

KIC 008264546

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})
008264546-01	OBS	No	0.843164	131.646262	63.3	2.346	12.8	15.9	2.48	7870	2.29	45077.61
008264546-02	OBS	No	0.711553	132.019929	56.9	8.539	10.3	18.9	2.48	7870	1.90	56524.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264546-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008264546-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—CENT_FEW_DIFS

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

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

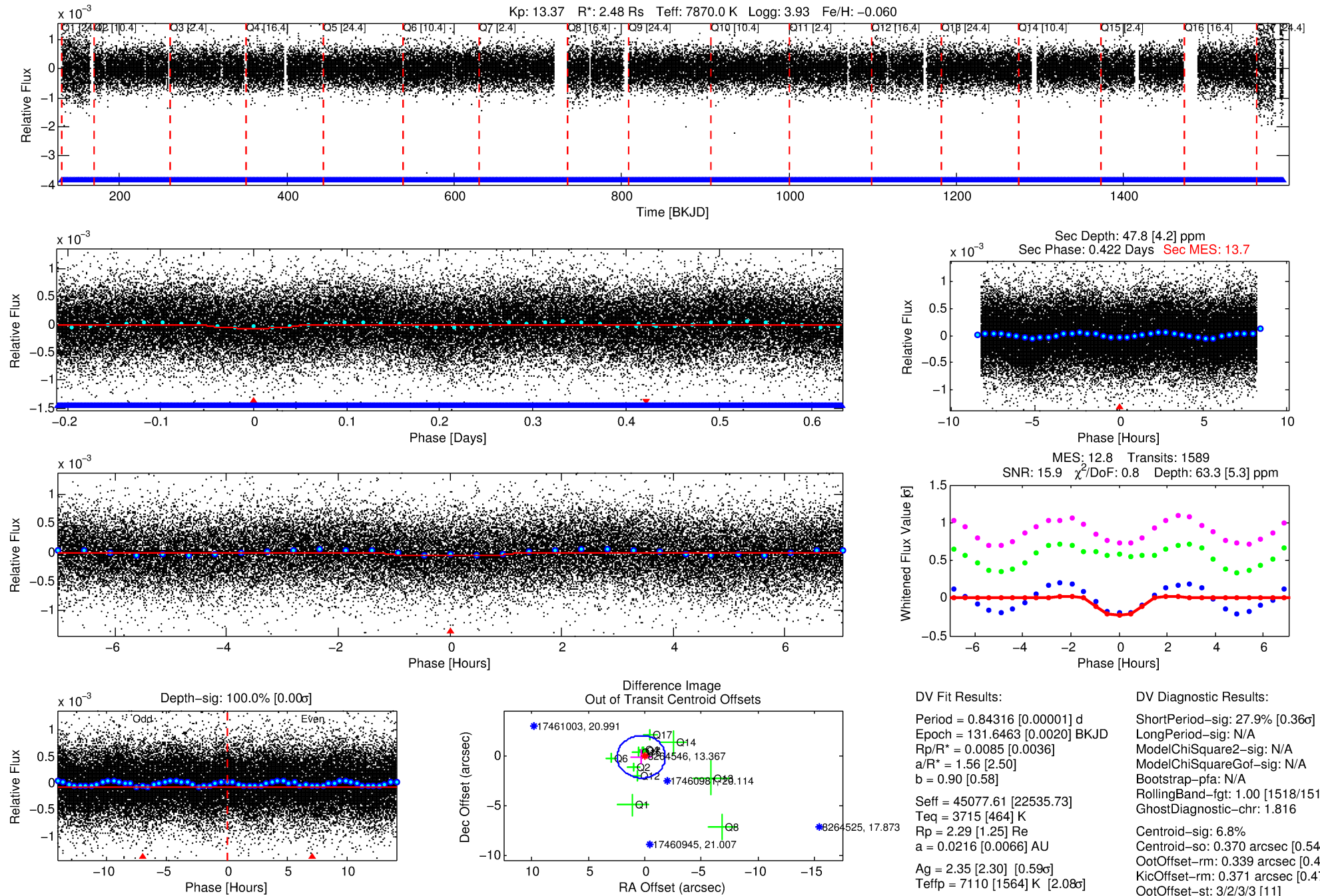
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264546-01

No Significant Match Found

DV One-Page Summary

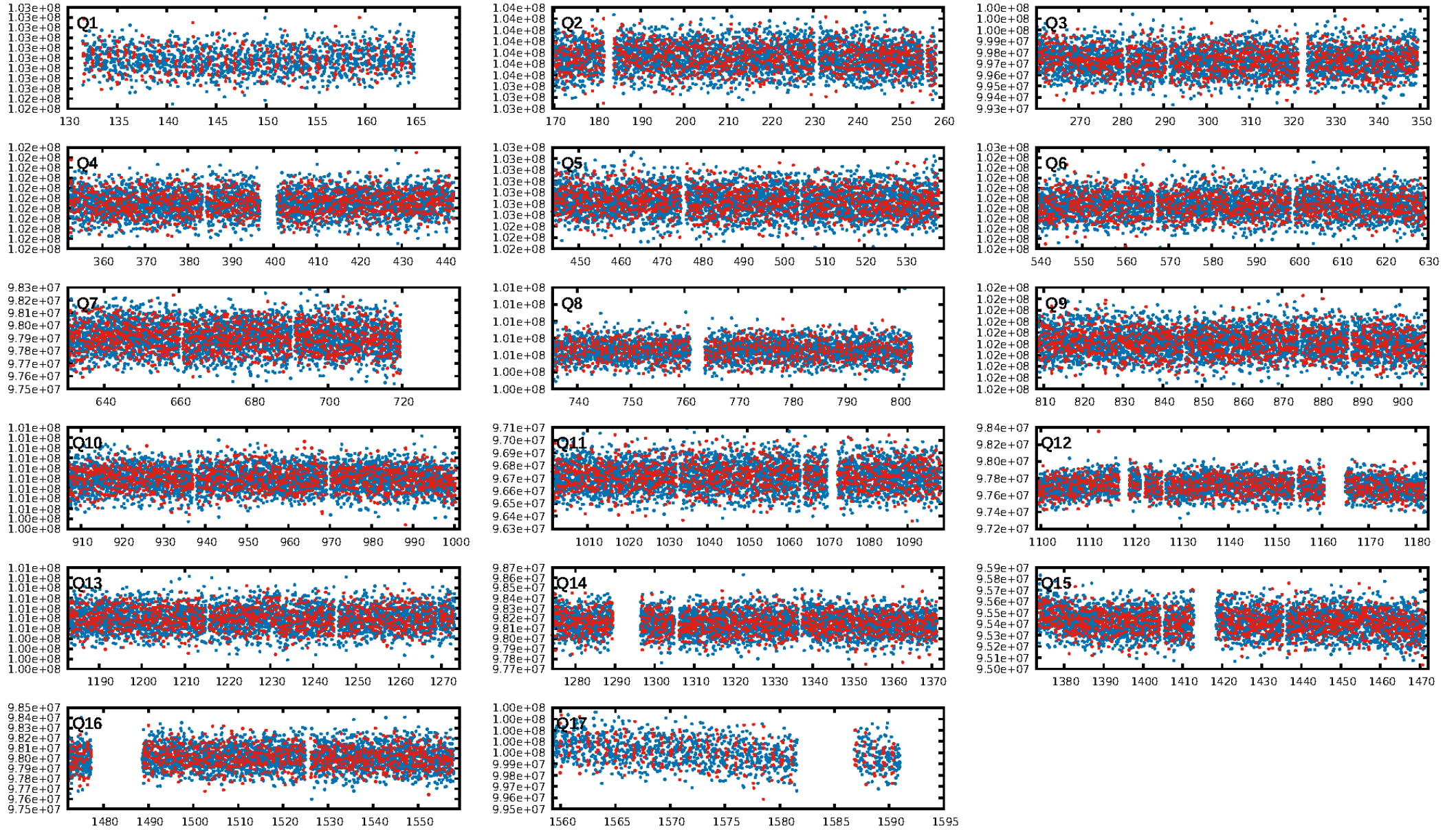
KIC: 8264546 Candidate: 1 of 2 Period: 0.843 d



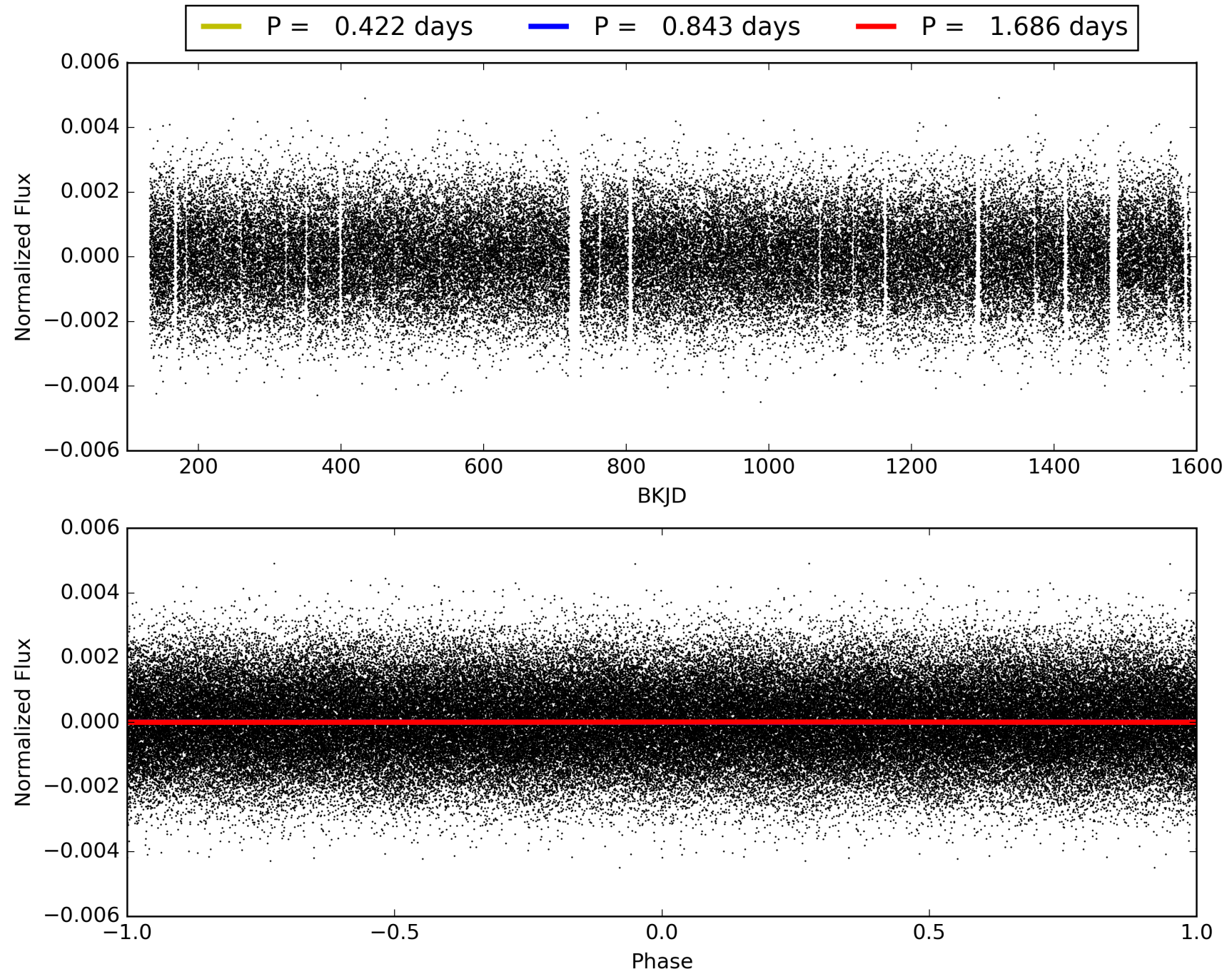
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:40:34 Z

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

TCE 008264546-01, PDC Light Curves

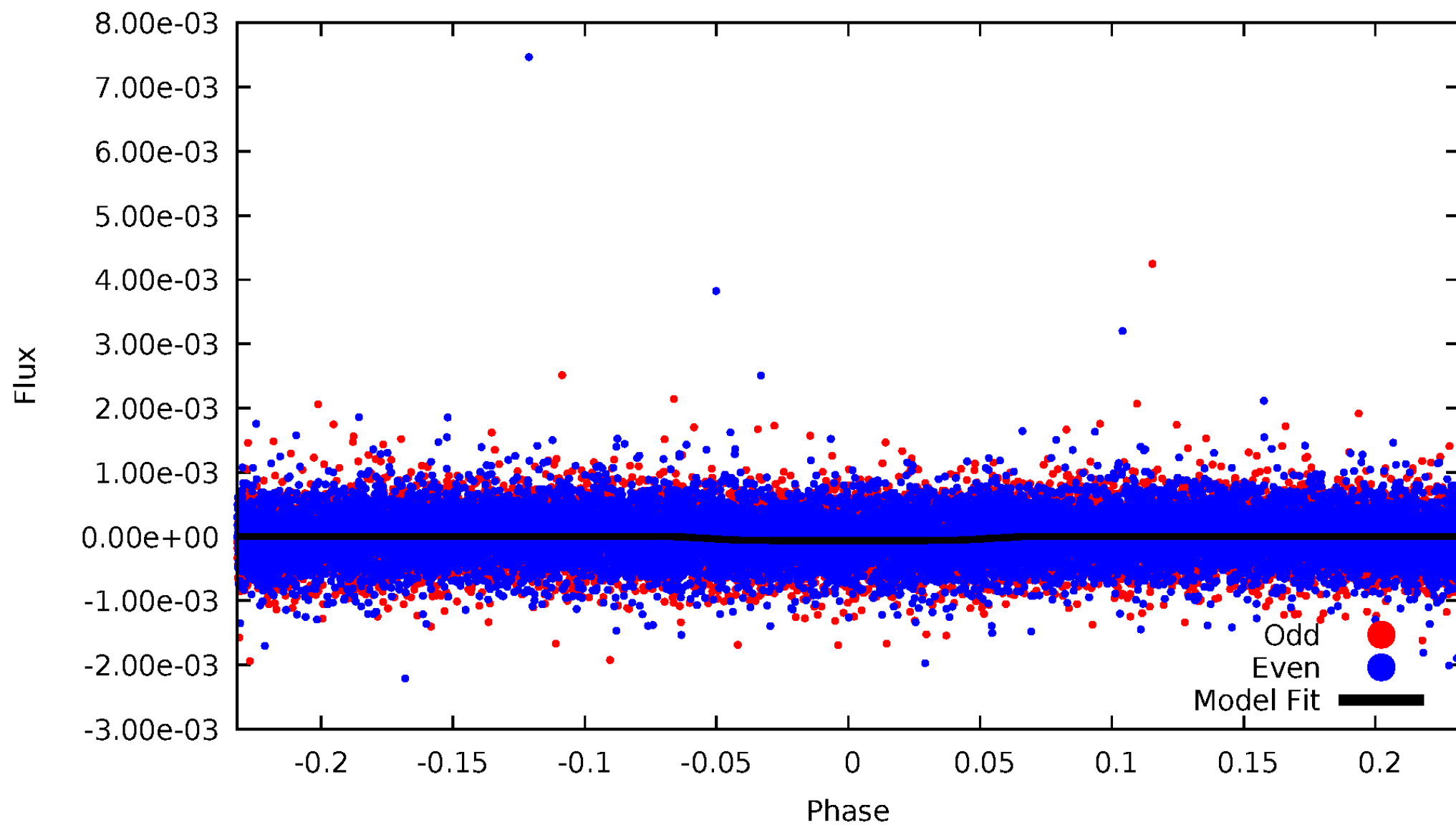


TCE 008264546-01



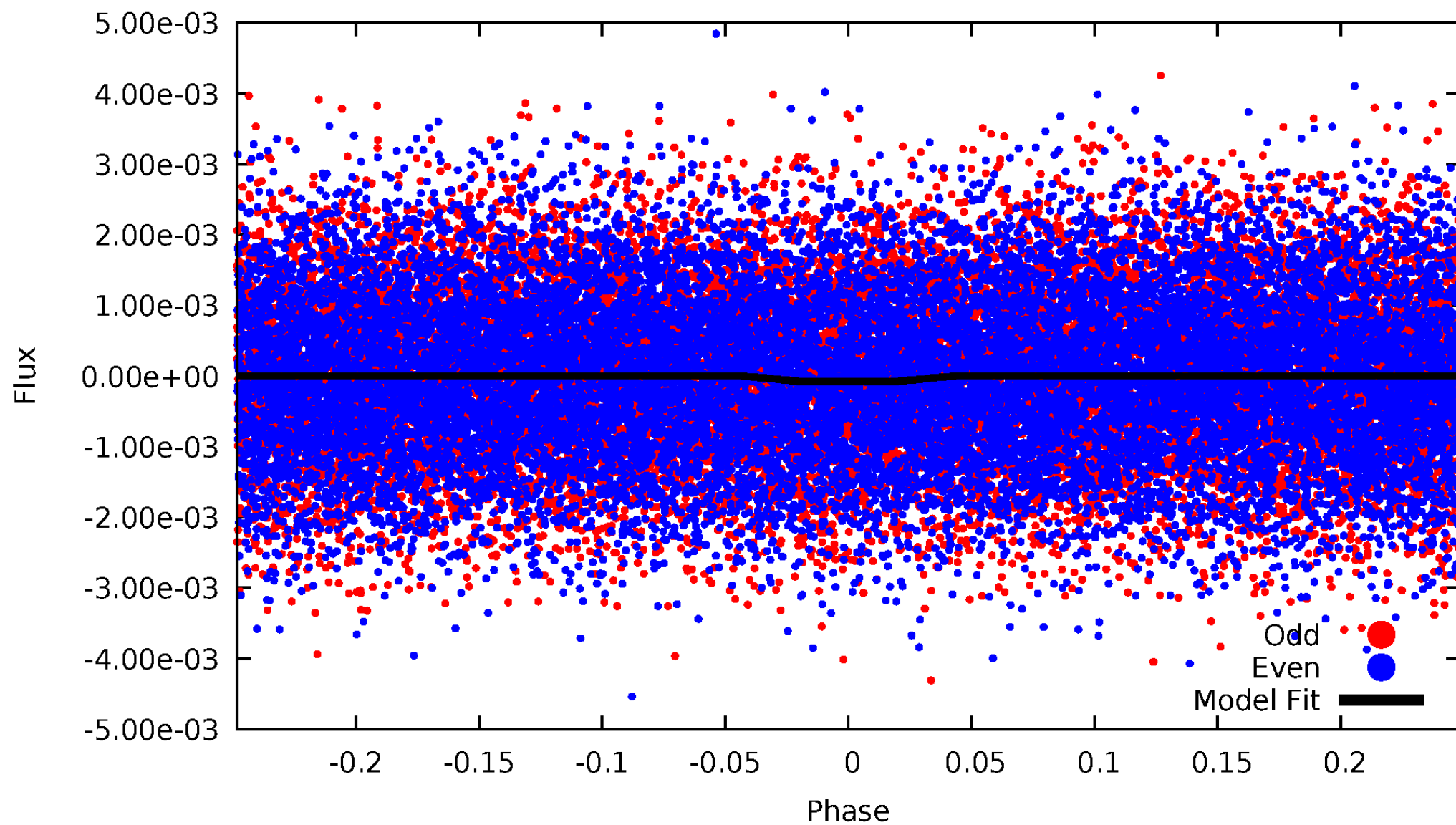
DV Odd/Even

TCE 008264546-01



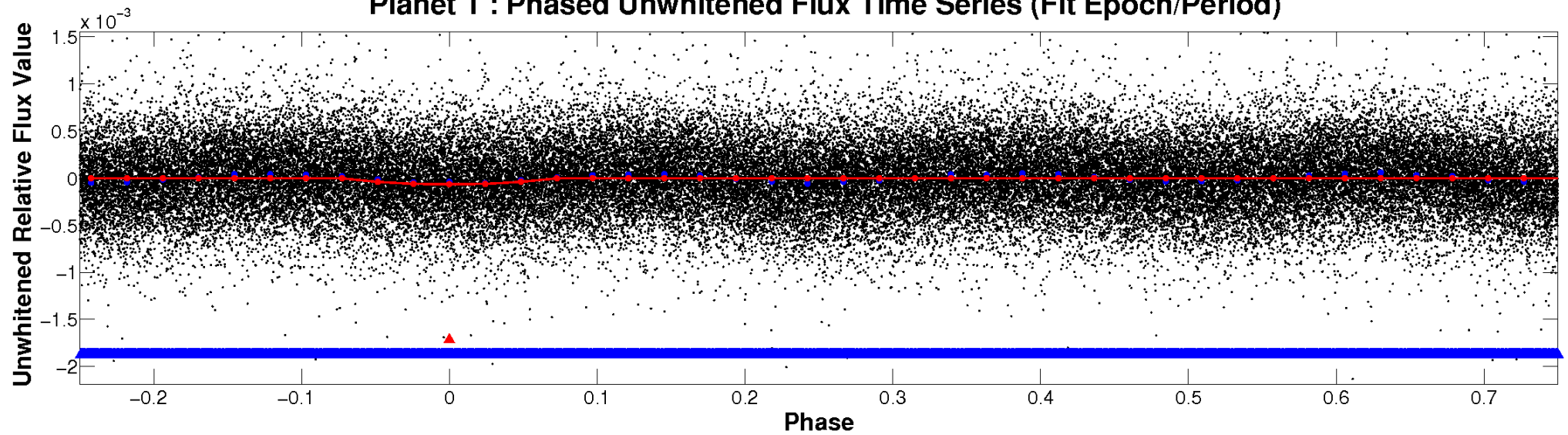
ALT Odd/Even

TCE 008264546-01

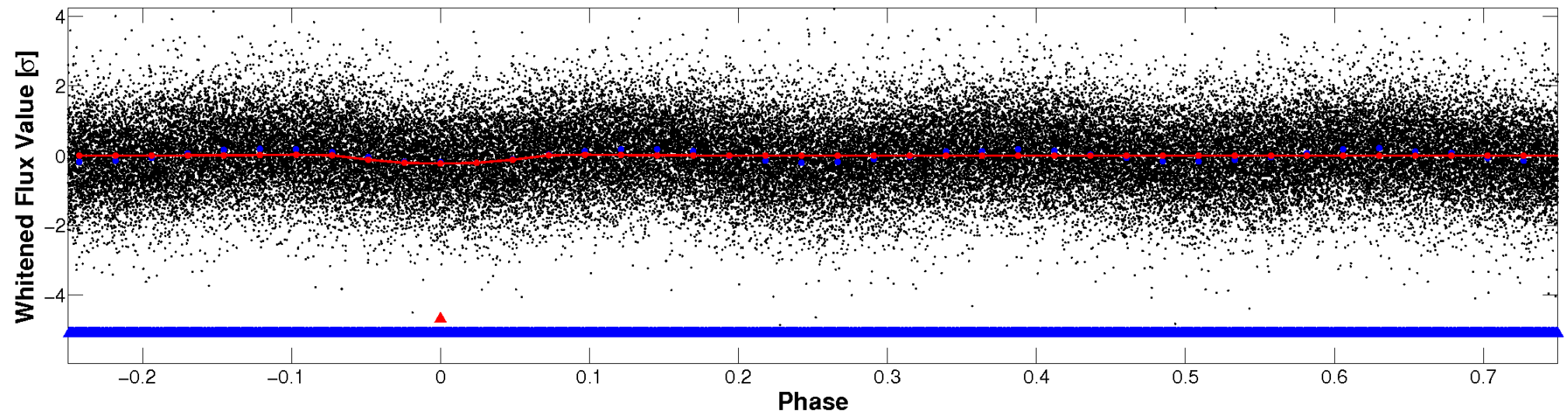


Non-Whitened Vs. Whitened Light Curve

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

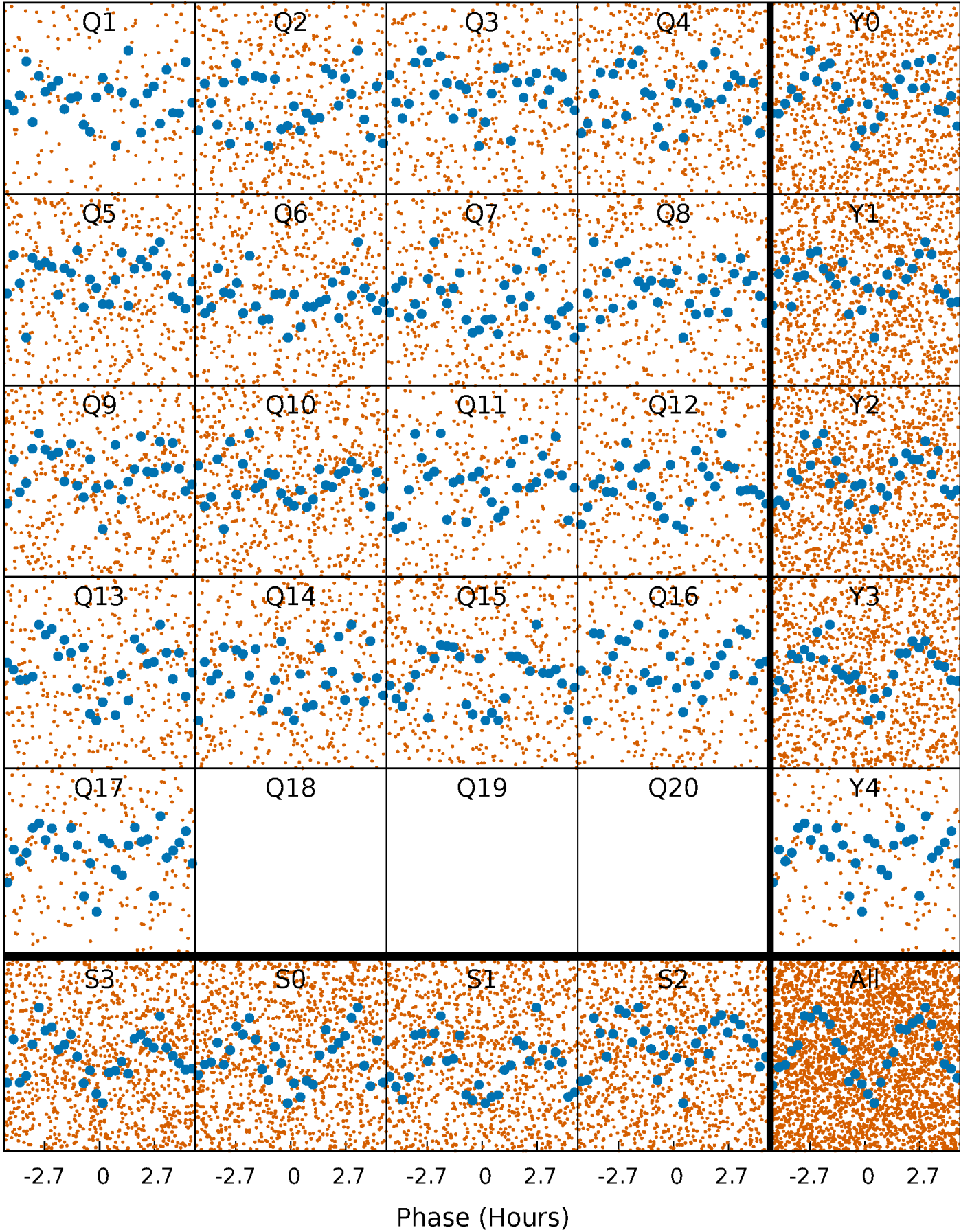


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



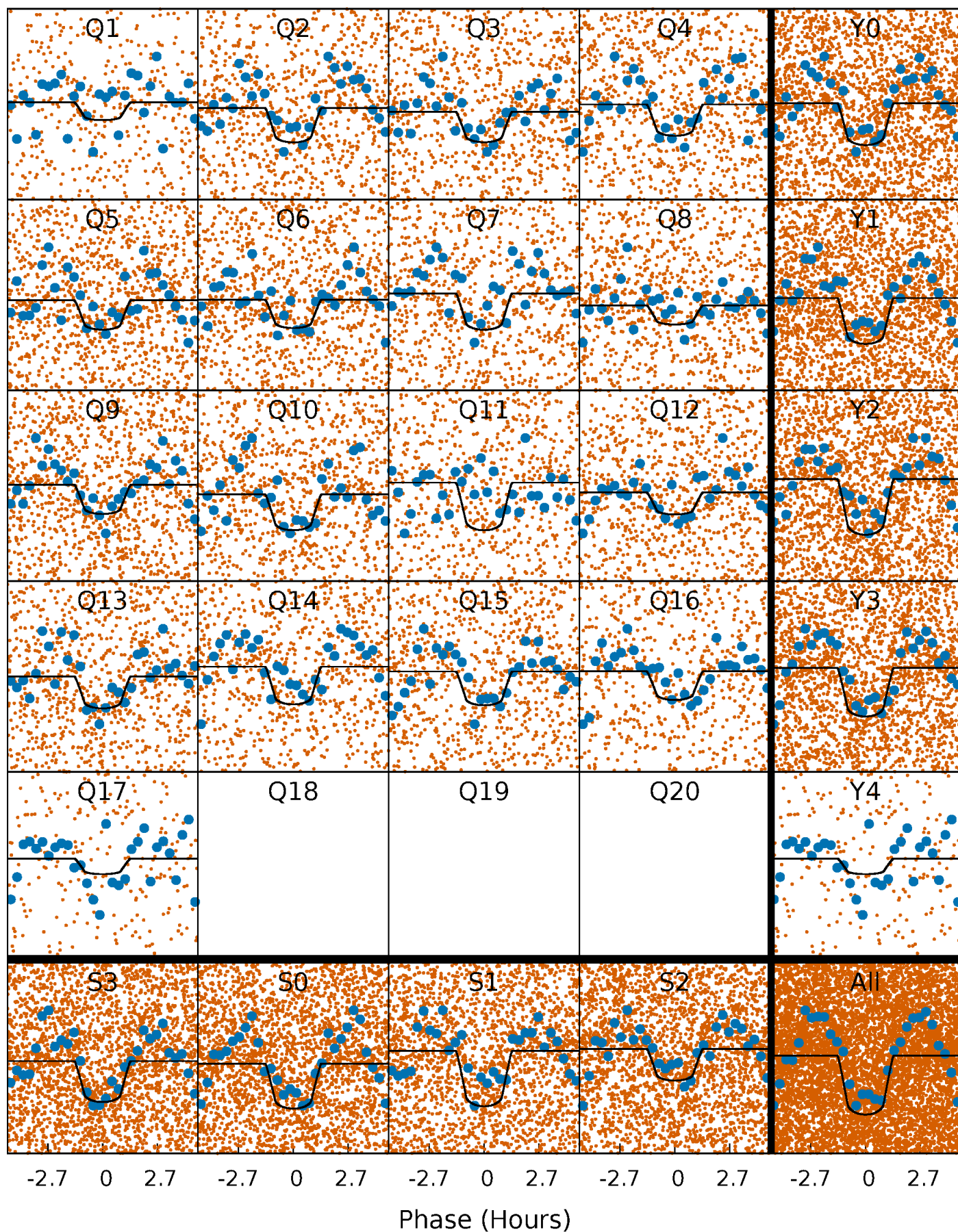
PDC Quarter-Phased Transit Curves

TCE 008264546-01 P= 0.843164 Days $T_0=131.646263$ (BKJD)



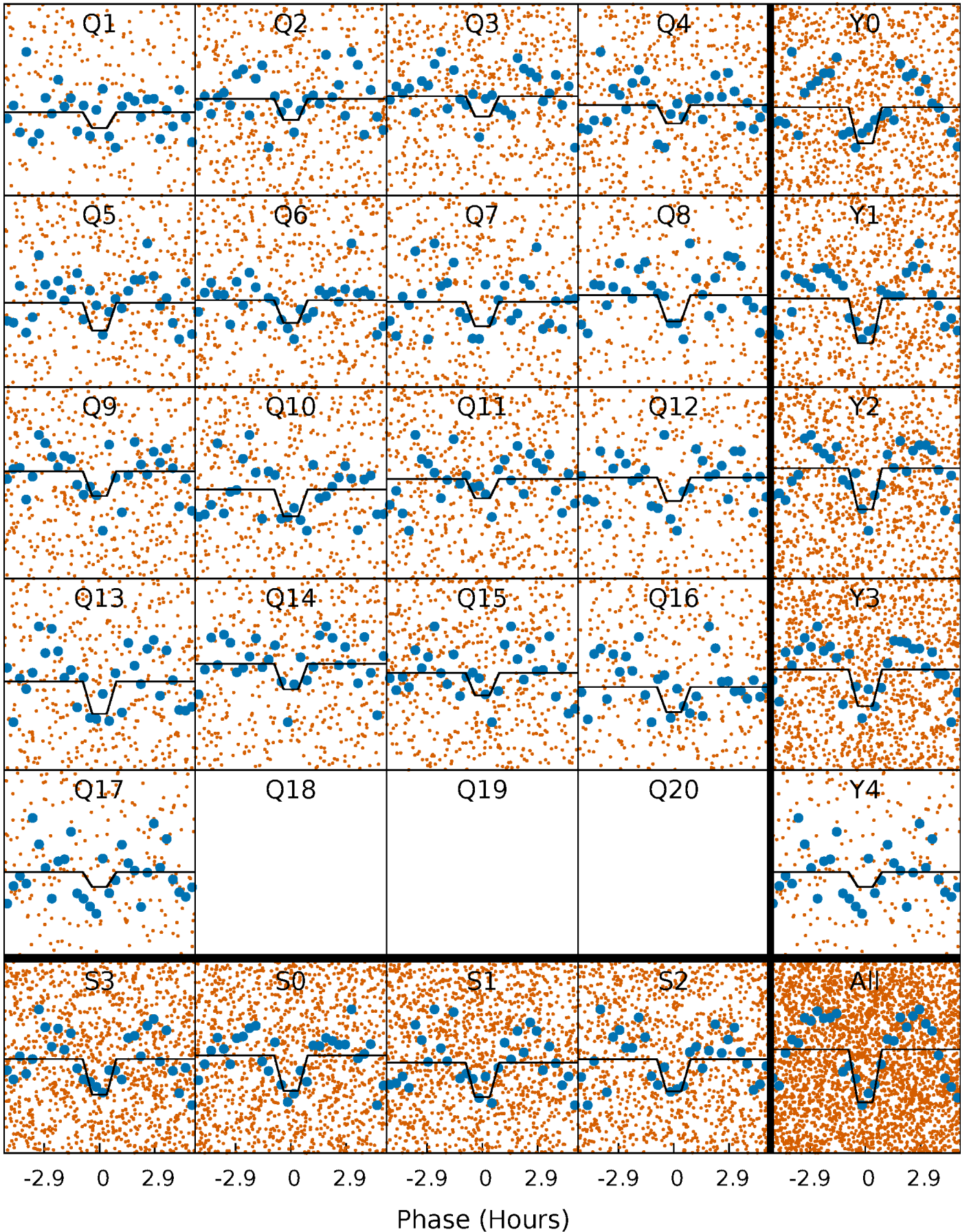
DV Quarter-Phased Transit Curves

TCE 008264546-01 P= 0.843164 Days $T_0=131.646263$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

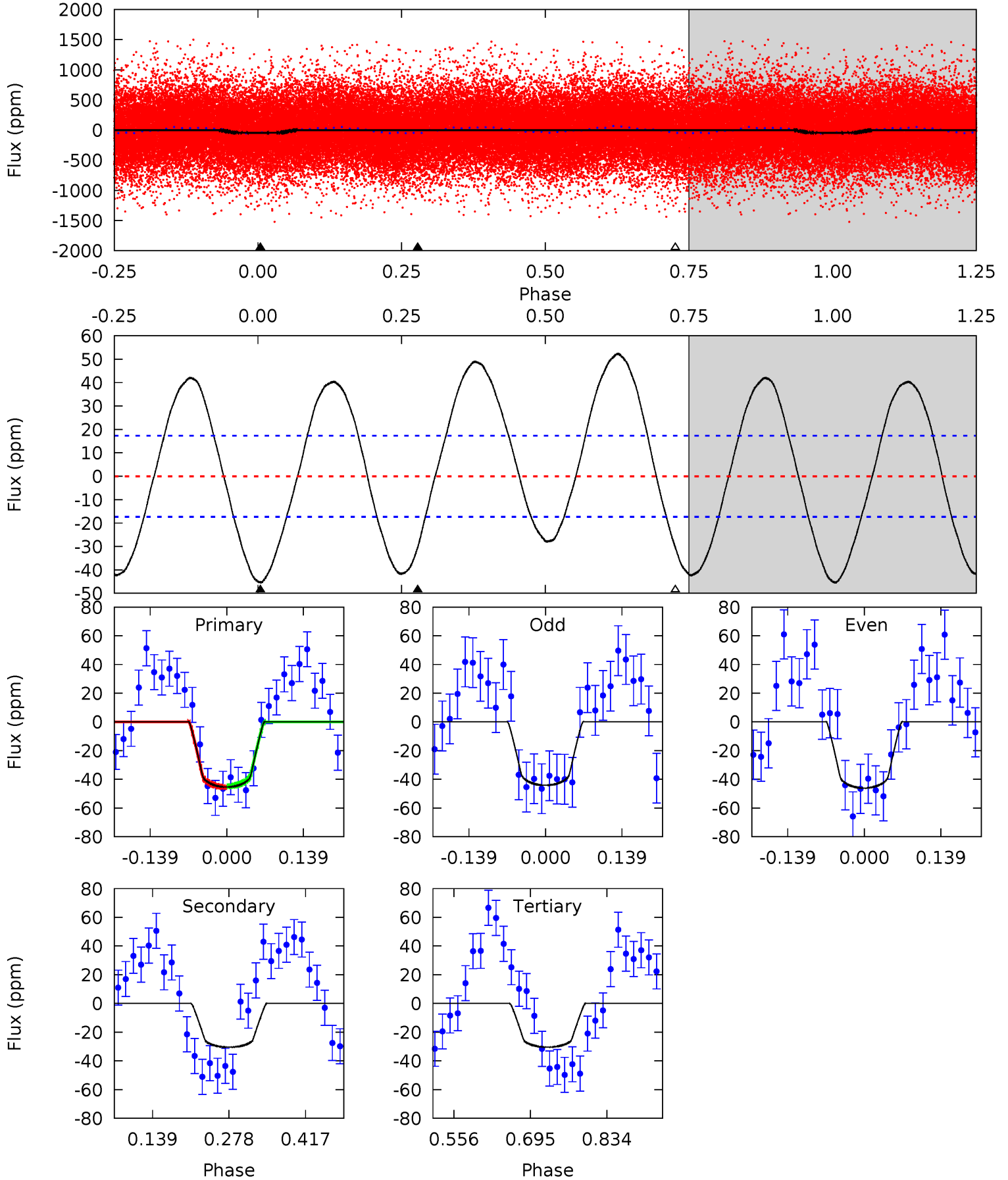
TCE 008264546-01 P= 0.843171 Days $T_0=131.646745$ (BKJD)



DV Model-Shift Uniqueness Test

008264546-01, P = 0.843164 Days, E = 130.803099 Days

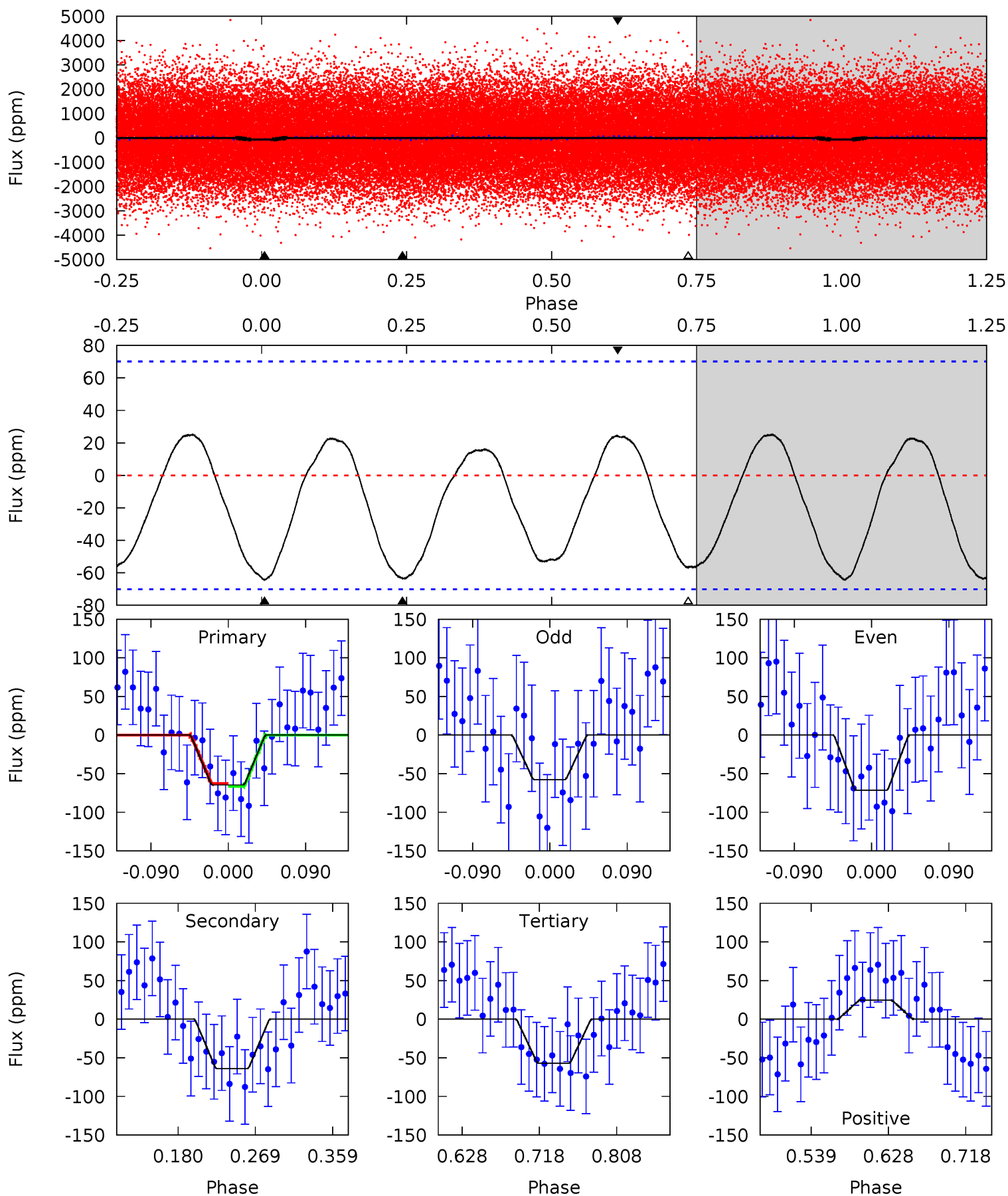
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	7.92	7.90	0	4.50	1.48	7.50	3.89	11.8	0.02	7.92	0.25	0.92	0.54	0.08



Alt Model-Shift Uniqueness Test

008264546-01, P = 0.843171 Days, E = 130.803574 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.23	4.18	3.73	1.61	4.59	1.70	1.86	0.50	2.62	0.45	2.57	0.45	0.84	0.28	0.13



Stellar Parameters For KIC 008264546

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7870^{+218}_{-354}	$3.928^{+0.266}_{-0.114}$	$-0.060^{+0.150}_{-0.350}$	$2.475^{+0.450}_{-0.837}$	$1.891^{+0.104}_{-0.416}$	$0.176^{+0.306}_{-0.061}$
	+3%/-4%	+7%/-3%	+250%/-583%	+18%/-34%	+5%/-22%	+174%/-34%
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 008264546-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-30 ± 4	$2.14^{+1.08}_{-0.91}$	5073^{+356}_{-499}	5849^{+2304}_{-1256}	$1.628^{+3.500}_{-0.902}$
Alt.	-64 ± 15	$2.30^{+1.02}_{-0.94}$	5089^{+362}_{-435}	7030^{+2890}_{-1389}	$3.002^{+5.721}_{-1.657}$

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 $A_{obs} \gg 1.0$

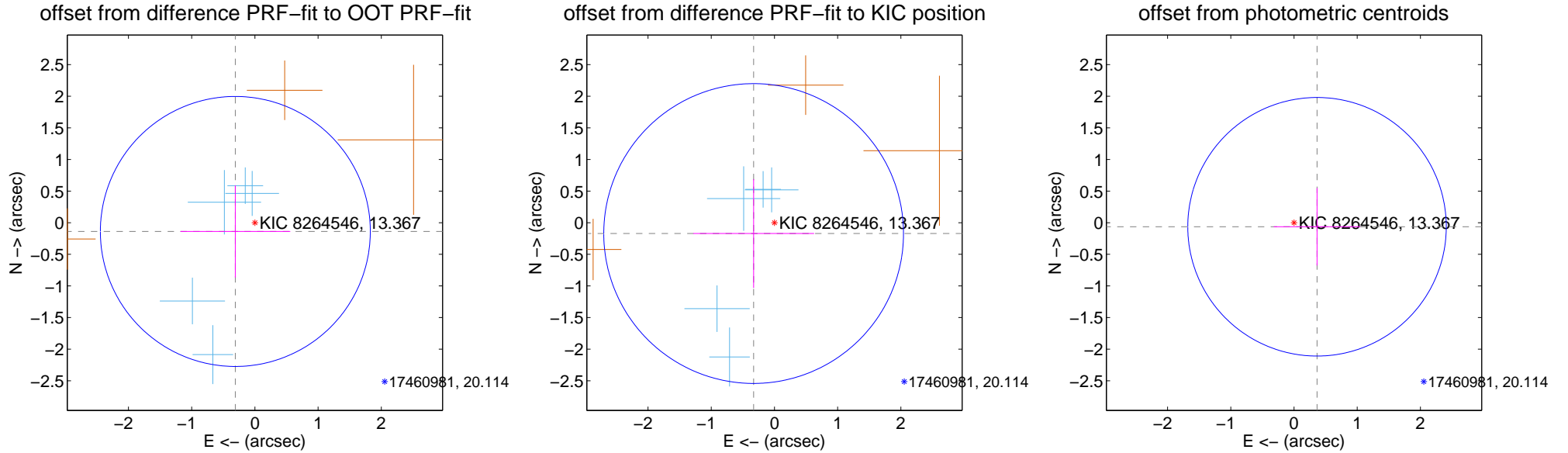
DV Centroid Data

Supplemental centroid analysis for 008264546-01. Kepler magnitude: 13.37. Transit SNR 15.94

There are 5 quarters with good PRF difference image offsets

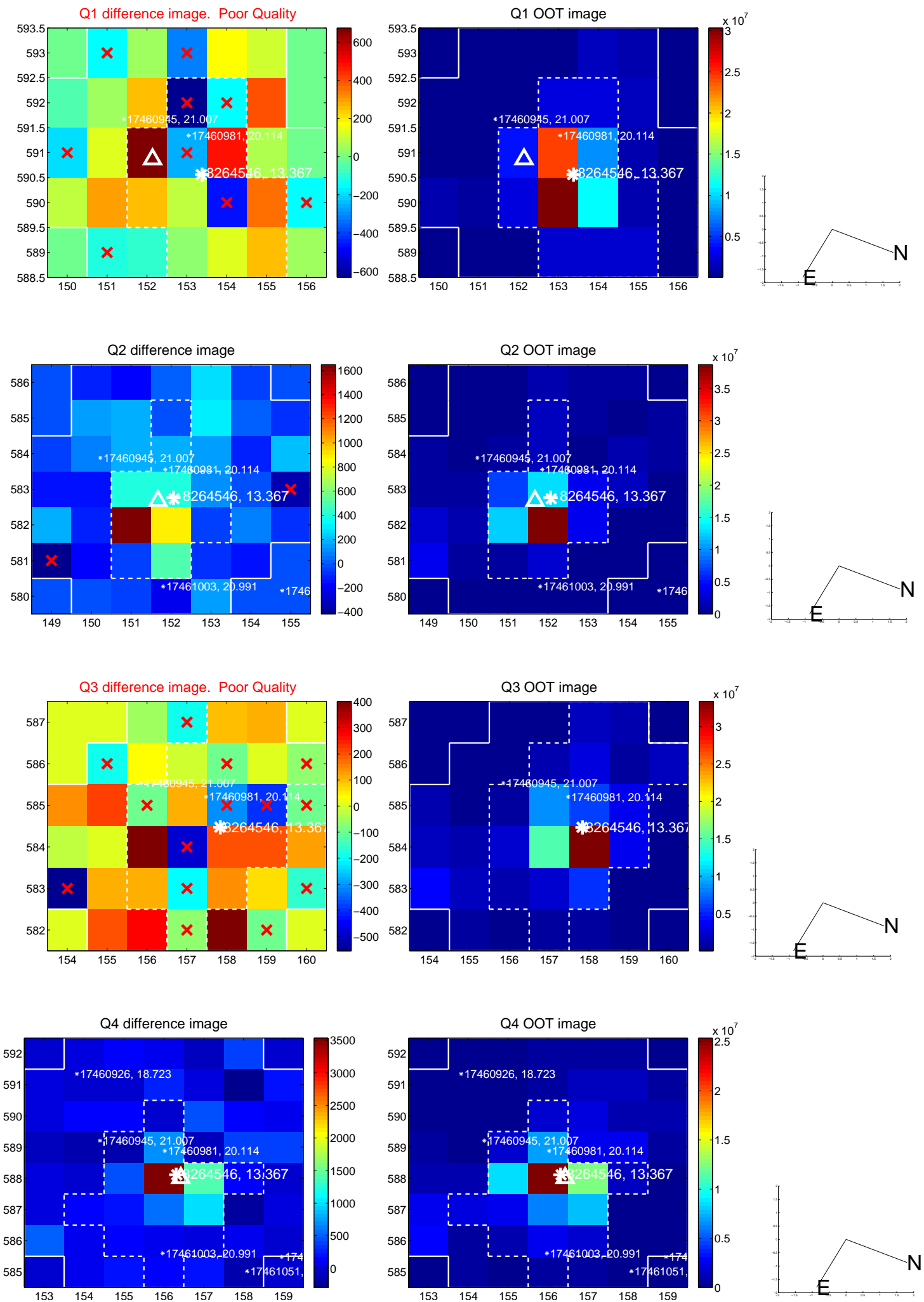
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.339 ± 0.712	0.48	0.309 ± 0.869	-0.139 ± 0.729
PRF-fit source offset from KIC position	0.371 ± 0.790	0.47	0.329 ± 0.956	-0.171 ± 0.860
photometric centroid source offset	0.37 ± 0.68	0.54	-0.36 ± 0.68	-0.06 ± 0.61

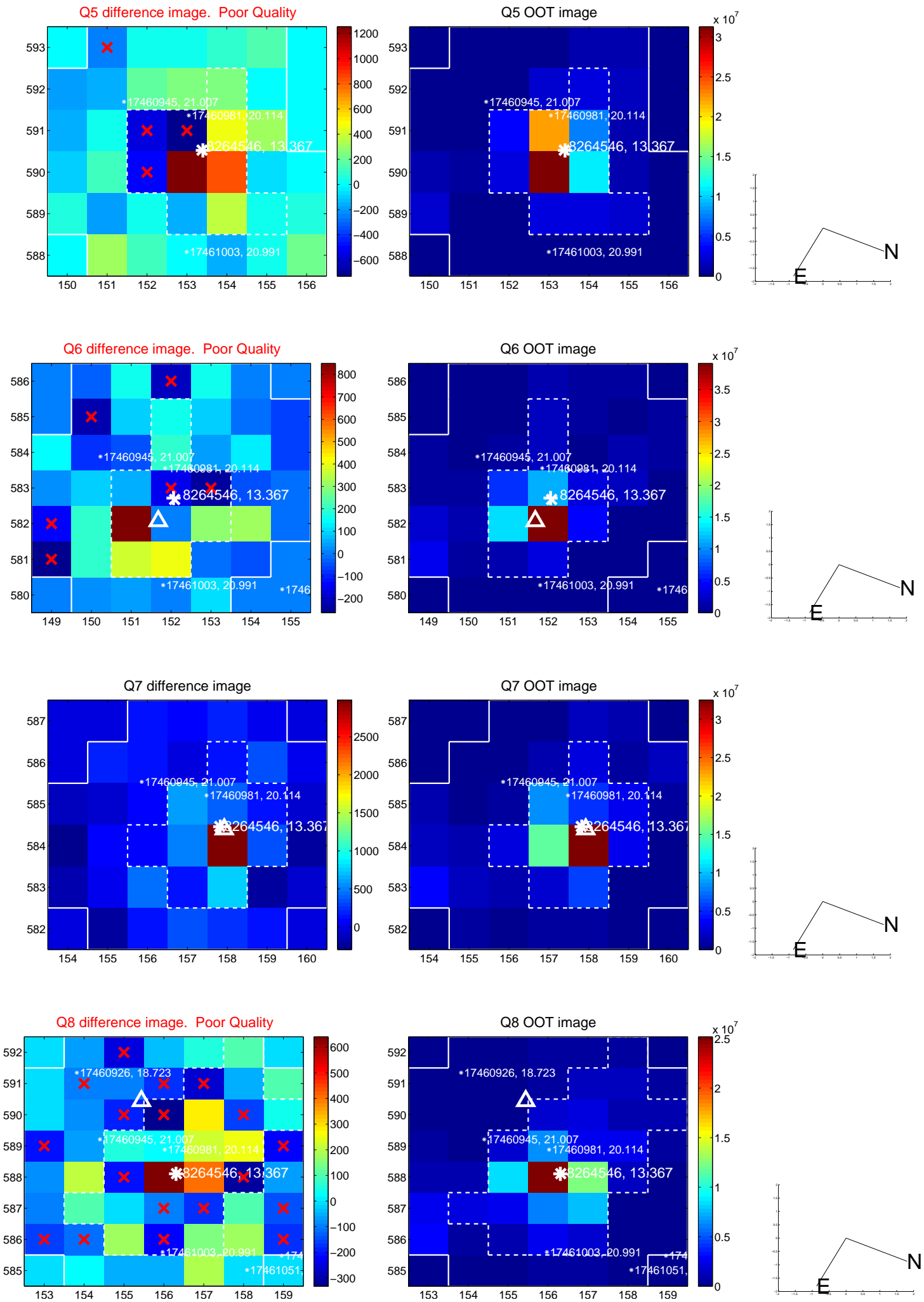


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

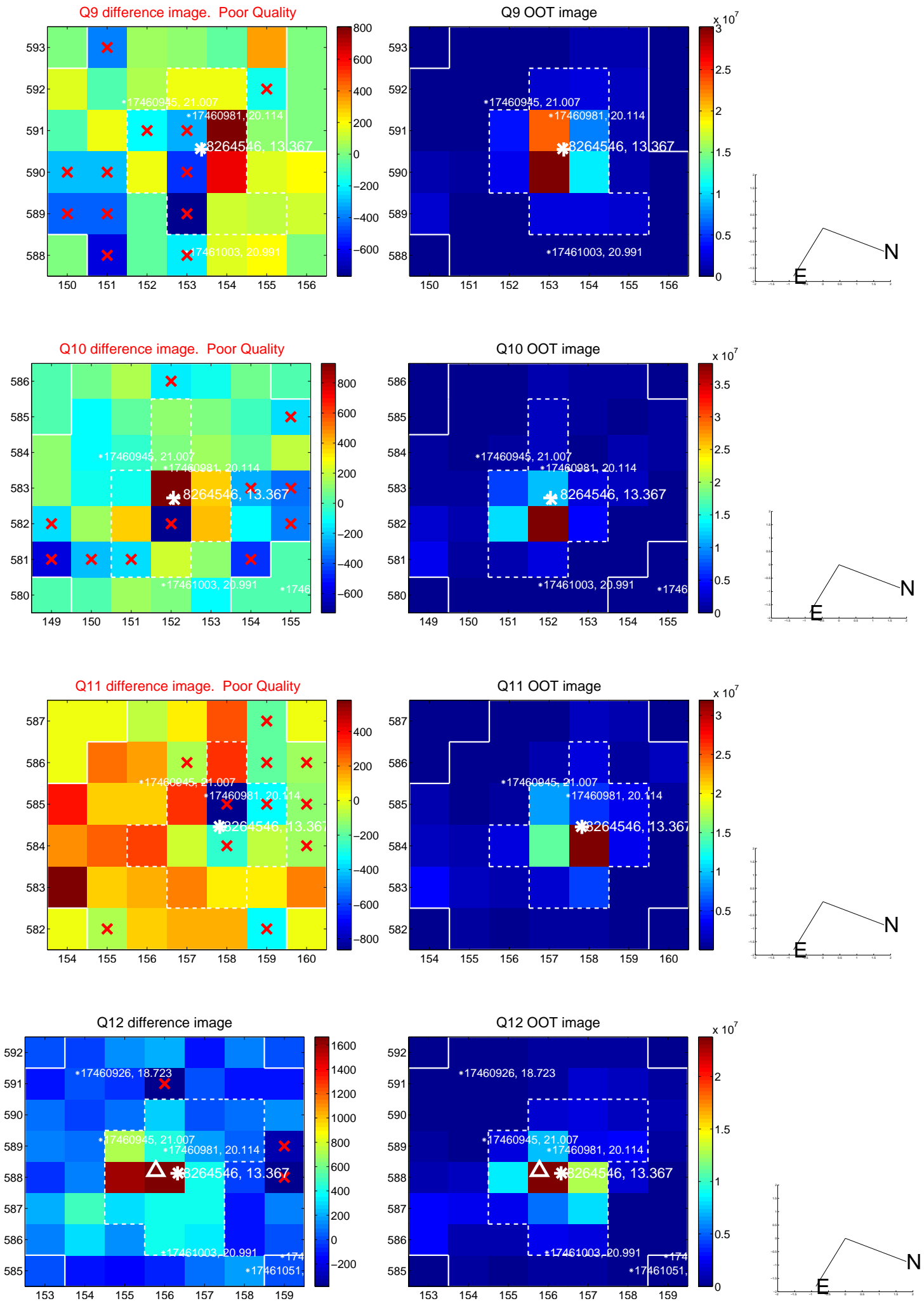
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



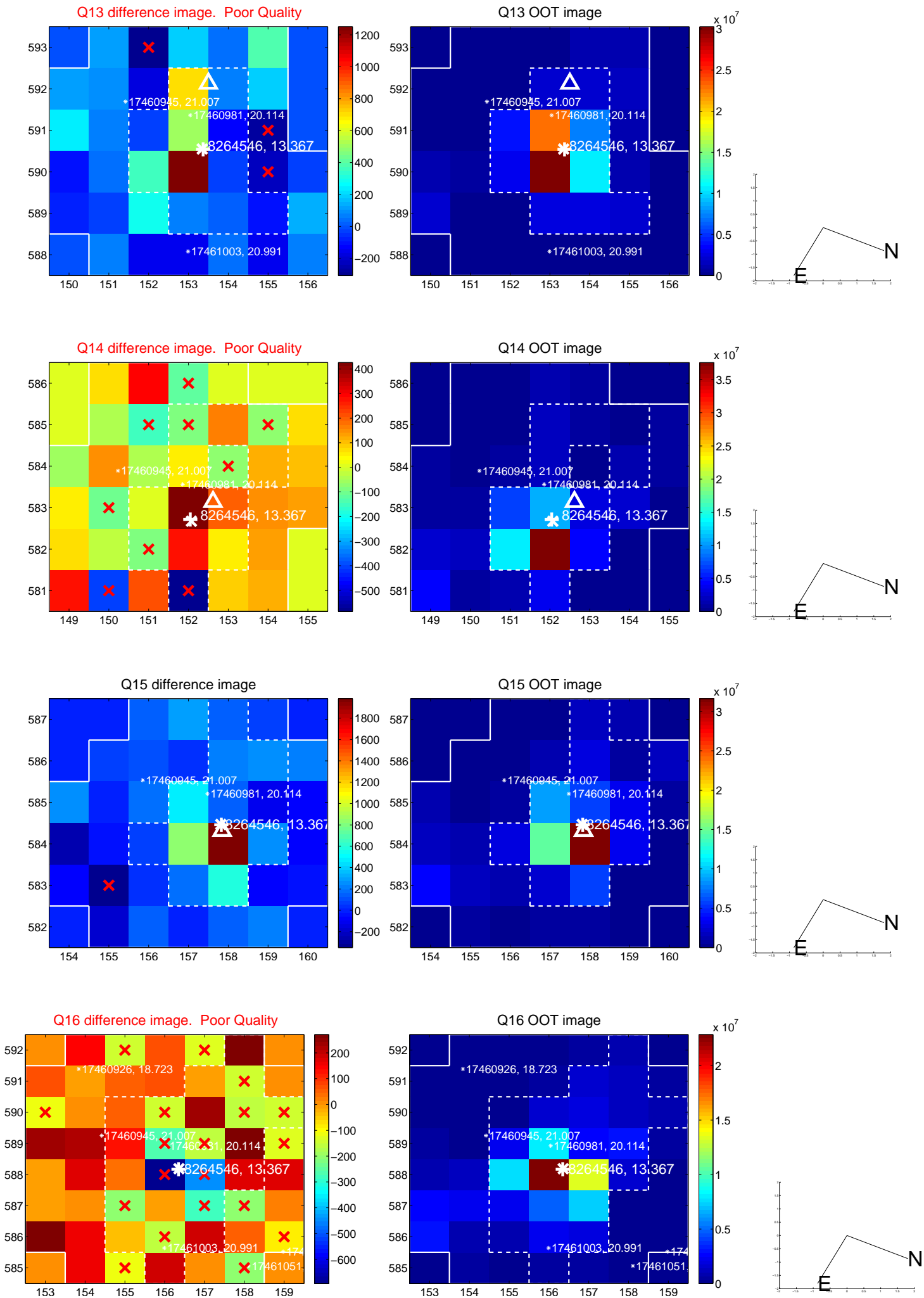
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



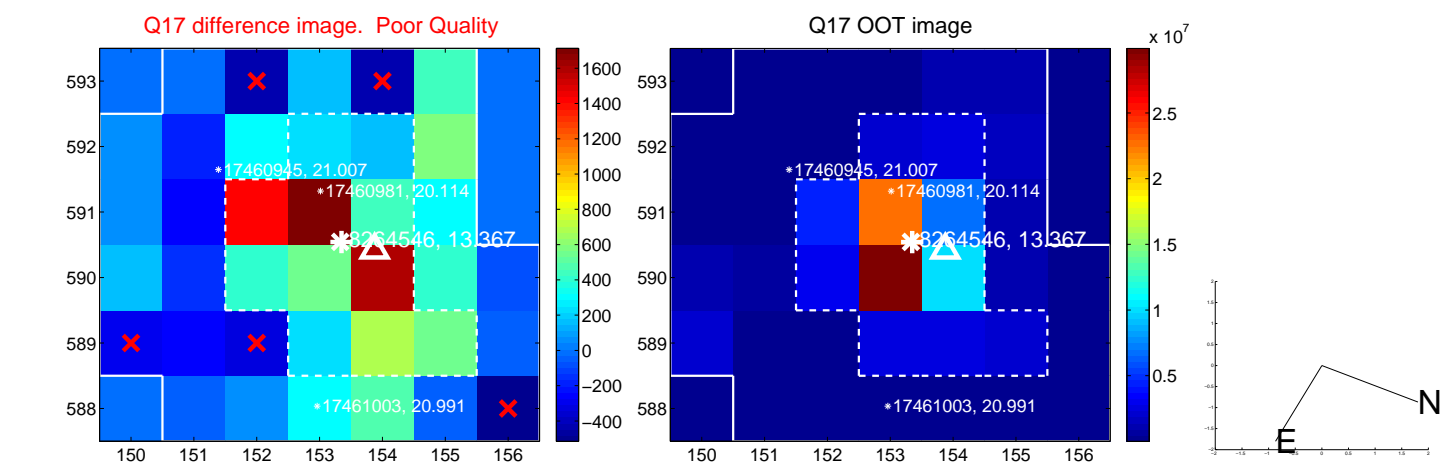
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



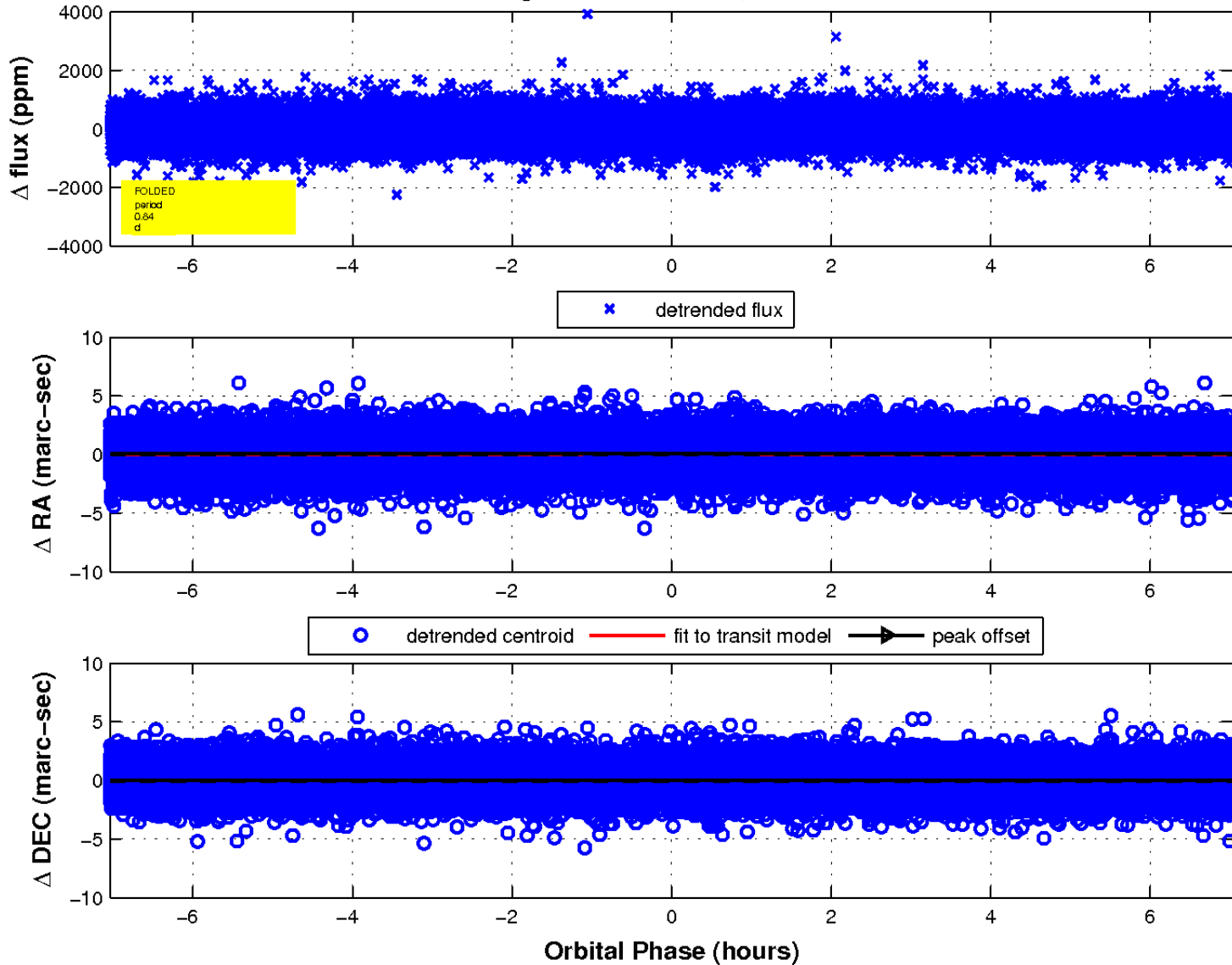
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

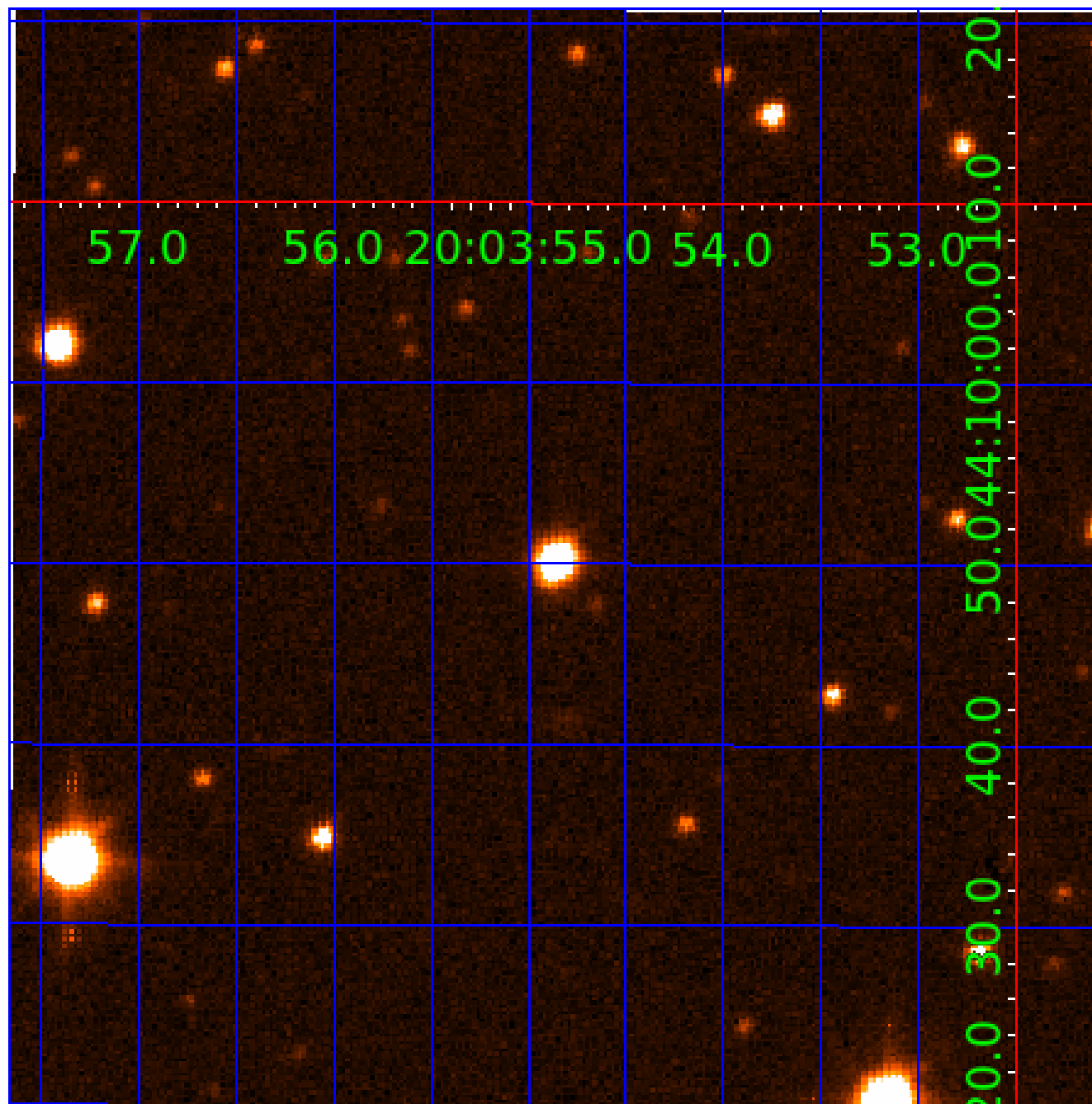


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 008264546

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})
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008264546-02	OBS	No	0.711553	132.019929	56.9	8.539	10.3	18.9	2.48	7870	1.90	56524.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264546-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008264546-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—CENT_FEW_DIFS

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

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

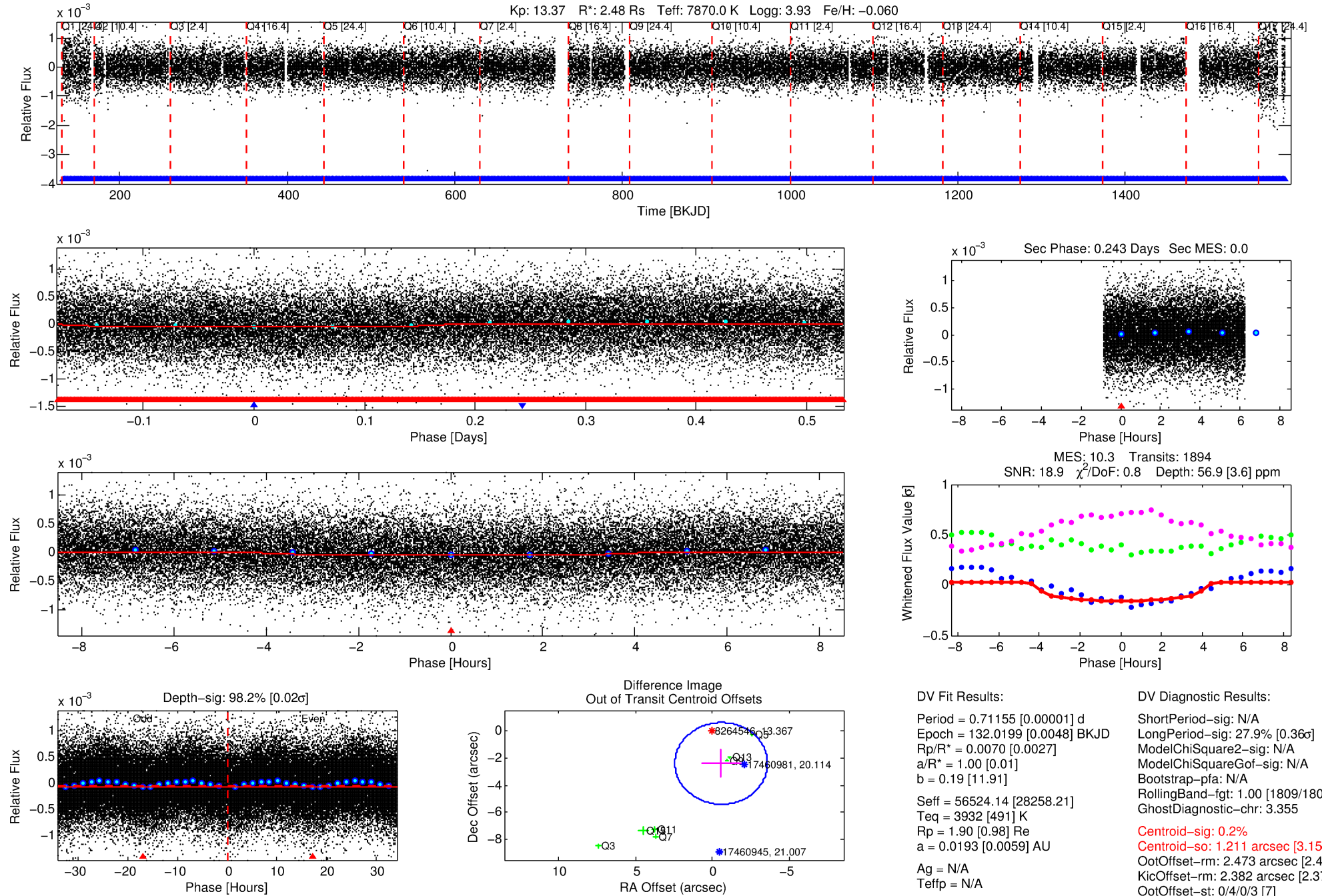
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264546-02

No Significant Match Found

DV One-Page Summary

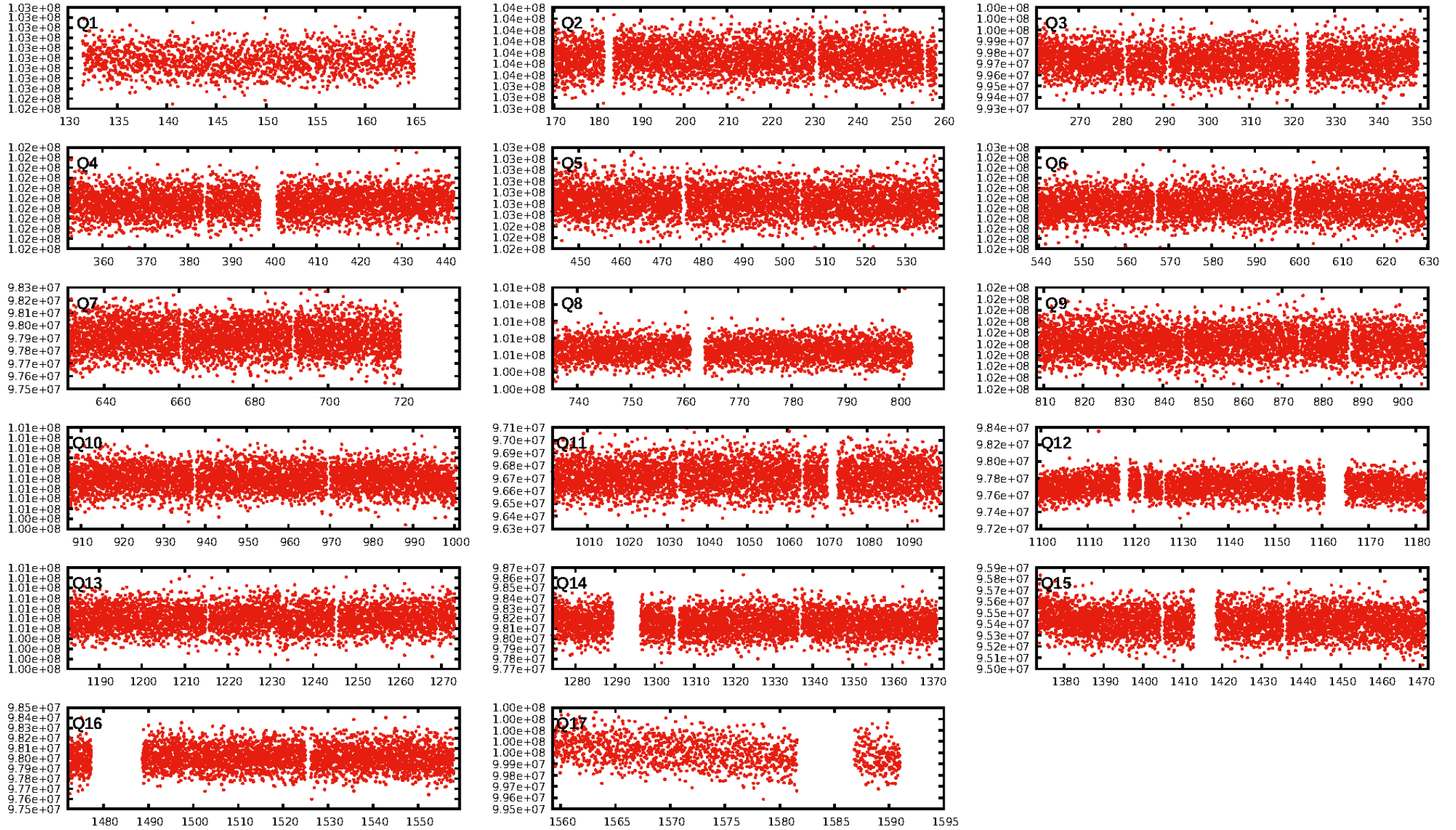
KIC: 8264546 Candidate: 2 of 2 Period: 0.712 d



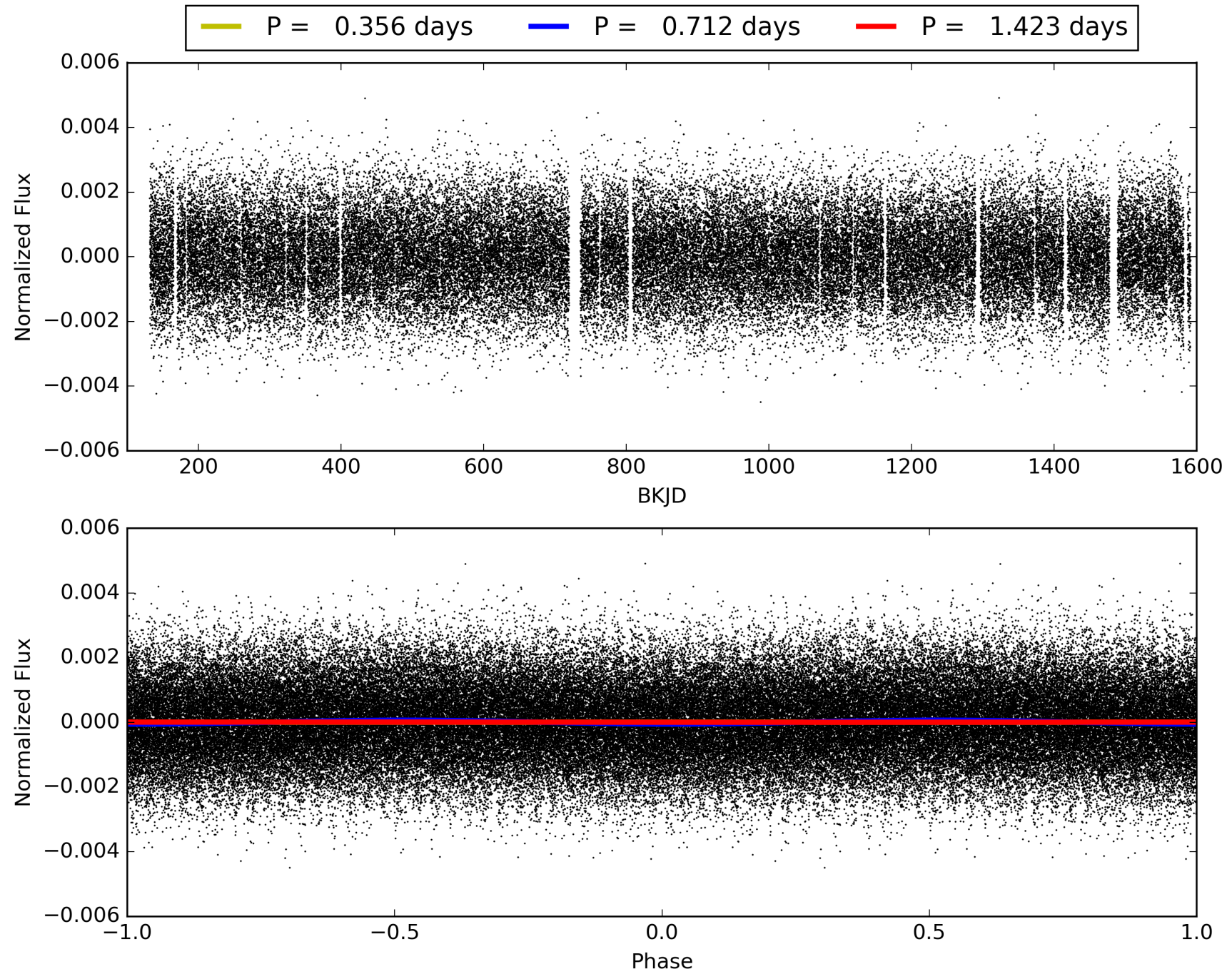
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:40:51 Z

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

TCE 008264546-02, PDC Light Curves

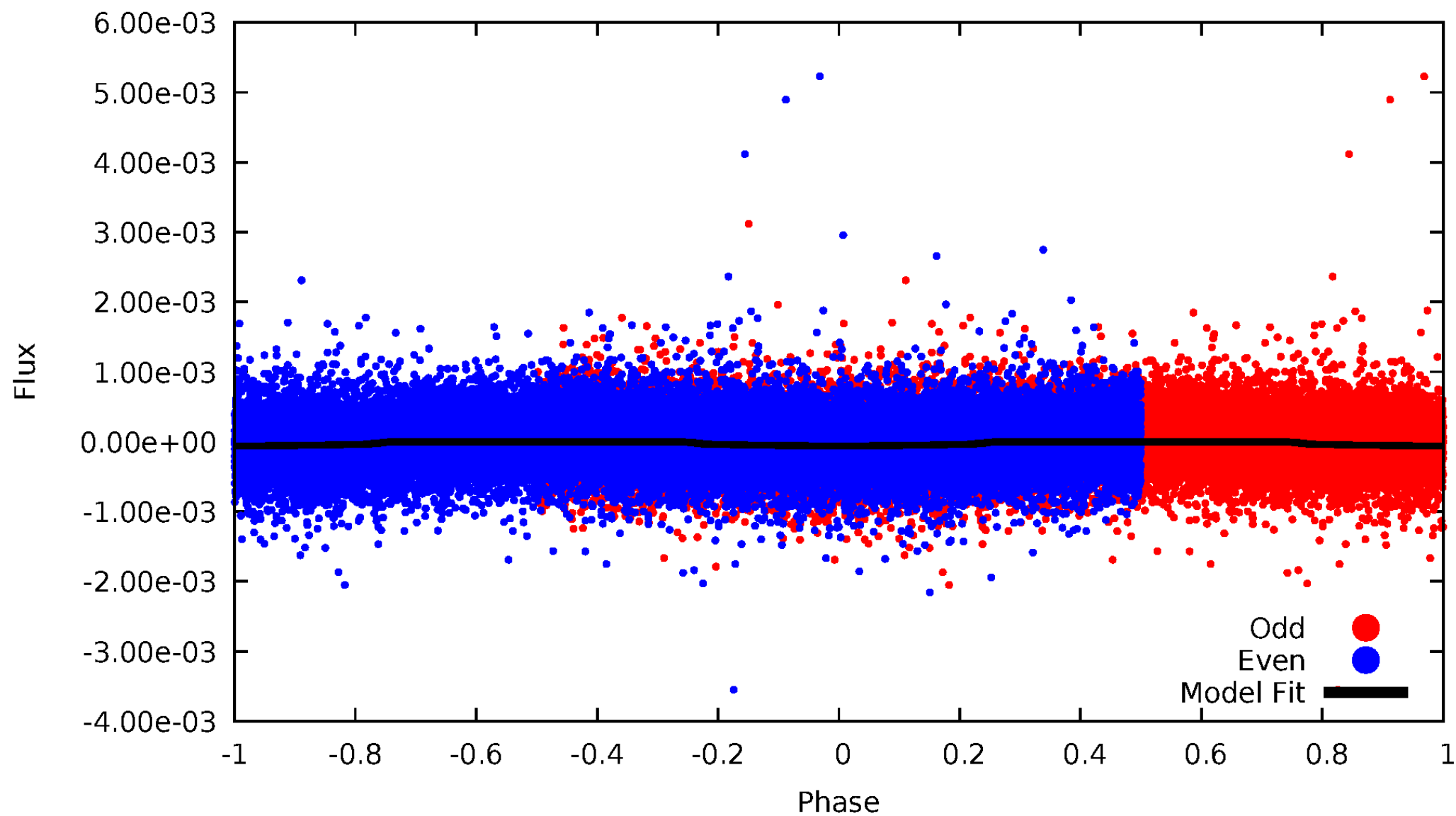


TCE 008264546-02



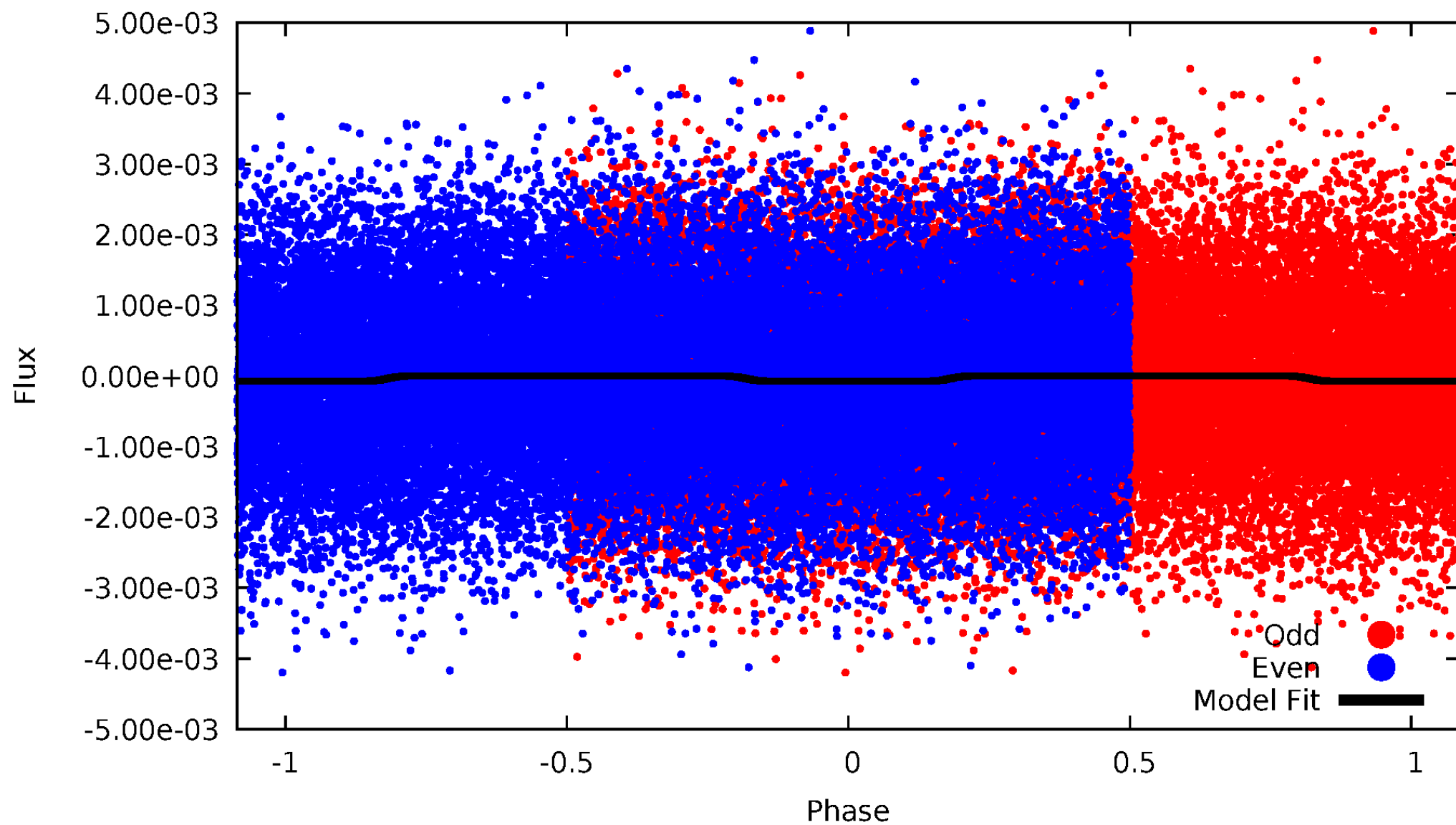
DV Odd/Even

TCE 008264546-02



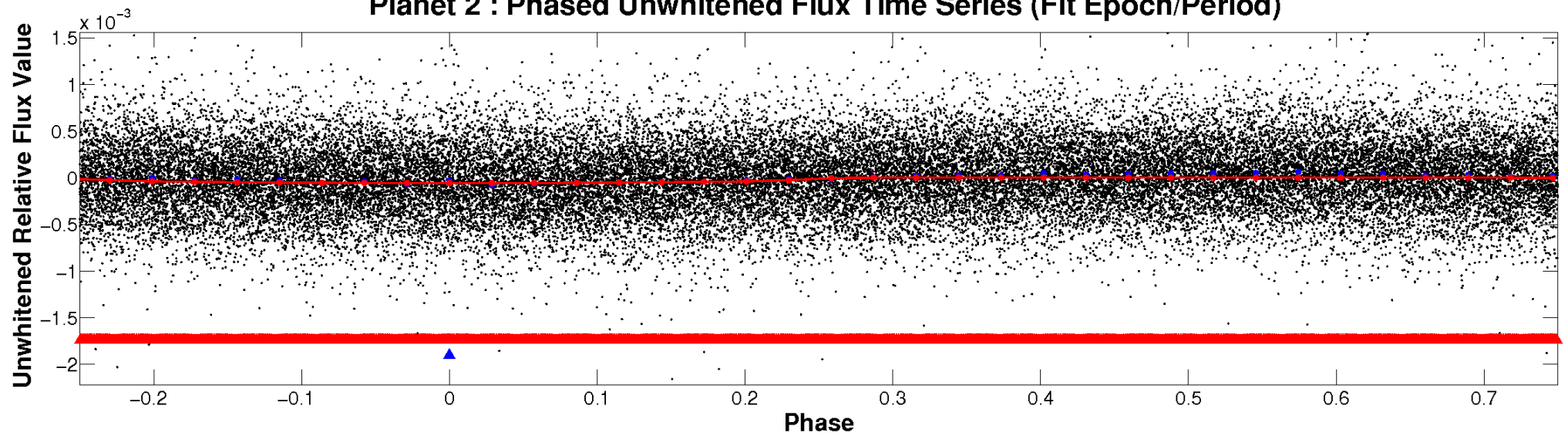
ALT Odd/Even

TCE 008264546-02

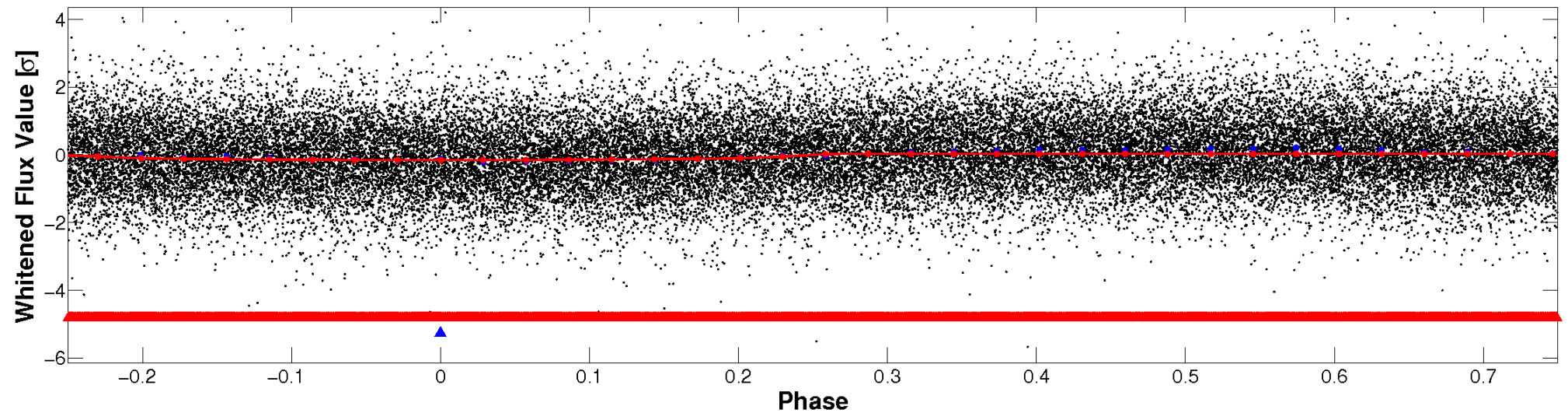


Non-Whitened Vs. Whitened Light Curve

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

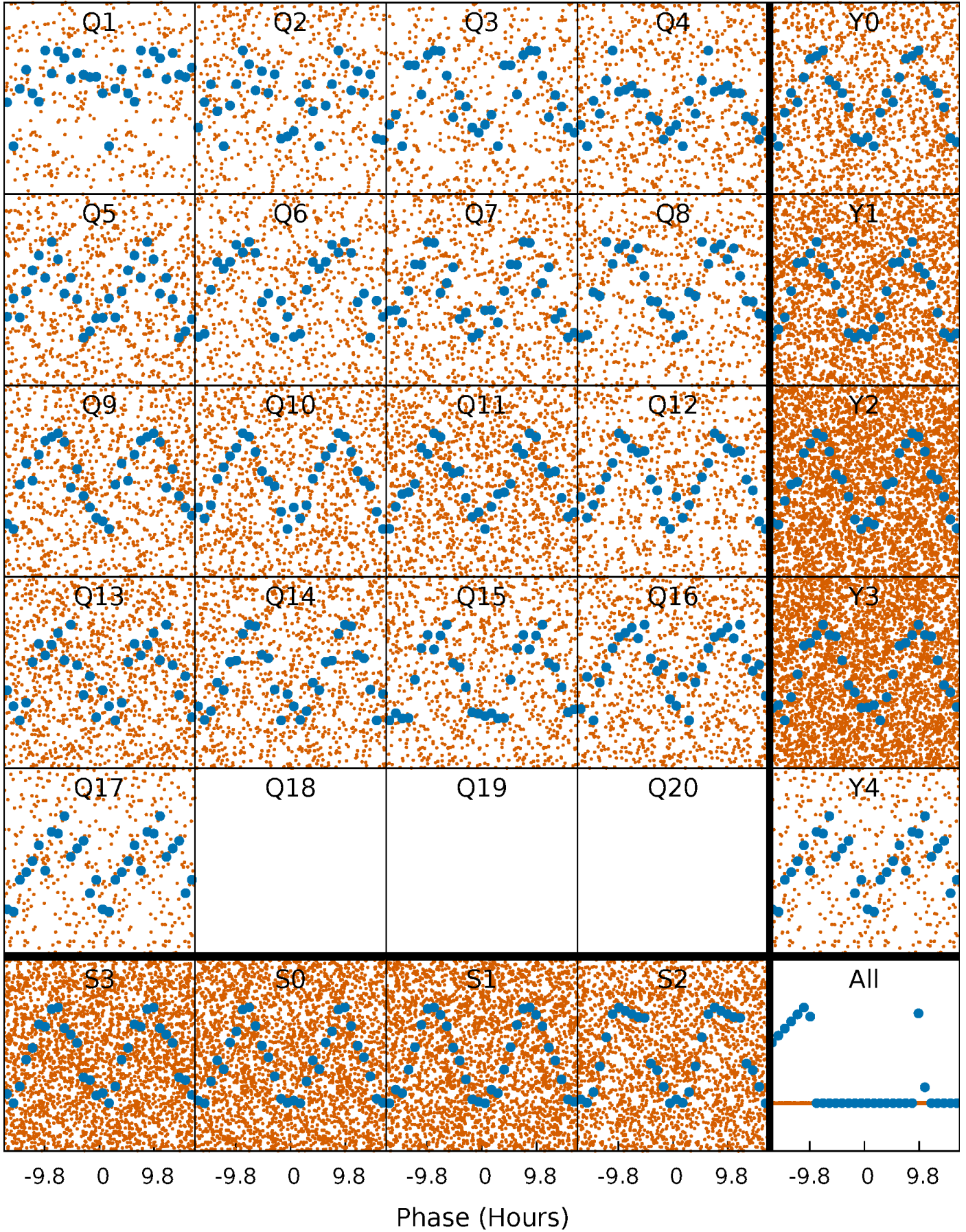


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



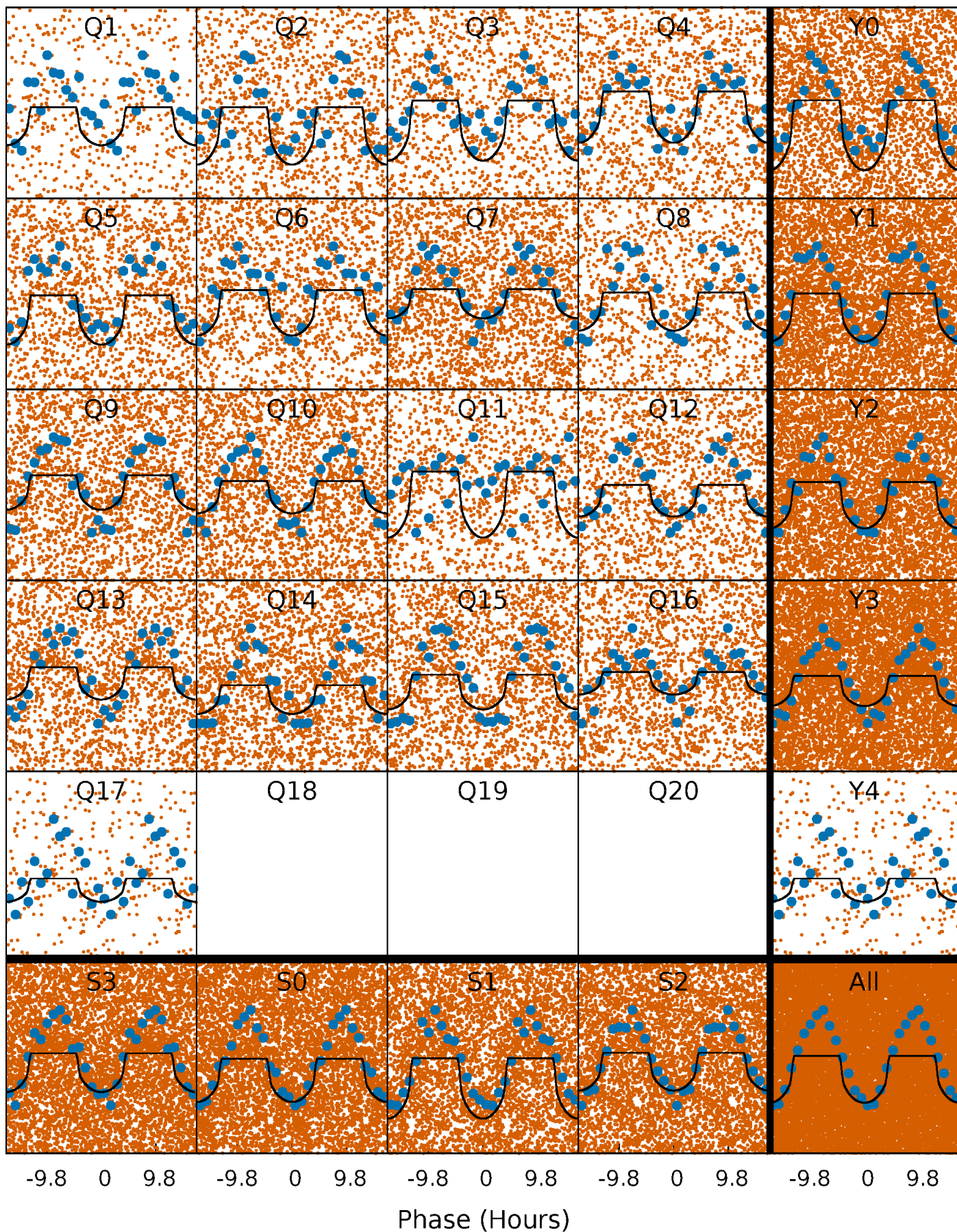
PDC Quarter-Phased Transit Curves

TCE 008264546-02 P= 0.711553 Days $T_0=132.019929$ (BKJD)



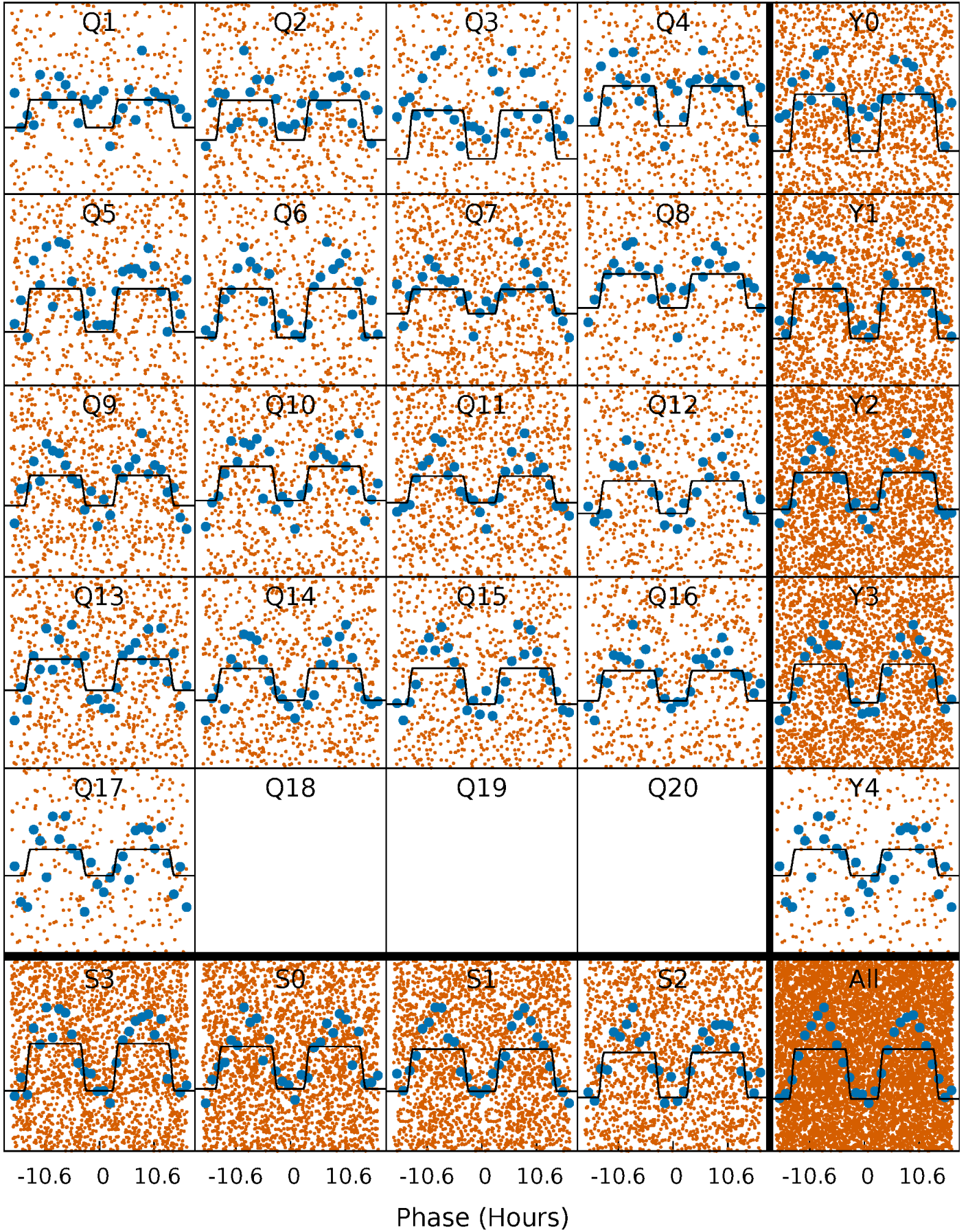
DV Quarter-Phased Transit Curves

TCE 008264546-02 P= 0.711553 Days $T_0=132.019929$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

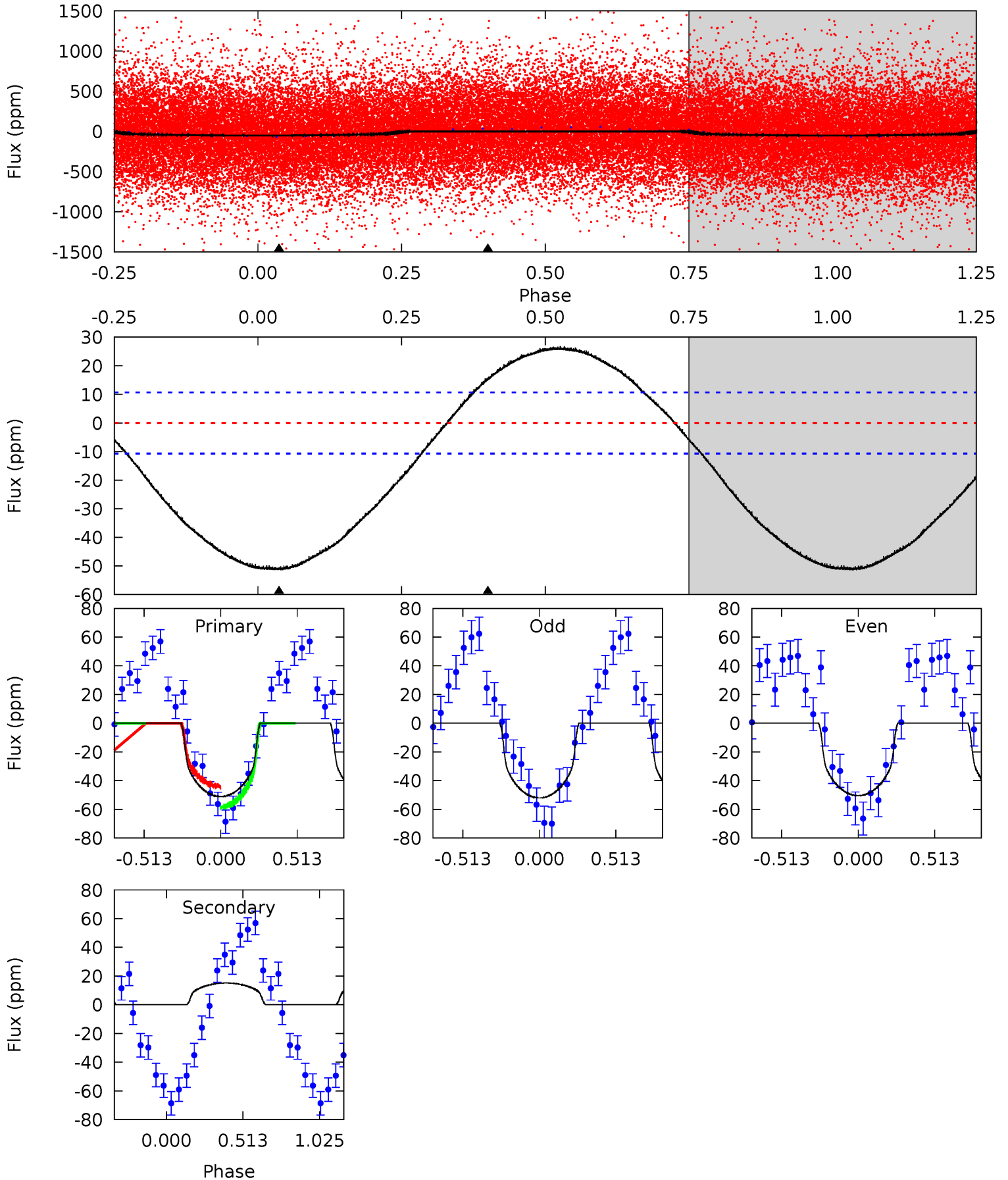
TCE 008264546-02 P= 0.711575 Days $T_0=132.008555$ (BKJD)



DV Model-Shift Uniqueness Test

008264546-02, P = 0.711553 Days, E = 131.308376 Days

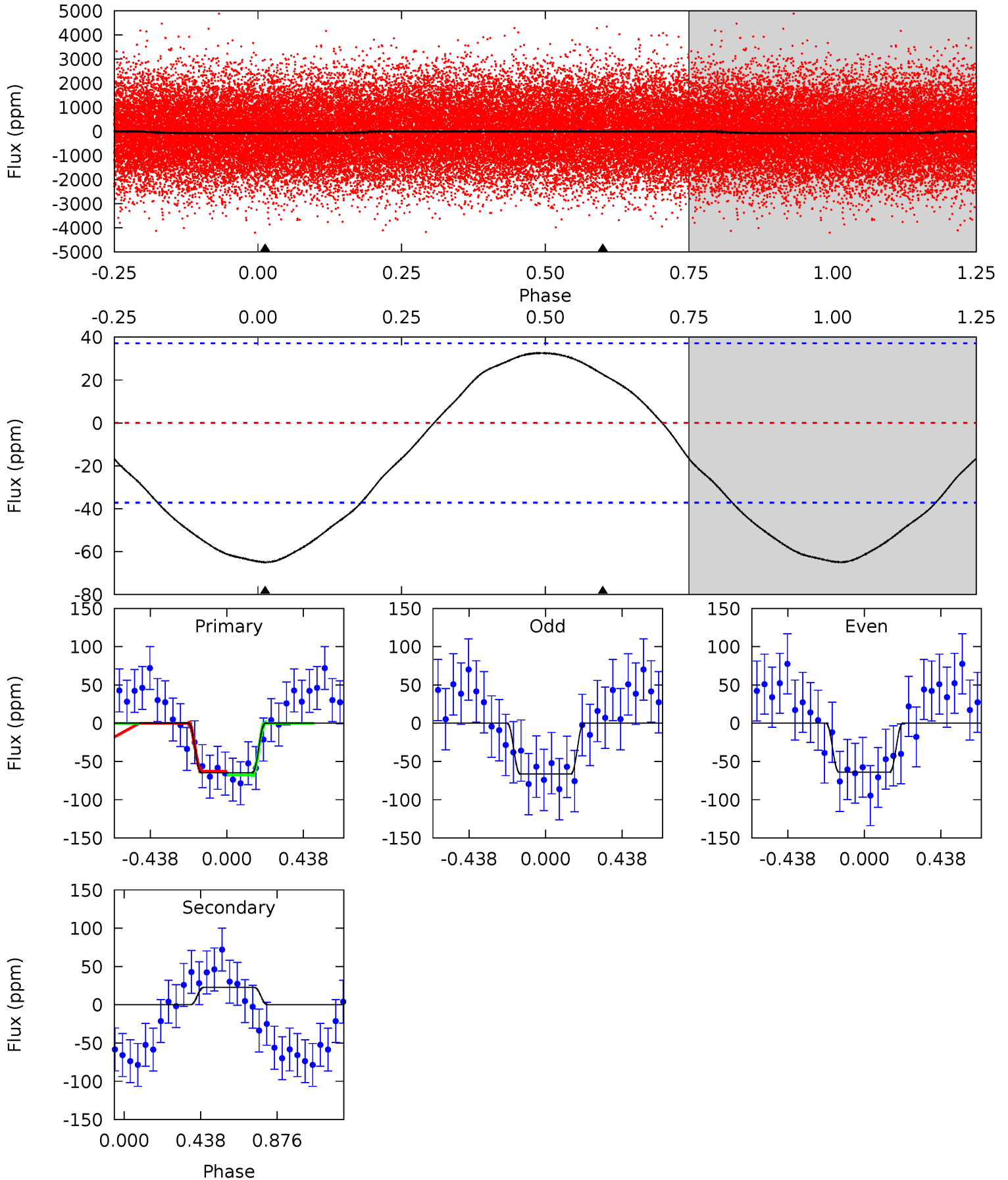
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.1	-5.97	0	0	4.21	0.65	2.57	20.1	20.1	-5.97	-5.97	0.31	0.94	0.34	2.85



Alt Model-Shift Uniqueness Test

008264546-02, P = 0.711575 Days, E = 131.296980 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.42	-2.59	0	0	4.24	0.78	0.98	7.42	7.42	-2.59	-2.59	0.13	0.97	0.33	0.28



Stellar Parameters For KIC 008264546

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7870^{+218}_{-354}	$3.928^{+0.266}_{-0.114}$	$-0.060^{+0.150}_{-0.350}$	$2.475^{+0.450}_{-0.837}$	$1.891^{+0.104}_{-0.416}$	$0.176^{+0.306}_{-0.061}$
	+3%/-4%	+7%/-3%	+250%/-583%	+18%/-34%	+5%/-22%	+174%/-34%
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 008264546-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	15 ± 3	$1.83^{+0.78}_{-0.69}$	5363^{+373}_{-463}	-6045^{+623}_{-1330}	$-0.913^{+0.482}_{-1.398}$
Alt.	23 ± 9	$2.07^{+0.85}_{-0.70}$	5373^{+372}_{-494}	-6103^{+687}_{-1245}	$-0.992^{+0.571}_{-1.274}$

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

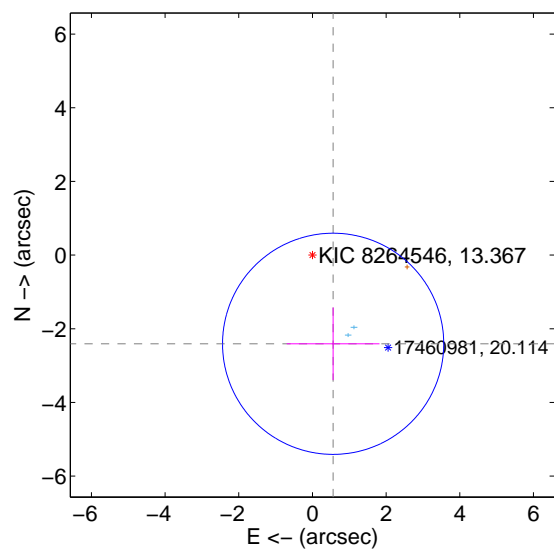
Supplemental centroid analysis for 008264546-02. Kepler magnitude: 13.37. Transit SNR 18.88

There are 2 quarters with good PRF difference image offsets

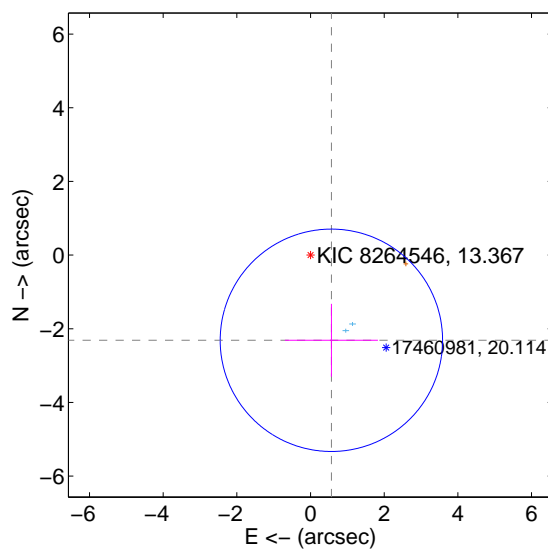
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.473 ± 1.001	2.47	-0.562 ± 1.260	-2.409 ± 0.985
PRF-fit source offset from KIC position	2.382 ± 1.007	2.37	-0.567 ± 1.262	-2.313 ± 0.989
photometric centroid source offset	1.21 ± 0.38	3.15	0.80 ± 0.40	-0.91 ± 0.37

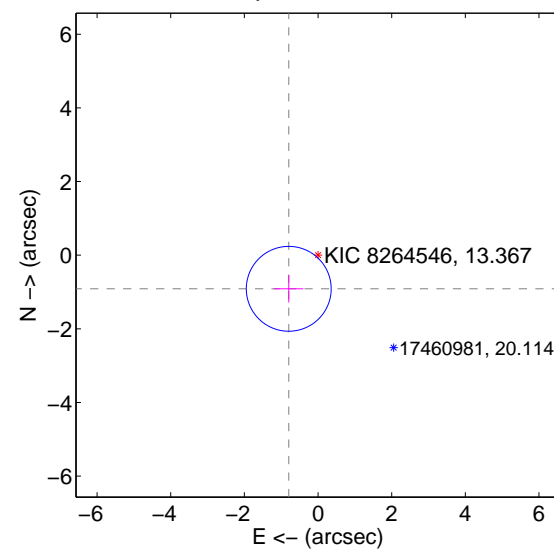
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

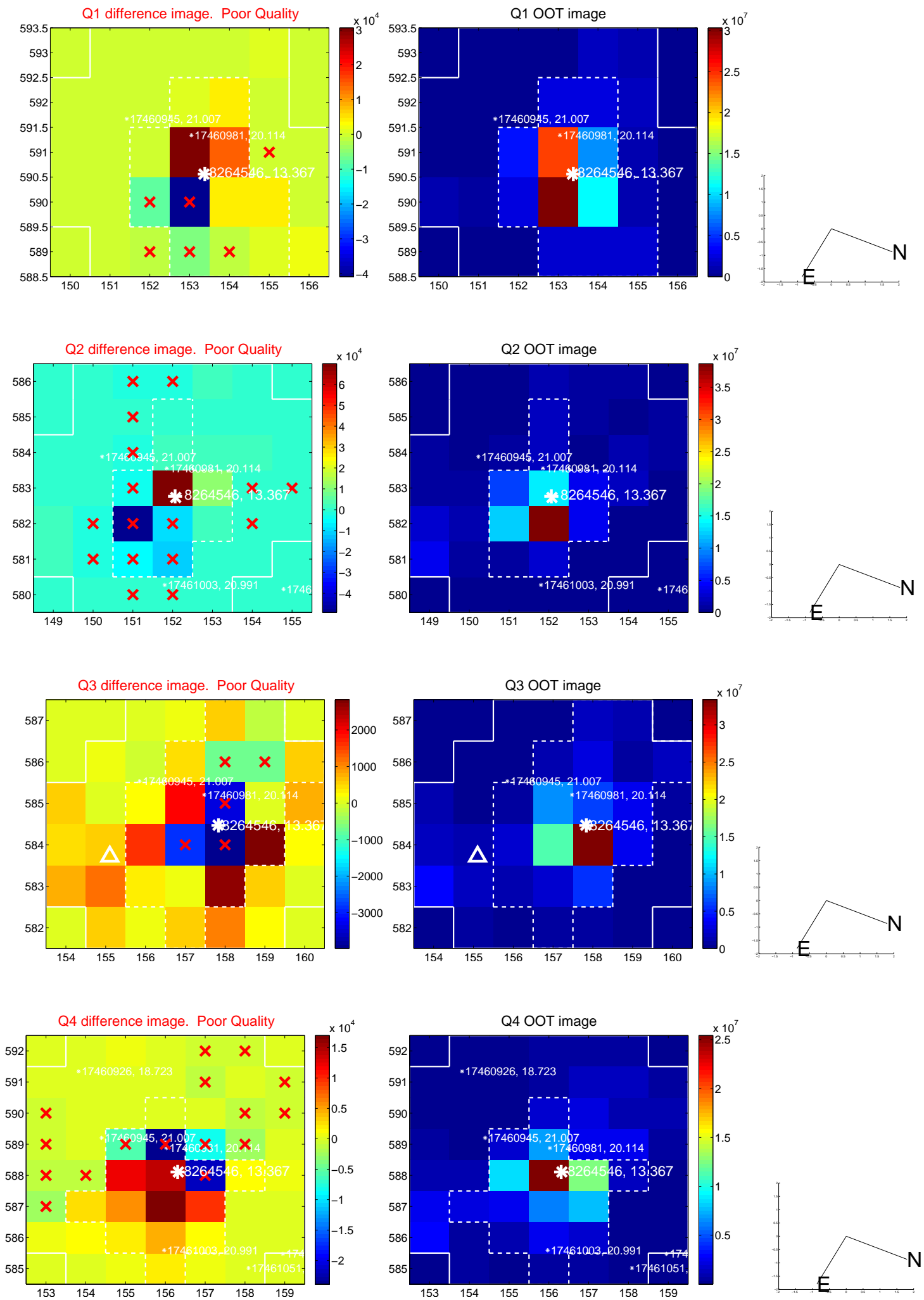


offset from photometric centroids

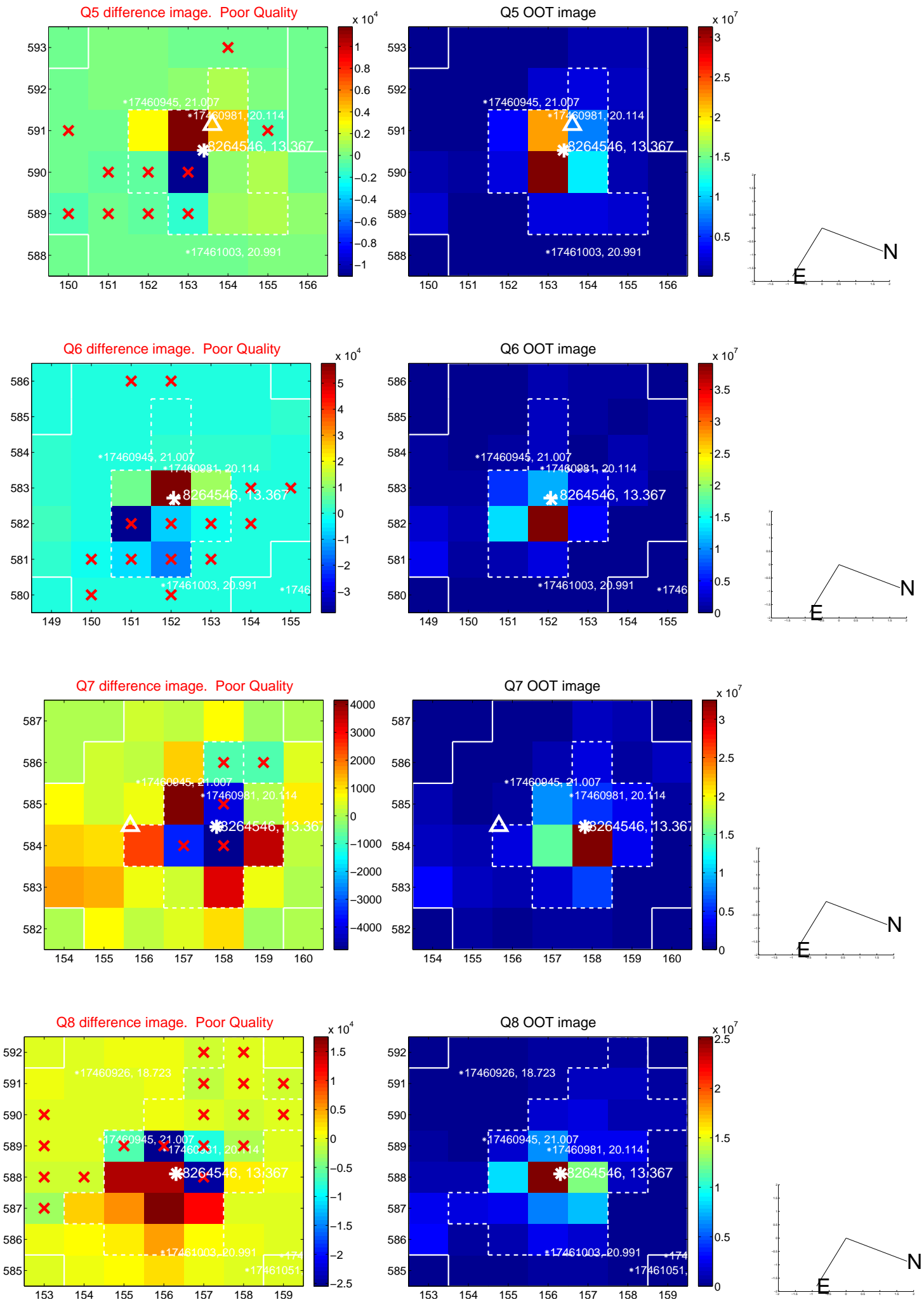


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

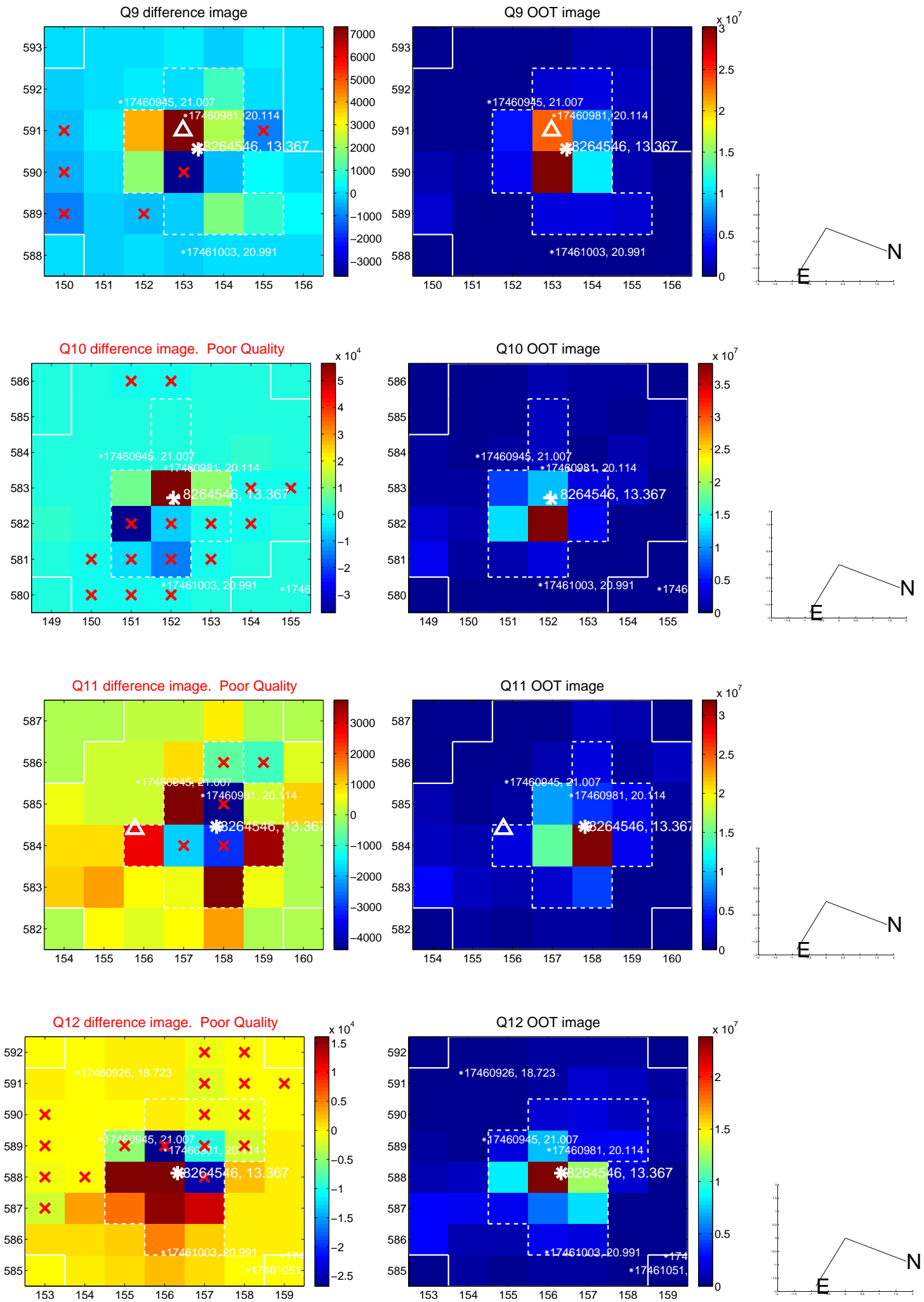
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



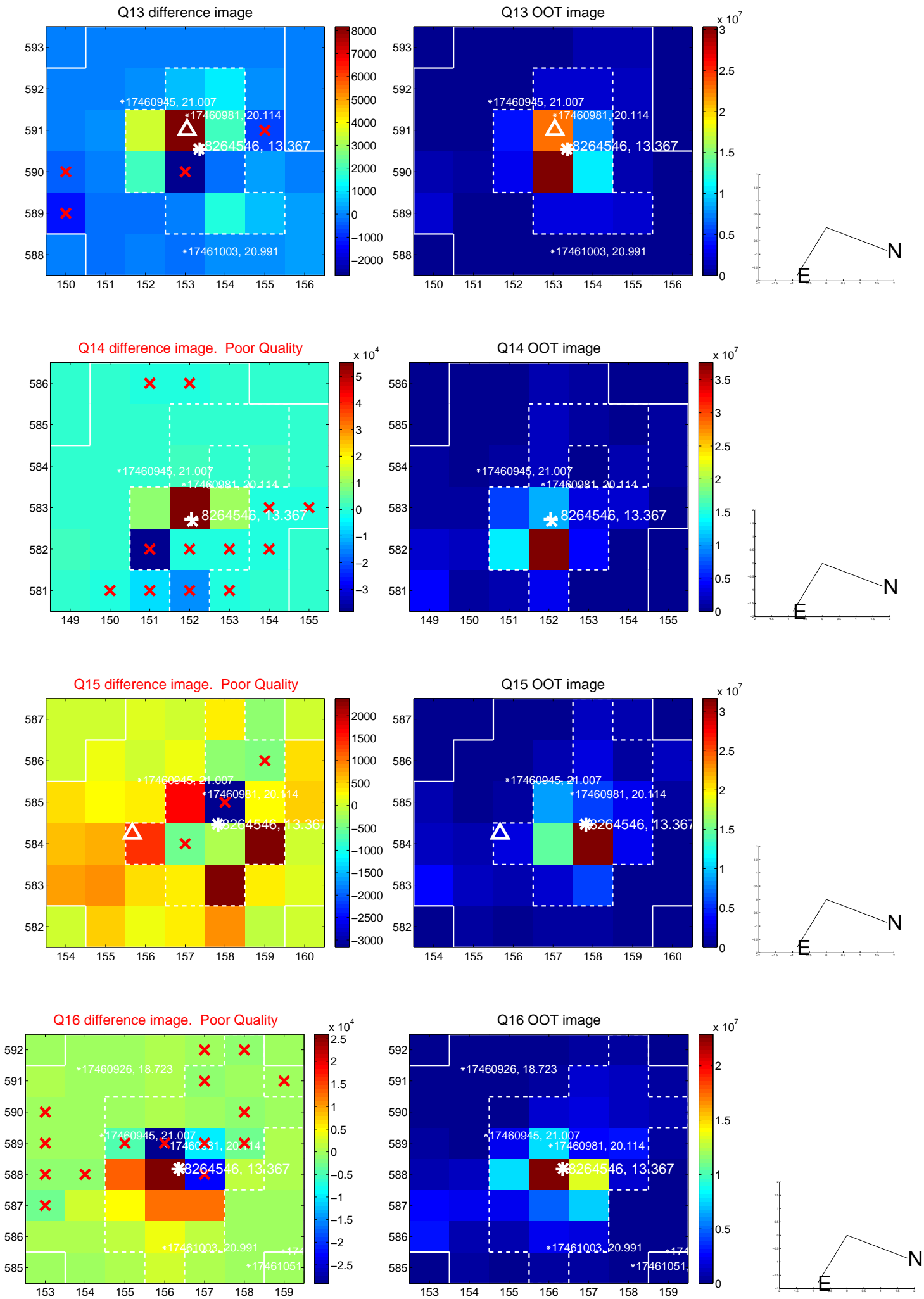
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



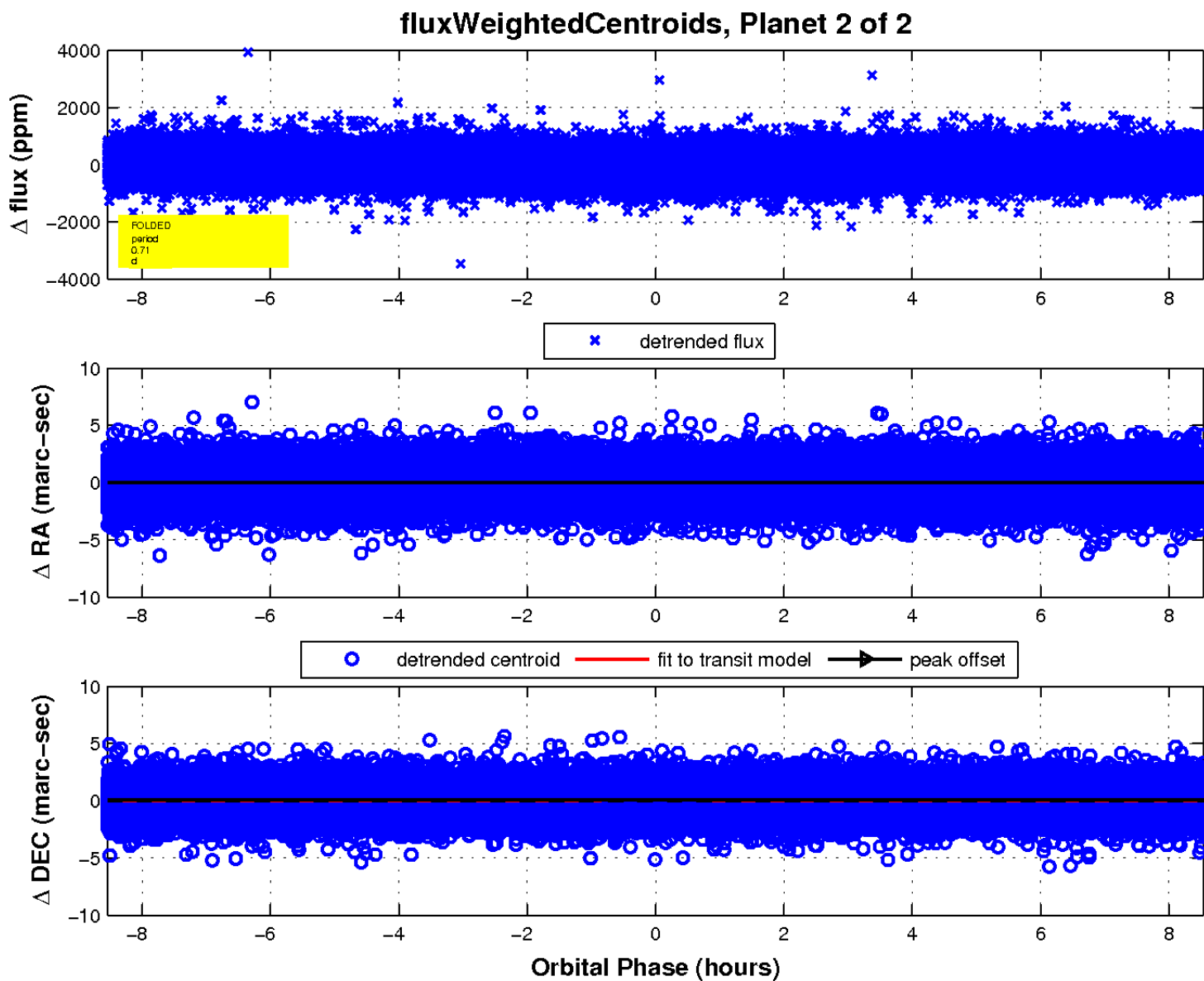
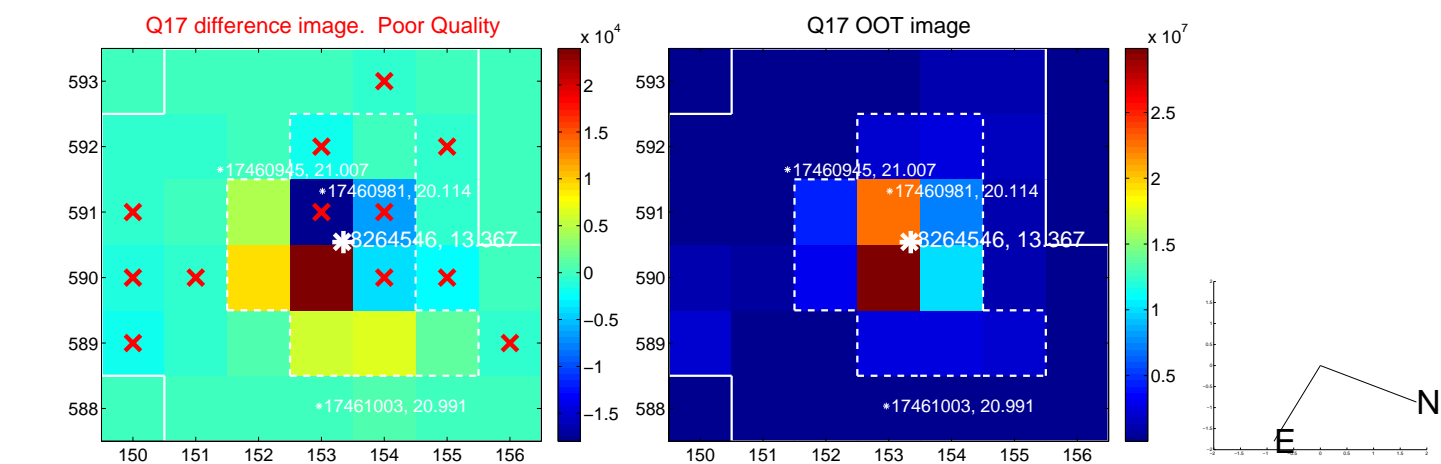
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

