

# KIC 008095446

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008095446-01	OBS	No	466.565390	161.345448	460.5	4.644	7.2	7.4	0.71	5566	1.66	0.37

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008095446-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

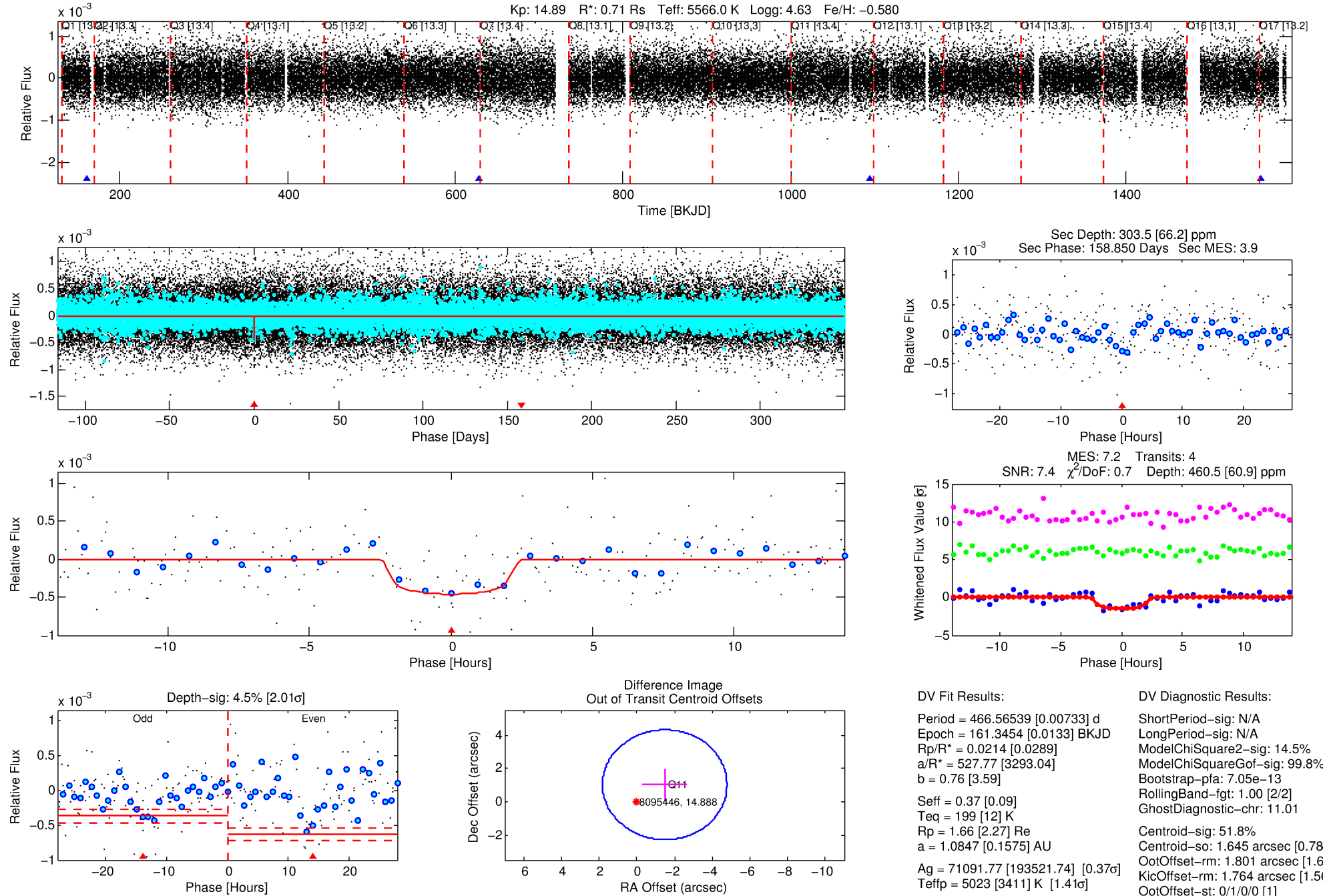
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008095446-01

No Significant Match Found

# DV One-Page Summary

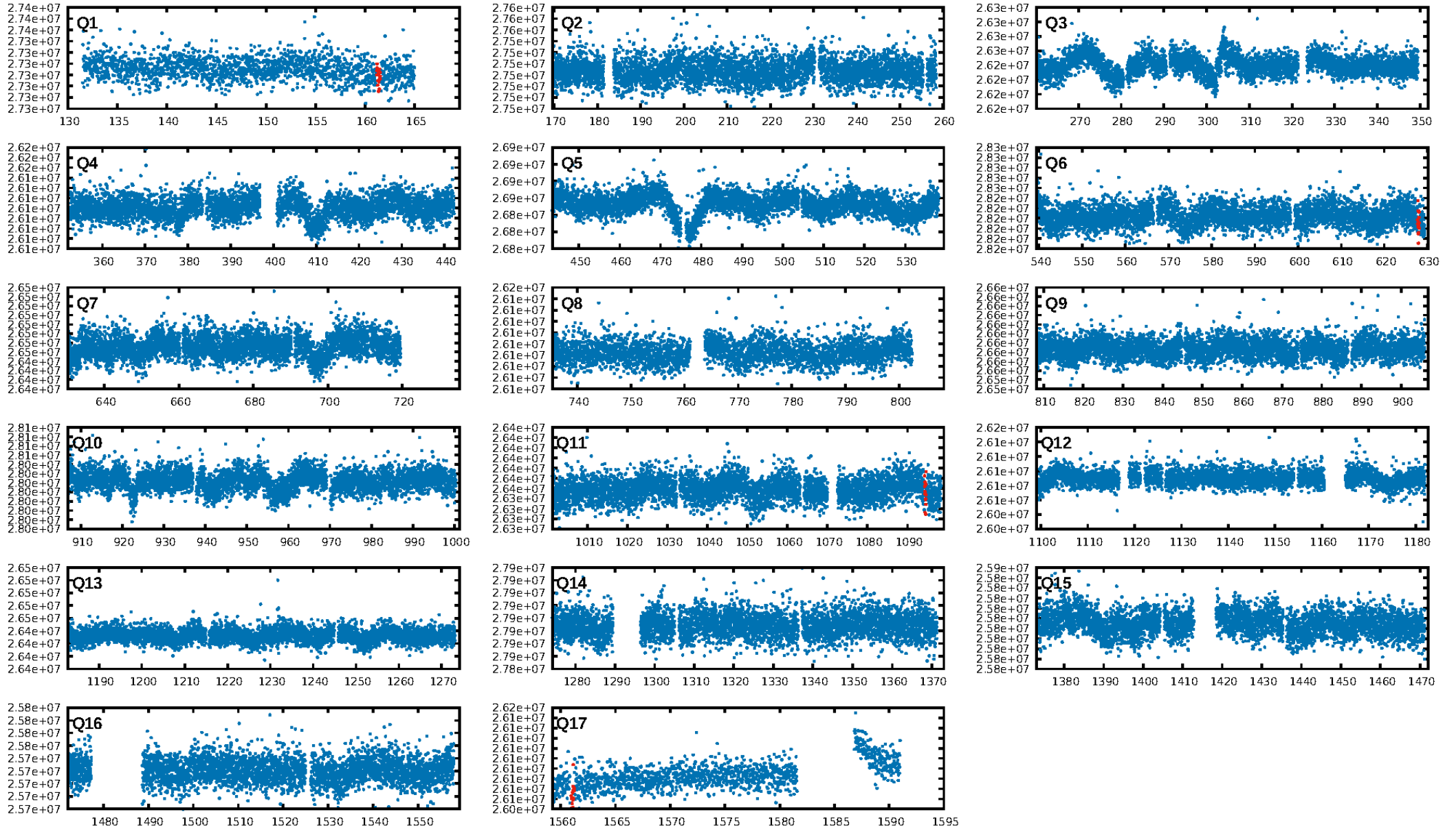
KIC: 8095446 Candidate: 1 of 1 Period: 466.565 d



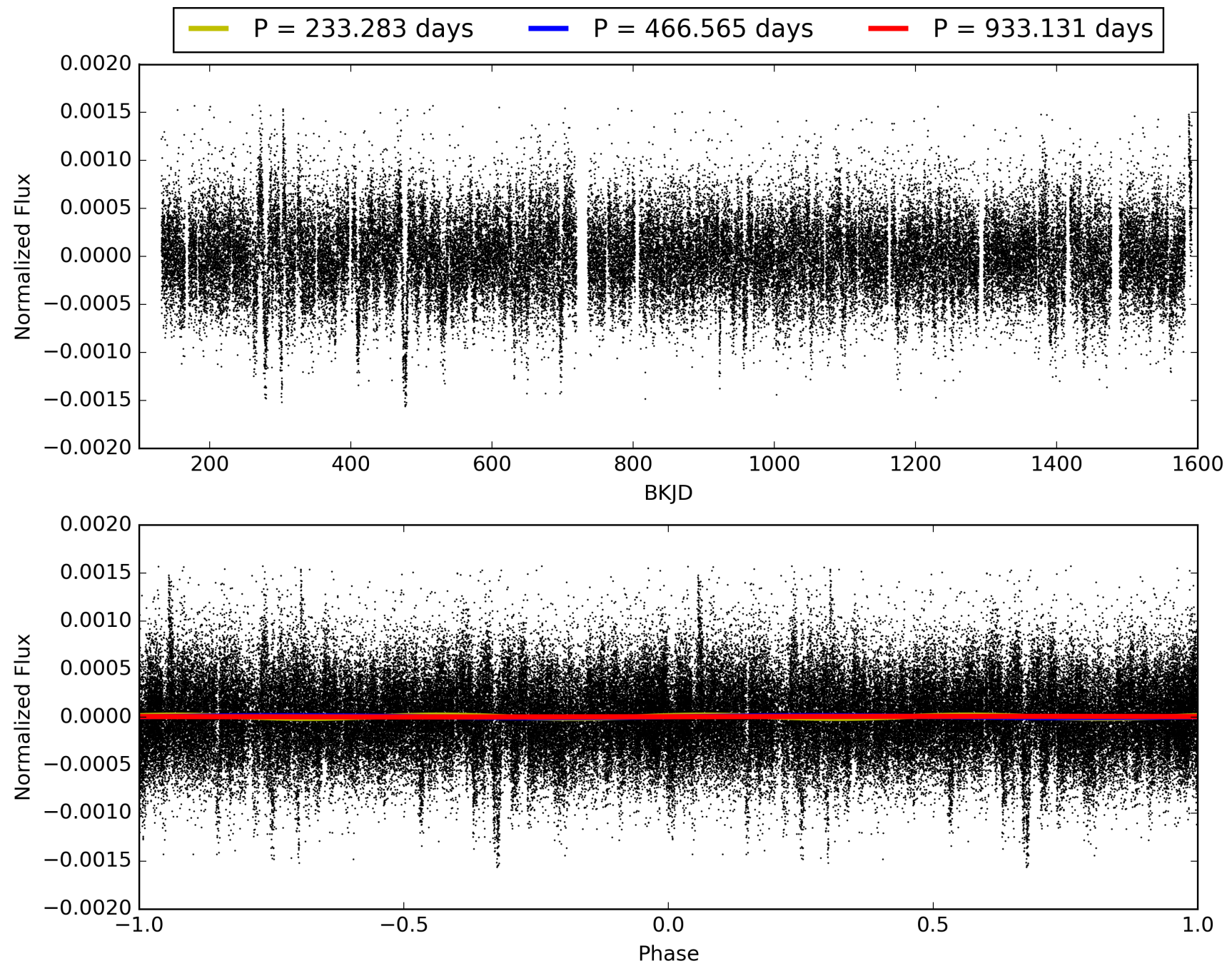
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:42:14 Z

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

# TCE 008095446-01, PDC Light Curves

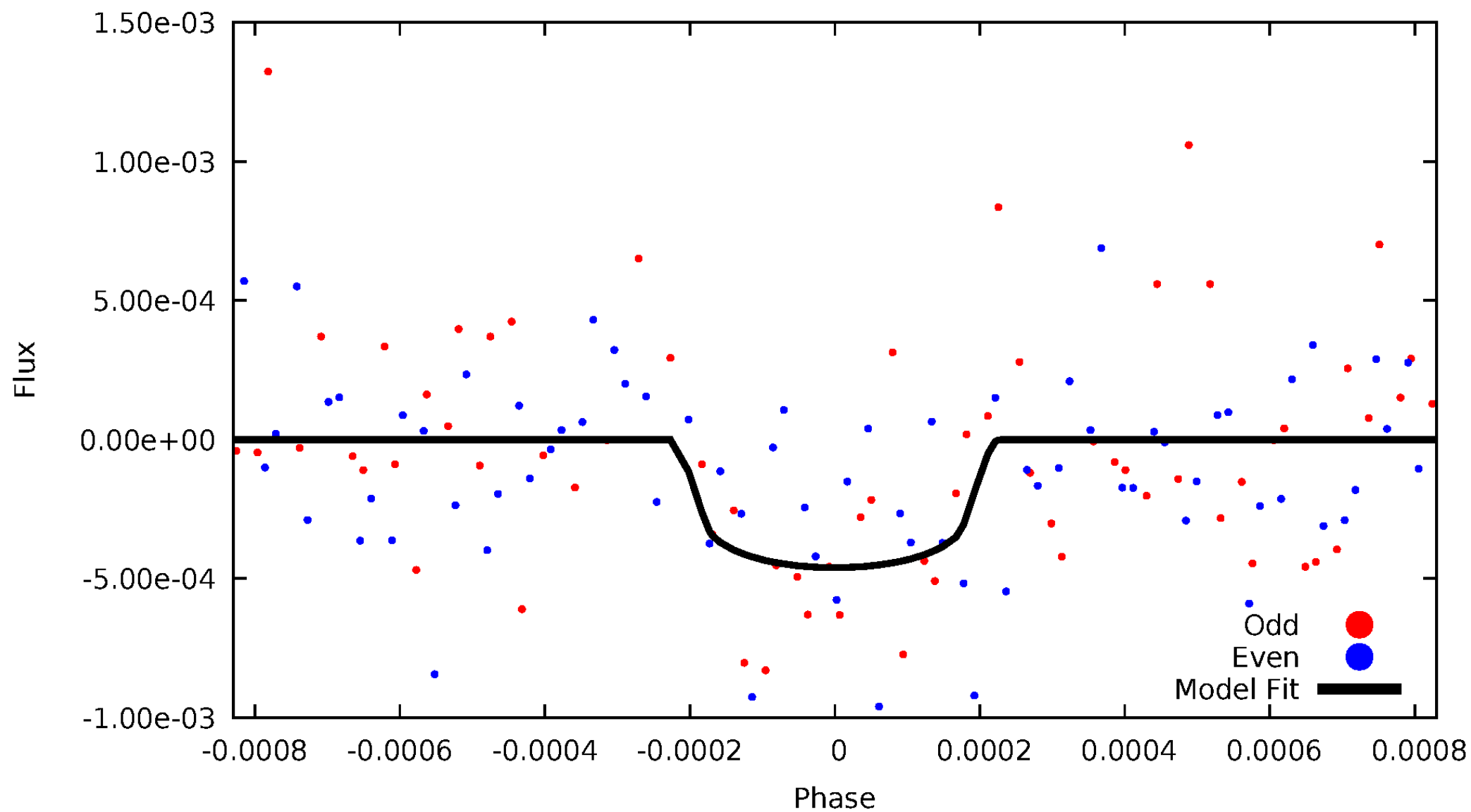


TCE 008095446-01



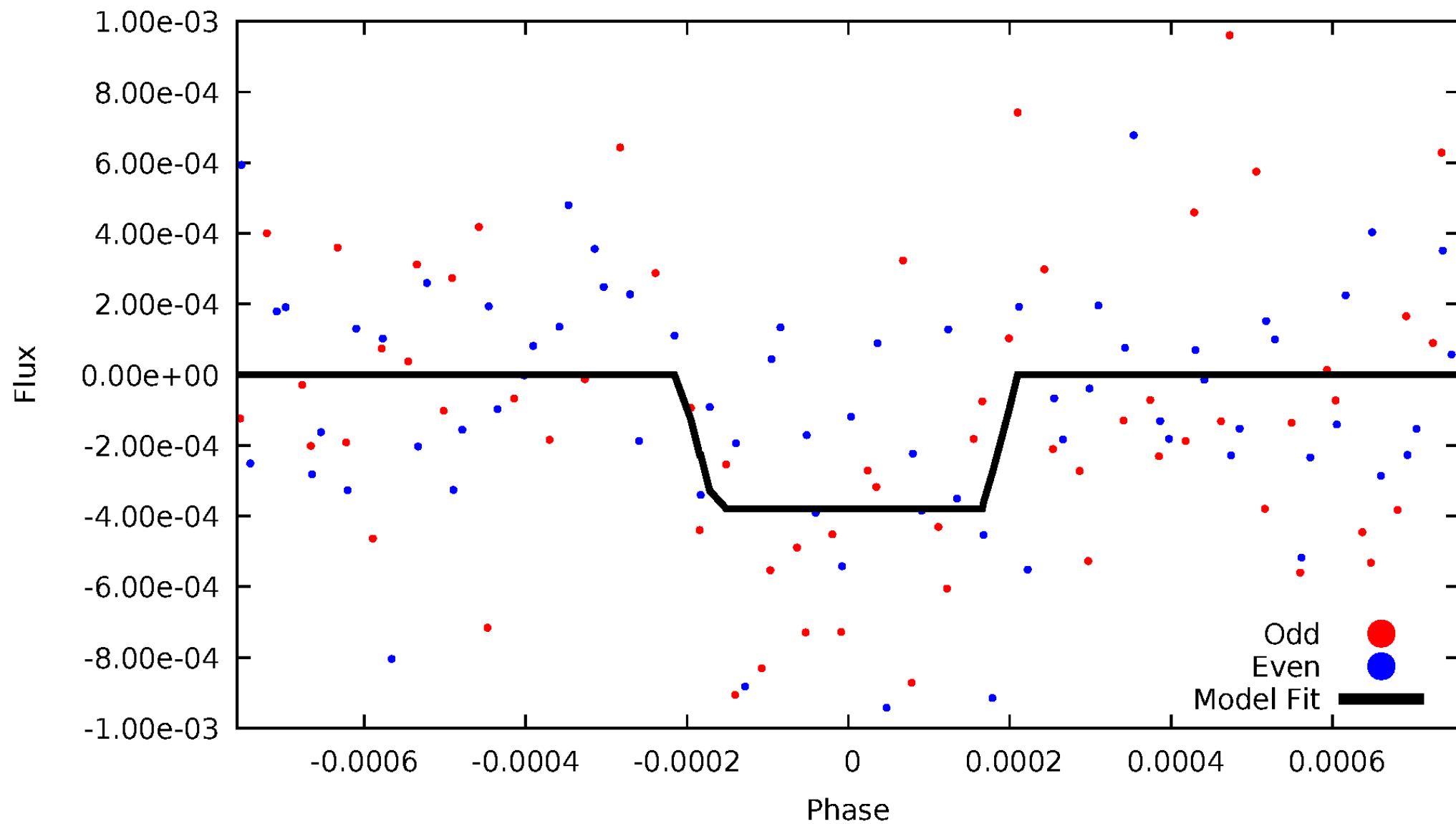
# DV Odd/Even

TCE 008095446-01

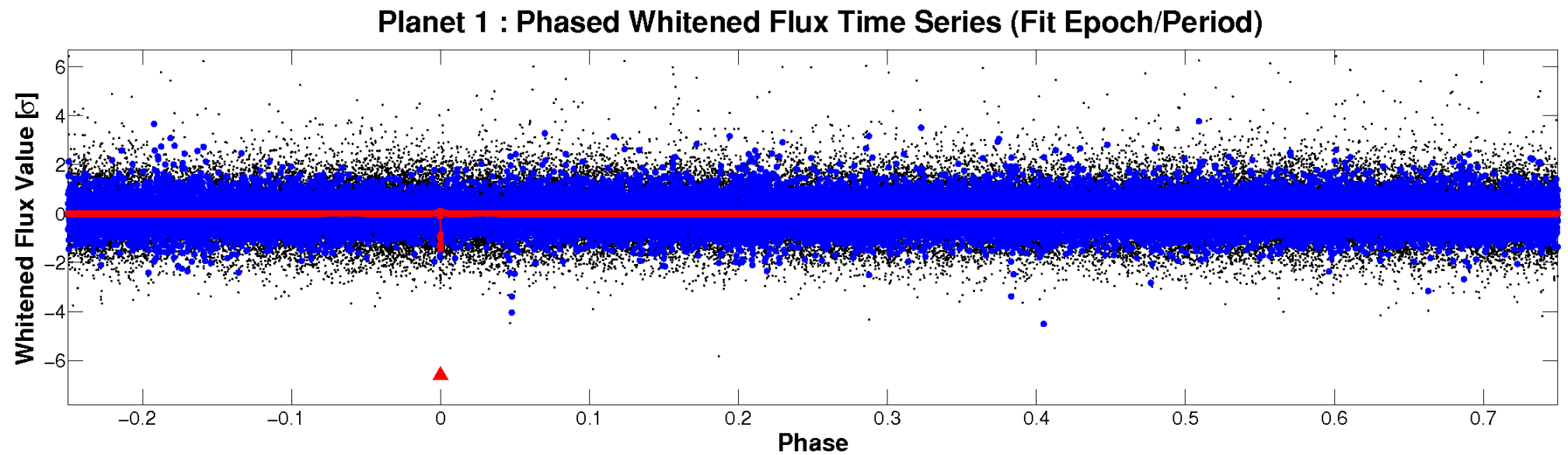
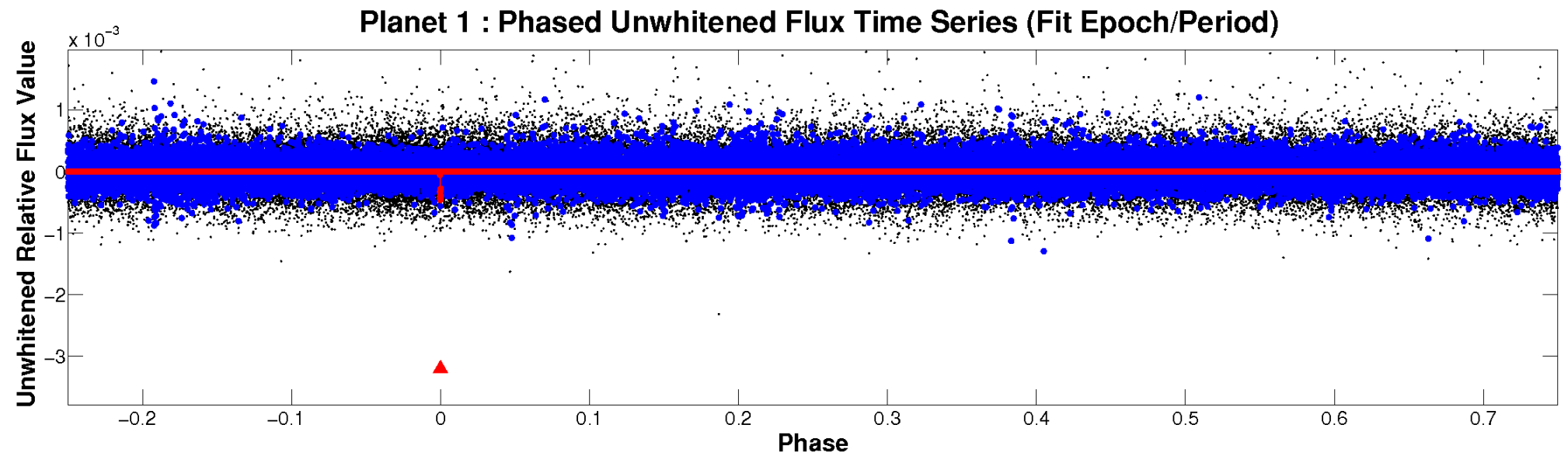


# ALT Odd/Even

TCE 008095446-01



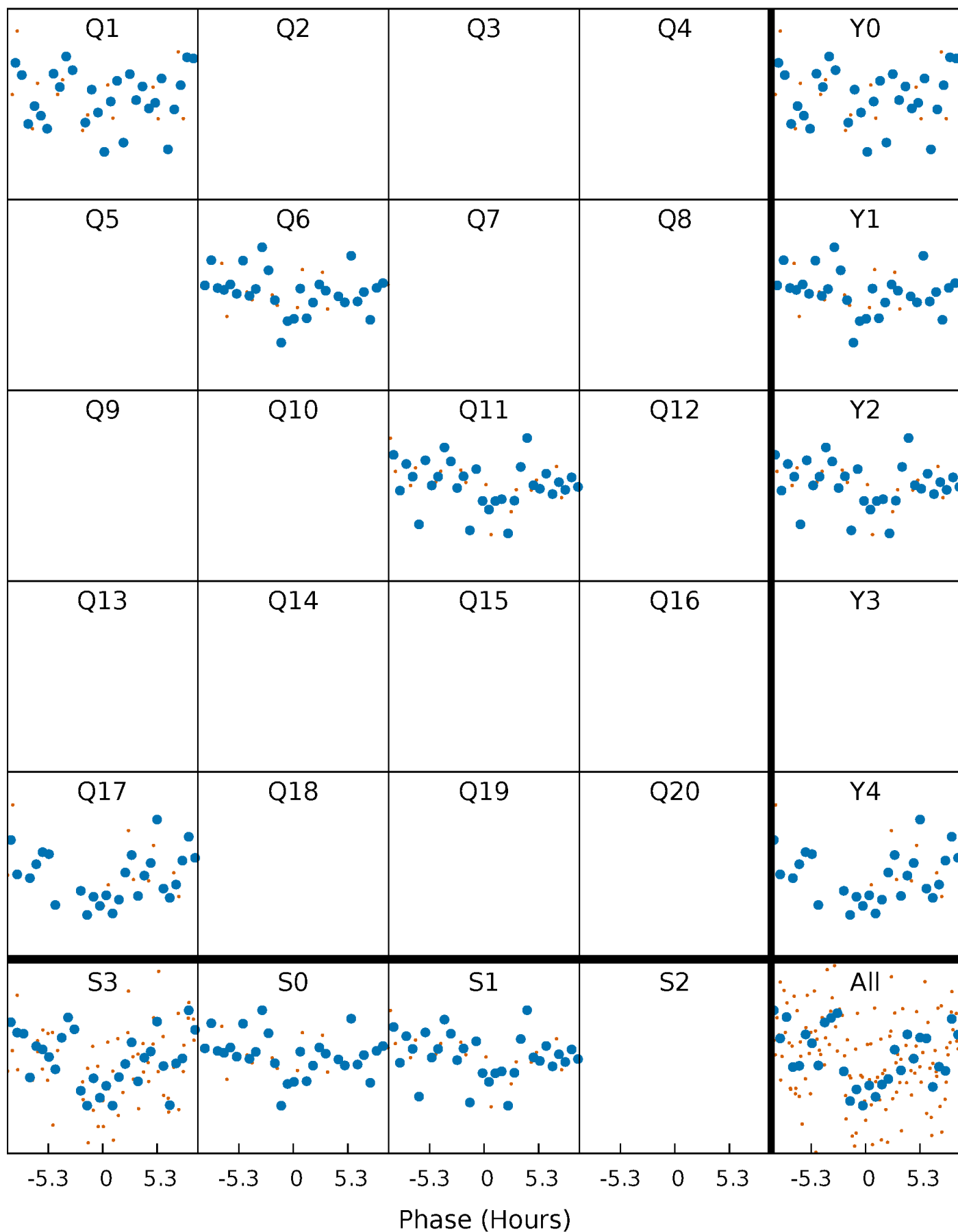
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

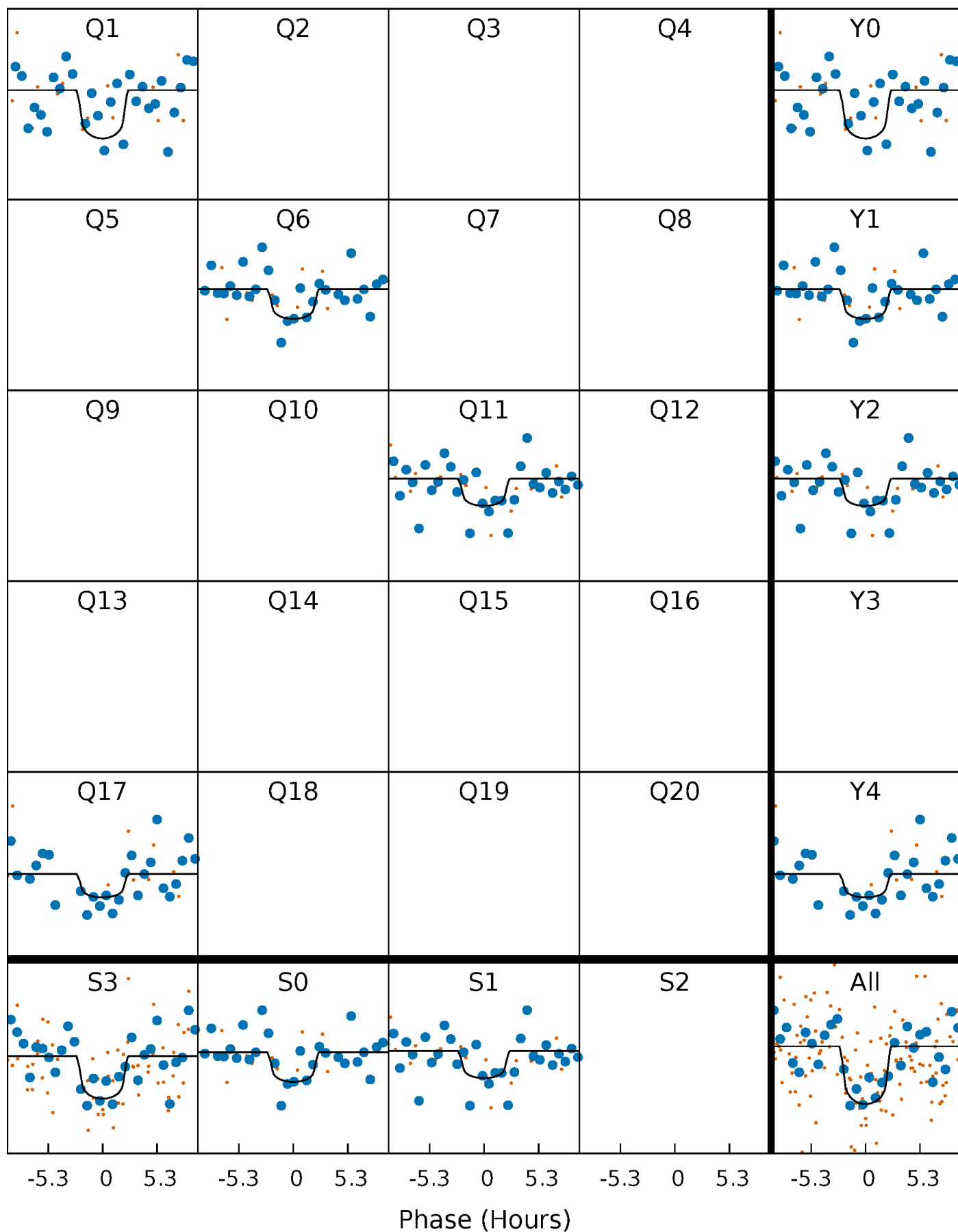
TCE 008095446-01 P=466.565390 Days  $T_0=161.345448$  (BKJD)





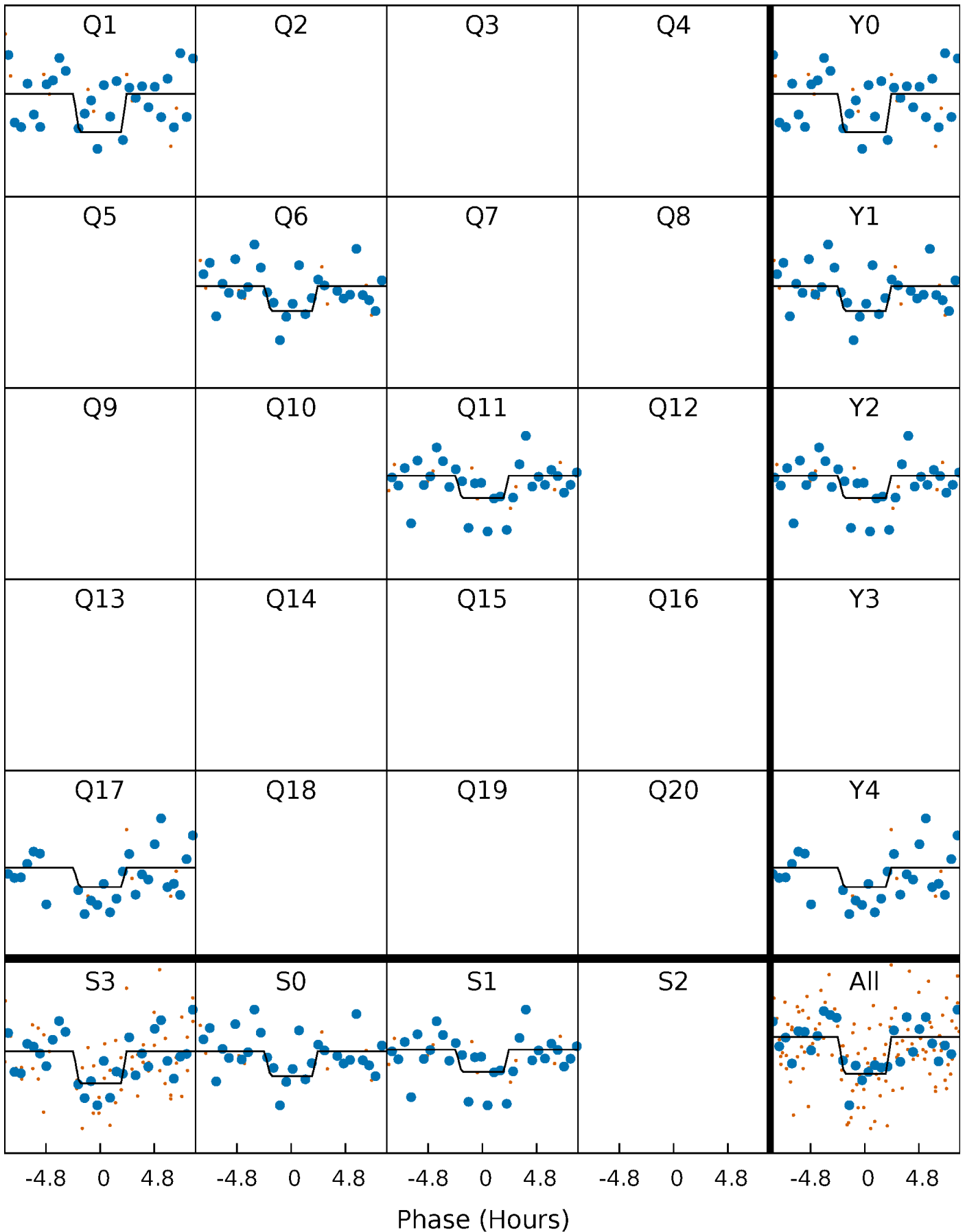
# DV Quarter-Phased Transit Curves

TCE 008095446-01 P=466.565390 Days  $T_0=161.345448$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

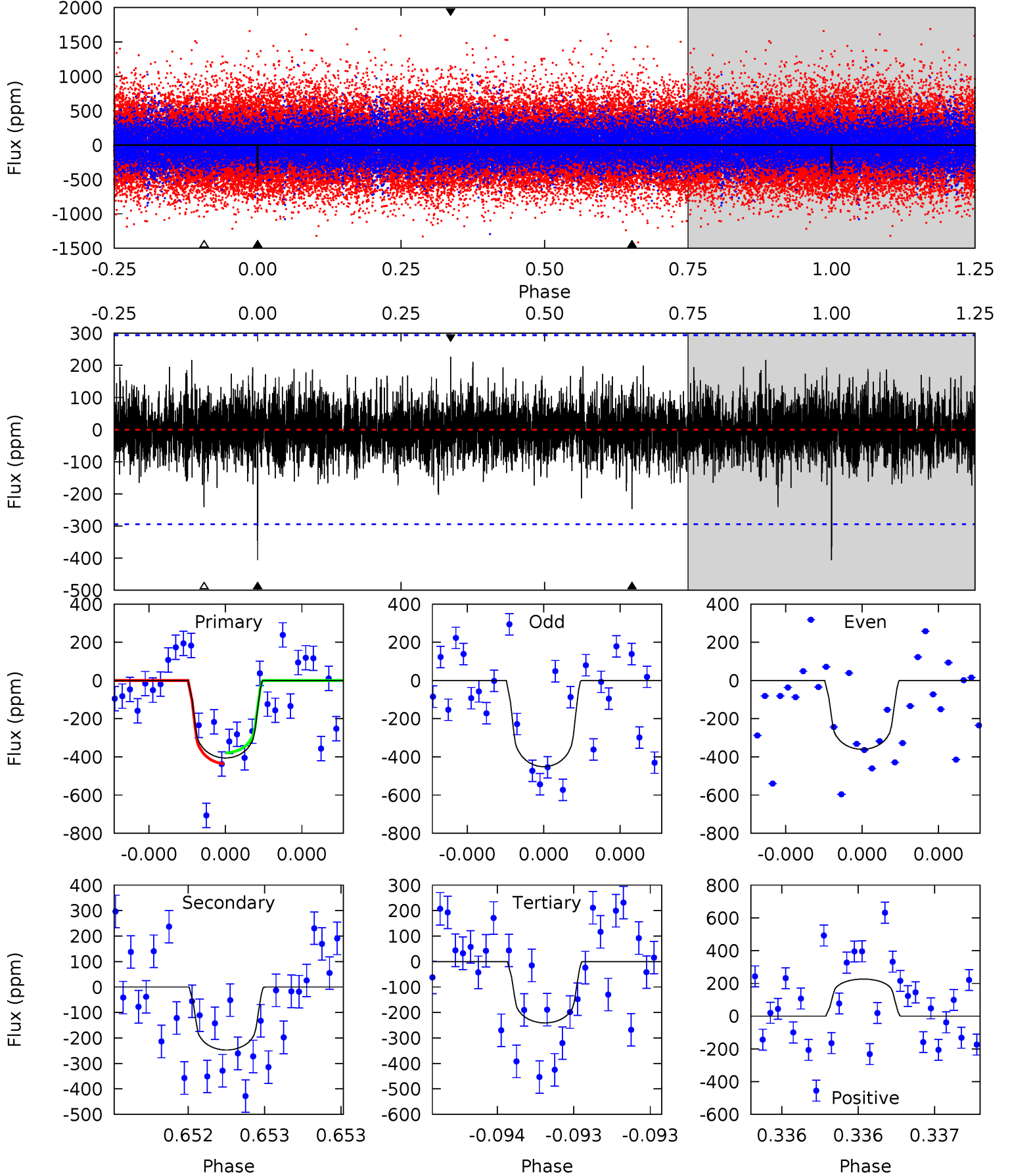
TCE 008095446-01 P=466.566287 Days  $T_0=161.350080$  (BKJD)



# DV Model-Shift Uniqueness Test

008095446-01, P = 466.565390 Days, E = 161.345448 Days

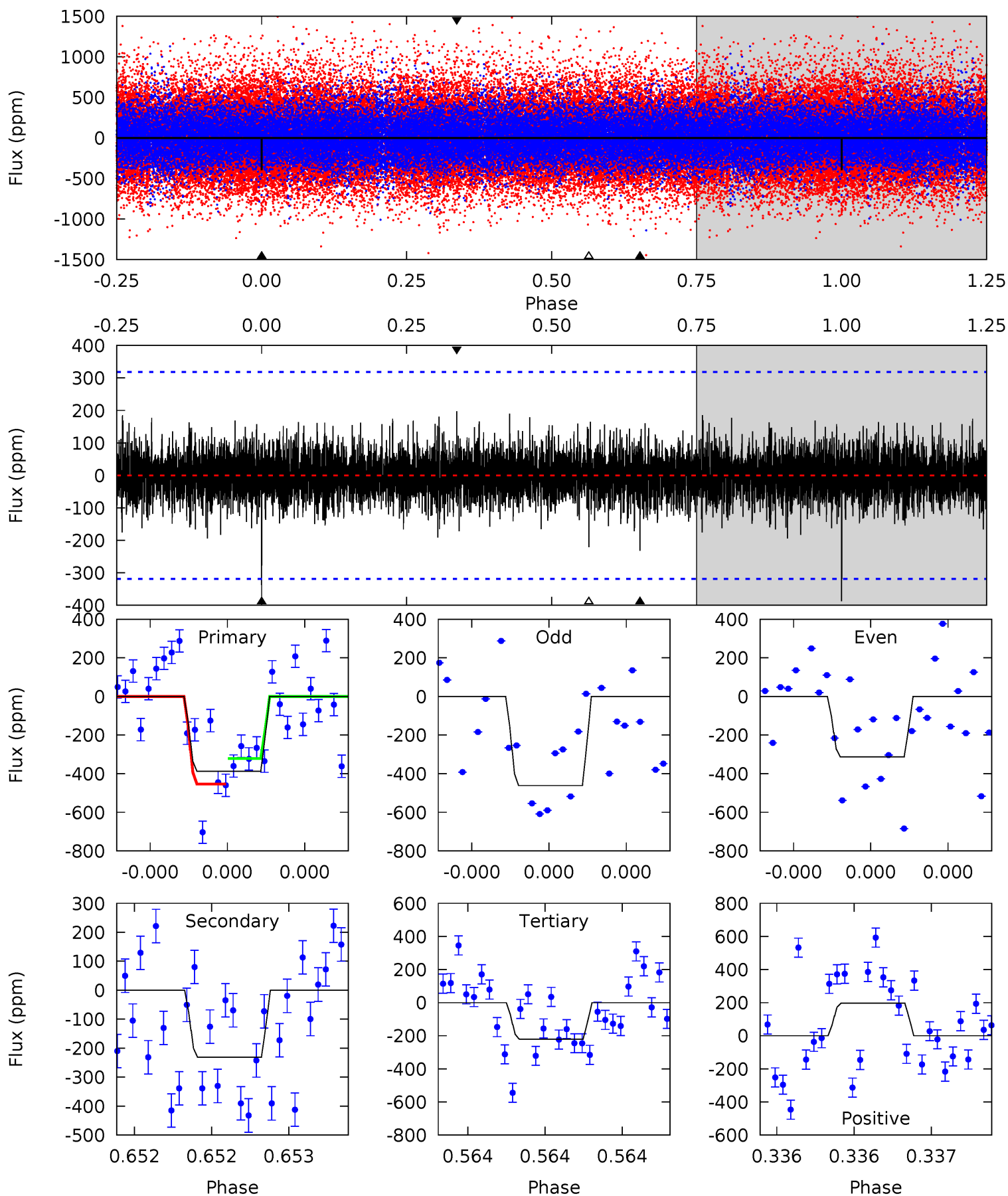
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.70	4.69	4.57	4.30	5.59	3.50	1.08	3.13	3.40	0.12	0.39	0.86	1.00	0.36	0.53



# Alt Model-Shift Uniqueness Test

008095446-01, P = 466.566287 Days, E = 161.350080 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
6.84	4.09	3.90	3.48	5.62	3.55	0.91	2.94	3.36	0.19	0.61	1.31	1.02	0.34	1.17



### Stellar Parameters For KIC 008095446

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5566^{+165}_{-165}$	$4.626^{+0.030}_{-0.112}$	$-0.580^{+0.300}_{-0.300}$	$0.712^{+0.125}_{-0.054}$	$0.798^{+0.073}_{-0.087}$	$3.109^{+0.480}_{-1.087}$
	+3%/-3%	+1%/-2%	+52%/-52%	+18%/-8%	+9%/-11%	+15%/-35%
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 008095446-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-247 \pm 53$	$2.41^{+2.25}_{-1.61}$	$282^{+12}_{-11}$	$4239^{+2823}_{-818}$	$26742^{+224364}_{-19183}$
Alt.	$-232 \pm 57$	$2.27^{+2.05}_{-1.51}$	$284^{+11}_{-11}$	$4304^{+2546}_{-871}$	$28724^{+194593}_{-21192}$

$T_{max}$  = 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

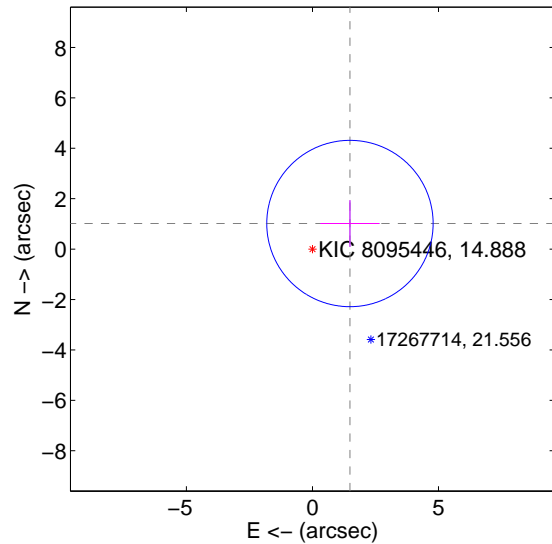
Supplemental centroid analysis for 008095446-01. Kepler magnitude: 14.89. Transit SNR 7.40

There are 1 quarters with good PRF difference image offsets

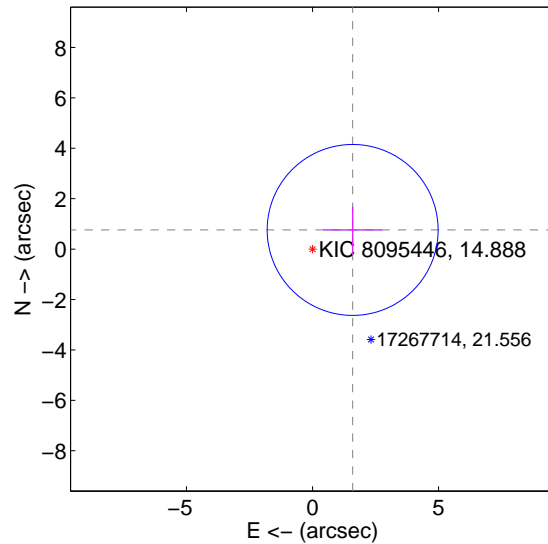
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.801 \pm 1.100$	1.64	$-1.488 \pm 1.172$	$1.015 \pm 0.927$
PRF-fit source offset from KIC position	$1.764 \pm 1.130$	1.56	$-1.592 \pm 1.172$	$0.760 \pm 0.927$
photometric centroid source offset	$1.65 \pm 2.12$	0.78	$-0.96 \pm 2.10$	$-1.33 \pm 2.13$

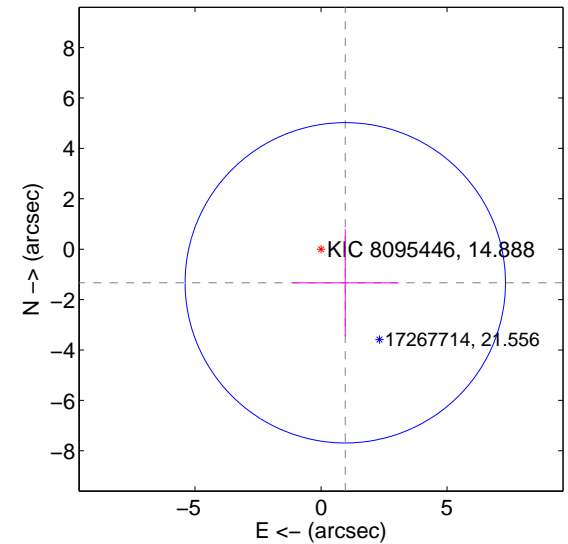
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

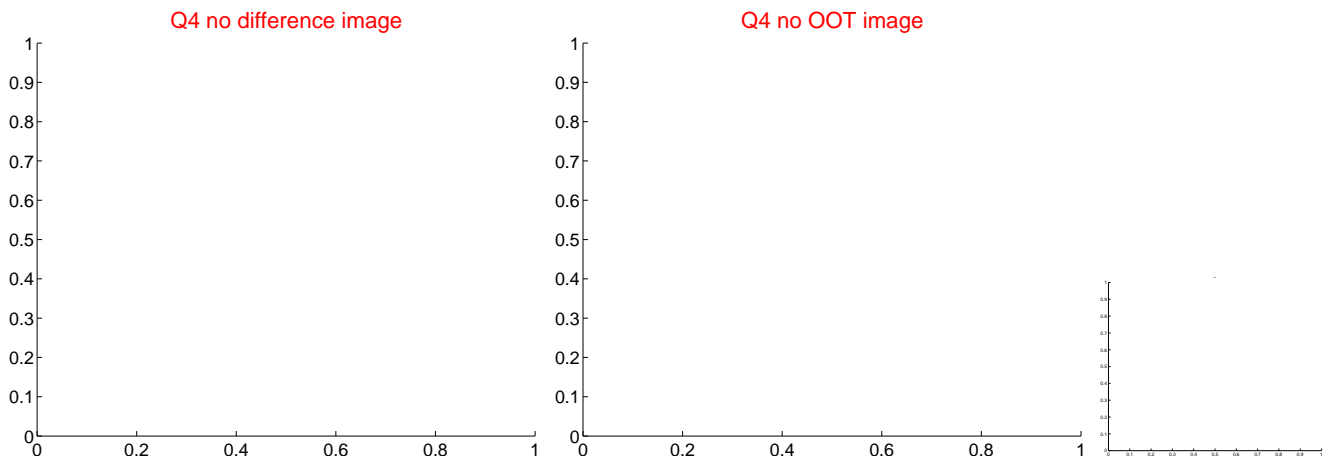
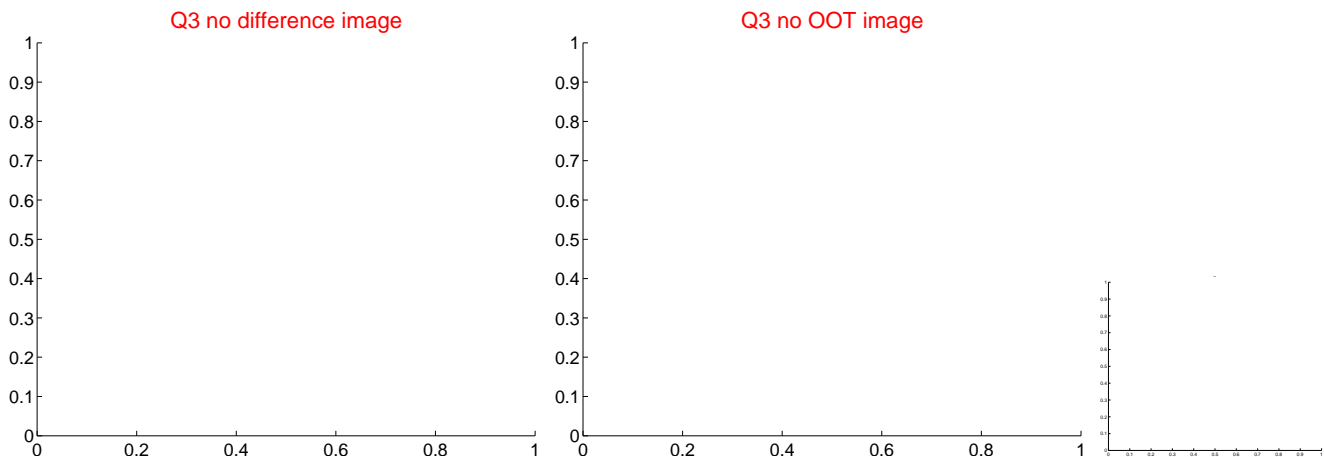
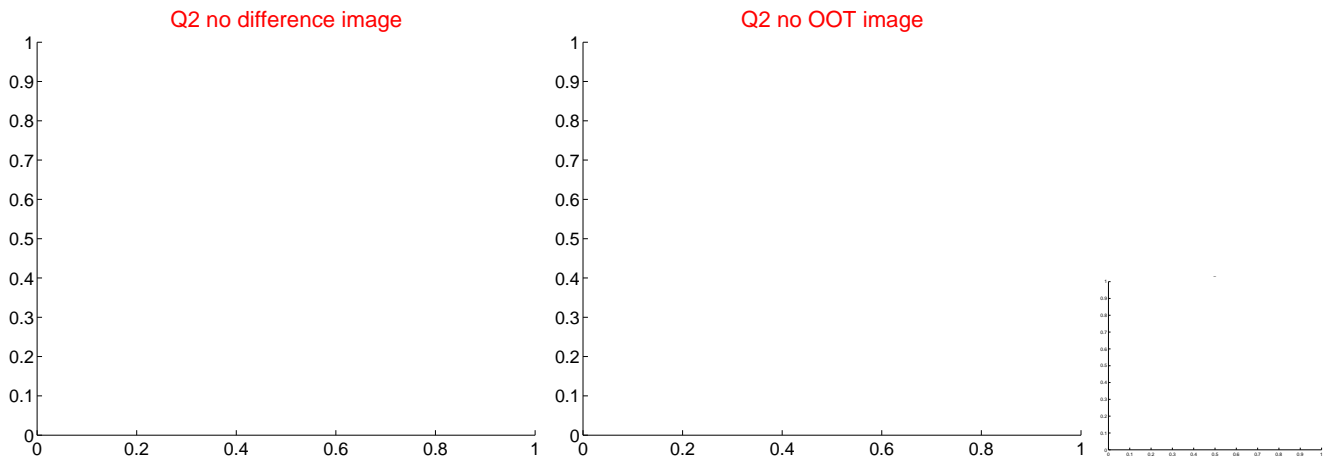
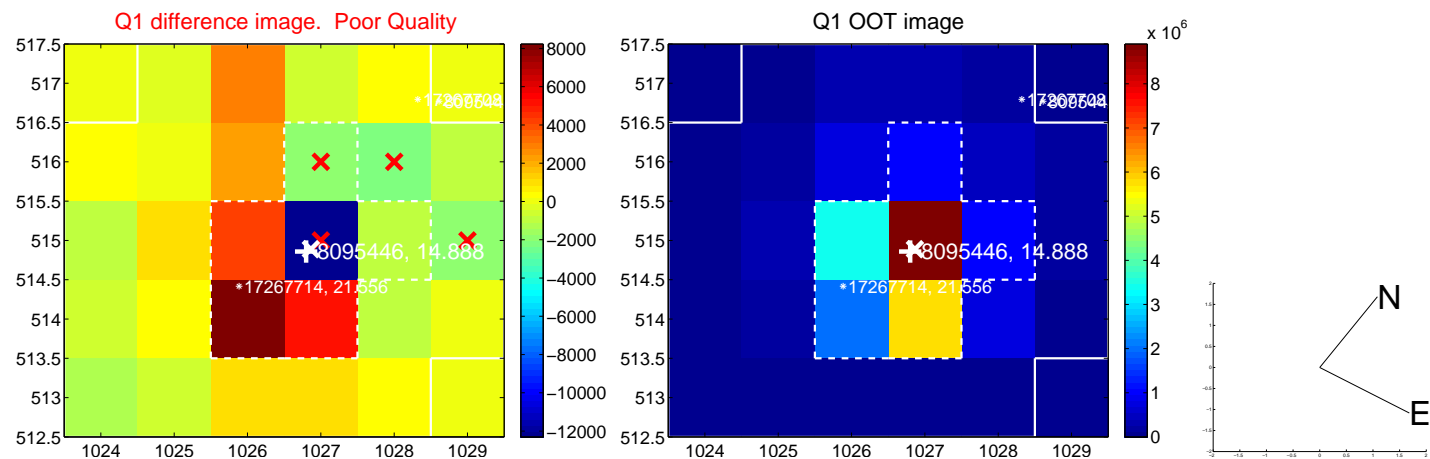


offset from photometric centroids



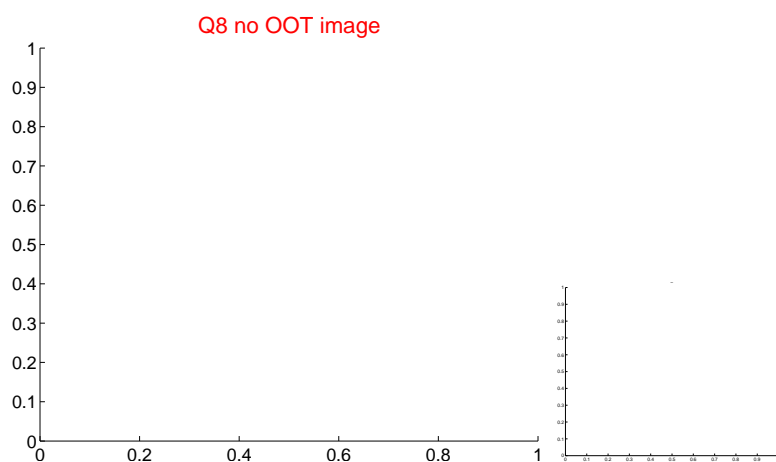
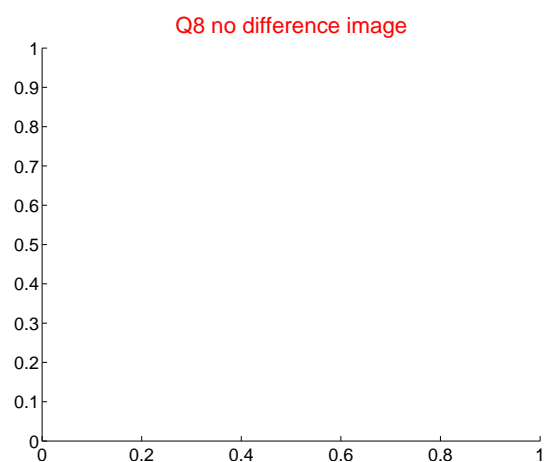
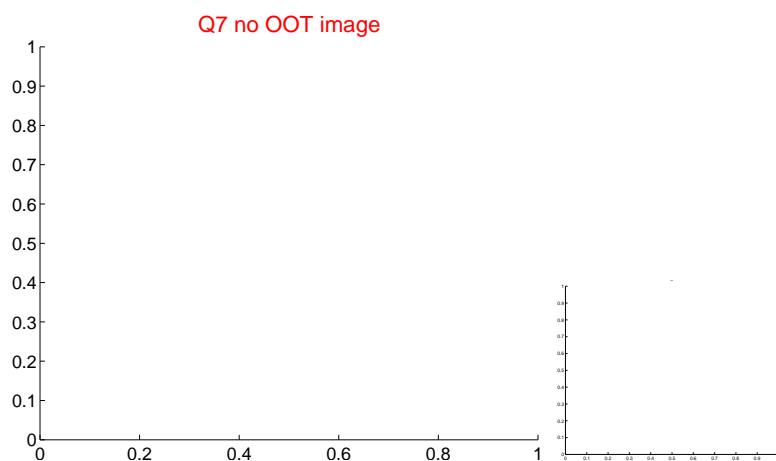
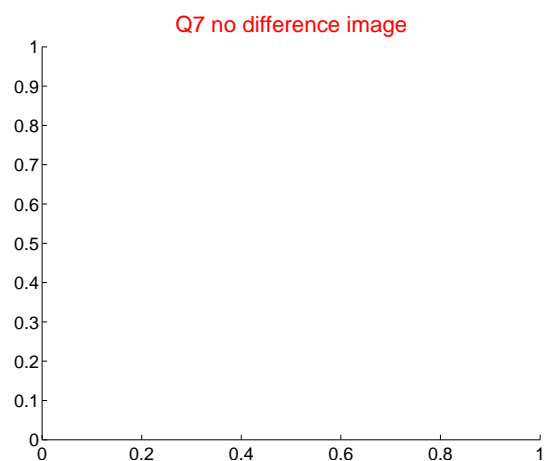
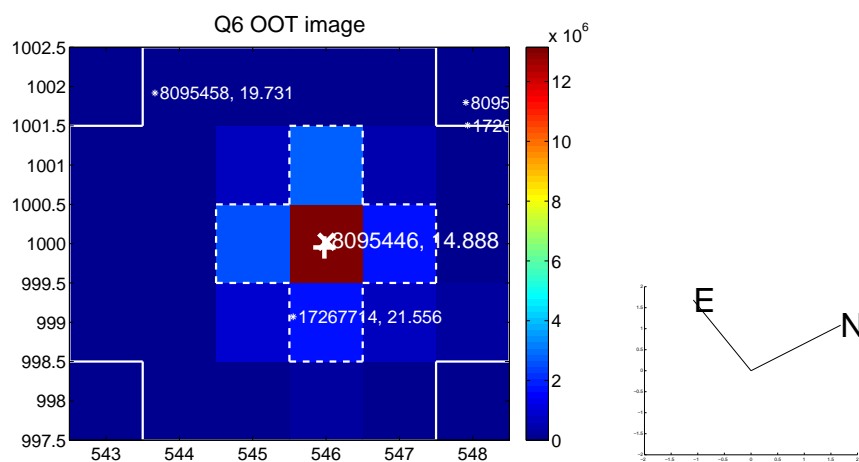
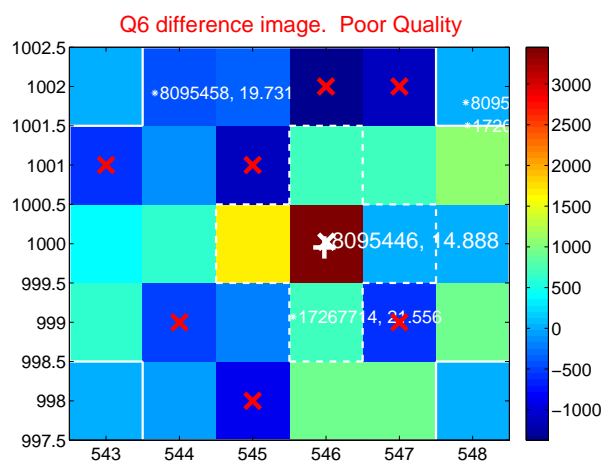
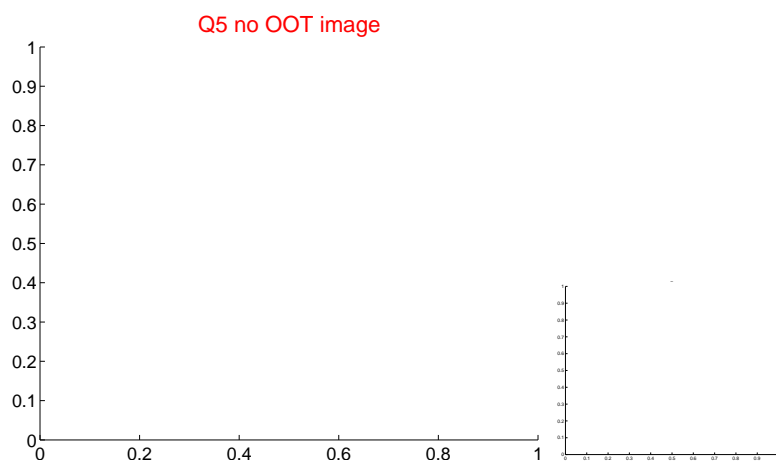
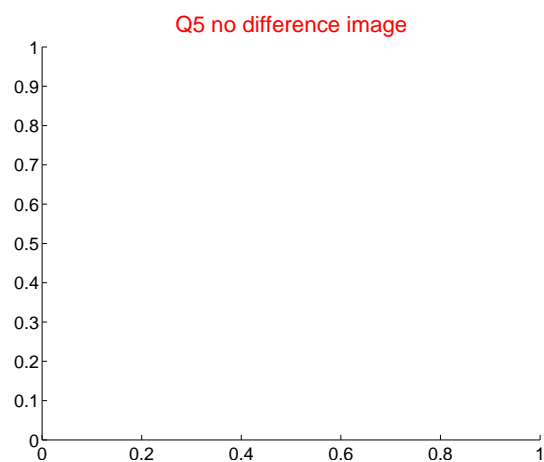
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

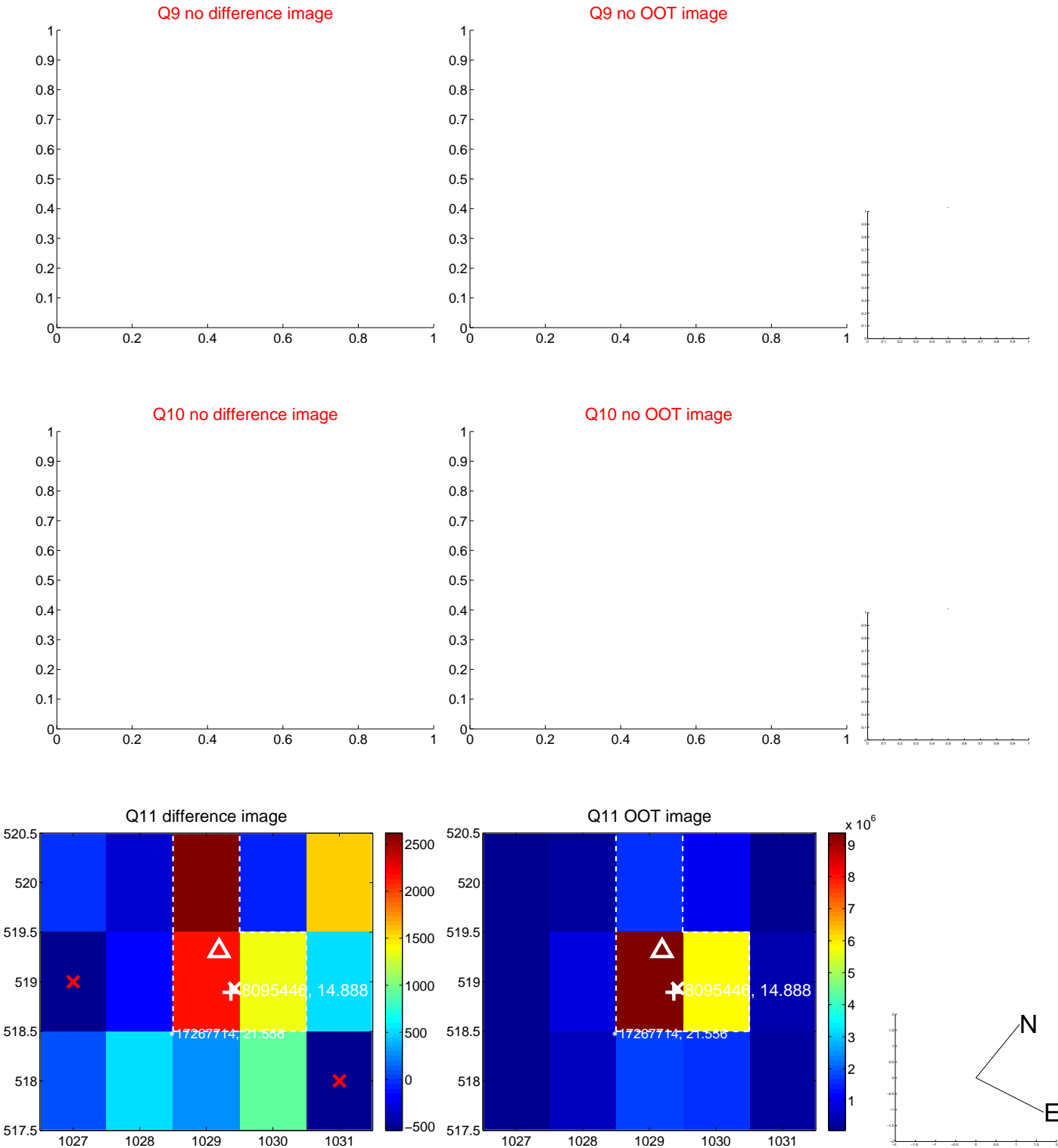




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value



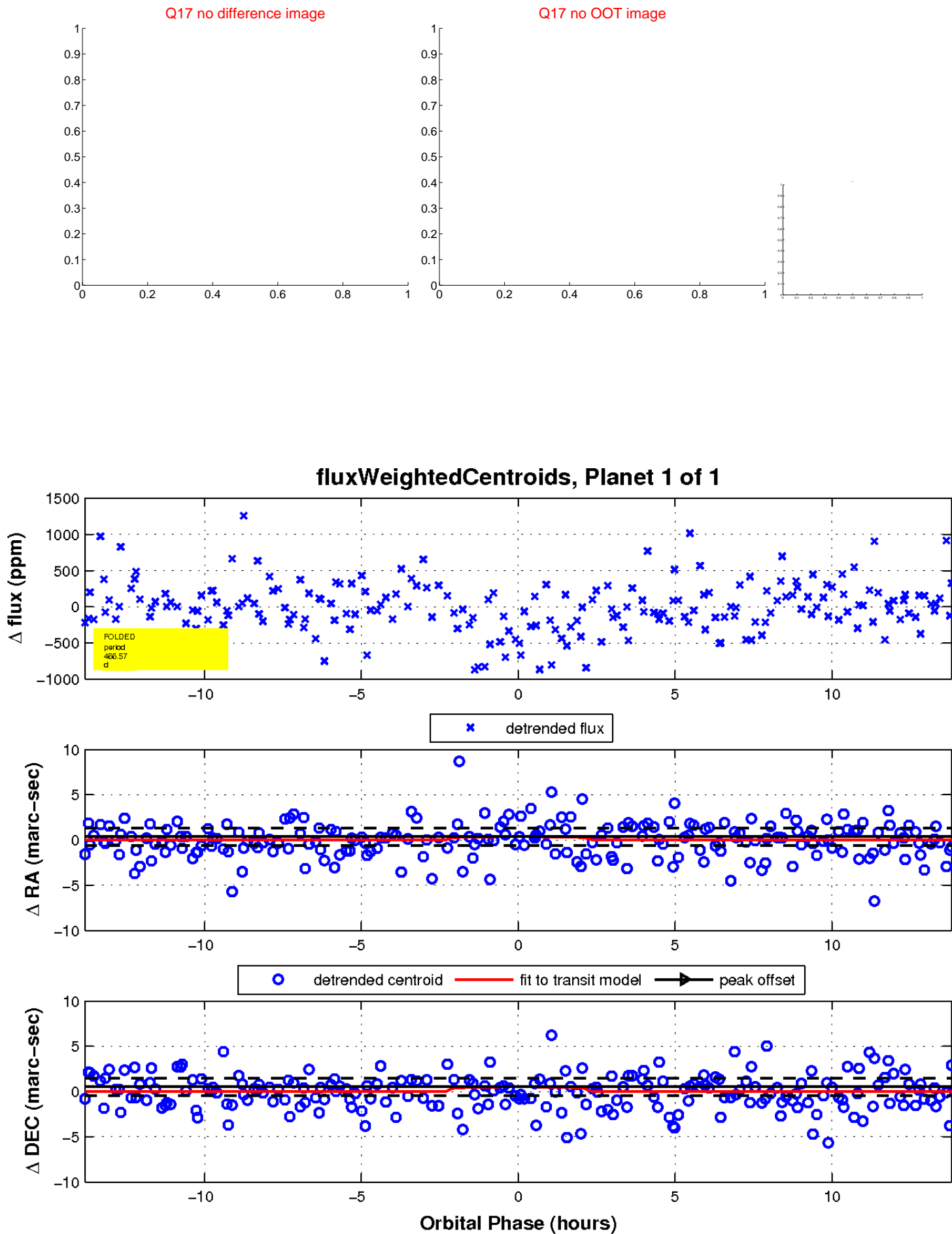
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : 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

