

KIC 001026032

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})
001026032-01	OBS	6252.01	8.460442	133.774151	74352.6	4.810	3704.5	2291.8	0.70	5951	31.59	98.84
001026032-02	OBS	No	4.230222	133.998017	28042.8	4.699	1384.9	1299.5	0.70	5951	20.30	249.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001026032-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
001026032-02	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.

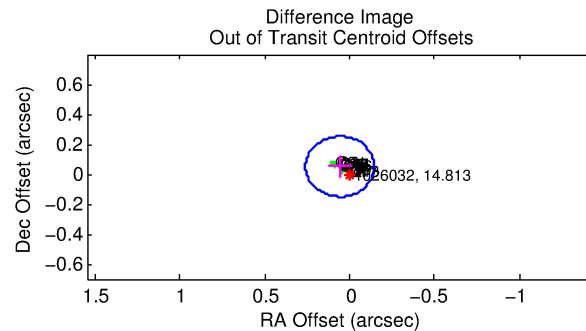
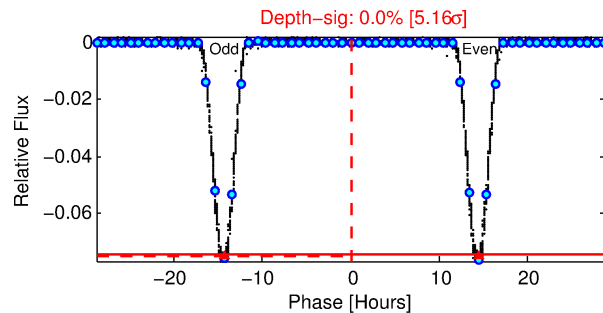
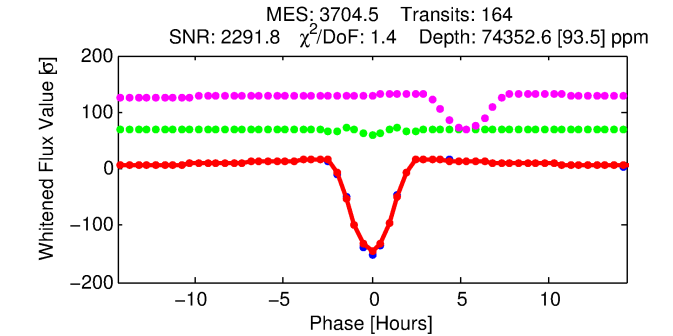
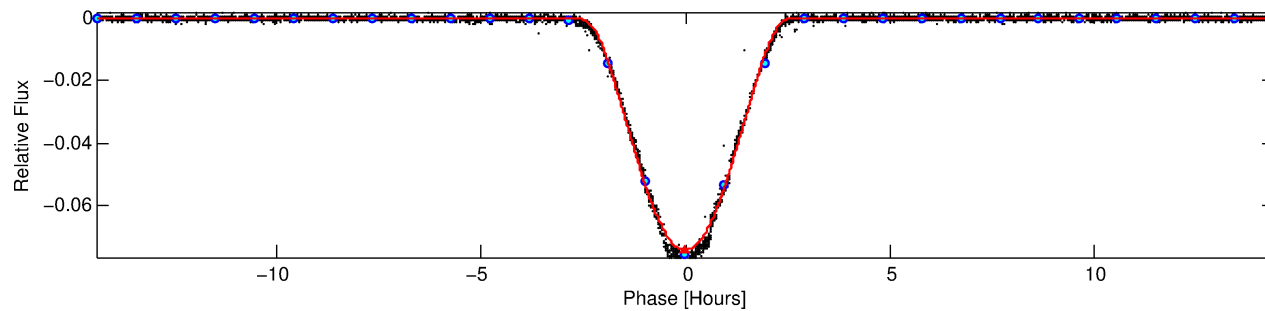
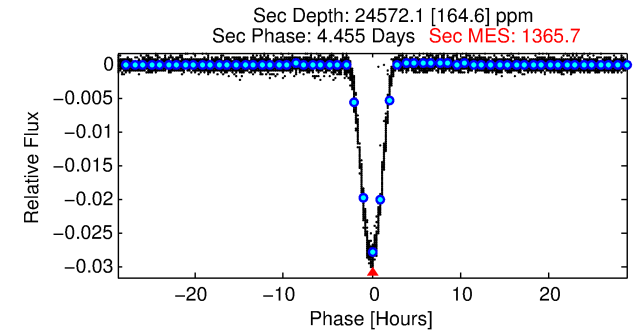
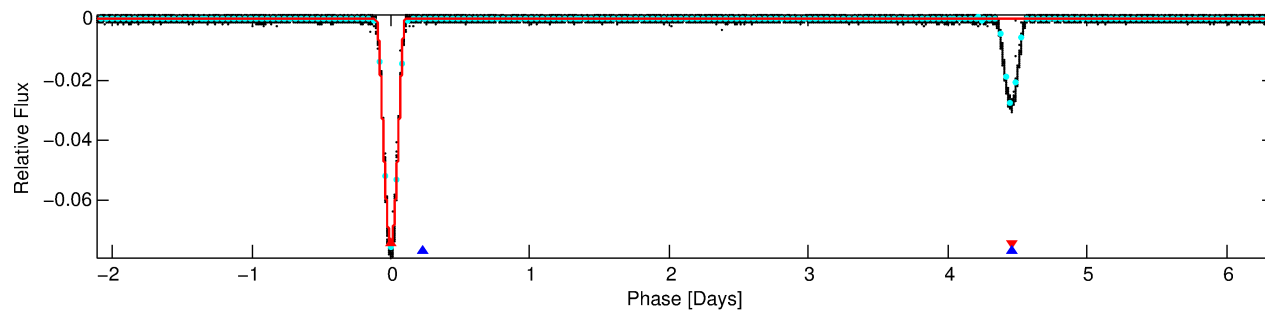
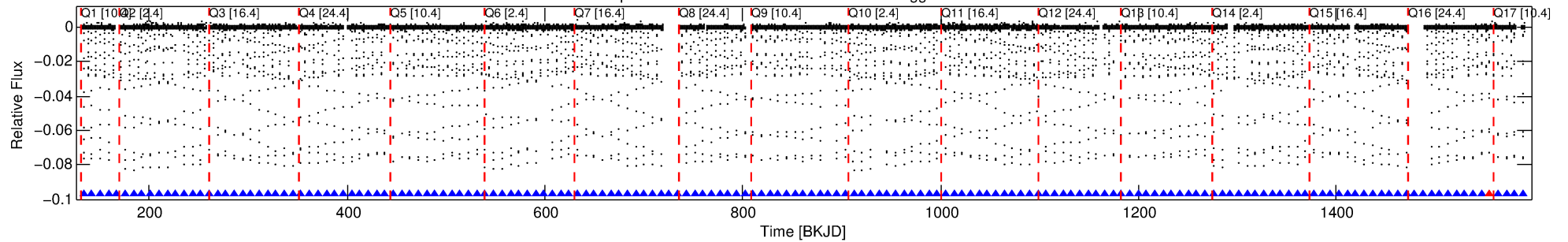
Ephemeris Match Information For 001026032-01

No Significant Match Found

DV One-Page Summary

KIC: 1026032 Candidate: 1 of 2 Period: 8.460 d
KOI: K06252.01 Corr: 0.992

Kp: 14.81 R*: 0.70 Rs Teff: 5951.0 K Logg: 4.64 Fe/H: -1.060



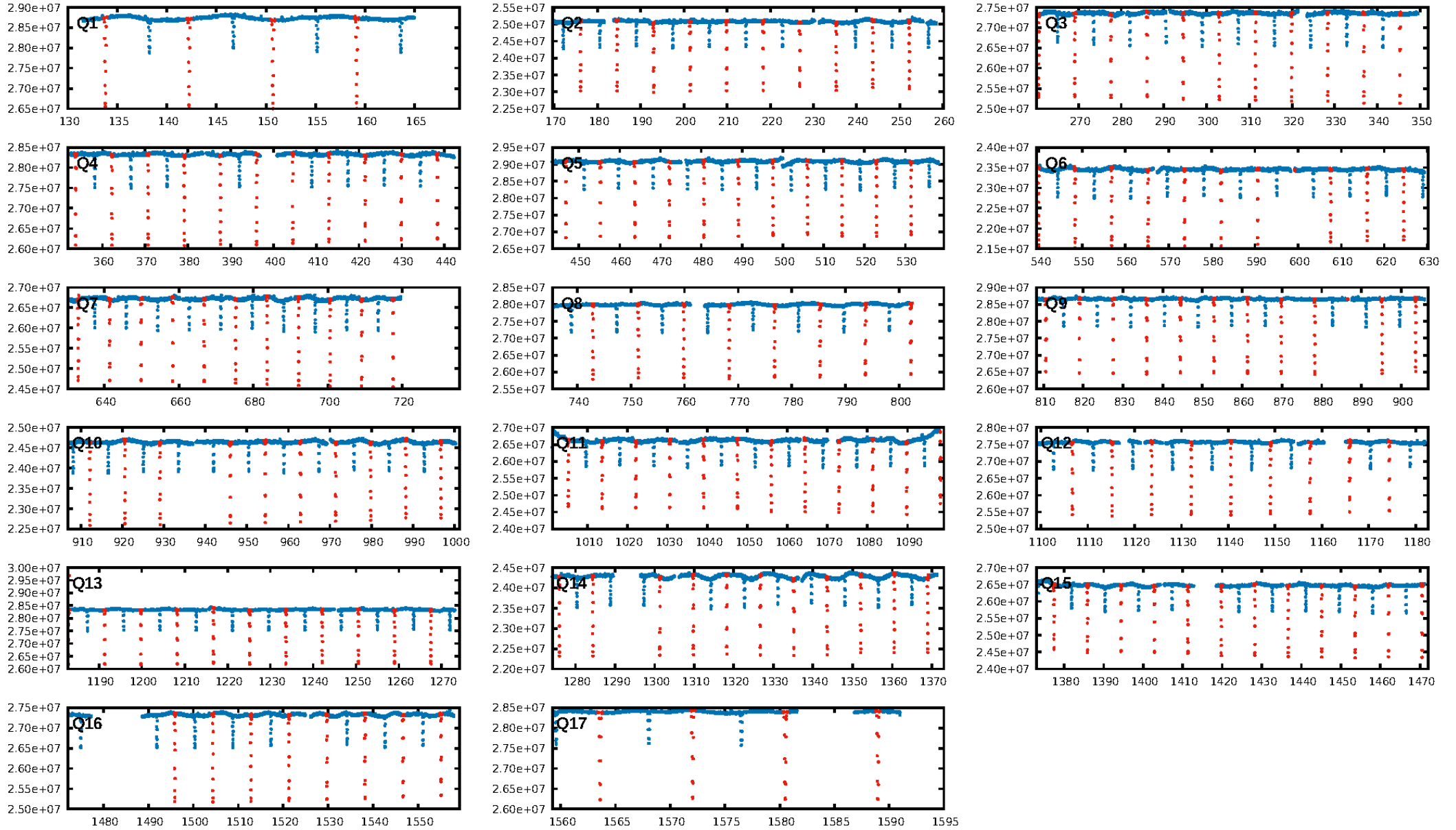
DV Fit Results:

Period = 8.46044 [0.00000] d
Epoch = 133.7742 [0.0000] BKJD
Rp/R* = 0.4123 [0.0243]
a/R* = 13.66 [0.02]
b = 0.98 [0.03]
Seff = 98.85 [25.46]
Teff = 804 [52] K
Rp = 31.59 [5.80] Re
a = 0.0748 [0.0114] AU
Ag = 75.90 [19.49] [3.84σ]
Teffp = 3669 [154] K [17.62σ]

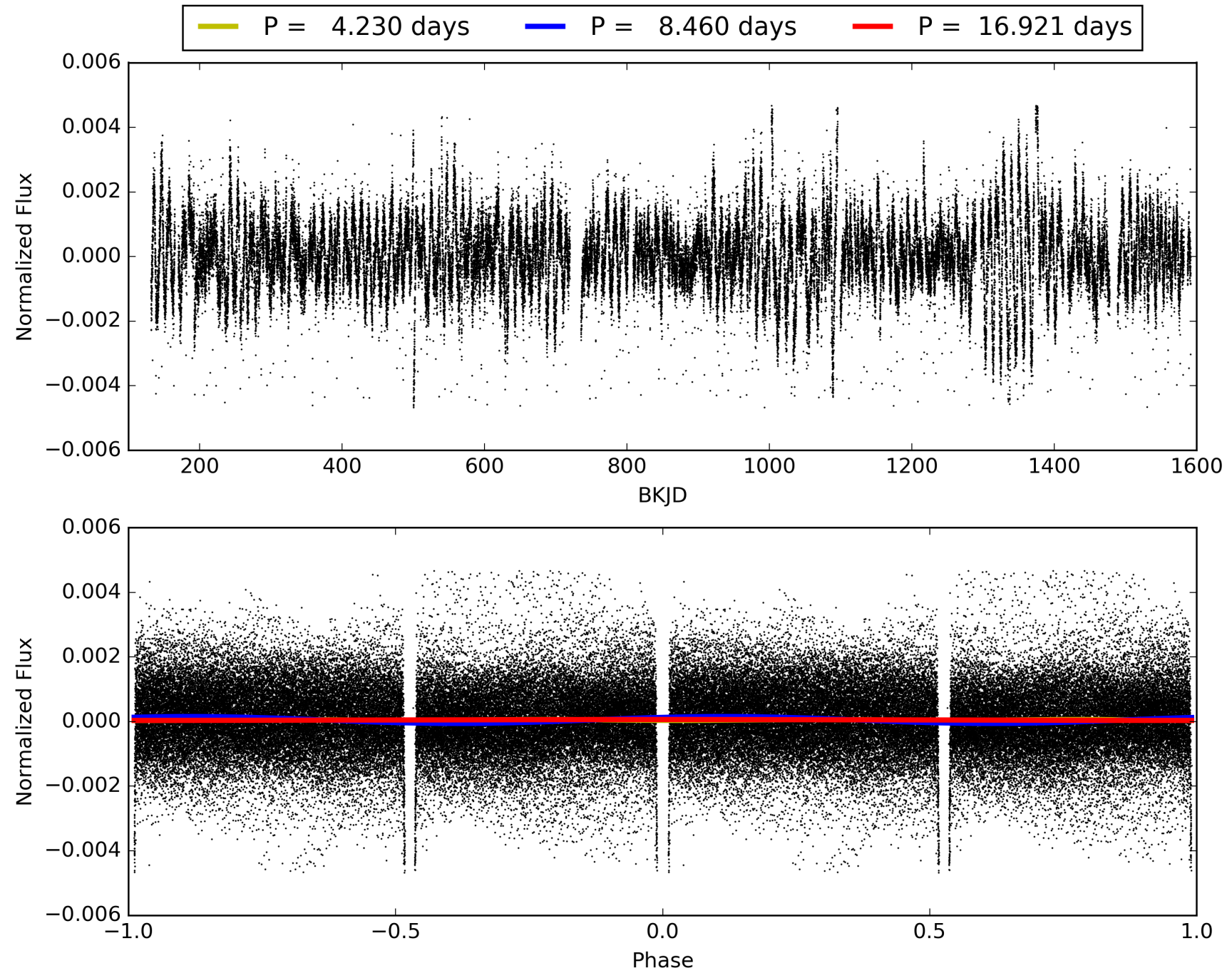
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [15.10σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [155/156]
GhostDiagnostic-chr: 2.419
Centroid-sig: 0.0%
Centroid-so: 1.523 arcsec [461.48σ]
OotOffset-rm: 0.079 arcsec [1.17σ]
KicOffset-rm: 0.060 arcsec [0.78σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 001026032-01, PDC Light Curves

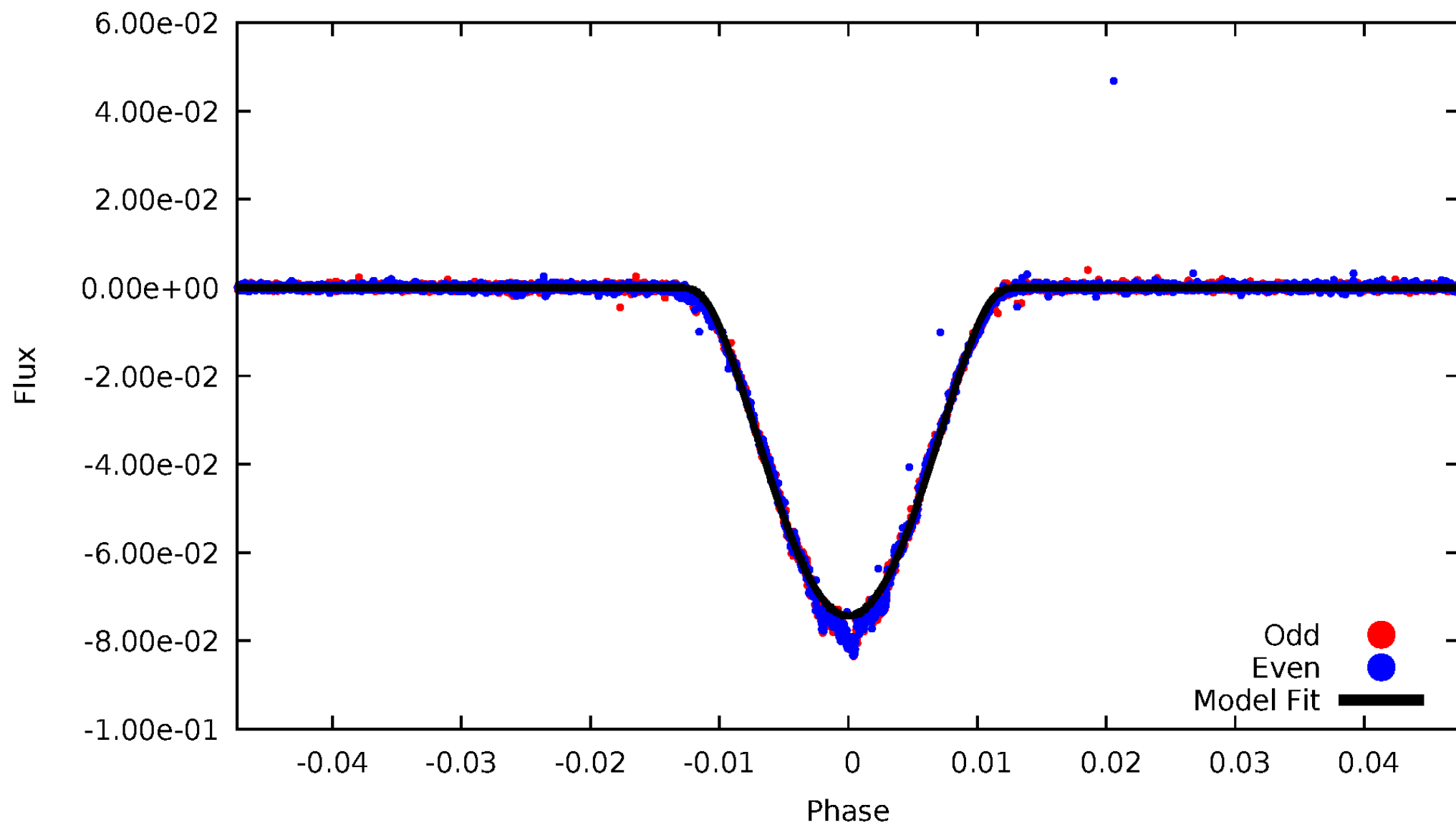


TCE 001026032-01



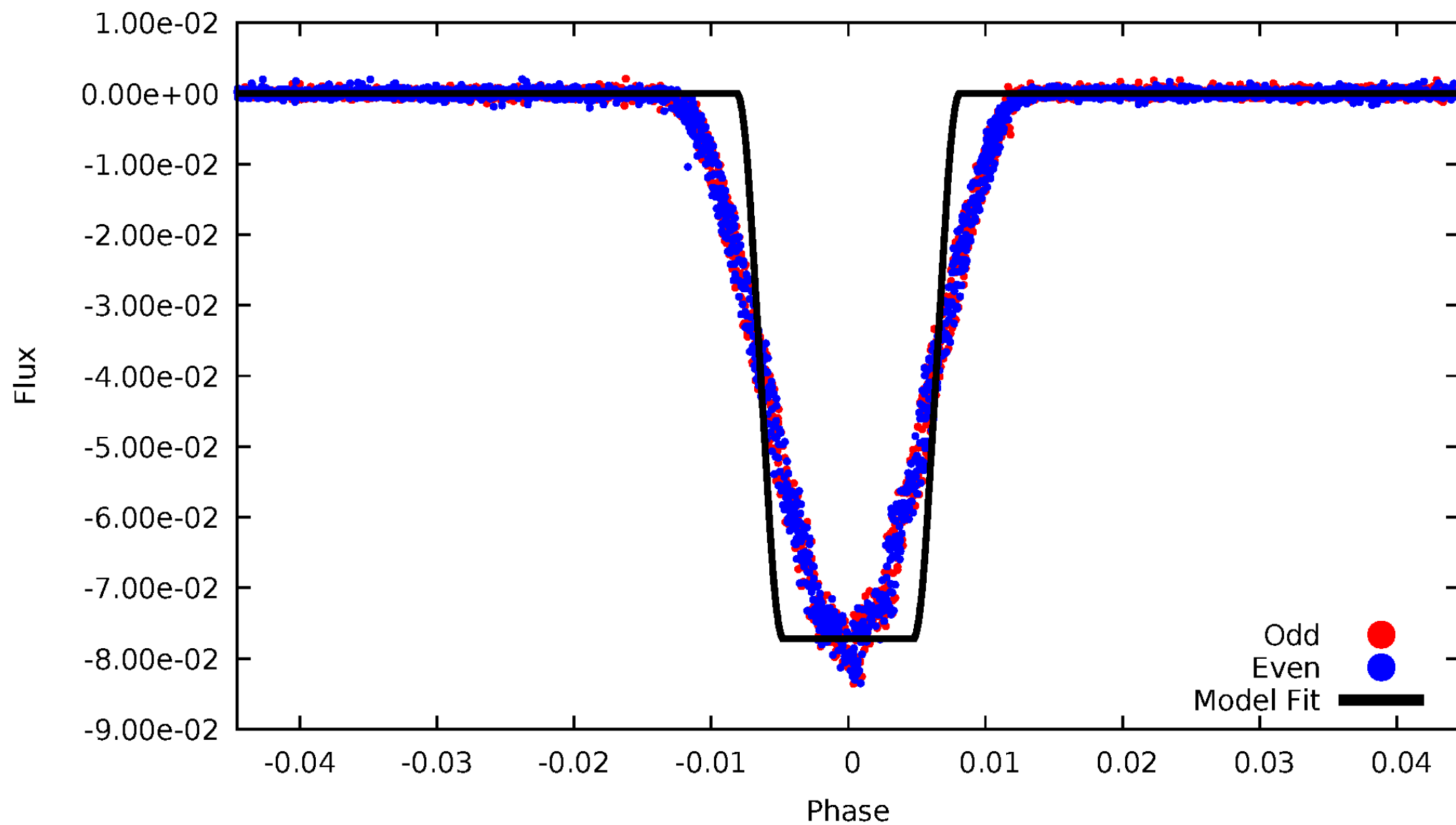
DV Odd/Even

TCE 001026032-01



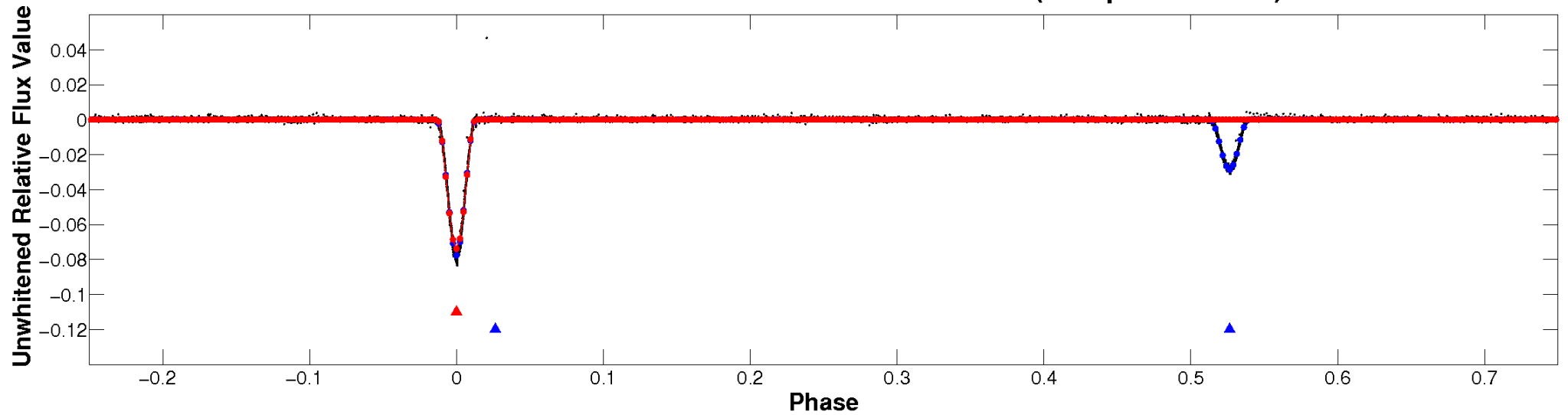
ALT Odd/Even

TCE 001026032-01

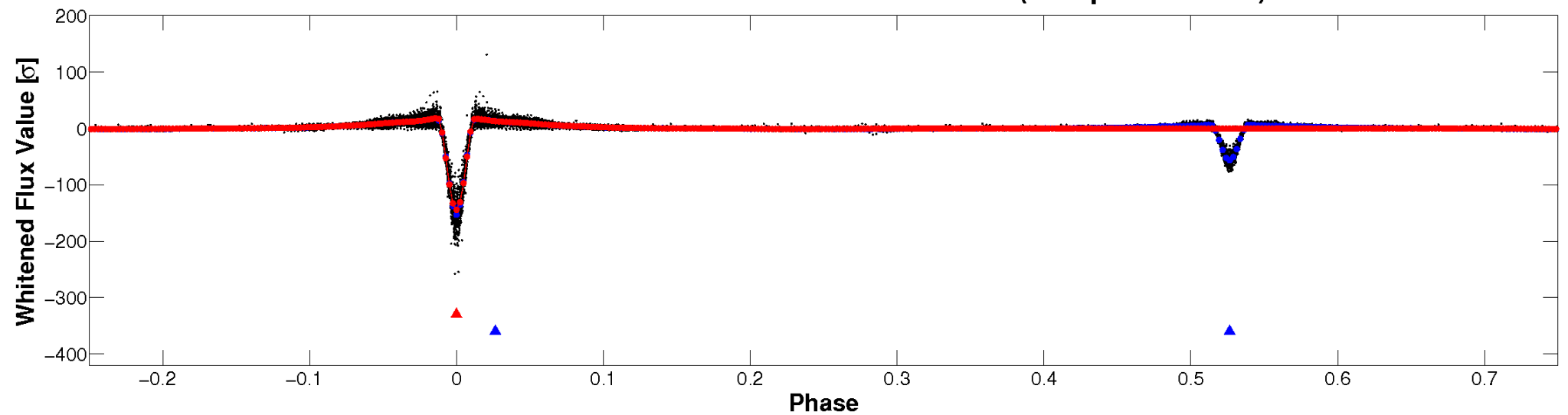


Non-Whitened Vs. Whitened Light Curve

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

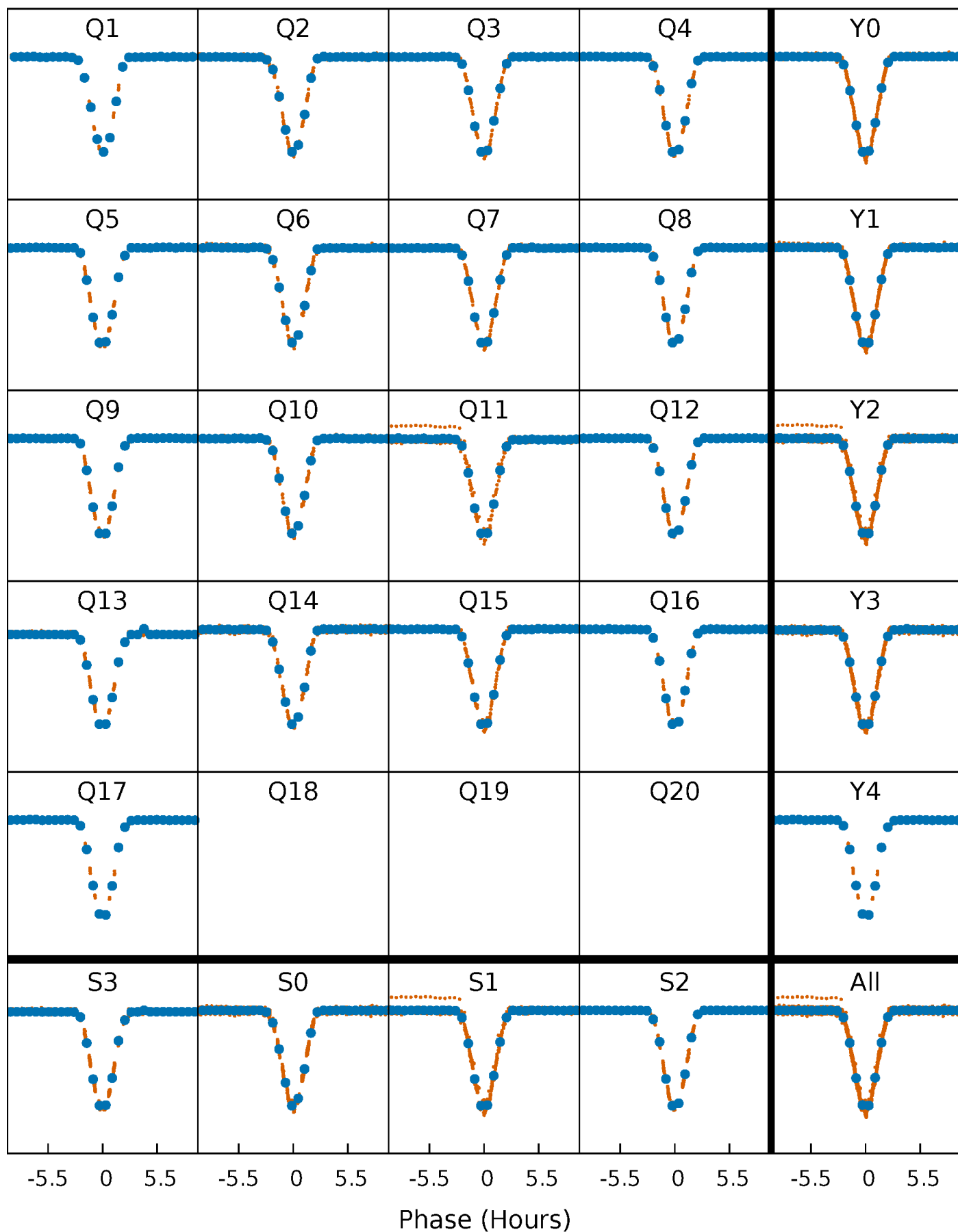


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



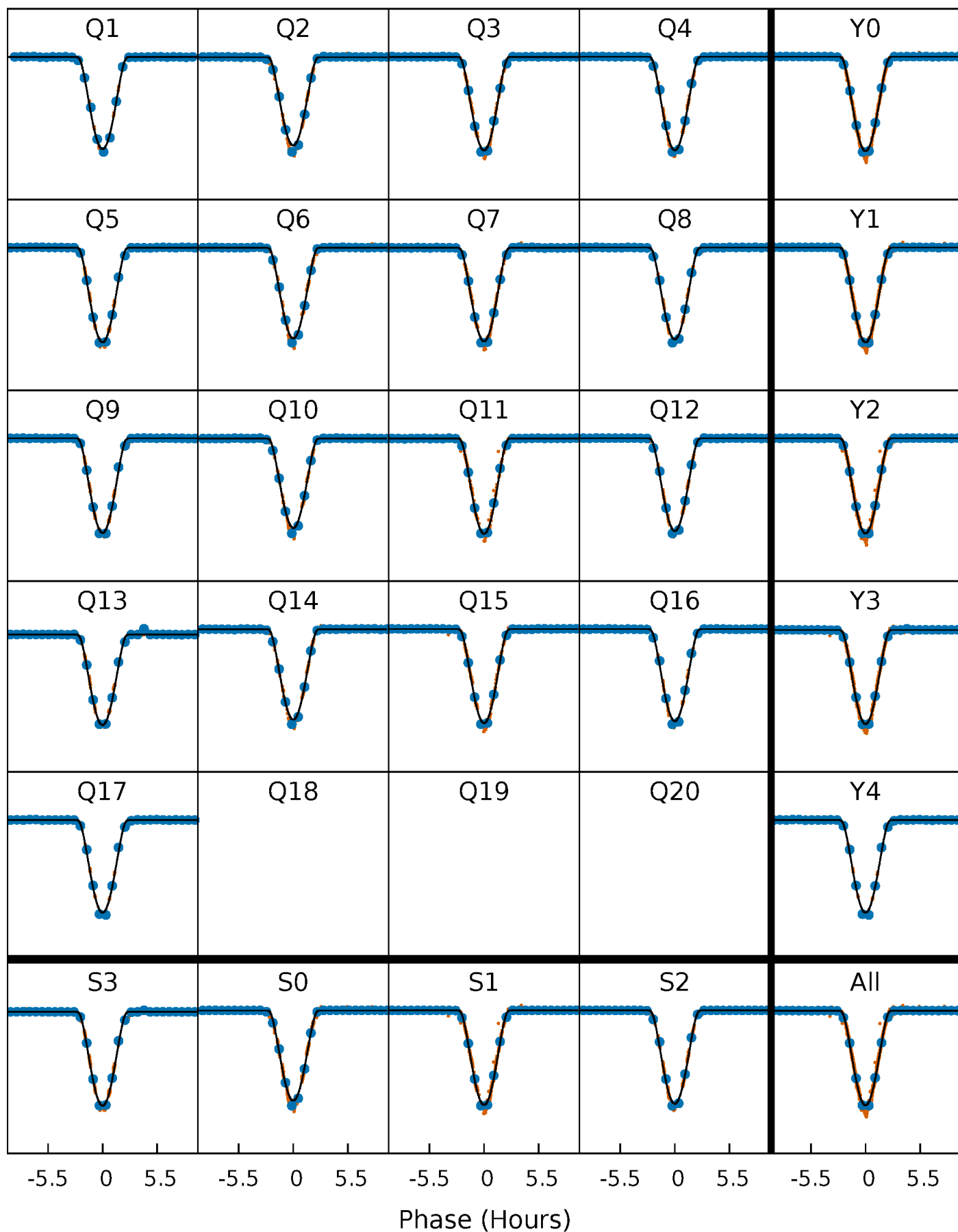
PDC Quarter-Phased Transit Curves

TCE 001026032-01 P= 8.460442 Days $T_0=133.774151$ (BKJD)



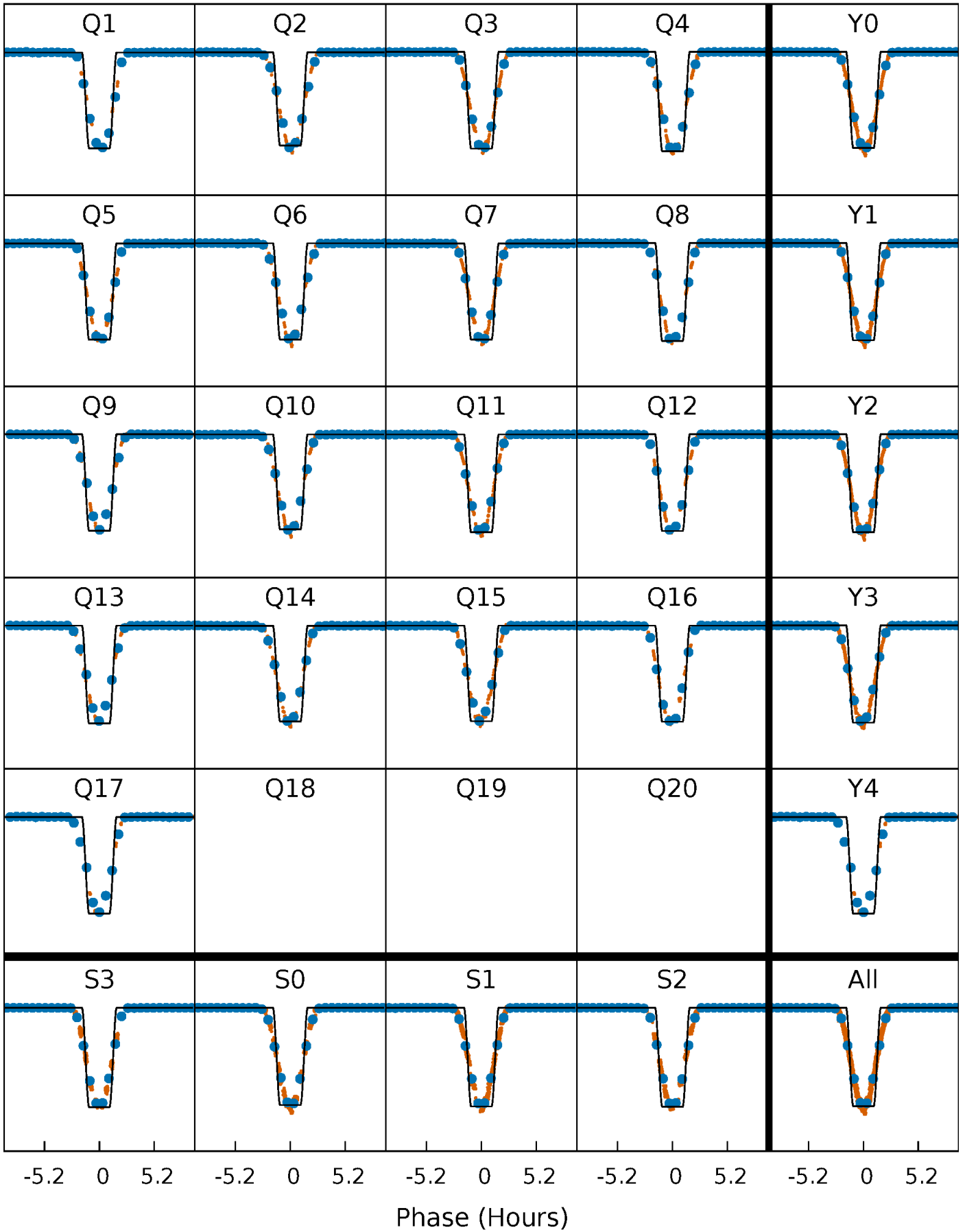
DV Quarter-Phased Transit Curves

TCE 001026032-01 P= 8.460442 Days $T_0=133.774151$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

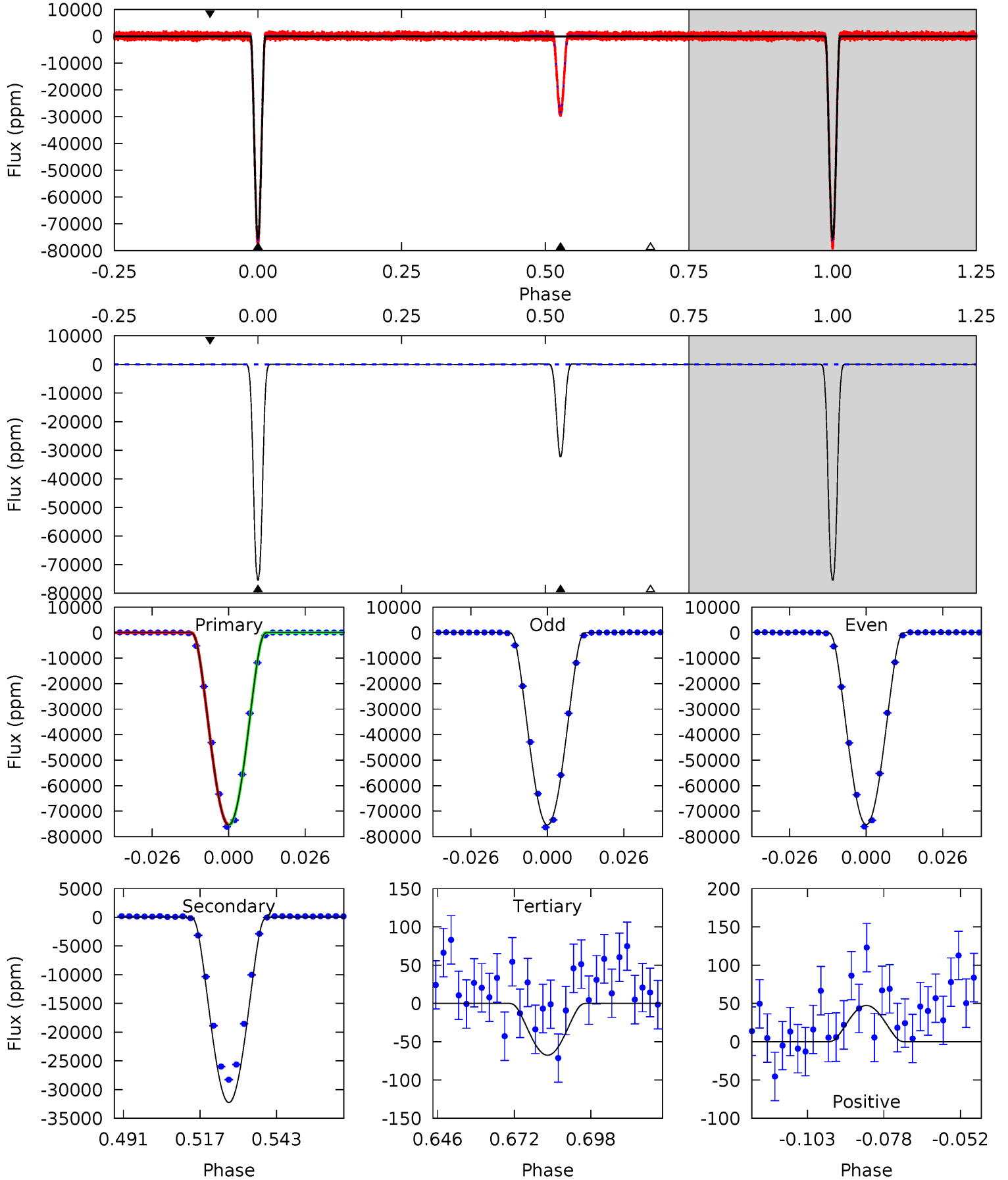
TCE 001026032-01 P= 8.460498 Days $T_0=133.769246$ (BKJD)



DV Model-Shift Uniqueness Test

001026032-01, P = 8.460442 Days, E = 125.313709 Days

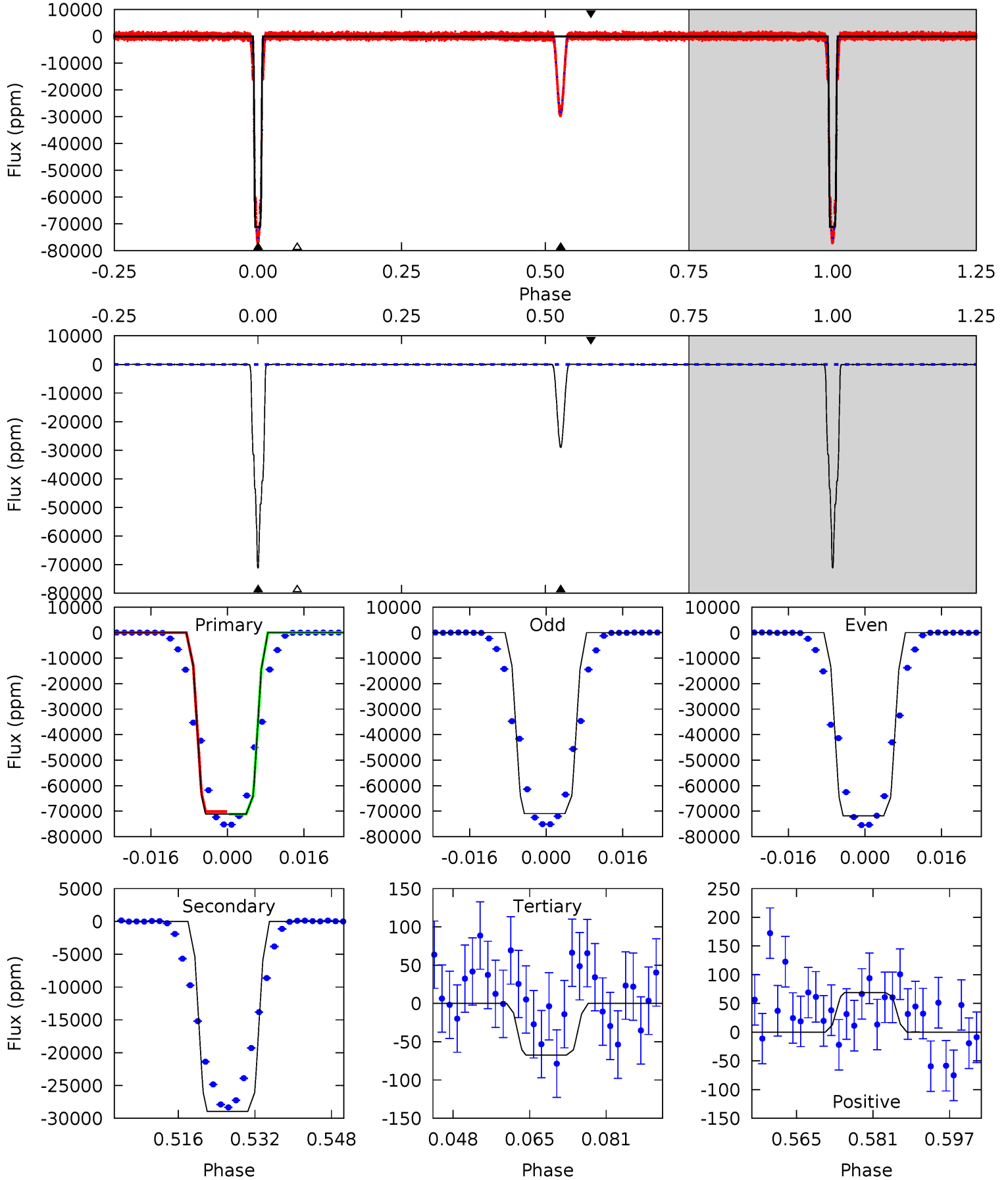
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6402	2738	5.75	4.02	4.84	2.23	4.55	6396	6398	2733	2734	3.44	1.00	0.00	0



Alt Model-Shift Uniqueness Test

001026032-01, P = 8.460498 Days, E = 125.308748 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3181	1295	3.01	3.09	4.93	2.41	1.19	3178	3178	1292	1292	18.2	1.00	0.00	0



Stellar Parameters For KIC 001026032

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5951^{+160}_{-178}	$4.638^{+0.032}_{-0.128}$	$-1.060^{+0.300}_{-0.300}$	$0.702^{+0.122}_{-0.041}$	$0.796^{+0.049}_{-0.074}$	$3.241^{+0.400}_{-1.209}$
	+3%/-3%	+1%/-3%	+28%/-28%	+17%/-6%	+6%/-9%	+12%/-37%
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 001026032-01 / KOI 6252.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-32254 ± 12	$32.53^{+3.27}_{-2.58}$	1138^{+54}_{-42}	4211^{+124}_{-121}	97^{+16}_{-16}
Alt.	-28954 ± 22	$22.06^{+2.56}_{-2.24}$	1138^{+54}_{-42}	4800^{+213}_{-195}	189^{+43}_{-36}

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 $A_{obs} \gg 1.0$

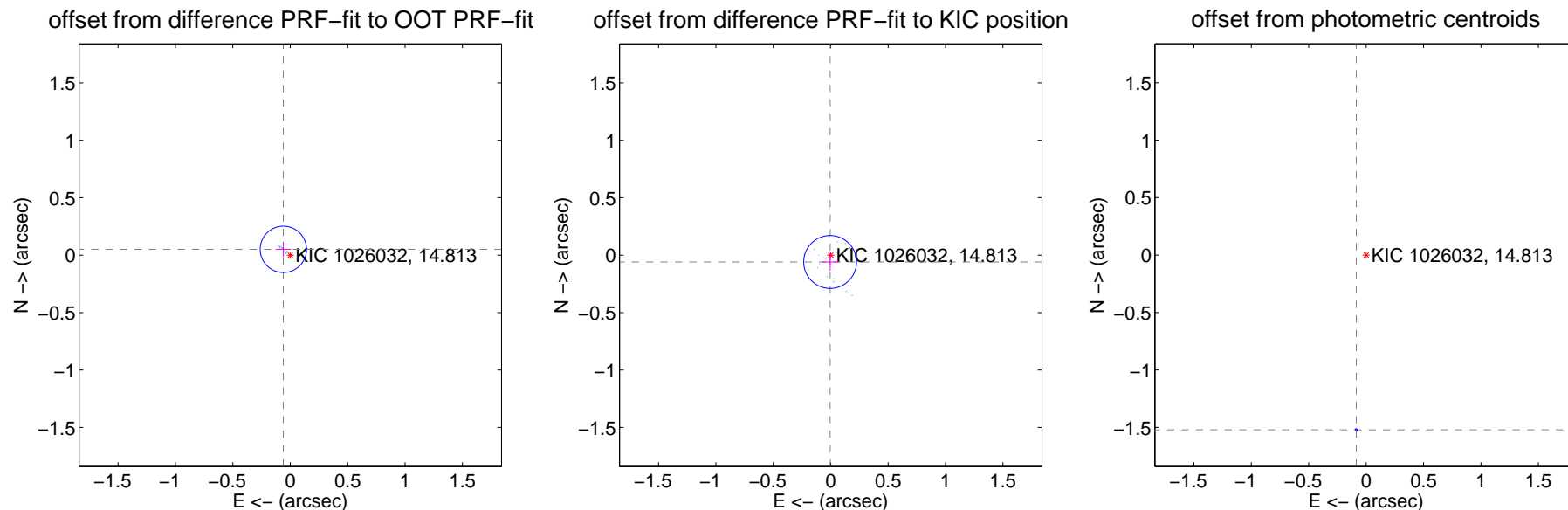
DV Centroid Data

Supplemental centroid analysis for 001026032-01. Kepler magnitude: 14.81. Transit SNR 2291.81

There are 17 quarters with good PRF difference image offsets

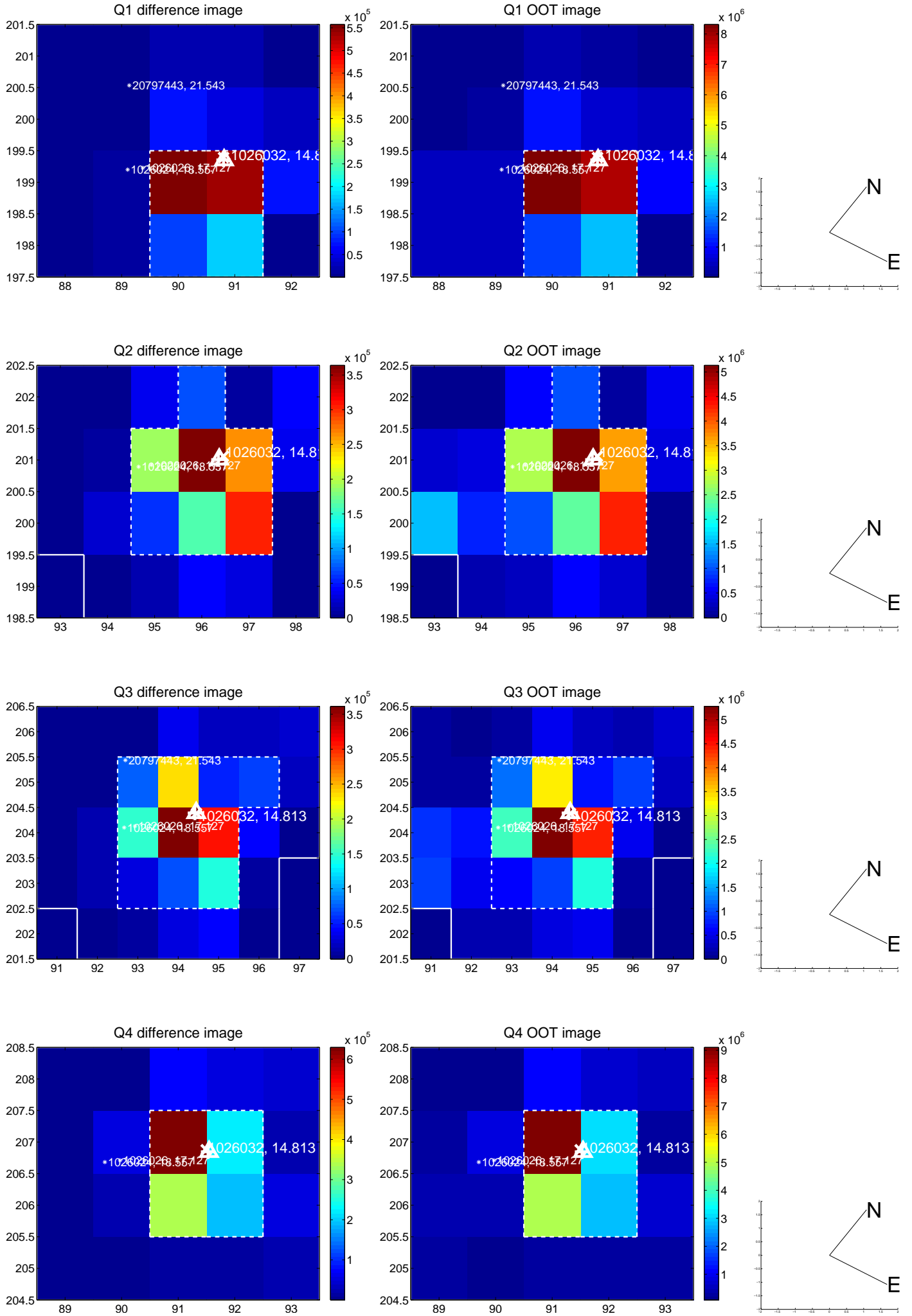
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.079 ± 0.067	1.17	0.060 ± 0.067	0.051 ± 0.067
PRF-fit source offset from KIC position	0.060 ± 0.077	0.78	0.005 ± 0.074	-0.059 ± 0.077
photometric centroid source offset	1.52 ± 0.00	461.48	0.09 ± 0.00	-1.52 ± 0.00

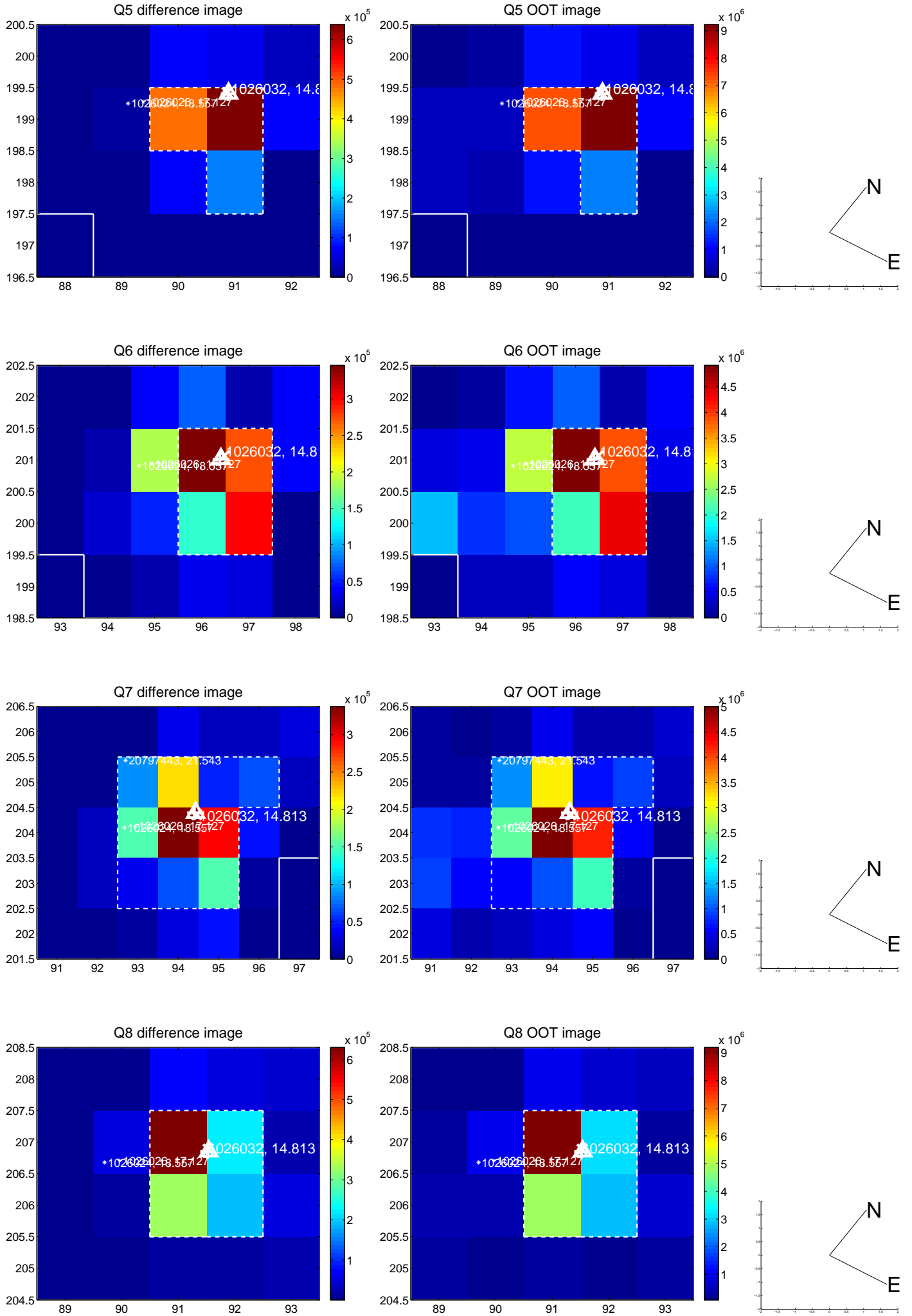


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

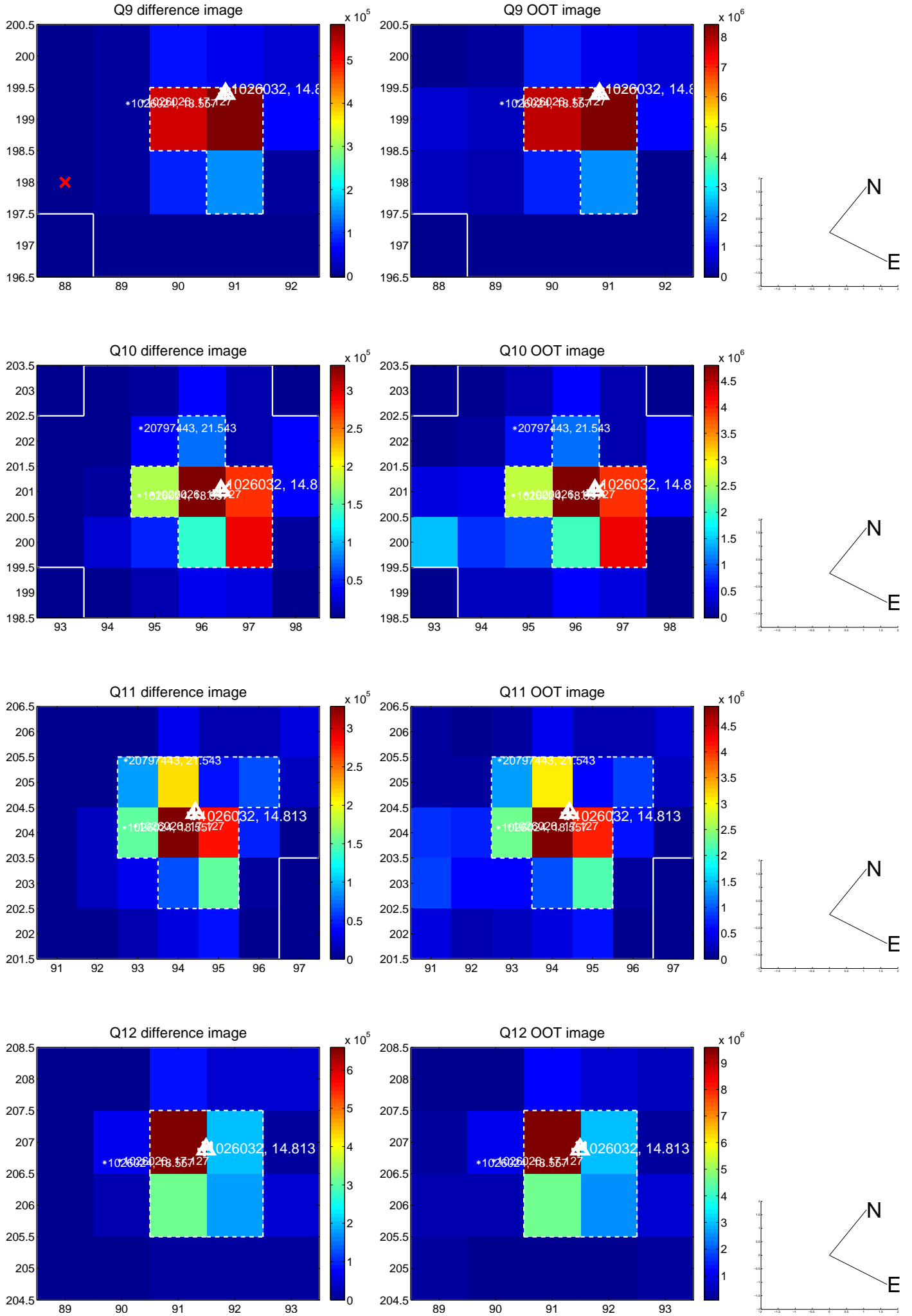
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



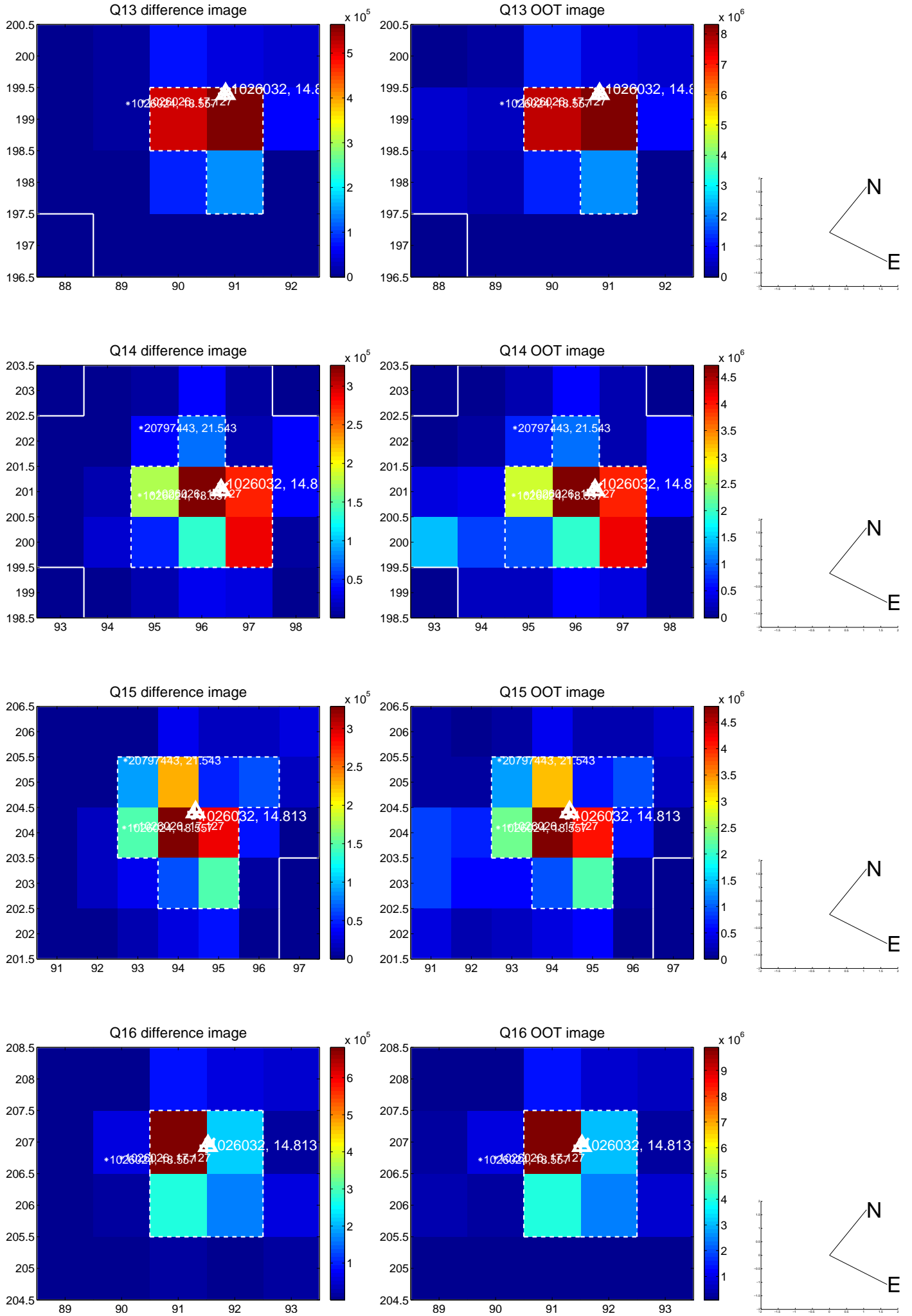
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



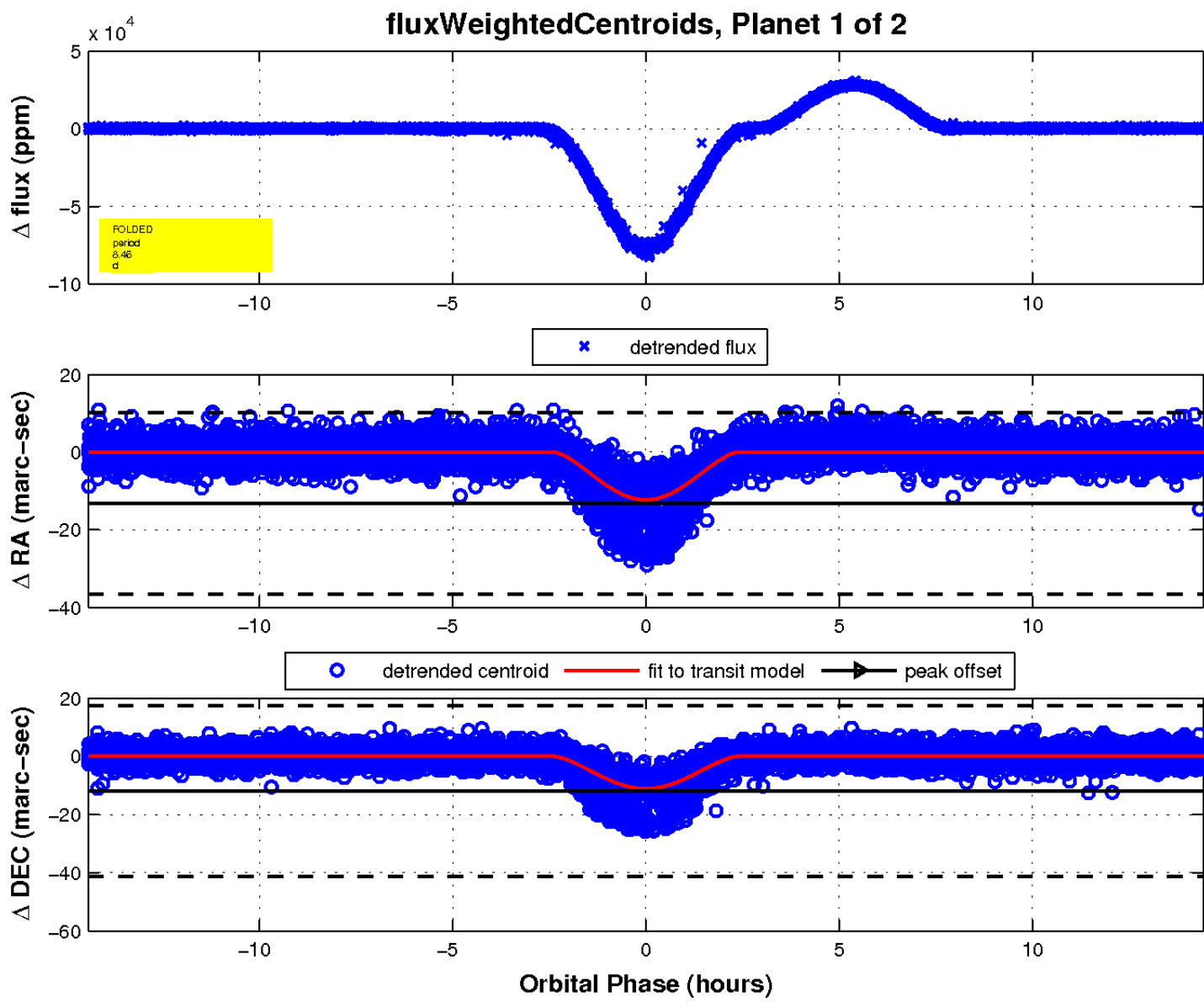
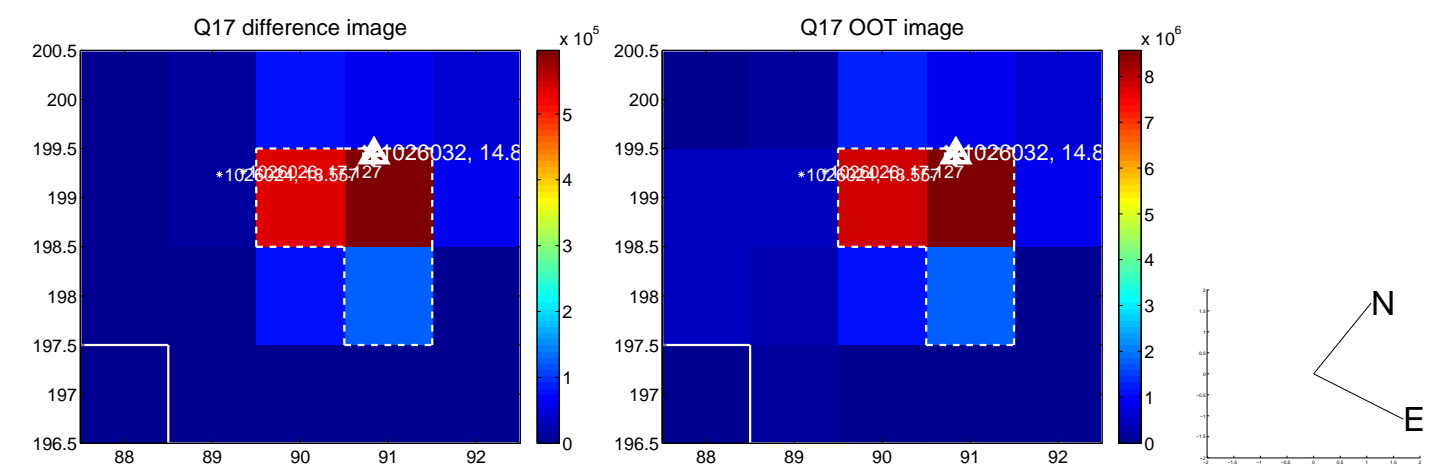
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

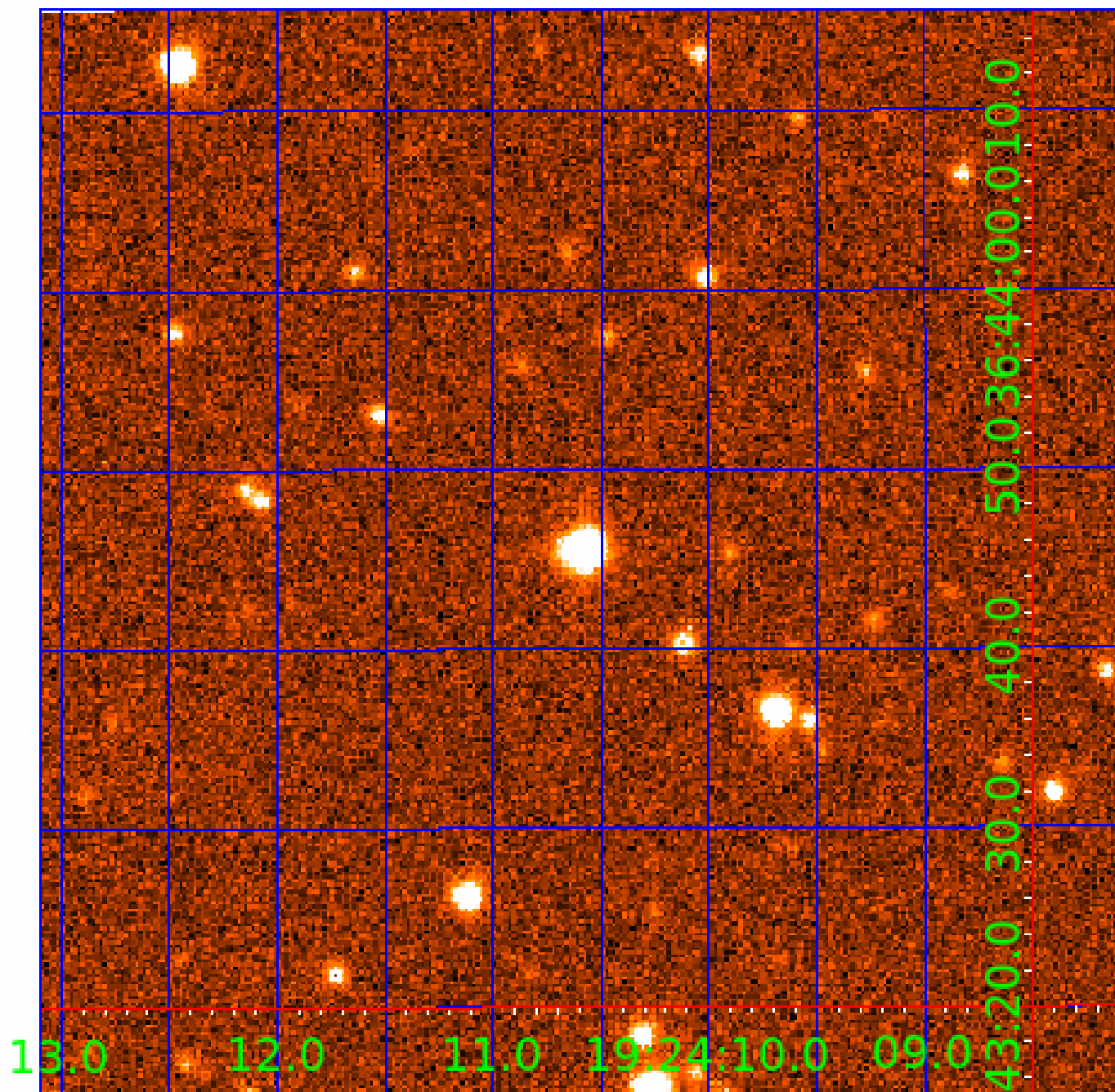


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 001026032

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})
001026032-01	OBS	6252.01	8.460442	133.774151	74352.6	4.810	3704.5	2291.8	0.70	5951	31.59	98.84
001026032-02	OBS	No	4.230222	133.998017	28042.8	4.699	1384.9	1299.5	0.70	5951	20.30	249.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001026032-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
001026032-02	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 001026032-02

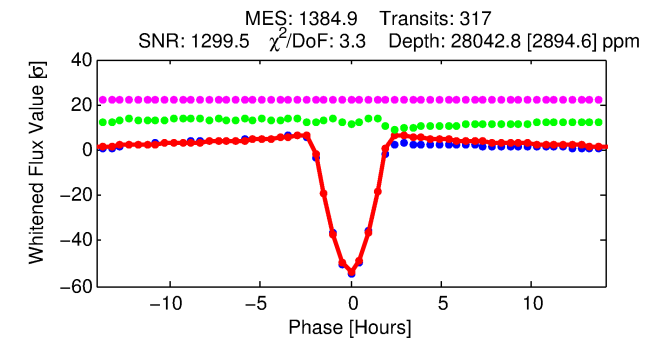
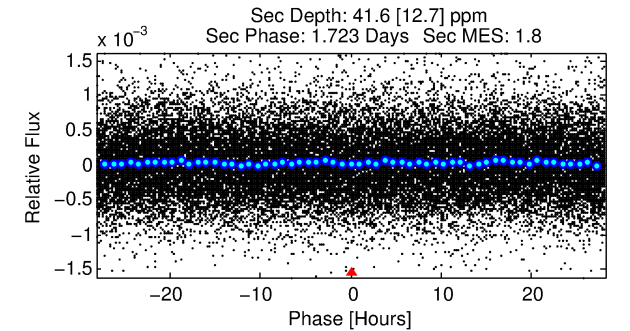
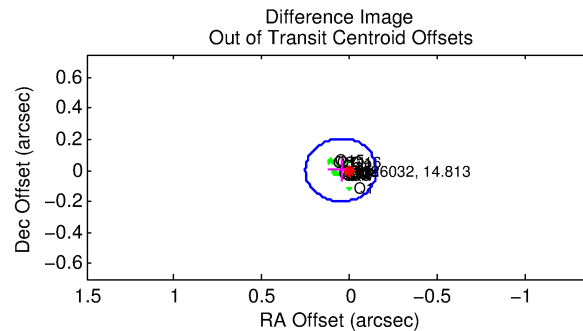
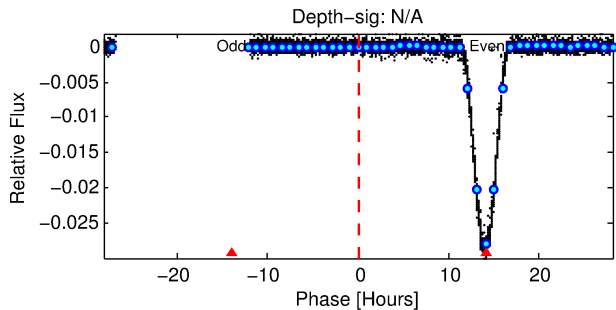
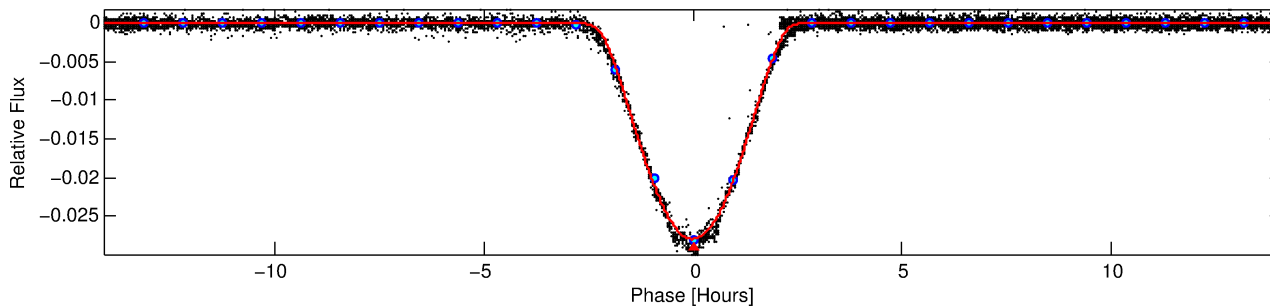
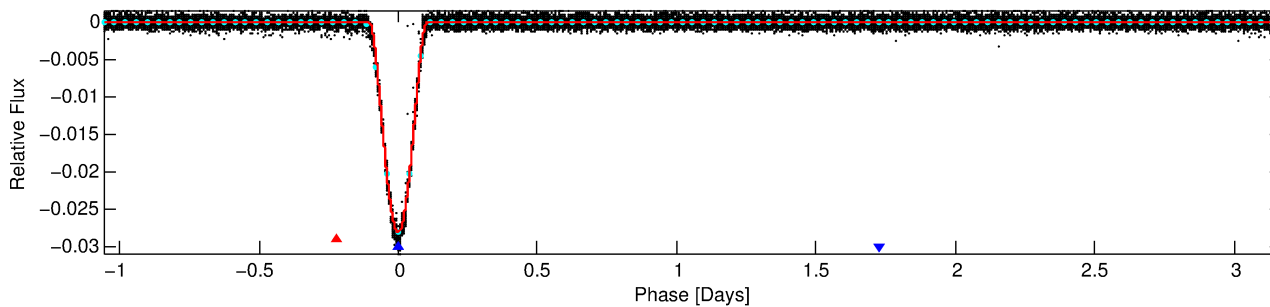
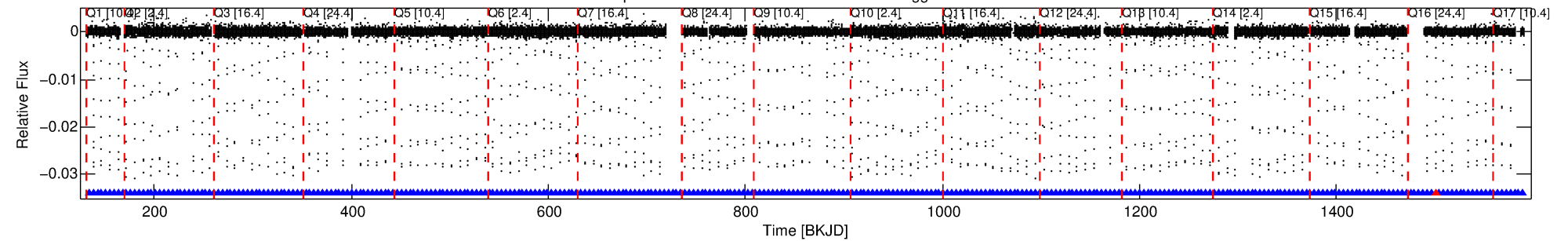
No Significant Match Found

DV One-Page Summary

KIC: 1026032 Candidate: 2 of 2 Period: 4.230 d

KOI: K06252 Corr: No Ephemeris Match

Kp: 14.81 R*: 0.70 Rs Teff: 5951.0 K Logg: 4.64 Fe/H: -1.060



DV Fit Results:

Period = 4.23022 [0.00000] d
Epoch = 133.9980 [0.0001] BKJD
Rp/R* = 0.2649 [0.0291]
a/R* = 5.44 [0.04]
b = 1.00 [0.02]
Seff = 249.07 [64.16]
Teff = 1013 [65] K
Rp = 20.29 [4.17] Re
a = 0.0472 [0.0072] AU
Ag = 0.12 [0.05] [-16.15σ]
Teffp = 928 [92] K [-0.75σ]

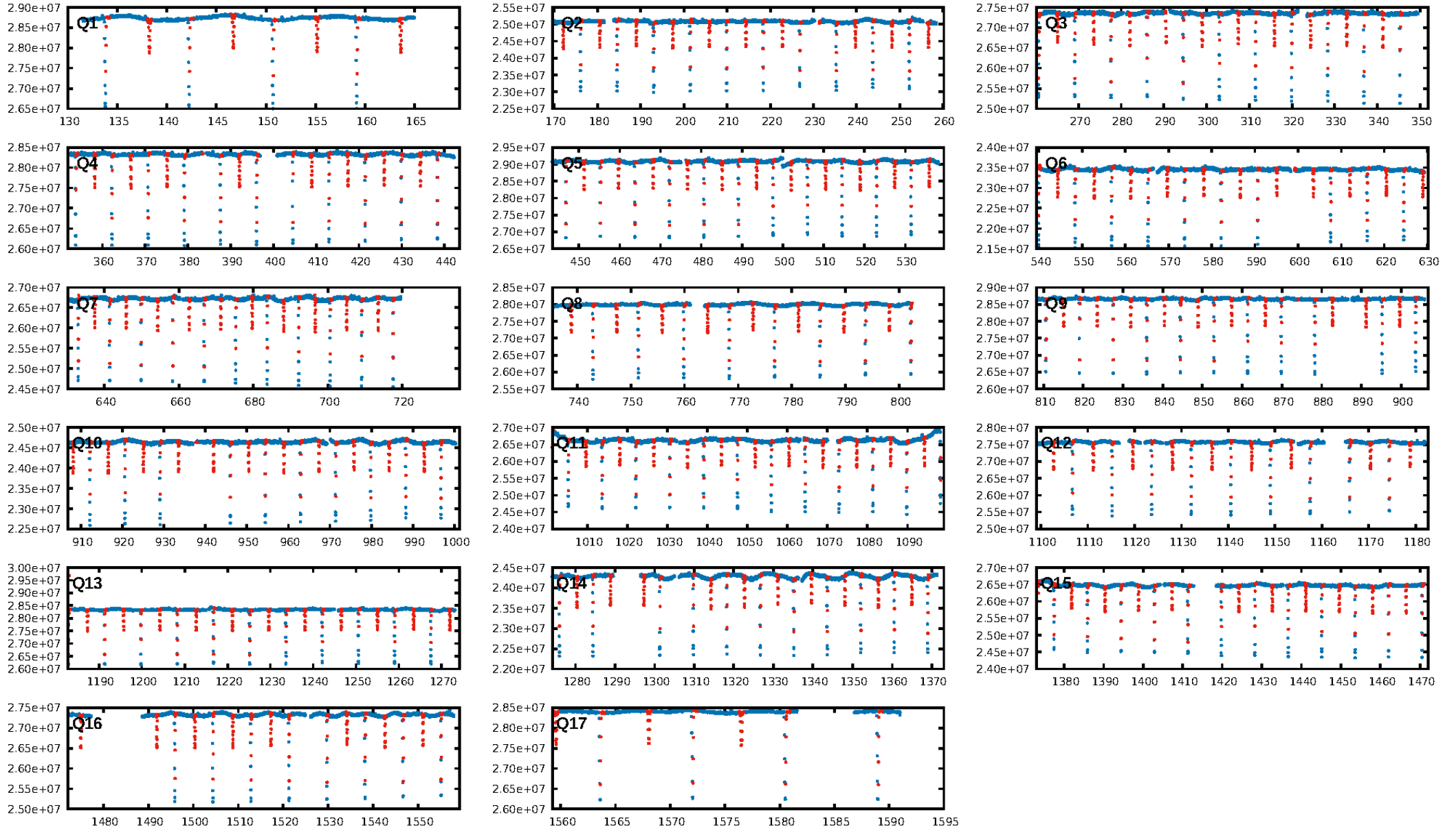
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [15.10σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [301/302]
GhostDiagnostic-chr: 1.189
Centroid-sig: 0.0%
Centroid-so: 1.639 arcsec [263.77σ]
OotOffset-rm: 0.050 arcsec [0.74σ]
KicOffset-rm: 0.126 arcsec [1.54σ]
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]

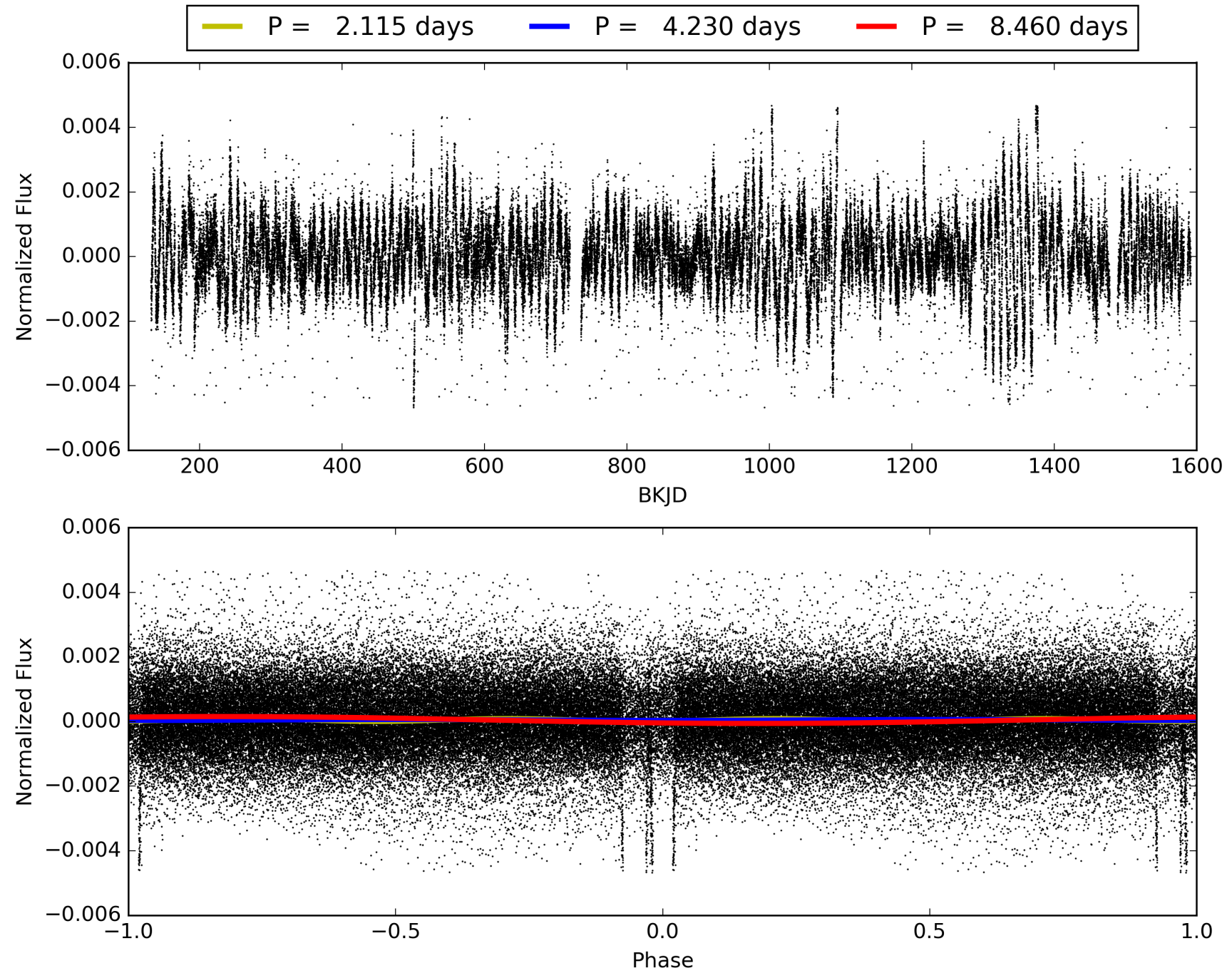
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 16:12:16 Z

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

TCE 001026032-02, PDC Light Curves

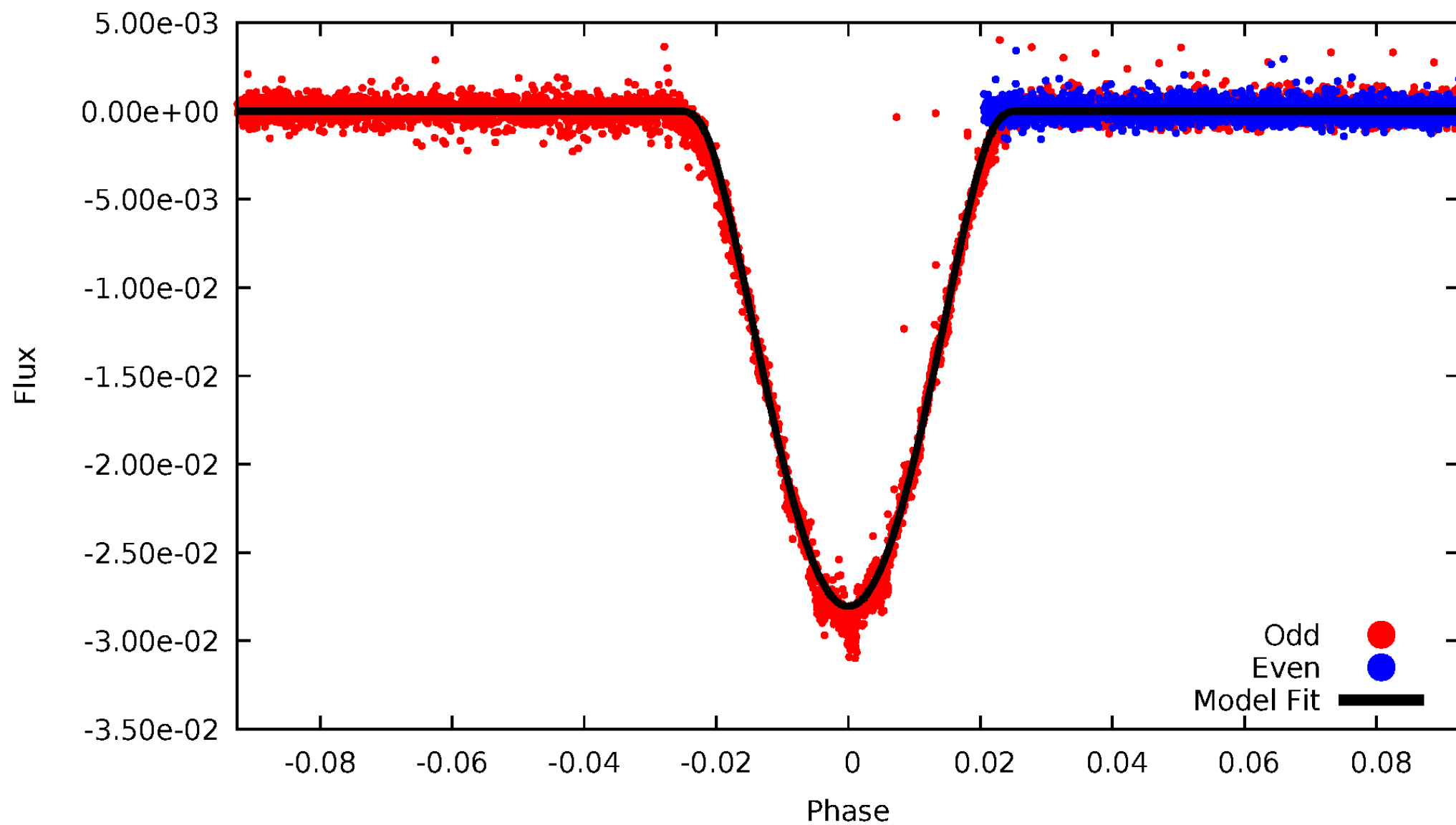


TCE 001026032-02



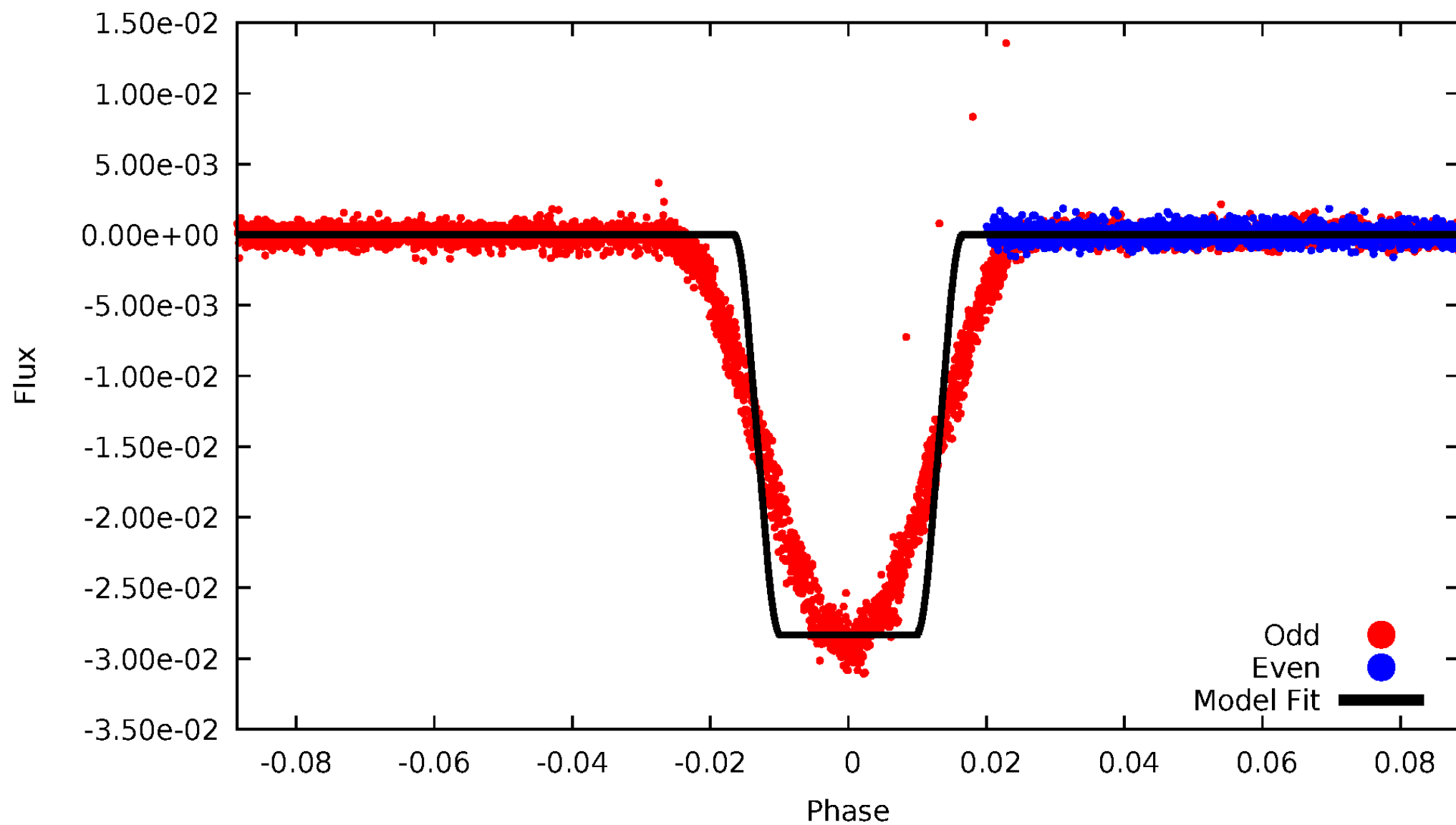
DV Odd/Even

TCE 001026032-02



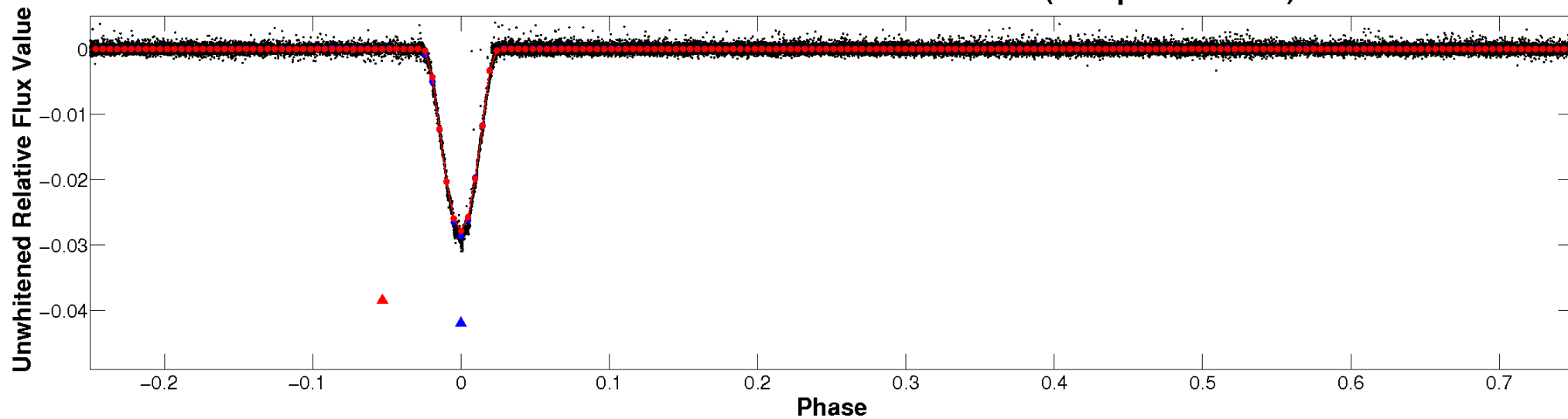
ALT Odd/Even

TCE 001026032-02

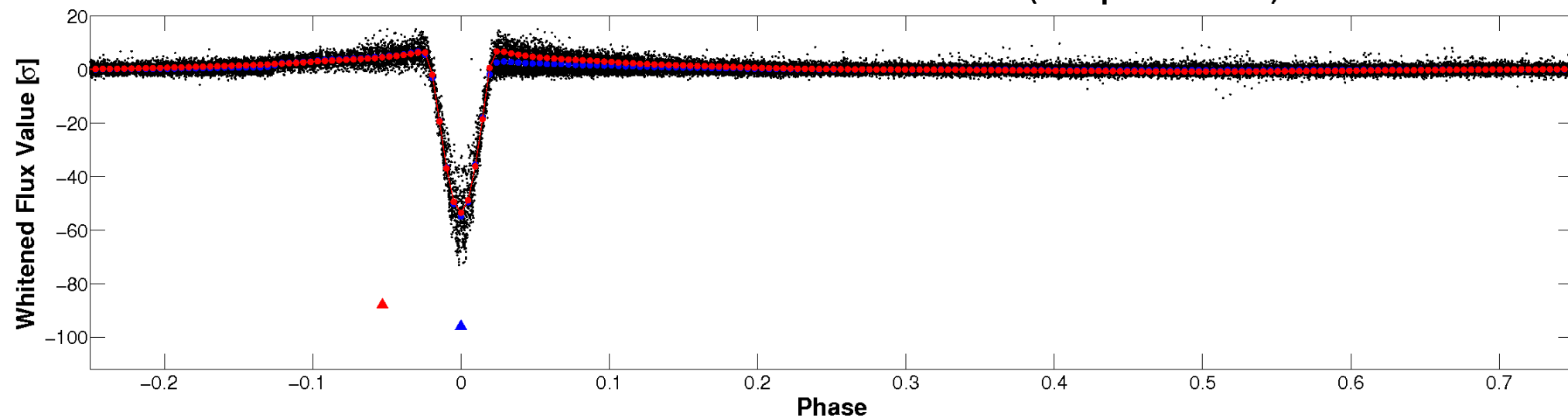


Non-Whitened Vs. Whitened Light Curve

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

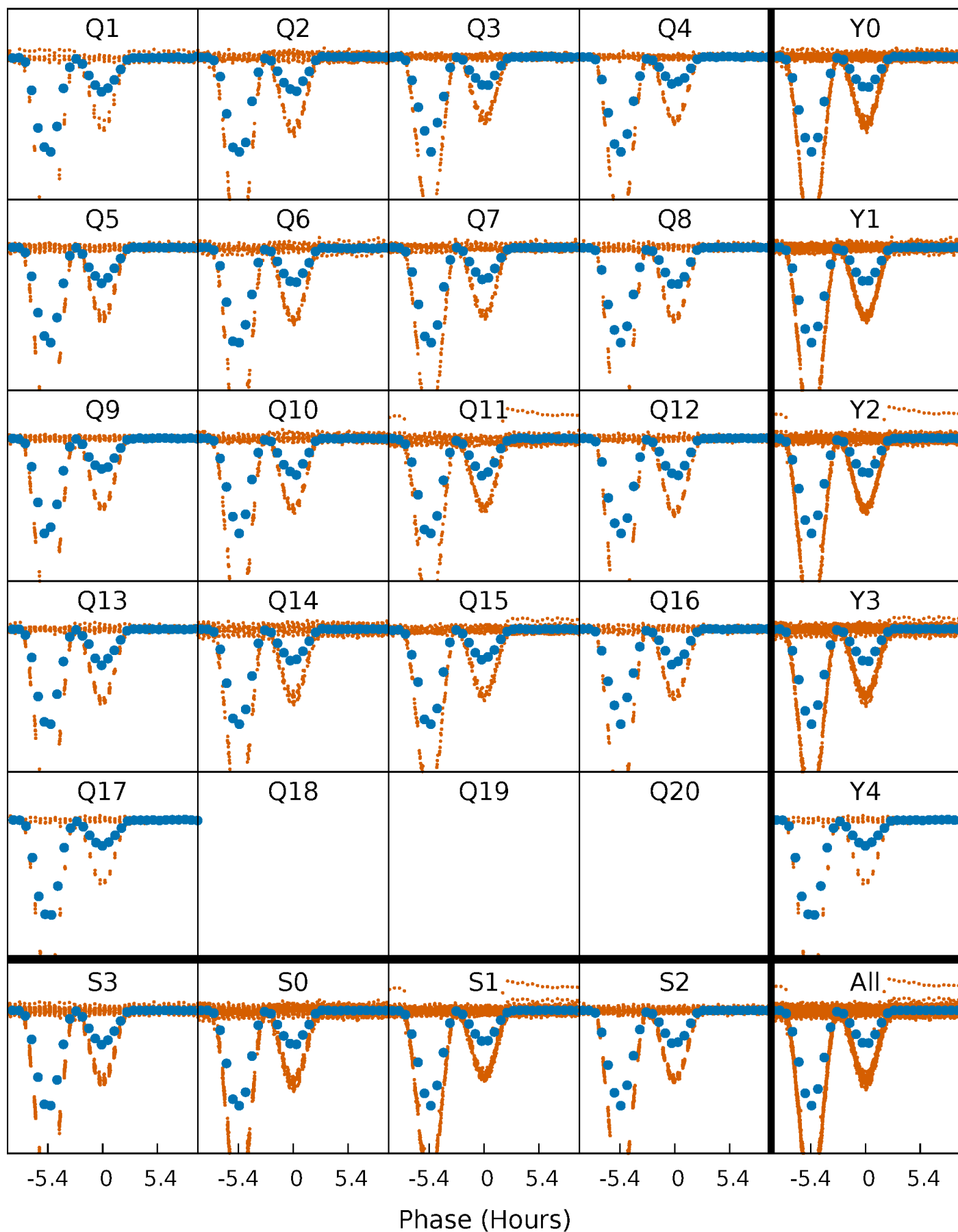


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



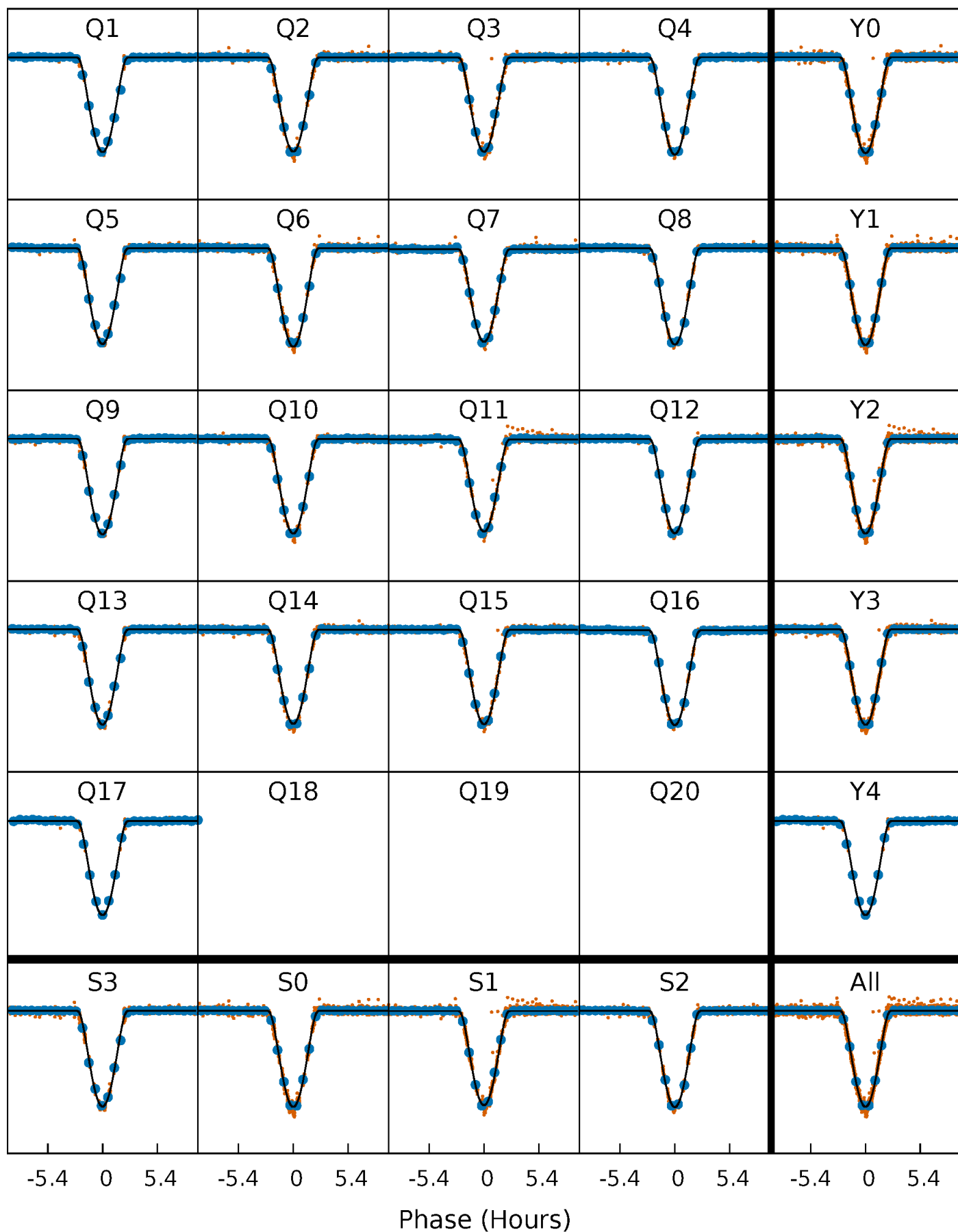
PDC Quarter-Phased Transit Curves

TCE 001026032-02 P= 4.230222 Days $T_0=133.998017$ (BKJD)



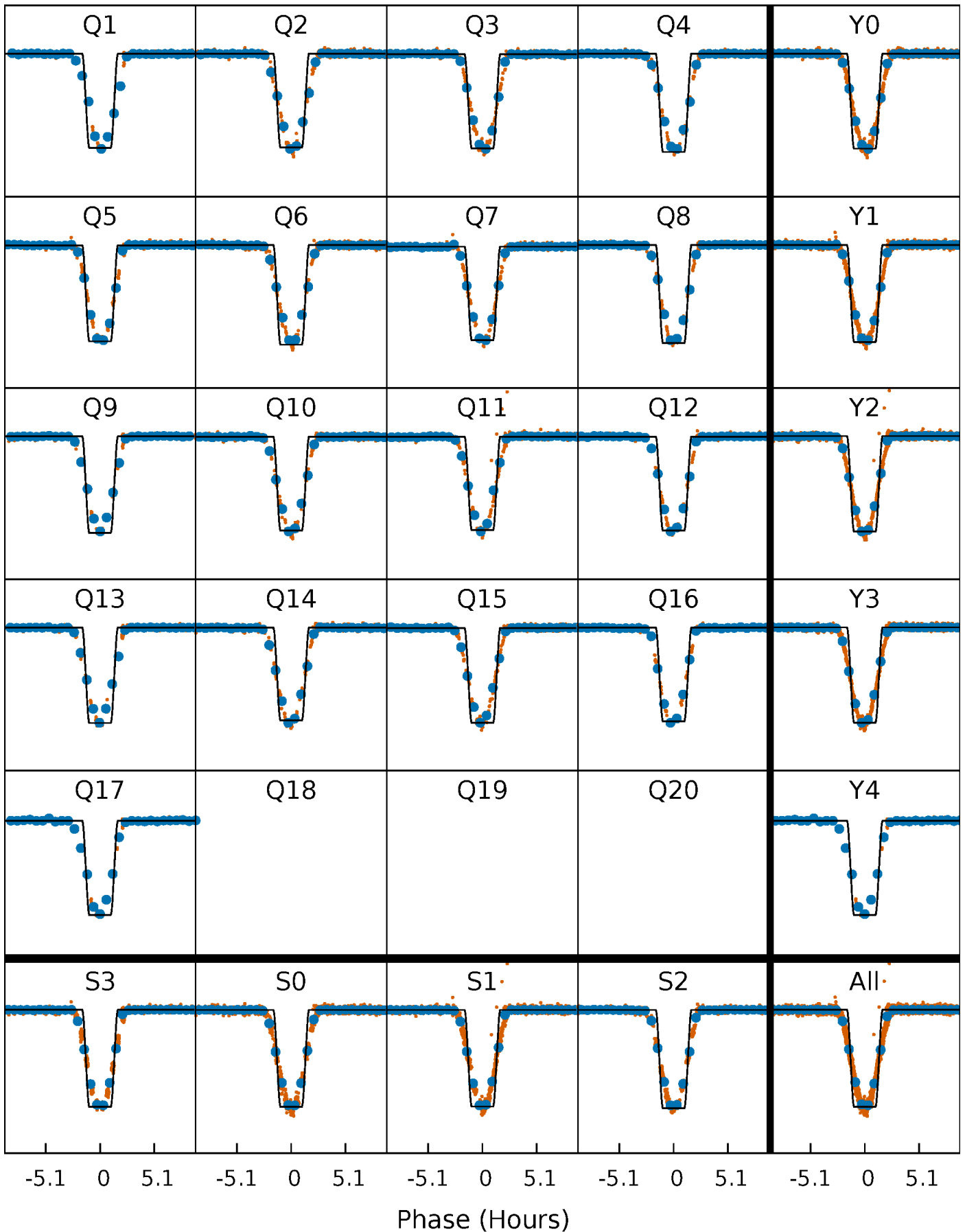
DV Quarter-Phased Transit Curves

TCE 001026032-02 P= 4.230222 Days $T_0=133.998017$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

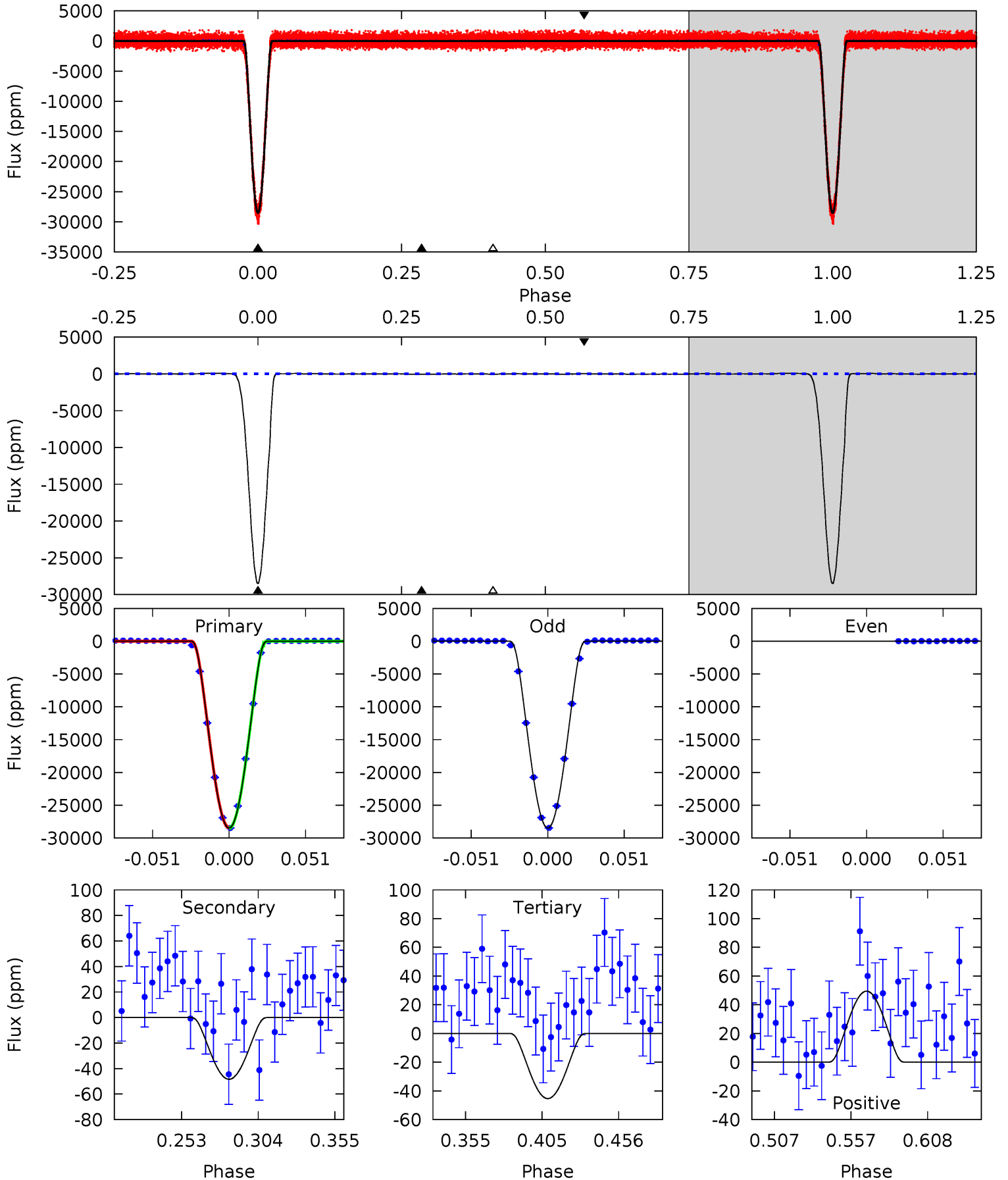
TCE 001026032-02 P= 4.230249 Days $T_0=133.992702$ (BKJD)



DV Model-Shift Uniqueness Test

001026032-02, P = 4.230222 Days, E = 129.767795 Days

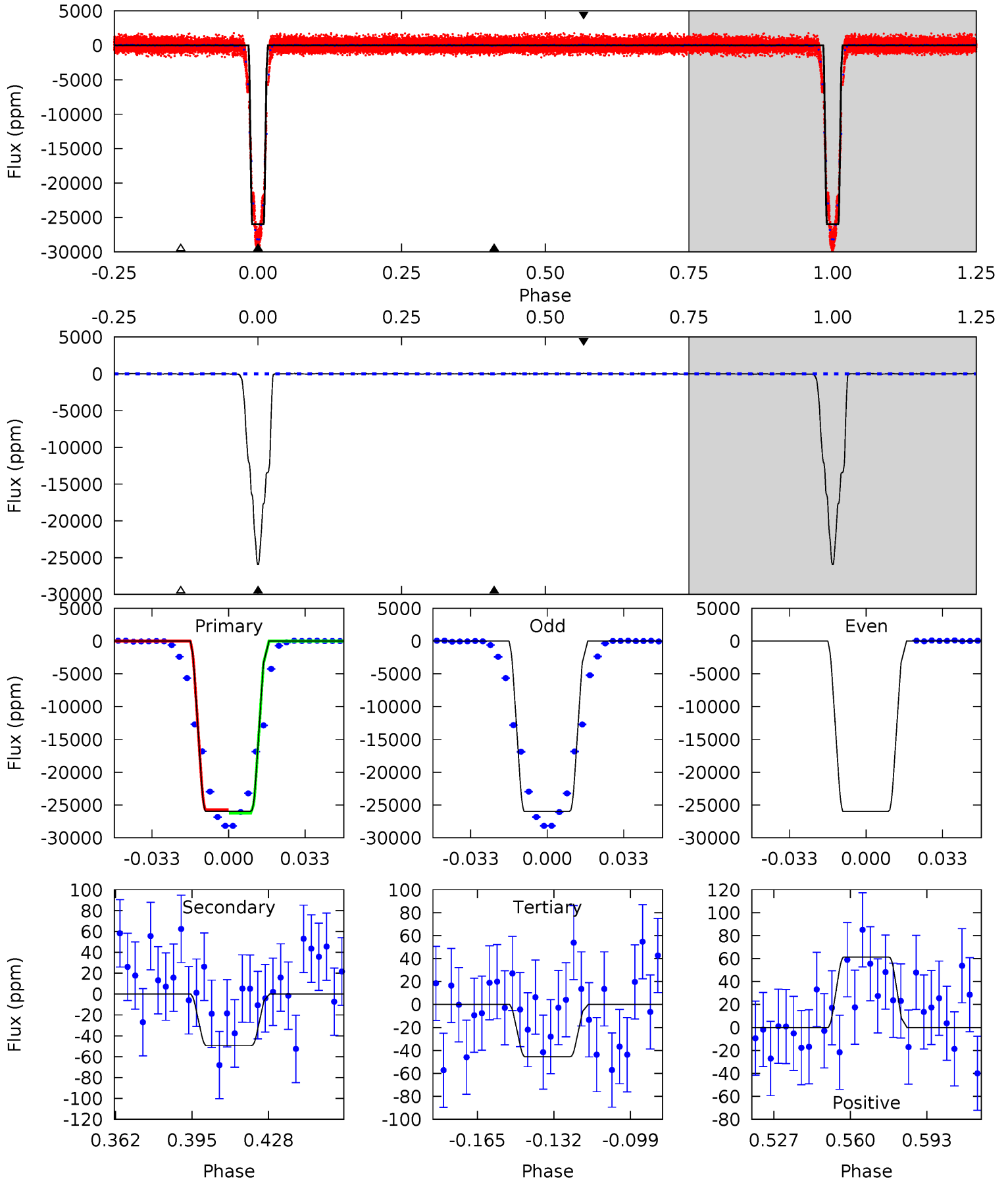
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2659	4.52	4.24	4.62	4.71	1.95	2.31	2655	2655	0.28	-0.10	785.4	0.99	0.00	2.73



Alt Model-Shift Uniqueness Test

001026032-02, P = 4.230249 Days, E = 129.762453 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1587	3.01	2.78	3.74	4.79	2.13	1.09	1584	1583	0.24	-0.73	0	1.00	0.00	0



Stellar Parameters For KIC 001026032

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5951^{+160}_{-178}	$4.638^{+0.032}_{-0.128}$	$-1.060^{+0.300}_{-0.300}$	$0.702^{+0.122}_{-0.041}$	$0.796^{+0.049}_{-0.074}$	$3.241^{+0.400}_{-1.209}$
	+3%/-3%	+1%/-3%	+28%/-28%	+17%/-6%	+6%/-9%	+12%/-37%
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 001026032-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-48 ± 11	$20.59^{+3.30}_{-2.50}$	1437^{+62}_{-56}	-2011^{+83}_{-72}	$0.132^{+0.050}_{-0.040}$
Alt.	-49 ± 16	$13.07^{+2.77}_{-2.39}$	1437^{+62}_{-56}	1724^{+368}_{-3663}	$0.333^{+0.210}_{-0.140}$

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

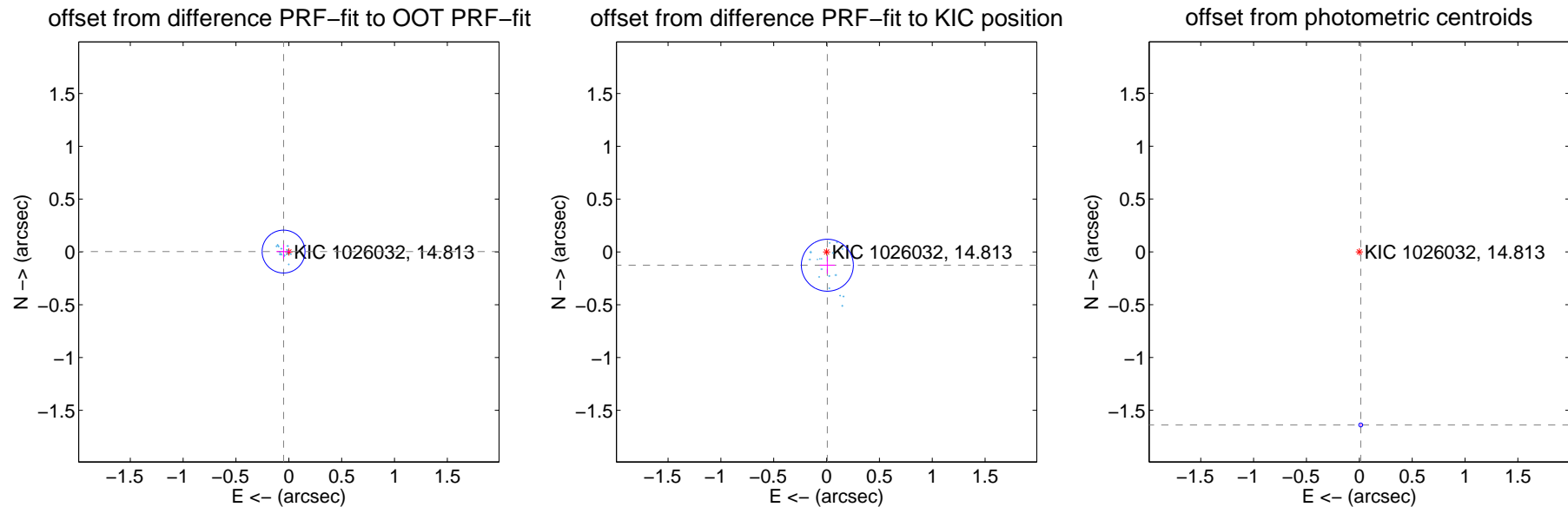
DV Centroid Data

Supplemental centroid analysis for 001026032-02. Kepler magnitude: 14.81. Transit SNR 1299.51

There are 17 quarters with good PRF difference image offsets

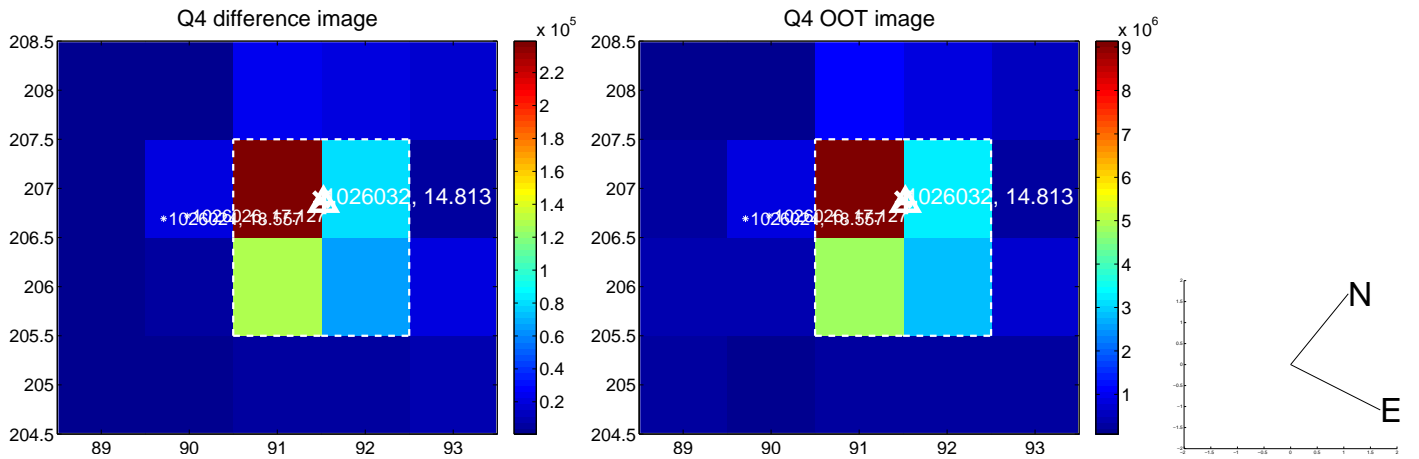
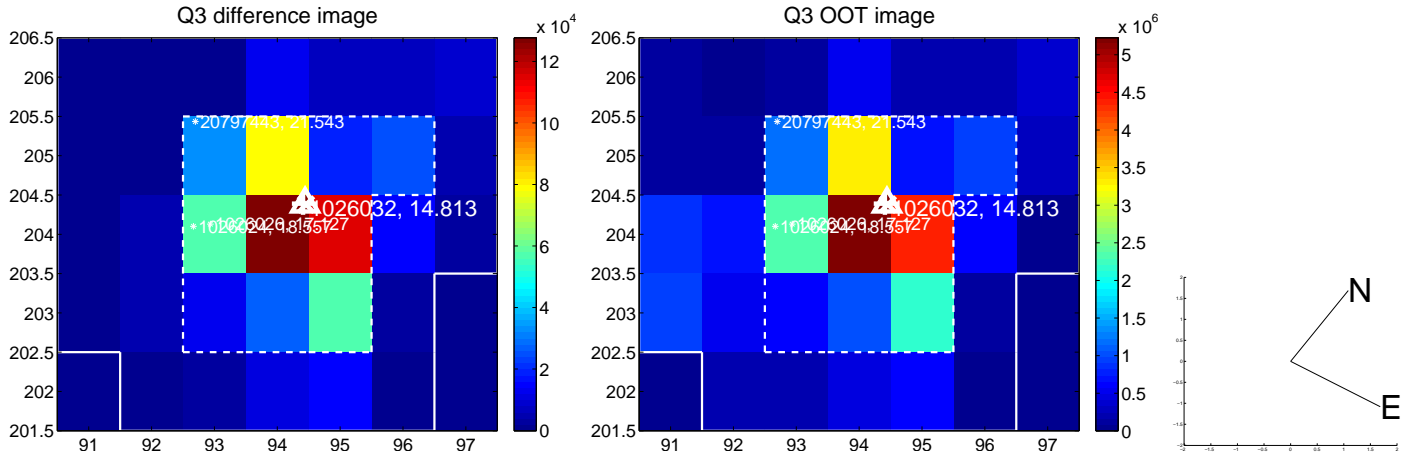
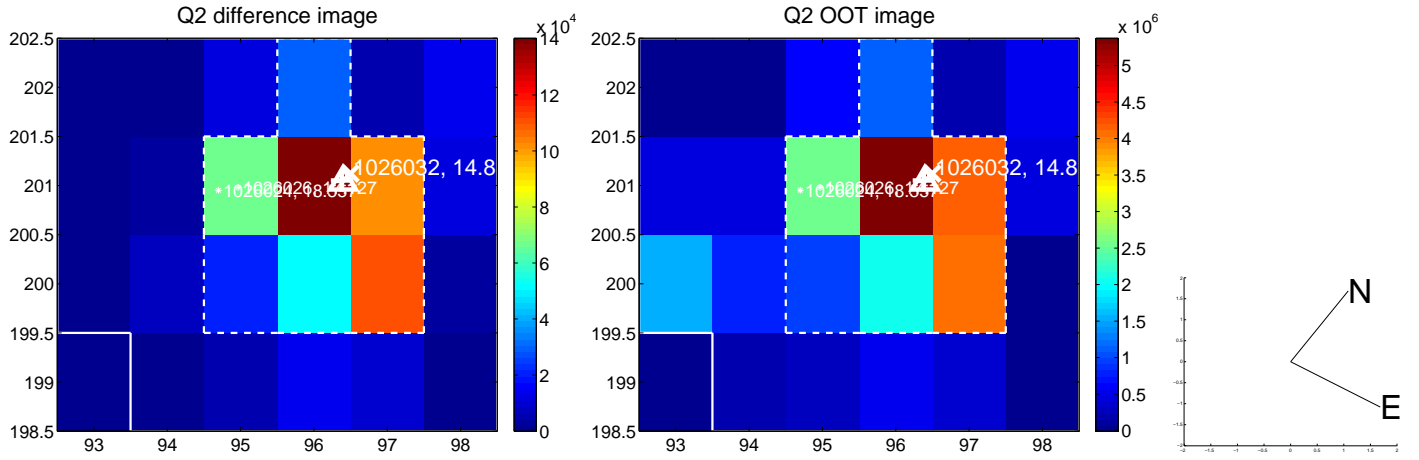
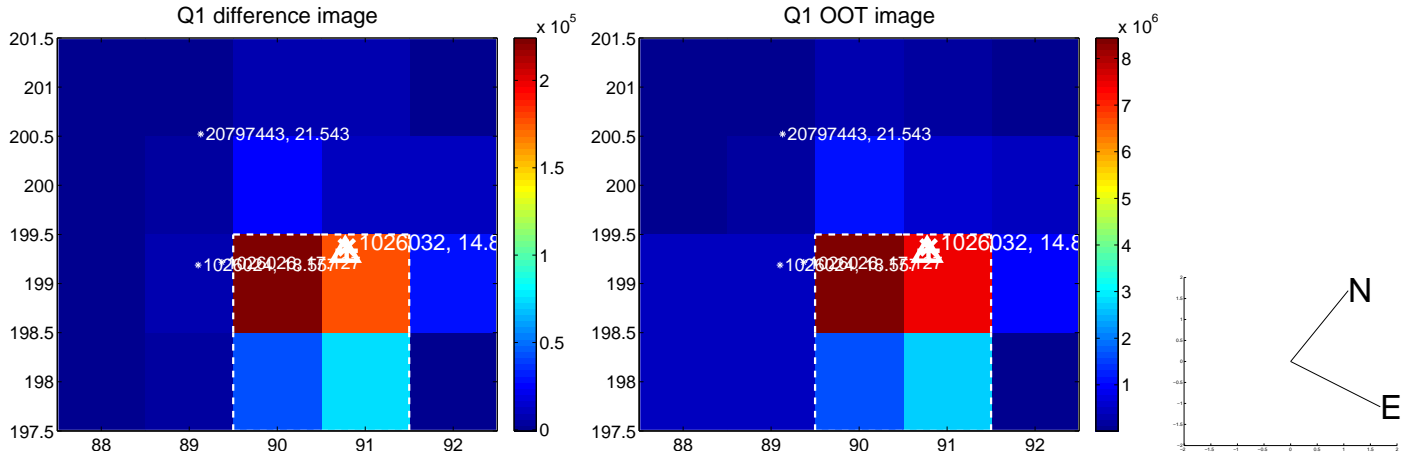
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.050 ± 0.068	0.74	0.050 ± 0.068	0.003 ± 0.068
PRF-fit source offset from KIC position	0.126 ± 0.082	1.54	-0.007 ± 0.071	-0.126 ± 0.082
photometric centroid source offset	1.64 ± 0.01	263.77	-0.01 ± 0.01	-1.64 ± 0.01

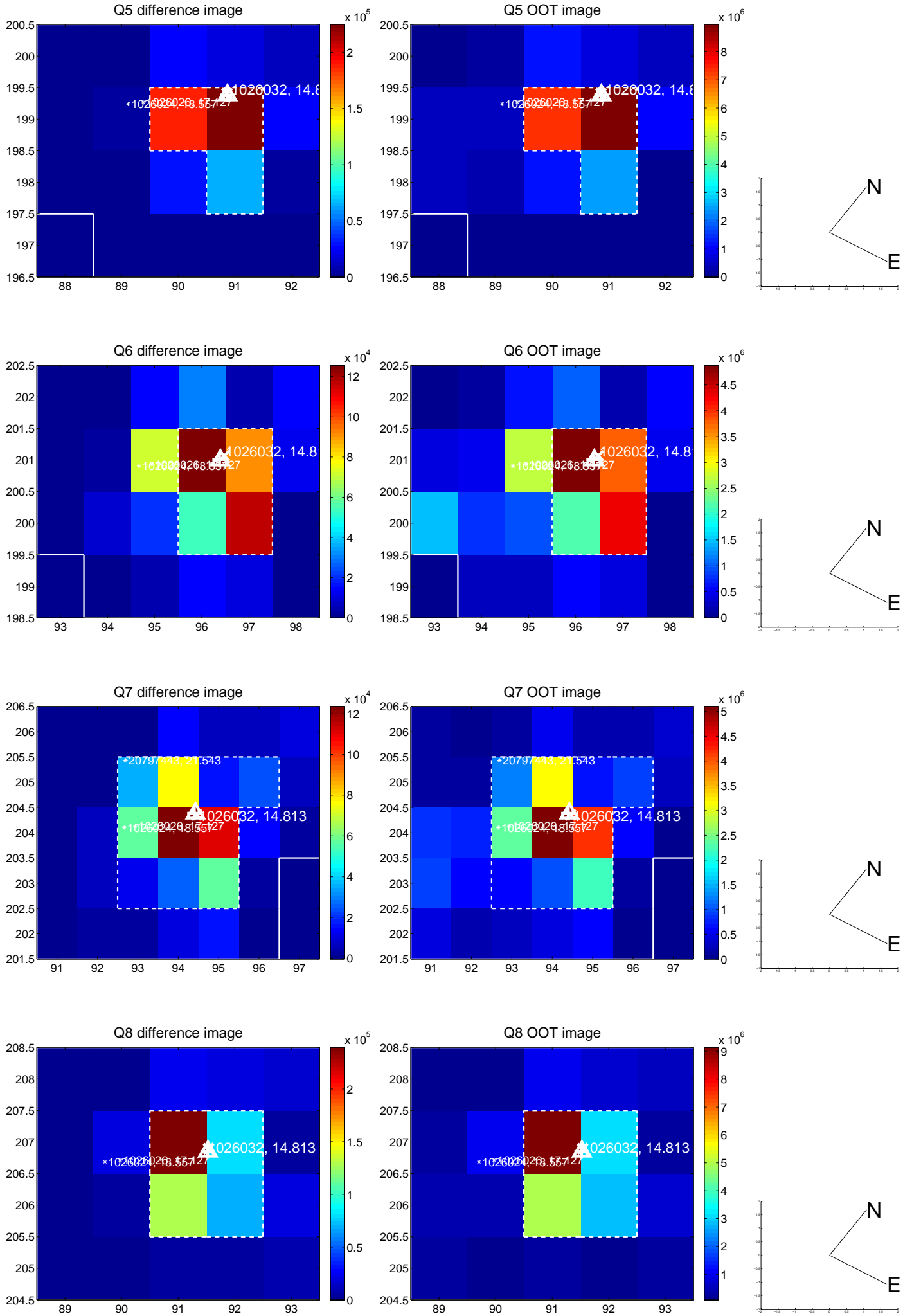


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

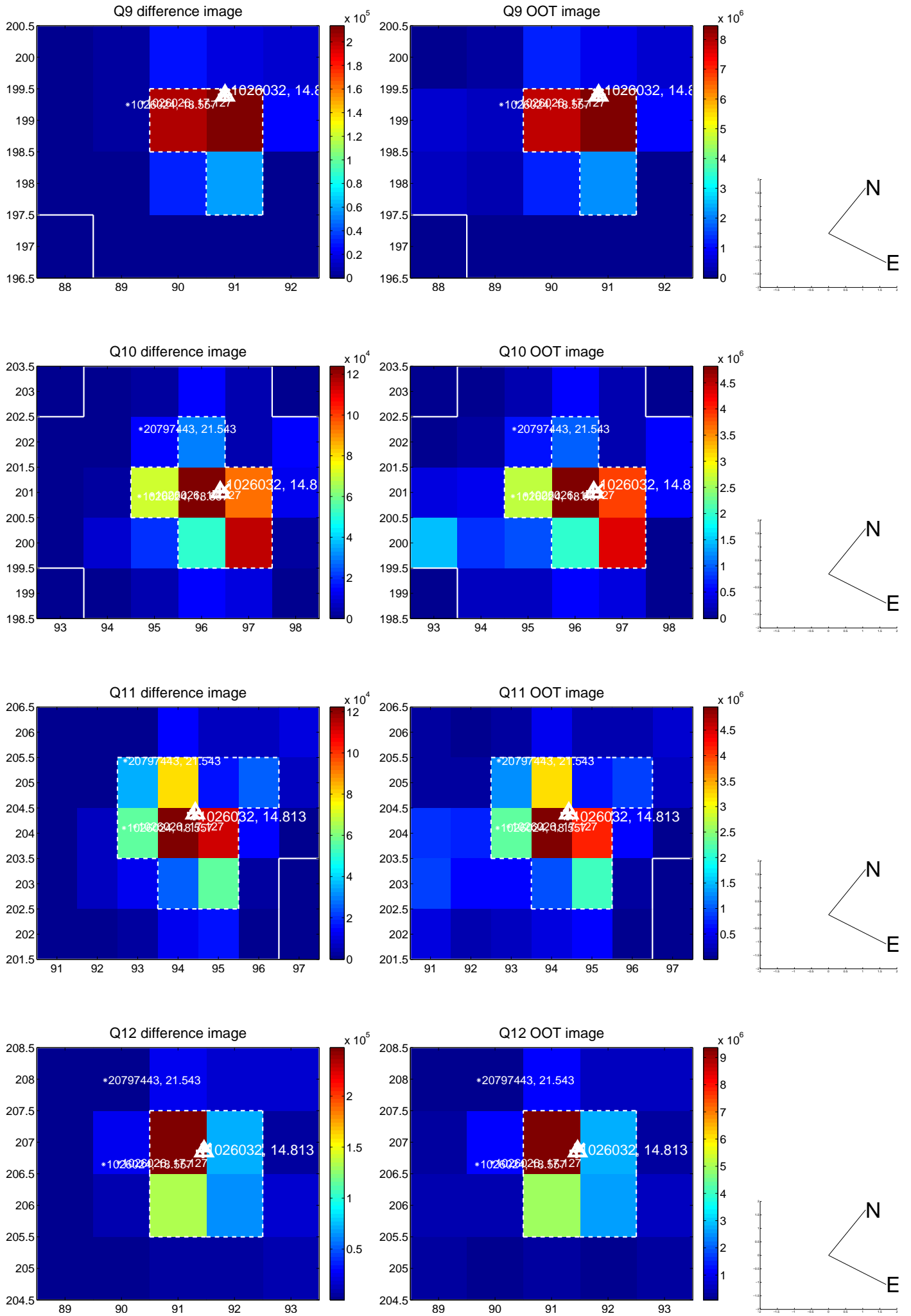
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



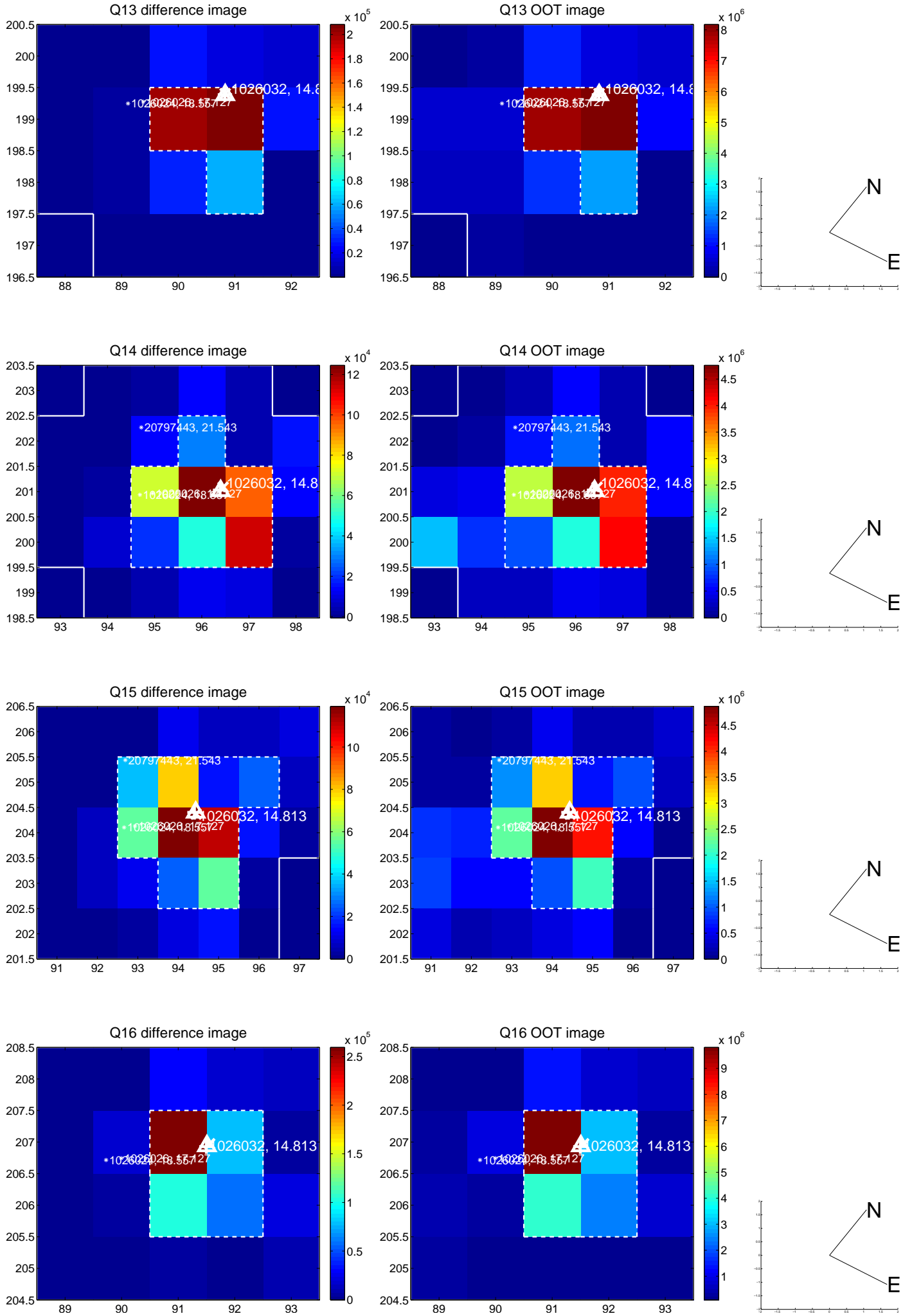
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

