

# KIC 007967293

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007967293-01	OBS	No	1.031890	132.045994	175.6	12.383	15.4	25.1	2.48	8431	4.26	42636.71

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007967293-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

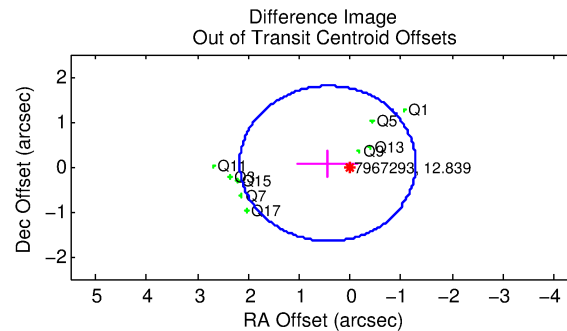
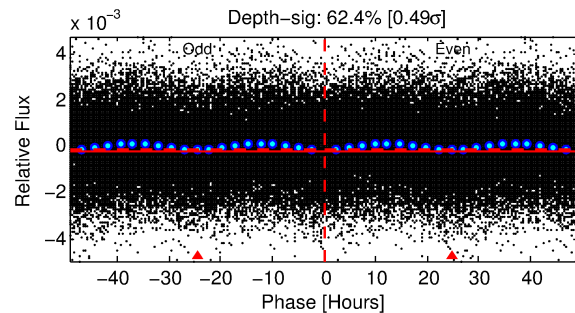
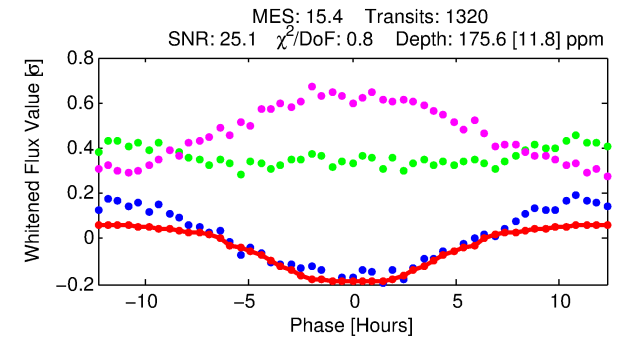
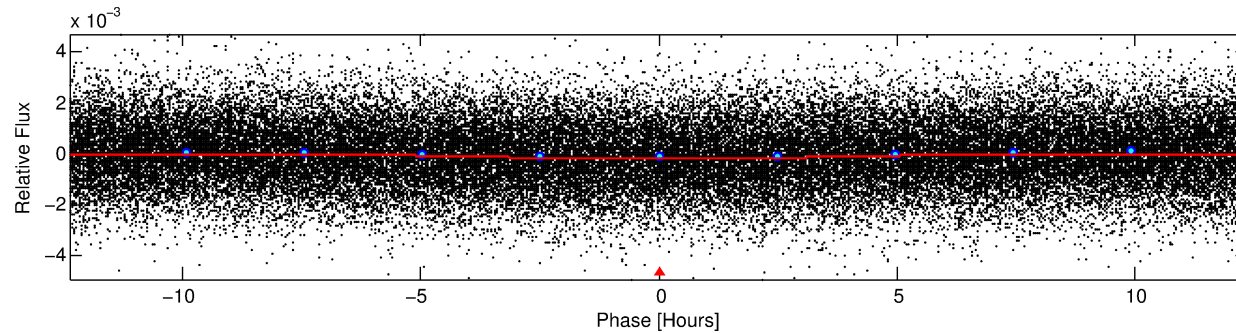
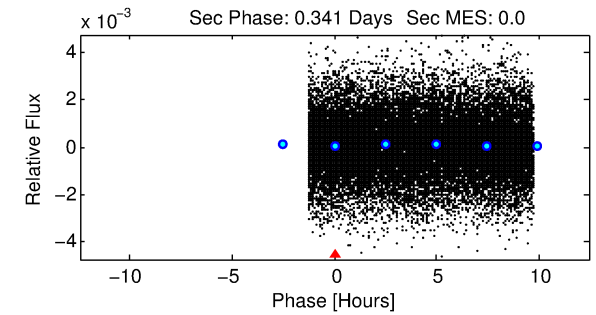
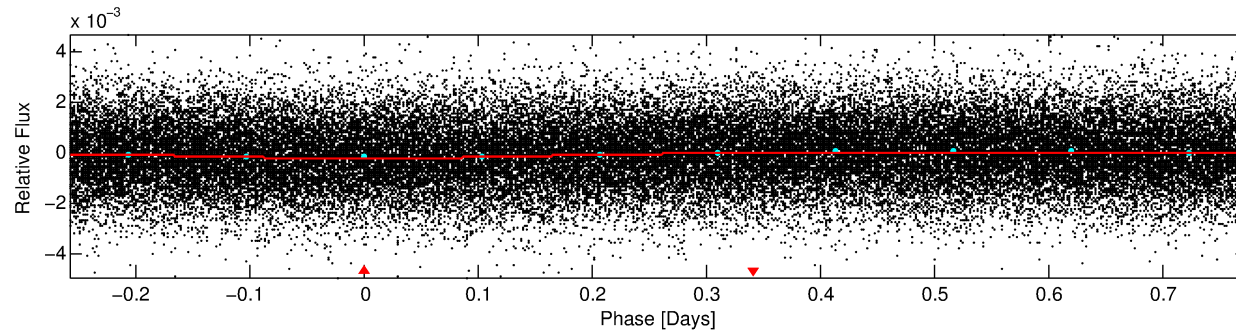
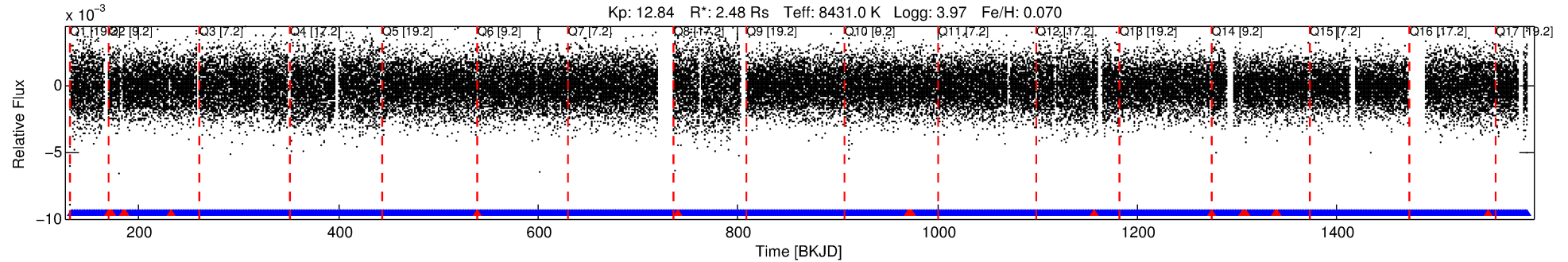
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007967293-01

No Significant Match Found

# DV One-Page Summary

KIC: 7967293 Candidate: 1 of 1 Period: 1.032 d



## DV Fit Results:

Period = 1.03189 [0.00001] d  
Epoch = 132.0460 [0.0092] BKJD  
Rp/R\* = 0.0157 [0.0007]  
a/R\* = 1.01 [0.00]  
b = 0.98 [0.01]  
Seff = 42636.71 [19381.38]  
Teq = 3664 [416] K  
Rp = 4.26 [1.40] Re  
a = 0.0256 [0.0072] AU  
Ag = N/A  
Teffp = N/A

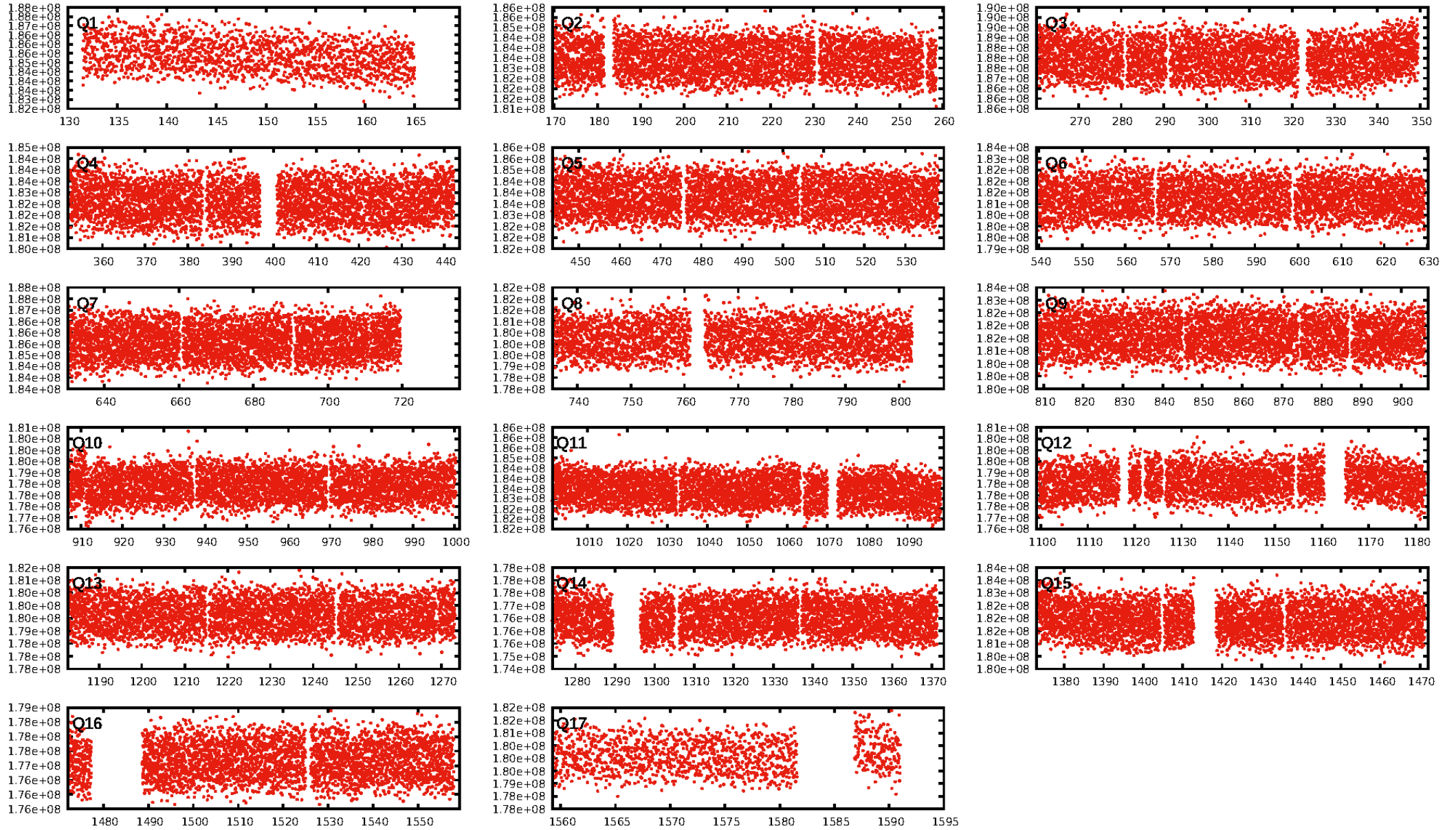
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.98 [1241/1260]  
GhostDiagnostic-chr: 2.666  
Centroid-sig: 0.0%  
Centroid-so: 0.055 arcsec [0.88σ]  
OotOffset-rm: 0.442 arcsec [0.77σ]  
KicOffset-rm: 0.486 arcsec [0.88σ]  
OotOffset-st: 0/4/0/5 [9]  
KicOffset-st: 0/4/0/5 [9]  
DiffImageQuality-fgm: 1.00 [9/9]  
DiffImageOverlap-fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:15:22 Z

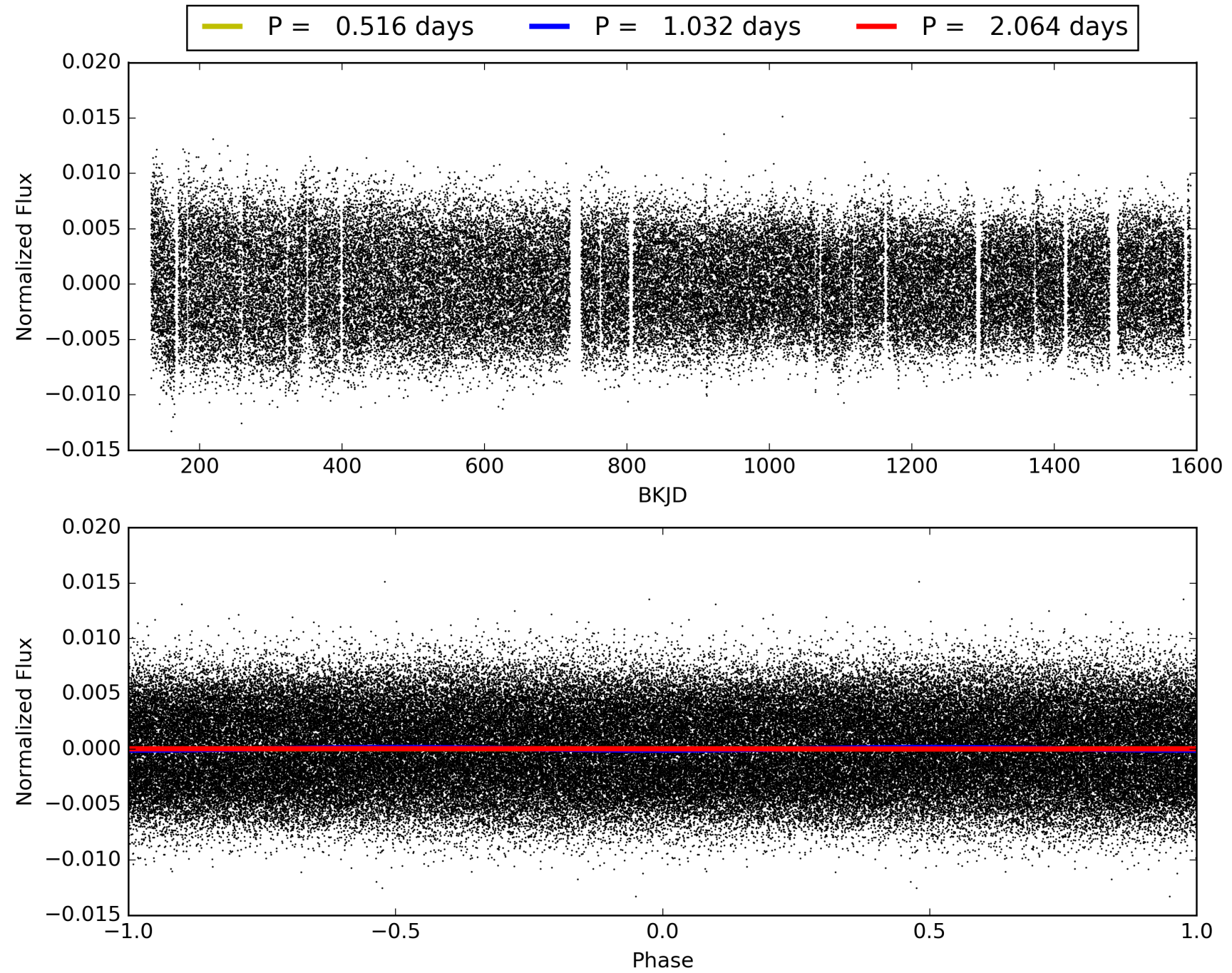
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 007967293-01, PDC Light Curves



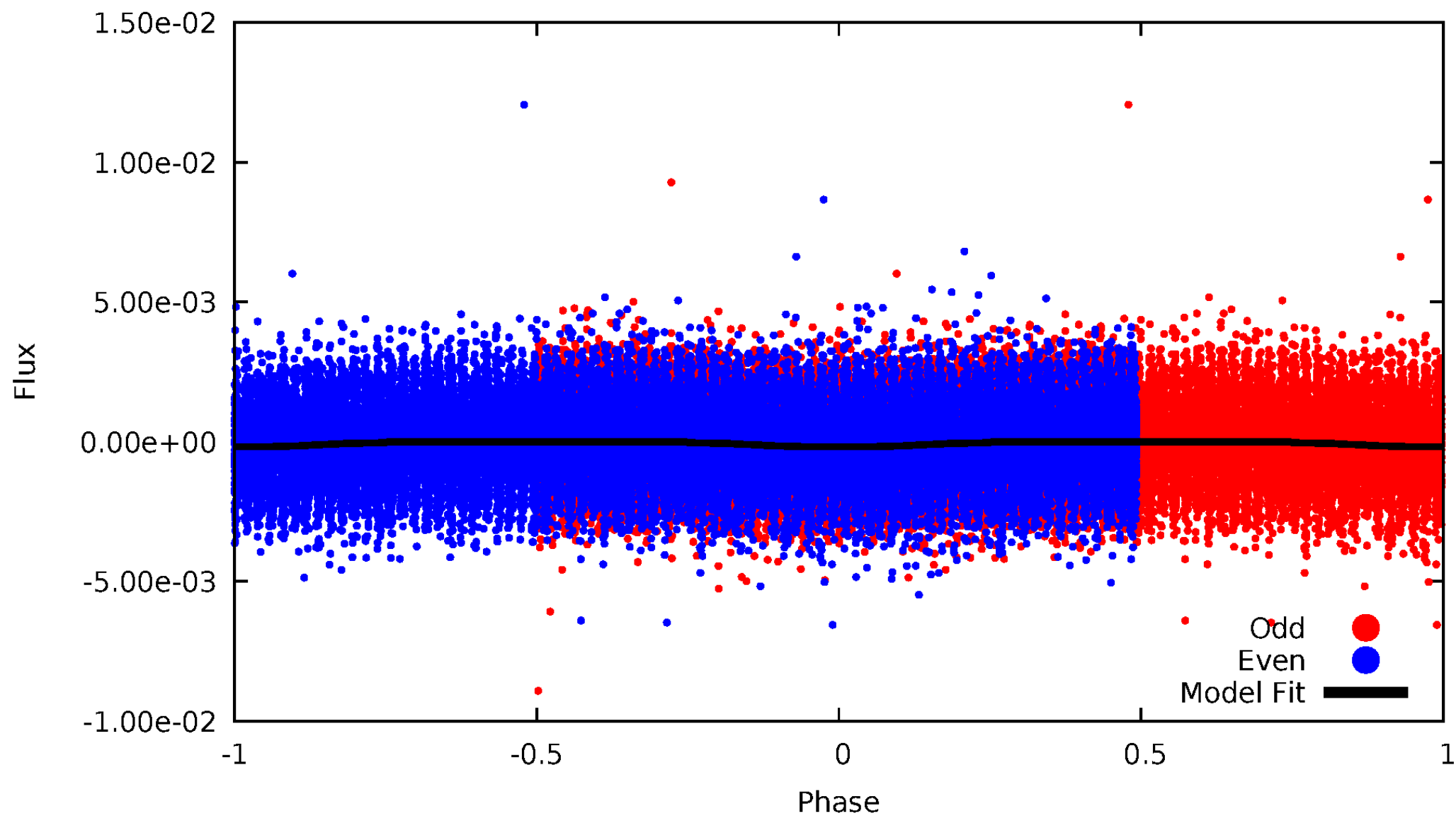


# TCE 007967293-01



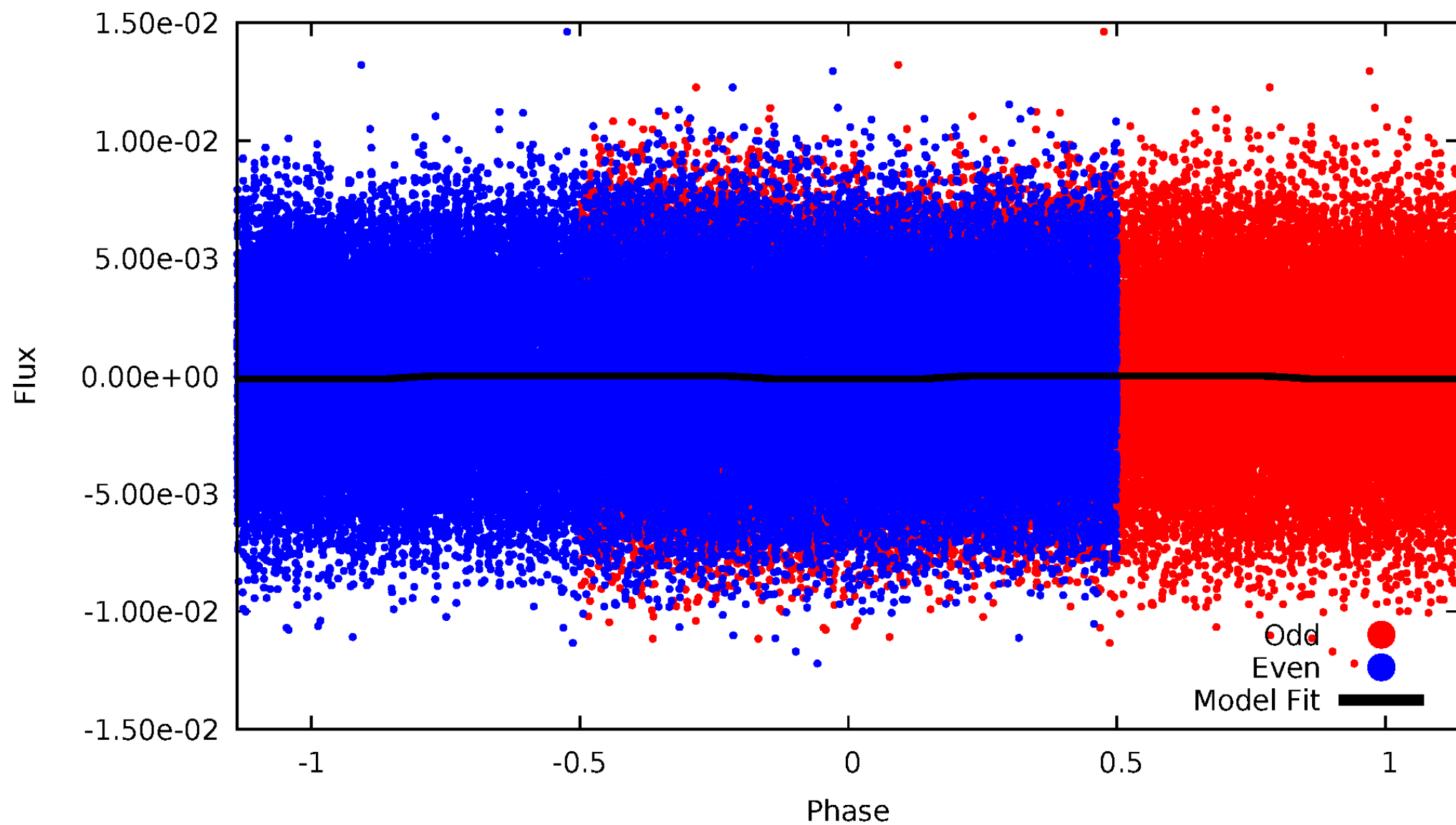
# DV Odd/Even

TCE 007967293-01



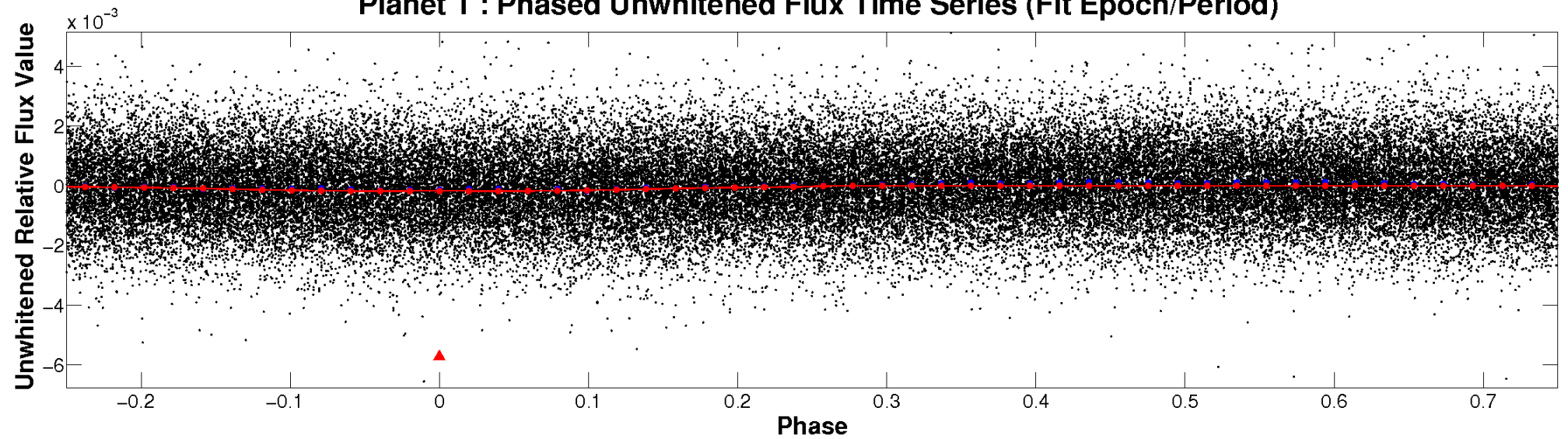
# ALT Odd/Even

TCE 007967293-01

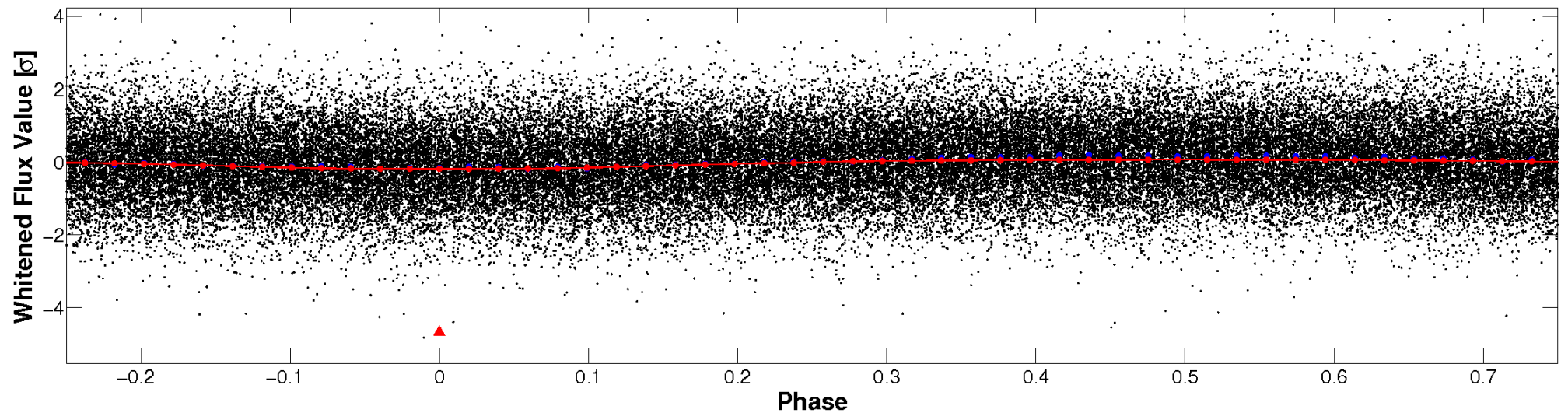


# Non-Whitened Vs. Whitened Light Curve

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



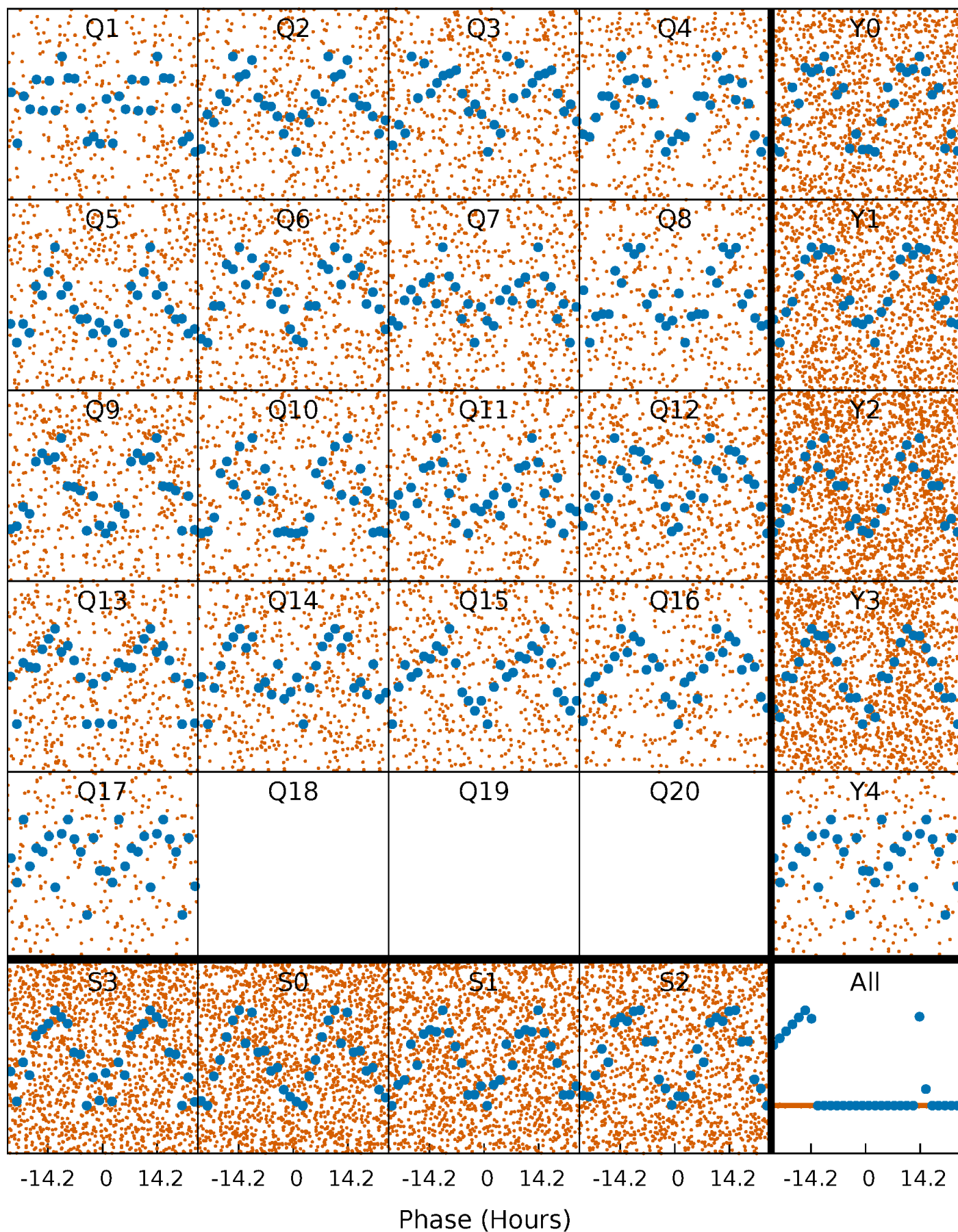
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

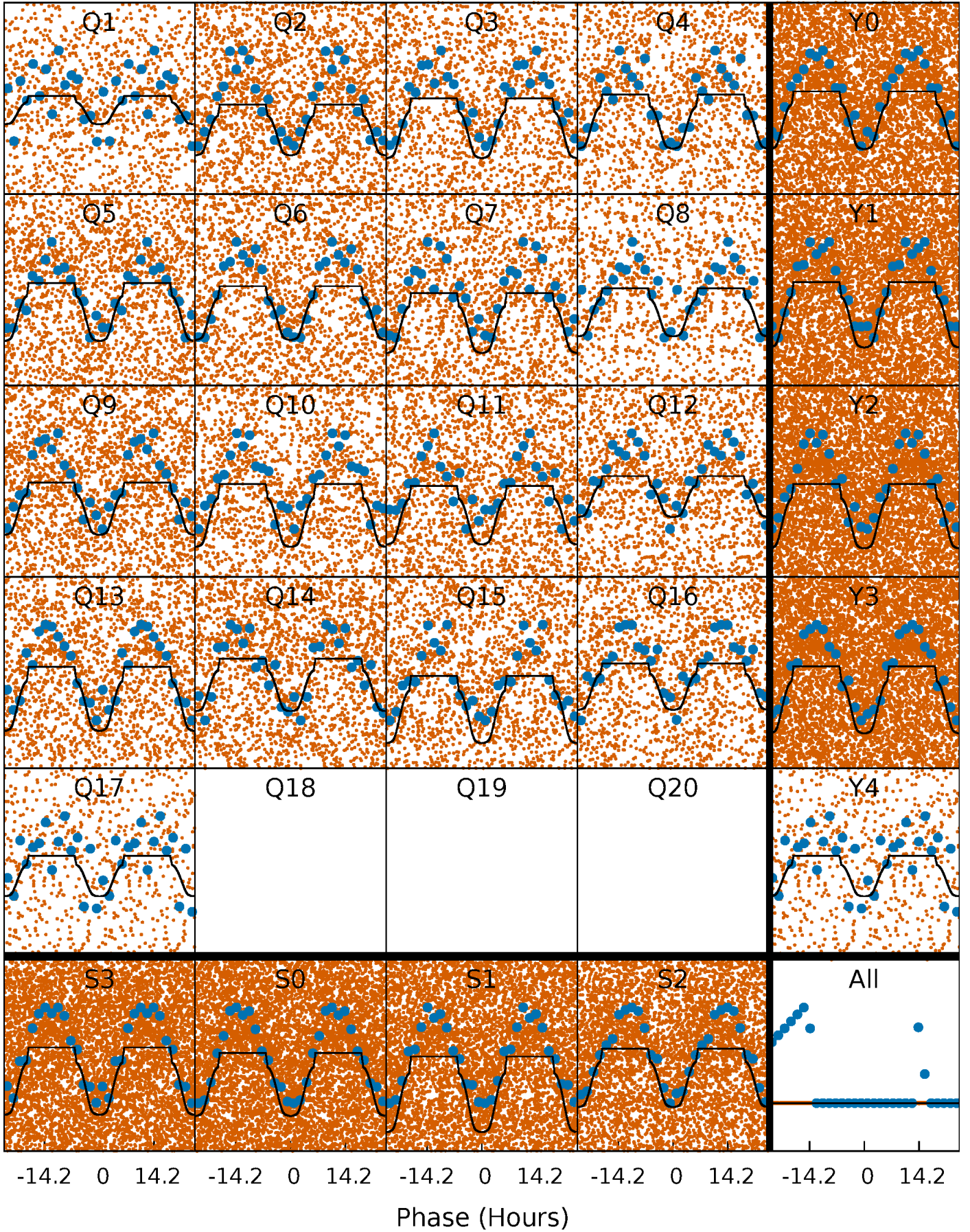
TCE 007967293-01 P= 1.031890 Days  $T_0=132.045994$  (BKJD)





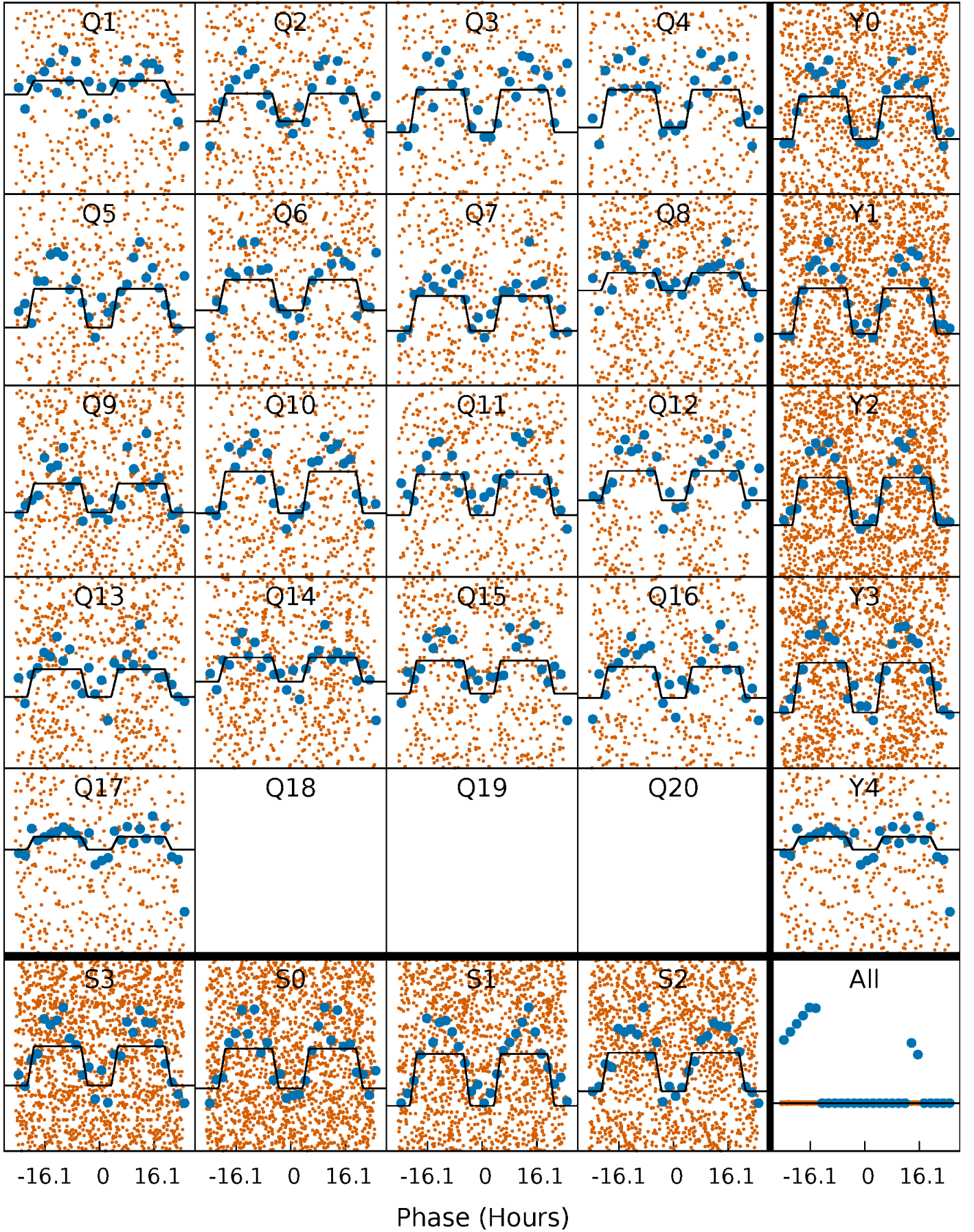
# DV Quarter-Phased Transit Curves

TCE 007967293-01 P= 1.031890 Days  $T_0=132.045994$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 007967293-01   P= 1.031886 Days    $T_0=132.053046$  (BKJD)

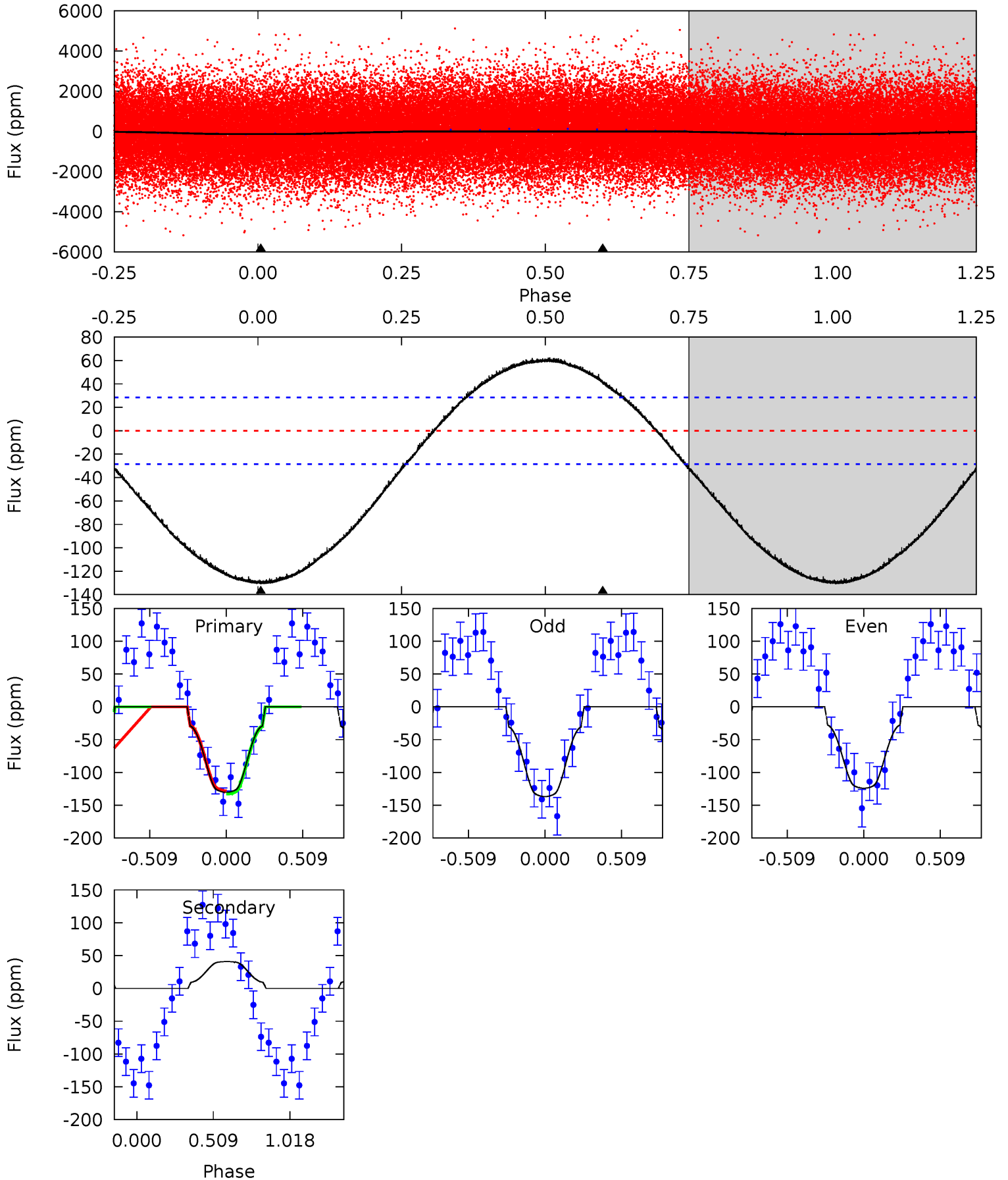




# DV Model-Shift Uniqueness Test

007967293-01, P = 1.031890 Days, E = 131.014104 Days

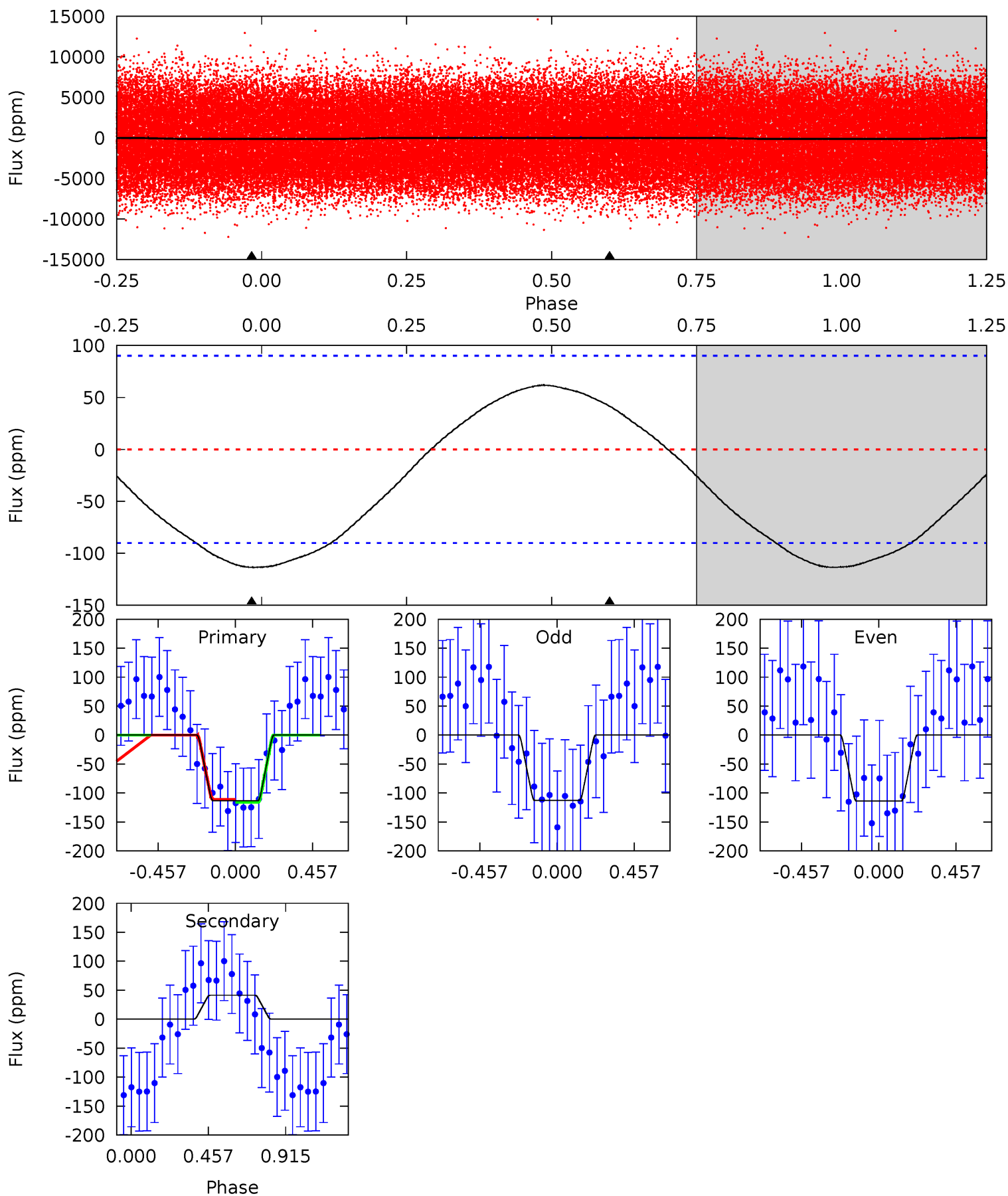
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	-6.04	0	0	4.21	0.66	2.41	19.2	19.2	-6.04	-6.04	0.94	1.04	0.32	0.36



# Alt Model-Shift Uniqueness Test

007967293-01, P = 1.031886 Days, E = 131.021160 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
5.33	-1.95	0	0	4.23	0.74	0.71	5.33	5.33	-1.95	-1.95	0.03	0.96	0.35	0.12





### Stellar Parameters For KIC 007967293

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$8431^{+233}_{-366}$	$3.970^{+0.234}_{-0.126}$	$0.070^{+0.200}_{-0.500}$	$2.485^{+0.542}_{-0.812}$	$2.100^{+0.333}_{-0.500}$	$0.193^{+0.289}_{-0.075}$
	+3%/-4%	+6%/-3%	+286%/-714%	+22%/-33%	+16%/-24%	+150%/-39%
Source	KIC0	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 007967293-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$41 \pm 7$	$4.21^{+0.62}_{-0.66}$	$5070^{+312}_{-433}$	$-5576^{+262}_{-251}$	$-0.827^{+0.222}_{-0.337}$
Alt.	$41 \pm 21$	$2.96^{+0.45}_{-0.50}$	$5078^{+294}_{-415}$	$-6475^{+907}_{-737}$	$-1.749^{+0.933}_{-1.177}$

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

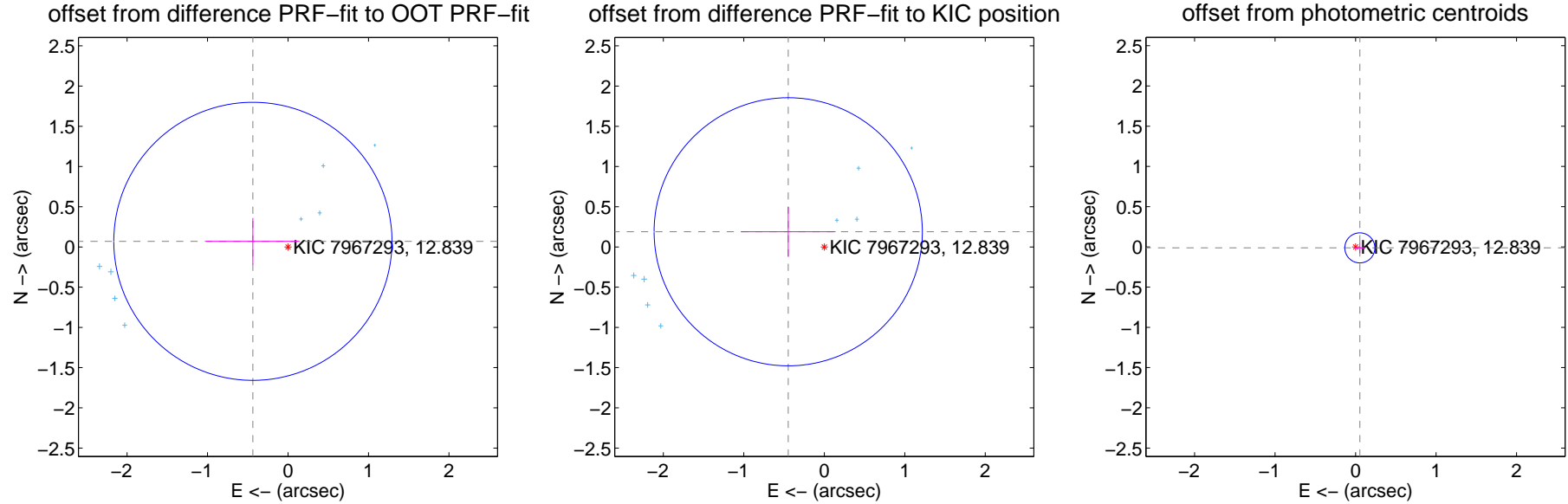
## DV Centroid Data

Supplemental centroid analysis for 007967293-01. Kepler magnitude: 12.84. Transit SNR 25.13

There are 9 quarters with good PRF difference image offsets

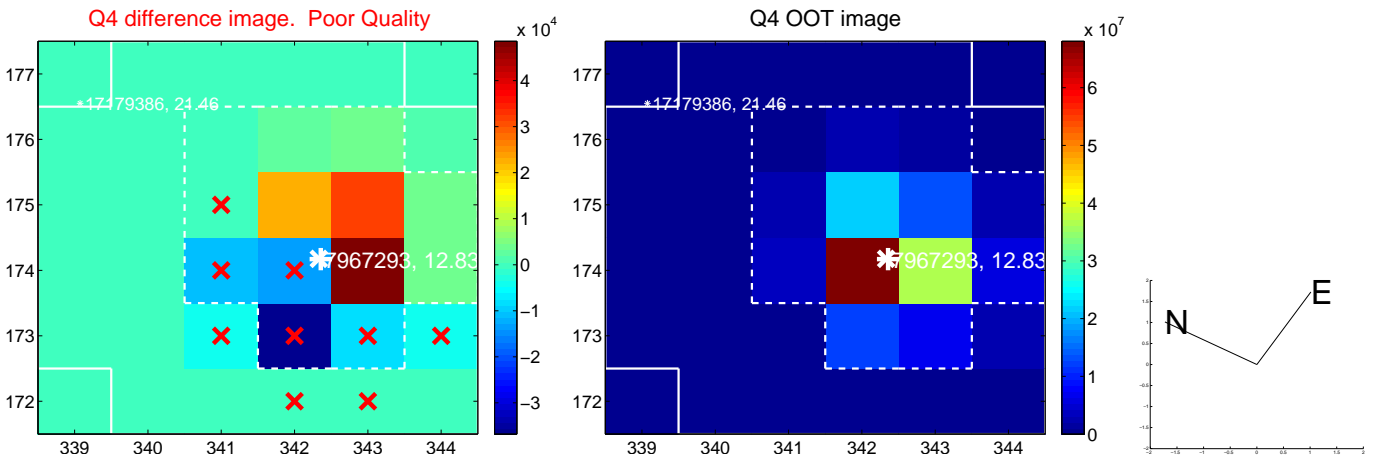
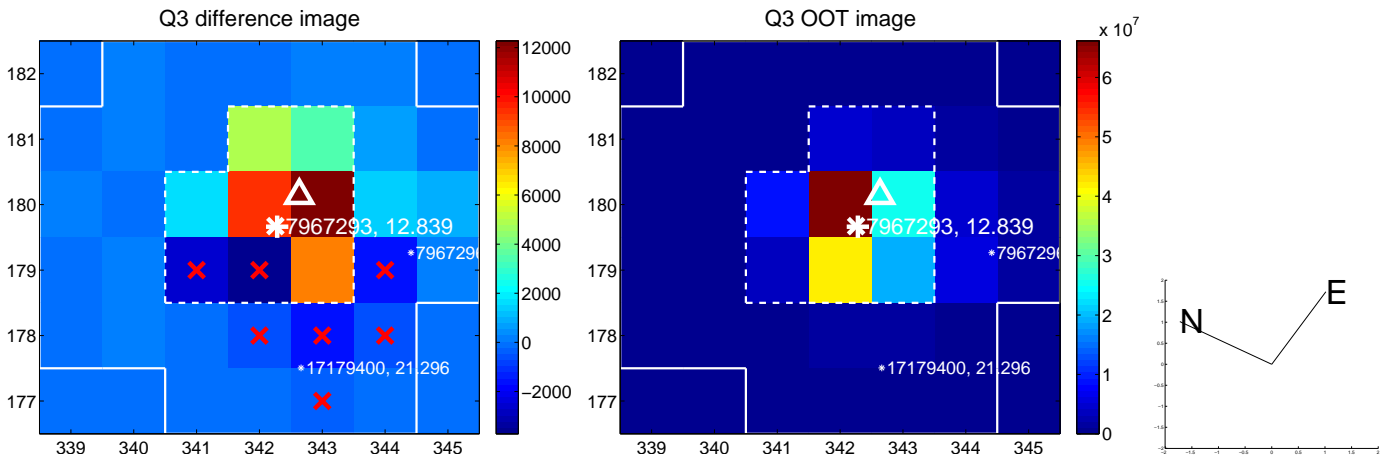
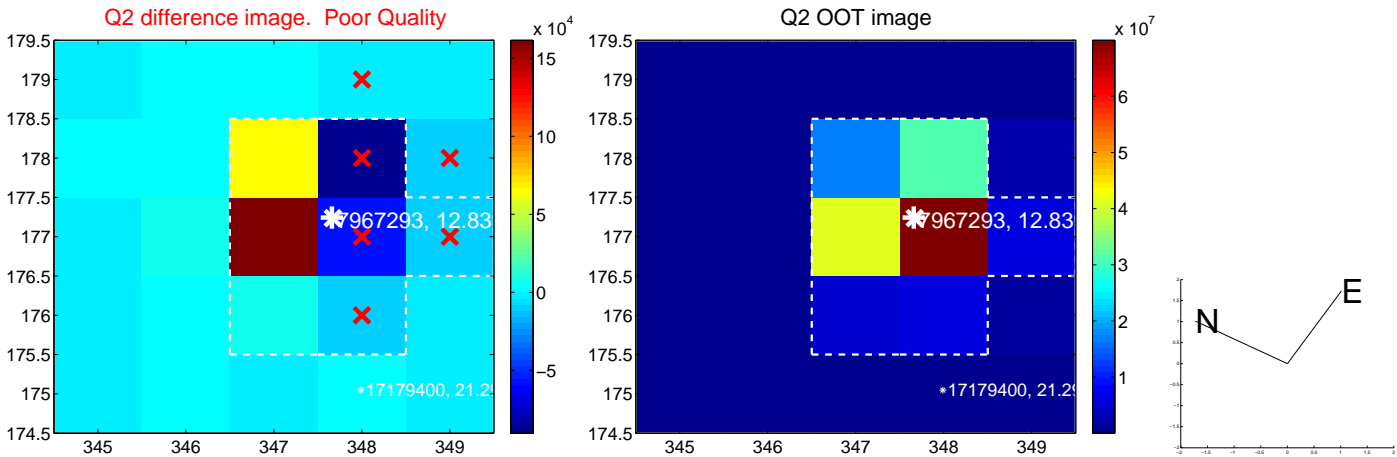
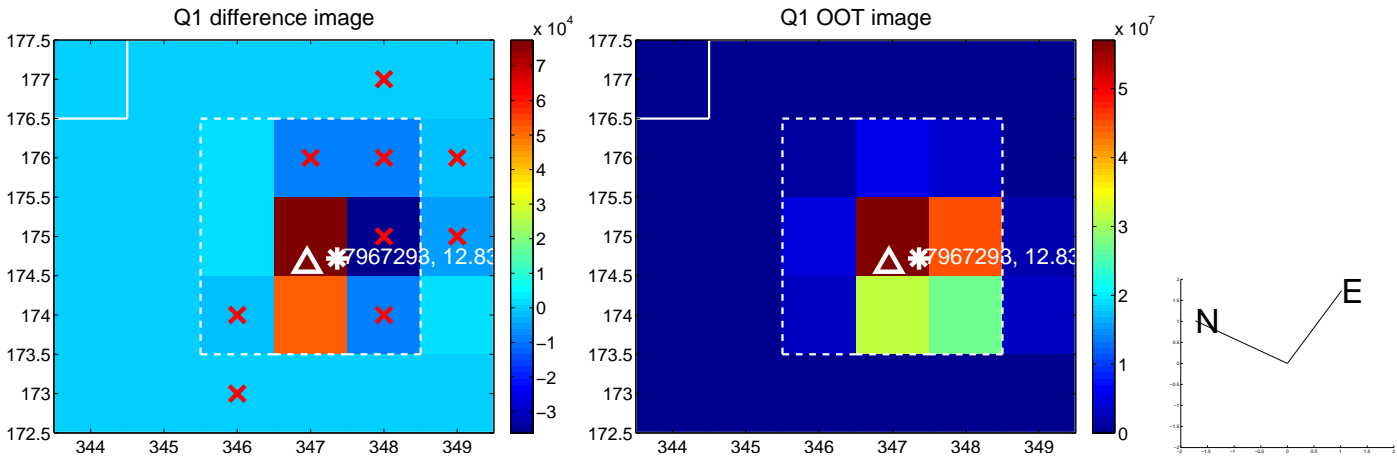
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.442 \pm 0.576$	0.77	$0.437 \pm 0.582$	$0.070 \pm 0.289$
PRF-fit source offset from KIC position	$0.486 \pm 0.556$	0.88	$0.448 \pm 0.589$	$0.189 \pm 0.310$
photometric centroid source offset	$0.05 \pm 0.06$	0.88	$-0.05 \pm 0.06$	$-0.01 \pm 0.07$

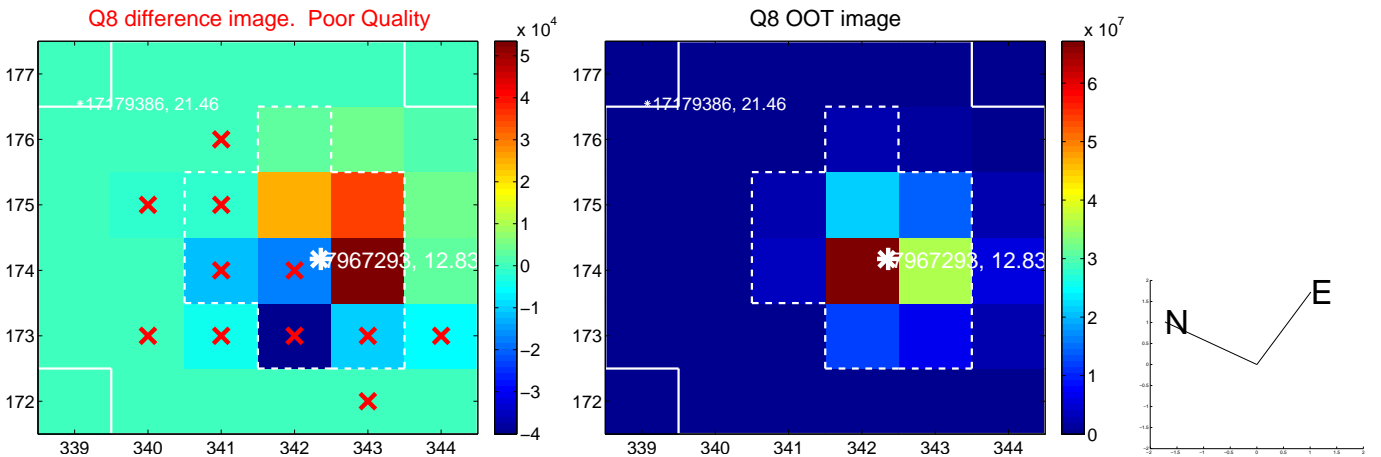
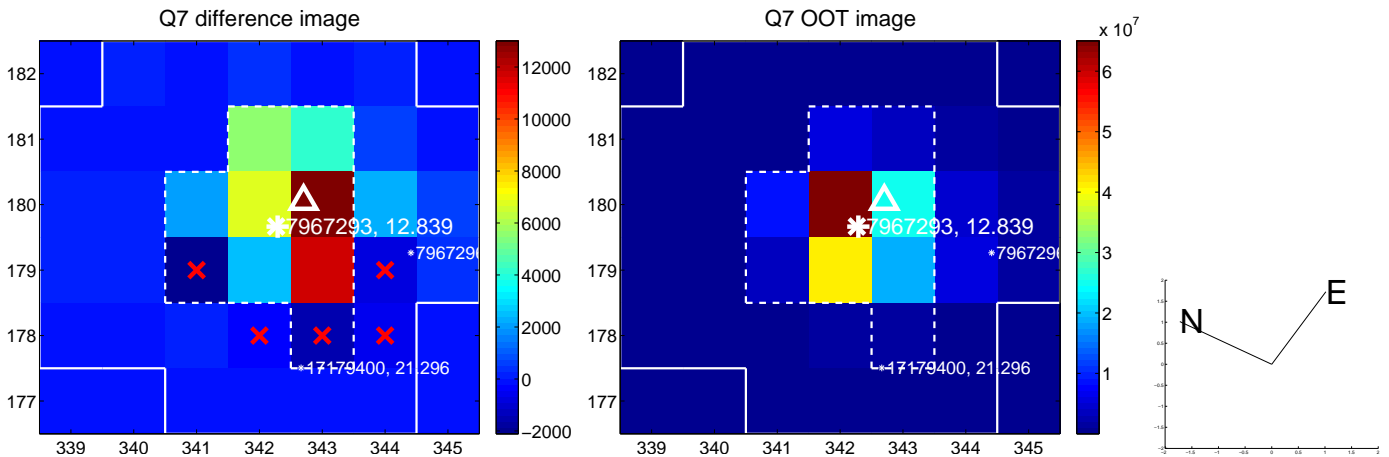
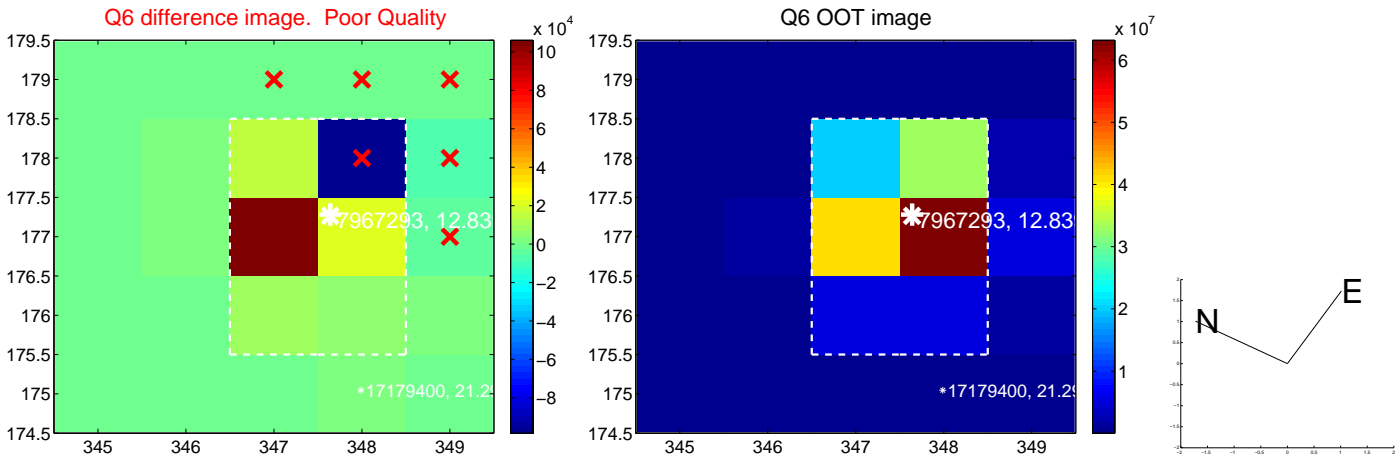
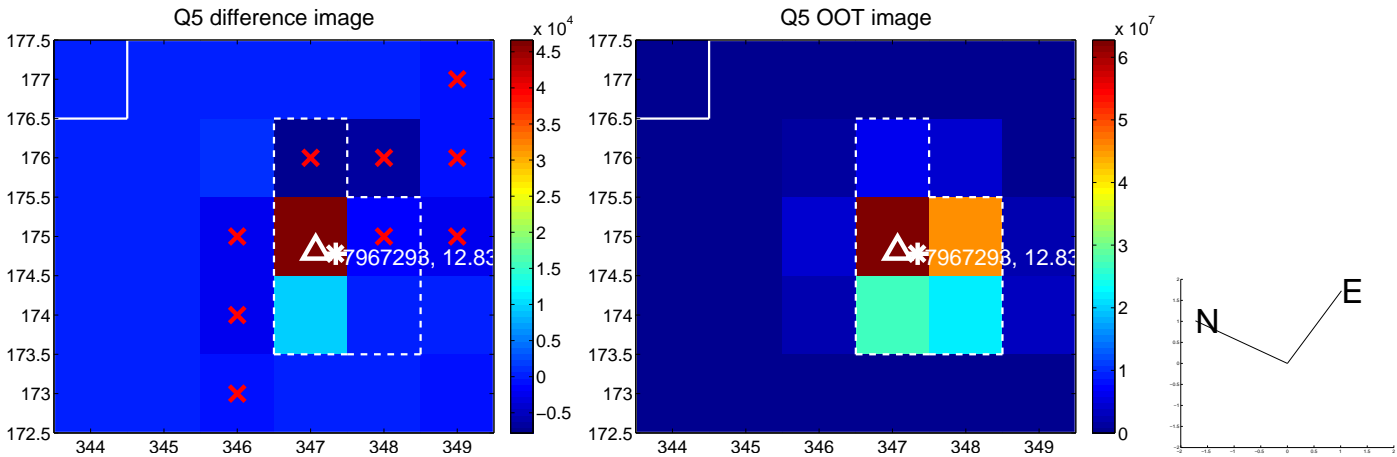


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

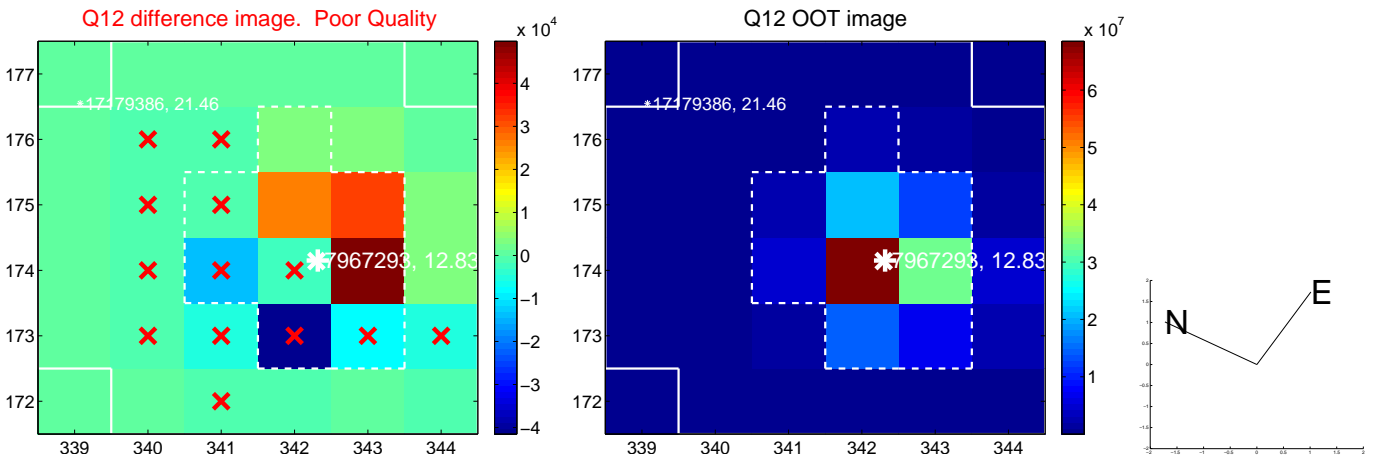
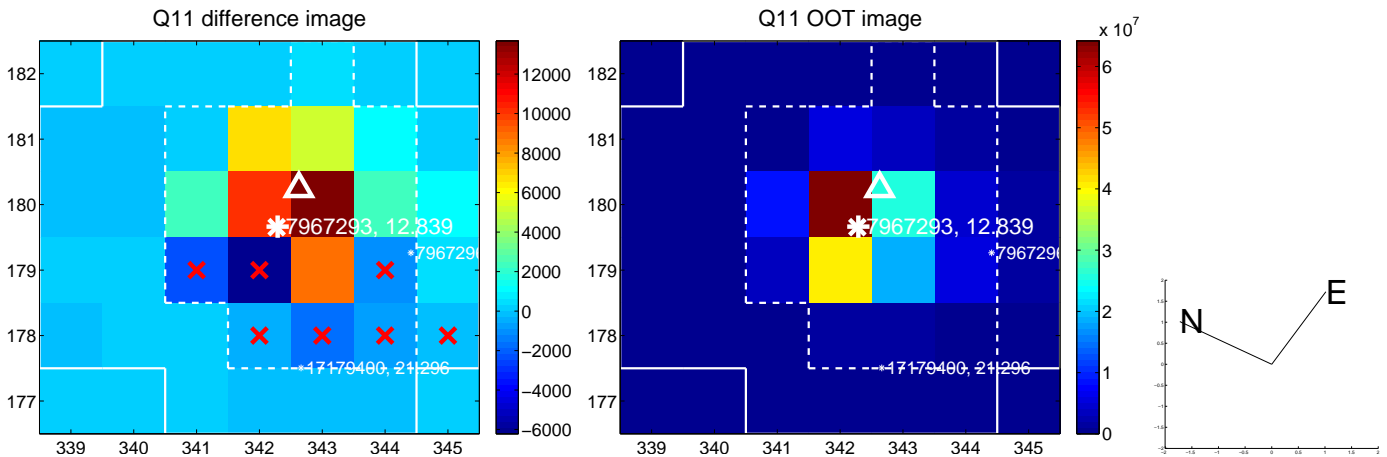
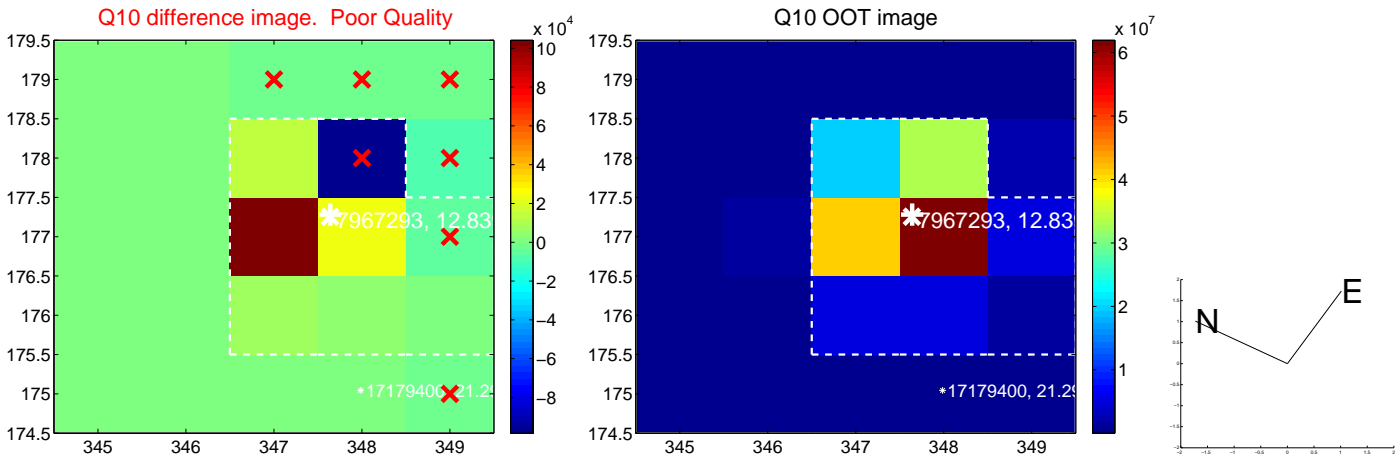
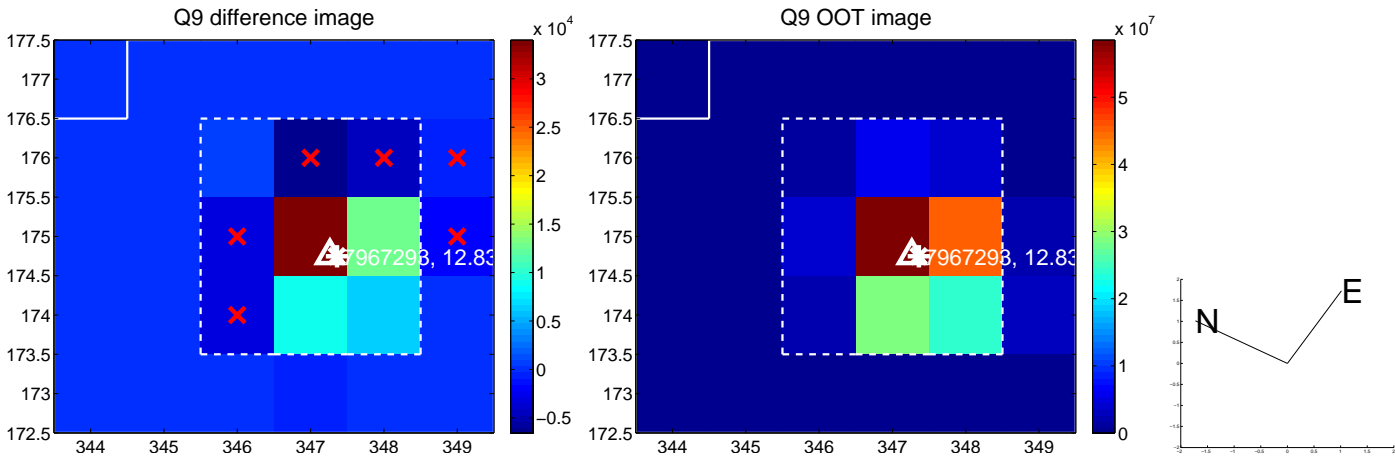


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

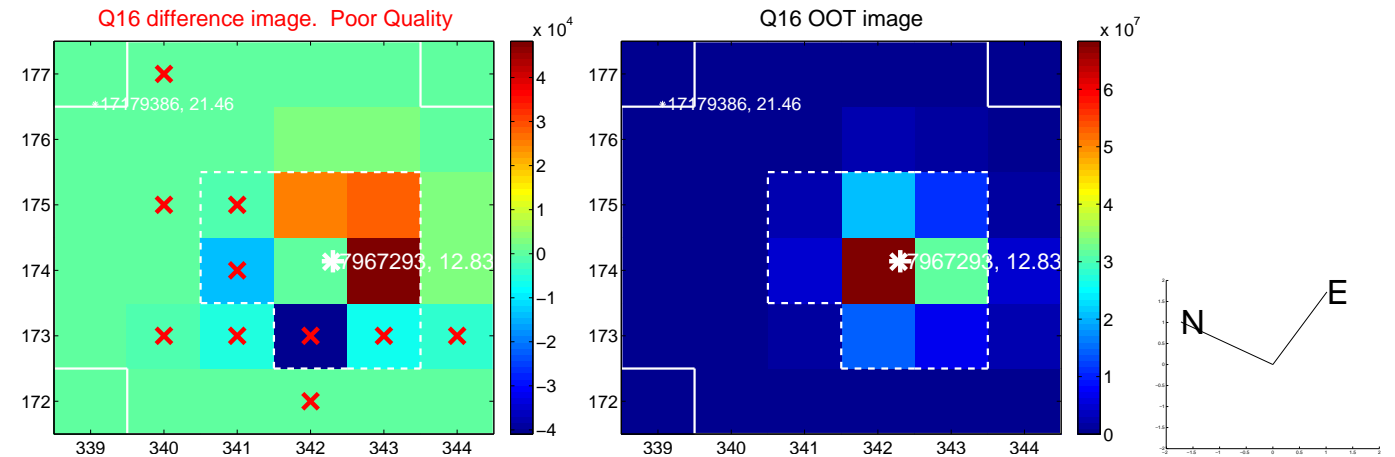
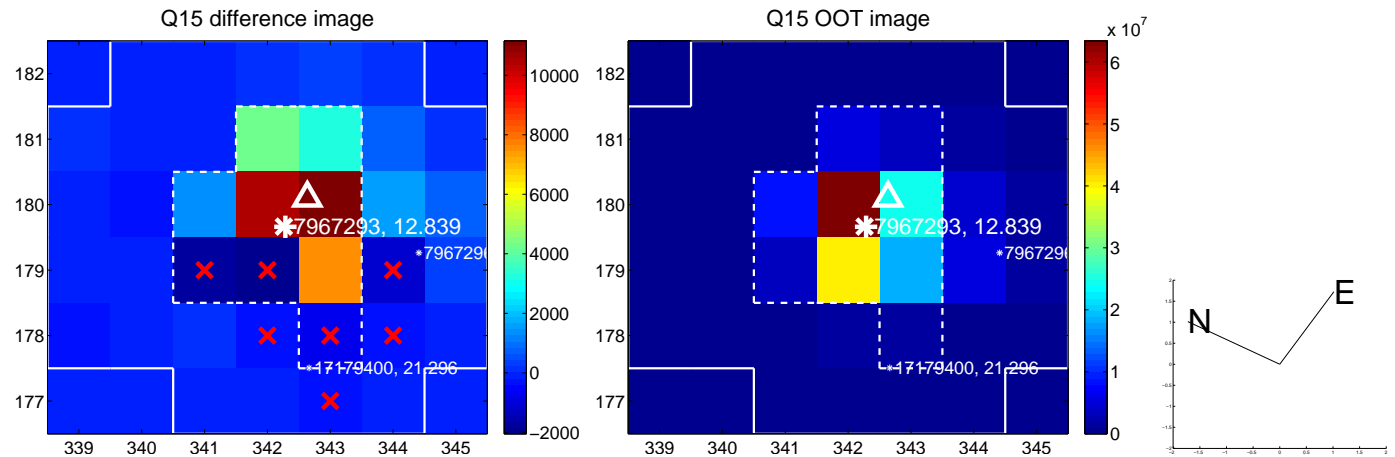
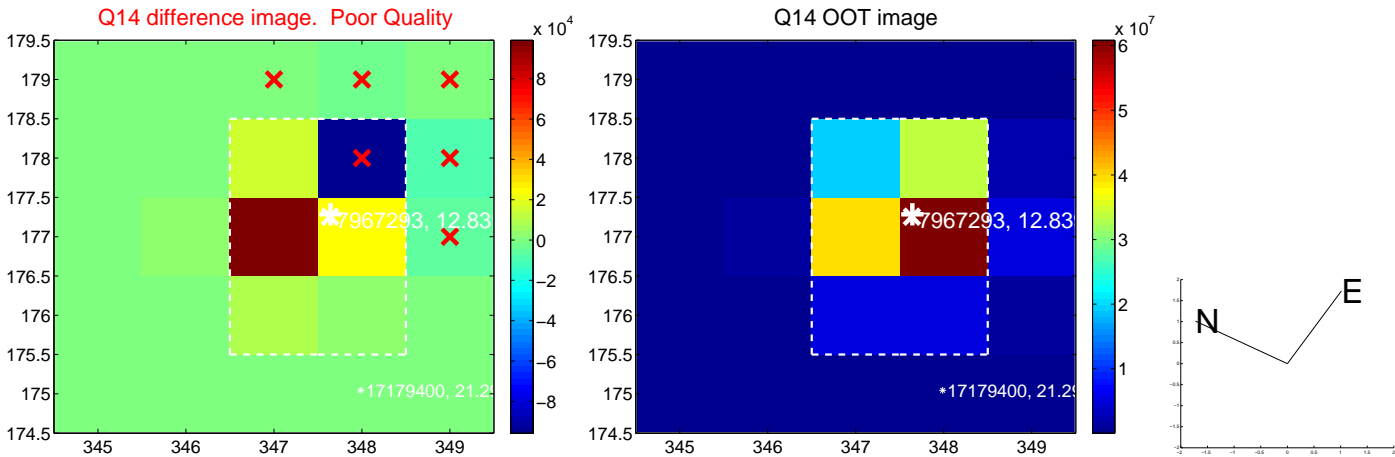
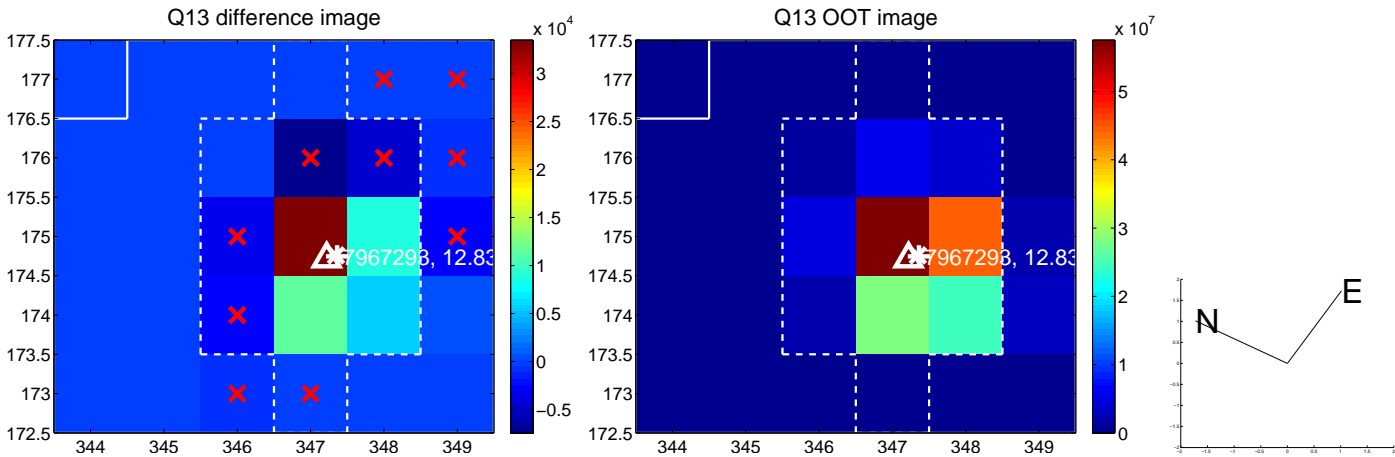




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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UKIRT Image

Declination

