

# KIC 007830192

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007830192-01	OBS	No	0.800211	131.923873	14.0	2.722	7.8	6.9	0.98	5933	0.43	3802.66

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007830192-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

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

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

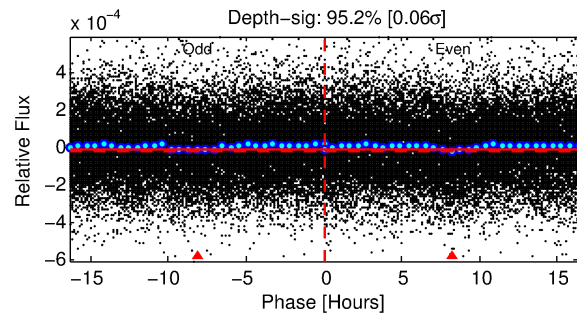
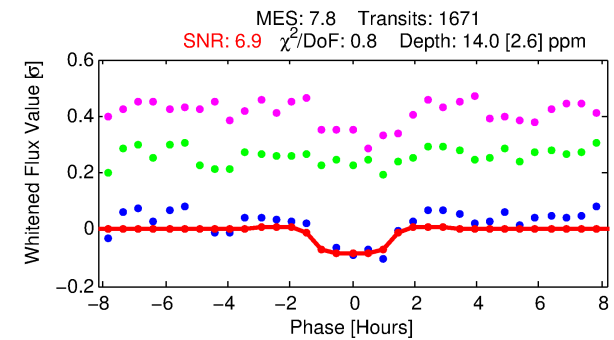
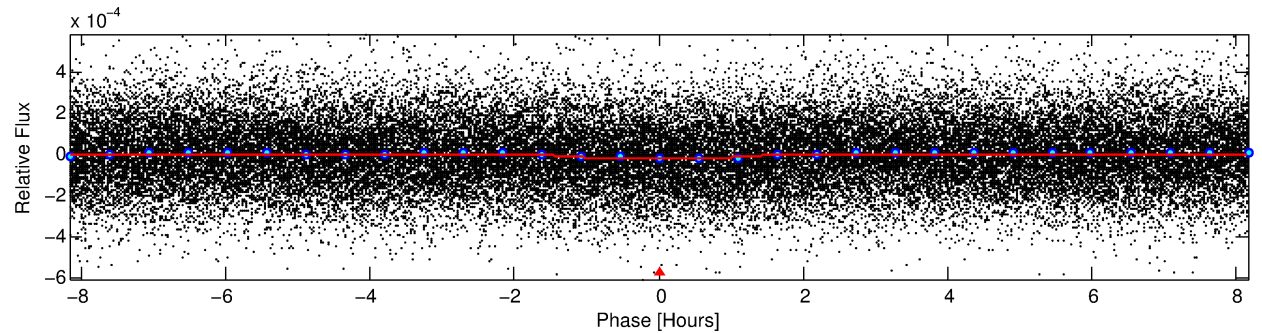
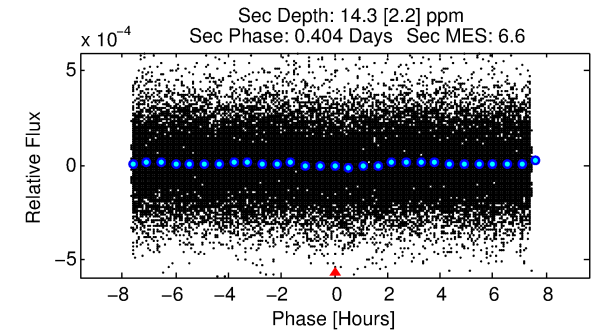
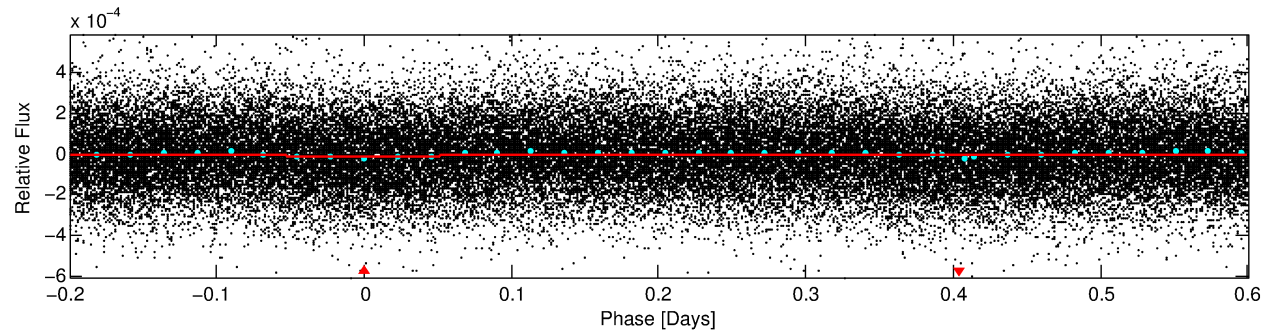
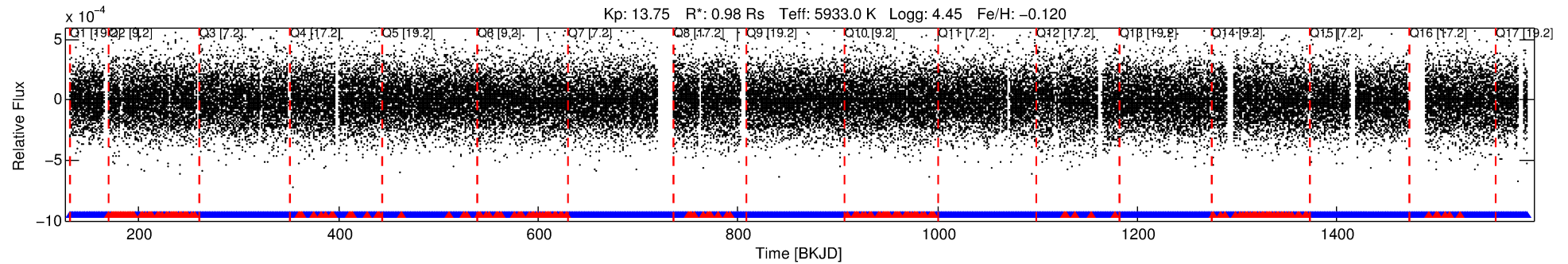
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007830192-01

No Significant Match Found

# DV One-Page Summary

KIC: 7830192 Candidate: 1 of 1 Period: 0.800 d



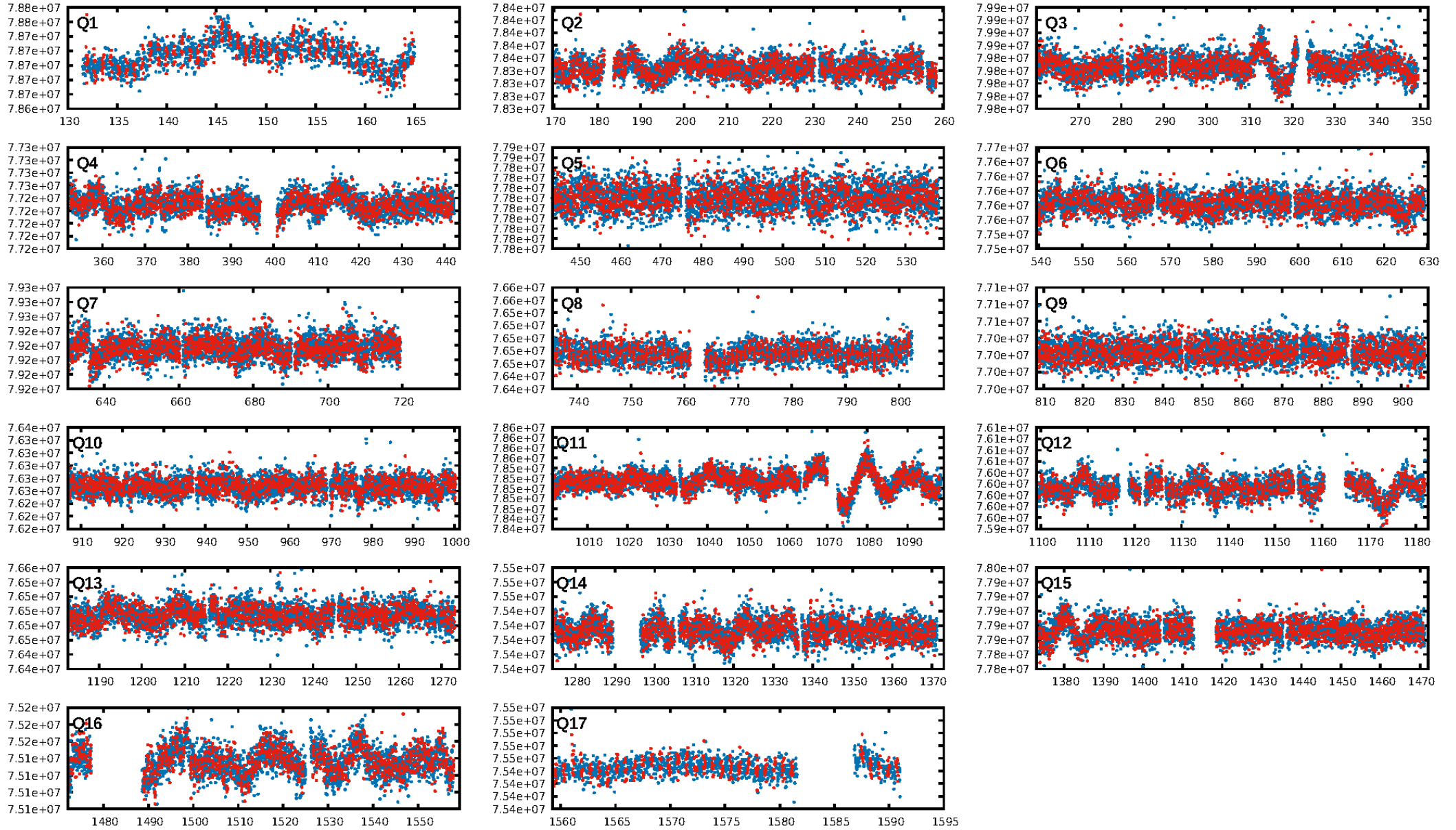
## DV Fit Results:

Period = 0.80021 [0.00001] d  
Epoch = 131.9239 [0.0049] BKJD  
Rp/R\* = 0.0041 [0.0024]  
a/R\* = 1.37 [1.93]  
b = 0.90 [0.65]  
Seff = 3802.66 [1438.37]  
Teq = 2002 [189] K  
Rp = 0.44 [0.29] Re  
a = 0.0168 [0.0041] AU  
Ag = 11.67 [14.49] [0.74σ]  
Teffp = 5722 [1709] K [2.16σ]

## DV Diagnostic Results:

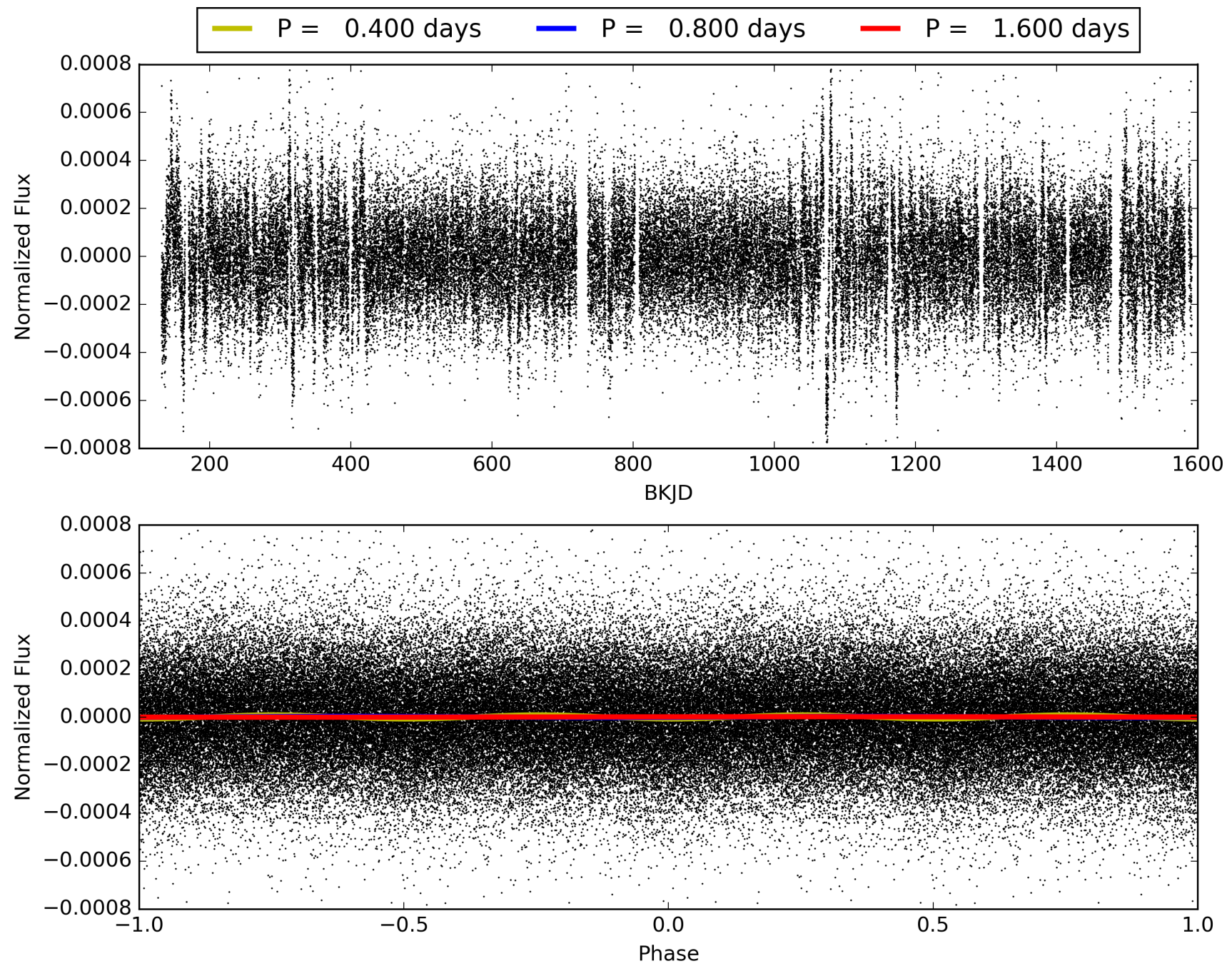
ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 3.35e-16  
RollingBand-fgt: 0.87 [1396/1596]  
GhostDiagnostic-chr: 0.6831  
Centroid-sig: 0.0%  
Centroid-so: 7.383 arcsec [3.82σ]  
OotOffset-rm: N/A  
KicOffset-rm: N/A  
OotOffset-st: 0/0/0 [0]  
KicOffset-st: 0/0/0 [0]  
DiffImageQuality-fgm: N/A  
DiffImageOverlap-fno: 1.00 [17/17]

# TCE 007830192-01, PDC Light Curves



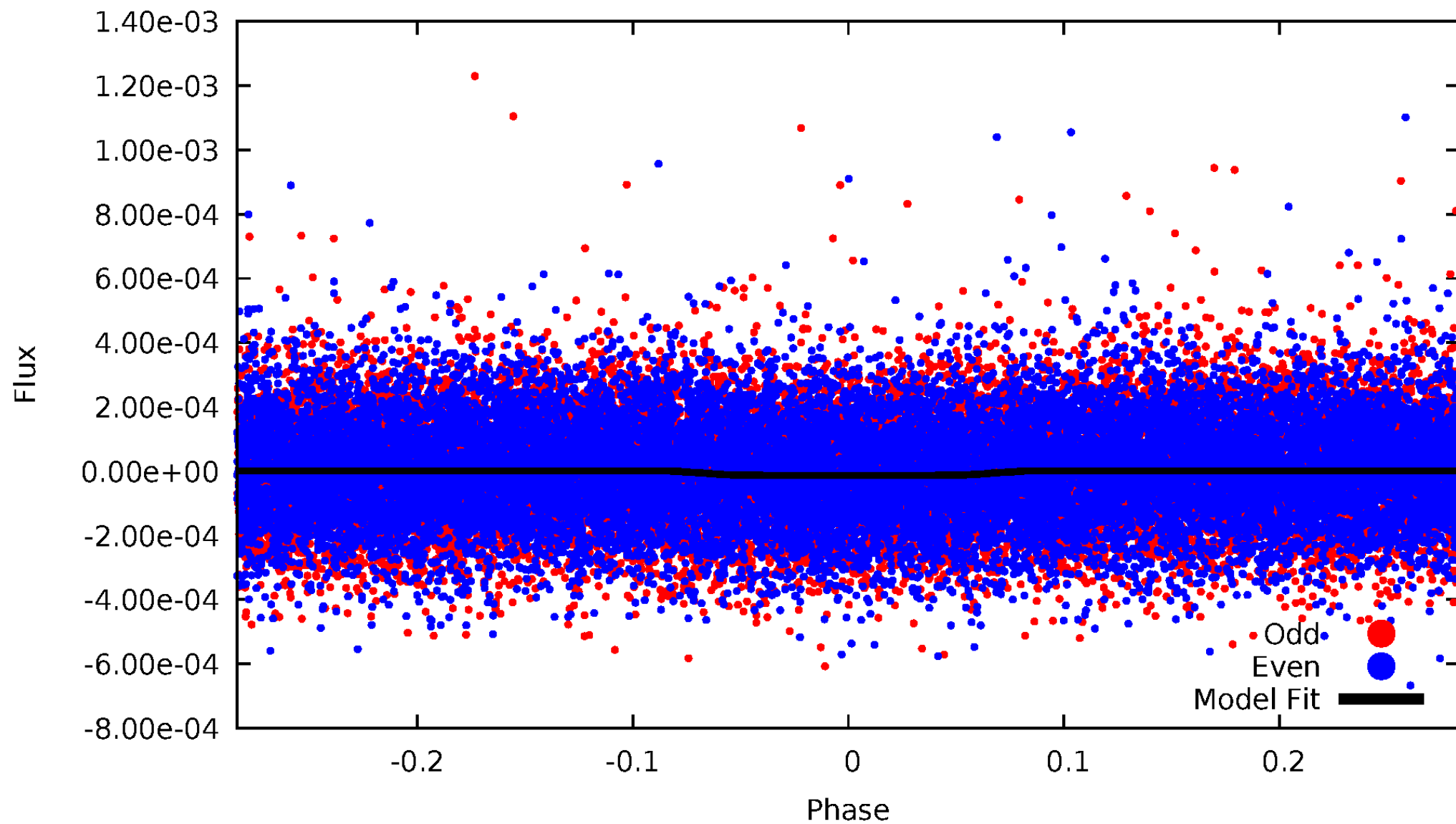


TCE 007830192-01



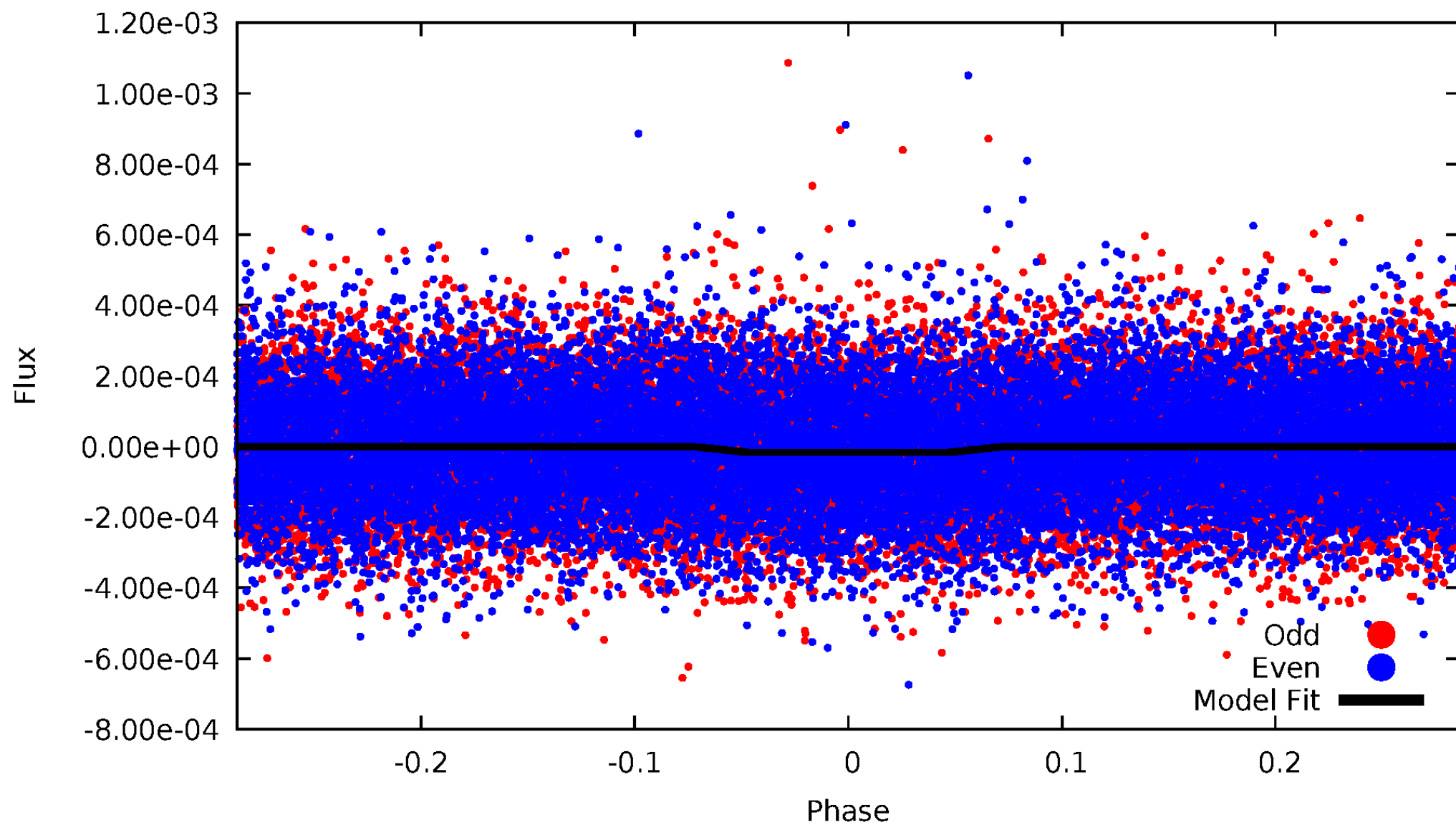
# DV Odd/Even

TCE 007830192-01



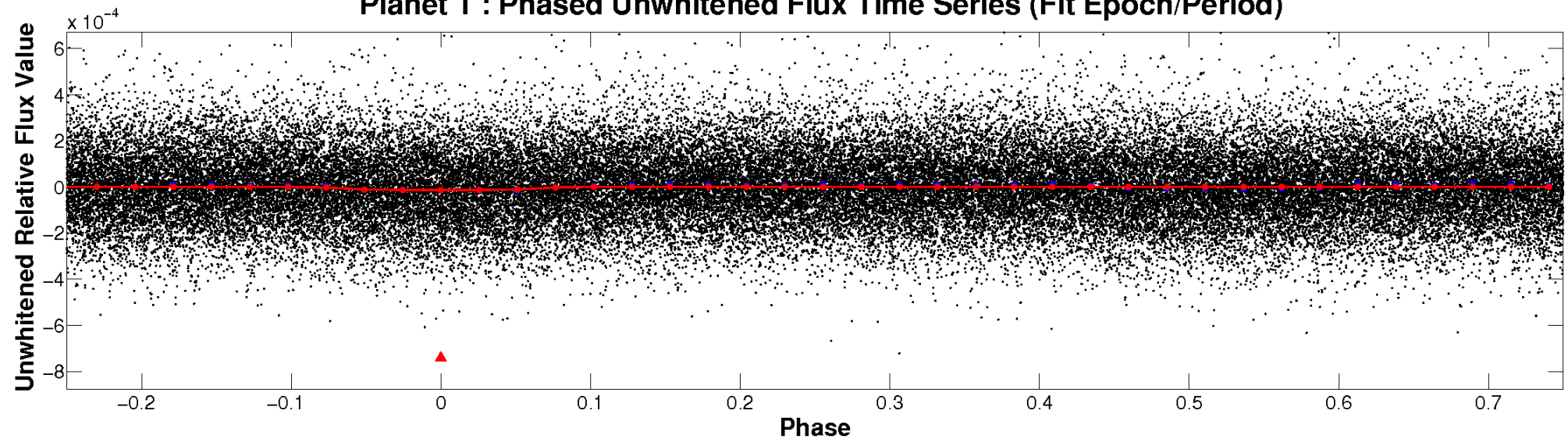
# ALT Odd/Even

TCE 007830192-01

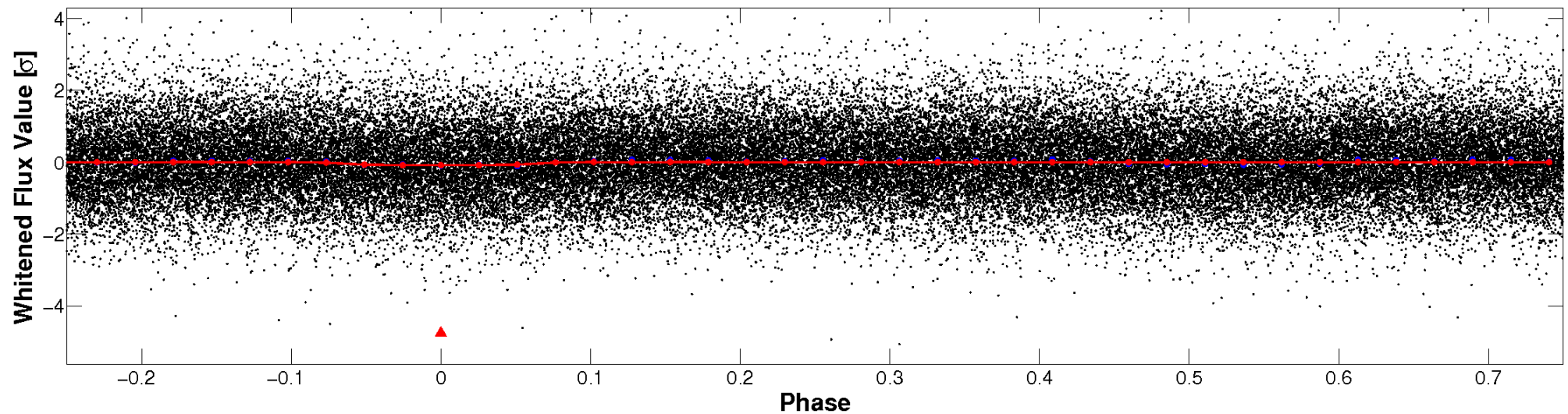


# Non-Whitened Vs. Whitened Light Curve

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



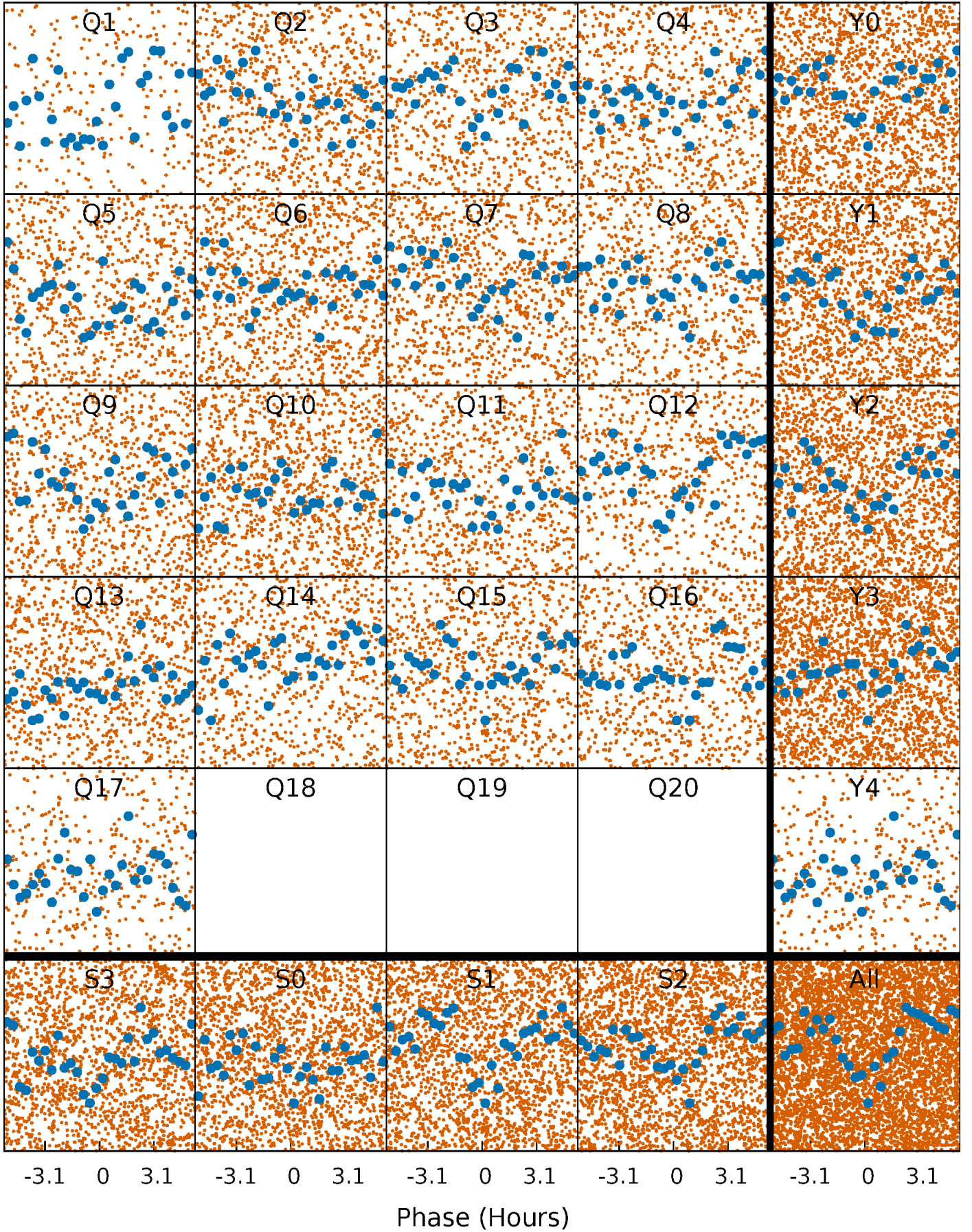
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

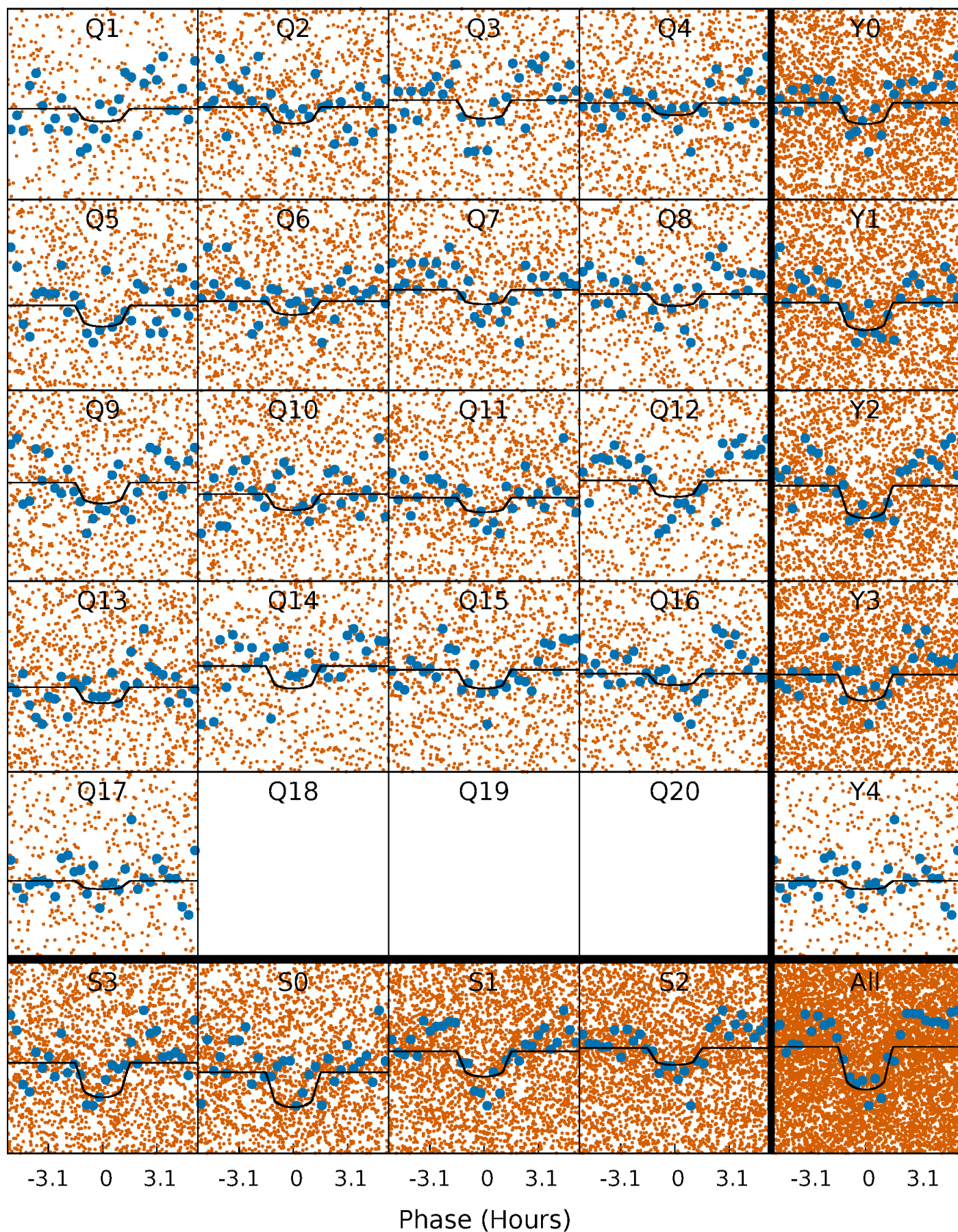
TCE 007830192-01   P= 0.800211 Days    $T_0=131.923873$  (BKJD)





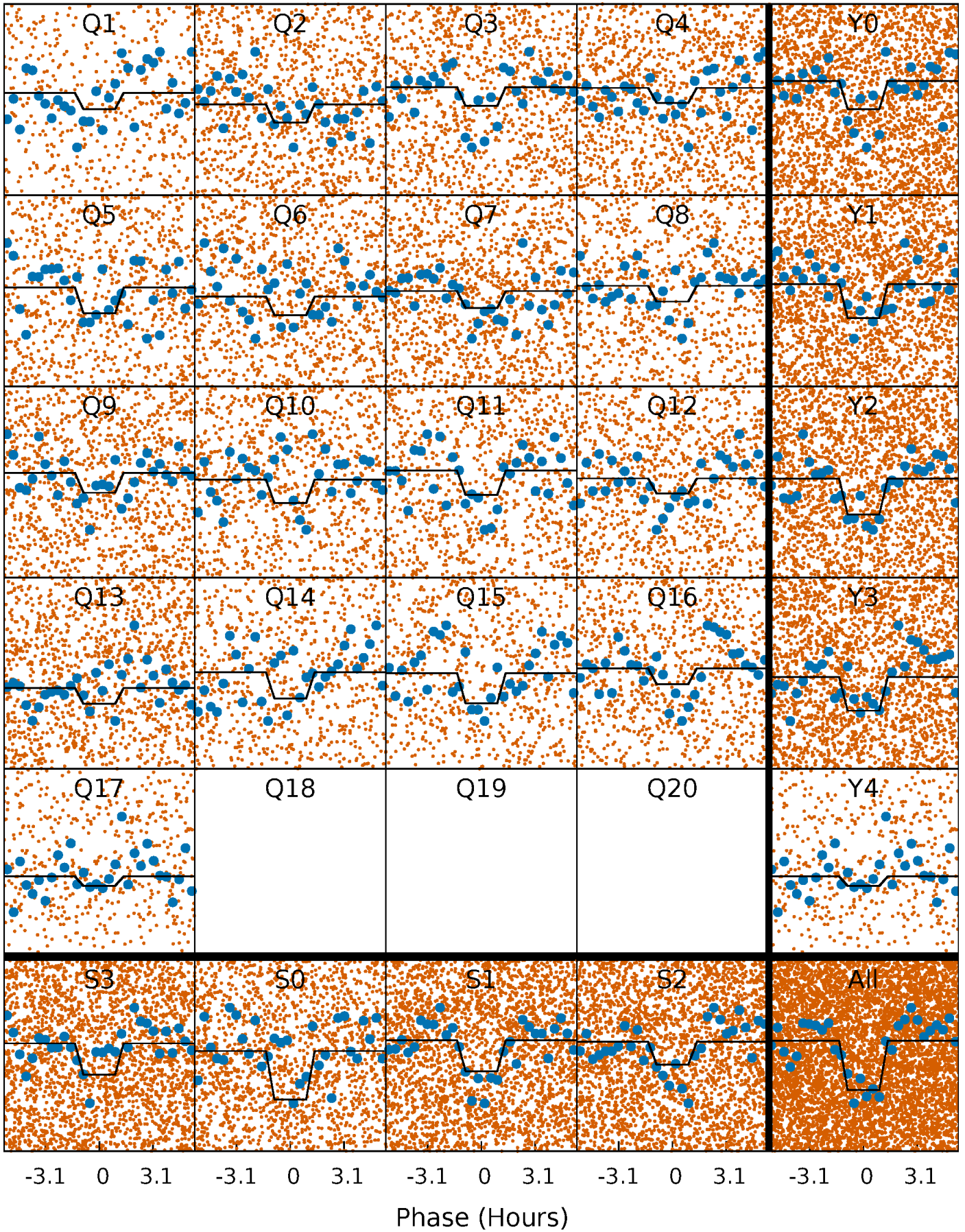
# DV Quarter-Phased Transit Curves

TCE 007830192-01   P= 0.800211 Days    $T_0=131.923873$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 007830192-01 P= 0.800218 Days  $T_0=131.923894$  (BKJD)

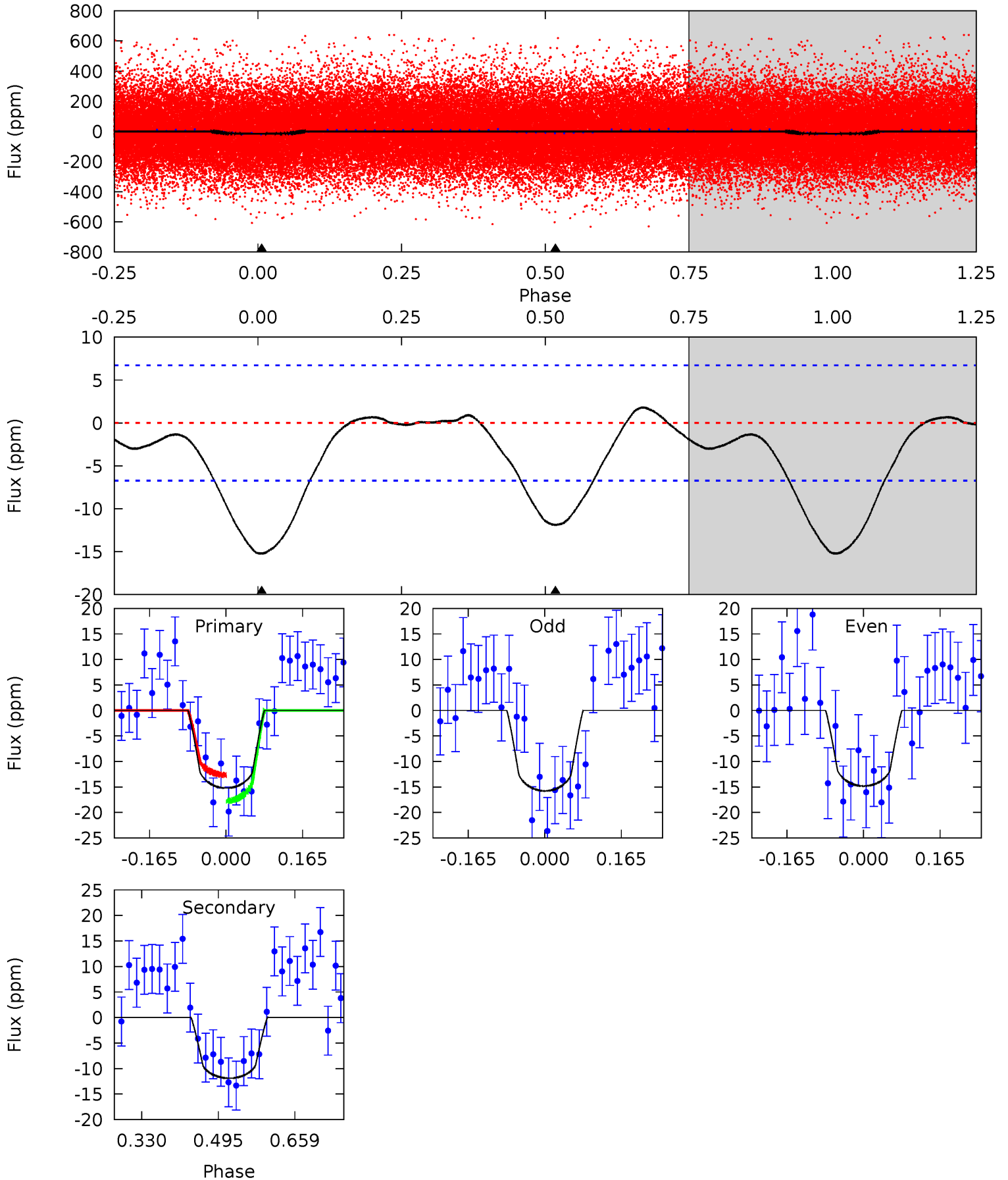




# DV Model-Shift Uniqueness Test

007830192-01, P = 0.800211 Days, E = 131.123662 Days

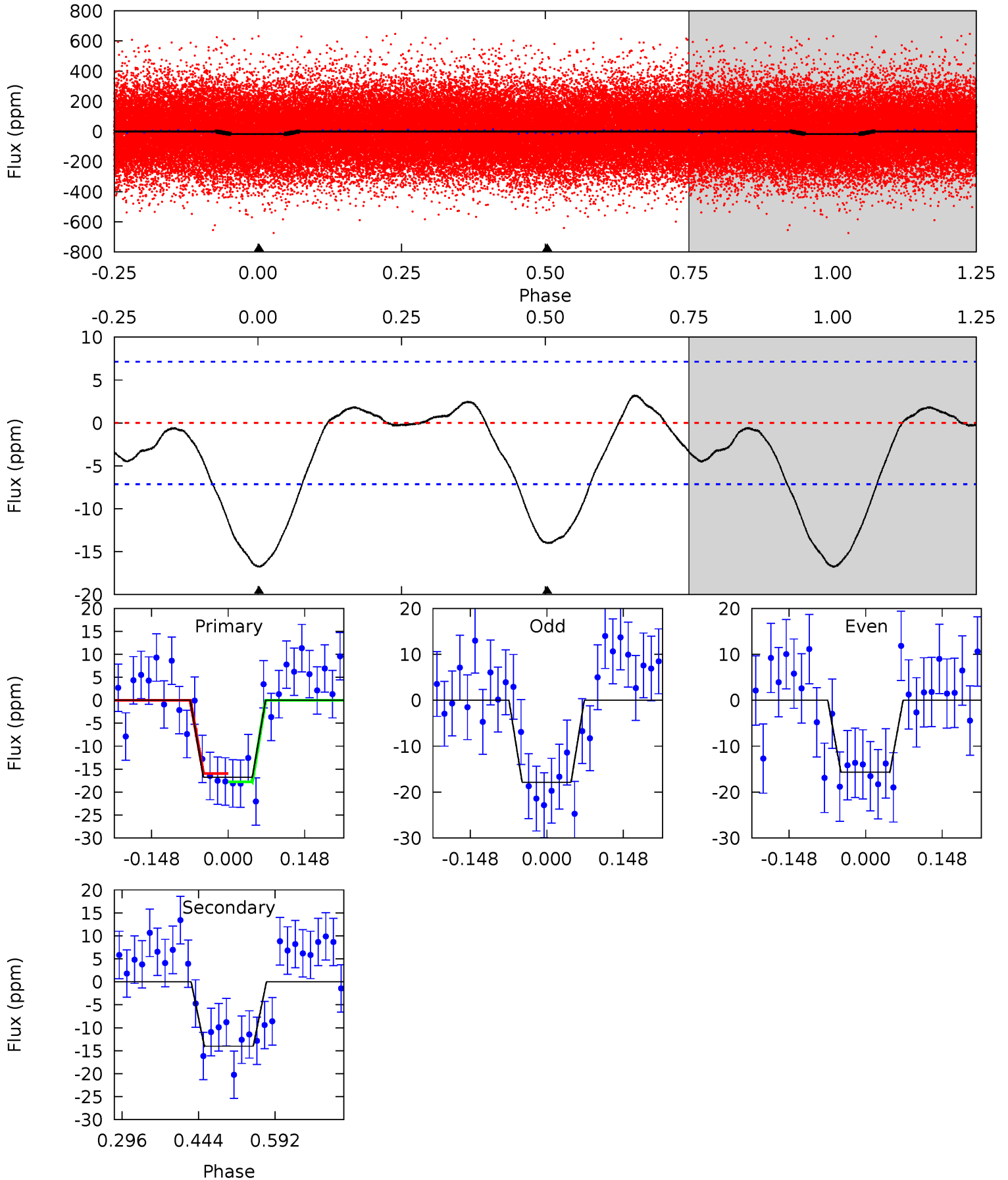
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	7.90	0	0	4.46	1.39	0.85	10.1	10.1	7.90	7.90	0.32	1.01	0.11	1.68



# Alt Model-Shift Uniqueness Test

007830192-01, P = 0.800218 Days, E = 131.123676 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
10.5	8.81	0	0	4.48	1.45	1.26	10.5	10.5	8.81	8.81	0.68	1.04	0.16	0.56





### Stellar Parameters For KIC 007830192

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5933^{+148}_{-178}$	$4.447^{+0.070}_{-0.196}$	$-0.120^{+0.300}_{-0.300}$	$0.983^{+0.288}_{-0.123}$	$0.986^{+0.135}_{-0.110}$	$1.462^{+0.531}_{-0.760}$
	+2%/-3%	+2%/-4%	+250%/-250%	+29%/-13%	+14%/-11%	+36%/-52%
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 007830192-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-12 \pm 2$	$0.48^{+0.28}_{-0.24}$	$2836^{+205}_{-140}$	$5299^{+2160}_{-956}$	$8.240^{+21.365}_{-5.043}$
Alt.	$-14 \pm 2$	$0.46^{+0.28}_{-0.25}$	$2849^{+209}_{-143}$	$5639^{+3105}_{-1090}$	$10^{+41}_{-6}$

$T_{max}$  = 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

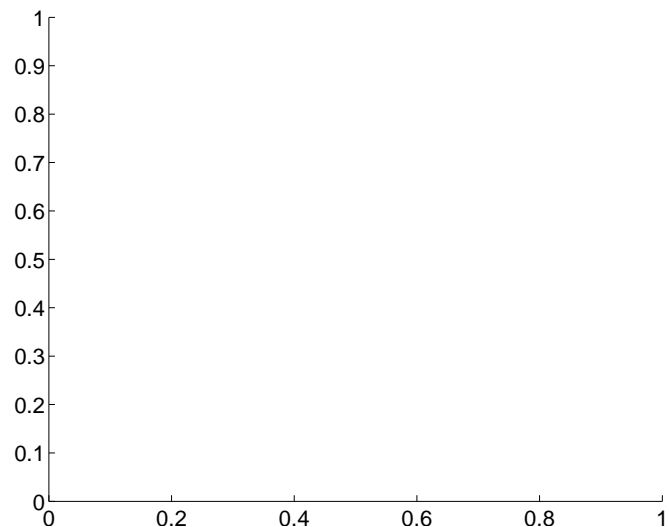
Supplemental centroid analysis for 007830192-01. Kepler magnitude: 13.75. Transit SNR 6.90

There are 0 quarters with good PRF difference image offsets

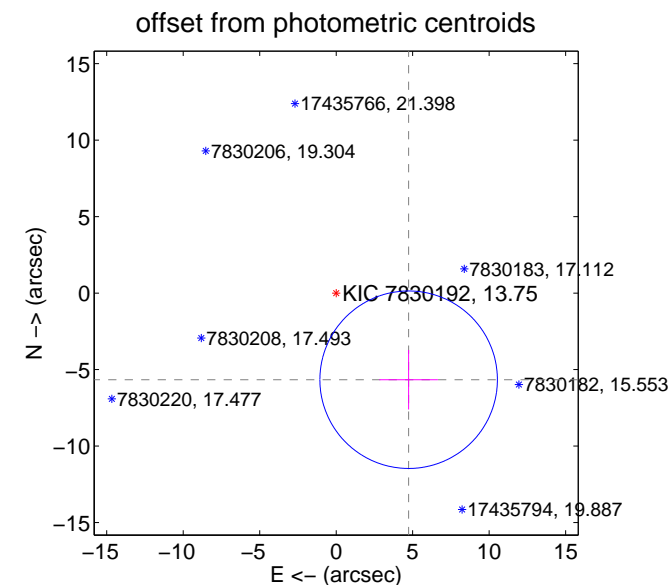
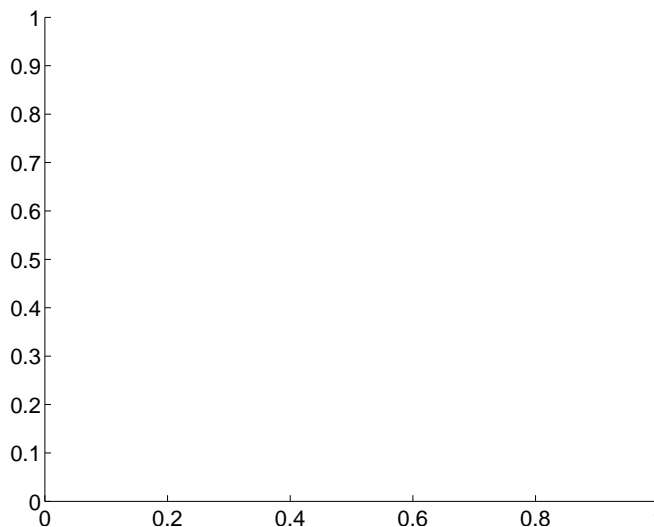
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	$7.38 \pm 1.93$	$3.82$	$-4.74 \pm 1.92$	$-5.66 \pm 1.95$

There is no PRF-fit offset from OOT-fit

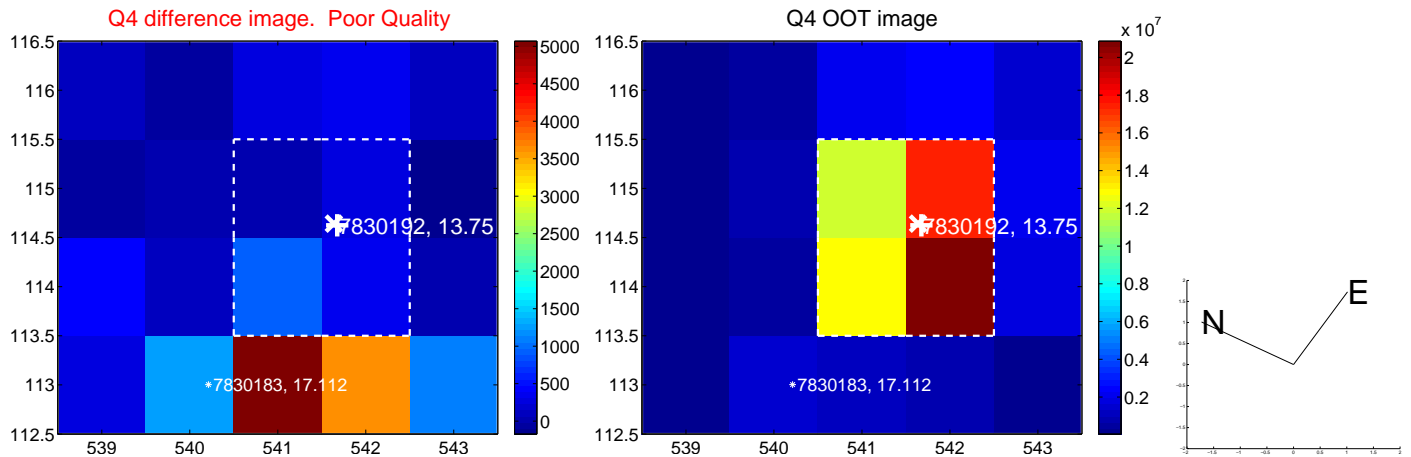
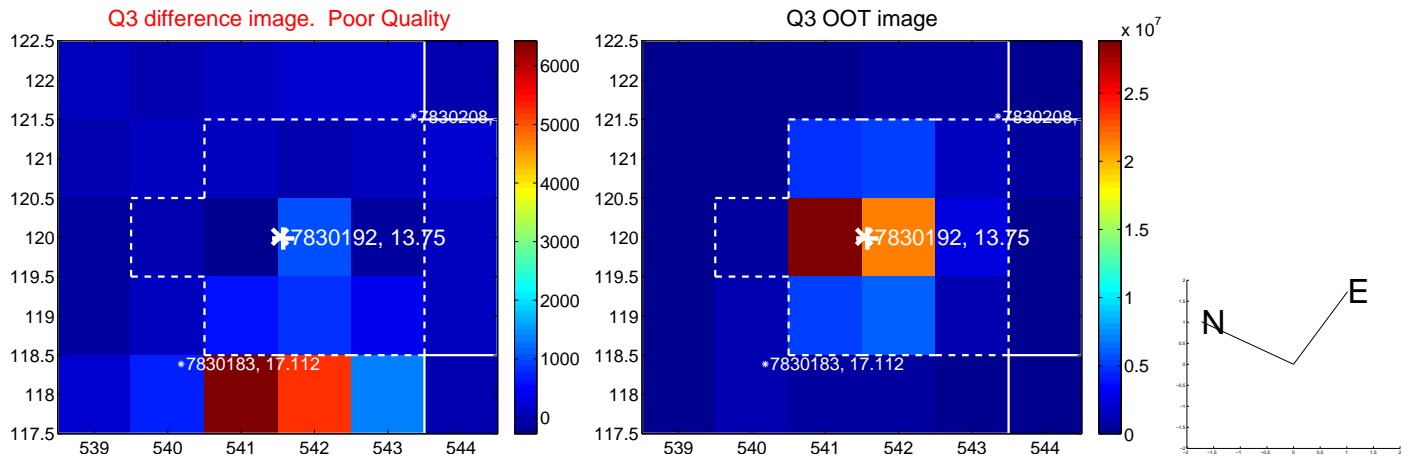
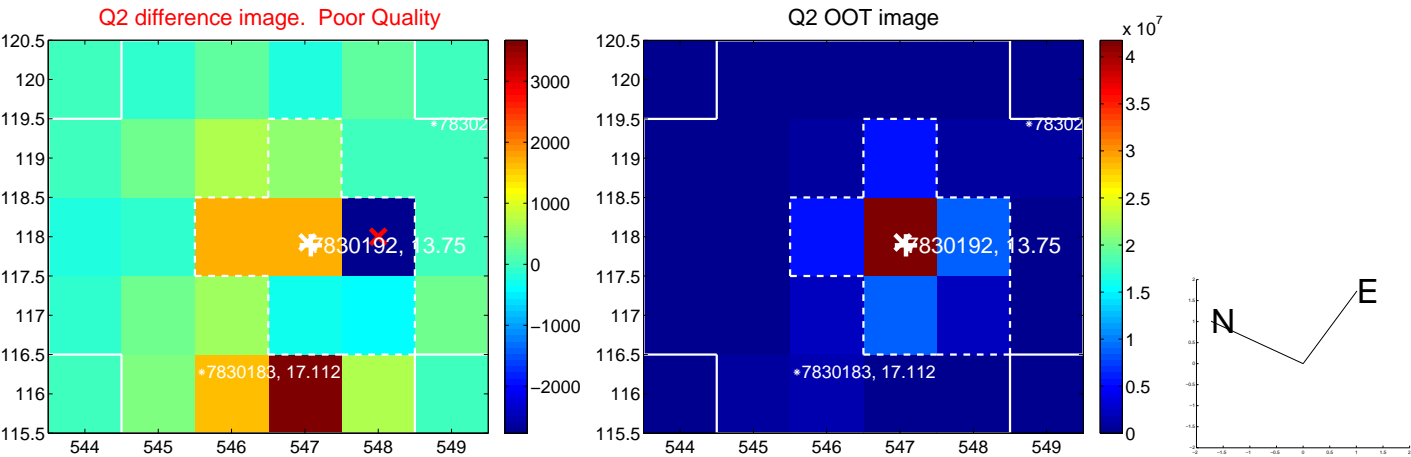
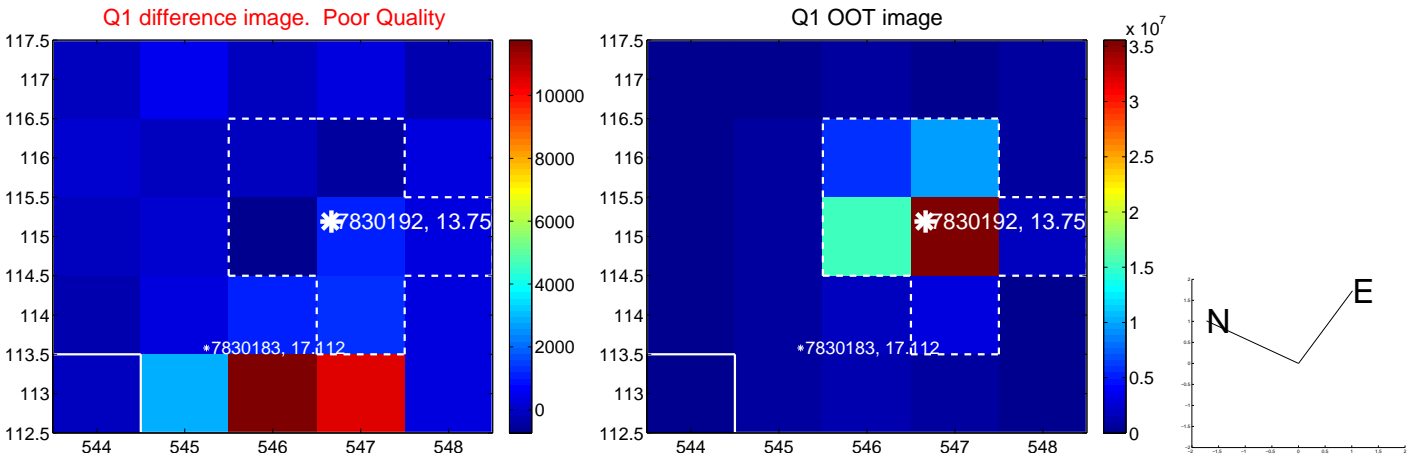


There is no PRF-fit offset from KIC

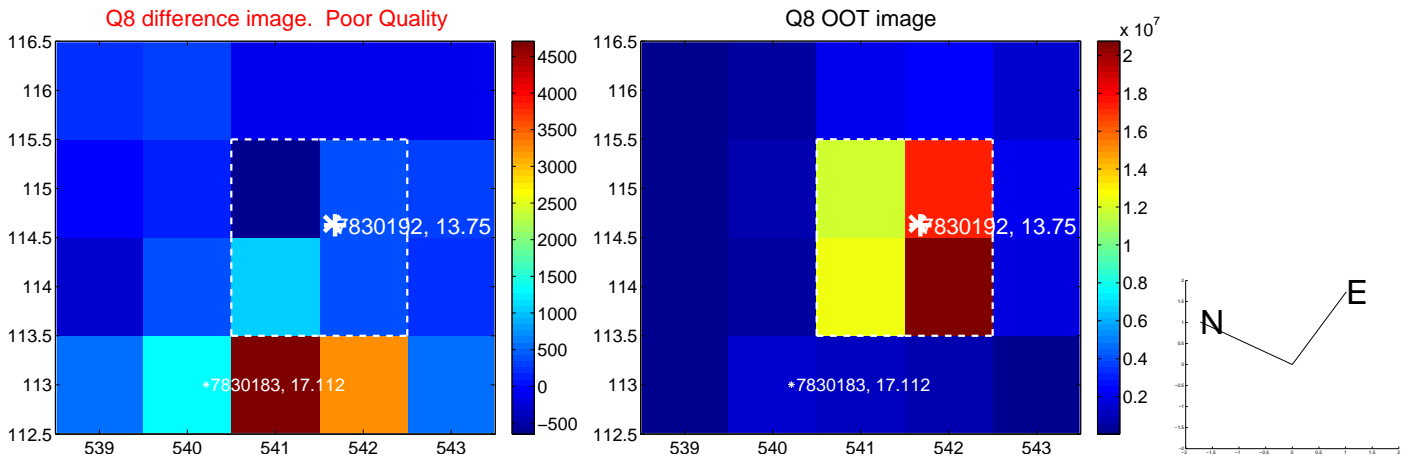
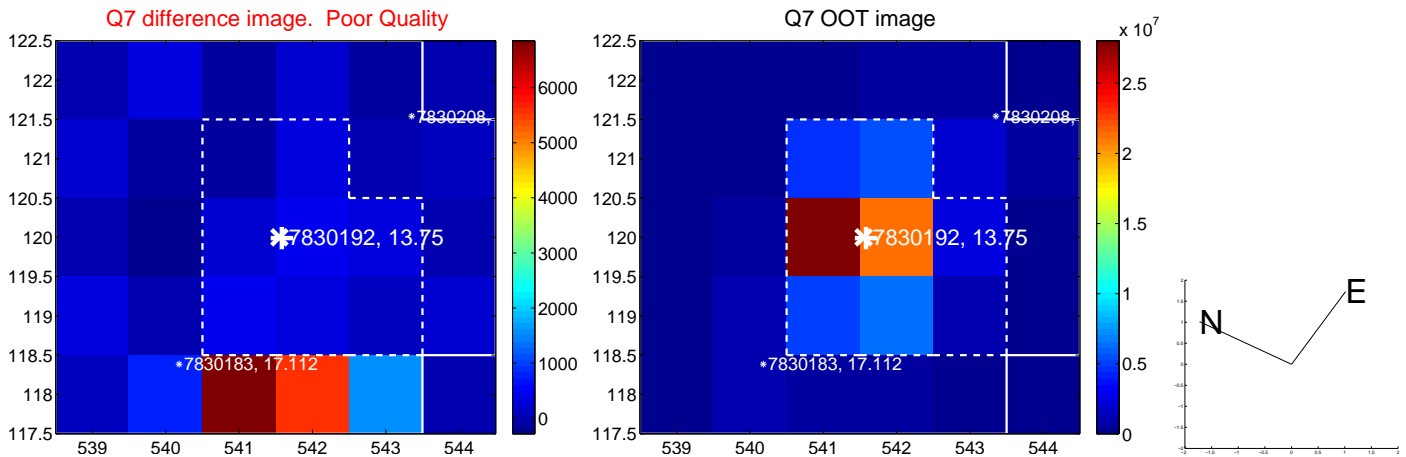
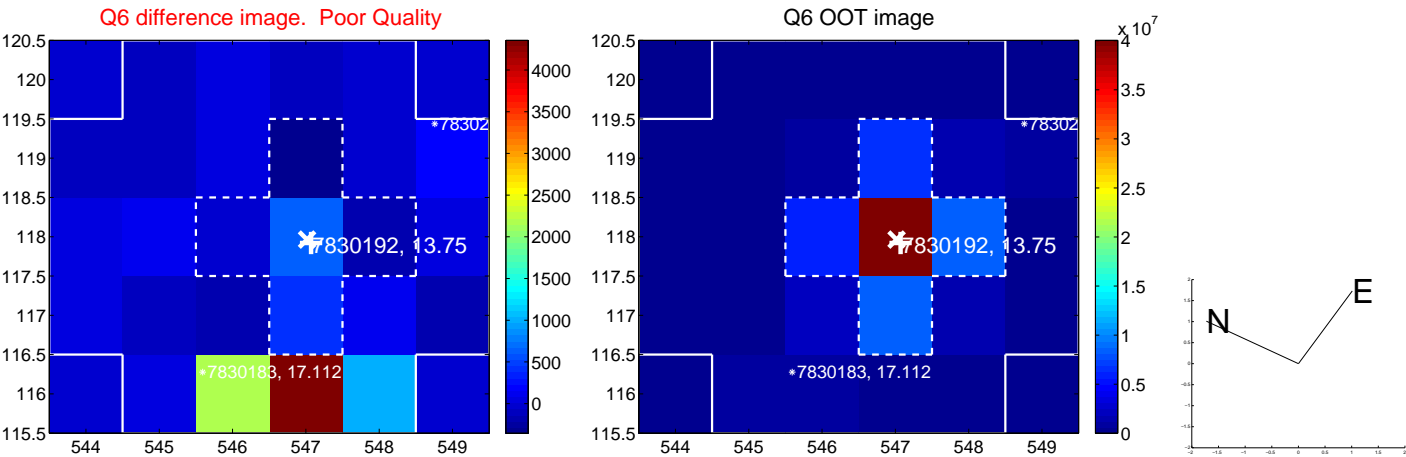
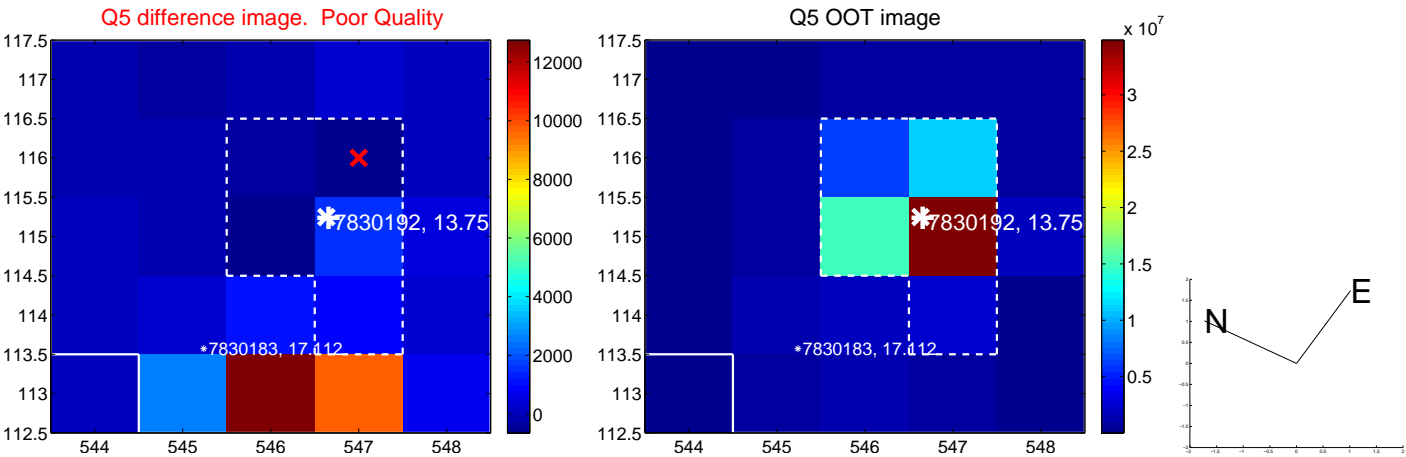


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

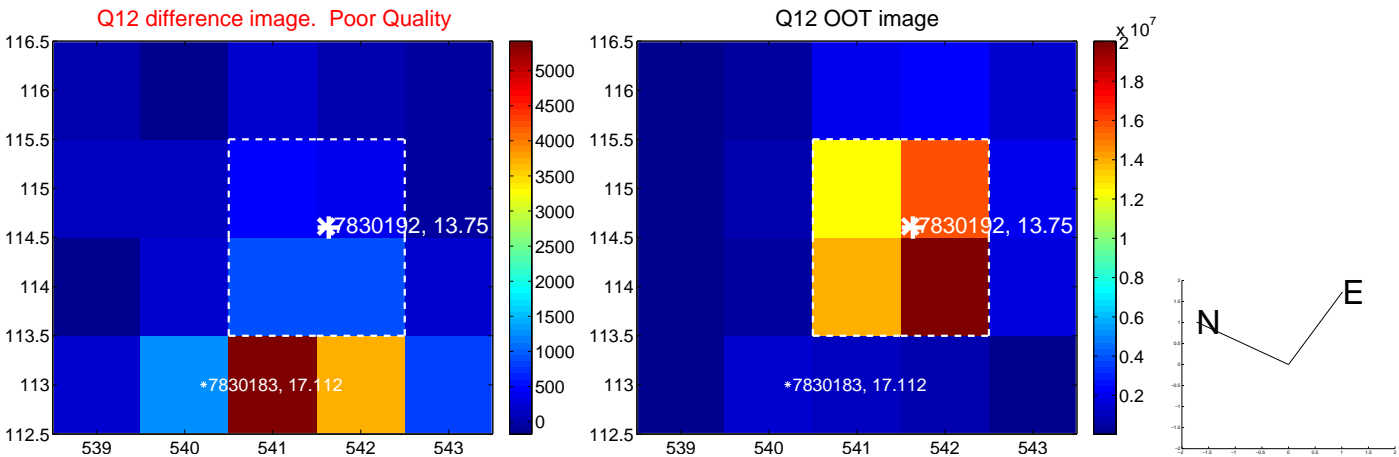
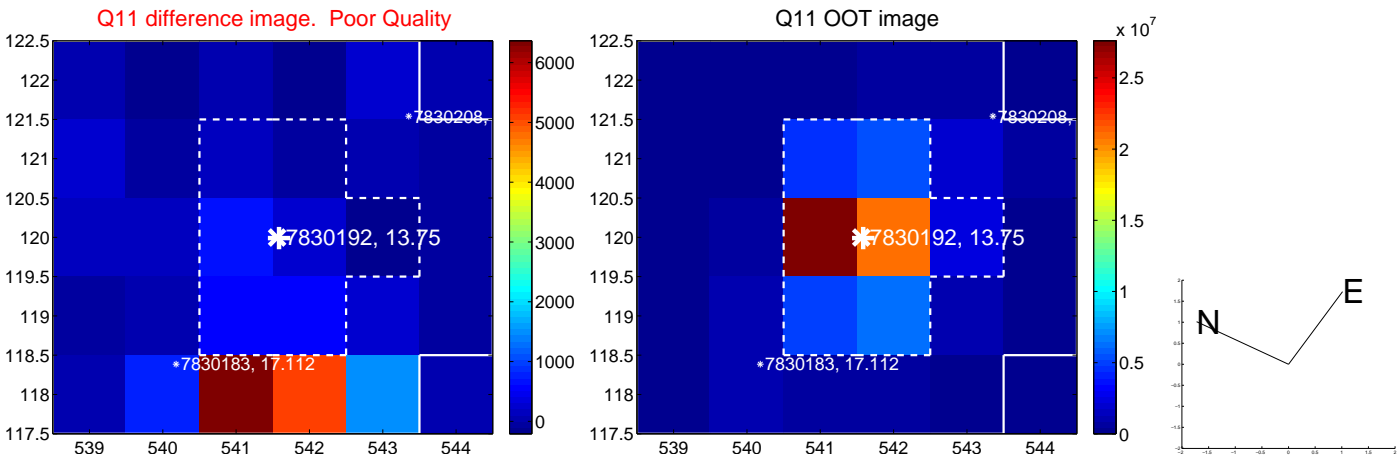
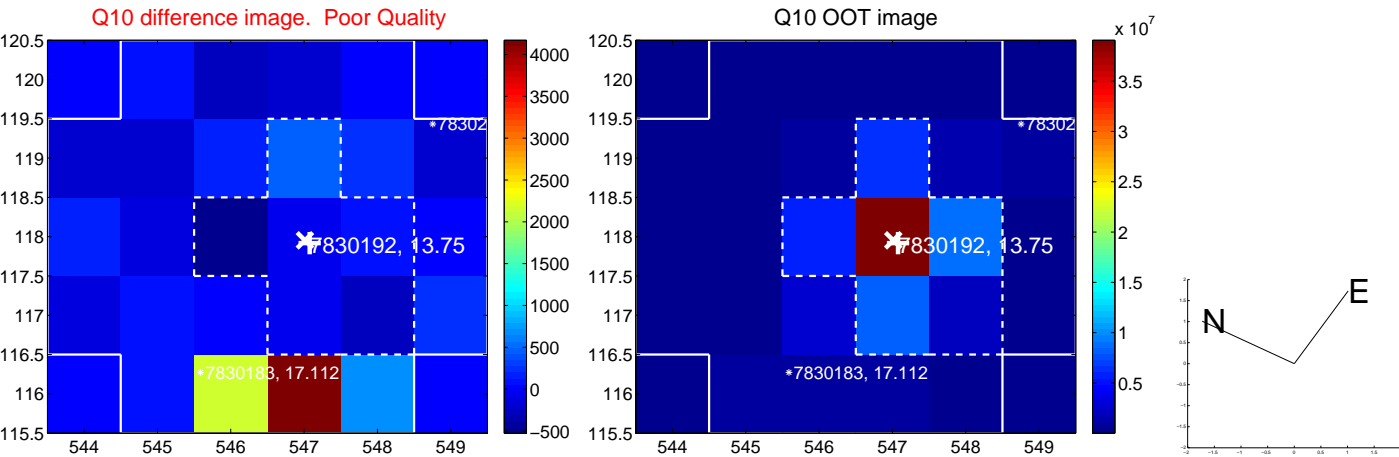
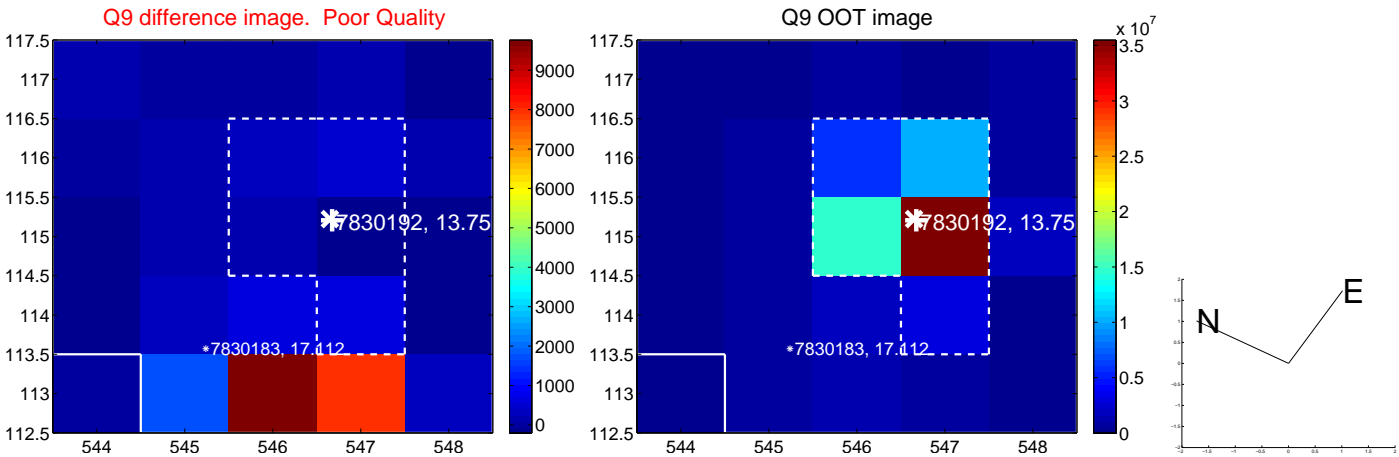


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

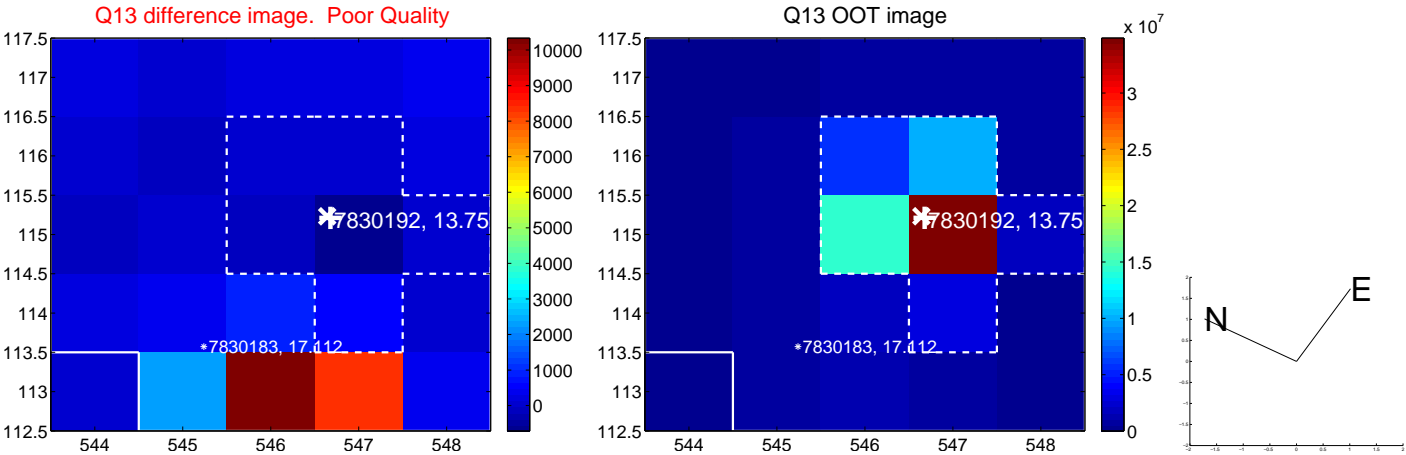




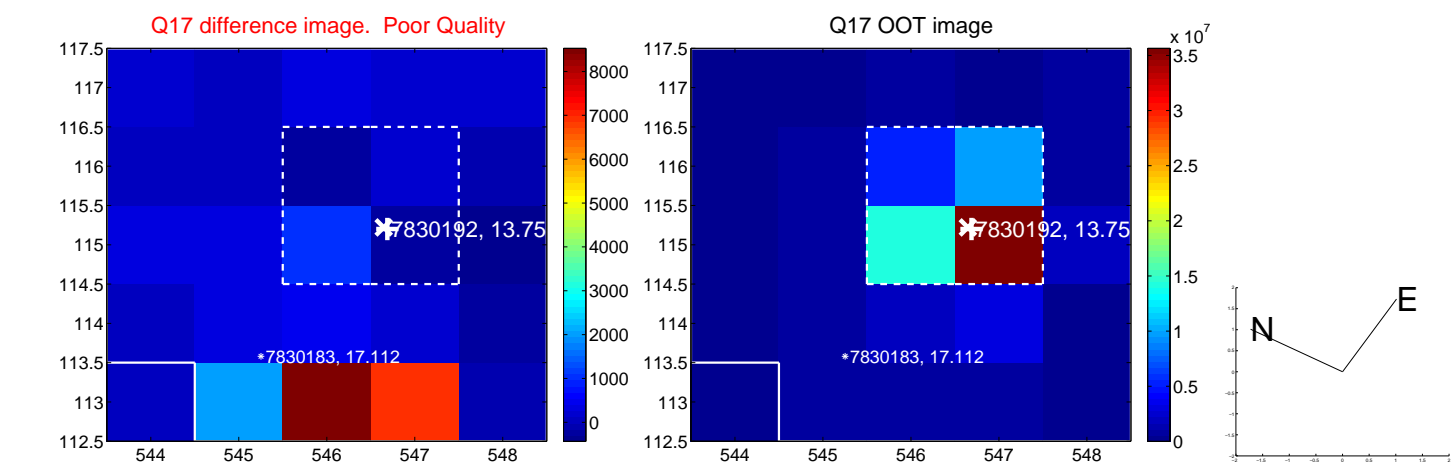
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



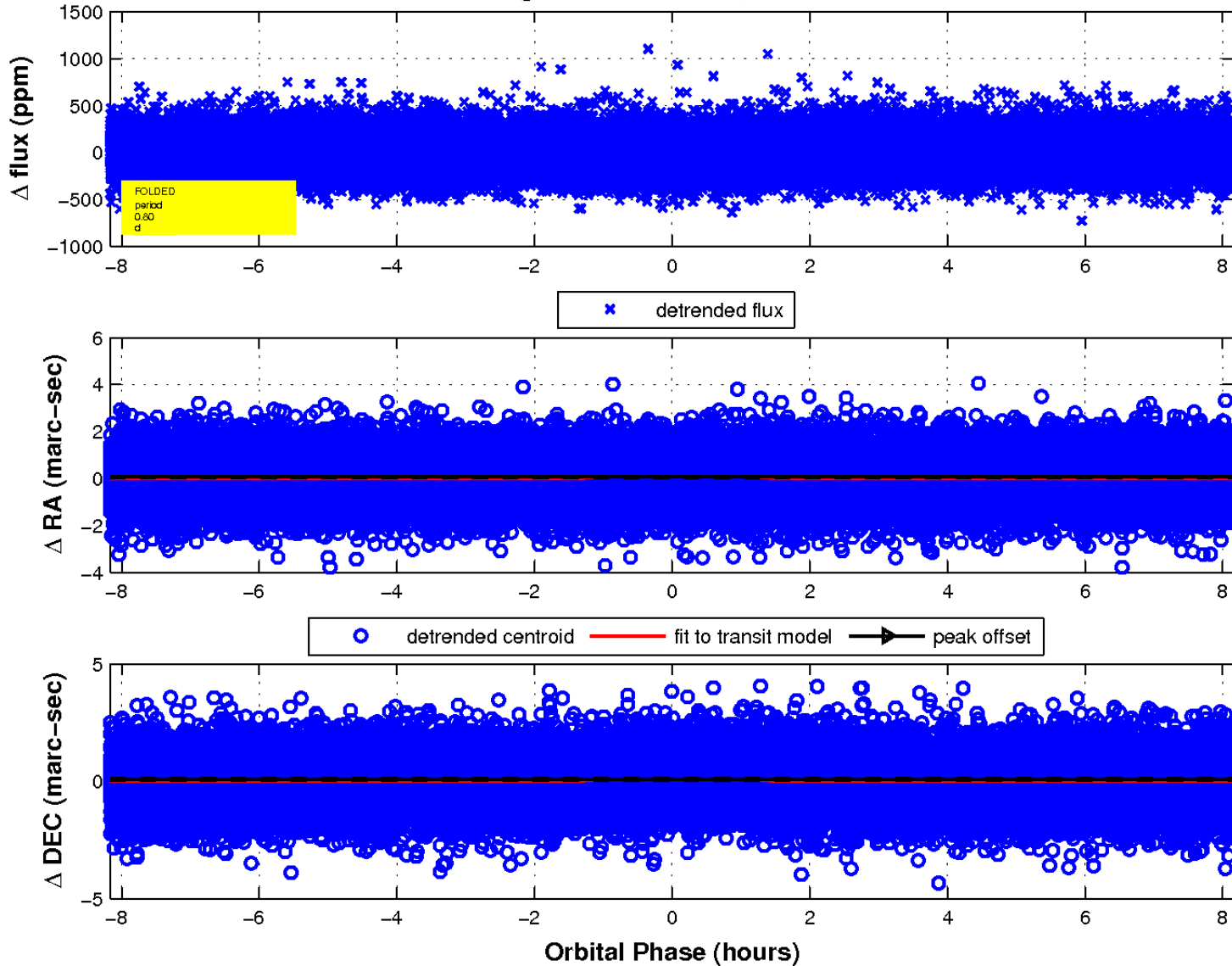
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

