

# KIC 011288772

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011288772-01	OBS	7435.01	1.367530	131.768130	62.5	1.269	10.2	12.7	1.05	5836	0.99	1904.06

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011288772-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

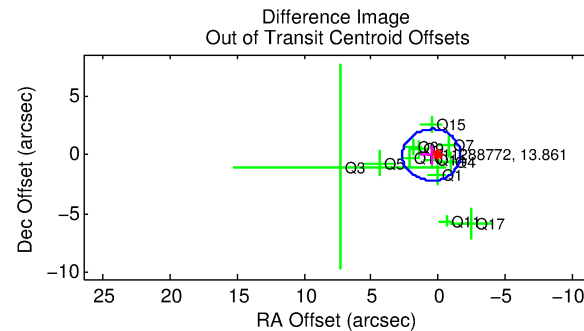
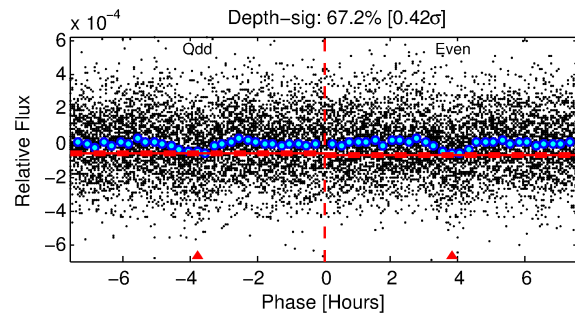
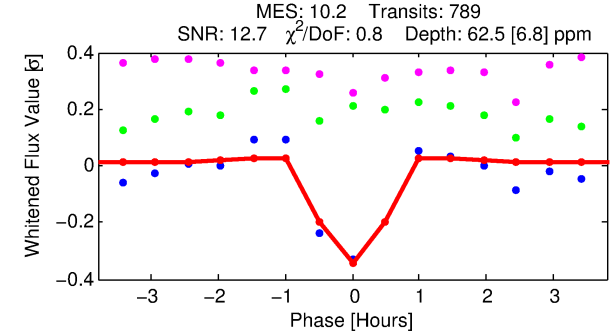
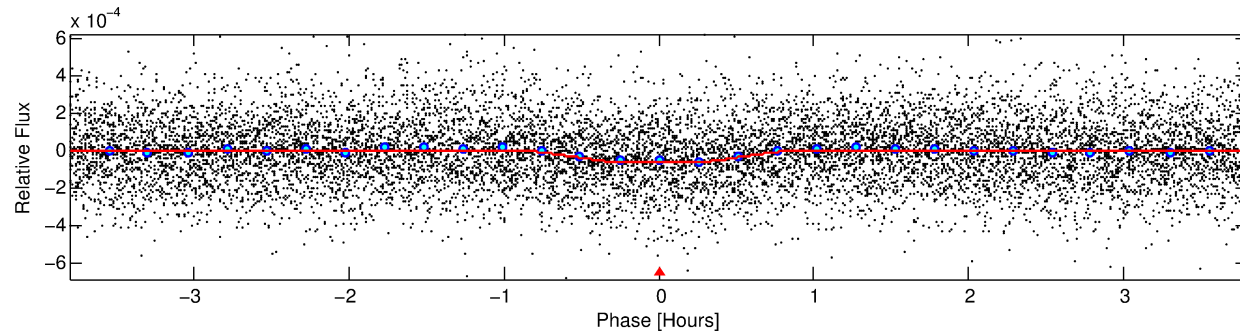
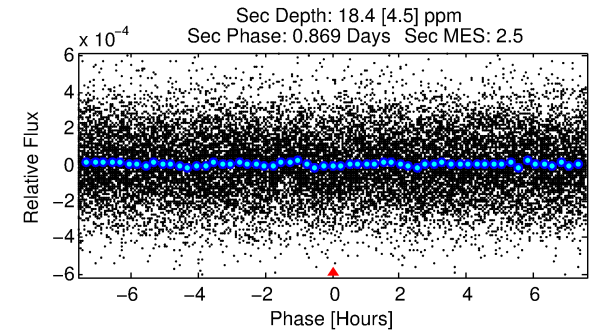
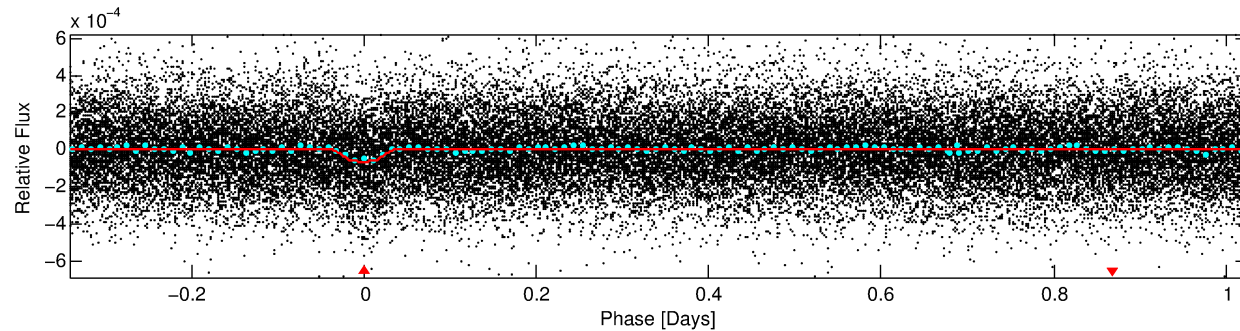
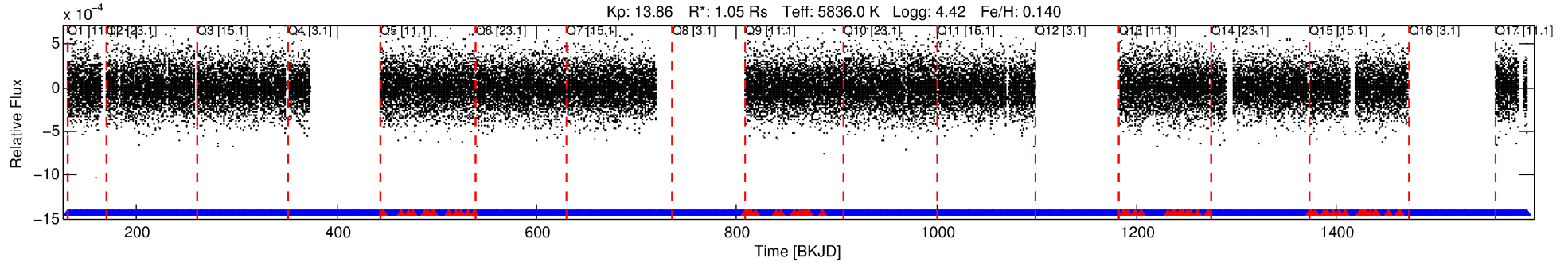
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011288772-01

No Significant Match Found

# DV One-Page Summary

KIC: 11288772 Candidate: 1 of 1 Period: 1.368 d  
KOI: K07435.01 Corr: 0.923



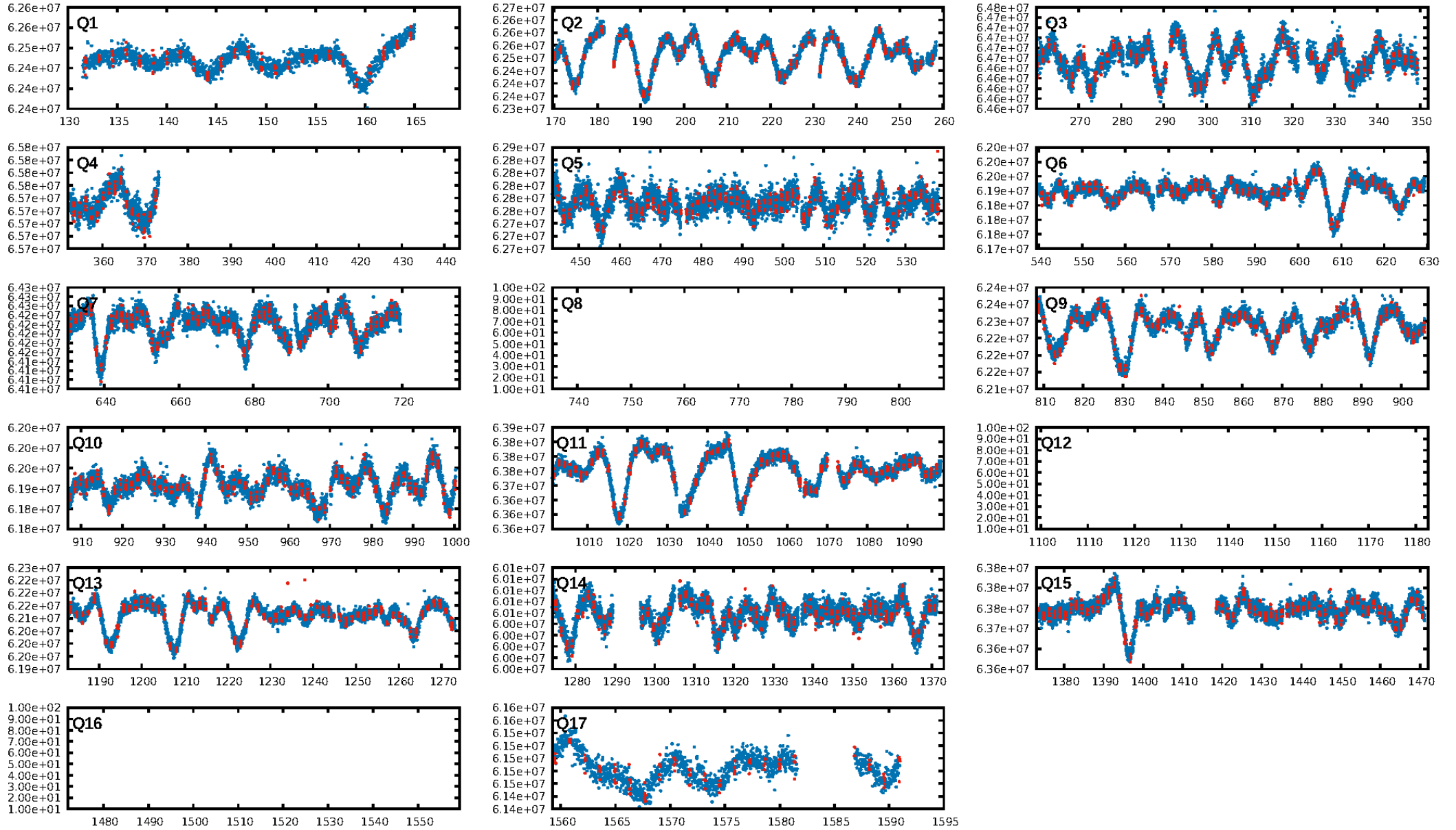
## DV Fit Results:

Period = 1.36753 [0.00001] d  
Epoch = 131.7681 [0.0015] BKJD  
Rp/R\* = 0.0087 [0.0042]  
a/R\* = 3.85 [8.24]  
b = 0.90 [0.49]  
Seff = 1904.06 [409.55]  
Teff = 1684 [91] K  
Rp = 0.99 [0.50] Re  
a = 0.0245 [0.0034] AU  
Ag = 6.19 [6.28] [0.83σ]  
Teffp = 4108 [1021] K [2.36σ]

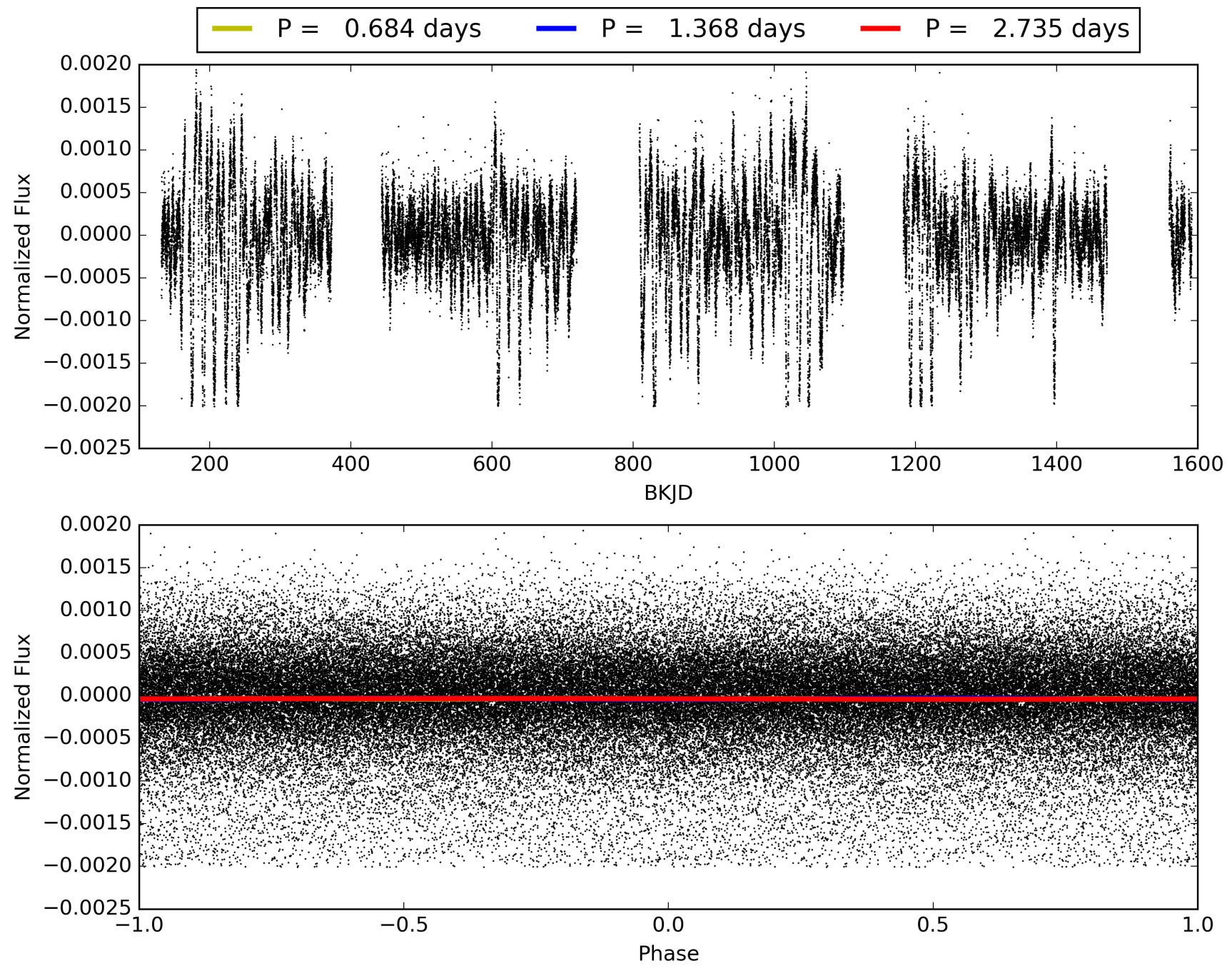
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 1.63e-23  
RollingBand-fgt: 0.92 [668/728]  
GhostDiagnostic-chr: 4.778  
Centroid-sig: 14.5%  
Centroid-so: 1.609 arcsec [1.61σ]  
OotOffset-rm: 0.498 arcsec [0.69σ]  
OotOffset-st: 3/4/1/4 [12]  
KicOffset-rm: 0.425 arcsec [0.61σ]  
KicOffset-st: 3/4/1/4 [12]  
DiffImageQuality-fgm: 0.58 [7/12]  
DiffImageOverlap-fno: 1.00 [14/14]

# TCE 011288772-01, PDC Light Curves

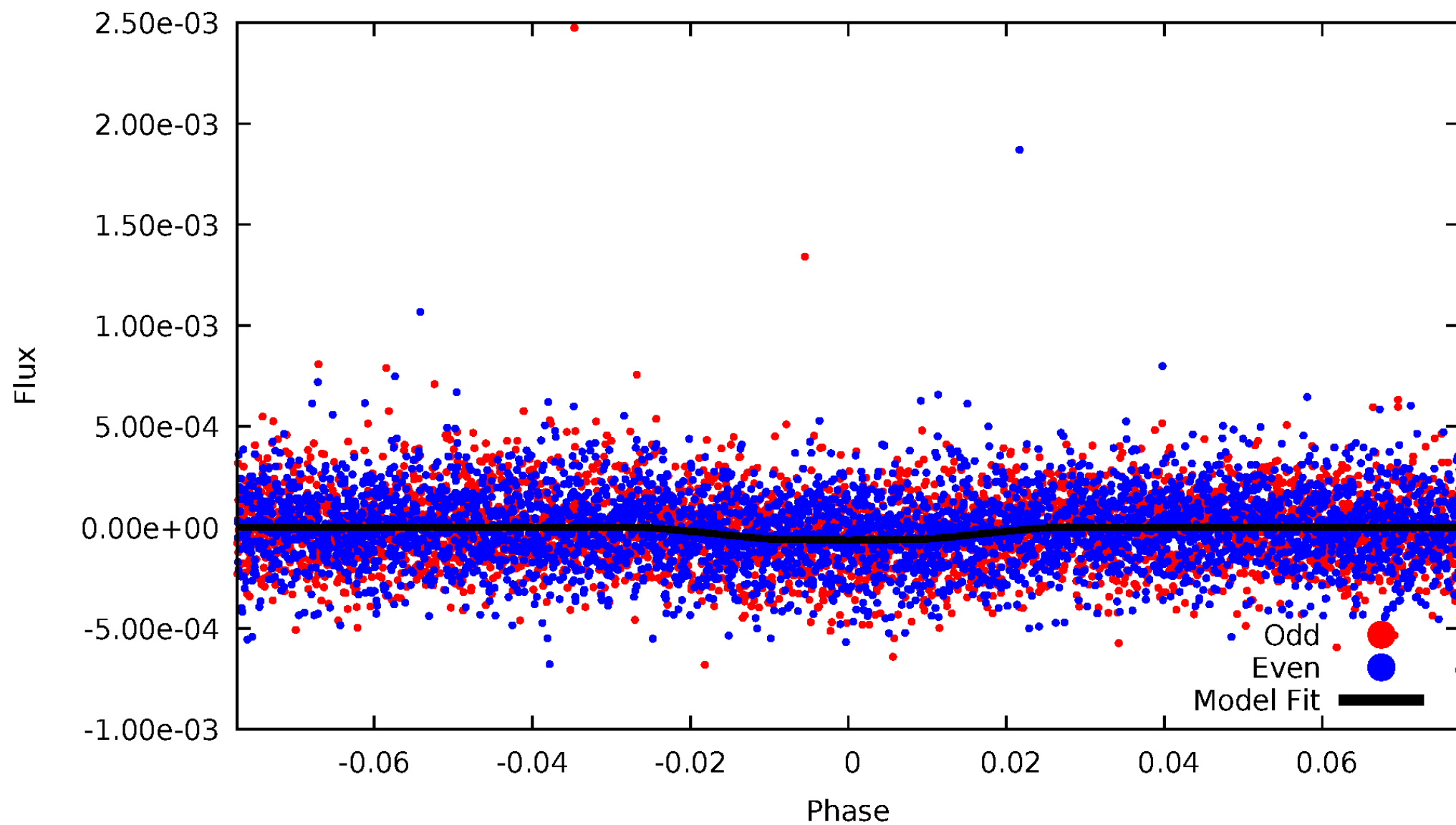


TCE 011288772-01



# DV Odd/Even

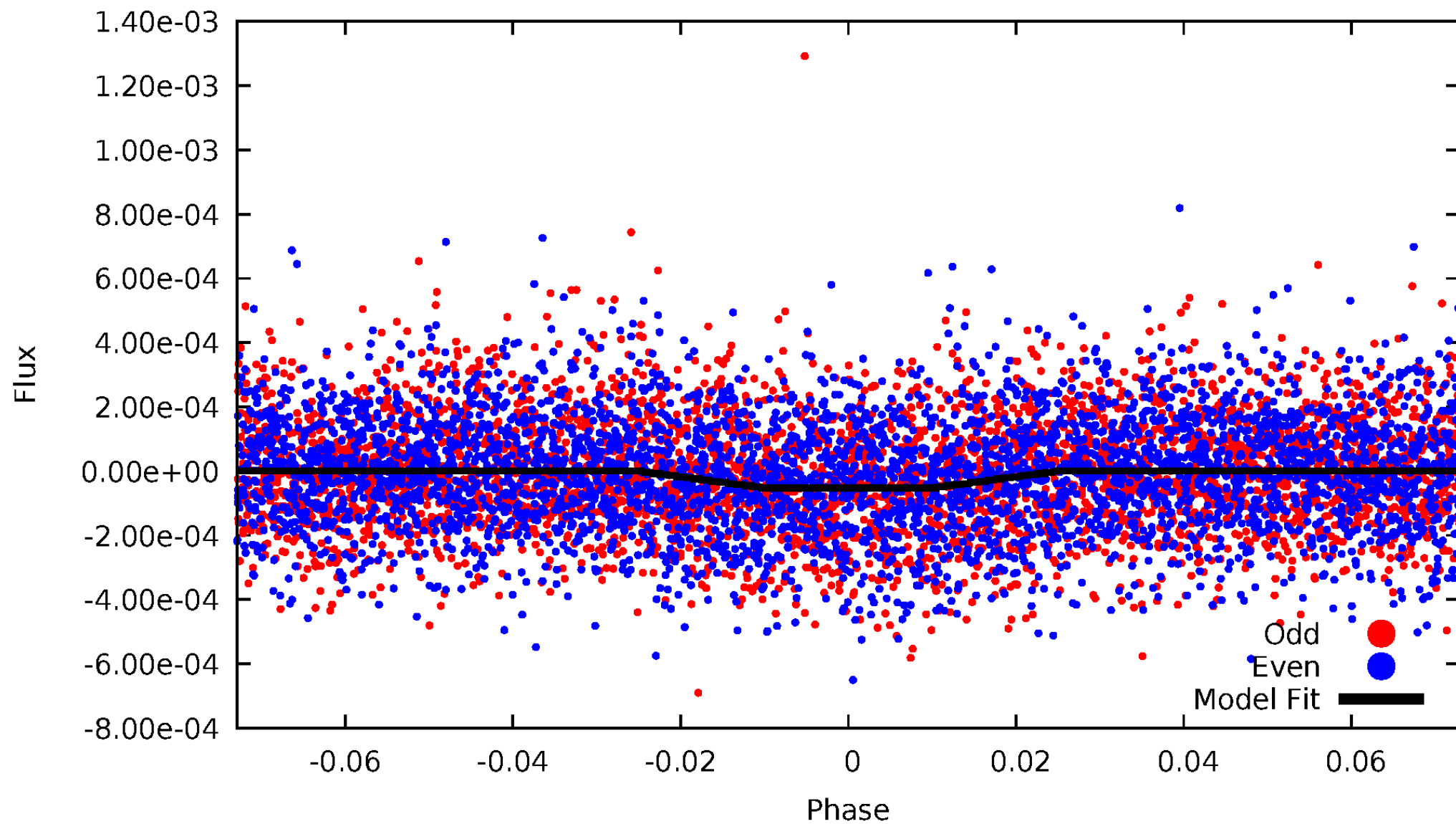
TCE 011288772-01



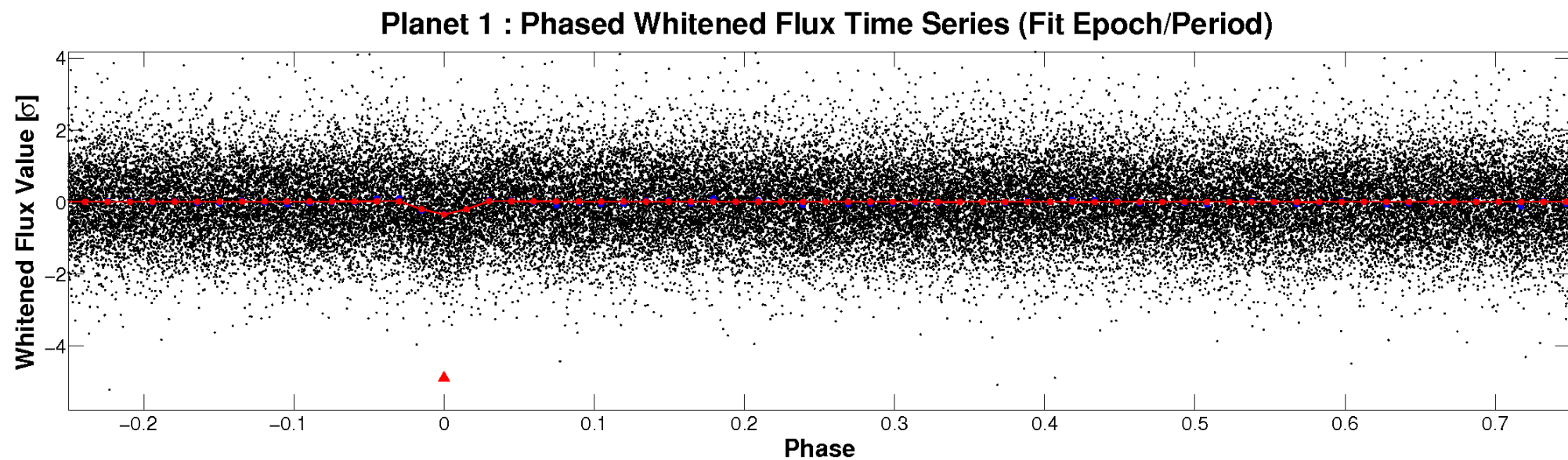
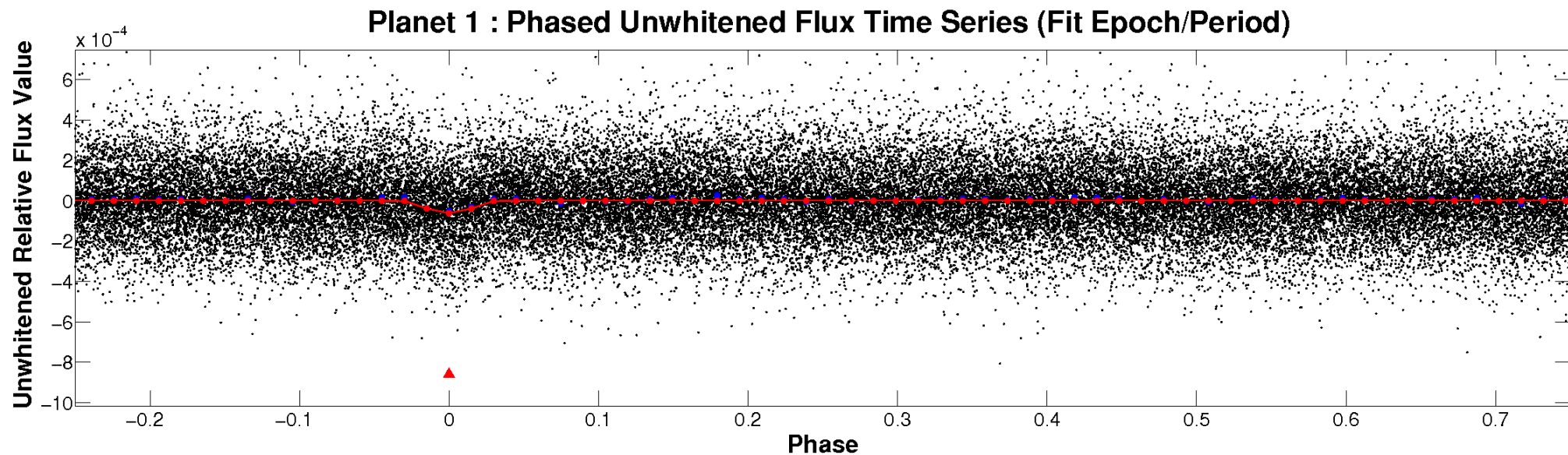


# ALT Odd/Even

TCE 011288772-01

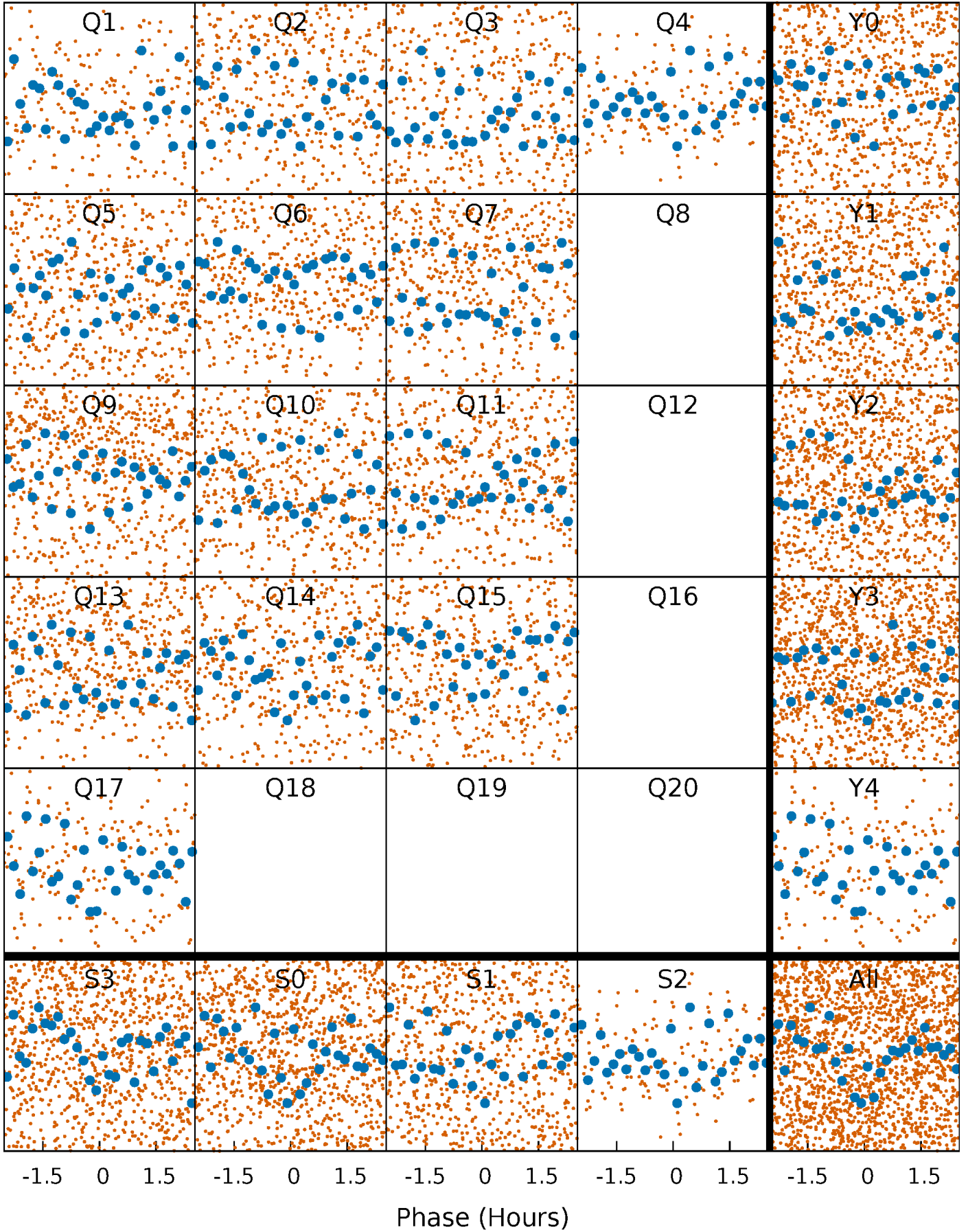


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

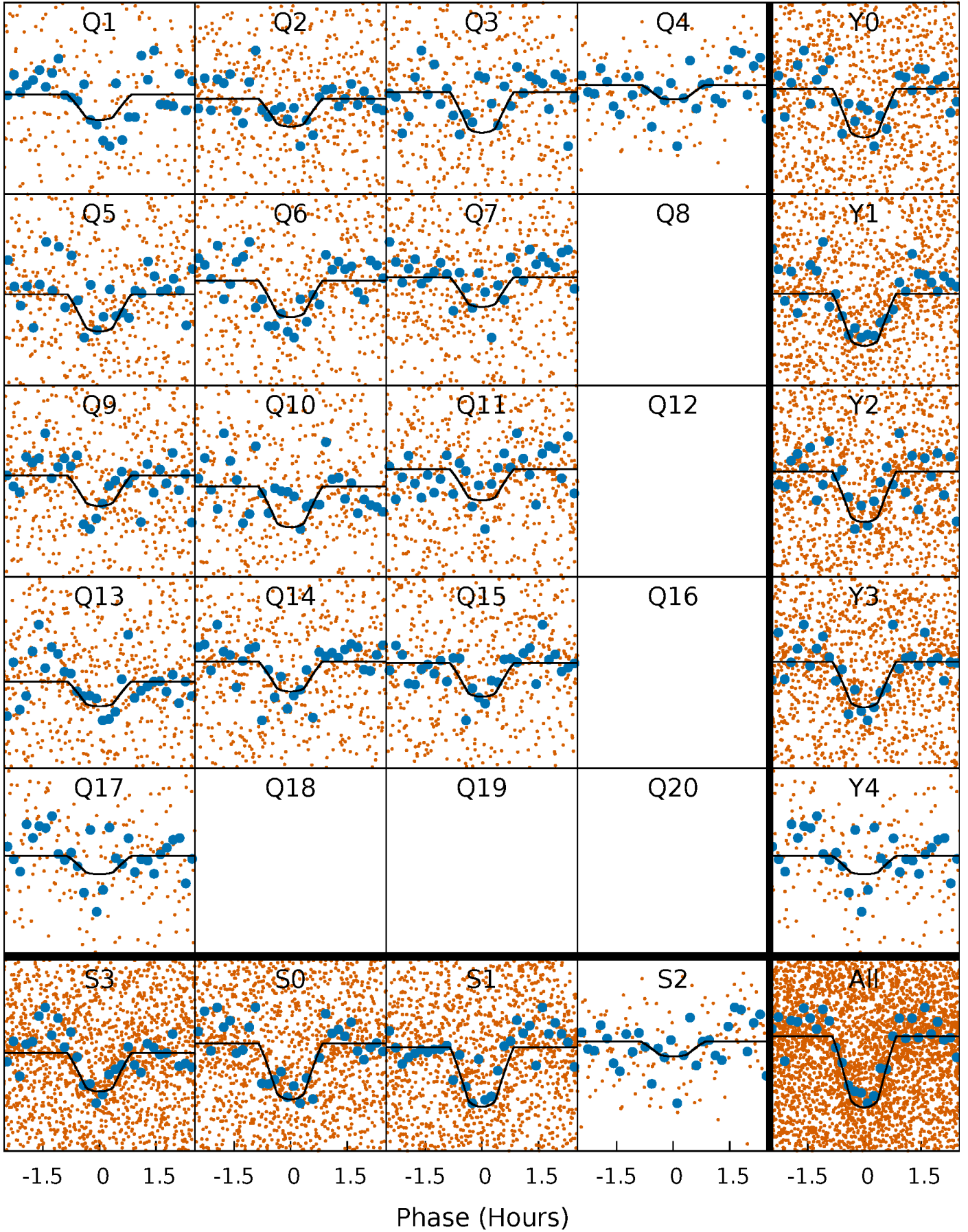
TCE 011288772-01   P= 1.367530 Days    $T_0=131.768130$  (BKJD)





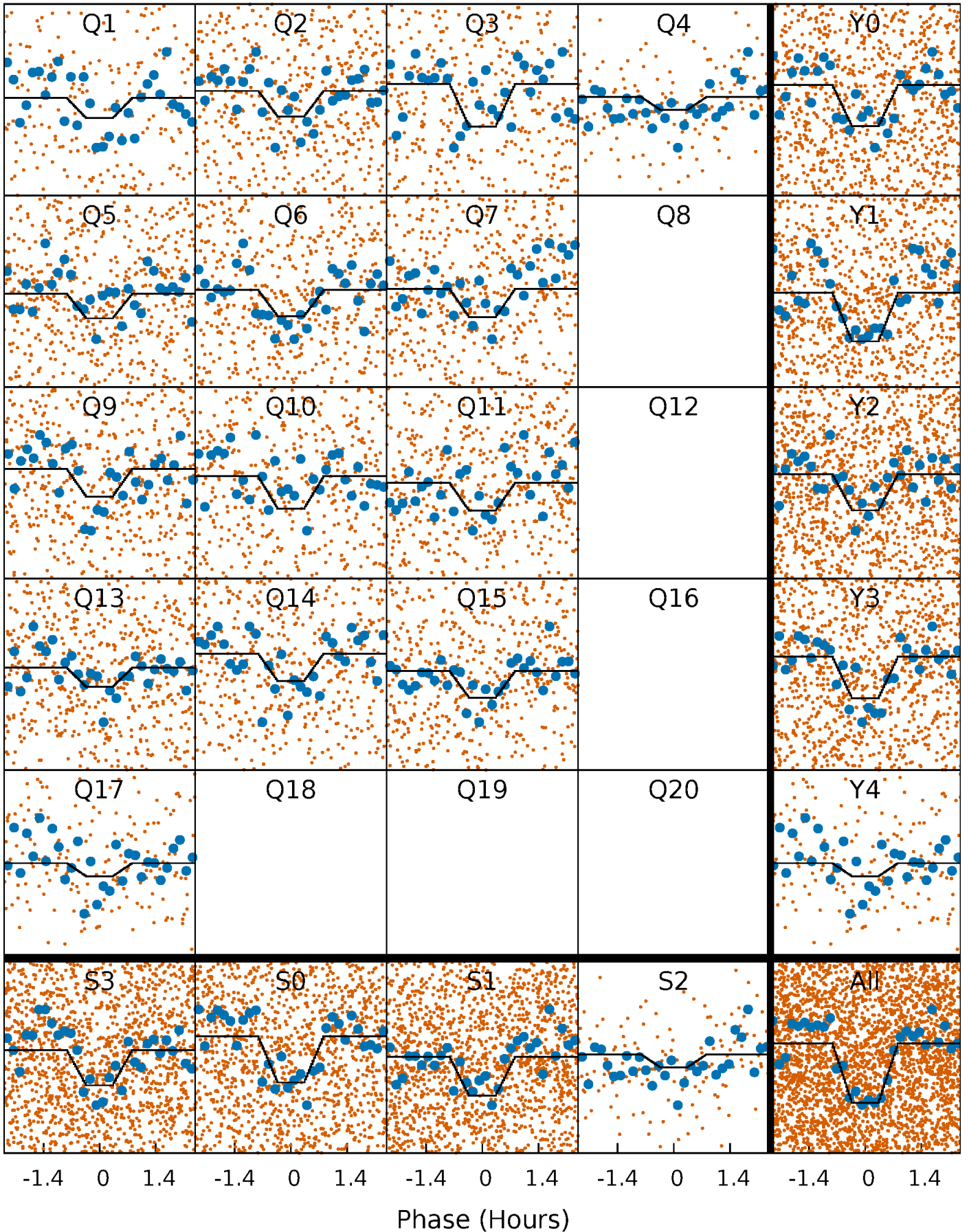
# DV Quarter-Phased Transit Curves

TCE 011288772-01 P= 1.367530 Days  $T_0=131.768130$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

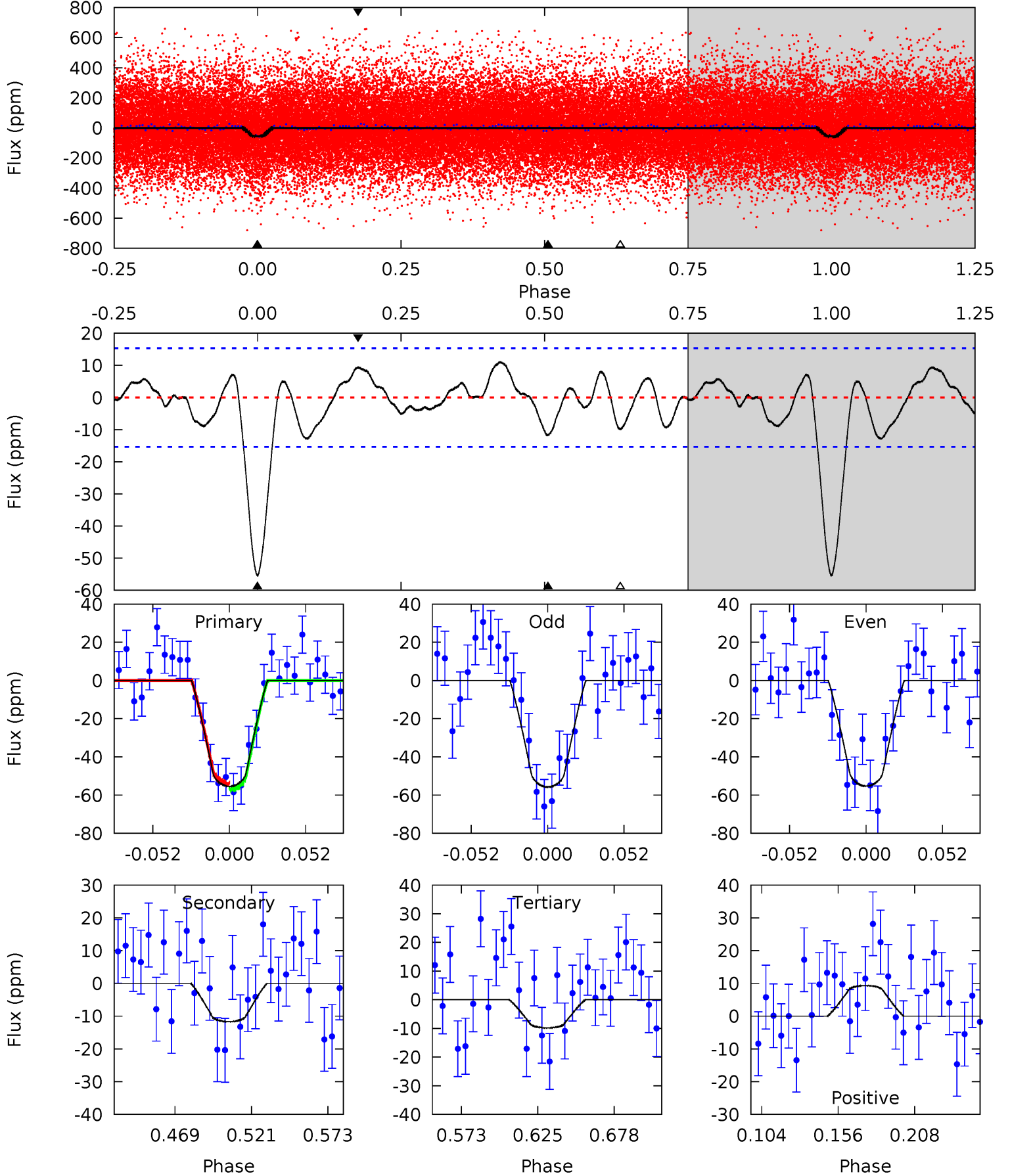
TCE 011288772-01 P= 1.367527 Days  $T_0=131.768822$  (BKJD)



# DV Model-Shift Uniqueness Test

011288772-01, P = 1.367530 Days, E = 130.400600 Days

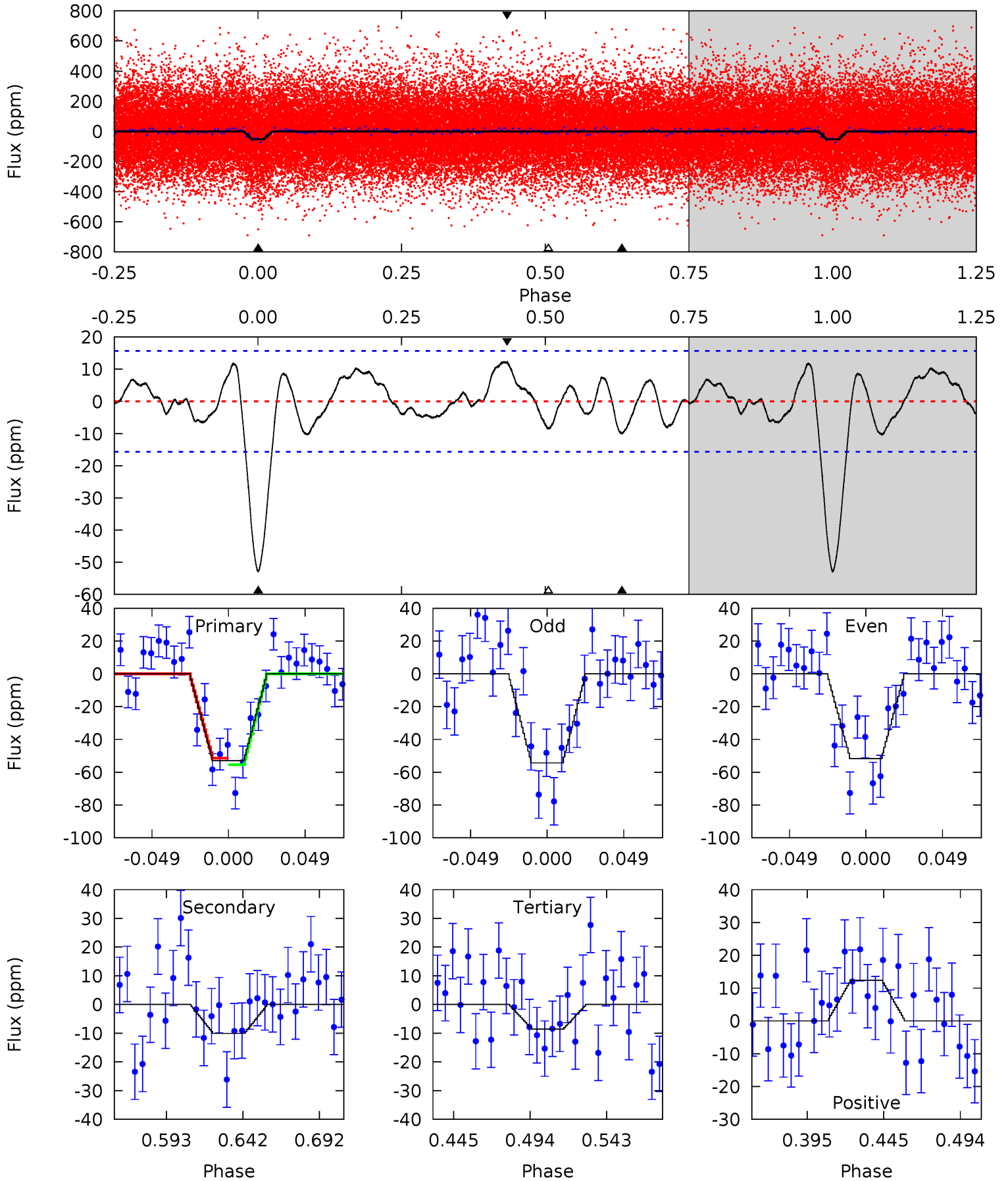
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.0	3.58	3.01	2.86	4.70	1.94	1.63	14.0	14.1	0.57	0.72	0.07	0.92	0.17	0.46



# Alt Model-Shift Uniqueness Test

011288772-01, P = 1.367527 Days, E = 130.401295 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
15.9	3.03	2.58	3.73	4.71	1.97	1.56	13.4	12.2	0.45	-0.70	0.38	0.99	0.19	0.59





### Stellar Parameters For KIC 011288772

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	$5836^{+78}_{-78}$	$4.417^{+0.063}_{-0.117}$	$0.140^{+0.150}_{-0.150}$	$1.048^{+0.166}_{-0.083}$	$1.044^{+0.069}_{-0.063}$	$1.279^{+0.307}_{-0.420}$
	+1%/-1%	+1%/-3%	+107%/-107%	+16%/-8%	+7%/-6%	+24%/-33%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 011288772-01 / KOI 7435.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-12 \pm 3$	$1.01^{+0.50}_{-0.45}$	$2362^{+103}_{-64}$	$3914^{+1115}_{-563}$	$3.758^{+9.266}_{-2.158}$
Alt.	$-10 \pm 3$	$0.90^{+0.49}_{-0.43}$	$2372^{+93}_{-77}$	$3973^{+1444}_{-647}$	$3.995^{+12.751}_{-2.453}$

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

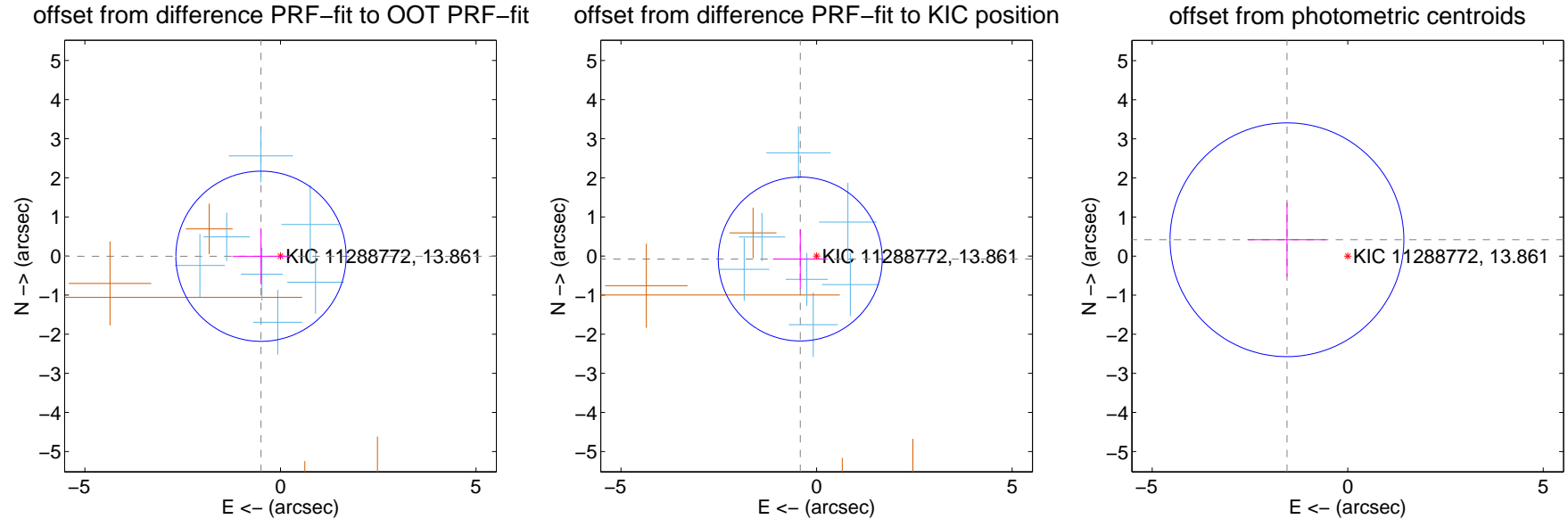
## DV Centroid Data

Supplemental centroid analysis for 011288772-01. Kepler magnitude: 13.86. Transit SNR 12.74

There are 7 quarters with good PRF difference image offsets

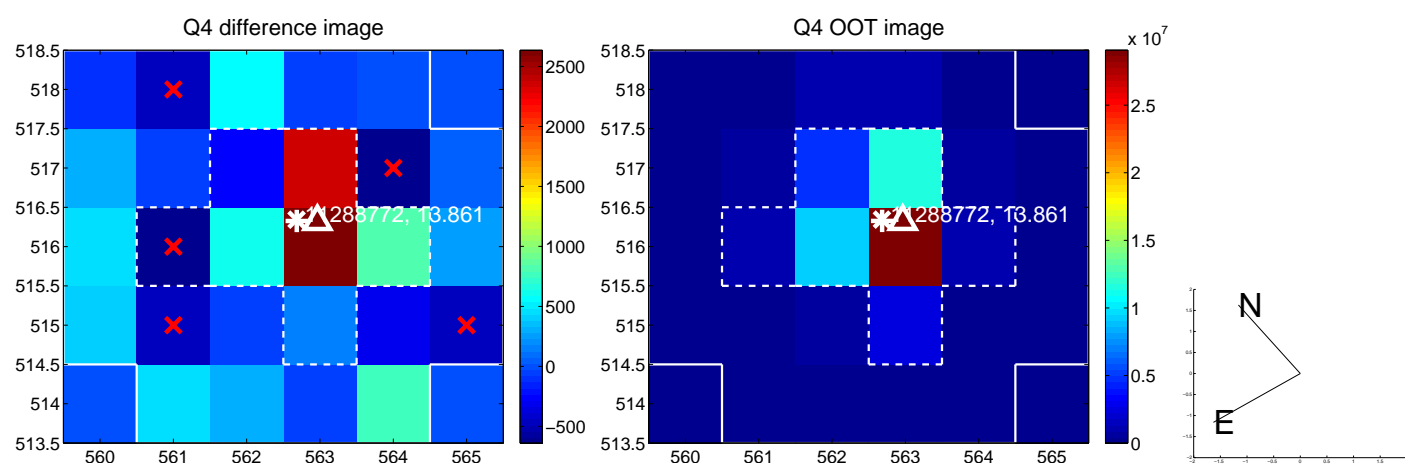
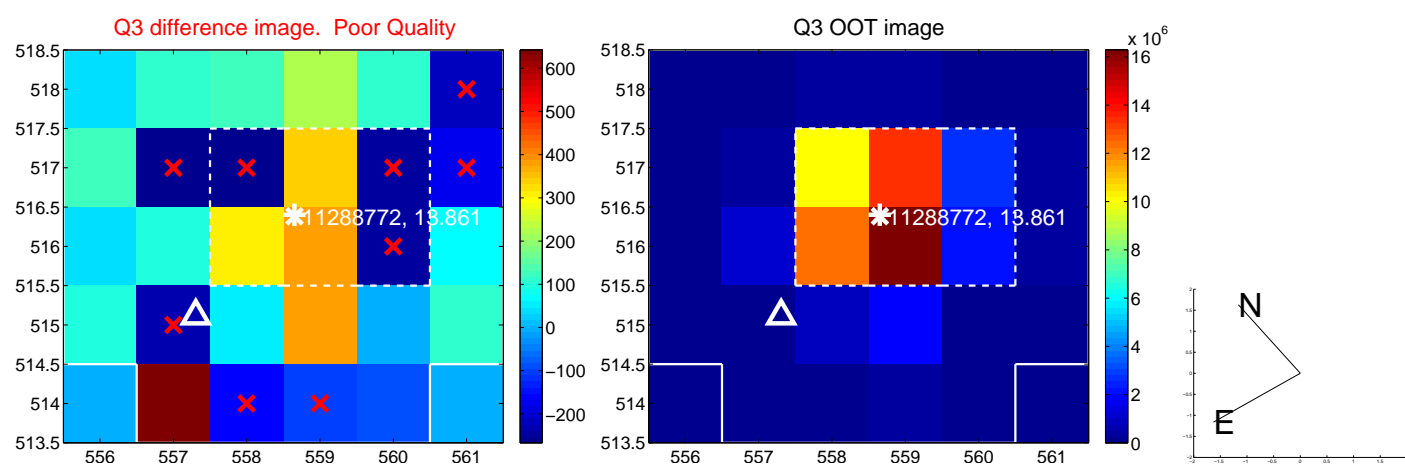
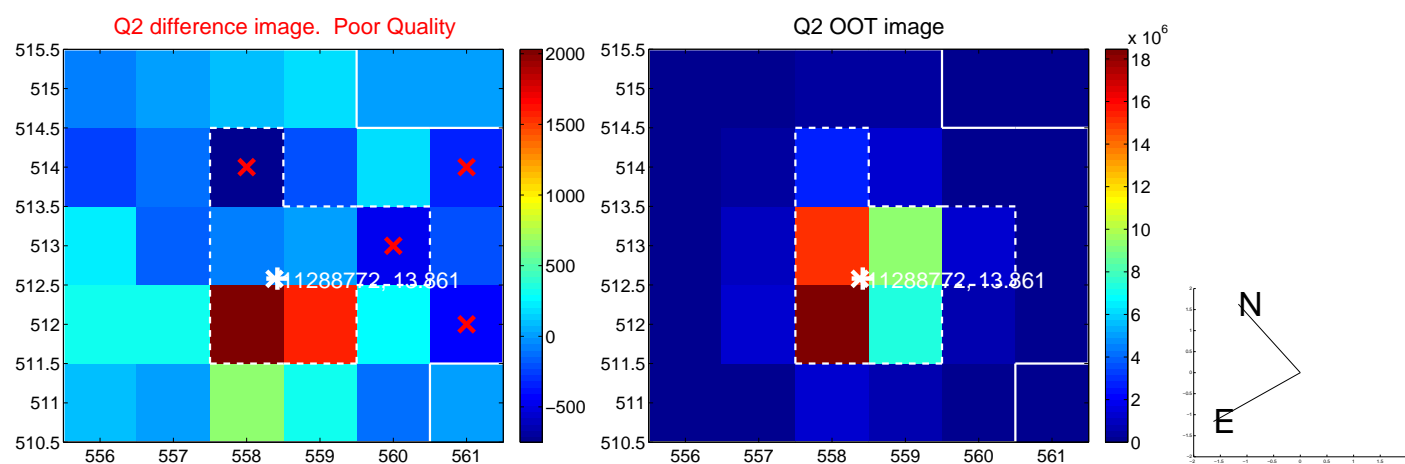
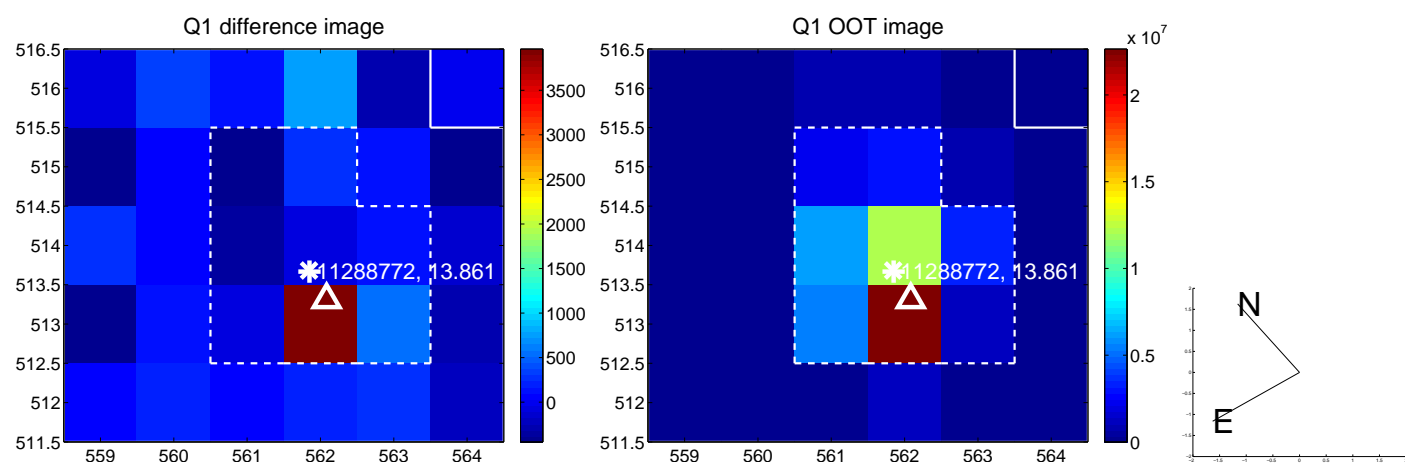
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.498 \pm 0.725$	0.69	$0.498 \pm 0.728$	$-0.006 \pm 0.718$
PRF-fit source offset from KIC position	$0.425 \pm 0.699$	0.61	$0.418 \pm 0.697$	$-0.076 \pm 0.758$
photometric centroid source offset	$1.61 \pm 1.00$	1.61	$1.55 \pm 1.00$	$0.42 \pm 0.95$

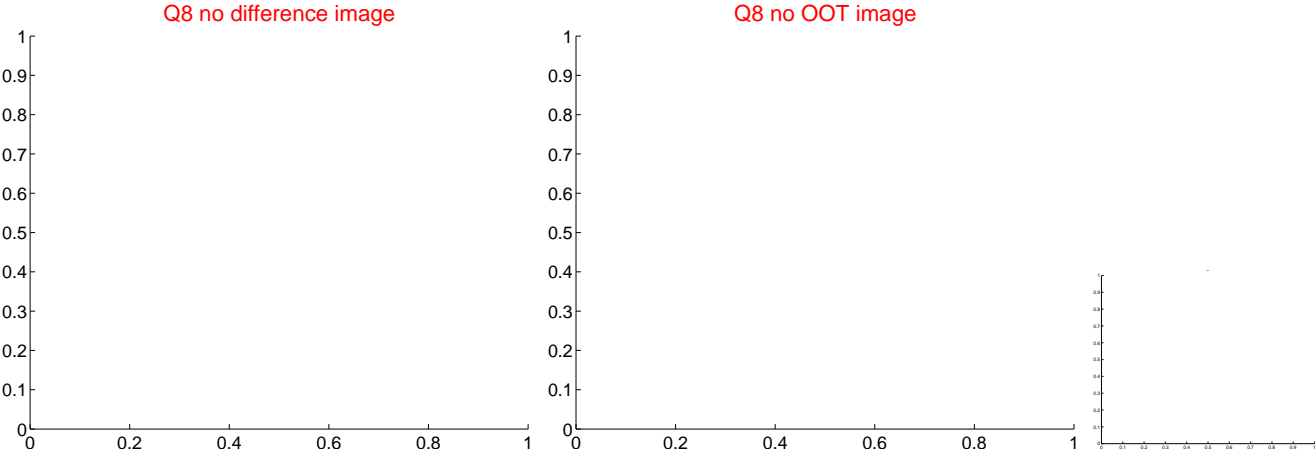
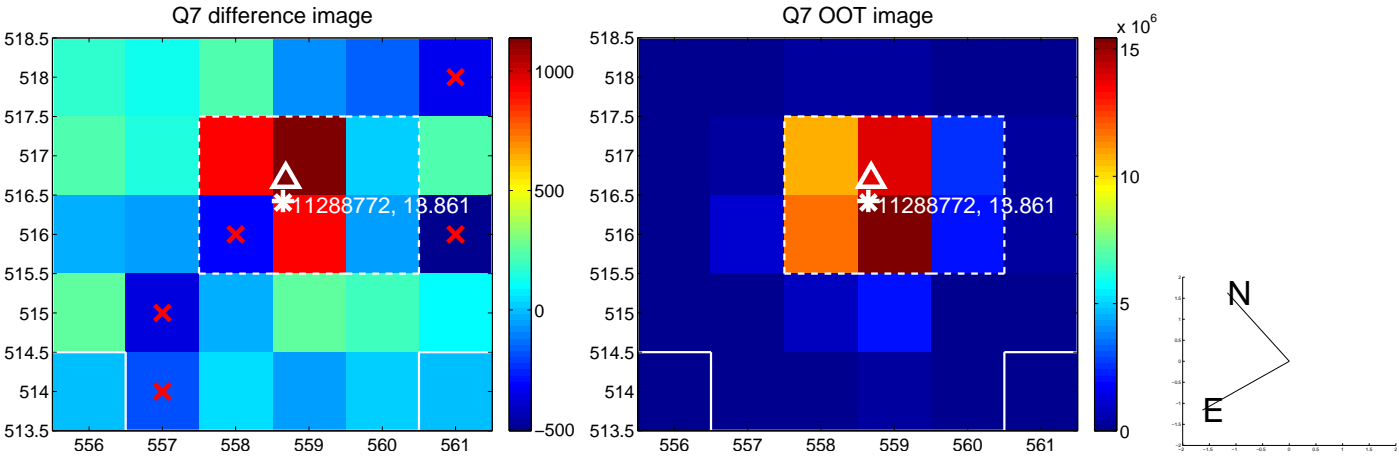
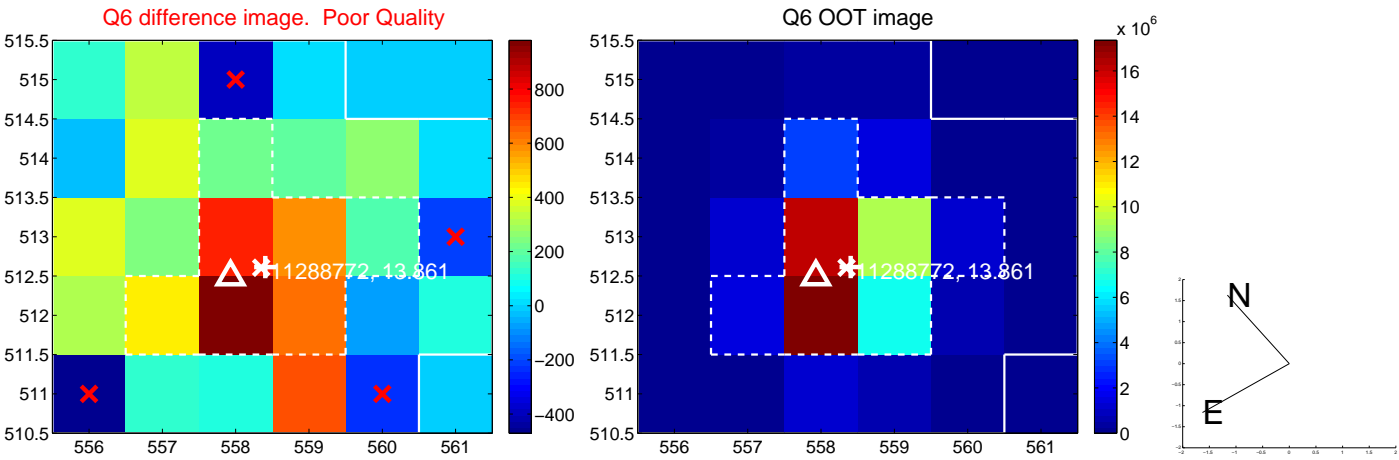
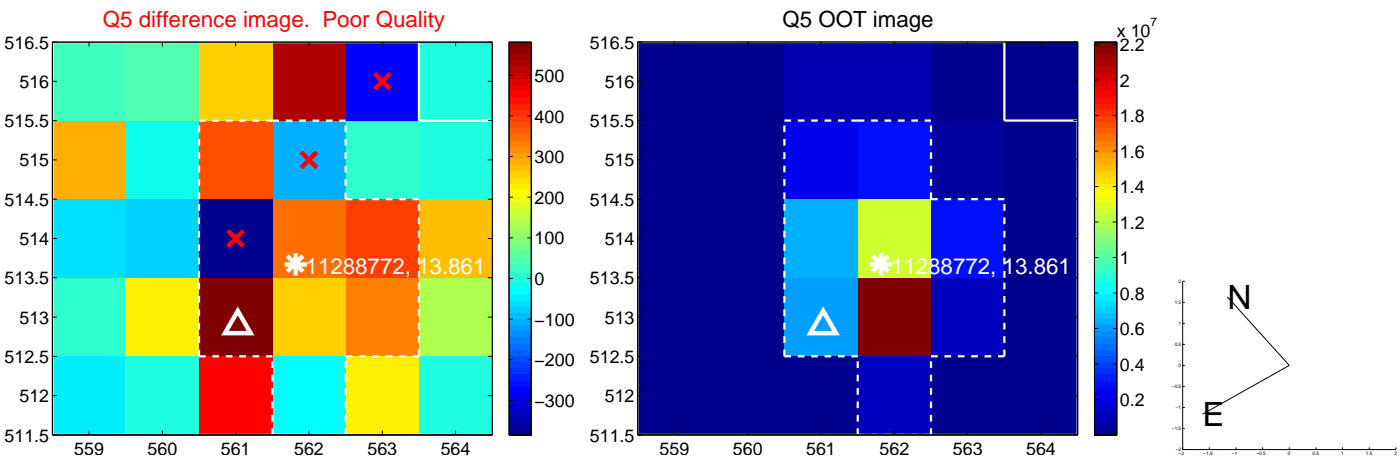


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

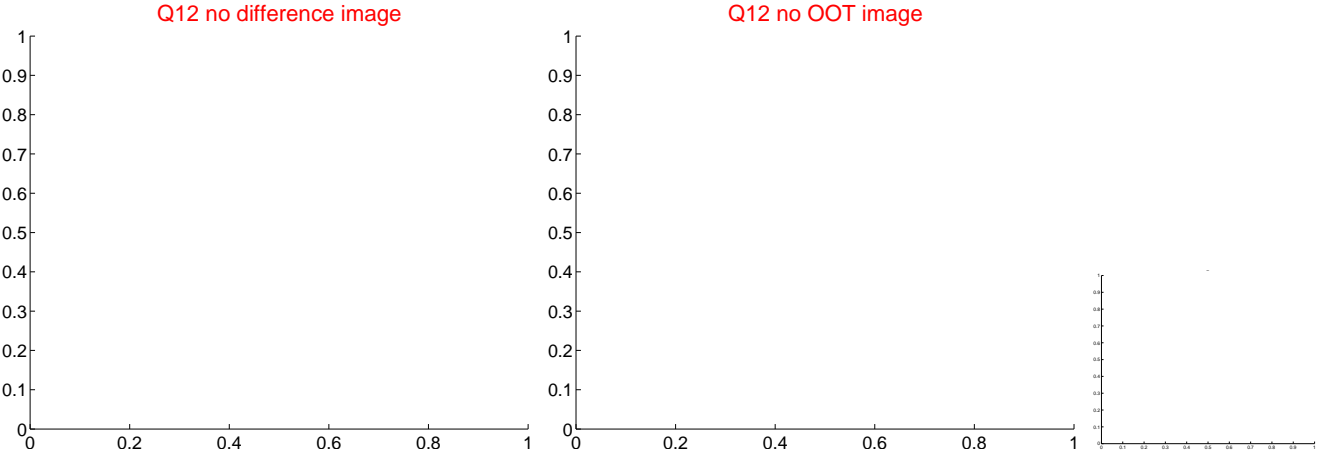
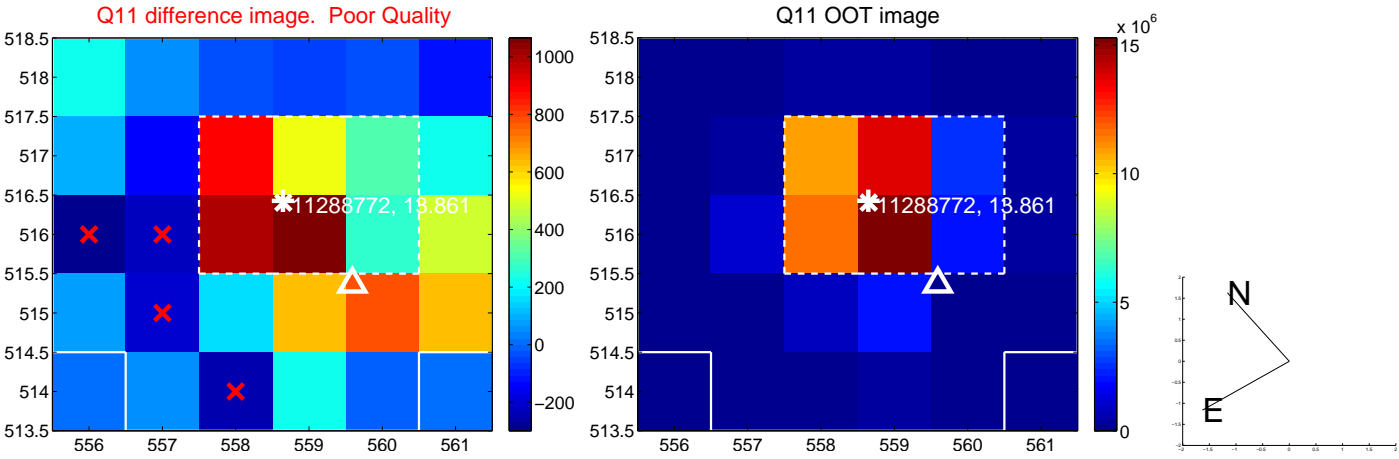
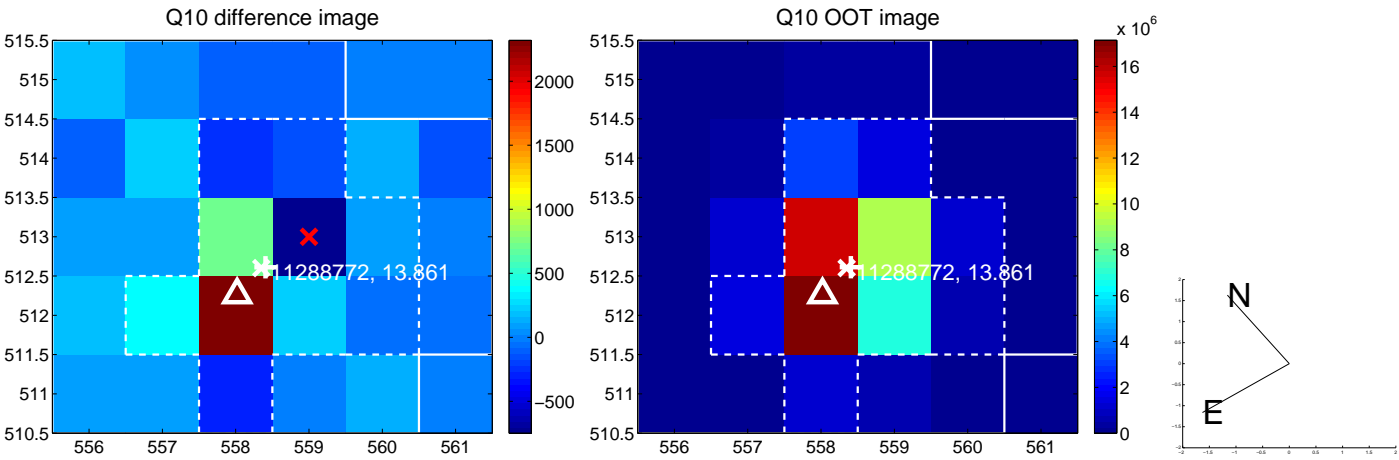
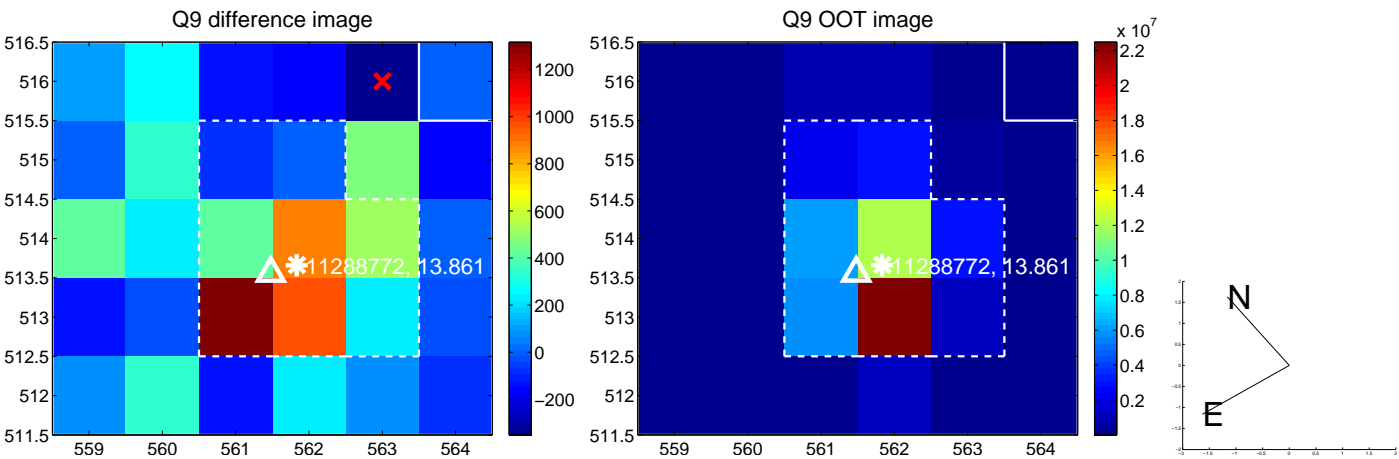


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

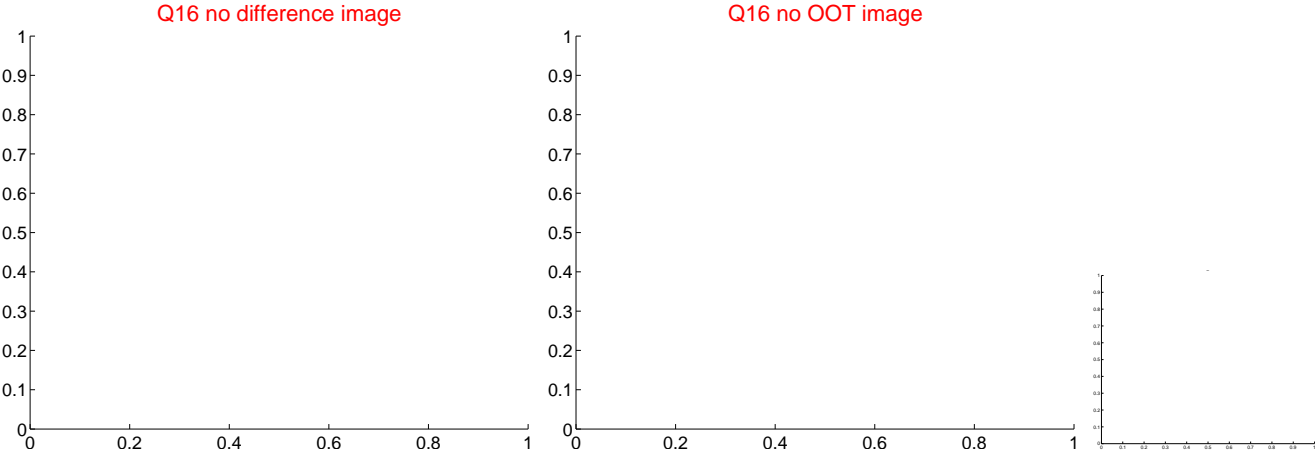
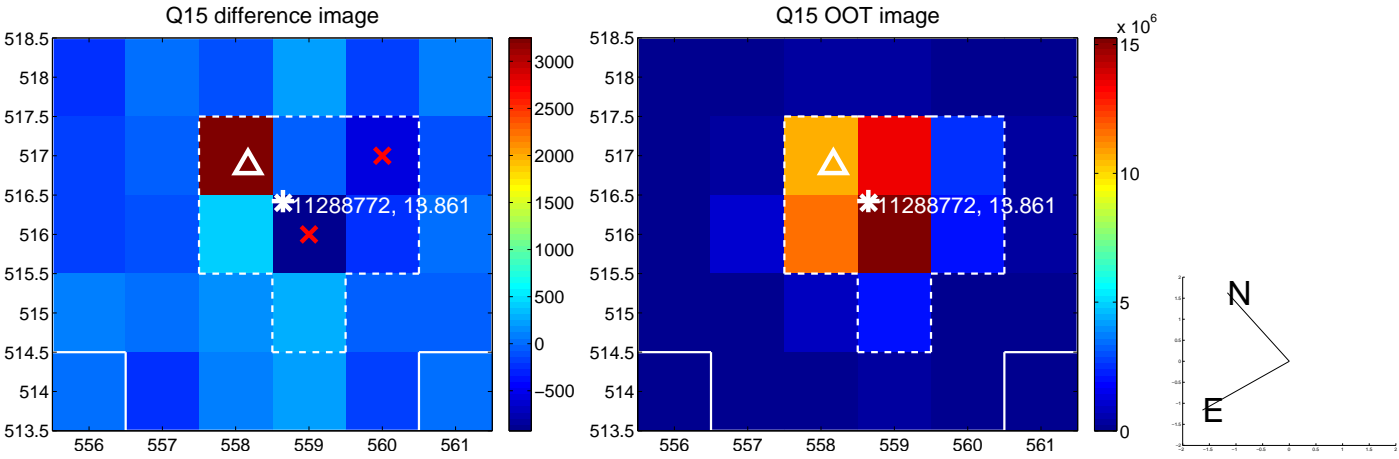
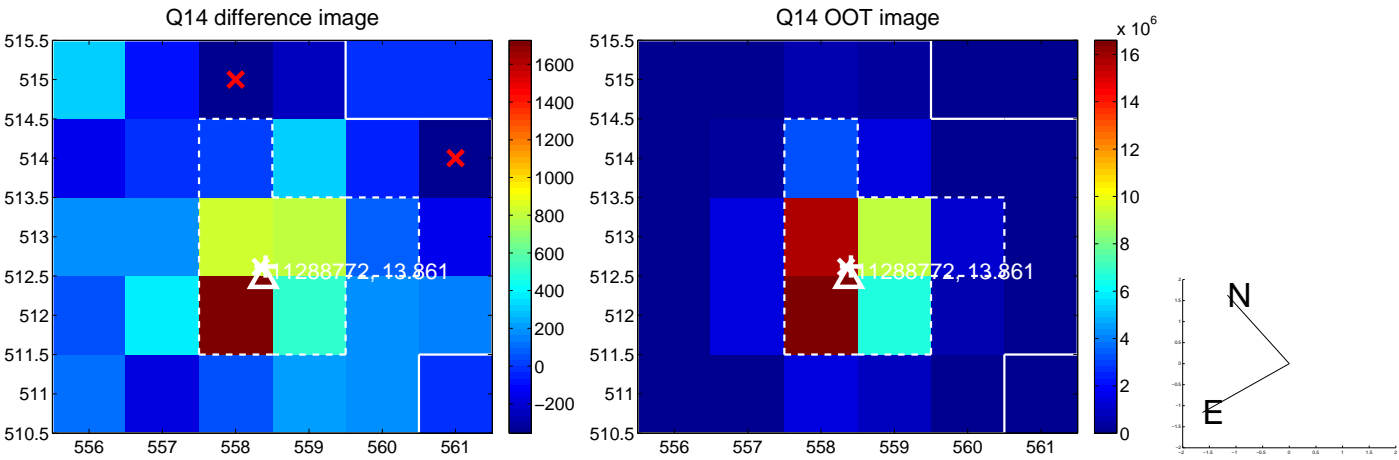
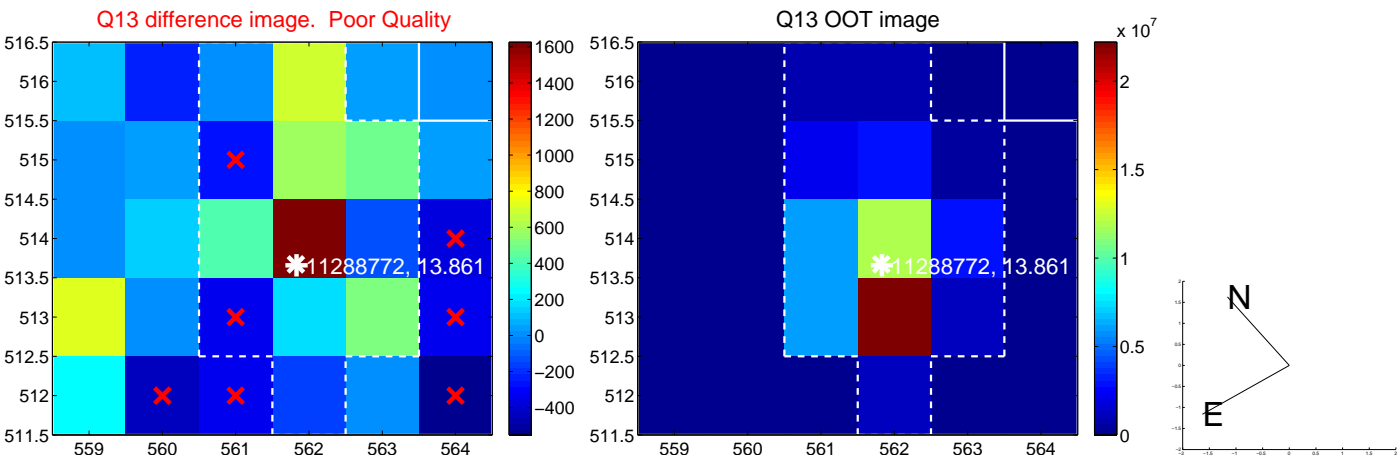




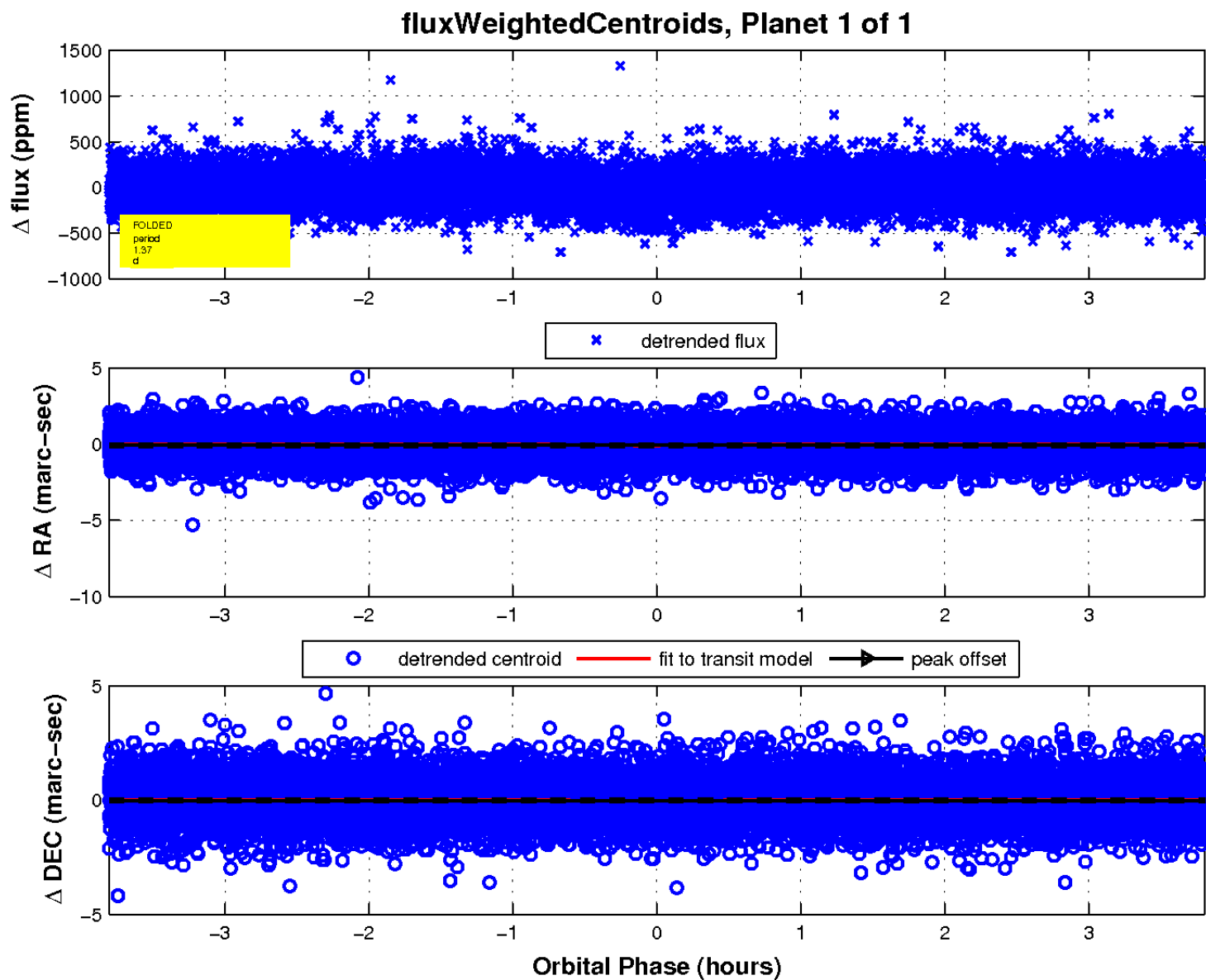
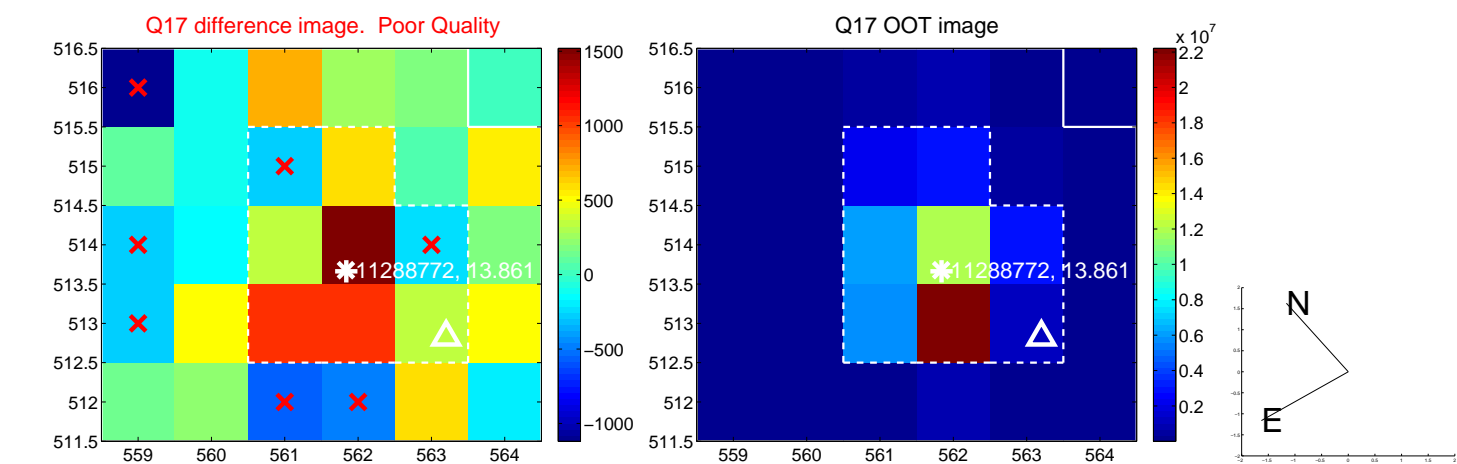
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



UKIRT Image

