

# KIC 006669790

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006669790-01	OBS	No	0.733781	131.971182	48.0	1.857	33.9	11.4	1.02	6017	0.76	4755.61

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006669790-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

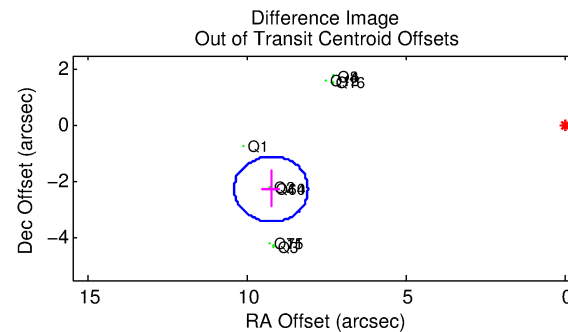
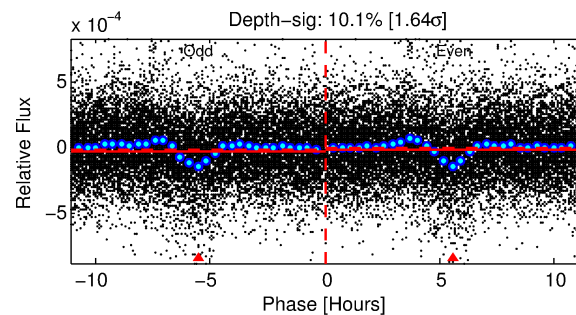
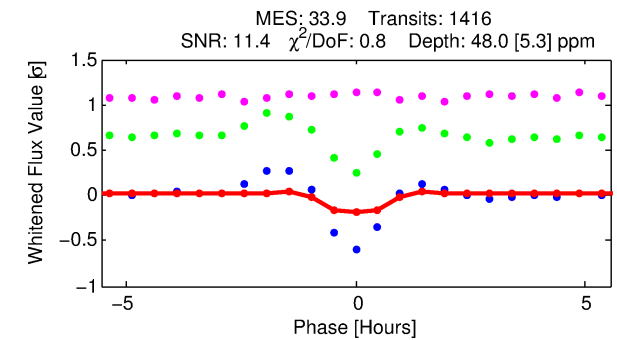
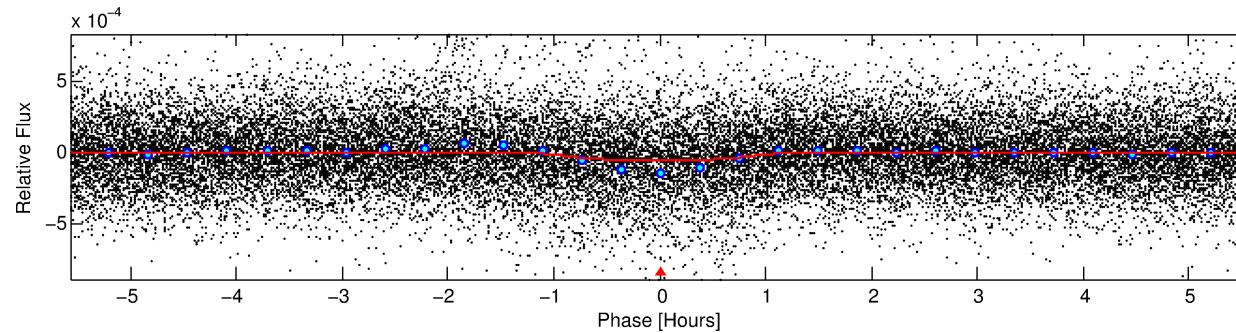
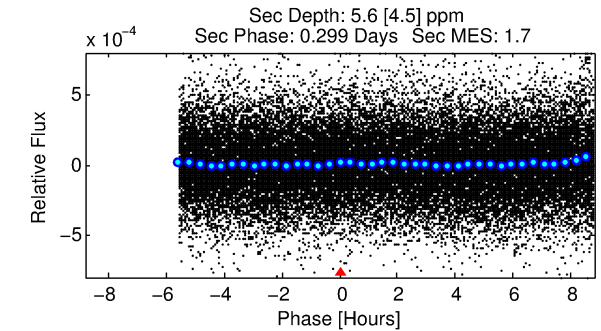
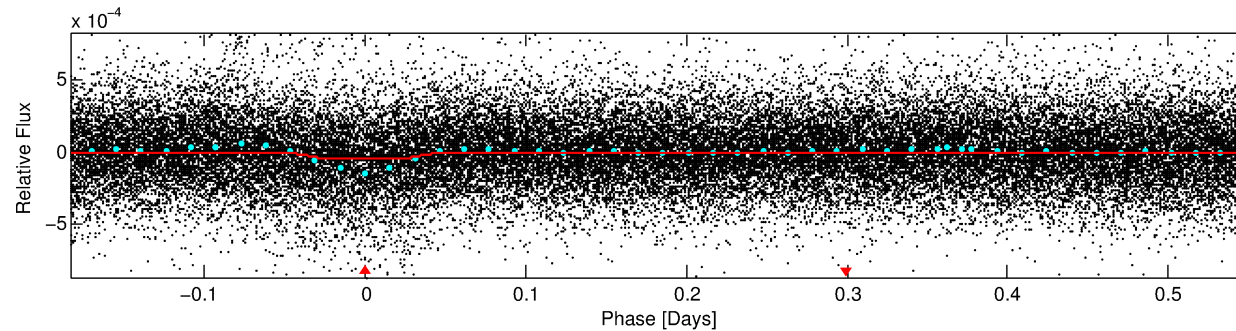
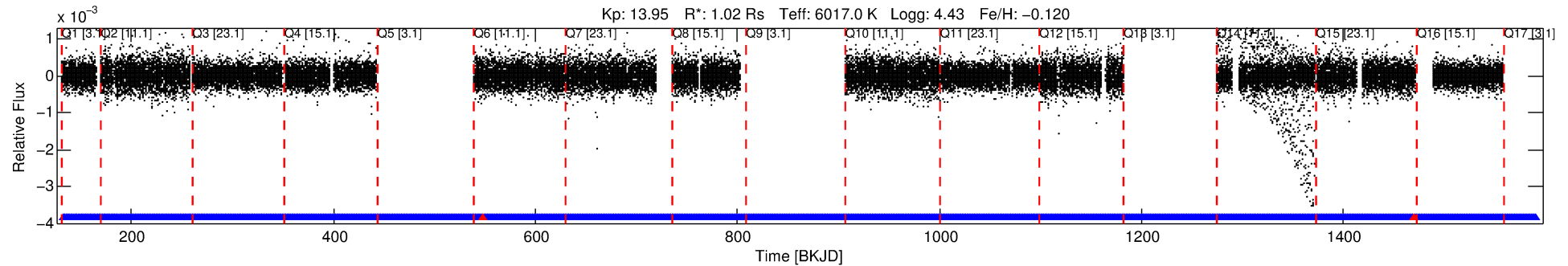
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006669790-01

No Significant Match Found

# DV One-Page Summary

KIC: 6669790 Candidate: 1 of 1 Period: 0.734 d



## DV Fit Results:

Period = 0.73378 [0.00001] d  
Epoch = 131.9712 [0.0019] BKJD  
Rp/R\* = 0.0068 [0.0017]  
a/R\* = 2.31 [2.27]  
b = 0.71 [0.86]  
Seff = 4755.61 [1926.88]  
Teq = 2118 [214] K  
Rp = 0.76 [0.30] Re  
a = 0.0160 [0.0041] AU  
Ag = 1.37 [1.40] [0.27σ]  
Teff = 3543 [848] K [1.63σ]

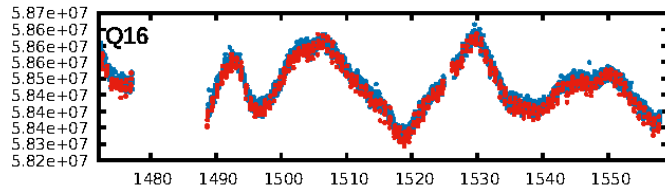
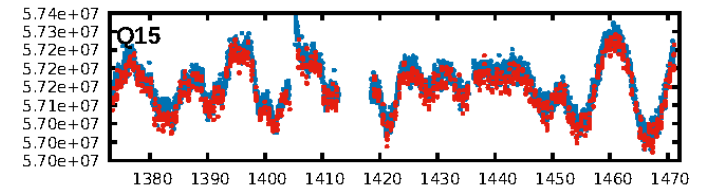
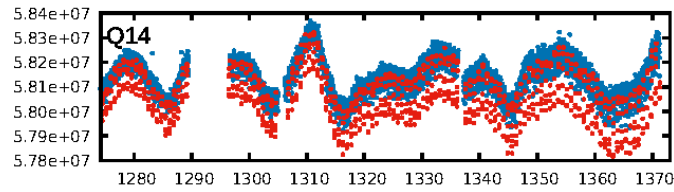
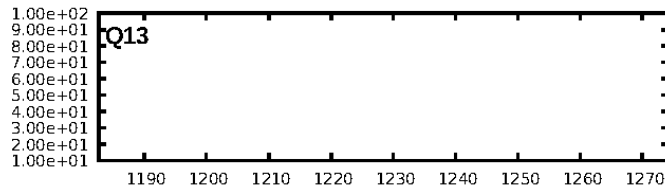
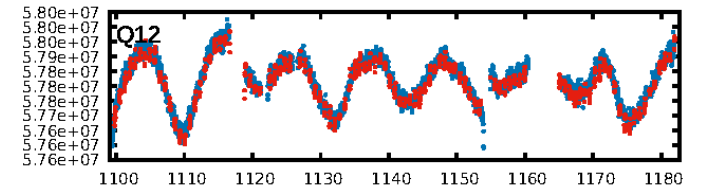
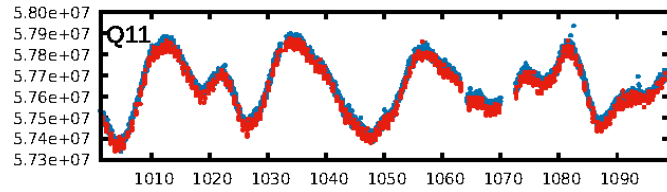
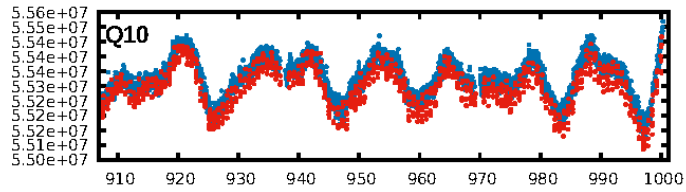
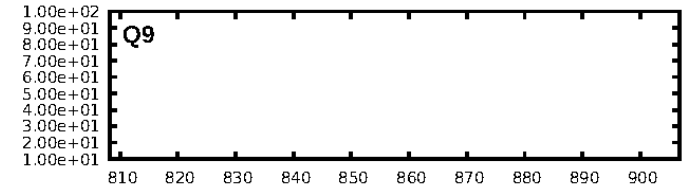
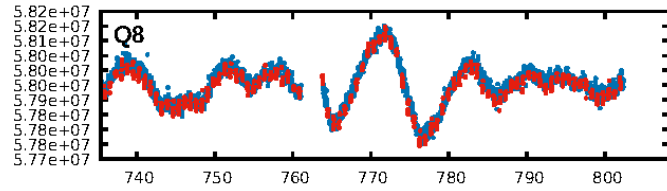
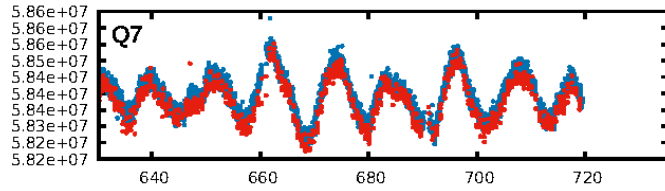
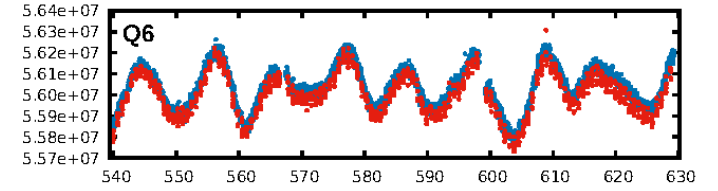
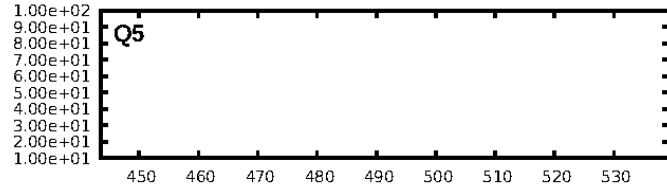
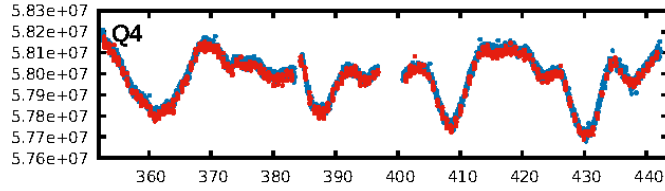
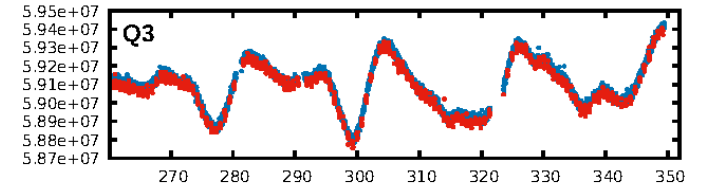
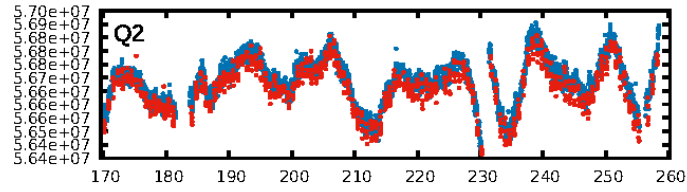
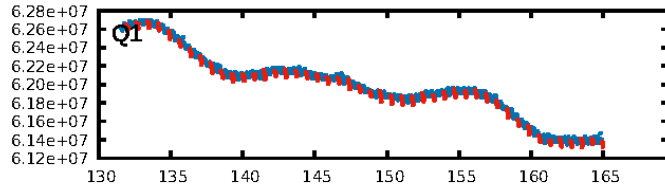
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 1.36e-217  
RollingBand-fgt: 1.00 [1368/1370]  
**GhostDiagnostic-chr: -0.05505**  
Centroid-sig: N/A  
Centroid-so: N/A  
**OotOffset-rm: 9.523 arcsec [24.57σ]**  
**KicOffset-rm: 9.462 arcsec [22.40σ]**  
OotOffset-st: 4/4/4/1 [13]  
KicOffset-st: 4/4/4/1 [13]  
DiffImageQuality-fgm: 0.77 [10/13]  
DiffImageOverlap-fno: 1.00 [13/13]

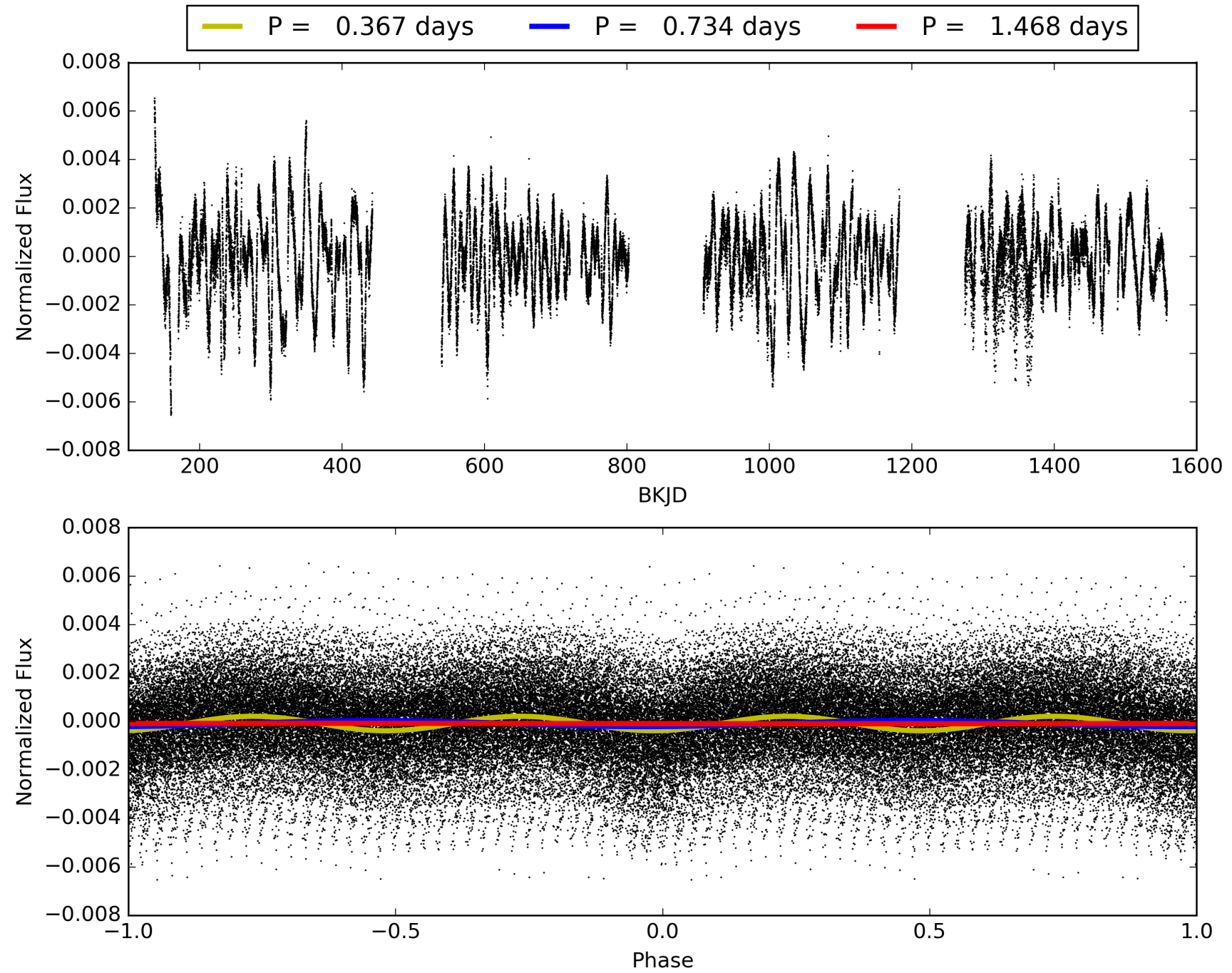
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 09:42:56 Z

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

# TCE 006669790-01, PDC Light Curves

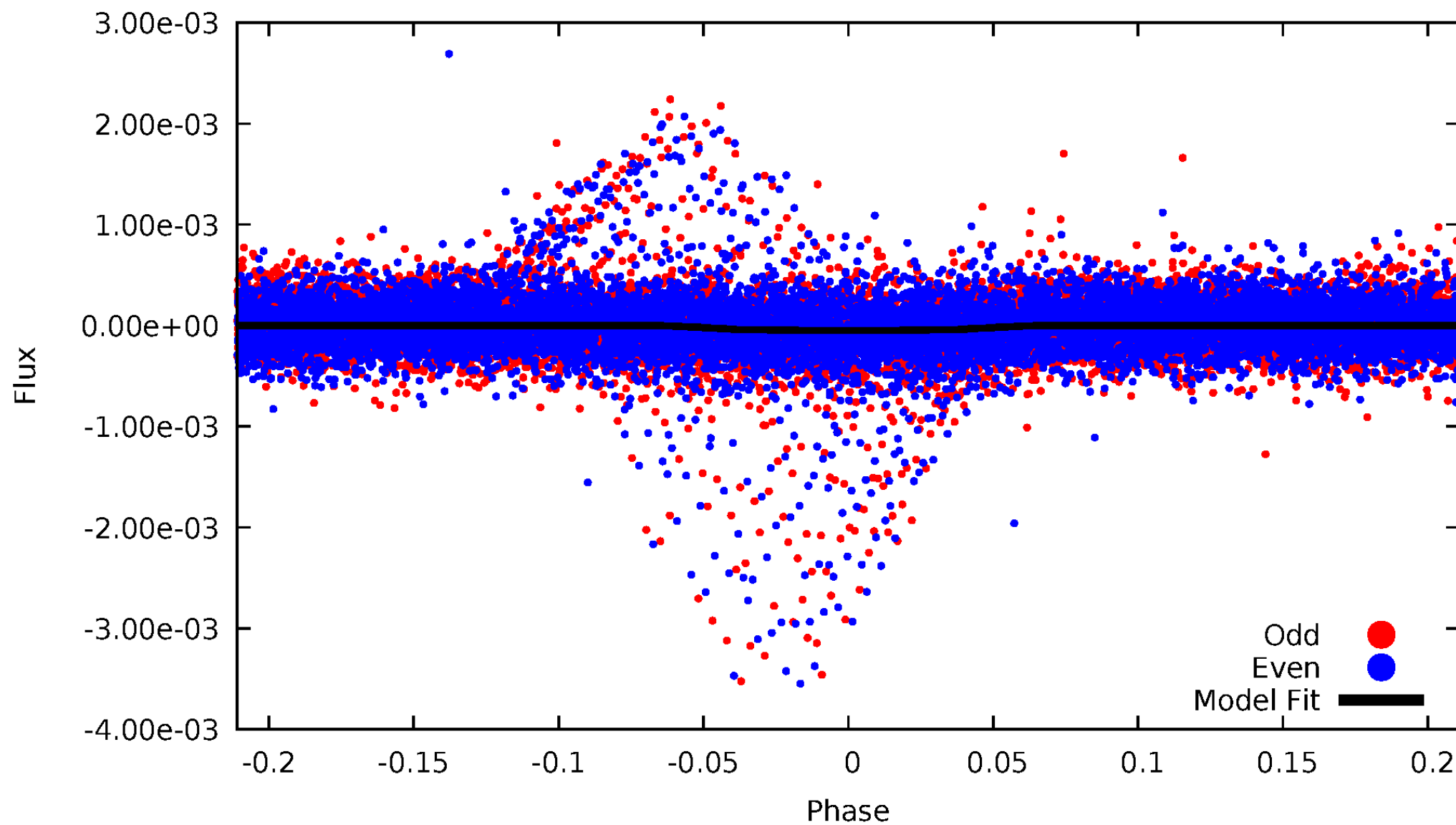


TCE 006669790-01



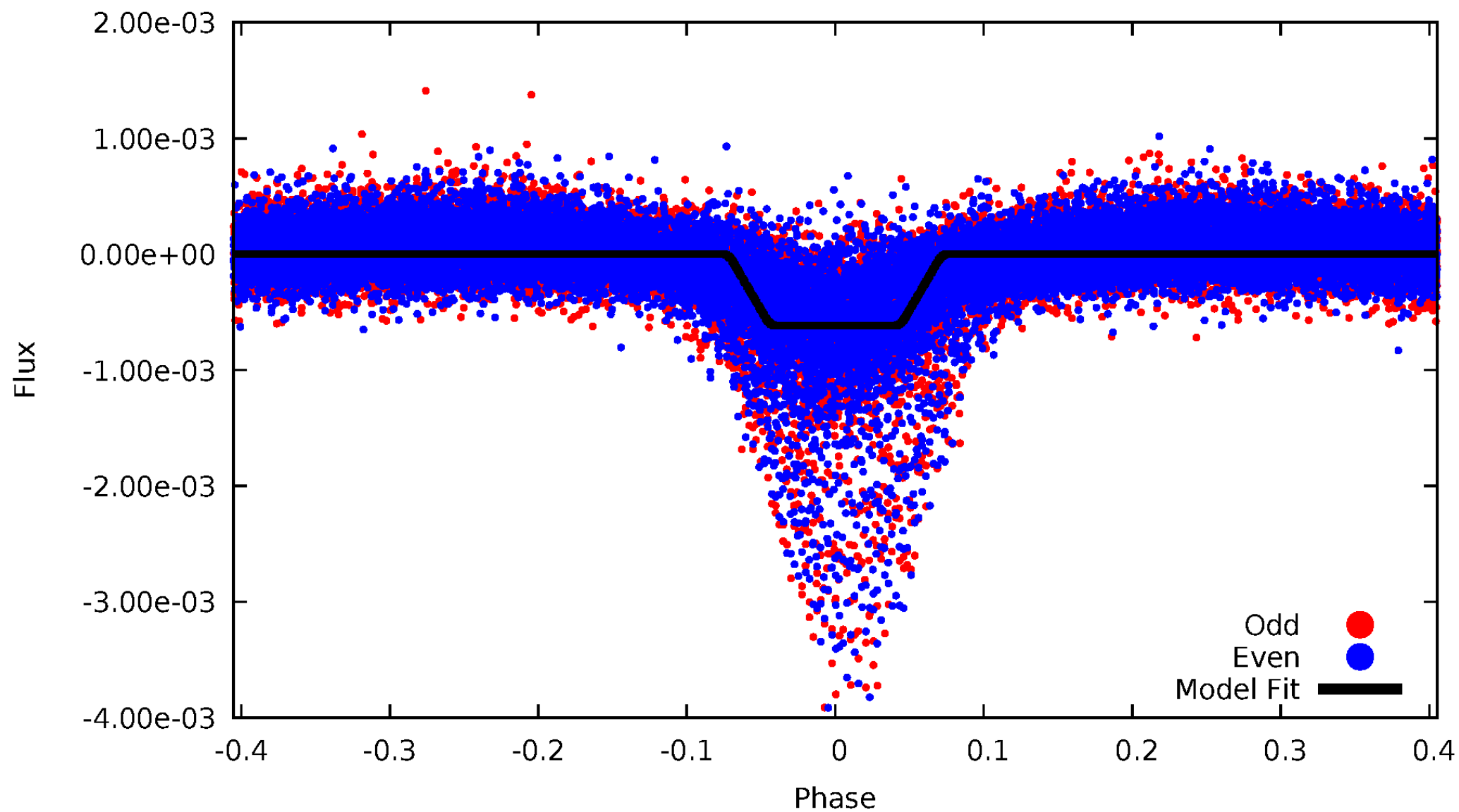
# DV Odd/Even

TCE 006669790-01

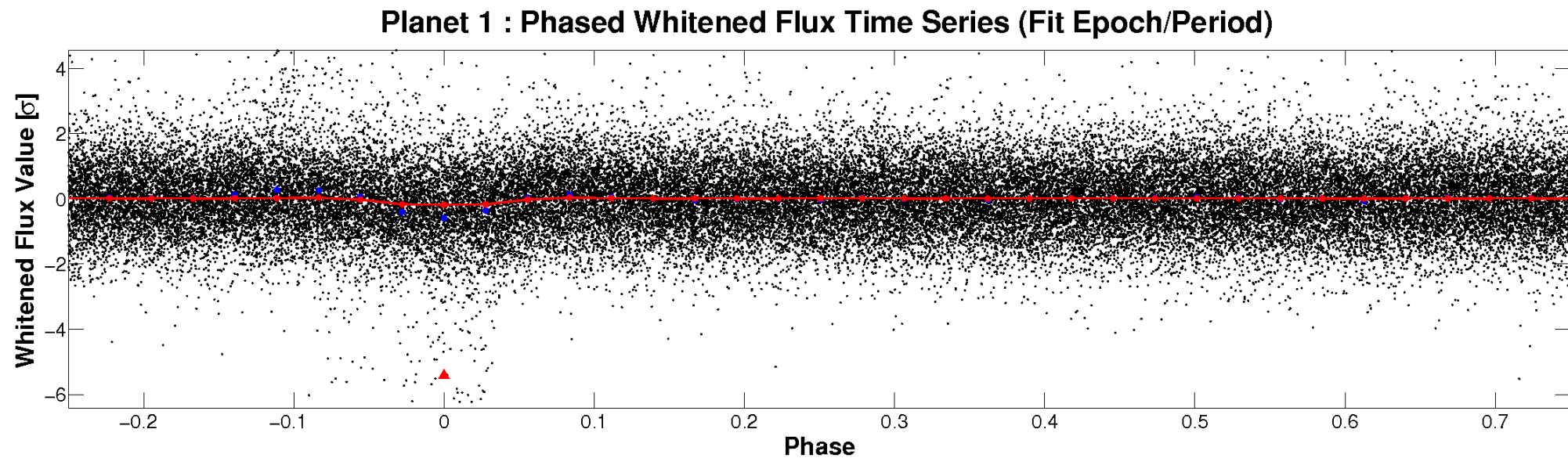
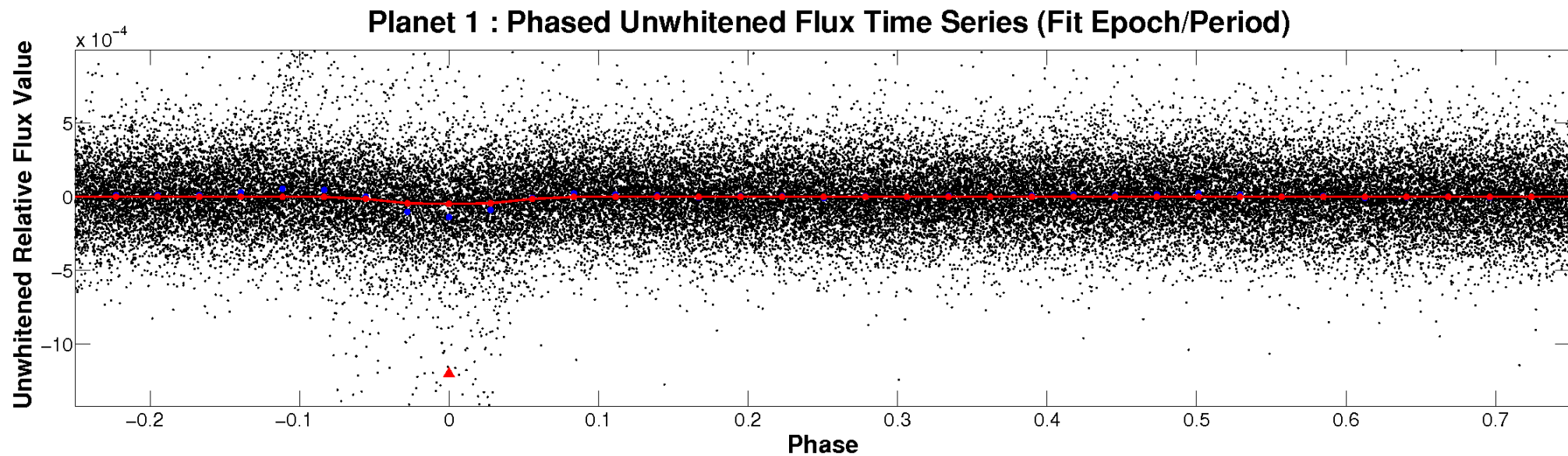


# ALT Odd/Even

TCE 006669790-01

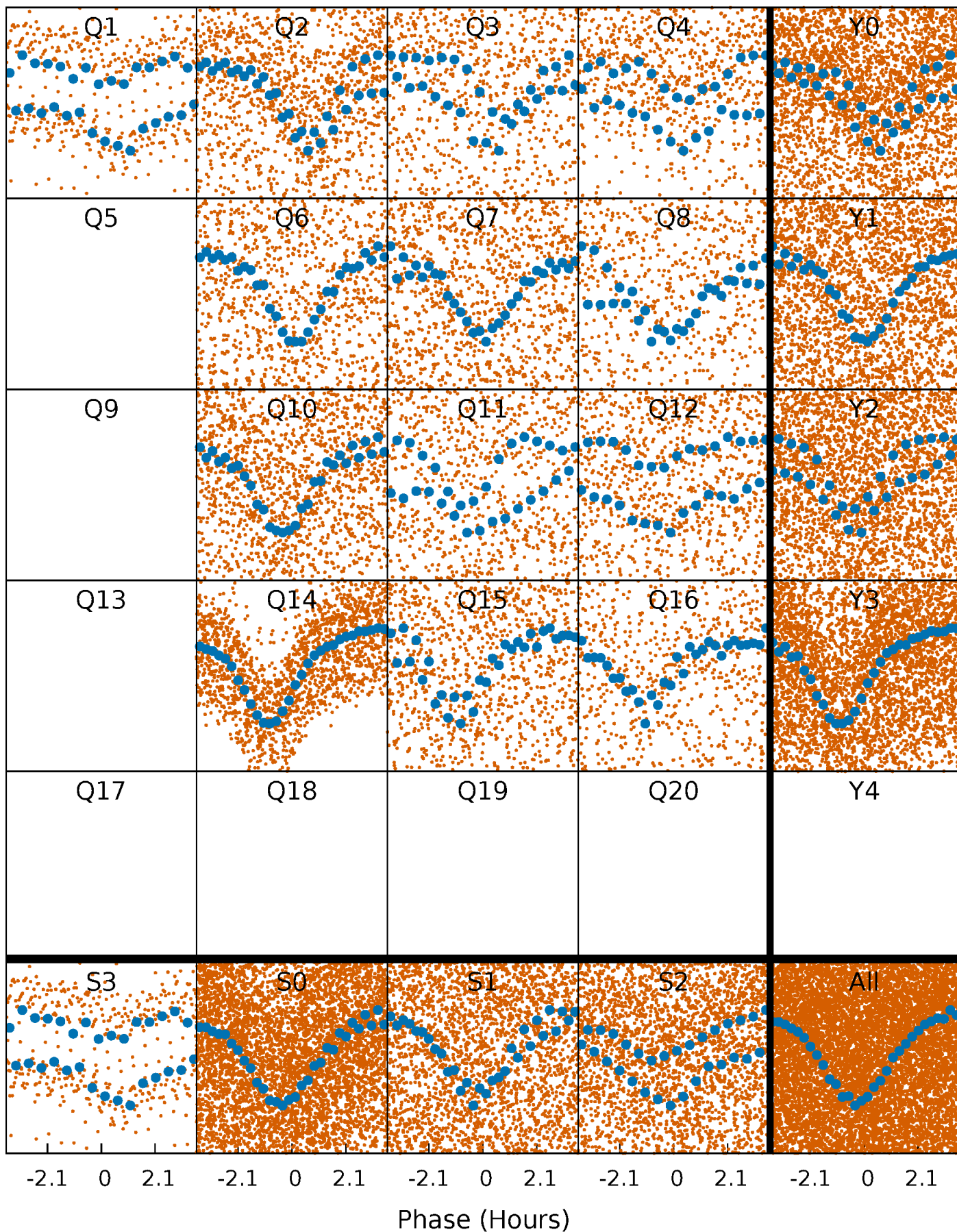


# Non-Whitened Vs. Whitened Light Curve



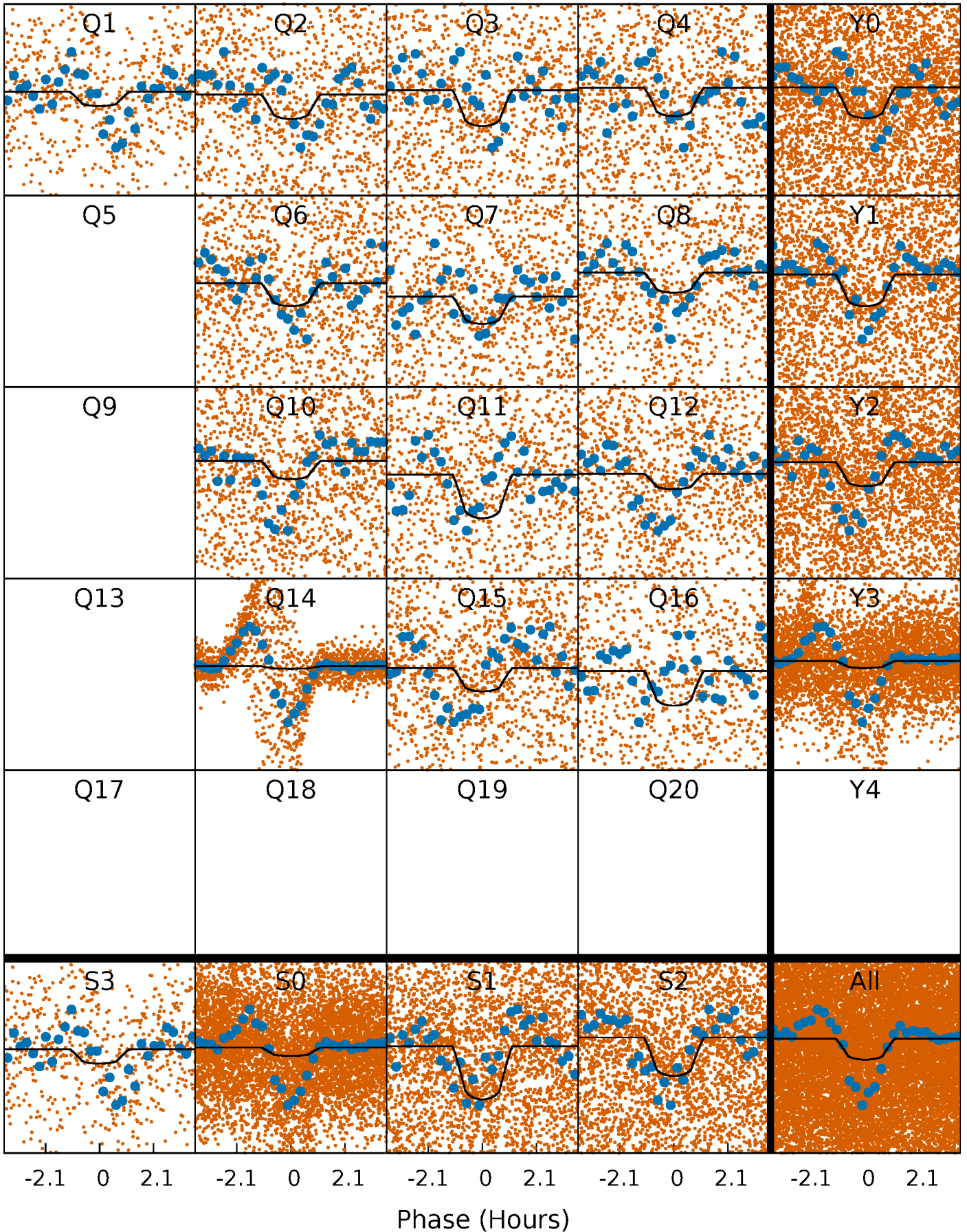
# PDC Quarter-Phased Transit Curves

TCE 006669790-01 P= 0.733781 Days  $T_0=131.971182$  (BKJD)



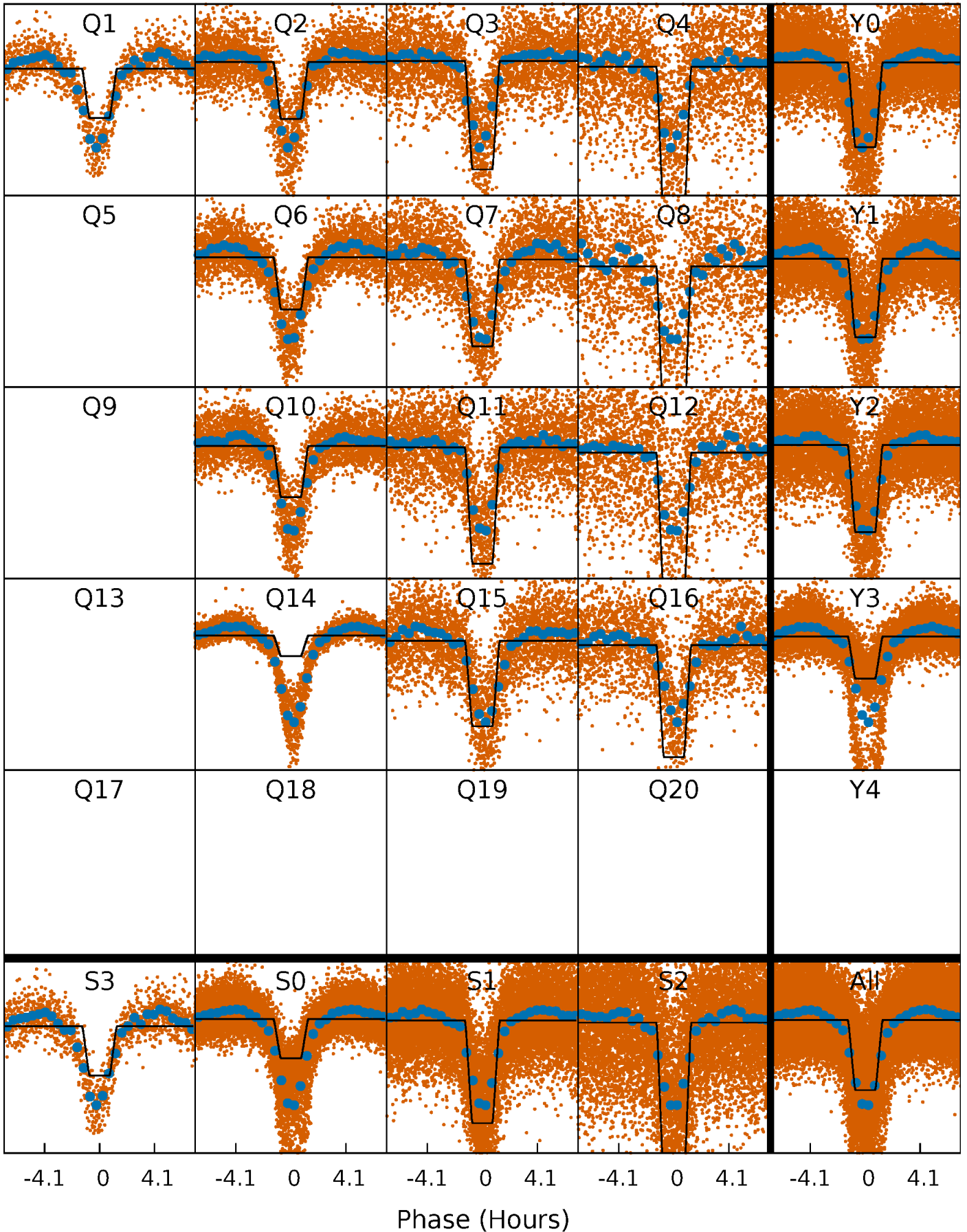
# DV Quarter-Phased Transit Curves

TCE 006669790-01 P= 0.733781 Days  $T_0=131.971182$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

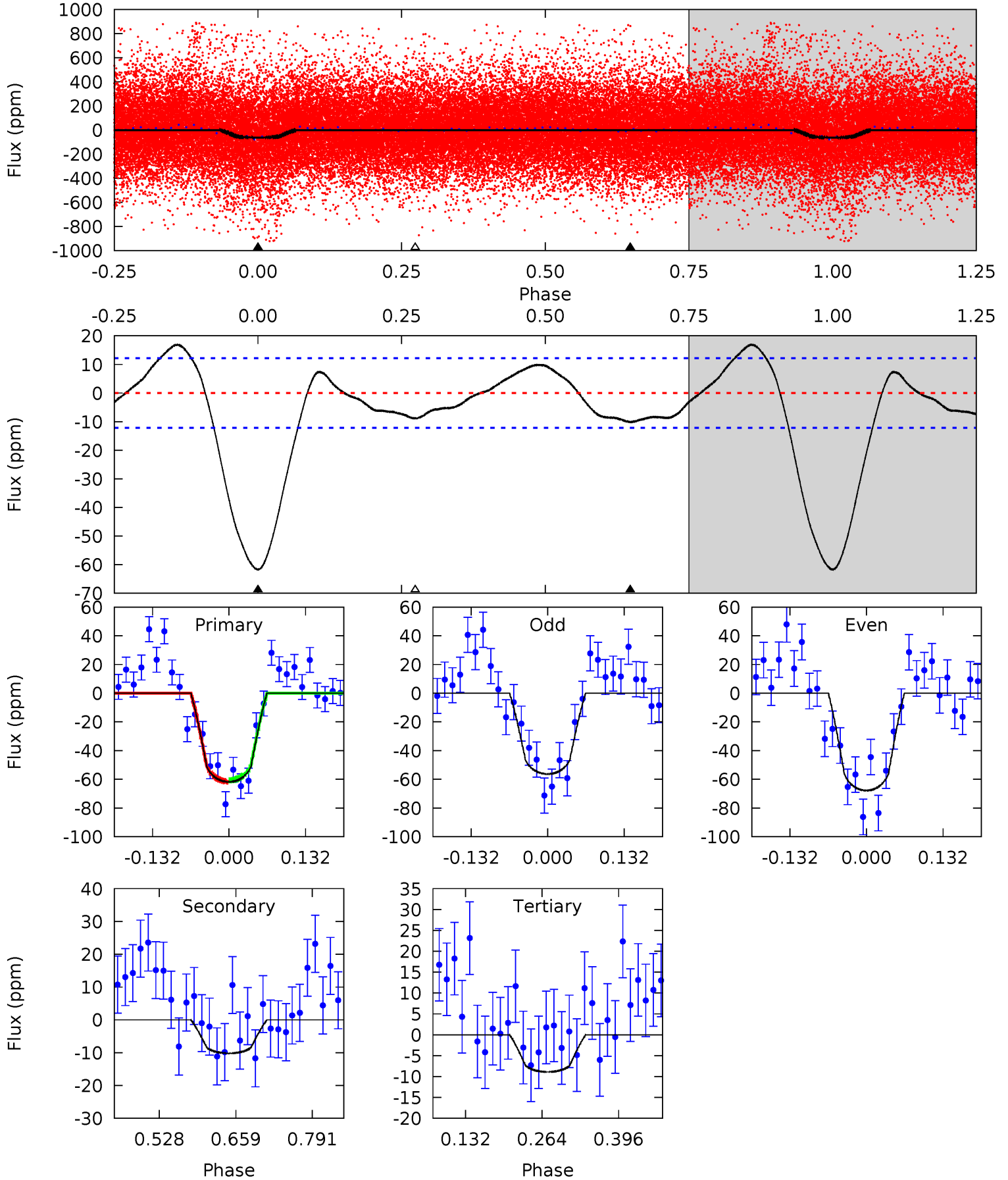
TCE 006669790-01 P= 0.733729 Days  $T_0=132.011712$  (BKJD)



# DV Model-Shift Uniqueness Test

006669790-01, P = 0.733781 Days, E = 131.237401 Days

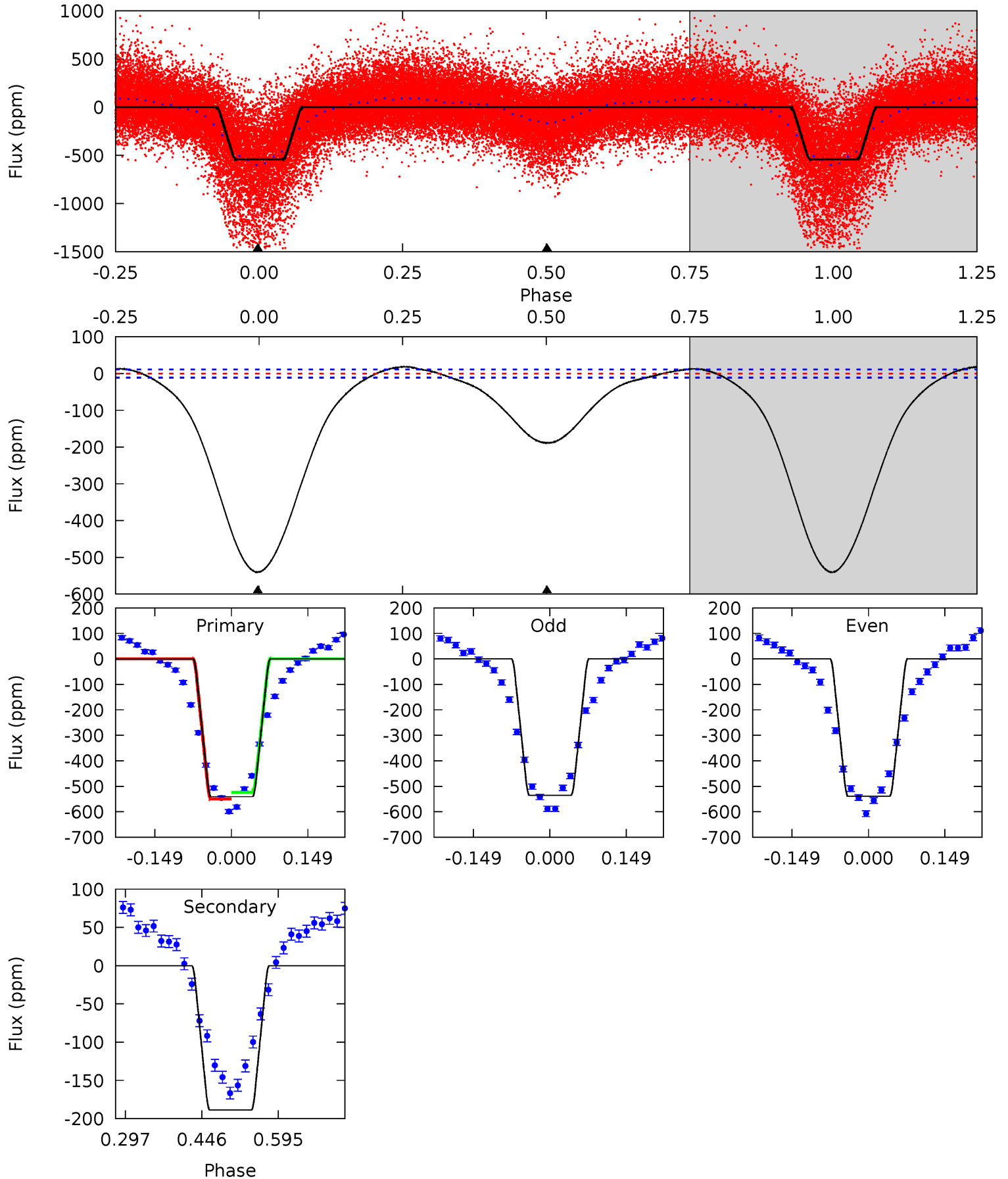
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.9	3.77	3.29	0	4.51	1.51	2.68	19.6	22.9	0.48	3.77	2.12	2.28	0.21	0.16



# Alt Model-Shift Uniqueness Test

006669790-01, P = 0.733729 Days, E = 131.277983 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
218.2	76.2	0	0	4.48	1.44	7.29	218.2	218.2	76.2	76.2	0.77	1.33	0.03	0



### Stellar Parameters For KIC 006669790

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6017^{+168}_{-210}$	$4.428^{+0.084}_{-0.210}$	$-0.120^{+0.300}_{-0.300}$	$1.017^{+0.308}_{-0.132}$	$1.010^{+0.139}_{-0.126}$	$1.353^{+0.496}_{-0.694}$
	+3%/-3%	+2%/-5%	+250%/-250%	+30%/-13%	+14%/-12%	+37%/-51%
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 006669790-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-10 \pm 3$	$0.78^{+0.21}_{-0.21}$	$2987^{+240}_{-159}$	$4218^{+555}_{-478}$	$2.289^{+1.955}_{-1.047}$
Alt.	$-189 \pm 2$	$2.82^{+0.50}_{-0.32}$	$2993^{+229}_{-163}$	$4532^{+190}_{-175}$	$3.291^{+0.846}_{-0.874}$

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

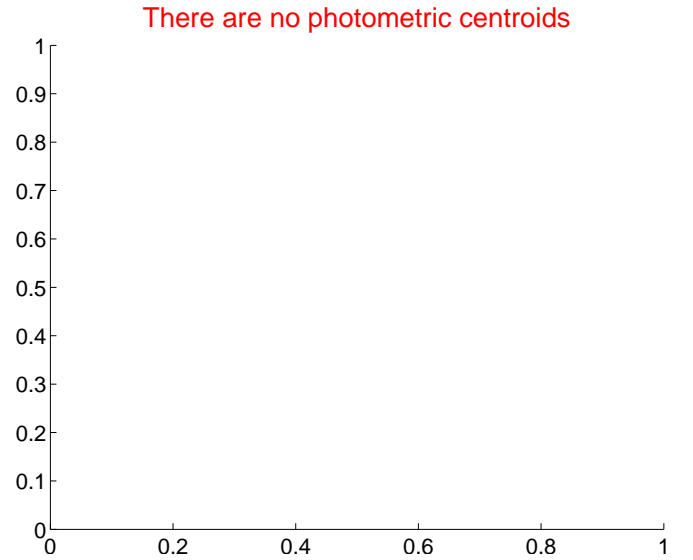
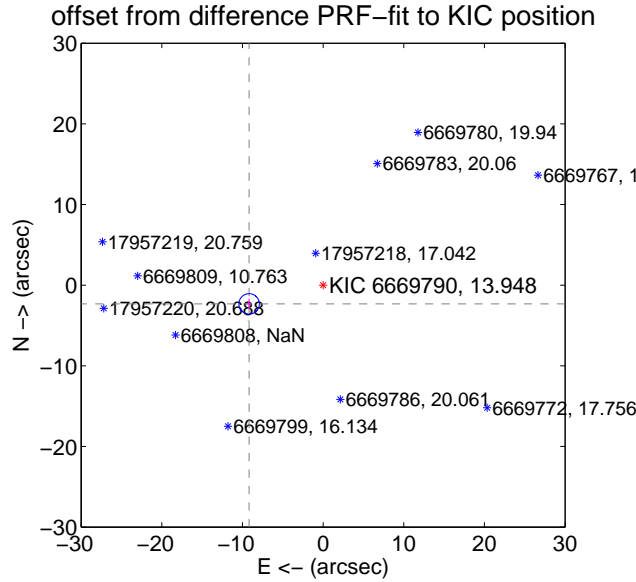
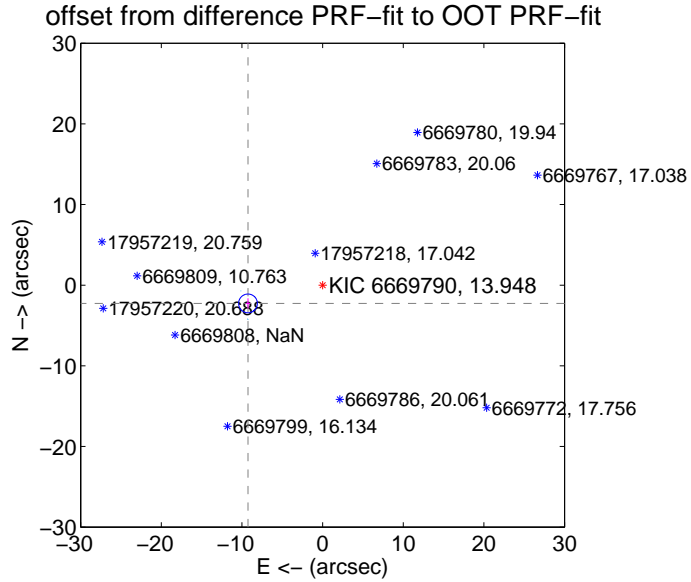
## DV Centroid Data

Supplemental centroid analysis for 006669790-01. Kepler magnitude: 13.95. Transit SNR 11.44

There are 10 quarters with good PRF difference image offsets

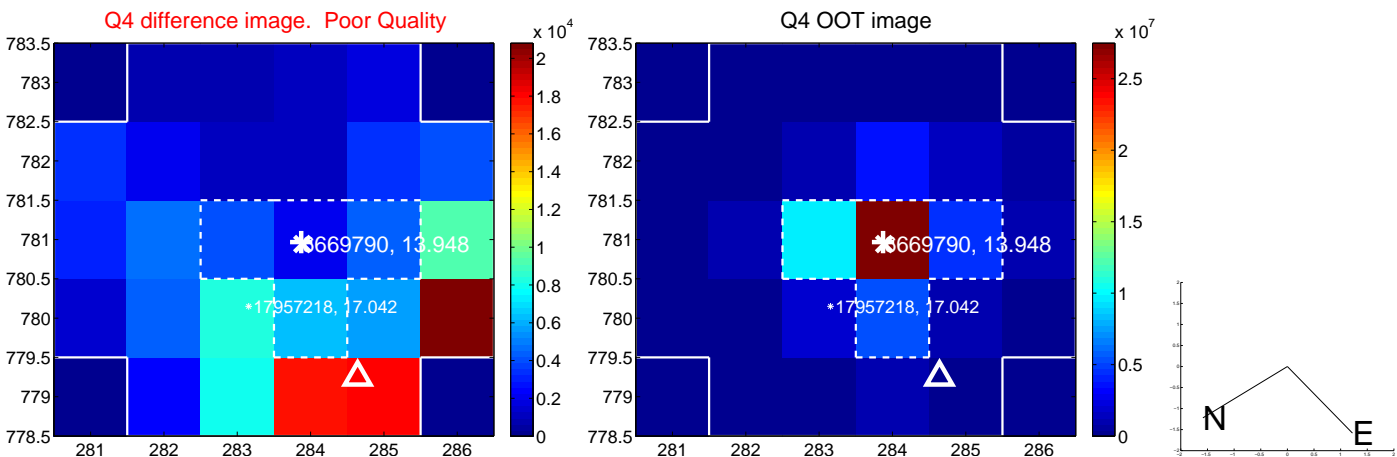
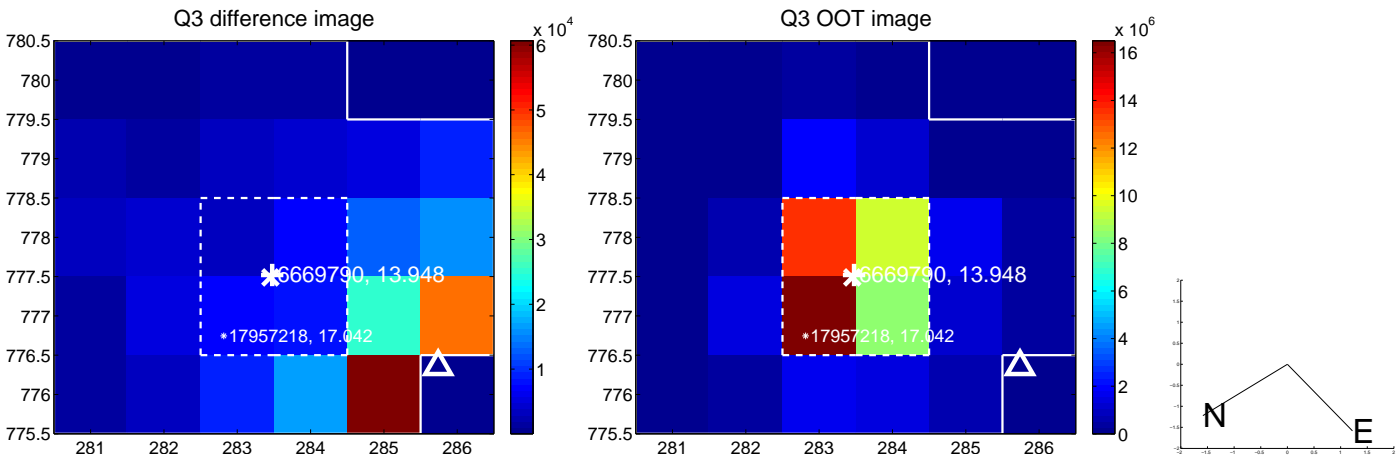
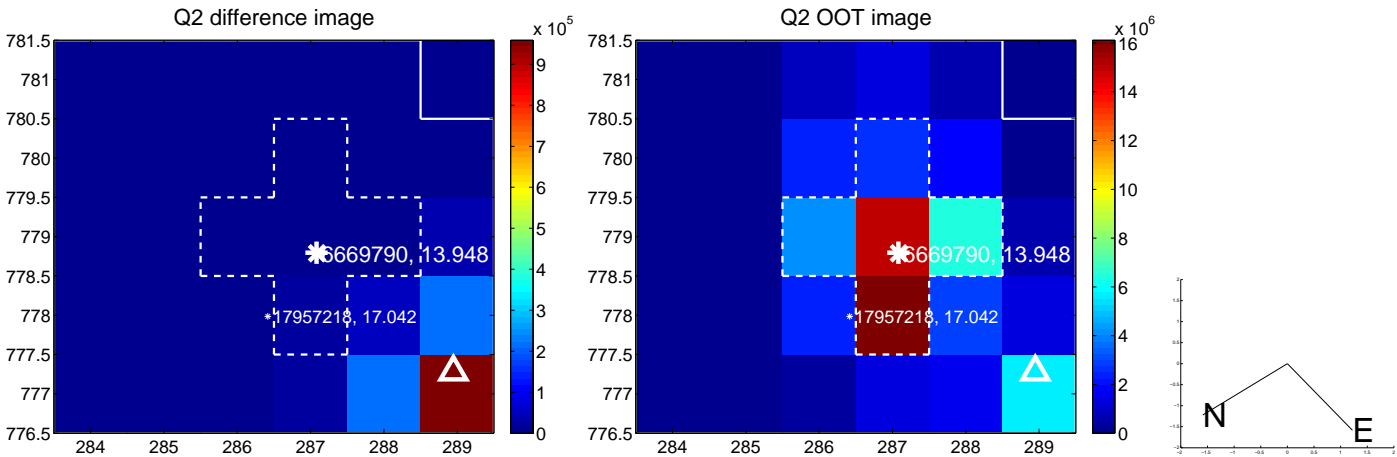
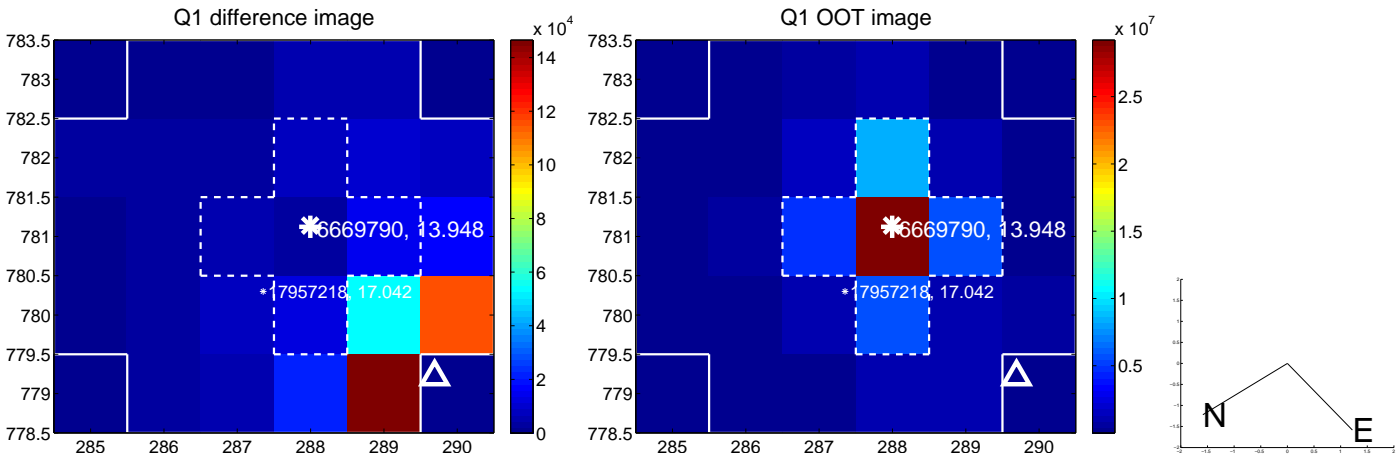
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	9.523 $\pm$ 0.388	24.57	9.250 $\pm$ 0.267	-2.264 $\pm$ 0.634
PRF-fit source offset from KIC position	9.462 $\pm$ 0.422	22.40	9.173 $\pm$ 0.294	-2.321 $\pm$ 0.659
photometric centroid source offset	—	—	—	—

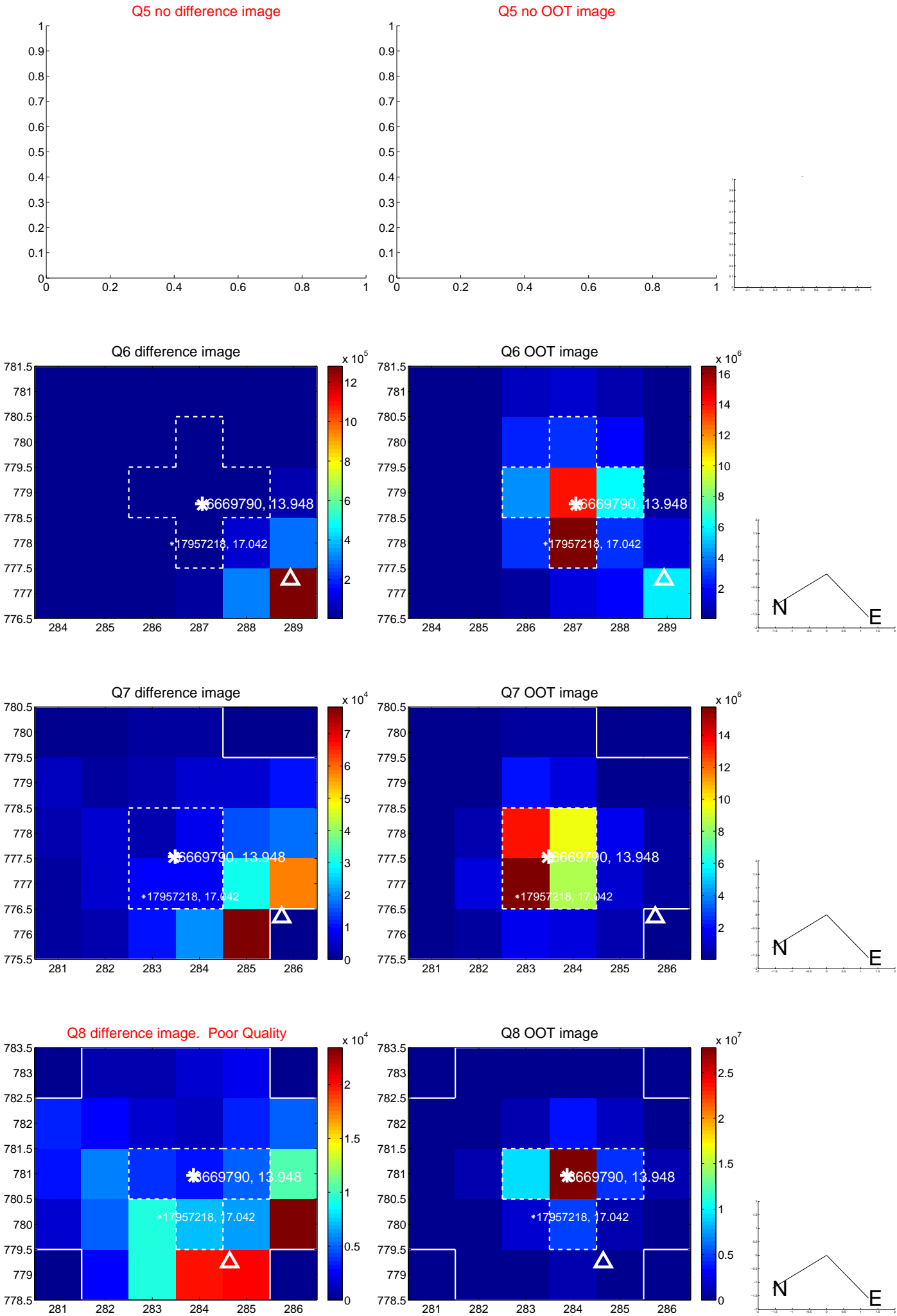


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

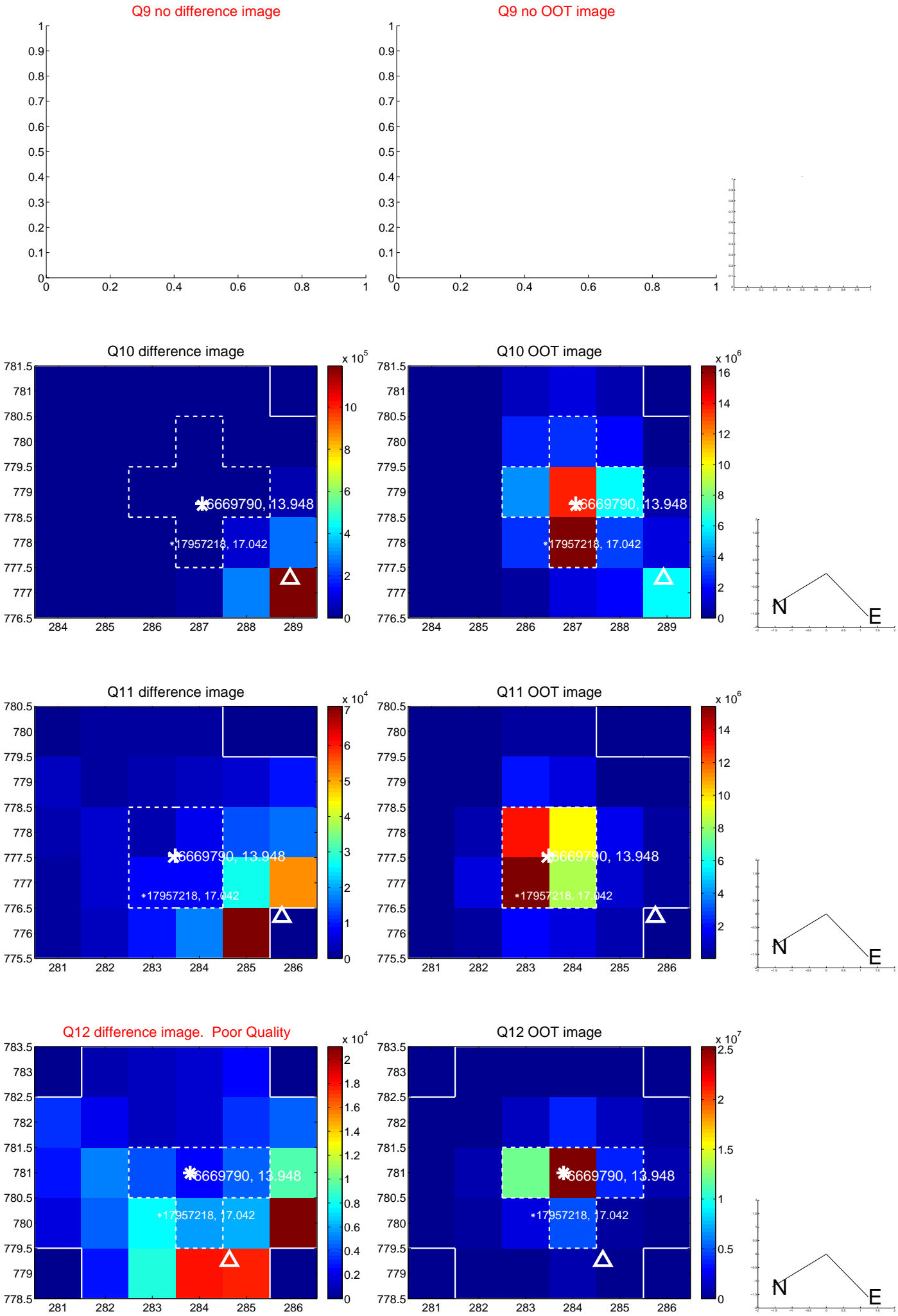
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



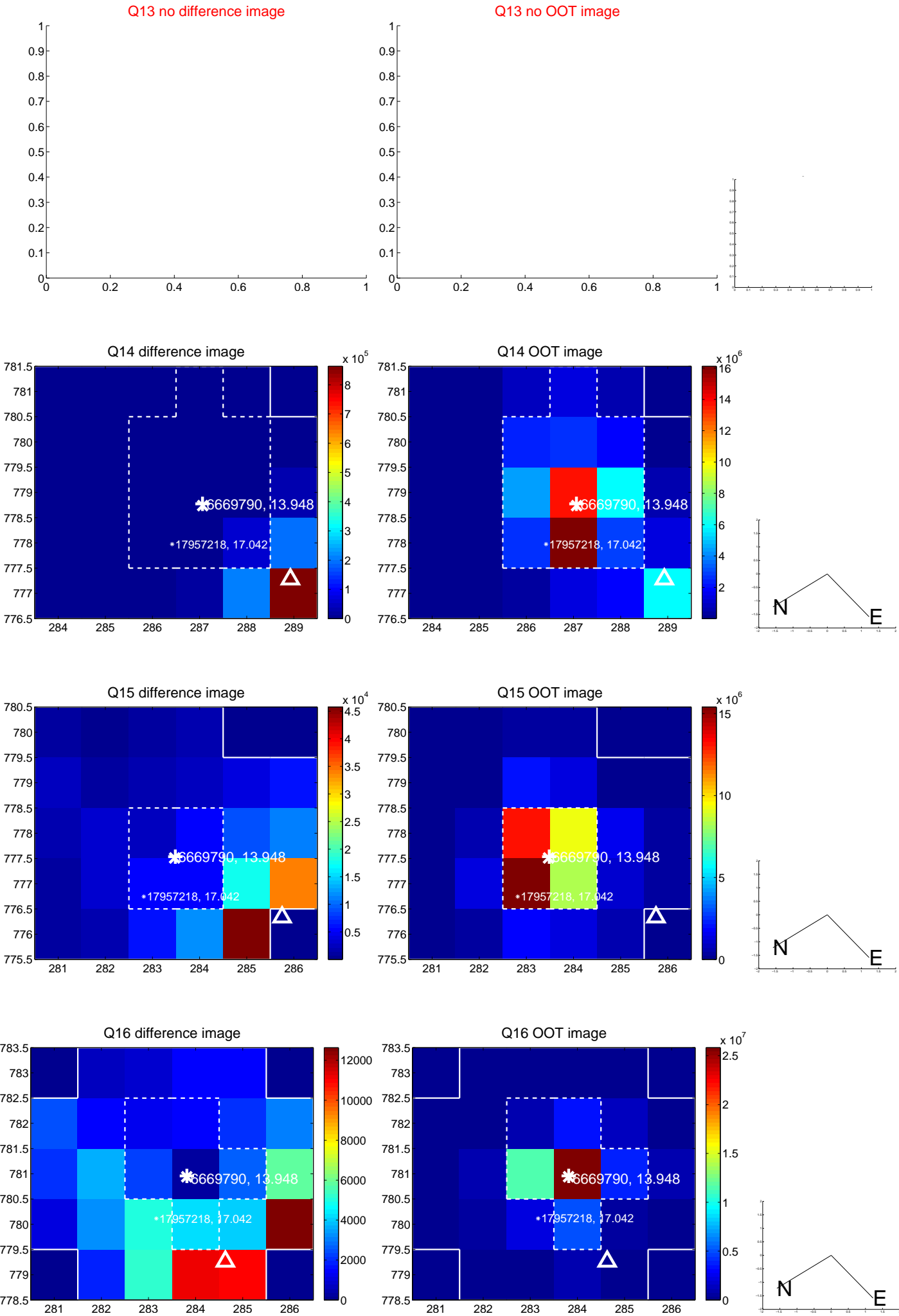
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



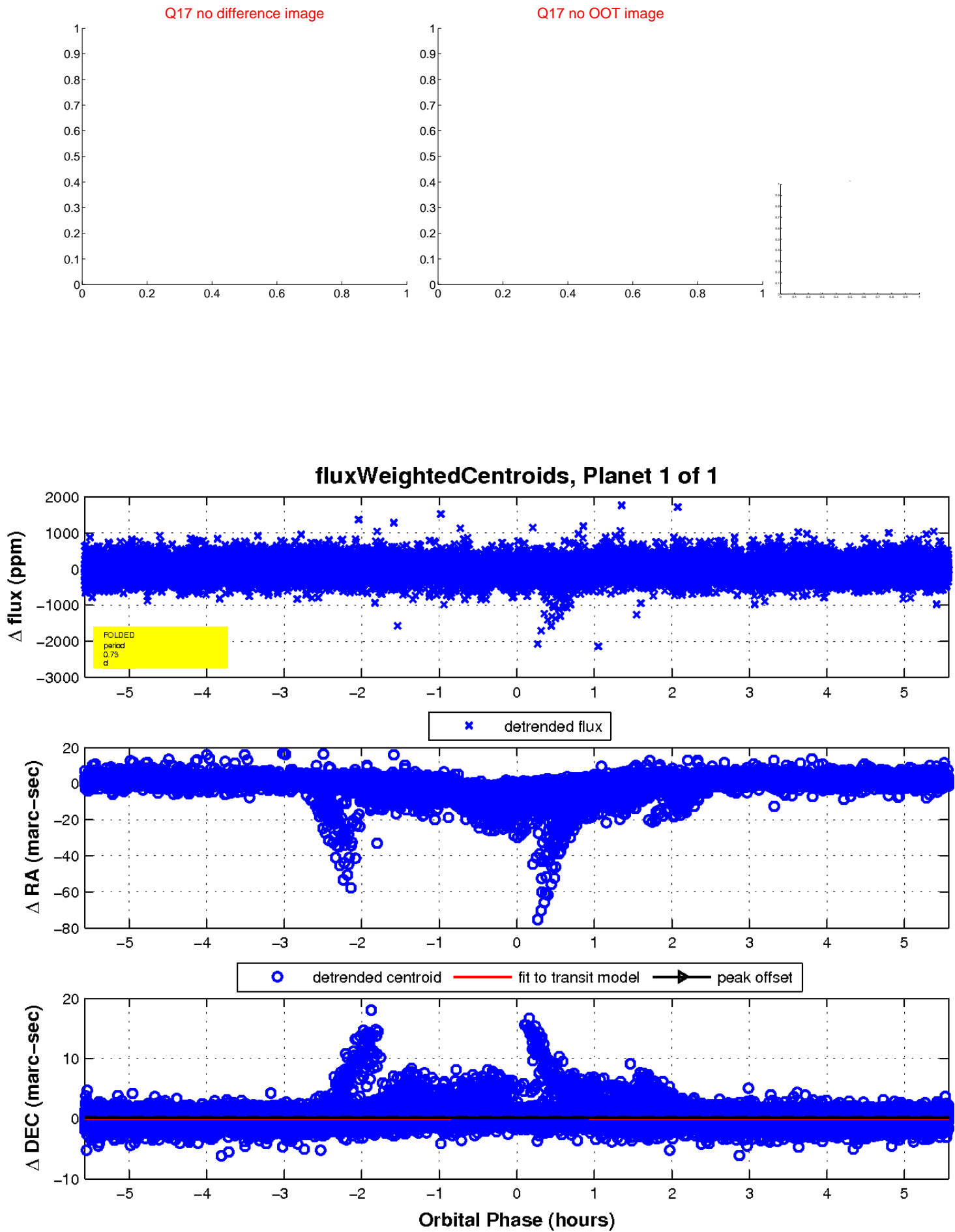
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

