

# KIC 008264494

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008264494-01	OBS	No	0.568068	132.031763	11.0	5.369	10.9	2.9	3.23	8083	1.24	138019.19

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264494-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

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

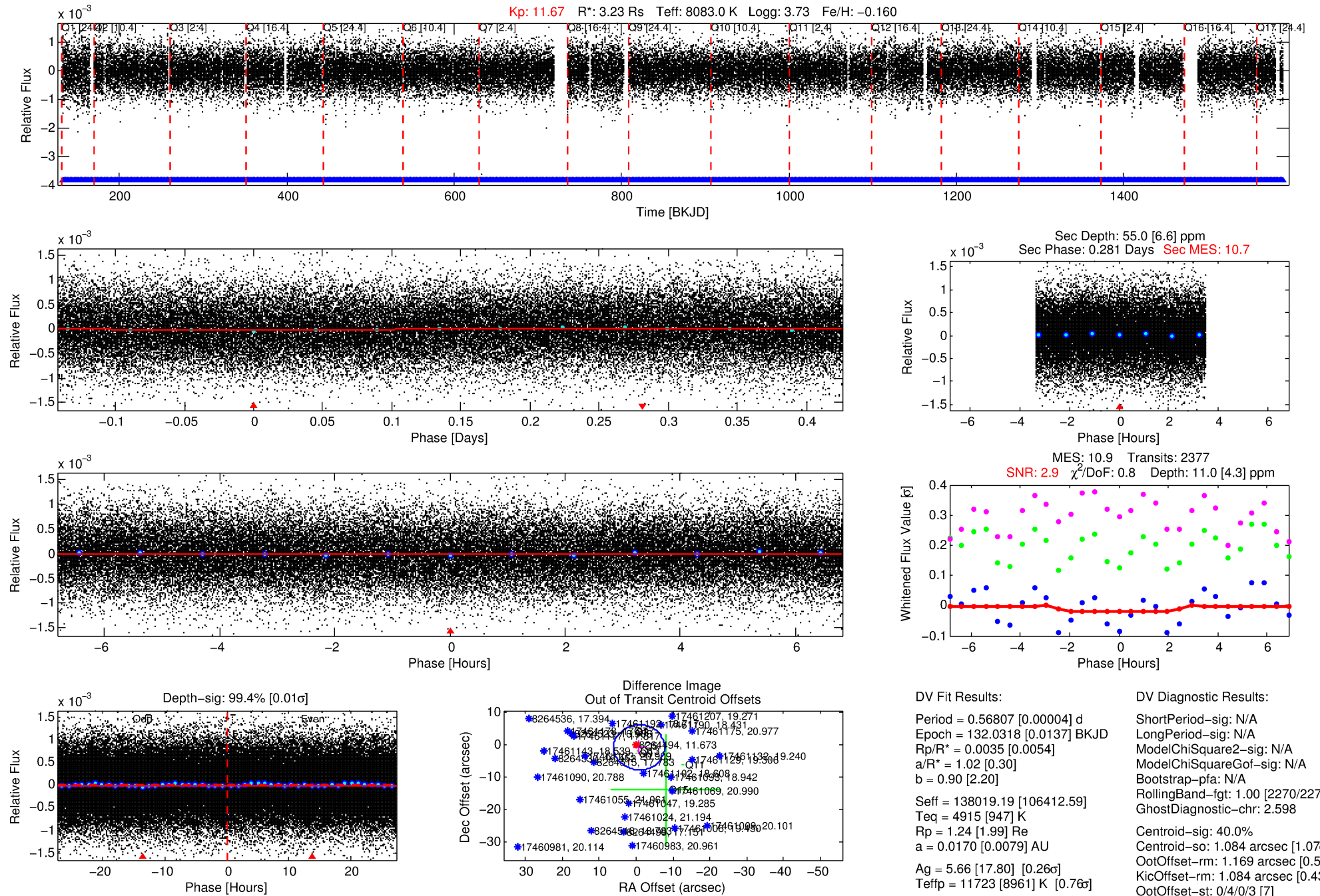
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008264494-01

No Significant Match Found

# DV One-Page Summary

KIC: 8264494 Candidate: 1 of 1 Period: 0.568 d



## DV Fit Results:

Period = 0.56807 [0.00004] d  
Epoch = 132.0318 [0.0137] BKJD  
Rp/R\* = 0.0035 [0.0054]  
a/R\* = 1.02 [0.30]  
b = 0.90 [2.20]  
Seff = 138019.19 [106412.59]  
T<sub>eq</sub> = 4915 [947] K  
Rp = 1.24 [1.99] R<sub>e</sub>  
a = 0.0170 [0.0079] AU  
Ag = 5.66 [17.80] [0.26σ]  
T<sub>eff</sub> = 11723 [8961] K [0.76σ]

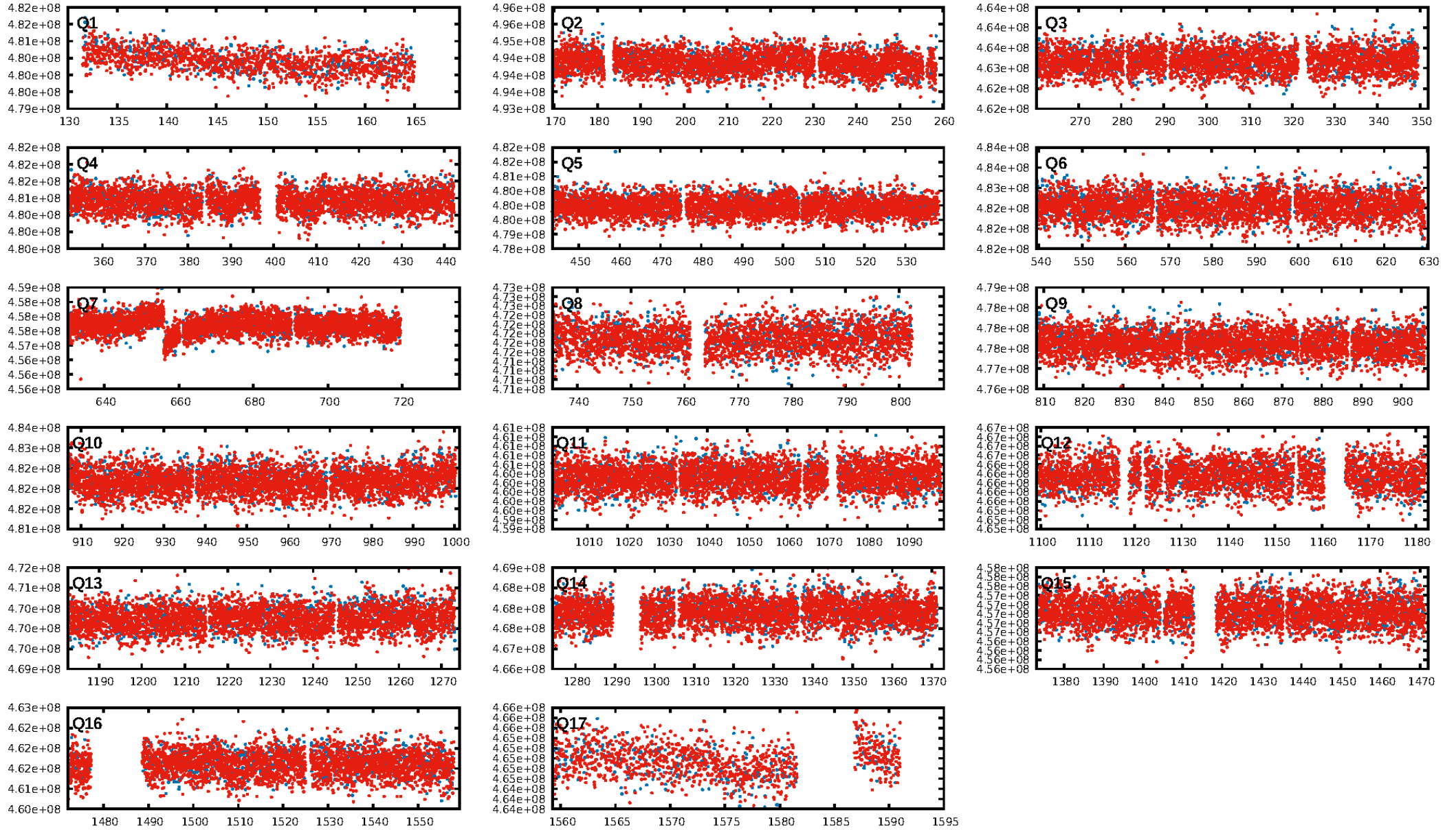
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2270/2270]  
GhostDiagnostic-chr: 2.598  
Centroid-sig: 40.0%  
Centroid-so: 1.084 arcsec [1.07σ]  
OotOffset-rm: 1.169 arcsec [0.51σ]  
KicOffset-rm: 1.084 arcsec [0.43σ]  
OotOffset-st: 0/4/0/3 [7]  
KicOffset-st: 0/4/0/3 [7]  
DiffImageQuality-fgm: 0.43 [3/7]  
DiffImageOverlap-fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:41:52 Z

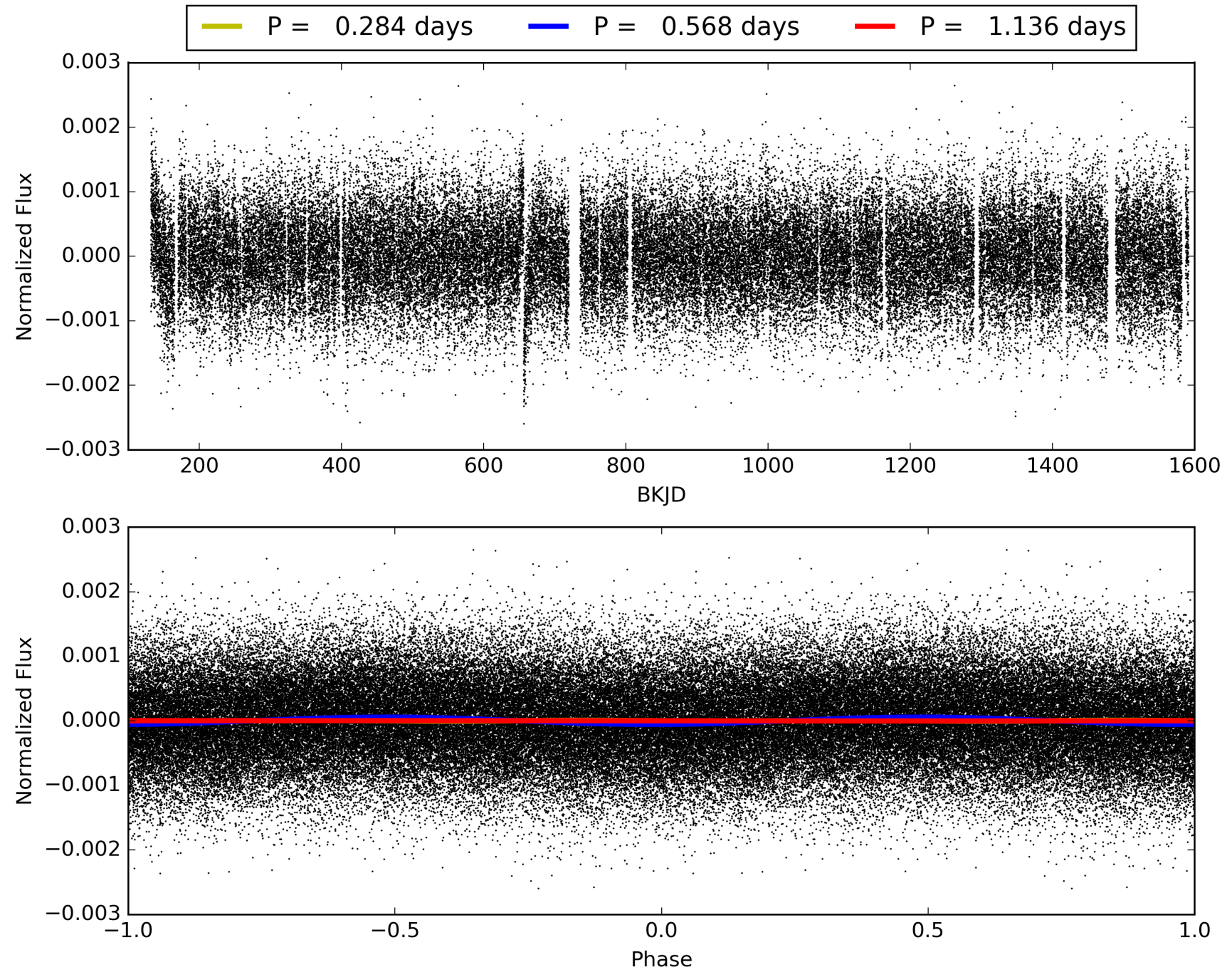
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 008264494-01, PDC Light Curves



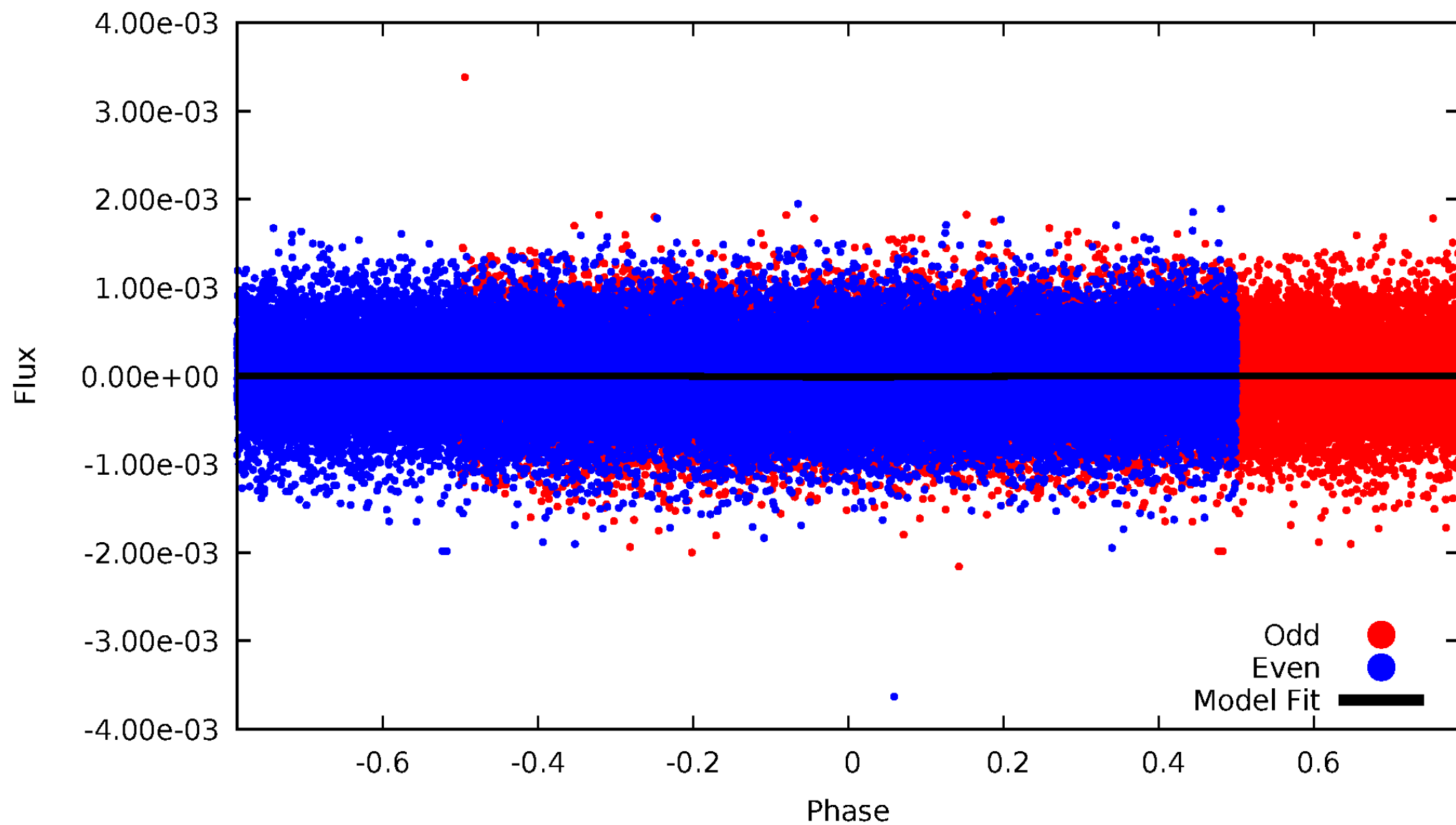


# TCE 008264494-01



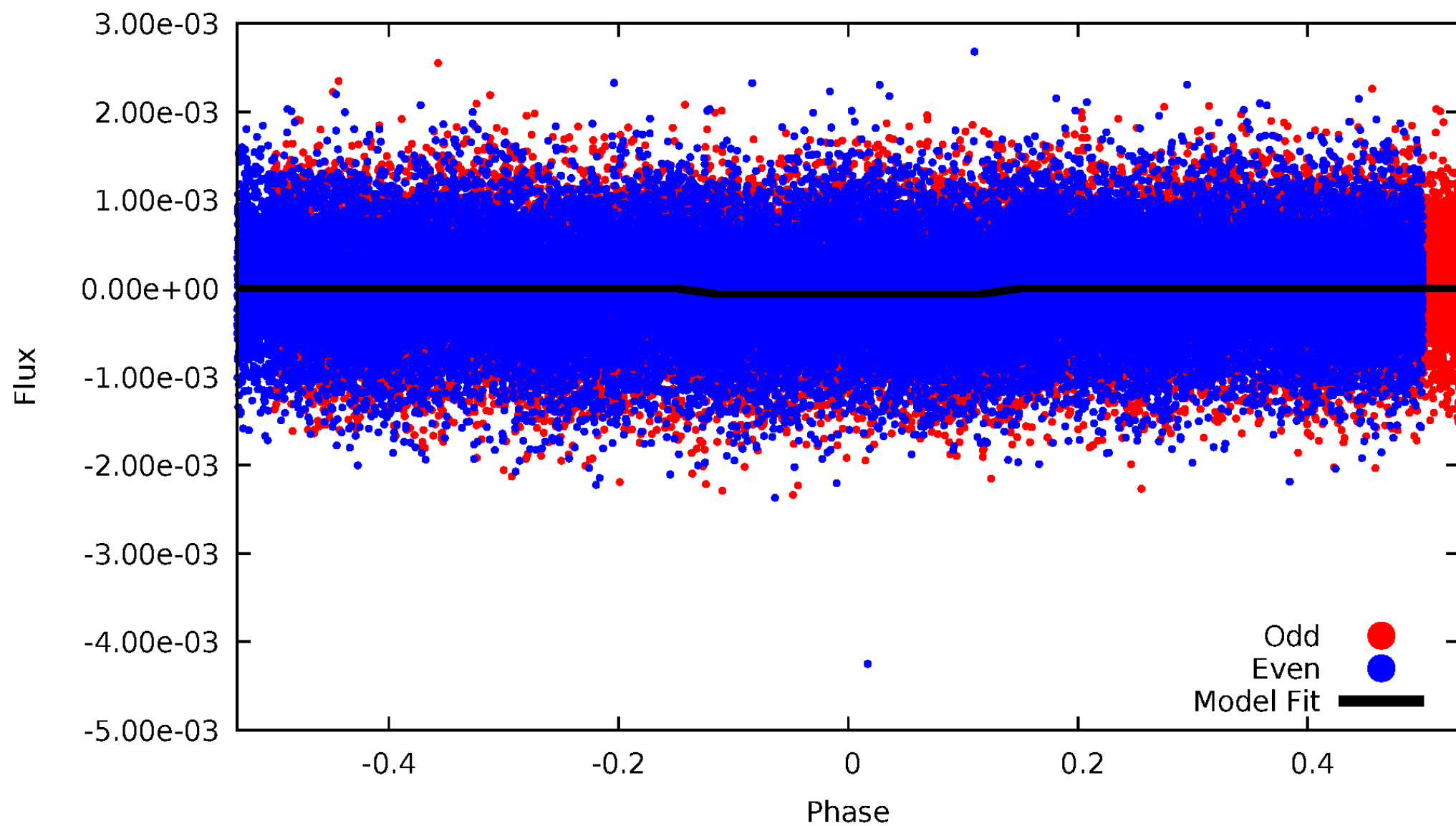
# DV Odd/Even

TCE 008264494-01

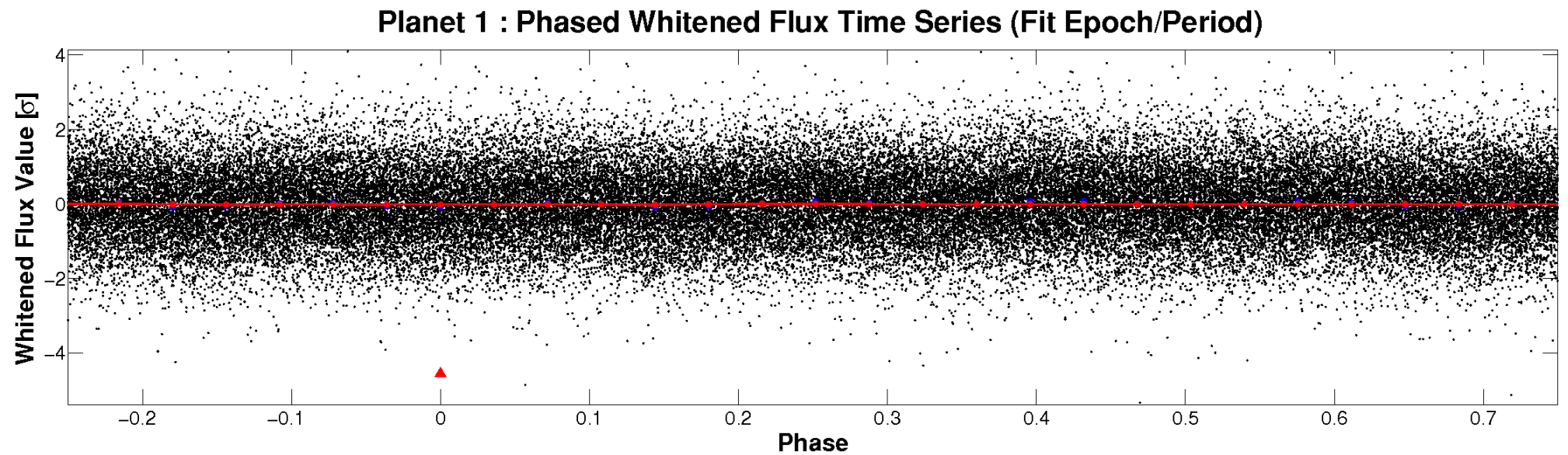
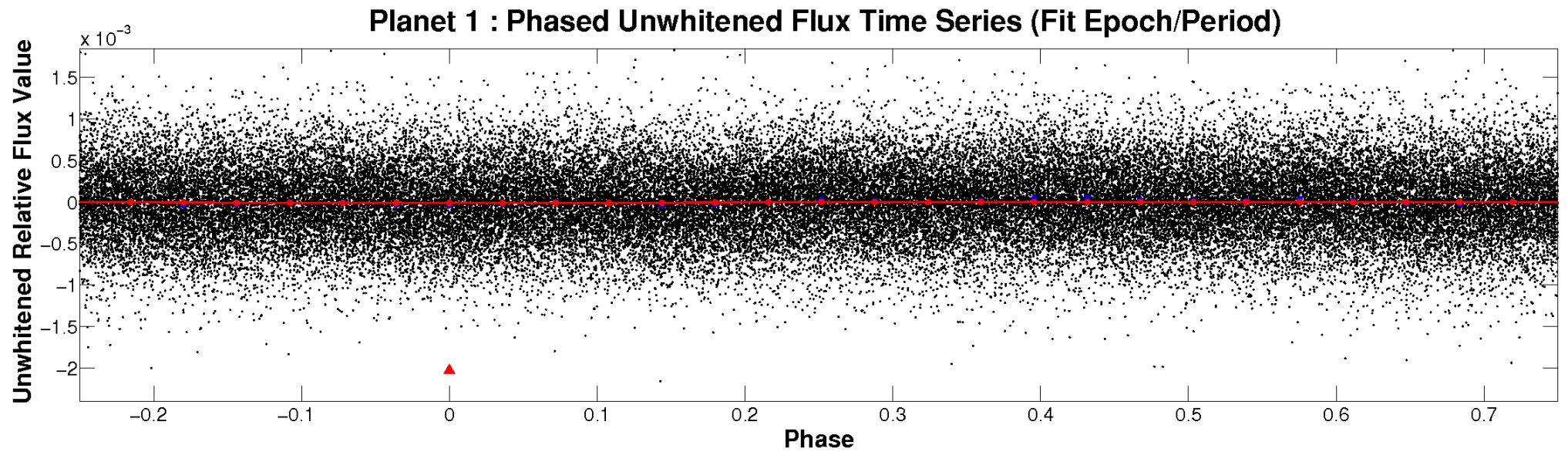


# ALT Odd/Even

TCE 008264494-01



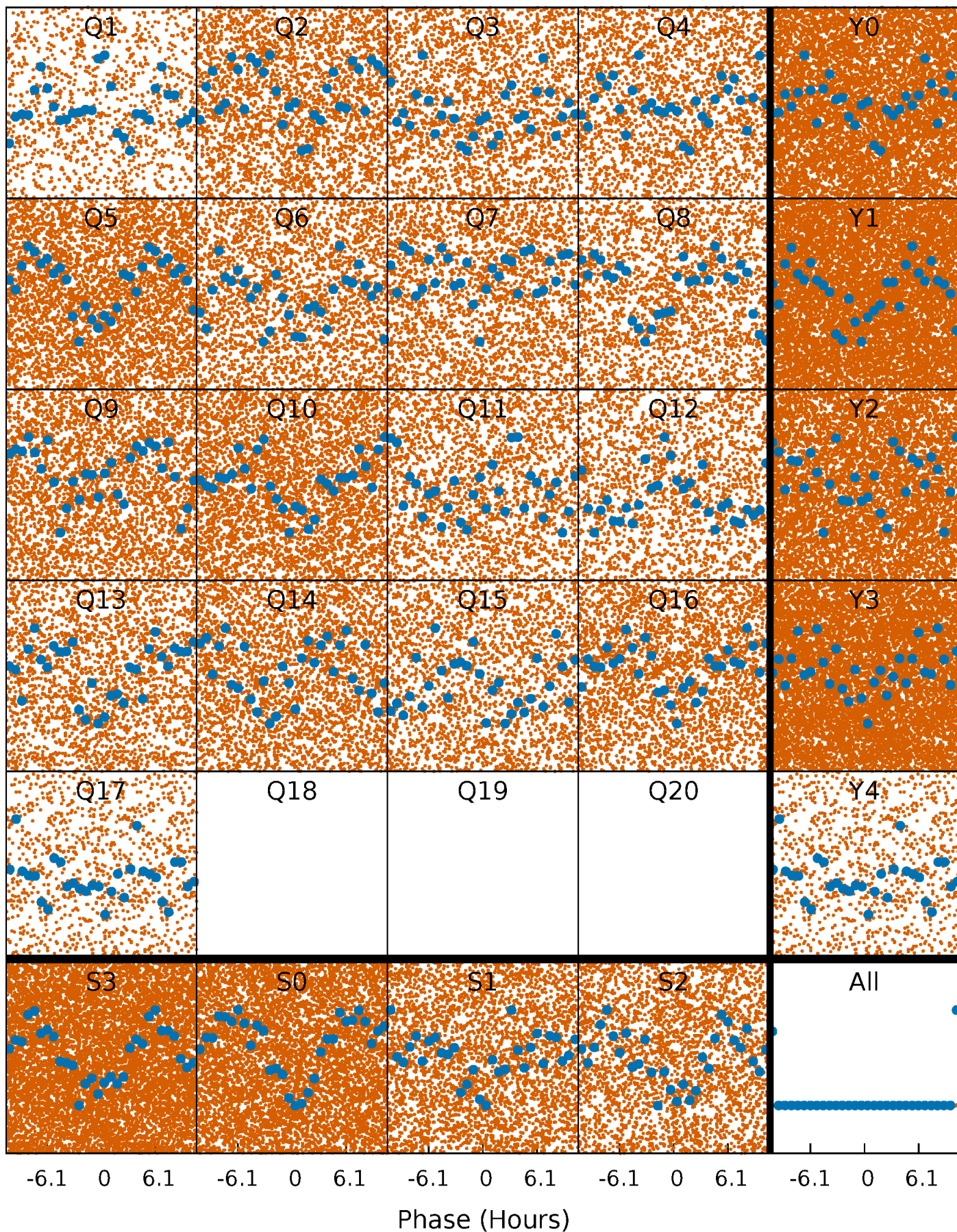
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

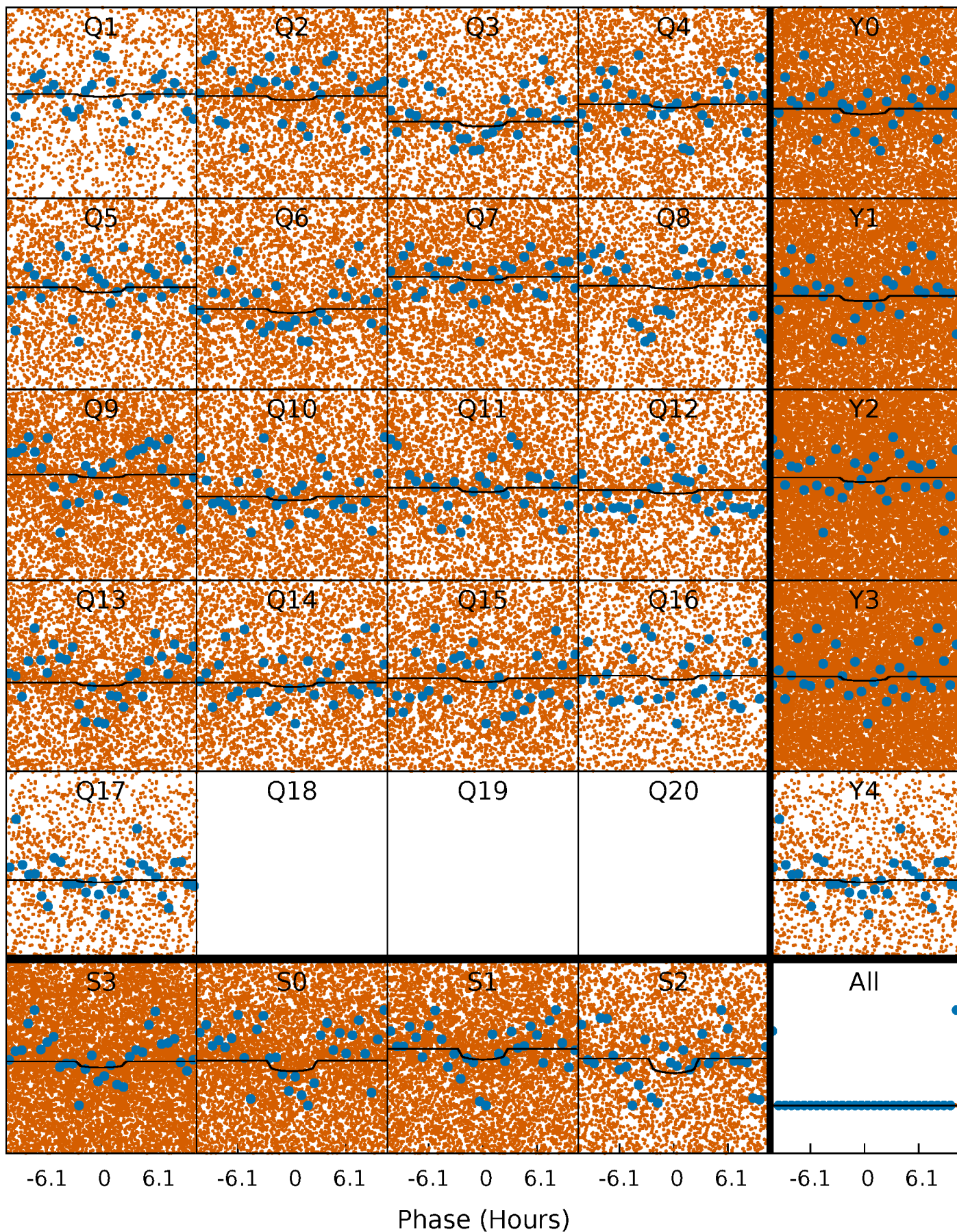
TCE 008264494-01 P= 0.568068 Days  $T_0=132.031763$  (BKJD)





# DV Quarter-Phased Transit Curves

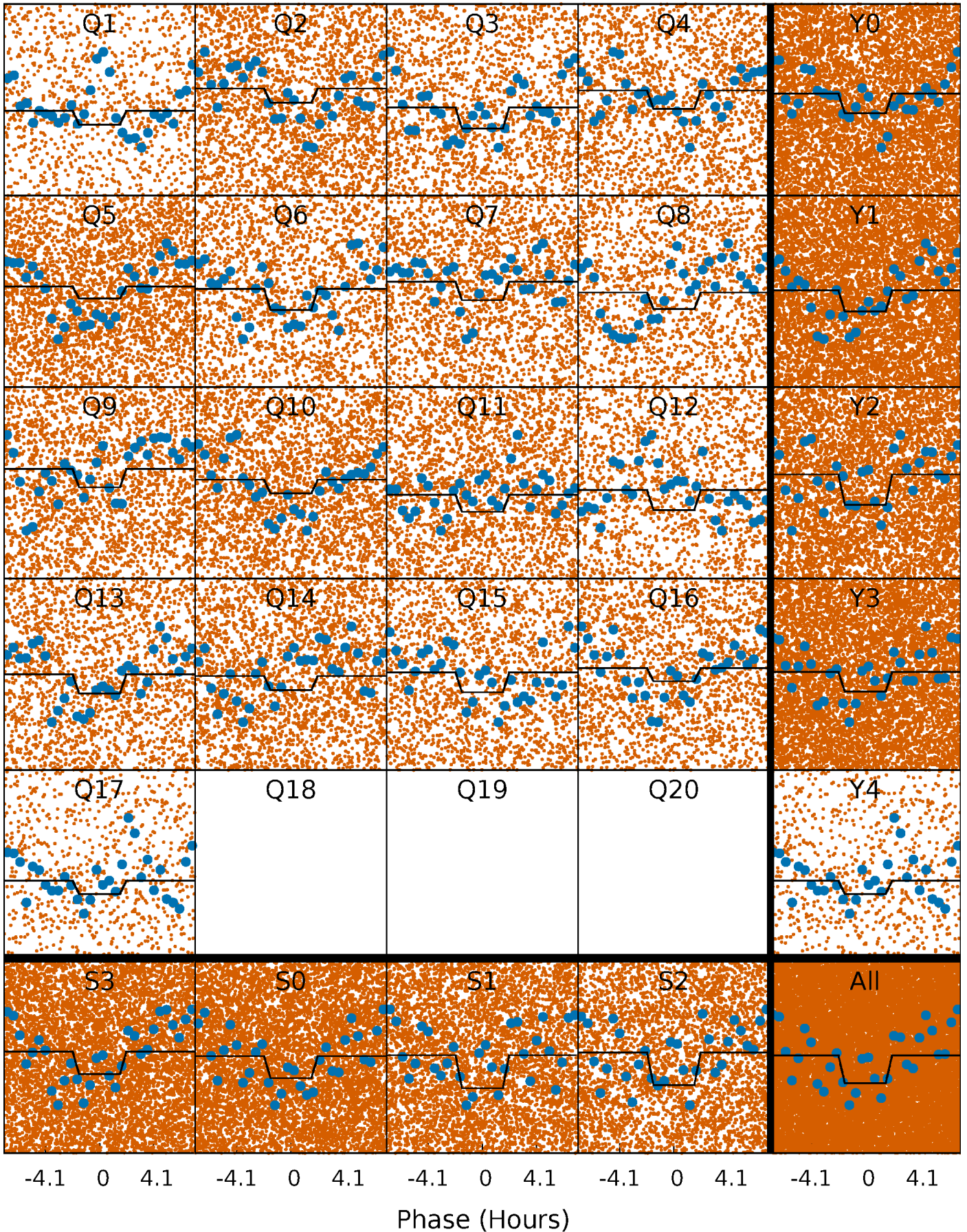
TCE 008264494-01   P= 0.568068 Days    $T_0=132.031763$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

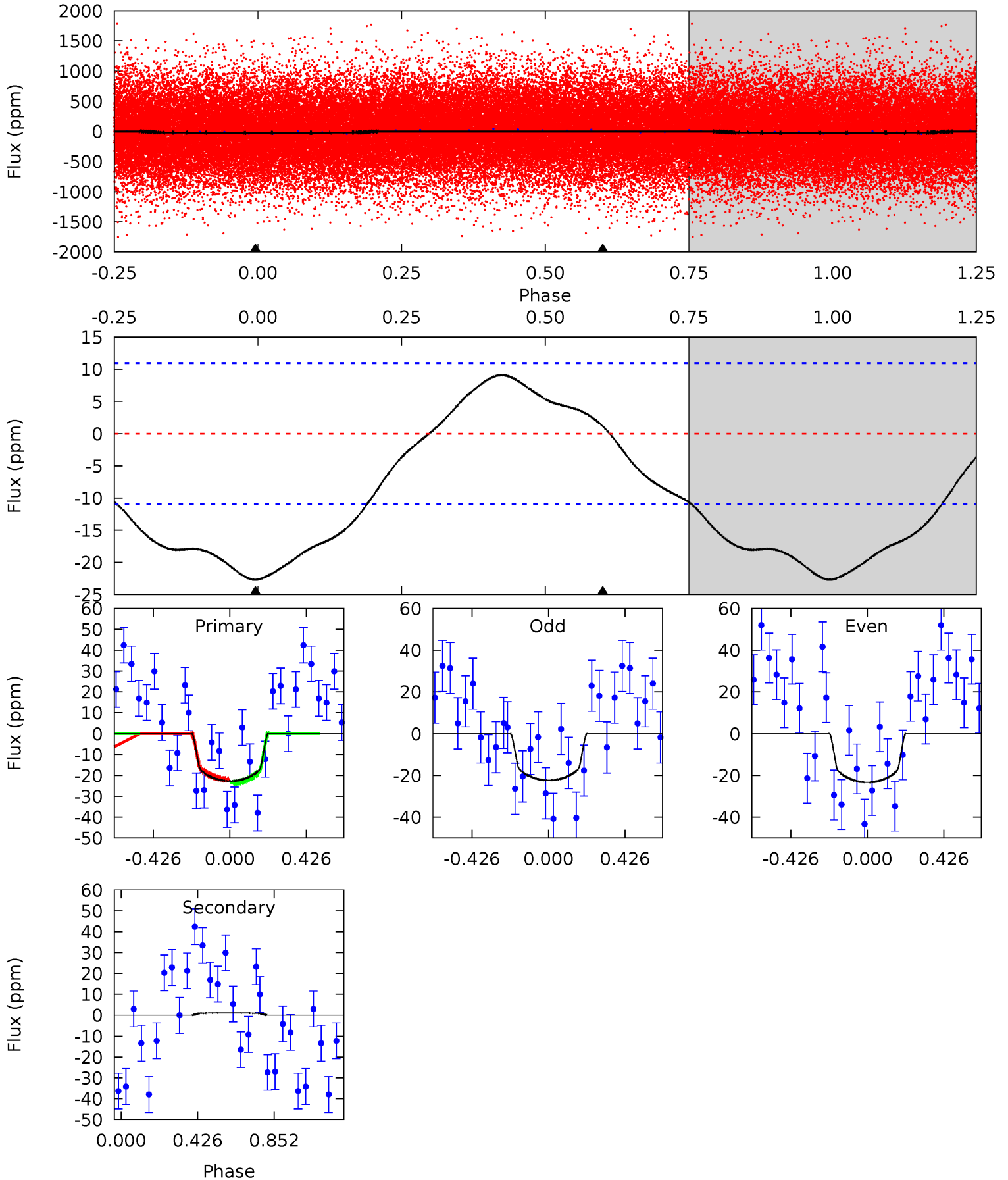
TCE 008264494-01 P= 0.568096 Days  $T_0=132.031640$  (BKJD)



# DV Model-Shift Uniqueness Test

008264494-01, P = 0.568068 Days, E = 131.463695 Days

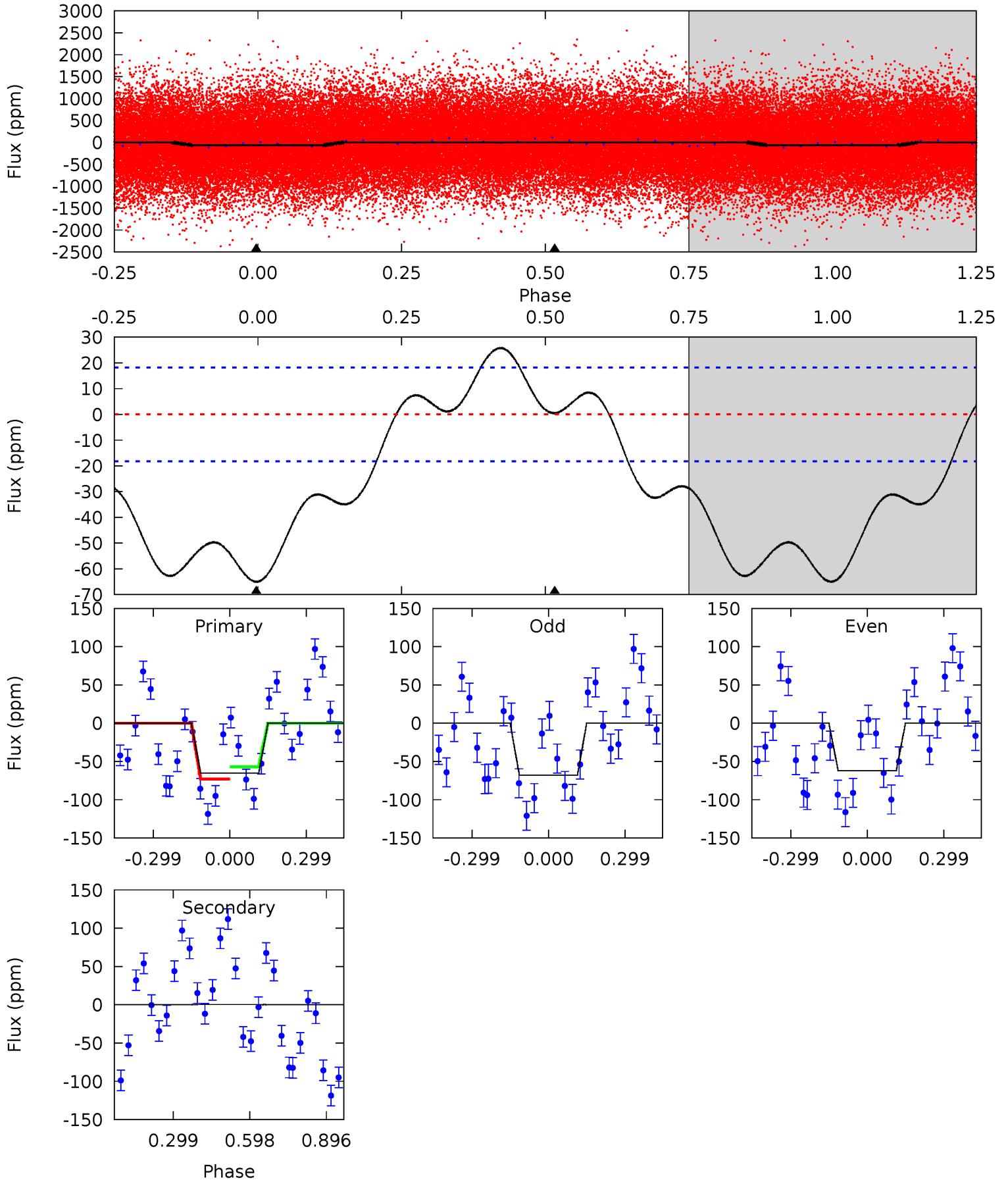
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.81	-0.44	0	0	4.25	0.80	0.92	8.81	8.81	-0.44	-0.44	0.19	0.82	0.29	0.32



# Alt Model-Shift Uniqueness Test

008264494-01, P = 0.568096 Days, E = 131.463544 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
15.5	-0.09	0	0	4.33	1.04	3.81	15.5	15.5	-0.09	-0.09	0.67	0.96	0.28	1.88





### Stellar Parameters For KIC 008264494

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8083^{+223}_{-363}$	$3.727^{+0.442}_{-0.104}$	$-0.160^{+0.200}_{-0.350}$	$3.228^{+0.662}_{-1.545}$	$2.024^{+0.337}_{-0.505}$	$0.085^{+0.342}_{-0.028}$
	+3%/-4%	+12%/-3%	+125%/-219%	+21%/-48%	+17%/-25%	+403%/-33%
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 008264494-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$1\pm3$	$1.58^{+1.61}_{-1.04}$	$6589^{+560}_{-827}$	$-5514^{+925}_{-1296}$	$-0.040^{+0.138}_{-0.575}$
Alt.	$0\pm4$	$2.52^{+1.97}_{-1.37}$	$6587^{+551}_{-777}$	$-5328^{+876}_{-671}$	$-0.005^{+0.117}_{-0.170}$

$T_{max}$  = 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

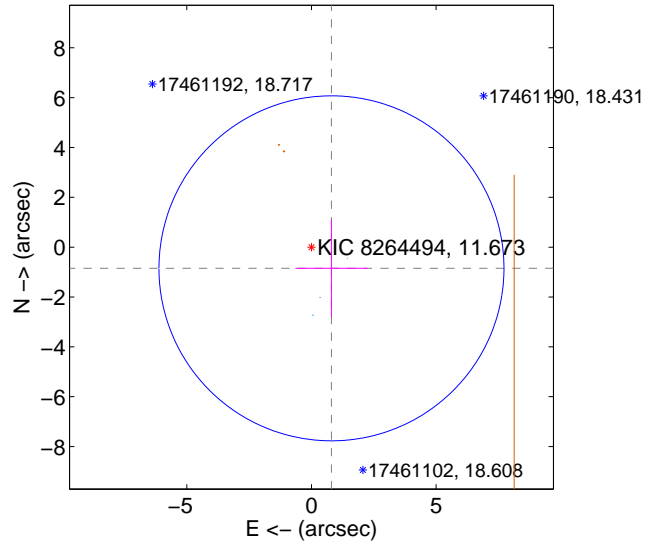
Supplemental centroid analysis for 008264494-01. **Kepler magnitude: 11.67.** Transit SNR 2.93

**There are 3 quarters with good PRF difference image offsets**

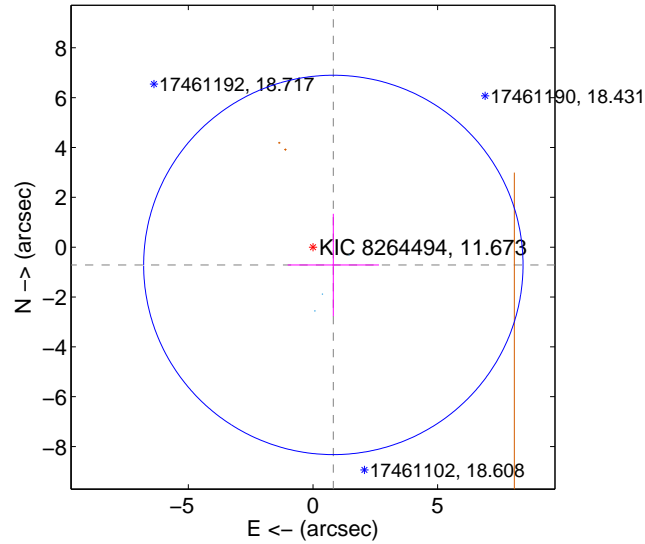
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.169 \pm 2.307$	0.51	$-0.803 \pm 1.449$	$-0.849 \pm 1.954$
PRF-fit source offset from KIC position	$1.084 \pm 2.537$	0.43	$-0.817 \pm 1.832$	$-0.713 \pm 2.054$
photometric centroid source offset	$1.08 \pm 1.01$	1.07	$-1.08 \pm 1.02$	$-0.12 \pm 0.75$

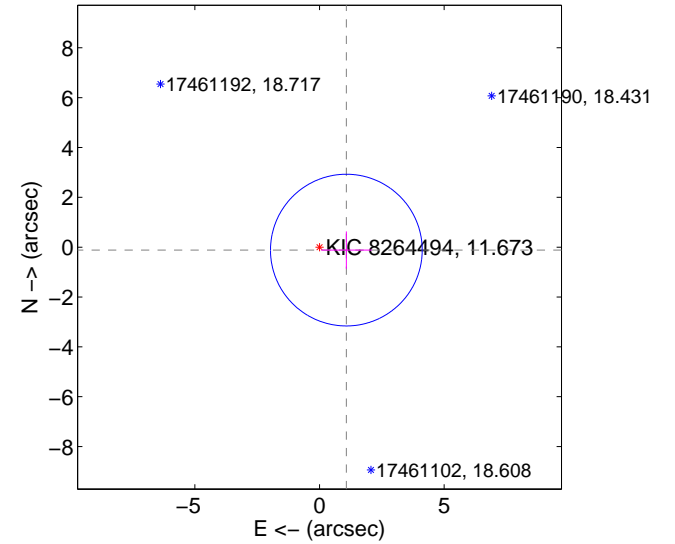
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

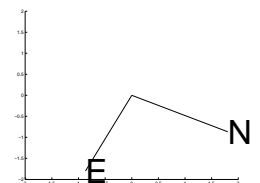
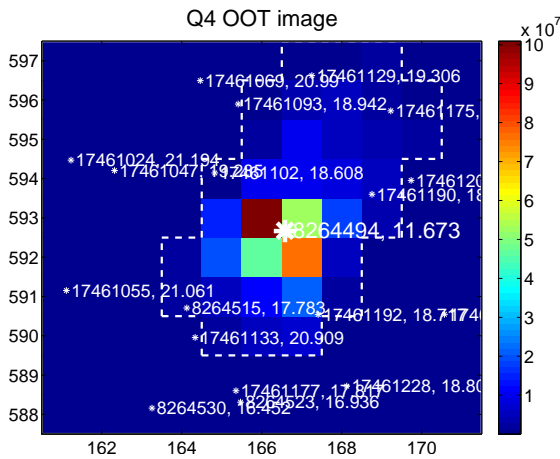
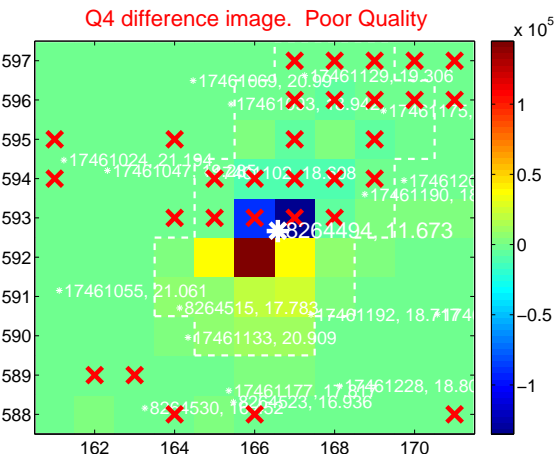
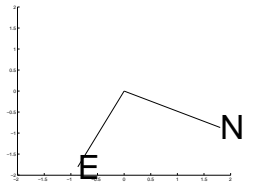
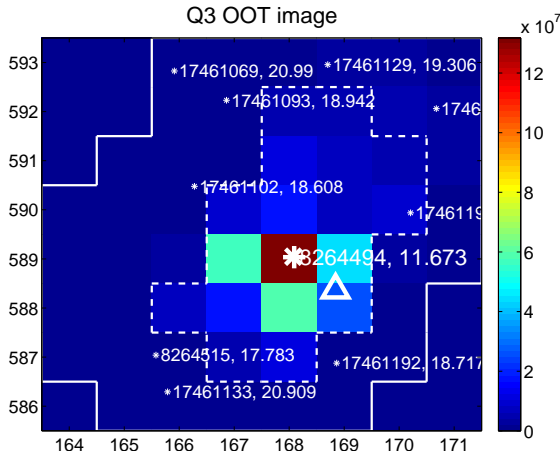
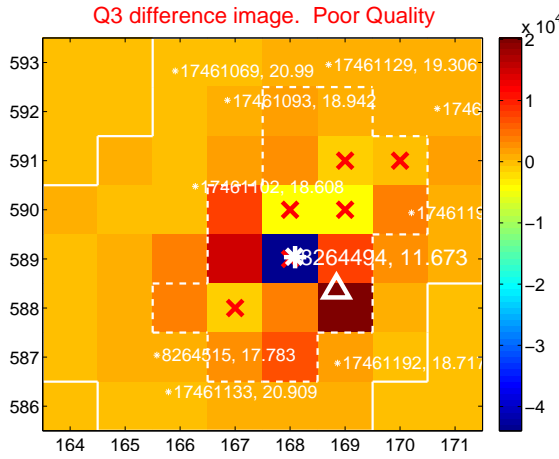
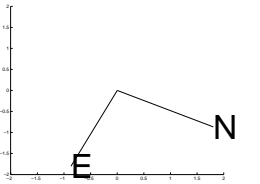
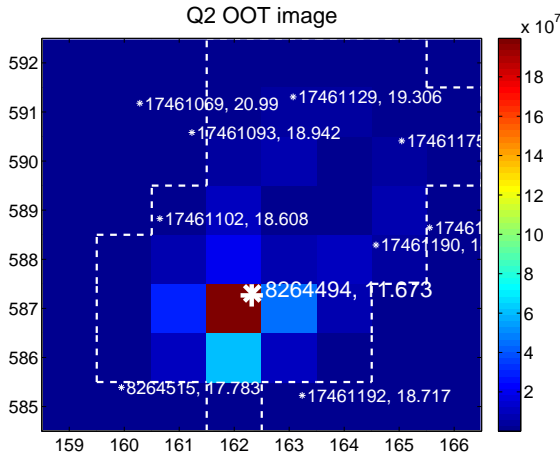
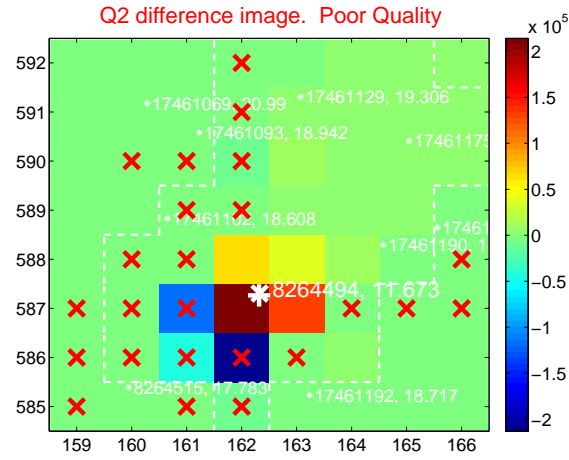
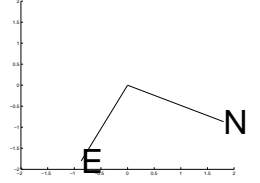
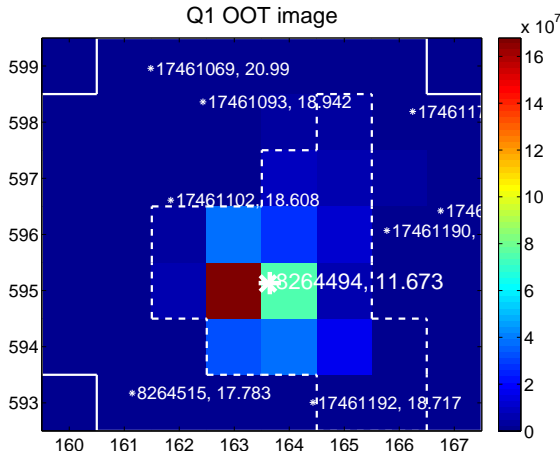
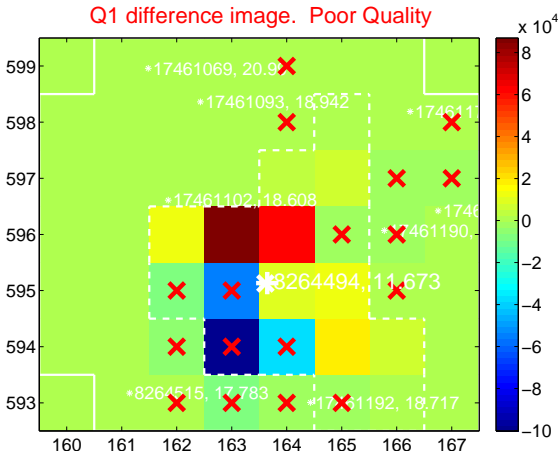


offset from photometric centroids

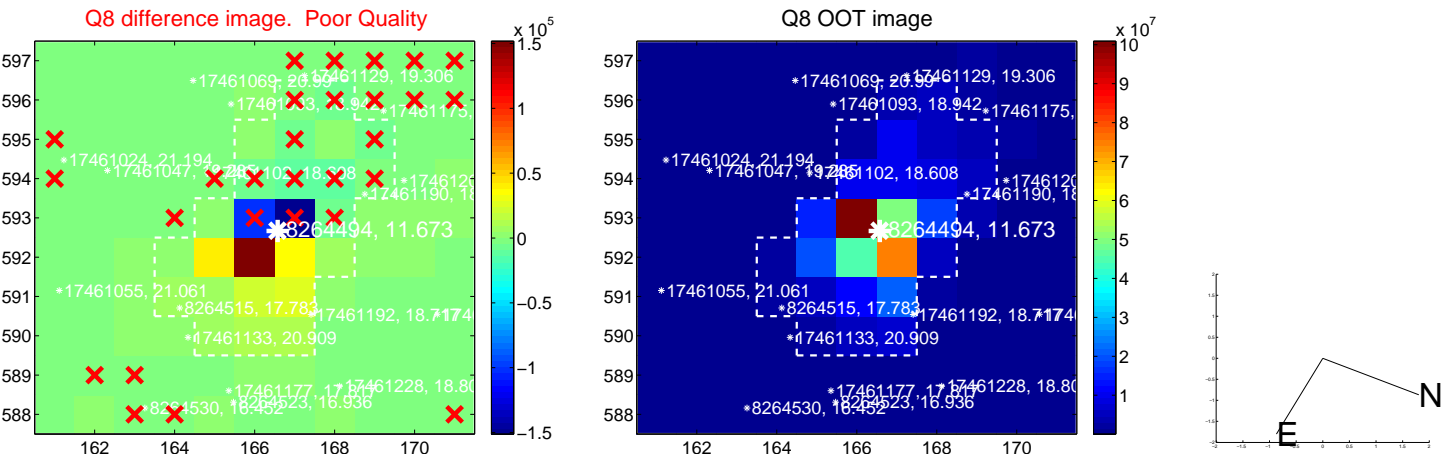
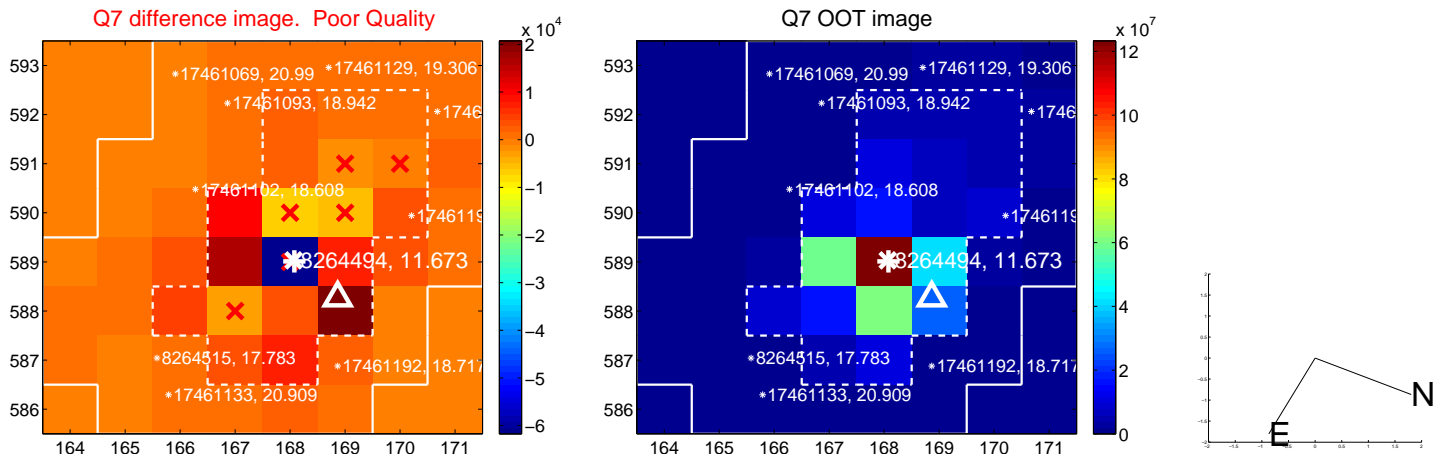
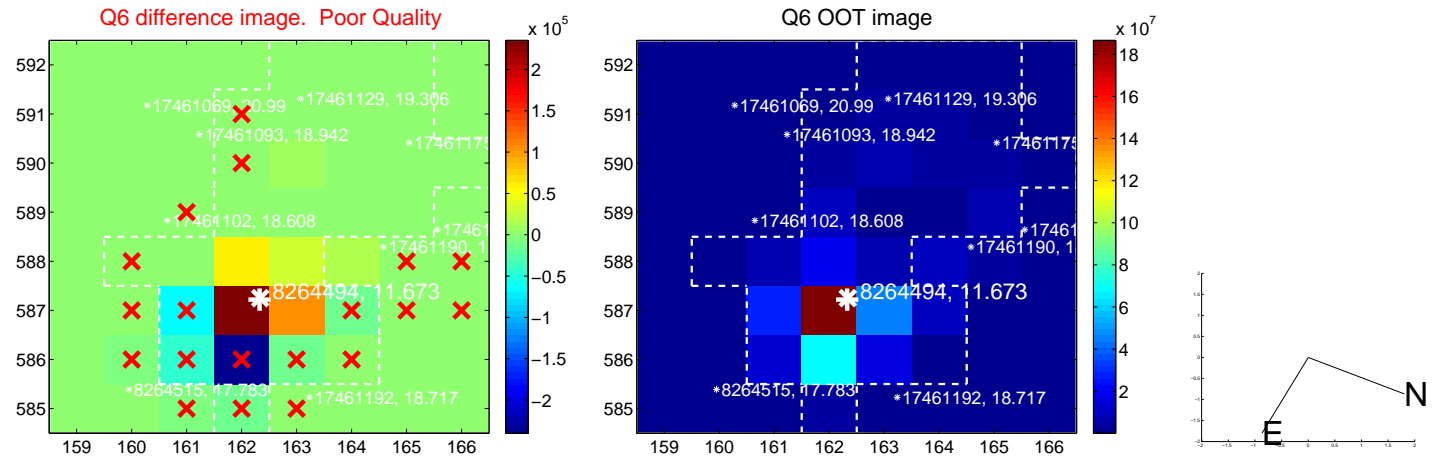
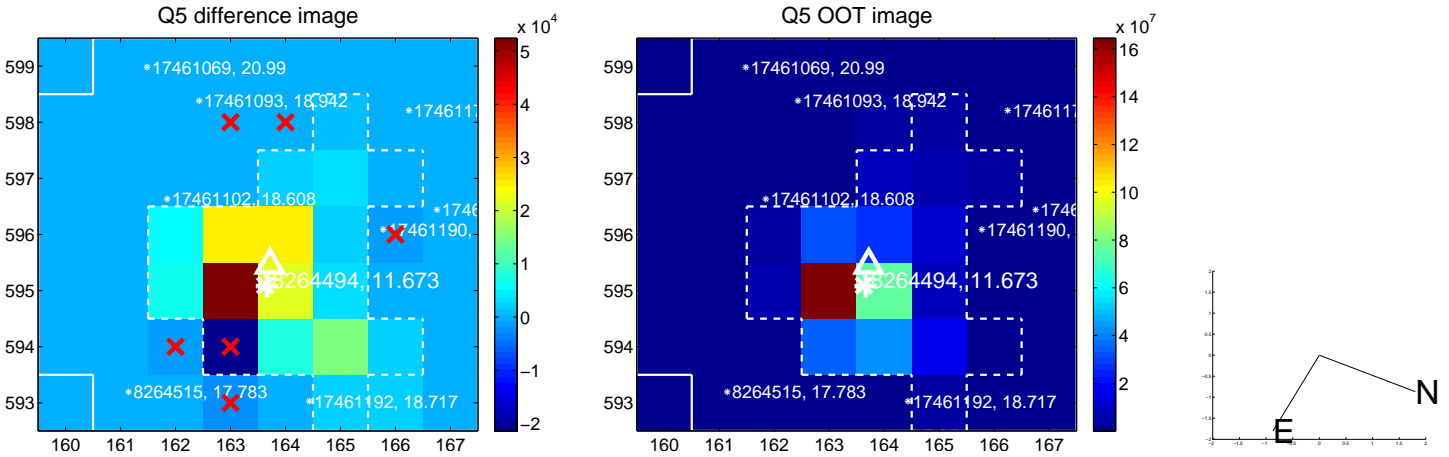


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

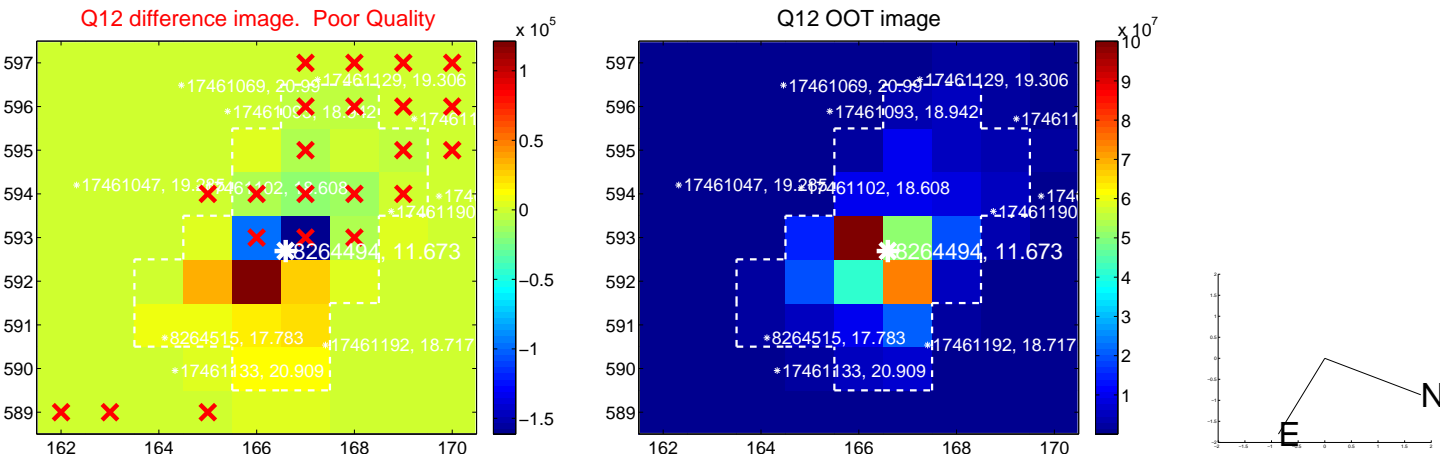
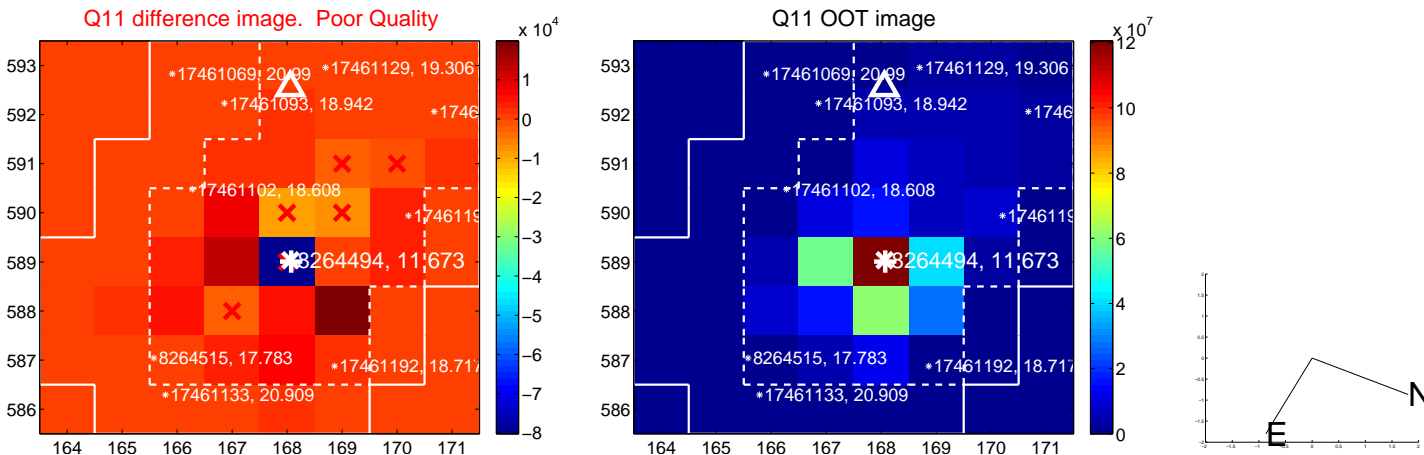
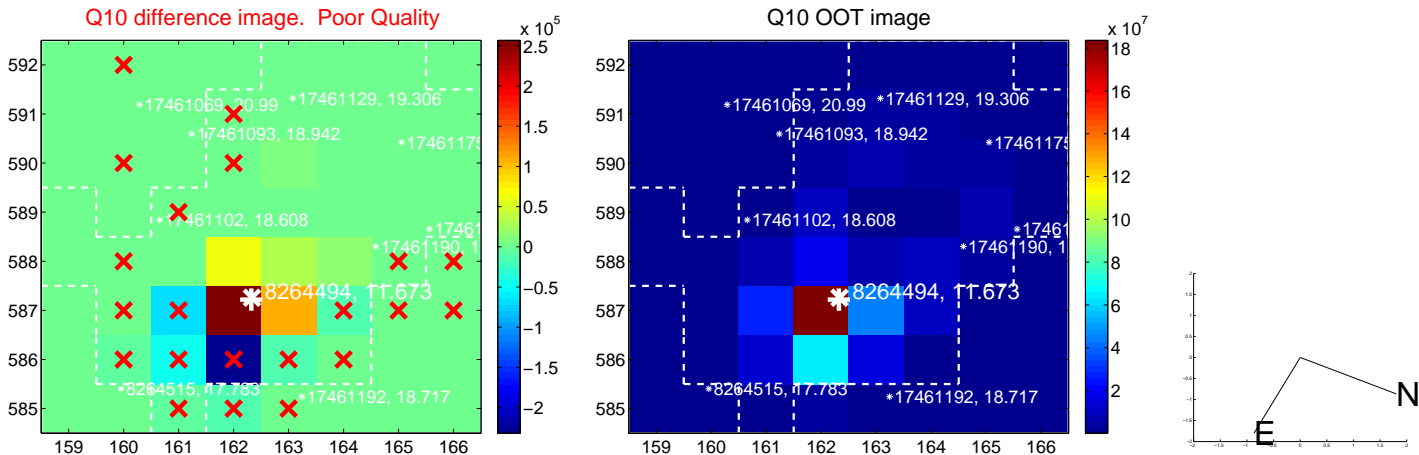
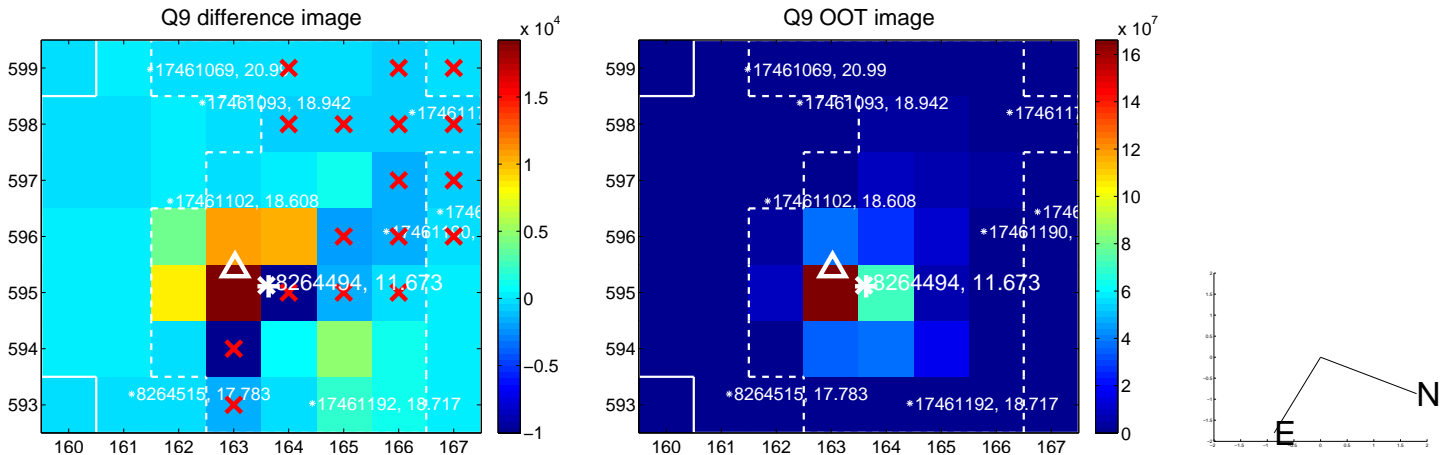


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

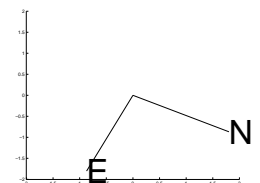
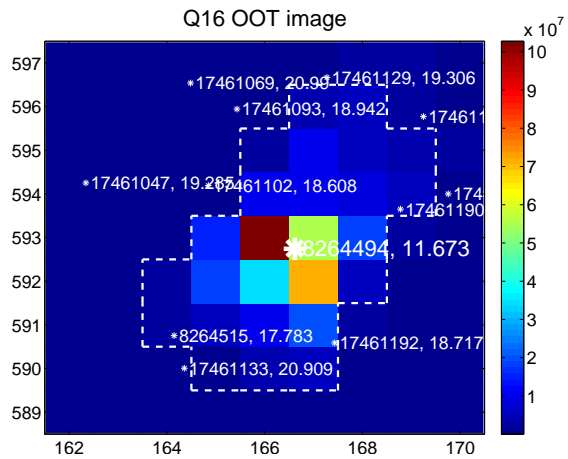
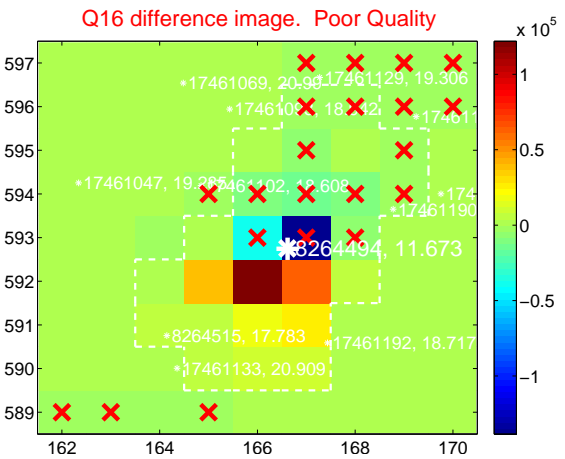
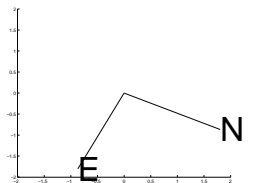
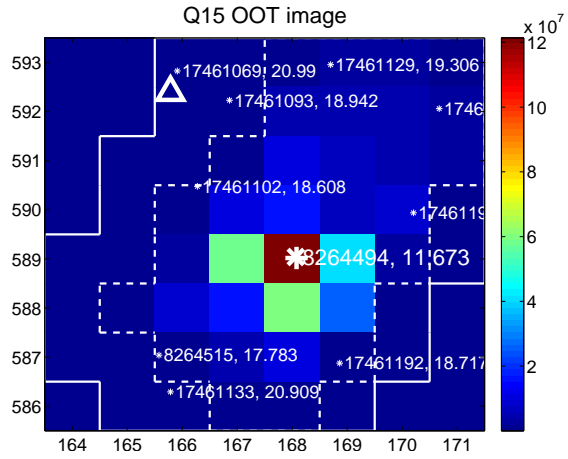
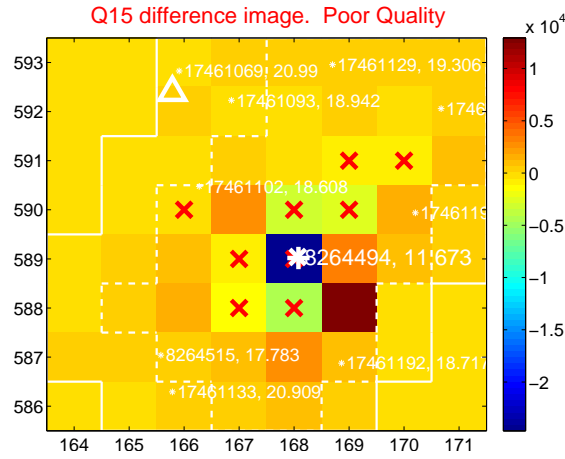
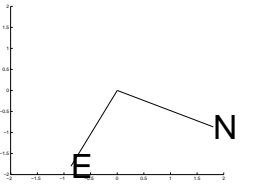
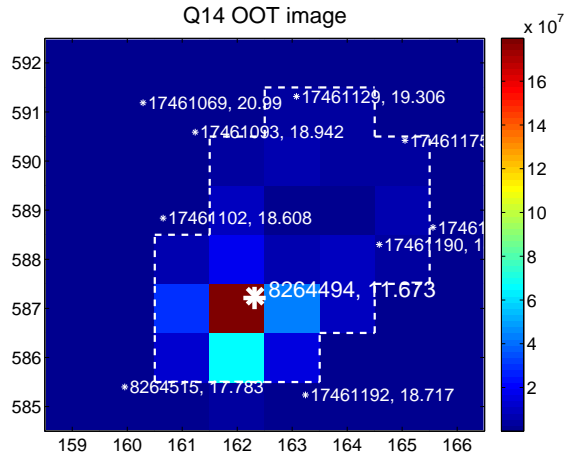
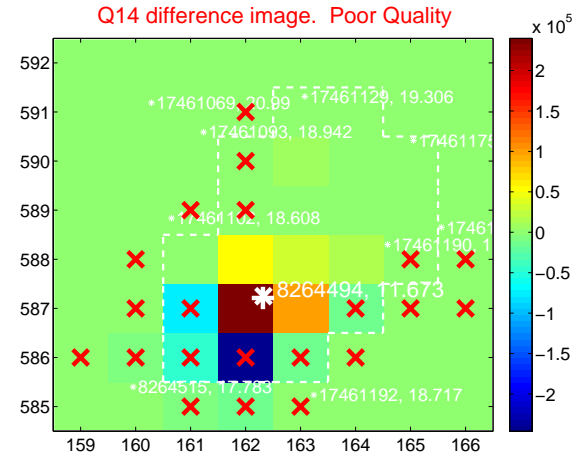
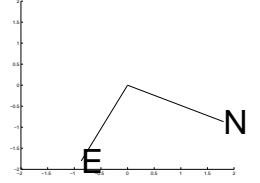
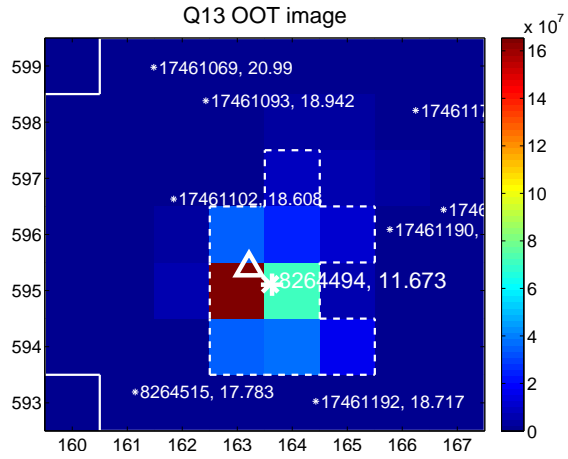
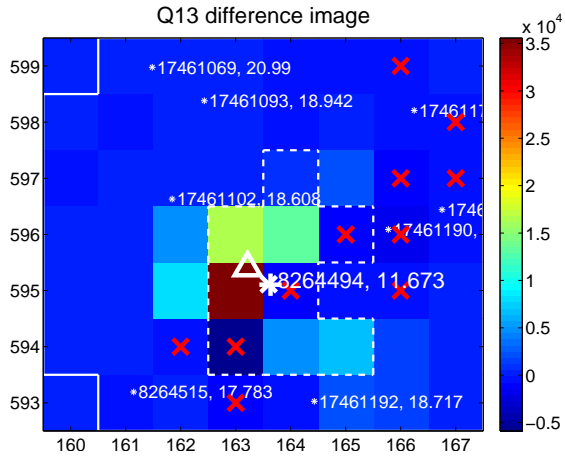




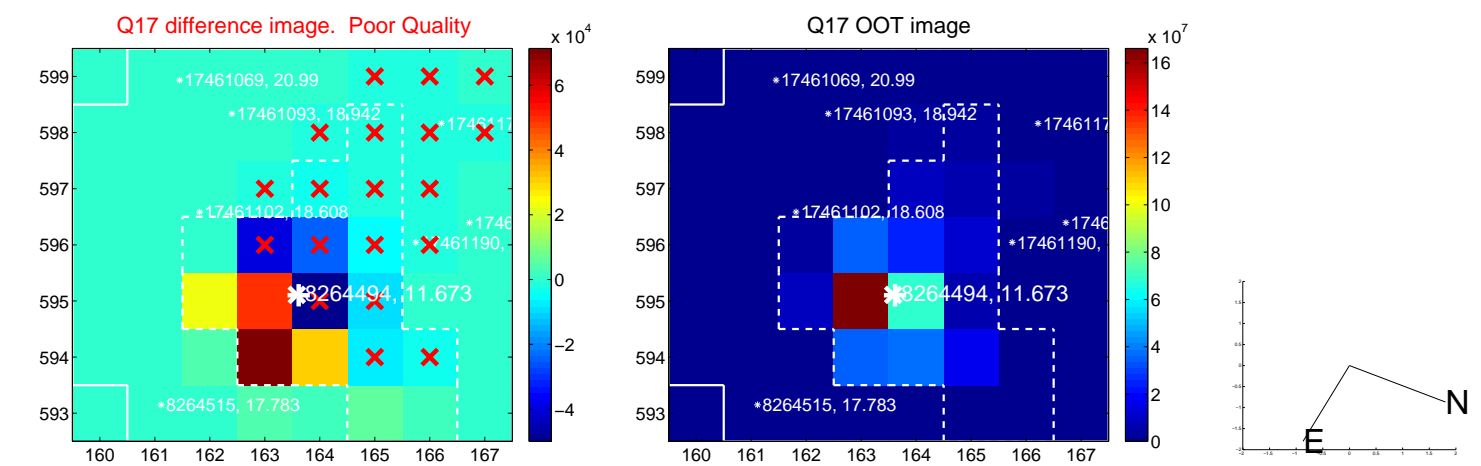
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



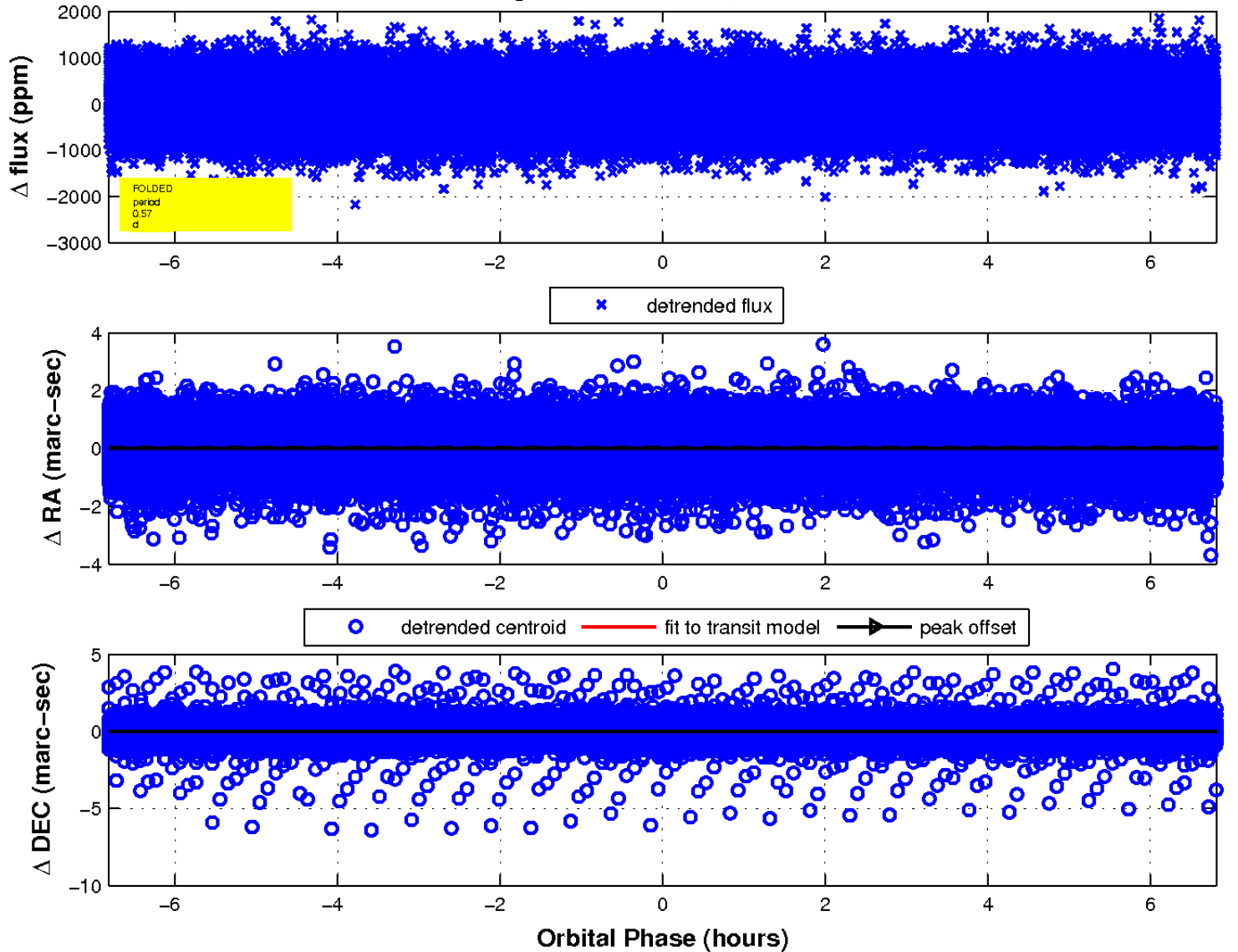
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white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

