

# KIC 008482093

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008482093-01	OBS	No	368.626395	232.964241	834.8	25.117	12.8	14.1	1.02	6191	5.67	1.29

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008482093-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

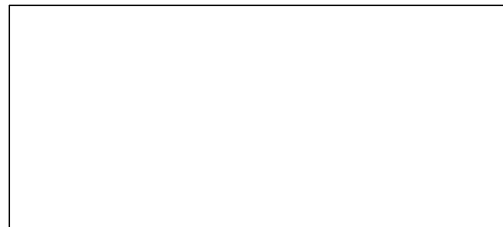
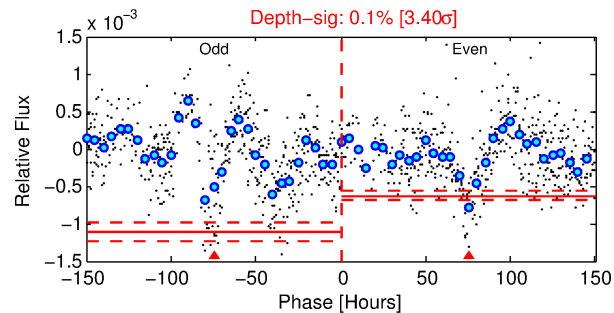
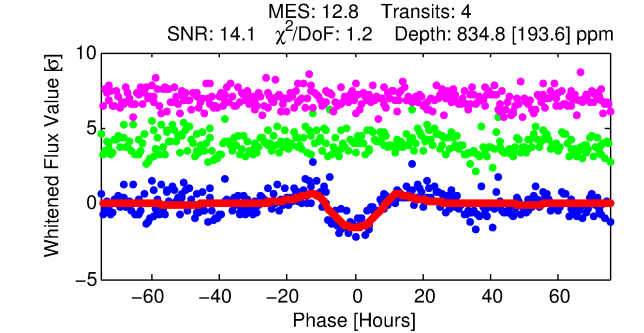
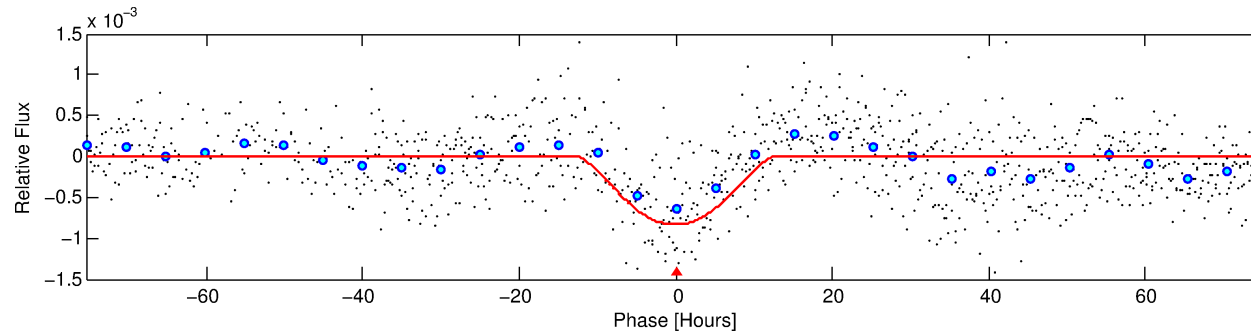
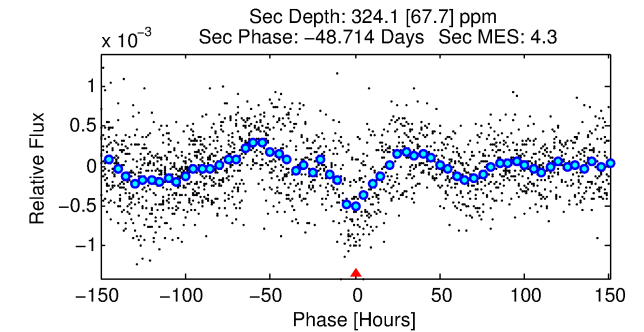
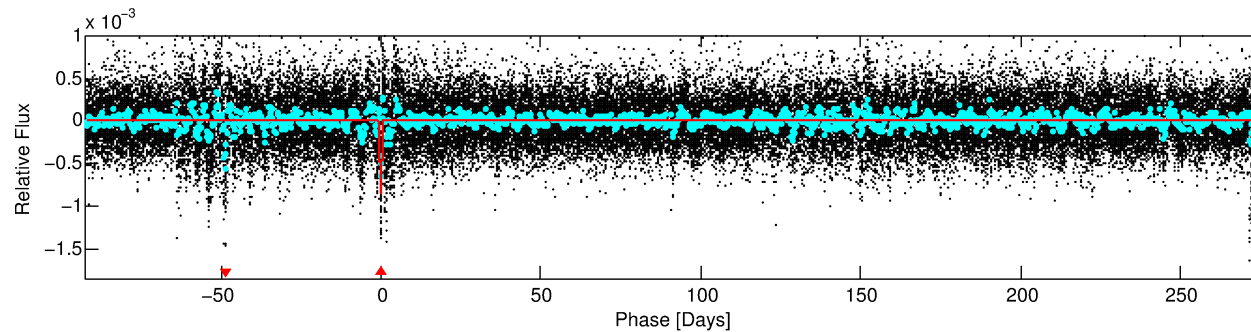
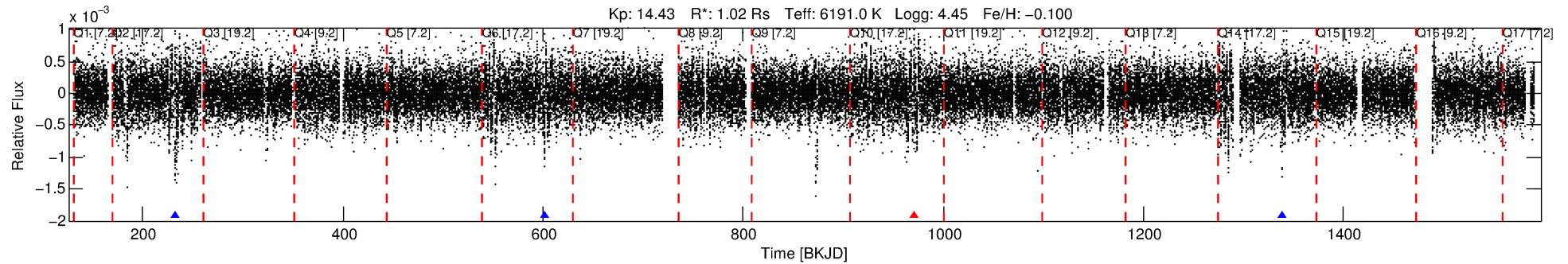
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008482093-01

No Significant Match Found

# DV One-Page Summary

KIC: 8482093 Candidate: 1 of 1 Period: 368.626 d



## DV Fit Results:

Period = 368.62640 [0.01524] d  
Epoch = 232.9642 [0.0297] BKJD  
Rp/R\* = 0.0507 [0.0950]  
a/R\* = 36.23 [16.63]  
b = 1.00 [0.14]  
Seff = 1.29 [0.48]  
Teq = 272 [25] K  
Rp = 5.67 [10.75] Re  
a = 1.0357 [0.2495] AU  
Ag = 5948.26 [22429.40] [0.27σ]  
Teffp = 3689 [3465] K [0.99σ]

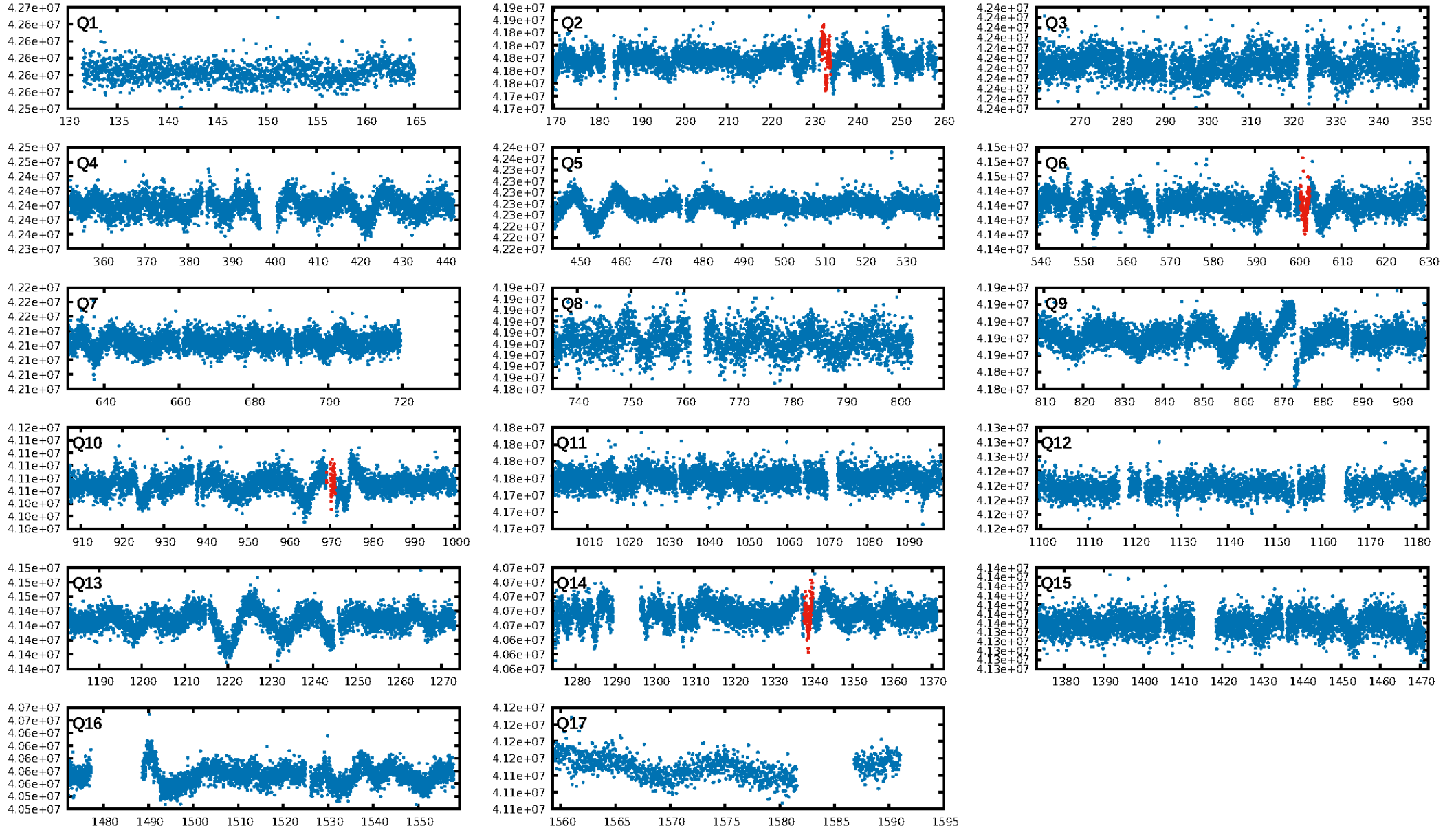
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 0.0%  
ModelChiSquareGof-sig: 100.0%  
Bootstrap-pfa: 1.37e-18  
RollingBand-fgt: 0.75 [3/4]  
GhostDiagnostic-chr: 0.1875  
Centroid-sig: 35.0%  
Centroid-so: 1.264 arcsec [0.73σ]  
OotOffset-rm: N/A  
KicOffset-rm: N/A  
OotOffset-st: 0/0/0/0 [0]  
KicOffset-st: 0/0/0/0 [0]  
DiffImageQuality-fgm: N/A  
DiffImageOverlap-fno: N/A

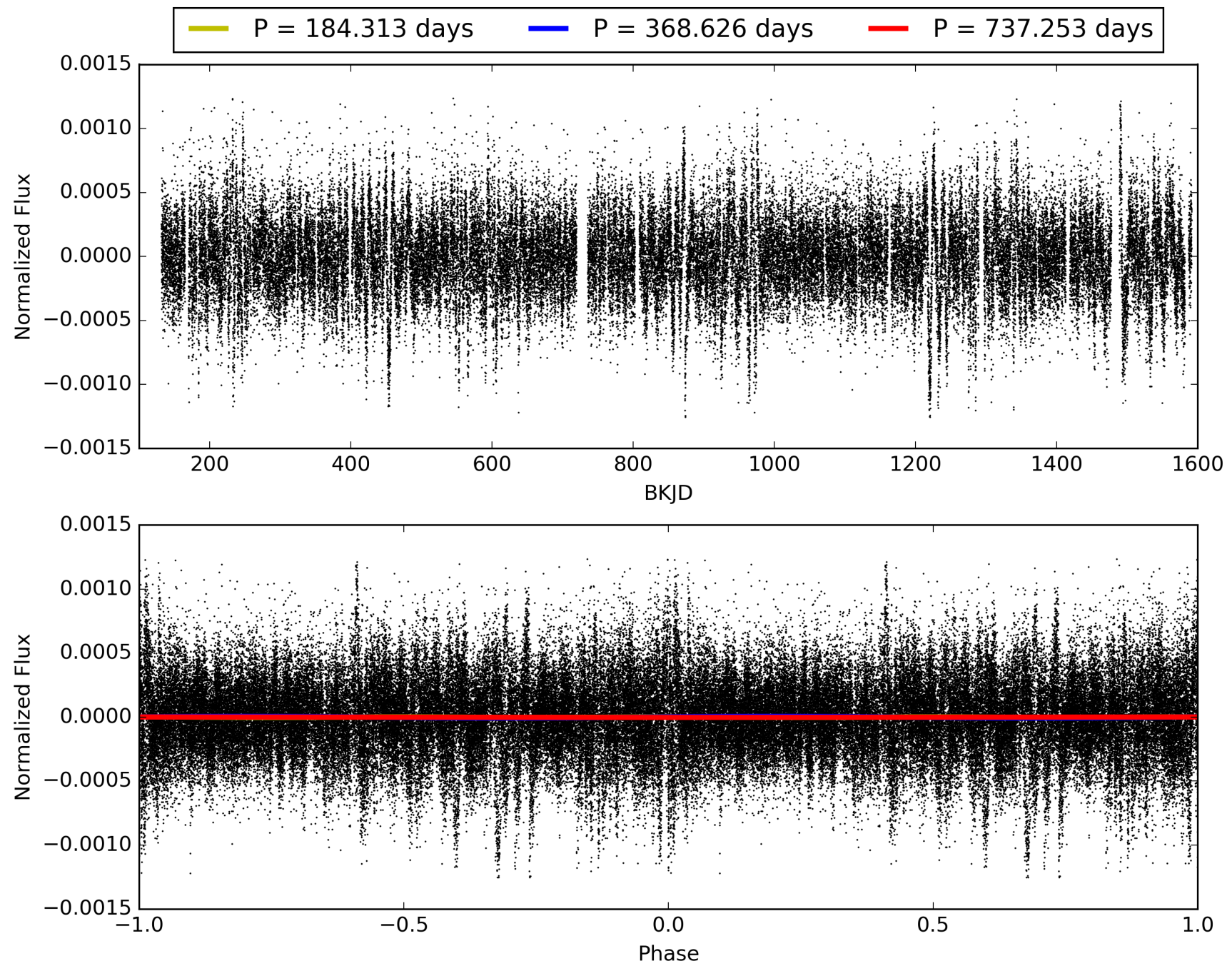
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:37:40 Z

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

# TCE 008482093-01, PDC Light Curves

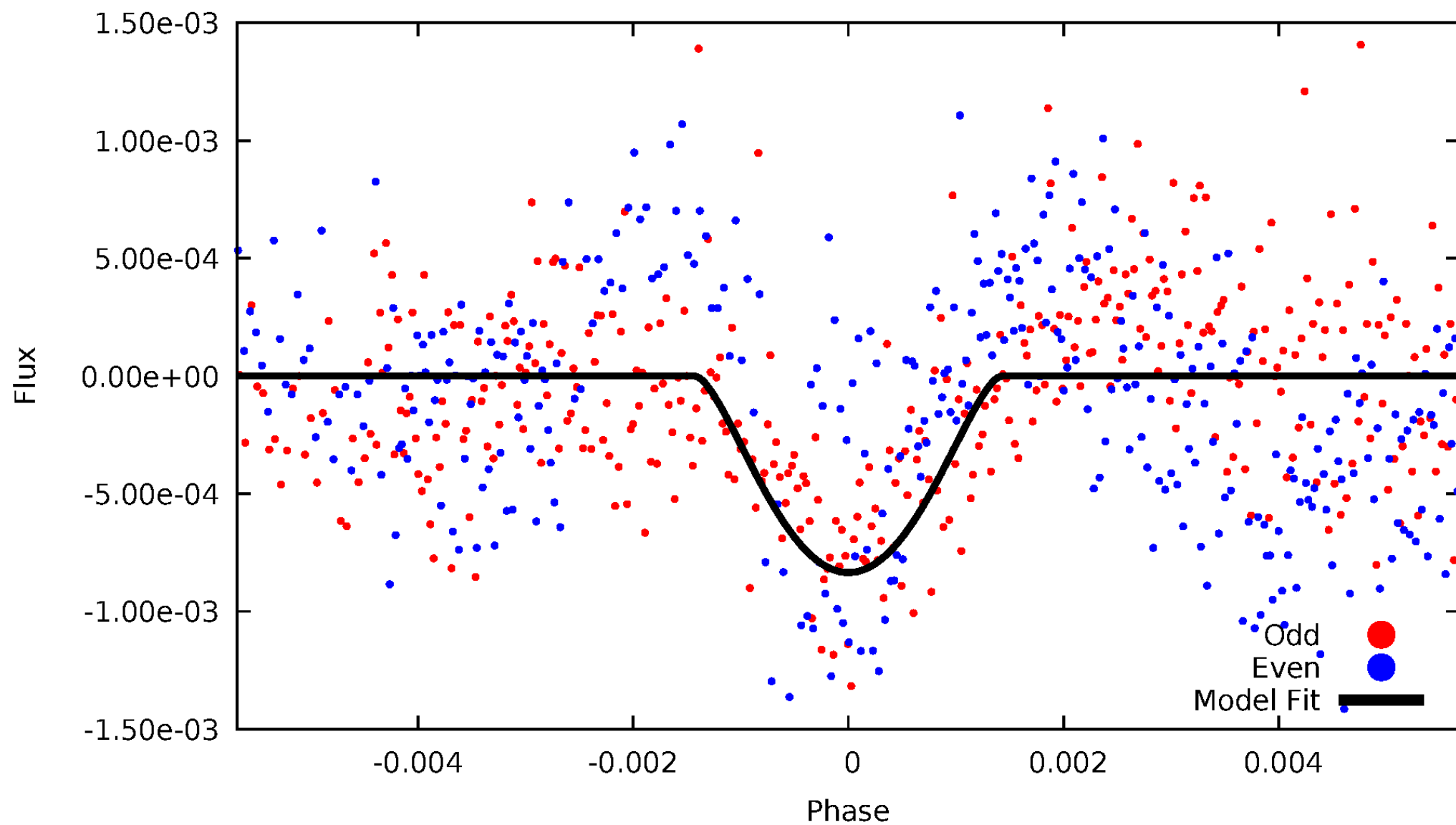


TCE 008482093-01



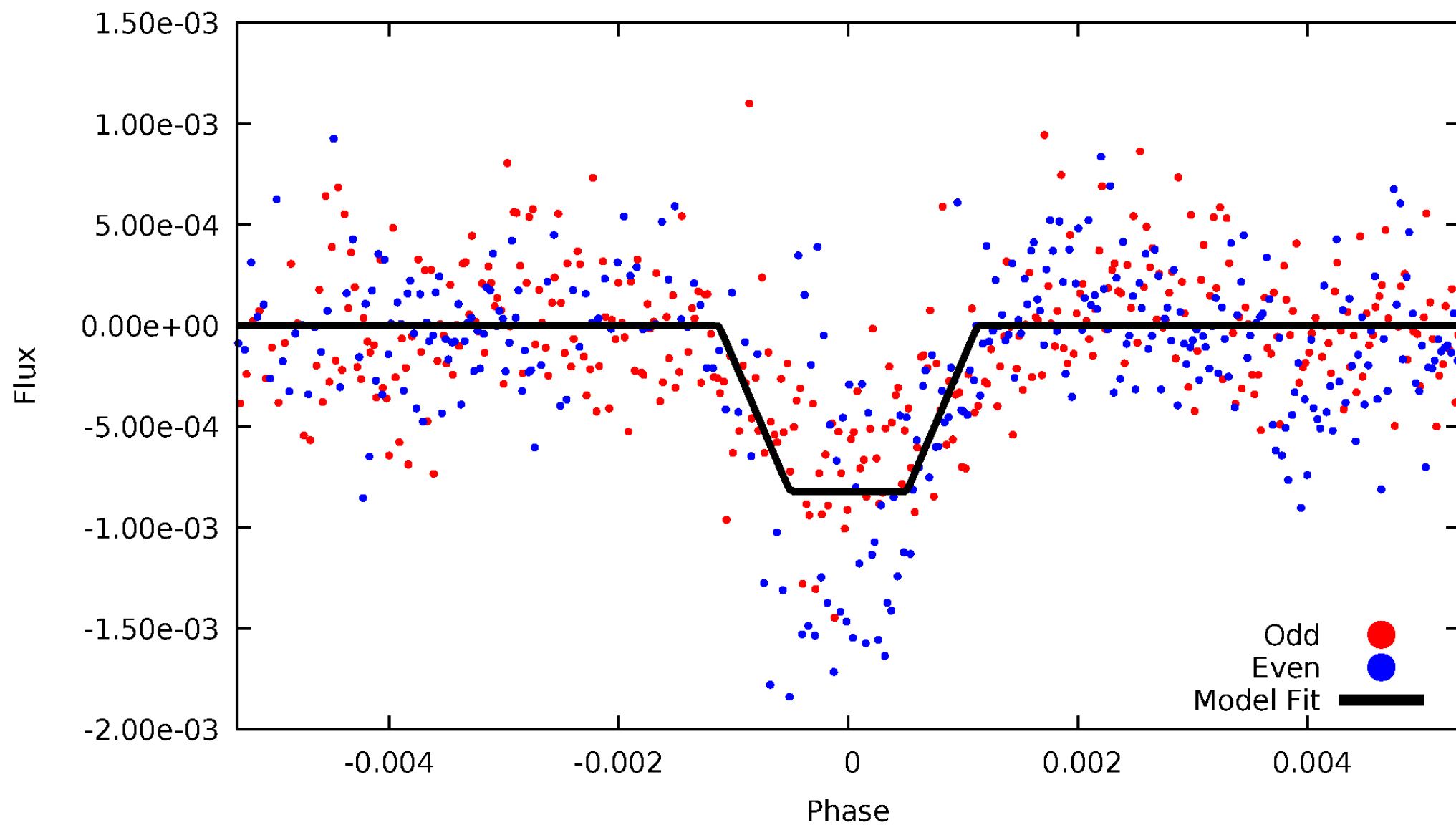
# DV Odd/Even

TCE 008482093-01



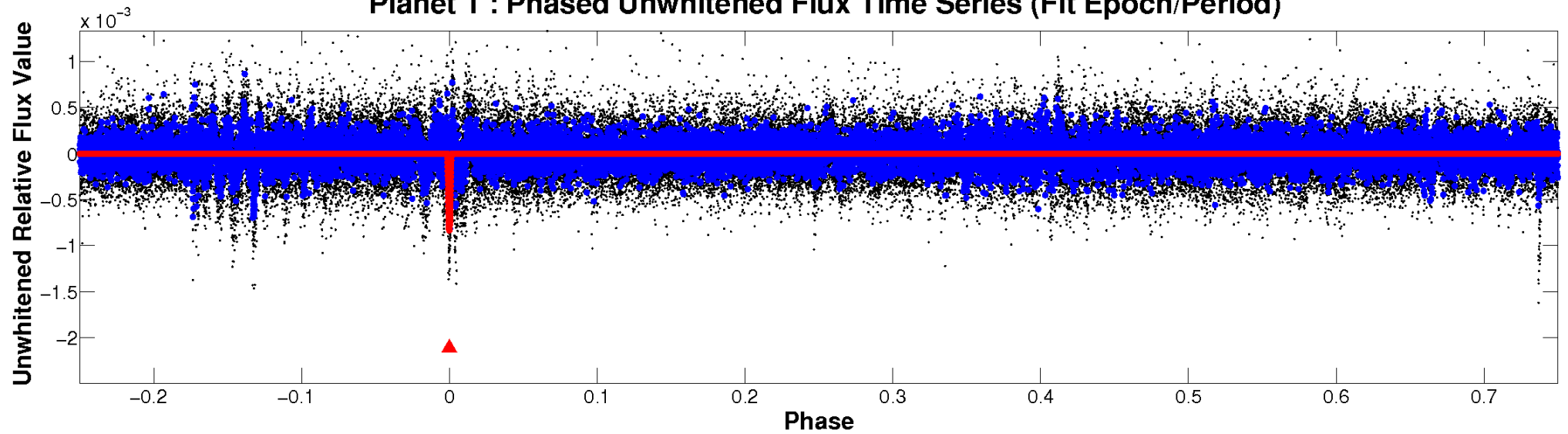
# ALT Odd/Even

TCE 008482093-01

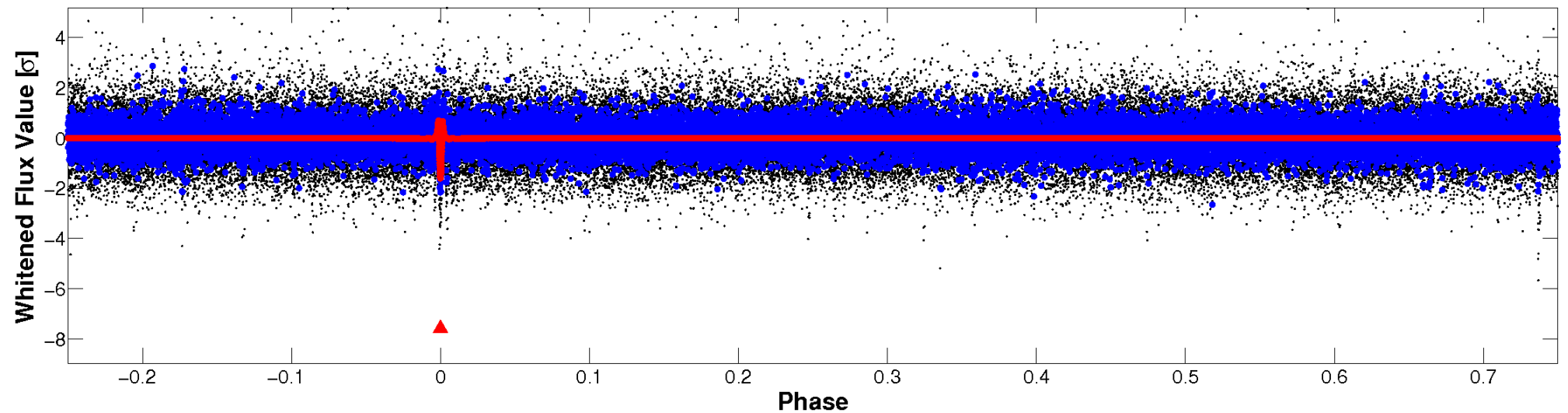


# Non-Whitened Vs. Whitened Light Curve

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

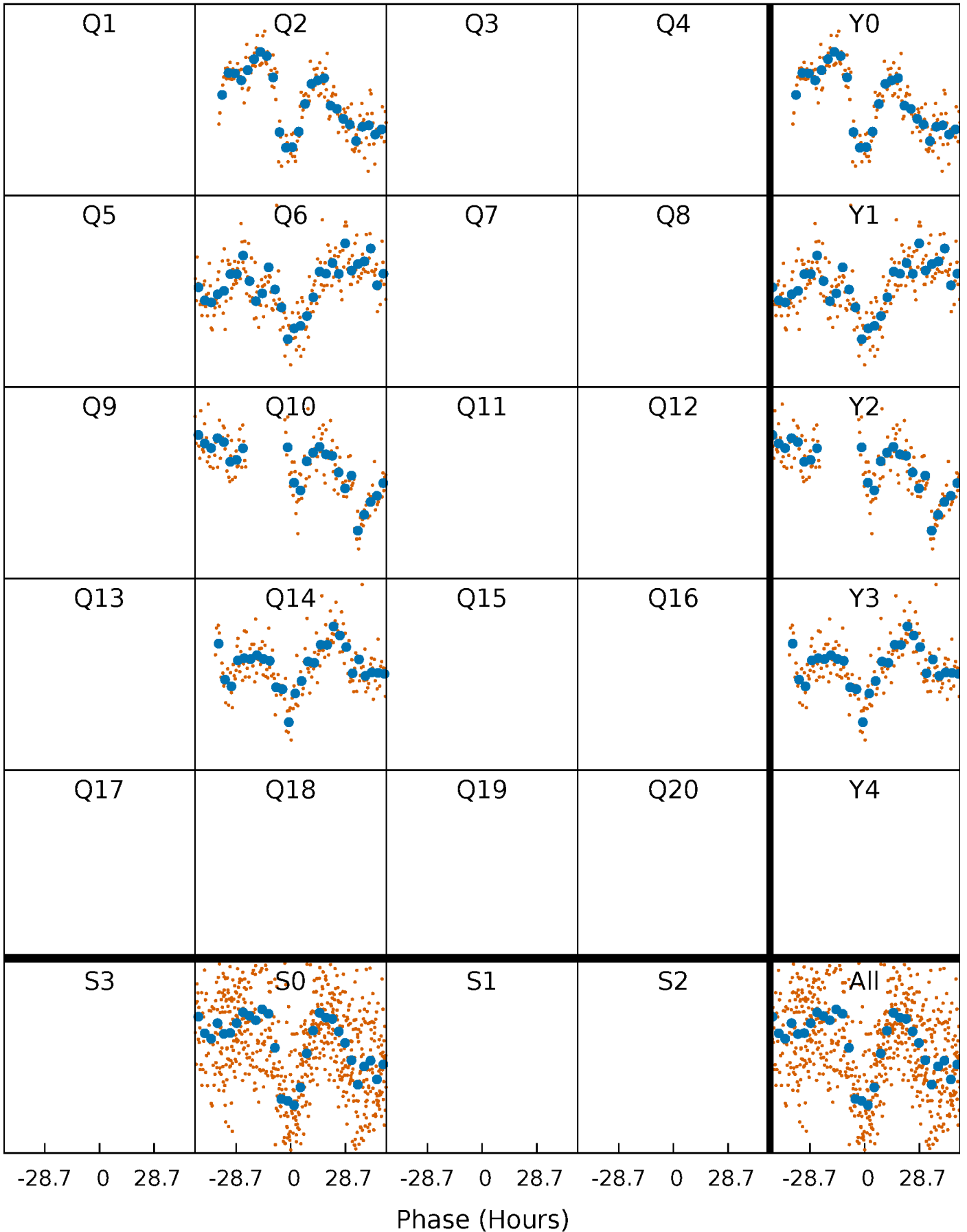


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



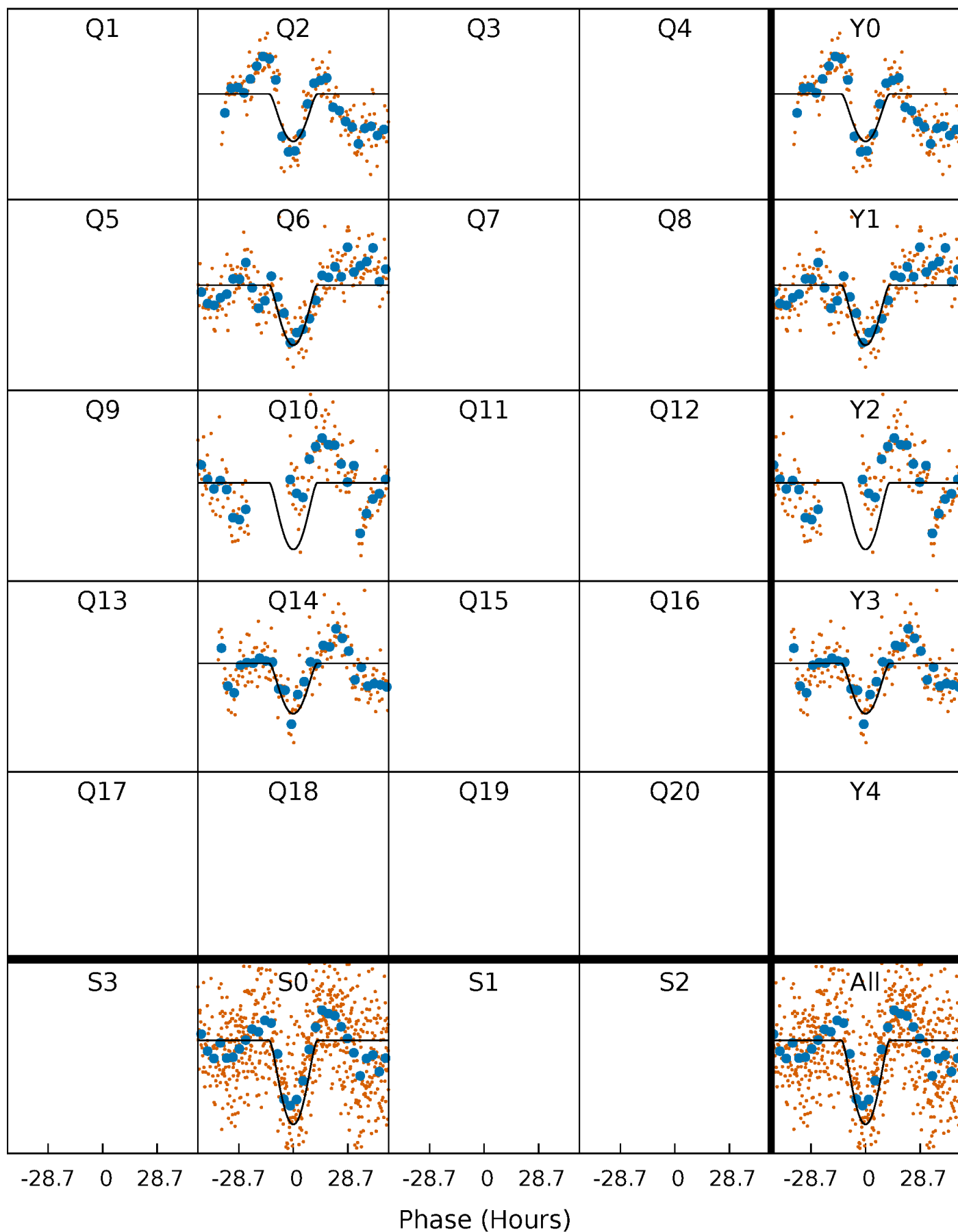
# PDC Quarter-Phased Transit Curves

TCE 008482093-01 P=368.626395 Days  $T_0=232.964241$  (BKJD)



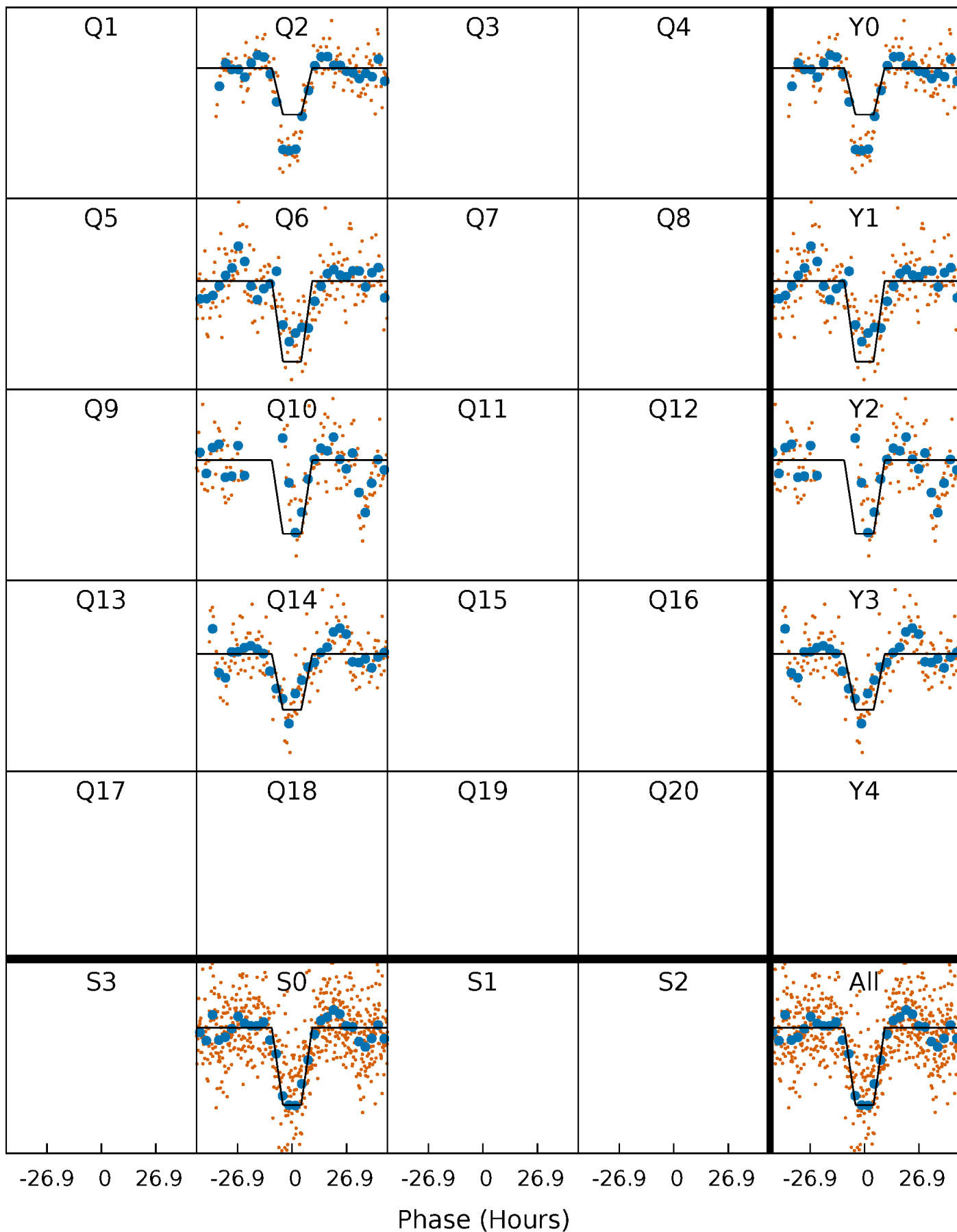
# DV Quarter-Phased Transit Curves

TCE 008482093-01 P=368.626395 Days  $T_0=232.964241$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

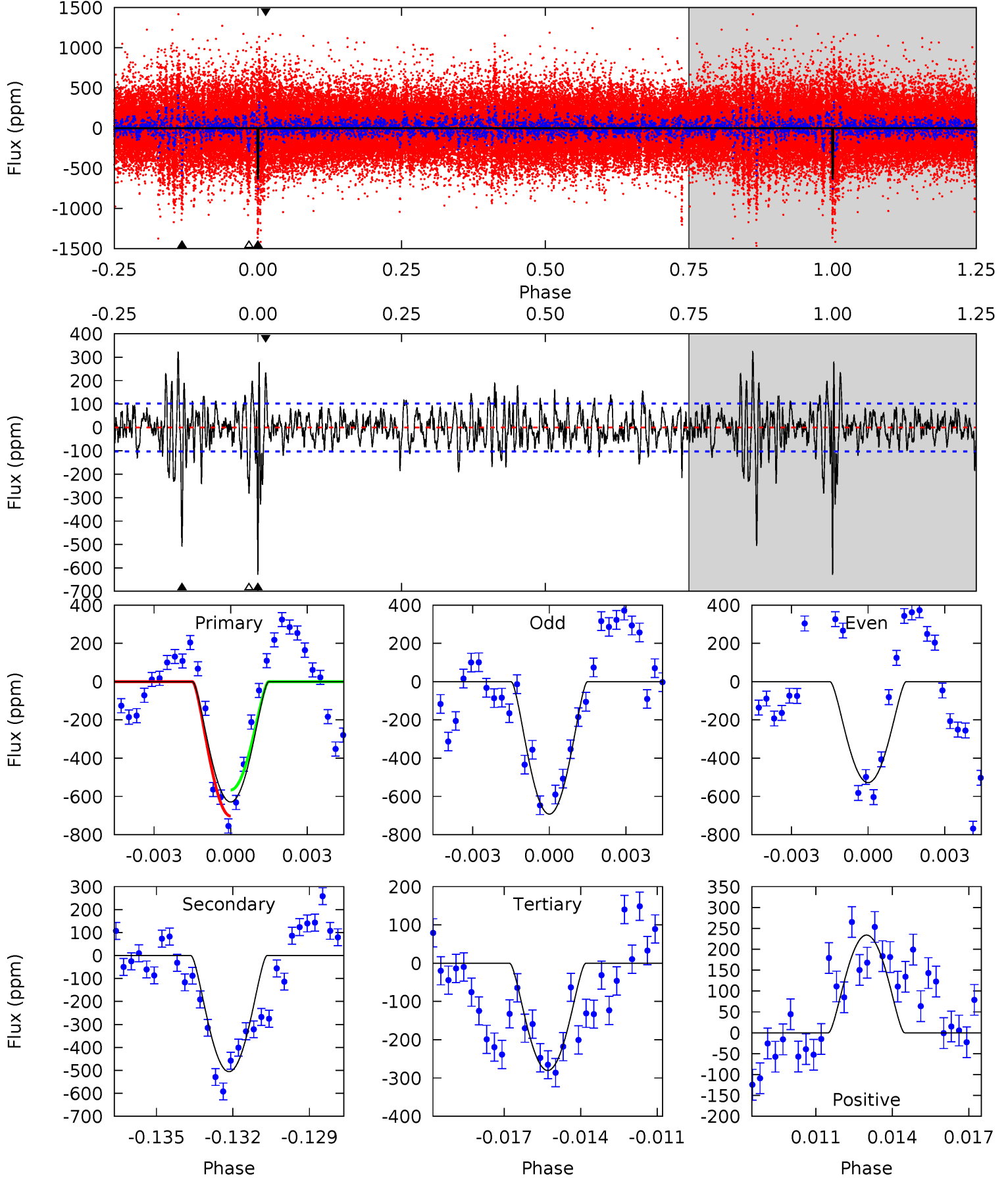
TCE 008482093-01 P=368.648667 Days  $T_0=232.951717$  (BKJD)



# DV Model-Shift Uniqueness Test

008482093-01, P = 368.626395 Days, E = 232.964241 Days

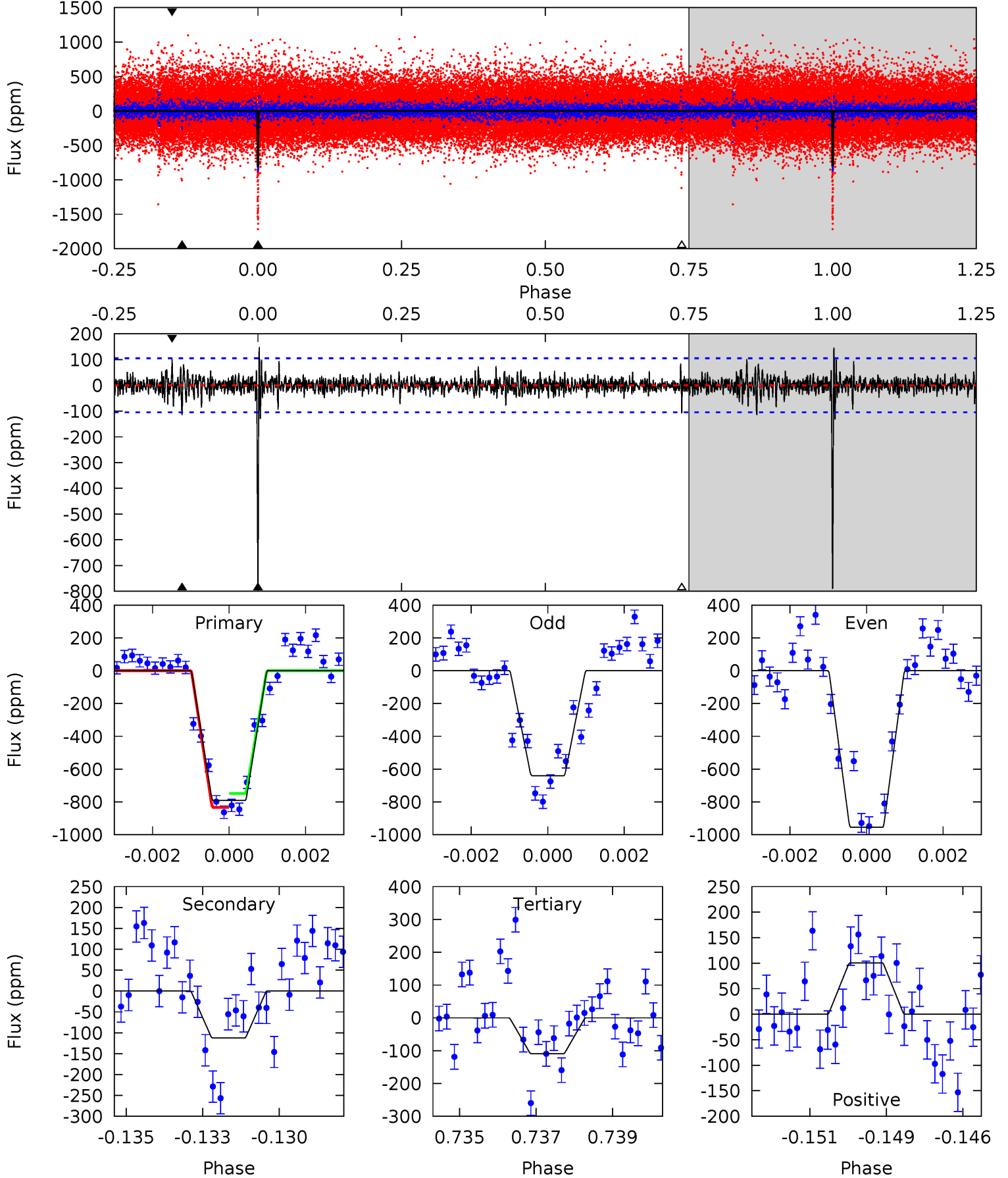
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.3	26.0	14.4	12.0	5.26	2.98	3.58	17.9	20.3	11.6	14.0	4.21	0.85	0.34	3.46



# Alt Model-Shift Uniqueness Test

008482093-01, P = 368.648667 Days, E = 232.951717 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
40.0	5.69	5.53	5.09	5.30	3.05	1.10	34.5	34.9	0.16	0.60	8.07	1.23	0.16	2.12



### Stellar Parameters For KIC 008482093

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6191^{+166}_{-203}$	$4.454^{+0.060}_{-0.192}$	$-0.100^{+0.250}_{-0.300}$	$1.025^{+0.293}_{-0.105}$	$1.088^{+0.141}_{-0.141}$	$1.423^{+0.371}_{-0.674}$
	+3%/-3%	+1%/-4%	+250%/-300%	+29%/-10%	+13%/-13%	+26%/-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 008482093-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-506 \pm 19$	$10.43^{+10.25}_{-6.93}$	$387^{+25}_{-20}$	$3550^{+1952}_{-623}$	$2591^{+22318}_{-1897}$
Alt.	$-112 \pm 20$	$8.95^{+8.97}_{-6.14}$	$386^{+25}_{-19}$	$2995^{+1342}_{-508}$	$815^{+7678}_{-613}$

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

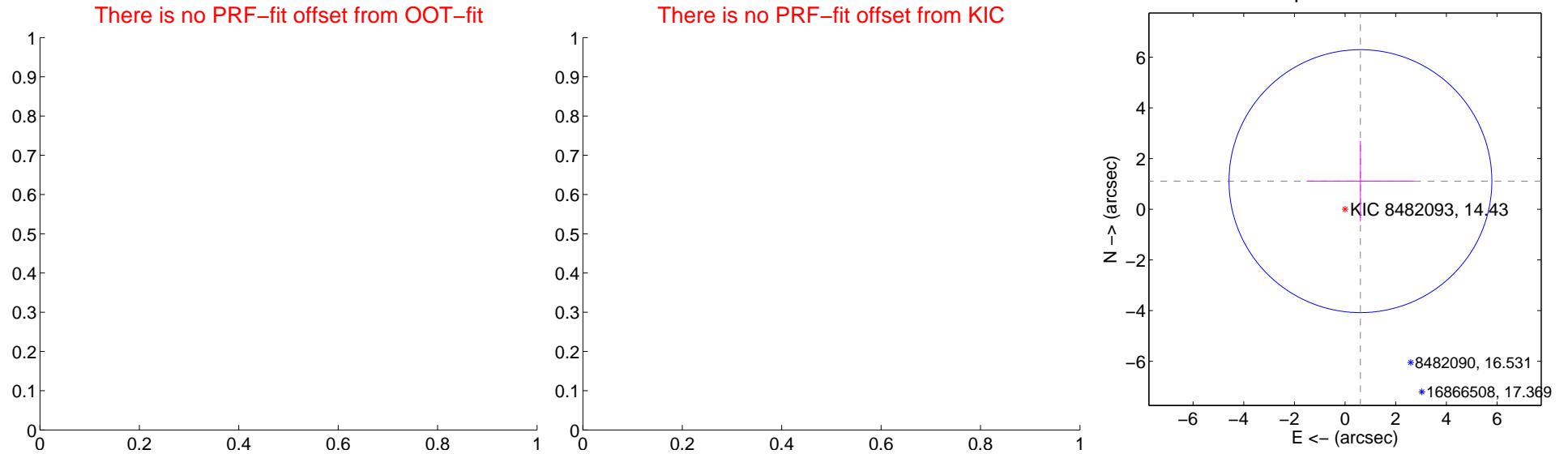
## DV Centroid Data

Supplemental centroid analysis for 008482093-01. Kepler magnitude: 14.43. Transit SNR 14.14

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	$1.26 \pm 1.73$	0.73	$-0.61 \pm 2.13$	$1.11 \pm 1.59$



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.



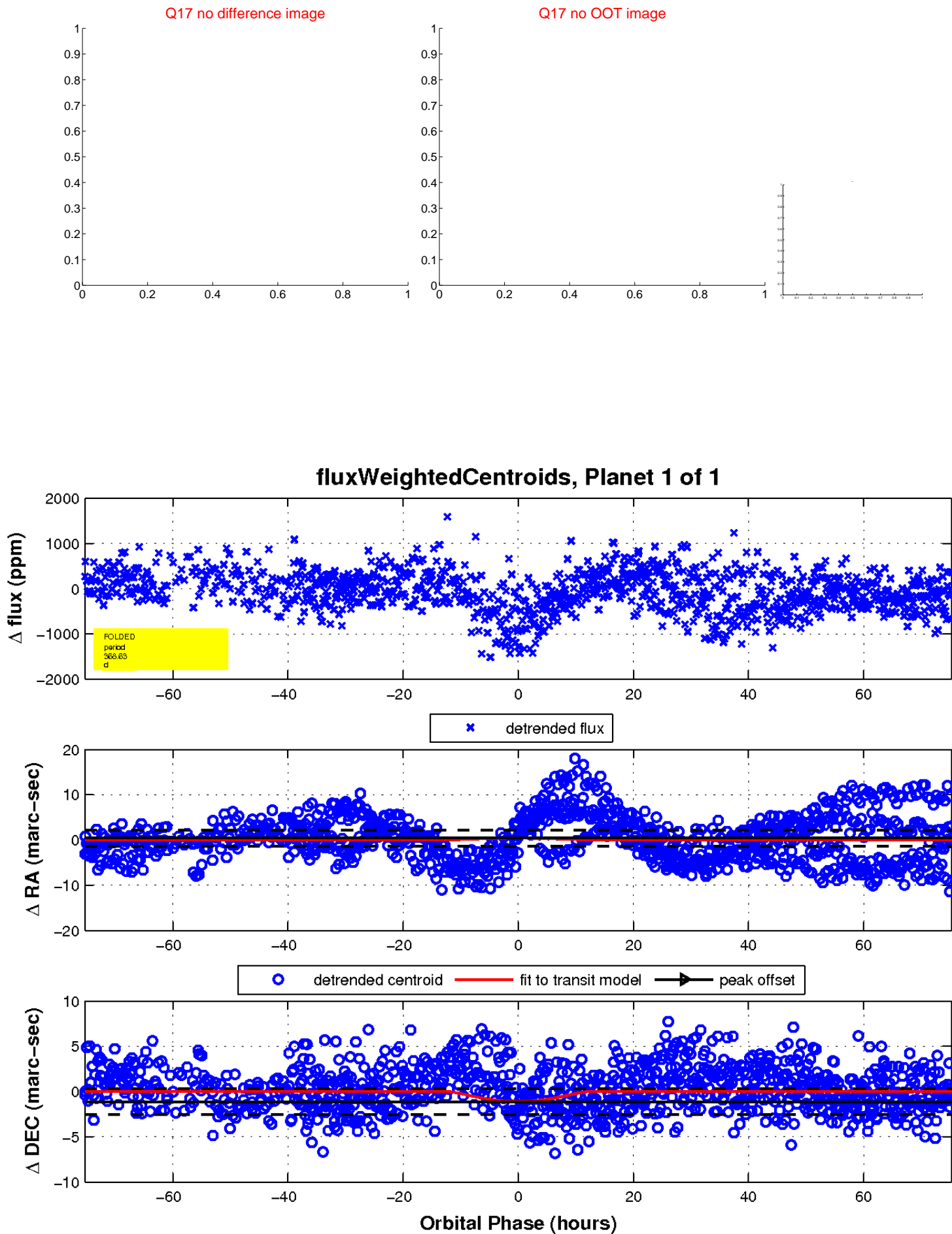
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

