

KIC 007915386

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})
007915386-01	OBS	No	1.245978	132.657040	61.9	12.305	15.4	25.6	1.84	7753	1.47	14931.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007915386-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

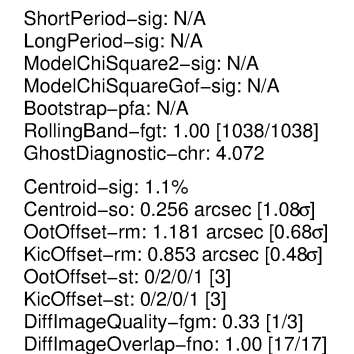
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

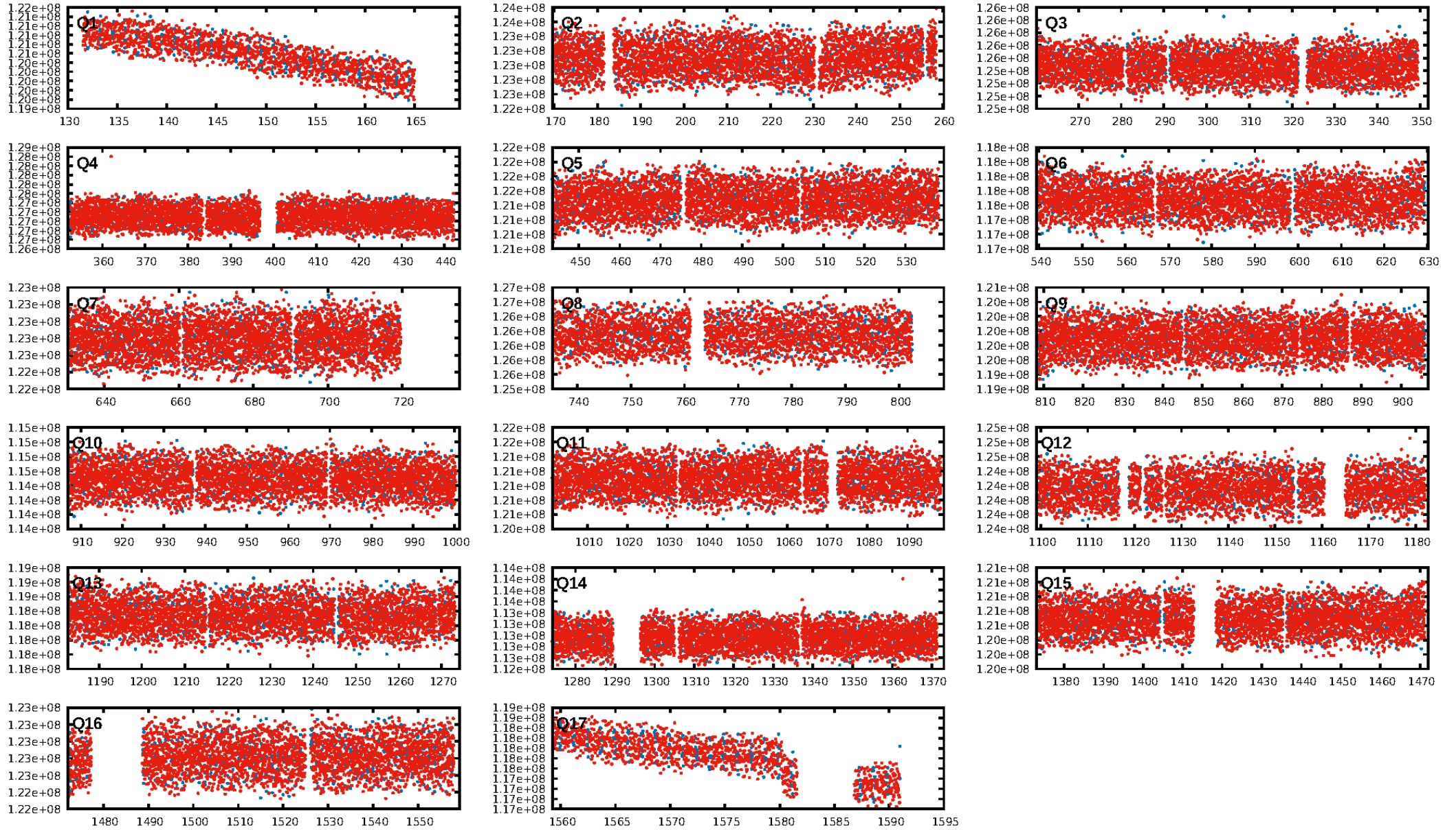
Ephemeris Match Information For 007915386-01

No Significant Match Found

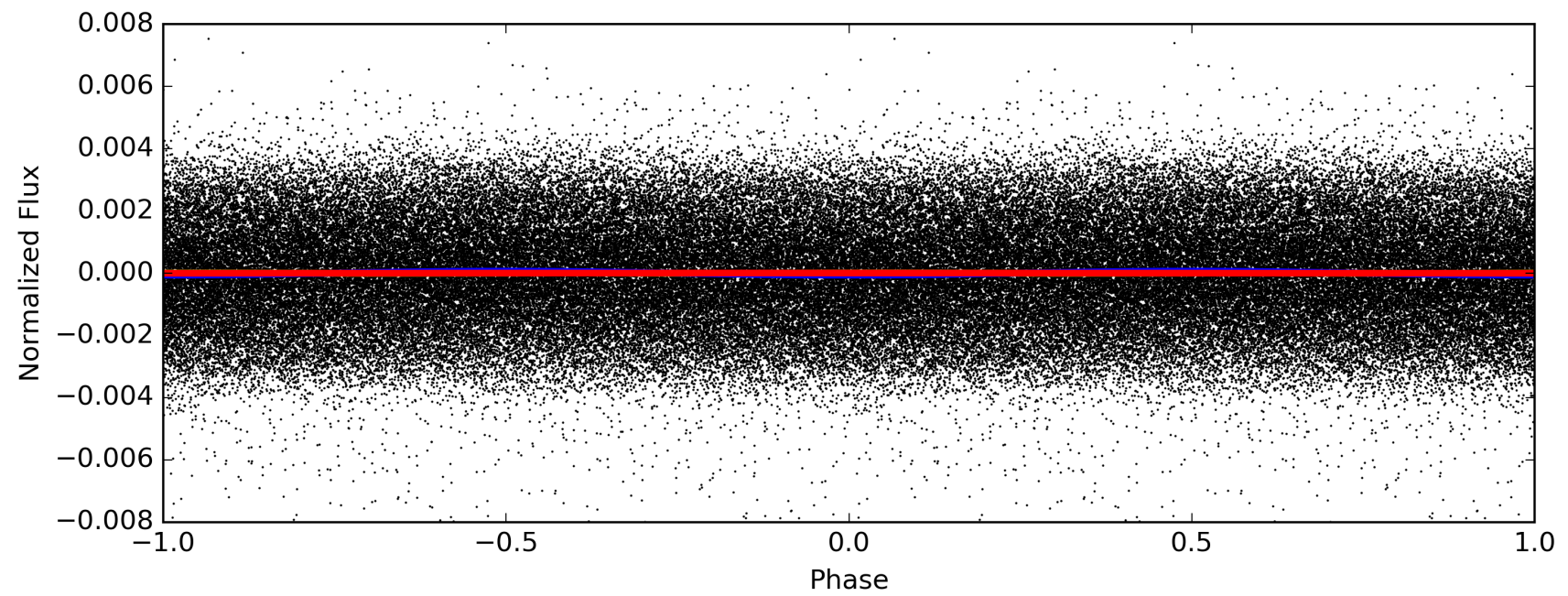
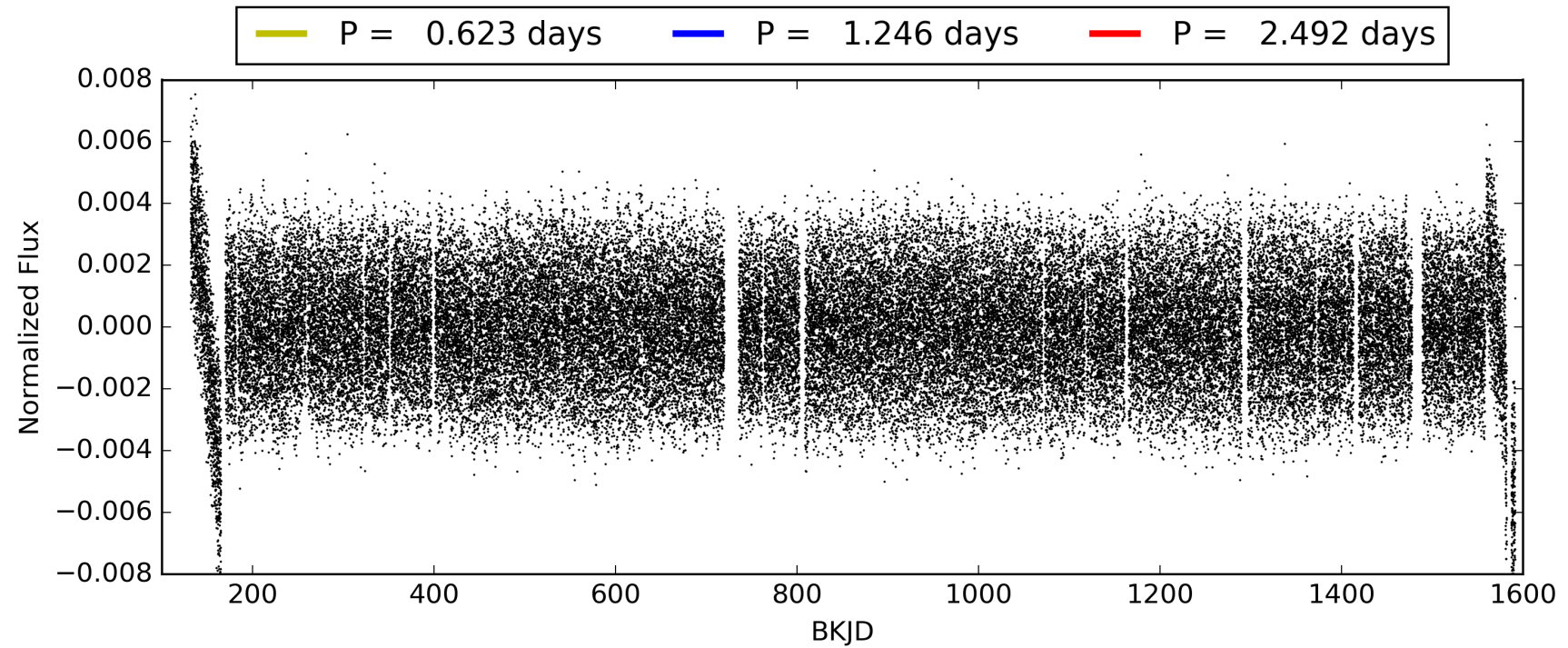
KIC: 7915386 Candidate: 1 of 1 Period: 1.246 d



TCE 007915386-01, PDC Light Curves

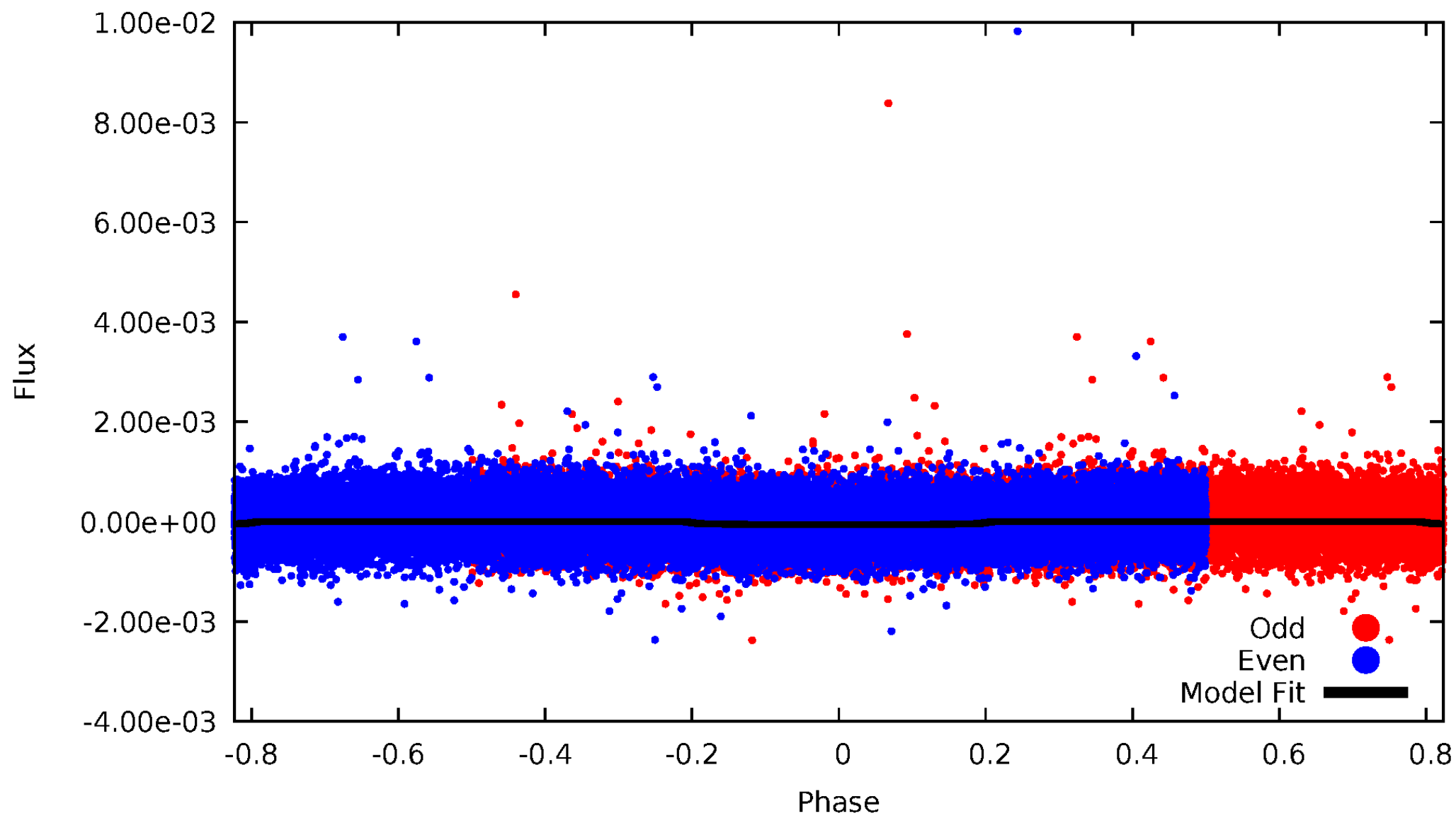


TCE 007915386-01



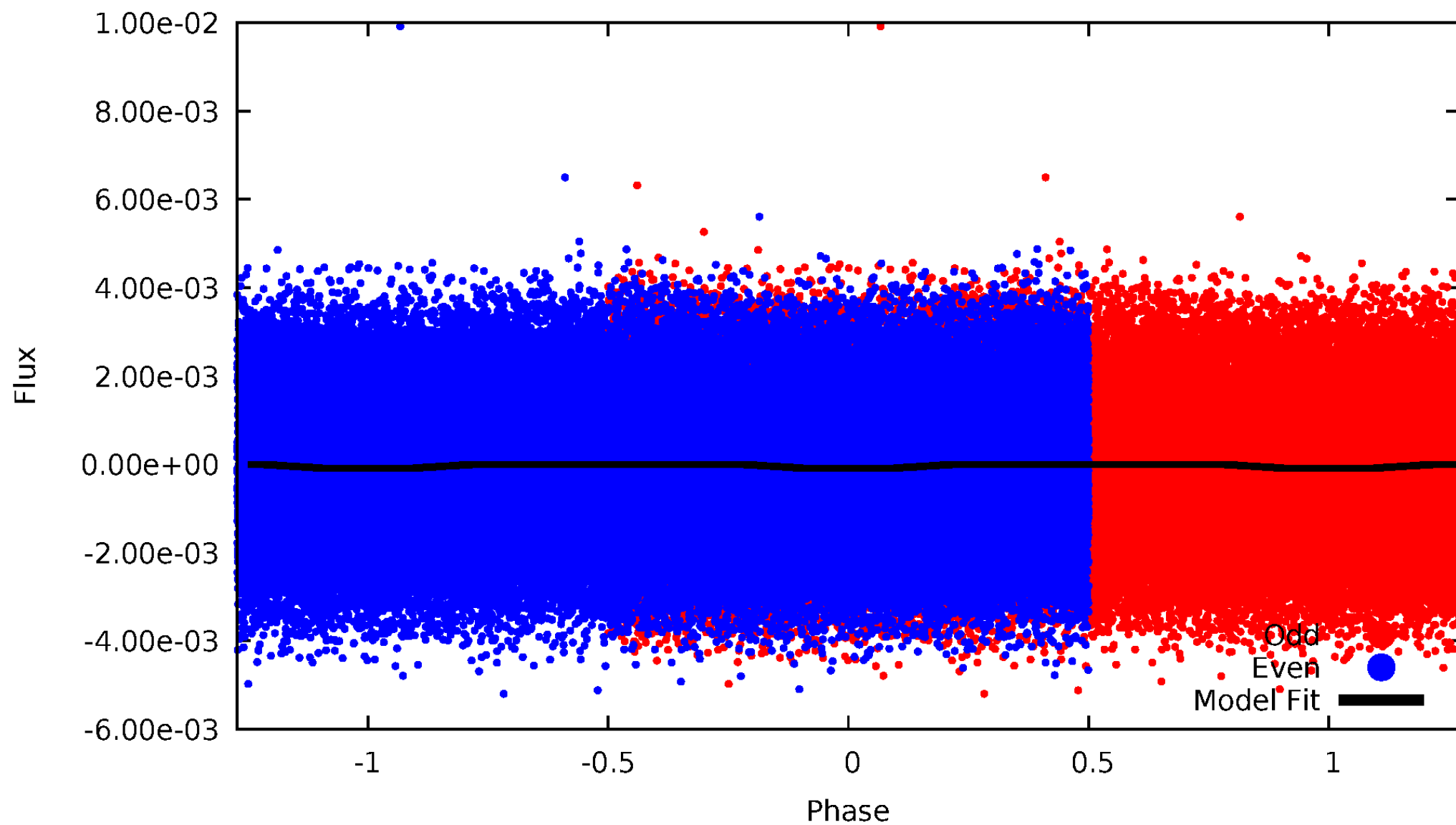
DV Odd/Even

TCE 007915386-01



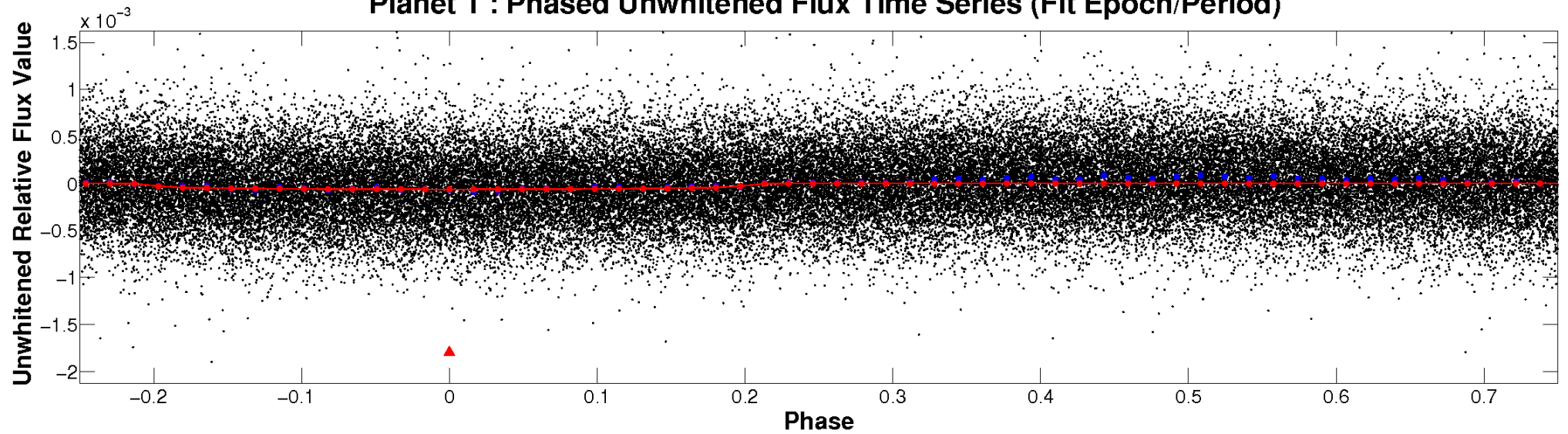
ALT Odd/Even

TCE 007915386-01

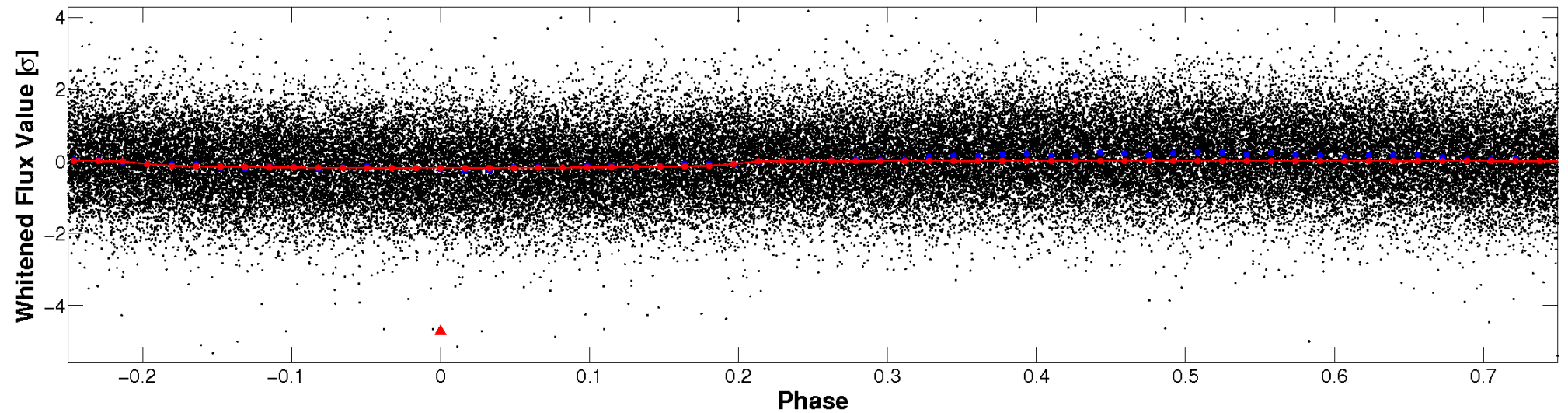


Non-Whitened Vs. Whitened Light Curve

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

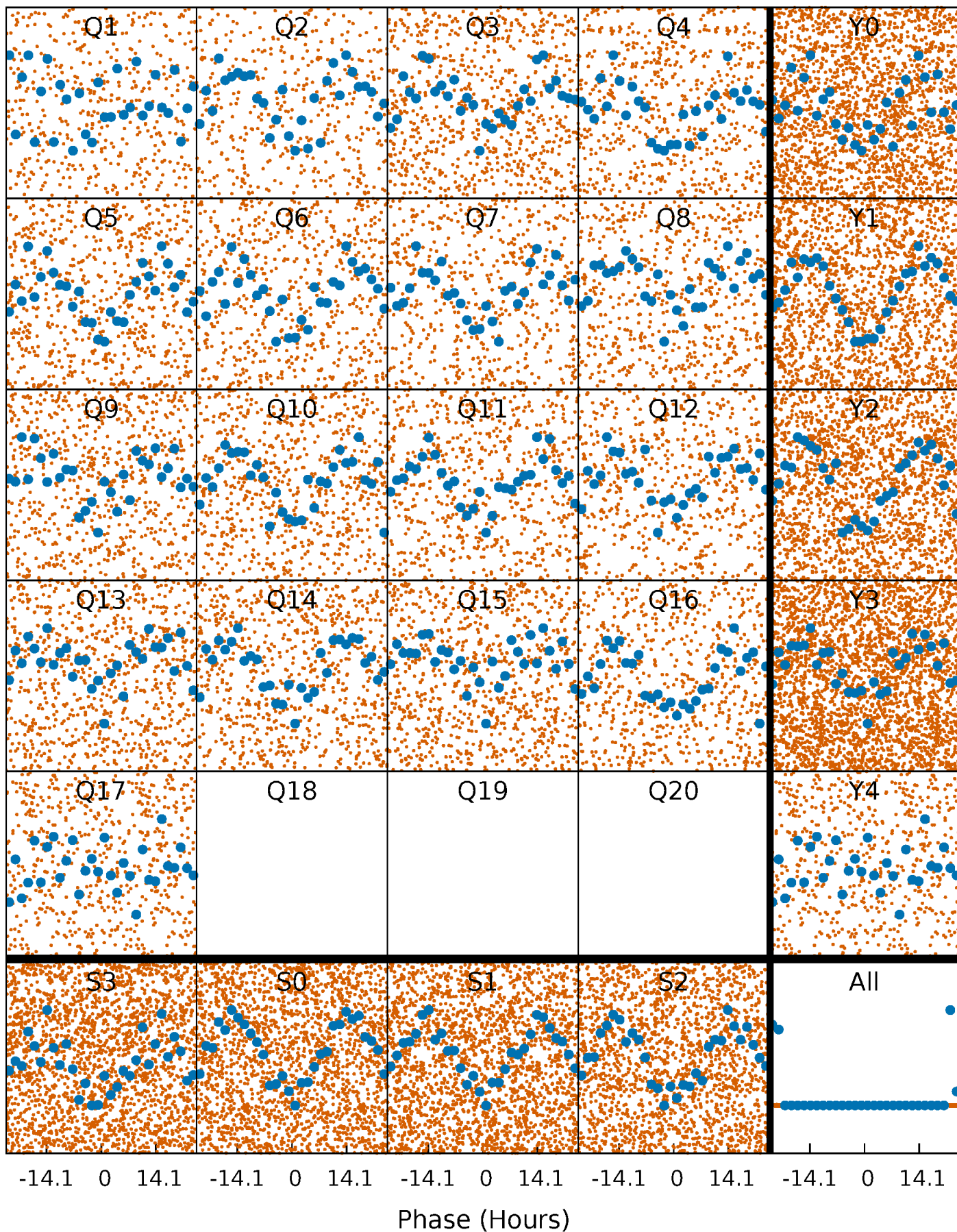


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



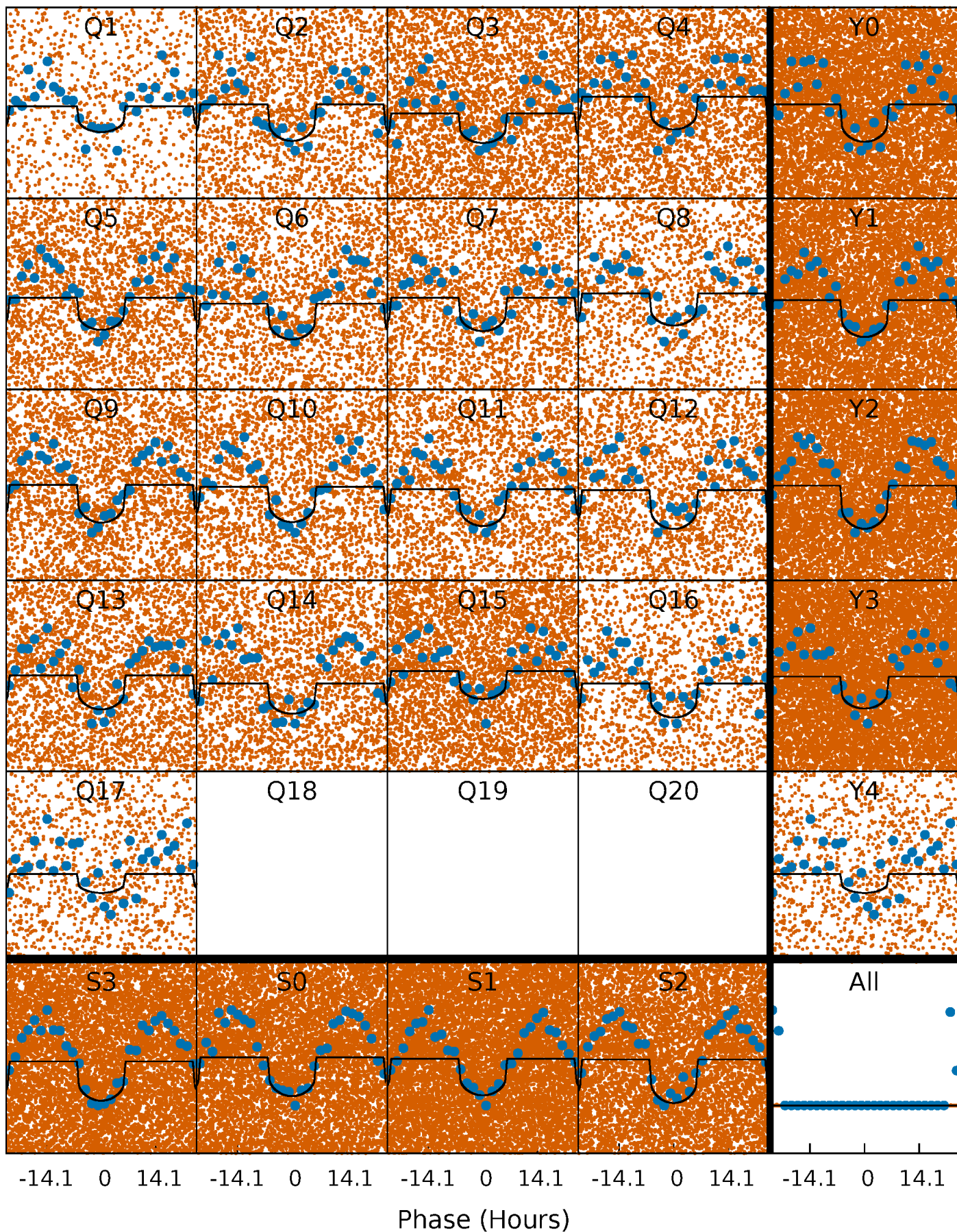
PDC Quarter-Phased Transit Curves

TCE 007915386-01 P= 1.245978 Days $T_0=132.657040$ (BKJD)



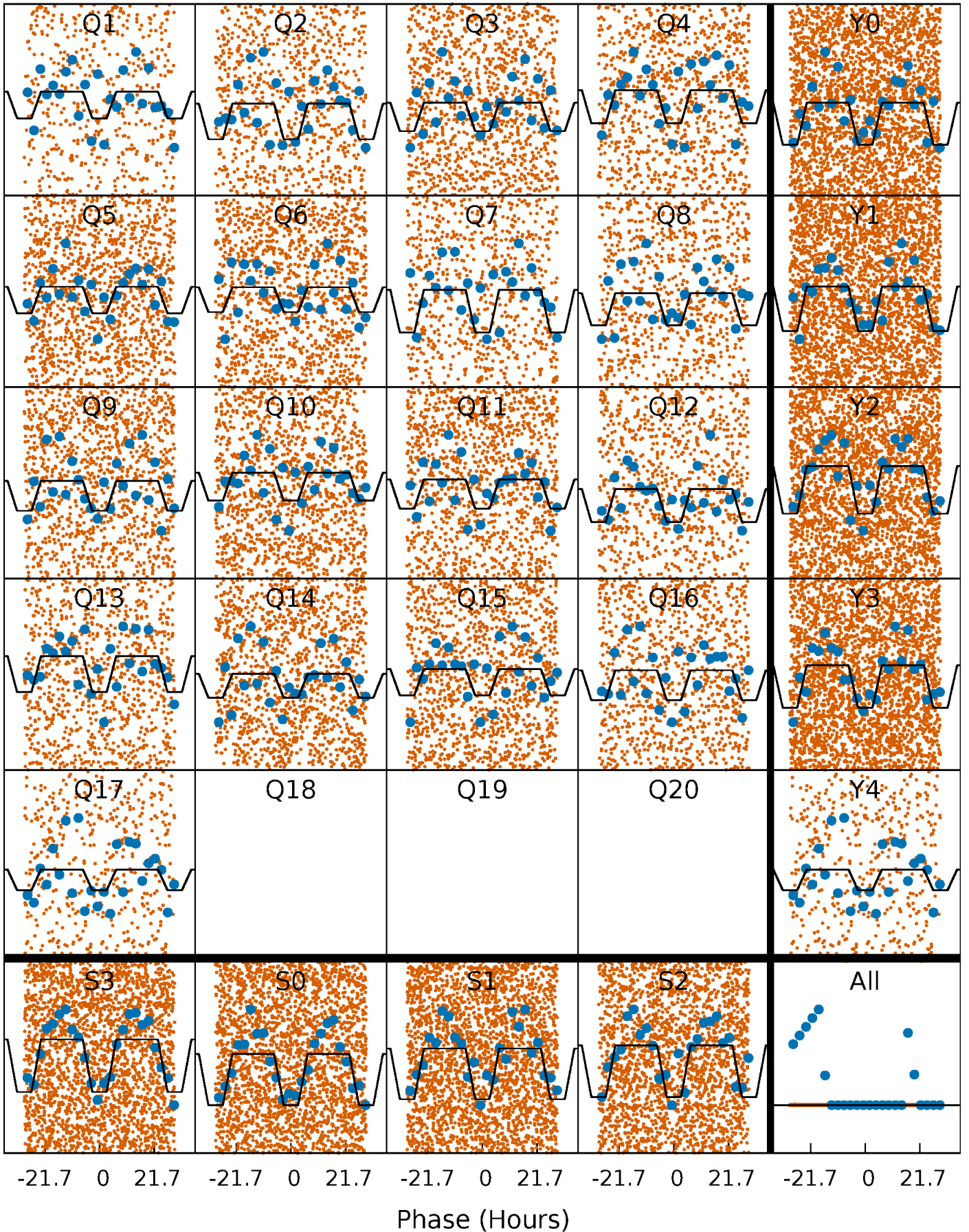
DV Quarter-Phased Transit Curves

TCE 007915386-01 P= 1.245978 Days $T_0=132.657040$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

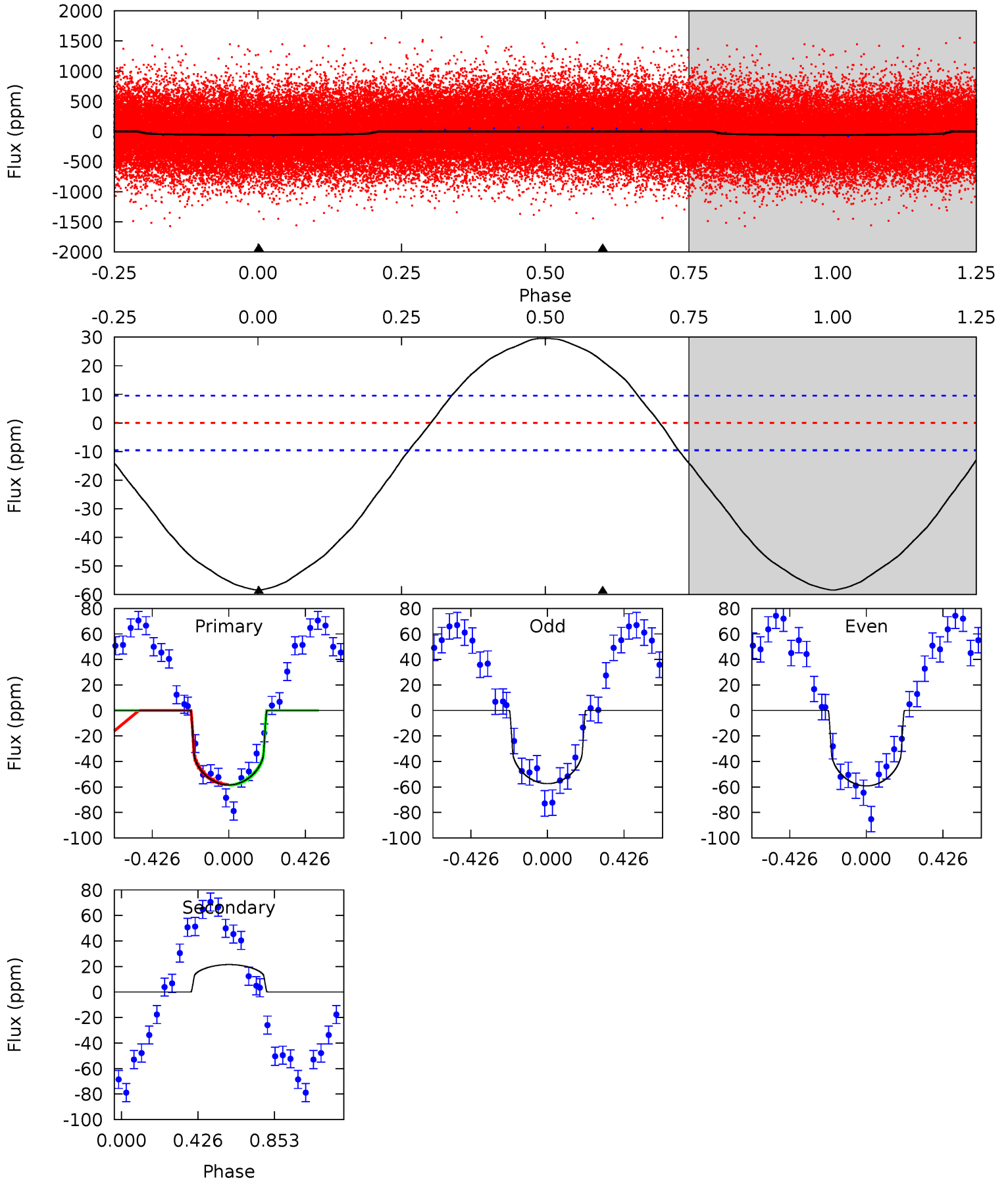
TCE 007915386-01 P= 1.245996 Days $T_0=132.653581$ (BKJD)



DV Model-Shift Uniqueness Test

007915386-01, P = 1.245978 Days, E = 131.411062 Days

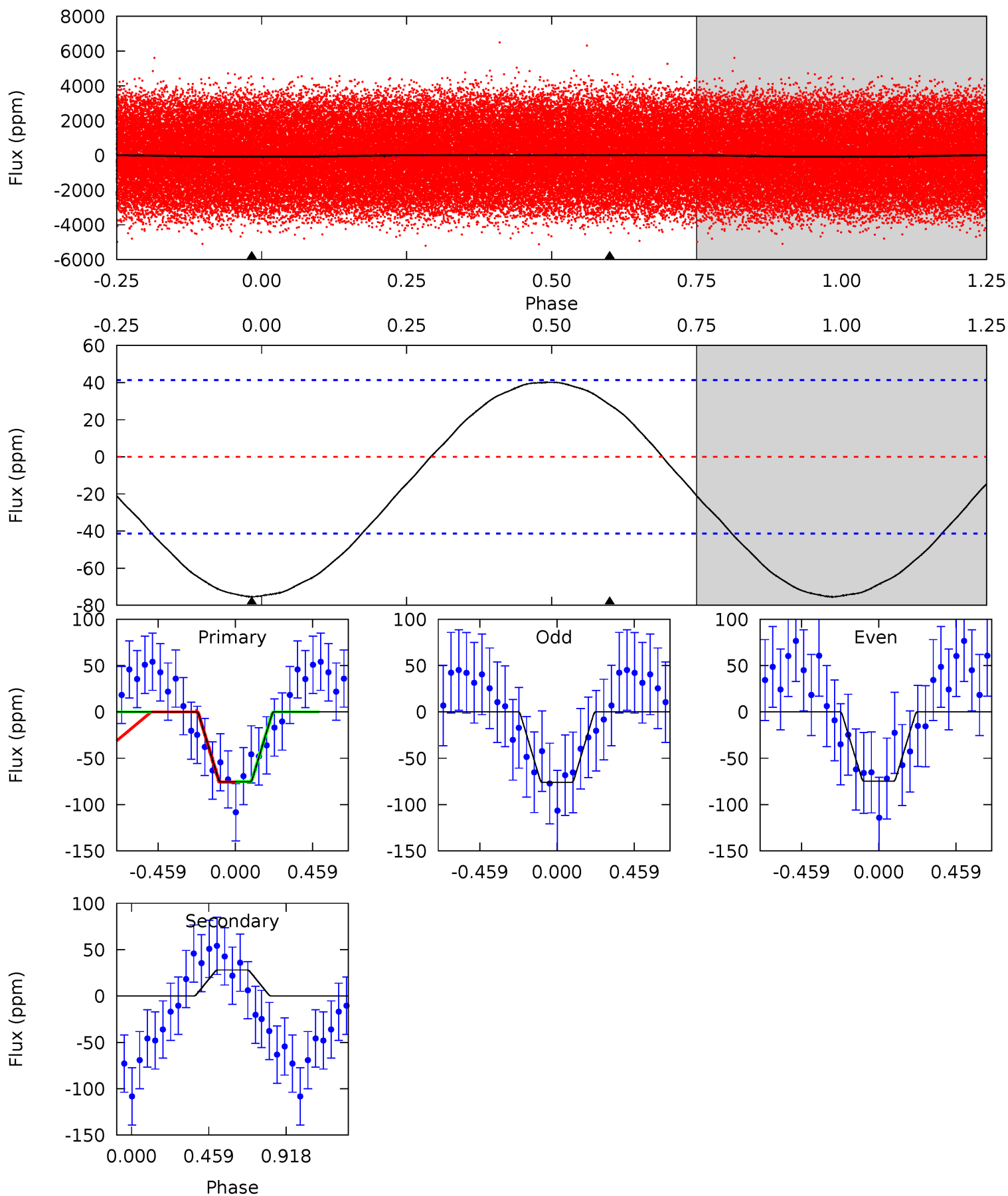
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.1	-9.60	0	0	4.25	0.80	3.42	26.1	26.1	-9.60	-9.60	0.40	1.01	0.34	0.10



Alt Model-Shift Uniqueness Test

007915386-01, P = 1.245996 Days, E = 131.407585 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.72	-2.87	0	0	4.23	0.74	1.03	7.72	7.72	-2.87	-2.87	0.07	0.82	0.35	0.03



Stellar Parameters For KIC 007915386

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7753^{+214}_{-322}	$4.142^{+0.098}_{-0.182}$	$0.070^{+0.200}_{-0.400}$	$1.845^{+0.540}_{-0.332}$	$1.723^{+0.204}_{-0.249}$	$0.386^{+0.206}_{-0.182}$
	+3%/-4%	+2%/-4%	+286%/-571%	+29%/-18%	+12%/-14%	+53%/-47%
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 007915386-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	22 ± 2	$1.50^{+0.67}_{-0.59}$	3990^{+274}_{-241}	-6125^{+861}_{-1880}	$-3.739^{+1.969}_{-6.590}$
Alt.	28 ± 10	$1.88^{+0.74}_{-0.64}$	3985^{+276}_{-226}	-5882^{+789}_{-1462}	$-3.019^{+1.543}_{-4.369}$

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

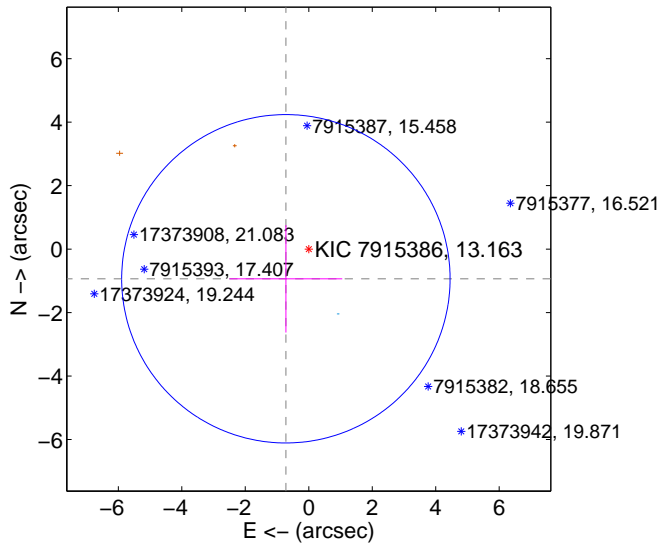
Supplemental centroid analysis for 007915386-01. Kepler magnitude: 13.16. Transit SNR 25.64

There are 1 quarters with good PRF difference image offsets

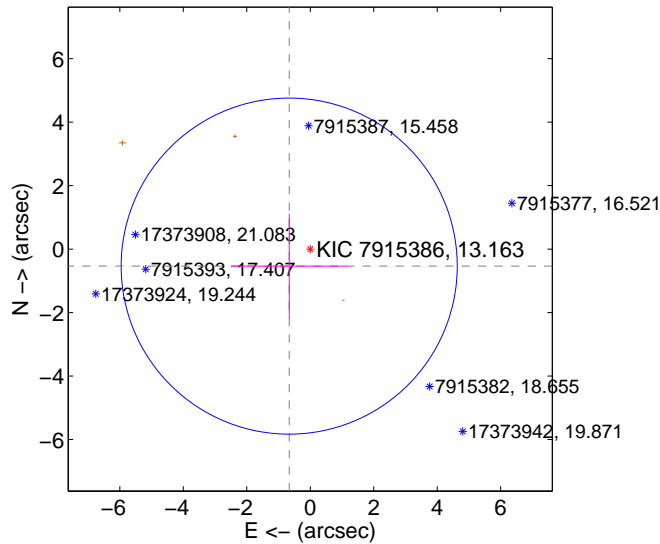
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.181 ± 1.725	0.68	0.721 ± 1.777	-0.935 ± 1.693
PRF-fit source offset from KIC position	0.853 ± 1.765	0.48	0.664 ± 1.834	-0.536 ± 1.655
photometric centroid source offset	0.26 ± 0.24	1.08	0.26 ± 0.24	0.01 ± 0.23

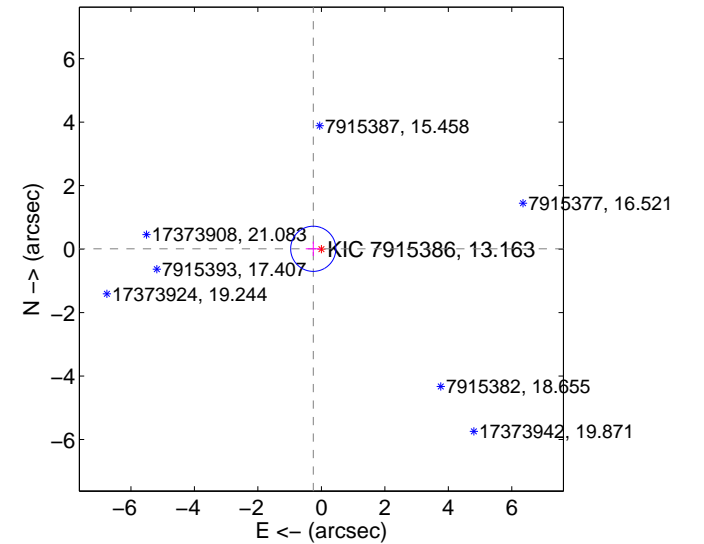
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

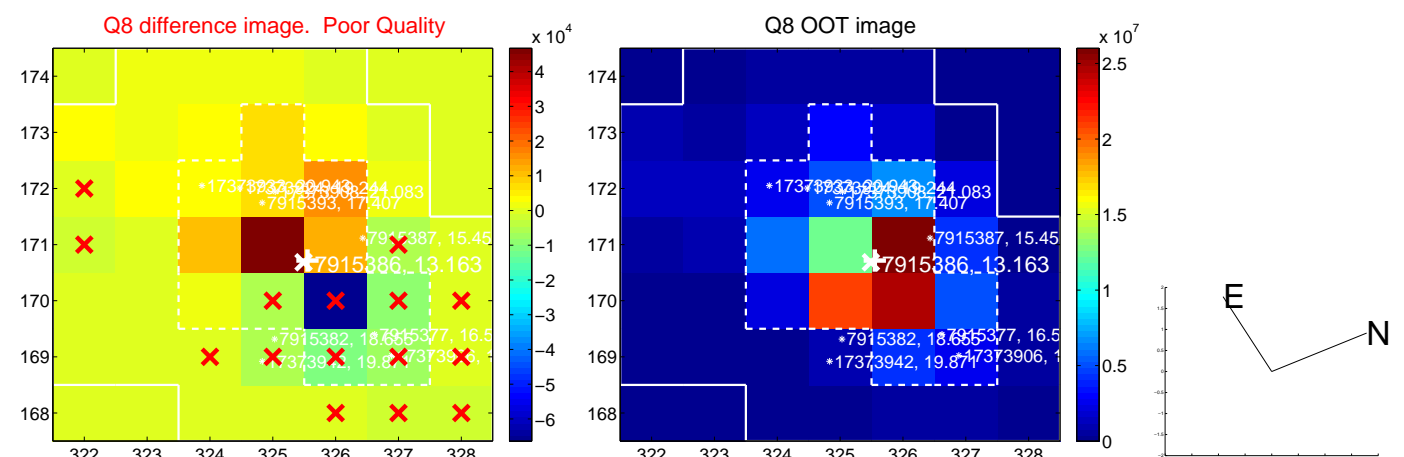
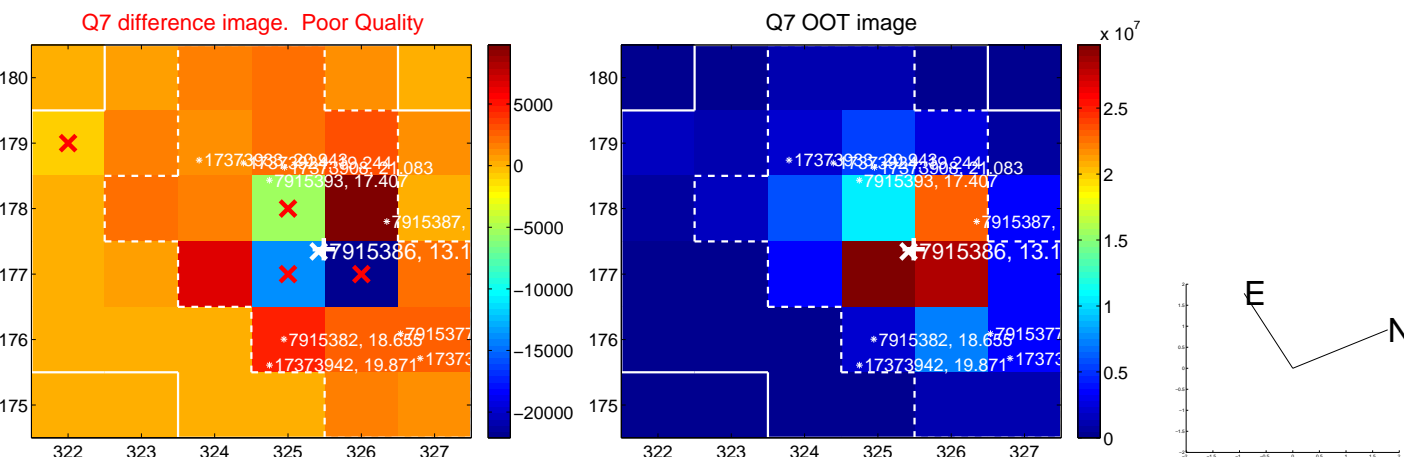
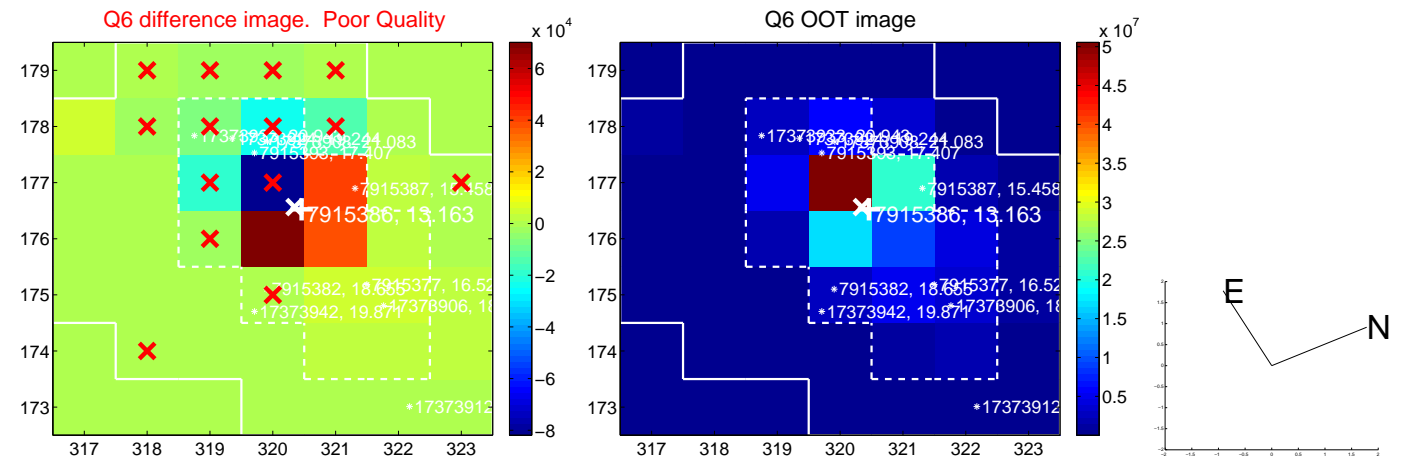
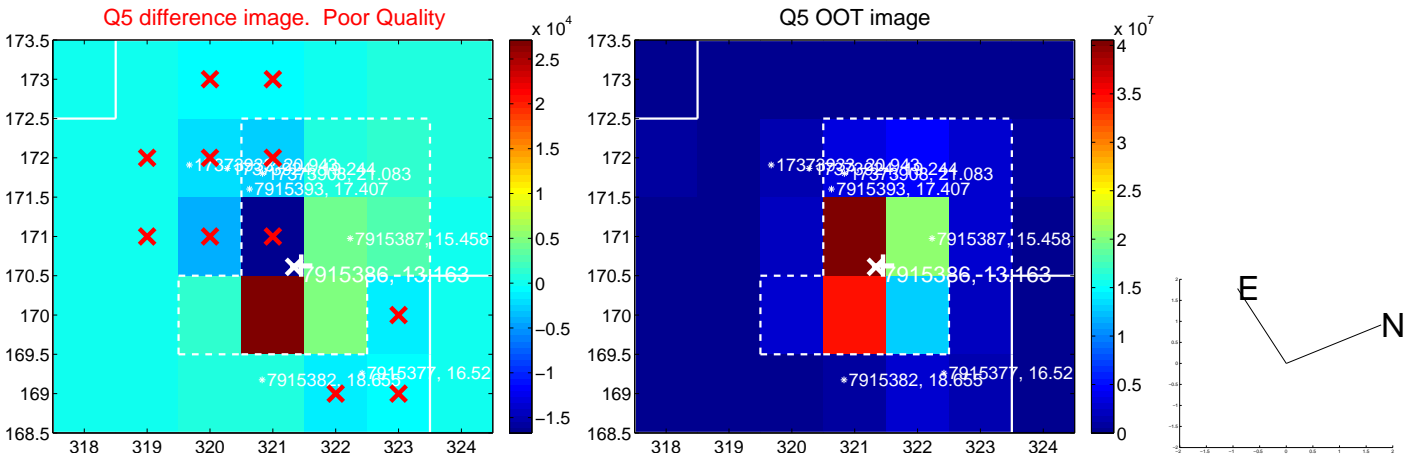


offset from photometric centroids

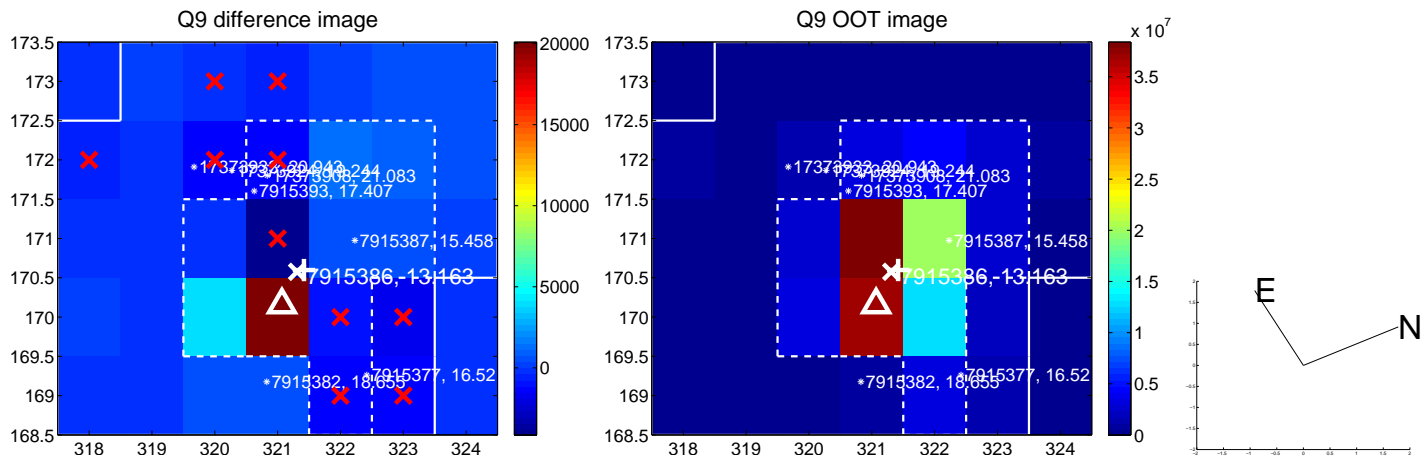


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

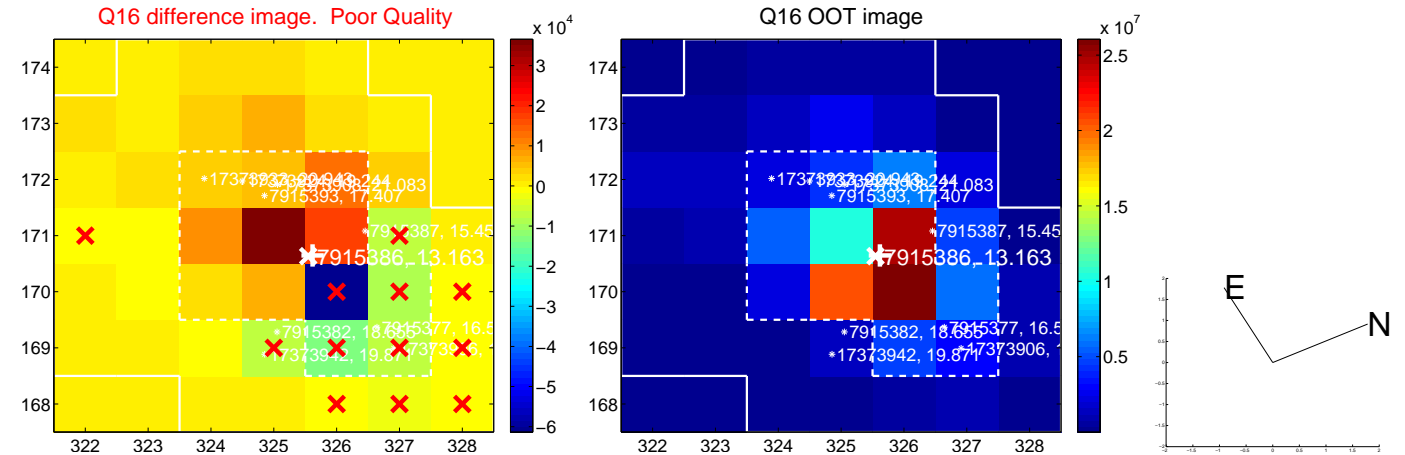
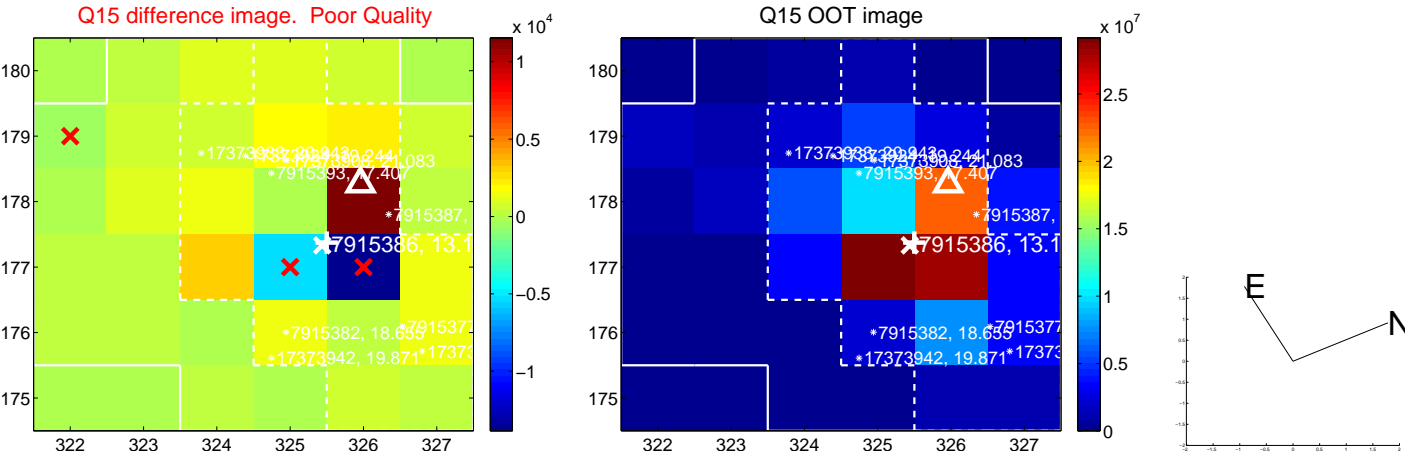
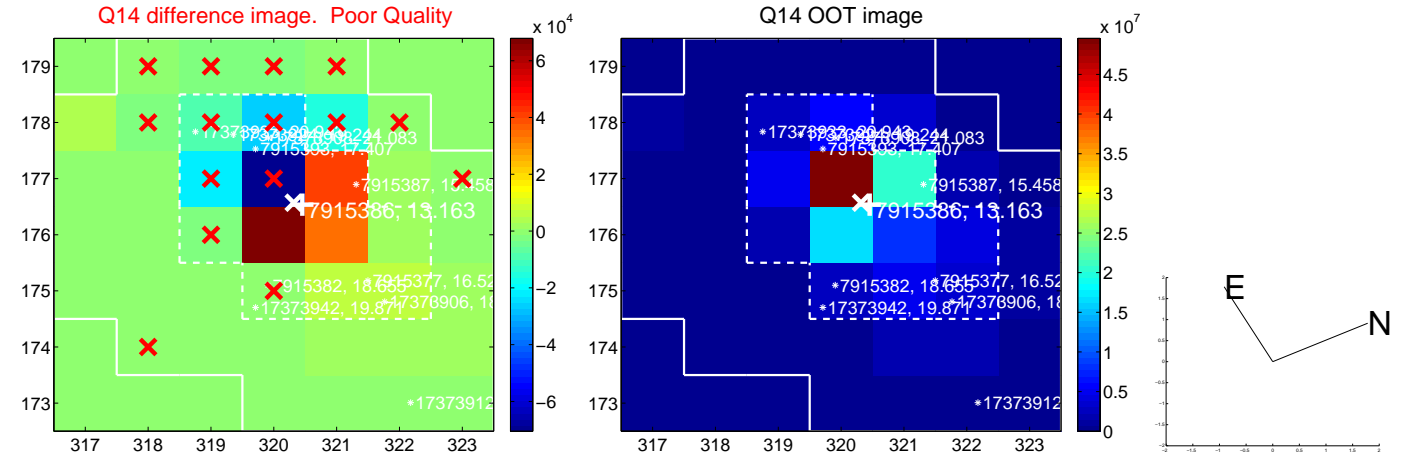
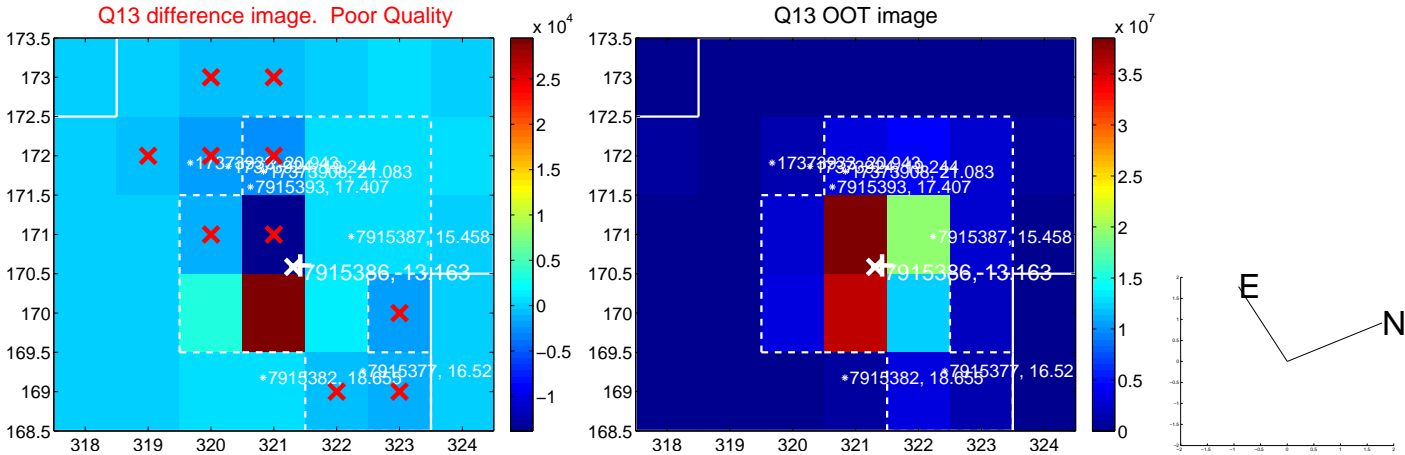
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



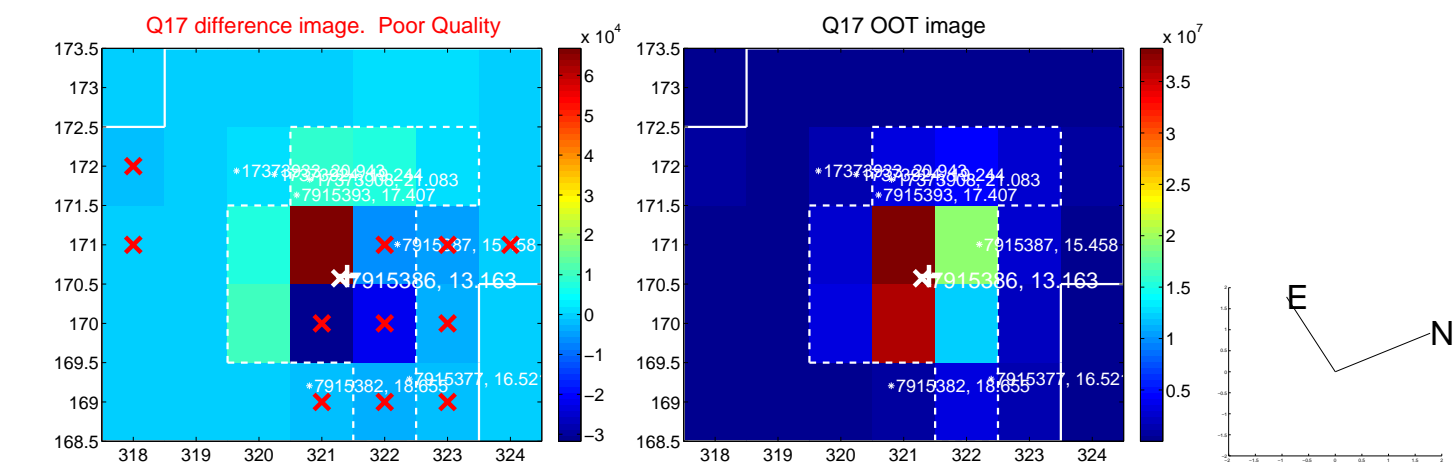
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



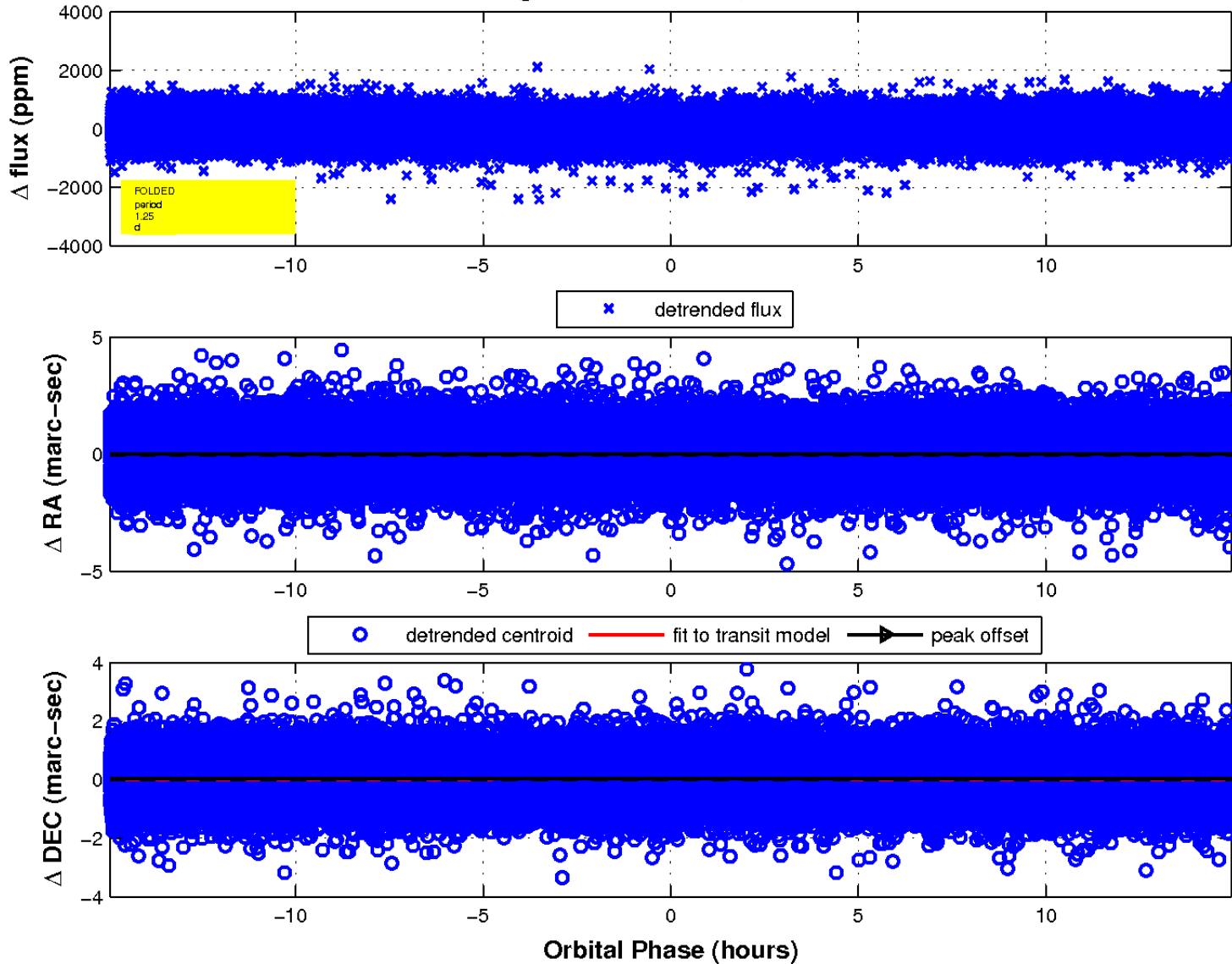
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

