

# KIC 003762468

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
003762468-01	OBS	0208.01	3.003879	131.706863	8334.3	3.304	482.3	477.5	1.17	6311	11.00	1011.57

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003762468-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

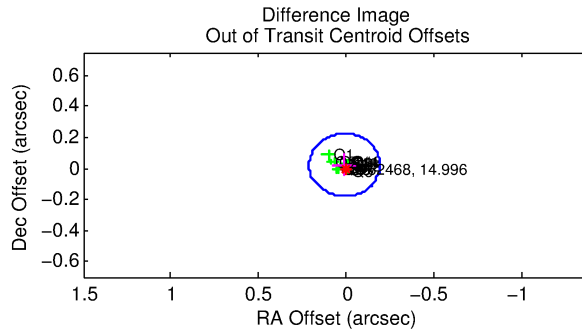
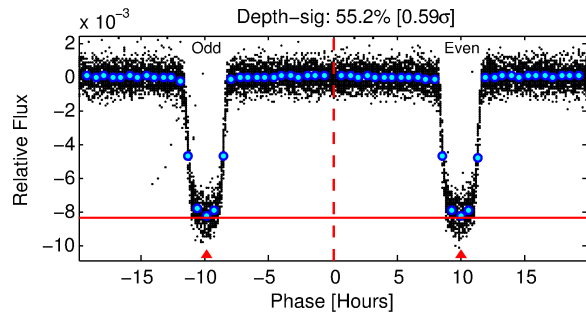
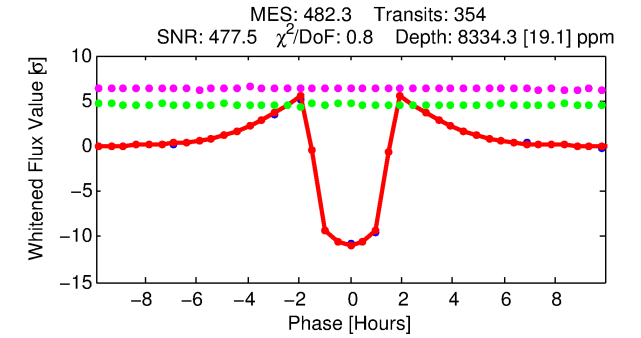
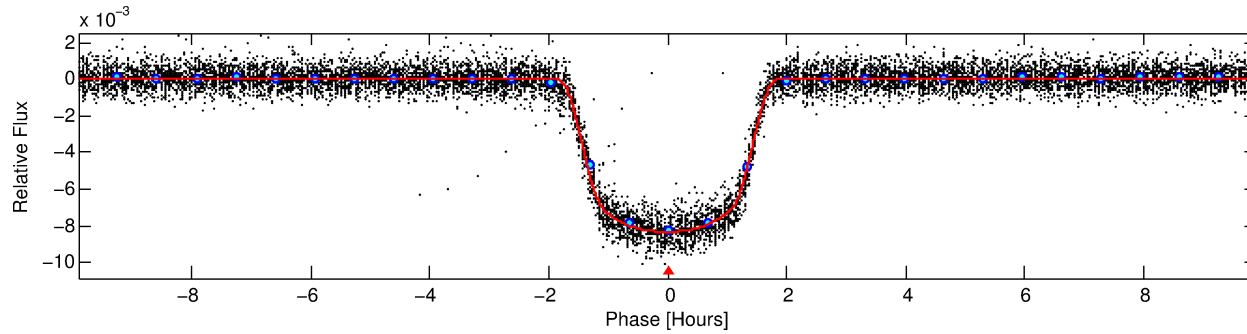
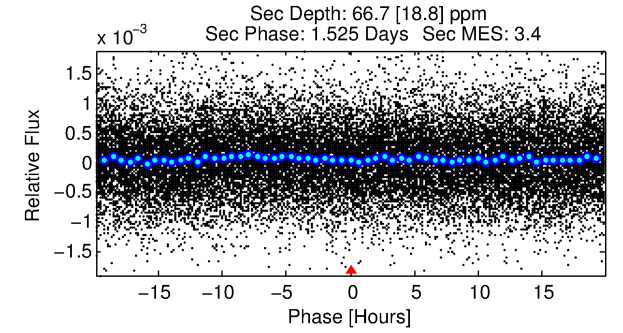
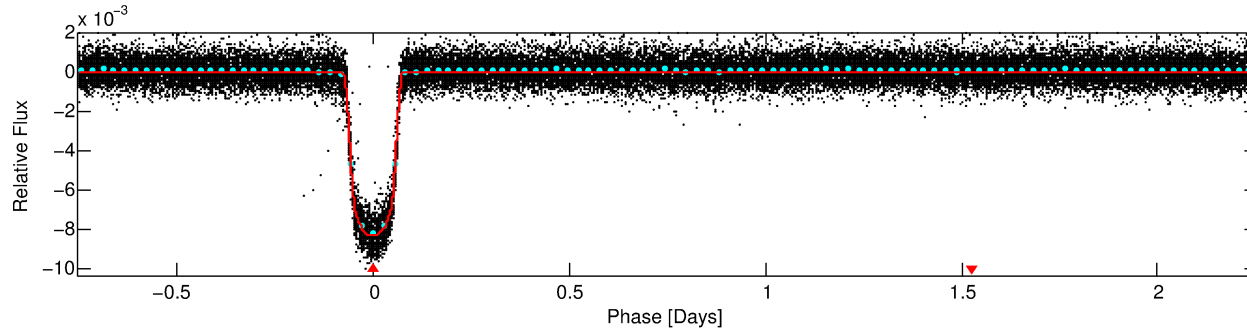
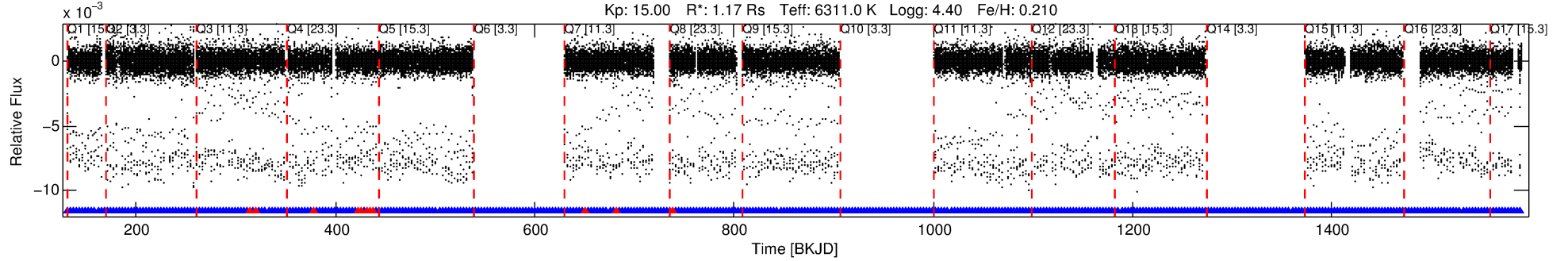
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 003762468-01

No Significant Match Found

# DV One-Page Summary

KIC: 3762468 Candidate: 1 of 1 Period: 3.004 d  
KOI: K00208.01 Corr: 0.993



## DV Fit Results:

Period = 3.00388 [0.00000] d  
Epoch = 131.7069 [0.0001] BKJD  
Rp/R\* = 0.0860 [0.0005]  
a/R\* = 6.78 [0.18]  
b = 0.49 [0.04]  
Seff = 1011.57 [428.46]  
Teq = 1438 [152] K  
Rp = 11.00 [3.53] Re  
a = 0.0439 [0.0119] AU  
Ag = 0.59 [0.28] [-1.46 $\sigma$ ]  
Teffp = 1945 [157] K [2.32 $\sigma$ ]

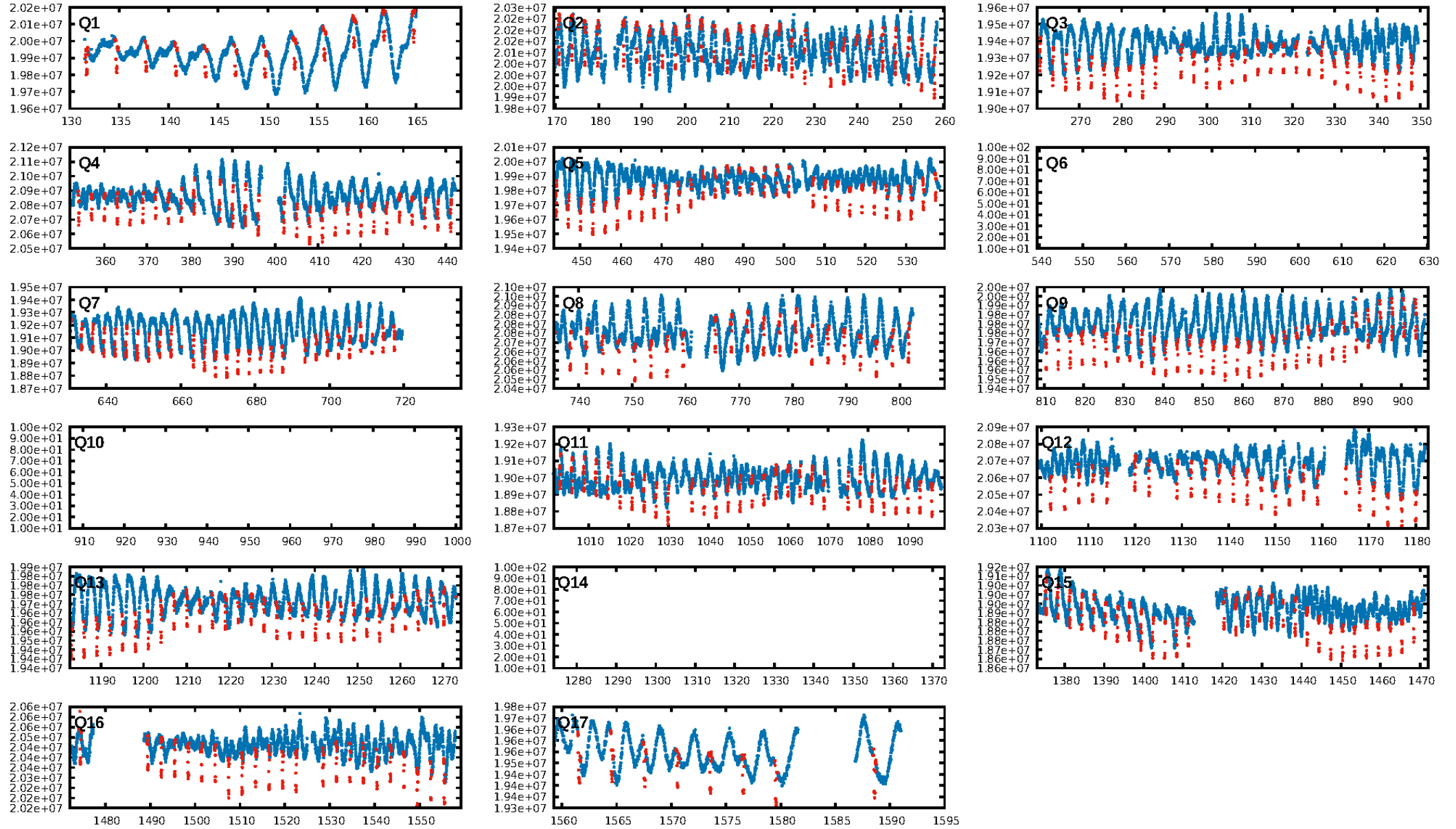
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 0.00e+00  
RollingBand-fgt: 0.97 [323/334]  
GhostDiagnostic-chr: 3.995  
Centroid-sig: 0.0%  
Centroid-so: 0.398 arcsec [18.45 $\sigma$ ]  
OotOffset-rm: 0.026 arcsec [0.38 $\sigma$ ]  
KicOffset-rm: 0.171 arcsec [2.51 $\sigma$ ]  
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]

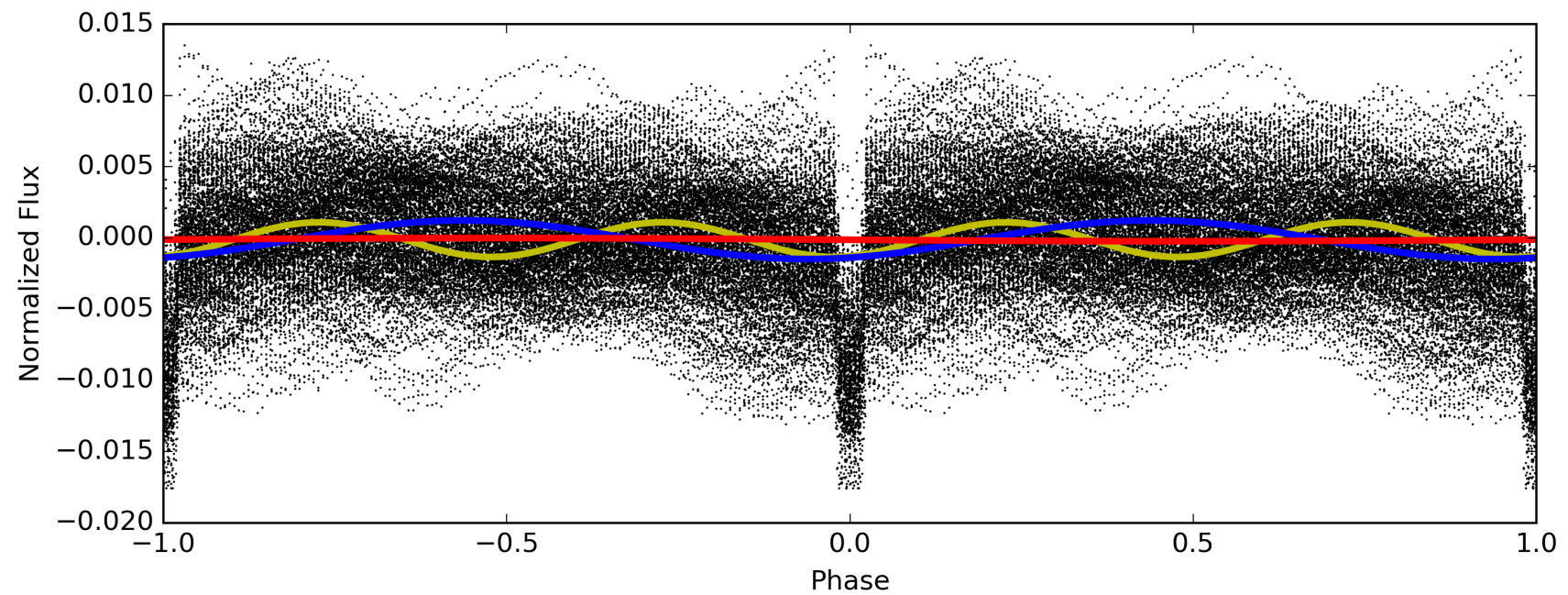
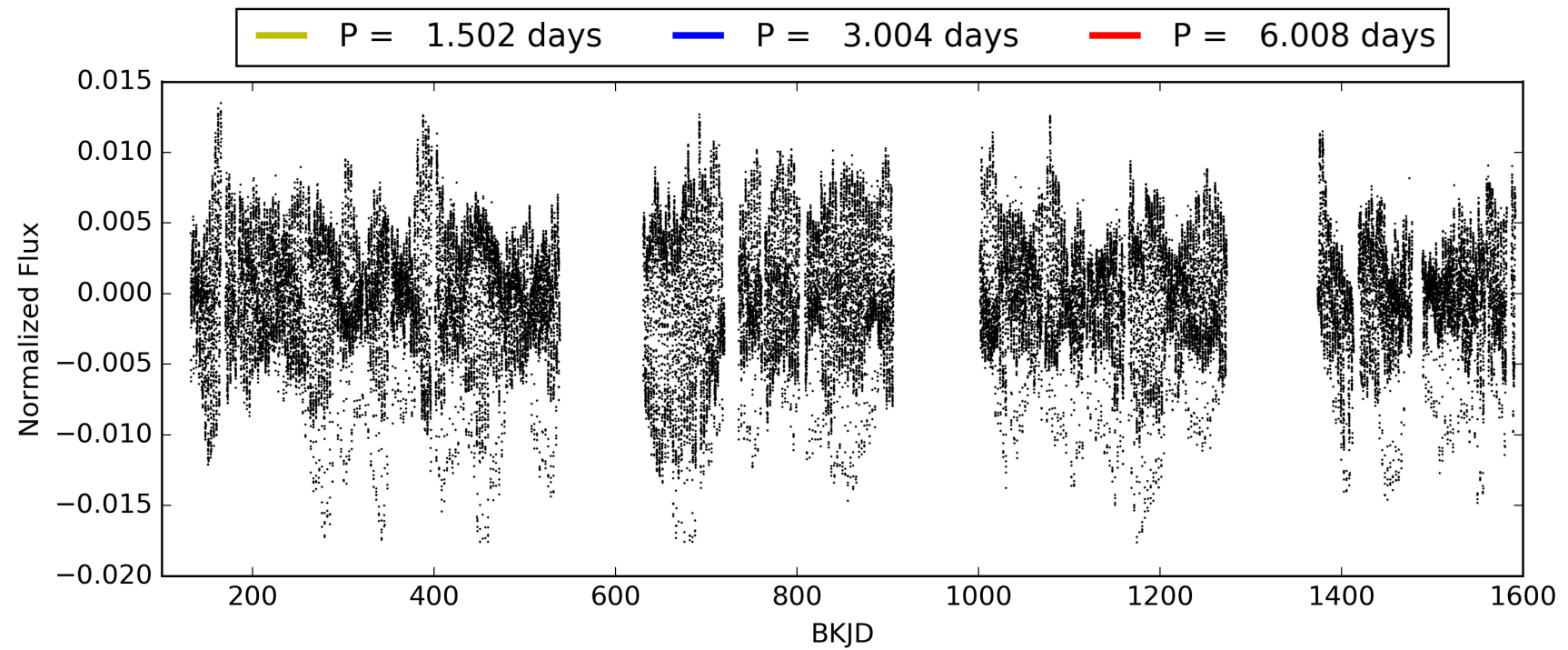
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:21:55 Z

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

# TCE 003762468-01, PDC Light Curves

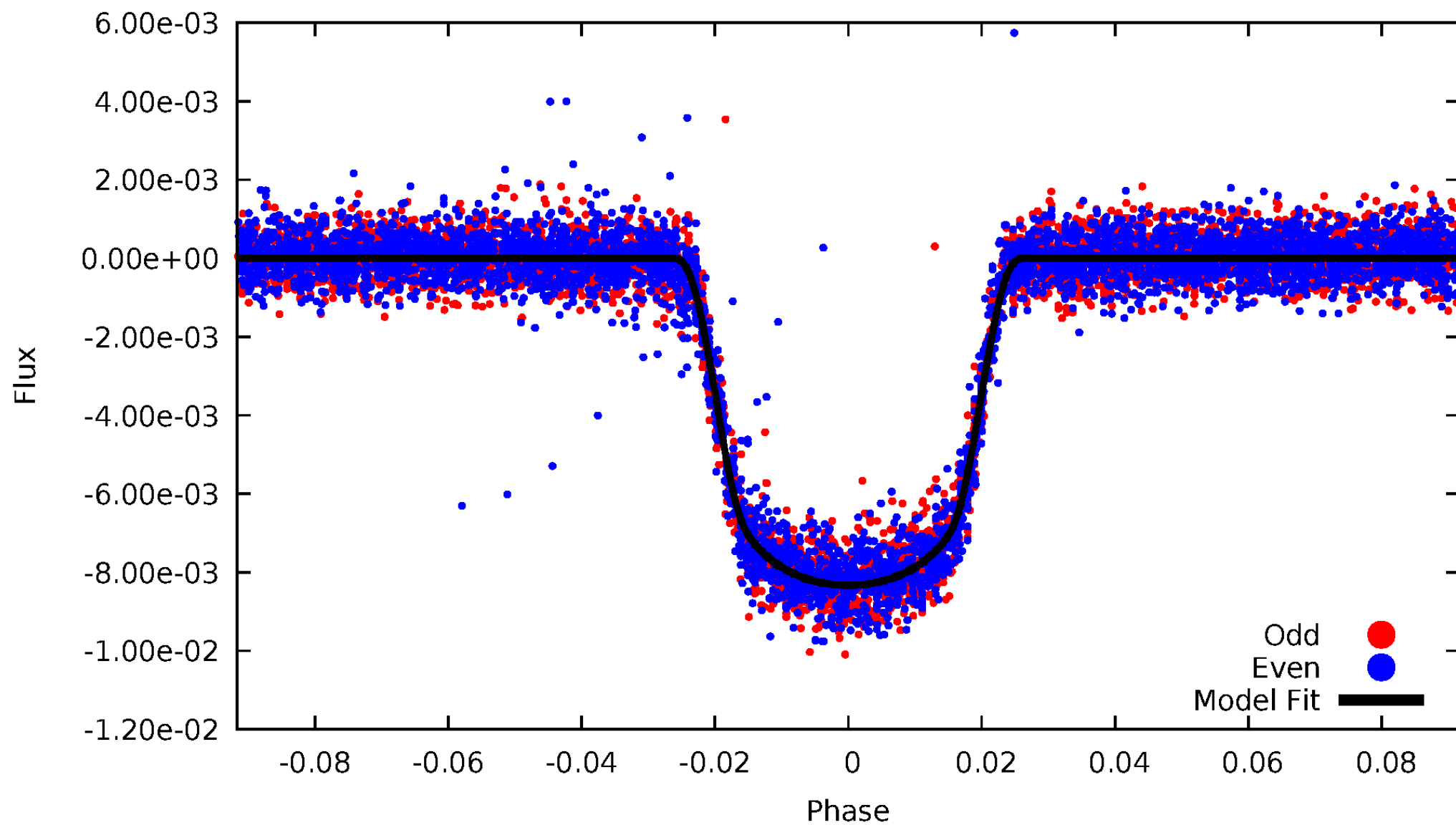


TCE 003762468-01



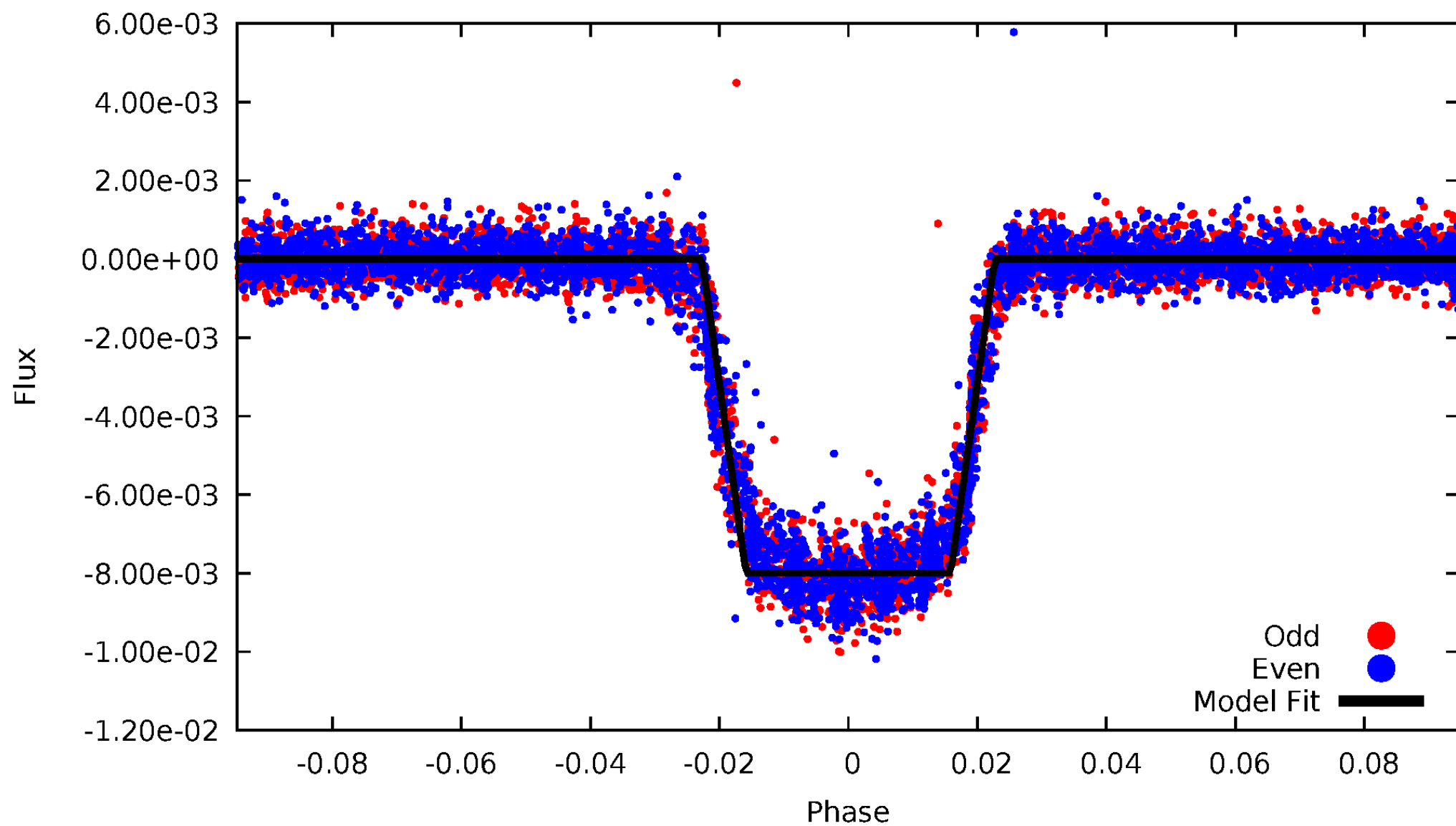
# DV Odd/Even

TCE 003762468-01



# ALT Odd/Even

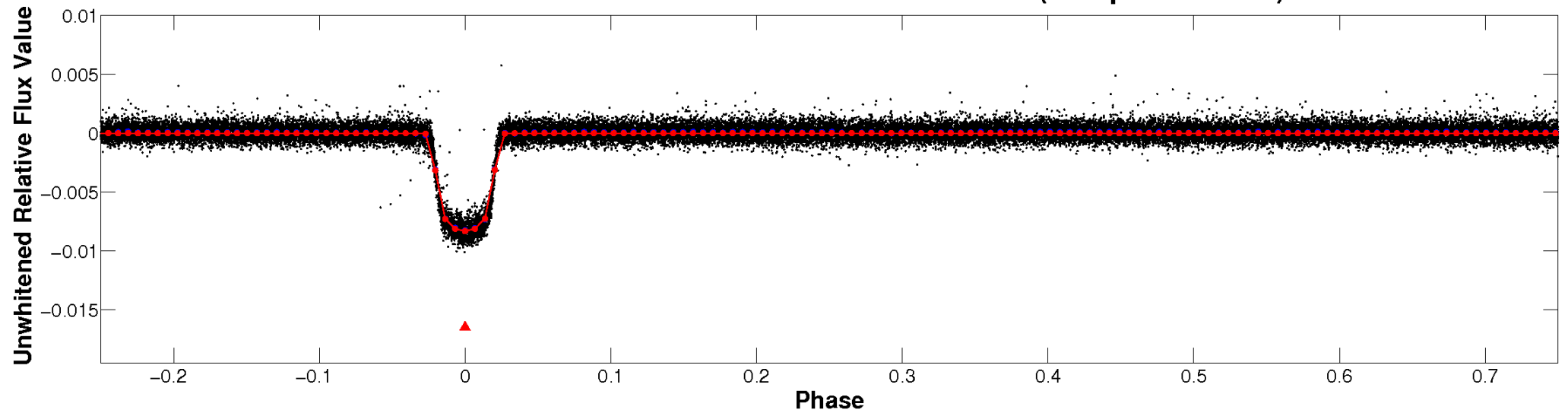
TCE 003762468-01



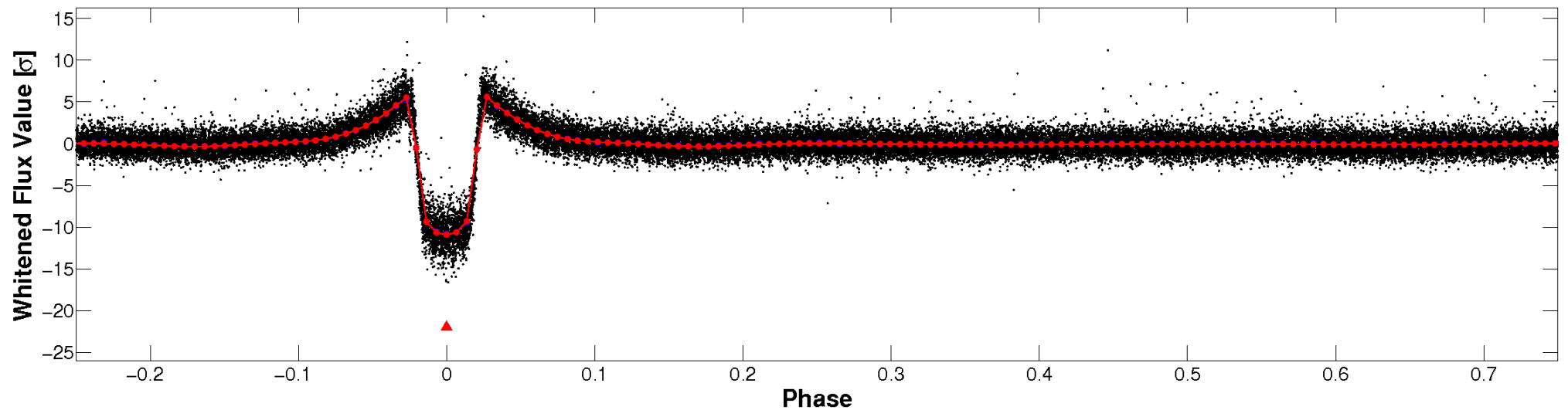


# Non-Whitened Vs. Whitened Light Curve

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

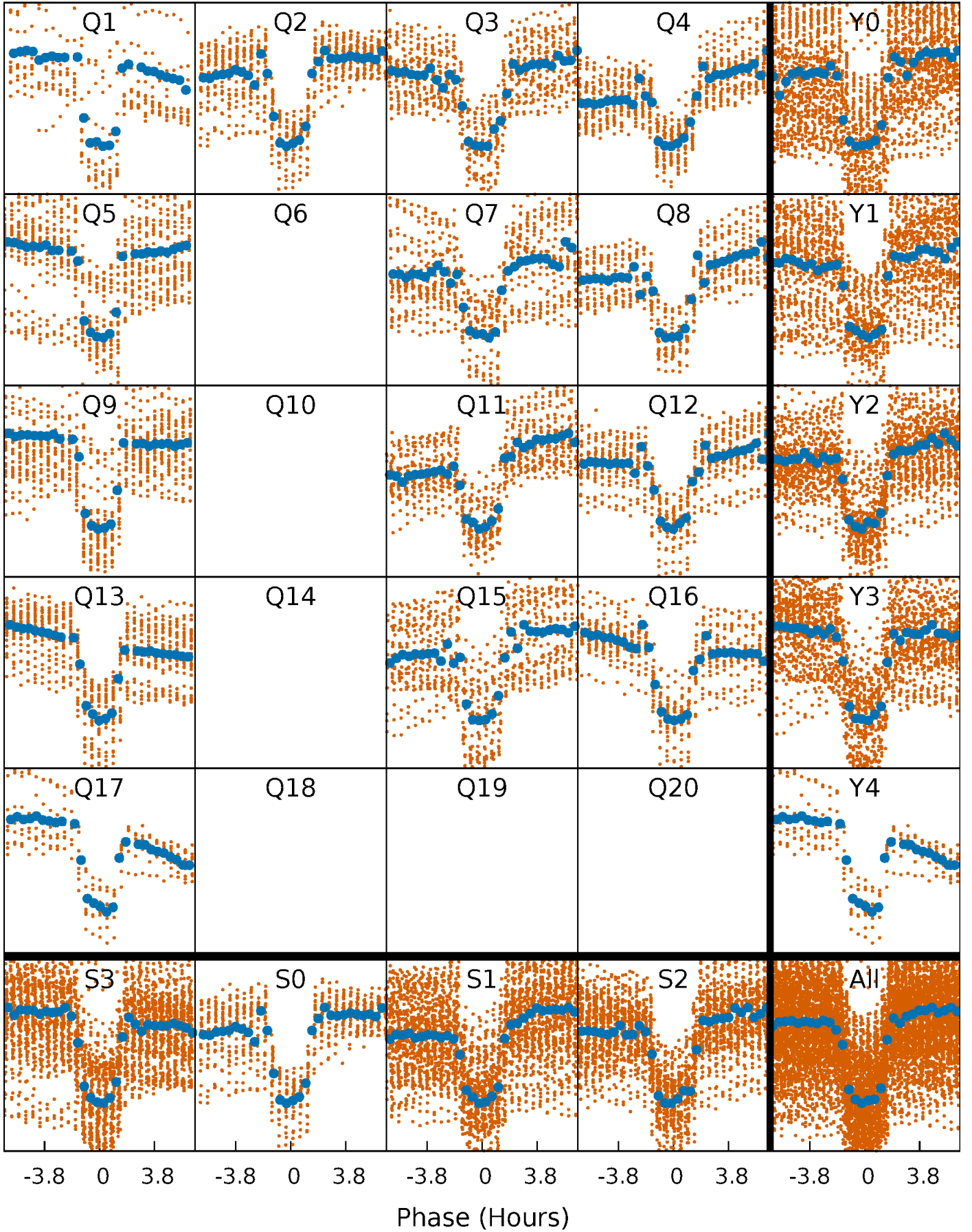


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

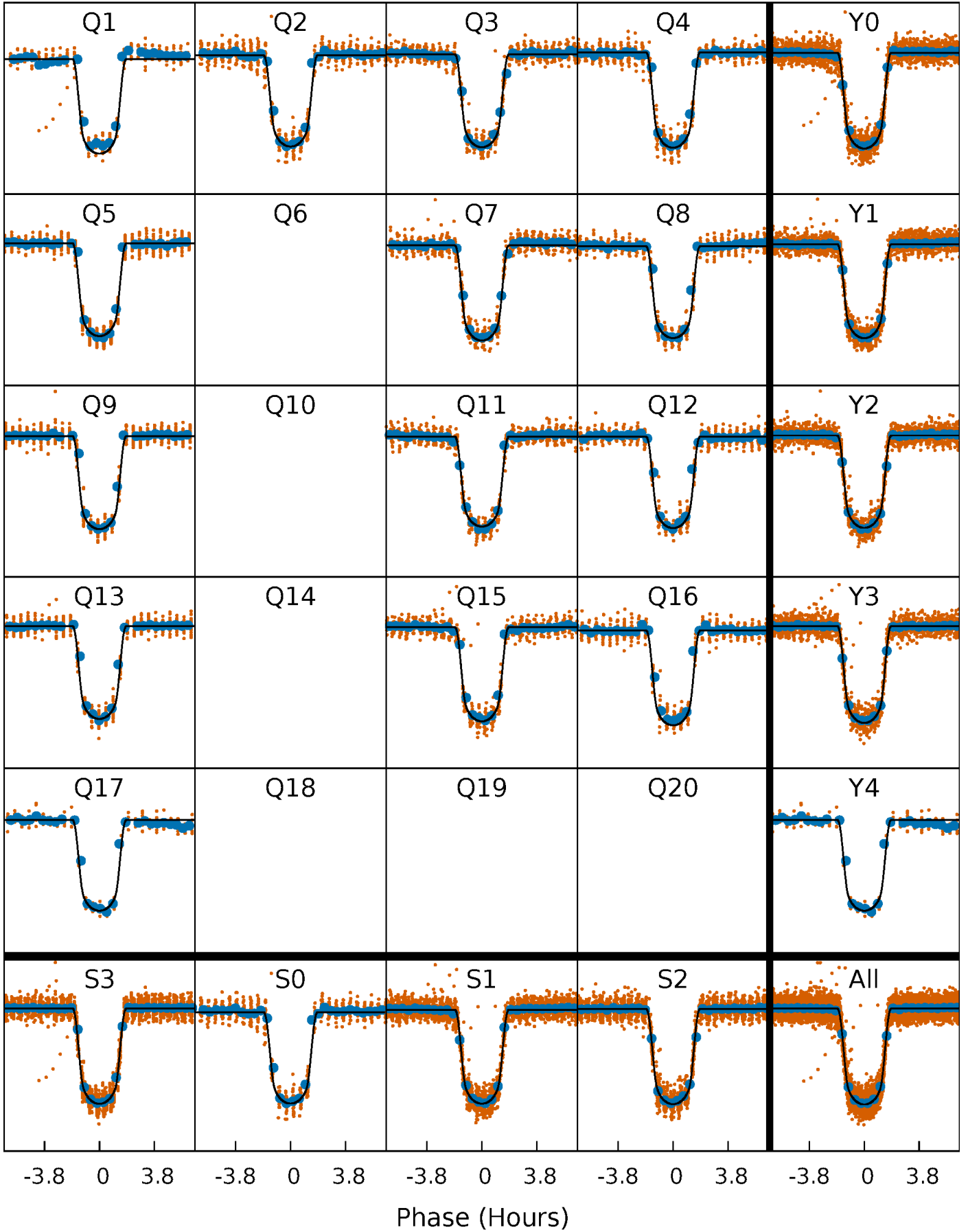
TCE 003762468-01   P= 3.003879 Days    $T_0=131.706863$  (BKJD)





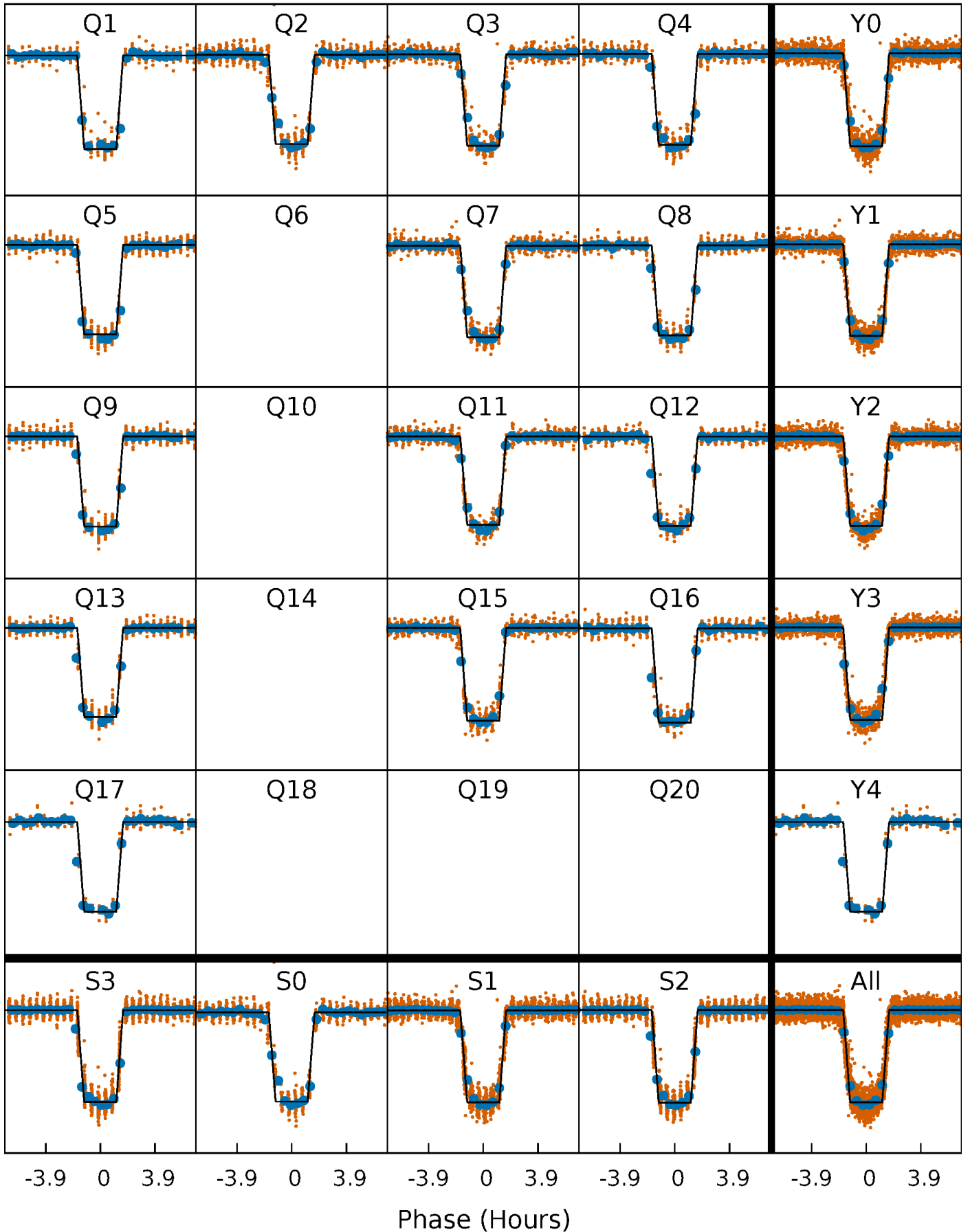
# DV Quarter-Phased Transit Curves

TCE 003762468-01 P= 3.003879 Days  $T_0=131.706863$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

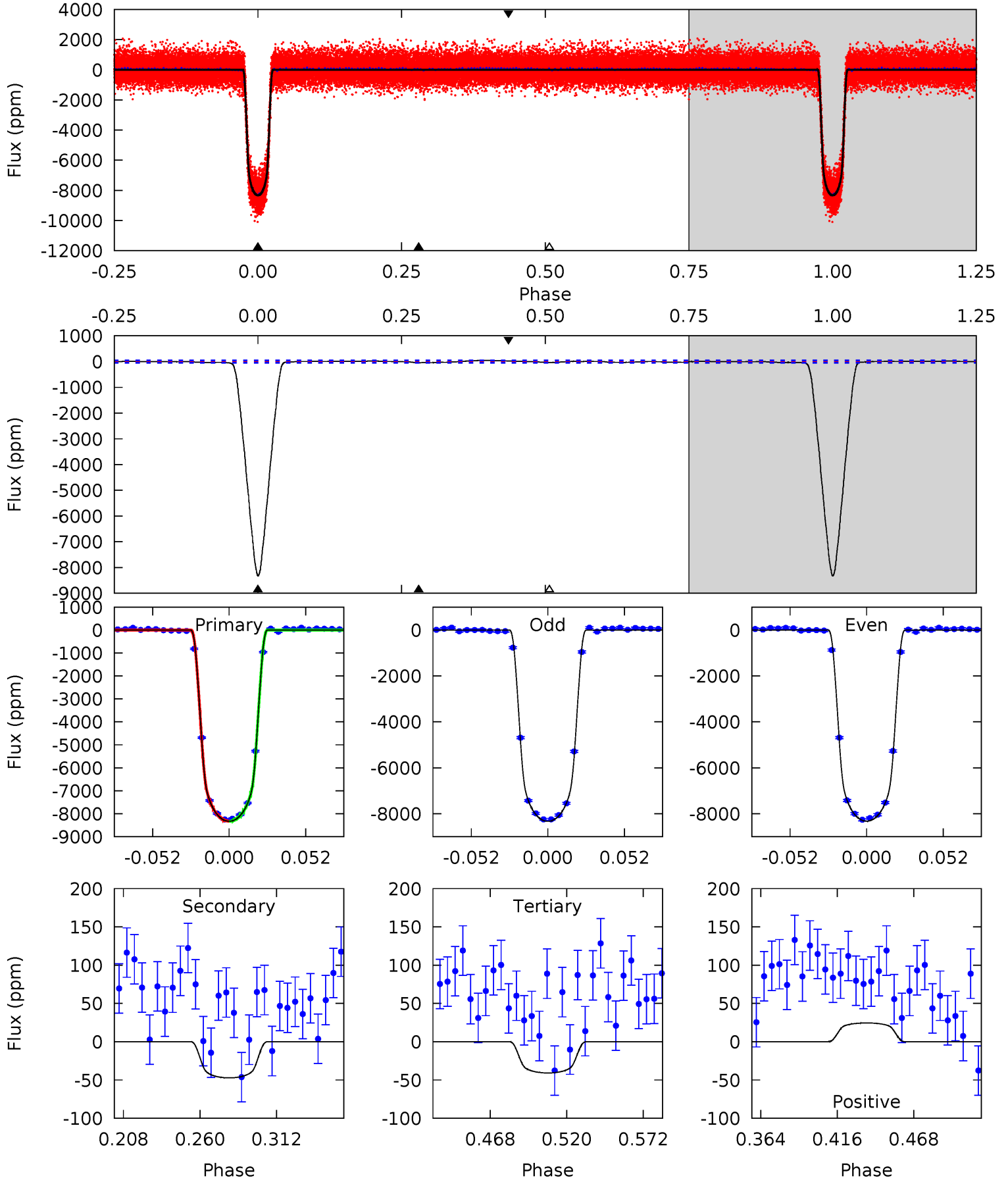
TCE 003762468-01 P= 3.003897 Days  $T_0=131.702886$  (BKJD)



# DV Model-Shift Uniqueness Test

003762468-01, P = 3.003879 Days, E = 128.702984 Days

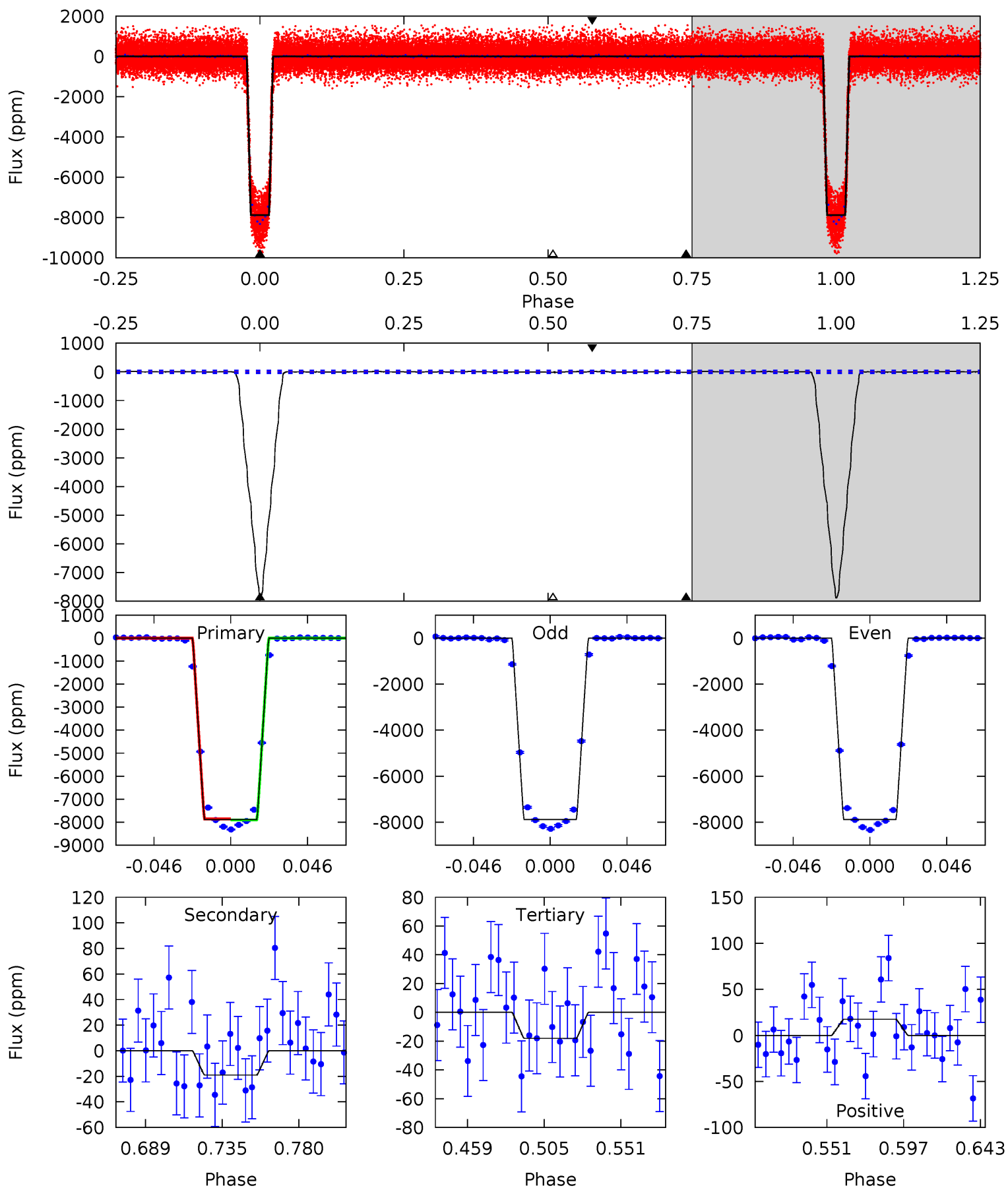
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
834.1	4.73	4.09	2.46	4.70	1.94	1.98	830.0	831.6	0.64	2.27	0.30	1.00	0.01	0.23



# Alt Model-Shift Uniqueness Test

003762468-01, P = 3.003897 Days, E = 128.698989 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
945.7	2.28	2.17	2.10	4.73	2.00	0.80	943.5	943.6	0.11	0.18	0.24	1.00	0.00	2.43



### Stellar Parameters For KIC 003762468

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6311^{+177}_{-243}$	$4.398^{+0.054}_{-0.216}$	$0.210^{+0.200}_{-0.350}$	$1.172^{+0.376}_{-0.125}$	$1.253^{+0.154}_{-0.184}$	$1.095^{+0.313}_{-0.584}$
	+3%/-4%	+1%/-5%	+95%/-167%	+32%/-11%	+12%/-15%	+29%/-53%
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 003762468-01 / KOI 0208.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-47 \pm 10$	$11.18^{+1.93}_{-0.79}$	$2046^{+146}_{-111}$	$2144^{+211}_{-4192}$	$0.372^{+0.110}_{-0.110}$
Alt.	$-19 \pm 8$	$11.70^{+2.06}_{-0.88}$	$2051^{+148}_{-105}$	$-2358^{+184}_{-147}$	$0.133^{+0.076}_{-0.067}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{\text{obs}}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{\text{obs}} \gg T_{\text{max}}$  AND  $A_{\text{obs}} \gg 1.0$

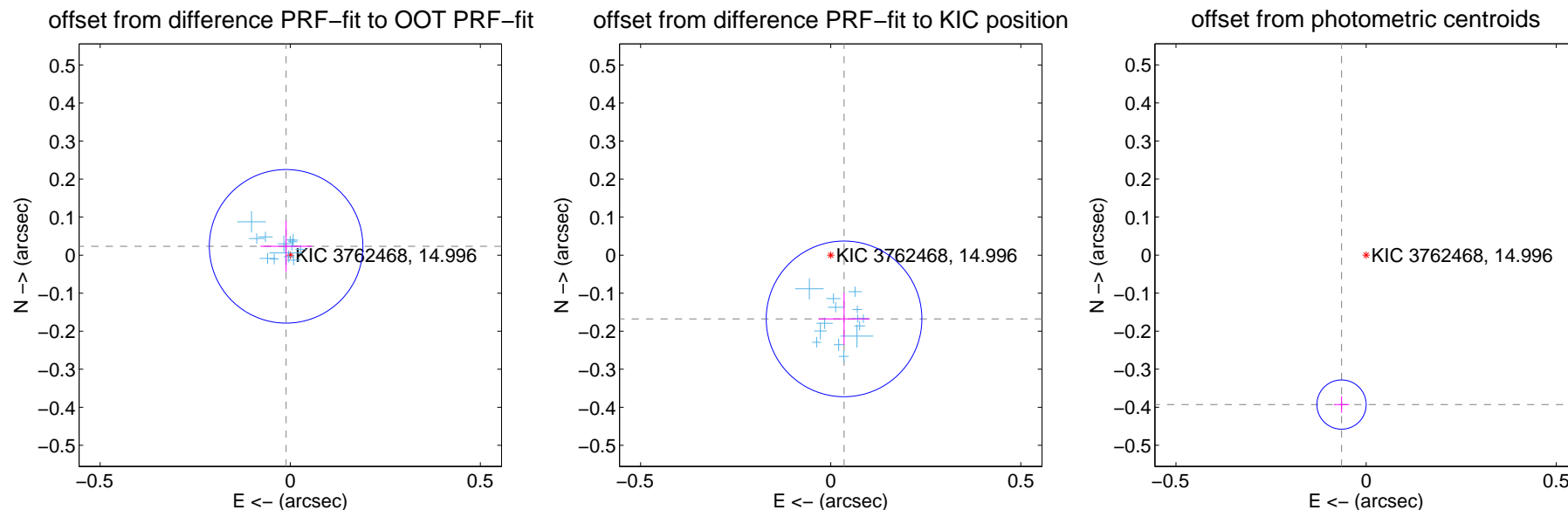
## DV Centroid Data

Supplemental centroid analysis for 003762468-01. Kepler magnitude: 15.00. Transit SNR 477.55

There are 14 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

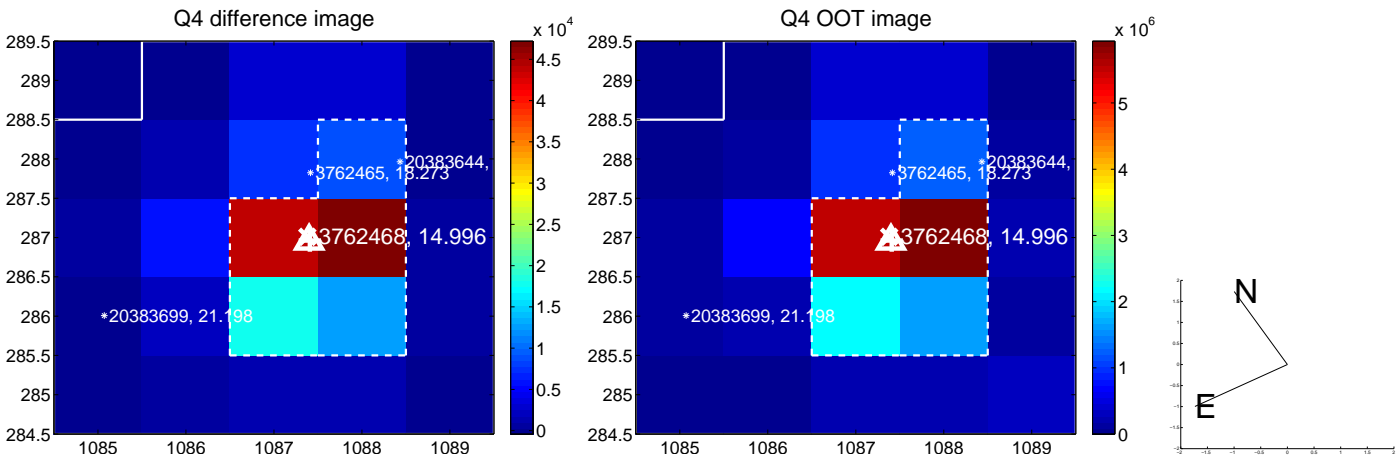
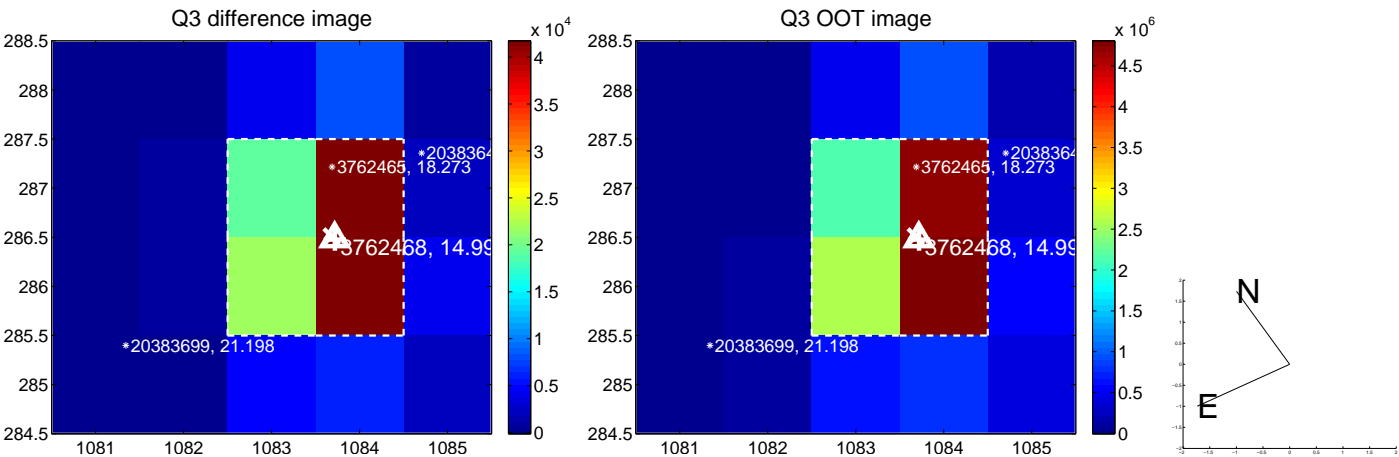
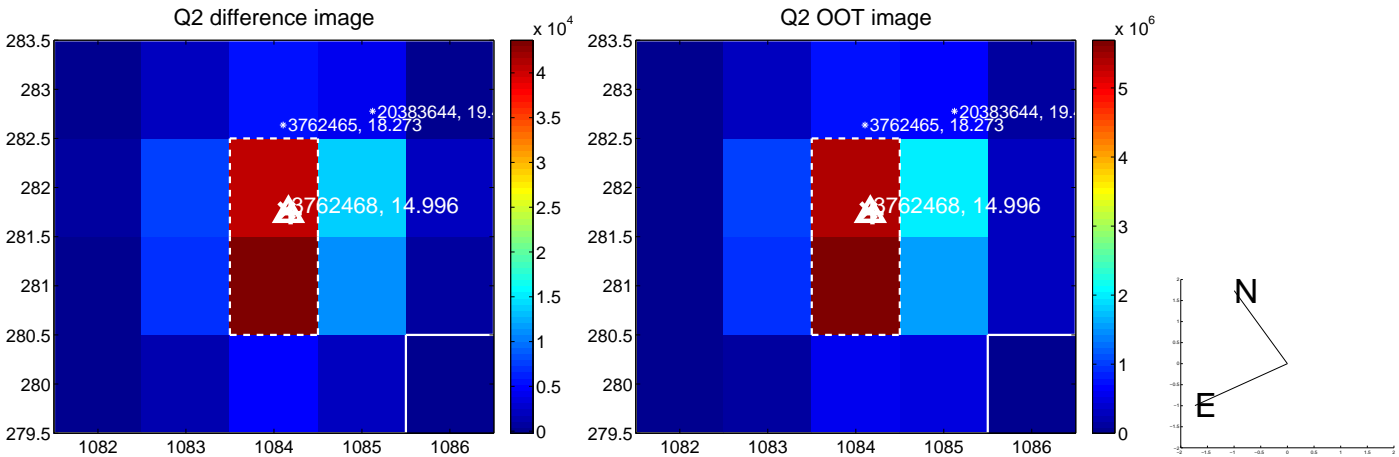
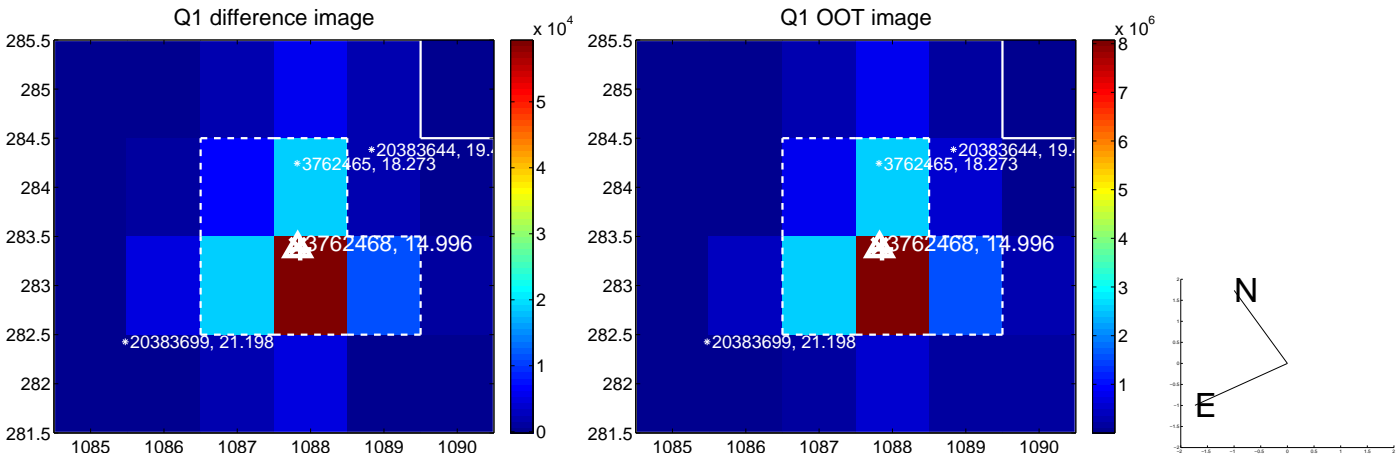
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.026 \pm 0.067$	0.38	$0.011 \pm 0.067$	$0.023 \pm 0.067$
PRF-fit source offset from KIC position	$0.171 \pm 0.068$	2.51	$-0.035 \pm 0.068$	$-0.168 \pm 0.068$
photometric centroid source offset	$0.40 \pm 0.02$	18.45	$0.06 \pm 0.02$	$-0.39 \pm 0.02$



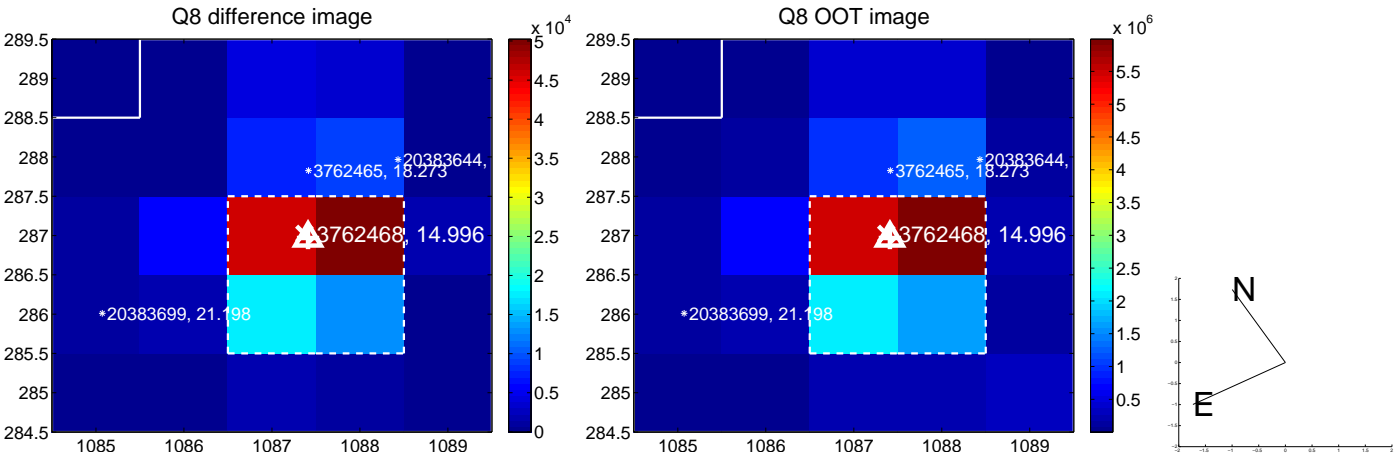
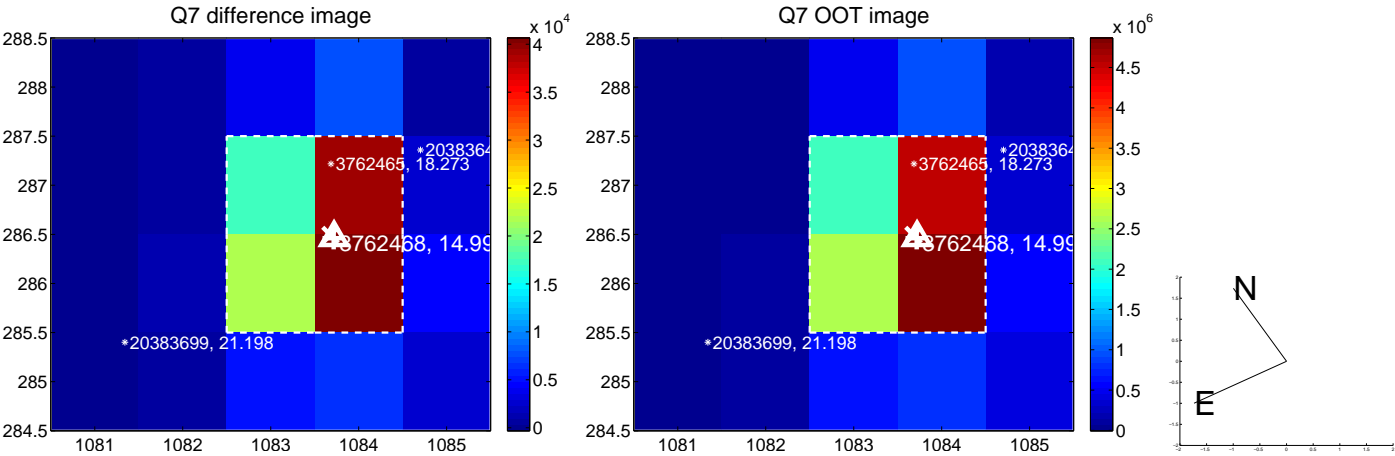
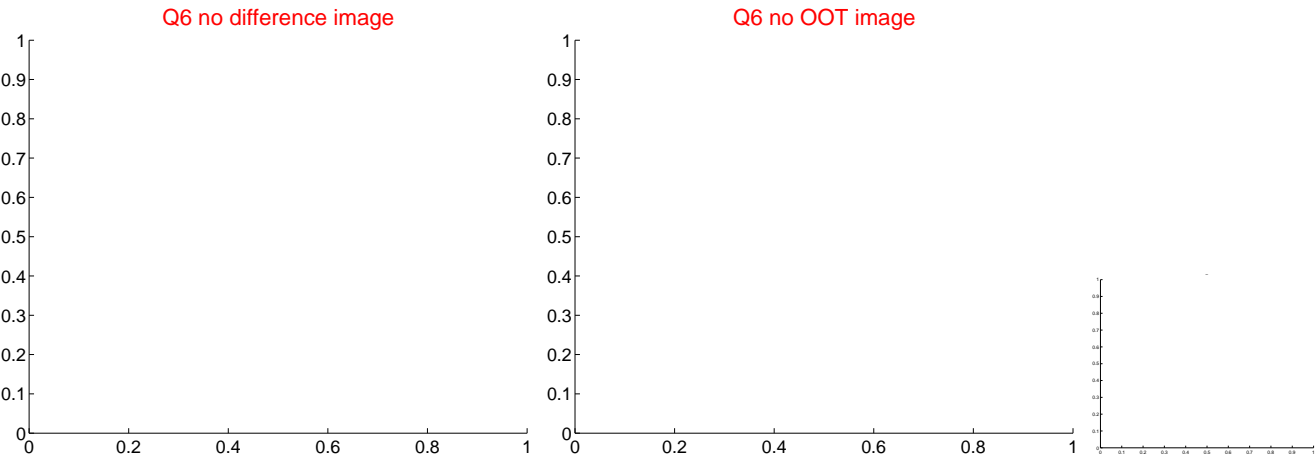
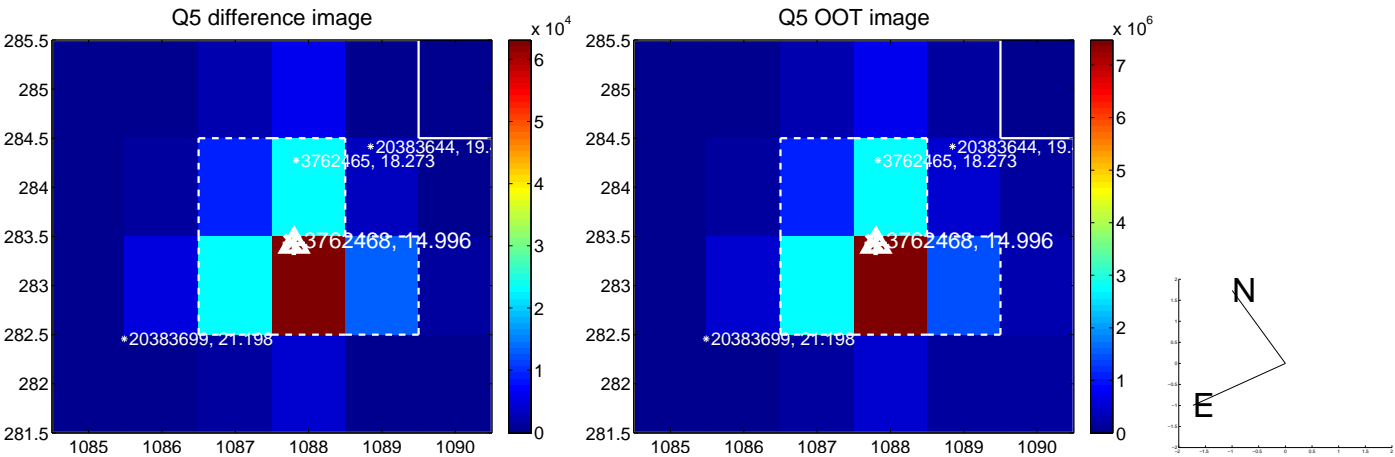
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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



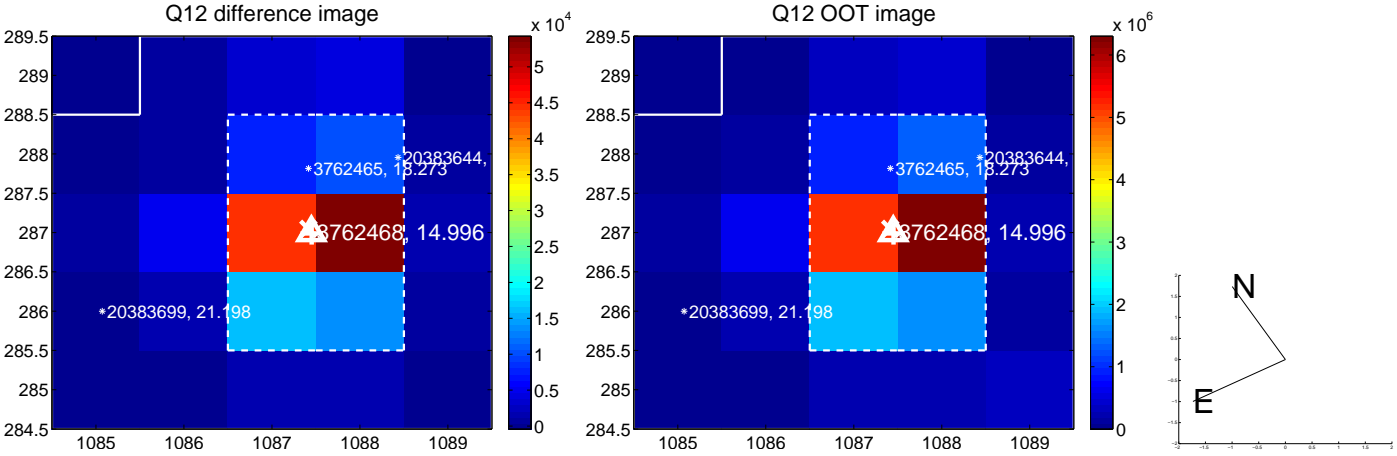
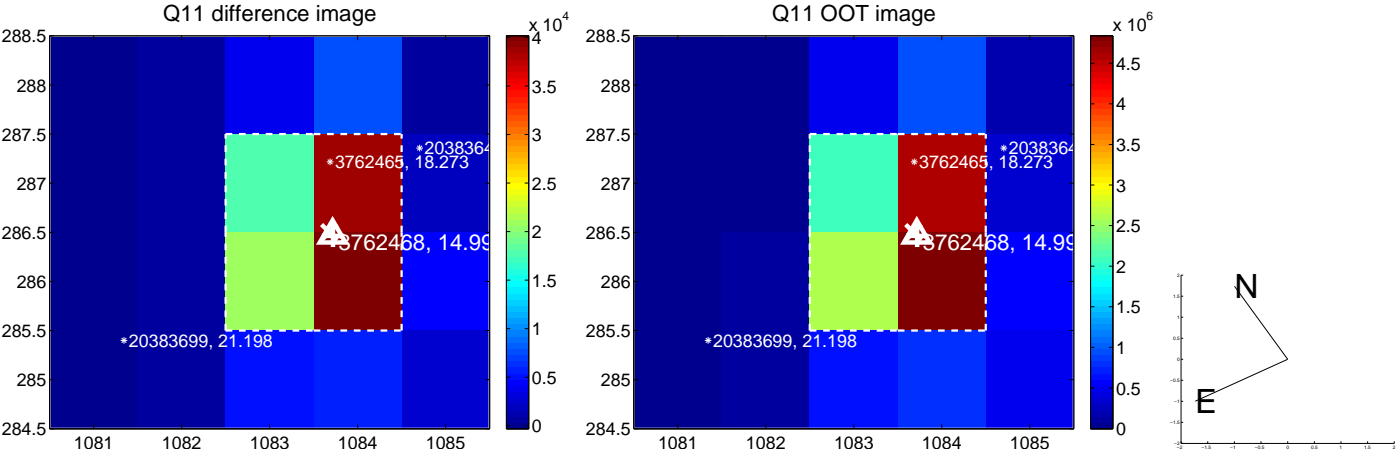
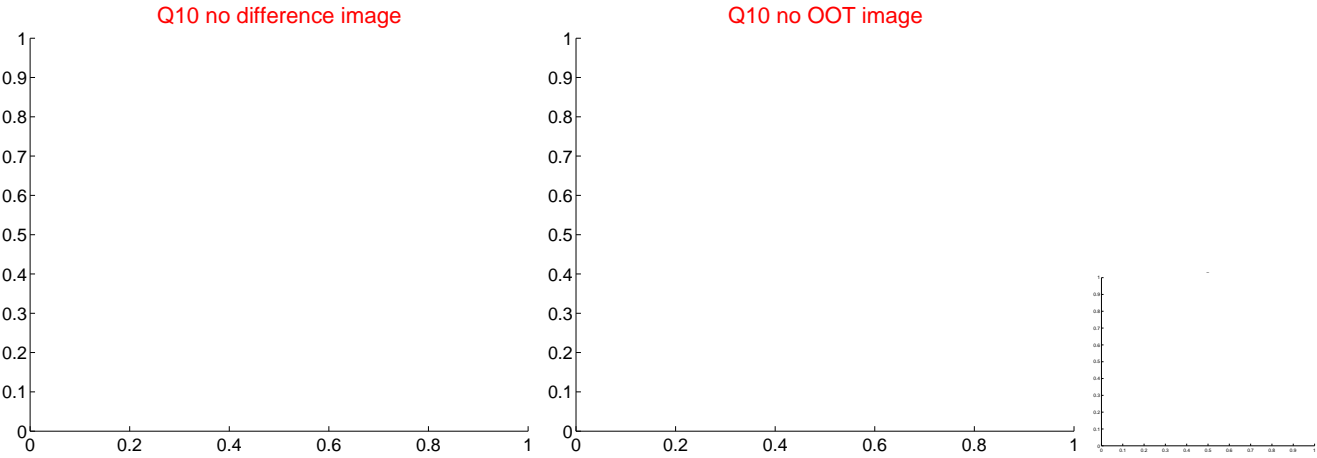
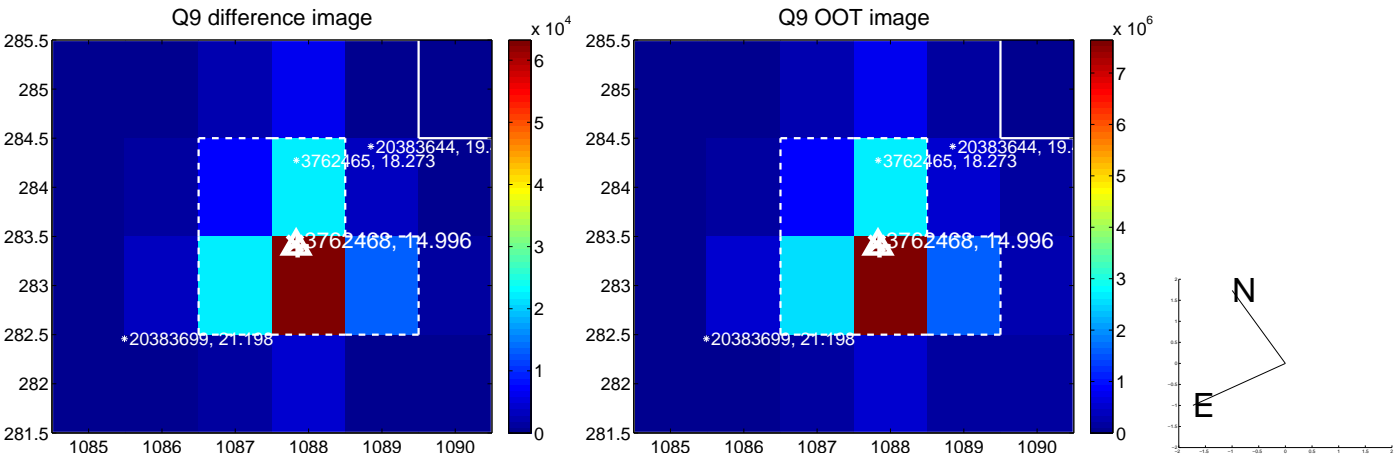
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



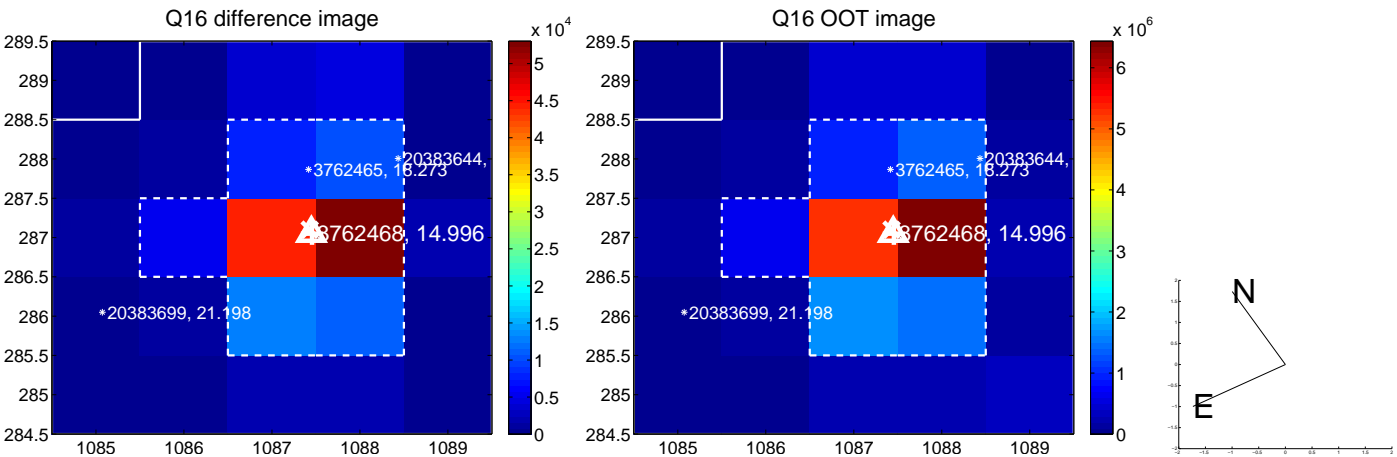
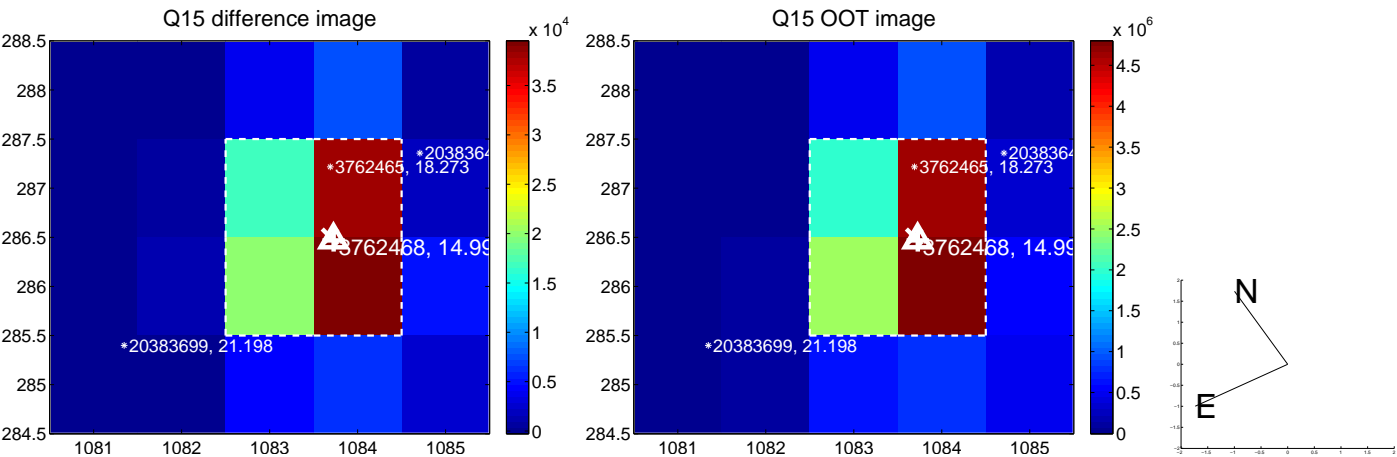
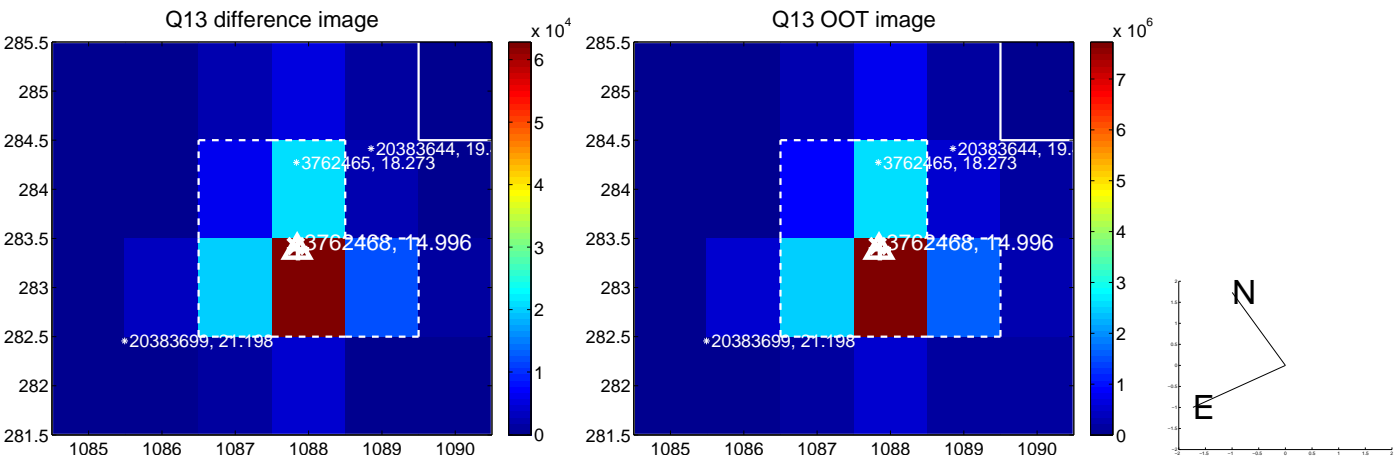
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



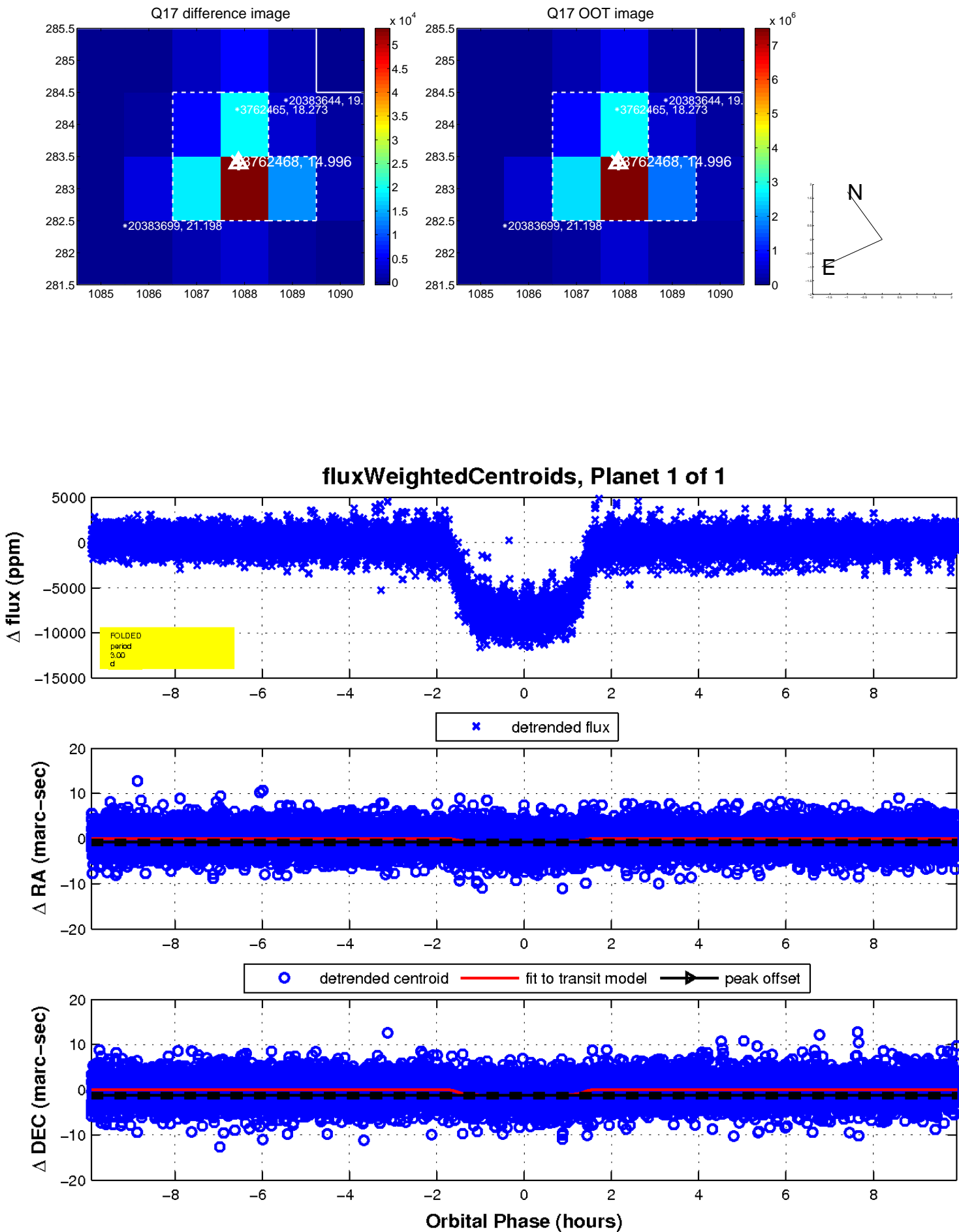
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

