

# KIC 007895272

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007895272-01	OBS	No	343.339736	290.816088	283.1	6.615	8.9	4.1	0.97	6091	1.76	1.21

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007895272-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—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.

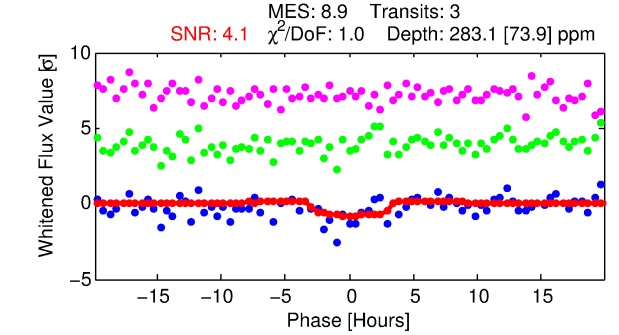
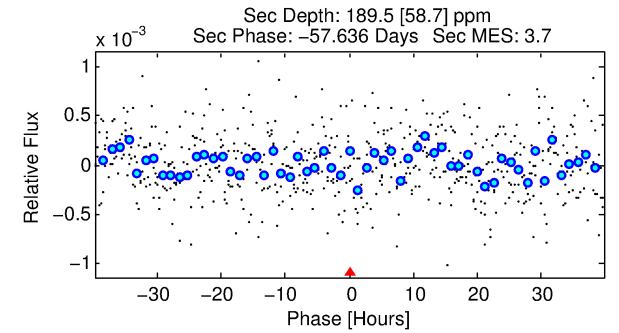
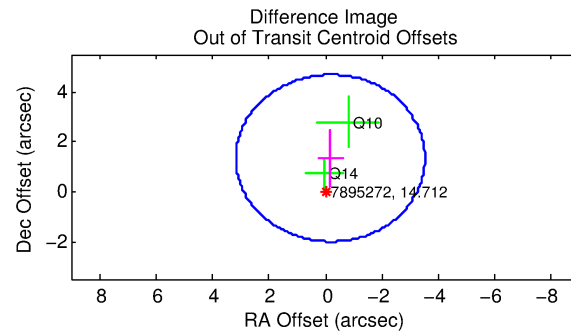
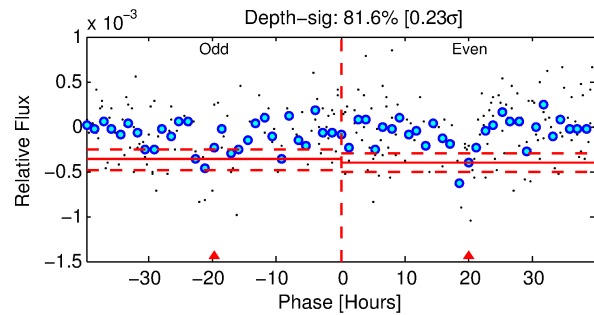
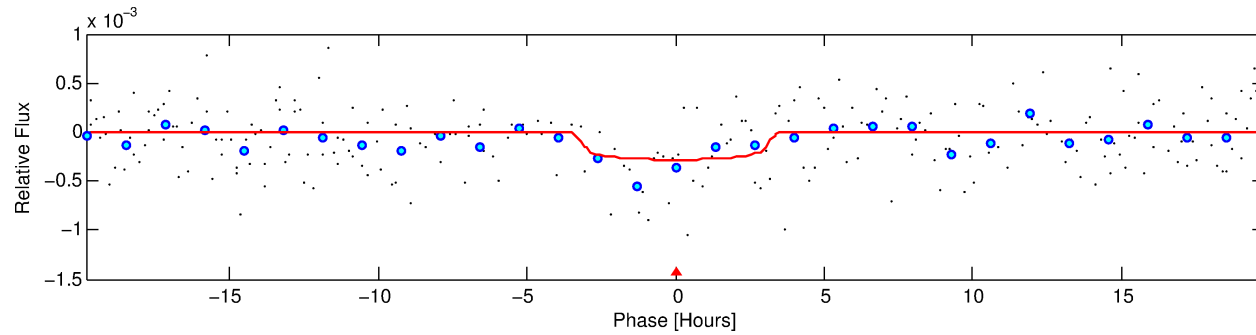
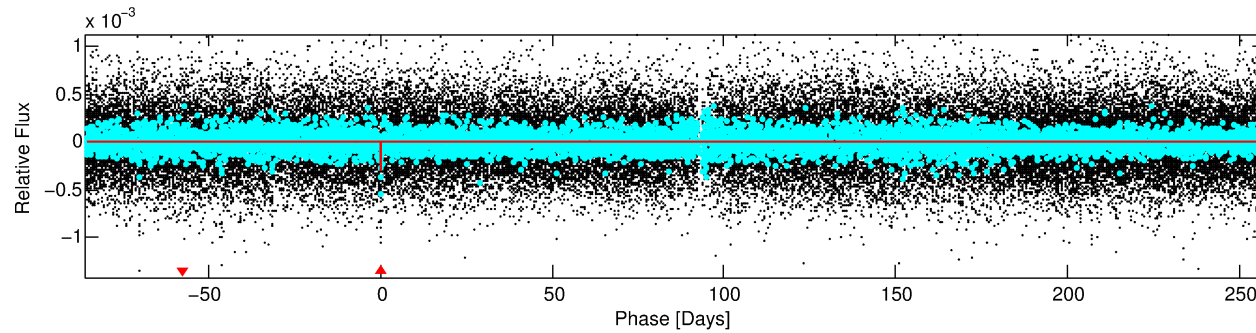
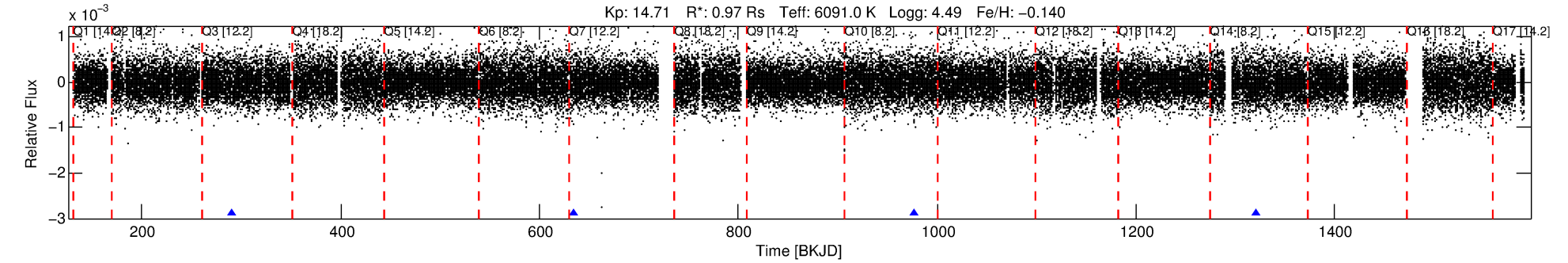
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007895272-01

No Significant Match Found

# DV One-Page Summary

KIC: 7895272 Candidate: 1 of 1 Period: 343.340 d



## DV Fit Results:

Period = 343.33974 [0.02549] d  
Epoch = 290.8161 [0.0587] BKJD  
Rp/R\* = 0.0167 [0.0375]  
a/R\* = 277.41 [3105.73]  
b = 0.74 [6.97]  
Seff = 1.21 [0.48]  
Teq = 268 [26] K  
Rp = 1.76 [3.99] Re  
a = 0.9745 [0.2510] AU  
Ag = 32010.09 [144869.44] [0.22 $\sigma$ ]  
Teffp = 5536 [6245] K [0.84 $\sigma$ ]

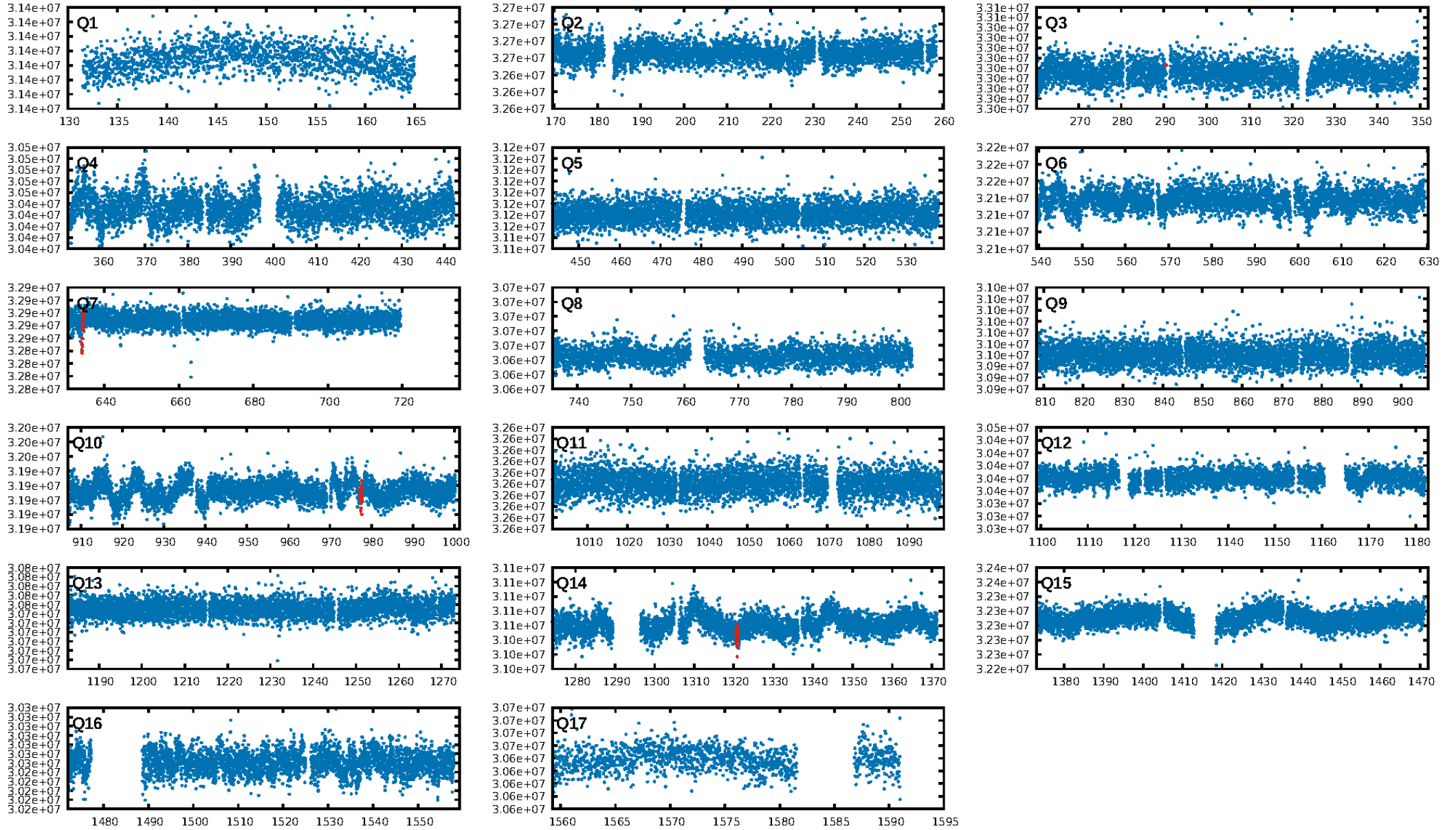
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 49.5%  
ModelChiSquareGof-sig: 96.2%  
**Bootstrap-pfa: 2.66e-12**  
RollingBand-fgt: 1.00 [3/3]  
GhostDiagnostic-chr: -9.532  
Centroid-sig: 18.7%  
Centroid-so: 5.084 arcsec [1.43 $\sigma$ ]  
OotOffset-rm: 1.352 arcsec [1.21 $\sigma$ ]  
KicOffset-rm: 1.148 arcsec [1.09 $\sigma$ ]  
OotOffset-st: 2/0/0 [2]  
KicOffset-st: 2/0/0 [2]  
DiffImageQuality-fgm: 0.50 [1/2]  
DiffImageOverlap-fno: 1.00 [2/2]

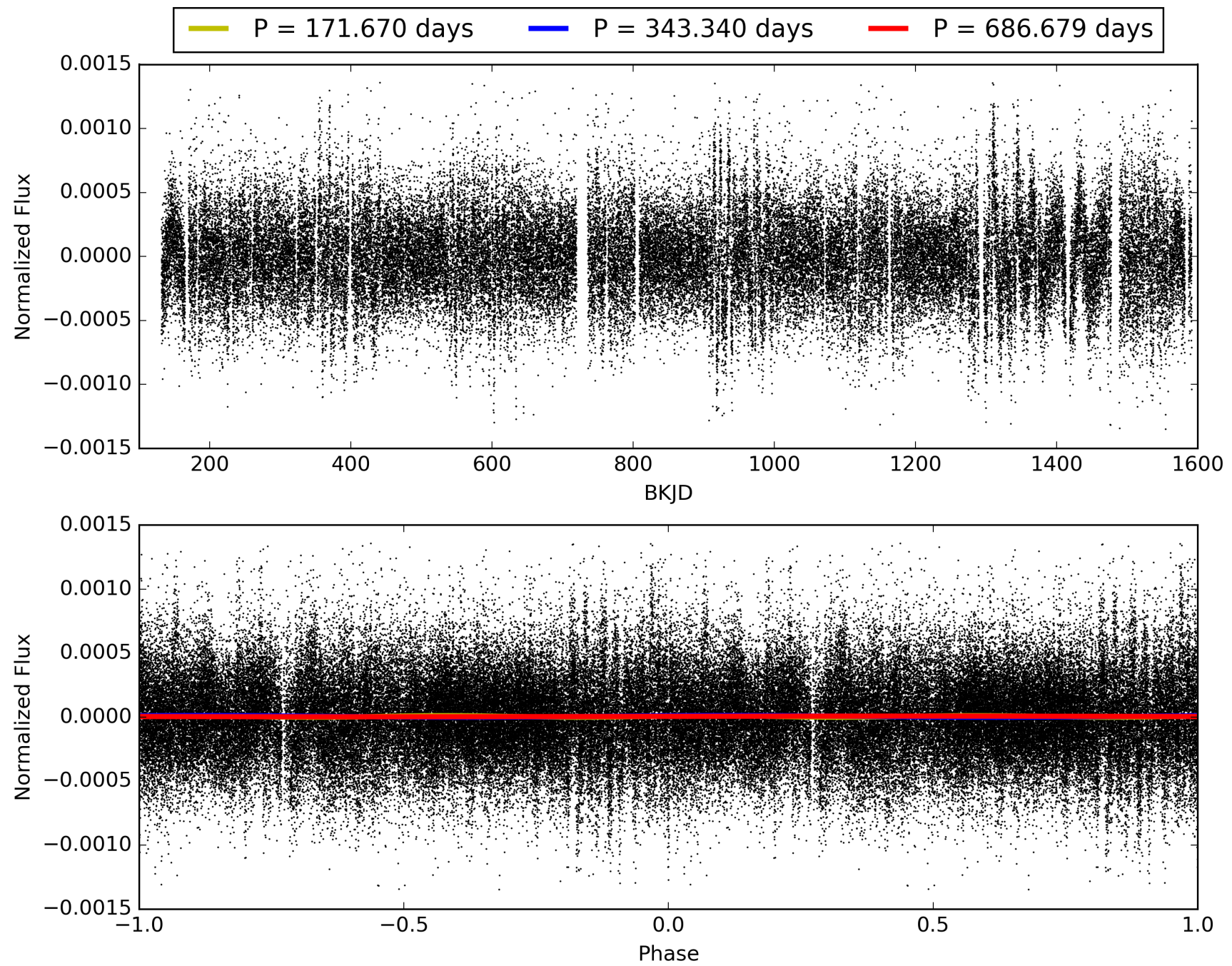
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:19:16 Z

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

# TCE 007895272-01, PDC Light Curves

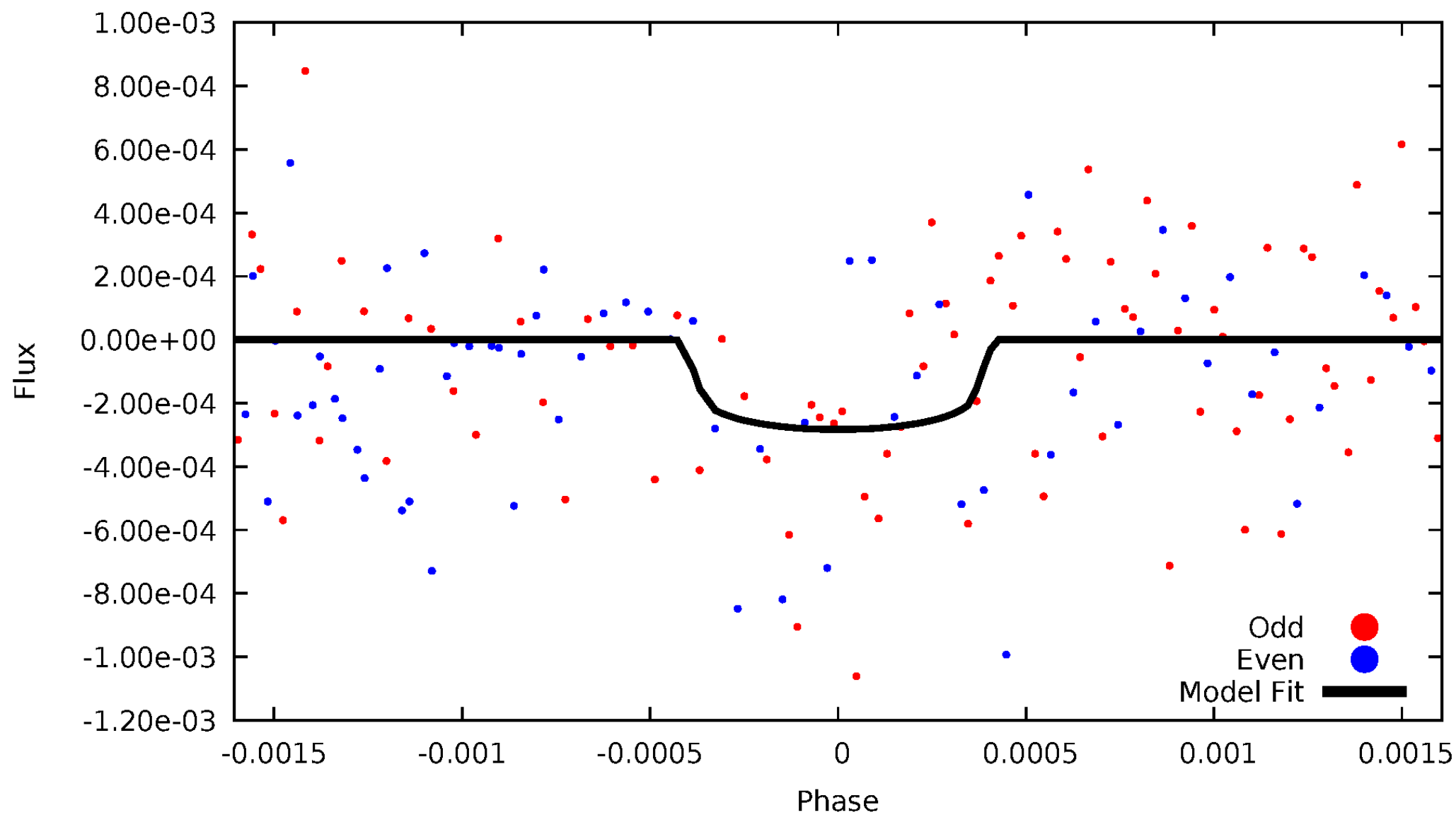


TCE 007895272-01



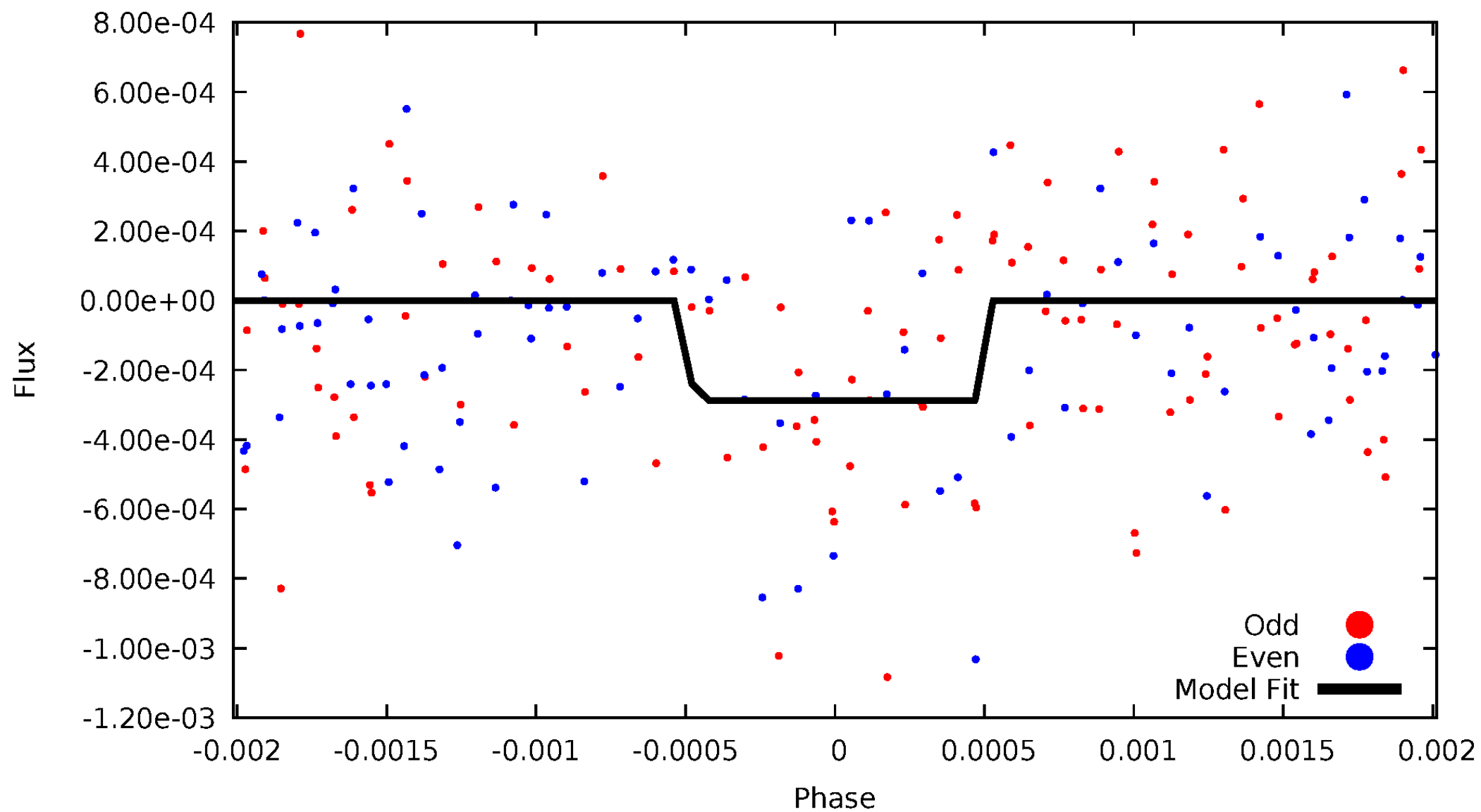
# DV Odd/Even

TCE 007895272-01



# ALT Odd/Even

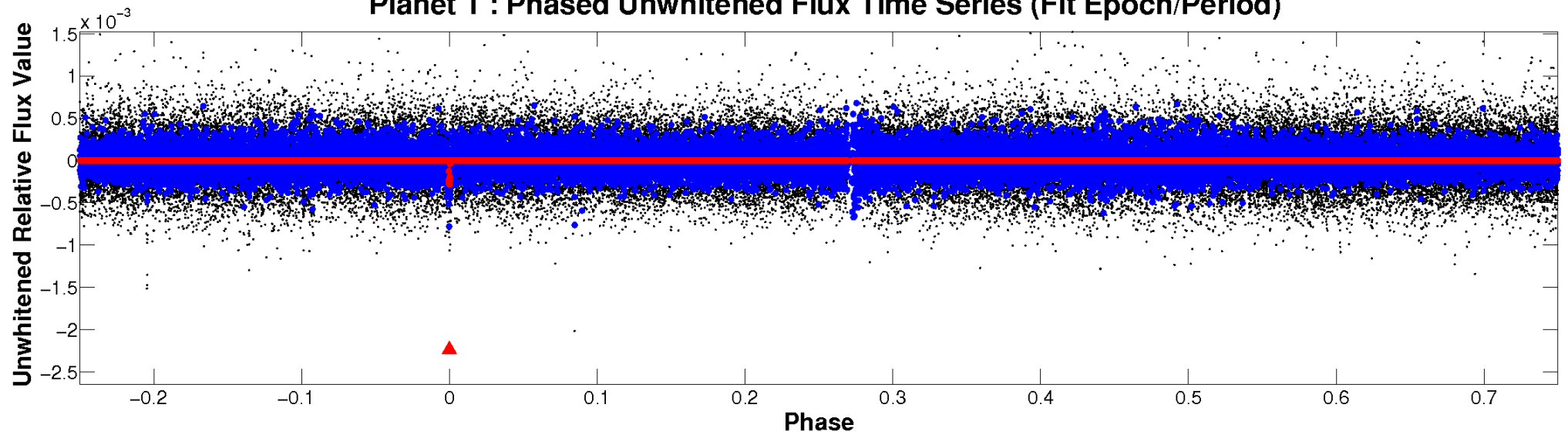
TCE 007895272-01



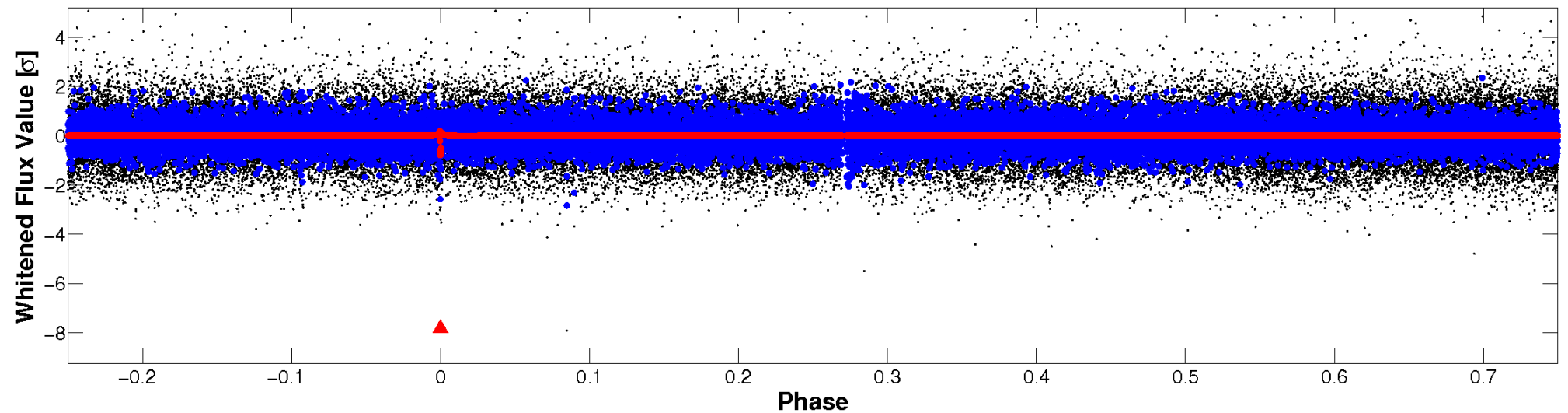


# Non-Whitened Vs. Whitened Light Curve

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

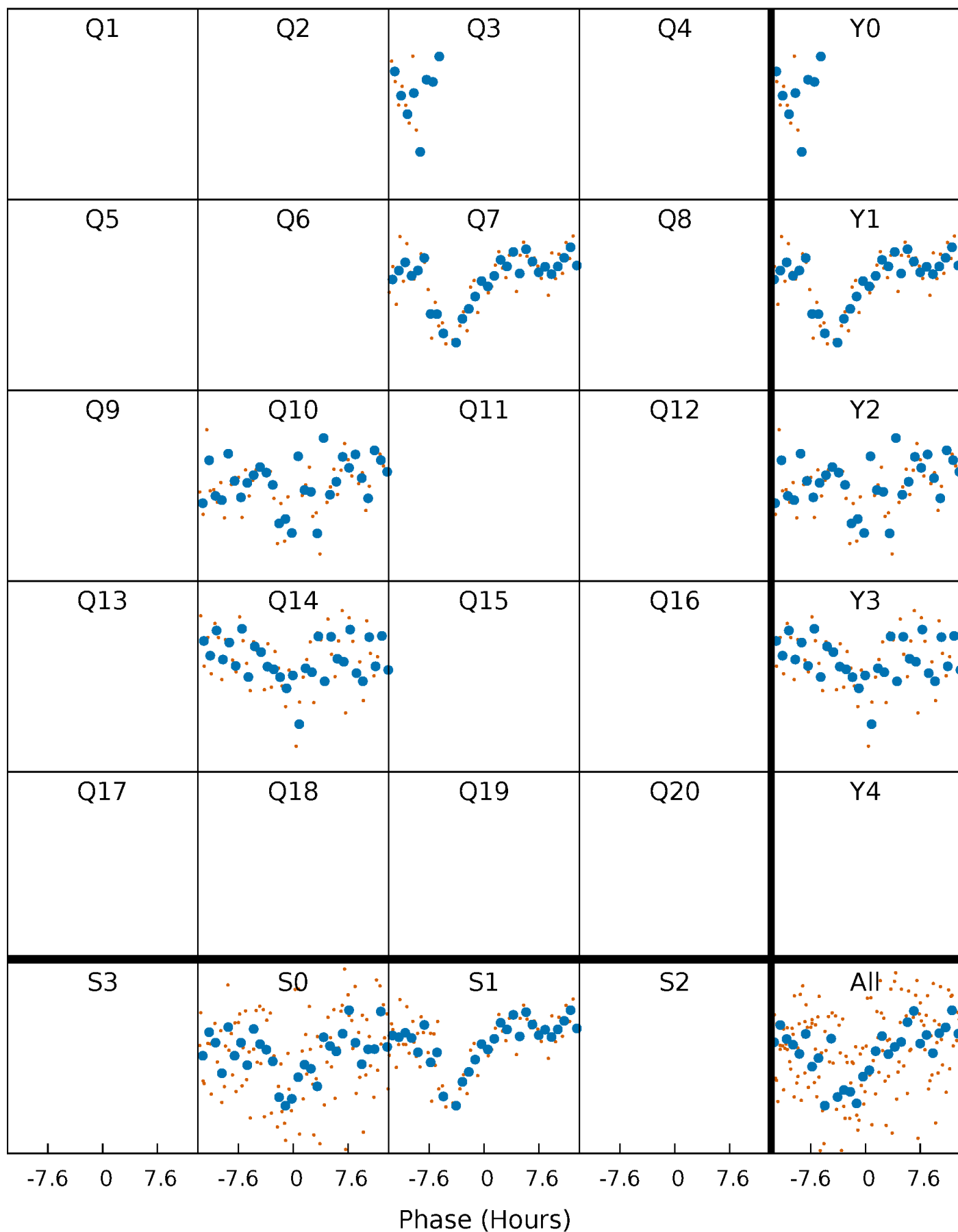


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

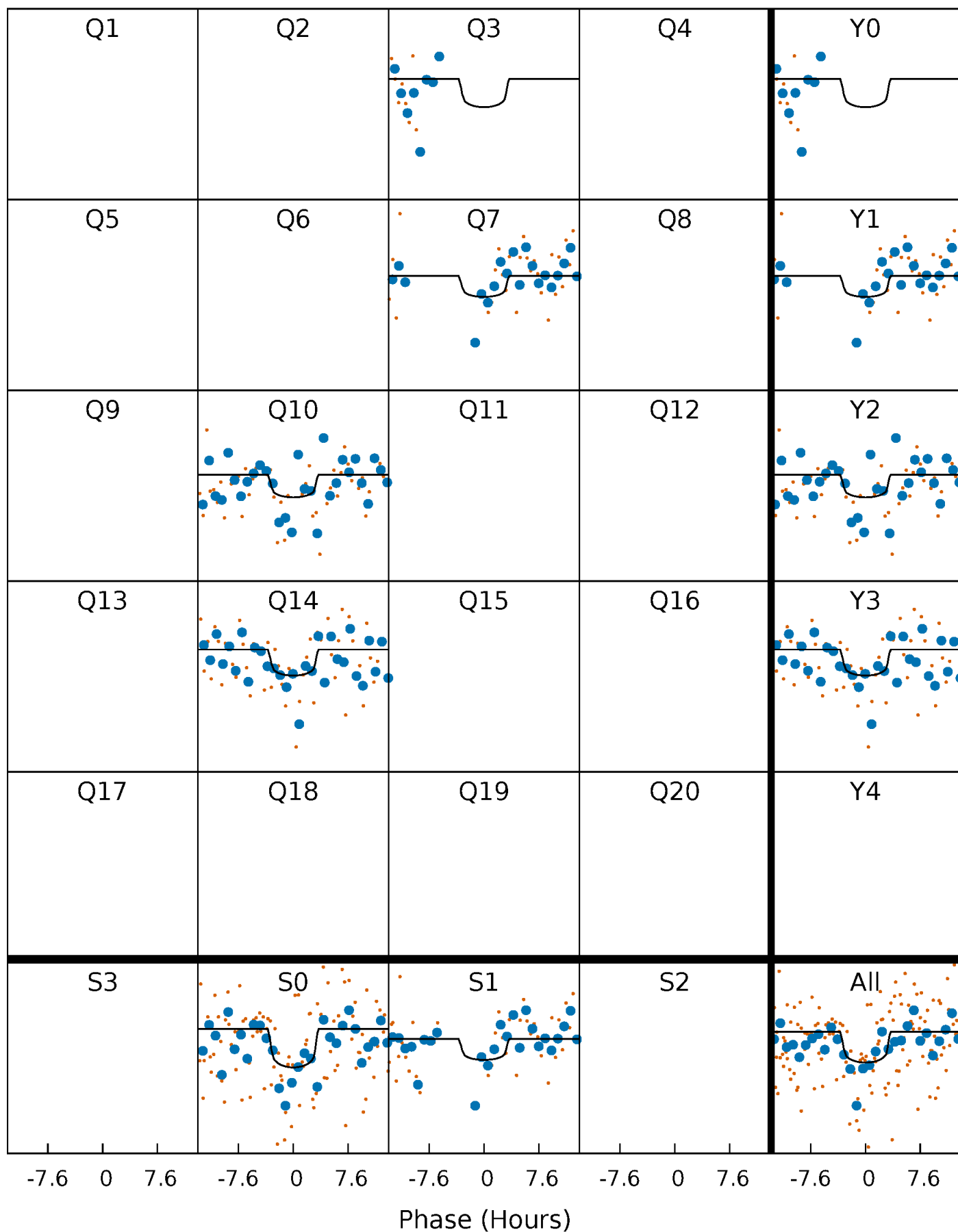
TCE 007895272-01 P=343.339736 Days  $T_0=290.816087$  (BKJD)





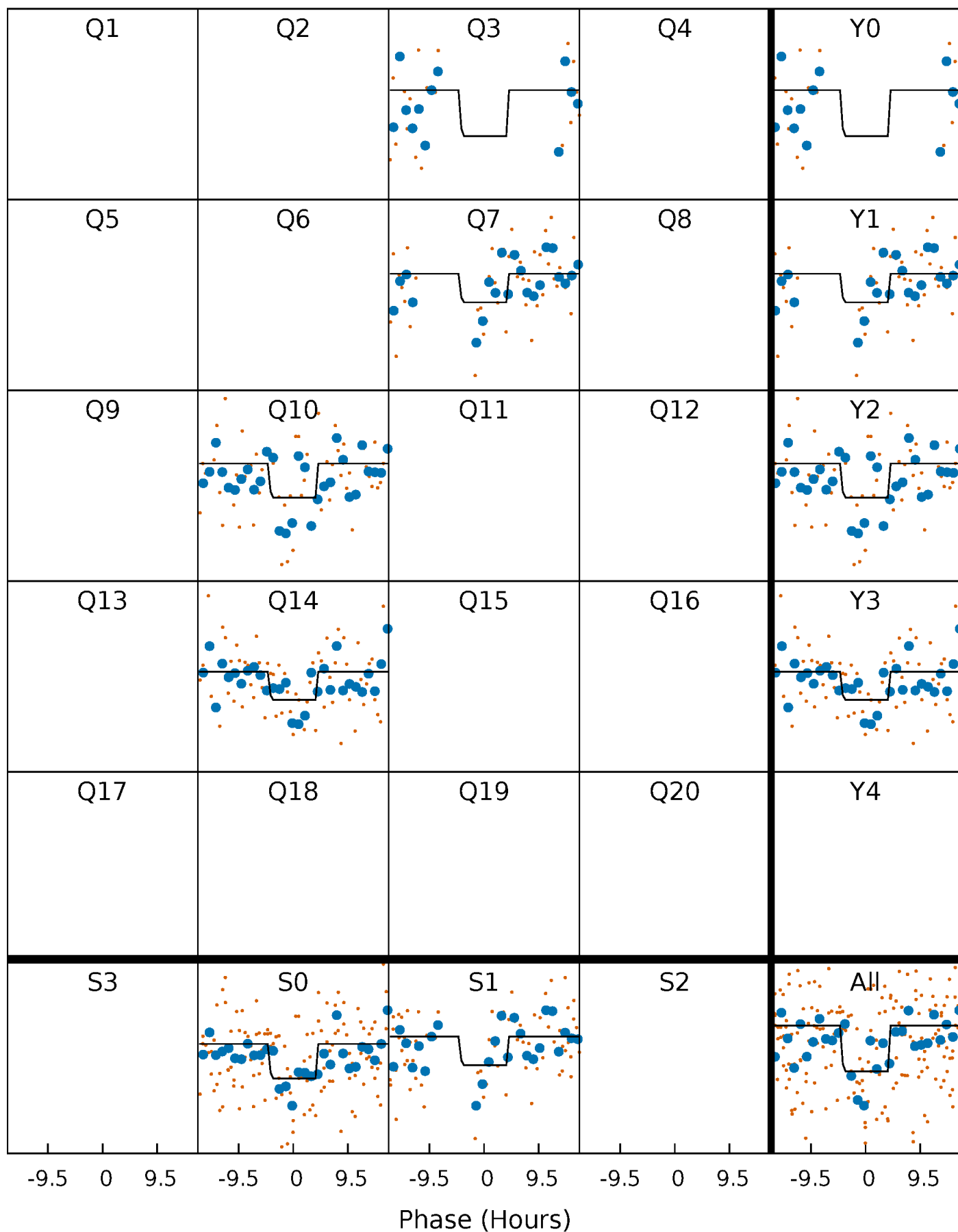
# DV Quarter-Phased Transit Curves

TCE 007895272-01   P=343.339736 Days    $T_0=290.816087$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

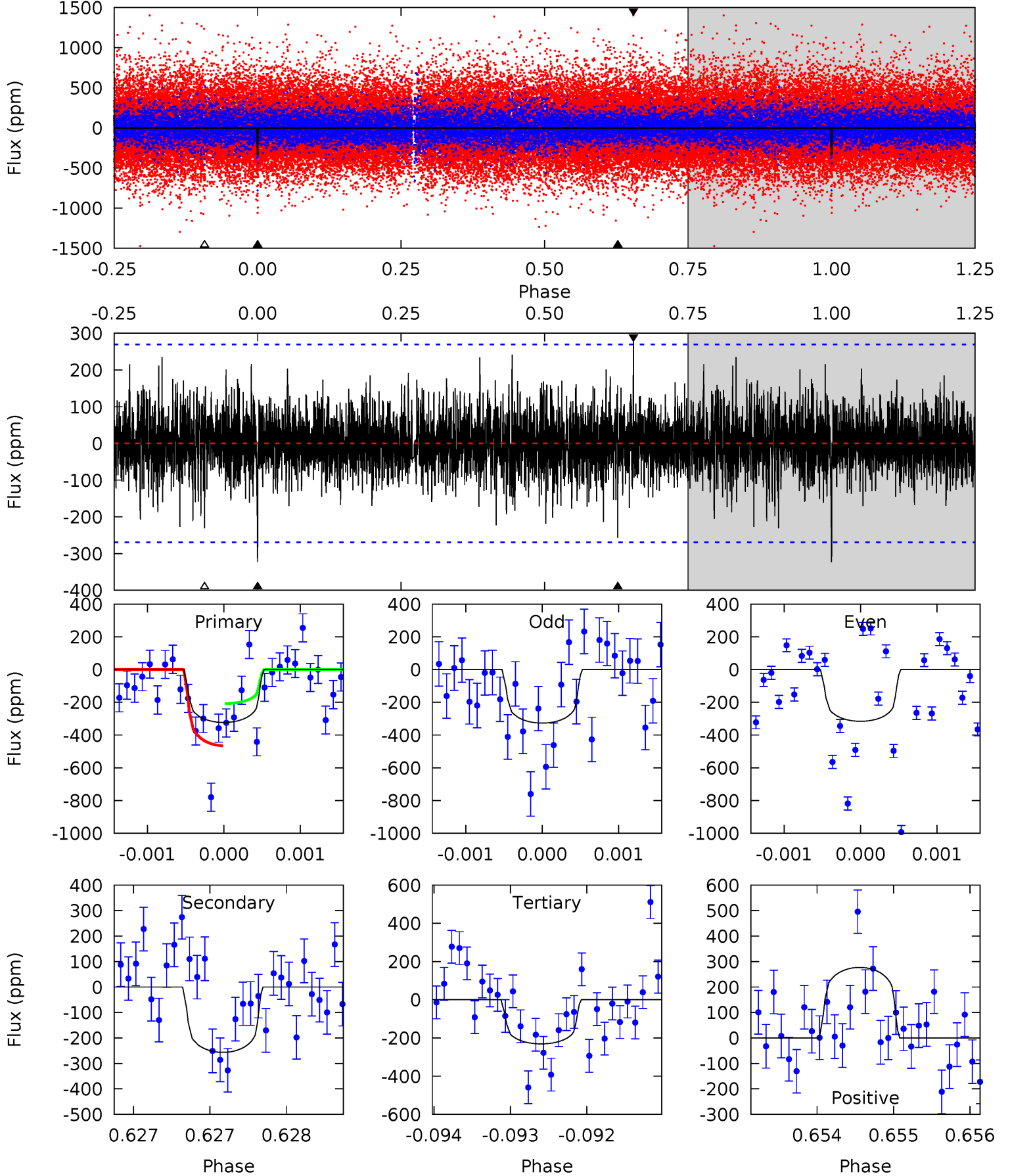
TCE 007895272-01 P=343.304241 Days  $T_0=290.878951$  (BKJD)



# DV Model-Shift Uniqueness Test

007895272-01, P = 343.339736 Days, E = 290.816087 Days

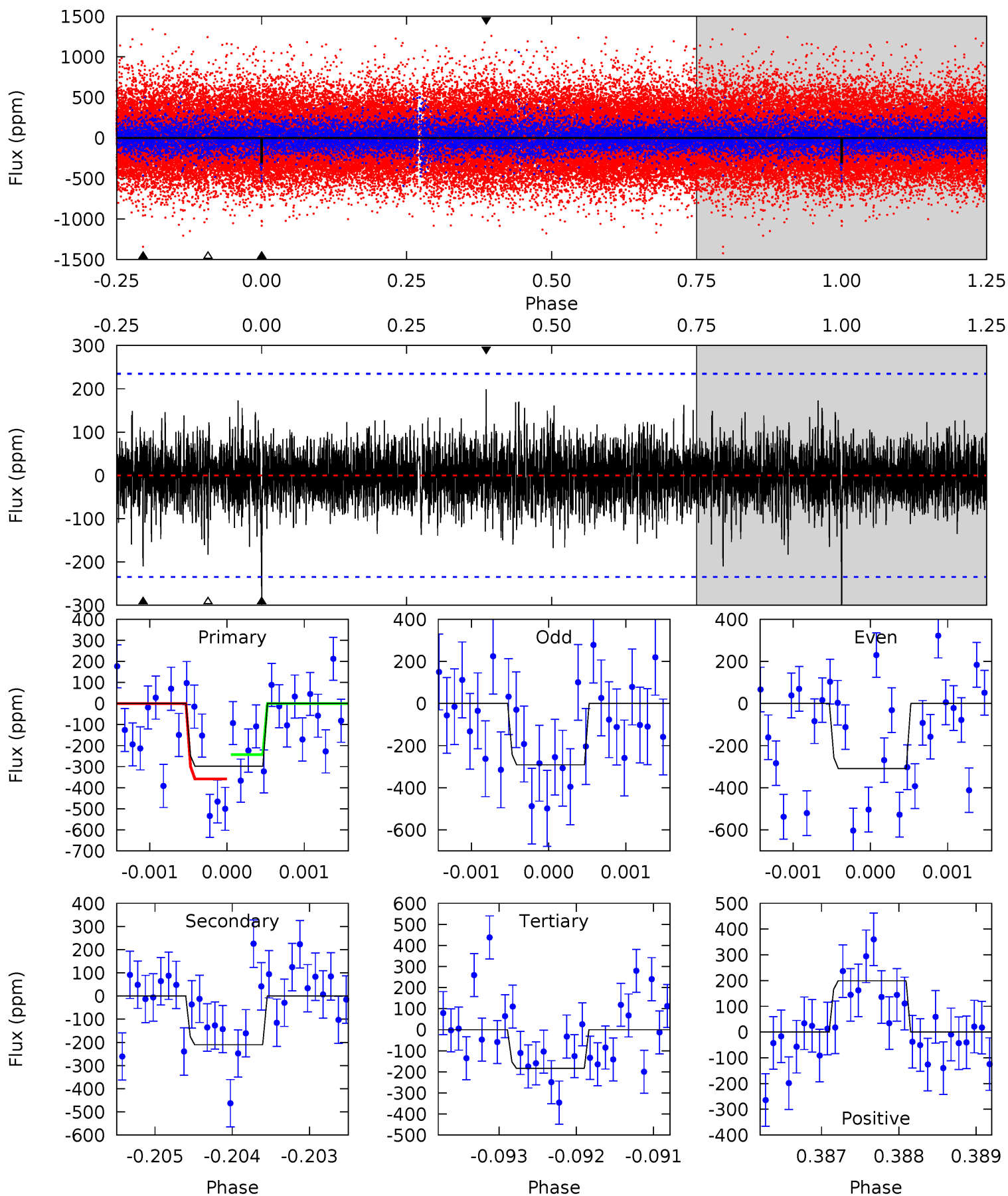
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.58	5.22	4.70	5.63	5.49	3.35	1.22	1.88	0.94	0.52	-0.41	0.11	1.00	0.46	2.58



# Alt Model-Shift Uniqueness Test

007895272-01, P = 343.304241 Days, E = 290.878951 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.91	4.88	4.25	4.62	5.45	3.29	1.06	2.67	2.29	0.64	0.26	0.20	0.95	0.40	1.34



### Stellar Parameters For KIC 007895272

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6091^{+168}_{-210}$	$4.487^{+0.050}_{-0.200}$	$-0.140^{+0.300}_{-0.300}$	$0.967^{+0.300}_{-0.100}$	$1.045^{+0.139}_{-0.139}$	$1.627^{+0.423}_{-0.807}$
	+3%/-3%	+1%/-4%	+214%/-214%	+31%/-10%	+13%/-13%	+26%/-50%
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 007895272-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-257 \pm 49$	$3.44^{+3.58}_{-2.35}$	$382^{+26}_{-19}$	$4461^{+3548}_{-917}$	$10473^{+100995}_{-7803}$
Alt.	$-210 \pm 43$	$3.69^{+3.36}_{-2.49}$	$383^{+26}_{-19}$	$4283^{+2851}_{-873}$	$7935^{+68874}_{-5838}$

$T_{max}$  = 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  $A_{obs} \gg 1.0$

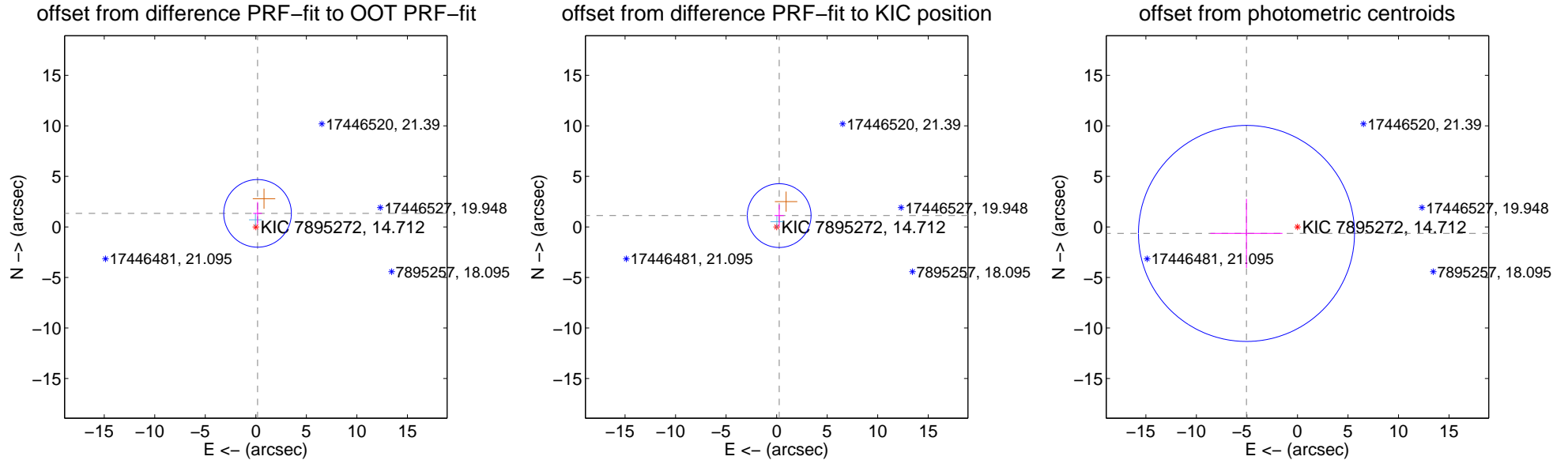
## DV Centroid Data

Supplemental centroid analysis for 007895272-01. Kepler magnitude: 14.71. Transit SNR 4.05

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.352 \pm 1.115$	1.21	$-0.172 \pm 0.435$	$1.341 \pm 1.123$
PRF-fit source offset from KIC position	$1.148 \pm 1.051$	1.09	$-0.251 \pm 0.465$	$1.120 \pm 1.072$
photometric centroid source offset	$5.08 \pm 3.56$	1.43	$5.04 \pm 3.56$	$-0.64 \pm 3.42$



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- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

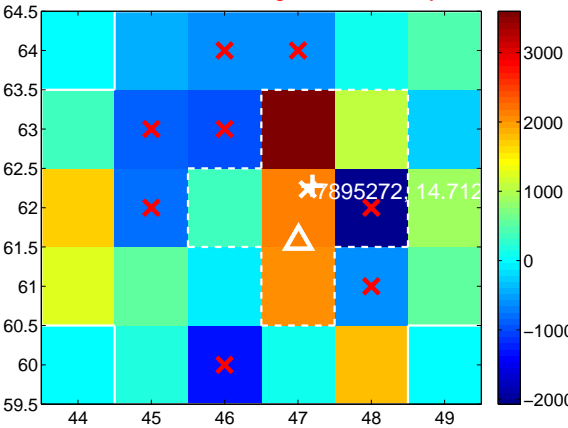
Q9 no difference image



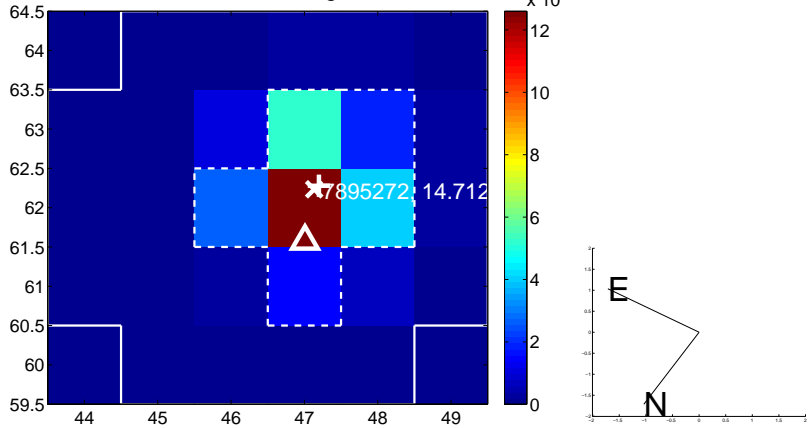
Q9 no OOT image



Q10 difference image. Poor Quality



Q10 OOT image



Q11 no difference image



Q11 no OOT image



Q12 no difference image



Q12 no OOT image



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

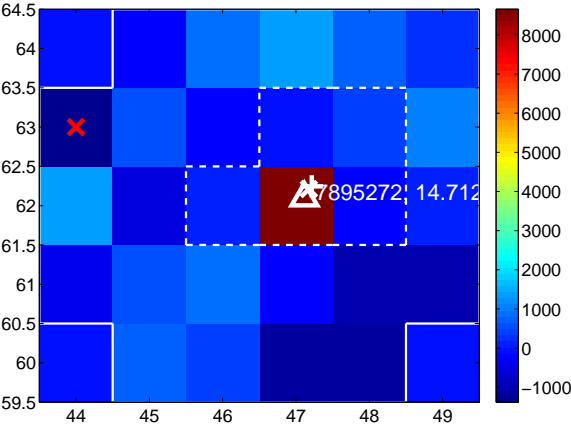
Q13 no difference image



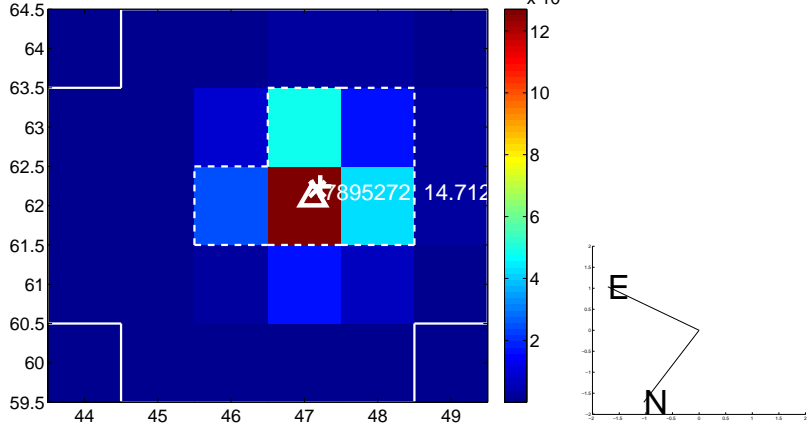
Q13 no OOT image



Q14 difference image



Q14 OOT image



Q15 no difference image



Q15 no OOT image



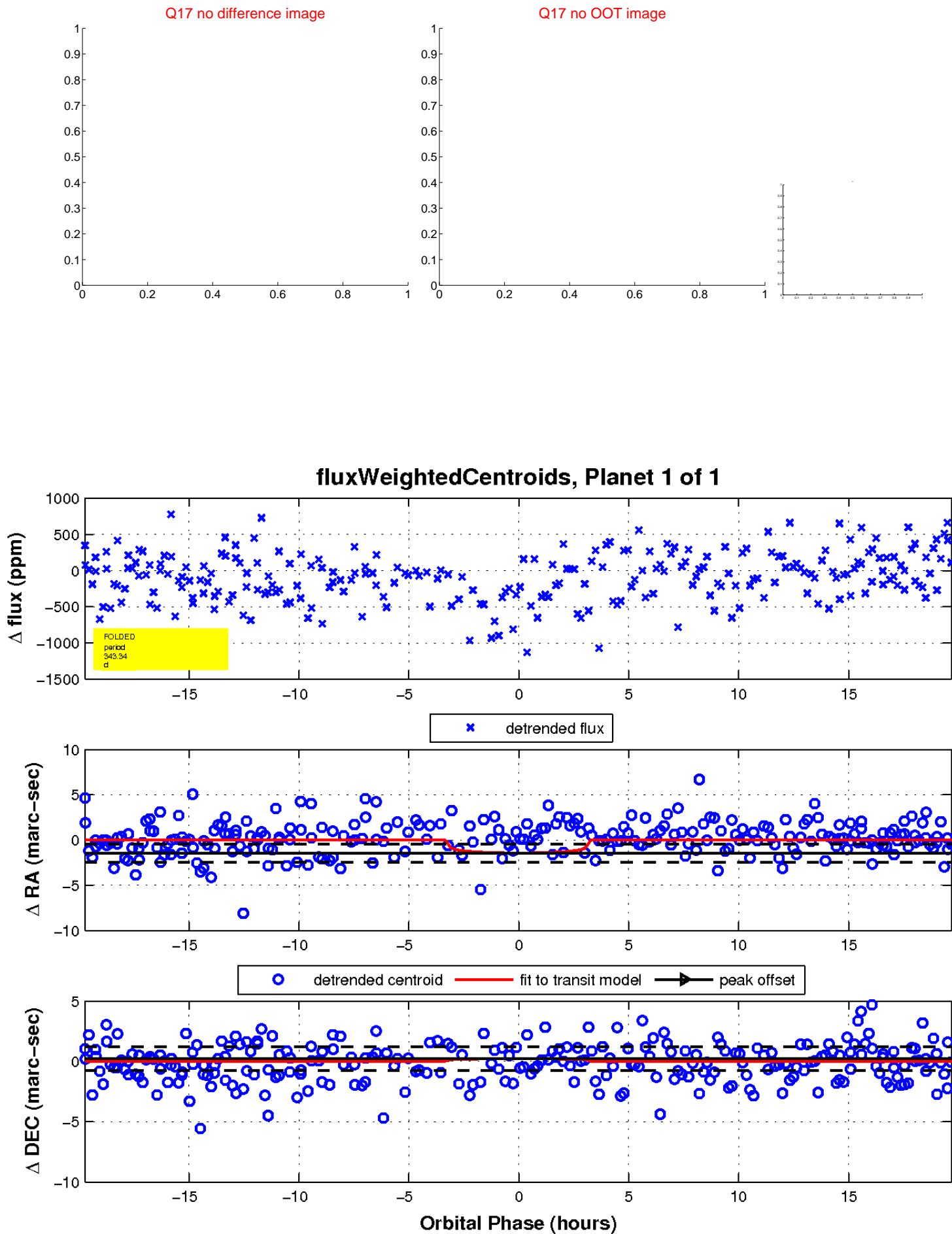
Q16 no difference image



Q16 no OOT image



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



## UKIRT Image

Declination

