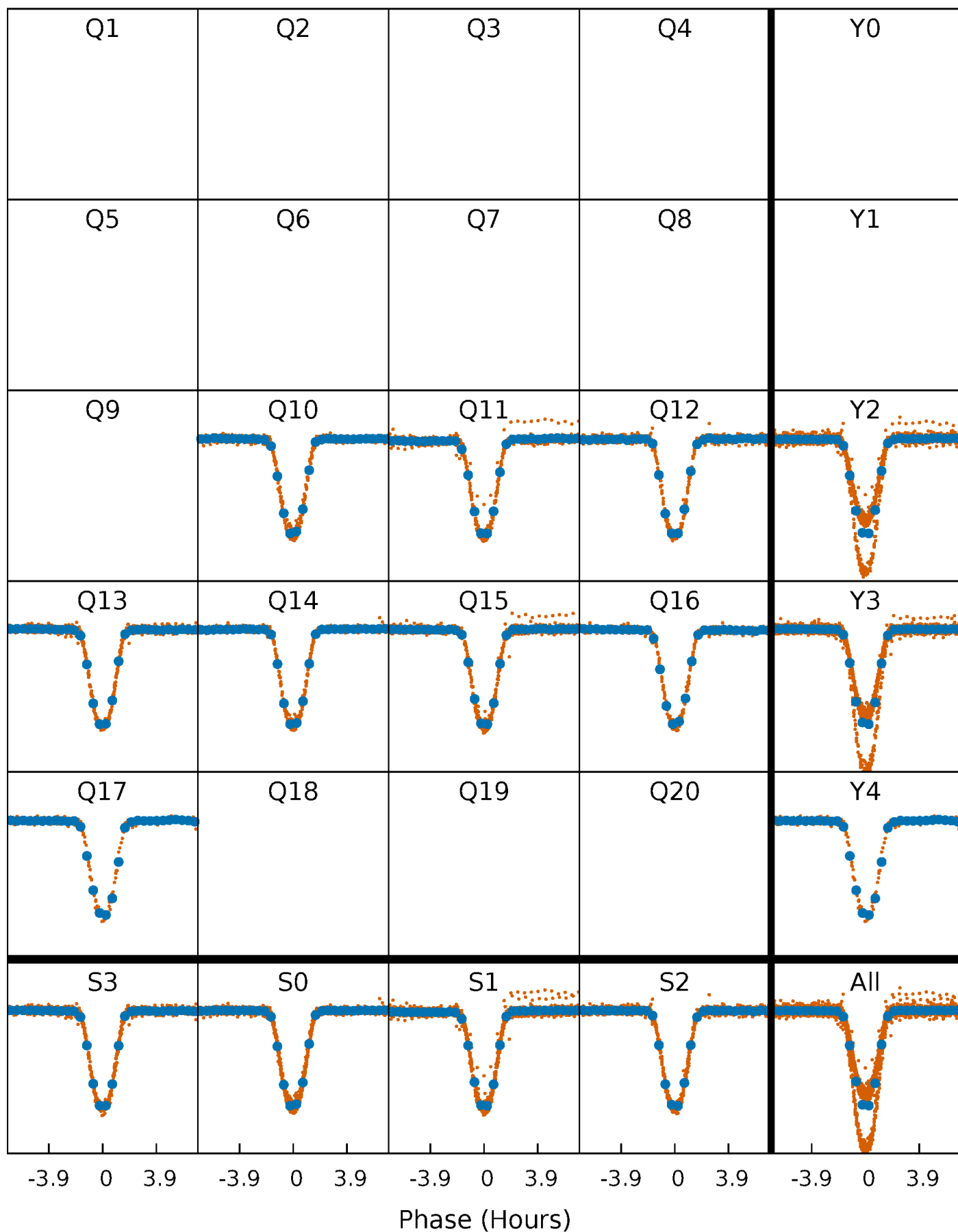


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



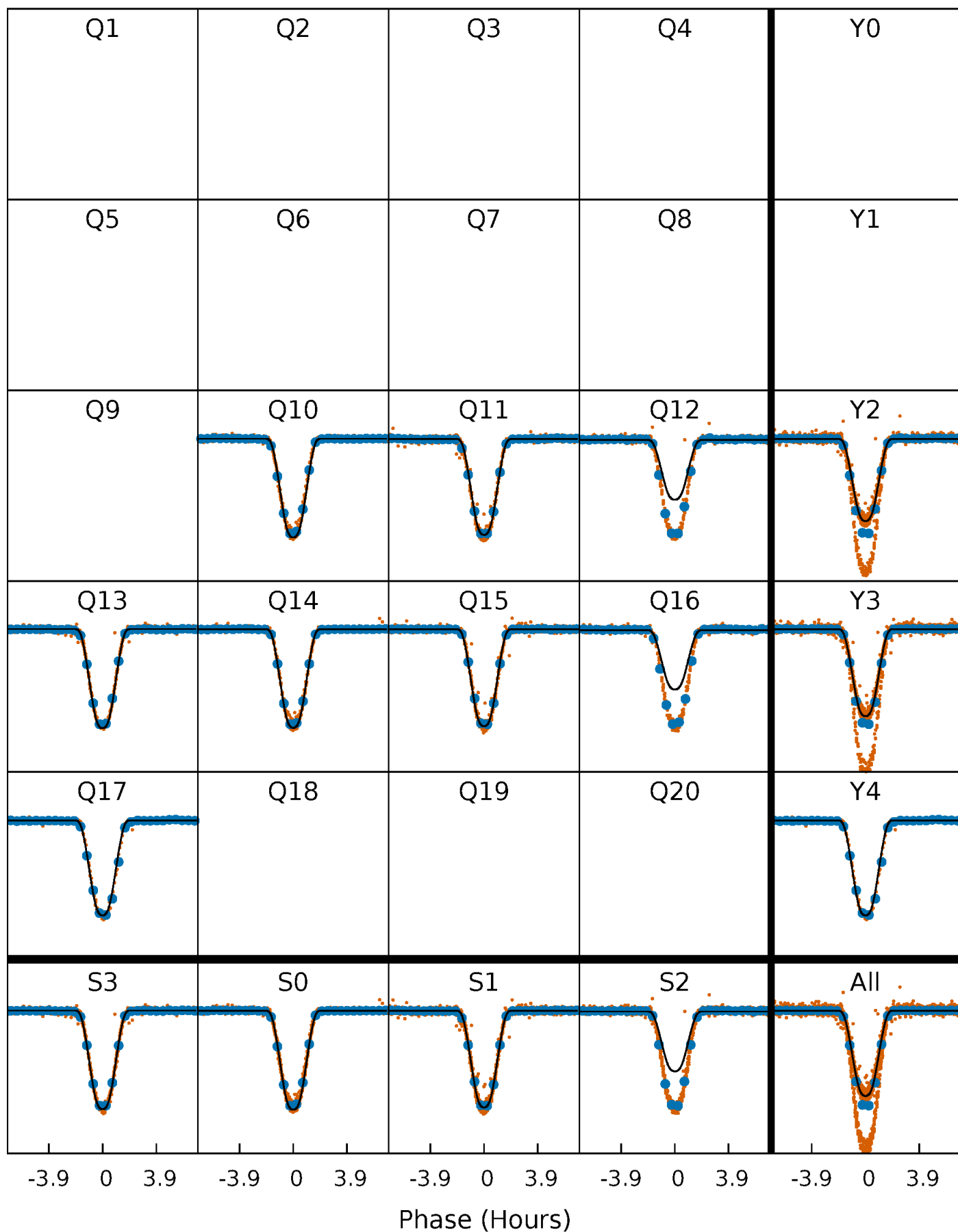
PDC Quarter-Phased Transit Curves

TCE 008264097-01 P= 2.897422 Days $T_0=132.044192$ (BKJD)



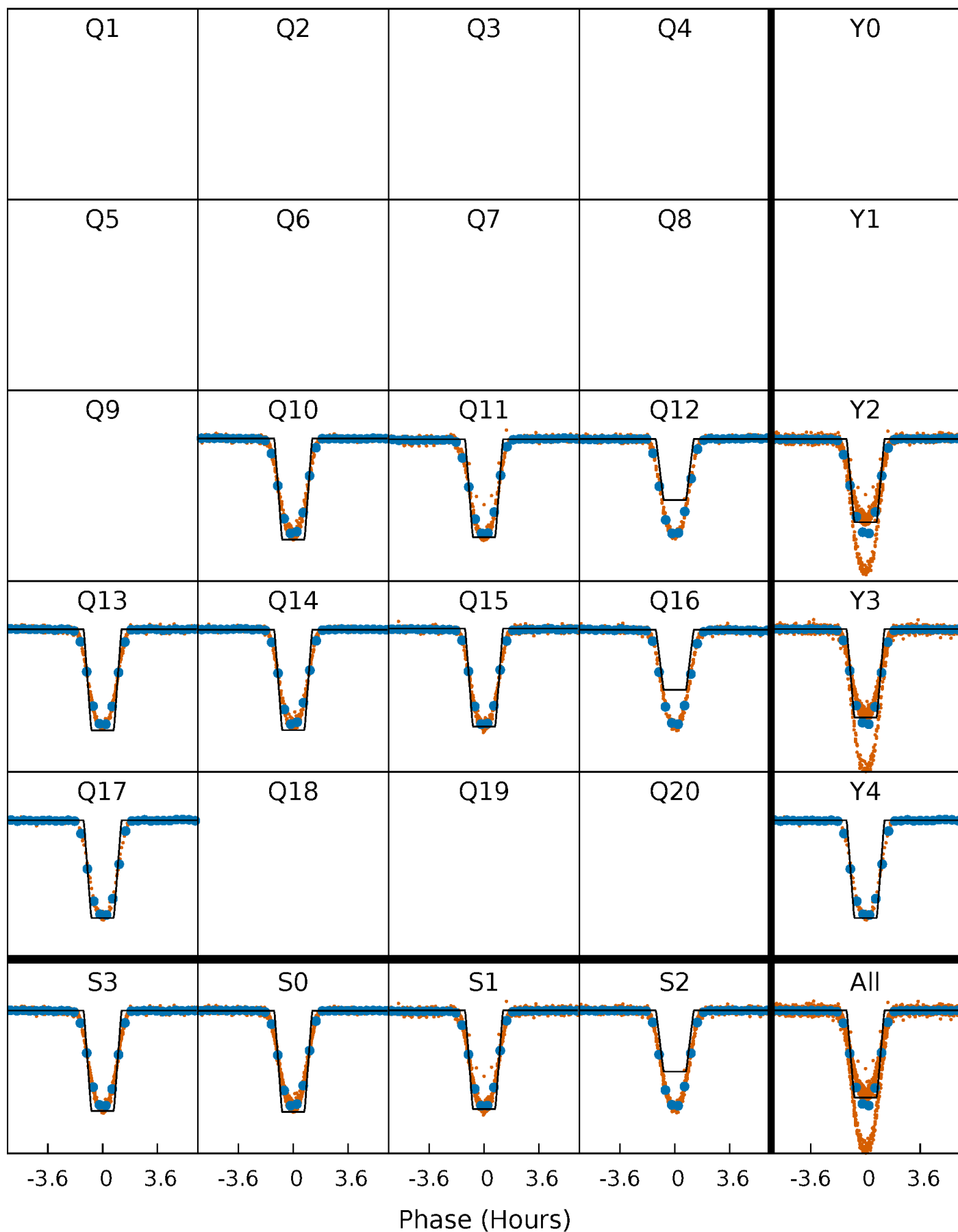
DV Quarter-Phased Transit Curves

TCE 008264097-01 P= 2.897422 Days $T_0=132.044192$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

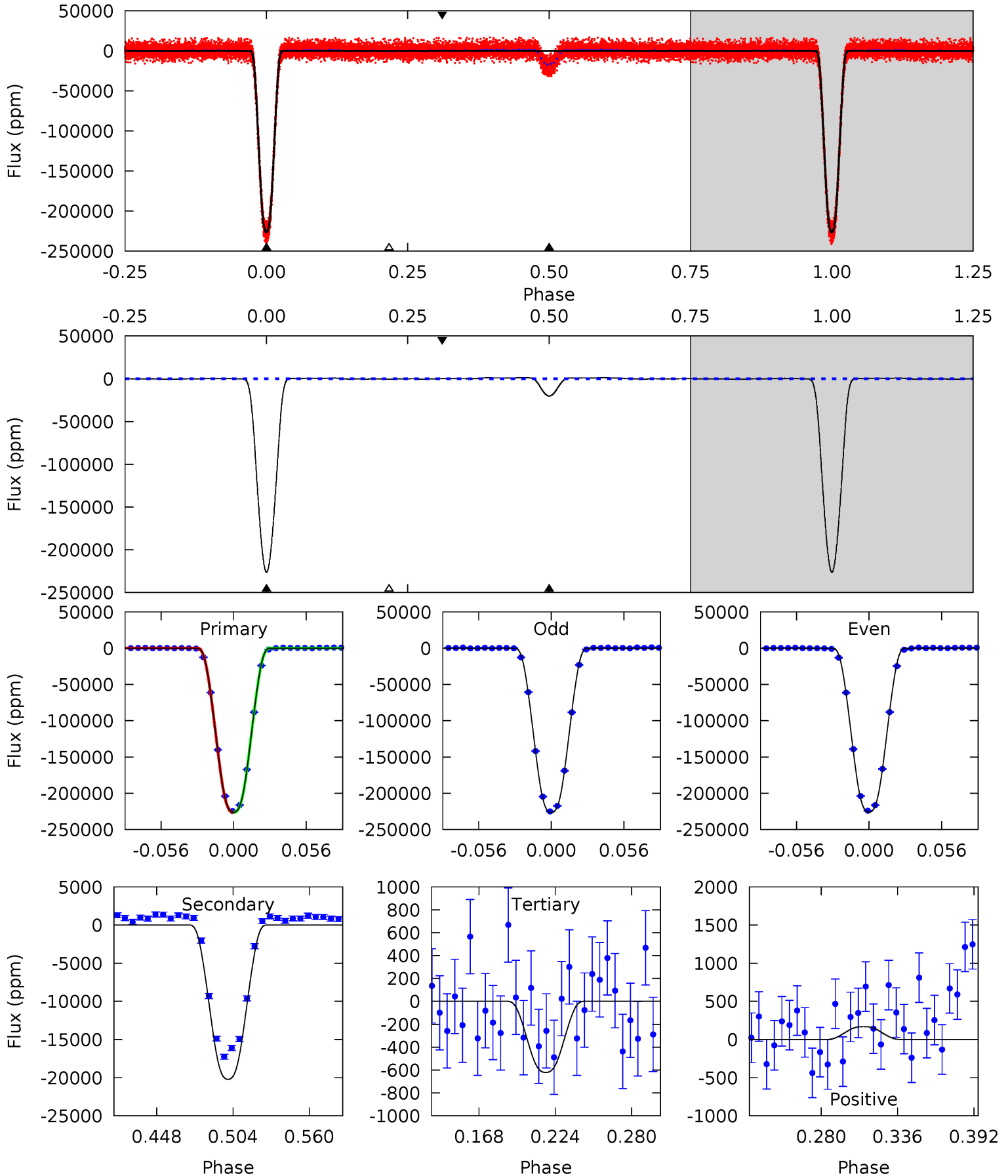
TCE 008264097-01 $P = 2.897426$ Days $T_0 = 132.042480$ (BKJD)



DV Model-Shift Uniqueness Test

008264097-01, P = 2.897422 Days, E = 132.044192 Days

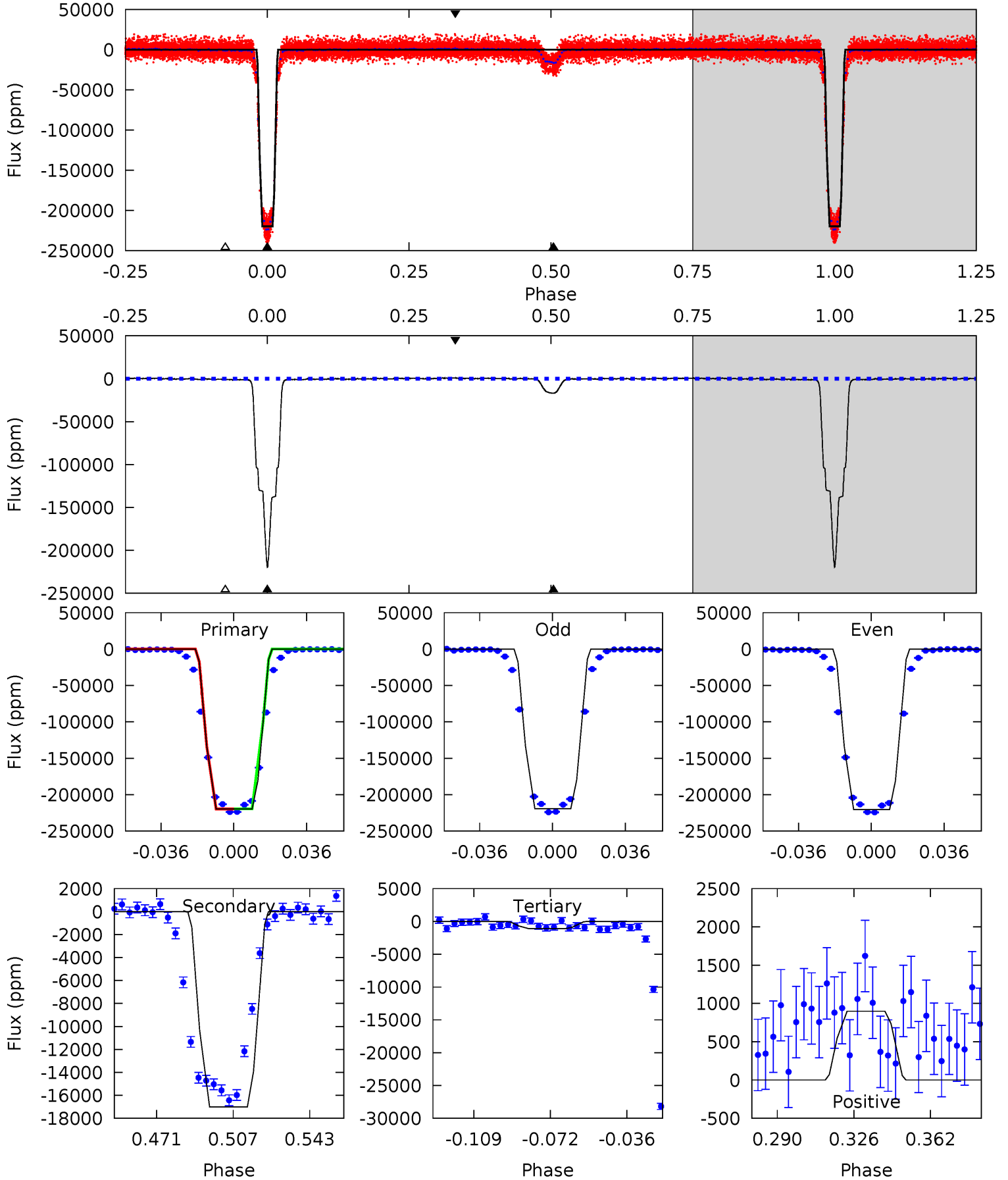
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1982	177.2	5.44	1.48	4.69	1.91	4.40	1976	1980	171.7	175.7	2.46	1.12	0.01	0.78



Alt Model-Shift Uniqueness Test

008264097-01, P = 2.897426 Days, E = 132.042480 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
971.2	75.1	4.82	3.97	4.77	2.09	1.98	966.4	967.3	70.3	71.2	2.33	1.12	0.00	0.40



Stellar Parameters For KIC 008264097

	$T_{\text{eff}}(K)$	$\log(g)$	[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 008264097-01 / KOI 3655.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-20225 ± 114	$49.38^{+3.34}_{-3.51}$	1782^{+85}_{-85}	3655^{+86}_{-93}	$7.352^{+1.063}_{-0.788}$
Alt.	-17006 ± 226	$52.61^{+3.72}_{-3.43}$	1788^{+83}_{-85}	3471^{+79}_{-80}	$5.450^{+0.717}_{-0.629}$

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 $A_{obs} \gg 1.0$

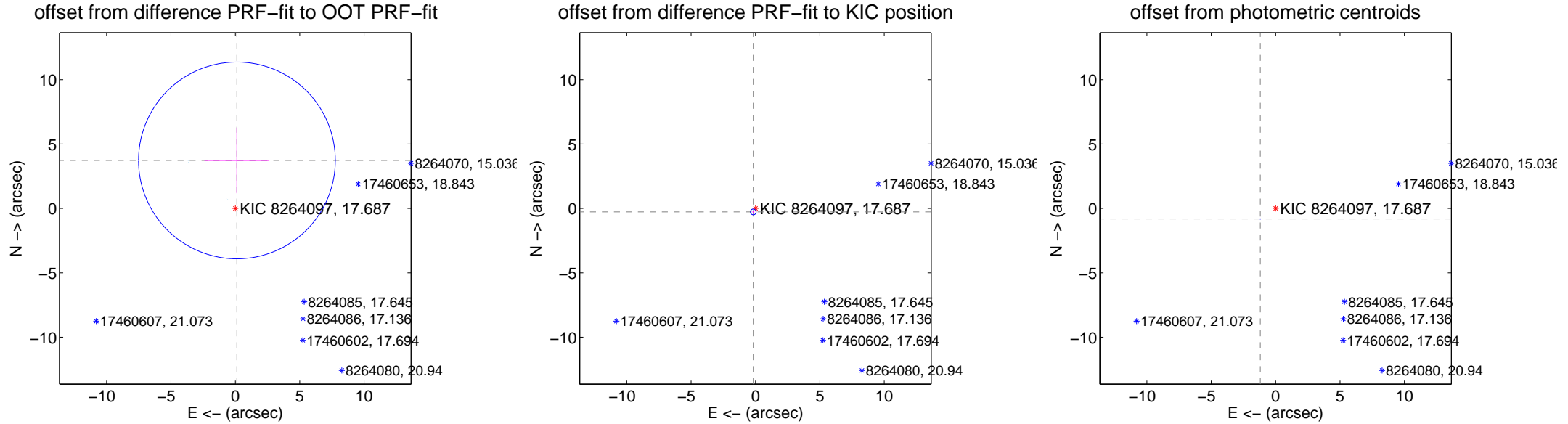
DV Centroid Data

Supplemental centroid analysis for 008264097-01. Kepler magnitude: 17.69. Transit SNR 1011.65

There are 8 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 5.05 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	3.731 ± 2.547	1.46	-0.123 ± 2.524	3.729 ± 2.547
PRF-fit source offset from KIC position	0.320 ± 0.074	4.30	0.171 ± 0.067	-0.270 ± 0.077
photometric centroid source offset	1.44 ± 0.01	225.52	1.19 ± 0.01	-0.82 ± 0.01

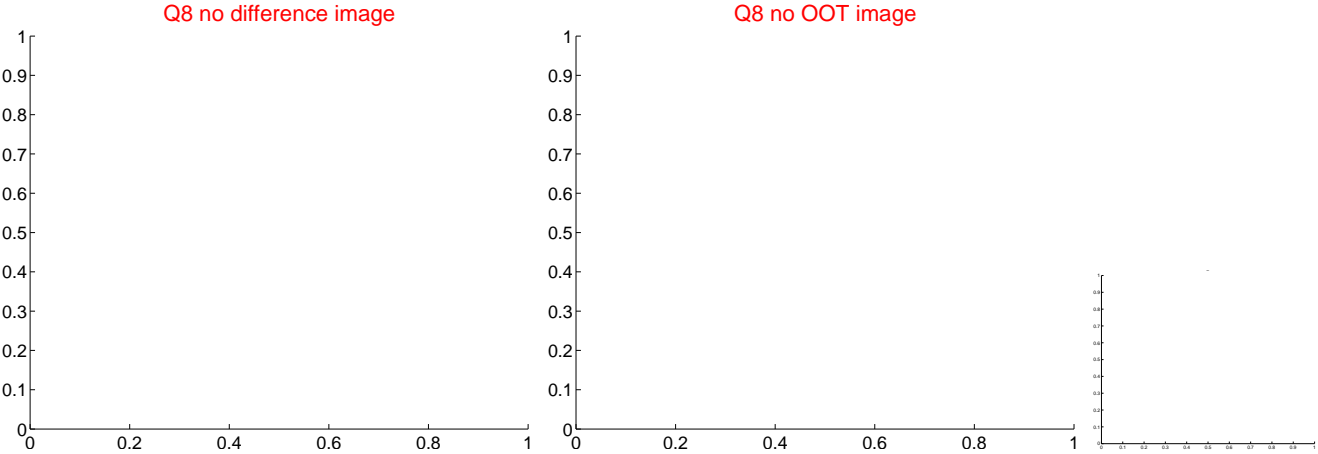
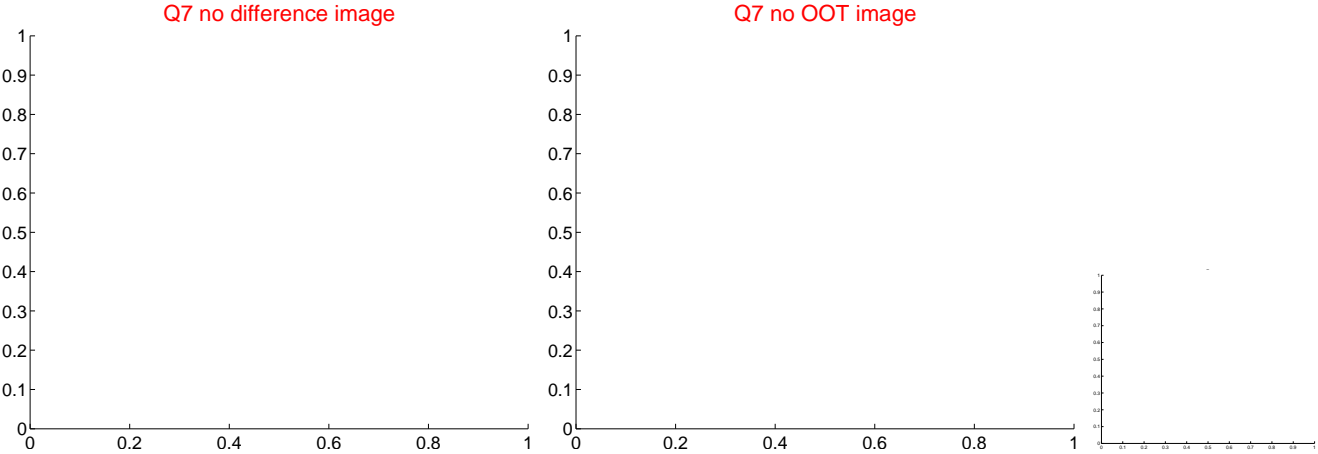
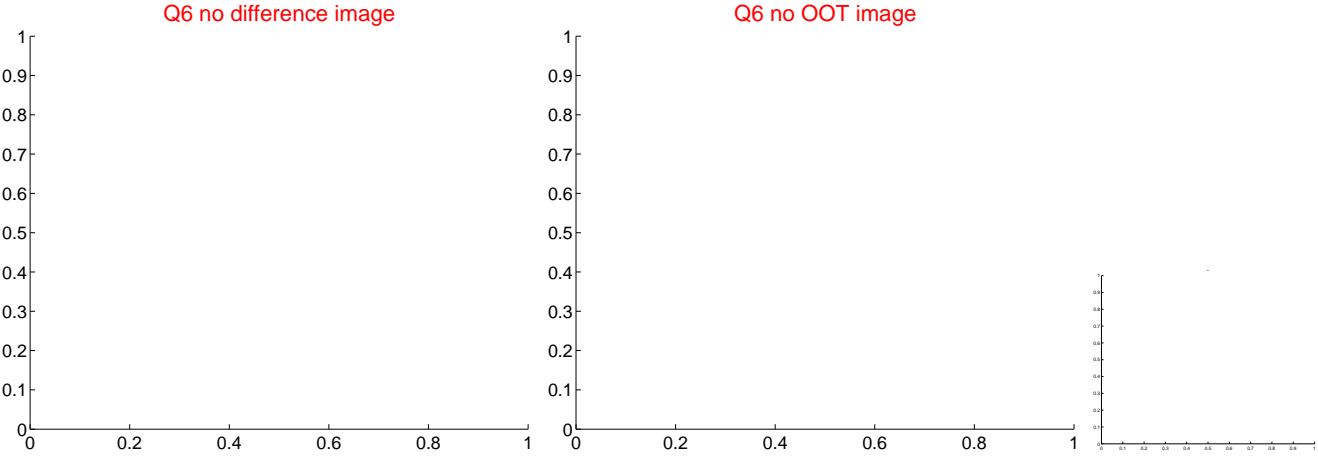
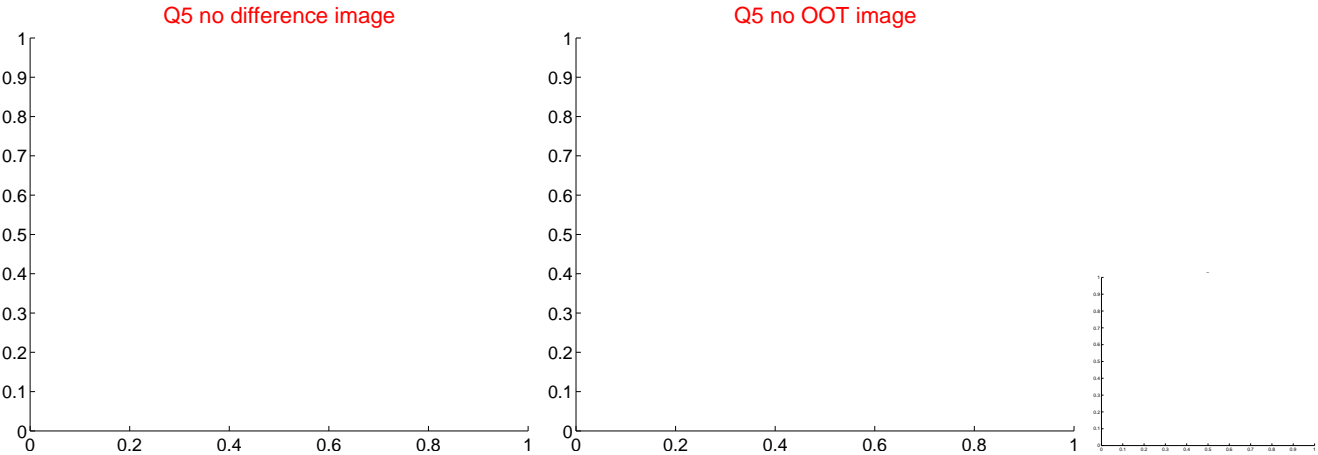


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

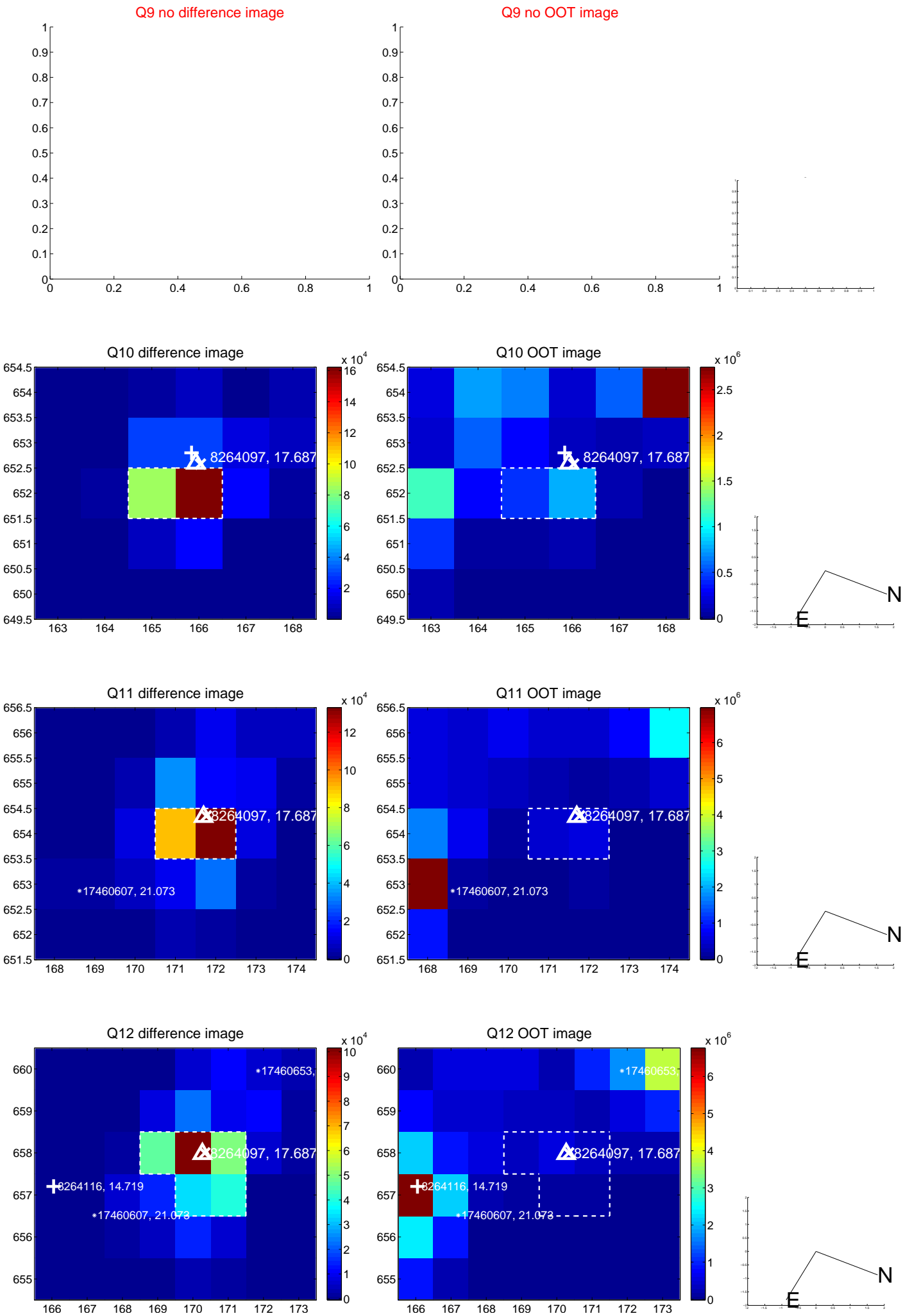
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



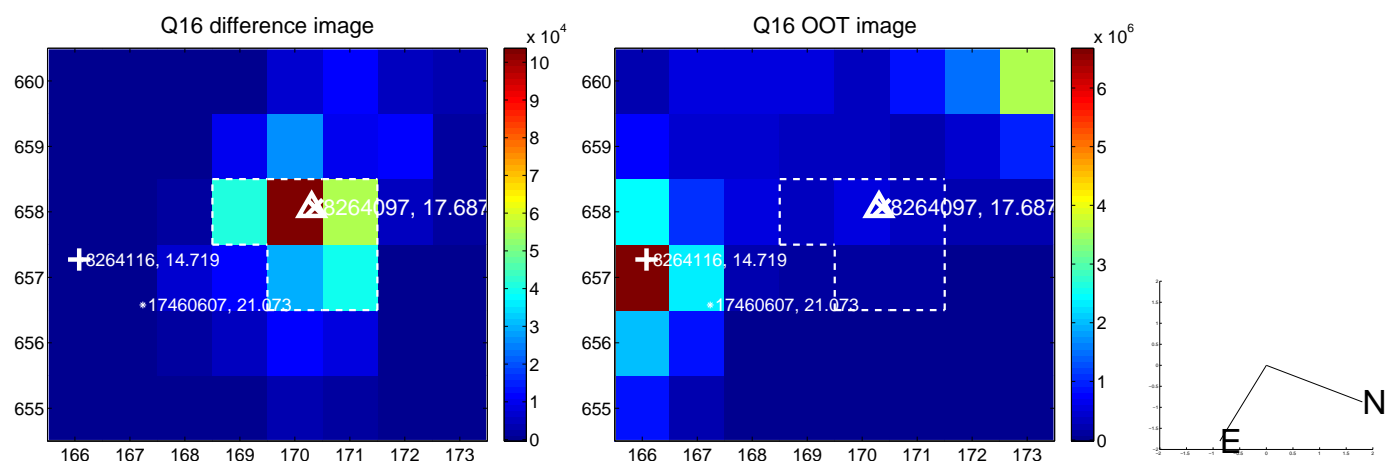
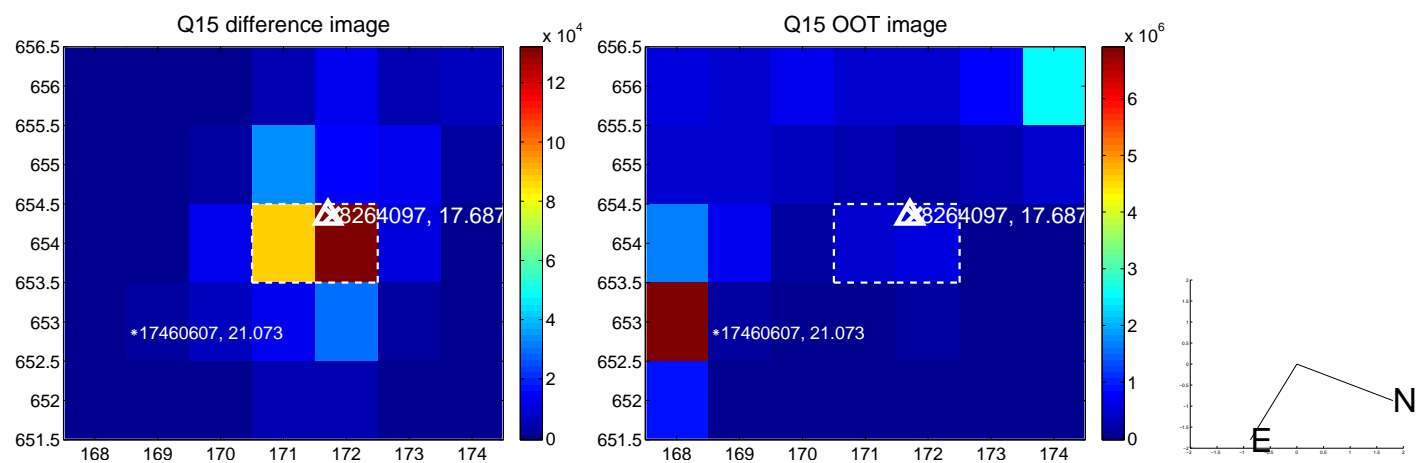
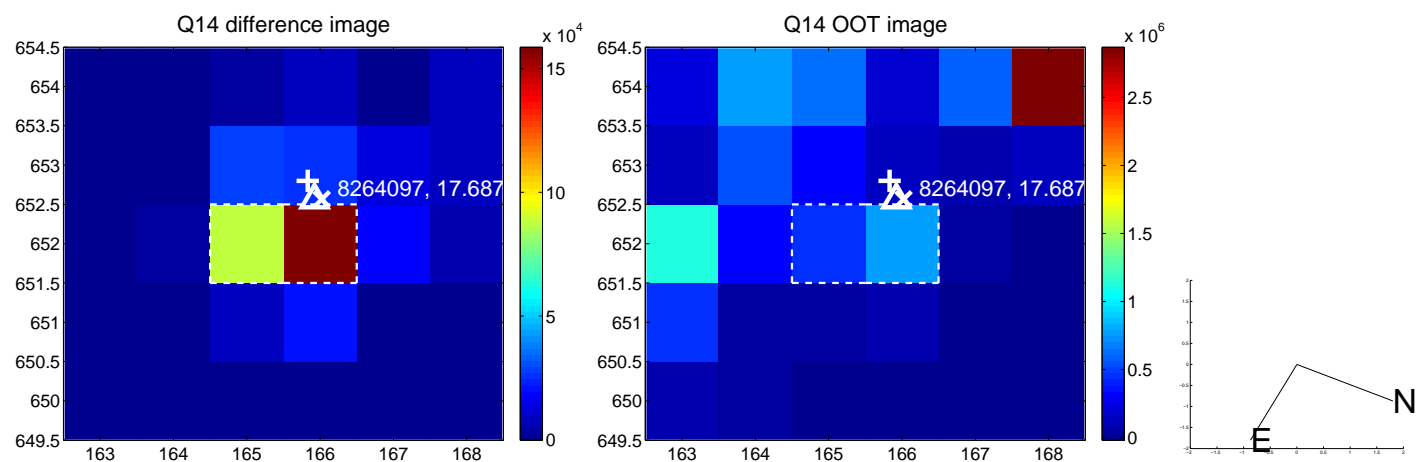
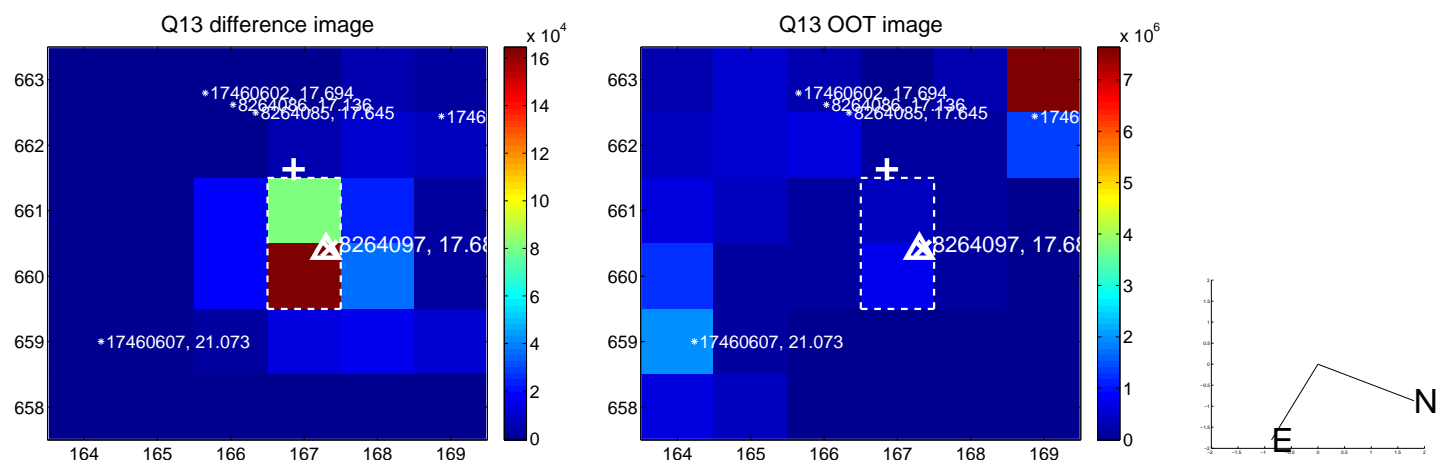
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

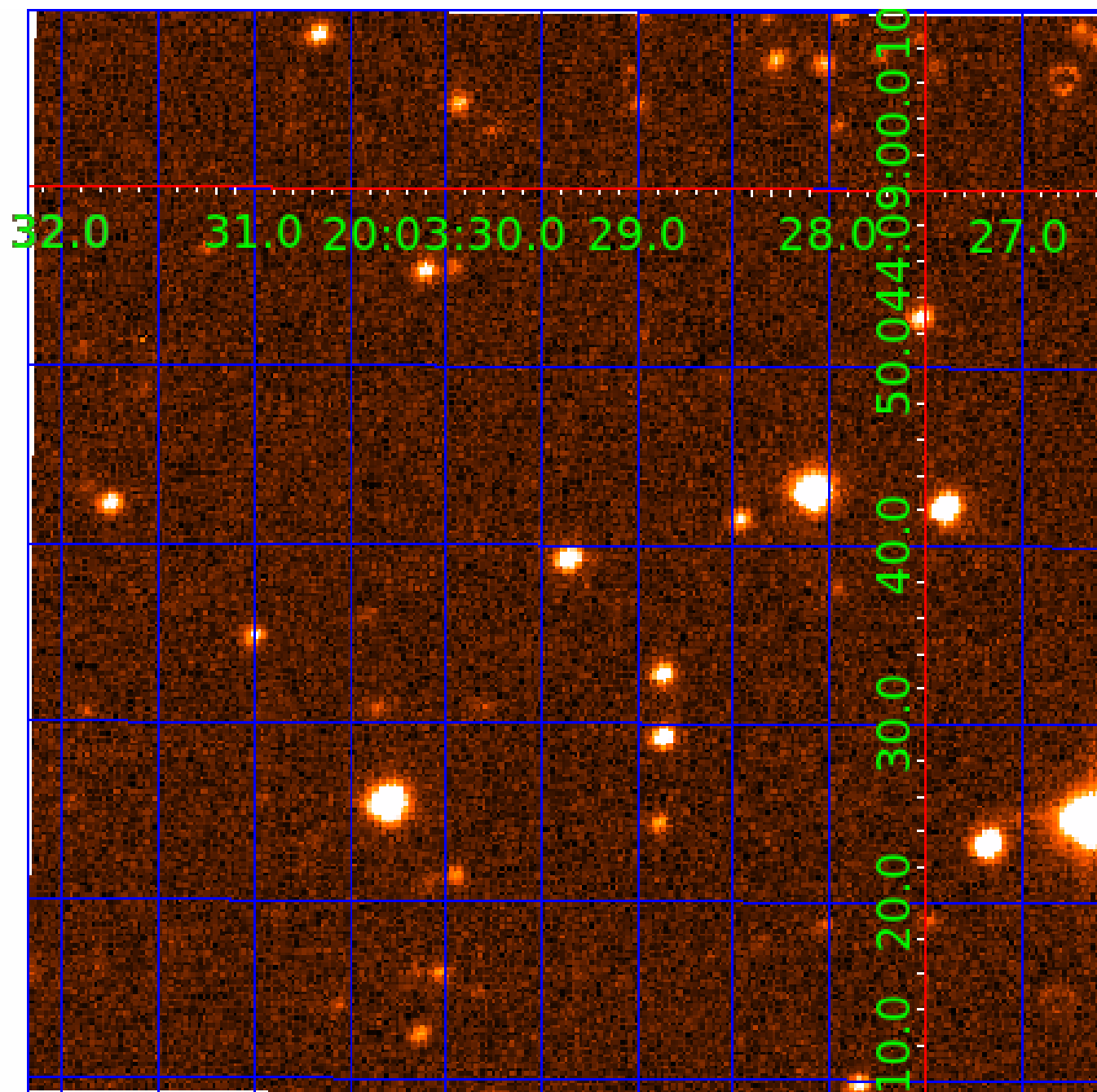


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008264097

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})
008264097-01	OBS	3655.01	2.897422	132.044192	225854.9	3.454	1337.8	1011.7	1.00	5780	49.26	631.82
008264097-02	OBS	No	2.897413	133.496496	17841.5	3.418	108.0	109.2	1.00	5780	17.17	631.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264097-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—SEASONAL_DEPTH_DV—SEASONAL_DEPTH_ALT—CENT_KIC_POS
008264097-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—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.

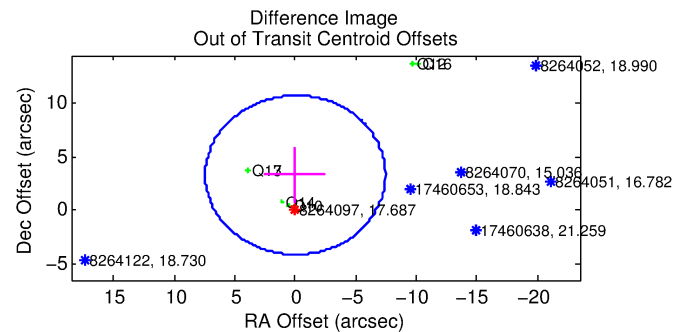
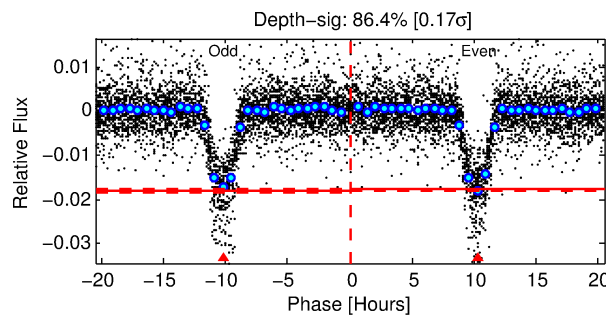
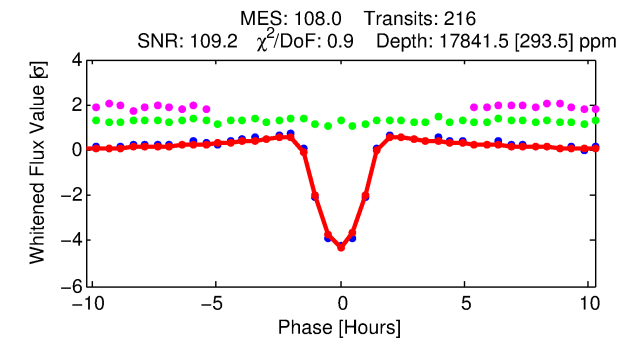
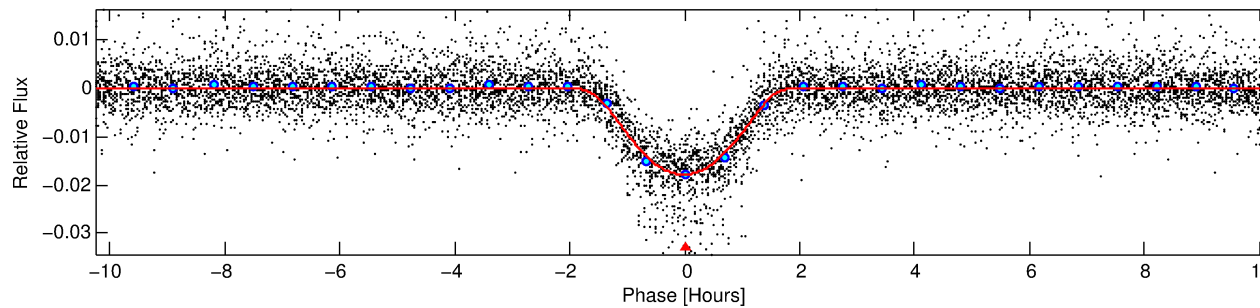
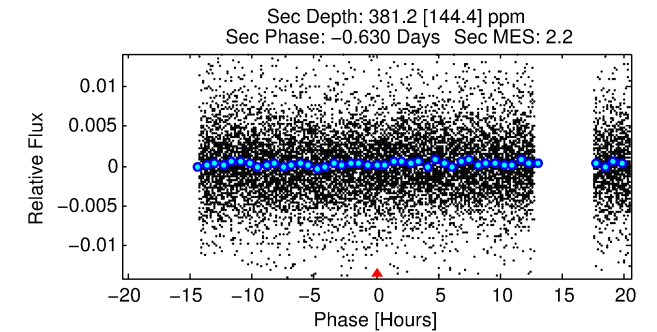
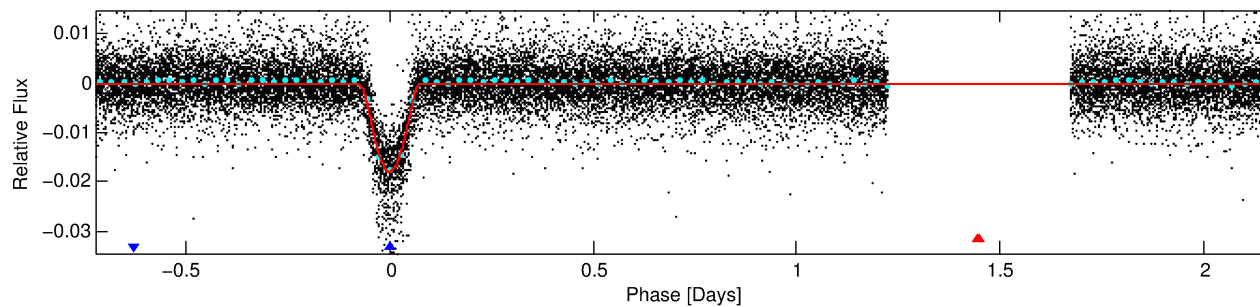
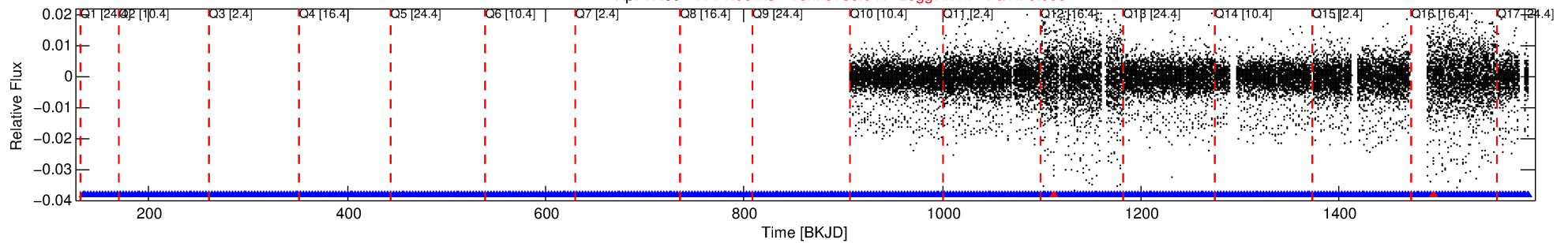
Ephemeris Match Information For 008264097-02

No Significant Match Found

DV One-Page Summary

KIC: 8264097 Candidate: 2 of 2 Period: 2.897 d
KOI: K03655 Corr: No Ephemeris Match

Kp: 17.69 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



DV Fit Results:

Period = 2.89741 [0.00000] d
Epoch = 133.4965 [0.0008] BKJD
Rp/R* = 0.1573 [0.0154]
a/R* = 4.82 [0.18]
b = 0.90 [0.03]
Seff = 631.82 [0.00]
Teq = 1278 [0] K
Rp = 17.17 [1.68] Re
a = 0.0398 [0.0000] AU
Ag = 1.13 [0.48] [0.26σ]
Teffp = 2036 [217] K [3.49σ]

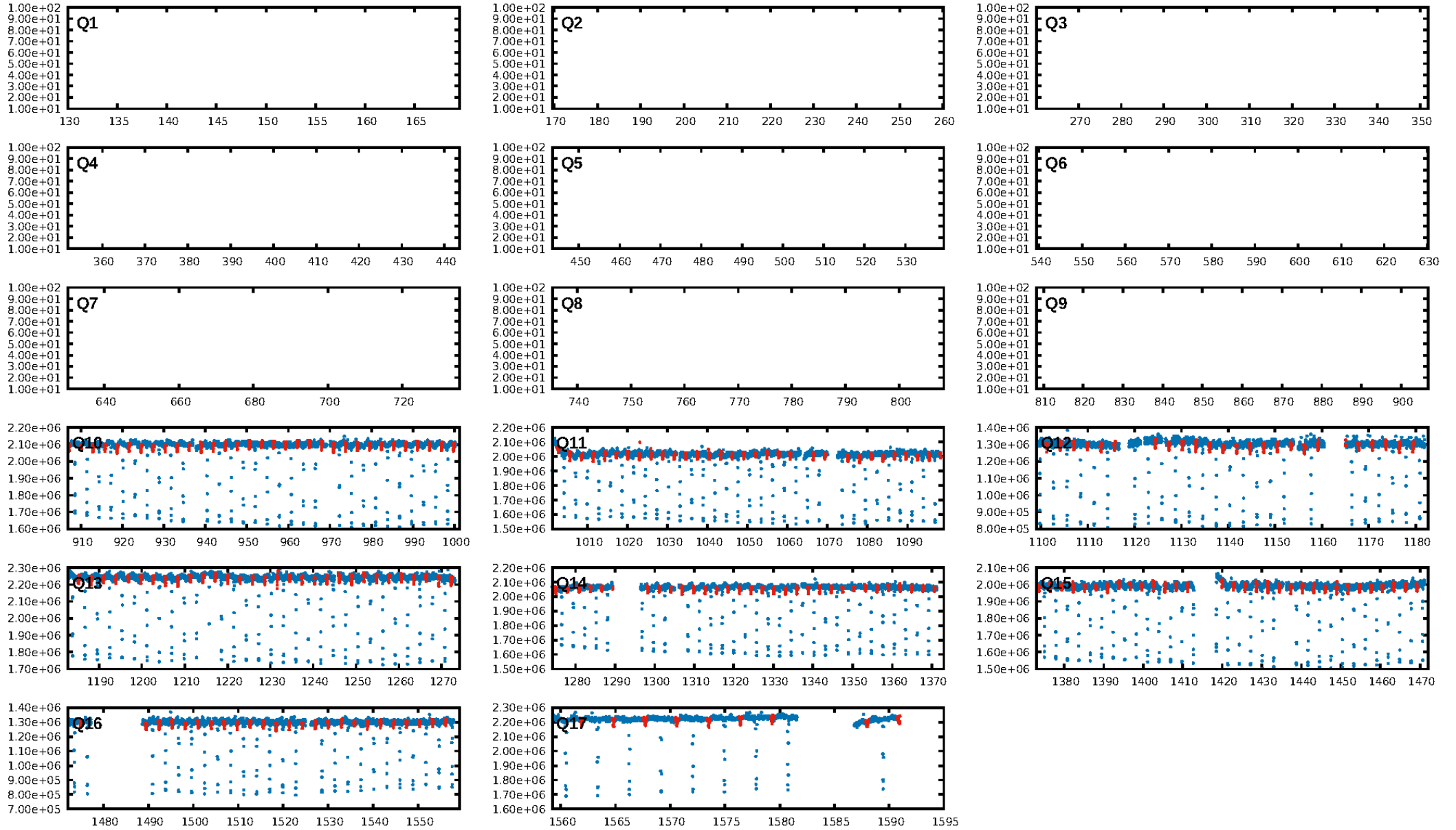
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [205/207]
GhostDiagnostic-chr: 2.003
Centroid-sig: N/A
Centroid-so: 1.546 arcsec [19.26σ]
OotOffset-rm: 3.304 arcsec [1.33σ]
KicOffset-rm: 0.504 arcsec [5.01σ]
OotOffset-st: 2/0/2/2 [6]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

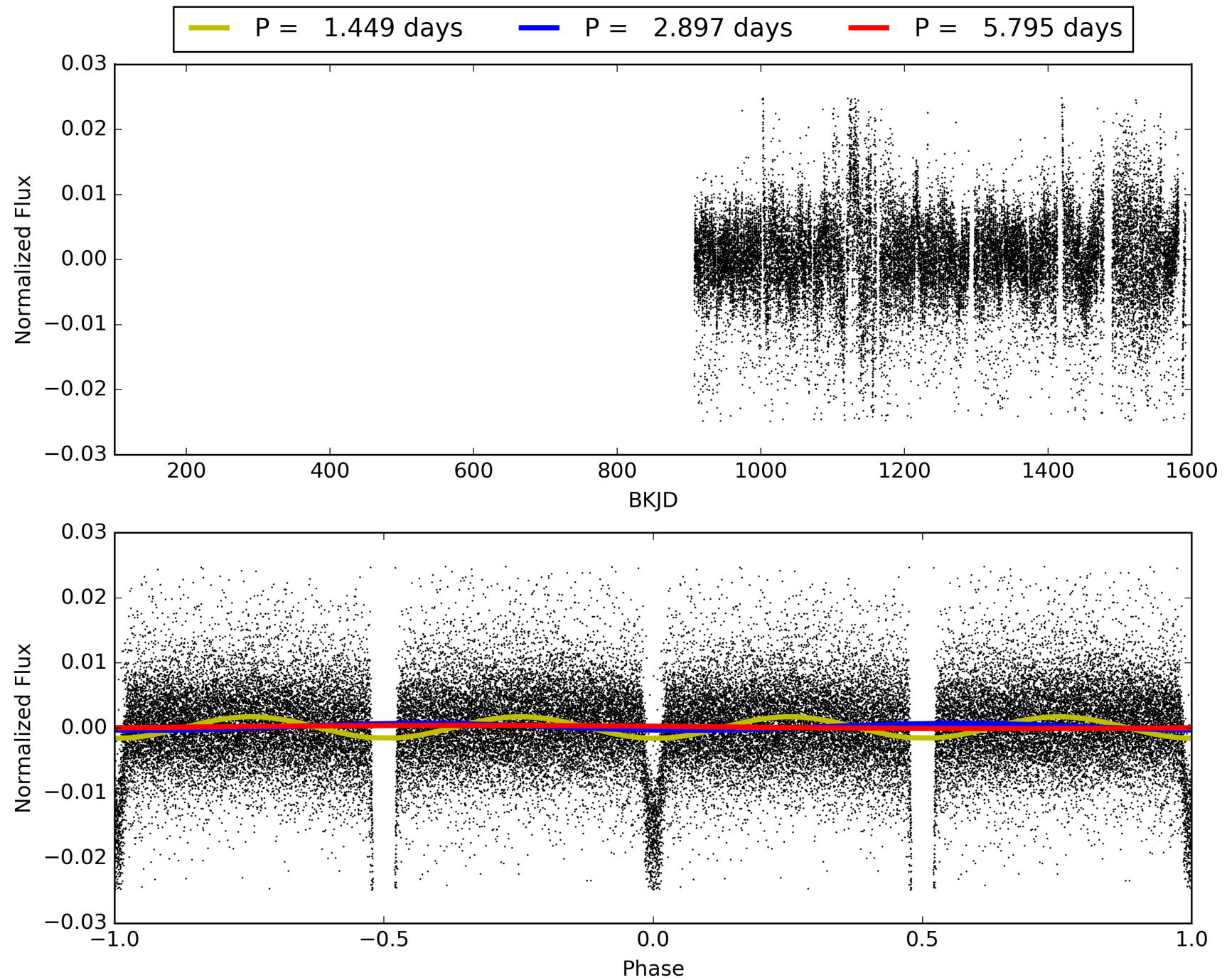
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:29:02 Z

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

TCE 008264097-02, PDC Light Curves

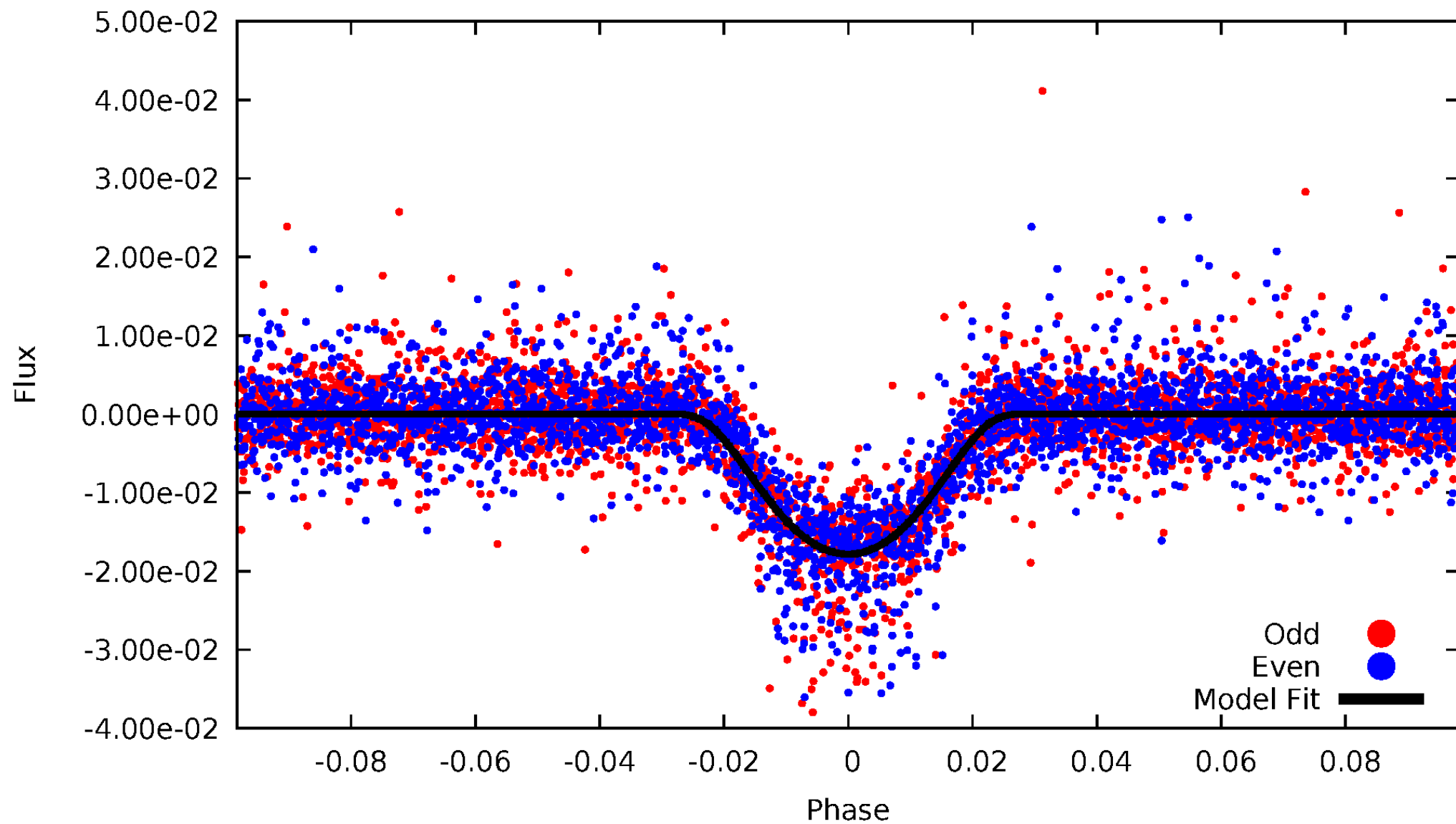


TCE 008264097-02



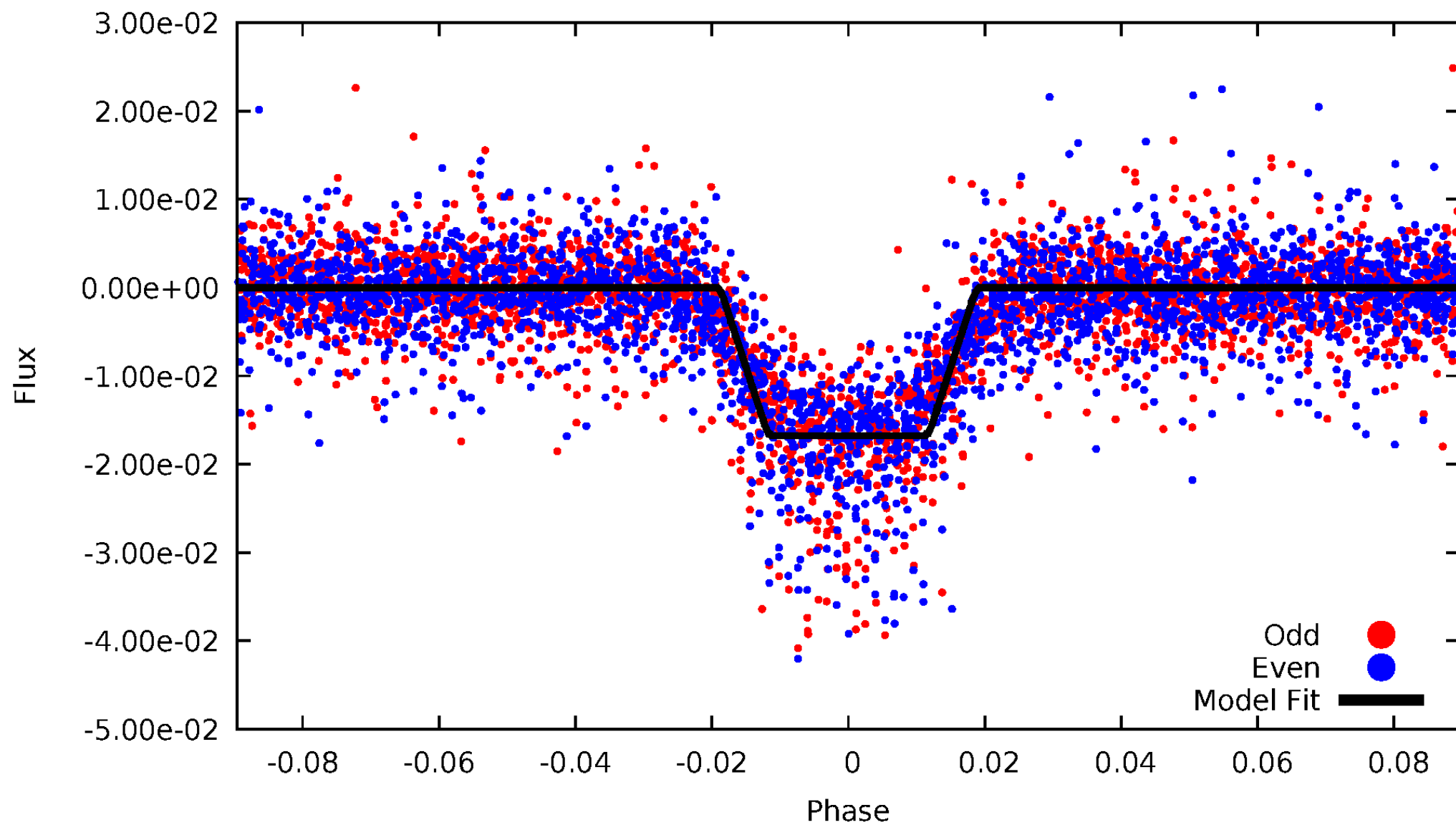
DV Odd/Even

TCE 008264097-02



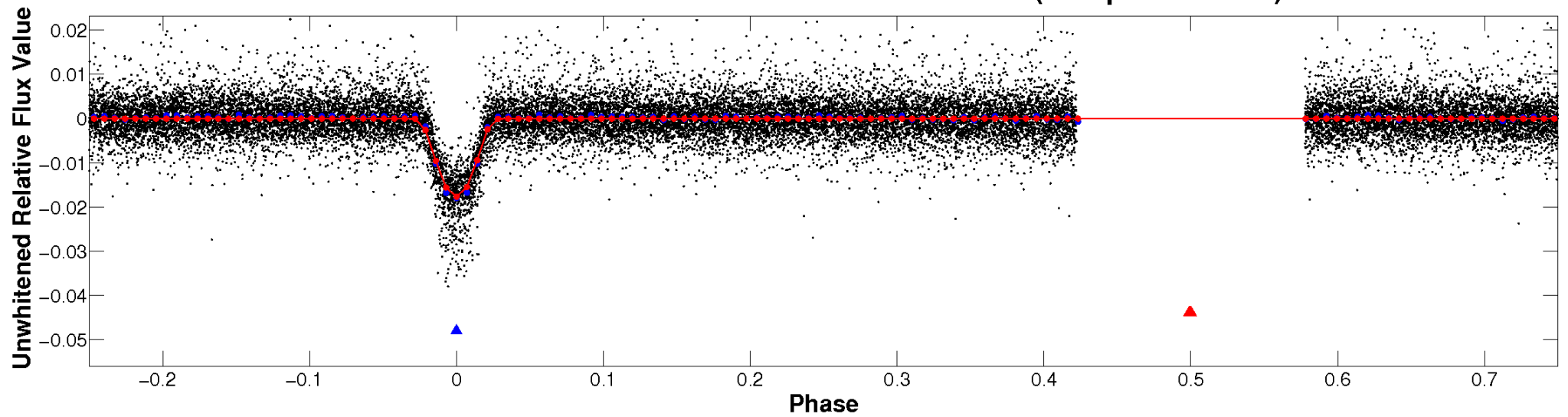
ALT Odd/Even

TCE 008264097-02

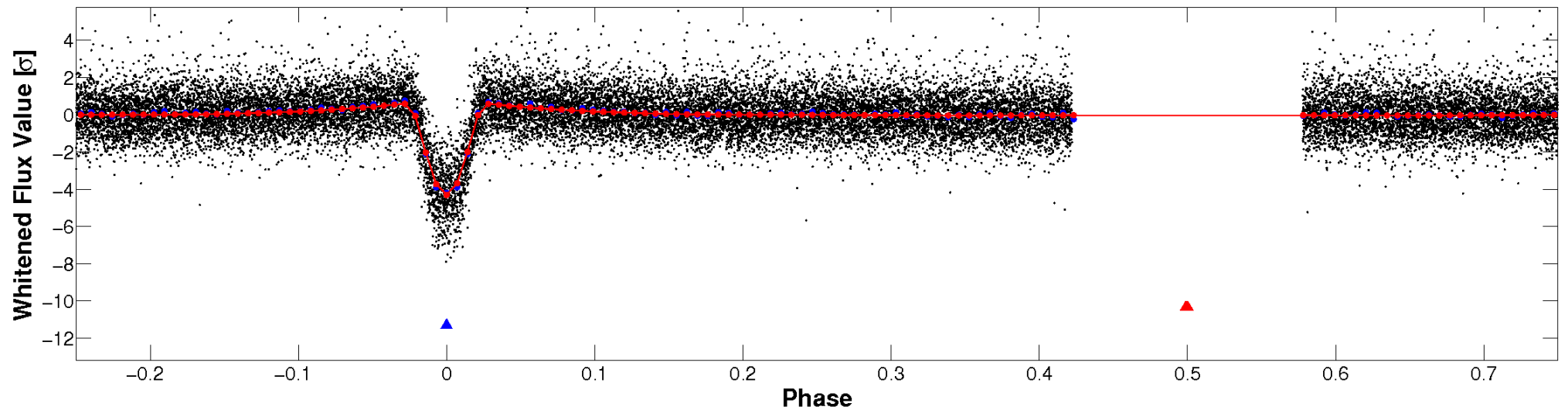


Non-Whitened Vs. Whitened Light Curve

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

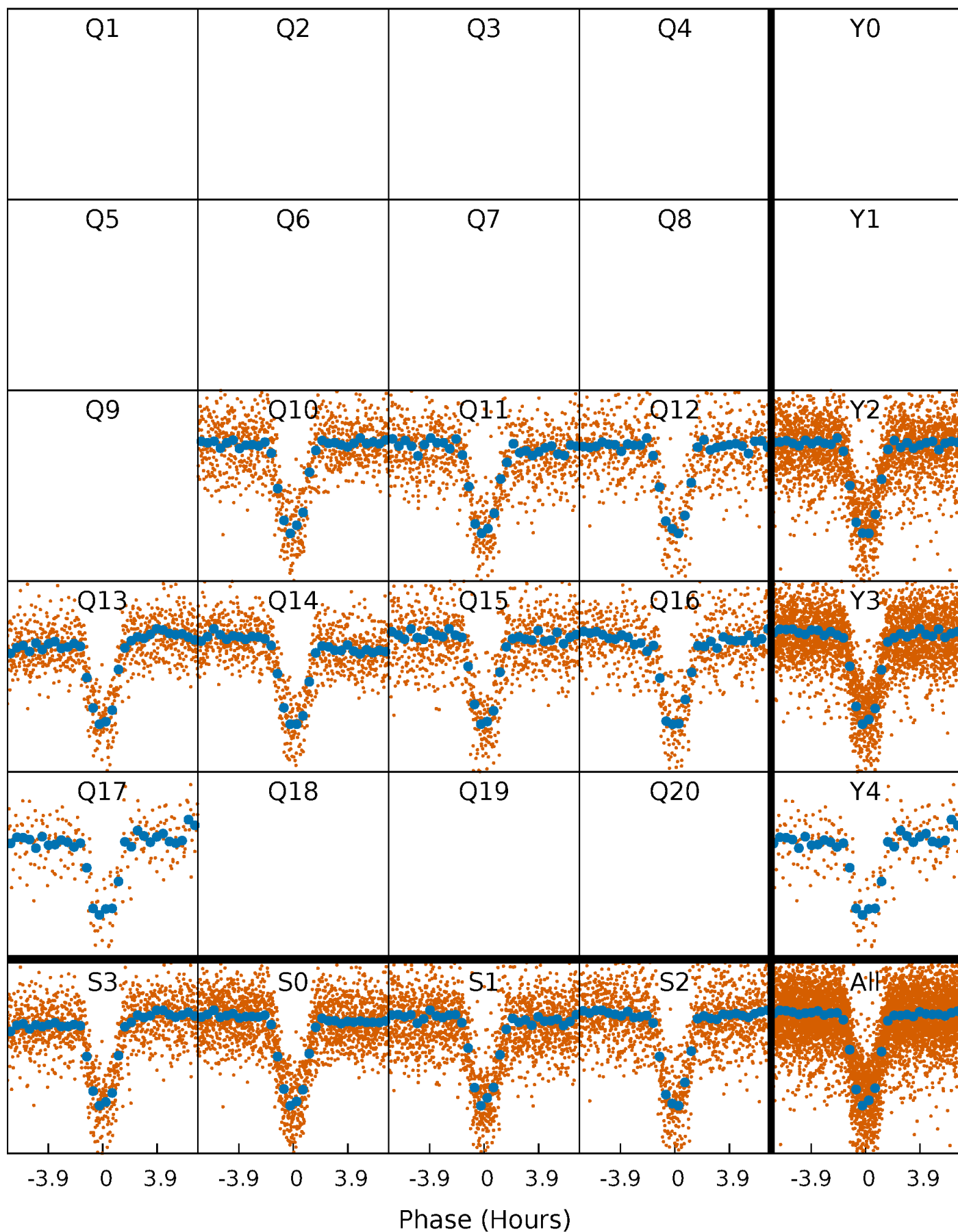


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



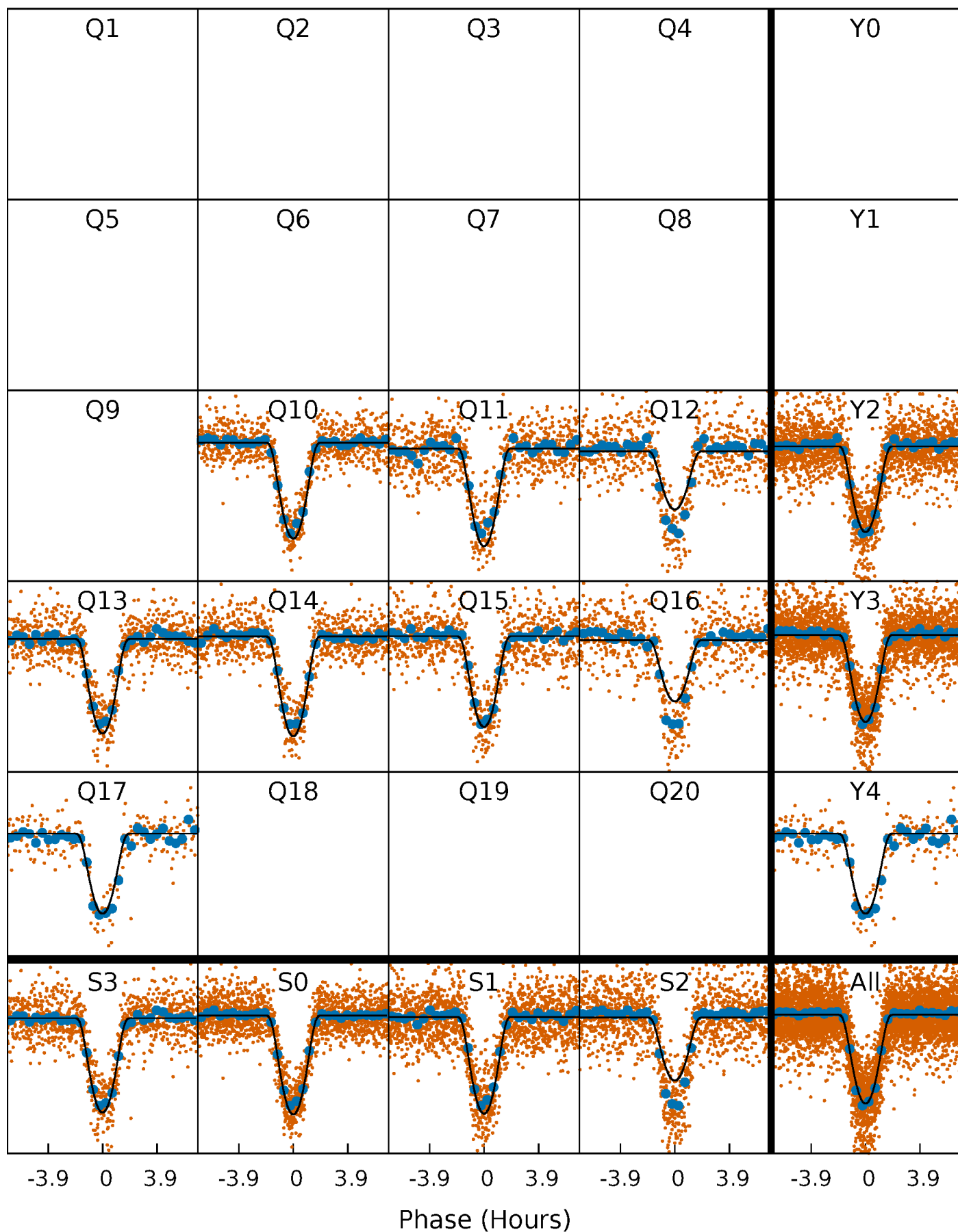
PDC Quarter-Phased Transit Curves

TCE 008264097-02 P= 2.897413 Days $T_0=133.496496$ (BKJD)



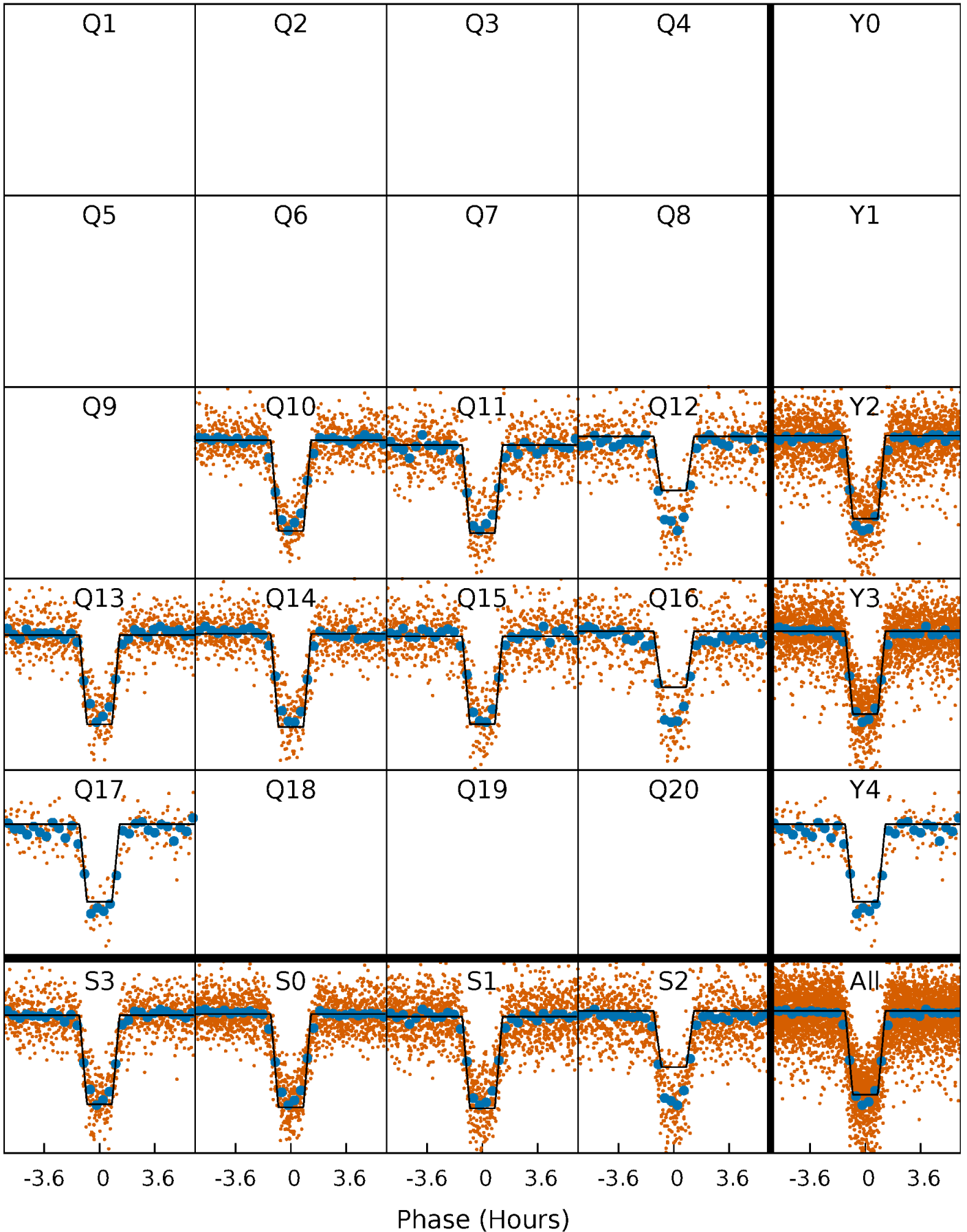
DV Quarter-Phased Transit Curves

TCE 008264097-02 P= 2.897413 Days $T_0=133.496496$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

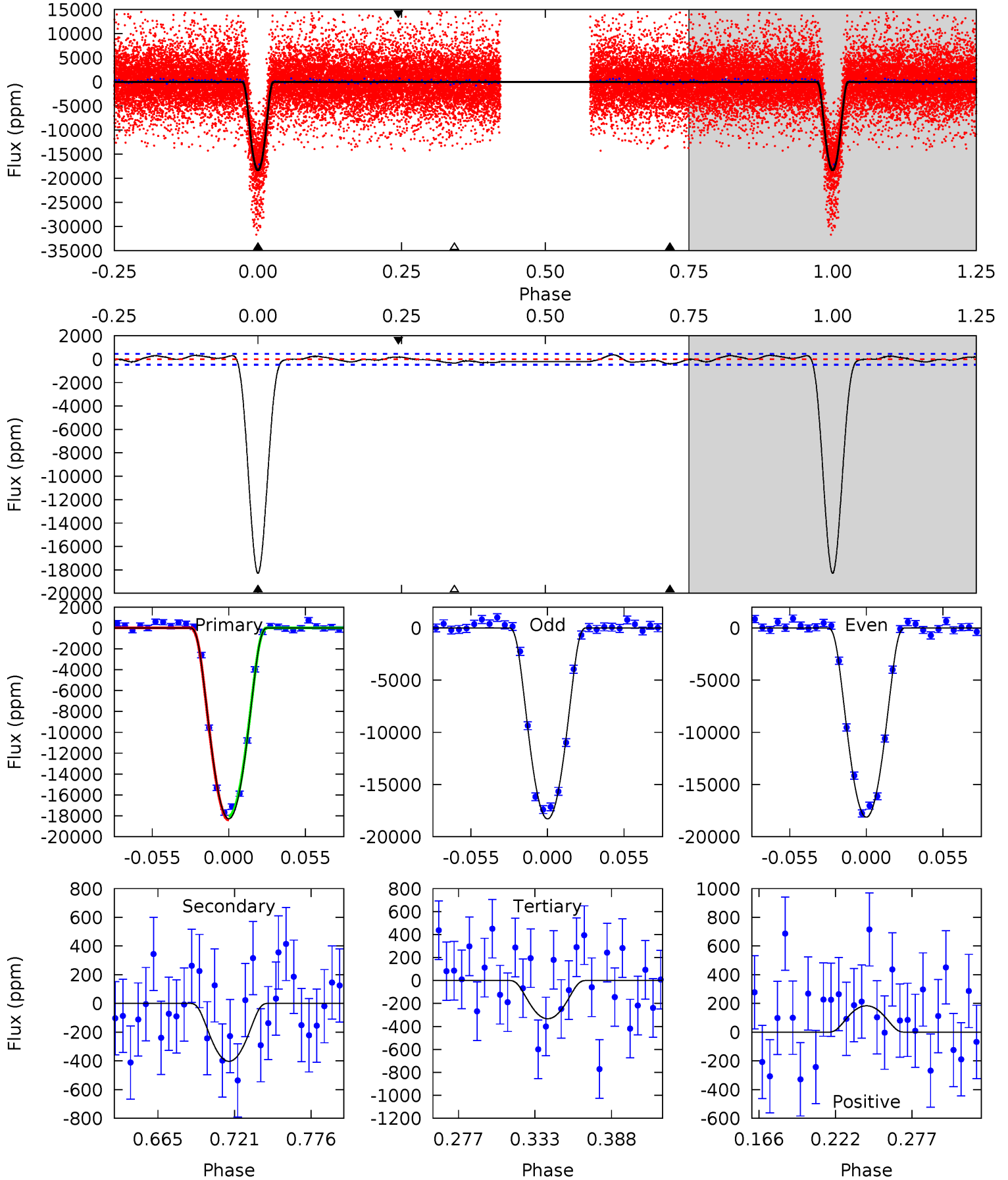
TCE 008264097-02 $P = 2.897422$ Days $T_0 = 133.493378$ (BKJD)



DV Model-Shift Uniqueness Test

008264097-02, P = 2.897413 Days, E = 133.496496 Days

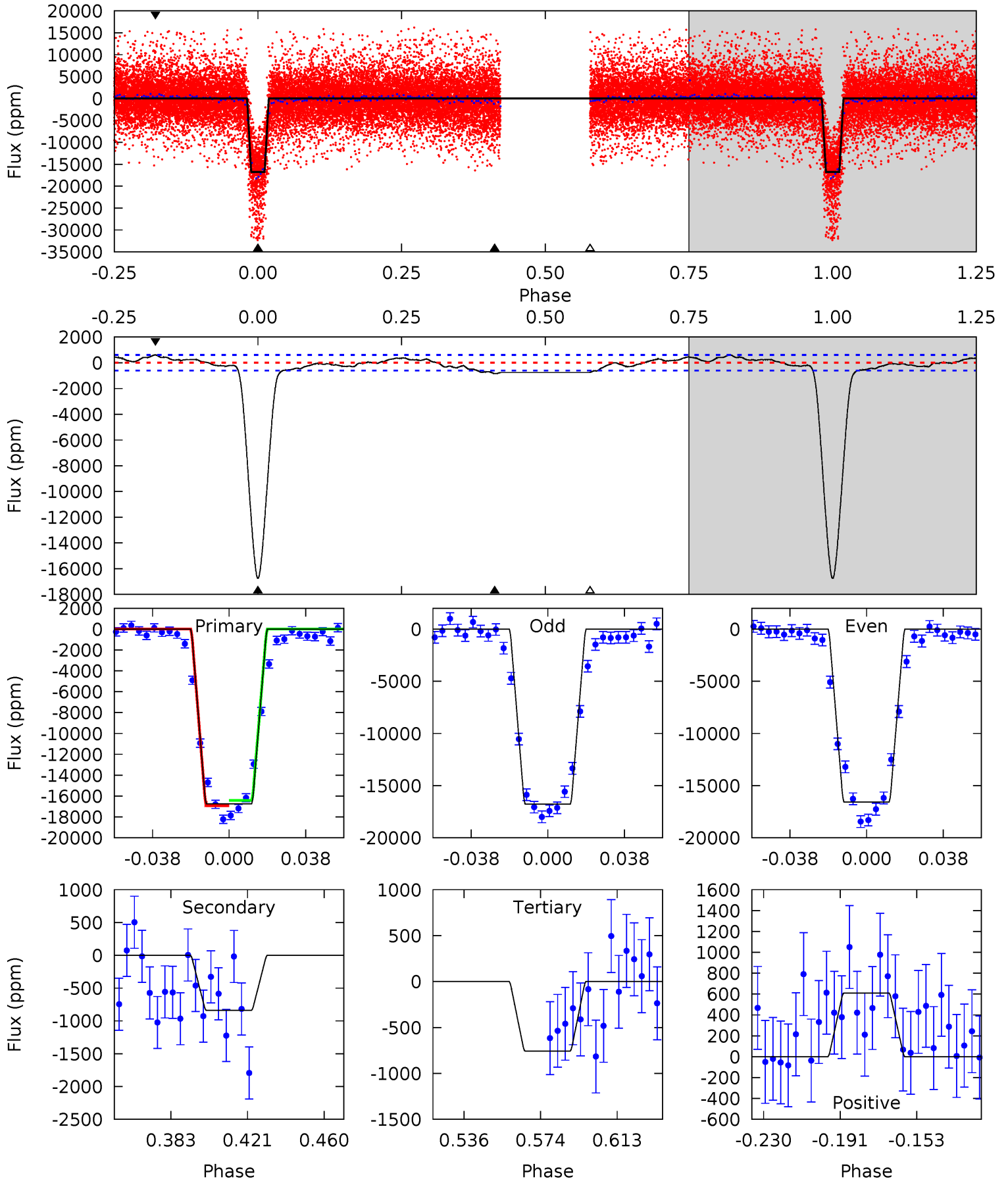
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
185.1	4.08	3.37	1.86	4.69	1.92	1.86	181.7	183.2	0.71	2.22	0.83	1.08	0.02	1.87



Alt Model-Shift Uniqueness Test

008264097-02, P = 2.897422 Days, E = 133.493378 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
132.2	6.63	5.97	4.82	4.76	2.07	2.32	126.3	127.4	0.65	1.81	0.81	1.09	0.04	0



Stellar Parameters For KIC 008264097

	$T_{\text{eff}}(K)$	$\log(g)$	[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 008264097-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-403 ± 99	$17.25^{+1.98}_{-2.09}$	1788^{+82}_{-81}	2687^{+167}_{-161}	$1.175^{+0.458}_{-0.360}$
Alt.	-840 ± 127	$14.05^{+2.21}_{-1.81}$	1791^{+85}_{-84}	3253^{+178}_{-157}	$3.680^{+1.410}_{-1.013}$

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

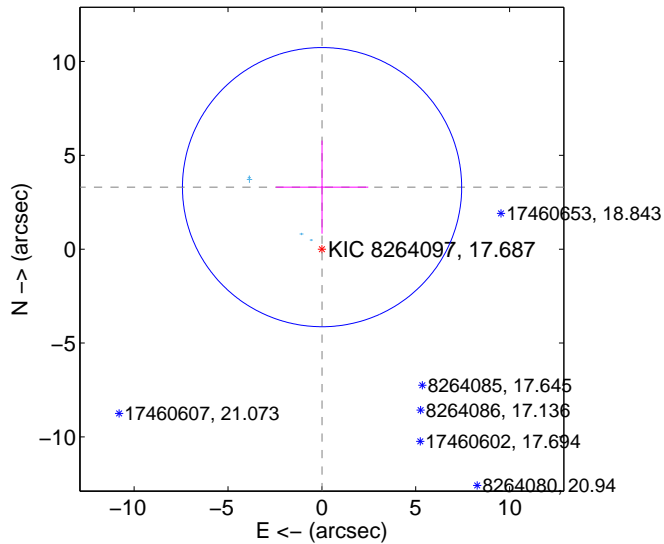
Supplemental centroid analysis for 008264097-02. Kepler magnitude: 17.69. Transit SNR 109.22

There are 8 quarters with good PRF difference image offsets

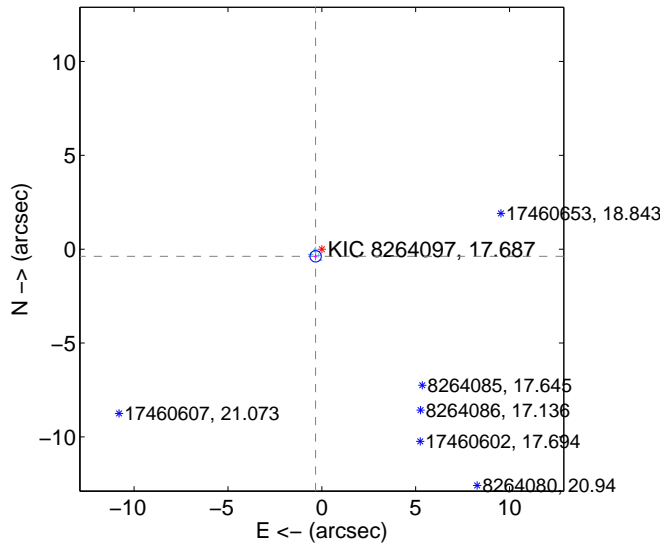
The OOT PRF centroid is offset from the target star catalog position by about 5.16 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.304 ± 2.478	1.33	-0.011 ± 2.460	3.304 ± 2.478
PRF-fit source offset from KIC position	0.504 ± 0.101	5.01	0.330 ± 0.102	-0.381 ± 0.100
photometric centroid source offset	1.55 ± 0.08	19.26	1.17 ± 0.07	-1.01 ± 0.09

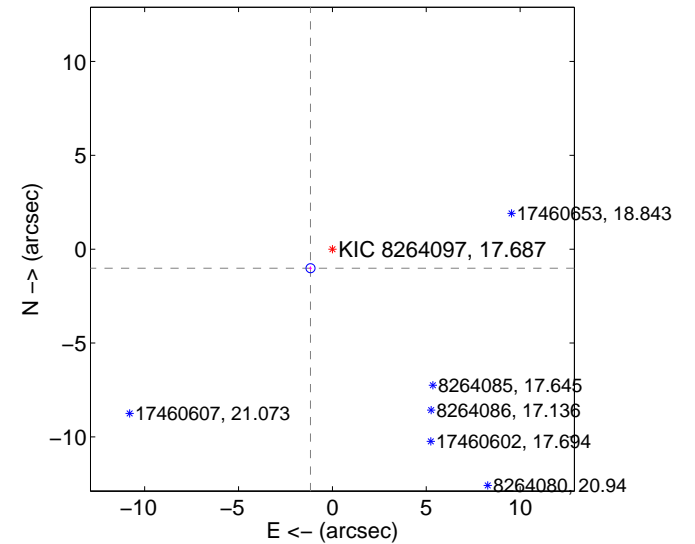
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

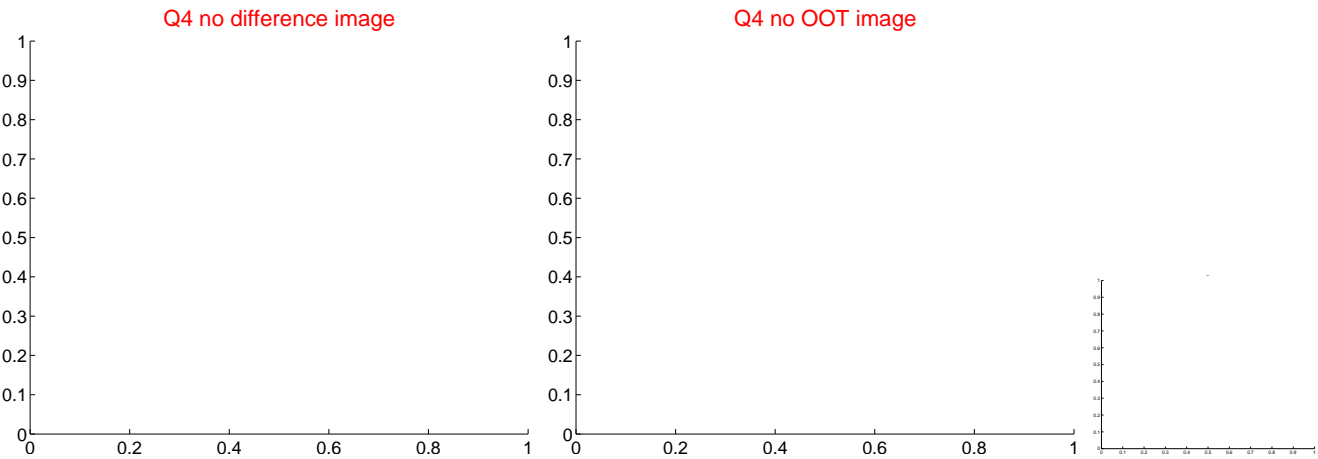
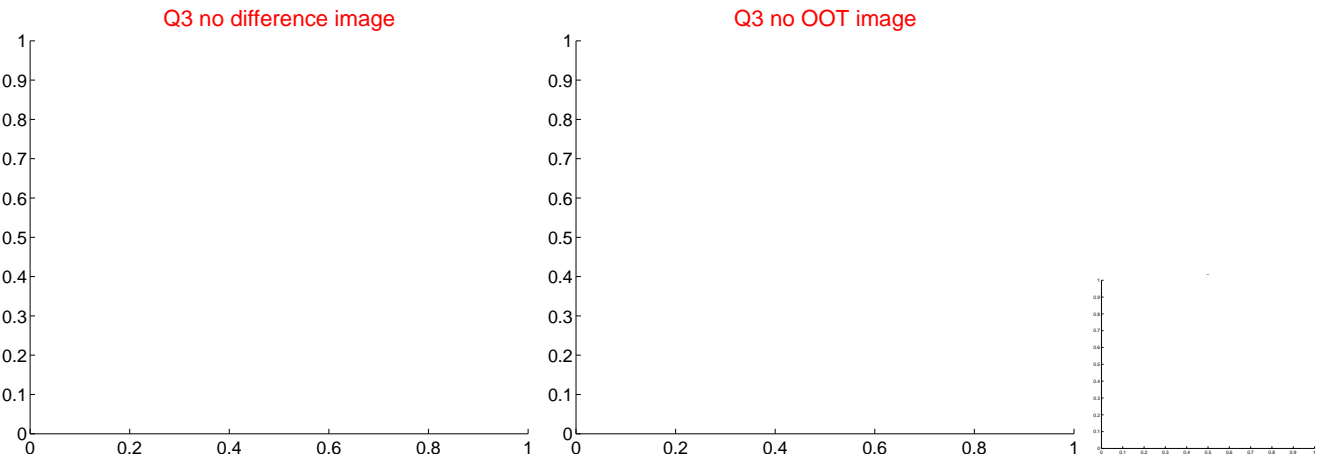
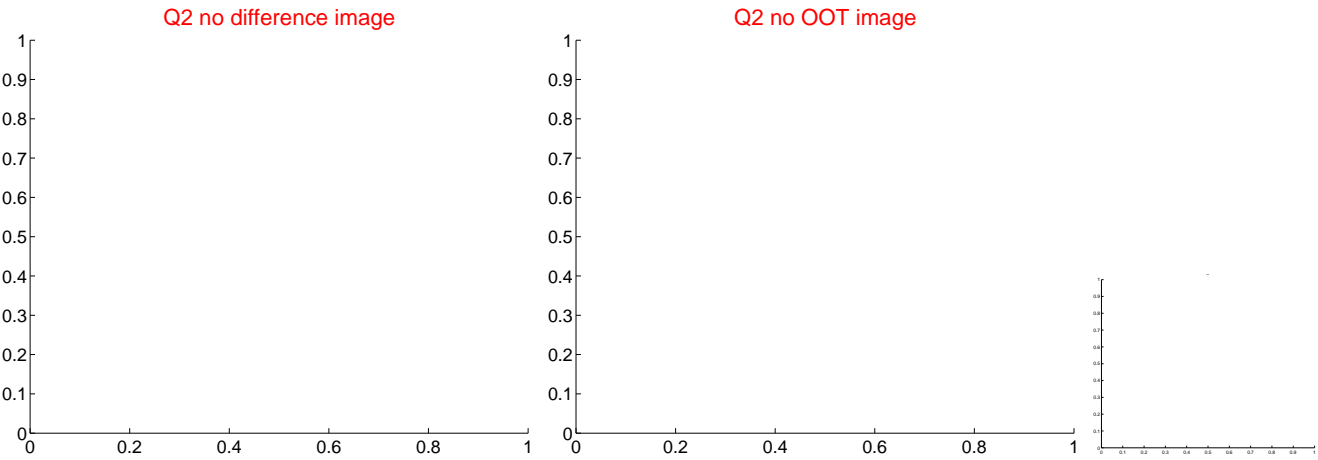
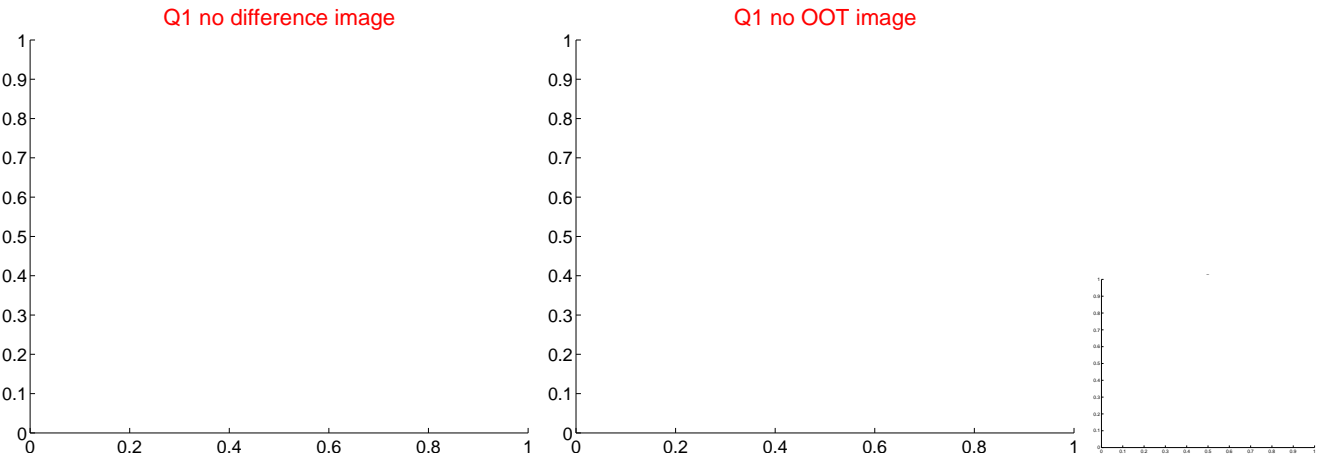


offset from photometric centroids



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.

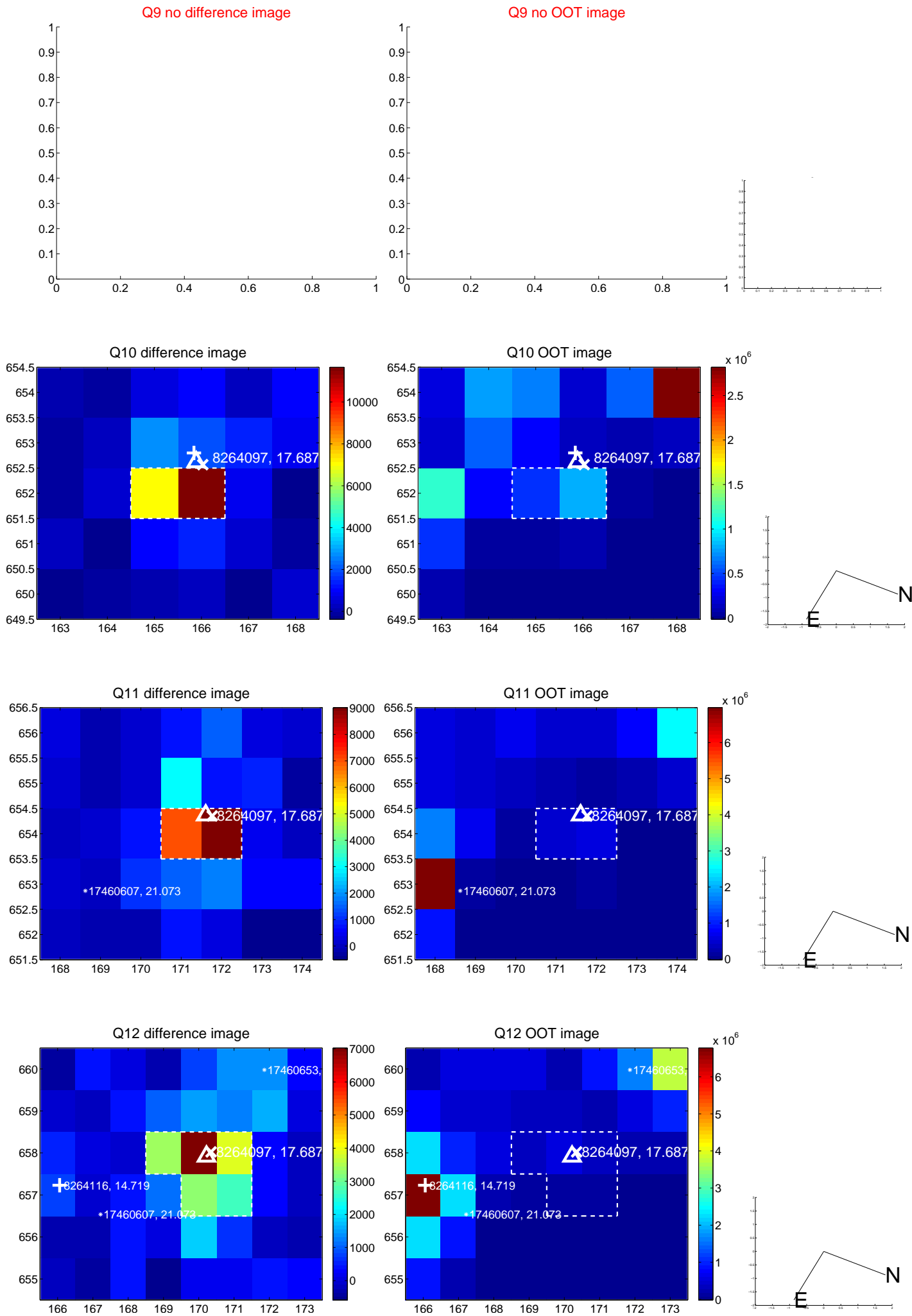
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



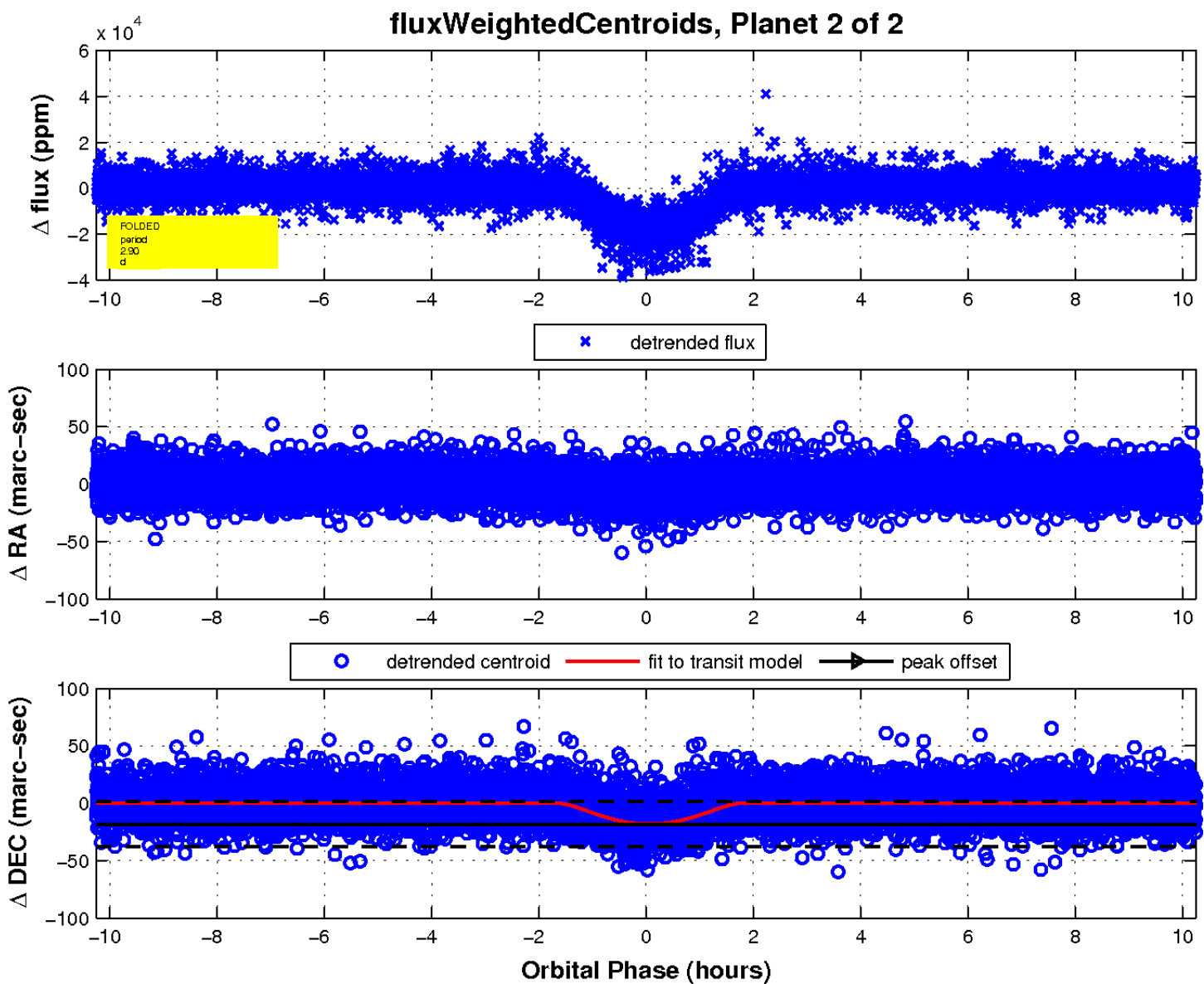
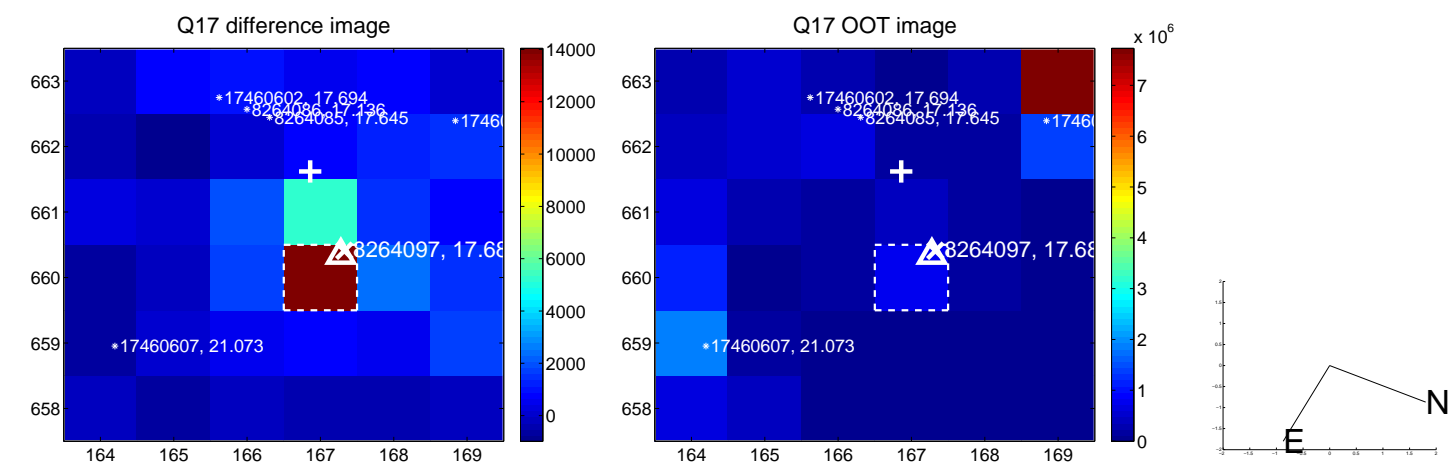
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

