

# KIC 006869292

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006869292-01	OBS	No	4.227741	132.497382	29.6	23.217	7.8	6.5	0.88	5750	0.47	294.94

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006869292-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

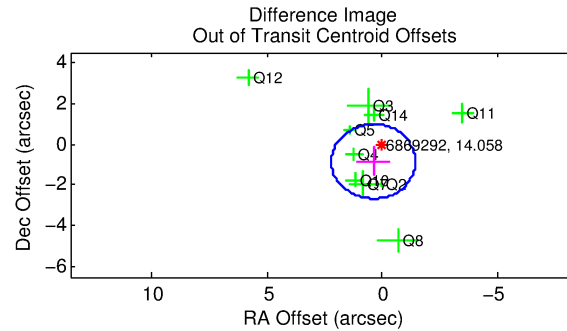
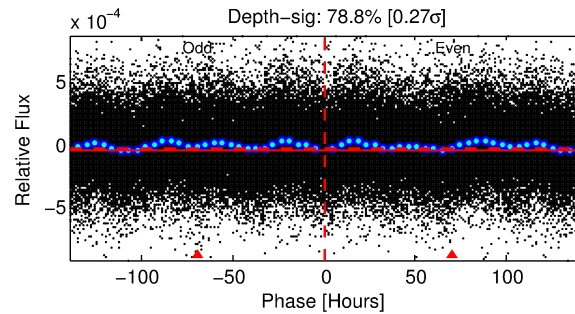
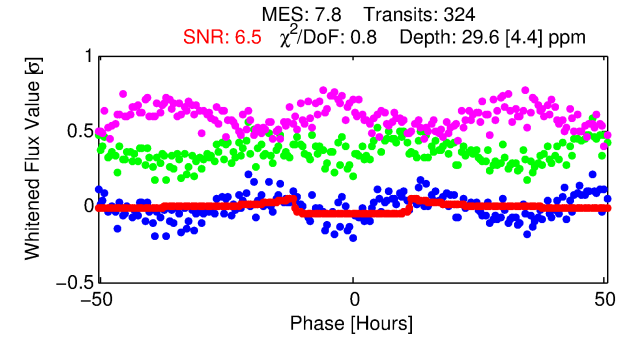
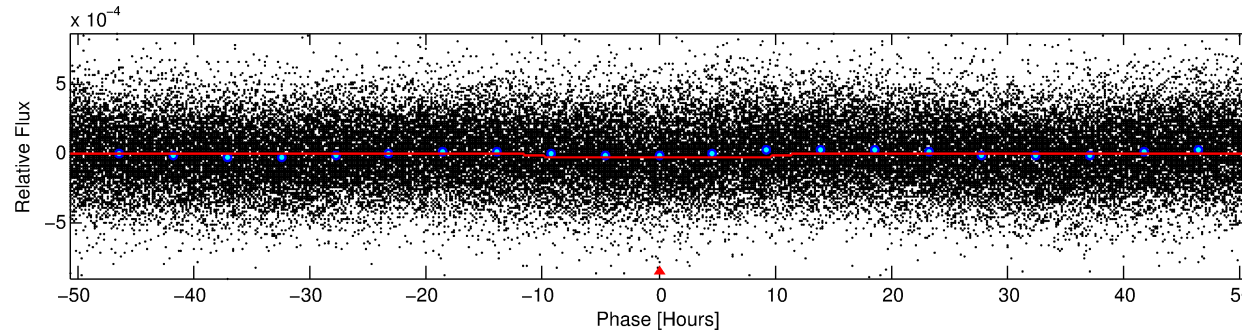
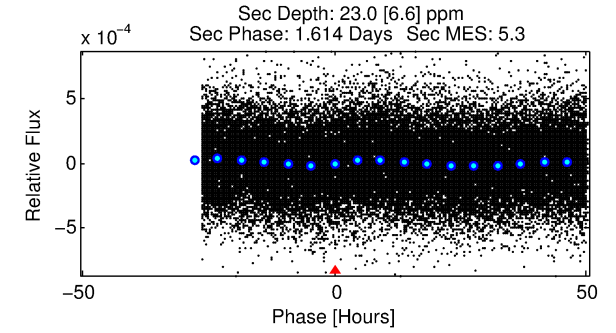
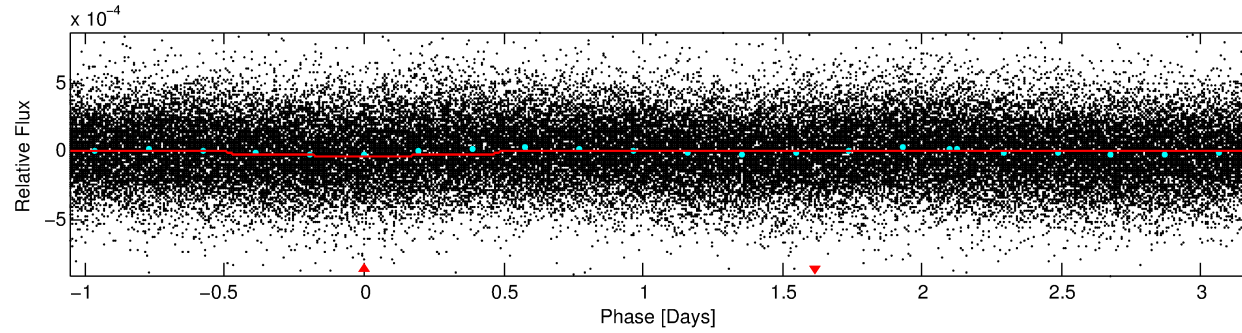
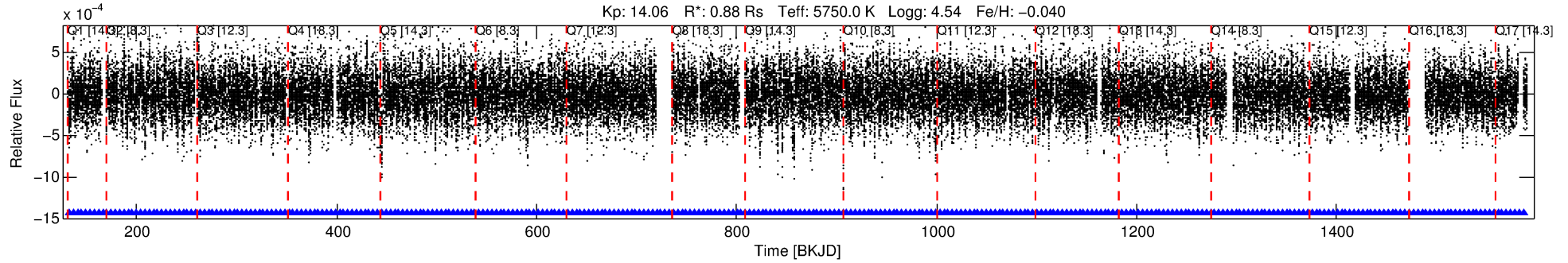
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006869292-01

No Significant Match Found

# DV One-Page Summary

KIC: 6869292 Candidate: 1 of 1 Period: 4.228 d



## DV Fit Results:

Period = 4.22774 [0.00009] d  
Epoch = 132.4974 [0.0149] BKJD  
Rp/R\* = 0.0049 [0.0049]  
a/R\* = 1.52 [3.82]  
b = 0.08 [53.33]  
Seff = 294.94 [113.76]  
Teq = 1057 [102] K  
Rp = 0.48 [0.49] Re  
a = 0.0508 [0.0128] AU  
Ag = 144.59 [295.66] [0.49σ]  
Teffp = 5665 [2853] K [1.61σ]

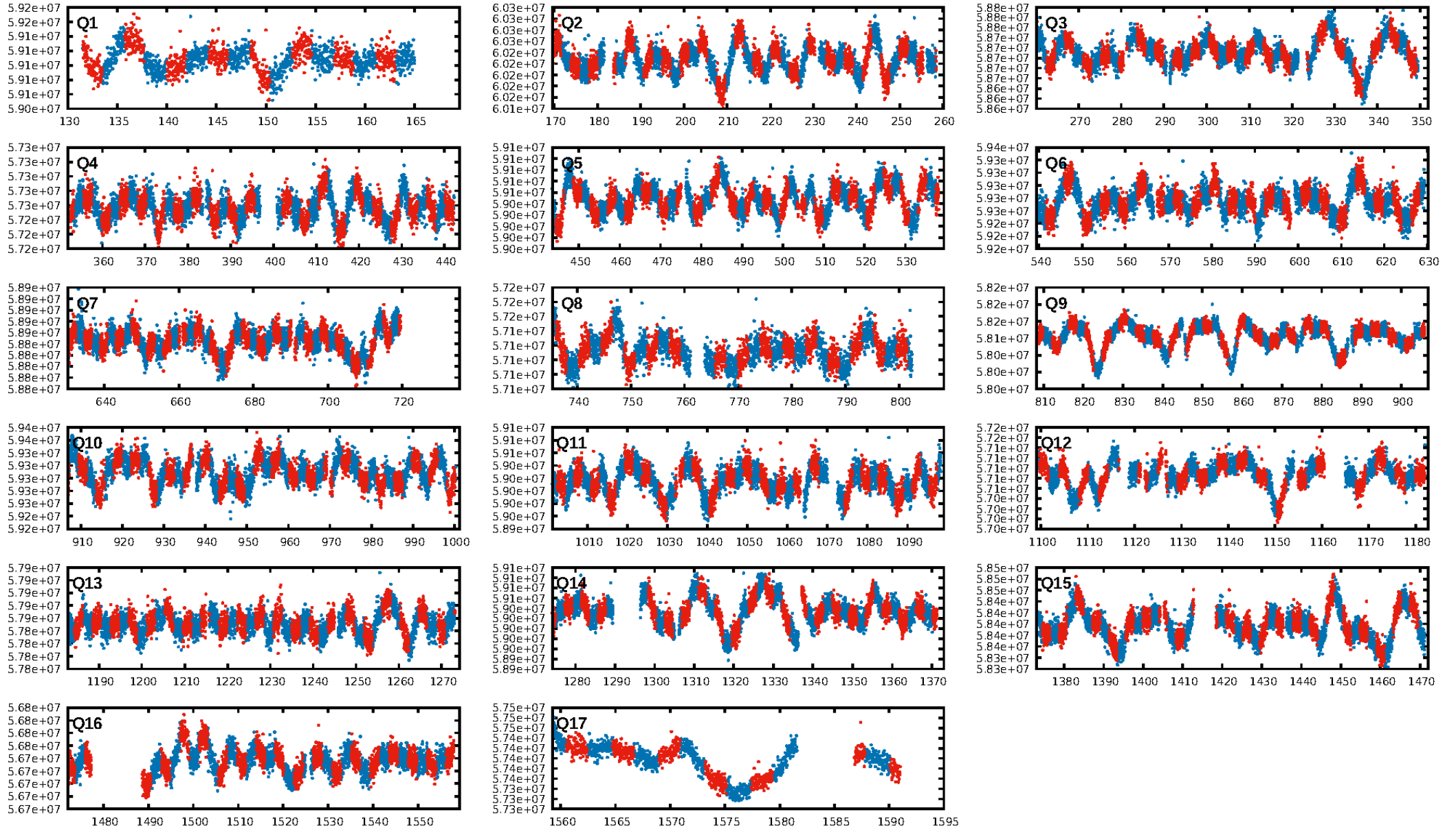
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 3.75e-18  
RollingBand-fgt: 1.00 [309/309]  
GhostDiagnostic-chr: 0.2525  
Centroid-sig: 4.0%  
Centroid-so: 1.400 arcsec [1.67σ]  
OotOffset-rm: 0.926 arcsec [1.53σ]  
KicOffset-rm: 0.874 arcsec [1.41σ]  
OotOffset-st: 3/3/3/1 [10]  
KicOffset-st: 3/3/3/1 [10]  
DiffImageQuality-fgm: 0.50 [5/10]  
DiffImageOverlap-fno: 1.00 [17/17]

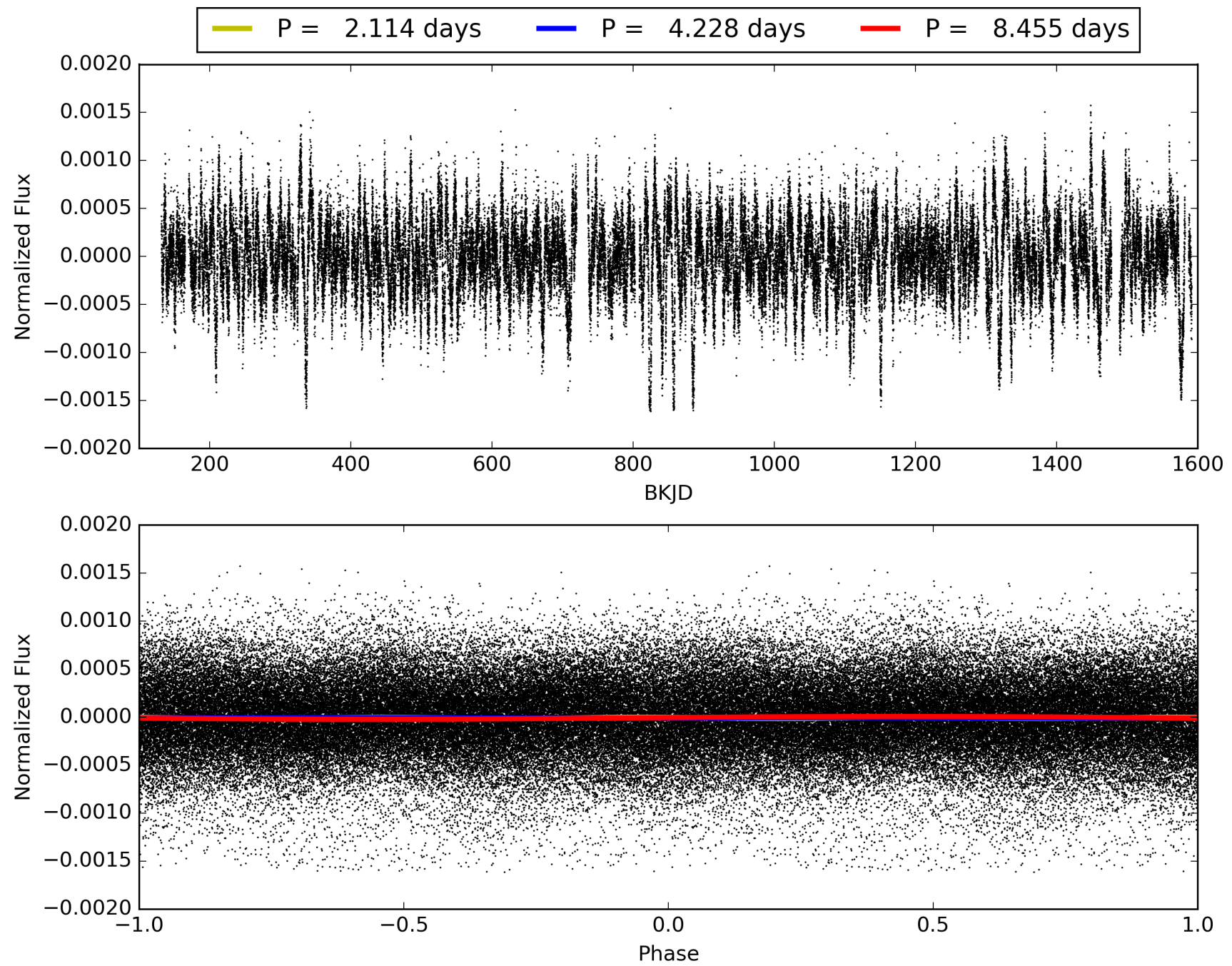
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:20:00 Z

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

# TCE 006869292-01, PDC Light Curves

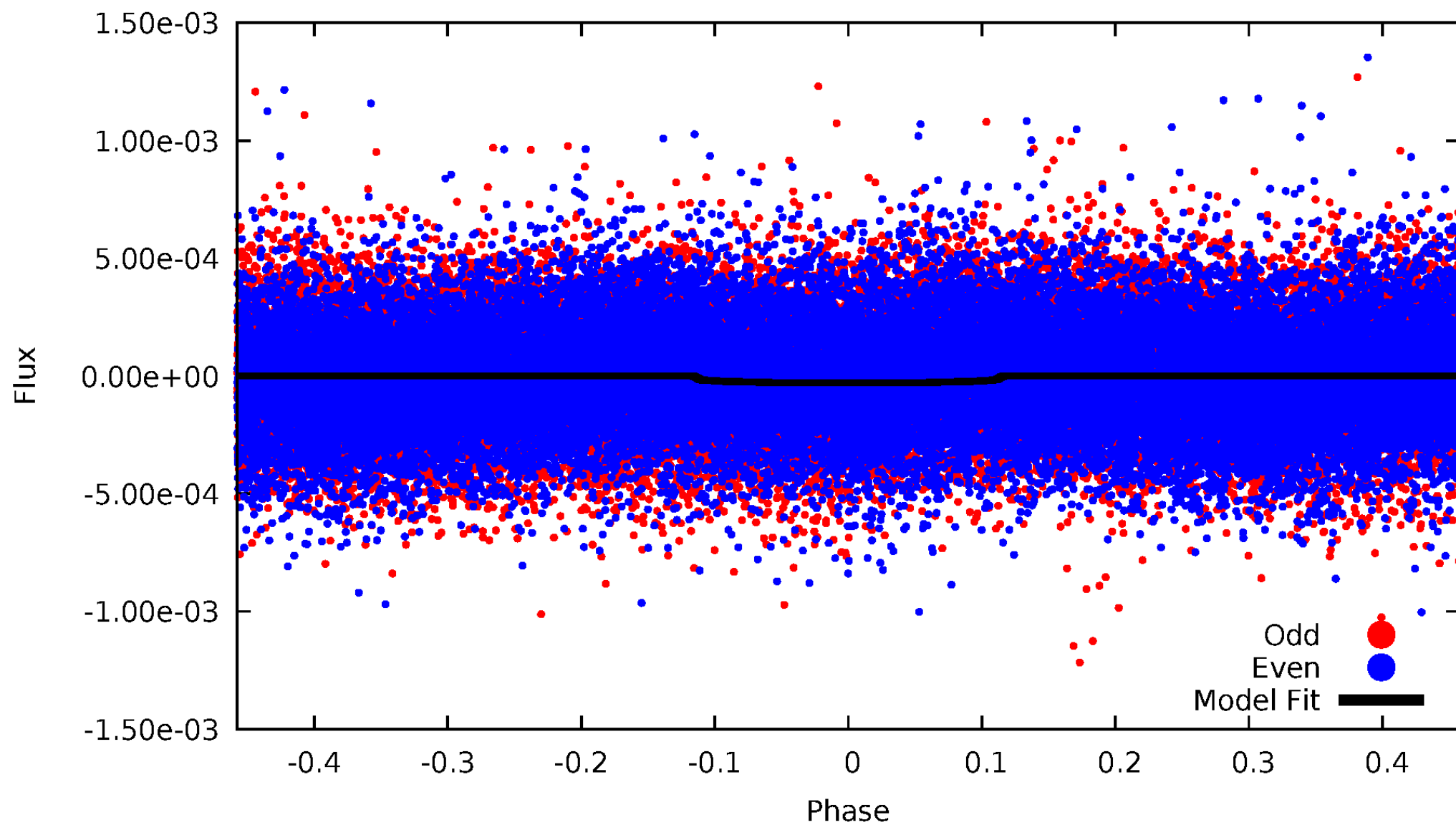


TCE 006869292-01



# DV Odd/Even

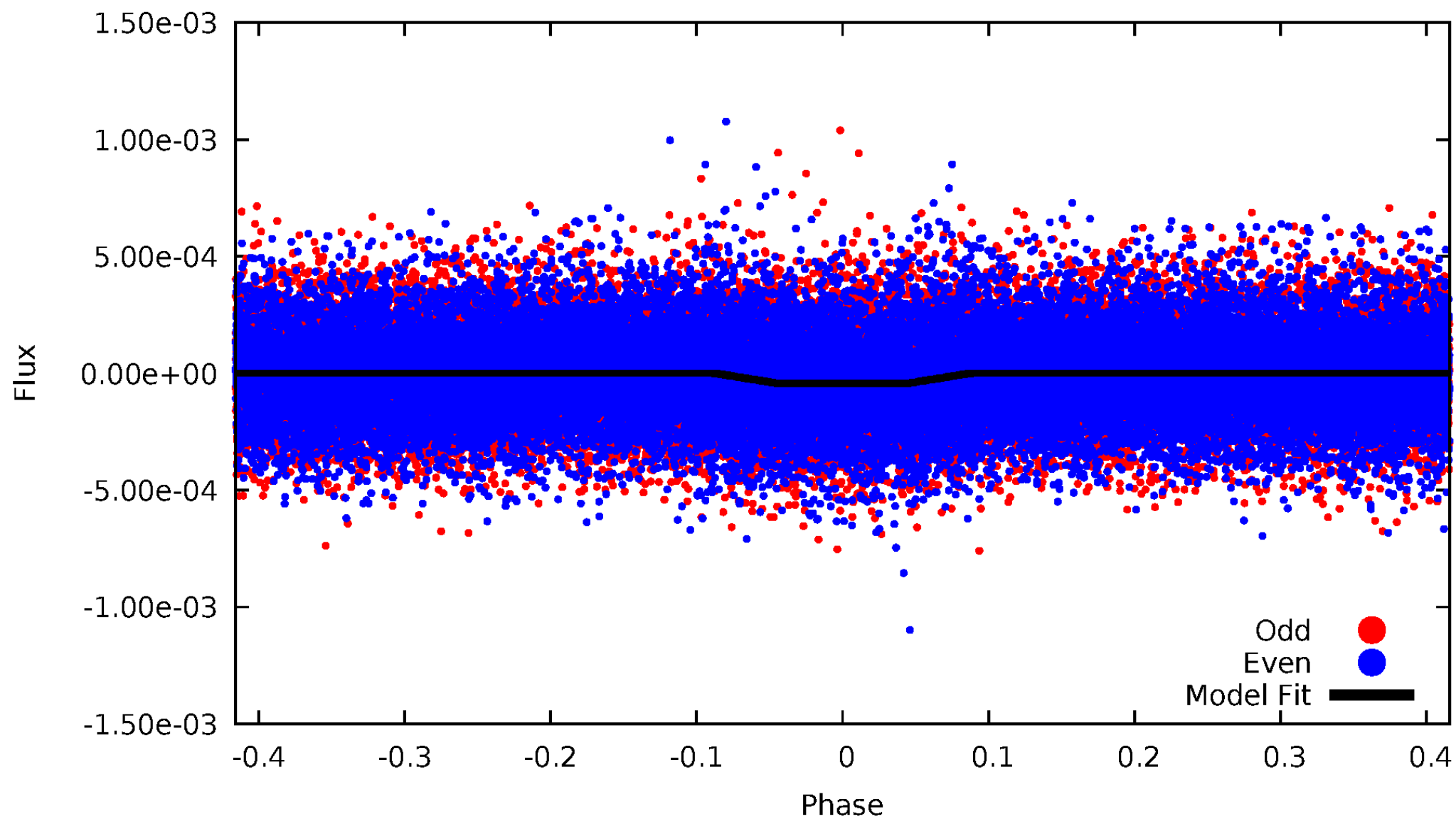
TCE 006869292-01



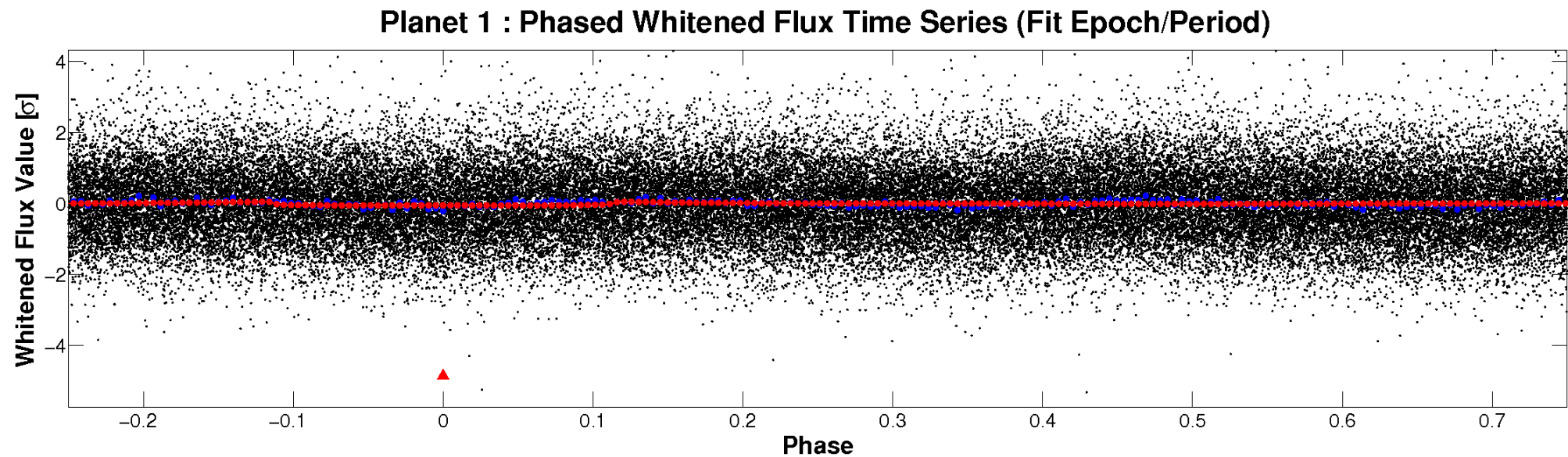
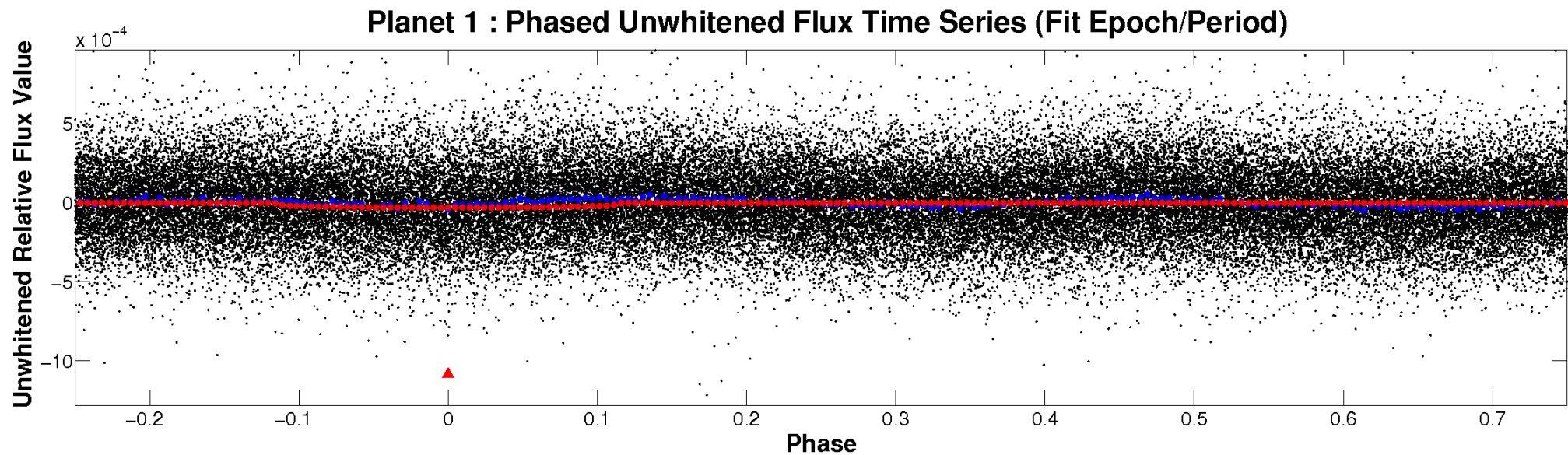


# ALT Odd/Even

TCE 006869292-01

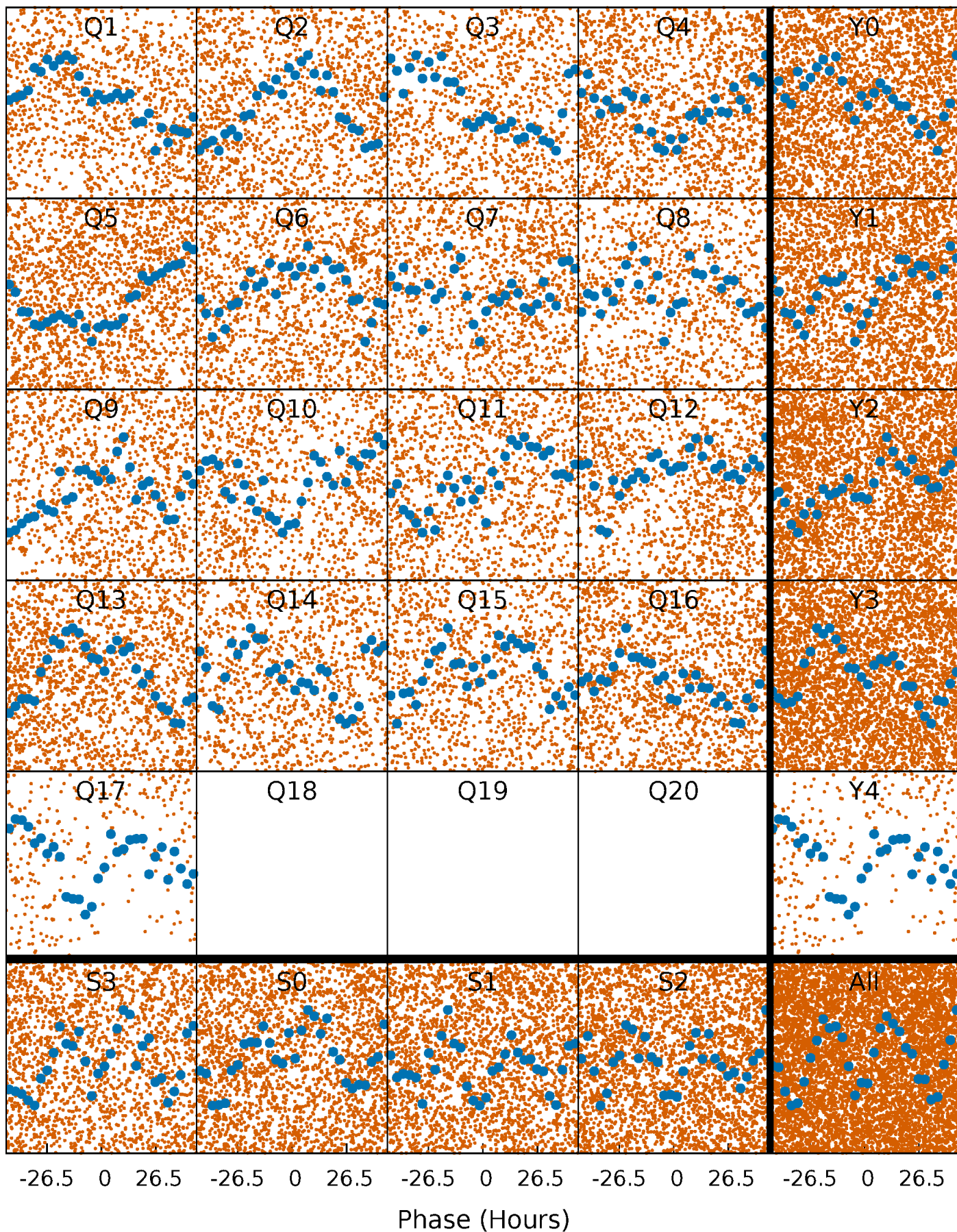


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

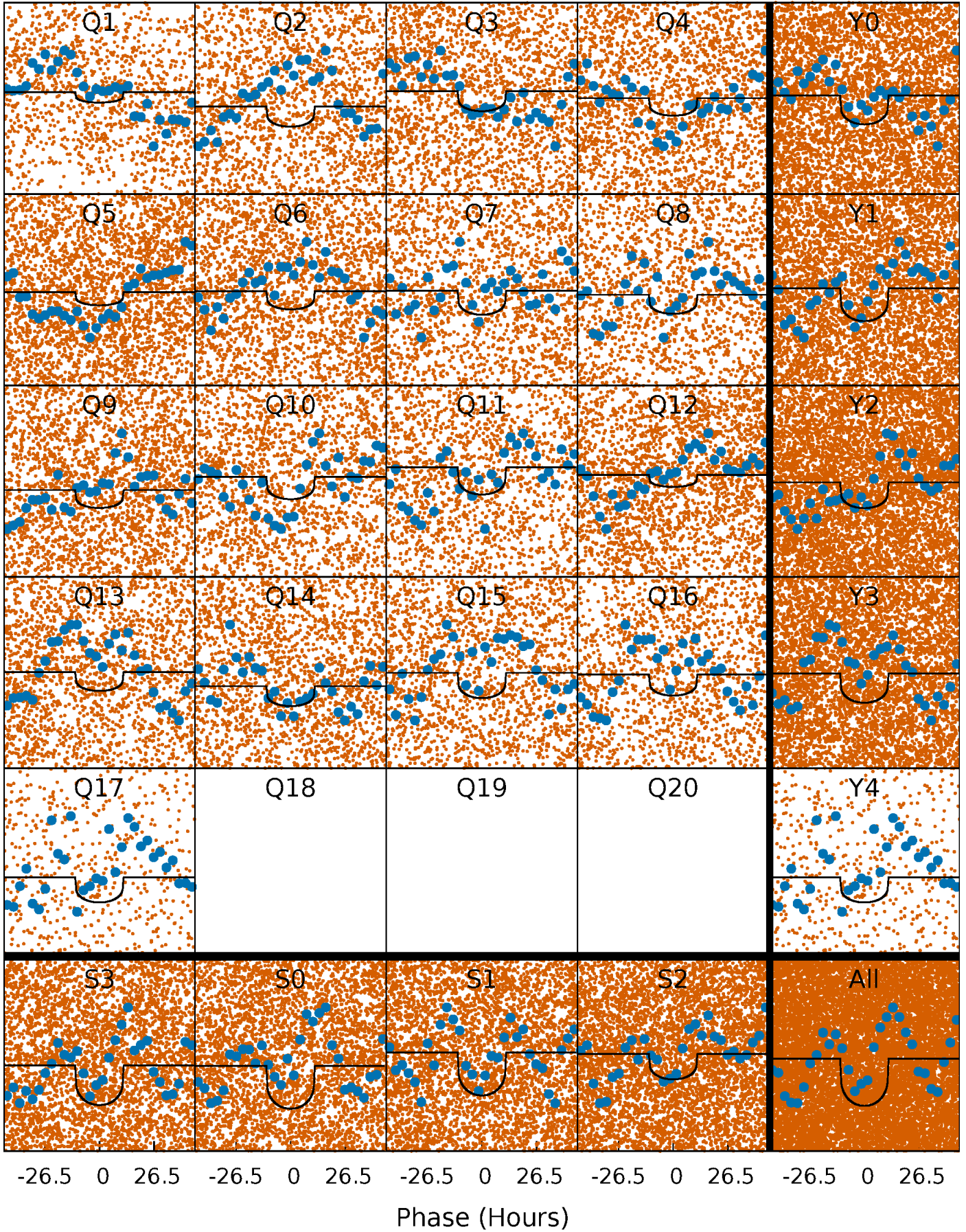
TCE 006869292-01 P= 4.227741 Days  $T_0=132.497382$  (BKJD)





# DV Quarter-Phased Transit Curves

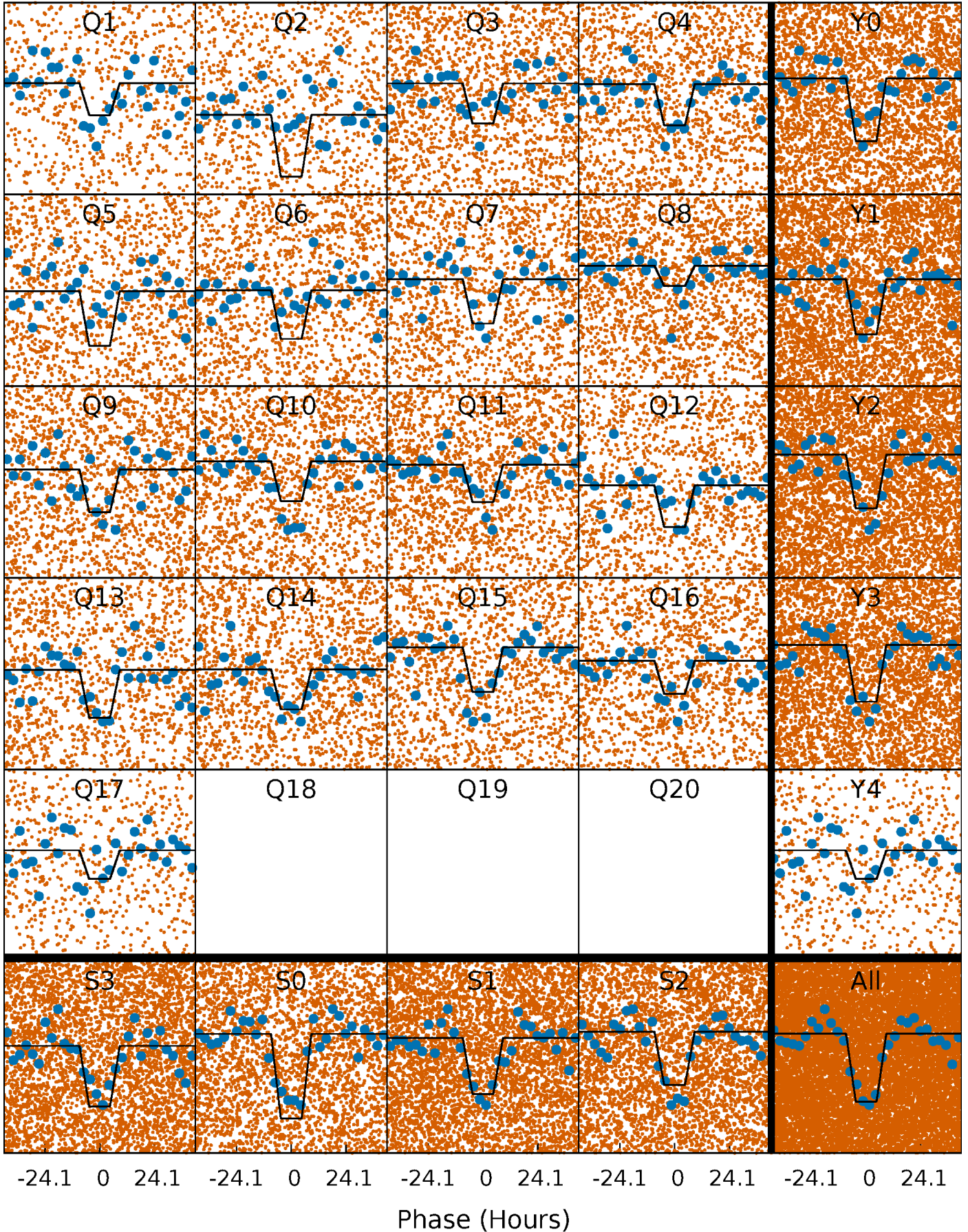
TCE 006869292-01   P= 4.227741 Days    $T_0=132.497382$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

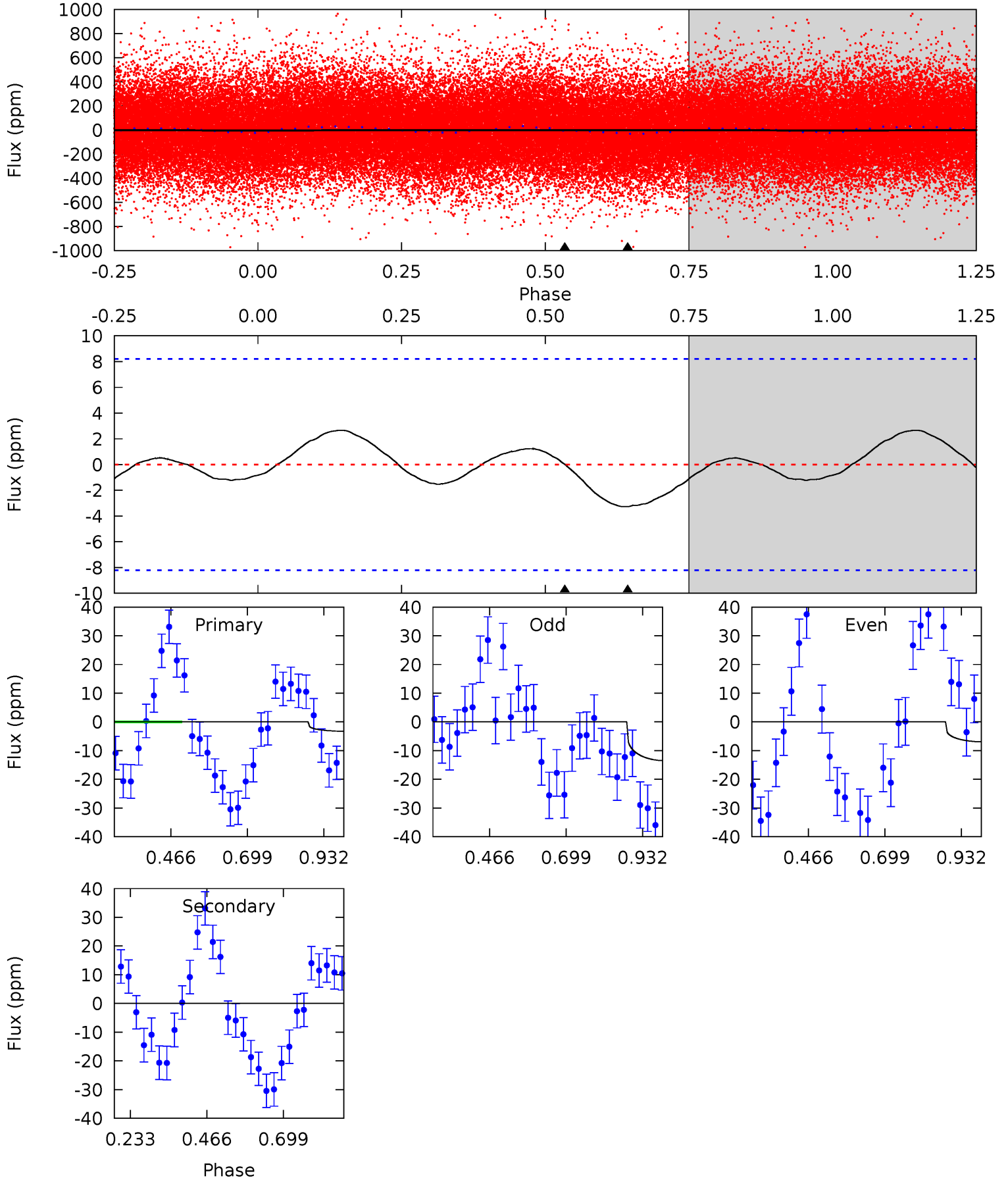
TCE 006869292-01 P= 4.227817 Days  $T_0=132.392048$  (BKJD)



# DV Model-Shift Uniqueness Test

006869292-01, P = 4.227741 Days, E = 128.269641 Days

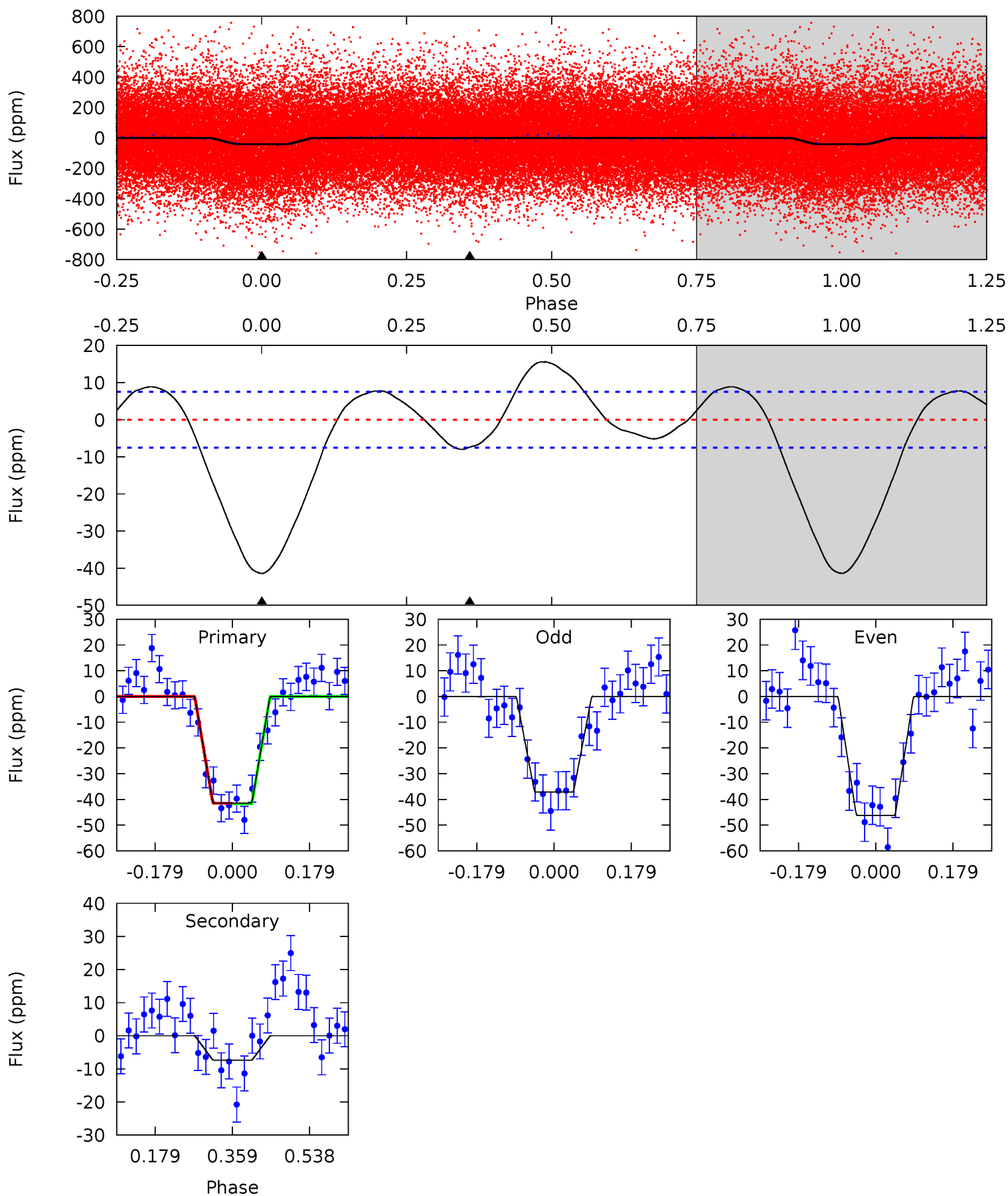
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.75	0	0	0	4.38	1.19	0.73	1.75	1.75	0	0	1.79	-0.62	0.45	1.80



# Alt Model-Shift Uniqueness Test

006869292-01, P = 4.227817 Days, E = 128.164231 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
24.4	4.37	0	0	4.44	1.34	3.00	24.4	24.4	4.37	4.37	2.67	0.94	0.27	0.07





### Stellar Parameters For KIC 006869292

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5750^{+144}_{-158}$	$4.538^{+0.036}_{-0.204}$	$-0.040^{+0.300}_{-0.300}$	$0.882^{+0.260}_{-0.081}$	$0.980^{+0.102}_{-0.114}$	$2.011^{+0.393}_{-1.023}$
	+3%/-3%	+1%/-4%	+750%/-750%	+29%/-9%	+10%/-12%	+20%/-51%
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 006869292-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$0 \pm 2$	$0.63^{+0.44}_{-0.36}$	$1513^{+103}_{-66}$	$-2279^{+5808}_{-1235}$	$-0.157^{+10.633}_{-9.910}$
Alt.	$-7 \pm 2$	$0.71^{+0.48}_{-0.43}$	$1513^{+110}_{-69}$	$3929^{+1686}_{-650}$	$20^{+110}_{-13}$

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

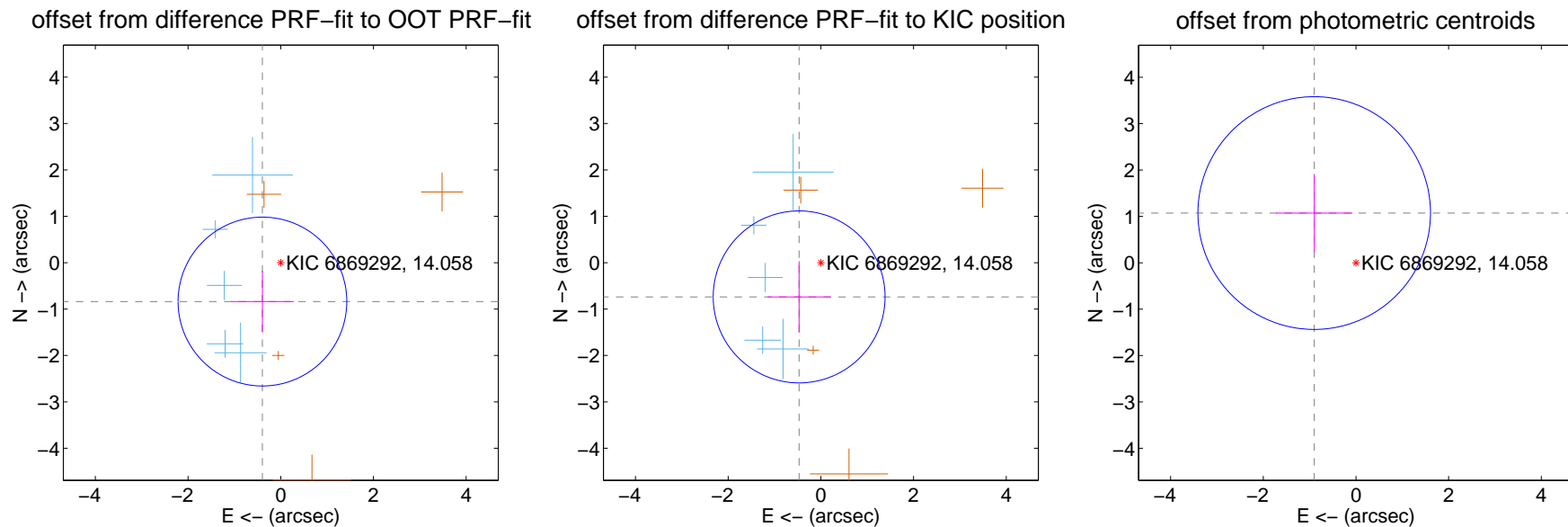
## DV Centroid Data

Supplemental centroid analysis for 006869292-01. Kepler magnitude: 14.06. Transit SNR 6.52

There are 5 quarters with good PRF difference image offsets

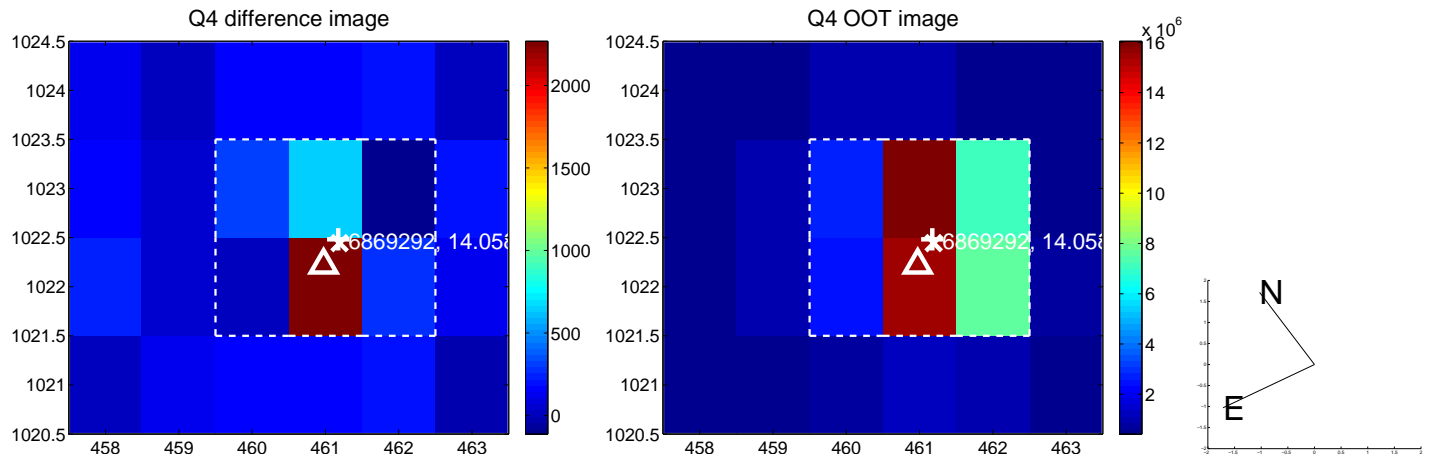
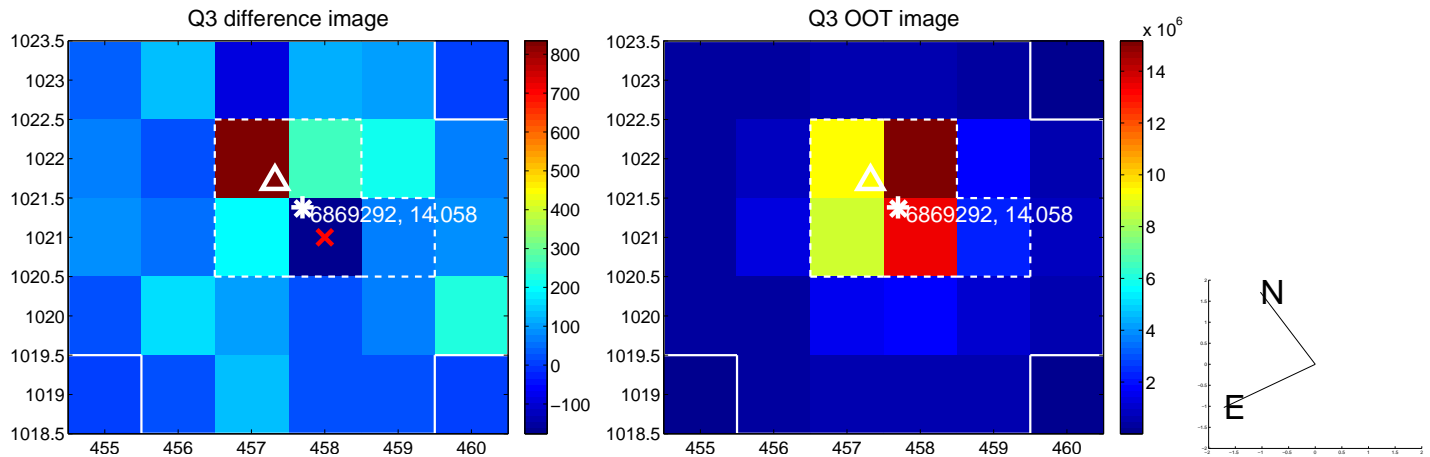
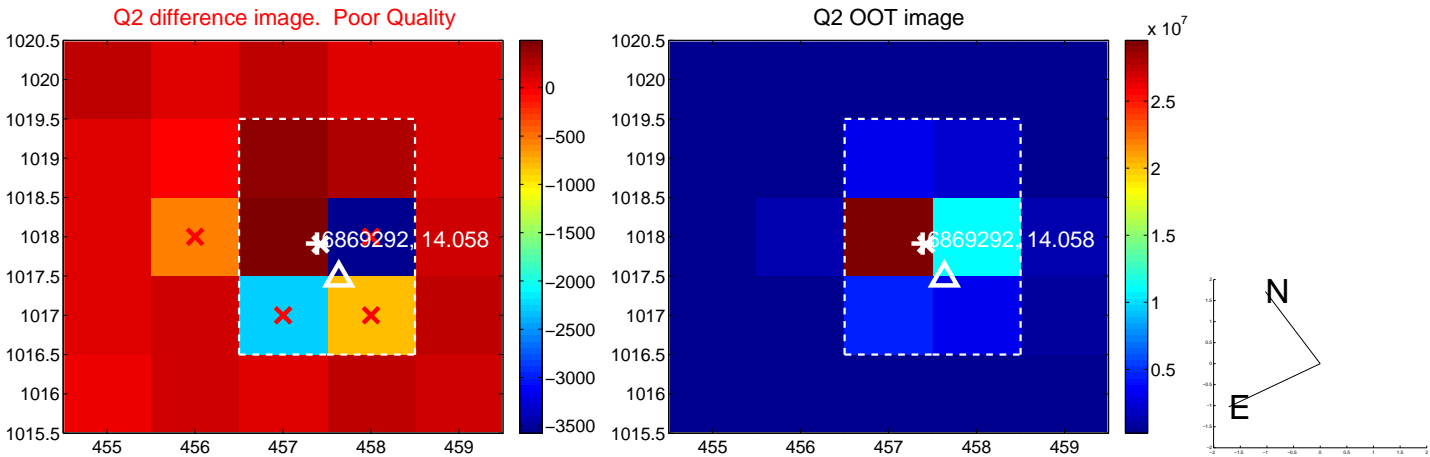
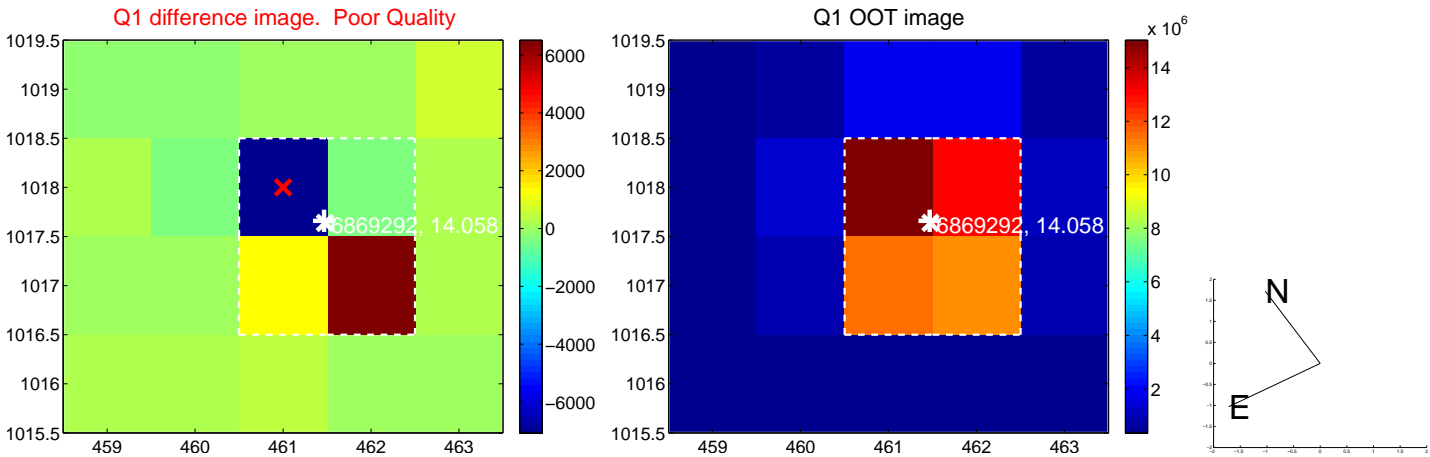
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.926 \pm 0.607$	1.53	$0.395 \pm 0.679$	$-0.838 \pm 0.664$
PRF-fit source offset from KIC position	$0.874 \pm 0.618$	1.41	$0.469 \pm 0.683$	$-0.738 \pm 0.768$
photometric centroid source offset	$1.40 \pm 0.84$	1.67	$0.90 \pm 0.83$	$1.07 \pm 0.84$

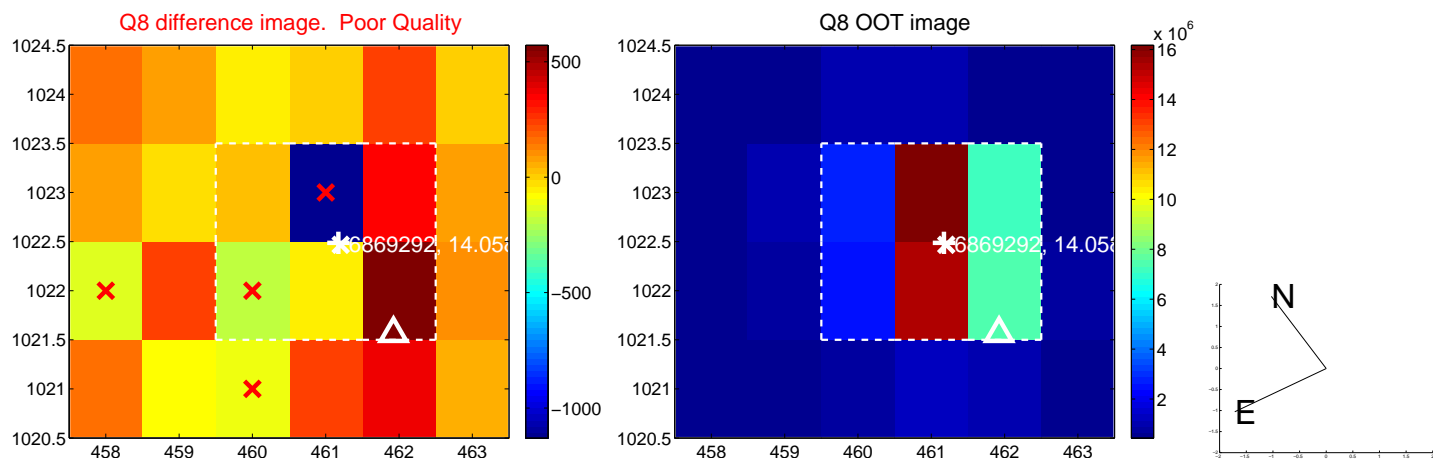
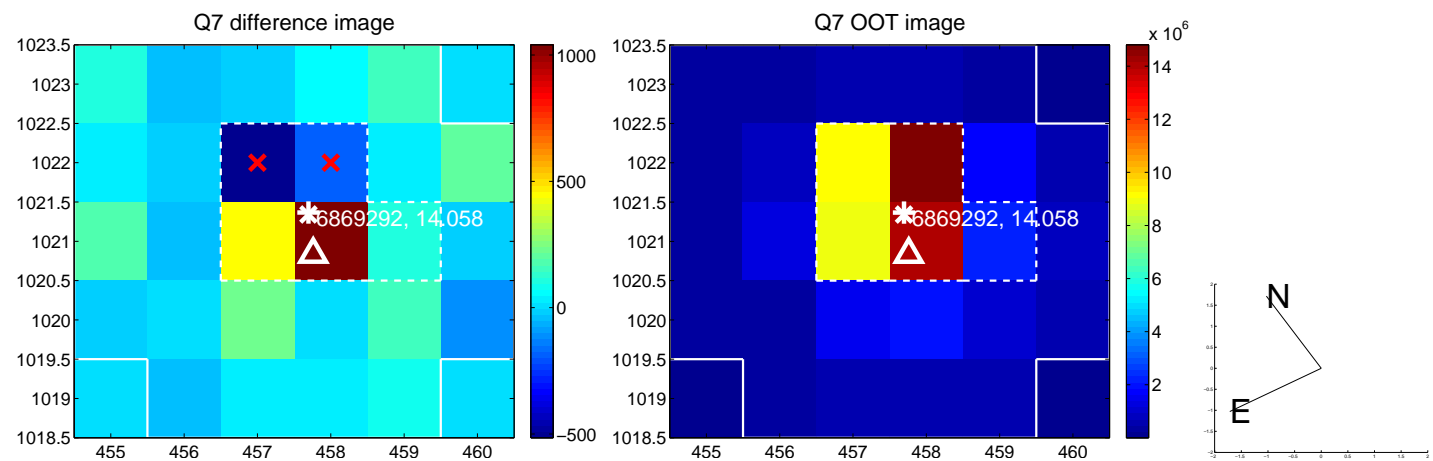
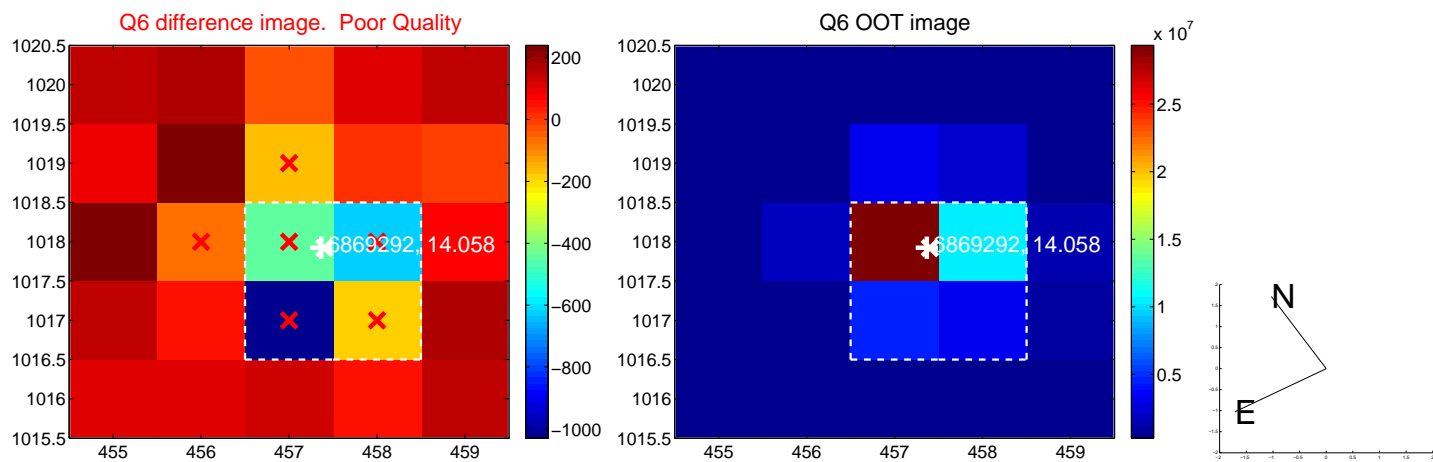
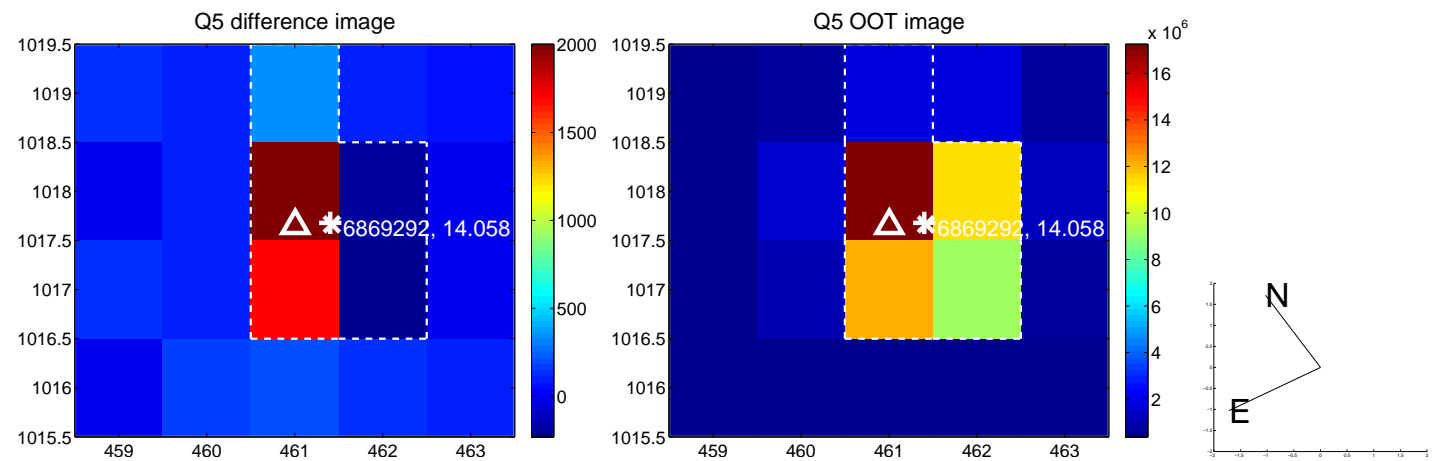


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

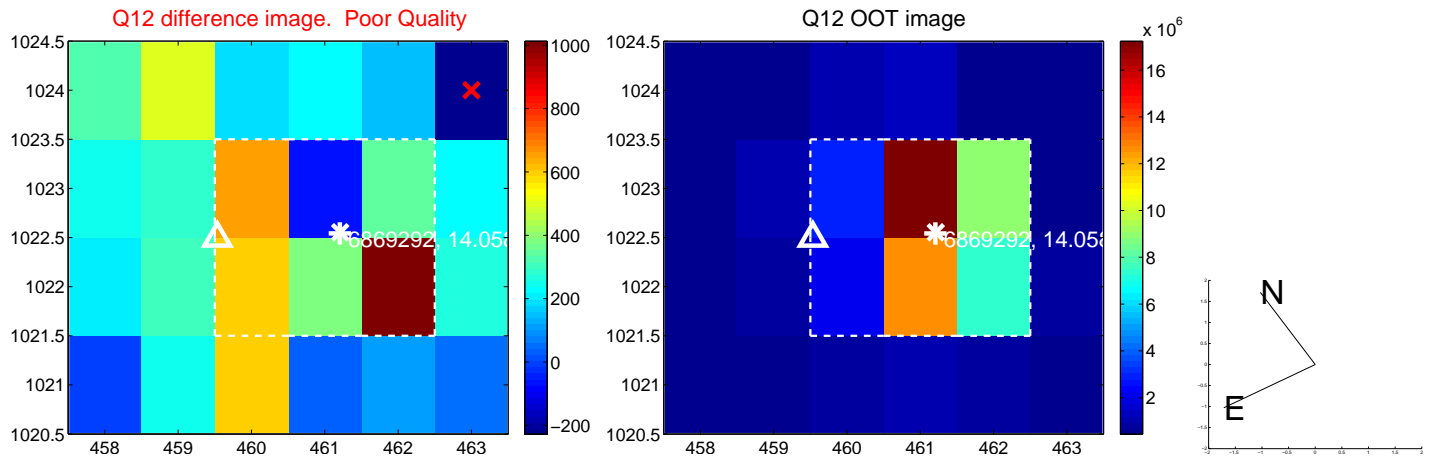
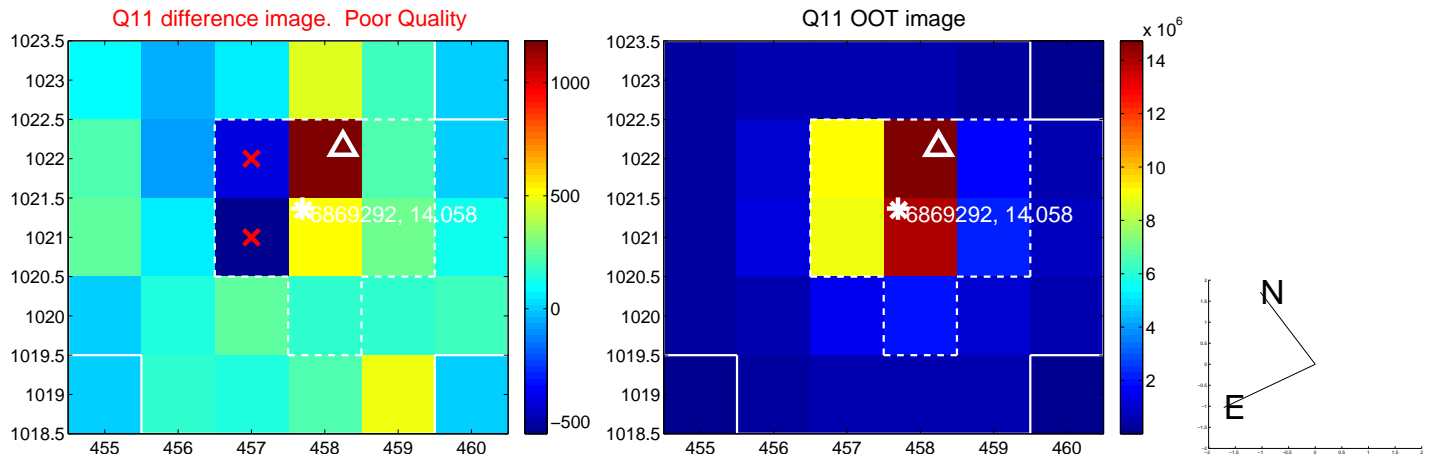
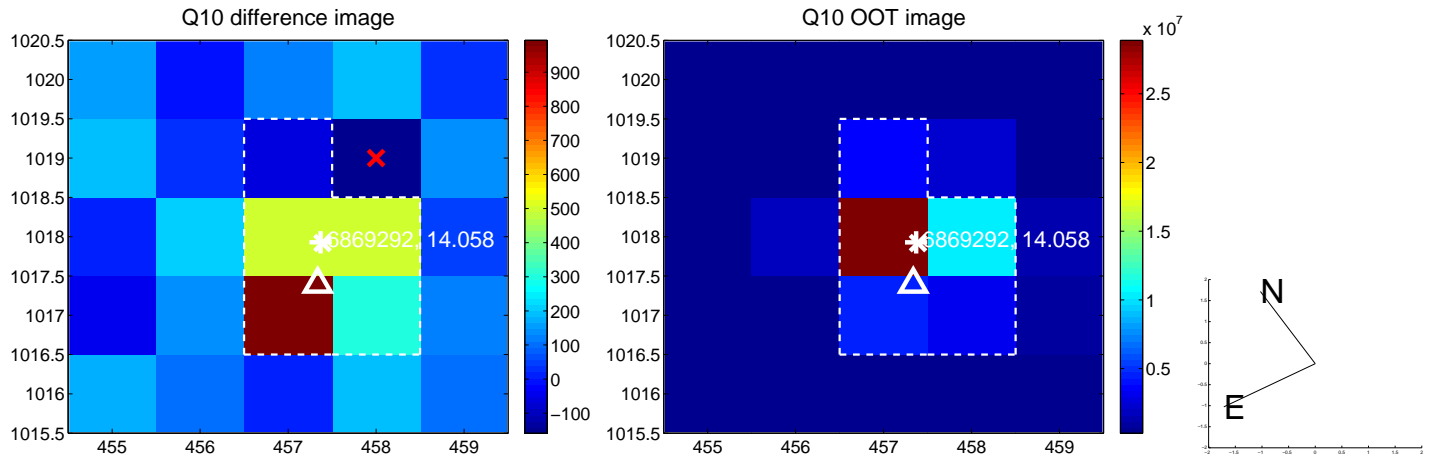
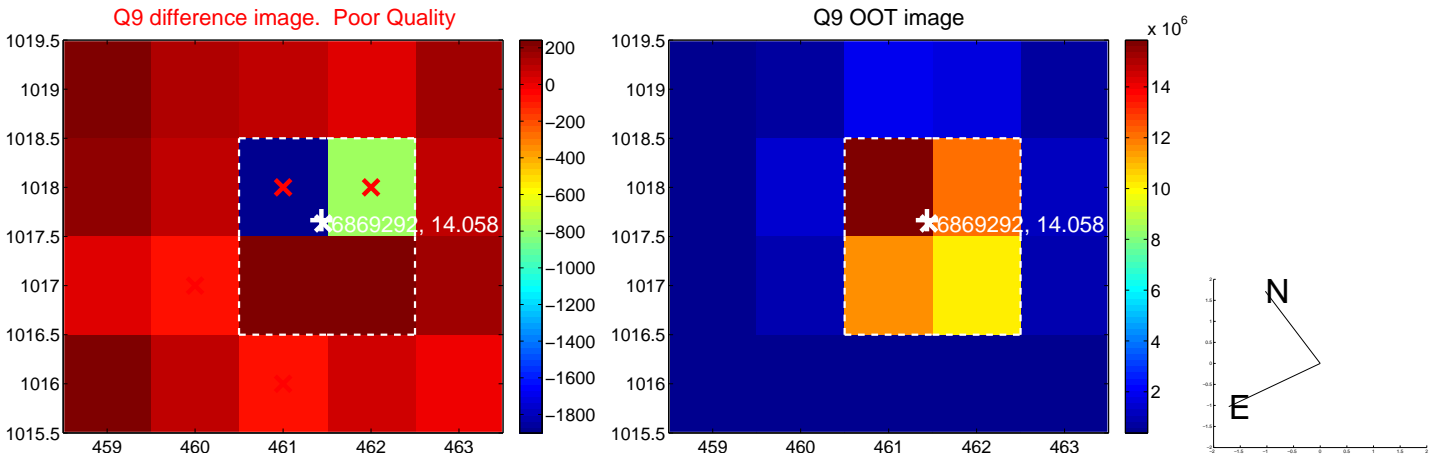


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

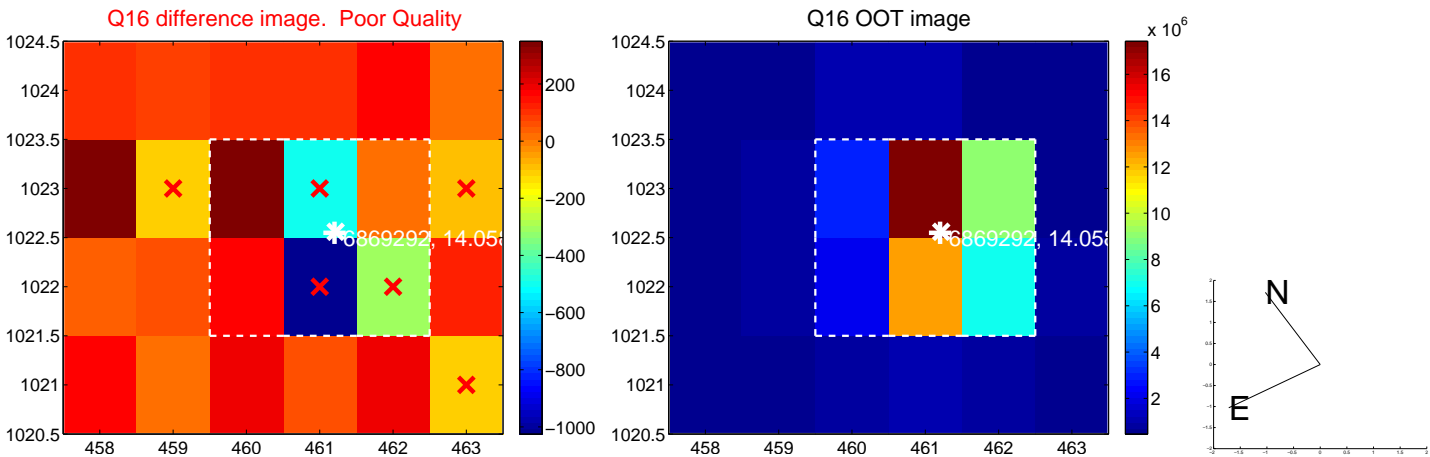
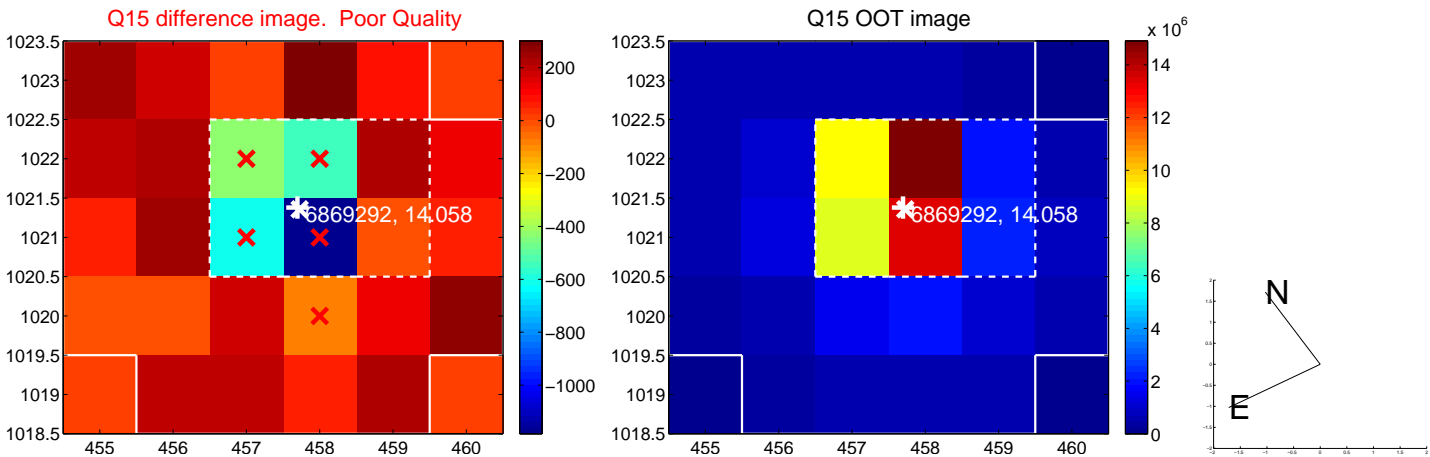
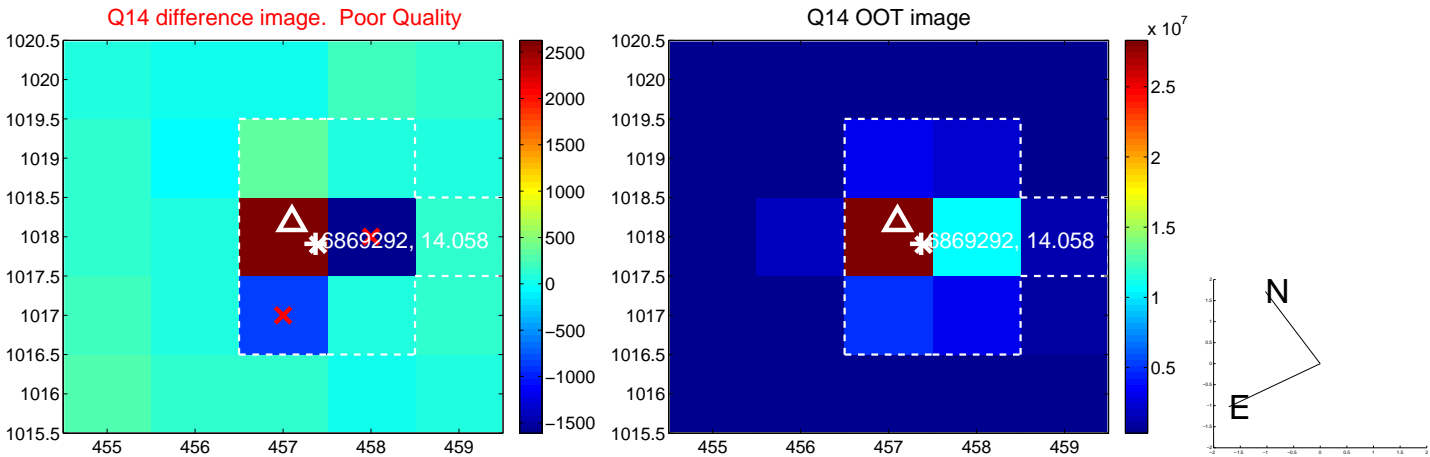
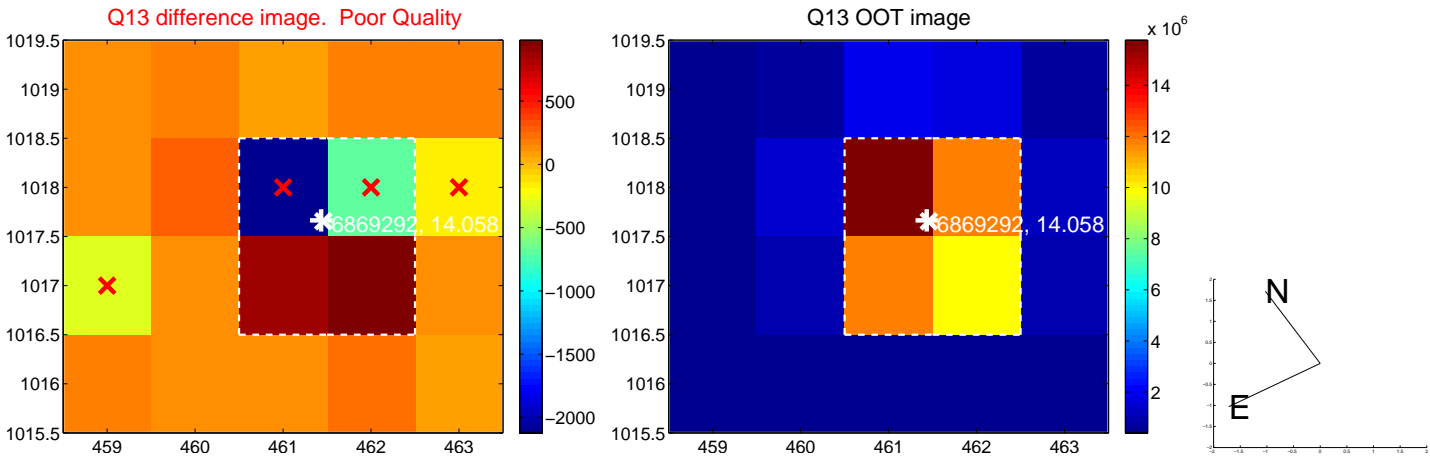




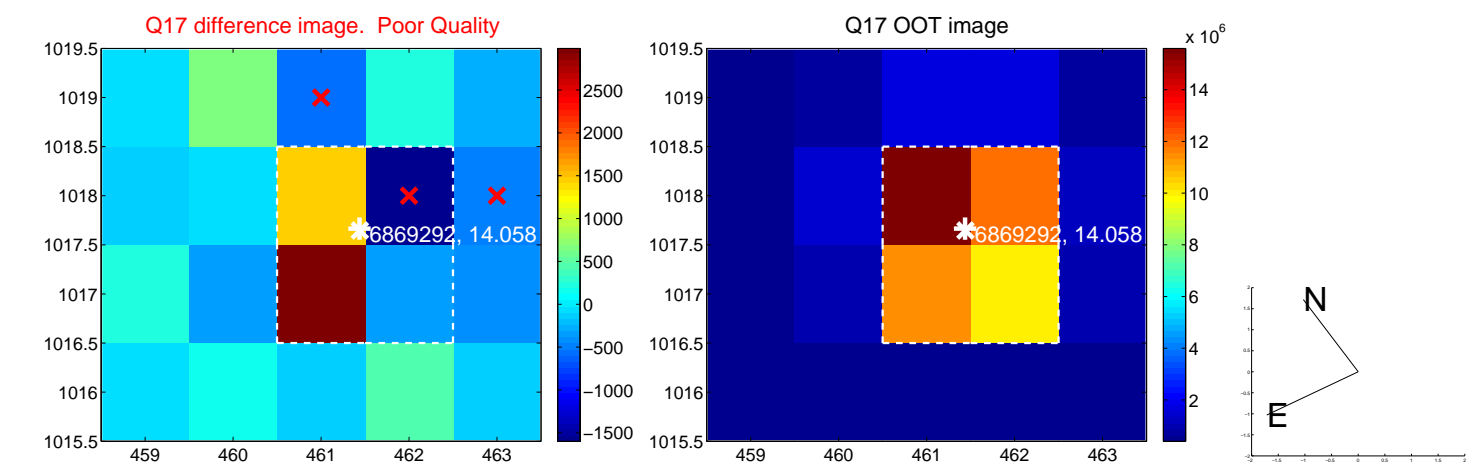
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



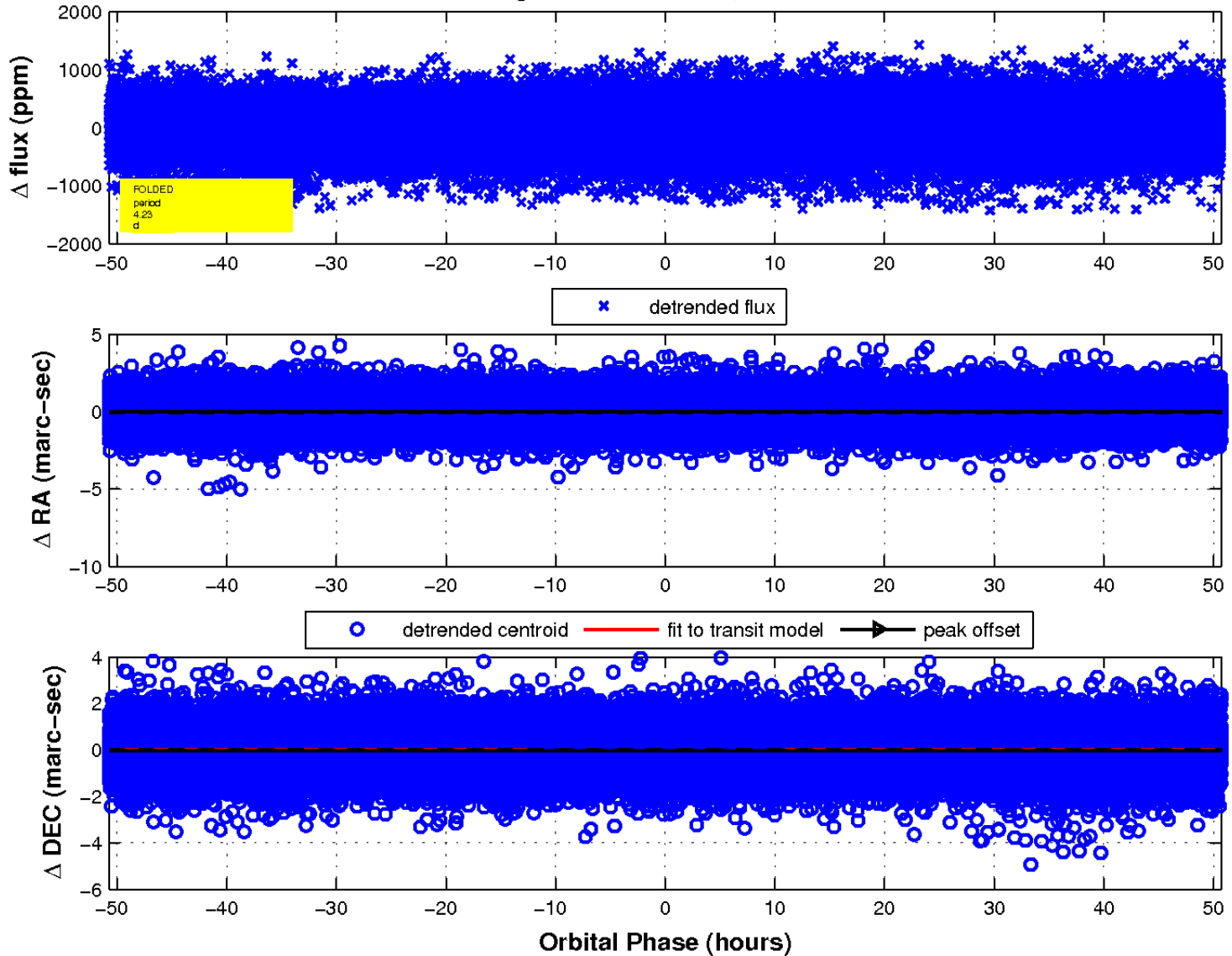
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

