

KIC 005396936

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})
005396936-01	OBS	No	3.023674	134.816393	23.5	36.284	12.5	8.7	3.94	5931	2.39	7175.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005396936-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—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.

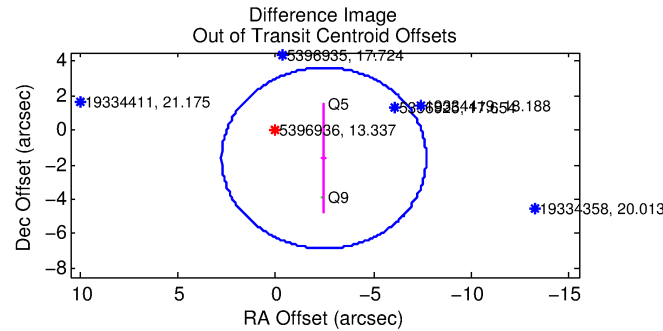
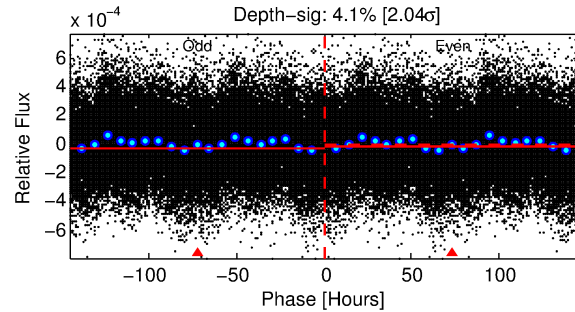
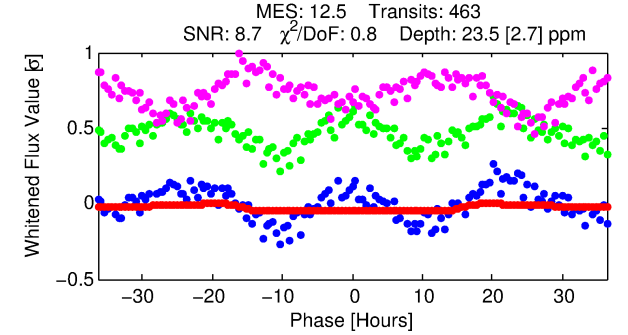
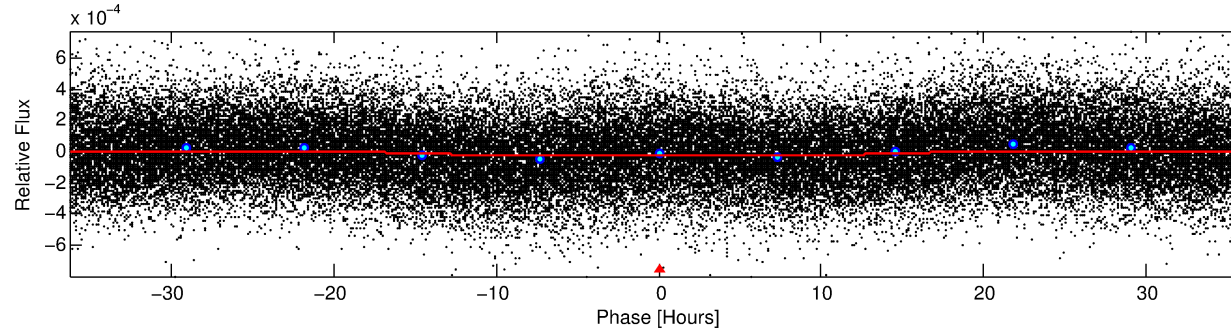
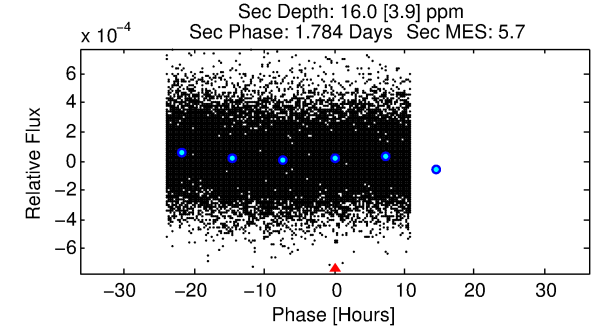
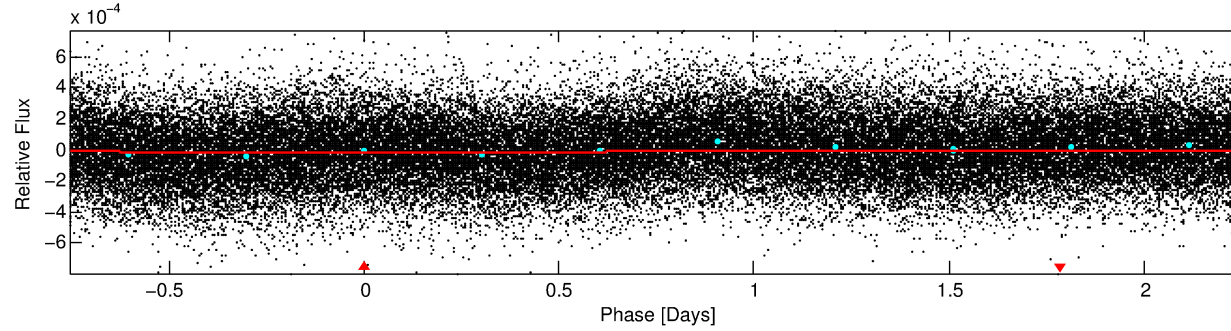
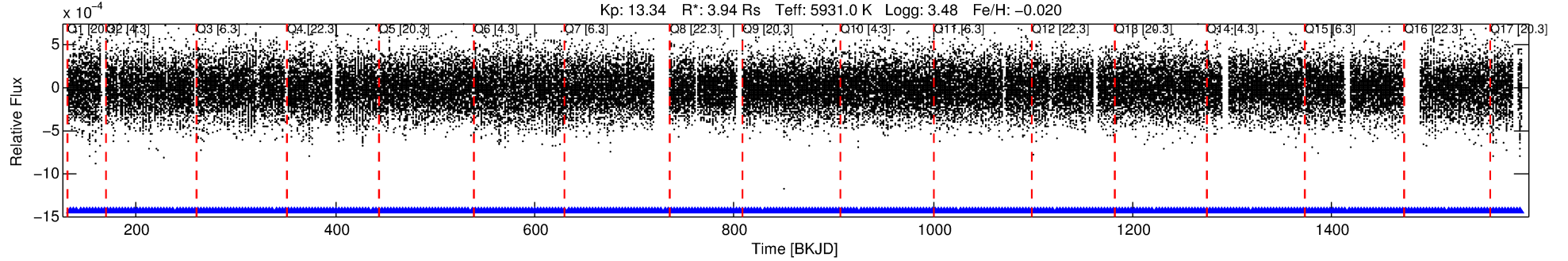
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005396936-01

No Significant Match Found

DV One-Page Summary

KIC: 5396936 Candidate: 1 of 1 Period: 3.024 d



DV Fit Results:

Period = 3.02367 [0.00015] d
Epoch = 134.8164 [0.0310] BKJD
Rp/R* = 0.0055 [0.0005]
a/R* = 1.00 [0.00]
b = 0.95 [0.04]
Seff = 7175.25 [9103.01]
Teq = 2347 [744] K
Rp = 2.39 [1.65] Re
a = 0.0490 [0.0365] AU
Ag = 3.71 [4.81] [0.56σ]
Teffp = 5037 [421] K [3.15σ]

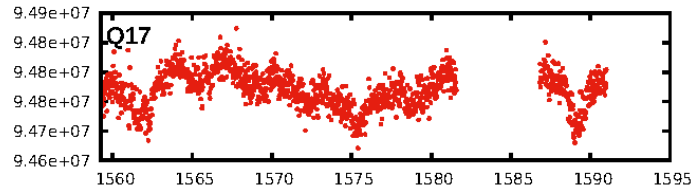
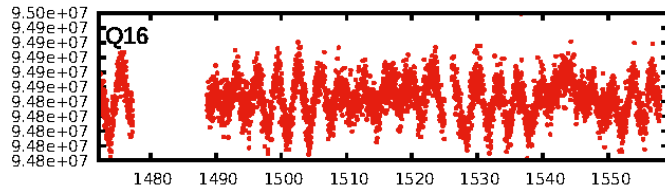
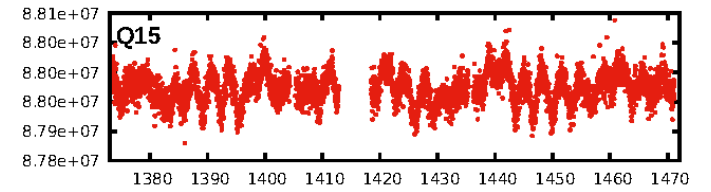
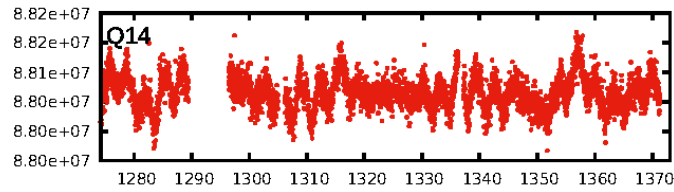
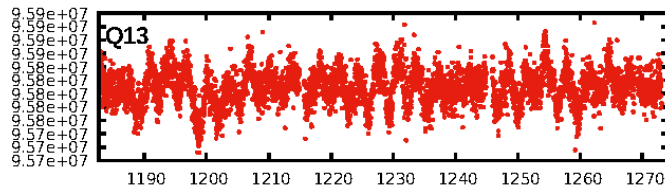
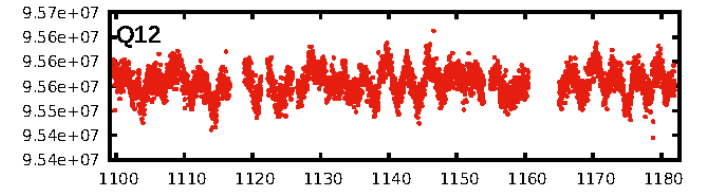
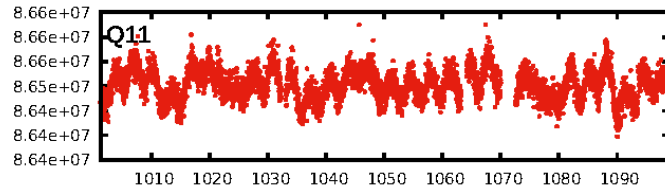
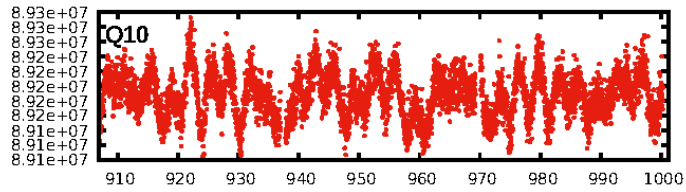
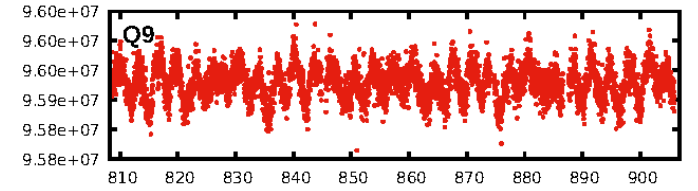
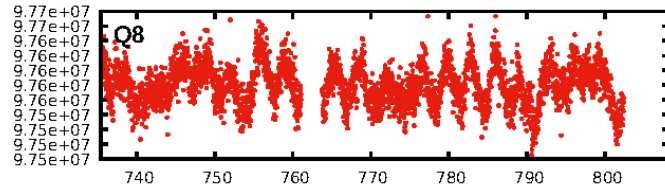
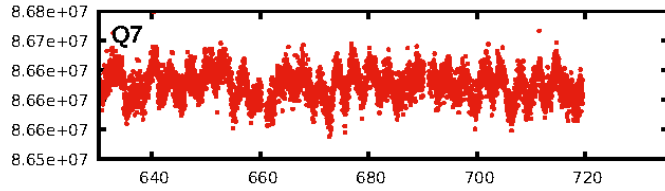
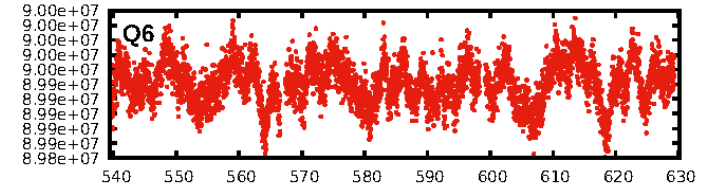
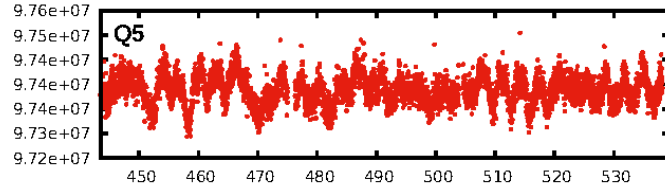
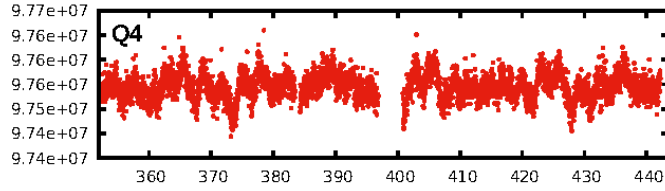
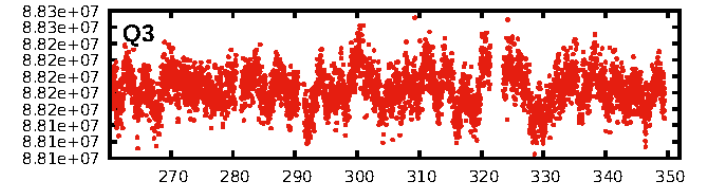
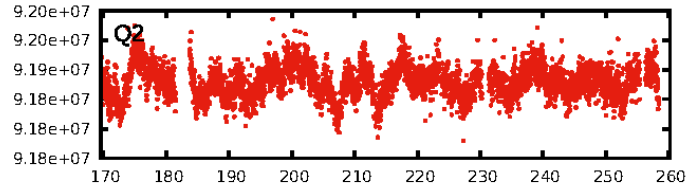
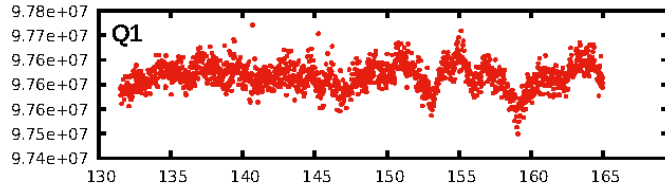
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [441/441]
GhostDiagnostic-chr: 1.664
Centroid-sig: 59.8%
Centroid-so: 1.097 arcsec [1.22σ]
OotOffset-rm: 2.952 arcsec [1.69σ]
KicOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [17/17]

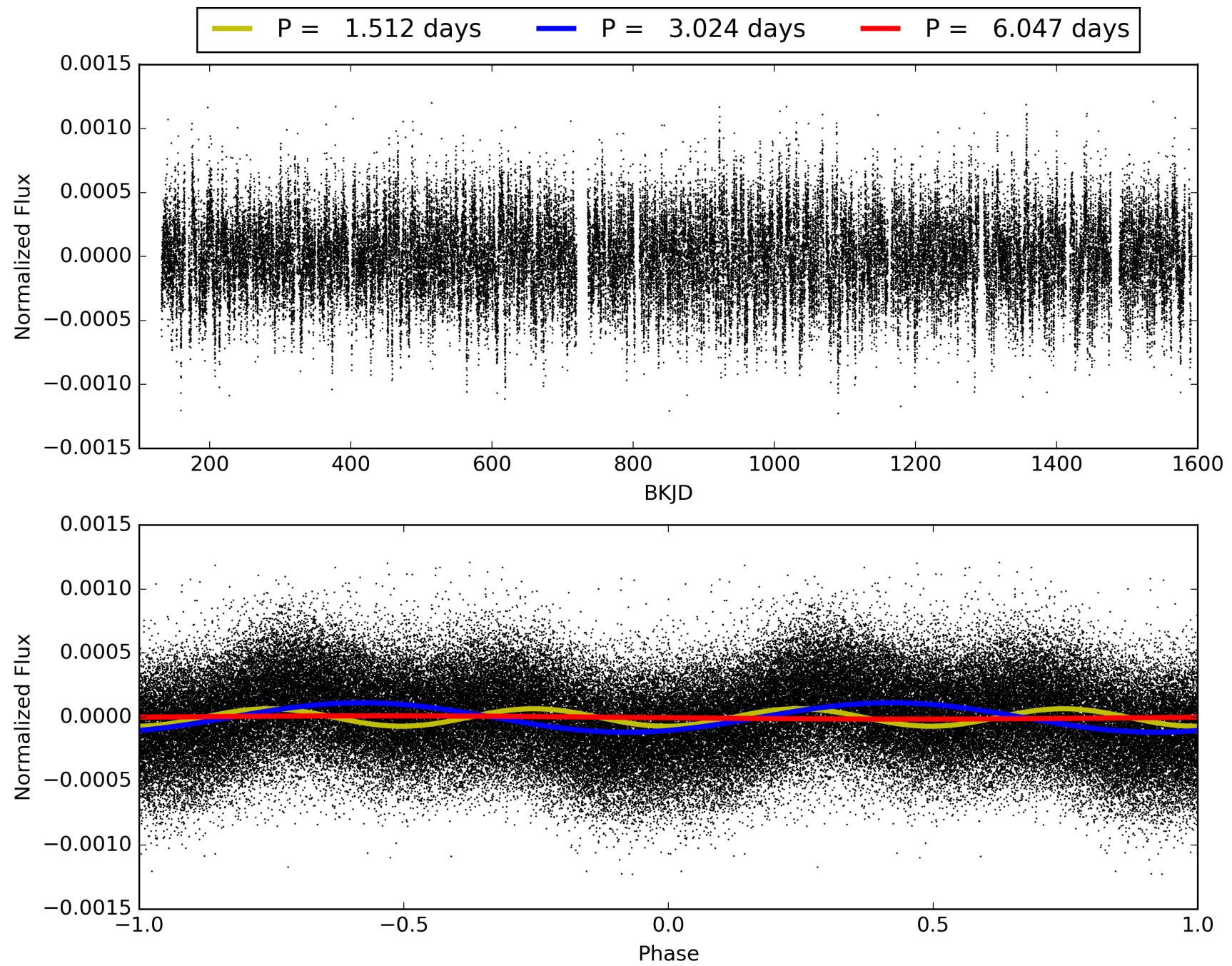
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:43:55 Z

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

TCE 005396936-01, PDC Light Curves

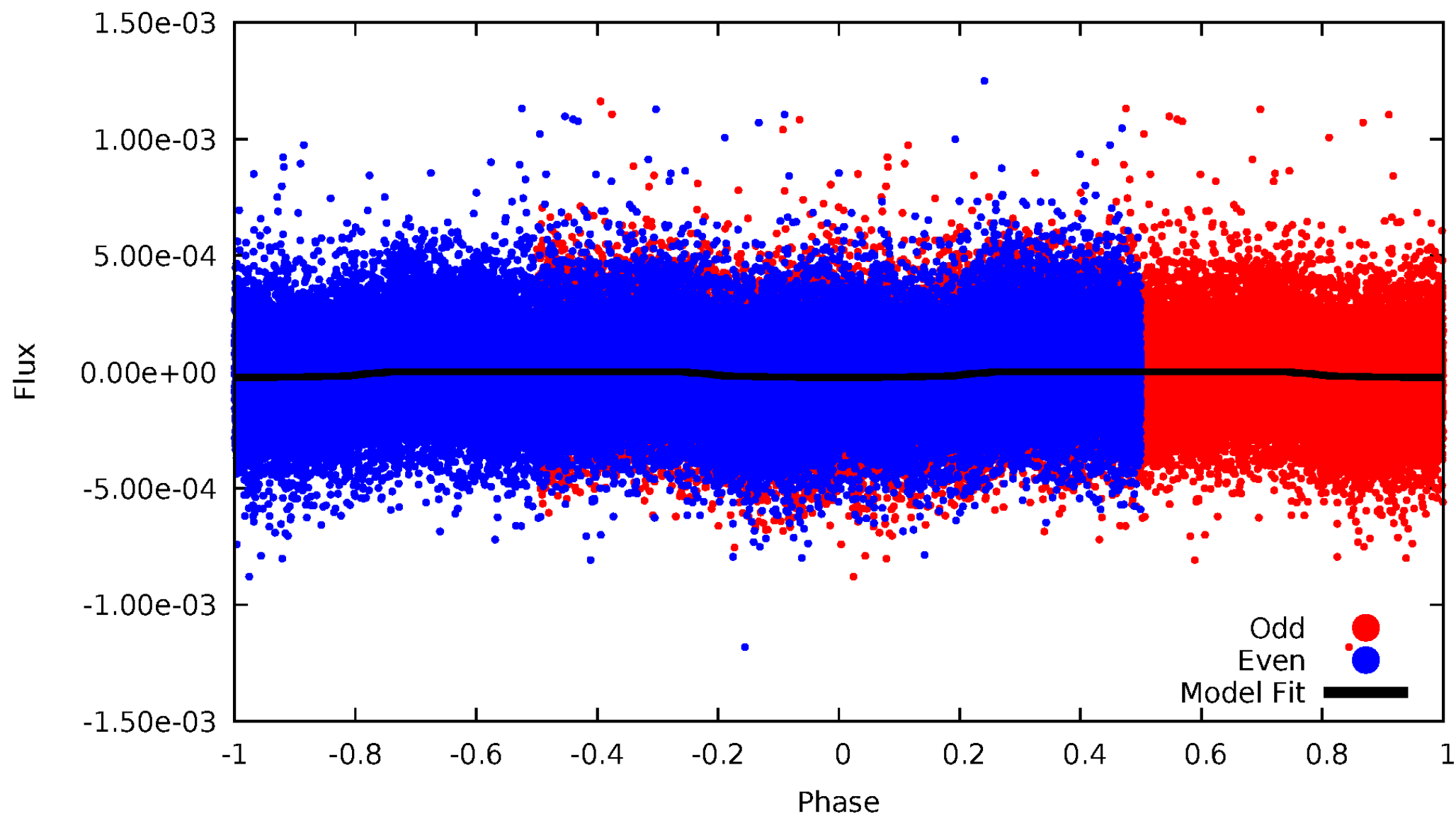


TCE 005396936-01



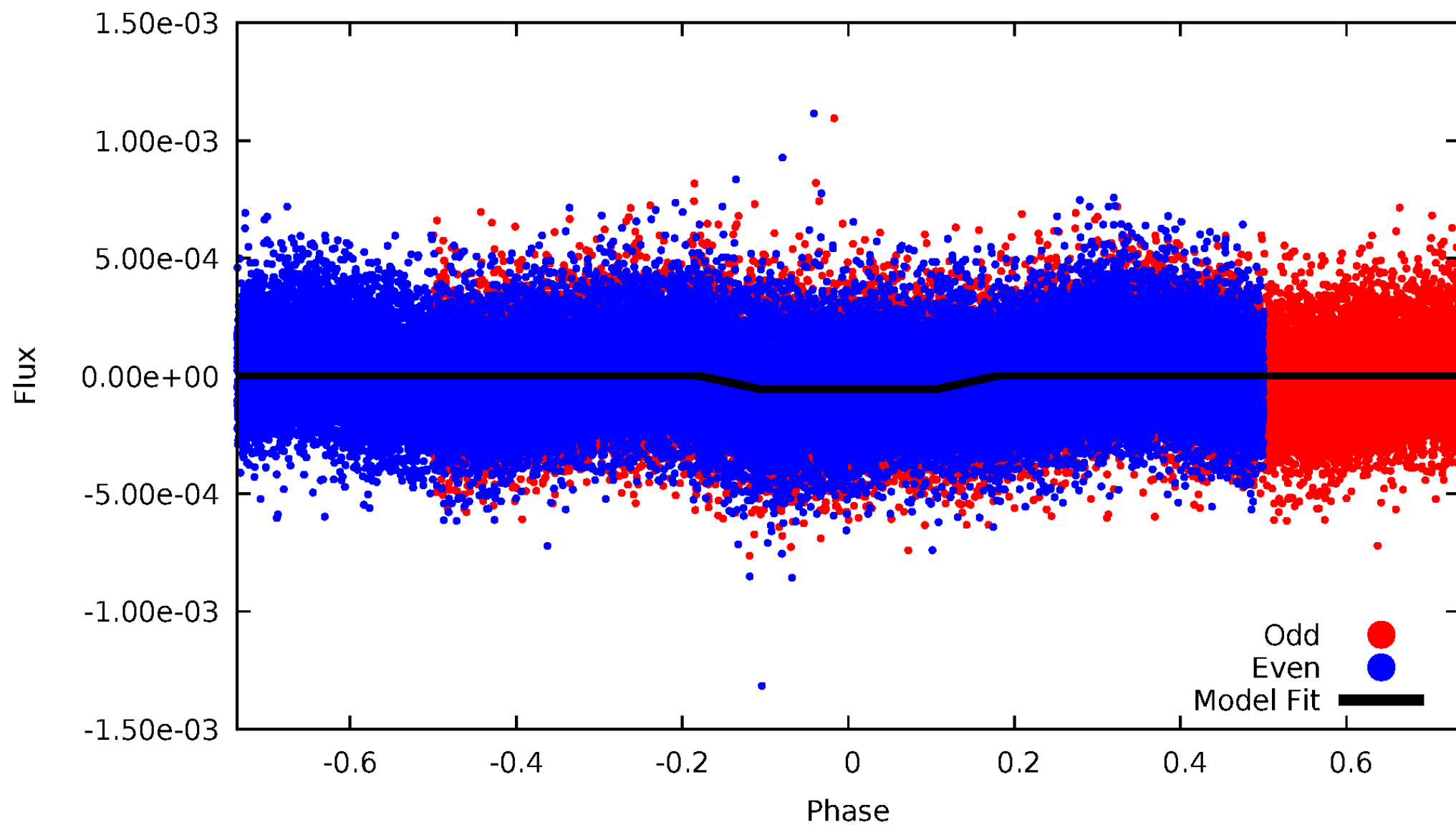
DV Odd/Even

TCE 005396936-01



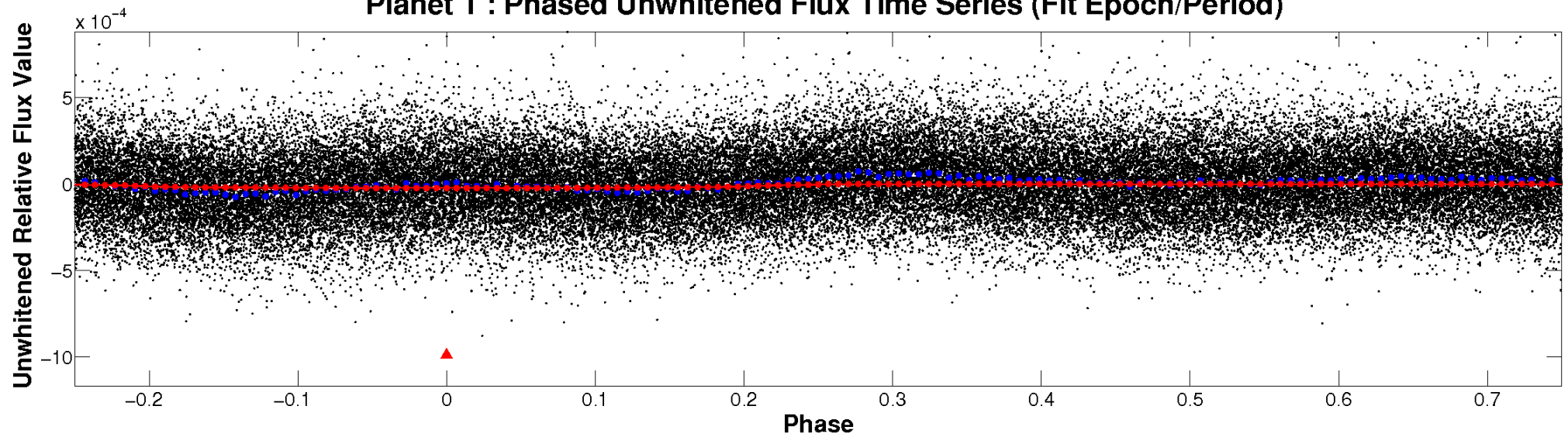
ALT Odd/Even

TCE 005396936-01

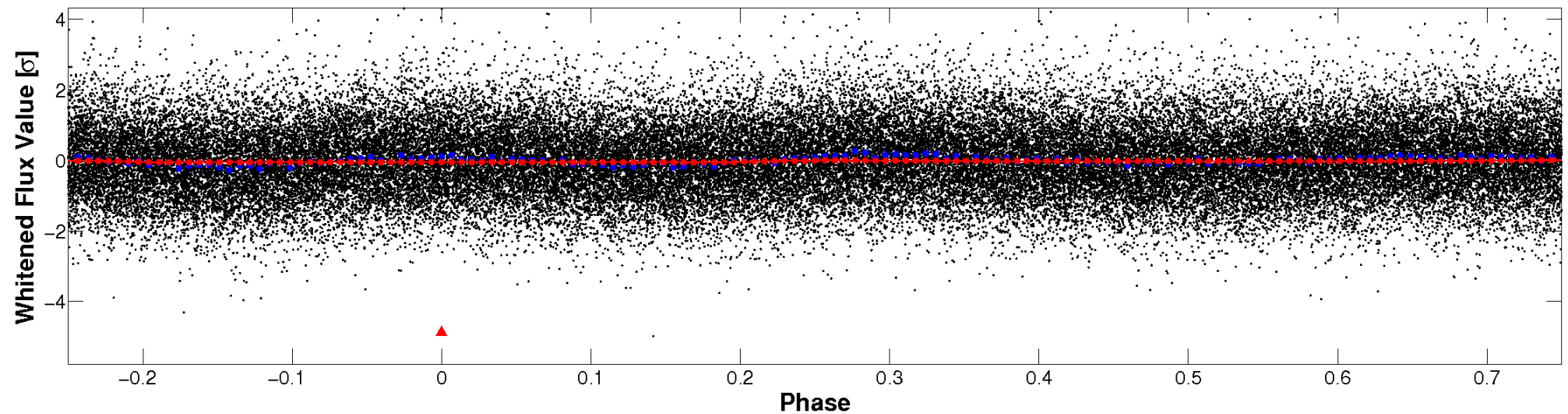


Non-Whitened Vs. Whitened Light Curve

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

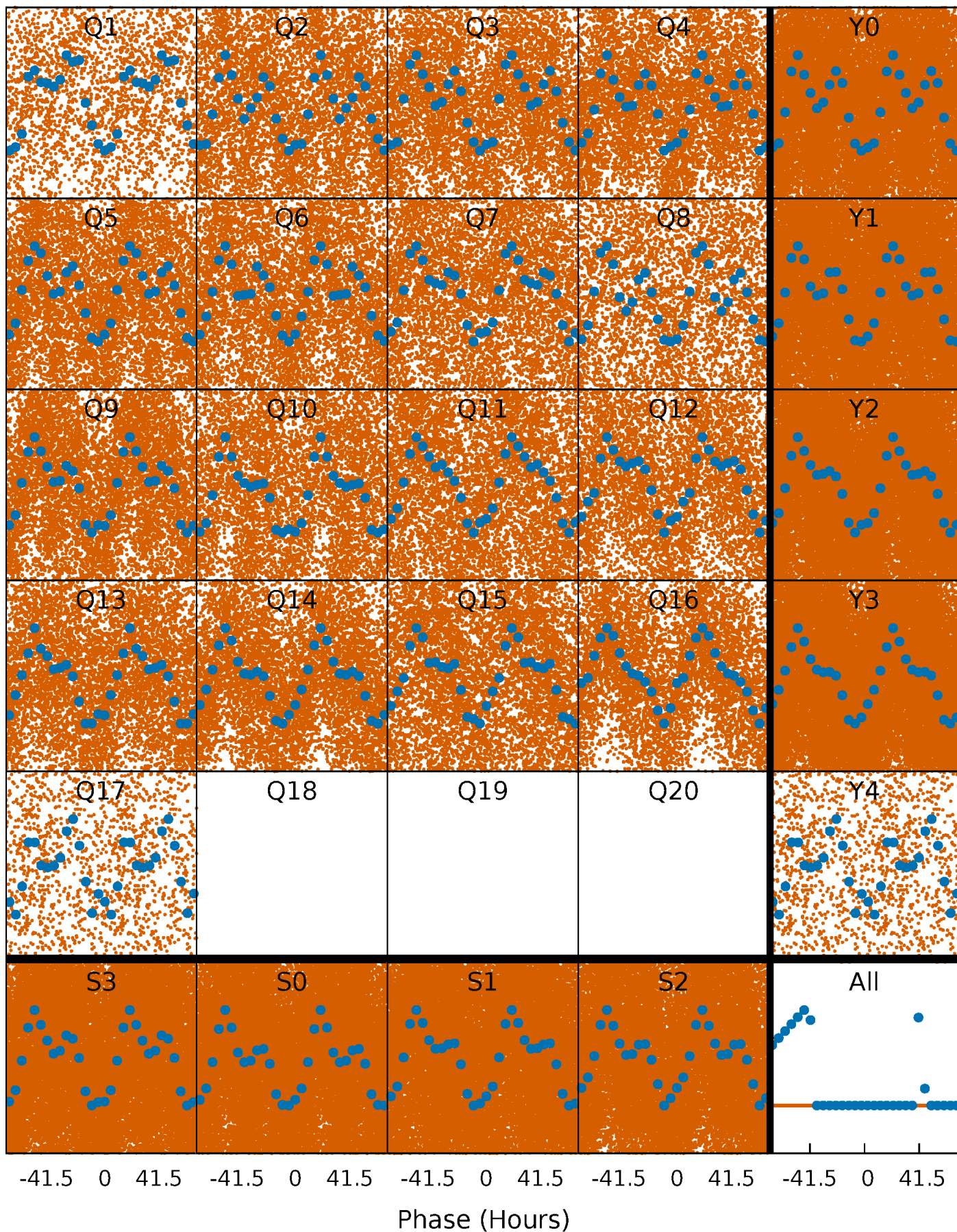


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



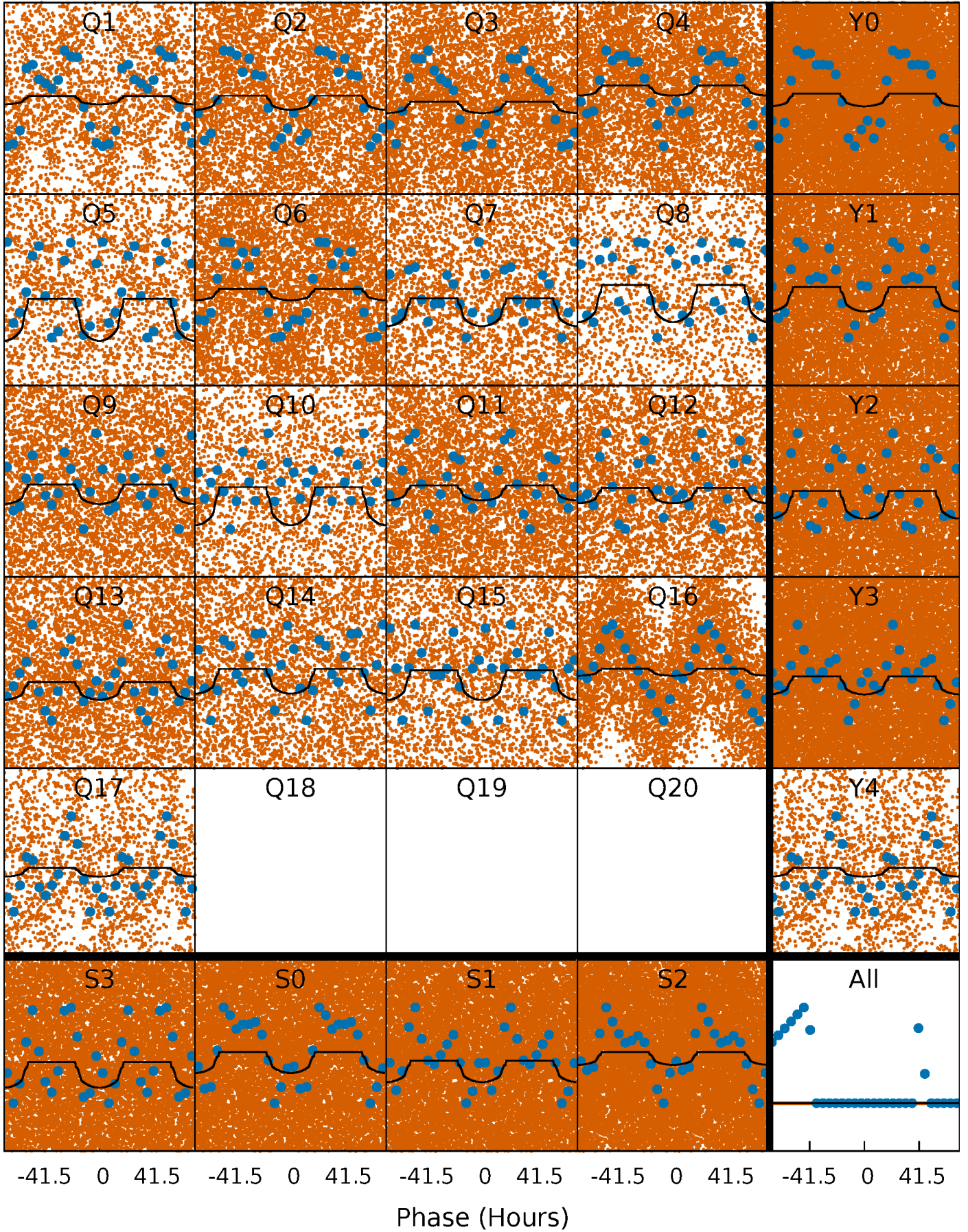
PDC Quarter-Phased Transit Curves

TCE 005396936-01 P= 3.023674 Days $T_0=134.816393$ (BKJD)



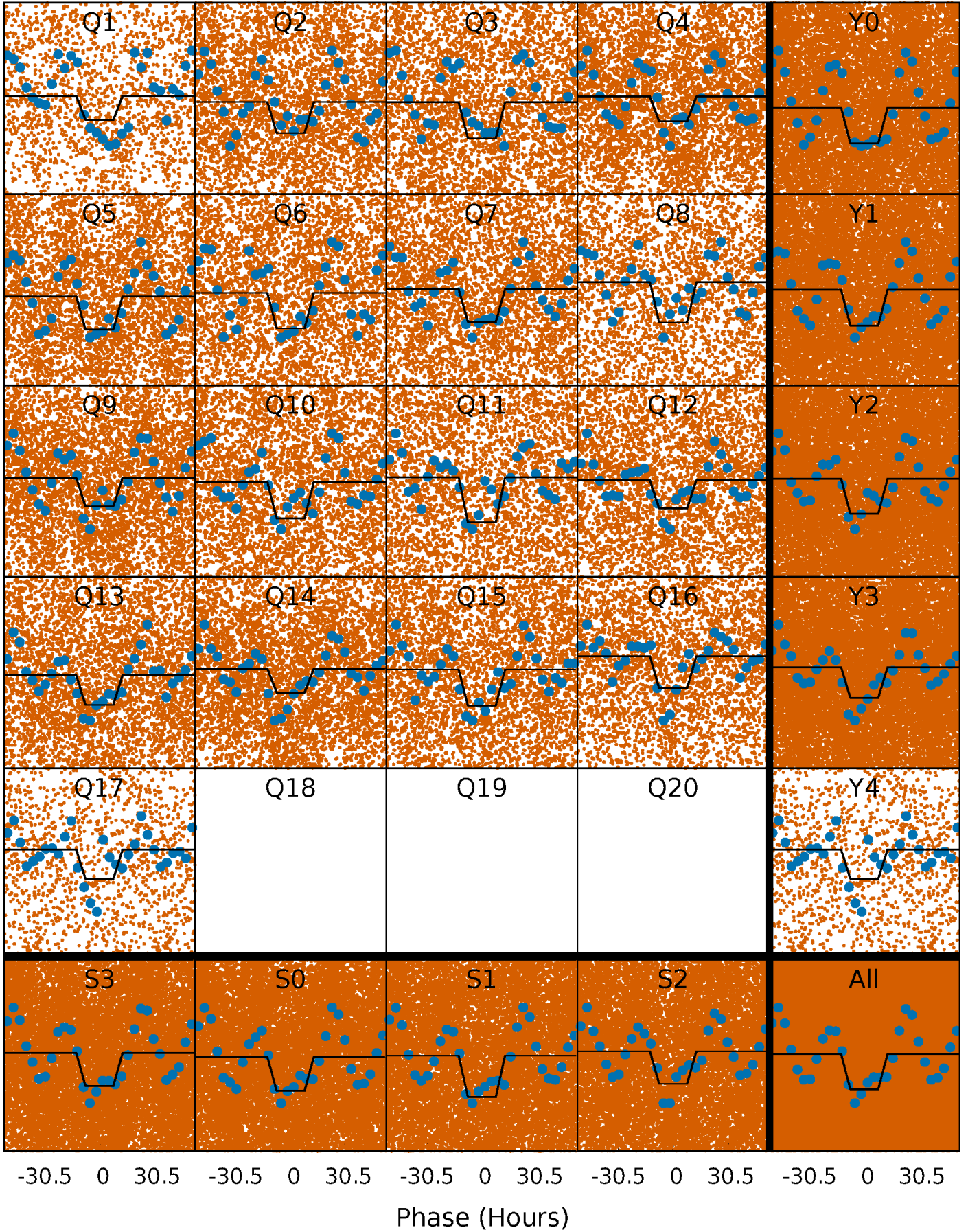
DV Quarter-Phased Transit Curves

TCE 005396936-01 P= 3.023674 Days $T_0=134.816393$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

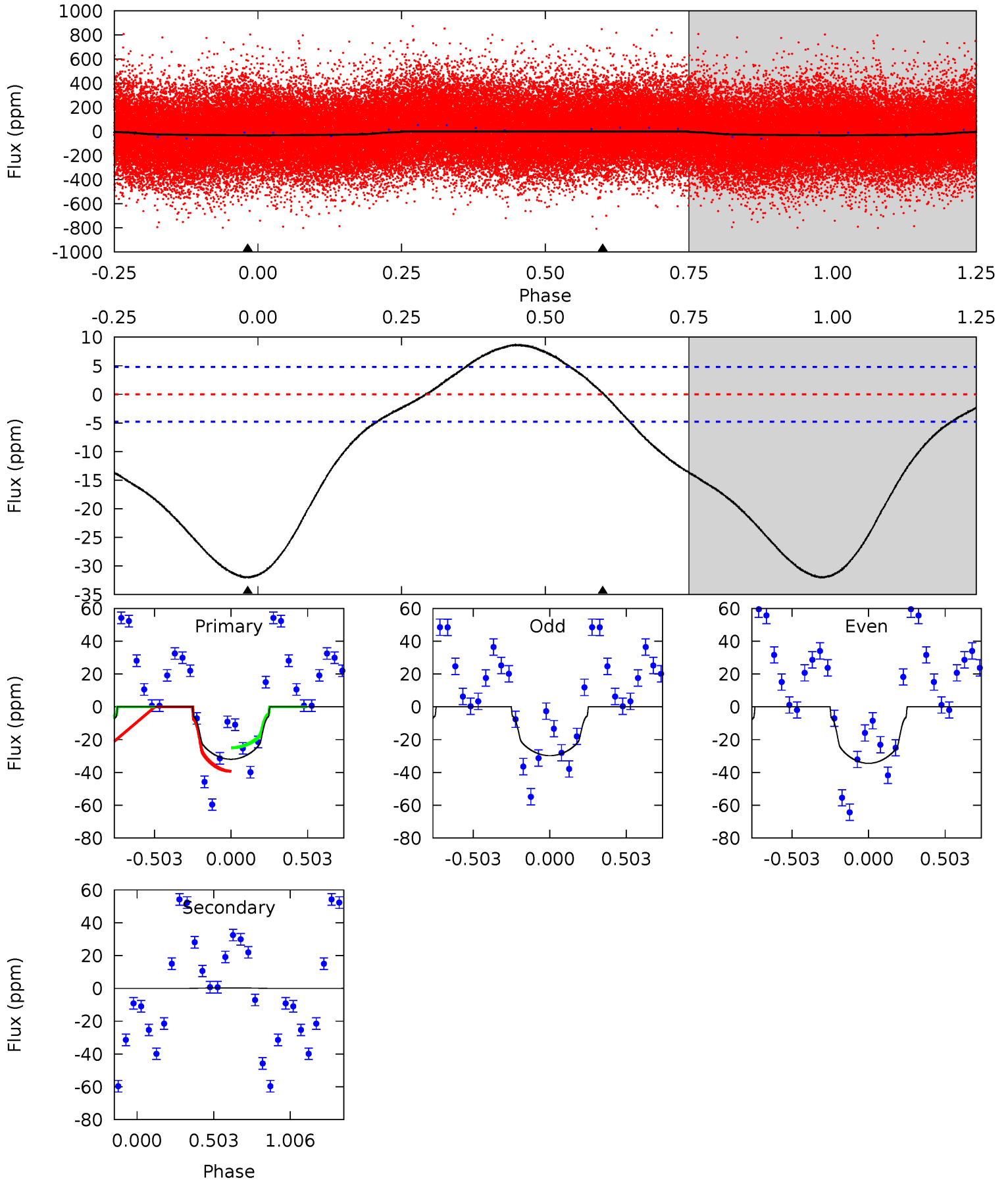
TCE 005396936-01 P= 3.023635 Days $T_0=134.670506$ (BKJD)



DV Model-Shift Uniqueness Test

005396936-01, P = 3.023674 Days, E = 128.769045 Days

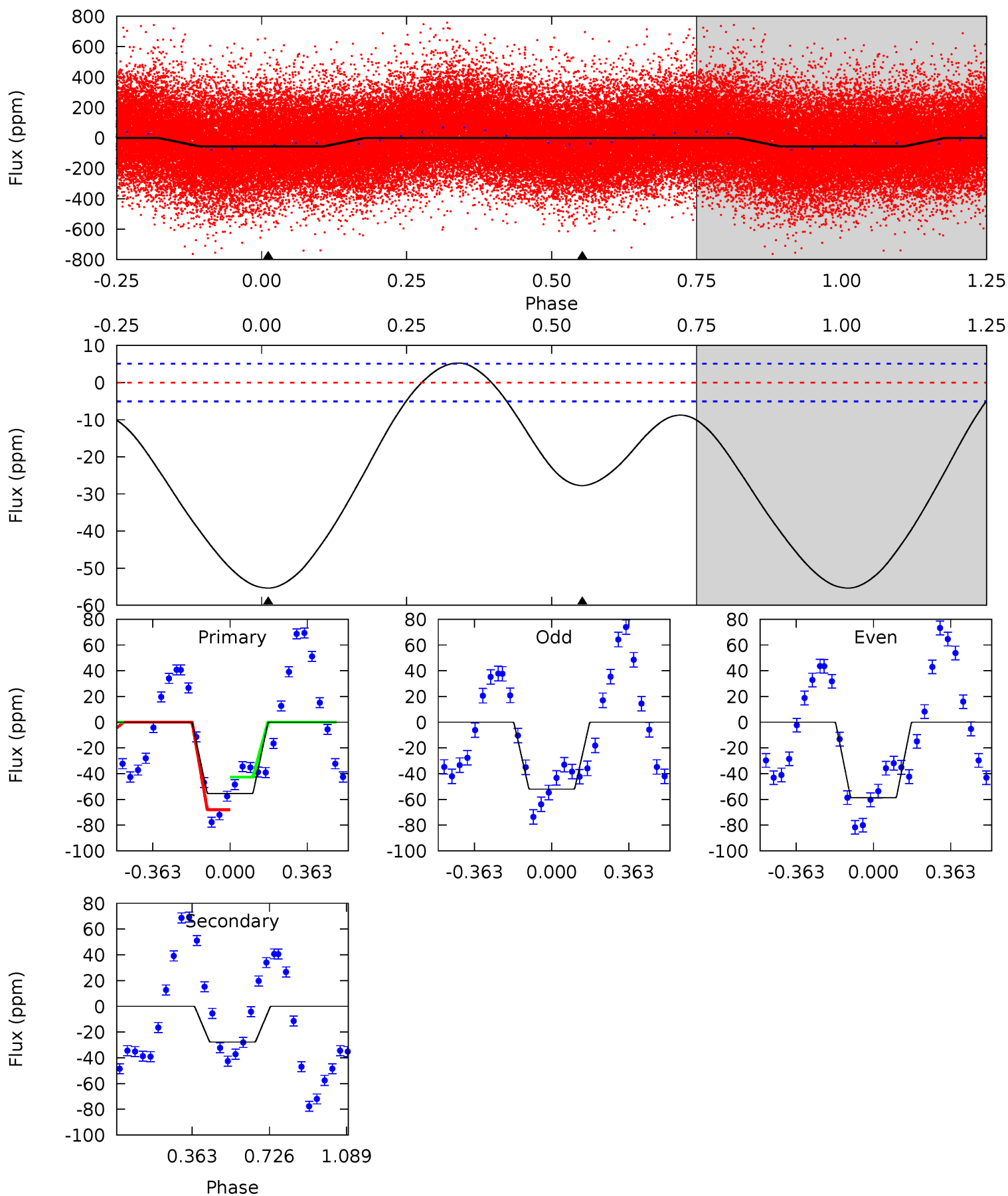
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.1	-0.16	0	0	4.21	0.67	1.66	28.1	28.1	-0.16	-0.16	2.05	0.93	0.22	6.53



Alt Model-Shift Uniqueness Test

005396936-01, P = 3.023635 Days, E = 128.623236 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.7	23.4	0	0	4.29	0.91	5.05	46.7	46.7	23.4	23.4	2.84	1.10	0.09	10.5



Stellar Parameters For KIC 005396936

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5931^{+212}_{-212}	$3.481^{+0.765}_{-0.135}$	$-0.020^{+0.300}_{-0.300}$	$3.942^{+0.903}_{-2.710}$	$1.716^{+0.171}_{-0.684}$	$0.039^{+0.644}_{-0.015}$
	+4%/-4%	+22%/-4%	+1500%/-1500%	+23%/-69%	+10%/-40%	+1632%/-38%
Source	PHO1	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 005396936-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1	$2.24^{+0.49}_{-0.76}$	3185^{+290}_{-518}	-3271^{+1002}_{-361}	$-0.054^{+0.320}_{-0.360}$
Alt.	-28 ± 1	$3.02^{+0.60}_{-1.07}$	3196^{+302}_{-554}	5003^{+231}_{-212}	$4.005^{+4.527}_{-1.180}$

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 $A_{obs} \gg 1.0$

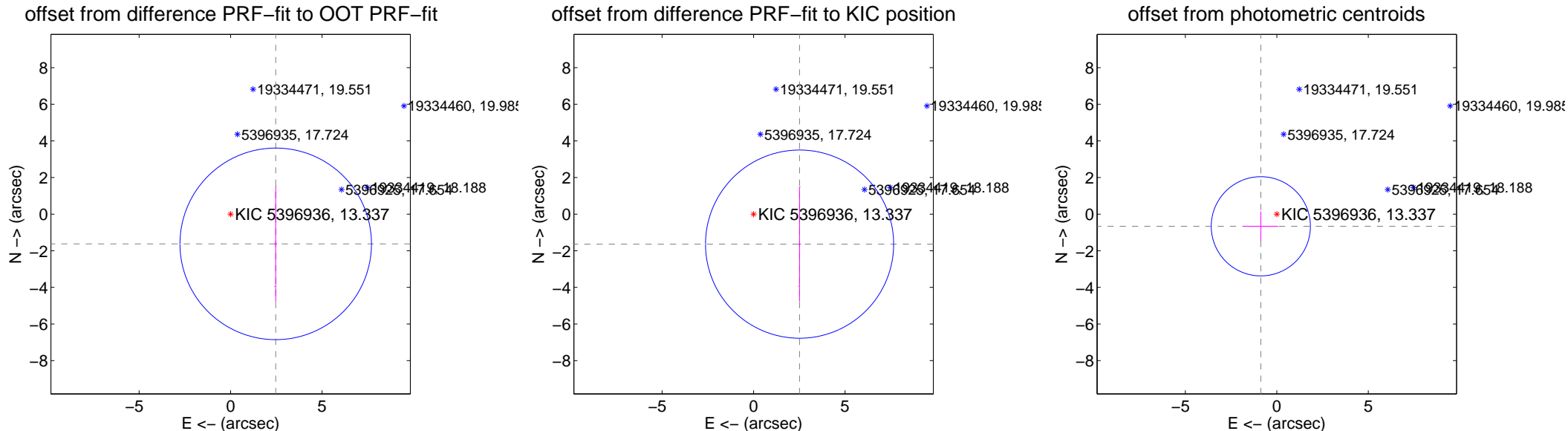
DV Centroid Data

Supplemental centroid analysis for 005396936-01. Kepler magnitude: 13.34. Transit SNR 8.75

There are 0 quarters with good PRF difference image offsets

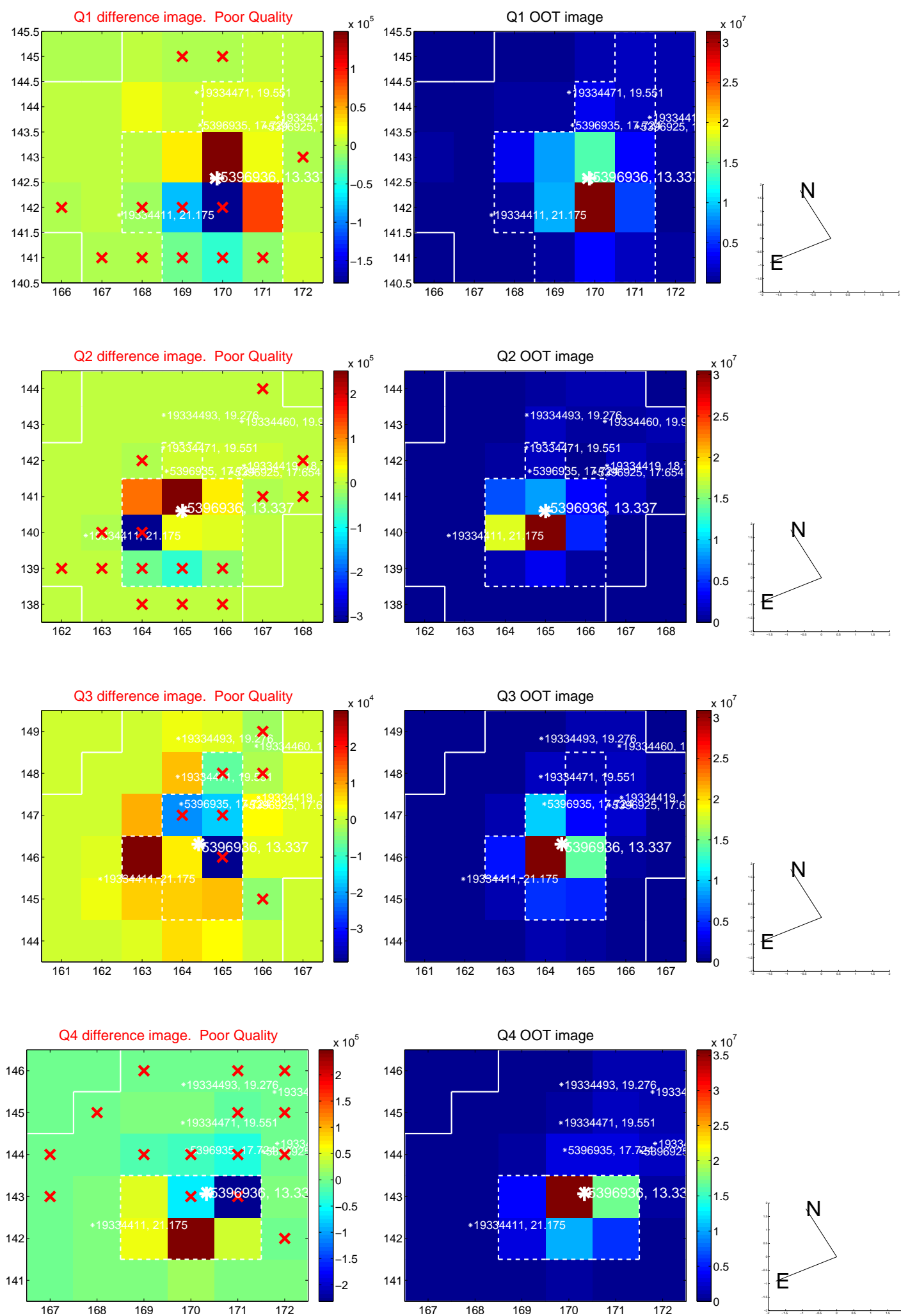
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.952 ± 1.744	1.69	-2.465 ± 0.077	-1.623 ± 3.169
PRF-fit source offset from KIC position	3.001 ± 1.713	1.75	-2.514 ± 0.082	-1.638 ± 3.135
photometric centroid source offset	1.10 ± 0.90	1.22	0.87 ± 0.95	-0.66 ± 0.81

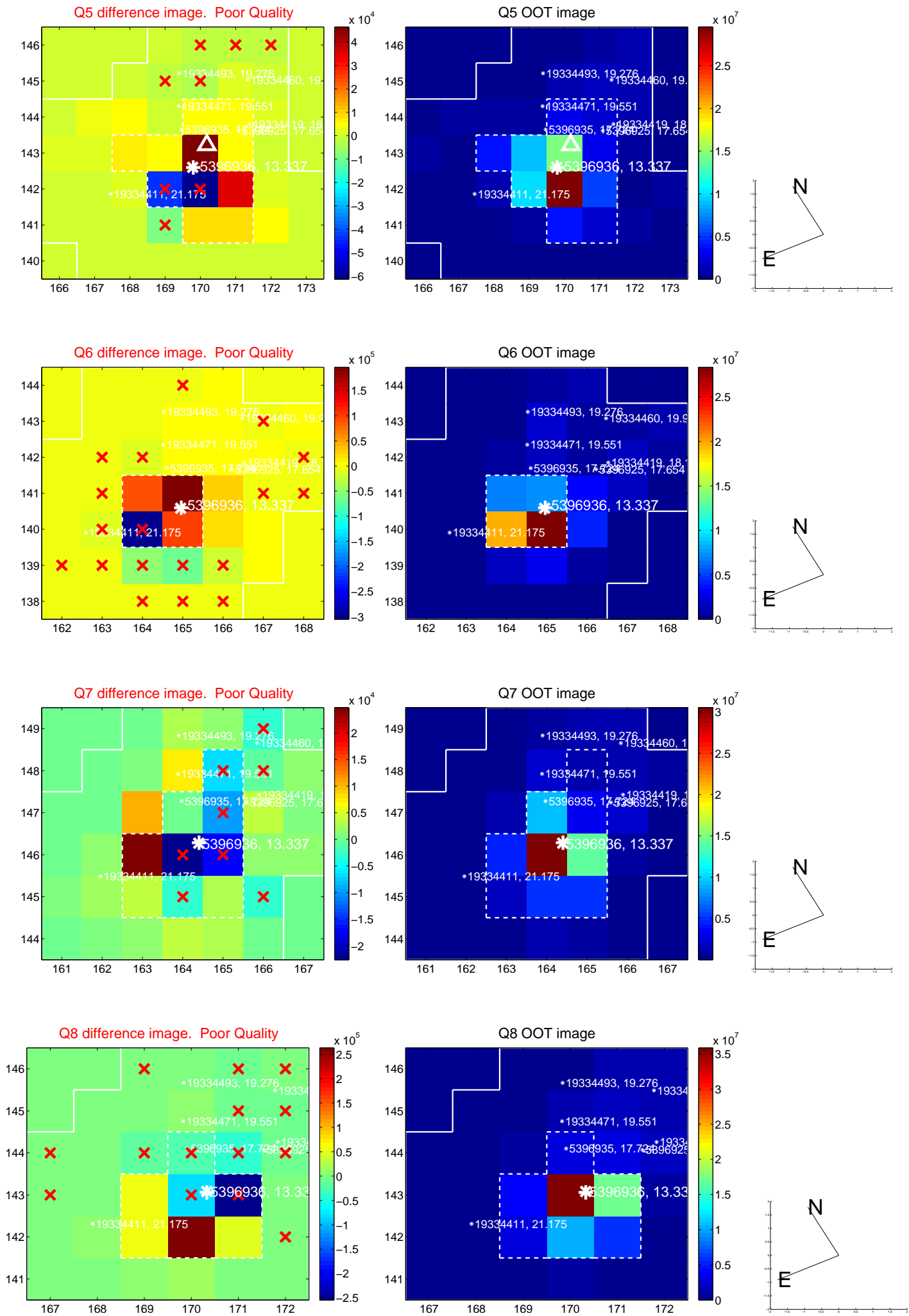


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

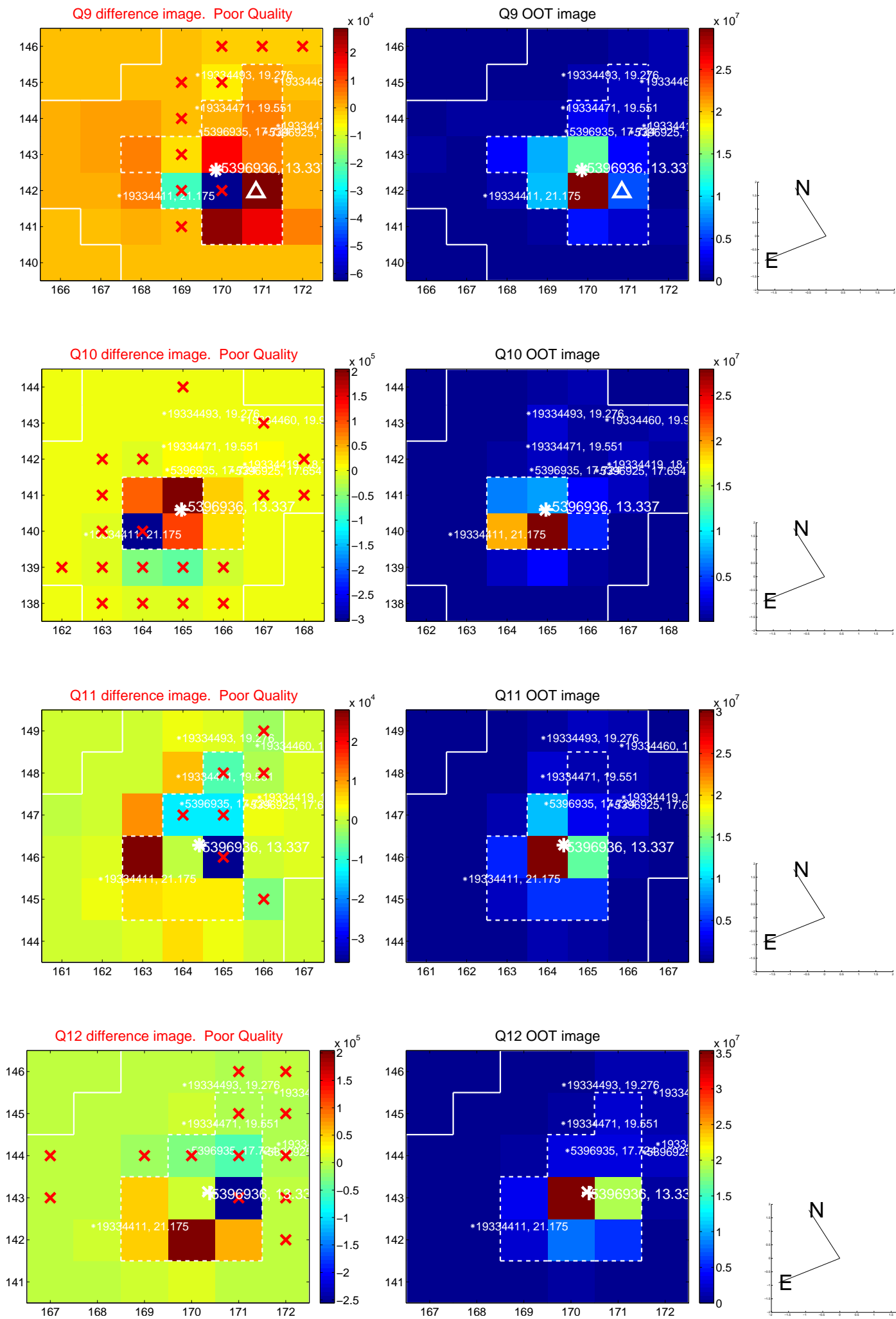
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



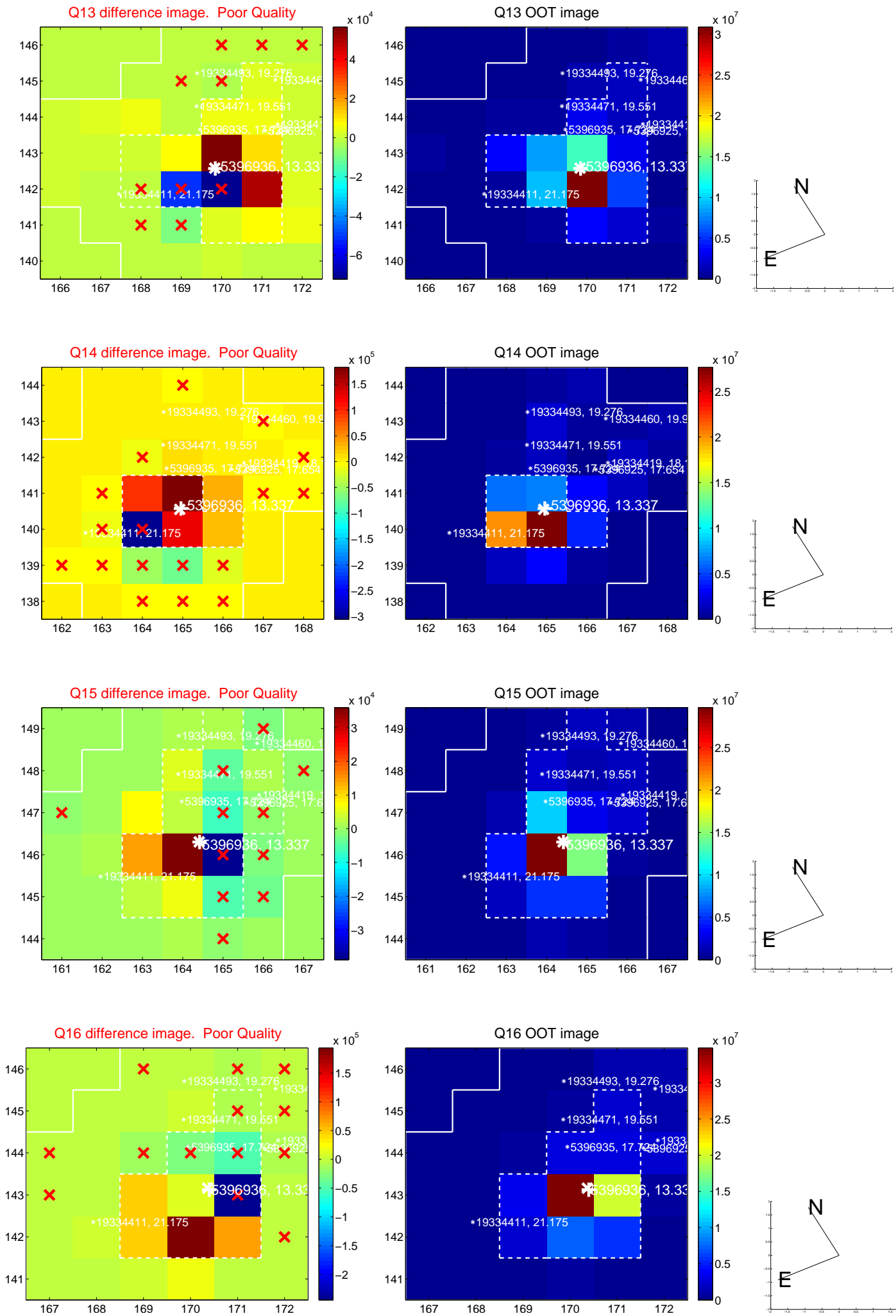
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



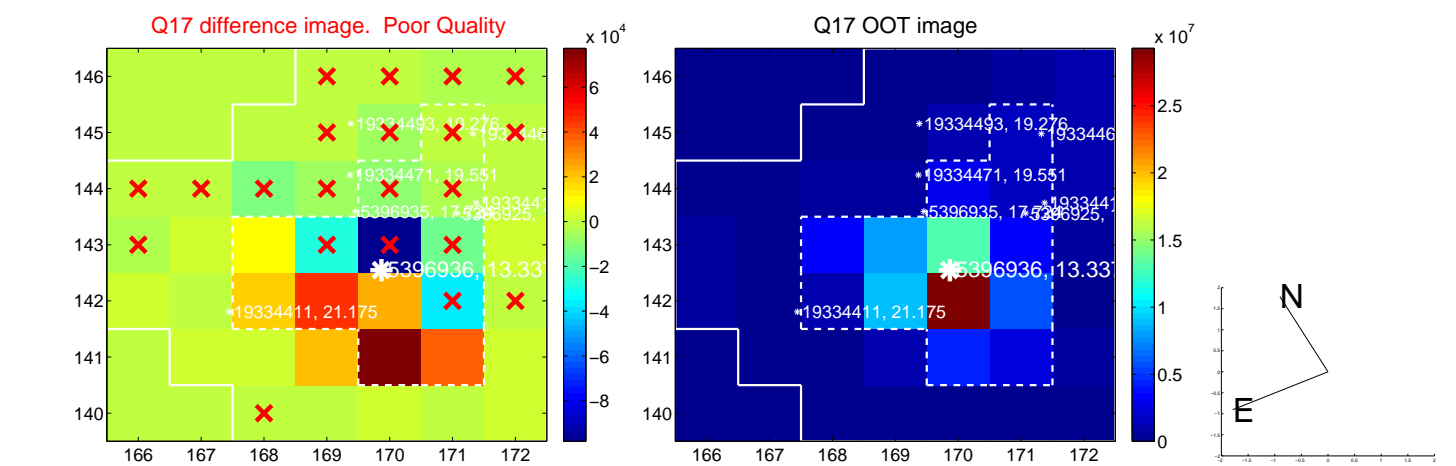
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



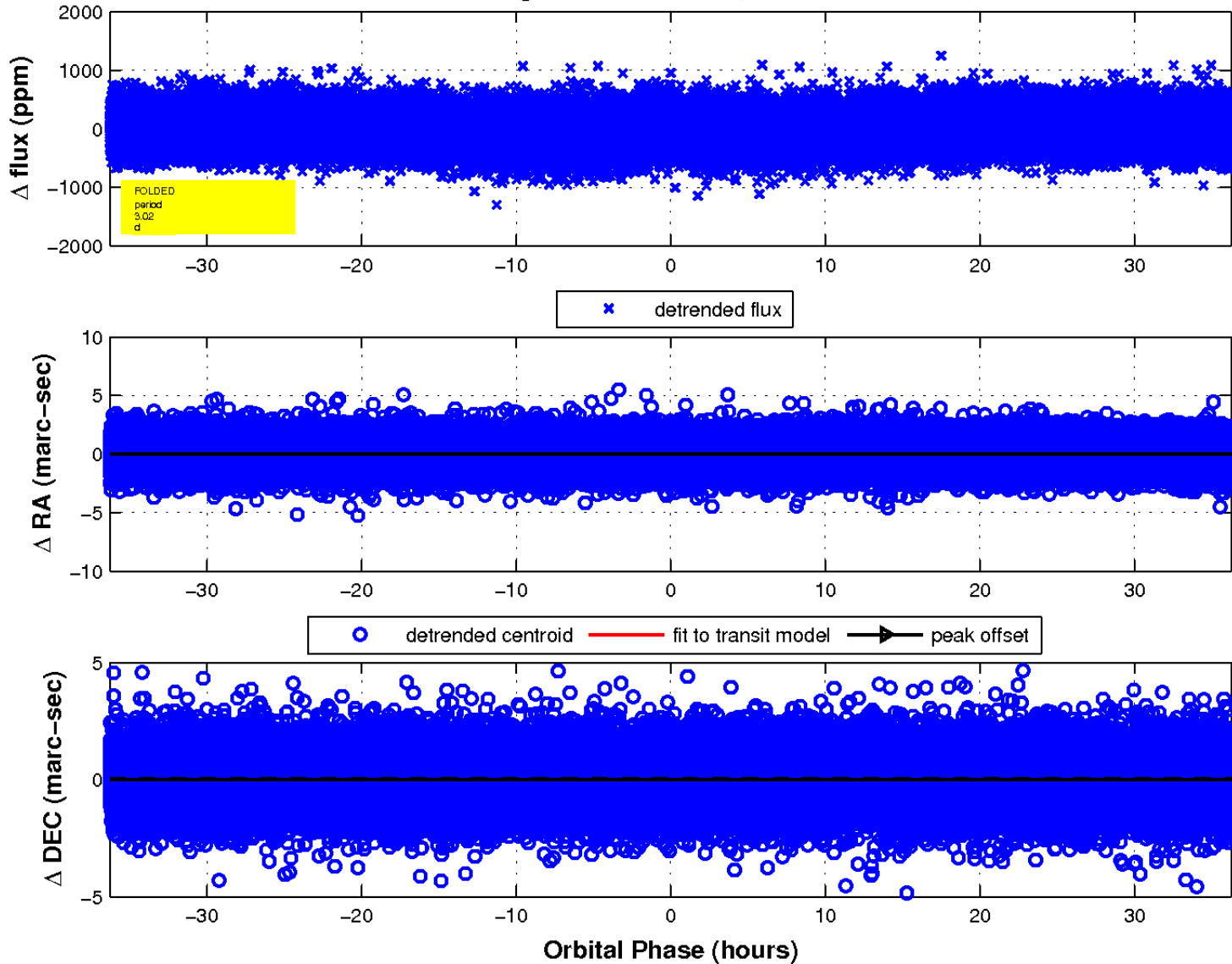
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

