

KIC 008324268

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})
008324268-01	OBS	No	2.009063	132.985496	10.8	2.230	16.2	13.7	1.96	9265	0.74	15323.05
008324268-02	OBS	No	0.502279	131.573494	48.8	1.500	13.4	-1.0	1.96	9265	1.40	97291.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008324268-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
008324268-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

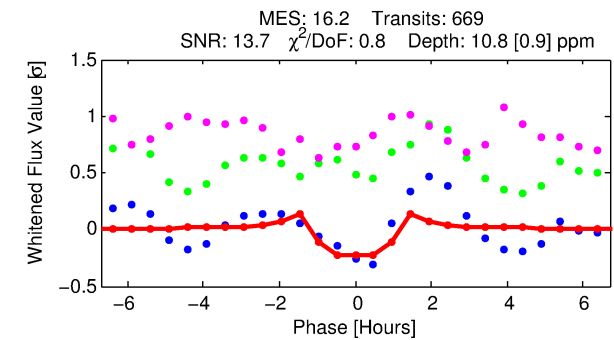
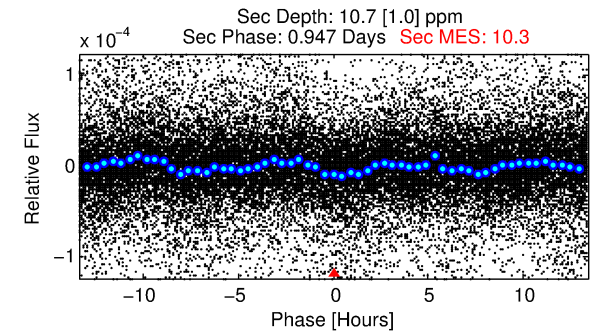
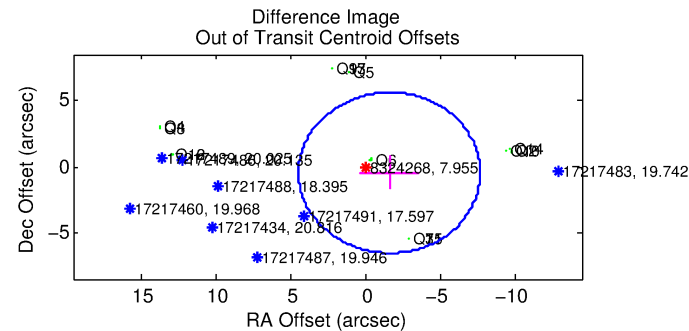
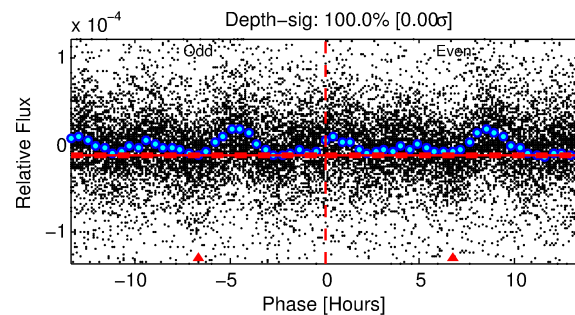
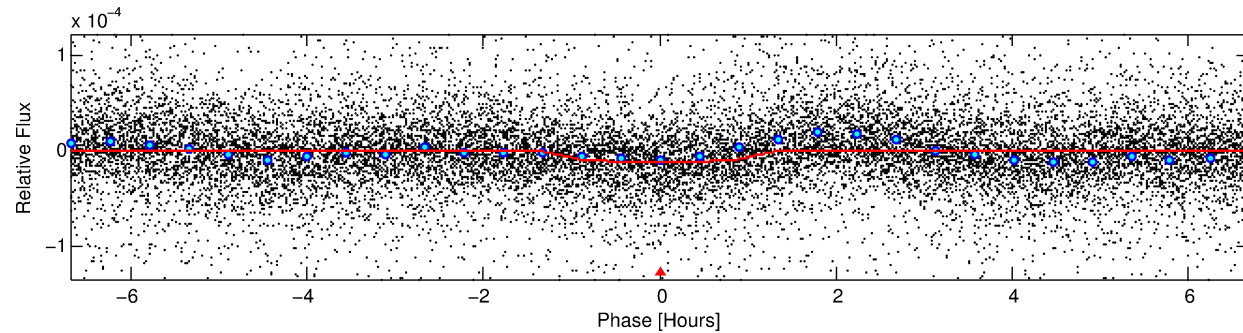
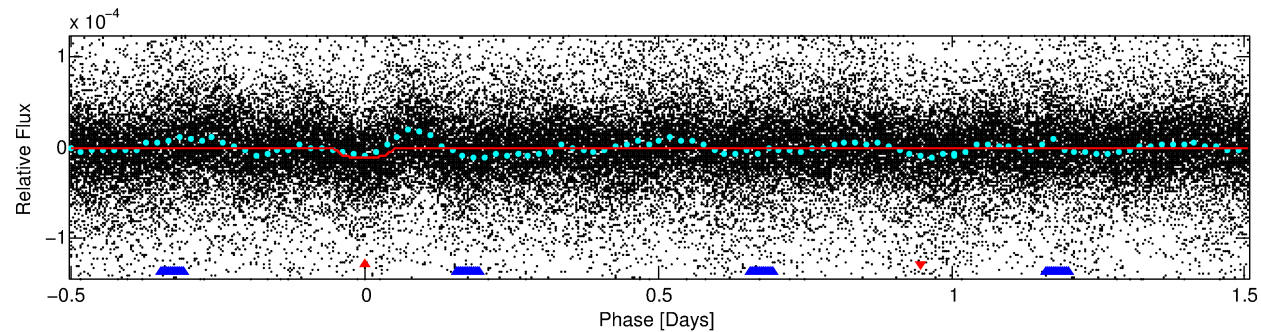
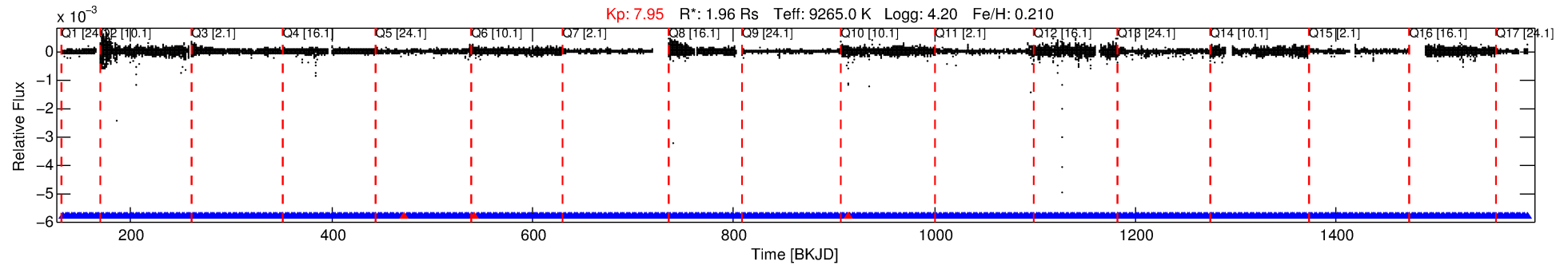
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008324268-01

No Significant Match Found

DV One-Page Summary

KIC: 8324268 Candidate: 1 of 2 Period: 2.009 d



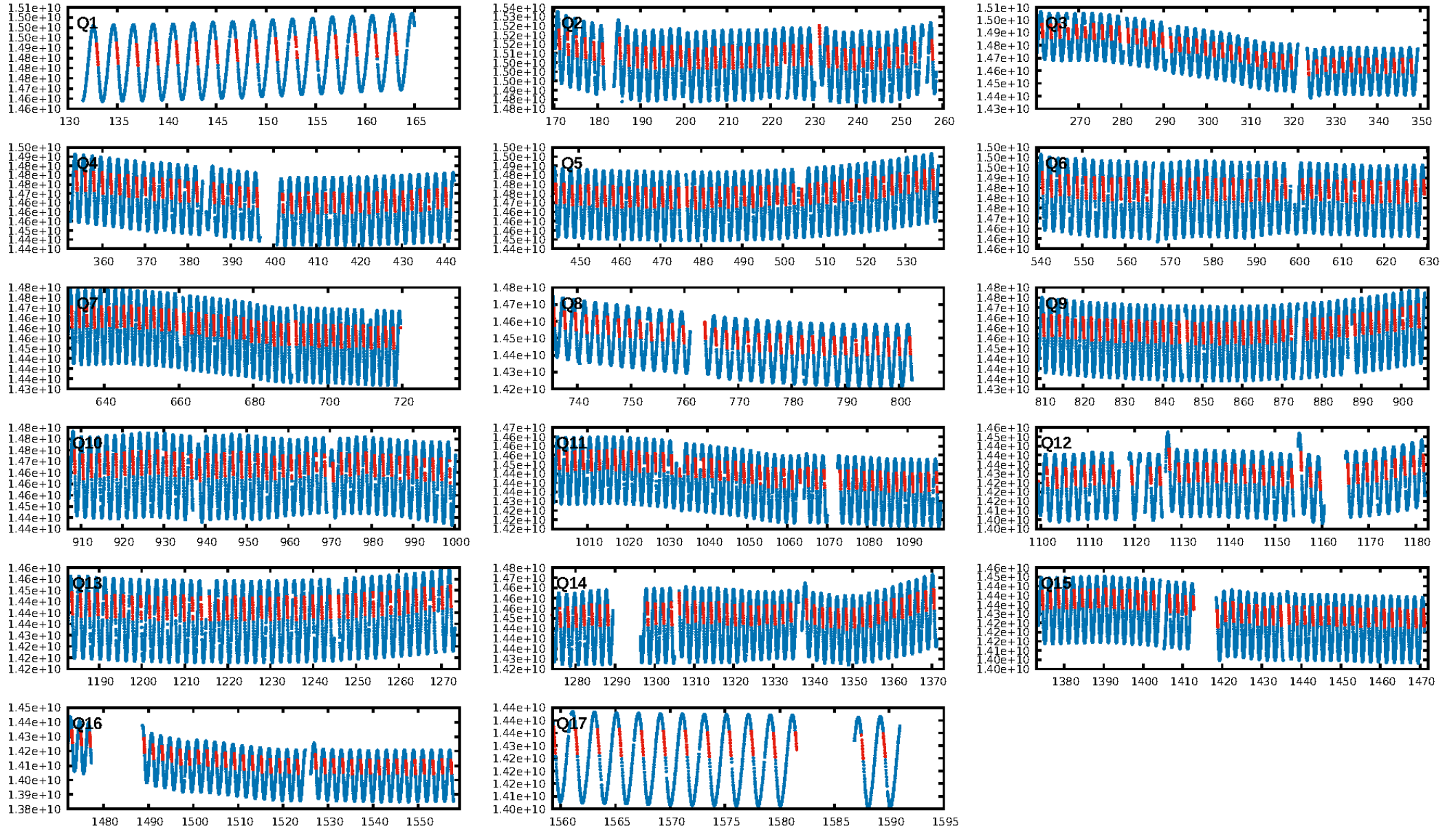
DV Fit Results:

Period = 2.00906 [0.00001] d
Epoch = 132.9855 [0.0014] BKJD
Rp/R* = 0.0035 [0.0002]
a/R* = 3.19 [0.92]
b = 0.90 [0.07]
Seff = 15323.05 [7783.35]
Teq = 2837 [360] K
Rp = 0.74 [0.33] Re
a = 0.0406 [0.0142] AU
Ag = 17.71 [8.92] [1.87 σ]
Teff = 8998 [502] K [9.98 σ]

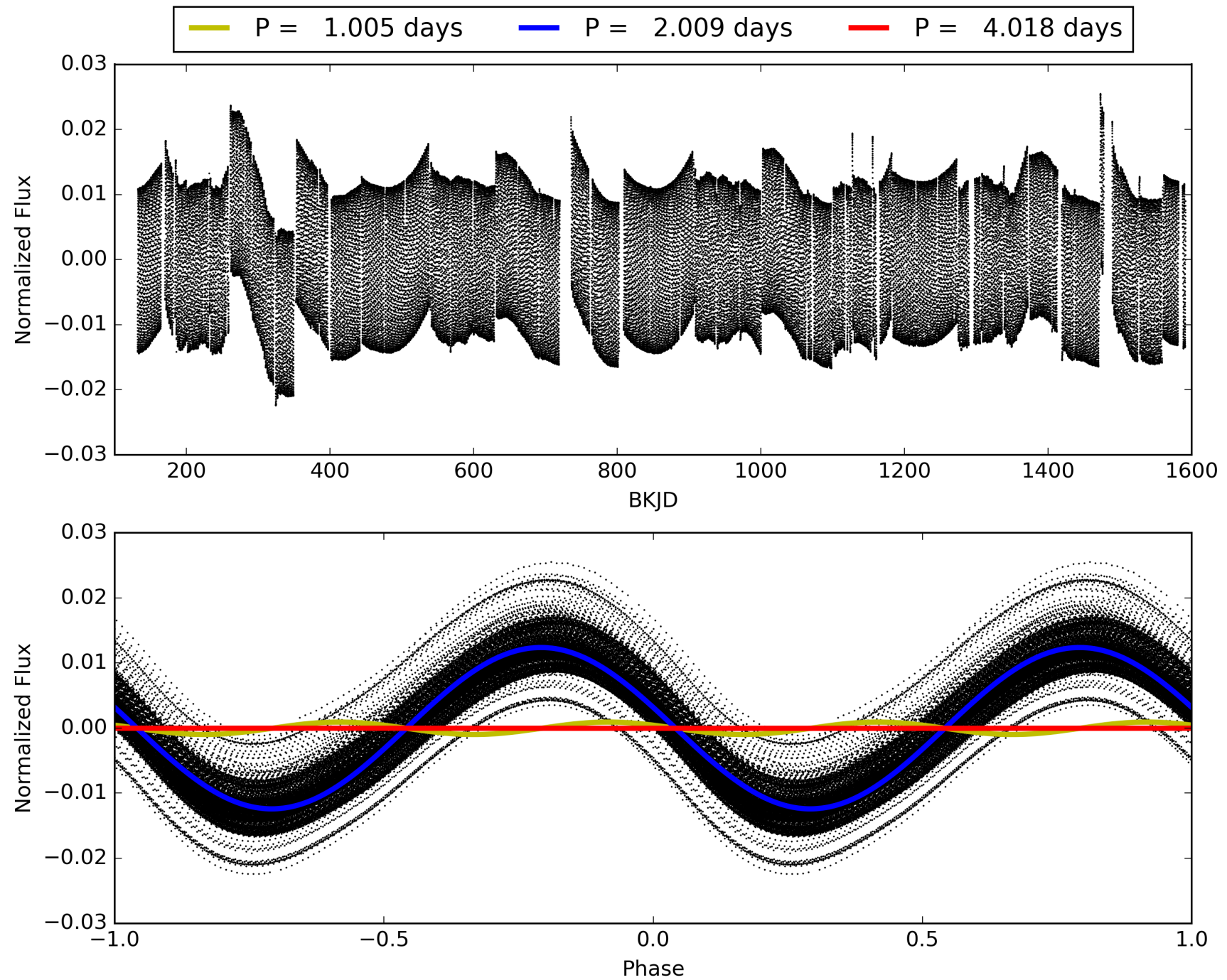
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.45 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [636/639]
GhostDiagnostic-chr: N/A
Centroid-sig: 14.6%
Centroid-so: 7.552 arcsec [1.13 σ]
OotOffset-rm: 1.699 arcsec [0.84 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 1.299 arcsec [0.54 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 008324268-01, PDC Light Curves

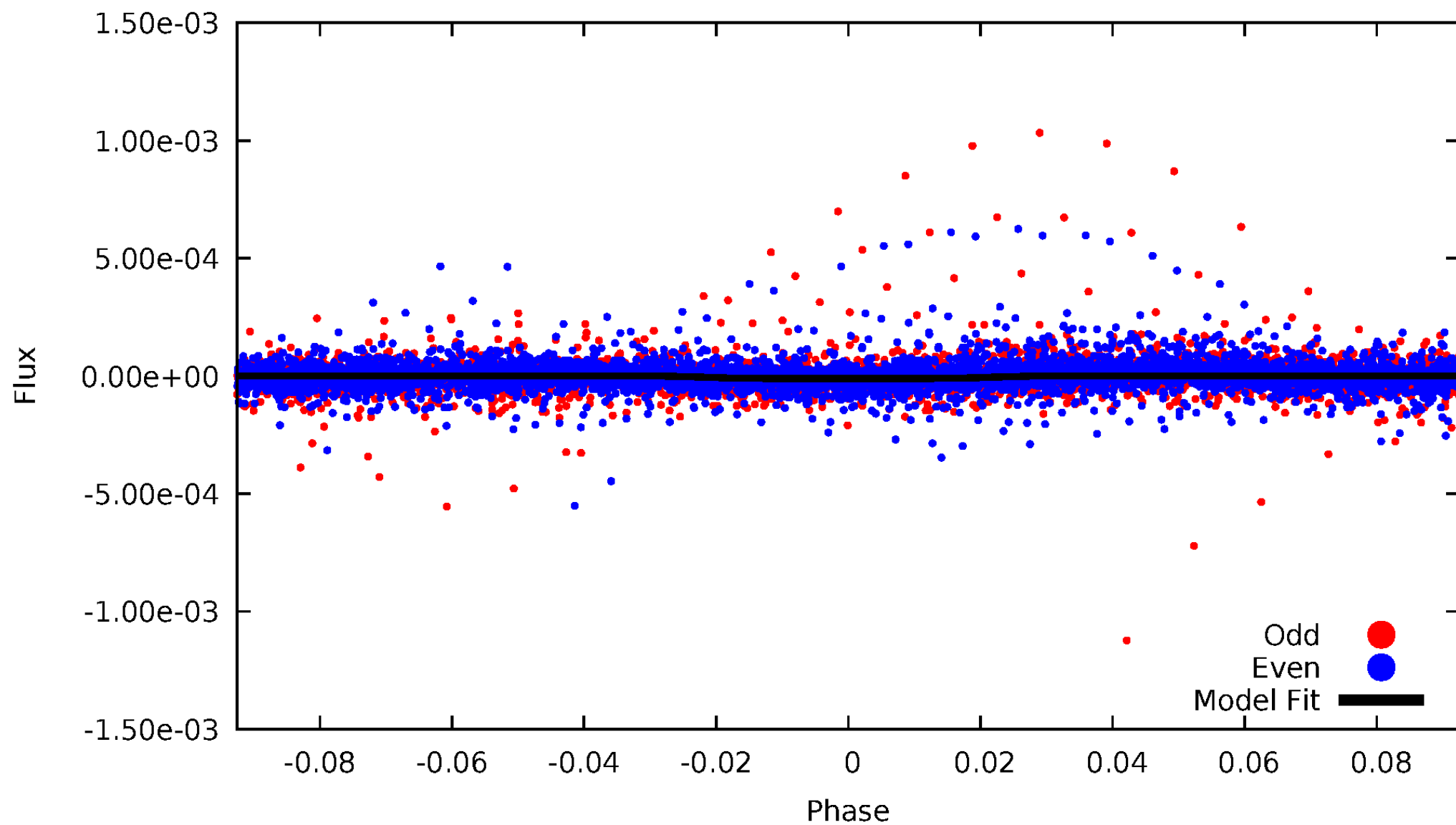


TCE 008324268-01



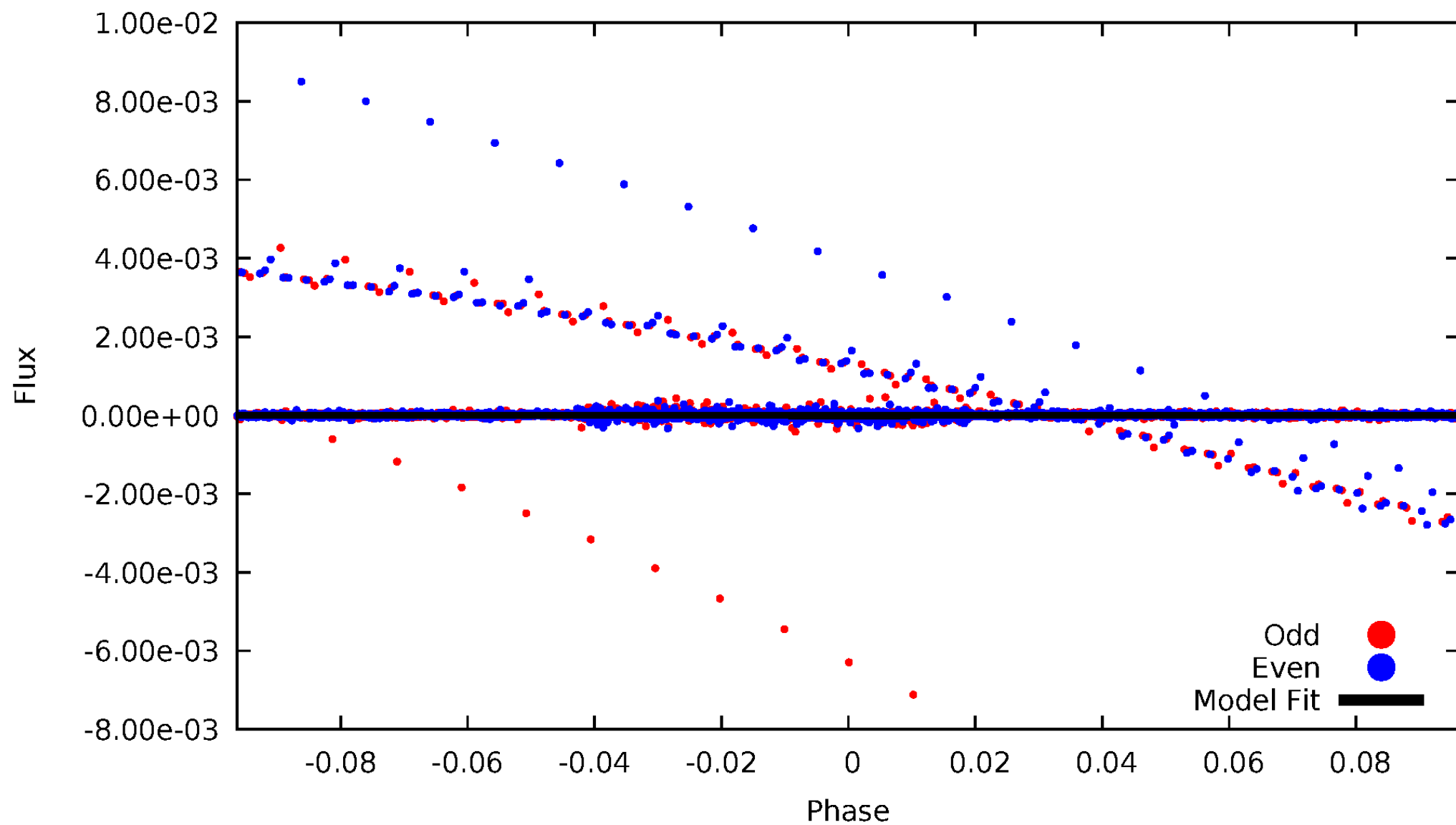
DV Odd/Even

TCE 008324268-01



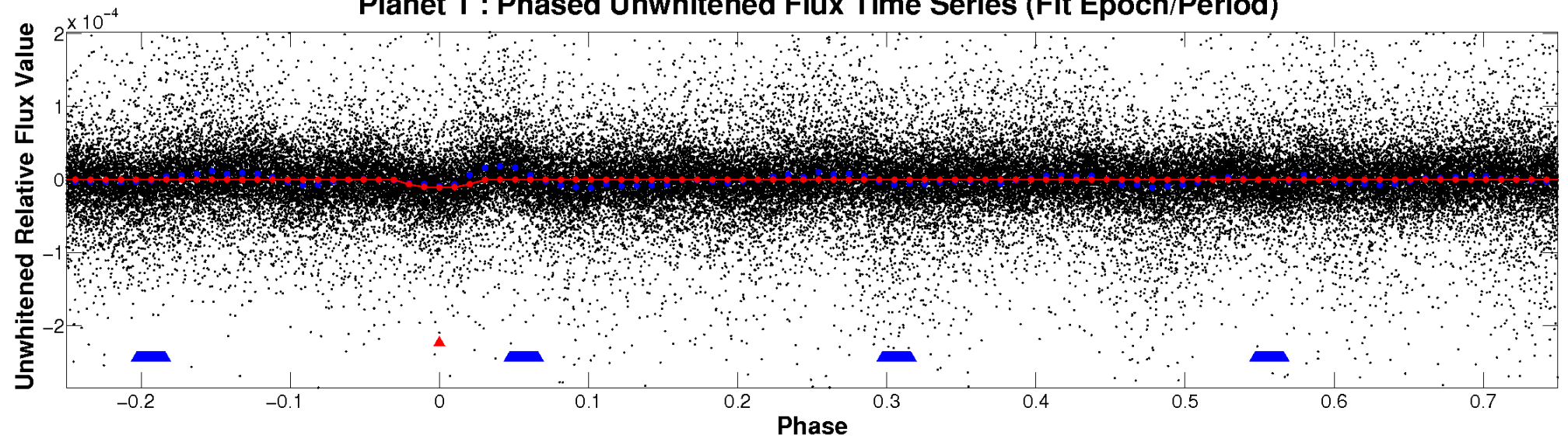
ALT Odd/Even

TCE 008324268-01

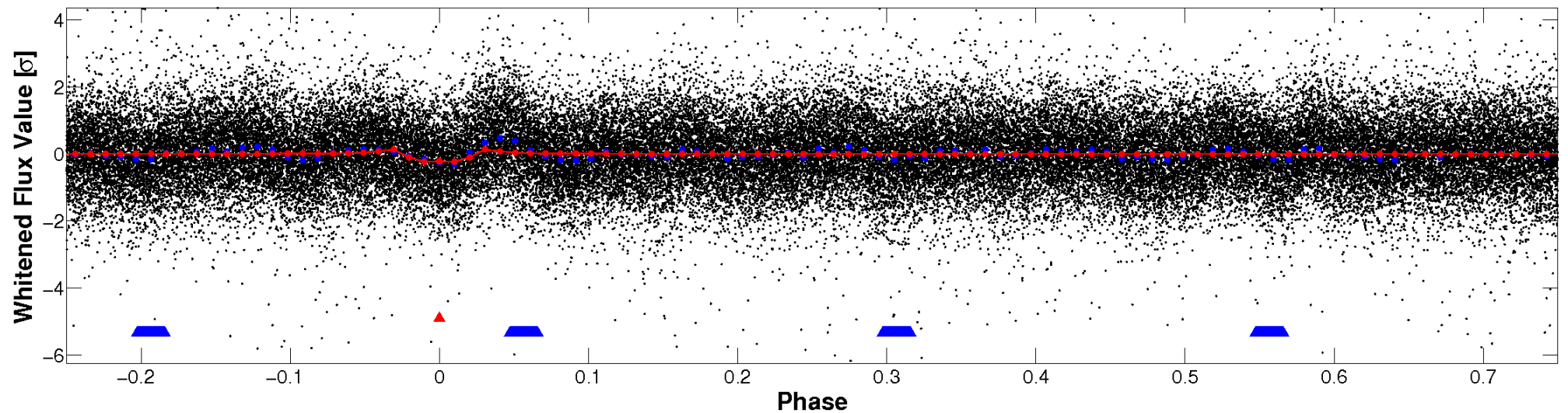


Non-Whitened Vs. Whitened Light Curve

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

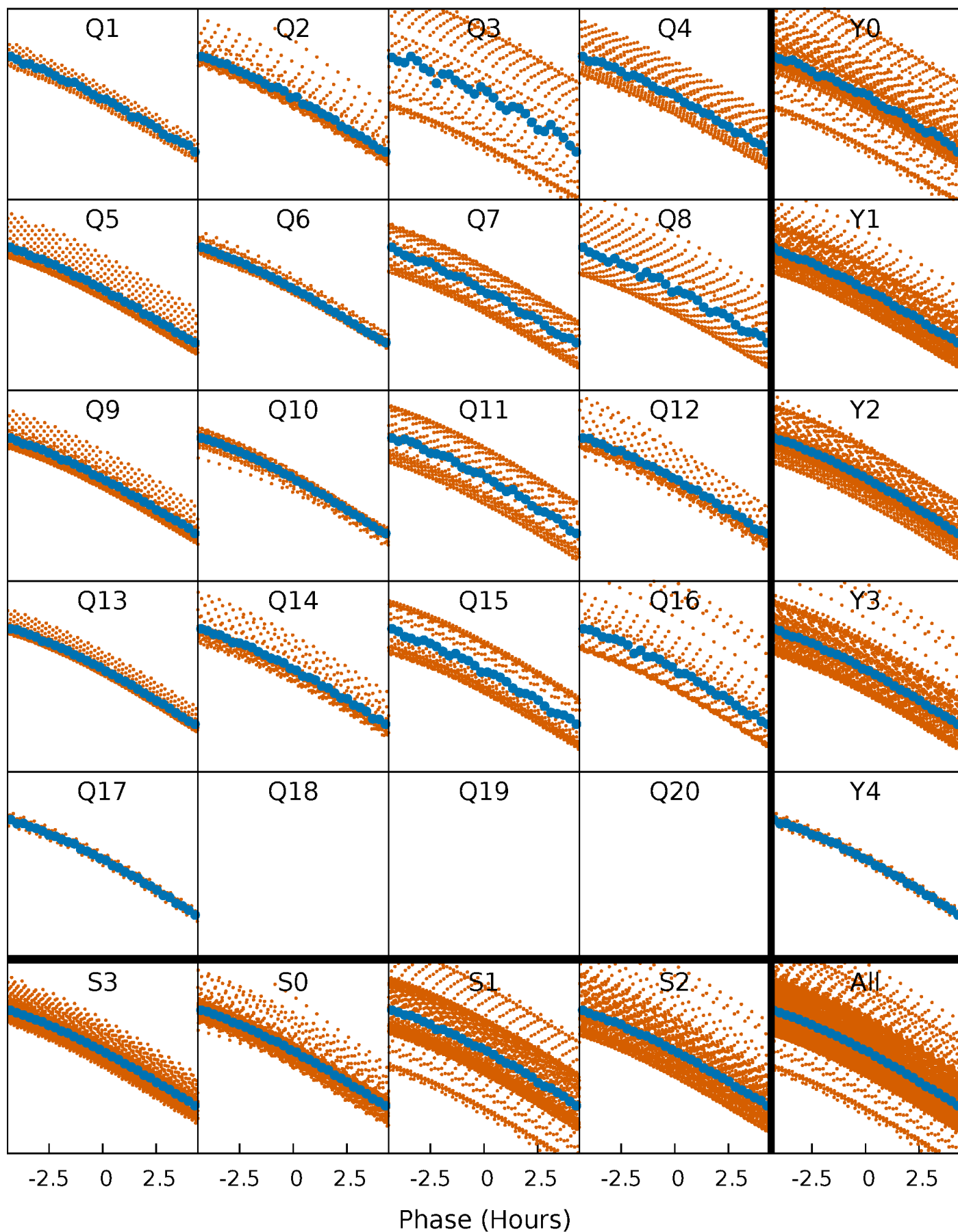


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



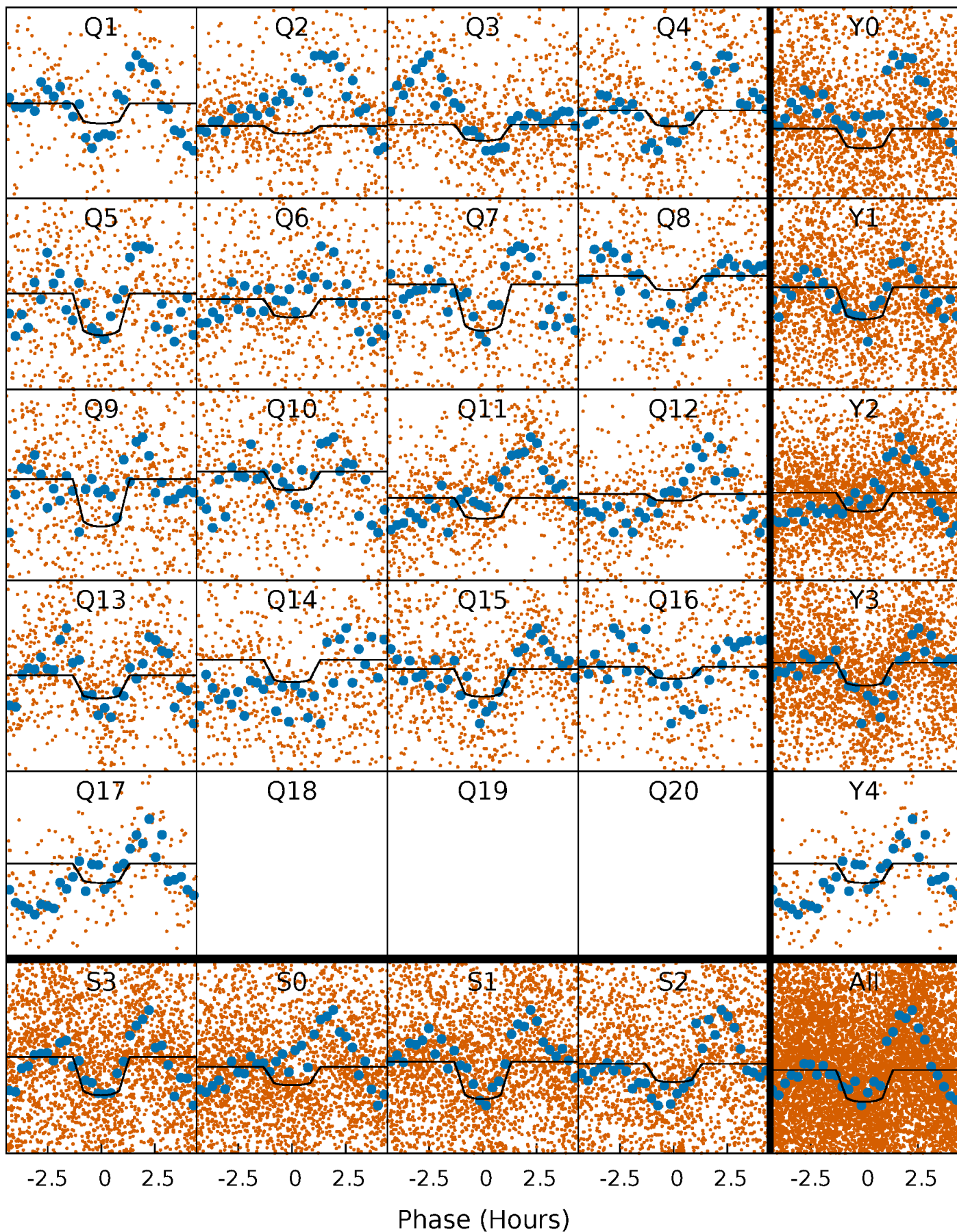
PDC Quarter-Phased Transit Curves

TCE 008324268-01 P= 2.009063 Days $T_0=132.985496$ (BKJD)



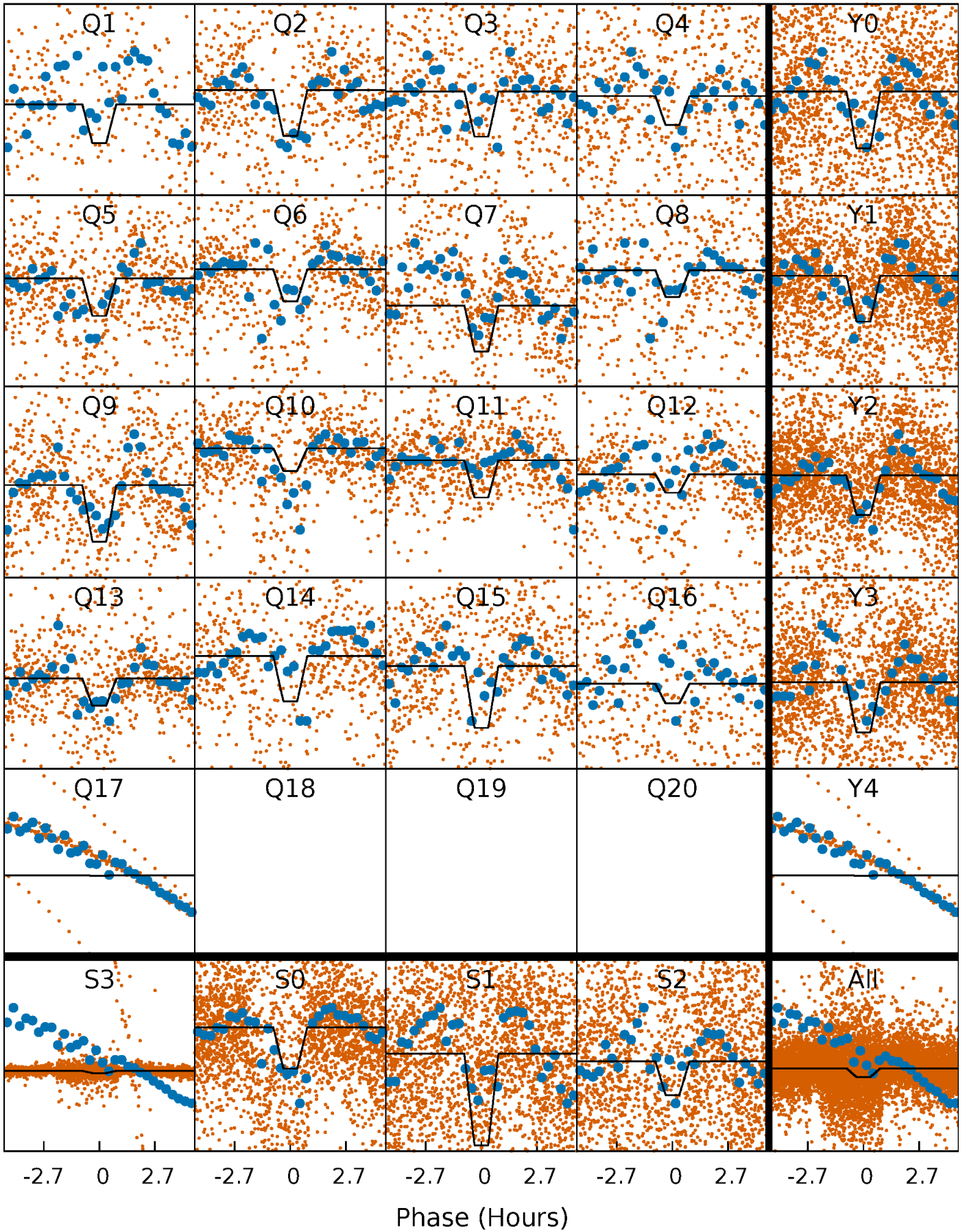
DV Quarter-Phased Transit Curves

TCE 008324268-01 P= 2.009063 Days $T_0=132.985496$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

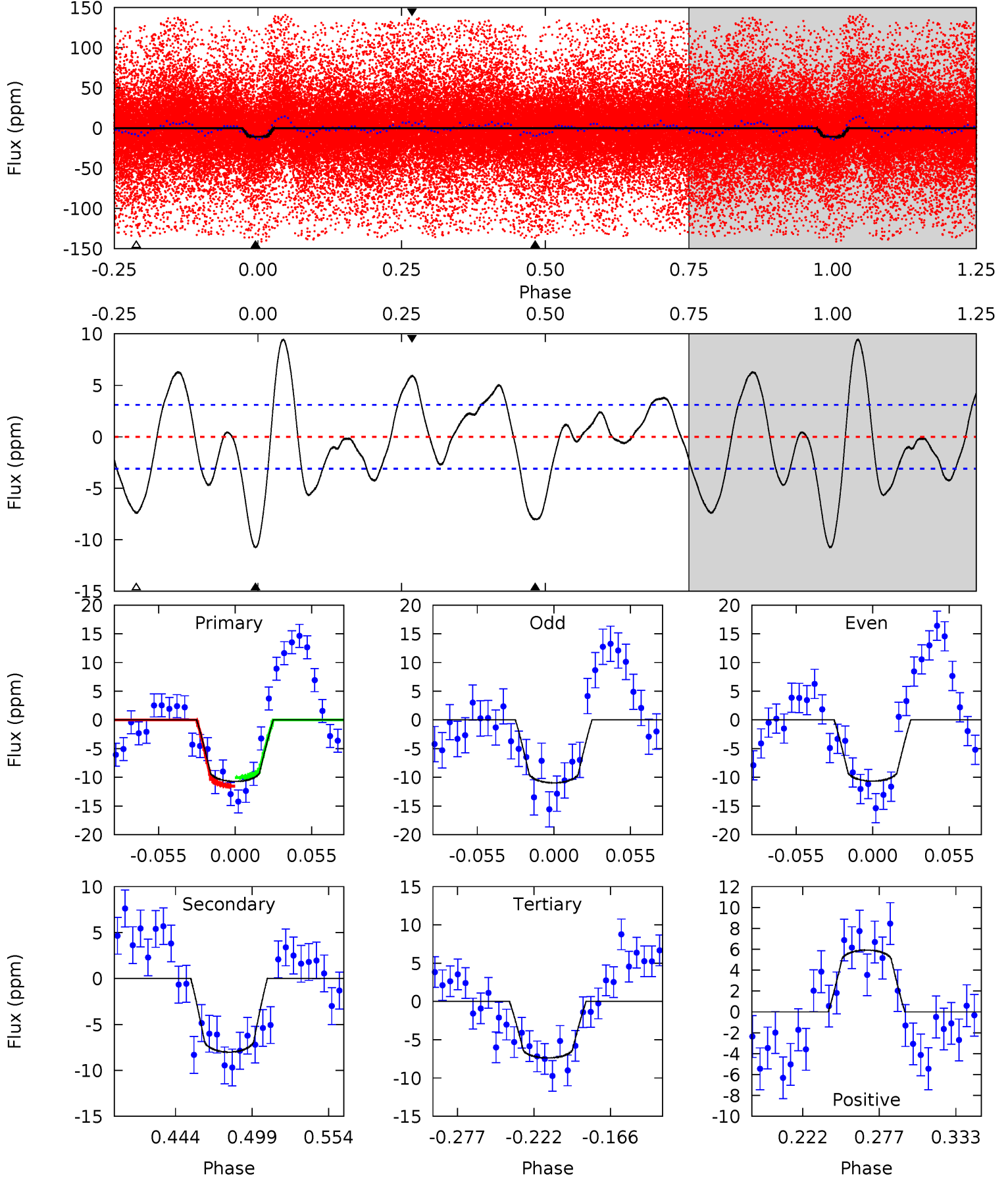
TCE 008324268-01 P= 2.009089 Days $T_0=132.986249$ (BKJD)



DV Model-Shift Uniqueness Test

008324268-01, P = 2.009063 Days, E = 130.976433 Days

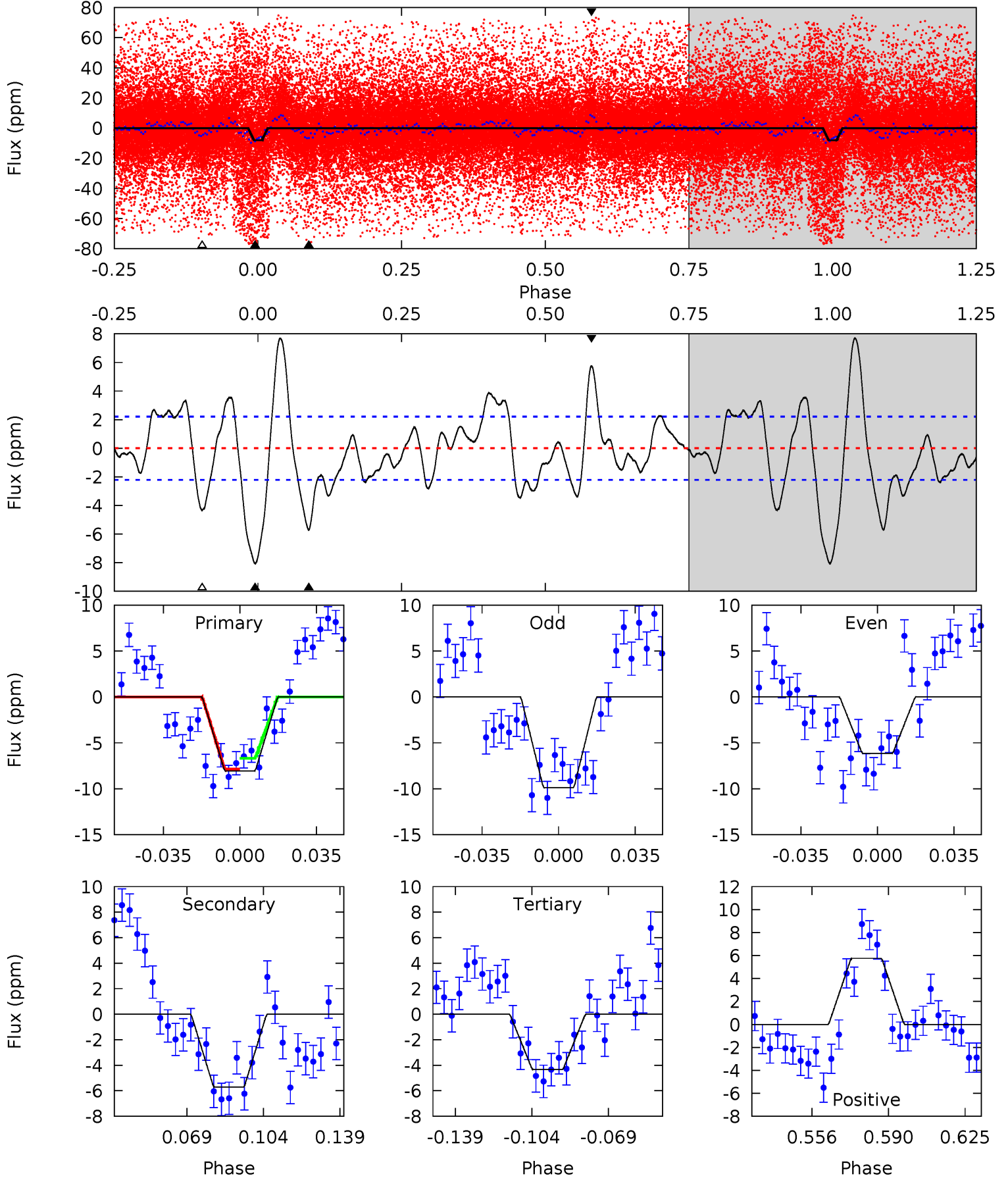
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	12.1	11.1	8.94	4.69	1.92	5.05	5.06	7.27	0.95	3.16	0.23	0.57	0.47	1.13



Alt Model-Shift Uniqueness Test

008324268-01, P = 2.009089 Days, E = 130.977160 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	12.4	9.38	12.5	4.78	2.11	4.81	8.04	4.97	2.97	-0.10	4.05	-2.34	0.49	1.28



Stellar Parameters For KIC 008324268

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9265^{+222}_{-381}	$4.200^{+0.062}_{-0.248}$	$0.210^{+0.150}_{-0.200}$	$1.957^{+0.861}_{-0.229}$	$2.213^{+0.392}_{-0.294}$	$0.416^{+0.112}_{-0.255}$
	+2%/-4%	+1%/-6%	+71%/-95%	+44%/-12%	+18%/-13%	+27%/-61%
Source	KIC0	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 008324268-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 1	$0.77^{+0.18}_{-0.10}$	4024^{+413}_{-218}	8001^{+441}_{-453}	12^{+3}_{-4}
Alt.	-6 ± 0	$0.81^{+0.18}_{-0.09}$	4025^{+393}_{-214}	6991^{+311}_{-337}	$7.712^{+2.043}_{-2.309}$

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

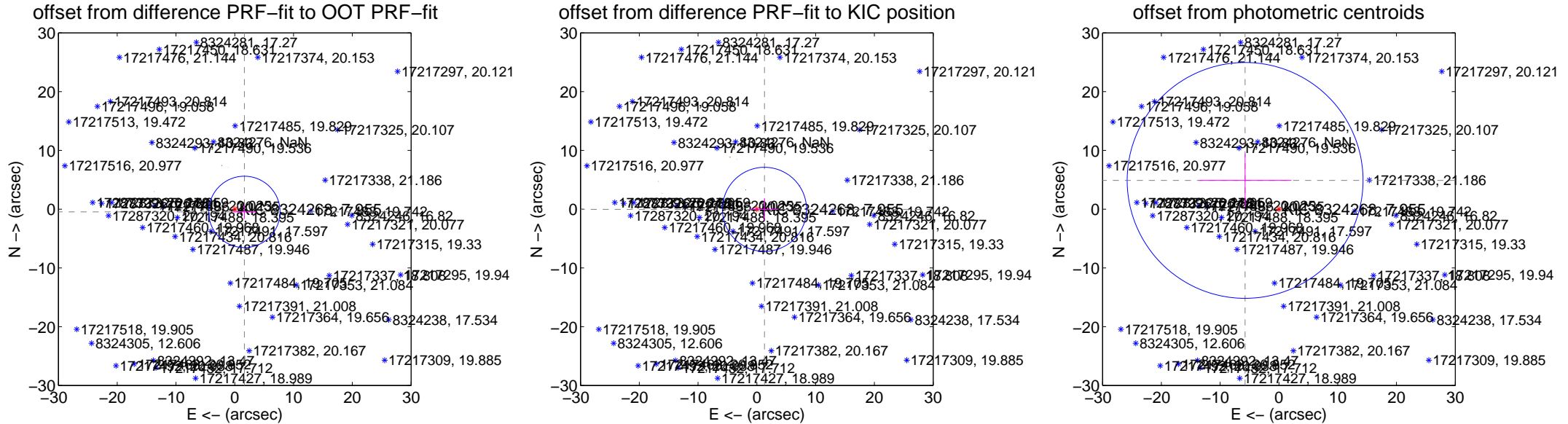
DV Centroid Data

Supplemental centroid analysis for 008324268-01. **Kepler magnitude: 7.96.** Transit SNR 13.68

There are 0 quarters with good PRF difference image offsets

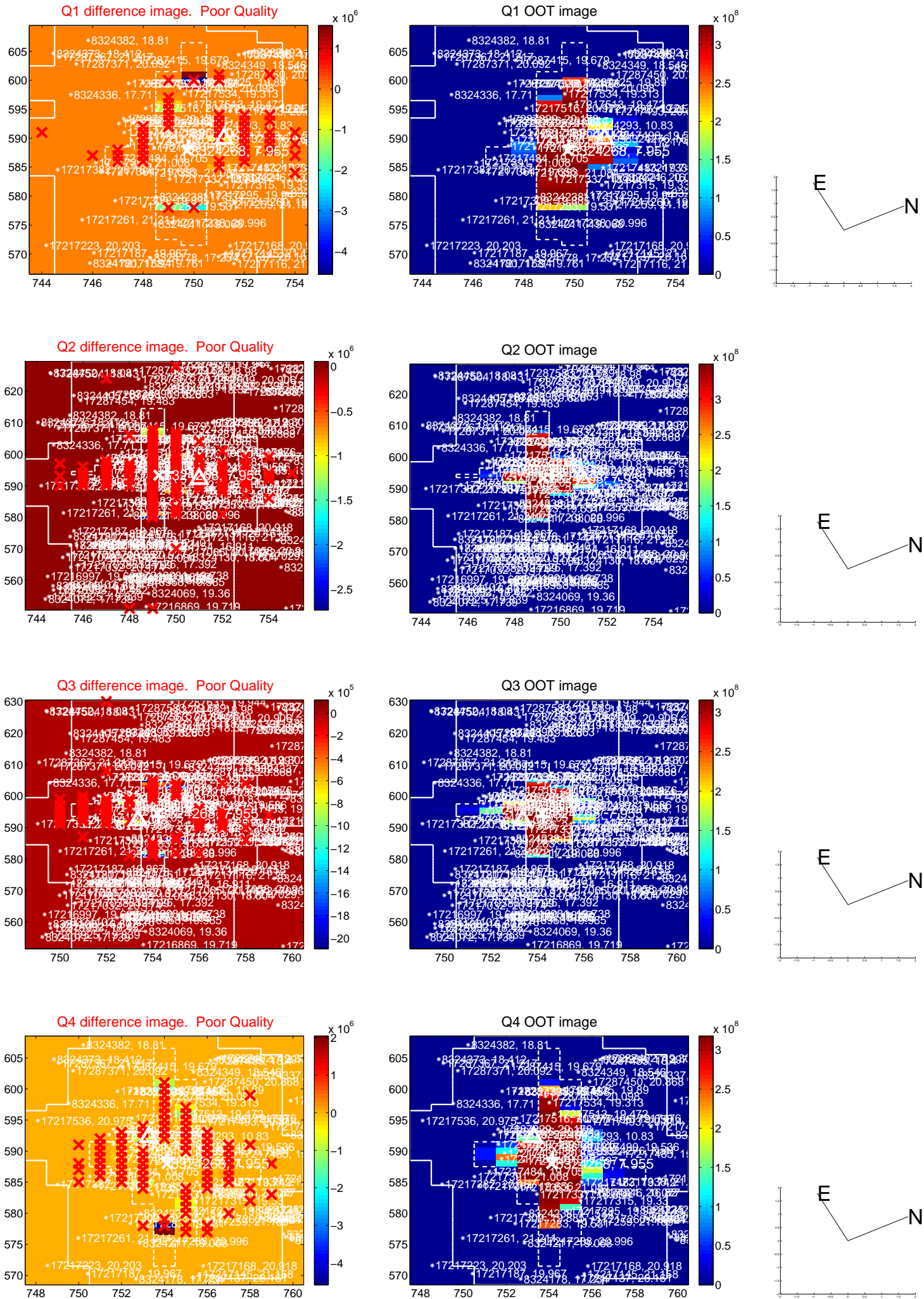
The OOT PRF centroid is offset from the target star catalog position by about 2.72 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.699 ± 2.024	0.84	-1.635 ± 1.981	-0.465 ± 1.196
PRF-fit source offset from KIC position	1.299 ± 2.385	0.54	-1.299 ± 2.385	-0.031 ± 1.908
photometric centroid source offset	7.55 ± 6.69	1.13	5.75 ± 7.88	4.89 ± 4.56

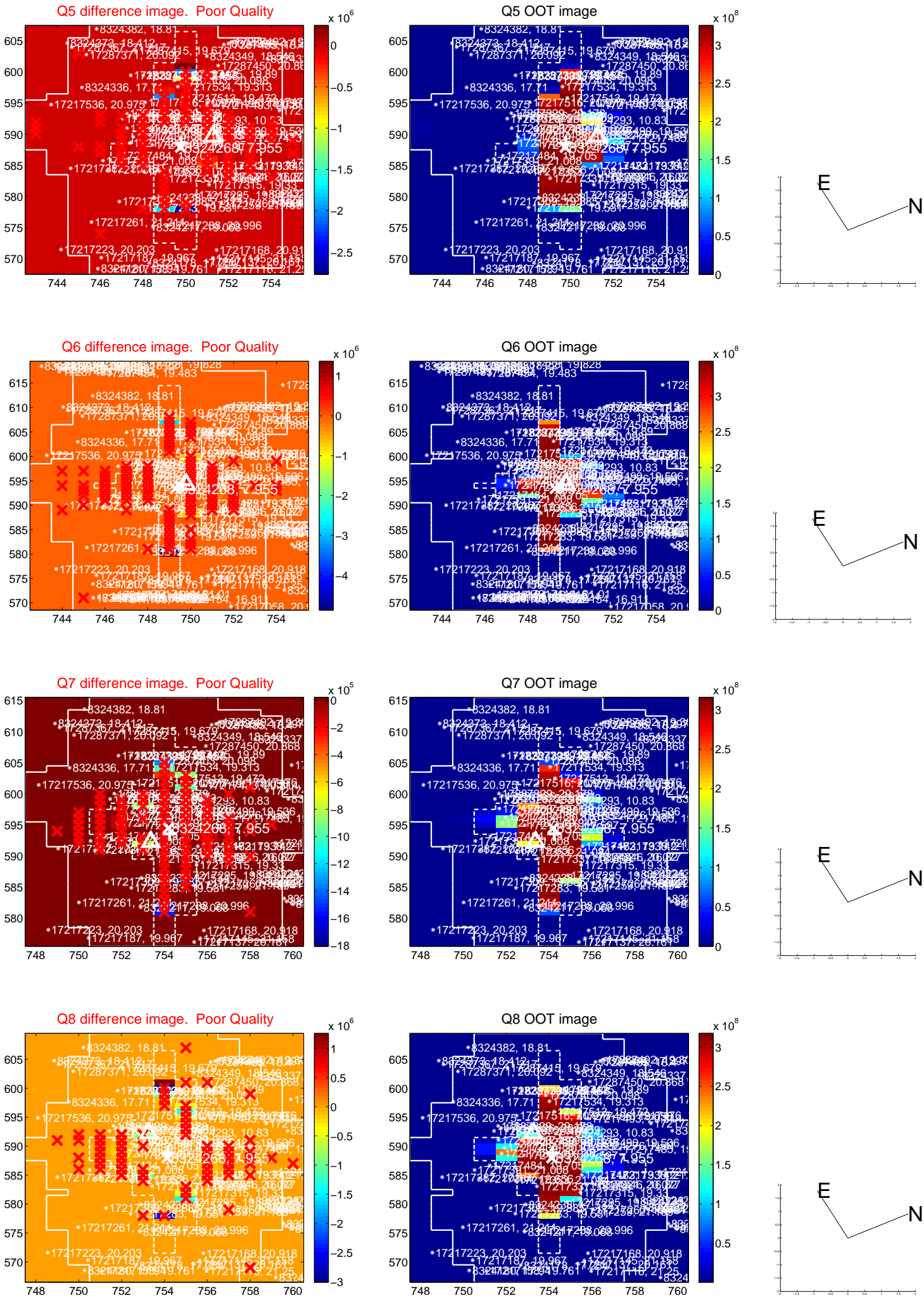


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

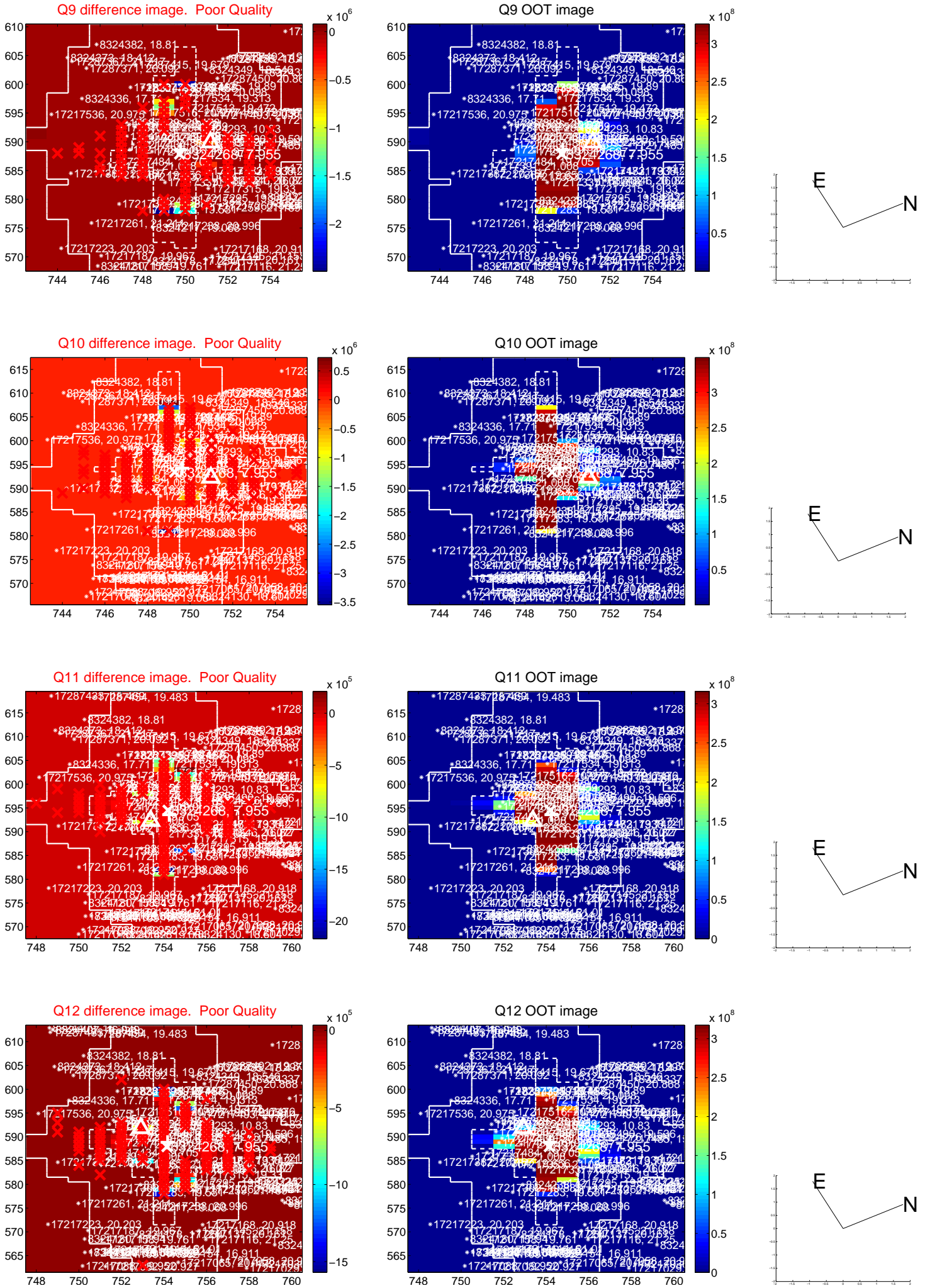
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



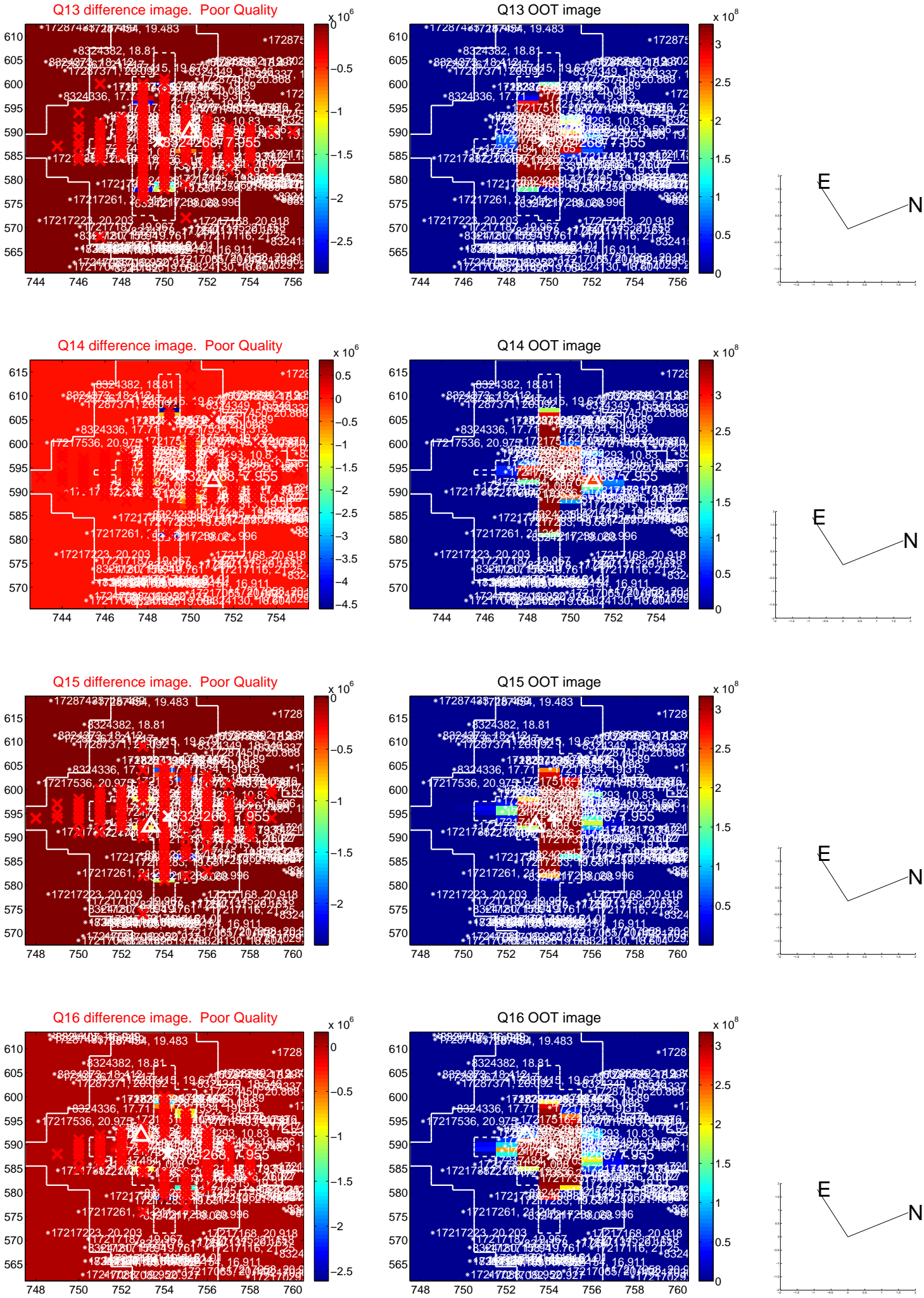
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



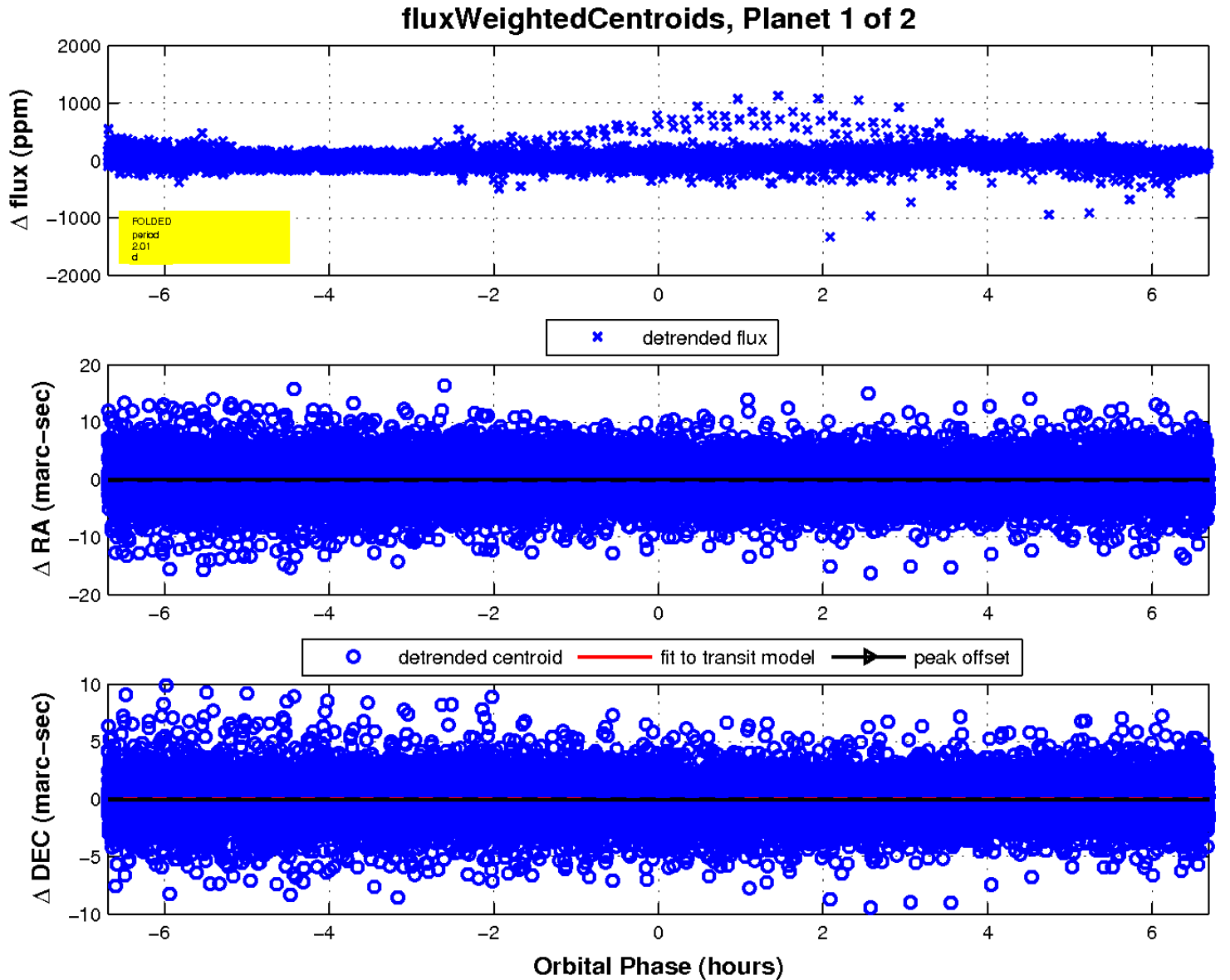
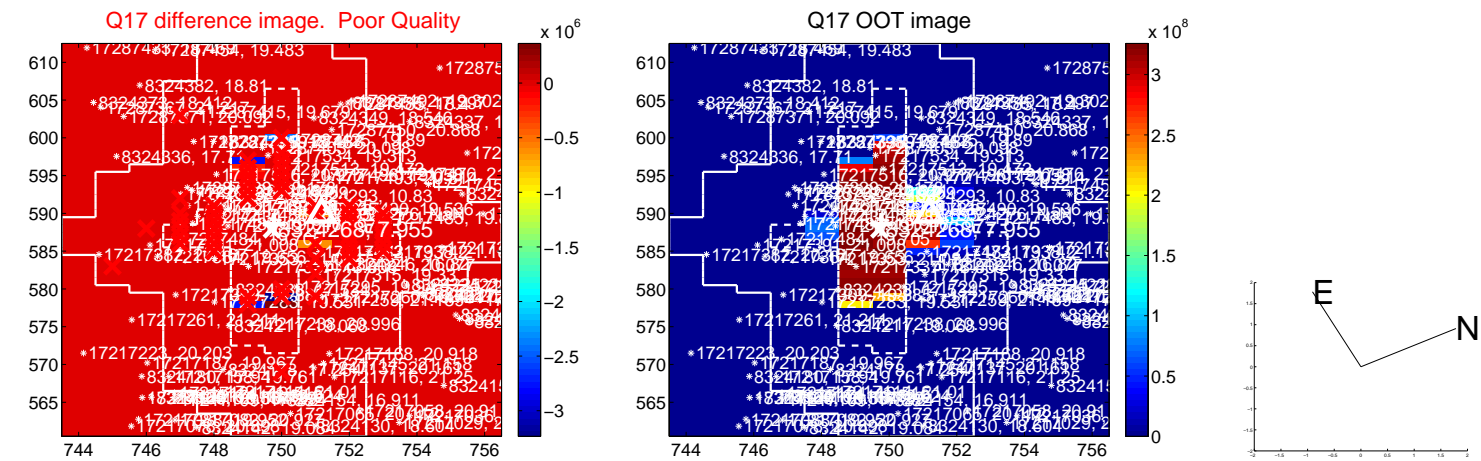
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

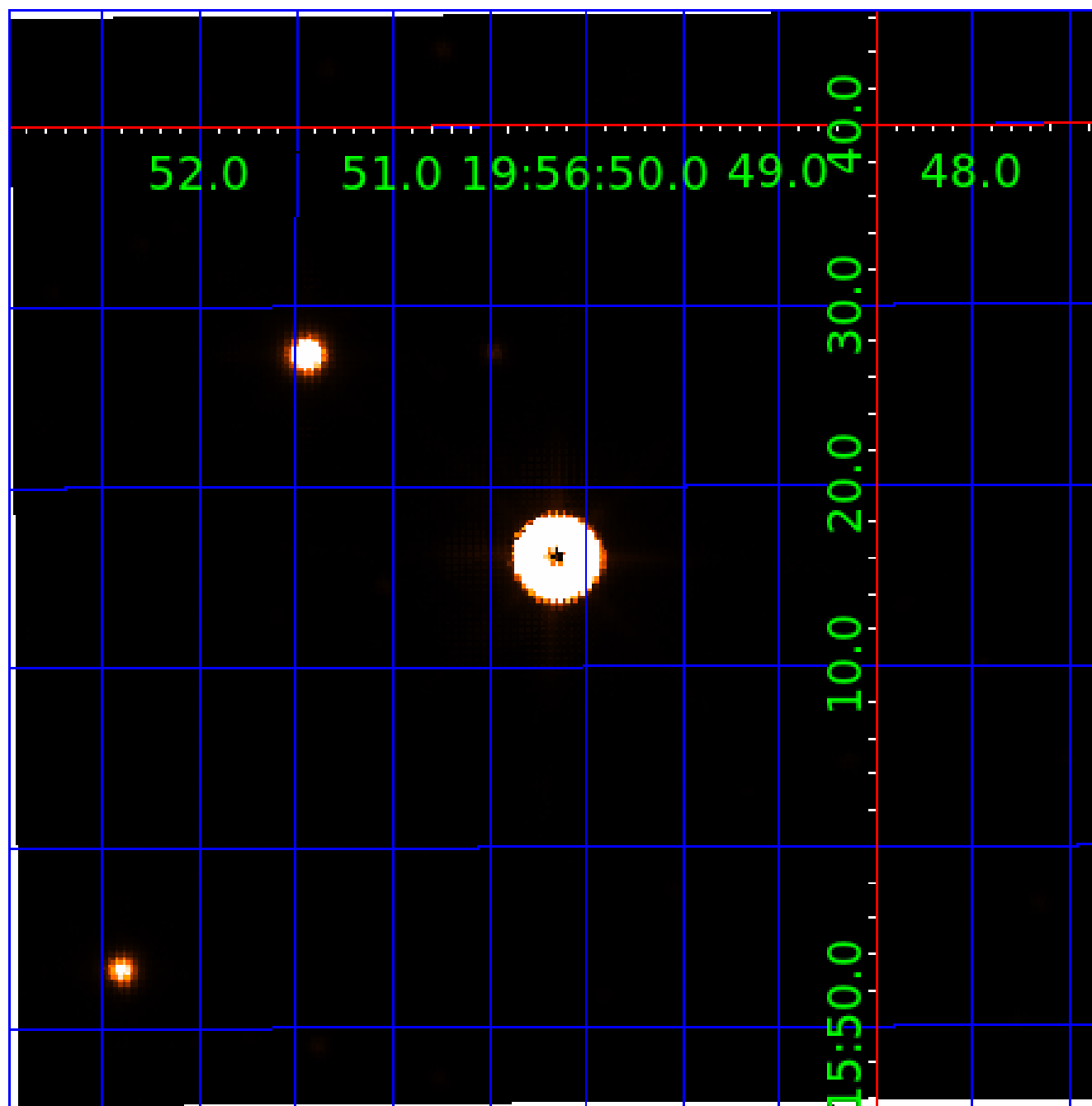


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008324268

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})
008324268-01	OBS	No	2.009063	132.985496	10.8	2.230	16.2	13.7	1.96	9265	0.74	15323.05
008324268-02	OBS	No	0.502279	131.573494	48.8	1.500	13.4	-1.0	1.96	9265	1.40	97291.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008324268-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
008324268-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

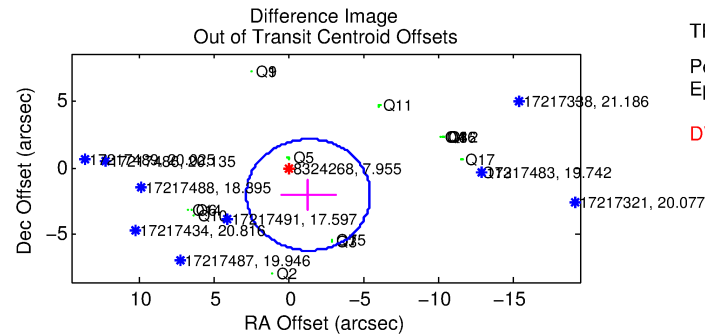
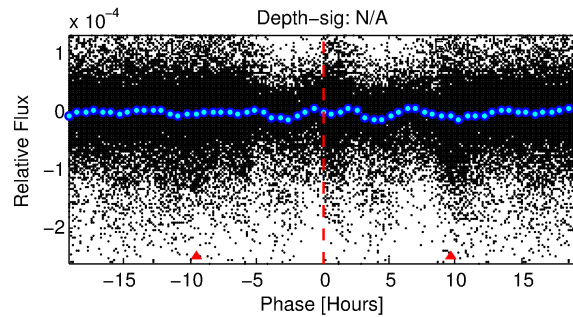
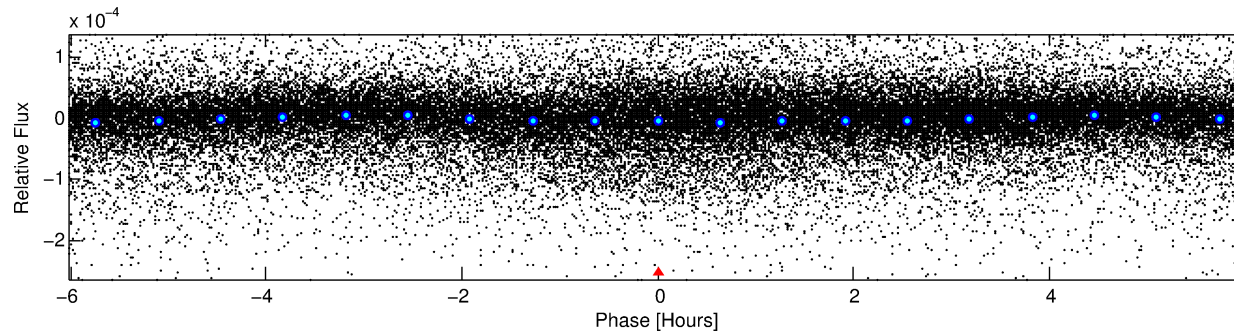
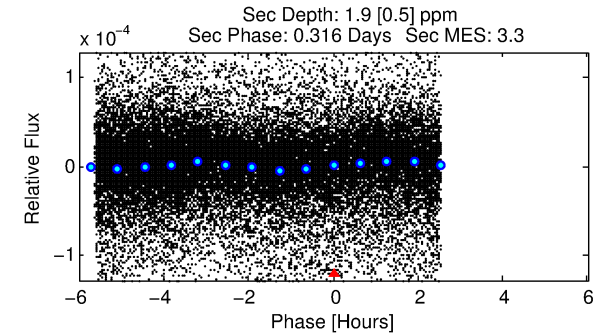
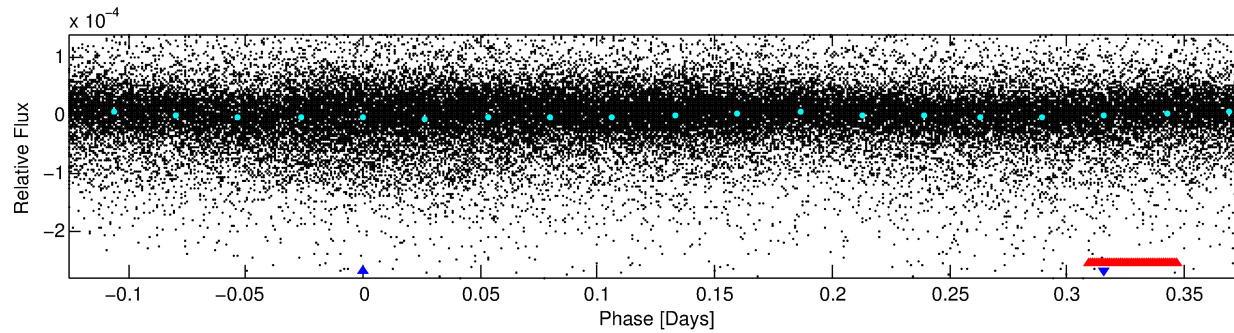
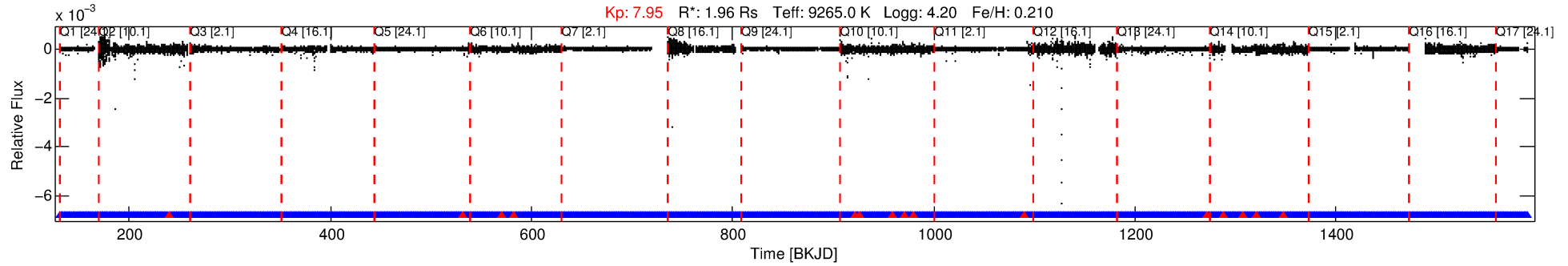
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008324268-02

No Significant Match Found

DV One-Page Summary

KIC: 8324268 Candidate: 2 of 2 Period: 0.502 d



TPS TCE Results:

Period = 0.50228 d
Epoch = 131.5735 BKJD

DV fit results are unavailable

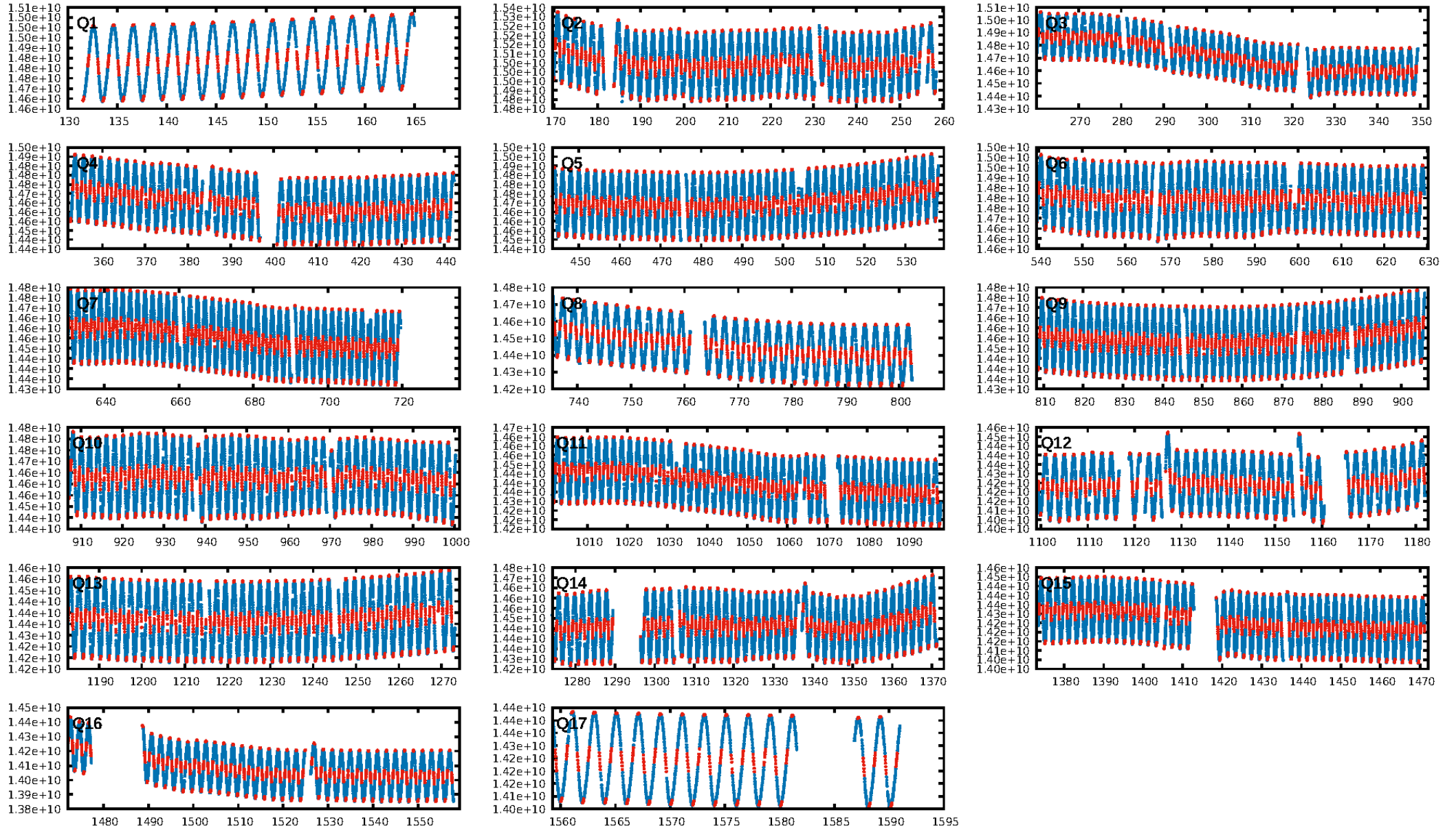
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [13.45]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [2534/2549]
GhostDiagnostic-chr: N/A
Centroid-sig: 90.9%
Centroid-so: 1.029 arcsec [3.92]
OotOffset-rm: 2.428 arcsec [1.76]
KicOffset-rm: 2.235 arcsec [1.17]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

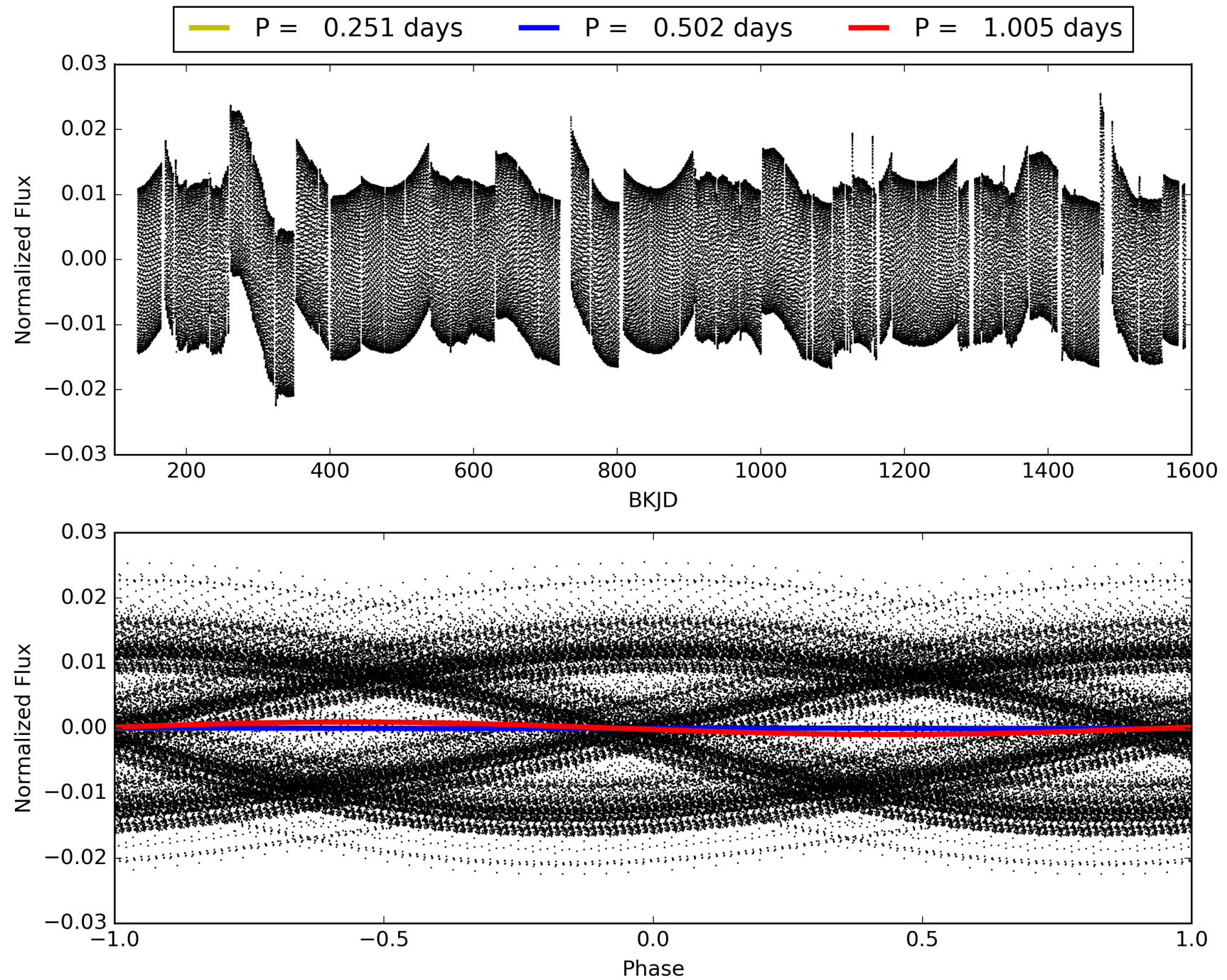
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:55:52 Z

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

TCE 008324268-02, PDC Light Curves

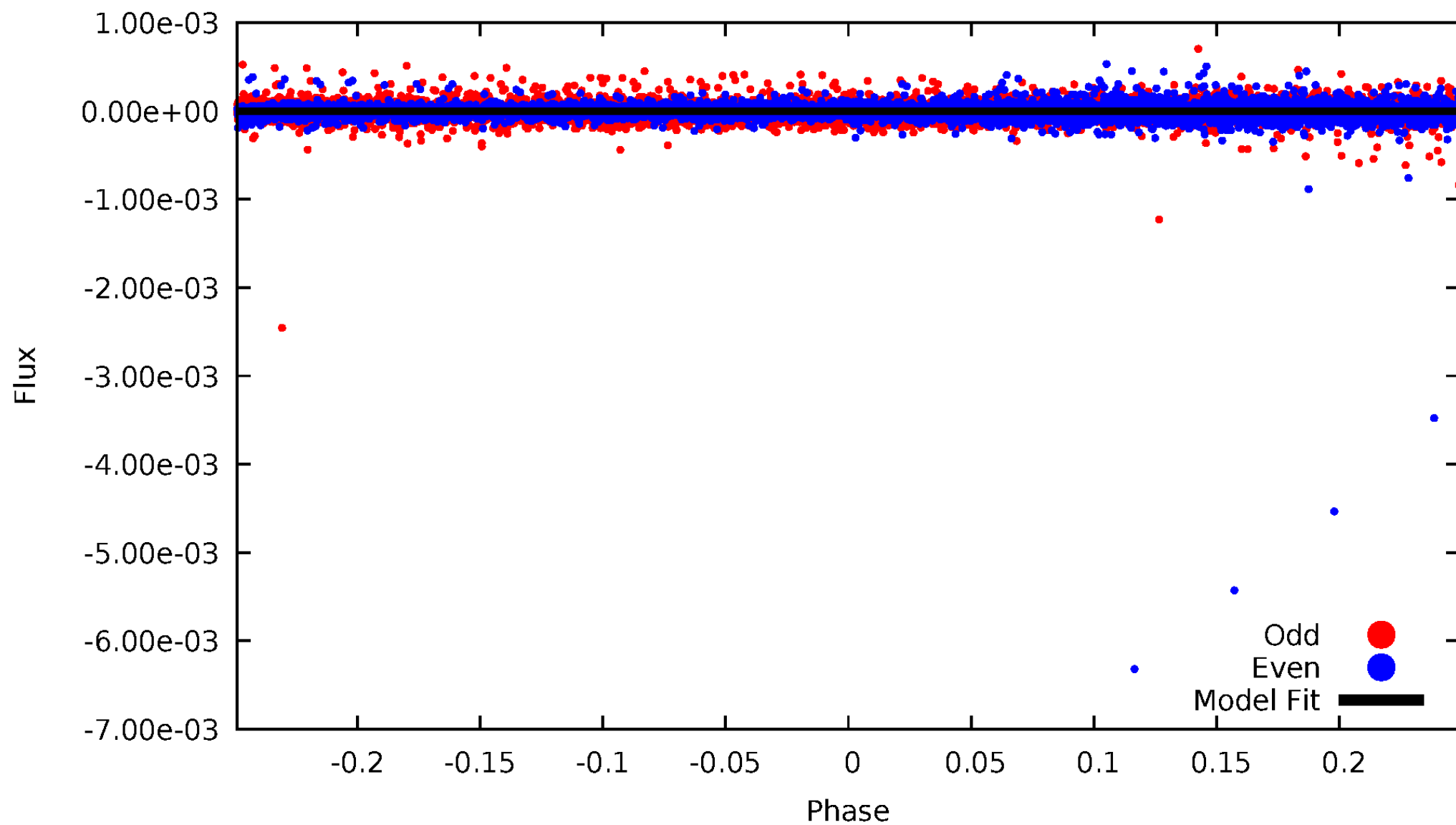


TCE 008324268-02



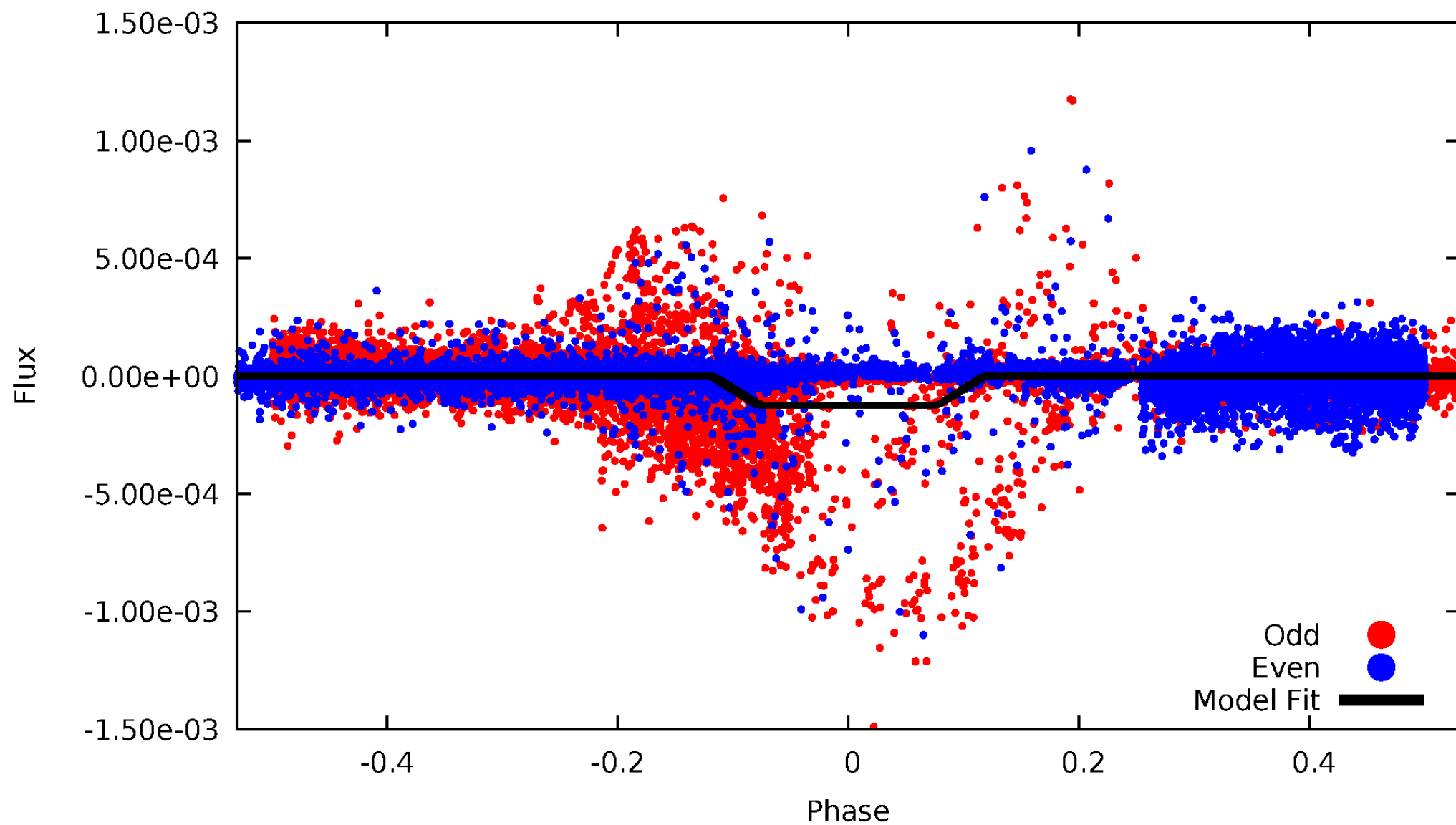
DV Odd/Even

TCE 008324268-02



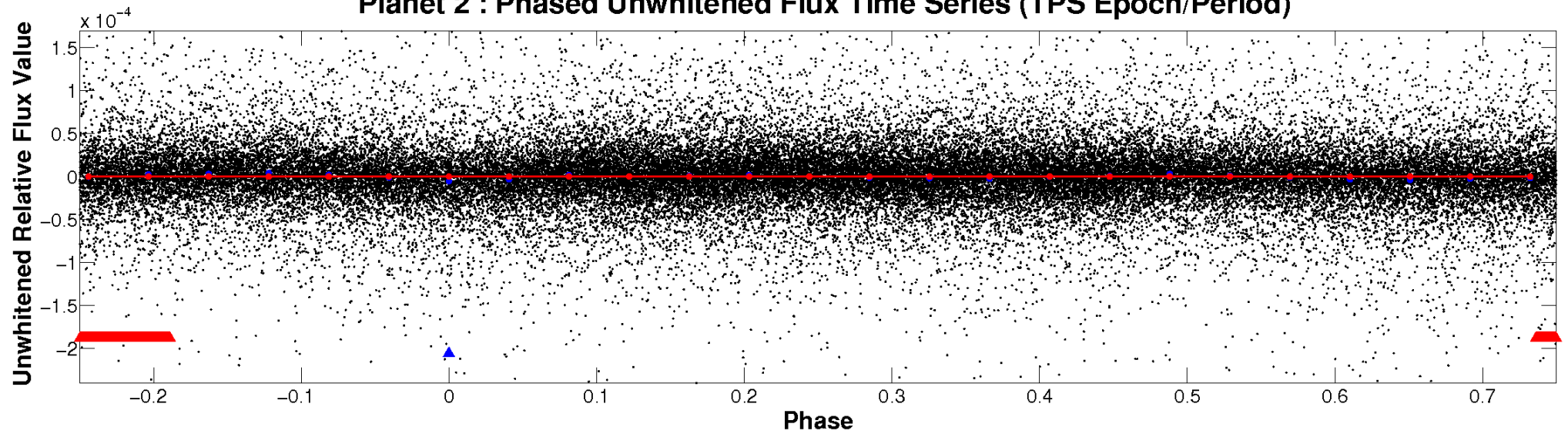
ALT Odd/Even

TCE 008324268-02

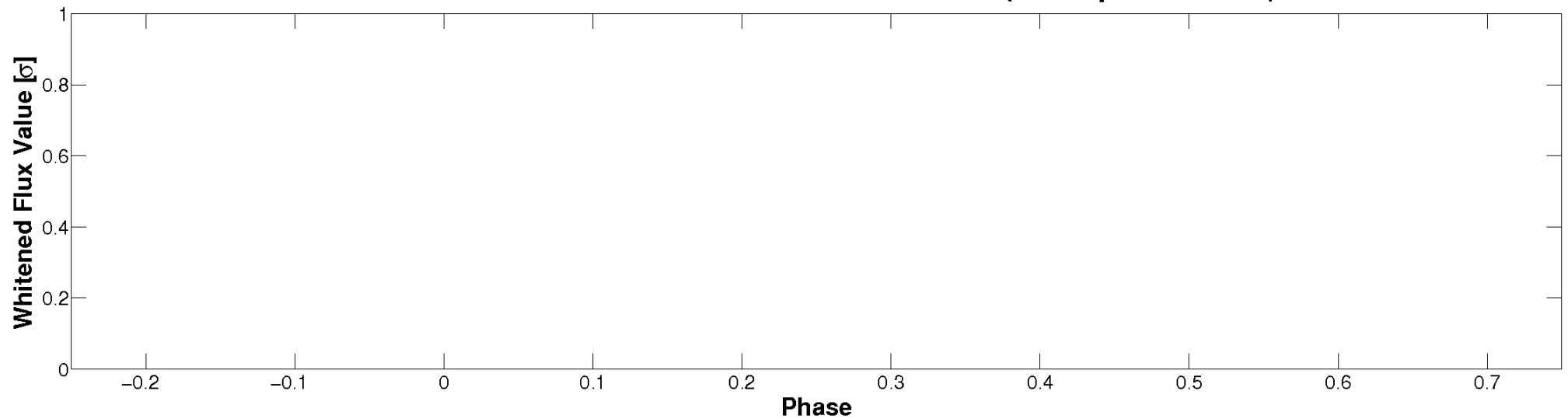


Non-Whitened Vs. Whitened Light Curve

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

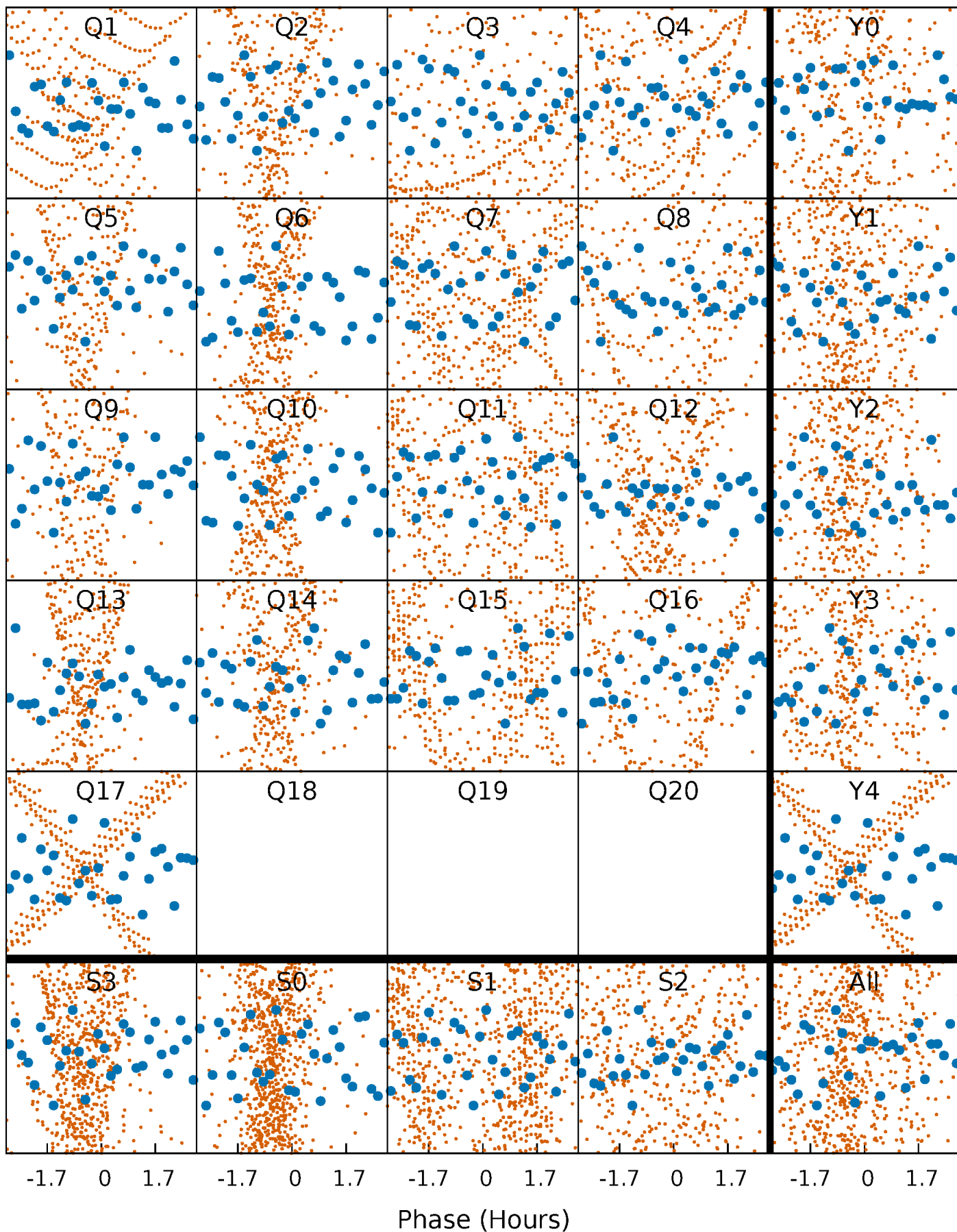


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



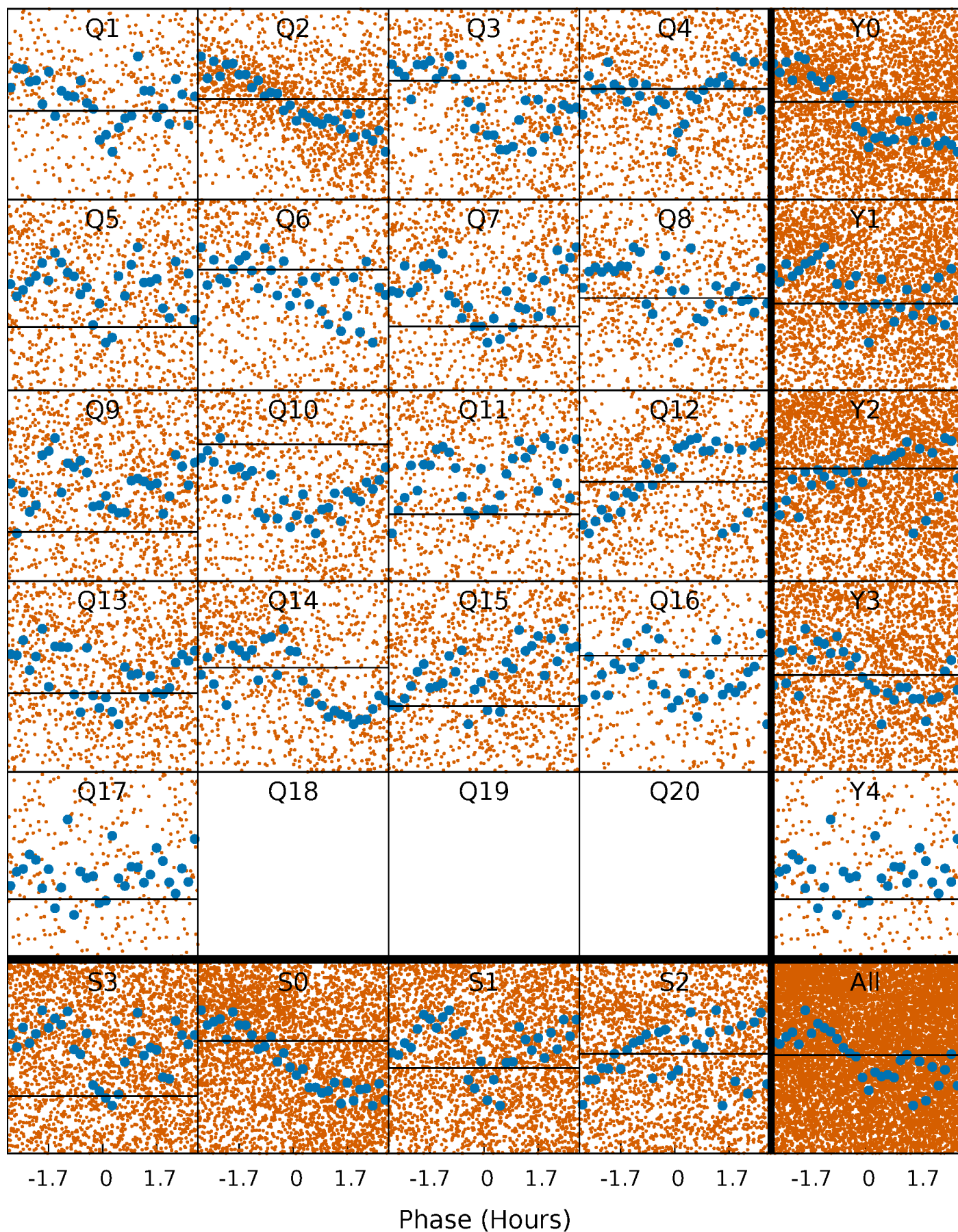
PDC Quarter-Phased Transit Curves

TCE 008324268-02 P= 0.502279 Days $T_0=131.573494$ (BKJD)



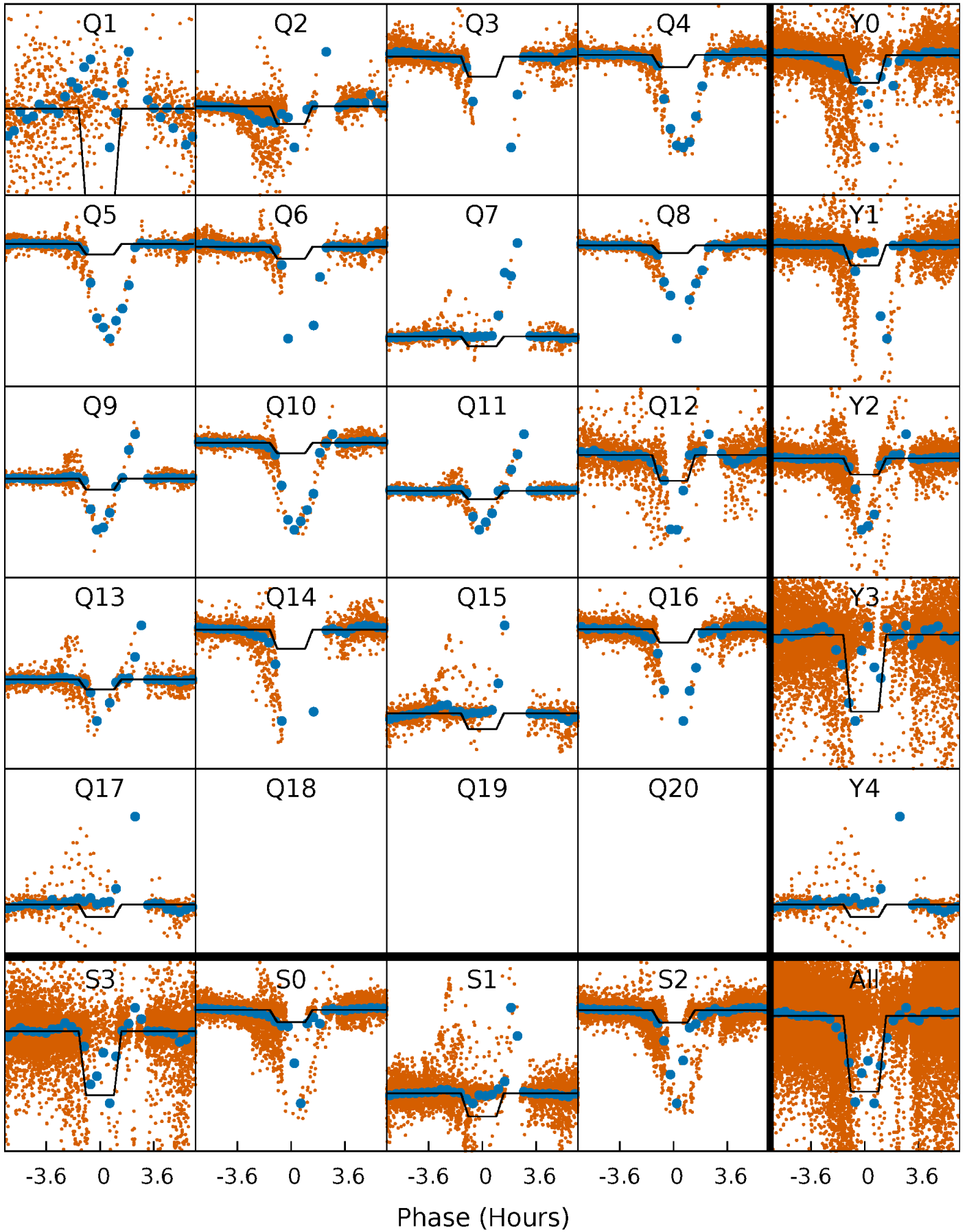
DV Quarter-Phased Transit Curves

TCE 008324268-02 P= 0.502279 Days $T_0=131.573494$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

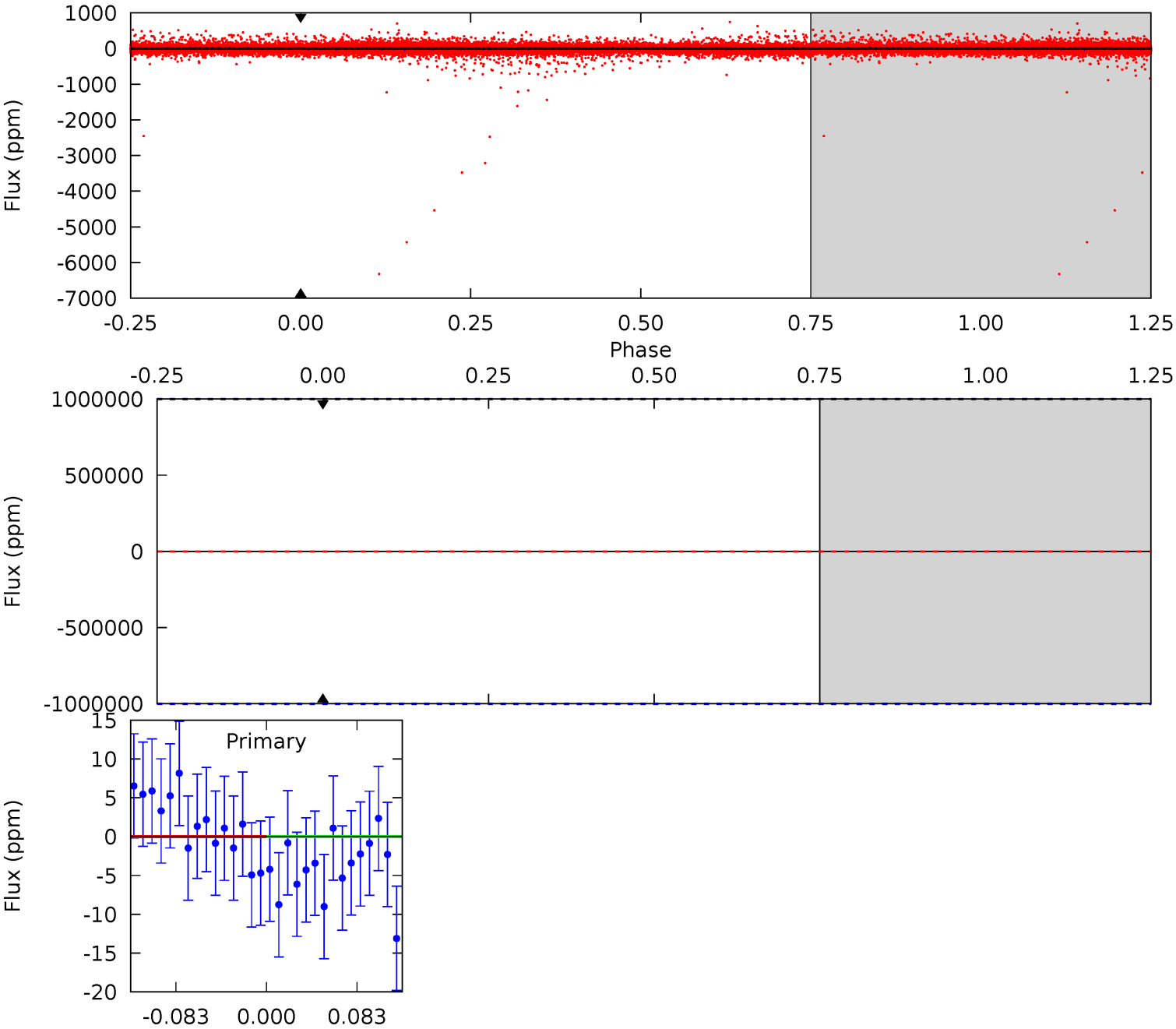
TCE 008324268-02 P= 0.502279 Days $T_0=131.633981$ (BKJD)



DV Model-Shift Uniqueness Test

008324268-02, P = 0.502279 Days, E = 131.071215 Days

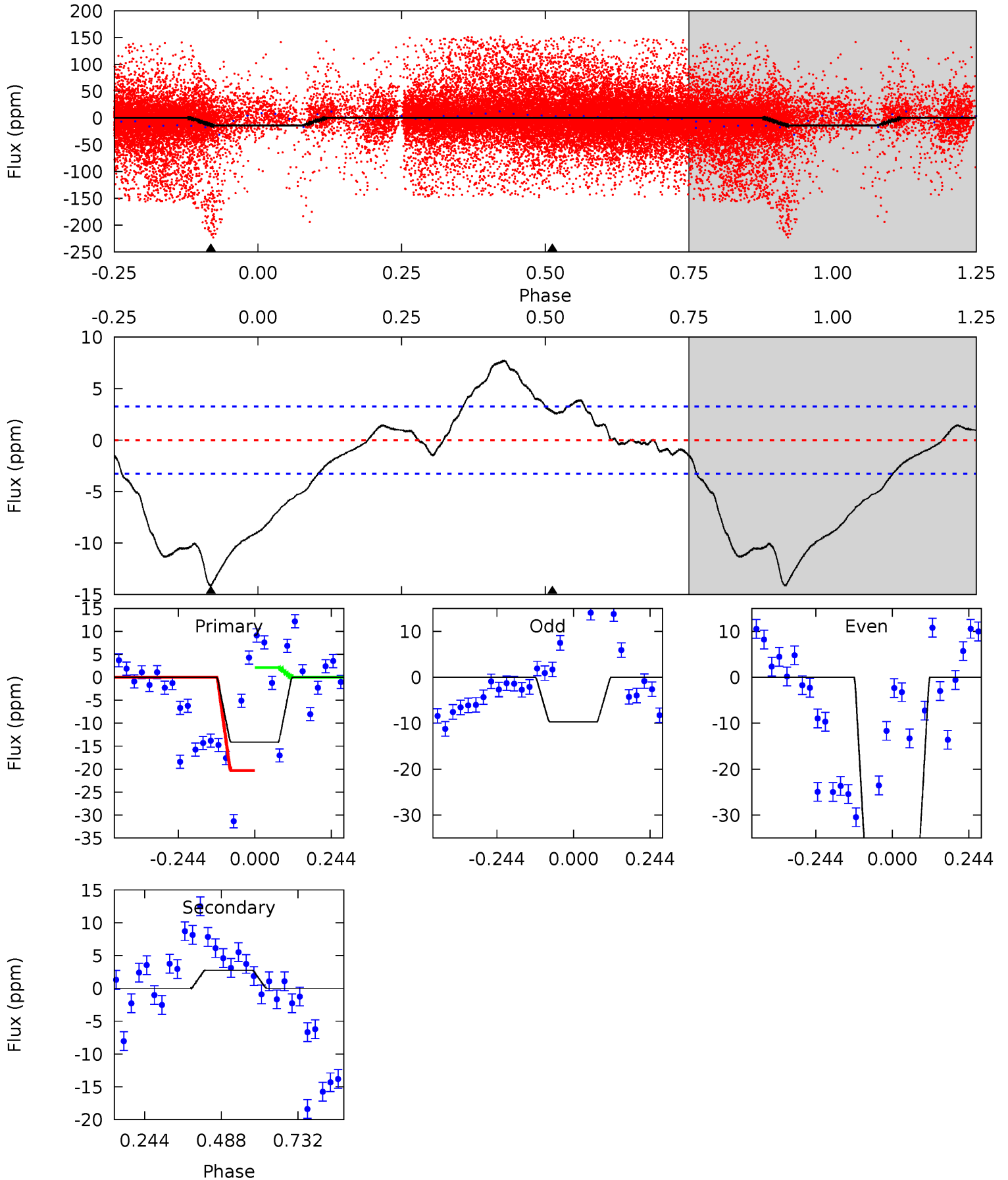
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008324268-02, P = 0.502279 Days, E = 131.131702 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.9	-3.70	0	0	4.37	1.17	1.32	18.9	18.9	-3.70	-3.70	29.8	7.00	0.35	11.3



Stellar Parameters For KIC 008324268

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9265^{+222}_{-381}	$4.200^{+0.062}_{-0.248}$	$0.210^{+0.150}_{-0.200}$	$1.957^{+0.861}_{-0.229}$	$2.213^{+0.392}_{-0.294}$	$0.416^{+0.112}_{-0.255}$
	+2%/-4%	+1%/-6%	+71%/-95%	+44%/-12%	+18%/-13%	+27%/-61%
Source	KIC0	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 008324268-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$16.56^{+17.55}_{-12.15}$	6386^{+604}_{-350}	6892^{+82622}_{-74220}	$1.460^{+128.417}_{-98.013}$
Alt.	3 ± 1	$16.98^{+17.14}_{-11.24}$	6419^{+561}_{-374}	-5062^{+223}_{-428}	$-0.001^{+0.001}_{-0.012}$

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

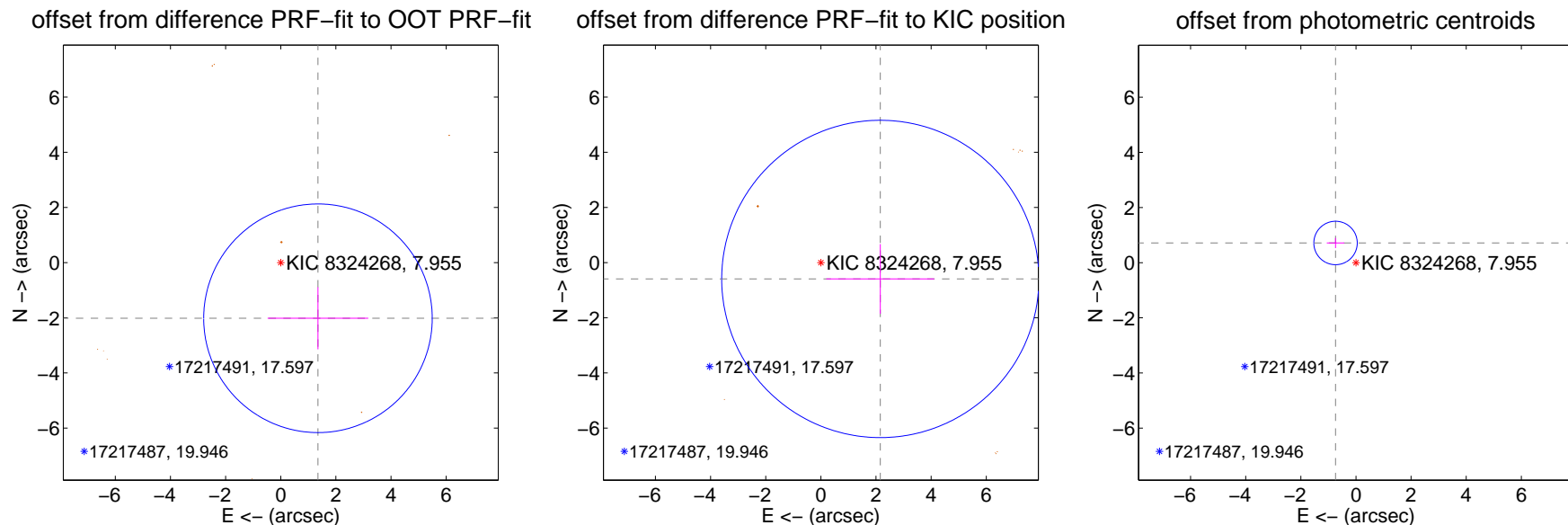
DV Centroid Data

Supplemental centroid analysis for 008324268-02. **Kepler magnitude: 7.96.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

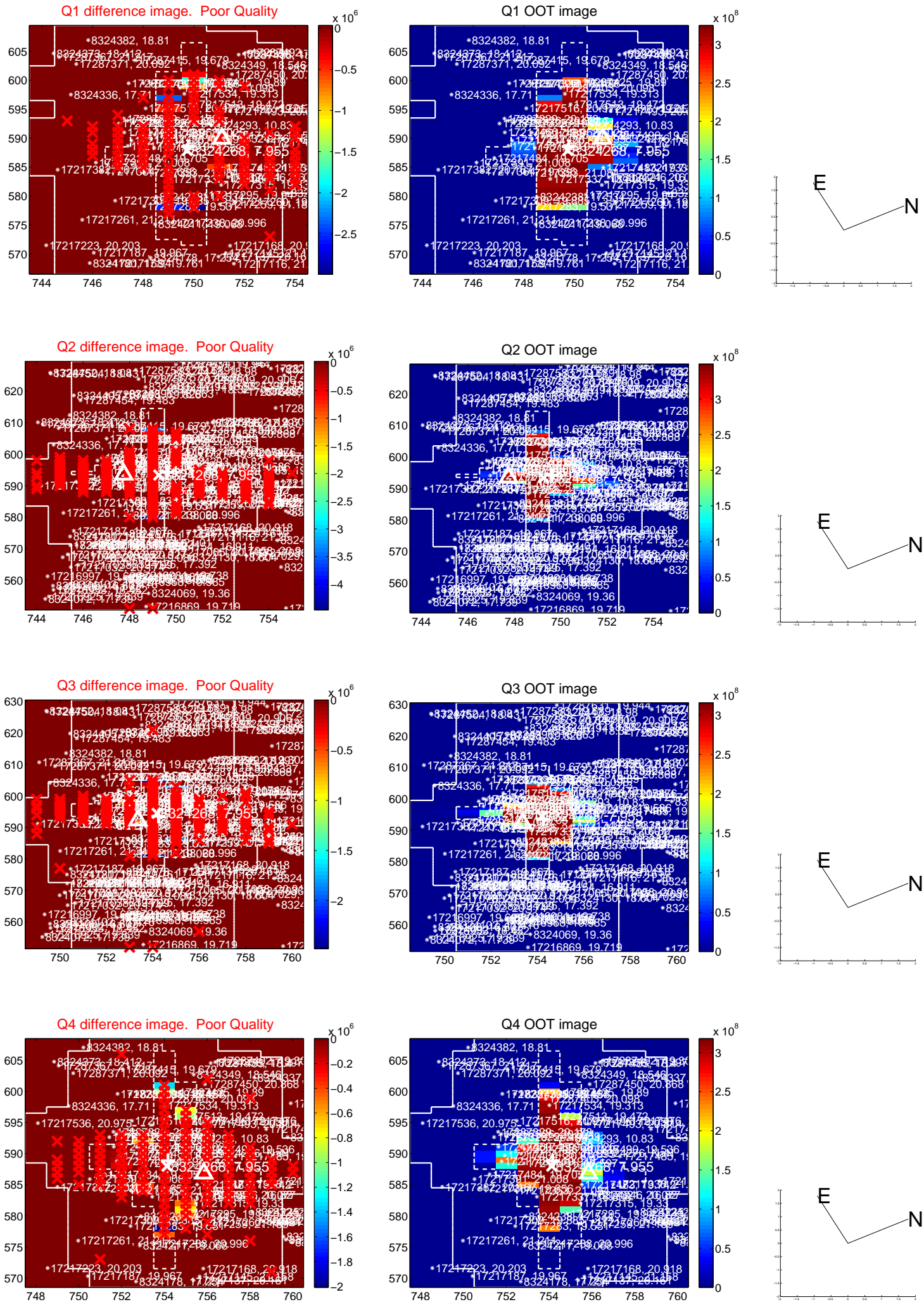
The OOT PRF centroid is offset from the target star catalog position by about 2.73 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.428 ± 1.381	1.76	-1.350 ± 1.826	-2.018 ± 1.127
PRF-fit source offset from KIC position	2.235 ± 1.917	1.17	-2.155 ± 1.958	-0.593 ± 1.264
photometric centroid source offset	1.03 ± 0.26	3.92	0.74 ± 0.32	0.71 ± 0.18

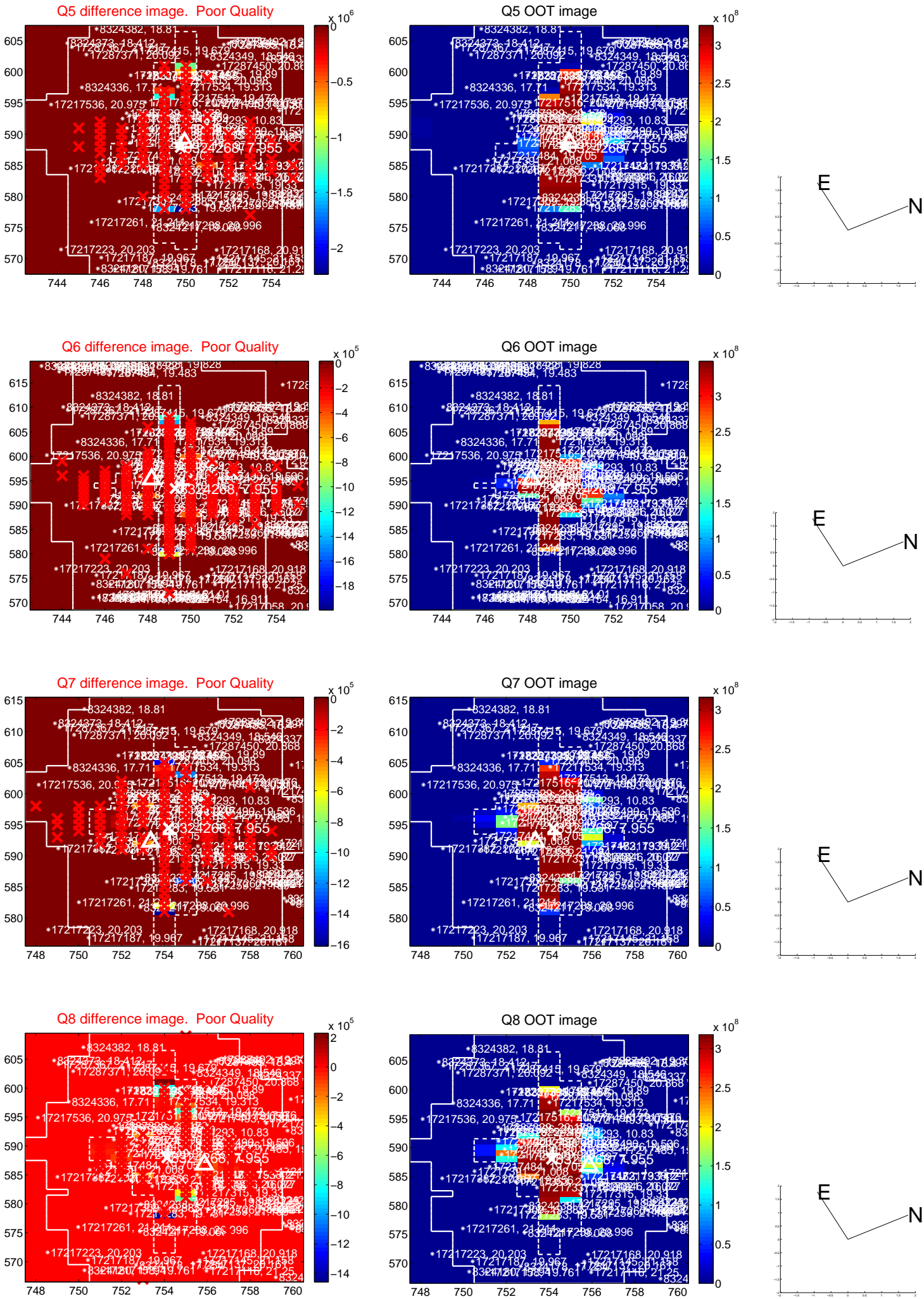


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

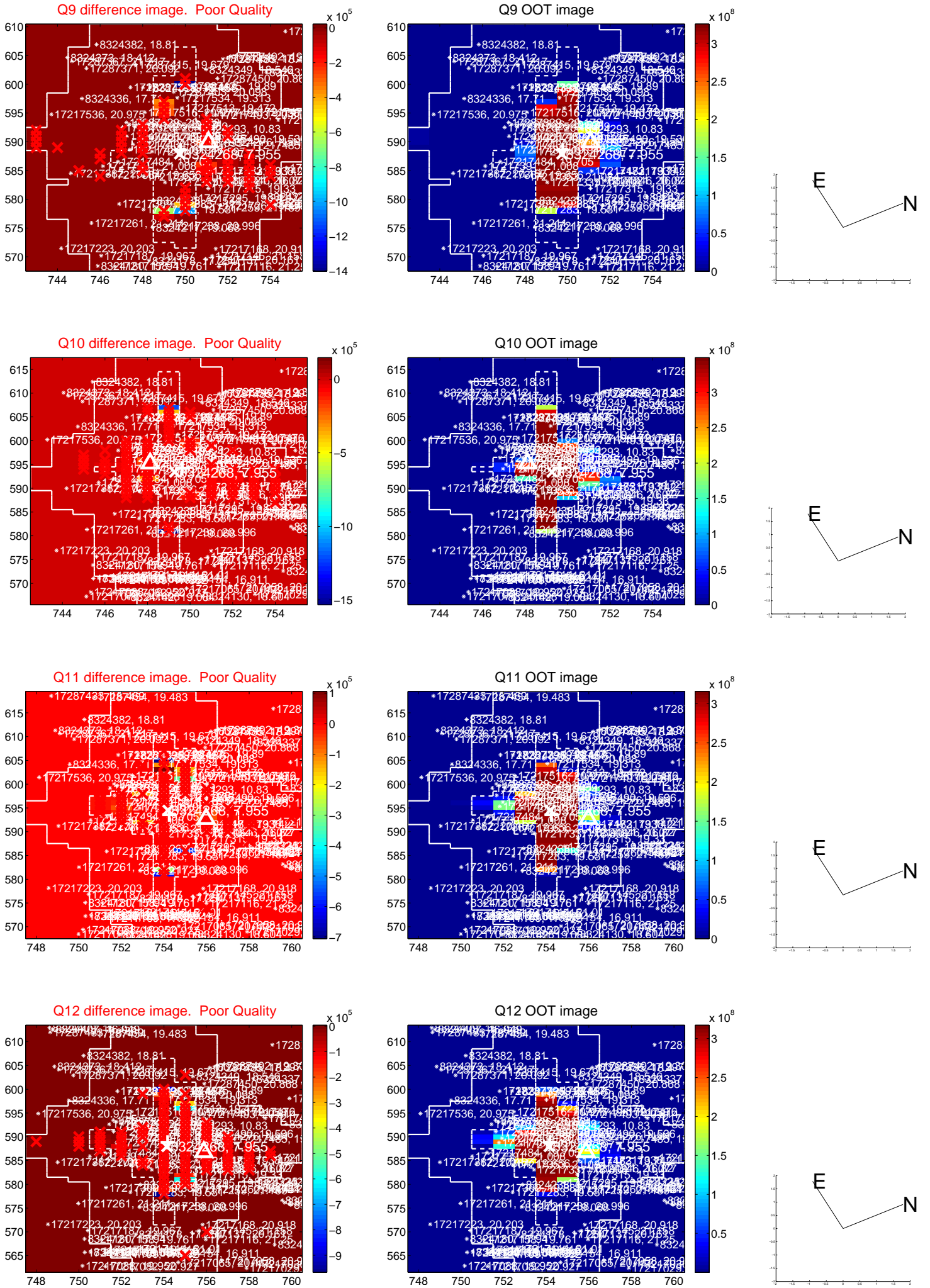
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



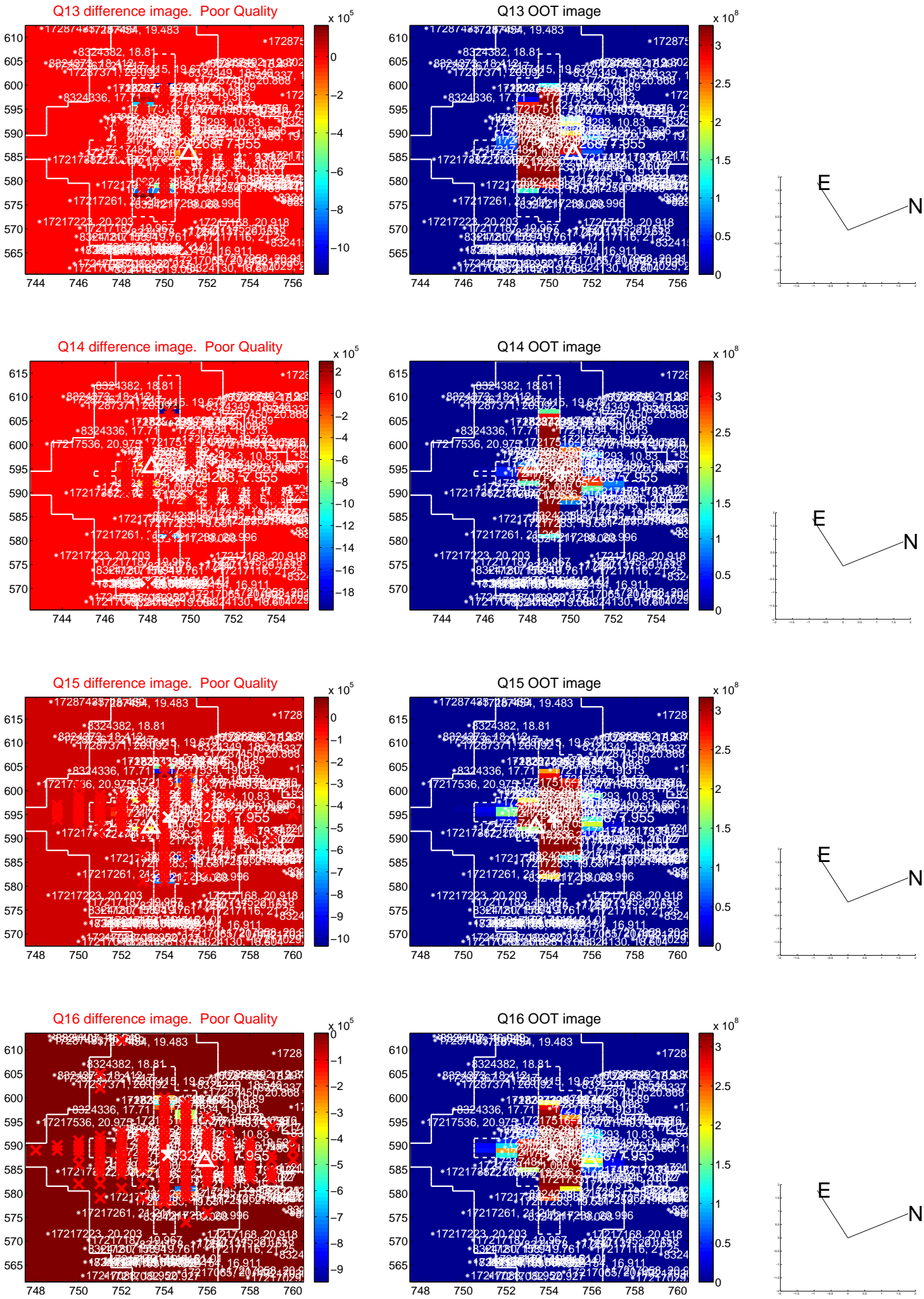
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



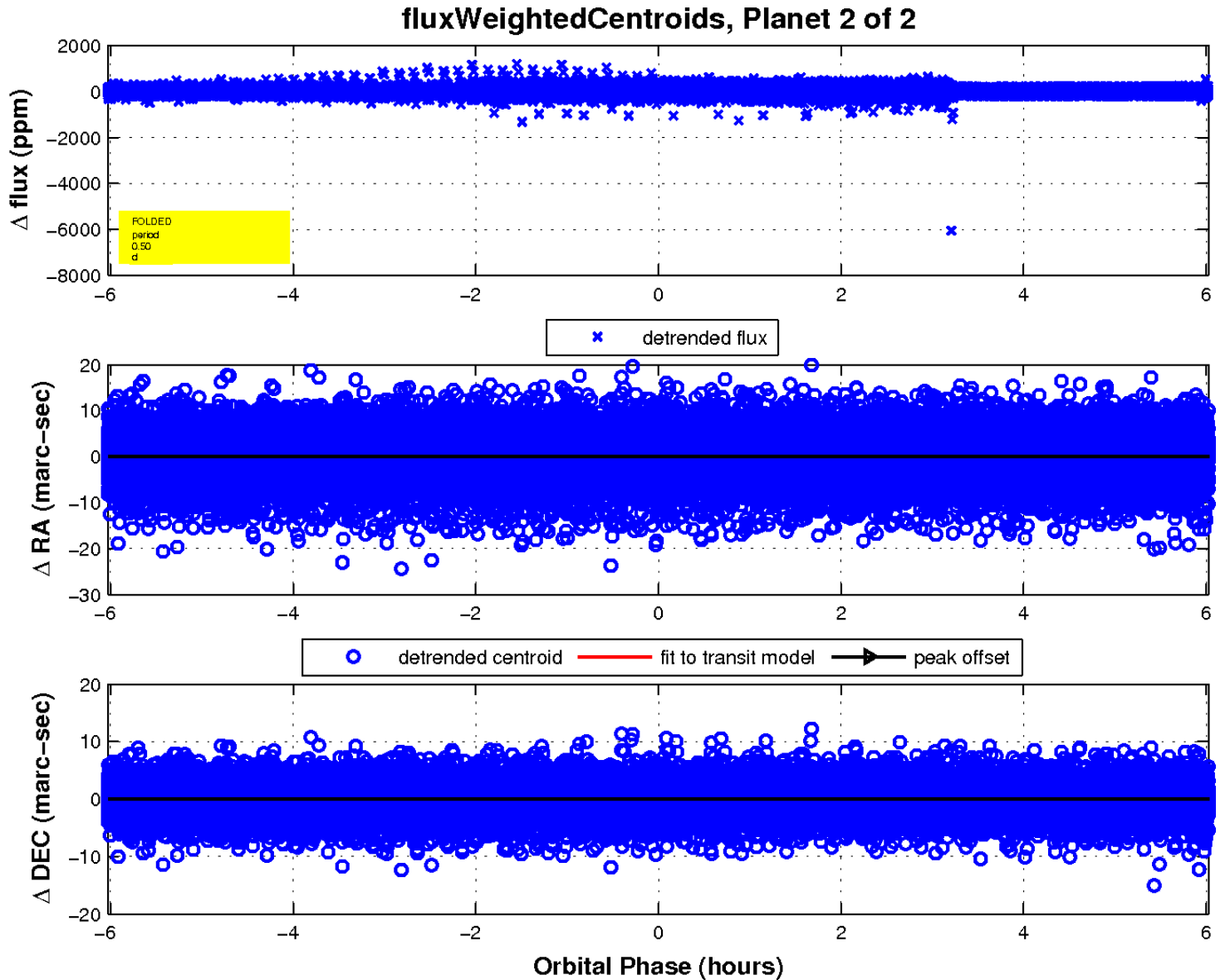
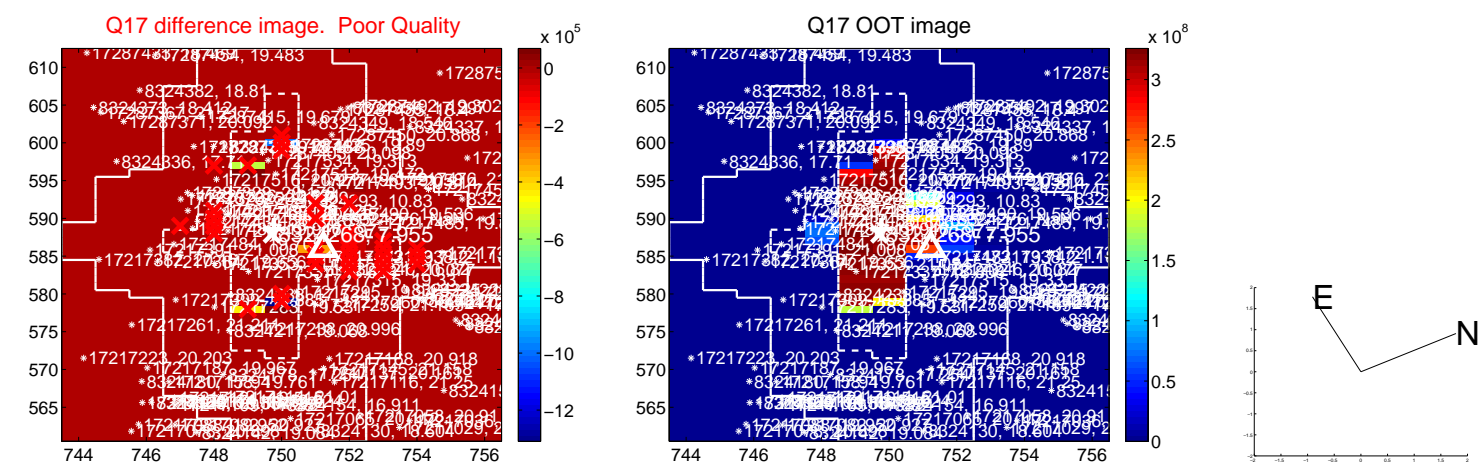
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

