

KIC 006468938

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})
006468938-01	OBS	6718.01	7.217009	135.452642	78383.4	4.420	6998.7	5305.5	1.21	6047	48.58	341.99
006468938-02	OBS	No	7.217009	131.684629	62750.0	4.359	5675.2	4759.4	1.21	6047	46.38	341.99
006468938-03	OBS	No	328.047183	147.823786	1621.3	4.500	28.5	-1.0	1.21	6047	4.88	2.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006468938-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
006468938-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006468938-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

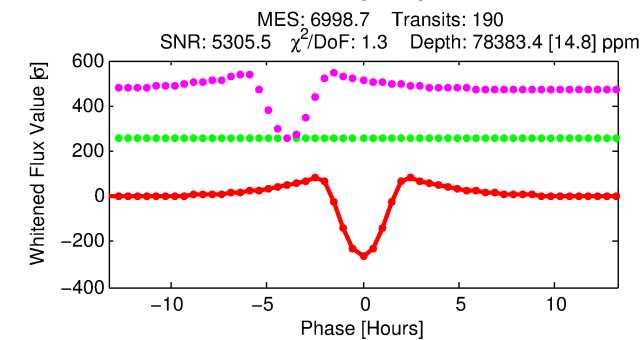
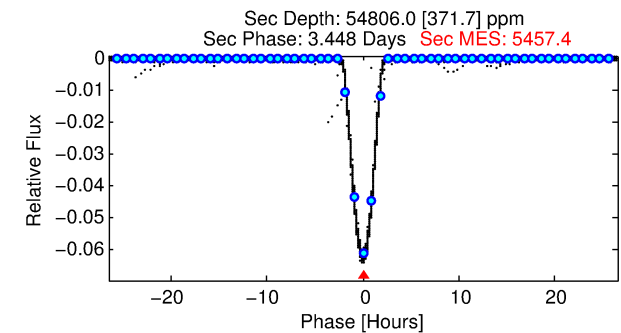
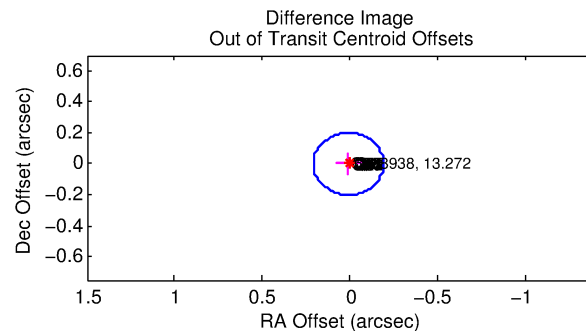
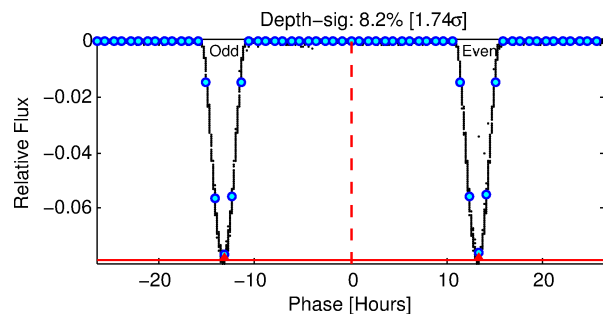
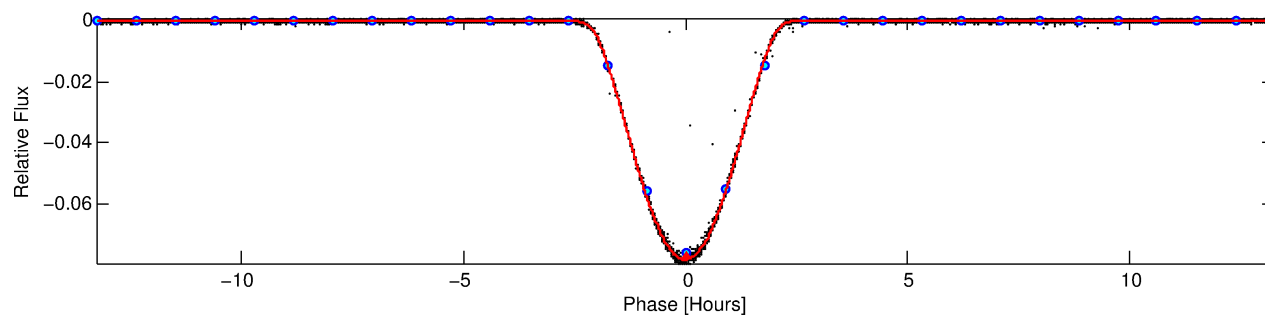
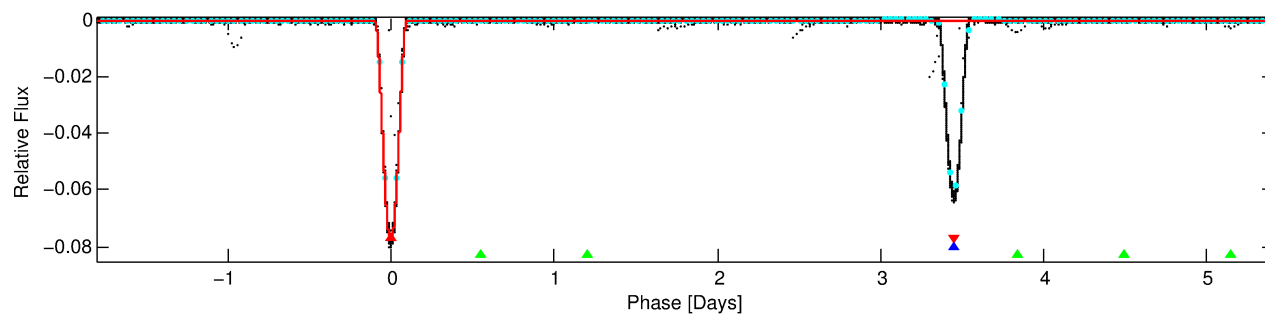
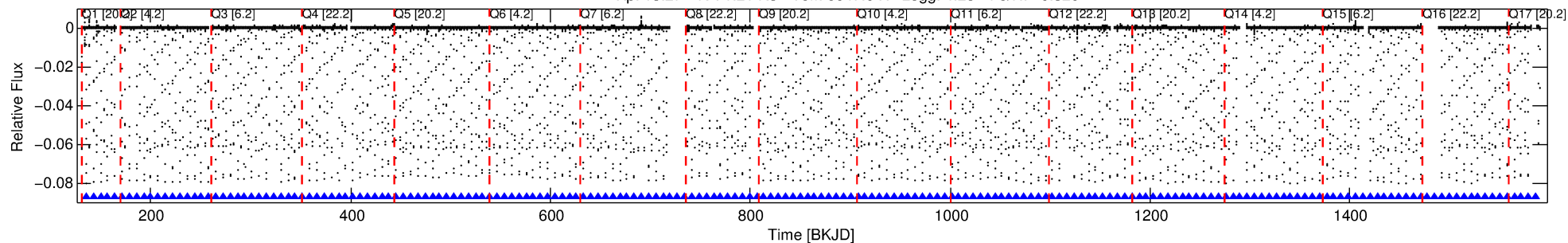
Ephemeris Match Information For 006468938-01

No Significant Match Found

DV One-Page Summary

KIC: 6468938 Candidate: 1 of 3 Period: 7.217 d
KOI: K06718.01 Corr: 0.998

Kp: 13.27 R*: 1.21 Rs Teff: 6047.0 K Logg: 4.25 Fe/H: -0.320



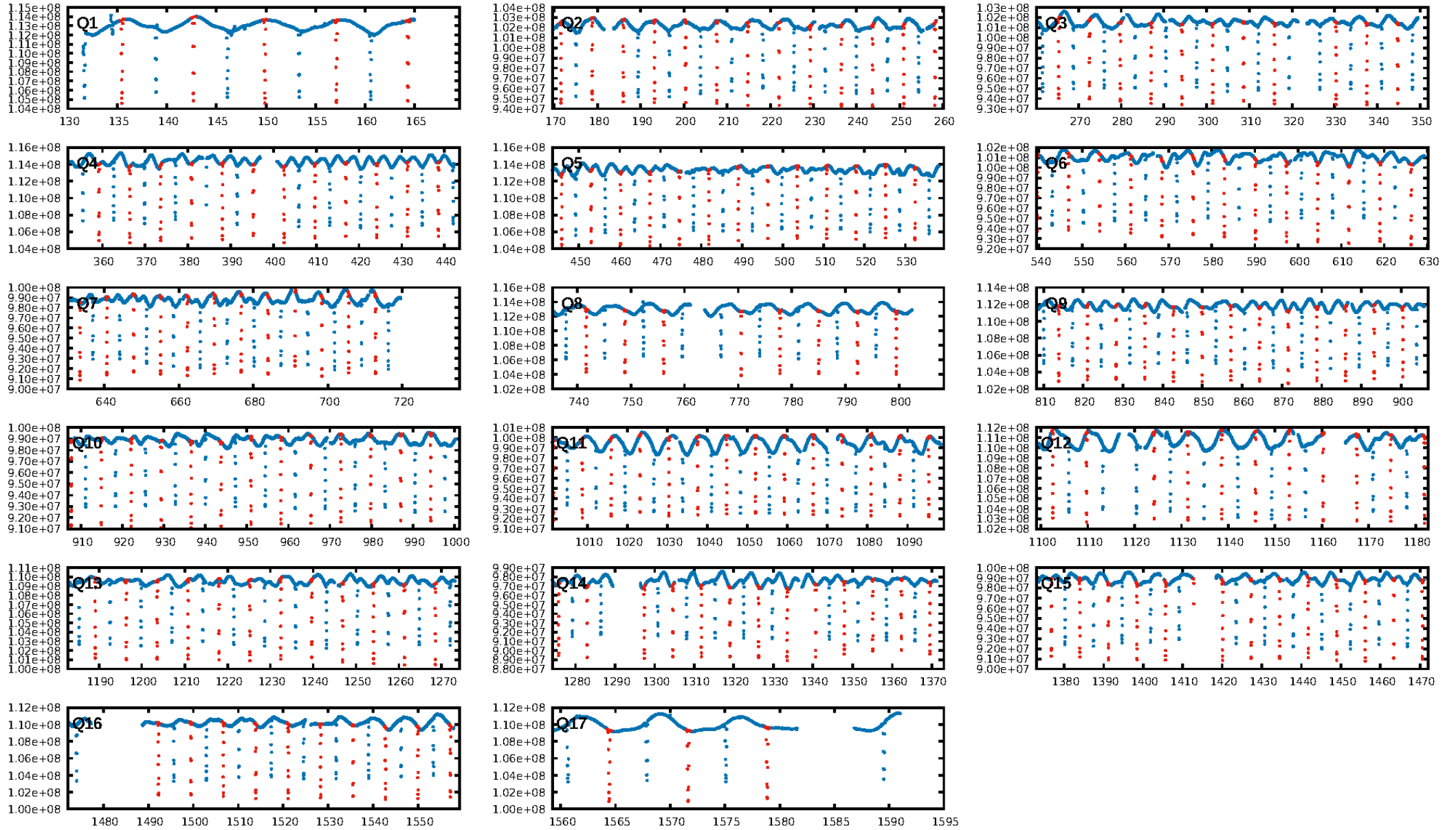
DV Fit Results:

Period = 7.21701 [0.00000] d
Epoch = 135.4526 [0.0000] BKJD
Rp/R* = 0.3676 [0.0027]
a/R* = 12.87 [0.00]
b = 0.90 [0.00]
Seff = 341.99 [138.51]
Teff = 1097 [111] K
Rp = 48.58 [13.76] Re
a = 0.0717 [0.0182] AU
Ag = 65.64 [25.42] [2.54σ]
Teffp = 4826 [146] K [20.35σ]

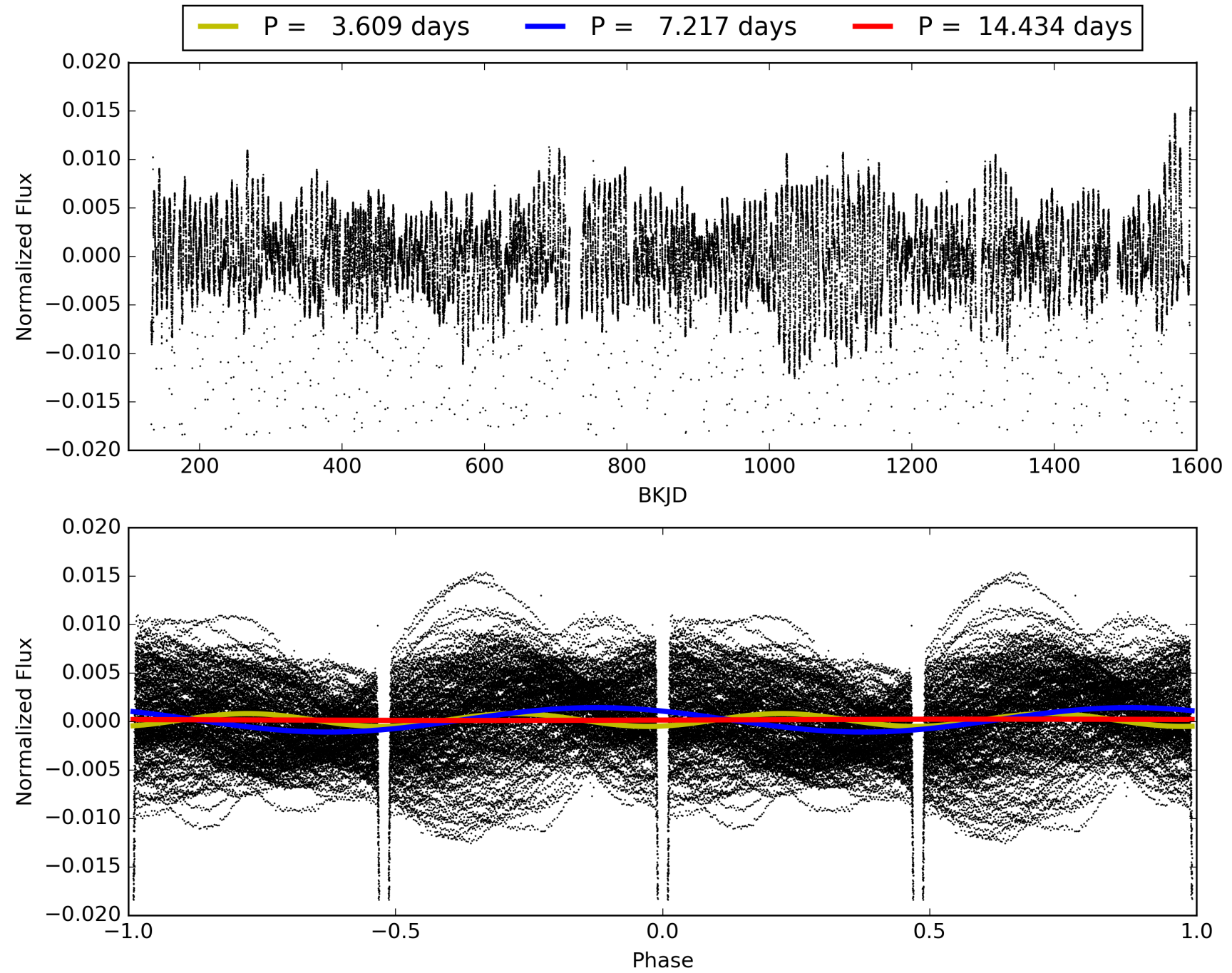
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [1220.72σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [182/182]
GhostDiagnostic-chr: 2.252
Centroid-sig: 0.0%
Centroid-so: 0.131 arcsec [128.96σ]
OotOffset-rm: 0.009 arcsec [0.14σ]
KicOffset-rm: 0.034 arcsec [0.51σ]
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]

TCE 006468938-01, PDC Light Curves

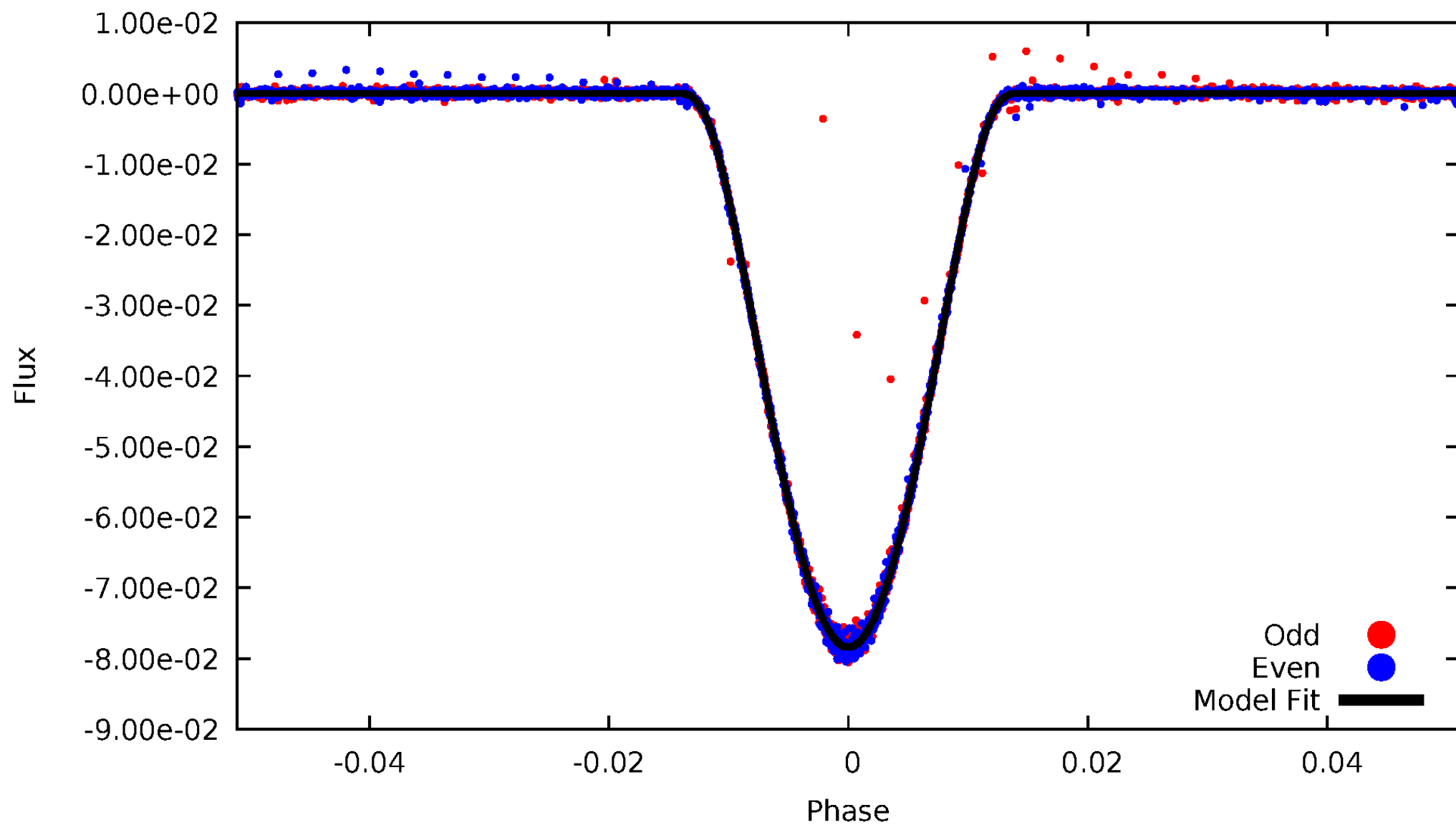


TCE 006468938-01



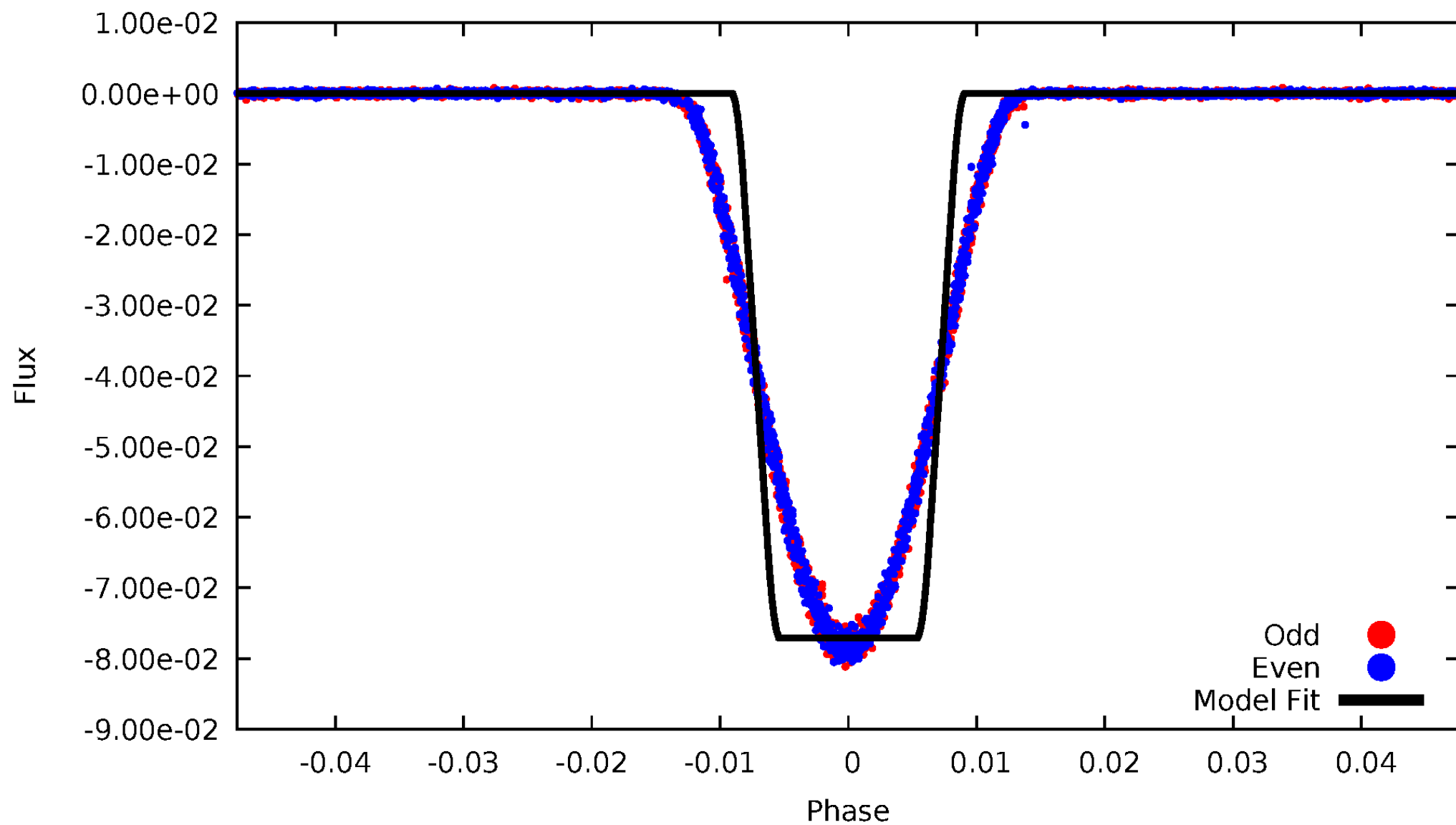
DV Odd/Even

TCE 006468938-01



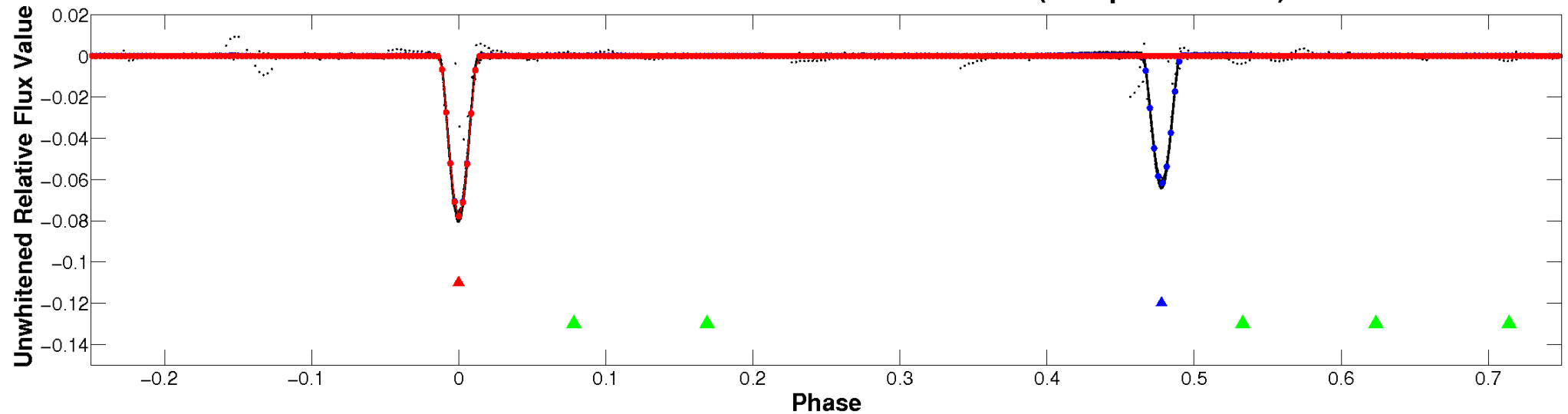
ALT Odd/Even

TCE 006468938-01

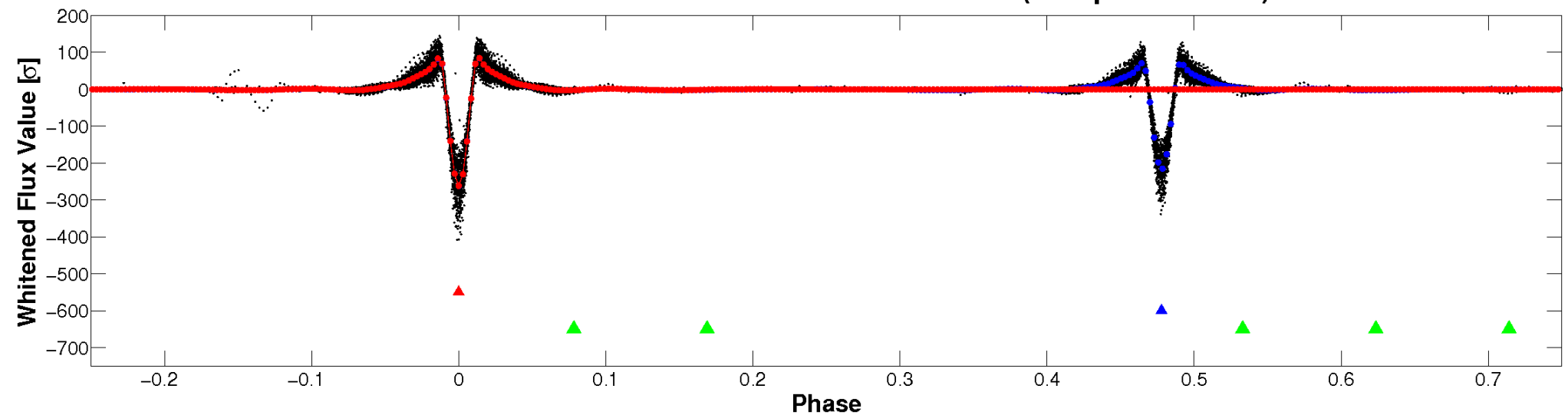


Non-Whitened Vs. Whitened Light Curve

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

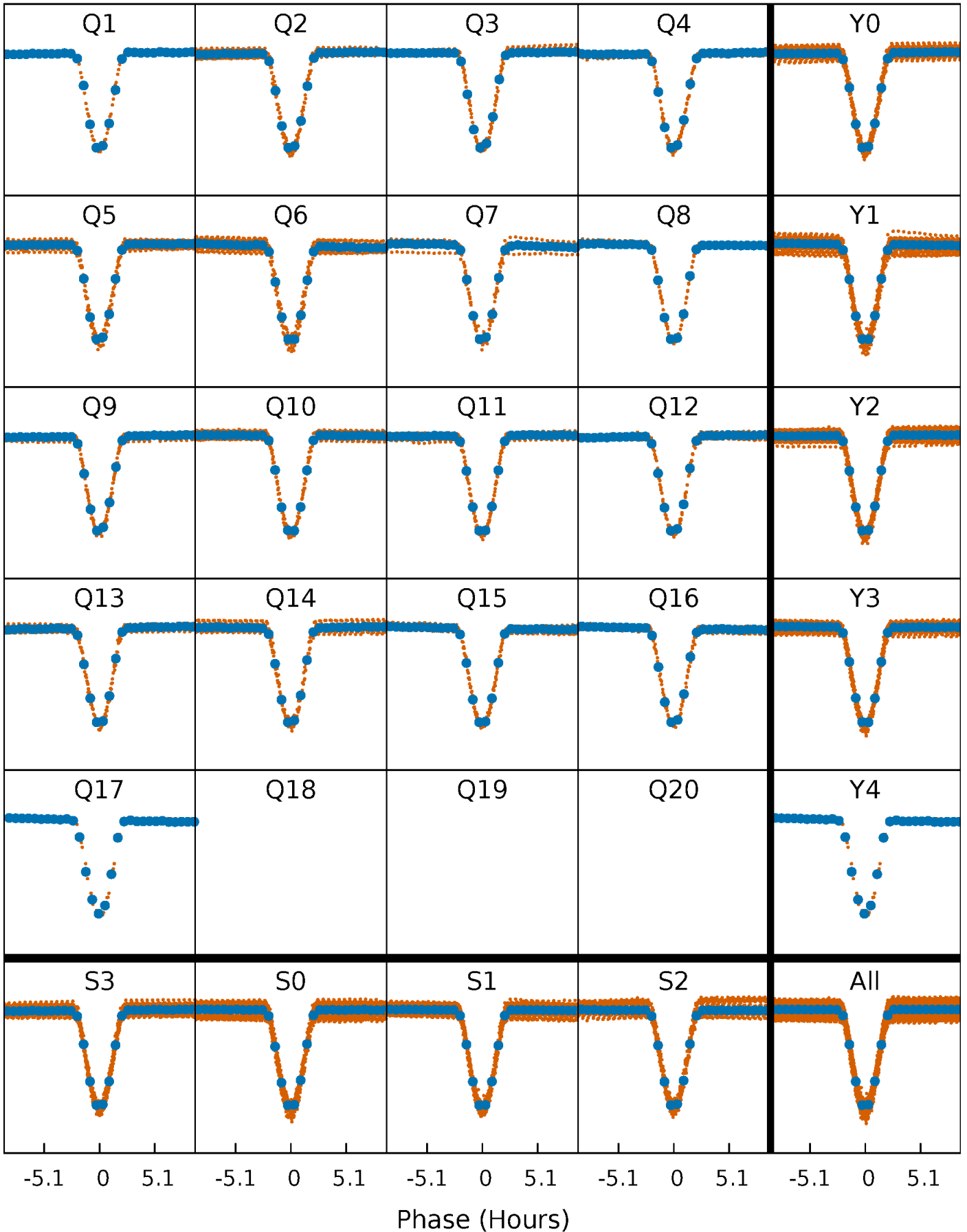


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



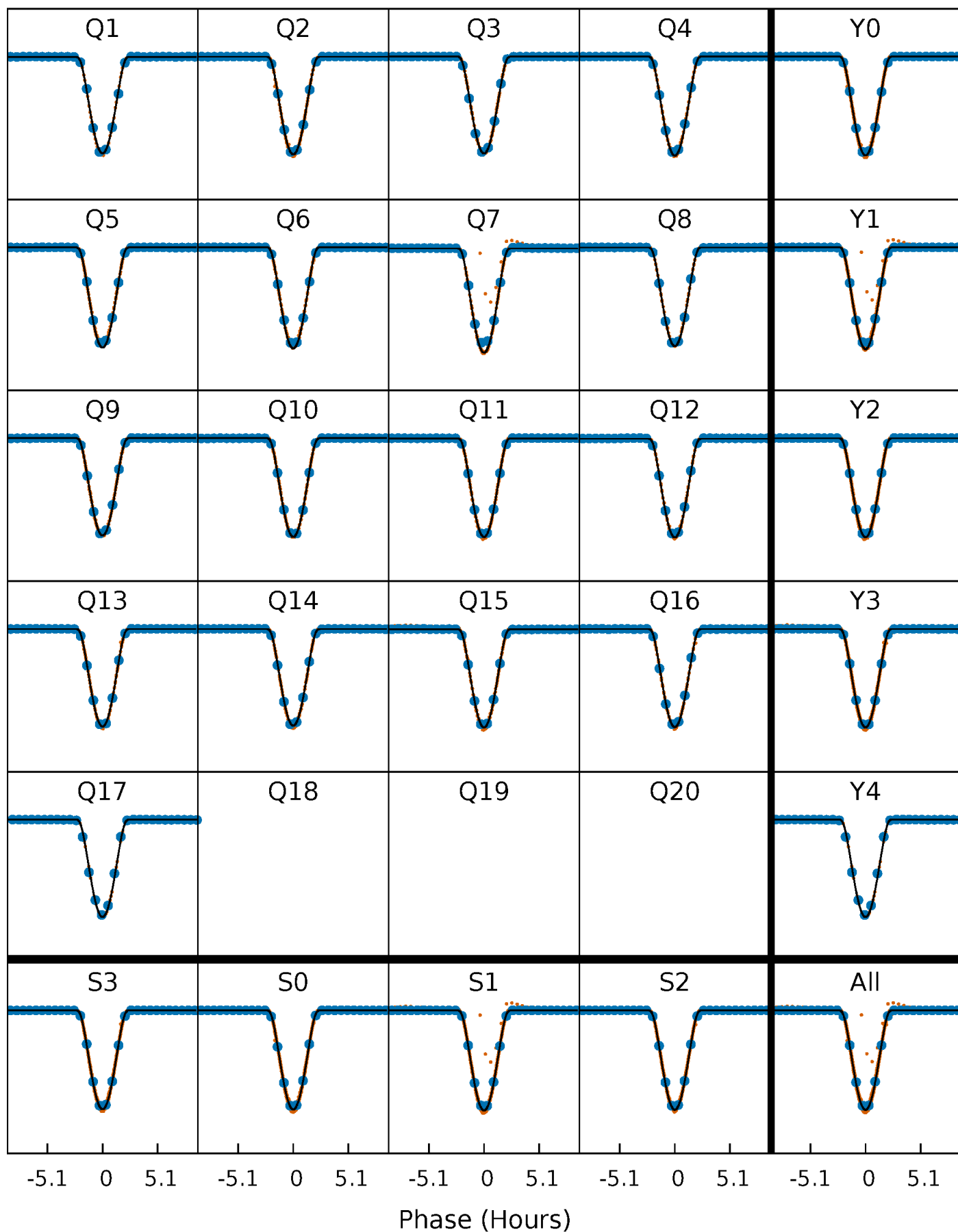
PDC Quarter-Phased Transit Curves

TCE 006468938-01 P= 7.217009 Days $T_0=135.452642$ (BKJD)



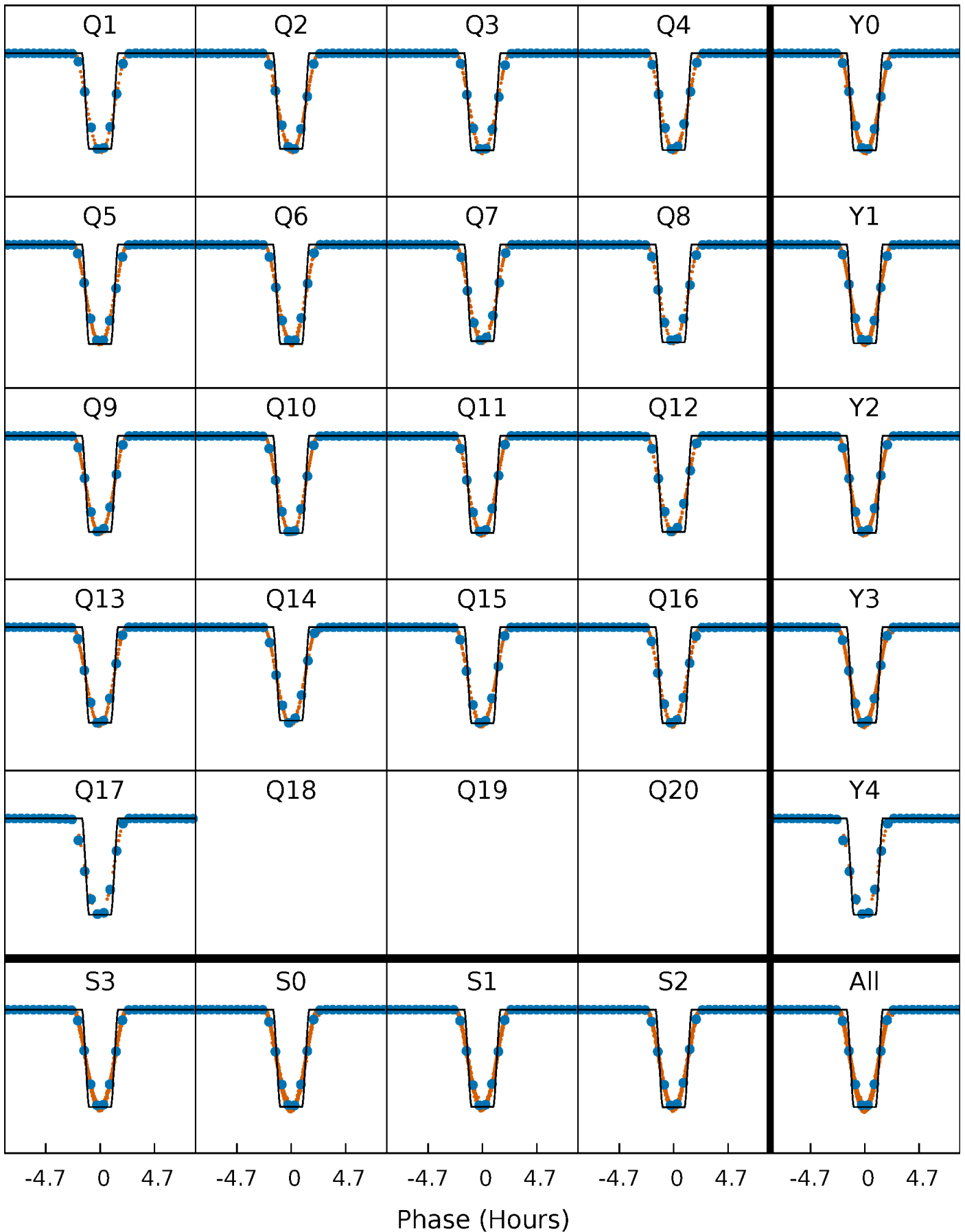
DV Quarter-Phased Transit Curves

TCE 006468938-01 P= 7.217009 Days $T_0=135.452642$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

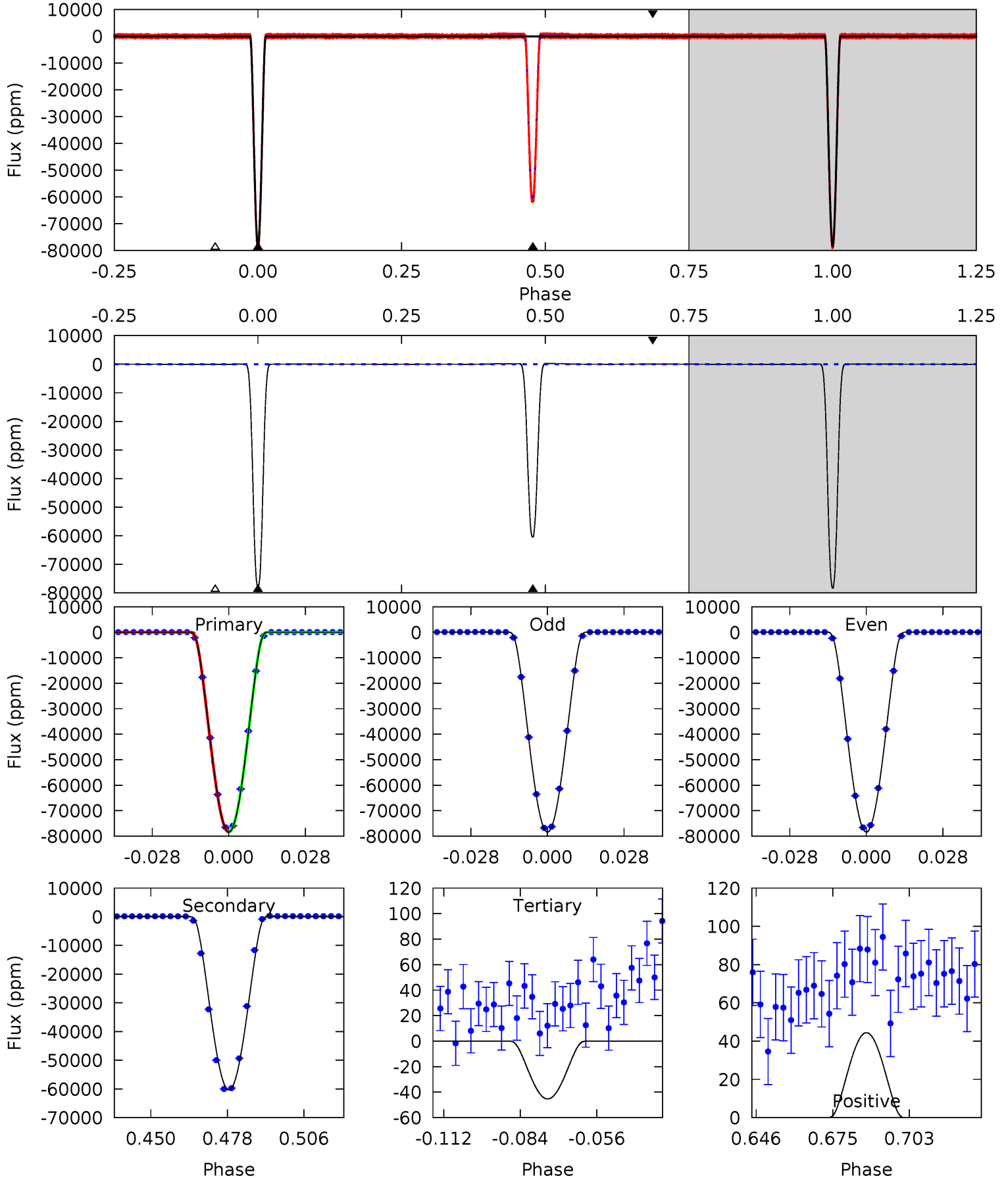
TCE 006468938-01 P= 7.217037 Days $T_0=135.449857$ (BKJD)



DV Model-Shift Uniqueness Test

006468938-01, P = 7.217009 Days, E = 128.235633 Days

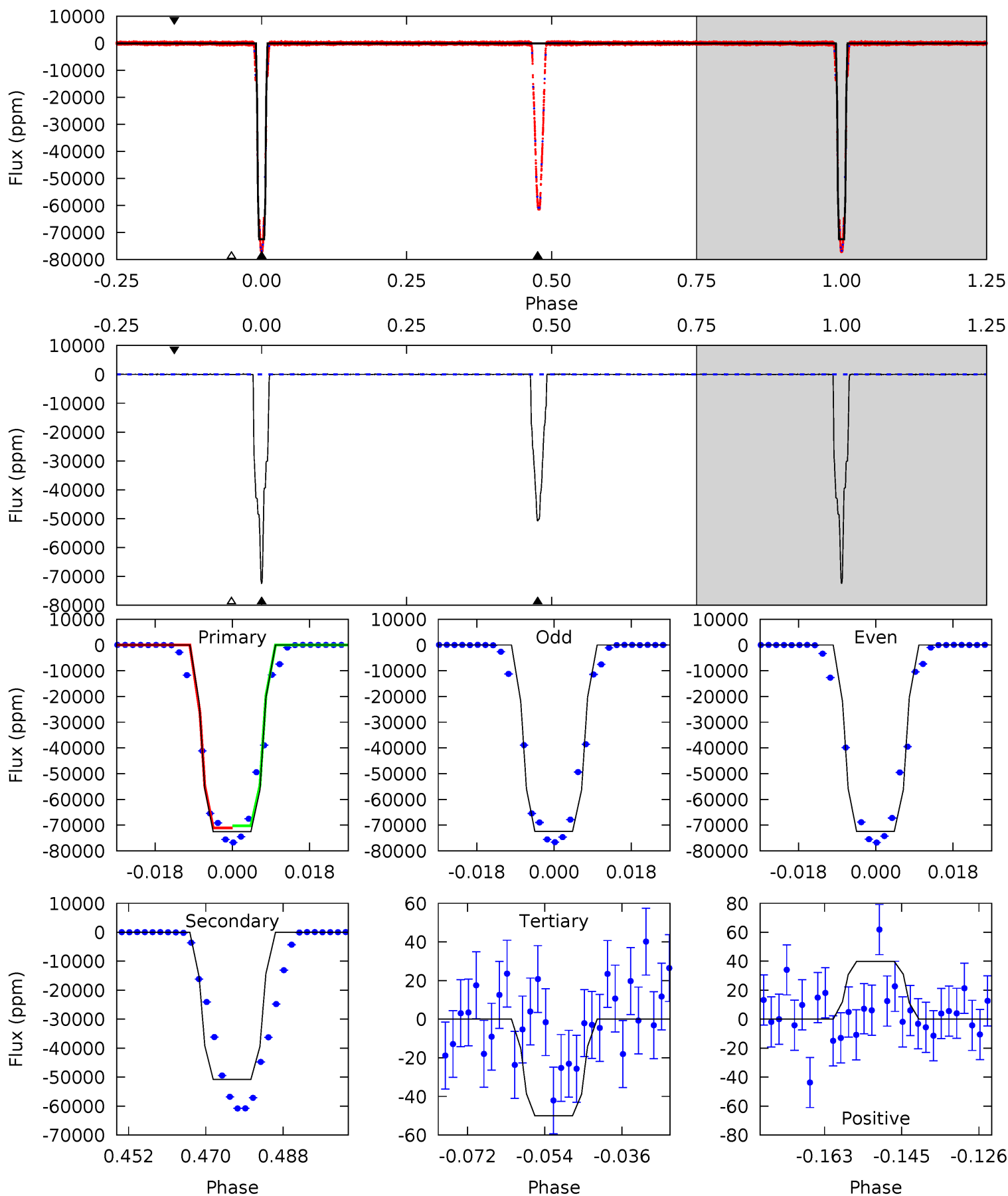
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12859	9908	7.44	7.29	4.82	2.20	9.28	12851	12851	9900	9901	1.64	1.00	0.00	0



Alt Model-Shift Uniqueness Test

006468938-01, P = 7.217037 Days, E = 128.232820 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5925	4148	4.09	3.26	4.91	2.36	1.25	5921	5922	4144	4145	1.47	1.00	0.00	1.80



Stellar Parameters For KIC 006468938

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6047^{+163}_{-181}	$4.246^{+0.220}_{-0.180}$	$-0.320^{+0.300}_{-0.300}$	$1.211^{+0.343}_{-0.312}$	$0.943^{+0.143}_{-0.095}$	$0.748^{+0.883}_{-0.351}$
	+3%/-3%	+5%/-4%	+94%/-94%	+28%/-26%	+15%/-10%	+118%/-47%
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 006468938-01 / KOI 6718.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-60375 ± 6	$48.70^{+7.15}_{-6.93}$	1524^{+124}_{-106}	5085^{+122}_{-126}	77^{+27}_{-18}
Alt.	-50757 ± 12	$36.65^{+6.00}_{-4.73}$	1524^{+120}_{-105}	5541^{+146}_{-148}	113^{+33}_{-29}

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 $A_{obs} \gg 1.0$

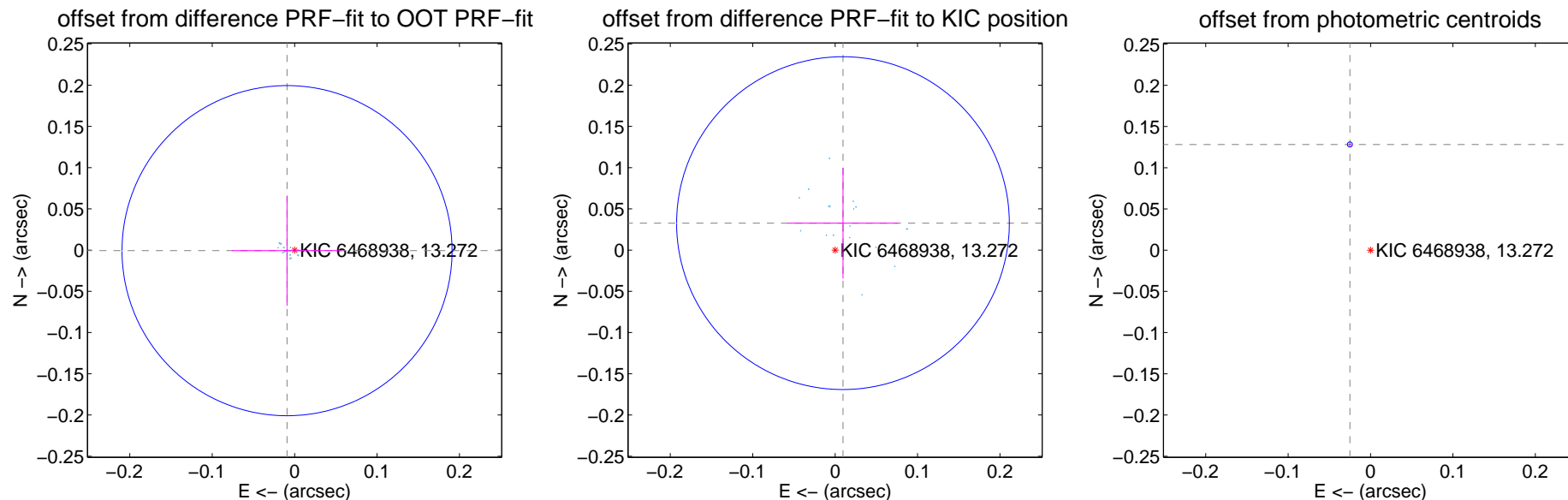
DV Centroid Data

Supplemental centroid analysis for 006468938-01. Kepler magnitude: 13.27. Transit SNR 5305.55

There are 17 quarters with good PRF difference image offsets

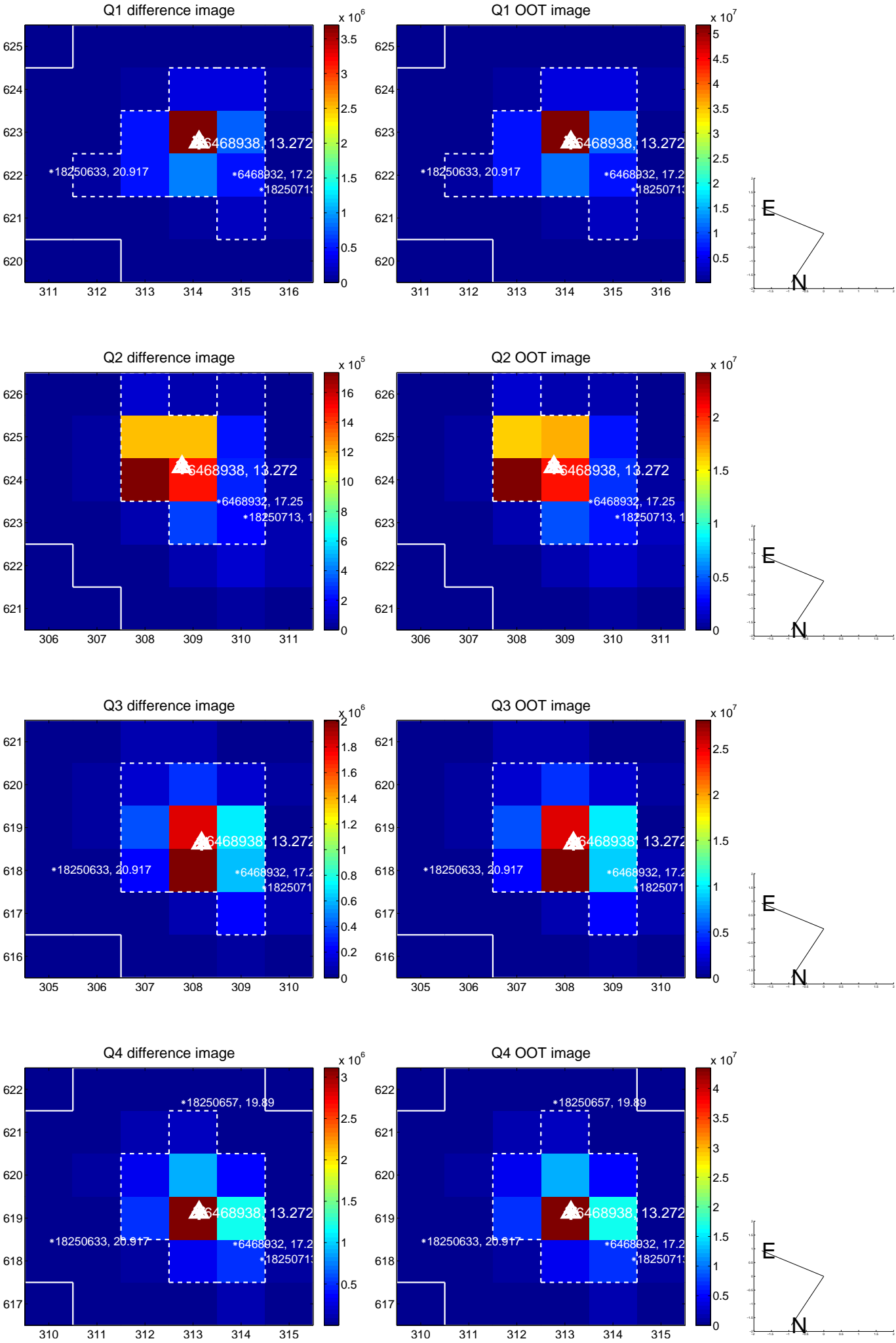
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.009 ± 0.067	0.14	0.009 ± 0.067	-0.001 ± 0.067
PRF-fit source offset from KIC position	0.034 ± 0.067	0.51	-0.010 ± 0.067	0.033 ± 0.067
photometric centroid source offset	0.13 ± 0.00	128.96	0.03 ± 0.00	0.13 ± 0.00

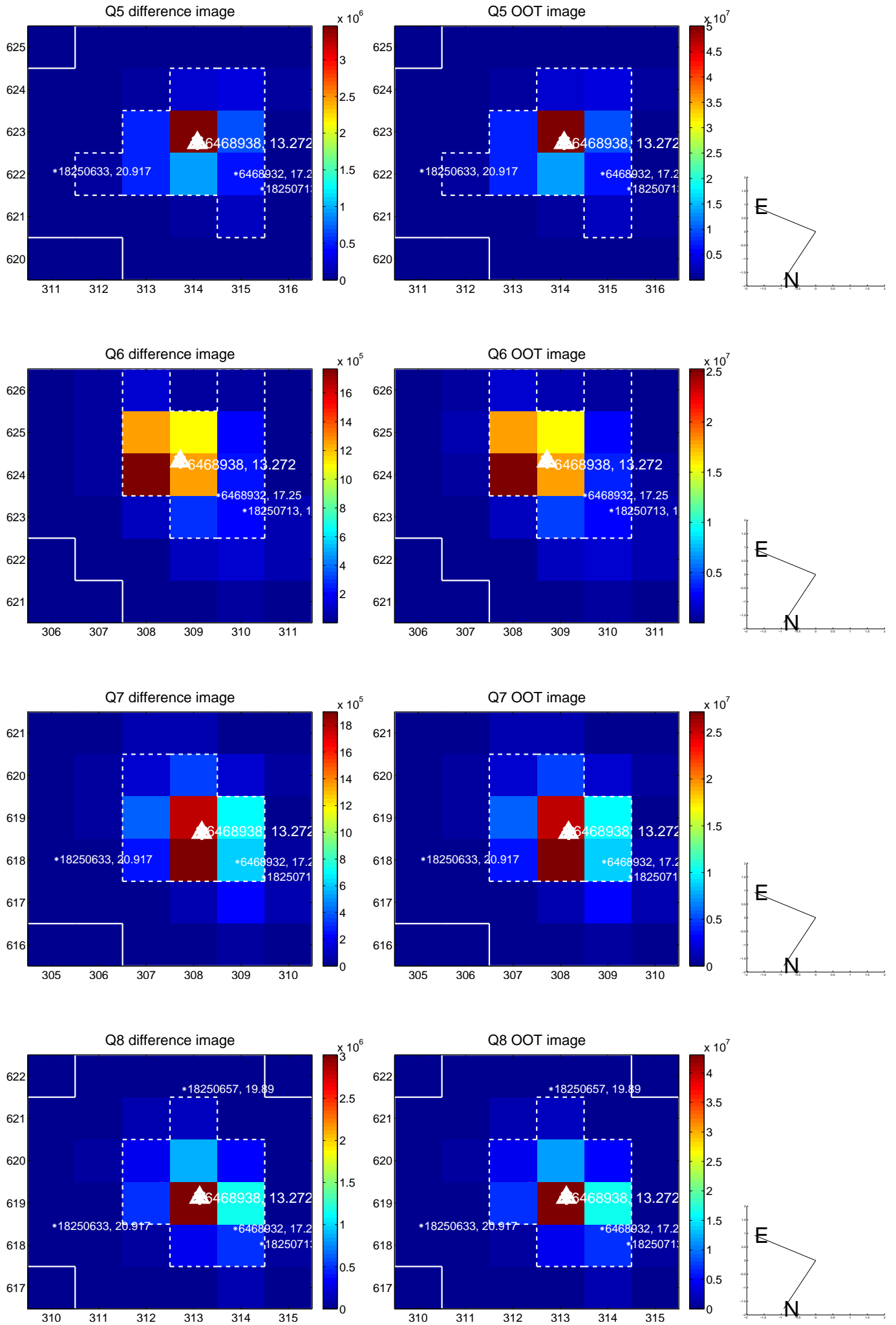


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

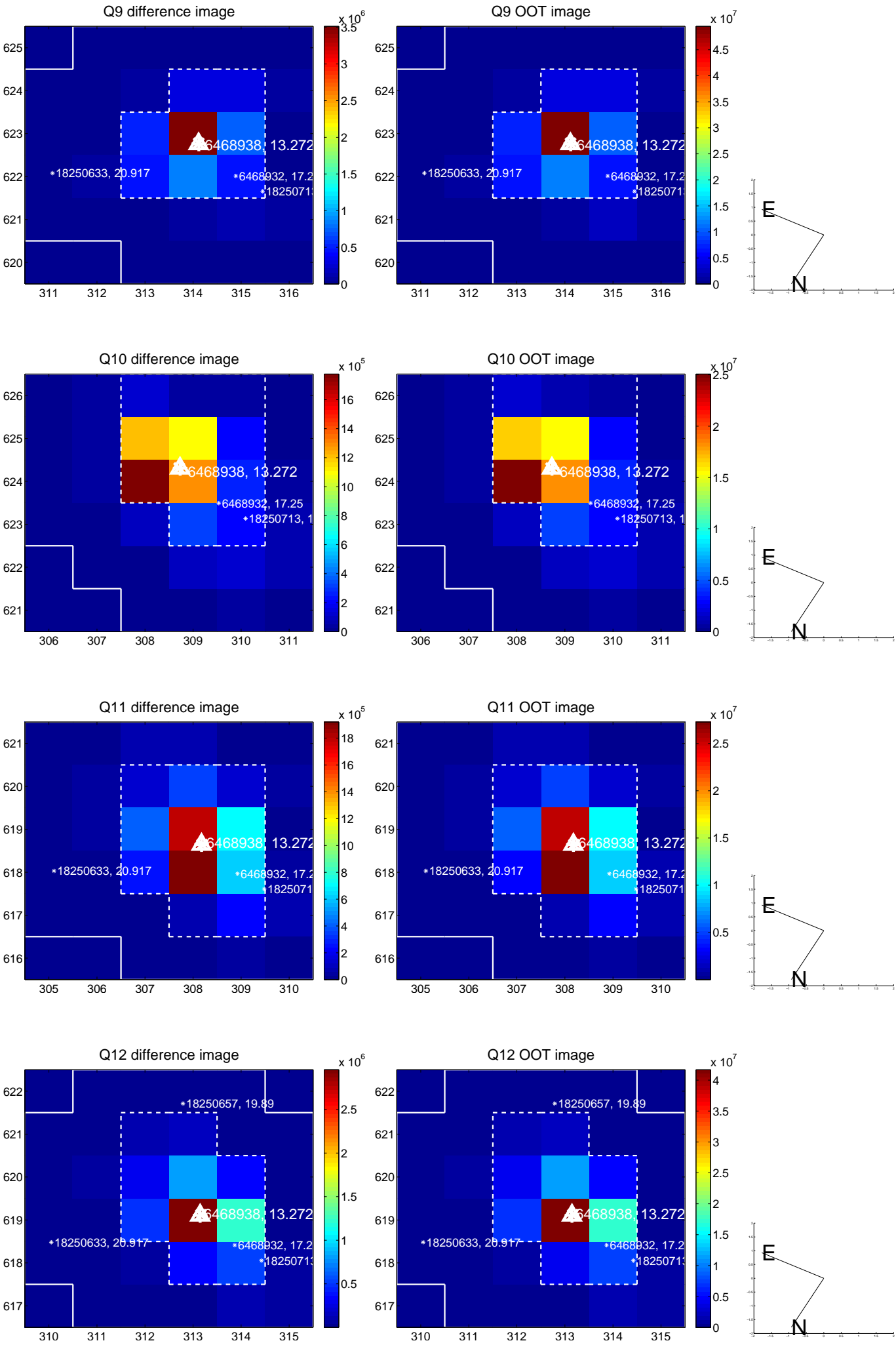
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



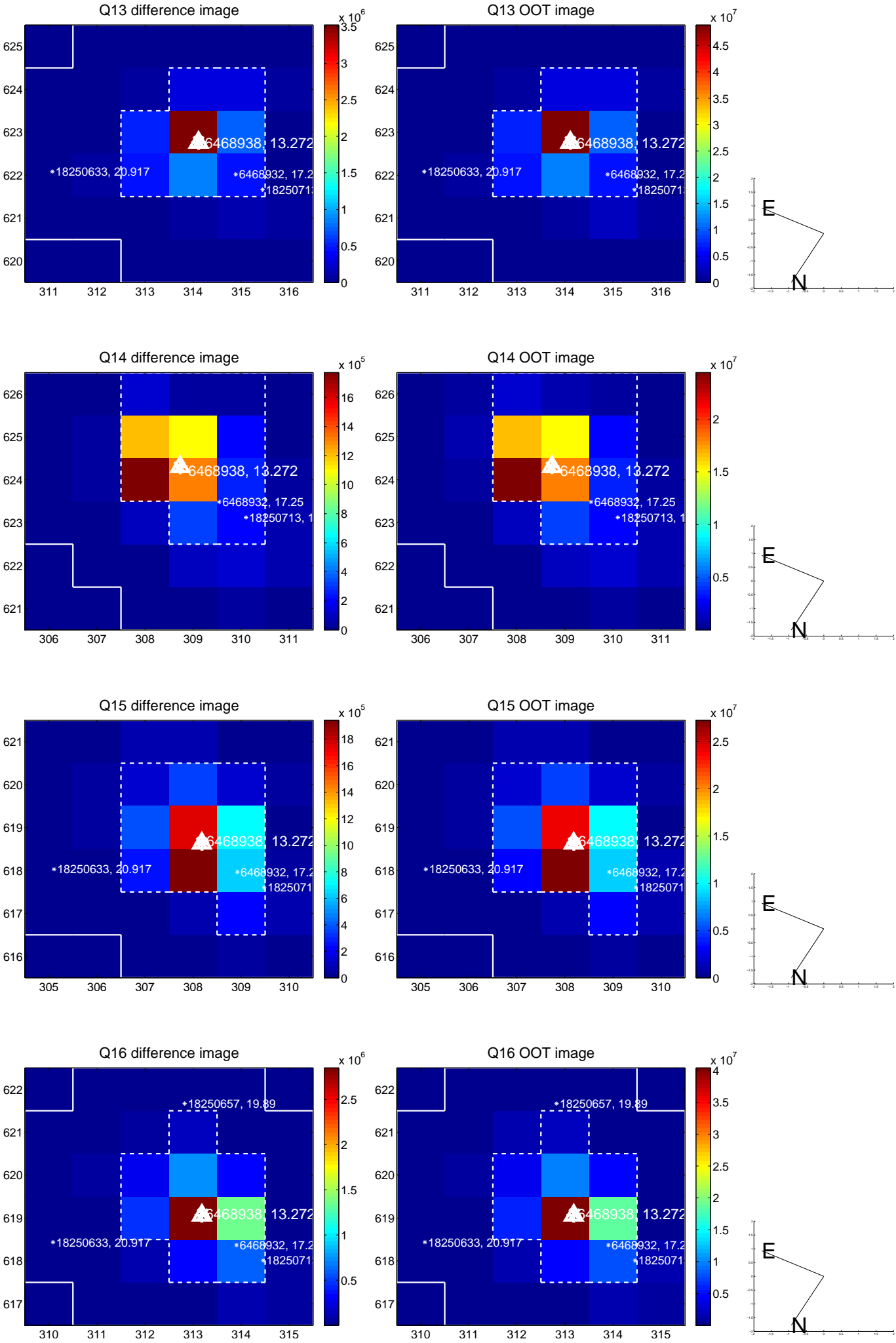
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



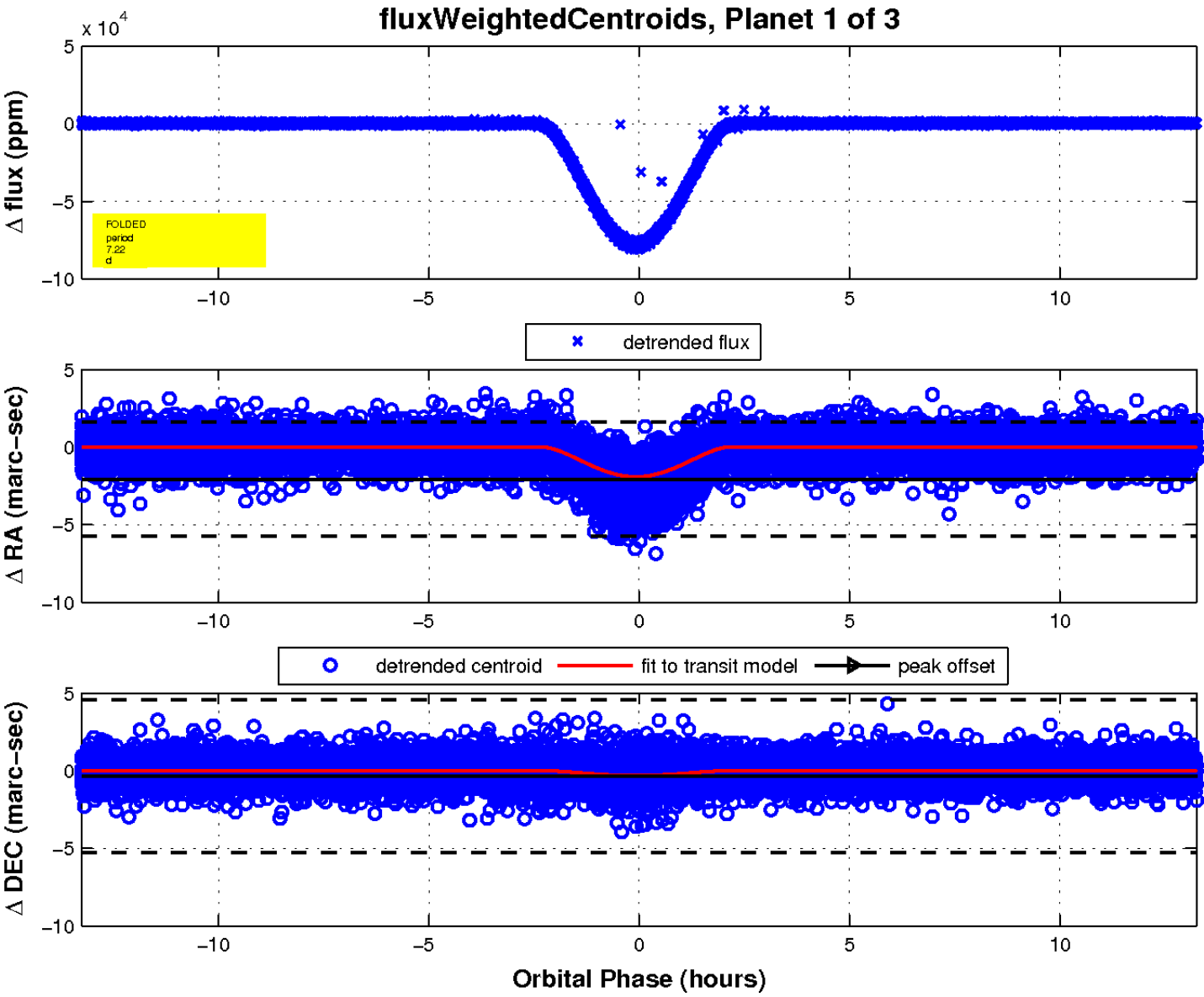
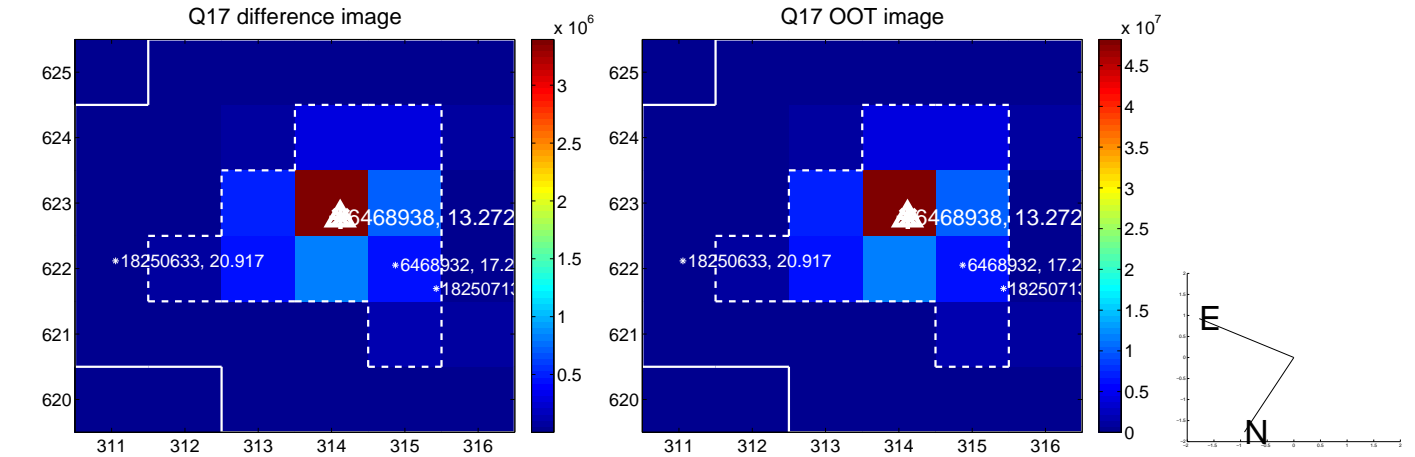
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white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

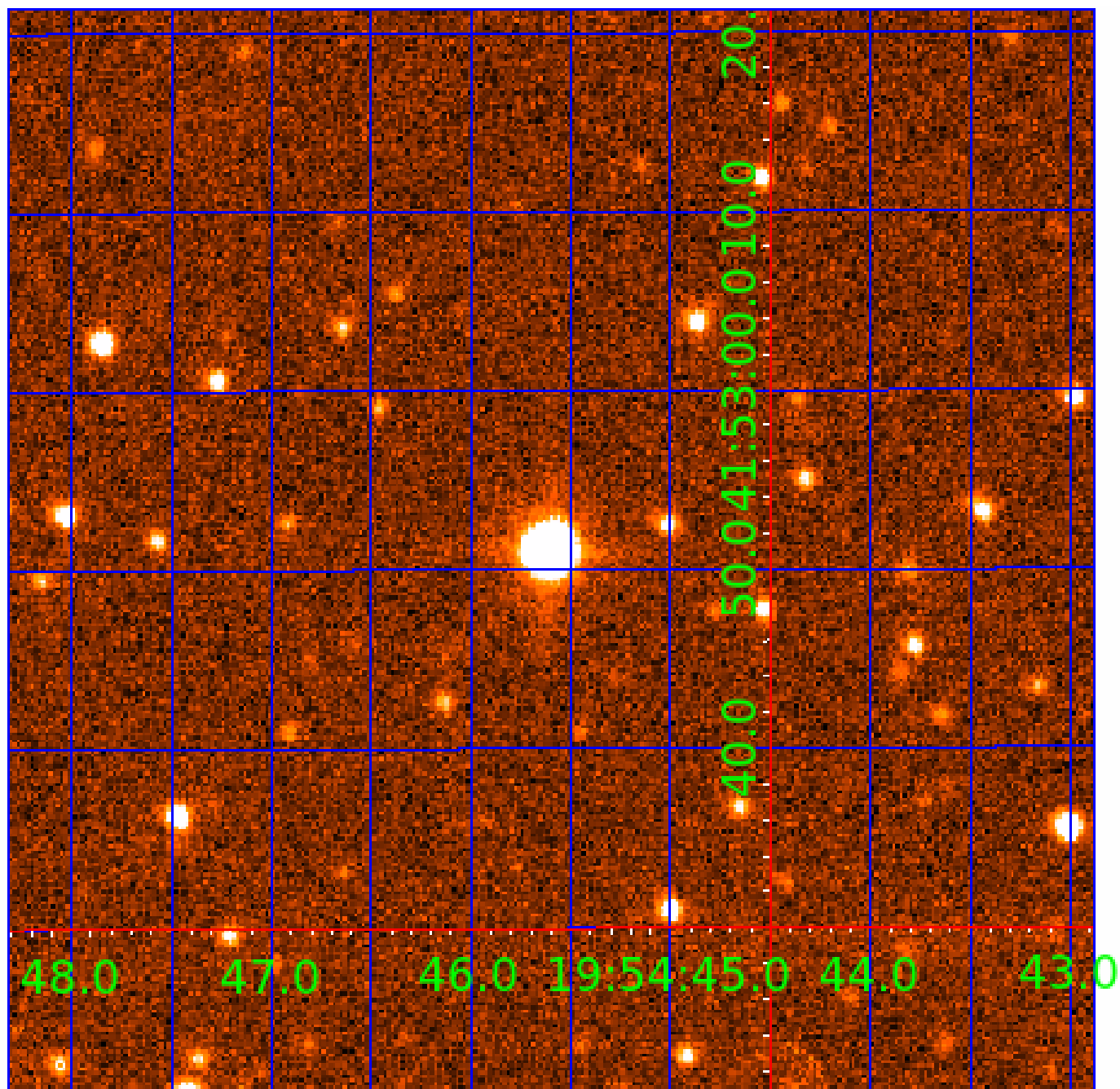


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006468938

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})
006468938-01	OBS	6718.01	7.217009	135.452642	78383.4	4.420	6998.7	5305.5	1.21	6047	48.58	341.99
006468938-02	OBS	No	7.217009	131.684629	62750.0	4.359	5675.2	4759.4	1.21	6047	46.38	341.99
006468938-03	OBS	No	328.047183	147.823786	1621.3	4.500	28.5	-1.0	1.21	6047	4.88	2.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006468938-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
006468938-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006468938-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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.

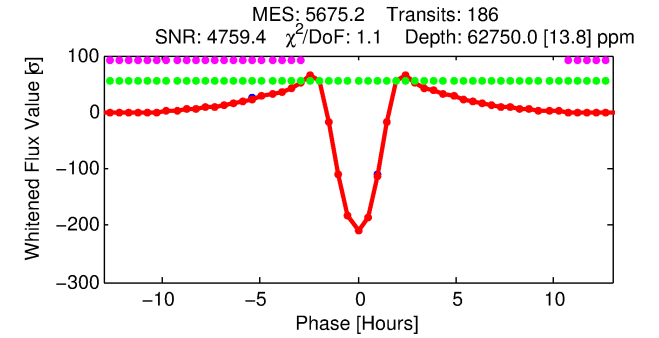
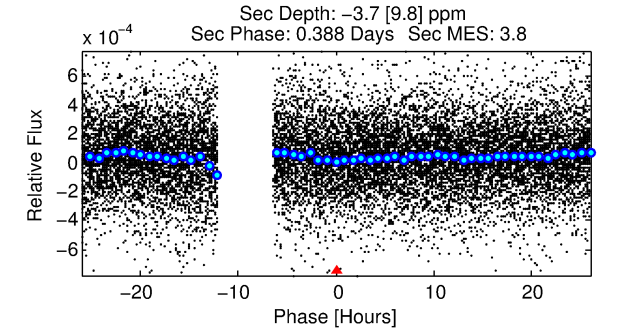
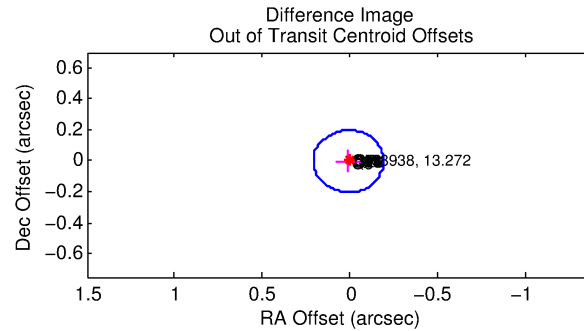
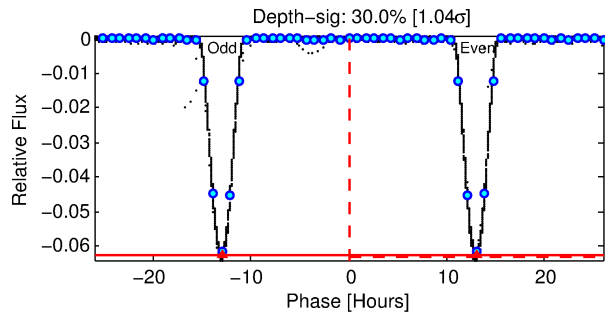
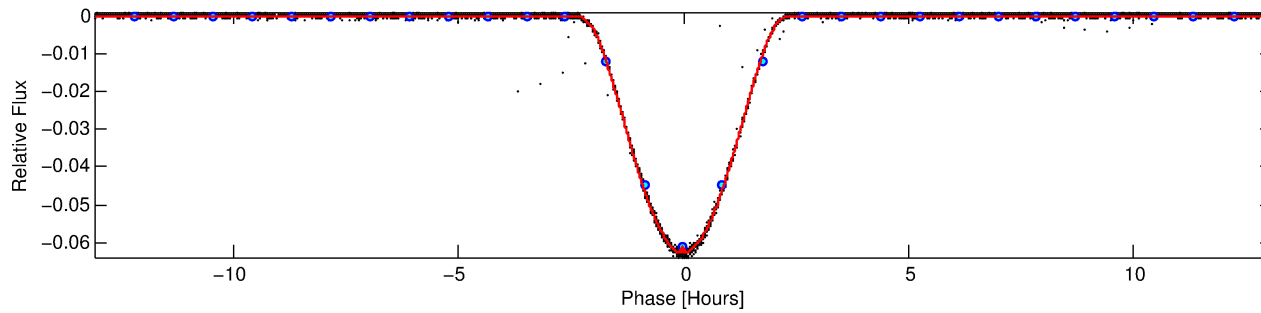
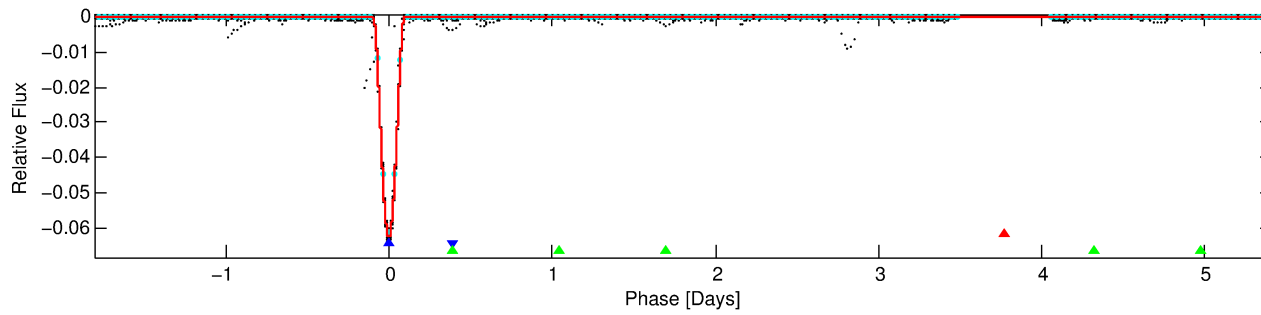
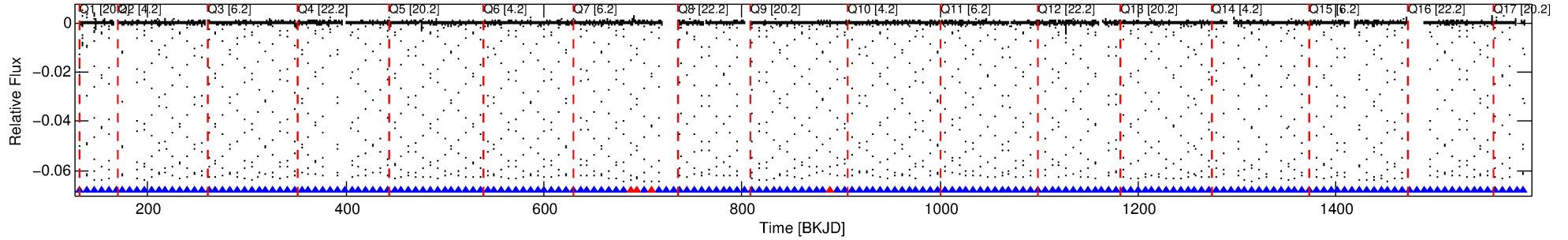
Ephemeris Match Information For 006468938-02

No Significant Match Found

DV One-Page Summary

KIC: 6468938 Candidate: 2 of 3 Period: 7.217 d
KOI: K06718 Corr: No Ephemeris Match

Kp: 13.27 R*: 1.21 Rs Teff: 6047.0 K Logg: 4.25 Fe/H: -0.320



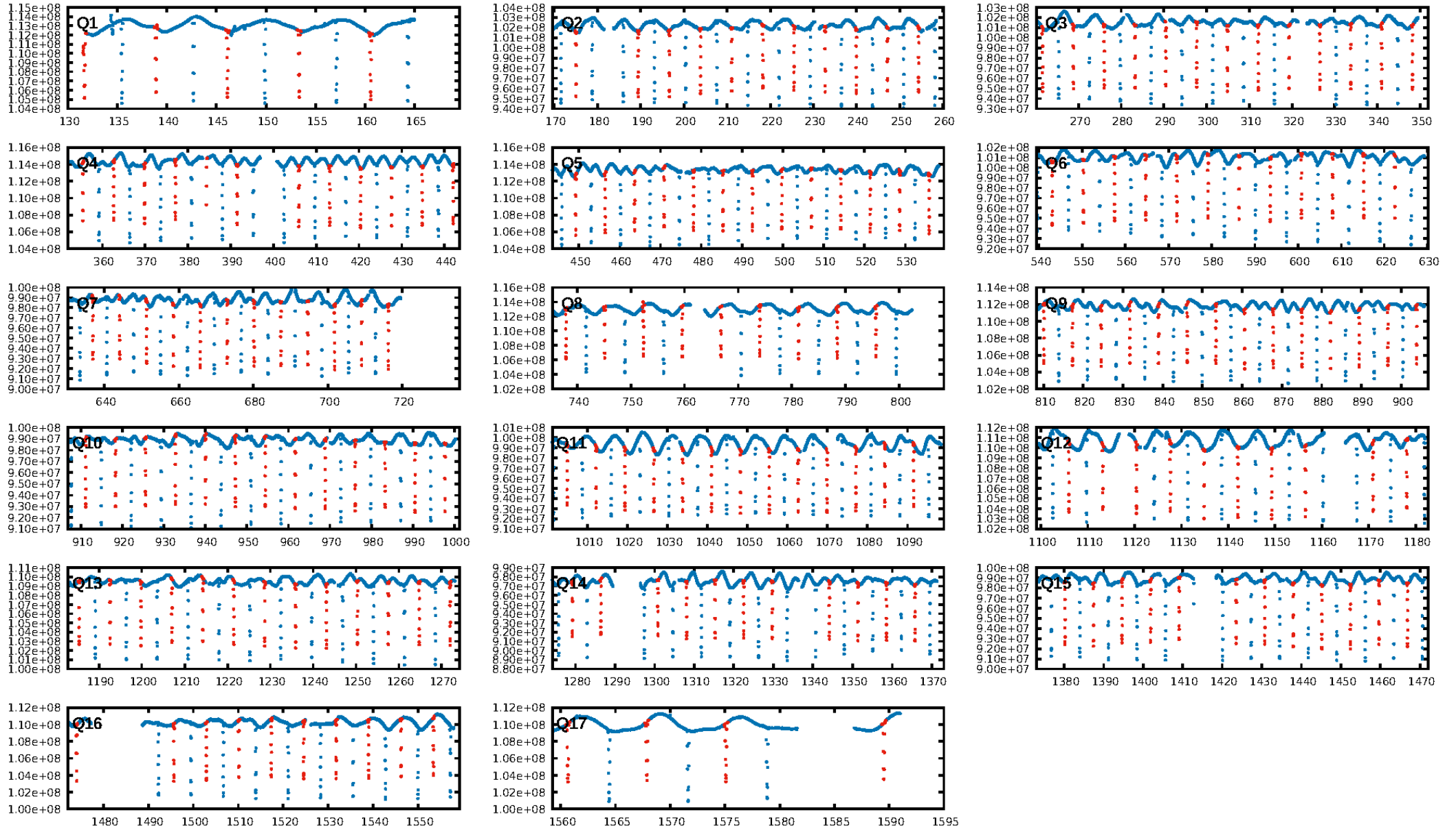
DV Fit Results:

Period = 7.21701 [0.00000] d
Epoch = 131.6846 [0.0000] BKJD
Rp/R* = 0.3510 [0.0038]
a/R* = 12.29 [0.00]
b = 0.94 [0.01]
Seff = 341.99 [138.51]
Teq = 1097 [111] K
Rp = 46.38 [13.15] Re
a = 0.0717 [0.0182] AU
Ag = N/A
Teffp = N/A

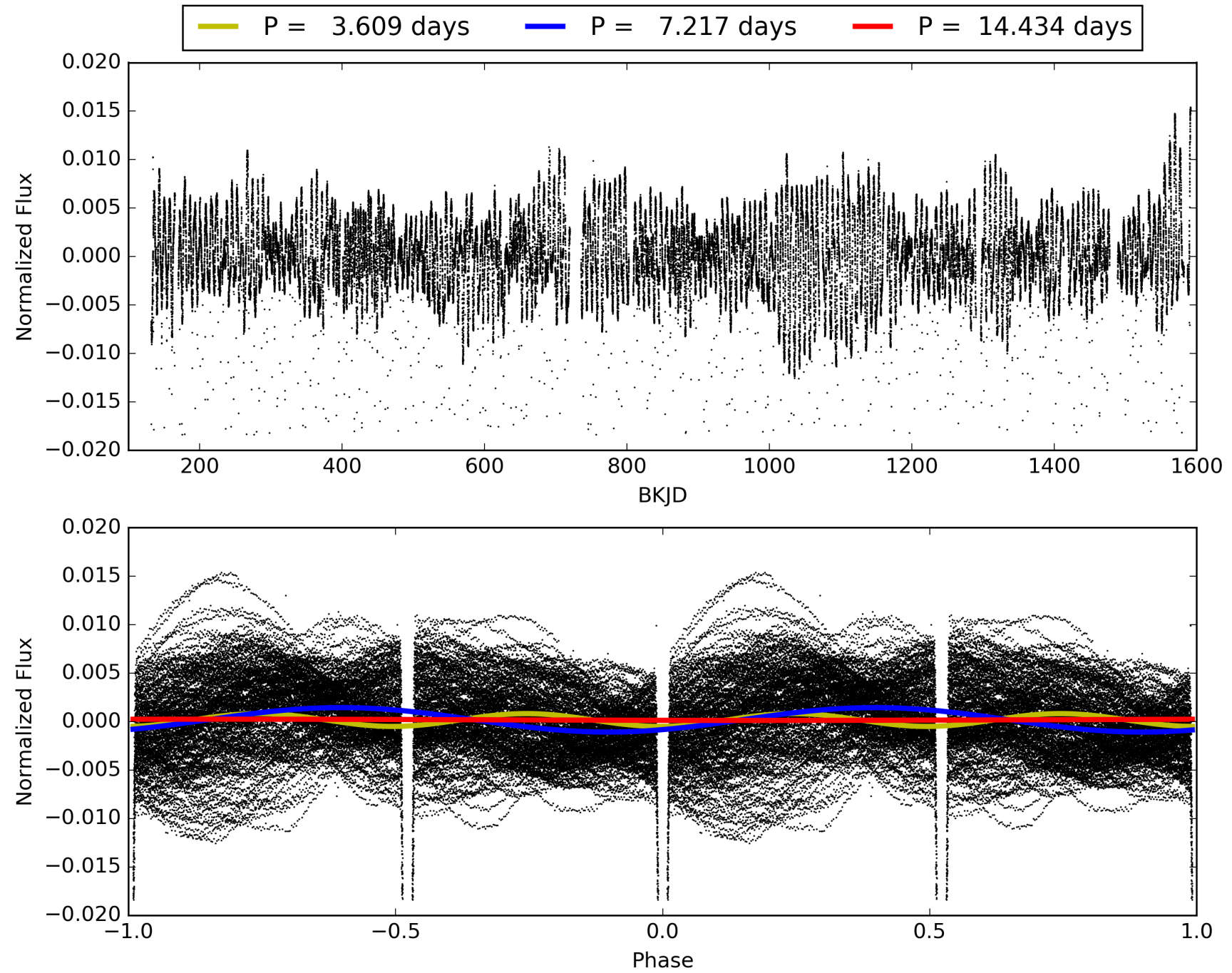
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 79.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [173/177]
GhostDiagnostic-chr: 2.383
Centroid-sig: 0.0%
Centroid-so: 0.129 arcsec [100.67σ]
OotOffset-rm: 0.010 arcsec [0.14σ]
KicOffset-rm: 0.020 arcsec [0.29σ]
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]

TCE 006468938-02, PDC Light Curves

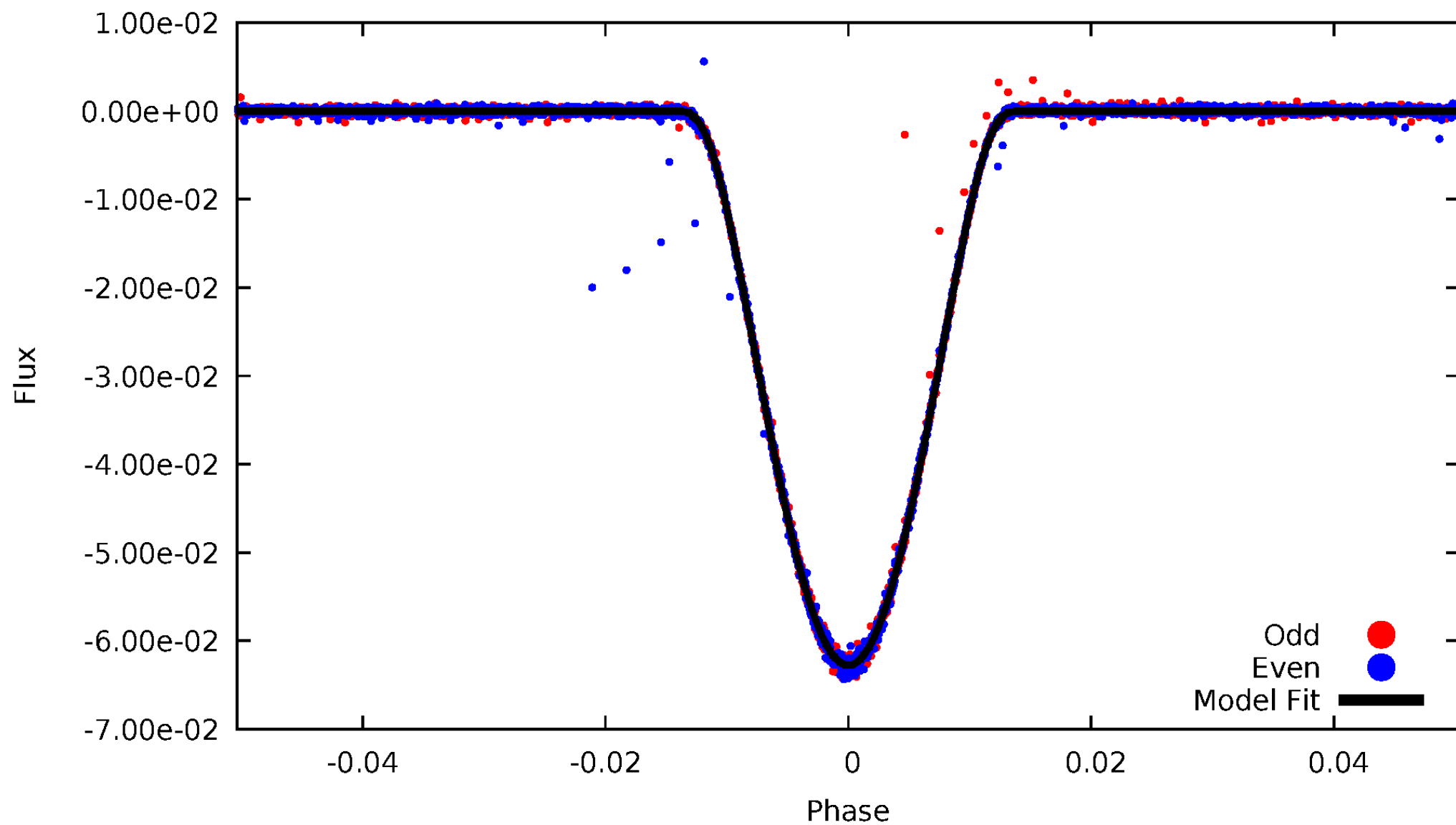


TCE 006468938-02



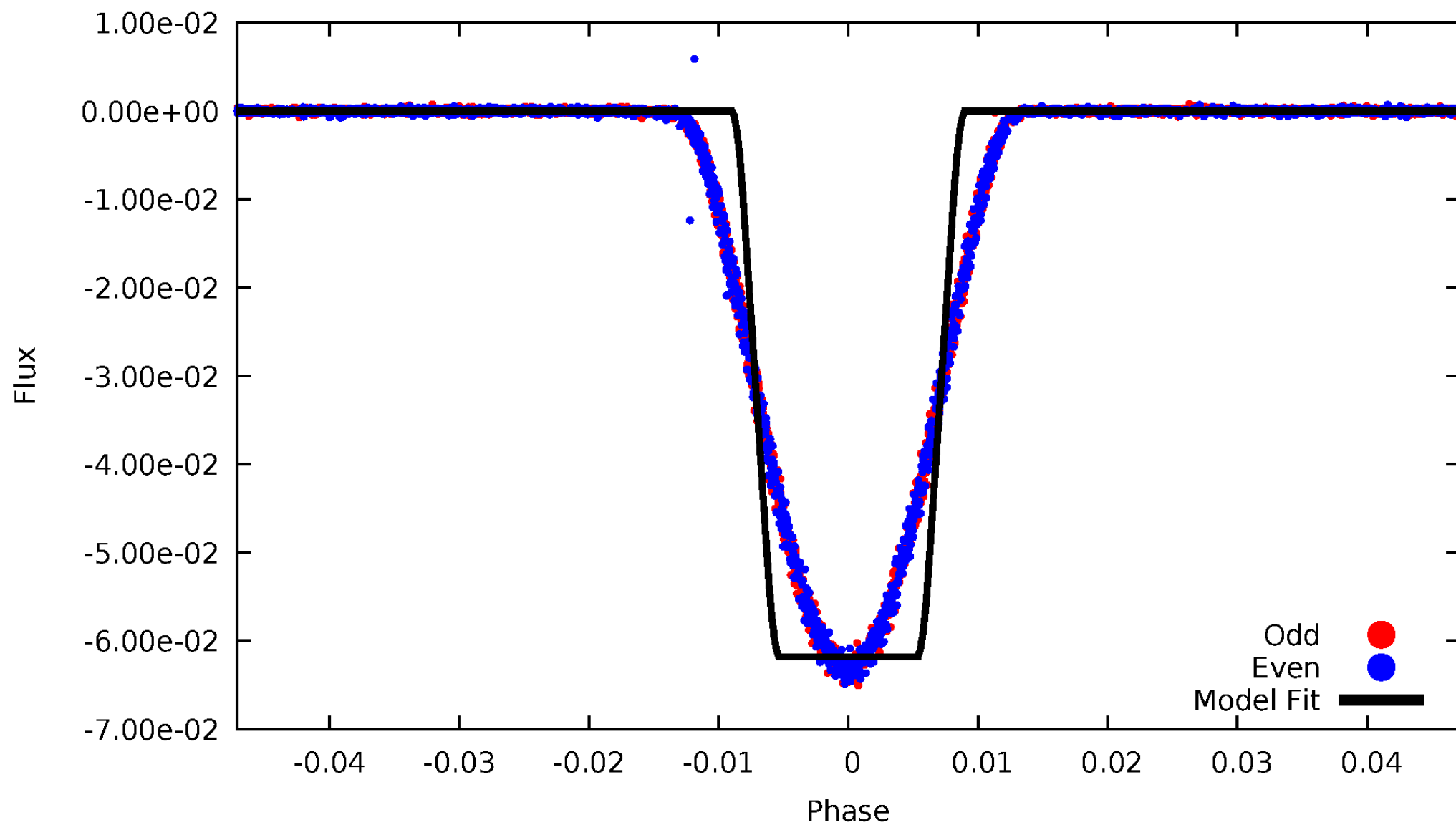
DV Odd/Even

TCE 006468938-02



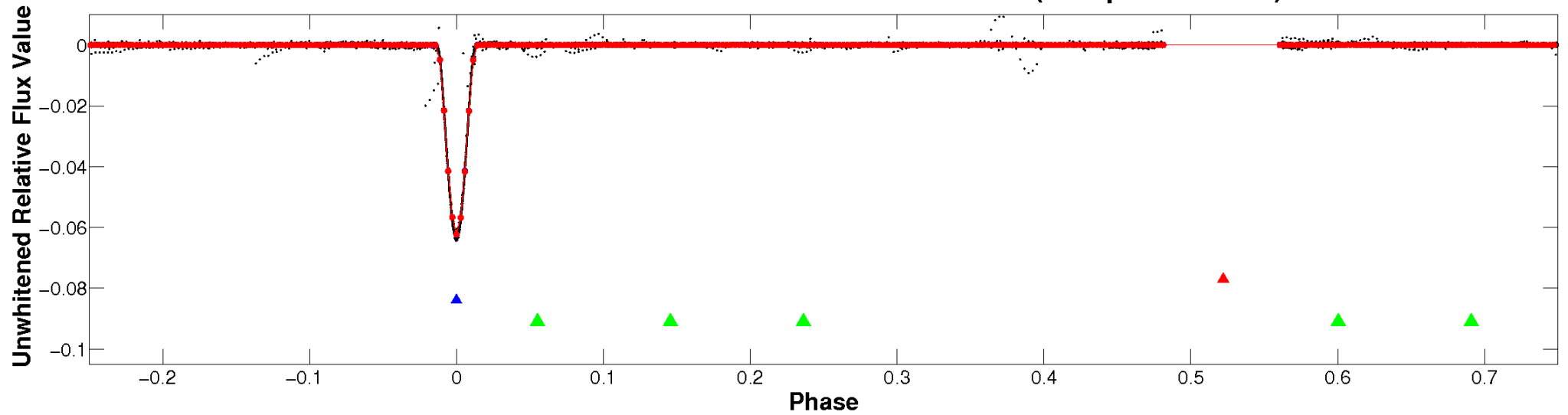
ALT Odd/Even

TCE 006468938-02

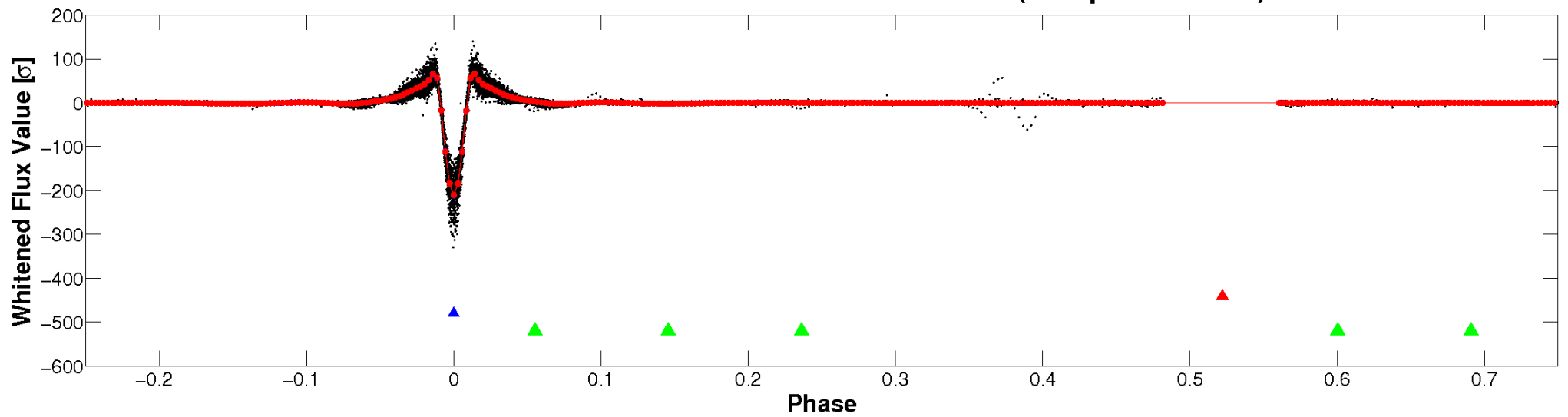


Non-Whitened Vs. Whitened Light Curve

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

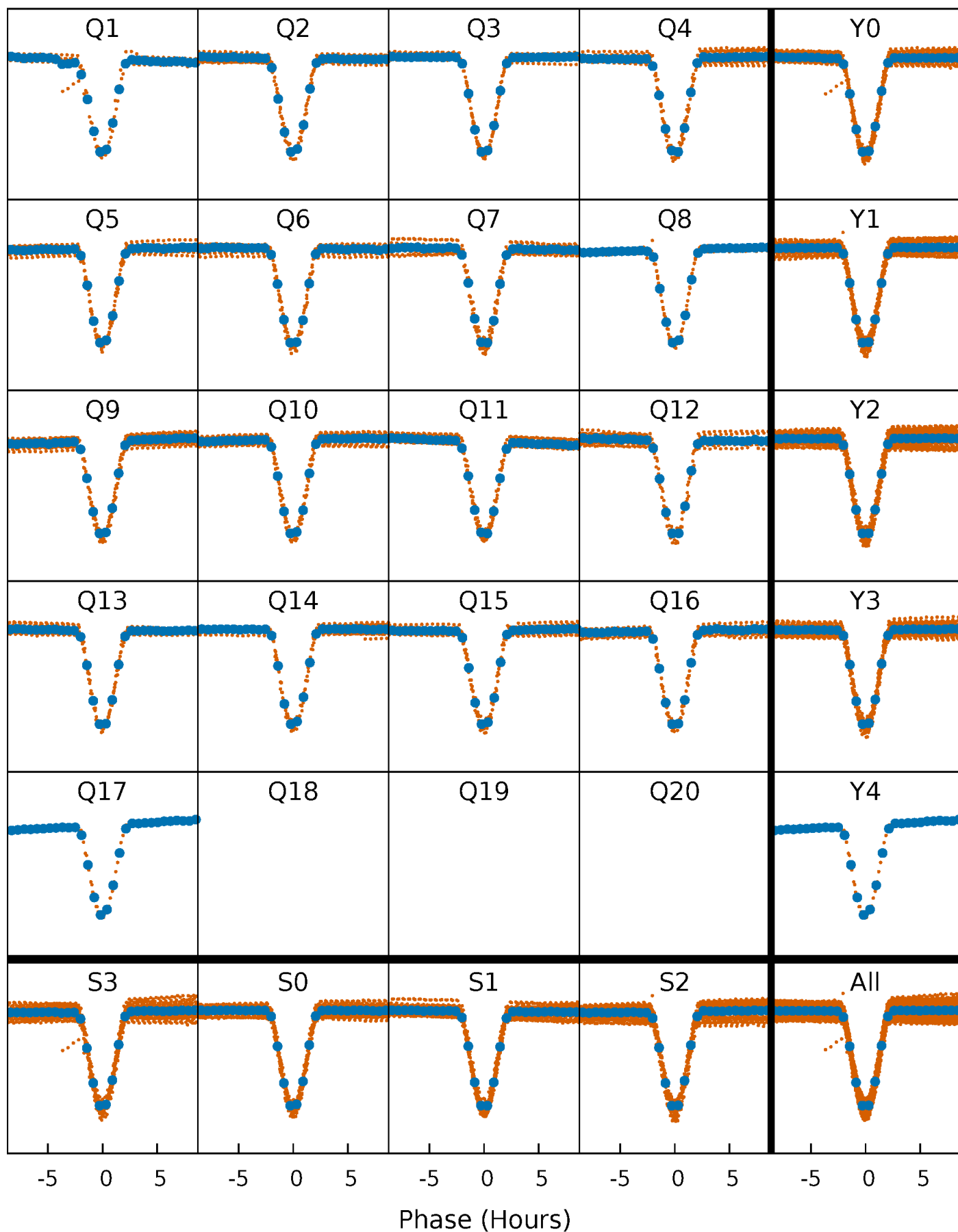


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



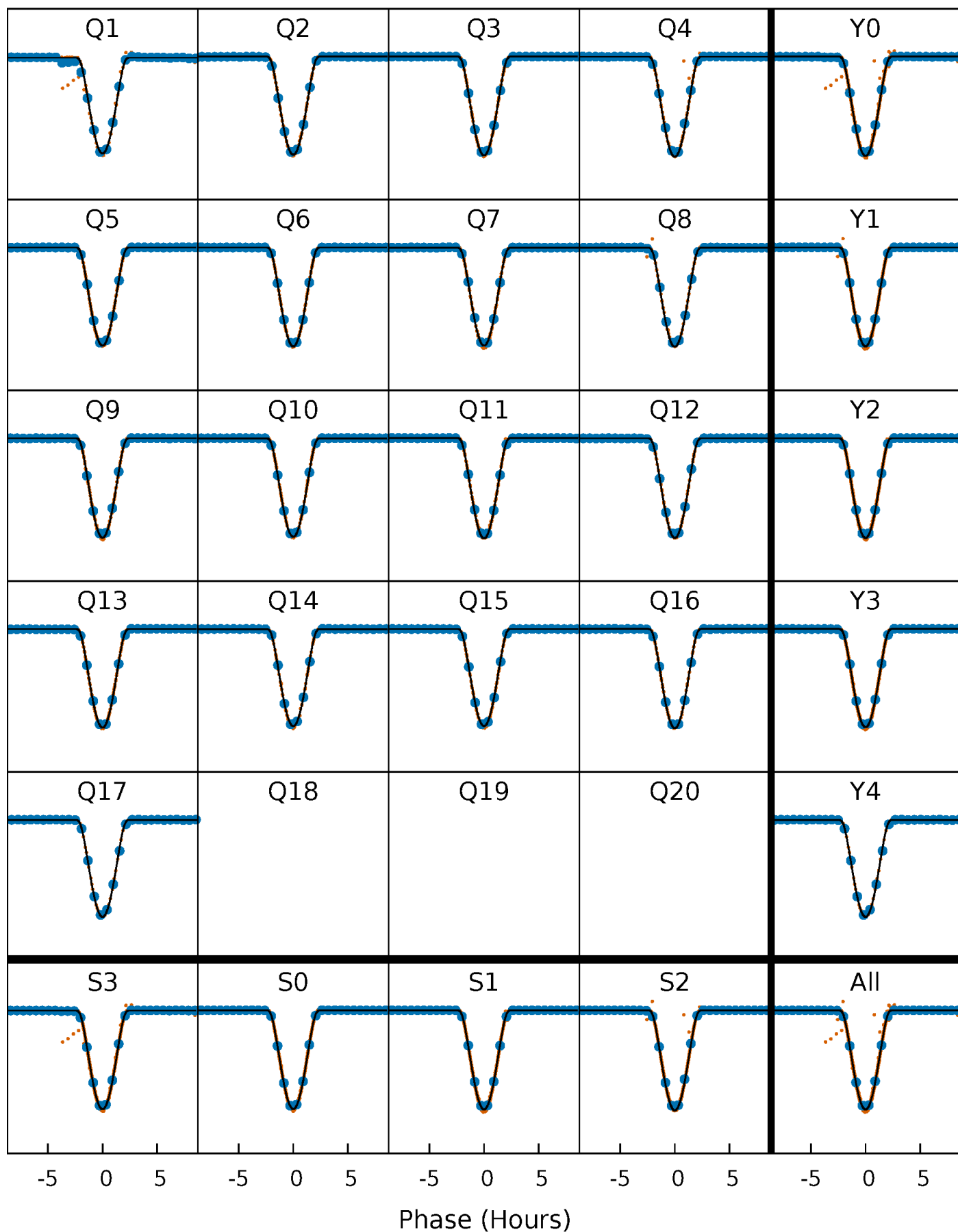
PDC Quarter-Phased Transit Curves

TCE 006468938-02 P= 7.217009 Days $T_0=131.684629$ (BKJD)



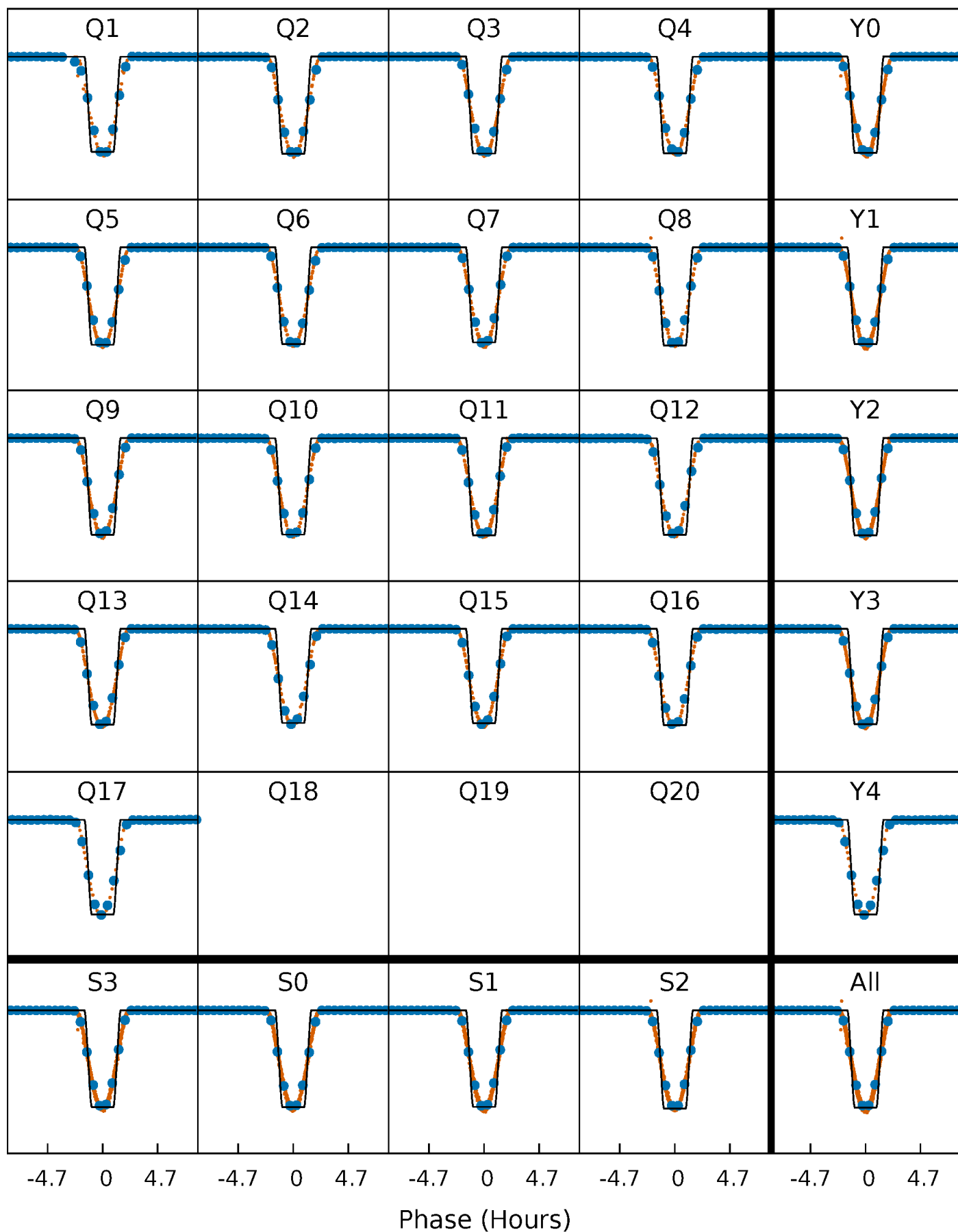
DV Quarter-Phased Transit Curves

TCE 006468938-02 P= 7.217009 Days $T_0=131.684629$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

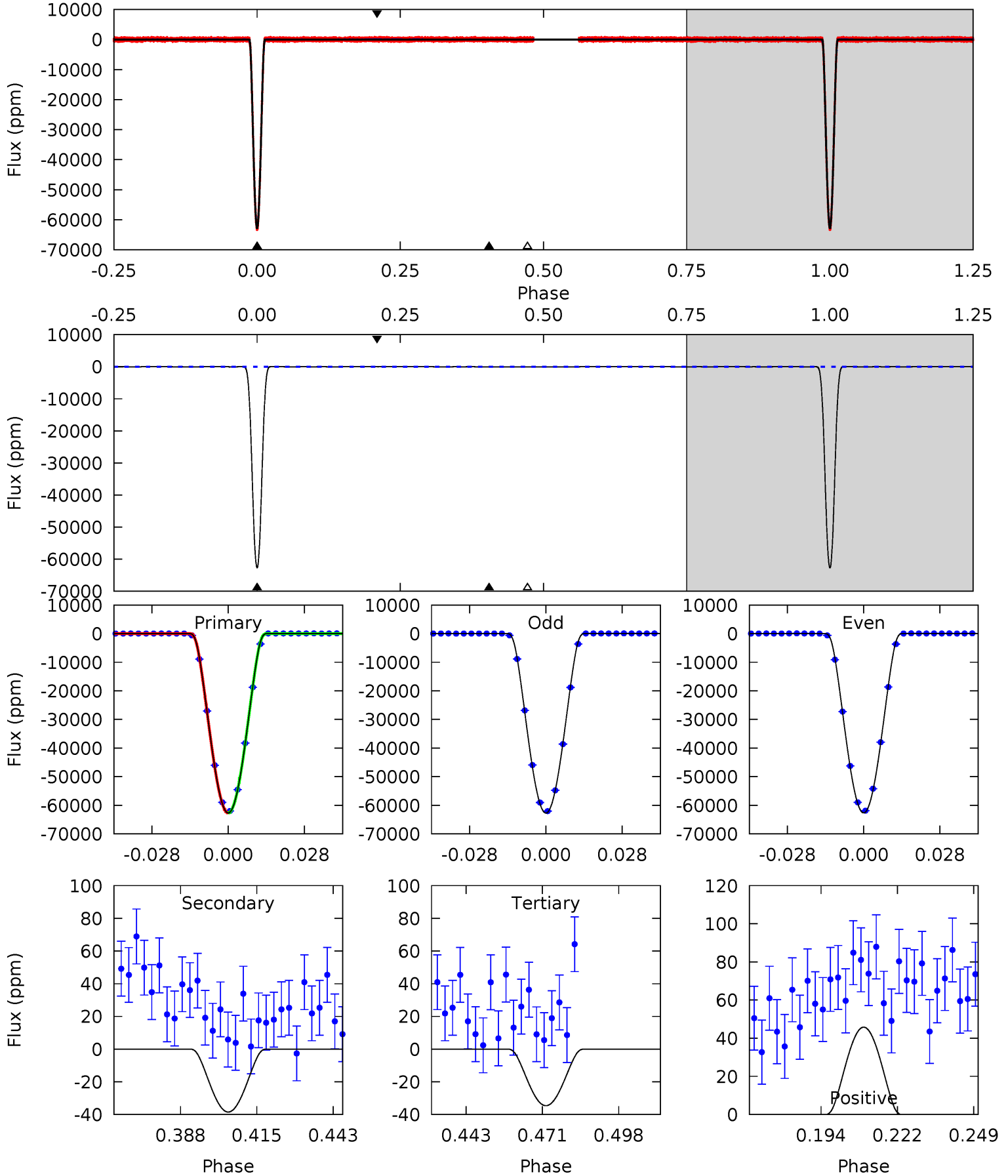
TCE 006468938-02 P= 7.217037 Days $T_0=131.681839$ (BKJD)



DV Model-Shift Uniqueness Test

006468938-02, P = 7.217009 Days, E = 124.467620 Days

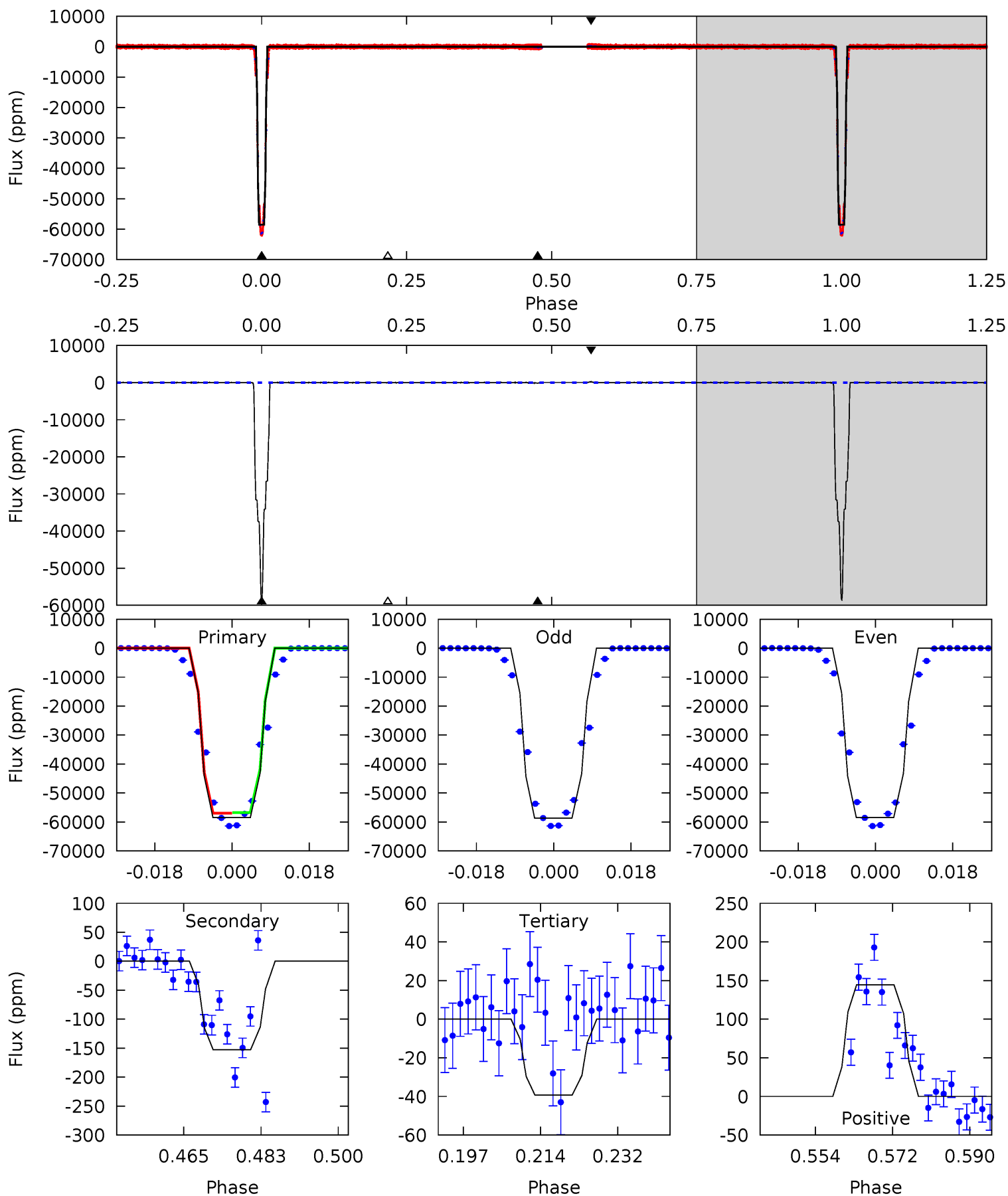
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11362	6.98	6.27	8.30	4.83	2.20	3.38	11356	11354	0.70	-1.32	4.11	1.00	0.00	0.12



Alt Model-Shift Uniqueness Test

006468938-02, P = 7.217037 Days, E = 124.464802 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5428	14.2	3.64	13.4	4.91	2.37	1.43	5424	5415	10.5	0.77	6.44	1.00	0.00	0



Stellar Parameters For KIC 006468938

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6047^{+163}_{-181}	$4.246^{+0.220}_{-0.180}$	$-0.320^{+0.300}_{-0.300}$	$1.211^{+0.343}_{-0.312}$	$0.943^{+0.143}_{-0.095}$	$0.748^{+0.883}_{-0.351}$
	+3%/-3%	+5%/-4%	+94%/-94%	+28%/-26%	+15%/-10%	+118%/-47%
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 006468938-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-38 ± 6	$46.61^{+7.21}_{-6.05}$	1532^{+109}_{-118}	-2163^{+90}_{-78}	$0.050^{+0.020}_{-0.013}$
Alt.	-153 ± 11	$32.92^{+5.30}_{-4.28}$	1526^{+122}_{-109}	1963^{+128}_{-945}	$0.401^{+0.135}_{-0.101}$

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 $A_{\text{obs}} \gg 1.0$

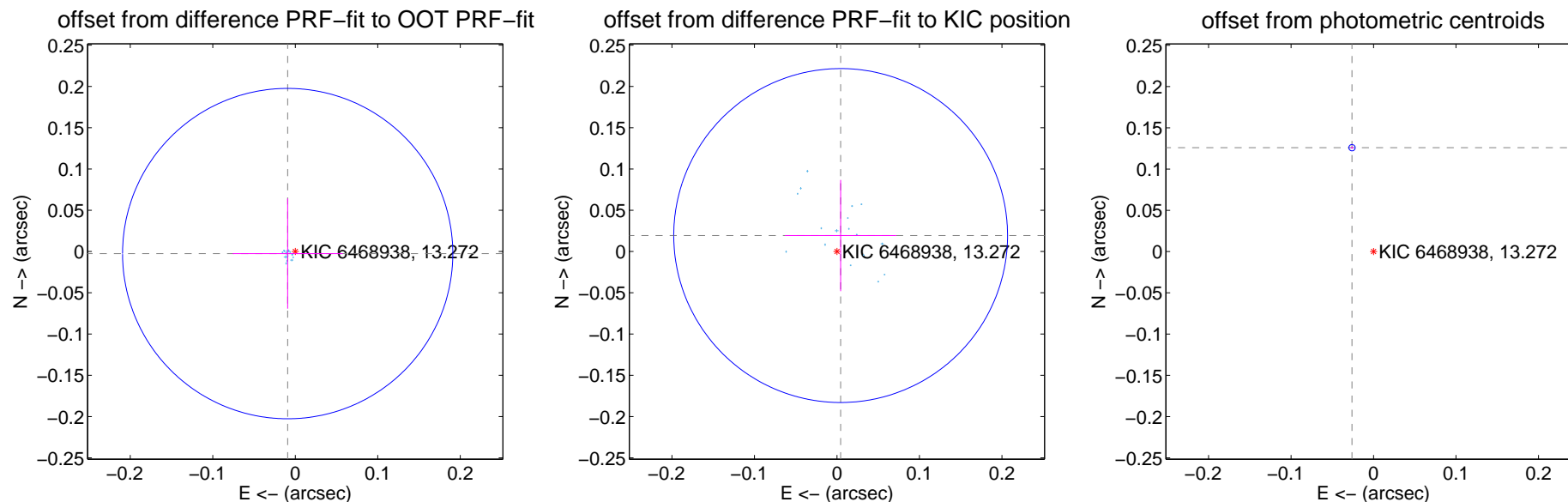
DV Centroid Data

Supplemental centroid analysis for 006468938-02. Kepler magnitude: 13.27. Transit SNR 4759.44

There are 17 quarters with good PRF difference image offsets

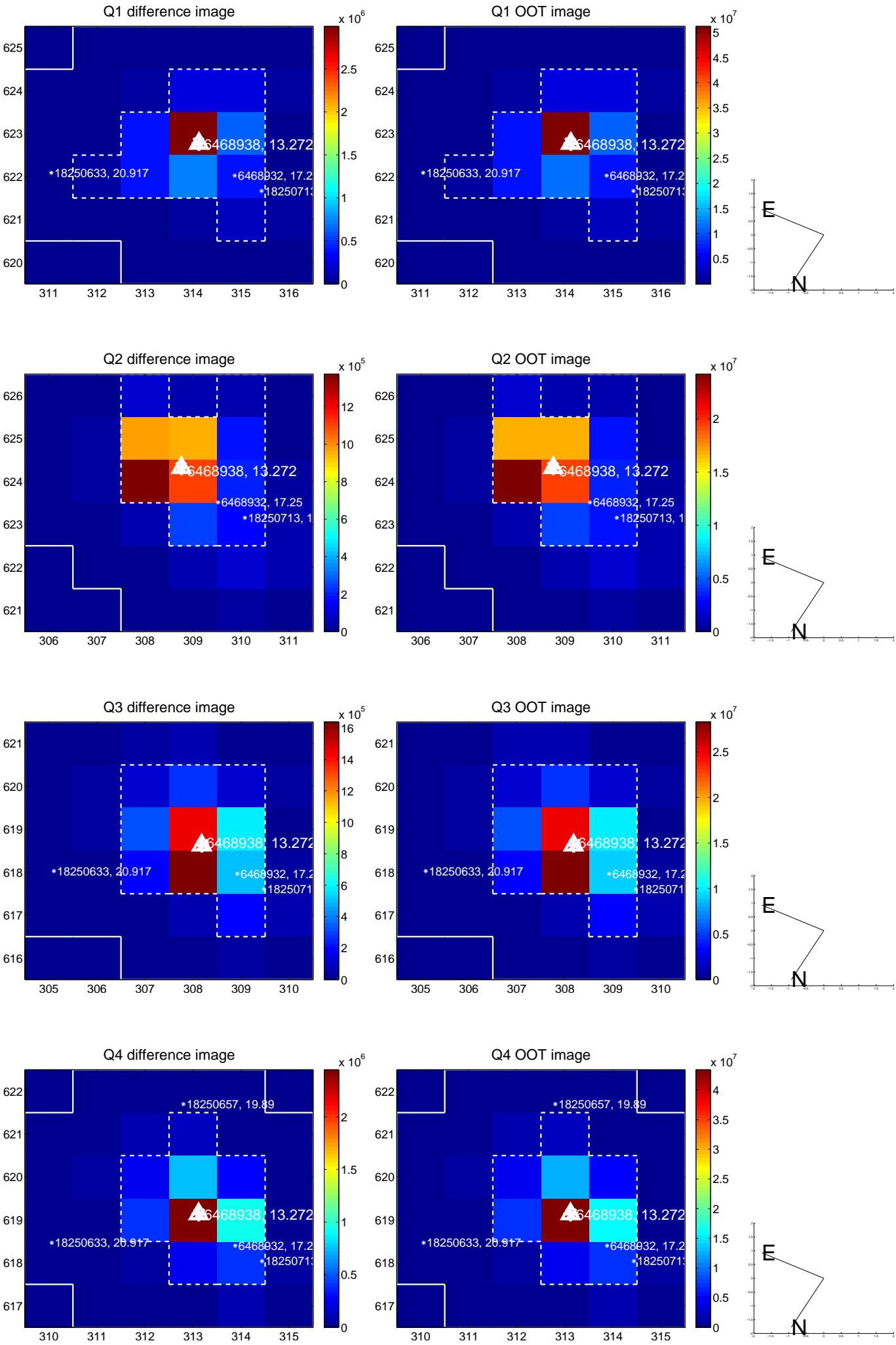
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.010 ± 0.067	0.14	0.009 ± 0.067	-0.003 ± 0.067
PRF-fit source offset from KIC position	0.020 ± 0.067	0.29	-0.004 ± 0.067	0.019 ± 0.067
photometric centroid source offset	0.13 ± 0.00	100.67	0.03 ± 0.00	0.13 ± 0.00

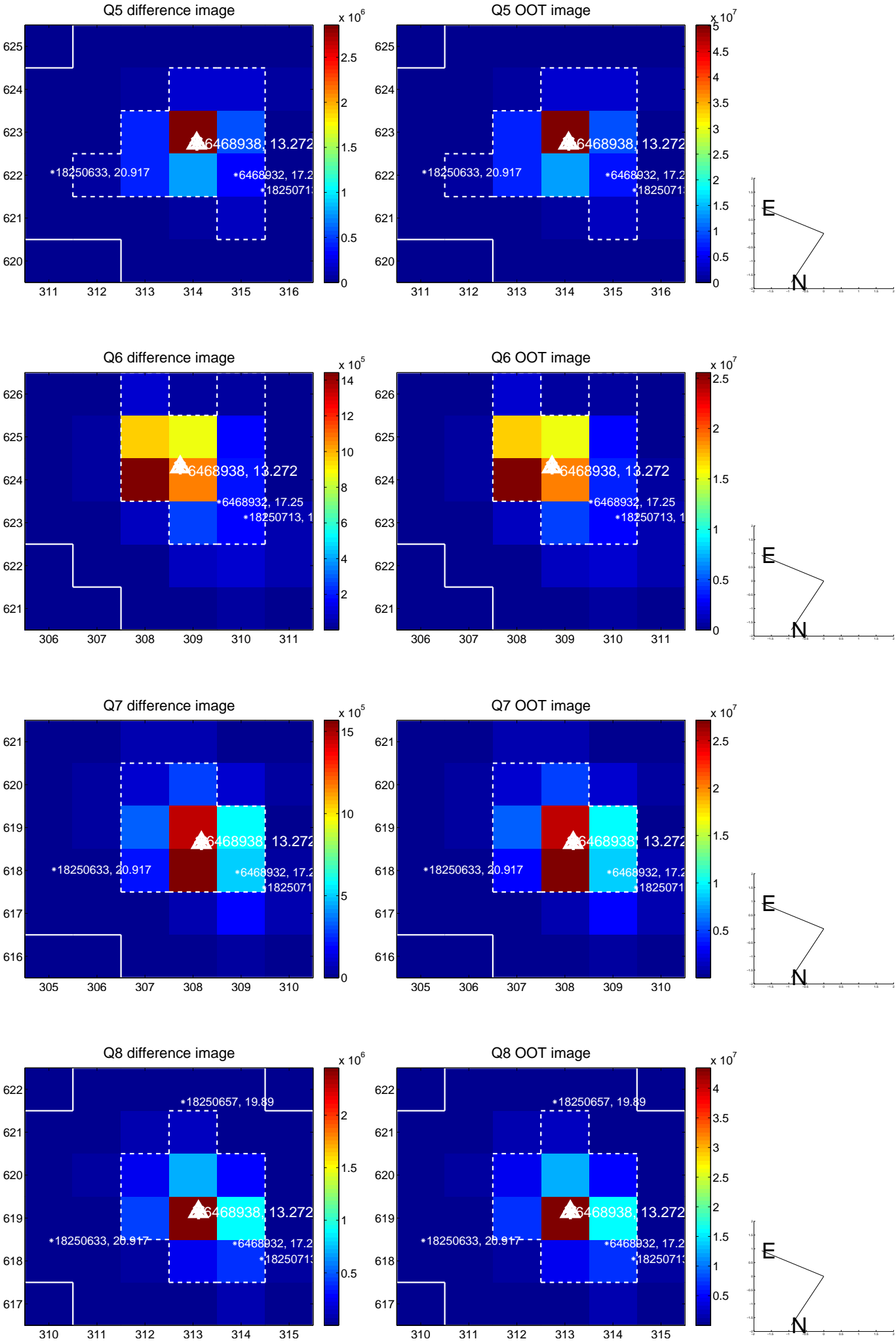


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

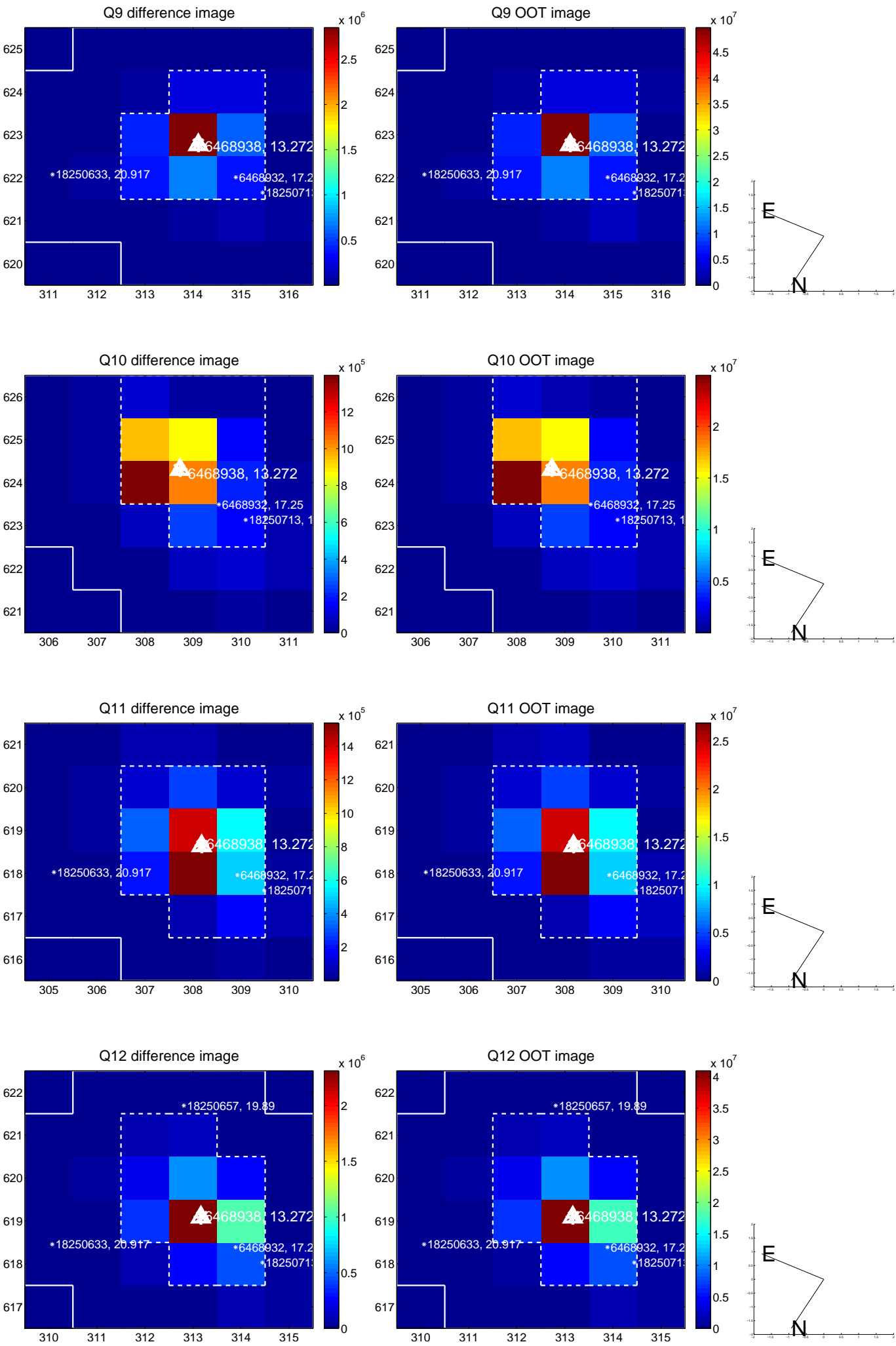
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



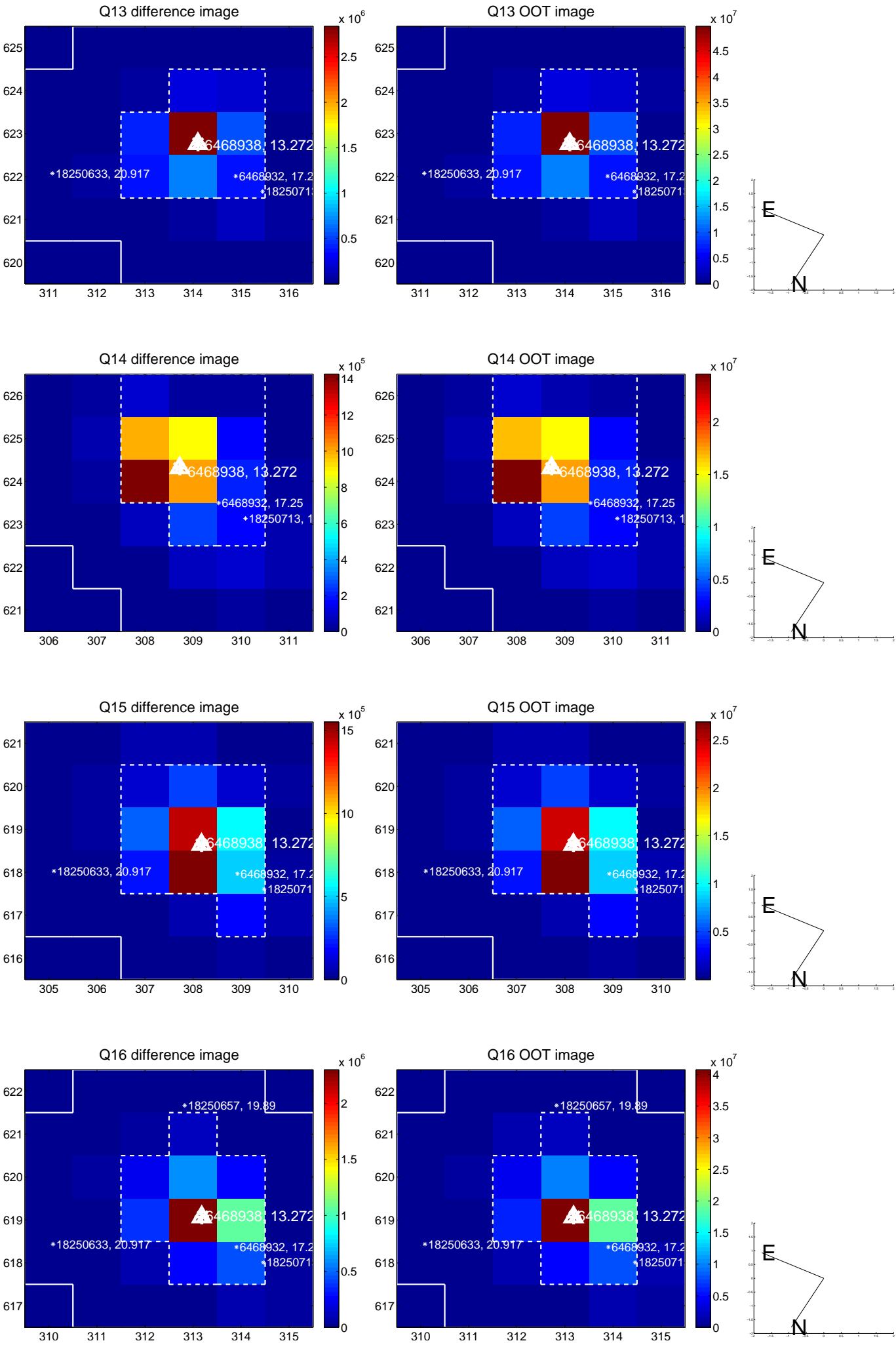
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



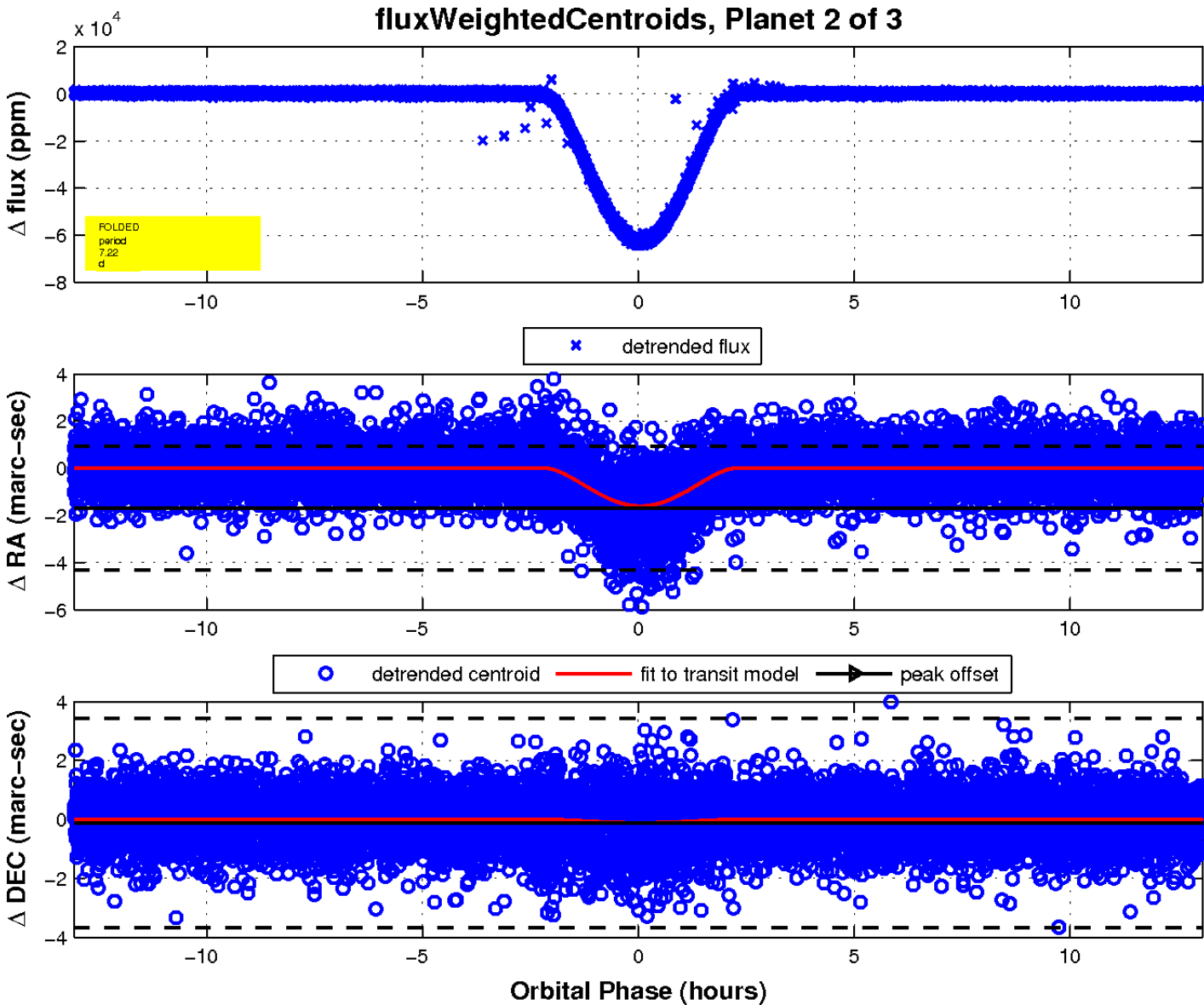
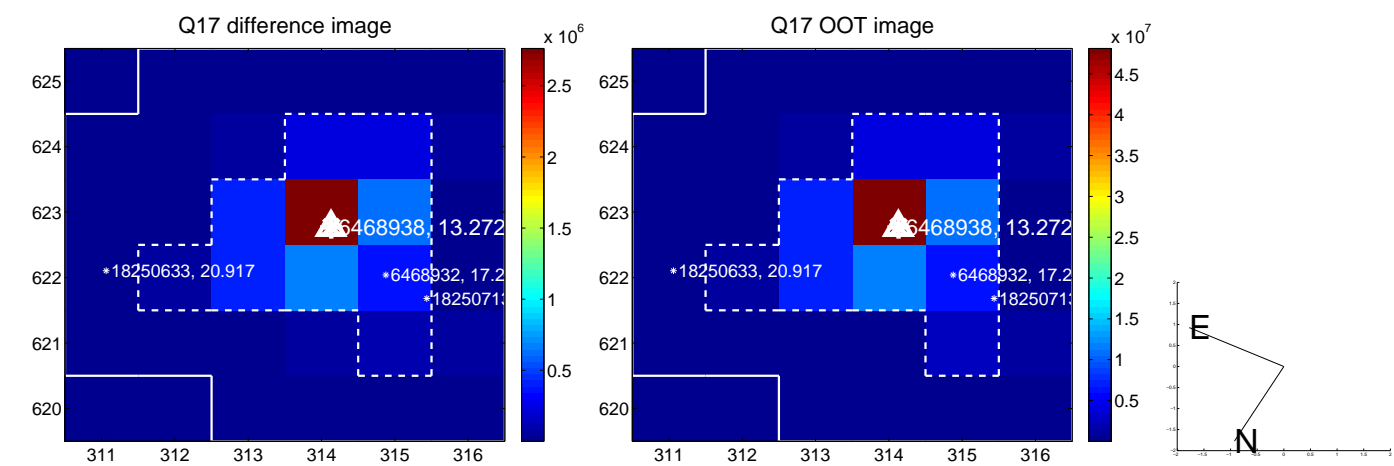
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

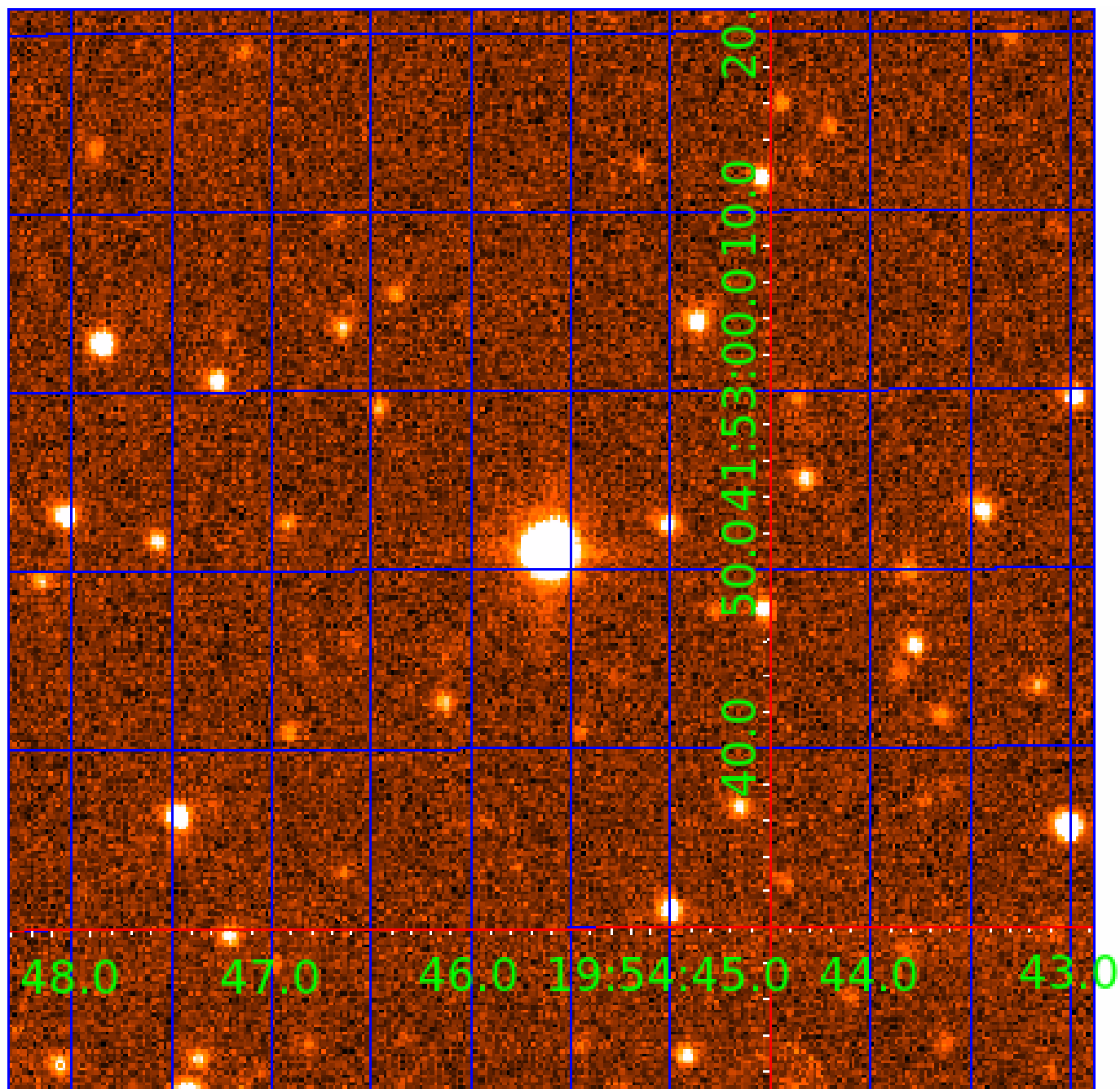


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006468938

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})
006468938-01	OBS	6718.01	7.217009	135.452642	78383.4	4.420	6998.7	5305.5	1.21	6047	48.58	341.99
006468938-02	OBS	No	7.217009	131.684629	62750.0	4.359	5675.2	4759.4	1.21	6047	46.38	341.99
006468938-03	OBS	No	328.047183	147.823786	1621.3	4.500	28.5	-1.0	1.21	6047	4.88	2.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006468938-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
006468938-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006468938-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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 006468938-03

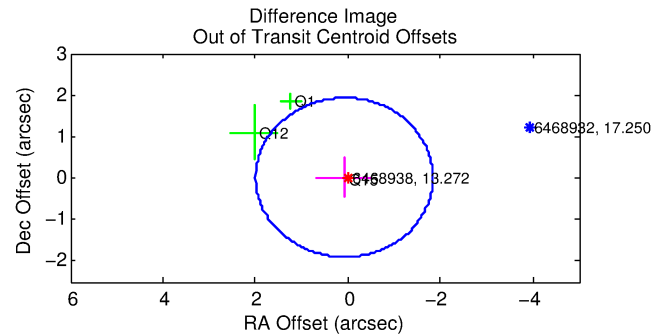
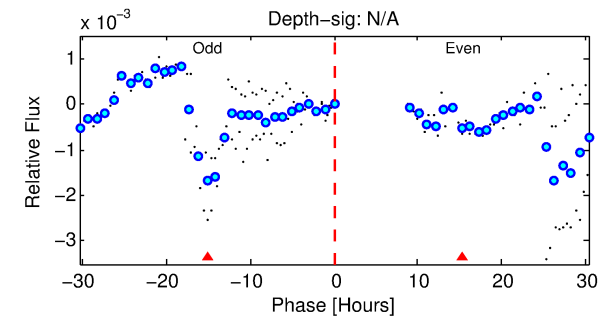
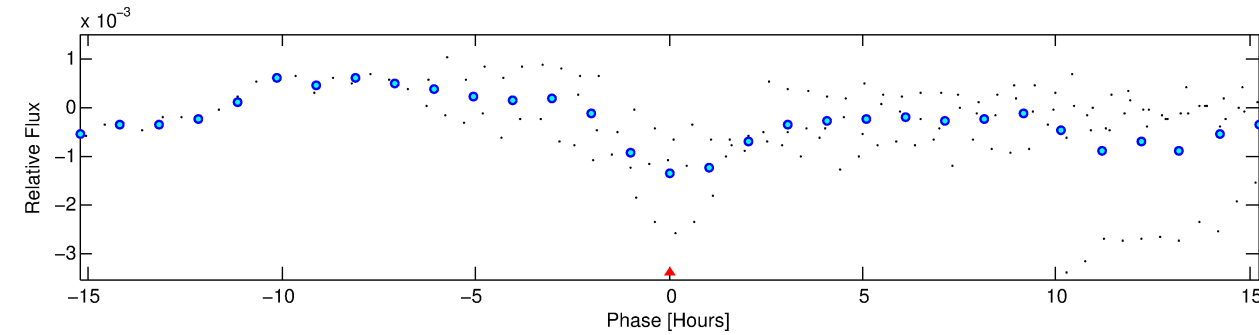
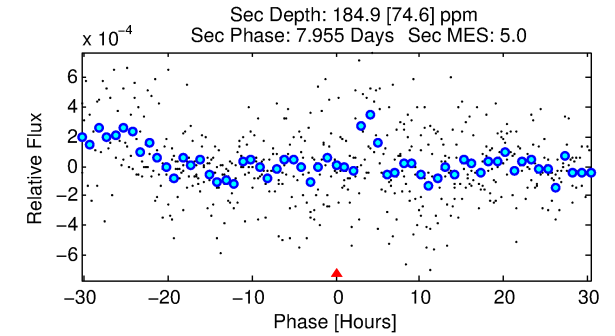
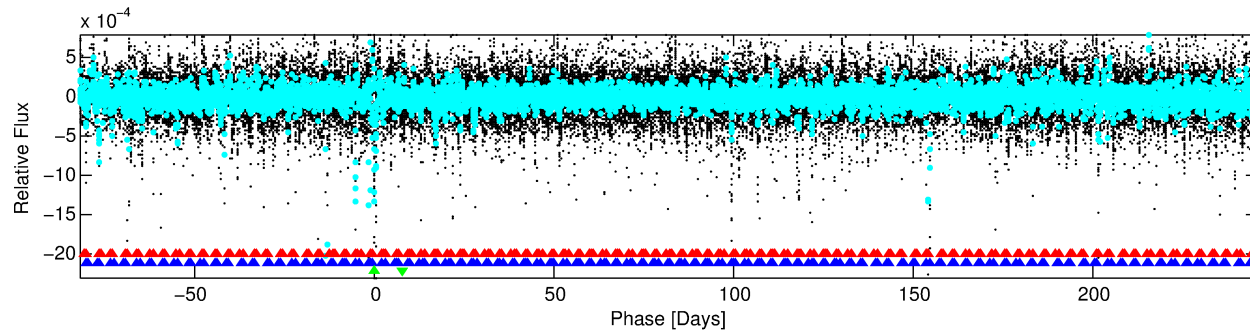
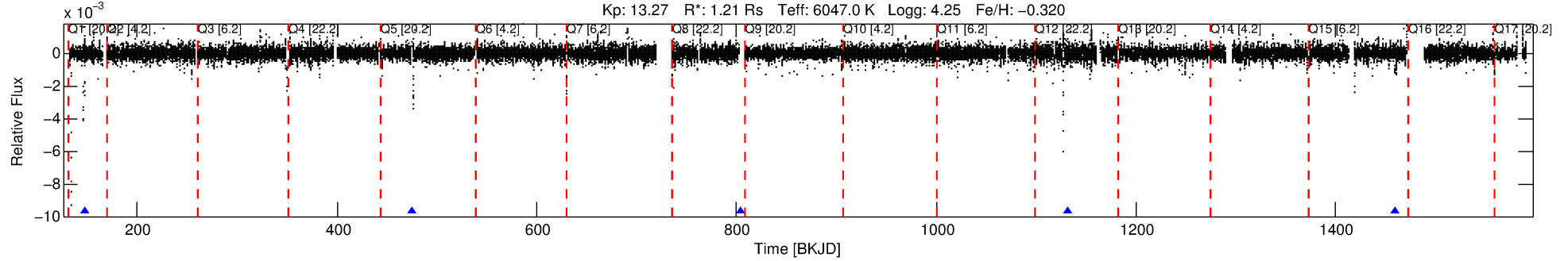
No Significant Match Found

DV One-Page Summary

KIC: 6468938 Candidate: 3 of 3 Period: 328.047 d

KOI: K06718 Corr: No Ephemeris Match

Kp: 13.27 R*: 1.21 Rs Teff: 6047.0 K Logg: 4.25 Fe/H: -0.320



TPS TCE Results:

Period = 328.04718 d
Epoch = 147.8238 BKJD

DV fit results are unavailable

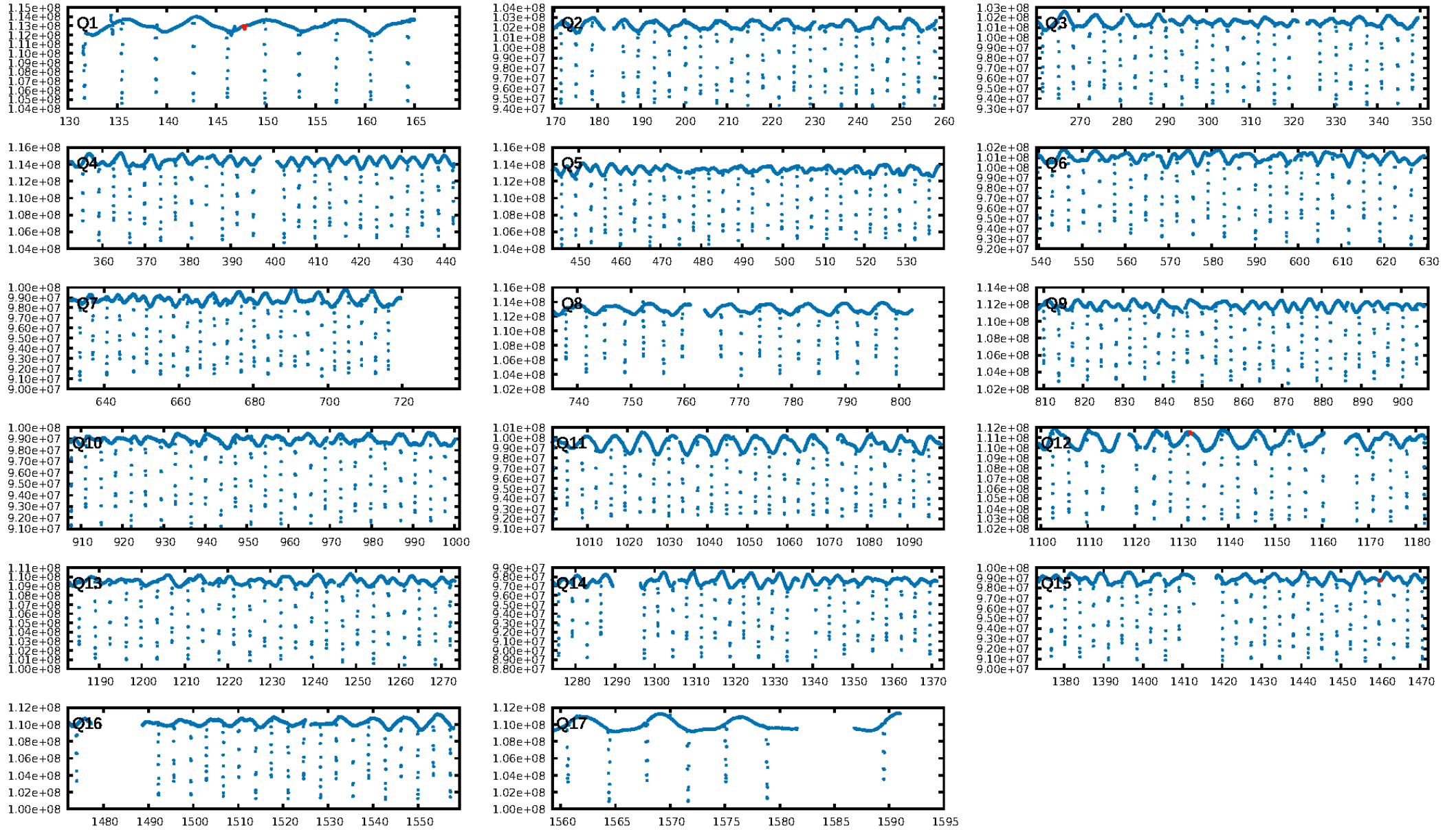
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1220.72σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.2886
Centroid-sig: 20.9%
Centroid-so: 0.563 arcsec [1.31σ]
OotOffset-rm: 0.084 arcsec [0.13σ]
KicOffset-rm: 0.095 arcsec [0.18σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.67 [2/3]

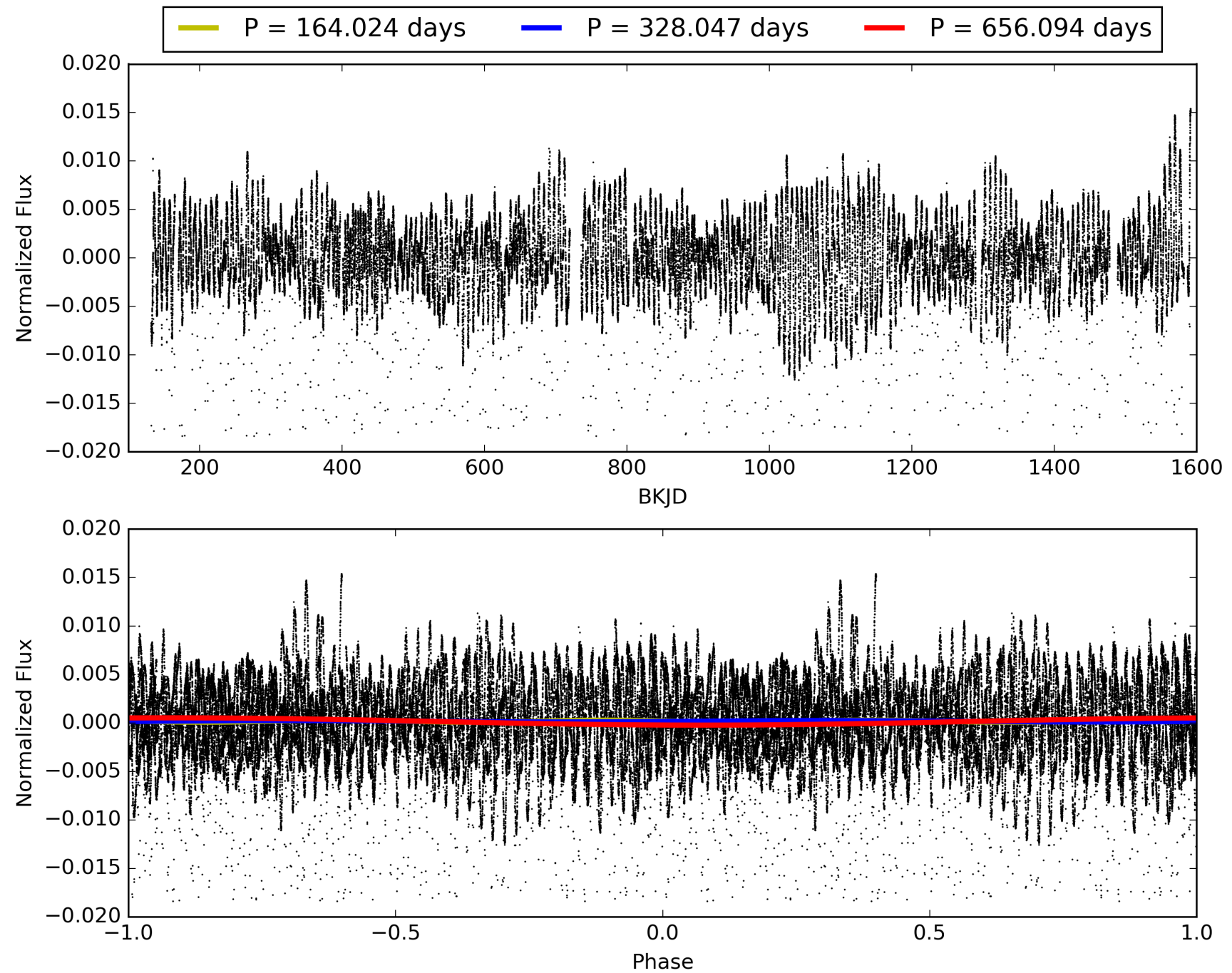
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:28:38 Z

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

TCE 006468938-03, PDC Light Curves

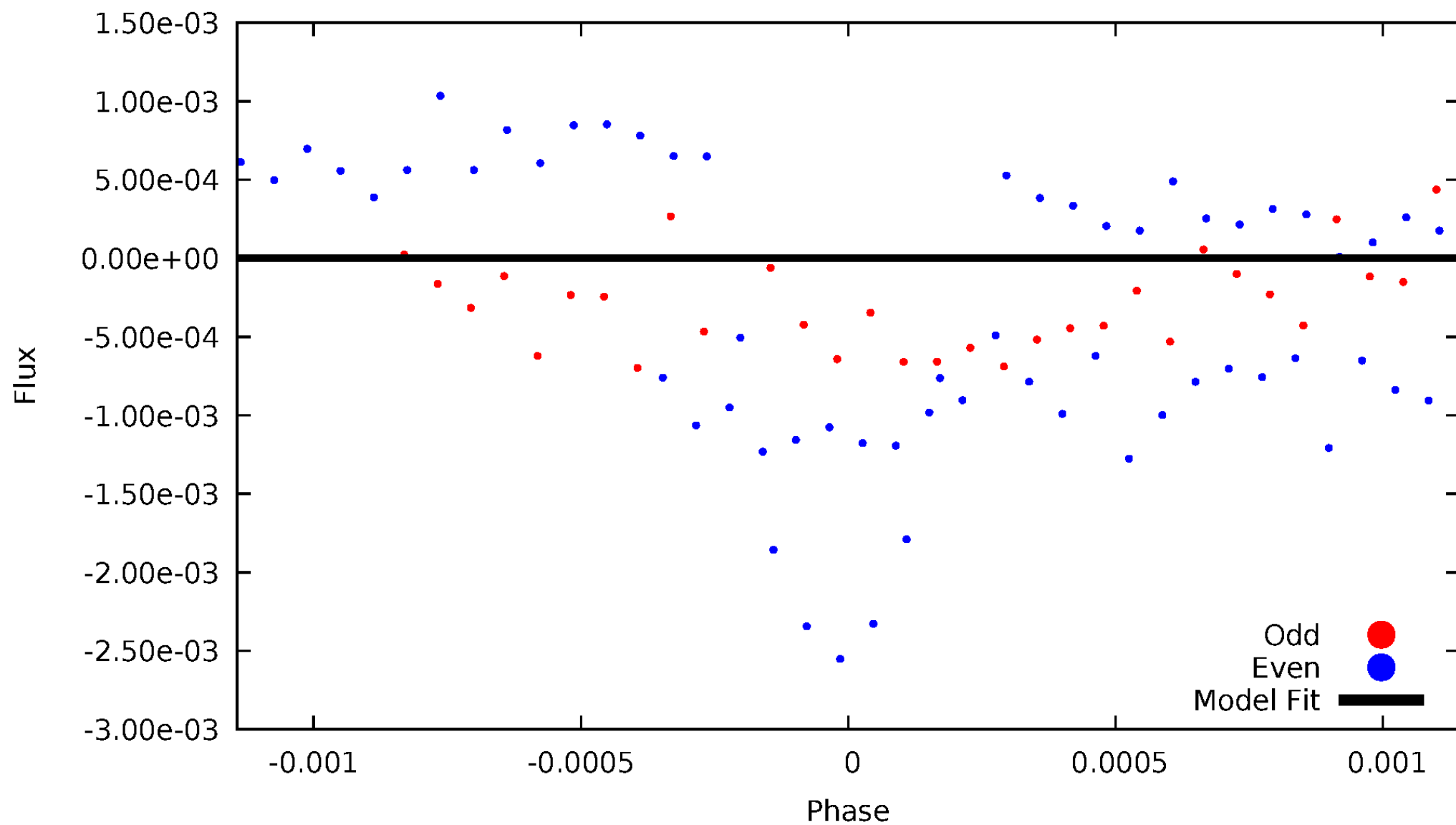


TCE 006468938-03



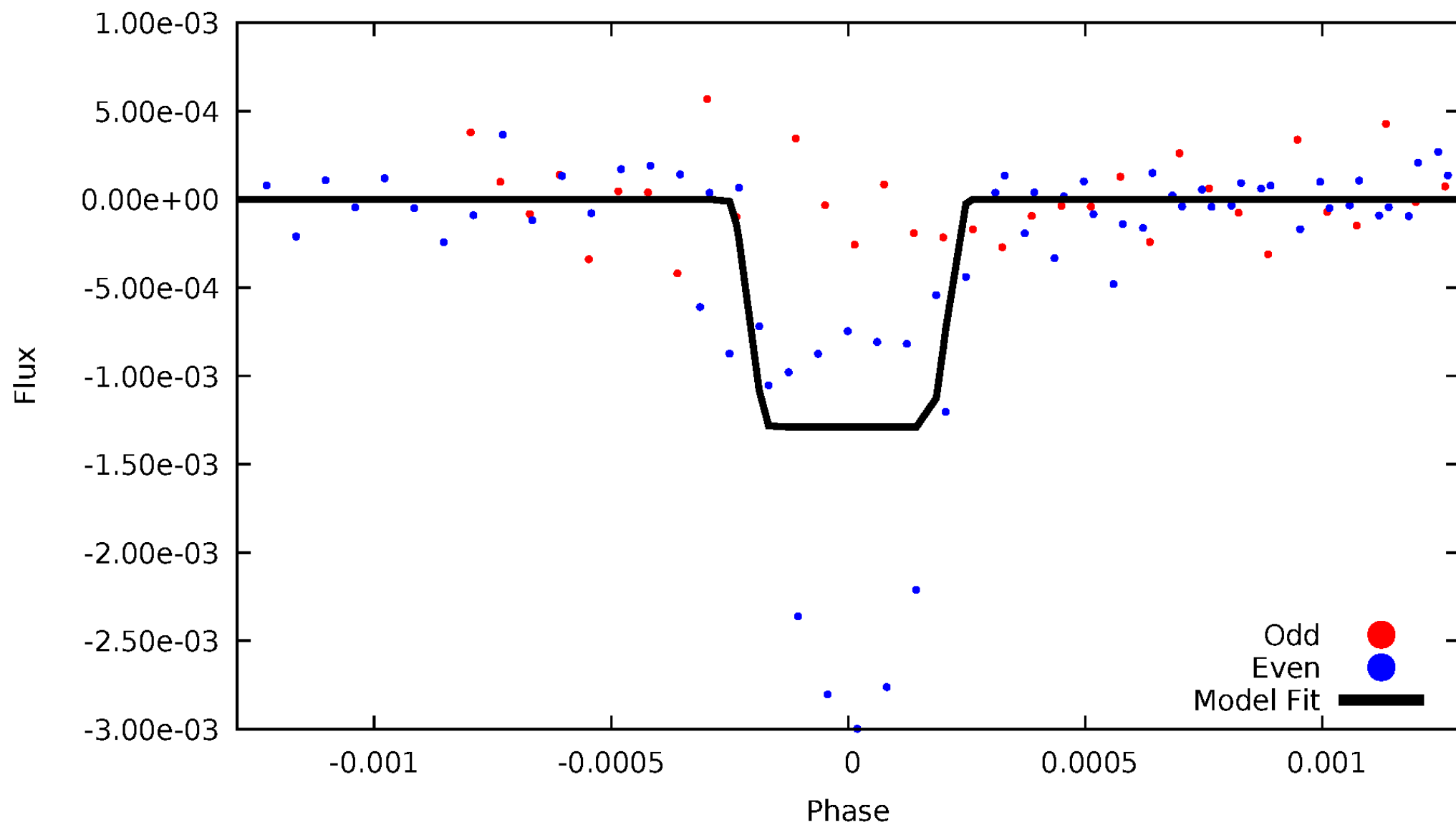
DV Odd/Even

TCE 006468938-03

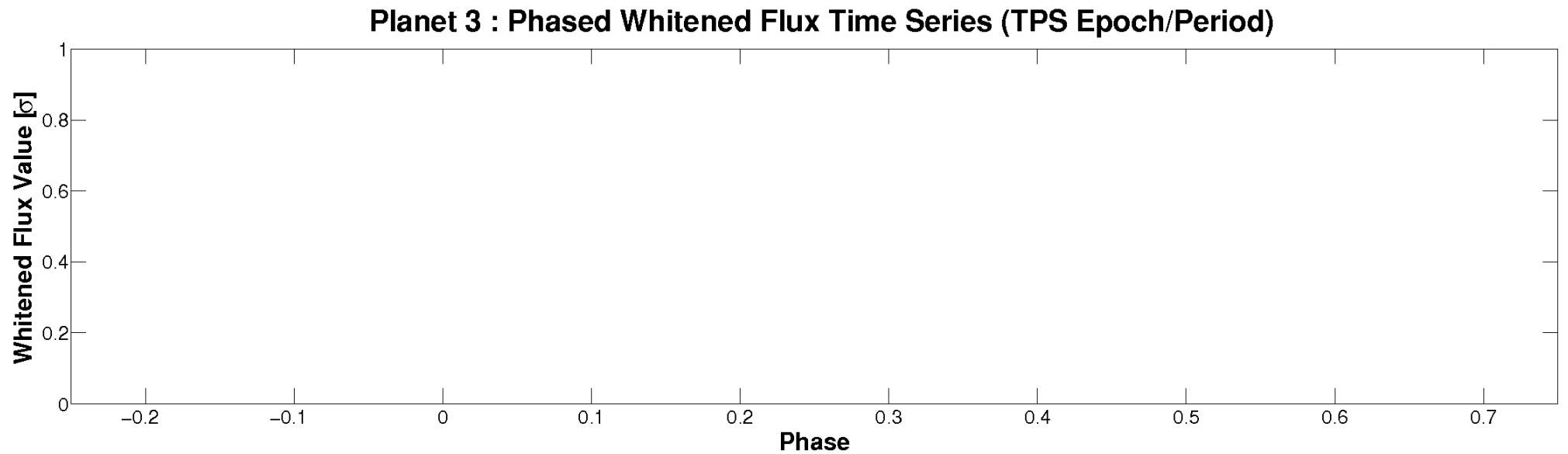
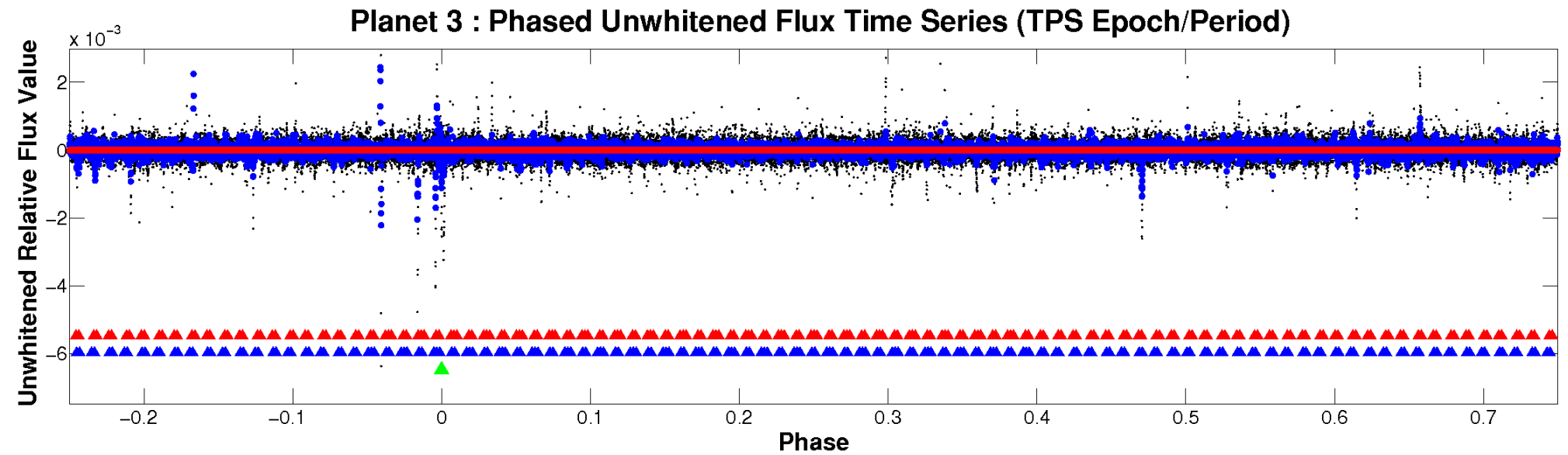


ALT Odd/Even

TCE 006468938-03

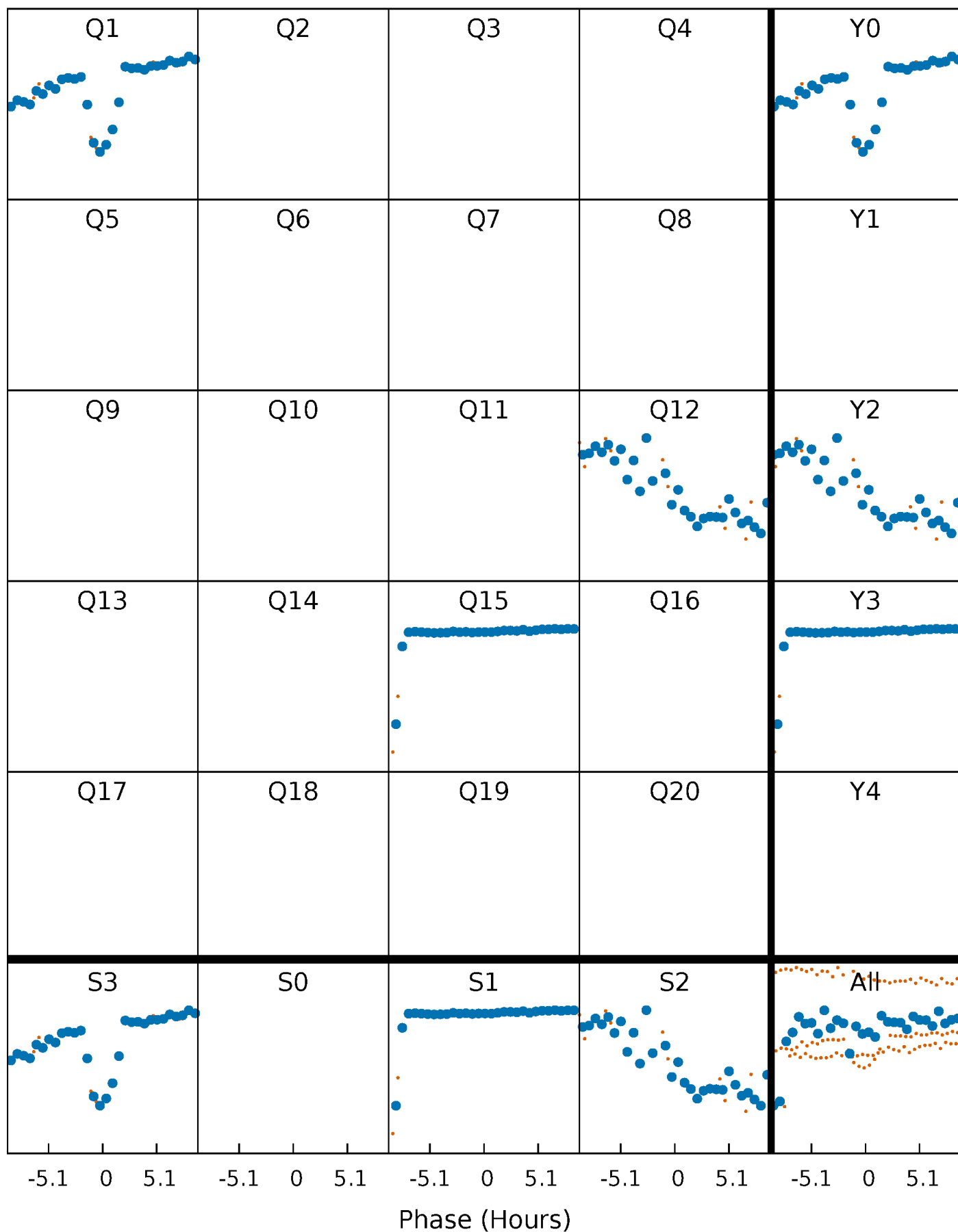


Non-Whitened Vs. Whitened Light Curve



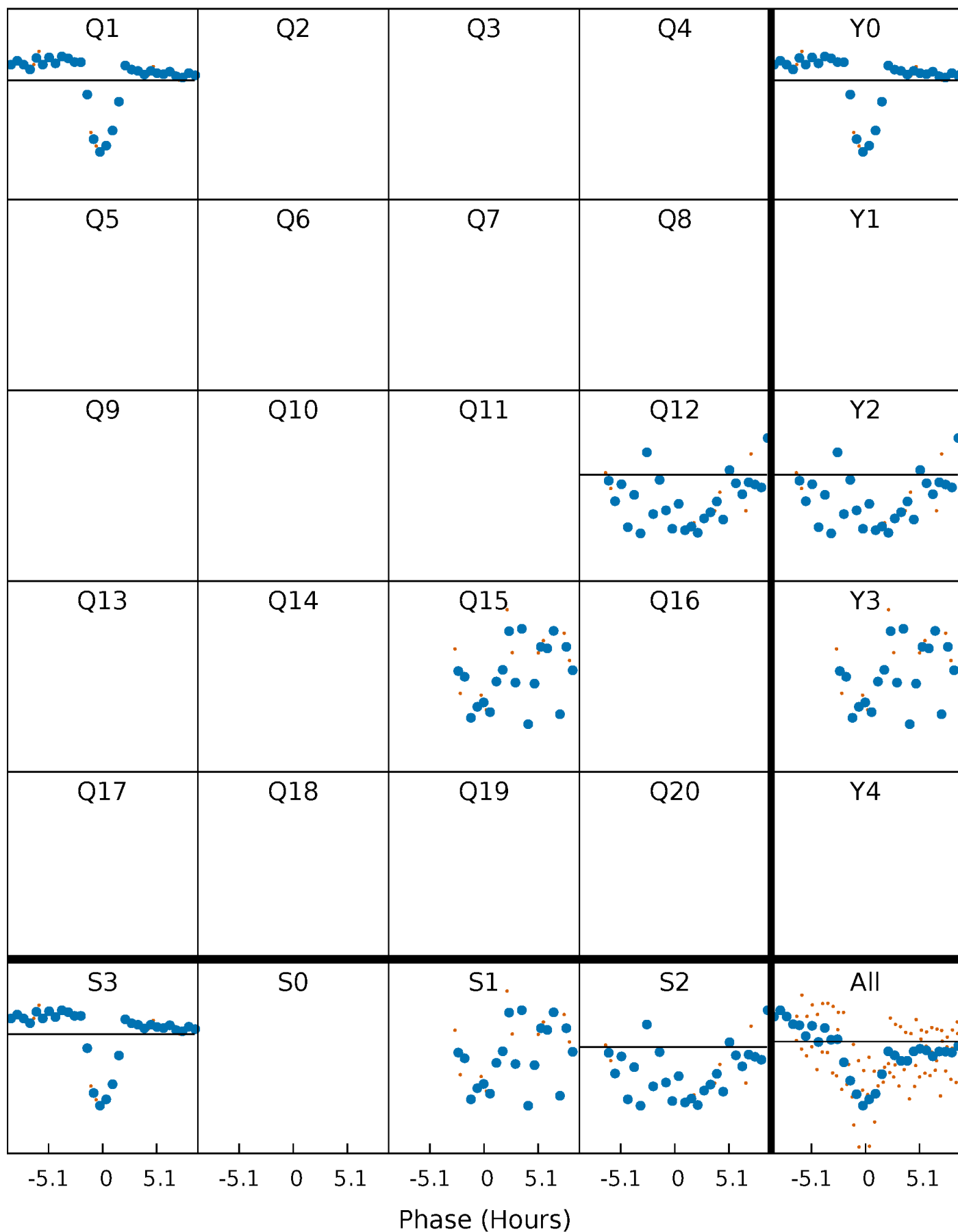
PDC Quarter-Phased Transit Curves

TCE 006468938-03 P=328.047183 Days $T_0=147.823786$ (BKJD)



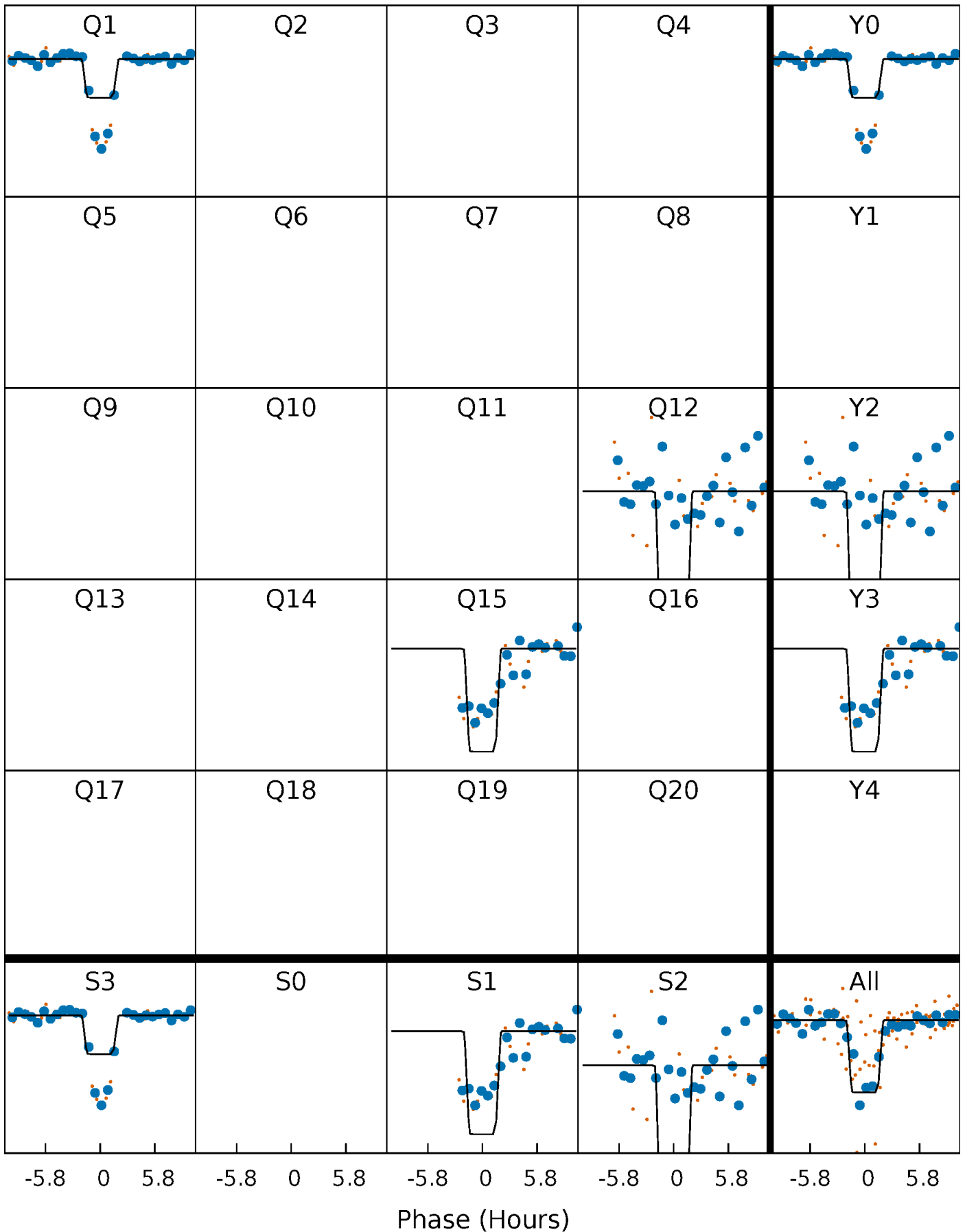
DV Quarter-Phased Transit Curves

TCE 006468938-03 $P=328.047183$ Days $T_0=147.823786$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

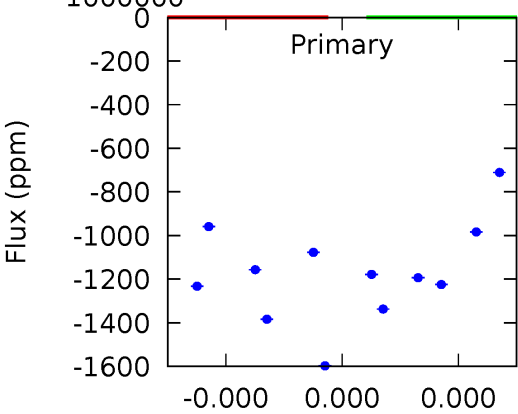
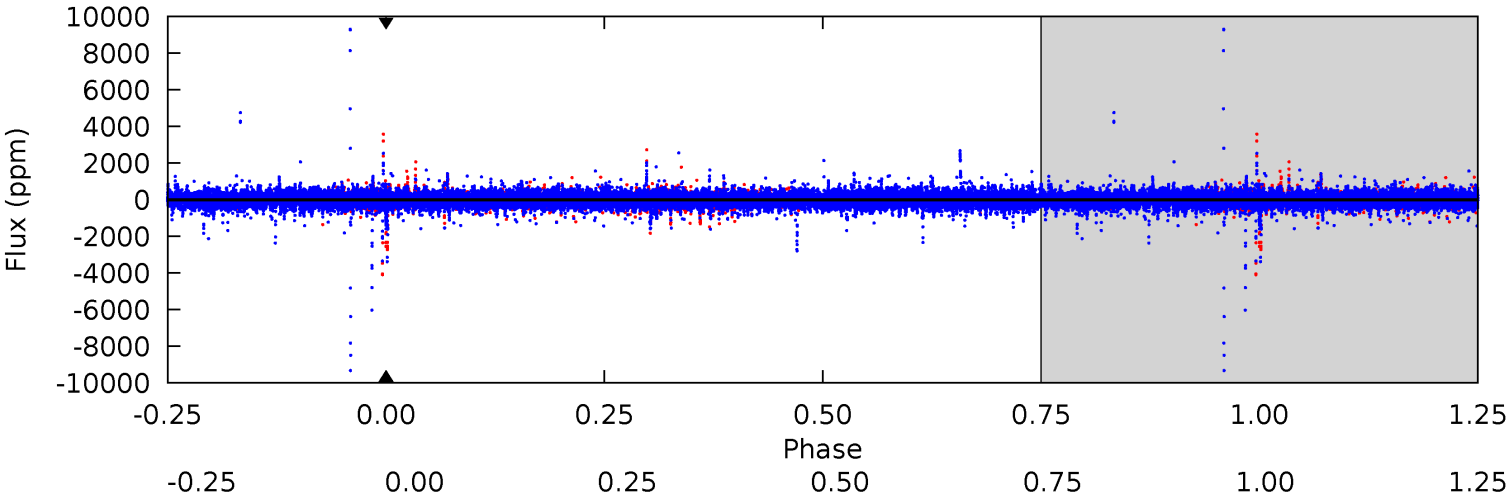
TCE 006468938-03 $P=328.047183$ Days $T_0=147.812574$ (BKJD)



DV Model-Shift Uniqueness Test

006468938-03, P = 328.047183 Days, E = 147.823786 Days

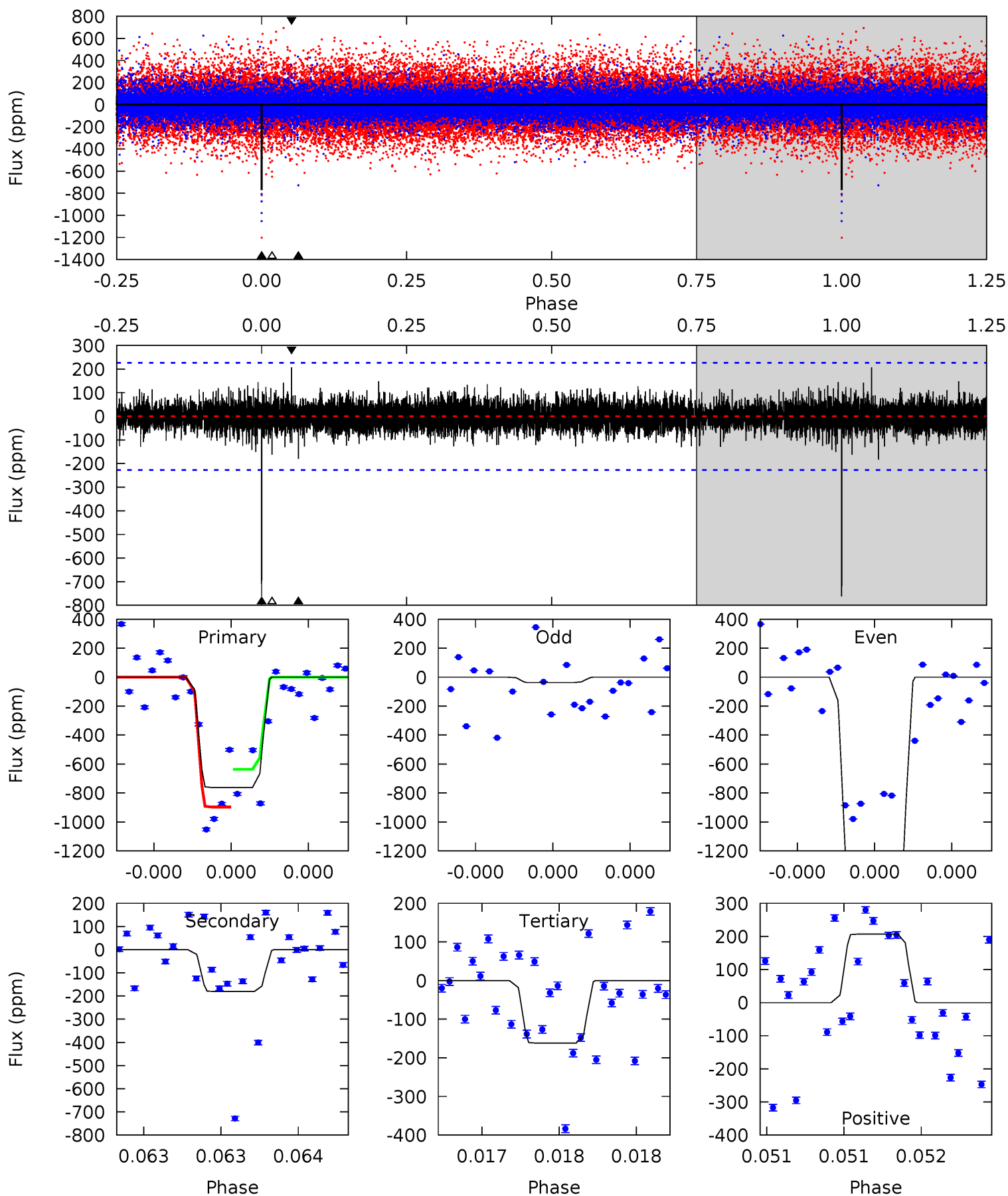
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006468938-03, P = 328.047183 Days, E = 147.812574 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	4.42	3.97	5.08	5.57	3.48	0.83	14.7	13.6	0.45	-0.66	20.4	1.30	0.21	3.21



Stellar Parameters For KIC 006468938

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6047^{+163}_{-181}	$4.246^{+0.220}_{-0.180}$	$-0.320^{+0.300}_{-0.300}$	$1.211^{+0.343}_{-0.312}$	$0.943^{+0.143}_{-0.095}$	$0.748^{+0.883}_{-0.351}$
	+3%/-3%	+5%/-4%	+94%/-94%	+28%/-26%	+15%/-10%	+118%/-47%
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 006468938-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$10.89^{+10.75}_{-7.02}$	427^{+33}_{-33}	4495^{+17941}_{-22345}	$6268^{+813400}_{-542970}$
Alt.	-180 ± 41	$10.84^{+11.06}_{-7.60}$	427^{+33}_{-31}	3072^{+1452}_{-526}	717^{+7484}_{-544}

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 $A_{obs} \gg 1.0$

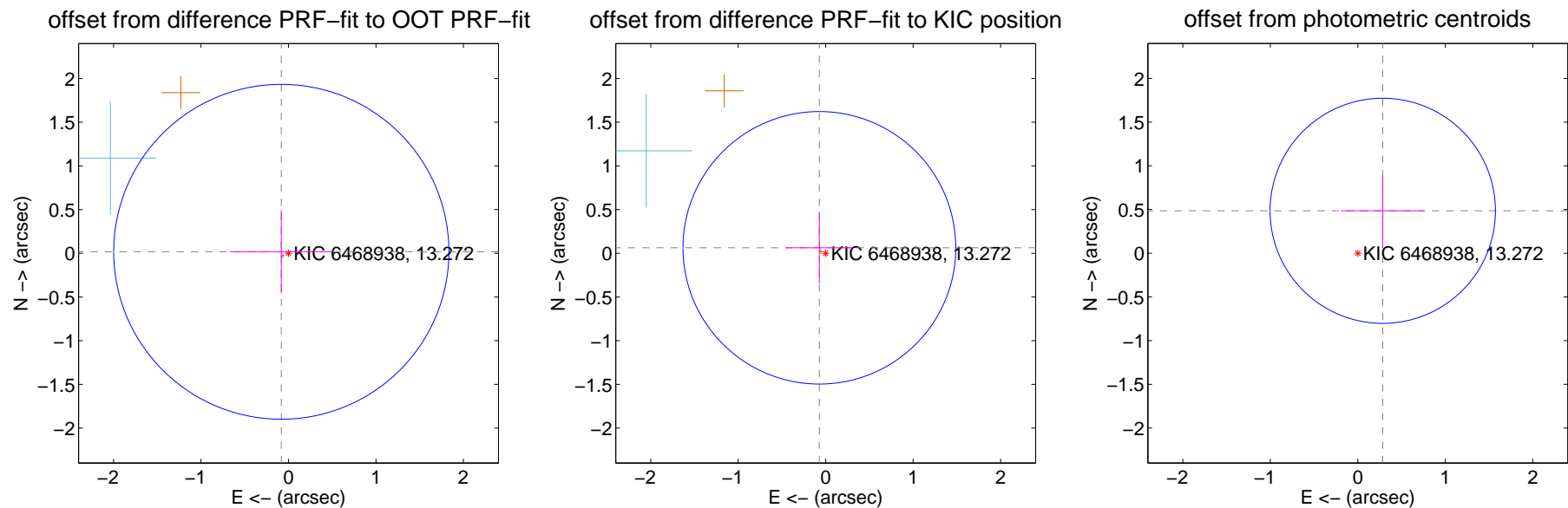
DV Centroid Data

Supplemental centroid analysis for 006468938-03. Kepler magnitude: 13.27. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

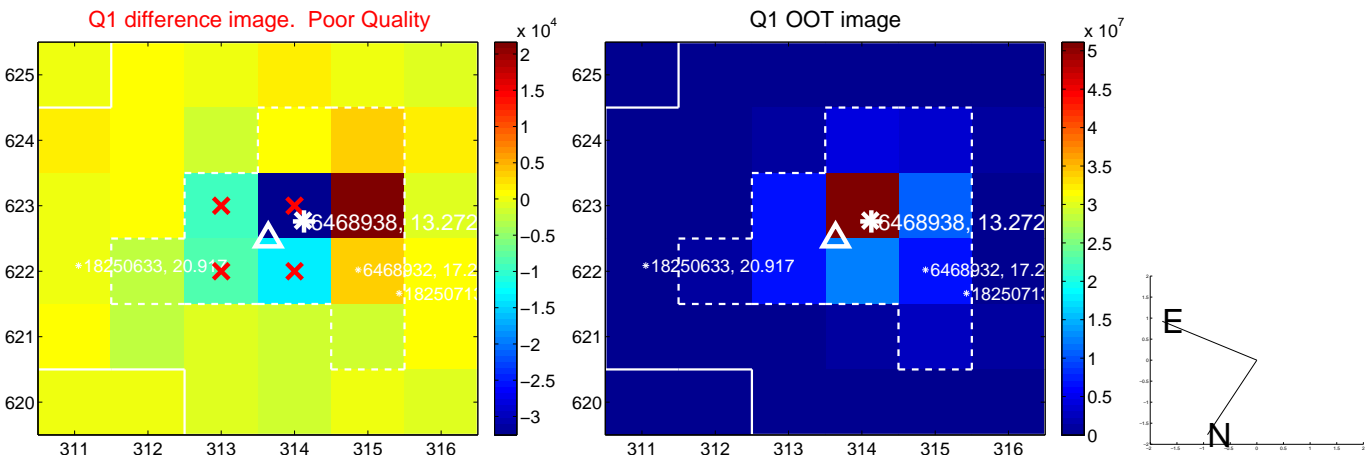
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.084 ± 0.639	0.13	0.082 ± 0.587	0.017 ± 0.476
PRF-fit source offset from KIC position	0.095 ± 0.520	0.18	0.072 ± 0.388	0.063 ± 0.409
photometric centroid source offset	0.56 ± 0.43	1.31	-0.28 ± 0.48	0.49 ± 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.

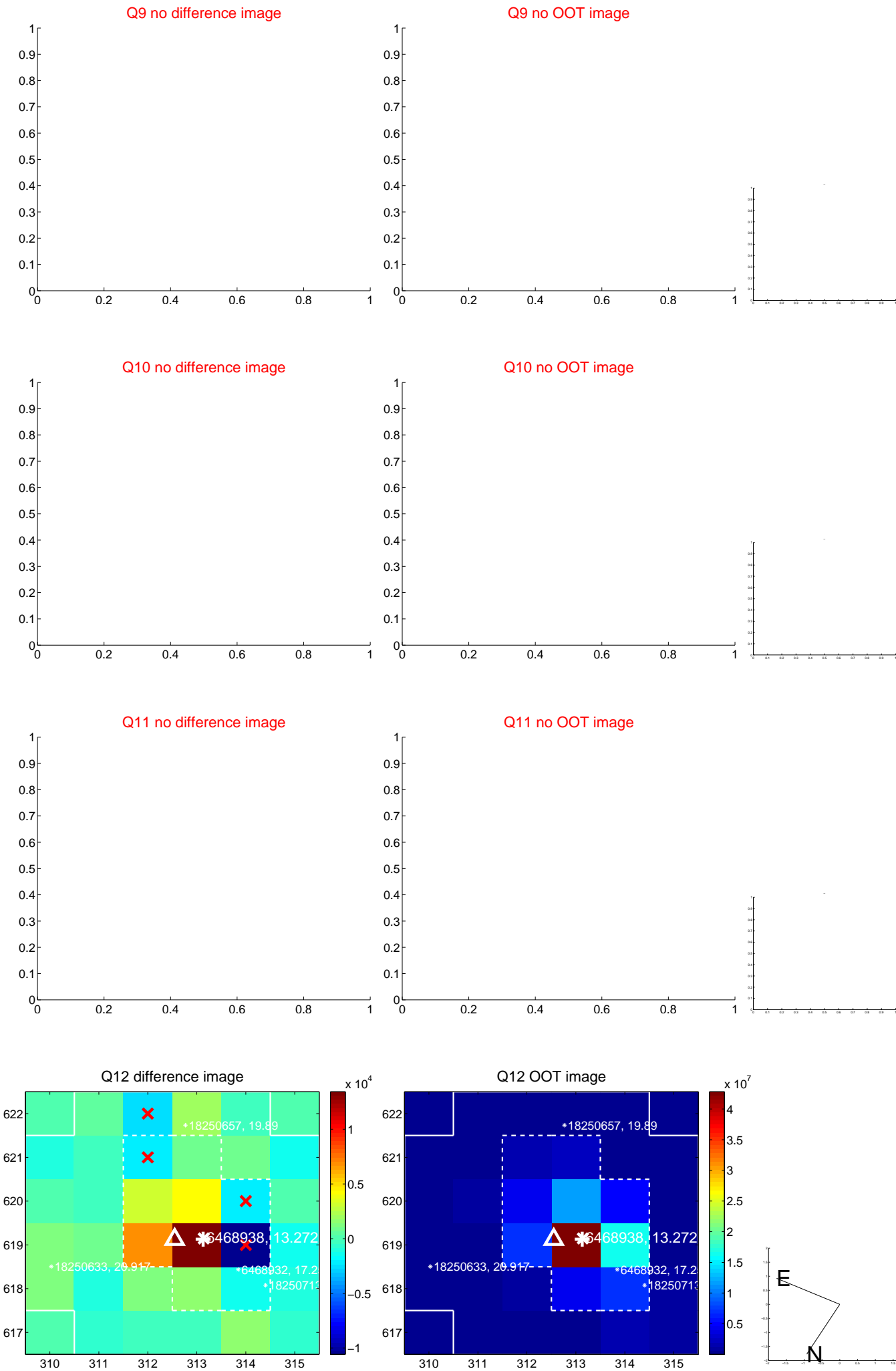
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



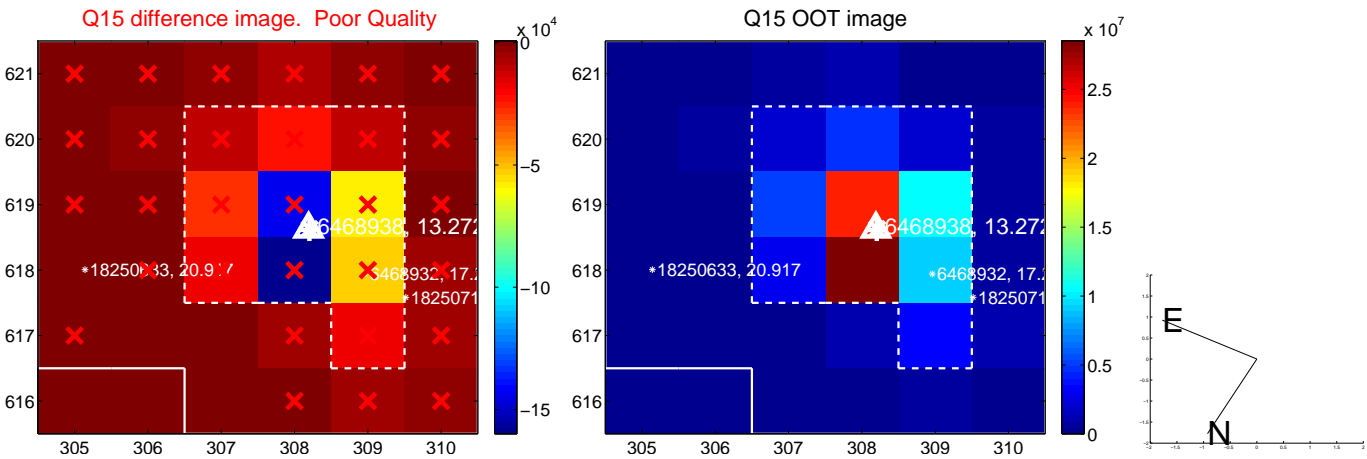
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



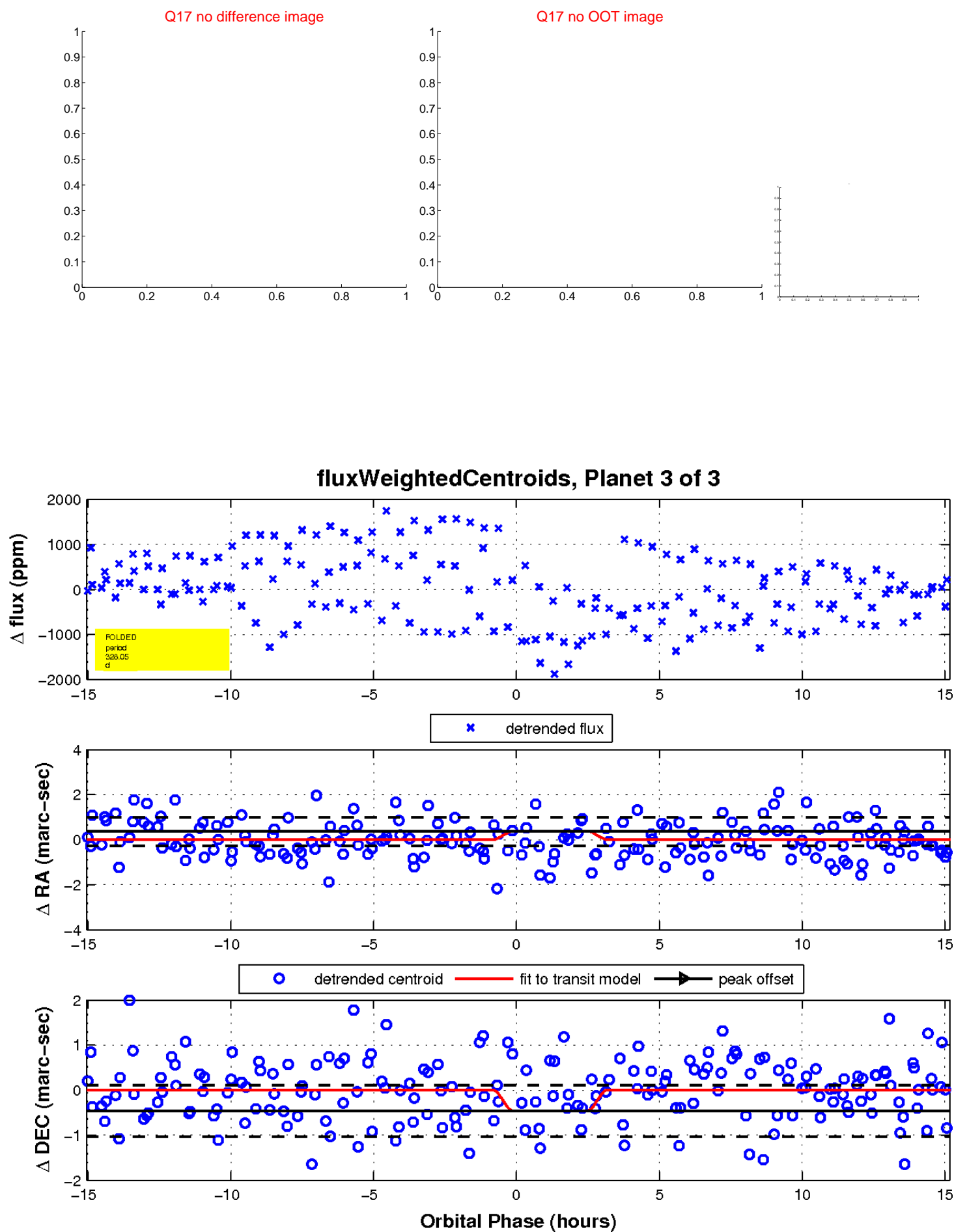
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

