

# KIC 008611862

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008611862-01	OBS	No	370.955656	230.605567	4937.5	14.102	9.2	8.8	0.68	4663	5.83	0.25

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008611862-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

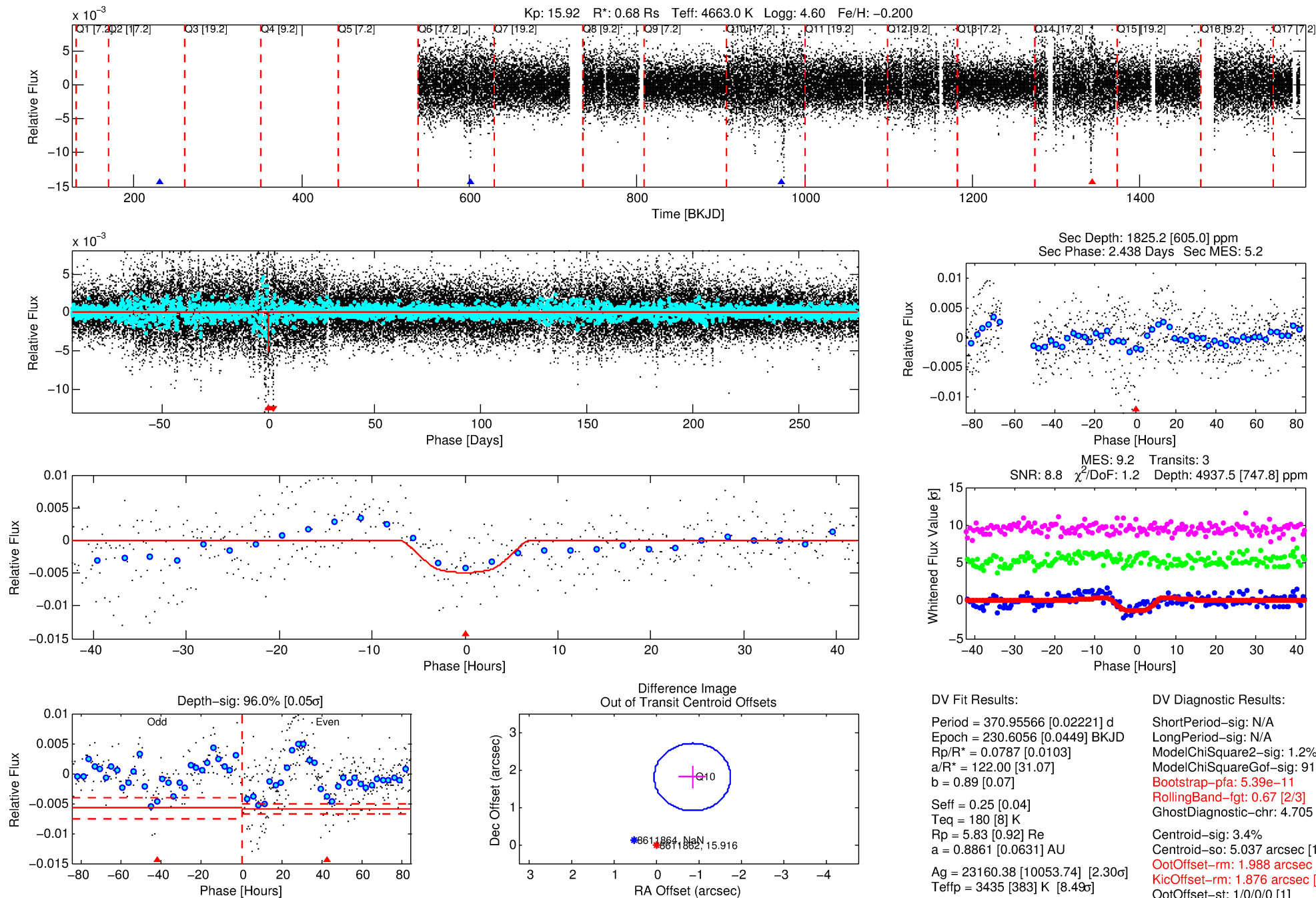
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008611862-01

No Significant Match Found

# DV One-Page Summary

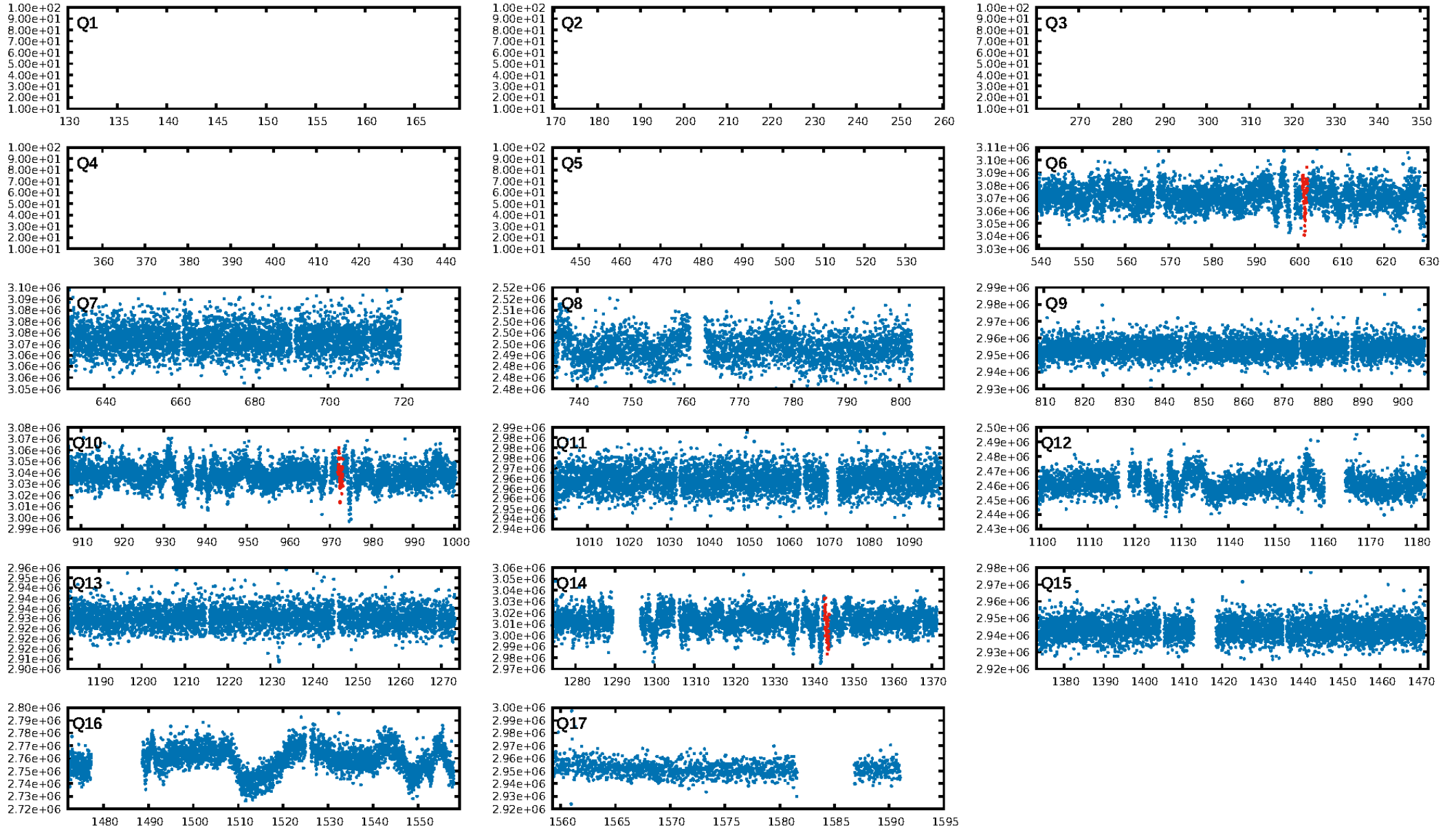
KIC: 8611862 Candidate: 1 of 1 Period: 370.956 d



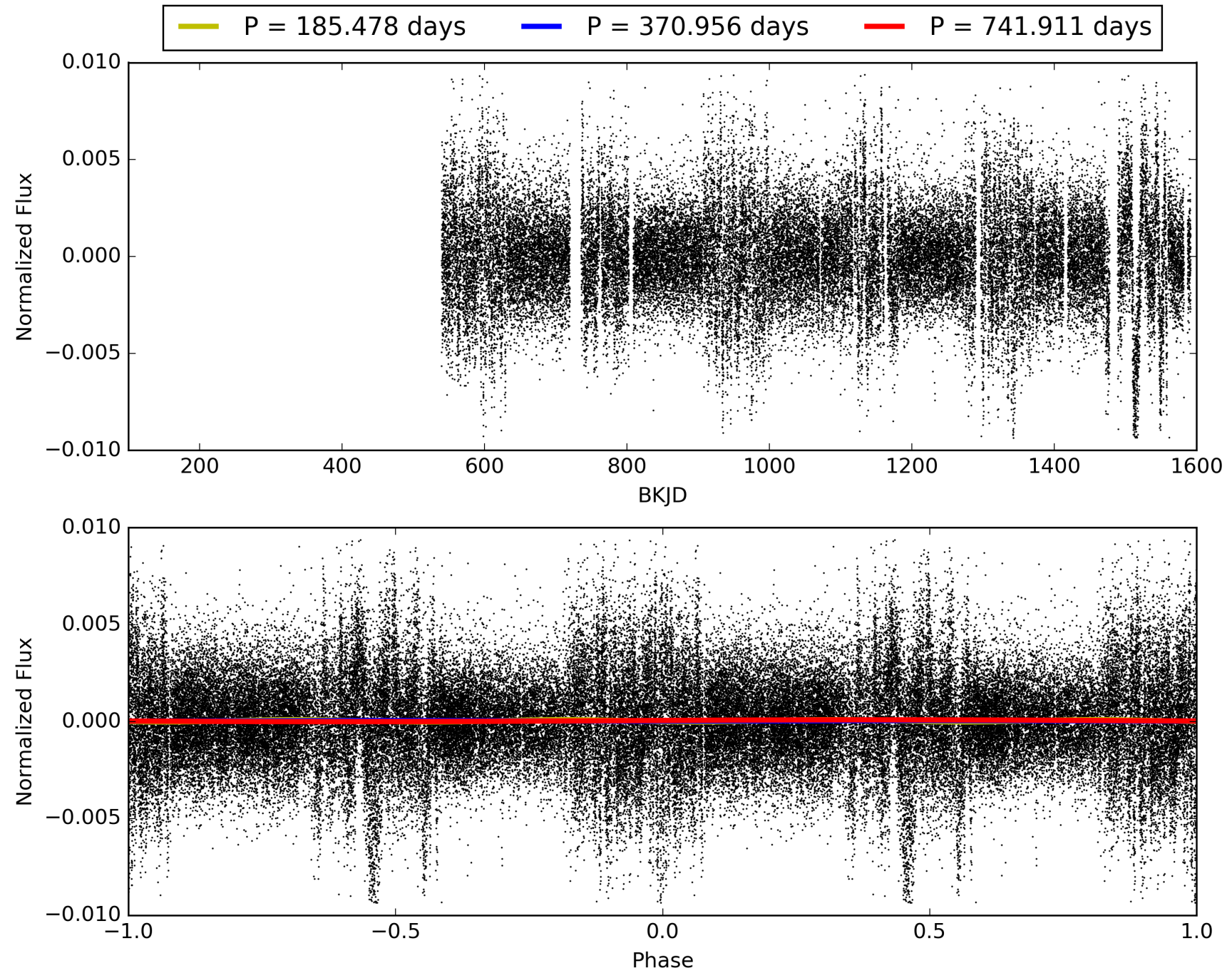
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:17:33 Z

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

# TCE 008611862-01, PDC Light Curves

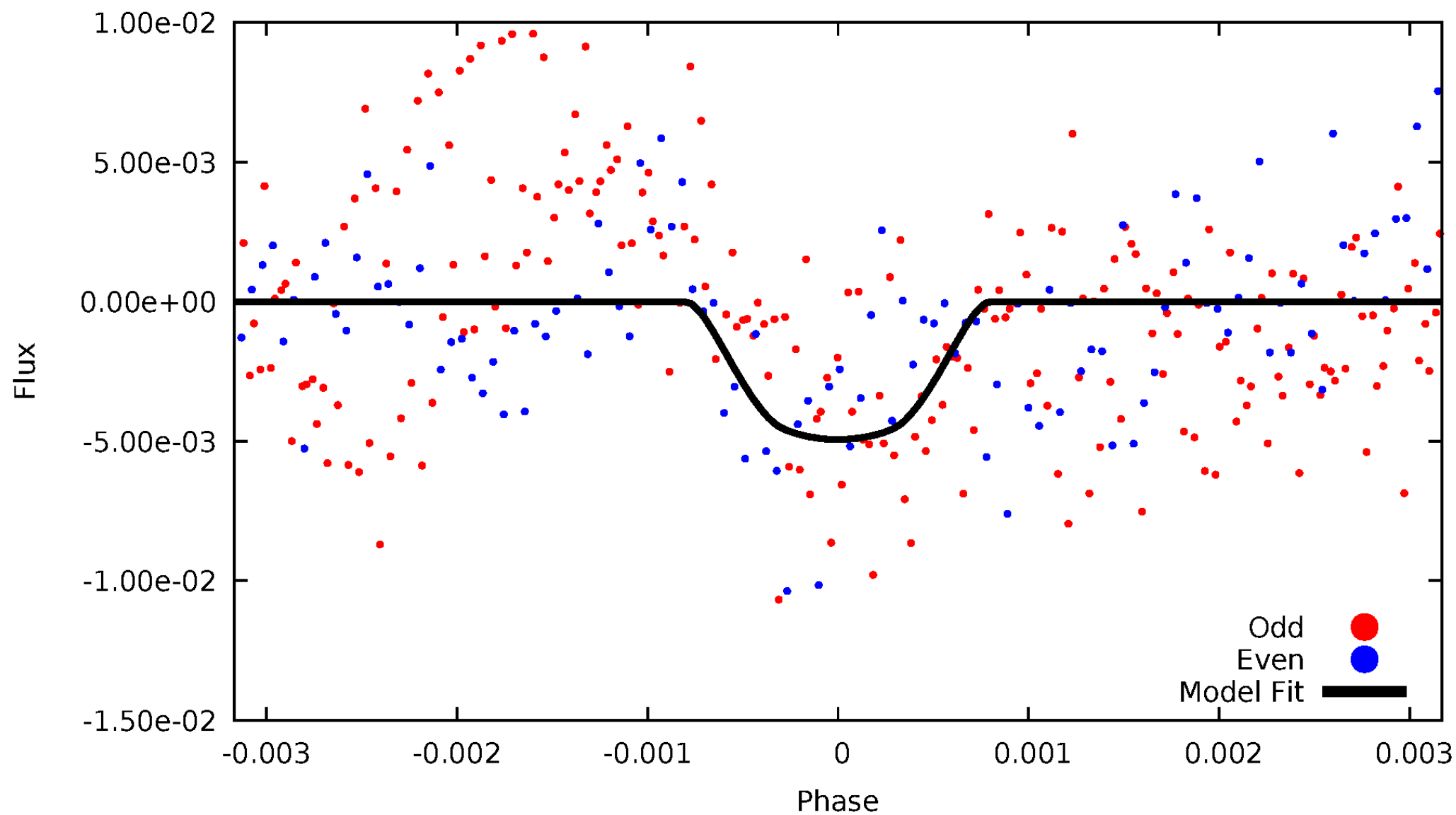


TCE 008611862-01



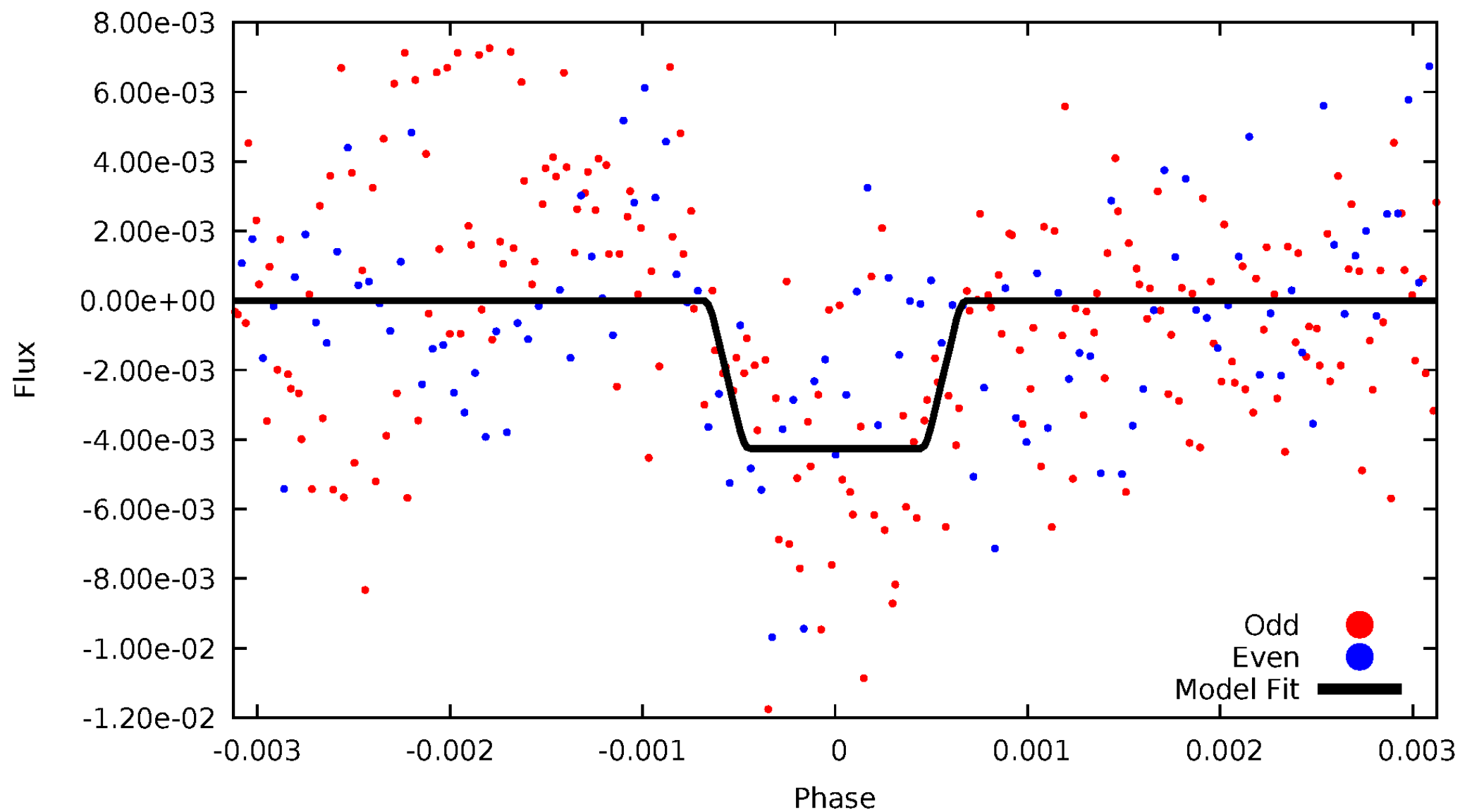
# DV Odd/Even

TCE 008611862-01



# ALT Odd/Even

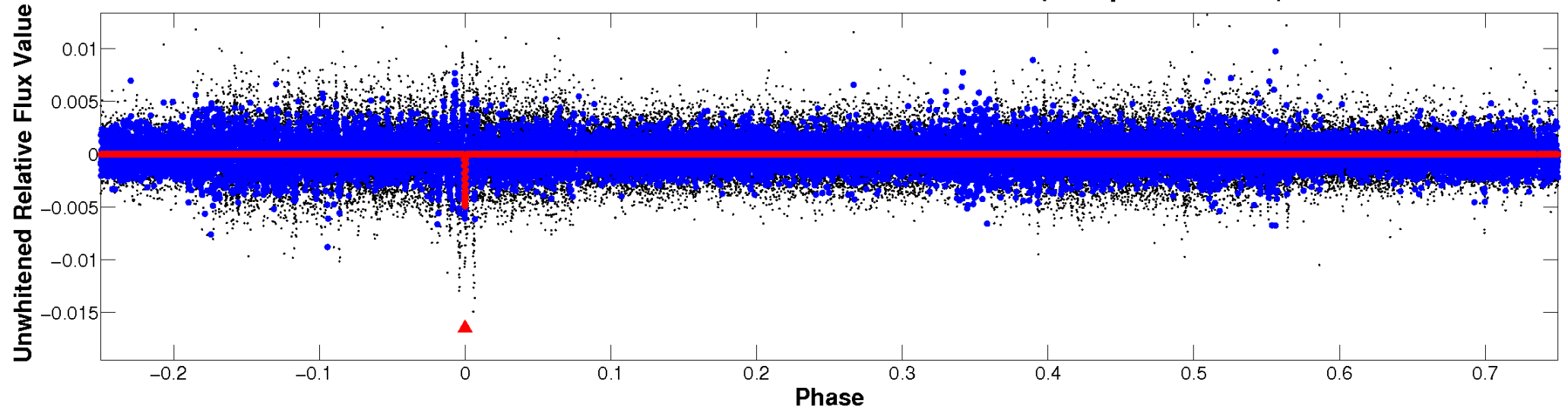
TCE 008611862-01



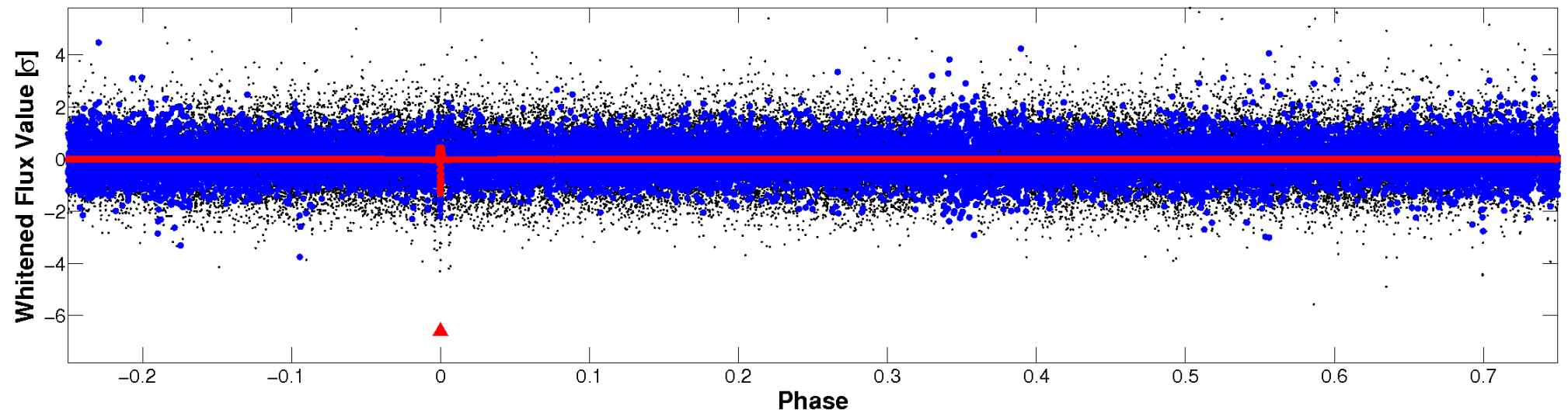


# Non-Whitened Vs. Whitened Light Curve

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

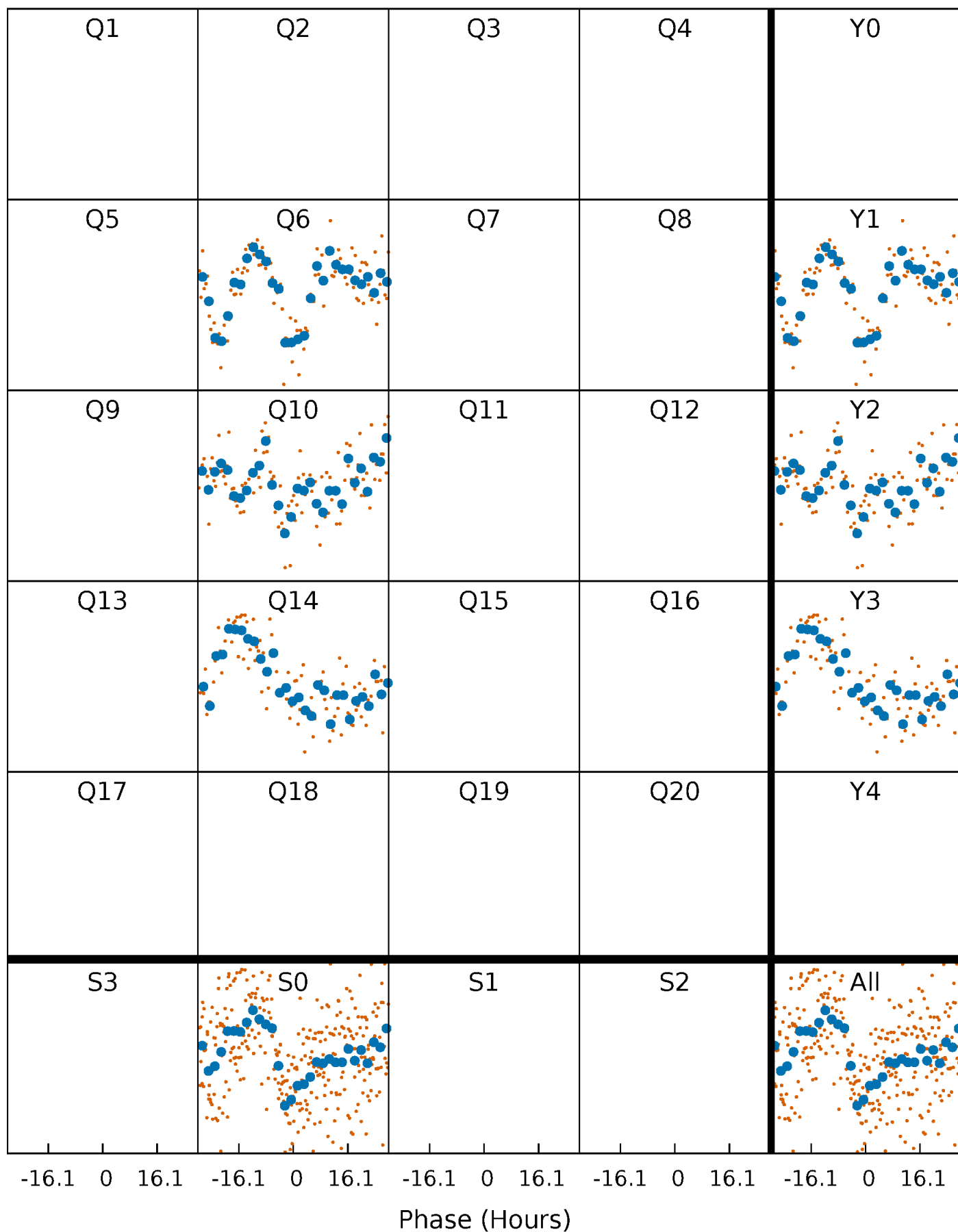


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

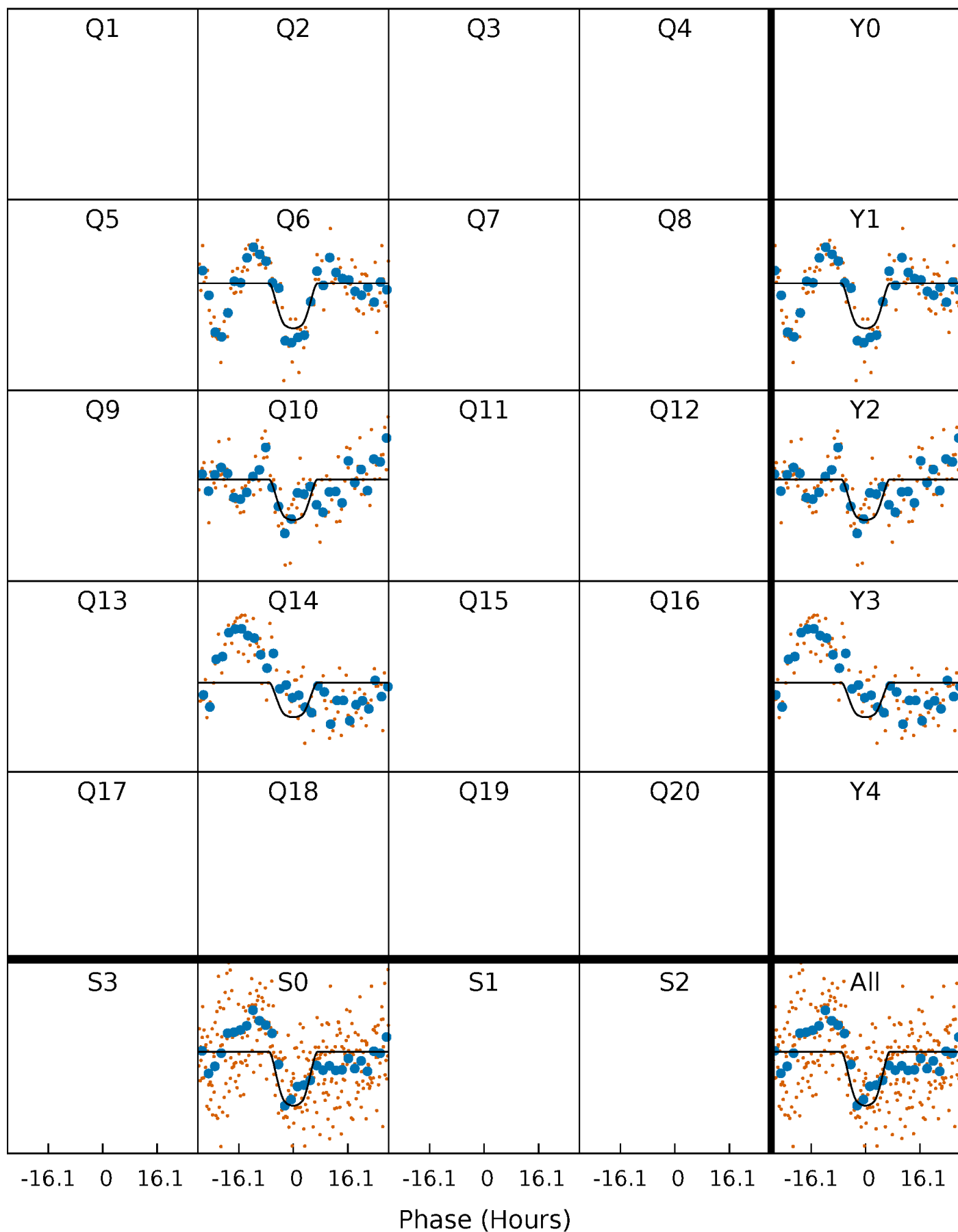
TCE 008611862-01 P=370.955656 Days  $T_0=230.605567$  (BKJD)





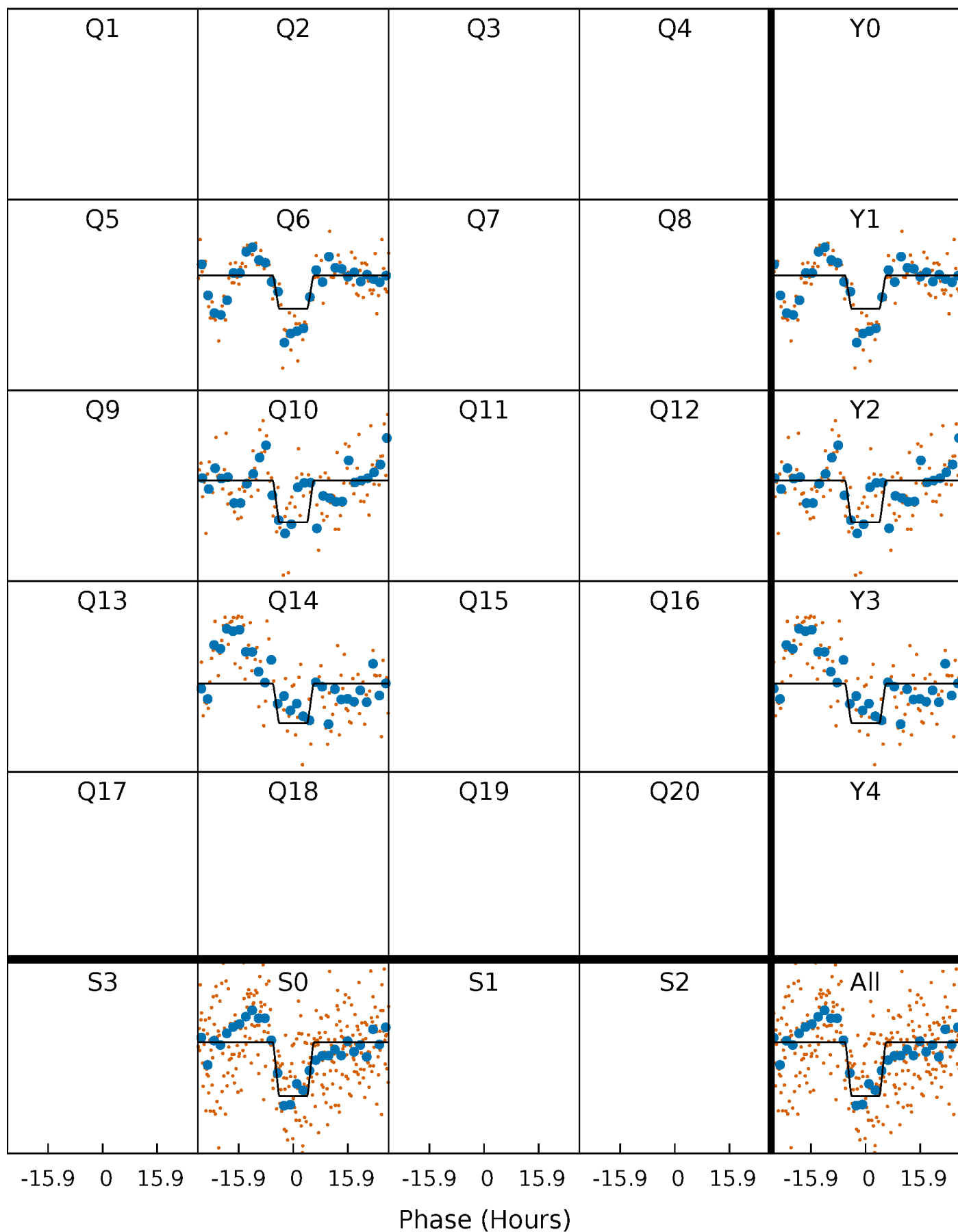
# DV Quarter-Phased Transit Curves

TCE 008611862-01 P=370.955656 Days  $T_0=230.605567$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

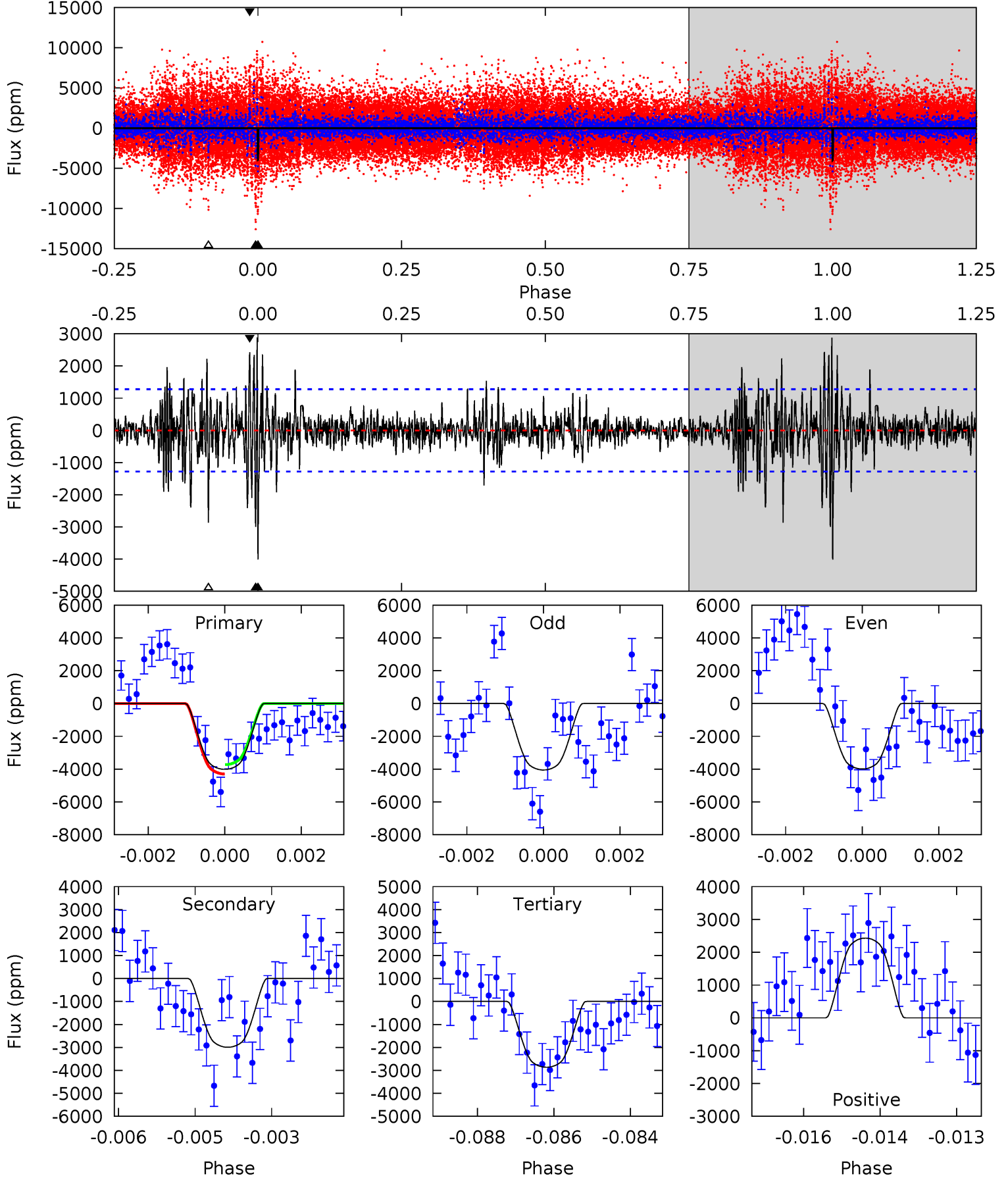
TCE 008611862-01 P=370.964471 Days  $T_0=230.610323$  (BKJD)



# DV Model-Shift Uniqueness Test

008611862-01, P = 370.955656 Days, E = 230.605567 Days

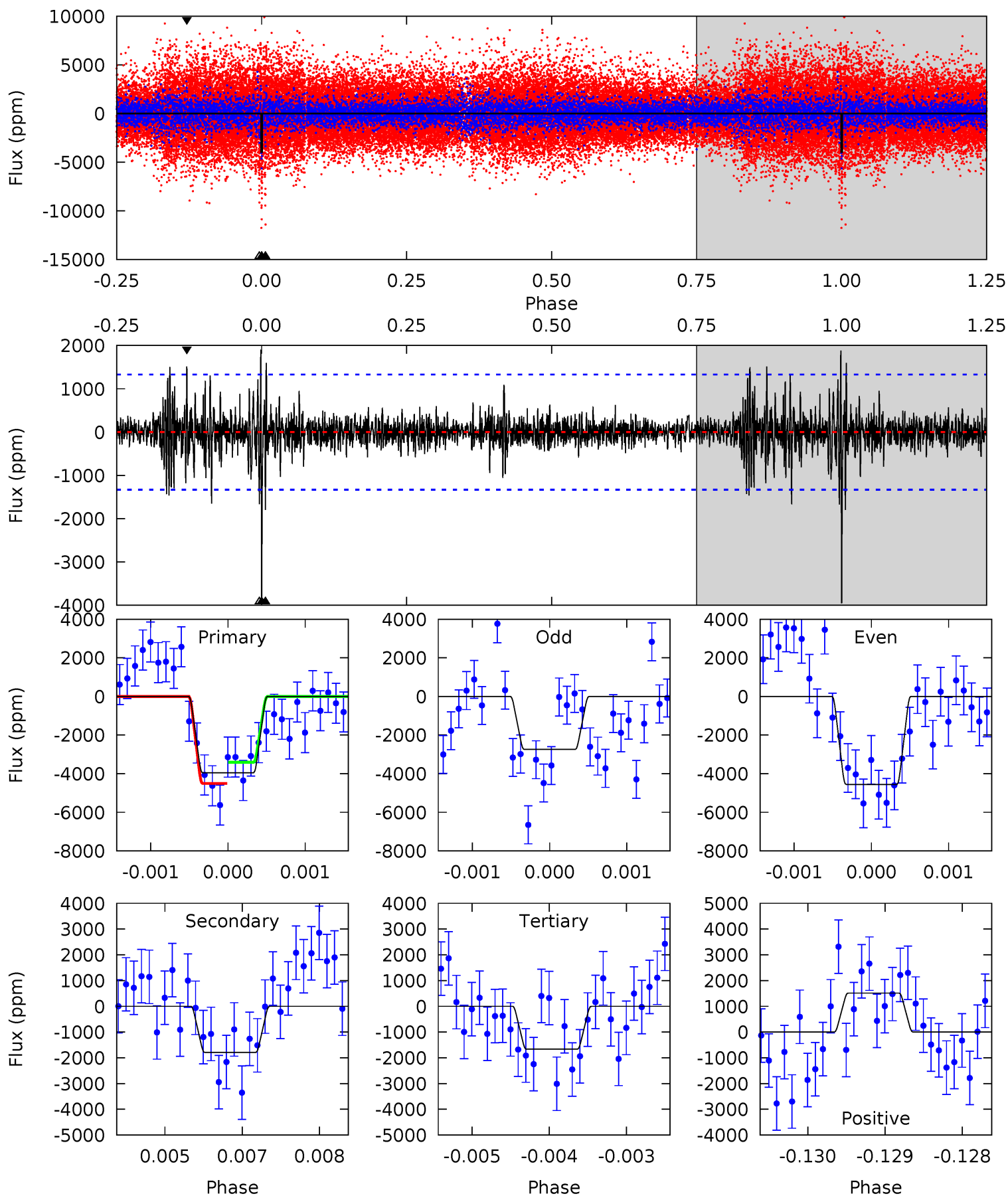
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	12.6	12.0	10.2	5.37	3.16	2.09	4.83	6.66	0.55	2.37	0.13	0.99	0.42	1.20



# Alt Model-Shift Uniqueness Test

008611862-01, P = 370.964471 Days, E = 230.610323 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
16.1	7.29	6.77	6.16	5.40	3.21	1.20	9.29	9.90	0.51	1.13	3.50	1.44	0.32	2.22



### Stellar Parameters For KIC 008611862

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	$4663^{+168}_{-168}$	$4.603^{+0.052}_{-0.032}$	$-0.200^{+0.300}_{-0.300}$	$0.679^{+0.054}_{-0.060}$	$0.673^{+0.075}_{-0.054}$	$3.033^{+0.701}_{-0.393}$
	+4%/-4%	+1%/-1%	+150%/-150%	+8%/-9%	+11%/-8%	+23%/-13%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 008611862-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-2995 \pm 238$	$5.81^{+0.85}_{-0.81}$	$250^{+10}_{-10}$	$4078^{+234}_{-230}$	$38439^{+14491}_{-8748}$
Alt.	$-1794 \pm 246$	$4.80^{+0.84}_{-0.77}$	$250^{+10}_{-10}$	$3958^{+293}_{-251}$	$33512^{+14573}_{-9761}$

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

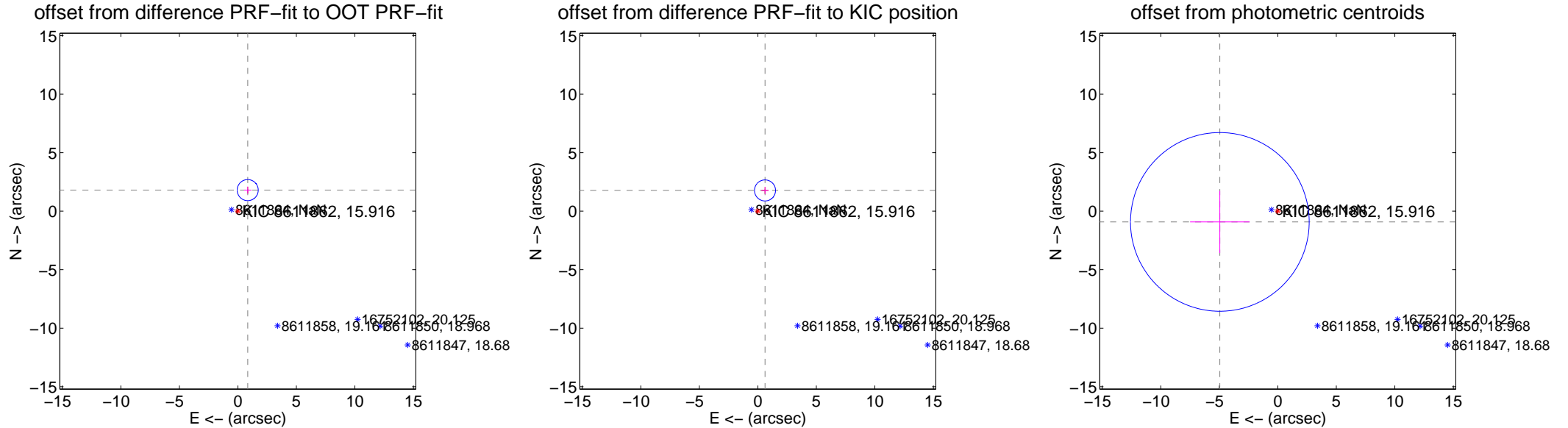
## DV Centroid Data

Supplemental centroid analysis for 008611862-01. Kepler magnitude: 15.92. Transit SNR 8.85

There are 0 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	$1.988 \pm 0.300$	6.63	$-0.843 \pm 0.305$	$1.800 \pm 0.299$
PRF-fit source offset from KIC position	$1.876 \pm 0.300$	6.26	$-0.613 \pm 0.305$	$1.773 \pm 0.299$
photometric centroid source offset	$5.04 \pm 2.55$	1.98	$4.95 \pm 2.54$	$-0.92 \pm 2.66$



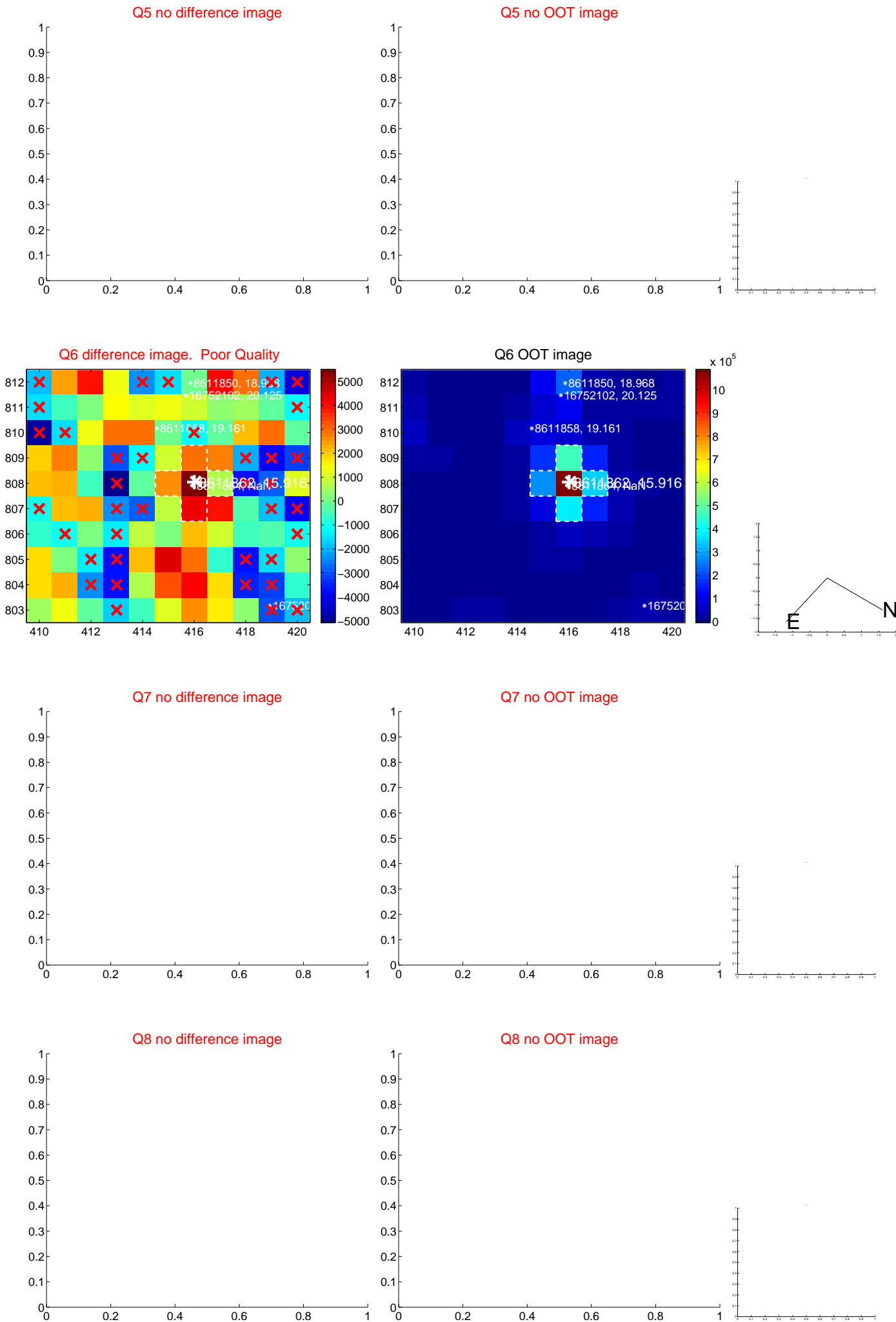
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

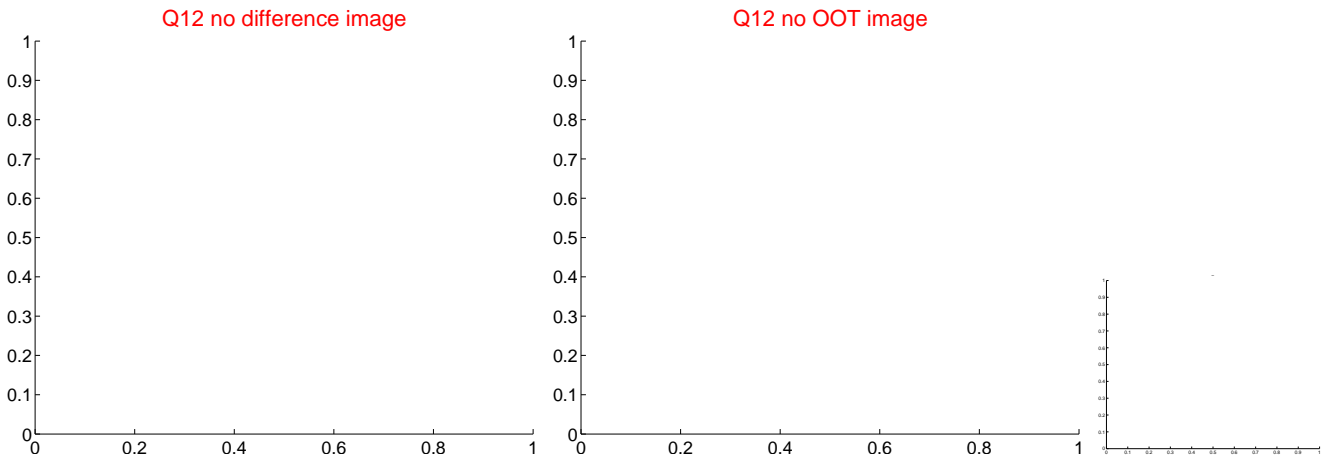
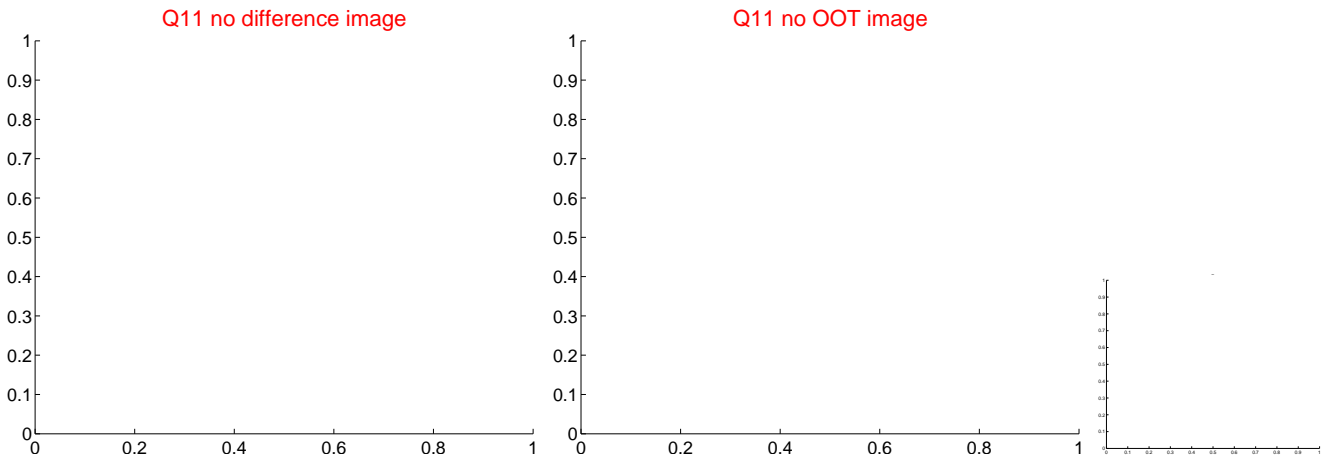
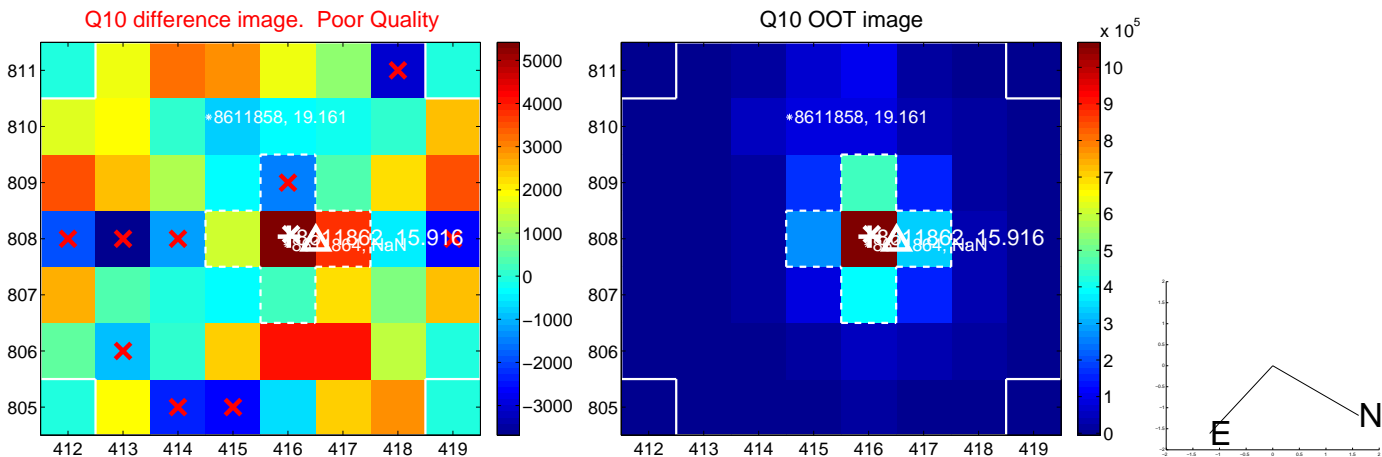
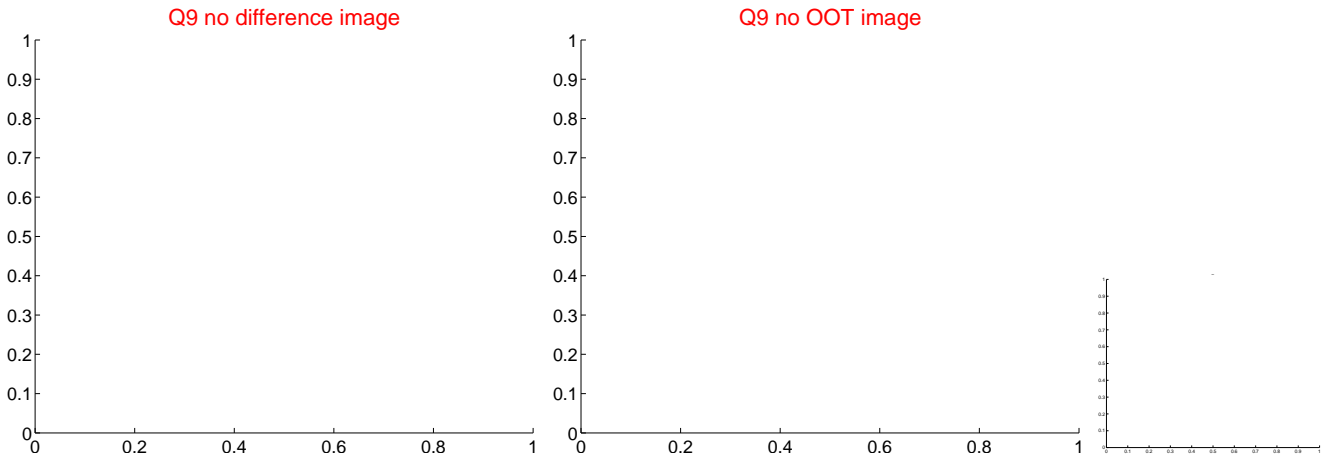




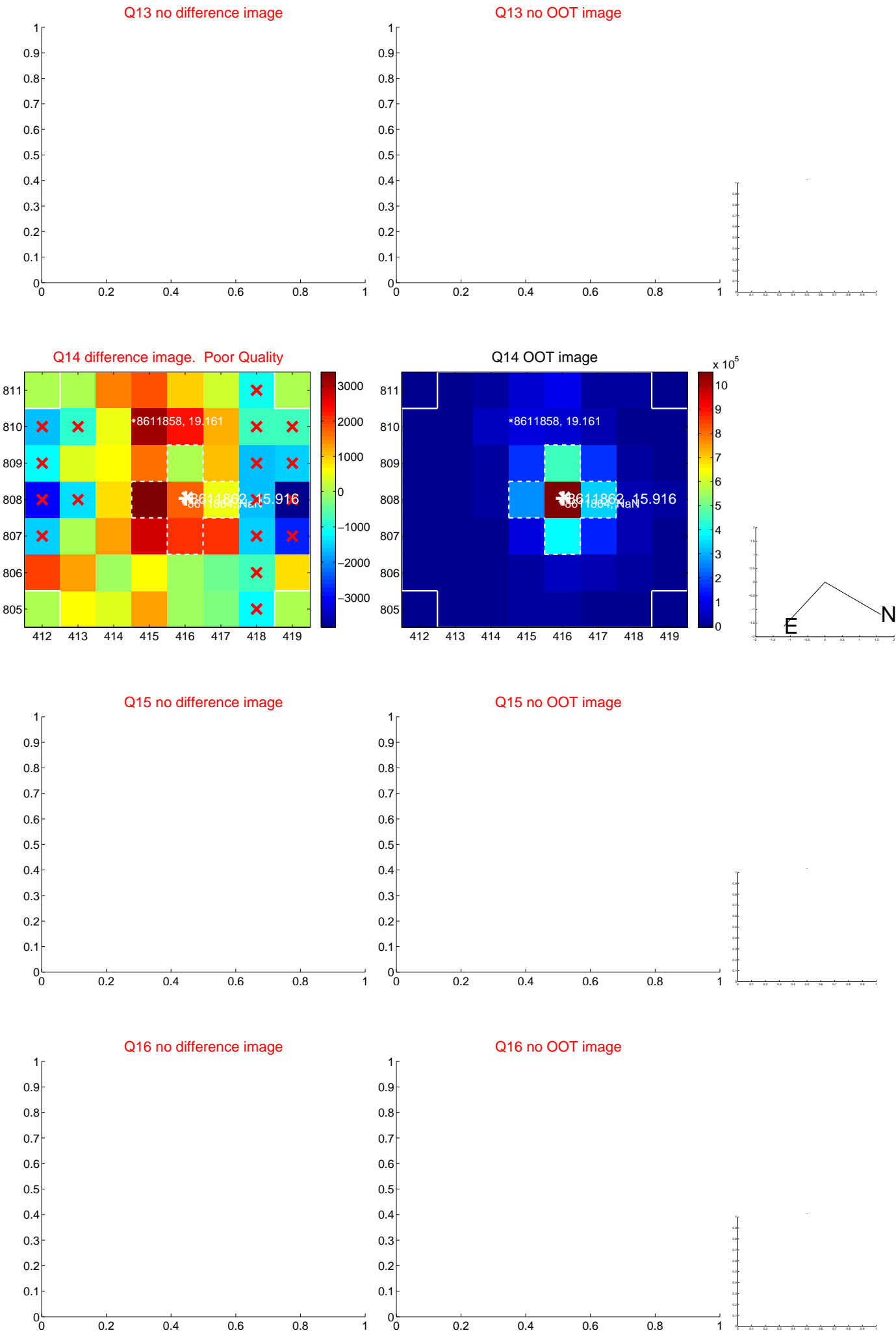
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



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



Q14 difference image. Poor Quality

Q14 OOT image

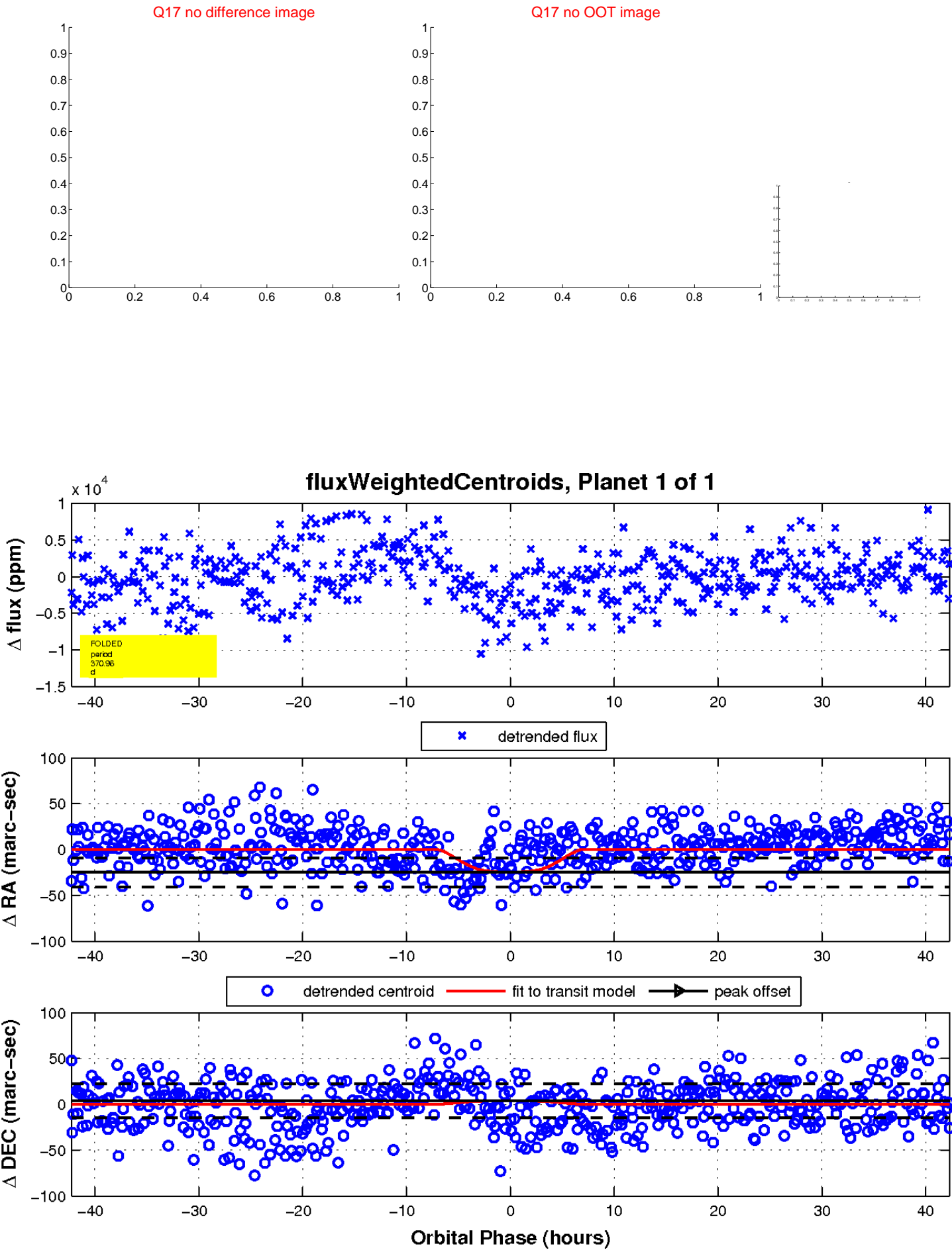
Q15 no difference image

Q15 no OOT image

Q16 no difference image

Q16 no OOT image

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



# UKIRT Image

Declination

