

KIC 005214214

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})
005214214-01	OBS	No	0.924464	131.819623	7.0	8.341	7.7	9.8	1.98	8975	0.53	40550.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005214214-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

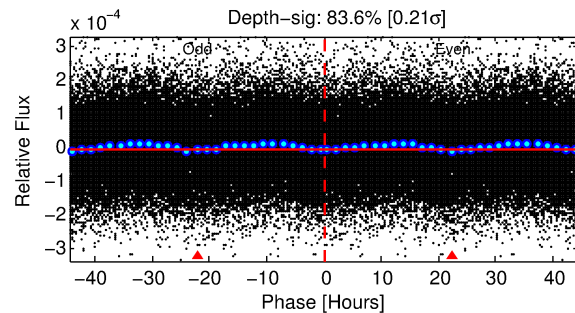
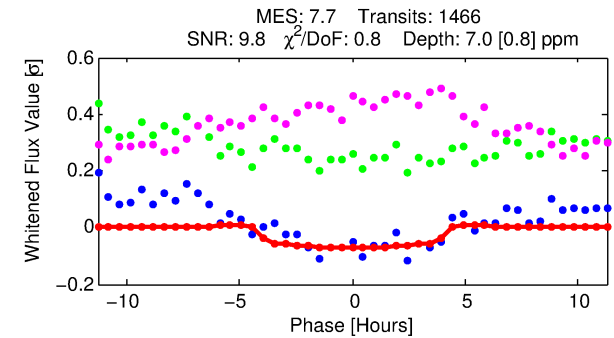
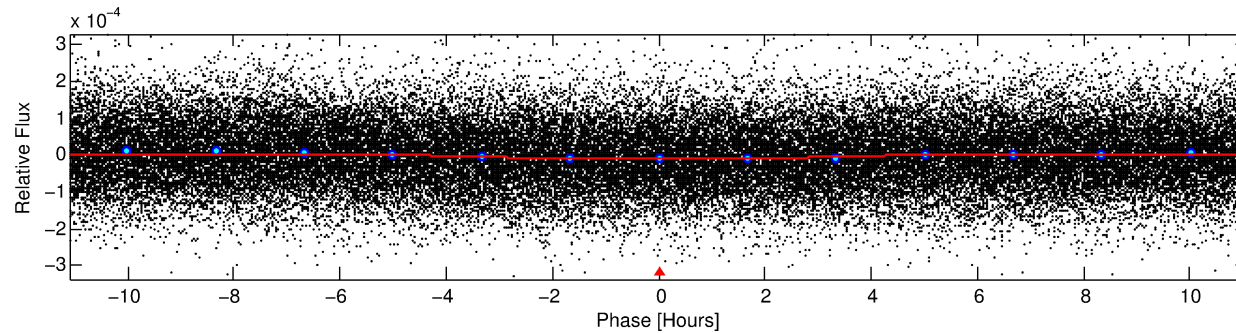
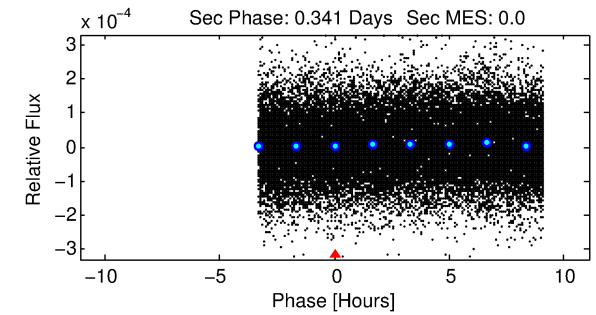
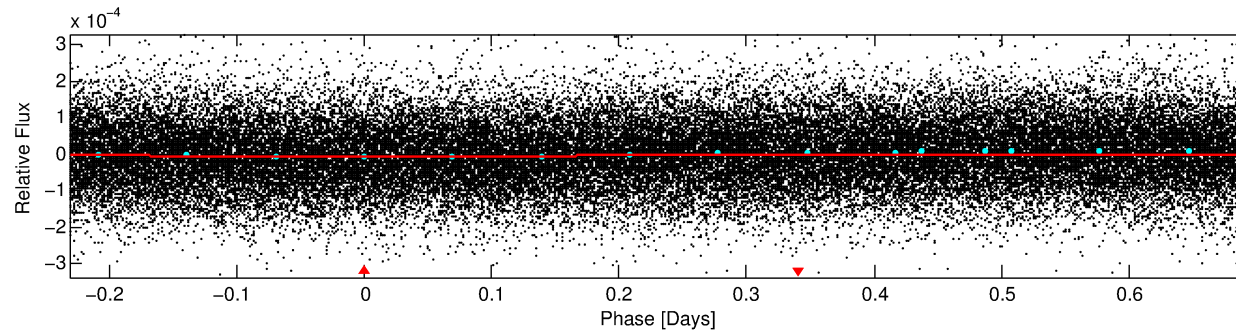
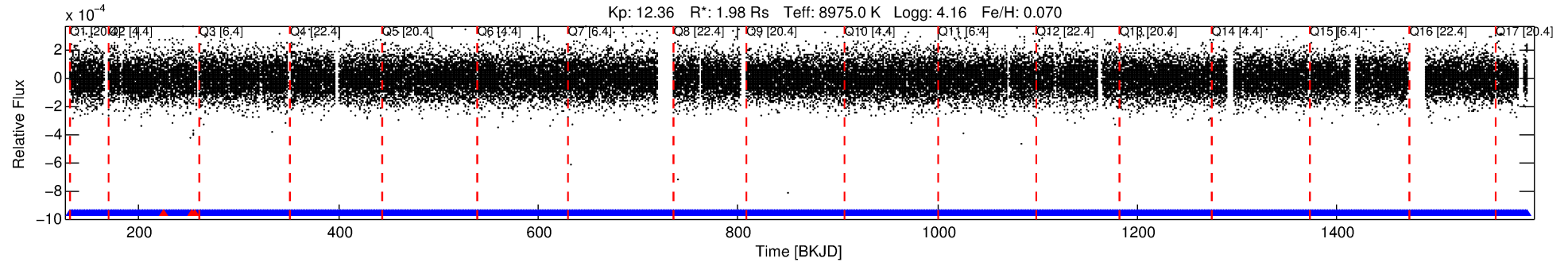
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005214214-01

No Significant Match Found

DV One-Page Summary

KIC: 5214214 Candidate: 1 of 1 Period: 0.924 d



DV Fit Results:

Period = 0.92446 [0.00002] d
Epoch = 131.8196 [0.0075] BKJD
Rp/R* = 0.0025 [0.0020]
a/R* = 1.08 [0.83]
b = 0.04 [146.60]
Seff = 40550.49 [15747.16]
Teff = 3618 [351] K
Rp = 0.53 [0.46] Re
a = 0.0237 [0.0059] AU
Ag = N/A
Teffp = N/A

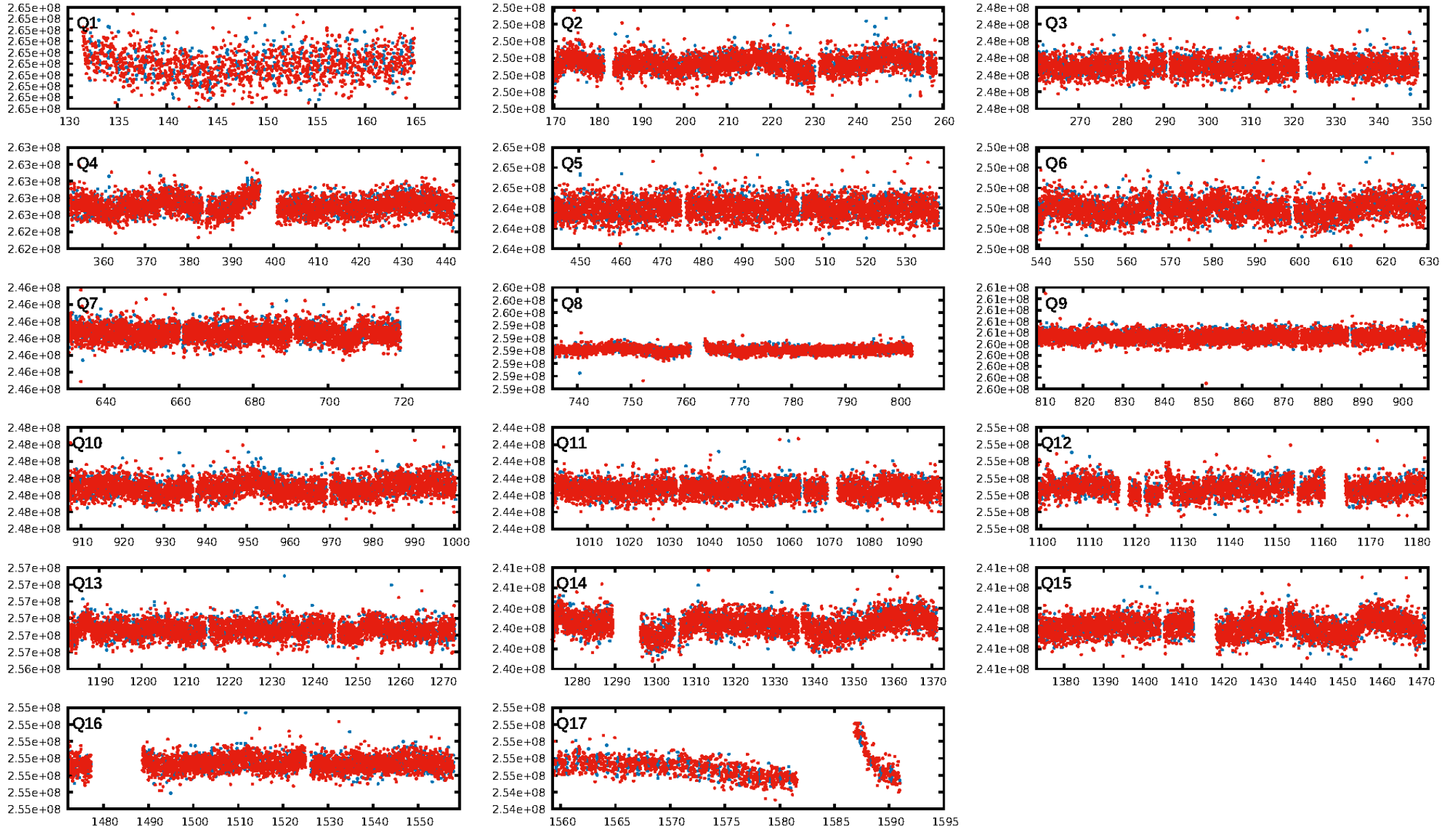
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1396/1399]
GhostDiagnostic-chr: 2.224
Centroid-sig: 13.5%
Centroid-so: 1.843 arcsec [1.23σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

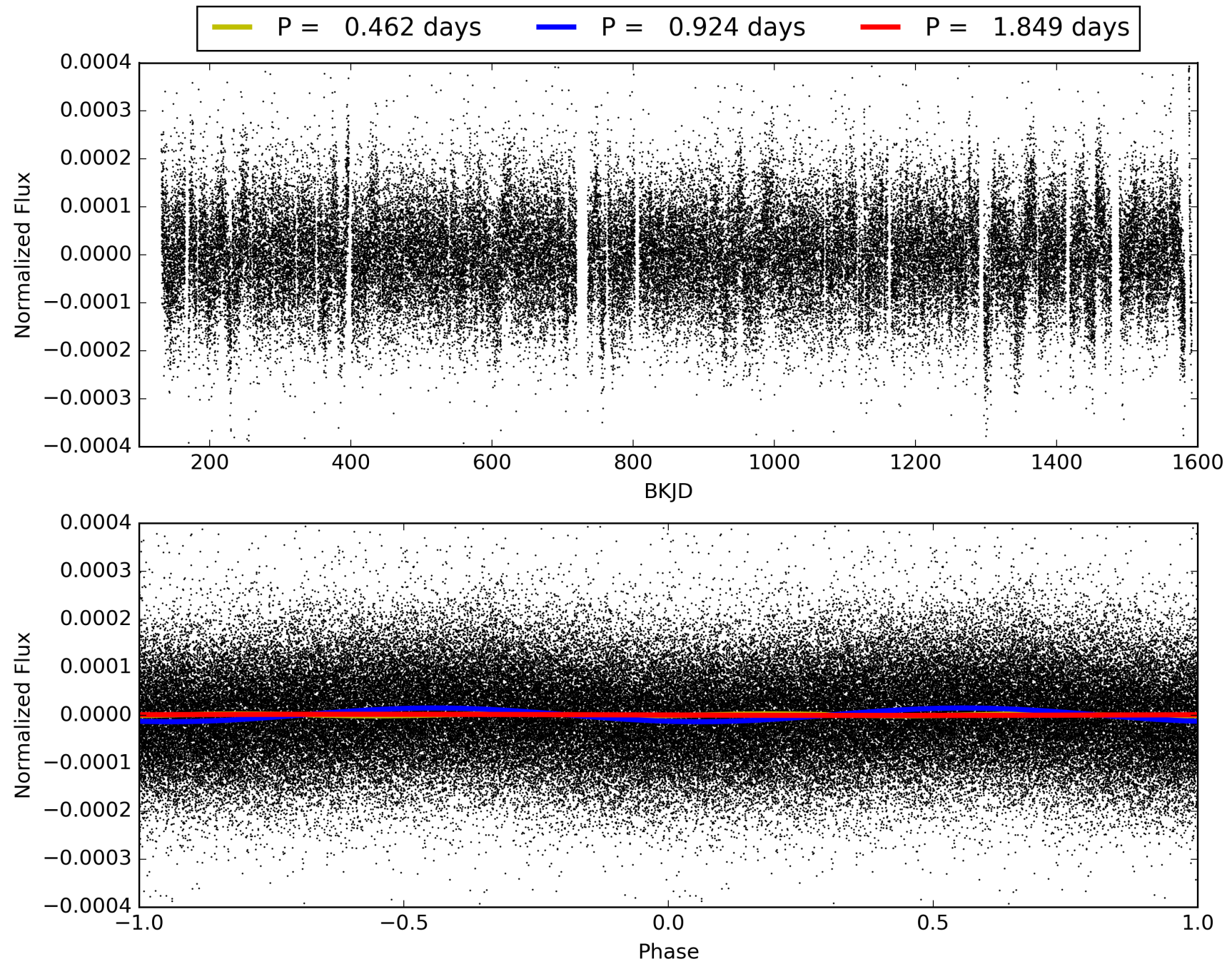
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:41:20 Z

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

TCE 005214214-01, PDC Light Curves

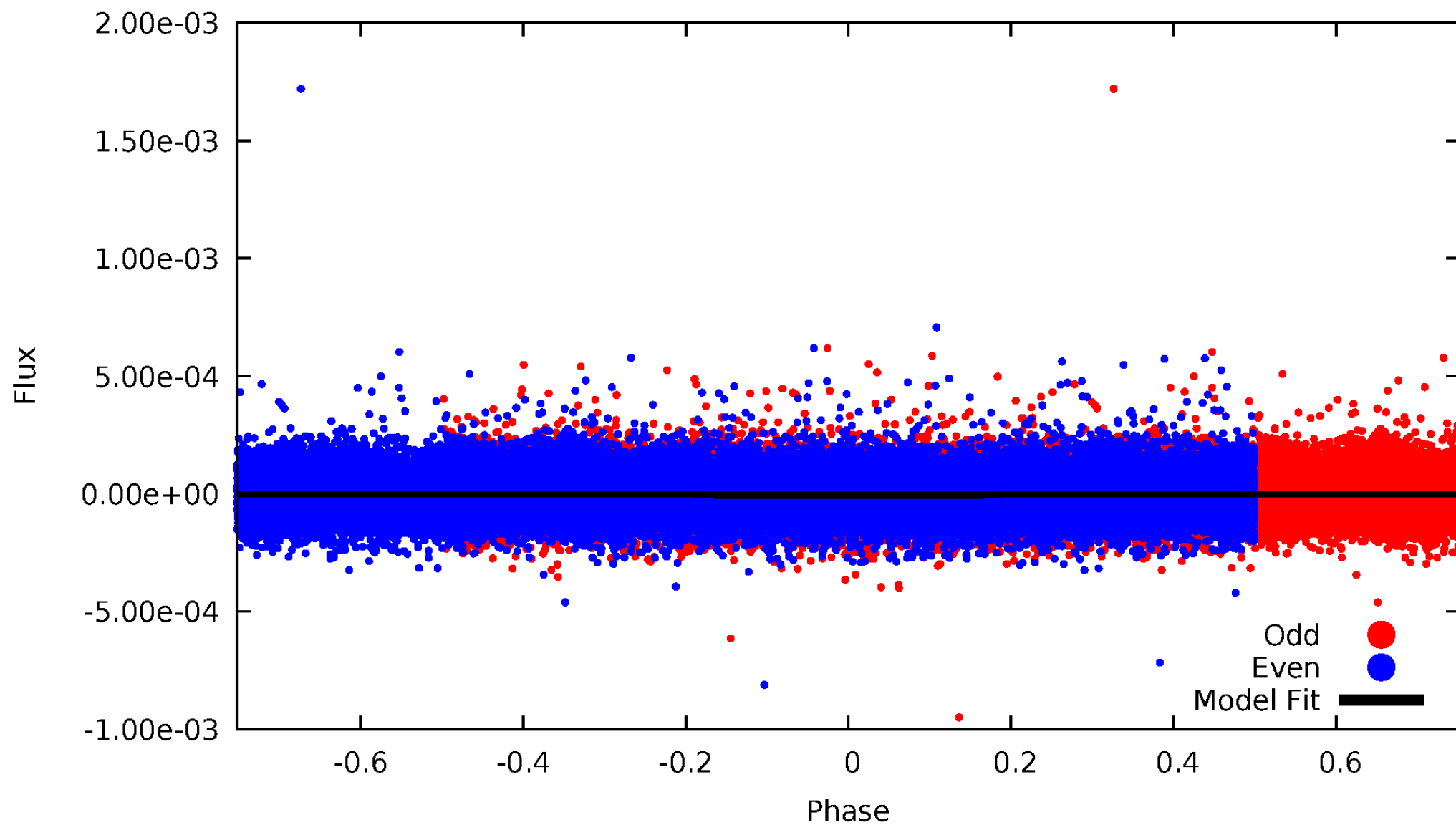


TCE 005214214-01



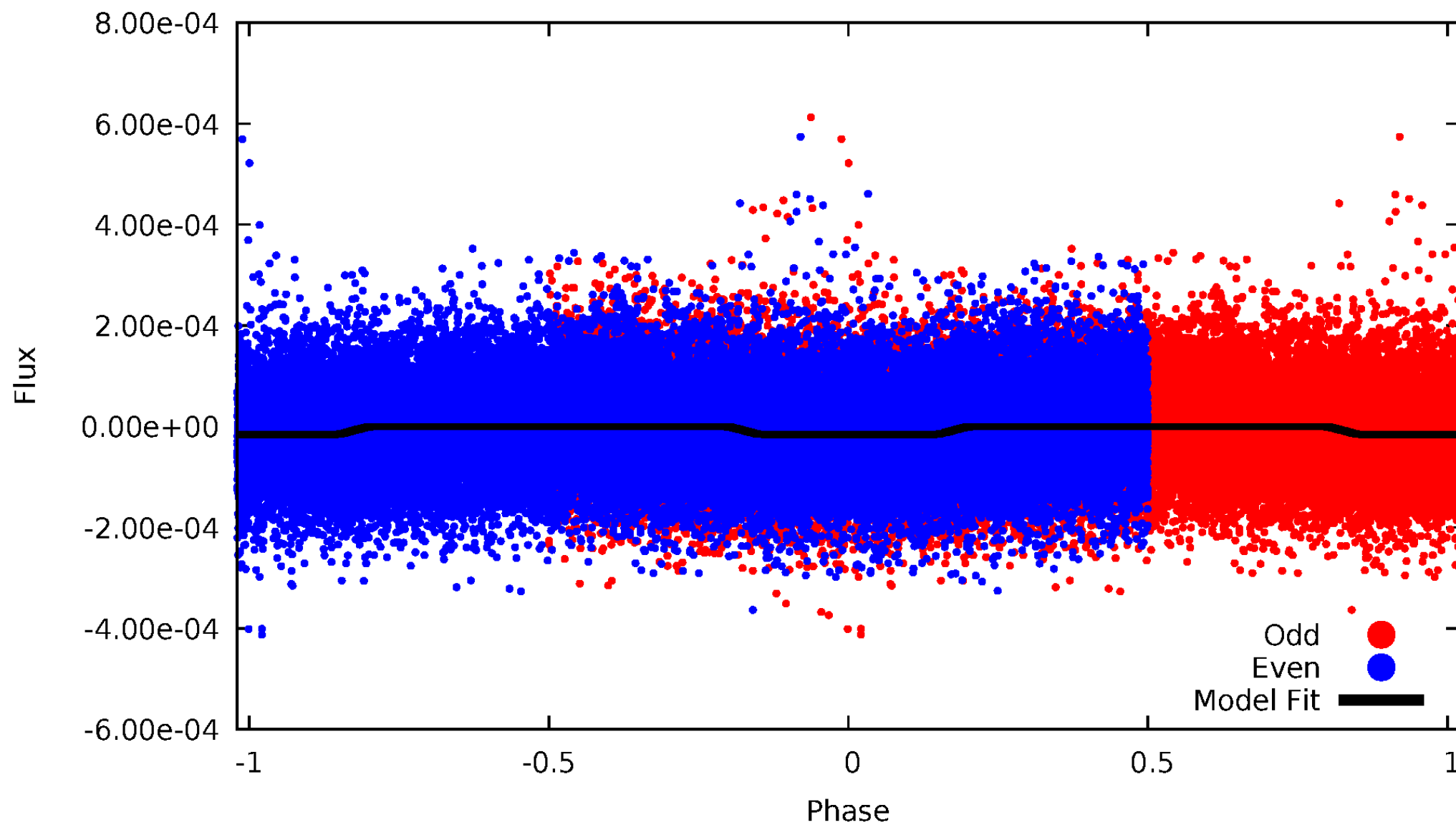
DV Odd/Even

TCE 005214214-01



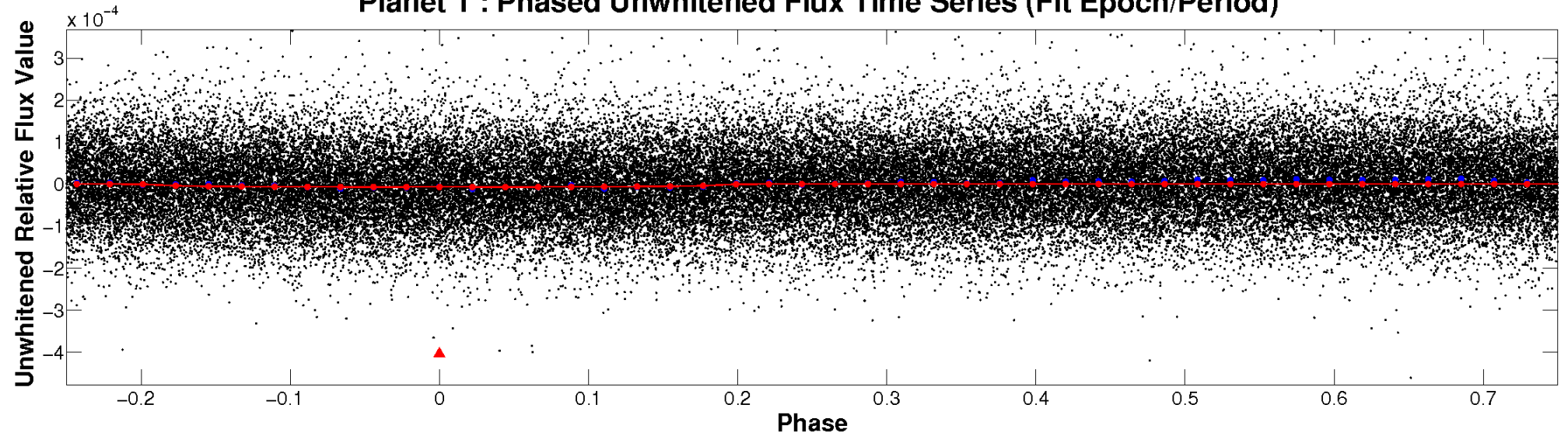
ALT Odd/Even

TCE 005214214-01

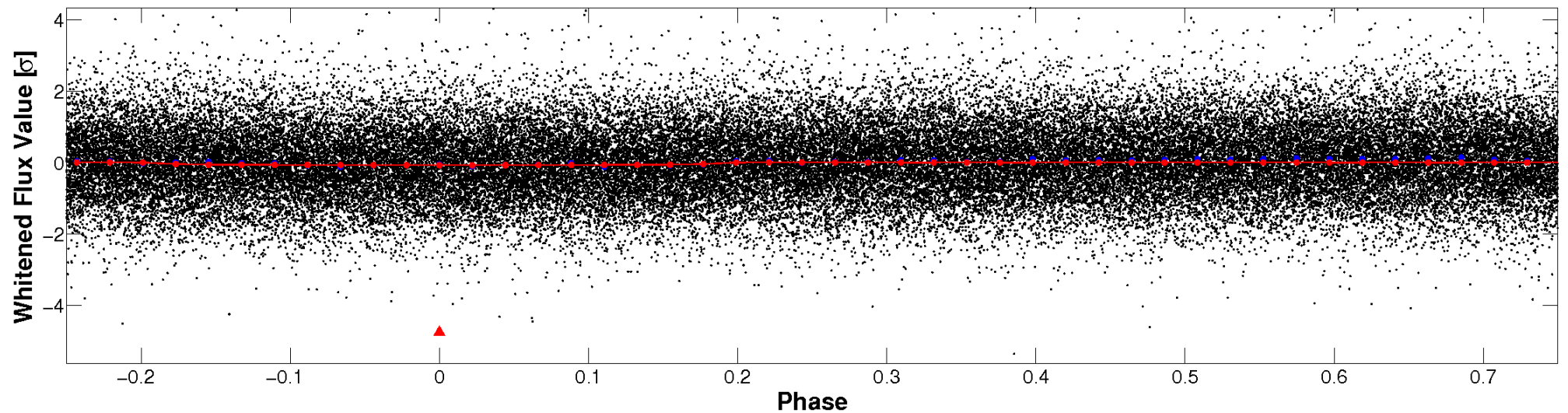


Non-Whitened Vs. Whitened Light Curve

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

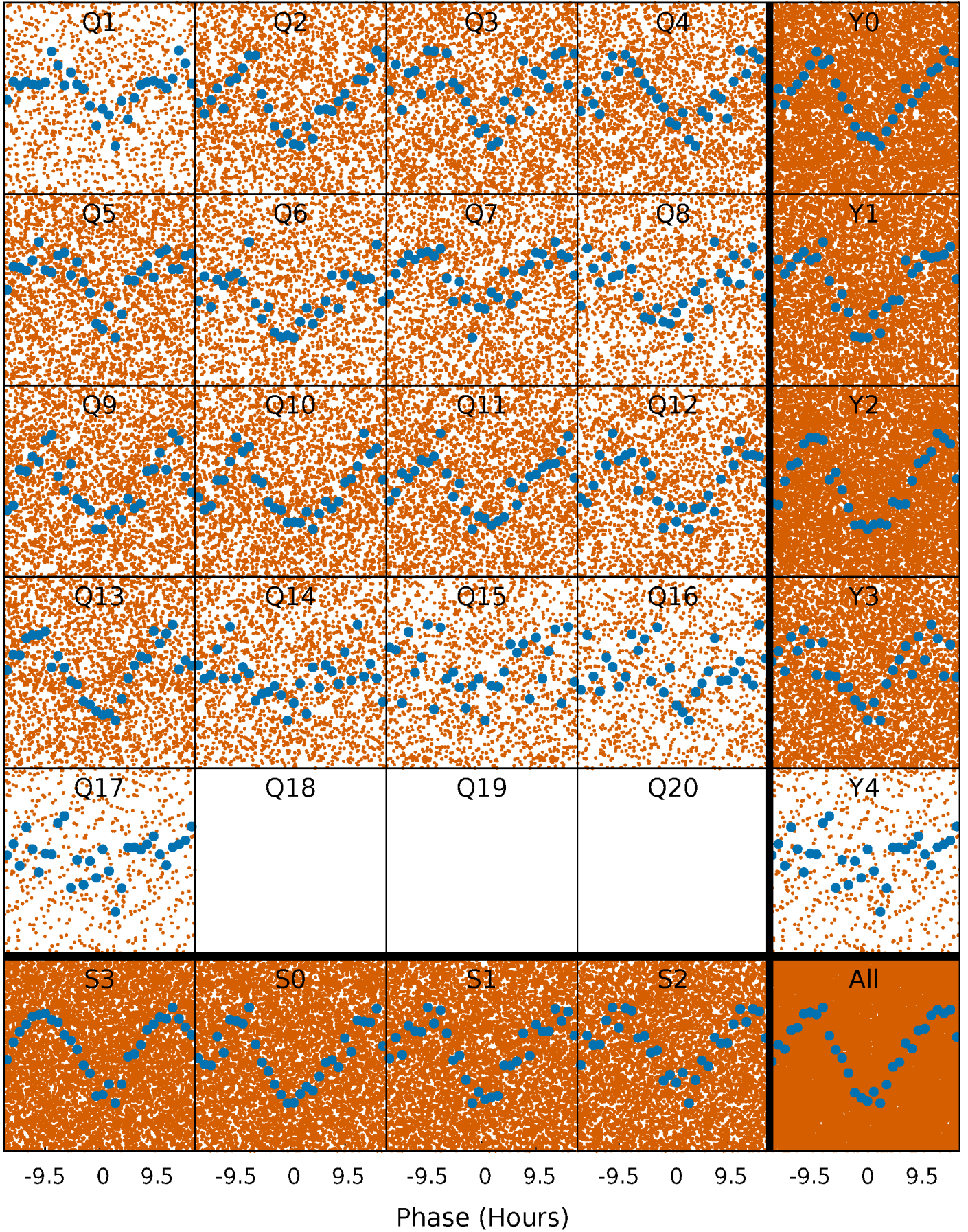


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



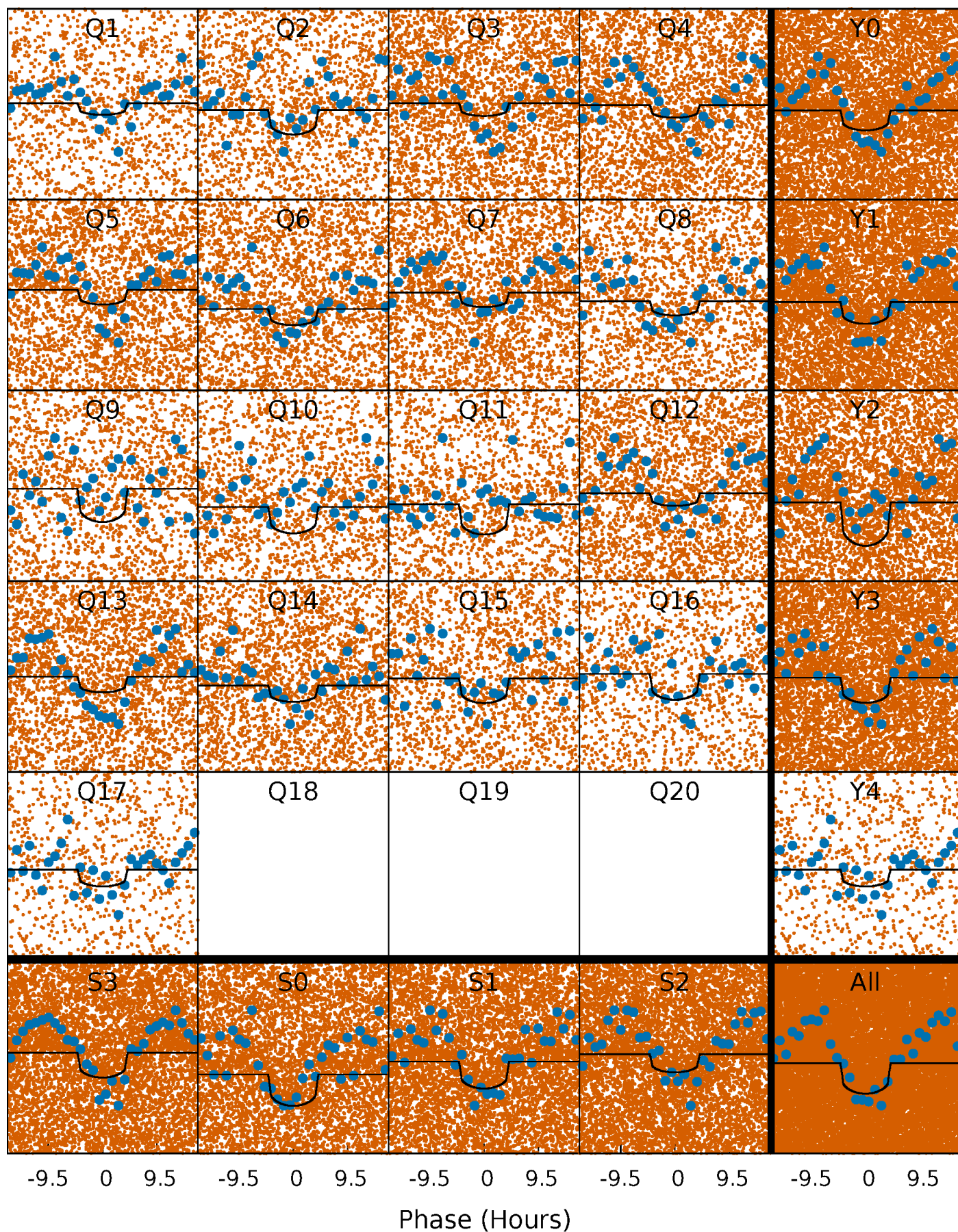
PDC Quarter-Phased Transit Curves

TCE 005214214-01 P= 0.924464 Days $T_0=131.819623$ (BKJD)



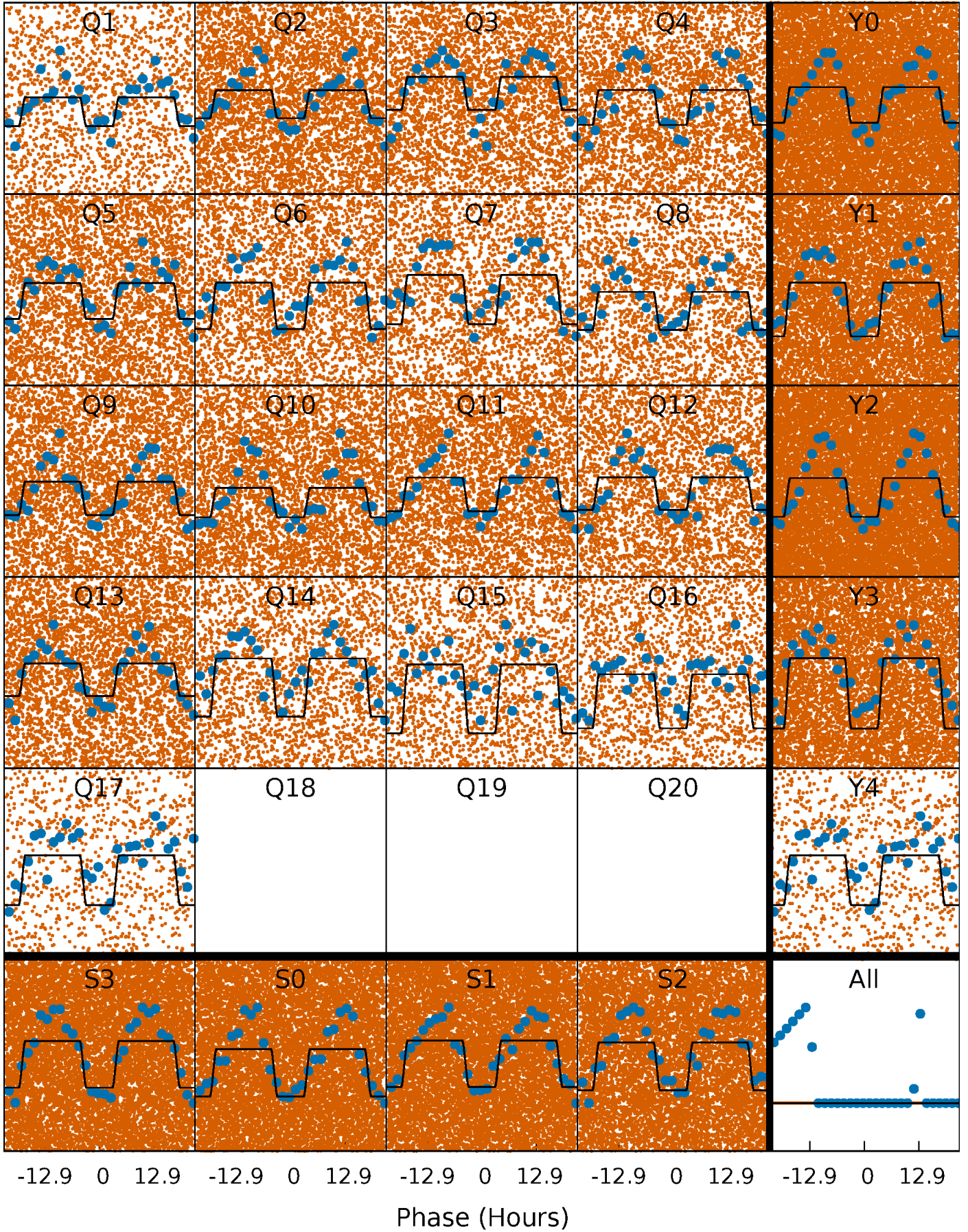
DV Quarter-Phased Transit Curves

TCE 005214214-01 P= 0.924464 Days $T_0=131.819623$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

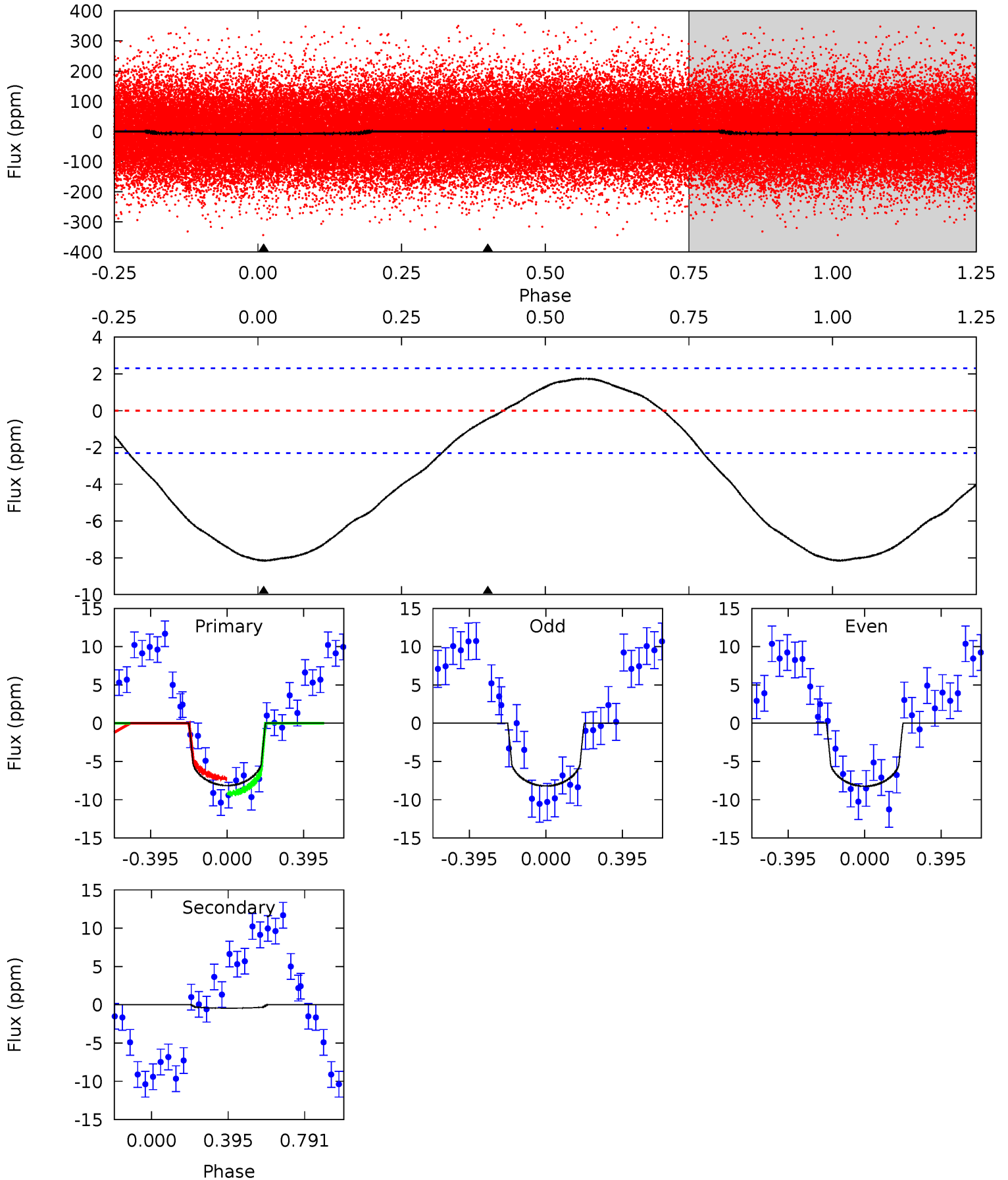
TCE 005214214-01 P= 0.924460 Days $T_0=131.858488$ (BKJD)



DV Model-Shift Uniqueness Test

005214214-01, P = 0.924464 Days, E = 130.895159 Days

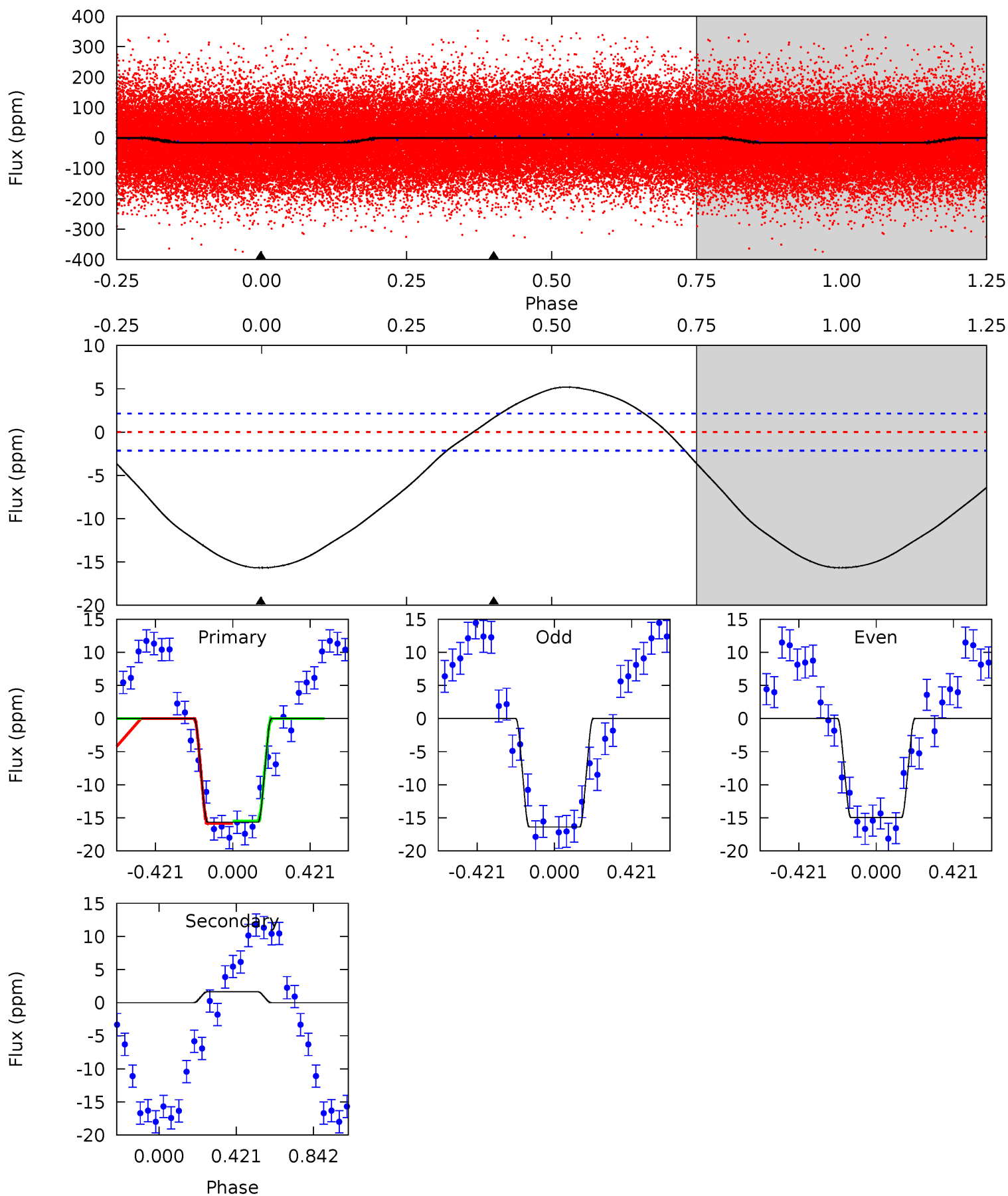
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	0.82	0	0	4.27	0.85	1.41	15.1	15.1	0.82	0.82	0.03	1.15	0.18	1.86



Alt Model-Shift Uniqueness Test

005214214-01, P = 0.924460 Days, E = 130.934028 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.1	-3.26	0	0	4.25	0.80	3.66	31.1	31.1	-3.26	-3.26	1.40	1.01	0.25	0.36



Stellar Parameters For KIC 005214214

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8975^{+249}_{-427}	$4.162^{+0.116}_{-0.174}$	$0.070^{+0.200}_{-0.600}$	$1.978^{+0.617}_{-0.411}$	$2.070^{+0.393}_{-0.481}$	$0.377^{+0.211}_{-0.182}$
	+3%/-5%	+3%/-4%	+286%/-857%	+31%/-21%	+19%/-23%	+56%/-48%
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 005214214-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-0 ± 1	$0.57^{+0.42}_{-0.35}$	5087^{+321}_{-332}	2894^{+3962}_{-7288}	$0.321^{+2.485}_{-0.373}$
Alt.	2 ± 1	$0.87^{+0.47}_{-0.44}$	5101^{+386}_{-334}	-5368^{+603}_{-1625}	$-0.653^{+0.405}_{-1.870}$

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

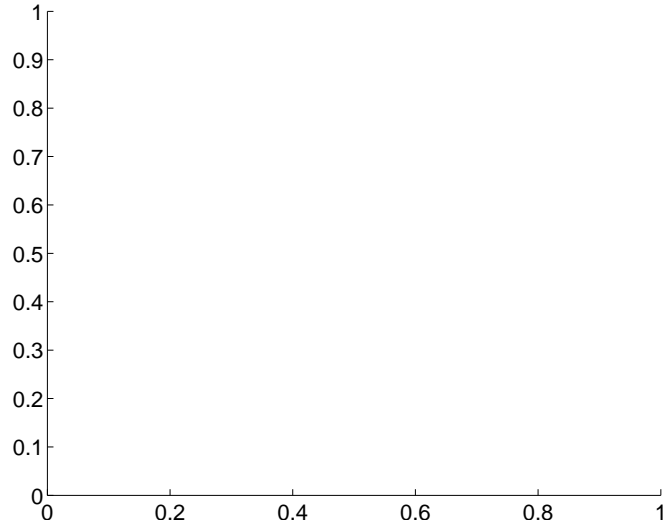
Supplemental centroid analysis for 005214214-01. Kepler magnitude: 12.36. Transit SNR 9.76

There are 0 quarters with good PRF difference image offsets

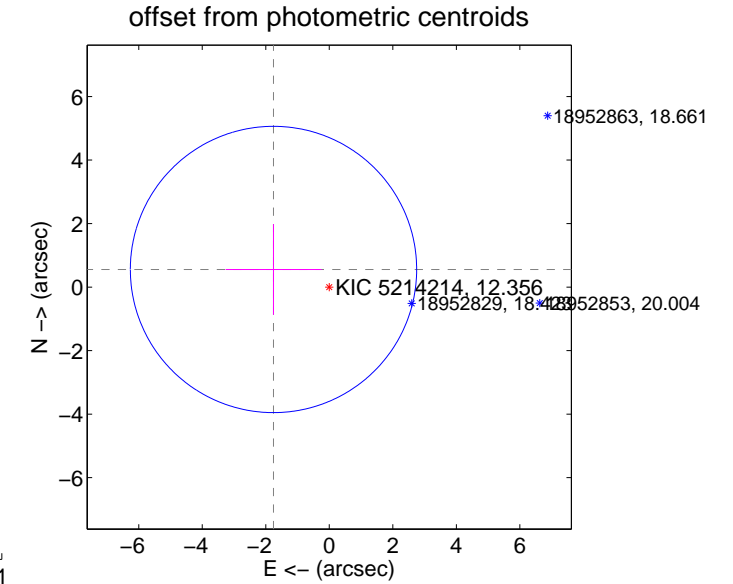
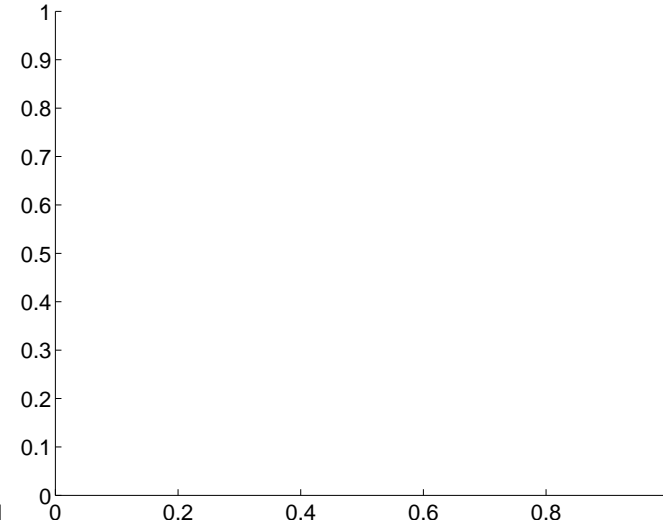
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.84 ± 1.50	1.23	1.76 ± 1.51	0.56 ± 1.43

There is no PRF-fit offset from OOT-fit

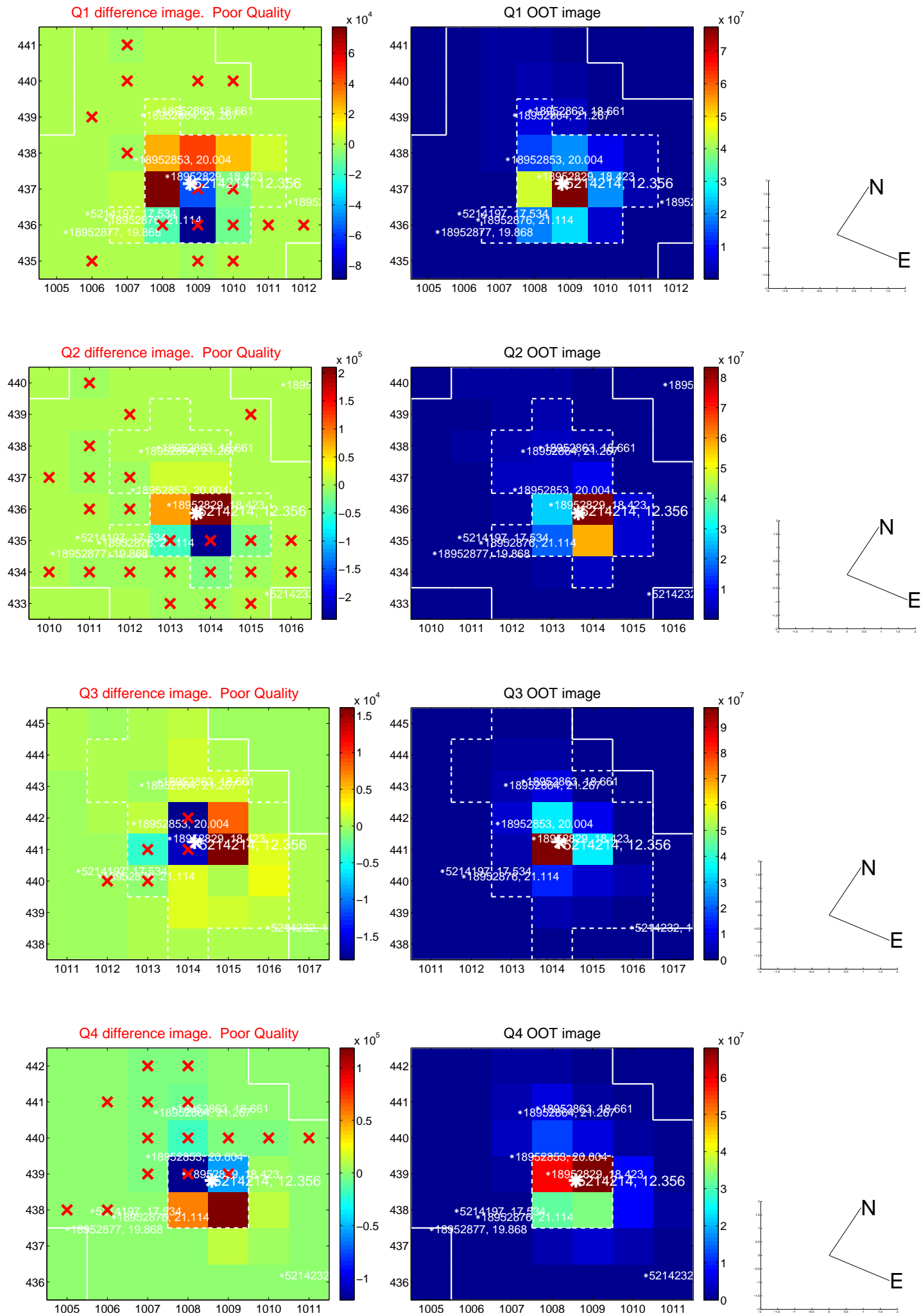


There is no PRF-fit offset from KIC

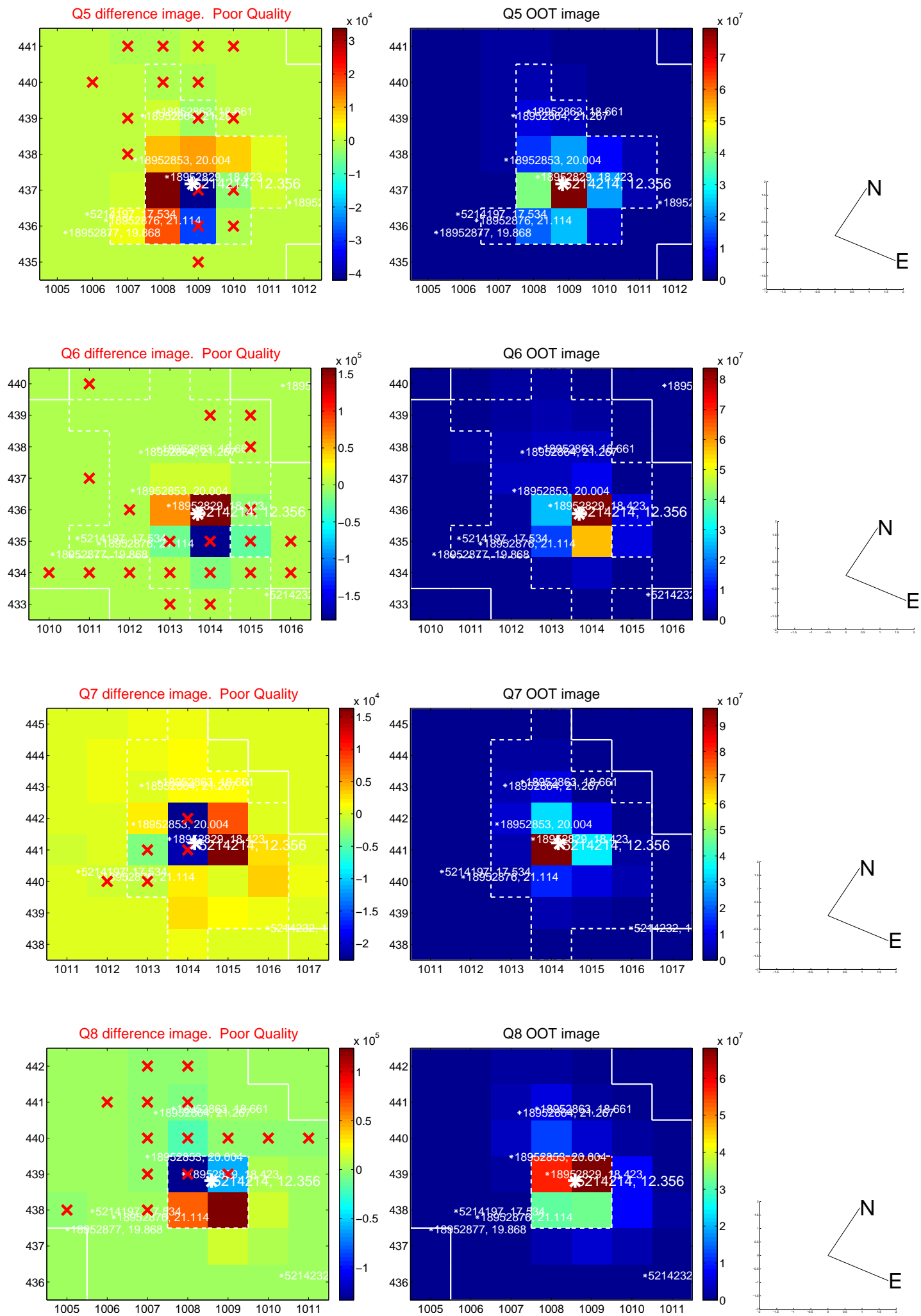


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

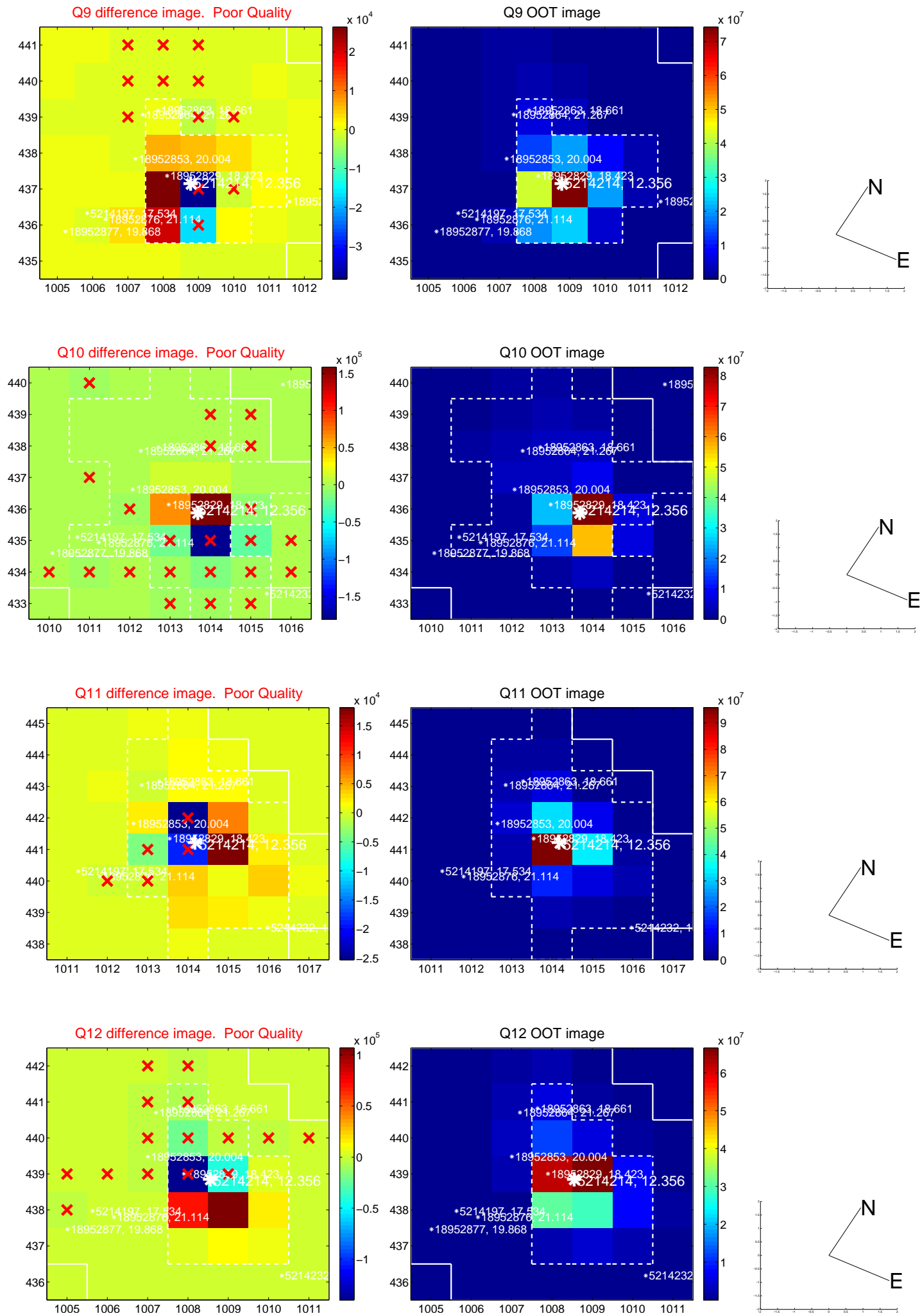
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



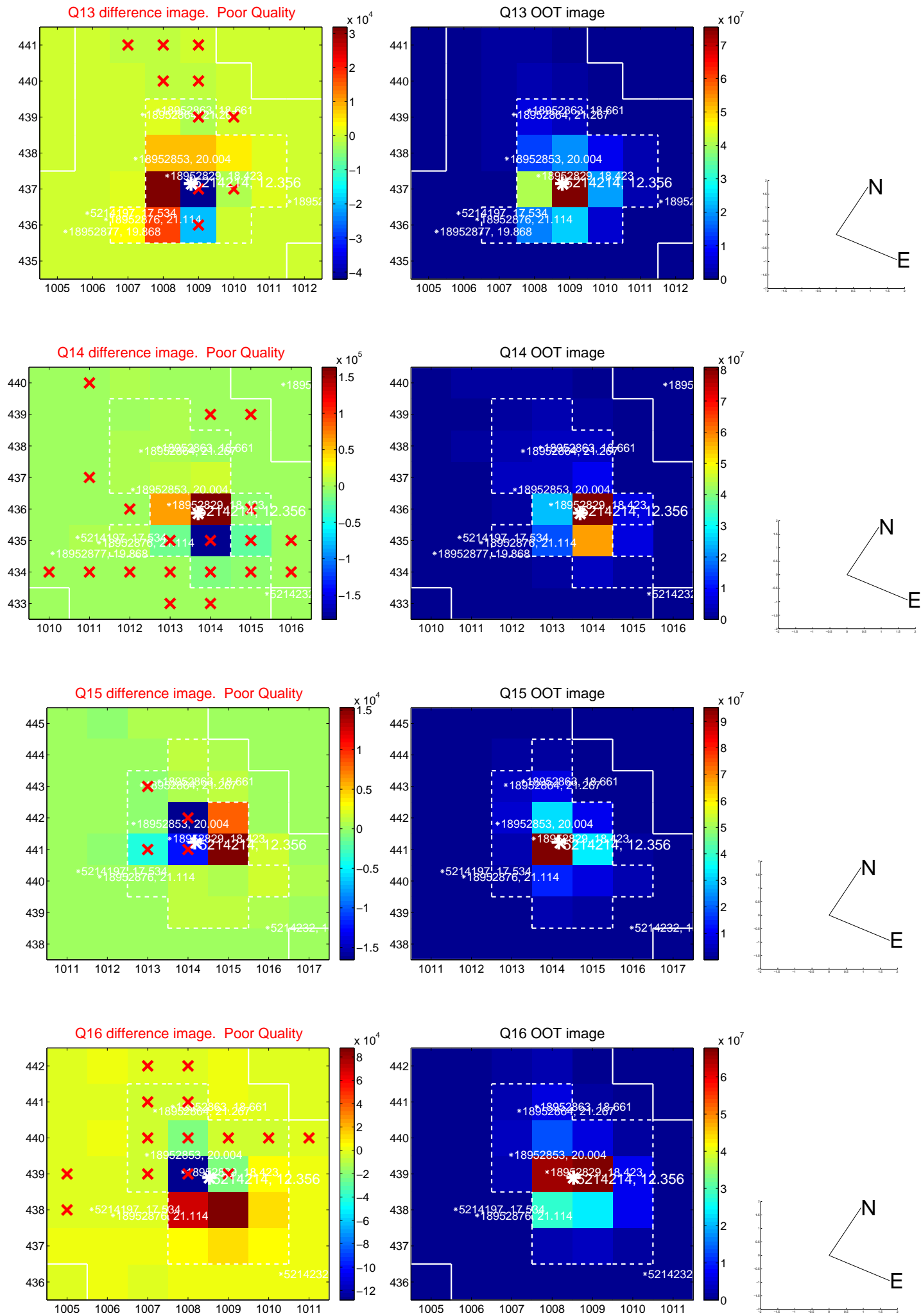
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



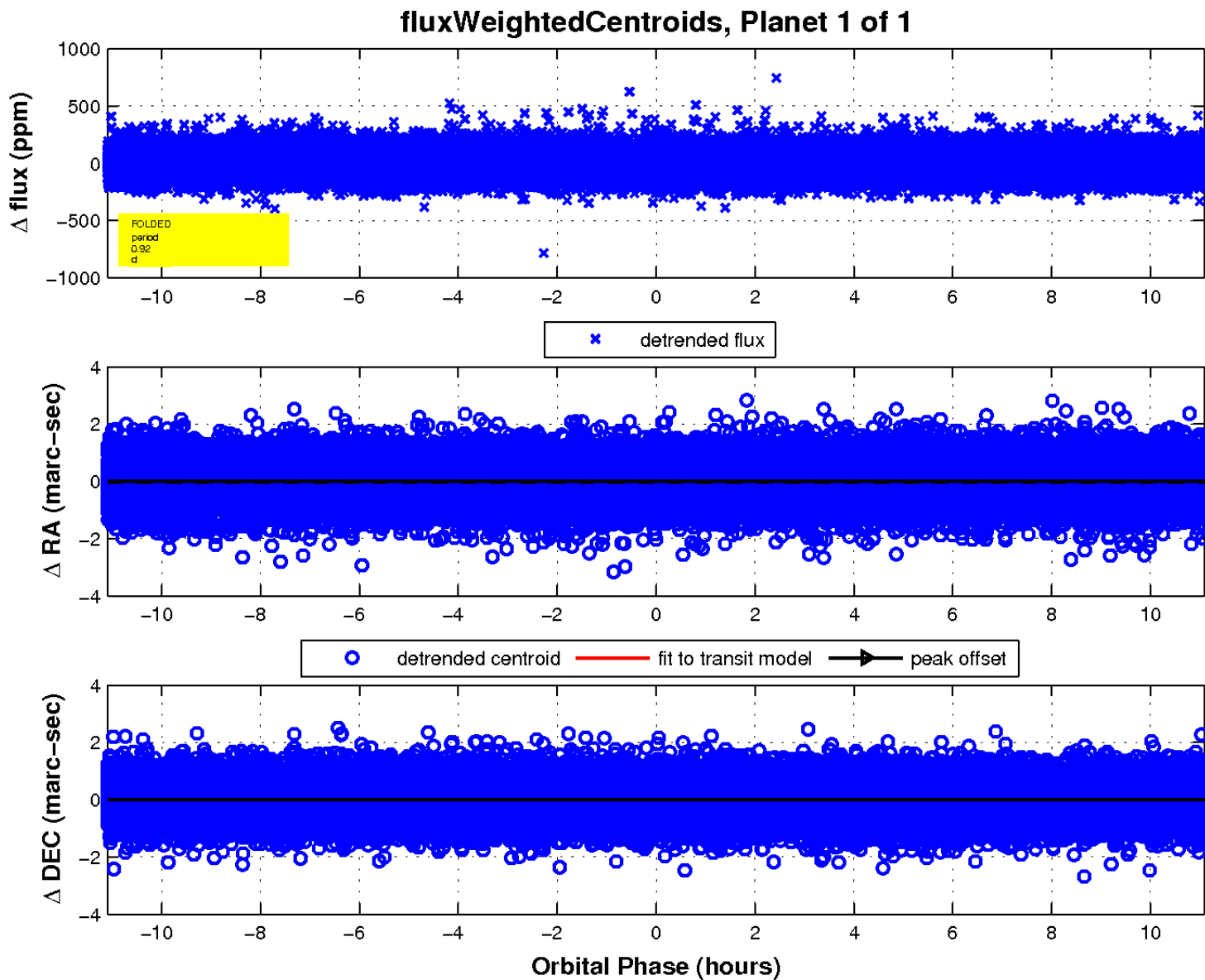
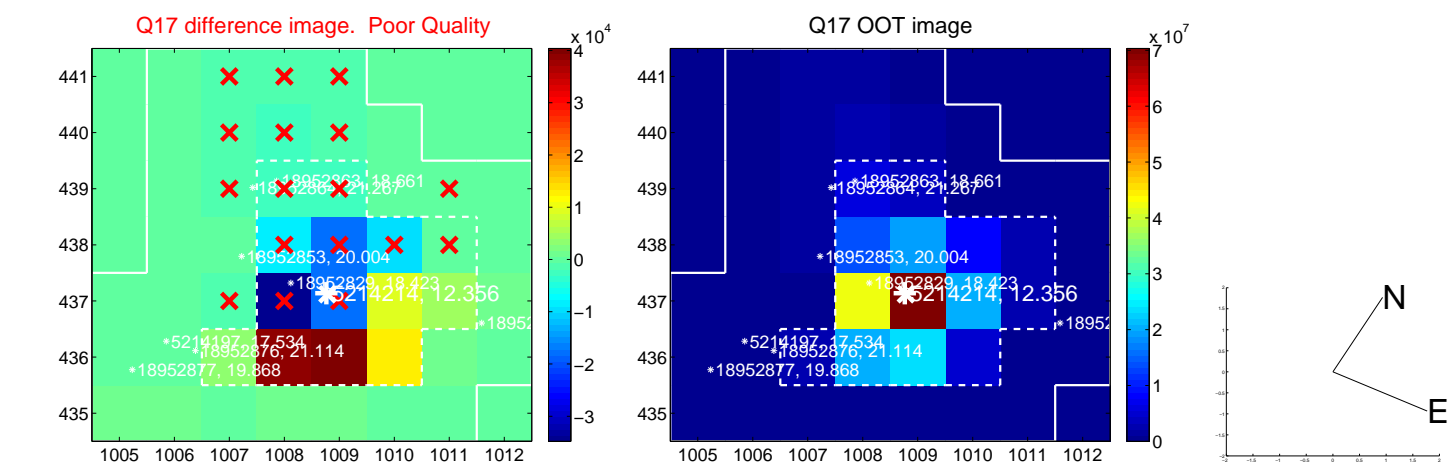
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

