

# KIC 008696266

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008696266-01	OBS	No	2.203618	131.640406	169.8	4.500	7.5	-1.0	2.78	6888	3.66	10290.78

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008696266-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—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.

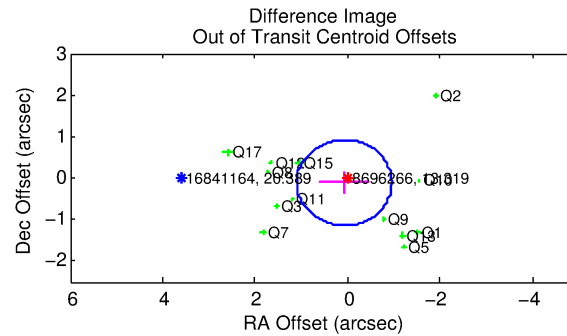
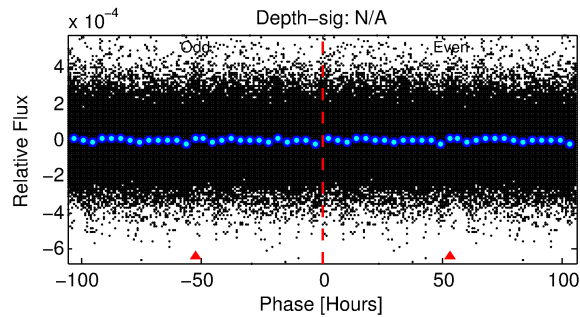
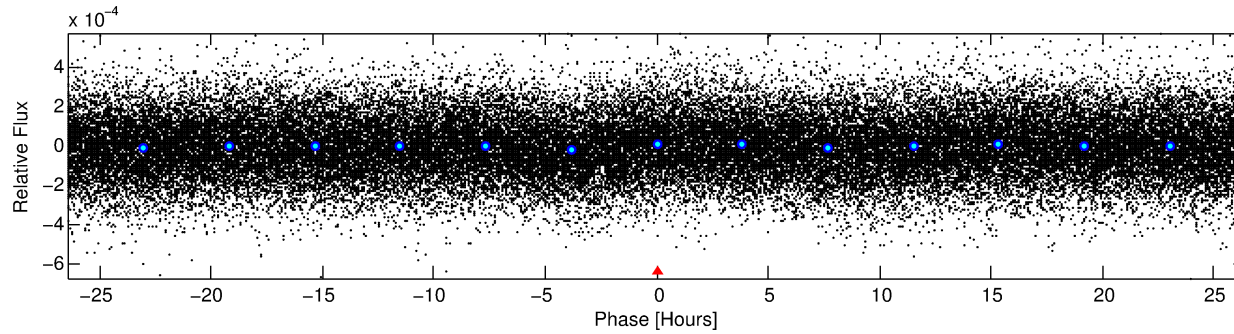
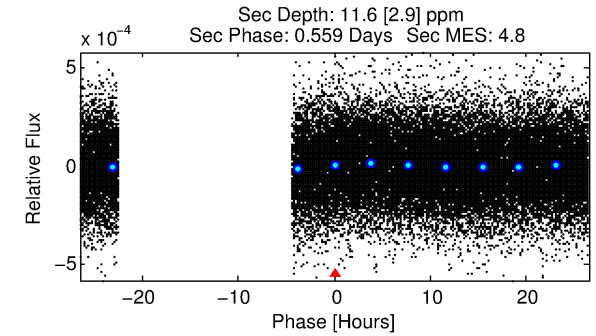
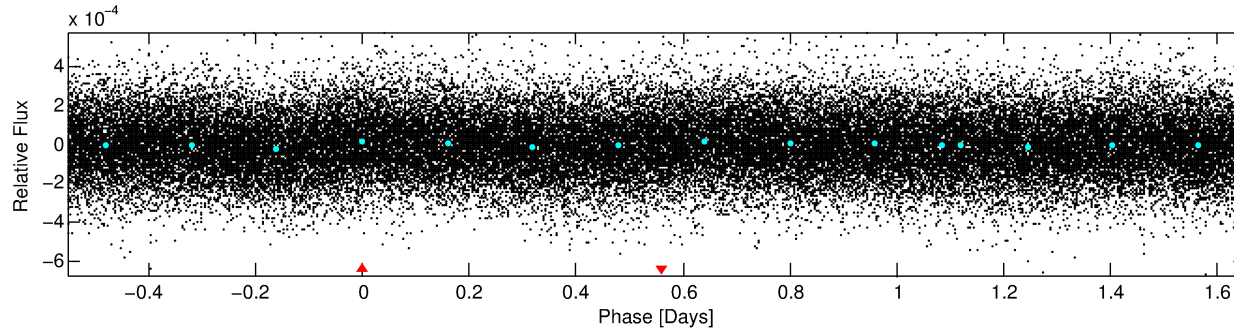
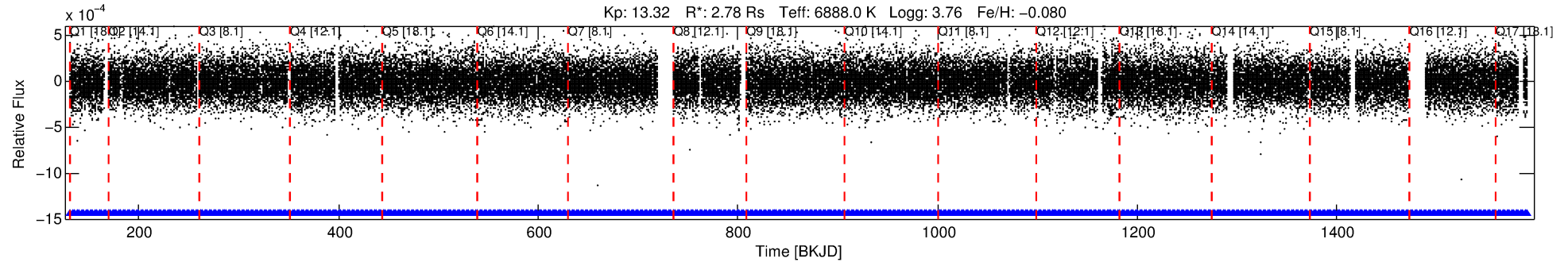
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008696266-01

No Significant Match Found

# DV One-Page Summary

KIC: 8696266 Candidate: 1 of 1 Period: 2.204 d



## TPS TCE Results:

Period = 2.20362 d  
Epoch = 131.6404 BKJD

DV fit results are unavailable

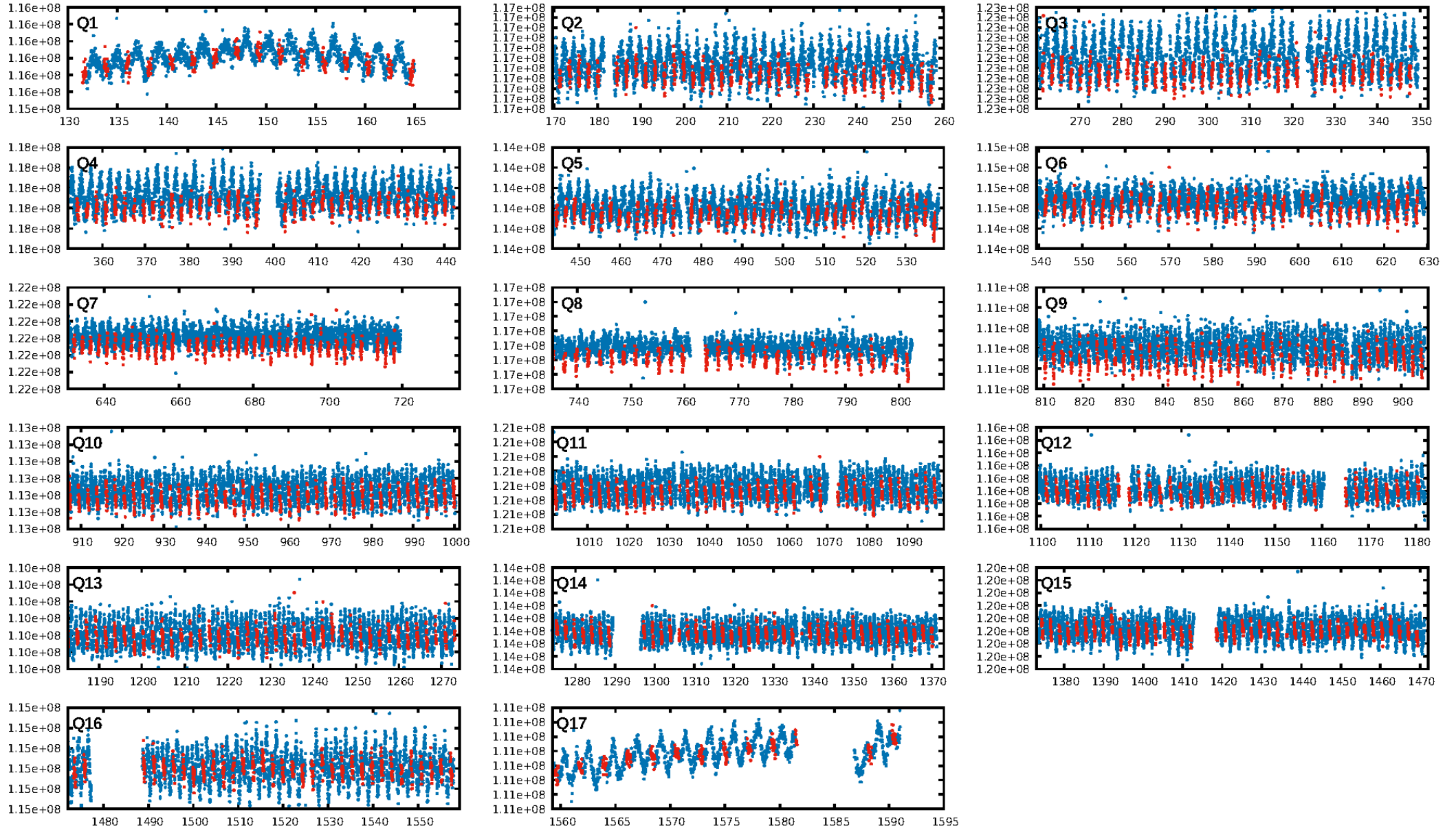
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa:  $1.31e-11$   
RollingBand-fgt: 1.00 [598/598]  
GhostDiagnostic-chr: 0.4368  
Centroid-sig: 0.1%  
Centroid-so: 0.397 arcsec [2.95 $\sigma$ ]  
OotOffset-rm: 0.132 arcsec [0.39 $\sigma$ ]  
KicOffset-rm: 0.147 arcsec [0.52 $\sigma$ ]  
OotOffset-st: 2/4/2/5 [13]  
KicOffset-st: 2/4/2/5 [13]  
DiffImageQuality-fgm: 1.00 [13/13]  
DiffImageOverlap-fno: 1.00 [17/17]

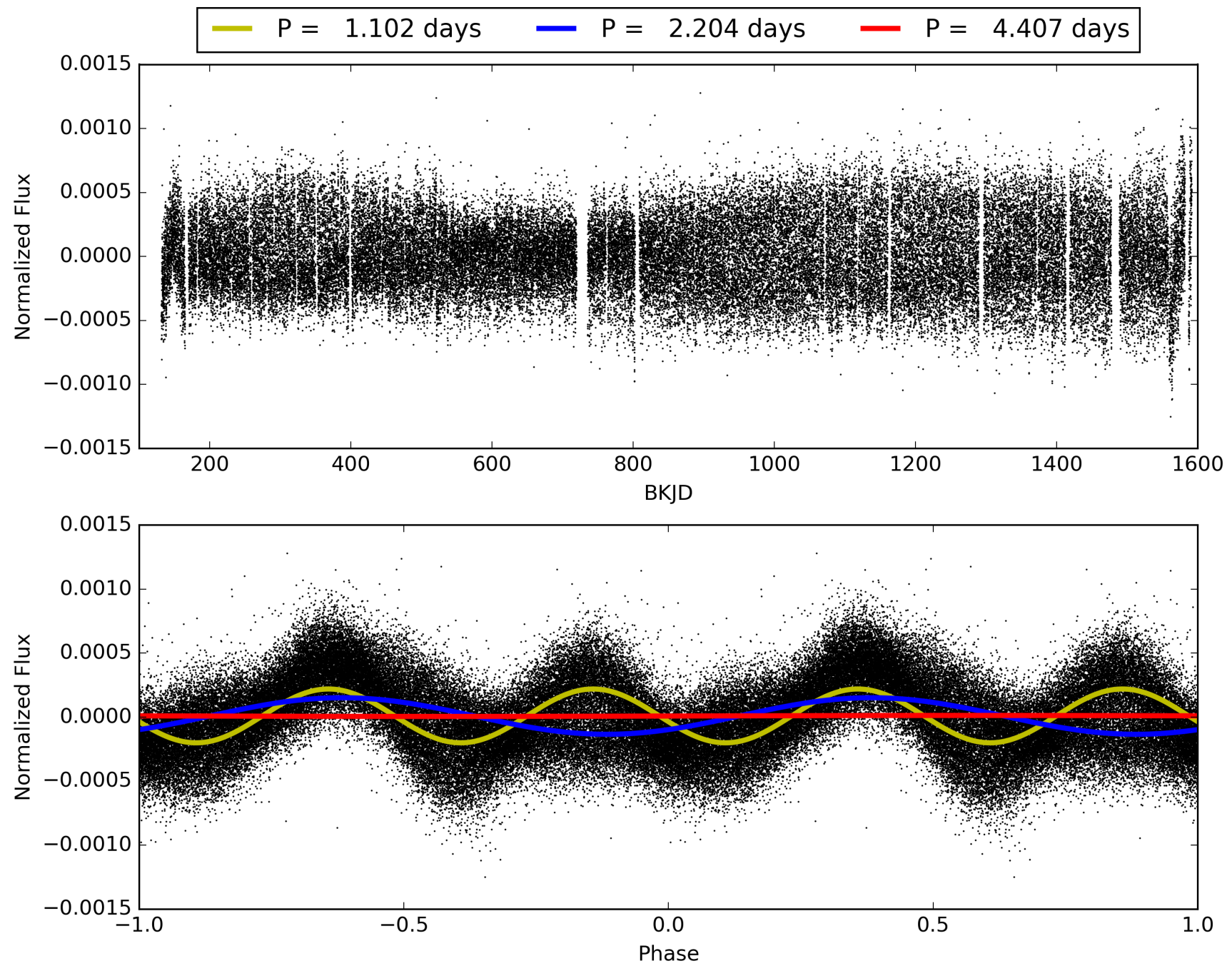
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:12:23 Z

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

# TCE 008696266-01, PDC Light Curves

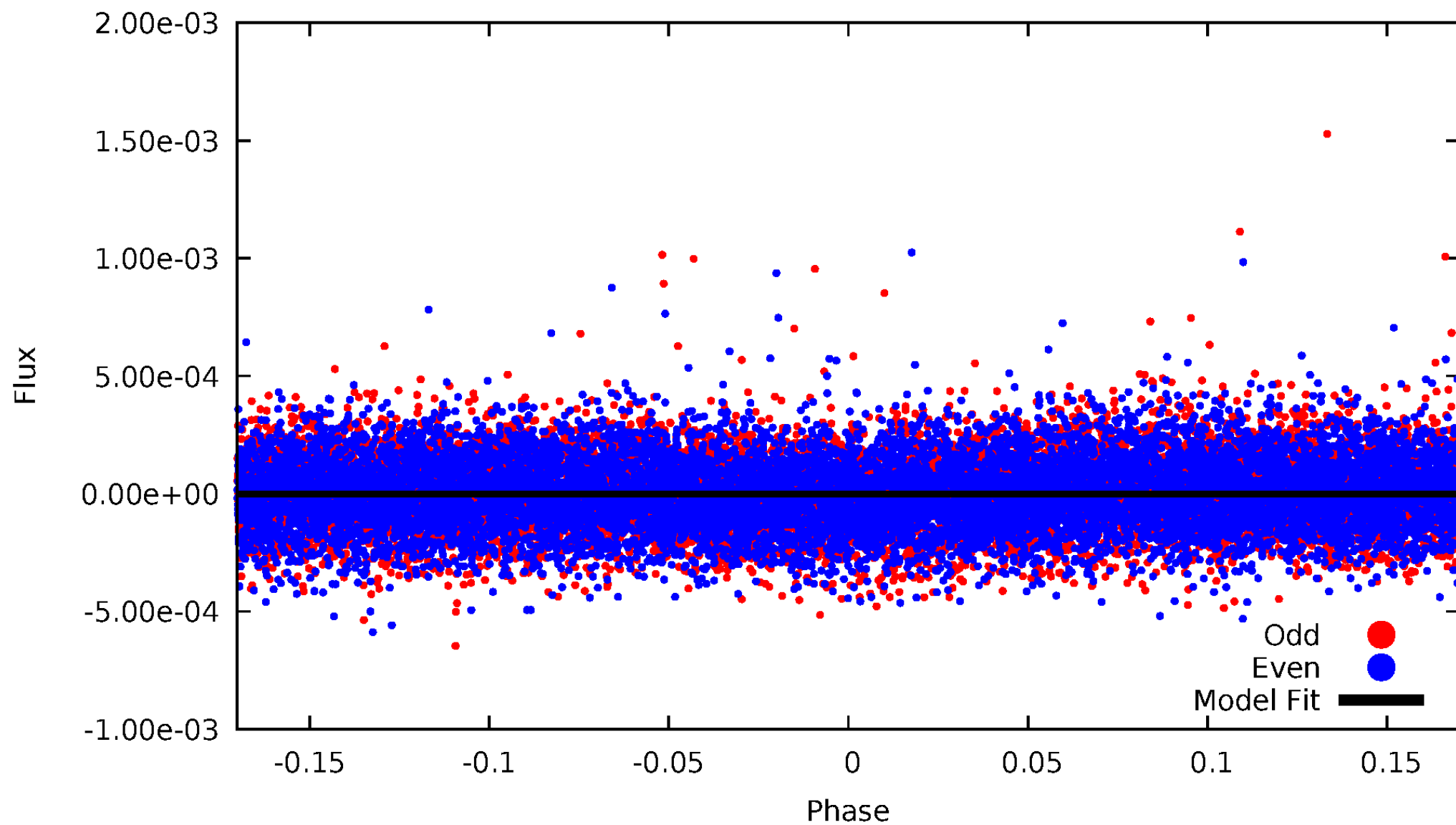


TCE 008696266-01



# DV Odd/Even

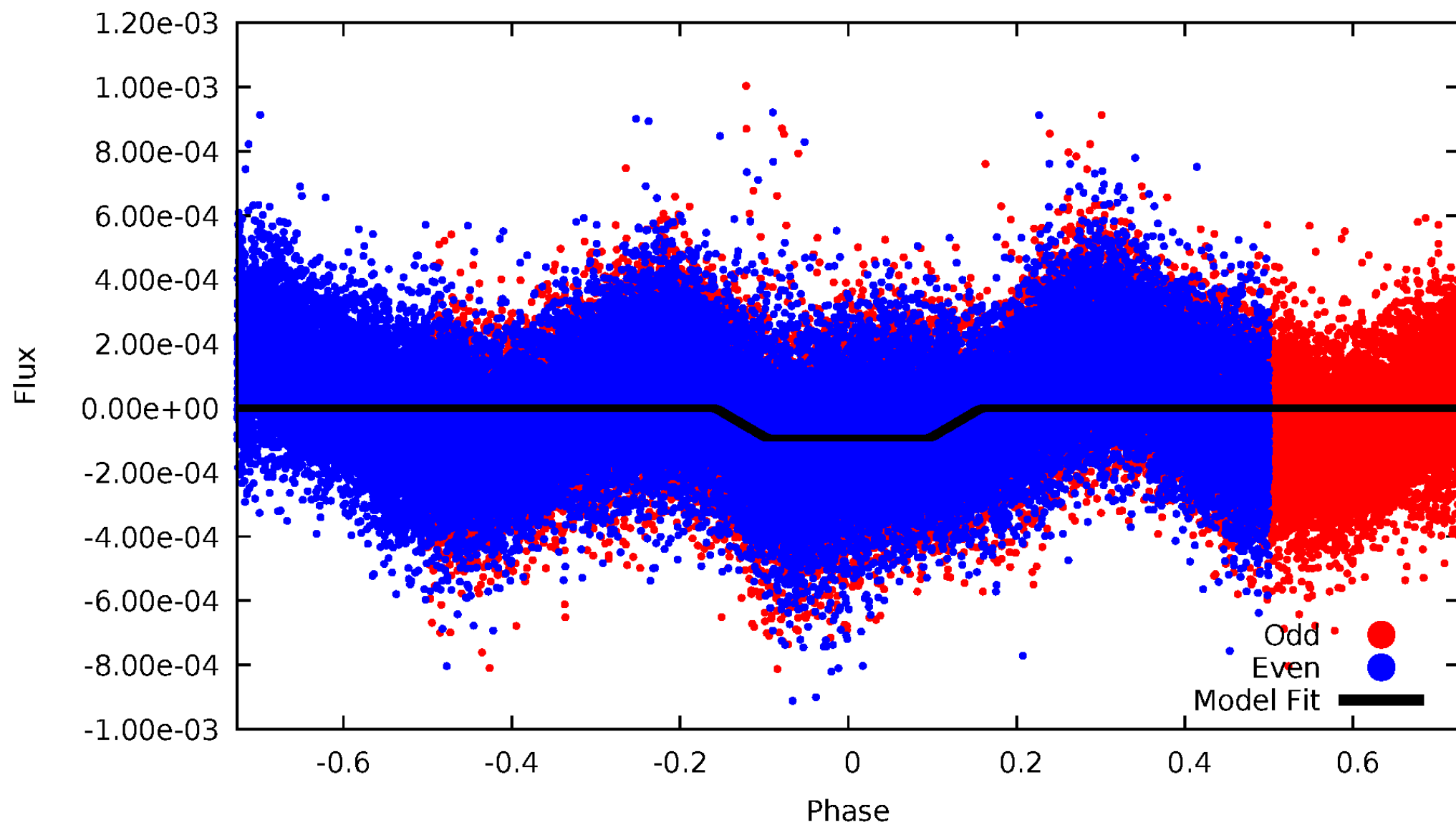
TCE 008696266-01





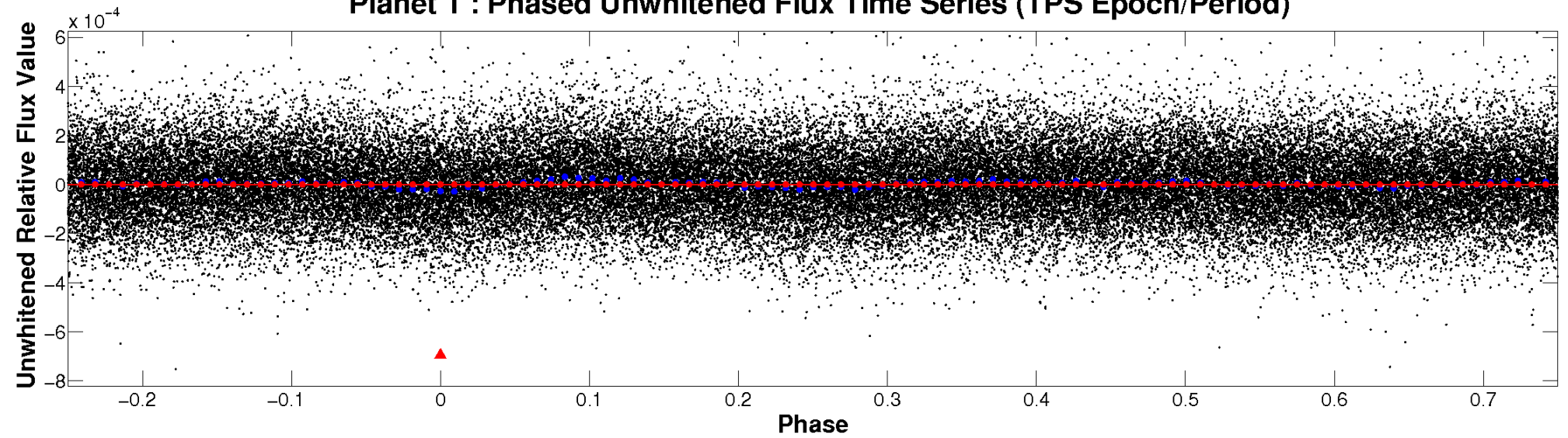
# ALT Odd/Even

TCE 008696266-01

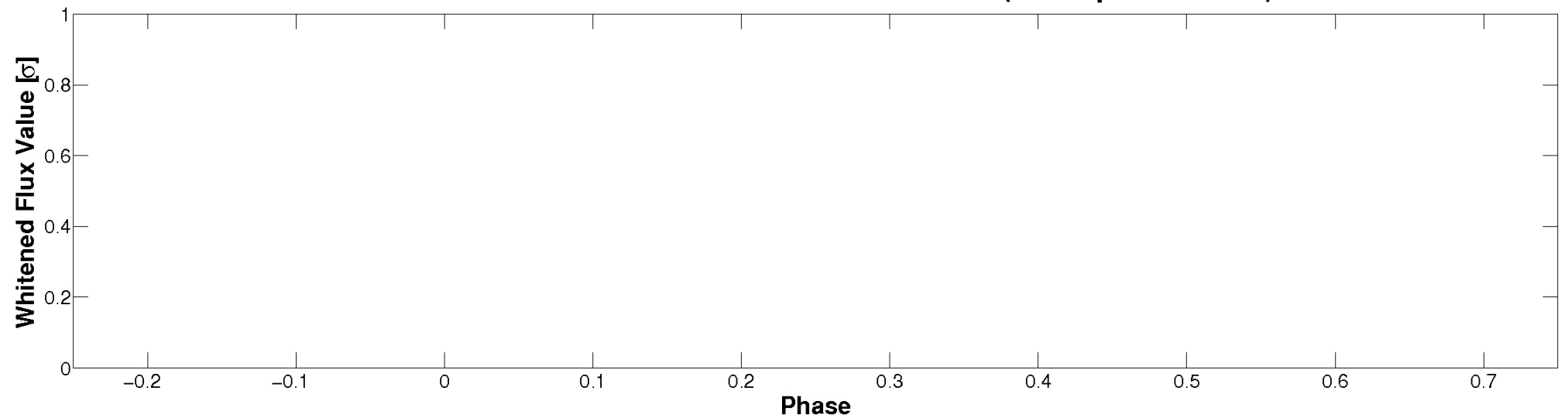


# Non-Whitened Vs. Whitened Light Curve

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

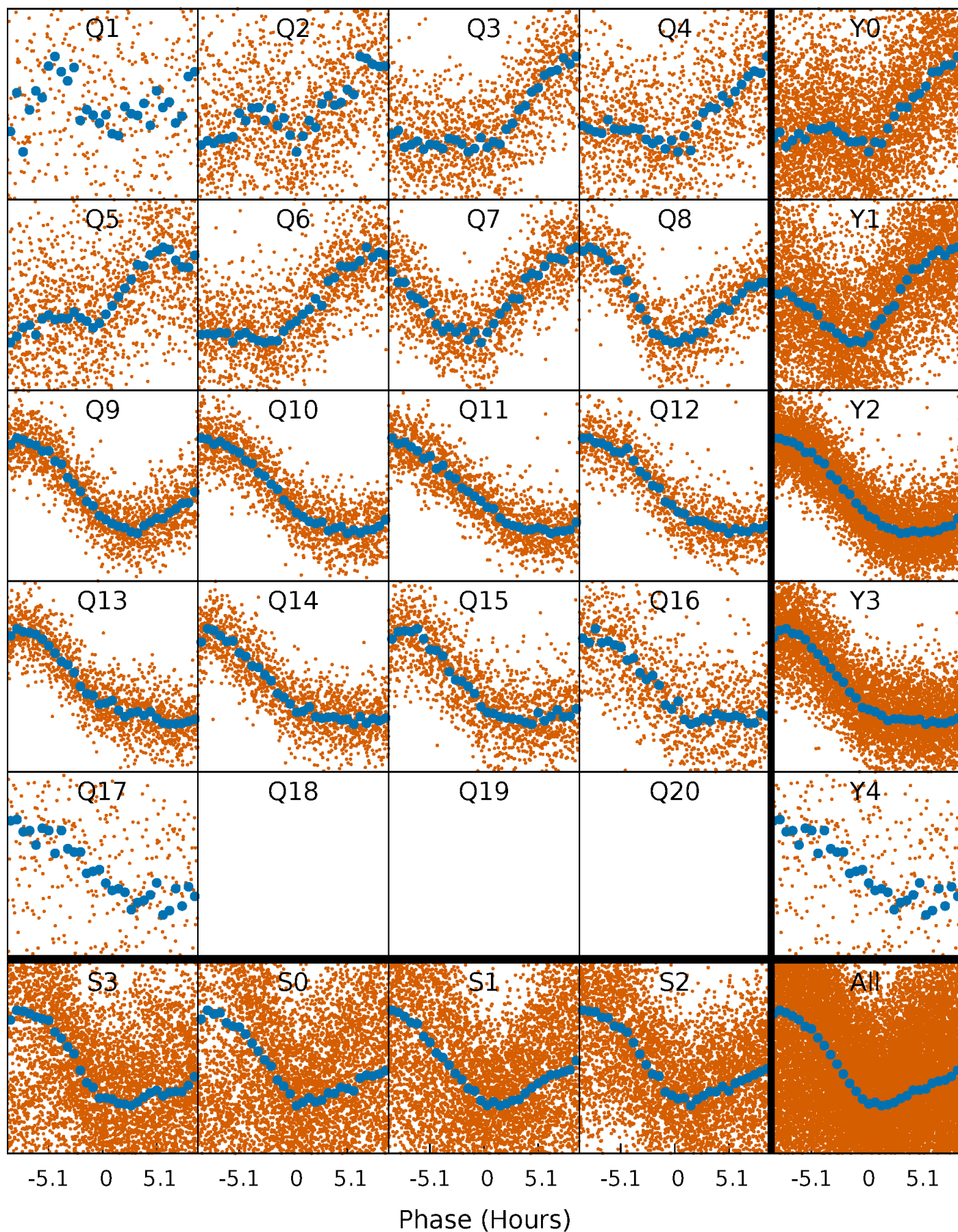


**Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)**



# PDC Quarter-Phased Transit Curves

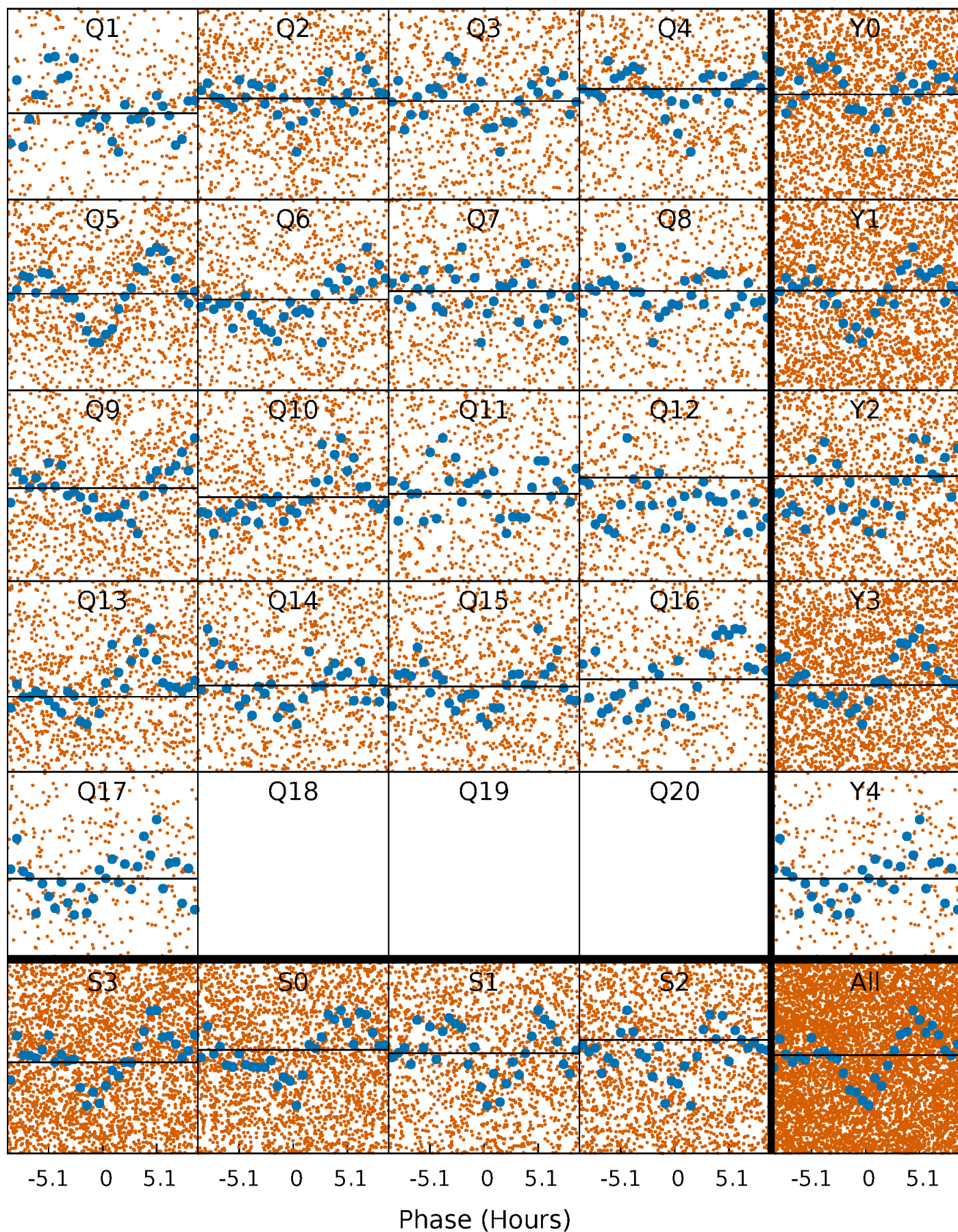
TCE 008696266-01 P= 2.203618 Days  $T_0=131.640406$  (BKJD)





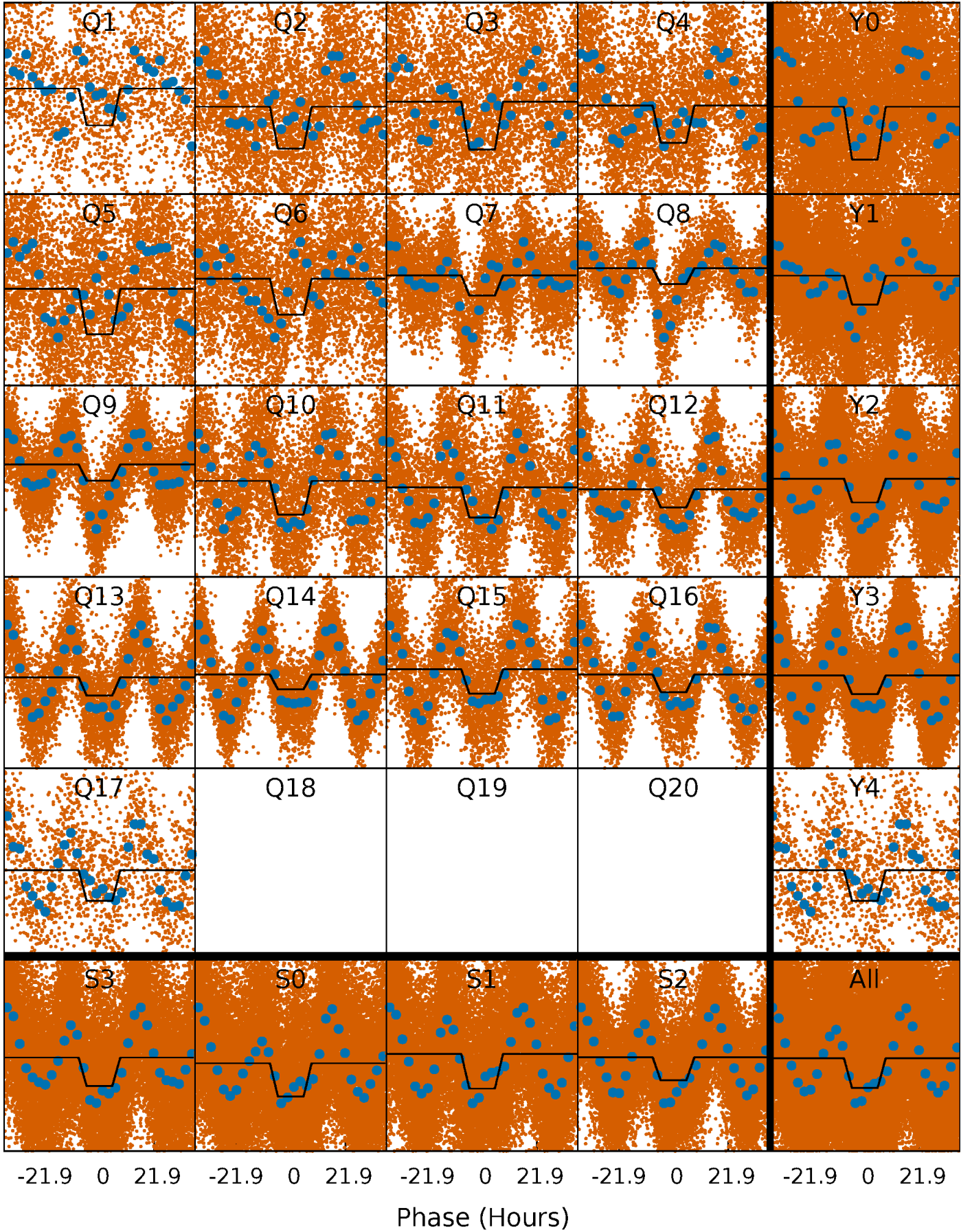
# DV Quarter-Phased Transit Curves

TCE 008696266-01 P= 2.203618 Days  $T_0=131.640406$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

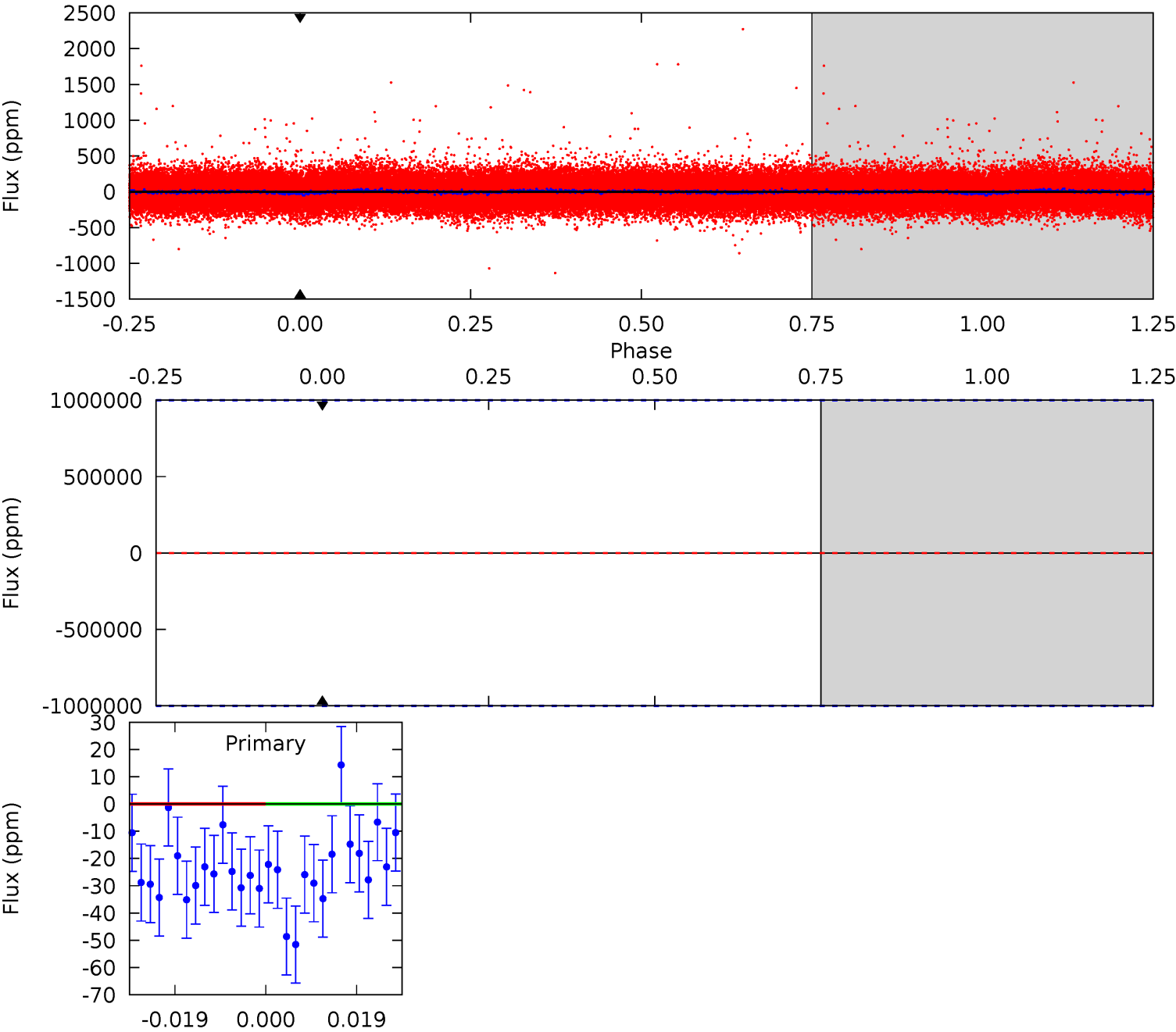
TCE 008696266-01 P= 2.203618 Days  $T_0=131.793843$  (BKJD)



DV Model-Shift Uniqueness Test

008696266-01, P = 2.203618 Days, E = 129.436788 Days

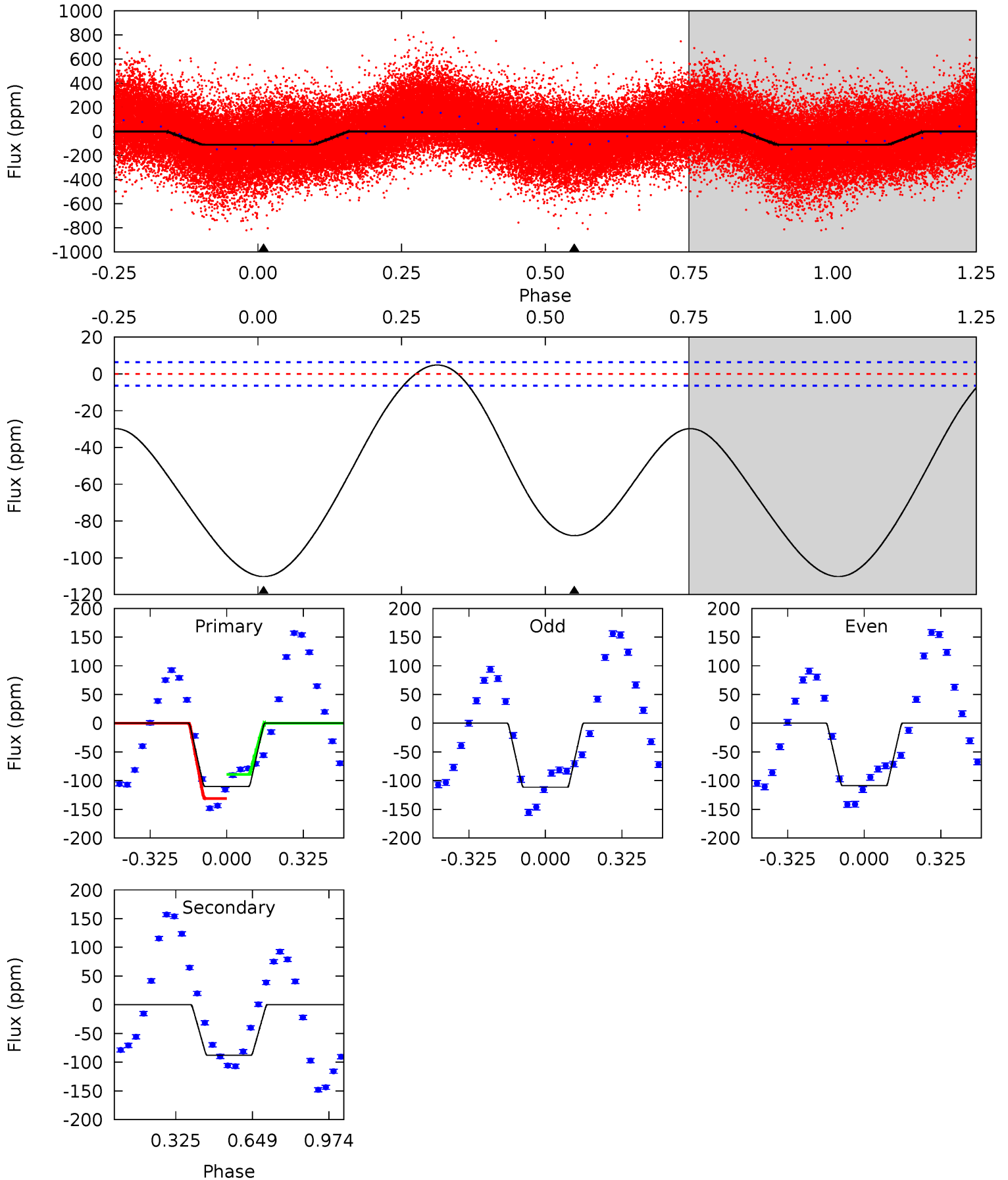
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

008696266-01, P = 2.203618 Days, E = 129.590225 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
74.2	59.2	0	0	4.31	0.99	7.62	74.2	74.2	59.2	59.2	0.95	1.07	0.04	17.5





### Stellar Parameters For KIC 008696266

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6888^{+184}_{-225}$	$3.759^{+0.277}_{-0.092}$	$-0.080^{+0.250}_{-0.300}$	$2.780^{+0.485}_{-0.901}$	$1.618^{+0.232}_{-0.257}$	$0.106^{+0.195}_{-0.031}$
	+3%/-3%	+7%/-2%	+312%/-375%	+17%/-32%	+14%/-16%	+184%/-29%
Source	PHO1	FLK73	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 008696266-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$20.68^{+22.81}_{-13.61}$	$3505^{+218}_{-314}$	$3997^{+29758}_{-33797}$	$1.148^{+348.480}_{-287.460}$
Alt.	$-88 \pm 1$	$20.97^{+22.38}_{-13.92}$	$3506^{+216}_{-275}$	$-2948^{+7085}_{-394}$	$0.169^{+1.235}_{-0.130}$

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



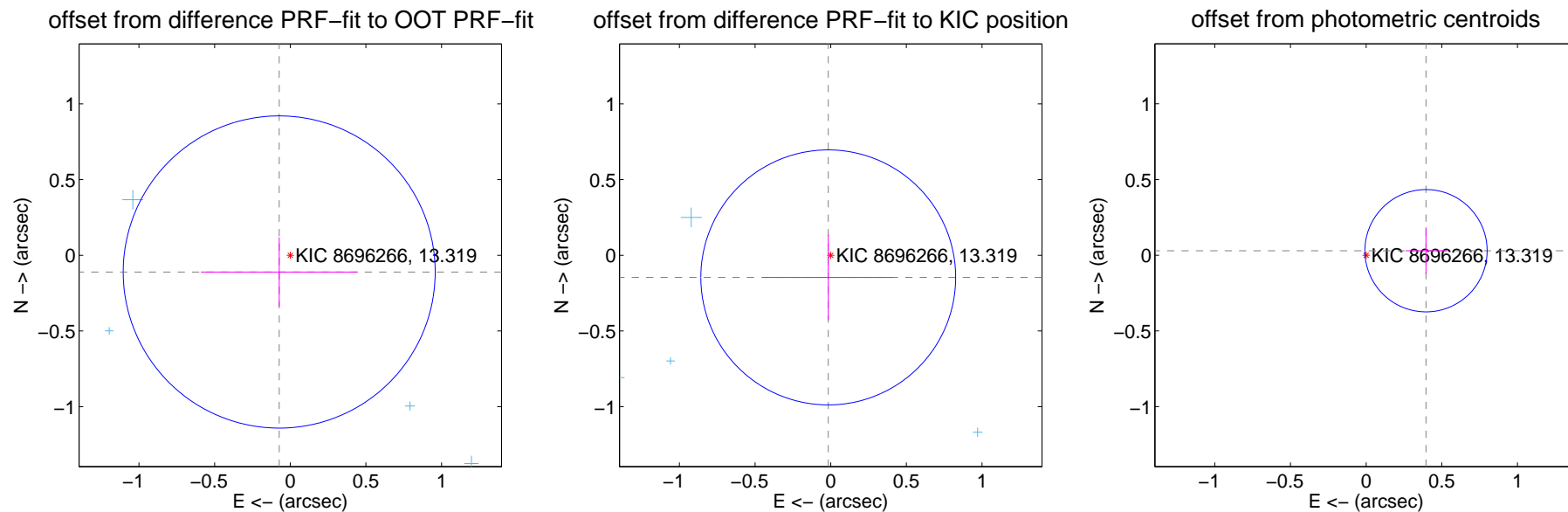
## DV Centroid Data

Supplemental centroid analysis for 008696266-01. Kepler magnitude: 13.32. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

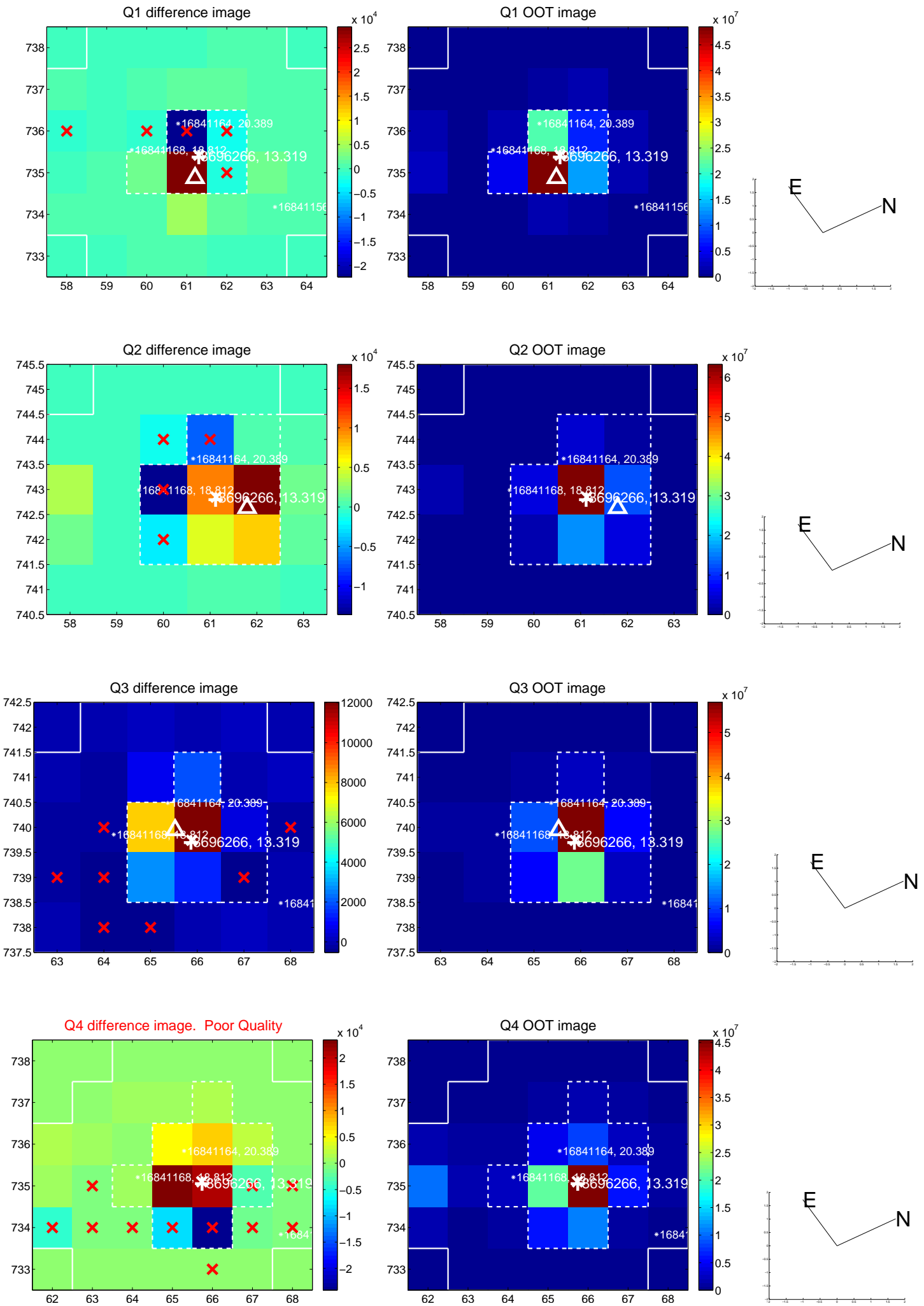
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.132 \pm 0.344$	0.39	$0.073 \pm 0.518$	$-0.110 \pm 0.229$
PRF-fit source offset from KIC position	$0.147 \pm 0.281$	0.52	$0.016 \pm 0.429$	$-0.146 \pm 0.282$
photometric centroid source offset	$0.40 \pm 0.13$	2.95	$-0.40 \pm 0.13$	$0.03 \pm 0.15$

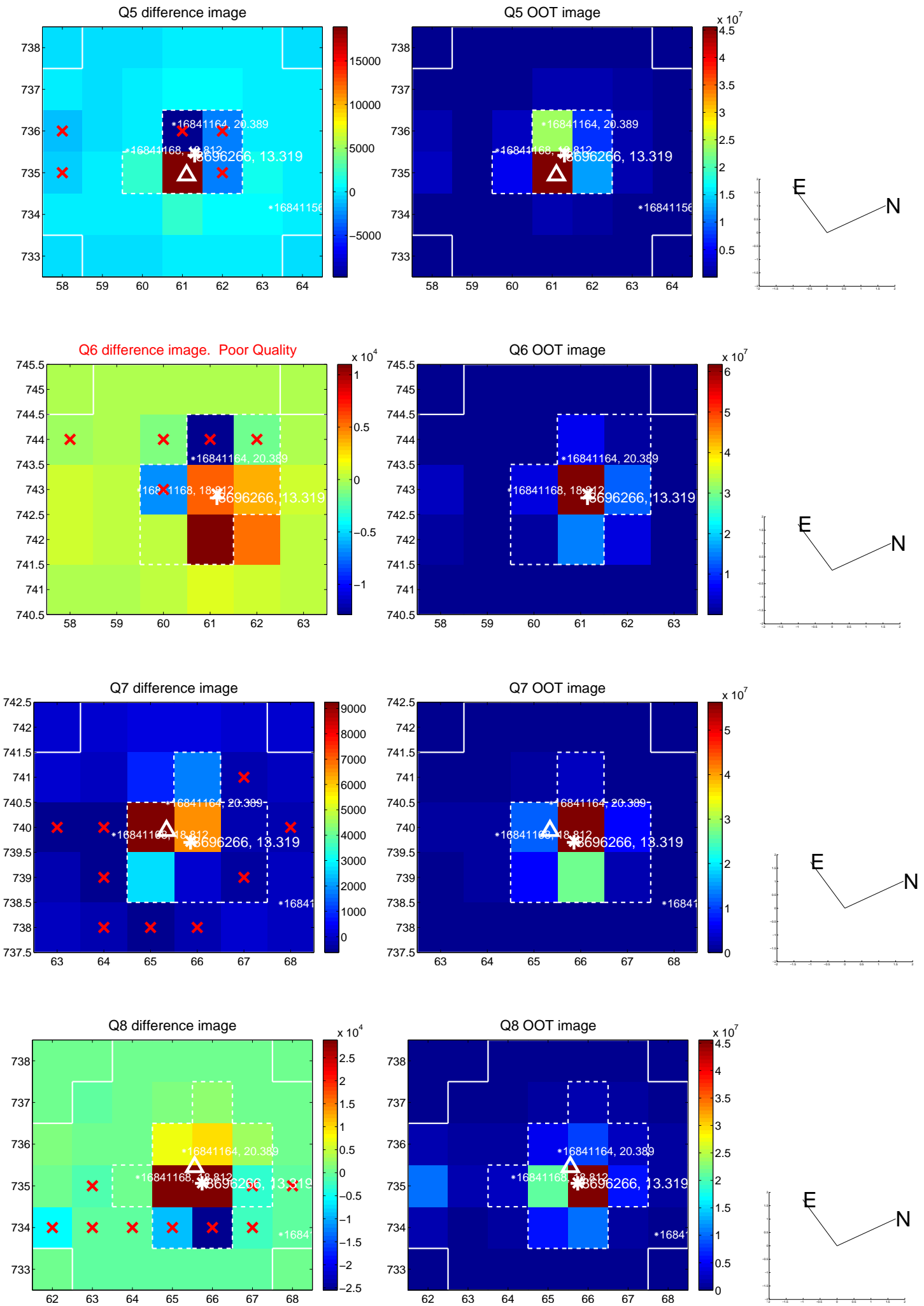


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

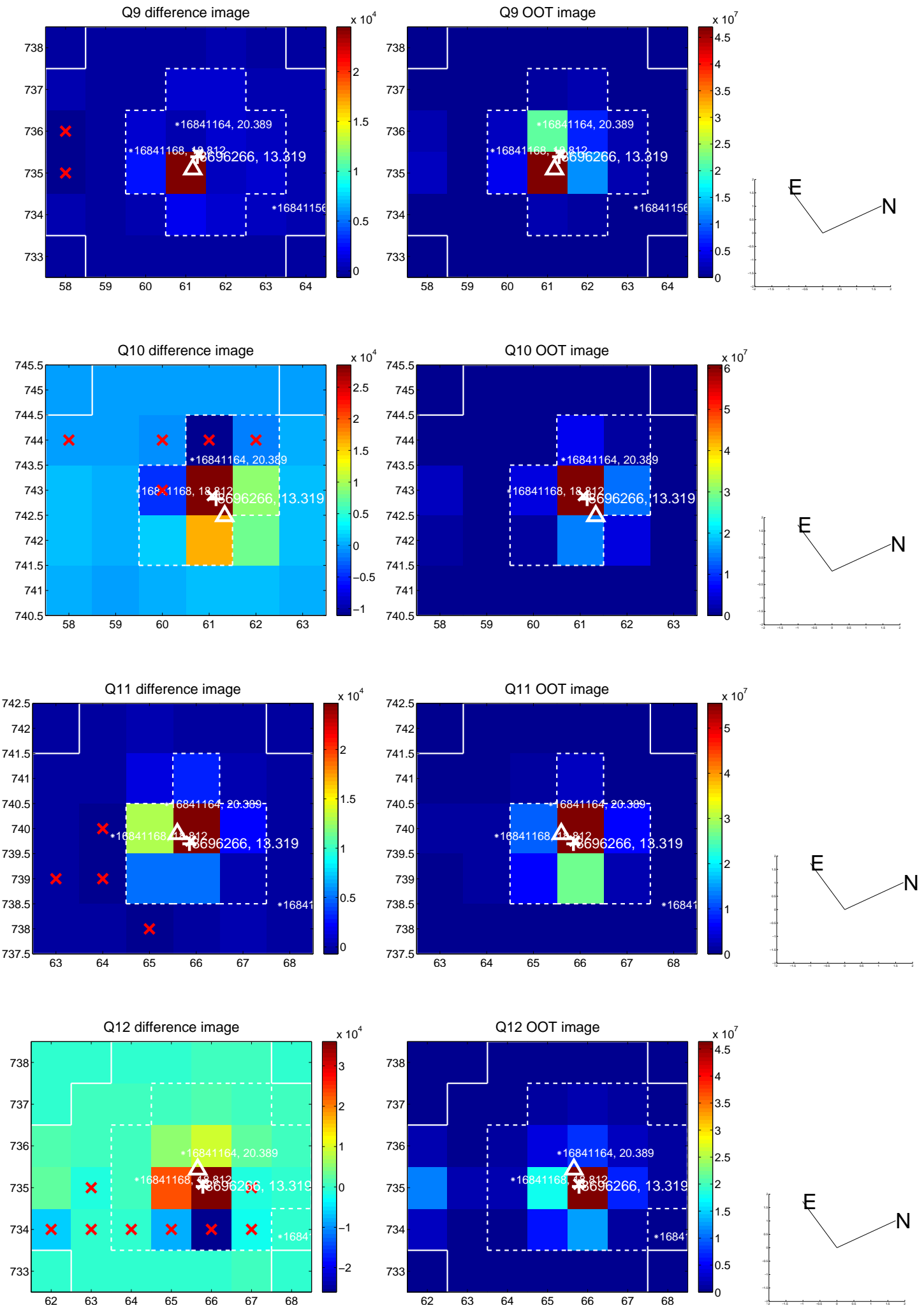
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



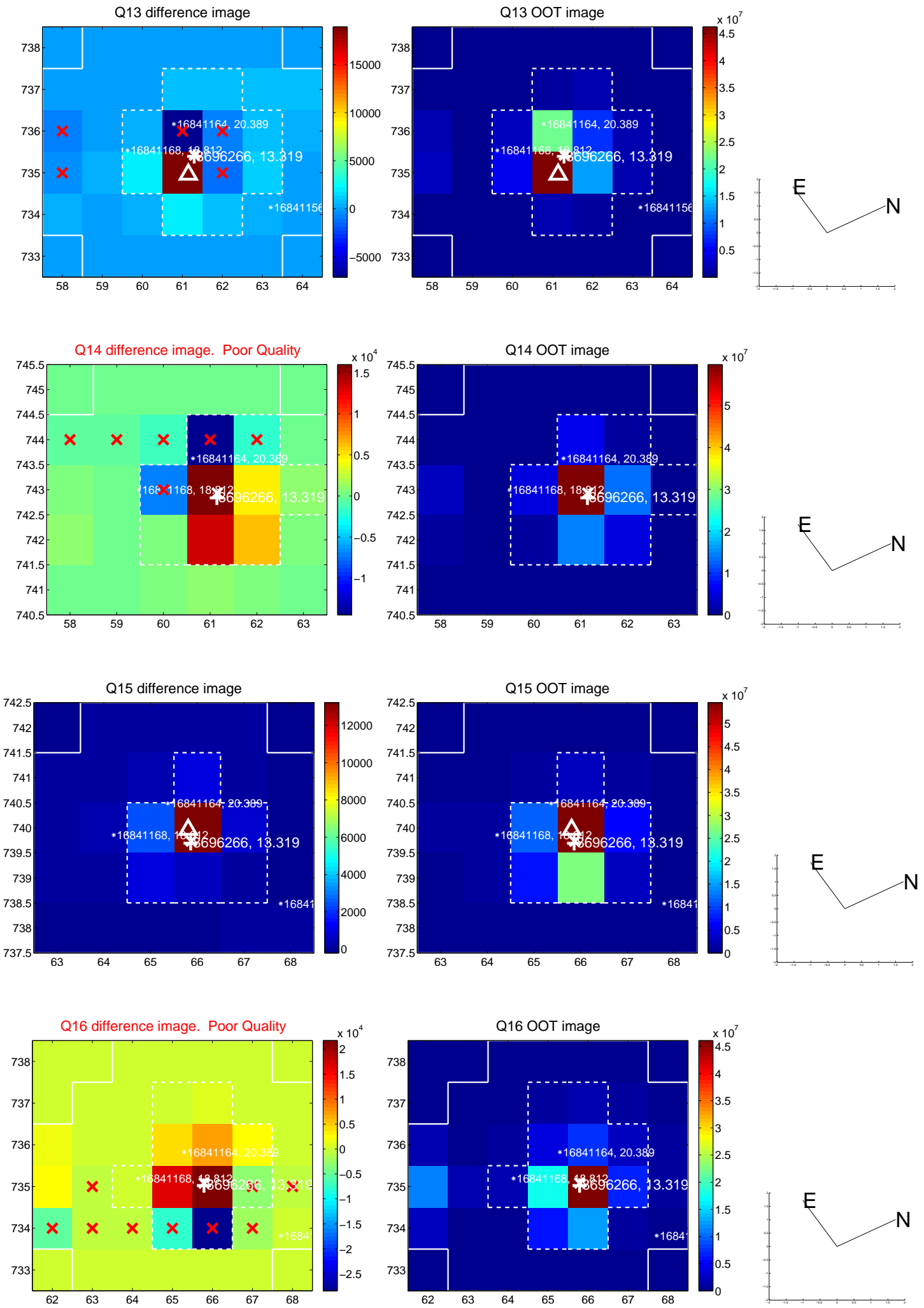
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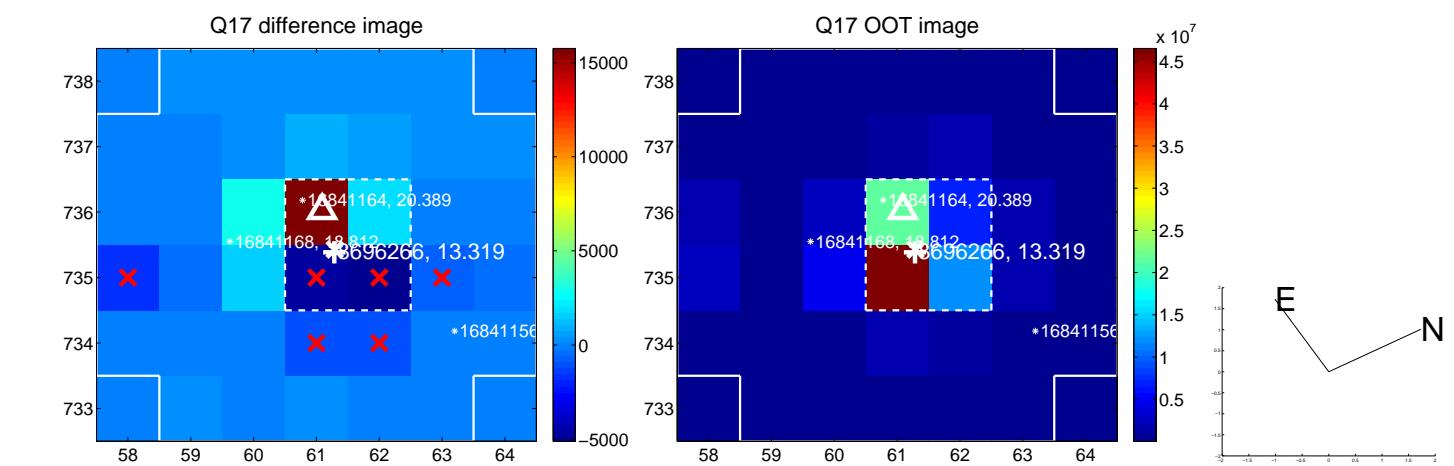


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

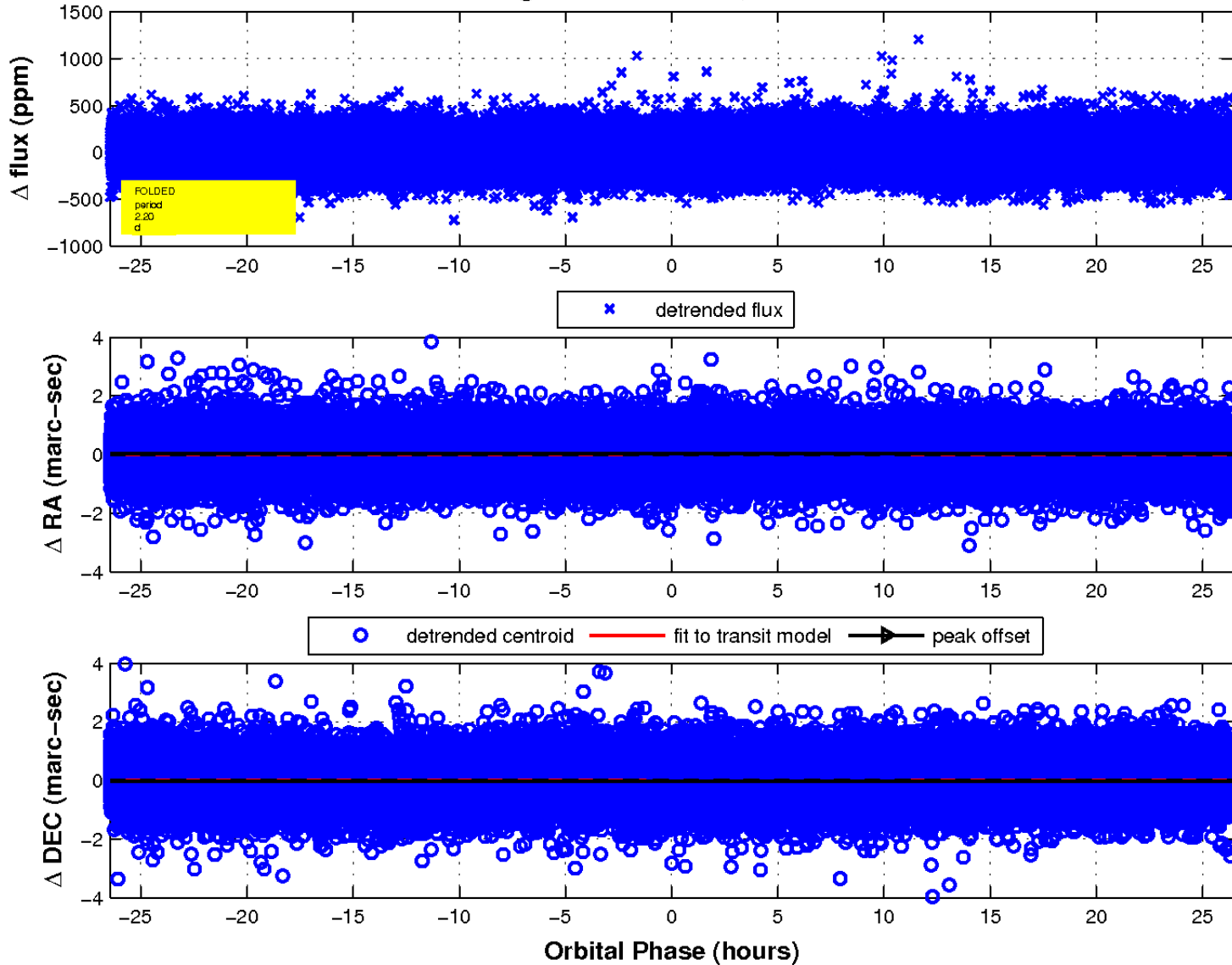




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

