

KIC 009655487

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})
009655487-01	OBS	No	0.792122	132.119194	7.2	7.020	8.5	3.2	1.44	6729	0.45	11572.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009655487-01	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.

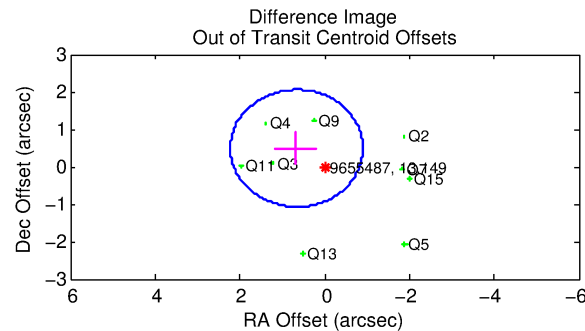
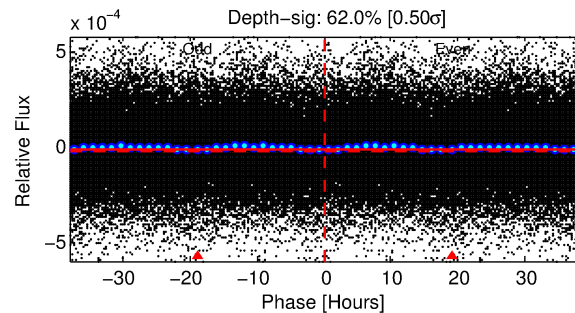
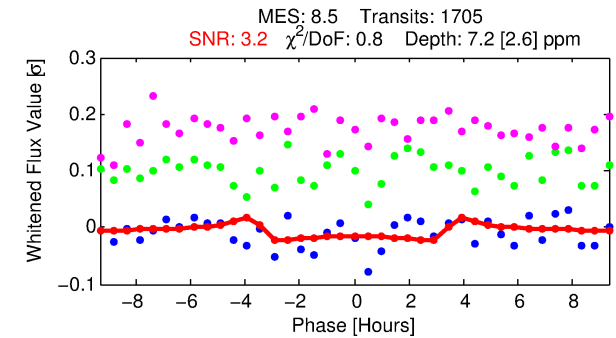
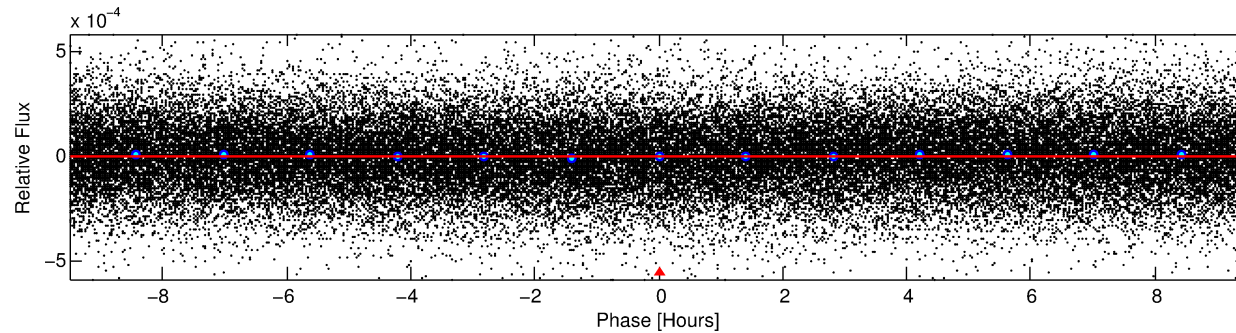
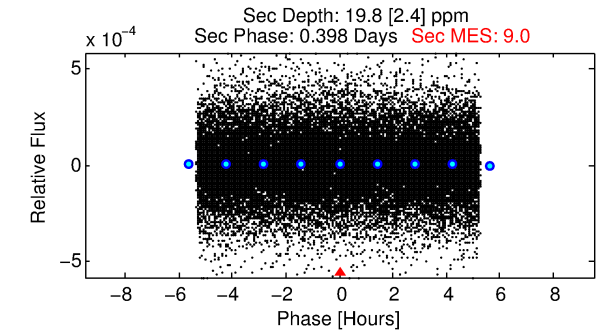
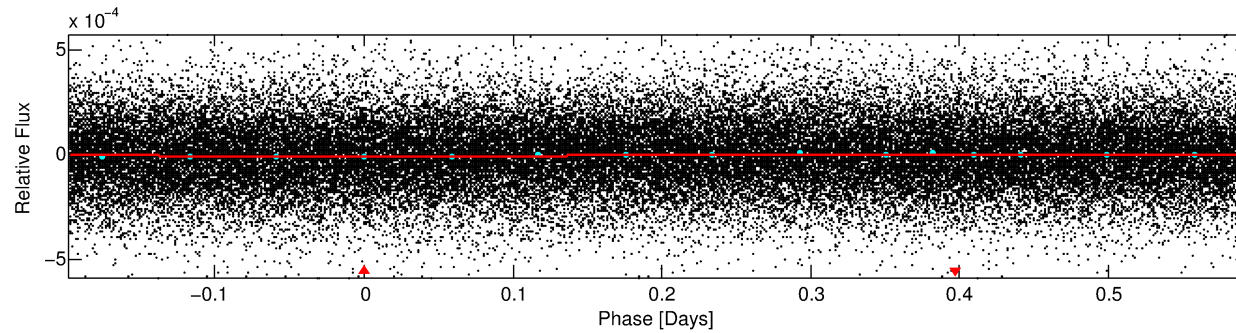
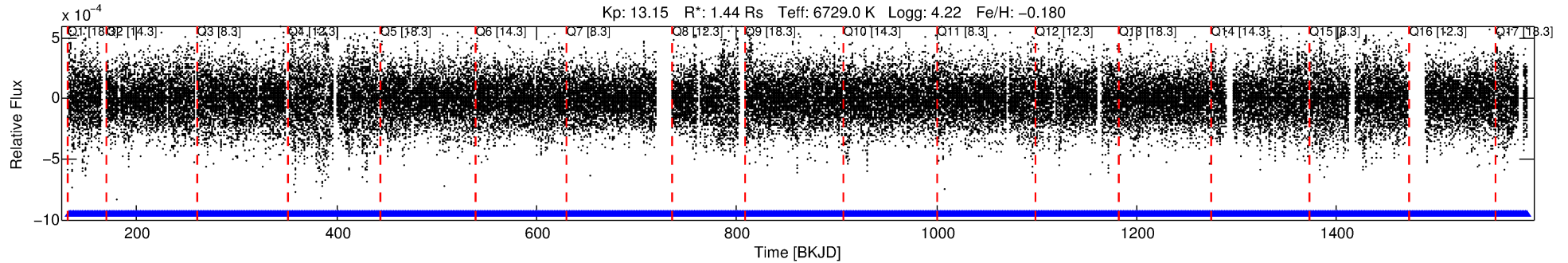
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009655487-01

No Significant Match Found

DV One-Page Summary

KIC: 9655487 Candidate: 1 of 1 Period: 0.792 d



DV Fit Results:

Period = 0.79212 [0.00003] d
Epoch = 132.1192 [0.0089] BKJD
Rp/R* = 0.0029 [0.0027]
a/R* = 1.02 [0.24]
b = 0.90 [1.23]
Seff = 11572.21 [4638.38]
Teq = 2645 [265] K
Rp = 0.45 [0.45] Re
a = 0.0182 [0.0047] AU
Ag = 17.68 [34.39] [0.48σ]
Teffp = 8385 [4022] K [1.42σ]

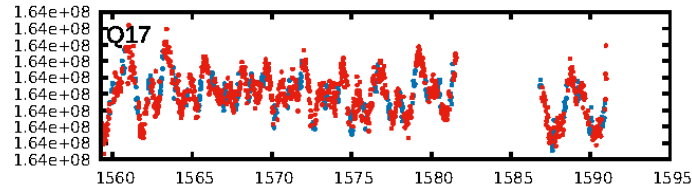
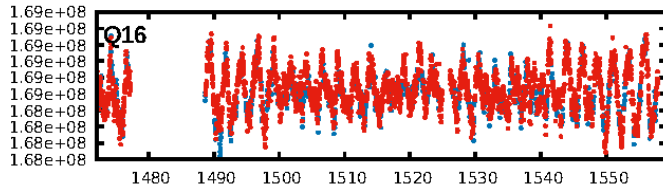
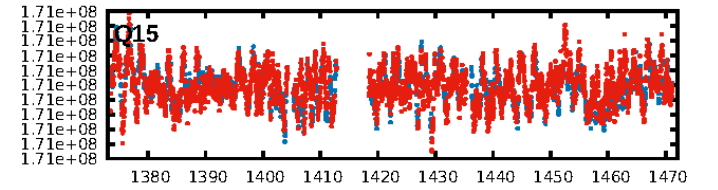
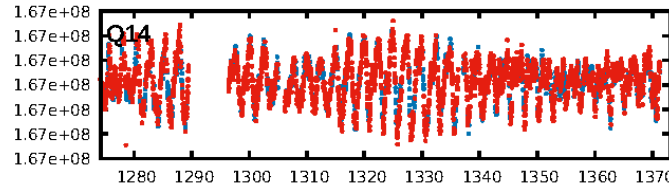
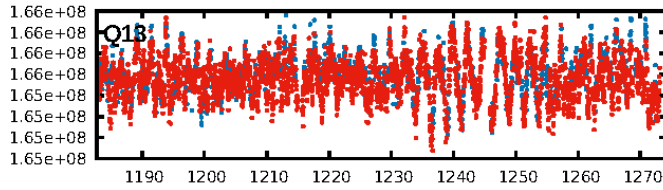
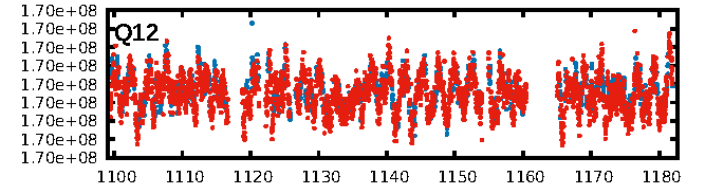
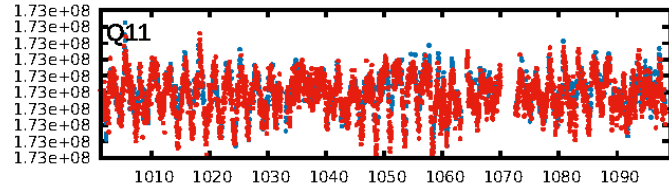
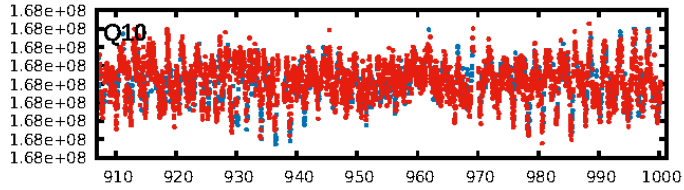
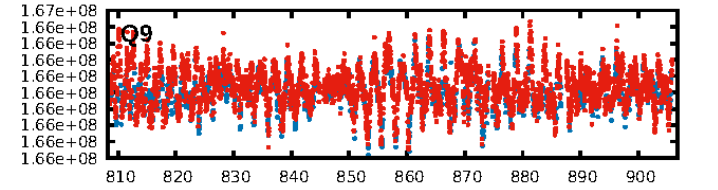
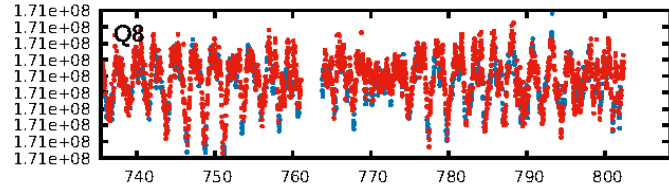
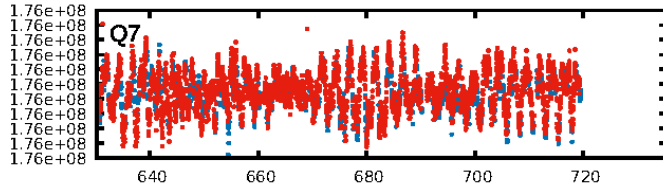
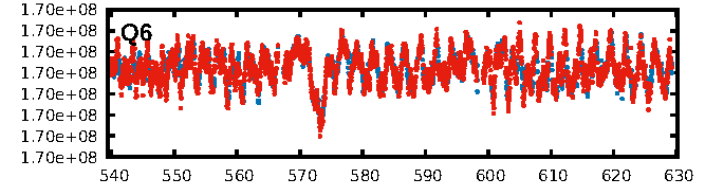
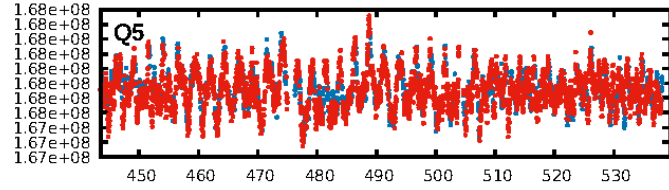
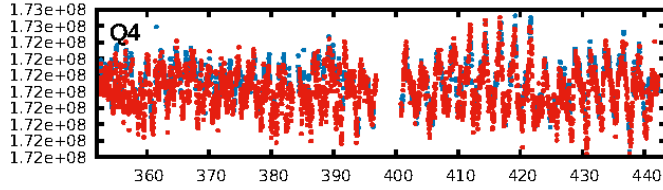
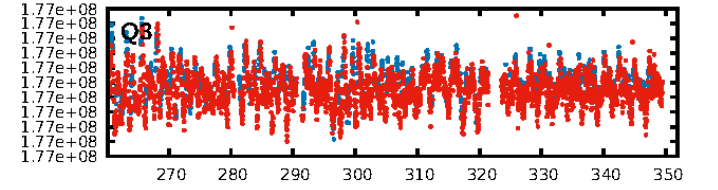
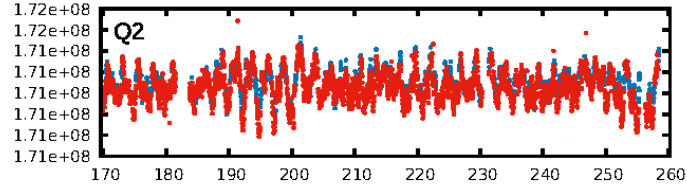
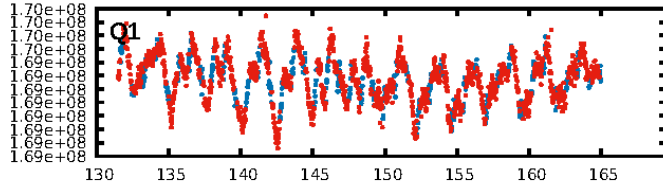
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1629/1629]
GhostDiagnostic-chr: 0.5947
Centroid-sig: 1.6%
Centroid-so: 2.211 arcsec [1.55σ]
OotOffset-rm: 0.824 arcsec [1.58σ]
OotOffset-st: 1/4/1/3 [9]
KicOffset-rm: 0.803 arcsec [1.75σ]
KicOffset-st: 1/4/1/3 [9]
DiffImageQuality-fgm: 0.44 [4/9]
DiffImageOverlap-fno: 1.00 [17/17]

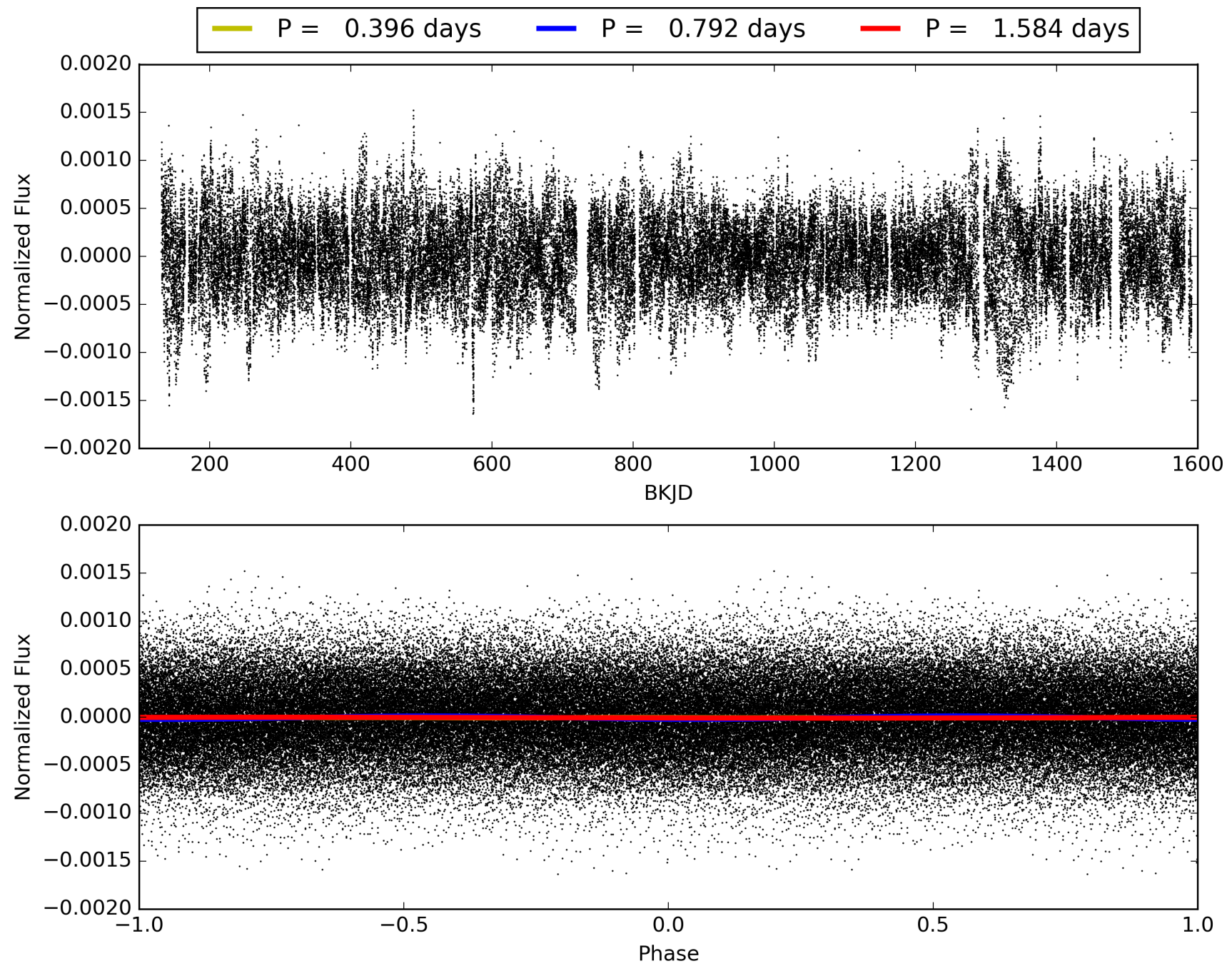
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:27:44 Z

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

TCE 009655487-01, PDC Light Curves

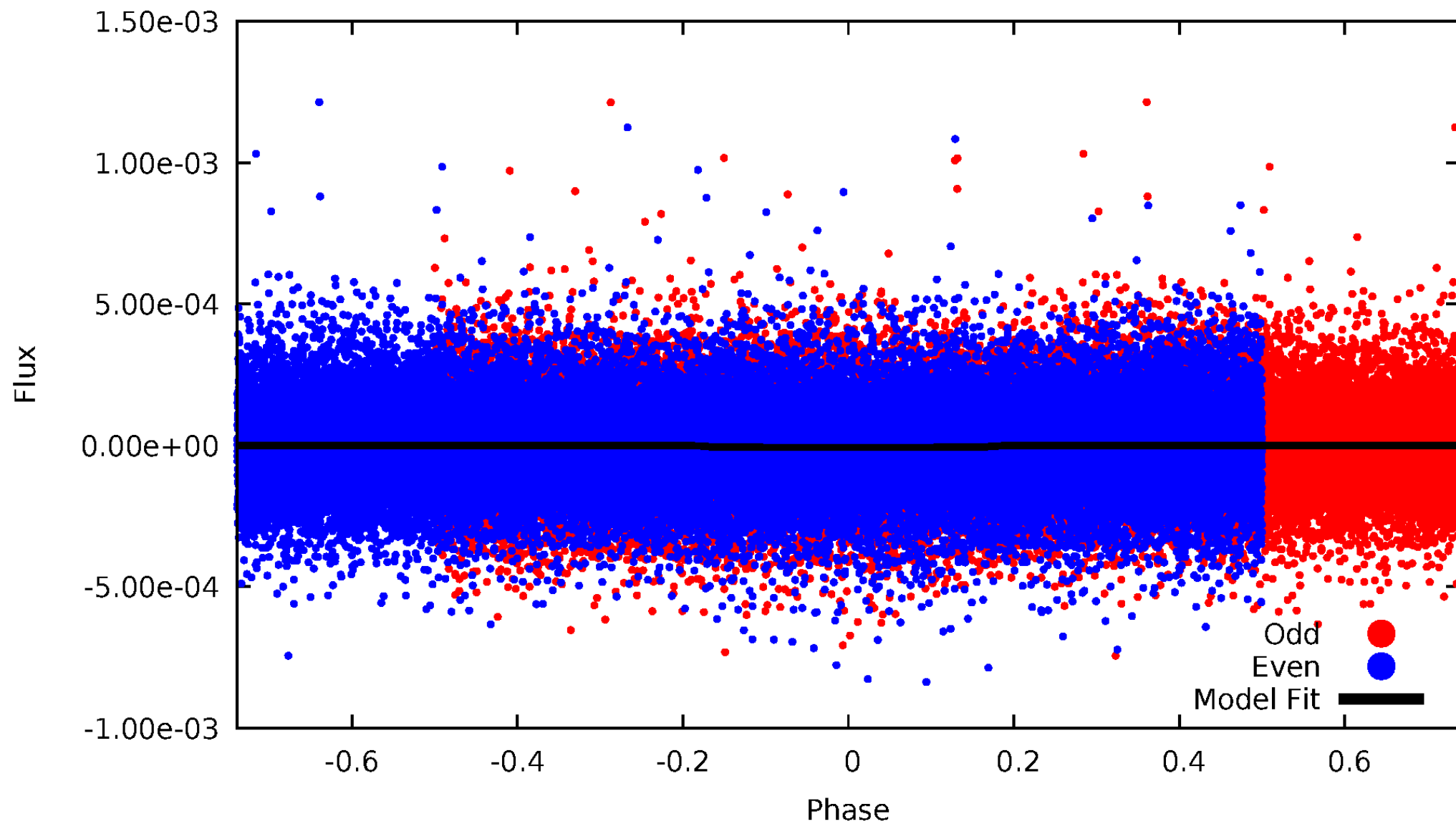


TCE 009655487-01



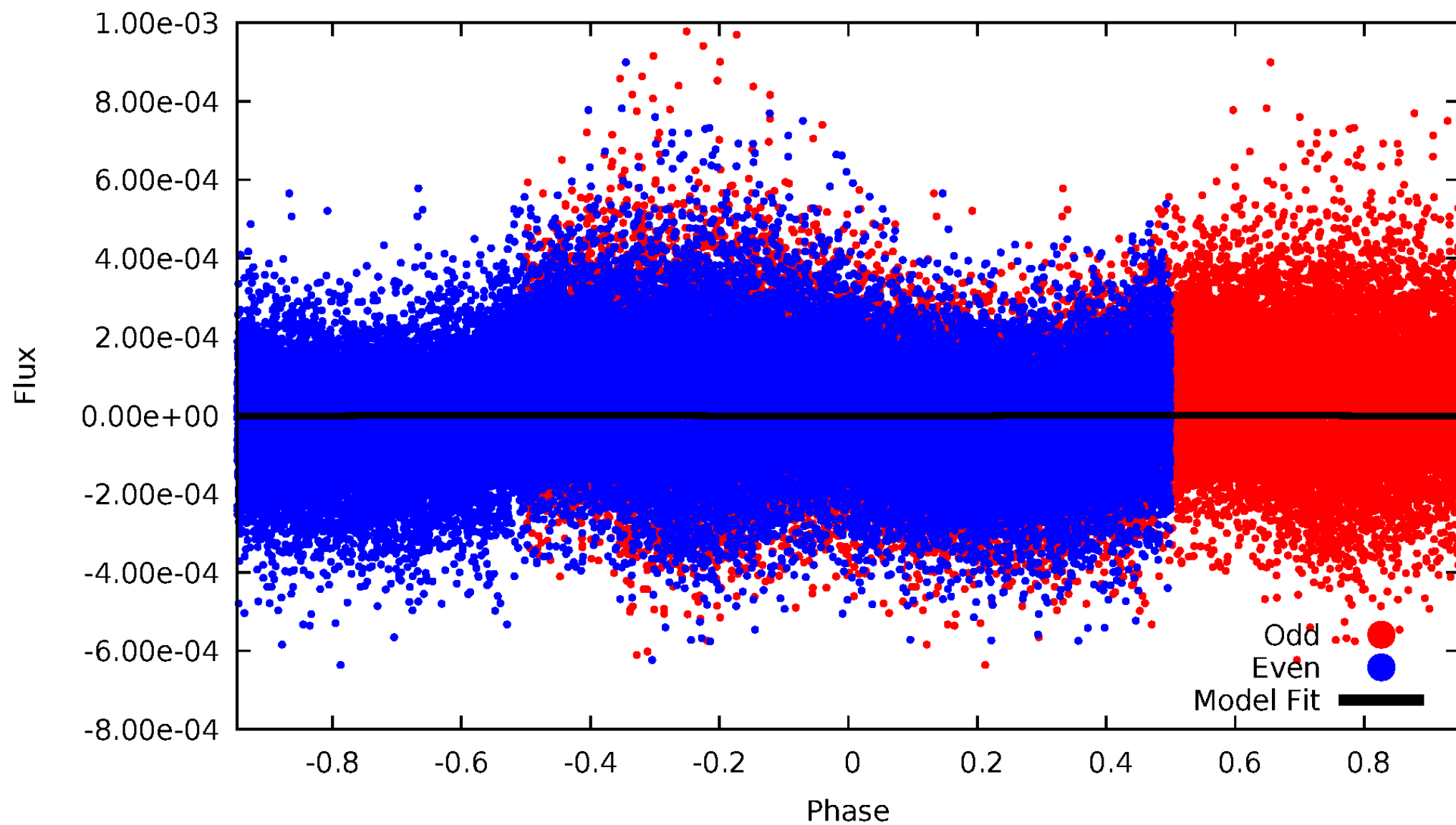
DV Odd/Even

TCE 009655487-01



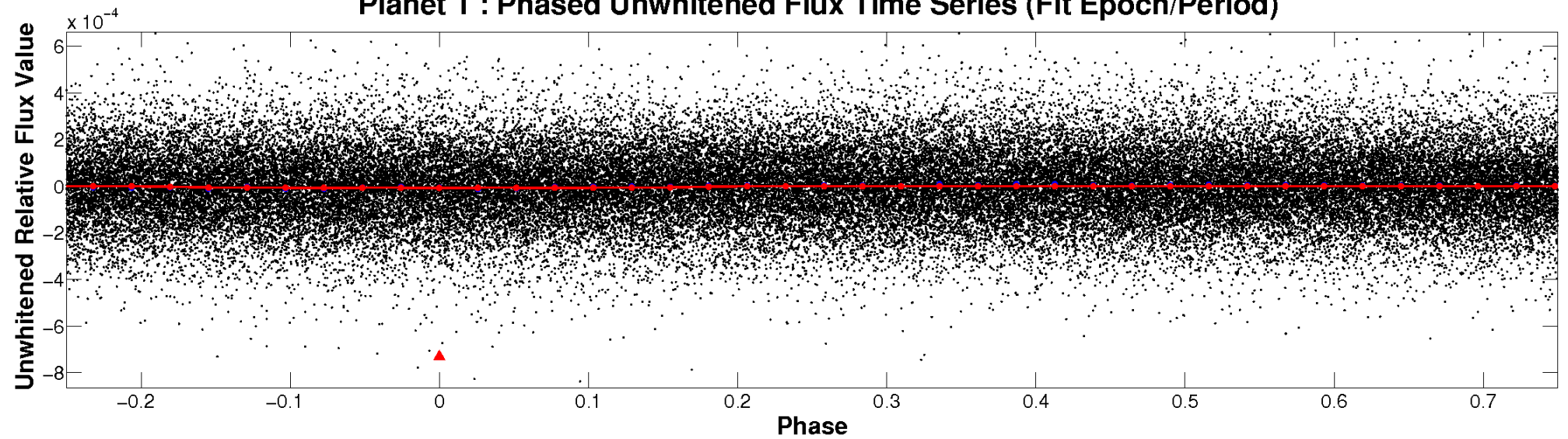
ALT Odd/Even

TCE 009655487-01

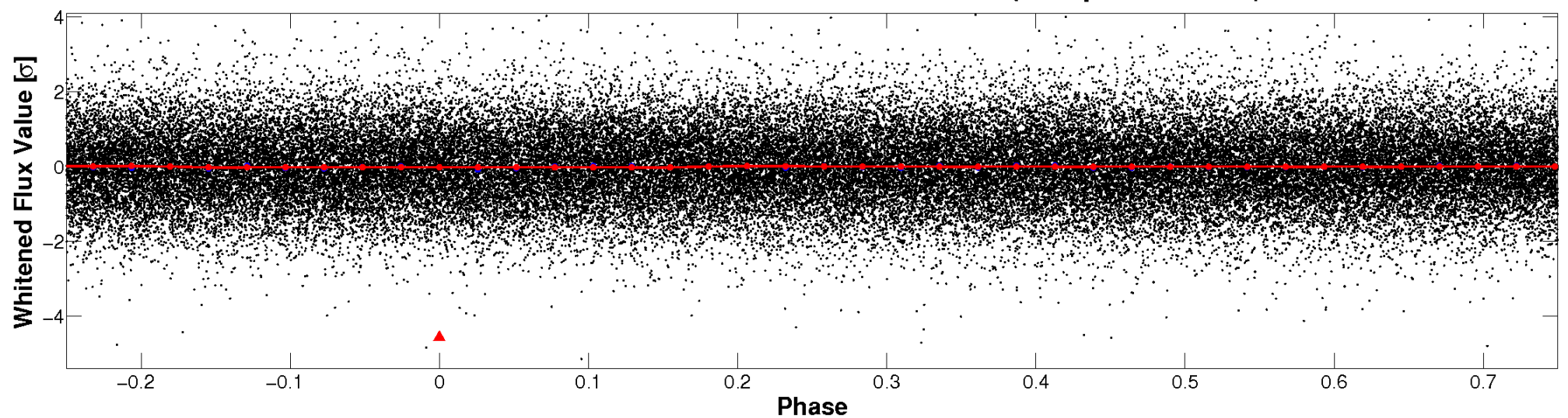


Non-Whitened Vs. Whitened Light Curve

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

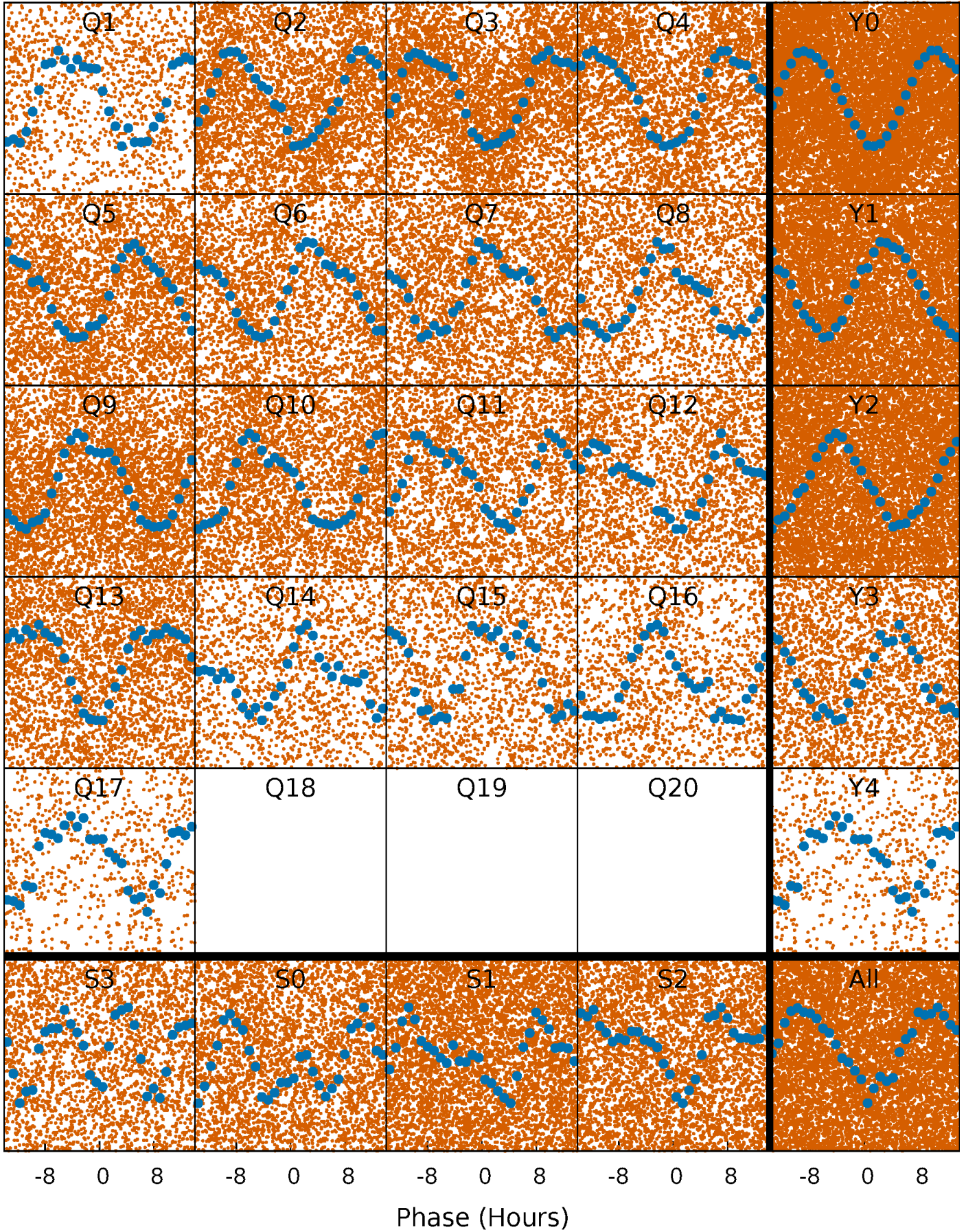


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



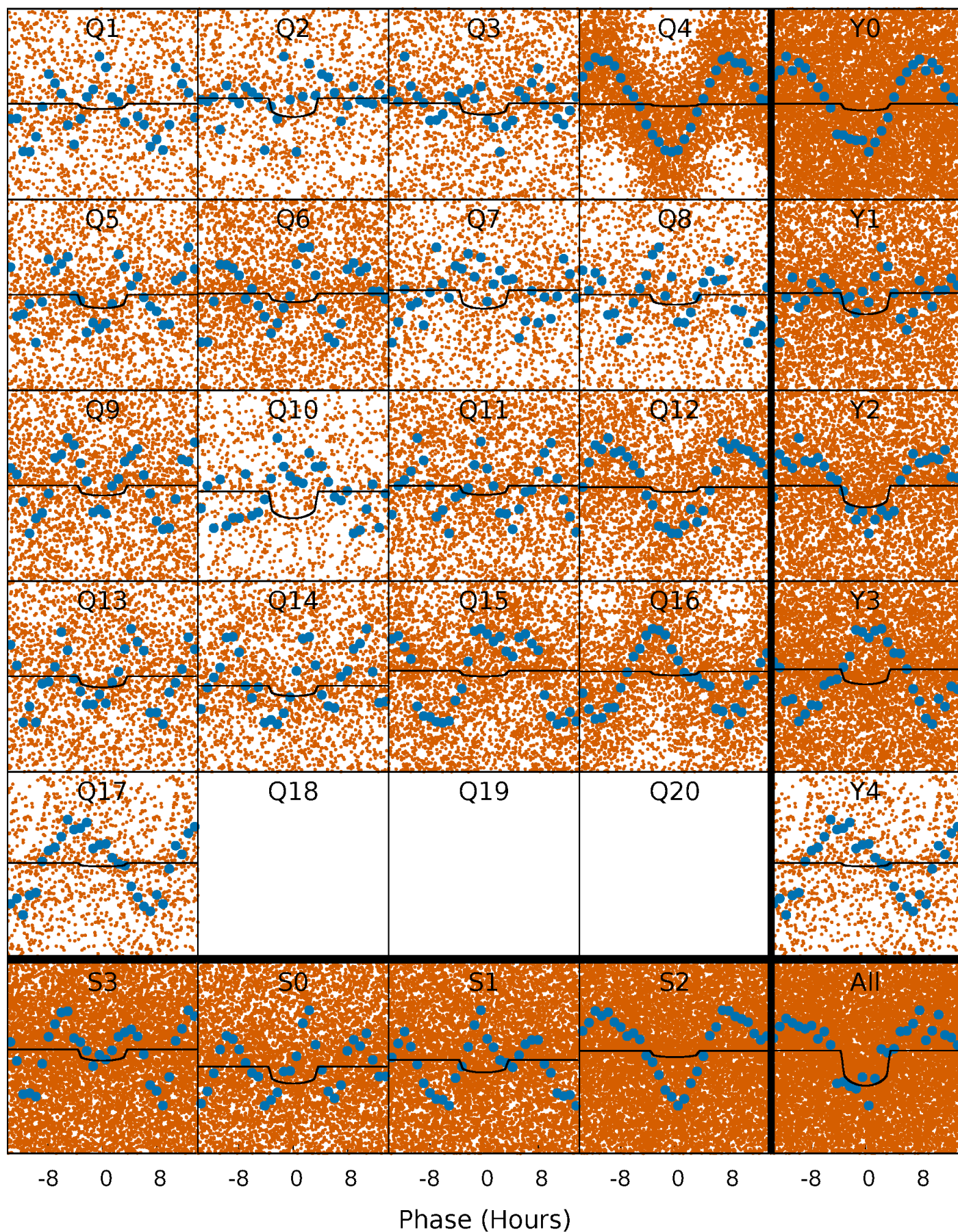
PDC Quarter-Phased Transit Curves

TCE 009655487-01 P= 0.792122 Days $T_0=132.119194$ (BKJD)



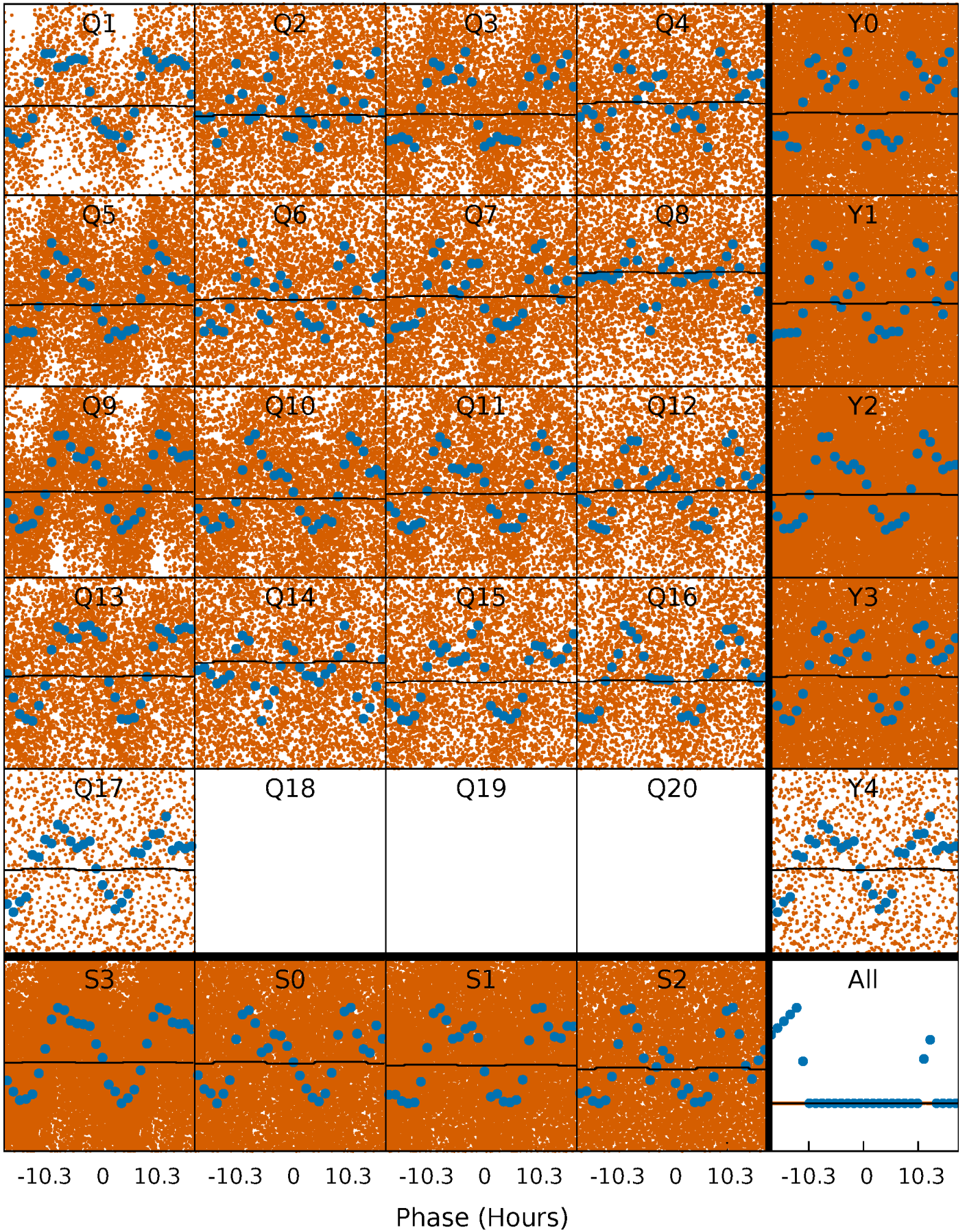
DV Quarter-Phased Transit Curves

TCE 009655487-01 P= 0.792122 Days $T_0=132.119194$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

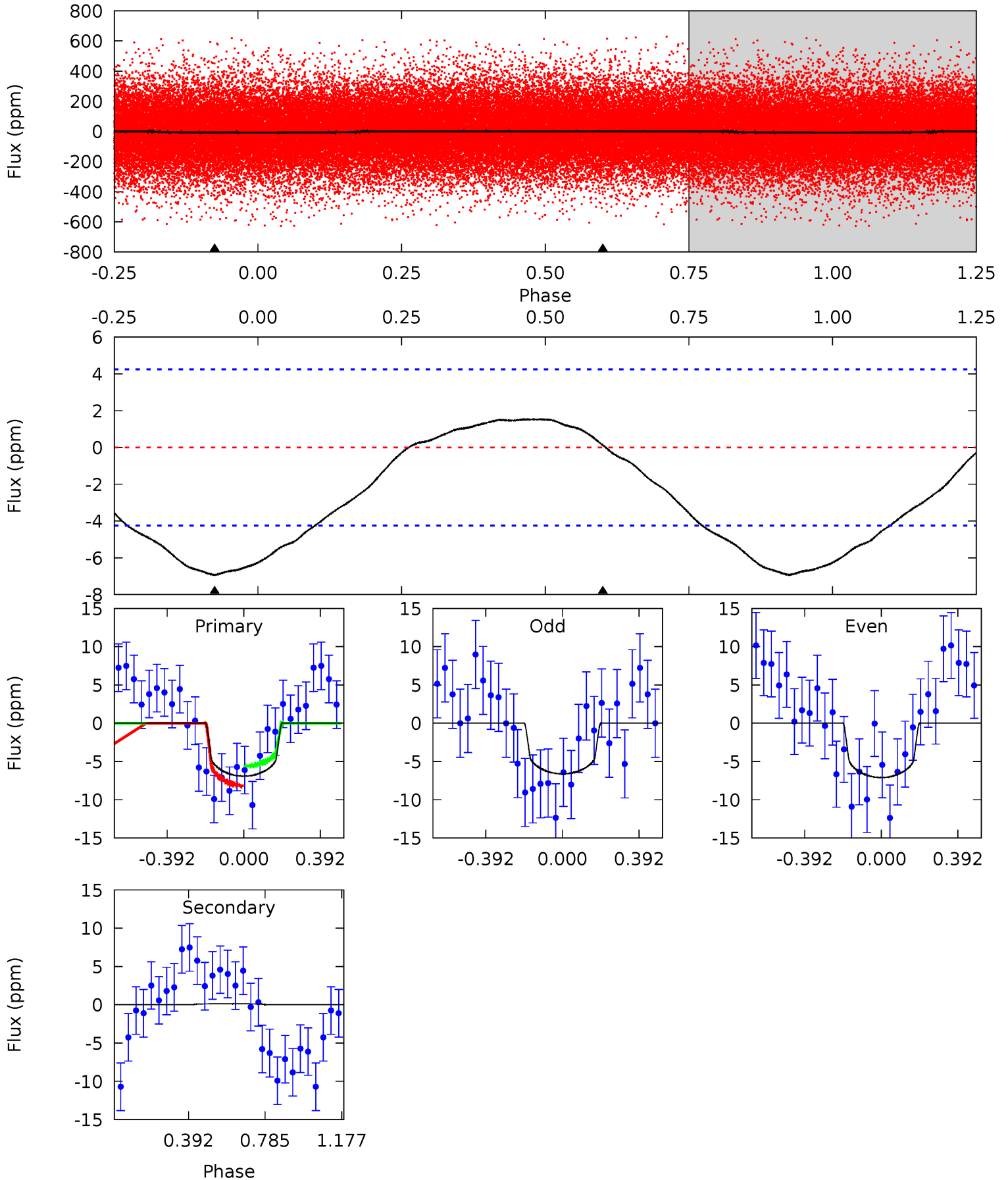
TCE 009655487-01 P= 0.791267 Days $T_0=132.251248$ (BKJD)



DV Model-Shift Uniqueness Test

009655487-01, P = 0.792122 Days, E = 131.327072 Days

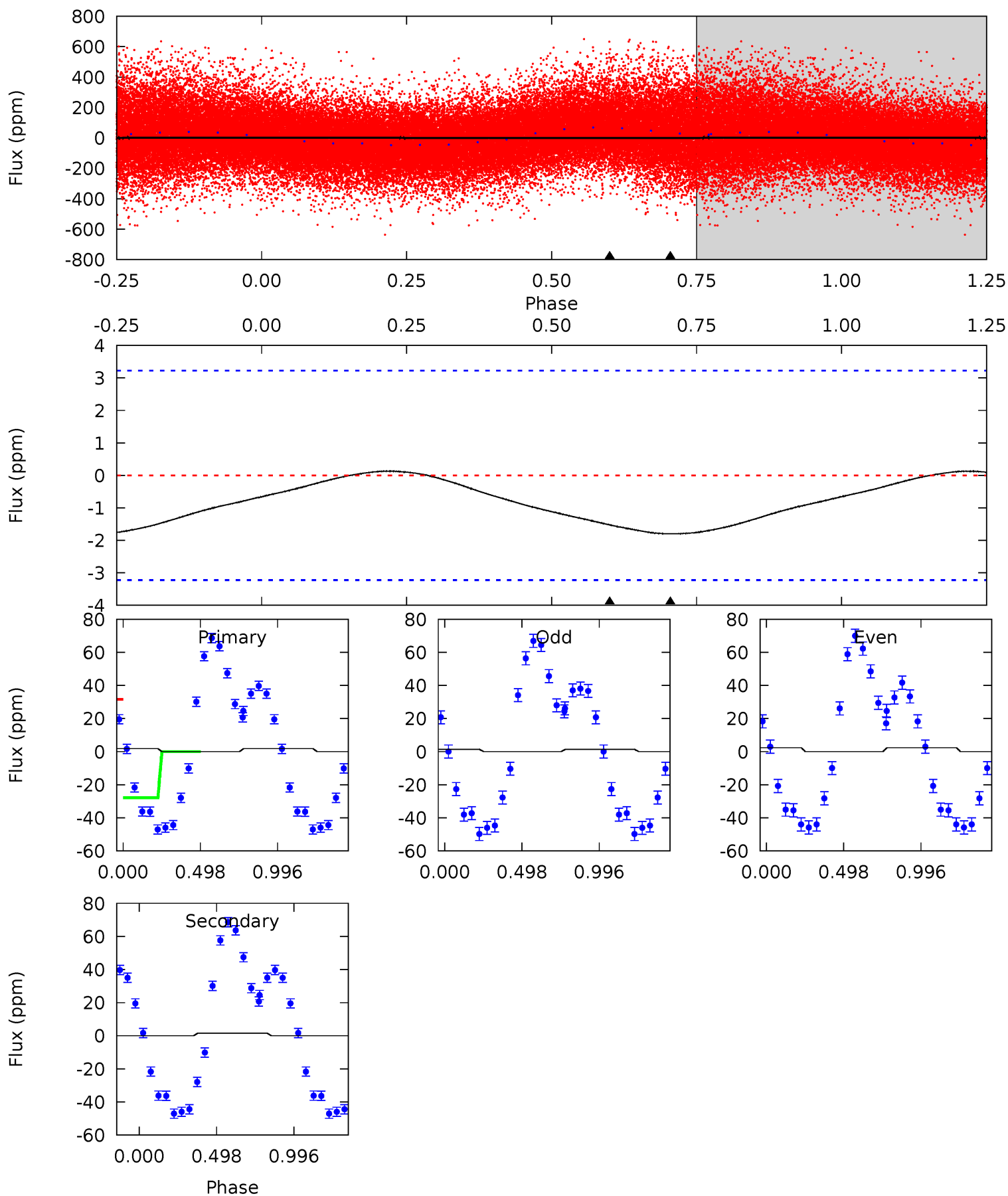
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.96	-0.13	0	0	4.27	0.86	0.61	6.96	6.96	-0.13	-0.13	0.25	1.54	0.18	1.32



Alt Model-Shift Uniqueness Test

009655487-01, P = 0.791267 Days, E = 131.459981 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.35	1.99	0	0	4.22	0.68	0.13	2.35	2.35	1.99	1.99	0.68	-13.4	0.07	2.36



Stellar Parameters For KIC 009655487

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6729^{+189}_{-284}	$4.225^{+0.128}_{-0.192}$	$-0.180^{+0.250}_{-0.300}$	$1.441^{+0.460}_{-0.283}$	$1.280^{+0.182}_{-0.202}$	$0.603^{+0.394}_{-0.302}$
	+3%/-4%	+3%/-5%	+139%/-167%	+32%/-20%	+14%/-16%	+65%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 009655487-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1	$0.54^{+0.43}_{-0.33}$	3719^{+306}_{-244}	-3661^{+7034}_{-1154}	$-0.062^{+0.596}_{-1.261}$
Alt.	-2 ± 1	$0.38^{+0.40}_{-0.26}$	3716^{+279}_{-244}	4559^{+3898}_{-1596}	$1.586^{+14.809}_{-1.204}$

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 $A_{obs} \gg 1.0$

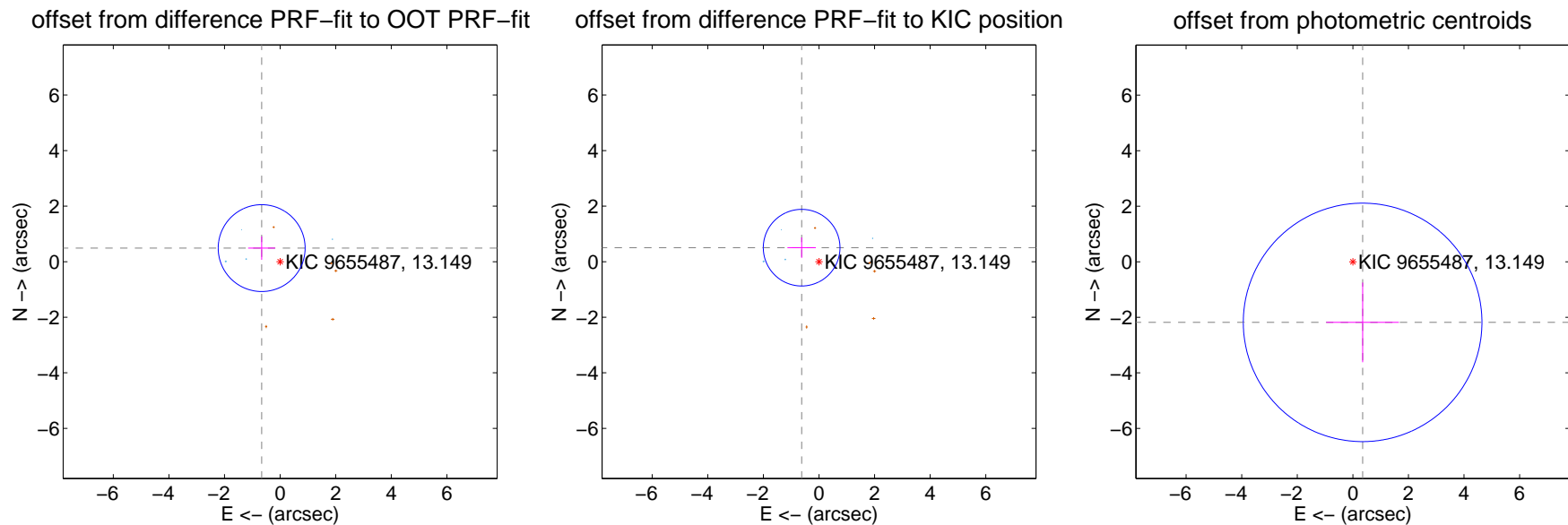
DV Centroid Data

Supplemental centroid analysis for 009655487-01. Kepler magnitude: 13.15. Transit SNR 3.18

There are 4 quarters with good PRF difference image offsets

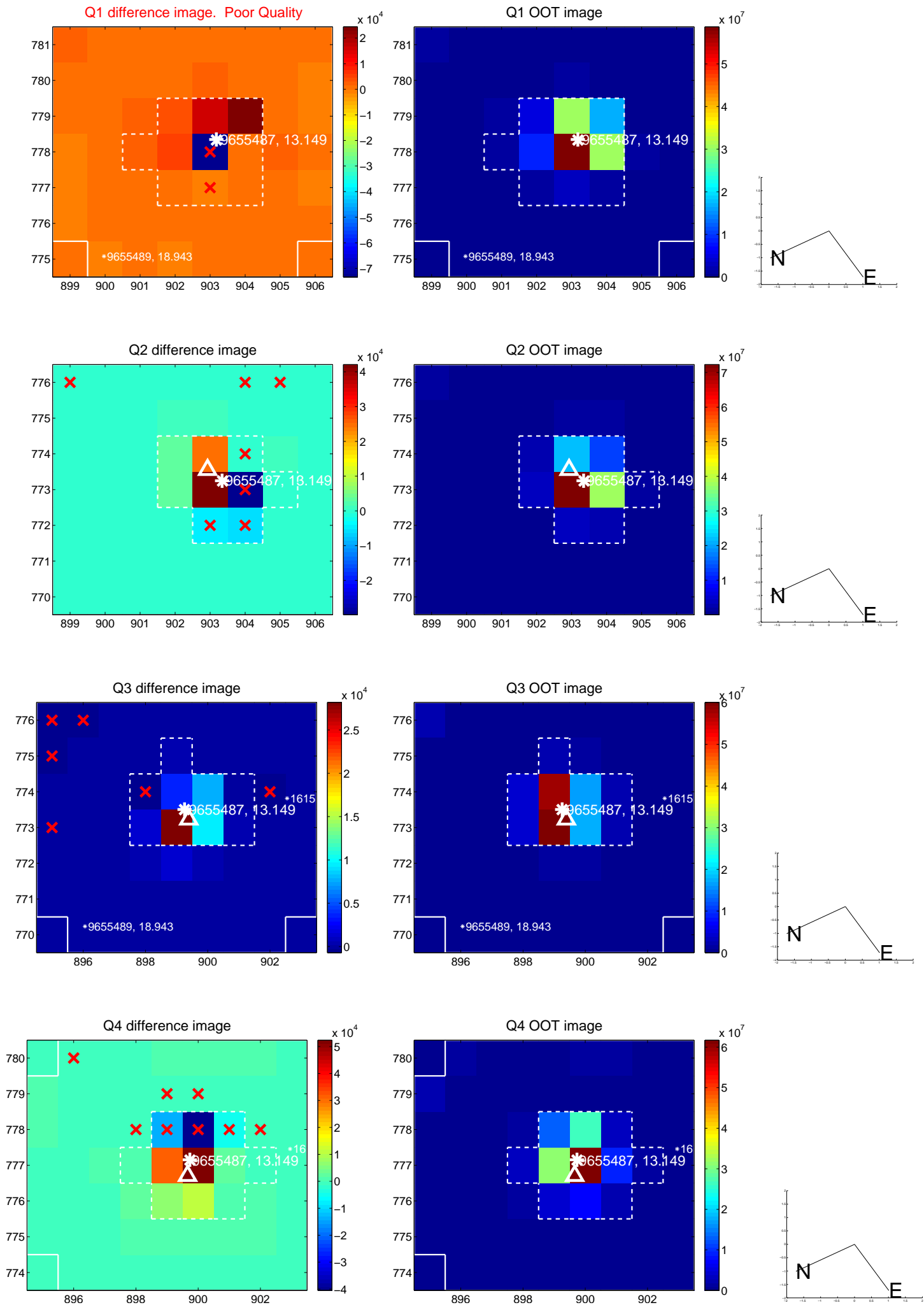
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.824 ± 0.521	1.58	0.663 ± 0.486	0.489 ± 0.421
PRF-fit source offset from KIC position	0.803 ± 0.460	1.75	0.624 ± 0.511	0.505 ± 0.368
photometric centroid source offset	2.21 ± 1.43	1.55	-0.35 ± 1.31	-2.18 ± 1.43

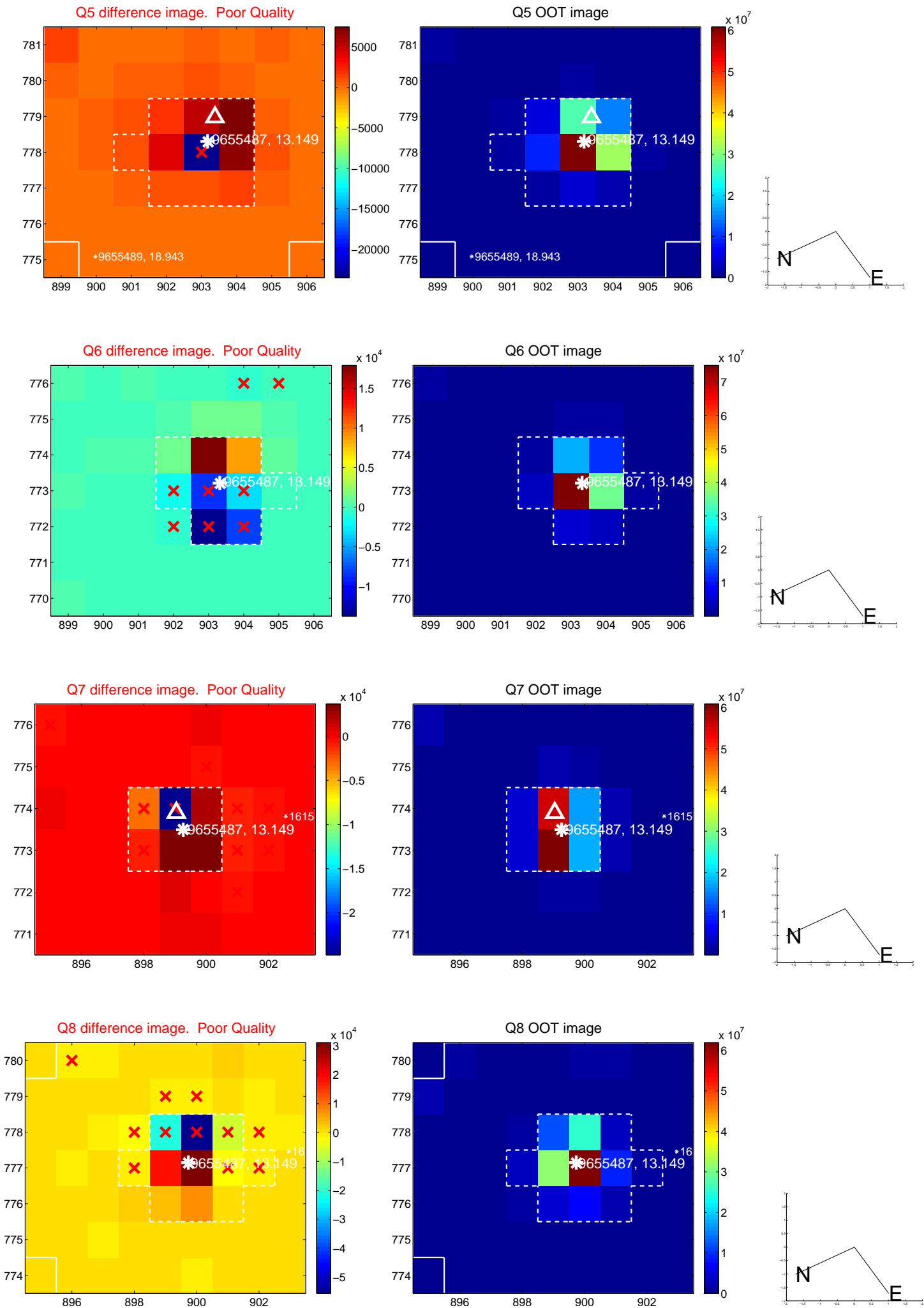


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

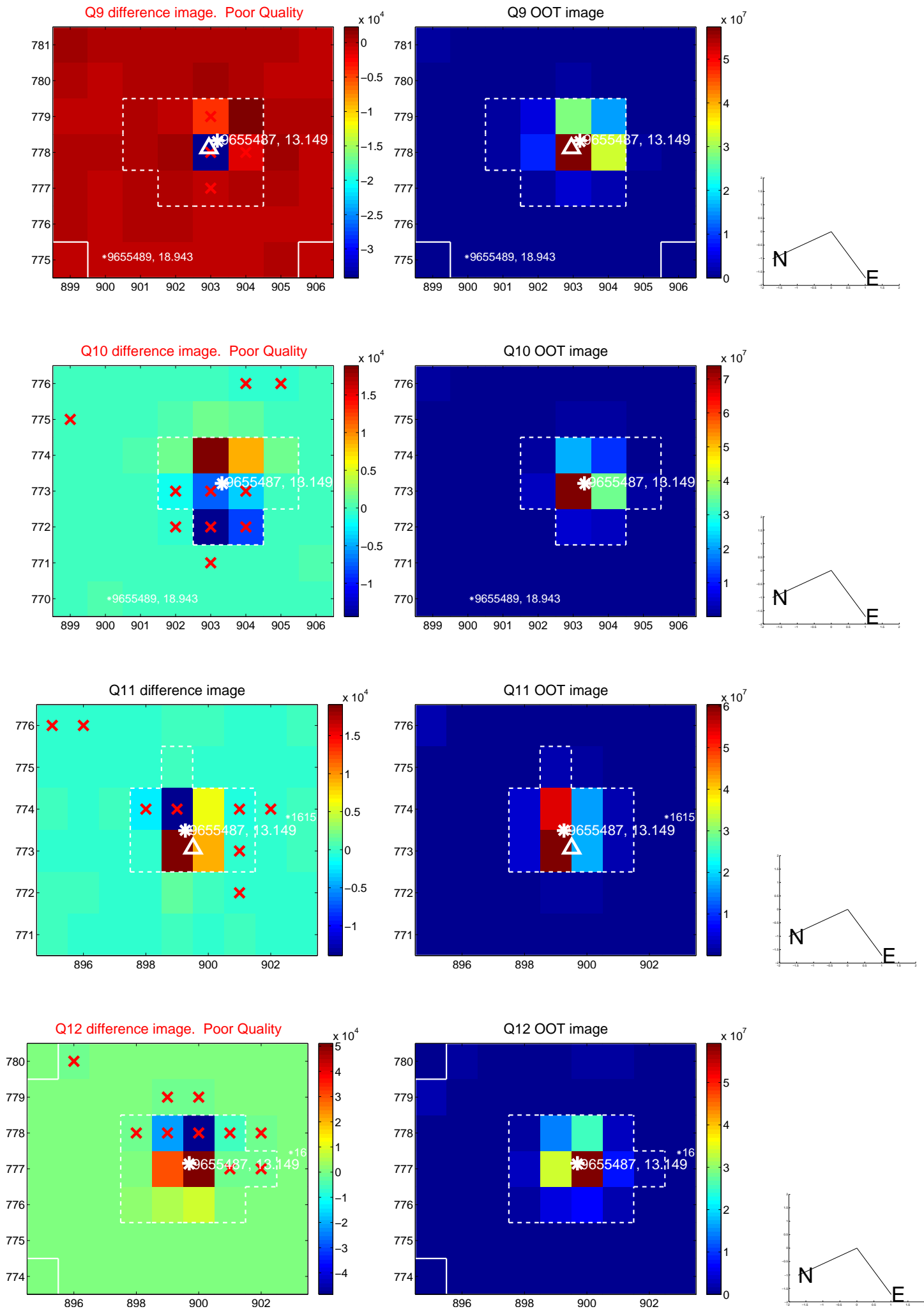
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



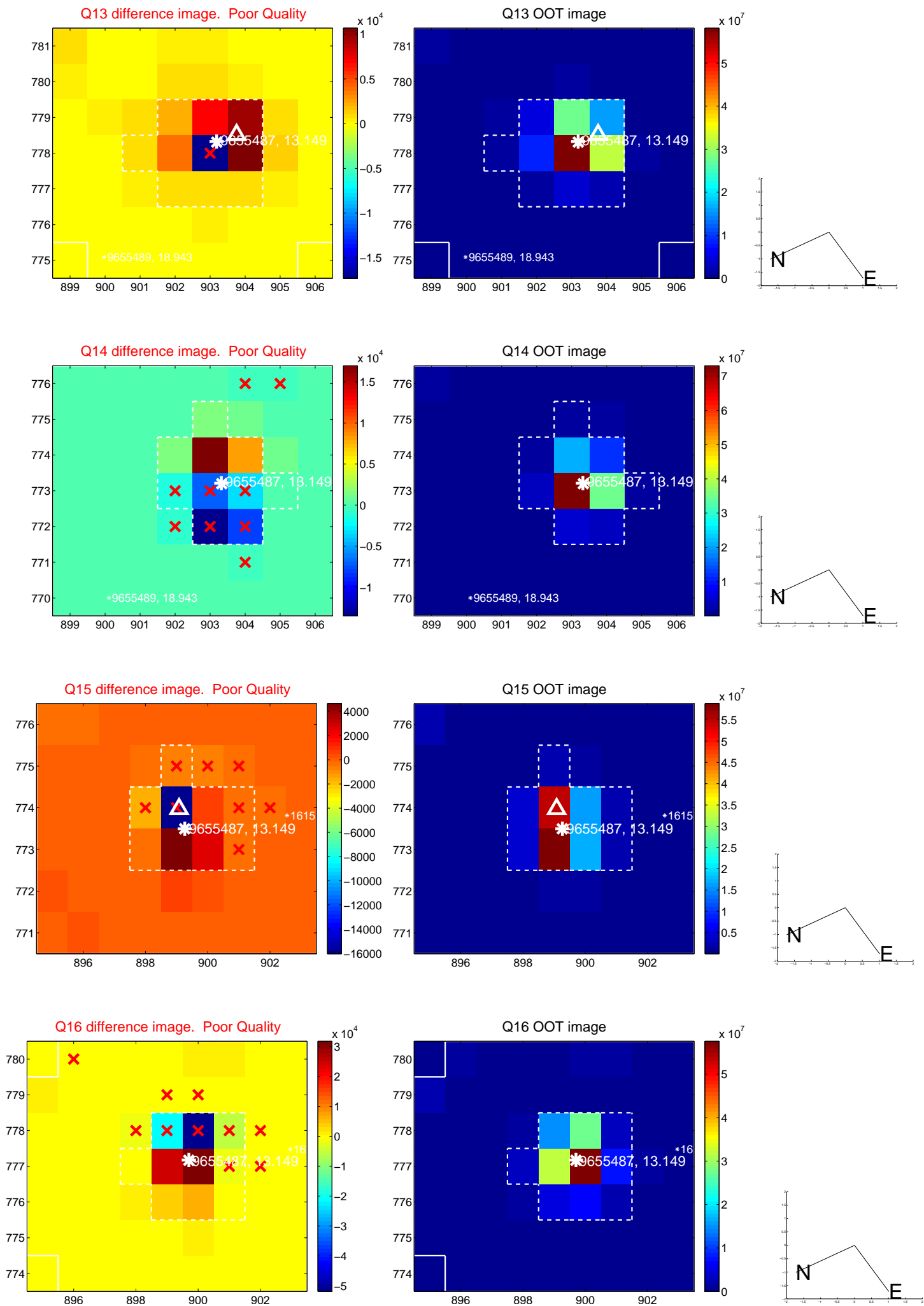
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



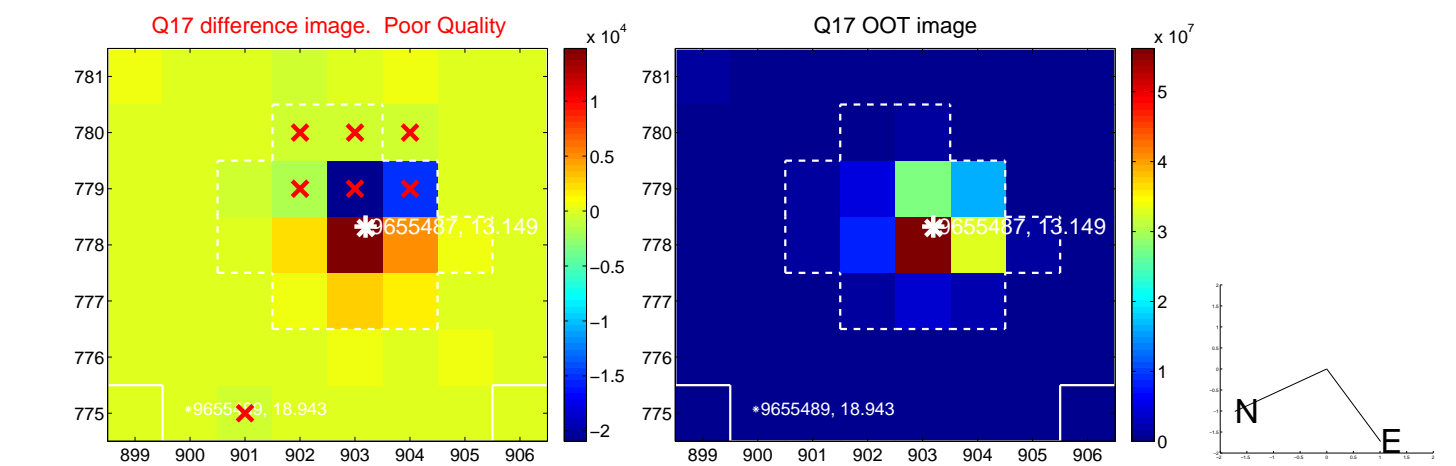
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



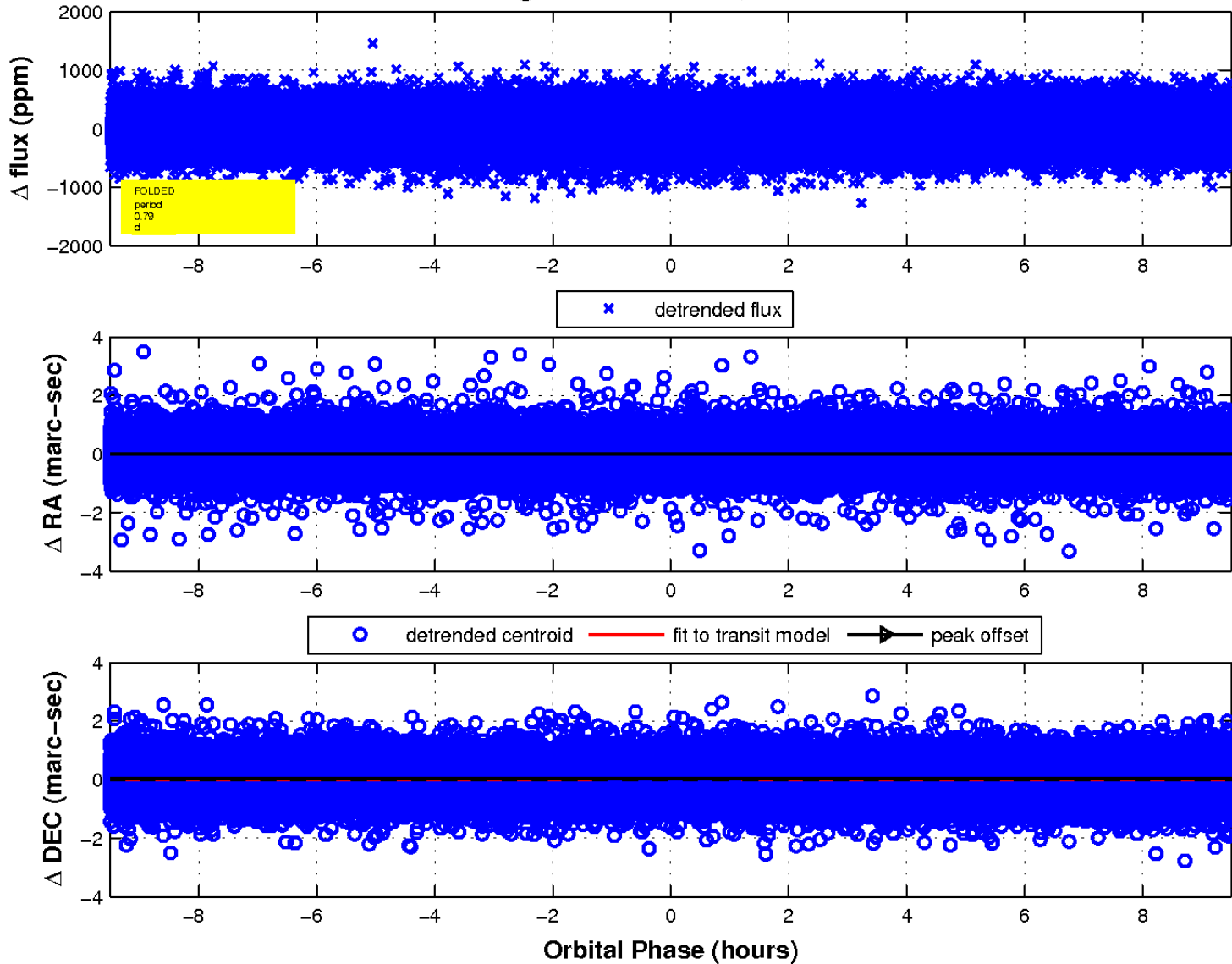
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

