

# KIC 007447895

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007447895-01	OBS	6878.01	2.405607	133.148494	572.4	1.500	8.1	-1.0	0.83	5450	1.96	459.44

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007447895-01	OBS	PC	1.00	0	0	0	0	CENT_NOFITS

**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 007447895-01

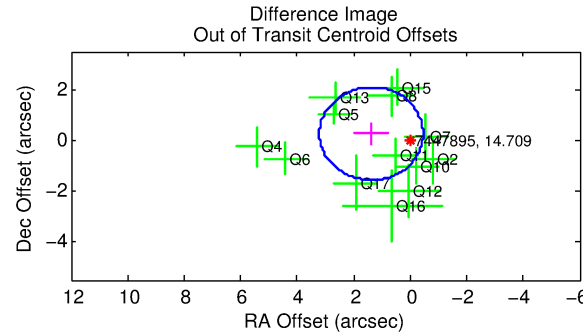
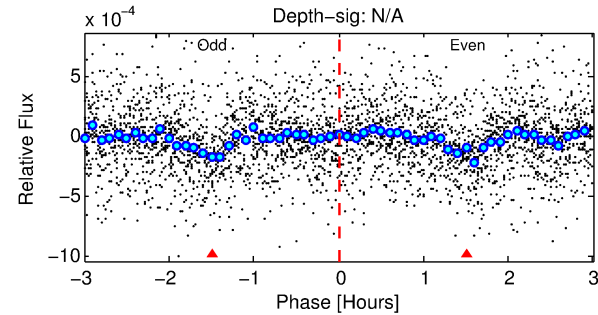
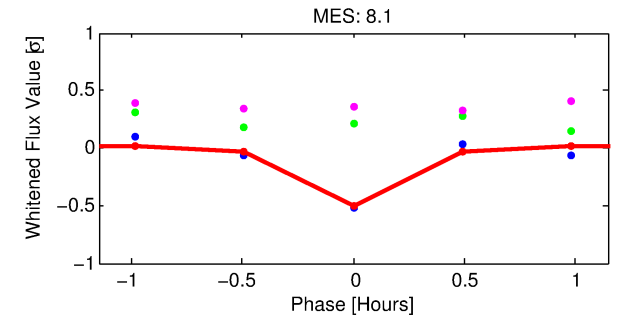
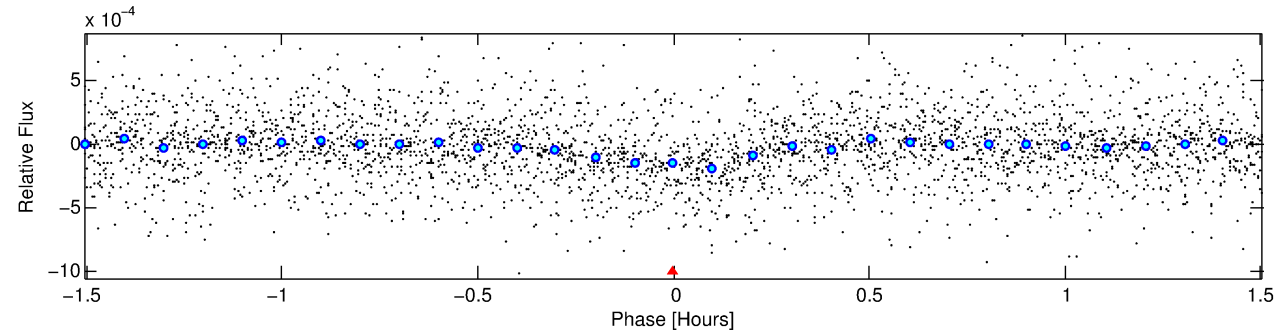
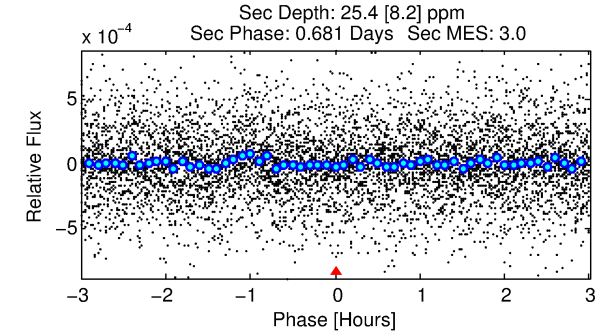
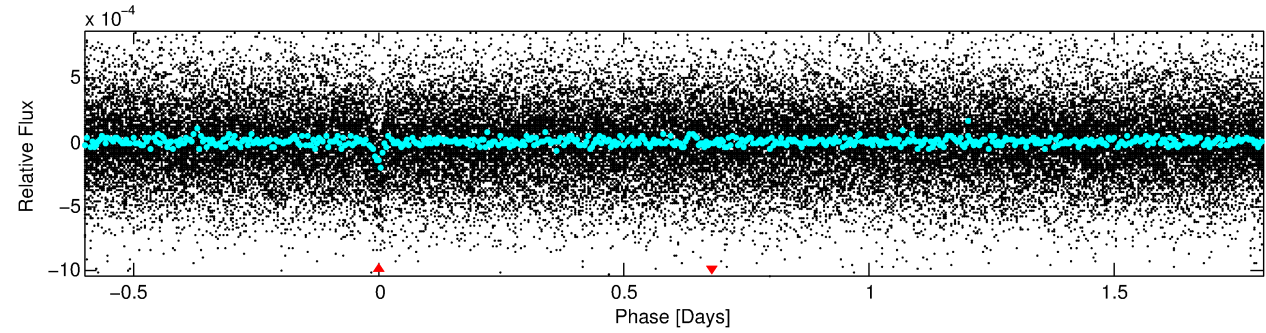
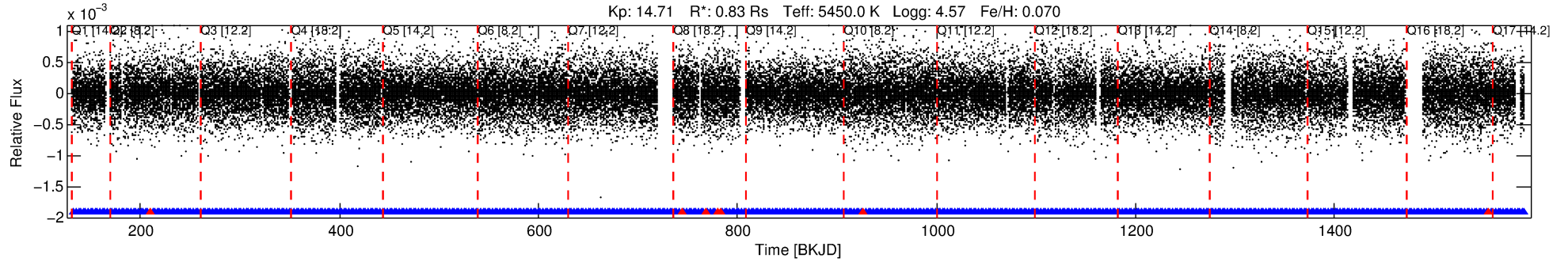
No Significant Match Found

# DV One-Page Summary

KIC: 7447895 Candidate: 1 of 1 Period: 2.406 d

KOI: K06878 Corr: No Ephemeris Match

Kp: 14.71 R\*: 0.83 Rs Teff: 5450.0 K Logg: 4.57 Fe/H: 0.070



TPS TCE Results:

Period = 2.40561 d  
Epoch = 133.1485 BKJD

DV fit results are unavailable

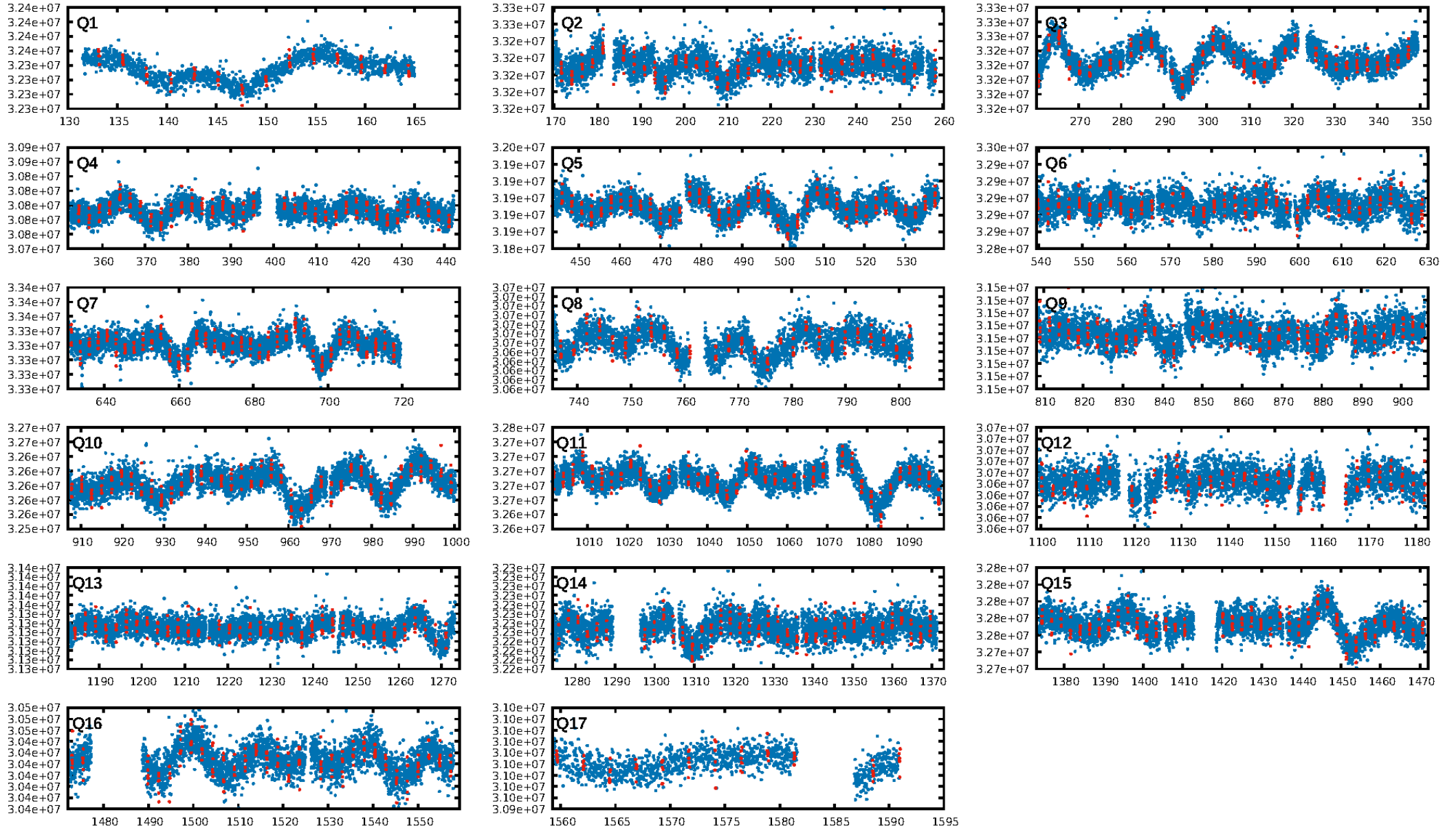
DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 1.37e-15  
RollingBand-fgt: 0.99 [530/537]  
GhostDiagnostic-chr: 1.72  
Centroid-sig: 15.7%  
Centroid-so: 1.050 arcsec [1.07σ]  
OotOffset-rm: 1.406 arcsec [2.30σ]  
KicOffset-rm: 1.347 arcsec [2.23σ]  
OotOffset-st: 3/3/4/3 [13]  
KicOffset-st: 3/3/4/3 [13]  
DiffImageQuality-fgm: 0.69 [9/13]  
DiffImageOverlap-fno: 1.00 [17/17]

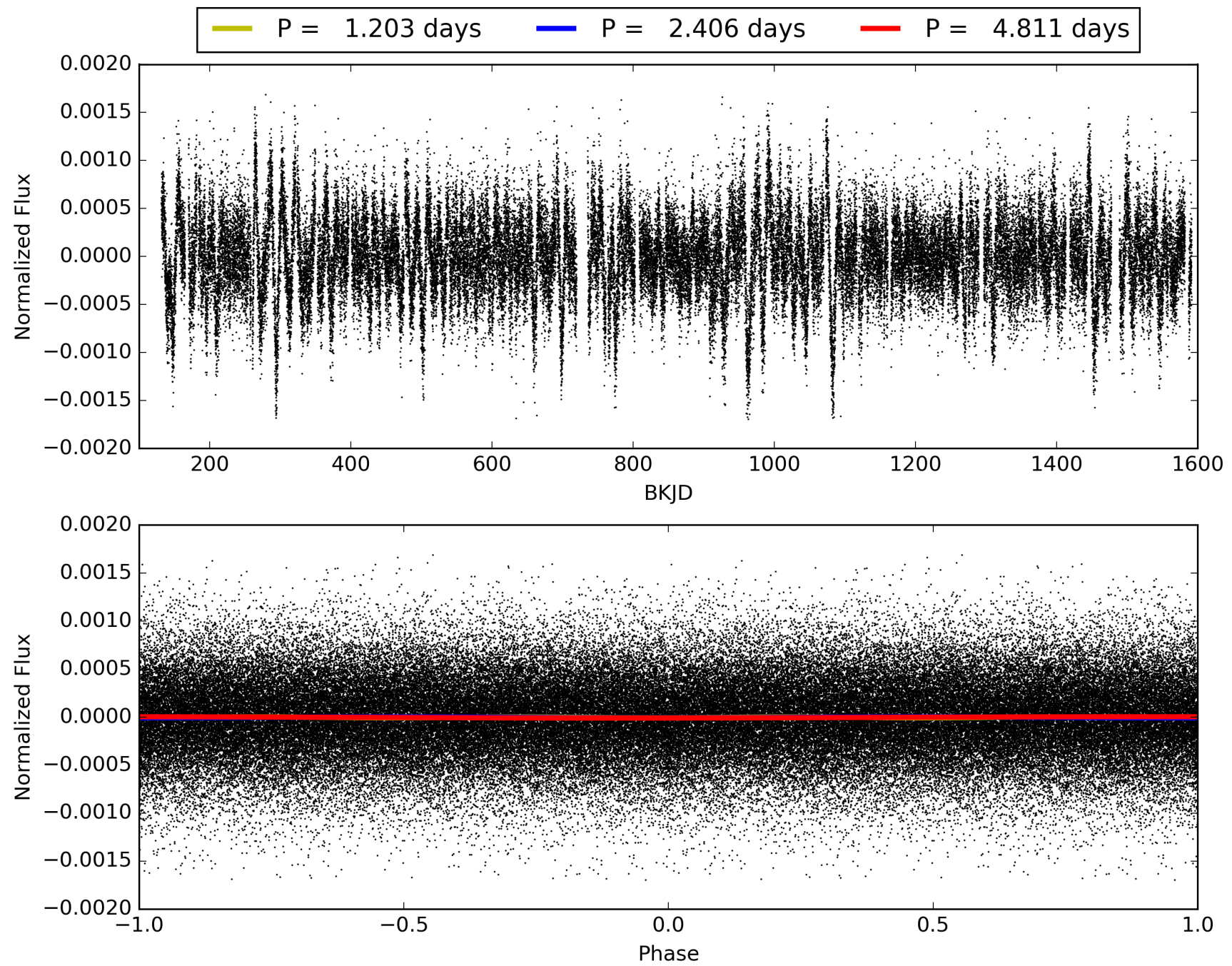
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:52:46 Z

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

# TCE 007447895-01, PDC Light Curves



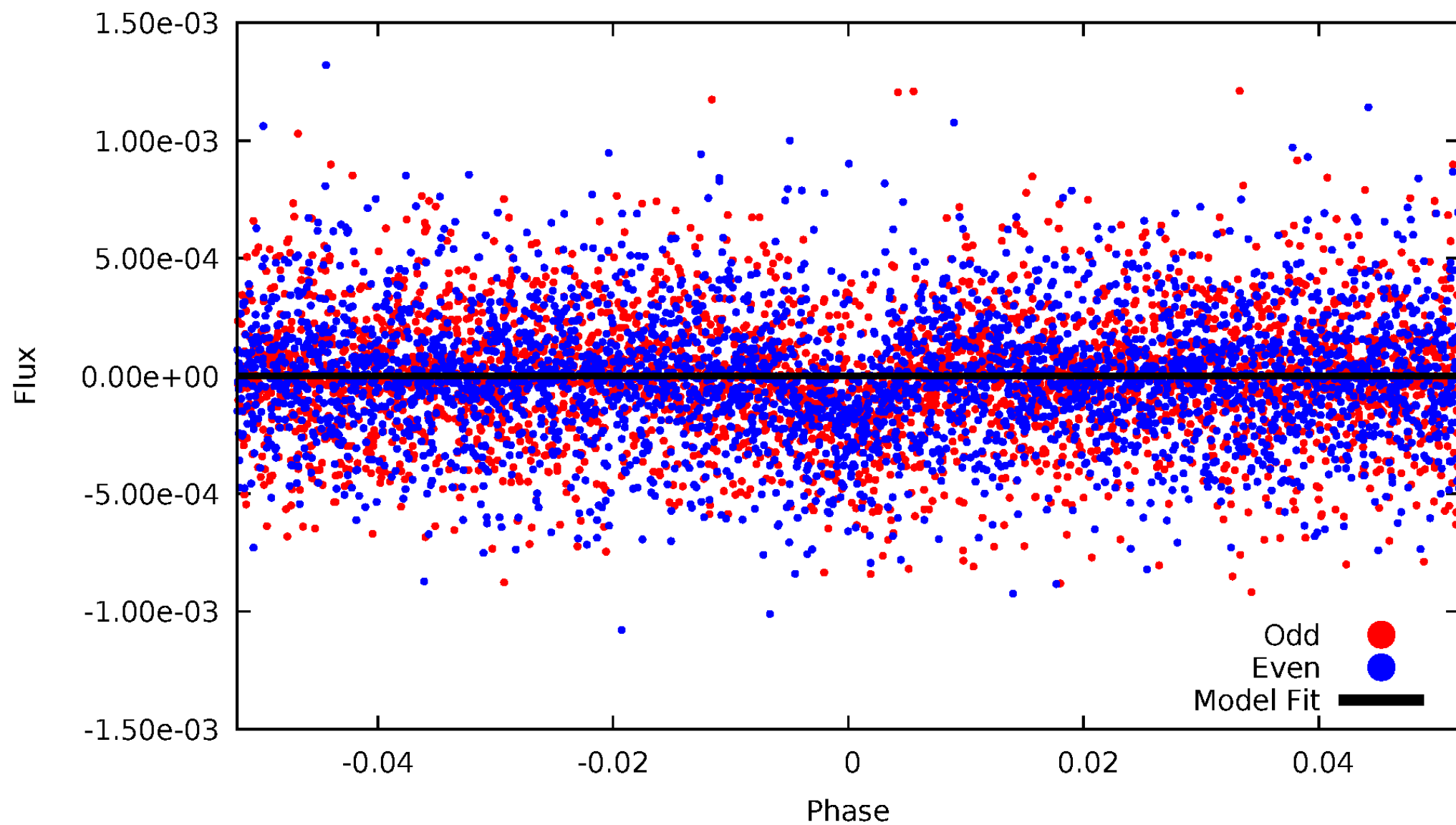
TCE 007447895-01





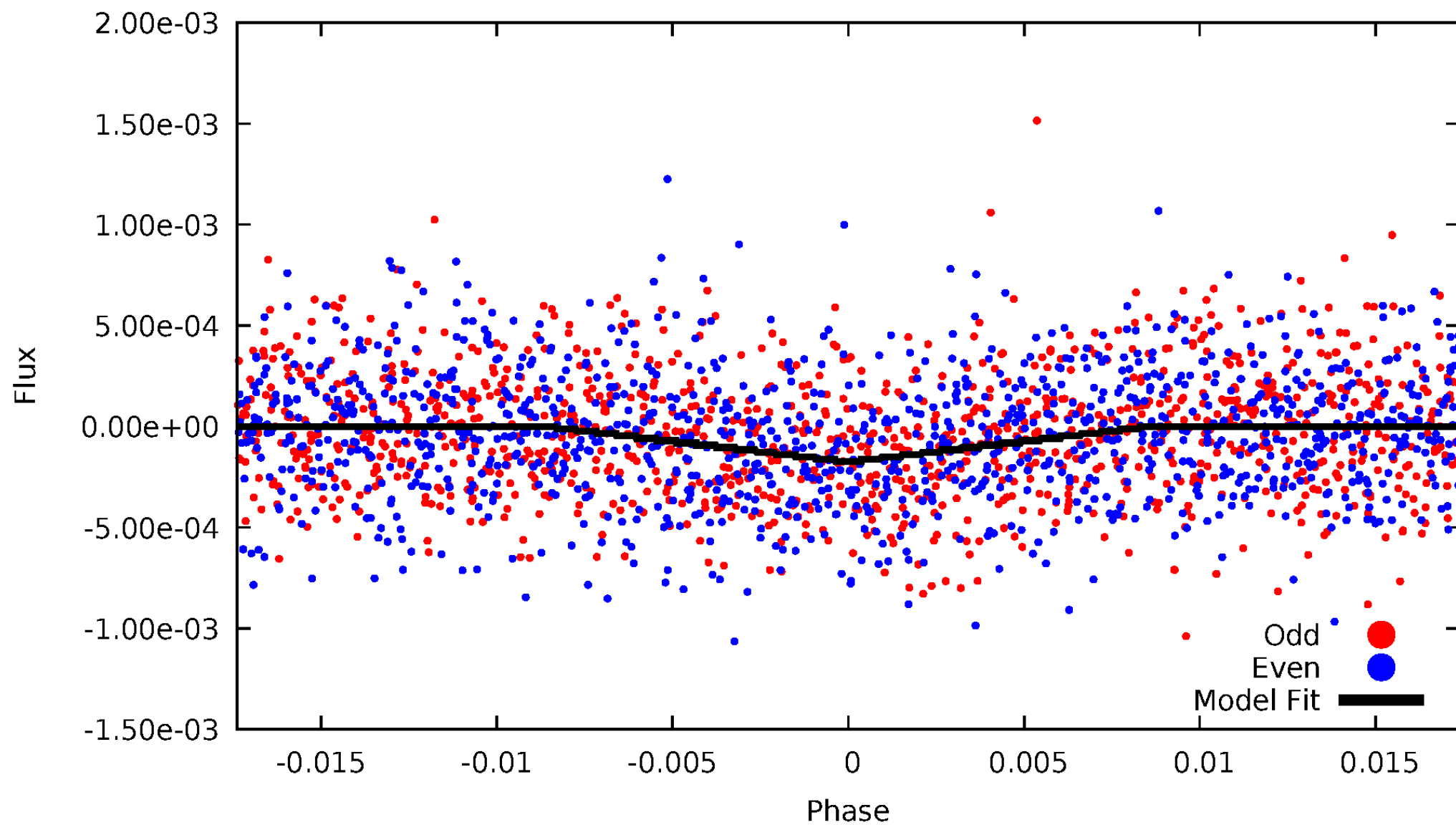
# DV Odd/Even

TCE 007447895-01

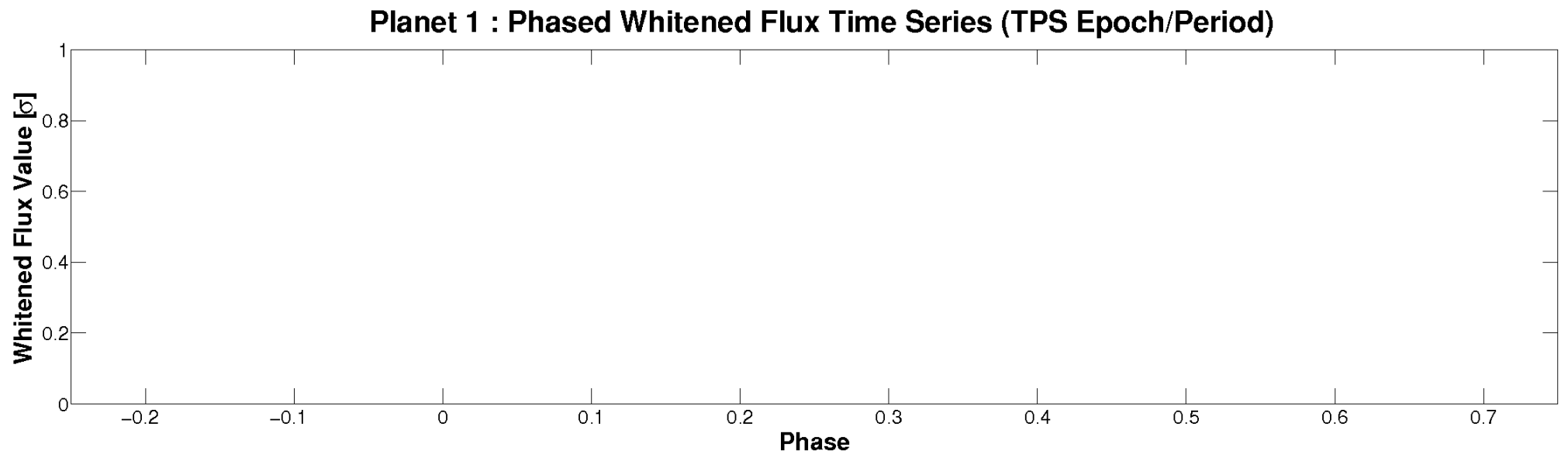
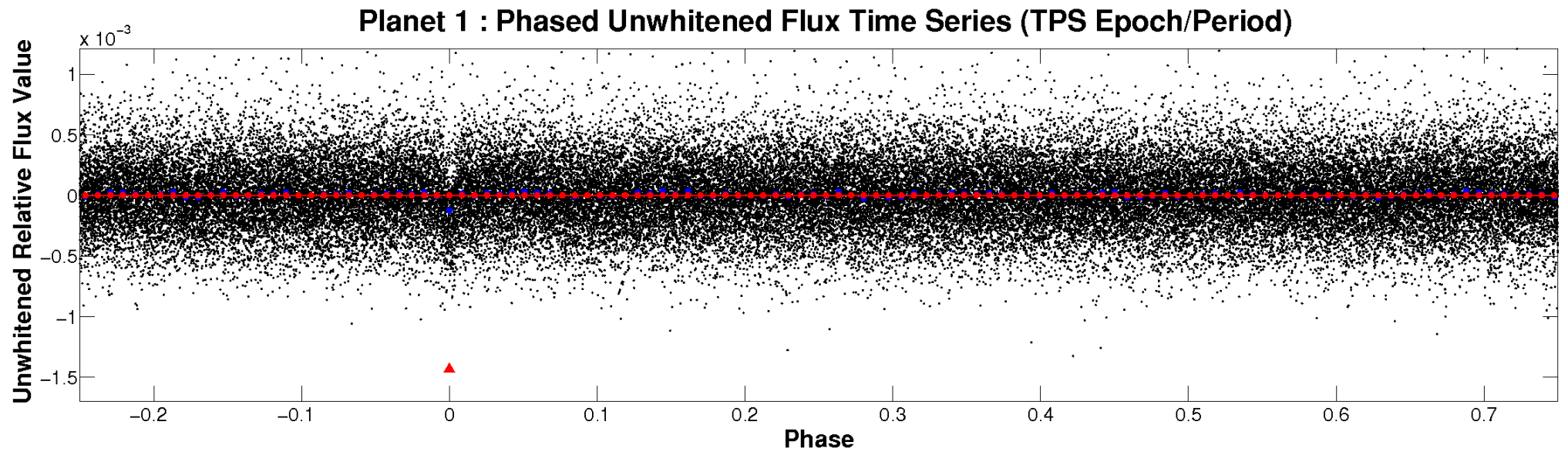


# ALT Odd/Even

TCE 007447895-01

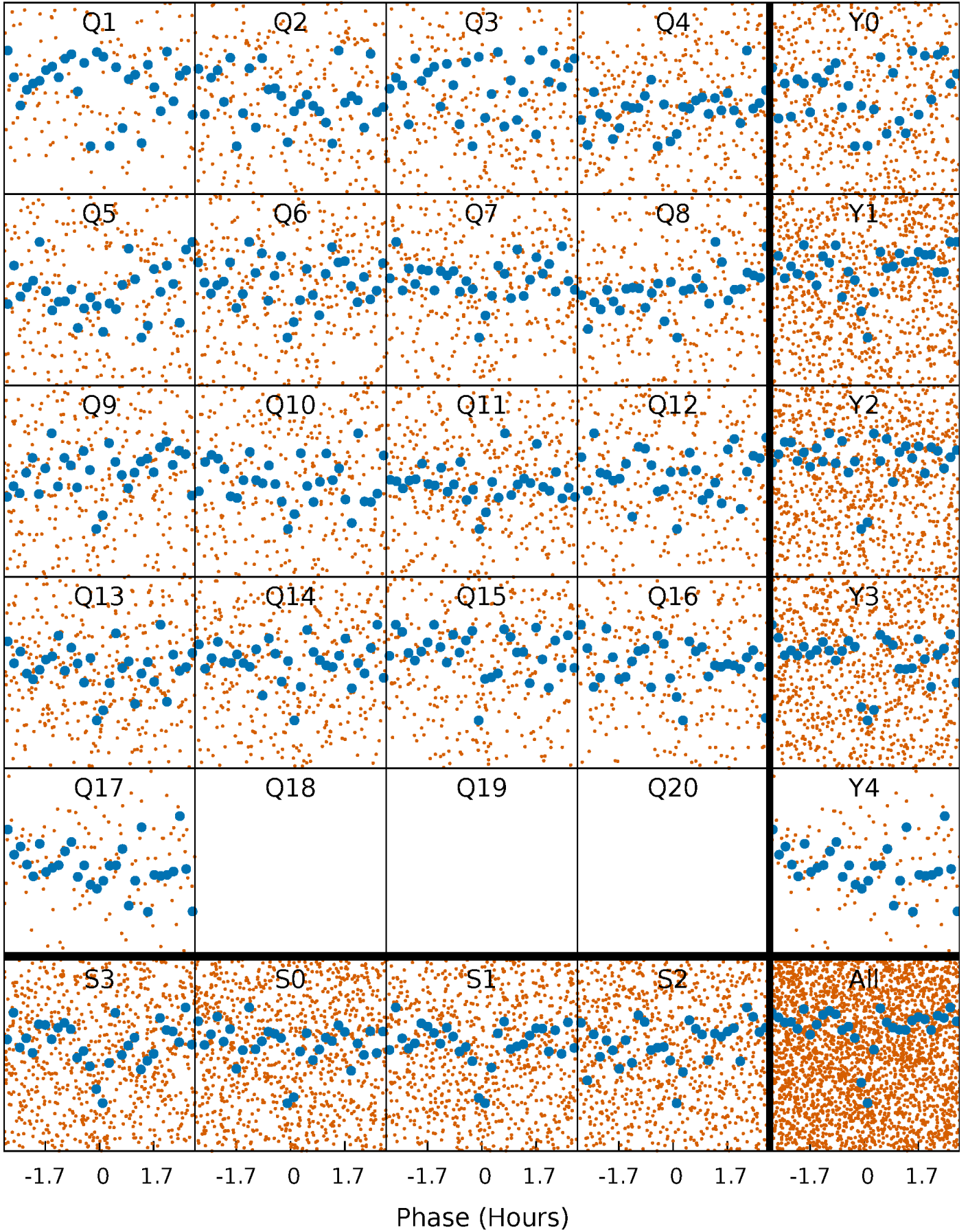


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

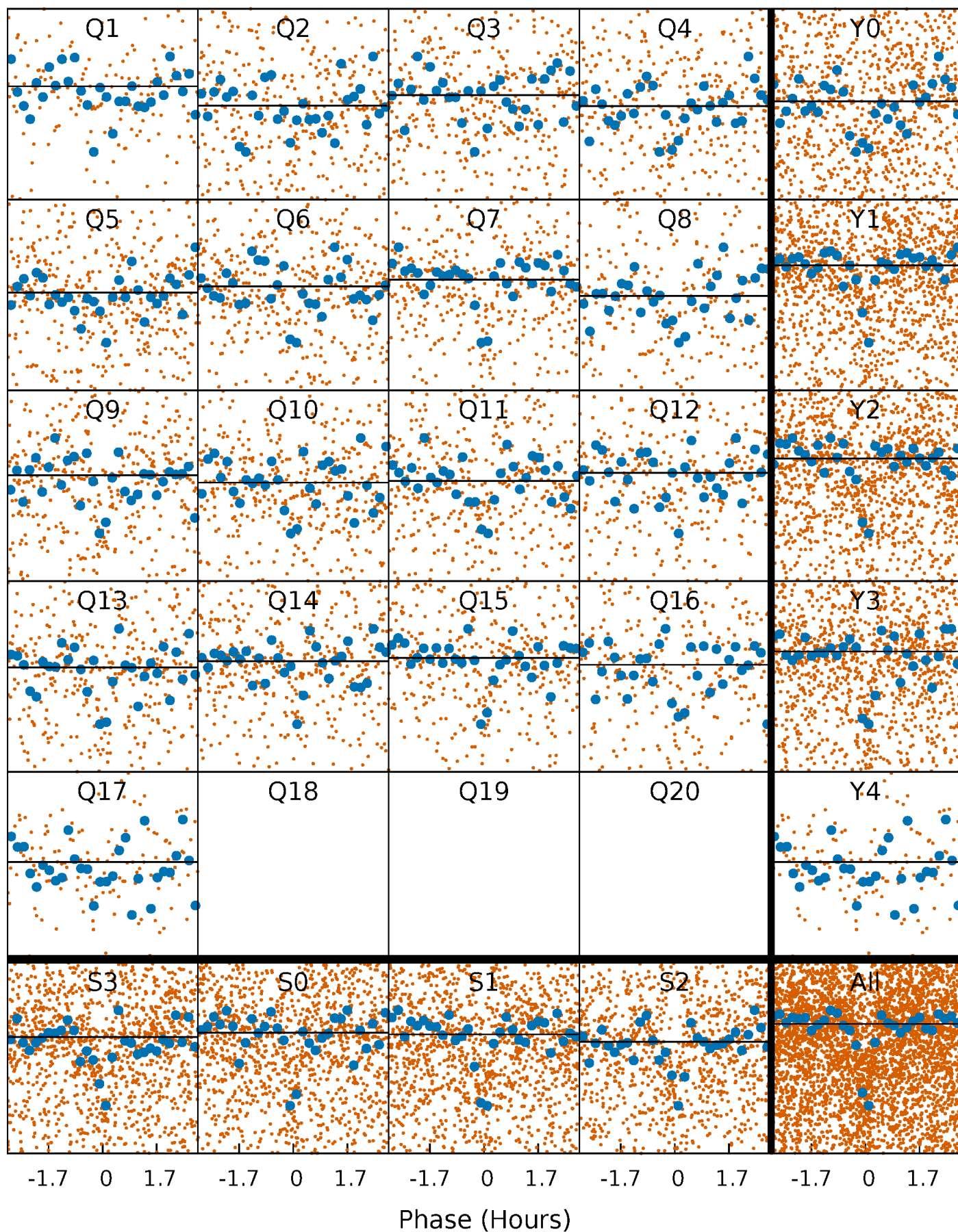
TCE 007447895-01   P= 2.405607 Days    $T_0=133.148494$  (BKJD)





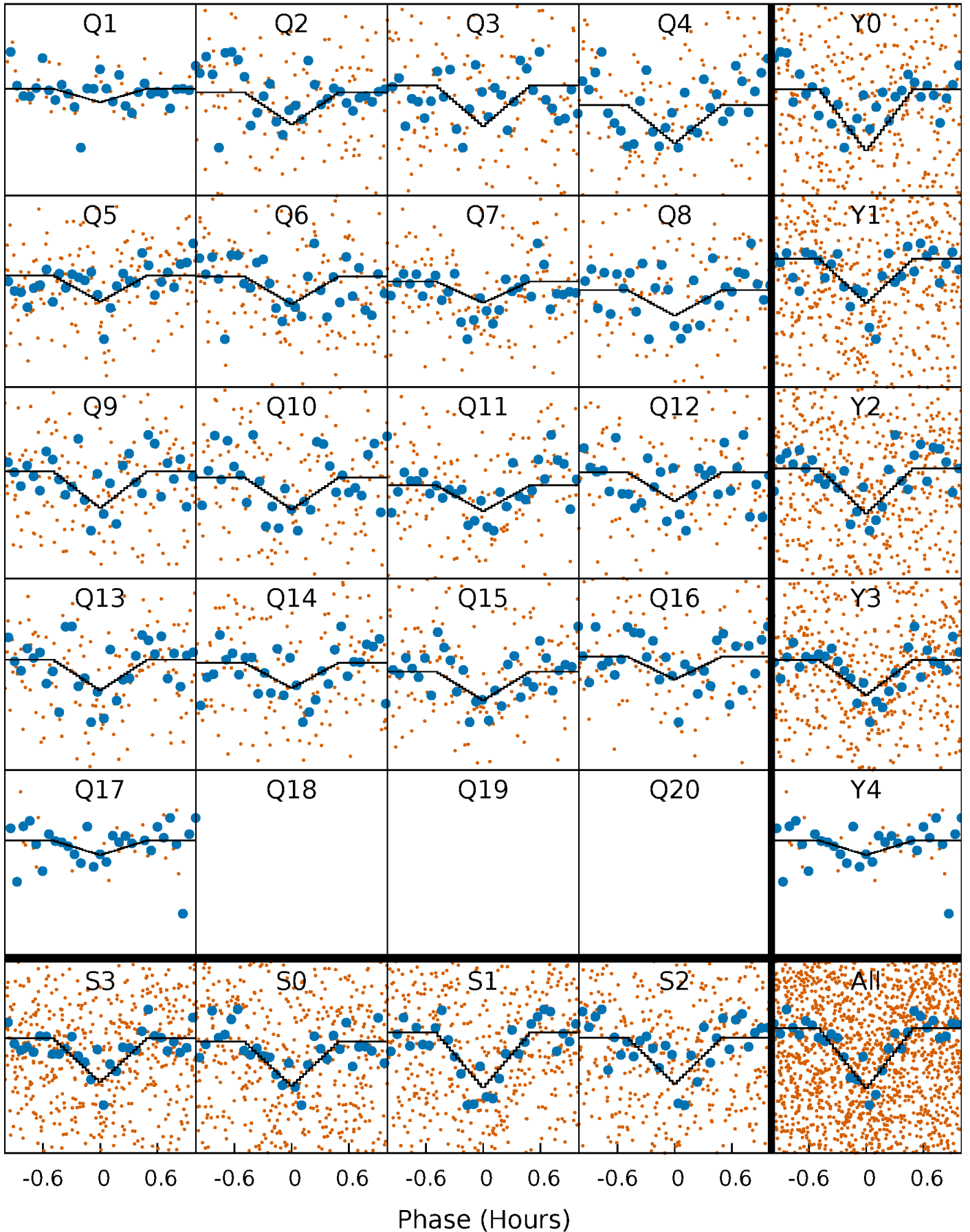
# DV Quarter-Phased Transit Curves

TCE 007447895-01 P= 2.405607 Days  $T_0=133.148494$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

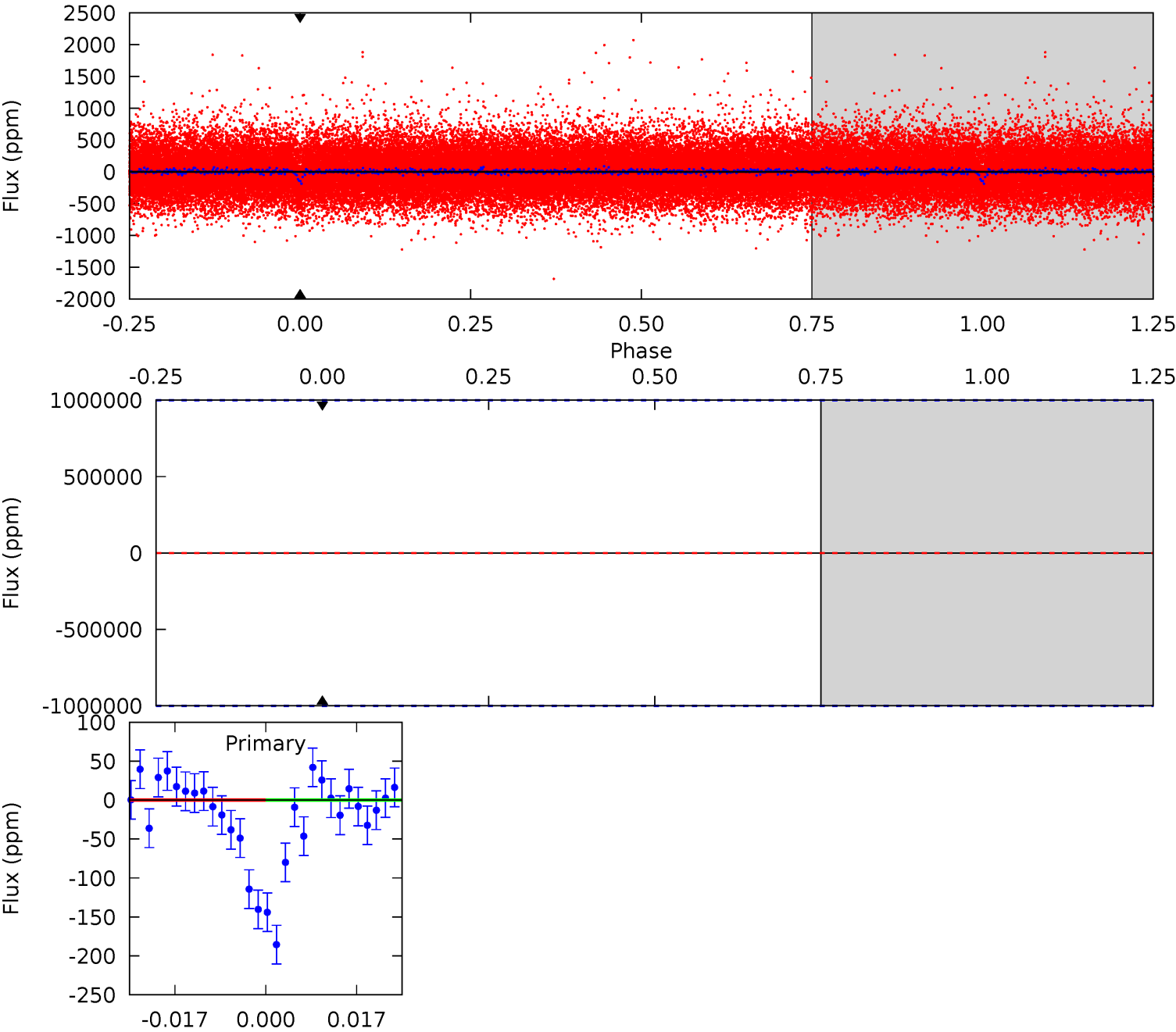
TCE 007447895-01   P= 2.405607 Days    $T_0=133.148916$  (BKJD)



# DV Model-Shift Uniqueness Test

007447895-01, P = 2.405607 Days, E = 130.742887 Days

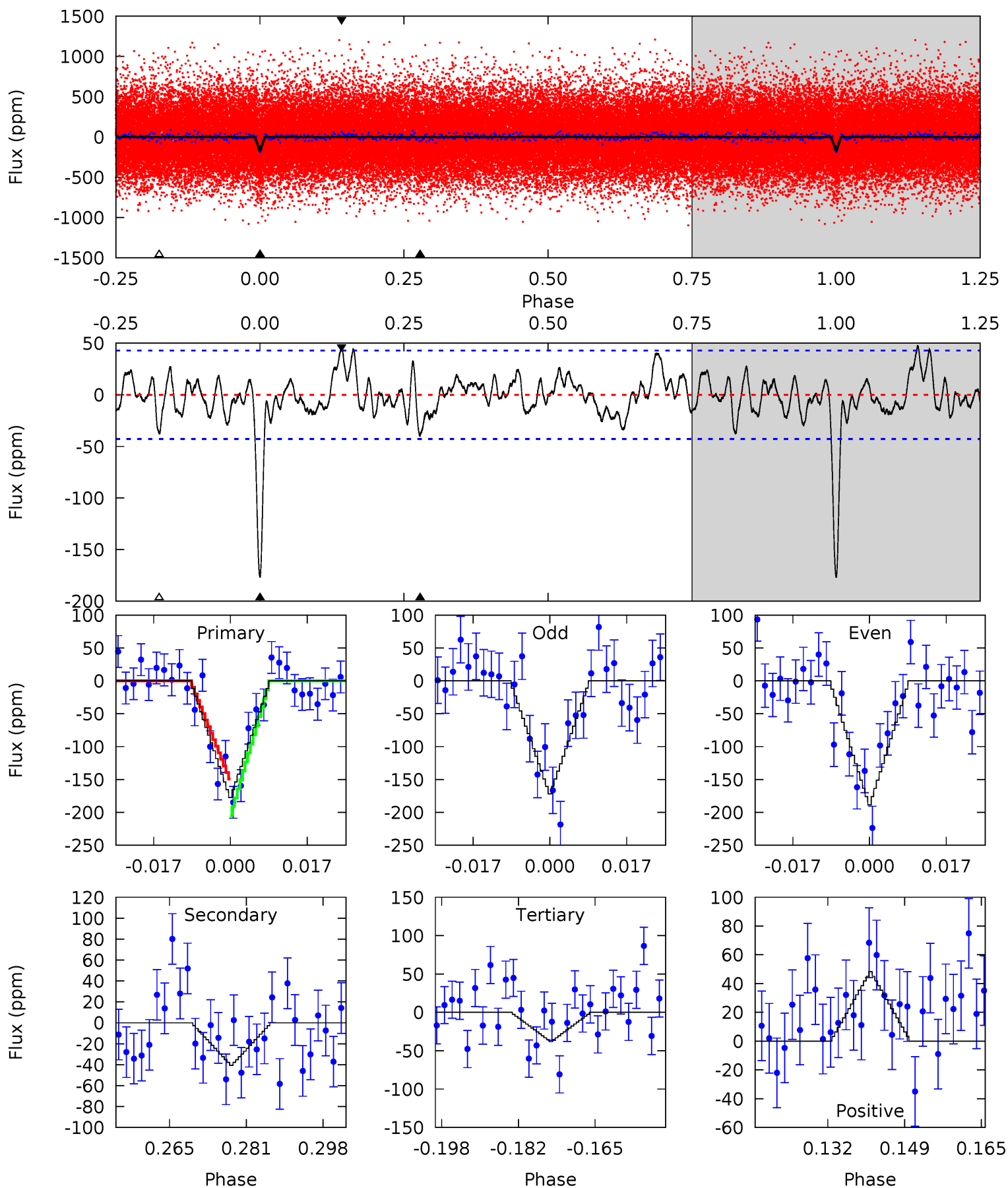
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

007447895-01, P = 2.405607 Days, E = 130.743309 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
20.4	4.66	4.38	5.55	4.93	2.40	1.73	16.0	14.8	0.28	-0.89	0.96	0.97	0.21	3.22



### Stellar Parameters For KIC 007447895

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5450^{+146}_{-163}$	$4.573^{+0.027}_{-0.153}$	$0.070^{+0.250}_{-0.300}$	$0.830^{+0.174}_{-0.062}$	$0.939^{+0.066}_{-0.100}$	$2.316^{+0.332}_{-0.963}$
	+3%/-3%	+1%/-3%	+357%/-429%	+21%/-7%	+7%/-11%	+14%/-42%
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 007447895-01 / KOI 6878.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$7.15^{+7.09}_{-5.26}$	$1683^{+87}_{-61}$	$-3492^{+21095}_{-16479}$	$-5.351^{+1976.482}_{-2859.066}$
Alt.	$-41 \pm 9$	$7.12^{+6.67}_{-4.83}$	$1686^{+85}_{-68}$	$2210^{+1076}_{-4364}$	$0.511^{+4.354}_{-0.384}$

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



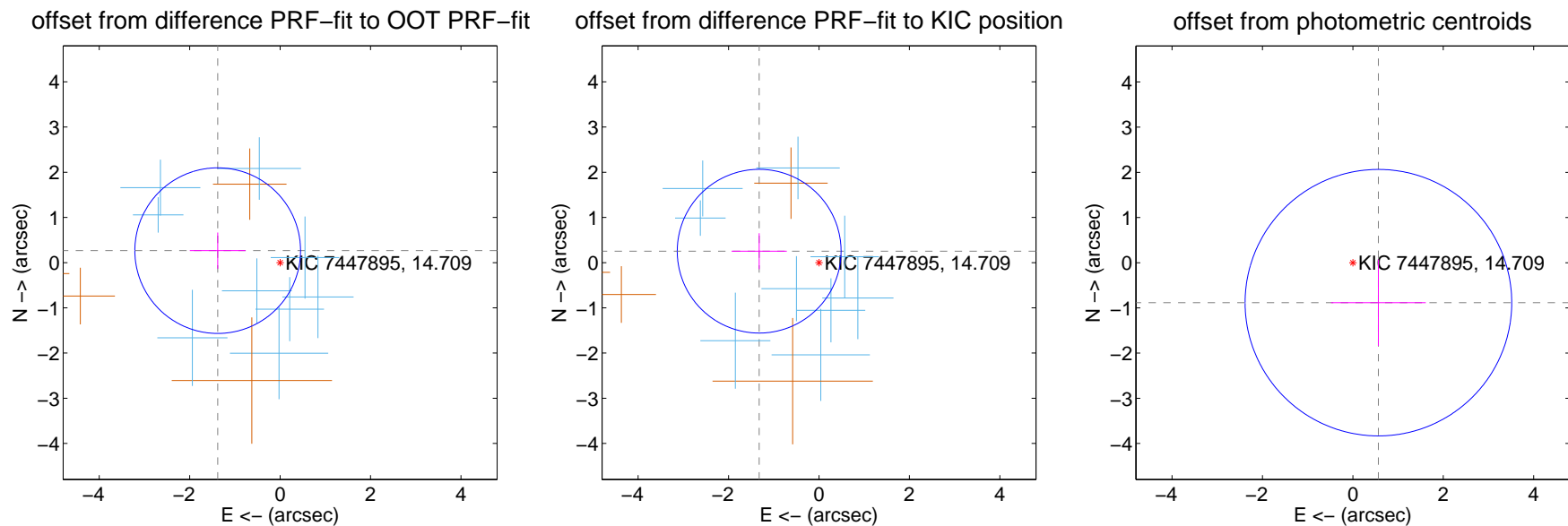
## DV Centroid Data

Supplemental centroid analysis for 007447895-01. Kepler magnitude: 14.71. Transit SNR -1.00

There are 9 quarters with good PRF difference image offsets

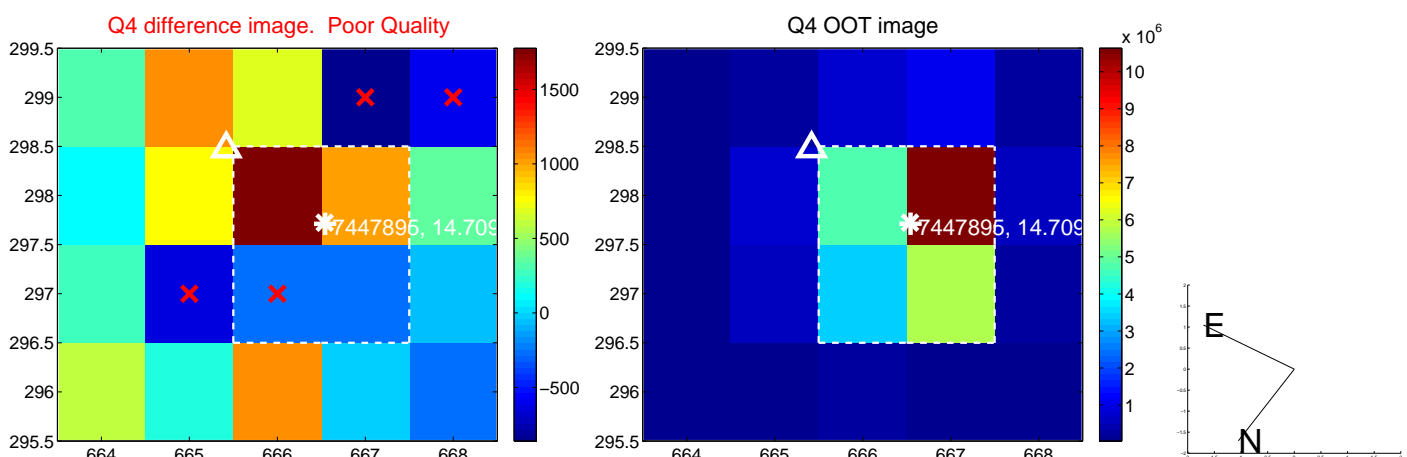
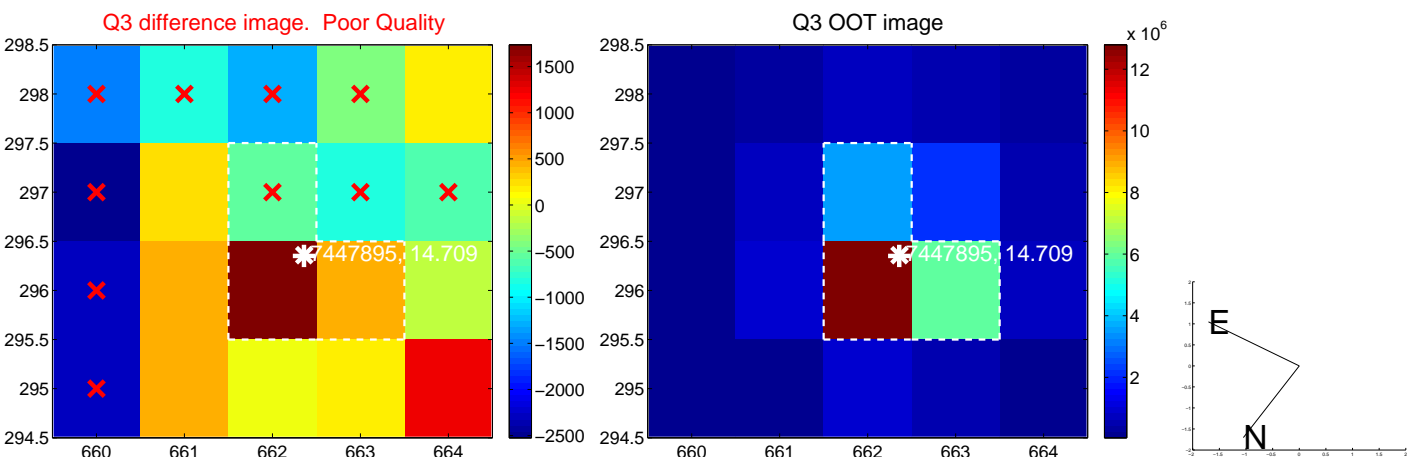
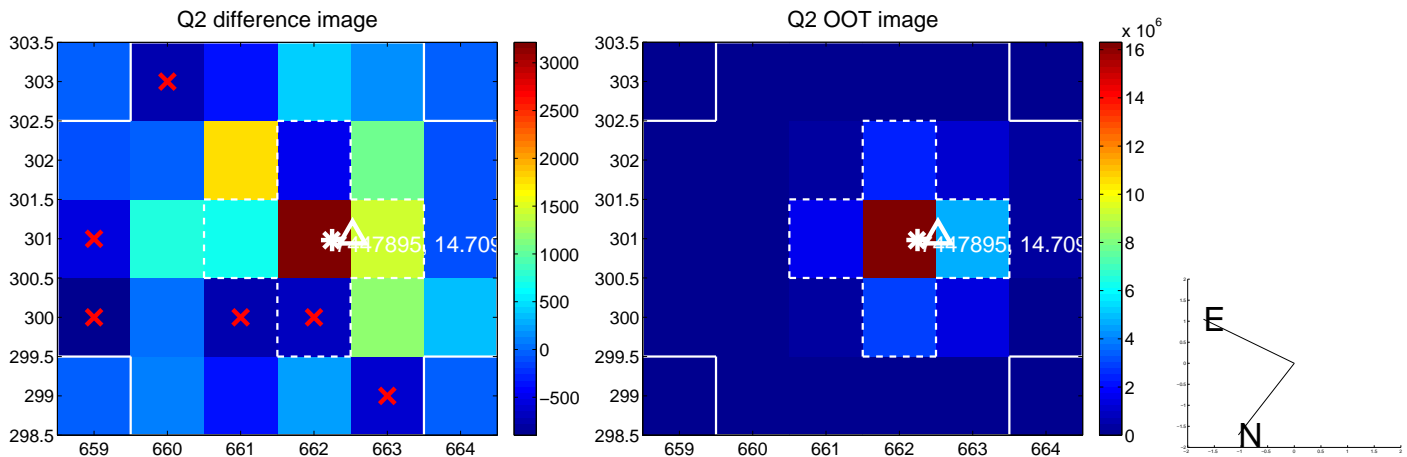
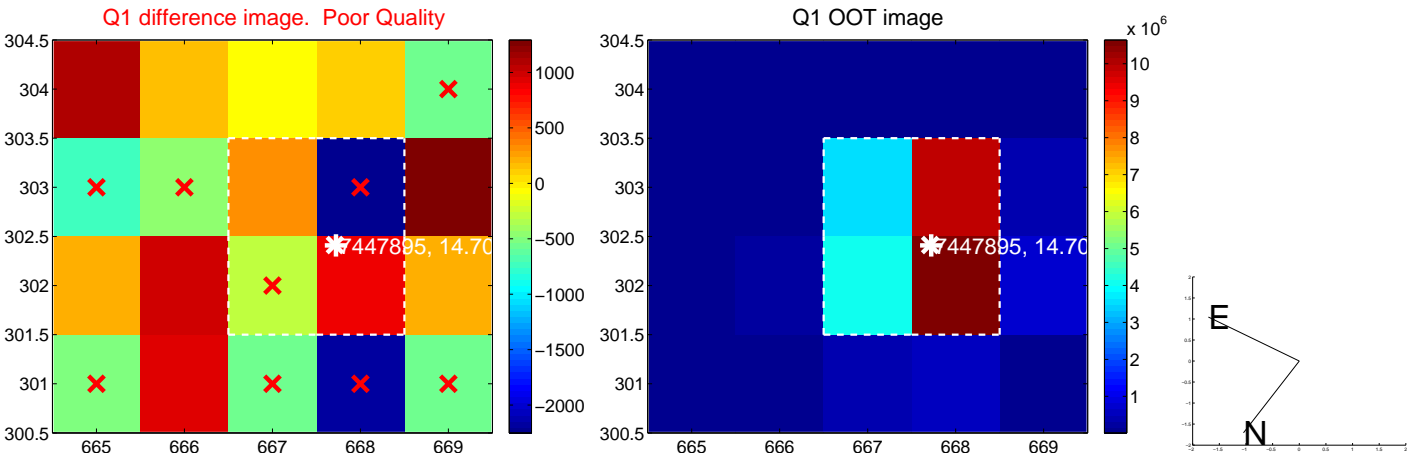
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.406 \pm 0.611$	2.30	$1.380 \pm 0.617$	$0.266 \pm 0.401$
PRF-fit source offset from KIC position	$1.347 \pm 0.604$	2.23	$1.323 \pm 0.610$	$0.253 \pm 0.398$
photometric centroid source offset	$1.05 \pm 0.98$	1.07	$-0.57 \pm 1.05$	$-0.88 \pm 0.96$

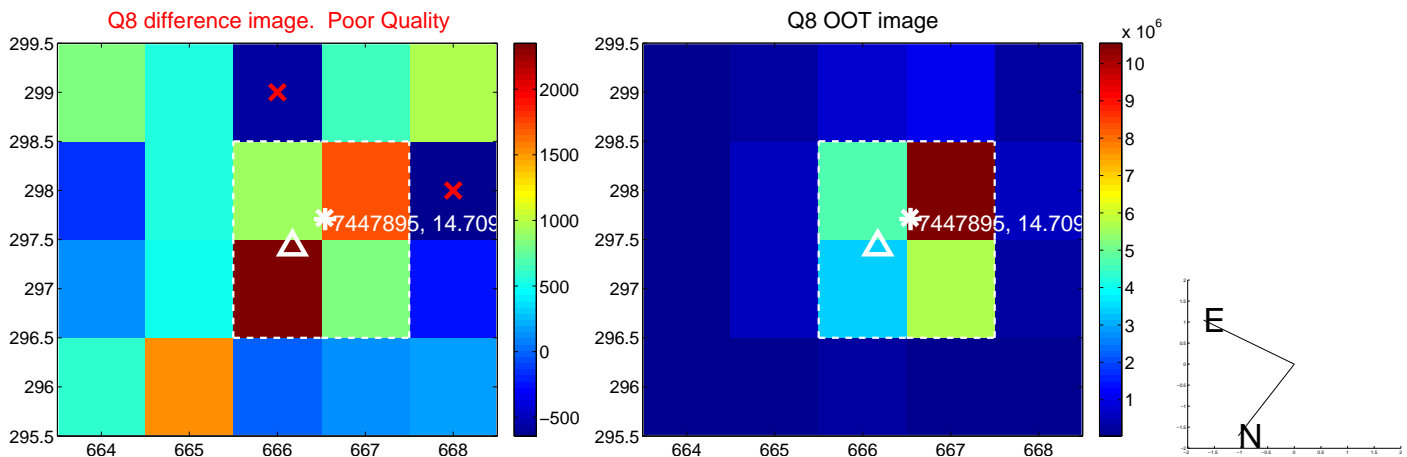
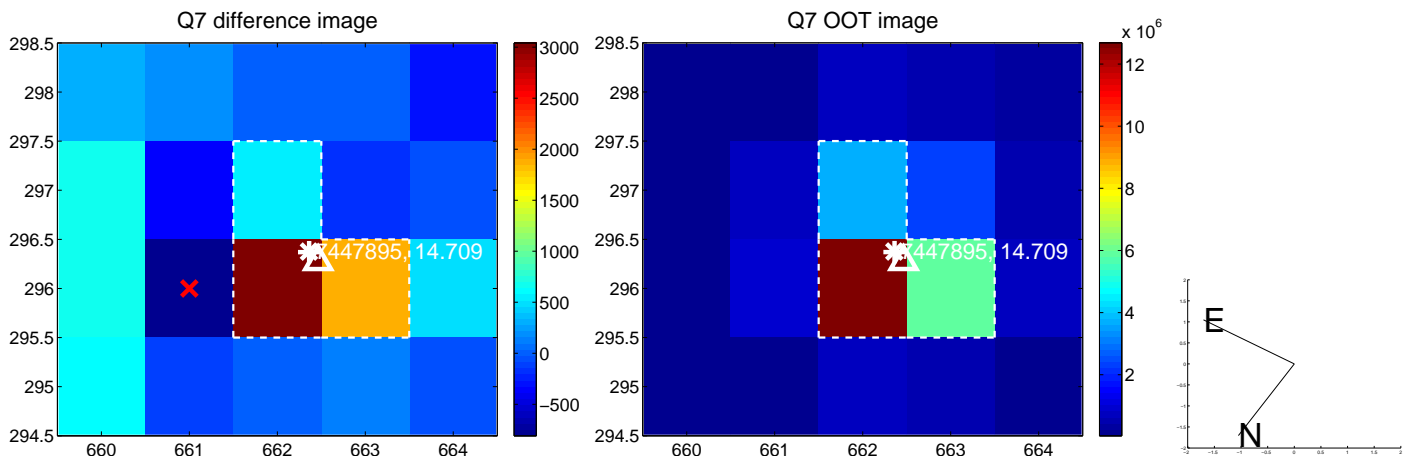
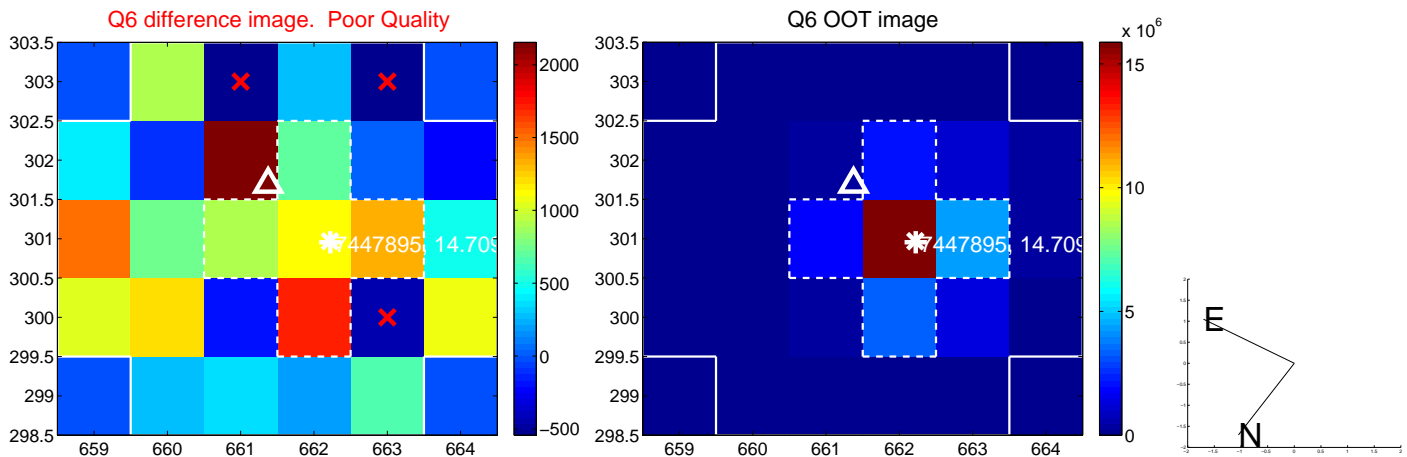
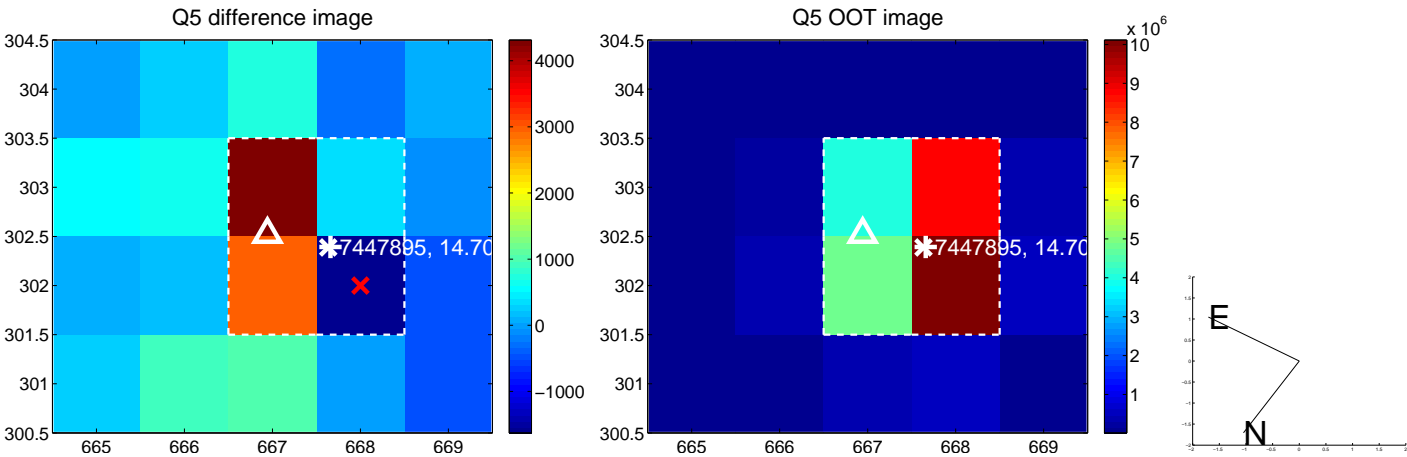


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

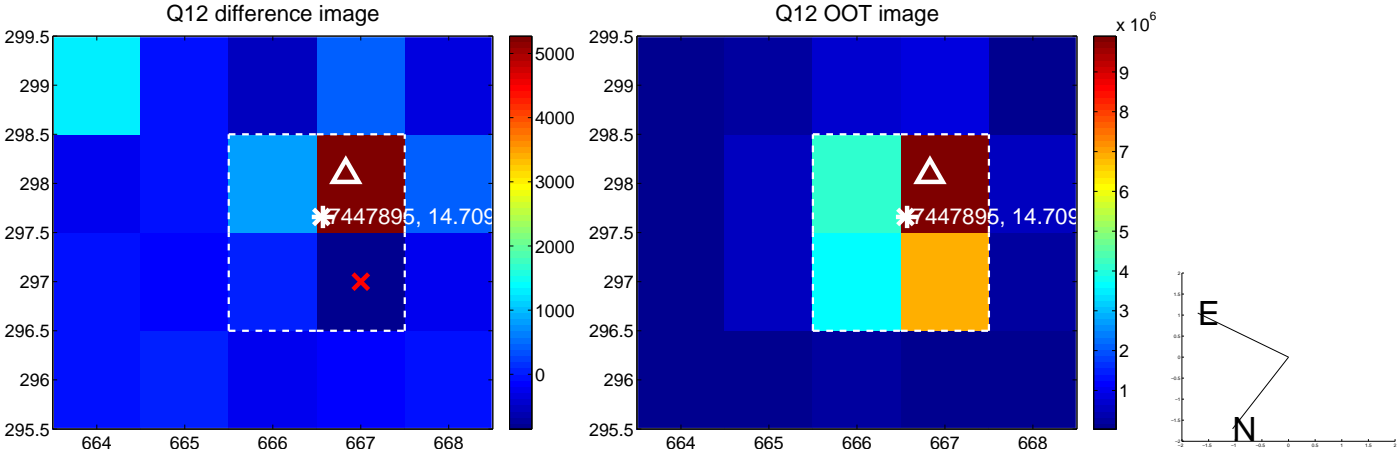
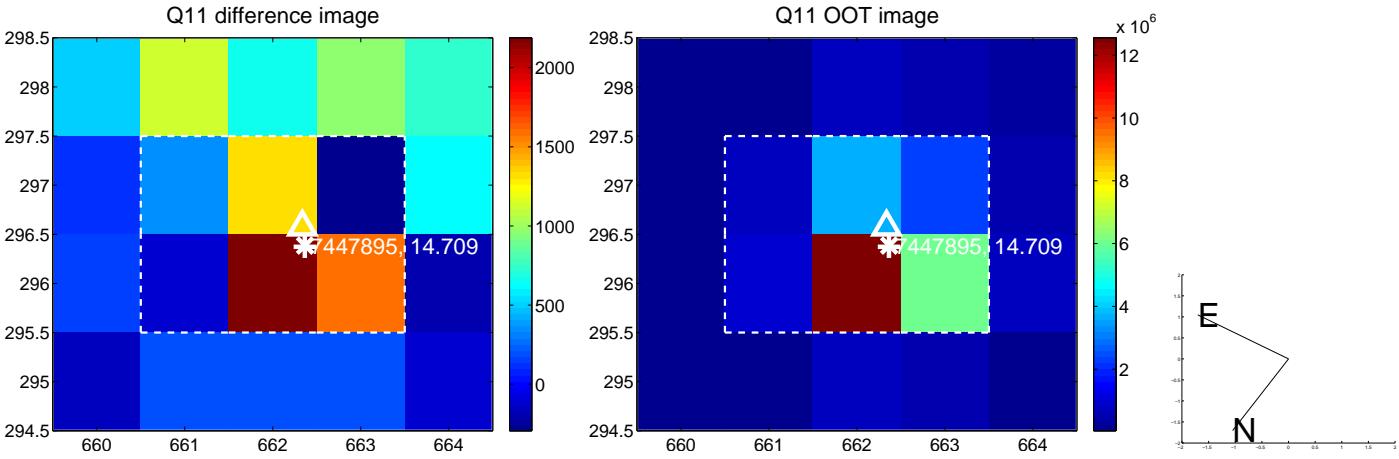
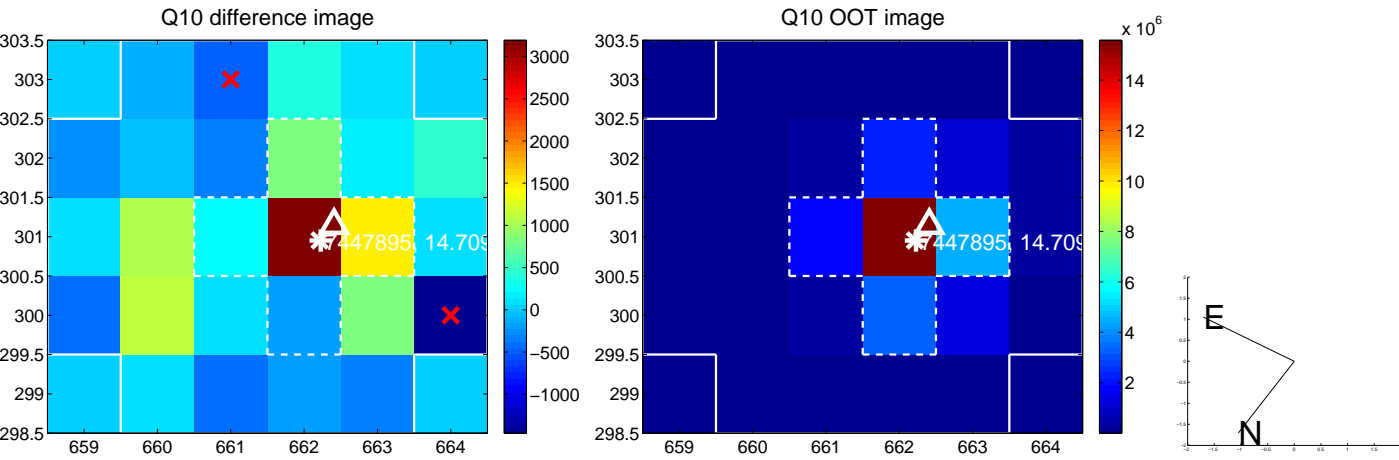
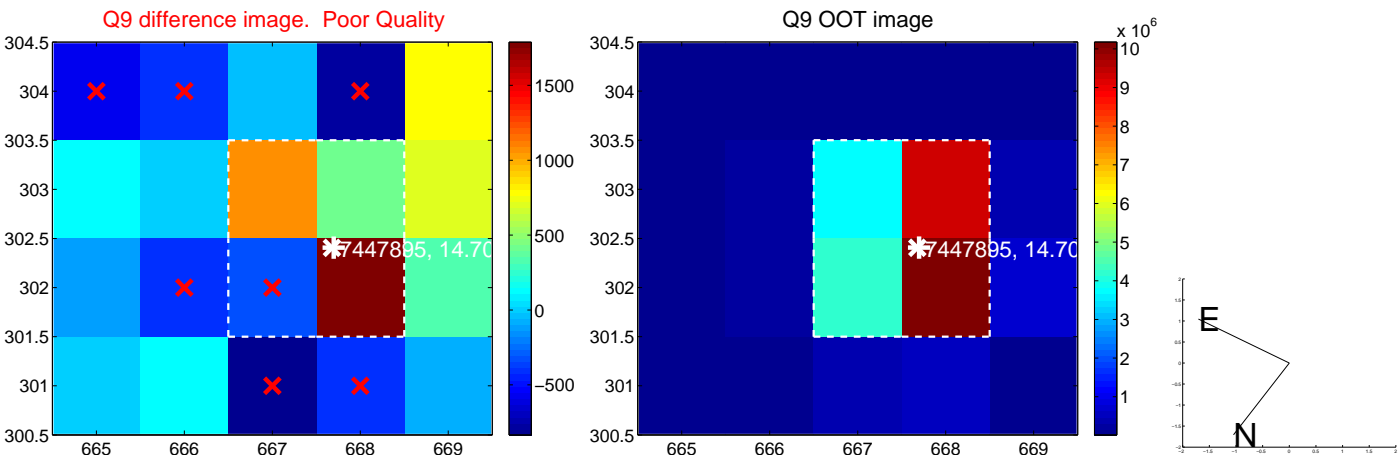
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



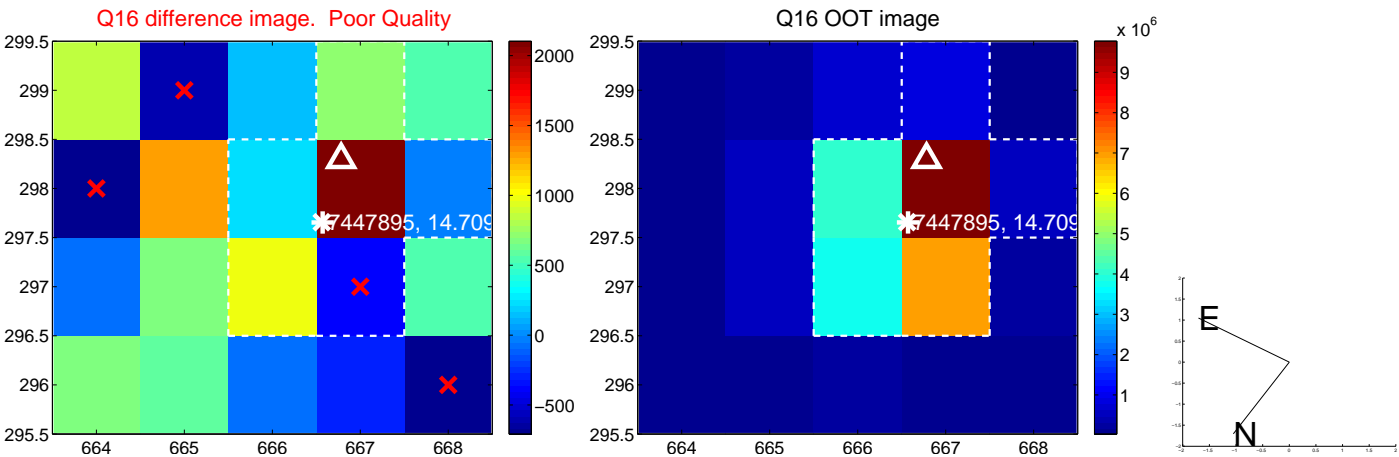
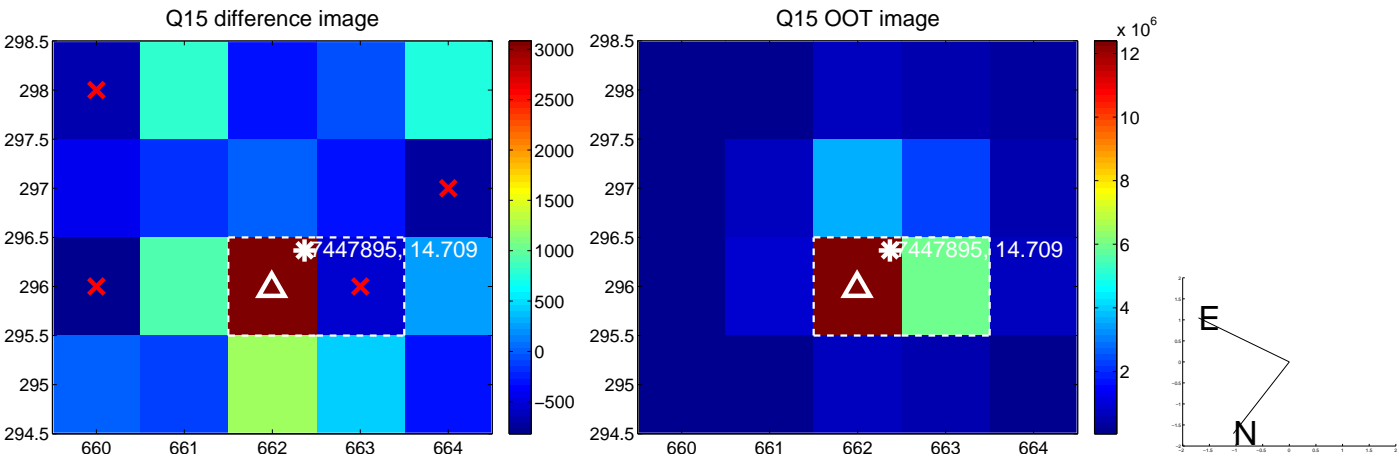
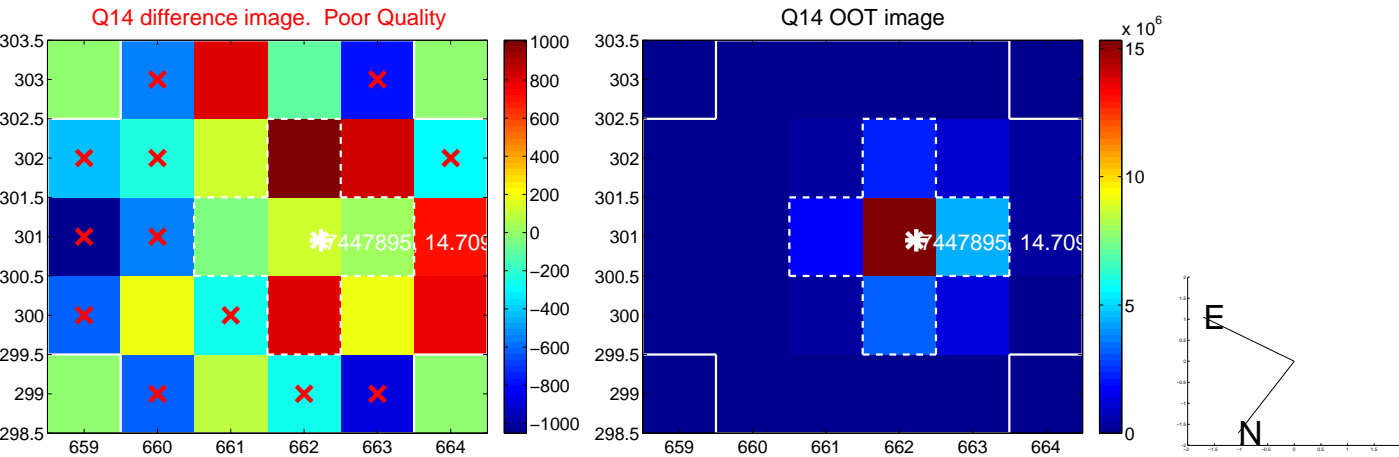
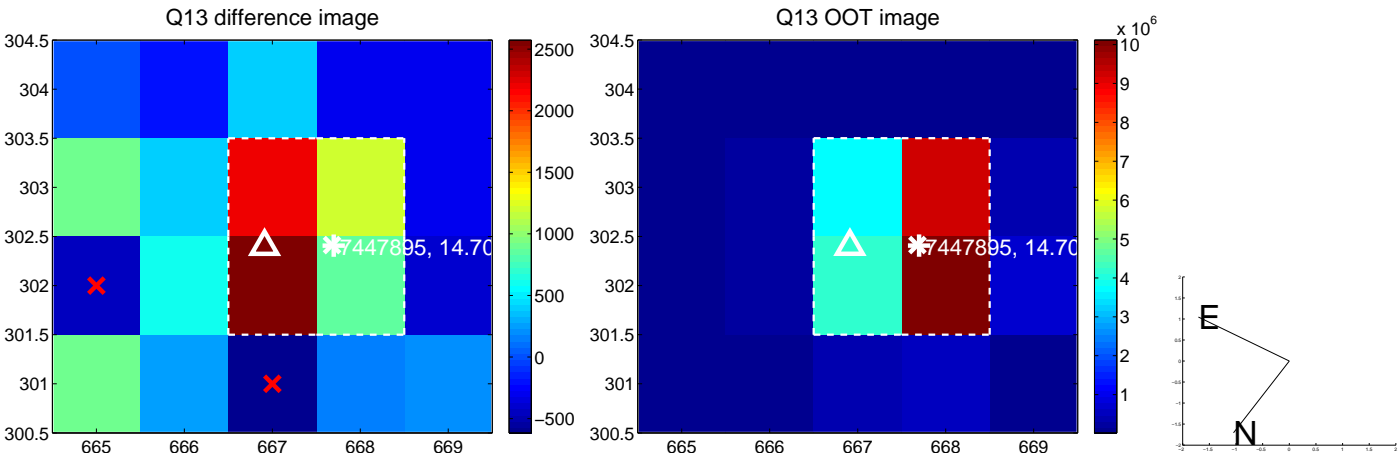
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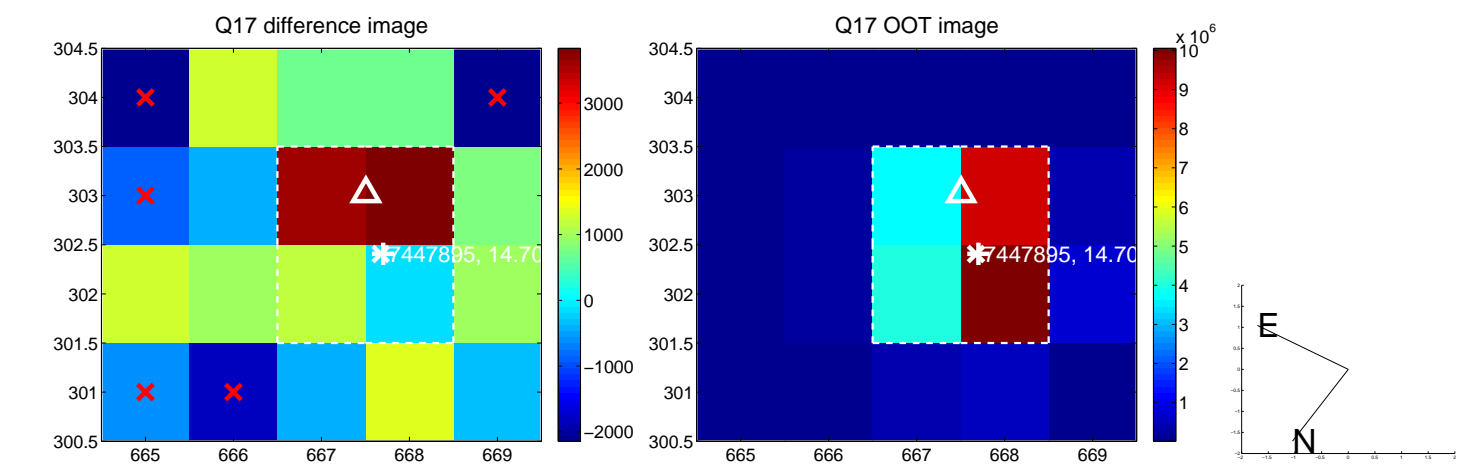


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

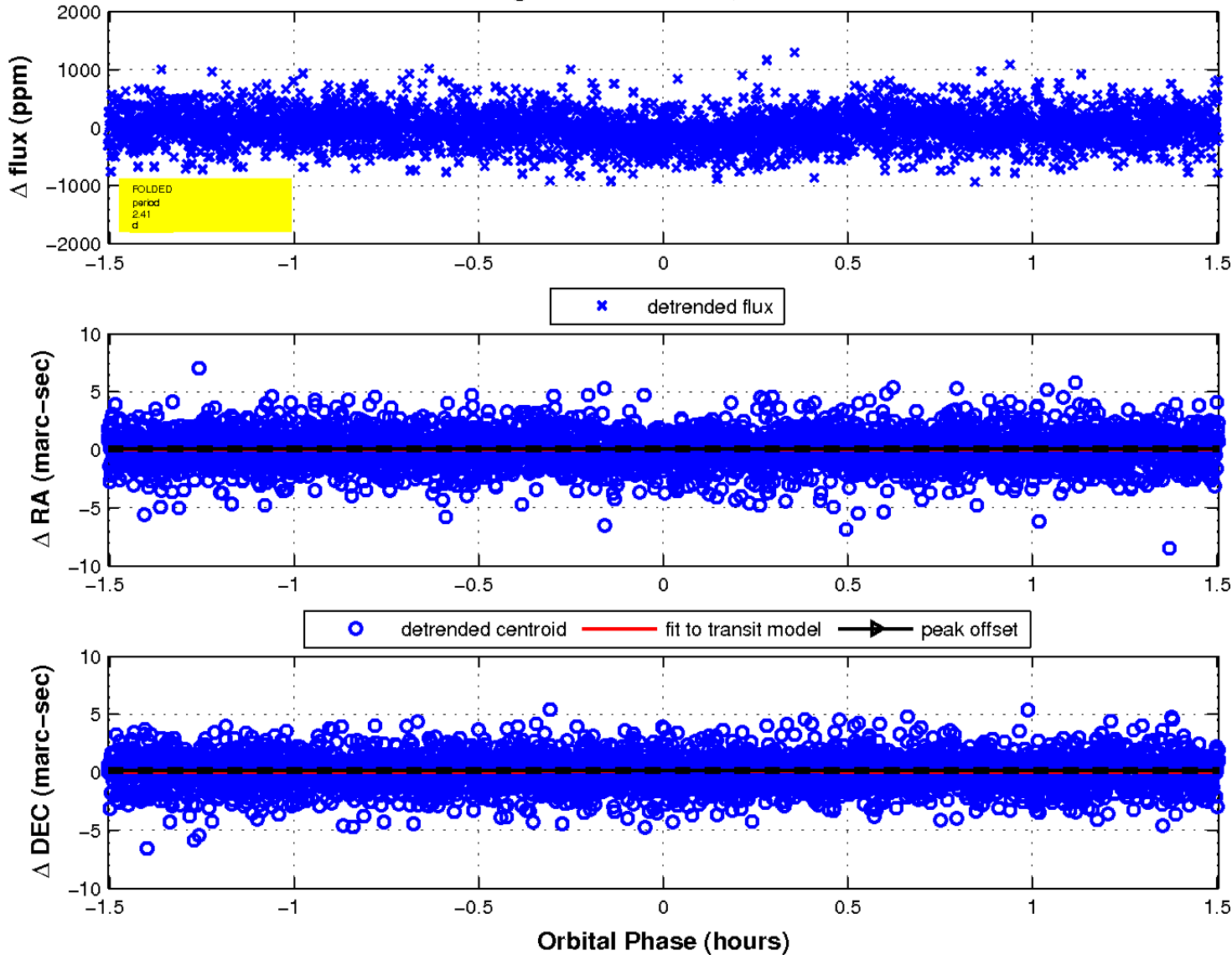




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



### fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

