

KIC 008330790

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})
008330790-01	OBS	No	0.871196	131.565838	75.8	7.600	10.3	15.1	1.91	8158	1.80	31475.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008330790-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

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

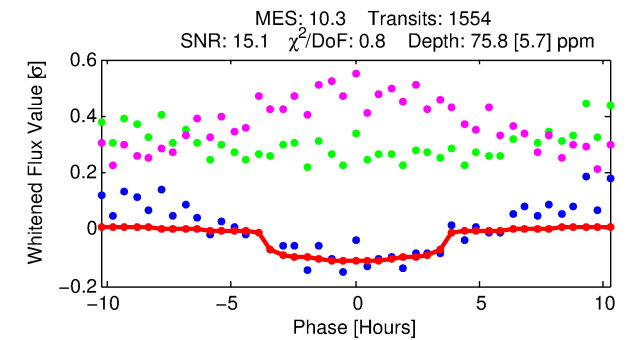
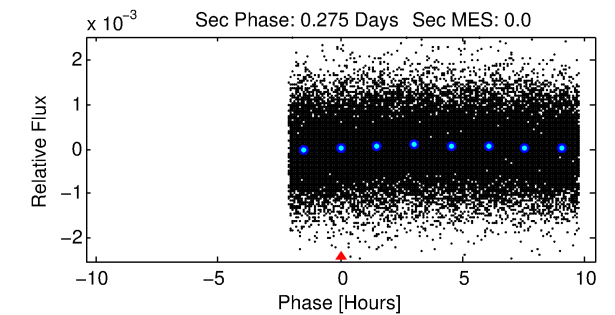
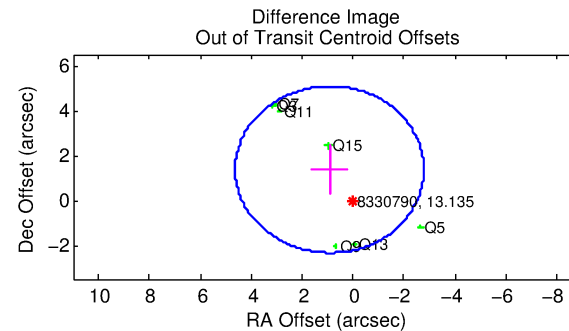
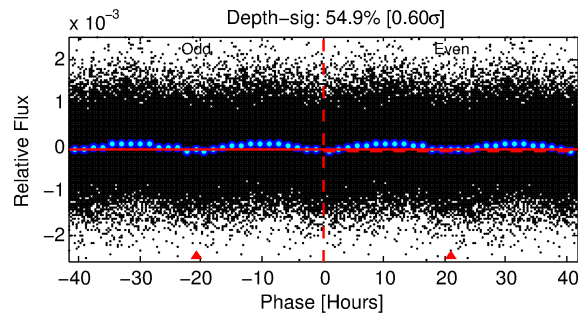
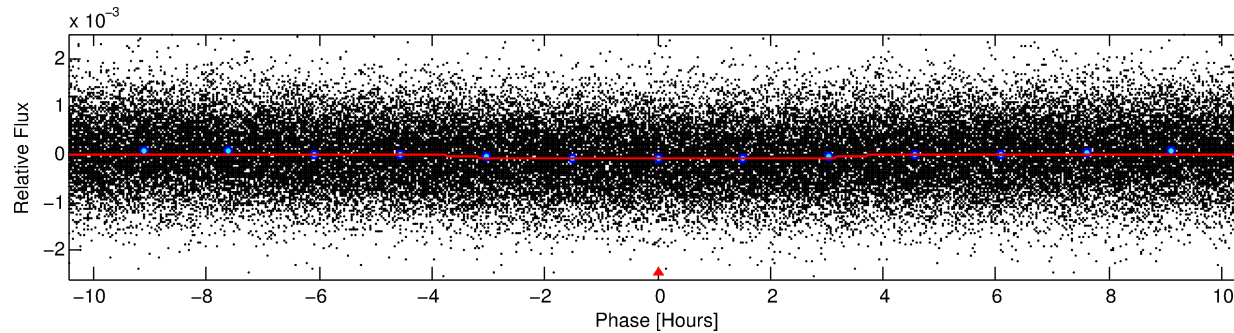
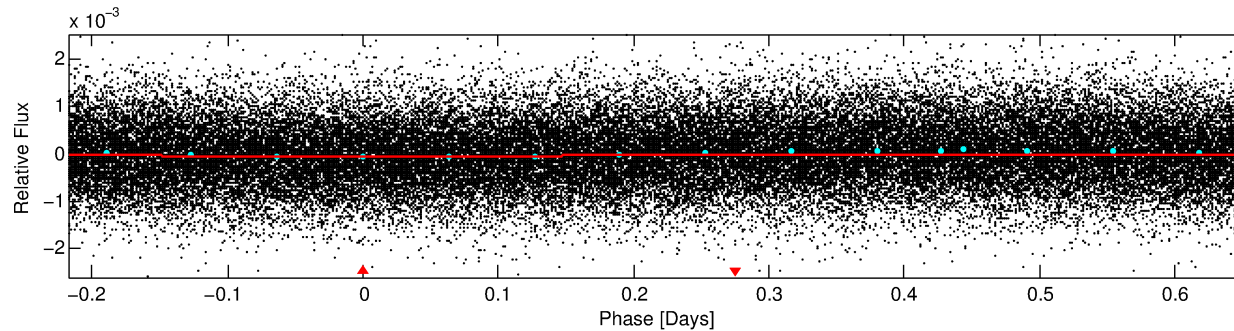
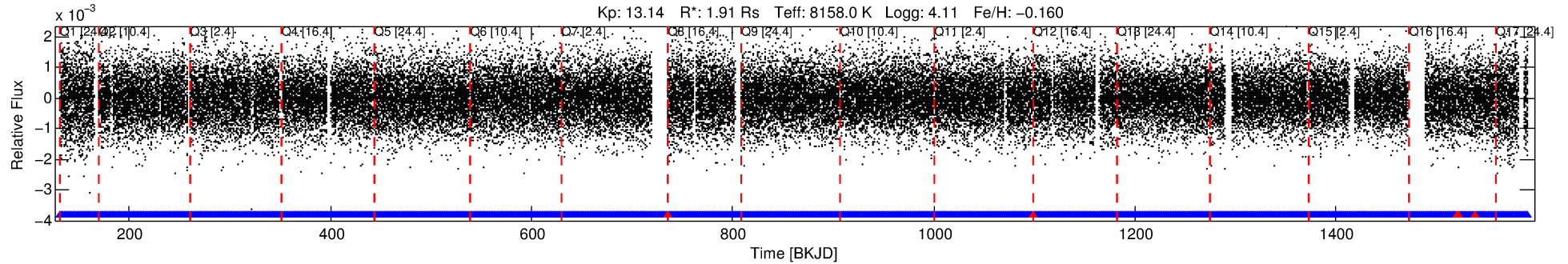
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008330790-01

No Significant Match Found

DV One-Page Summary

KIC: 8330790 Candidate: 1 of 1 Period: 0.871 d



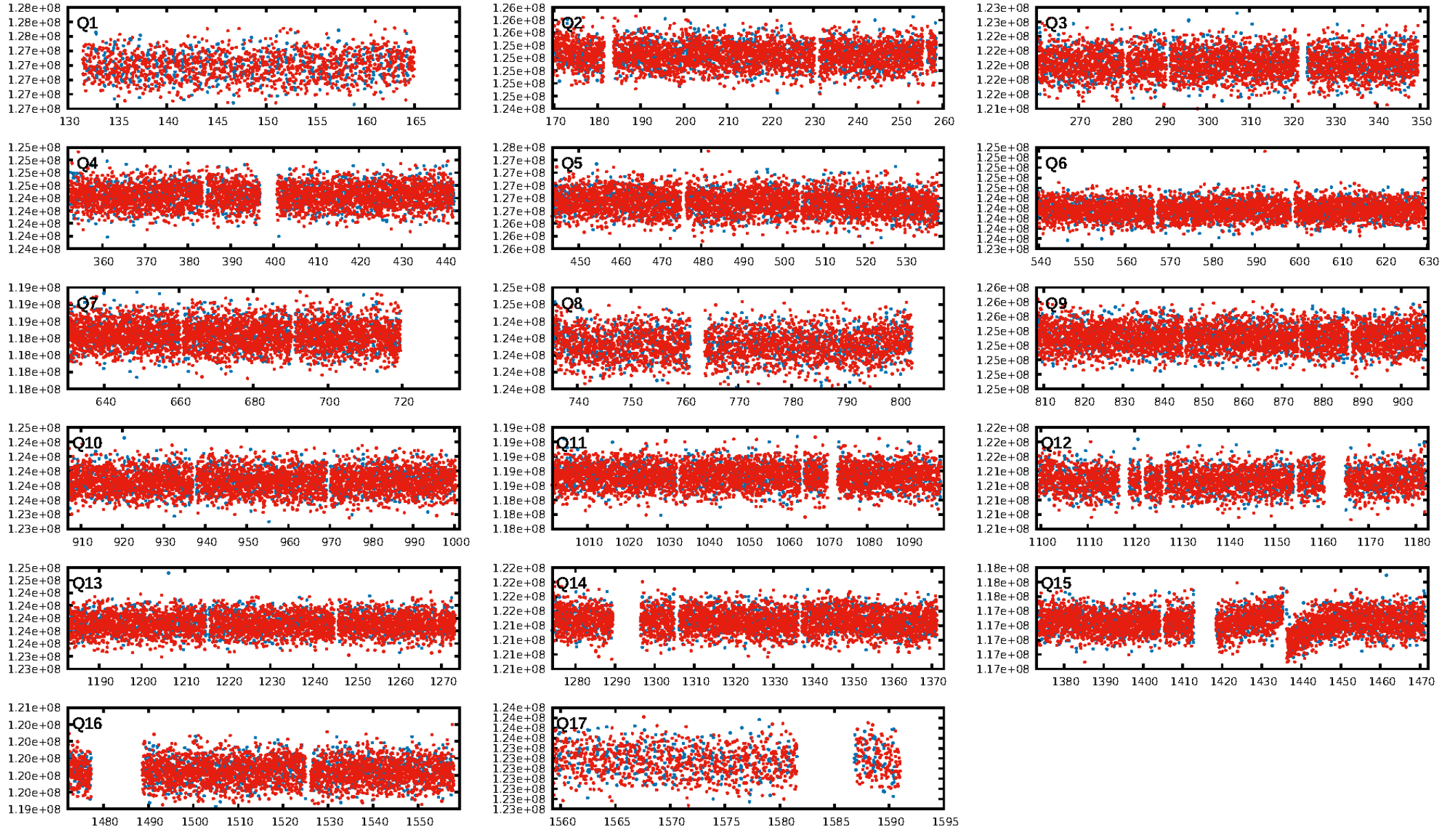
DV Fit Results:

Period = 0.87120 [0.00001] d
Epoch = 131.5658 [0.0052] BKJD
Rp/R* = 0.0086 [0.0042]
a/R* = 1.06 [0.32]
b = 0.74 [1.80]
Seff = 31475.68 [10385.34]
Teff = 3396 [280] K
Rp = 1.80 [0.98] Re
a = 0.0214 [0.0042] AU
Ag = N/A
Teffp = N/A

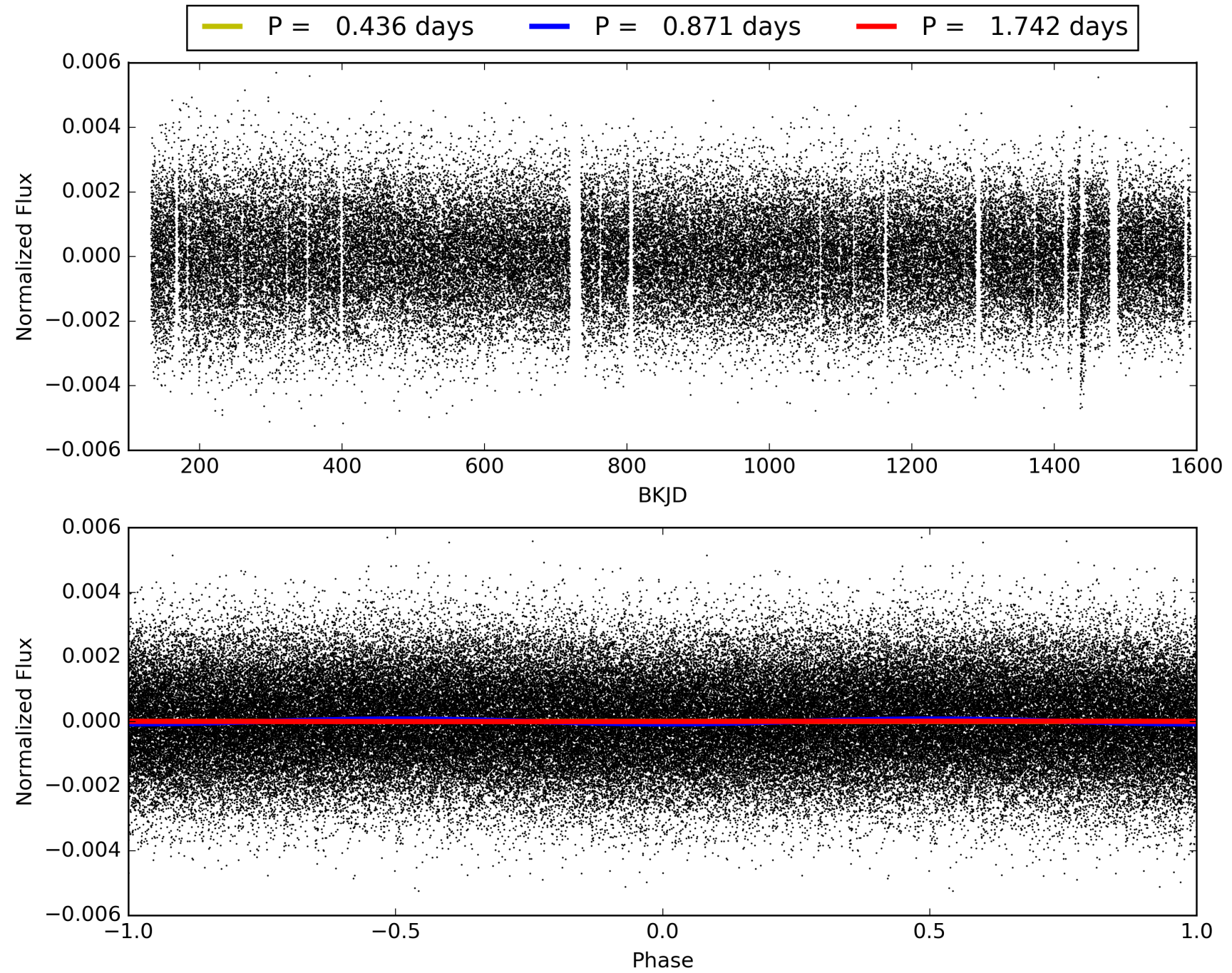
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1479/1484]
GhostDiagnostic-chr: 1.507
Centroid-sig: 8.9%
Centroid-so: 0.320 arcsec [1.13 σ]
OotOffset-rm: 1.650 arcsec [1.33 σ]
KicOffset-rm: 1.775 arcsec [1.46 σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008330790-01, PDC Light Curves

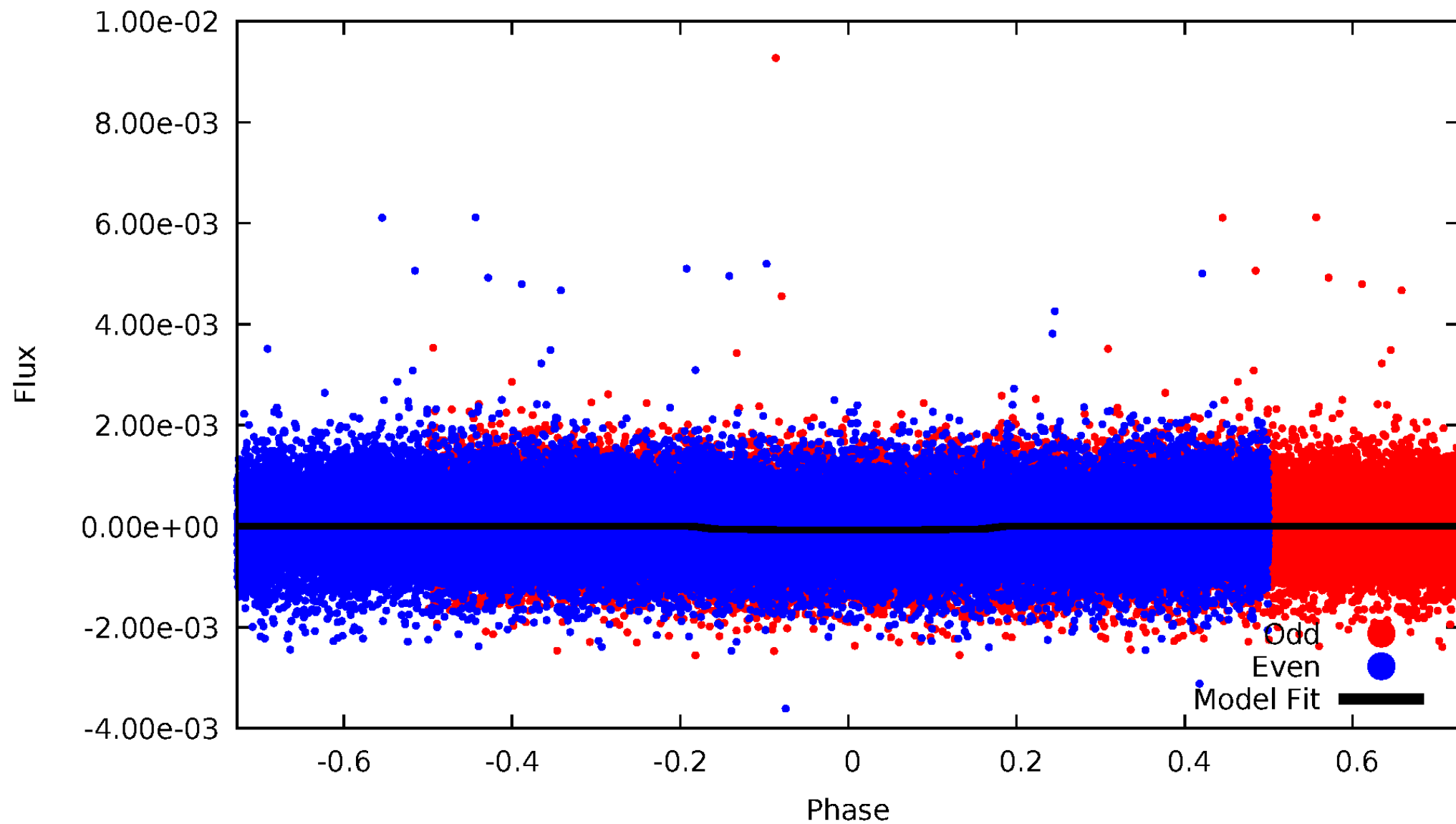


TCE 008330790-01



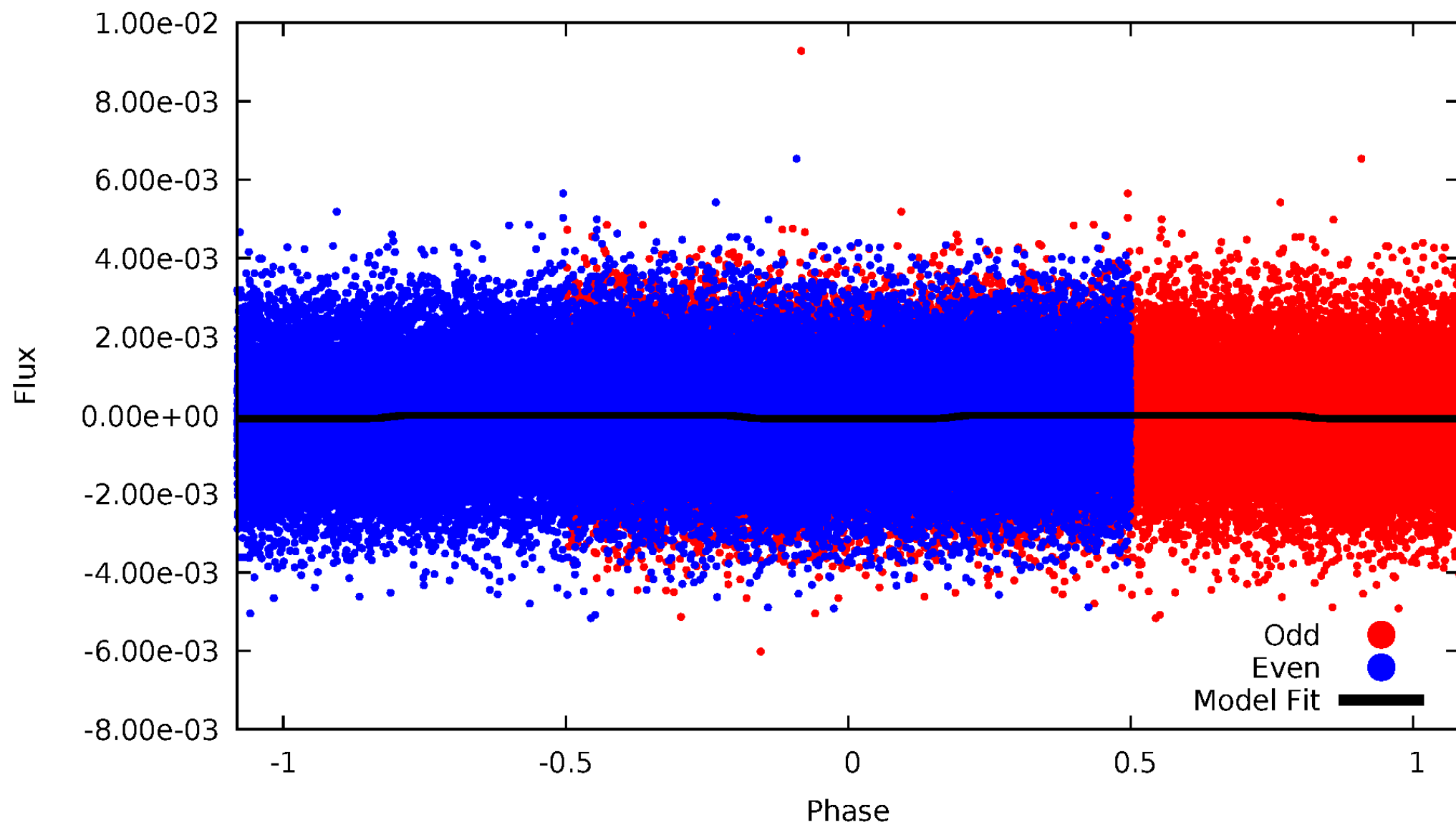
DV Odd/Even

TCE 008330790-01

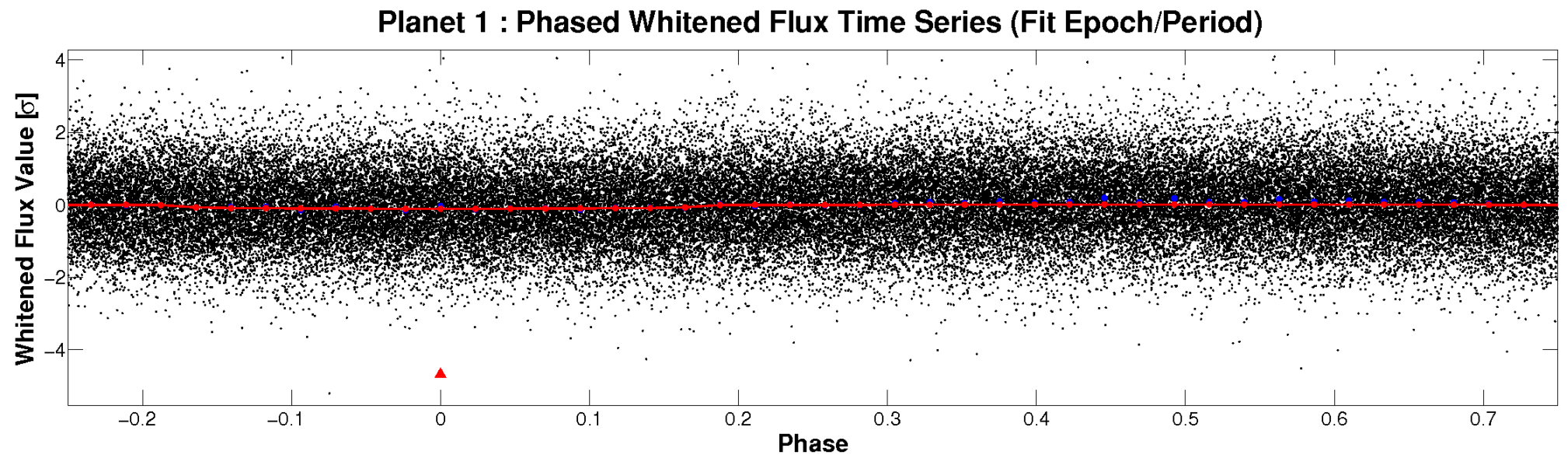
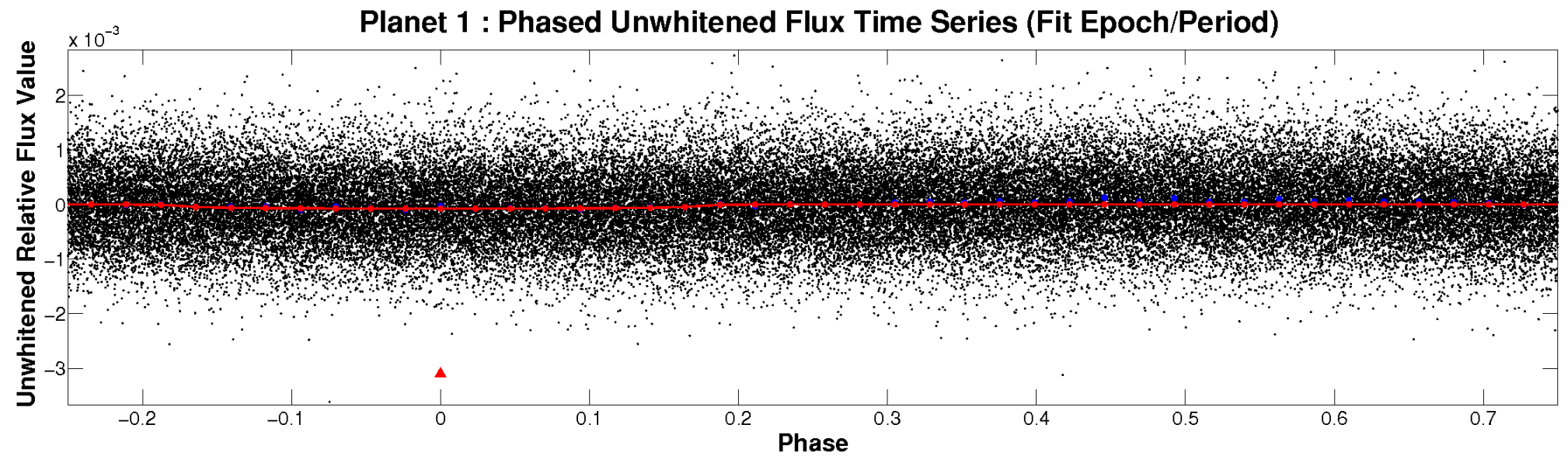


ALT Odd/Even

TCE 008330790-01

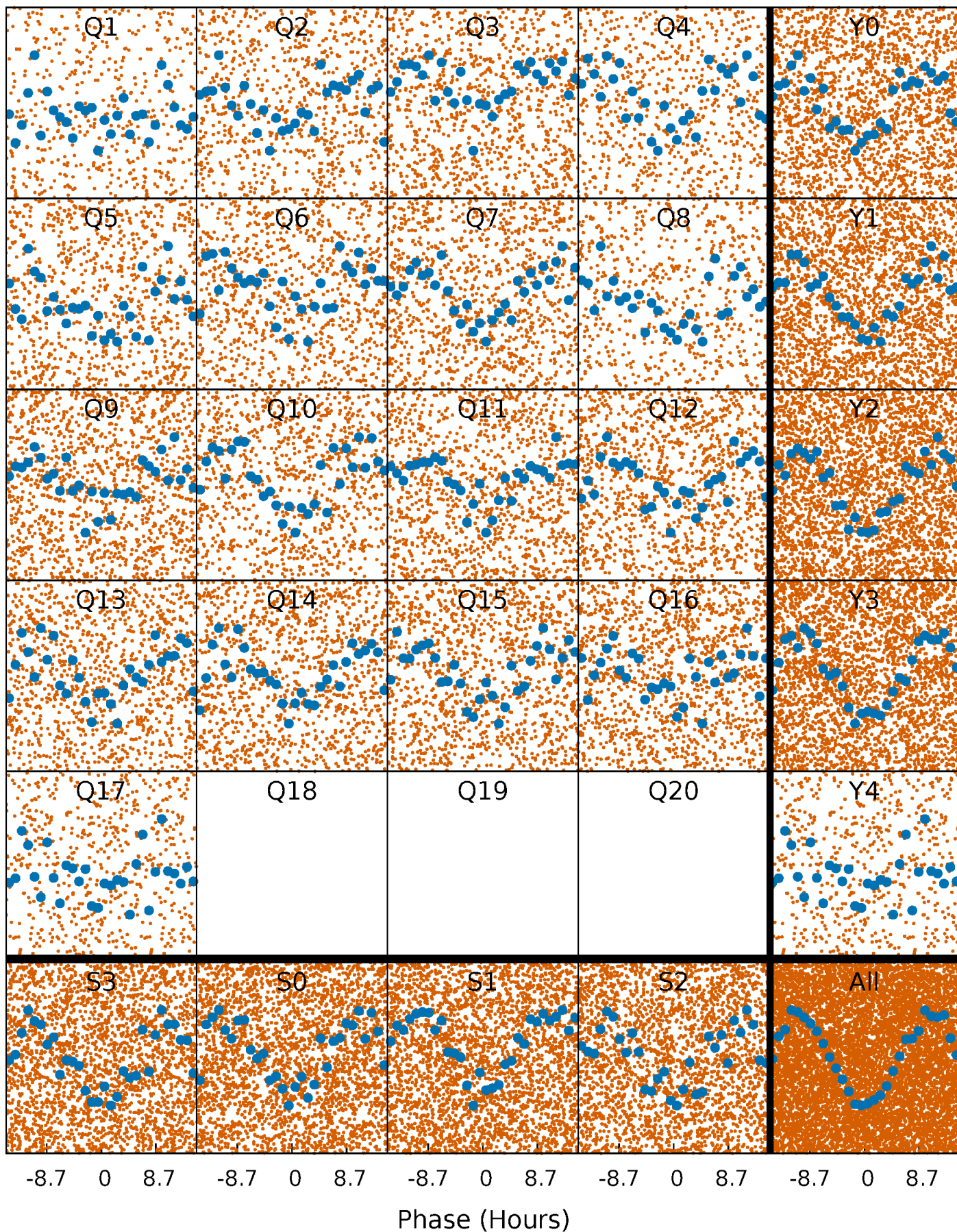


Non-Whitened Vs. Whitened Light Curve



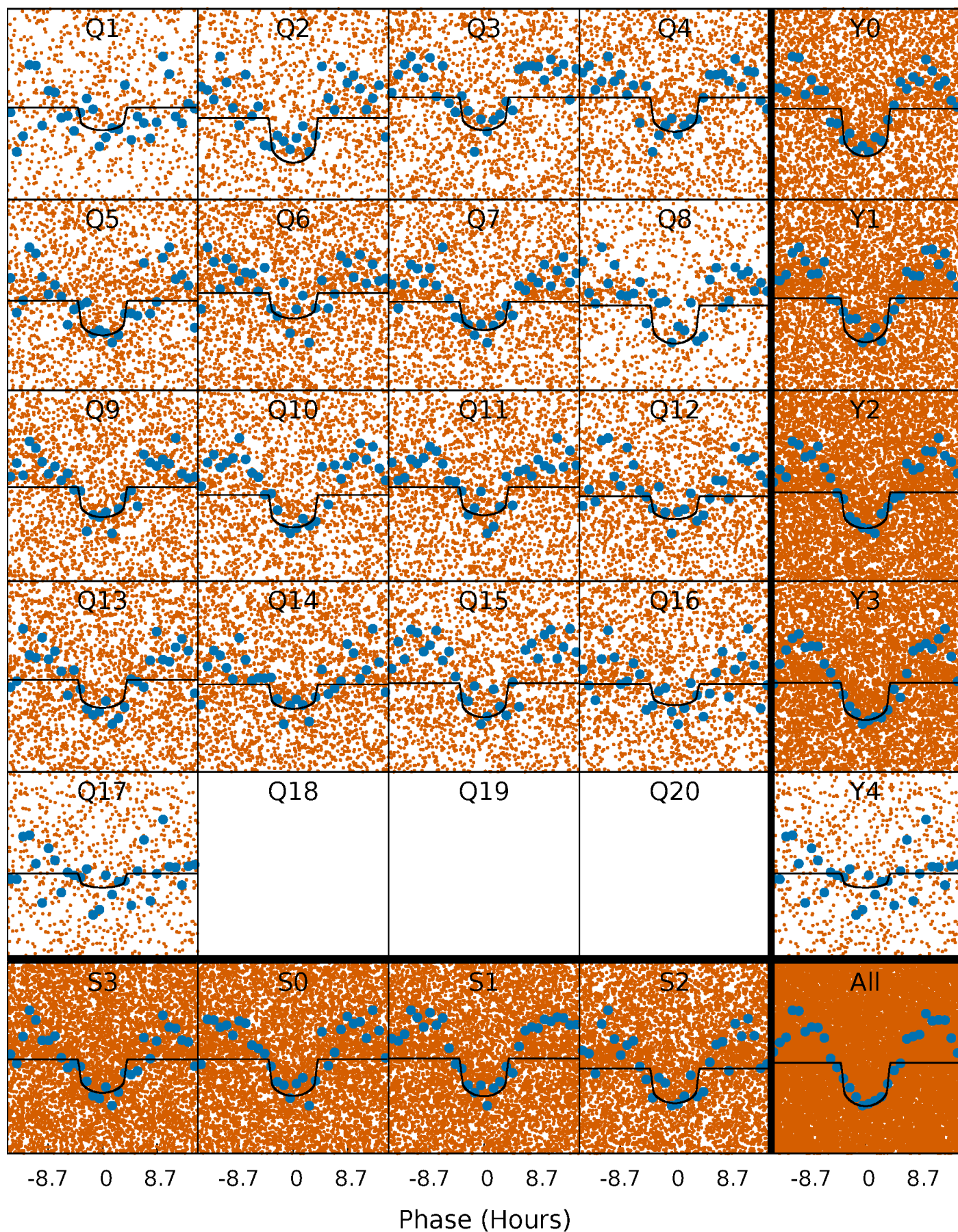
PDC Quarter-Phased Transit Curves

TCE 008330790-01 P= 0.871196 Days $T_0=131.565838$ (BKJD)



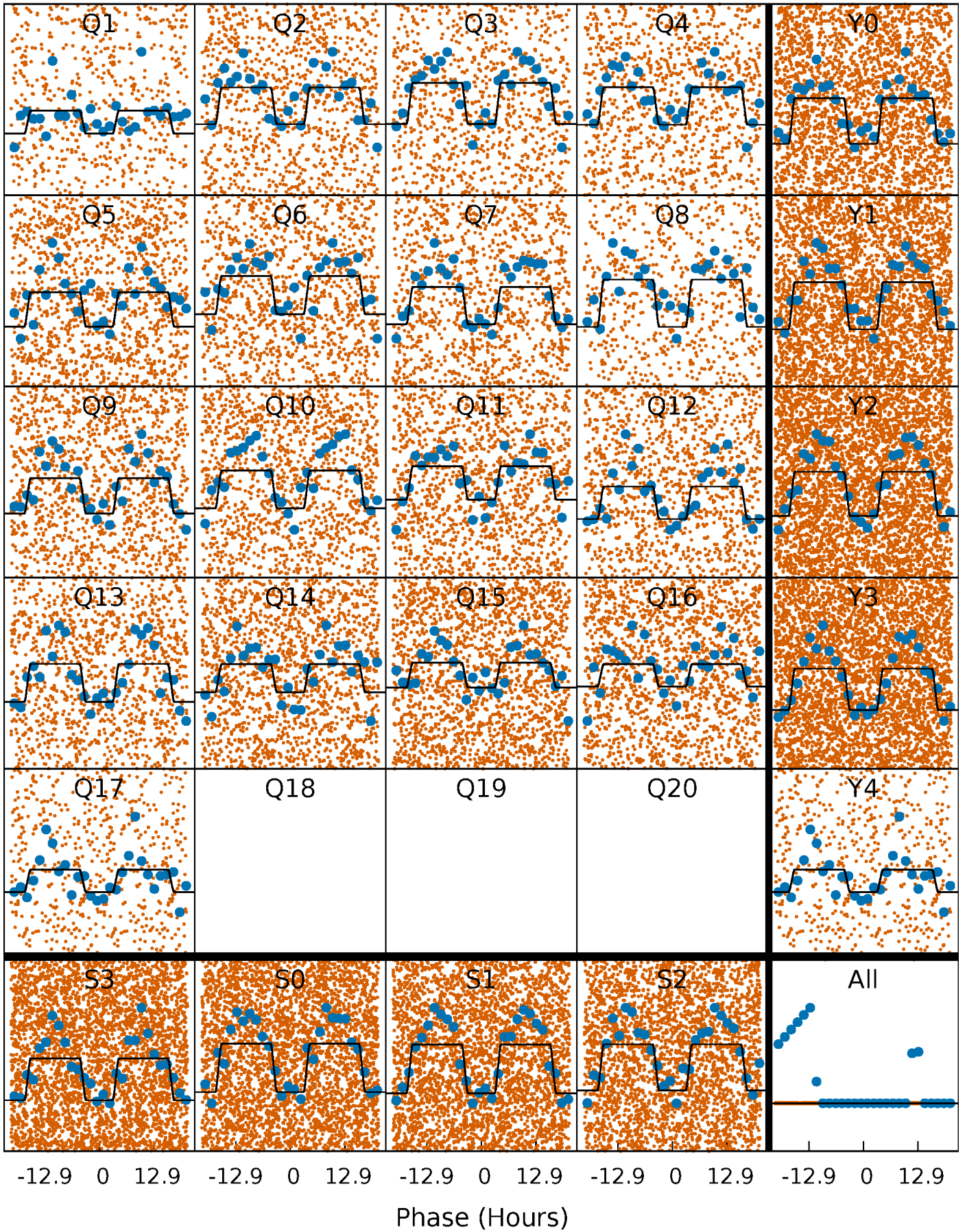
DV Quarter-Phased Transit Curves

TCE 008330790-01 P= 0.871196 Days $T_0=131.565838$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

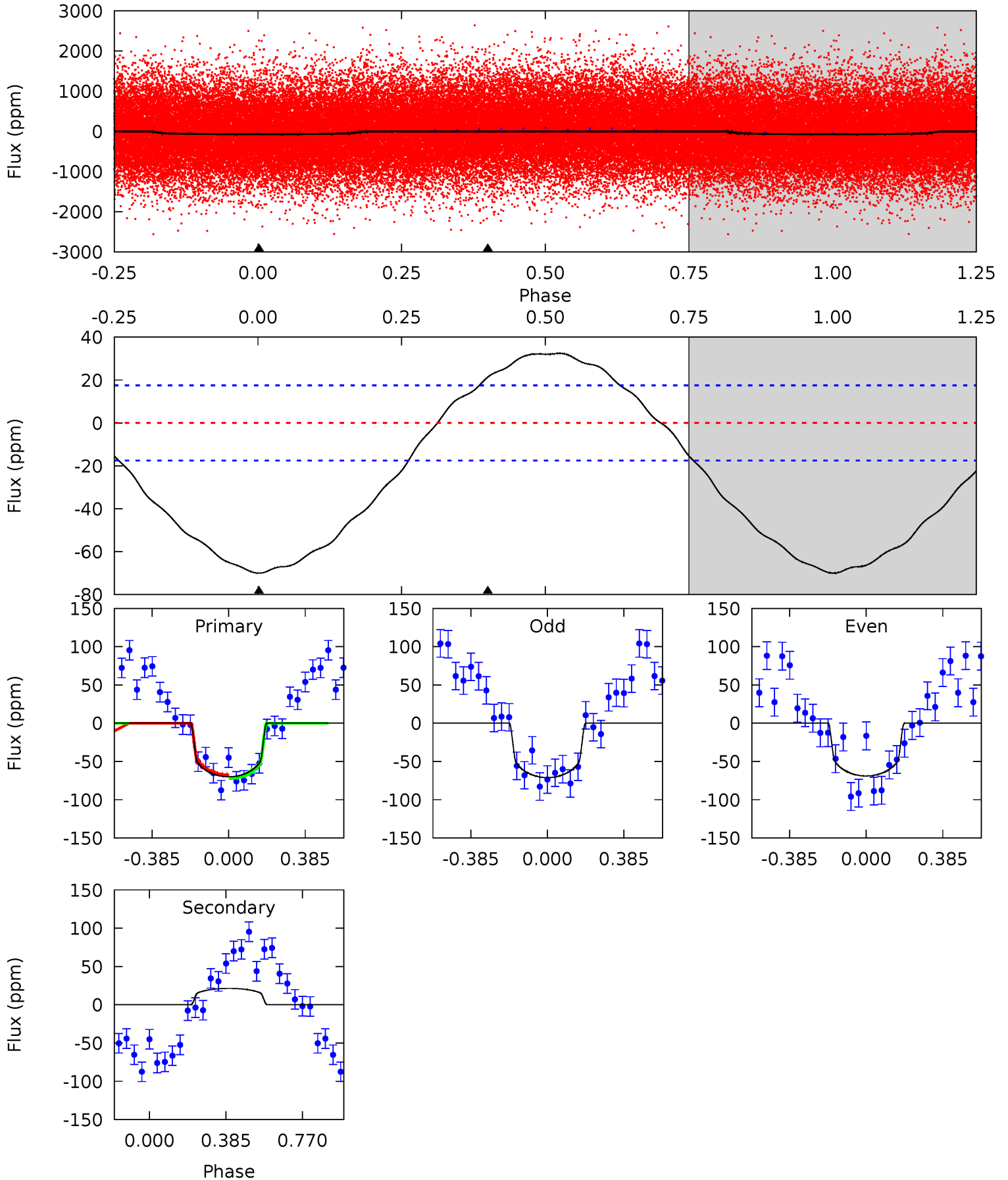
TCE 008330790-01 P= 0.871216 Days $T_0=131.552660$ (BKJD)



DV Model-Shift Uniqueness Test

008330790-01, P = 0.871196 Days, E = 130.694642 Days

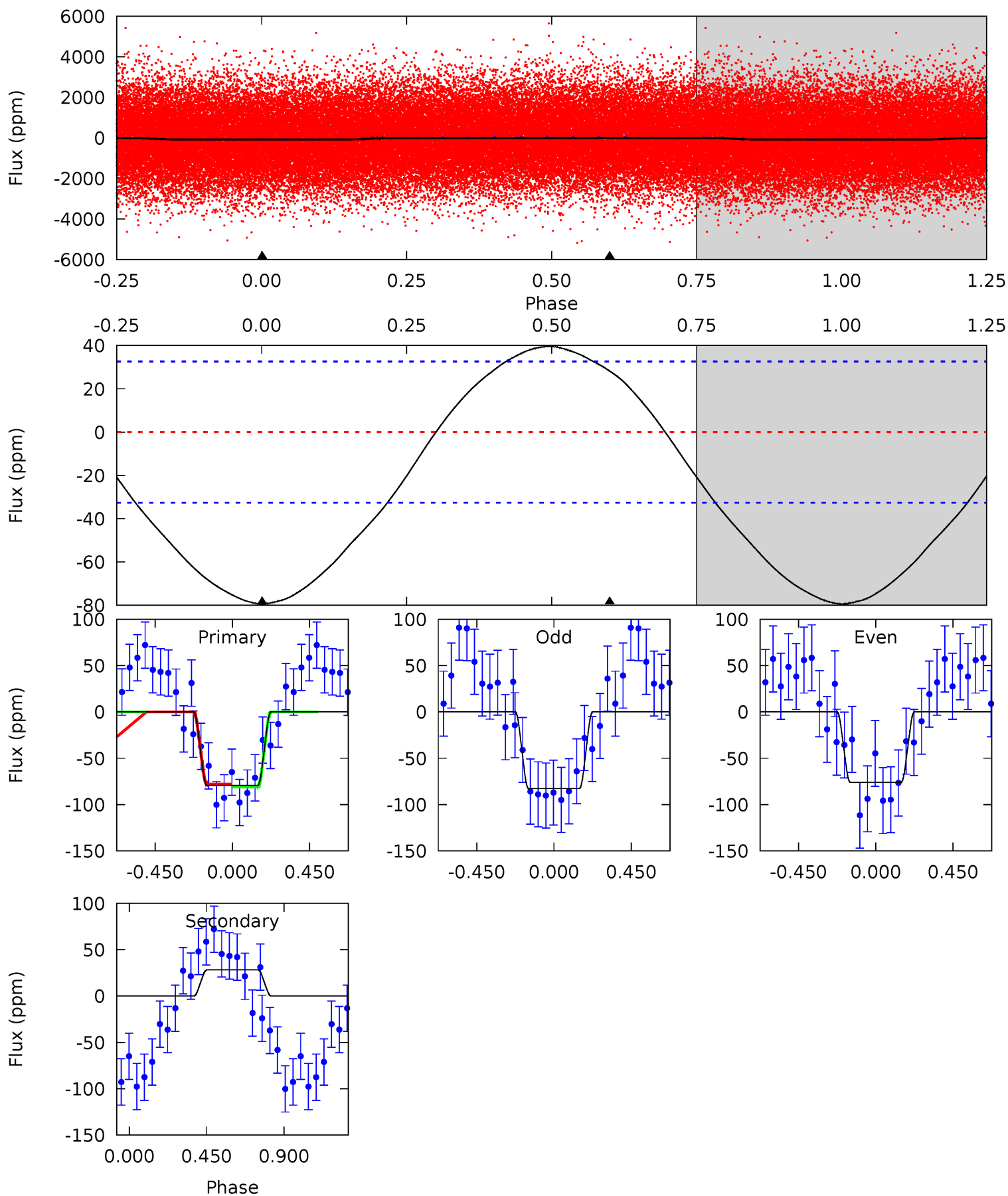
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	-5.22	0	0	4.27	0.87	2.03	17.1	17.1	-5.22	-5.22	0.26	1.05	0.32	0.53



Alt Model-Shift Uniqueness Test

008330790-01, P = 0.871216 Days, E = 130.681444 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	-3.66	0	0	4.24	0.76	1.39	10.3	10.3	-3.66	-3.66	0.44	0.93	0.33	0.21



Stellar Parameters For KIC 008330790

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8158^{+226}_{-340}	$4.114^{+0.126}_{-0.154}$	$-0.160^{+0.250}_{-0.300}$	$1.907^{+0.454}_{-0.372}$	$1.724^{+0.166}_{-0.271}$	$0.350^{+0.257}_{-0.148}$
	+3%/-4%	+3%/-4%	+156%/-188%	+24%/-20%	+10%/-16%	+73%/-42%
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 008330790-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	21 ± 4	$1.81^{+0.89}_{-0.83}$	4757^{+284}_{-295}	-6041^{+874}_{-2051}	$-1.642^{+0.929}_{-3.847}$
Alt.	28 ± 8	$2.01^{+0.96}_{-0.92}$	4756^{+303}_{-282}	-6067^{+830}_{-2260}	$-1.703^{+0.964}_{-4.271}$

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 $A_{obs} \gg 1.0$

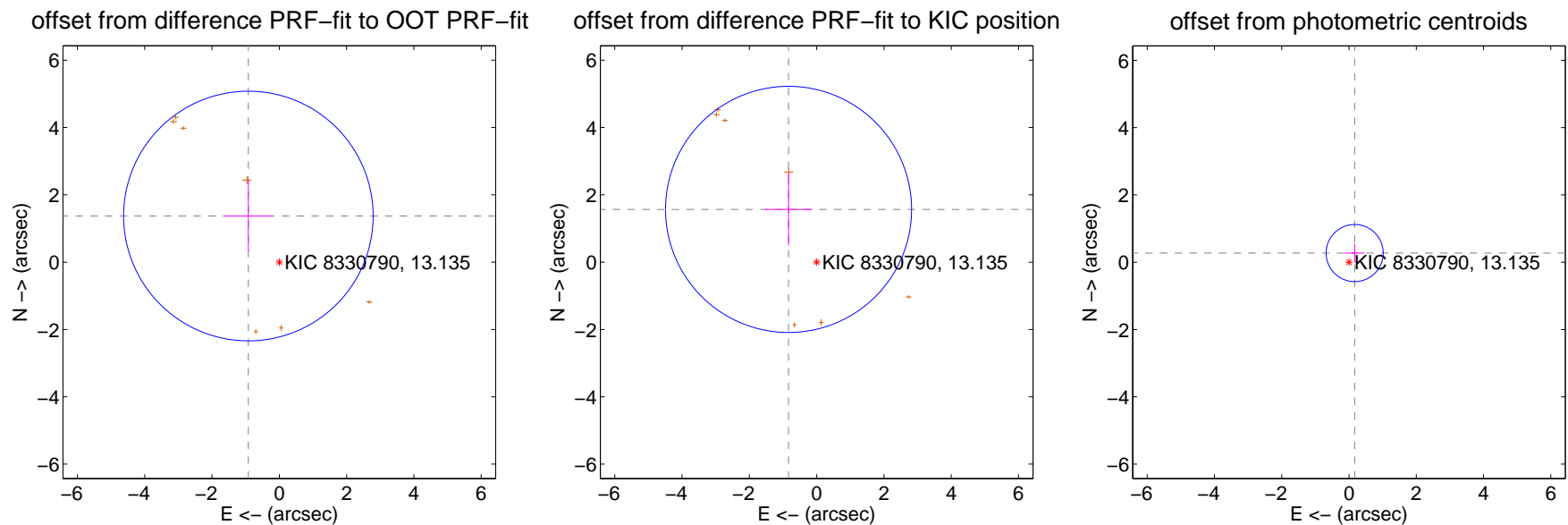
DV Centroid Data

Supplemental centroid analysis for 008330790-01. Kepler magnitude: 13.13. Transit SNR 15.06

There are 0 quarters with good PRF difference image offsets

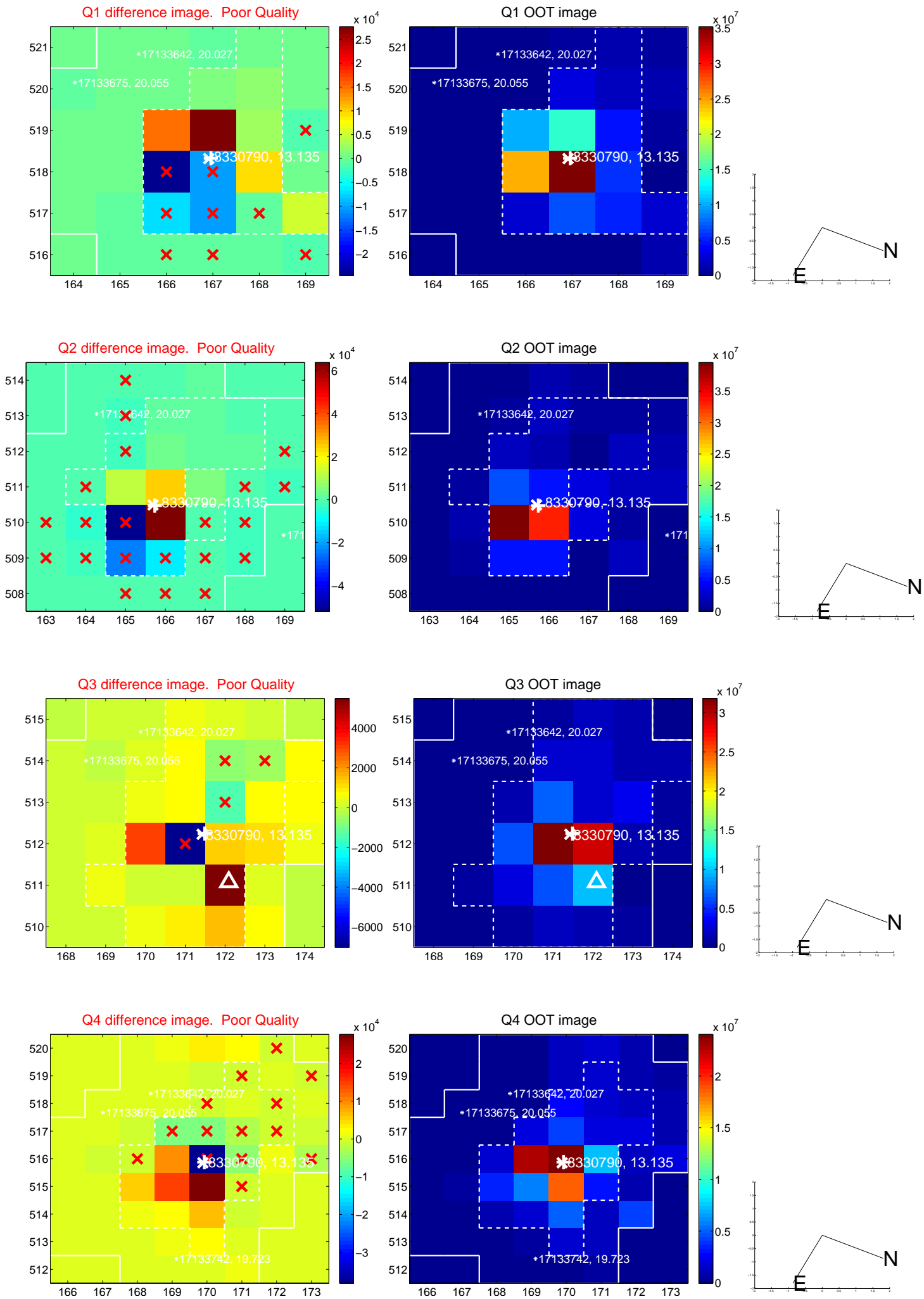
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.650 ± 1.236	1.33	0.920 ± 0.725	1.370 ± 1.055
PRF-fit source offset from KIC position	1.775 ± 1.219	1.46	0.835 ± 0.704	1.567 ± 1.073
photometric centroid source offset	0.32 ± 0.28	1.13	-0.17 ± 0.29	0.27 ± 0.28

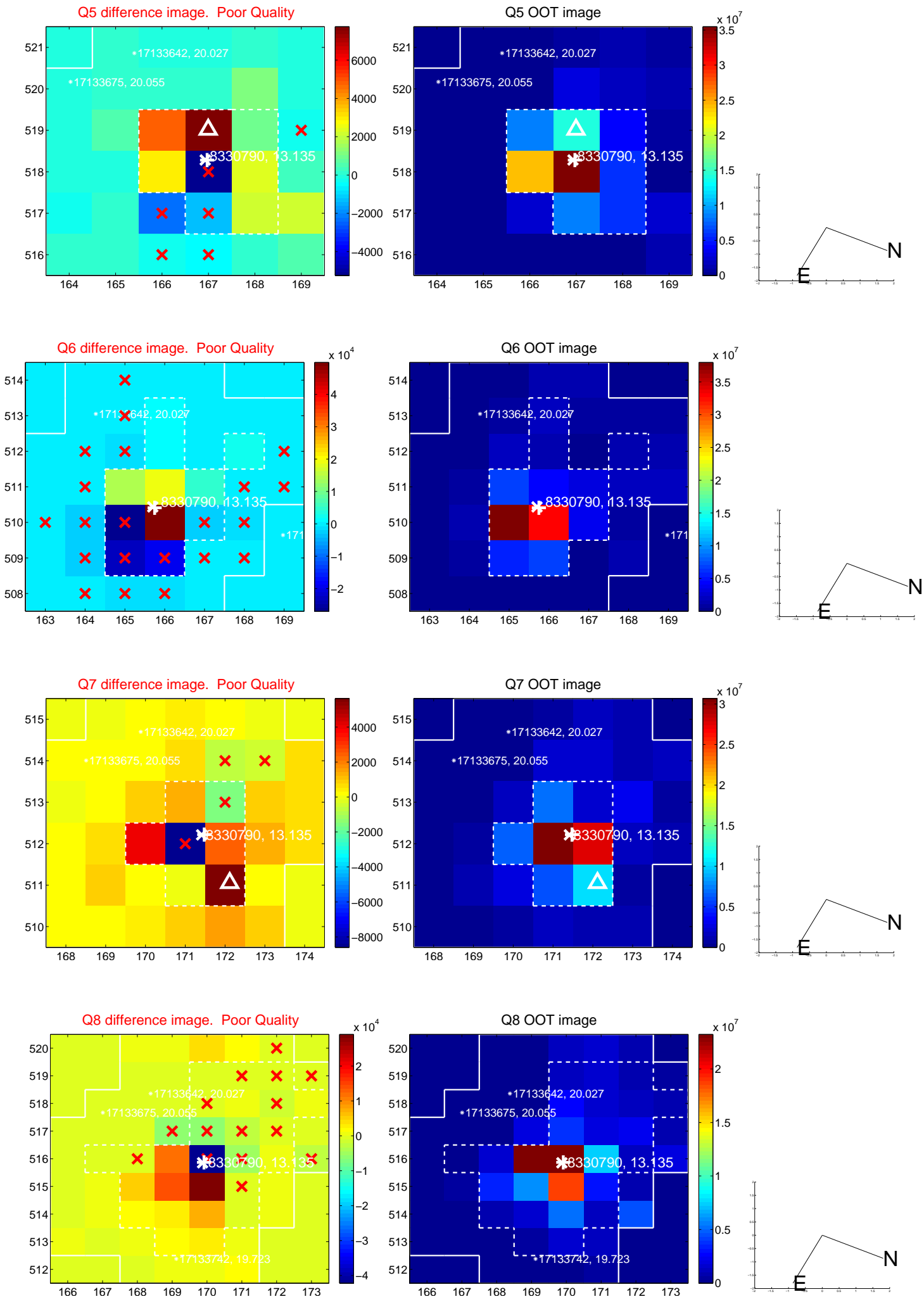


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

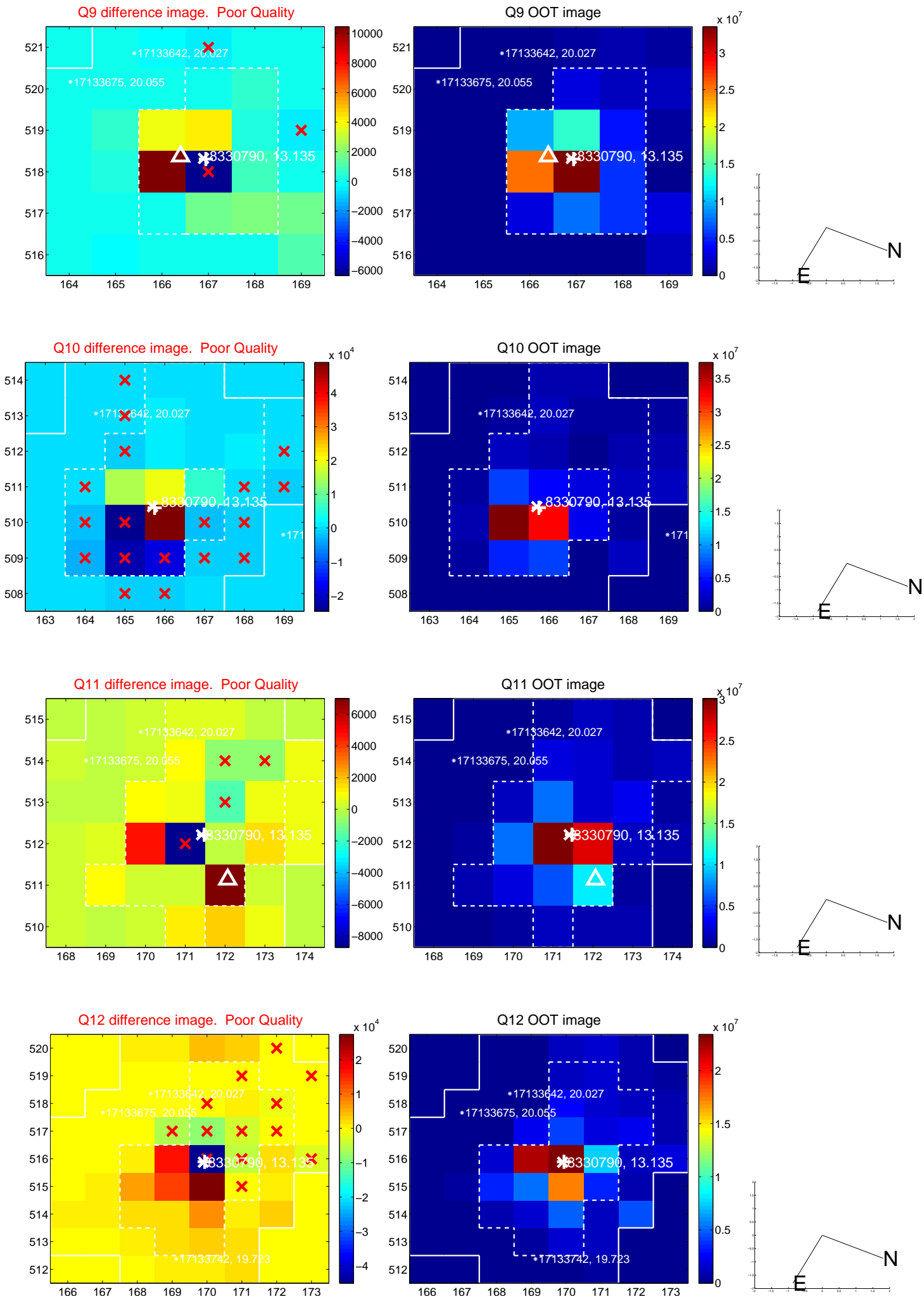
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



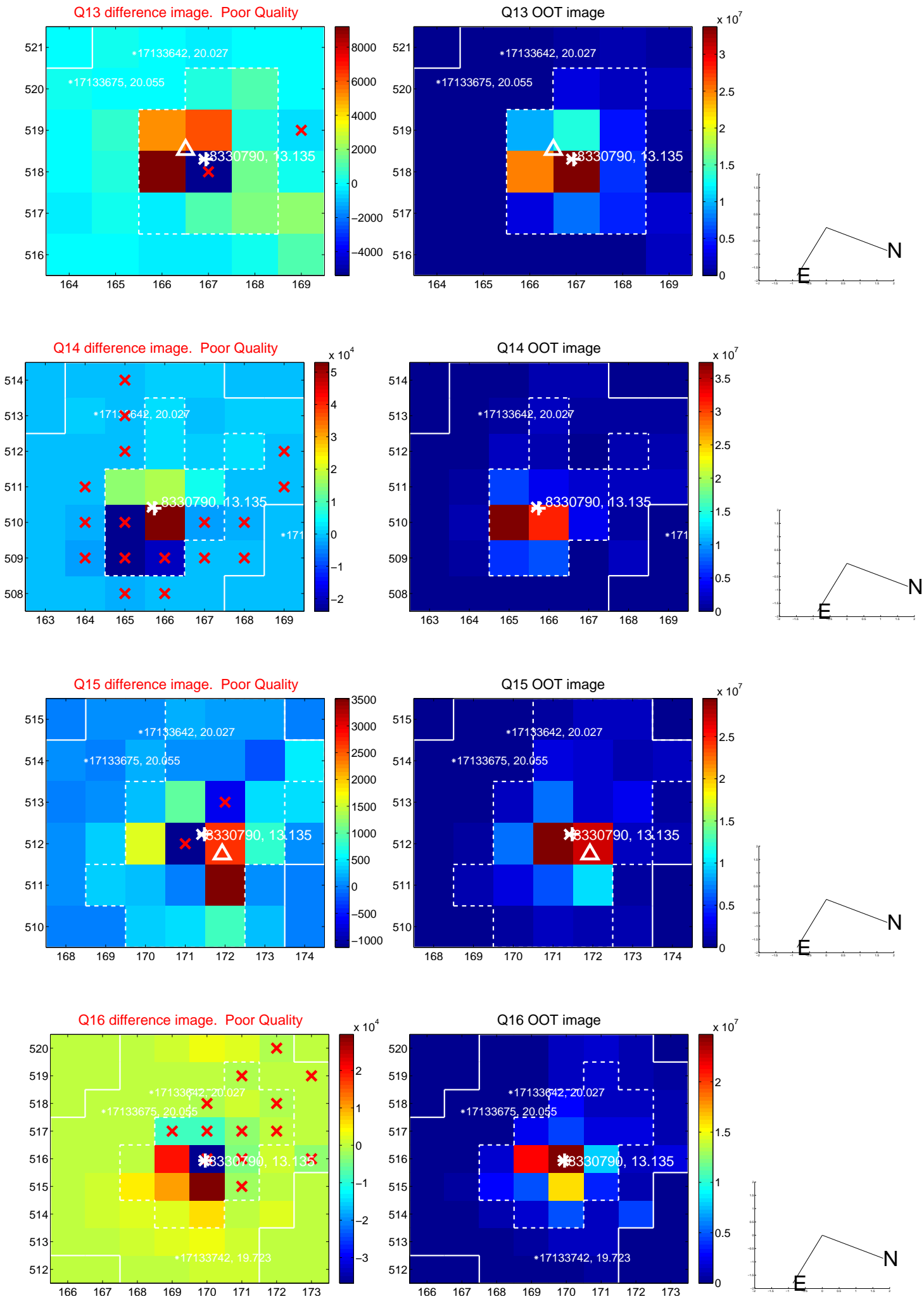
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



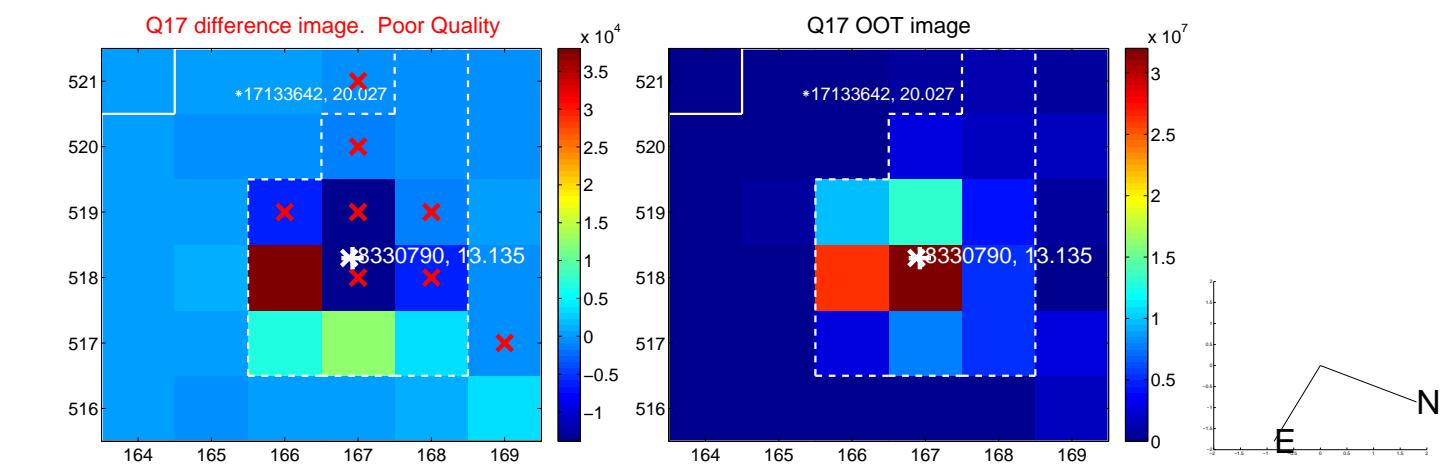
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



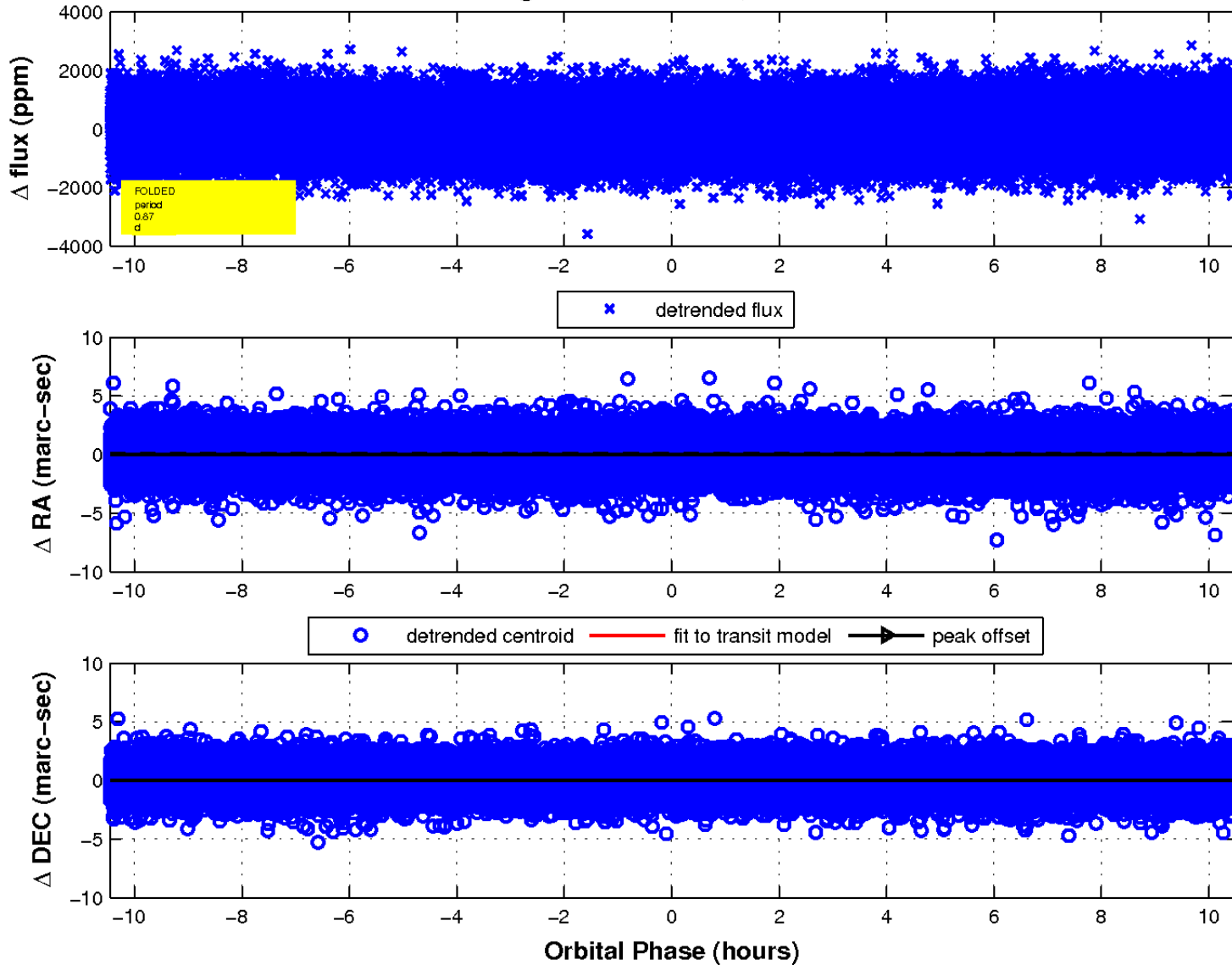
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

