

KIC 006268722

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})
006268722-01	OBS	6026.01	2.638433	133.003983	48118.3	2.434	6170.1	6025.3	1.75	6502	53.22	3309.85
006268722-02	OBS	No	2.638433	131.685118	2502.1	2.357	345.8	368.4	1.75	6502	13.92	3309.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006268722-01	OBS	FP	0.01	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
006268722-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE

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.

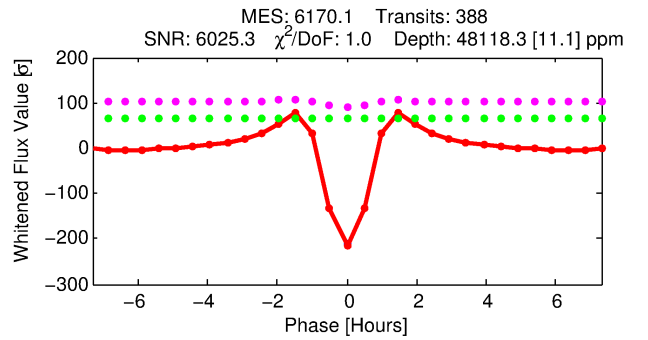
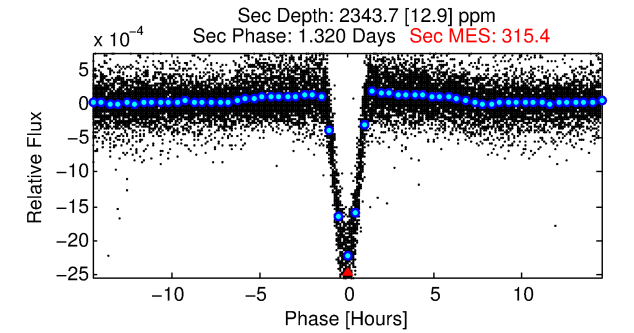
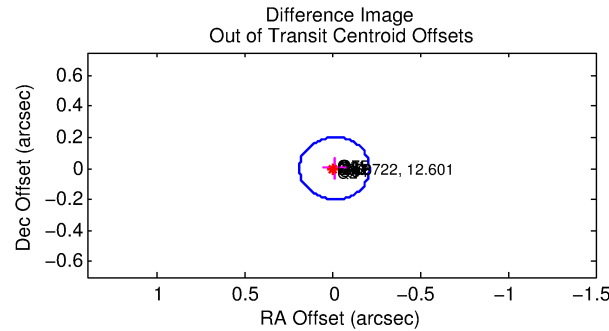
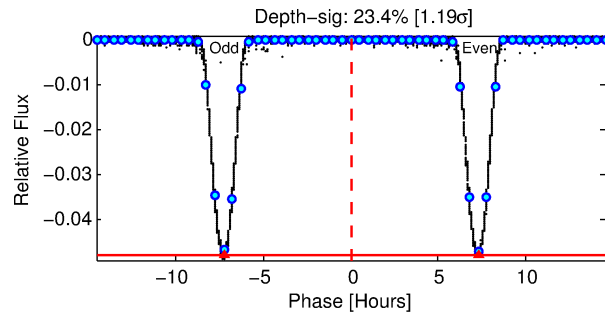
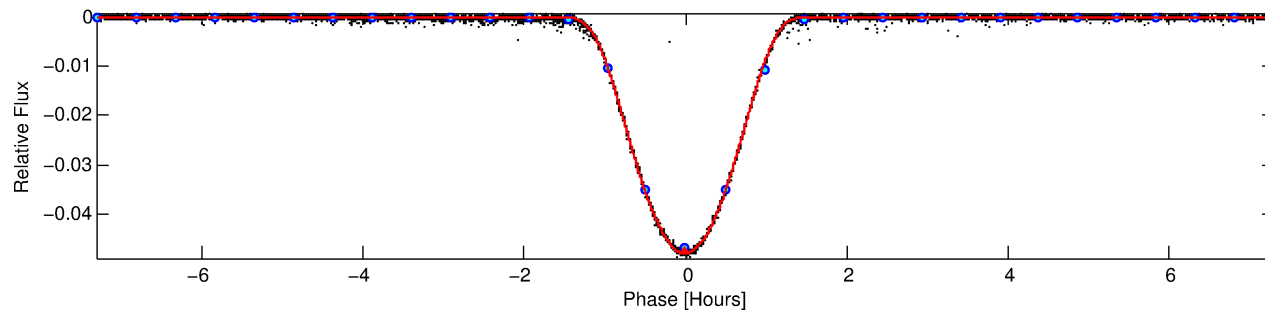
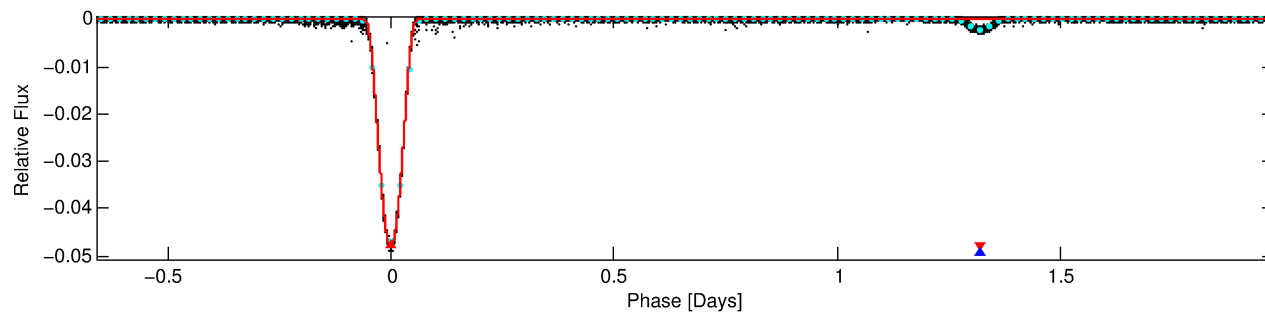
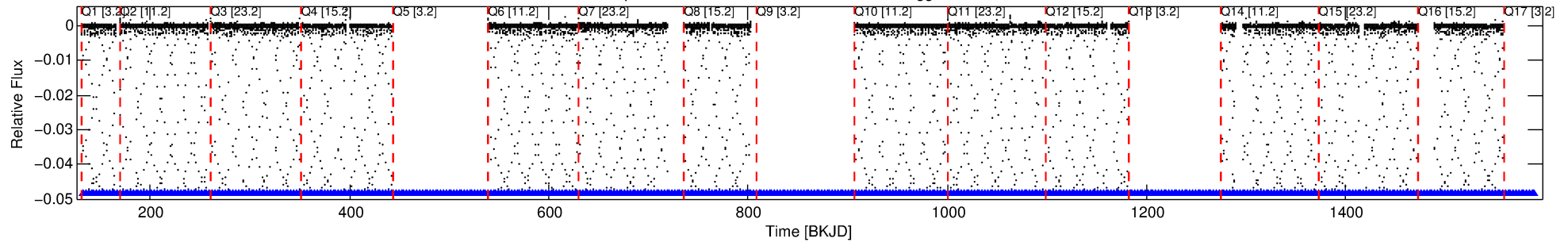
Ephemeris Match Information For 006268722-01

No Significant Match Found

DV One-Page Summary

KIC: 6268722 Candidate: 1 of 2 Period: 2.638 d
KOI: K06026.01 Corr: 0.997

Kp: 12.60 R*: 1.75 Rs Teff: 6502.0 K Logg: 3.99 Fe/H: -0.500



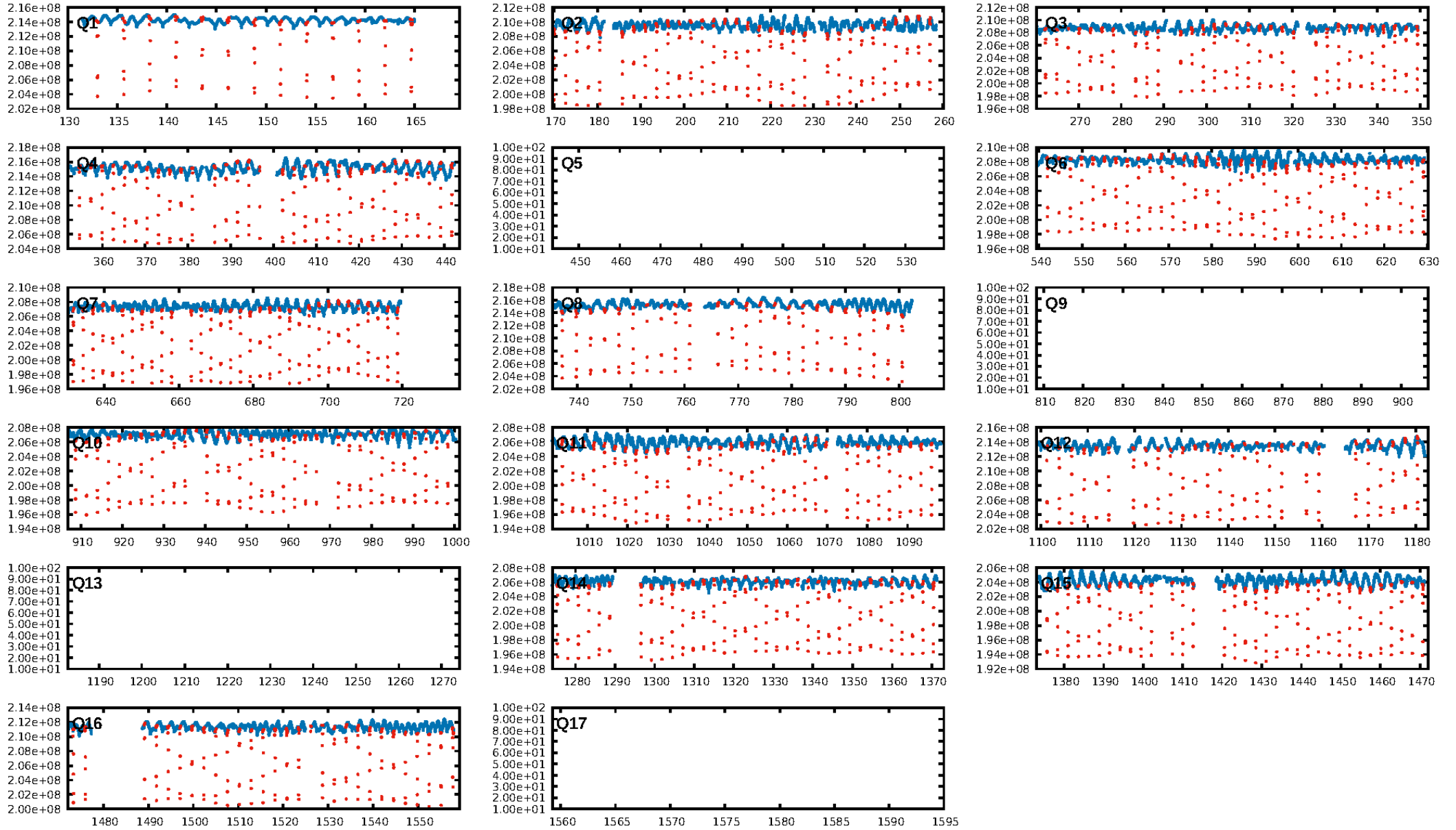
DV Fit Results:

Period = 2.63843 [0.00000] d
Epoch = 133.0040 [0.0000] BKJD
Rp/R* = 0.2782 [0.0012]
a/R* = 7.60 [0.00]
b = 0.90 [0.00]
Seff = 3309.85 [1609.62]
Teff = 1934 [235] K
Rp = 53.21 [16.00] Re
a = 0.0386 [0.0113] AU
Ag = 0.68 [0.32] [-1.01σ]
Teffp = 2712 [73] K [3.16σ]

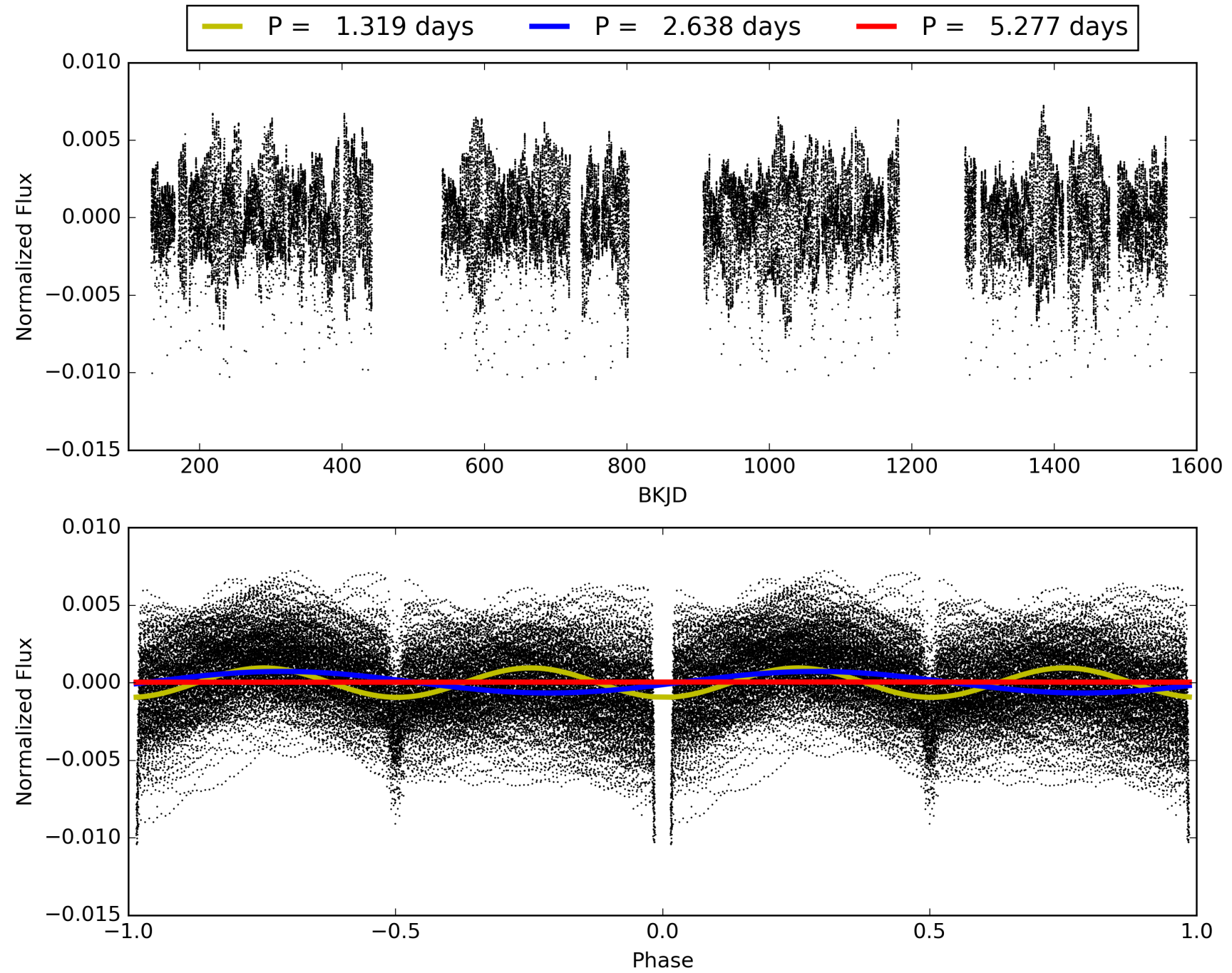
DV Diagnostic Results:

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 [375/375]
GhostDiagnostic-chr: 3.35
Centroid-sig: 0.0%
Centroid-so: 0.235 arcsec [270.22σ]
OotOffset-rm: 0.011 arcsec [0.16σ]
KicOffset-rm: 0.245 arcsec [3.65σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 006268722-01, PDC Light Curves

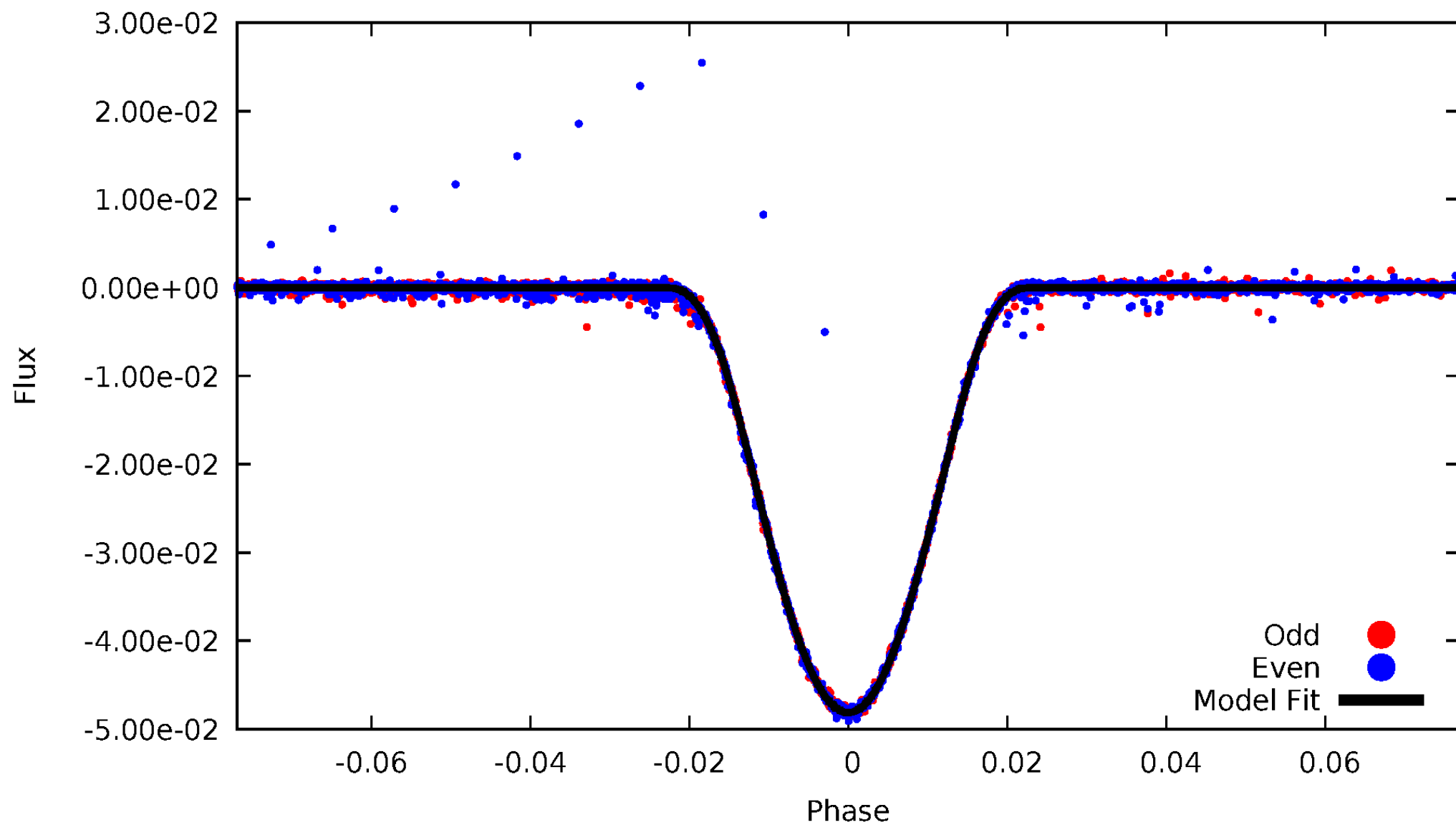


TCE 006268722-01



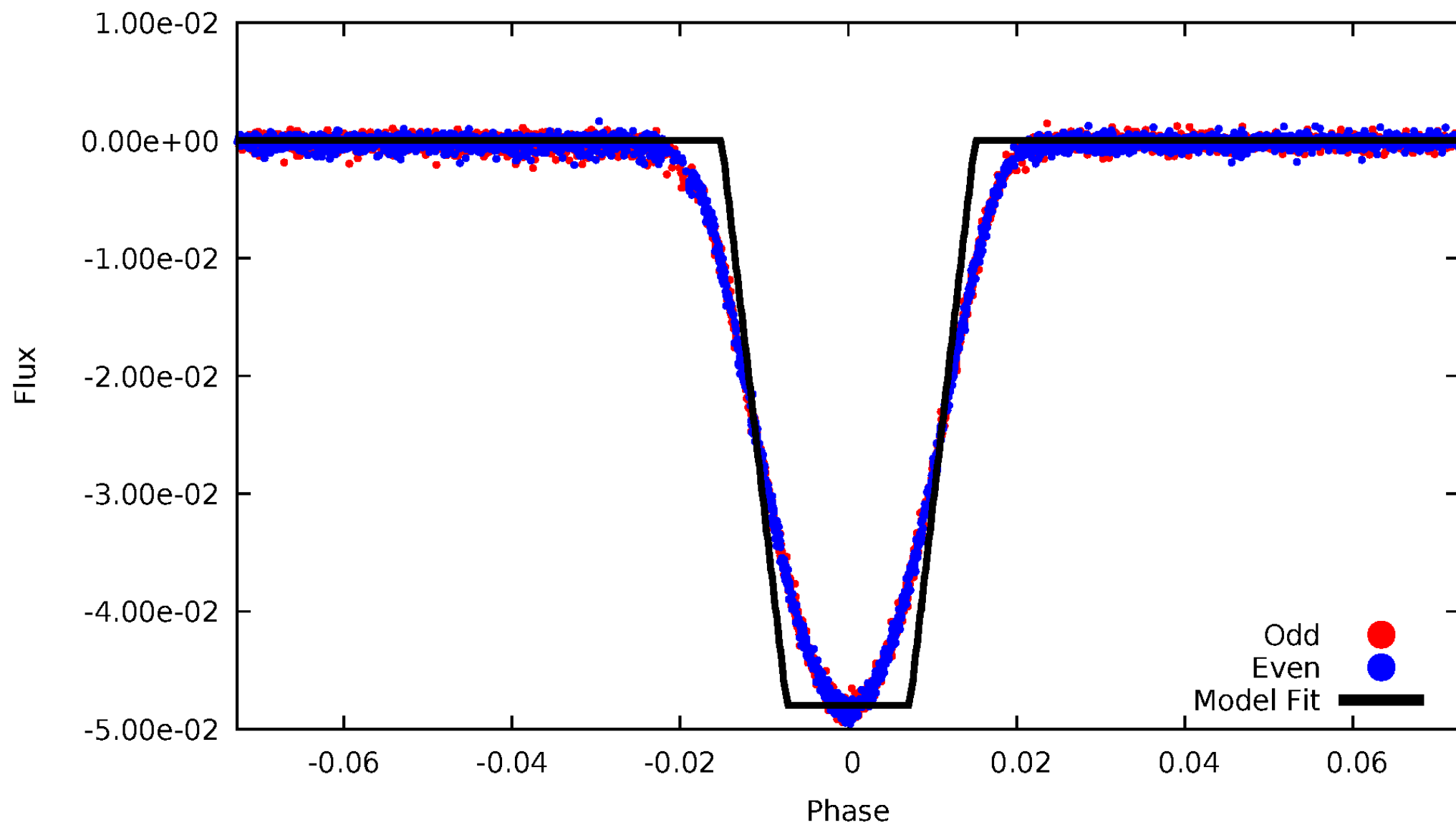
DV Odd/Even

TCE 006268722-01



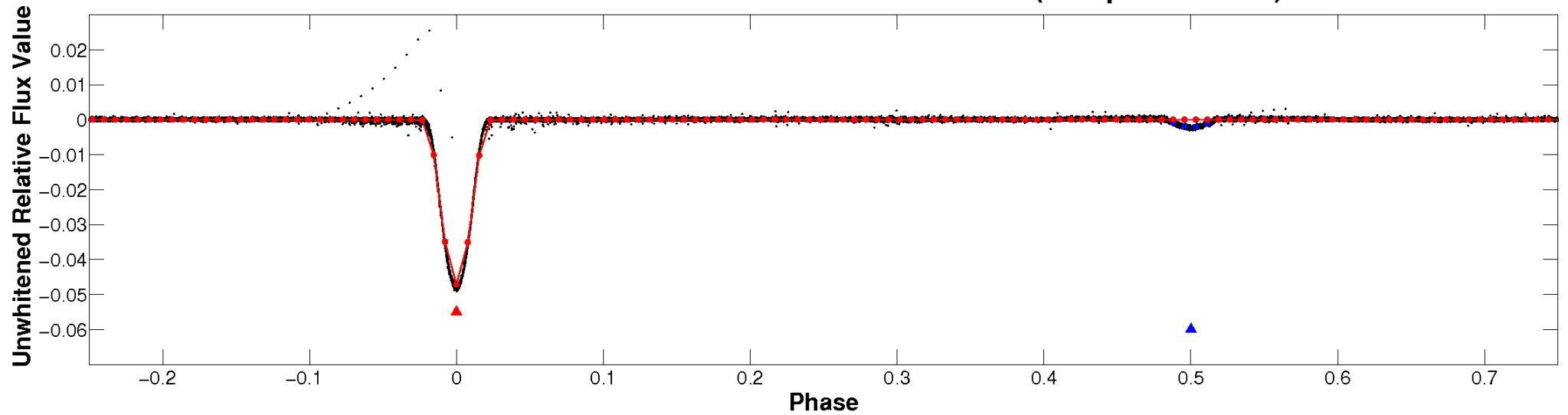
ALT Odd/Even

TCE 006268722-01

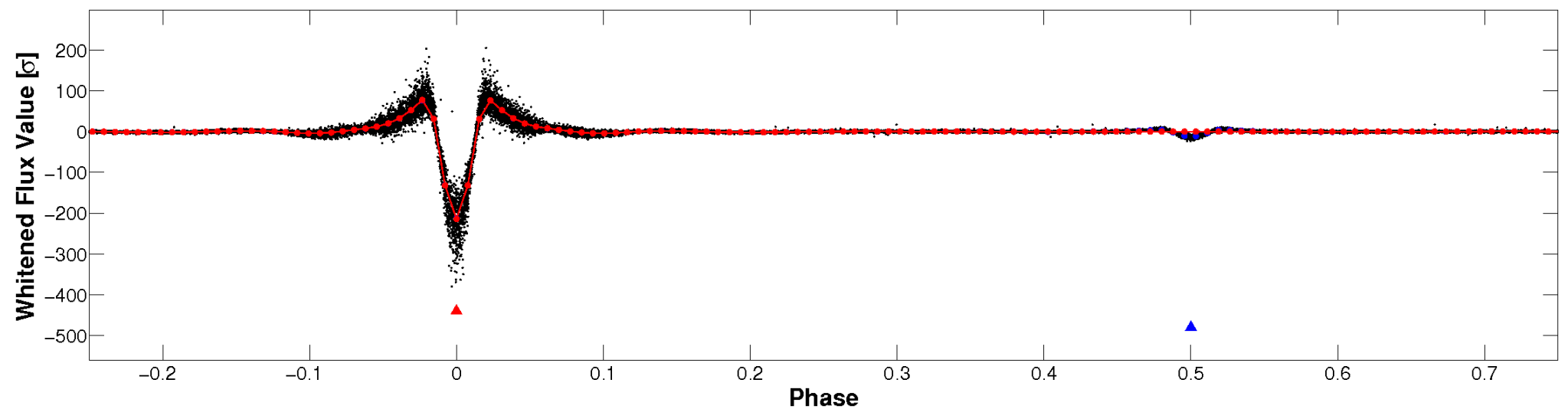


Non-Whitened Vs. Whitened Light Curve

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

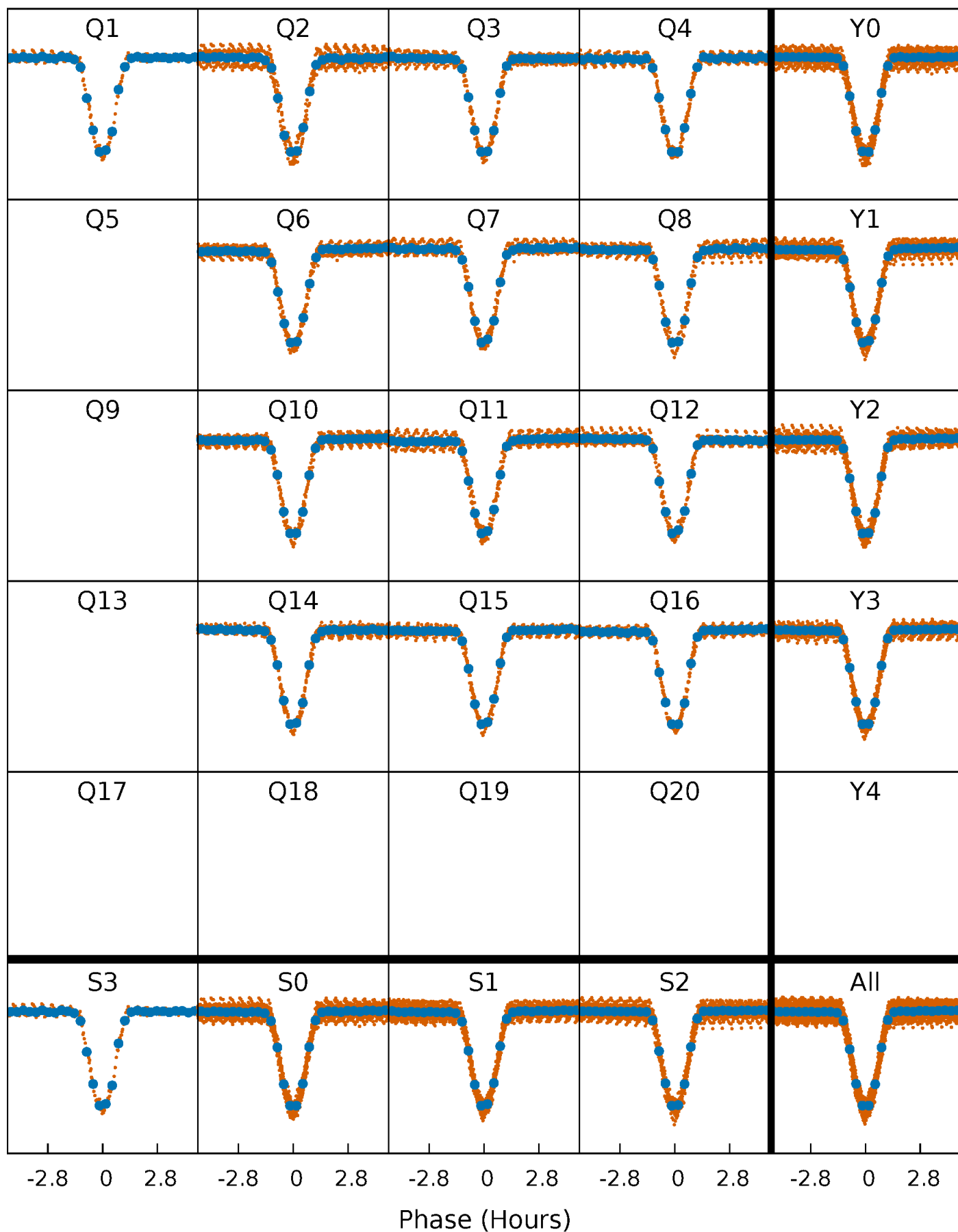


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



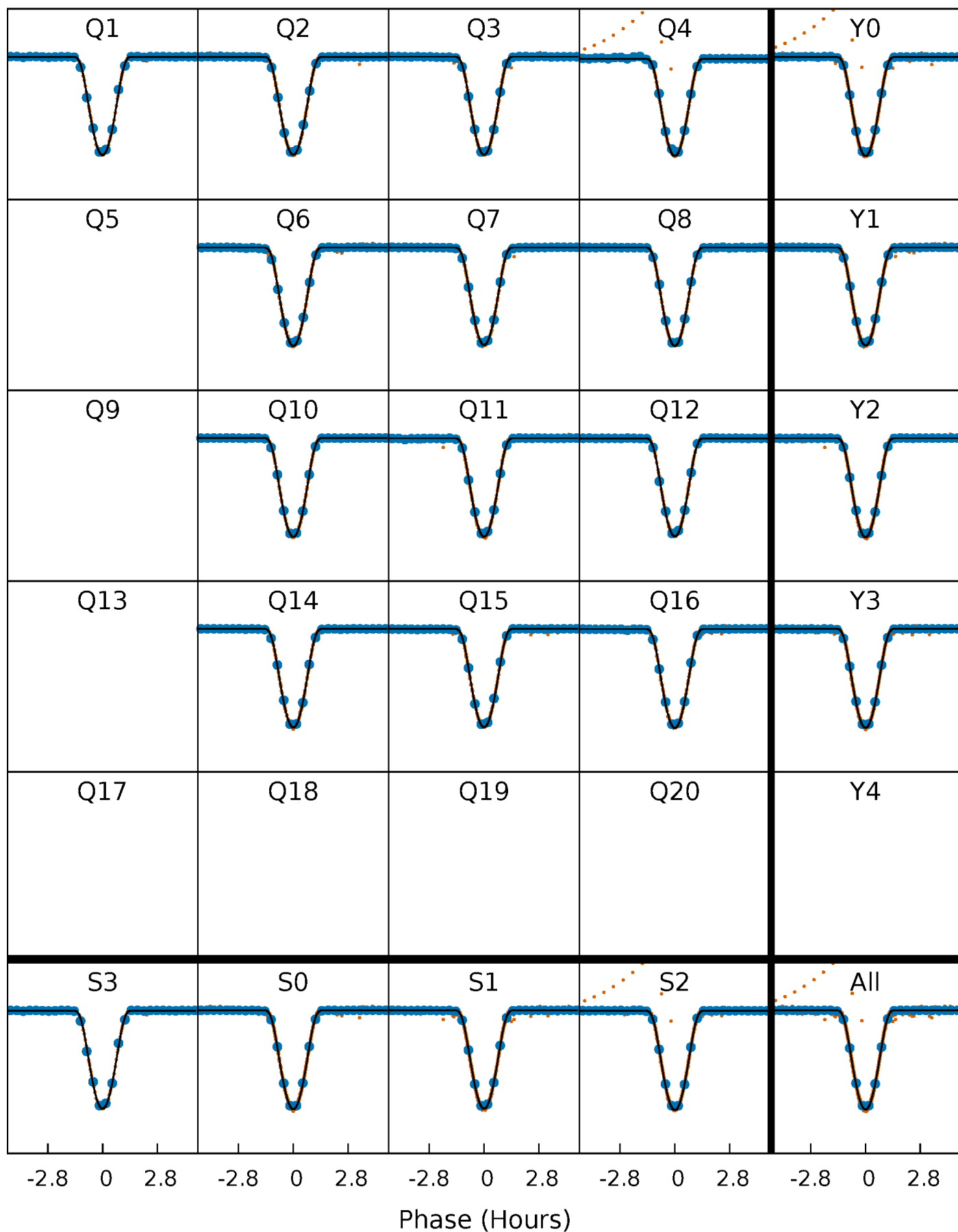
PDC Quarter-Phased Transit Curves

TCE 006268722-01 P= 2.638433 Days $T_0=133.003983$ (BKJD)



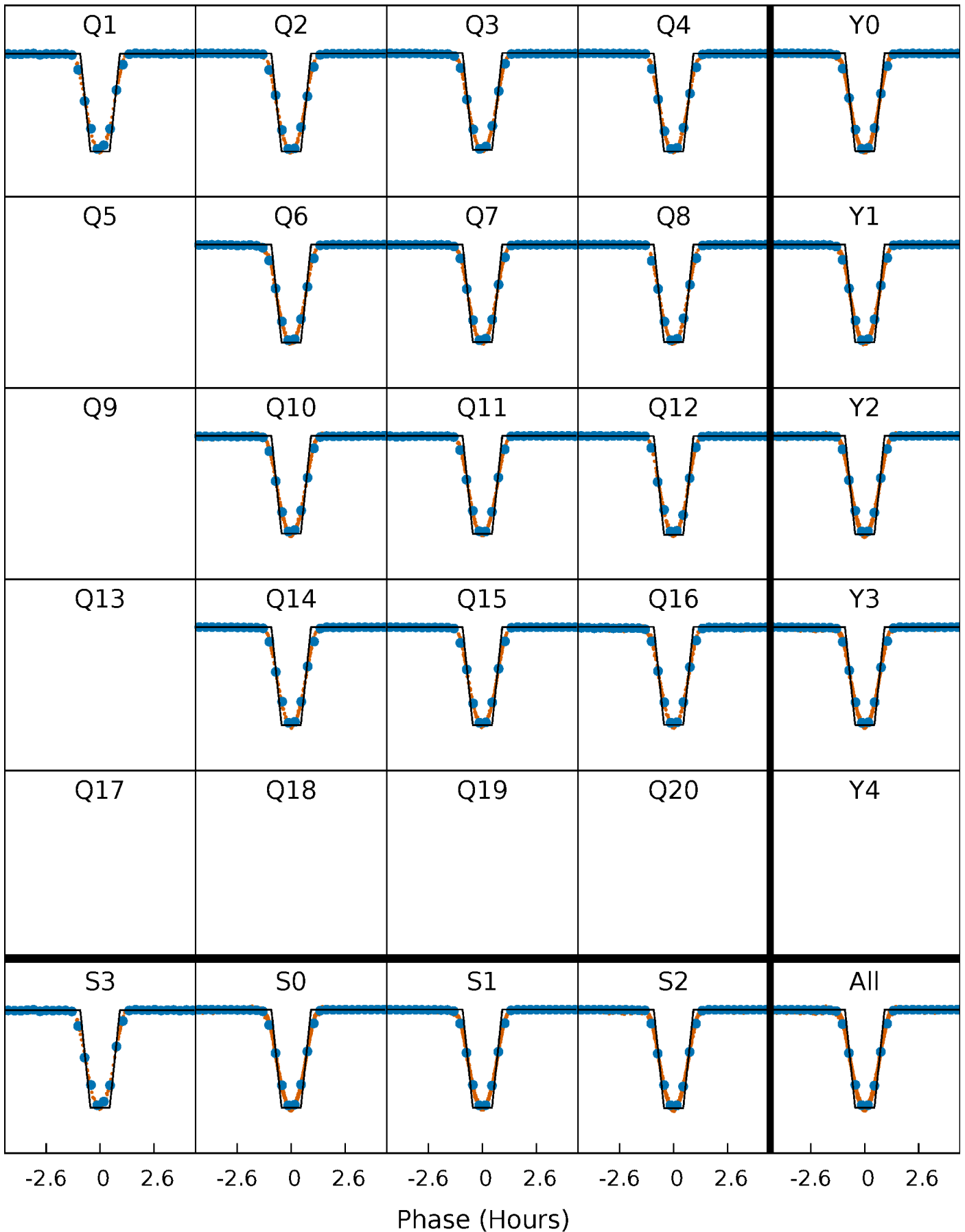
DV Quarter-Phased Transit Curves

TCE 006268722-01 P= 2.638433 Days $T_0=133.003983$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

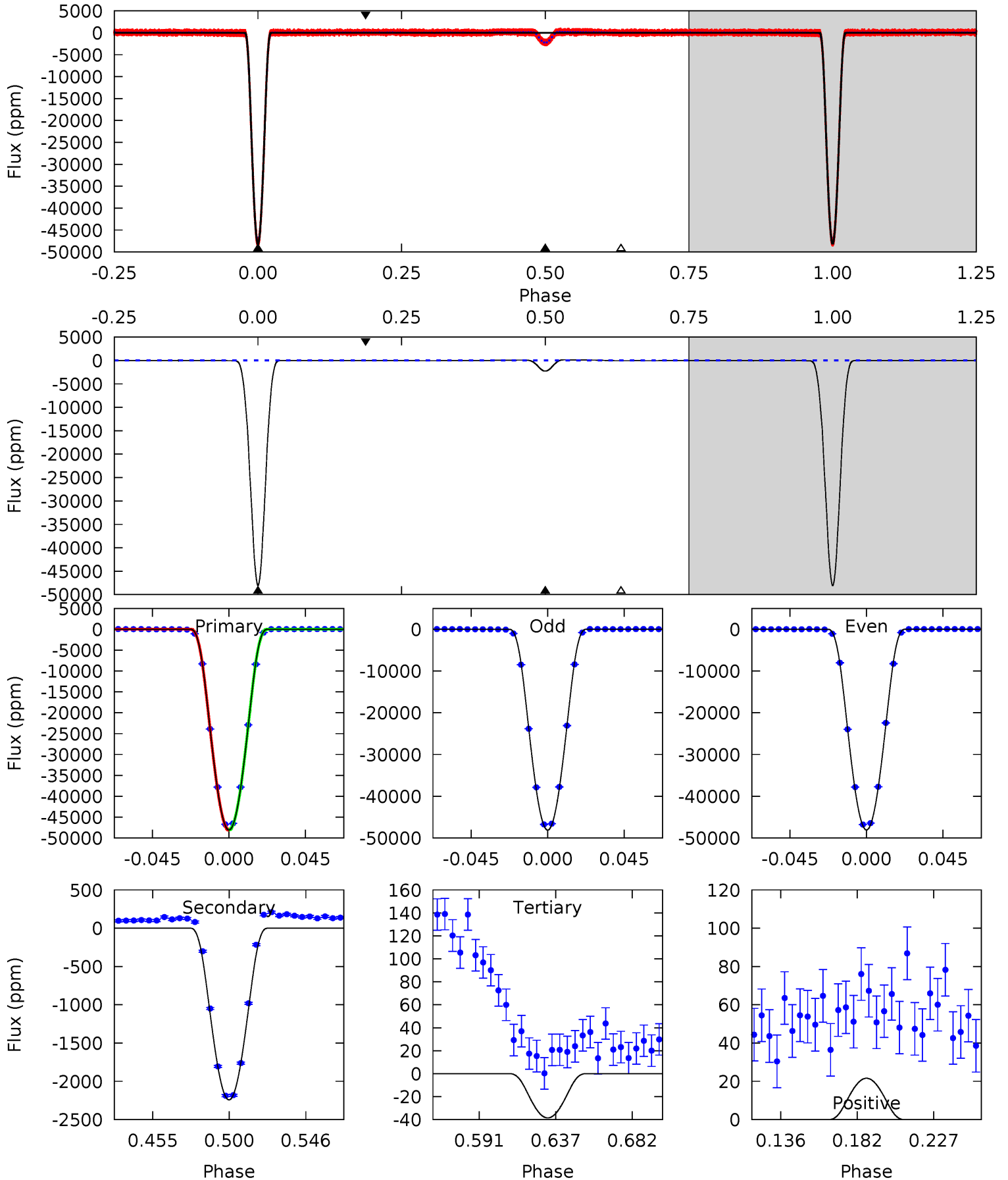
TCE 006268722-01 P= 2.638432 Days $T_0=133.004323$ (BKJD)



DV Model-Shift Uniqueness Test

006268722-01, P = 2.638433 Days, E = 130.365550 Days

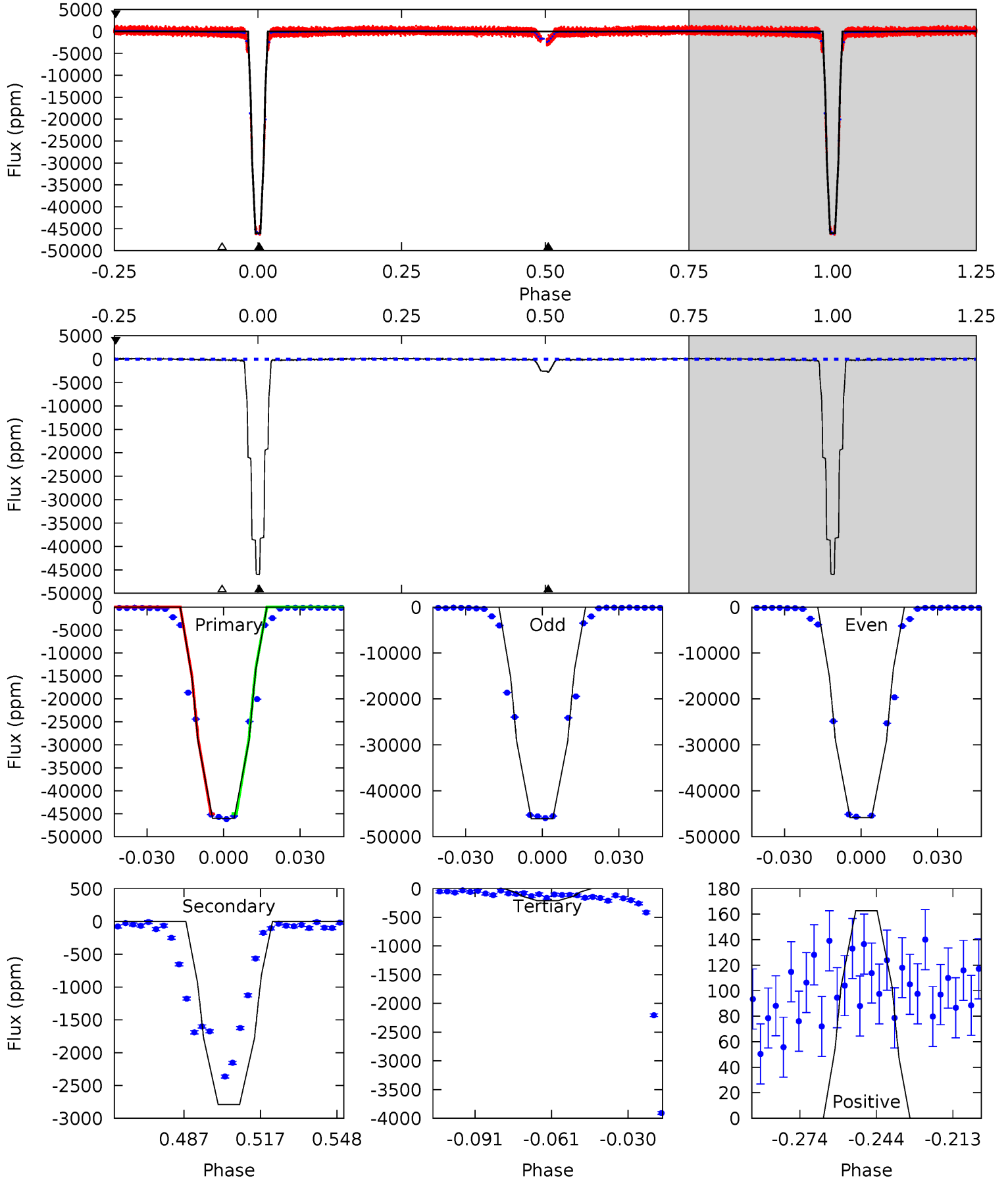
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10576	493.1	8.47	4.75	4.73	2.00	7.83	10568	10572	484.6	488.3	2.97	1.00	0.00	4.10



Alt Model-Shift Uniqueness Test

006268722-01, P = 2.638432 Days, E = 130.365891 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2386	144.8	10.9	8.43	4.81	2.16	4.86	2375	2377	134.0	136.4	6.67	0.99	0.00	0



Stellar Parameters For KIC 006268722

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6502^{+155}_{-175}	$3.991^{+0.280}_{-0.120}$	$-0.500^{+0.300}_{-0.300}$	$1.753^{+0.351}_{-0.527}$	$1.098^{+0.174}_{-0.157}$	$0.287^{+0.504}_{-0.101}$
	+2%/-3%	+7%/-3%	+60%/-60%	+20%/-30%	+16%/-14%	+176%/-35%
Source	PHO1	FLK73	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 006268722-01 / KOI 6026.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2242 ± 5	$52.41^{+6.28}_{-8.77}$	2659^{+176}_{-211}	2995^{+90}_{-98}	$0.684^{+0.270}_{-0.136}$
Alt.	-2793 ± 19	$41.11^{+5.24}_{-6.65}$	2662^{+172}_{-224}	3491^{+70}_{-72}	$1.377^{+0.558}_{-0.273}$

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 $A_{obs} \gg 1.0$

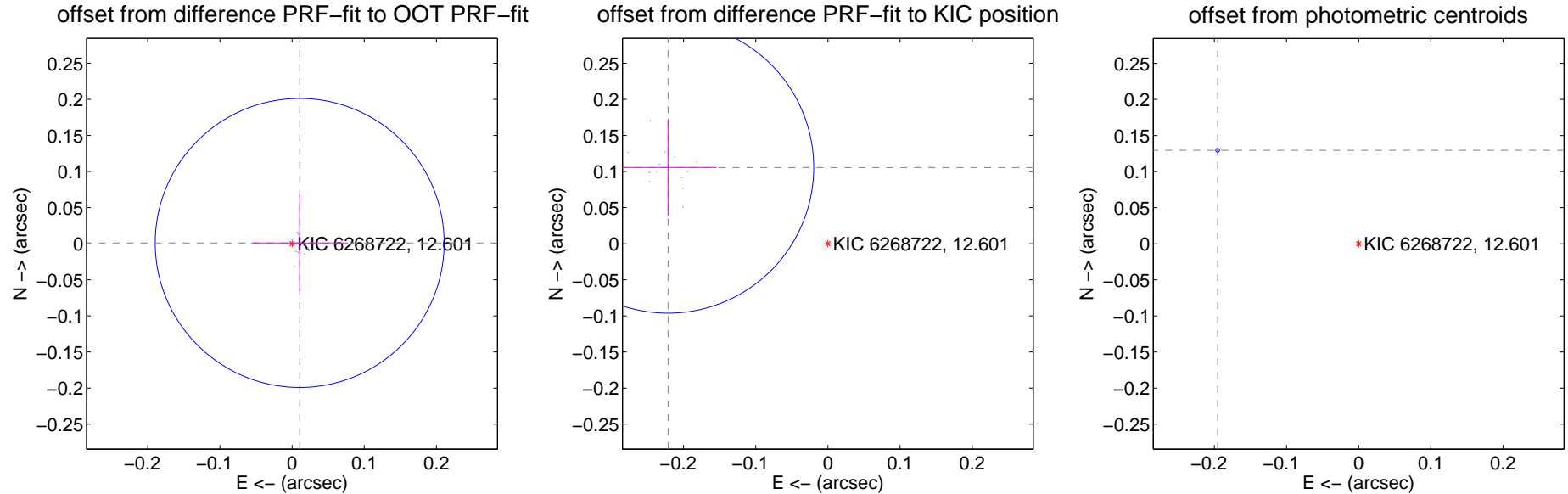
DV Centroid Data

Supplemental centroid analysis for 006268722-01. Kepler magnitude: 12.60. Transit SNR 6025.33

There are 13 quarters with good PRF difference image offsets

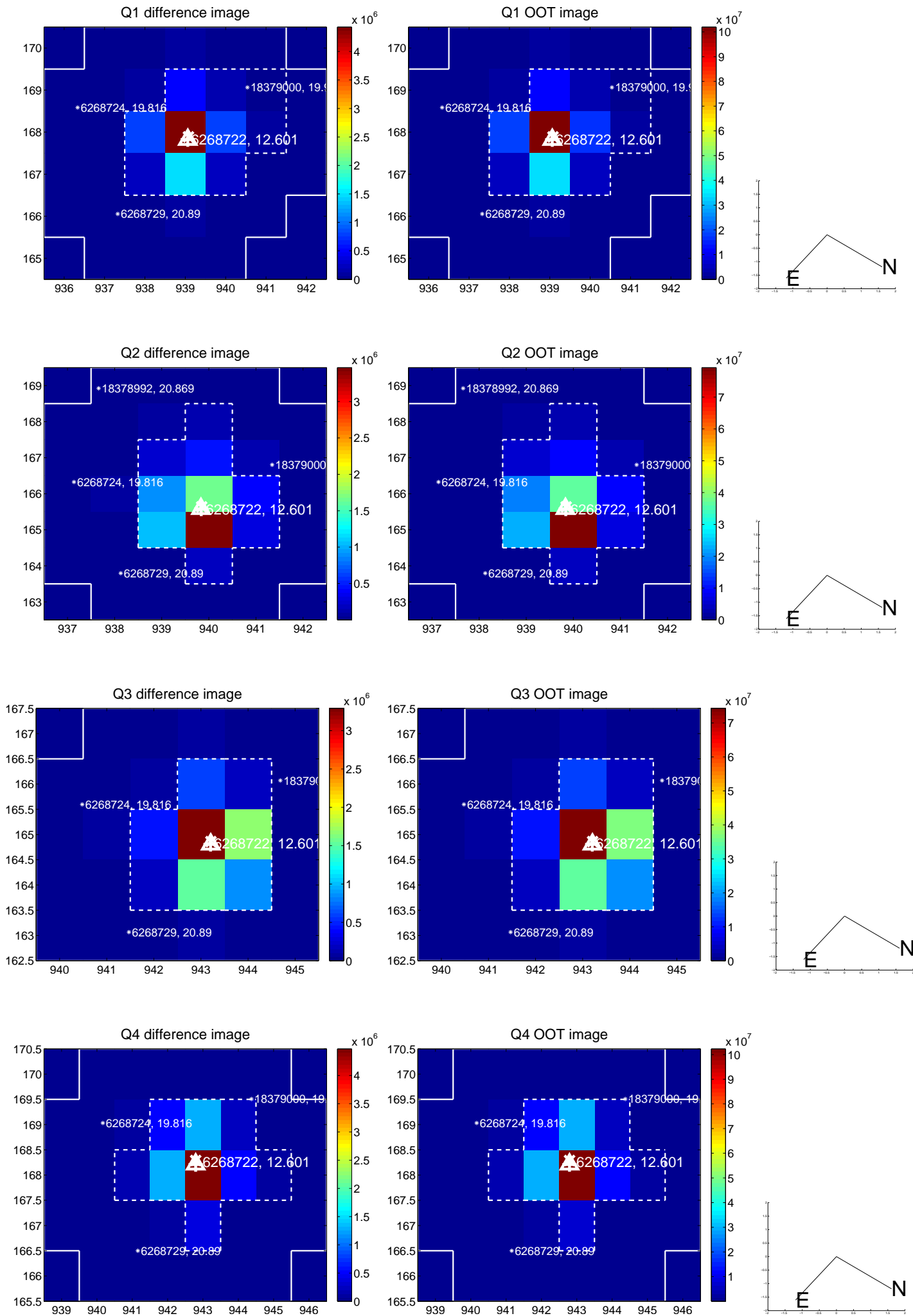
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.011 ± 0.067	0.16	-0.011 ± 0.067	0.001 ± 0.067
PRF-fit source offset from KIC position	0.245 ± 0.067	3.65	0.221 ± 0.067	0.106 ± 0.067
photometric centroid source offset	0.23 ± 0.00	270.22	0.20 ± 0.00	0.13 ± 0.00

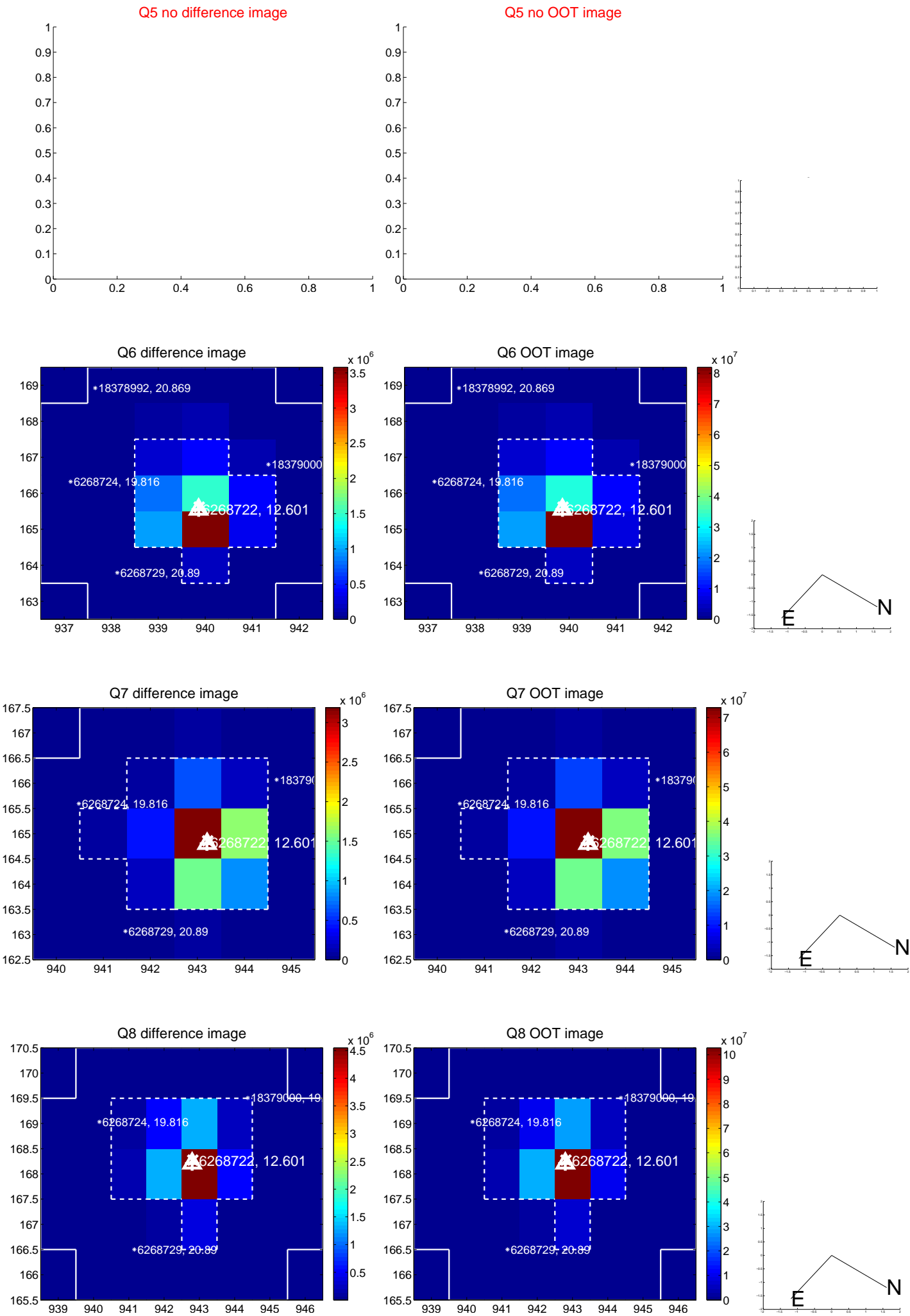


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

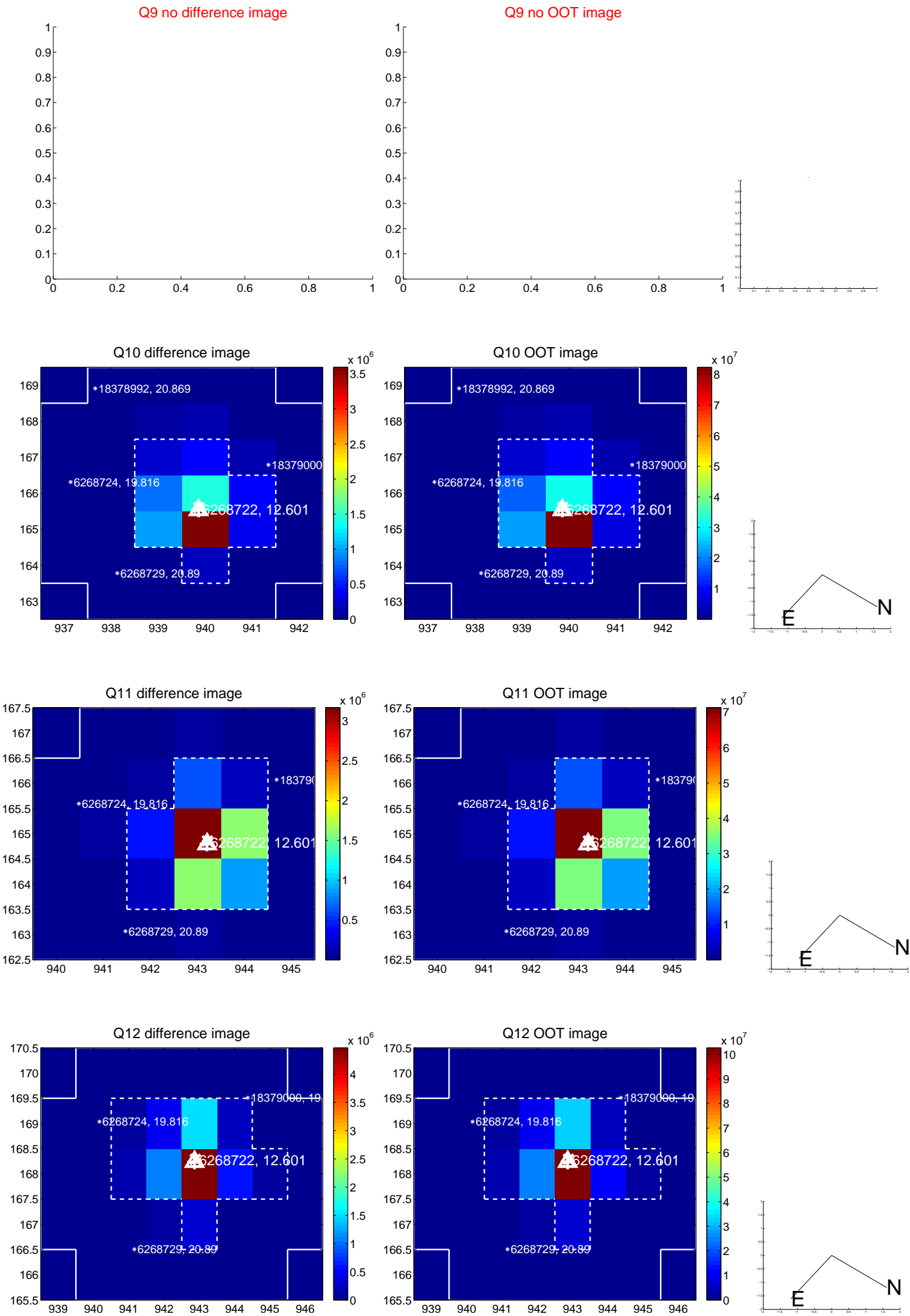
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



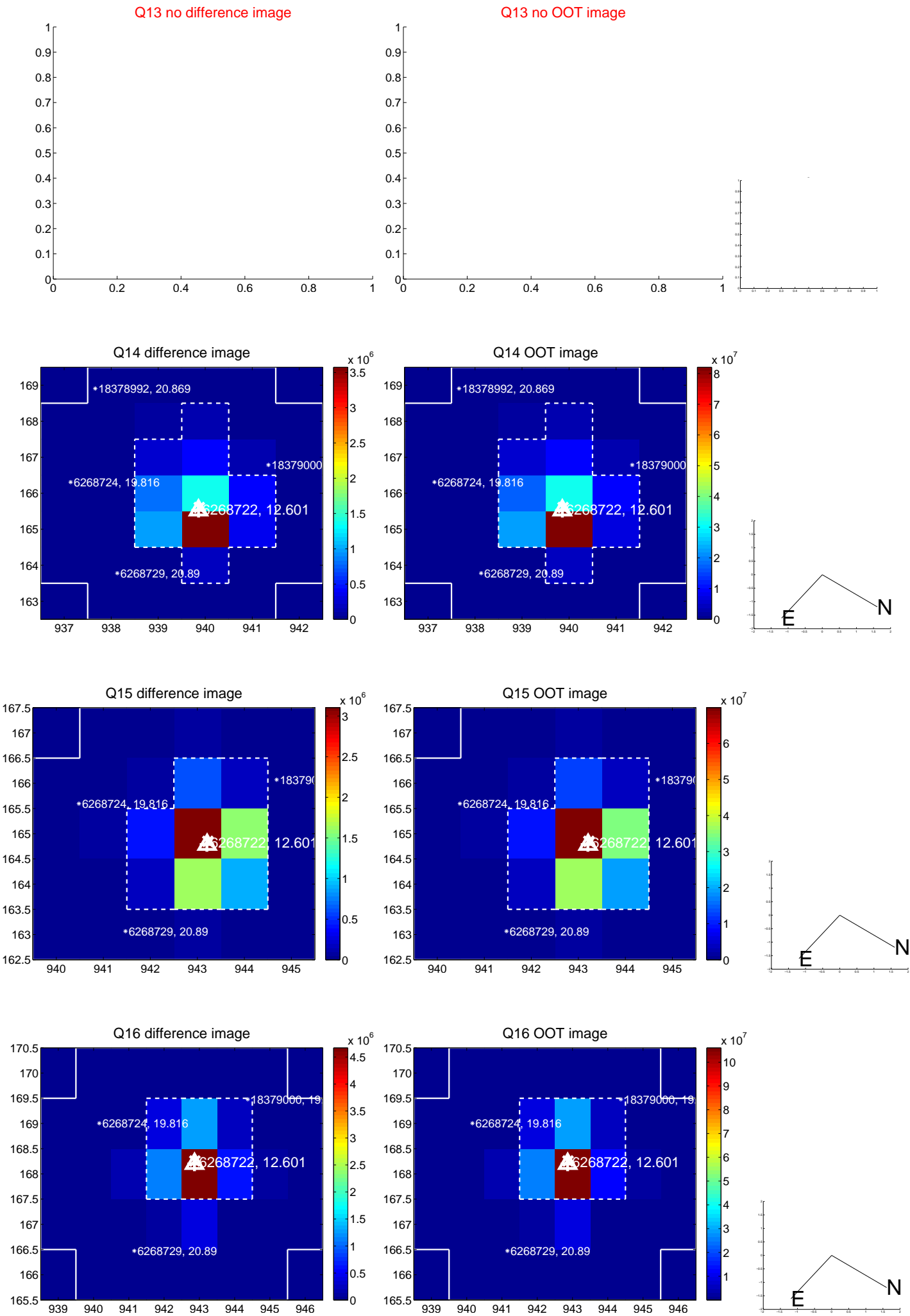
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



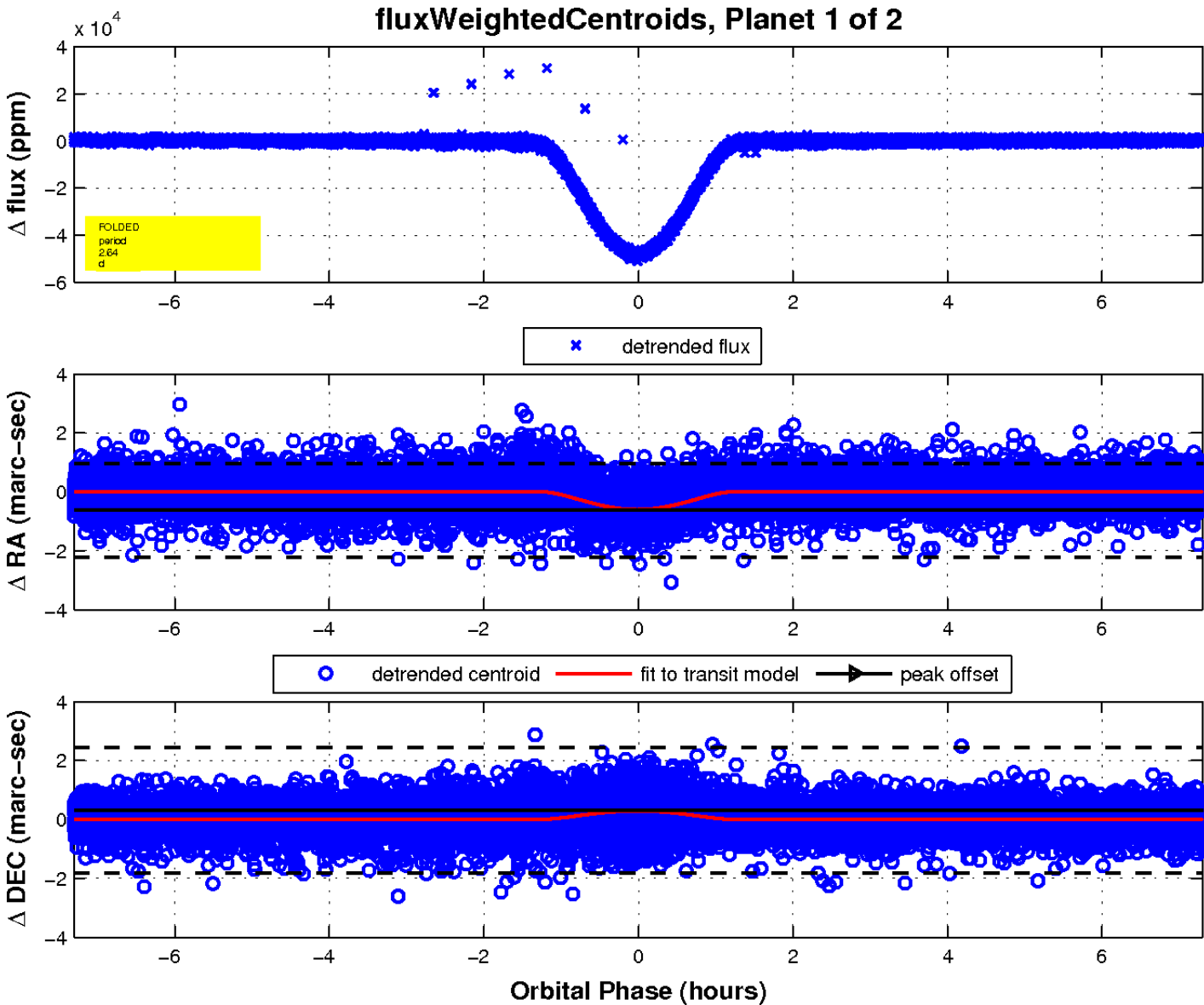
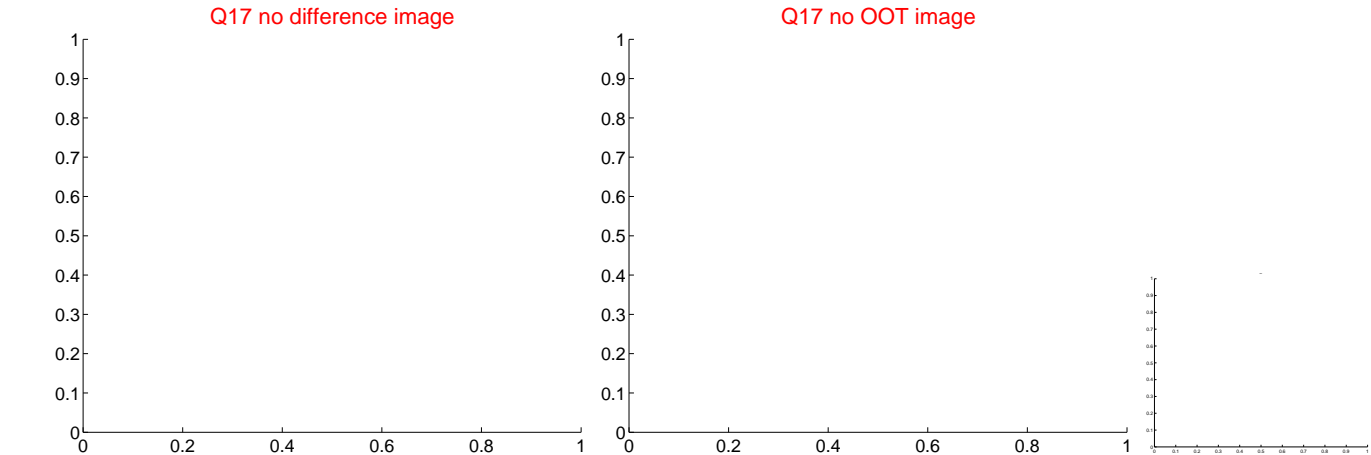
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

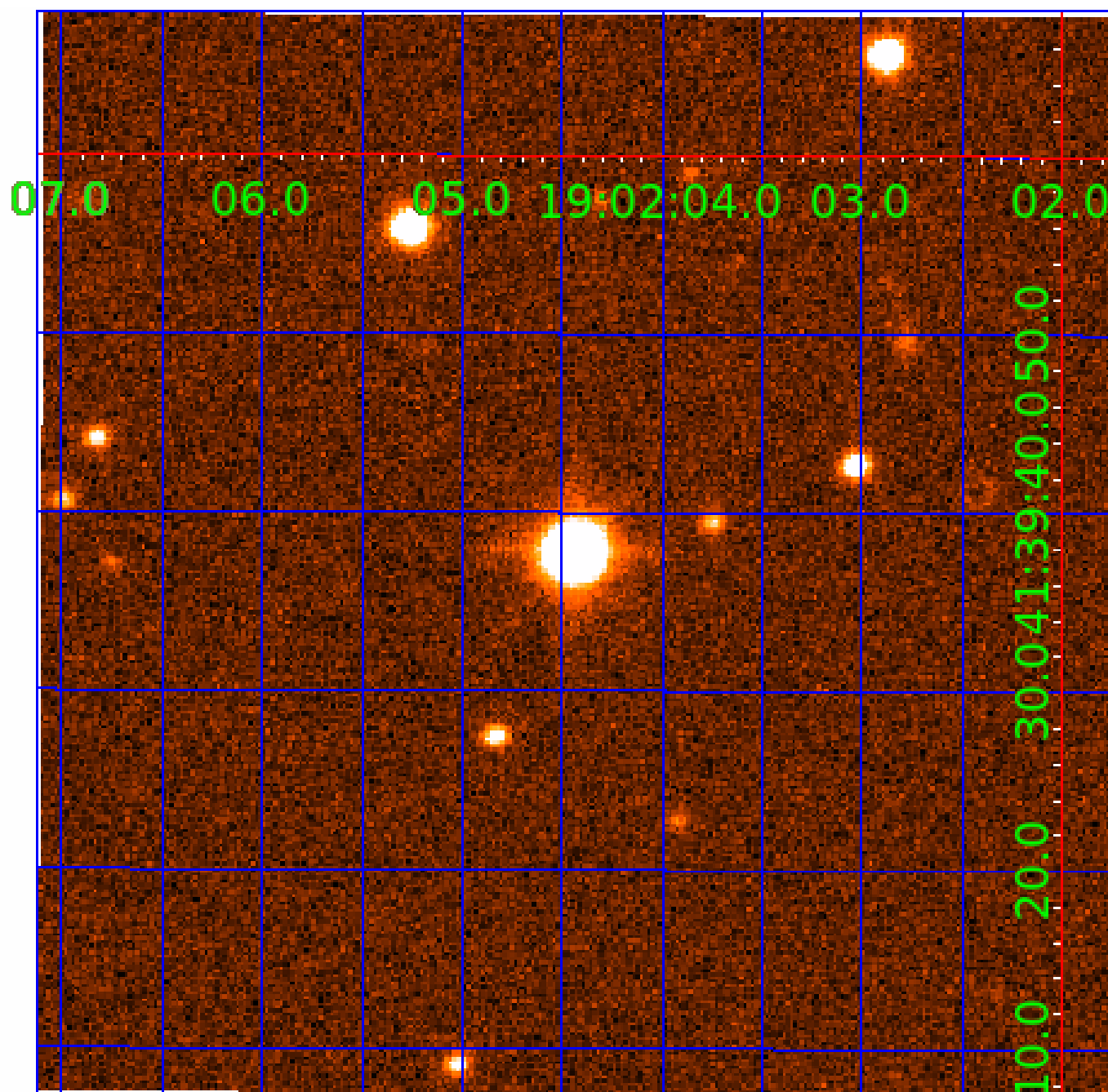


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006268722

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})
006268722-01	OBS	6026.01	2.638433	133.003983	48118.3	2.434	6170.1	6025.3	1.75	6502	53.22	3309.85
006268722-02	OBS	No	2.638433	131.685118	2502.1	2.357	345.8	368.4	1.75	6502	13.92	3309.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006268722-01	OBS	FP	0.01	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
006268722-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE

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.

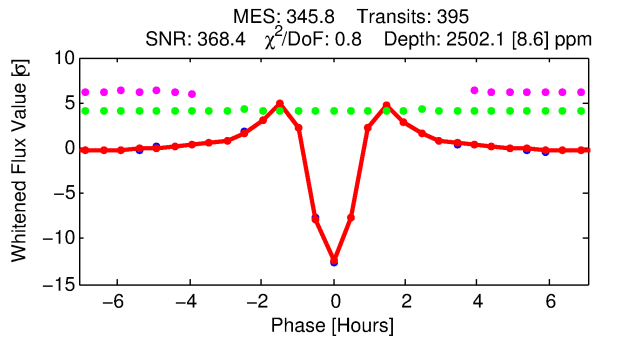
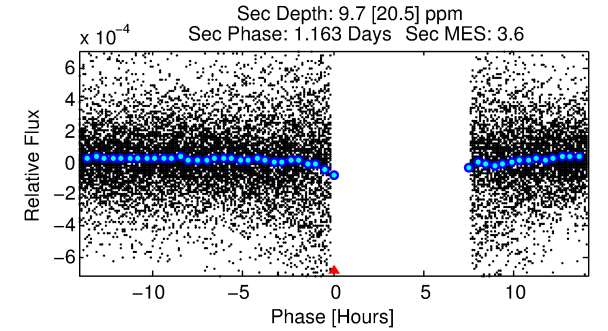
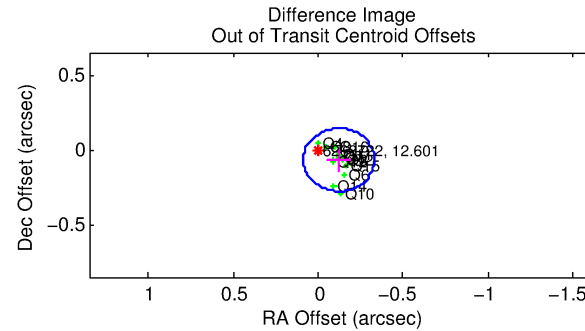
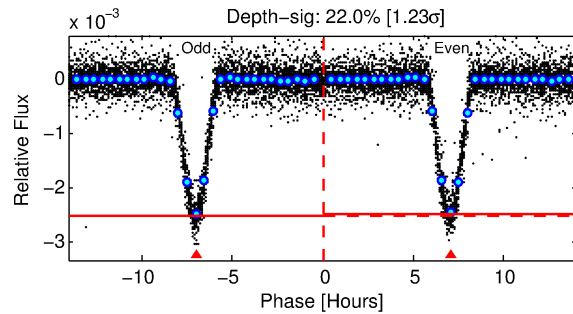
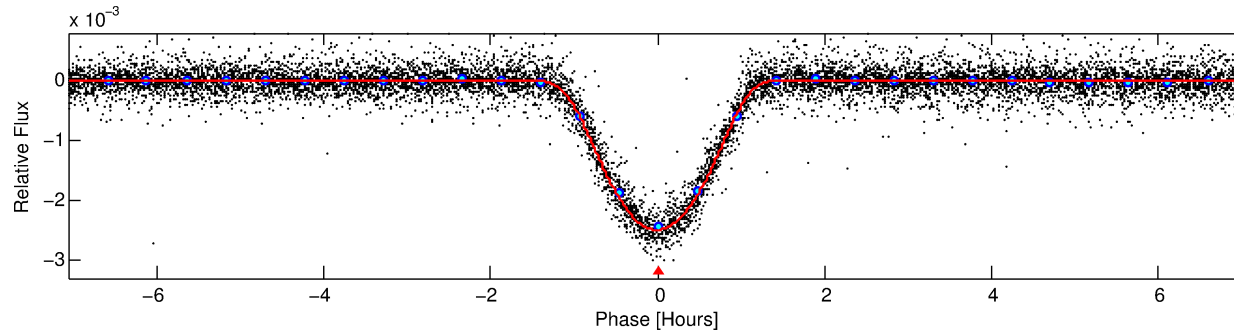
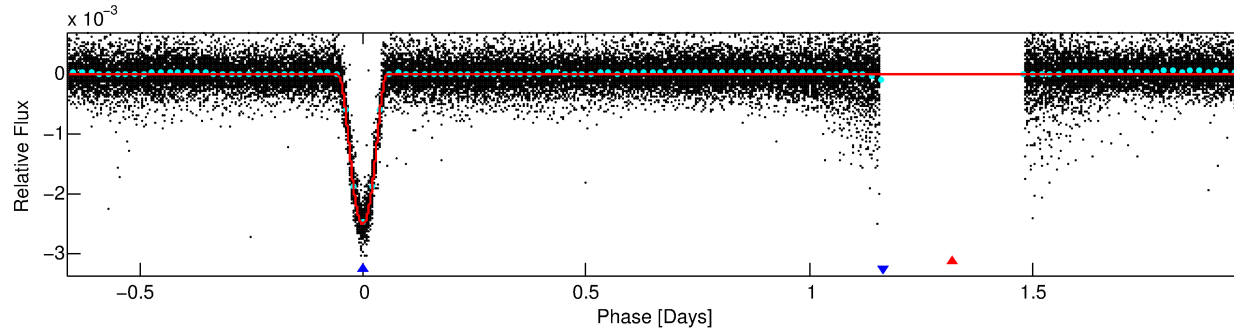
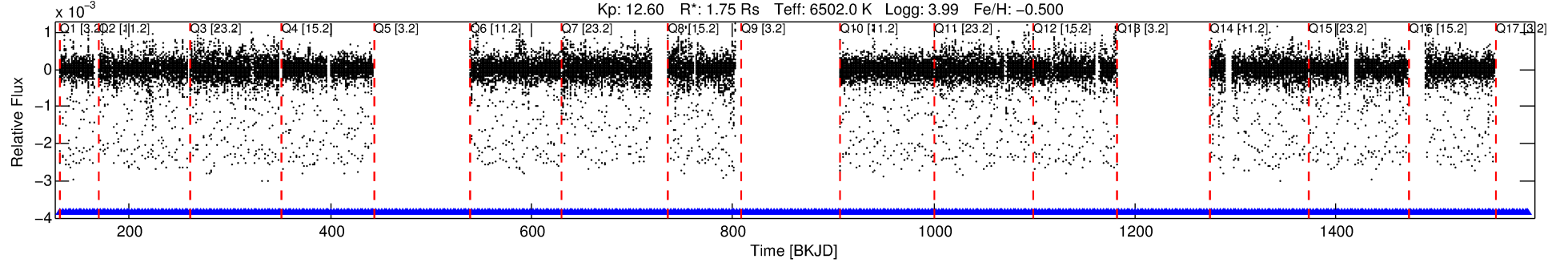
Ephemeris Match Information For 006268722-02

No Significant Match Found

DV One-Page Summary

KIC: 6268722 Candidate: 2 of 2 Period: 2.638 d
KOI: K06026 Corr: No Ephemeris Match

Kp: 12.60 R*: 1.75 Rs Teff: 6502.0 K Logg: 3.99 Fe/H: -0.500



DV Fit Results:

Period = 2.63843 [0.00000] d
Epoch = 131.6851 [0.0001] BKJD
Rp/R* = 0.0728 [0.0038]
a/R* = 3.84 [0.05]
b = 0.98 [0.01]
Seff = 3309.85 [1609.62]
Teq = 1934 [235] K
Rp = 13.92 [4.25] Re
a = 0.0386 [0.0113] AU
Ag = 0.04 [0.09] [-10.81σ]
Teffp = 1345 [713] K [-0.79σ]

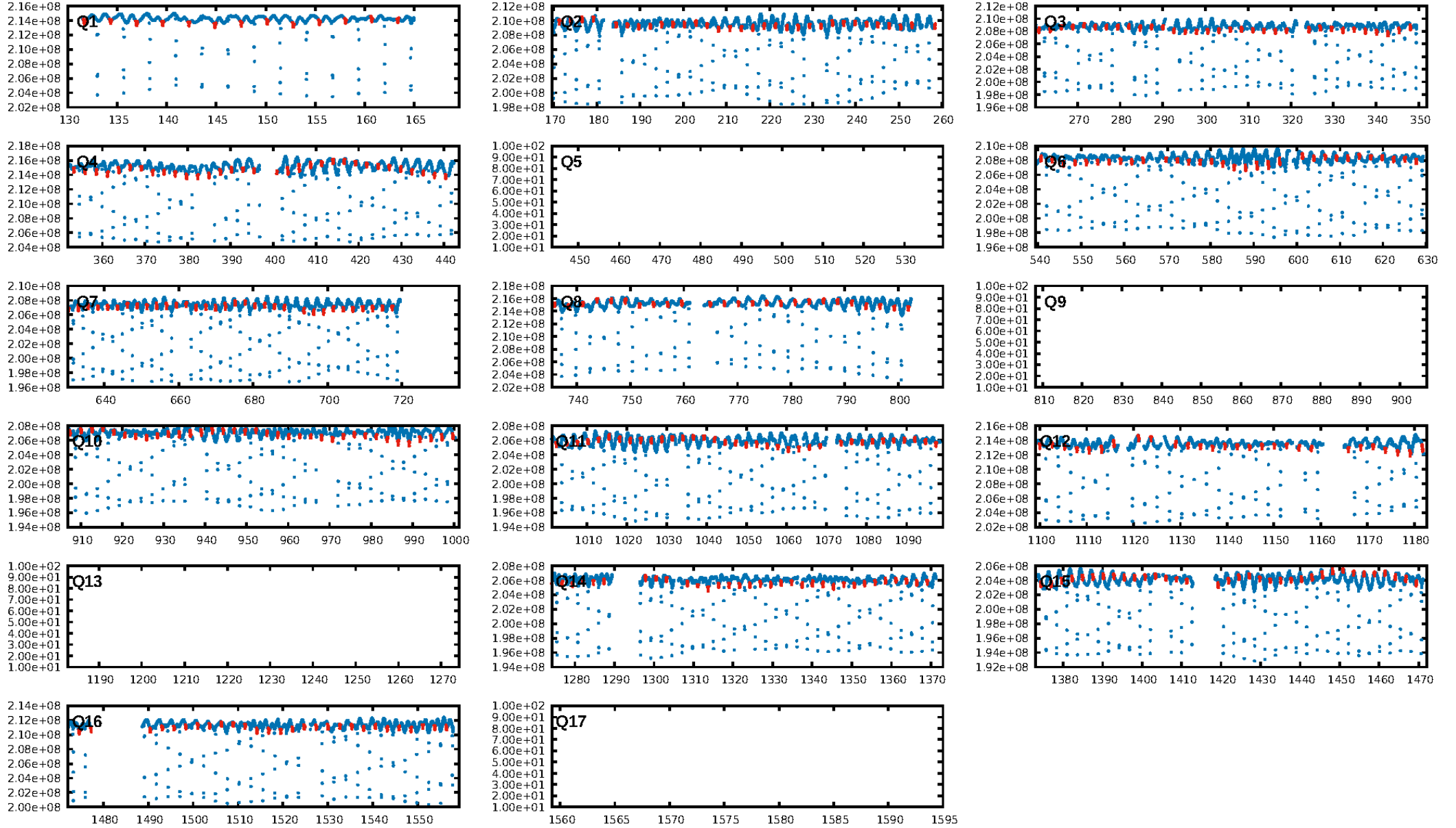
DV Diagnostic Results:

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: 1.00 [382/382]
GhostDiagnostic-chr: 3.133
Centroid-sig: 0.0%
Centroid-so: 0.112 arcsec [7.13σ]
OotOffset-rm: 0.139 arcsec [1.99σ]
KicOffset-rm: 0.091 arcsec [1.31σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

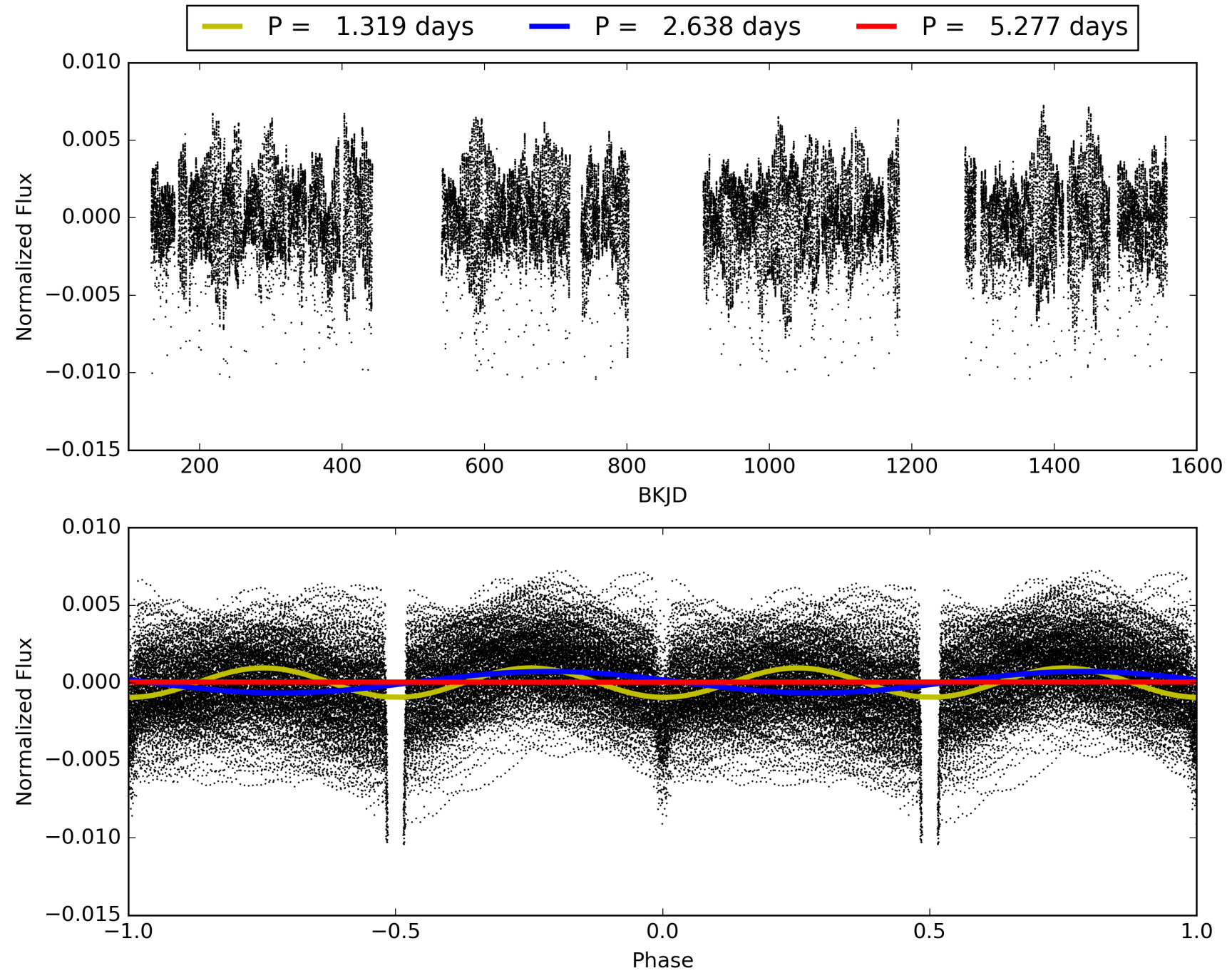
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:33:14 Z

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

TCE 006268722-02, PDC Light Curves

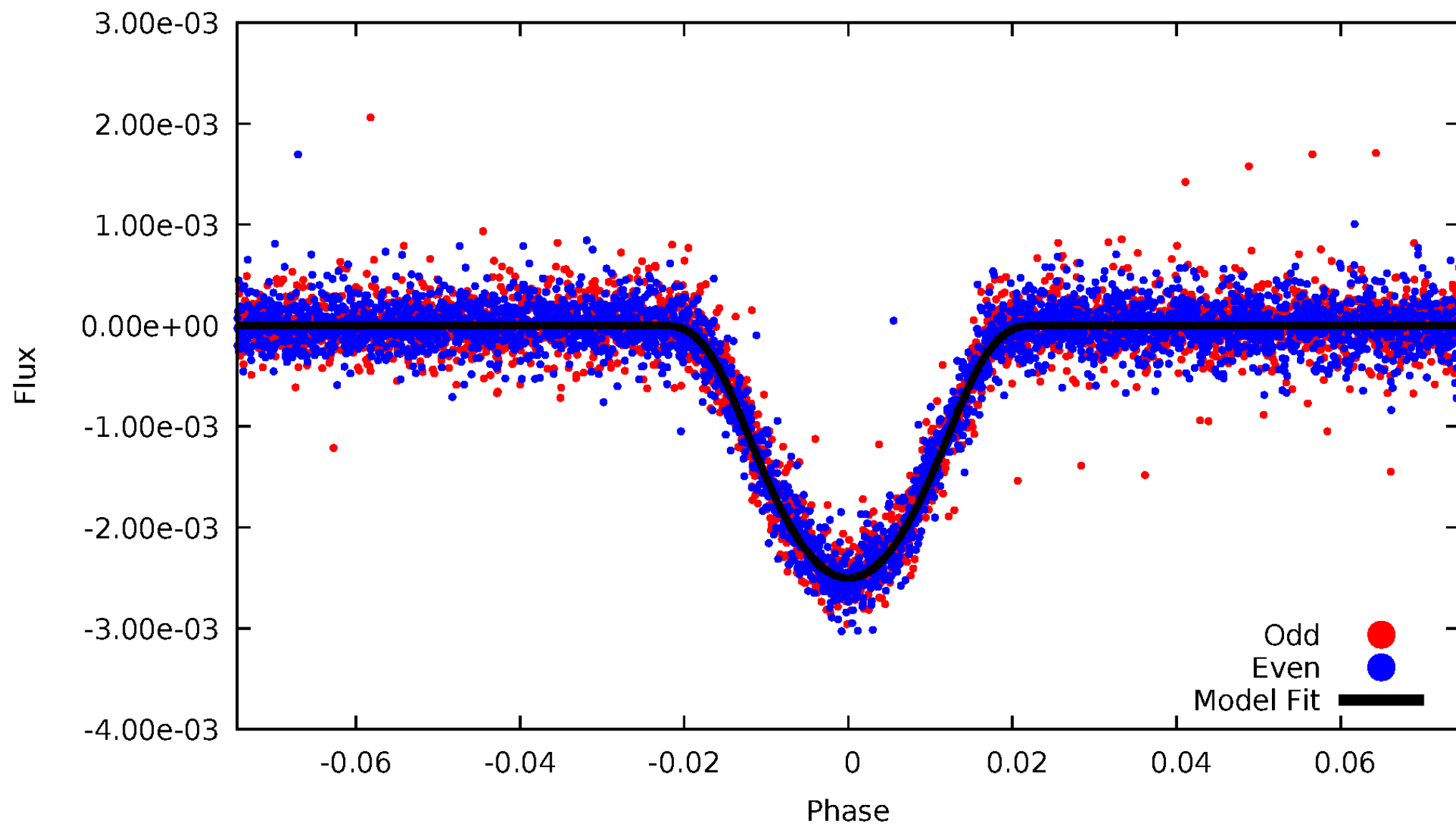


TCE 006268722-02



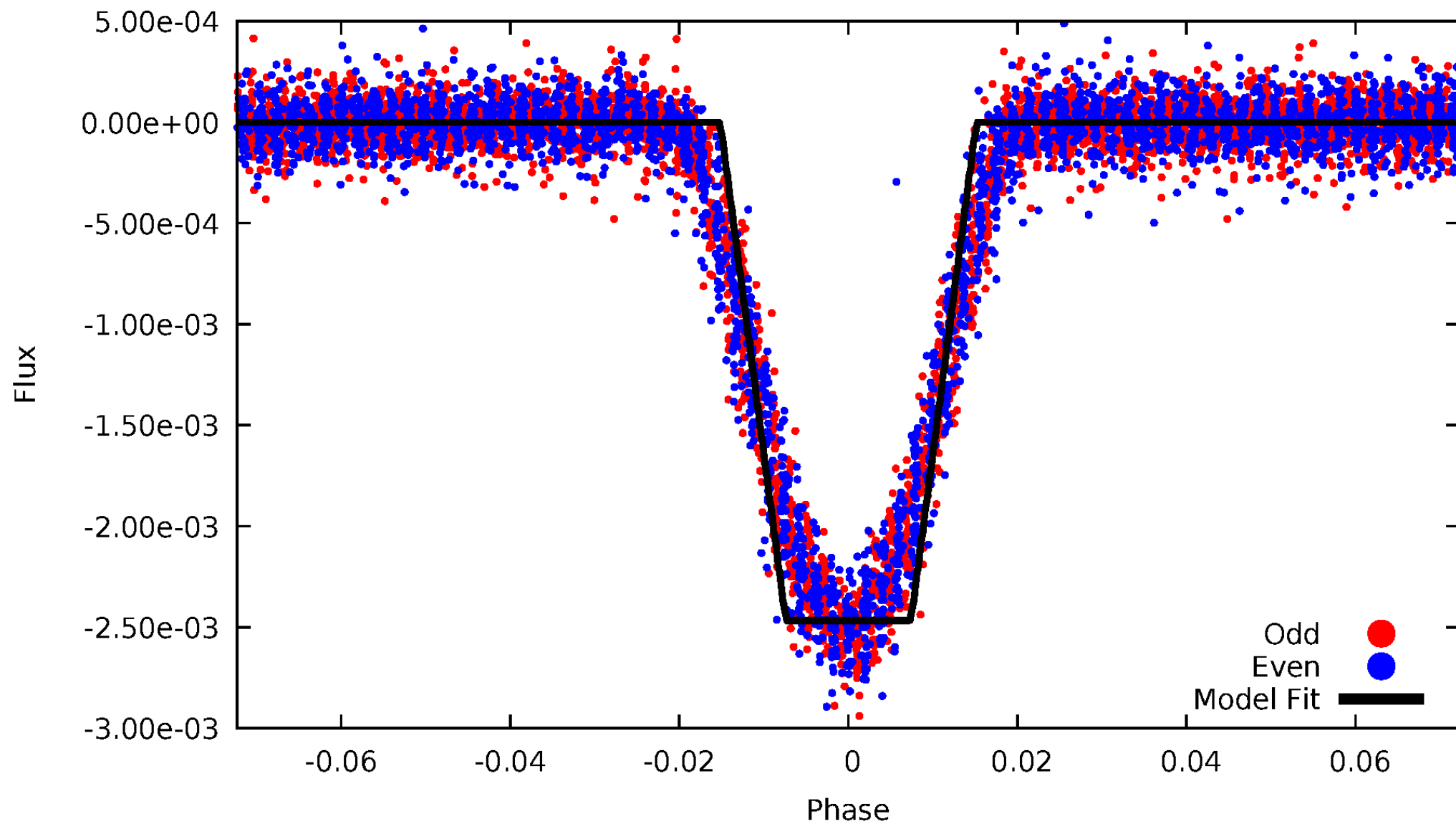
DV Odd/Even

TCE 006268722-02



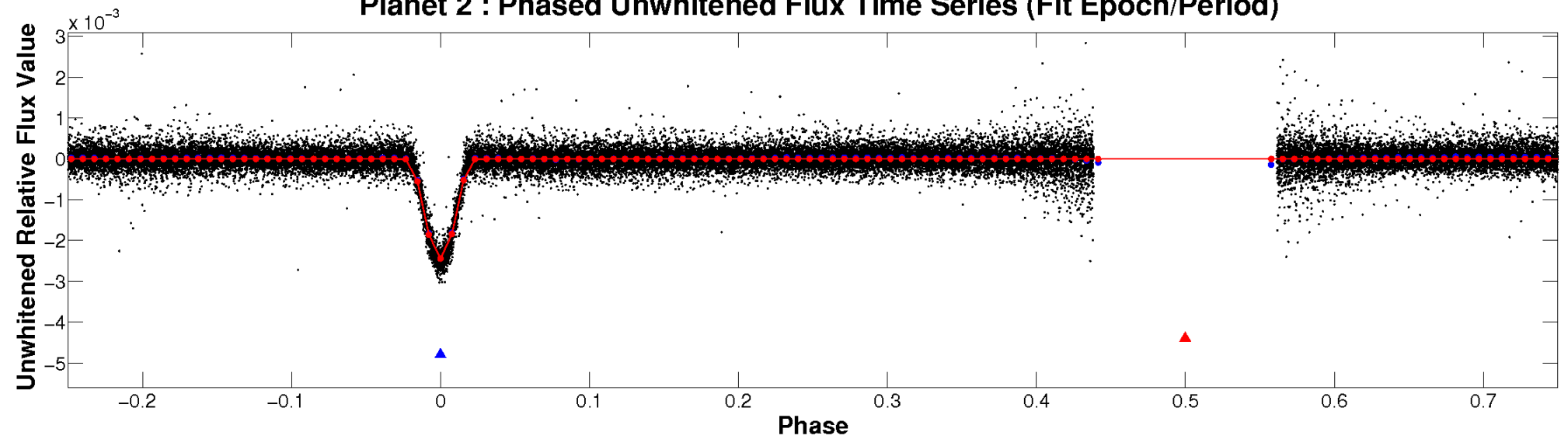
ALT Odd/Even

TCE 006268722-02

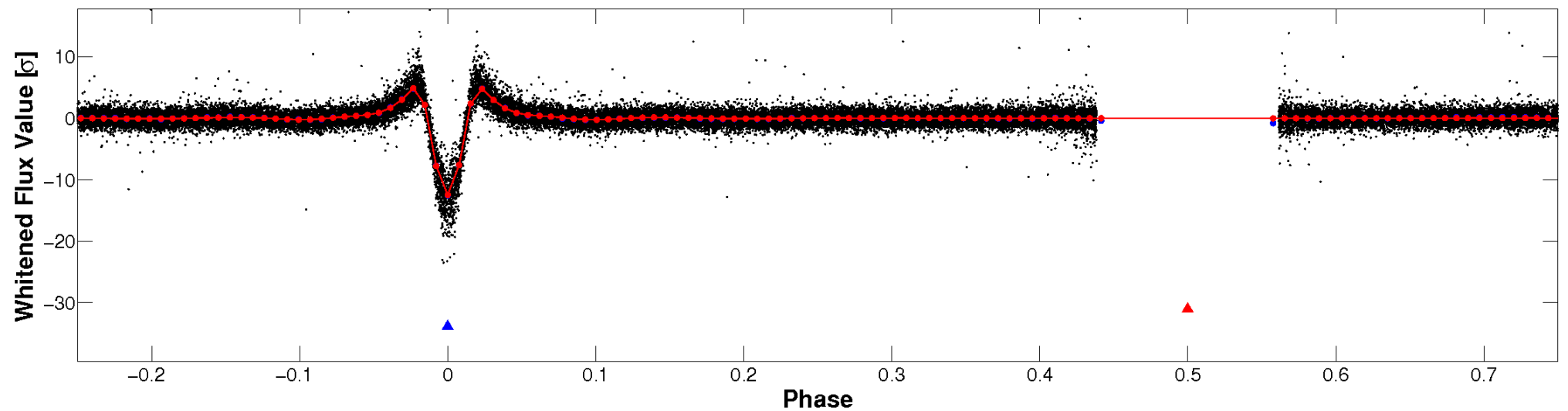


Non-Whitened Vs. Whitened Light Curve

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

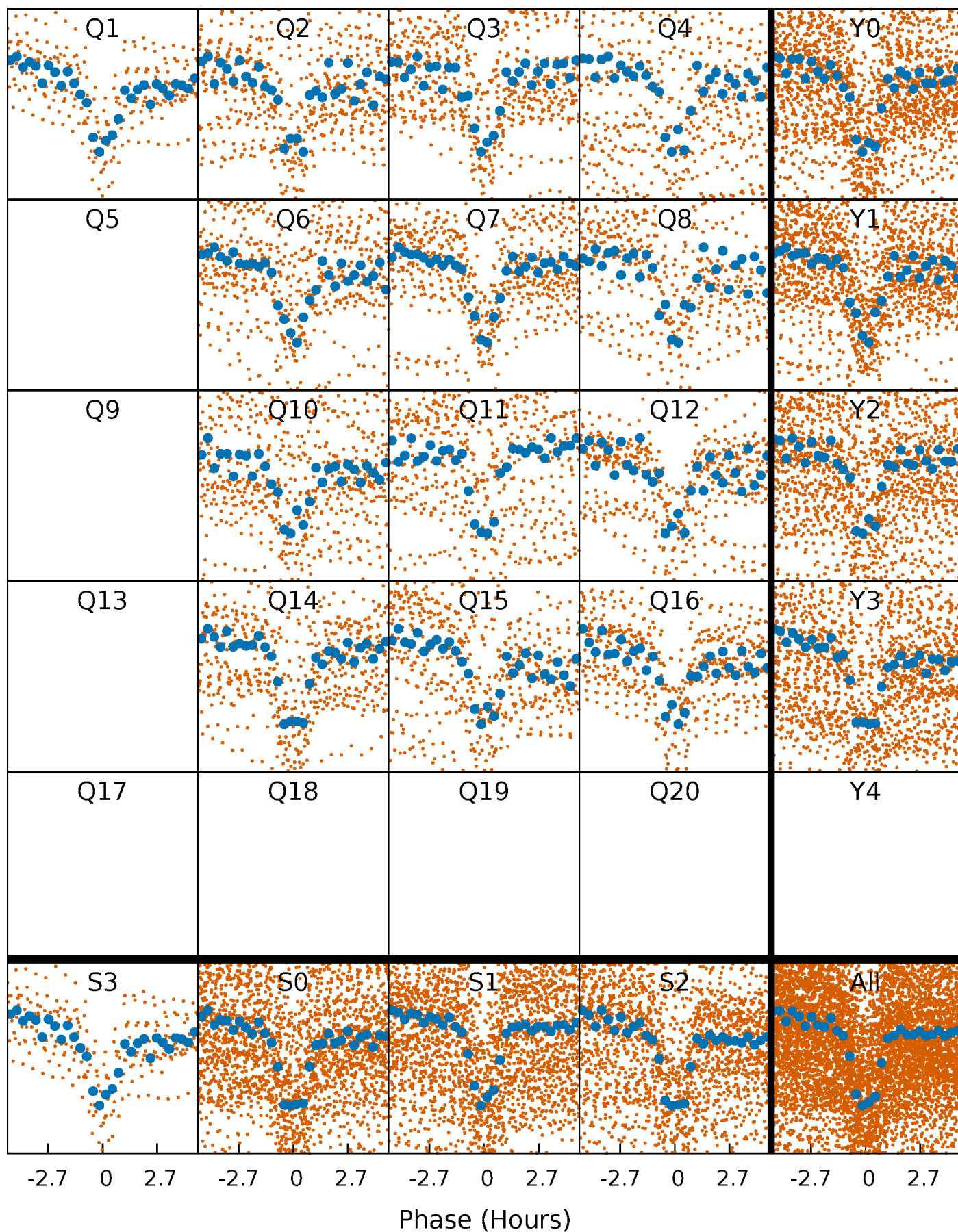


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



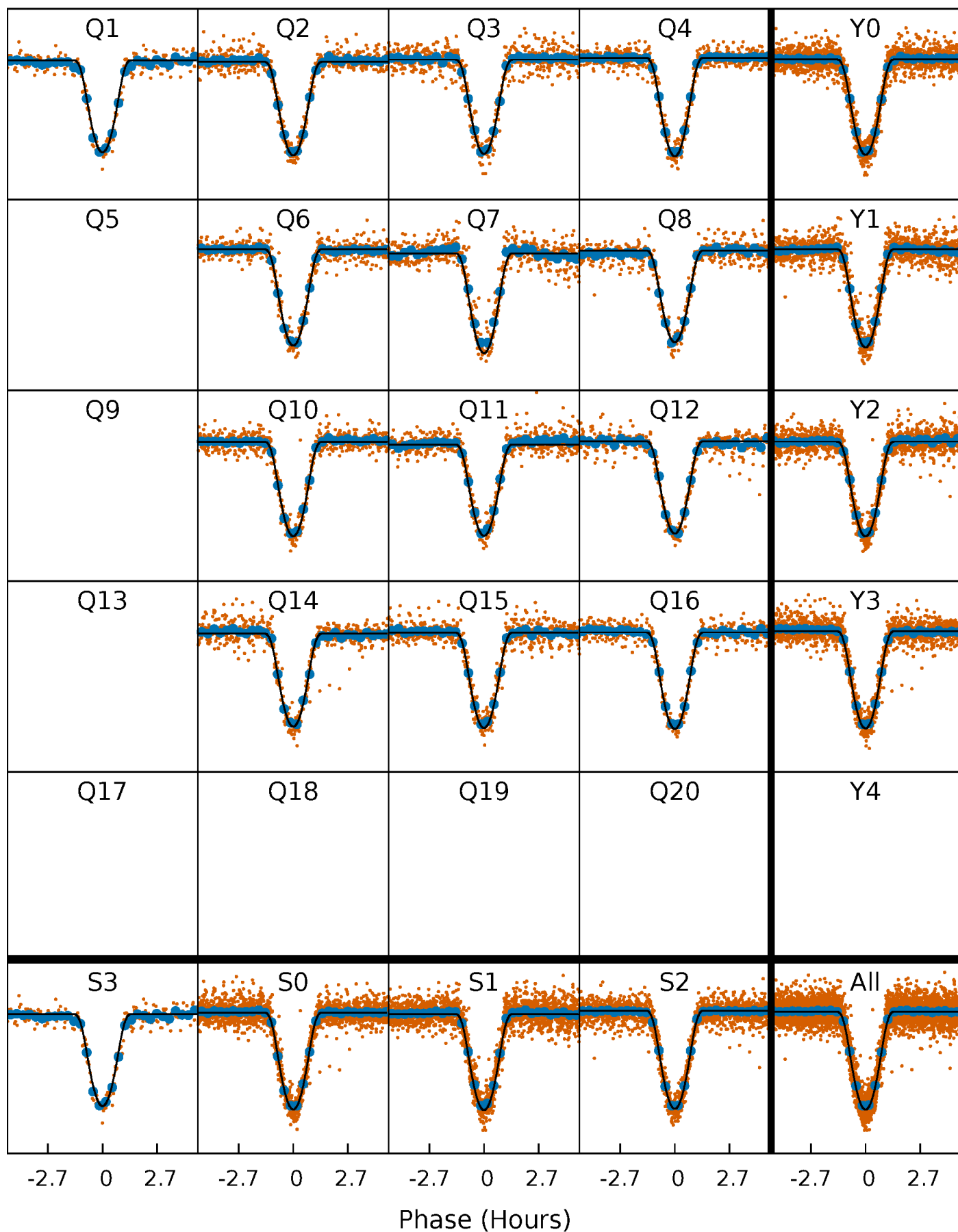
PDC Quarter-Phased Transit Curves

TCE 006268722-02 P= 2.638433 Days $T_0=131.685118$ (BKJD)



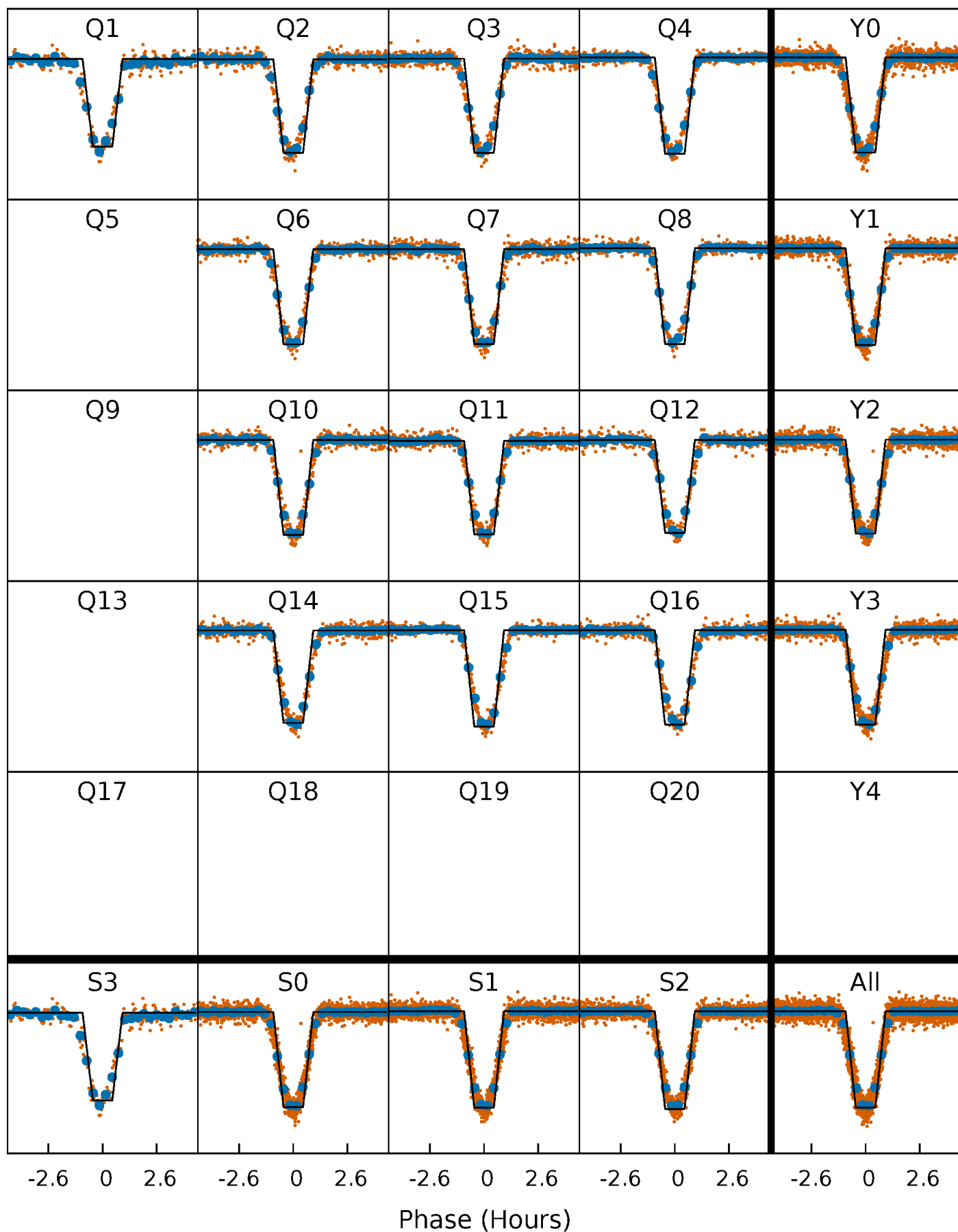
DV Quarter-Phased Transit Curves

TCE 006268722-02 P= 2.638433 Days $T_0=131.685118$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

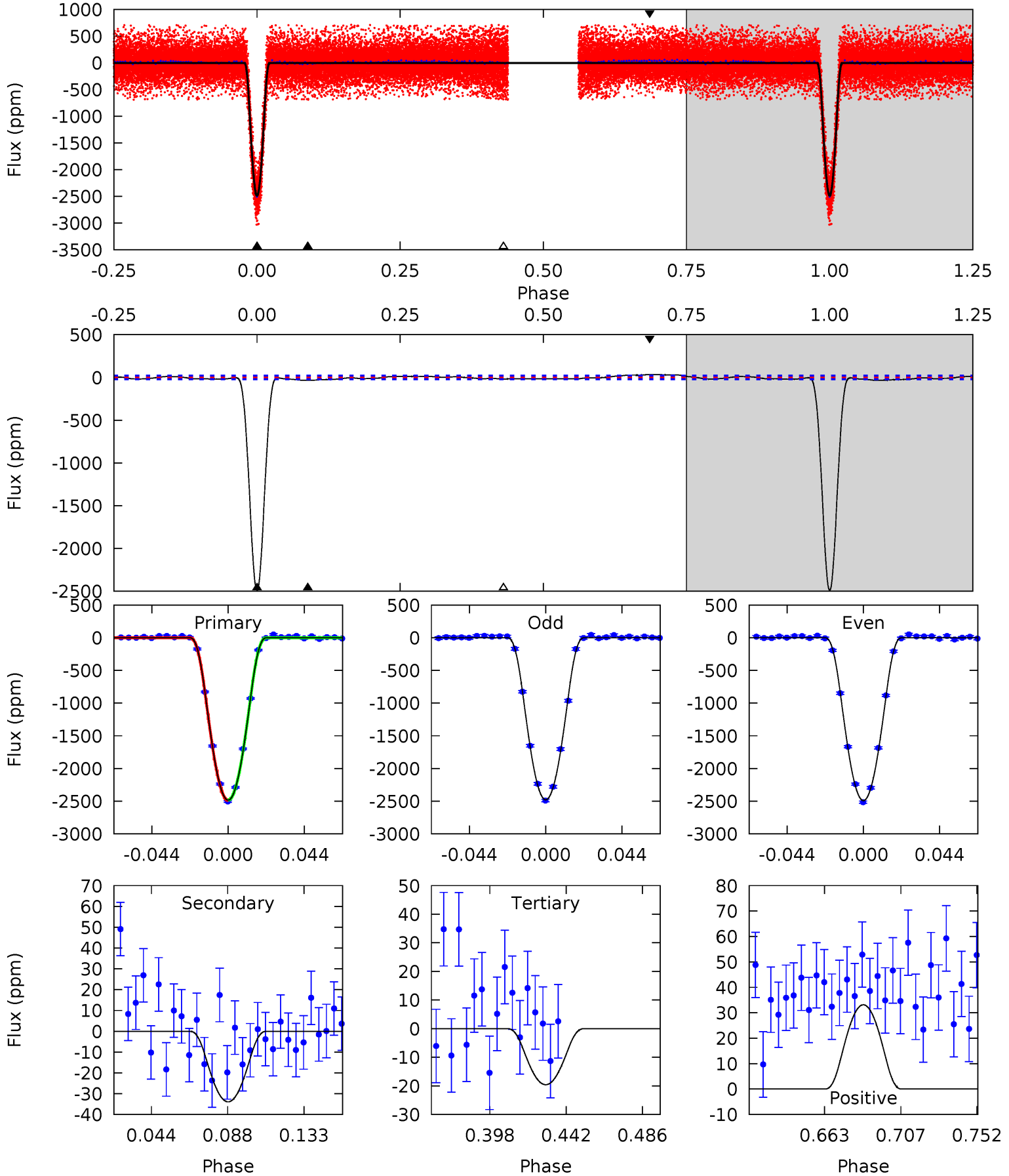
TCE 006268722-02 P= 2.638418 Days $T_0=131.689155$ (BKJD)



DV Model-Shift Uniqueness Test

006268722-02, P = 2.638433 Days, E = 129.046685 Days

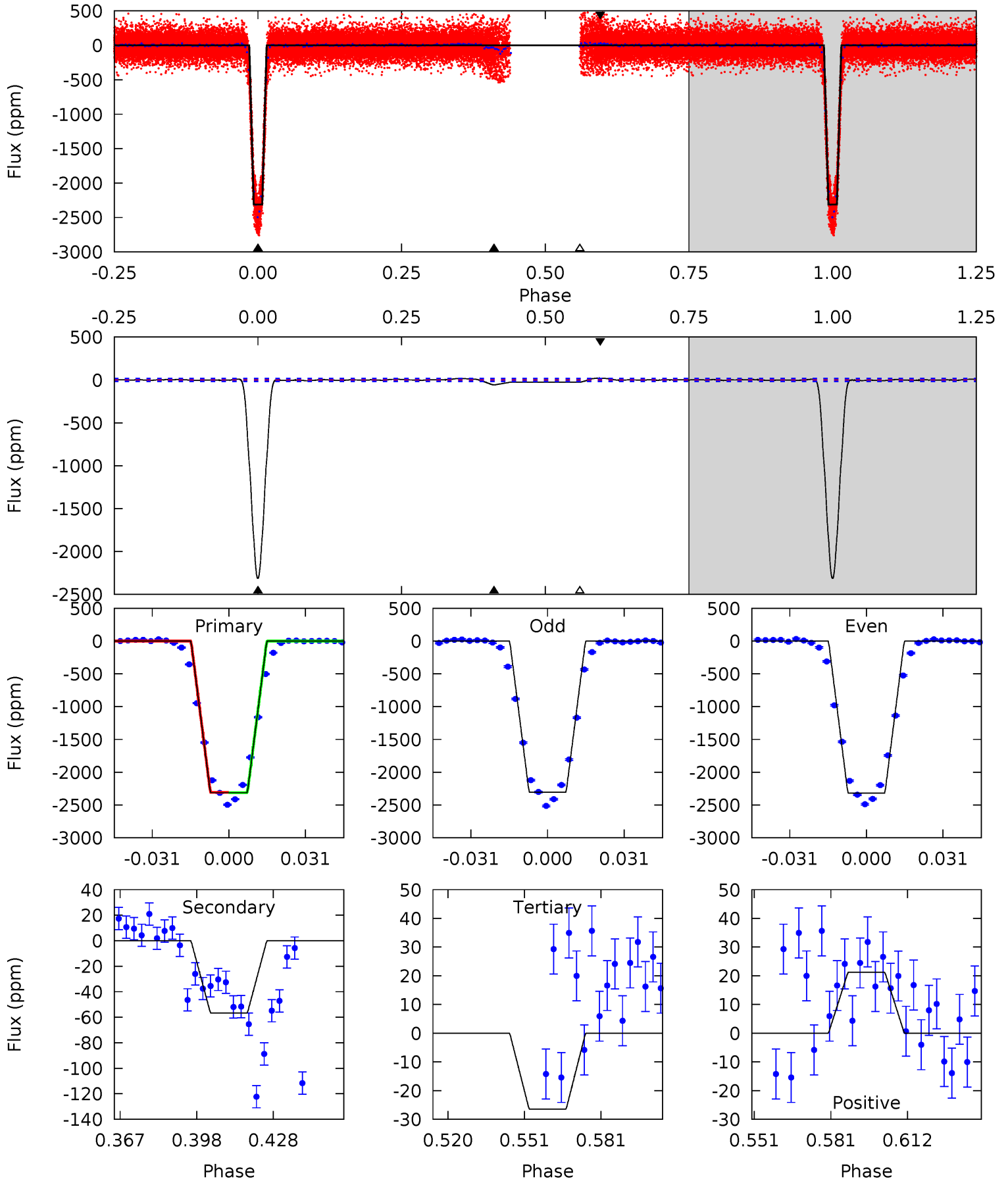
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
566.6	7.74	4.47	7.56	4.73	2.01	3.56	562.1	559.1	3.27	0.18	1.43	0.99	0.01	0.68



Alt Model-Shift Uniqueness Test

006268722-02, P = 2.638418 Days, E = 129.050737 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
733.1	17.9	8.40	6.72	4.81	2.16	1.82	724.7	726.4	9.55	11.2	2.17	1.00	0.01	0.37



Stellar Parameters For KIC 006268722

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6502^{+155}_{-175}	$3.991^{+0.280}_{-0.120}$	$-0.500^{+0.300}_{-0.300}$	$1.753^{+0.351}_{-0.527}$	$1.098^{+0.174}_{-0.157}$	$0.287^{+0.504}_{-0.101}$
	+2%/-3%	+7%/-3%	+60%/-60%	+20%/-30%	+16%/-14%	+176%/-35%
Source	PHO1	FLK73	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 006268722-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-34 ± 4	$13.74^{+1.85}_{-2.51}$	2674^{+171}_{-230}	-2636^{+282}_{-161}	$0.151^{+0.063}_{-0.035}$
Alt.	-57 ± 3	$9.38^{+1.37}_{-1.54}$	2684^{+142}_{-223}	2803^{+167}_{-213}	$0.533^{+0.213}_{-0.123}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

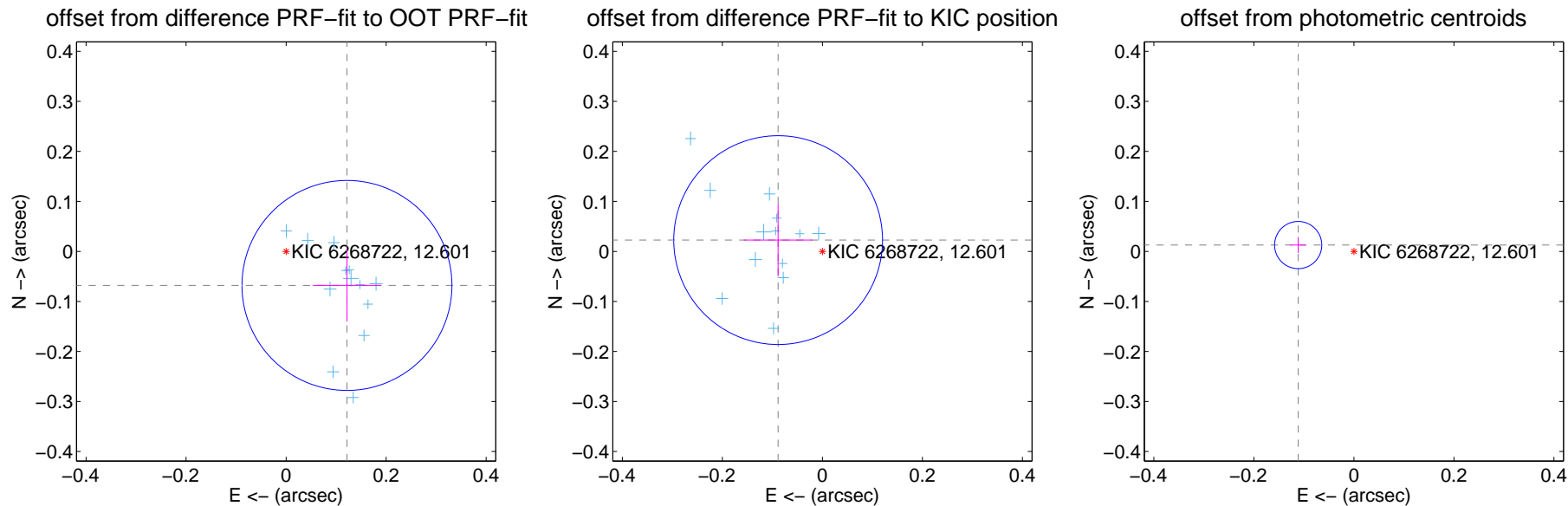
DV Centroid Data

Supplemental centroid analysis for 006268722-02. Kepler magnitude: 12.60. Transit SNR 368.43

There are 13 quarters with good PRF difference image offsets

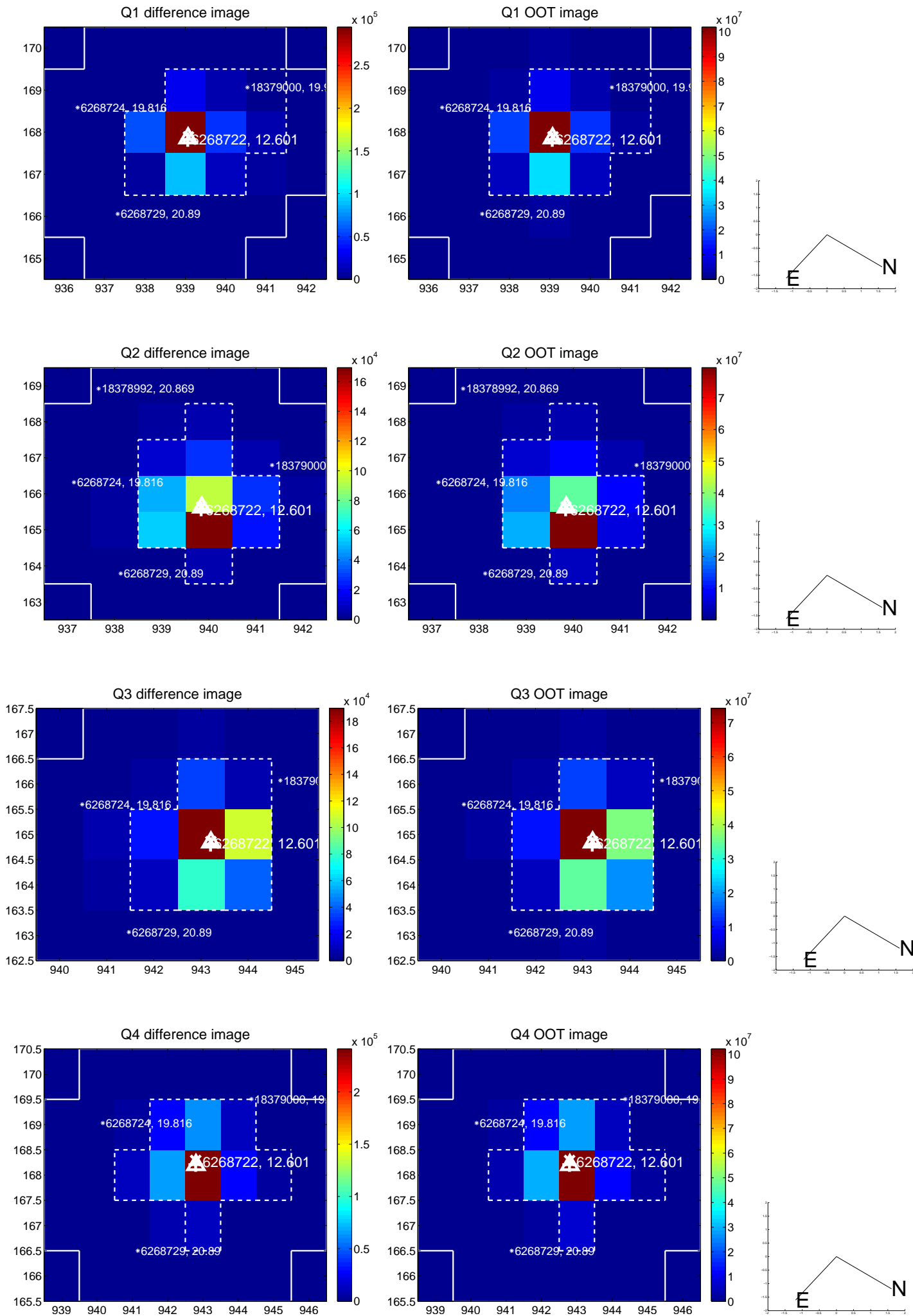
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.139 ± 0.070	1.99	-0.122 ± 0.068	-0.068 ± 0.072
PRF-fit source offset from KIC position	0.091 ± 0.070	1.31	0.088 ± 0.069	0.023 ± 0.072
photometric centroid source offset	0.11 ± 0.02	7.13	0.11 ± 0.02	0.01 ± 0.02

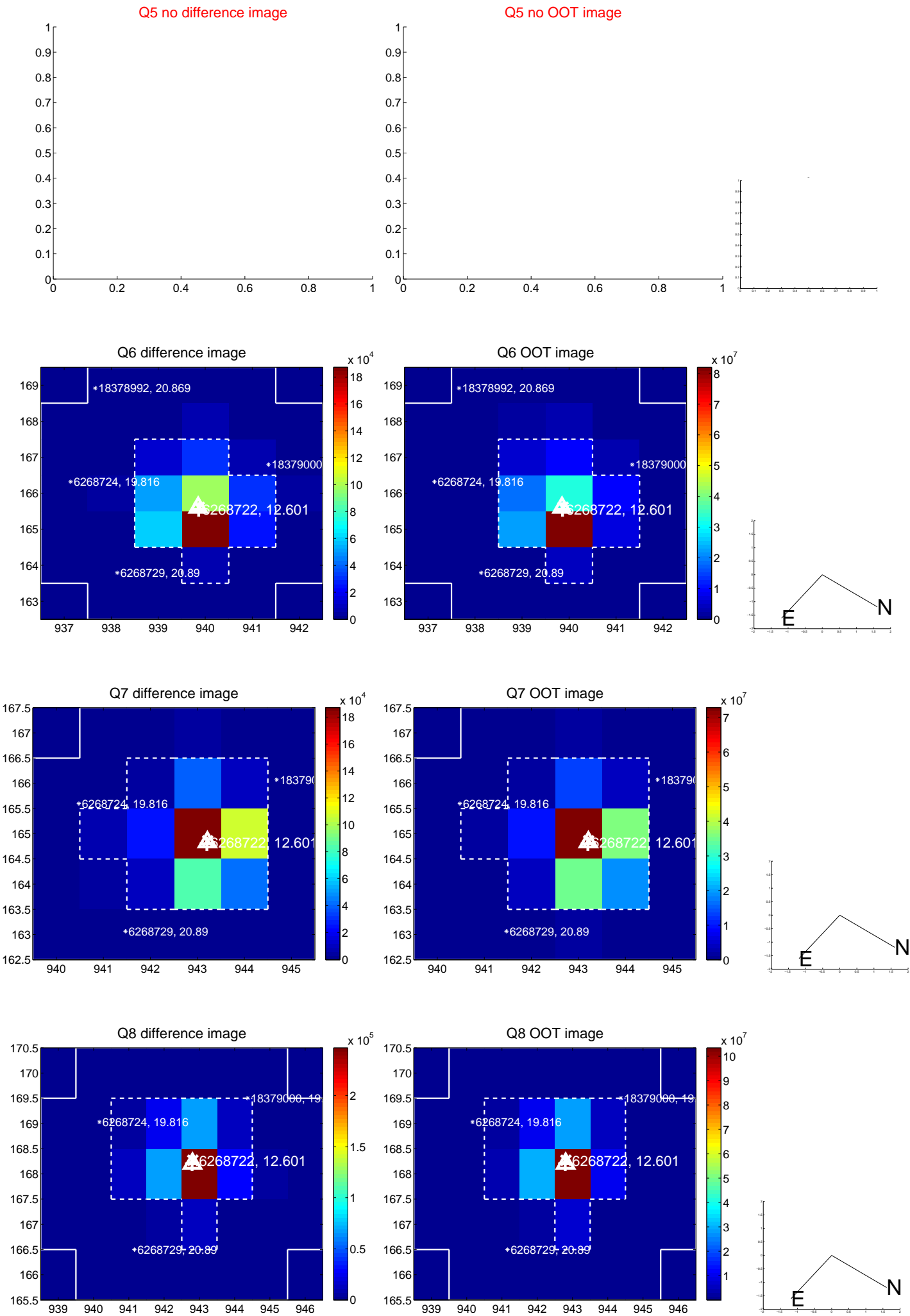


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

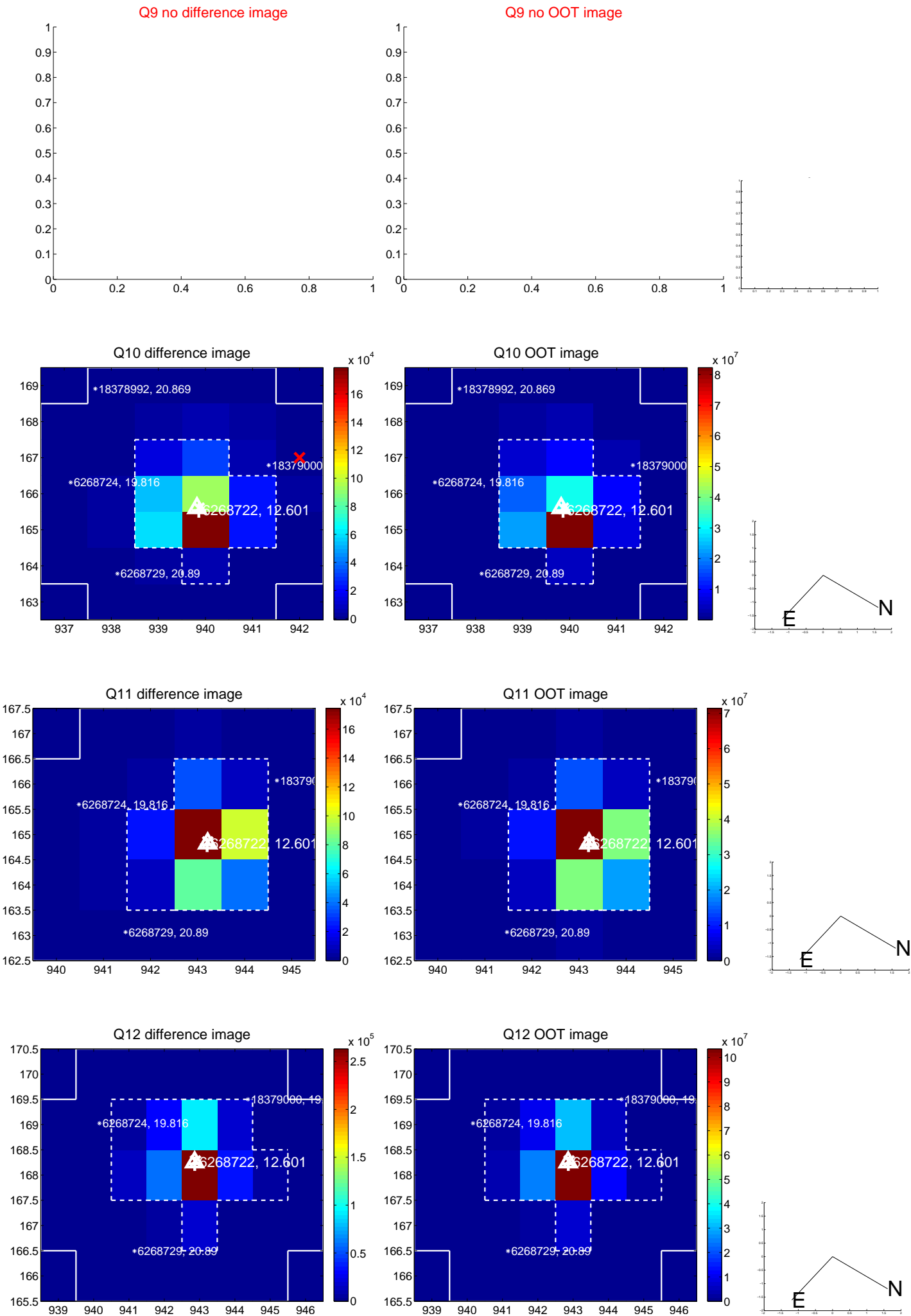
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



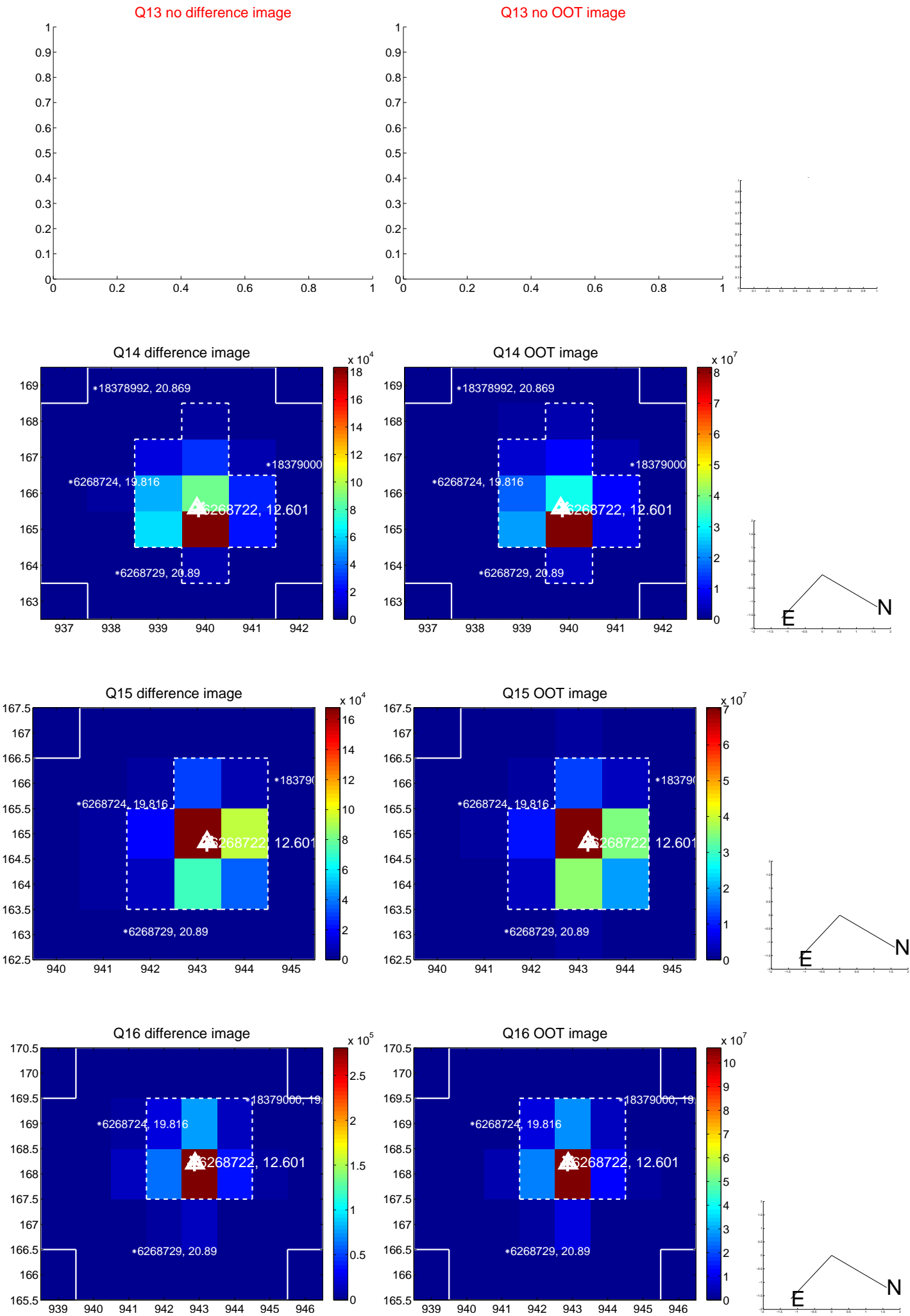
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



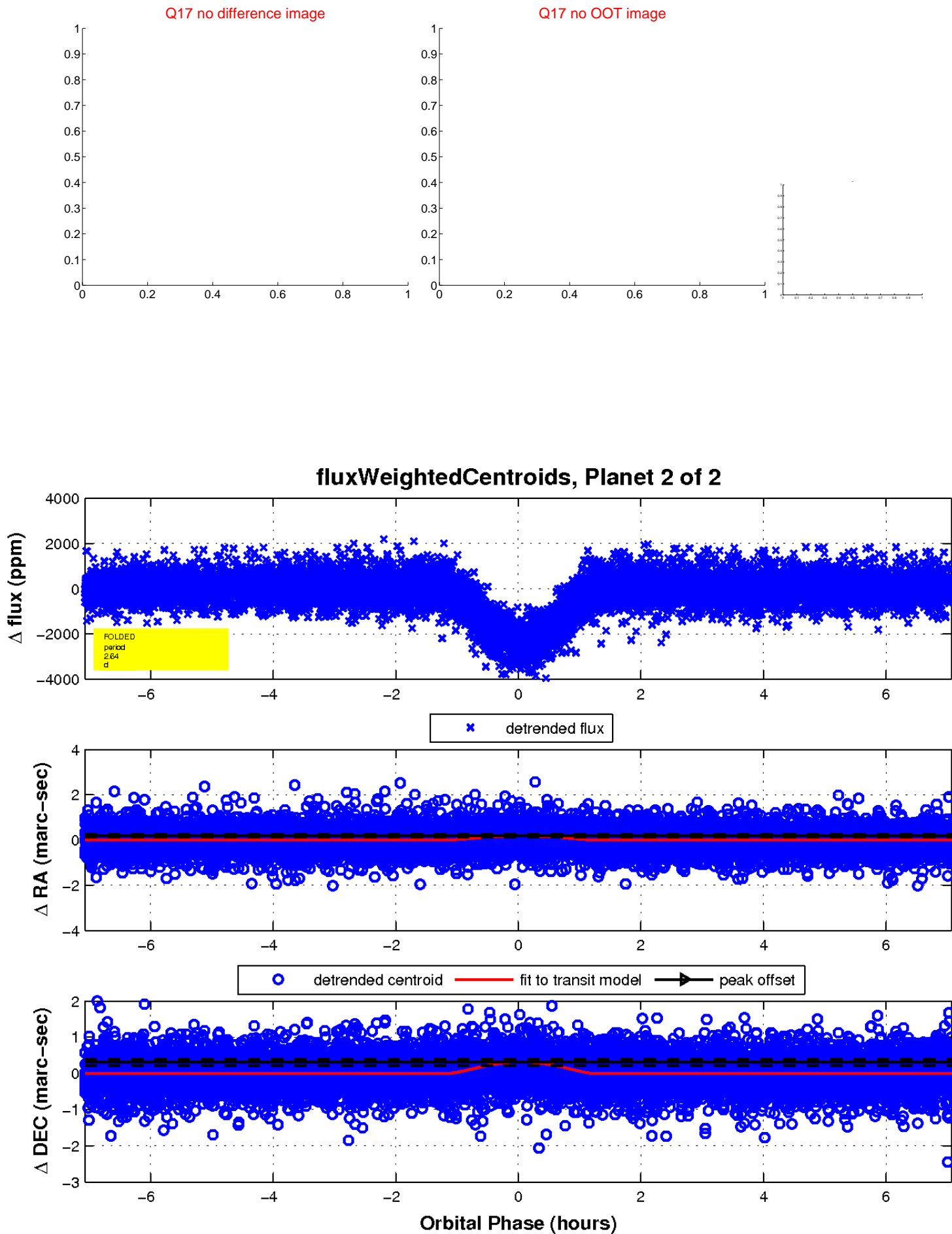
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

