

# KIC 011295582

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011295582-01	OBS	No	475.495444	226.887690	190.4	6.858	10.1	7.1	1.32	6122	2.04	1.39

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011295582-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—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.

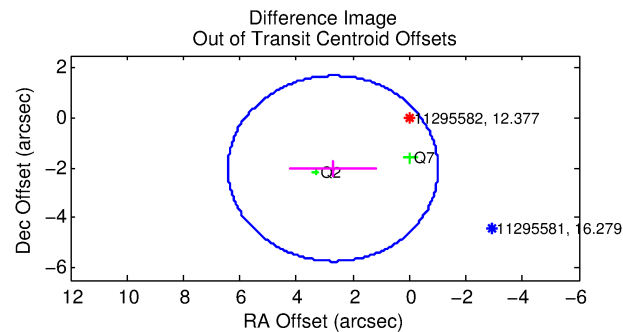
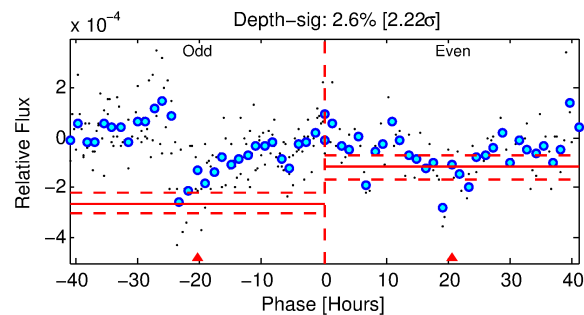
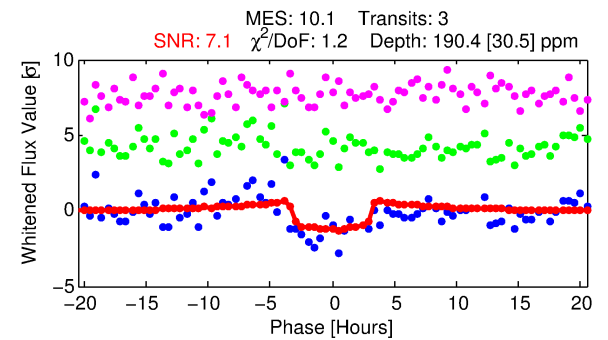
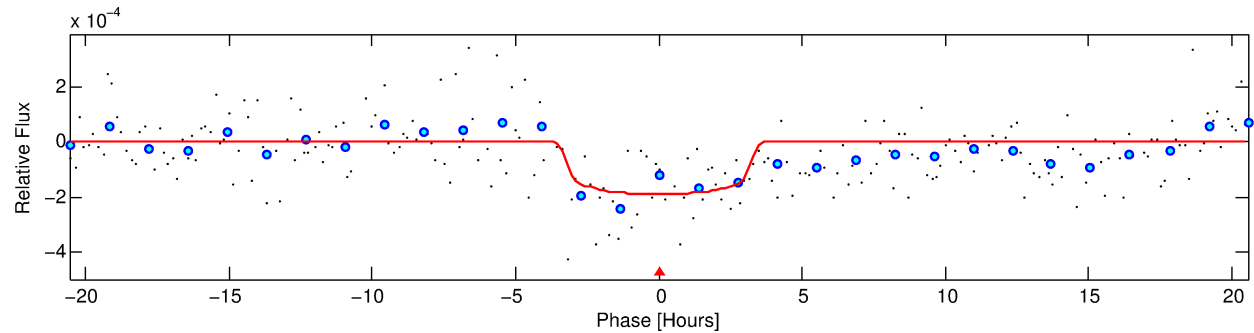
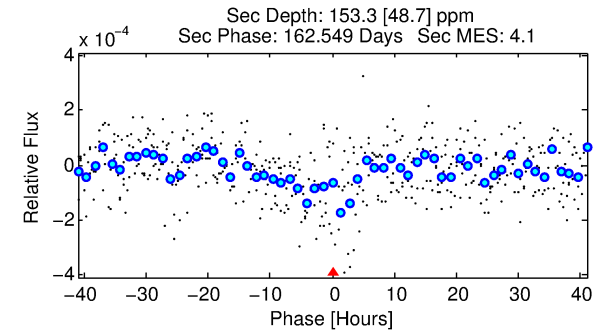
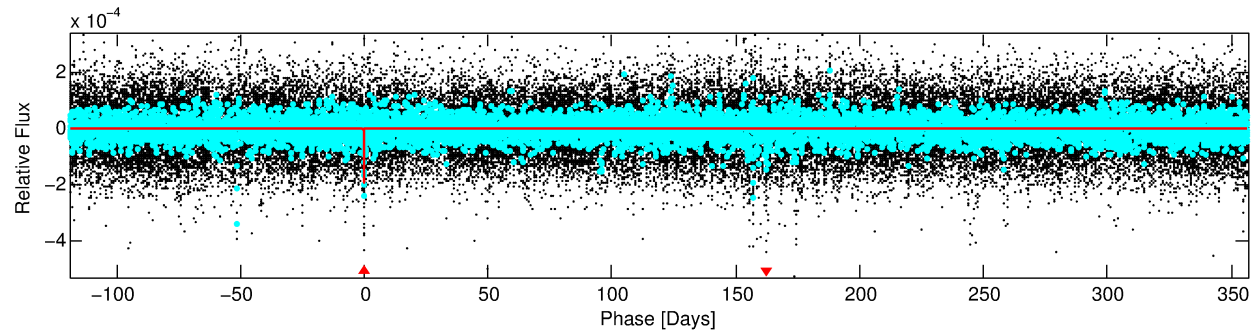
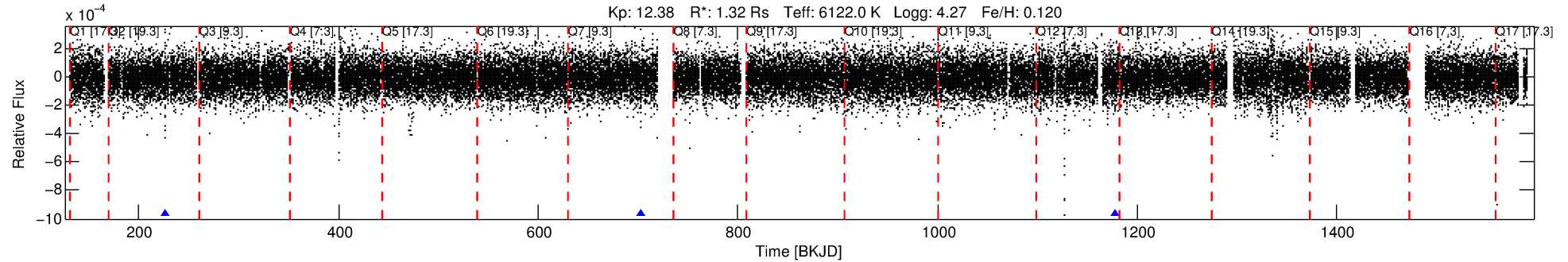
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011295582-01

No Significant Match Found

# DV One-Page Summary

KIC: 11295582 Candidate: 1 of 1 Period: 475.495 d



## DV Fit Results:

Period = 475.49544 [0.00867] d  
Epoch = 226.8877 [0.0100] BKJD  
Rp/R\* = 0.0142 [0.0080]  
a/R\* = 312.26 [861.50]  
b = 0.83 [1.08]  
Seff = 1.39 [0.40]  
Teq = 277 [20] K  
Rp = 2.04 [1.23] Re  
a = 1.2588 [0.2261] AU  
Ag = 31960.86 [38184.16] [0.84σ]  
Teffp = 5722 [1680] K [3.24σ]

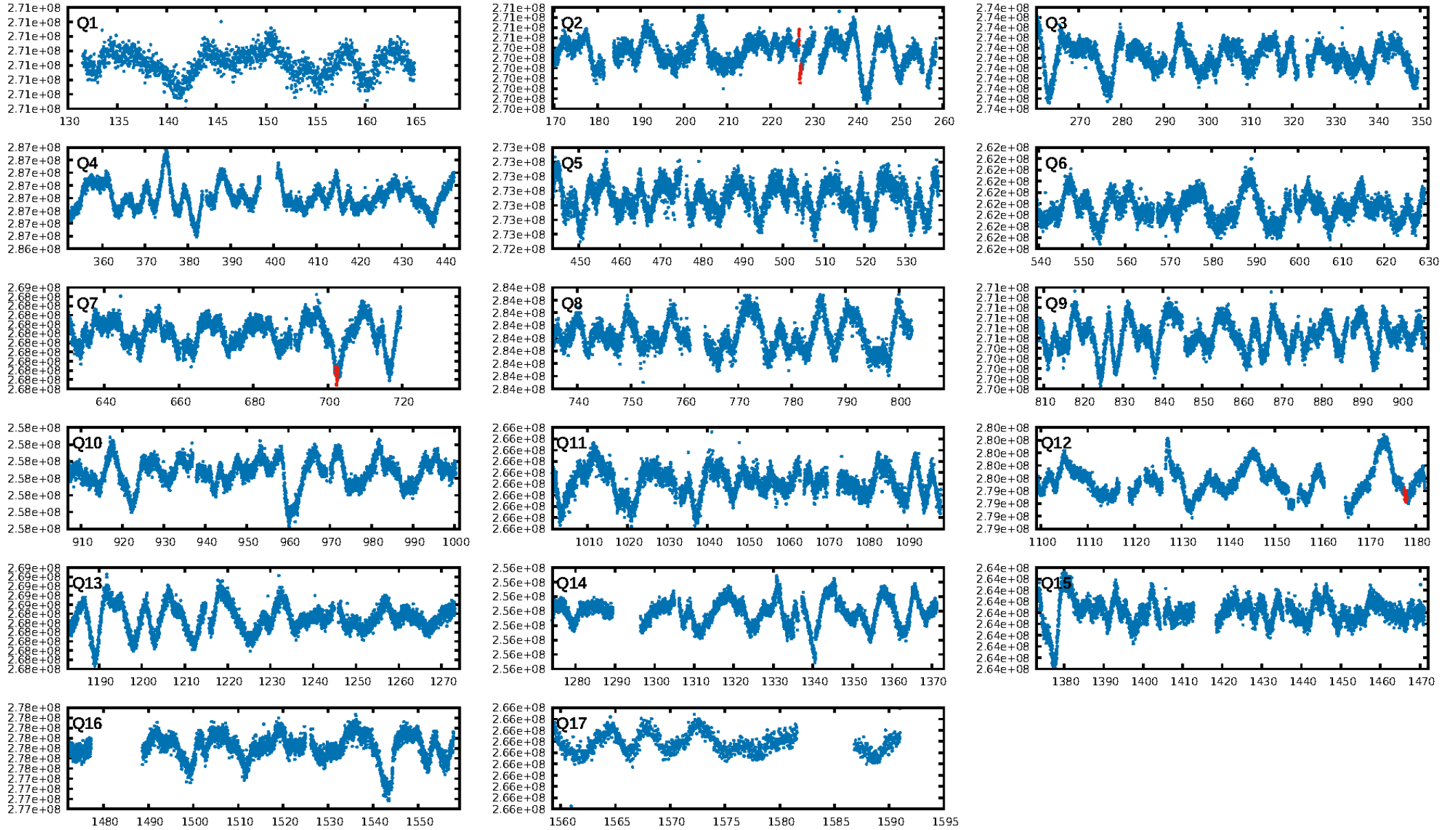
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 1.0%  
ModelChiSquareGof-sig: 85.9%  
Bootstrap-pfa: 3.52e-13  
RollingBand-fgt: 1.00 [3/3]  
GhostDiagnostic-chr: 2.989  
Centroid-sig: 0.0%  
Centroid-so: 2.147 arcsec [2.11σ]  
OotOffset-rm: 3.382 arcsec [2.73σ]  
KicOffset-rm: 3.382 arcsec [2.30σ]  
OotOffset-st: 1/1/0/0 [2]  
KicOffset-st: 1/1/0/0 [2]  
DiffImageQuality-fgm: 1.00 [2/2]  
DiffImageOverlap-fno: 1.00 [2/2]

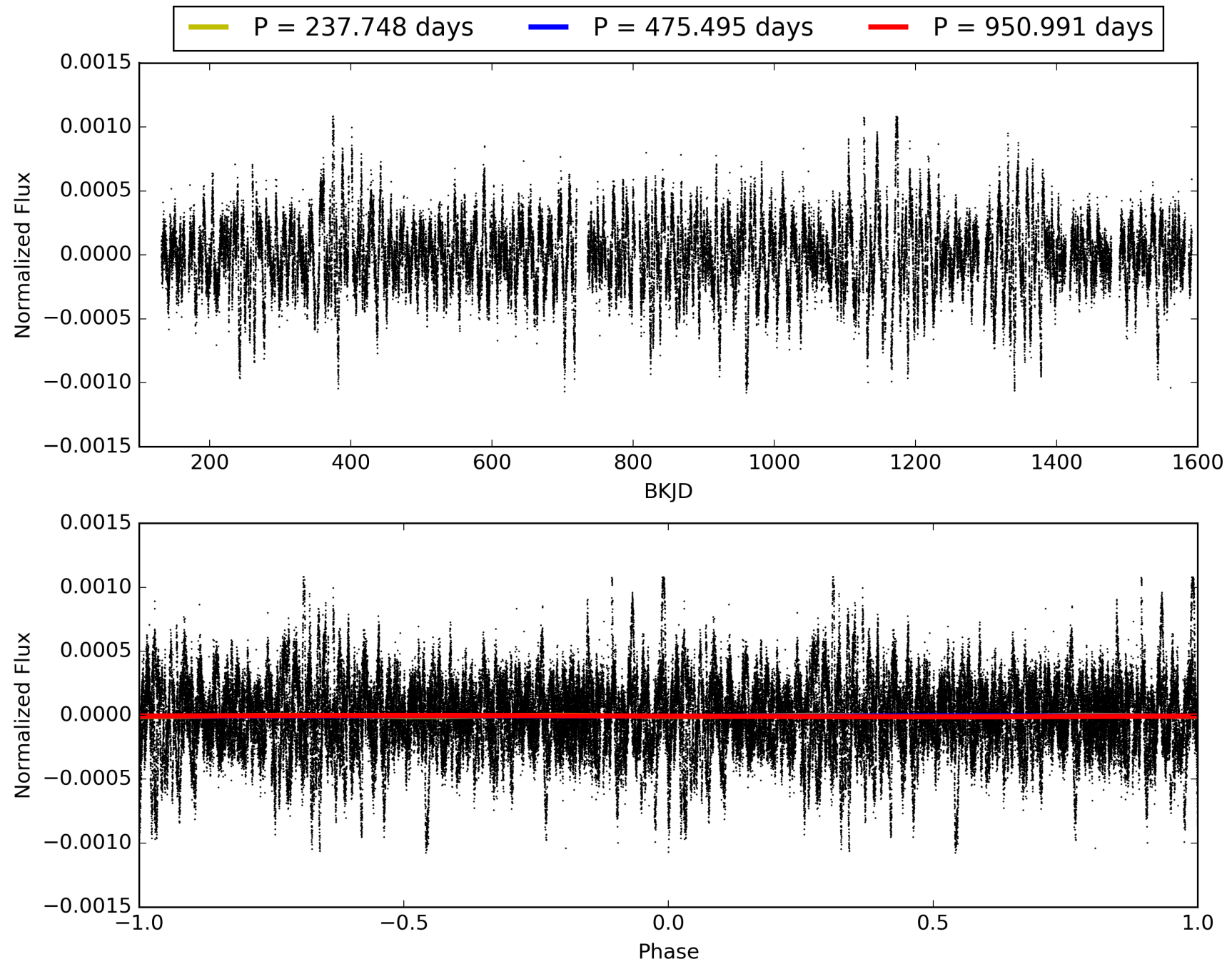
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:13:08 Z

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

# TCE 011295582-01, PDC Light Curves

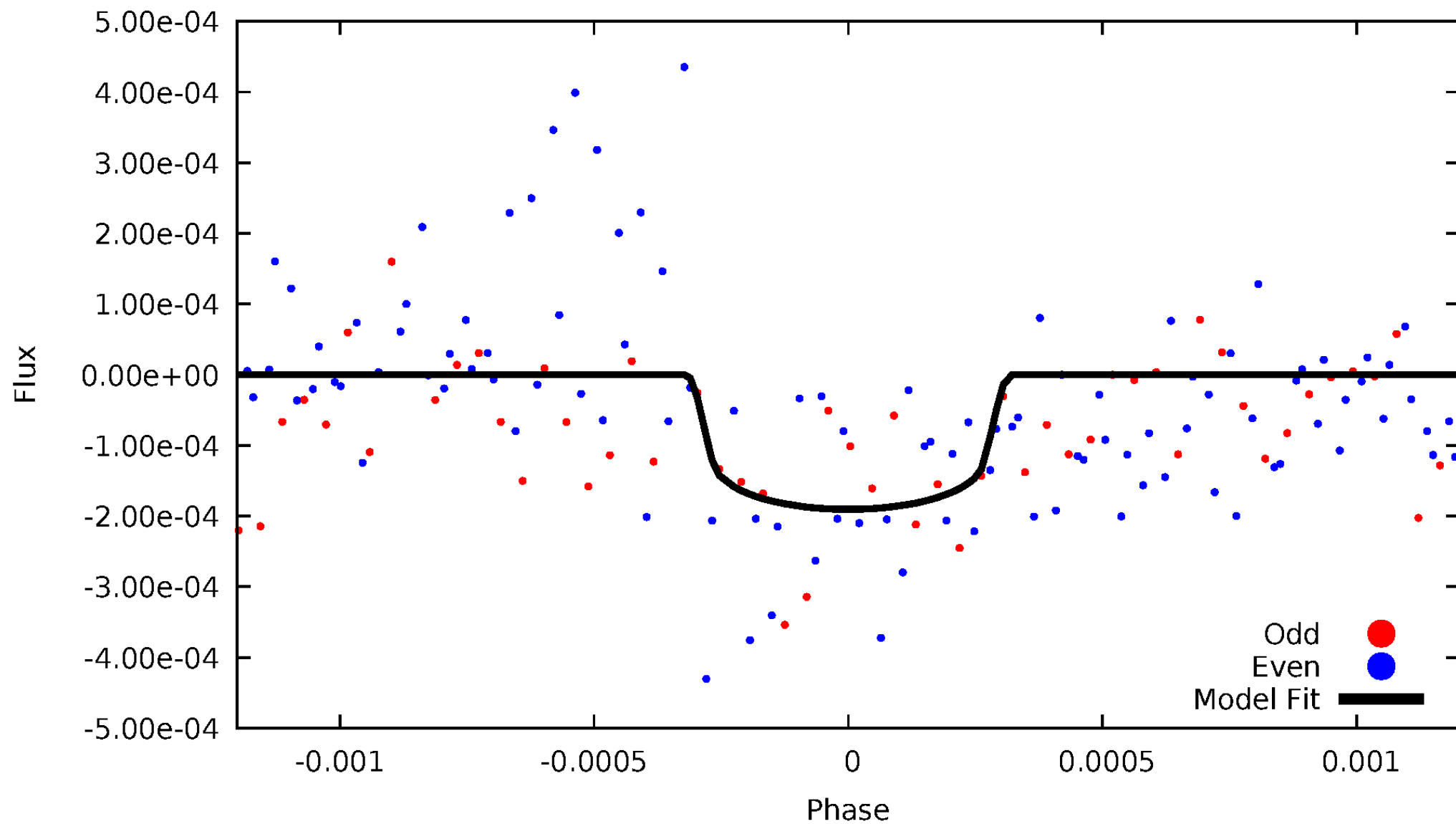


# TCE 011295582-01



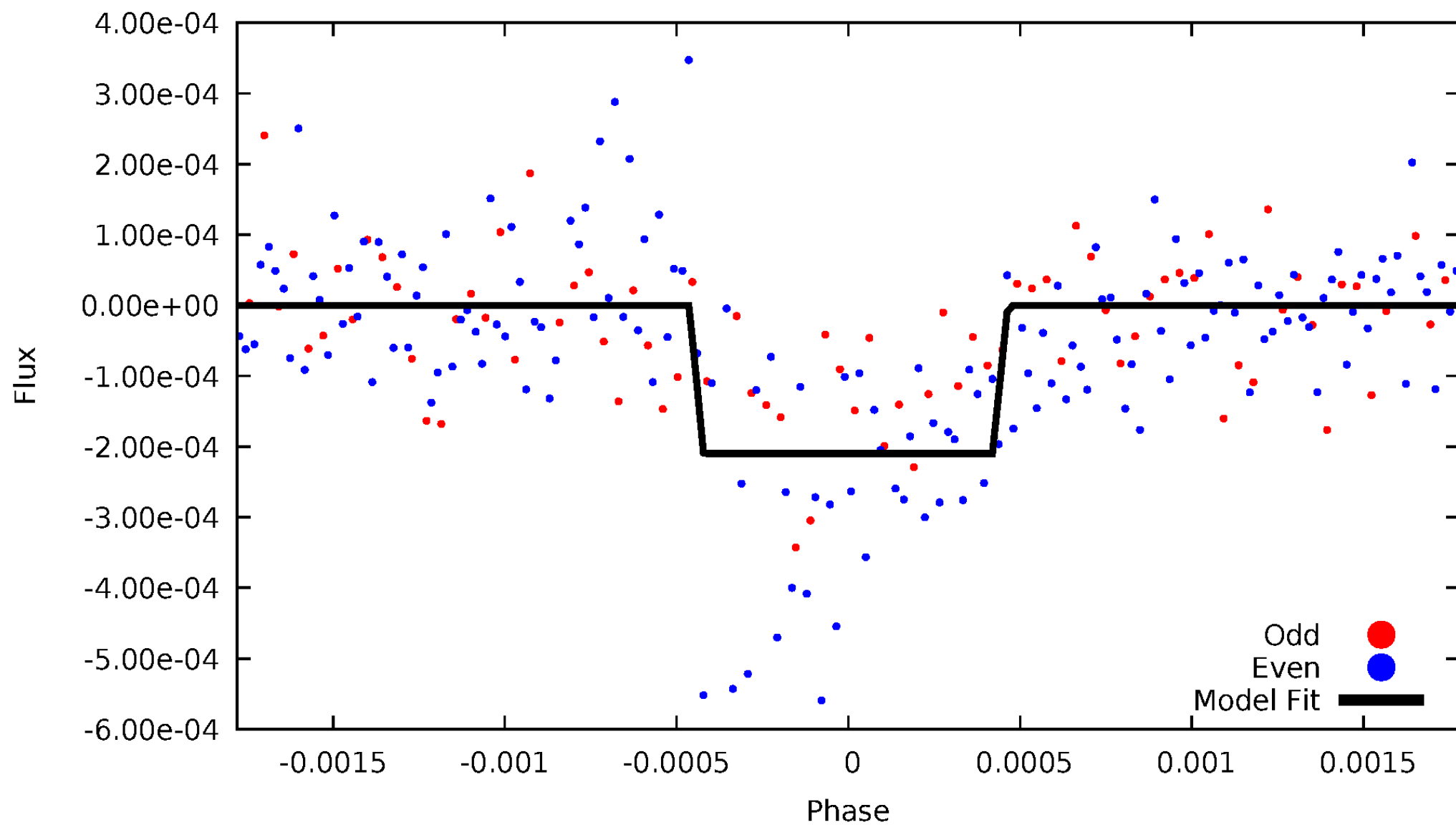
# DV Odd/Even

TCE 011295582-01



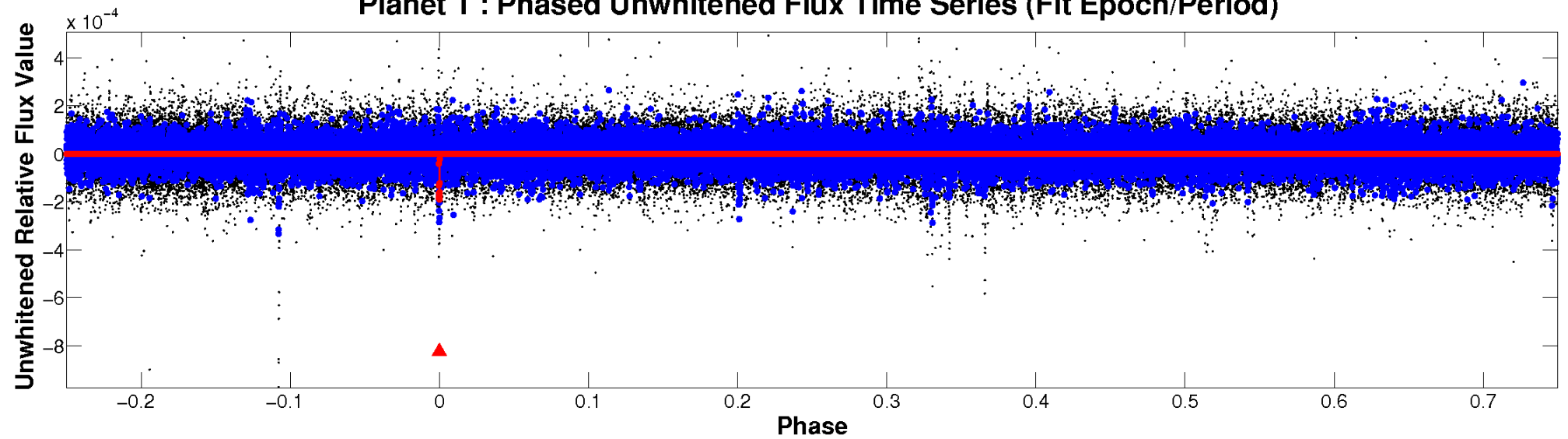
# ALT Odd/Even

TCE 011295582-01

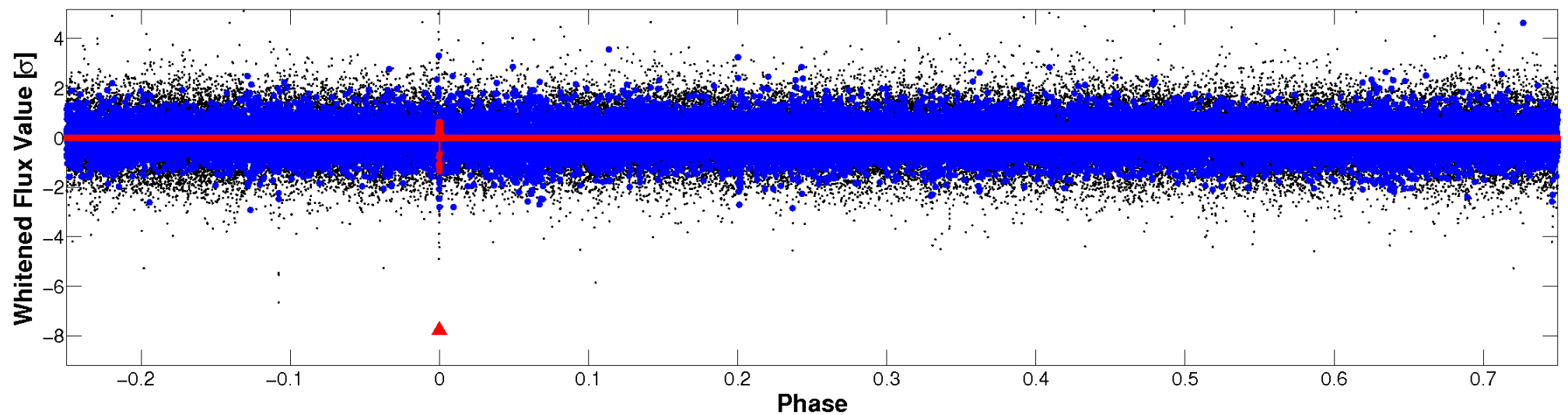


# Non-Whitened Vs. Whitened Light Curve

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

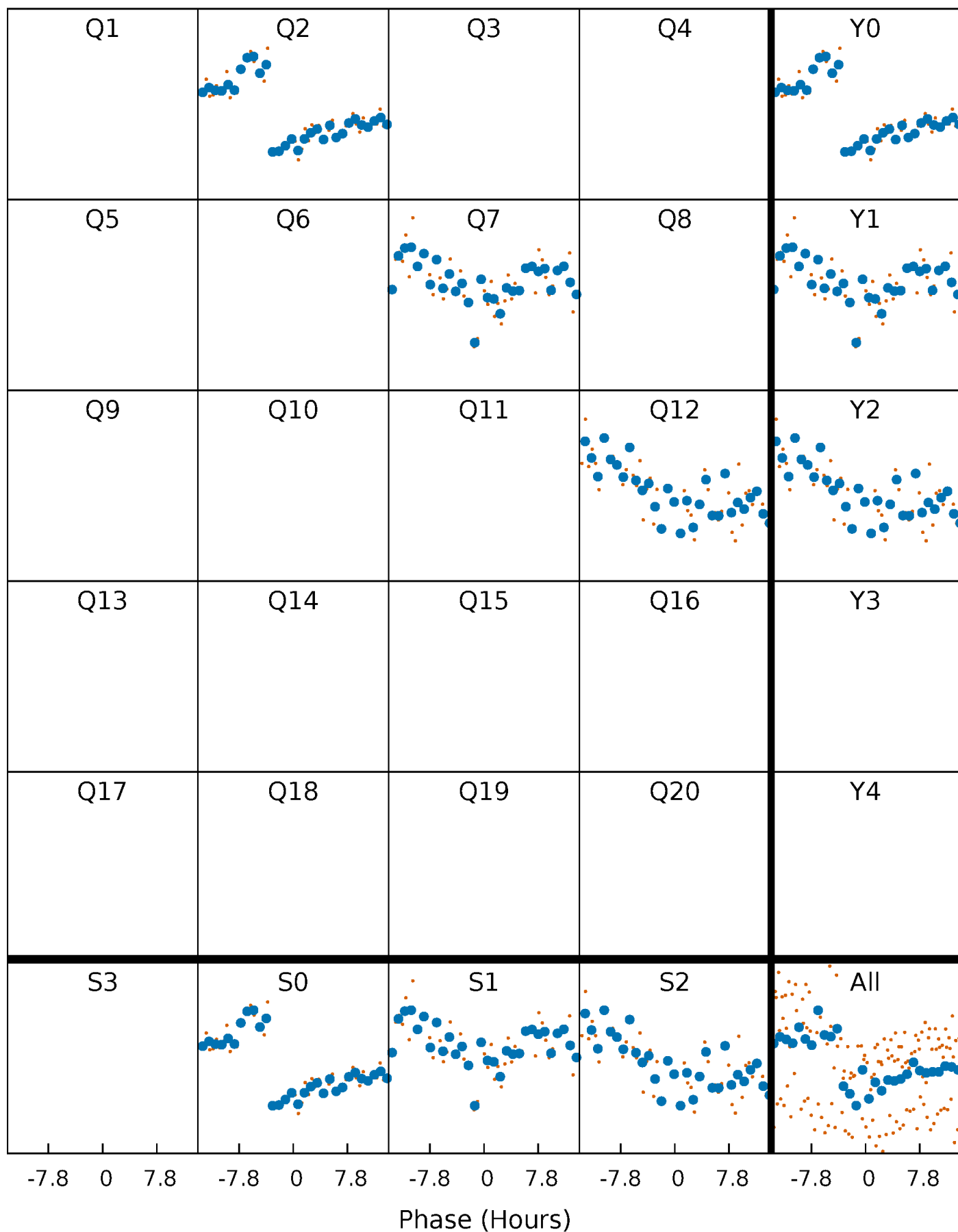


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

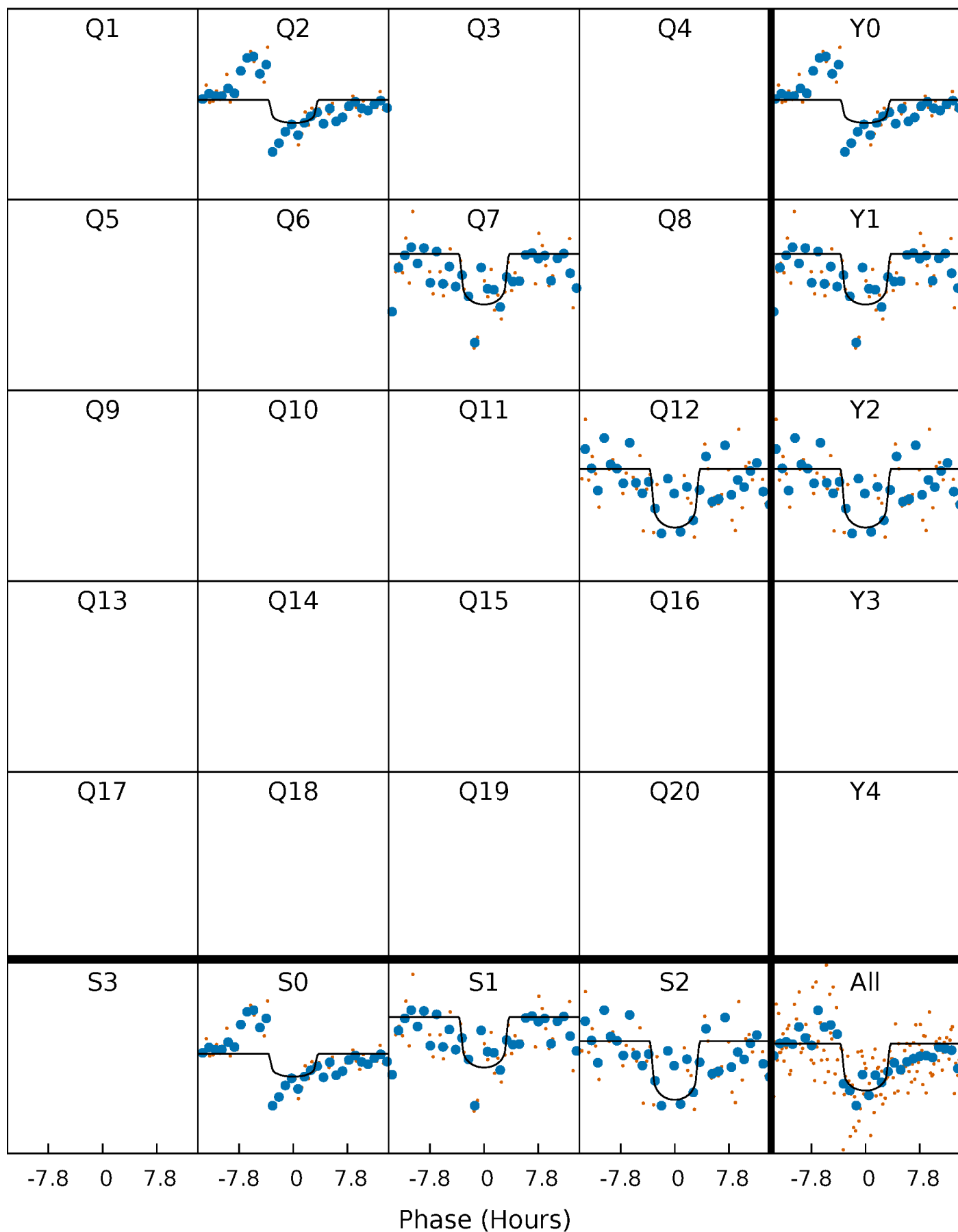
TCE 011295582-01 P=475.495444 Days  $T_0=226.887690$  (BKJD)





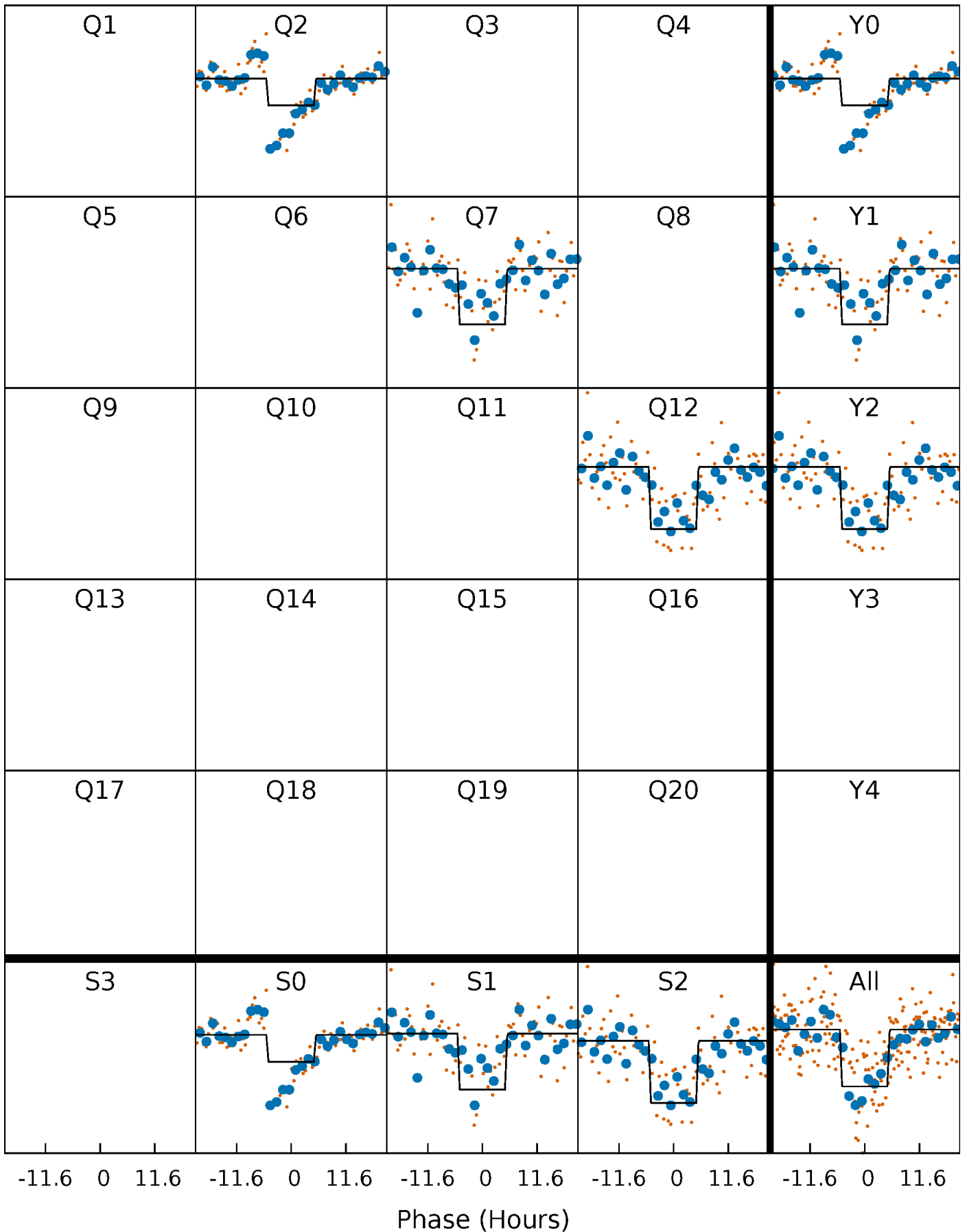
# DV Quarter-Phased Transit Curves

TCE 011295582-01     $P=475.495444$  Days     $T_0=226.887690$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

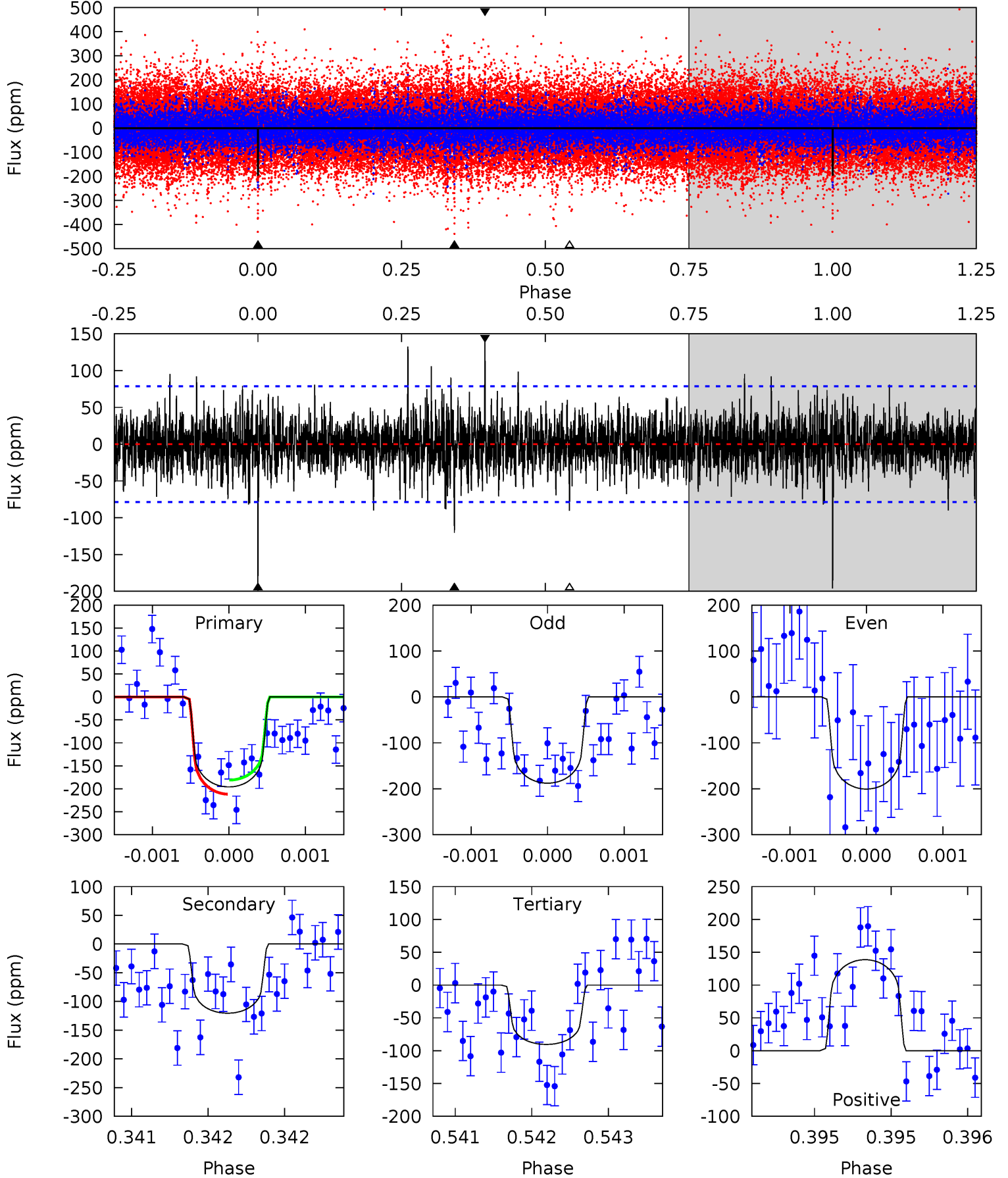
TCE 011295582-01 P=475.441263 Days  $T_0=226.955332$  (BKJD)



# DV Model-Shift Uniqueness Test

011295582-01, P = 475.495444 Days, E = 226.887690 Days

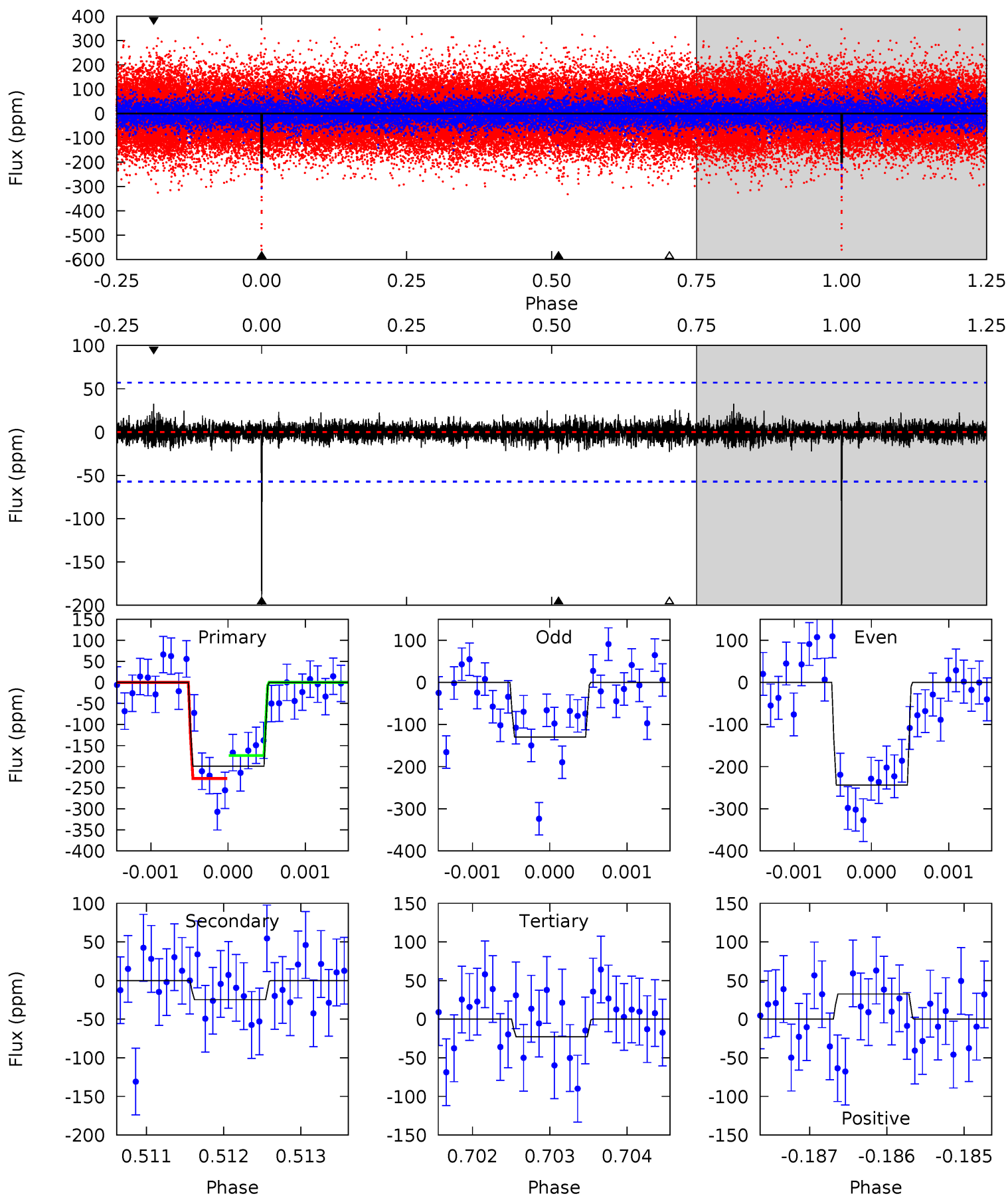
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	8.48	6.37	9.76	5.54	3.43	1.70	7.42	4.04	2.11	-1.28	0.43	1.05	0.41	1.08



# Alt Model-Shift Uniqueness Test

011295582-01, P = 475.441263 Days, E = 226.955332 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
19.0	2.36	2.19	3.13	5.47	3.32	0.57	16.8	15.9	0.17	-0.76	5.32	1.33	0.14	2.59



### Stellar Parameters For KIC 011295582

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6122^{+163}_{-199}$	$4.266^{+0.135}_{-0.135}$	$0.120^{+0.250}_{-0.300}$	$1.322^{+0.291}_{-0.238}$	$1.177^{+0.125}_{-0.166}$	$0.718^{+0.478}_{-0.285}$
	+3%/-3%	+3%/-3%	+208%/-250%	+22%/-18%	+11%/-14%	+67%/-40%
Source	PHO1	FLK73	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 011295582-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-120 \pm 14$	$2.13^{+1.15}_{-1.11}$	$385^{+25}_{-22}$	$5309^{+2501}_{-819}$	$23487^{+77801}_{-13859}$
Alt.	$-25 \pm 10$	$2.20^{+1.18}_{-1.11}$	$386^{+22}_{-20}$	$3799^{+1256}_{-555}$	$4117^{+14179}_{-2628}$

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

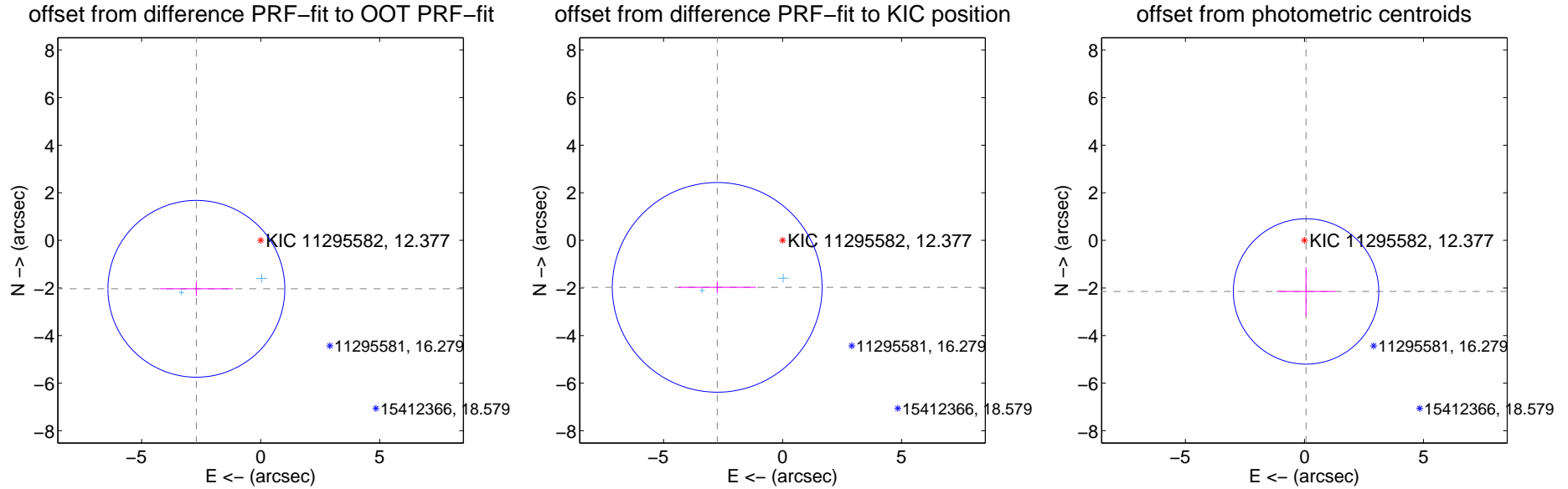
## DV Centroid Data

Supplemental centroid analysis for 011295582-01. Kepler magnitude: 12.38. Transit SNR 7.08

There are 2 quarters with good PRF difference image offsets

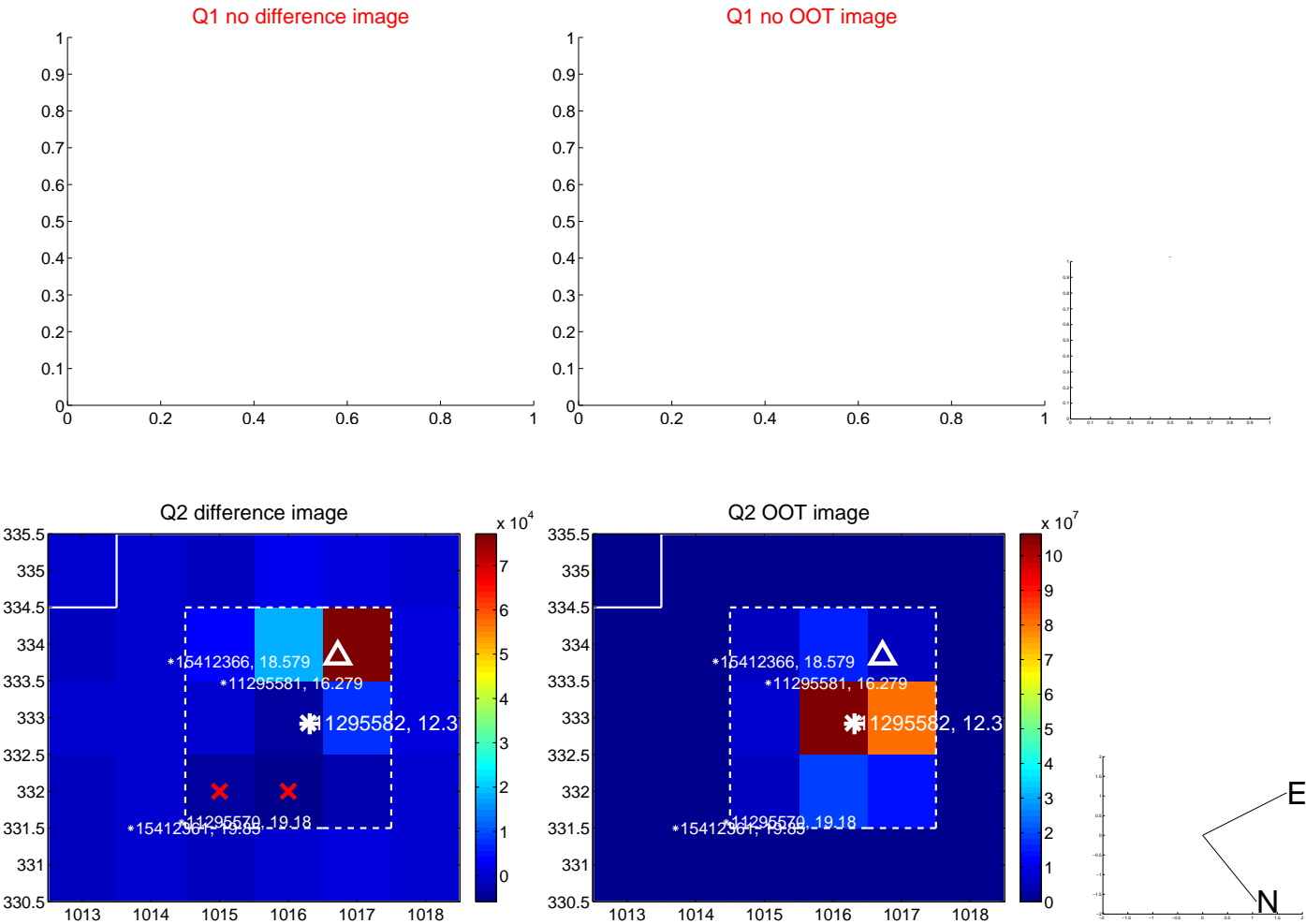
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$3.382 \pm 1.239$	2.73	$2.701 \pm 1.534$	$-2.035 \pm 0.310$
PRF-fit source offset from KIC position	$3.382 \pm 1.469$	2.30	$2.745 \pm 1.631$	$-1.975 \pm 0.256$
photometric centroid source offset	$2.15 \pm 1.02$	2.11	$-0.07 \pm 1.24$	$-2.15 \pm 1.02$

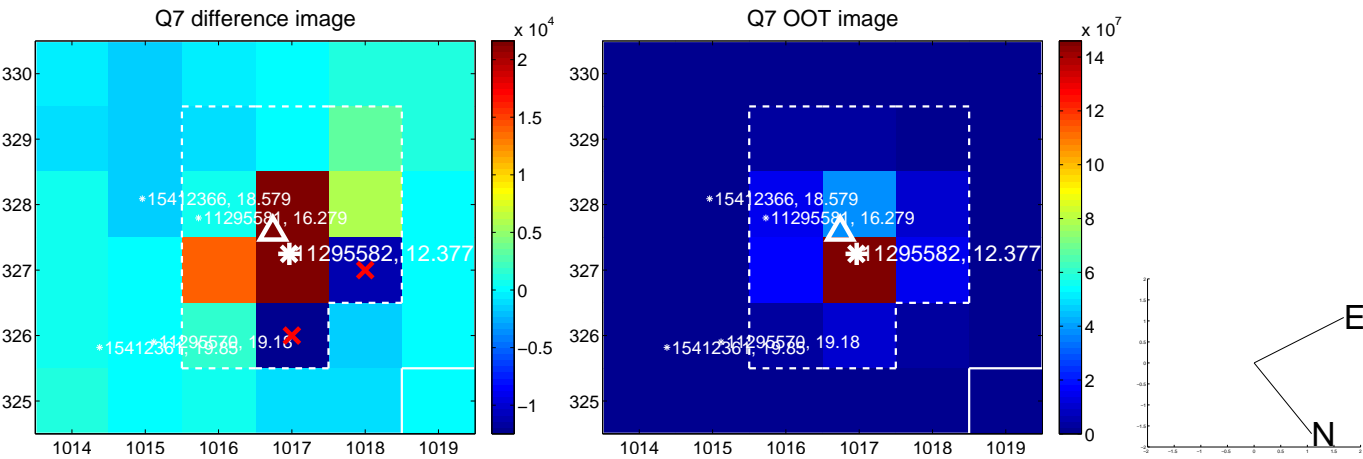


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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





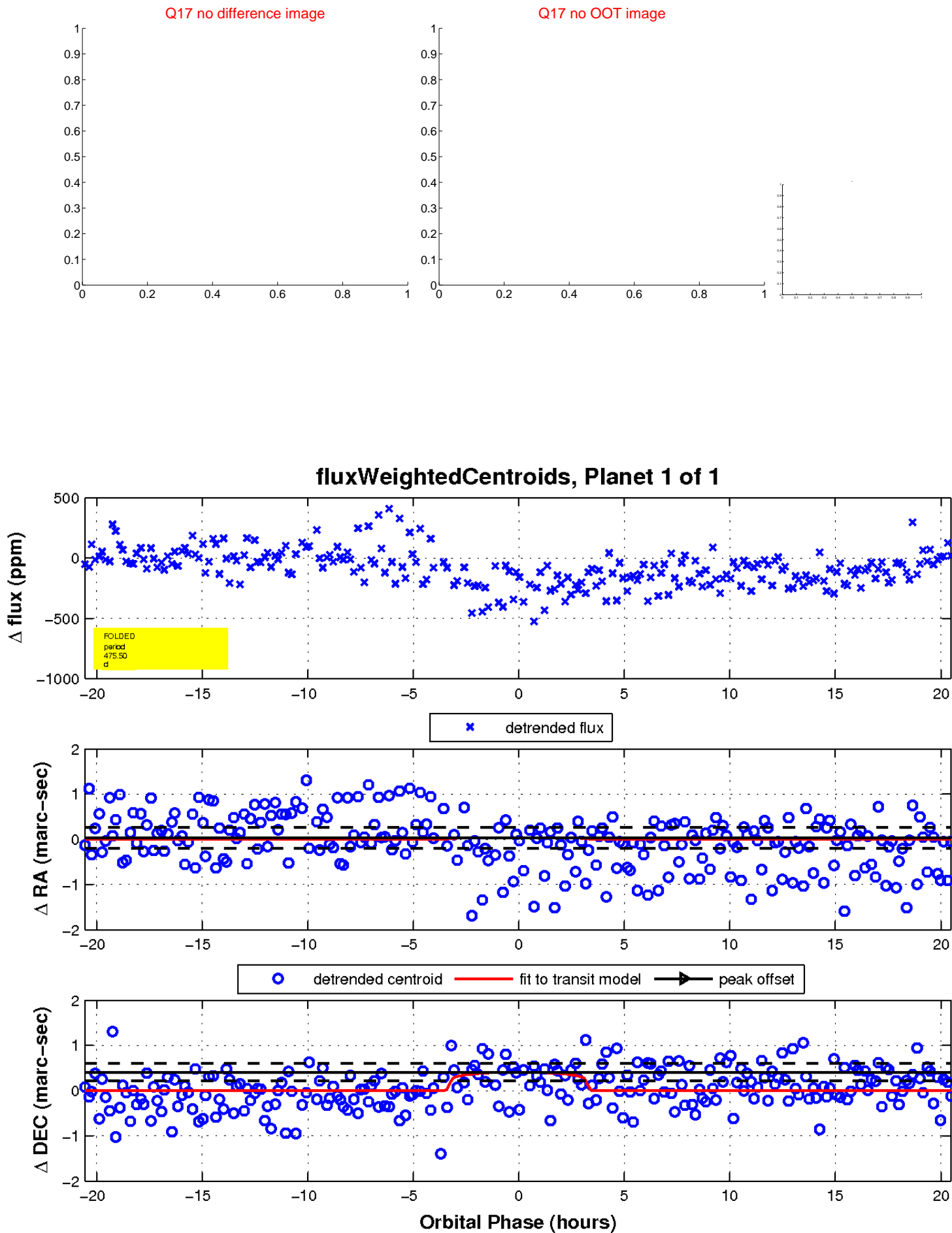
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

