

# KIC 004670267

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
004670267-01	OBS	7699.01	1.003046	132.369203	122913.3	3.500	7422.3	-1.0	0.84	5775	29.66	2045.99

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004670267-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—CENT_NOFITS

**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.

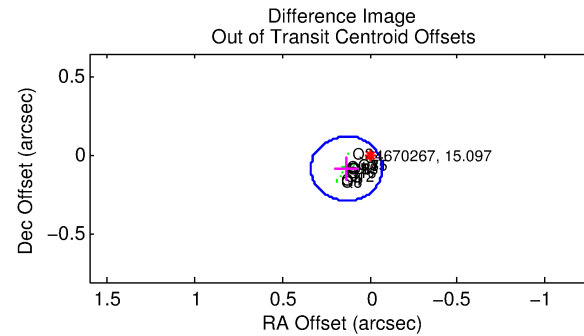
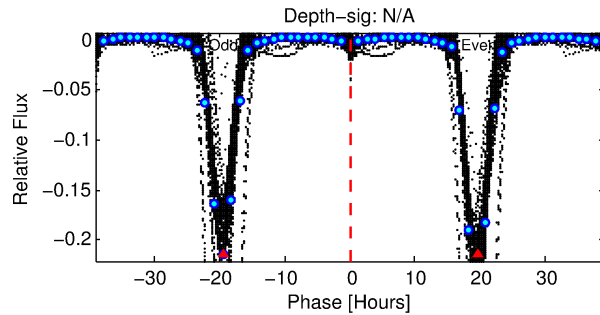
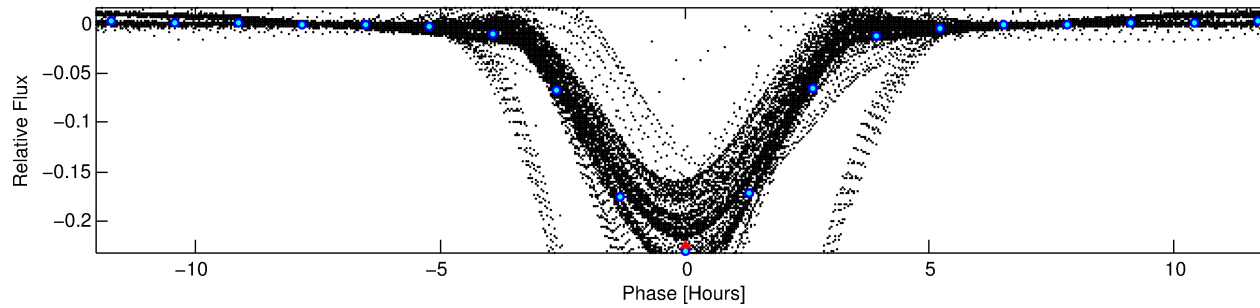
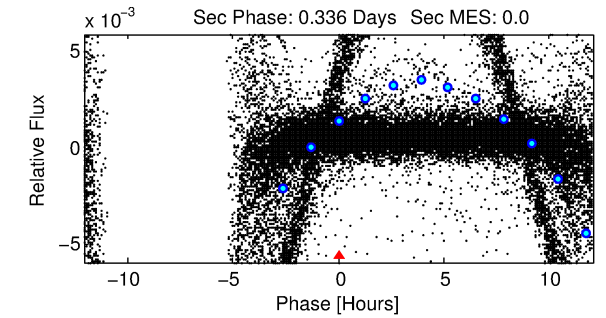
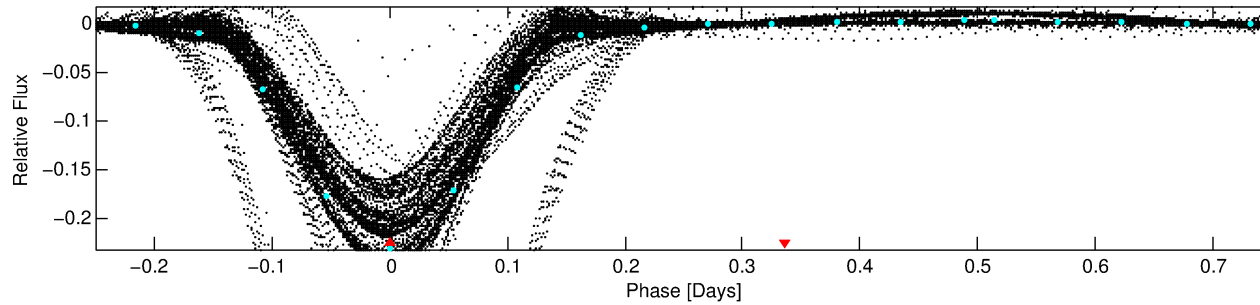
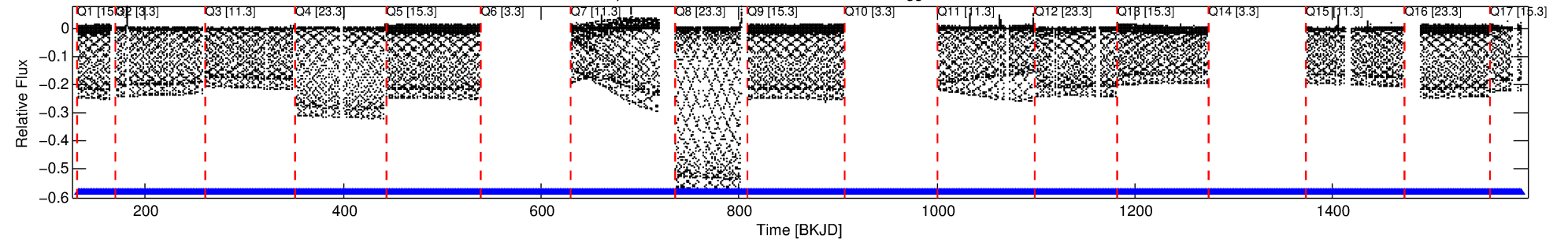
## Ephemeris Match Information For 004670267-01

No Significant Match Found

# DV One-Page Summary

KIC: 4670267 Candidate: 1 of 1 Period: 1.003 d

Kp: 15.10 R\*: 0.84 Rs Teff: 5775.0 K Logg: 4.52 Fe/H: -0.380



## TPS TCE Results:

Period = 1.00305 d  
Epoch = 132.3692 BKJD

DV fit results are unavailable

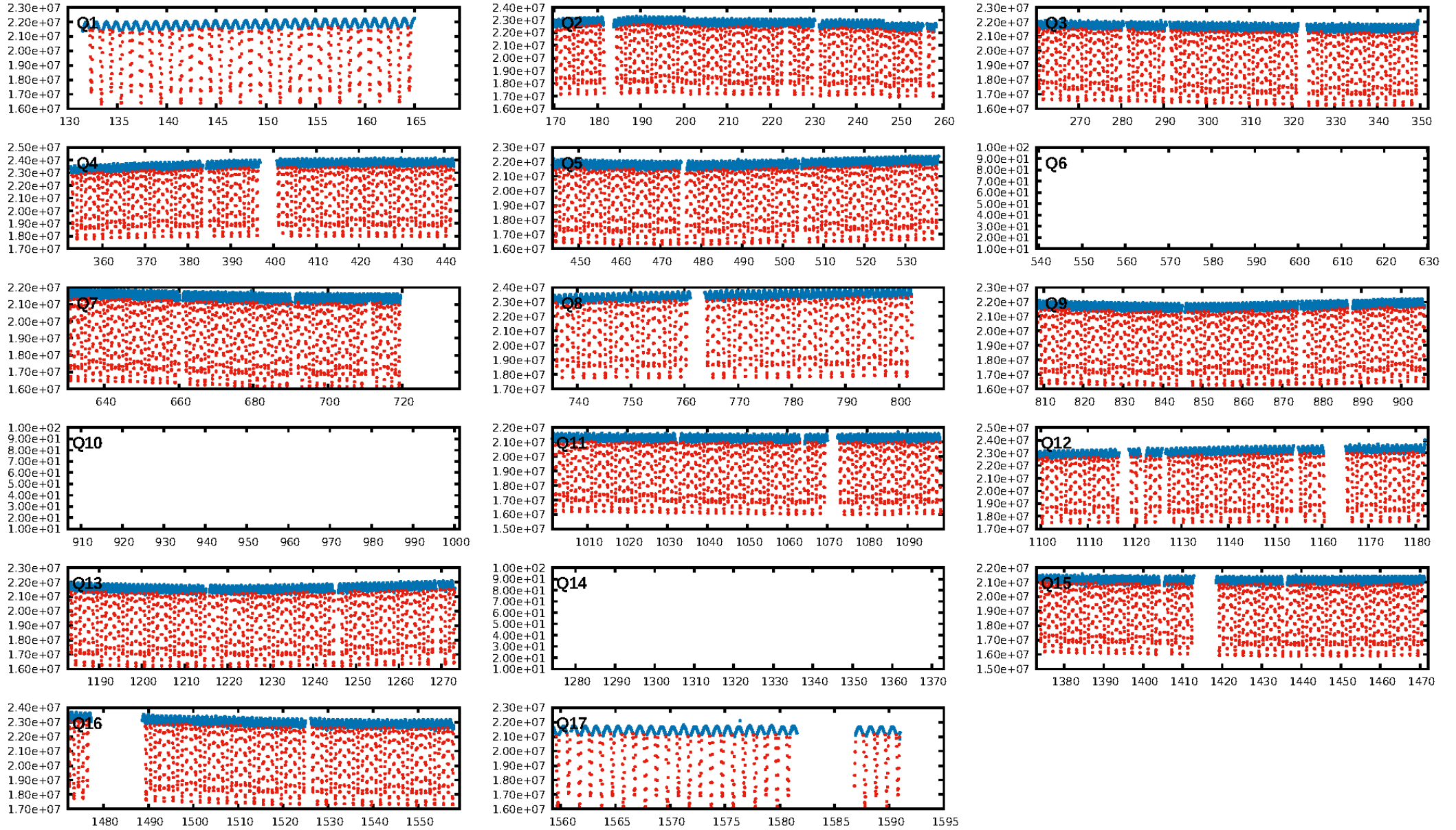
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [1012/1012]  
GhostDiagnostic-chr: 0.887  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 0.155 arcsec [2.29σ]  
KicOffset-rm: 0.072 arcsec [1.07σ]  
OotOffset-st: 1/4/4/5 [14]  
KicOffset-st: 1/4/4/5 [14]  
DiffImageQuality-fgm: 1.00 [14/14]  
DiffImageOverlap-fno: 1.00 [14/14]

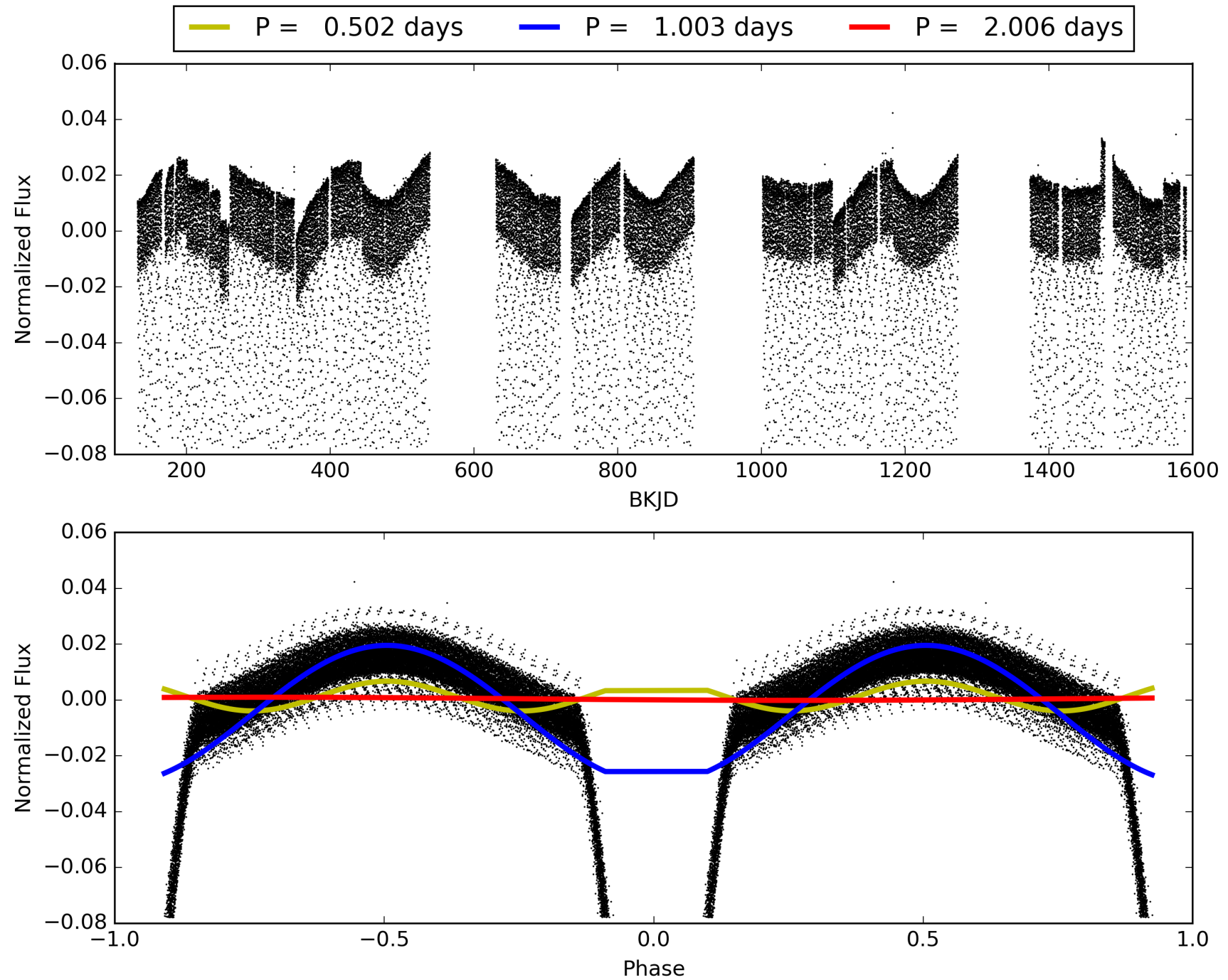
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:27:36 Z

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

# TCE 004670267-01, PDC Light Curves

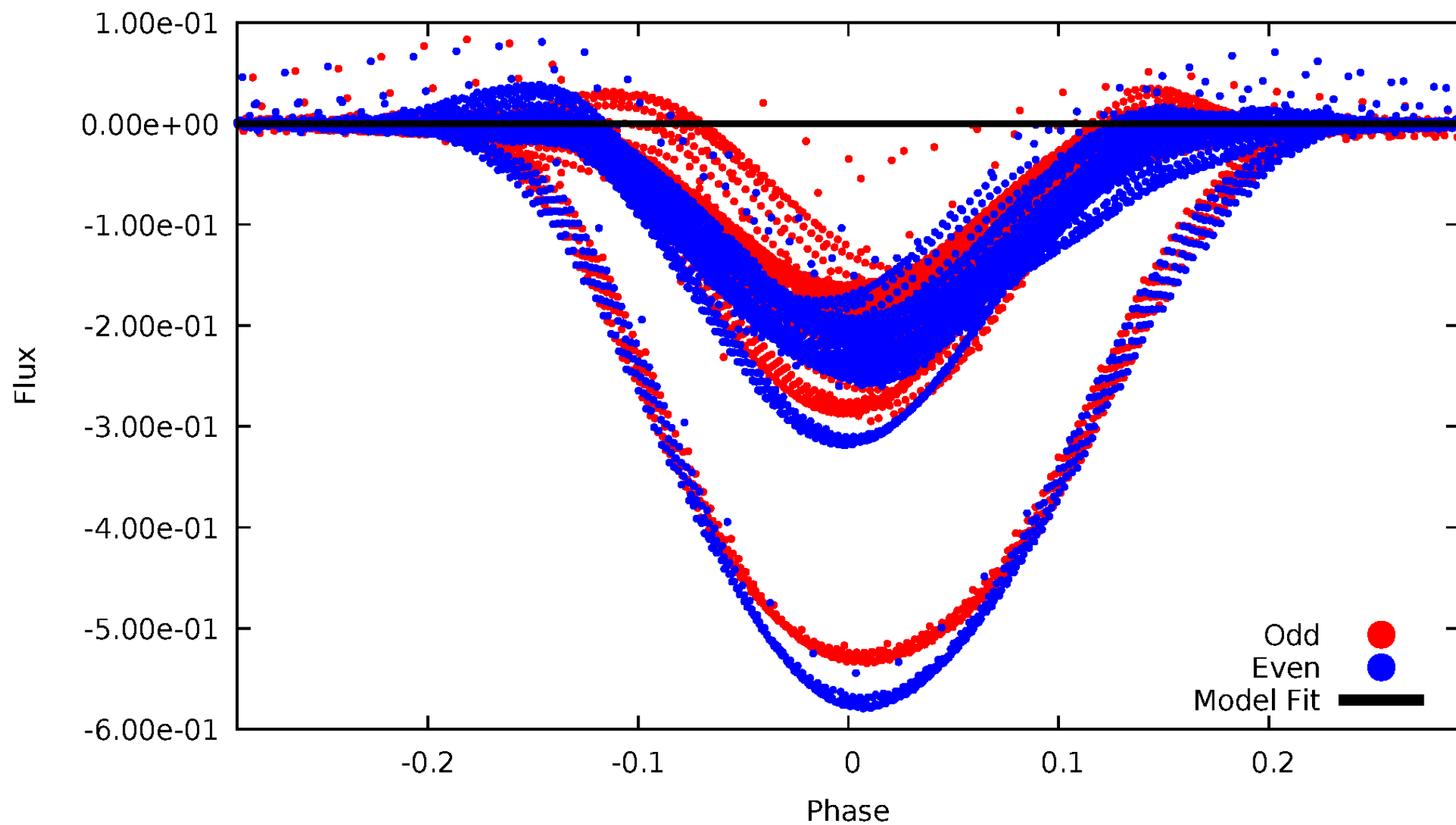


TCE 004670267-01



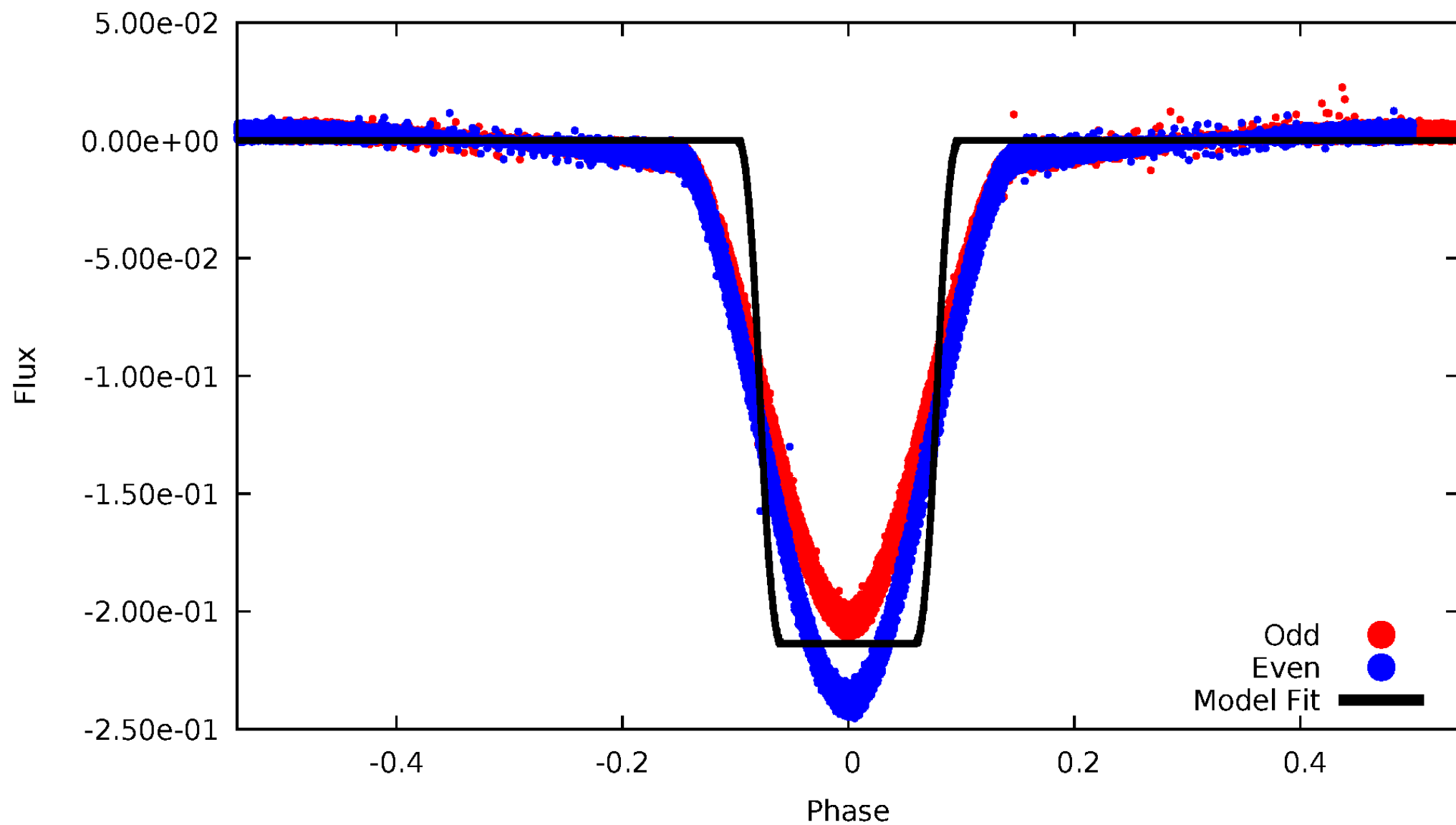
# DV Odd/Even

TCE 004670267-01



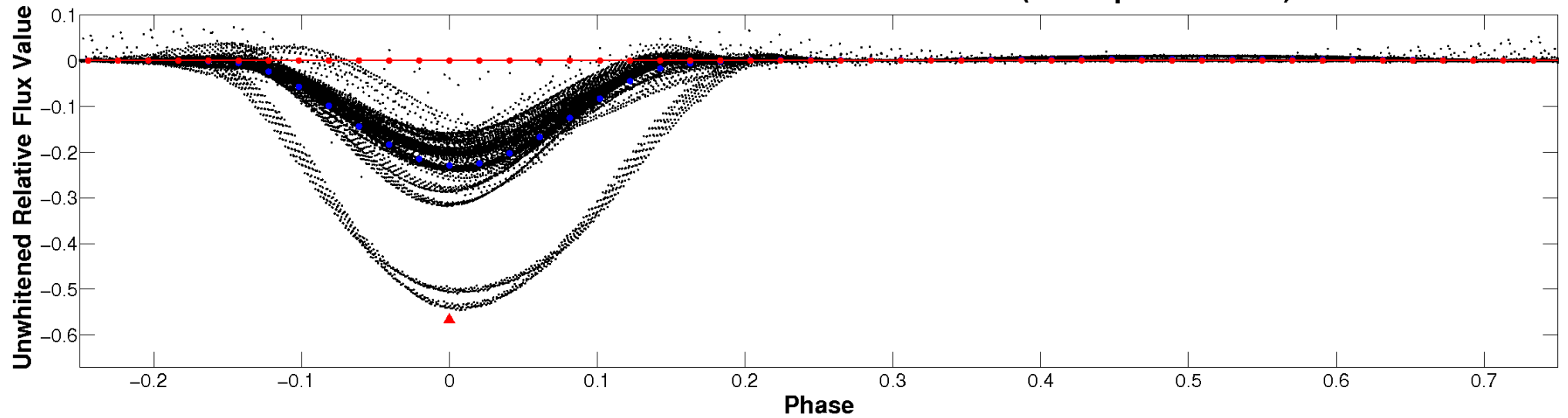
# ALT Odd/Even

TCE 004670267-01



# Non-Whitened Vs. Whitened Light Curve

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

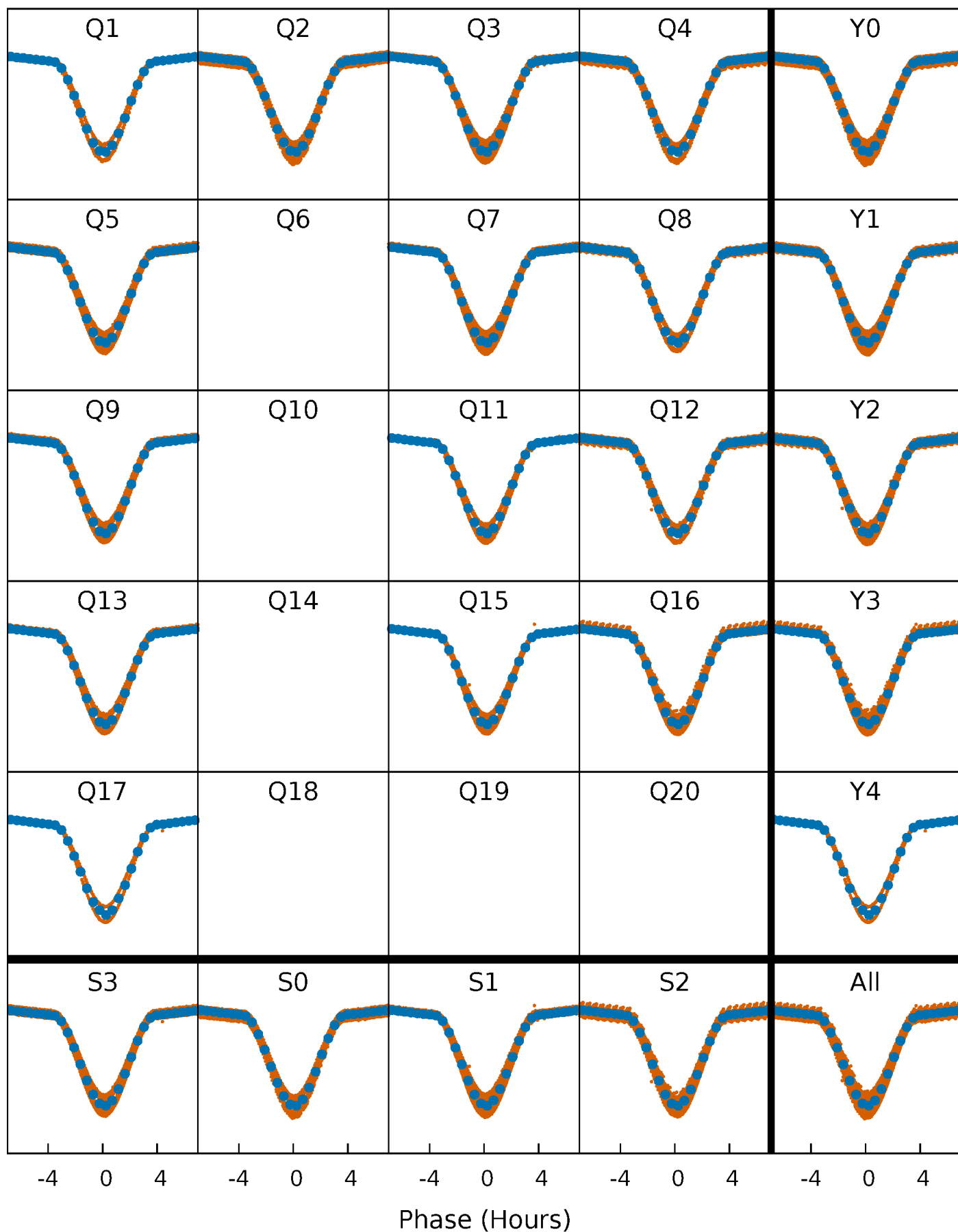


**Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)**



# PDC Quarter-Phased Transit Curves

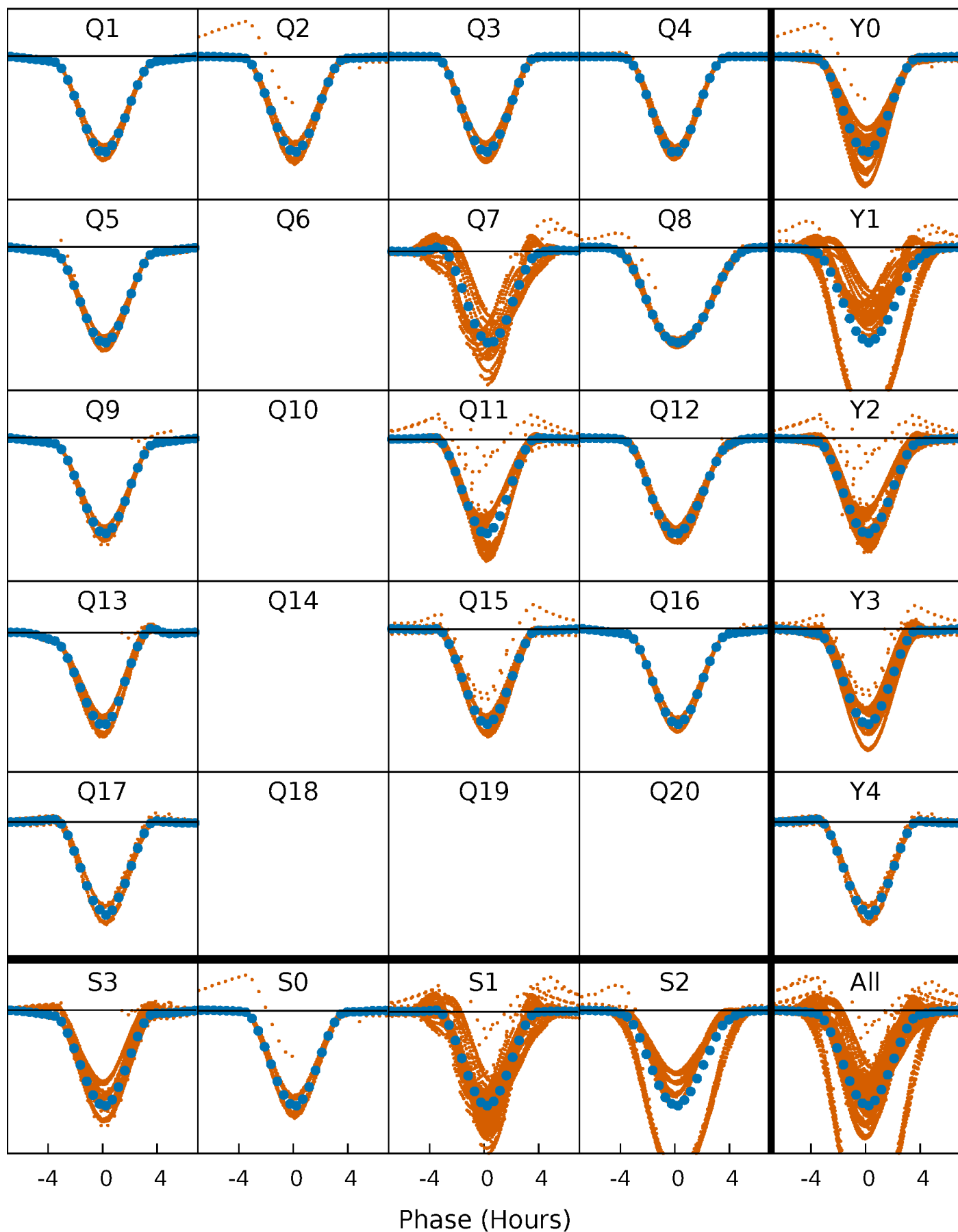
TCE 004670267-01 P= 1.003046 Days  $T_0=132.369203$  (BKJD)





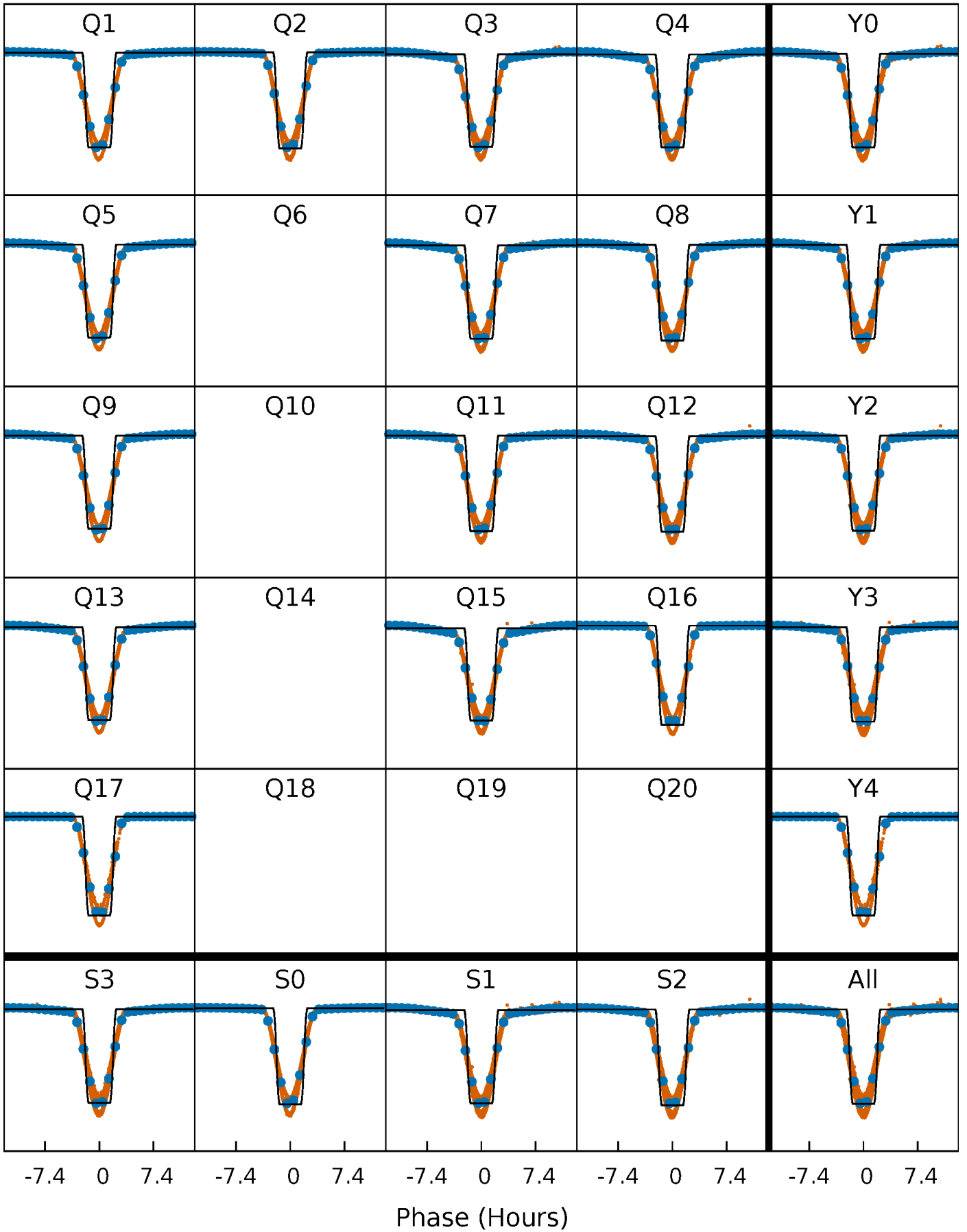
# DV Quarter-Phased Transit Curves

TCE 004670267-01 P= 1.003046 Days  $T_0=132.369203$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

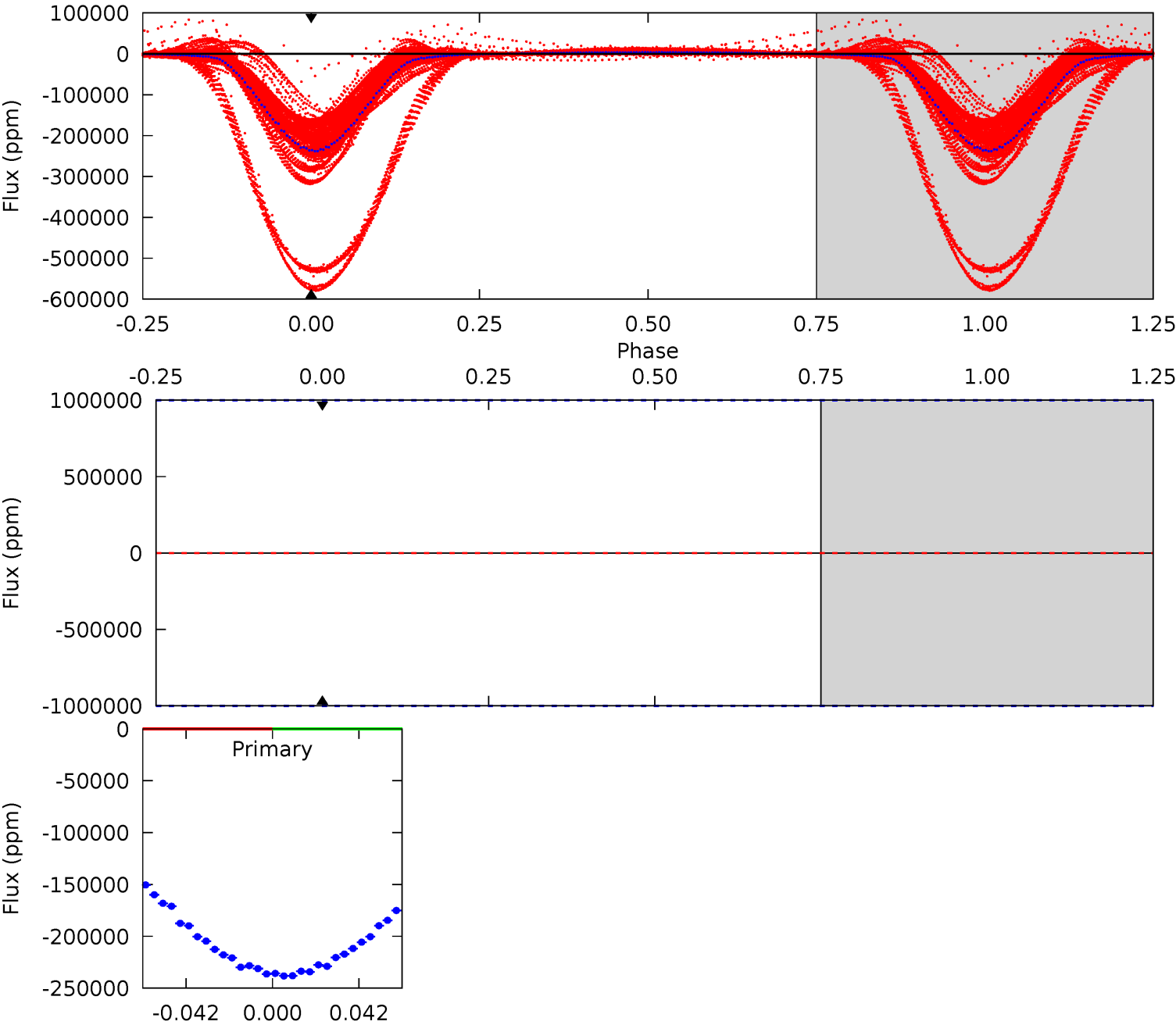
TCE 004670267-01 P= 1.003046 Days  $T_0=132.376371$  (BKJD)



DV Model-Shift Uniqueness Test

004670267-01, P = 1.003046 Days, E = 131.366157 Days

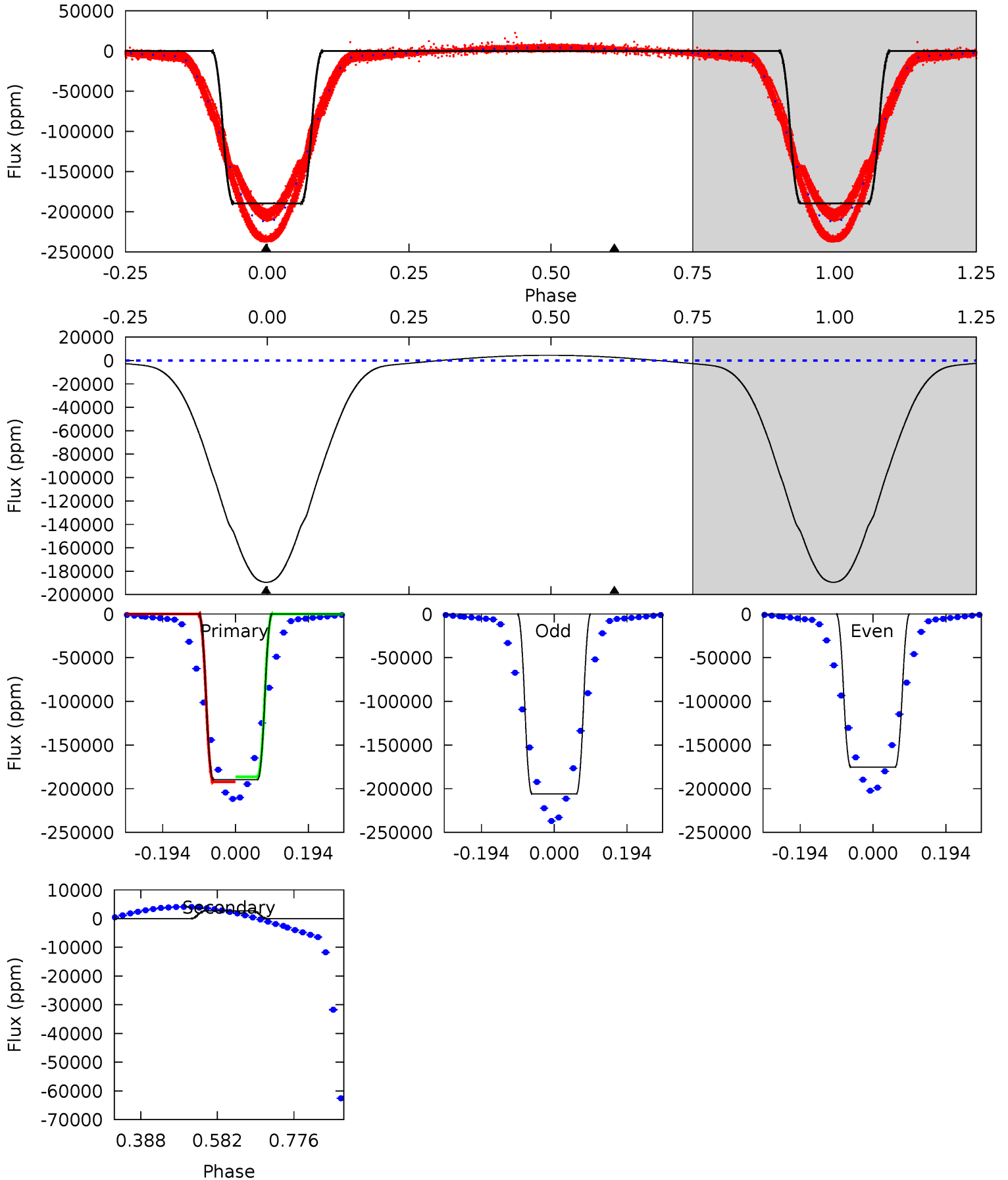
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

004670267-01, P = 1.003046 Days, E = 131.373325 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
6223	-89.5	0	0	4.42	1.30	88.8	6223	6223	-89.5	-89.5	535.6	1.04	0.02	79.4



### Stellar Parameters For KIC 004670267

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5775^{+173}_{-173}$	$4.518^{+0.069}_{-0.173}$	$-0.380^{+0.300}_{-0.300}$	$0.844^{+0.229}_{-0.091}$	$0.856^{+0.105}_{-0.079}$	$2.005^{+0.631}_{-0.952}$
	+3%/-3%	+2%/-4%	+79%/-79%	+27%/-11%	+12%/-9%	+31%/-47%
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 004670267-01 / KOI 7699.01

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$0 \pm 1000000$	$30.92^{+10.25}_{-8.91}$	$2434^{+155}_{-108}$	$-3572^{+9600}_{-2123}$	$-1.231^{+25.486}_{-18.270}$
Alt.	$2726 \pm 30$	$43.95^{+11.40}_{-10.05}$	$2434^{+142}_{-117}$	$-3022^{+104}_{-119}$	$-0.267^{+0.098}_{-0.178}$

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

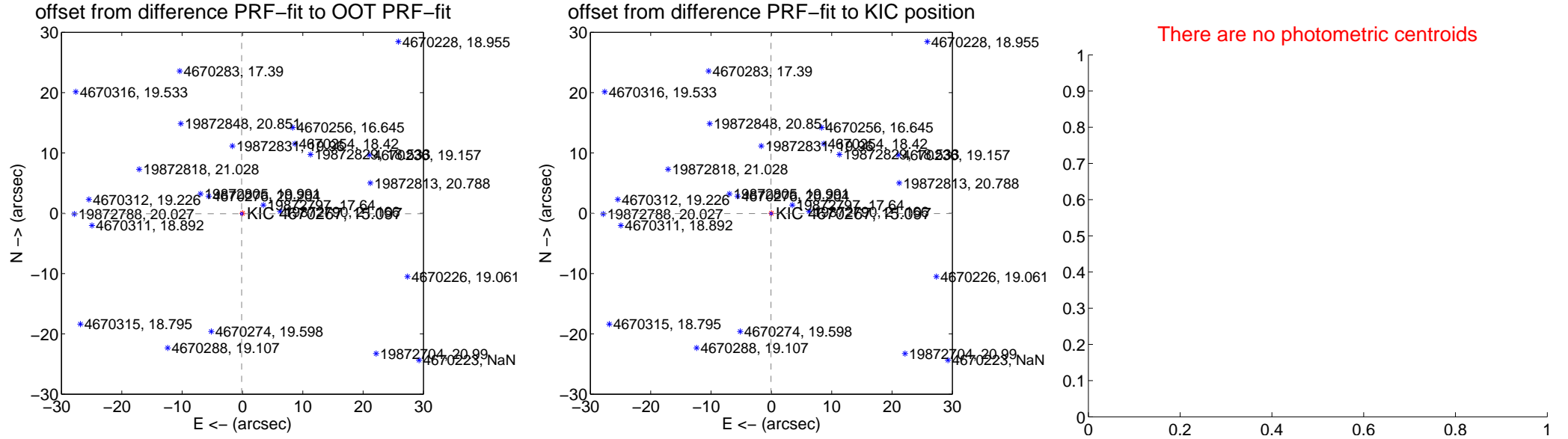
## DV Centroid Data

Supplemental centroid analysis for 004670267-01. Kepler magnitude: 15.10. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

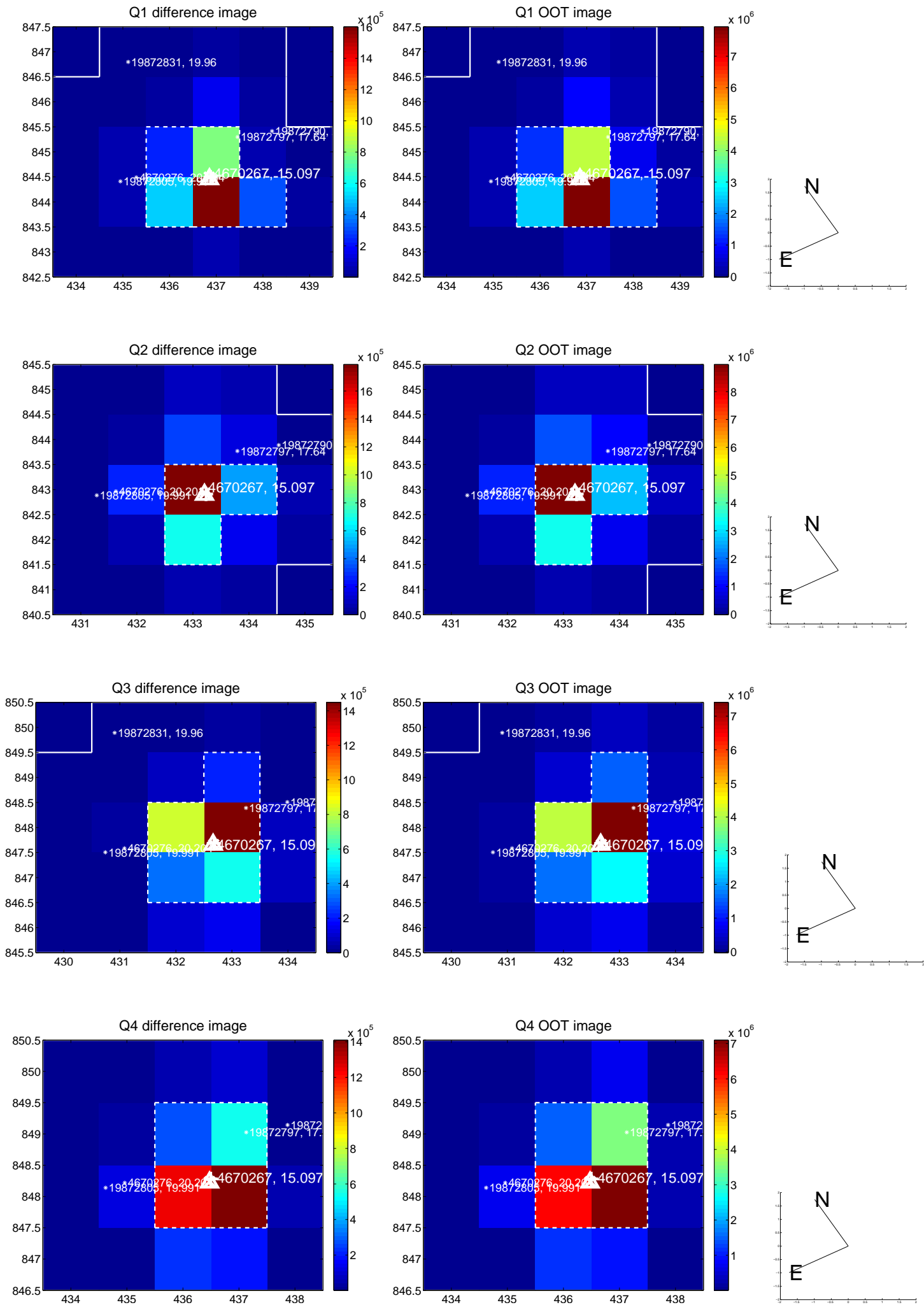
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.155 \pm 0.068$	2.29	$0.133 \pm 0.067$	$-0.080 \pm 0.068$
PRF-fit source offset from KIC position	$0.072 \pm 0.067$	1.07	$0.058 \pm 0.067$	$-0.043 \pm 0.068$
photometric centroid source offset	—	—	—	—

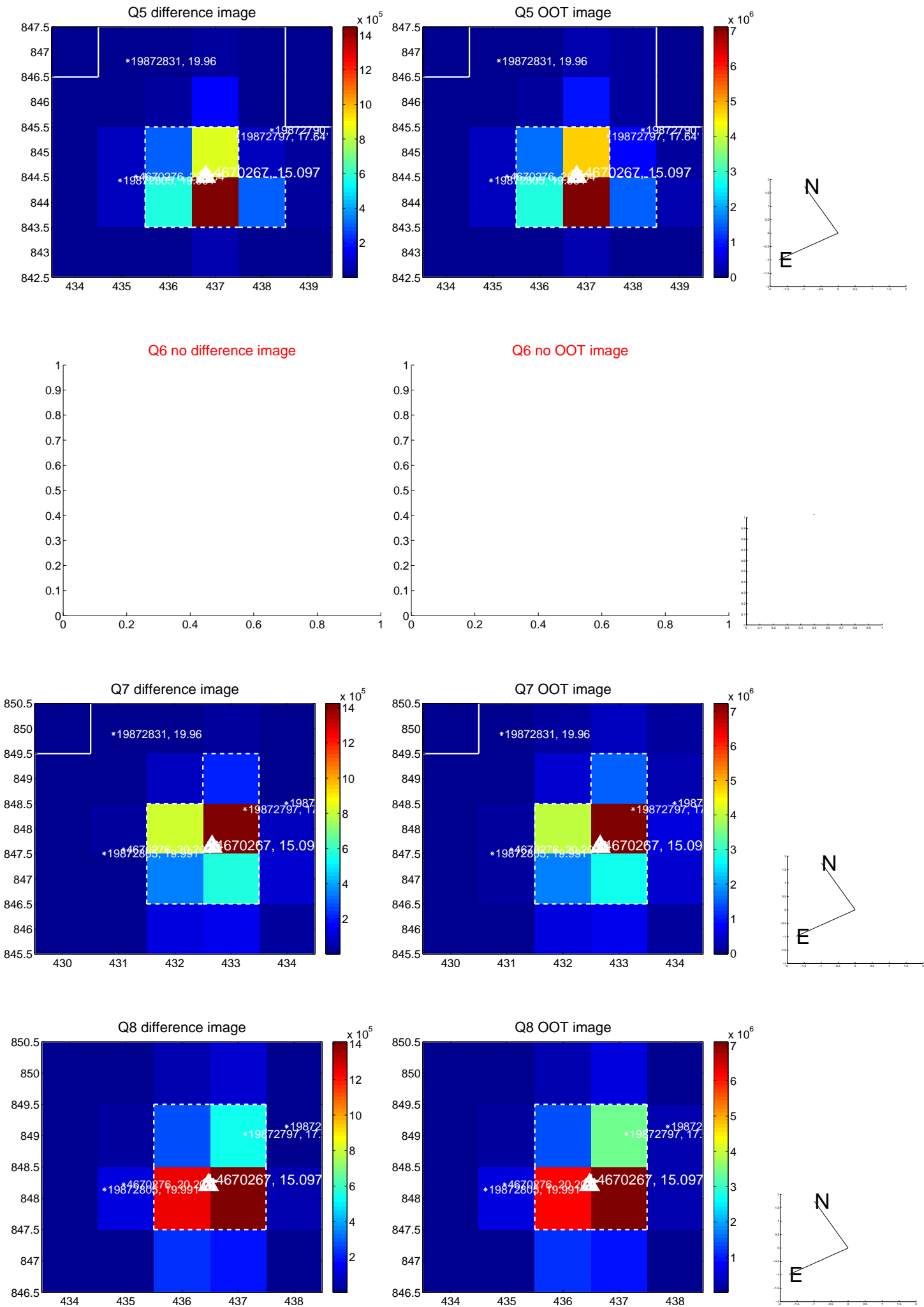


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

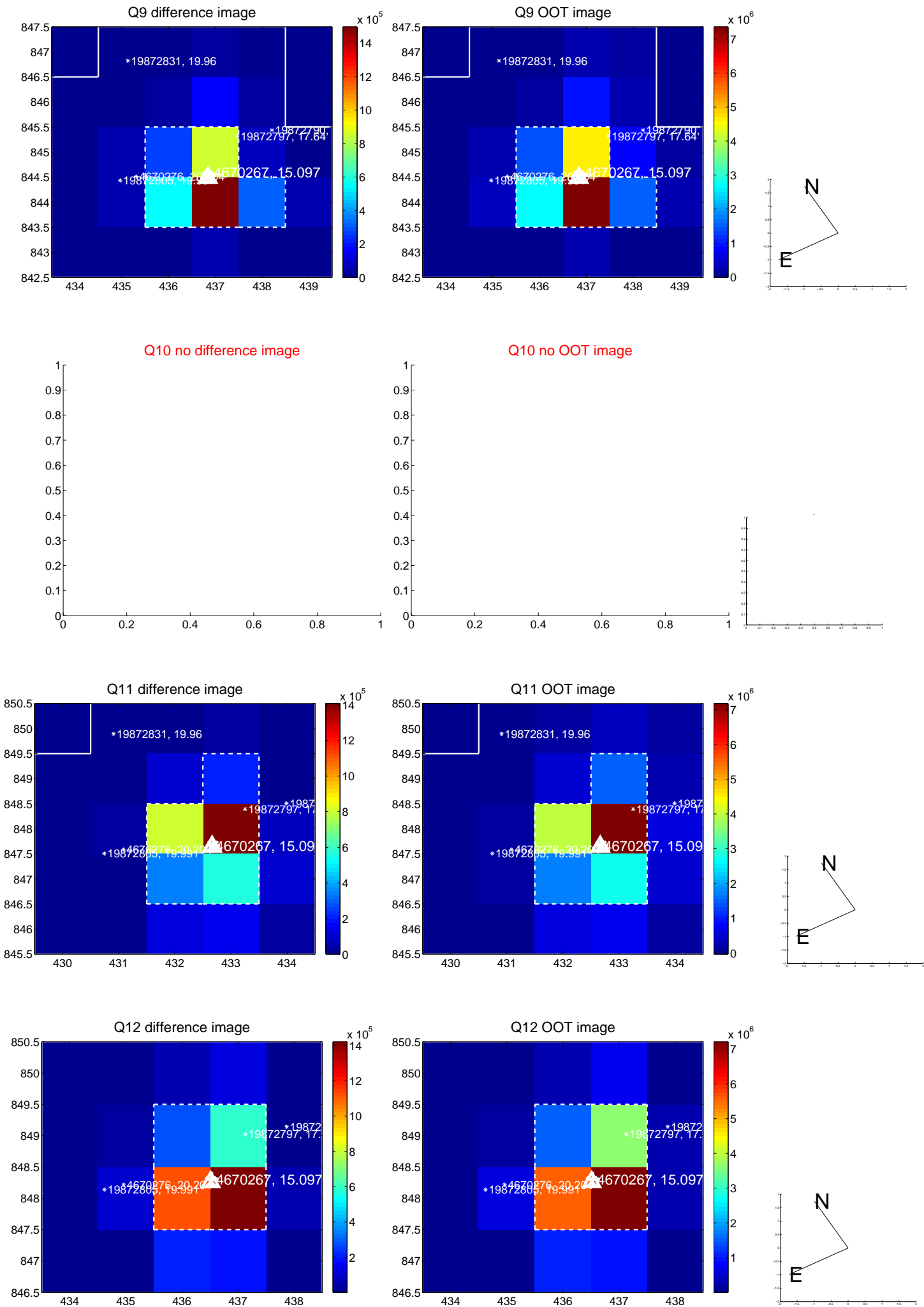


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

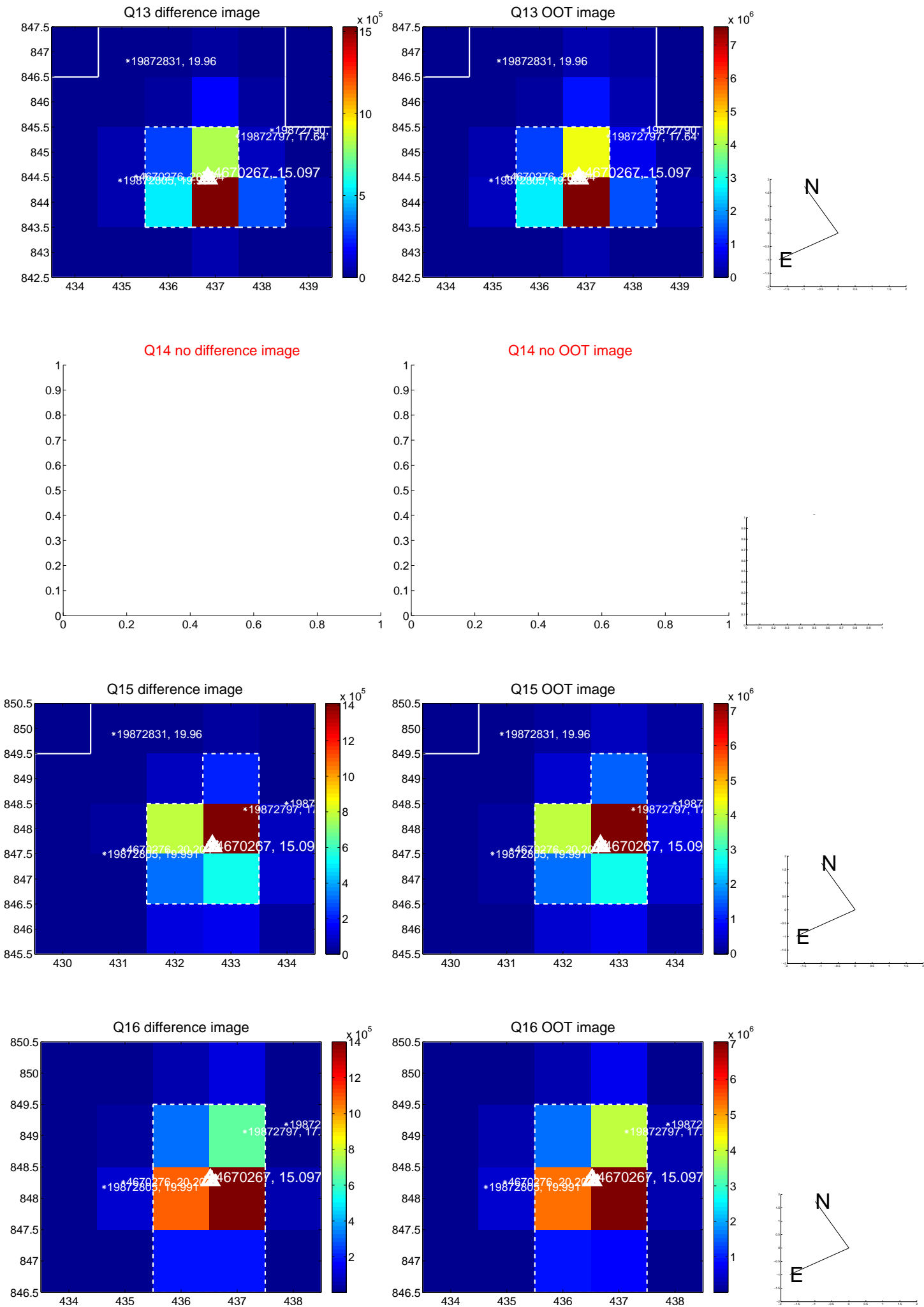




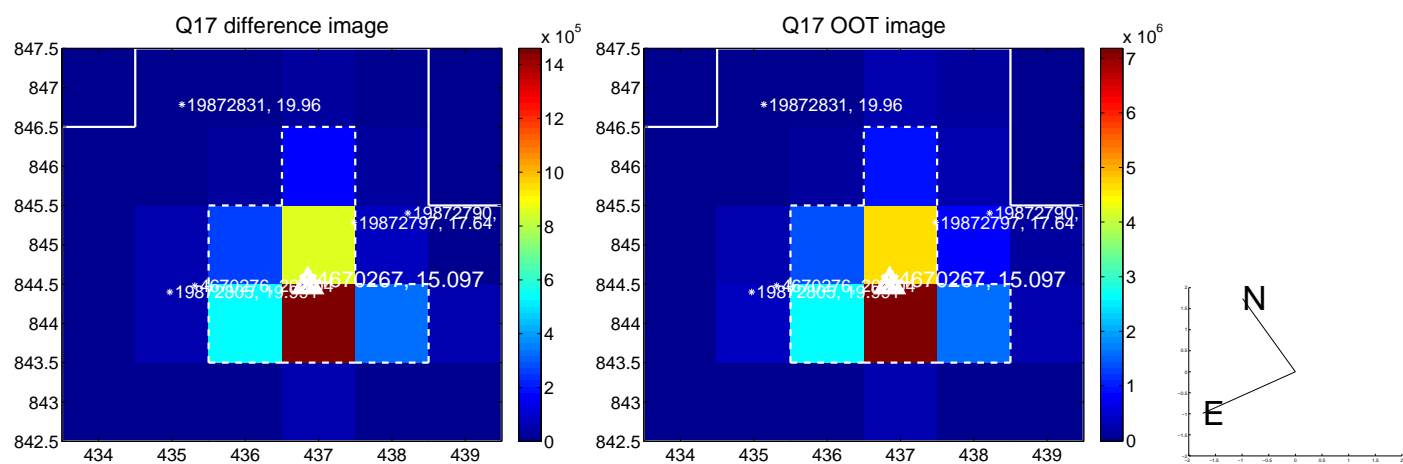
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



folded centroid time series figure for this object.



# UKIRT Image

Declination

