

# KIC 006357795

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006357795-01	OBS	No	3.128958	132.070084	0.0	28.062	8.3	0.0	2.84	7585	0.03	9345.44

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006357795-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

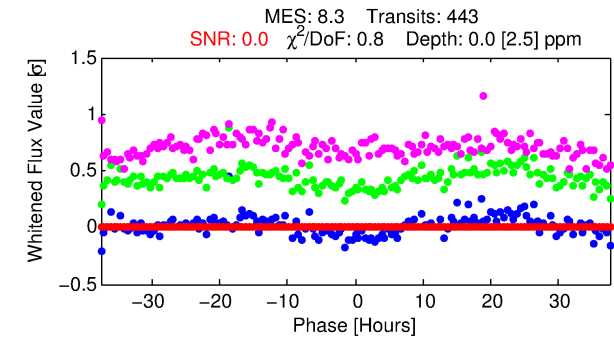
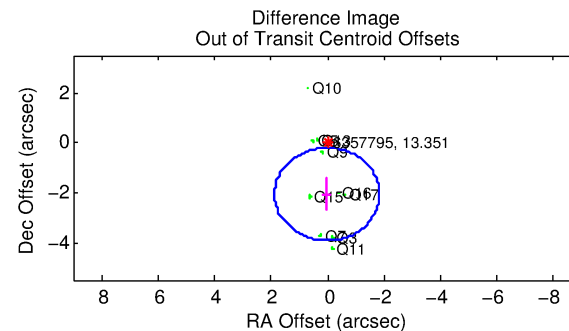
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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 006357795-01

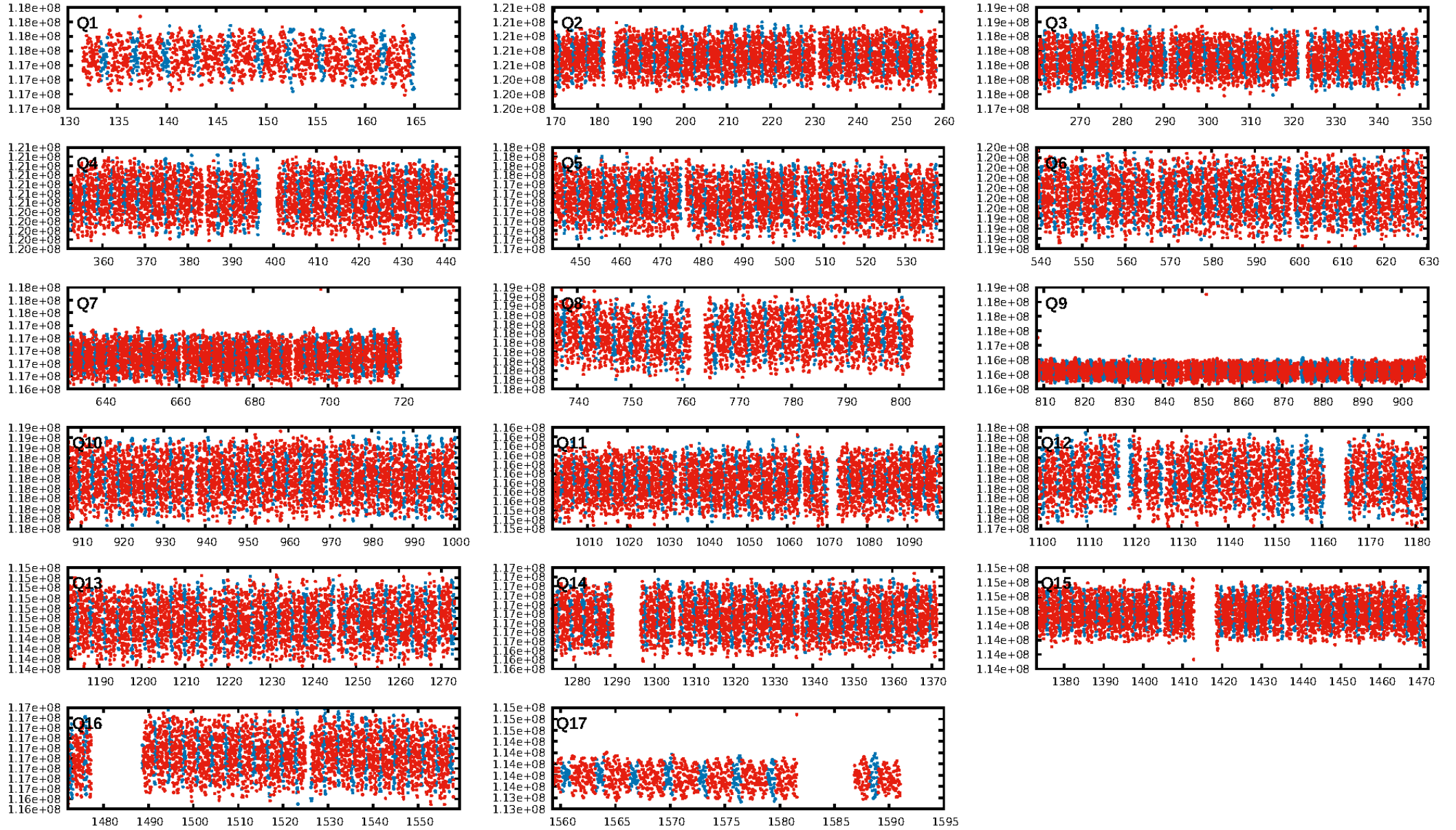
No Significant Match Found

## KIC: 6357795    Candidate: 1 of 1    Period: 3.129 d



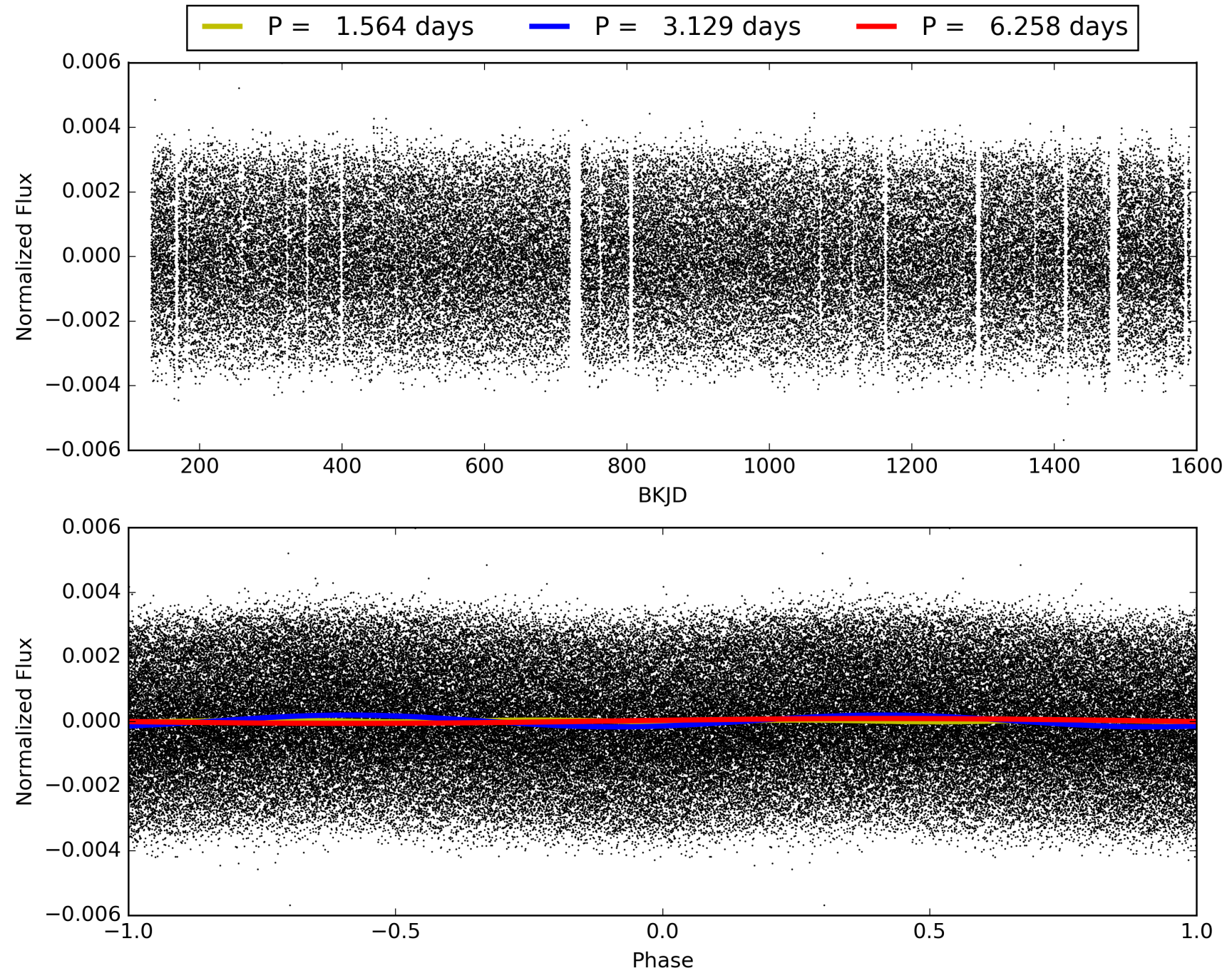
ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.99 [418/422]  
GhostDiagnostic-chr: N/A  
  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 2.067 arcsec [3.34σ]  
KicOffset-rm: 1.987 arcsec [3.16σ]  
OotOffset-st: 1/41/4 [10]  
KicOffset-st: 1/41/4 [10]  
DiffImageQuality-fgm: 0.70 [7/10]  
DiffImageOverlap-fno: 1.00 [17/17]

# TCE 006357795-01, PDC Light Curves



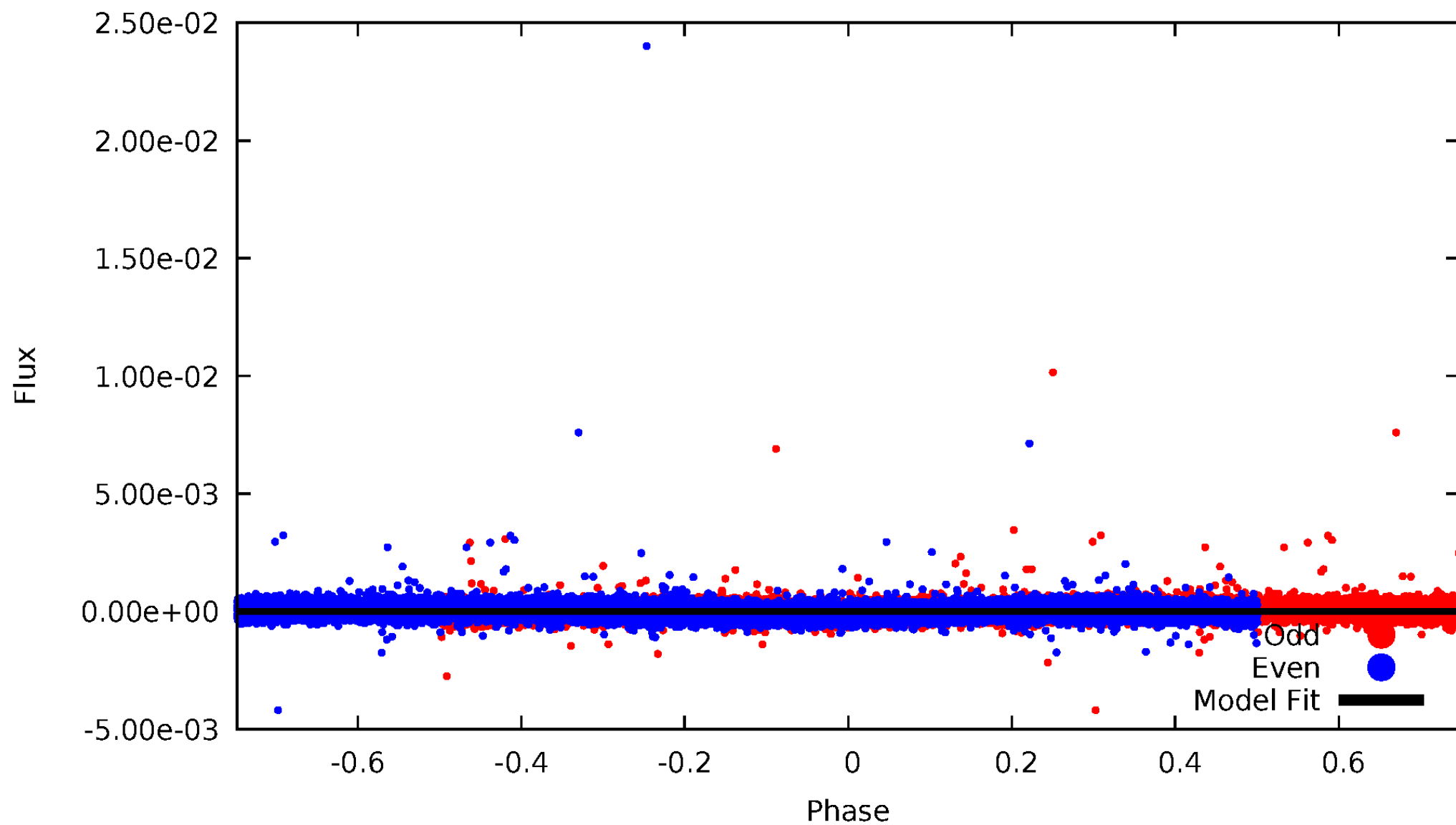


TCE 006357795-01



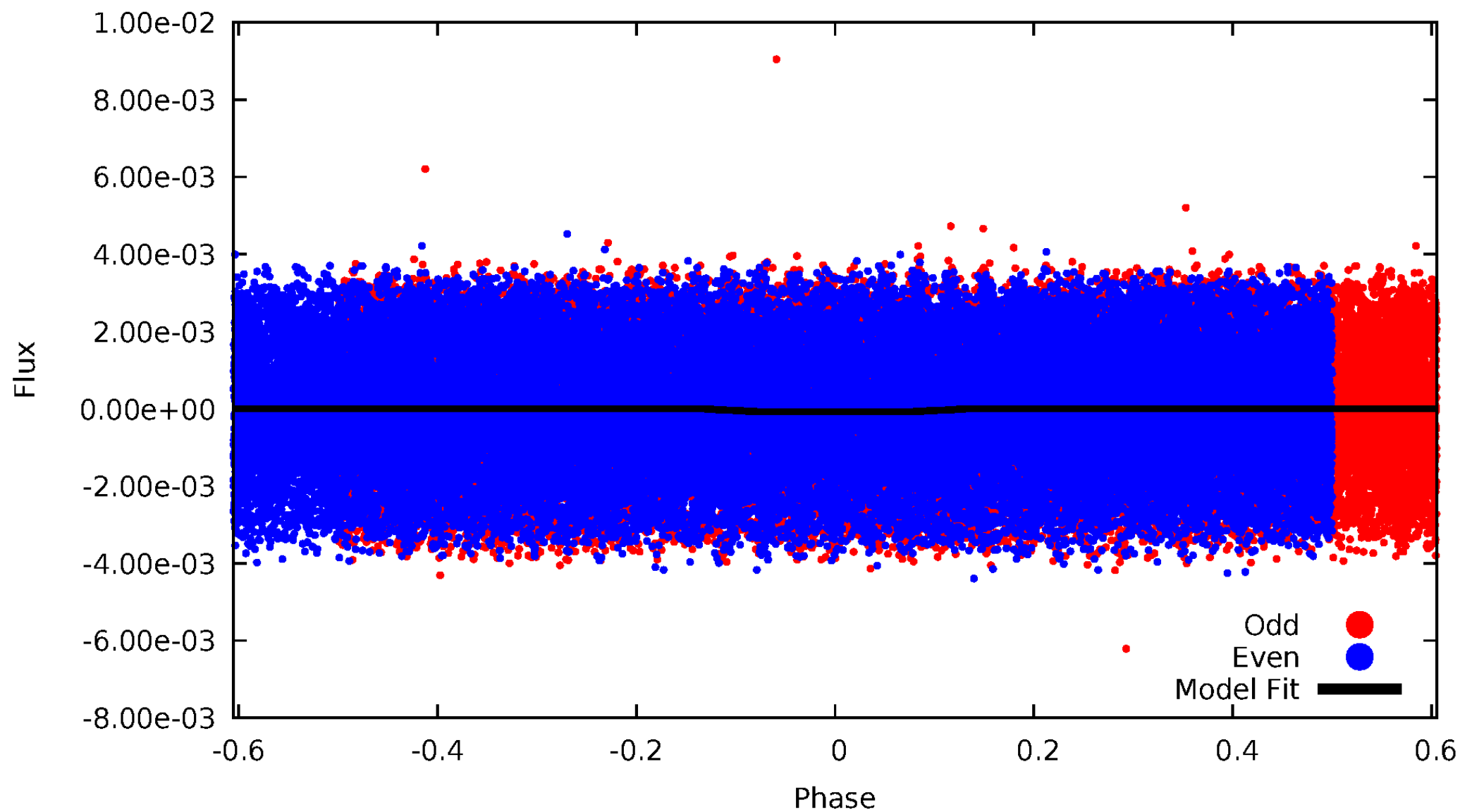
# DV Odd/Even

TCE 006357795-01



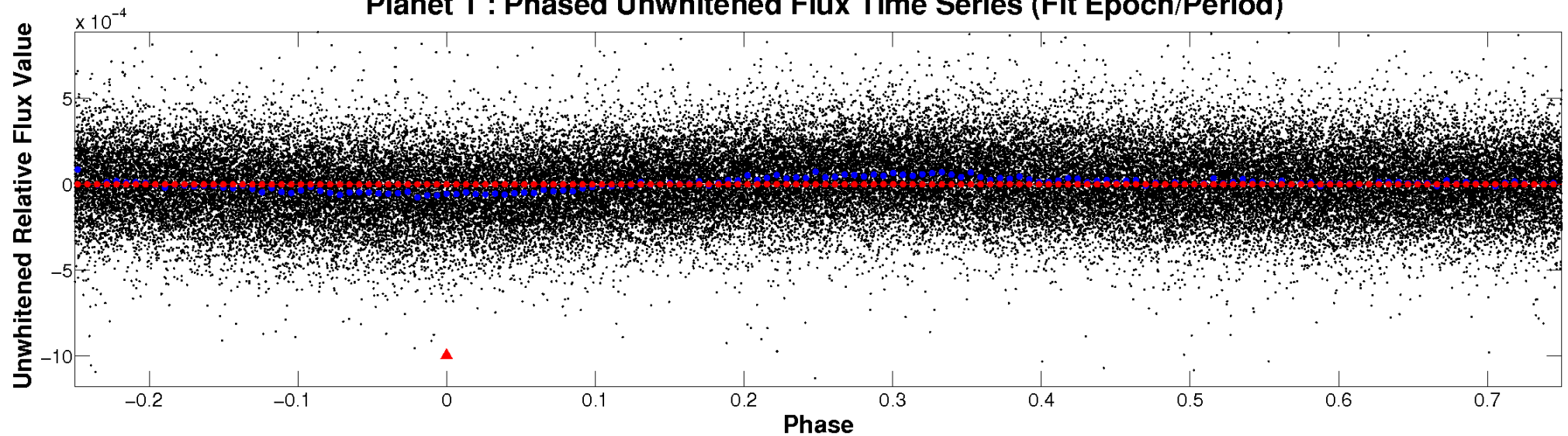
# ALT Odd/Even

TCE 006357795-01

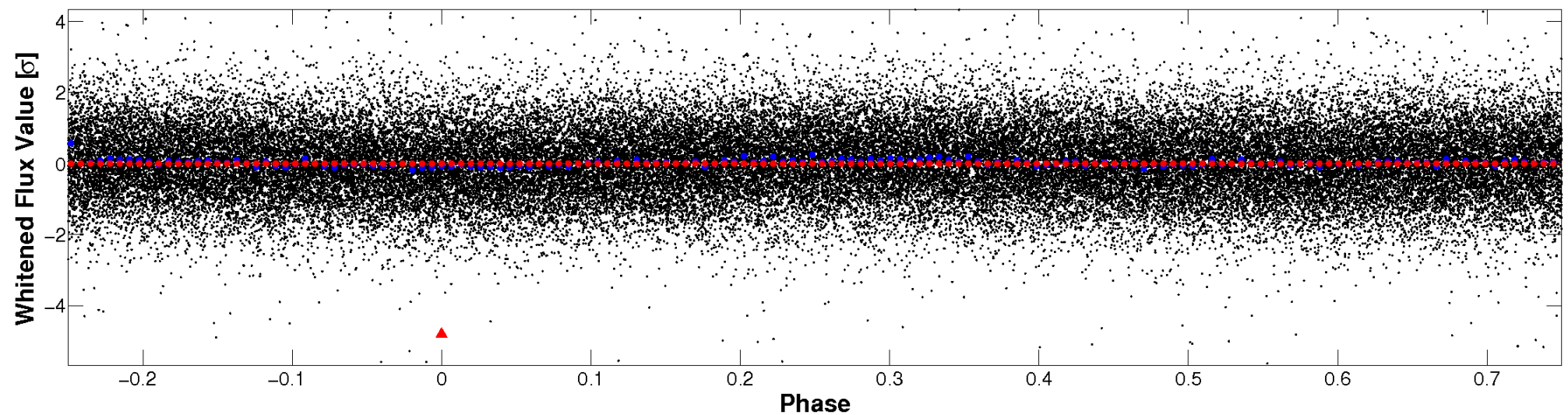


# Non-Whitened Vs. Whitened Light Curve

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



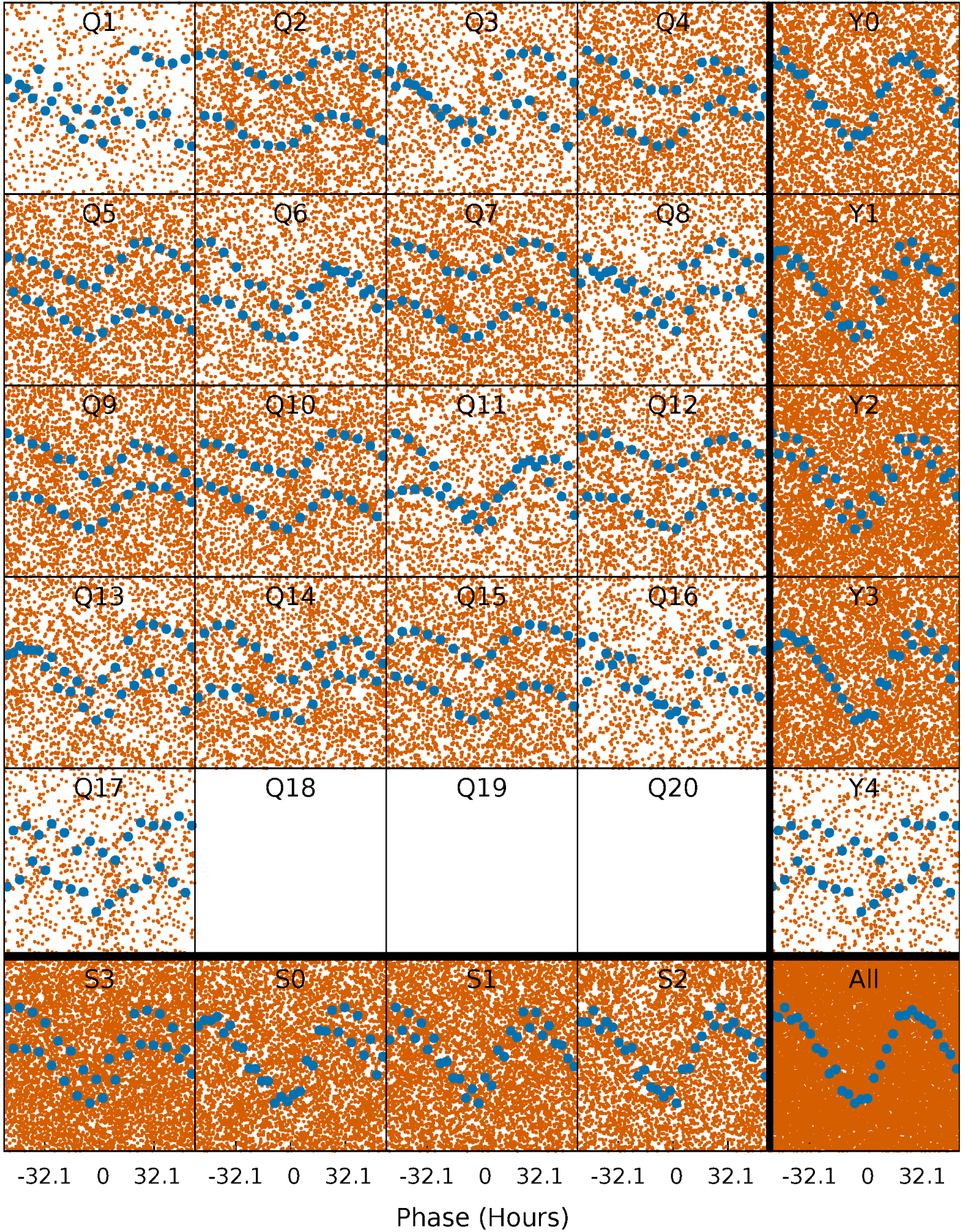
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

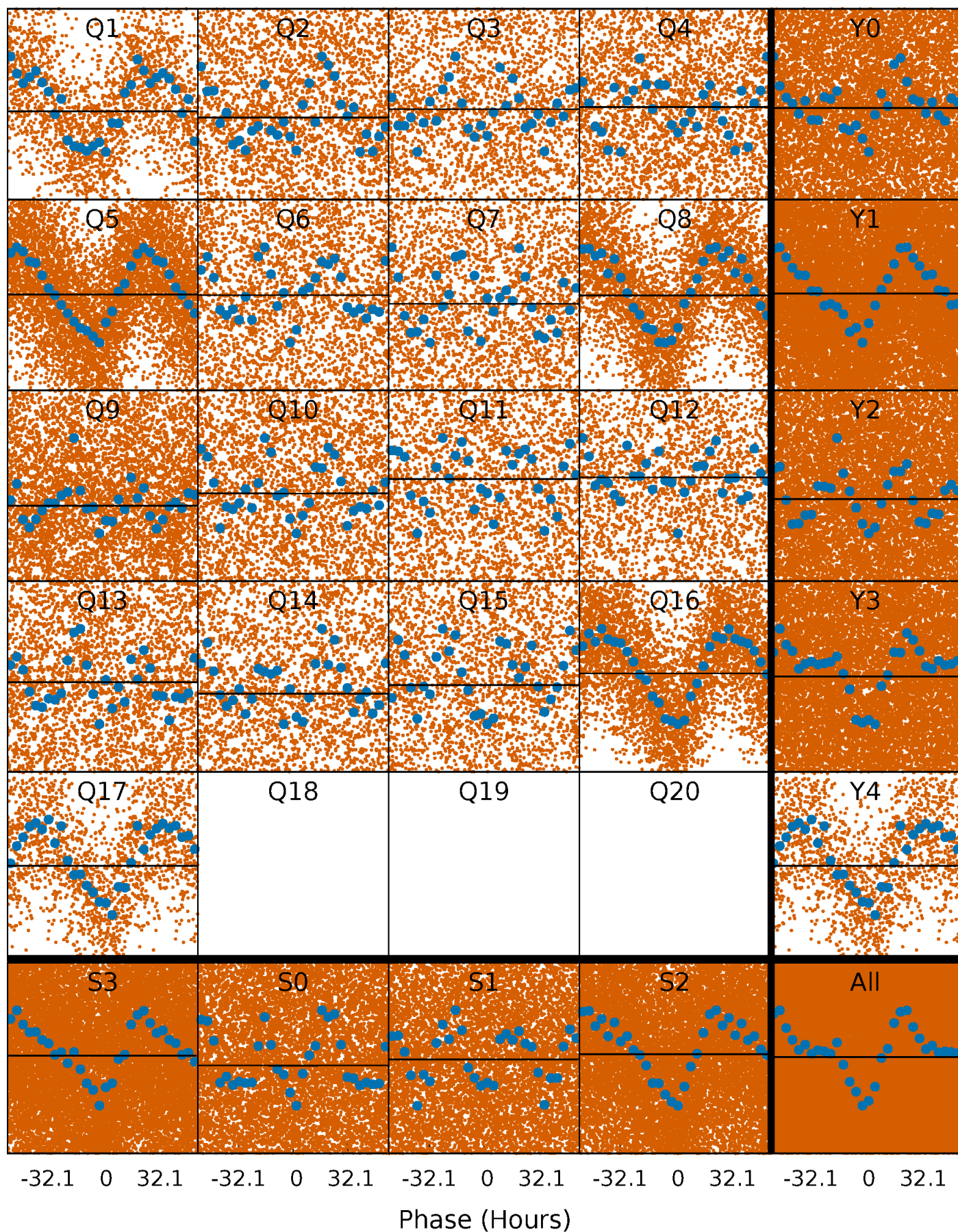
TCE 006357795-01 P= 3.128958 Days  $T_0=132.070084$  (BKJD)





# DV Quarter-Phased Transit Curves

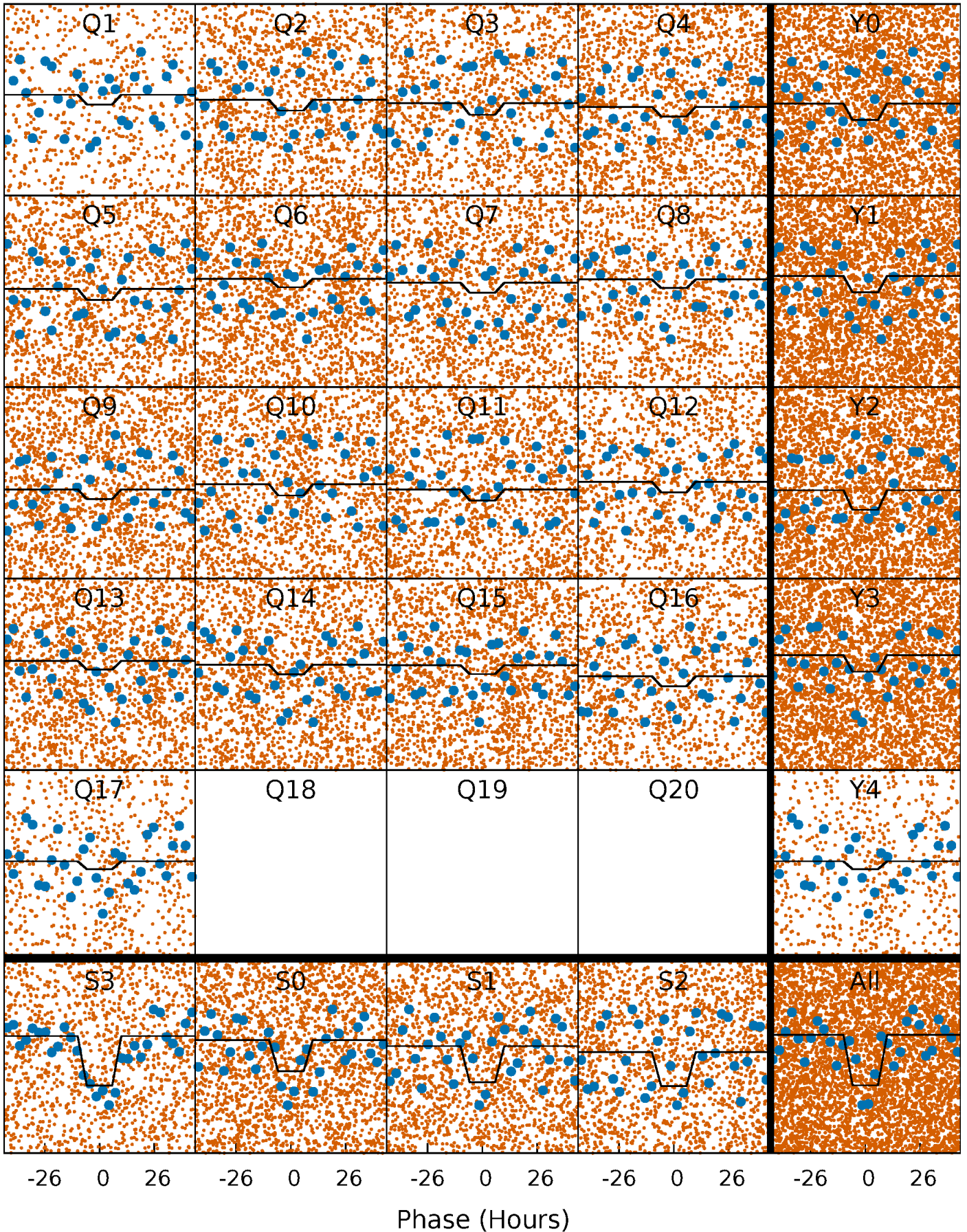
TCE 006357795-01   P= 3.128958 Days    $T_0=132.070084$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

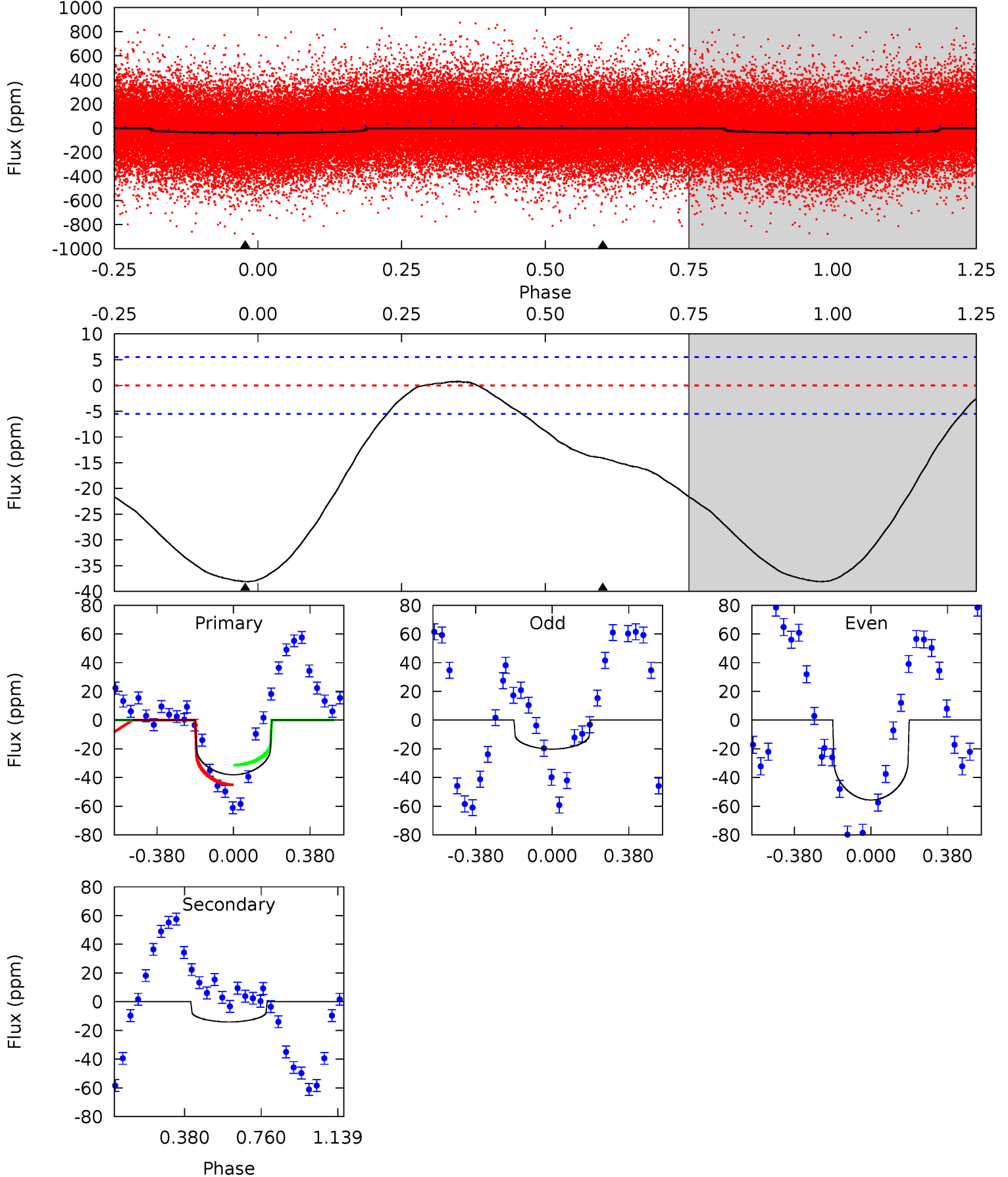
TCE 006357795-01 P= 3.129496 Days  $T_0=131.879989$  (BKJD)



# DV Model-Shift Uniqueness Test

006357795-01, P = 3.128958 Days, E = 128.941126 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
29.5	10.9	0	0	4.28	0.88	0.98	29.5	29.5	10.9	10.9	13.5	1.29	0.02	5.42

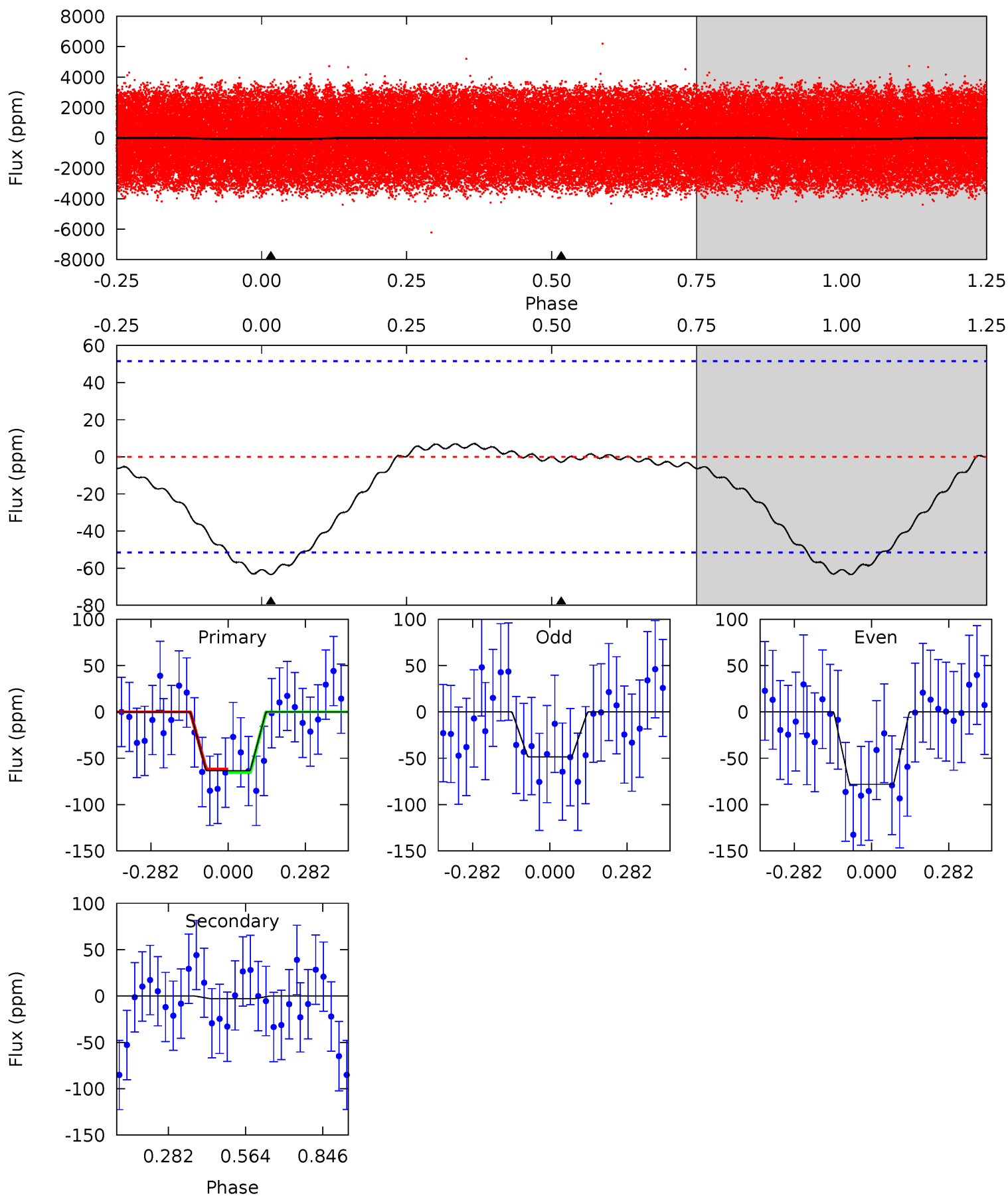




# Alt Model-Shift Uniqueness Test

006357795-01, P = 3.129496 Days, E = 128.750493 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
5.34	0.24	0	0	4.34	1.08	0.48	5.34	5.34	0.24	0.24	1.24	1.06	0.10	0.14



### Stellar Parameters For KIC 006357795

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$\rho_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$7585^{+211}_{-316}$	$3.778^{+0.400}_{-0.094}$	$-0.120^{+0.200}_{-0.350}$	$2.842^{+0.402}_{-1.206}$	$1.768^{+0.184}_{-0.368}$	$0.108^{+0.335}_{-0.032}$
	+3%/-4%	+11%/-2%	+167%/-292%	+14%/-42%	+10%/-21%	+309%/-30%
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 006357795-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-14 \pm 1$	$2.43^{+2.59}_{-1.74}$	$3399^{+249}_{-361}$	$4867^{+4884}_{-1329}$	$3.333^{+36.831}_{-2.555}$
Alt.	$-3 \pm 12$	$3.34^{+3.48}_{-2.09}$	$3398^{+259}_{-386}$	$-2900^{+7686}_{-1497}$	$0.175^{+3.006}_{-1.663}$

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

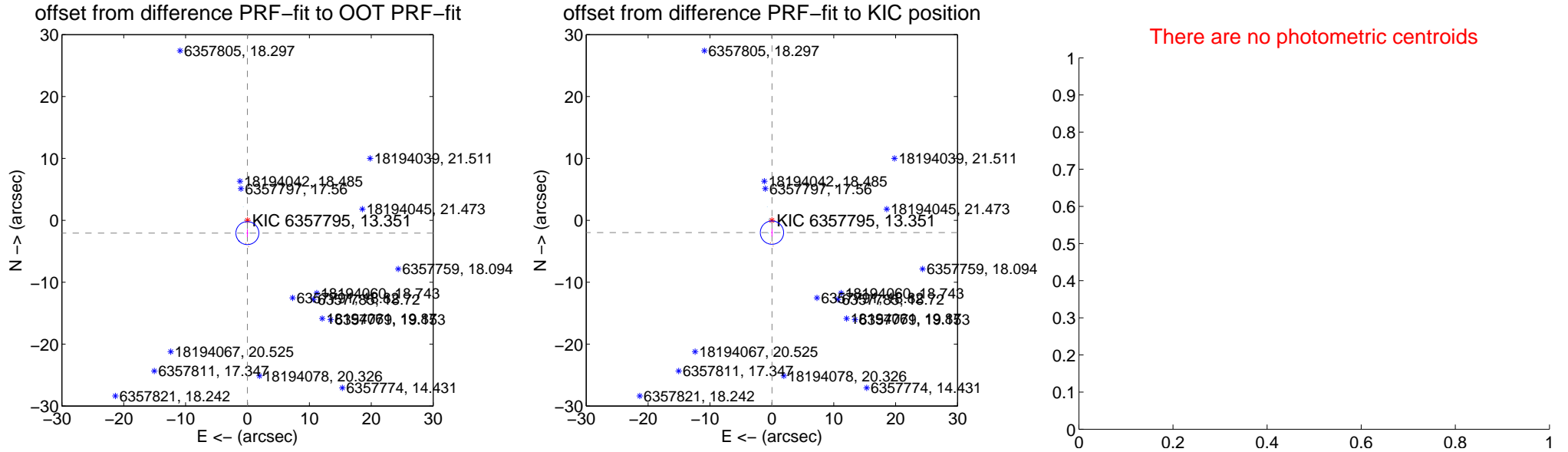
## DV Centroid Data

Supplemental centroid analysis for 006357795-01. Kepler magnitude: 13.35. Transit SNR 0.00

There are 7 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

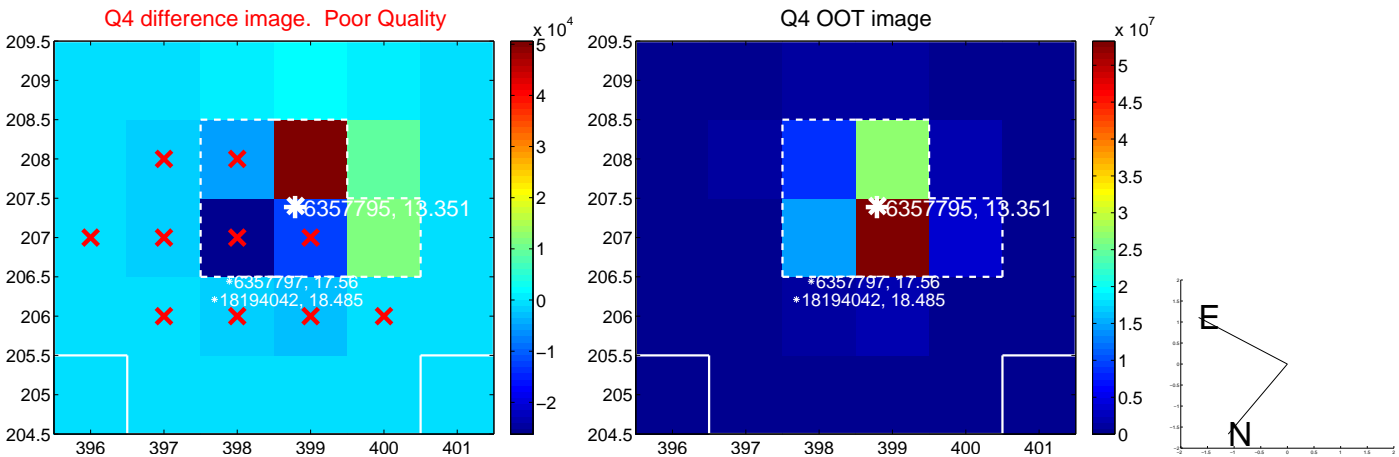
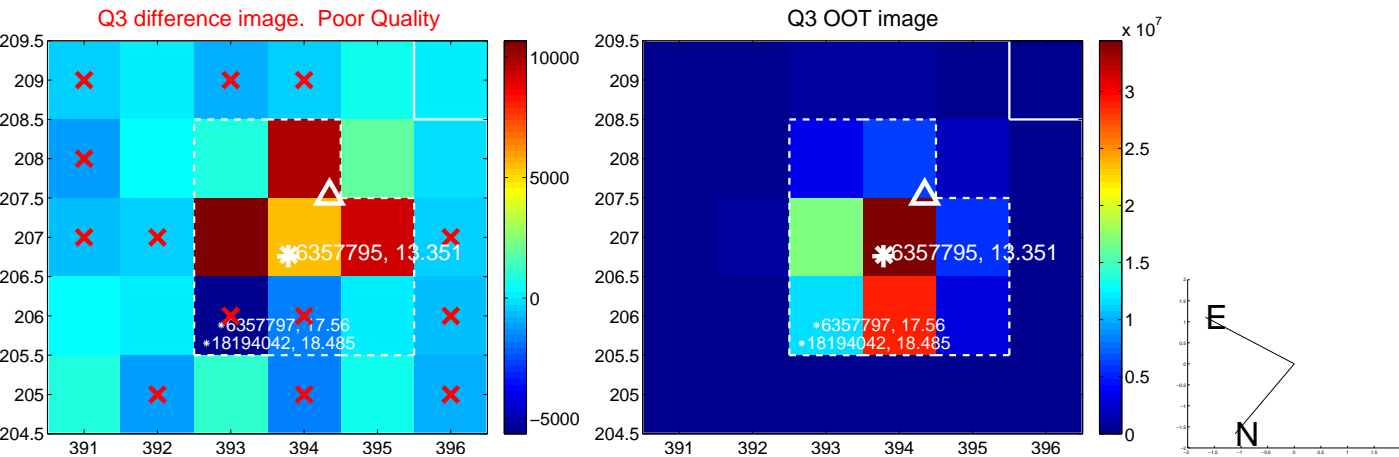
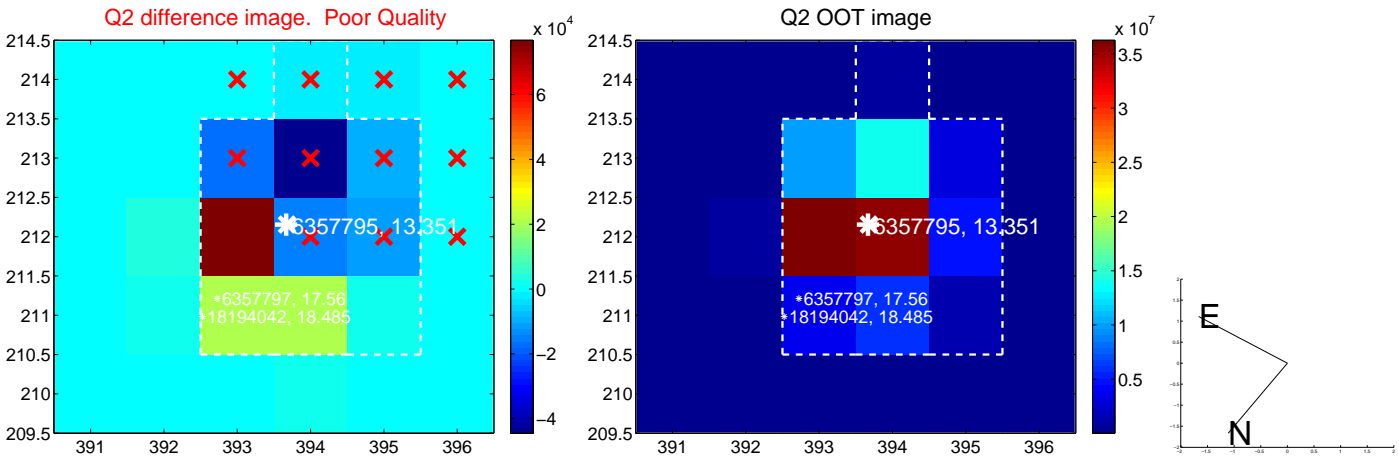
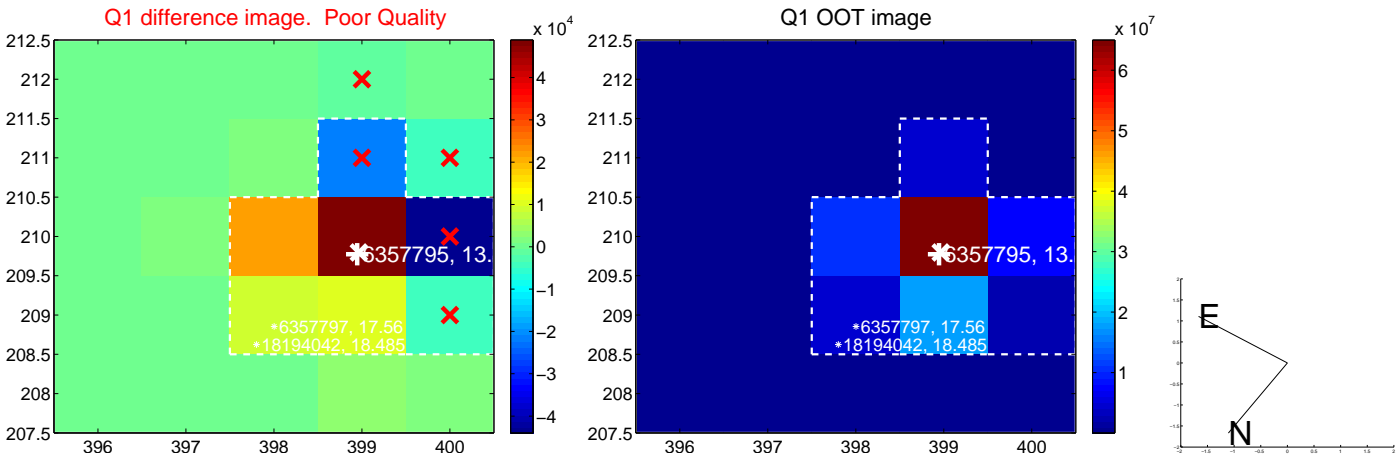
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$2.067 \pm 0.619$	3.34	$0.021 \pm 0.143$	$-2.067 \pm 0.620$
PRF-fit source offset from KIC position	$1.987 \pm 0.628$	3.16	$-0.017 \pm 0.138$	$-1.987 \pm 0.627$
photometric centroid source offset	—	—	—	—



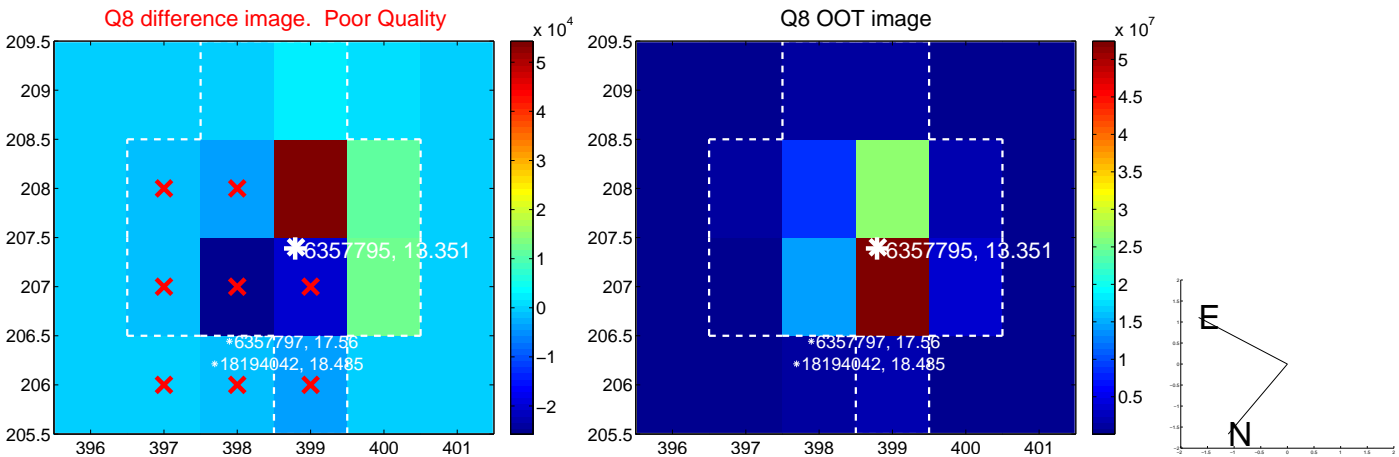
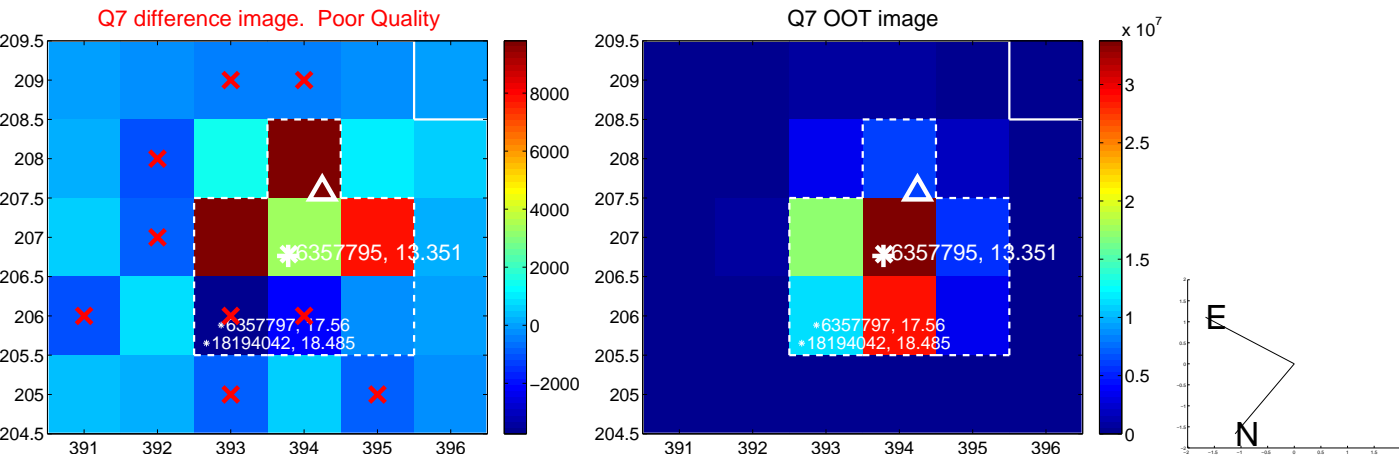
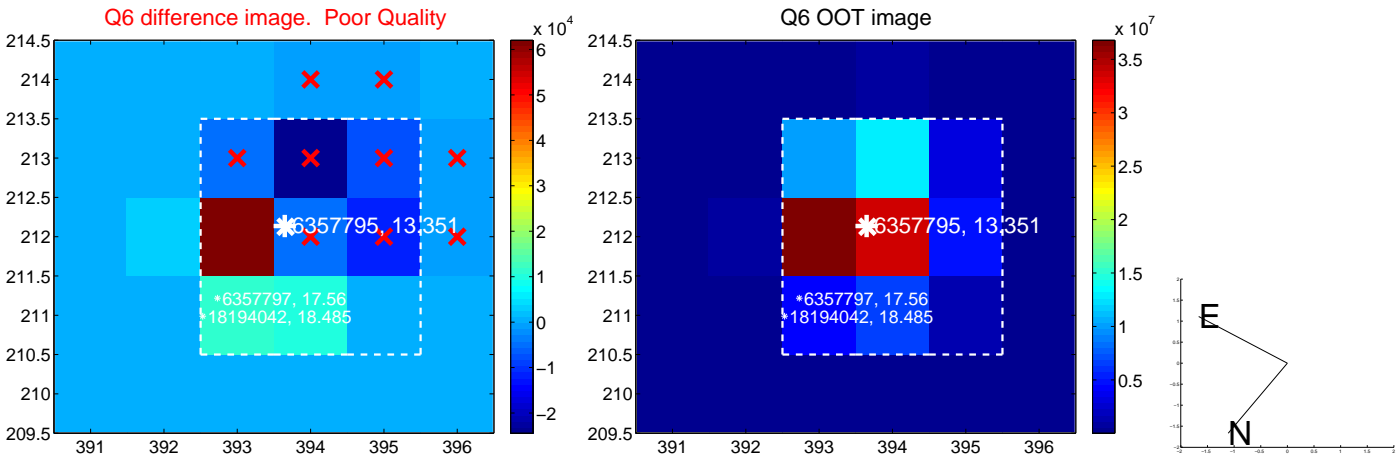
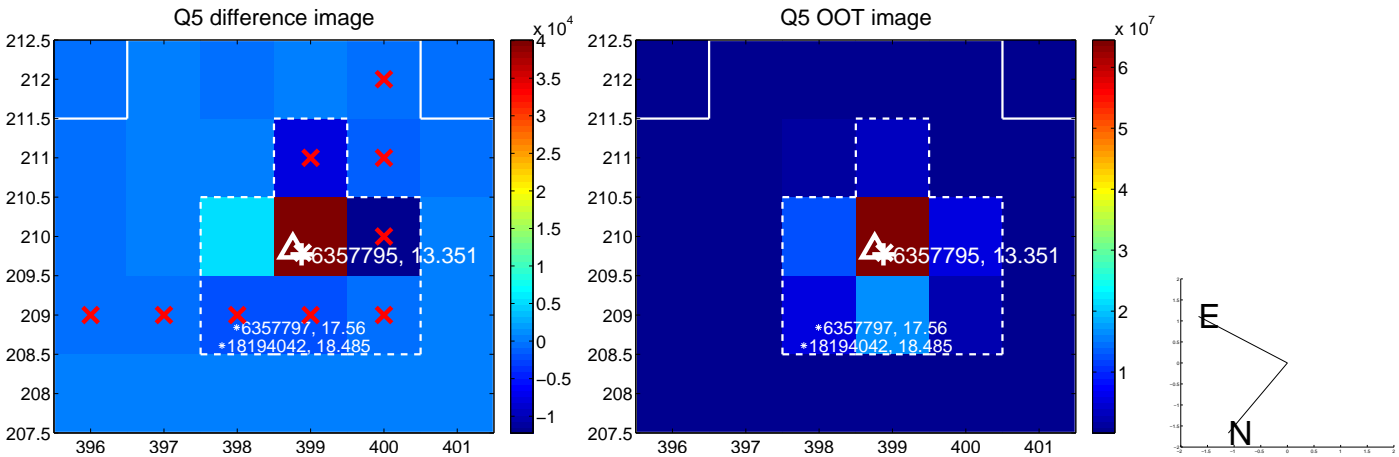
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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



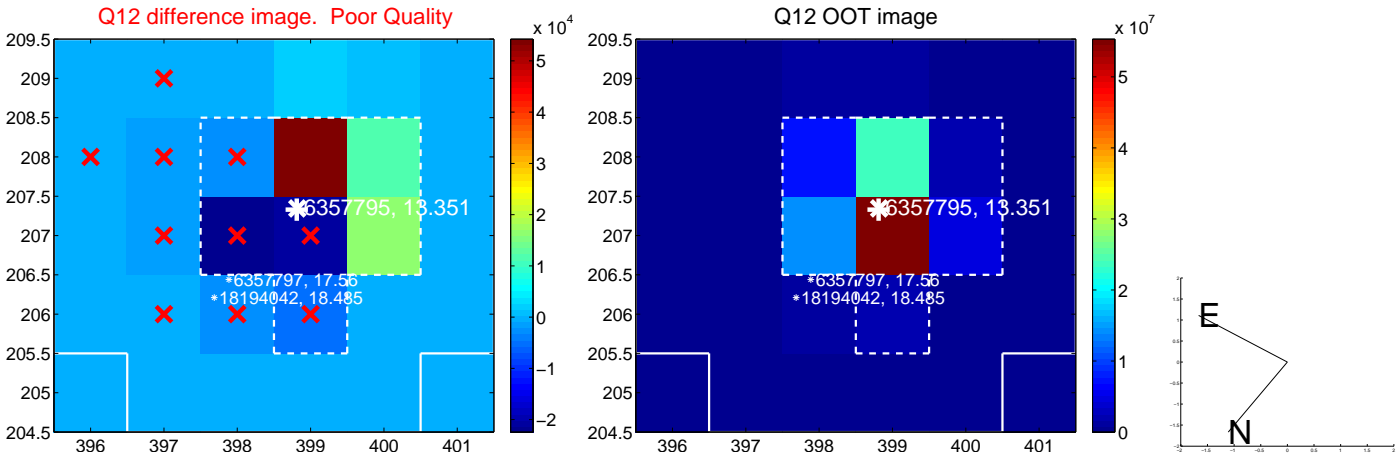
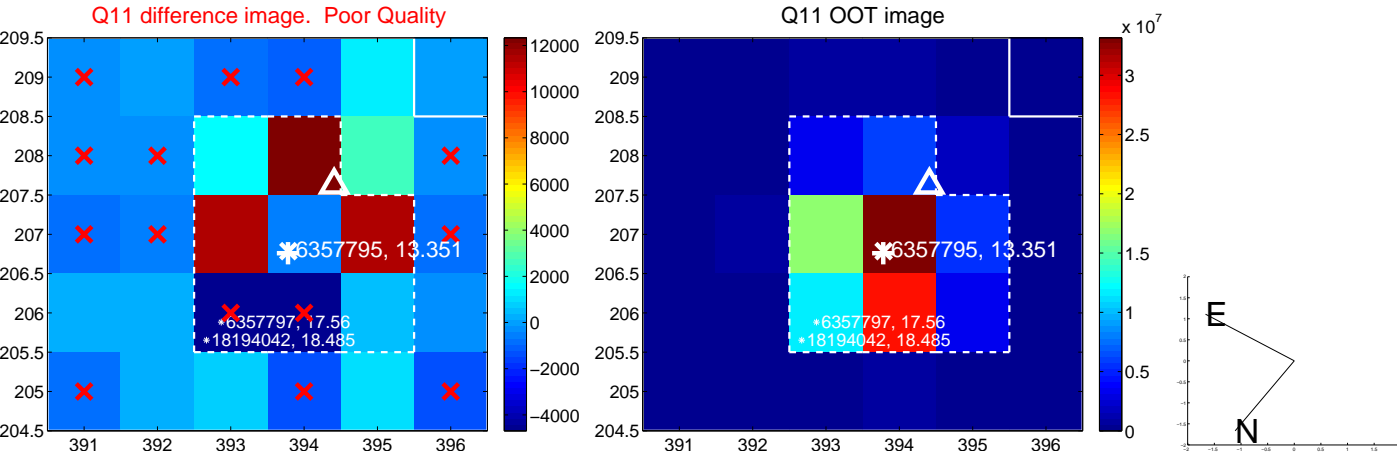
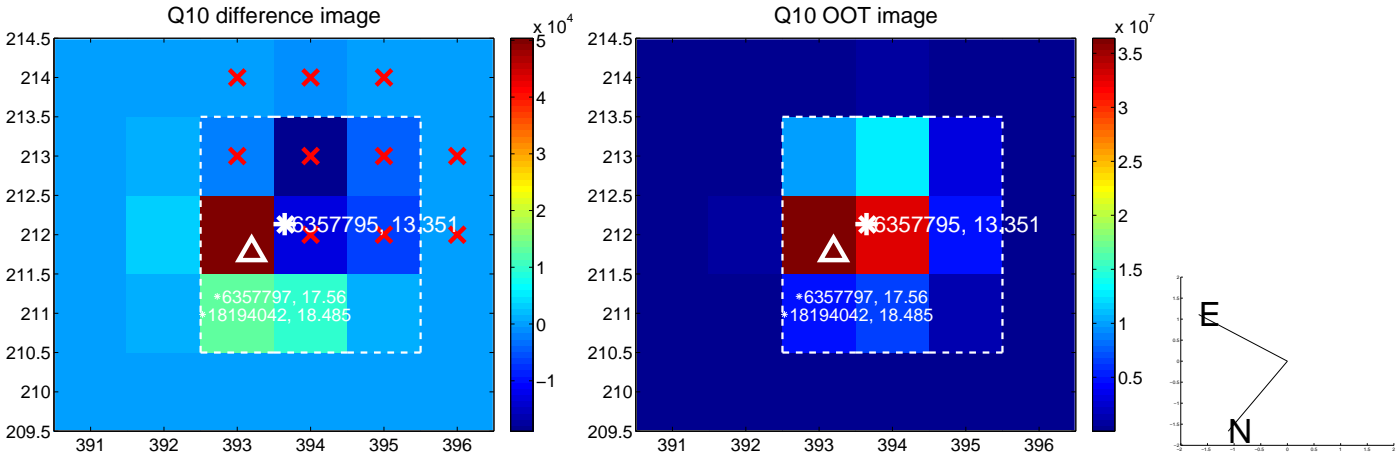
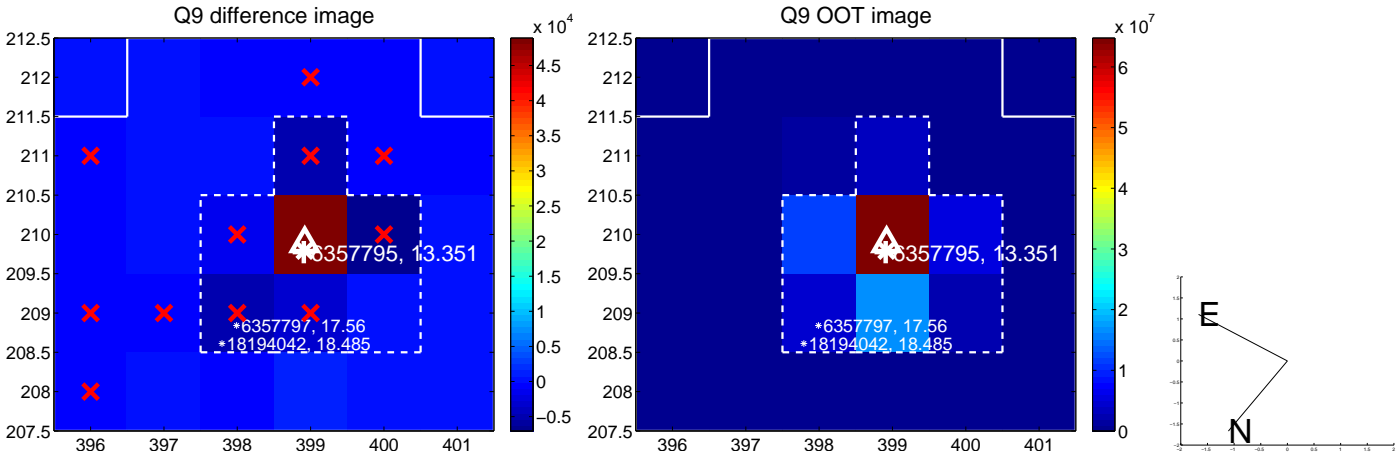
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

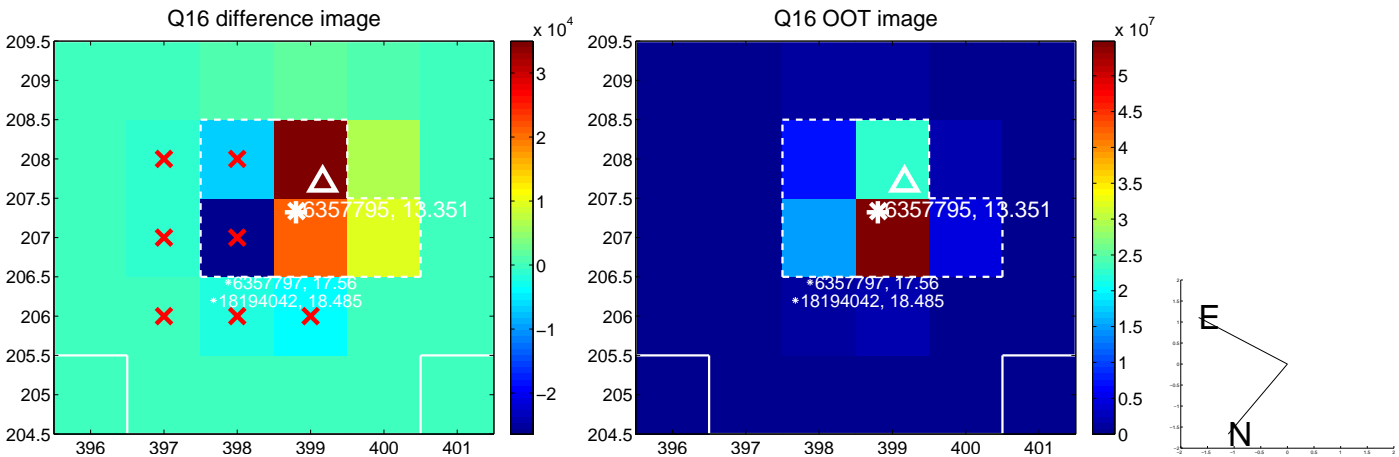
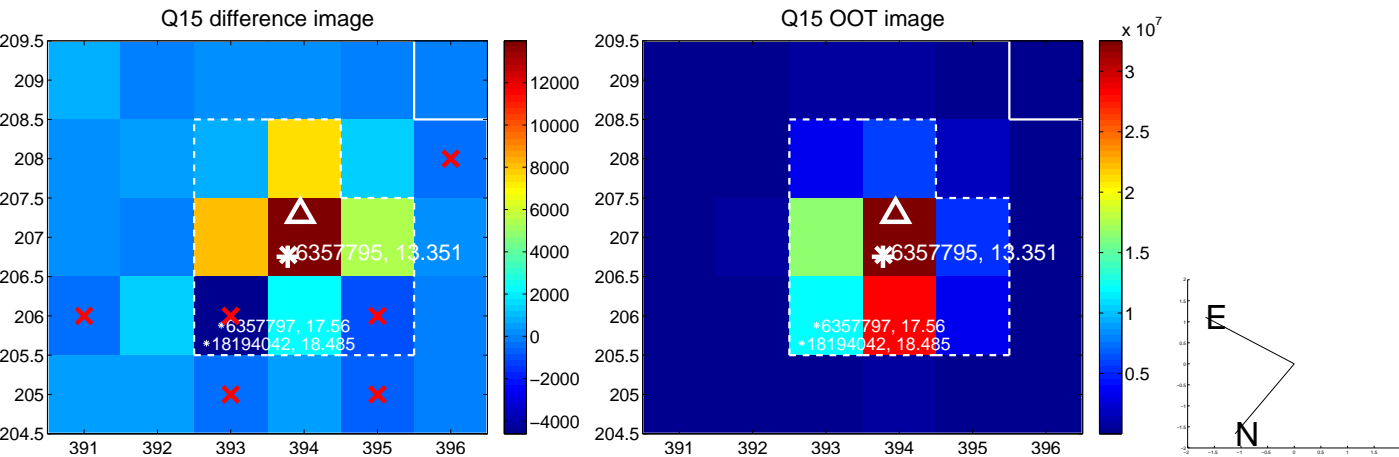
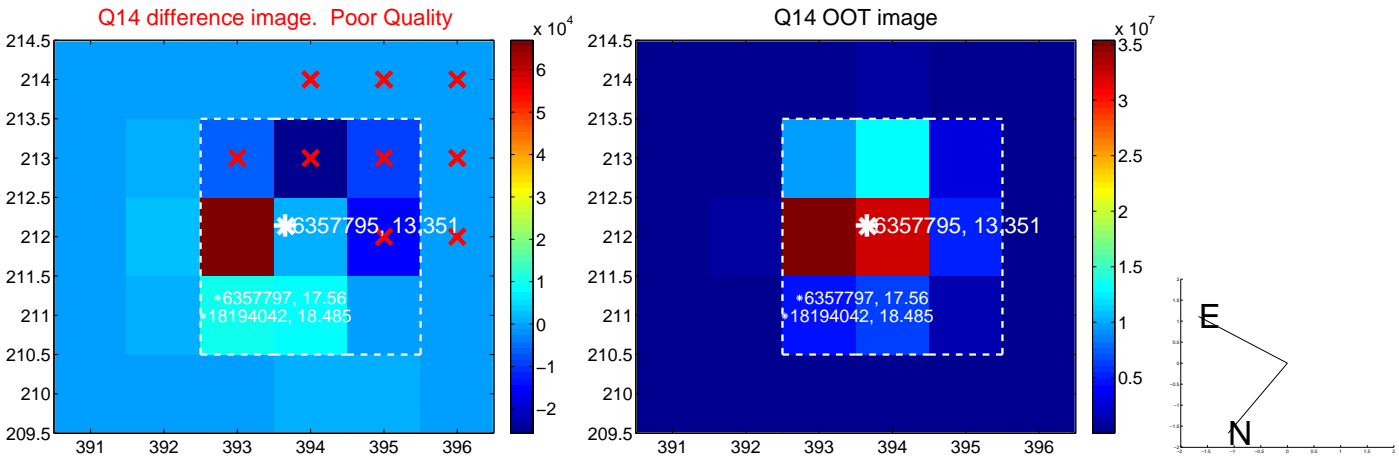
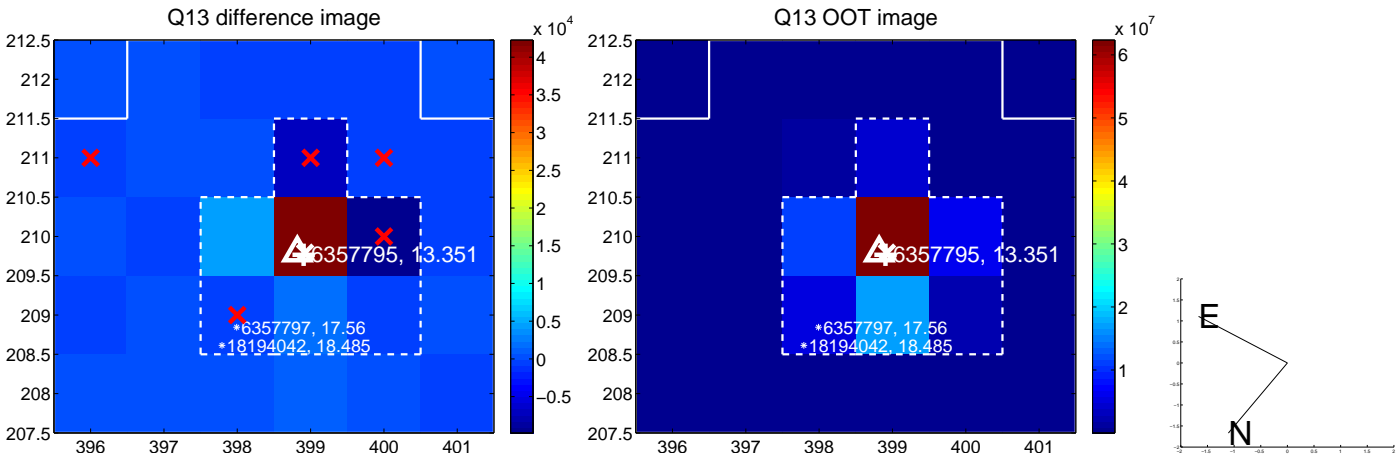


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

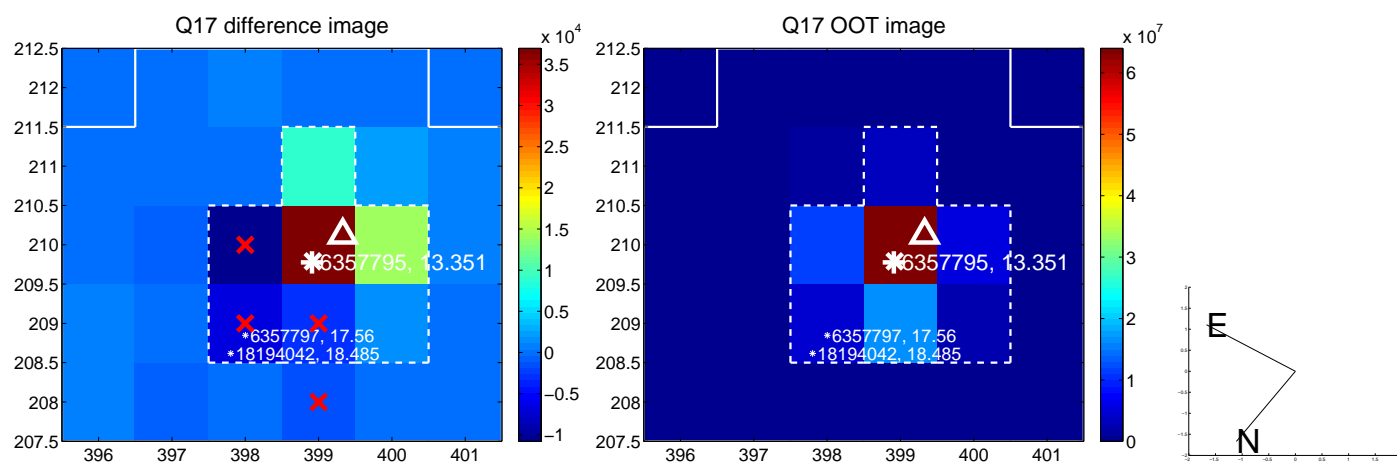




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



folded centroid time series figure for this object.



# UKIRT Image

Declination

