

# KIC 007293927

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007293927-01	OBS	No	0.970445	131.708518	2670.8	3.500	18.7	-1.0	1.00	5780	5.12	2716.30

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007293927-01	OBS	FP	0.00	1	0	0	0	<del>SWEET_NTL</del> —CENT_NOFITS

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

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

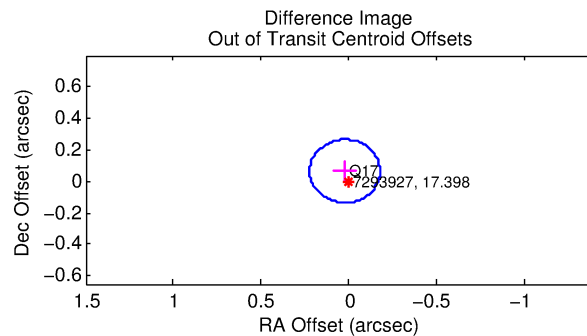
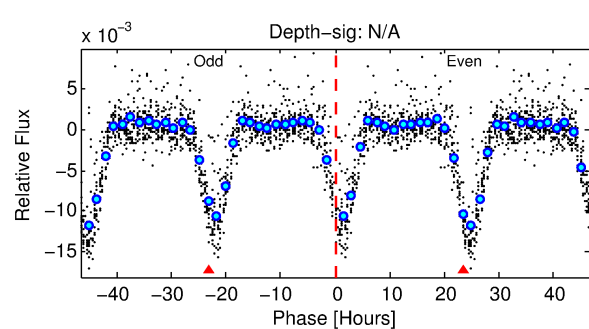
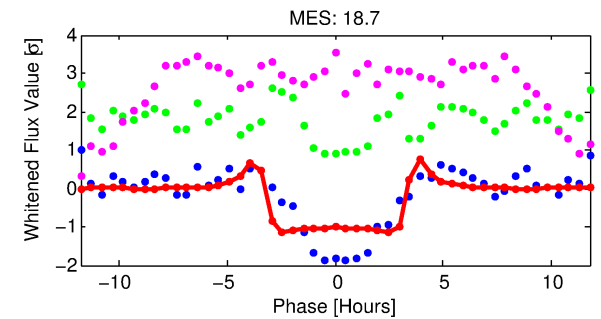
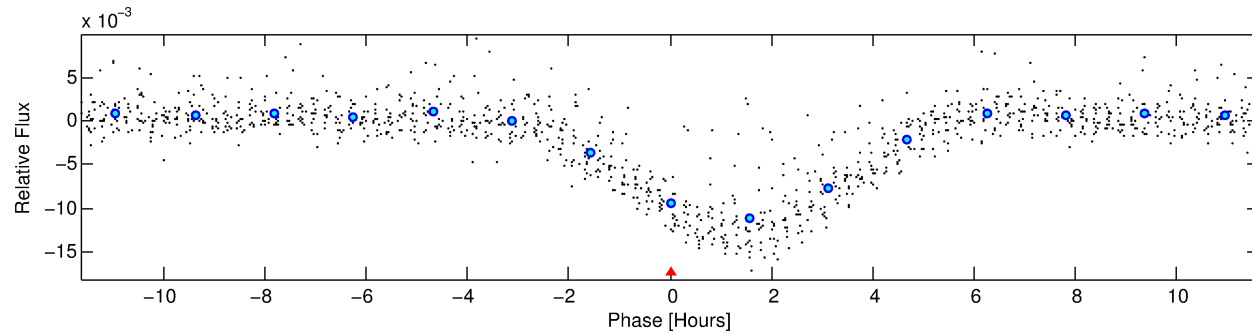
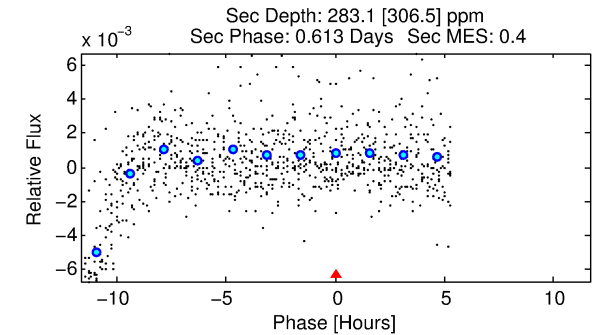
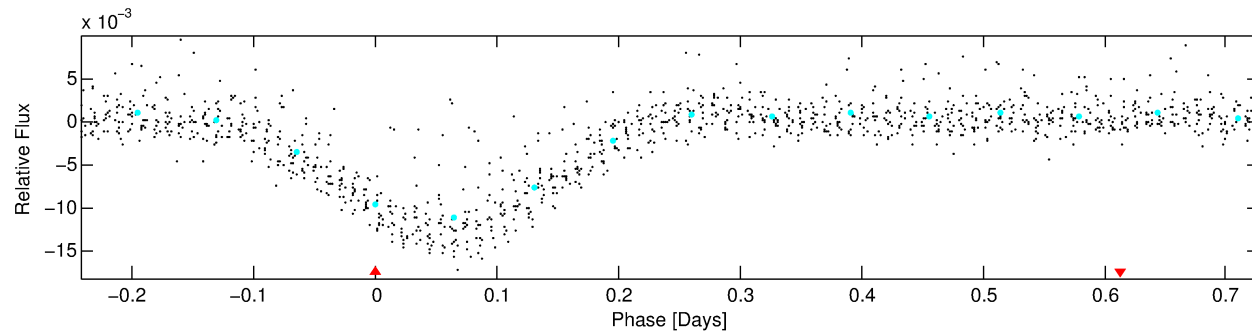
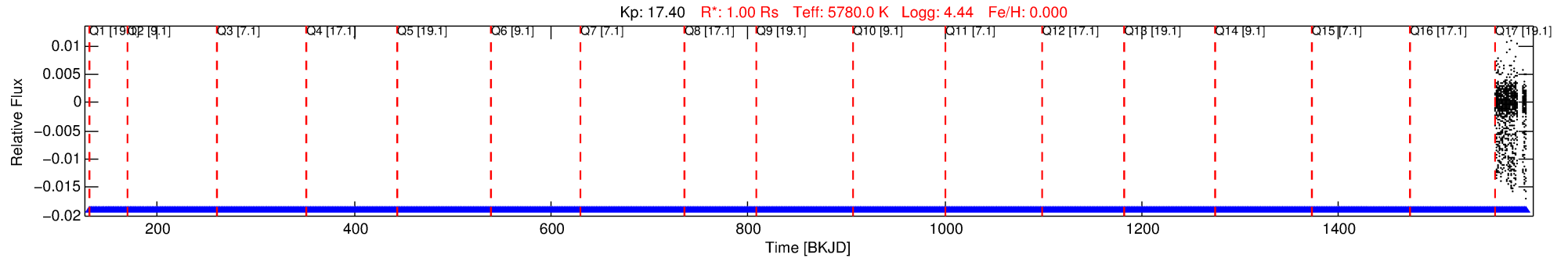
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007293927-01

No Significant Match Found

# DV One-Page Summary

KIC: 7293927 Candidate: 1 of 1 Period: 0.970 d



## TPS TCE Results:

Period = 0.97044 d  
Epoch = 131.7085 BKJD

DV fit results are unavailable

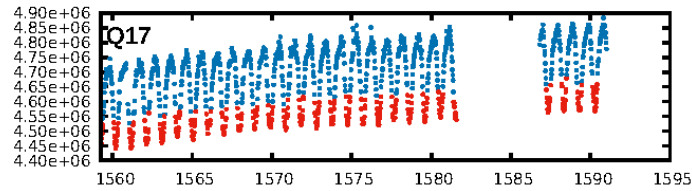
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: N/A  
GhostDiagnostic-chr: -1.61  
Centroid-sig: 17.3%  
Centroid-so: 0.541 arcsec [4.64σ]  
OotOffset-rm: 0.071 arcsec [1.06σ]  
KicOffset-rm: 0.403 arcsec [6.03σ]  
OotOffset-st: 0/0/0/1 [1]  
KicOffset-st: 0/0/0/1 [1]  
DiffImageQuality-fgm: 1.00 [1/1]  
DiffImageOverlap-fno: 1.00 [1/1]

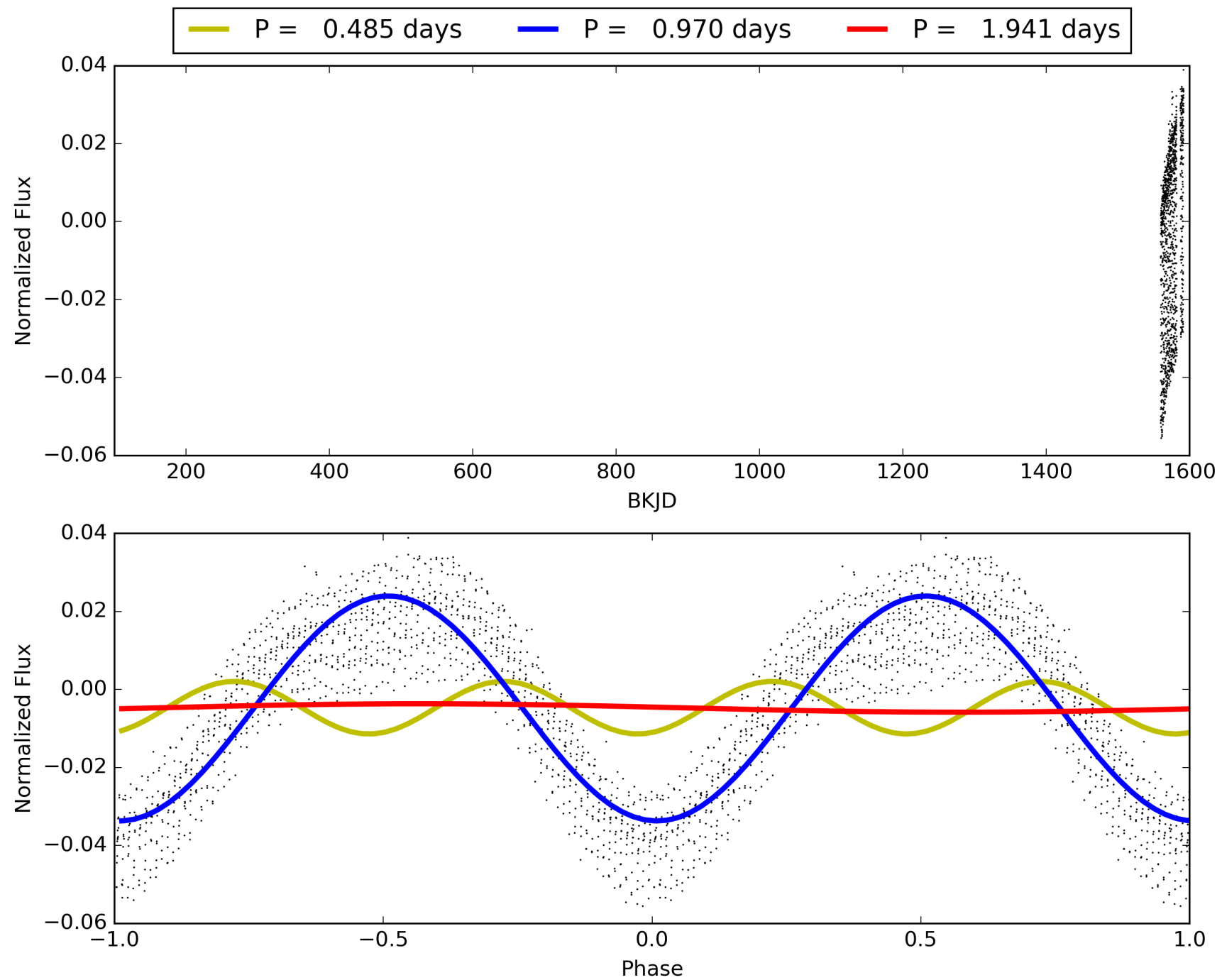
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:17:41 Z

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

# TCE 007293927-01, PDC Light Curves

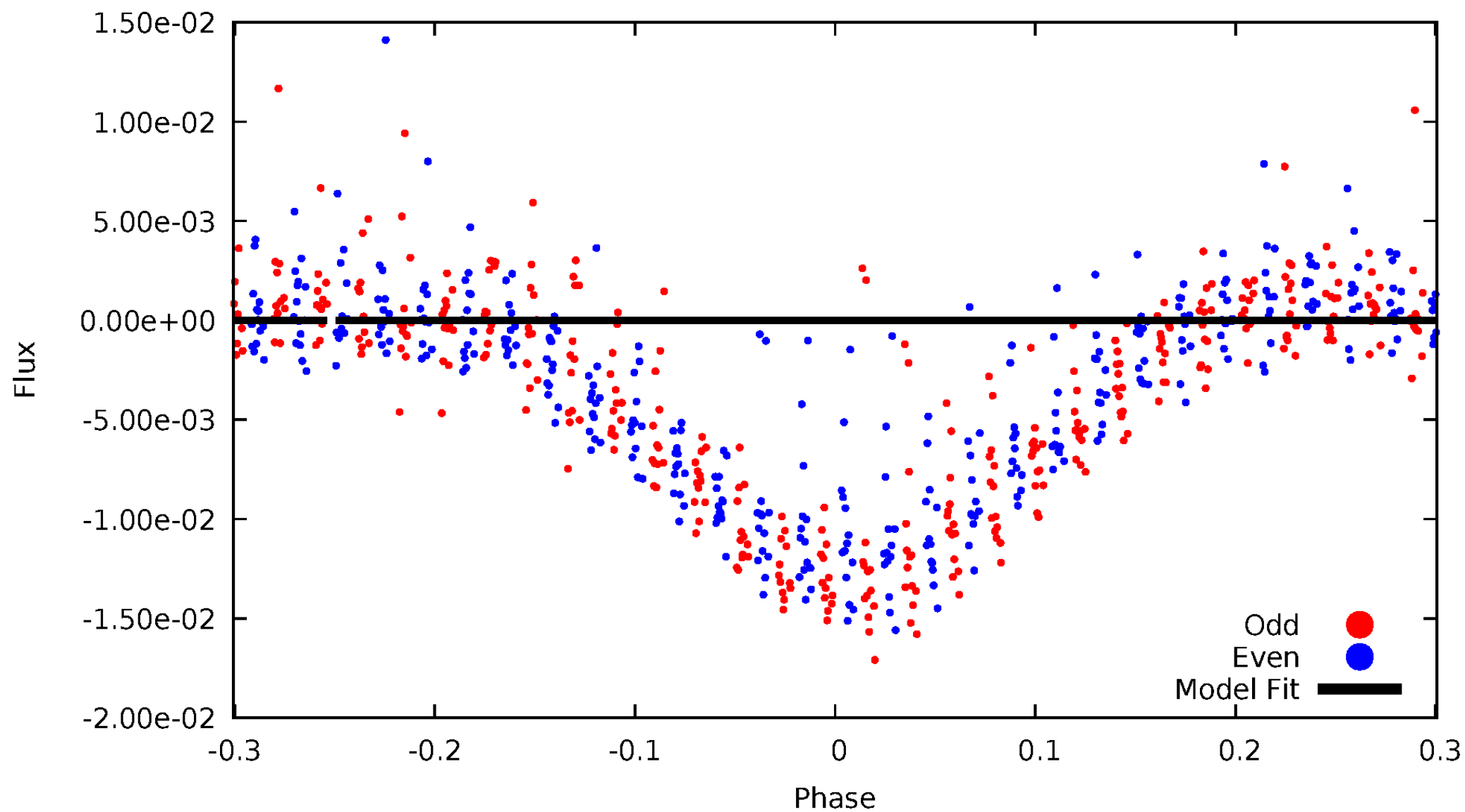


TCE 007293927-01



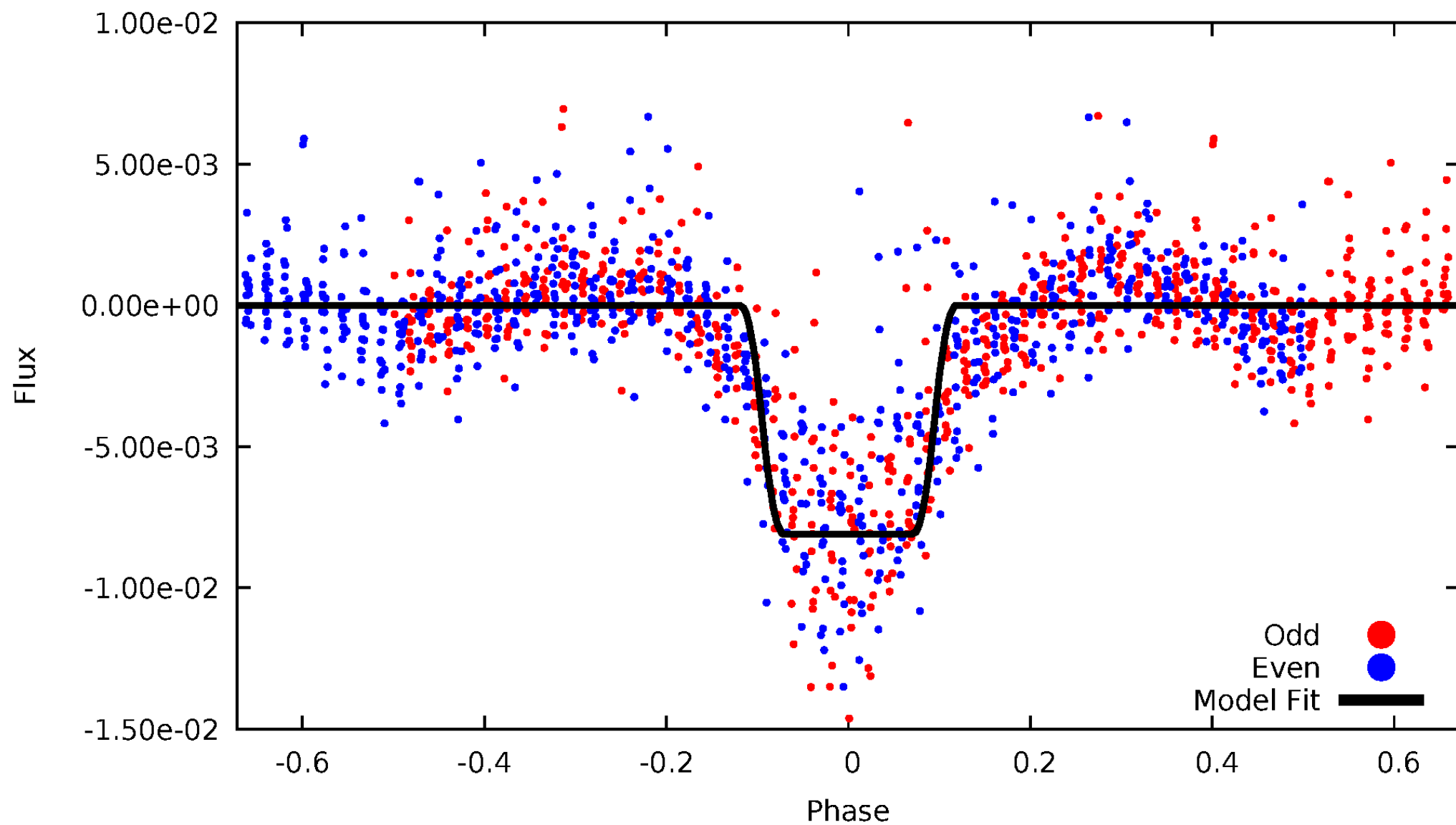
DV Odd/Even

TCE 007293927-01



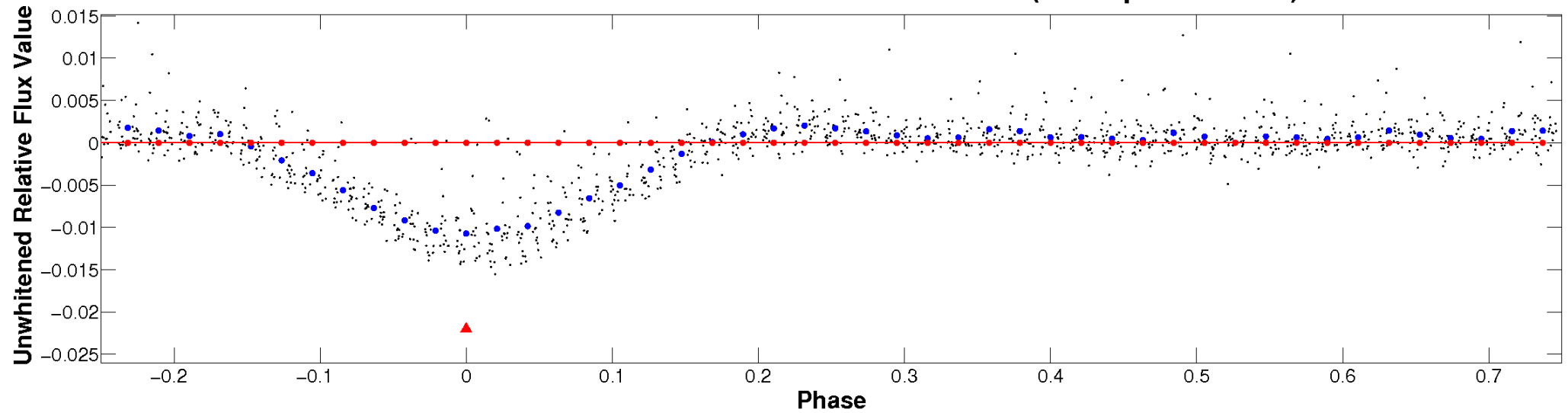
# ALT Odd/Even

TCE 007293927-01

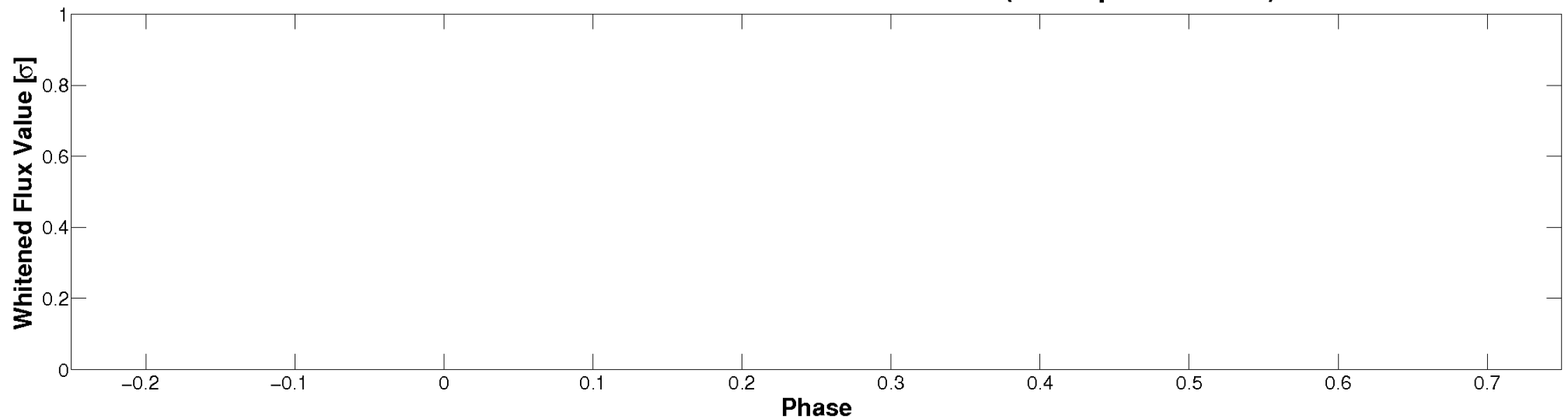


# Non-Whitened Vs. Whitened Light Curve

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

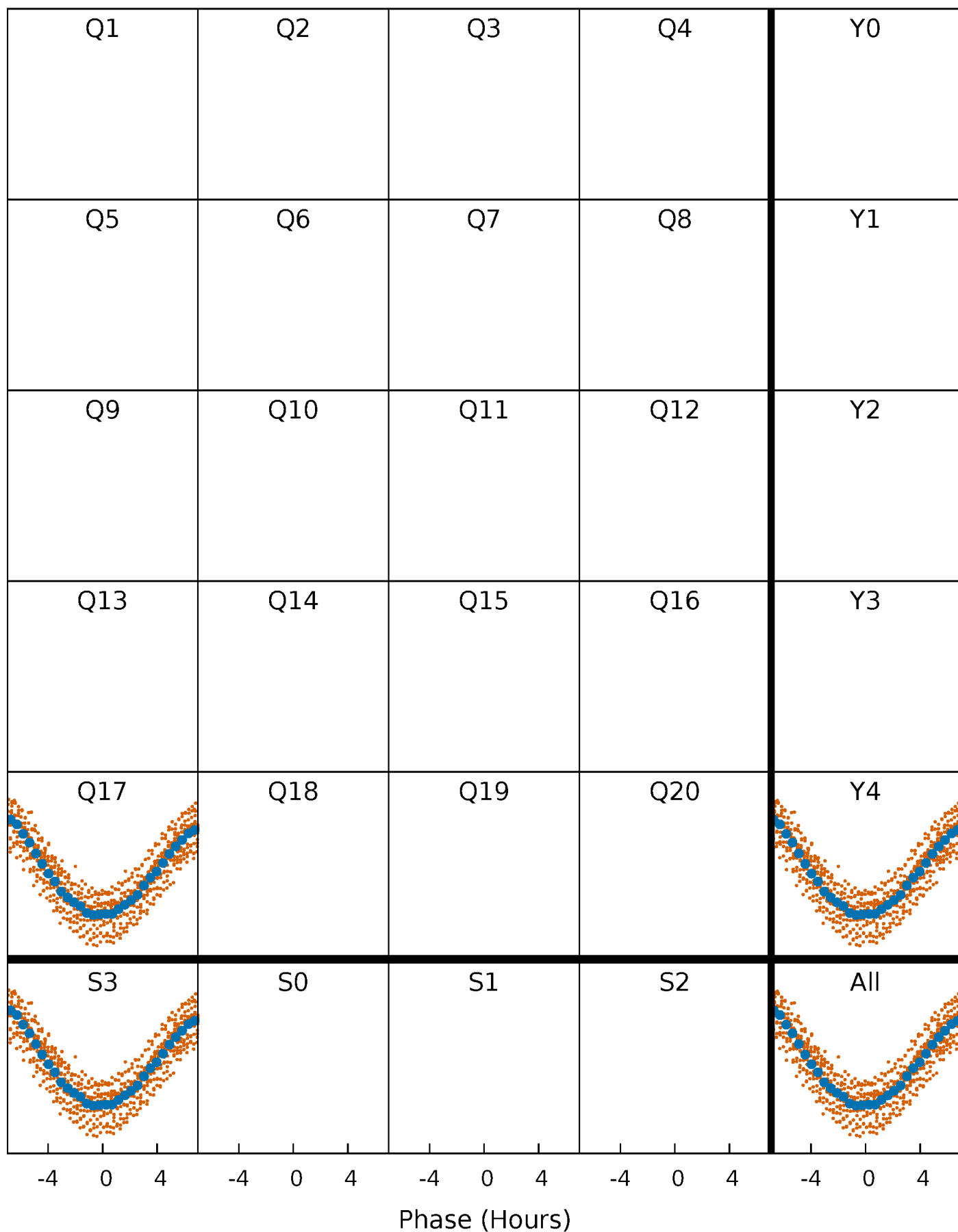


**Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)**



# PDC Quarter-Phased Transit Curves

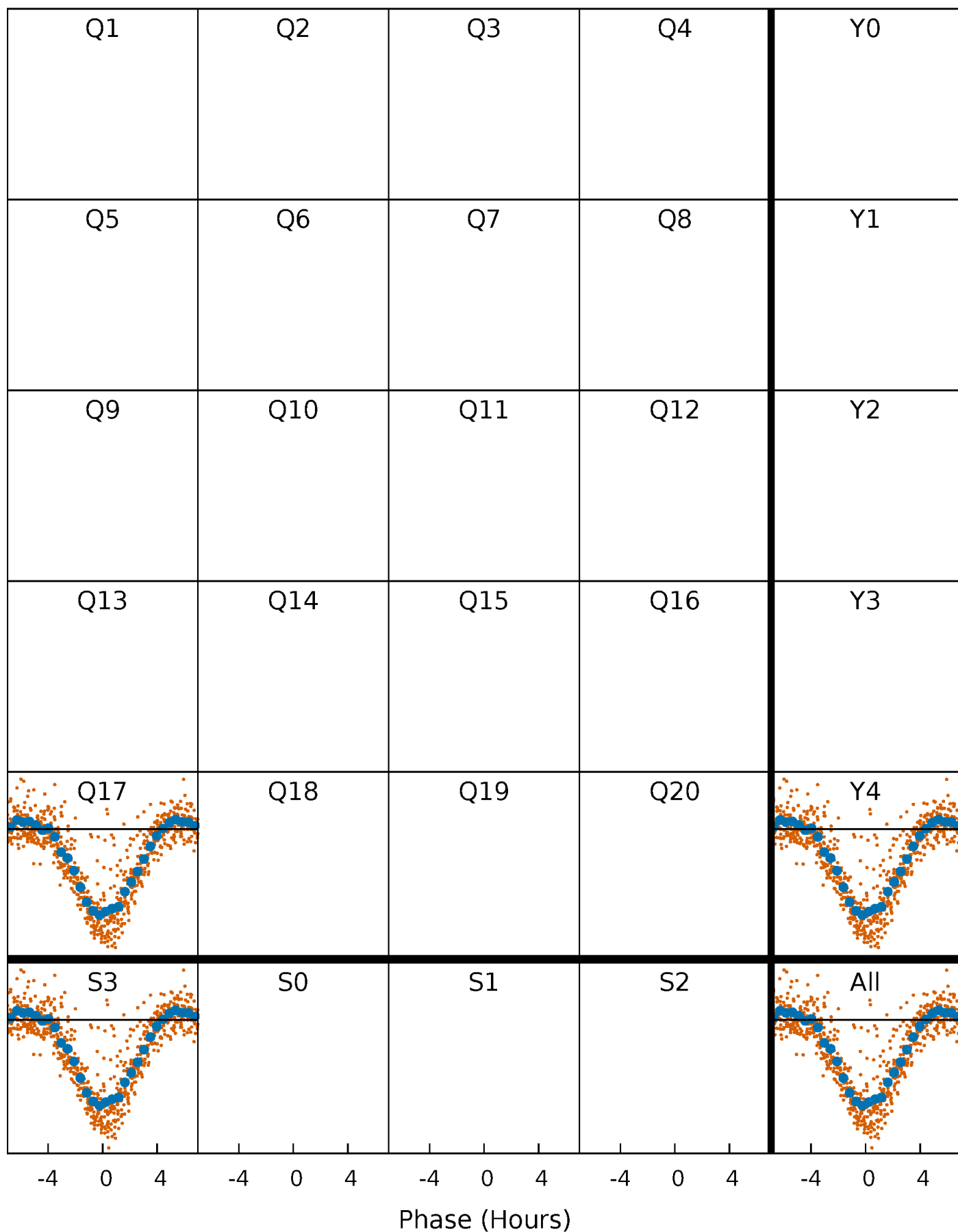
TCE 007293927-01 P= 0.970445 Days  $T_0=131.708518$  (BKJD)





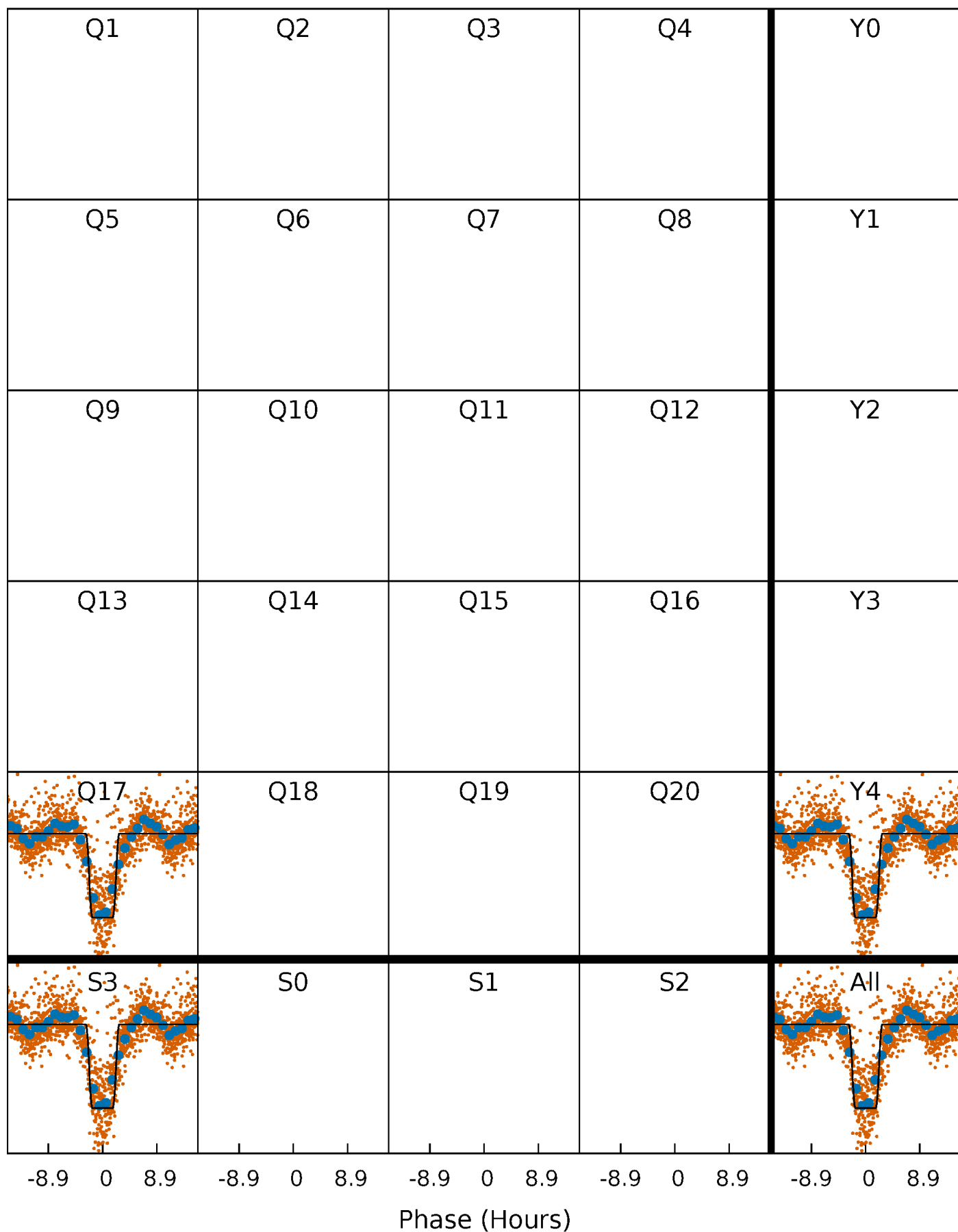
# DV Quarter-Phased Transit Curves

TCE 007293927-01   P= 0.970445 Days    $T_0=131.708518$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

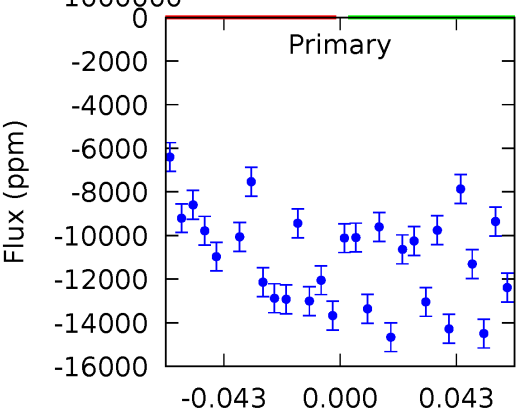
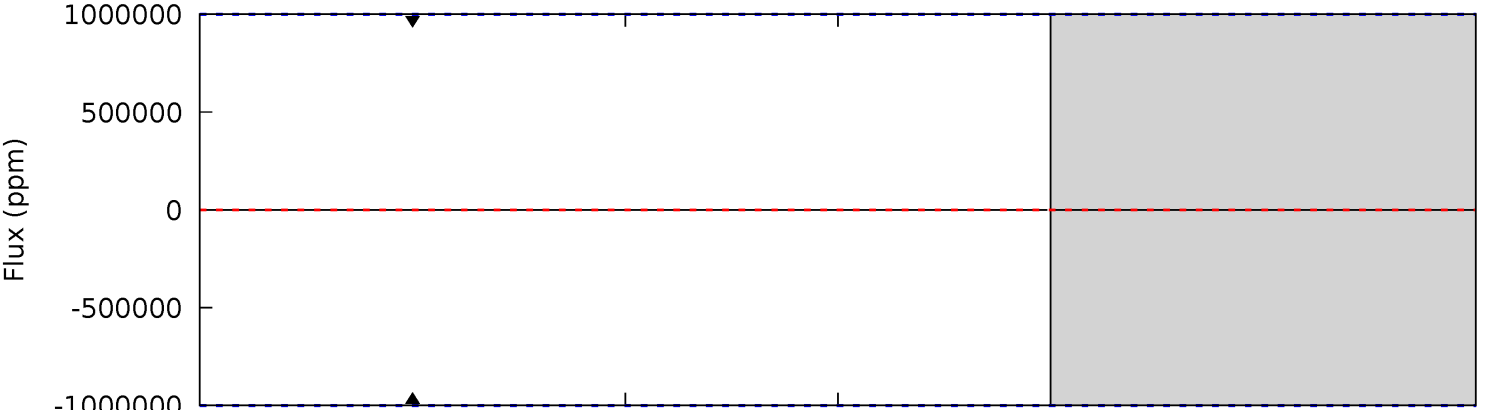
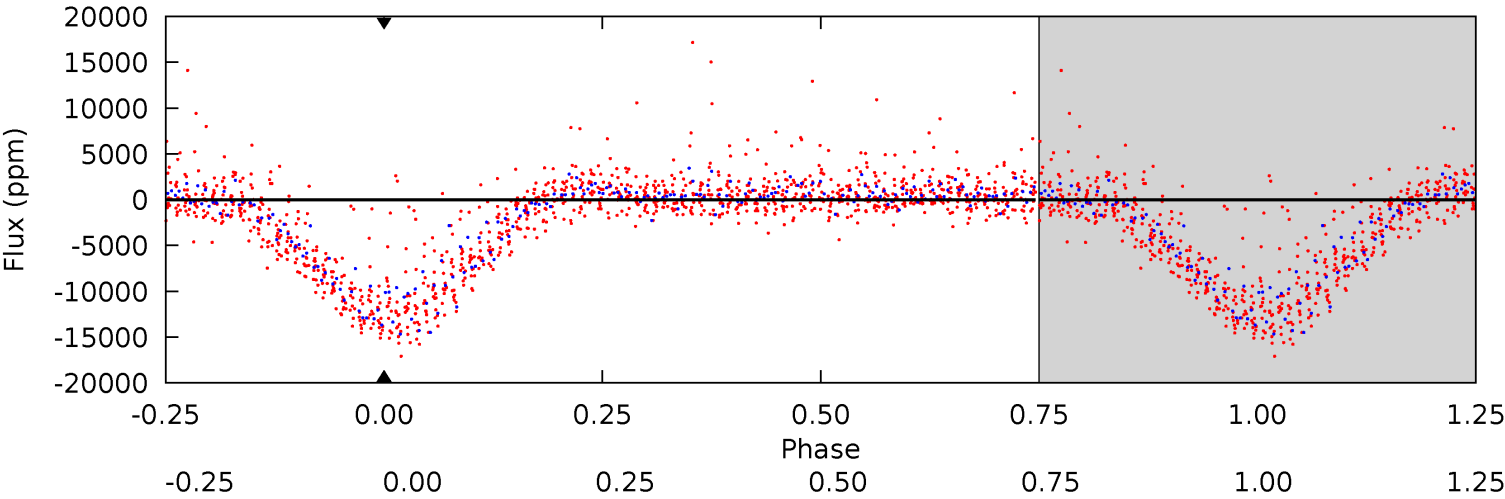
TCE 007293927-01 P= 0.970445 Days  $T_0=131.659981$  (BKJD)



DV Model-Shift Uniqueness Test

007293927-01, P = 0.970445 Days, E = 131.708518 Days

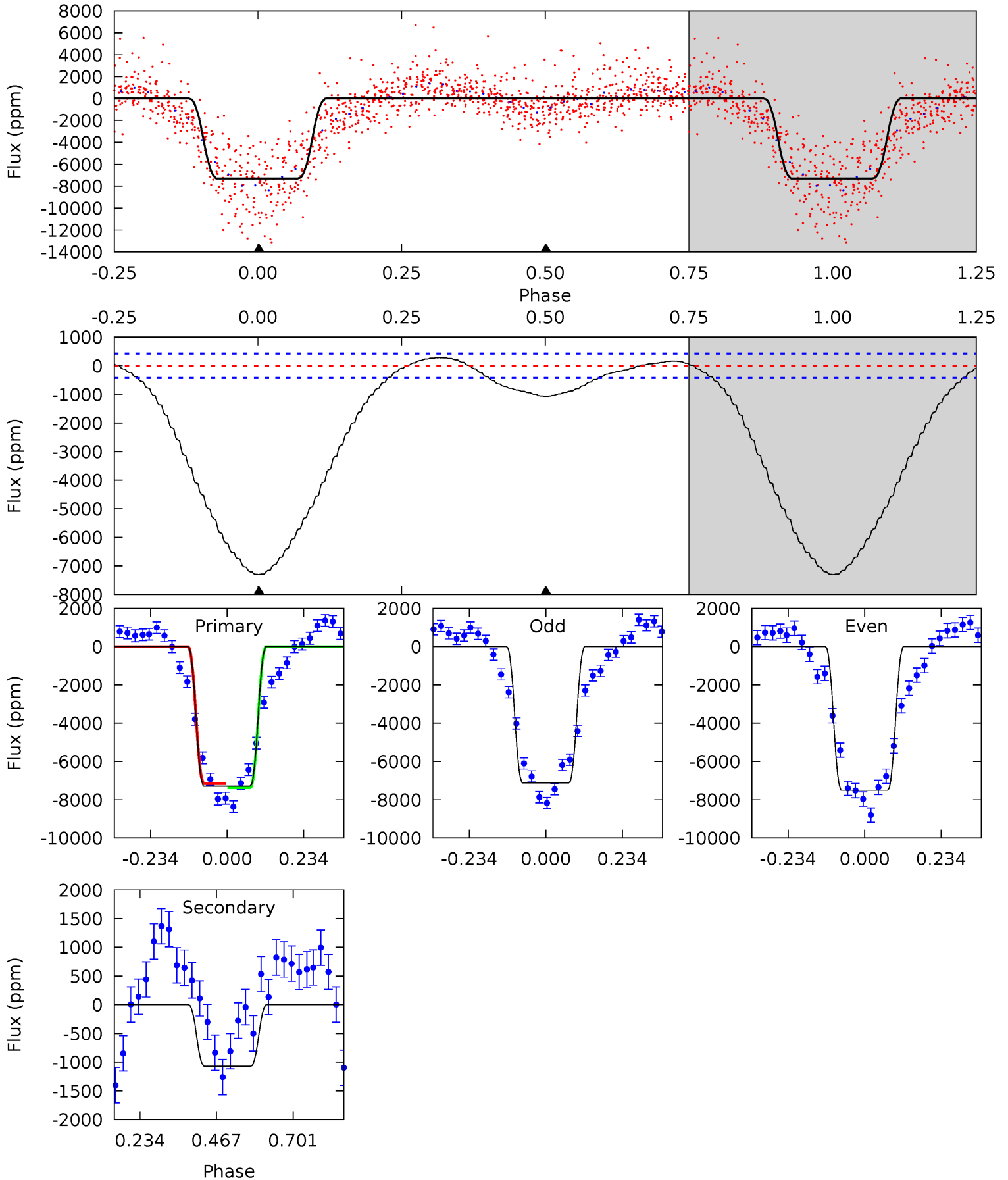
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

007293927-01, P = 0.970445 Days, E = 131.659981 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
74.7	11.0	0	0	4.38	1.19	1.50	74.7	74.7	11.0	11.0	2.16	1.00	0.04	1.15



### Stellar Parameters For KIC 007293927

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5780^{+1}_{-1}$	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

### Secondary Eclipse Parameters for KIC 007293927-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 1000000$	$9.19^{+8.95}_{-6.07}$	$2568^{+126}_{-116}$	$4764^{+14600}_{-20486}$	$7.282^{+461.413}_{-326.988}$
Alt.	$-1071 \pm 98$	$12.07^{+10.24}_{-7.54}$	$2575^{+127}_{-113}$	$3464^{+1602}_{-935}$	$1.471^{+9.072}_{-1.043}$

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

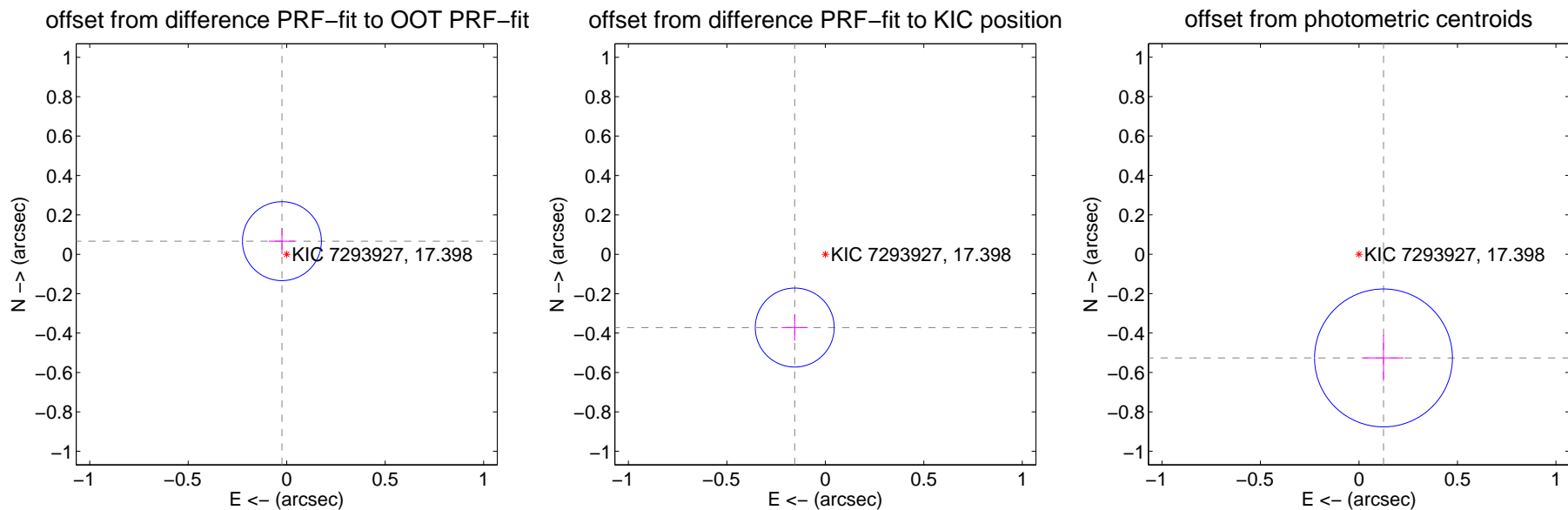
## DV Centroid Data

Supplemental centroid analysis for 007293927-01. Kepler magnitude: 17.40. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.071 \pm 0.067$	1.06	$0.024 \pm 0.067$	$0.067 \pm 0.067$
PRF-fit source offset from KIC position	$0.403 \pm 0.067$	6.03	$0.155 \pm 0.067$	$-0.372 \pm 0.067$
photometric centroid source offset	$0.54 \pm 0.12$	4.64	$-0.12 \pm 0.10$	$-0.53 \pm 0.12$

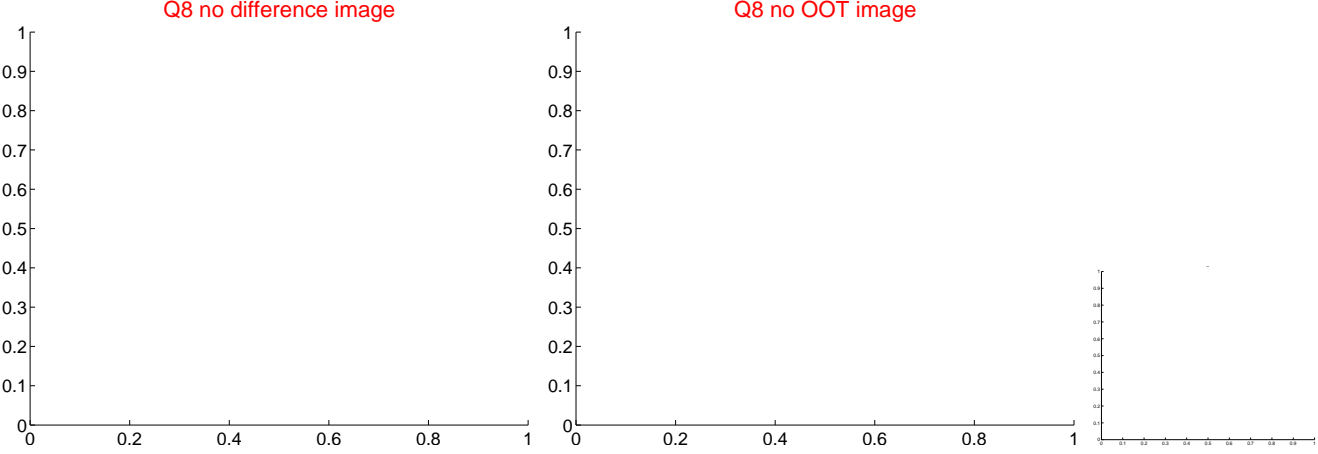
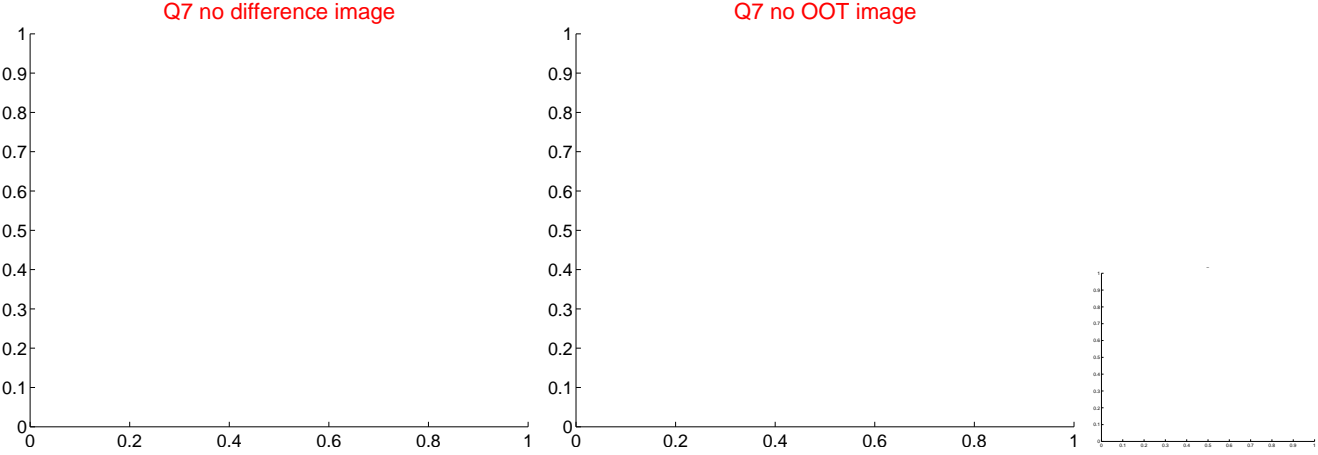


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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



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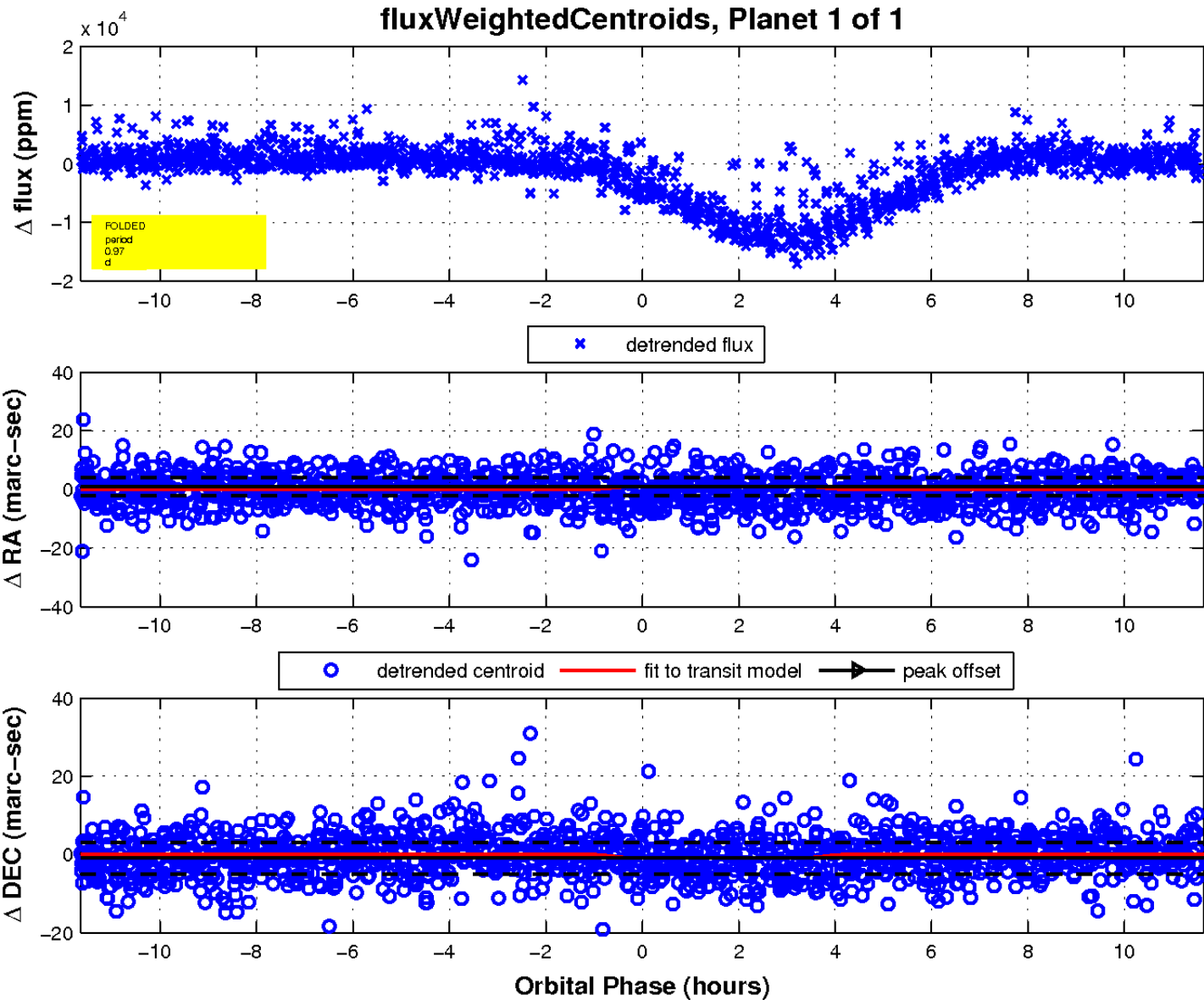
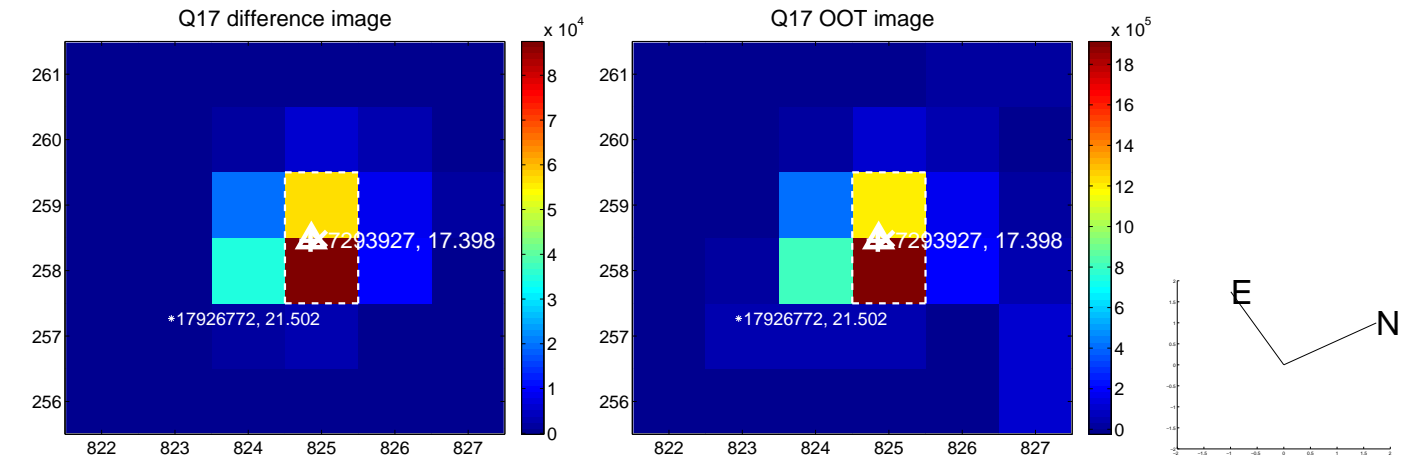
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white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination

