

# KIC 006697756

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006697756-01	OBS	2798.01	0.916140	132.022279	93.1	1.167	18.6	22.1	0.61	4374	0.72	510.39

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006697756-01	OBS	PC	0.99	0	0	0	0	CENT_KIC_POS

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

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

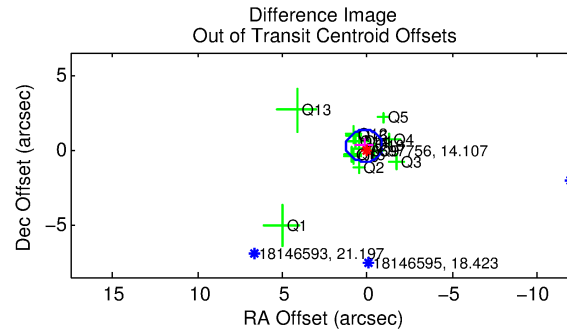
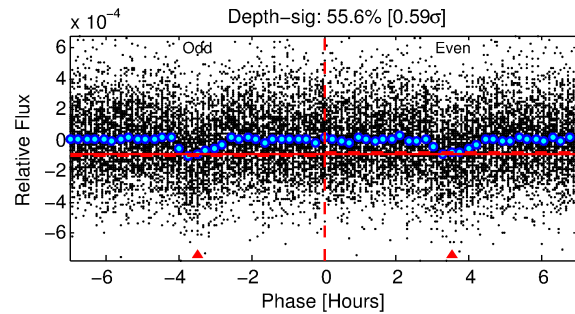
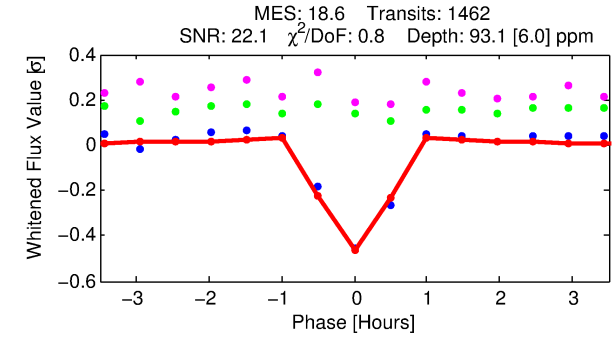
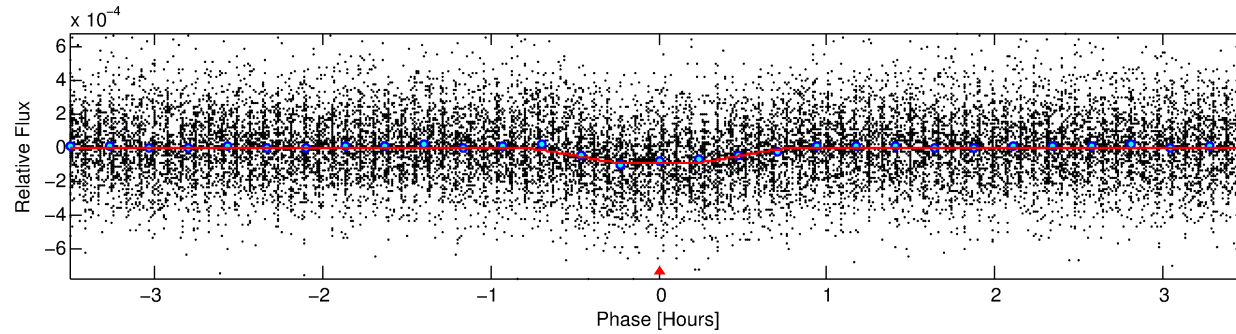
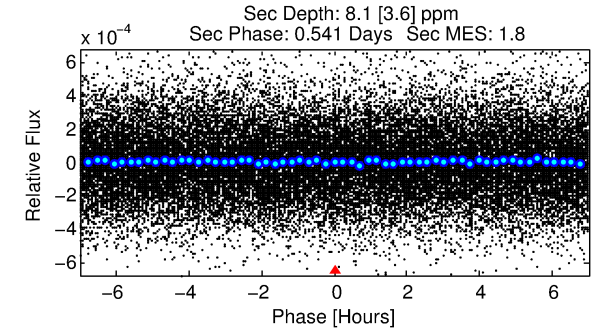
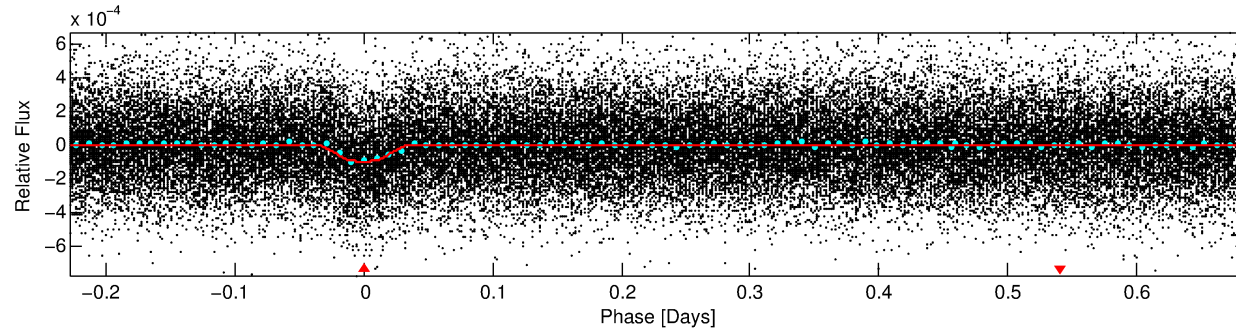
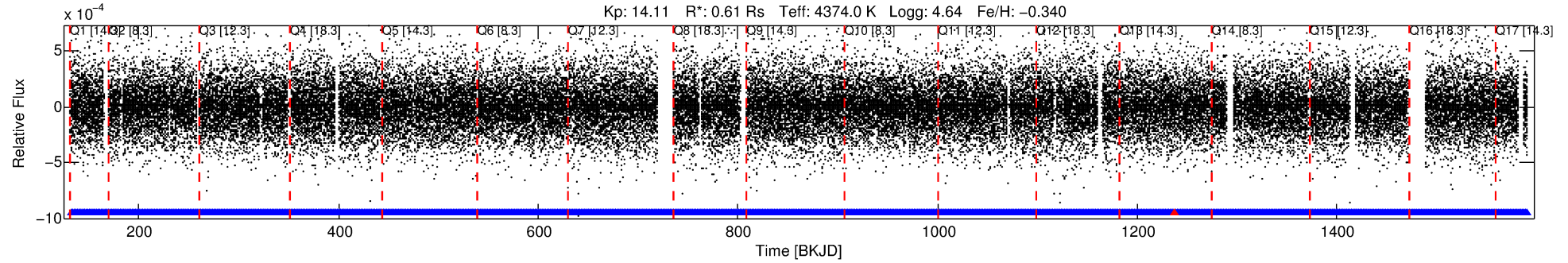
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006697756-01

No Significant Match Found

# DV One-Page Summary

KIC: 6697756 Candidate: 1 of 1 Period: 0.916 d  
KOI: K02798.01 Corr: 0.971



## DV Fit Results:

Period = 0.91614 [0.00000] d  
Epoch = 132.0223 [0.0008] BKJD  
Rp/R\* = 0.0108 [0.0045]  
a/R\* = 2.95 [4.39]  
b = 0.90 [0.38]  
Seff = 510.39 [79.76]  
Teff = 1212 [47] K  
Rp = 0.72 [0.31] Re  
a = 0.0156 [0.0011] AU  
Ag = 2.05 [1.95] [0.54σ]  
Teffp = 2241 [536] K [1.91σ]

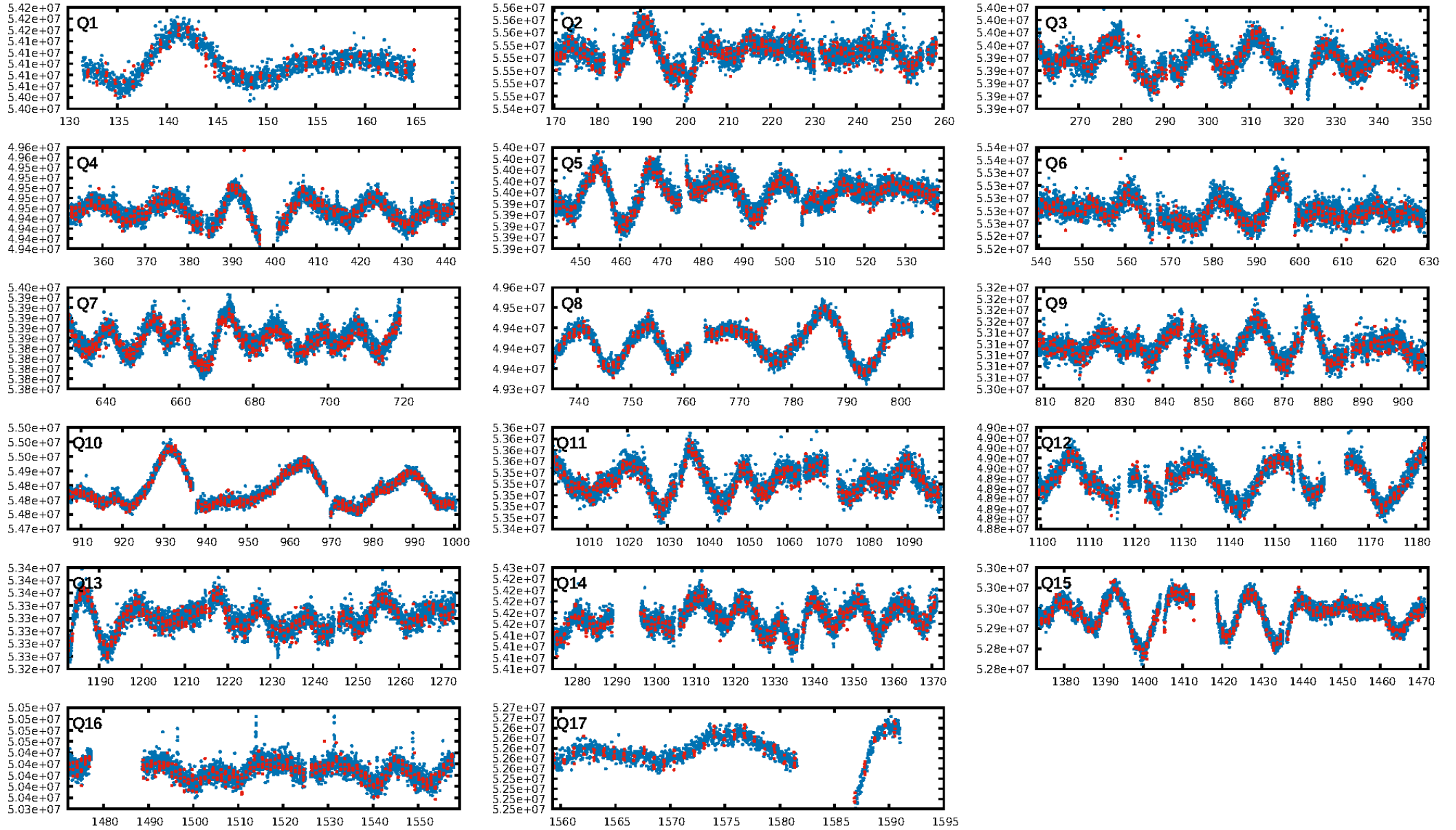
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 4.37e-68  
RollingBand-fgt: 1.00 [1394/1395]  
GhostDiagnostic-chr: 2.872  
Centroid-sig: 86.3%  
Centroid-so: 0.617 arcsec [1.22σ]  
OotOffset-rm: 0.310 arcsec [0.88σ]  
KicOffset-rm: 0.884 arcsec [1.70σ]  
OotOffset-st: 4/4/3/4 [15]  
KicOffset-st: 4/4/3/4 [15]  
DiffImageQuality-fgm: 0.87 [13/15]  
DiffImageOverlap-fno: 1.00 [17/17]

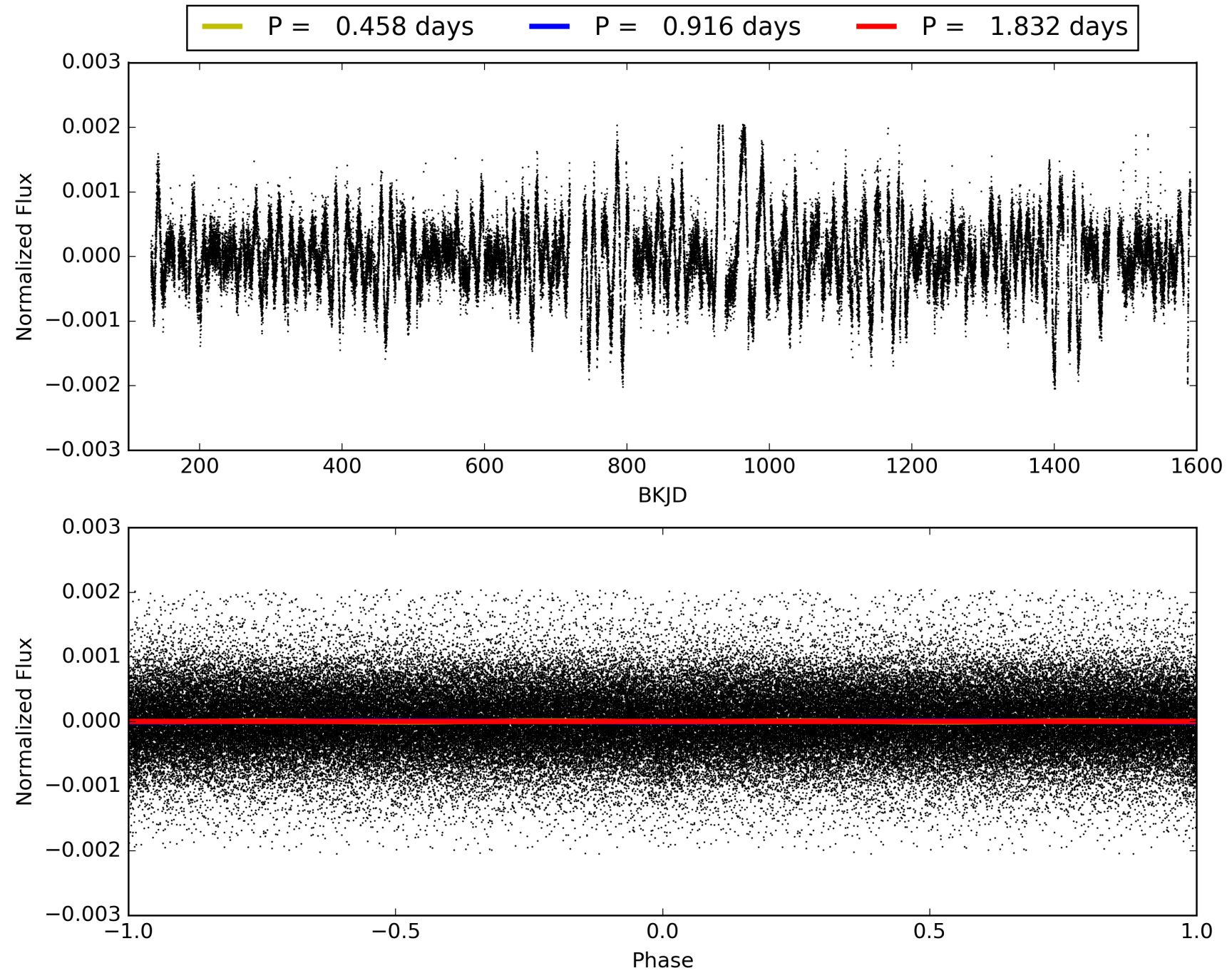
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:56:58 Z

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

# TCE 006697756-01, PDC Light Curves

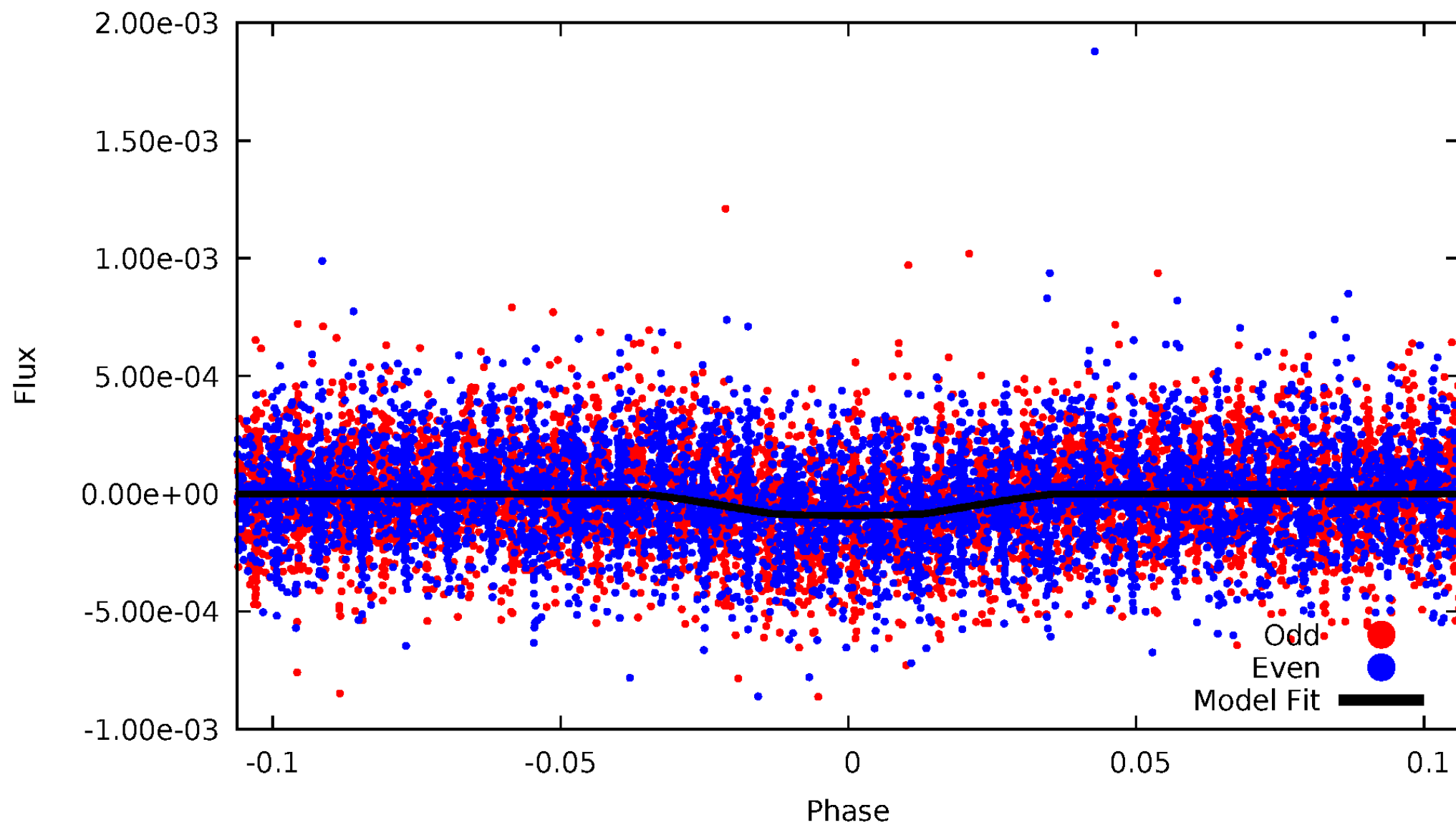


TCE 006697756-01



# DV Odd/Even

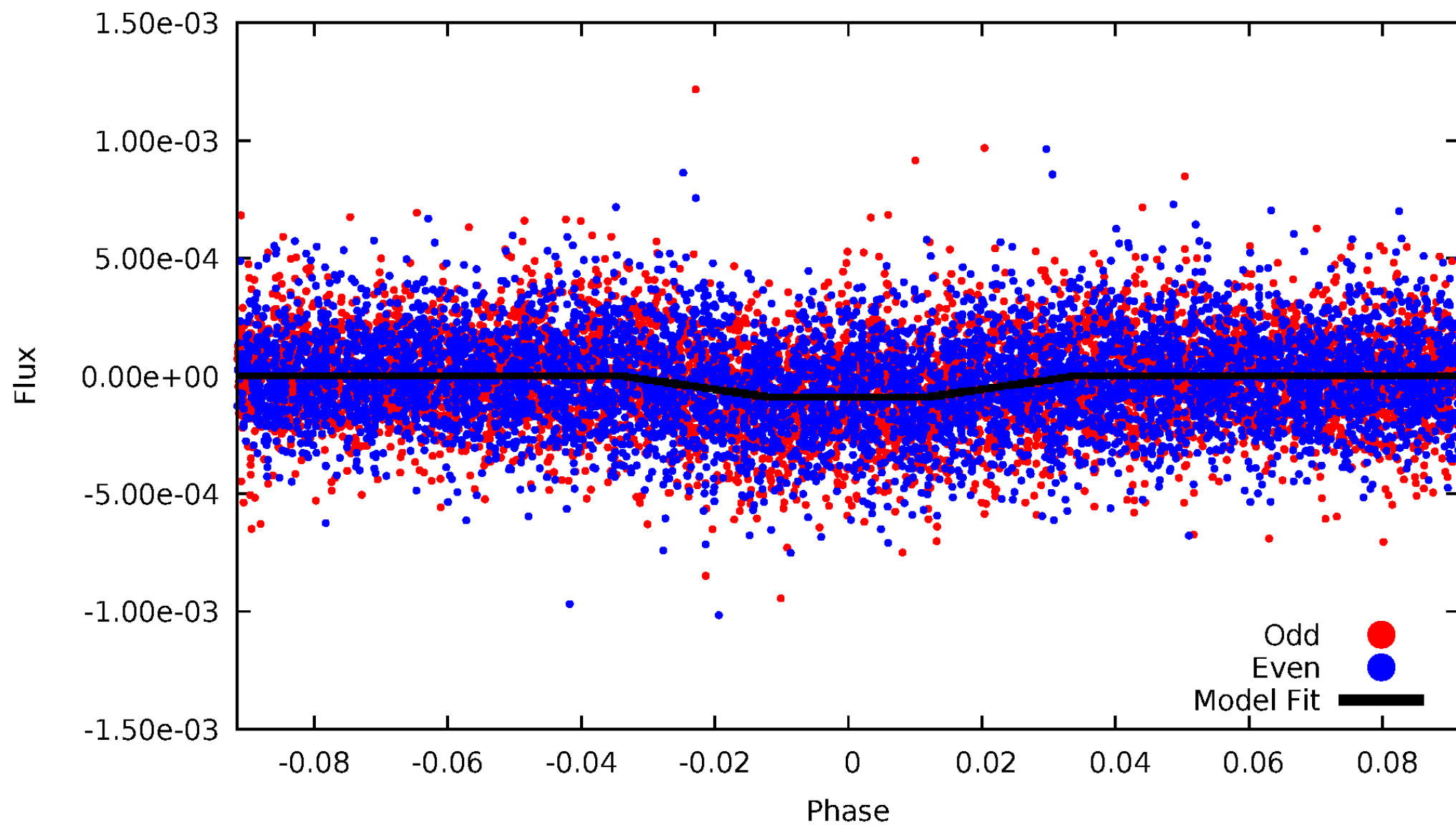
TCE 006697756-01



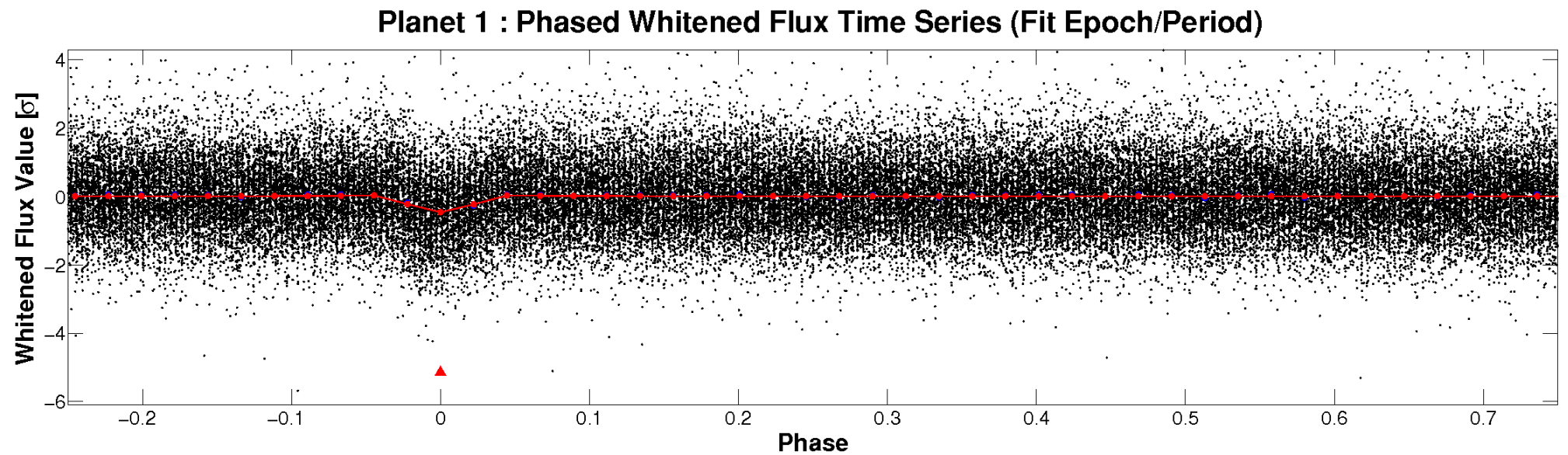
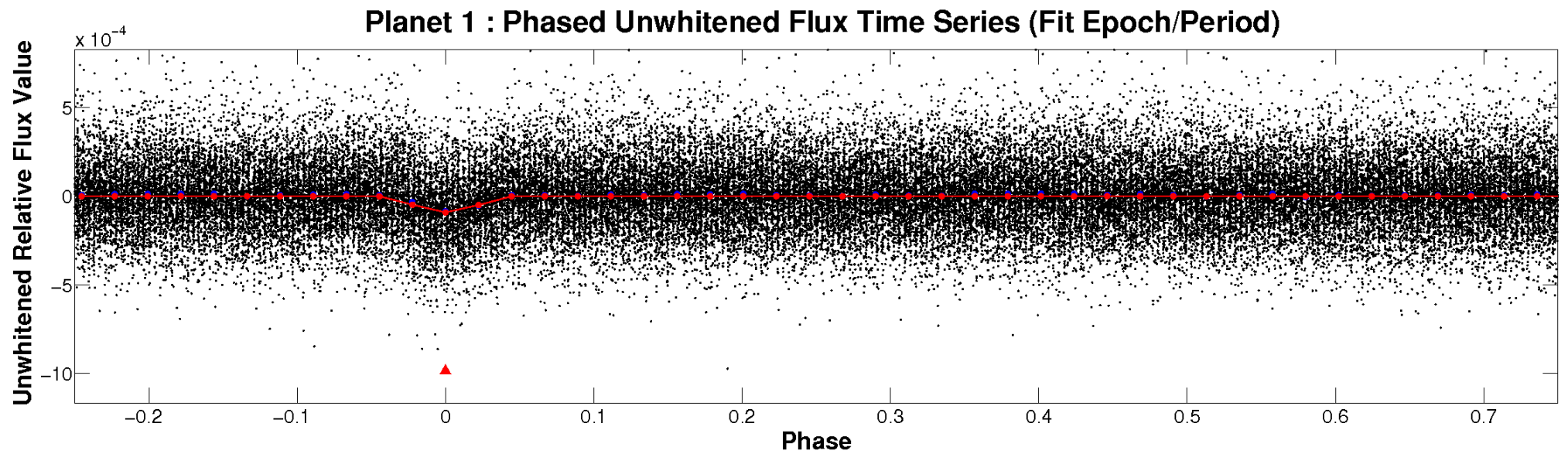


# ALT Odd/Even

TCE 006697756-01

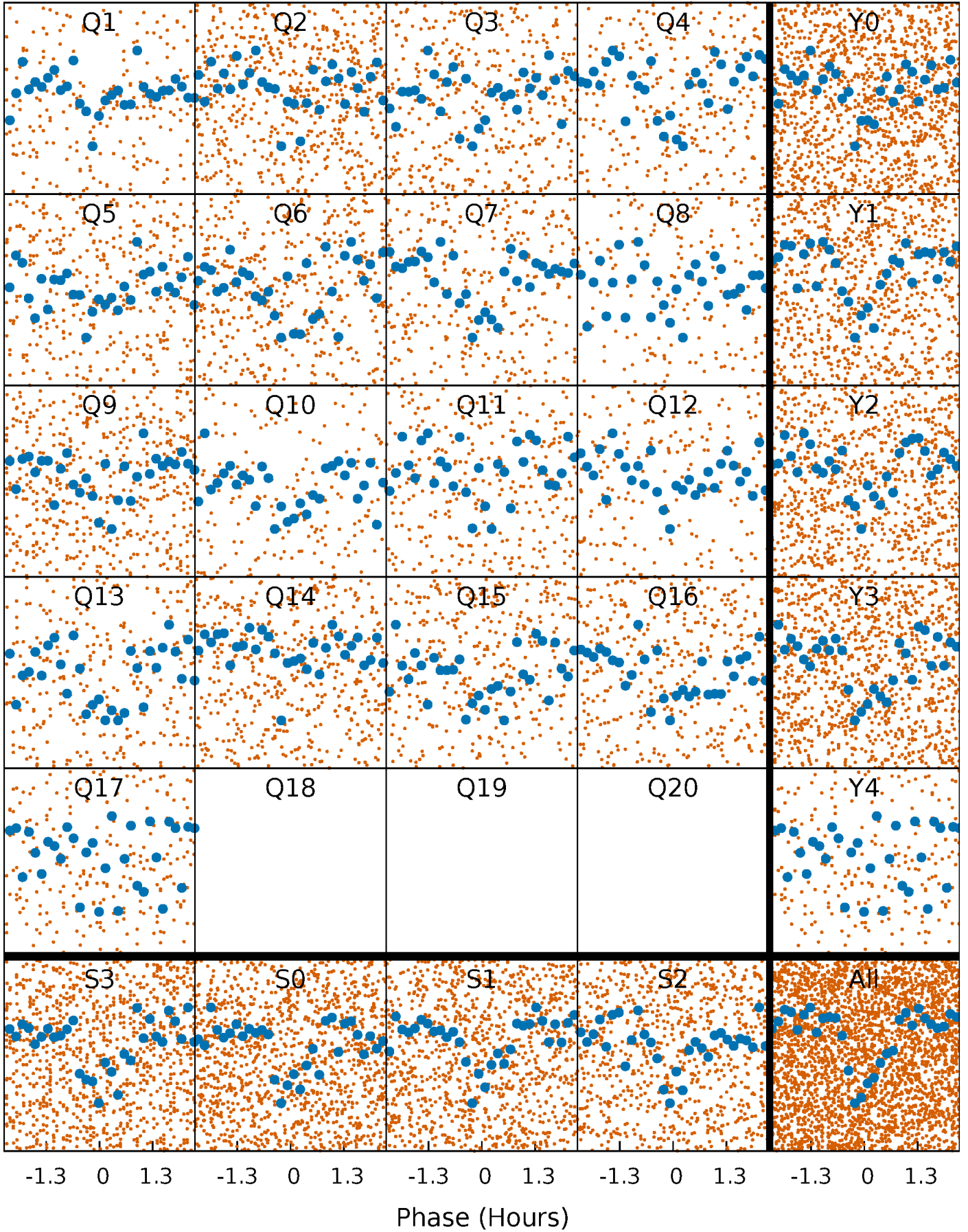


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

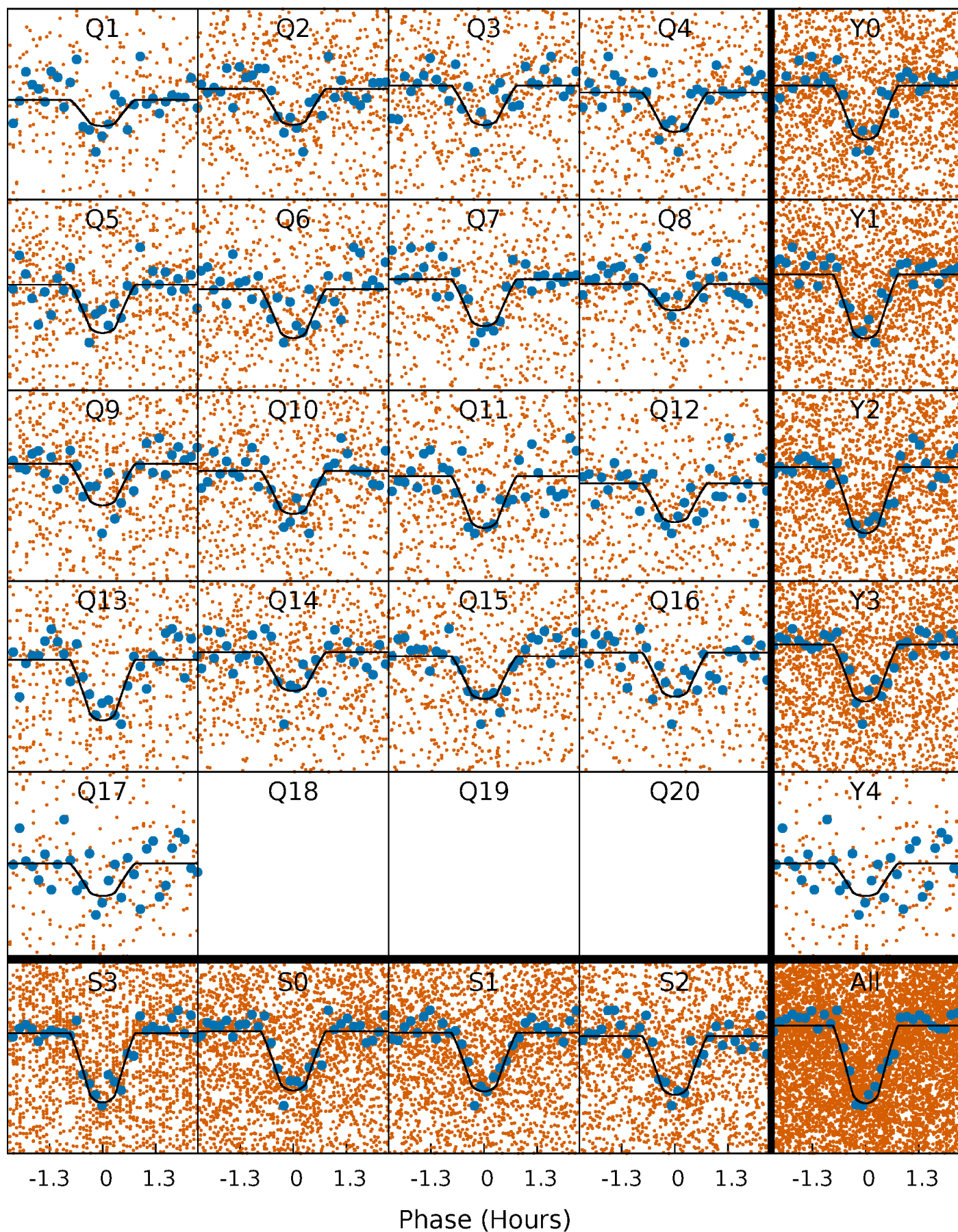
TCE 006697756-01 P= 0.916140 Days  $T_0=132.022279$  (BKJD)





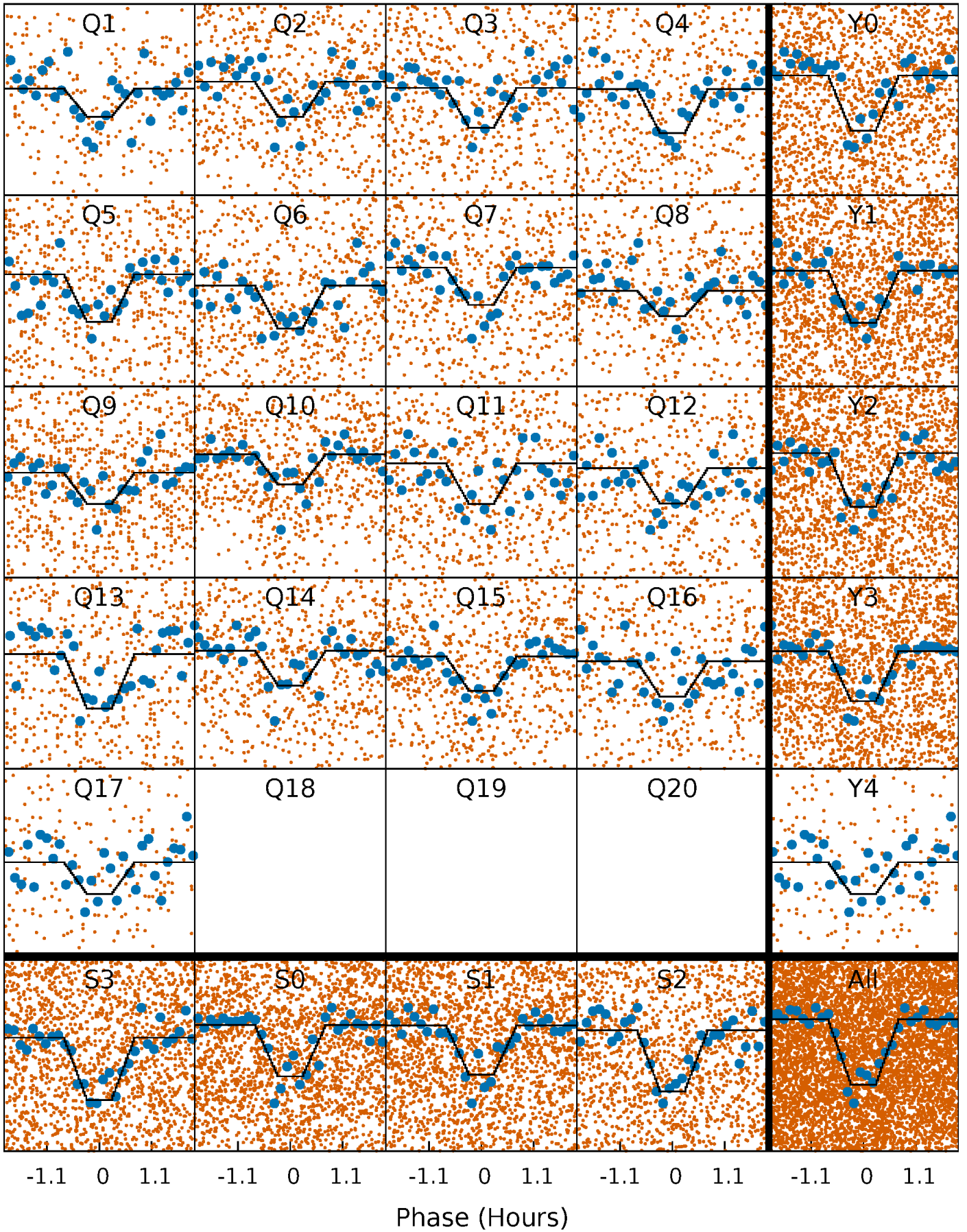
# DV Quarter-Phased Transit Curves

TCE 006697756-01 P= 0.916140 Days  $T_0=132.022279$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

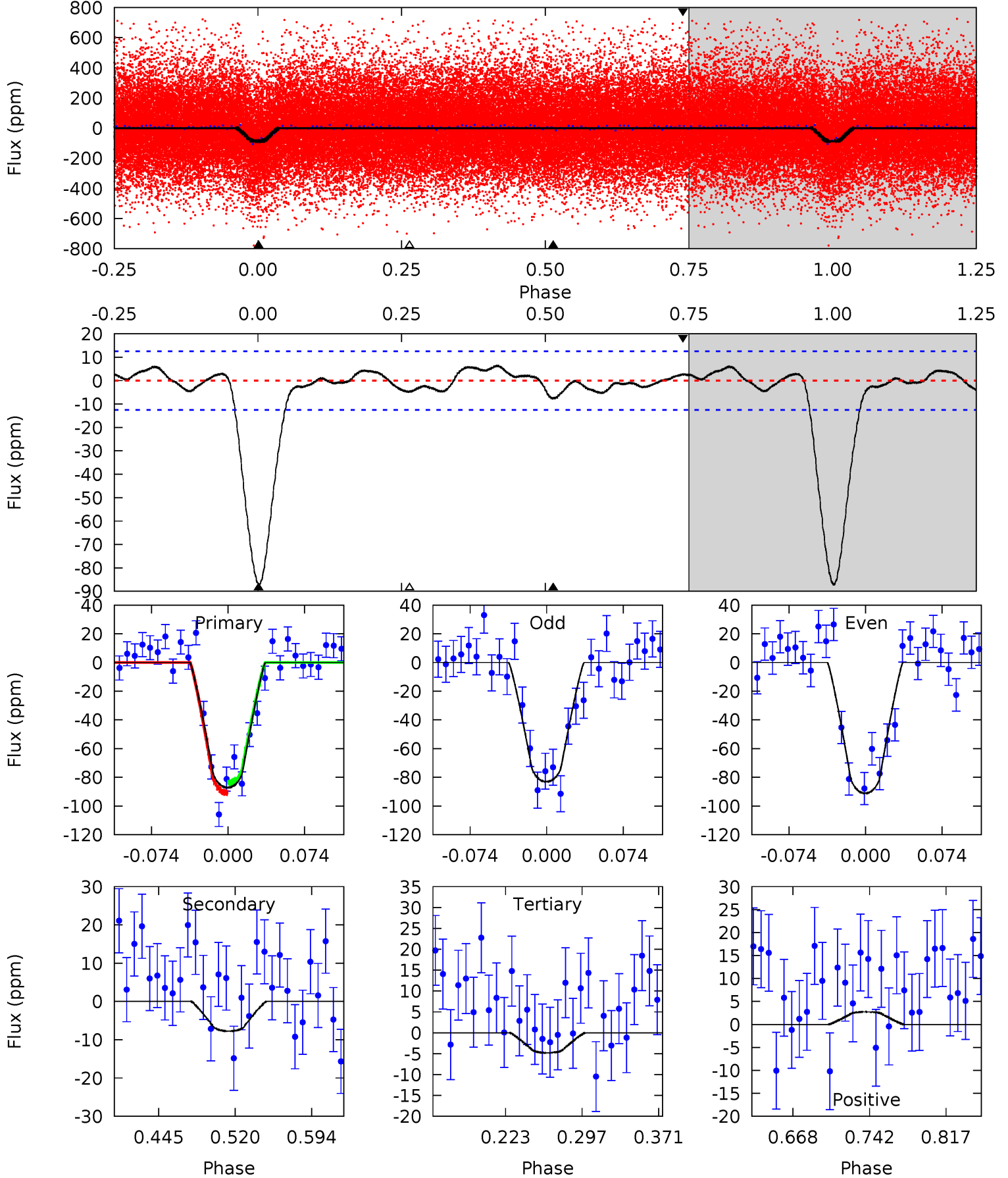
TCE 006697756-01 P= 0.916143 Days  $T_0=132.022108$  (BKJD)



# DV Model-Shift Uniqueness Test

006697756-01, P = 0.916140 Days, E = 131.106139 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
32.2	2.86	1.77	1.01	4.63	1.79	1.17	30.4	31.2	1.09	1.85	1.50	1.02	0.07	1.26

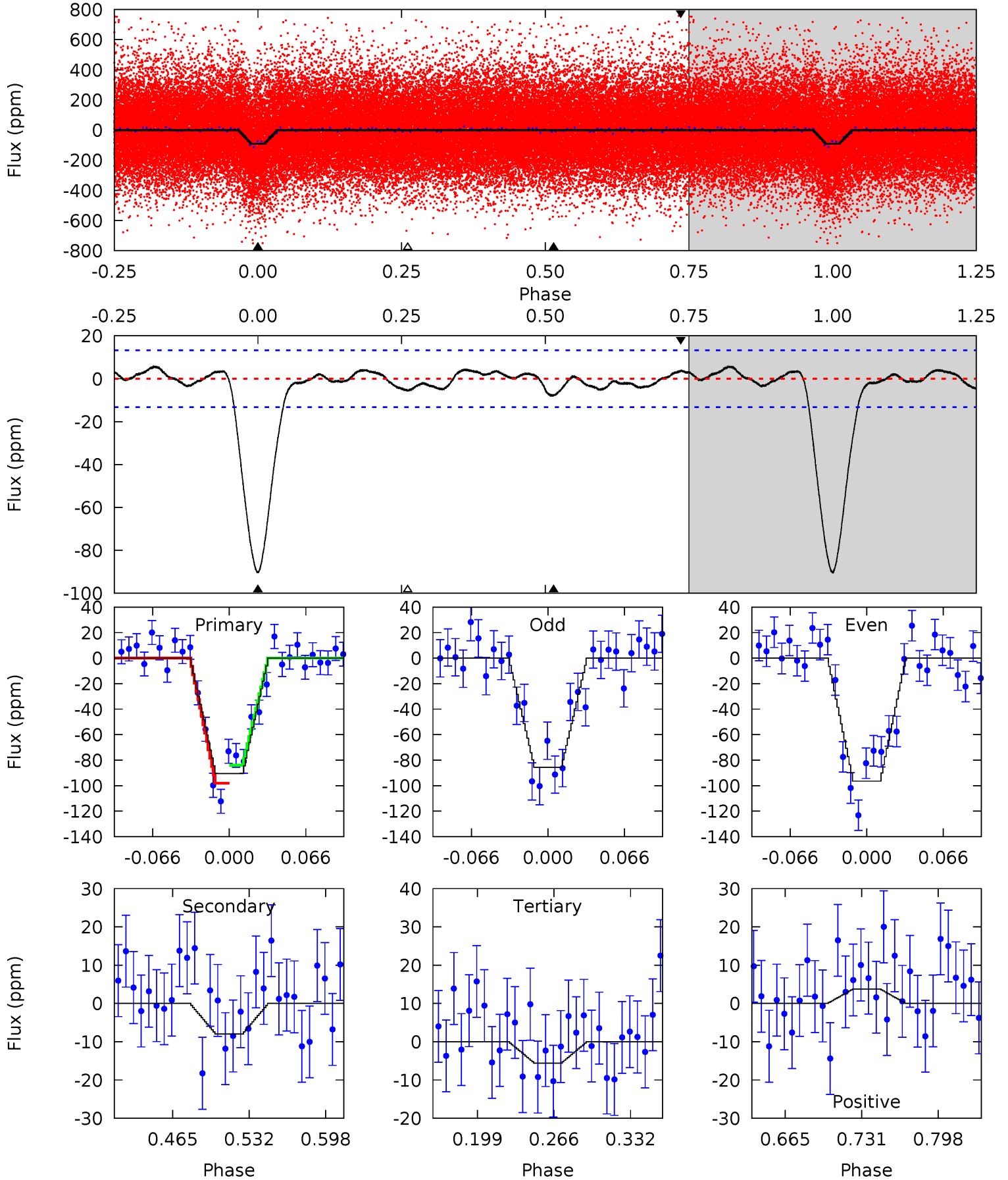




# Alt Model-Shift Uniqueness Test

006697756-01, P = 0.916143 Days, E = 131.105965 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
31.8	2.80	1.97	1.33	4.65	1.84	1.00	29.8	30.4	0.83	1.47	1.92	0.97	0.06	2.48





### Stellar Parameters For KIC 006697756

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$4374^{+118}_{-131}$	$4.639^{+0.052}_{-0.024}$	$-0.340^{+0.350}_{-0.300}$	$0.614^{+0.045}_{-0.056}$	$0.600^{+0.065}_{-0.047}$	$3.642^{+0.842}_{-0.416}$
	+3%/-3%	+1%/-1%	+103%/-88%	+7%/-9%	+11%/-8%	+23%/-11%
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 006697756-01 / KOI 2798.01

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-8 \pm 3$	$0.72^{+0.32}_{-0.29}$	$1685^{+54}_{-54}$	$2787^{+486}_{-373}$	$1.996^{+3.675}_{-1.150}$
Alt.	$-8 \pm 3$	$0.65^{+0.30}_{-0.29}$	$1685^{+51}_{-54}$	$2863^{+606}_{-403}$	$2.476^{+6.077}_{-1.534}$

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

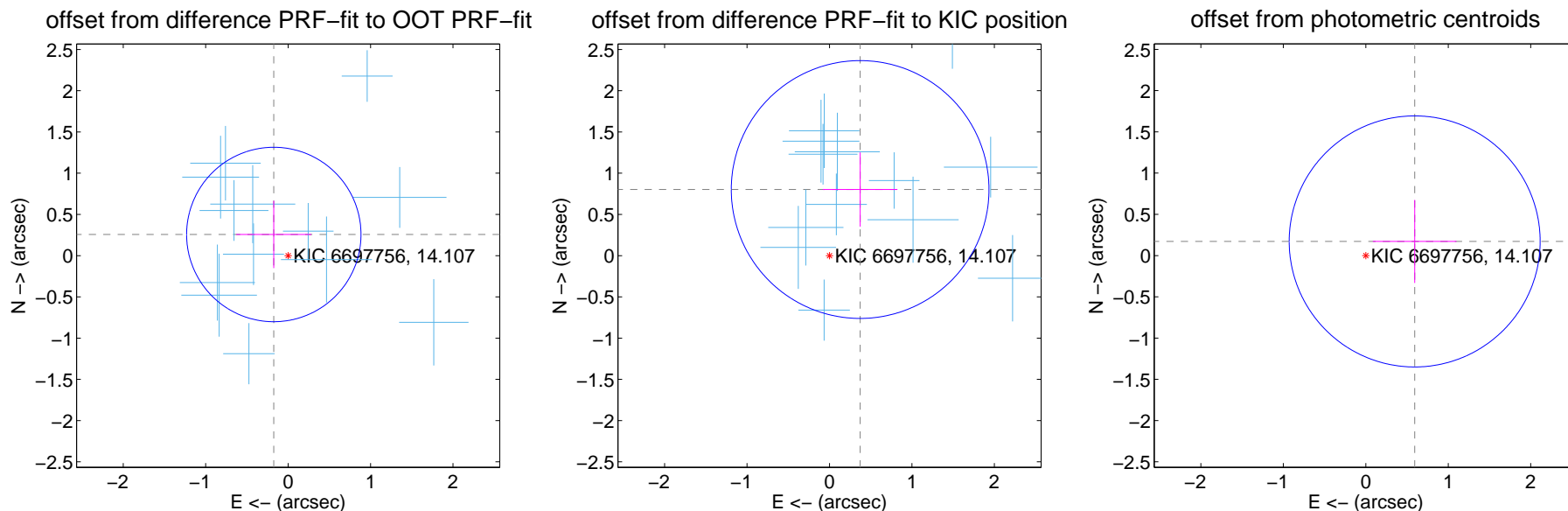
## DV Centroid Data

Supplemental centroid analysis for 006697756-01. Kepler magnitude: 14.11. Transit SNR 22.11

There are 13 quarters with good PRF difference image offsets

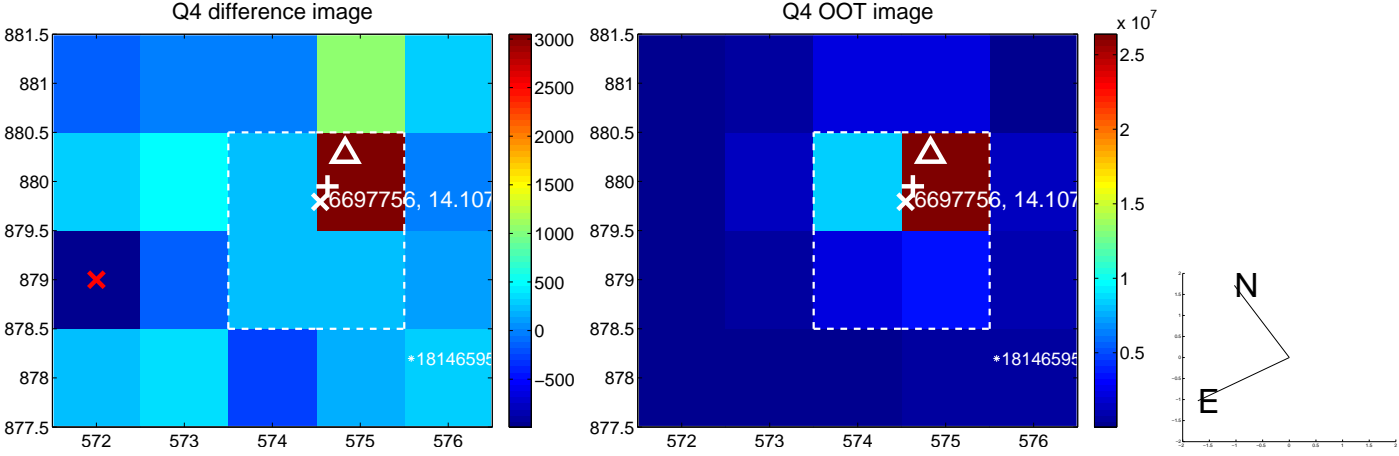
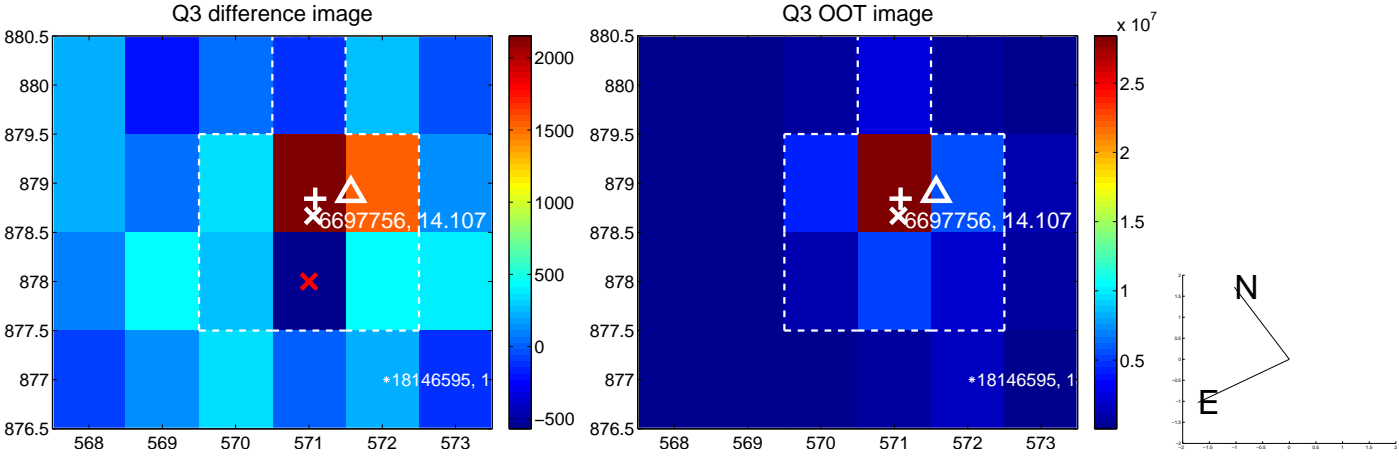
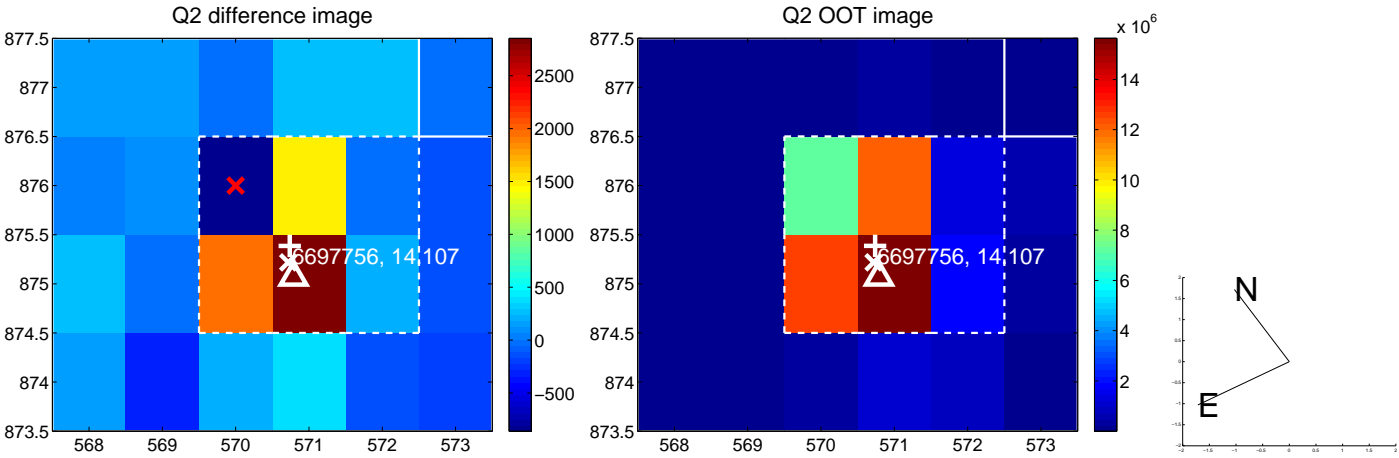
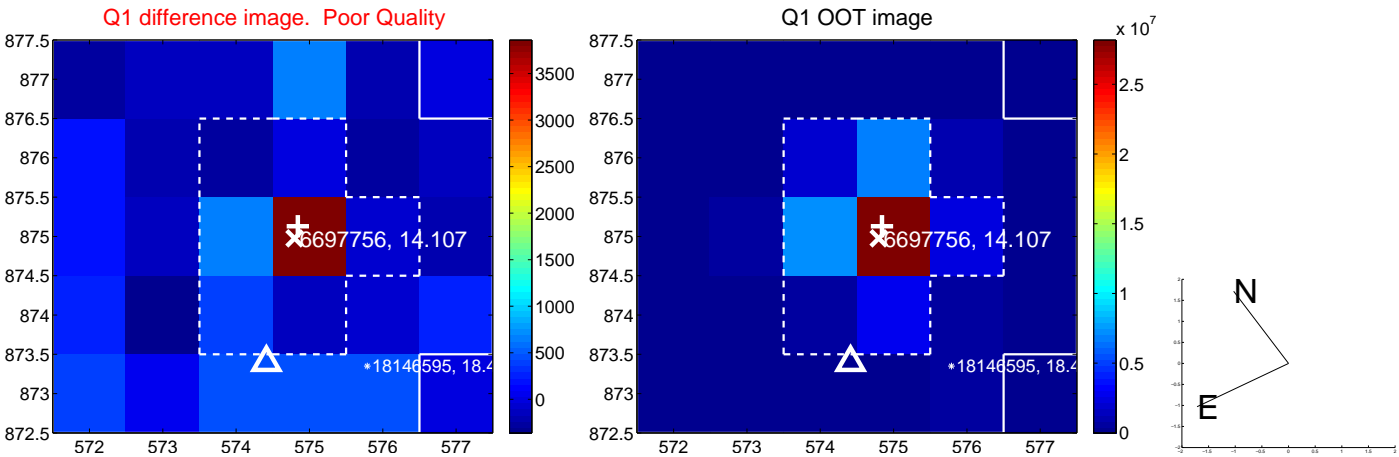
The direct PRF centroid is offset from the target star catalog position by about 0.84 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.310 \pm 0.353$	0.88	$0.174 \pm 0.457$	$0.257 \pm 0.408$
PRF-fit source offset from KIC position	$0.884 \pm 0.521$	1.70	$-0.372 \pm 0.453$	$0.802 \pm 0.450$
photometric centroid source offset	$0.62 \pm 0.51$	1.22	$-0.59 \pm 0.51$	$0.17 \pm 0.50$

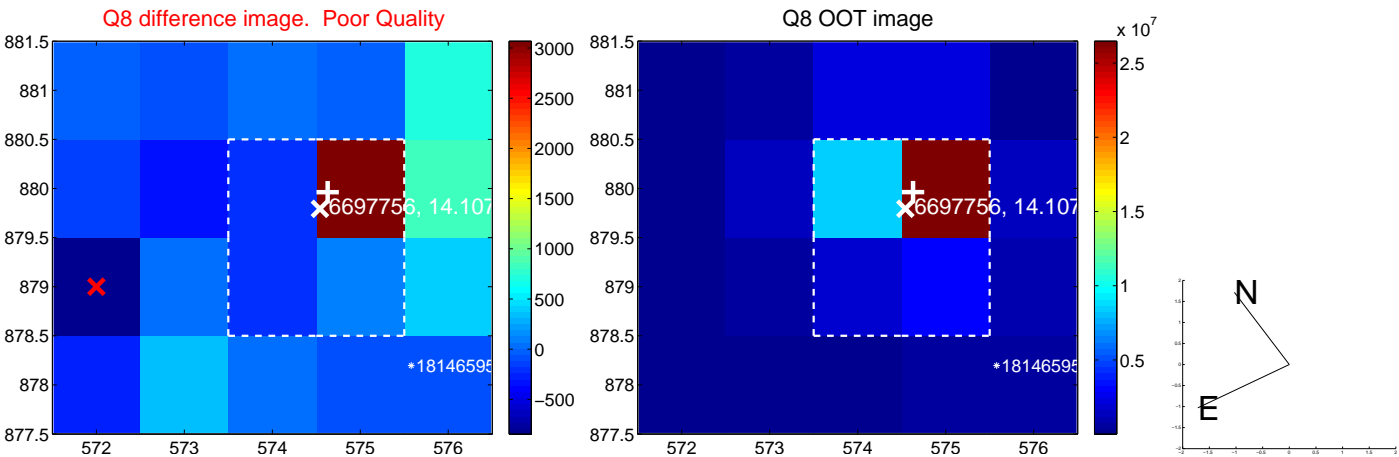
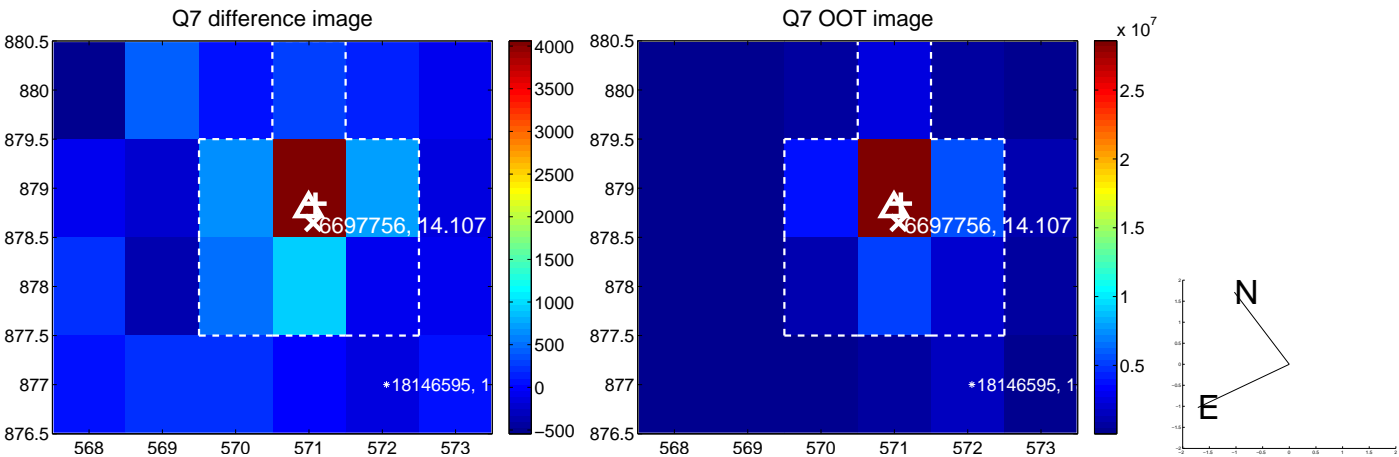
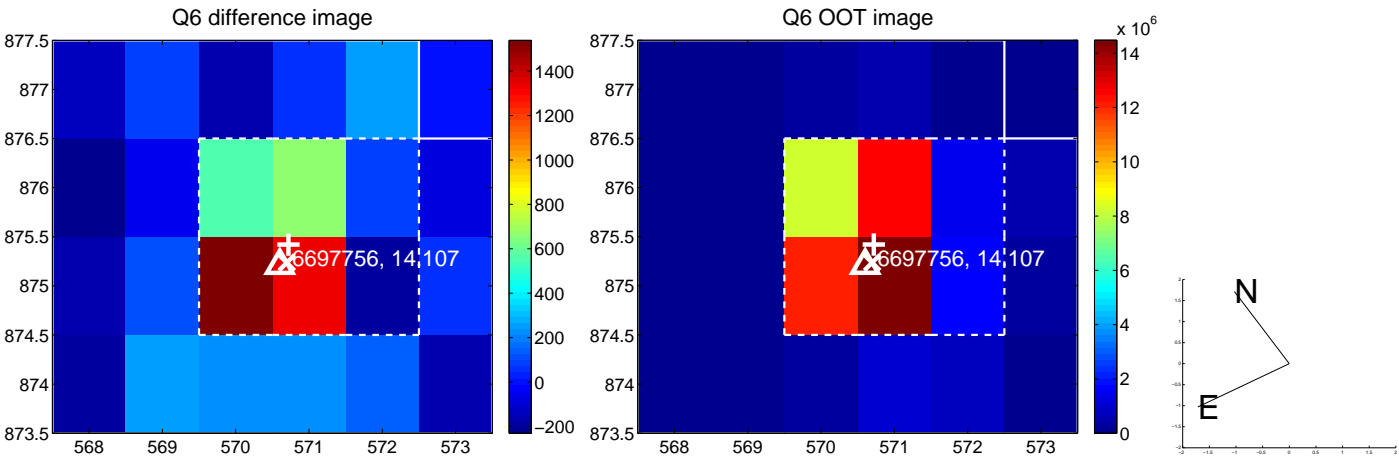
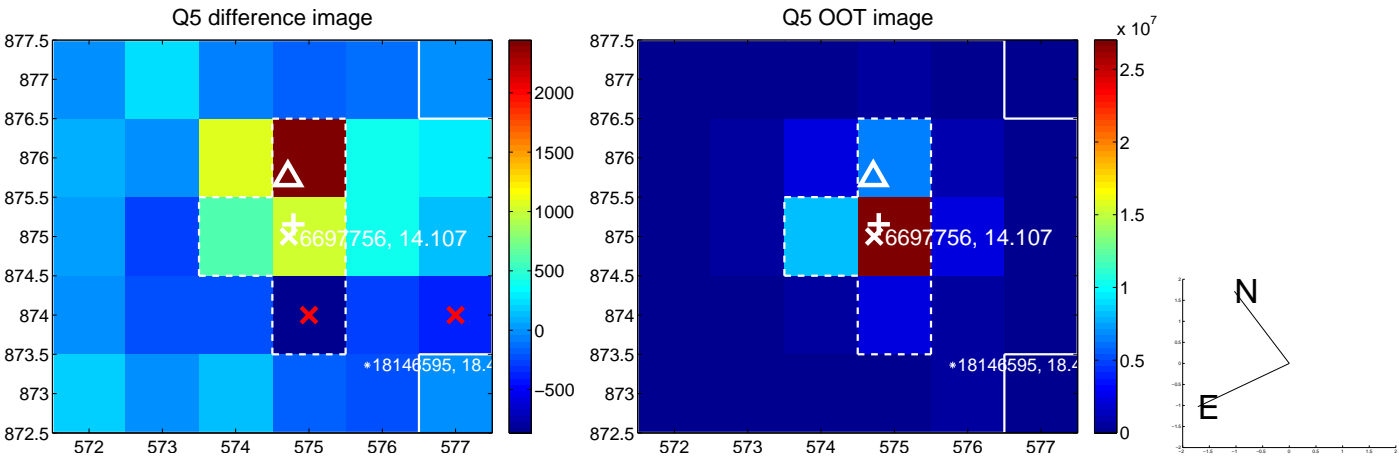


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

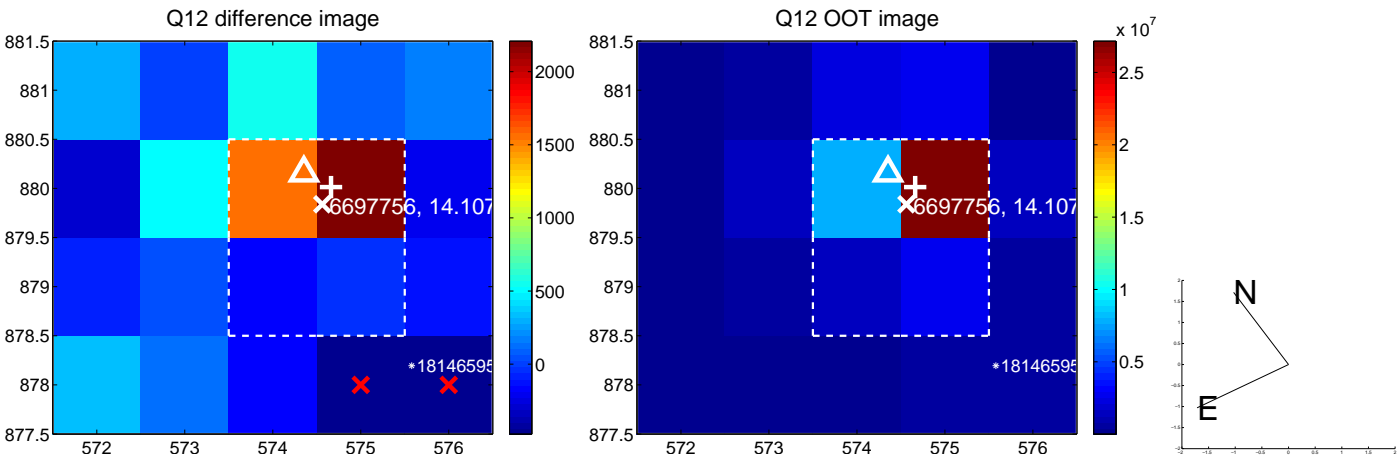
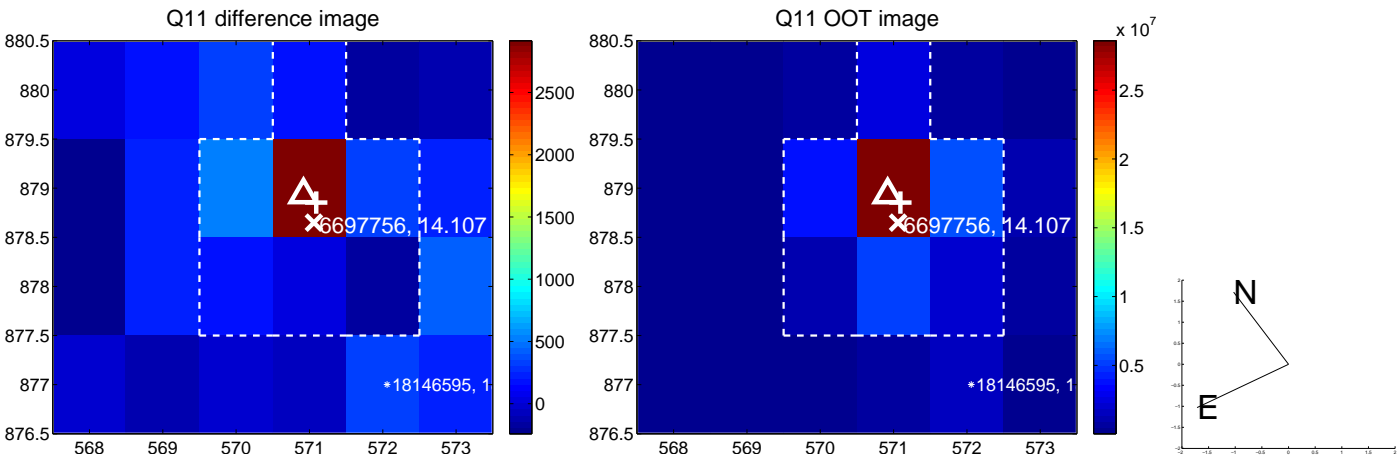
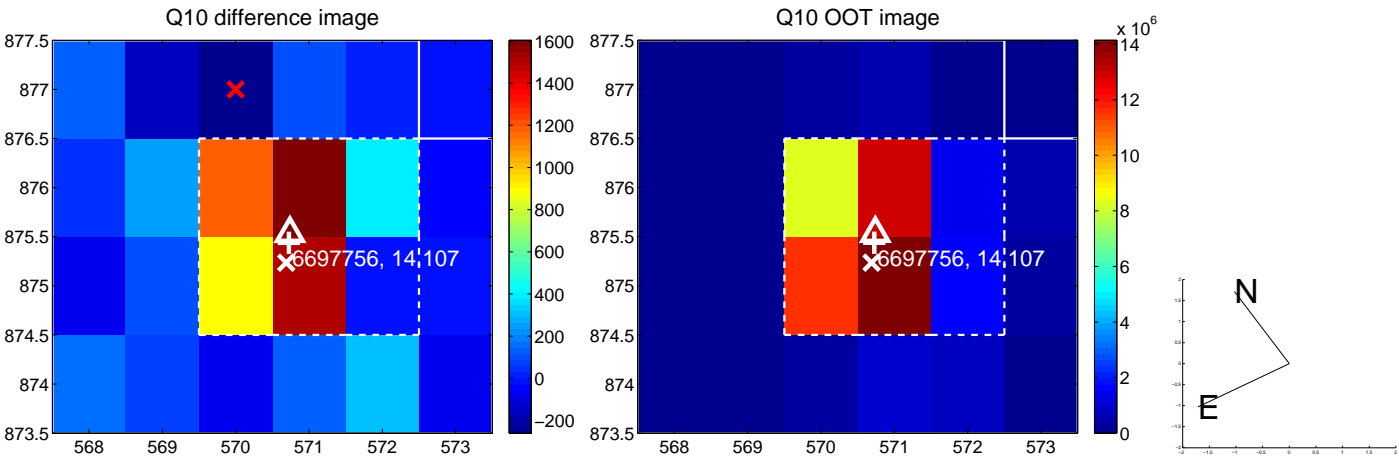
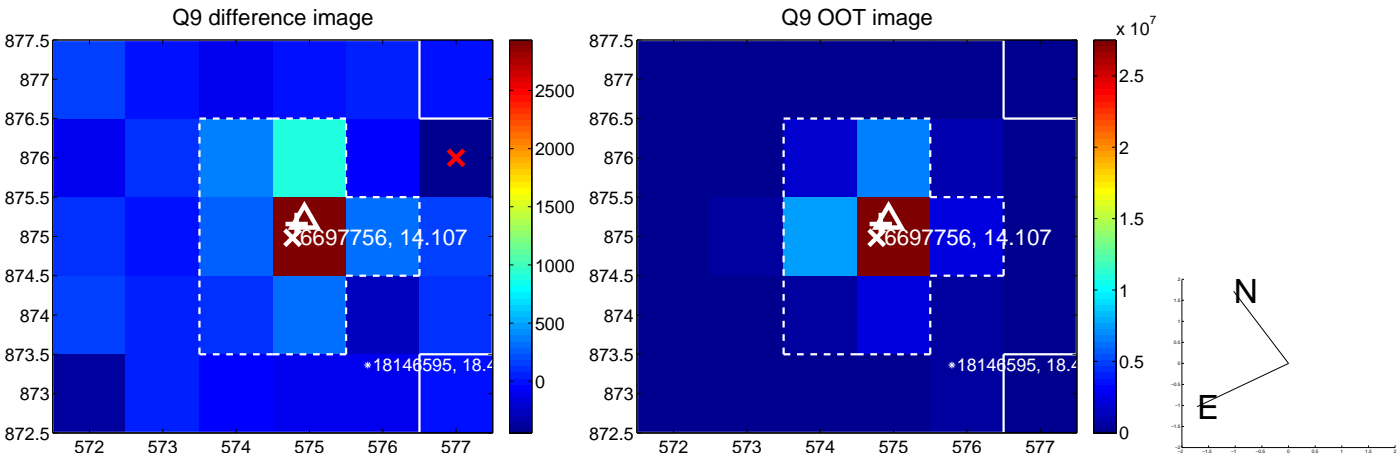


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

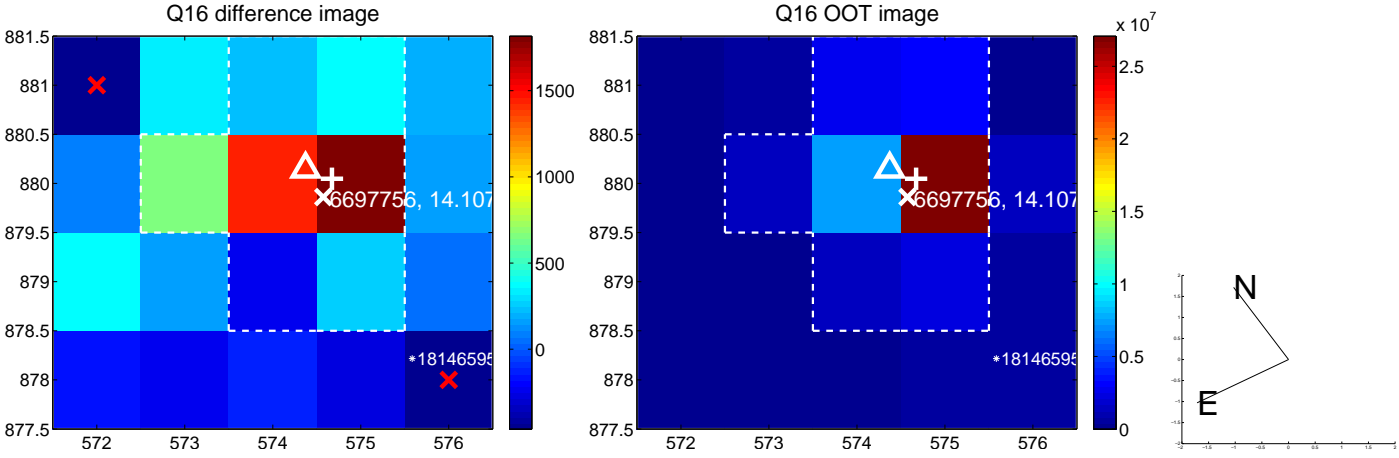
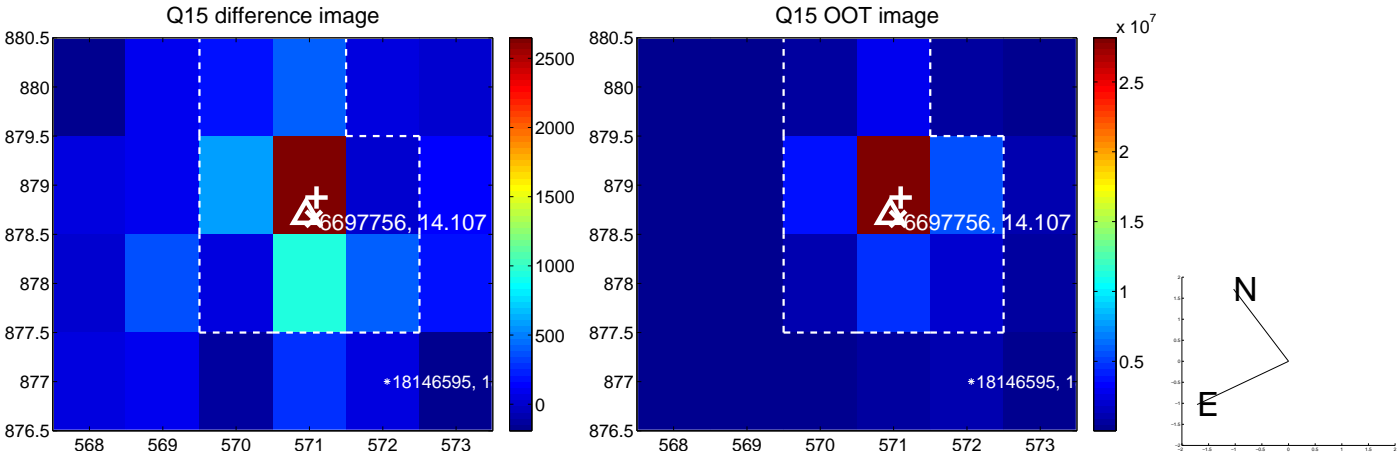
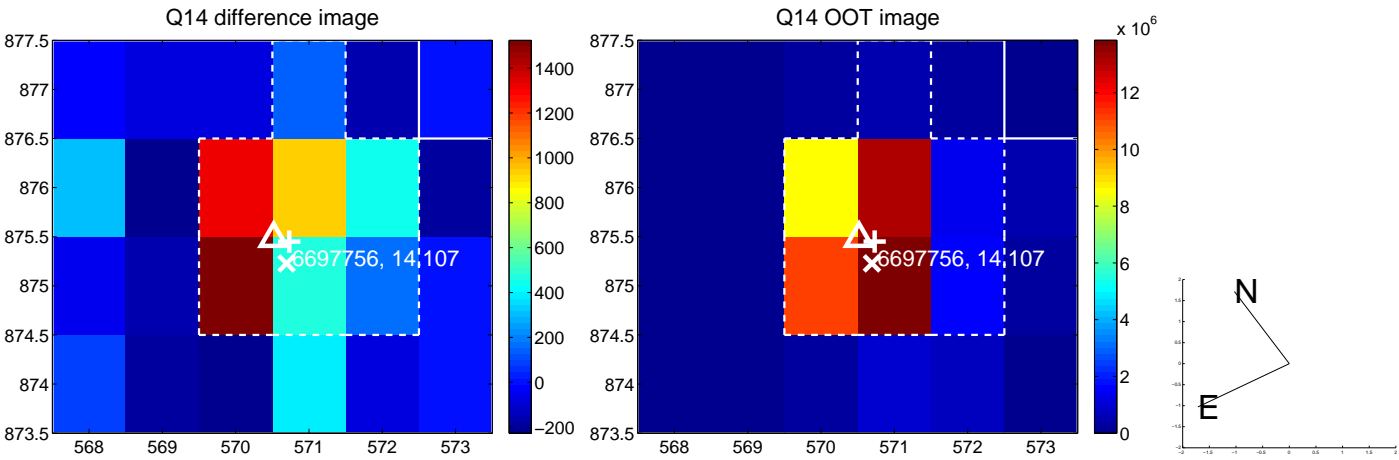
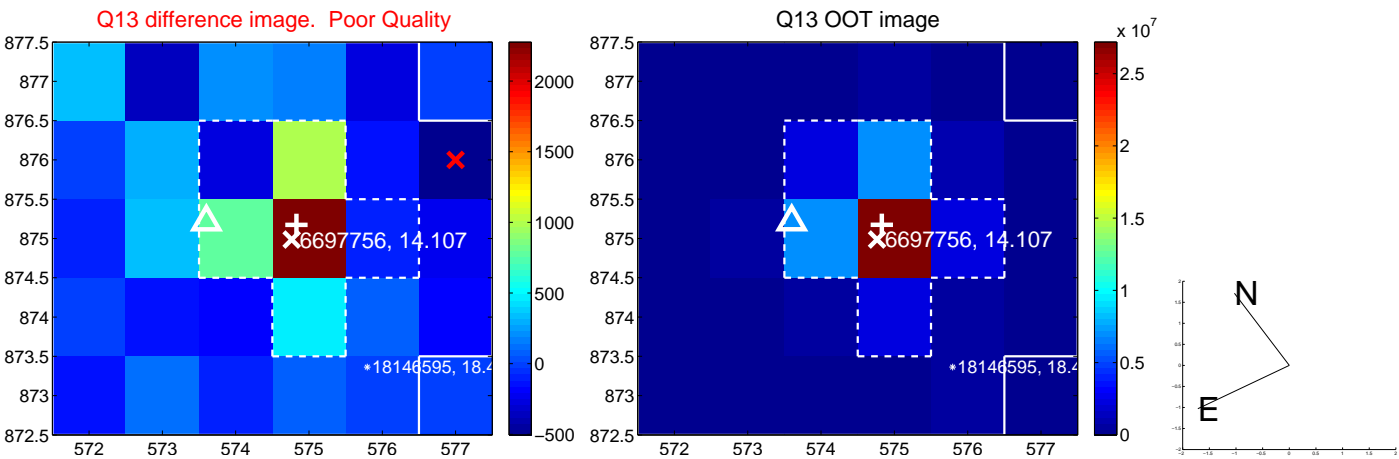




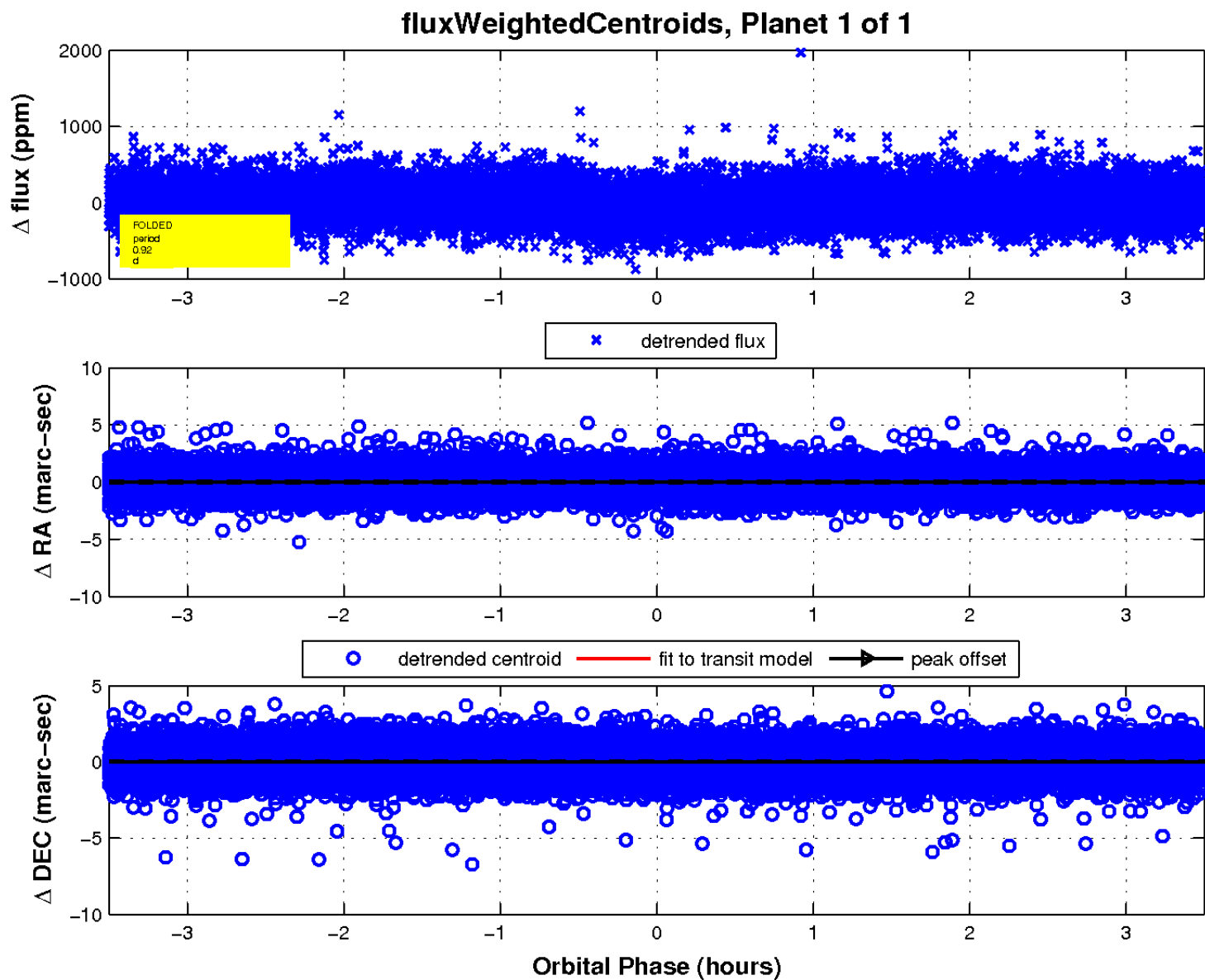
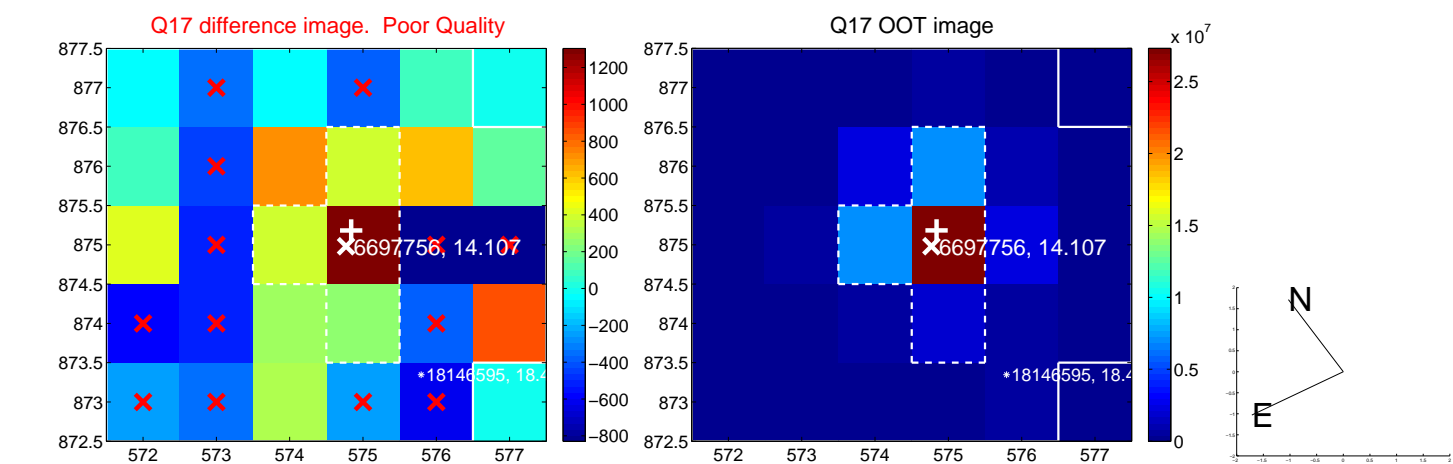
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



# UKIRT Image

Declination

