

KIC 005309796

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})
005309796-01	OBS	No	1.808446	132.843425	3.3	17.511	8.1	1.9	3.23	6603	0.59	15882.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005309796-01	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_RESOLVED_OFFSET

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

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

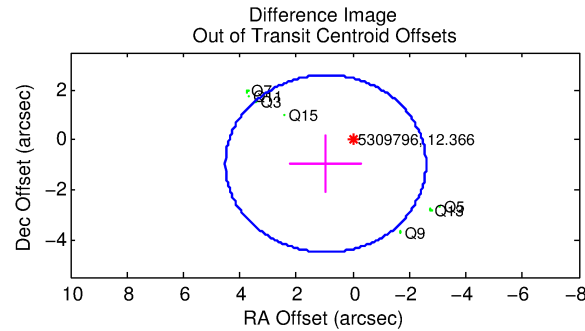
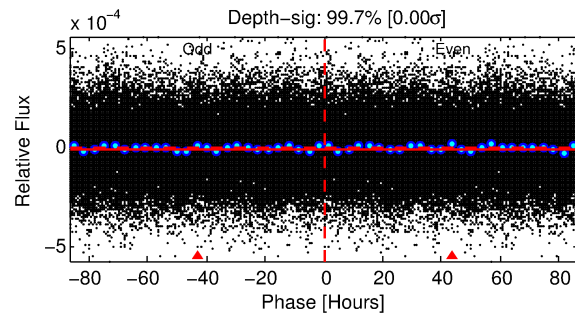
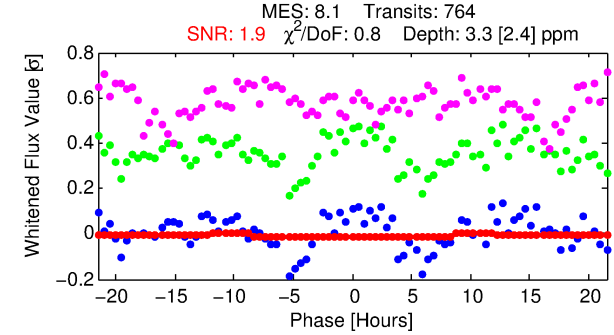
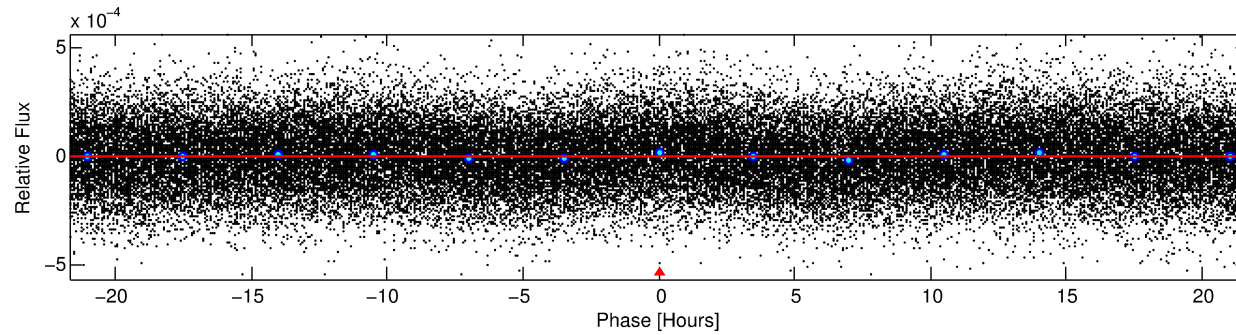
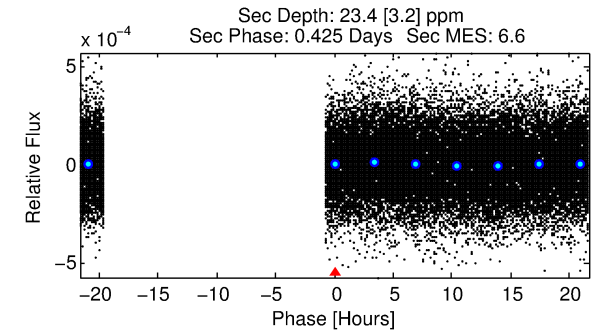
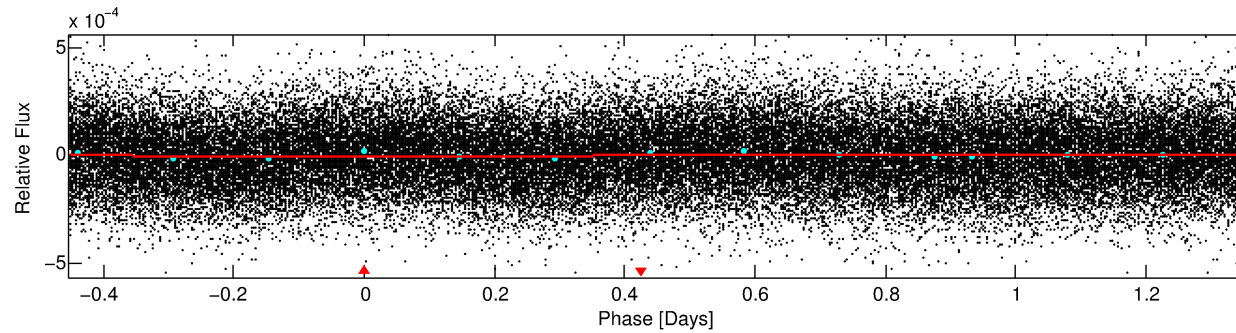
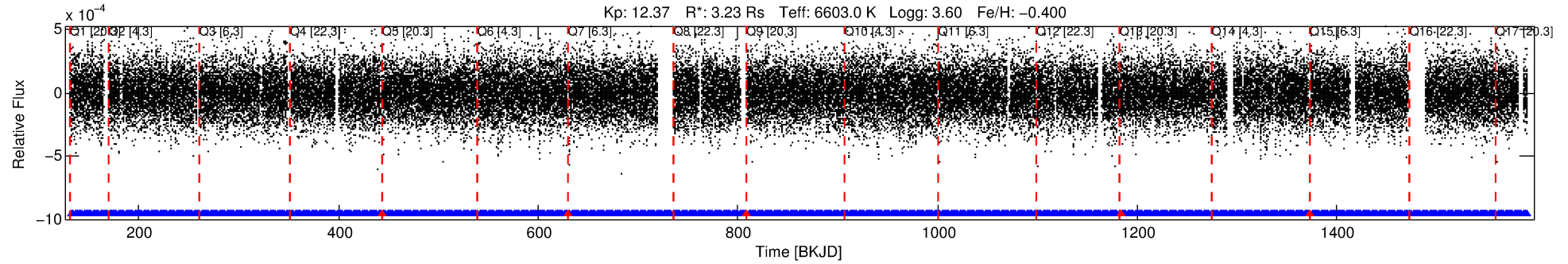
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005309796-01

No Significant Match Found

DV One-Page Summary

KIC: 5309796 Candidate: 1 of 1 Period: 1.808 d



DV Fit Results:

Period = 1.80845 [0.00018] d
Epoch = 132.8434 [0.0407] BKJD
Rp/R* = 0.0017 [0.0059]
a/R* = 1.05 [1.87]
b = 0.08 [232.14]
Seff = 15882.56 [10033.25]
Teq = 2863 [452] K
Rp = 0.59 [2.11] Re
a = 0.0334 [0.0132] AU
Ag = 41.46 [295.36] [0.14σ]
Teffp = 11231 [19928] K [0.42σ]

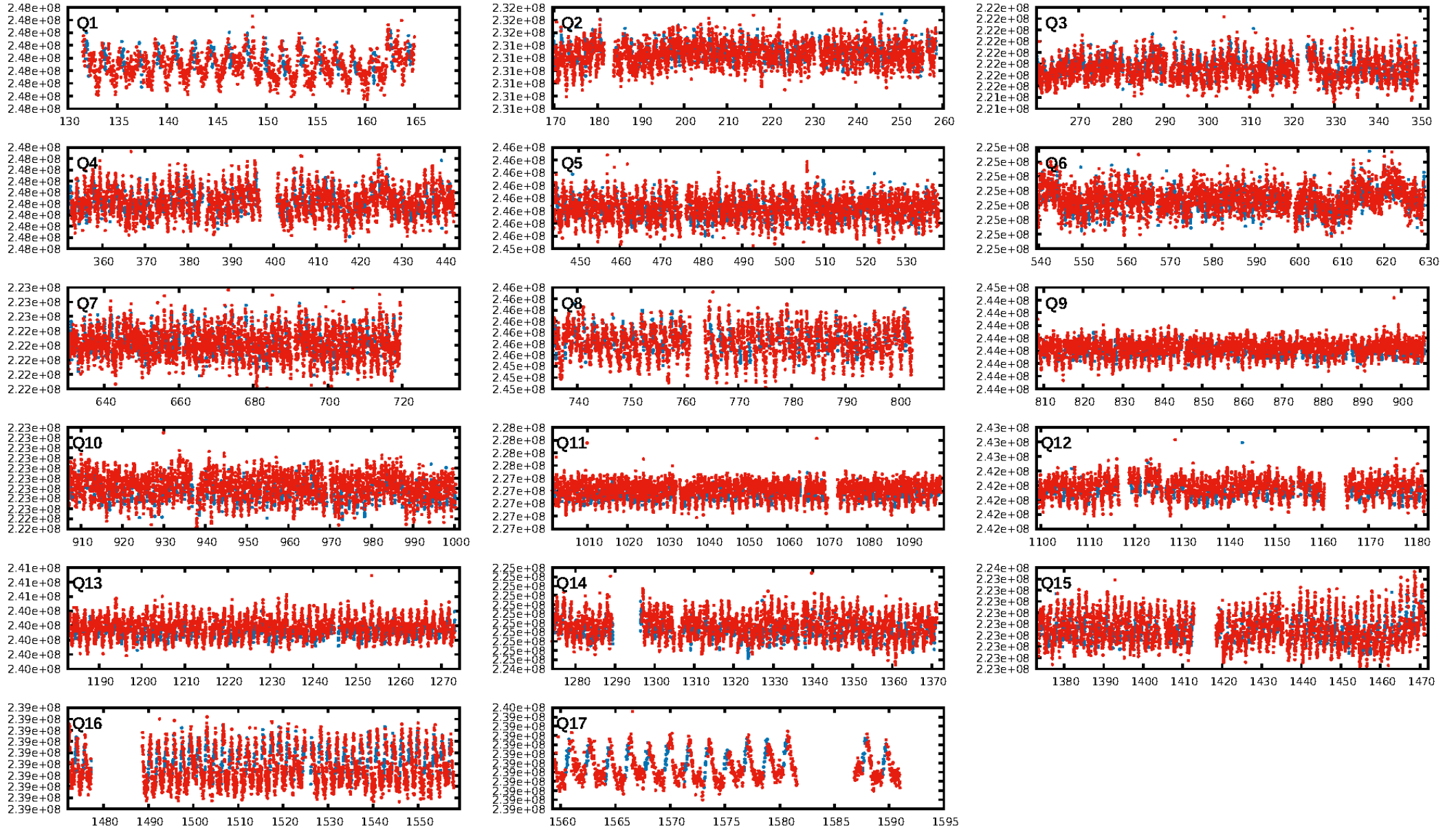
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [725/730]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.363 arcsec [1.15σ]
KicOffset-rm: 1.329 arcsec [1.15σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 1.00 [17/17]

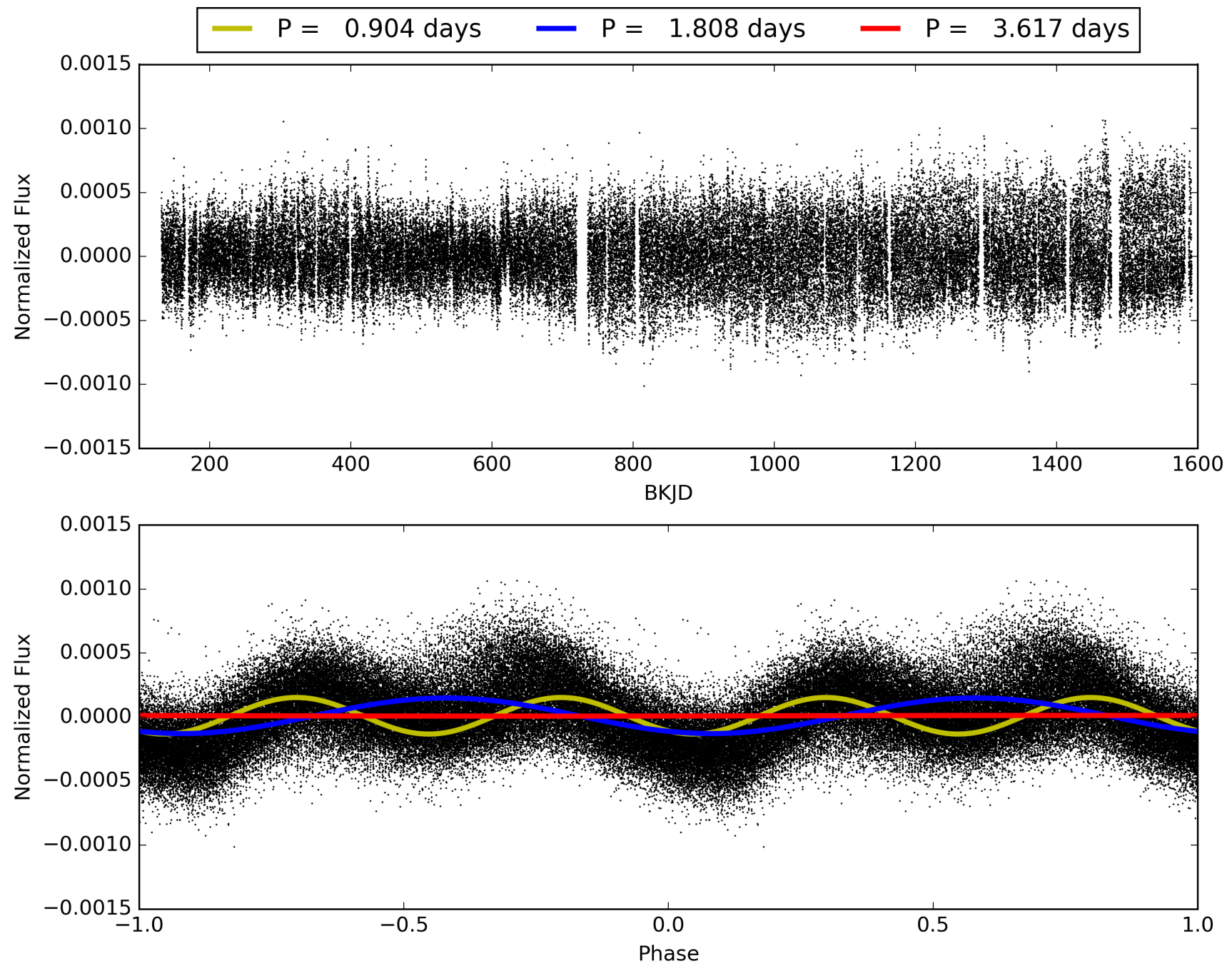
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:12:54 Z

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

TCE 005309796-01, PDC Light Curves

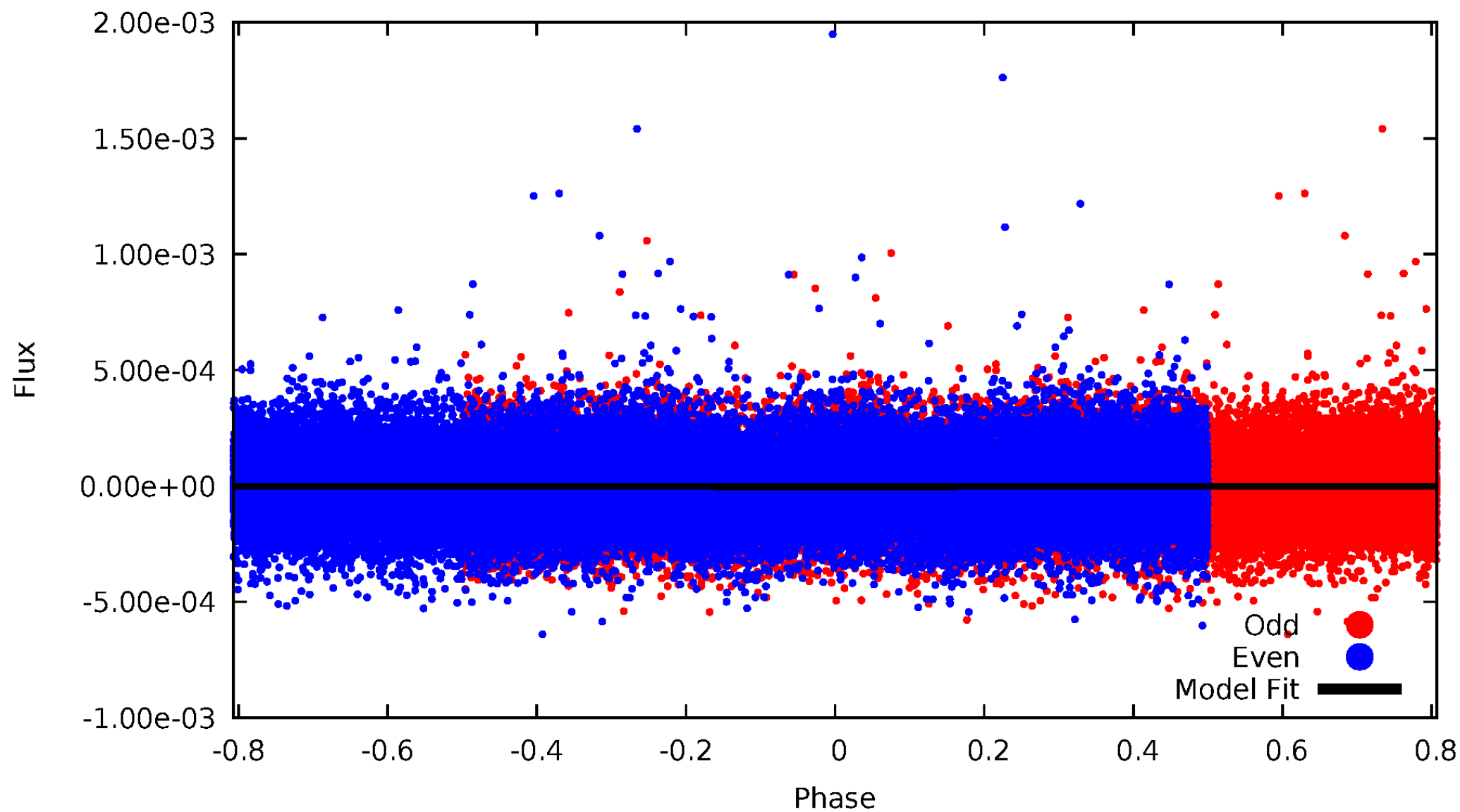


TCE 005309796-01



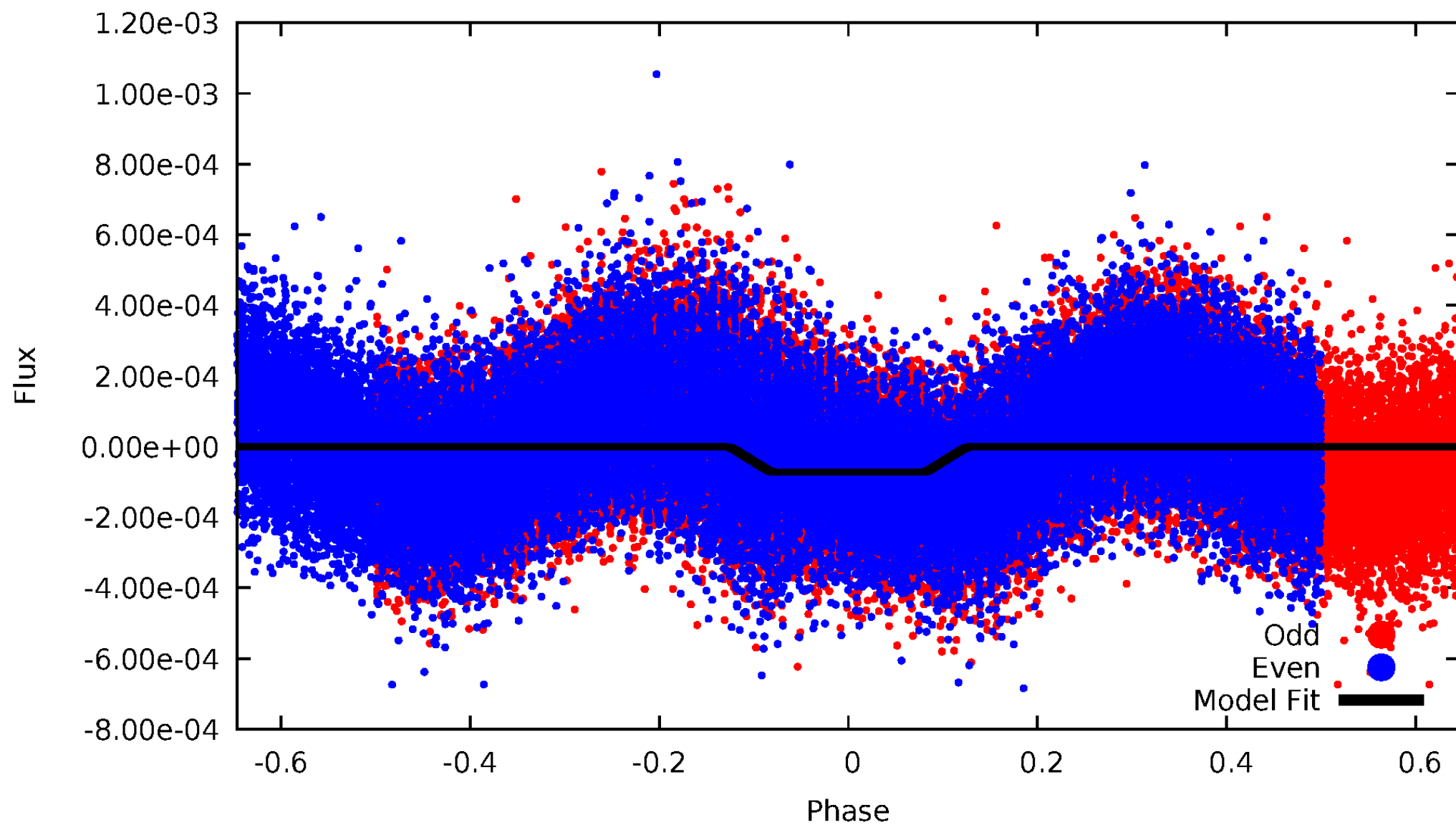
DV Odd/Even

TCE 005309796-01



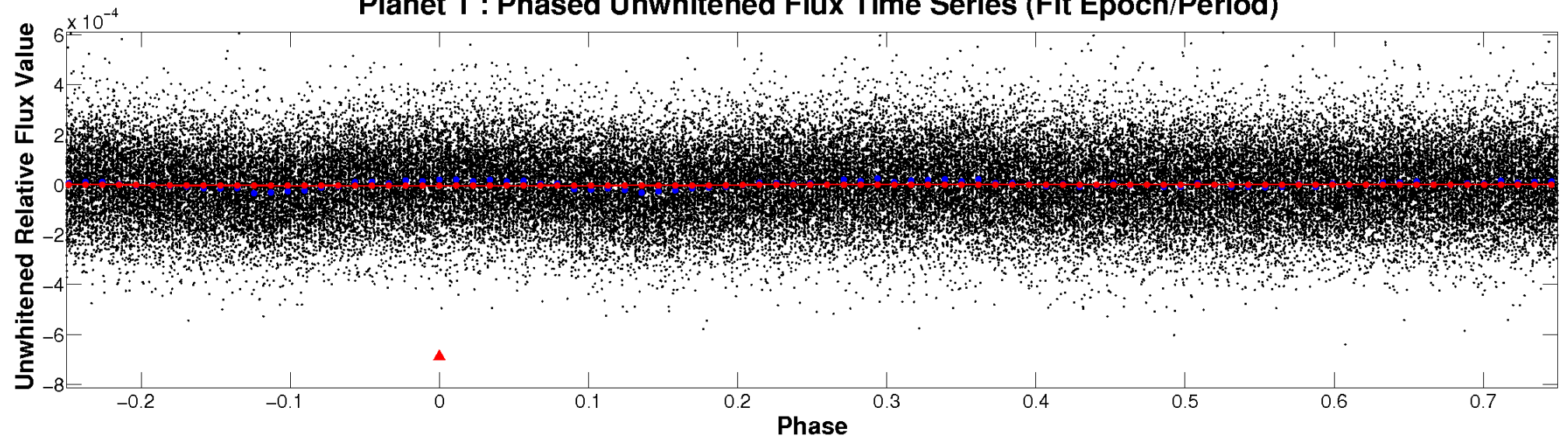
ALT Odd/Even

TCE 005309796-01

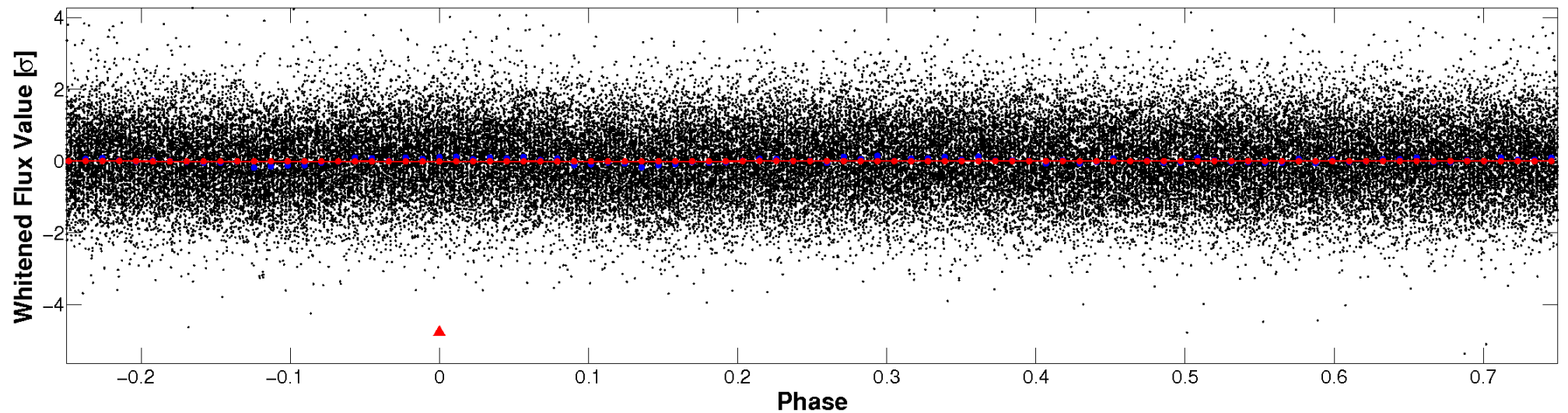


Non-Whitened Vs. Whitened Light Curve

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

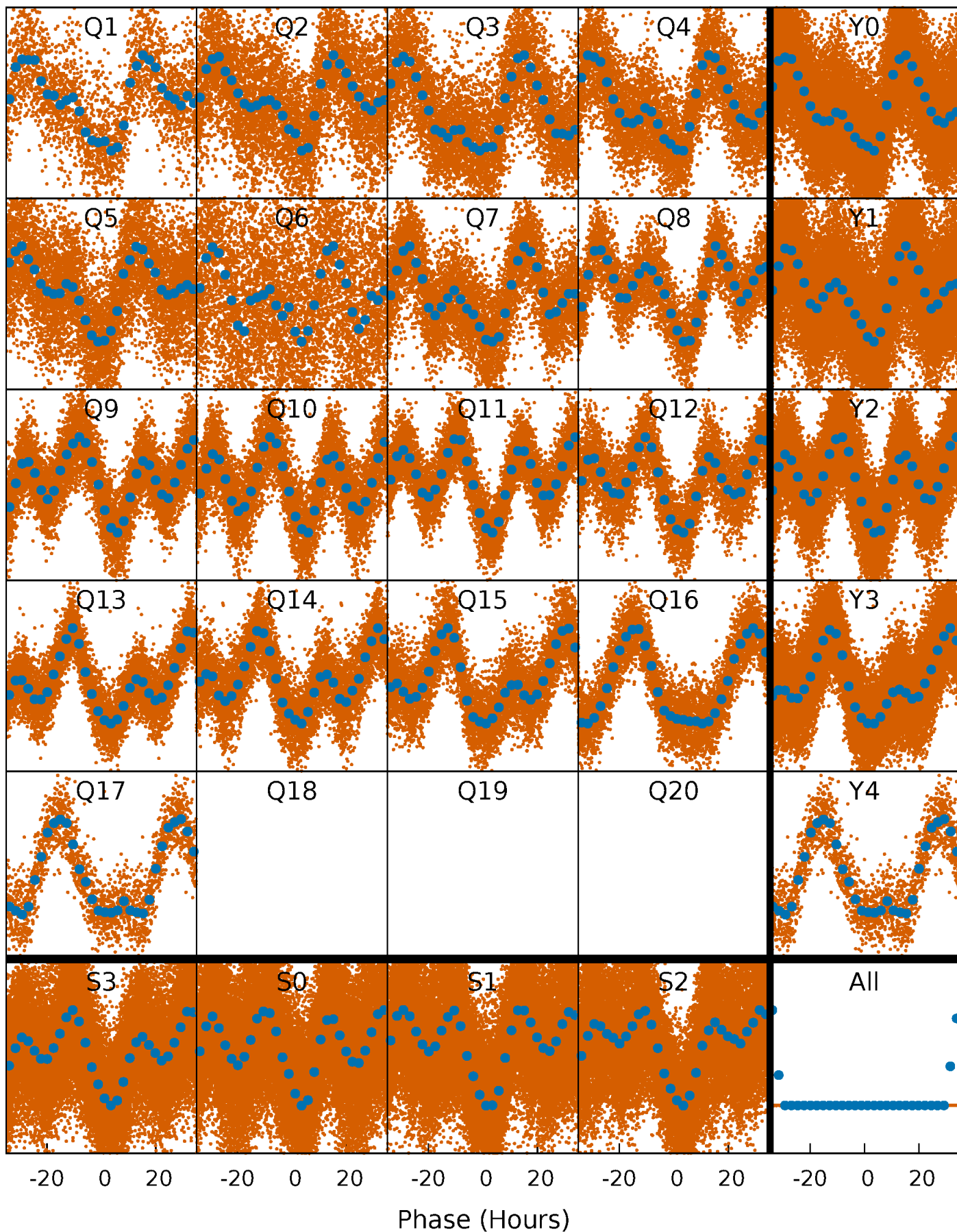


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



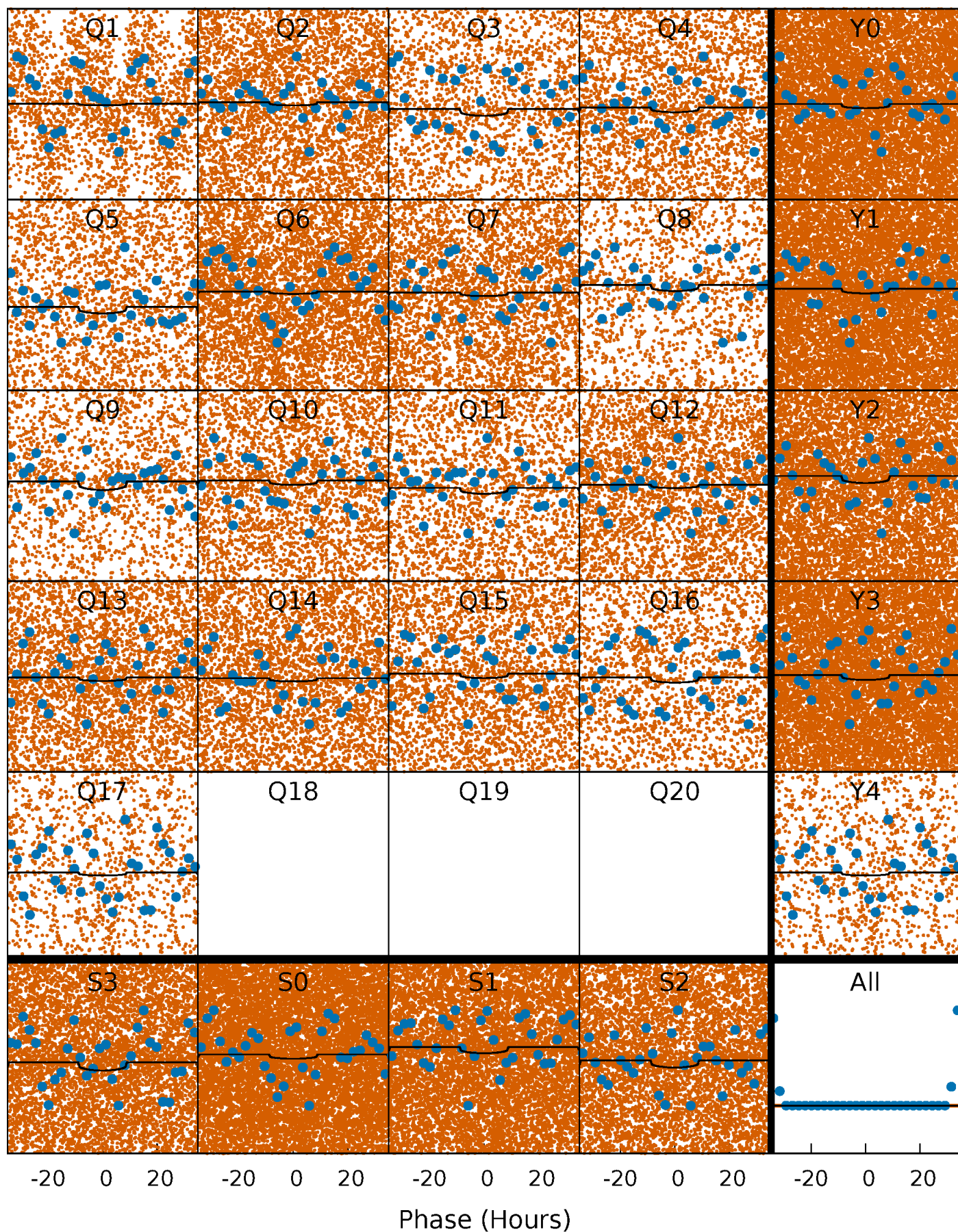
PDC Quarter-Phased Transit Curves

TCE 005309796-01 P= 1.808446 Days $T_0=132.843425$ (BKJD)



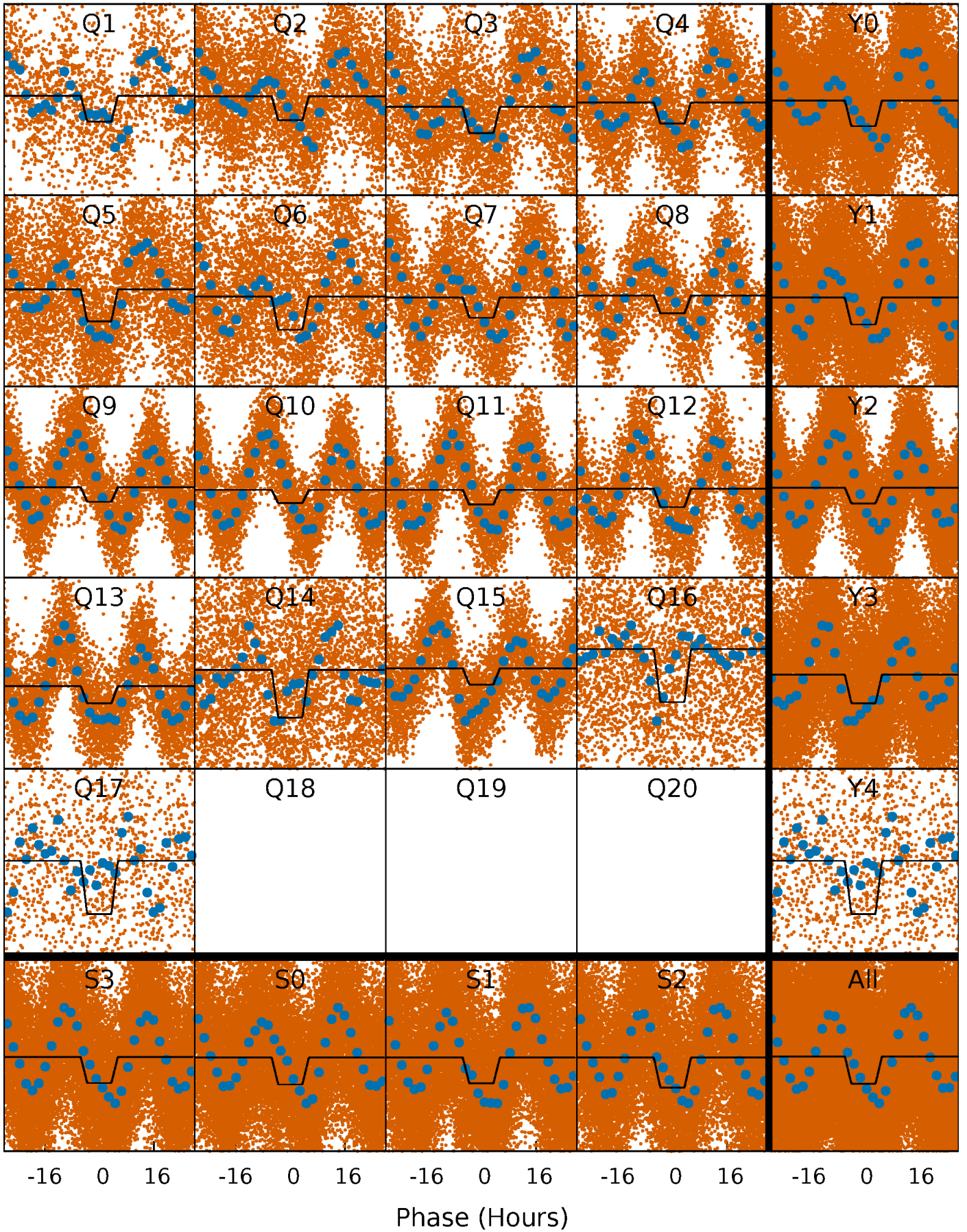
DV Quarter-Phased Transit Curves

TCE 005309796-01 P= 1.808446 Days $T_0=132.843425$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

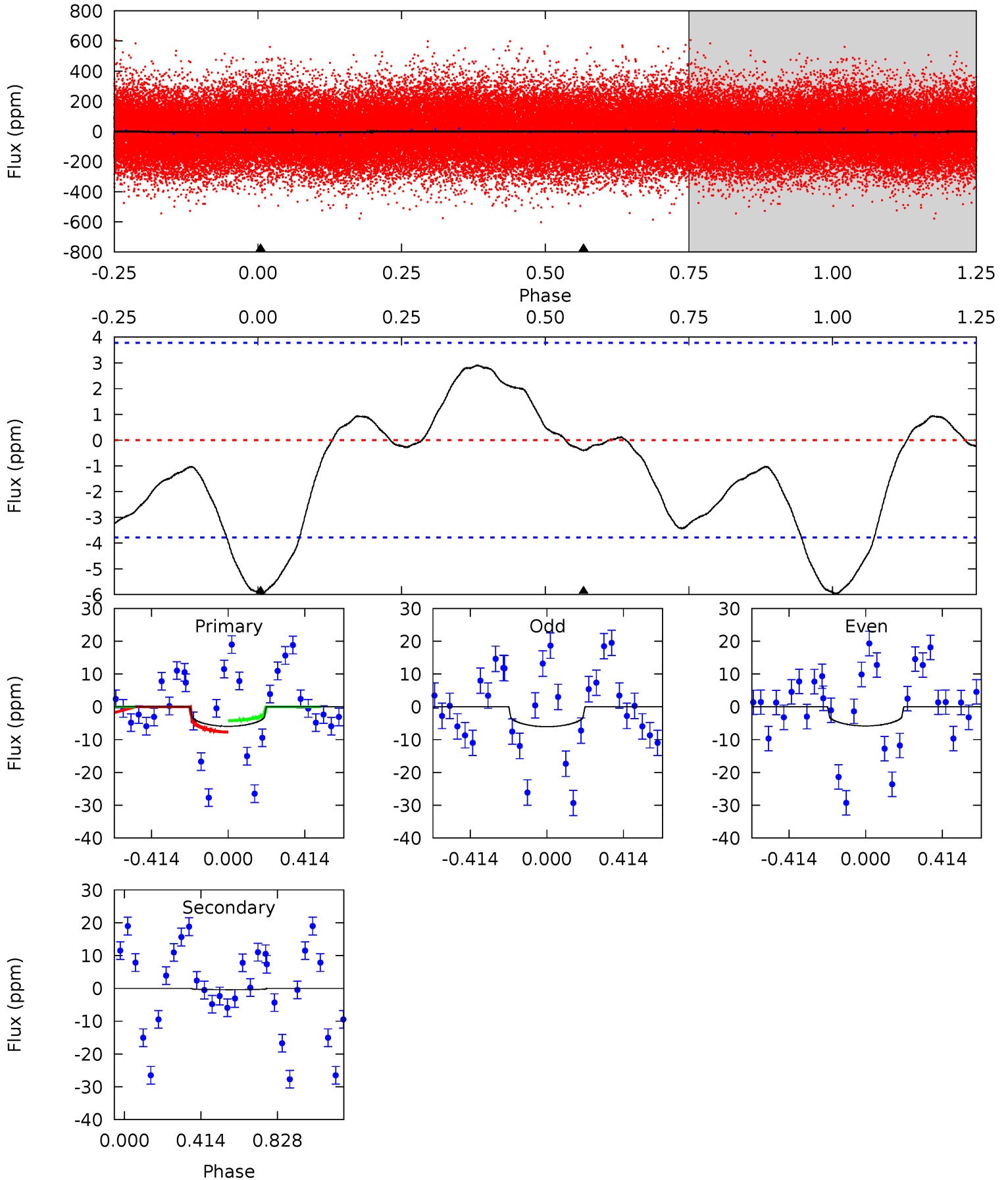
TCE 005309796-01 P= 1.808471 Days $T_0=132.823325$ (BKJD)



DV Model-Shift Uniqueness Test

005309796-01, P = 1.808446 Days, E = 131.034979 Days

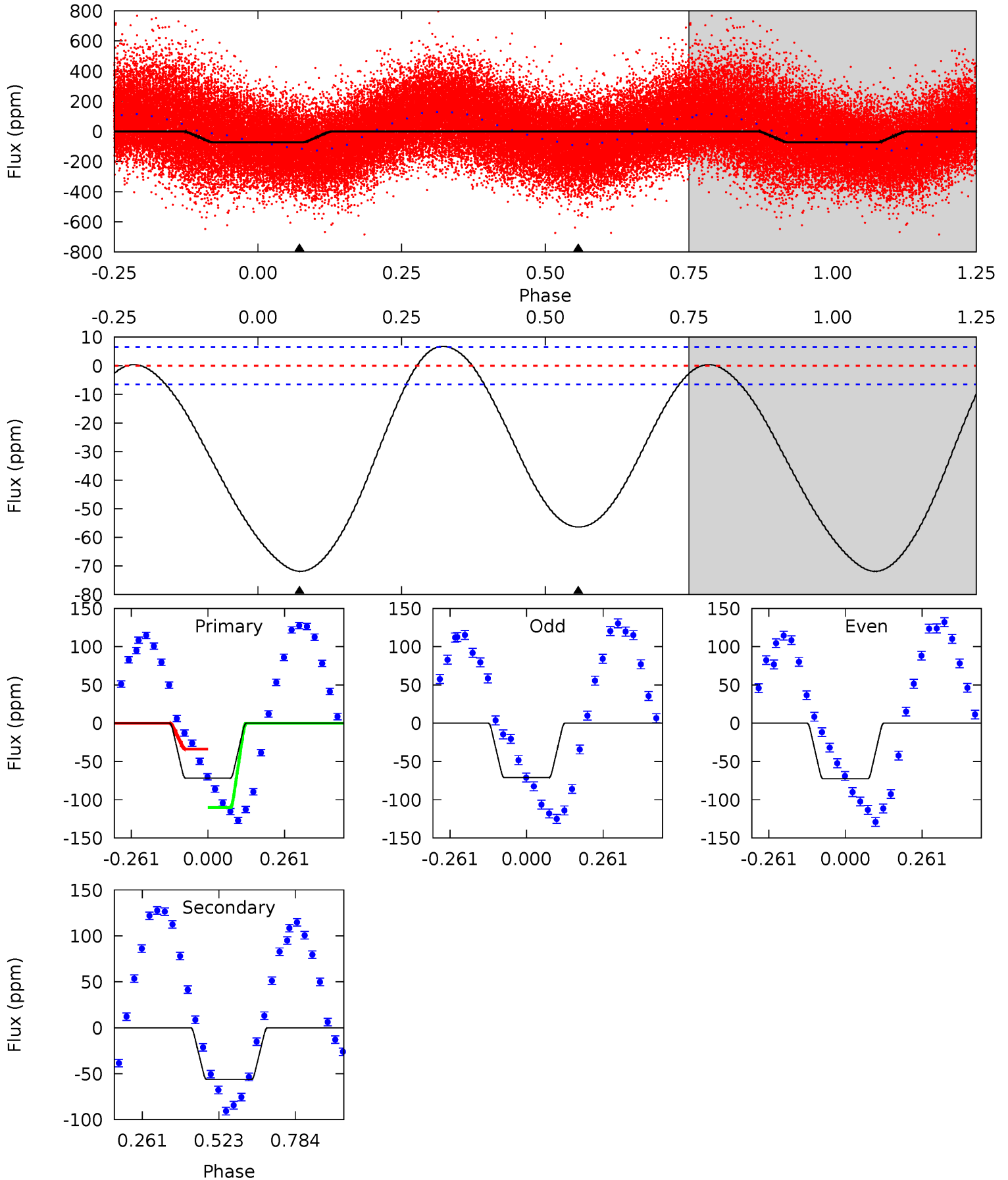
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.71	0.45	0	0	4.26	0.82	0.83	6.71	6.71	0.45	0.45	0.13	0.86	0.33	1.96



Alt Model-Shift Uniqueness Test

005309796-01, P = 1.808471 Days, E = 131.014854 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.1	37.7	0	0	4.36	1.12	3.21	48.1	48.1	37.7	37.7	0.53	1.16	0.09	29.4



Stellar Parameters For KIC 005309796

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6603^{+179}_{-199}	$3.603^{+0.360}_{-0.090}$	$-0.400^{+0.350}_{-0.250}$	$3.230^{+0.426}_{-1.363}$	$1.526^{+0.235}_{-0.353}$	$0.064^{+0.178}_{-0.018}$
	+3%/-3%	+10%/-2%	+87%/-62%	+13%/-42%	+15%/-23%	+280%/-29%
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 005309796-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-0 ± 1	$1.59^{+1.49}_{-1.14}$	3932^{+205}_{-391}	-3440^{+7371}_{-467}	$0.065^{+0.791}_{-0.213}$
Alt.	-56 ± 1	$3.12^{+1.90}_{-1.91}$	3927^{+222}_{-387}	5755^{+3959}_{-1141}	$3.608^{+19.402}_{-2.195}$

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 $A_{obs} \gg 1.0$

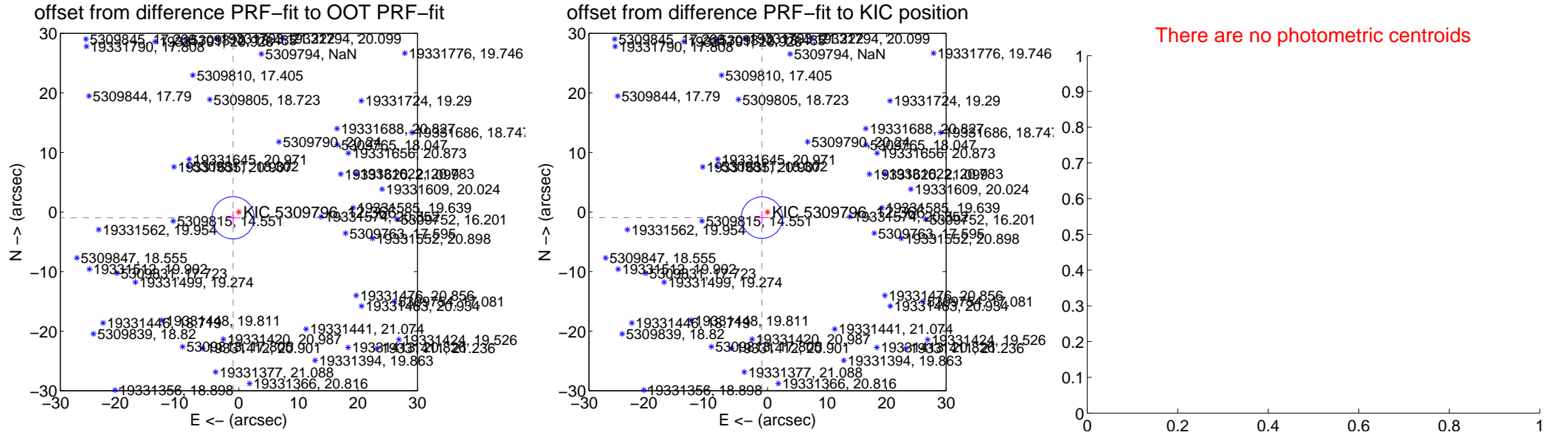
DV Centroid Data

Supplemental centroid analysis for 005309796-01. Kepler magnitude: 12.37. Transit SNR 1.87

There are 4 quarters with good PRF difference image offsets

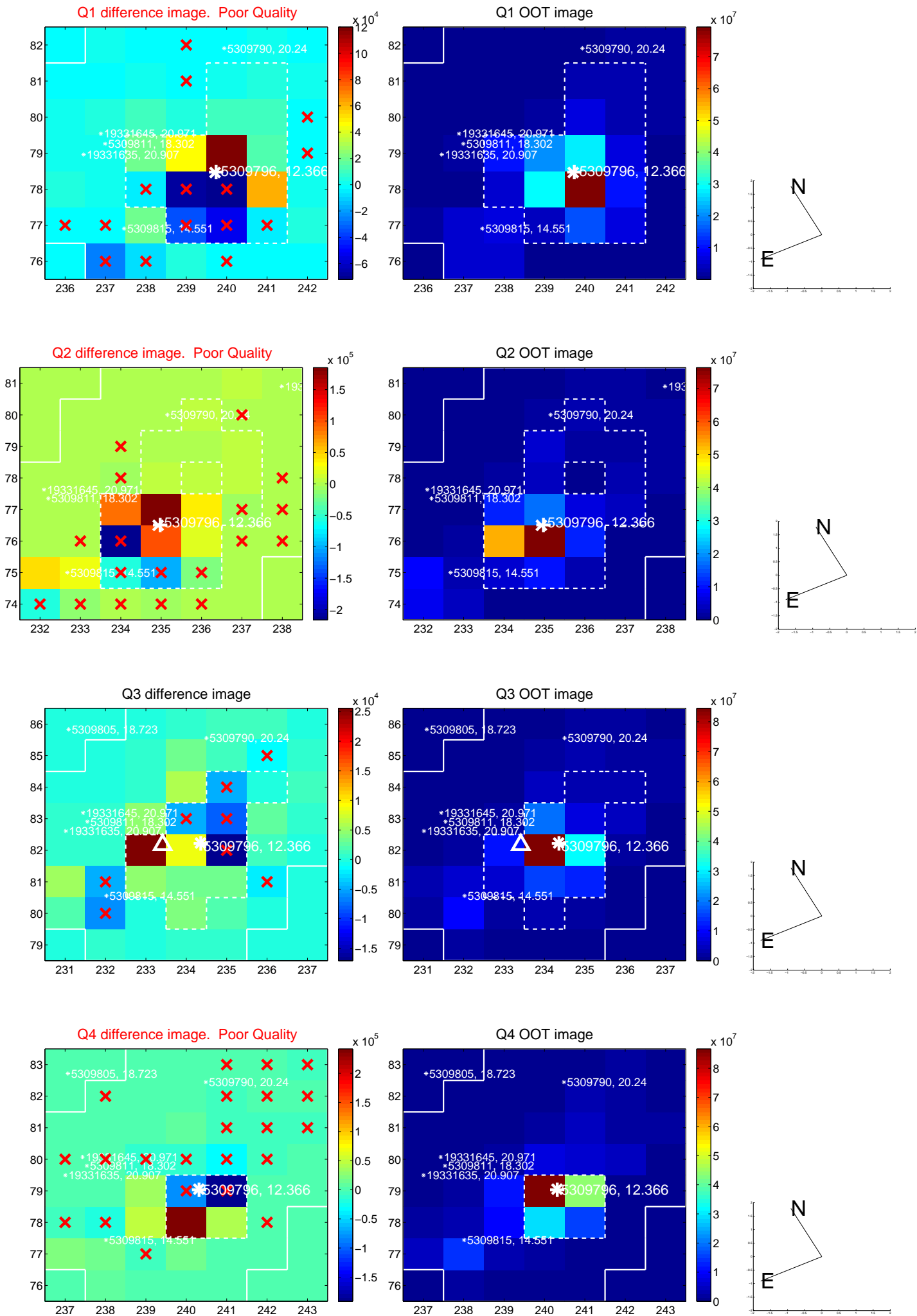
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.363 ± 1.183	1.15	0.963 ± 1.242	-0.965 ± 1.121
PRF-fit source offset from KIC position	1.329 ± 1.159	1.15	0.944 ± 1.232	-0.935 ± 1.079
photometric centroid source offset	—	—	—	—

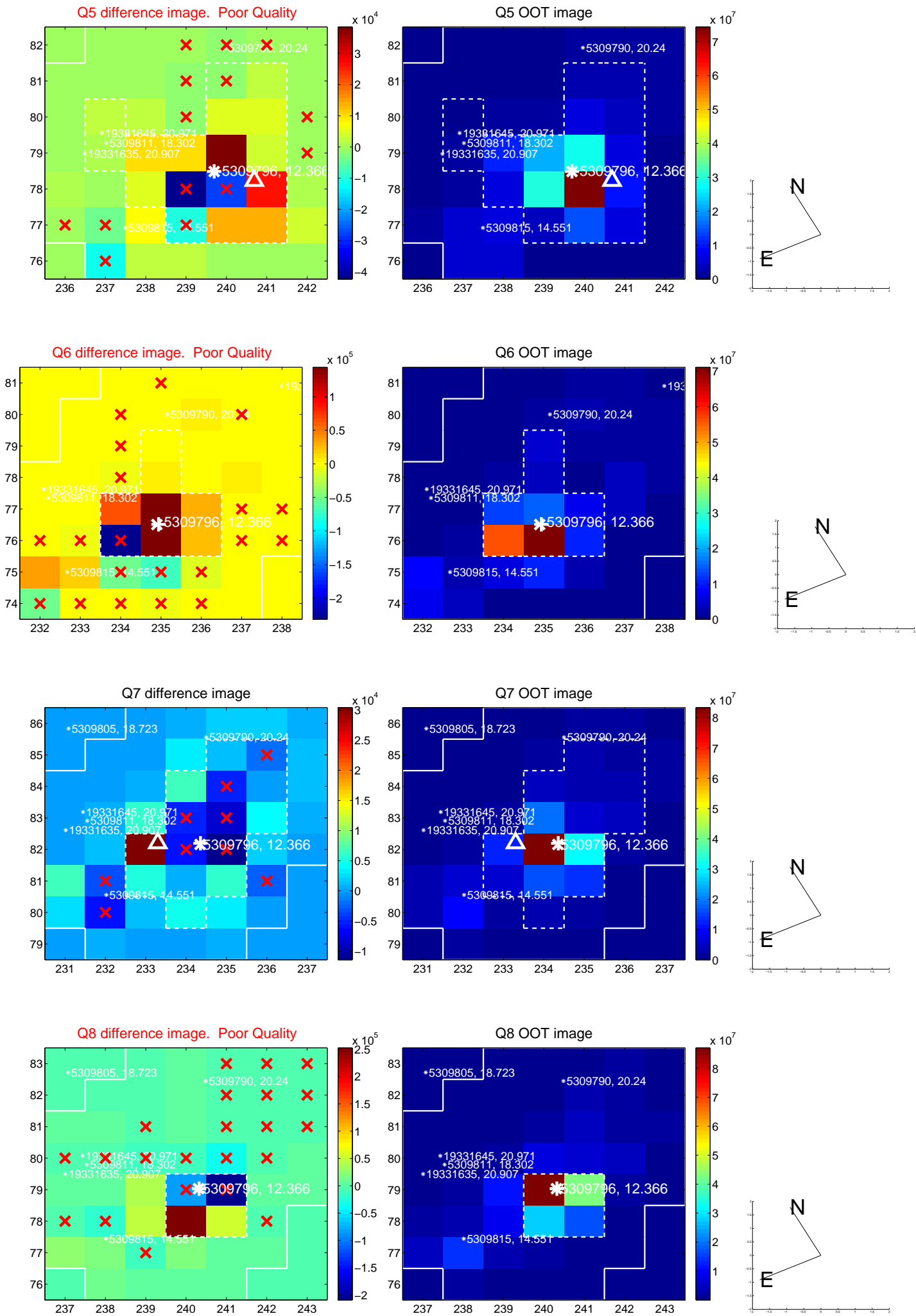


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

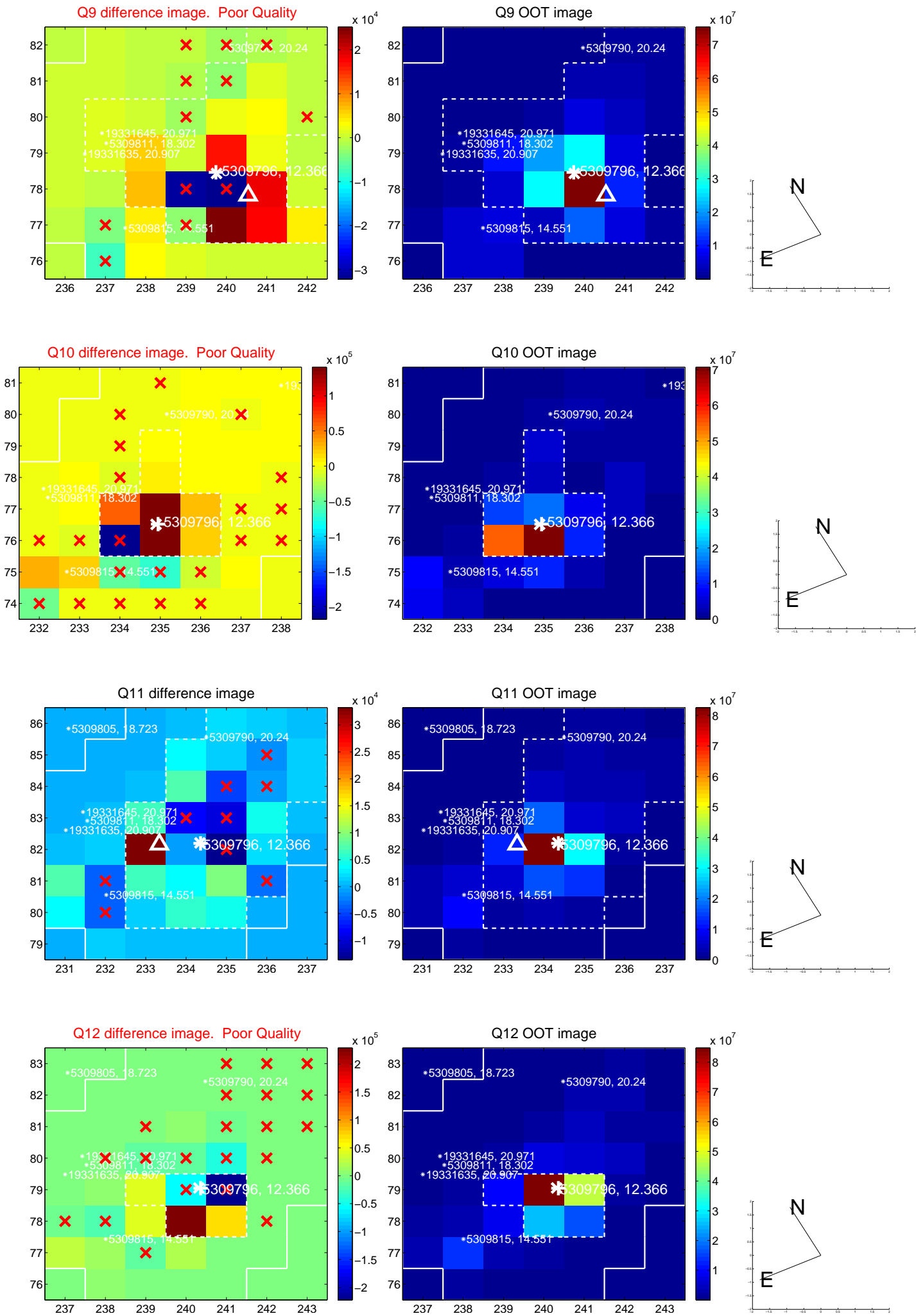
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



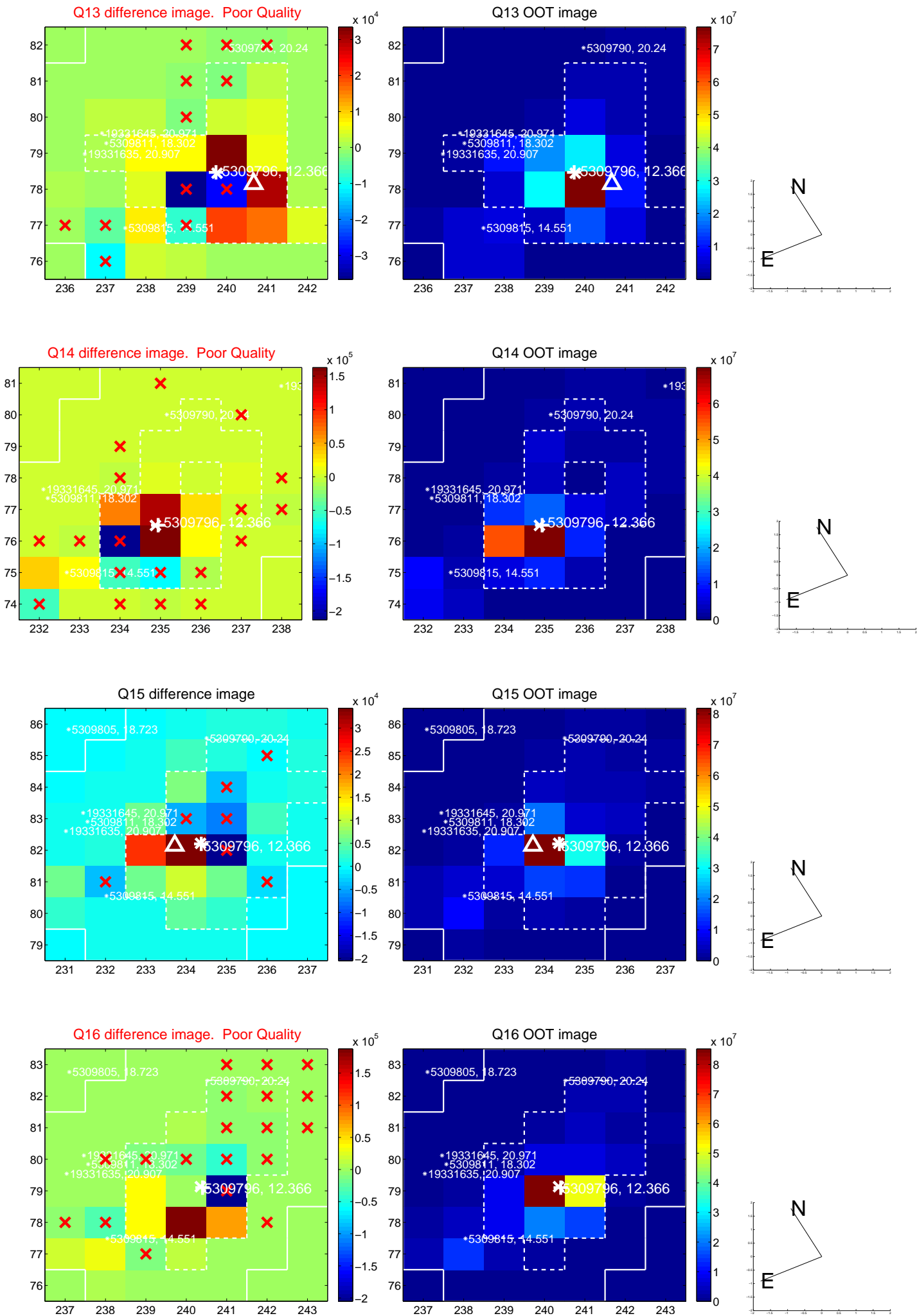
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



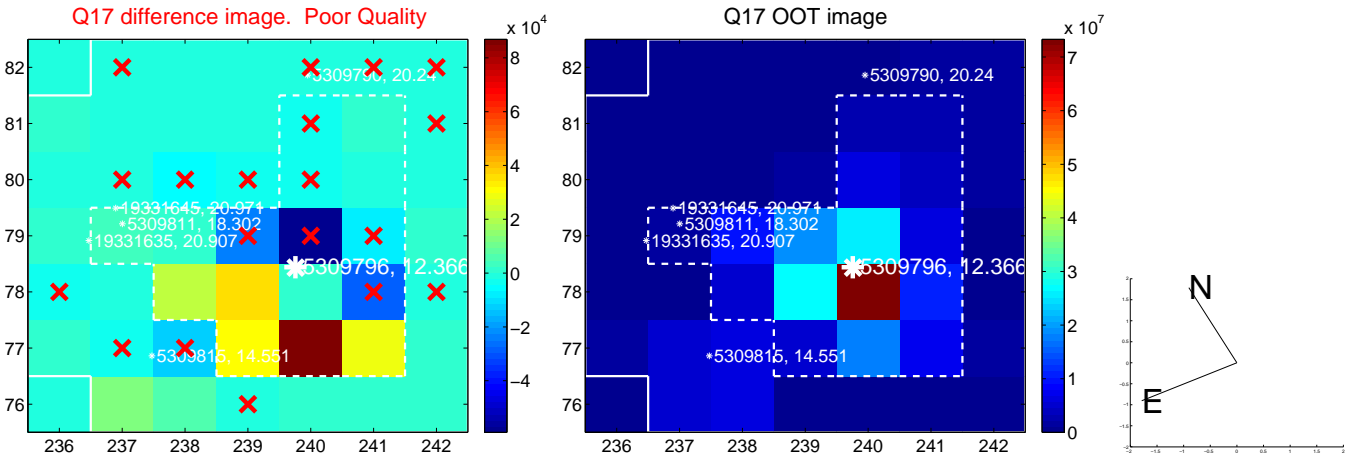
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

