

# KIC 006263661

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006263661-01	OBS	No	298.657612	352.025732	1894.7	4.454	12.7	6.5	0.57	4856	4.82	0.30

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006263661-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

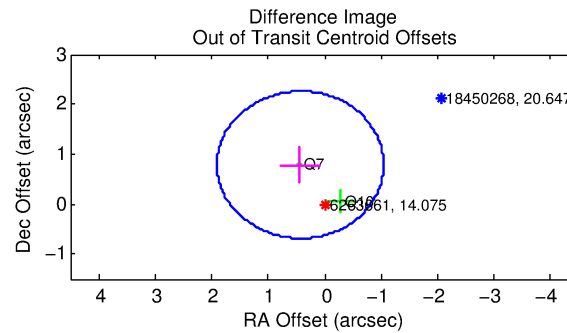
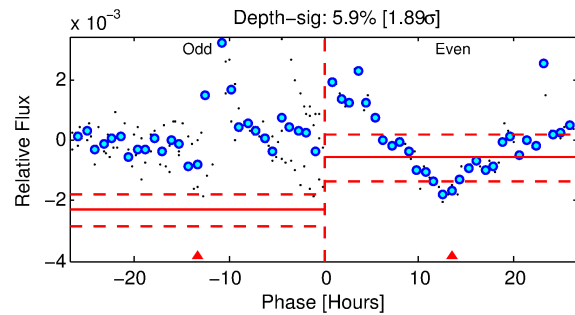
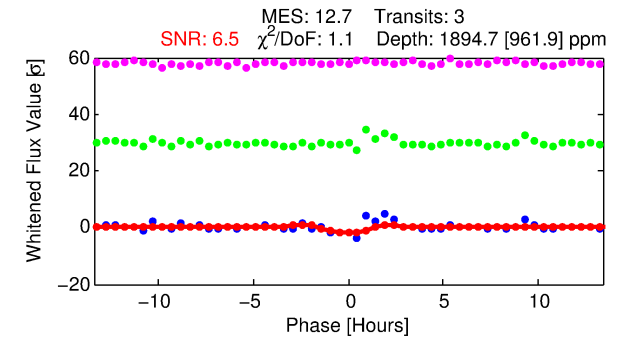
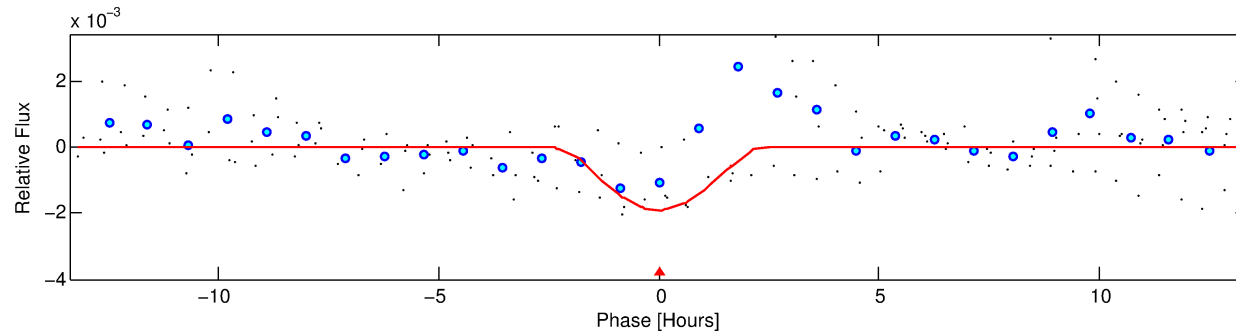
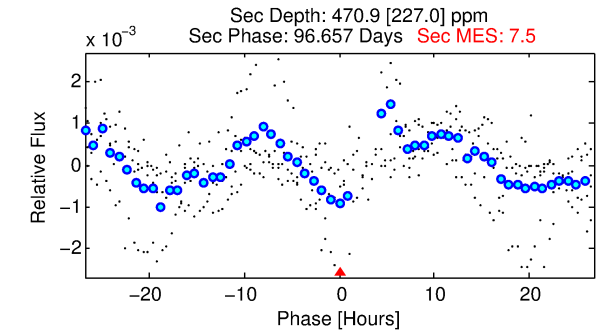
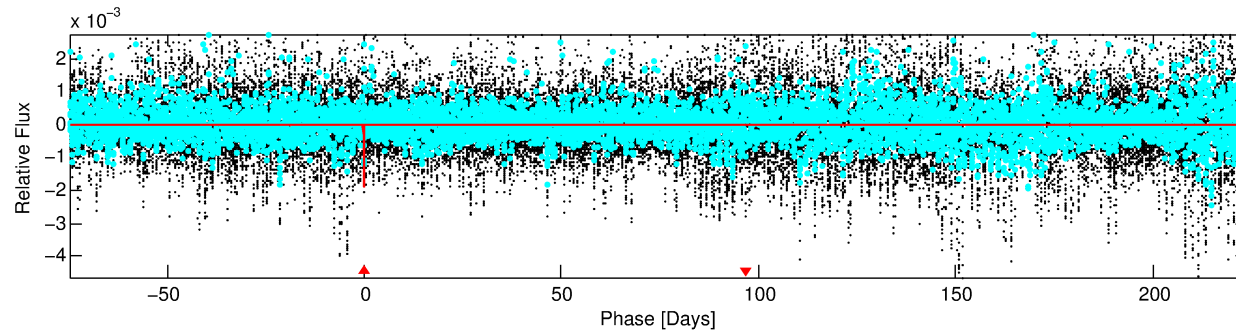
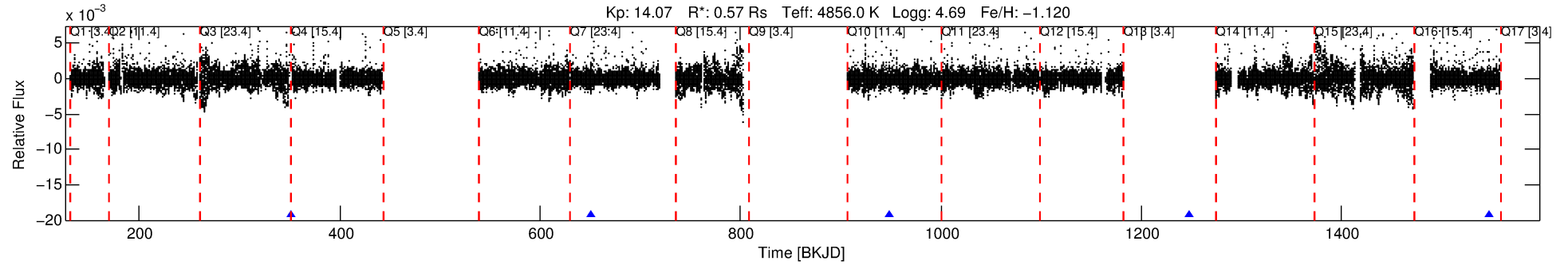
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006263661-01

No Significant Match Found

# DV One-Page Summary

KIC: 6263661 Candidate: 1 of 1 Period: 298.658 d



## DV Fit Results:

Period = 298.65761 [0.00637] d  
Epoch = 352.0257 [0.0158] BKJD  
Rp/R\* = 0.0779 [0.3558]  
a/R\* = 206.53 [202.10]  
b = 1.00 [0.53]  
Seff = 0.30 [0.05]  
Teq = 189 [7] K  
Rp = 4.82 [22.02] Re  
a = 0.7248 [0.0428] AU  
Ag = 5852.94 [53516.32] [0.11 $\sigma$ ]  
Teffp = 2562 [5858] K [0.41 $\sigma$ ]

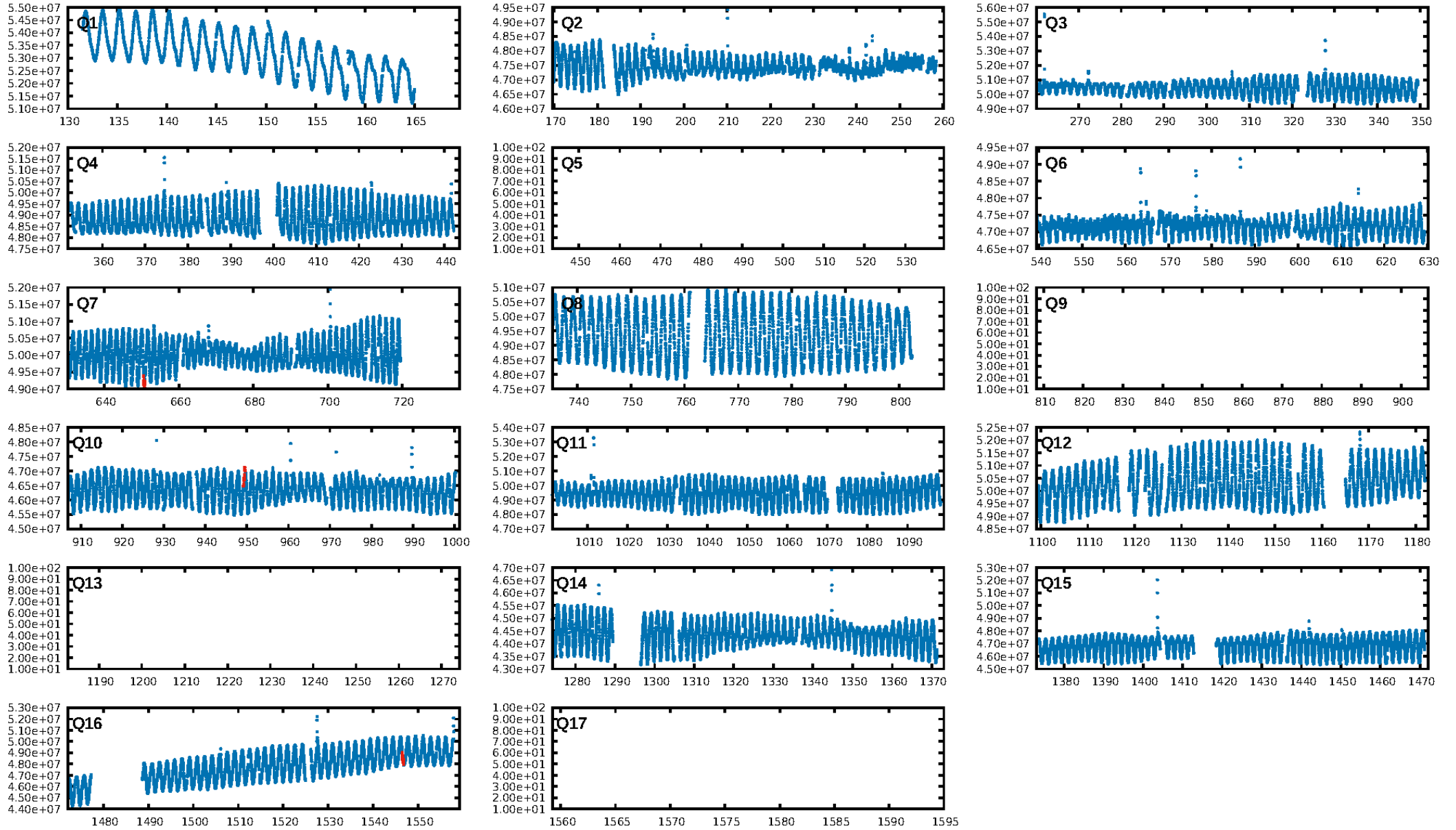
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 4.8%  
ModelChiSquareGof-sig: 90.3%  
**Bootstrap-pfa: 4.75e-12**  
RollingBand-fgt: 1.00 [3/3]  
**GhostDiagnostic-chr: -0.2384**  
Centroid-sig: 15.3%  
Centroid-so: 1.669 arcsec [1.75 $\sigma$ ]  
OotOffset-rm: 0.897 arcsec [1.83 $\sigma$ ]  
KicOffset-rm: 0.251 arcsec [1.95 $\sigma$ ]  
OotOffset-st: 1/1/0/0 [2]  
KicOffset-st: 1/1/0/0 [2]  
DiffImageQuality-fgm: 0.50 [1/2]  
DiffImageOverlap-fno: 1.00 [2/2]

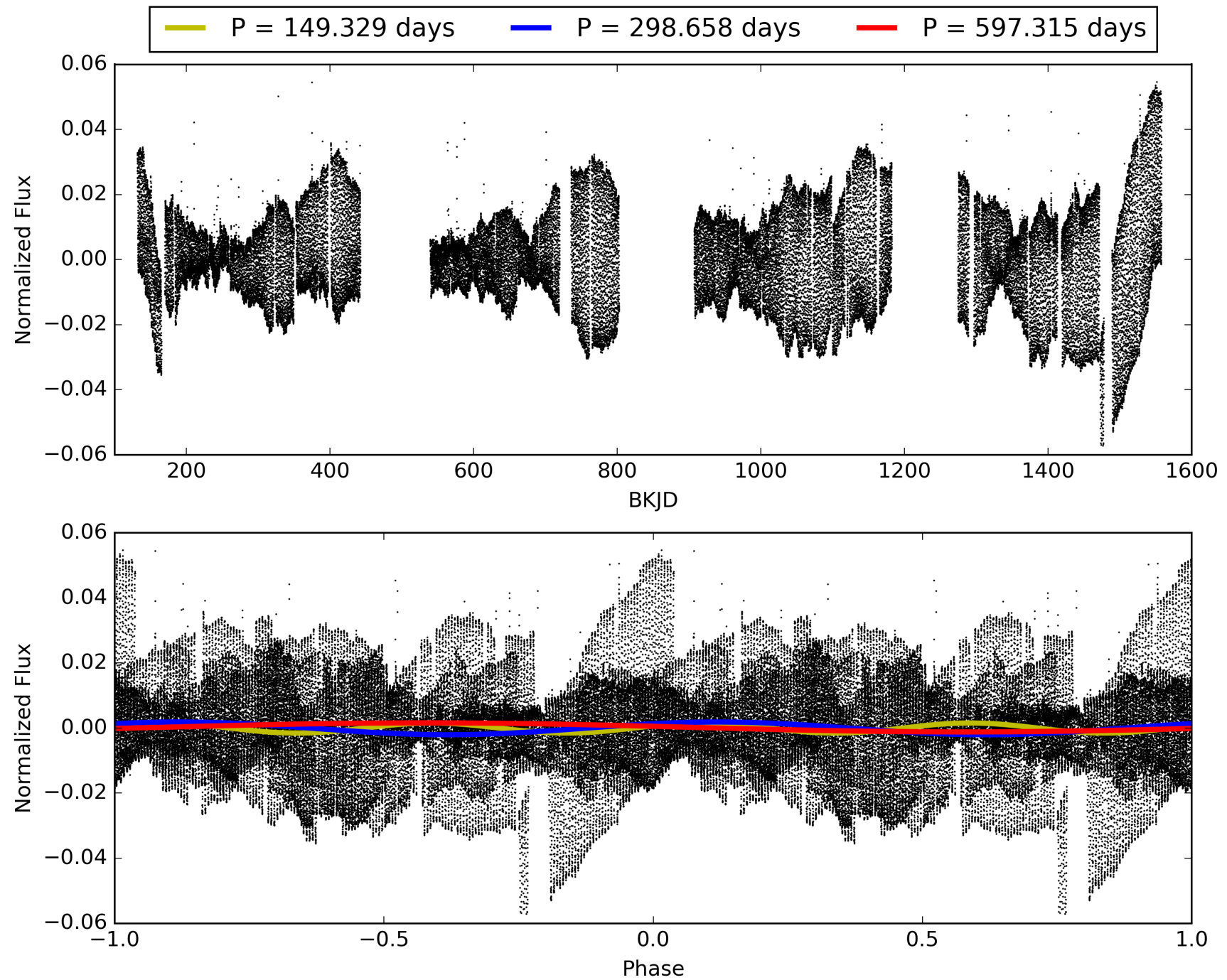
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:16:45 Z

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

# TCE 006263661-01, PDC Light Curves

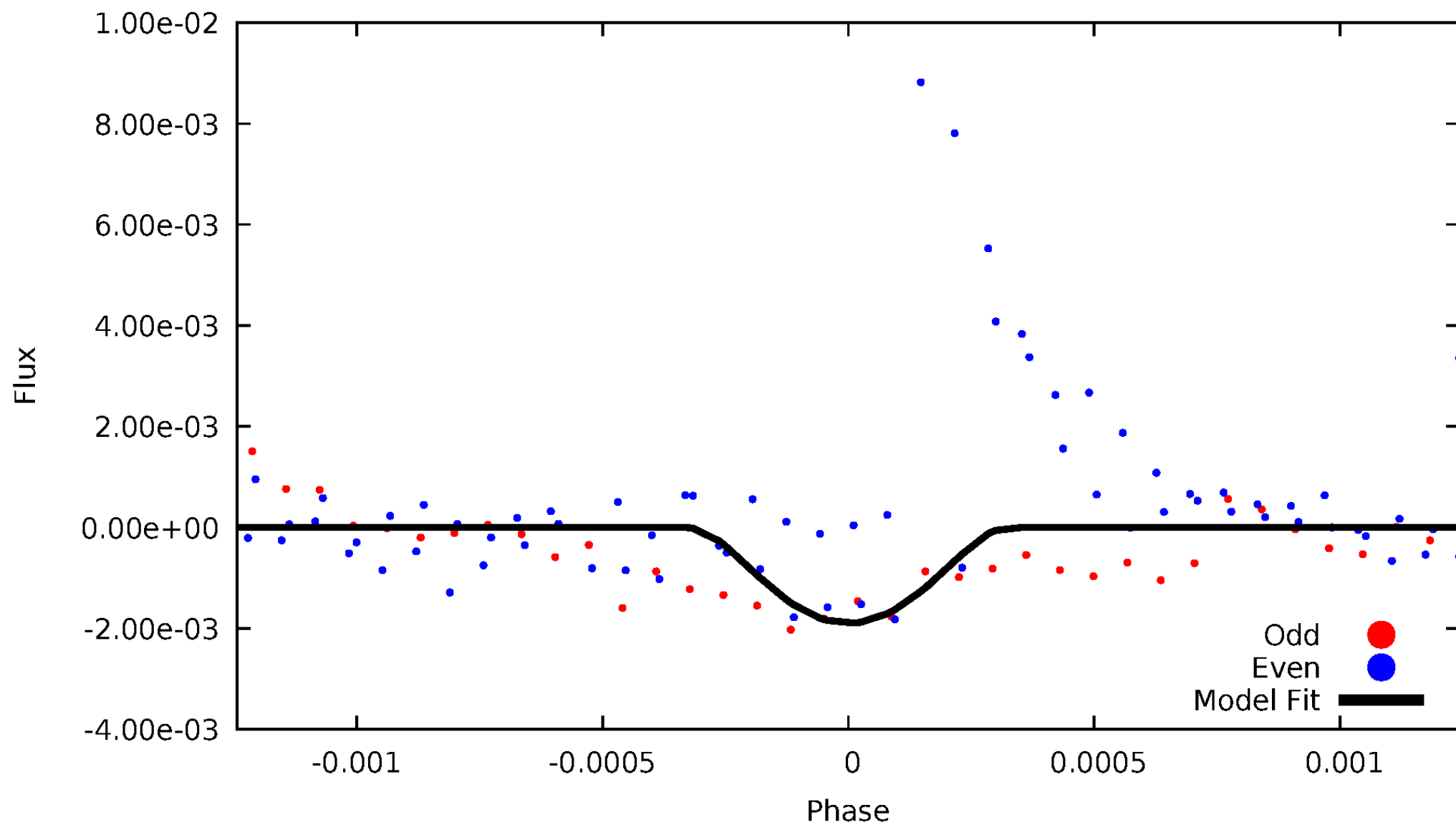


TCE 006263661-01



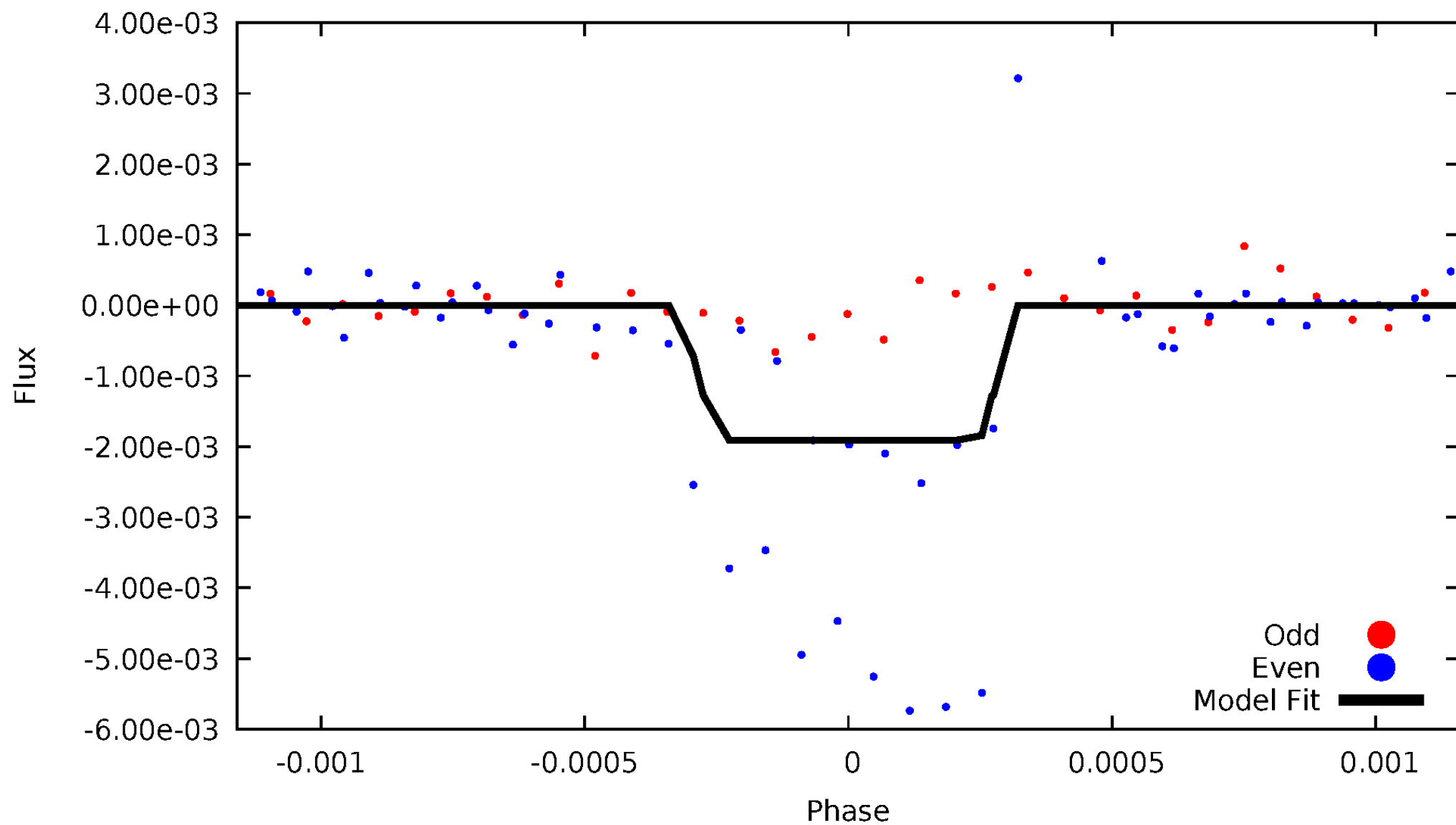
# DV Odd/Even

TCE 006263661-01



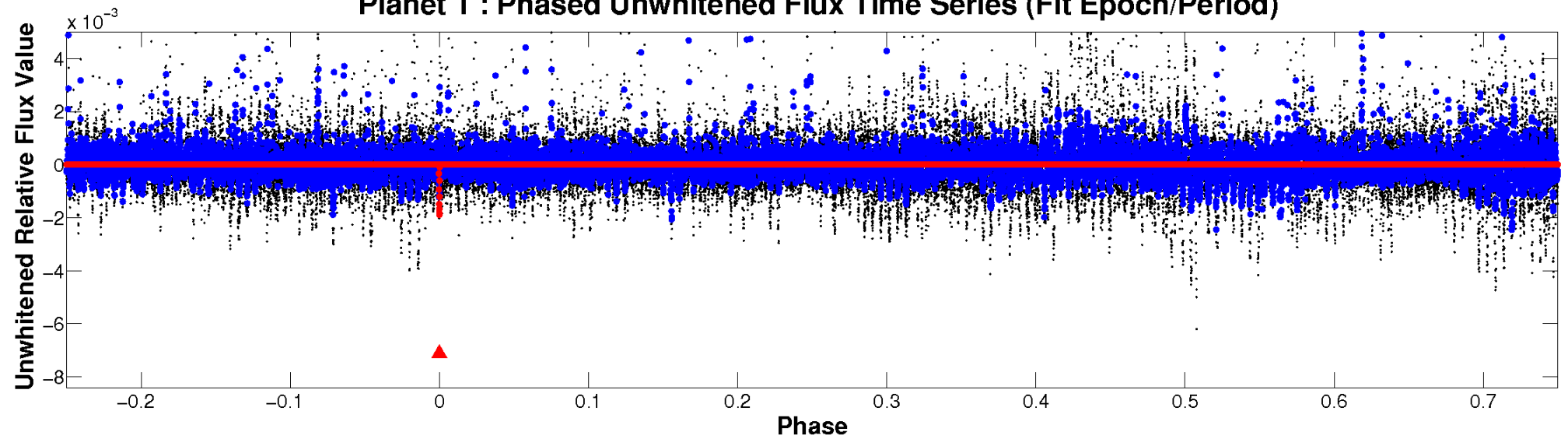
# ALT Odd/Even

TCE 006263661-01

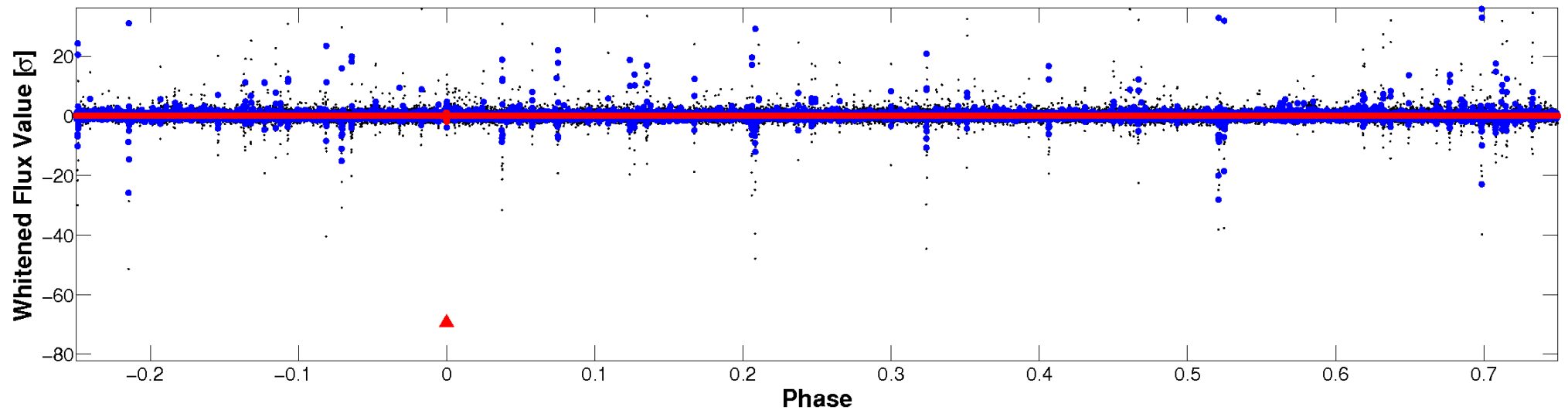


# Non-Whitened Vs. Whitened Light Curve

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

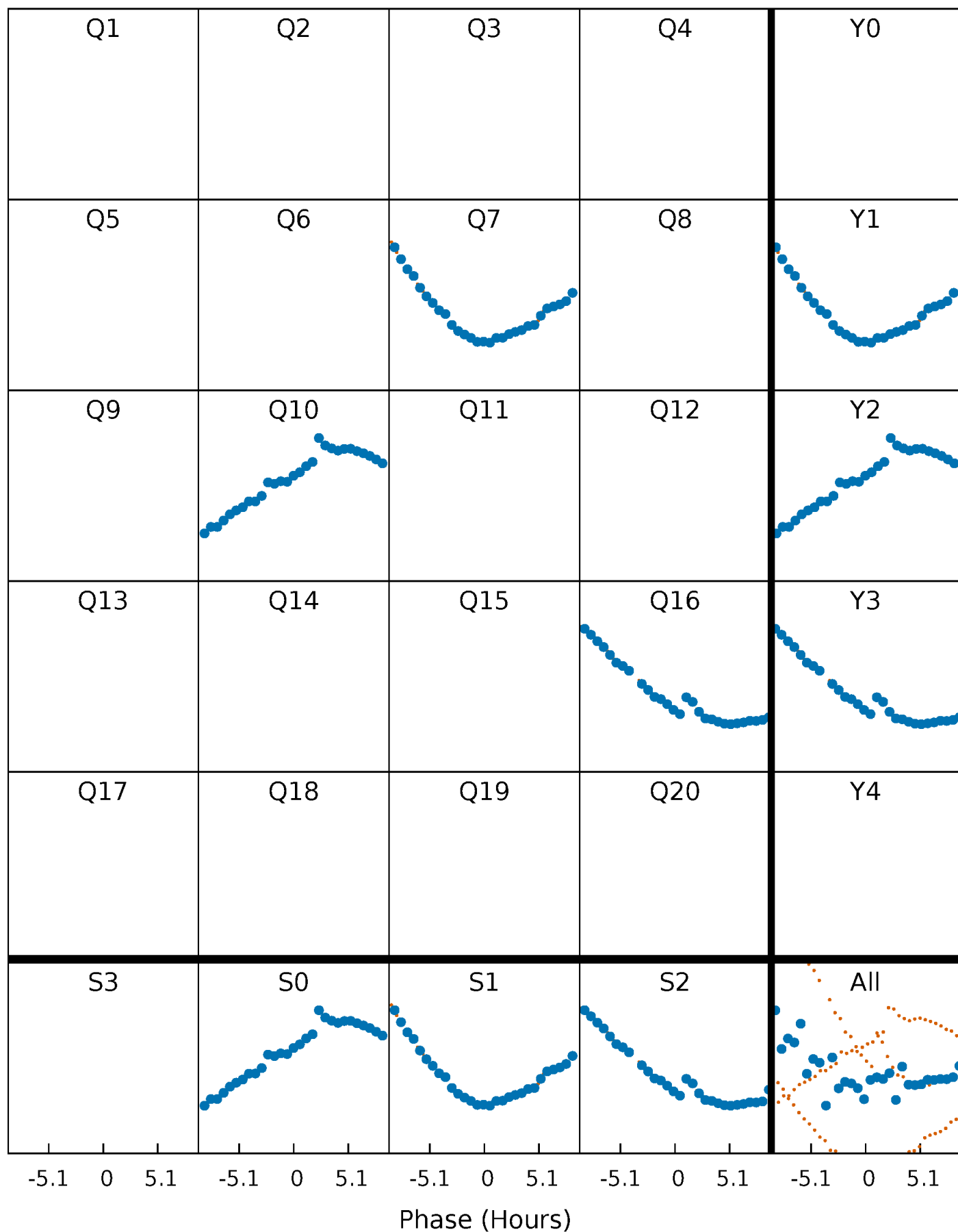


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

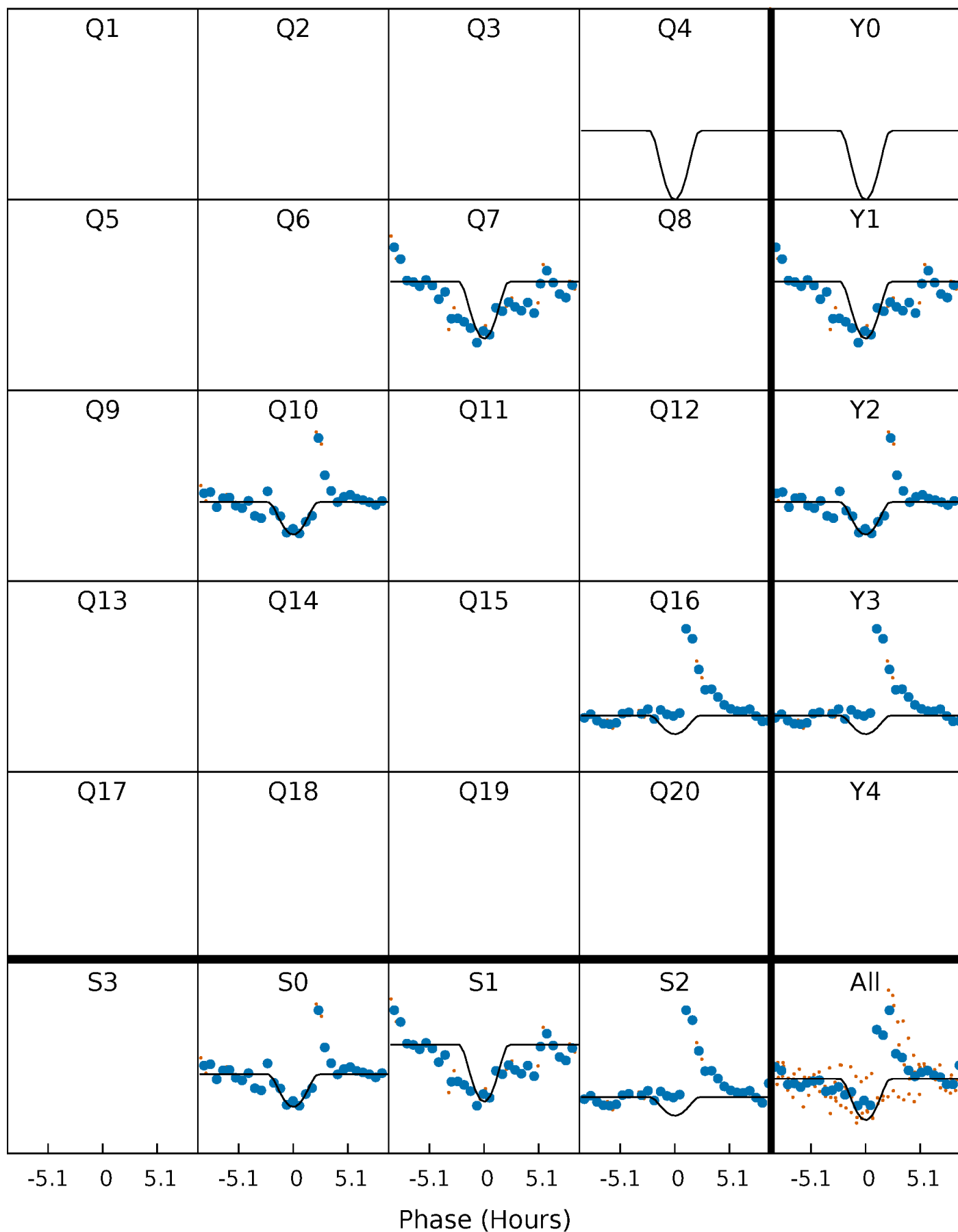
TCE 006263661-01 P=298.657612 Days  $T_0=352.025732$  (BKJD)





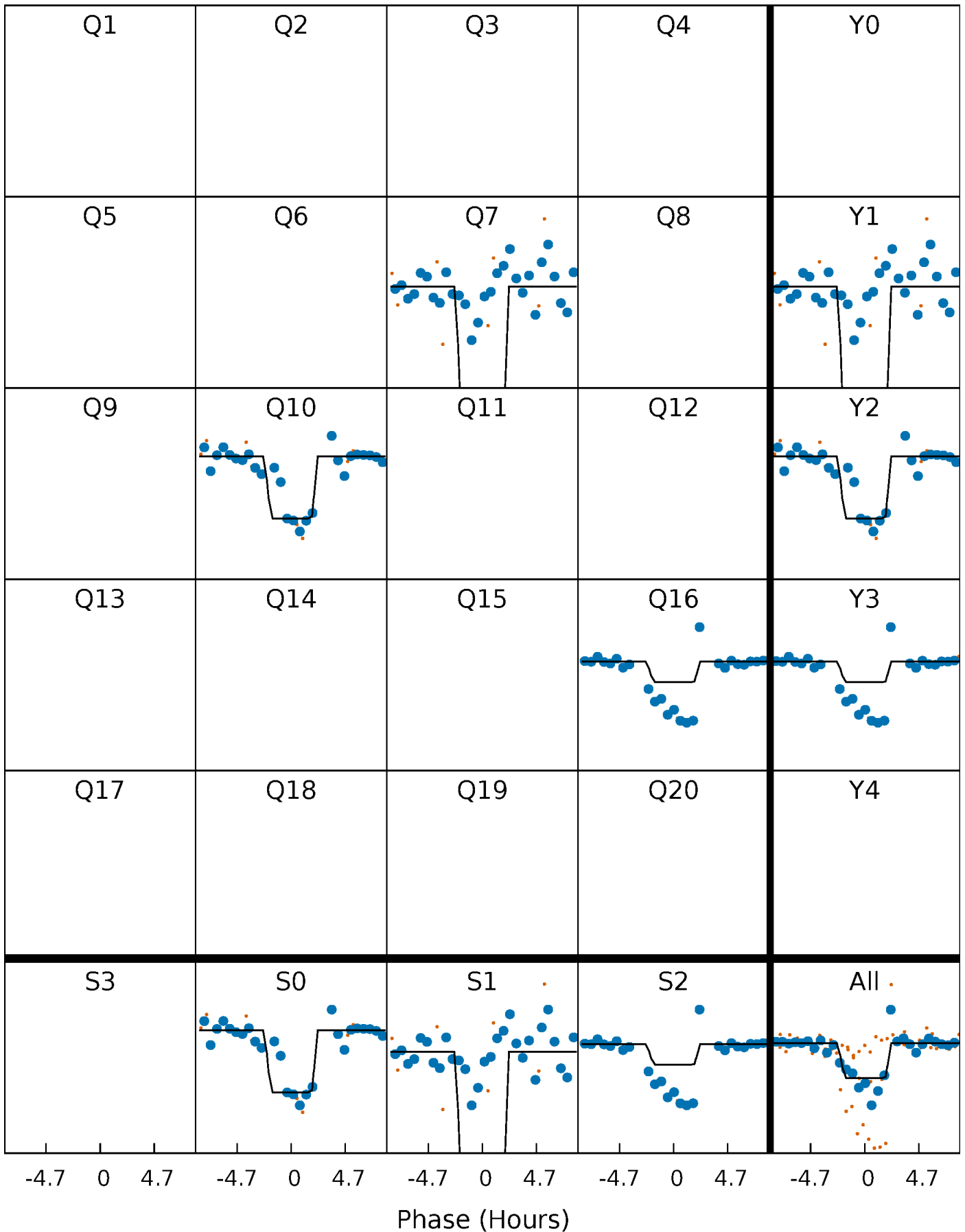
# DV Quarter-Phased Transit Curves

TCE 006263661-01 P=298.657612 Days  $T_0=352.025732$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

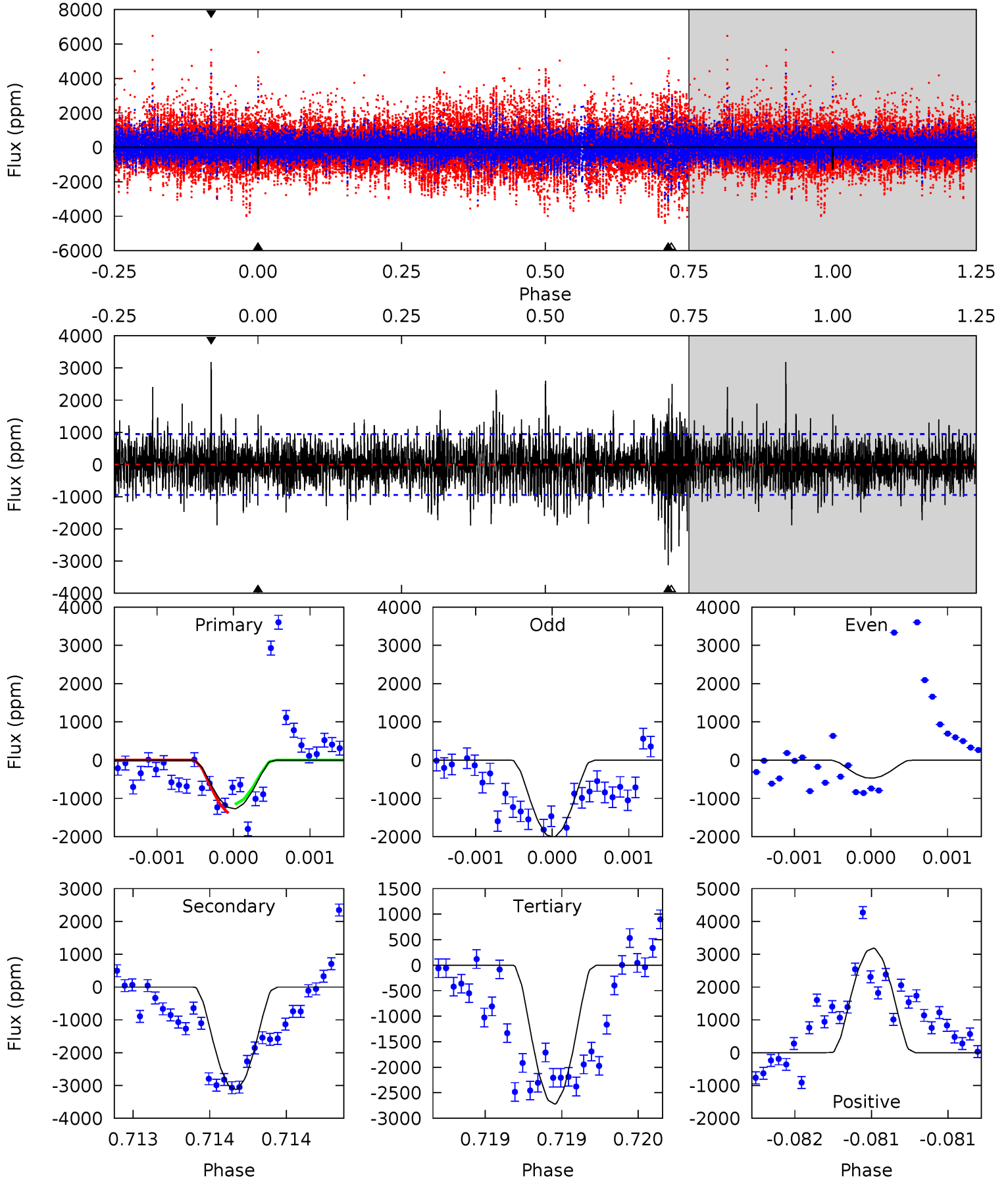
TCE 006263661-01 P=298.638171 Days  $T_0=352.051496$  (BKJD)



# DV Model-Shift Uniqueness Test

006263661-01, P = 298.657612 Days, E = 53.368120 Days

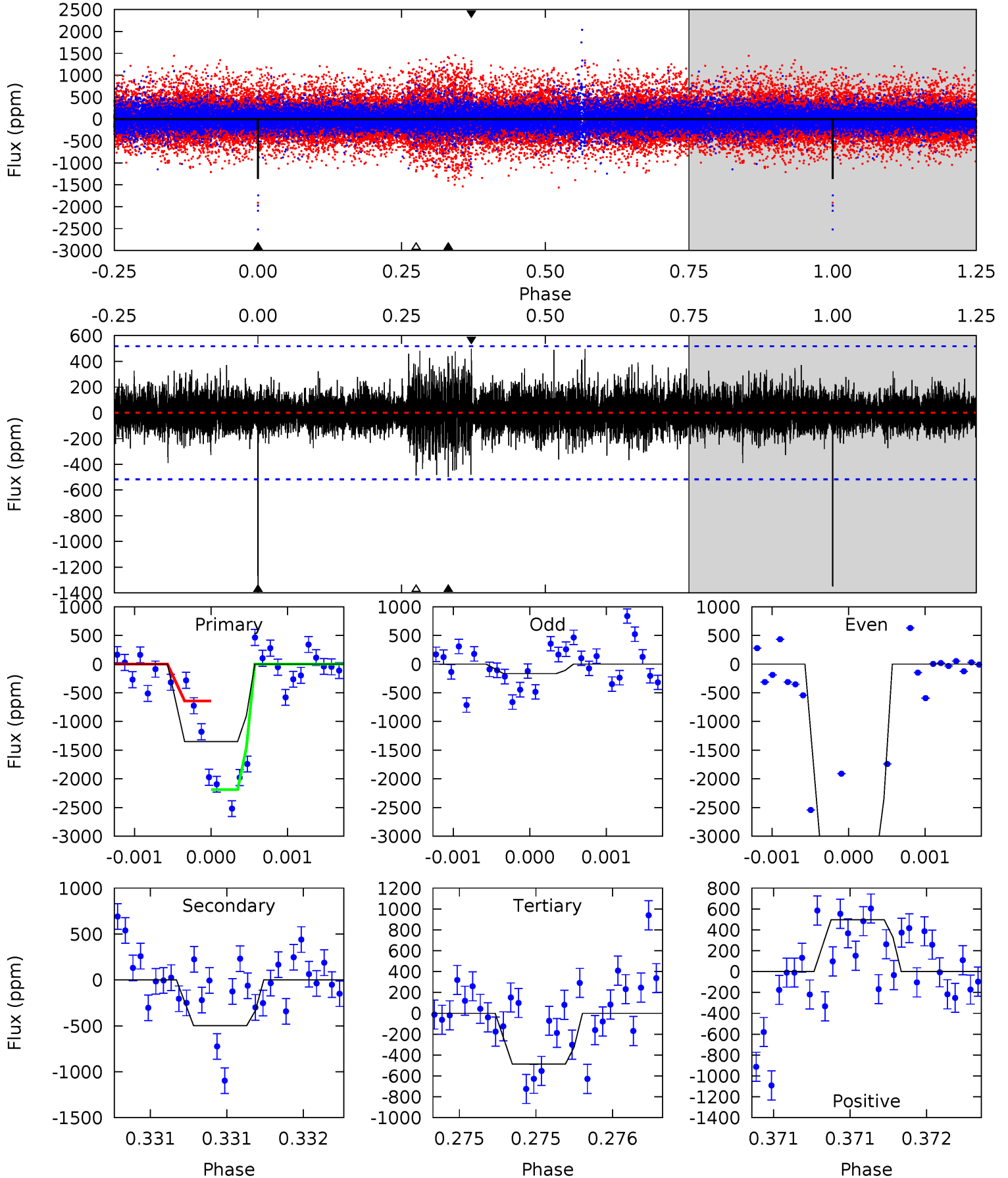
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.44	18.3	16.0	18.7	5.53	3.42	3.18	-8.51	-11.2	2.35	-0.38	3.82	0.28	0.51	0.69



# Alt Model-Shift Uniqueness Test

006263661-01, P = 298.638171 Days, E = 53.413325 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
14.5	5.35	5.21	5.33	5.54	3.43	1.04	9.25	9.13	0.13	0.02	22.7	1.32	0.27	8.59



### Stellar Parameters For KIC 006263661

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$4856^{+146}_{-146}$	$4.686^{+0.052}_{-0.028}$	$-1.120^{+0.300}_{-0.300}$	$0.567^{+0.037}_{-0.037}$	$0.568^{+0.042}_{-0.021}$	$4.398^{+0.856}_{-0.534}$
	+3%/-3%	+1%/-1%	+27%/-27%	+7%/-7%	+7%/-4%	+19%/-12%
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 006263661-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-3123 \pm 171$	$16.73^{+18.17}_{-11.63}$	$263^{+9}_{-8}$	$2861^{+1285}_{-473}$	$3312^{+31867}_{-2565}$
Alt.	$-499 \pm 93$	$16.73^{+16.57}_{-11.84}$	$263^{+9}_{-8}$	$2279^{+817}_{-315}$	$531^{+5214}_{-405}$

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

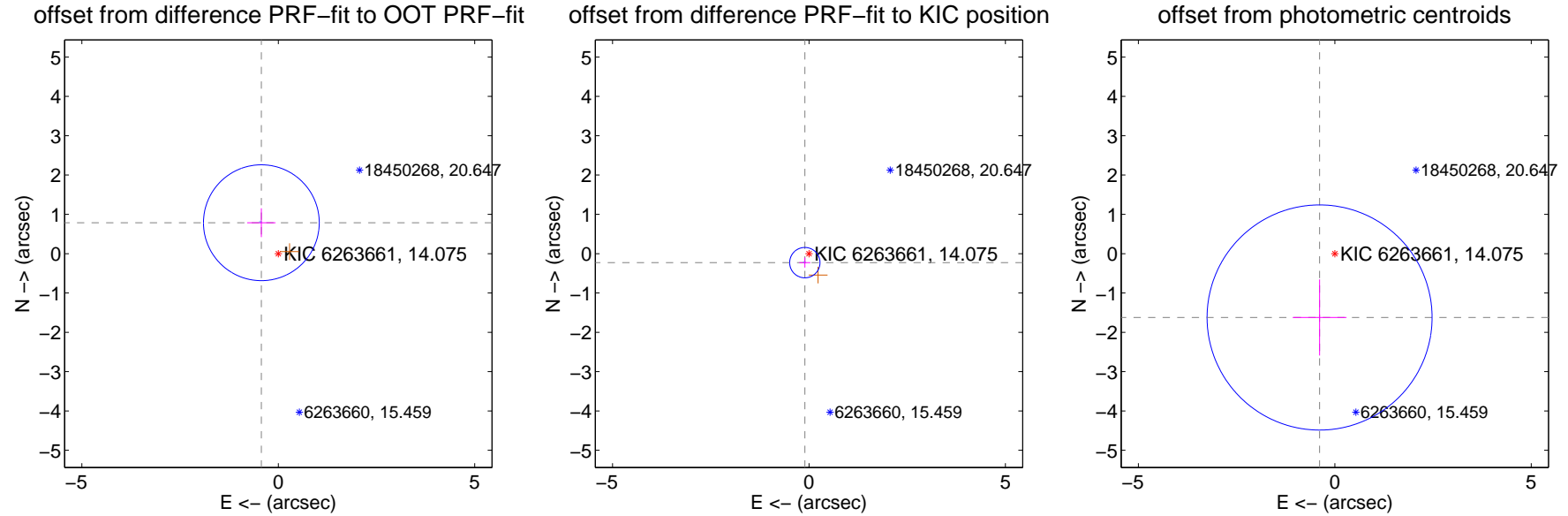
## DV Centroid Data

Supplemental centroid analysis for 006263661-01. Kepler magnitude: 14.07. Transit SNR 6.50

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.60 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.897 \pm 0.491$	1.83	$0.431 \pm 0.360$	$0.787 \pm 0.367$
PRF-fit source offset from KIC position	$0.251 \pm 0.129$	1.95	$0.105 \pm 0.139$	$-0.228 \pm 0.126$
photometric centroid source offset	$1.67 \pm 0.95$	1.75	$0.39 \pm 0.69$	$-1.62 \pm 0.97$

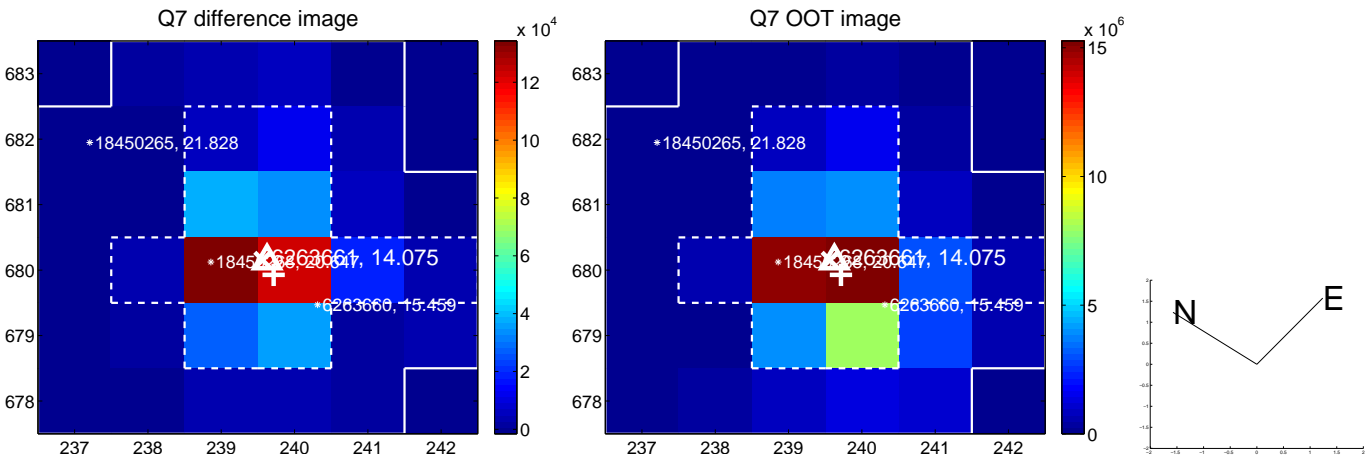


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

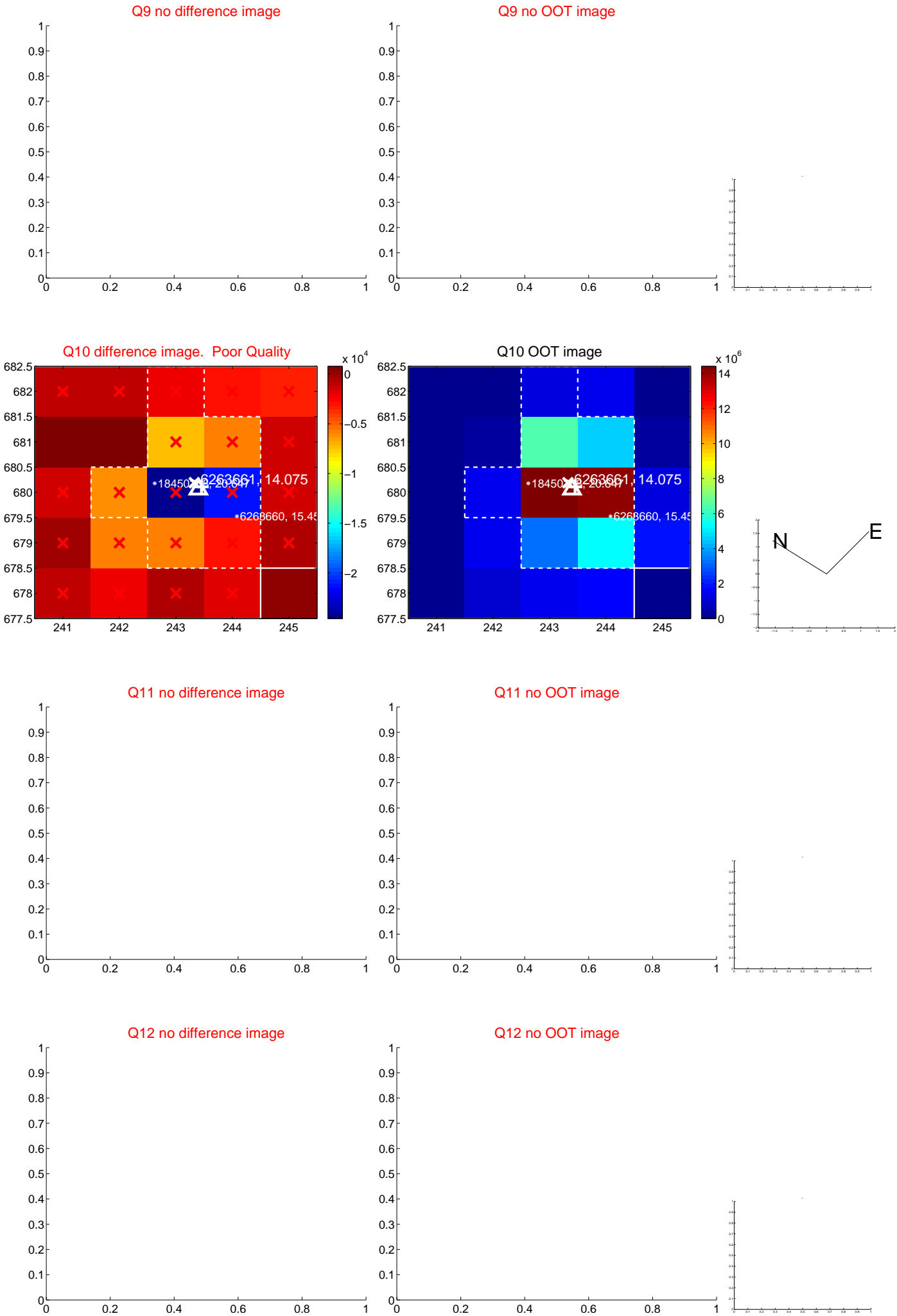


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





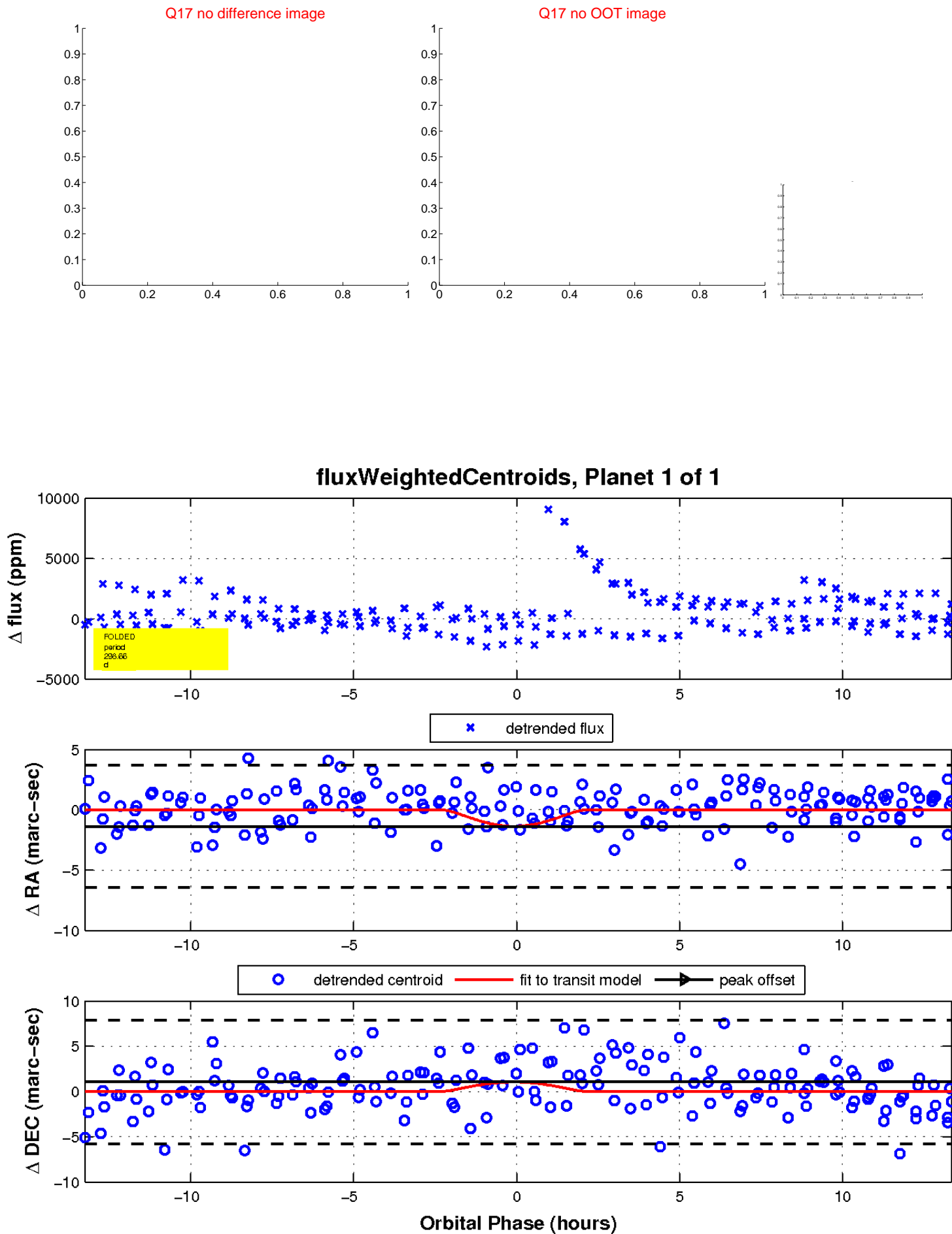
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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.



UKIRT Image

Declination

