

KIC 011709752

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})
011709752-01	OBS	No	45.617443	171.029243	6711.7	1.476	19.0	7.3	1.00	5780	8.29	16.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011709752-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

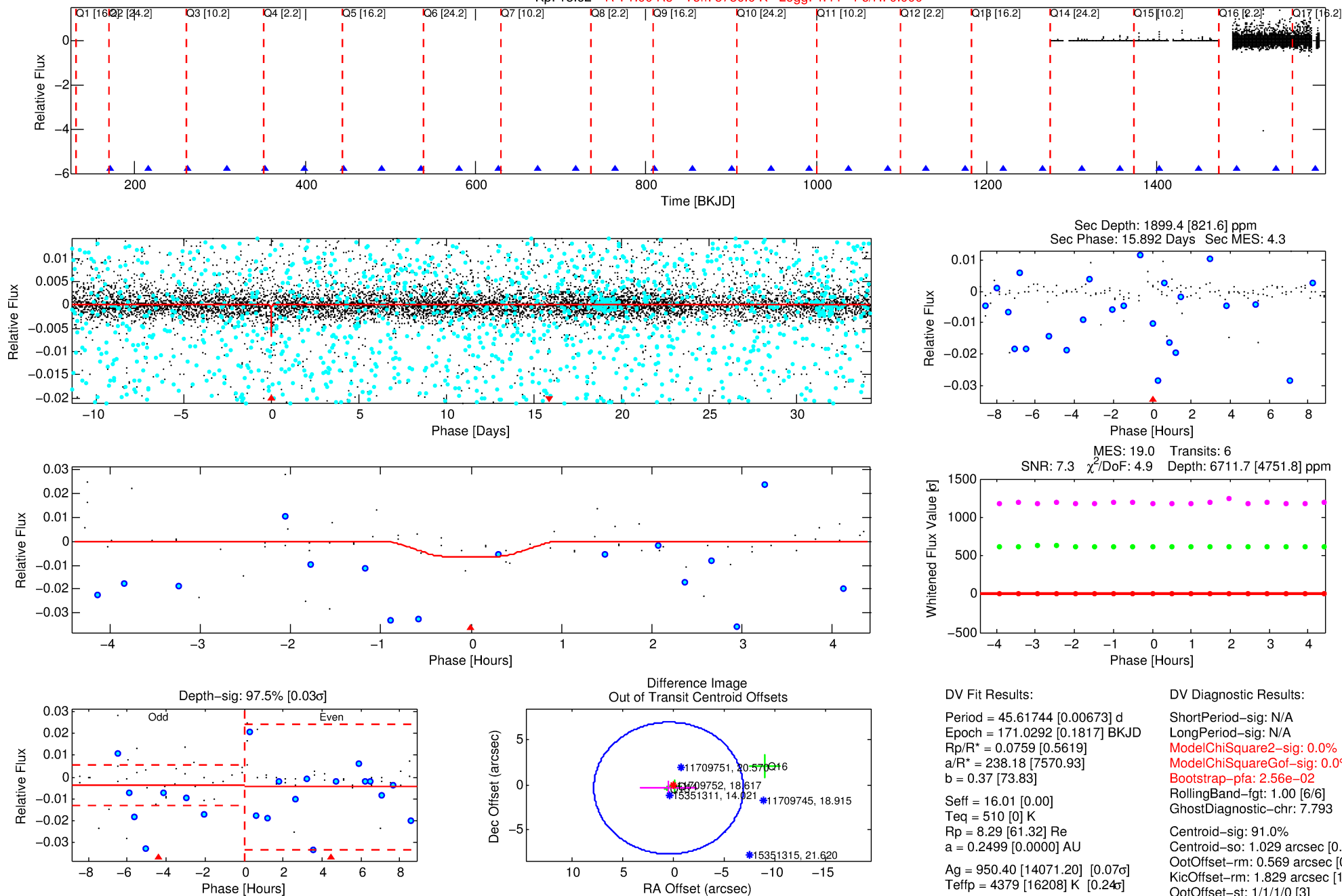
Ephemeris Match Information For 011709752-01

No Significant Match Found

DV One-Page Summary

KIC: 11709752 Candidate: 1 of 1 Period: 45.617 d

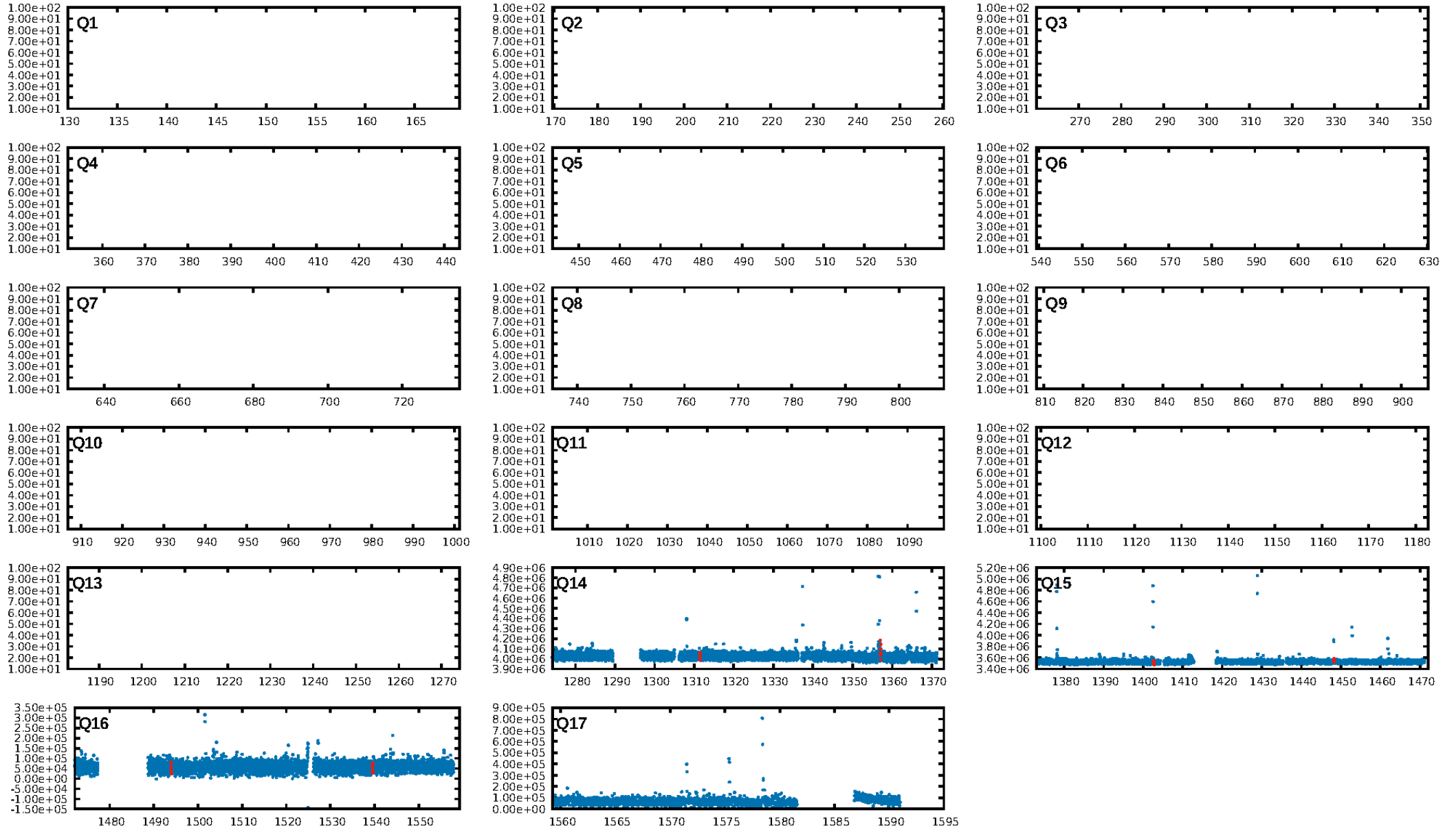
Kp: 18.62 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



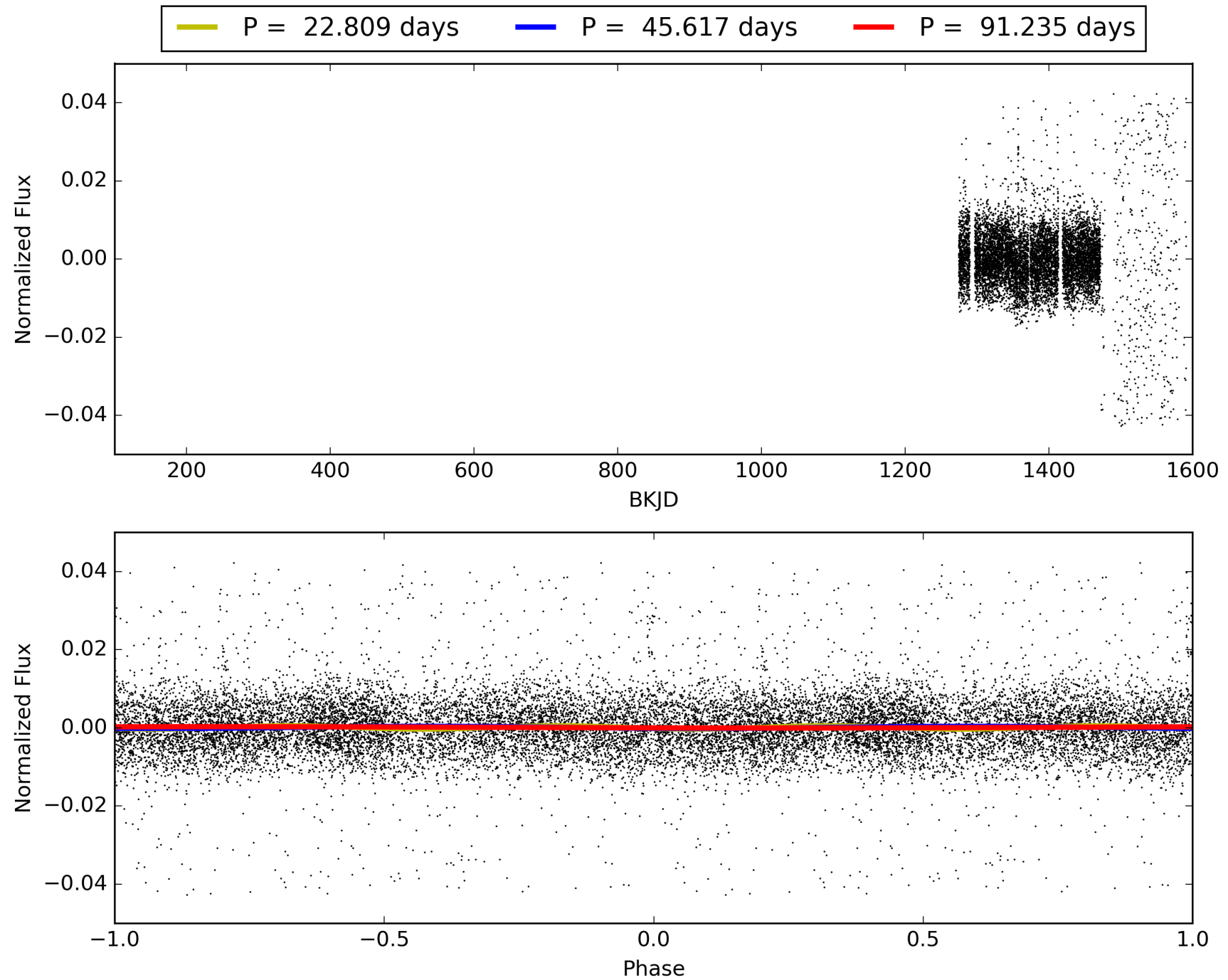
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:59:07 Z

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

TCE 011709752-01, PDC Light Curves

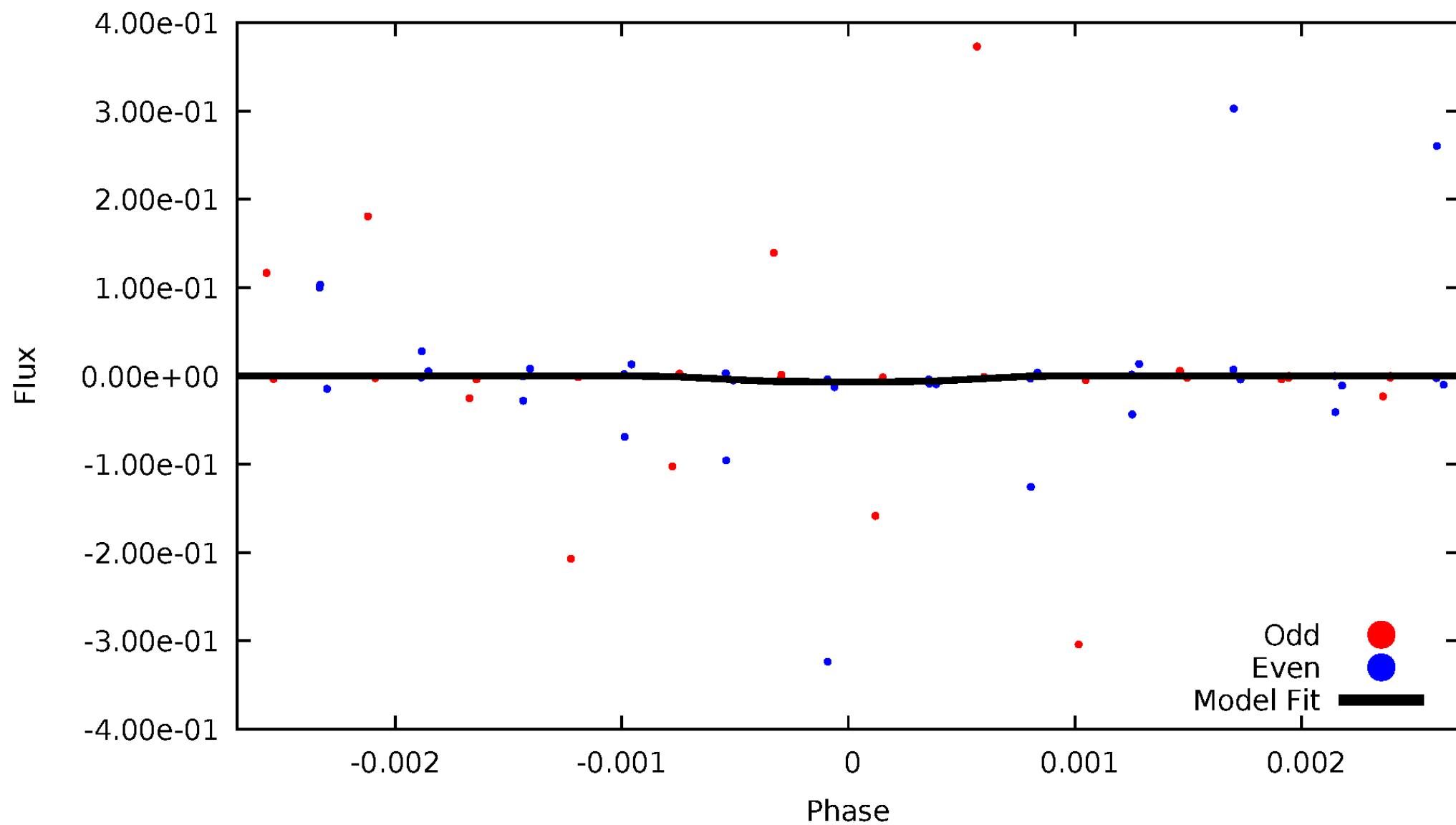


TCE 011709752-01



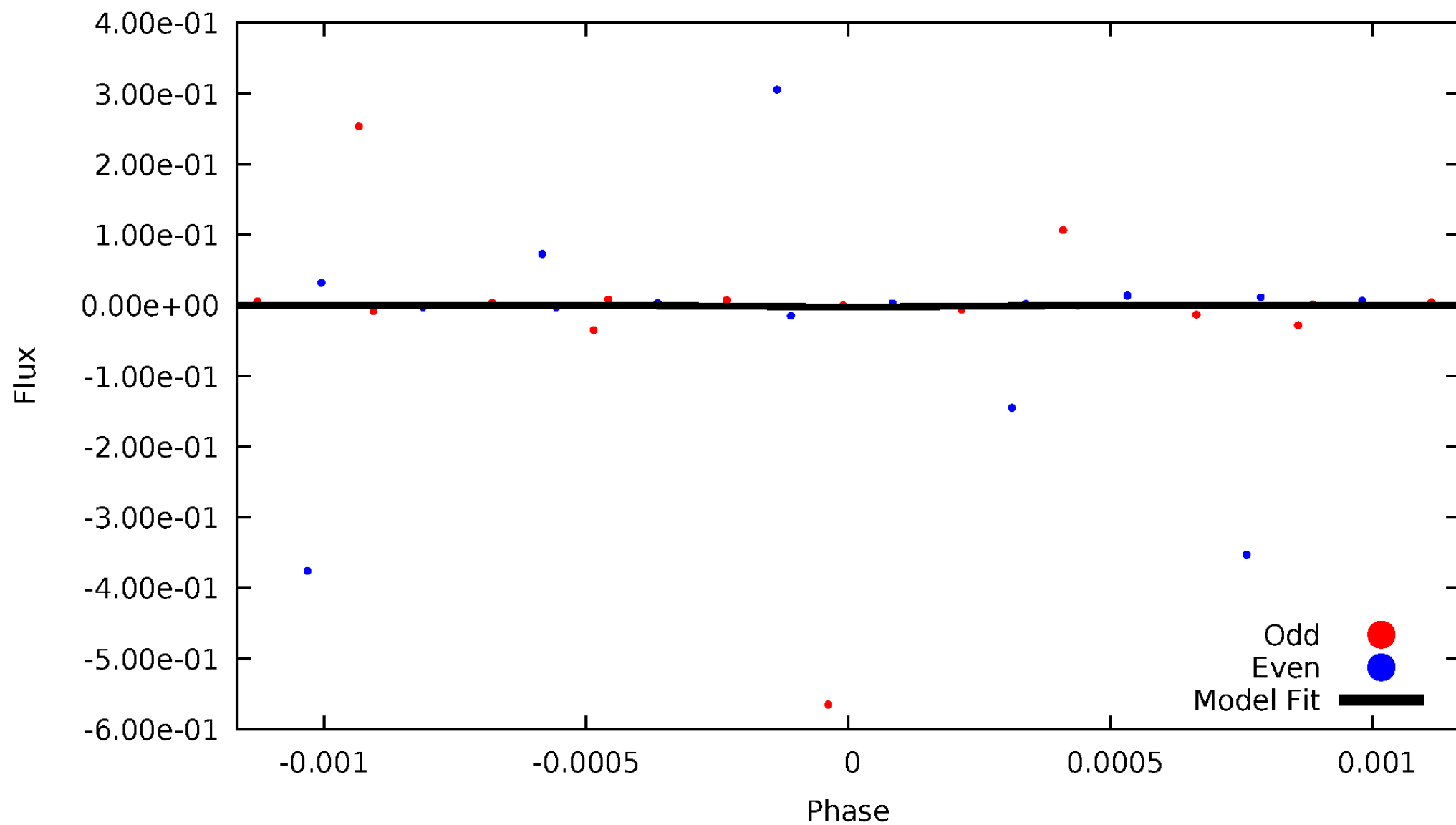
DV Odd/Even

TCE 011709752-01



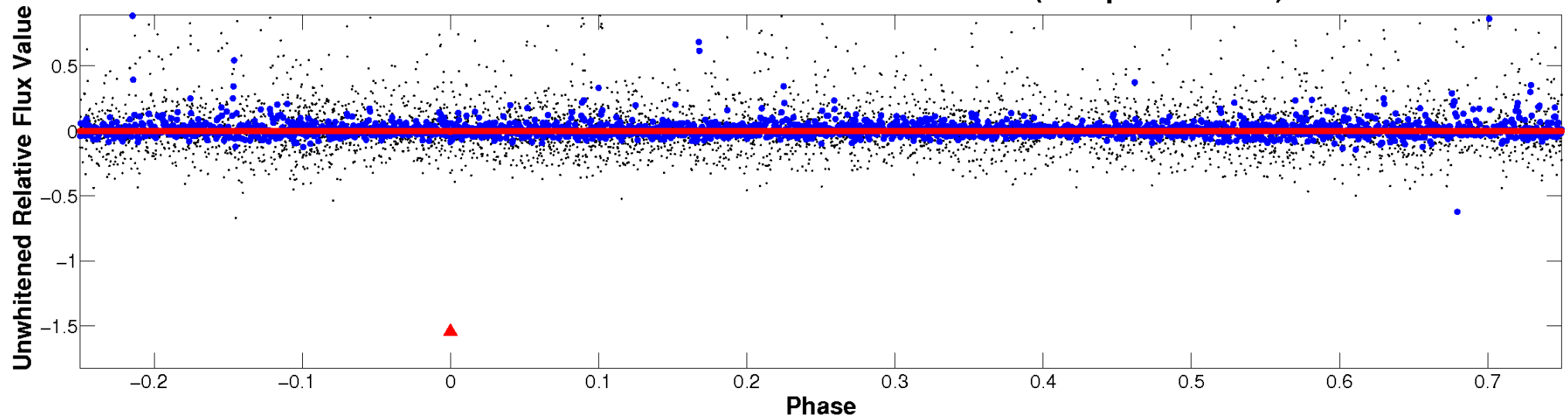
ALT Odd/Even

TCE 011709752-01

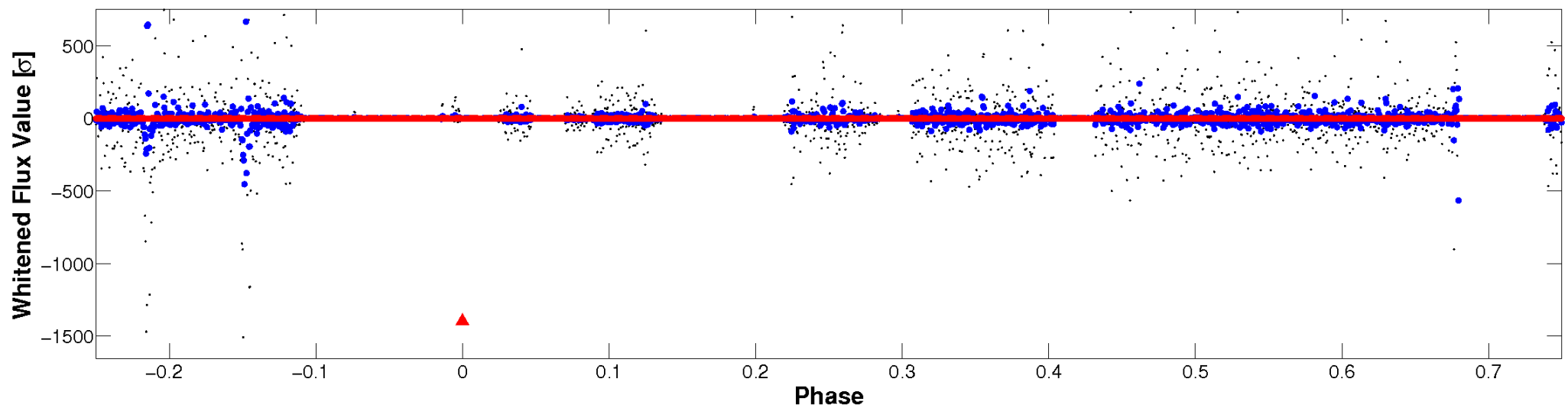


Non-Whitened Vs. Whitened Light Curve

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

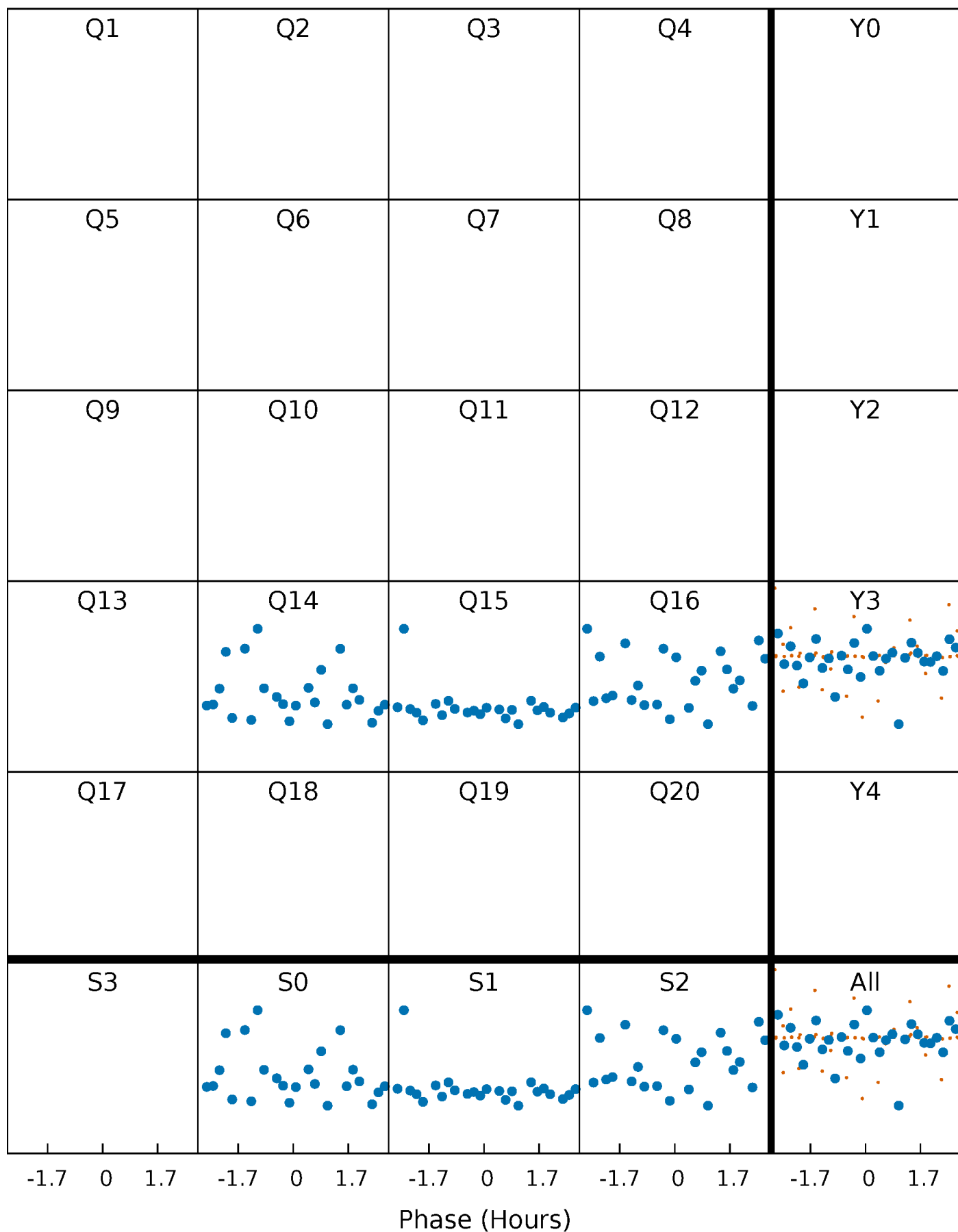


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



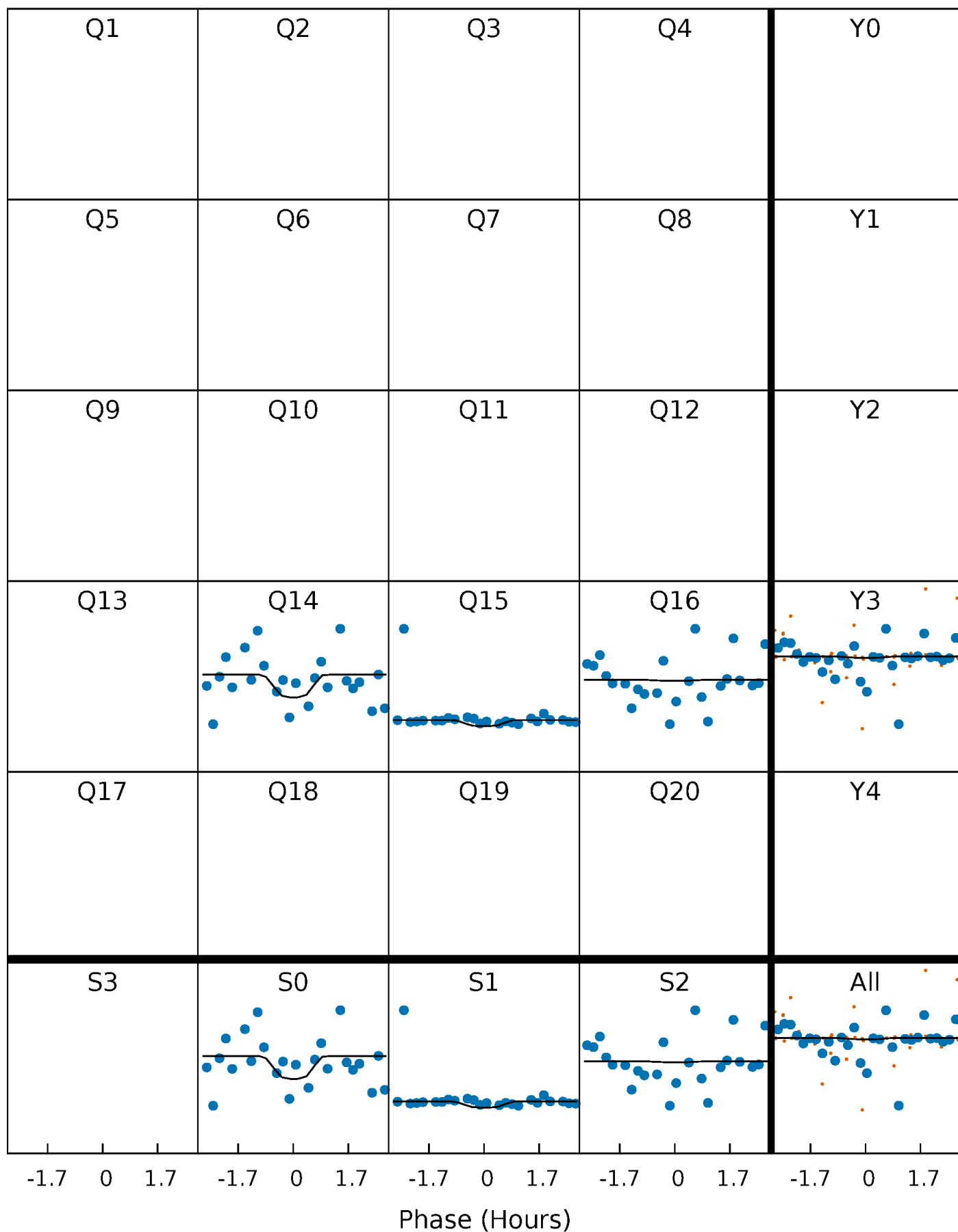
PDC Quarter-Phased Transit Curves

TCE 011709752-01 P= 45.617443 Days $T_0=171.029243$ (BKJD)



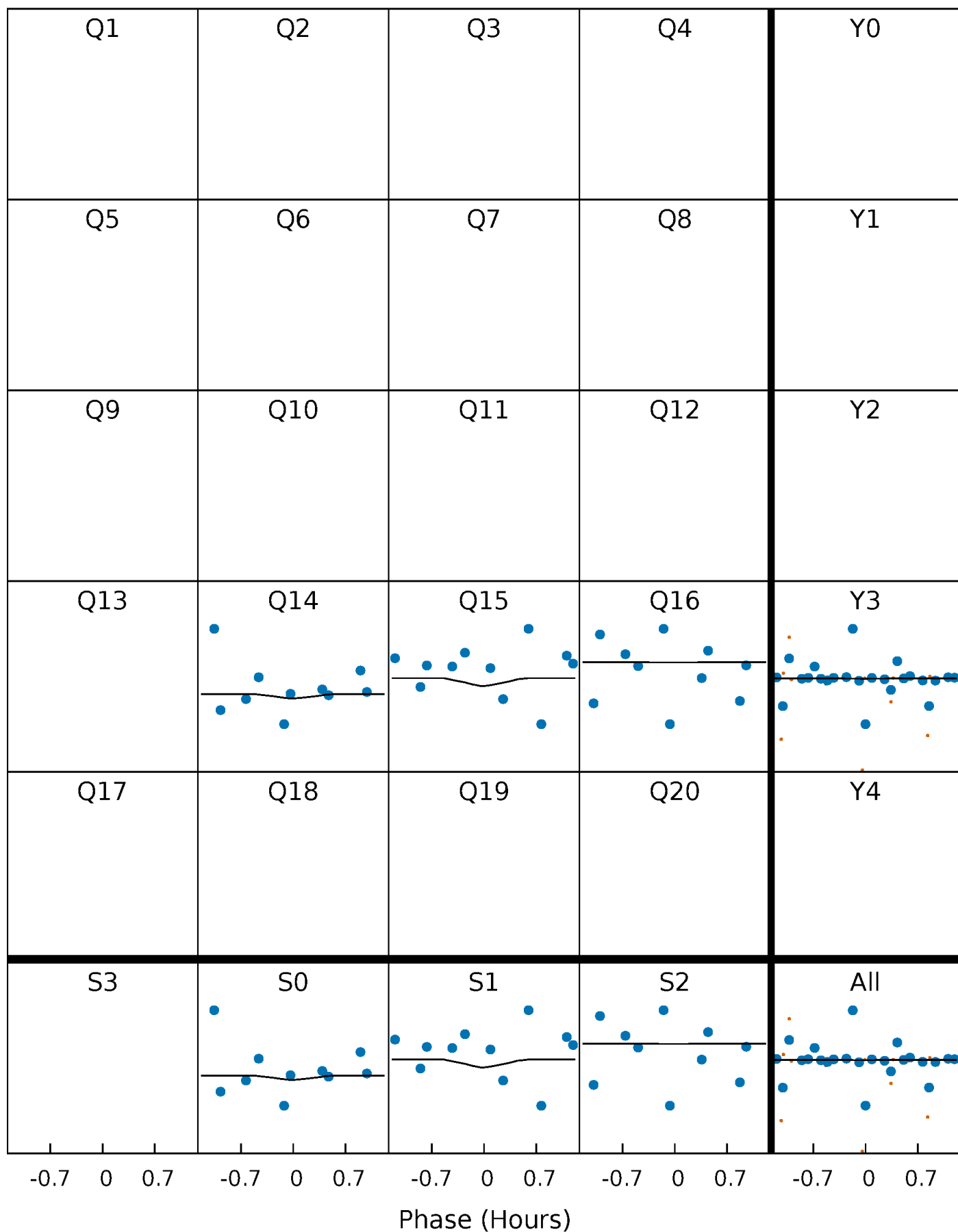
DV Quarter-Phased Transit Curves

TCE 011709752-01 $P = 45.617443$ Days $T_0 = 171.029243$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

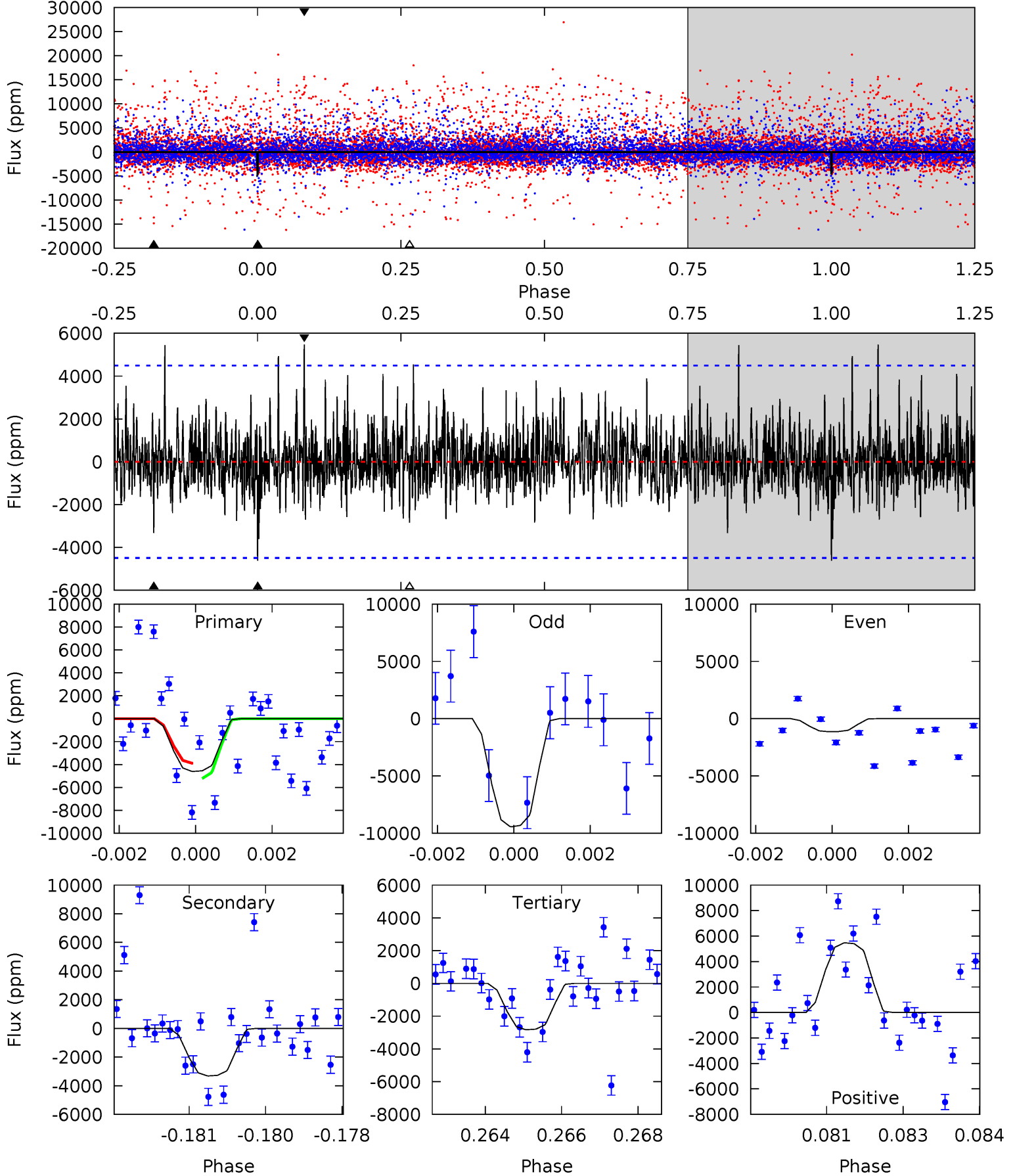
TCE 011709752-01 P= 45.632729 Days $T_0=170.634018$ (BKJD)



DV Model-Shift Uniqueness Test

011709752-01, P = 45.617443 Days, E = 171.029243 Days

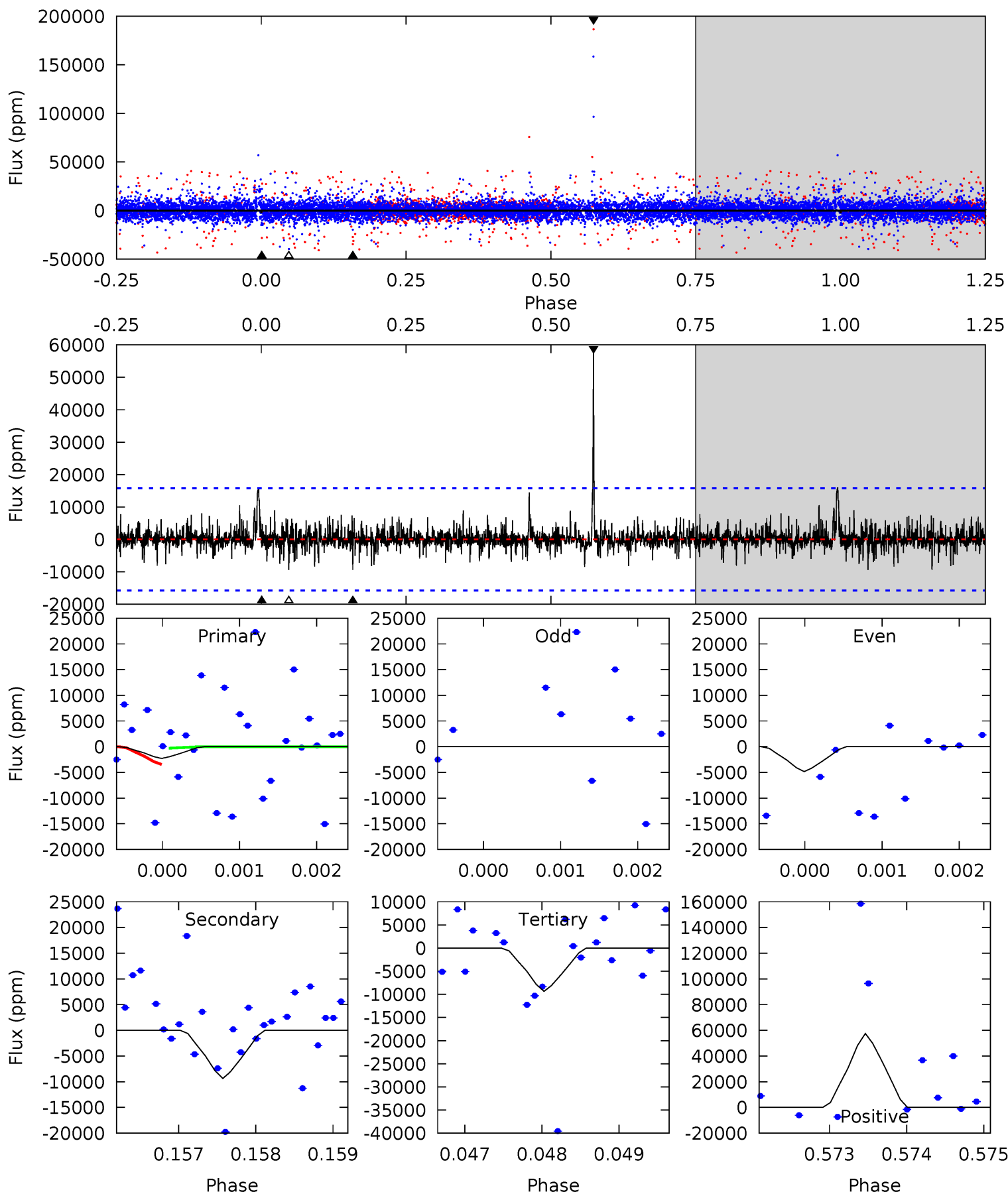
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.48	3.95	3.37	6.51	5.35	3.13	1.31	2.11	-1.03	0.58	-2.56	2.42	9.30	0.54	0.81



Alt Model-Shift Uniqueness Test

011709752-01, P = 45.632729 Days, E = 170.634018 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.79	3.24	3.23	19.9	5.45	3.29	0.88	-2.44	-19.1	0.01	-16.6	0	-105.1	0.86	0.55



Stellar Parameters For KIC 011709752

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011709752-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3317 ± 840	$43.65^{+43.19}_{-30.63}$	712^{+36}_{-35}	2888^{+1311}_{-475}	58^{+597}_{-44}
Alt.	-9363 ± 2894	$43.37^{+42.93}_{-30.10}$	714^{+33}_{-32}	3397^{+1745}_{-657}	175^{+1585}_{-133}

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 $A_{obs} \gg 1.0$

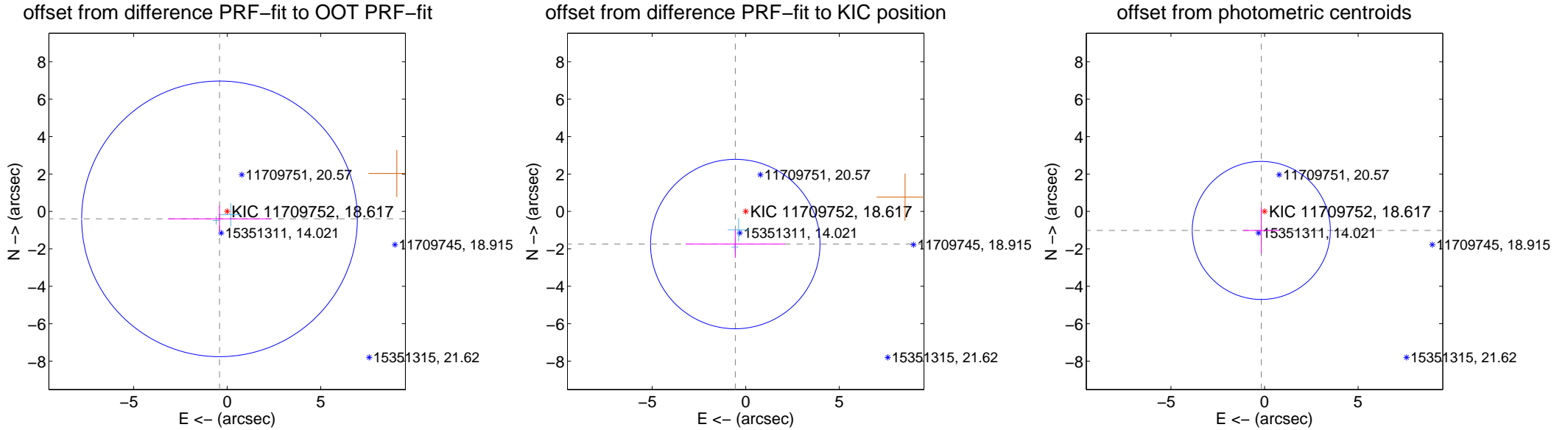
DV Centroid Data

Supplemental centroid analysis for 011709752-01. Kepler magnitude: 18.62. Transit SNR 7.28

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.38 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.569 ± 2.454	0.23	0.409 ± 2.751	-0.396 ± 0.689
PRF-fit source offset from KIC position	1.829 ± 1.509	1.21	0.557 ± 2.659	-1.742 ± 0.745
photometric centroid source offset	1.03 ± 1.23	0.84	0.17 ± 0.96	-1.01 ± 1.24



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.



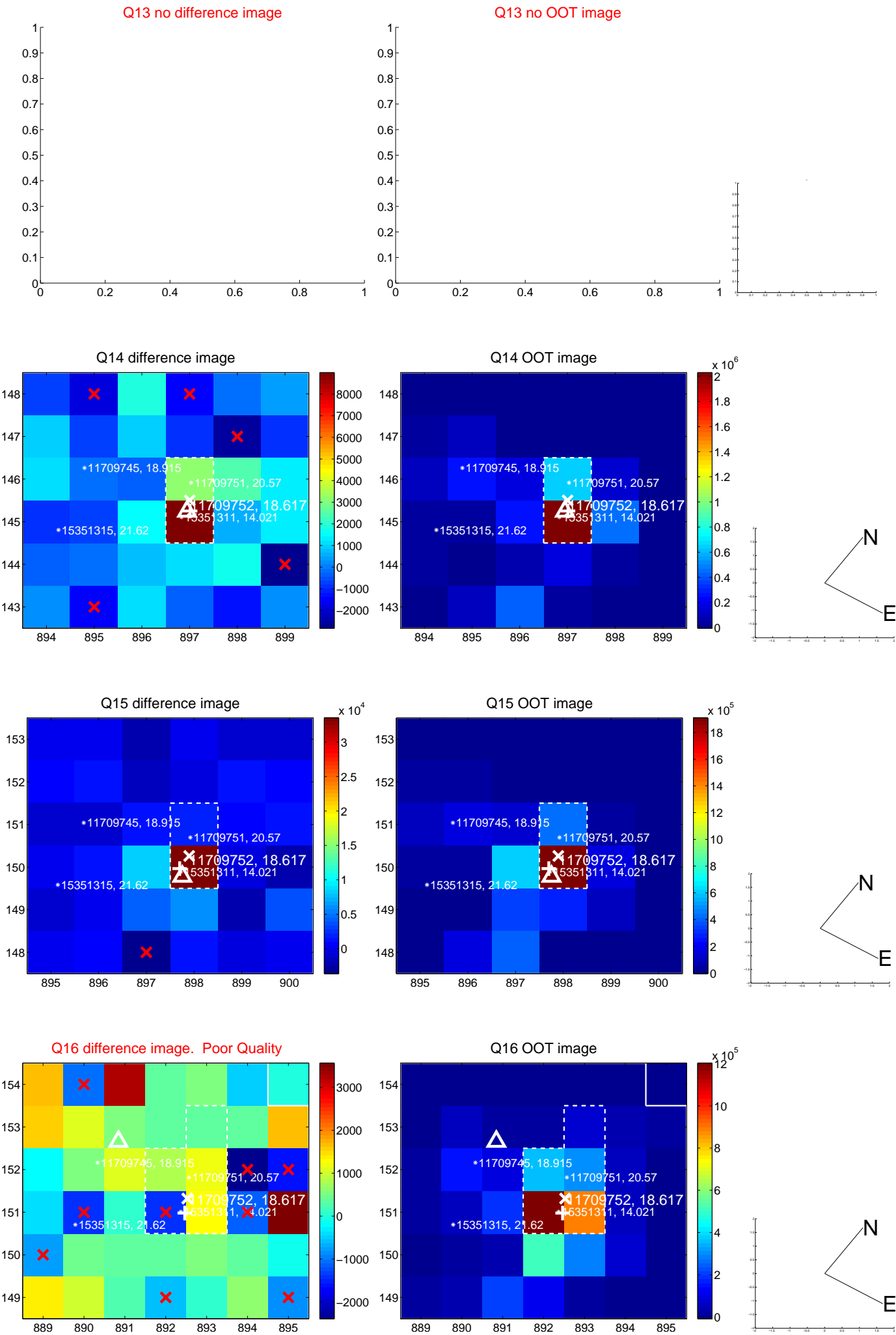
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



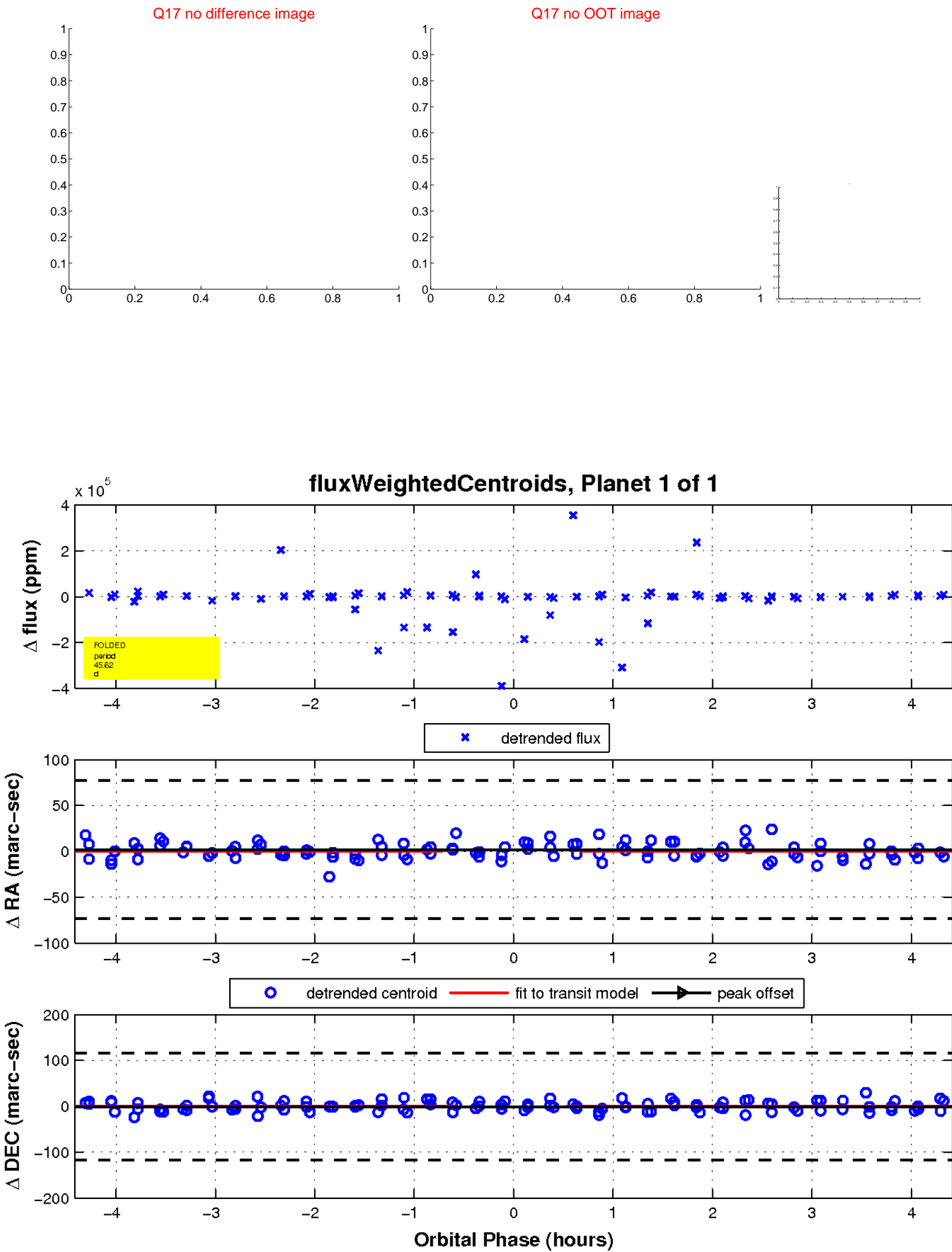
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

