

KIC 004761183

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})
004761183-01	OBS	No	0.876369	131.683369	14.9	4.349	8.7	3.3	1.45	7255	0.65	12852.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004761183-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

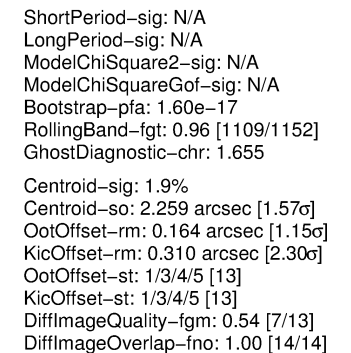
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

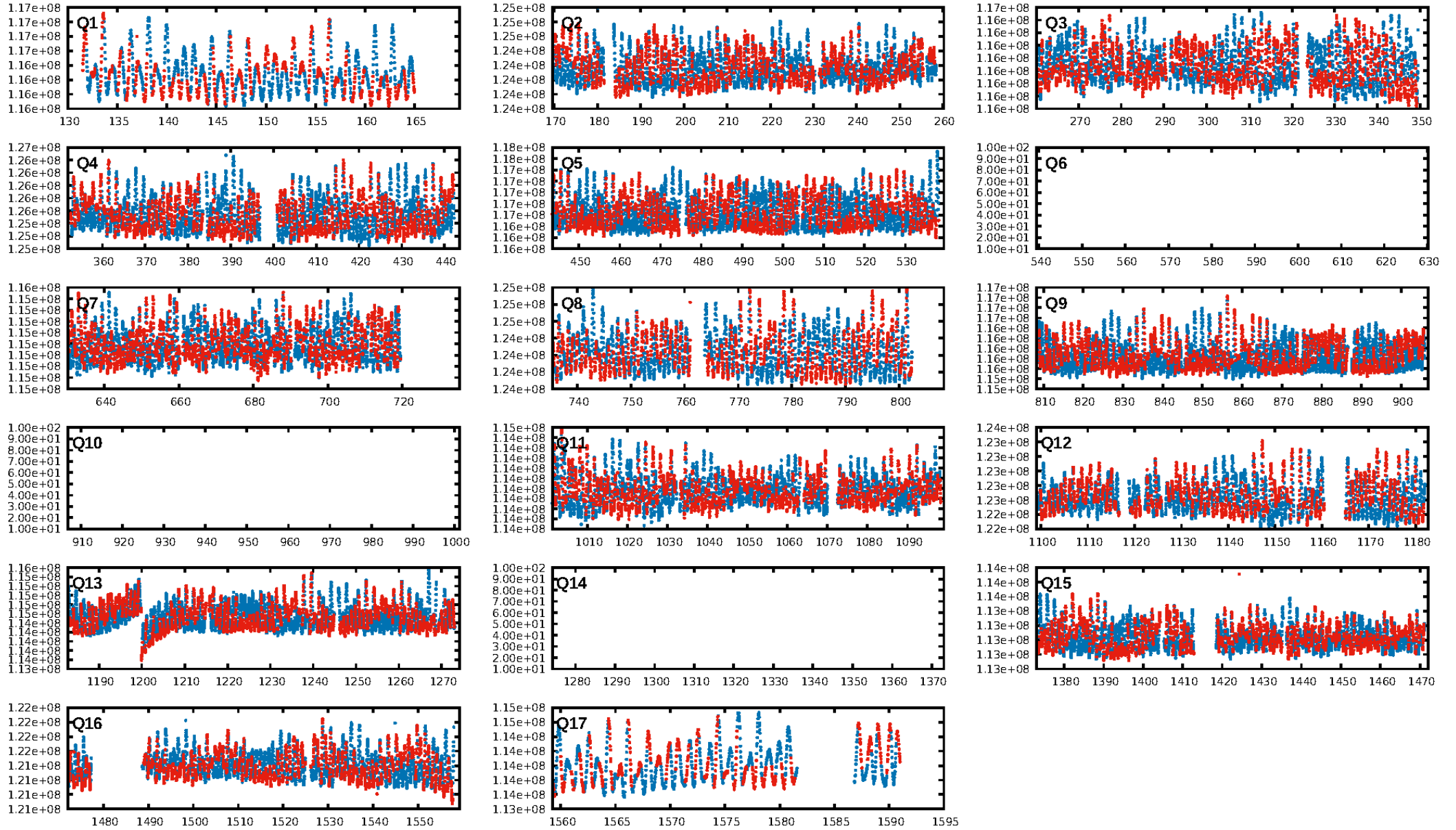
Ephemeris Match Information For 004761183-01

No Significant Match Found

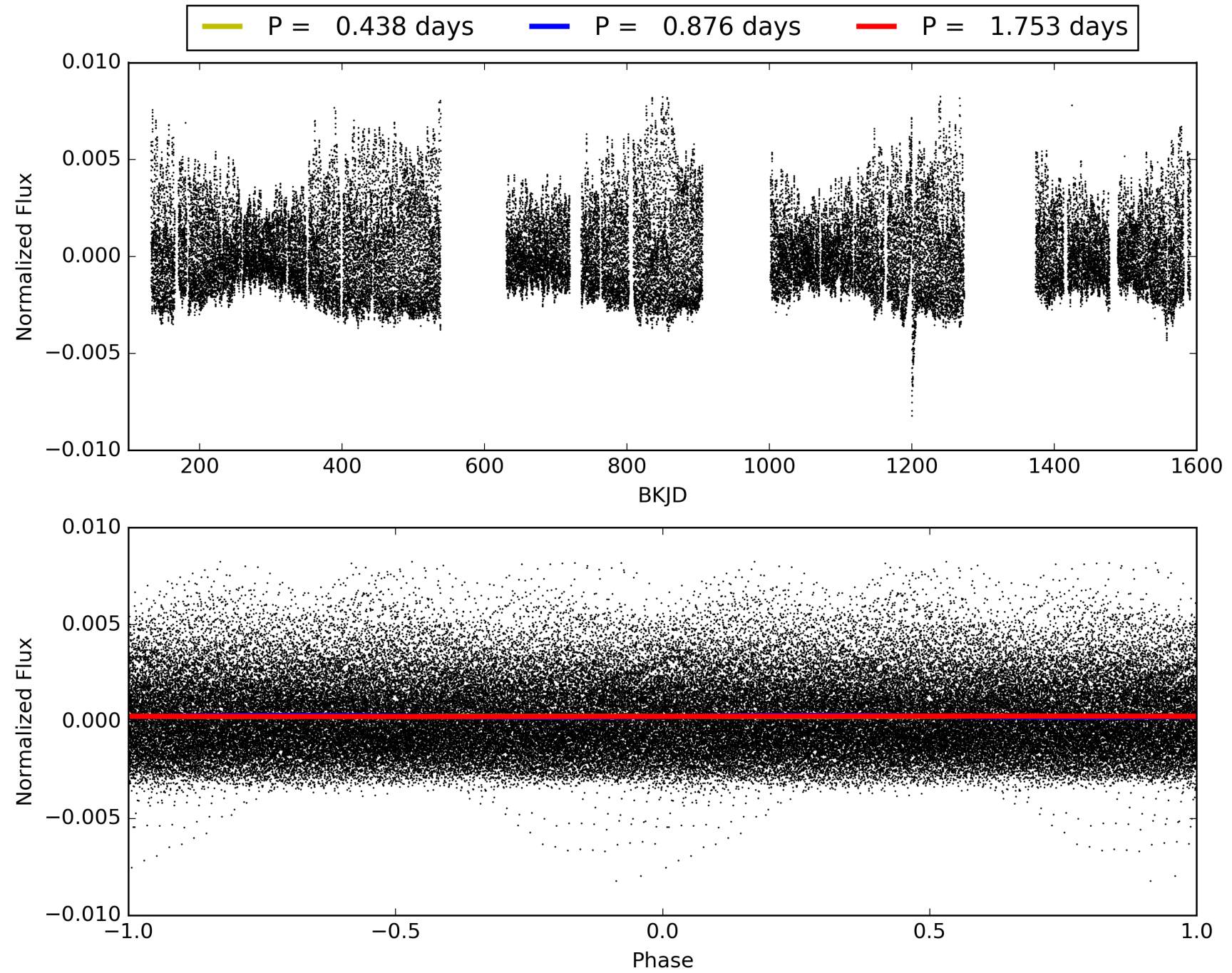
KIC: 4761183 Candidate: 1 of 1 Period: 0.876 d



TCE 004761183-01, PDC Light Curves

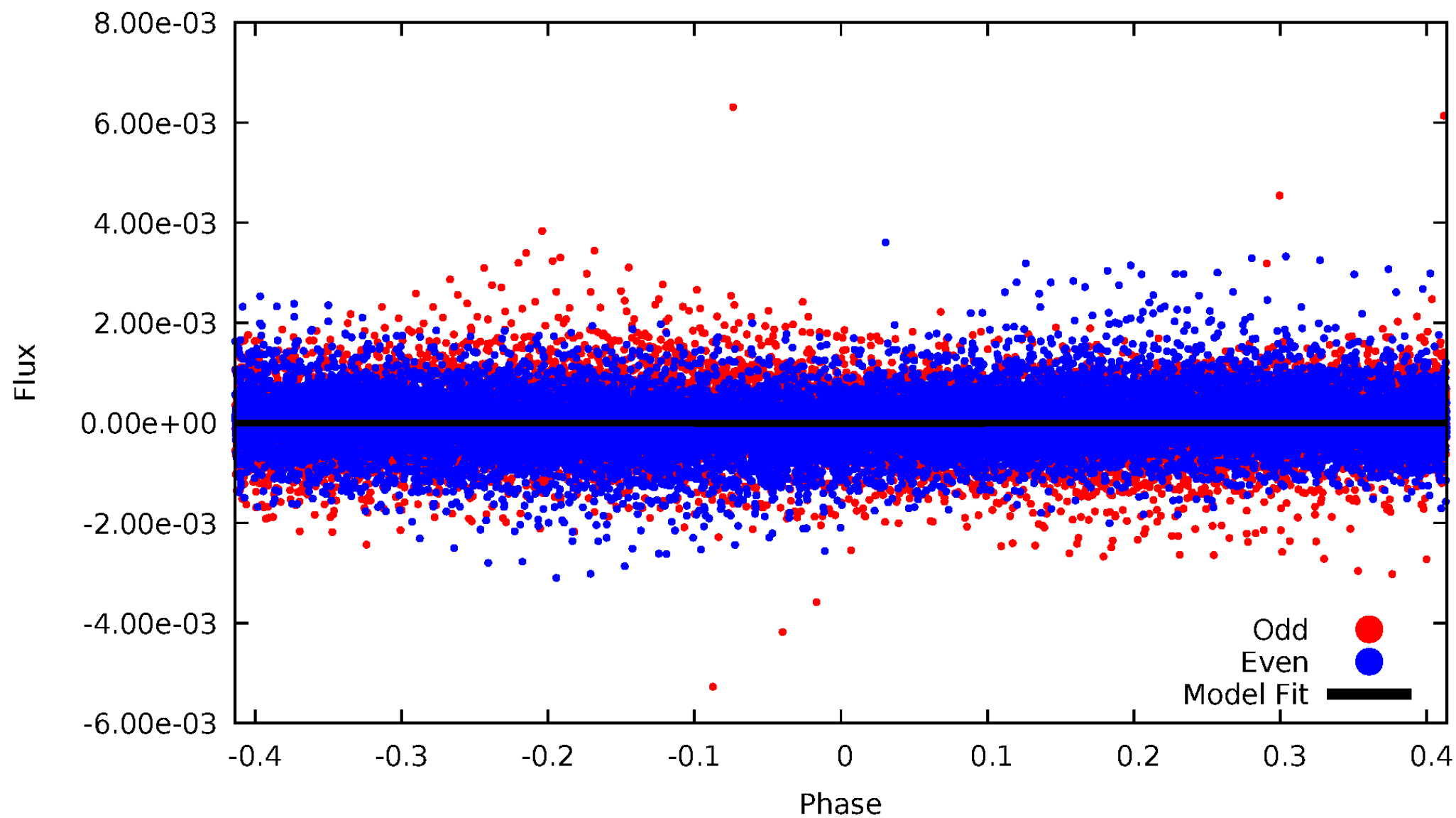


TCE 004761183-01



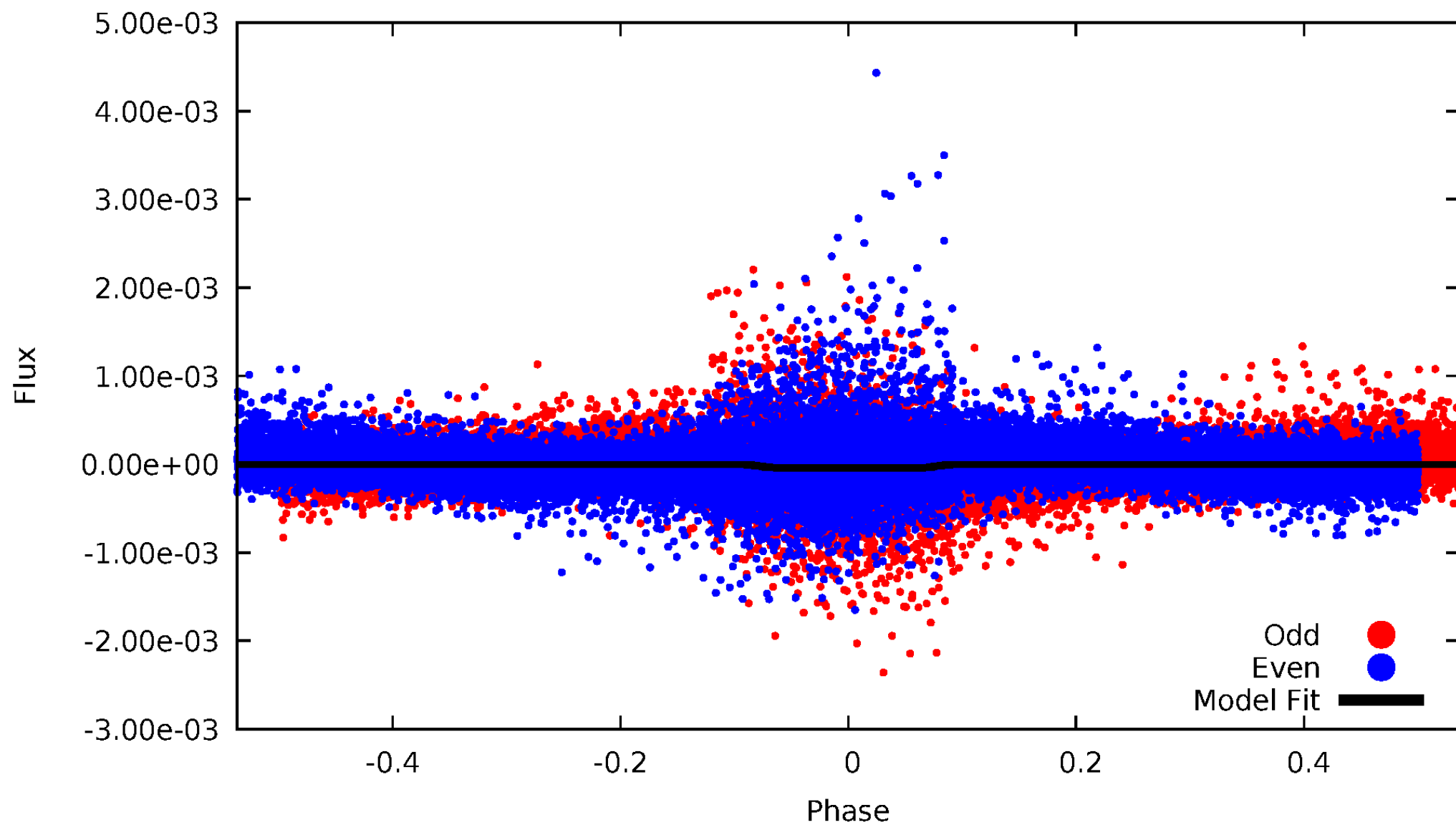
DV Odd/Even

TCE 004761183-01



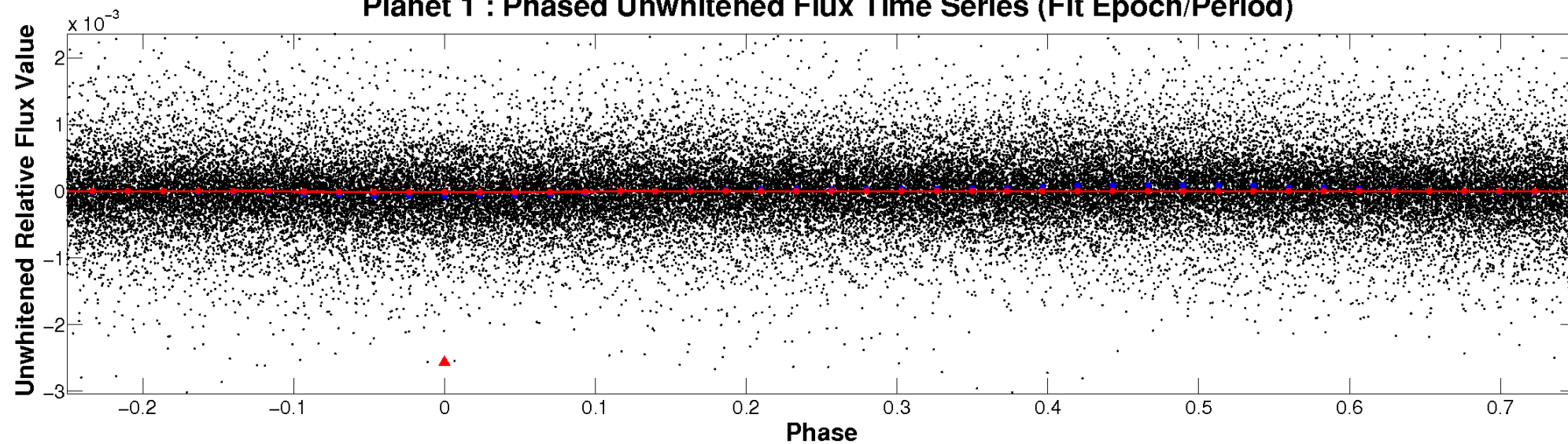
ALT Odd/Even

TCE 004761183-01

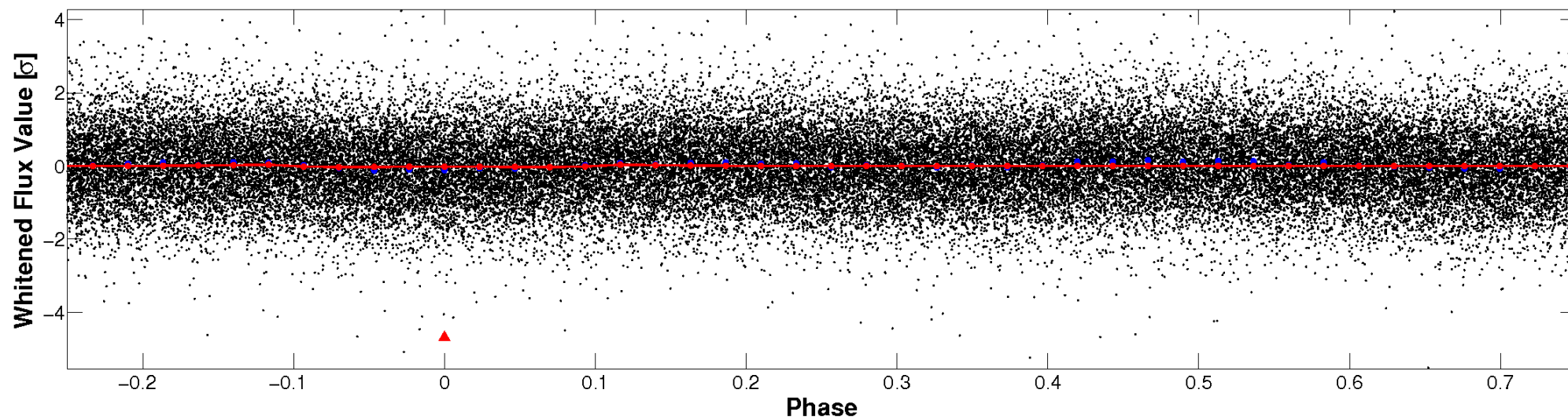


Non-Whitened Vs. Whitened Light Curve

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

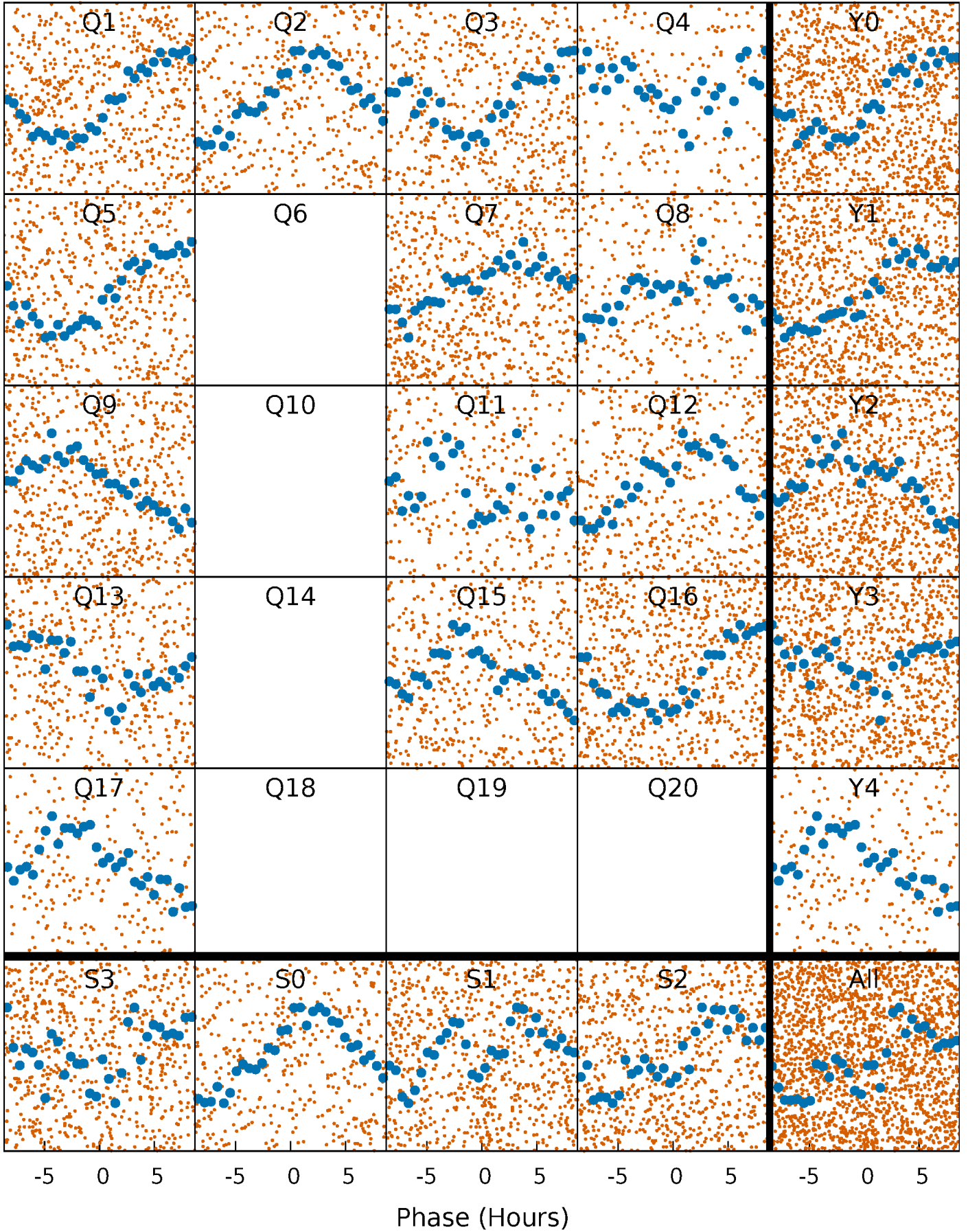


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



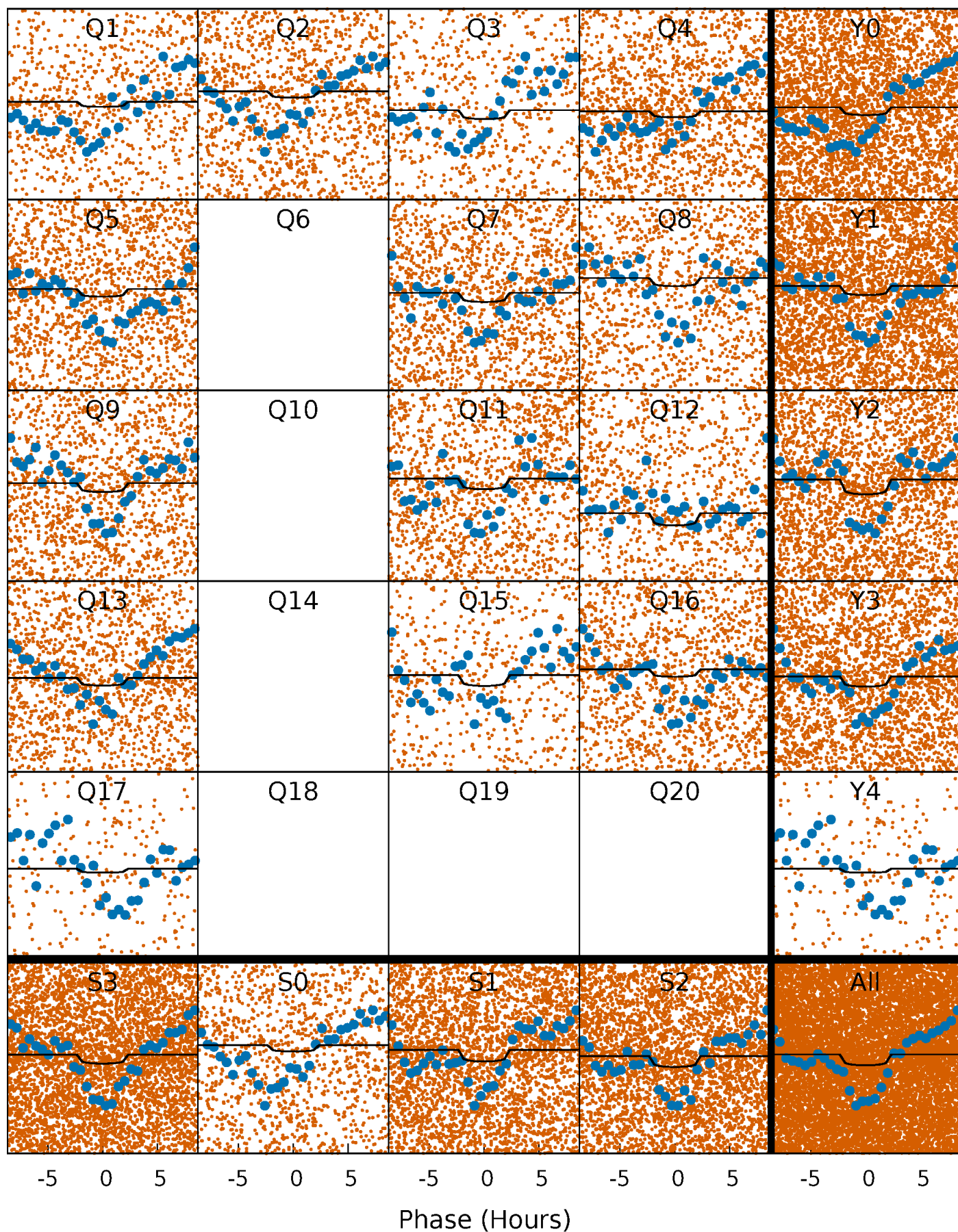
PDC Quarter-Phased Transit Curves

TCE 004761183-01 P= 0.876369 Days $T_0=131.683369$ (BKJD)



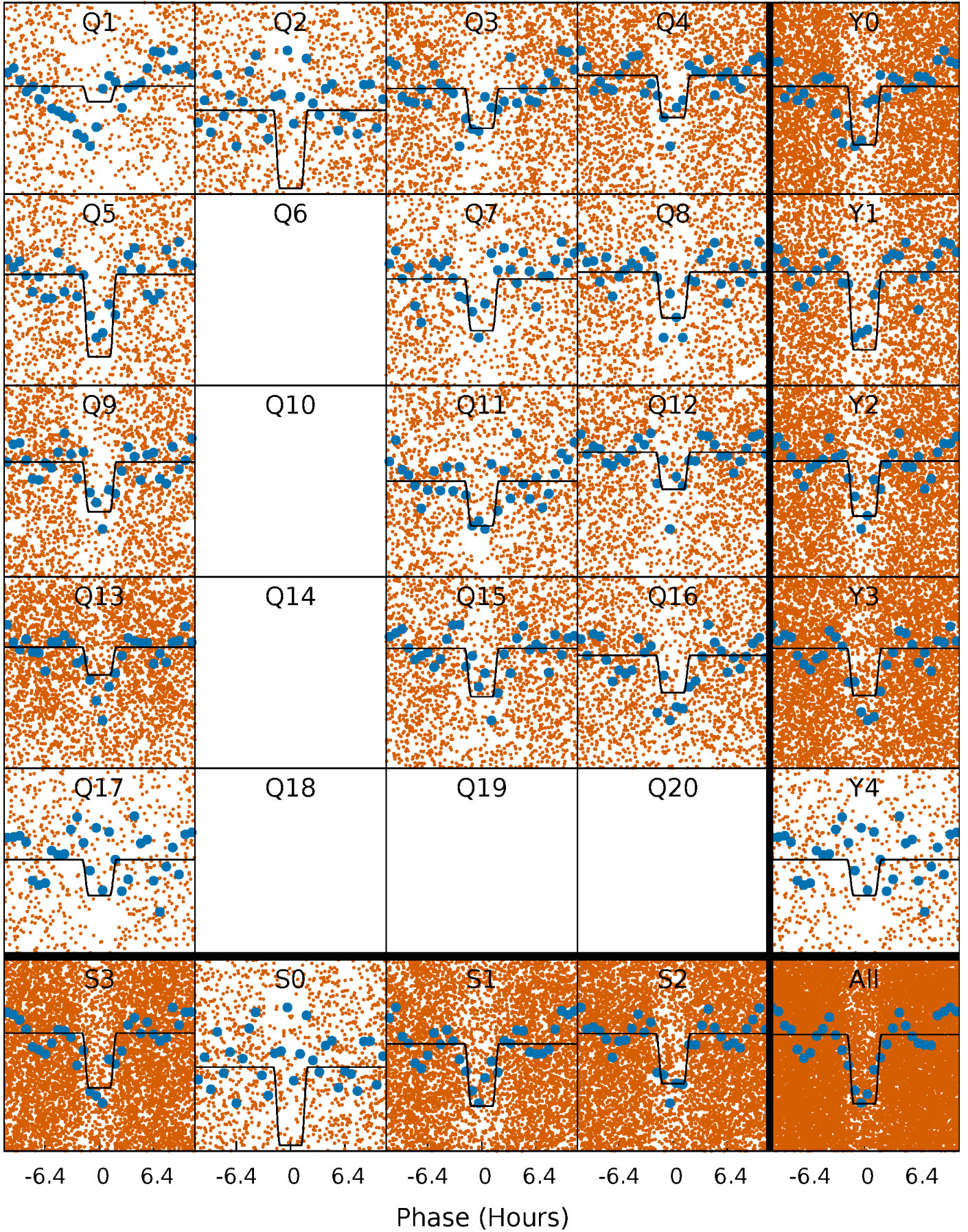
DV Quarter-Phased Transit Curves

TCE 004761183-01 P= 0.876369 Days $T_0=131.683369$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

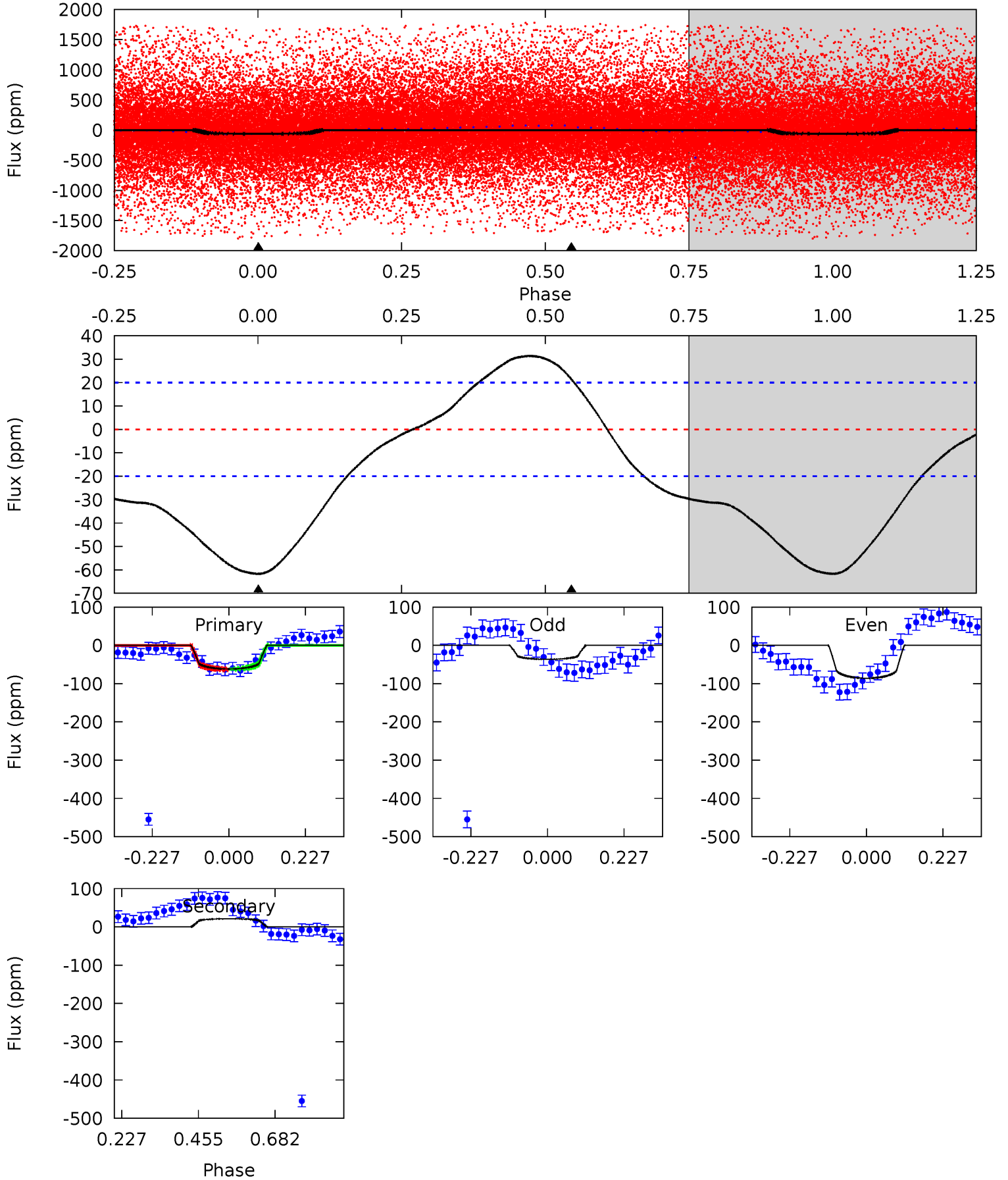
TCE 004761183-01 P= 0.876378 Days $T_0=131.688453$ (BKJD)



DV Model-Shift Uniqueness Test

004761183-01, P = 0.876369 Days, E = 130.807000 Days

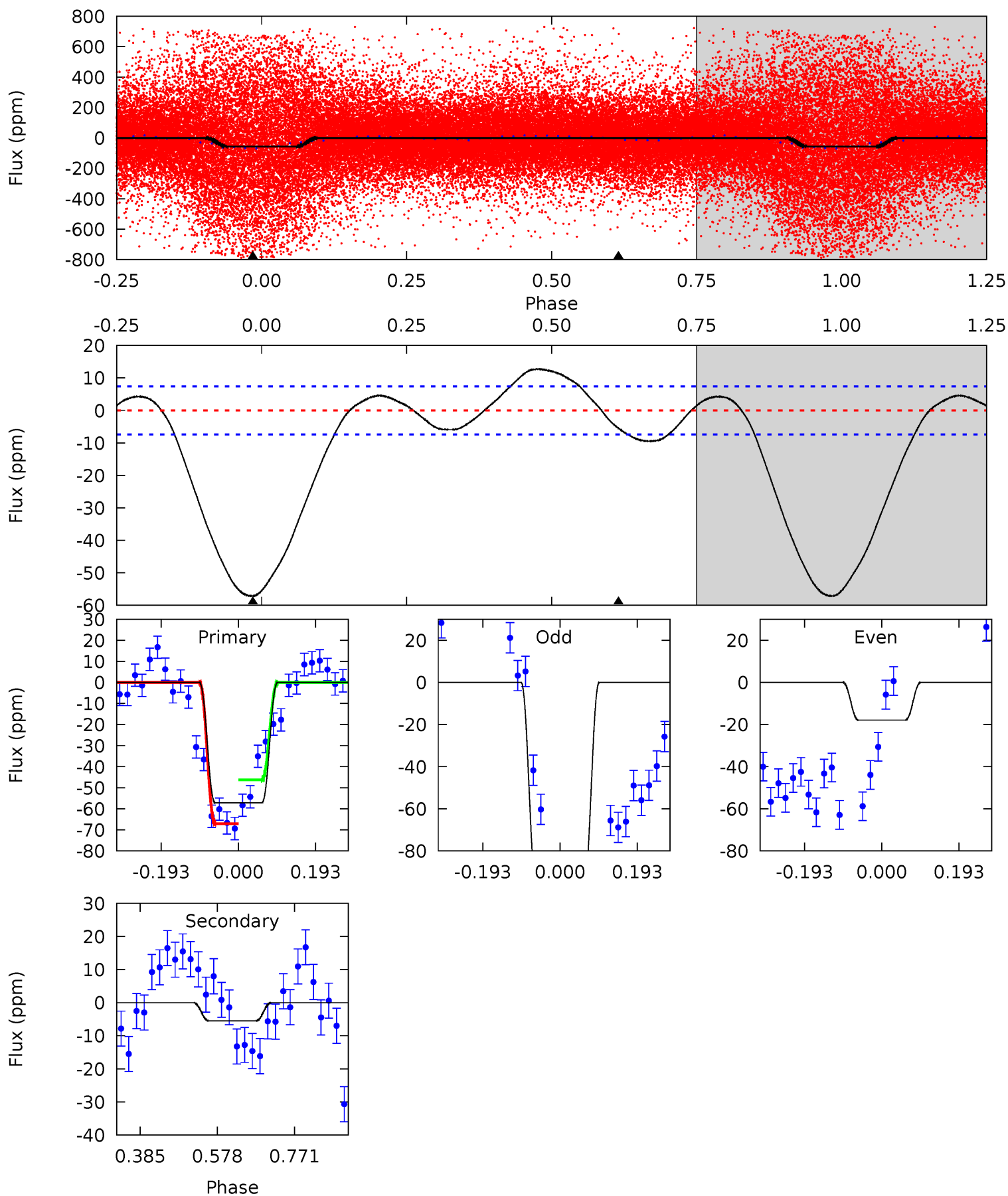
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	-4.70	0	0	4.39	1.21	1.88	13.6	13.6	-4.70	-4.70	5.30	1.12	0.34	0.06



Alt Model-Shift Uniqueness Test

004761183-01, P = 0.876378 Days, E = 130.812075 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.2	3.29	0	0	4.43	1.30	2.33	34.2	34.2	3.29	3.29	21.8	0.68	0.18	0



Stellar Parameters For KIC 004761183

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7255^{+201}_{-316}	$4.268^{+0.072}_{-0.217}$	$-0.100^{+0.250}_{-0.350}$	$1.451^{+0.505}_{-0.217}$	$1.420^{+0.221}_{-0.199}$	$0.655^{+0.261}_{-0.353}$
	+3%/-4%	+2%/-5%	+250%/-350%	+35%/-15%	+16%/-14%	+40%/-54%
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 004761183-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	21 ± 5	$0.70^{+0.39}_{-0.35}$	3878^{+312}_{-234}	-7630^{+1511}_{-4994}	$-9.296^{+5.557}_{-26.038}$
Alt.	-6 ± 2	$1.08^{+0.42}_{-0.37}$	3855^{+286}_{-223}	4147^{+1014}_{-745}	$1.032^{+1.366}_{-0.520}$

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 $A_{\text{obs}} \gg 1.0$

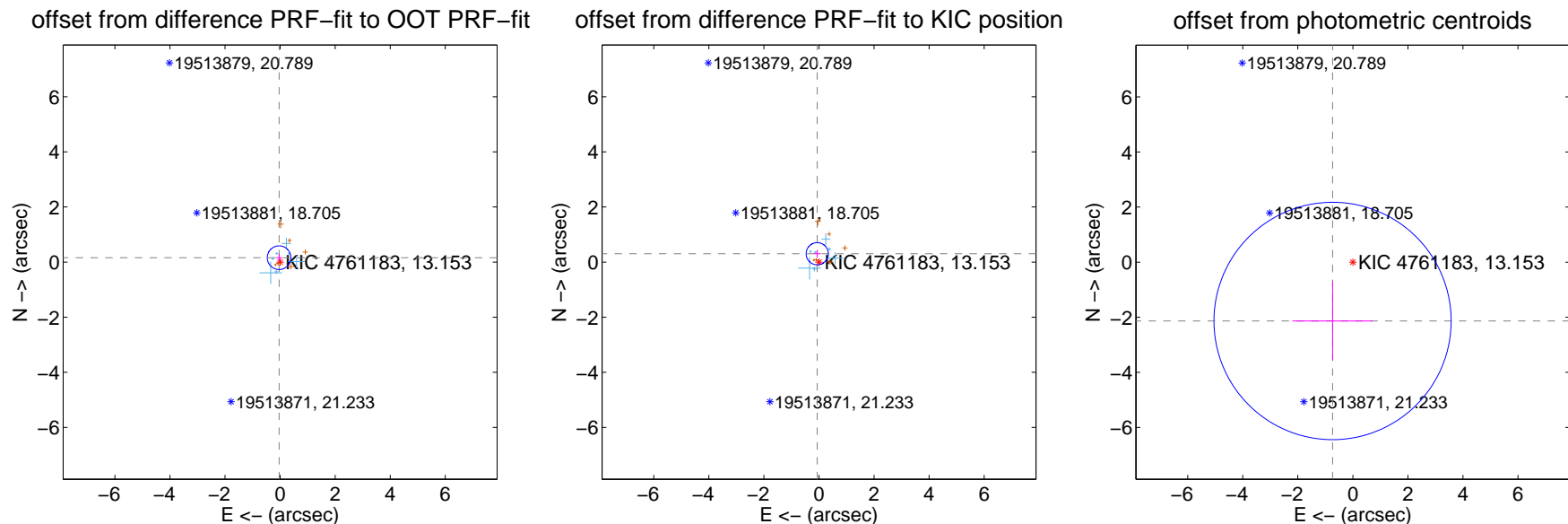
DV Centroid Data

Supplemental centroid analysis for 004761183-01. Kepler magnitude: 13.15. Transit SNR 3.33

There are 7 quarters with good PRF difference image offsets

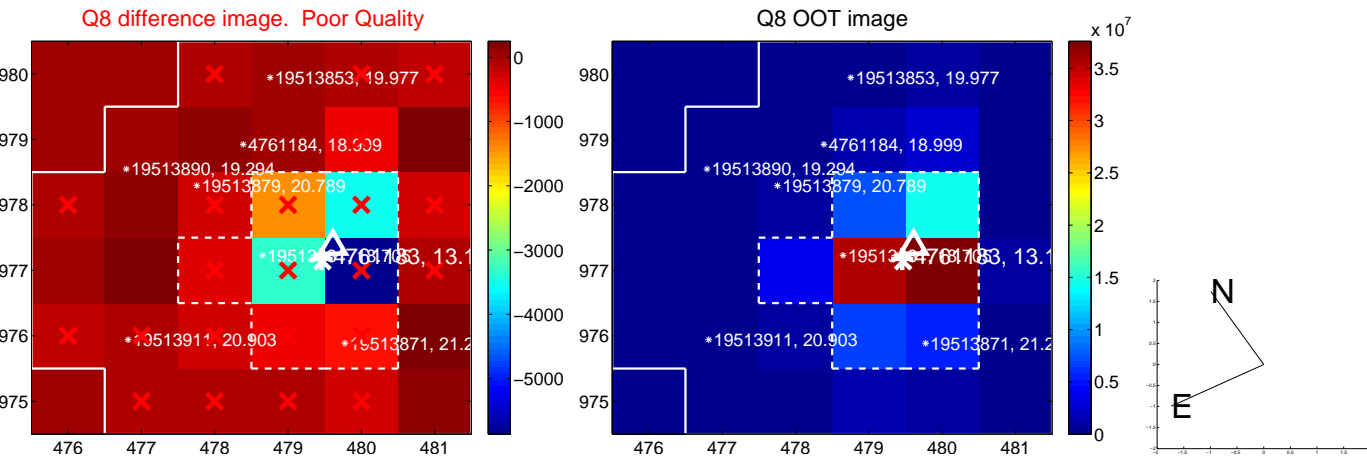
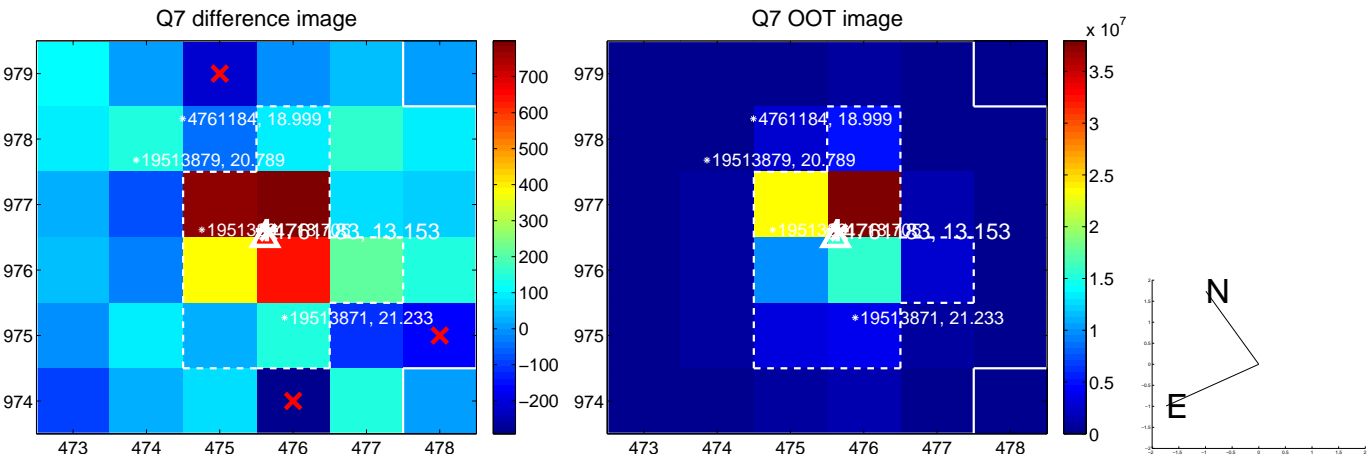
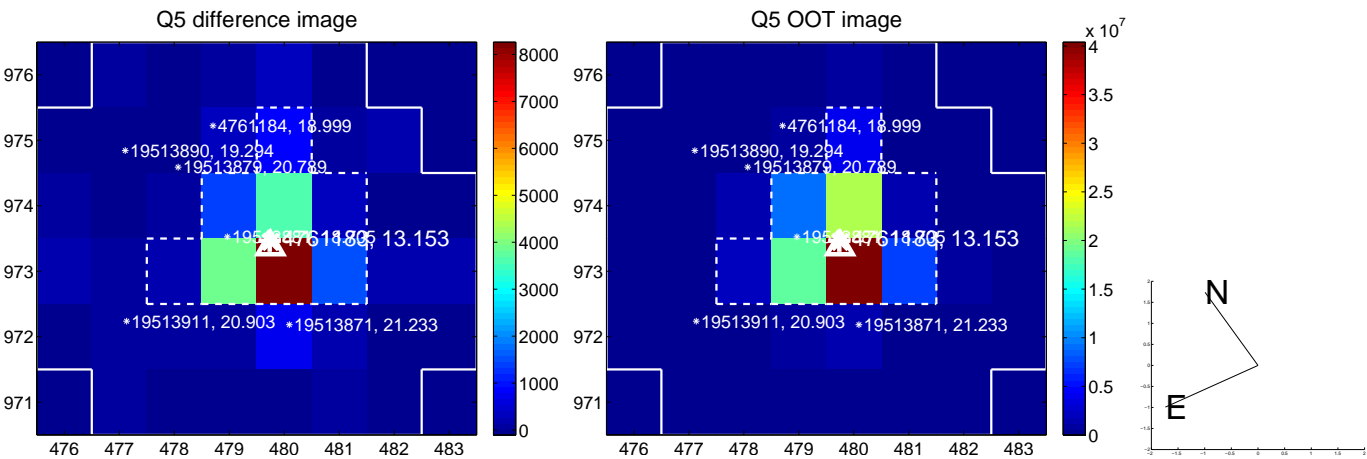
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.164 ± 0.143	1.15	0.036 ± 0.114	0.160 ± 0.149
PRF-fit source offset from KIC position	0.310 ± 0.134	2.30	0.064 ± 0.128	0.303 ± 0.137
photometric centroid source offset	2.26 ± 1.44	1.57	0.74 ± 1.46	-2.14 ± 1.43

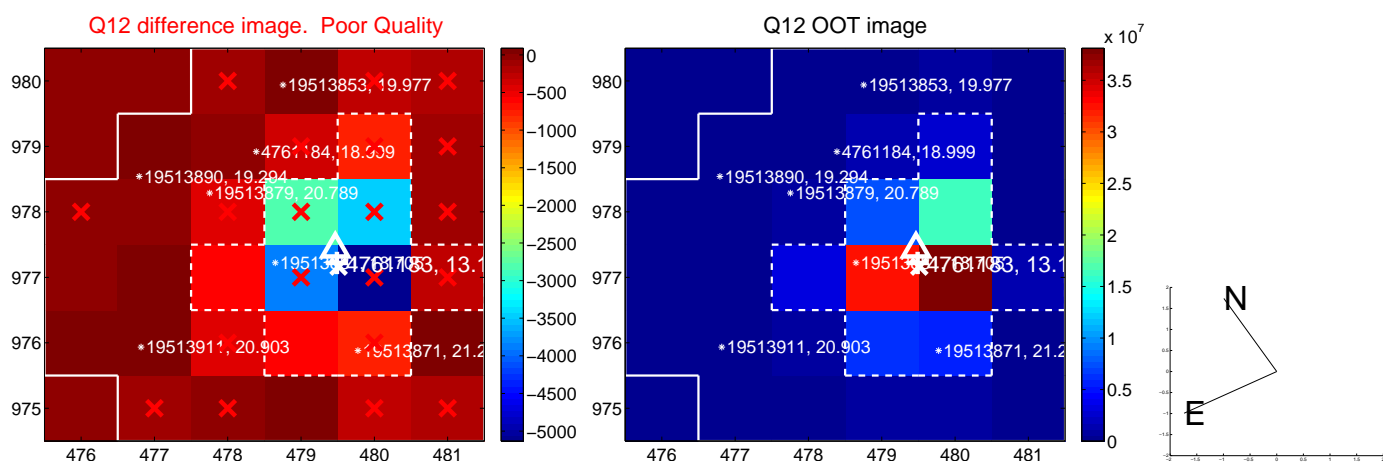
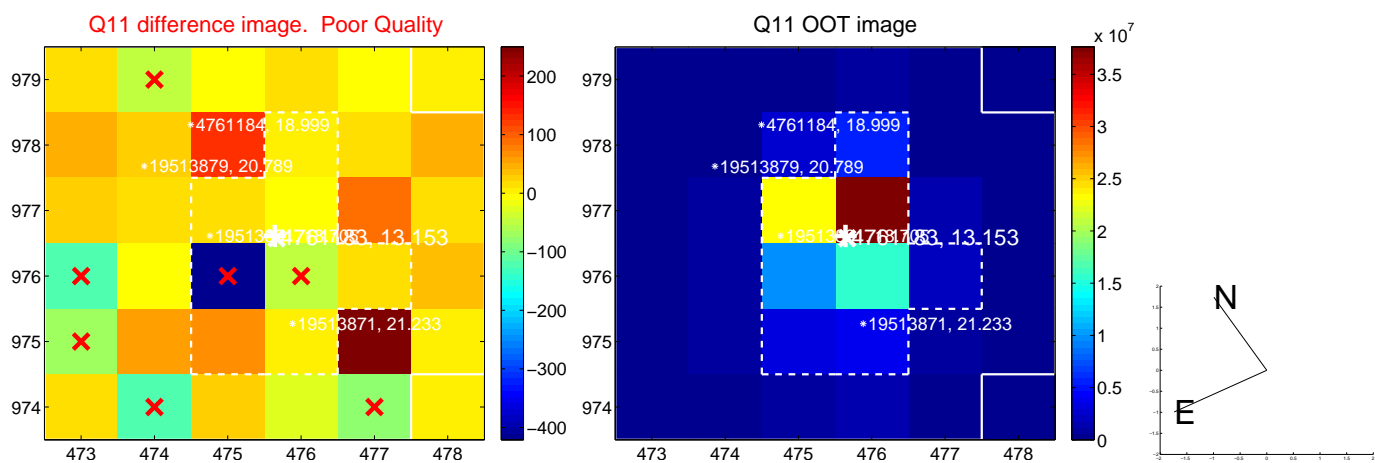
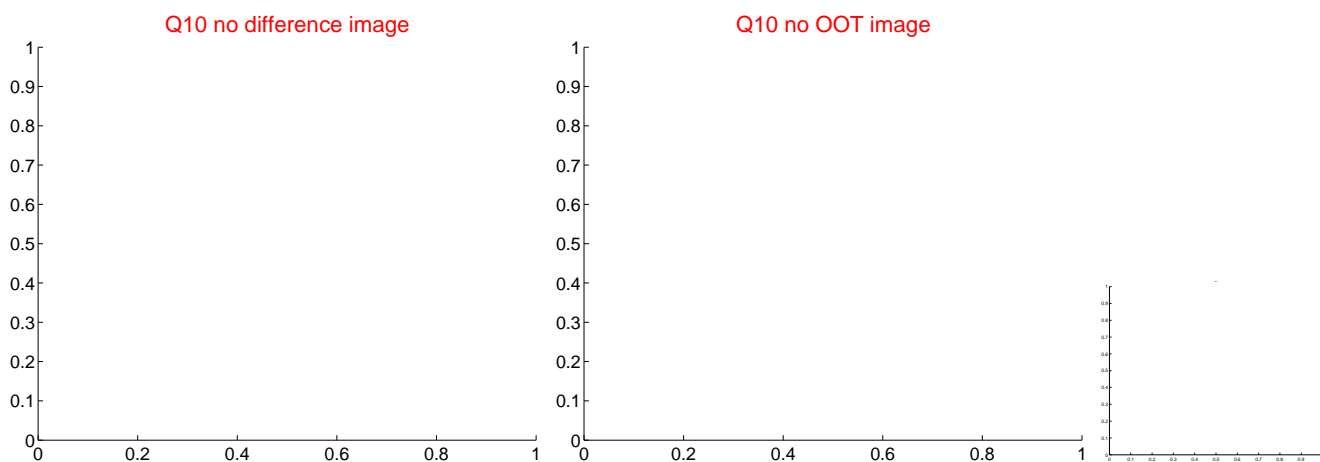
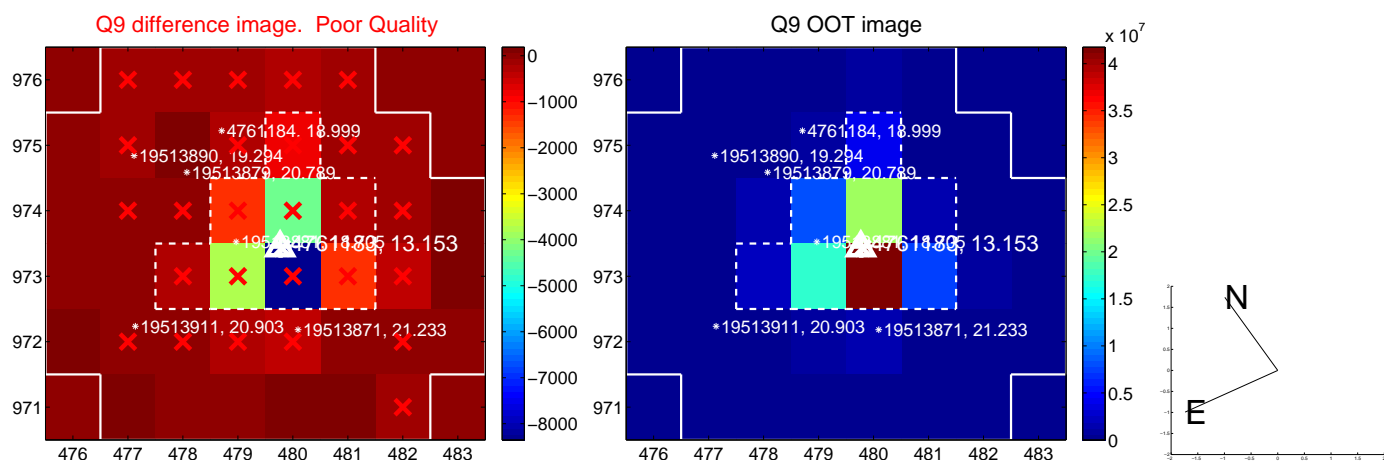


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

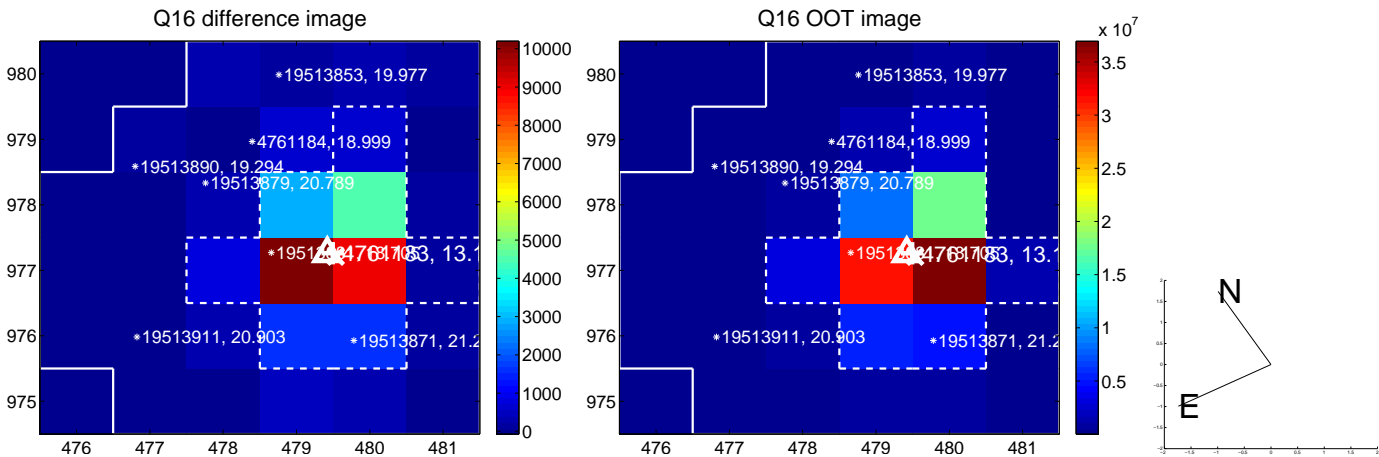
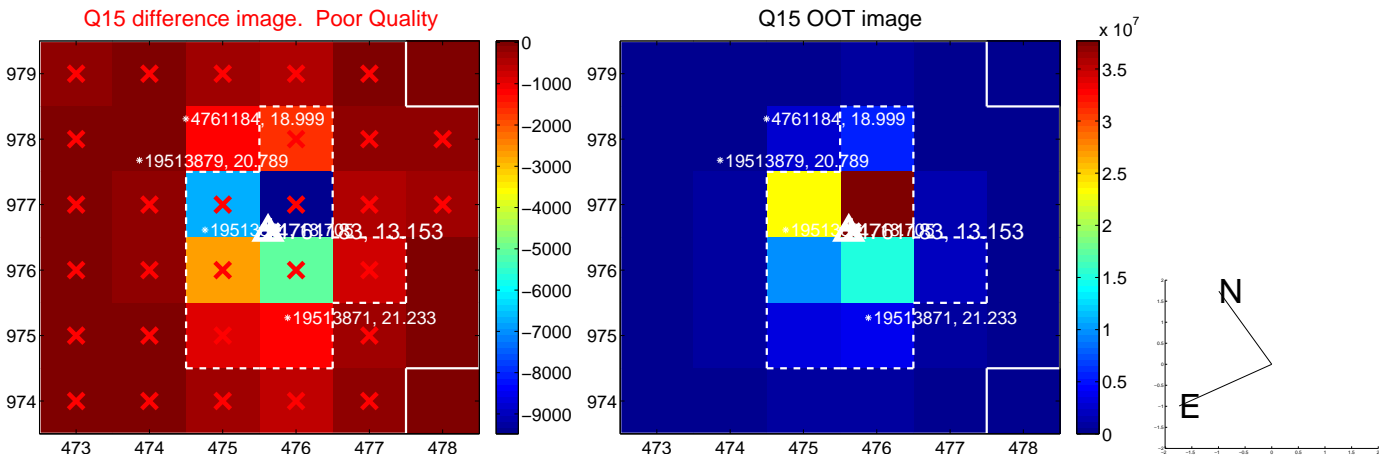
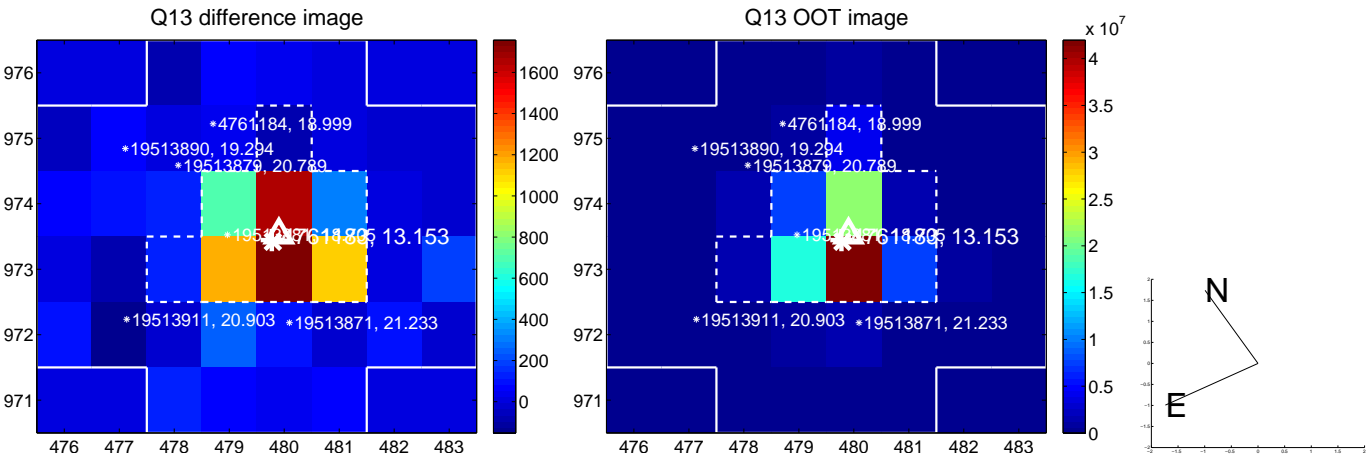
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



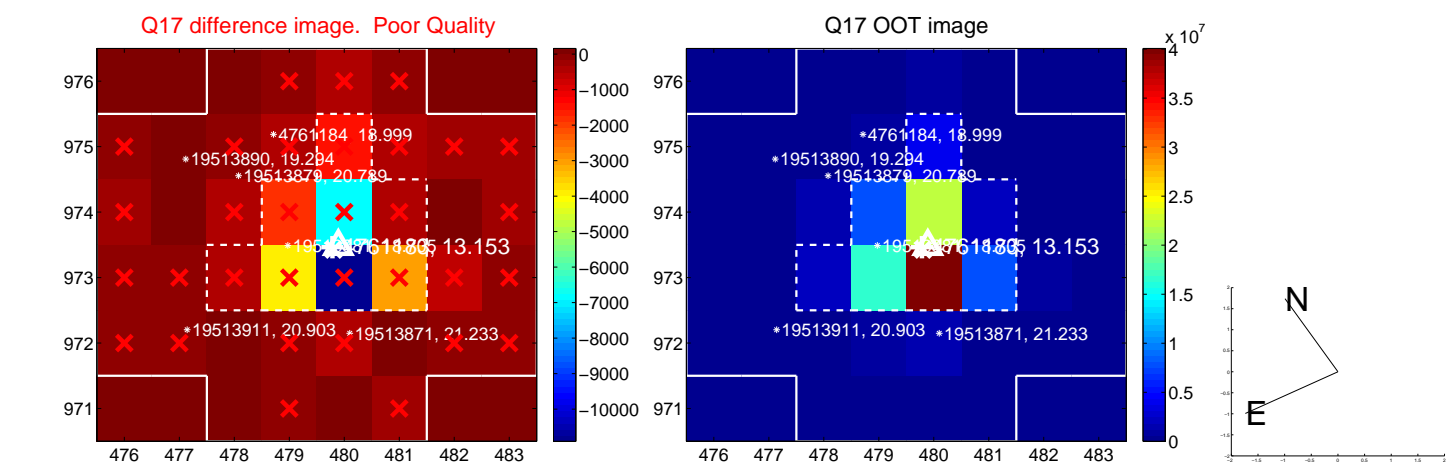
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



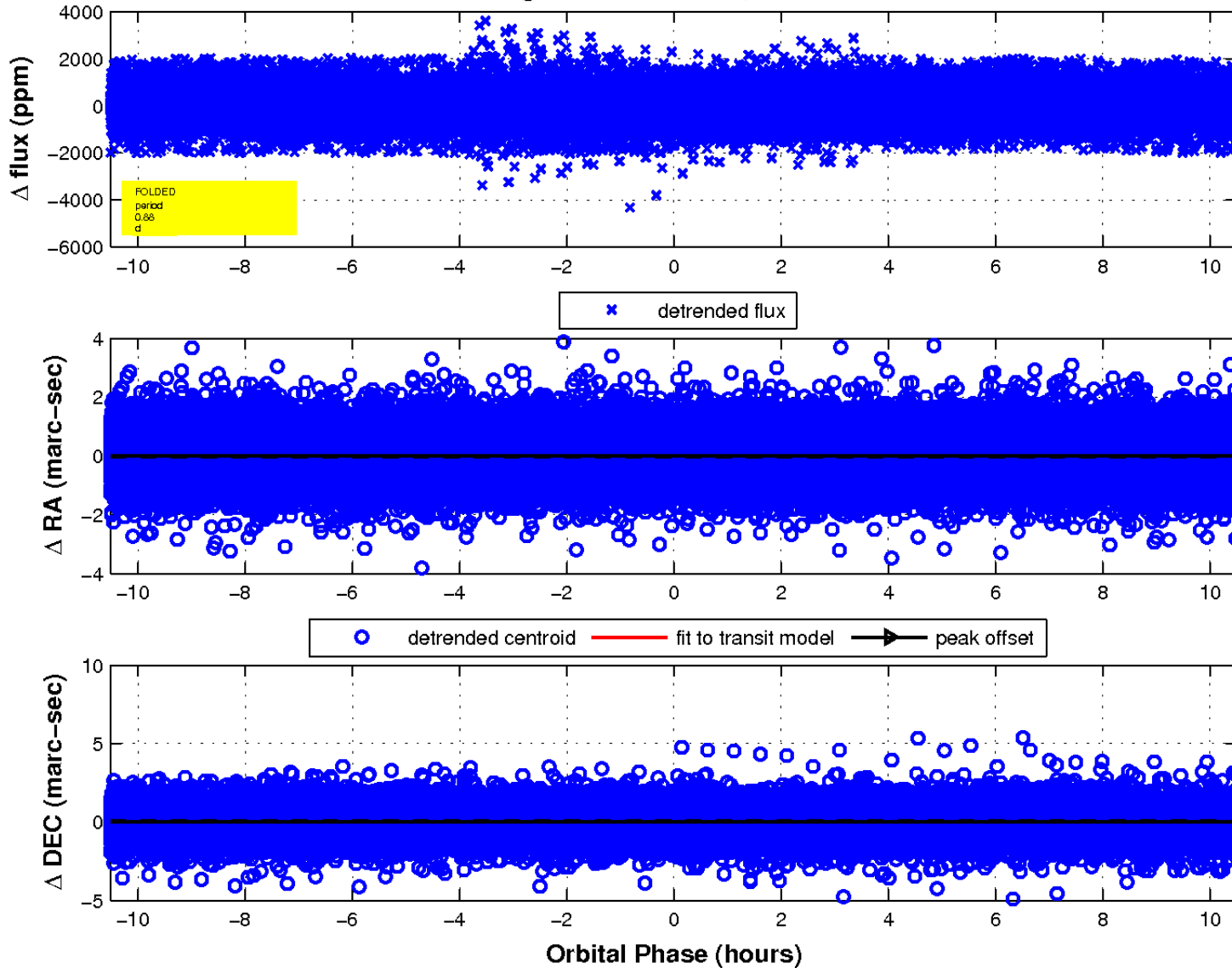
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

