

# KIC 008374119

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008374119-01	OBS	No	370.526490	231.206770	1620.3	9.535	9.4	9.5	0.80	5286	3.77	0.50

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008374119-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—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.

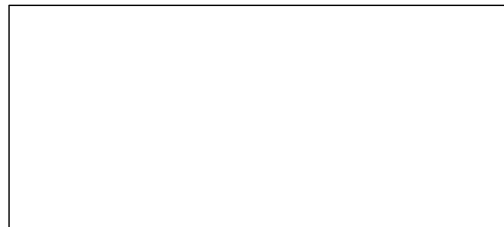
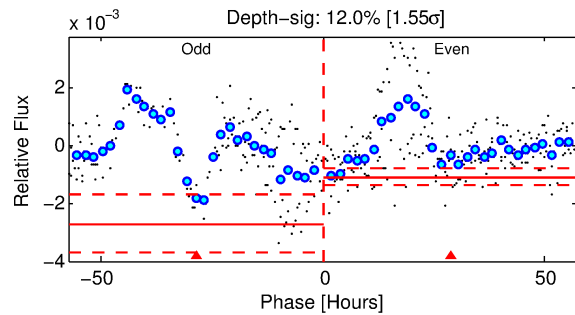
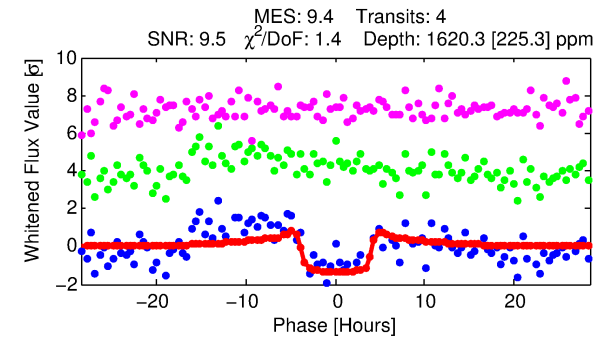
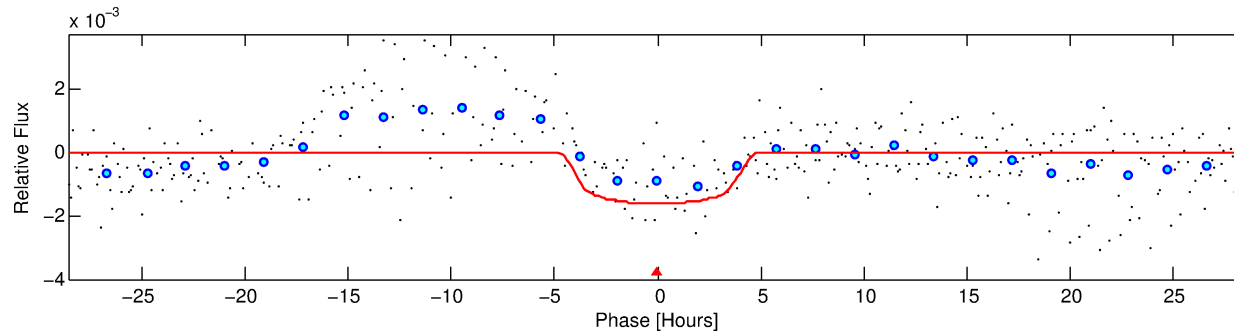
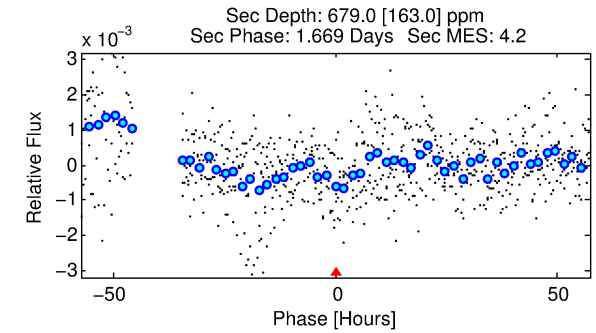
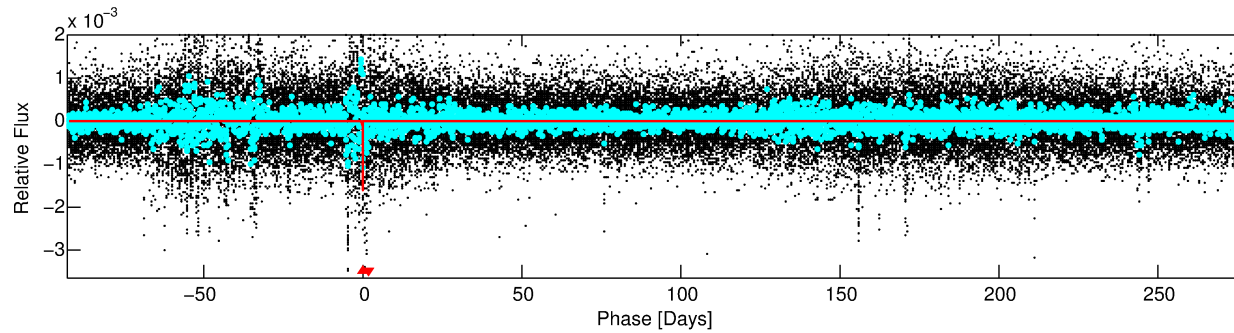
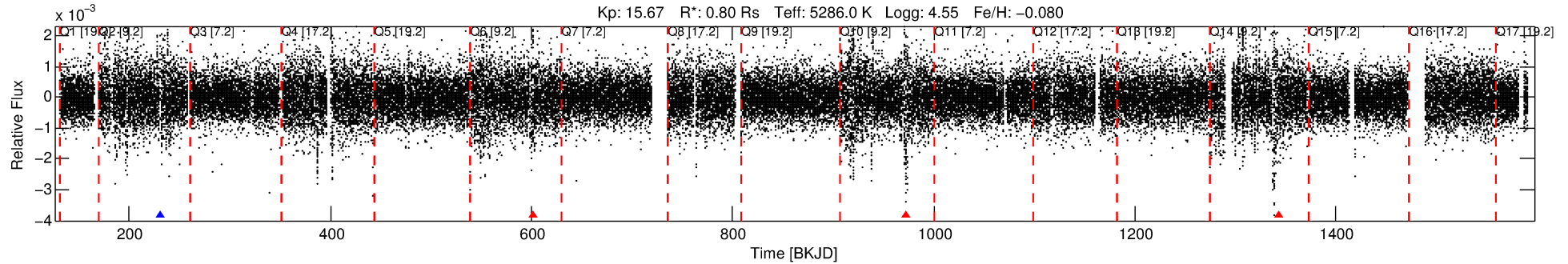
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008374119-01

No Significant Match Found

# DV One-Page Summary

KIC: 8374119 Candidate: 1 of 1 Period: 370.526 d



## DV Fit Results:

Period = 370.52649 [0.01019] d  
Epoch = 231.2068 [0.0217] BKJD  
Rp/R\* = 0.0429 [0.0055]  
a/R\* = 174.41 [66.14]  
b = 0.86 [0.12]  
Seff = 0.50 [0.13]  
Teq = 215 [13] K  
Rp = 3.77 [0.78] Re  
a = 0.9486 [0.1285] AU  
Ag = 23709.87 [9480.94] [2.50σ]  
Teffp = 4119 [396] K [9.84σ]

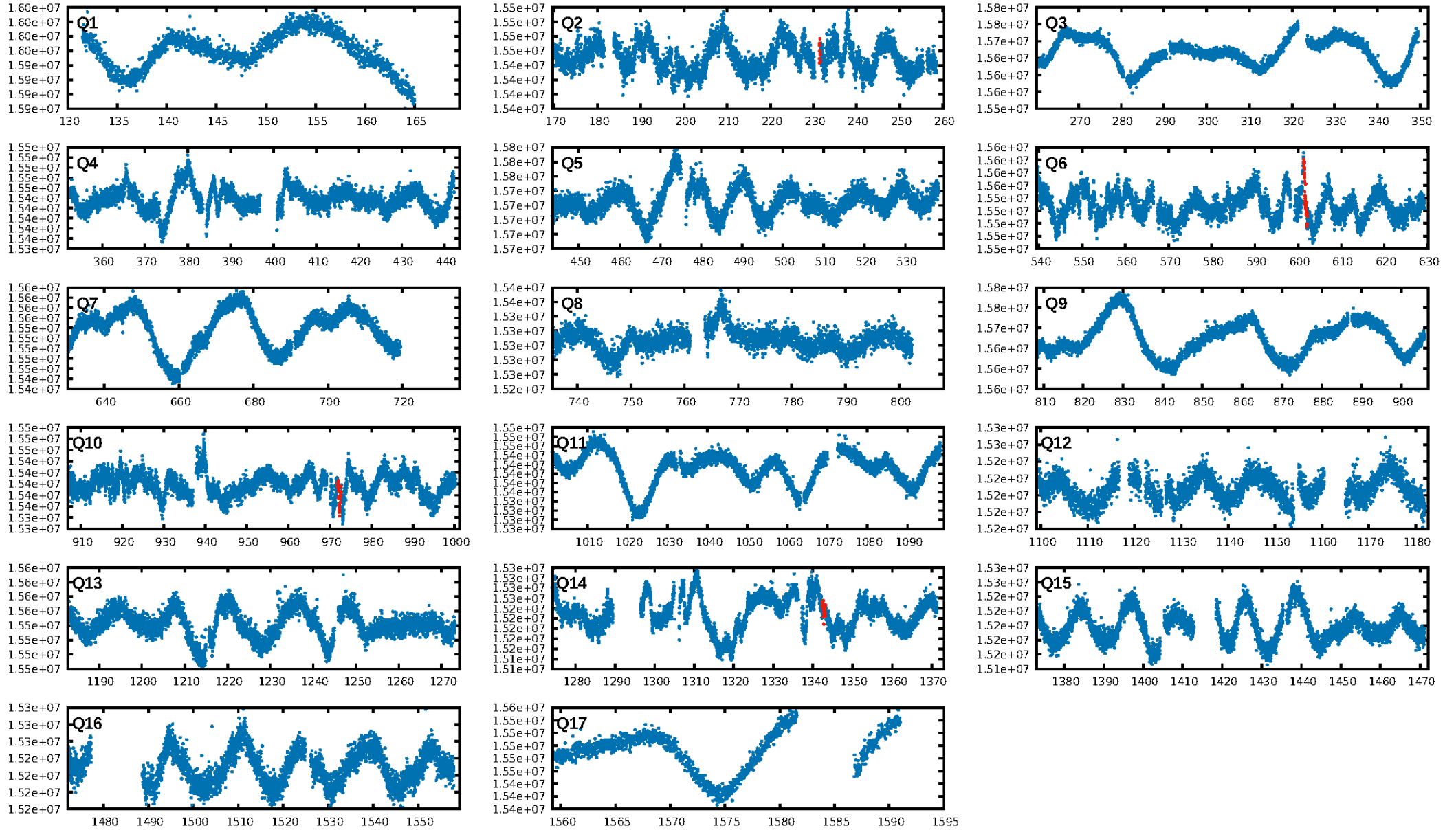
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 8.7%  
ModelChiSquareGof-sig: 99.7%  
**Bootstrap-pfa: 1.27e-11**  
**RollingBand-fgt: 0.25 [1/4]**  
GhostDiagnostic-chr: 1.995  
Centroid-sig: 7.1%  
Centroid-so: 2.840 arcsec [1.59σ]  
OotOffset-rm: N/A  
KicOffset-rm: N/A  
OotOffset-st: 0/0/0 [0]  
KicOffset-st: 0/0/0 [0]  
DiffImageQuality-fgm: N/A  
DiffImageOverlap-fno: 1.00 [3/3]

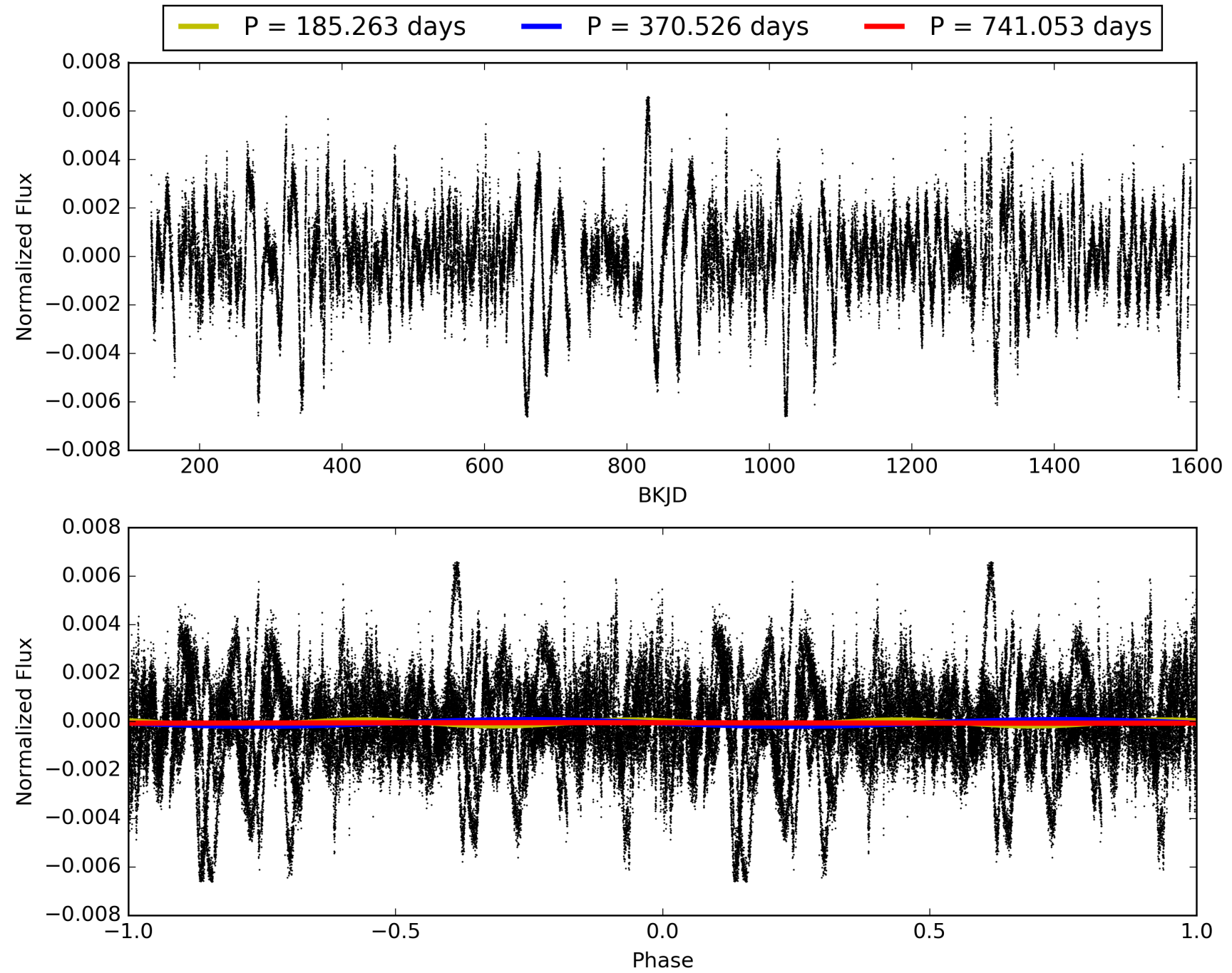
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:14:23 Z

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

# TCE 008374119-01, PDC Light Curves

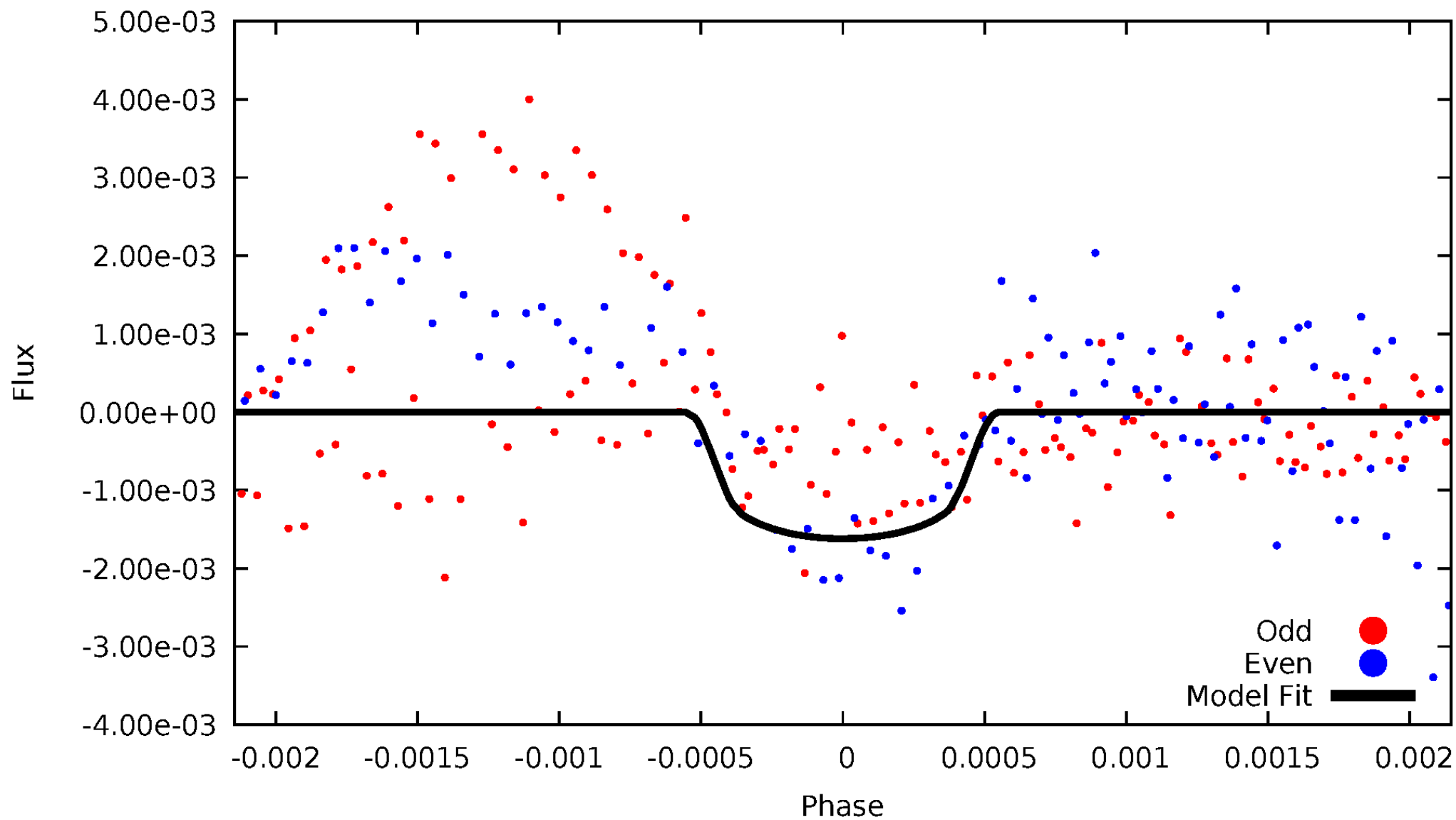


TCE 008374119-01



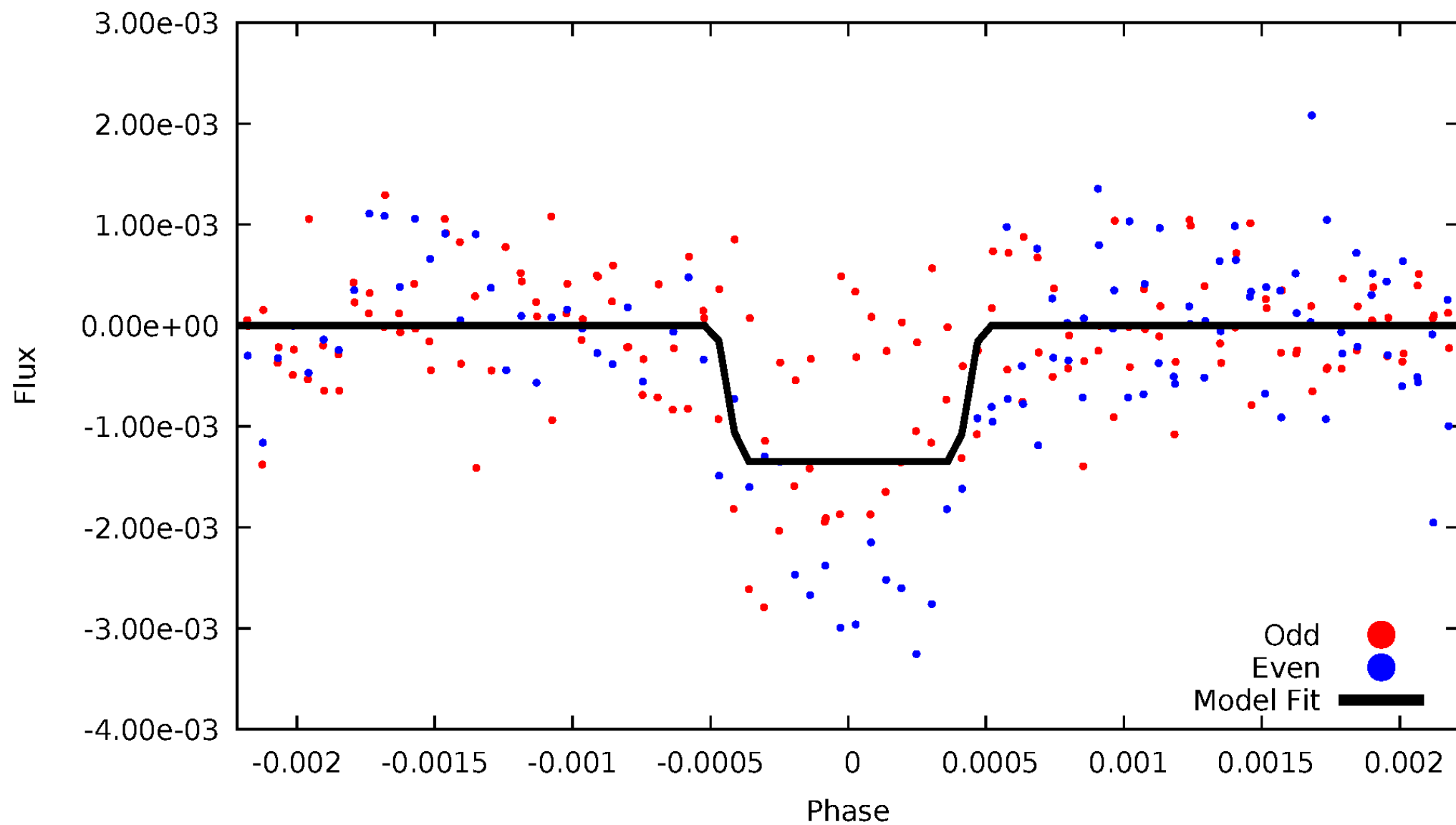
# DV Odd/Even

TCE 008374119-01



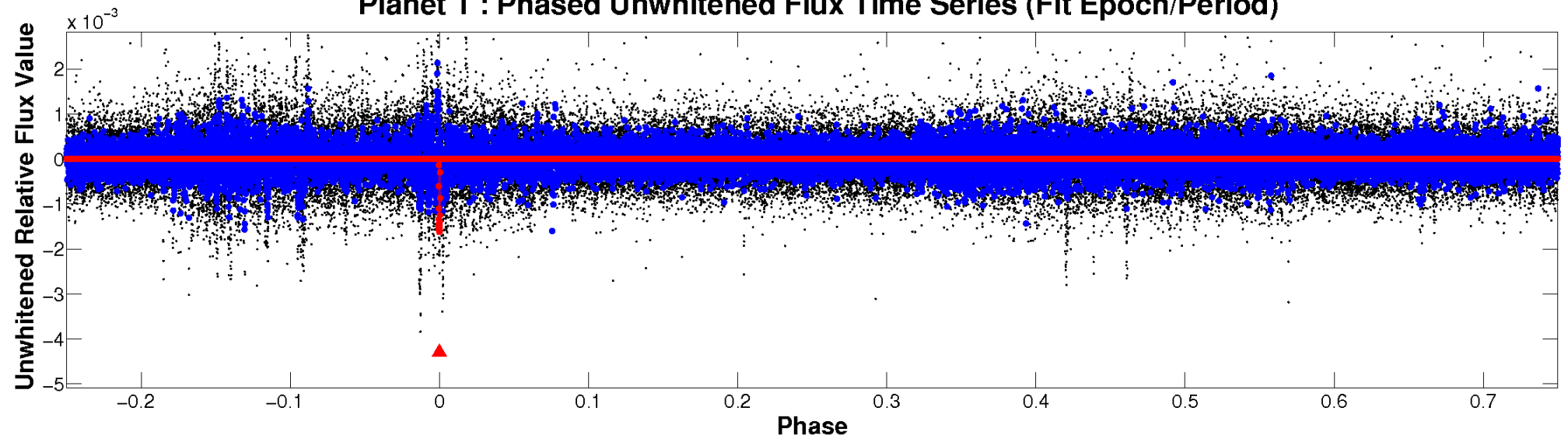
# ALT Odd/Even

TCE 008374119-01

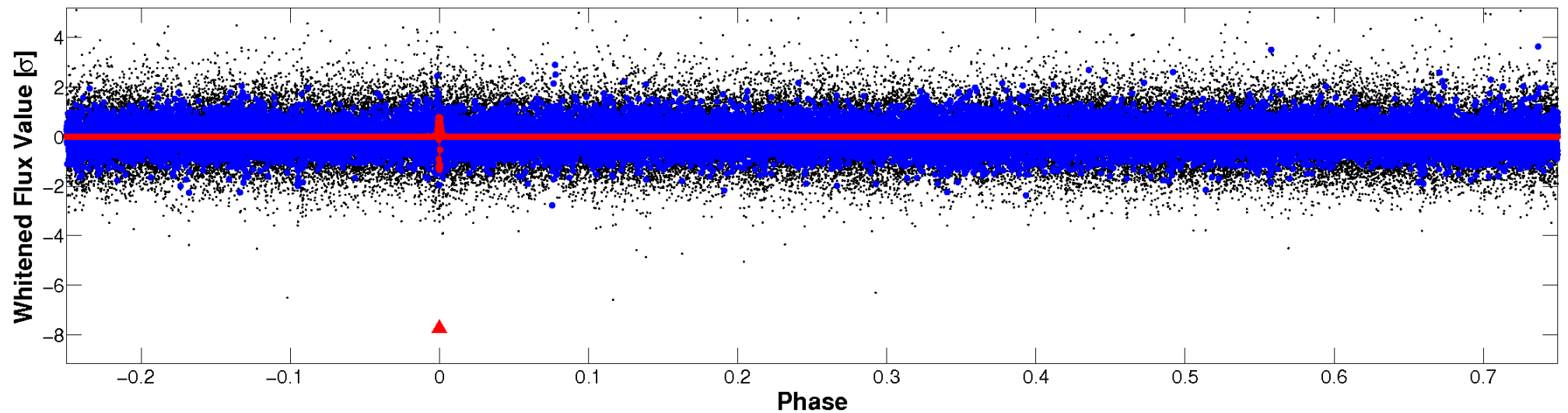


# Non-Whitened Vs. Whitened Light Curve

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

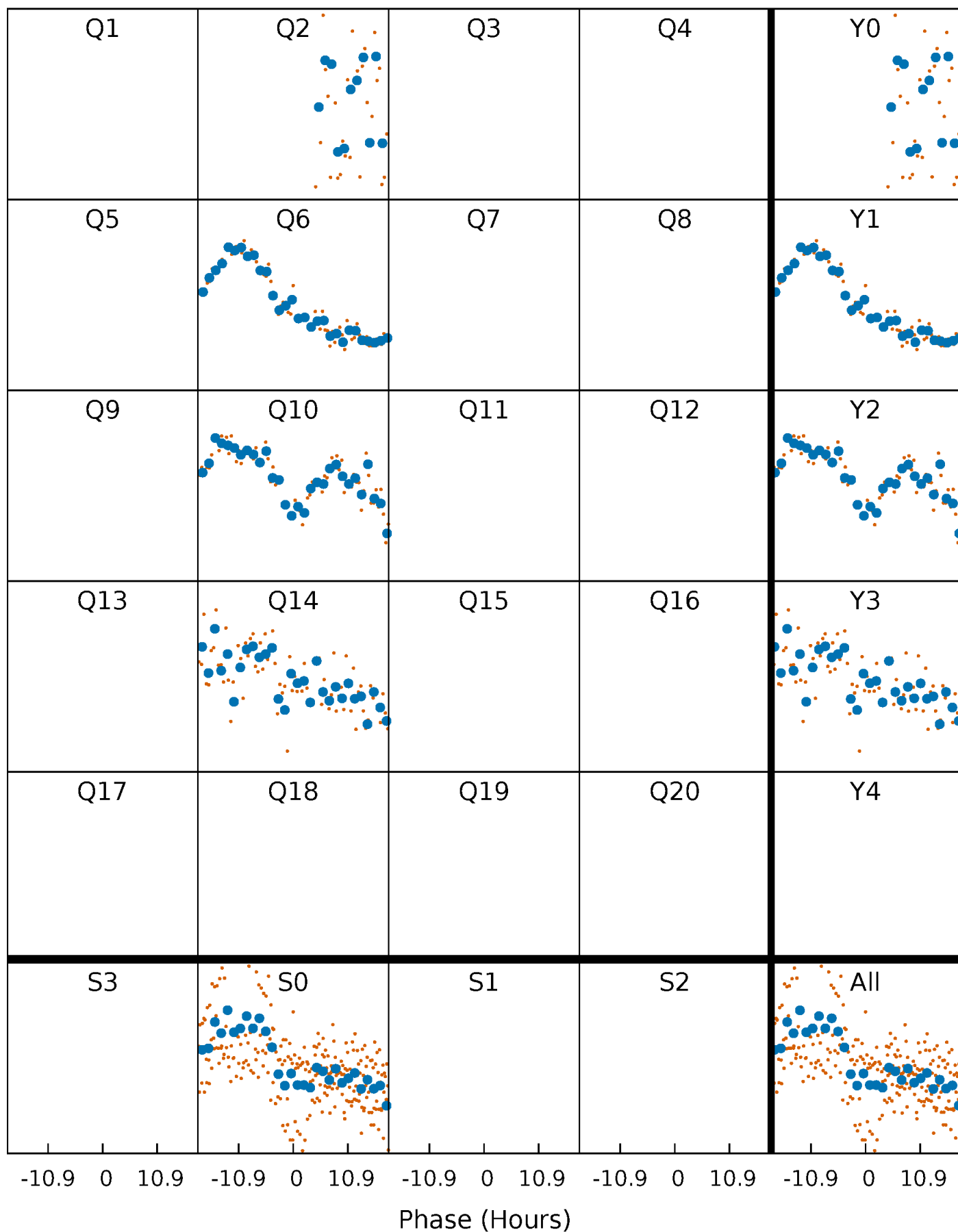


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

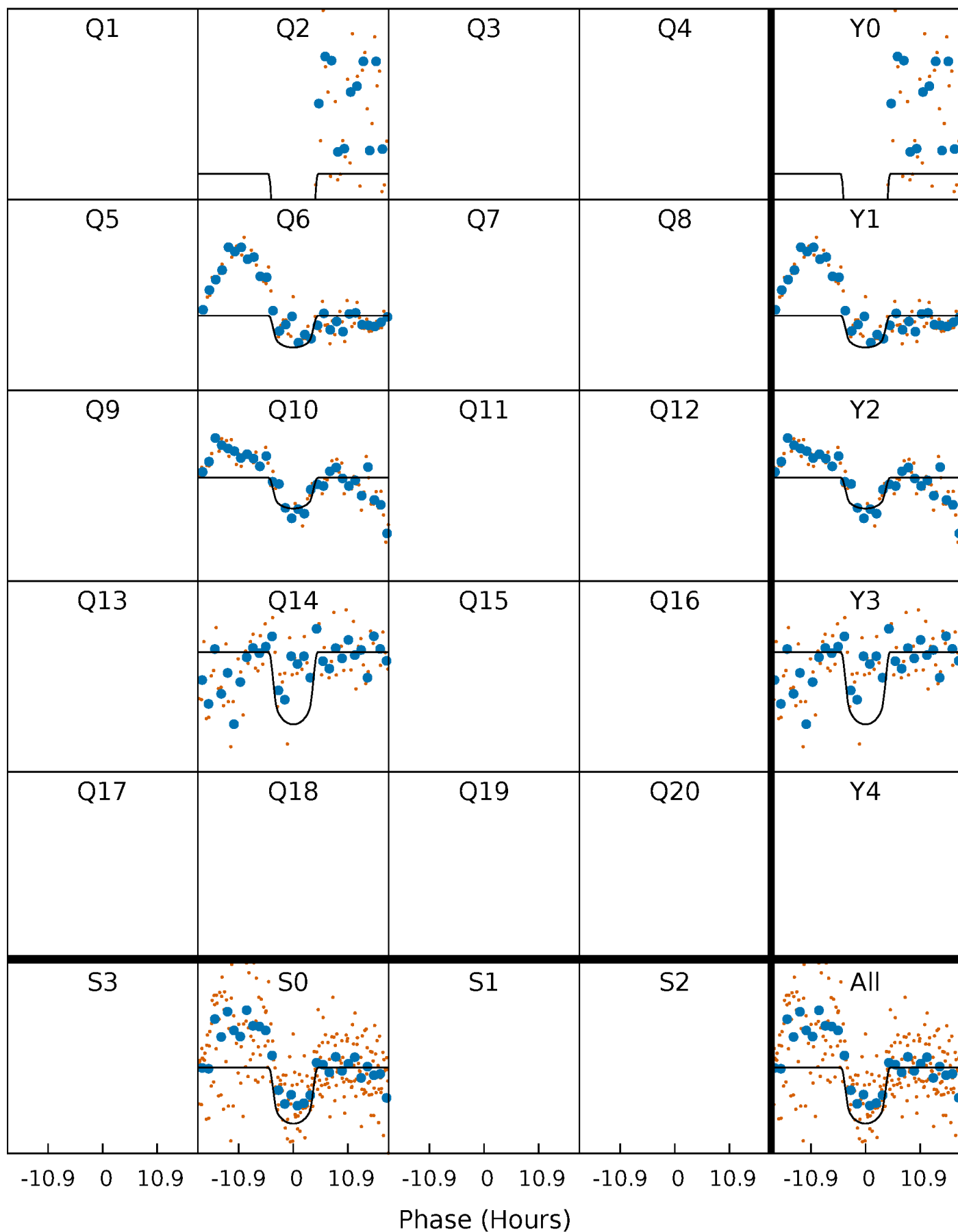
TCE 008374119-01 P=370.526490 Days  $T_0=231.206770$  (BKJD)





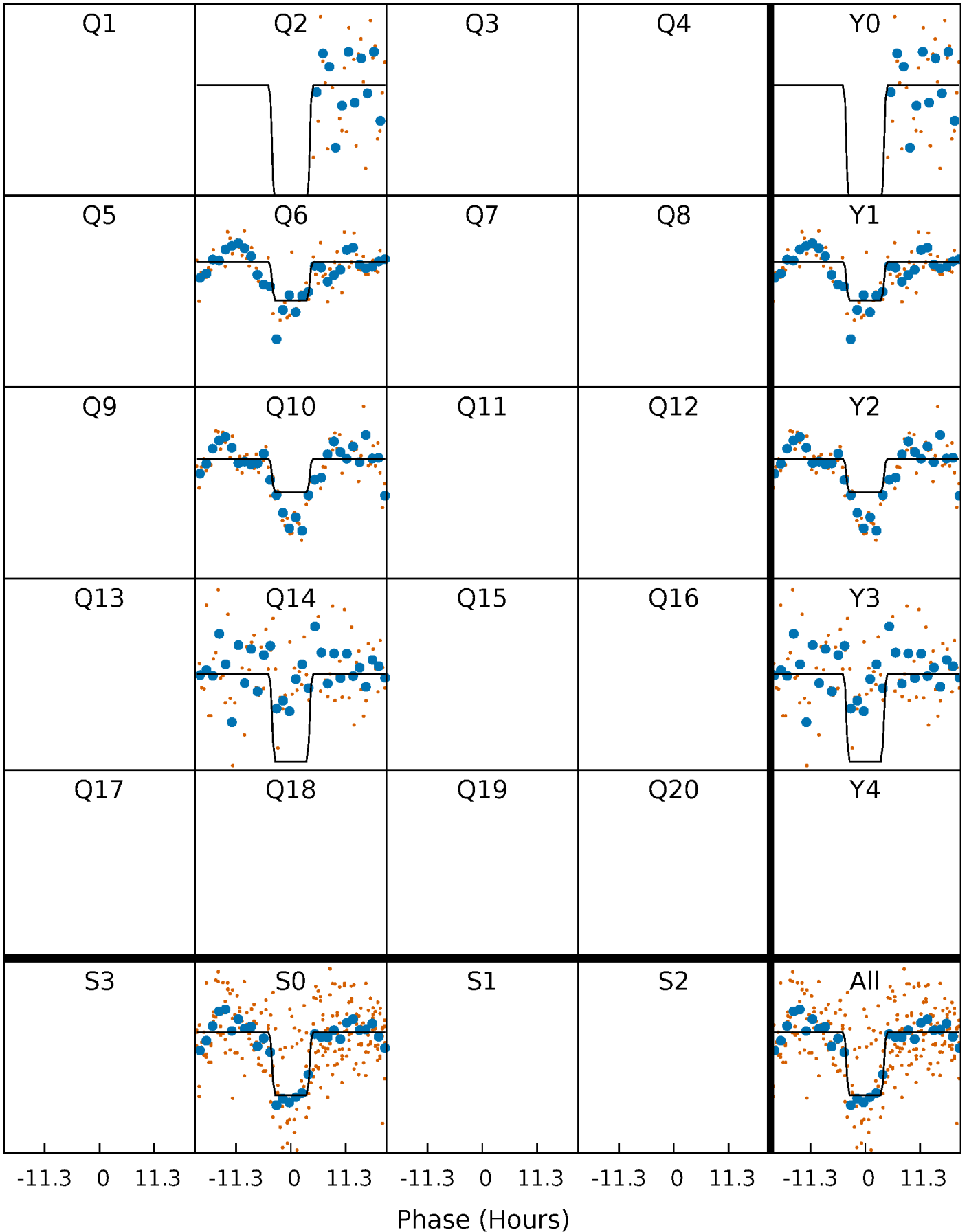
# DV Quarter-Phased Transit Curves

TCE 008374119-01 P=370.526490 Days  $T_0=231.206770$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

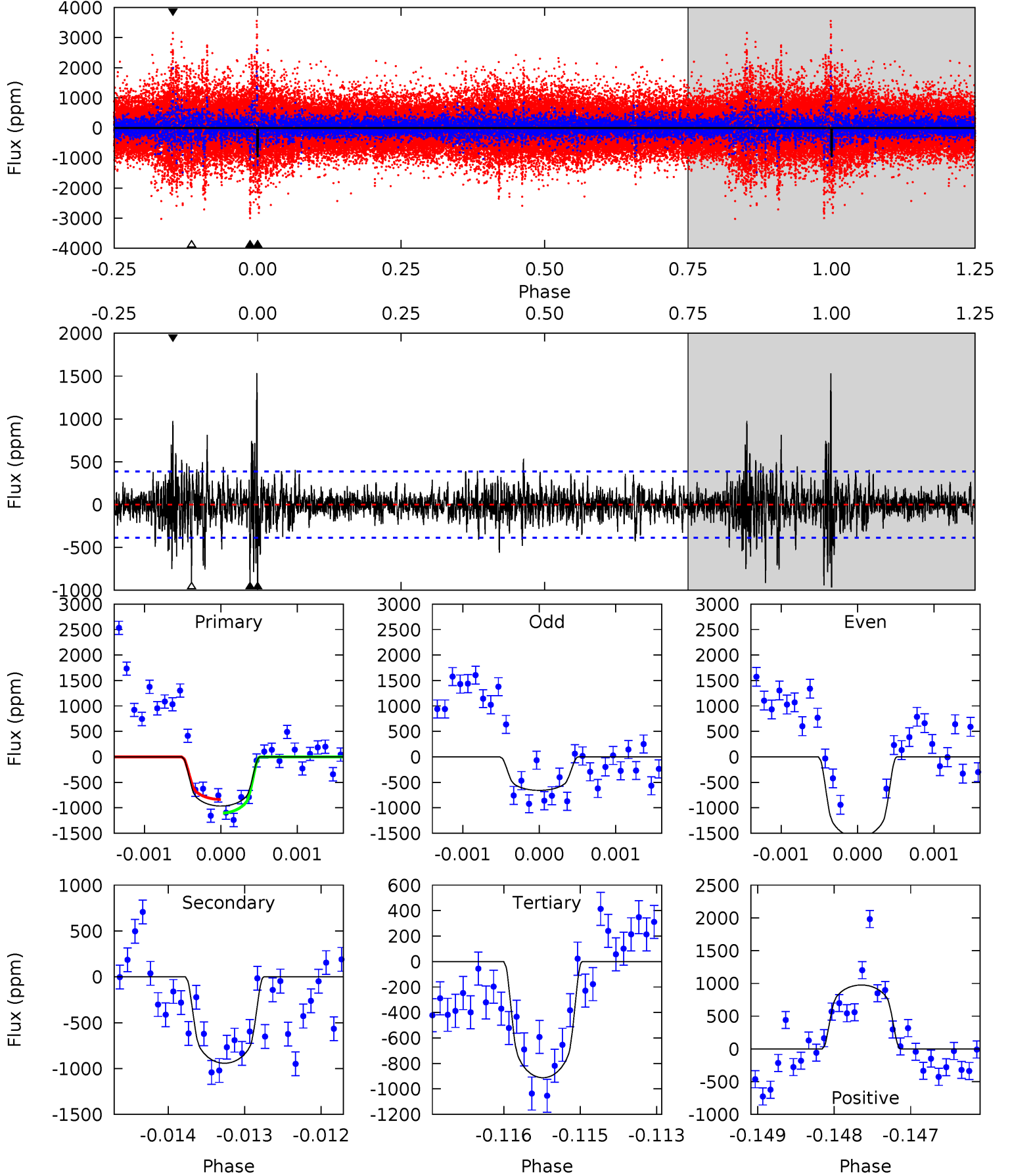
TCE 008374119-01 P=370.521744 Days  $T_0=231.201294$  (BKJD)



# DV Model-Shift Uniqueness Test

008374119-01, P = 370.526490 Days, E = 231.206770 Days

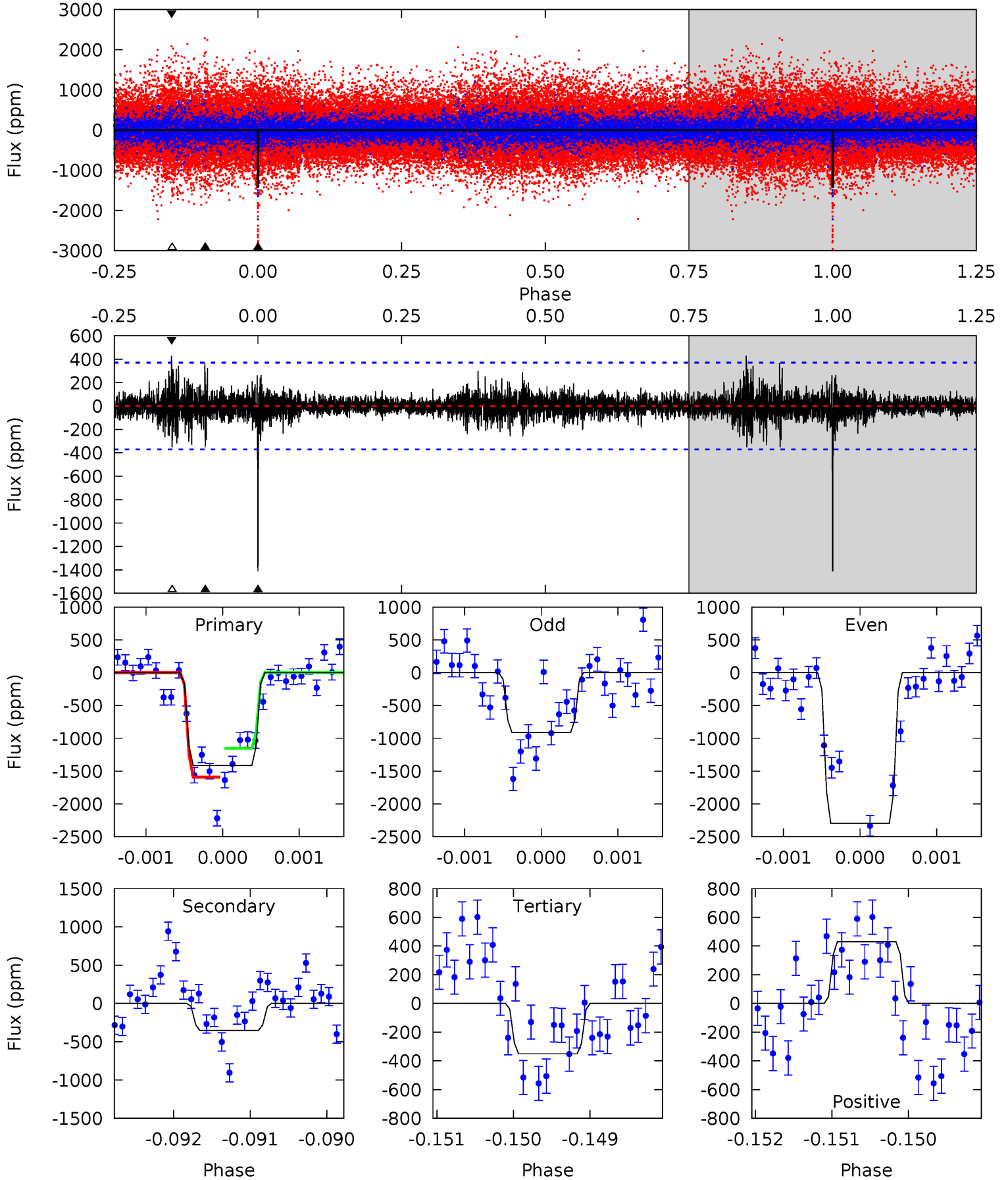
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	13.2	12.8	13.7	5.44	3.27	2.15	0.74	-0.14	0.42	-0.47	6.20	1.08	0.61	1.87



# Alt Model-Shift Uniqueness Test

008374119-01, P = 370.521744 Days, E = 231.201294 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
20.8	5.19	5.17	6.34	5.46	3.31	0.96	15.7	14.5	0.02	-1.15	9.92	0.86	0.23	0



### Stellar Parameters For KIC 008374119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5286^{+212}_{-212}$	$4.546^{+0.056}_{-0.104}$	$-0.080^{+0.300}_{-0.300}$	$0.804^{+0.132}_{-0.077}$	$0.829^{+0.096}_{-0.078}$	$2.249^{+0.543}_{-0.743}$
	+4%/-4%	+1%/-2%	+375%/-375%	+16%/-10%	+12%/-9%	+24%/-33%
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 008374119-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-942 \pm 71$	$3.86^{+0.59}_{-0.53}$	$302^{+15}_{-15}$	$4575^{+295}_{-270}$	$31264^{+10866}_{-7758}$
Alt.	$-352 \pm 68$	$3.29^{+0.54}_{-0.56}$	$303^{+17}_{-16}$	$4039^{+307}_{-265}$	$16181^{+6961}_{-5115}$

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

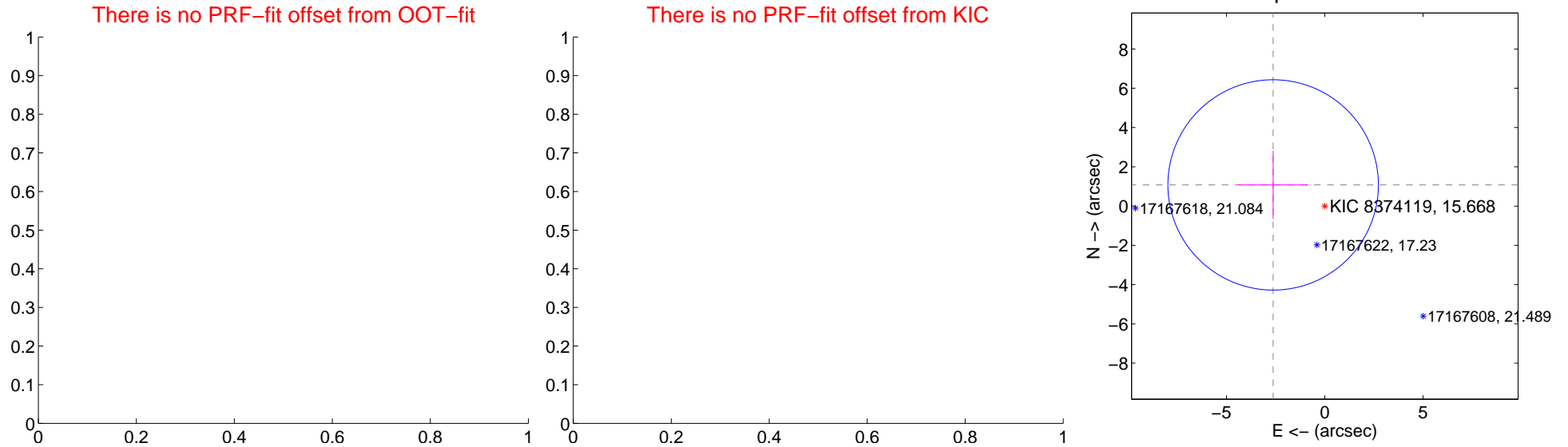
## DV Centroid Data

Supplemental centroid analysis for 008374119-01. Kepler magnitude: 15.67. Transit SNR 9.50

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	$2.84 \pm 1.79$	1.59	$2.63 \pm 1.79$	$1.08 \pm 1.73$

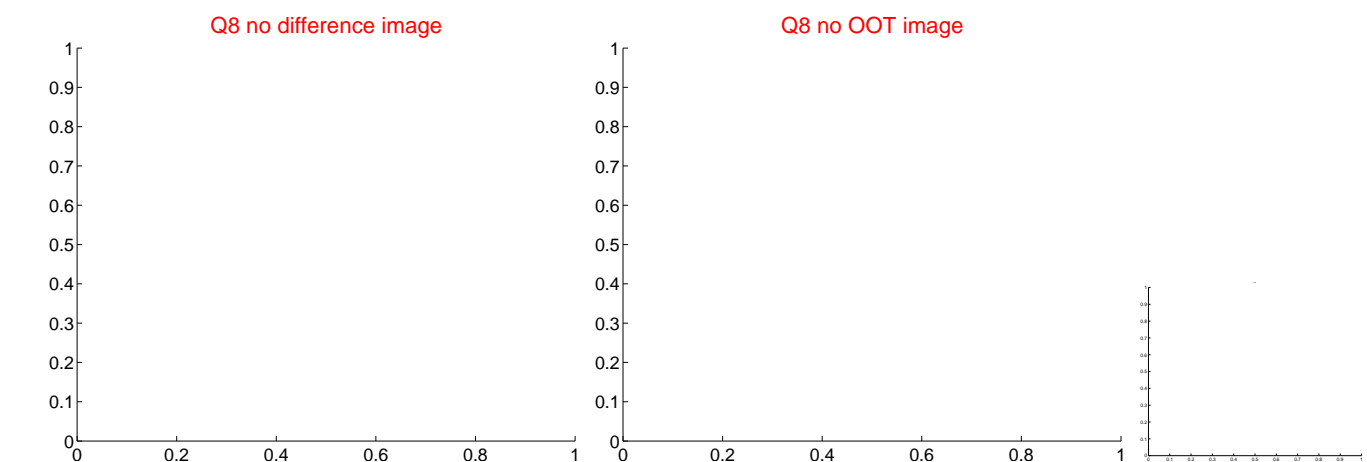
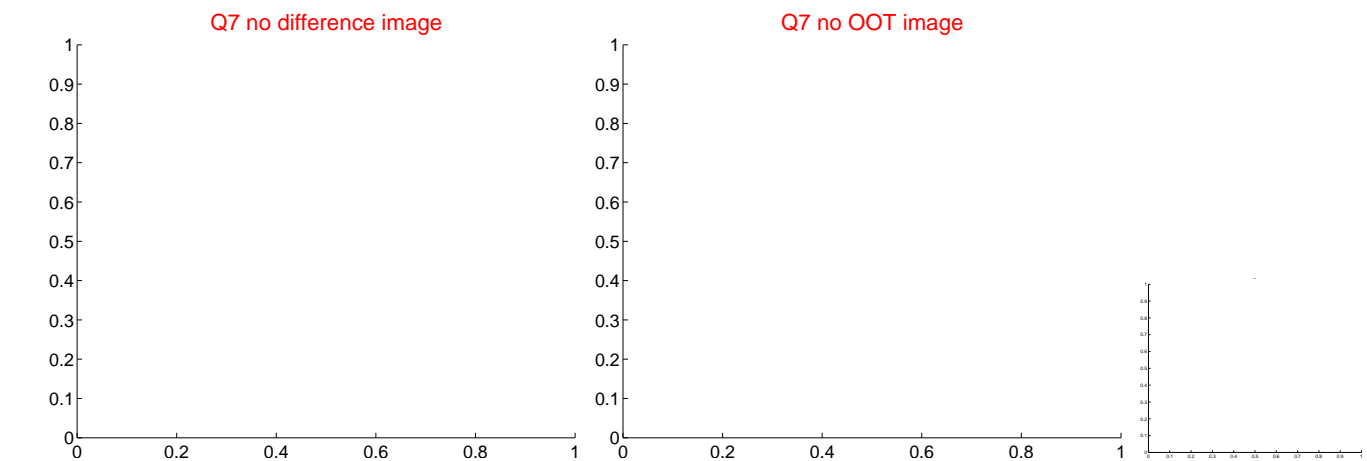
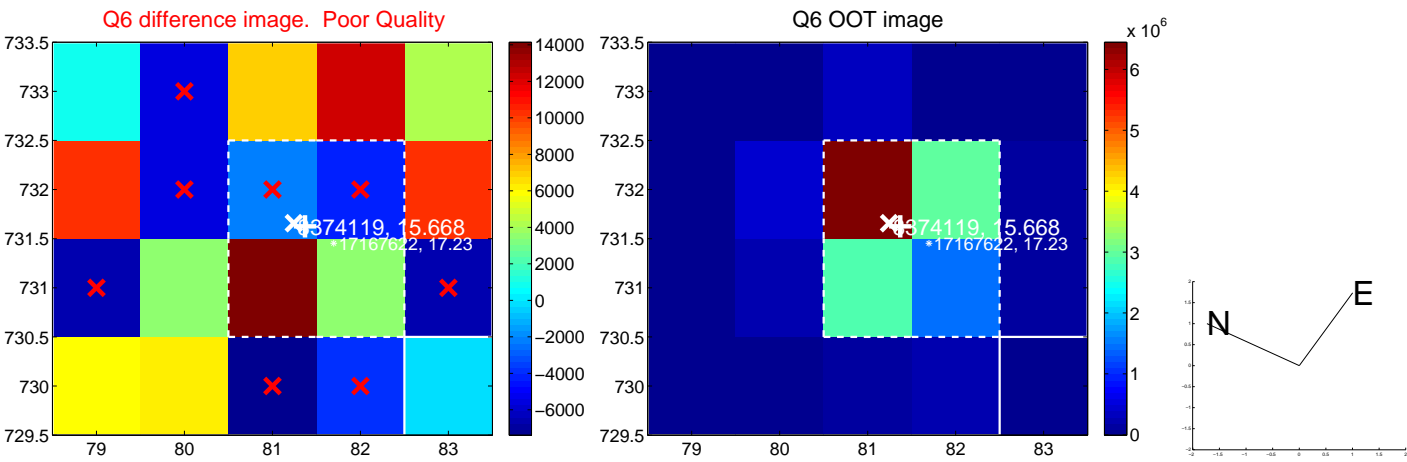
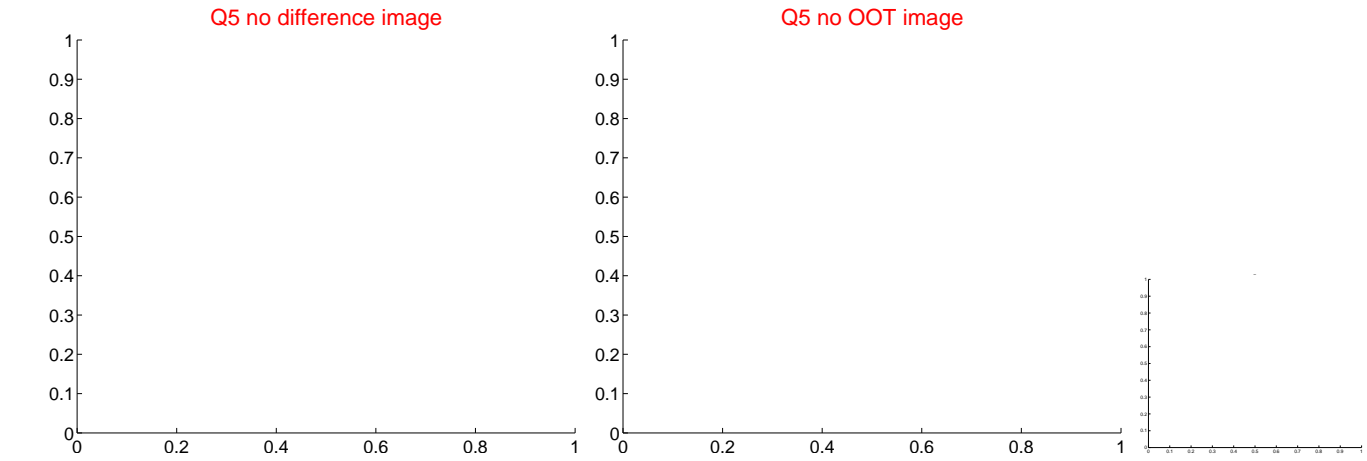


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

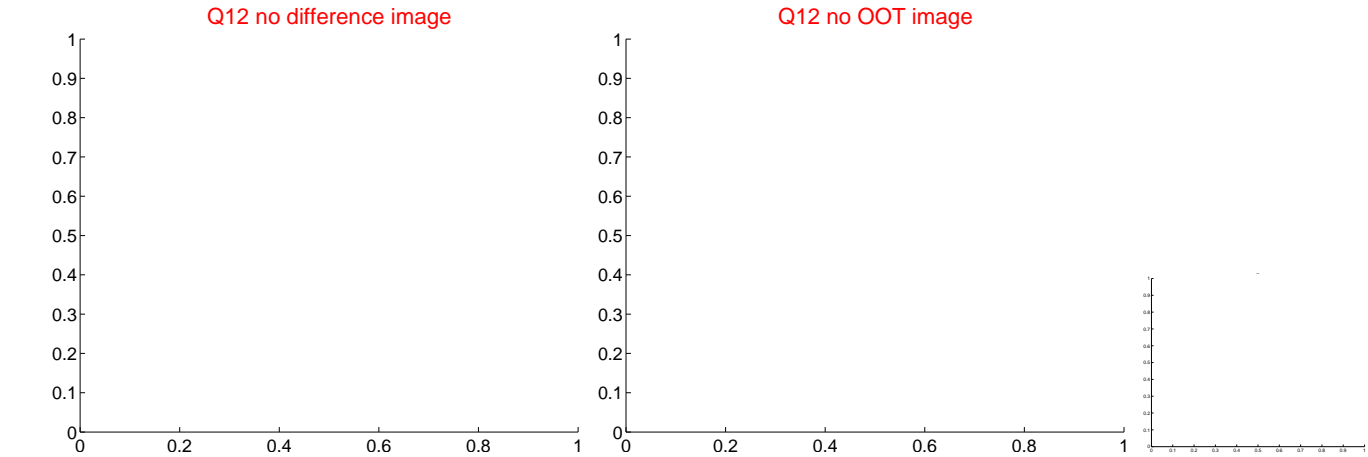
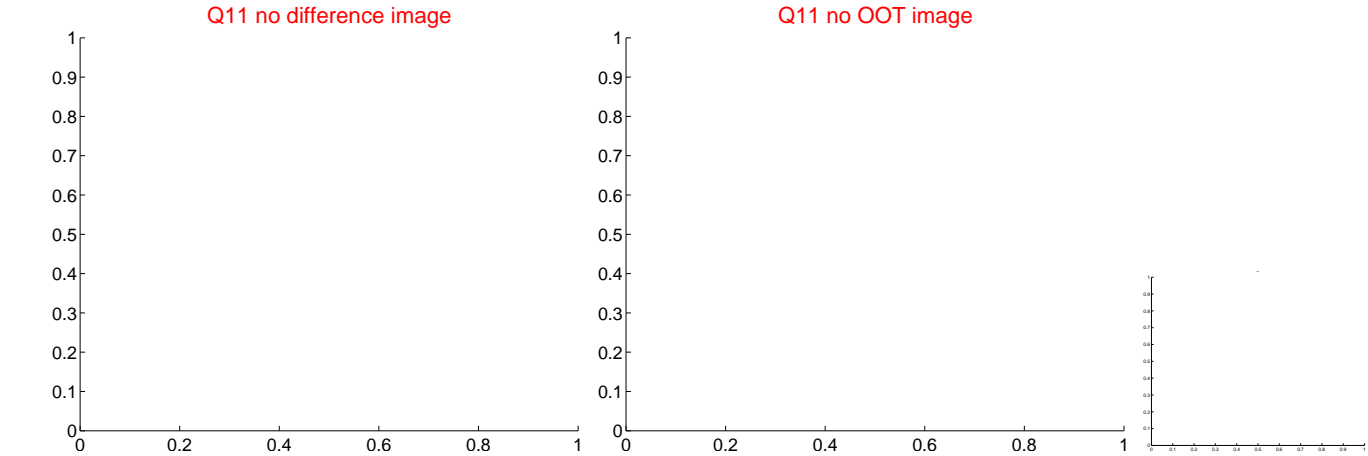
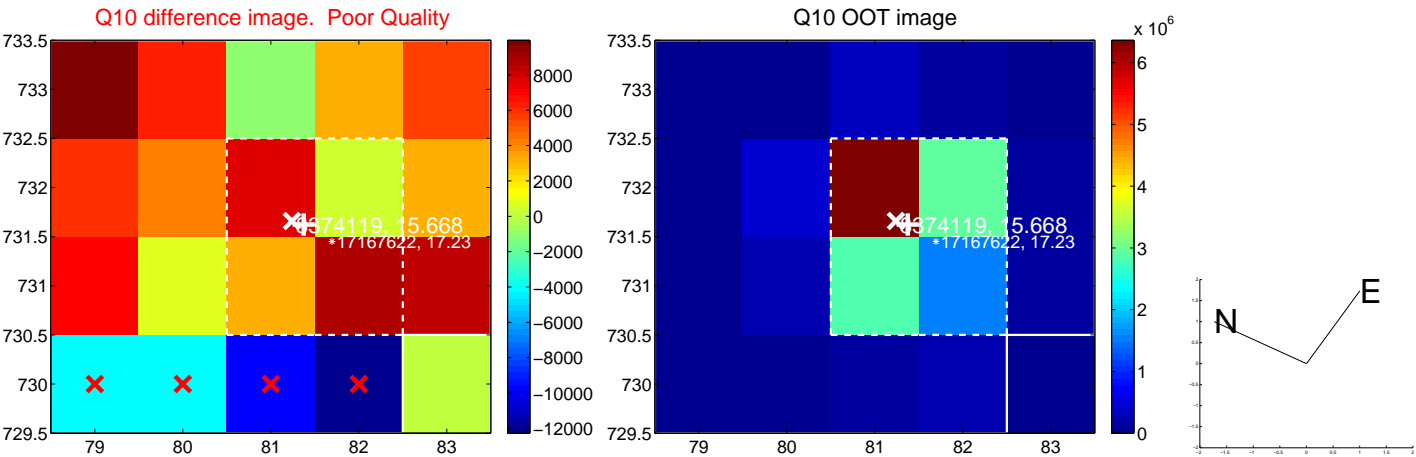
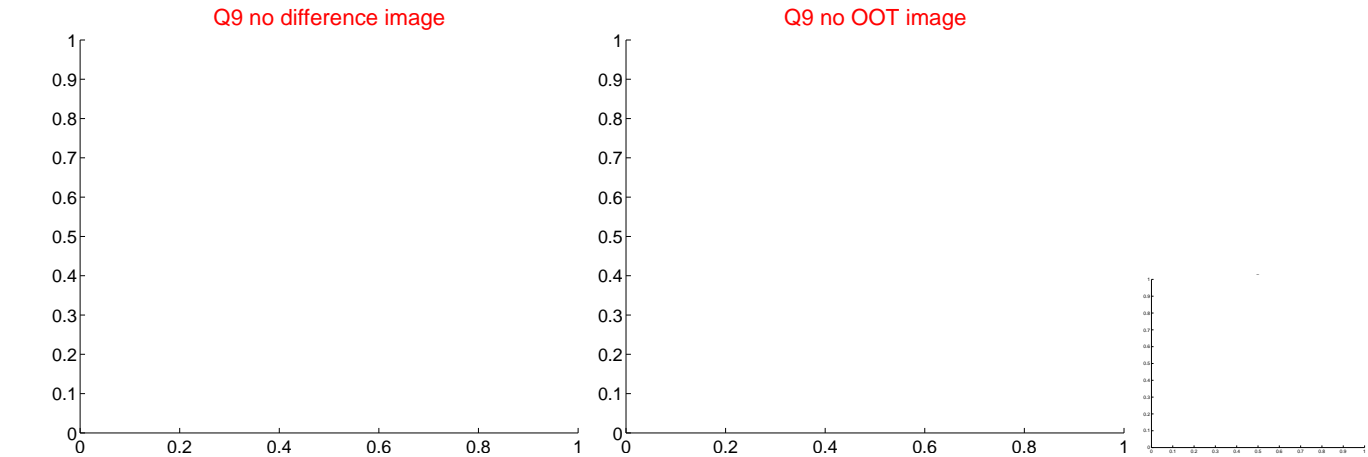


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

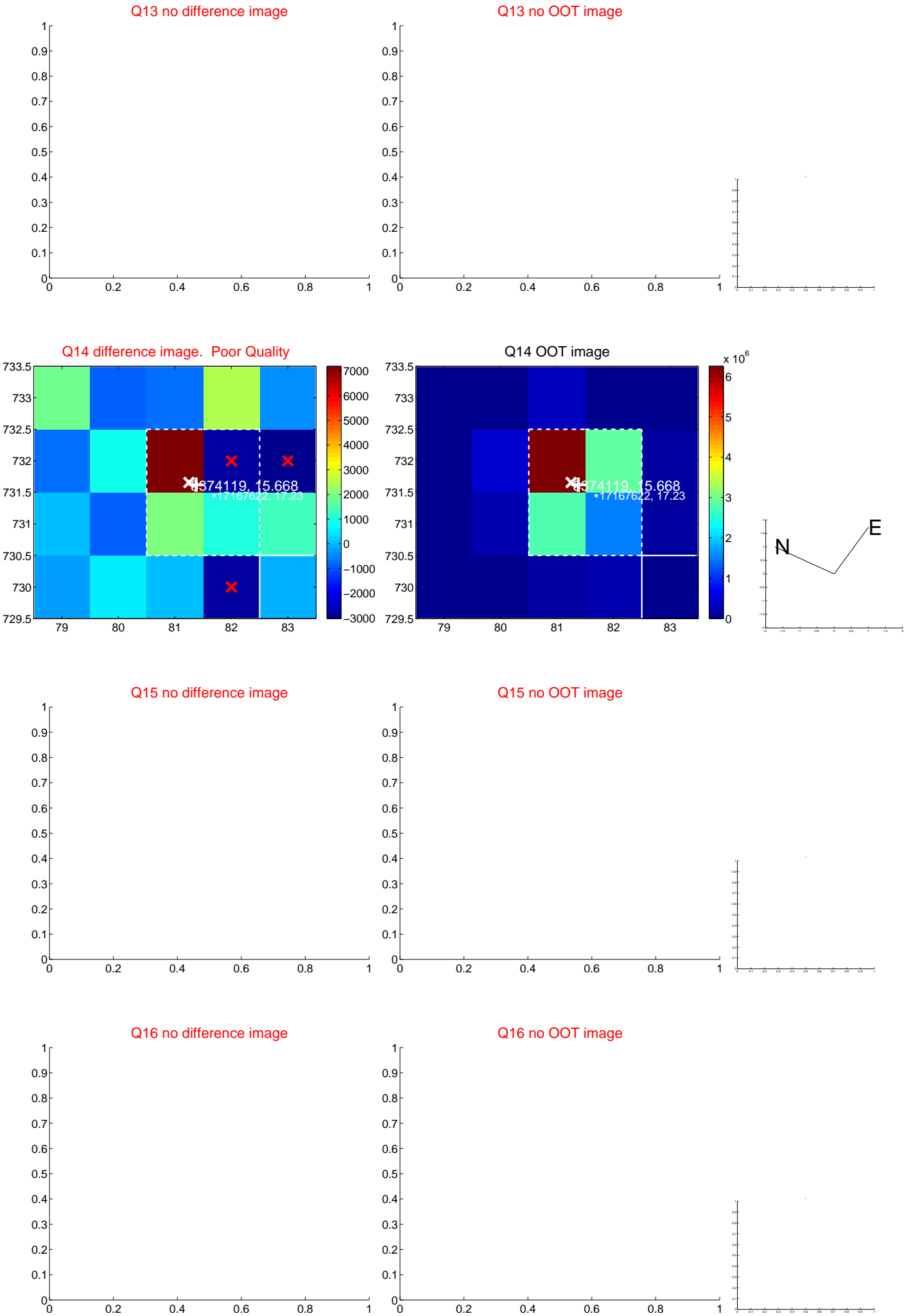




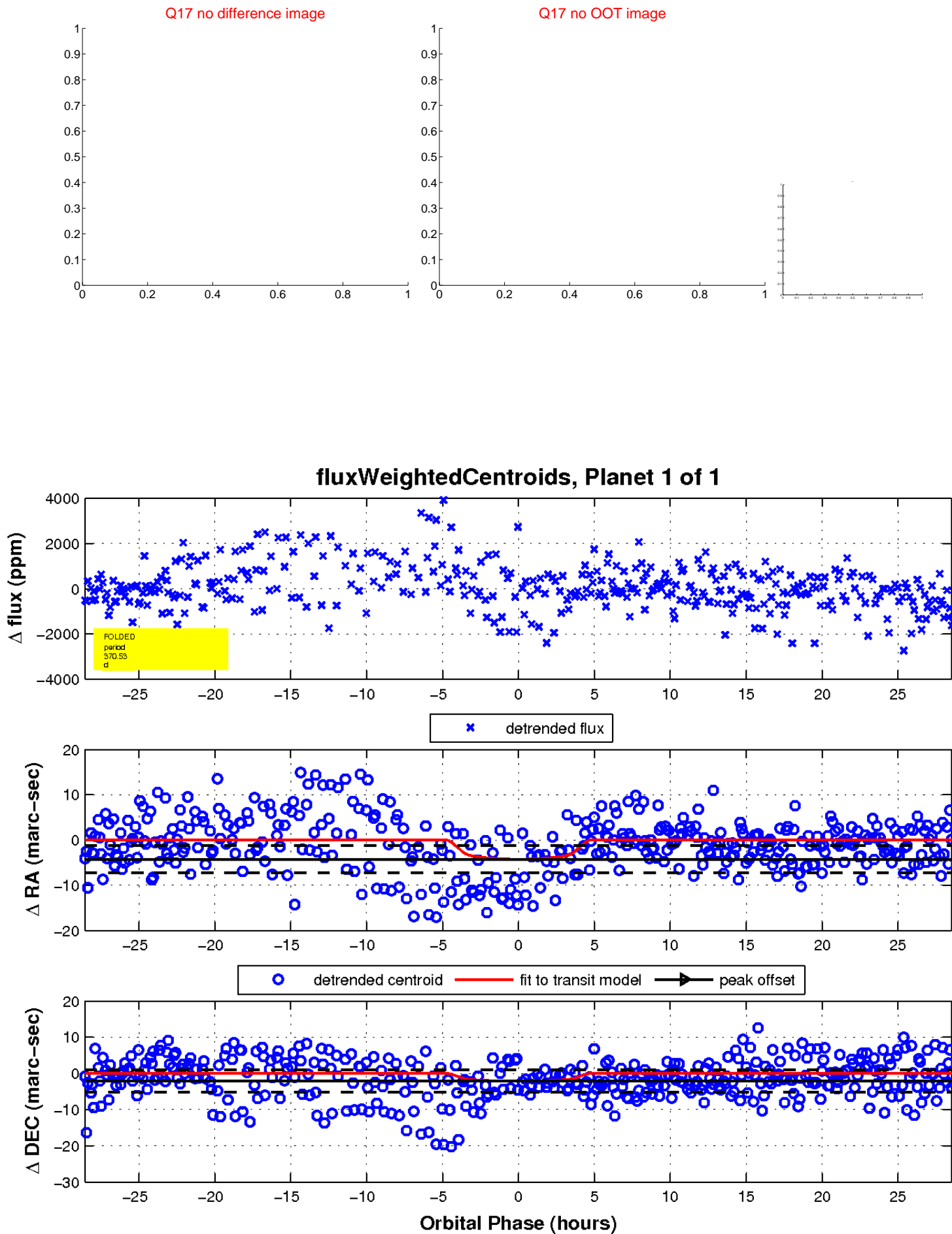
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

