

KIC 007950775

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})
007950775-01	OBS	6937.01	8.966611	138.574570	58926.5	4.032	5815.4	3982.4	1.13	6480	46.30	274.74
007950775-02	OBS	No	8.966607	132.908014	25601.0	4.302	2502.5	2151.3	1.13	6480	31.29	274.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950775-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
007950775-02	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.

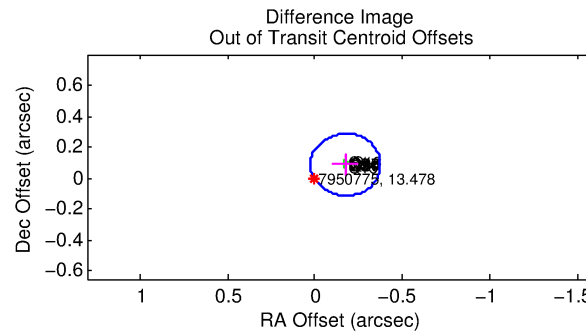
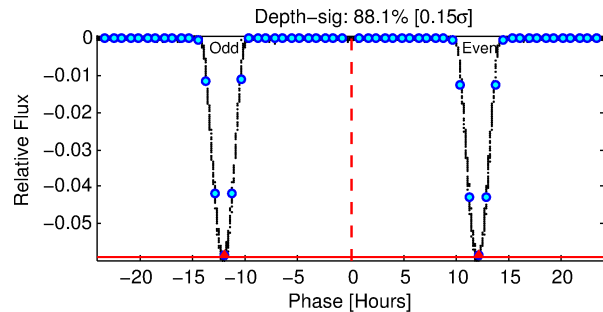
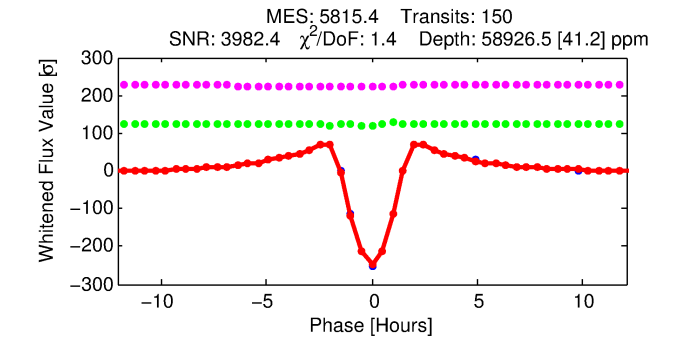
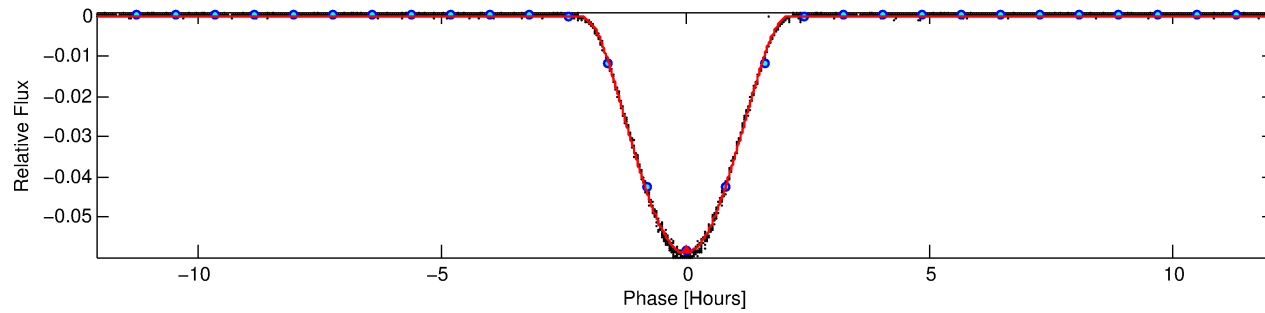
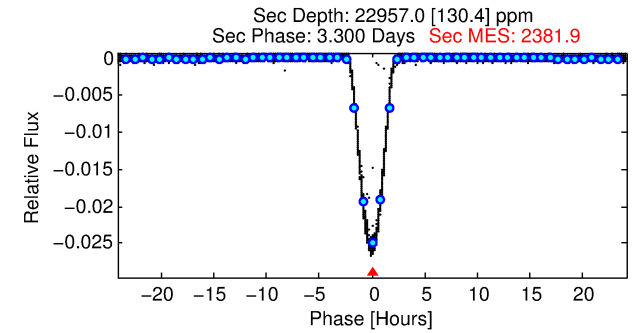
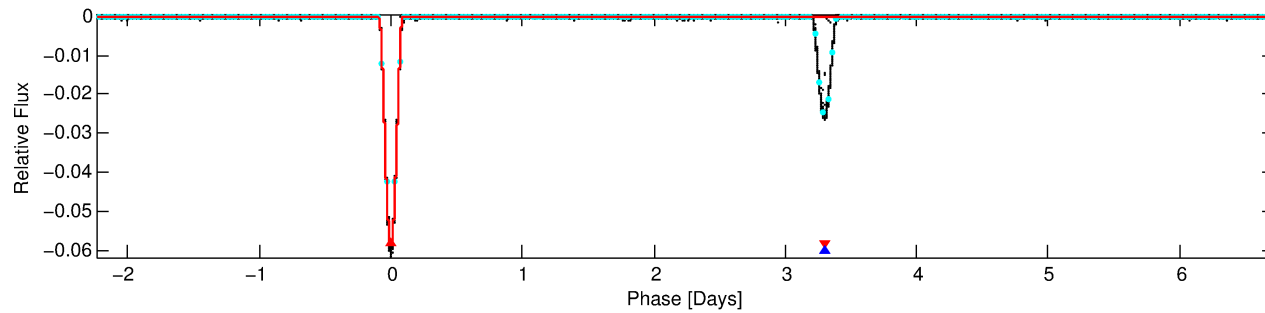
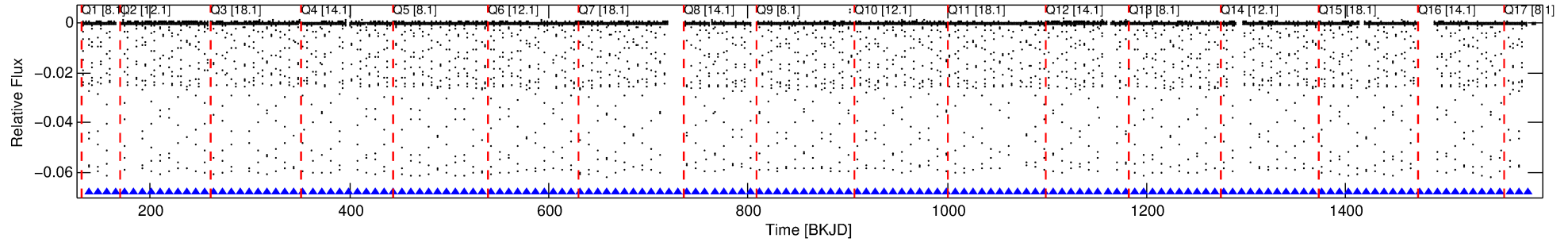
Ephemeris Match Information For 007950775-01

No Significant Match Found

DV One-Page Summary

KIC: 7950775 Candidate: 1 of 2 Period: 8.967 d
KOI: K06937.01 Corr: 0.999

Kp: 13.48 R*: 1.13 Rs Teff: 6480.0 K Logg: 4.35 Fe/H: -0.360



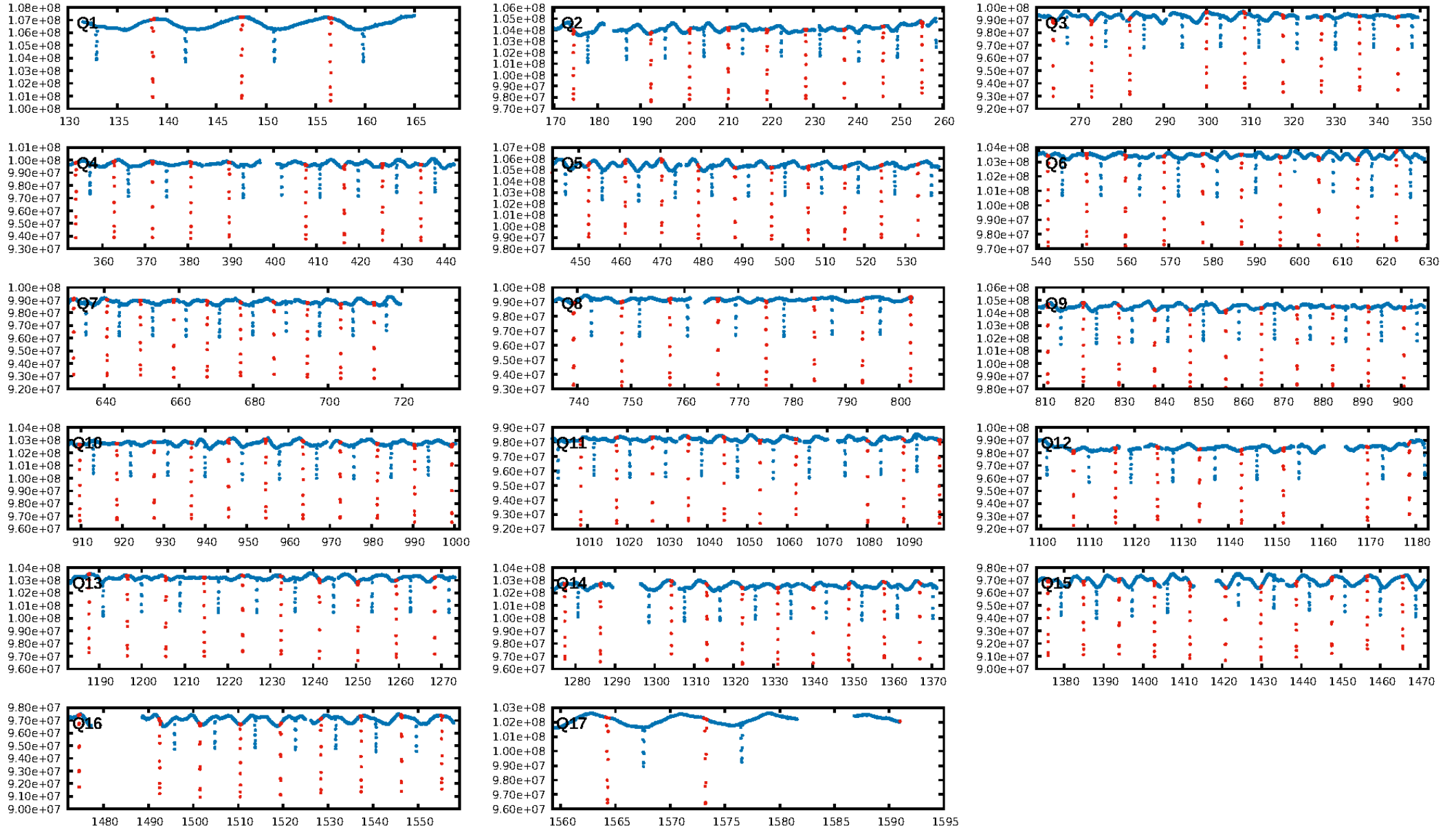
DV Fit Results:

Period = 8.96661 [0.00000] d
Epoch = 138.5746 [0.0000] BKJD
Rp/R* = 0.3748 [0.0091]
a/R* = 16.17 [0.00]
b = 0.99 [0.01]
Seff = 274.74 [78.22]
Teff = 1038 [74] K
Rp = 46.30 [10.33] Re
a = 0.0858 [0.0156] AU
Ag = 43.41 [11.41] [3.72σ]
Teffp = 4120 [133] K [20.23σ]

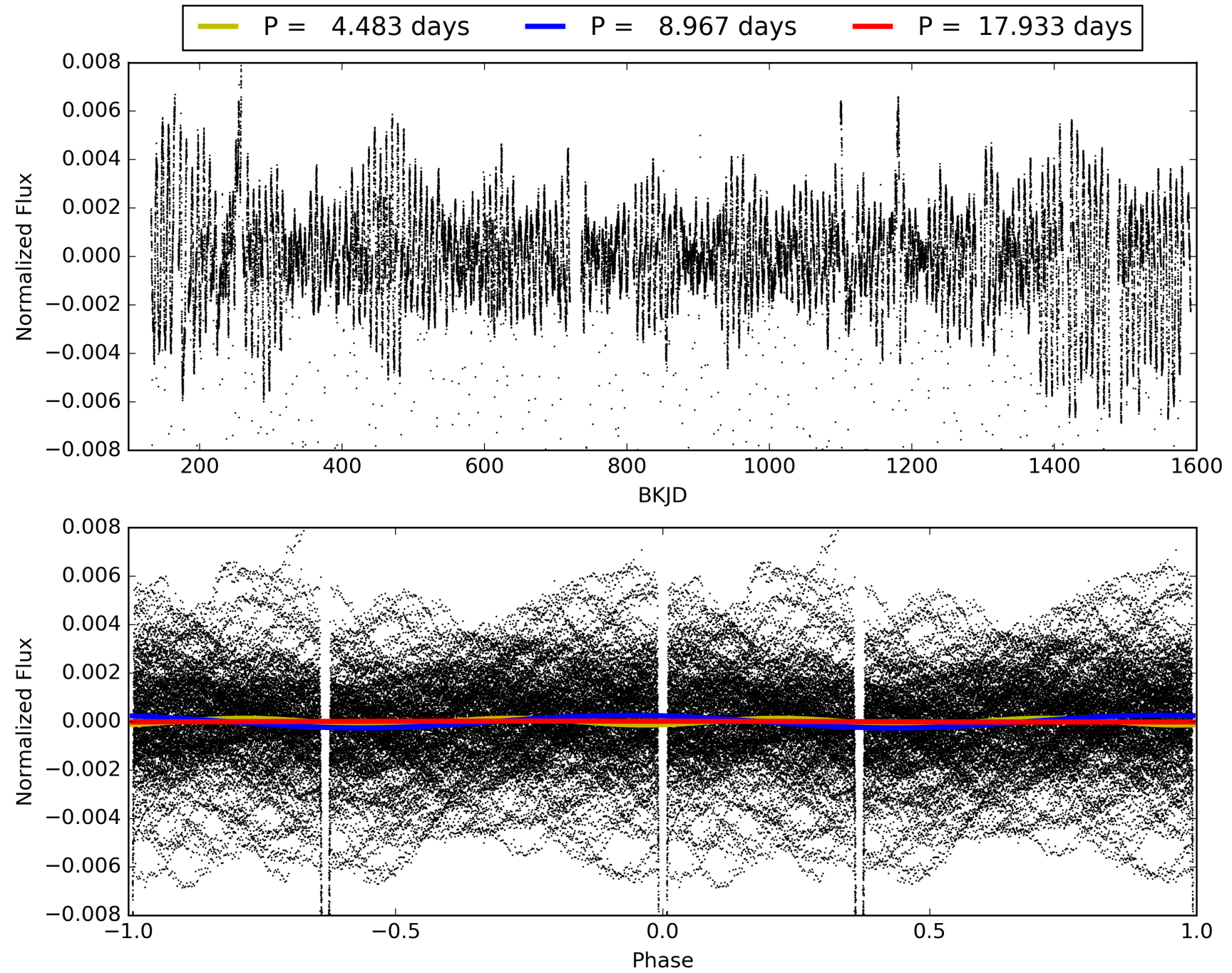
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [145/145]
GhostDiagnostic-chr: 4.184
Centroid-sig: 0.0%
Centroid-so: 0.157 arcsec [104.64σ]
OotOffset-rm: 0.194 arcsec [2.90σ]
KicOffset-rm: 0.147 arcsec [2.20σ]
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 007950775-01, PDC Light Curves

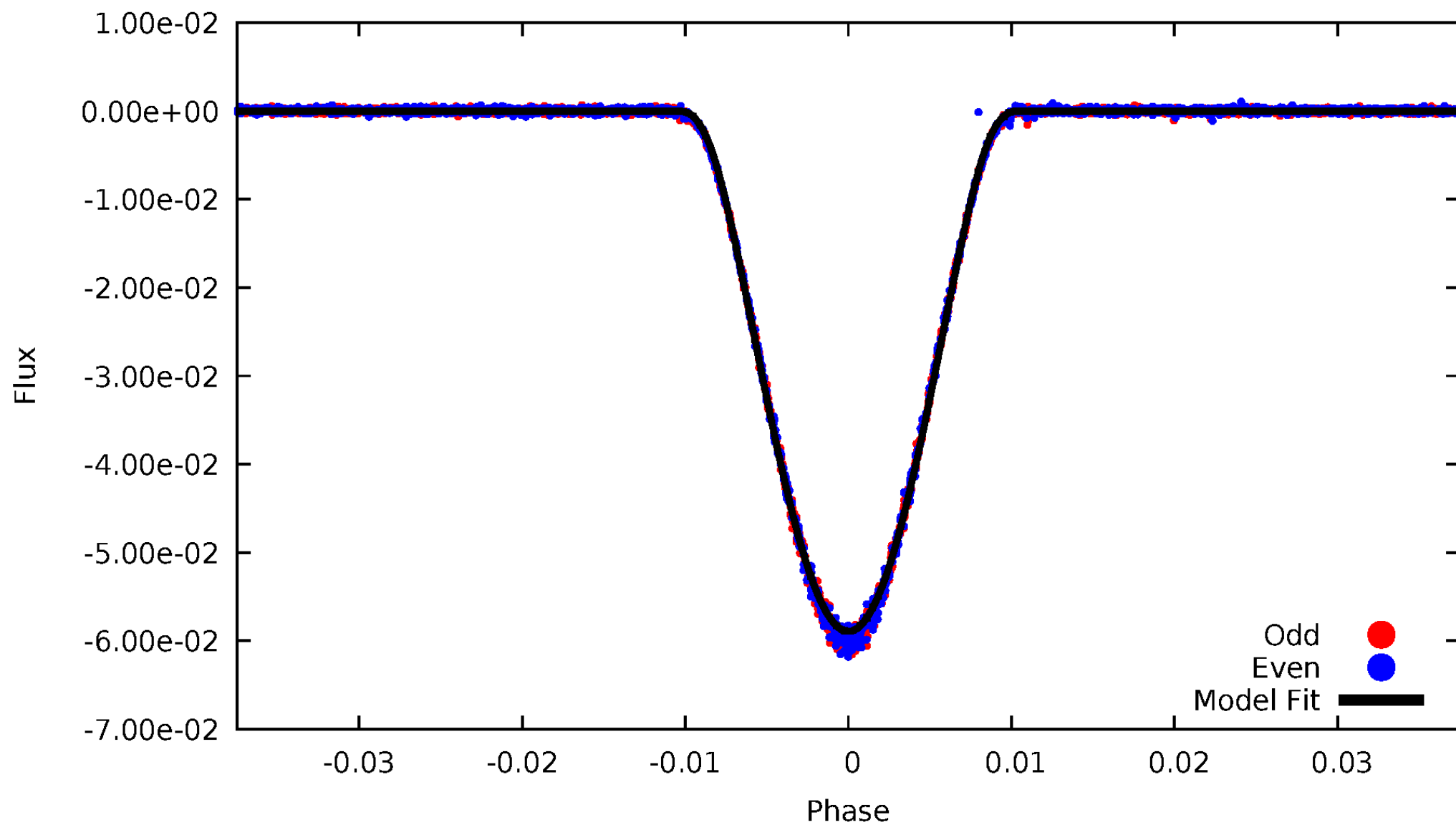


TCE 007950775-01



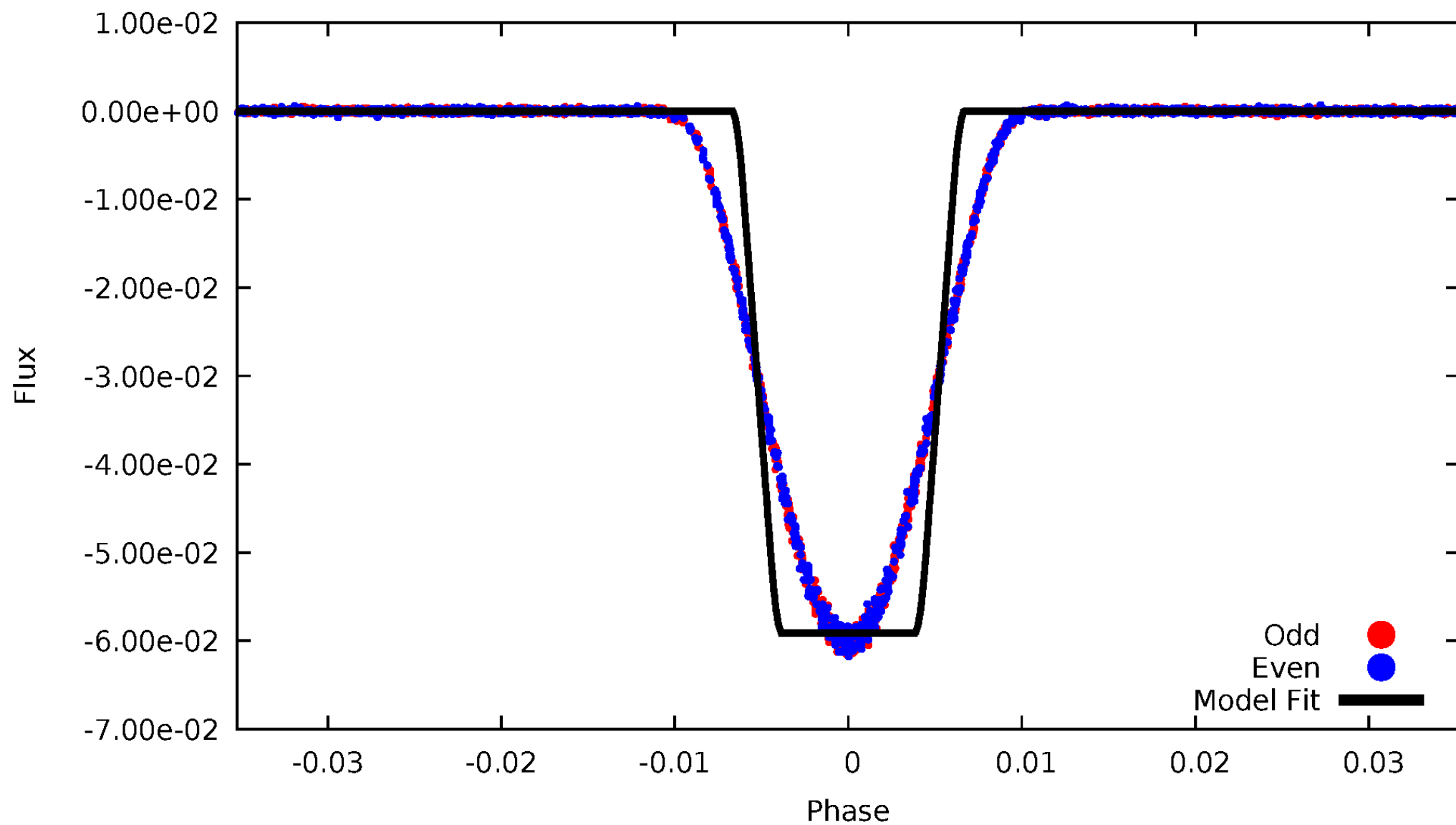
DV Odd/Even

TCE 007950775-01



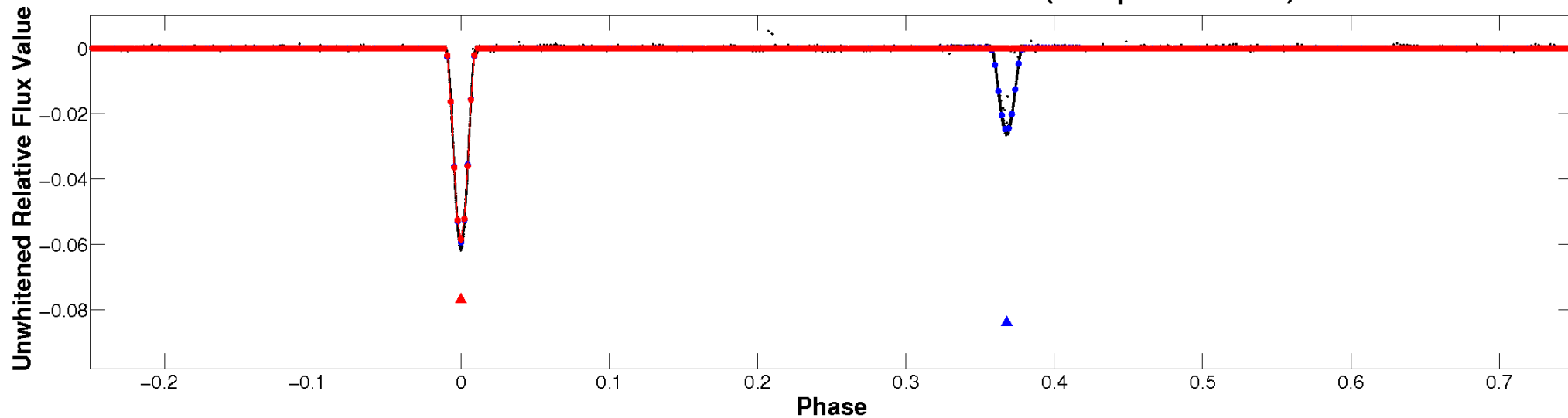
ALT Odd/Even

TCE 007950775-01

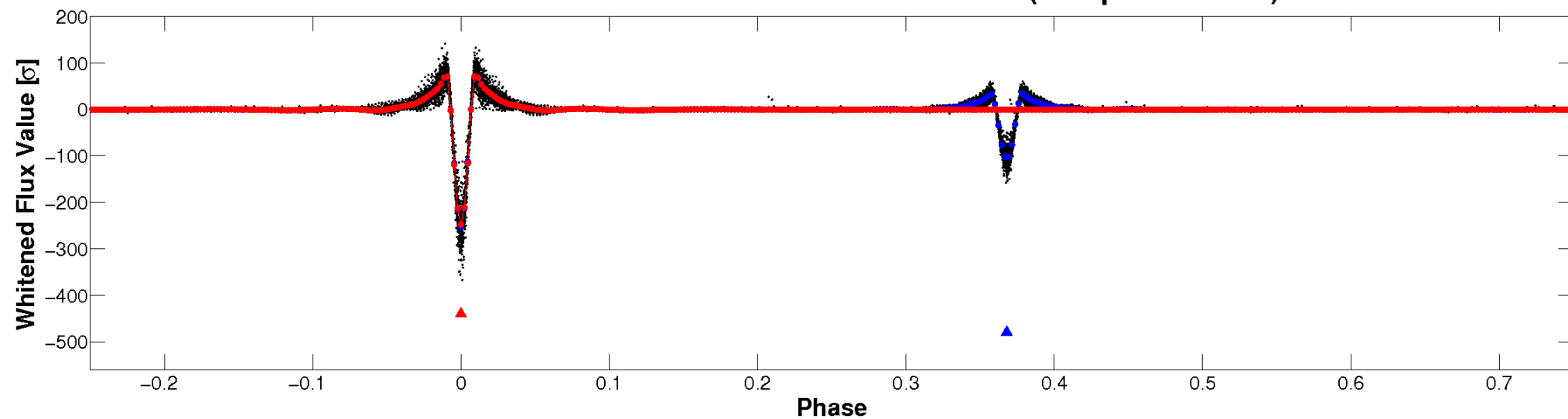


Non-Whitened Vs. Whitened Light Curve

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

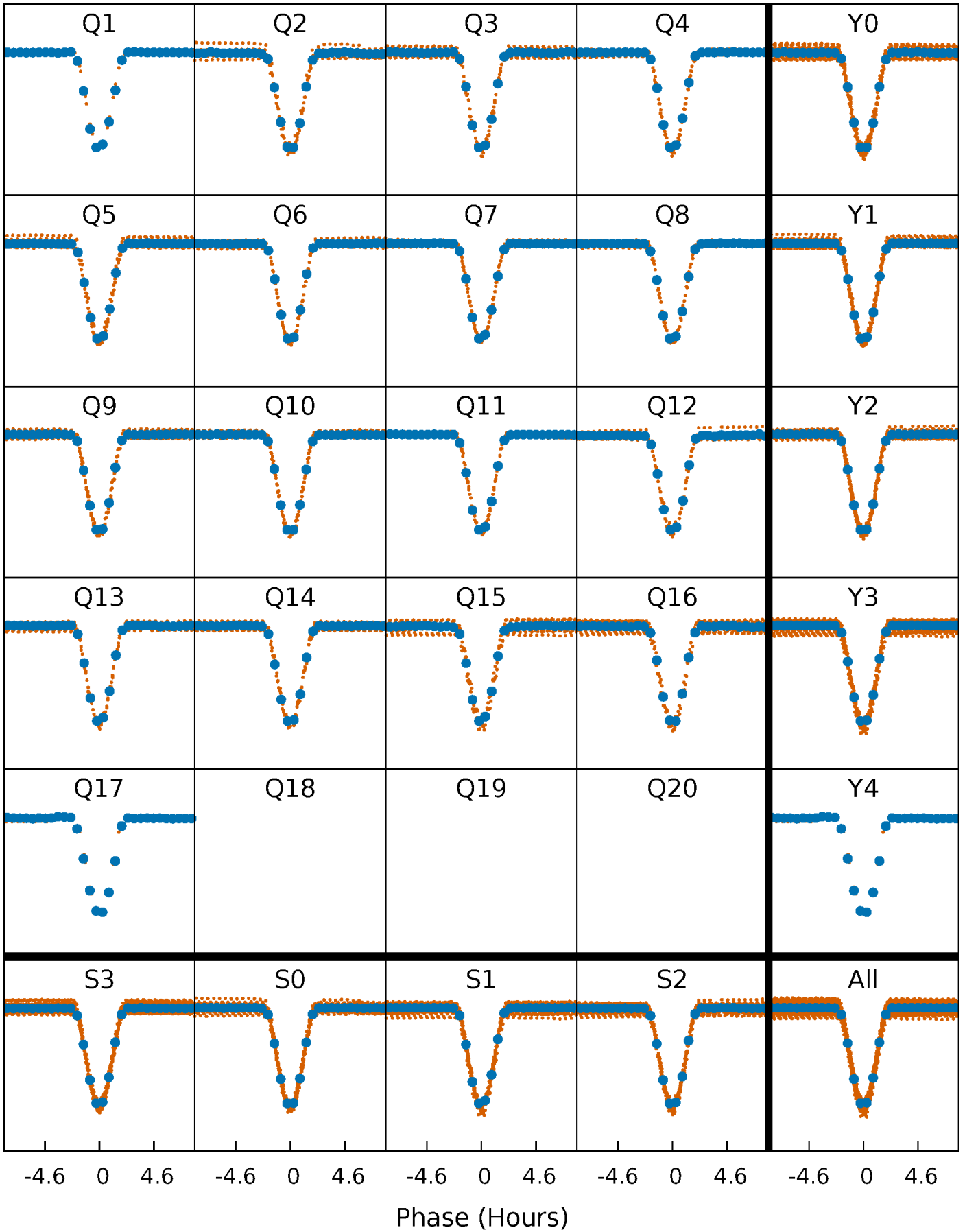


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



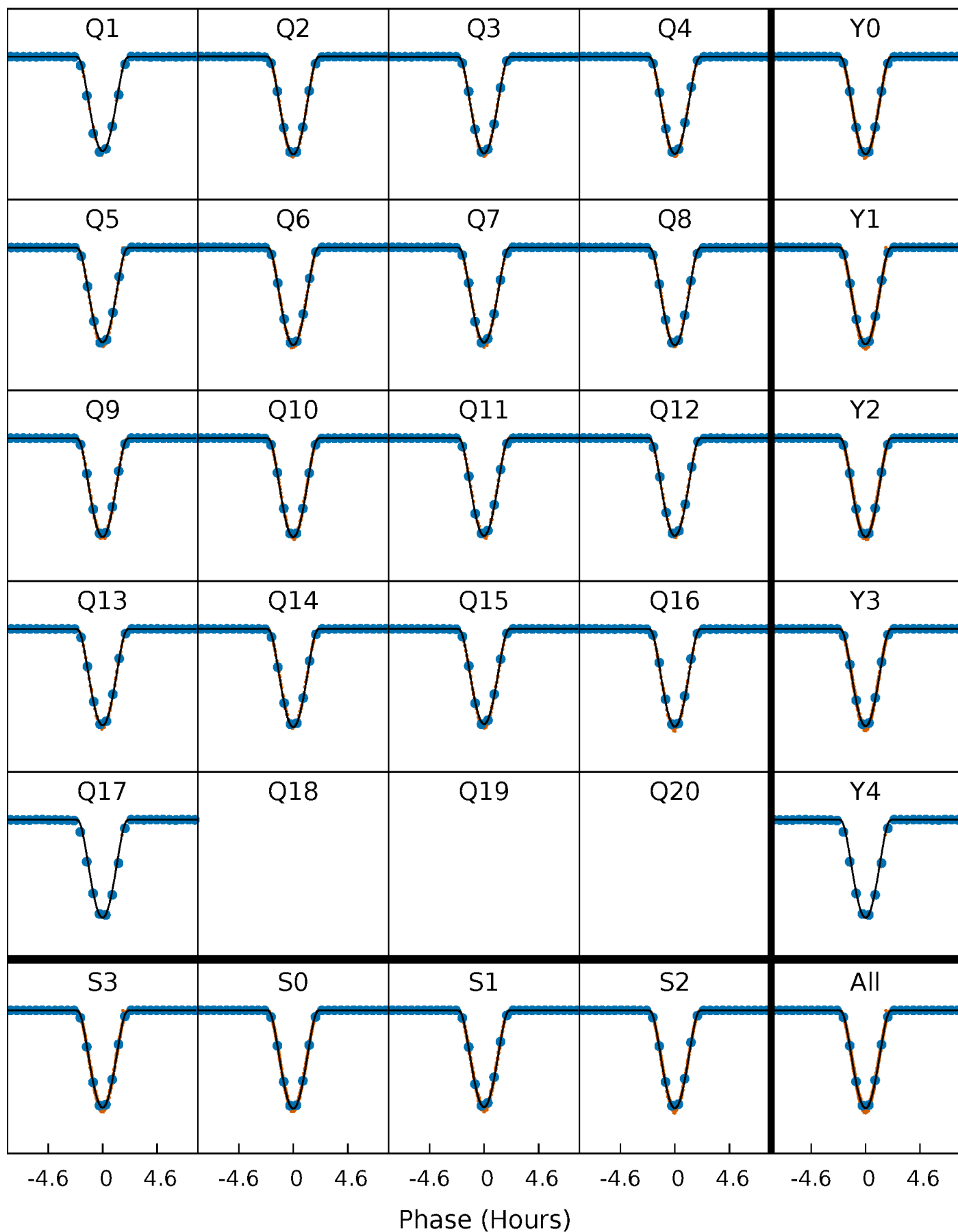
PDC Quarter-Phased Transit Curves

TCE 007950775-01 P= 8.966611 Days $T_0=138.574570$ (BKJD)



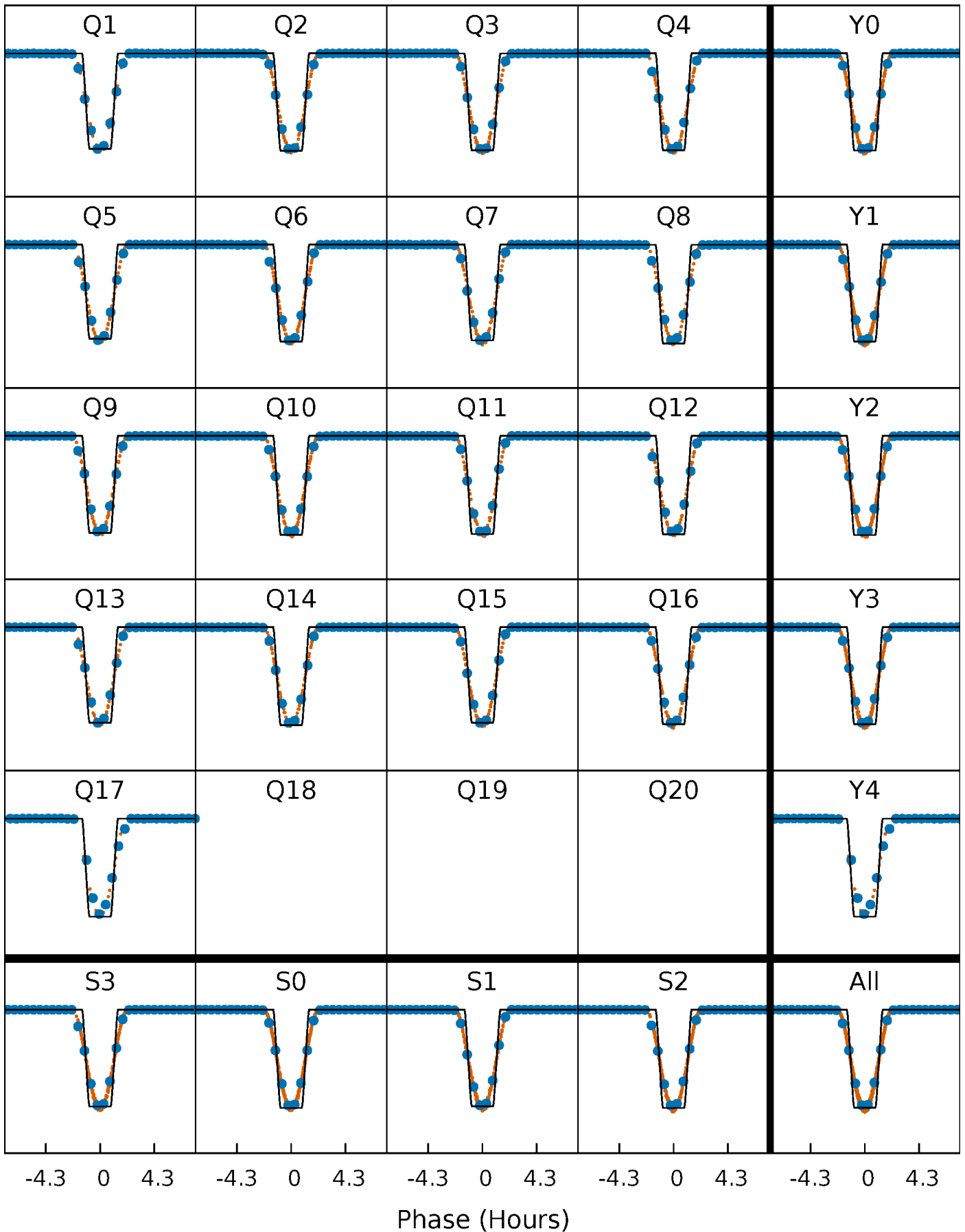
DV Quarter-Phased Transit Curves

TCE 007950775-01 P= 8.966611 Days $T_0=138.574570$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

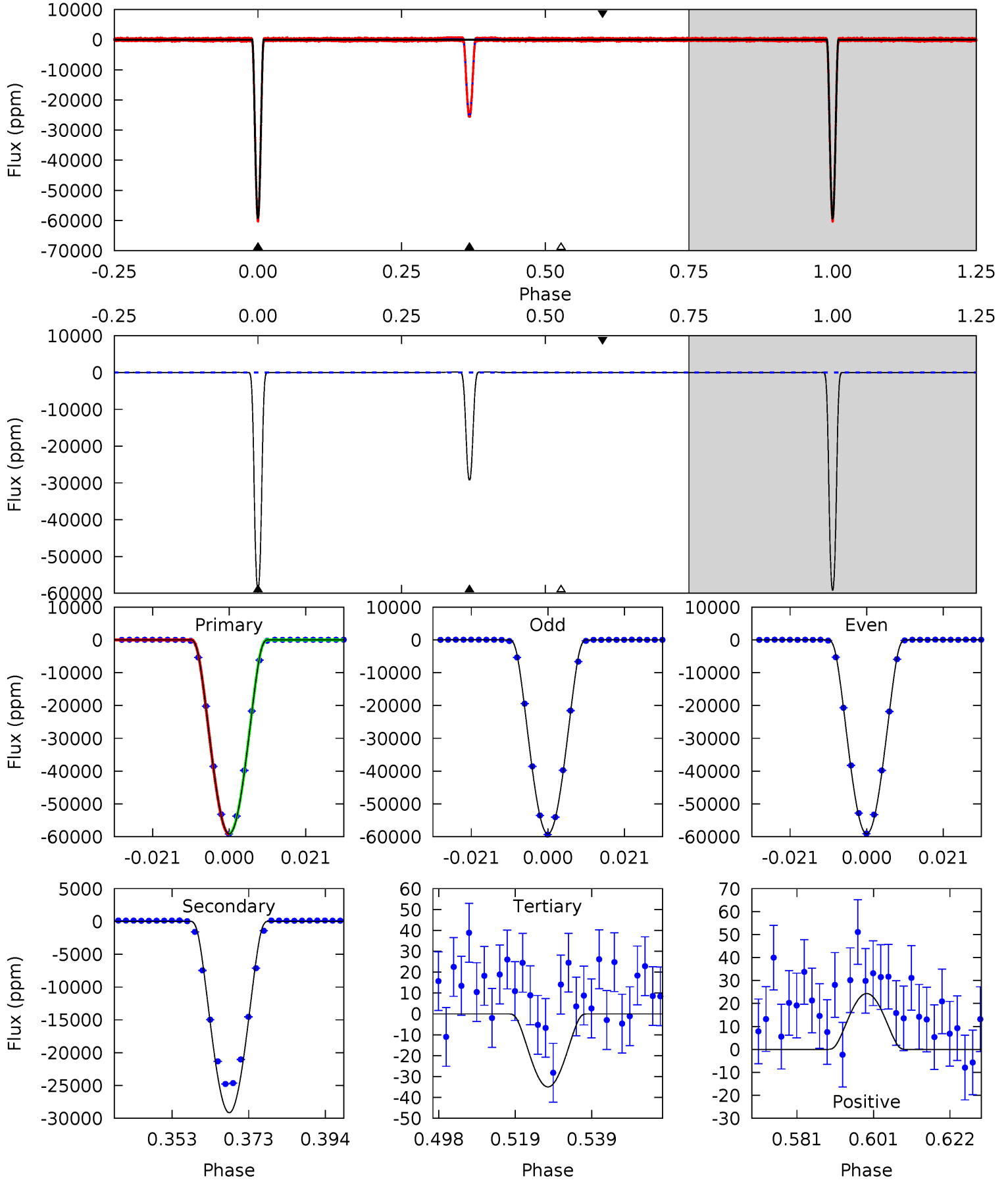
TCE 007950775-01 P= 8.966619 Days $T_0=138.573856$ (BKJD)



DV Model-Shift Uniqueness Test

007950775-01, P = 8.966611 Days, E = 129.607959 Days

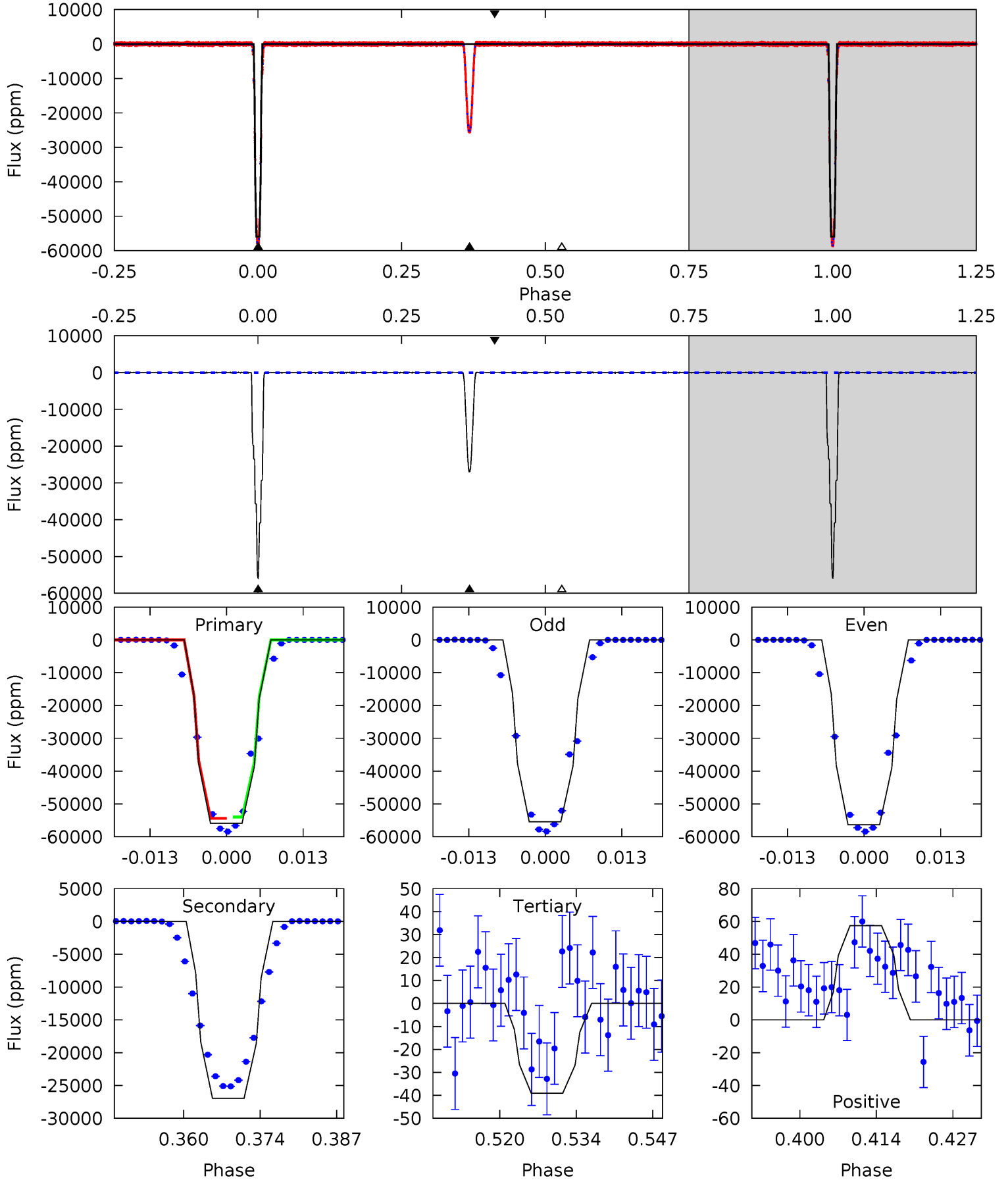
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10803	5324	6.39	4.44	4.88	2.31	6.33	10797	10799	5317	5319	0.79	0.99	0.00	1.47



Alt Model-Shift Uniqueness Test

007950775-01, P = 8.966619 Days, E = 129.607237 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5238	2526	3.66	5.37	4.97	2.47	1.42	5235	5233	2522	2520	40.9	1.00	0.00	0



Stellar Parameters For KIC 007950775

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6480^{+146}_{-194}	$4.351^{+0.092}_{-0.138}$	$-0.360^{+0.250}_{-0.300}$	$1.132^{+0.251}_{-0.135}$	$1.045^{+0.137}_{-0.112}$	$1.014^{+0.408}_{-0.402}$
	+2%/-3%	+2%/-3%	+69%/-83%	+22%/-12%	+13%/-11%	+40%/-40%
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 007950775-01 / KOI 6937.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-29148 ± 5	$46.78^{+5.80}_{-3.95}$	1454^{+86}_{-69}	4563^{+85}_{-106}	55^{+10}_{-10}
Alt.	-26961 ± 11	$30.41^{+3.87}_{-2.56}$	1457^{+81}_{-68}	5372^{+148}_{-147}	121^{+20}_{-23}

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 $A_{obs} \gg 1.0$

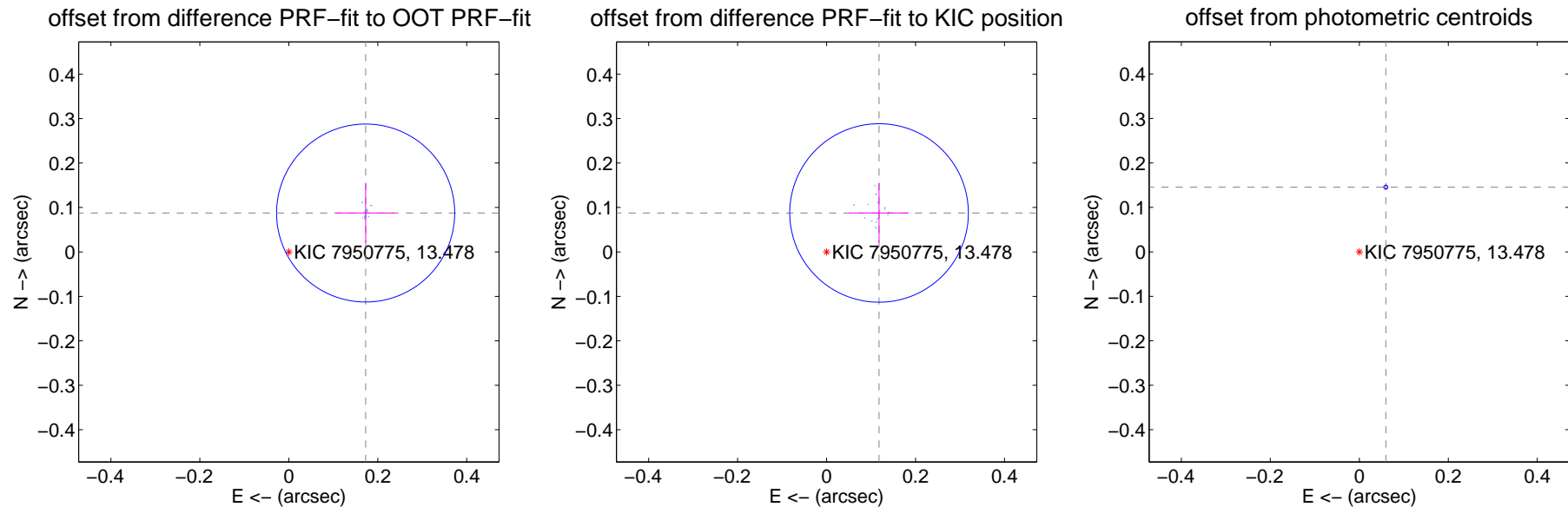
DV Centroid Data

Supplemental centroid analysis for 007950775-01. Kepler magnitude: 13.48. Transit SNR 3982.40

There are 17 quarters with good PRF difference image offsets

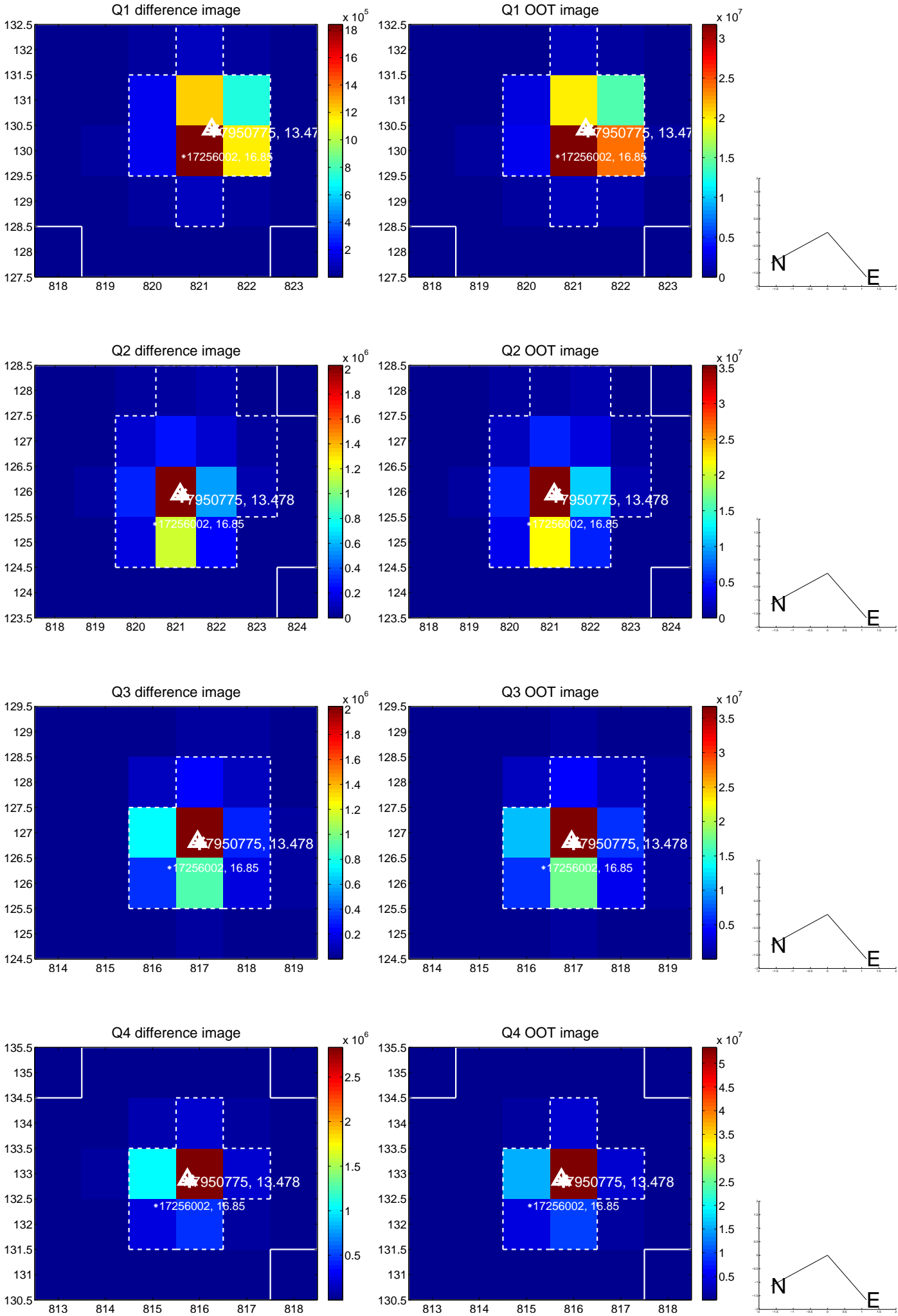
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.194 ± 0.067	2.90	-0.173 ± 0.067	0.088 ± 0.067
PRF-fit source offset from KIC position	0.147 ± 0.067	2.20	-0.118 ± 0.067	0.088 ± 0.067
photometric centroid source offset	0.16 ± 0.00	104.64	-0.06 ± 0.00	0.15 ± 0.00

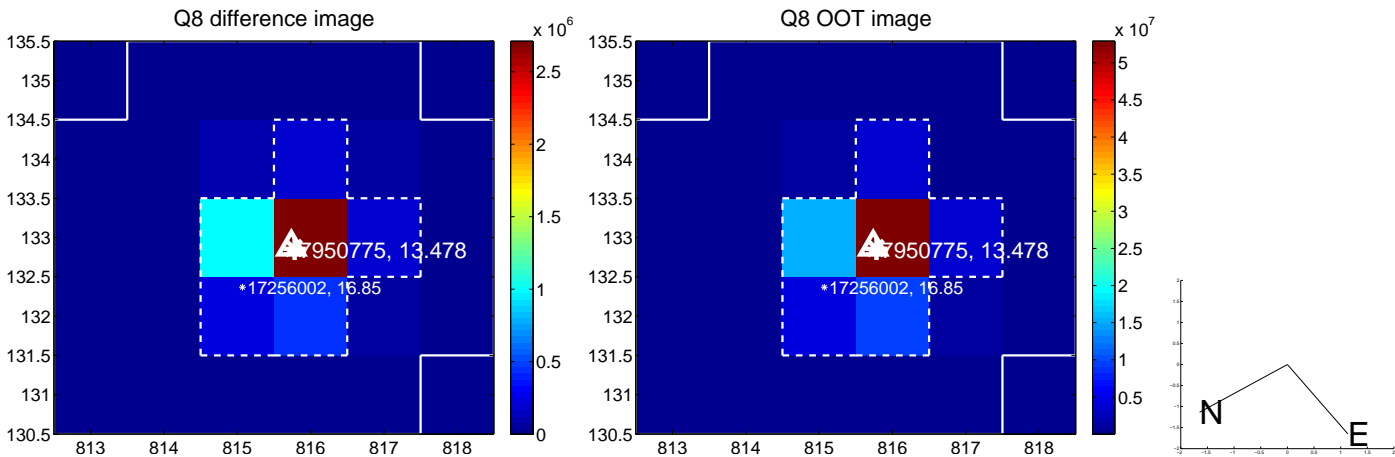
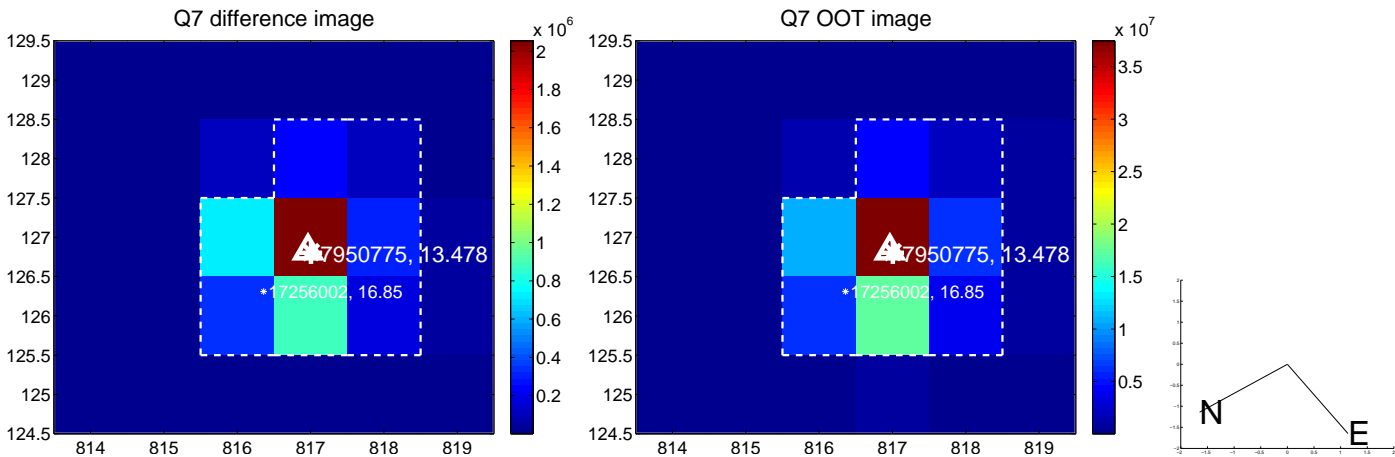
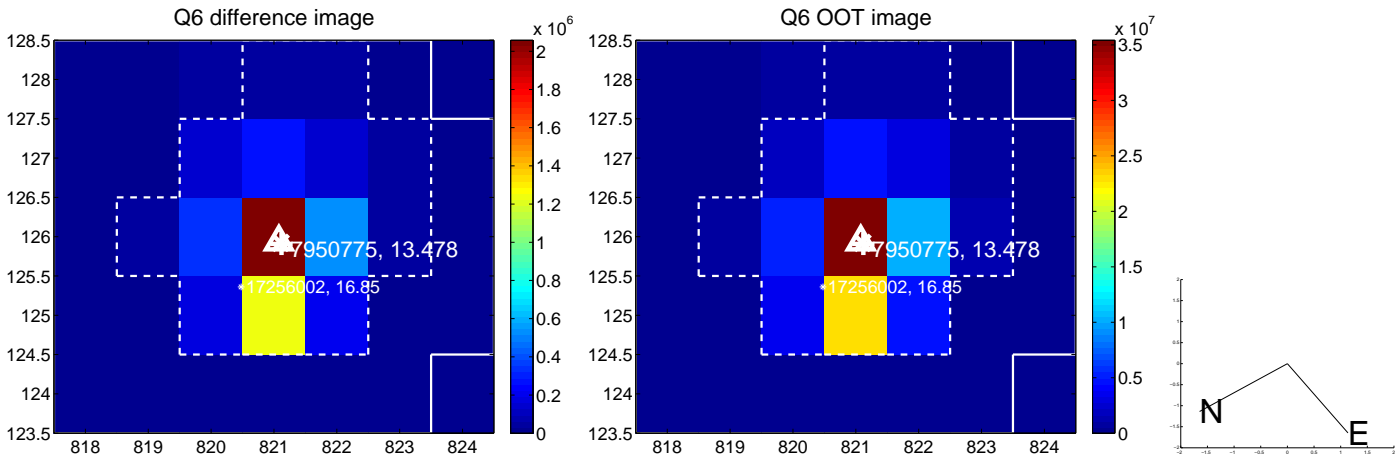
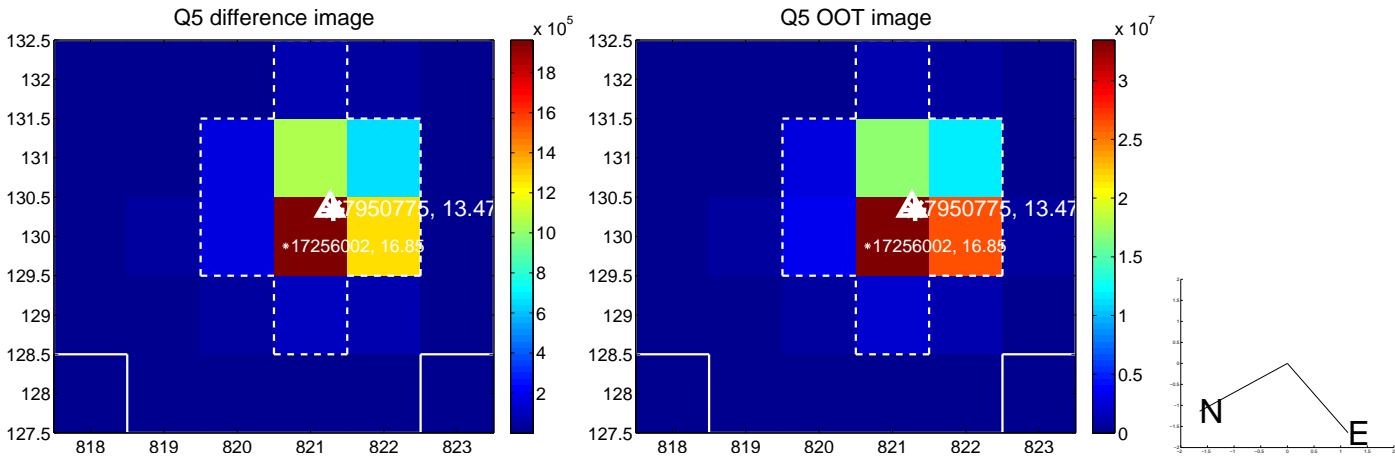


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

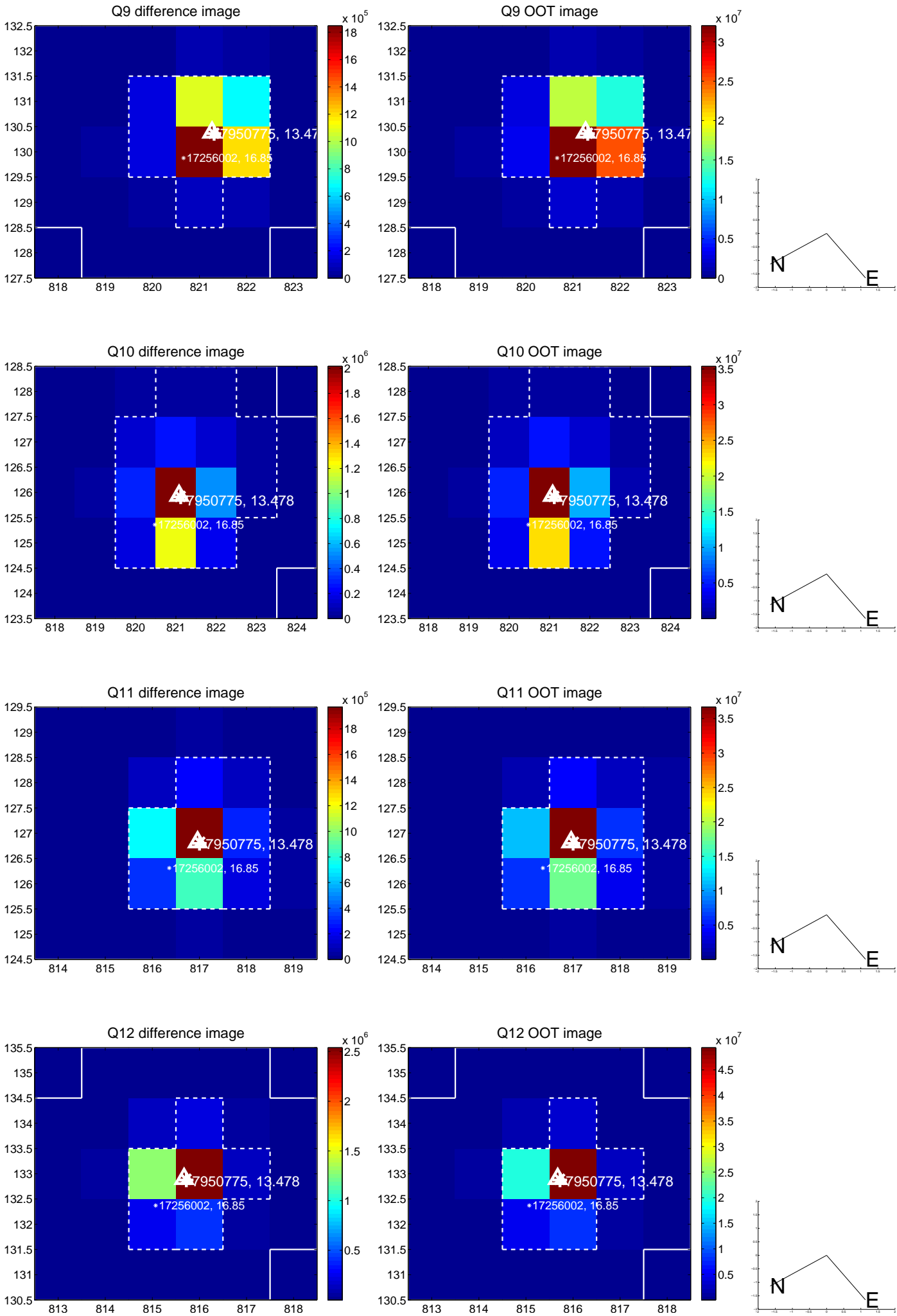
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



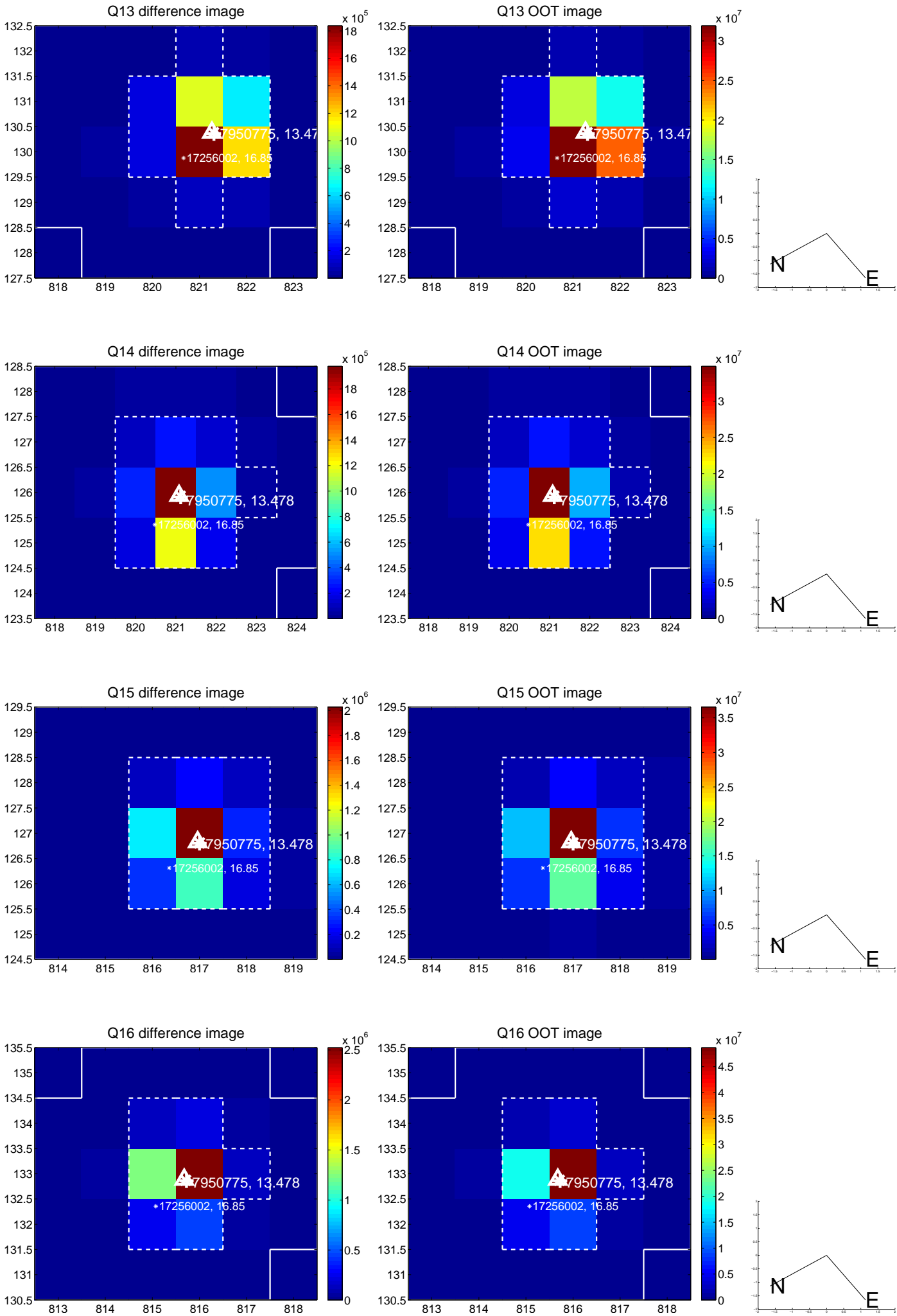
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



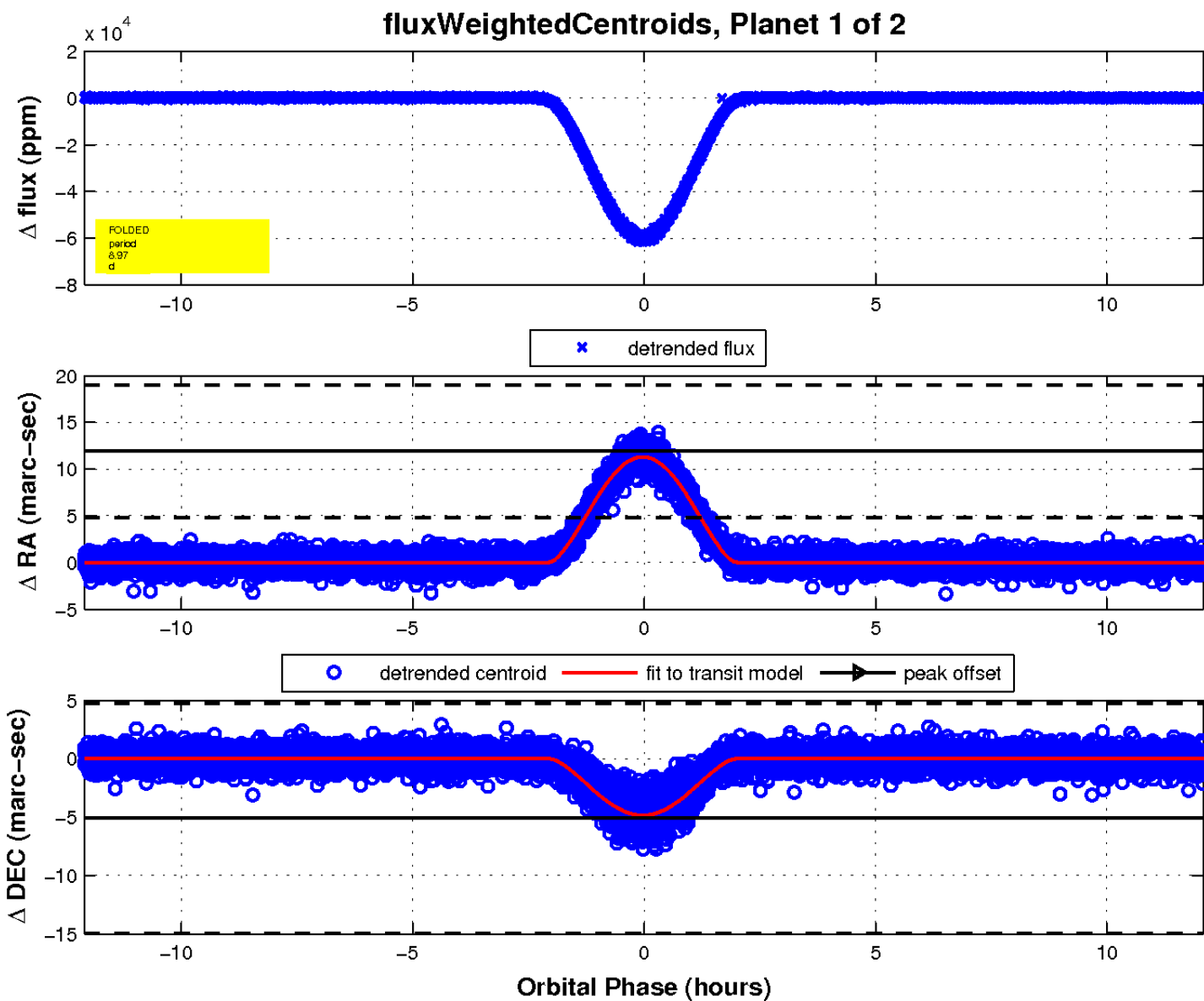
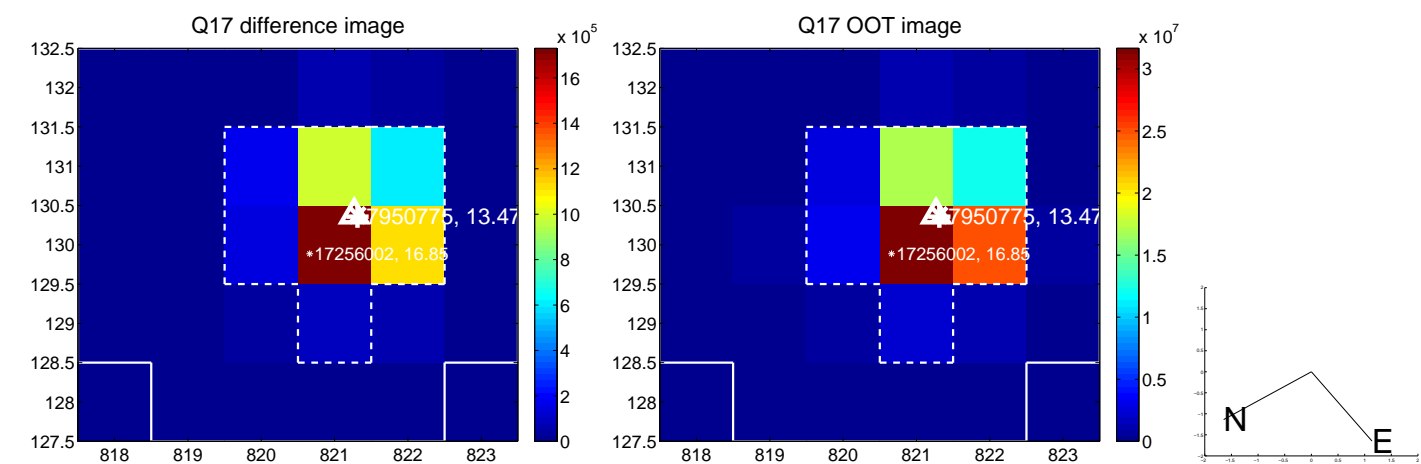
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

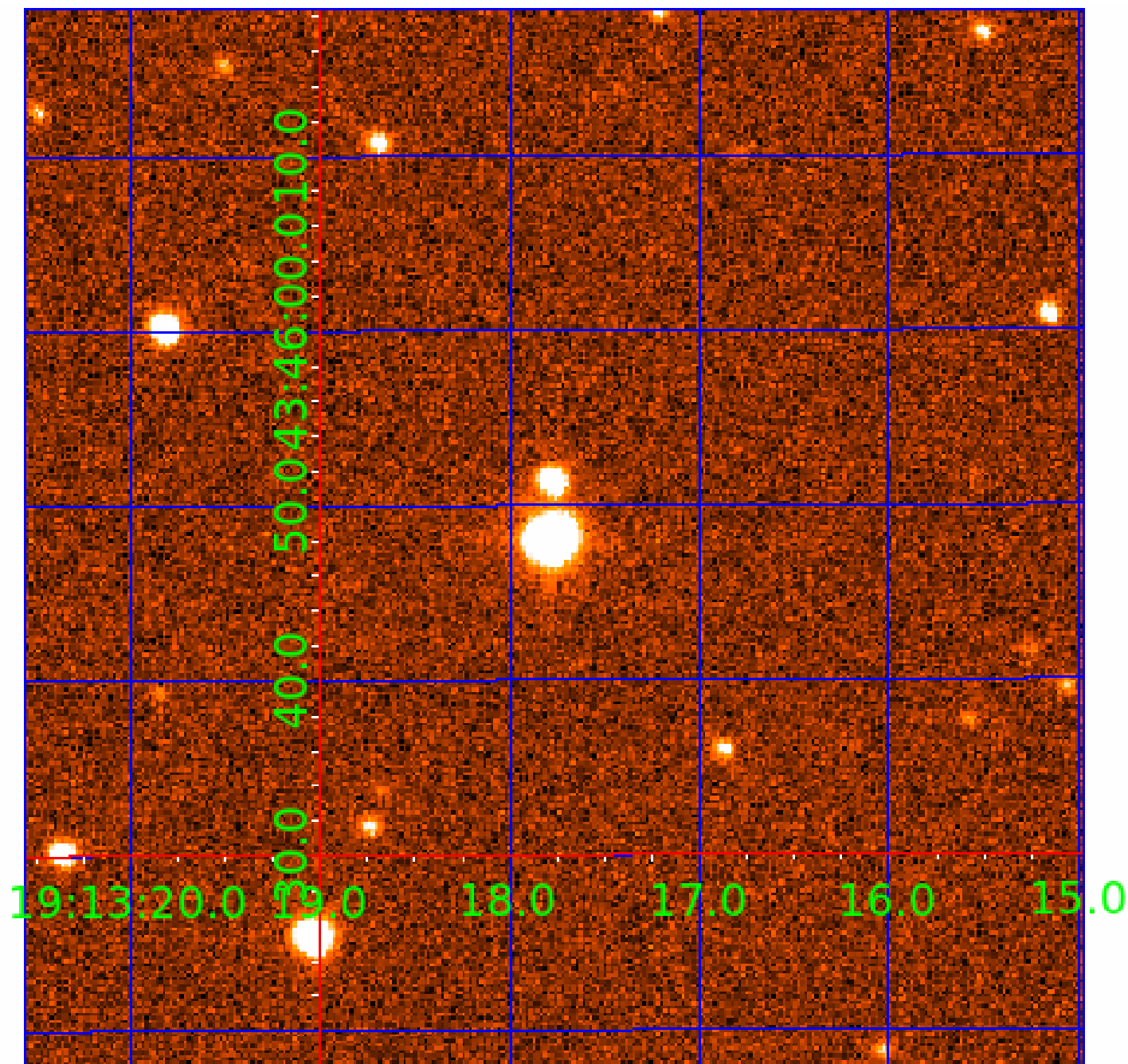


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007950775

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})
007950775-01	OBS	6937.01	8.966611	138.574570	58926.5	4.032	5815.4	3982.4	1.13	6480	46.30	274.74
007950775-02	OBS	No	8.966607	132.908014	25601.0	4.302	2502.5	2151.3	1.13	6480	31.29	274.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007950775-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—HAS_SEC_TCE
007950775-02	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 007950775-02

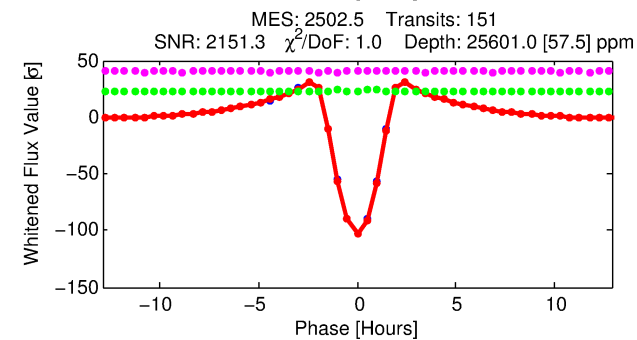
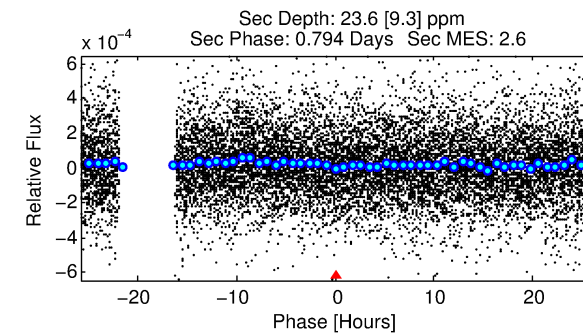
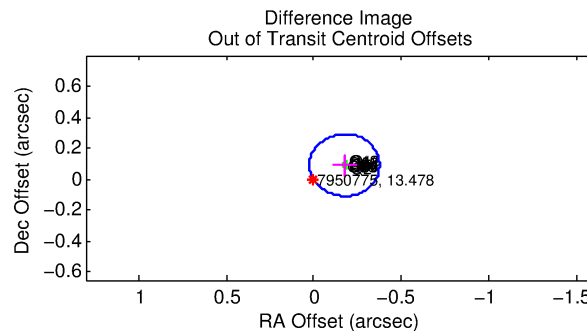
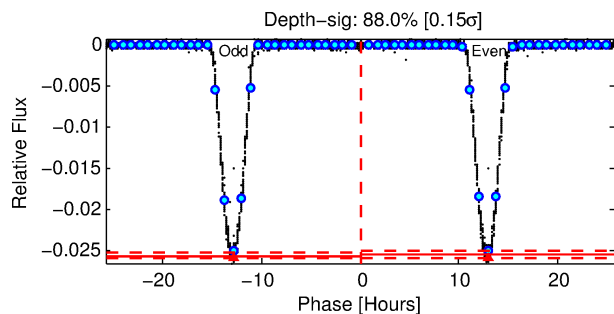
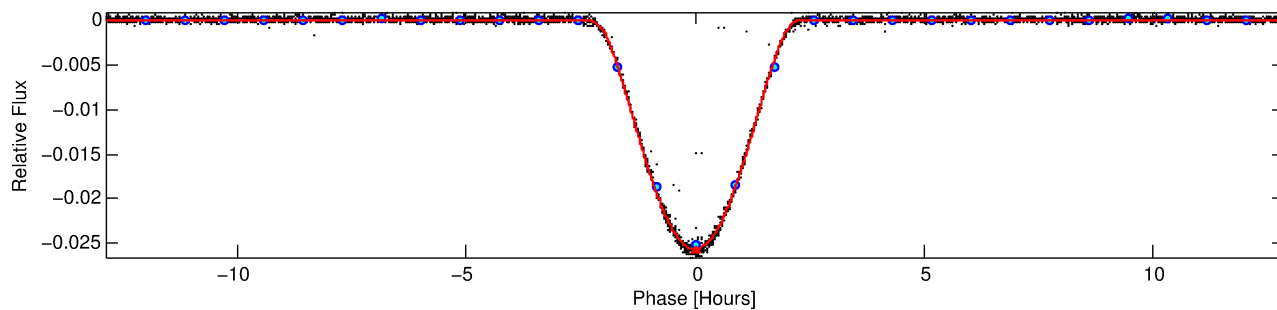
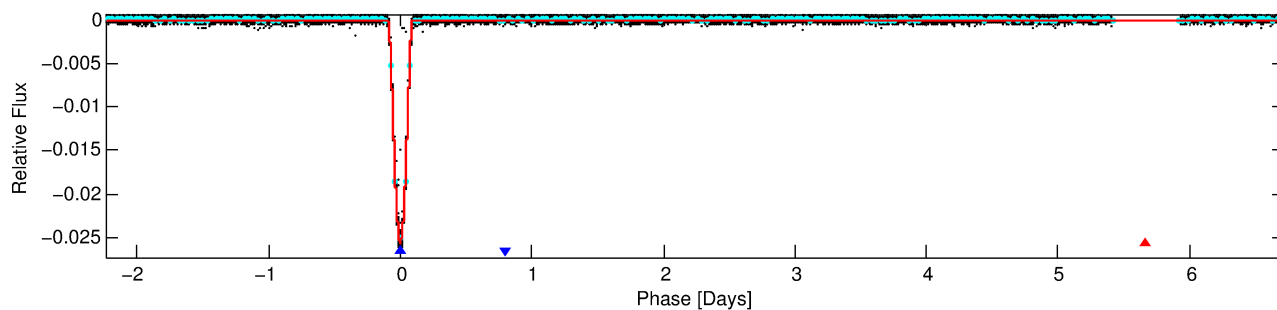
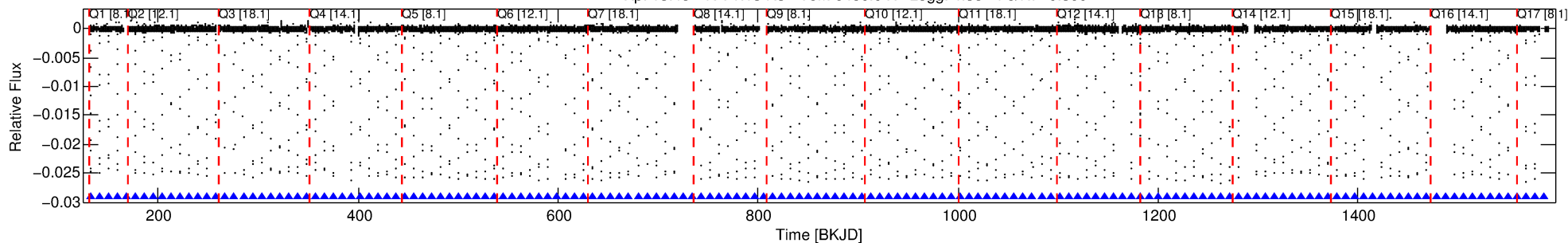
No Significant Match Found

DV One-Page Summary

KIC: 7950775 Candidate: 2 of 2 Period: 8.967 d

KOI: K06937 Corr: No Ephemeris Match

Kp: 13.48 R*: 1.13 Rs Teff: 6480.0 K Logg: 4.35 Fe/H: -0.360



DV Fit Results:

Period = 8.96661 [0.00000] d
Epoch = 132.9080 [0.0000] BKJD
Rp/R* = 0.2533 [0.0059]
a/R* = 12.08 [0.02]
b = 1.00 [0.01]
Seff = 274.74 [78.22]
Teq = 1038 [74] K
Rp = 31.29 [6.98] Re
a = 0.0858 [0.0156] AU
Ag = 0.10 [0.05] [-19.53σ]
Teff = 898 [93] K [-1.18σ]

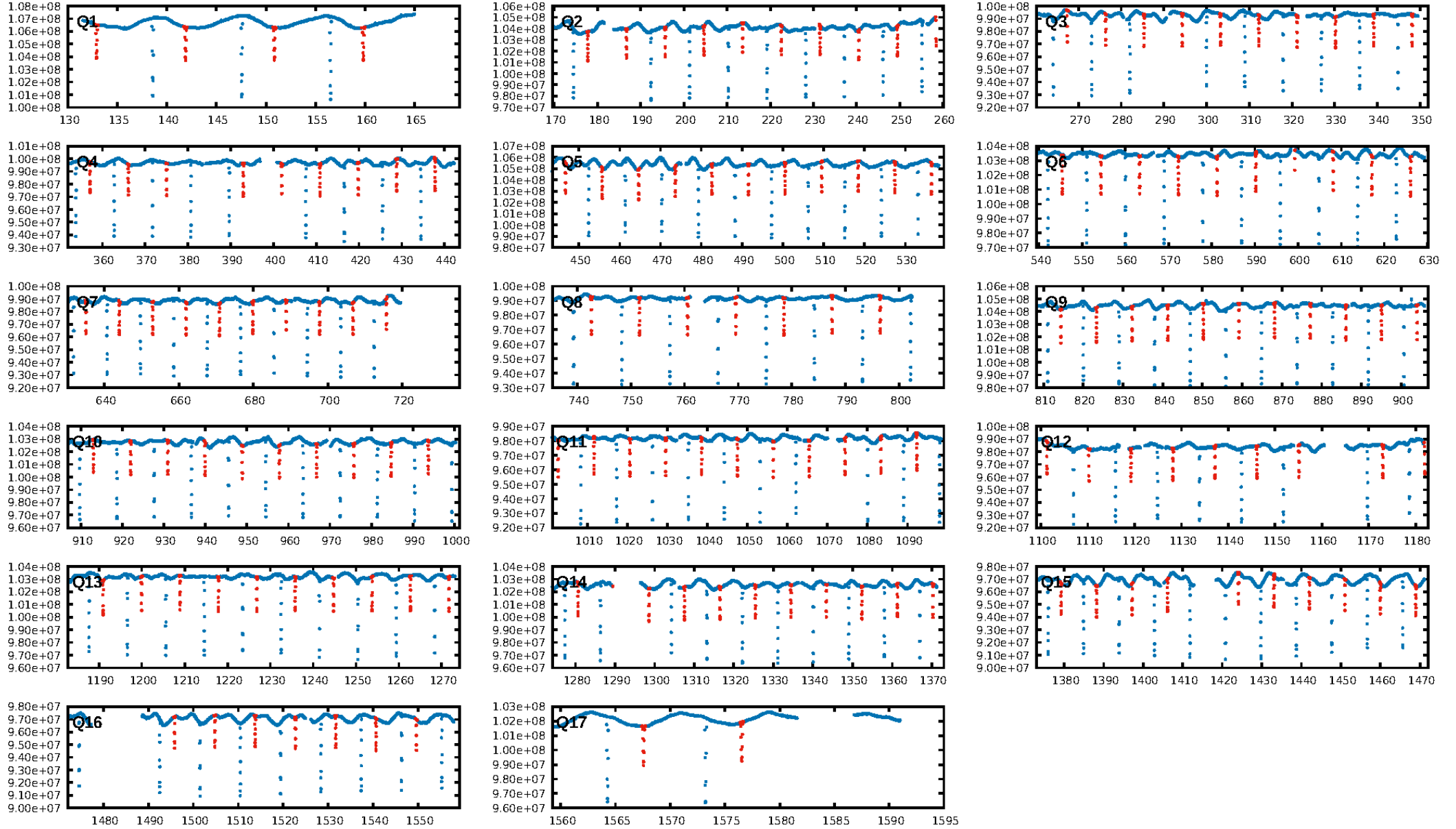
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 93.1%
Bootstrap-pfa: 0.00e+00
RollingBand-igt: 1.00 [145/145]
GhostDiagnostic-chr: 4.056
Centroid-sig: 0.0%
Centroid-so: 0.148 arcsec [44.94σ]
OotOffset-rm: 0.197 arcsec [2.95σ]
KicOffset-rm: 0.149 arcsec [2.23σ]
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]

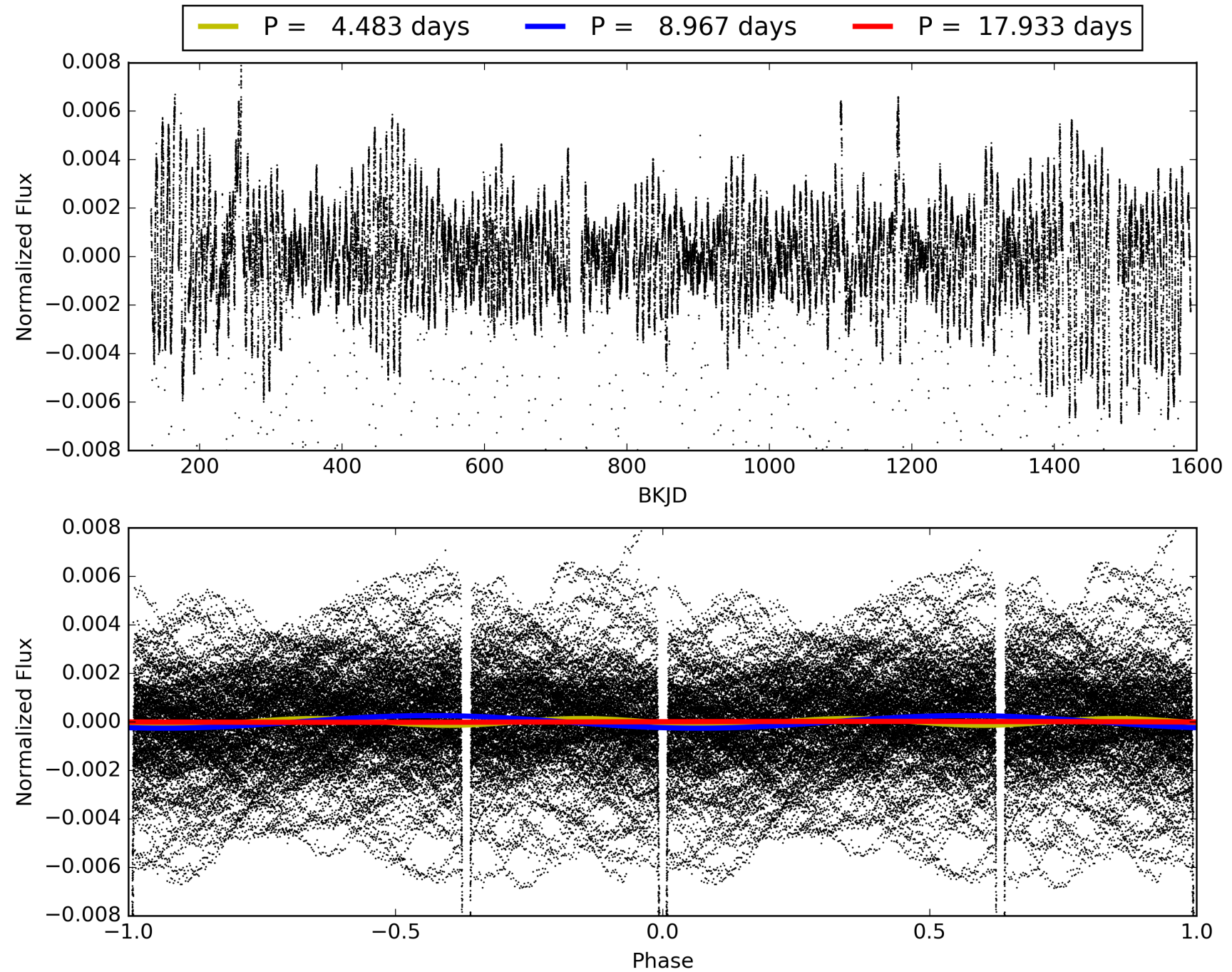
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 05:11:58 Z

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

TCE 007950775-02, PDC Light Curves

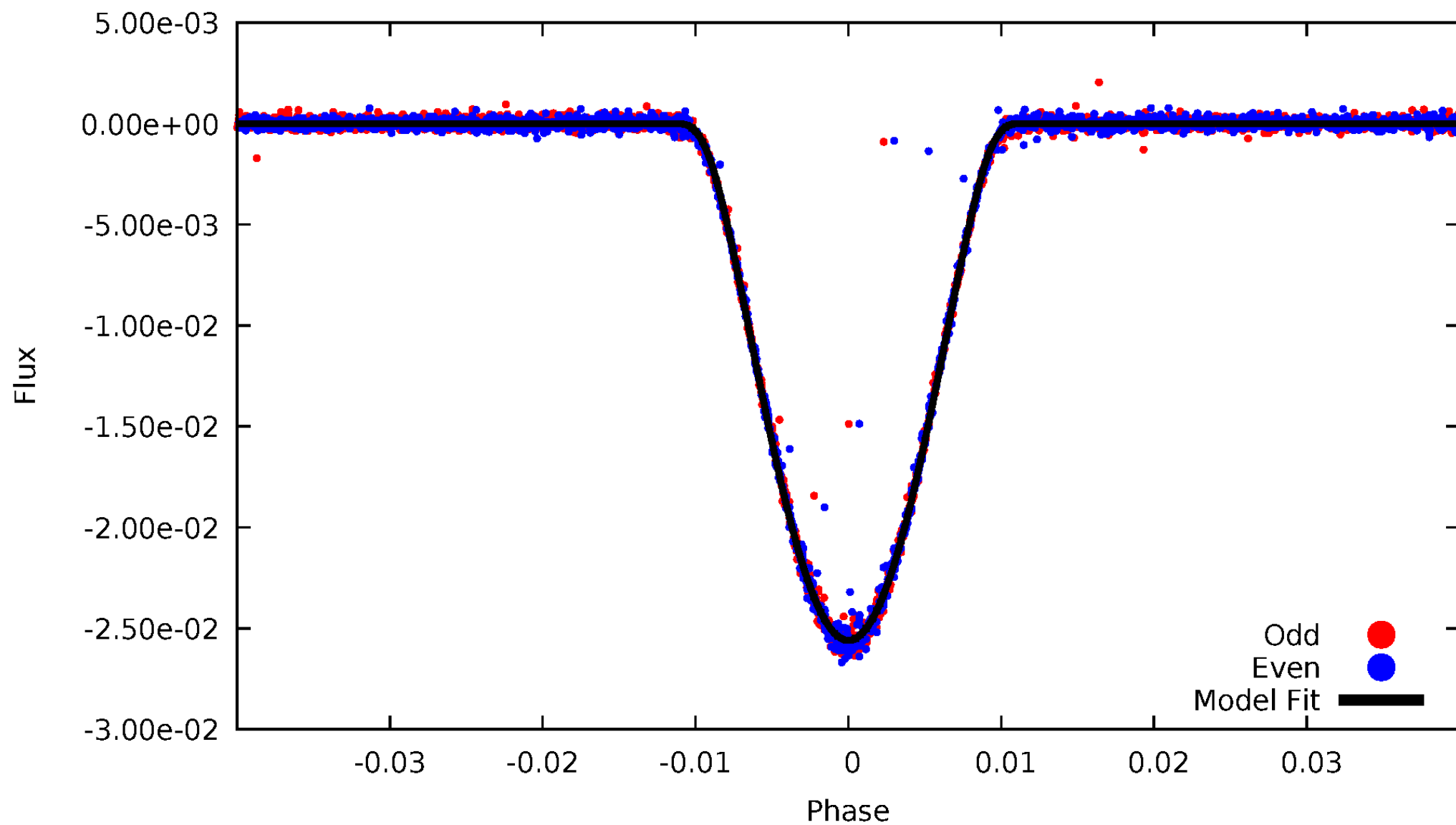


TCE 007950775-02



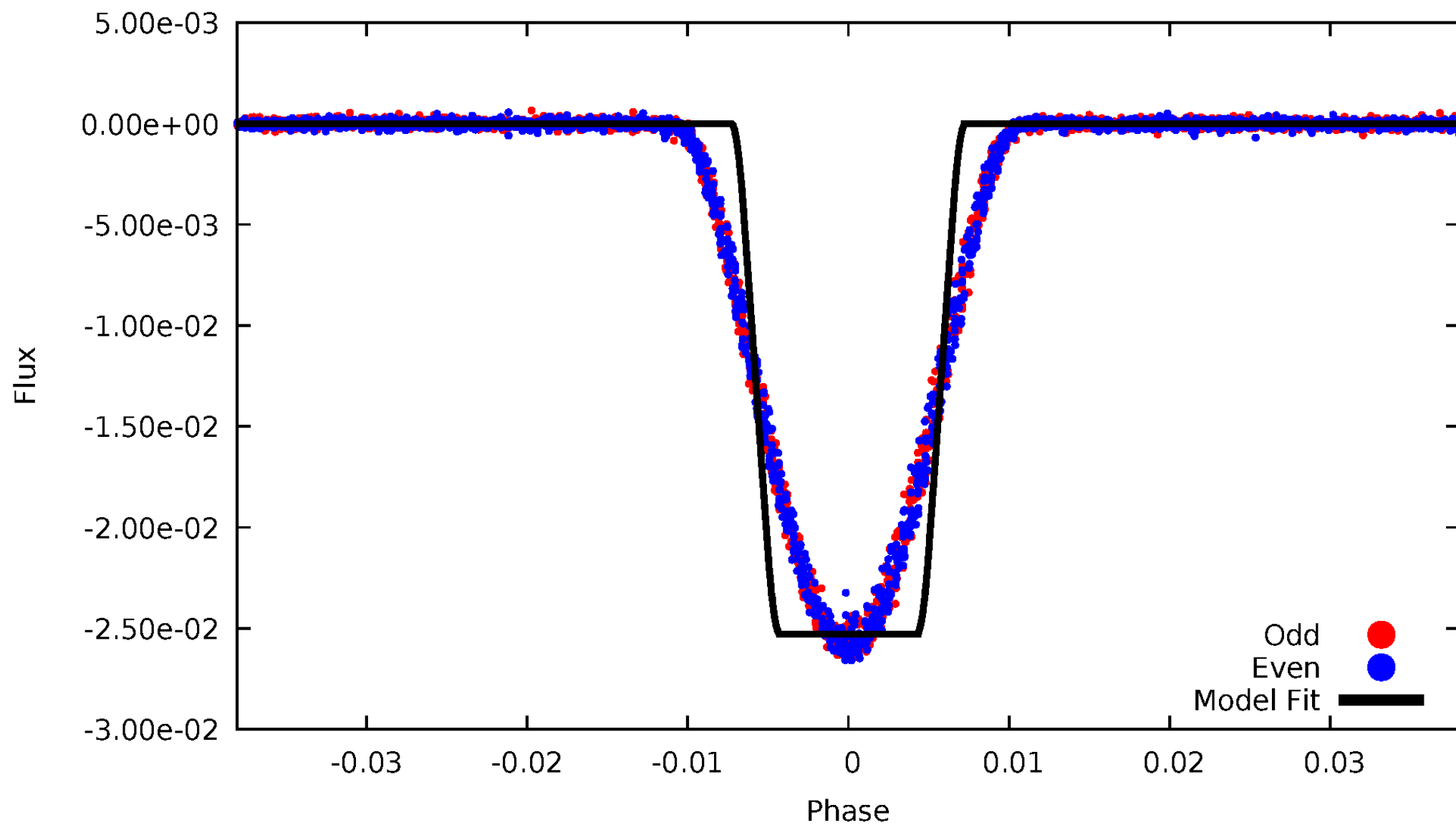
DV Odd/Even

TCE 007950775-02



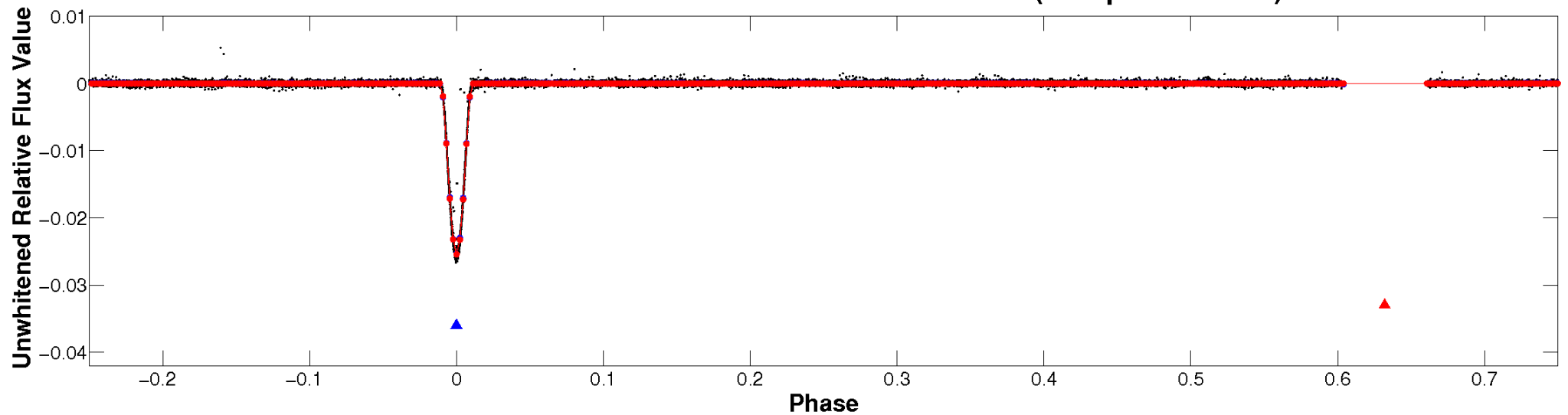
ALT Odd/Even

TCE 007950775-02

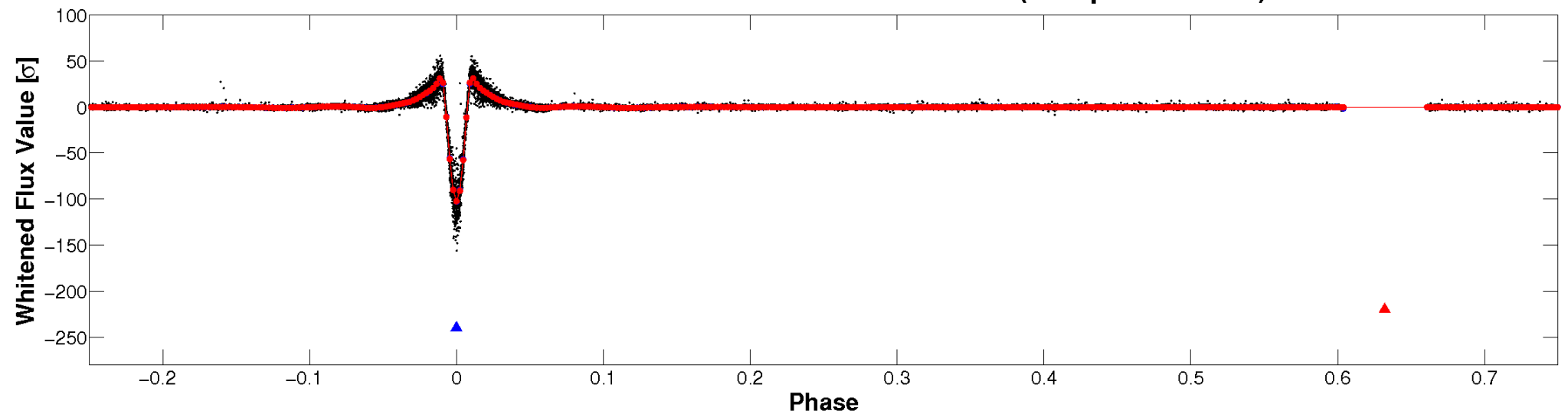


Non-Whitened Vs. Whitened Light Curve

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

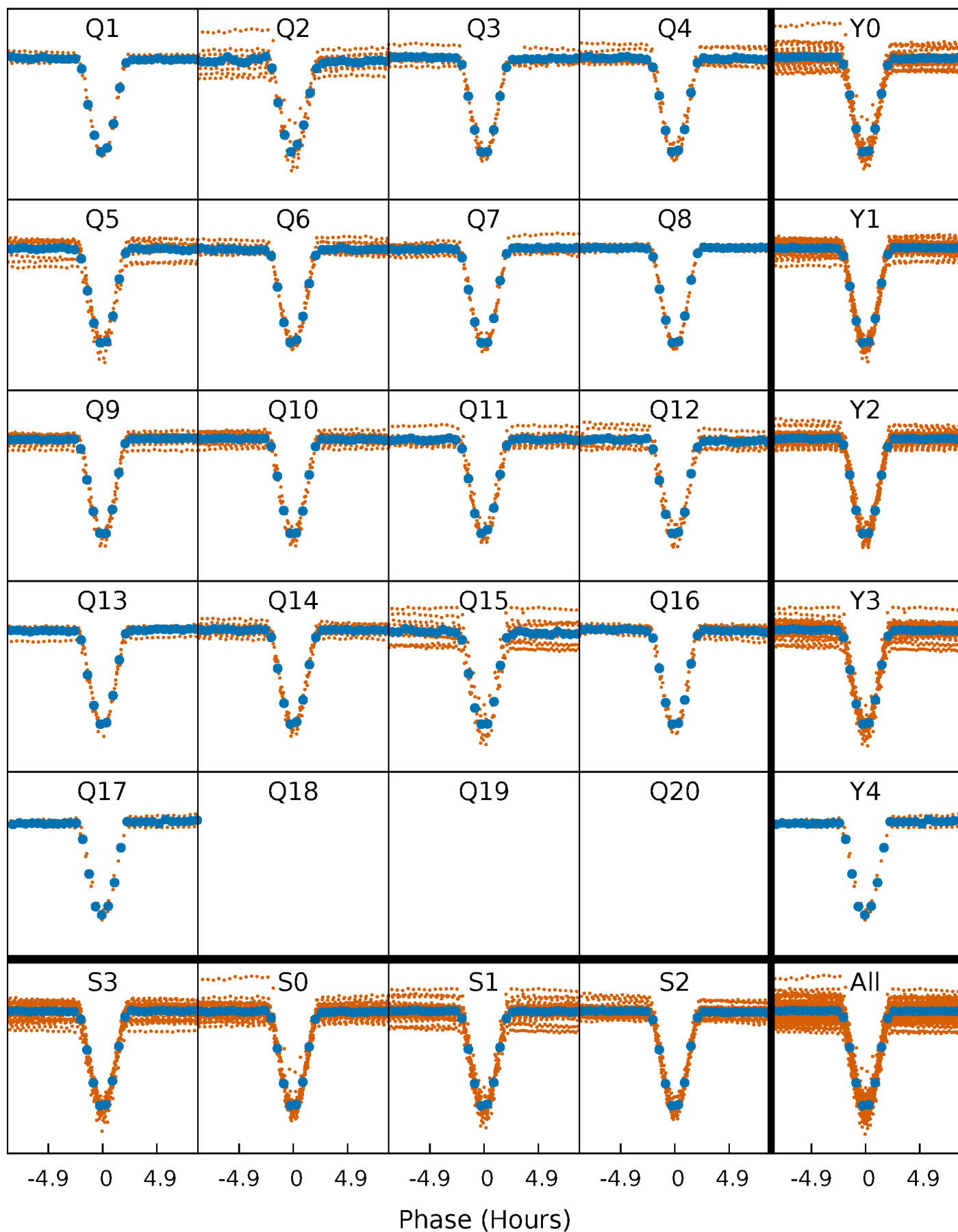


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



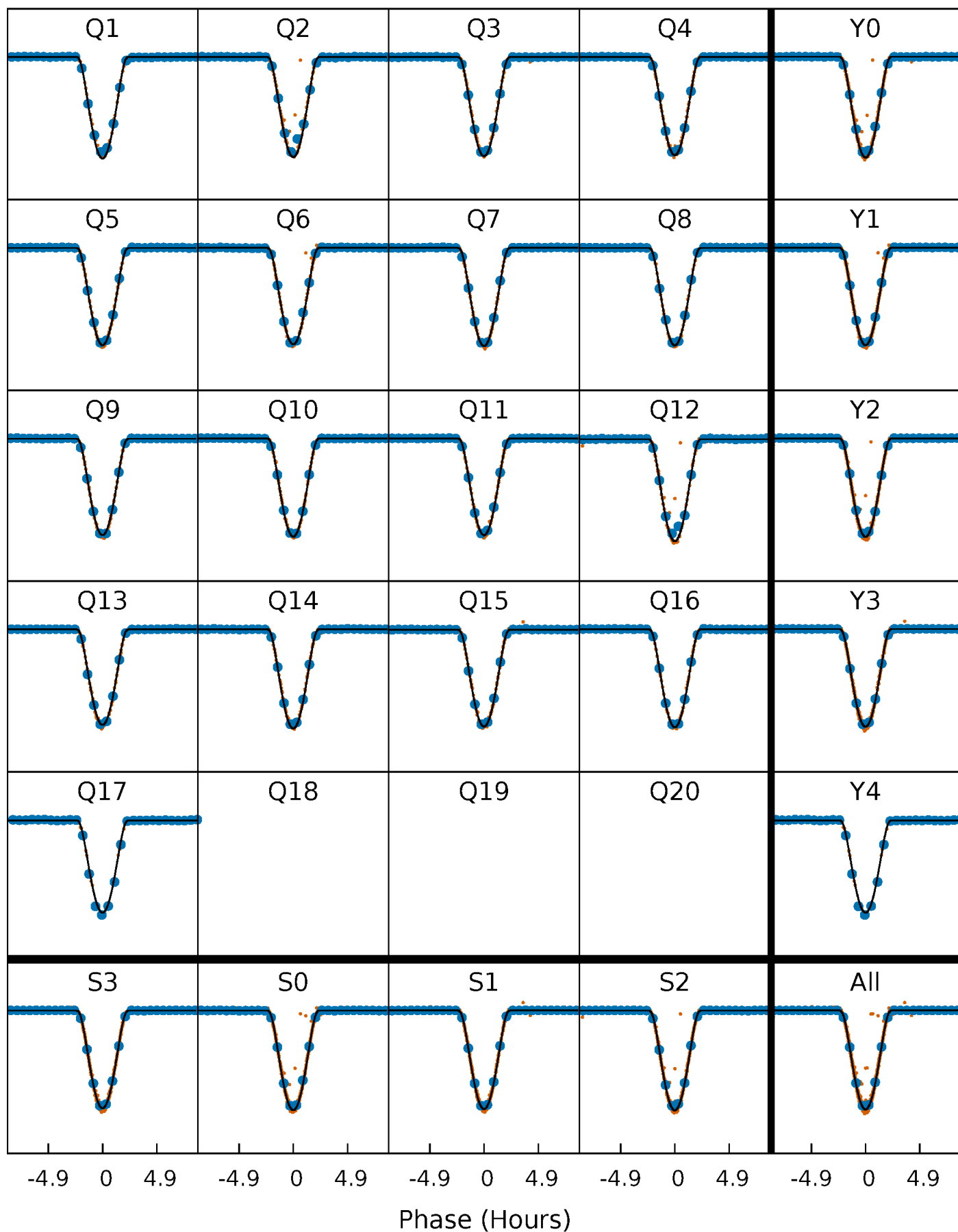
PDC Quarter-Phased Transit Curves

TCE 007950775-02 P= 8.966607 Days $T_0=132.908014$ (BKJD)



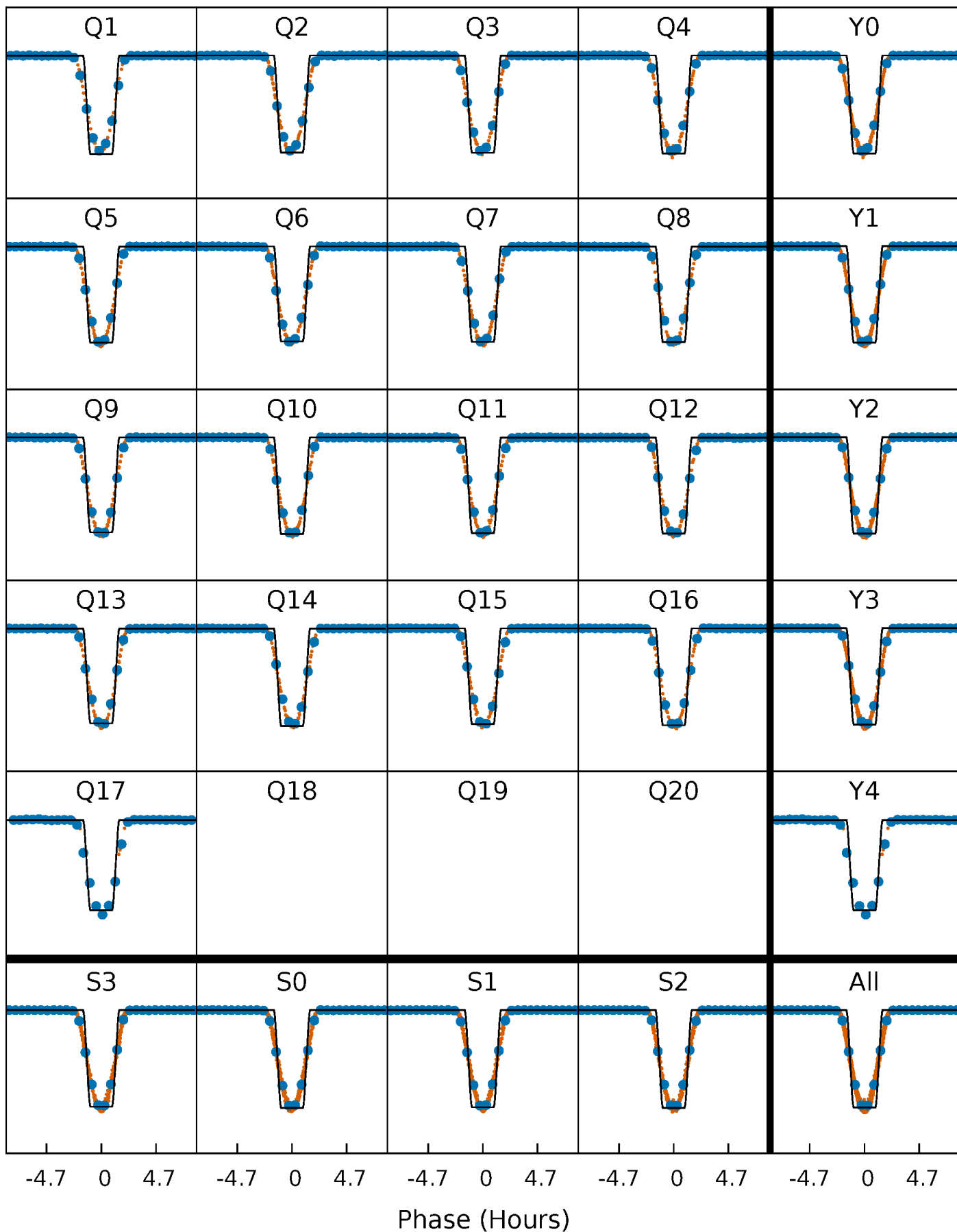
DV Quarter-Phased Transit Curves

TCE 007950775-02 P= 8.966607 Days $T_0=132.908014$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

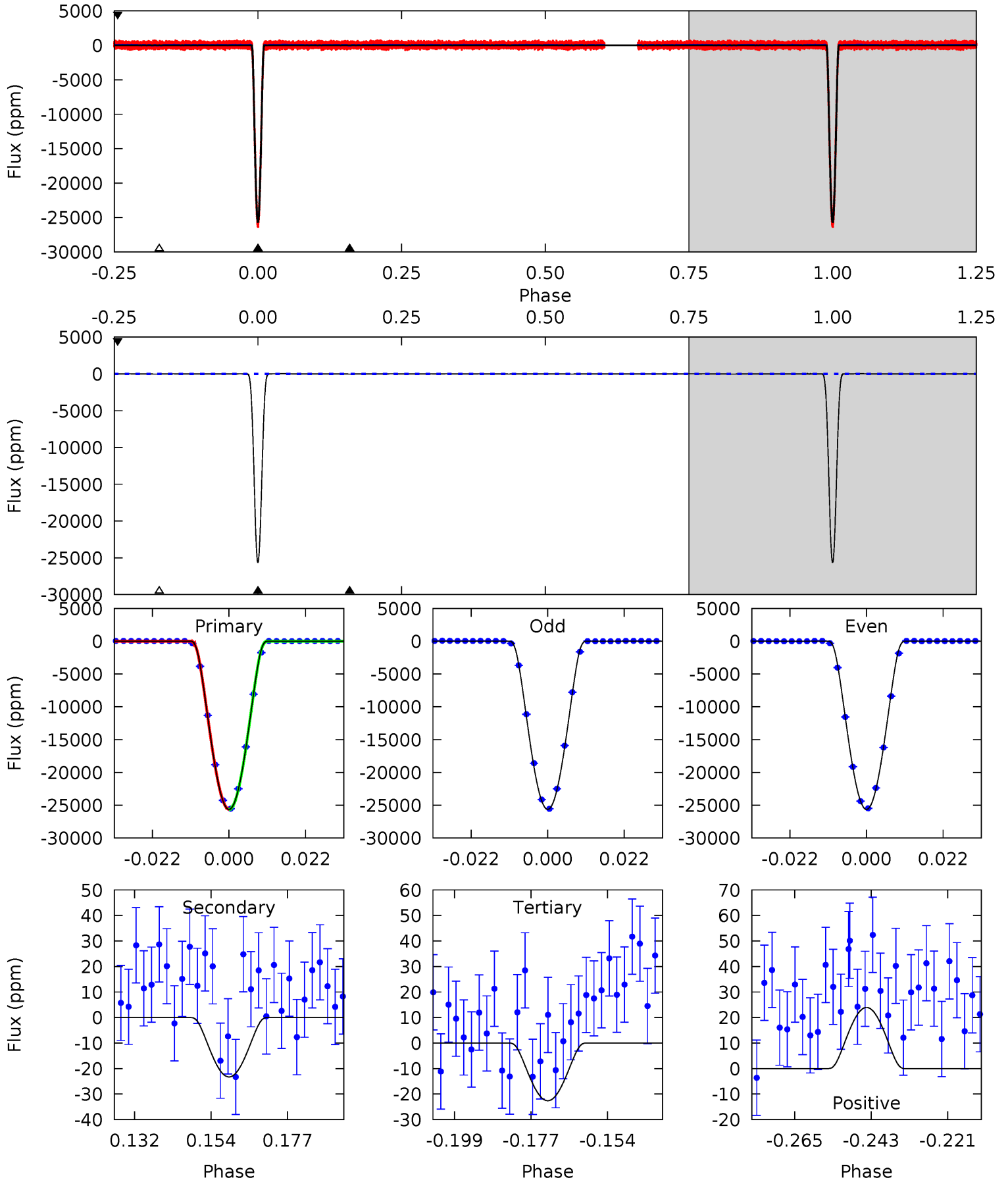
TCE 007950775-02 P= 8.966562 Days $T_0=132.911722$ (BKJD)



DV Model-Shift Uniqueness Test

007950775-02, P = 8.966607 Days, E = 123.941407 Days

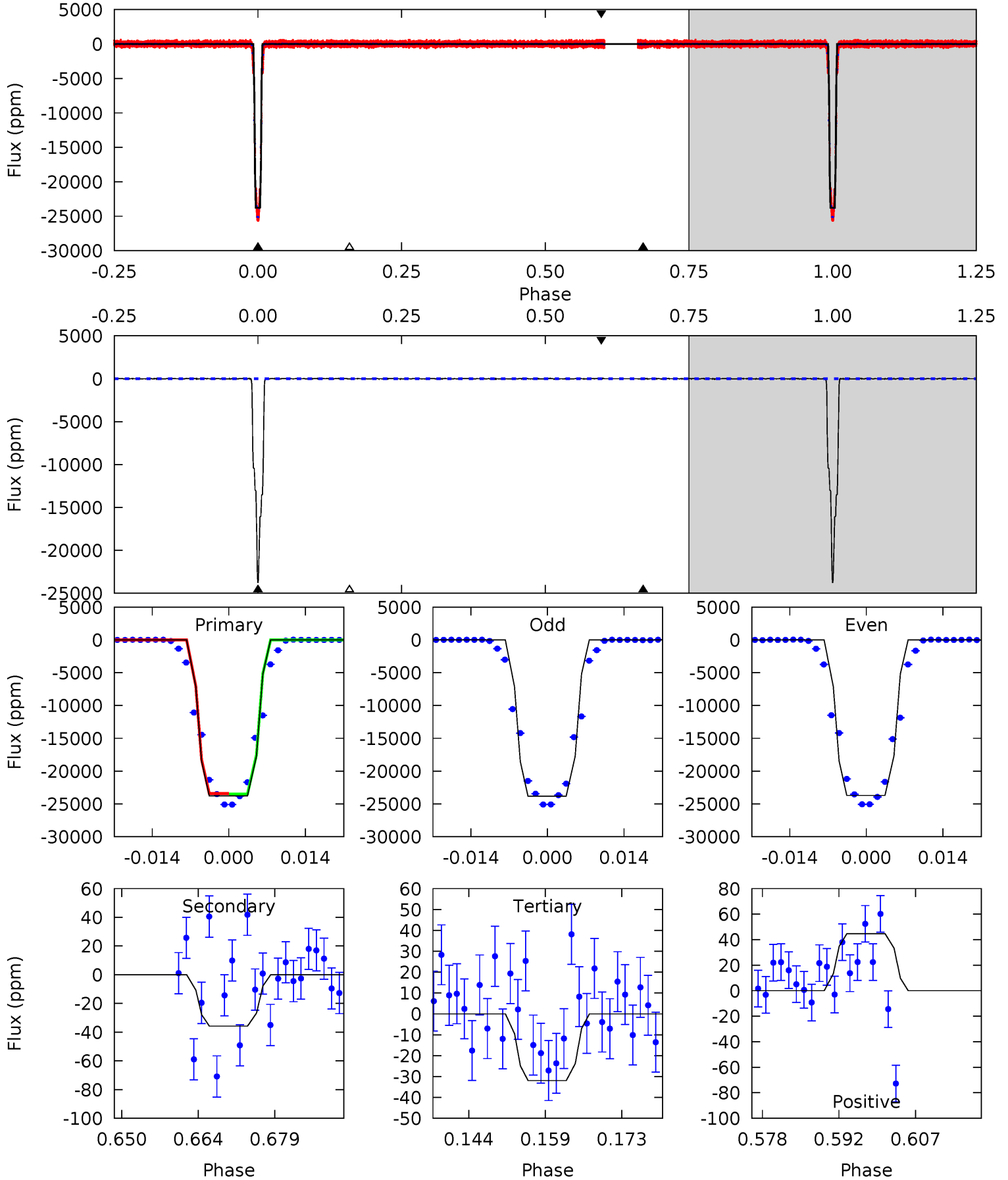
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5336	4.84	4.71	4.98	4.87	2.29	2.49	5331	5331	0.14	-0.14	1.55	0.99	0.00	5.21



Alt Model-Shift Uniqueness Test

007950775-02, P = 8.966562 Days, E = 123.945160 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2926	4.40	3.93	5.50	4.96	2.45	1.04	2922	2920	0.47	-1.10	5.76	1.00	0.00	4.27



Stellar Parameters For KIC 007950775

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6480^{+146}_{-194}	$4.351^{+0.092}_{-0.138}$	$-0.360^{+0.250}_{-0.300}$	$1.132^{+0.251}_{-0.135}$	$1.045^{+0.137}_{-0.112}$	$1.014^{+0.408}_{-0.402}$
	+2%/-3%	+2%/-3%	+69%/-83%	+22%/-12%	+13%/-11%	+40%/-40%
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 007950775-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-23 ± 5	$31.41^{+3.73}_{-2.44}$	1451^{+78}_{-66}	-2069^{+59}_{-63}	$0.094^{+0.025}_{-0.024}$
Alt.	-36 ± 8	$19.78^{+2.43}_{-1.53}$	1457^{+77}_{-64}	1816^{+199}_{-3615}	$0.357^{+0.119}_{-0.101}$

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

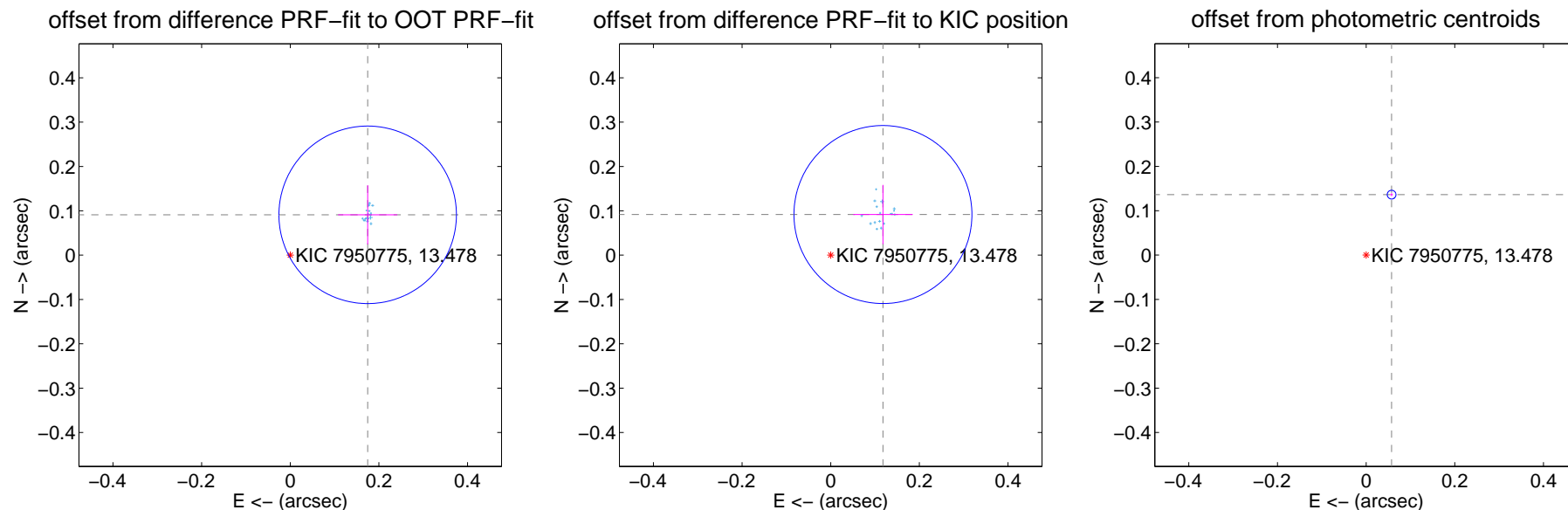
DV Centroid Data

Supplemental centroid analysis for 007950775-02. Kepler magnitude: 13.48. Transit SNR 2151.32

There are 17 quarters with good PRF difference image offsets

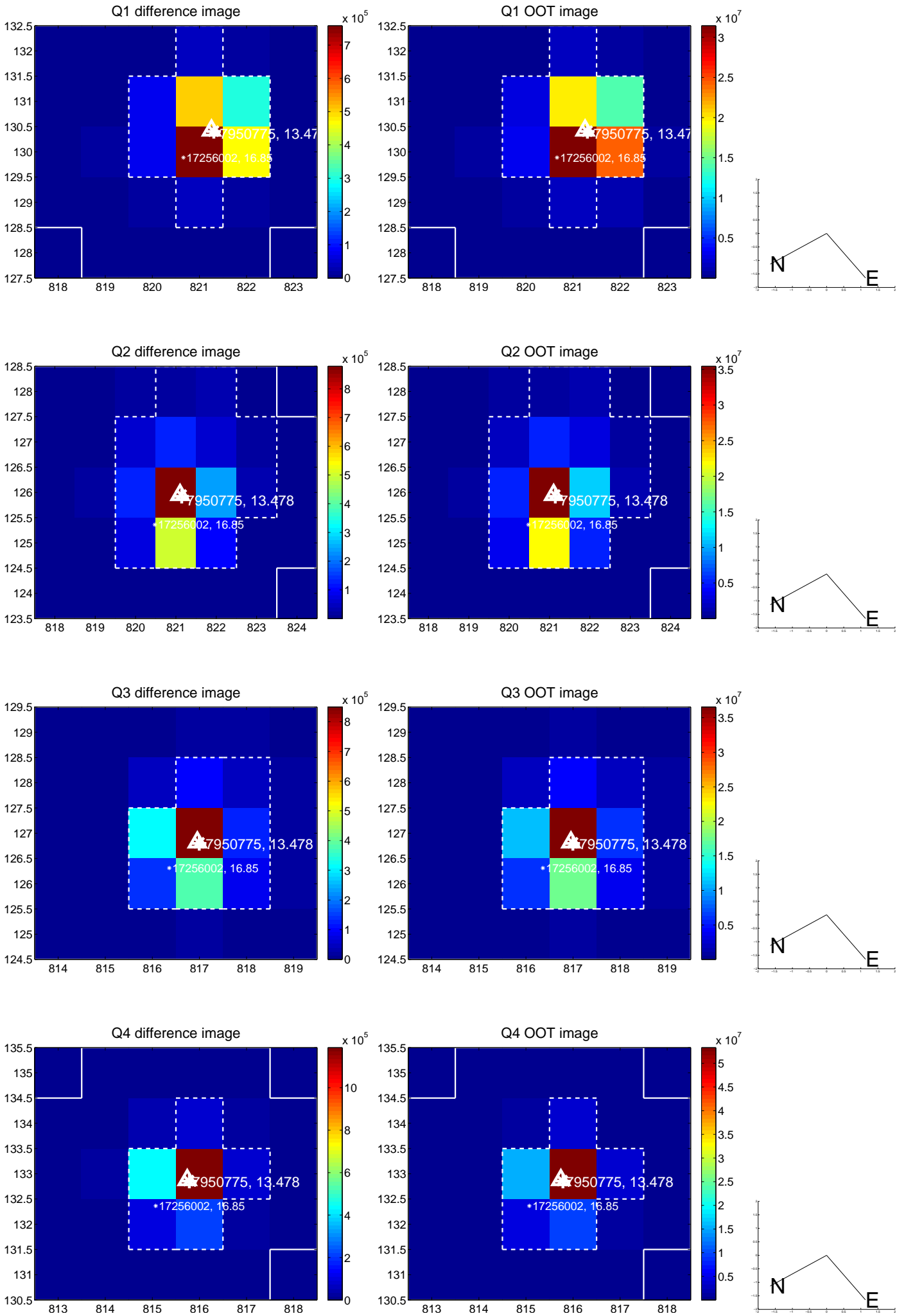
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.197 ± 0.067	2.95	-0.175 ± 0.067	0.091 ± 0.067
PRF-fit source offset from KIC position	0.149 ± 0.067	2.23	-0.118 ± 0.067	0.092 ± 0.067
photometric centroid source offset	0.15 ± 0.00	44.94	-0.06 ± 0.00	0.14 ± 0.00

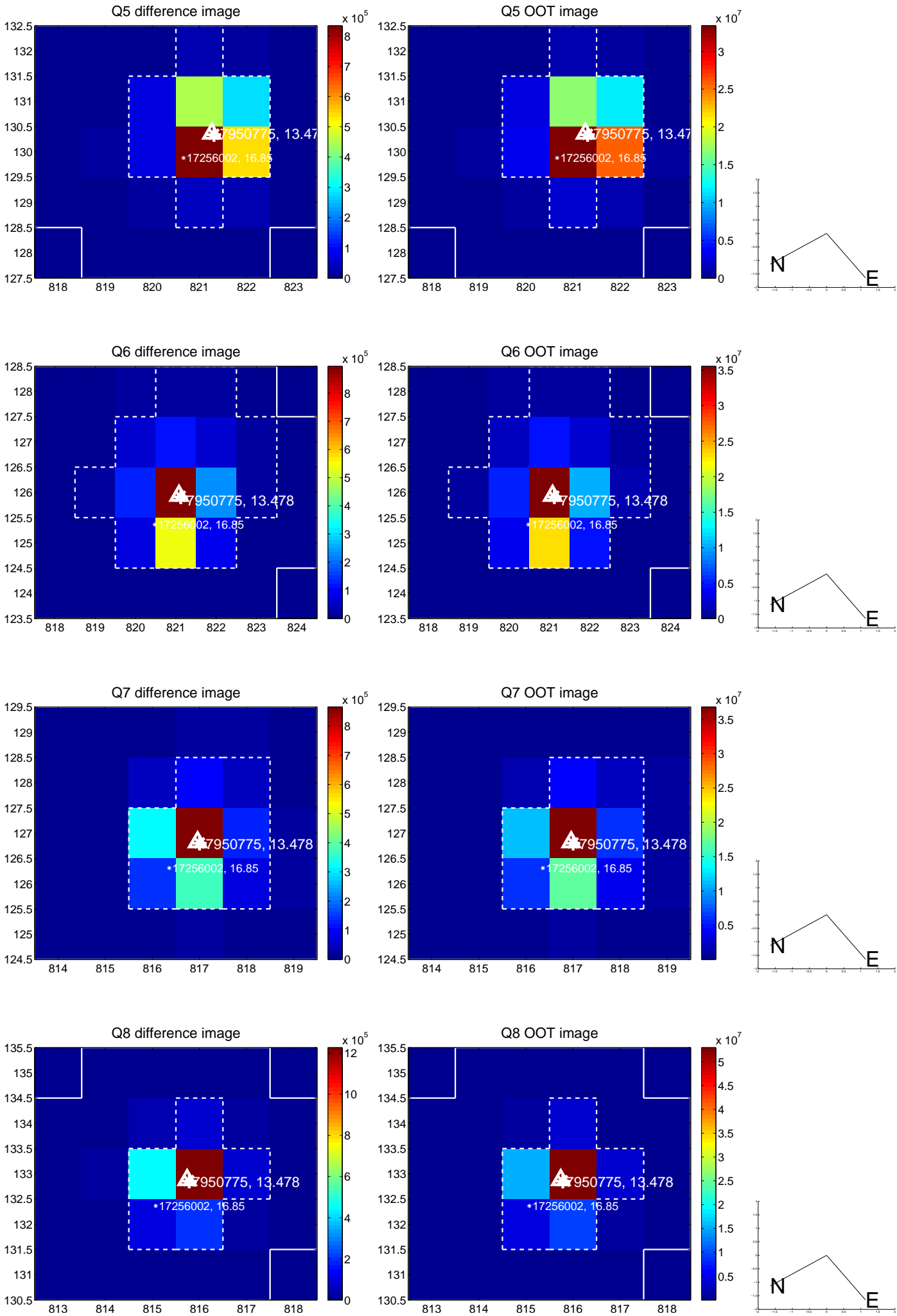


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

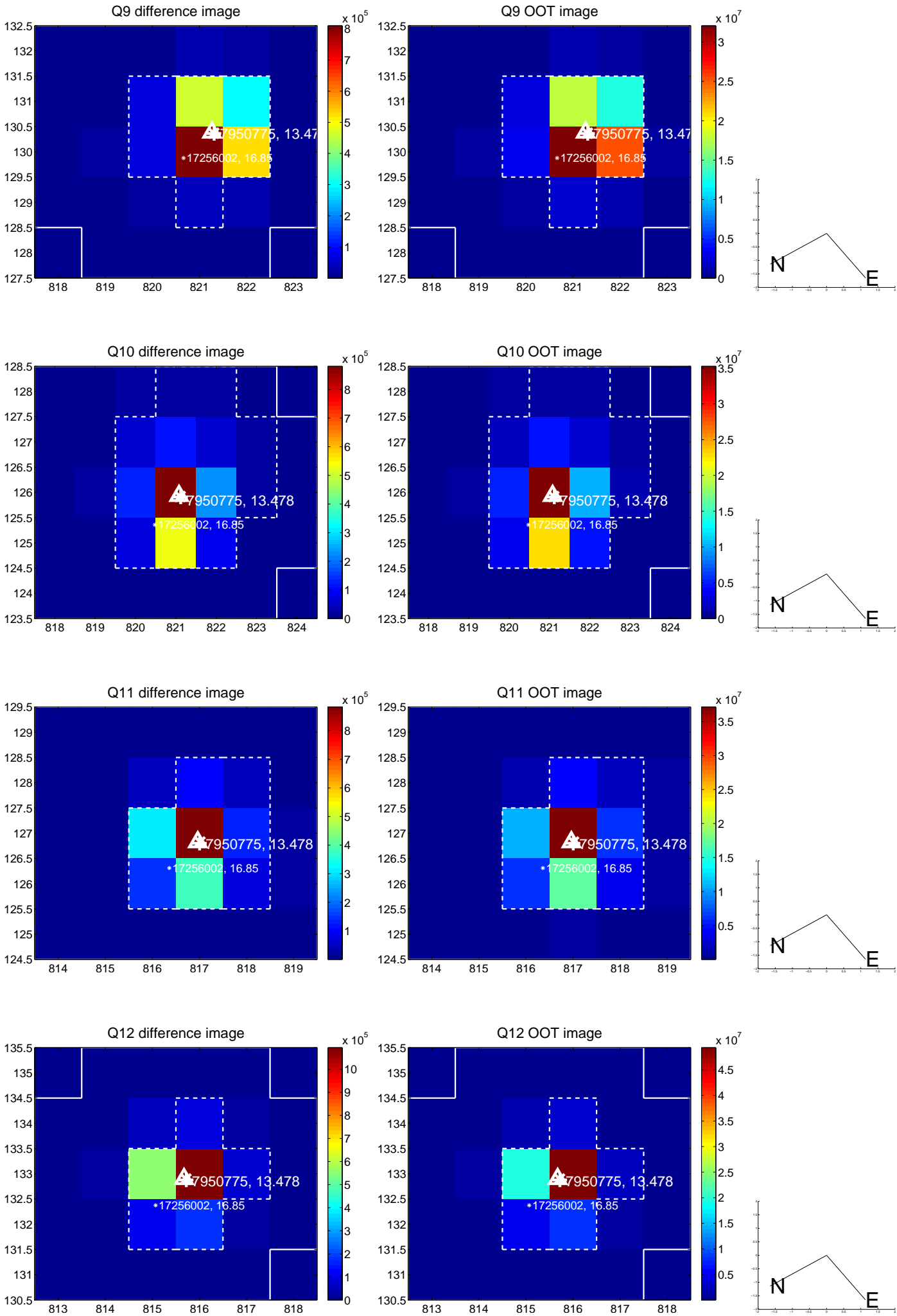
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



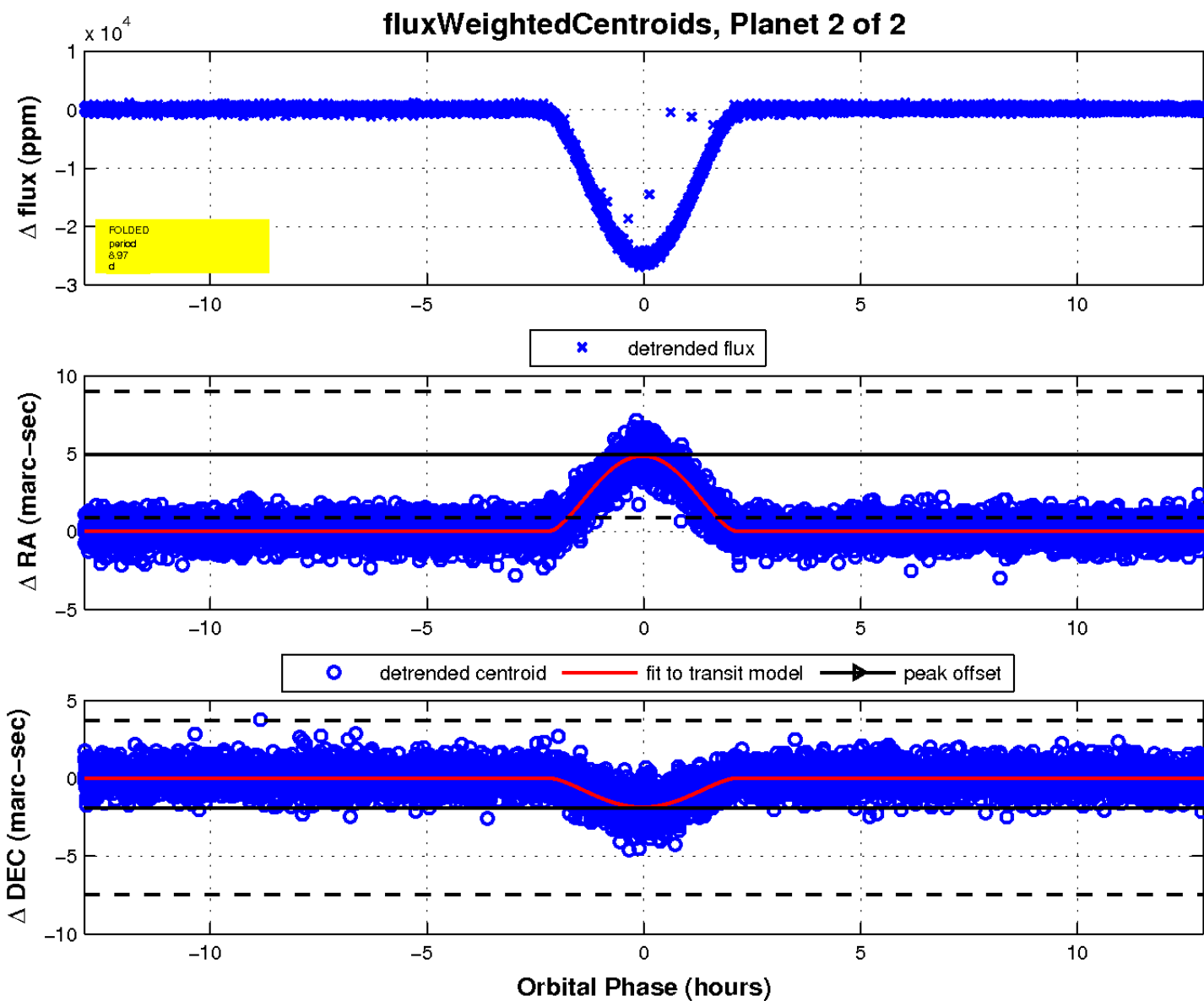
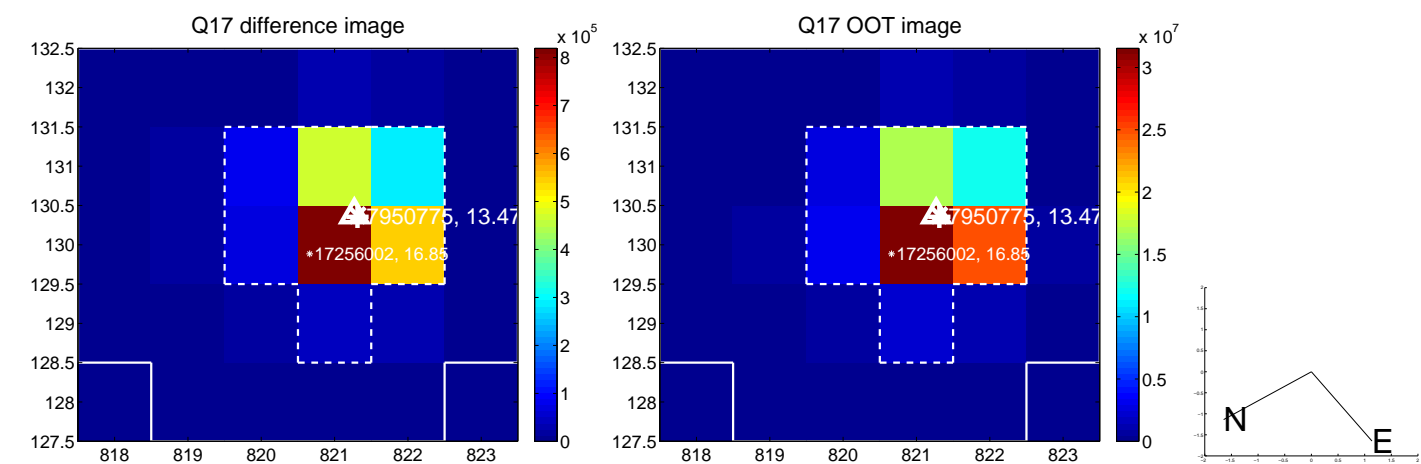
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

