

# KIC 005964069

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005964069-01	OBS	No	0.653645	131.829744	220.7	1.500	8.8	-1.0	1.25	7148	1.88	14357.79

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005964069-01	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.

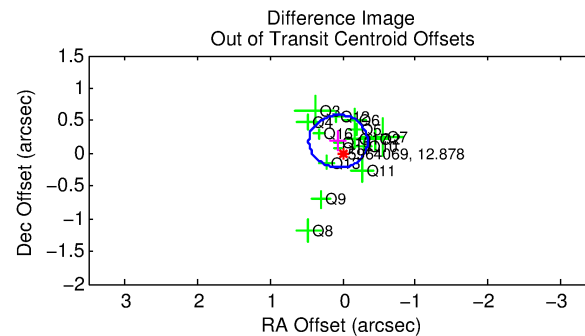
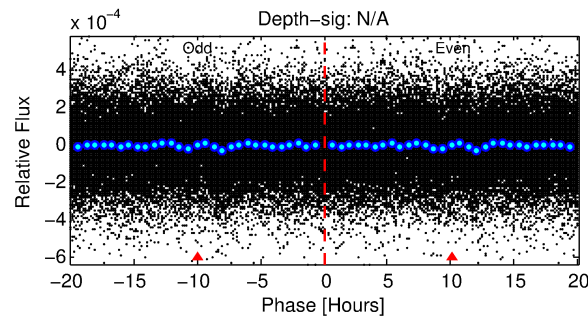
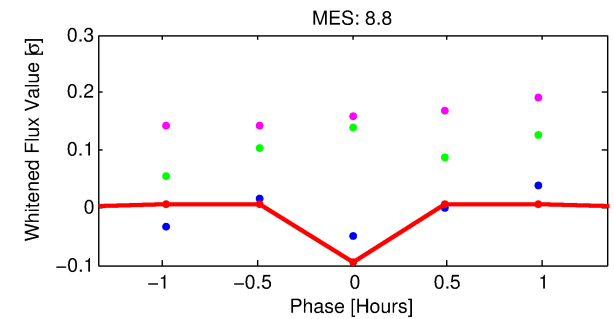
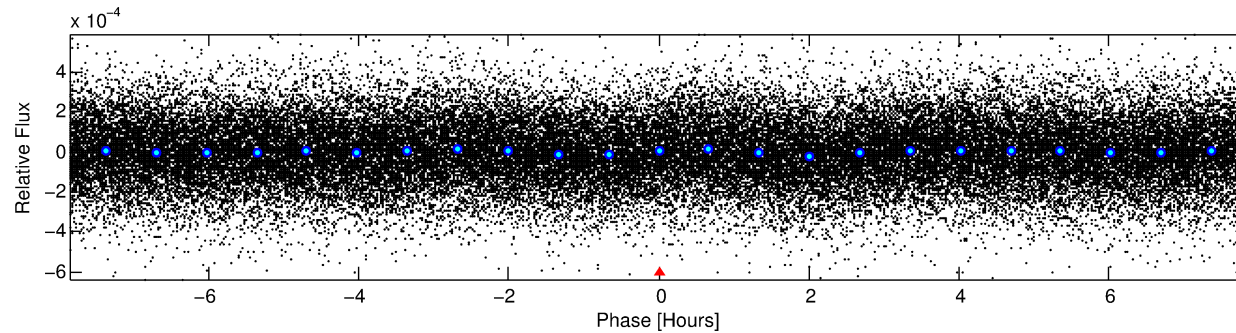
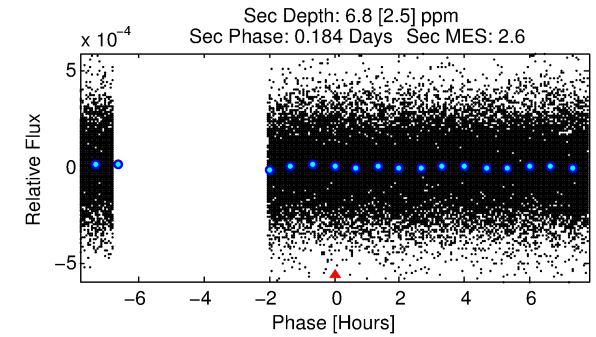
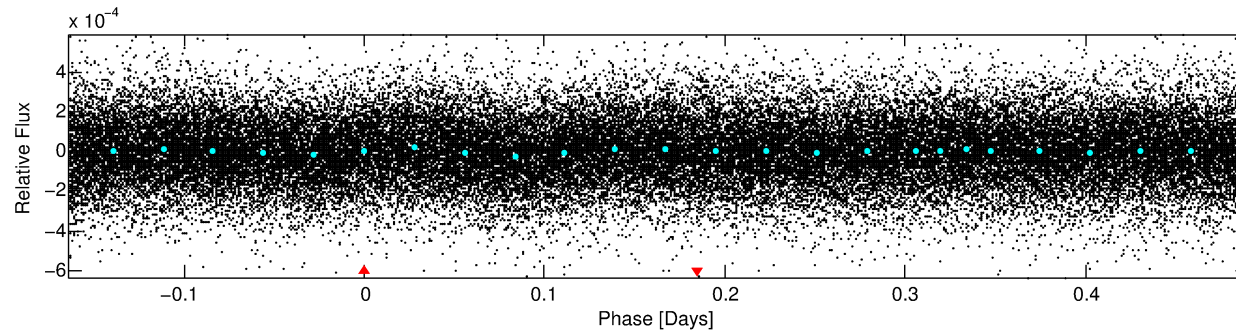
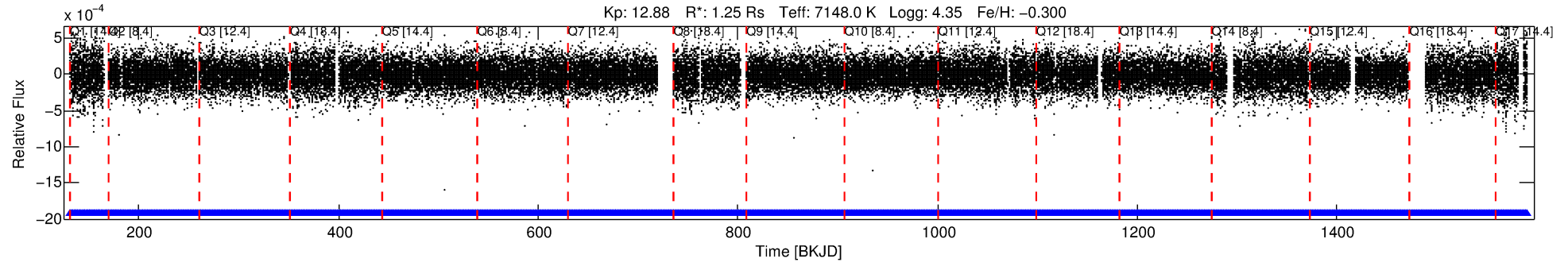
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005964069-01

No Significant Match Found

# DV One-Page Summary

KIC: 5964069 Candidate: 1 of 1 Period: 0.654 d



## TPS TCE Results:

Period = 0.65364 d  
Epoch = 131.8297 BKJD

DV fit results are unavailable

## DV Diagnostic Results:

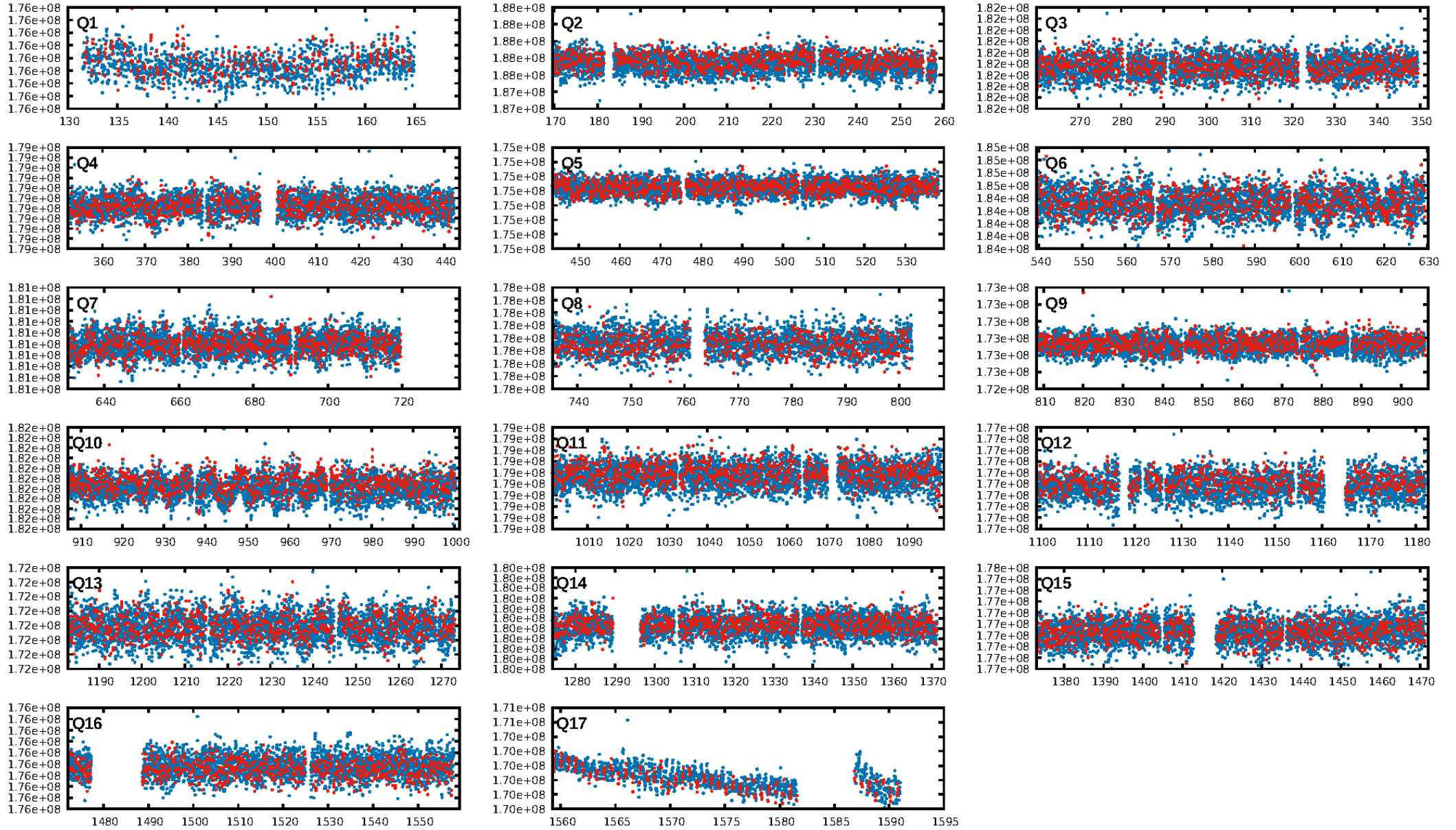
ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 1.24e-17  
RollingBand-fgt: 1.00 [1958/1958]  
GhostDiagnostic-chr: 1.106

Centroid-sig: 0.3%  
Centroid-so: 0.616 arcsec [2.36σ]  
OotOffset-rm: 0.196 arcsec [1.46σ]  
KicOffset-rm: 0.319 arcsec [2.43σ]  
OotOffset-st: 4/4/4/4 [16]  
KicOffset-st: 4/4/4/4 [16]  
DiffImageQuality-fgm: 0.81 [13/16]  
DiffImageOverlap-fno: 1.00 [17/17]

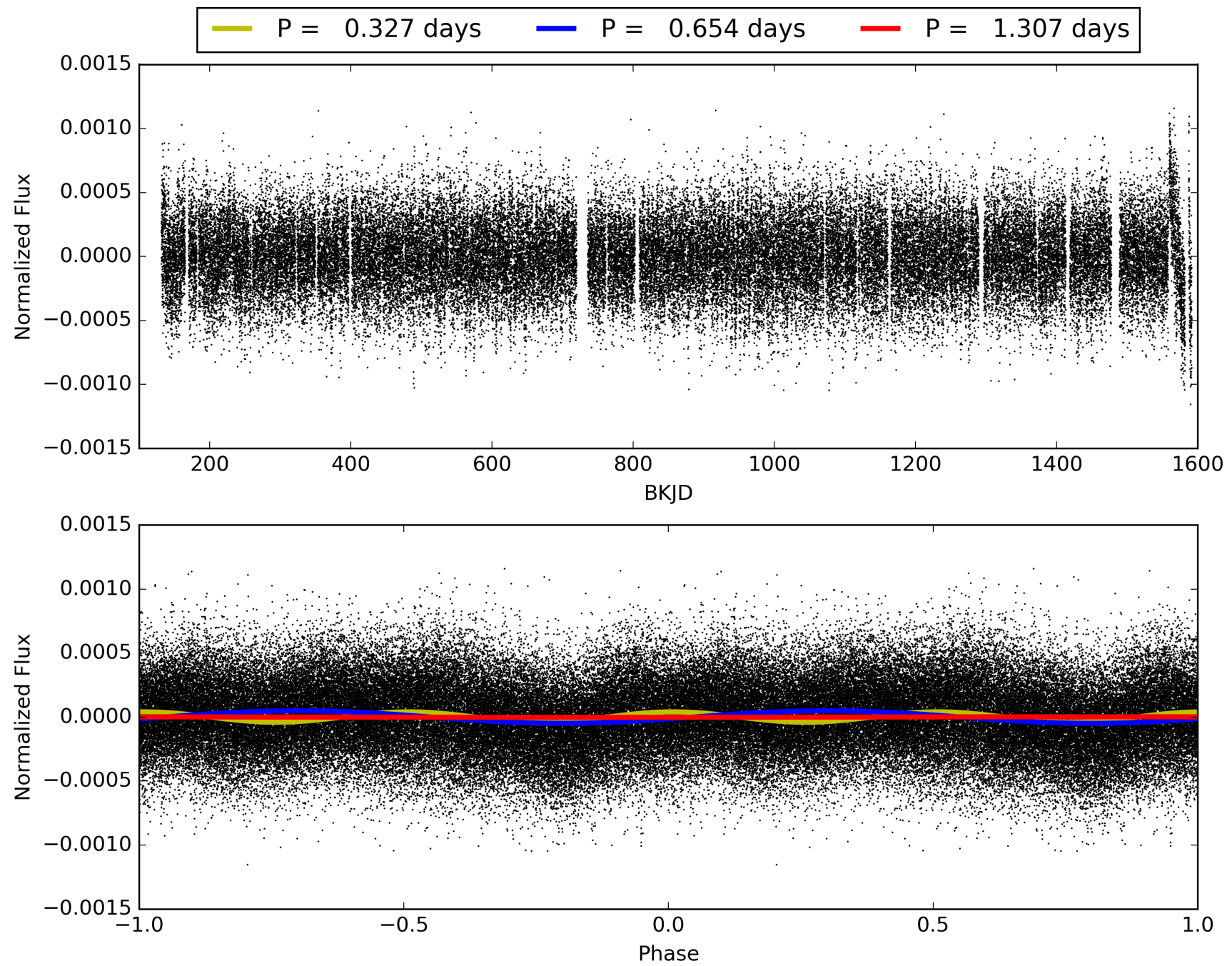
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:24:37 Z

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

# TCE 005964069-01, PDC Light Curves



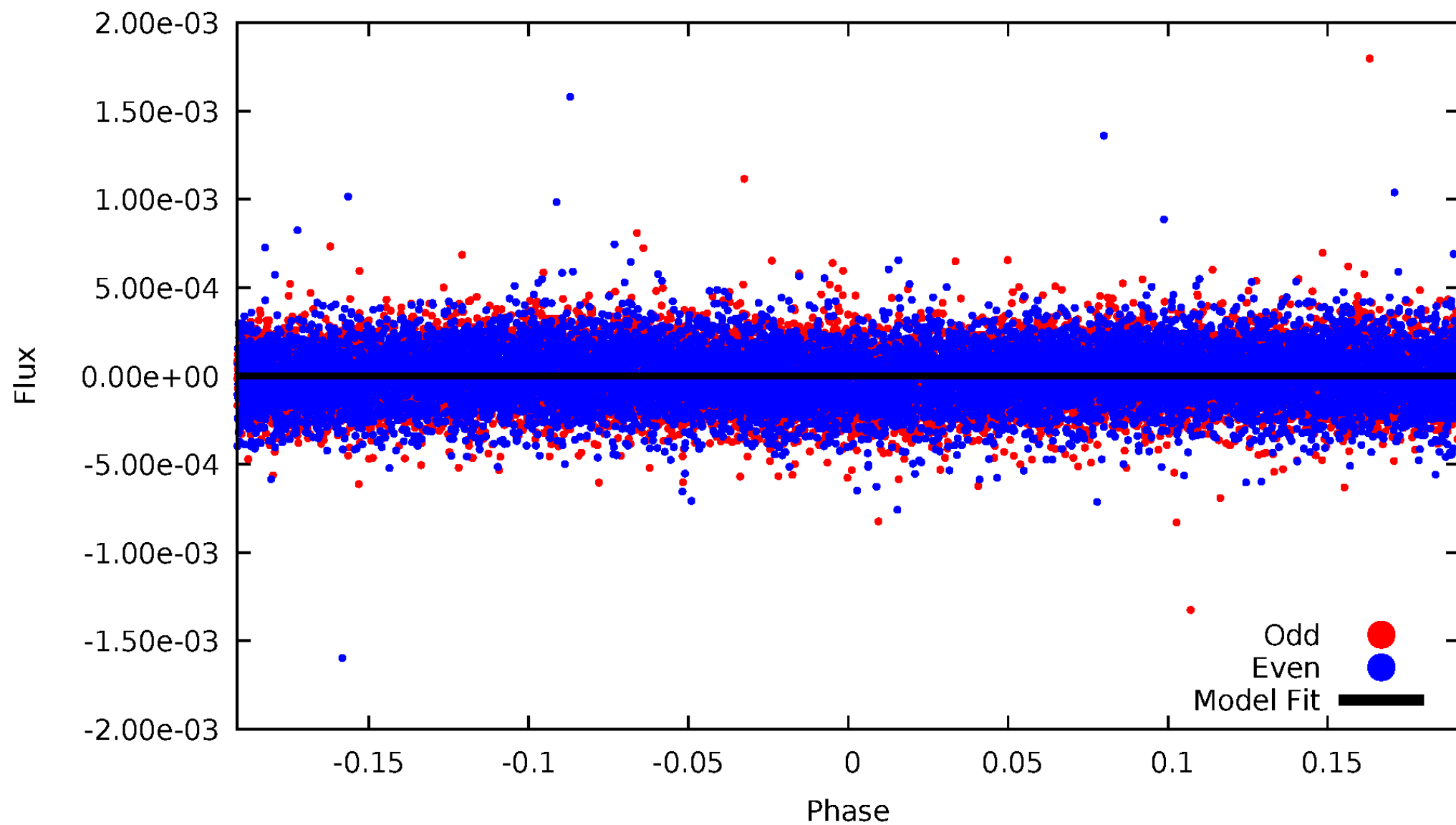
TCE 005964069-01





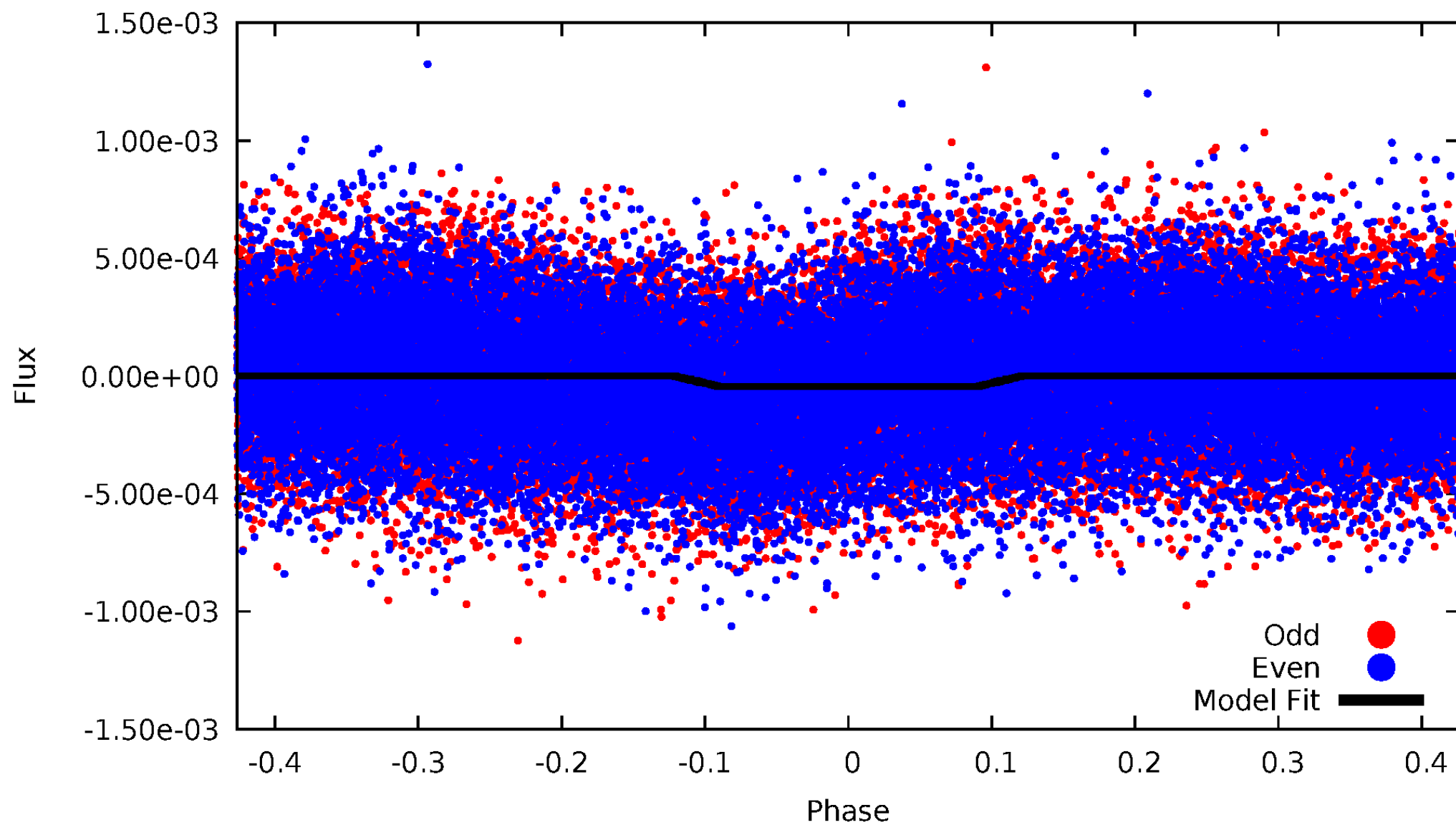
# DV Odd/Even

TCE 005964069-01

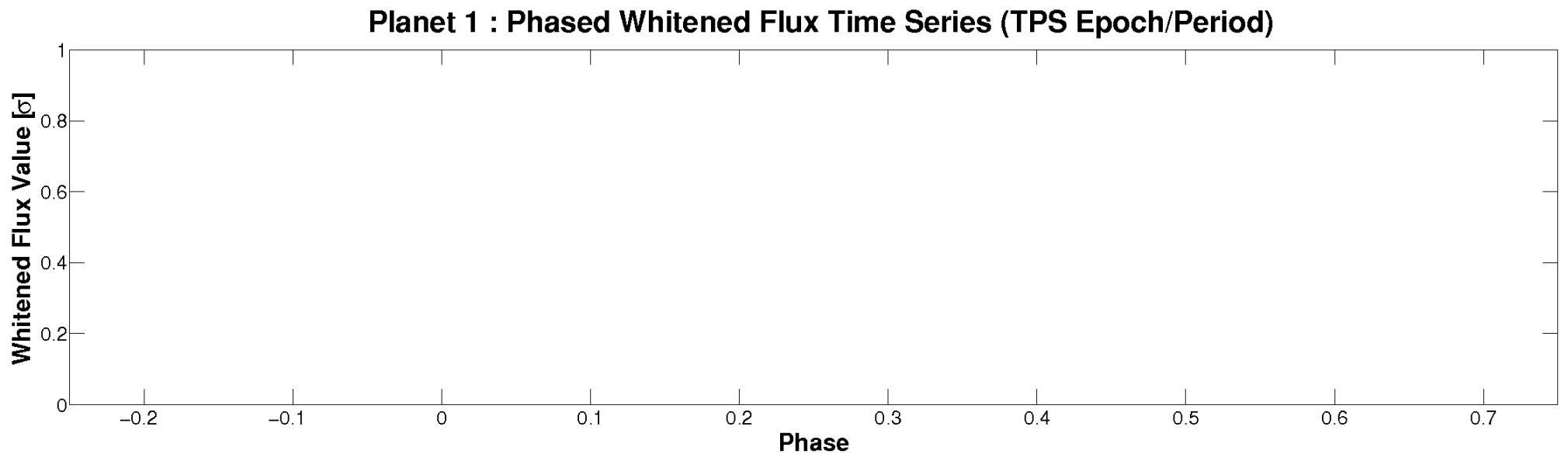
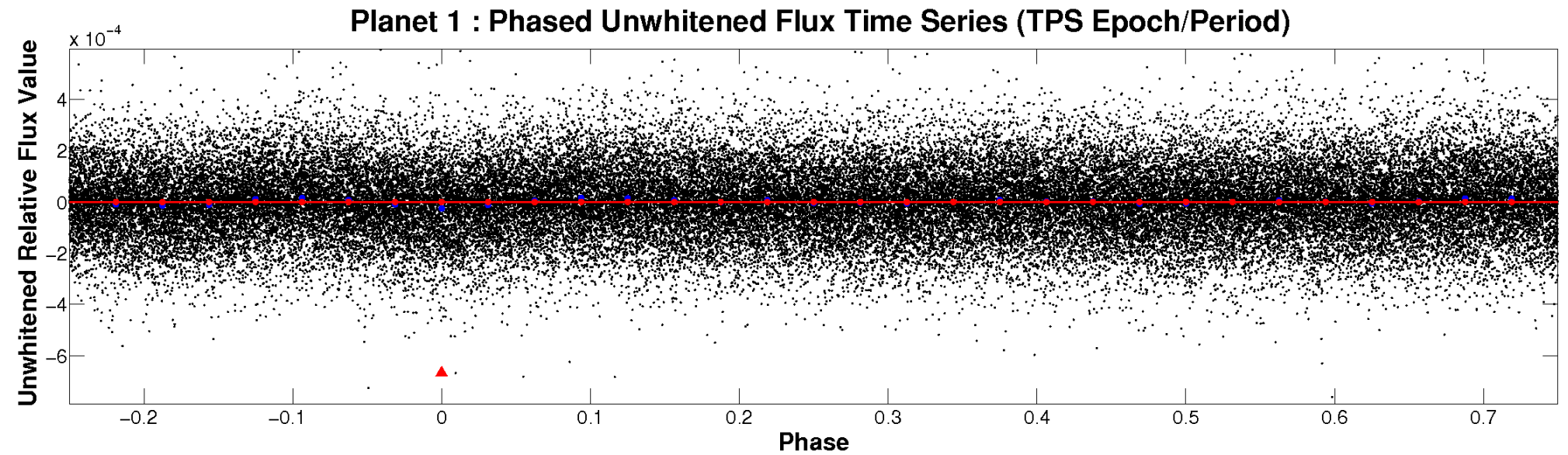


# ALT Odd/Even

TCE 005964069-01

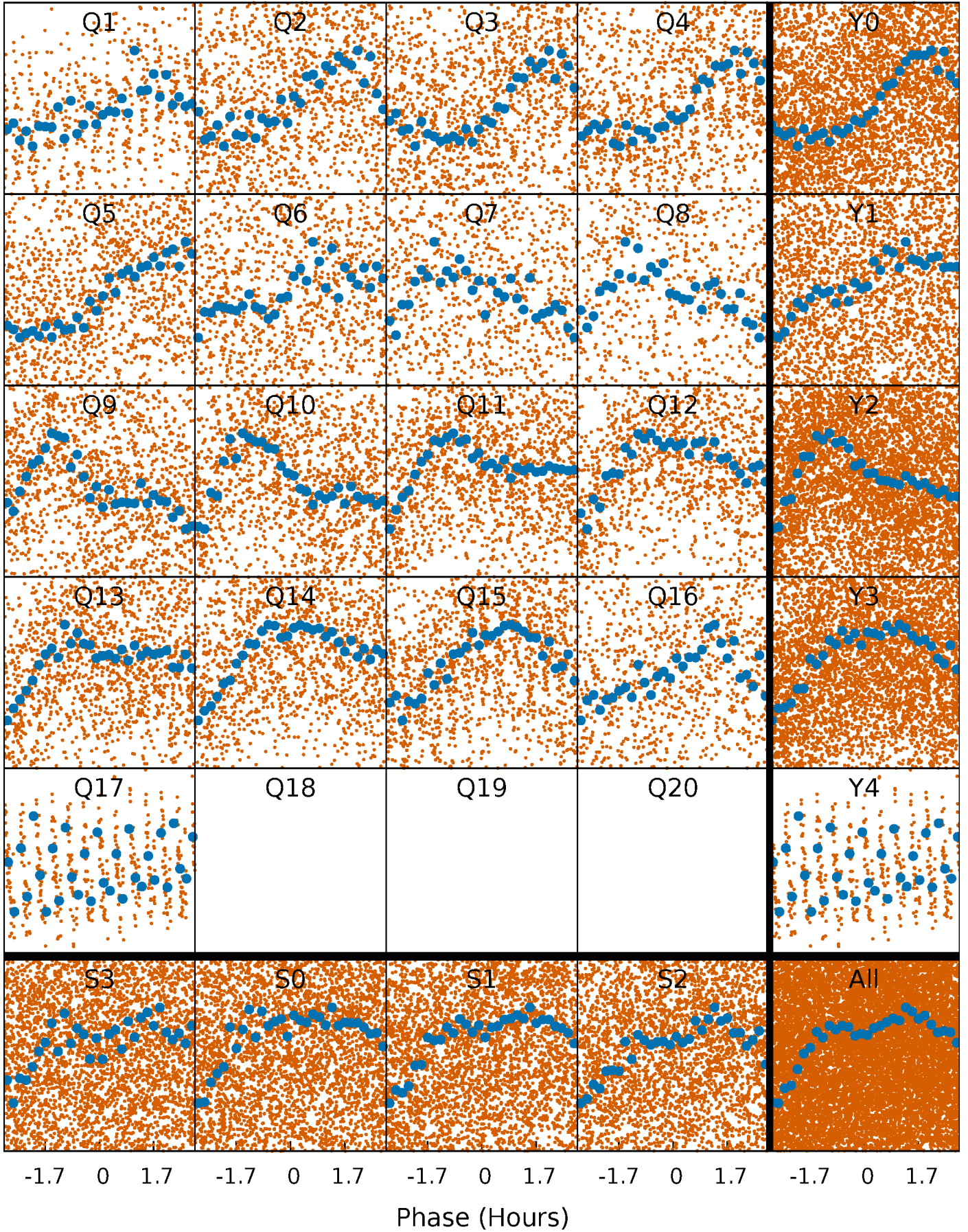


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

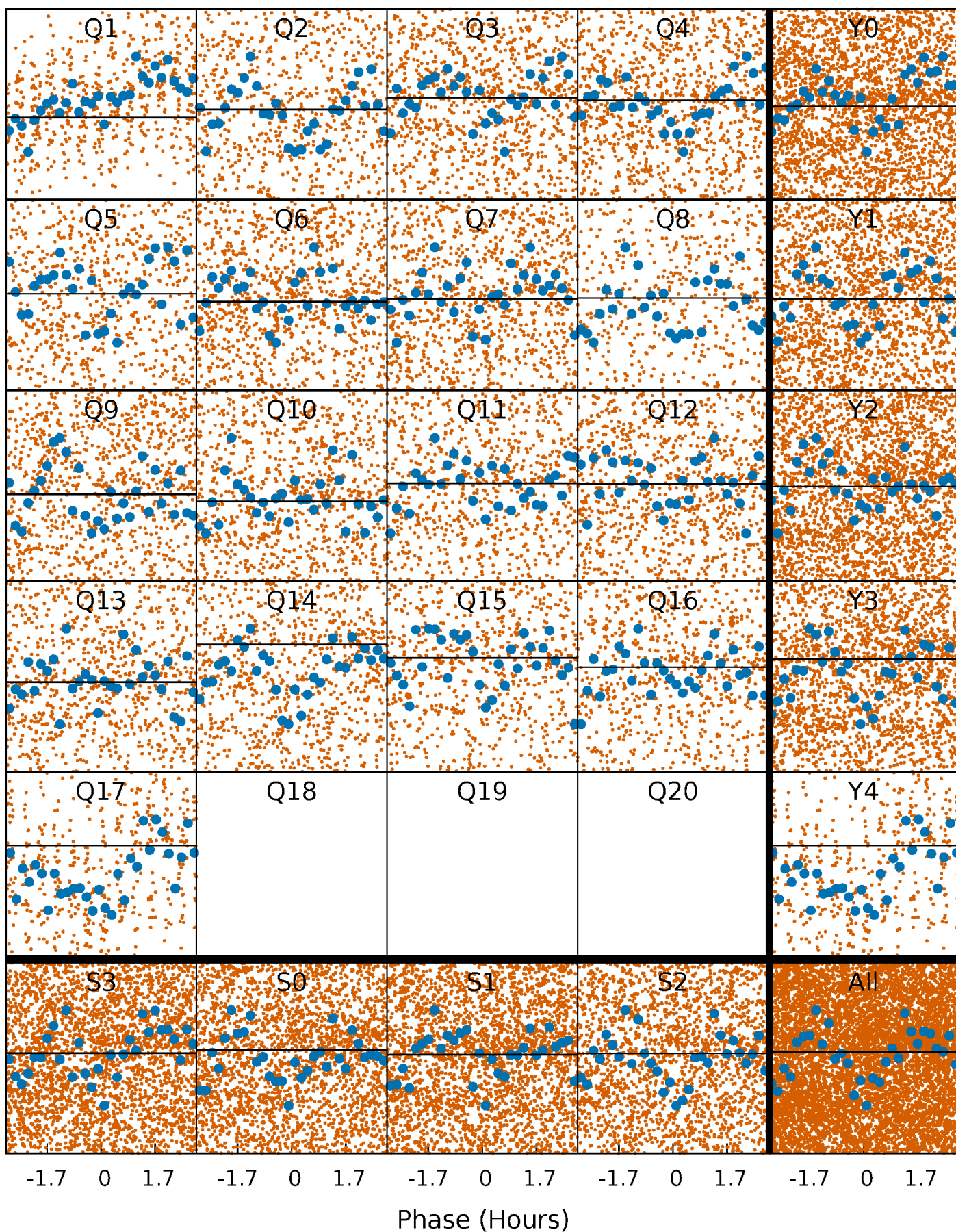
TCE 005964069-01   P= 0.653645 Days    $T_0=131.829744$  (BKJD)





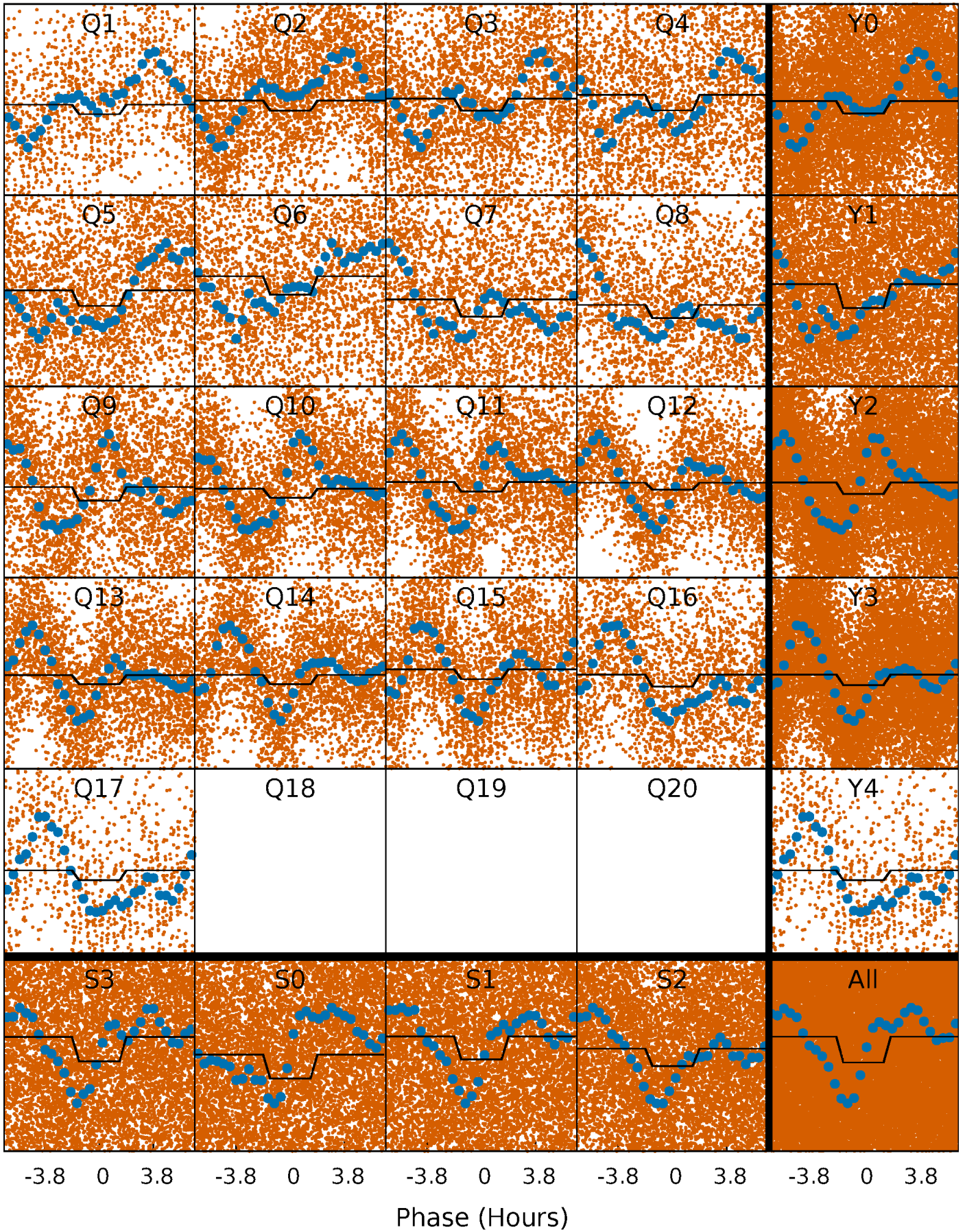
# DV Quarter-Phased Transit Curves

TCE 005964069-01 P= 0.653645 Days  $T_0=131.829744$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 005964069-01   P= 0.653645 Days    $T_0=131.745576$  (BKJD)

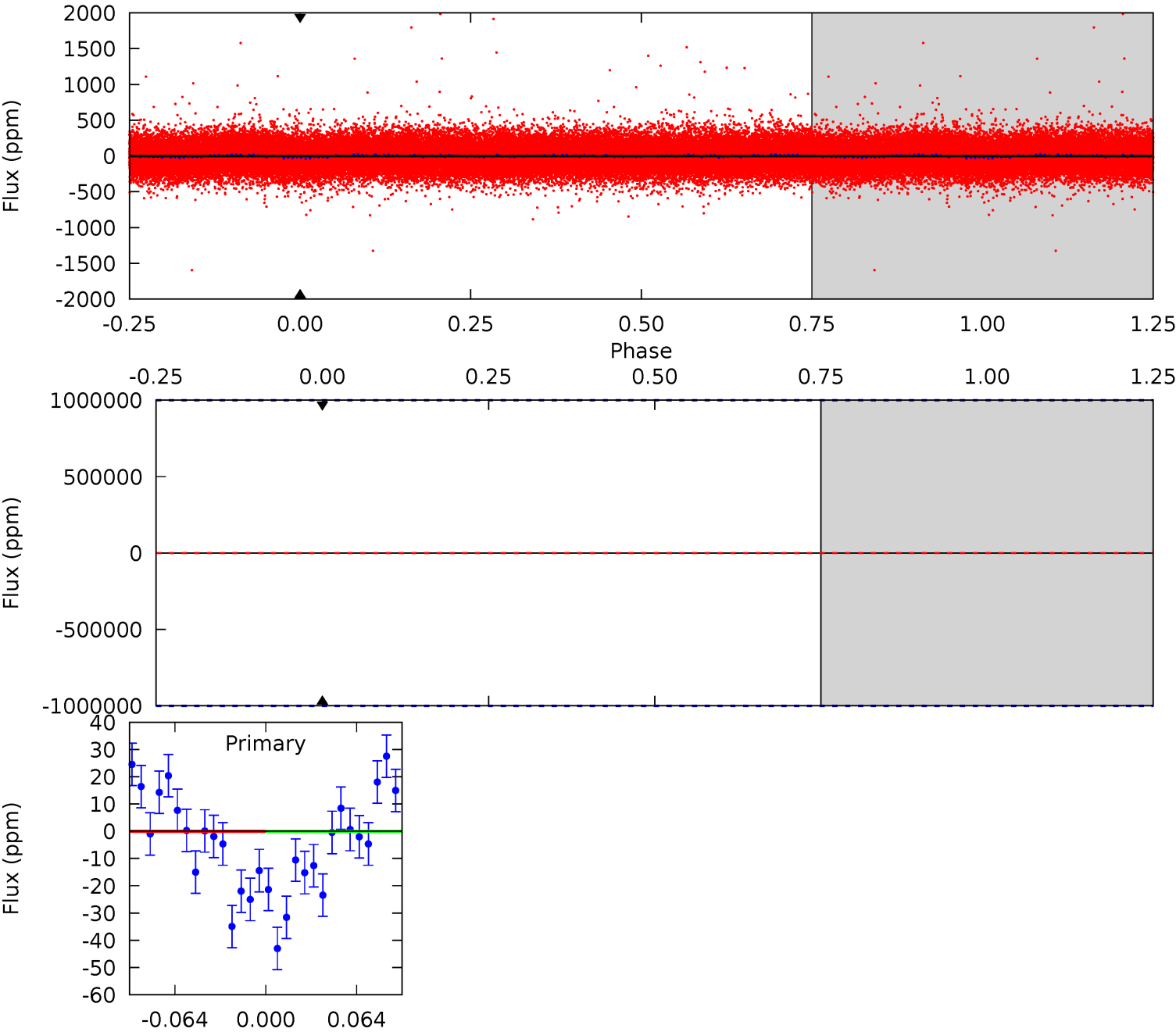




DV Model-Shift Uniqueness Test

005964069-01, P = 0.653645 Days, E = 131.176099 Days

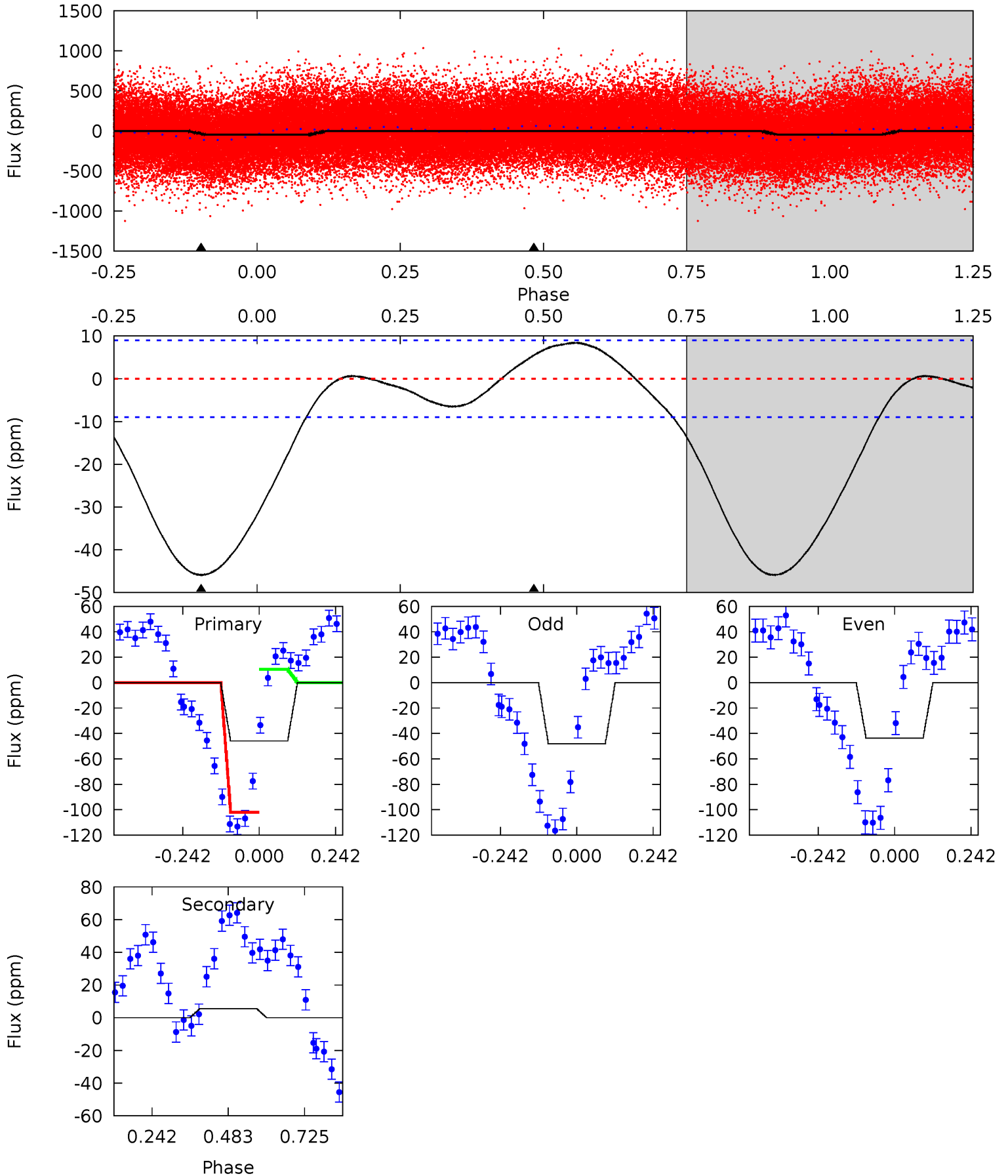
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

005964069-01, P = 0.653645 Days, E = 131.091931 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
22.4	-2.68	0	0	4.38	1.17	0.37	22.4	22.4	-2.68	-2.68	1.09	0.97	0.15	21.6





### Stellar Parameters For KIC 005964069

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7148^{+174}_{-274}$	$4.346^{+0.056}_{-0.224}$	$-0.300^{+0.250}_{-0.350}$	$1.247^{+0.468}_{-0.117}$	$1.281^{+0.204}_{-0.167}$	$0.931^{+0.225}_{-0.539}$
	+2%/-4%	+1%/-5%	+83%/-117%	+38%/-9%	+16%/-13%	+24%/-58%
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 005964069-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$10.34^{+11.52}_{-6.96}$	$3969^{+292}_{-191}$	$6004^{+28541}_{-38520}$	$3.316^{+214.844}_{-188.398}$
Alt.	$5 \pm 2$	$10.26^{+10.72}_{-7.30}$	$3970^{+334}_{-195}$	$-3715^{+138}_{-300}$	$-0.007^{+0.005}_{-0.080}$

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

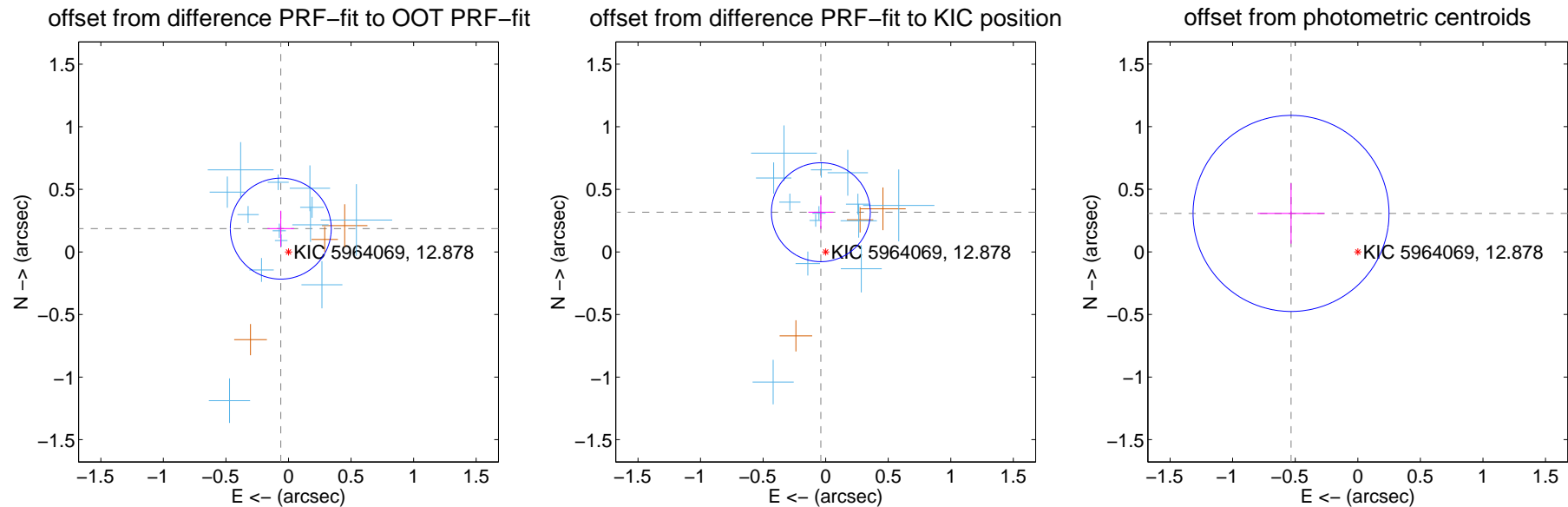
## DV Centroid Data

Supplemental centroid analysis for 005964069-01. Kepler magnitude: 12.88. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

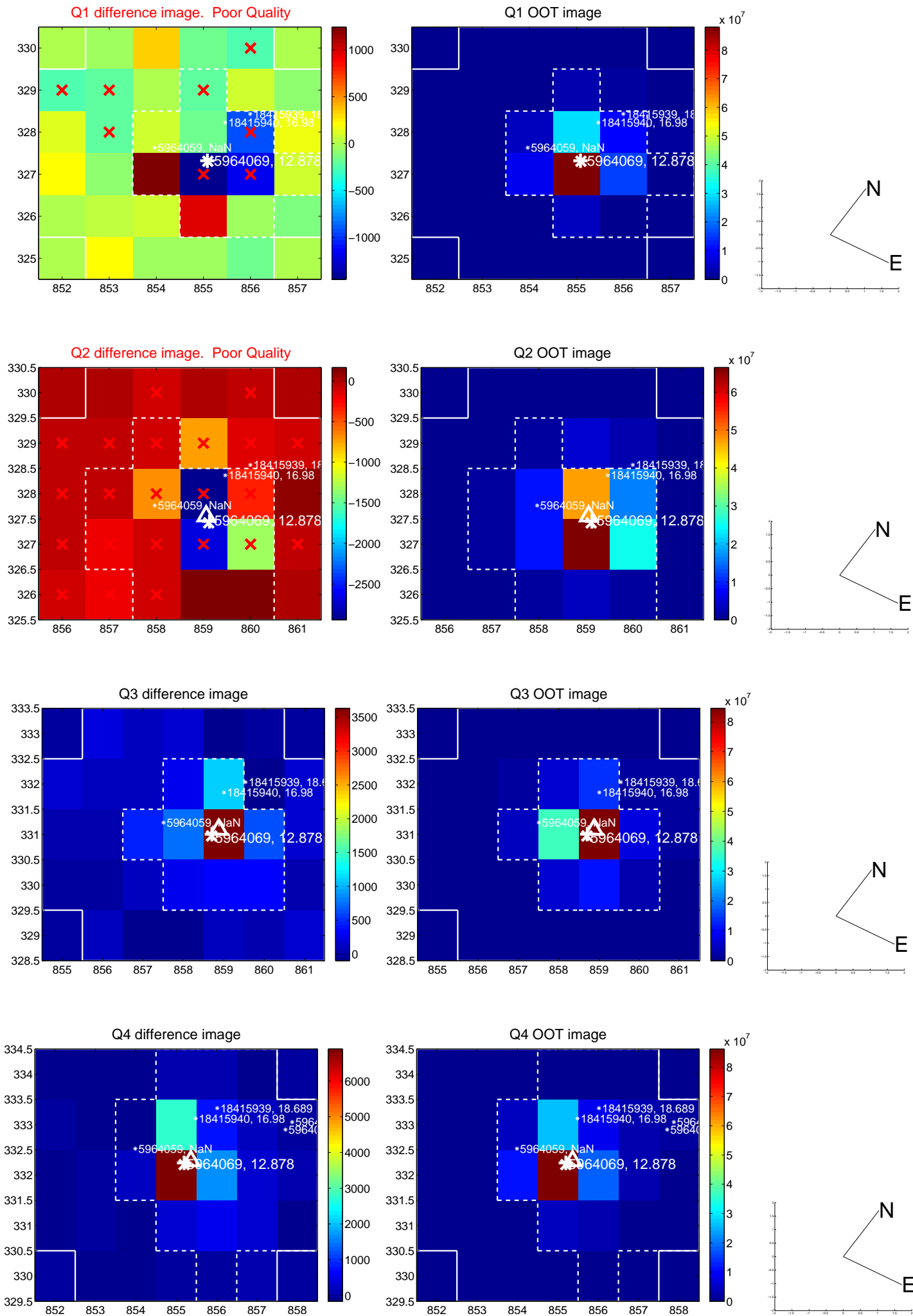
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.196 \pm 0.134$	1.46	$0.062 \pm 0.107$	$0.186 \pm 0.143$
PRF-fit source offset from KIC position	$0.319 \pm 0.132$	2.43	$0.038 \pm 0.100$	$0.317 \pm 0.133$
photometric centroid source offset	$0.62 \pm 0.26$	2.36	$0.53 \pm 0.27$	$0.31 \pm 0.24$

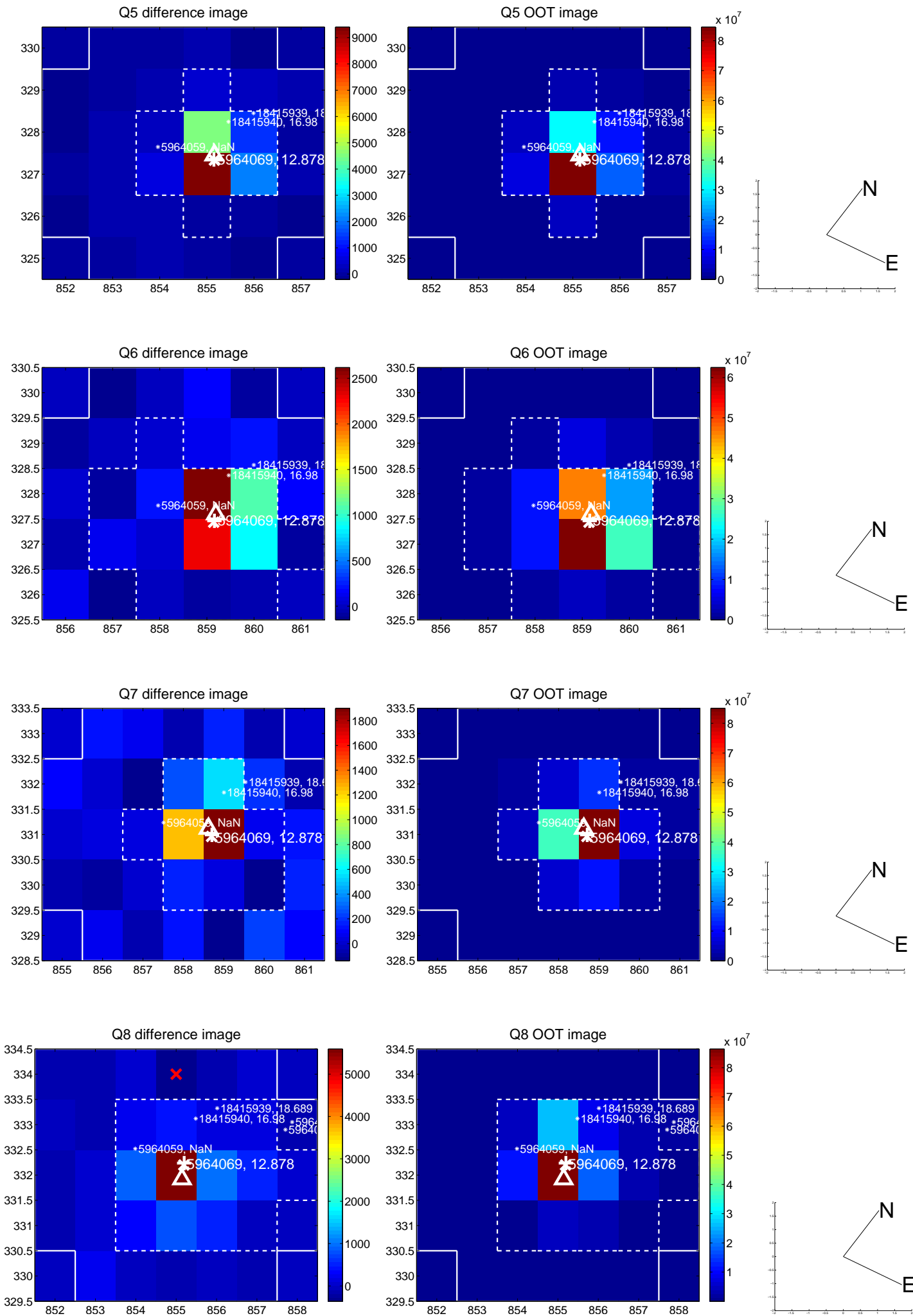


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

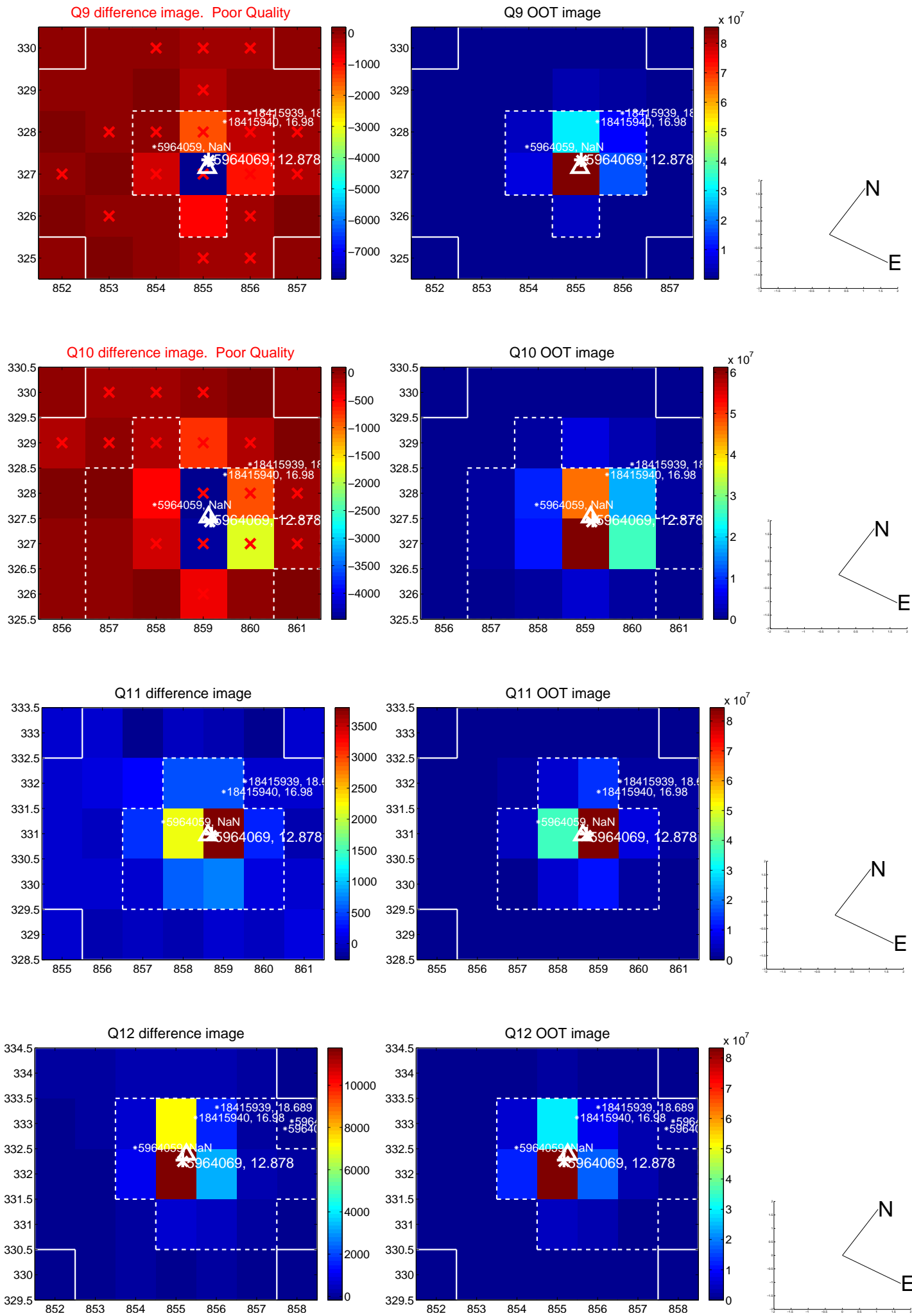


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

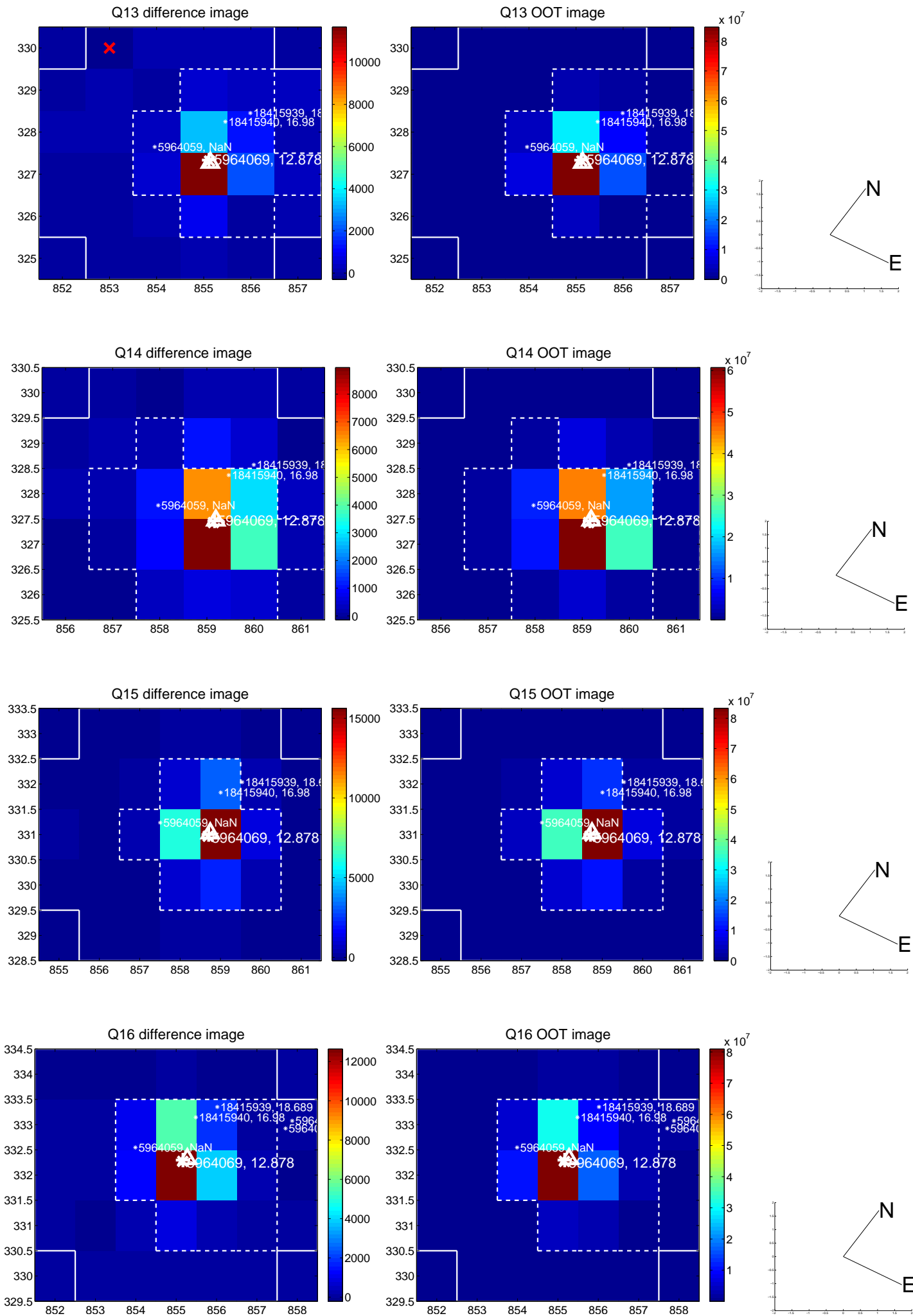




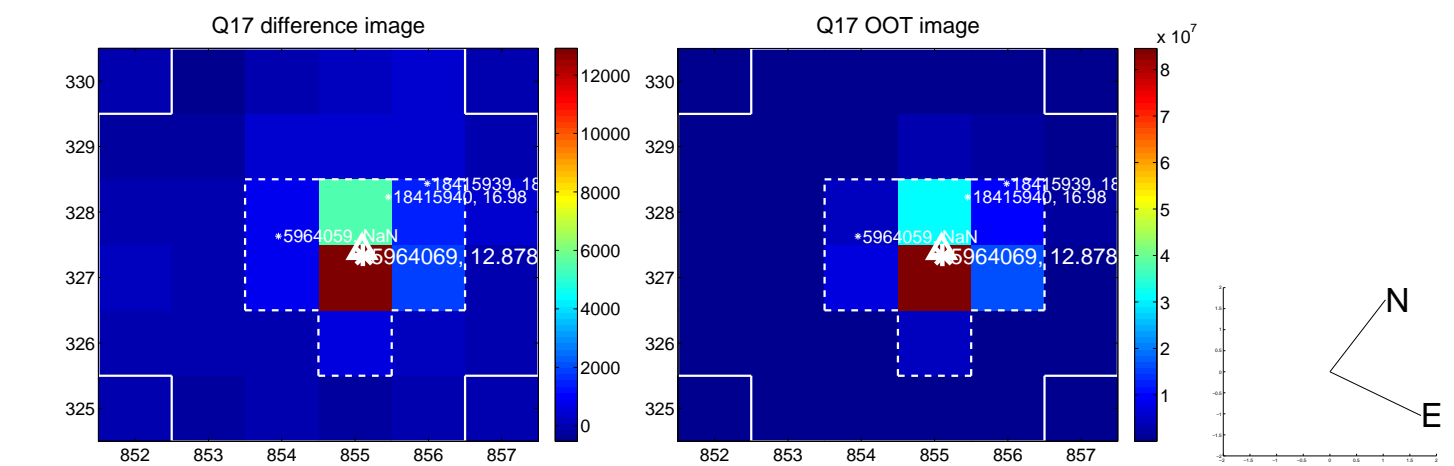
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



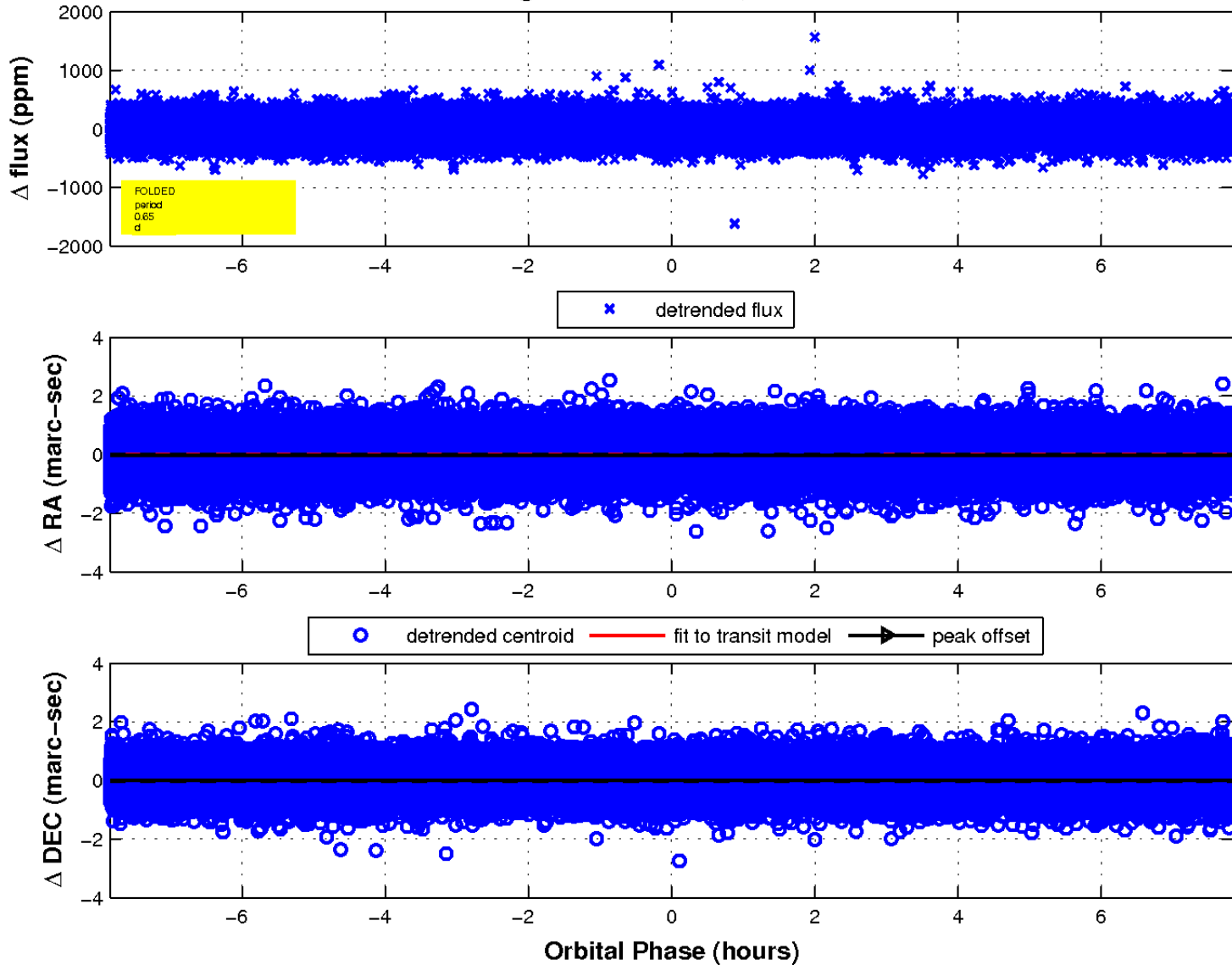
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

