

KIC 006467728

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})
006467728-01	OBS	No	1.045838	132.316691	17.9	8.406	7.9	6.2	0.87	5279	0.36	1507.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006467728-01	OBS	FP	0.00	1	0	1	0	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.

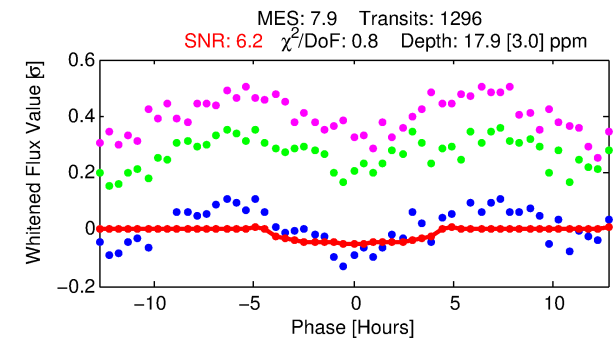
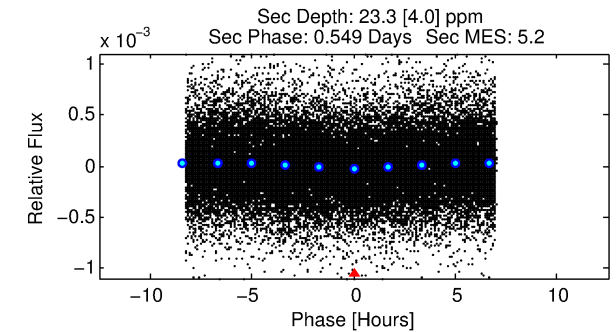
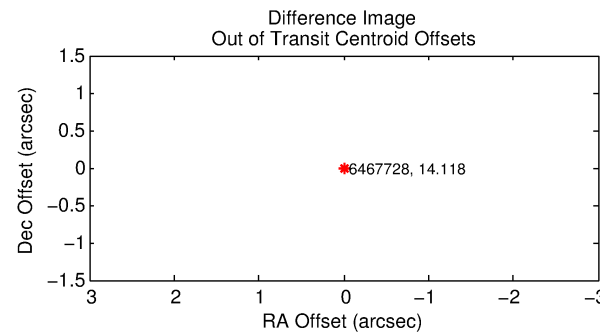
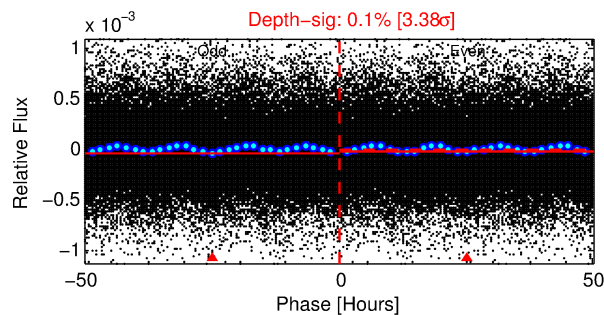
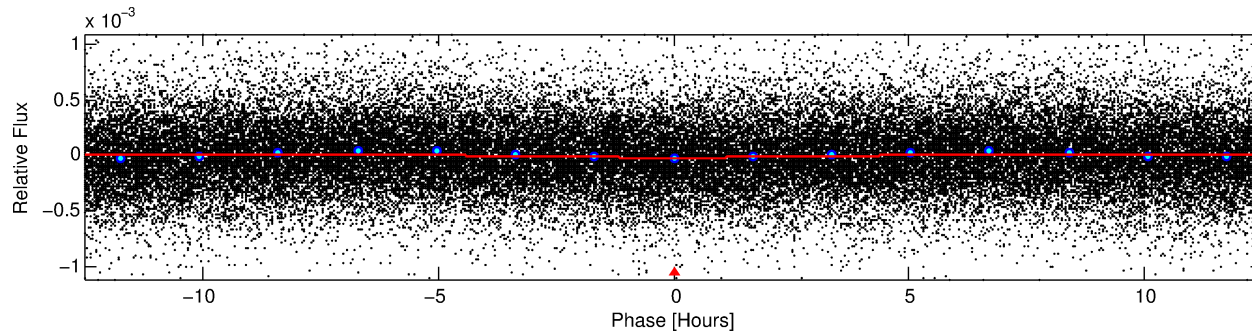
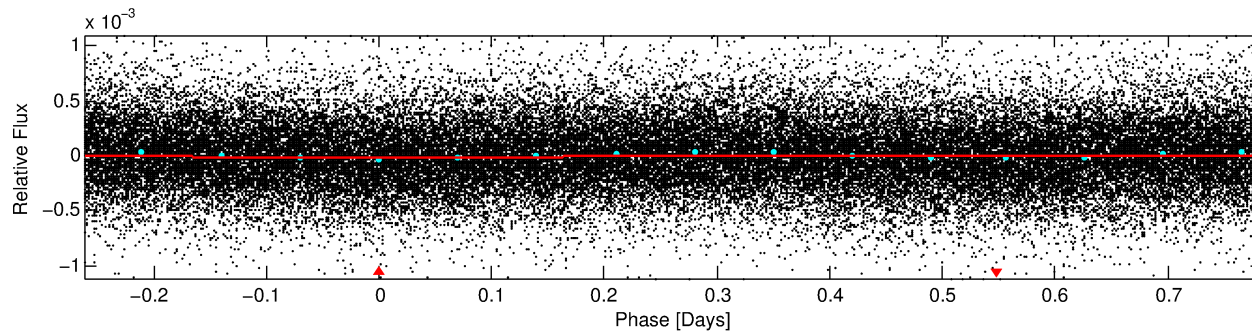
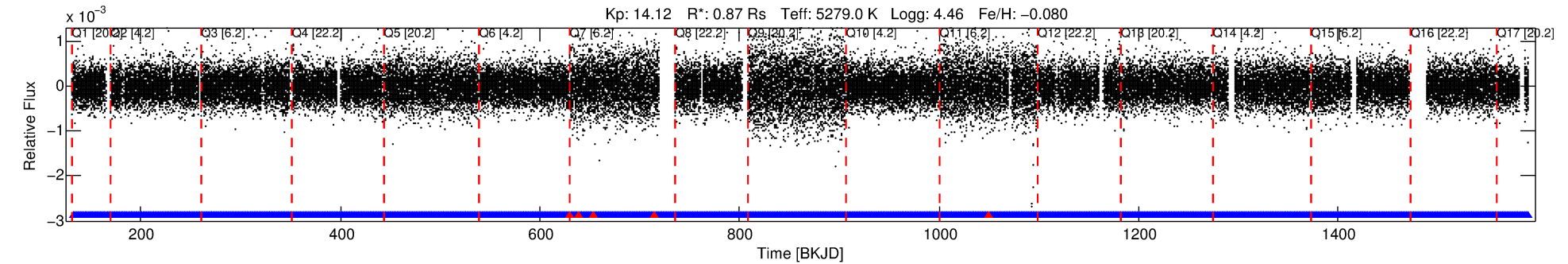
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006467728-01

No Significant Match Found

DV One-Page Summary

KIC: 6467728 Candidate: 1 of 1 Period: 1.046 d



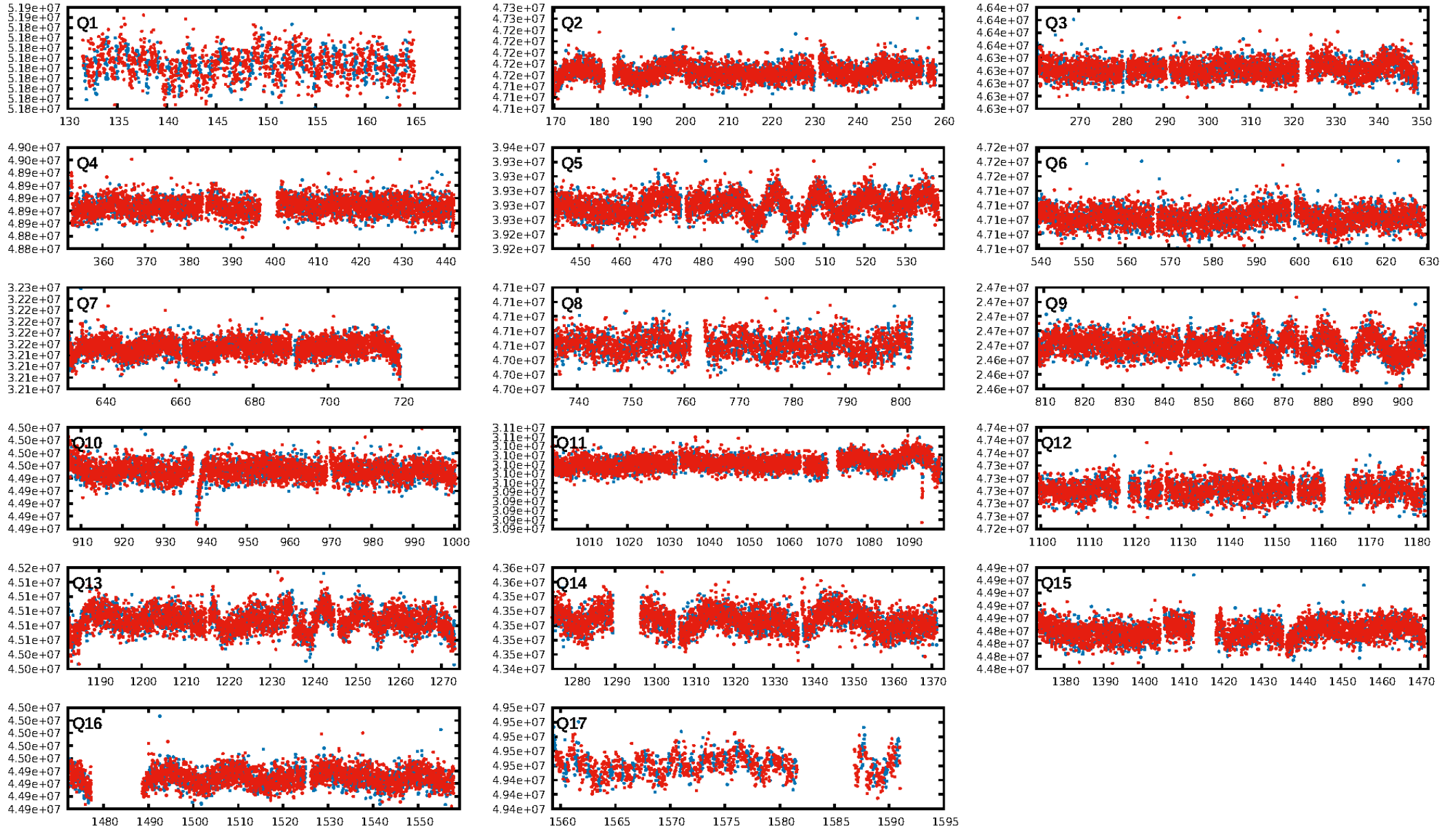
DV Fit Results:

Period = 1.04584 [0.00003] d
Epoch = 132.3167 [0.0128] BKJD
Rp/R* = 0.0038 [0.0065]
a/R* = 1.16 [1.86]
b = 0.03 [194.22]
Seff = 1507.17 [419.81]
Teq = 1589 [111] K
Rp = 0.36 [0.62] Re
a = 0.0187 [0.0029] AU
Ag = 34.61 [118.83] [0.28 σ]
Teffp = 5958 [5105] K [0.86 σ]

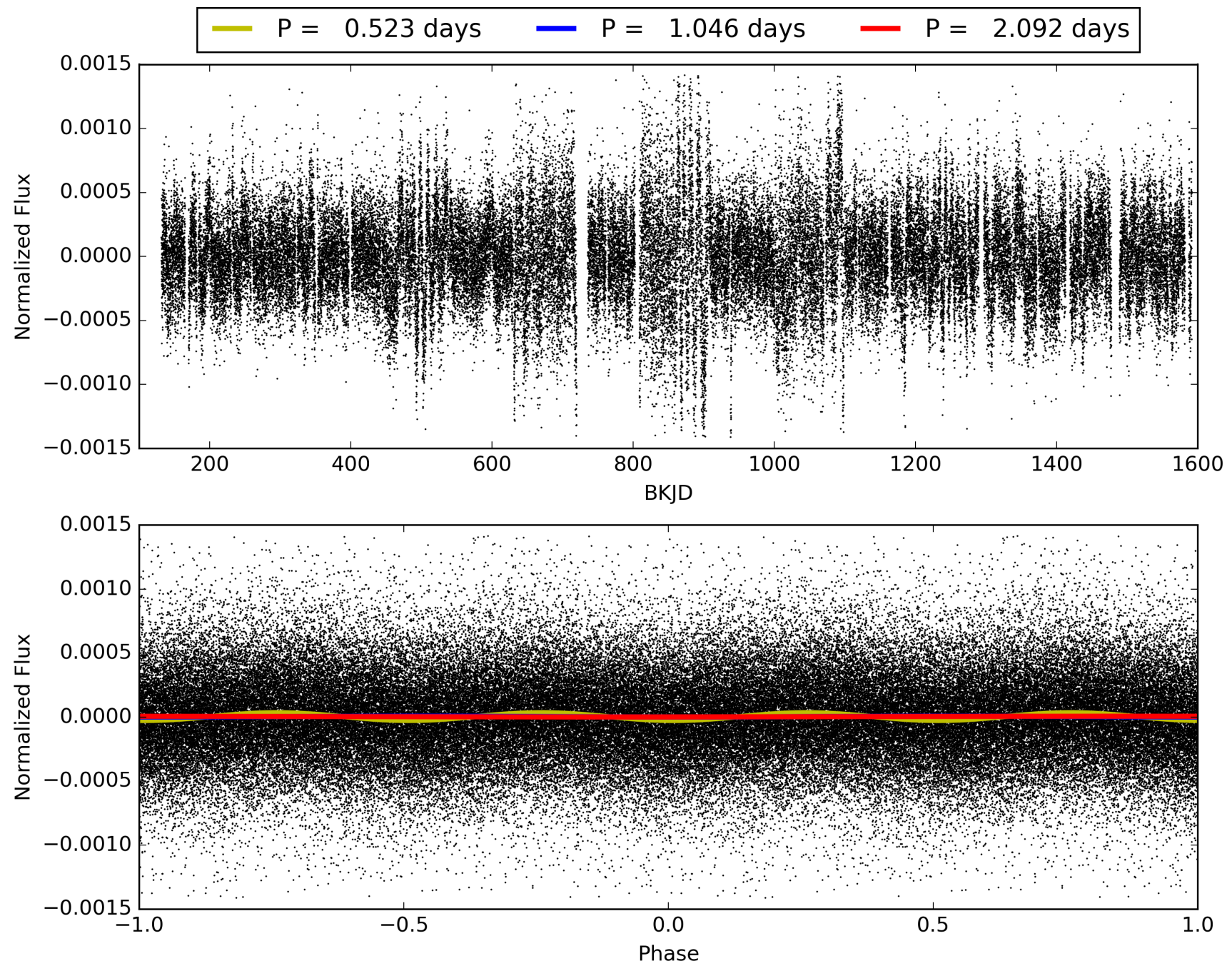
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1234/1239]
GhostDiagnostic-chr: -0.689
Centroid-sig: 0.0%
Centroid-so: 24.472 arcsec [5.49 σ]
OotOffset-rm: N/A
KicOffset-rm: 10.824 arcsec [9.95 σ]
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006467728-01, PDC Light Curves

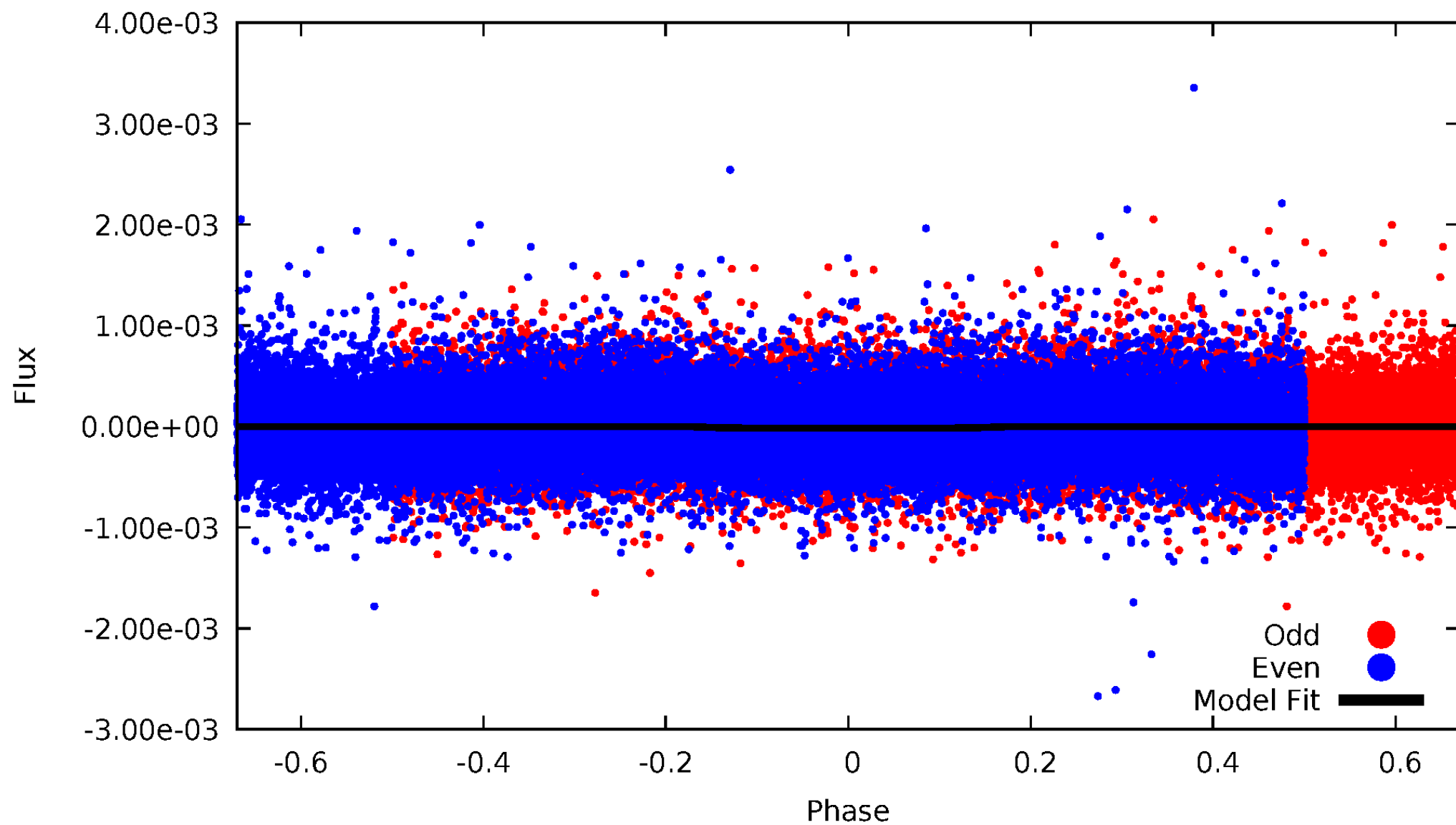


TCE 006467728-01



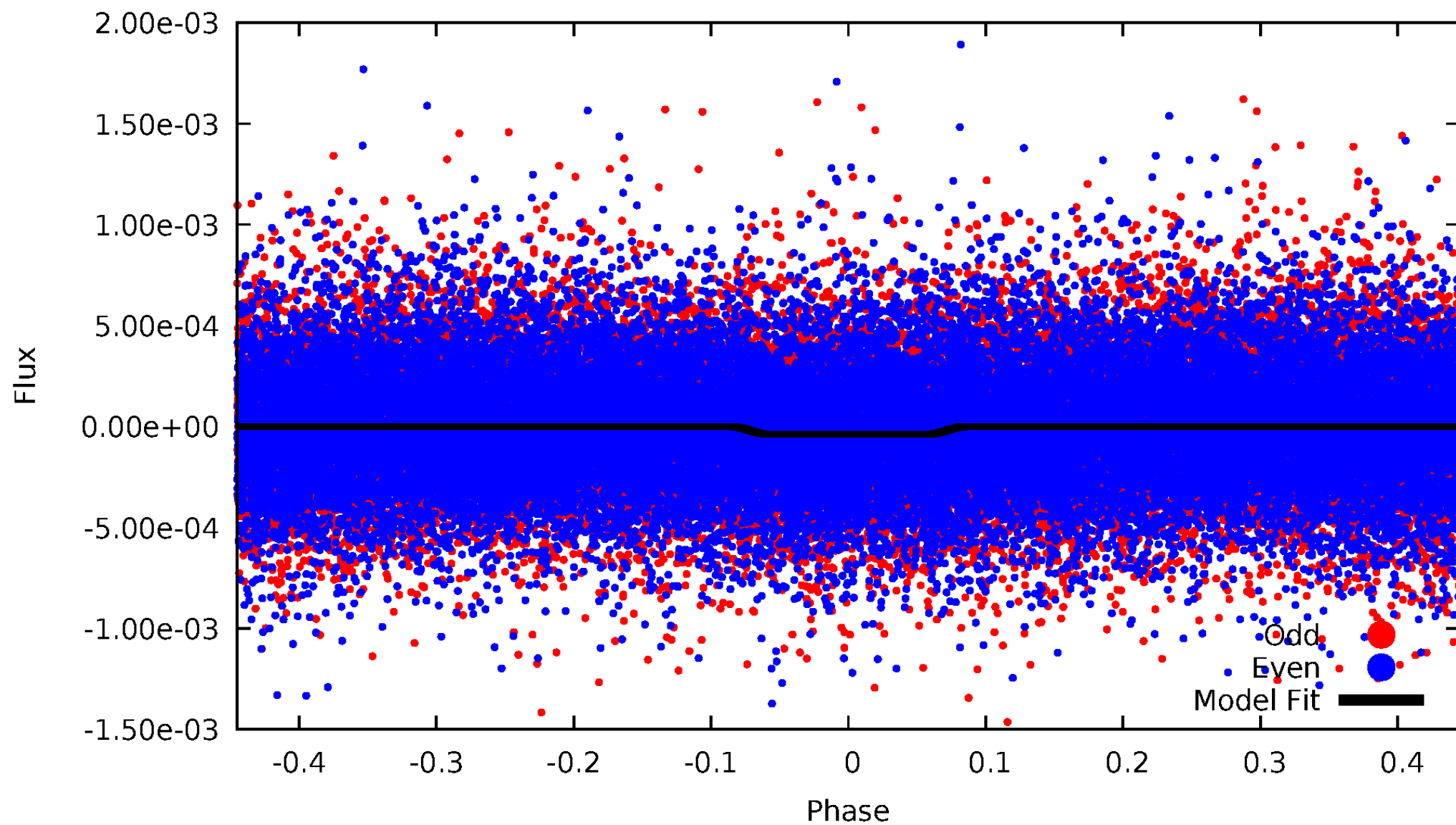
DV Odd/Even

TCE 006467728-01



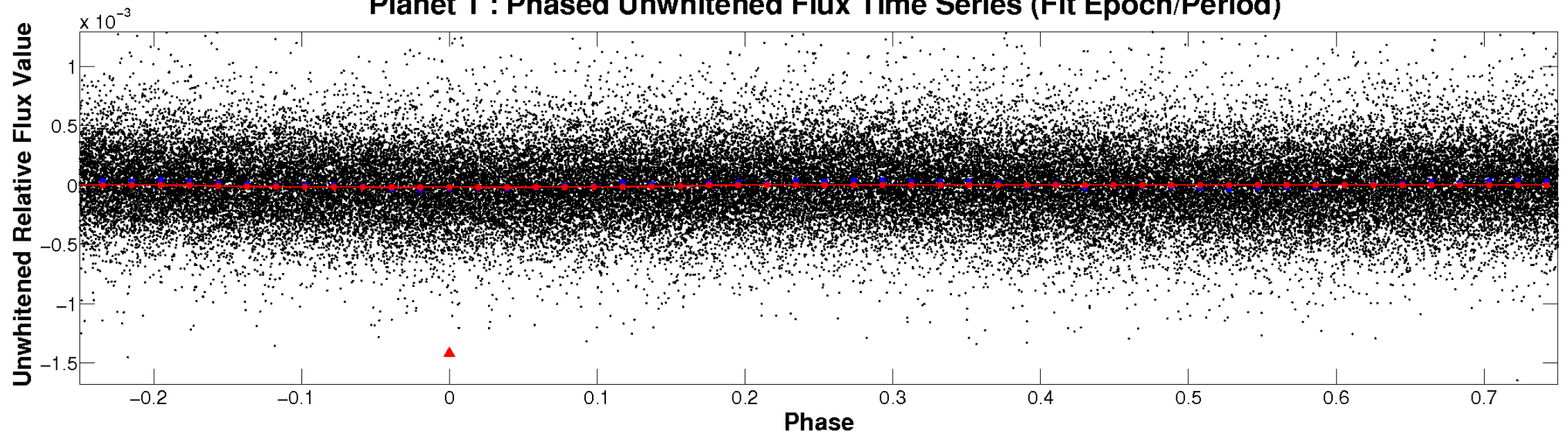
ALT Odd/Even

TCE 006467728-01

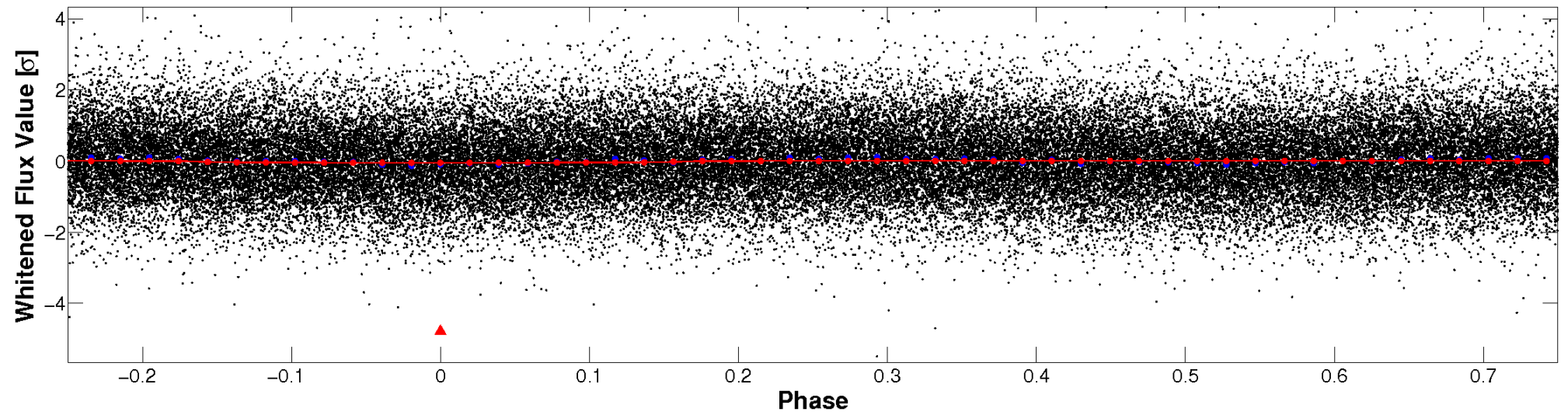


Non-Whitened Vs. Whitened Light Curve

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

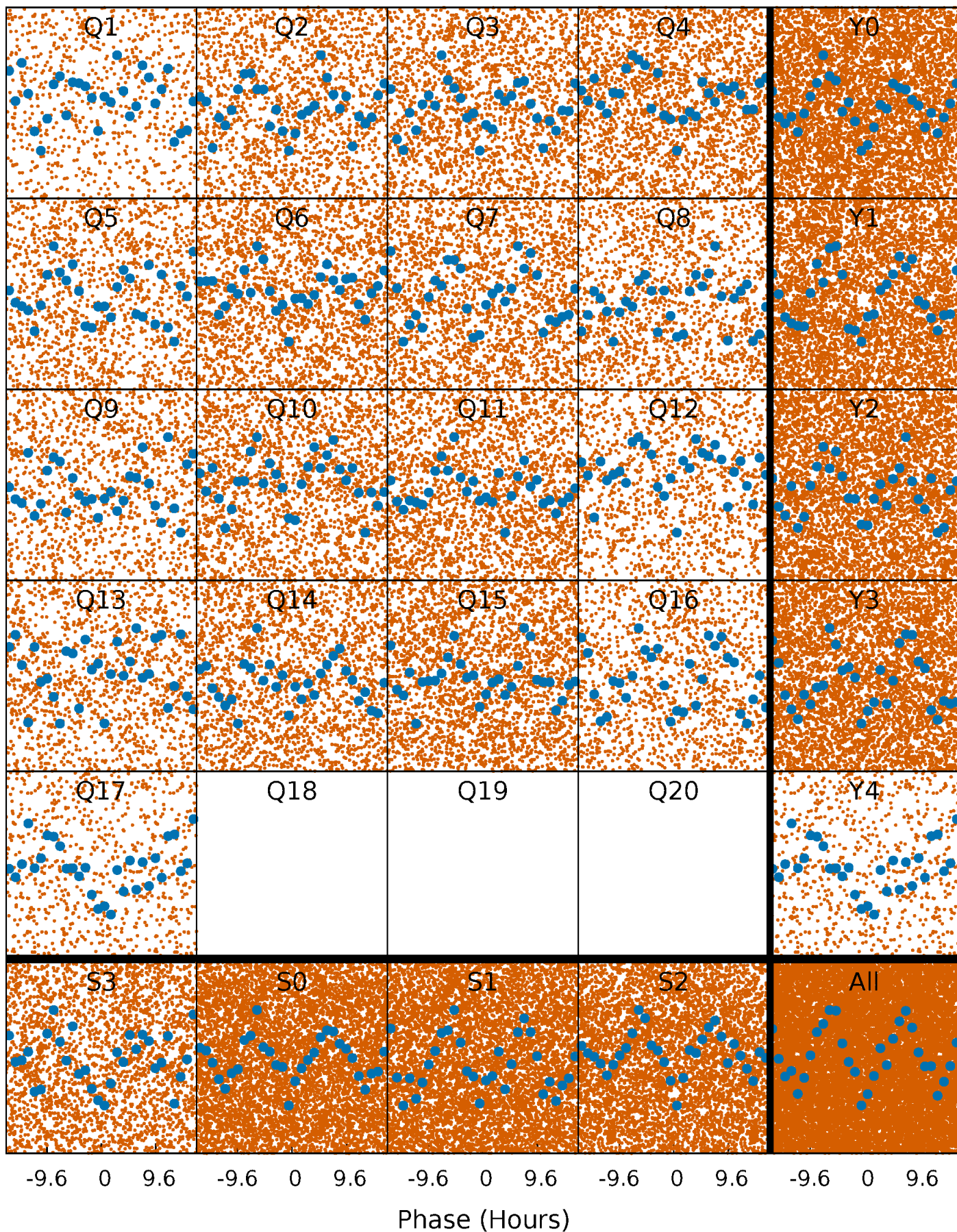


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



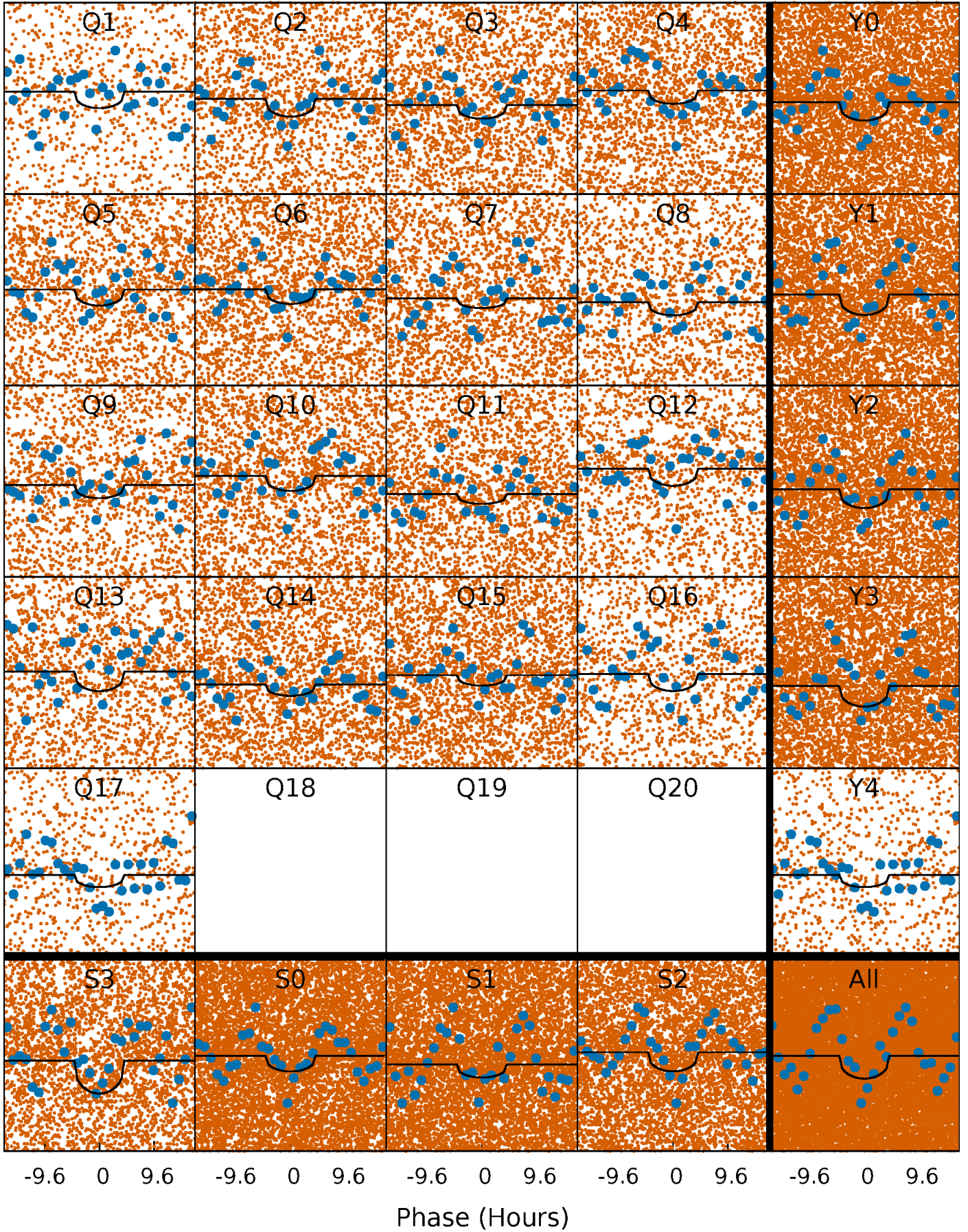
PDC Quarter-Phased Transit Curves

TCE 006467728-01 P= 1.045838 Days $T_0=132.316691$ (BKJD)



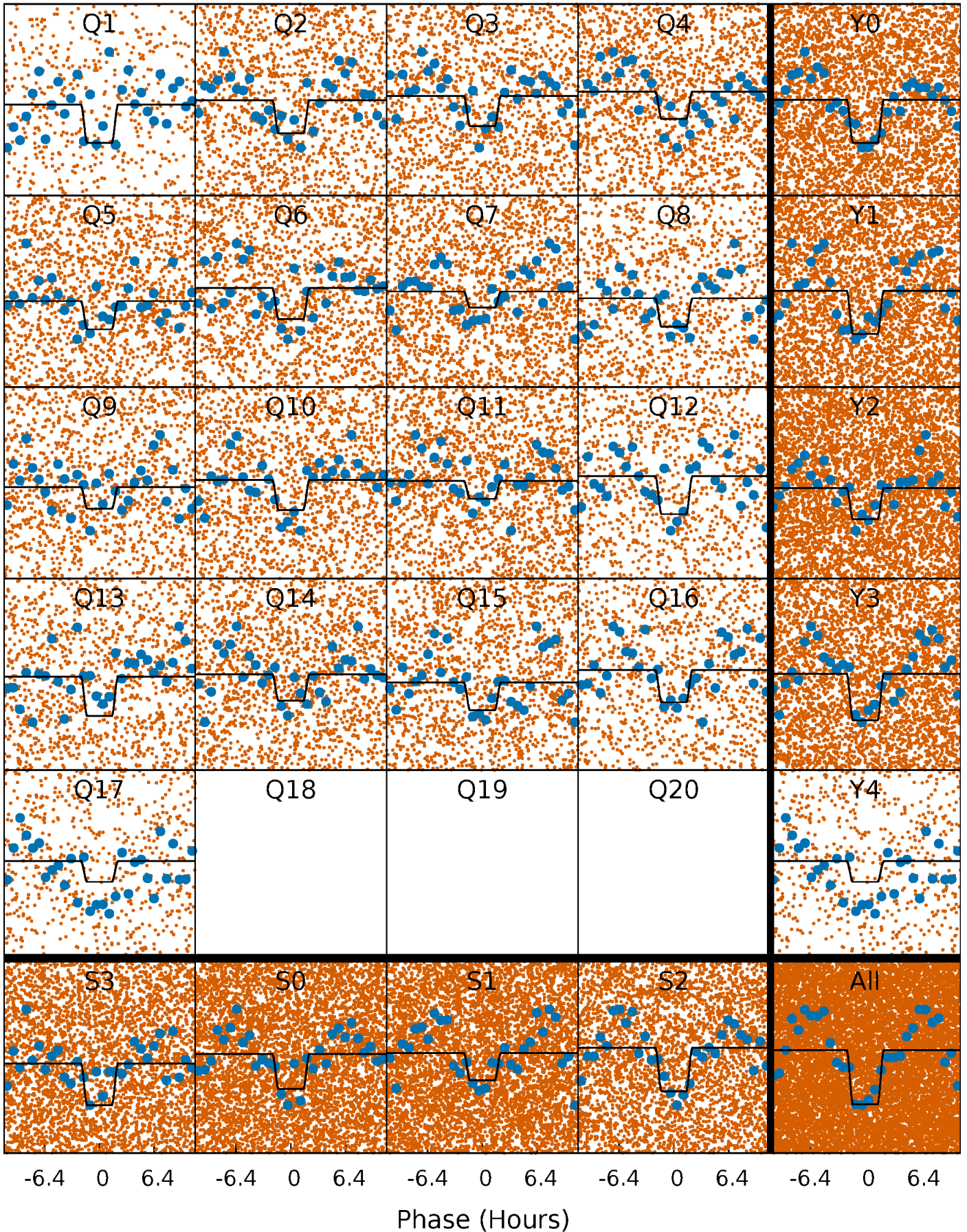
DV Quarter-Phased Transit Curves

TCE 006467728-01 P= 1.045838 Days $T_0=132.316691$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

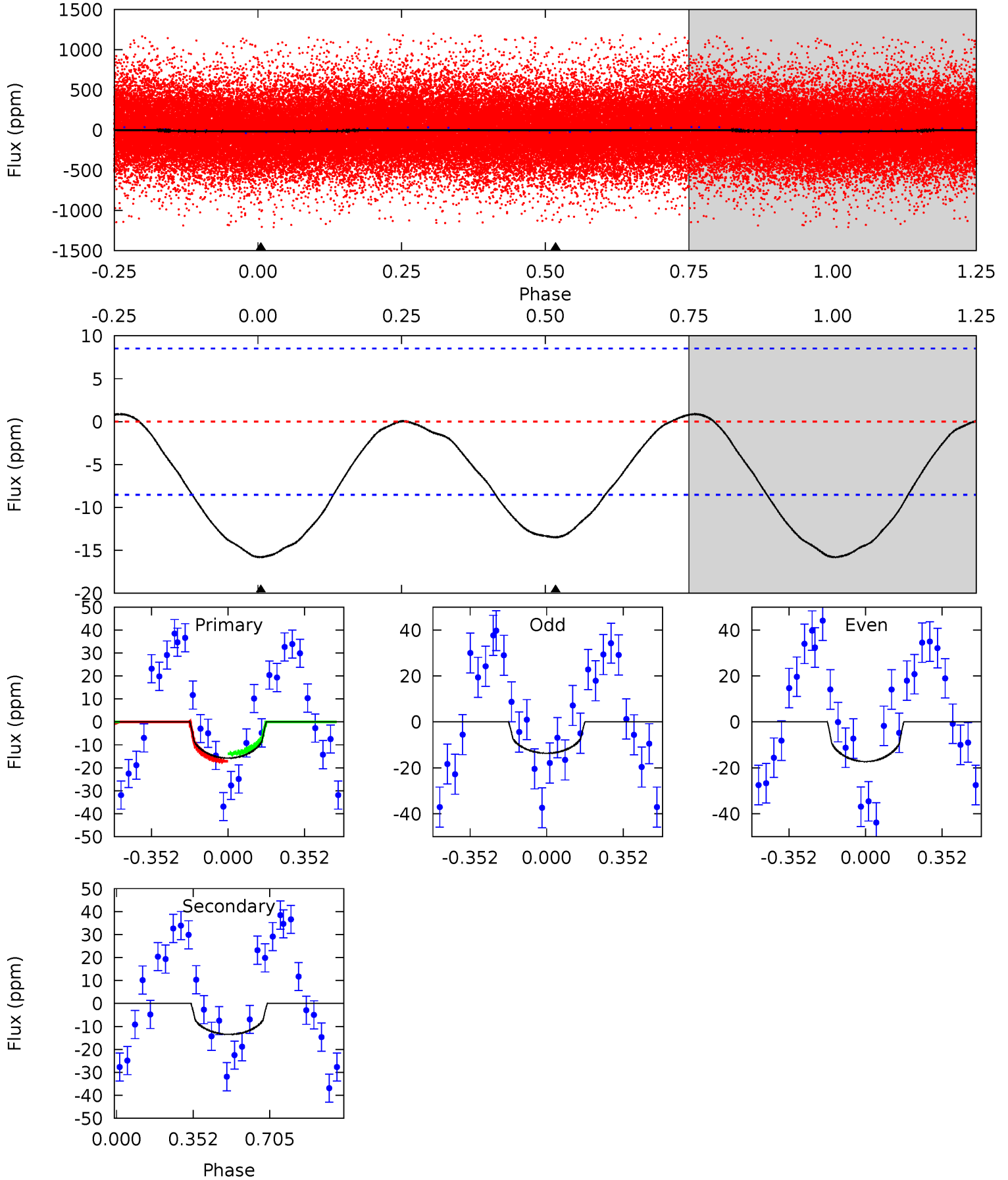
TCE 006467728-01 P= 1.045853 Days $T_0=132.312771$ (BKJD)



DV Model-Shift Uniqueness Test

006467728-01, P = 1.045838 Days, E = 131.270853 Days

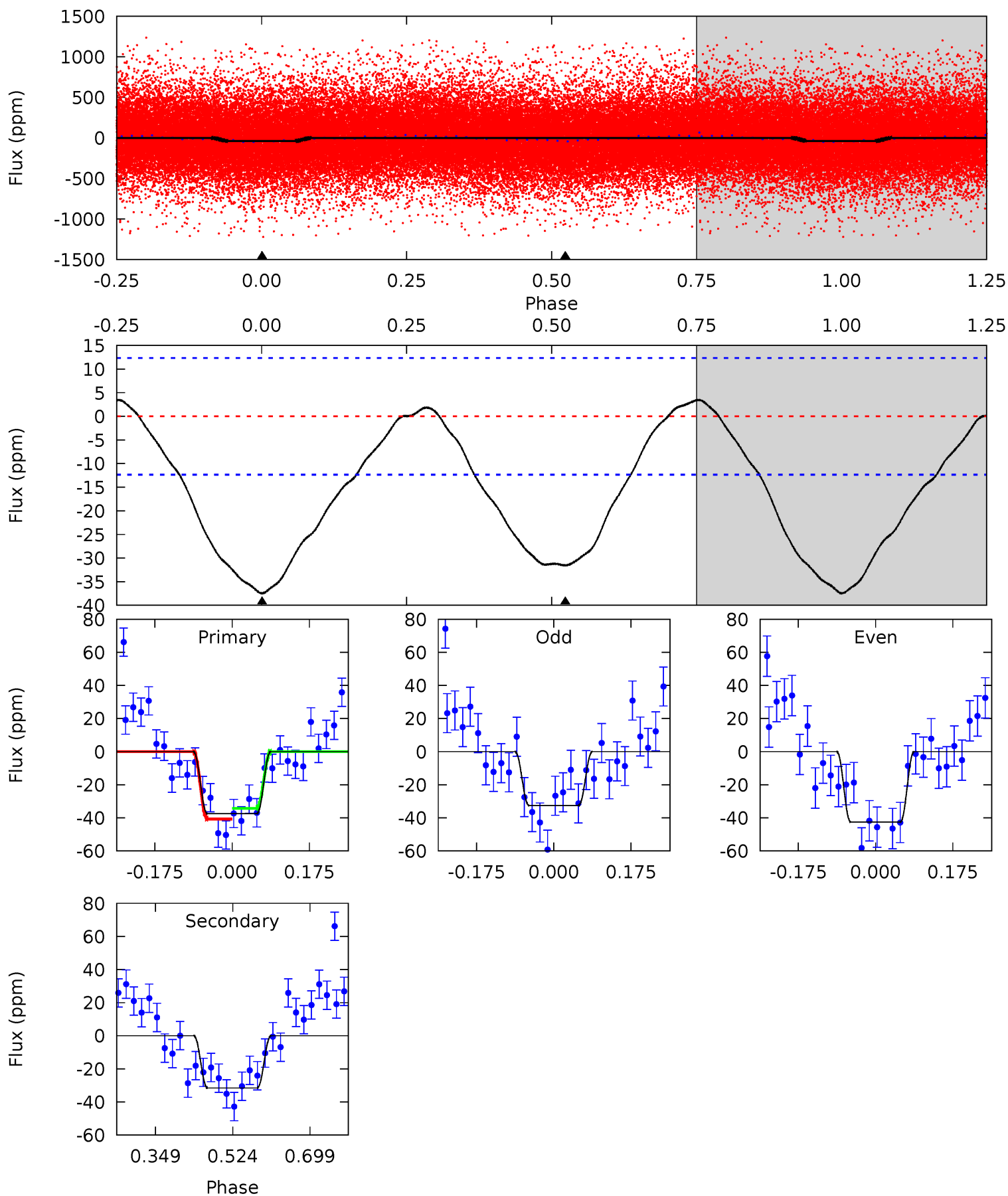
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.96	6.79	0	0	4.29	0.93	0.28	7.96	7.96	6.79	6.79	0.92	0.89	0.05	0.83



Alt Model-Shift Uniqueness Test

006467728-01, P = 1.045853 Days, E = 131.266918 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	11.4	0	0	4.45	1.36	1.26	13.5	13.5	11.4	11.4	1.81	1.25	0.08	1.18



Stellar Parameters For KIC 006467728

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5279^{+184}_{-166}	$4.459^{+0.112}_{-0.138}$	$-0.080^{+0.300}_{-0.300}$	$0.868^{+0.150}_{-0.112}$	$0.791^{+0.112}_{-0.060}$	$1.705^{+0.863}_{-0.627}$
	+3%/-3%	+3%/-3%	+375%/-375%	+17%/-13%	+14%/-8%	+51%/-37%
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 006467728-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-13 ± 2	$0.61^{+0.54}_{-0.42}$	2231^{+122}_{-108}	4215^{+2959}_{-874}	$6.953^{+61.307}_{-4.932}$
Alt.	-32 ± 3	$0.74^{+0.58}_{-0.45}$	2233^{+125}_{-120}	4557^{+2545}_{-853}	11^{+63}_{-7}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

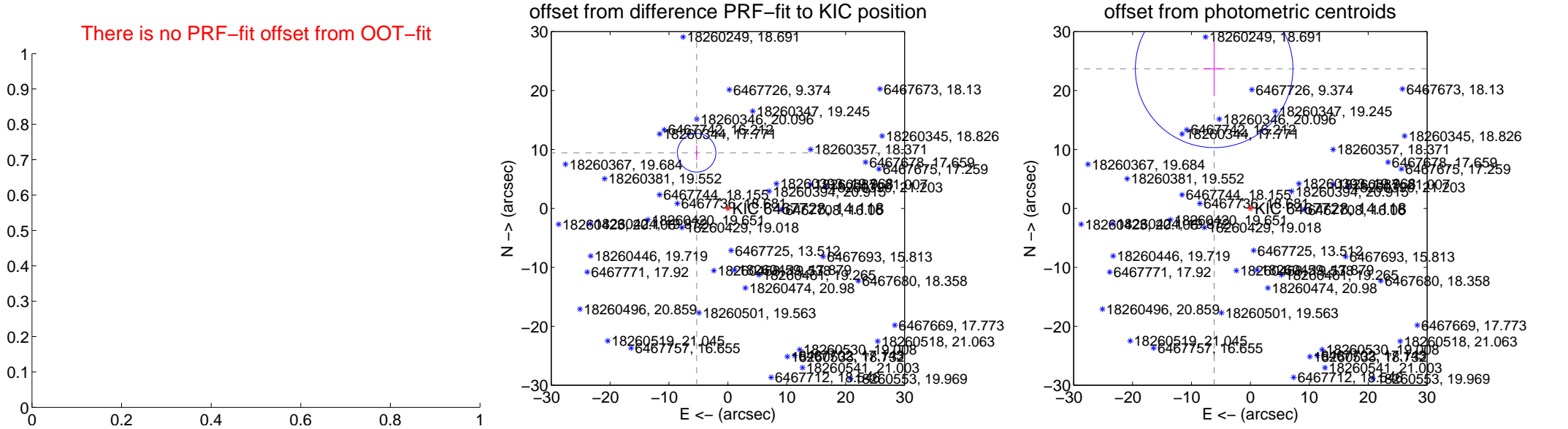
DV Centroid Data

Supplemental centroid analysis for 006467728-01. Kepler magnitude: 14.12. Transit SNR 6.20

There are 2 quarters with good PRF difference image offsets

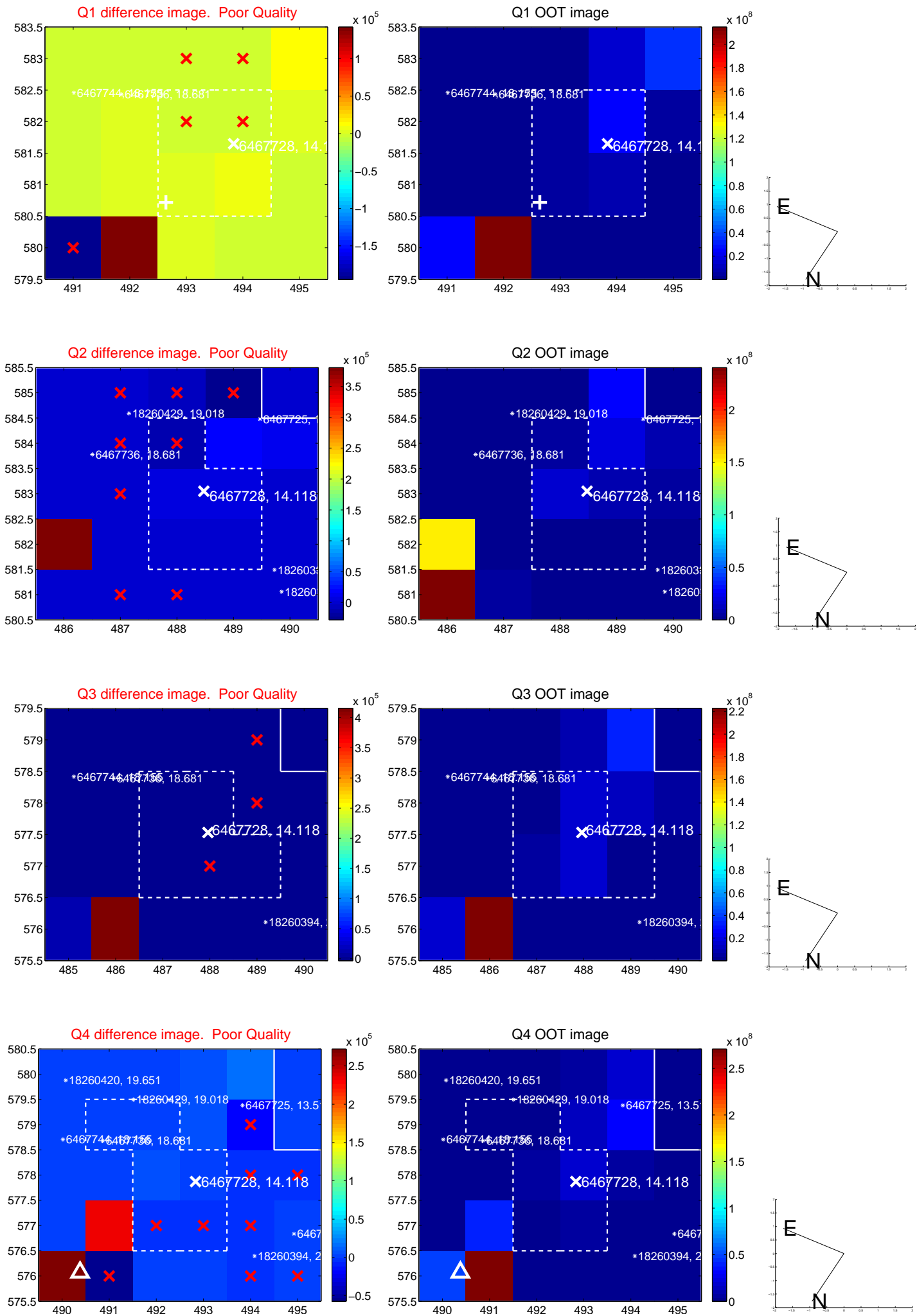
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	10.824 ± 1.088	9.95	5.306 ± 0.070	9.434 ± 1.248
photometric centroid source offset	24.47 ± 4.46	5.49	6.15 ± 1.83	23.69 ± 4.58

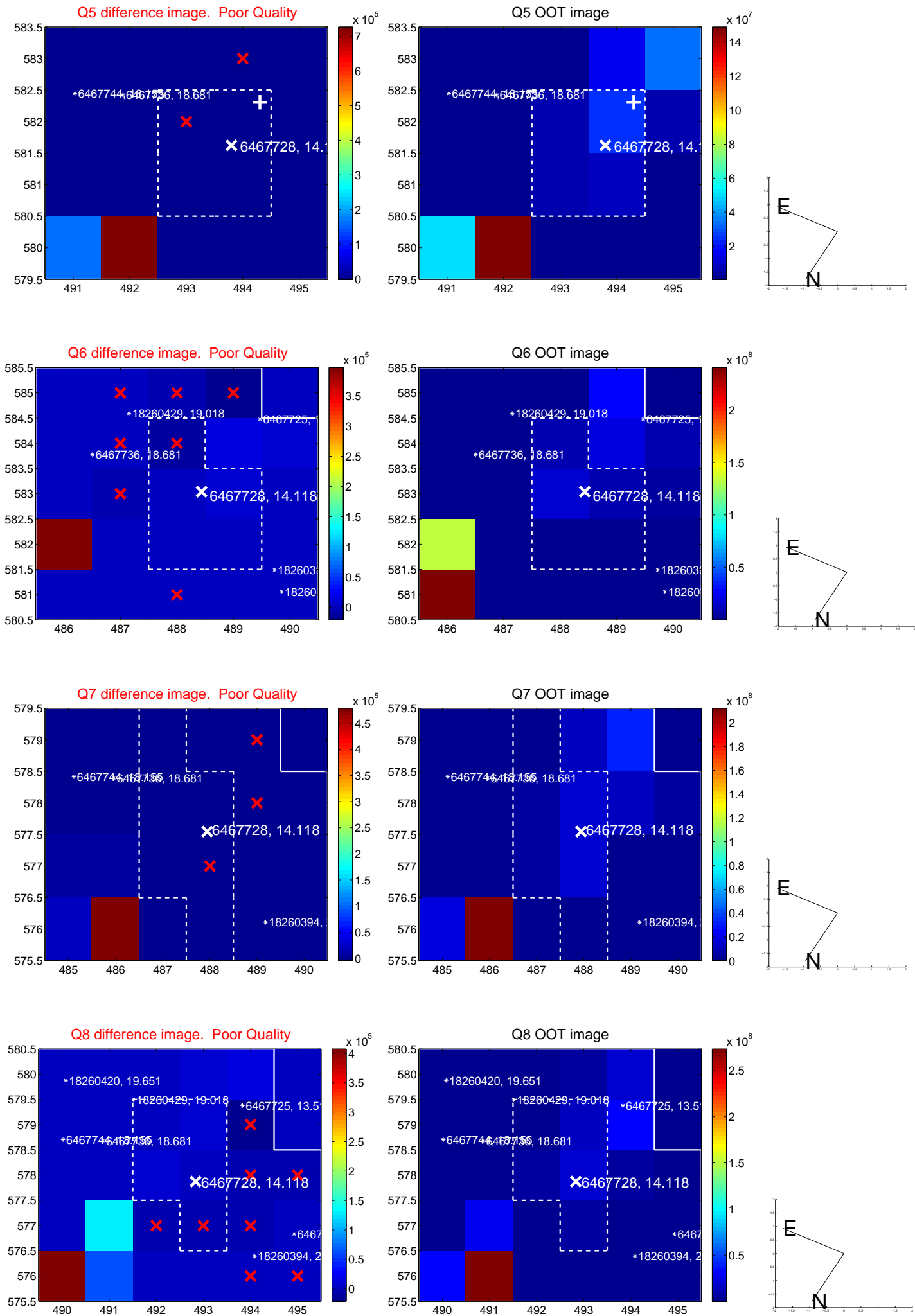


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

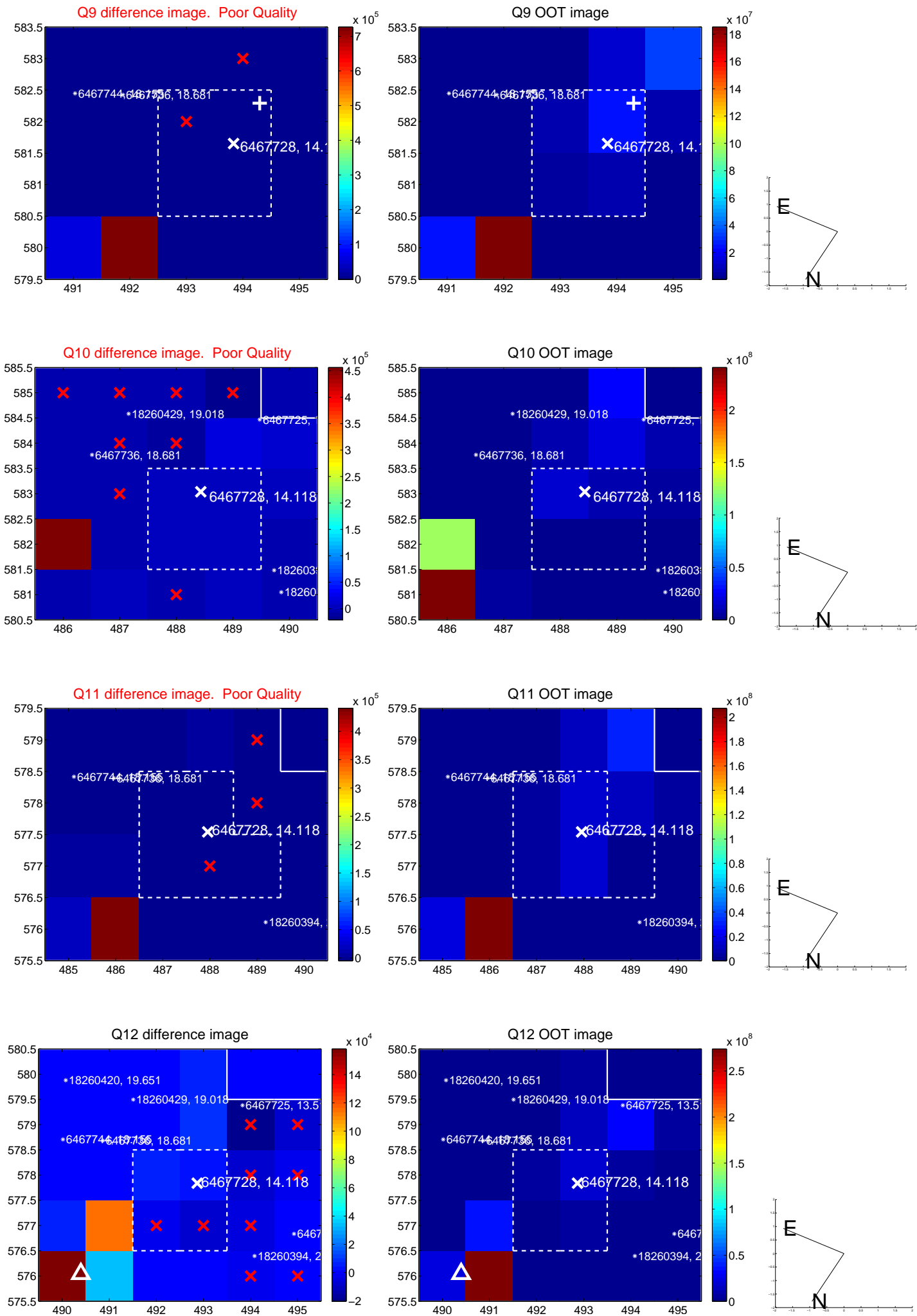
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



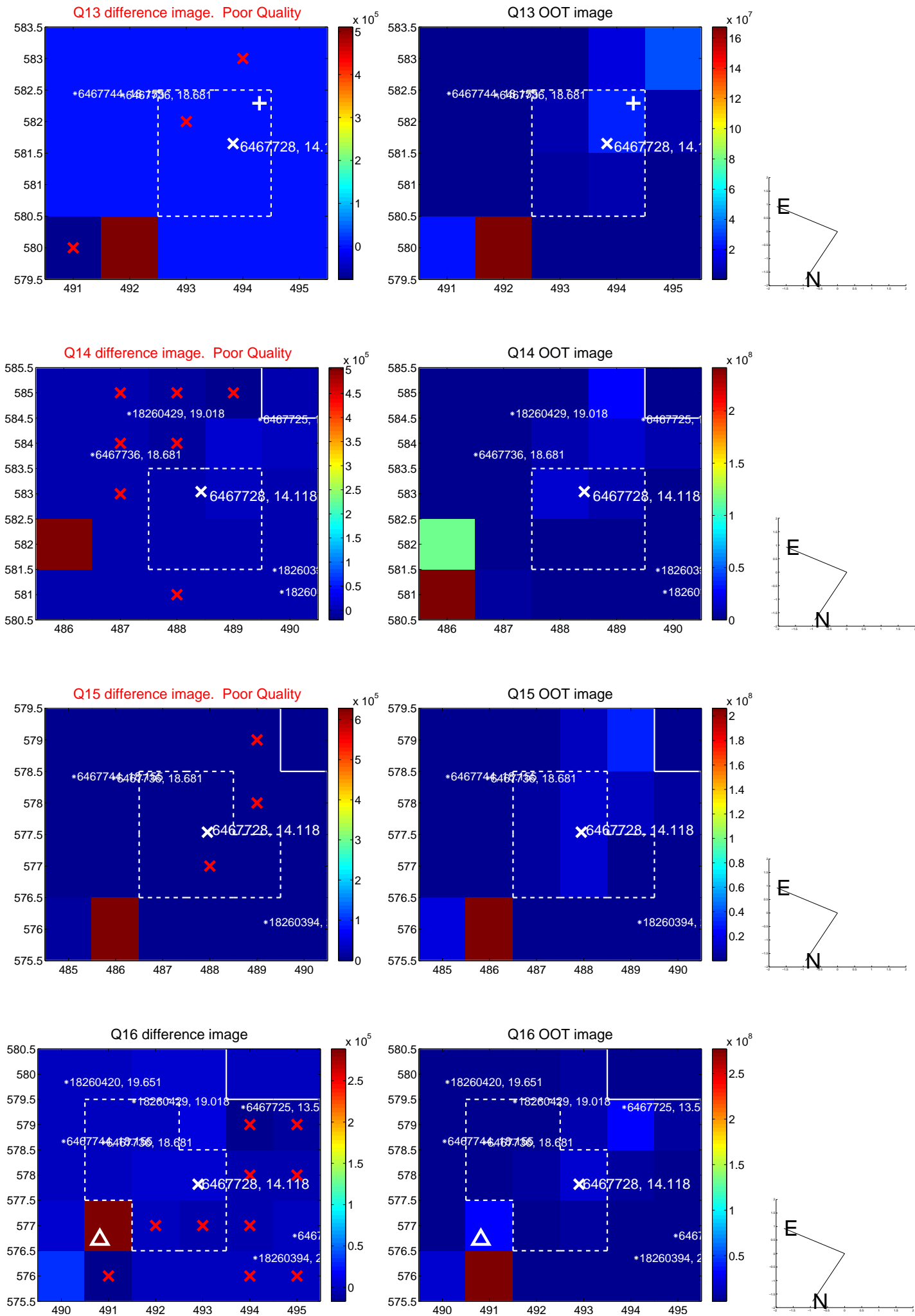
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



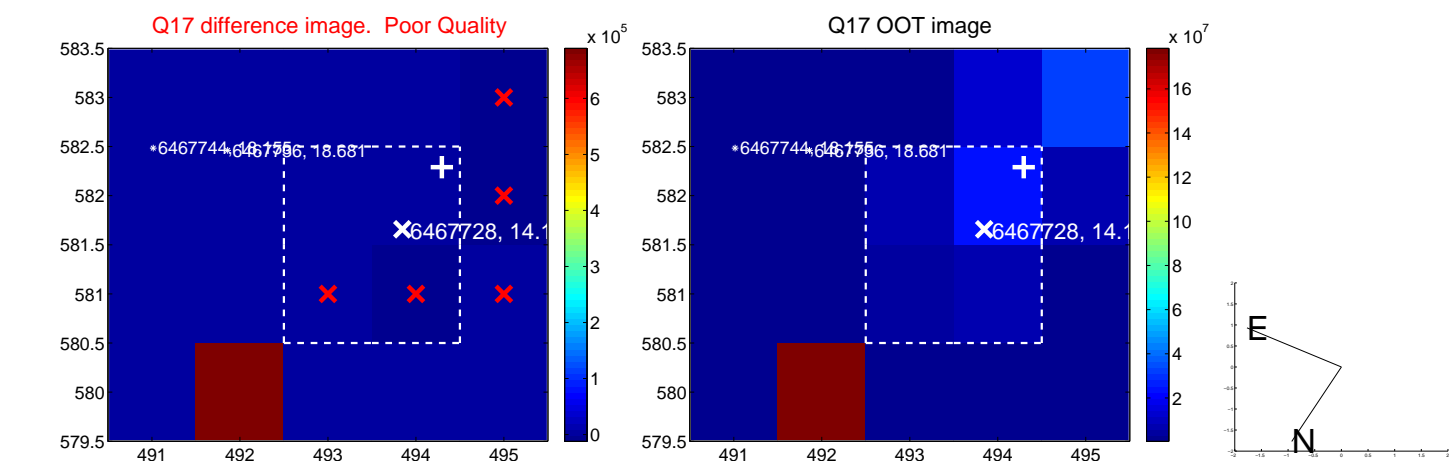
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



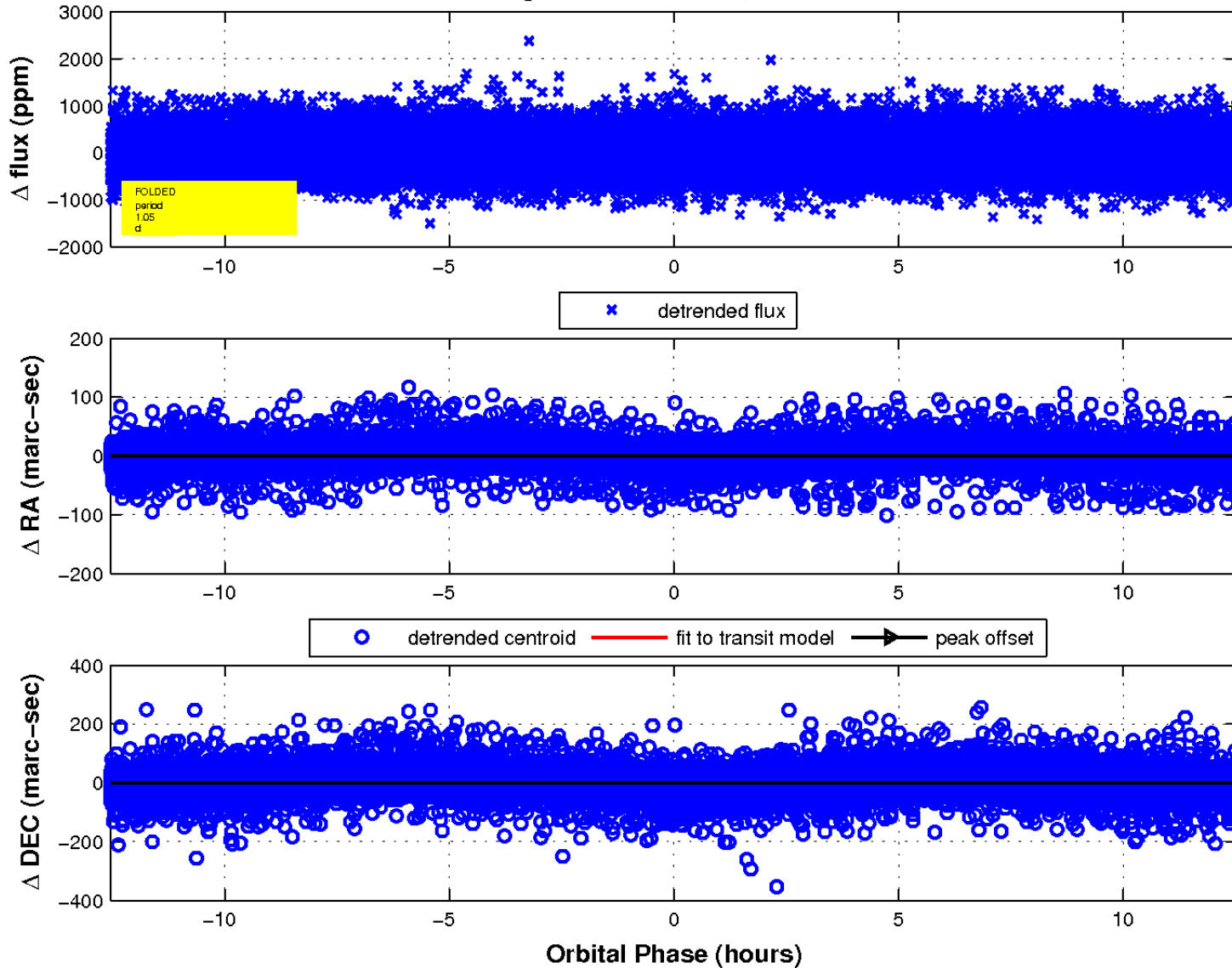
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

