

# KIC 001294869

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
001294869-01	OBS	No	273.376387	301.969021	714.6	6.965	7.4	6.8	0.82	5641	2.47	0.97

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001294869-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

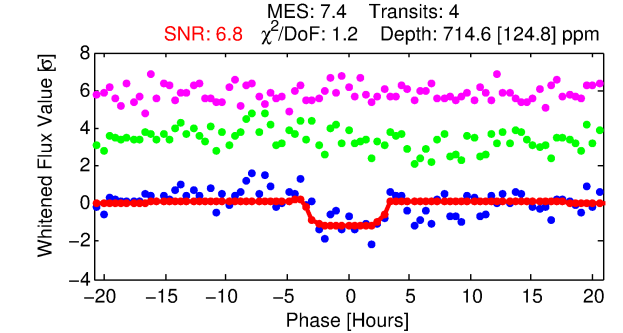
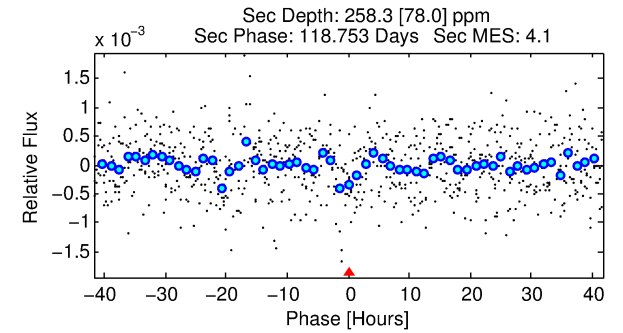
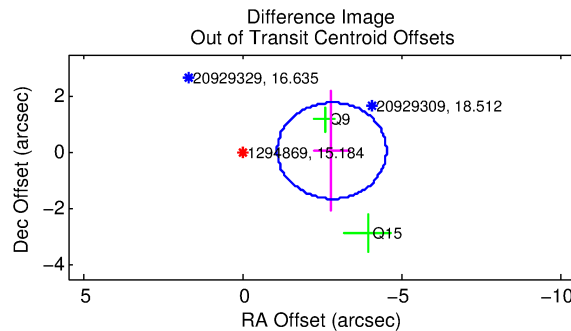
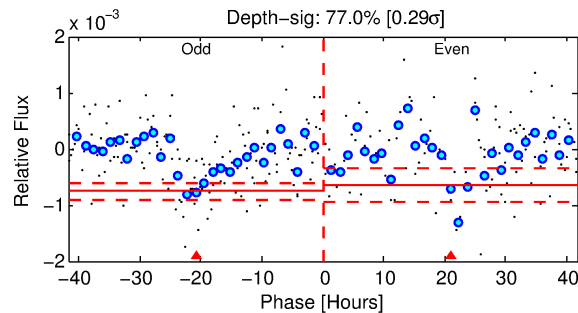
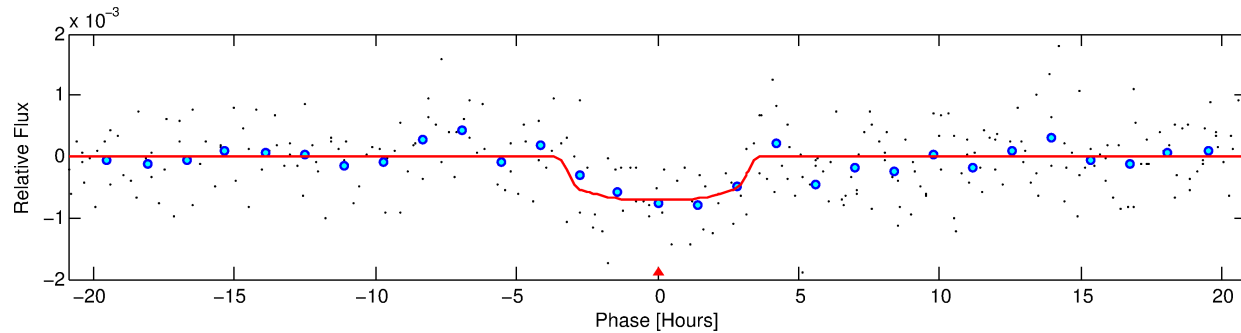
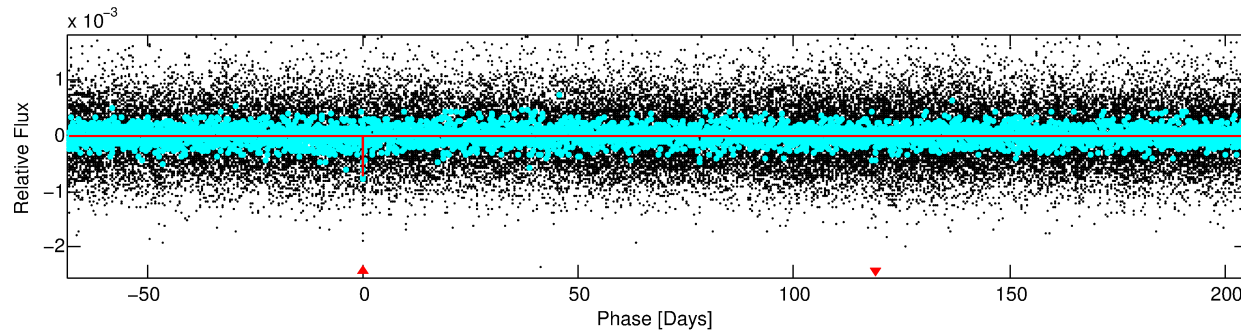
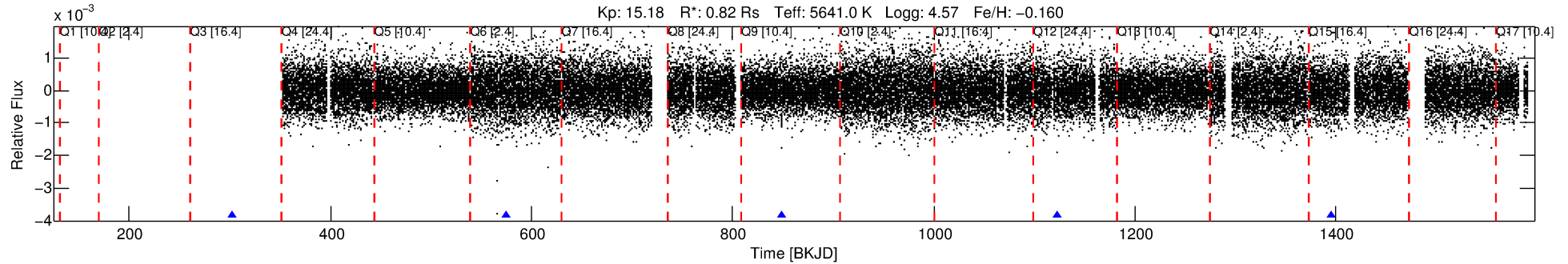
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 001294869-01

No Significant Match Found

# DV One-Page Summary

KIC: 1294869 Candidate: 1 of 1 Period: 273.376 d



## DV Fit Results:

Period = 273.37639 [0.01014] d  
Epoch = 301.9690 [0.0256] BKJD  
Rp/R\* = 0.0274 [0.0144]  
a/R\* = 187.49 [424.17]  
b = 0.82 [0.95]  
Seff = 0.97 [0.34]  
Teq = 253 [22] K  
Rp = 2.47 [1.45] Re  
a = 0.7995 [0.1781] AU  
Ag = 14903.48 [16968.02] [0.88 $\sigma$ ]  
Teffp = 4318 [1186] K [3.43 $\sigma$ ]

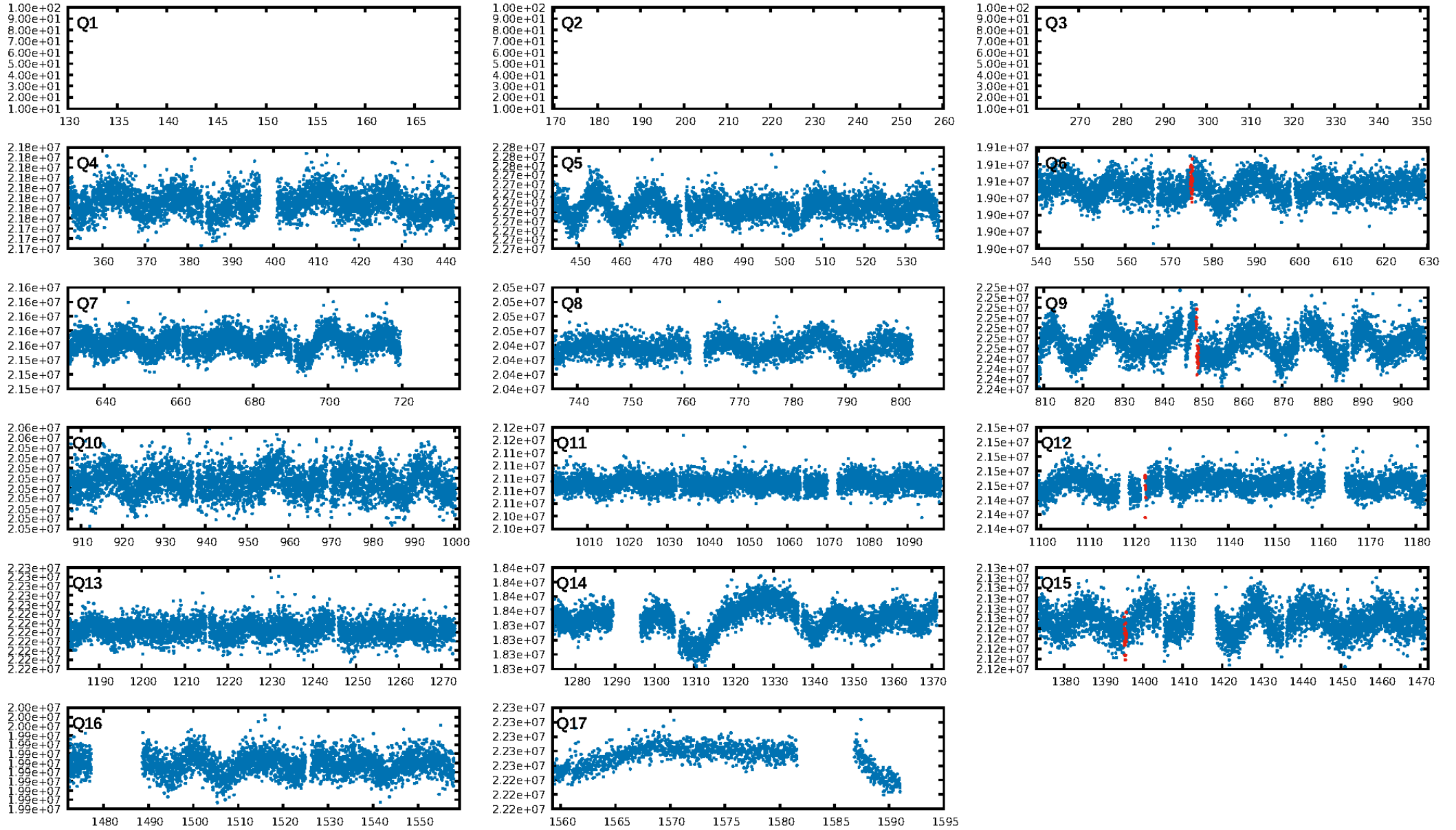
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 26.1%  
ModelChiSquareGof-sig: 99.7%  
Bootstrap-pfa: 9.55e-13  
RollingBand-fgt: 1.00 [4/4]  
GhostDiagnostic-chr: 0.5495  
Centroid-sig: 0.4%  
Centroid-so: 3.718 arcsec [1.99 $\sigma$ ]  
OotOffset-rm: 2.794 arcsec [4.89 $\sigma$ ]  
KicOffset-rm: 2.743 arcsec [3.97 $\sigma$ ]  
OotOffset-st: 0/1/0/1 [2]  
KicOffset-st: 0/1/0/1 [2]  
DiffImageQuality-fgm: 0.50 [1/2]  
DiffImageOverlap-fno: 1.00 [3/3]

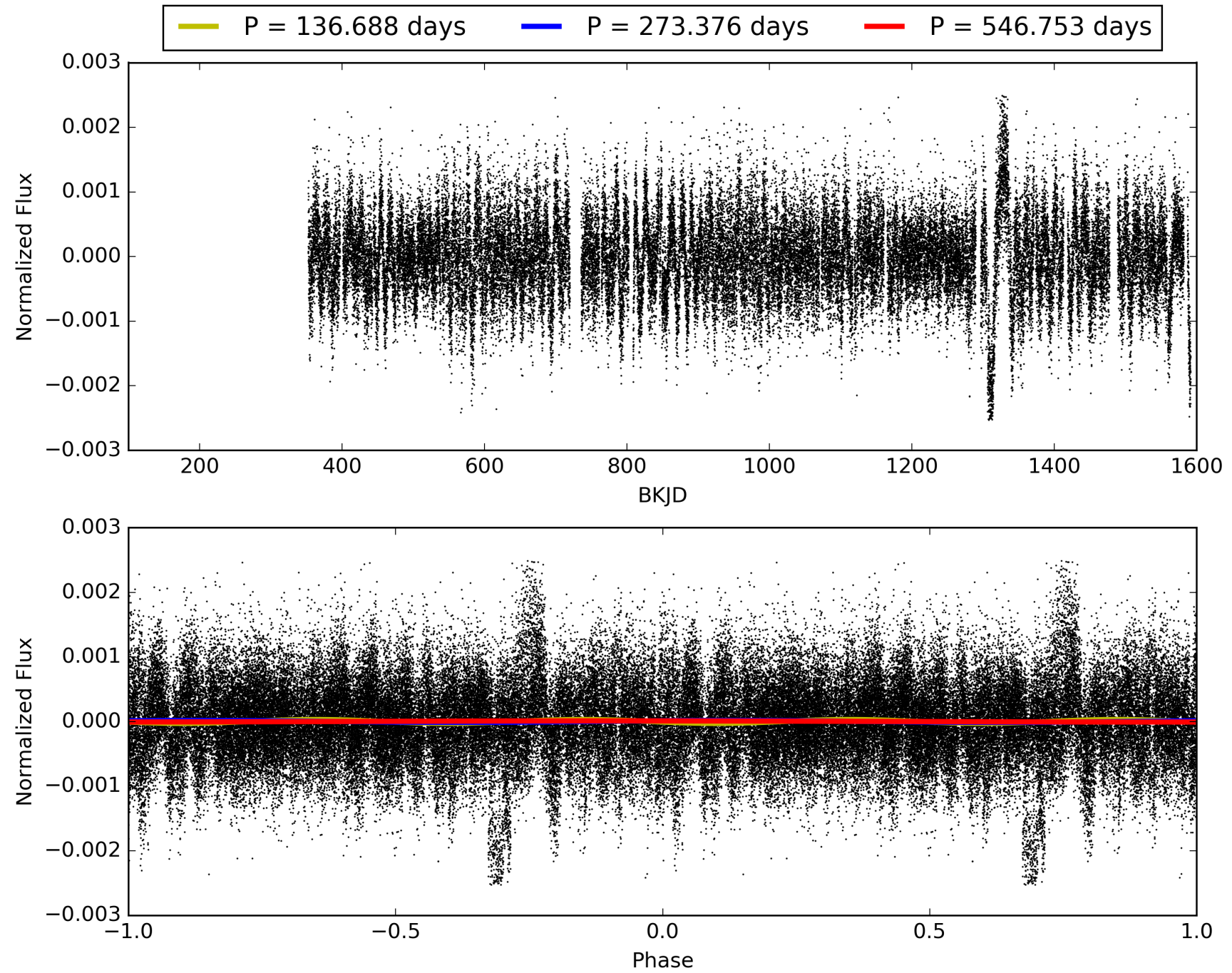
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:29:20 Z

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

# TCE 001294869-01, PDC Light Curves

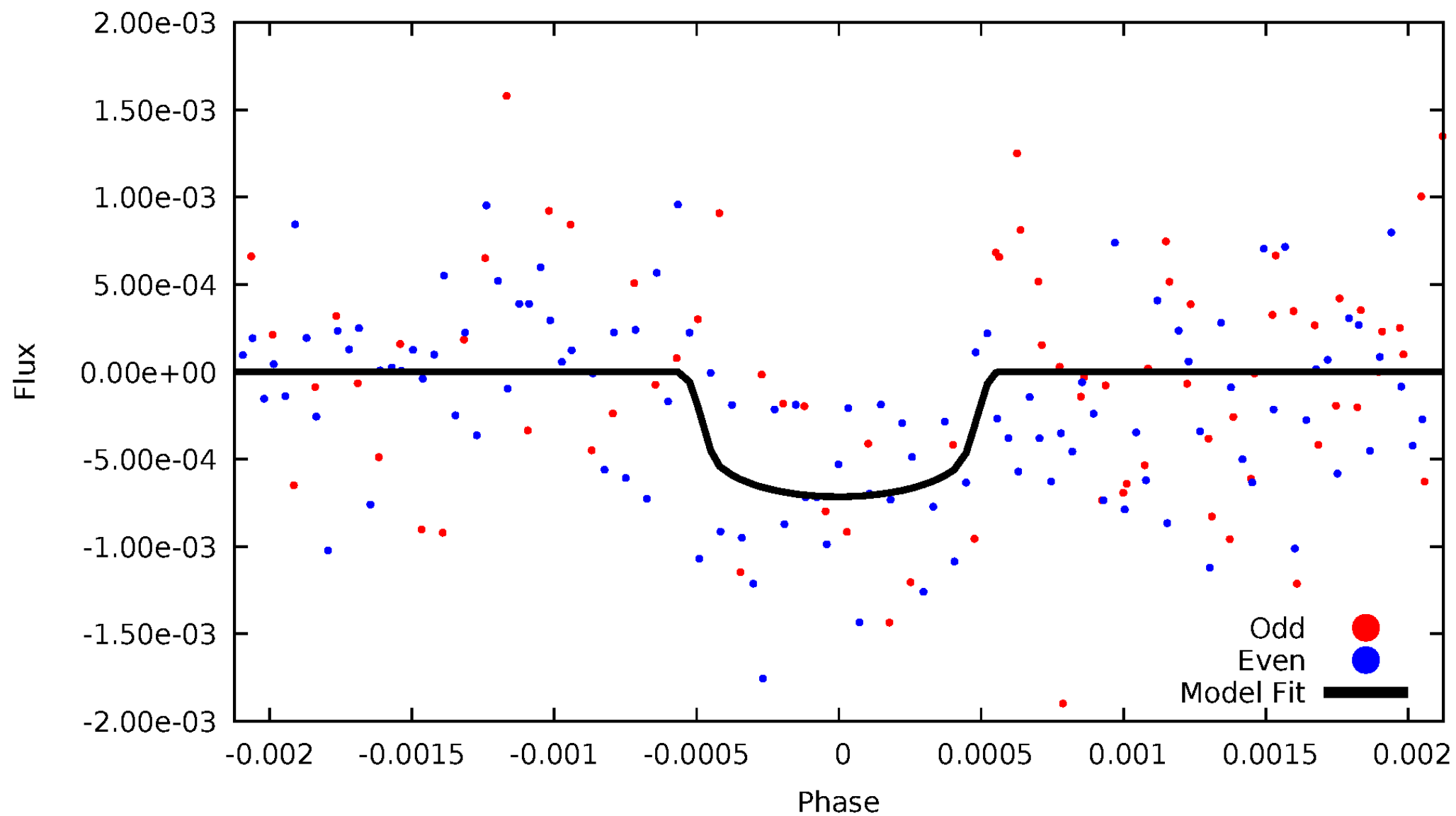


TCE 001294869-01



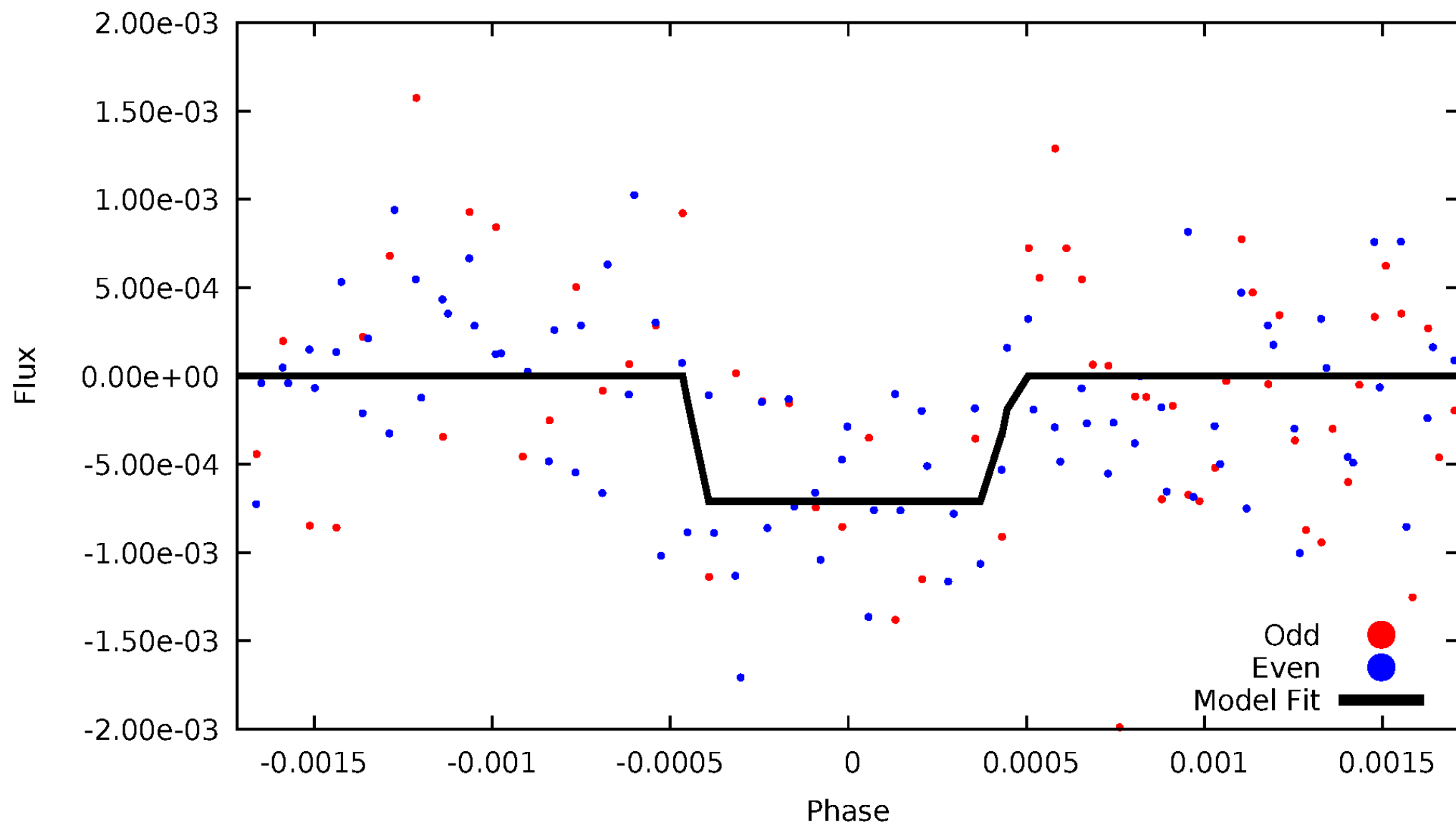
# DV Odd/Even

TCE 001294869-01

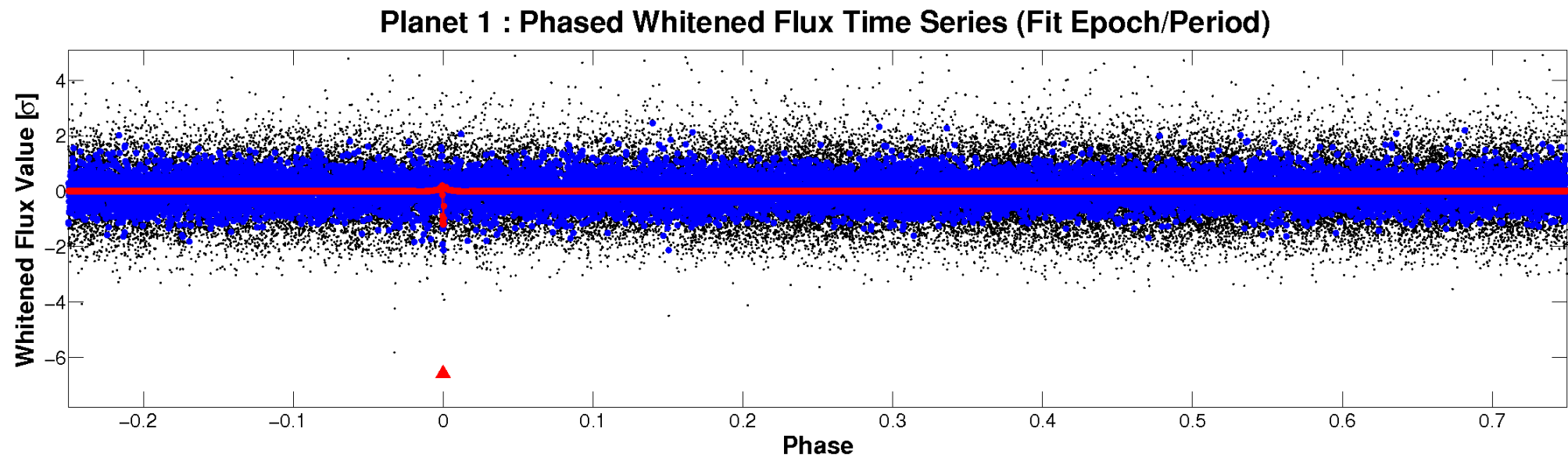
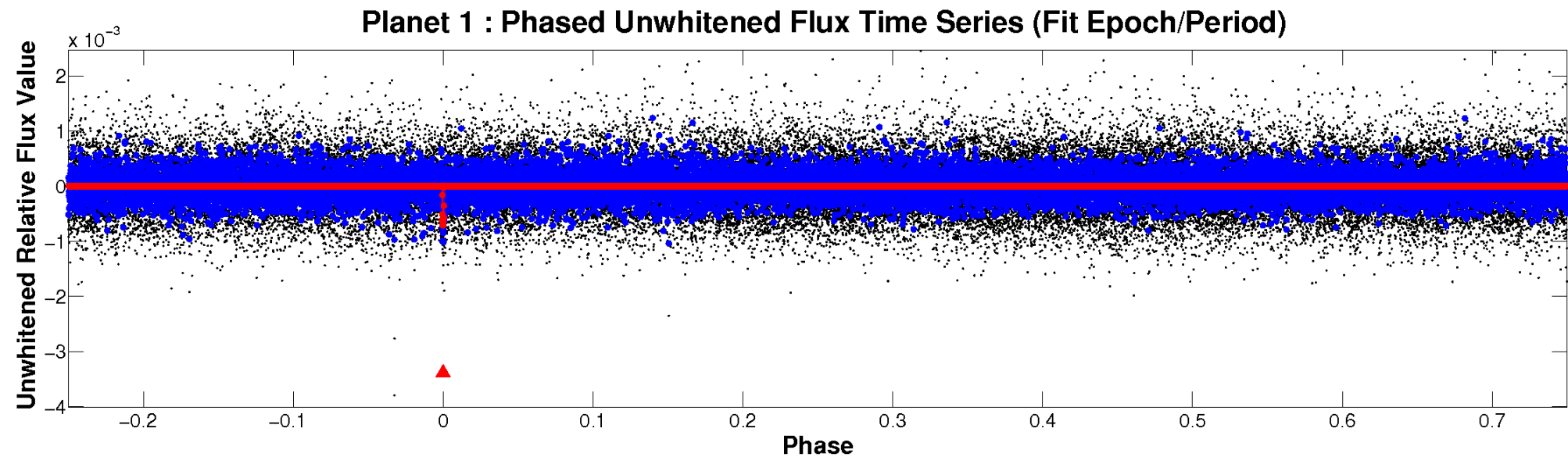


# ALT Odd/Even

TCE 001294869-01



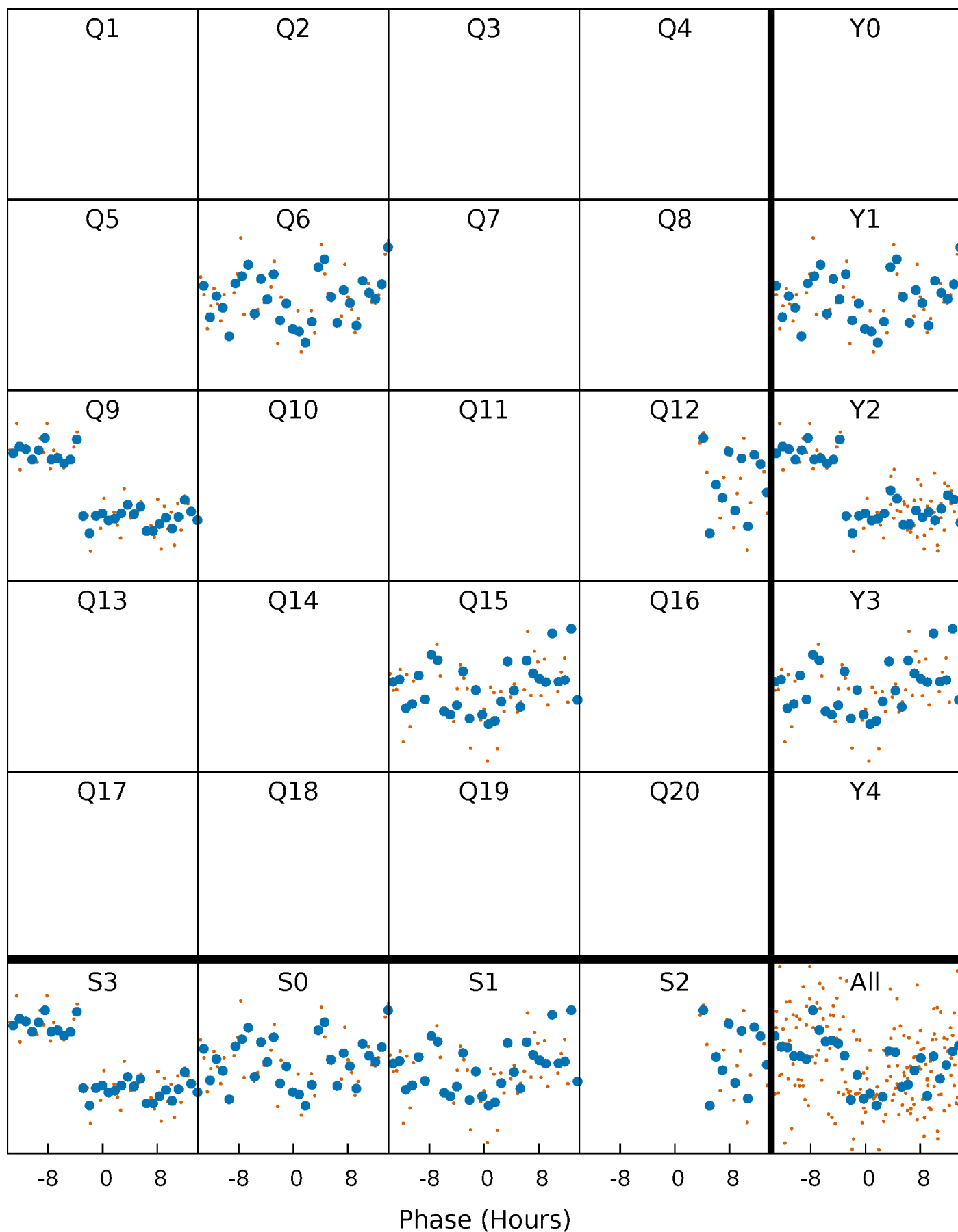
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

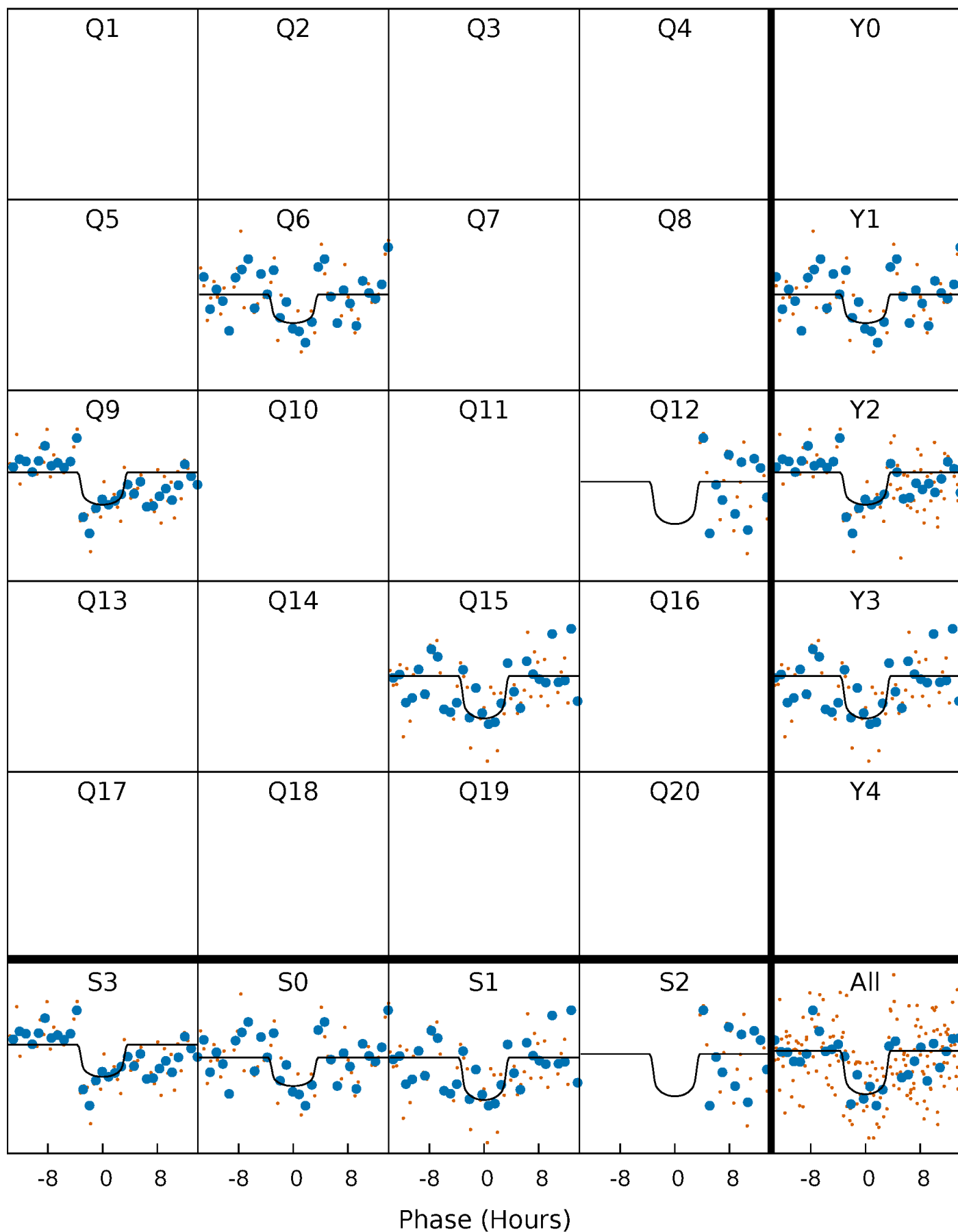
TCE 001294869-01 P=273.376387 Days  $T_0=301.969021$  (BKJD)





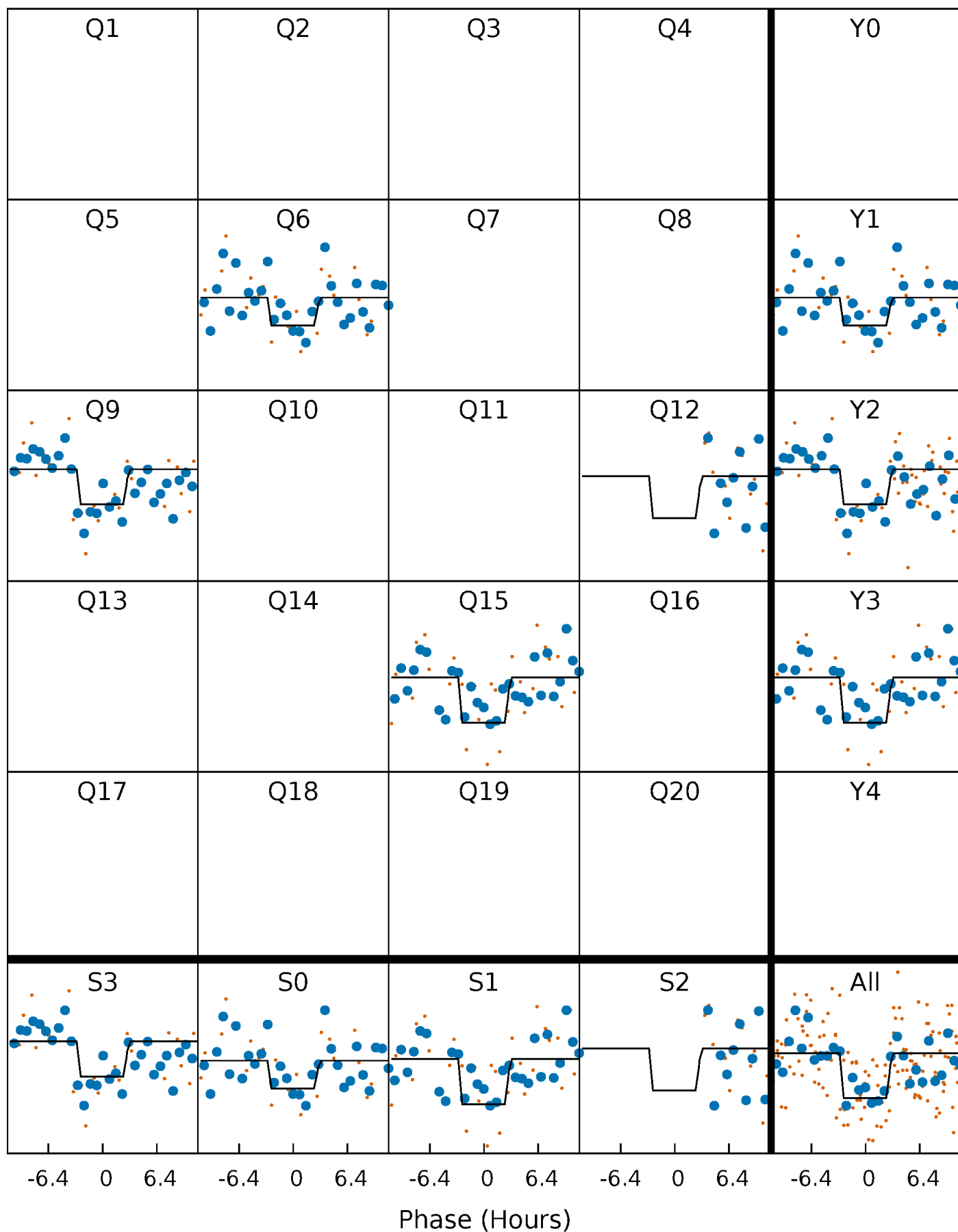
# DV Quarter-Phased Transit Curves

TCE 001294869-01 P=273.376387 Days  $T_0=301.969021$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

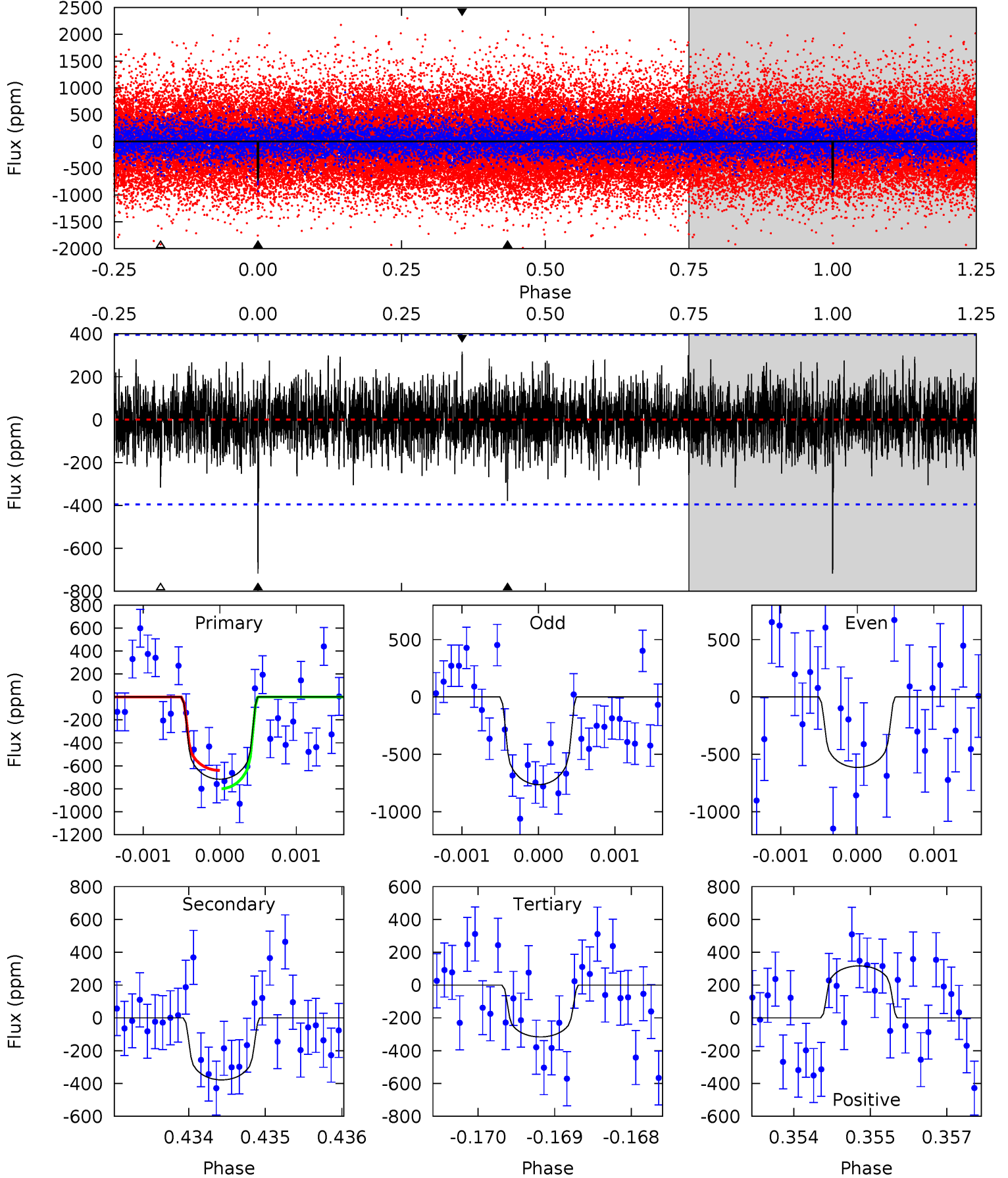
TCE 001294869-01 P=273.373788 Days  $T_0=301.983960$  (BKJD)



# DV Model-Shift Uniqueness Test

001294869-01, P = 273.376387 Days, E = 301.969021 Days

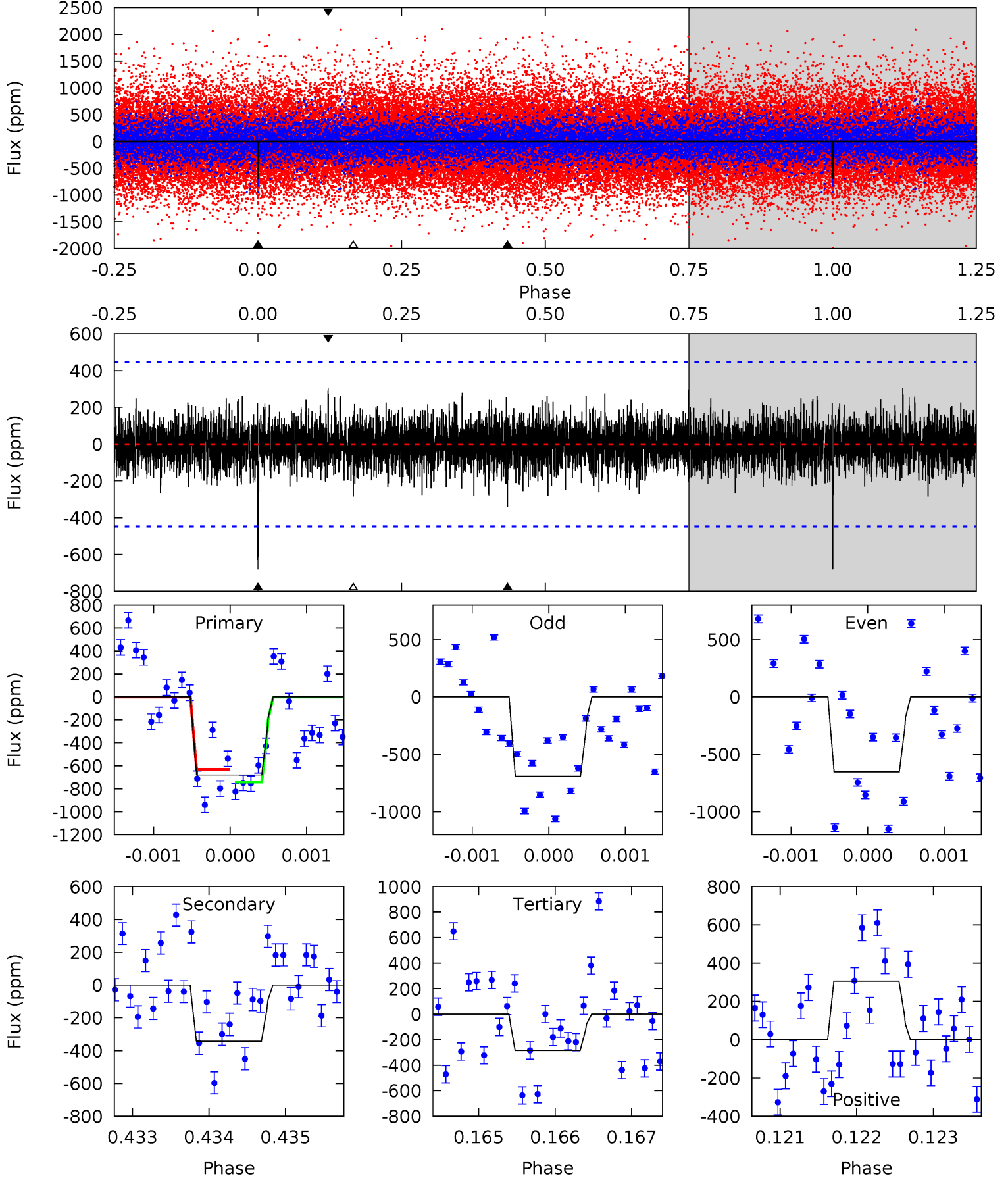
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.84	5.20	4.34	4.35	5.43	3.26	1.22	5.50	5.49	0.85	0.85	0.98	1.15	0.31	1.10



# Alt Model-Shift Uniqueness Test

001294869-01, P = 273.373788 Days, E = 301.983960 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
8.31	4.19	3.47	3.74	5.47	3.32	0.98	4.84	4.57	0.72	0.45	0.22	1.04	0.31	0.68



### Stellar Parameters For KIC 001294869

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5641^{+186}_{-186}$	$4.565^{+0.042}_{-0.179}$	$-0.160^{+0.300}_{-0.300}$	$0.825^{+0.217}_{-0.078}$	$0.918^{+0.094}_{-0.115}$	$2.298^{+0.417}_{-1.122}$
	+3%/-3%	+1%/-4%	+188%/-188%	+26%/-9%	+10%/-13%	+18%/-49%
Source	KIC0	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 001294869-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-378 \pm 73$	$2.62^{+1.46}_{-1.22}$	$361^{+21}_{-17}$	$4791^{+1699}_{-707}$	$19354^{+49666}_{-11605}$
Alt.	$-343 \pm 82$	$2.54^{+1.36}_{-1.24}$	$361^{+22}_{-17}$	$4760^{+1816}_{-707}$	$18888^{+52056}_{-11460}$

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

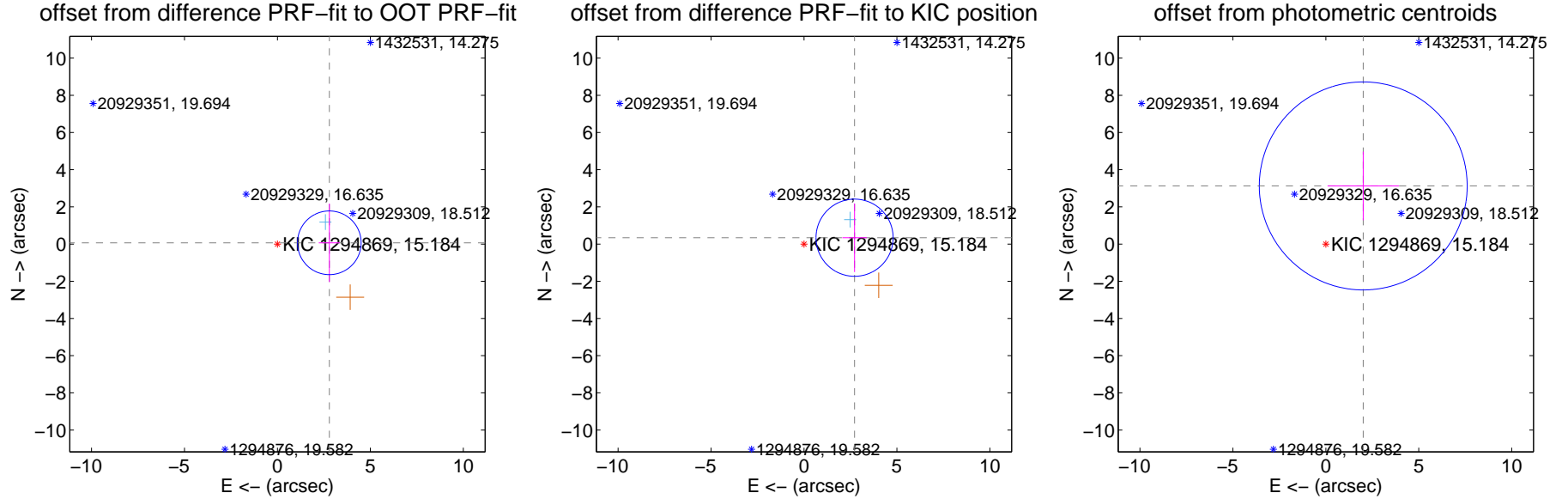
## DV Centroid Data

Supplemental centroid analysis for 001294869-01. Kepler magnitude: 15.18. Transit SNR 6.75

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.65 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$2.794 \pm 0.571$	4.89	$-2.793 \pm 0.569$	$0.068 \pm 2.109$
PRF-fit source offset from KIC position	$2.743 \pm 0.692$	3.97	$-2.722 \pm 0.657$	$0.342 \pm 1.846$
photometric centroid source offset	$3.72 \pm 1.86$	1.99	$-2.01 \pm 1.92$	$3.13 \pm 1.84$



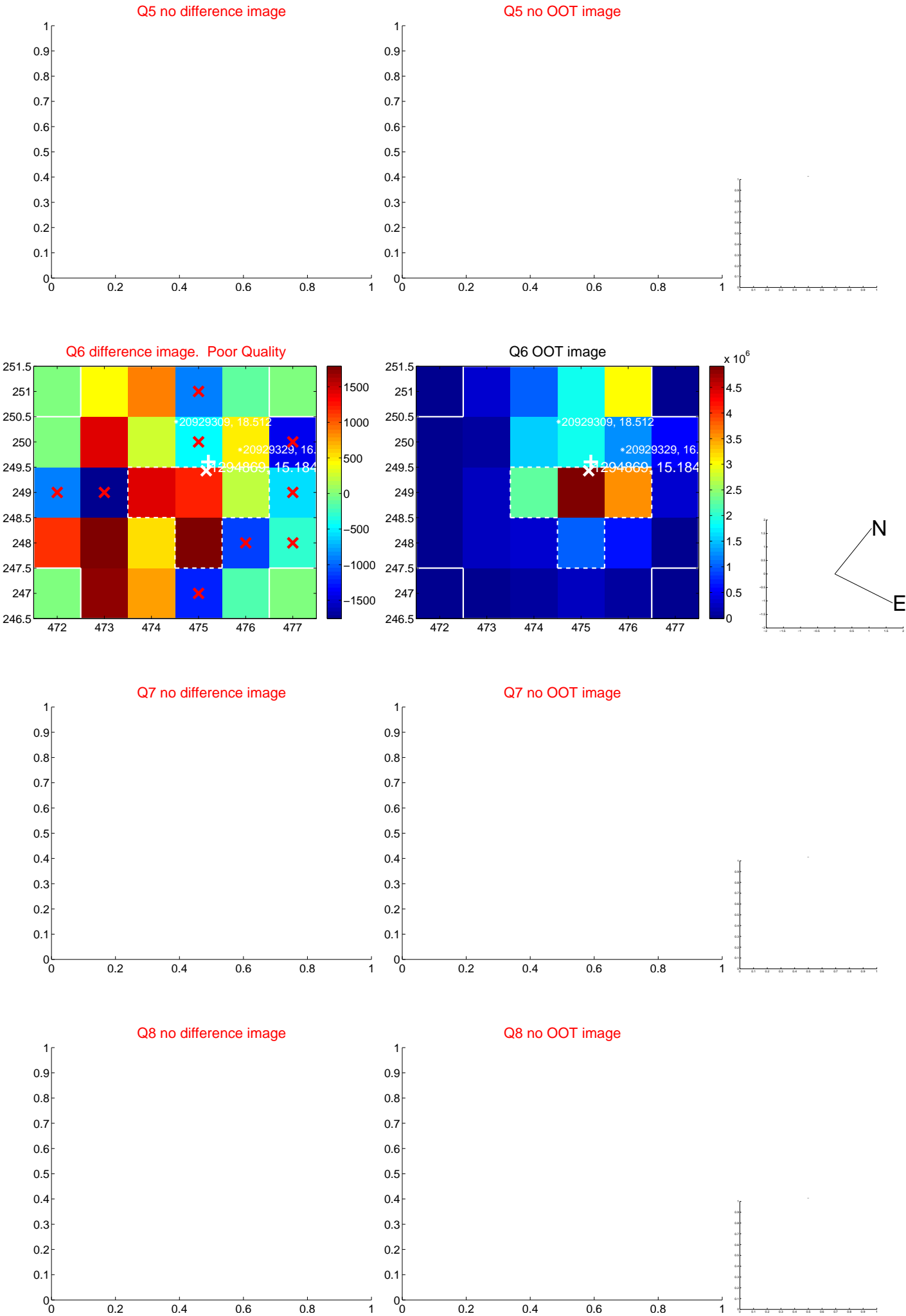
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

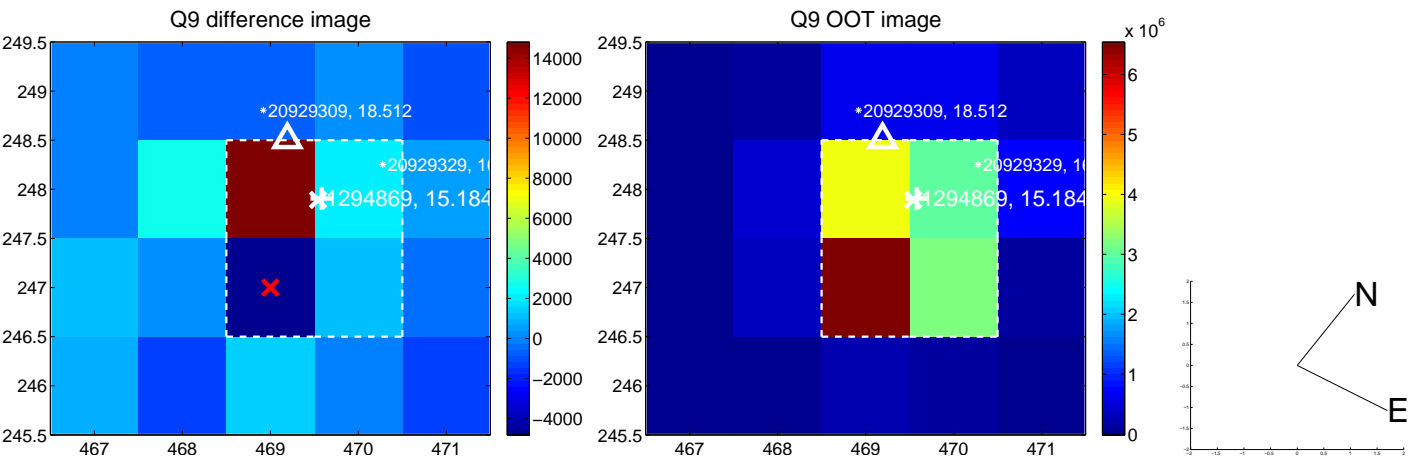




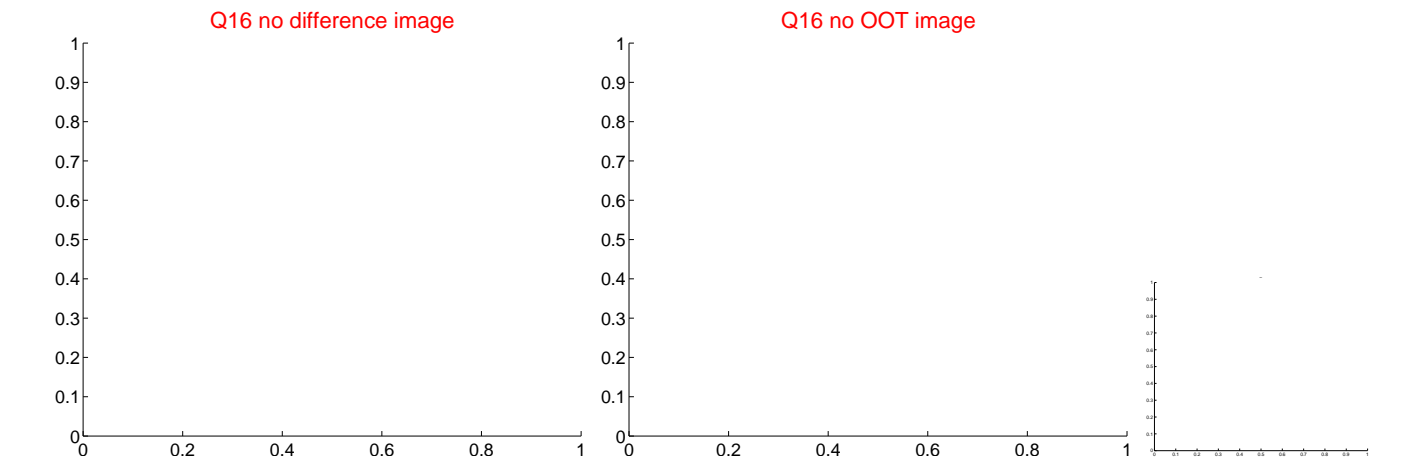
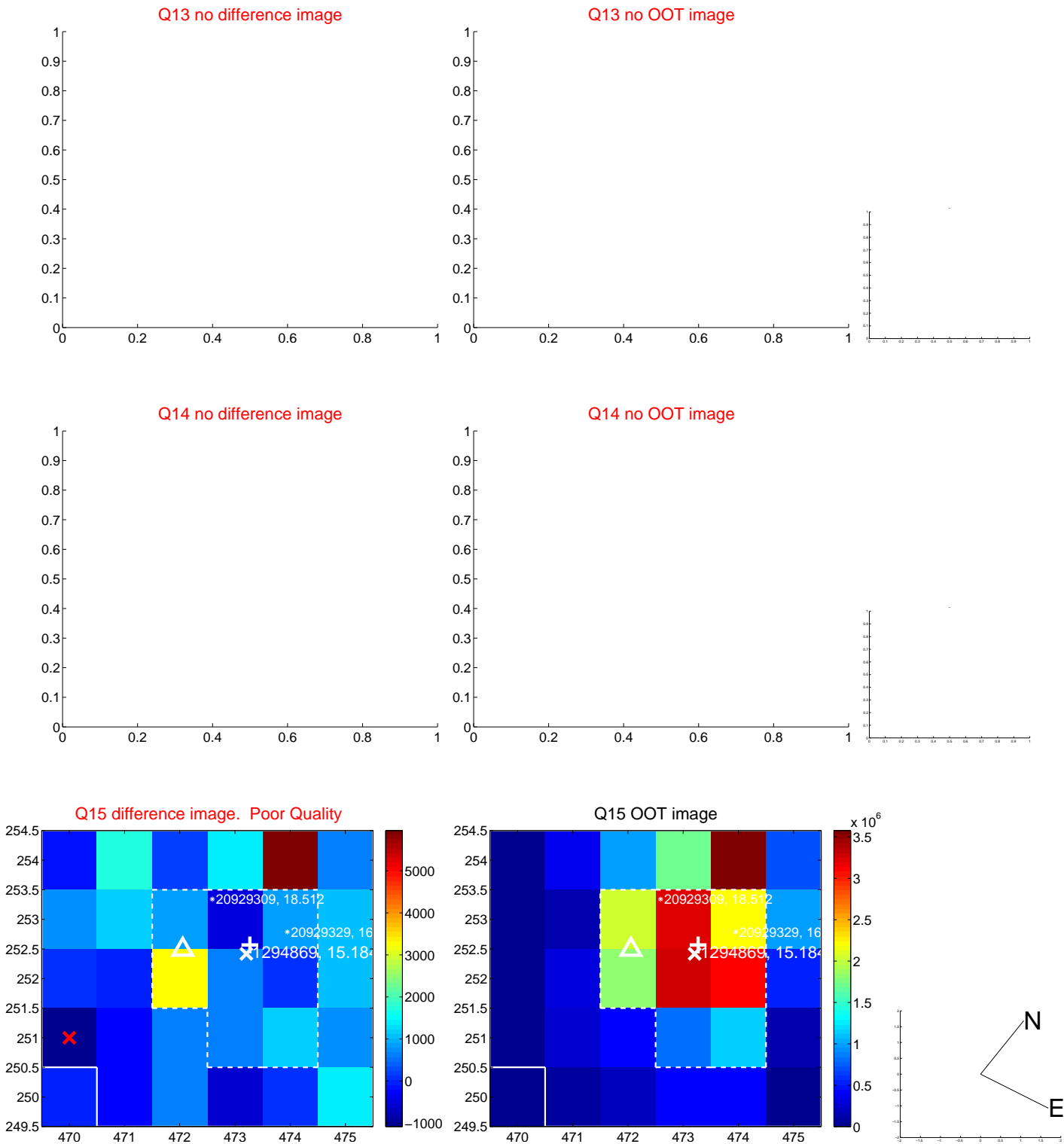
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



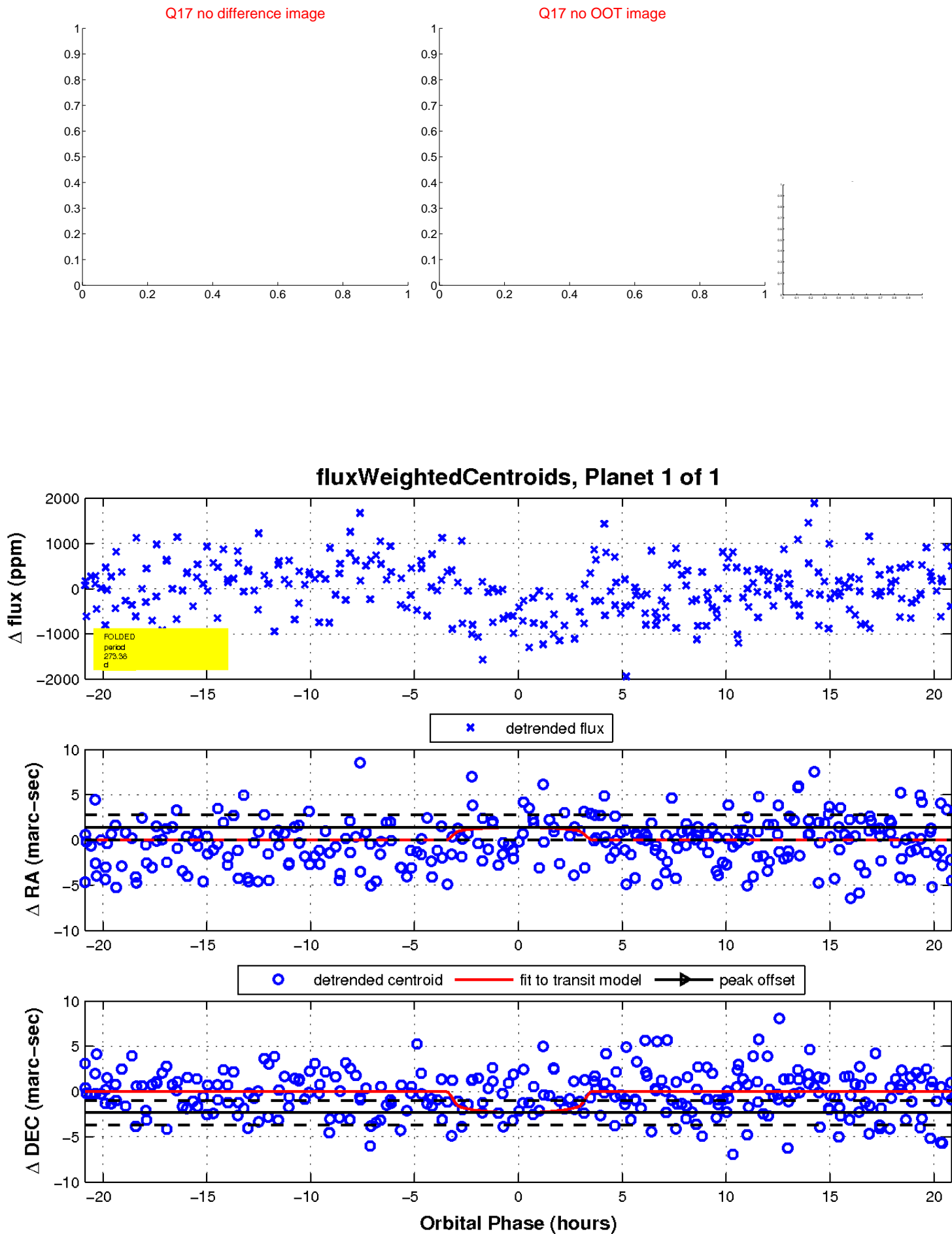
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



UKIRT Image

Declination

