

# KIC 003446636

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
003446636-01	OBS	No	697.314873	158.043702	440.7	10.014	9.2	8.9	1.27	6031	2.89	0.85

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003446636-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

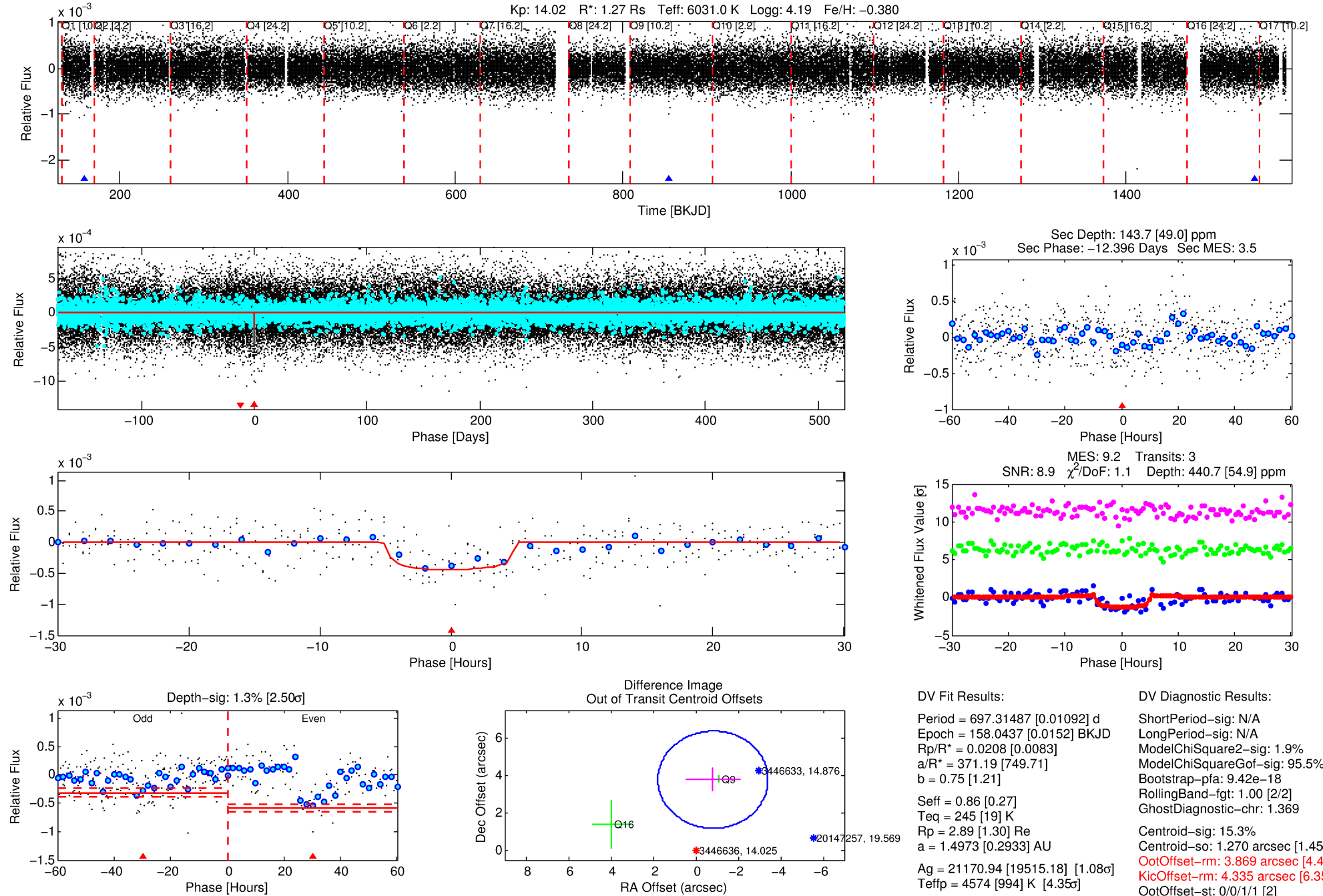
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 003446636-01

No Significant Match Found

# DV One-Page Summary

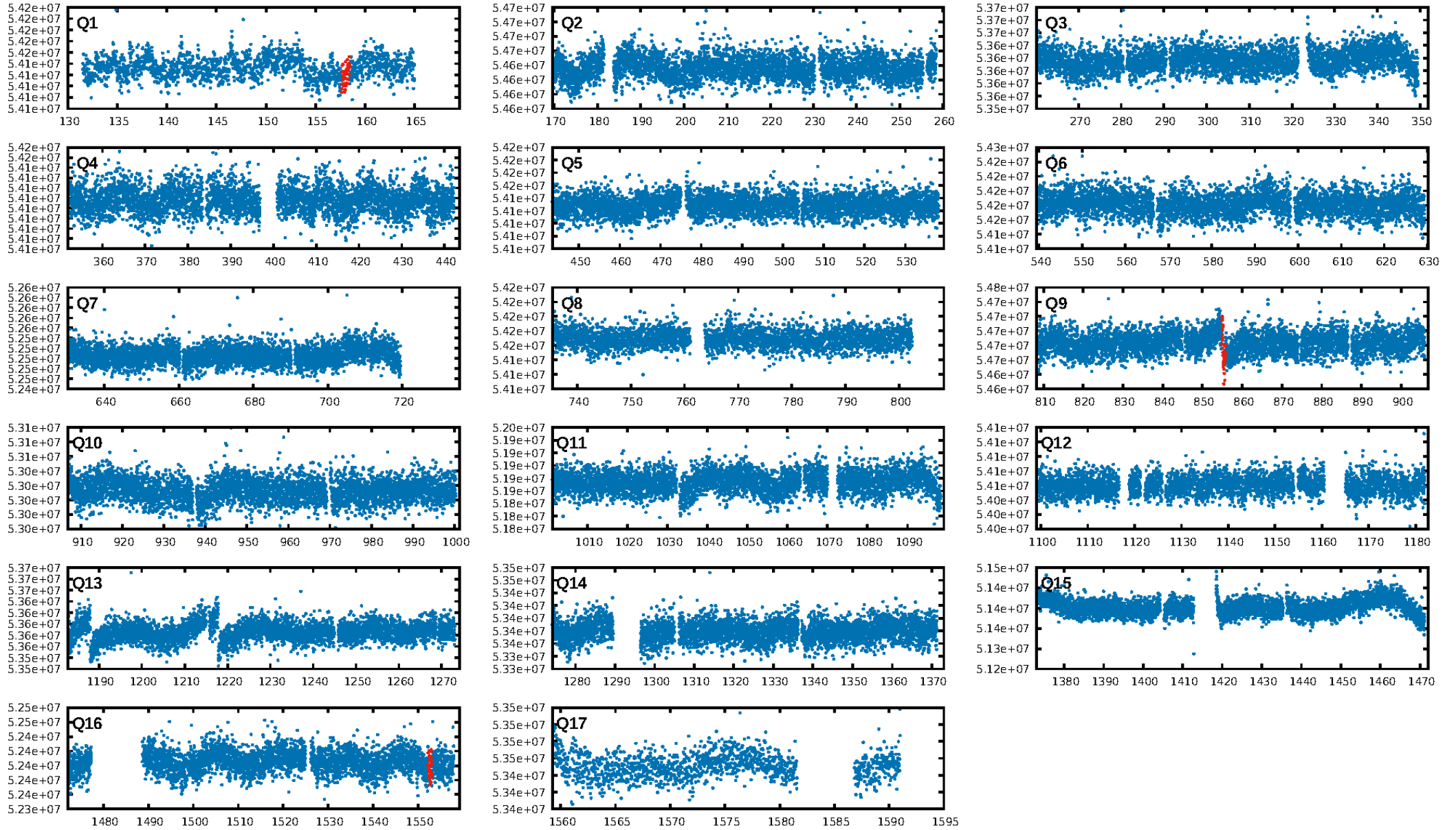
KIC: 3446636 Candidate: 1 of 1 Period: 697.315 d



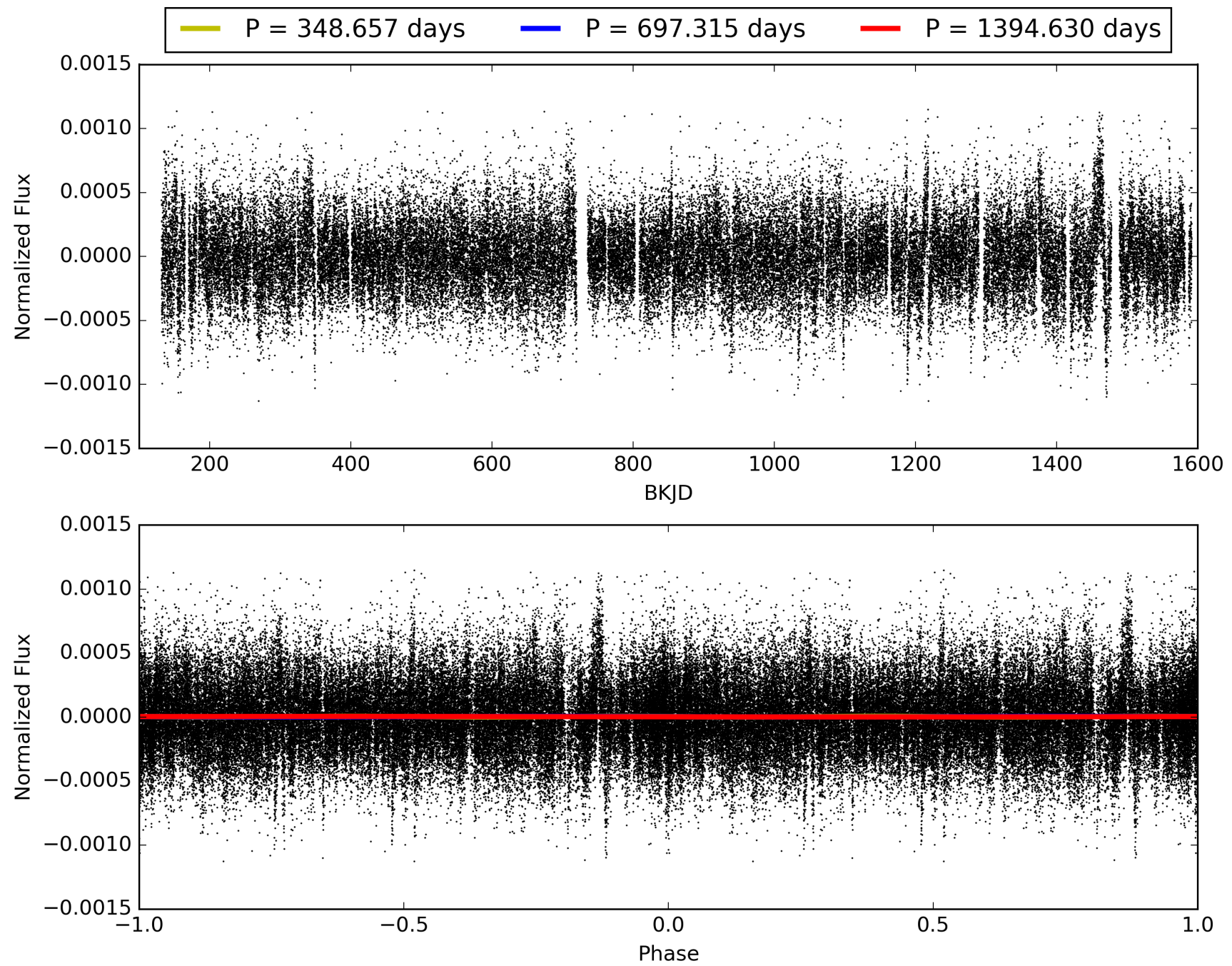
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:31:34 Z

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

# TCE 003446636-01, PDC Light Curves

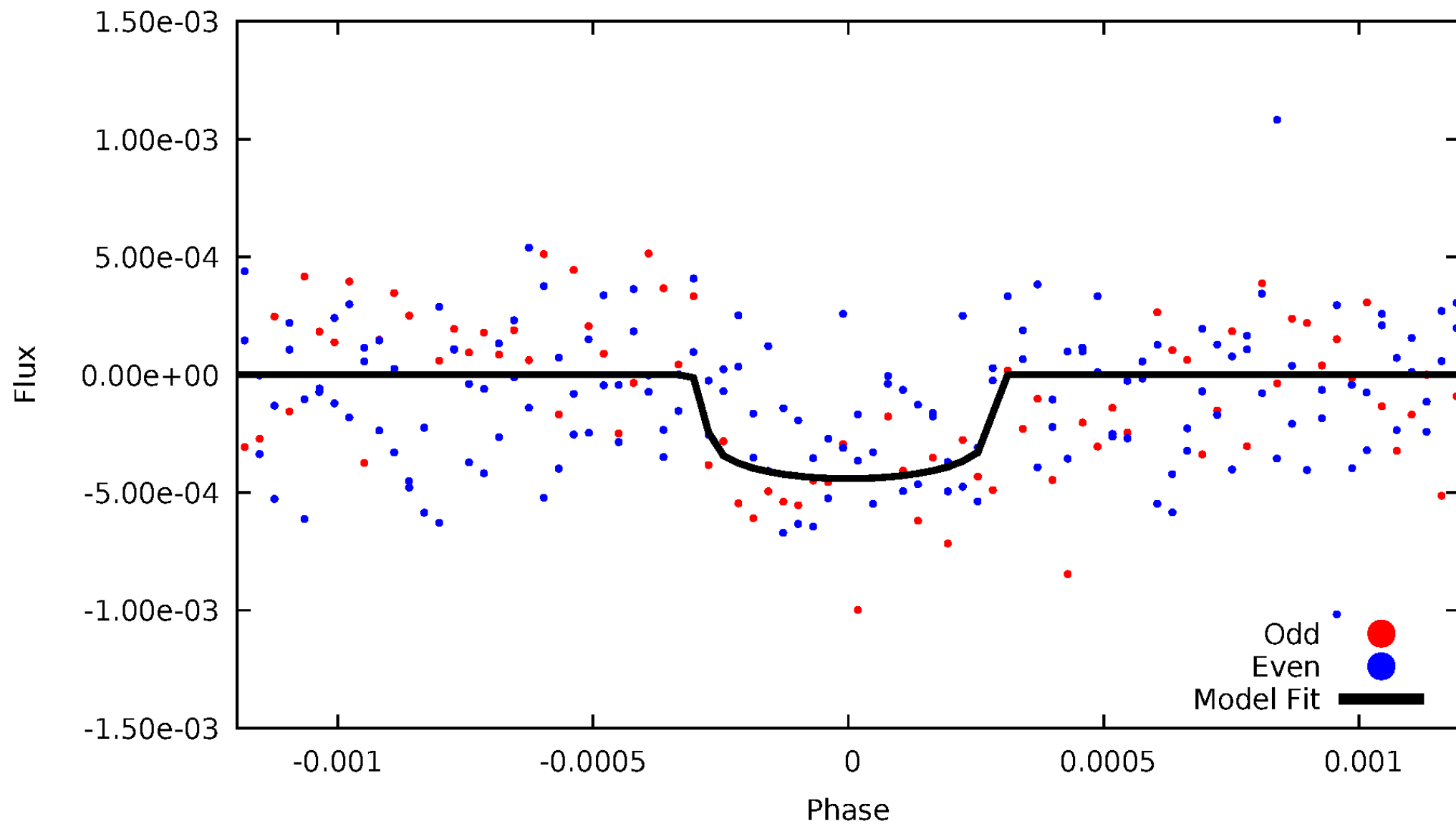


TCE 003446636-01



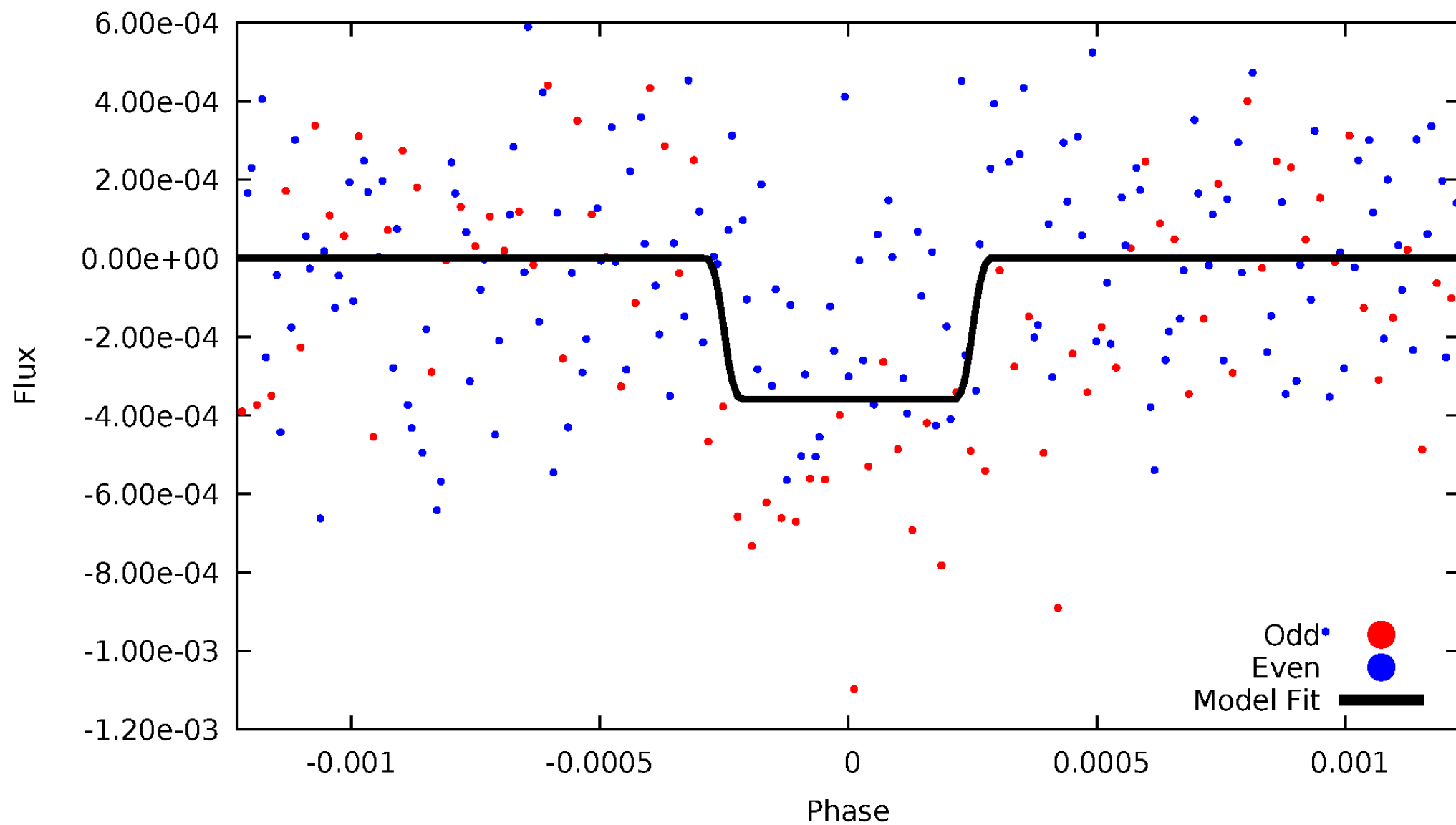
# DV Odd/Even

TCE 003446636-01



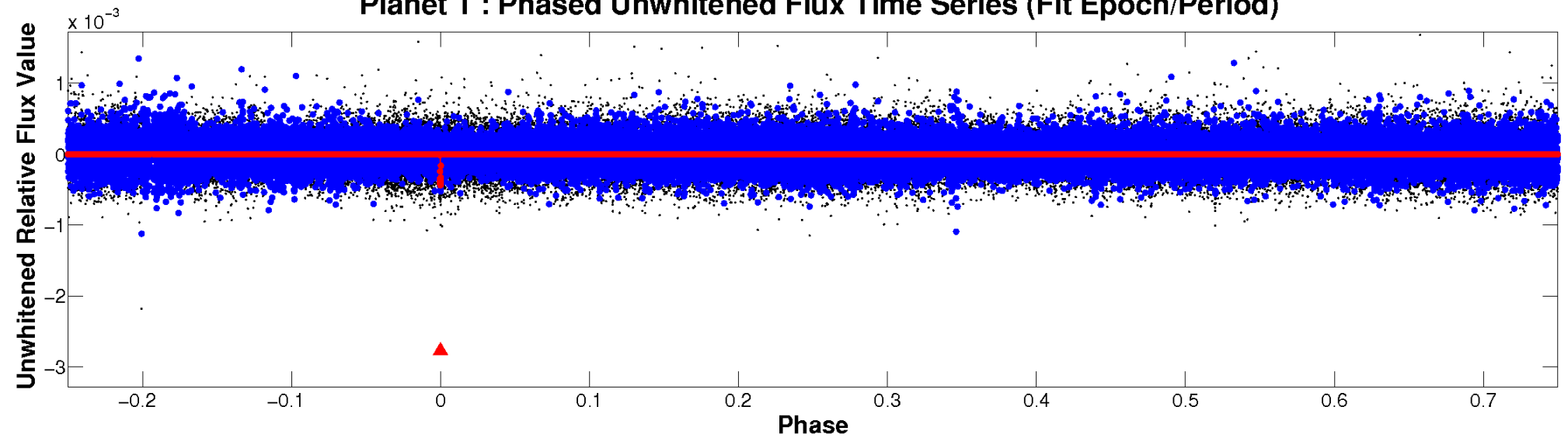
# ALT Odd/Even

TCE 003446636-01

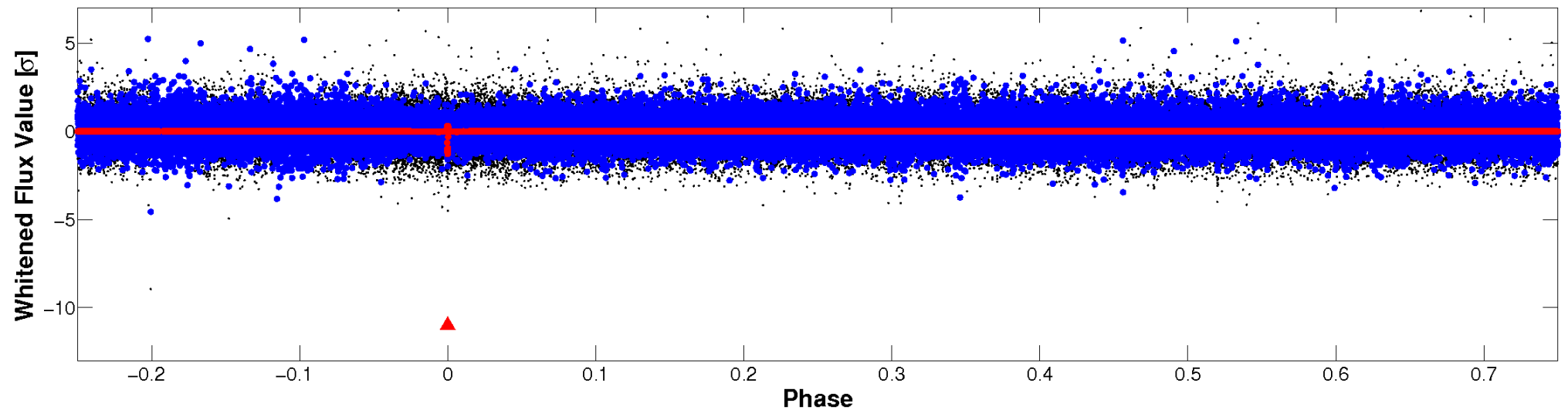


# Non-Whitened Vs. Whitened Light Curve

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

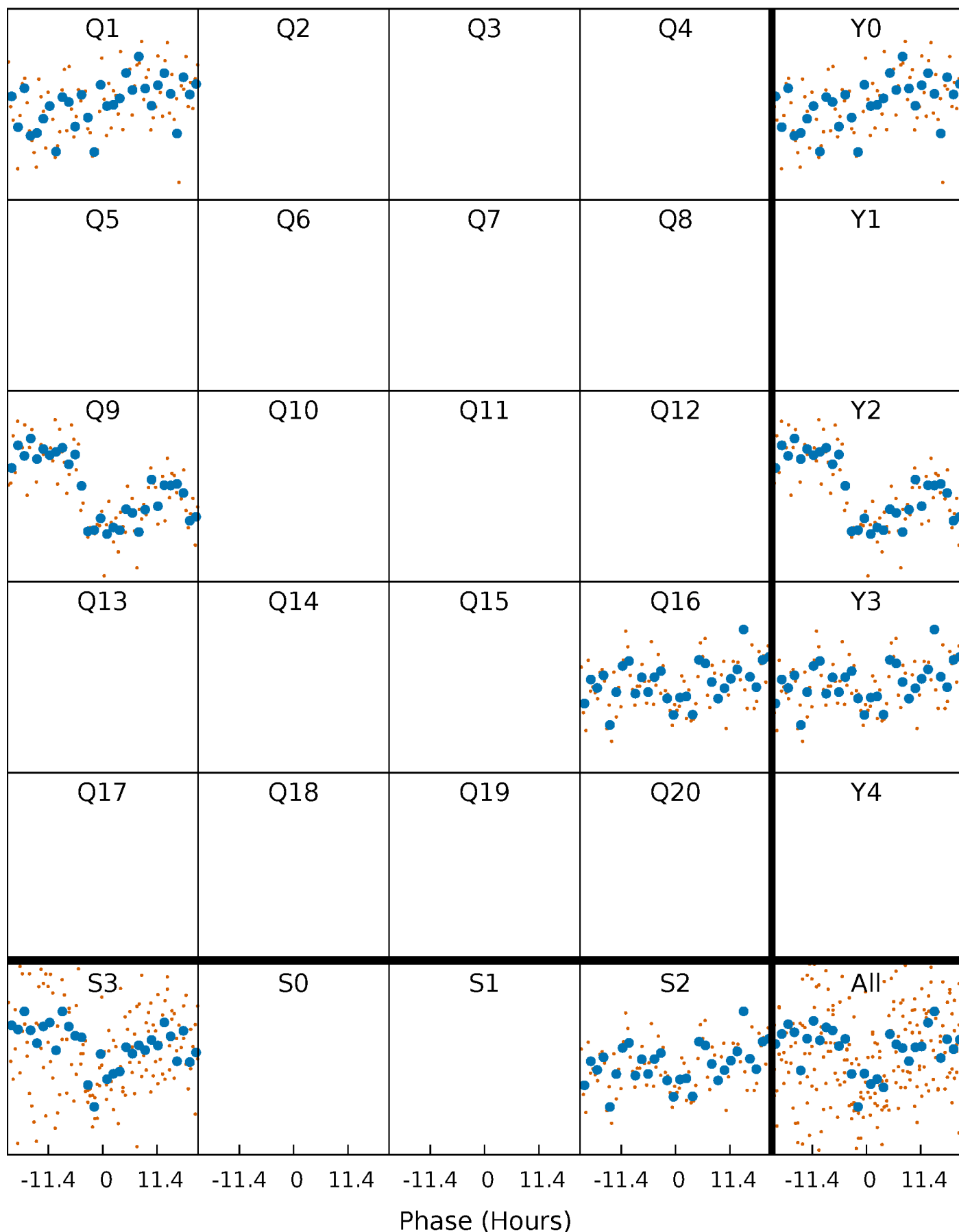


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

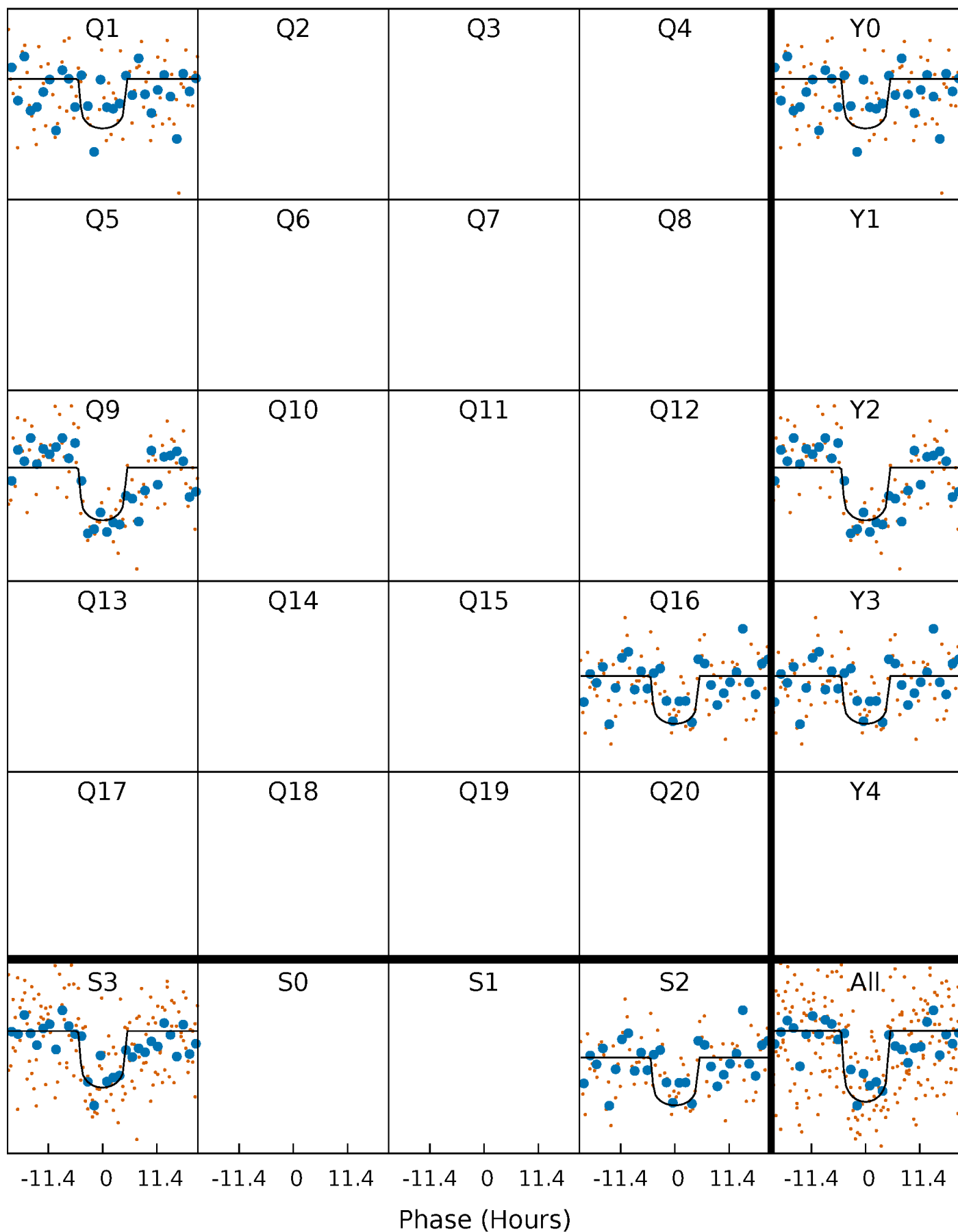
TCE 003446636-01 P=697.314873 Days  $T_0=158.043702$  (BKJD)





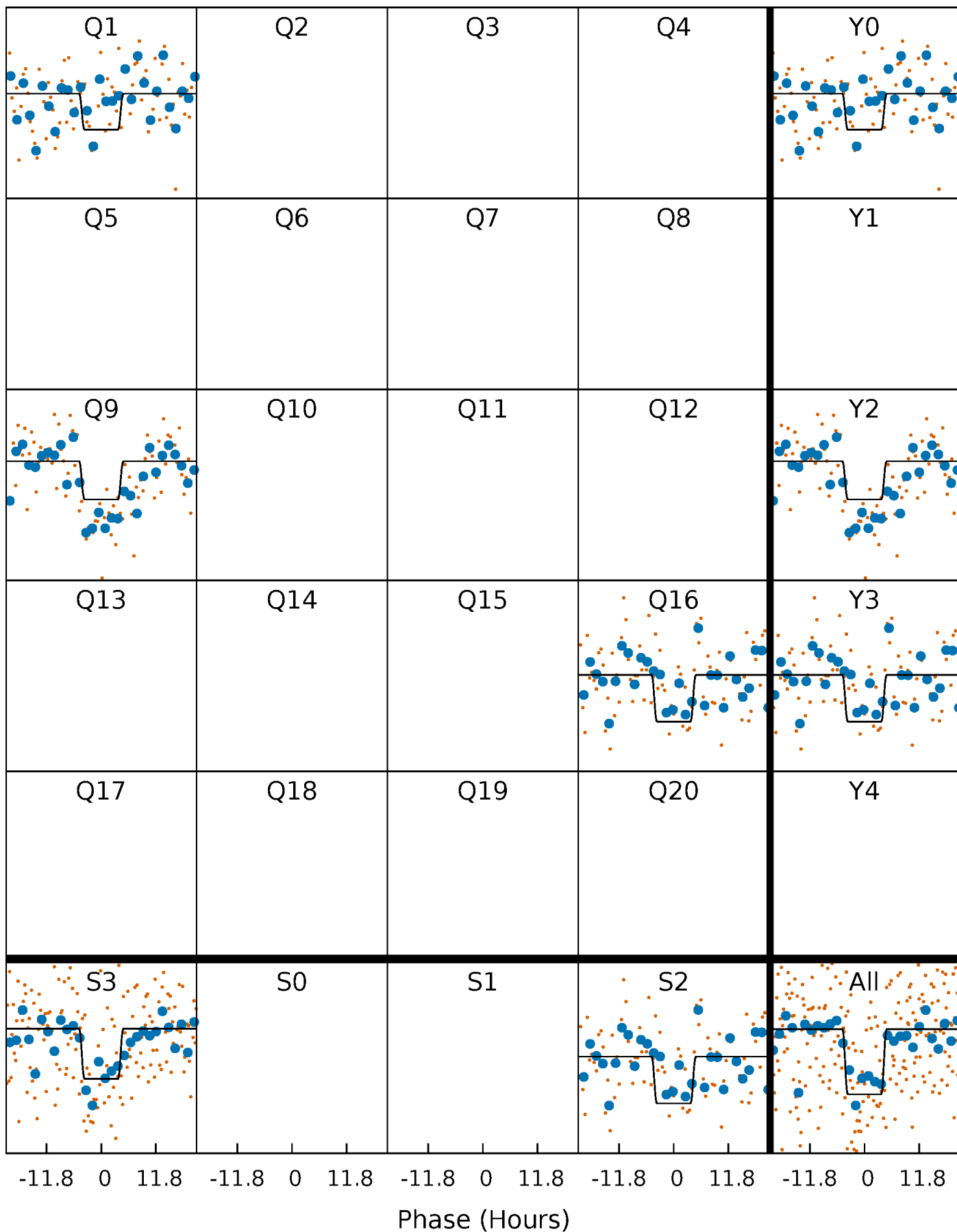
# DV Quarter-Phased Transit Curves

TCE 003446636-01 P=697.314873 Days  $T_0=158.043702$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

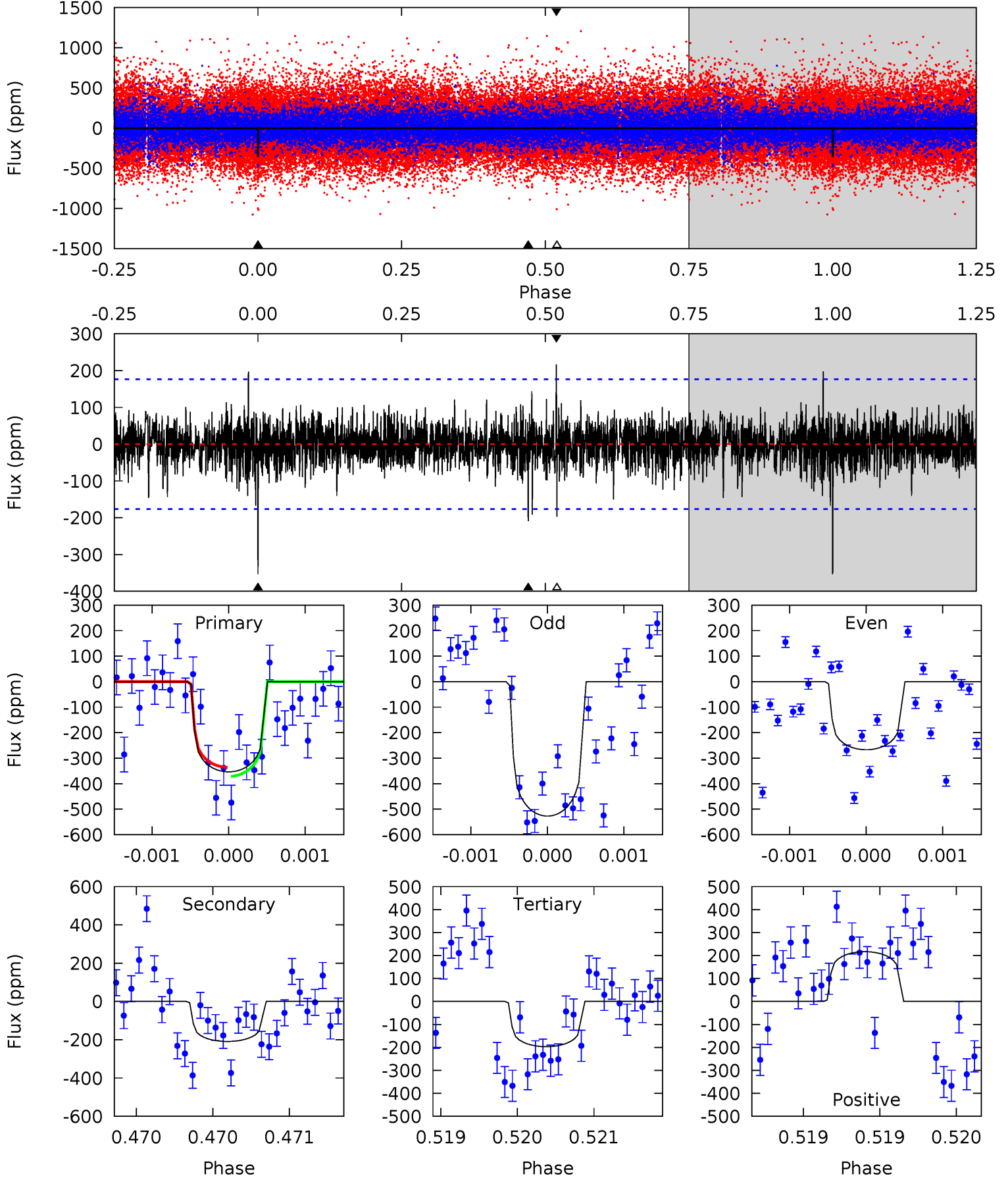
TCE 003446636-01 P=697.322480 Days  $T_0=158.041399$  (BKJD)



# DV Model-Shift Uniqueness Test

003446636-01, P = 697.314873 Days, E = 158.043702 Days

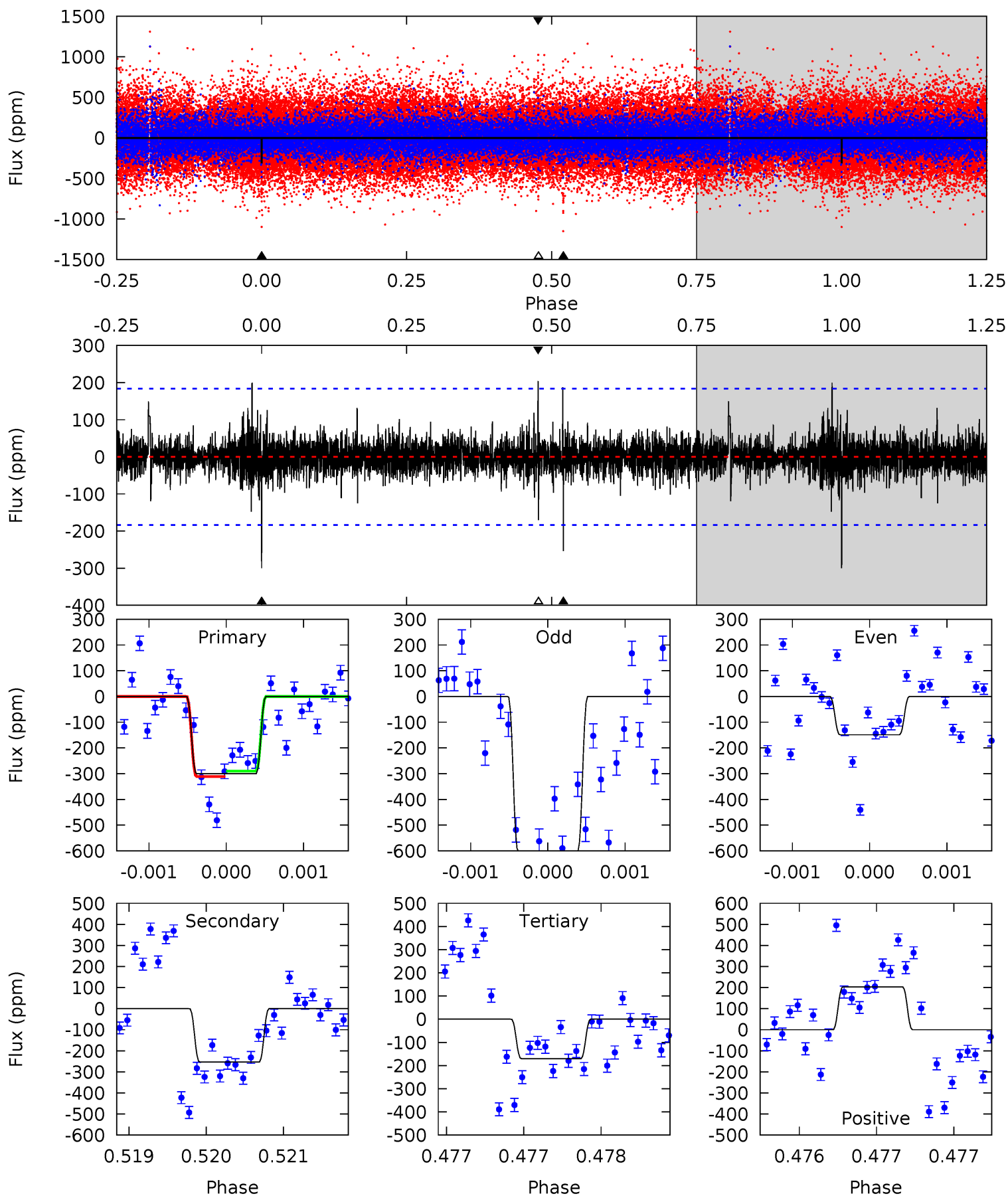
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	6.56	6.18	6.80	5.54	3.42	1.24	4.92	4.29	0.39	-0.24	3.88	1.23	0.38	0.55



# Alt Model-Shift Uniqueness Test

003446636-01, P = 697.322480 Days, E = 158.041399 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
9.07	7.66	5.16	6.15	5.55	3.45	0.97	3.91	2.92	2.50	1.50	6.52	1.73	0.40	0.32



### Stellar Parameters For KIC 003446636

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6031^{+81}_{-81}$	$4.193^{+0.182}_{-0.098}$	$-0.380^{+0.150}_{-0.150}$	$1.272^{+0.196}_{-0.262}$	$0.922^{+0.065}_{-0.058}$	$0.630^{+0.576}_{-0.185}$
	+1%/-1%	+4%/-2%	+39%/-39%	+15%/-21%	+7%/-6%	+91%/-29%
Source	SPE68	SPE68	SPE68	DSEP		

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

### Secondary Eclipse Parameters for KIC 003446636-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-209 \pm 32$	$2.76^{+1.26}_{-1.04}$	$341^{+15}_{-20}$	$5123^{+1353}_{-689}$	$33973^{+54308}_{-18179}$
Alt.	$-253 \pm 33$	$2.68^{+1.16}_{-1.15}$	$340^{+14}_{-19}$	$5439^{+1727}_{-751}$	$44463^{+84278}_{-23079}$

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

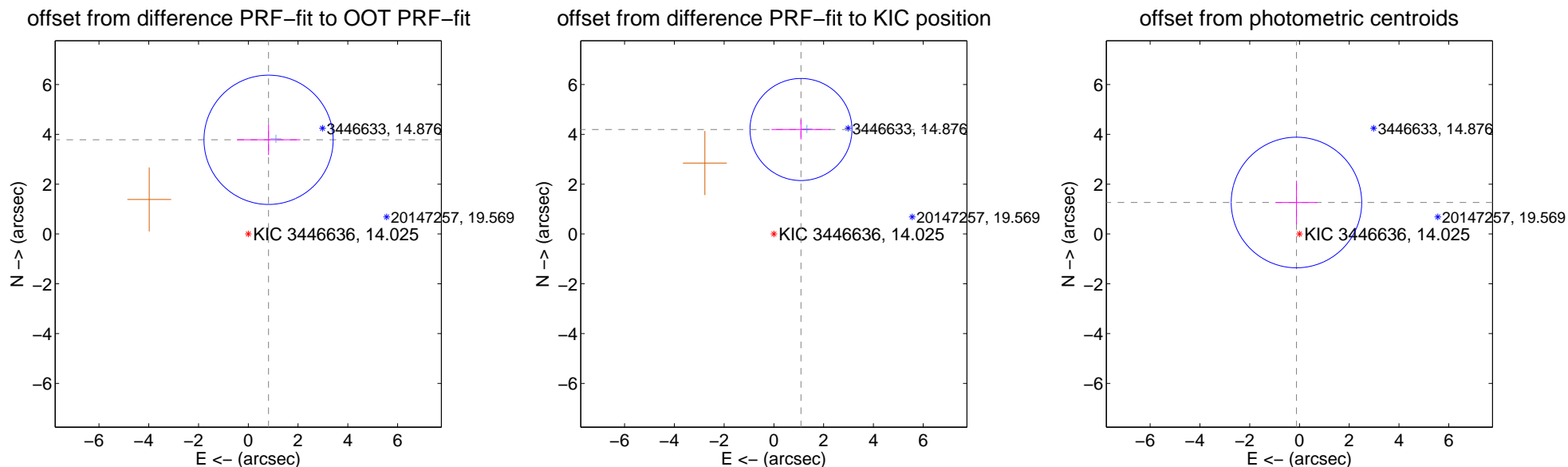
## DV Centroid Data

Supplemental centroid analysis for 003446636-01. Kepler magnitude: 14.03. Transit SNR 8.94

There are 1 quarters with good PRF difference image offsets

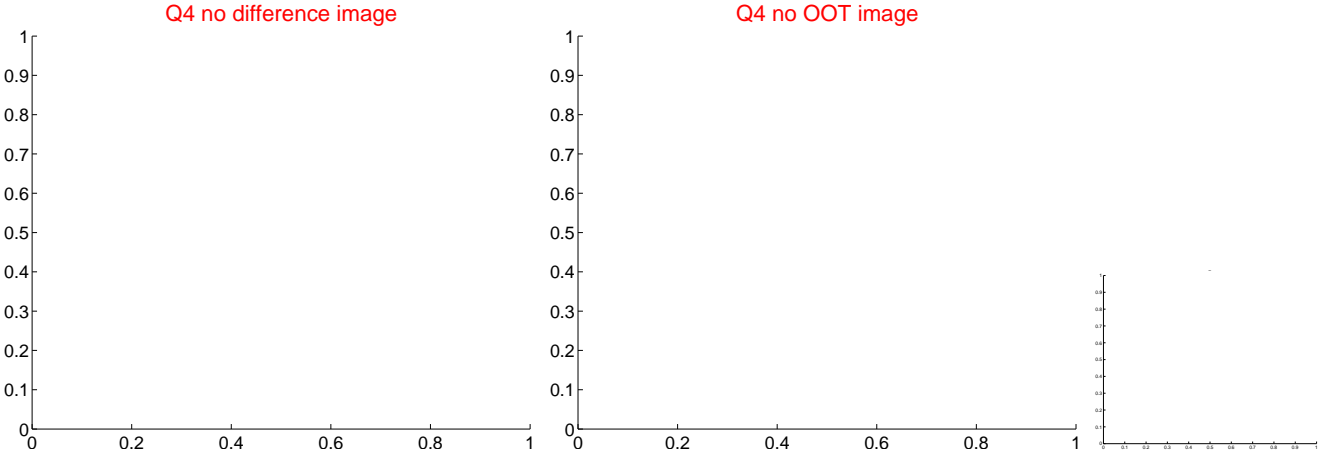
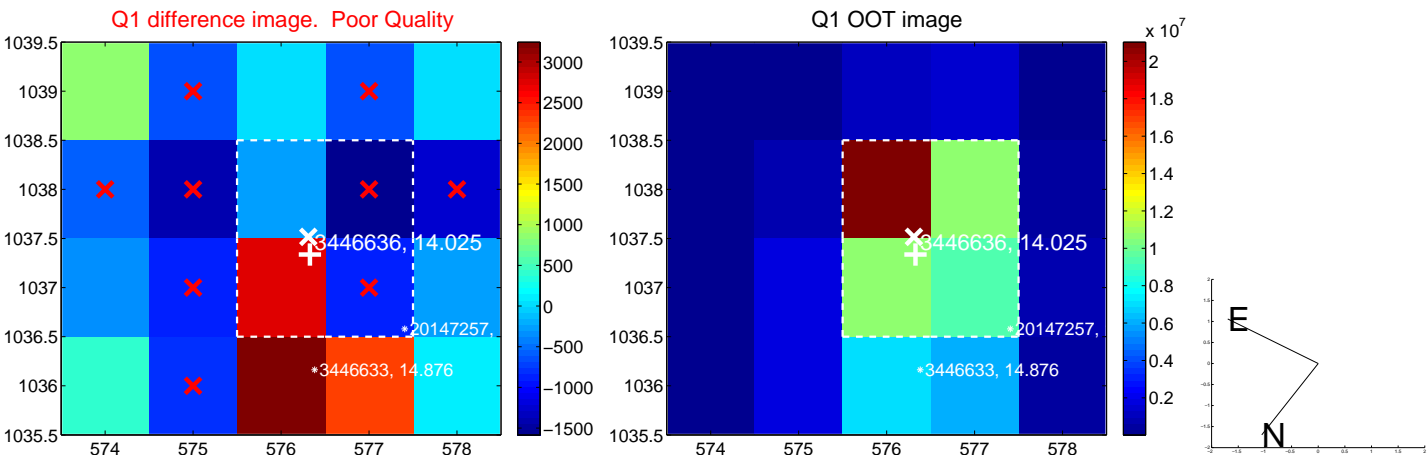
The direct PRF centroid is offset from the target star catalog position by about 1.90 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$3.869 \pm 0.865$	4.47	$-0.815 \pm 1.274$	$3.782 \pm 0.612$
PRF-fit source offset from KIC position	$4.335 \pm 0.683$	6.35	$-1.089 \pm 1.185$	$4.196 \pm 0.401$
photometric centroid source offset	$1.27 \pm 0.87$	1.45	$0.12 \pm 0.83$	$1.26 \pm 0.87$



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

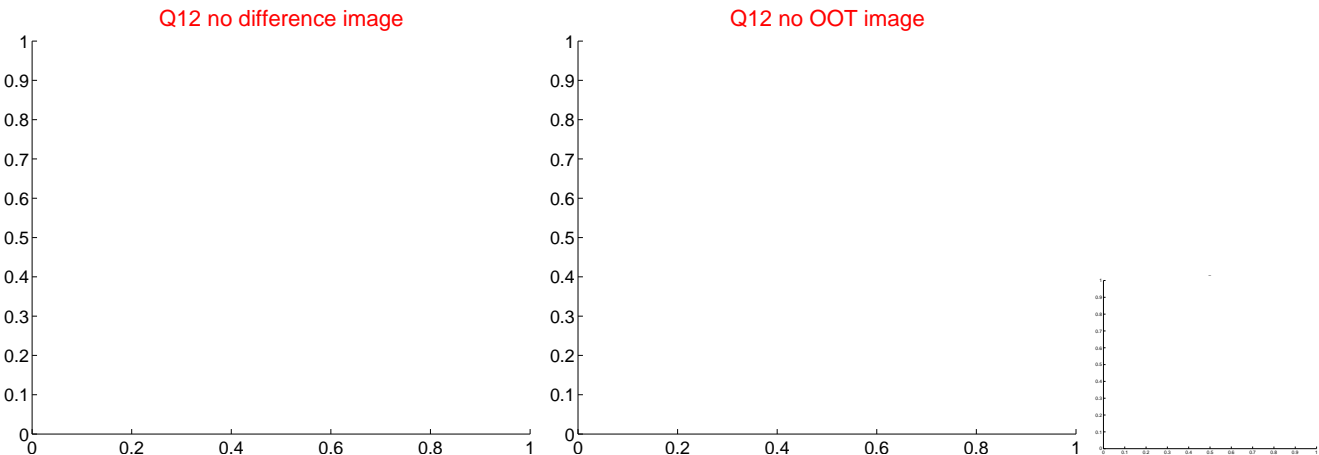
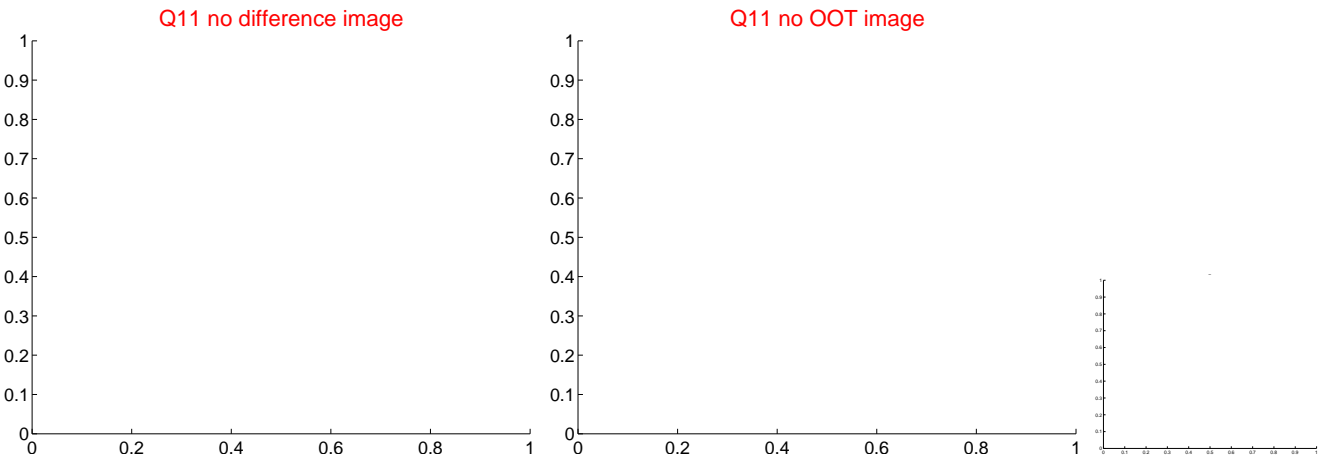
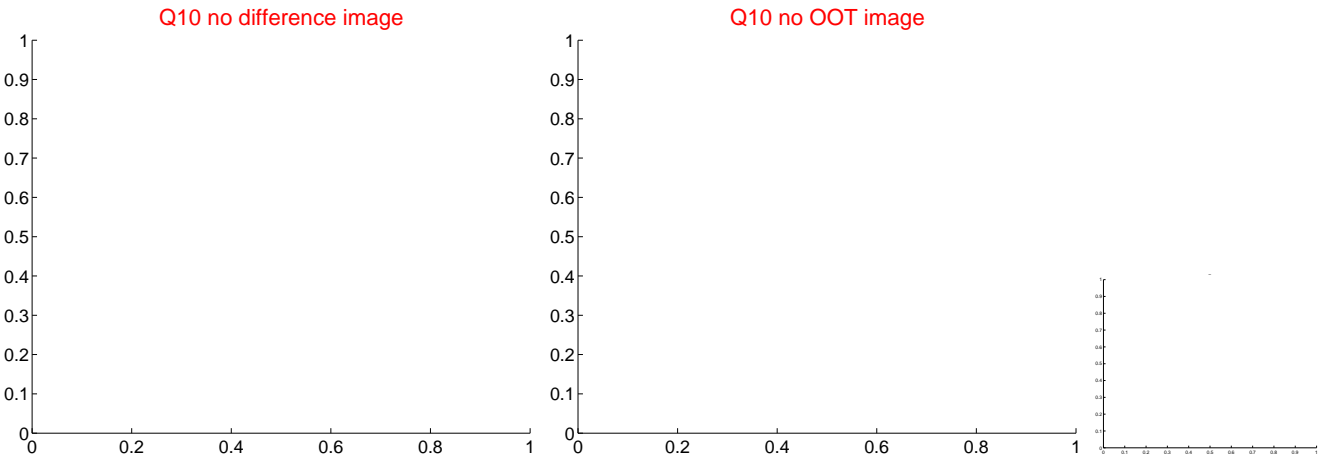
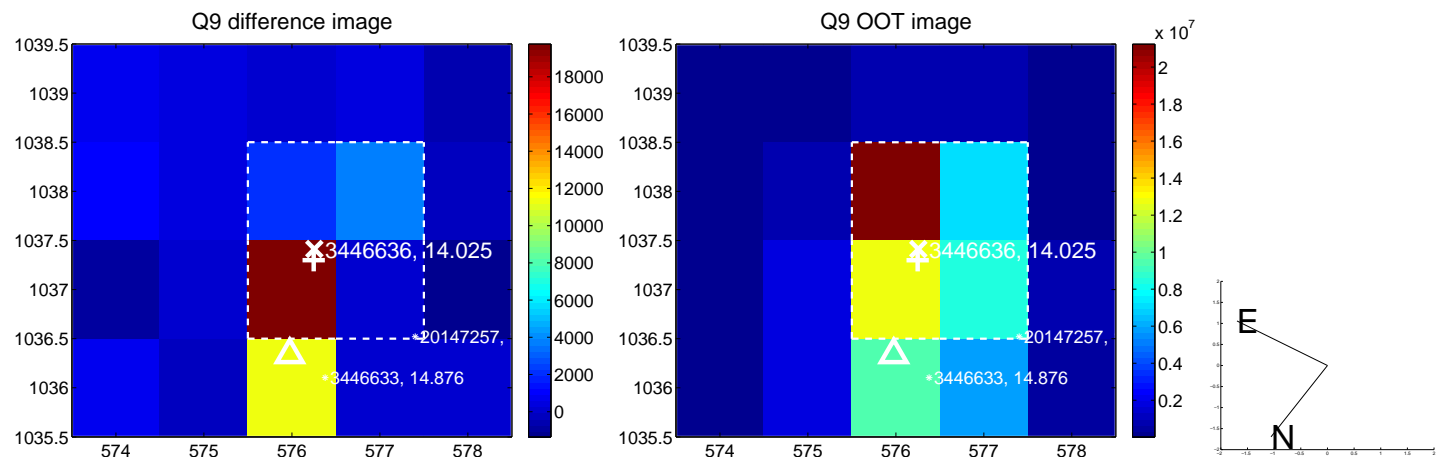


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

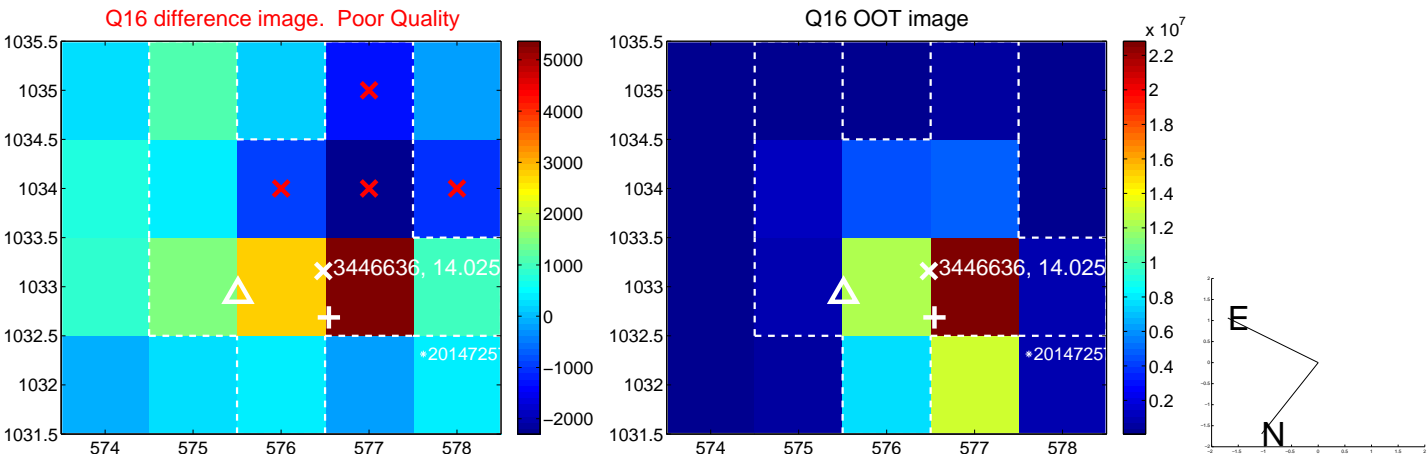




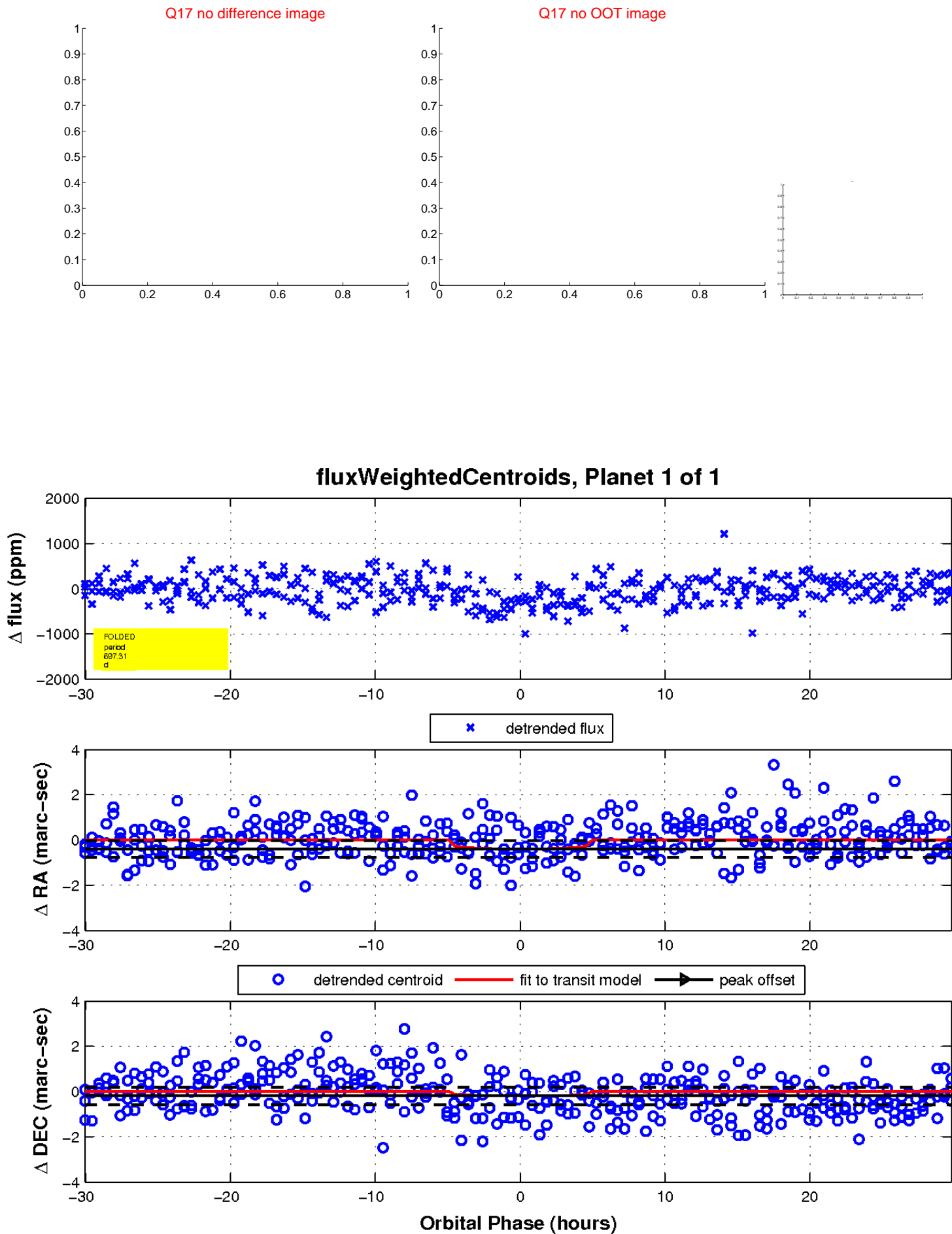
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



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



UKIRT Image

Declination

