

# KIC 007763269

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007763269-01	OBS	3721.01	6.408063	134.068754	7666.8	2.913	220.9	192.7	1.19	6261	18.12	424.46

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007763269-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED—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.

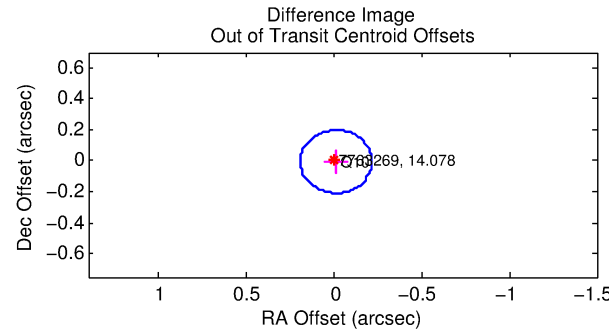
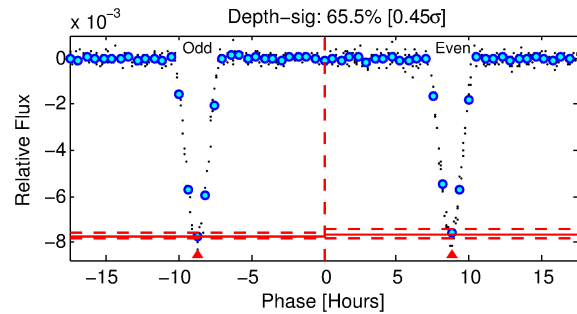
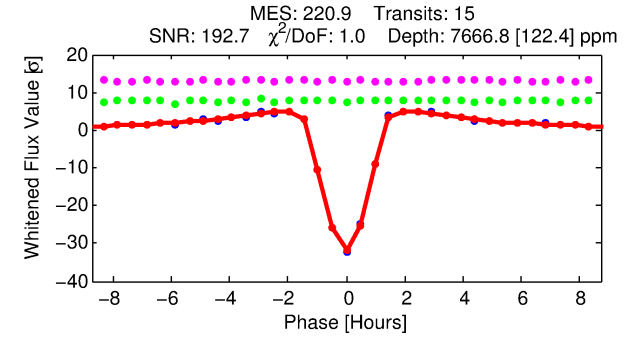
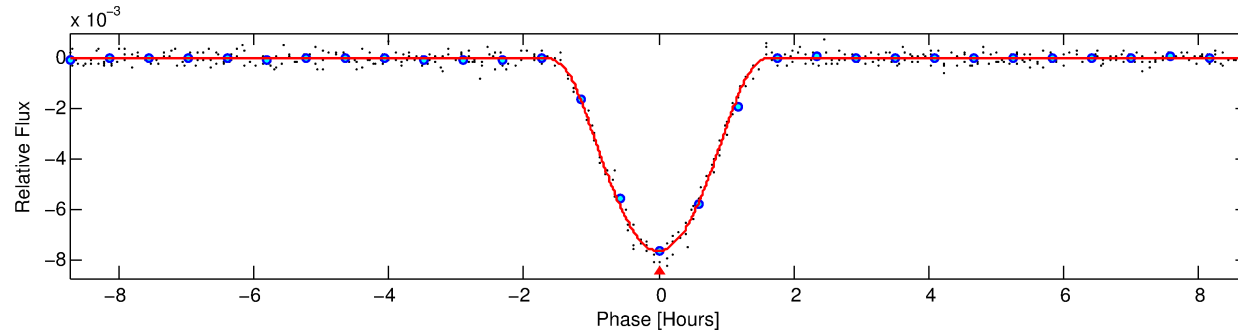
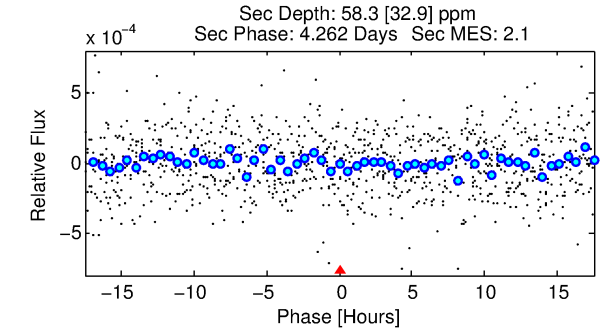
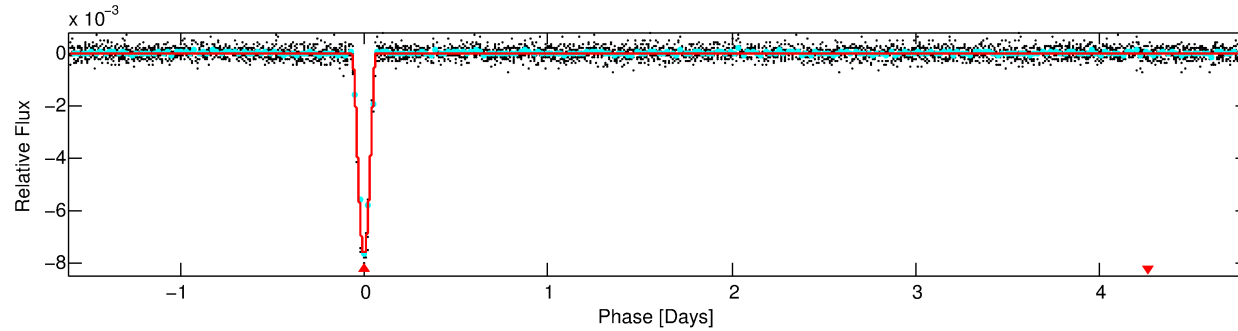
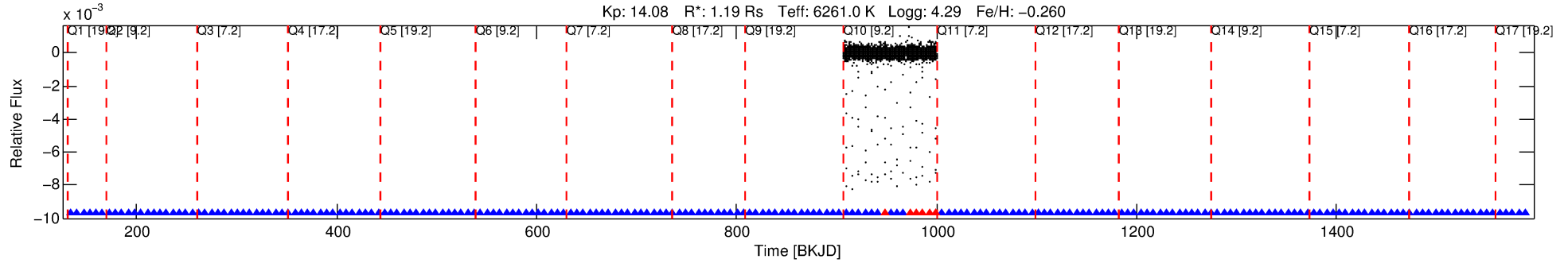
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007763269-01

No Significant Match Found

# DV One-Page Summary

KIC: 7763269 Candidate: 1 of 1 Period: 6.408 d  
KOI: K03721.01 Corr: 0.990



## DV Fit Results:

Period = 6.40806 [0.00001] d  
Epoch = 134.0688 [0.0018] BKJD  
Rp/R\* = 0.1391 [0.0426]  
a/R\* = 9.45 [0.56]  
b = 0.99 [0.06]  
Seff = 424.46 [162.59]  
Teq = 1157 [111] K  
Rp = 18.12 [7.80] Re  
a = 0.0680 [0.0168] AU  
Ag = 0.45 [0.41] [-1.34 $\sigma$ ]  
Teffp = 1467 [311] K [0.94 $\sigma$ ]

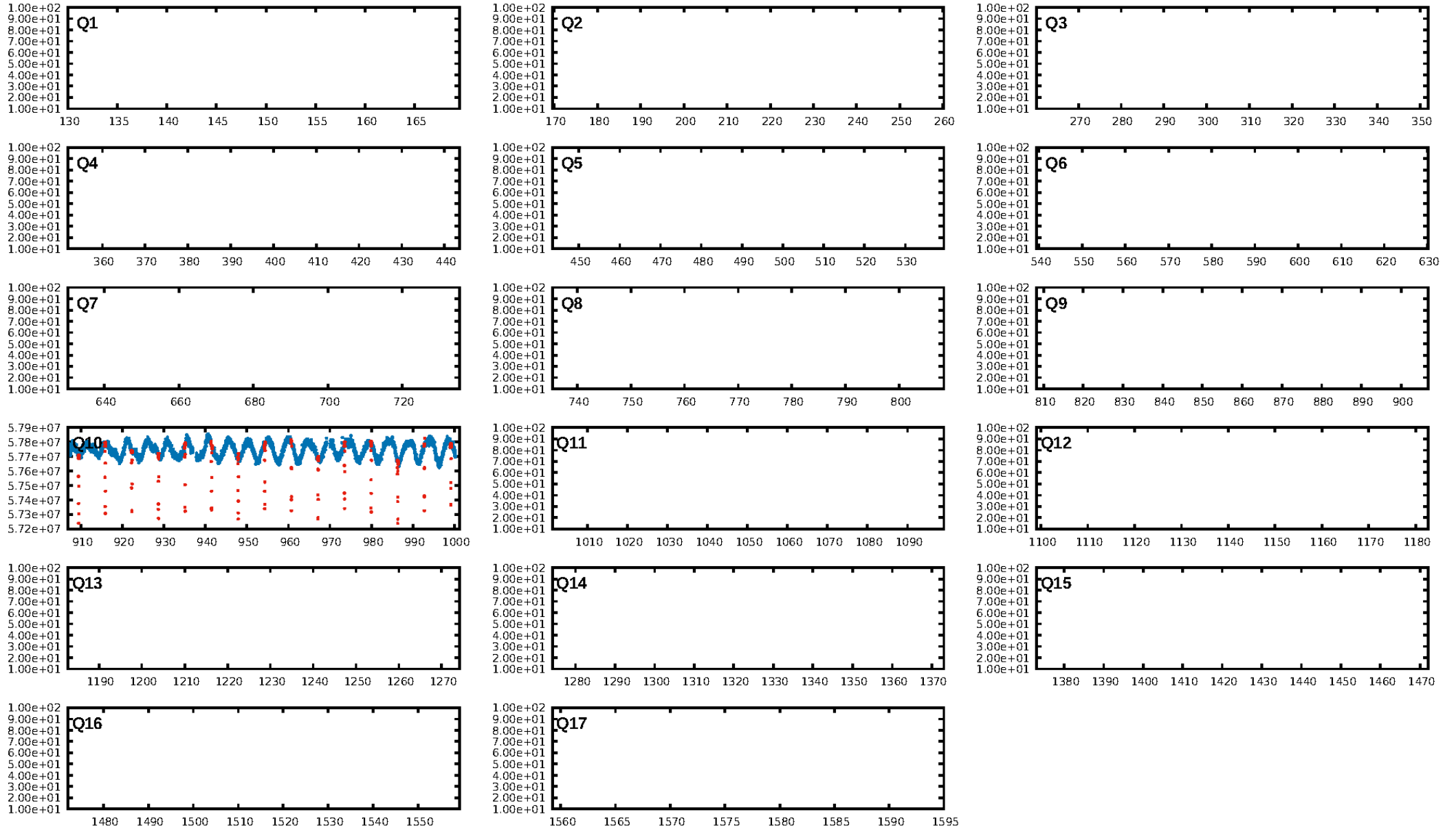
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 0.5%  
ModelChiSquareGof-sig: 96.9%  
Bootstrap-pfa: 0.00e+00  
RollingBand-fgt: 0.60 [9/15]  
GhostDiagnostic-chr: 9.858  
Centroid-sig: 89.5%  
Centroid-so: 0.122 arcsec [1.54 $\sigma$ ]  
OotOffset-rm: 0.013 arcsec [0.19 $\sigma$ ]  
OotOffset-st: 1/0/0/0 [1]  
KicOffset-rm: 0.095 arcsec [1.41 $\sigma$ ]  
KicOffset-st: 1/0/0/0 [1]  
DiffImageQuality-fgm: 1.00 [1/1]  
DiffImageOverlap-fno: 1.00 [1/1]

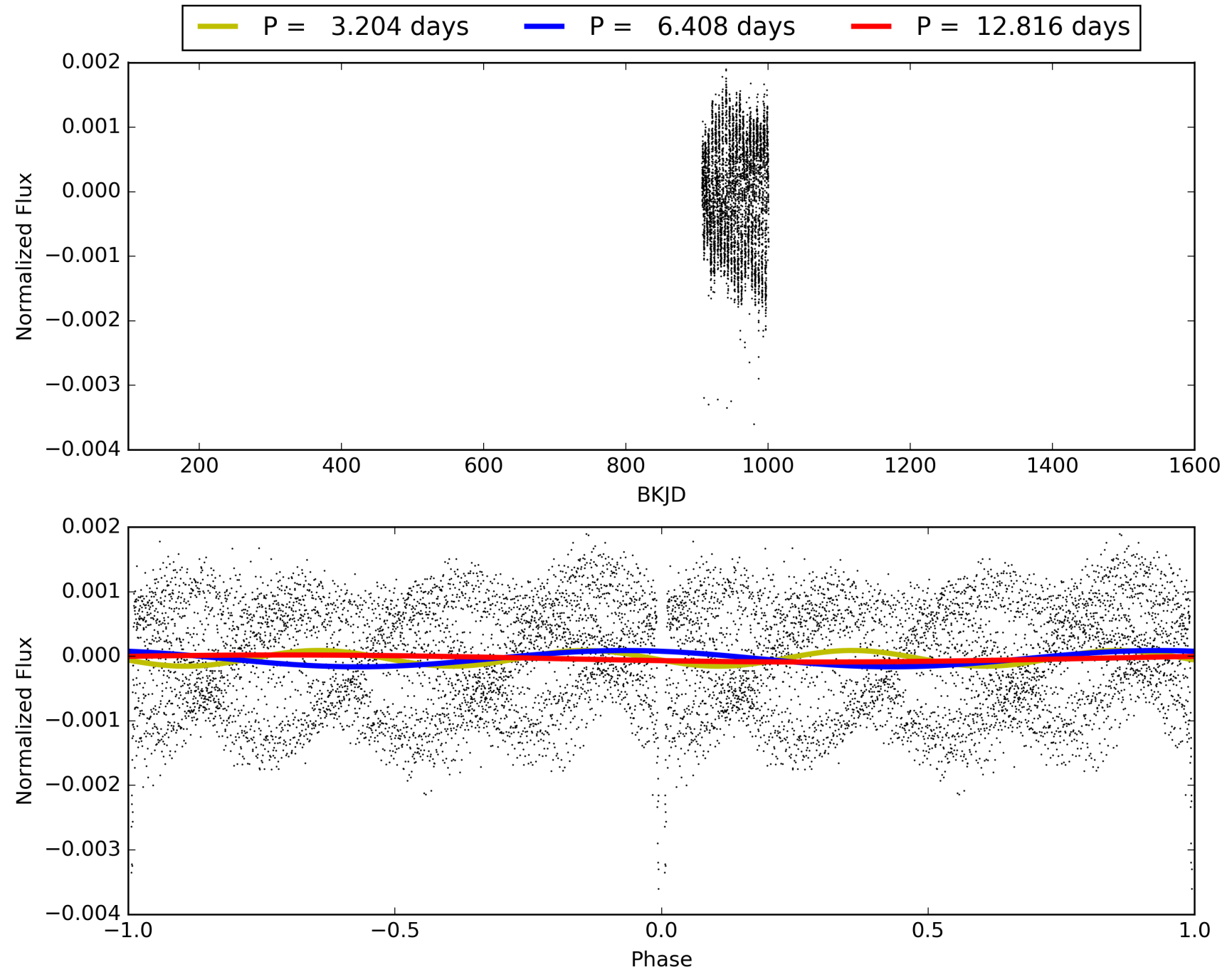
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:57:03 Z

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

# TCE 007763269-01, PDC Light Curves

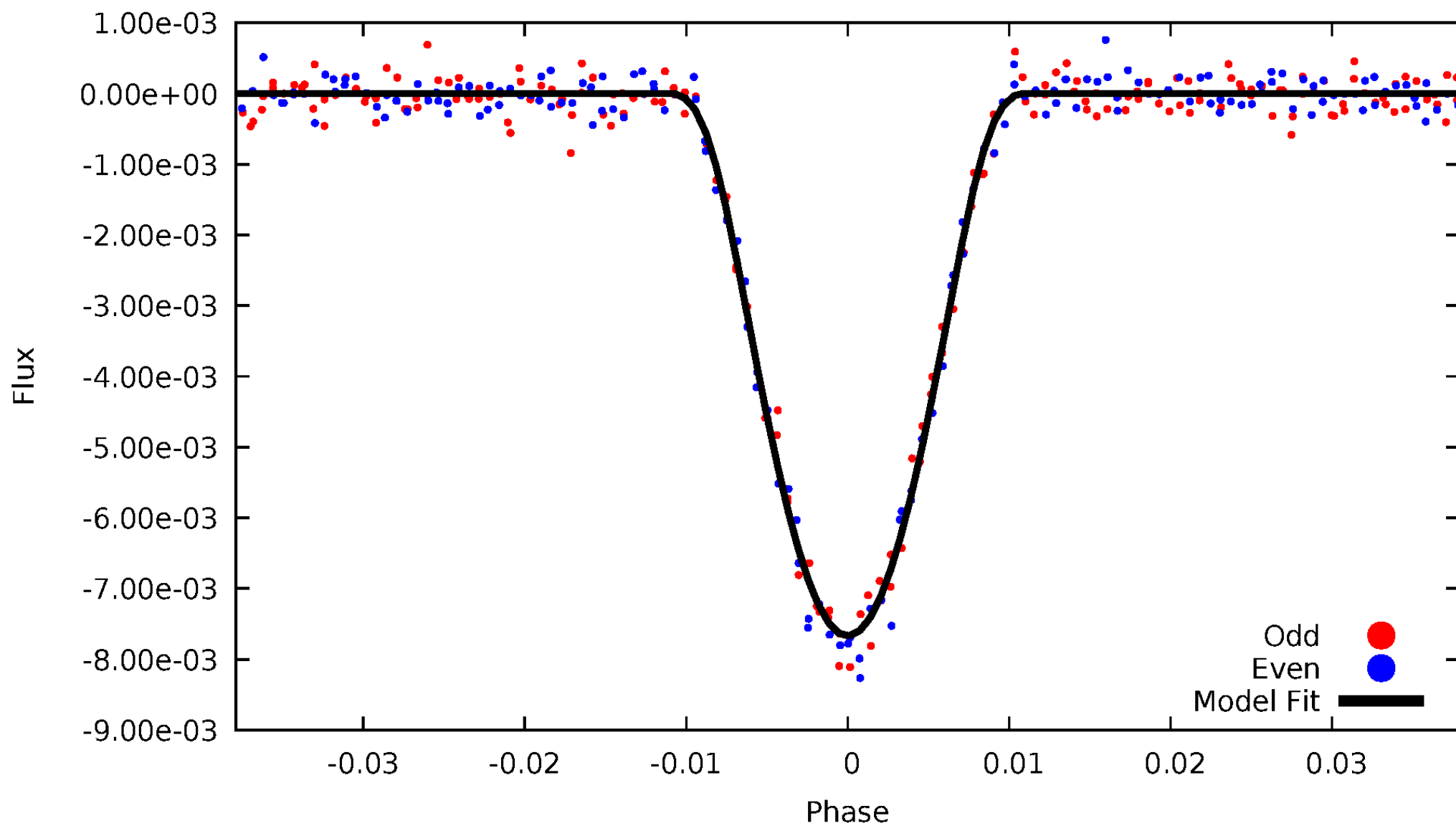


# TCE 007763269-01



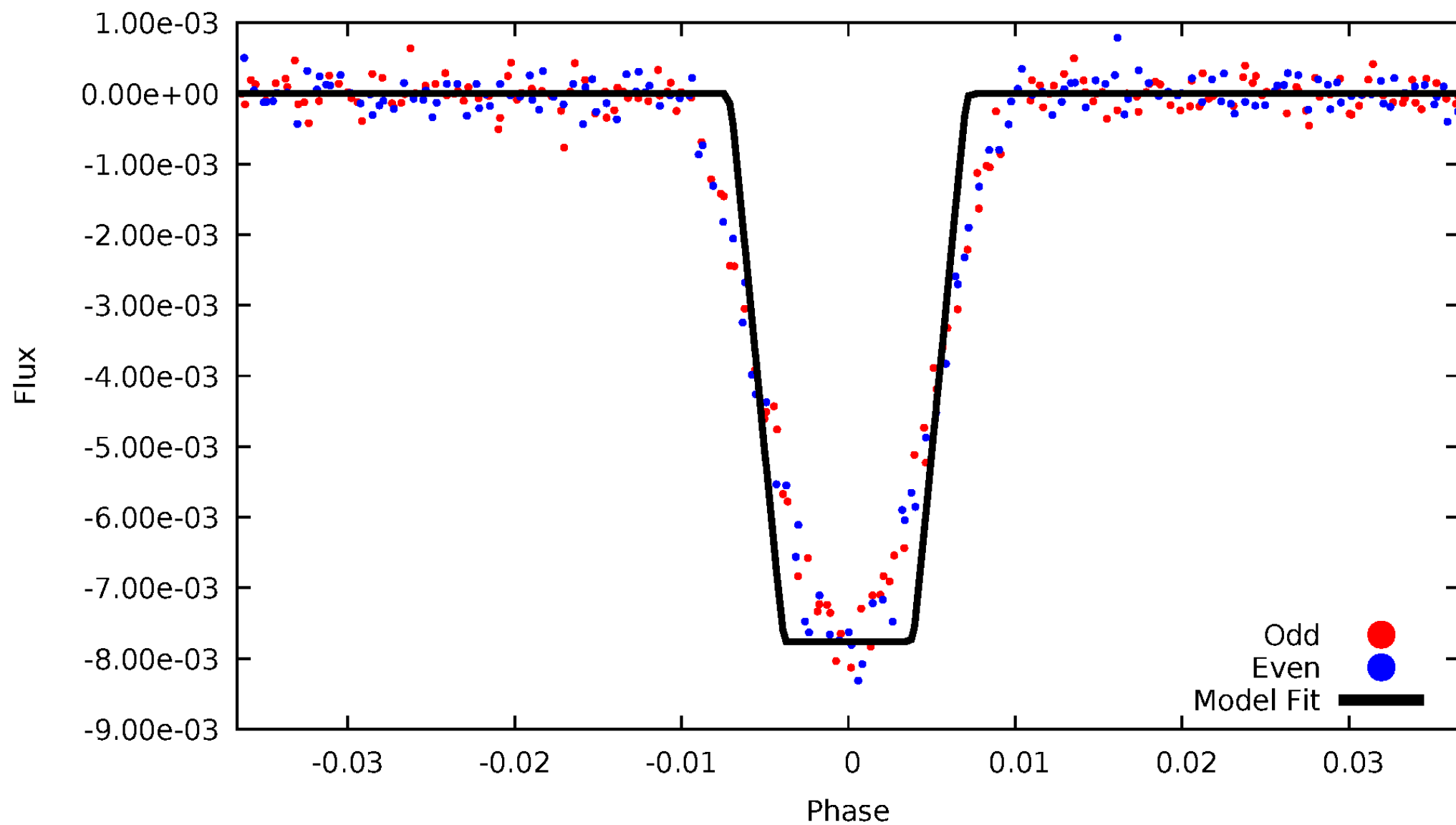
# DV Odd/Even

TCE 007763269-01



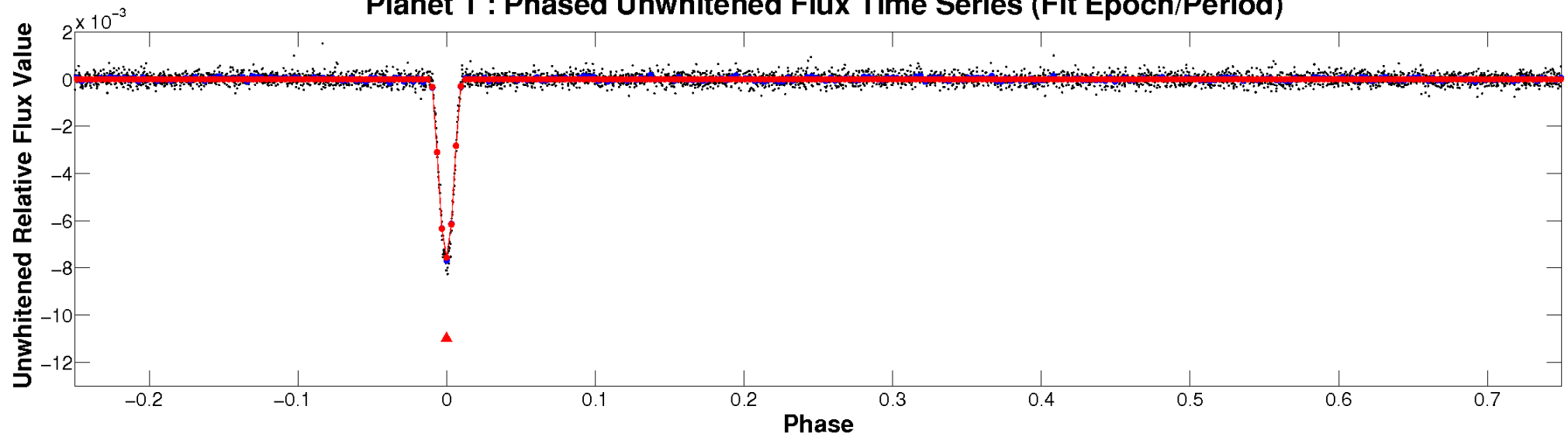
# ALT Odd/Even

TCE 007763269-01

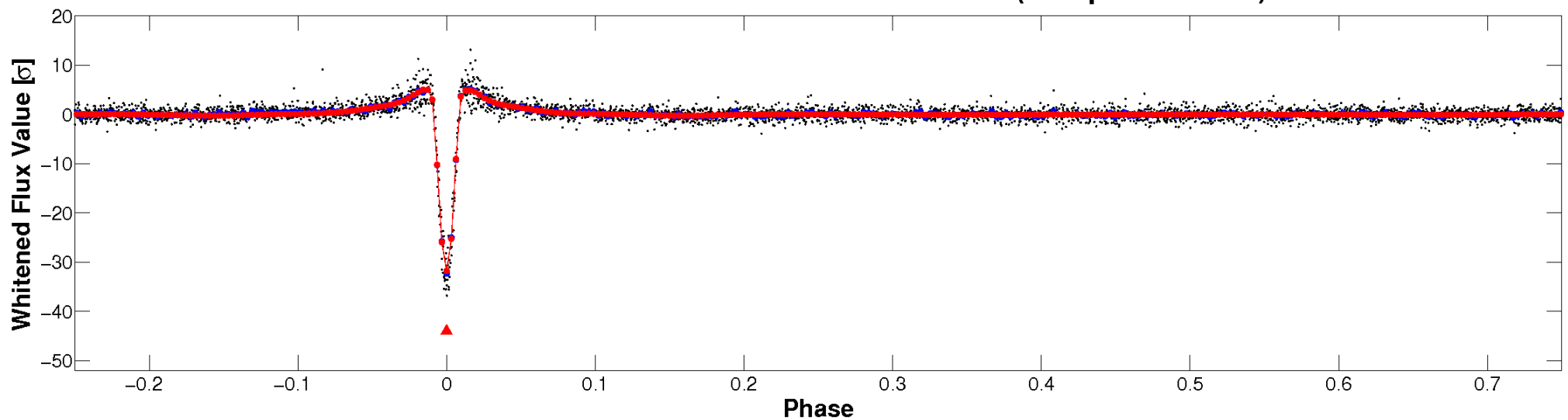


# Non-Whitened Vs. Whitened Light Curve

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

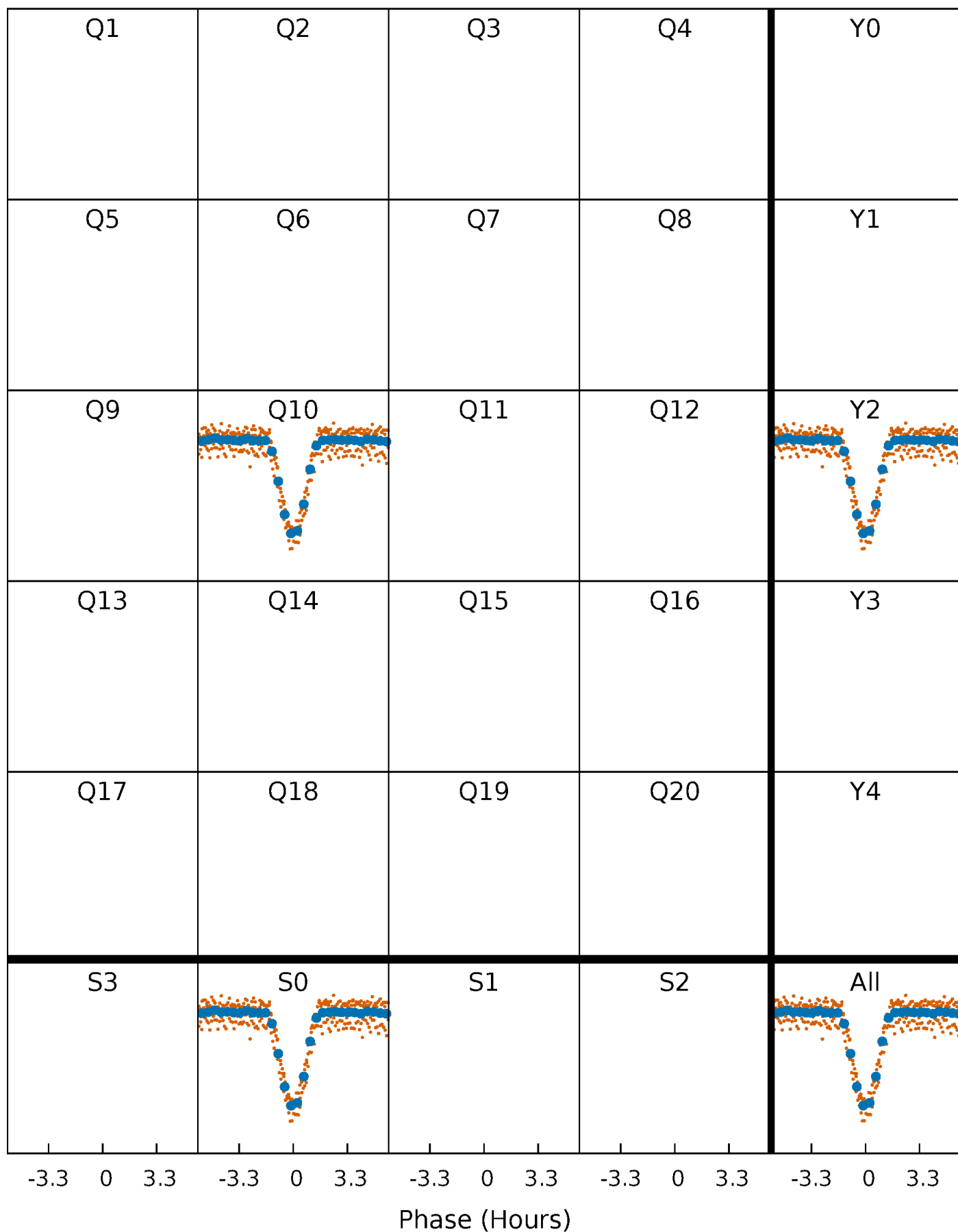


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



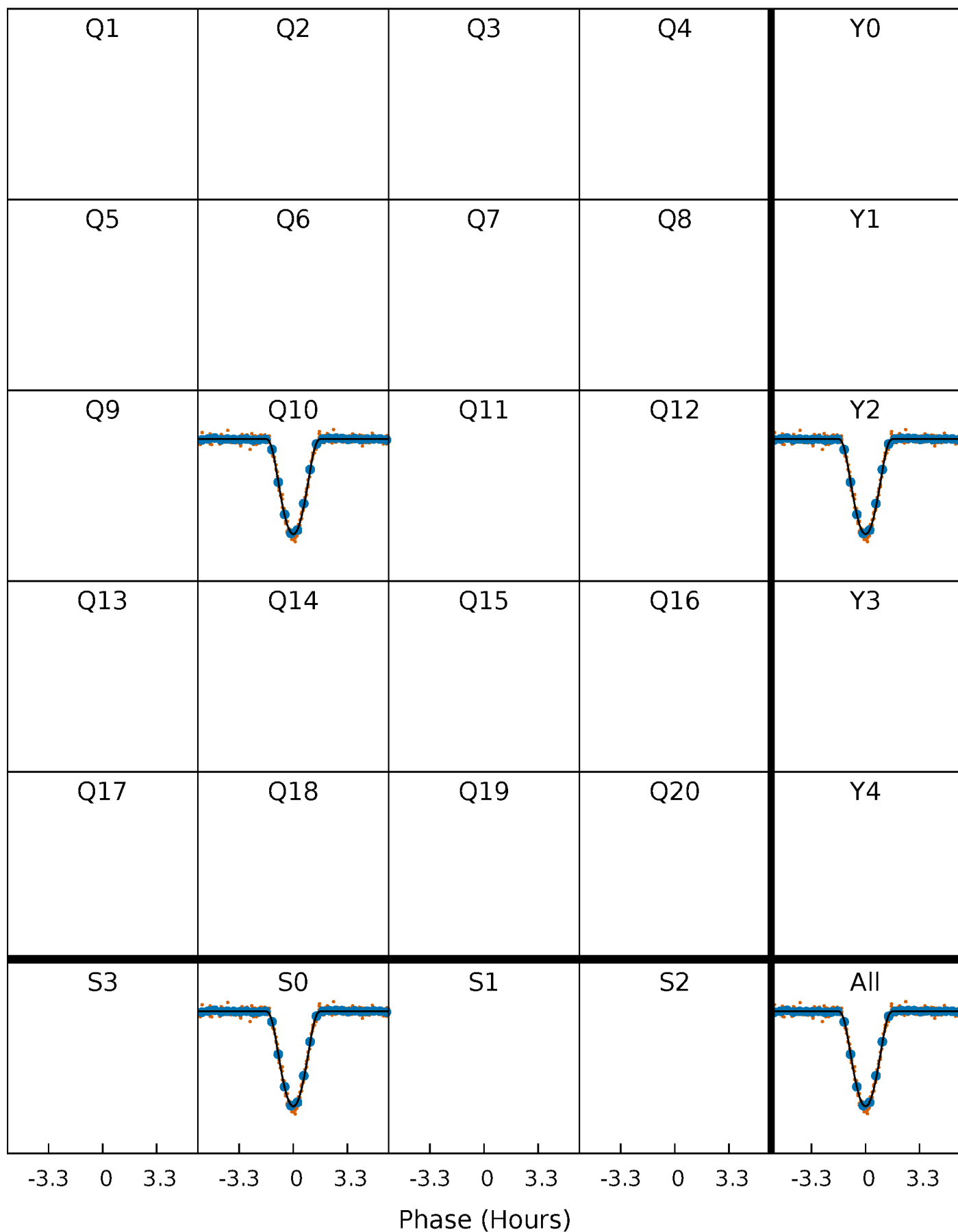
# PDC Quarter-Phased Transit Curves

TCE 007763269-01 P= 6.408063 Days  $T_0=134.068754$  (BKJD)



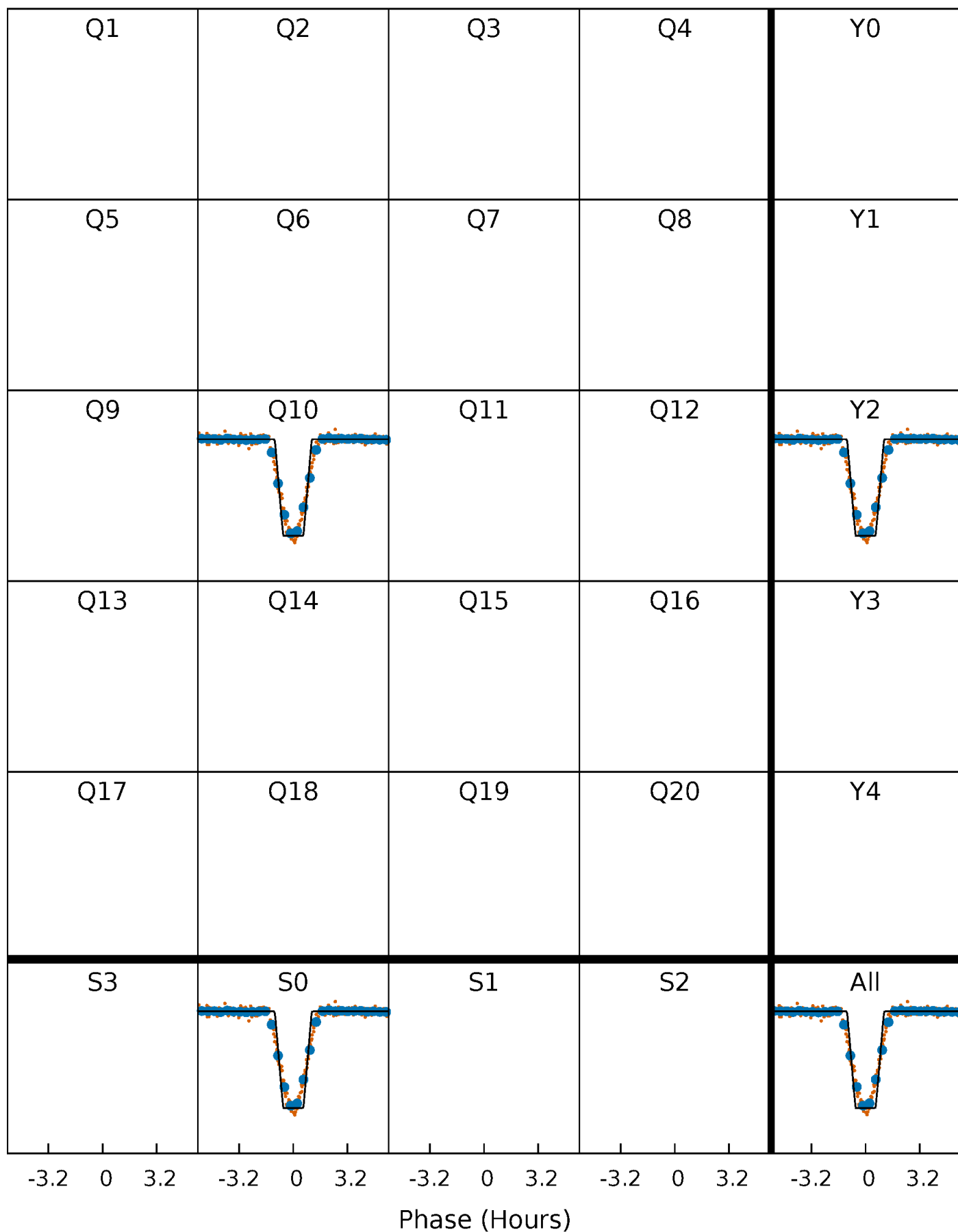
# DV Quarter-Phased Transit Curves

TCE 007763269-01 P= 6.408063 Days  $T_0=134.068754$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

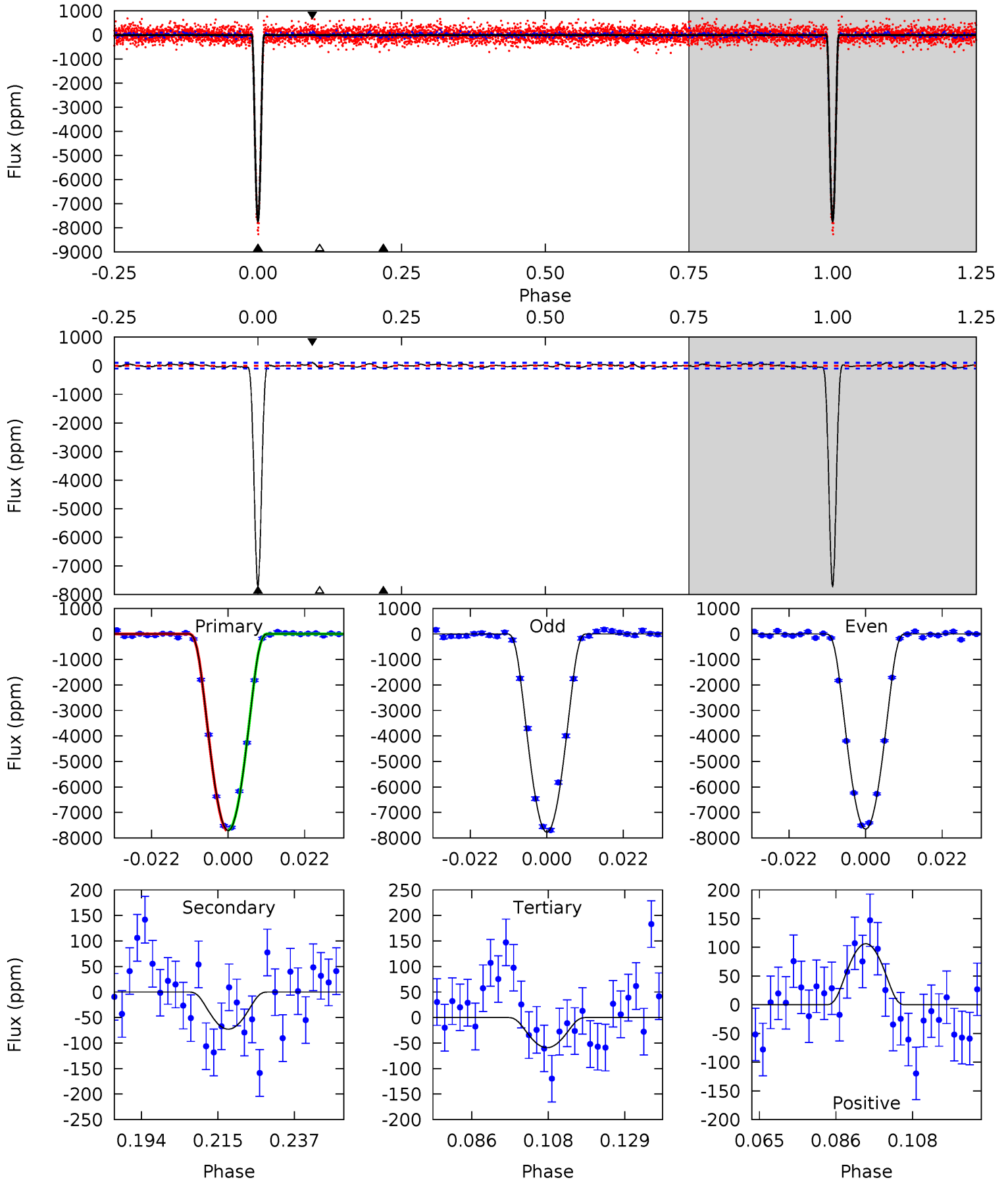
TCE 007763269-01     $P = 6.407890$  Days     $T_0 = 134.090938$  (BKJD)



# DV Model-Shift Uniqueness Test

007763269-01, P = 6.408063 Days, E = 134.068754 Days

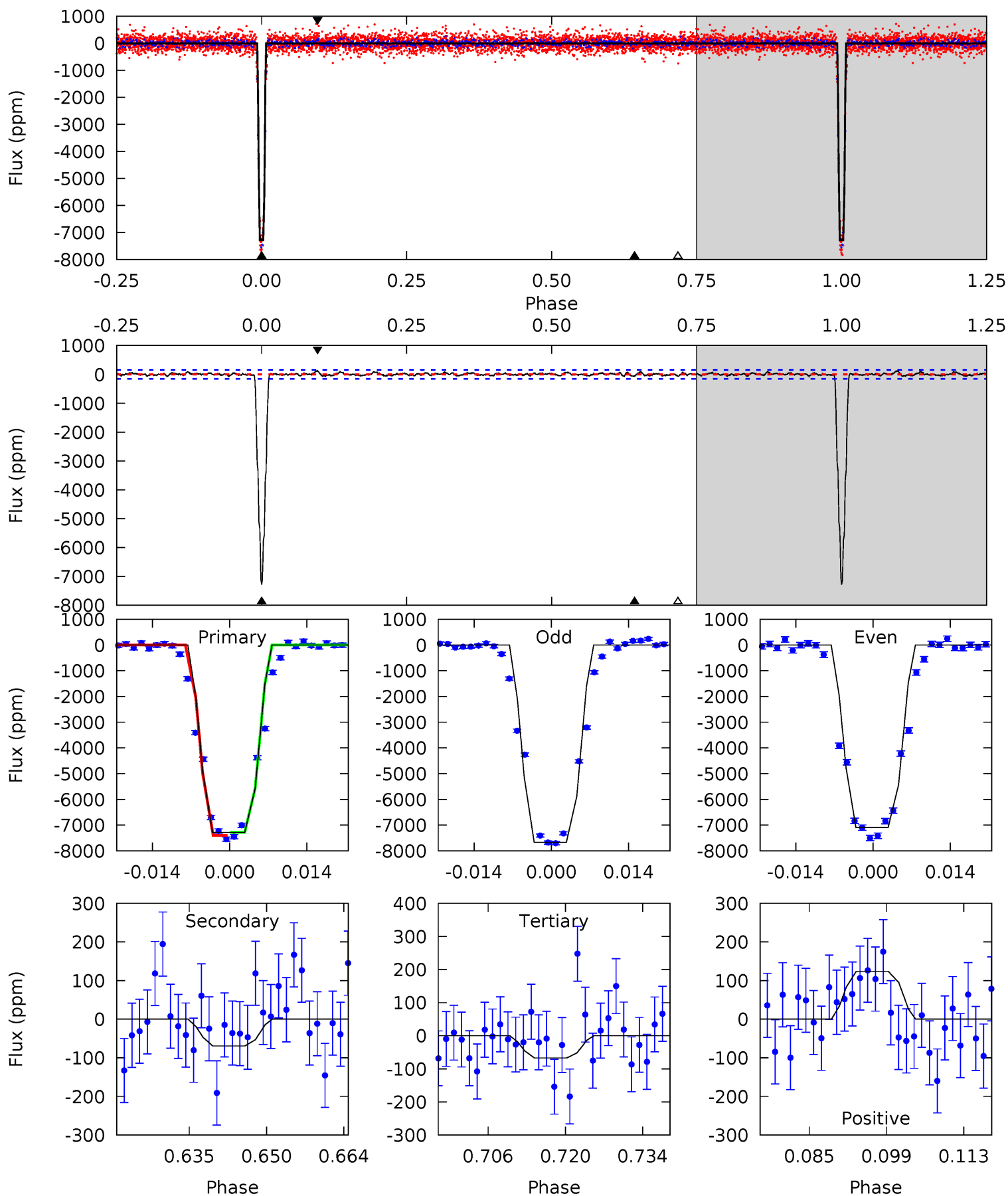
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
376.2	3.55	2.88	5.19	4.88	2.30	1.60	373.3	371.0	0.67	-1.64	3.00	1.01	0.01	0.33



# Alt Model-Shift Uniqueness Test

007763269-01, P = 6.407890 Days, E = 134.090938 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
241.5	2.30	2.23	4.10	4.96	2.45	1.00	239.2	237.4	0.07	-1.80	9.23	1.00	0.02	1.93



### Stellar Parameters For KIC 007763269

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6261^{+197}_{-241}$	$4.293^{+0.153}_{-0.187}$	$-0.260^{+0.300}_{-0.300}$	$1.194^{+0.361}_{-0.240}$	$1.017^{+0.173}_{-0.115}$	$0.842^{+0.585}_{-0.440}$
	+3%/-4%	+4%/-4%	+115%/-115%	+30%/-20%	+17%/-11%	+69%/-52%
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 007763269-01 / KOI 3721.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-73 \pm 21$	$18.09^{+6.71}_{-5.92}$	$1633^{+123}_{-116}$	$2209^{+386}_{-3978}$	$0.536^{+0.780}_{-0.259}$
Alt.	$-69 \pm 30$	$11.68^{+6.61}_{-5.50}$	$1627^{+126}_{-111}$	$2560^{+579}_{-472}$	$1.141^{+3.370}_{-0.696}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming A=0.3)

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

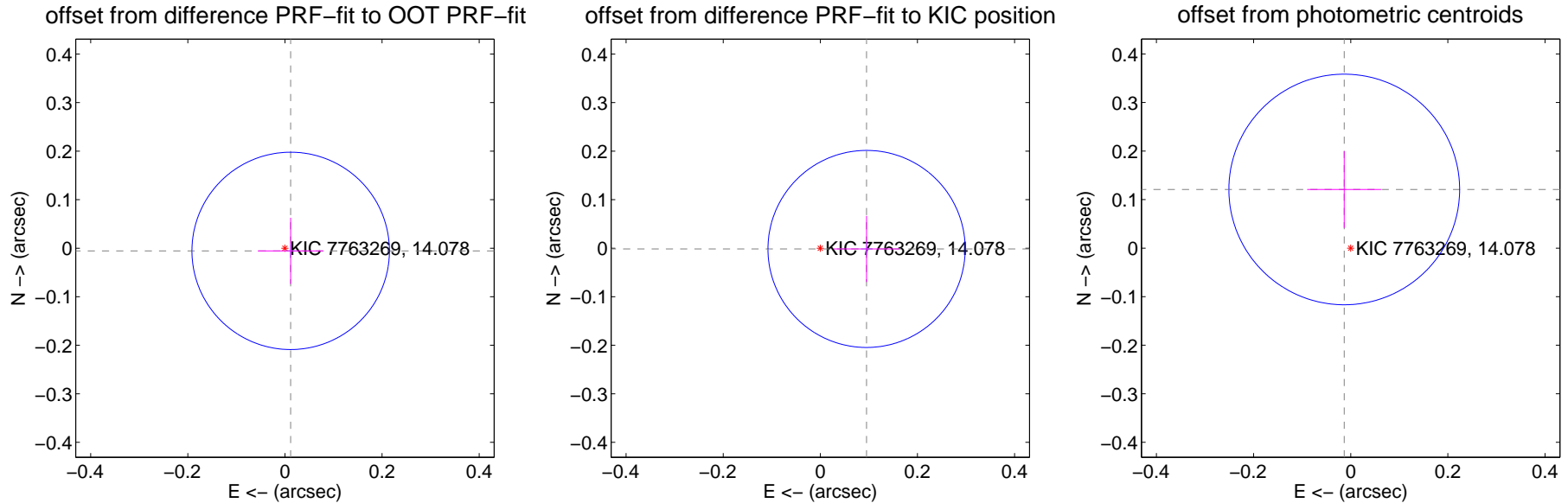
## DV Centroid Data

Supplemental centroid analysis for 007763269-01. Kepler magnitude: 14.08. Transit SNR 192.71

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.013 \pm 0.068$	0.19	$-0.012 \pm 0.068$	$-0.006 \pm 0.068$
PRF-fit source offset from KIC position	$0.095 \pm 0.068$	1.41	$-0.095 \pm 0.068$	$-0.002 \pm 0.068$
photometric centroid source offset	$0.12 \pm 0.08$	1.54	$0.01 \pm 0.08$	$0.12 \pm 0.08$

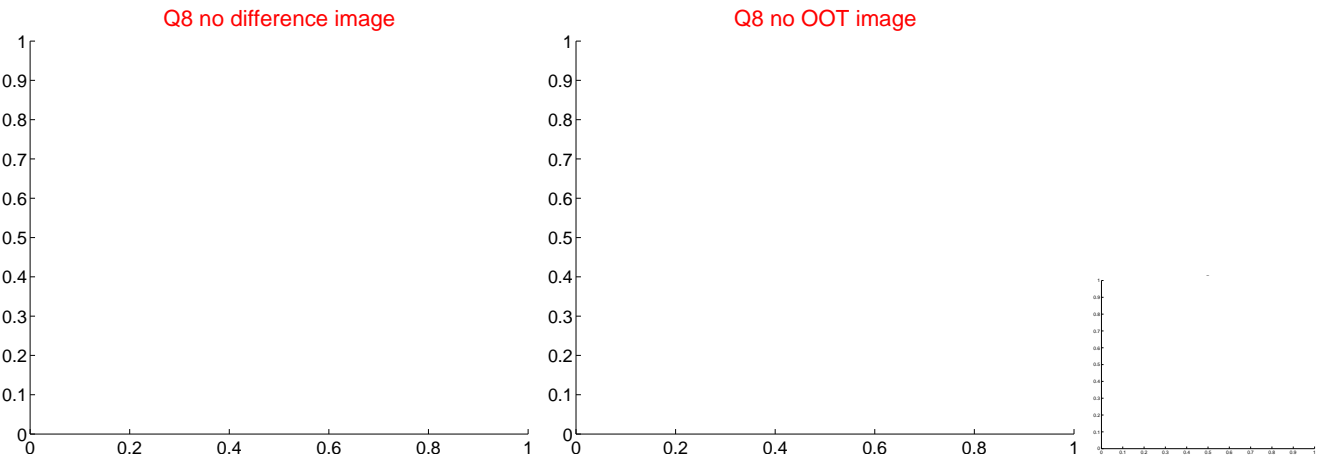


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

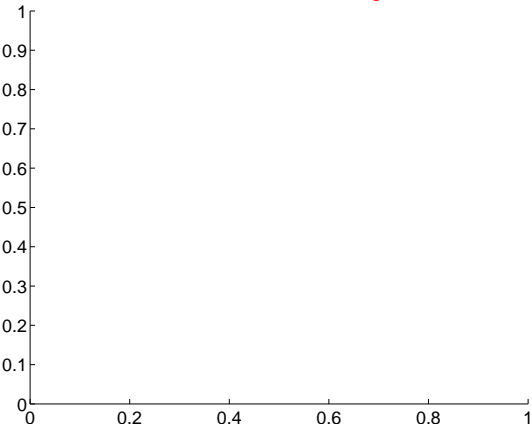


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

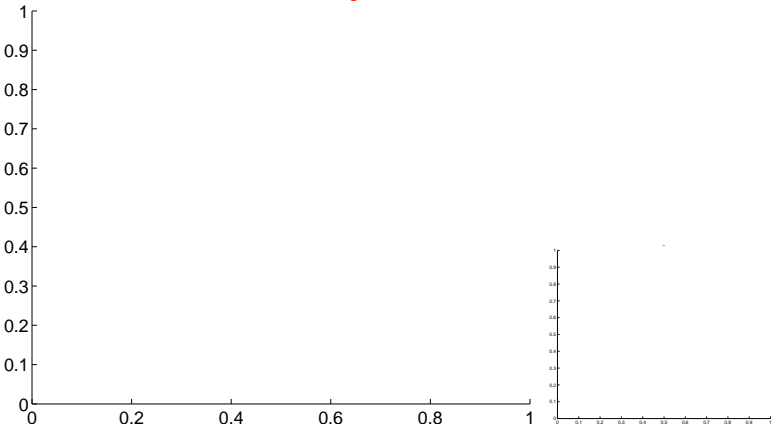


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

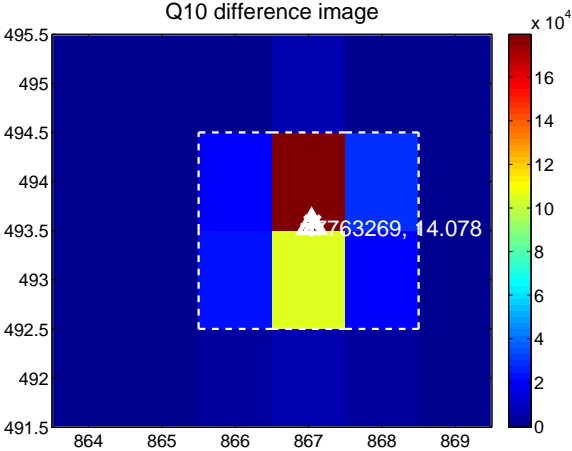
Q9 no difference image



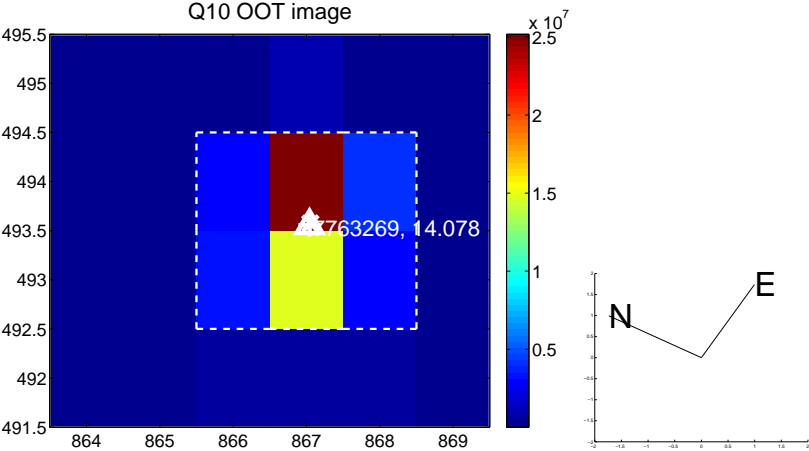
Q9 no OOT image



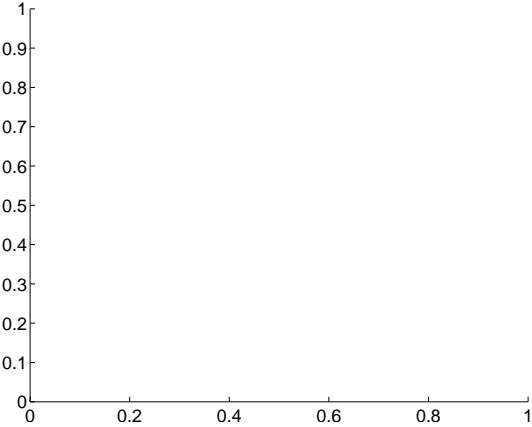
Q10 difference image



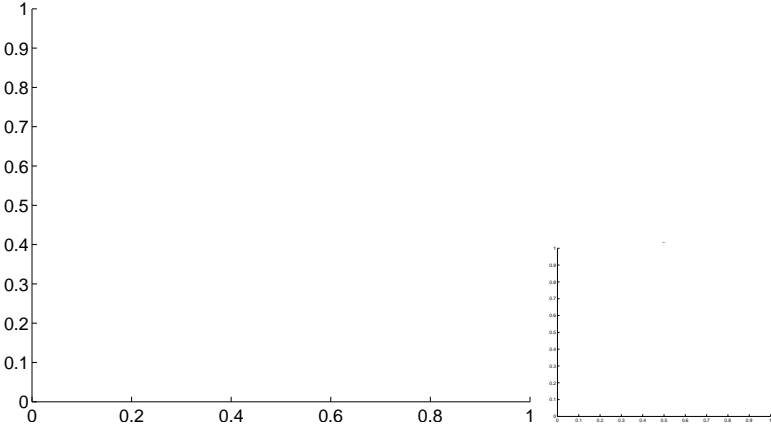
Q10 OOT image



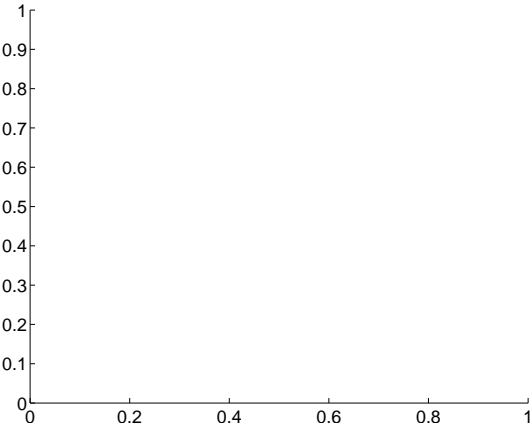
Q11 no difference image



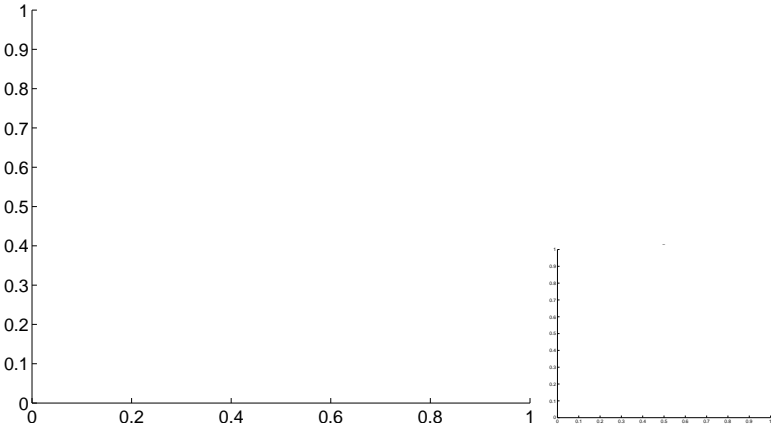
Q11 no OOT image



Q12 no difference image



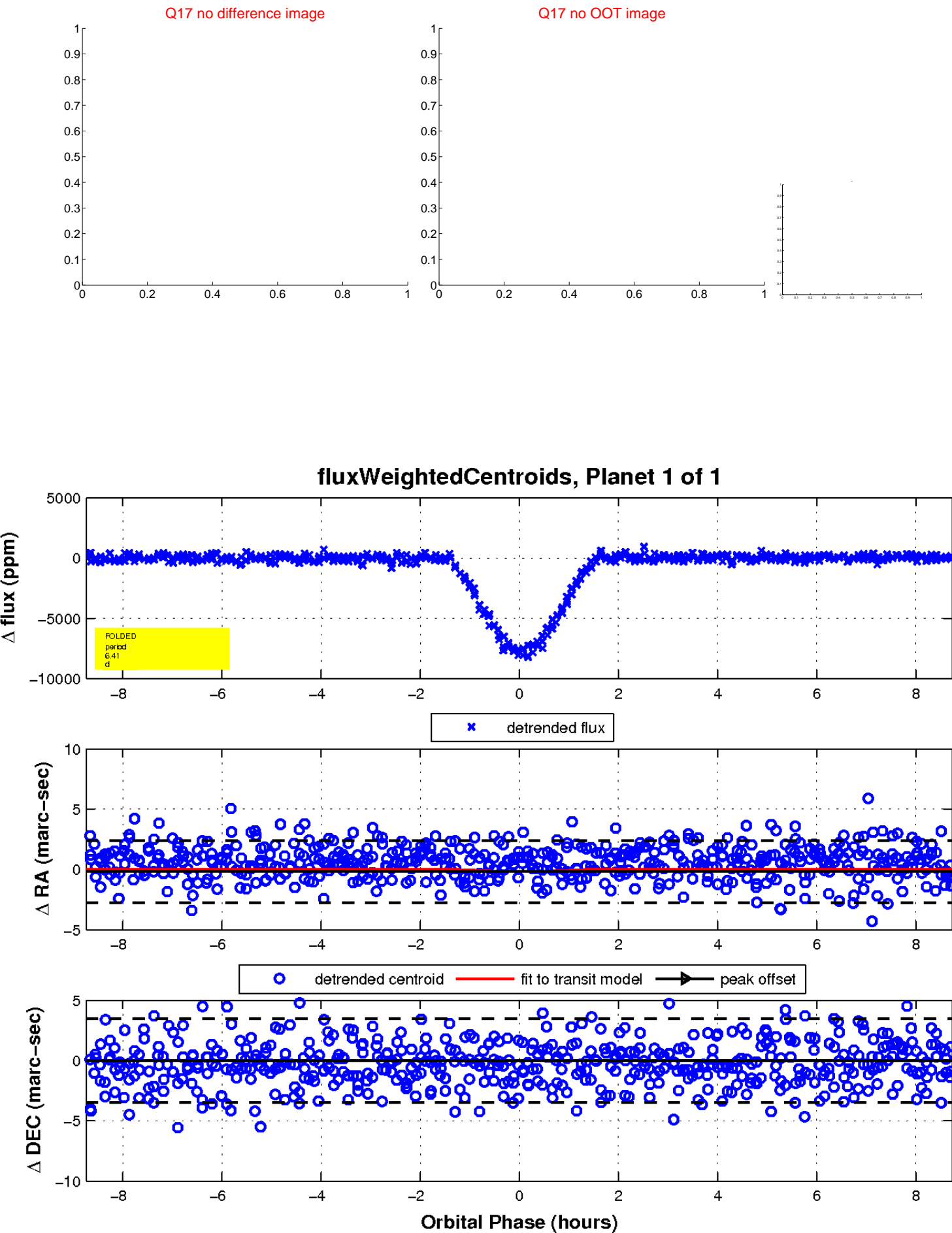
Q12 no OOT image



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



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



UKIRT Image

Declination

