

# KIC 001872262

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
001872262-01	OBS	No	1.501888	131.528022	277.0	5.000	8.7	-1.0	1.47	7133	2.48	5840.92

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001872262-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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

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

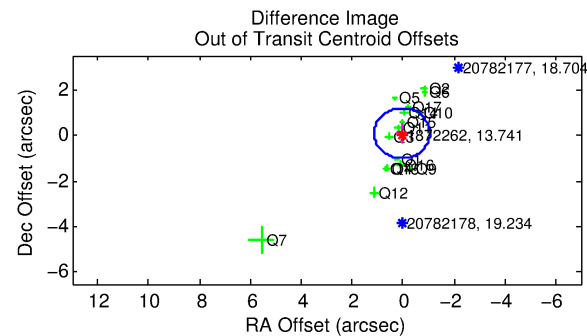
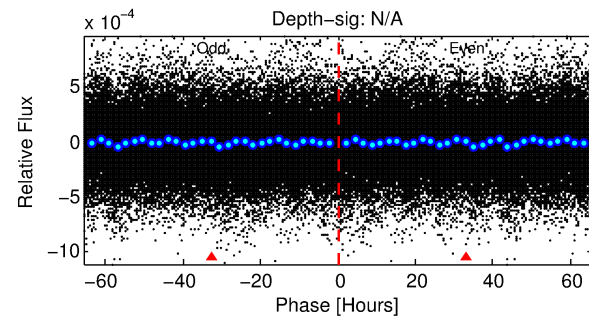
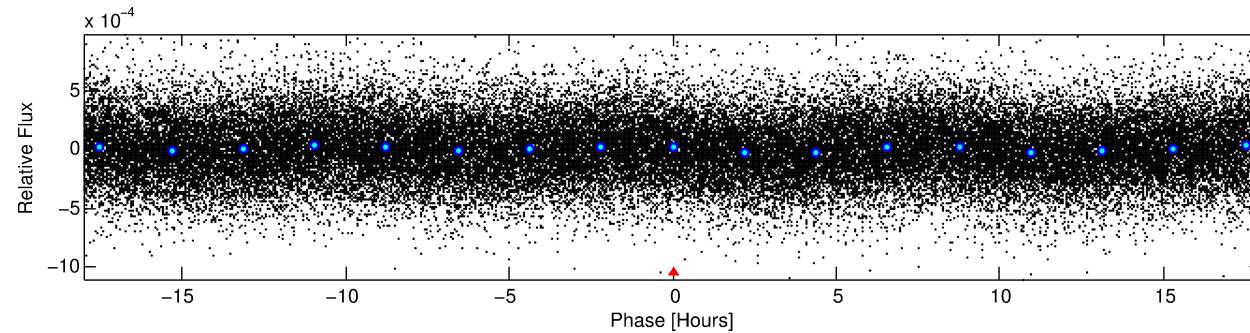
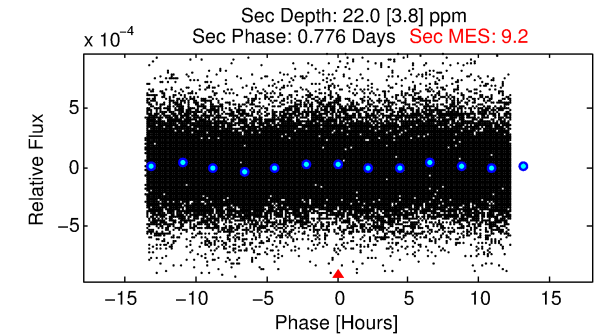
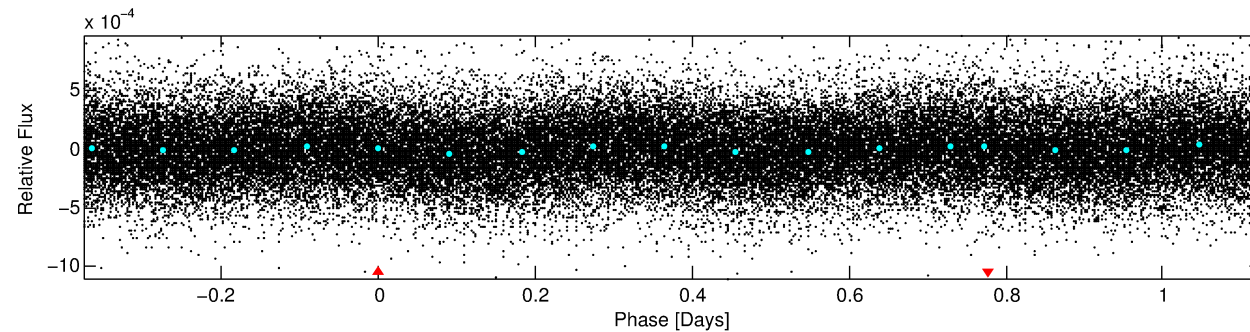
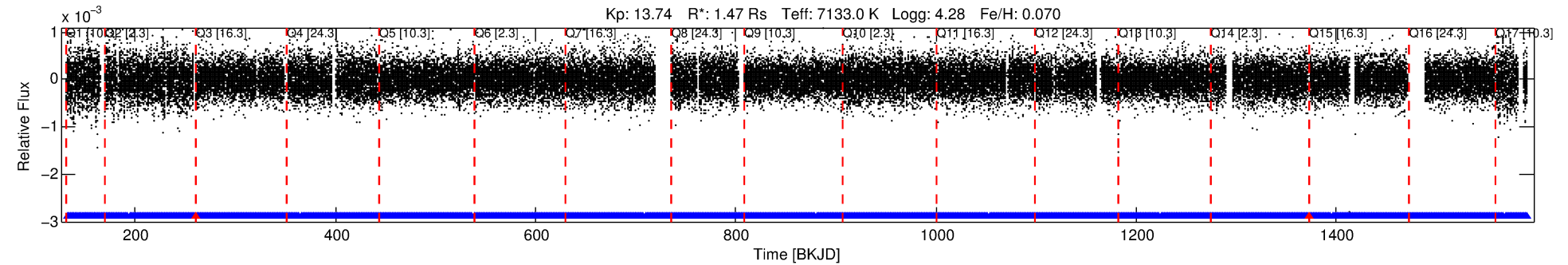
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 001872262-01

No Significant Match Found

# DV One-Page Summary

KIC: 1872262 Candidate: 1 of 1 Period: 1.502 d



## TPS TCE Results:

Period = 1.50189 d  
Epoch = 131.5280 BKJD

DV fit results are unavailable

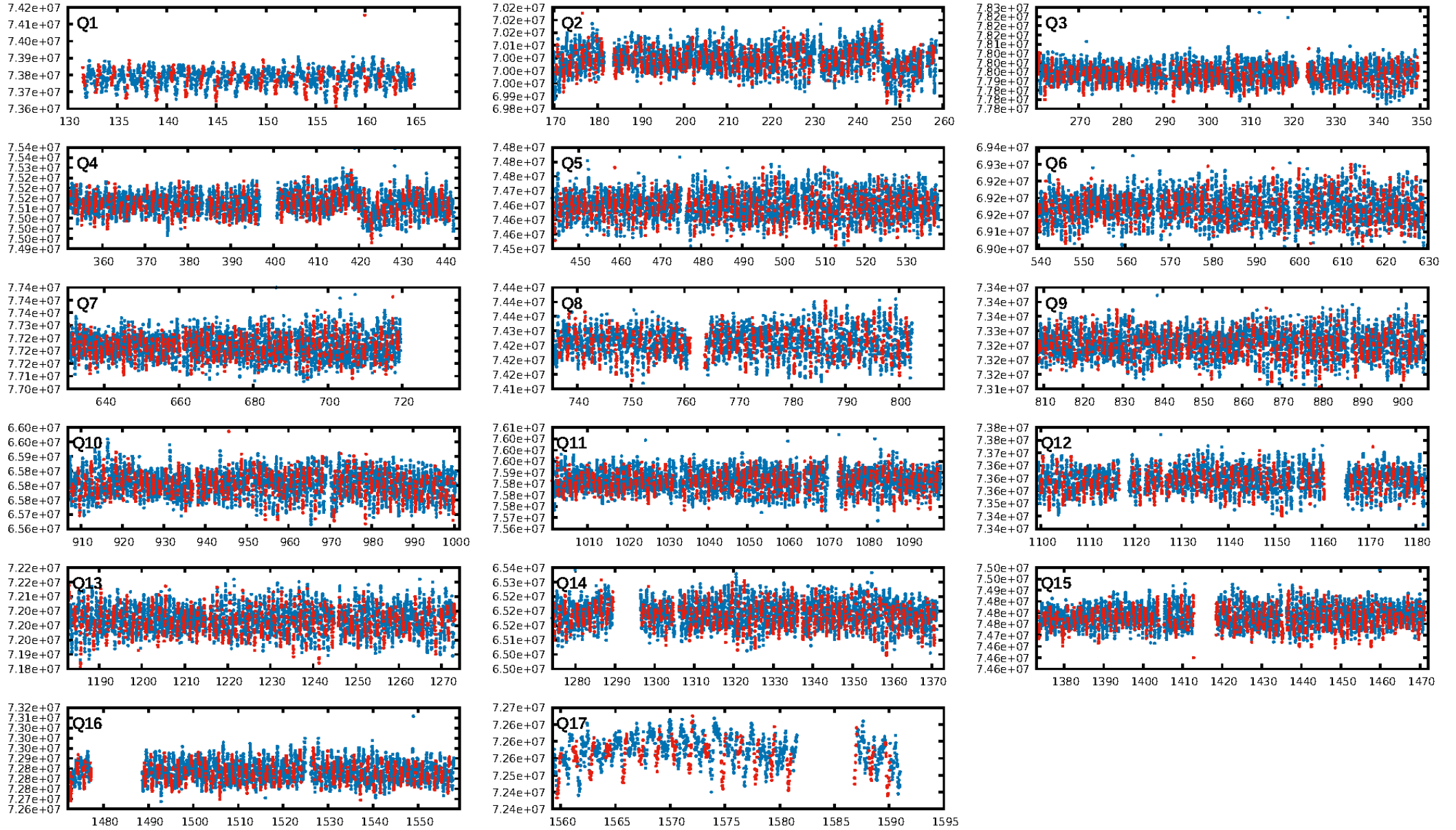
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 3.24e-14  
RollingBand-fgt: 1.00 [865/867]  
GhostDiagnostic-chr: 0.7361  
Centroid-sig: 0.1%  
Centroid-so: 0.797 arcsec [3.35 $\sigma$ ]  
OotOffset-rm: 0.110 arcsec [0.30 $\sigma$ ]  
KicOffset-rm: 0.091 arcsec [0.17 $\sigma$ ]  
OotOffset-st: 4/4/3/5 [16]  
KicOffset-st: 4/4/3/5 [16]  
DiffImageQuality-fgm: 0.94 [15/16]  
DiffImageOverlap-fno: 1.00 [17/17]

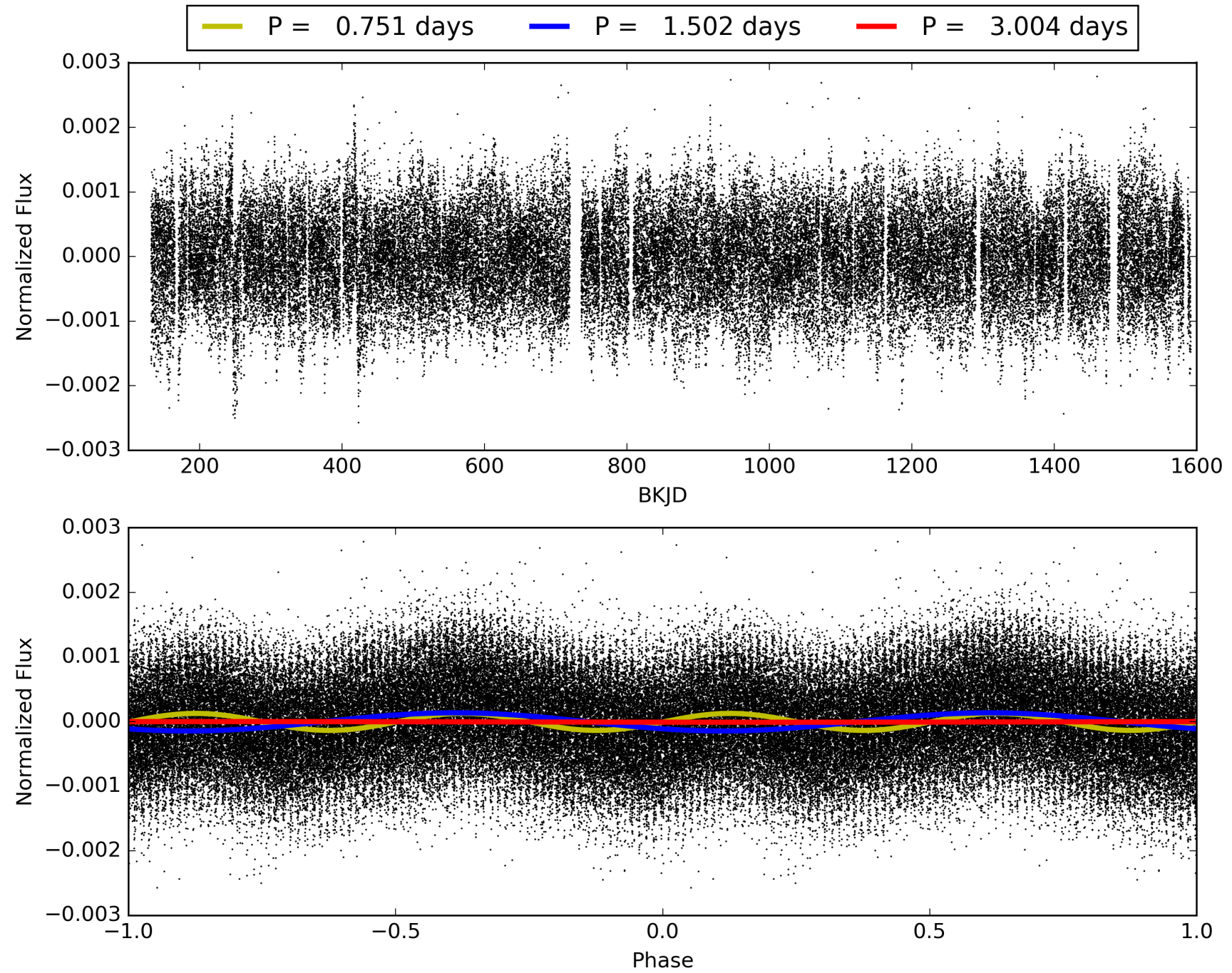
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:48:44 Z

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

# TCE 001872262-01, PDC Light Curves



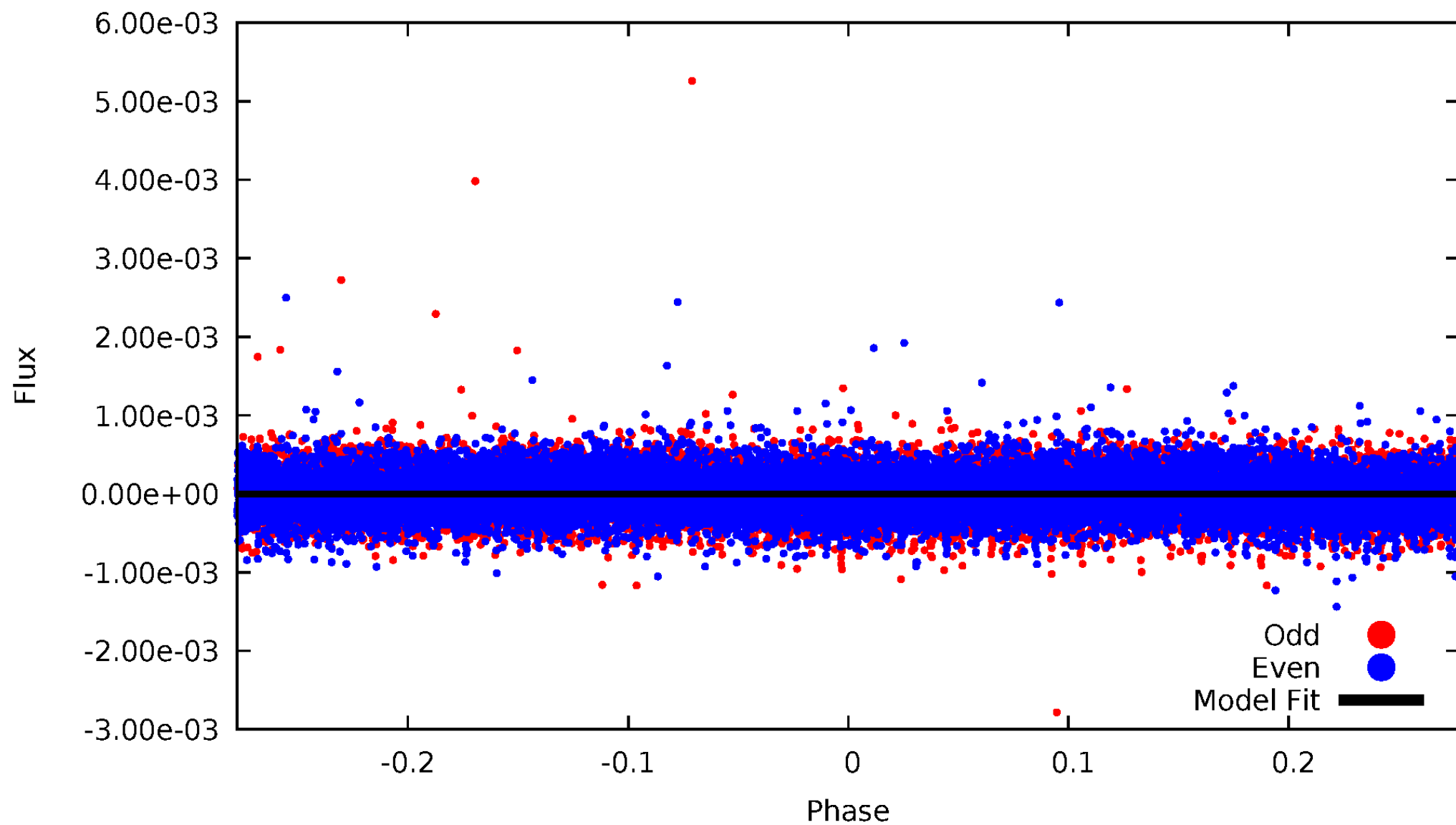
TCE 001872262-01





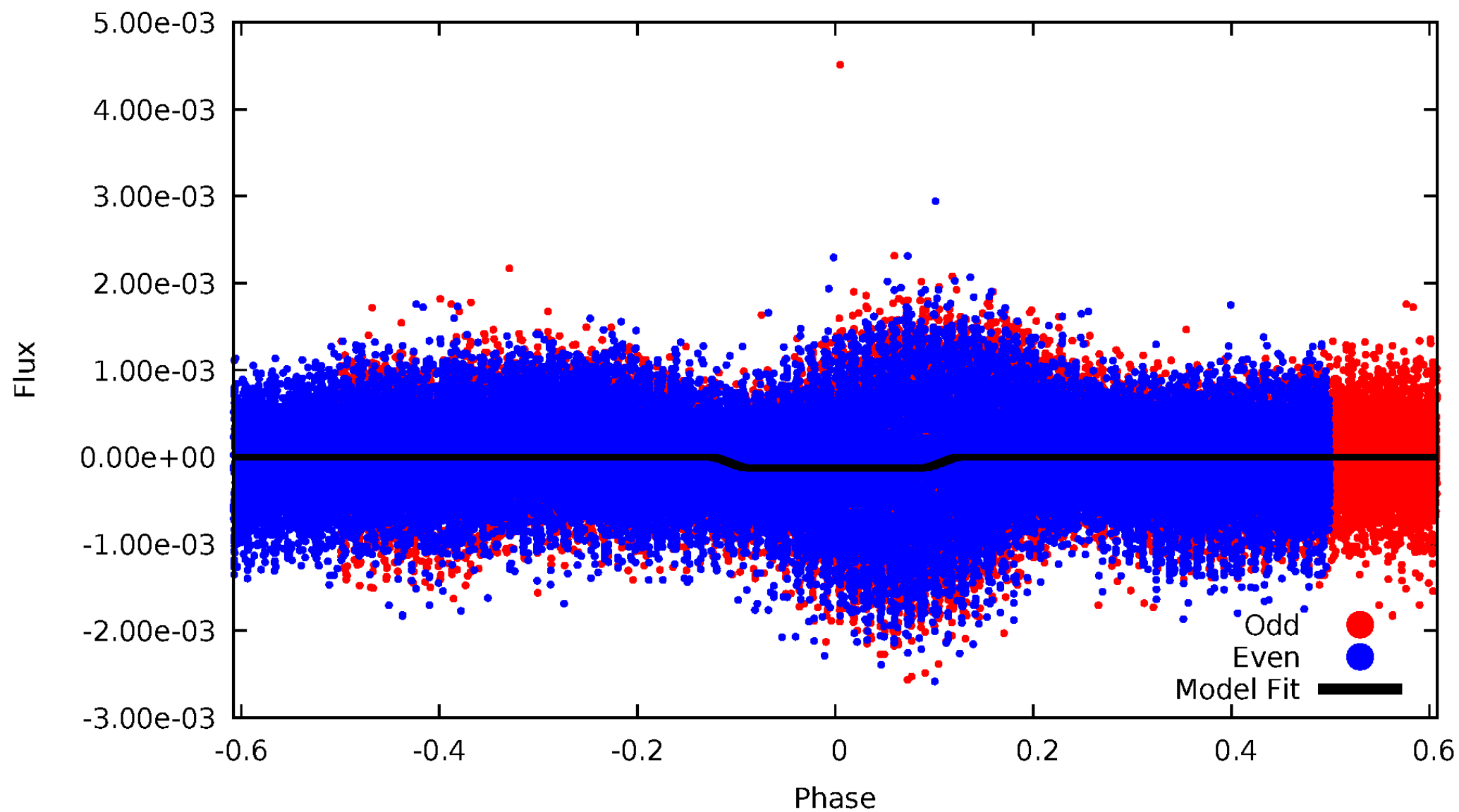
# DV Odd/Even

TCE 001872262-01

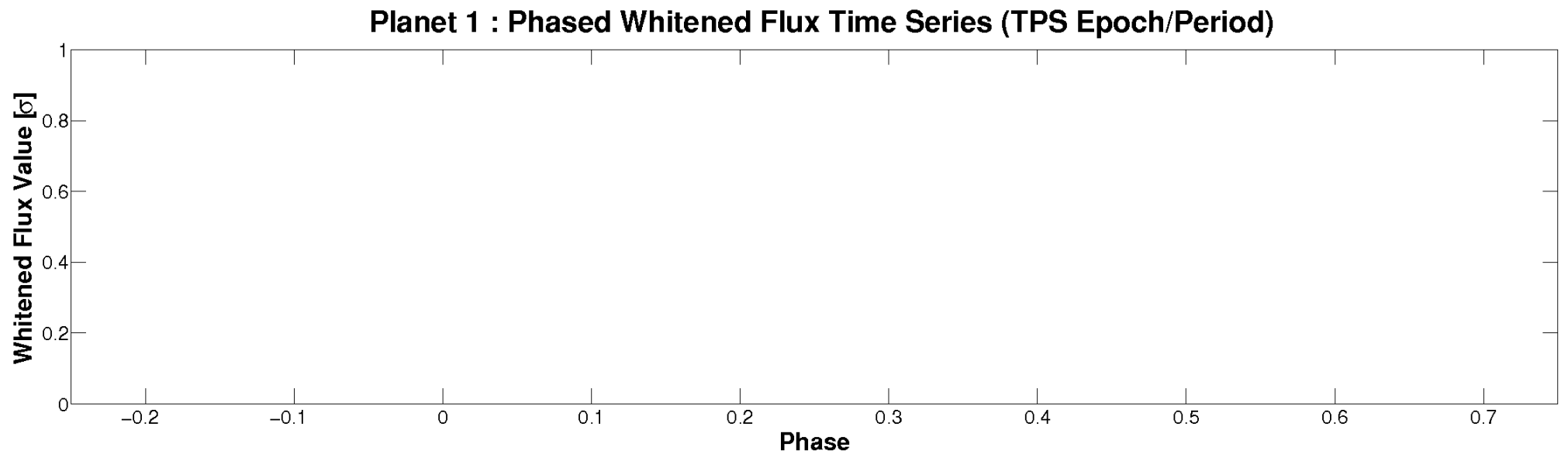
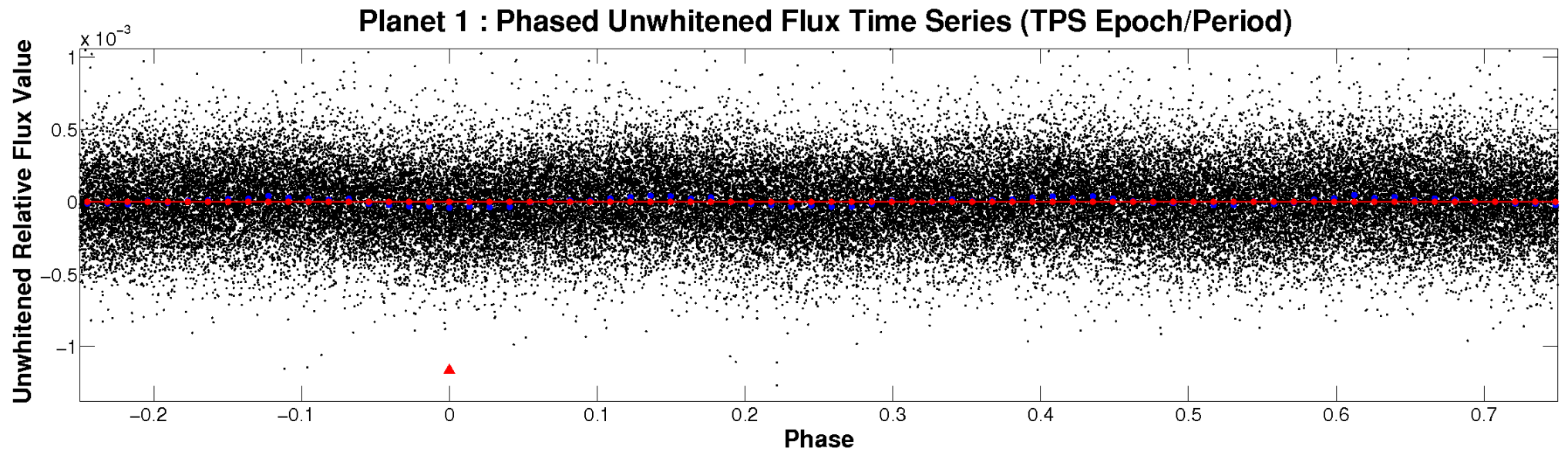


# ALT Odd/Even

TCE 001872262-01

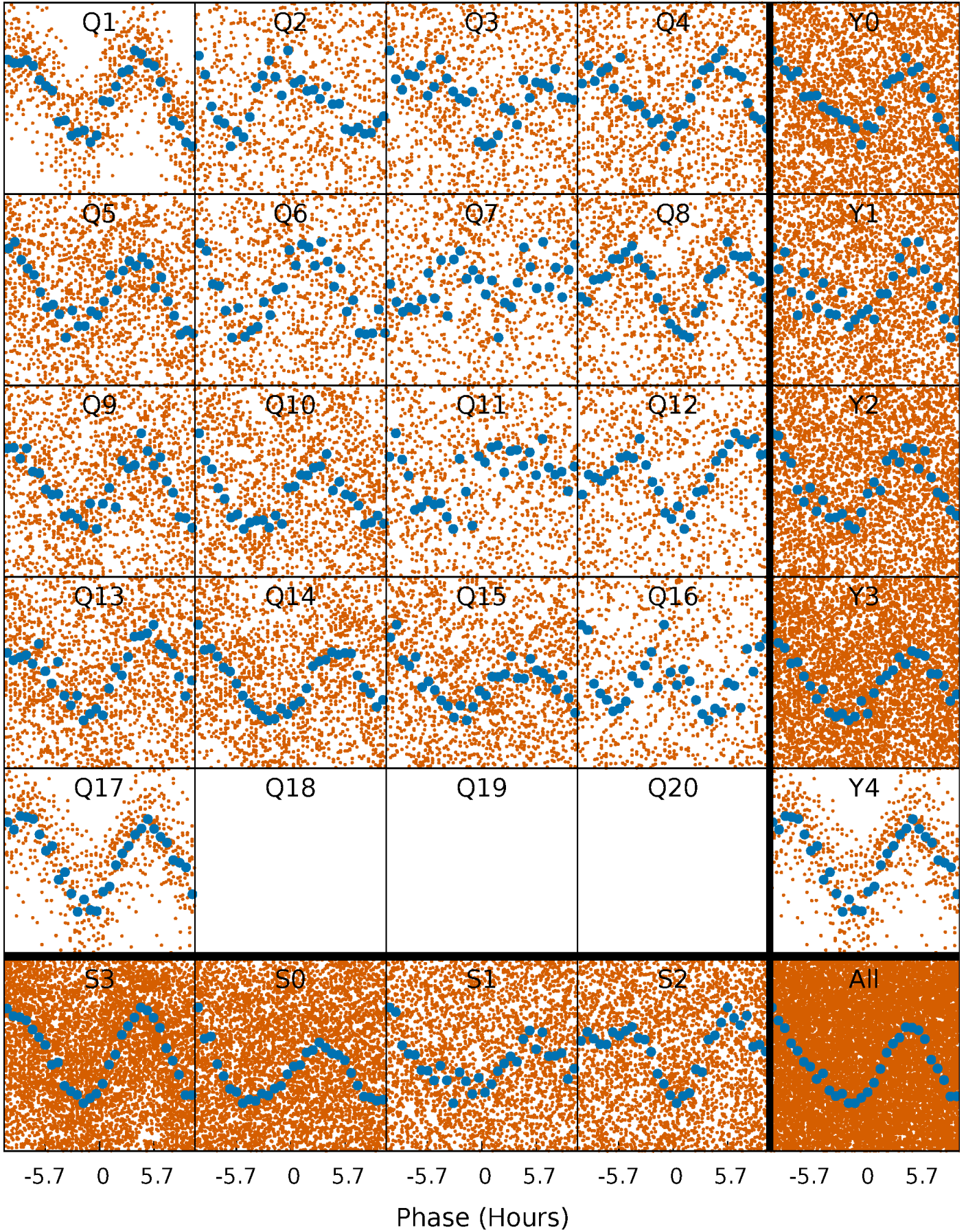


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

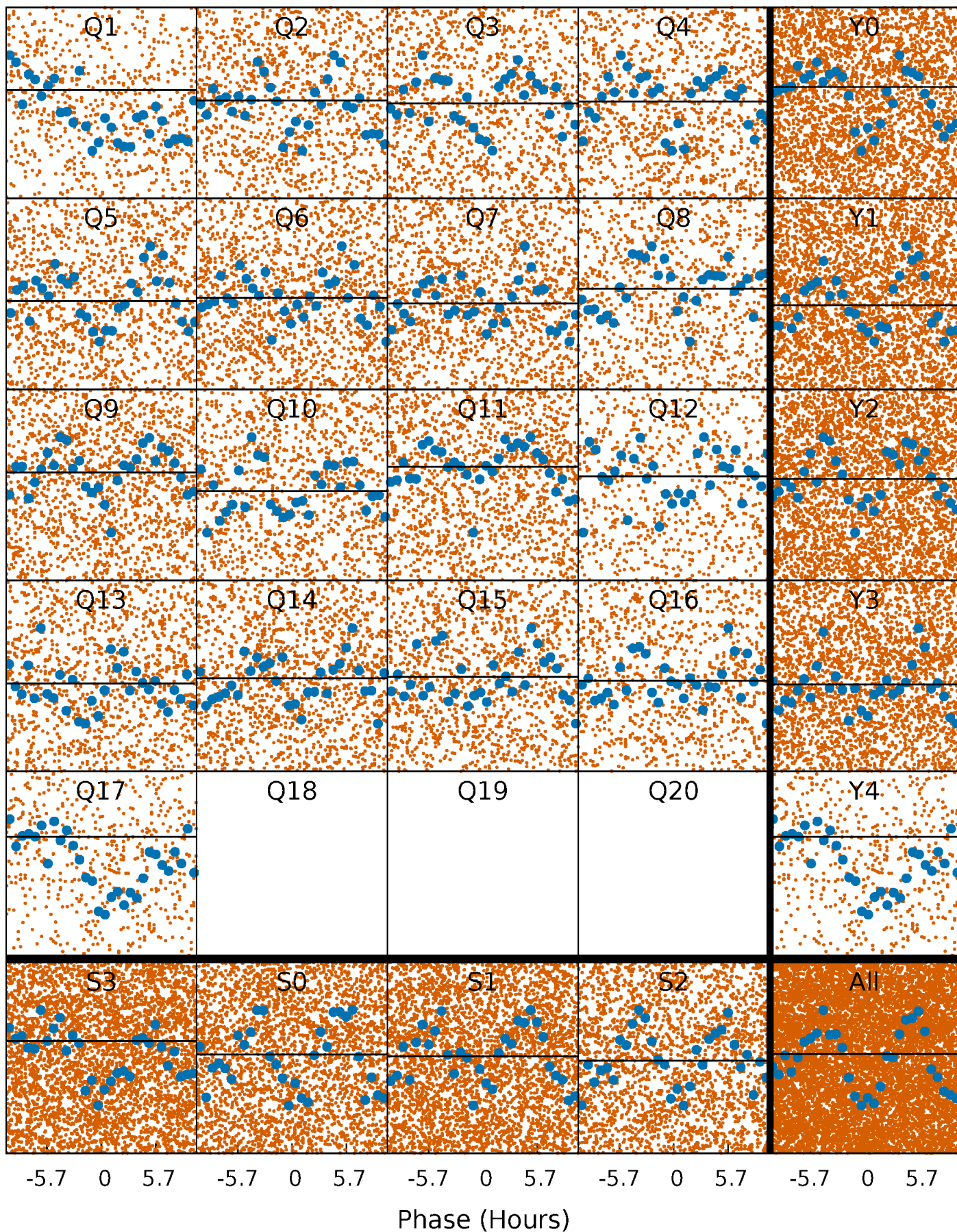
TCE 001872262-01 P= 1.501888 Days  $T_0=131.528022$  (BKJD)





# DV Quarter-Phased Transit Curves

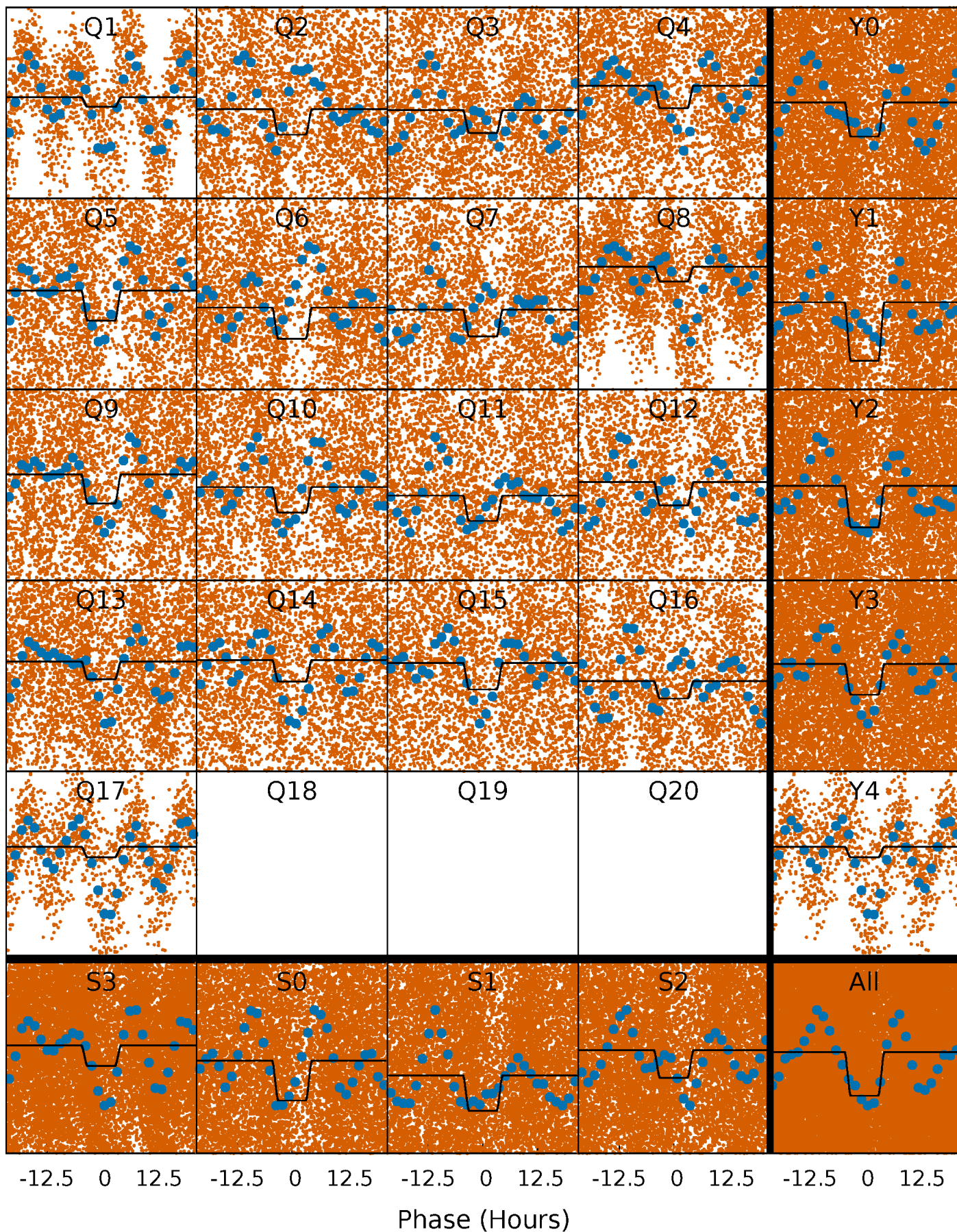
TCE 001872262-01 P= 1.501888 Days  $T_0=131.528022$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

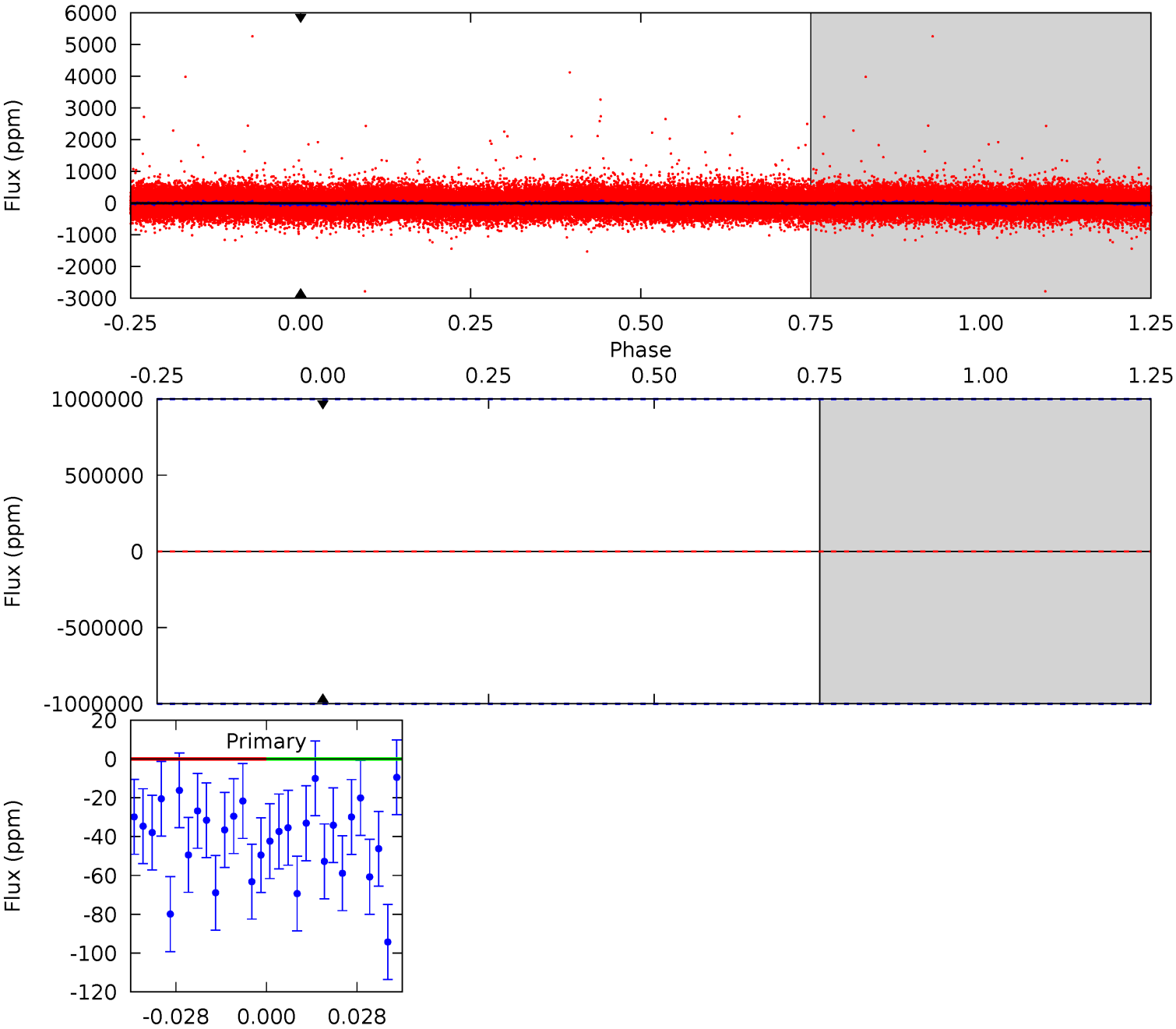
TCE 001872262-01 P= 1.501888 Days  $T_0=132.915997$  (BKJD)



# DV Model-Shift Uniqueness Test

001872262-01, P = 1.501888 Days, E = 130.026134 Days

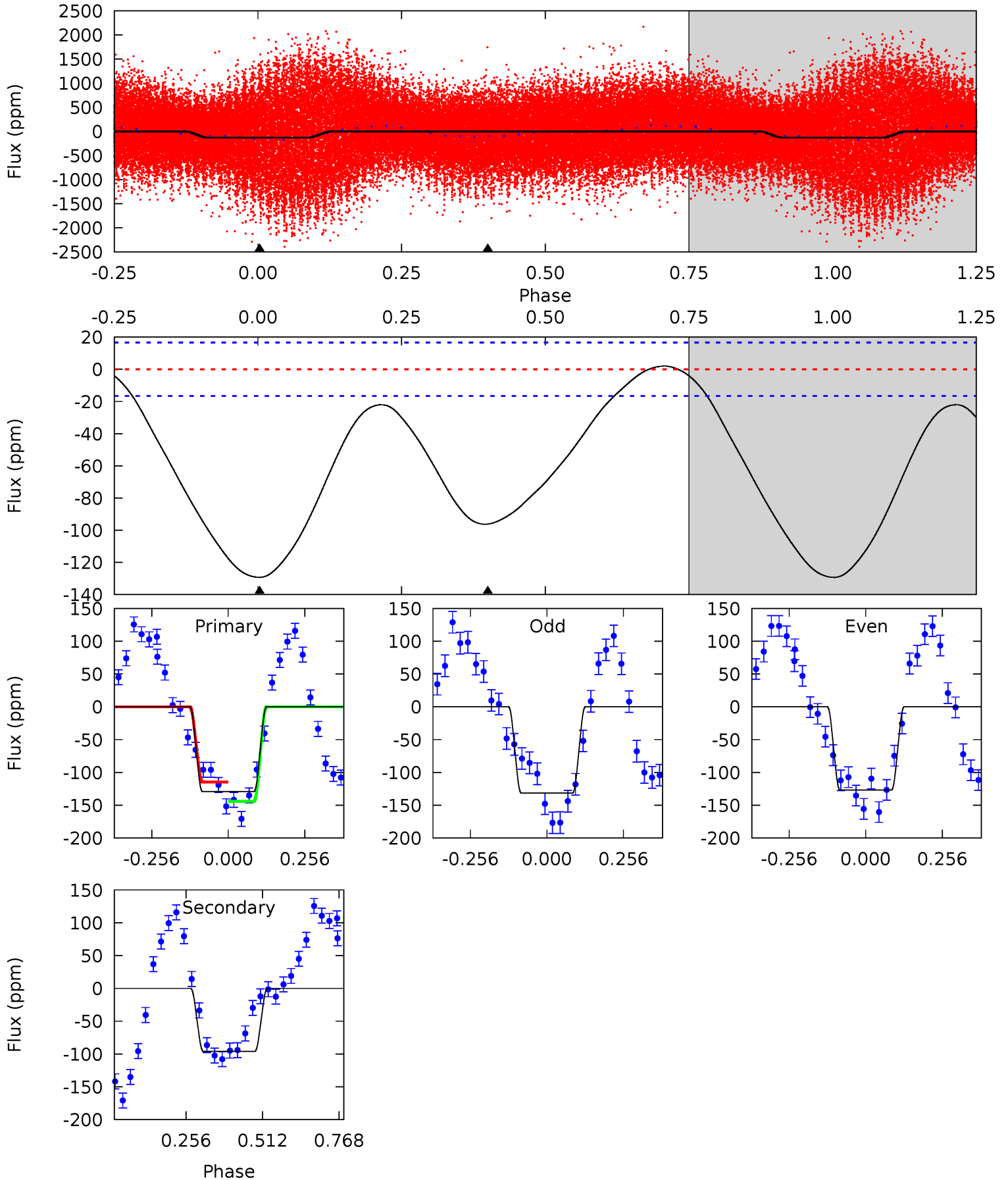
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

001872262-01, P = 1.501888 Days, E = 131.414109 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
34.0	25.3	0	0	4.36	1.14	0.62	34.0	34.0	25.3	25.3	0.57	0.94	0.02	4.17





### Stellar Parameters For KIC 001872262

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7133^{+200}_{-314}$	$4.275^{+0.060}_{-0.240}$	$0.070^{+0.200}_{-0.350}$	$1.469^{+0.555}_{-0.185}$	$1.484^{+0.211}_{-0.211}$	$0.659^{+0.225}_{-0.390}$
	+3%/-4%	+1%/-6%	+286%/-500%	+38%/-13%	+14%/-14%	+34%/-59%
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 001872262-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 1000000$	$12.43^{+13.05}_{-8.88}$	$3184^{+270}_{-194}$	$4635^{+35558}_{-36424}$	$2.764^{+643.977}_{-461.585}$
Alt.	$-96 \pm 4$	$12.65^{+12.16}_{-8.41}$	$3177^{+262}_{-174}$	$-2213^{+6724}_{-856}$	$0.280^{+2.223}_{-0.209}$

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

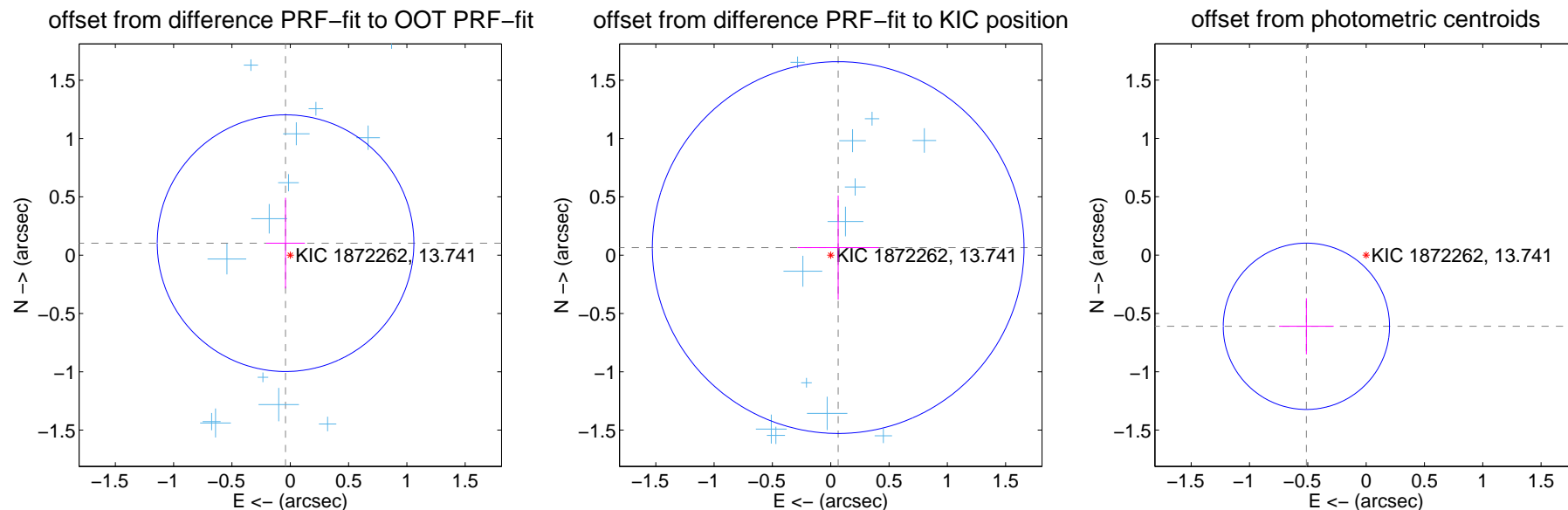
## DV Centroid Data

Supplemental centroid analysis for 001872262-01. Kepler magnitude: 13.74. Transit SNR -1.00

There are 15 quarters with good PRF difference image offsets

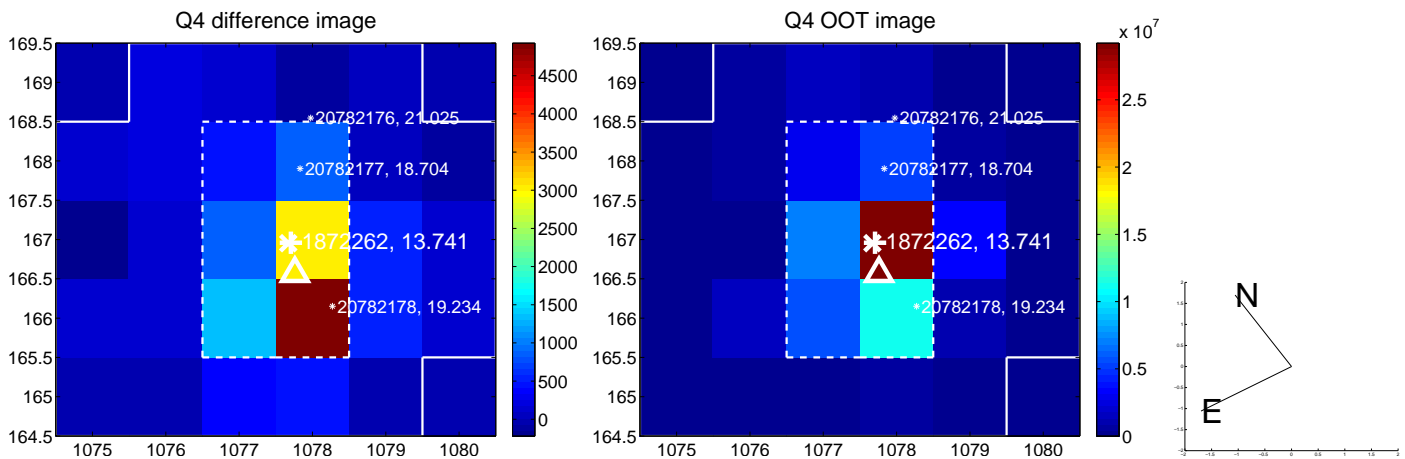
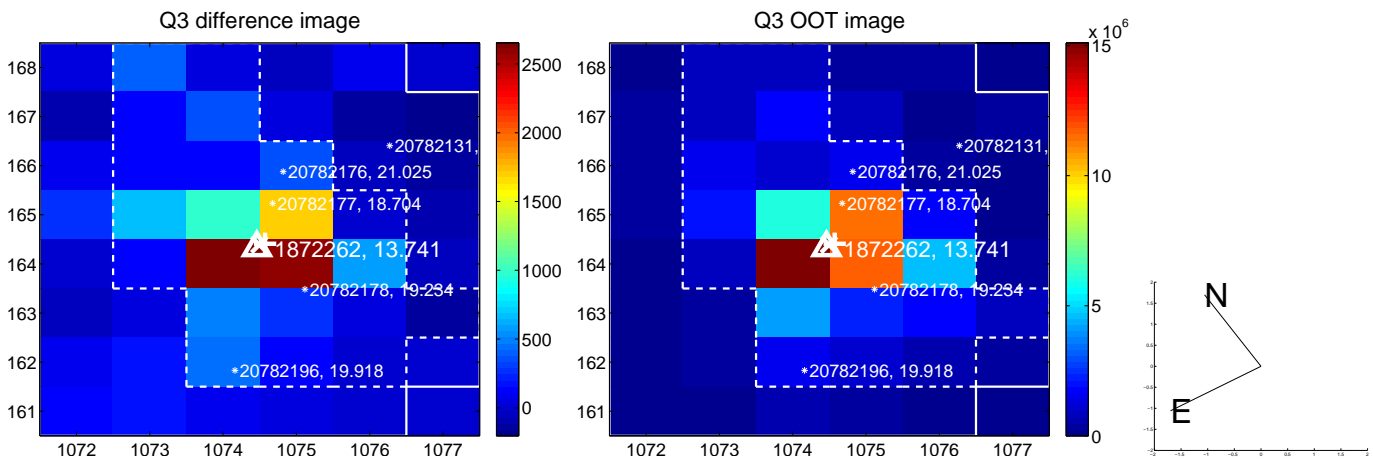
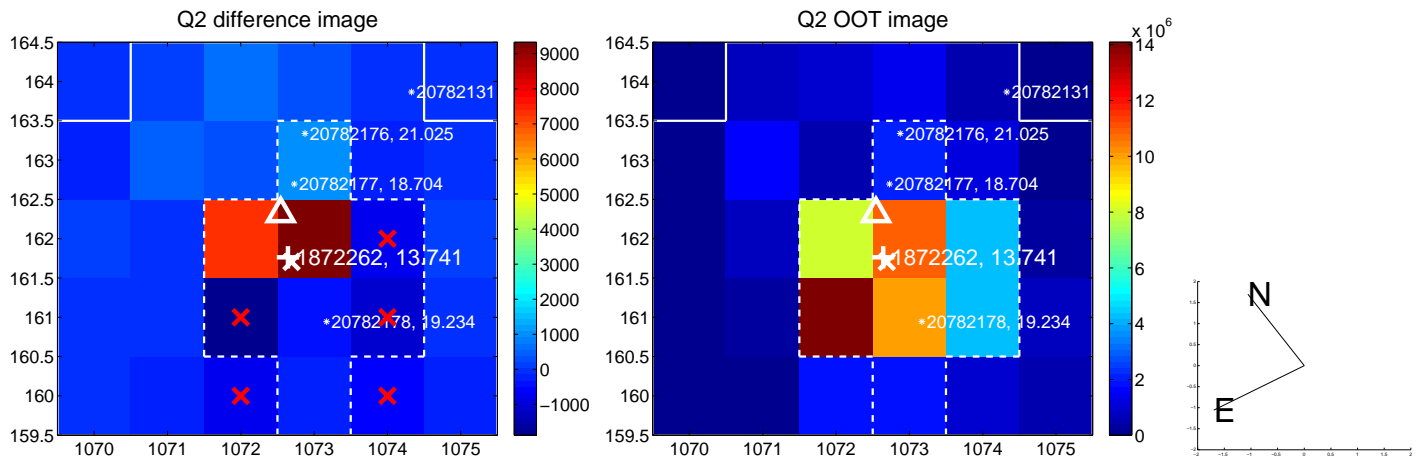
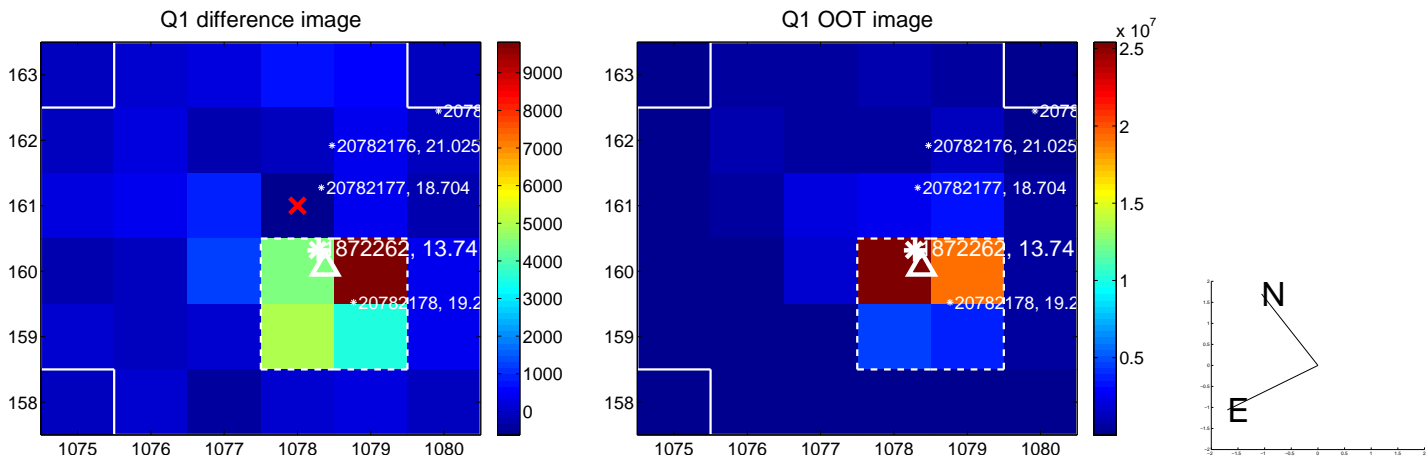
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.110 \pm 0.367$	0.30	$0.040 \pm 0.166$	$0.103 \pm 0.389$
PRF-fit source offset from KIC position	$0.091 \pm 0.531$	0.17	$-0.064 \pm 0.349$	$0.065 \pm 0.447$
photometric centroid source offset	$0.80 \pm 0.24$	3.35	$0.51 \pm 0.23$	$-0.61 \pm 0.24$

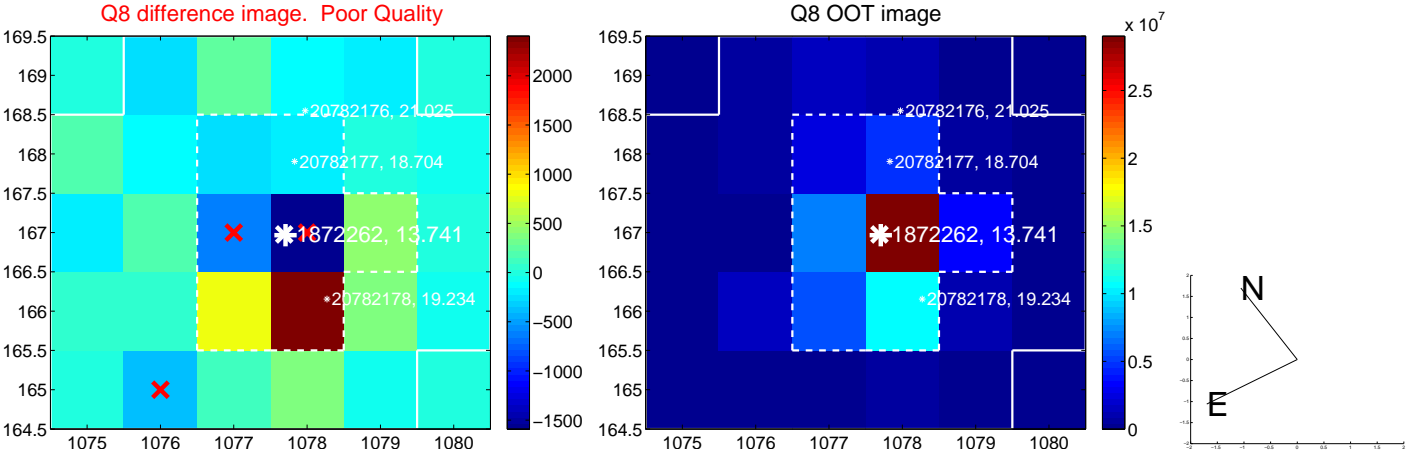
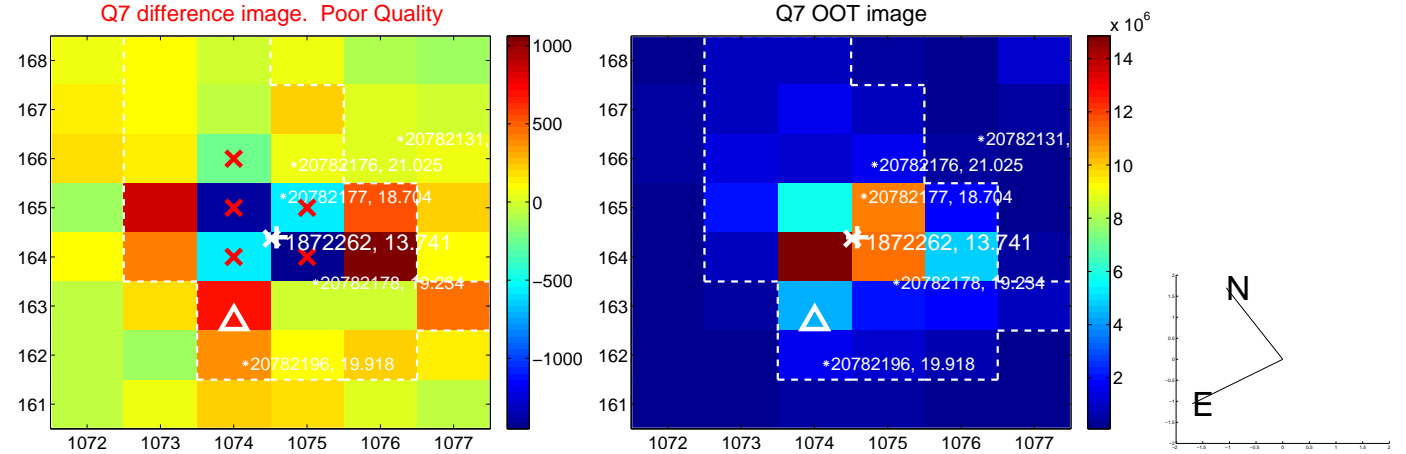
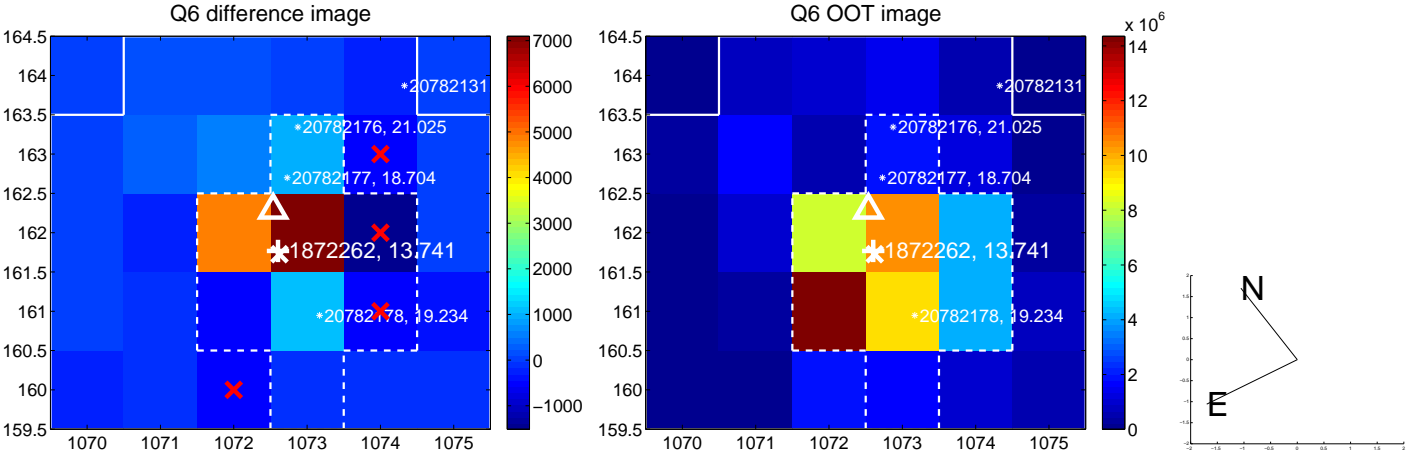
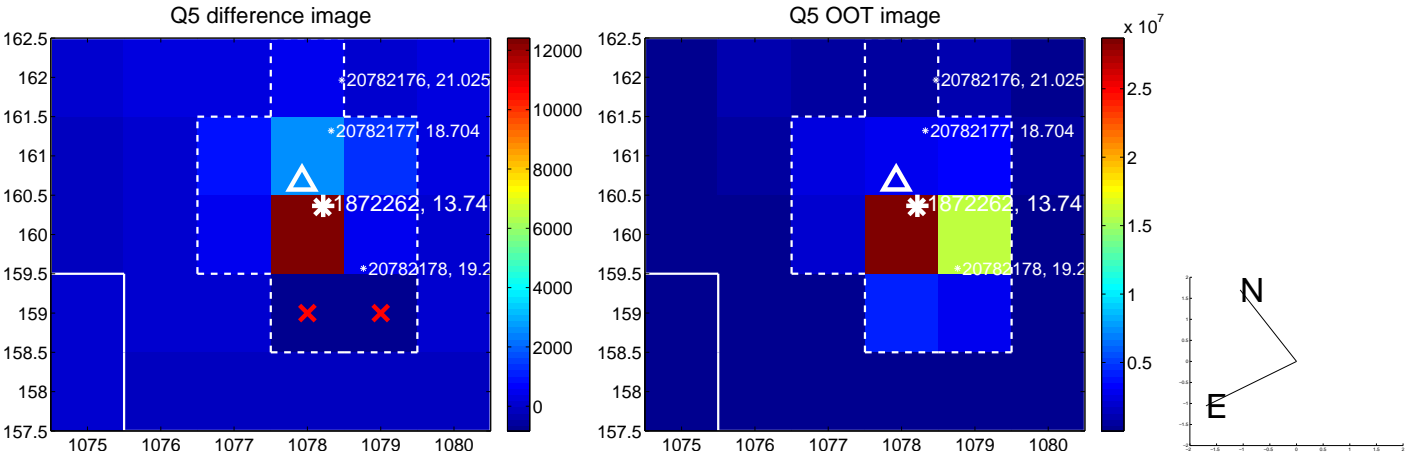


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

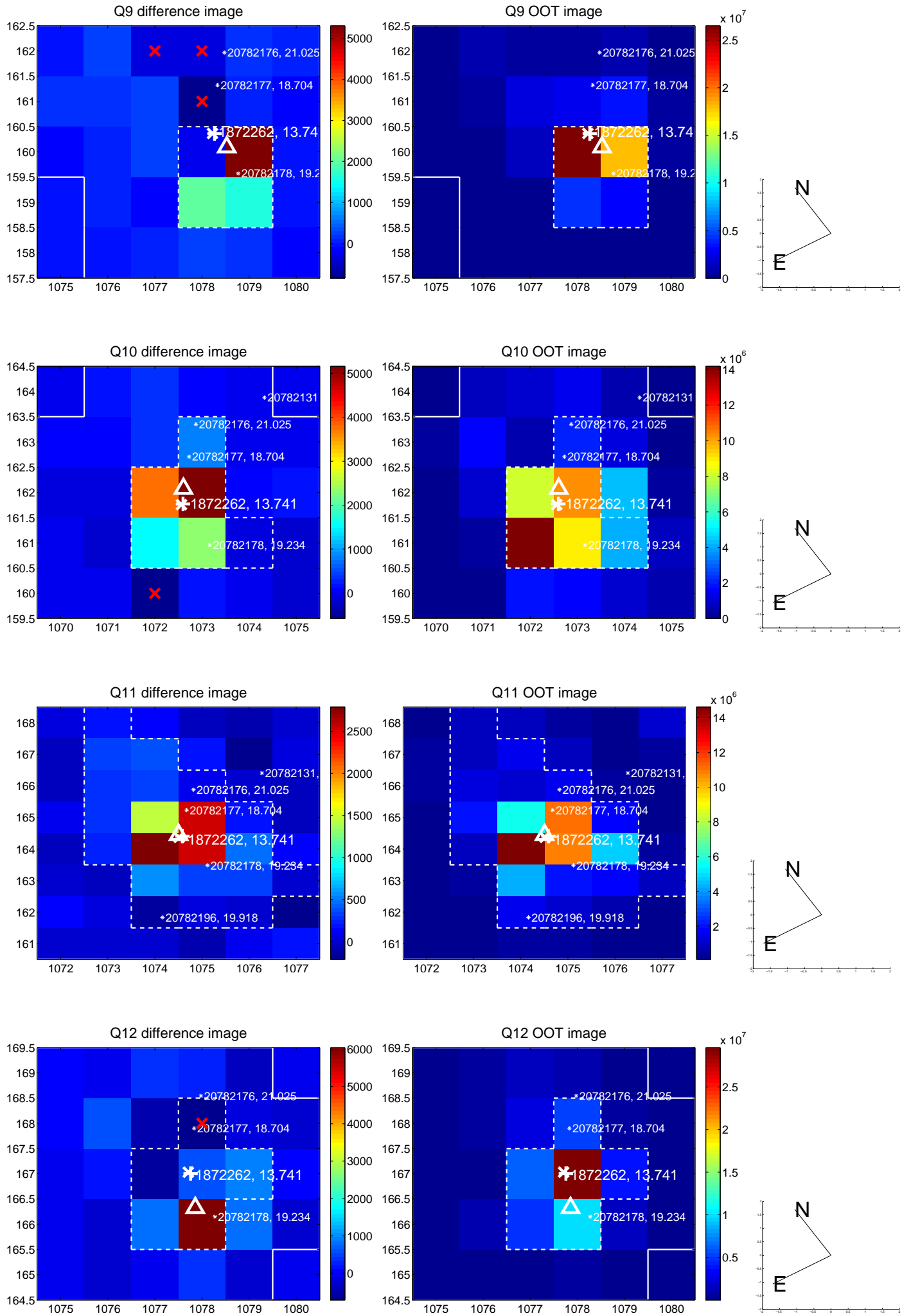


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

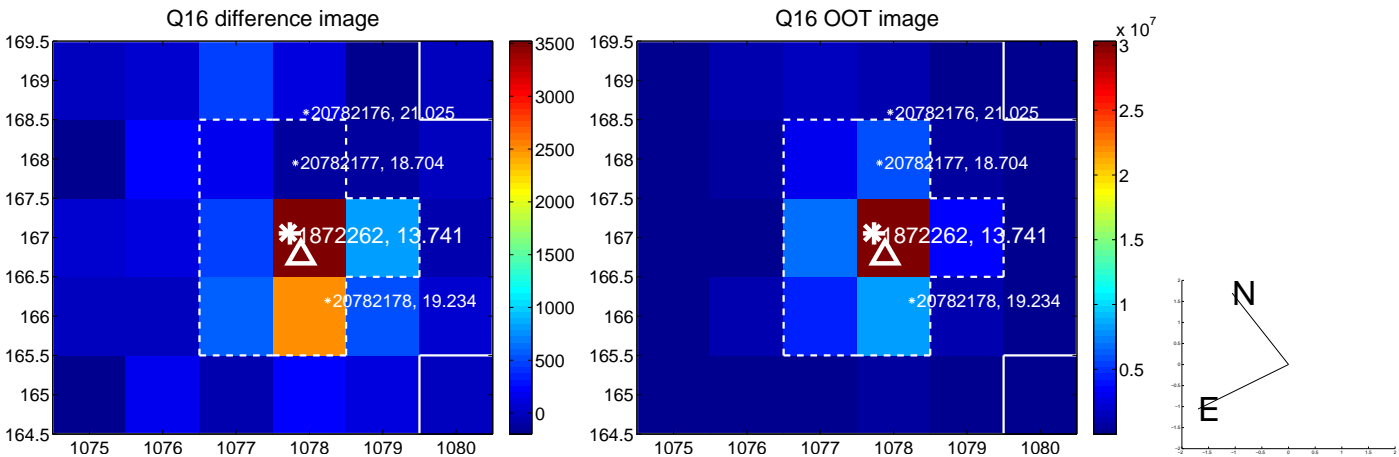
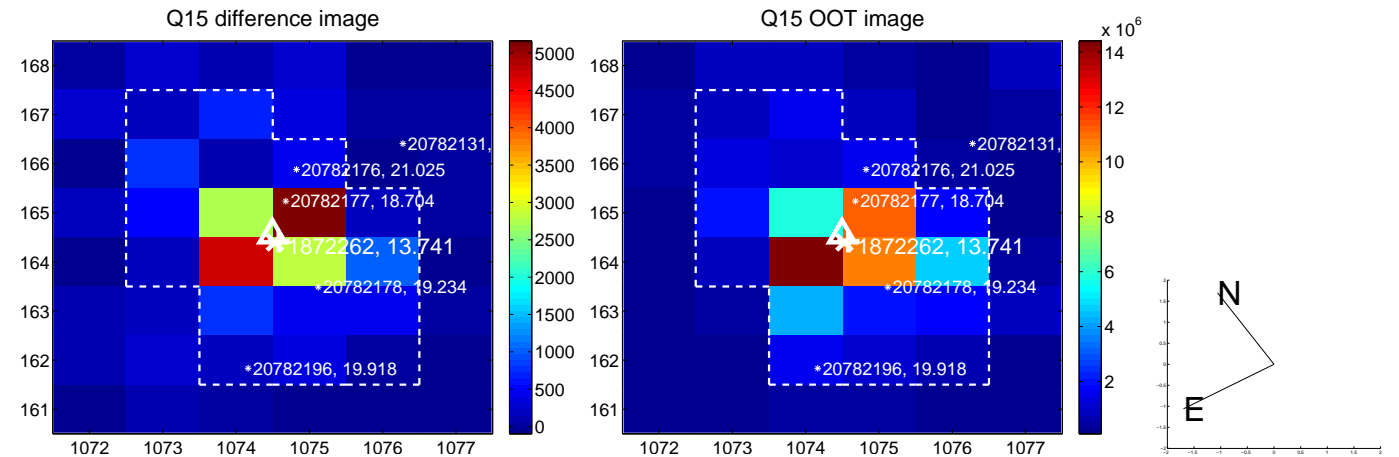
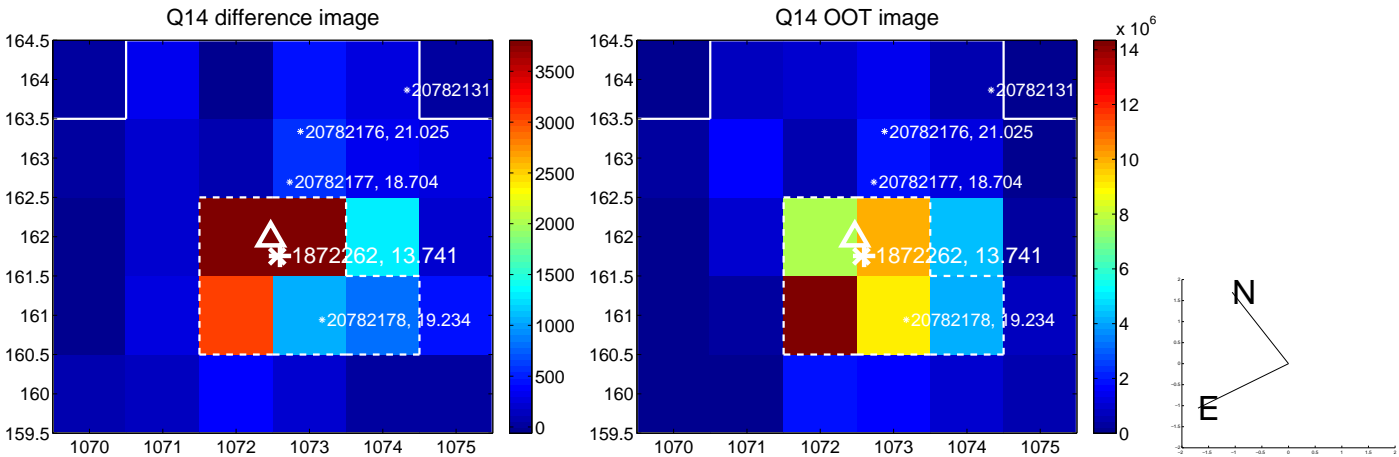
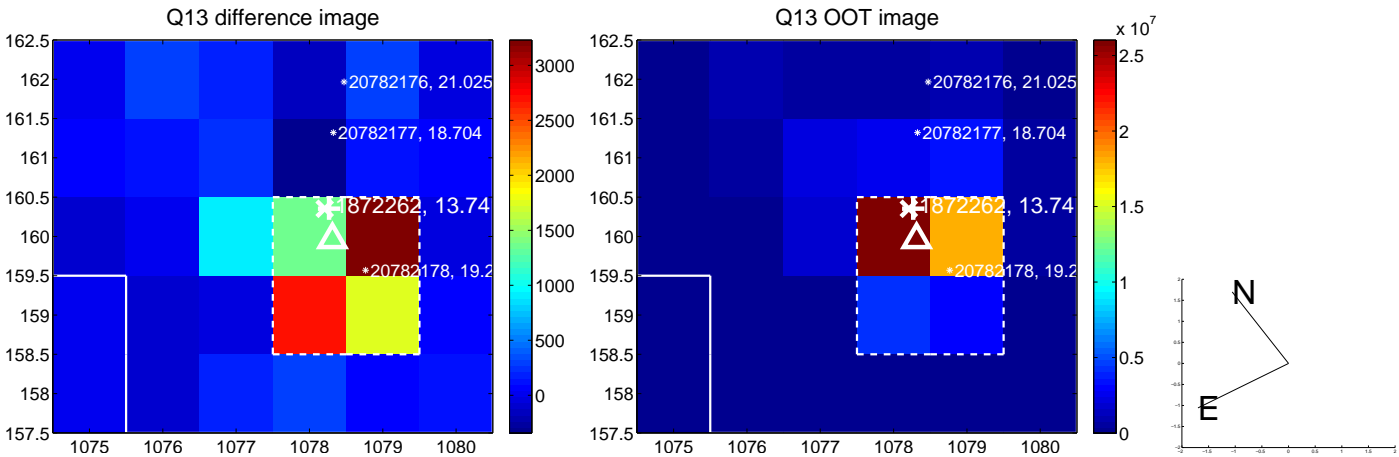




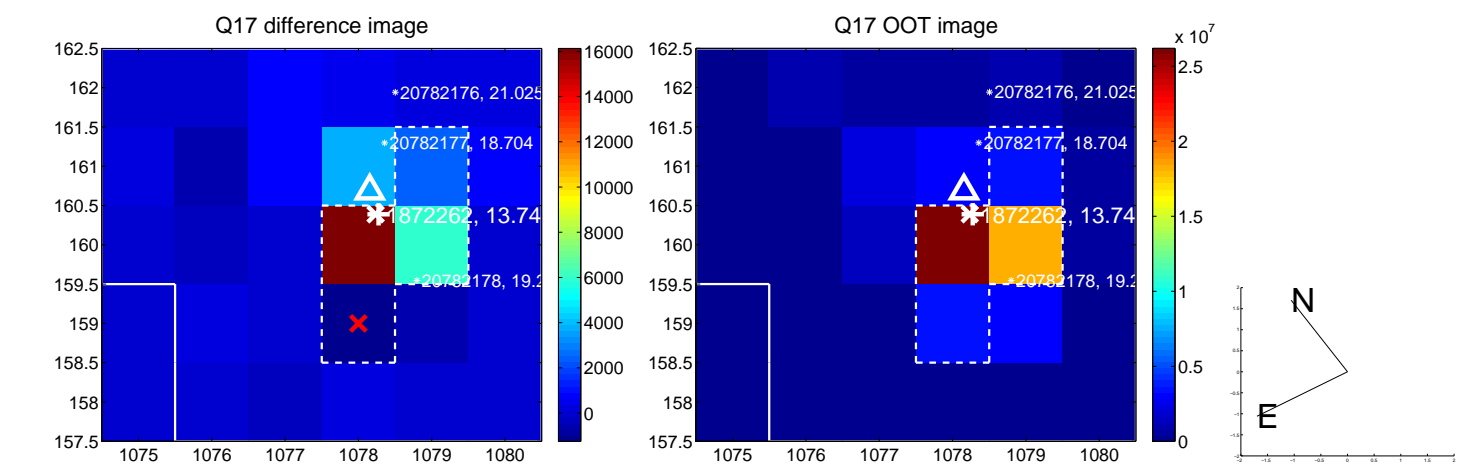
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



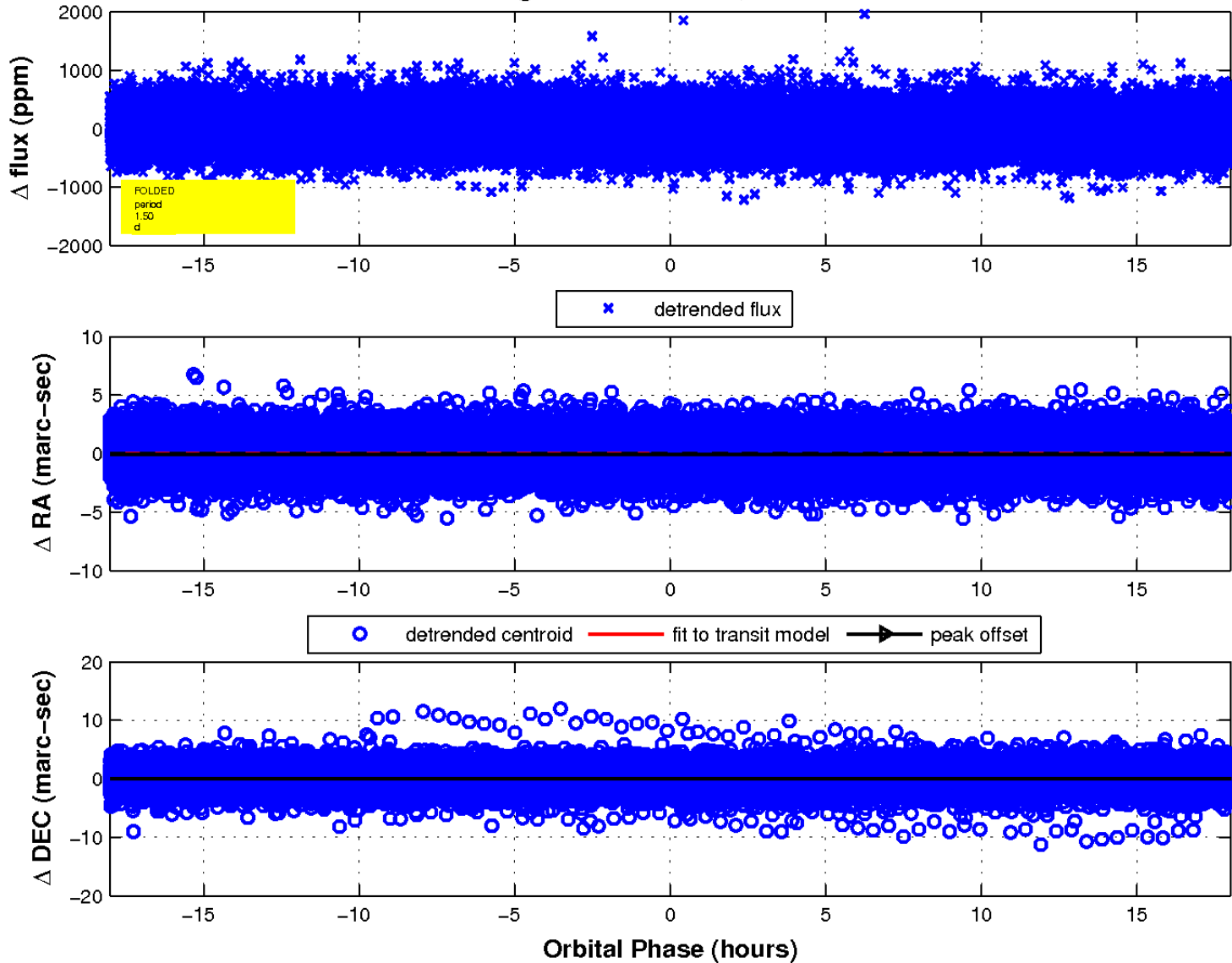
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

