

# KIC 006779613

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006779613-01	OBS	No	0.763128	132.259550	80.6	7.185	8.3	4.9	2.16	5799	1.95	19532.03

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006779613-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

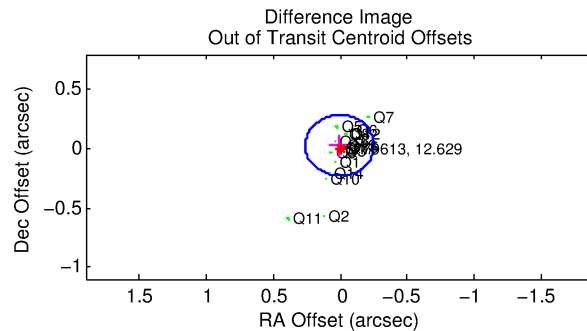
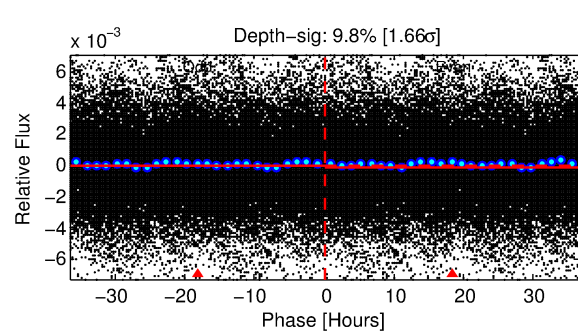
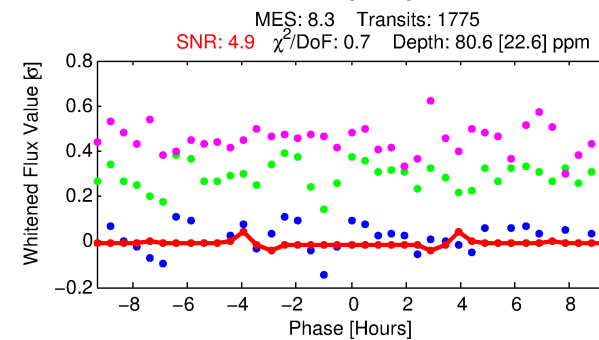
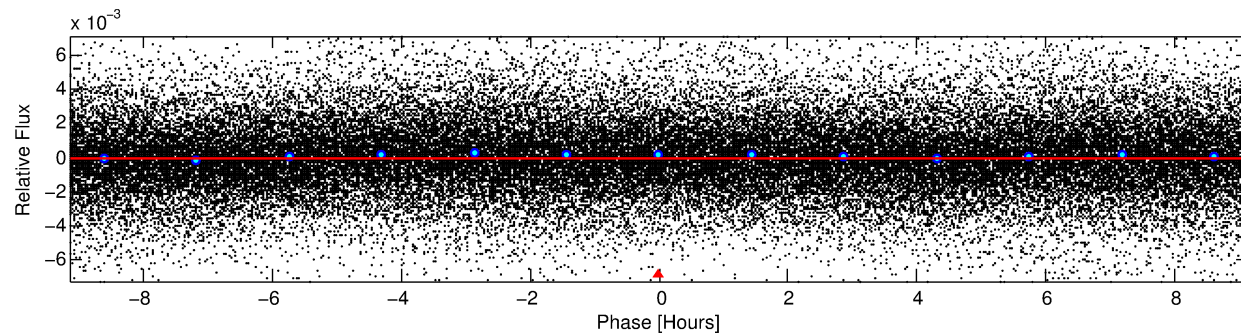
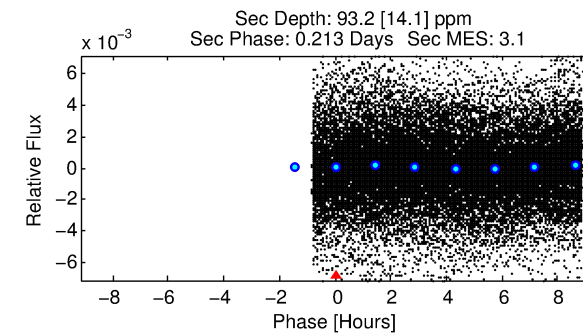
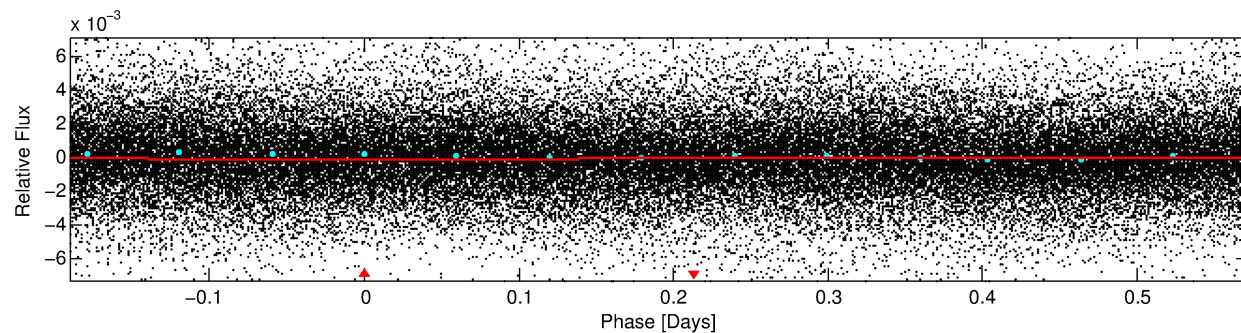
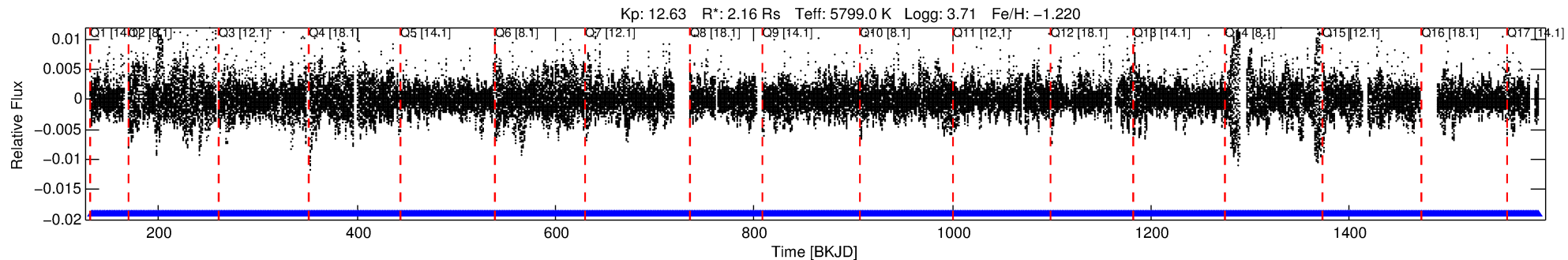
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006779613-01

No Significant Match Found

# DV One-Page Summary

KIC: 6779613 Candidate: 1 of 1 Period: 0.763 d



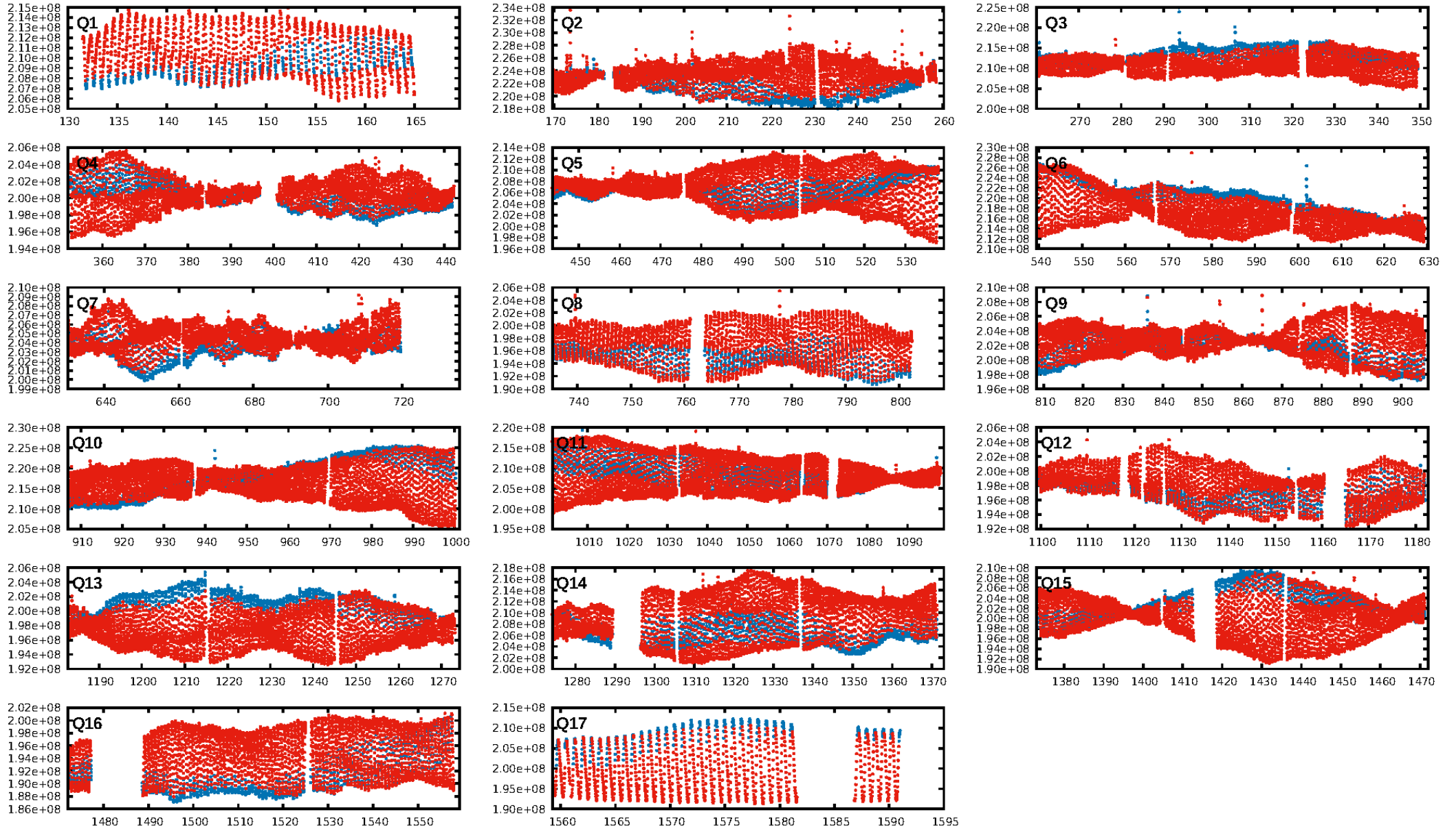
## DV Fit Results:

Period = 0.76313 [0.00002] d  
Epoch = 132.2596 [0.0022] BKJD  
Rp/R\* = 0.0082 [0.0049]  
a/R\* = 1.07 [0.41]  
b = 0.10 [32.95]  
Seff = 19532.03 [27348.51]  
Teq = 3014 [1055] K  
Rp = 1.94 [1.71] Re  
a = 0.0156 [0.0123] AU  
Ag = 3.29 [6.06] [0.38σ]  
Teffp = 6276 [1909] K [1.50σ]

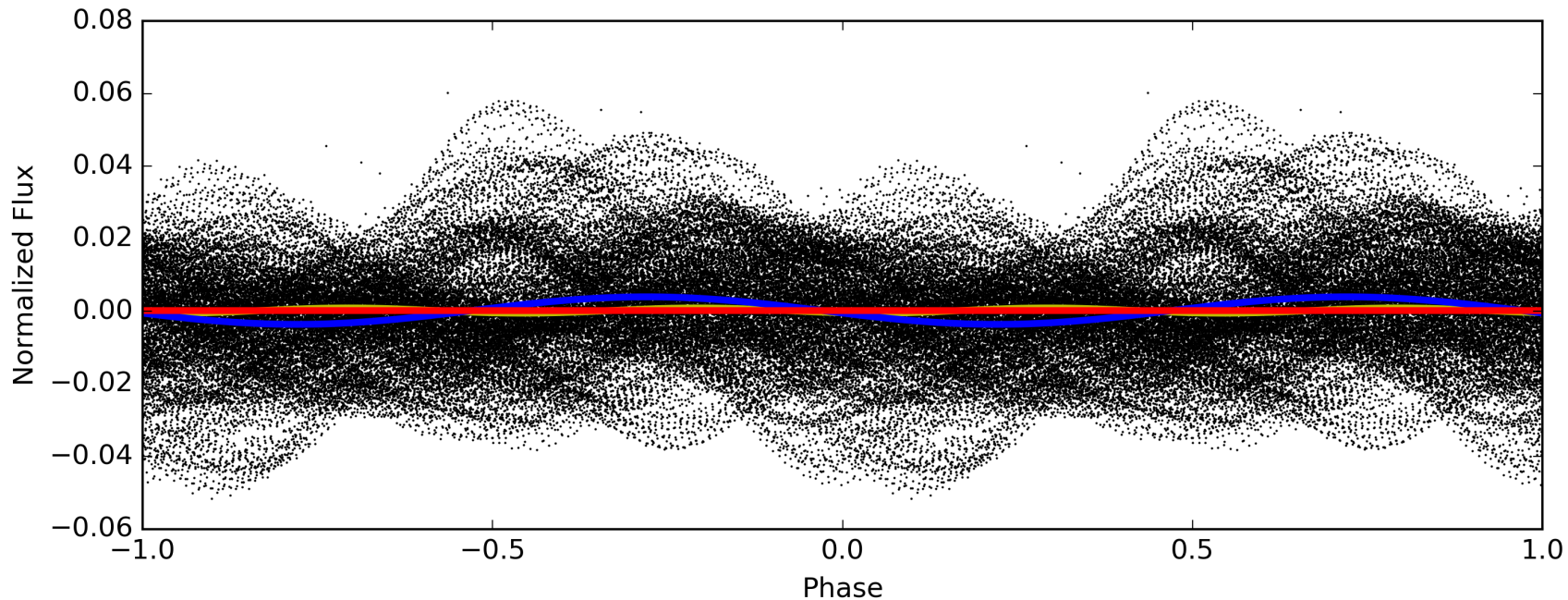
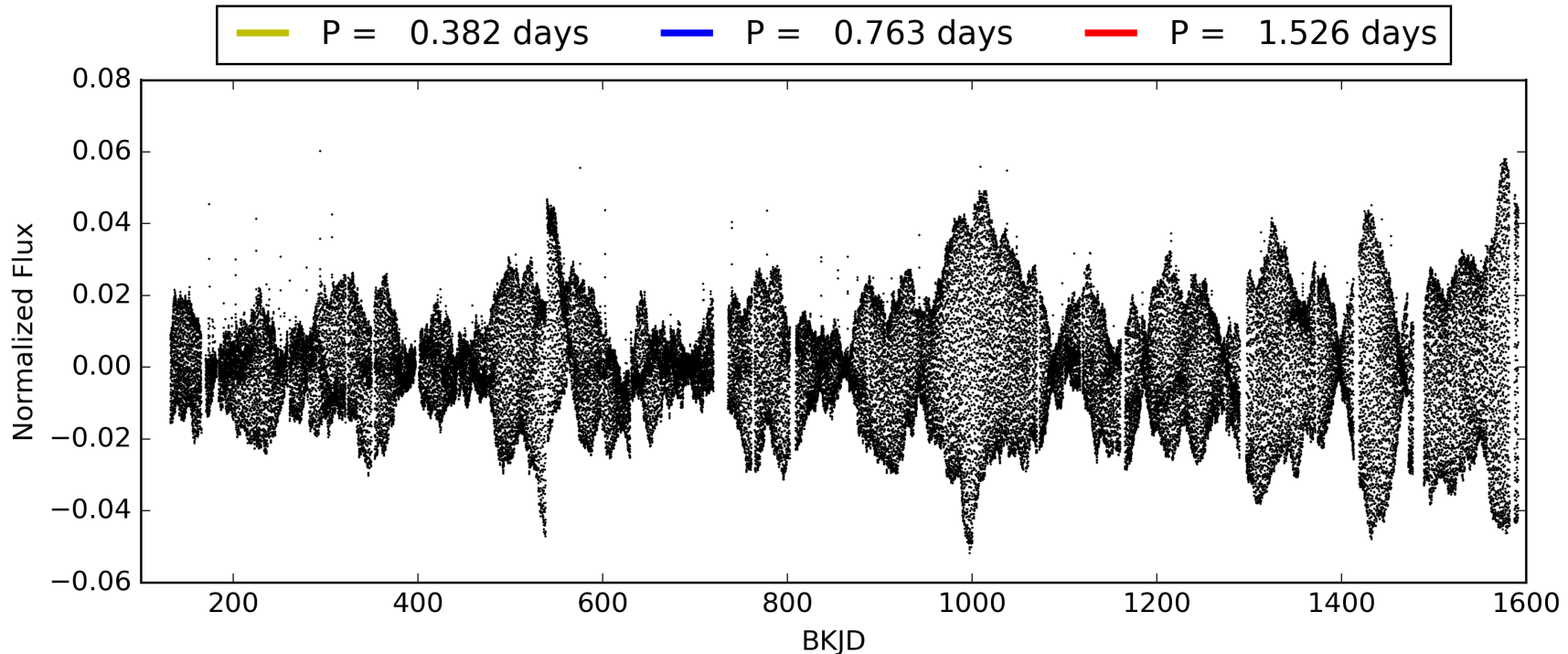
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [1694/1694]  
GhostDiagnostic-chr: -0.7023  
Centroid-sig: 0.0%  
Centroid-so: 0.408 arcsec [3.00σ]  
OotOffset-rm: 0.030 arcsec [0.36σ]  
KicOffset-rm: 0.058 arcsec [0.68σ]  
OotOffset-st: 4/4/3/5 [16]  
KicOffset-st: 4/4/3/5 [16]  
DiffImageQuality-fgm: 0.44 [7/16]  
DiffImageOverlap-fno: 1.00 [17/17]

# TCE 006779613-01, PDC Light Curves



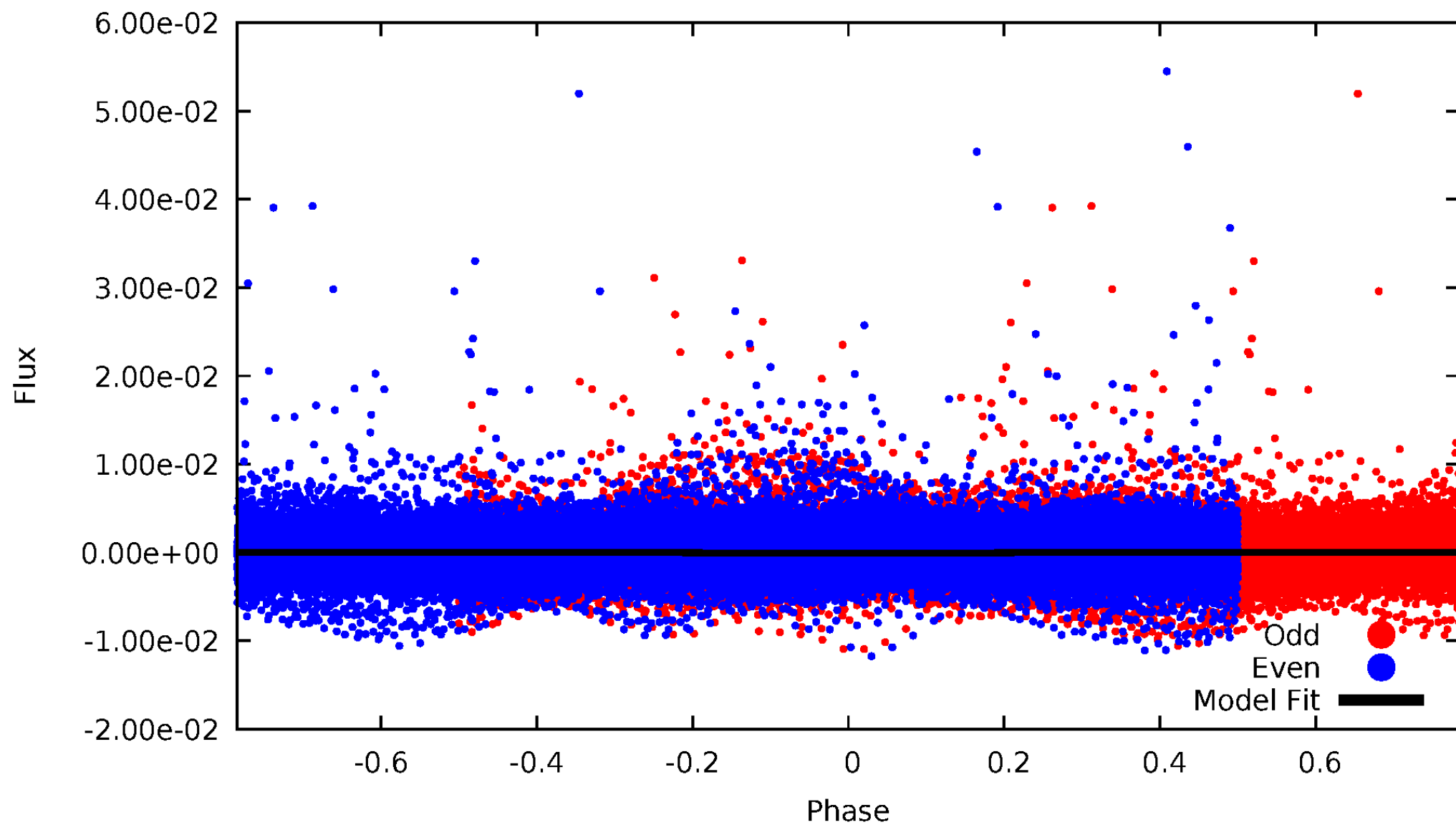
TCE 006779613-01





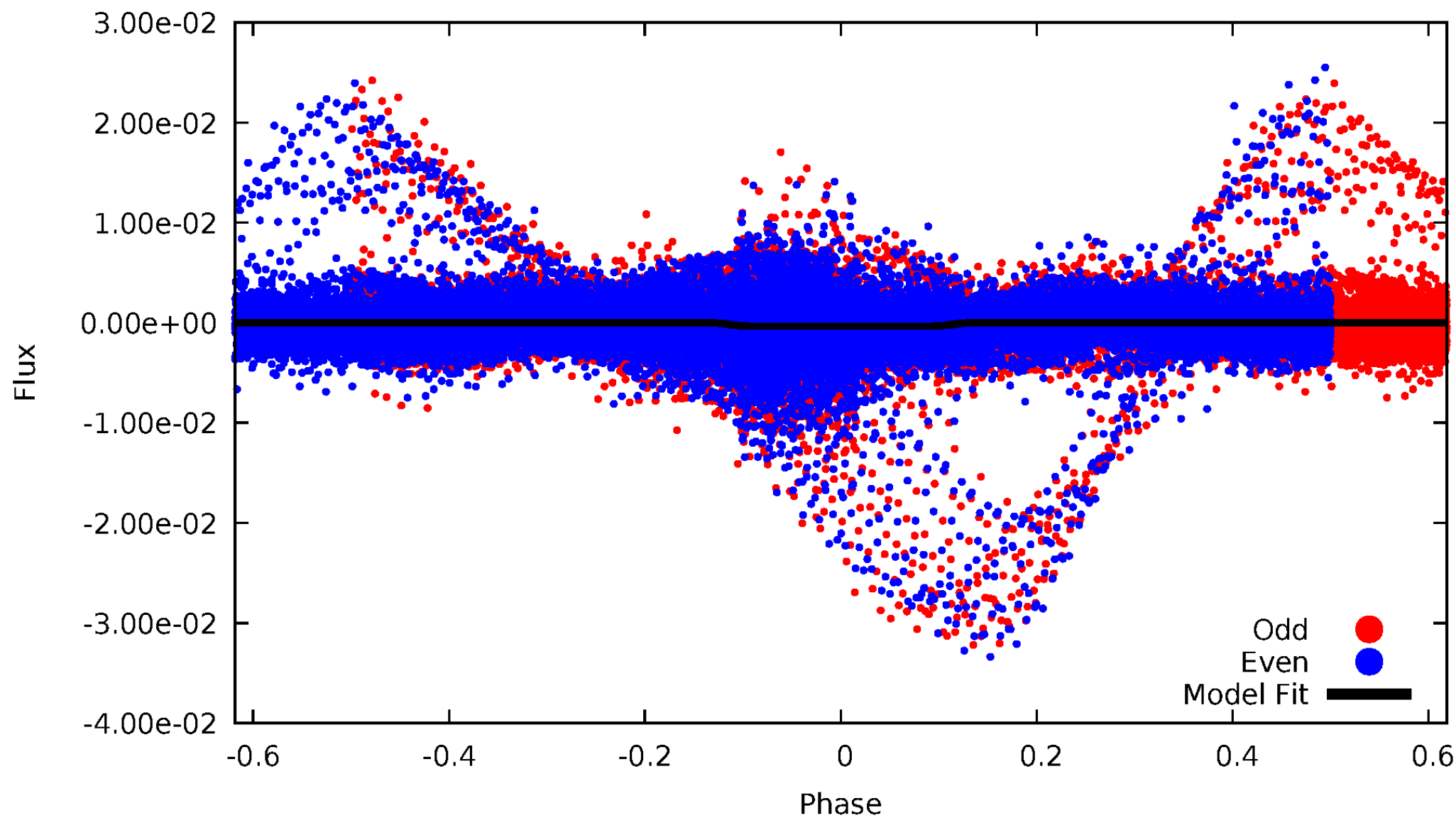
# DV Odd/Even

TCE 006779613-01



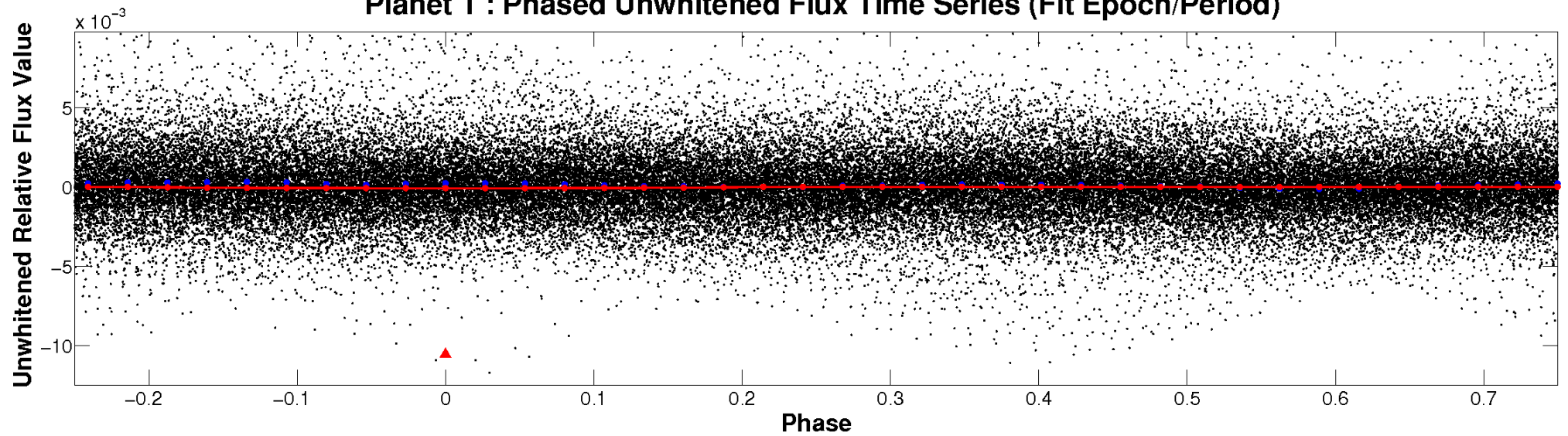
# ALT Odd/Even

TCE 006779613-01

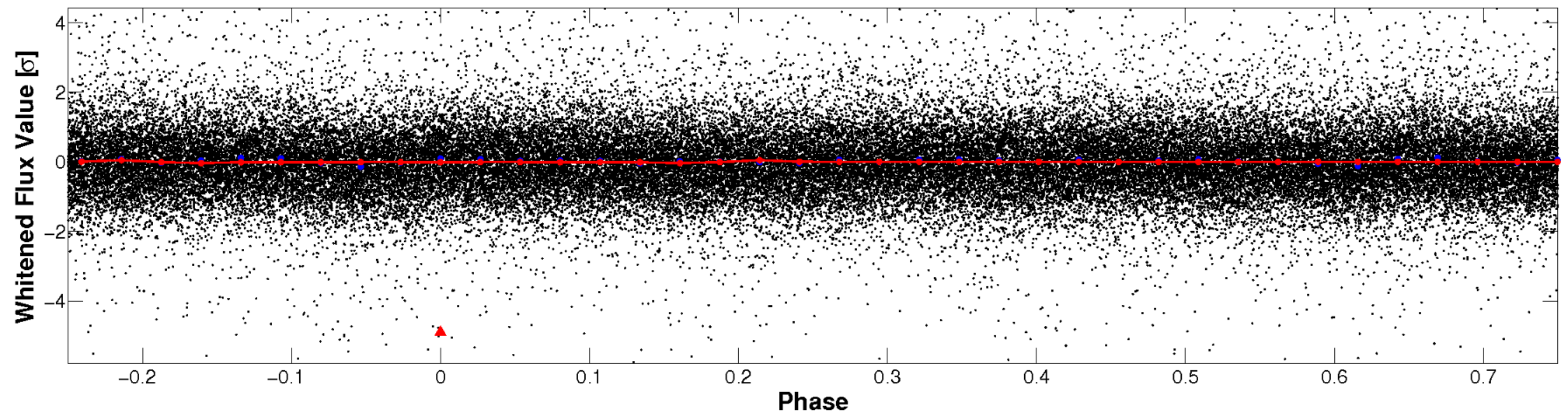


# Non-Whitened Vs. Whitened Light Curve

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

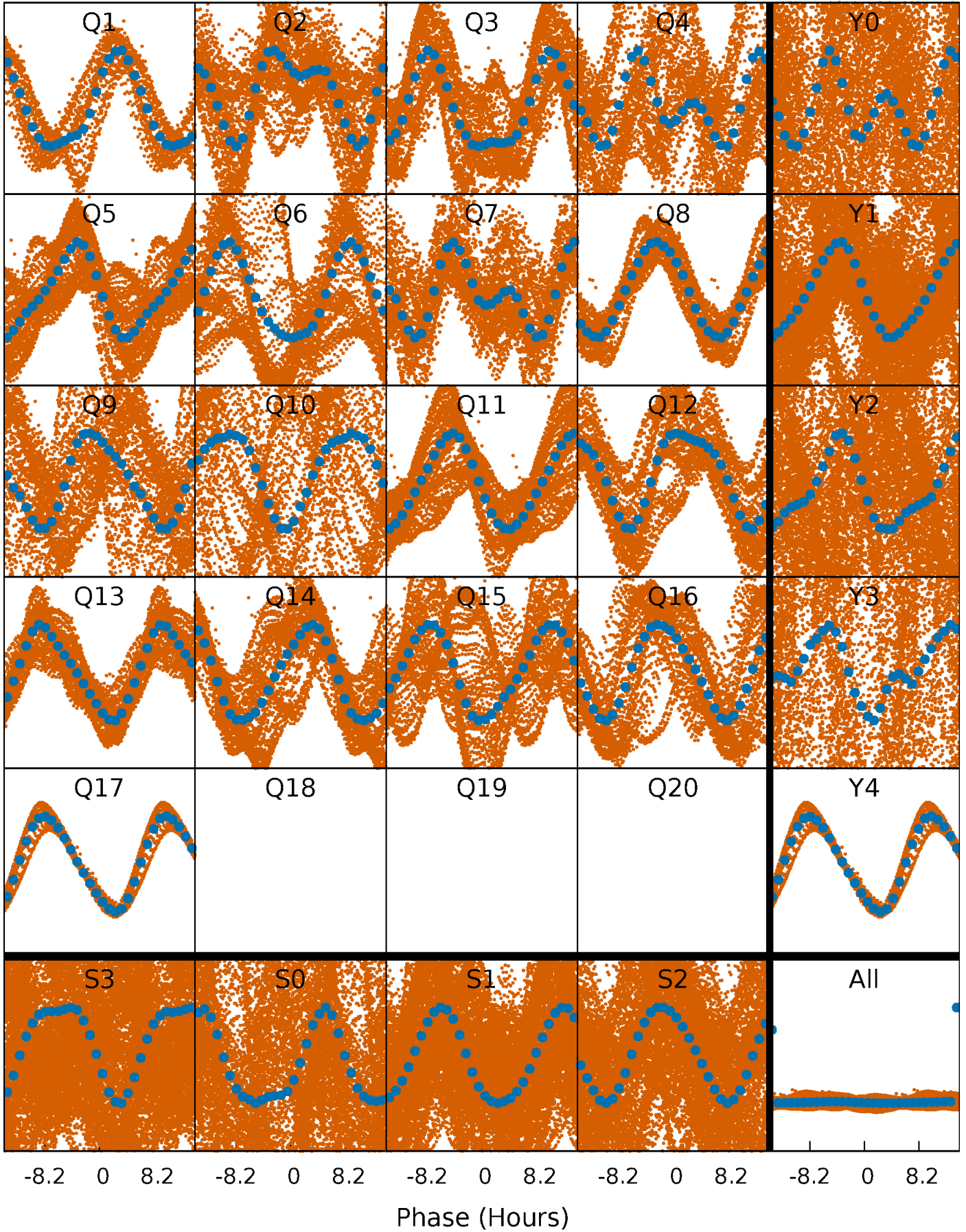


## Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



# PDC Quarter-Phased Transit Curves

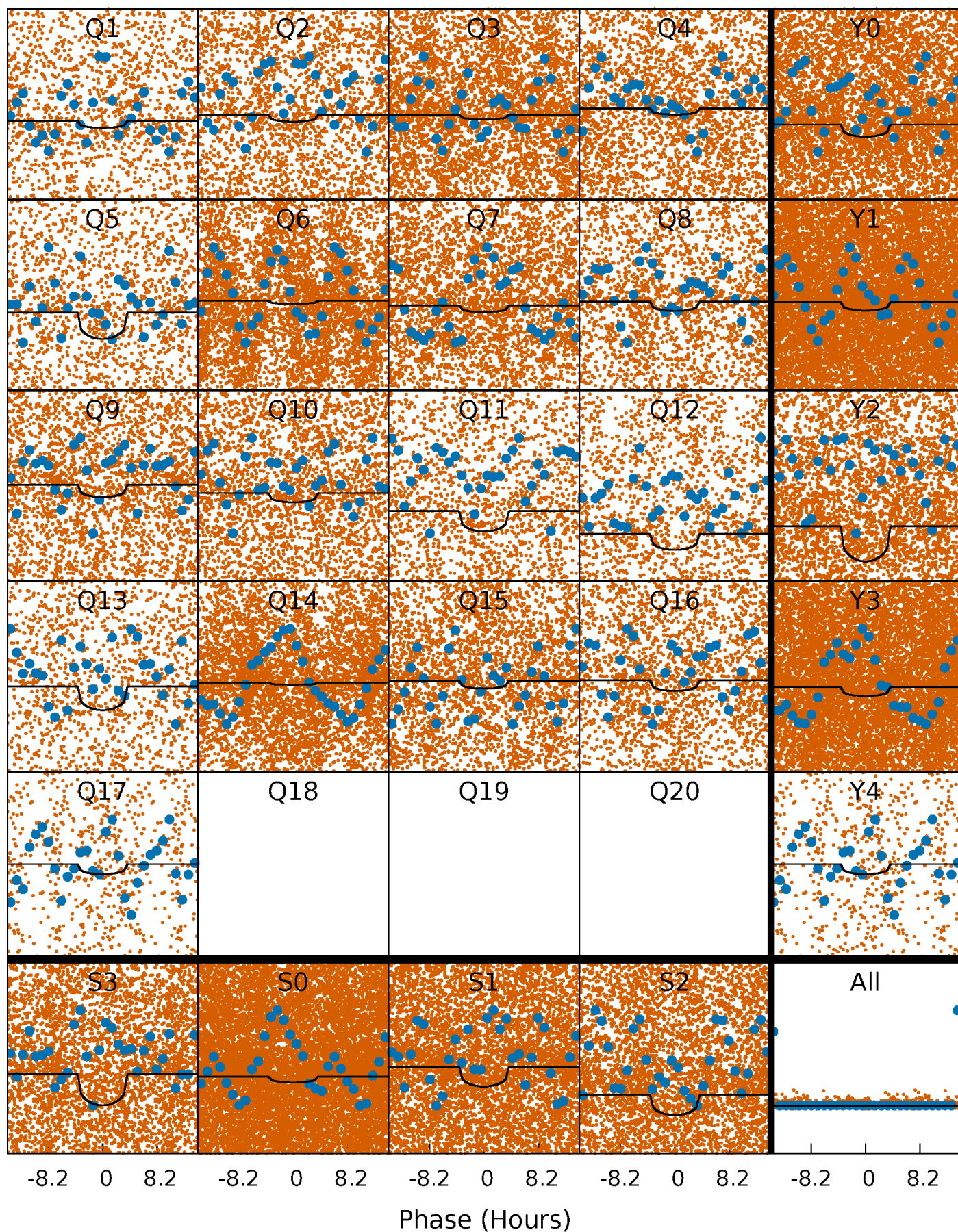
TCE 006779613-01   P= 0.763128 Days    $T_0=132.259550$  (BKJD)





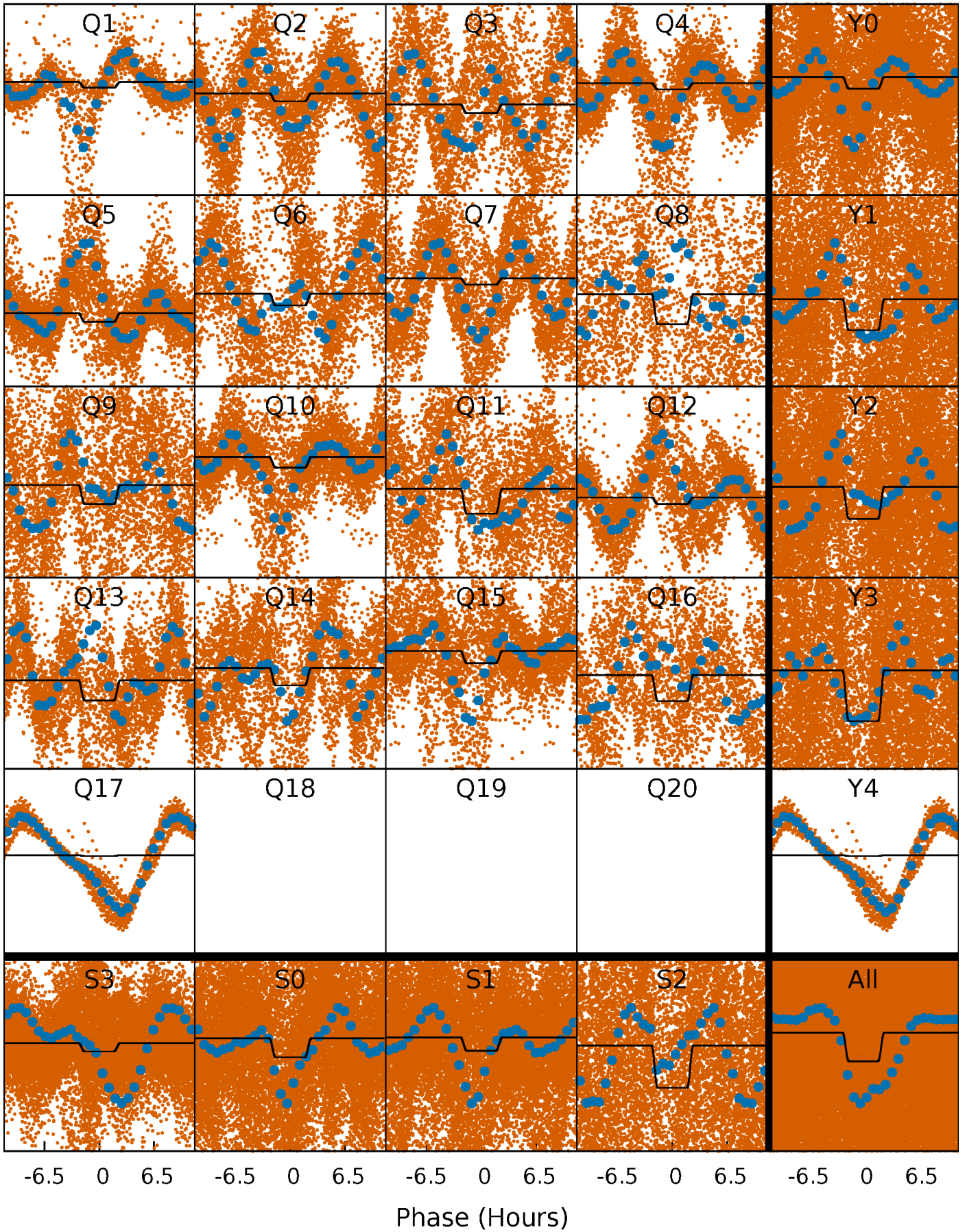
# DV Quarter-Phased Transit Curves

TCE 006779613-01 P= 0.763128 Days  $T_0=132.259550$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 006779613-01 P= 0.763133 Days  $T_0=132.261620$  (BKJD)

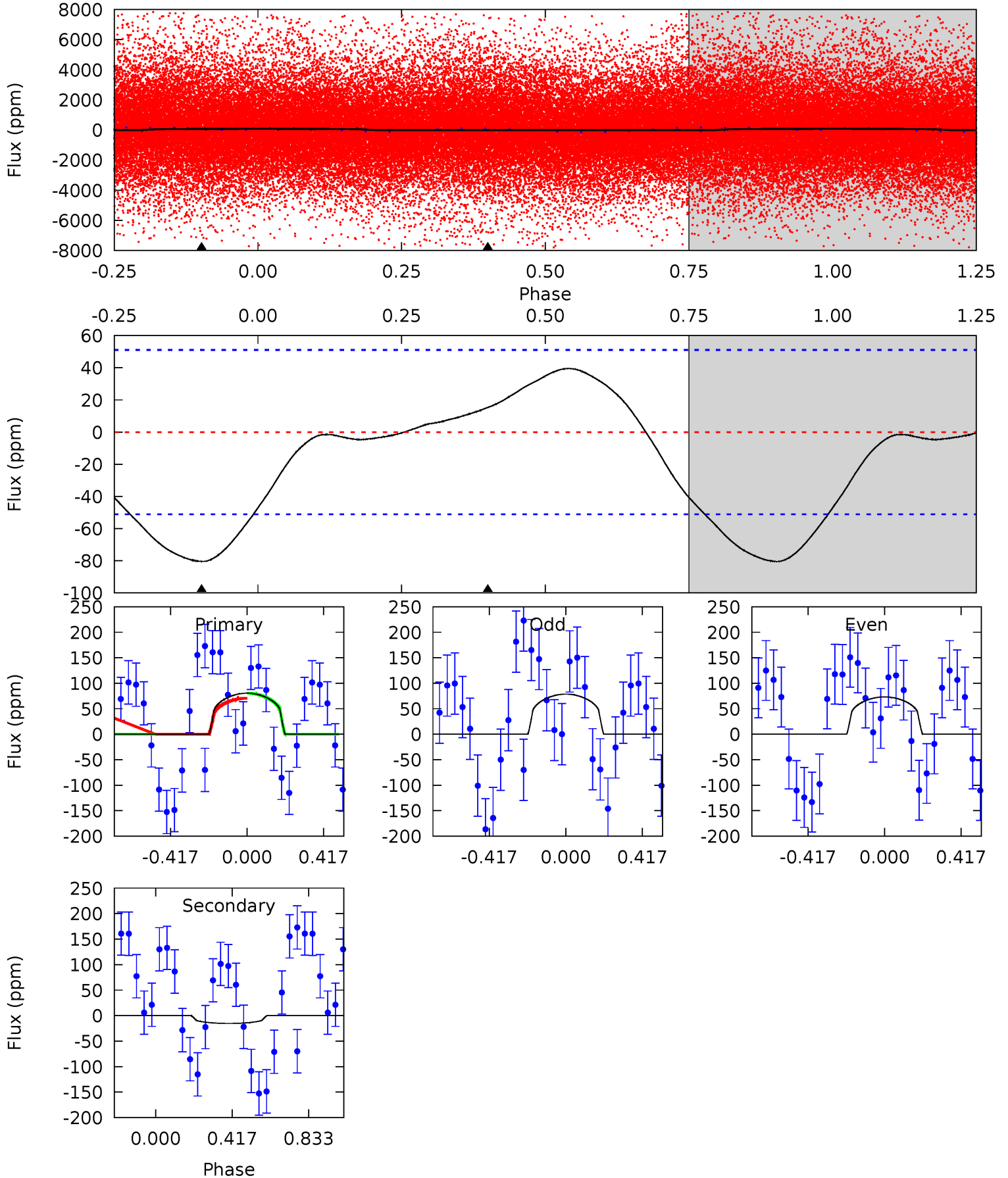




# DV Model-Shift Uniqueness Test

006779613-01, P = 0.763128 Days, E = 131.496422 Days

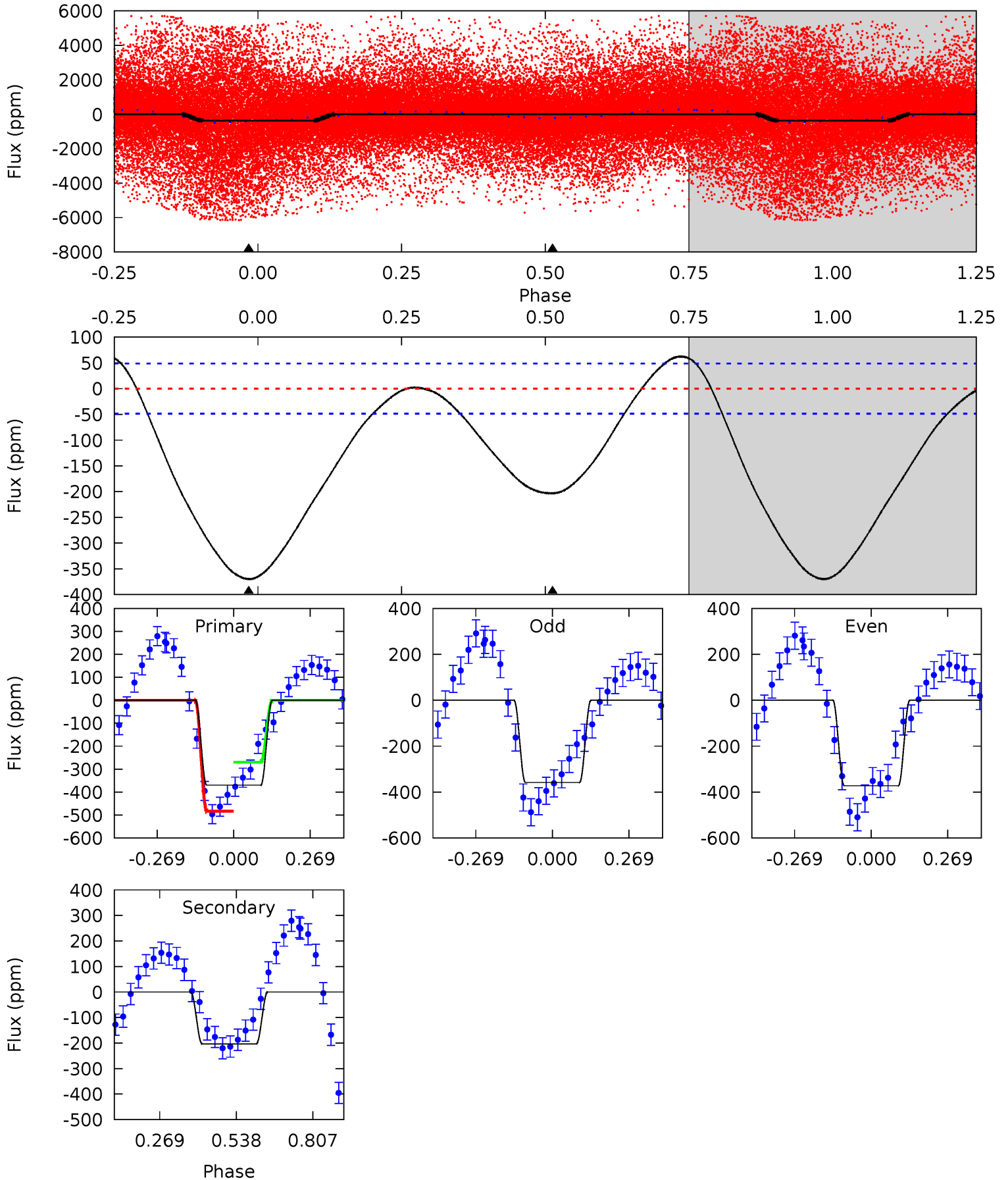
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.70	-1.28	0	0	4.26	0.81	0.77	6.70	6.70	-1.28	-1.28	0.22	4.20	0.33	0.41



# Alt Model-Shift Uniqueness Test

006779613-01, P = 0.763133 Days, E = 131.498487 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
33.1	18.2	0	0	4.35	1.11	2.75	33.1	33.1	18.2	18.2	0.65	2.10	0.14	7.28





### Stellar Parameters For KIC 006779613

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5799^{+209}_{-192}$	$3.705^{+0.863}_{-0.288}$	$-1.220^{+0.350}_{-0.250}$	$2.162^{+1.141}_{-1.394}$	$0.864^{+0.214}_{-0.143}$	$0.120^{+2.760}_{-0.082}$
	+4%/-3%	+23%/-8%	+29%/-20%	+53%/-64%	+25%/-17%	+2294%/-68%
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 006779613-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$15 \pm 12$	$1.87^{+1.37}_{-1.10}$	$4121^{+561}_{-790}$	$-4493^{+662}_{-1189}$	$-0.481^{+0.403}_{-2.786}$
Alt.	$-203 \pm 11$	$3.92^{+1.84}_{-1.62}$	$4129^{+563}_{-777}$	$5008^{+852}_{-652}$	$1.804^{+3.518}_{-0.955}$

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

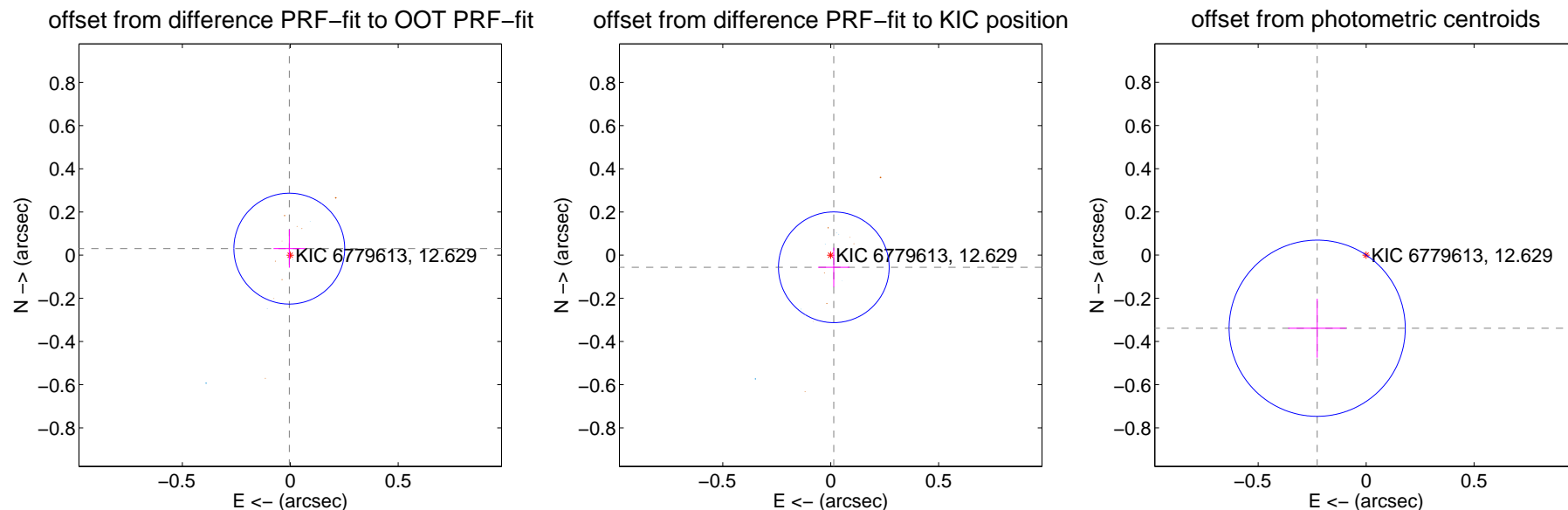
## DV Centroid Data

Supplemental centroid analysis for 006779613-01. Kepler magnitude: 12.63. Transit SNR 4.93

There are 7 quarters with good PRF difference image offsets

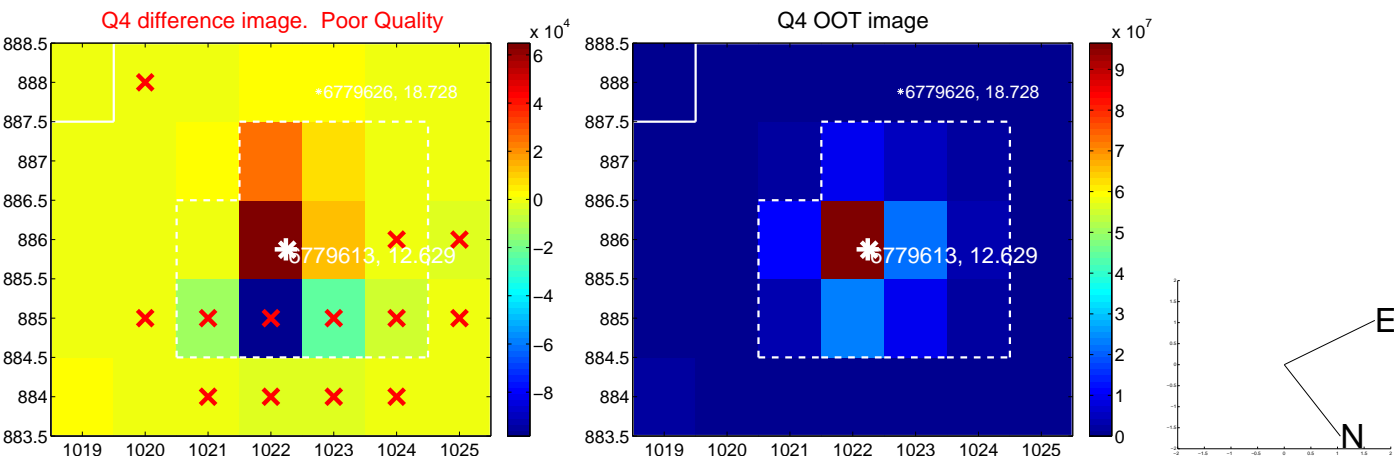
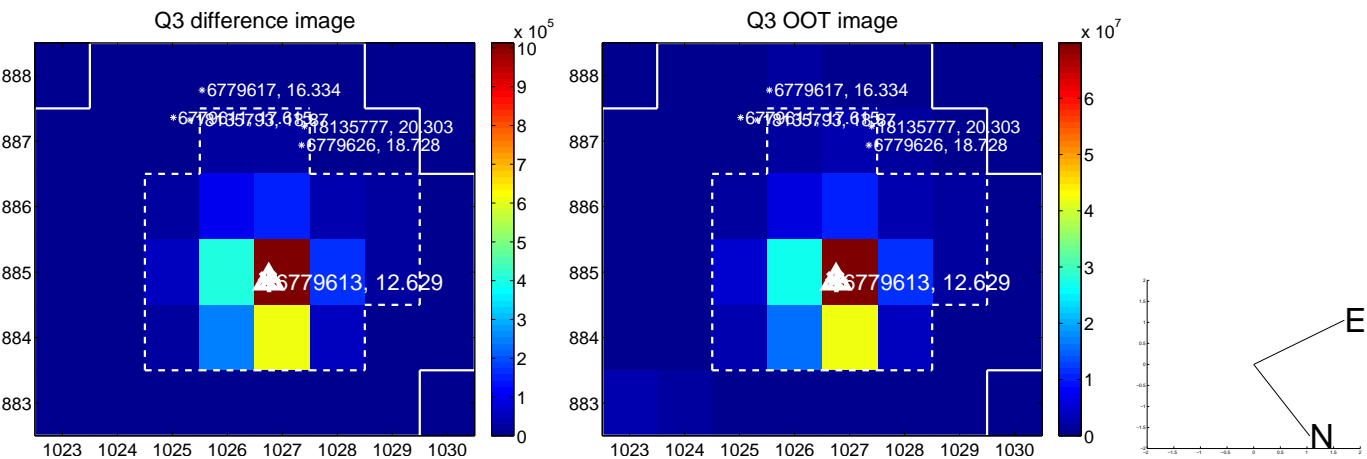
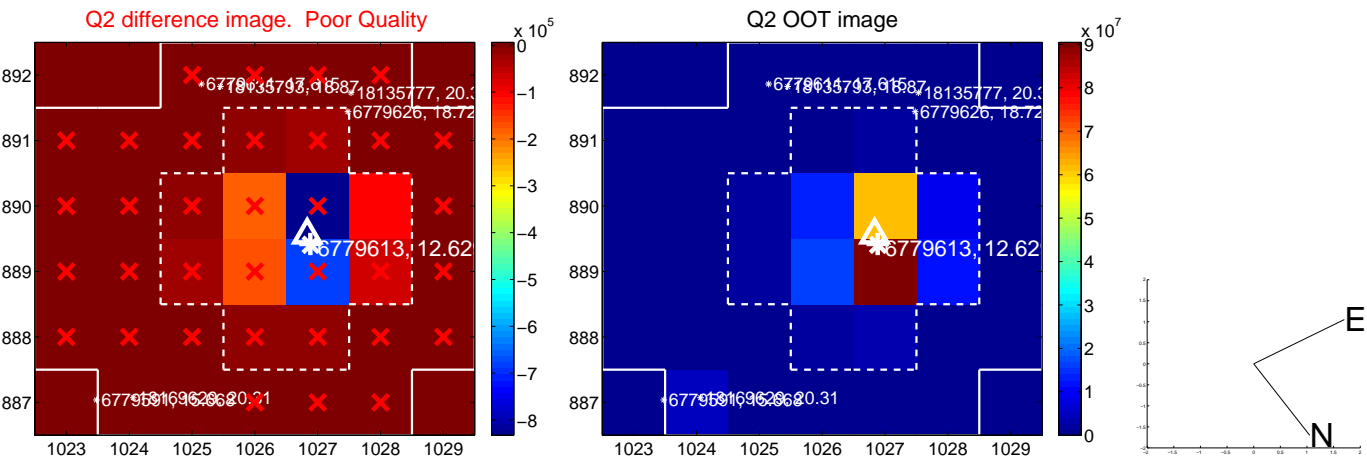
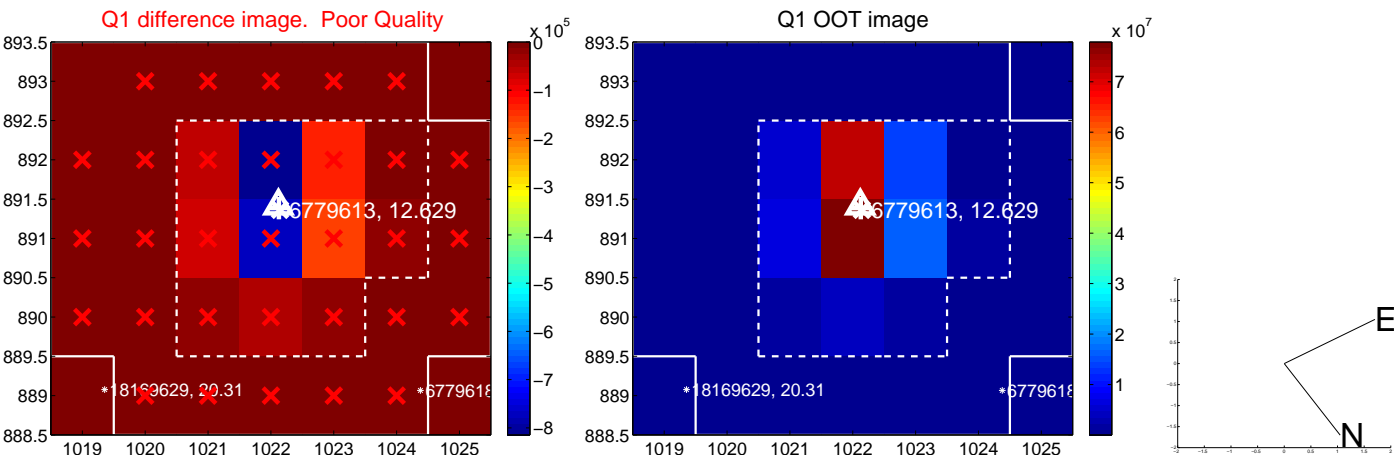
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.030 \pm 0.086$	0.36	$0.005 \pm 0.073$	$0.030 \pm 0.088$
PRF-fit source offset from KIC position	$0.058 \pm 0.085$	0.68	$-0.014 \pm 0.073$	$-0.056 \pm 0.091$
photometric centroid source offset	$0.41 \pm 0.14$	3.00	$0.23 \pm 0.13$	$-0.34 \pm 0.14$

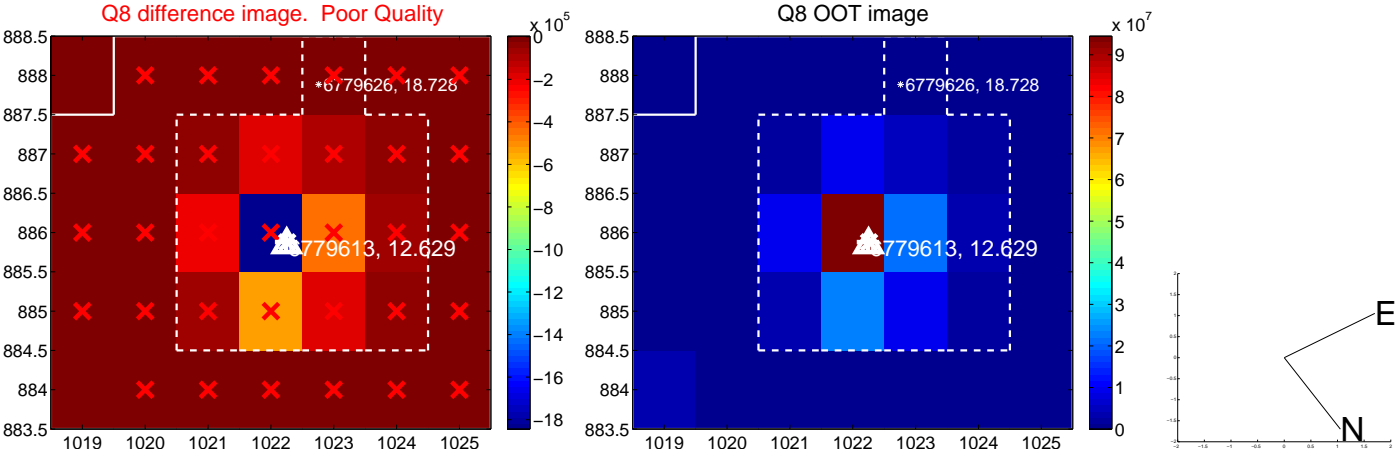
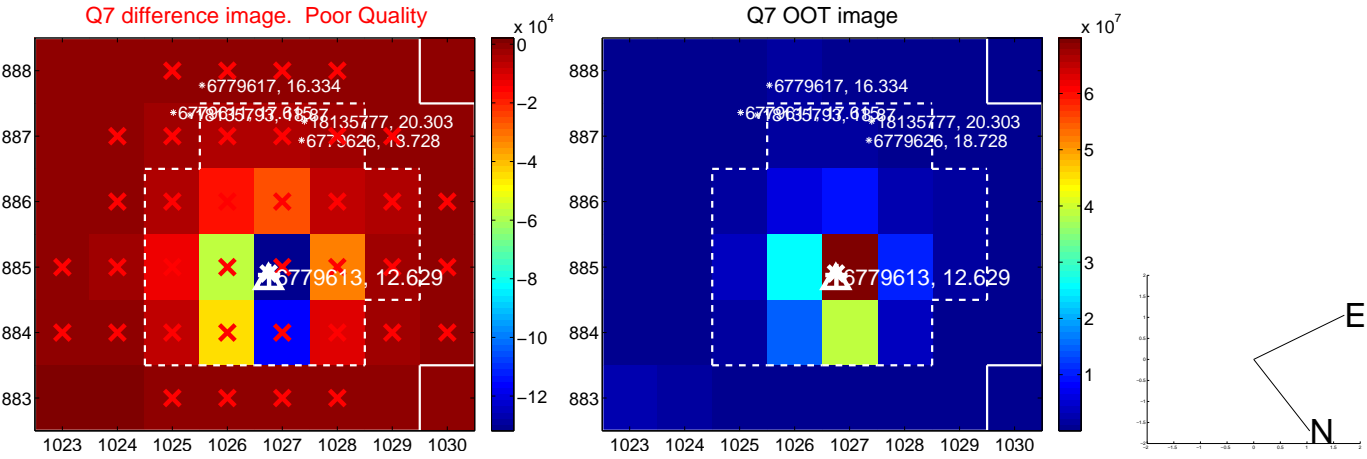
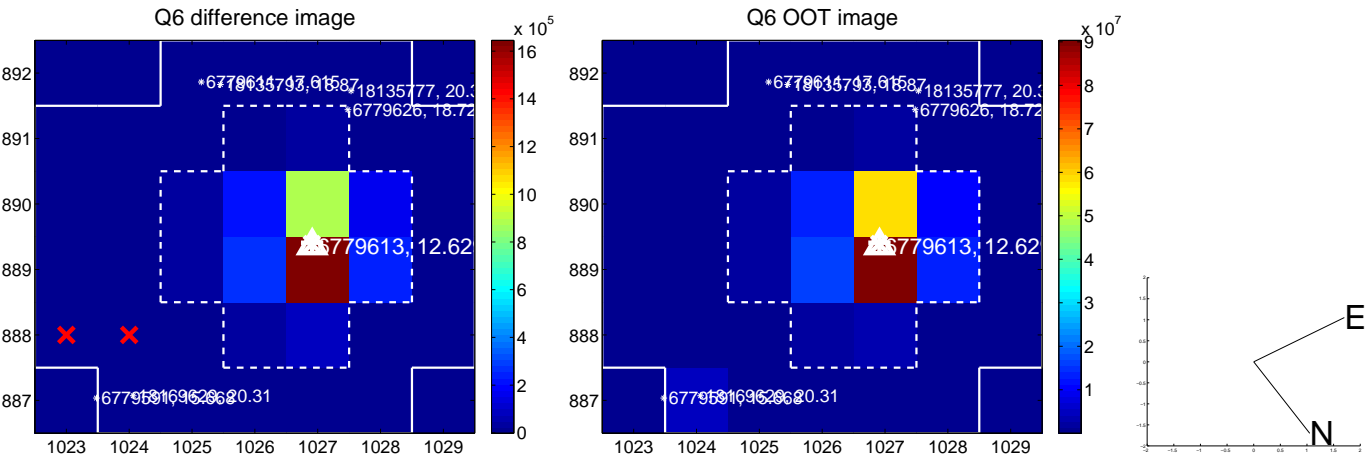
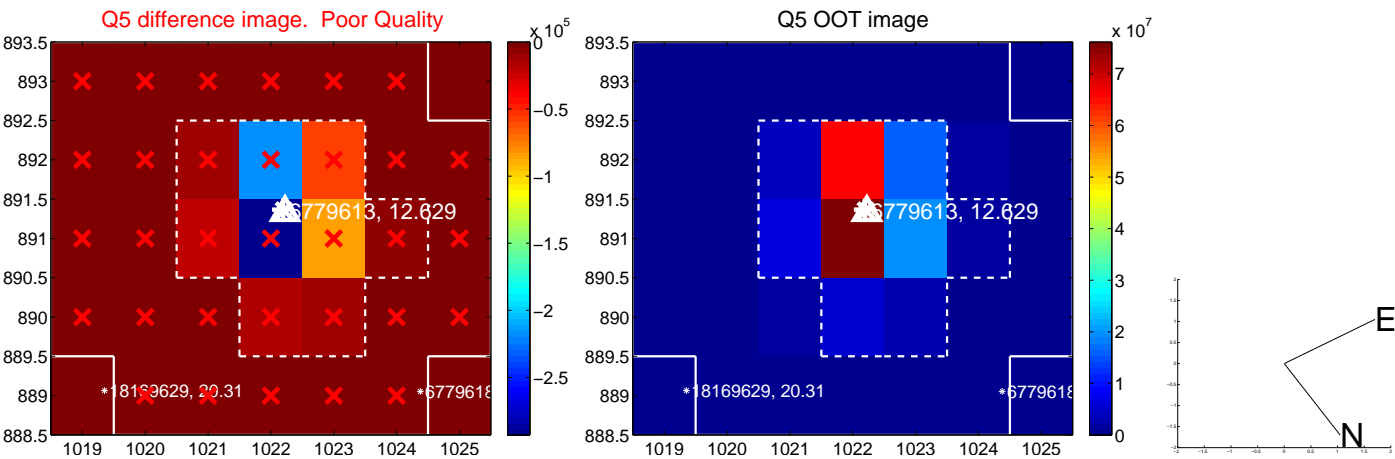


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

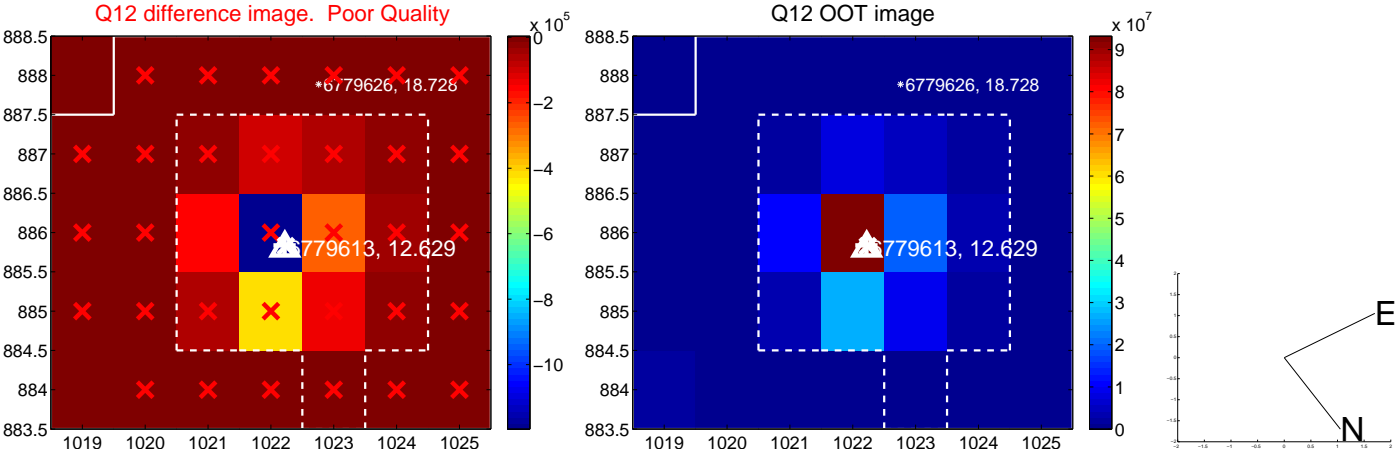
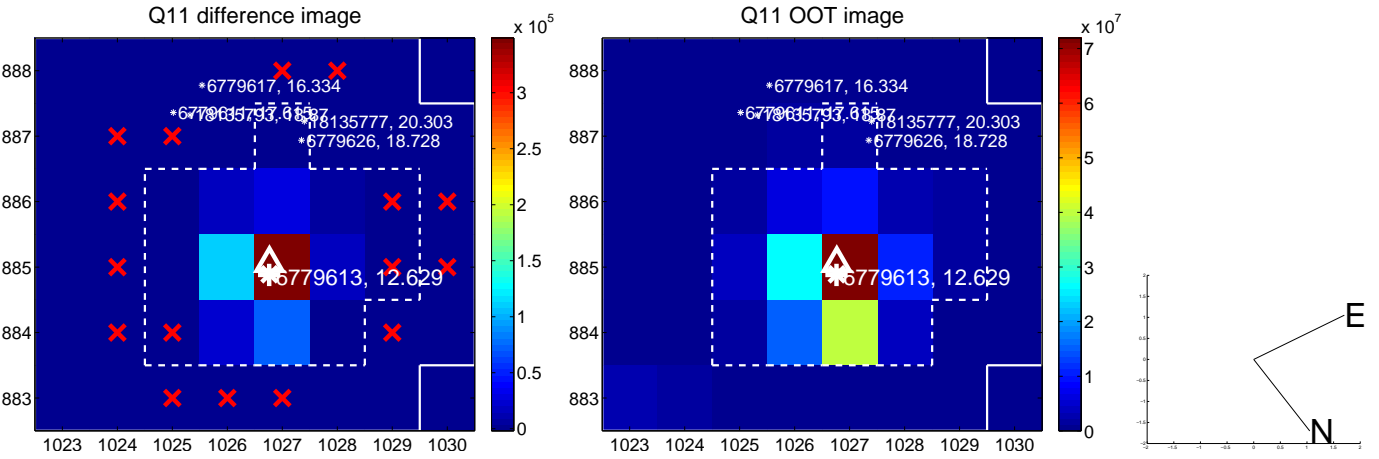
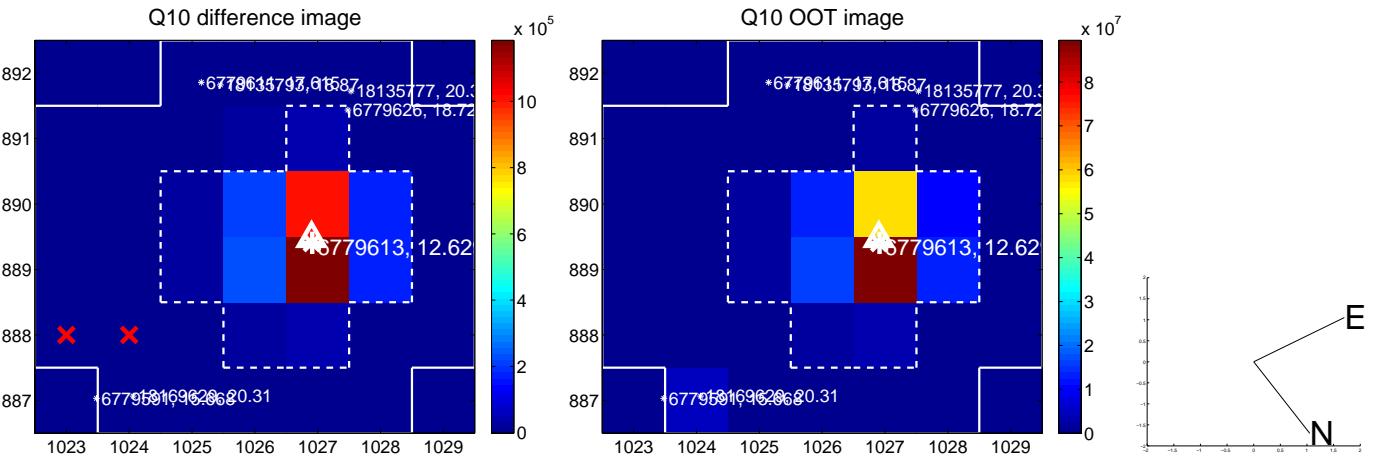
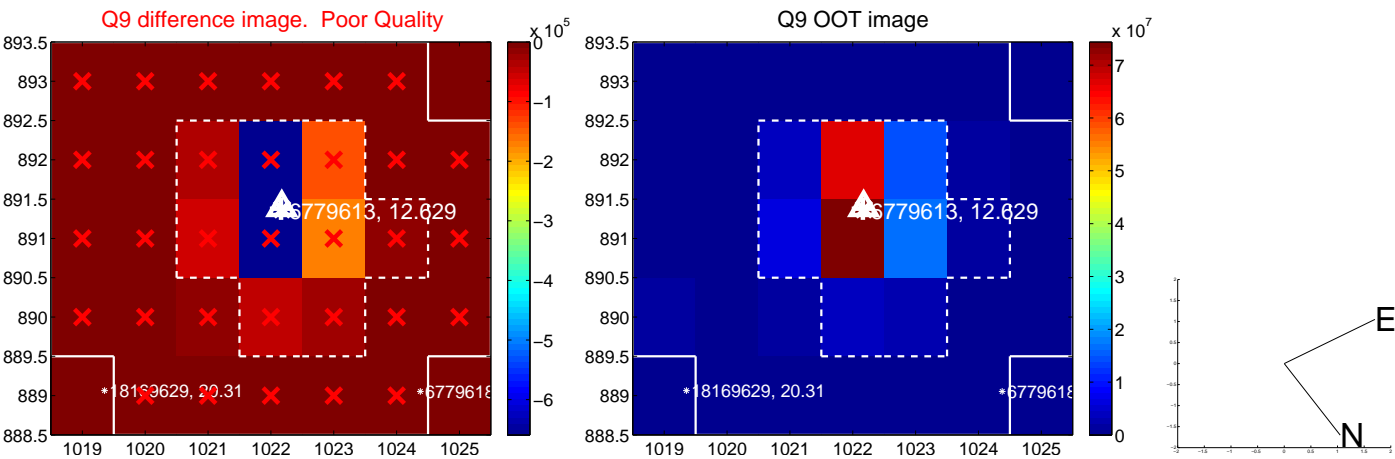


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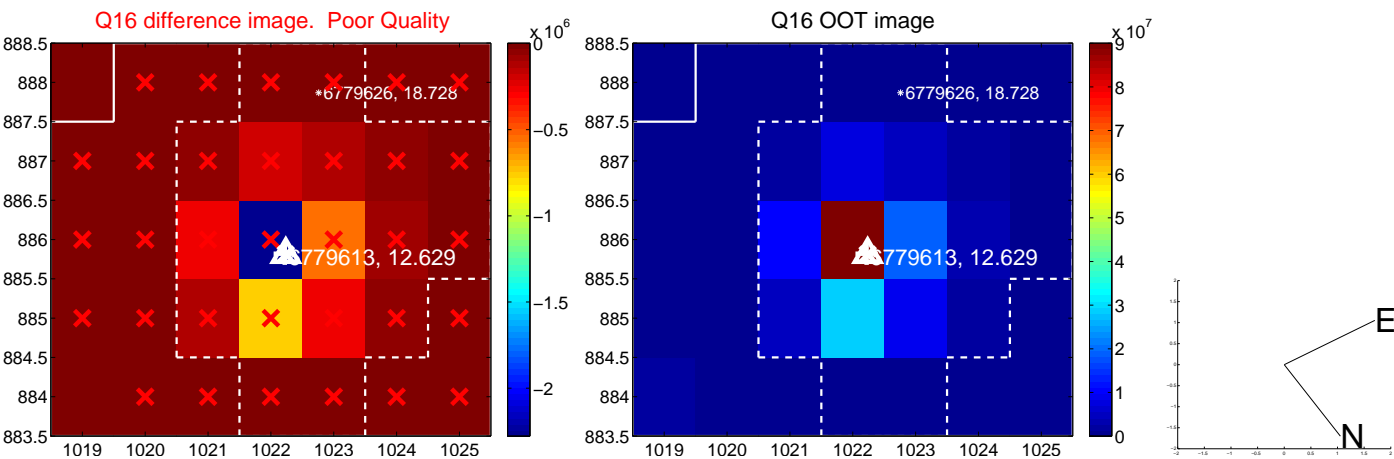
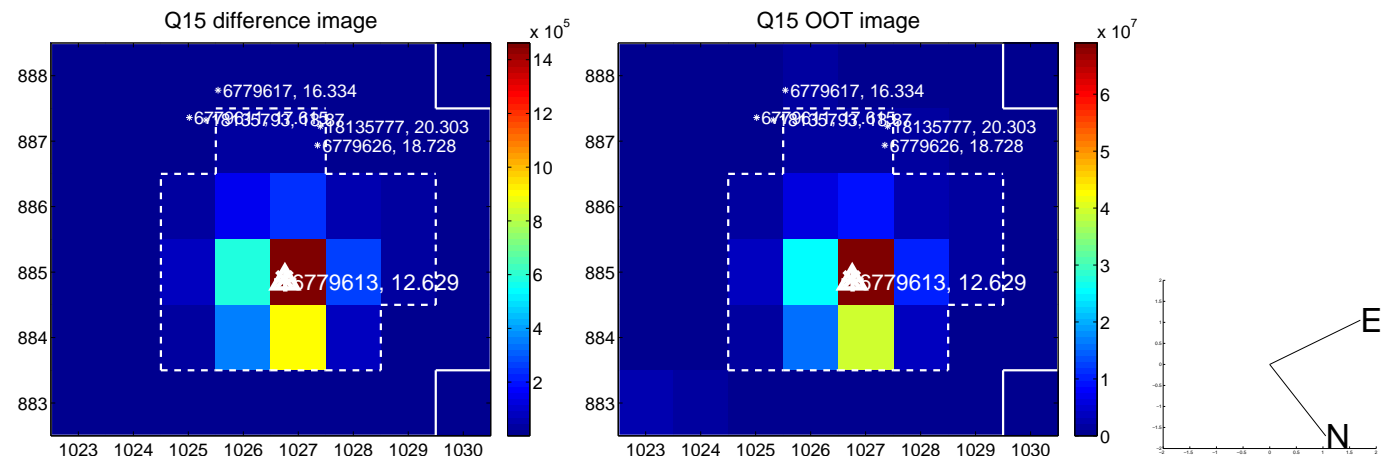
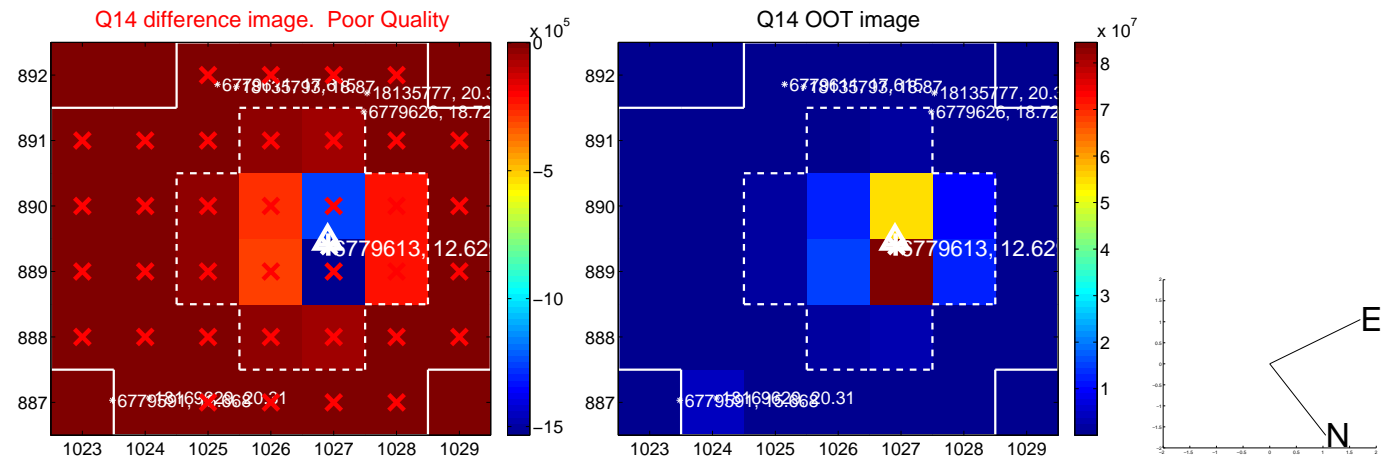
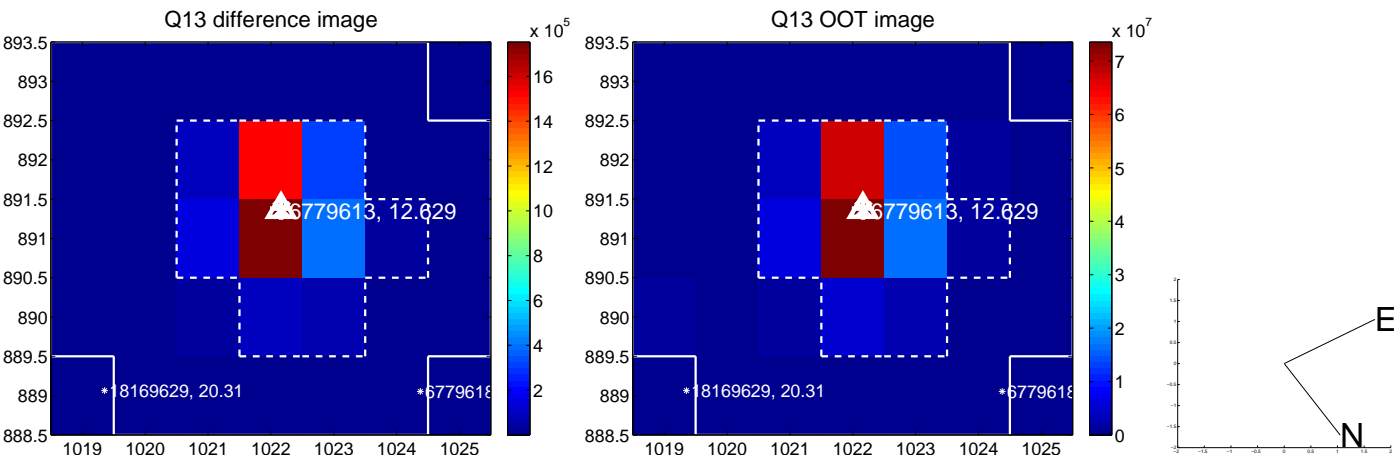




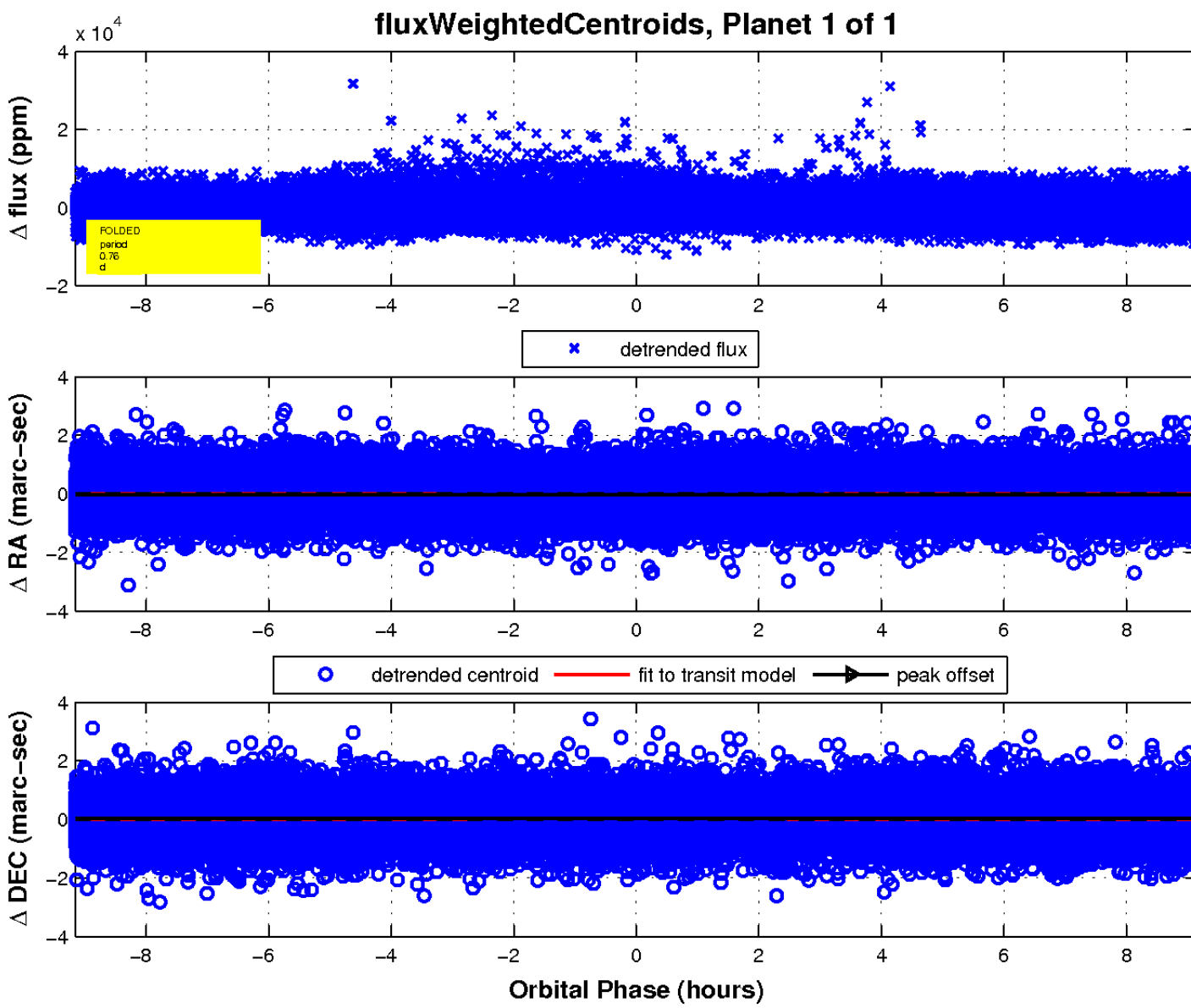
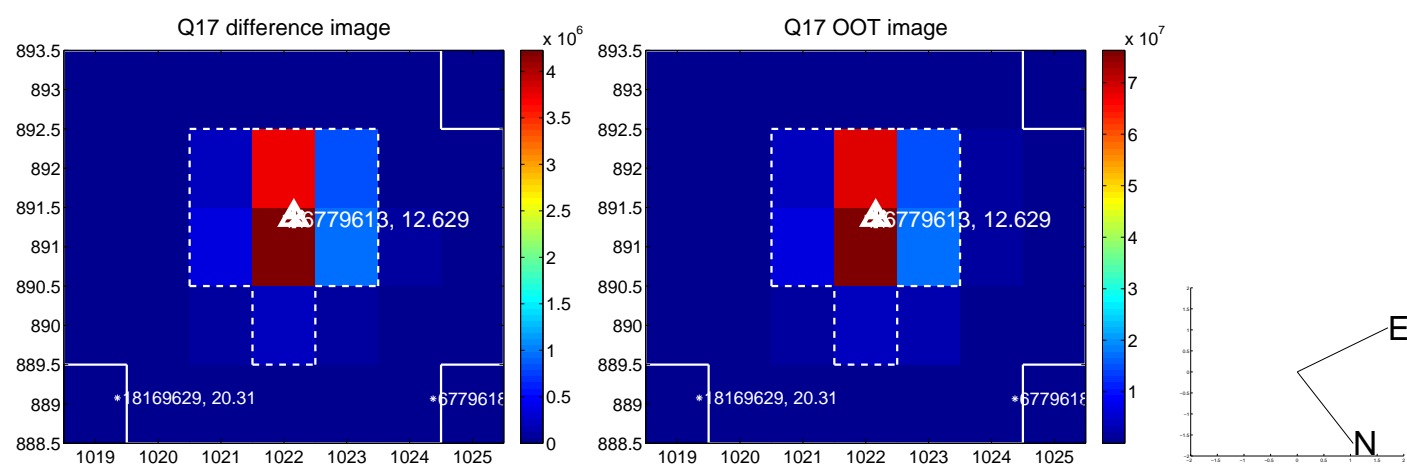
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



UKIRT Image

Declination

