

# KIC 008760760

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008760760-01	OBS	7088.01	2.688117	132.671678	120.5	1.140	8.0	7.6	0.73	5636	0.95	392.62

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008760760-01	OBS	PC	1.00	0	0	0	0	CENT_FEW_MEAS

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

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

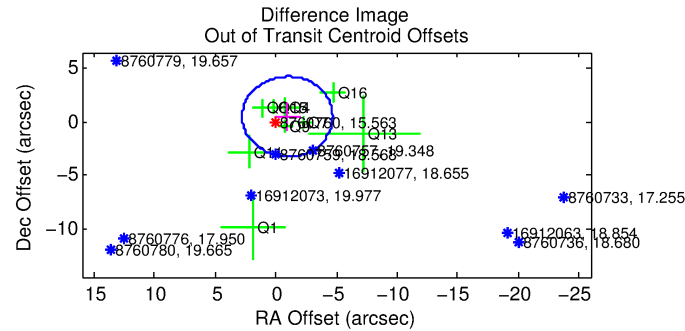
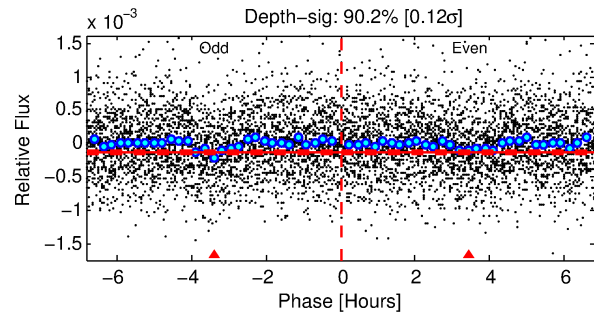
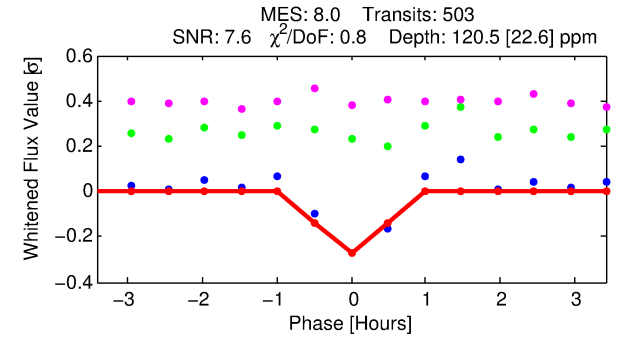
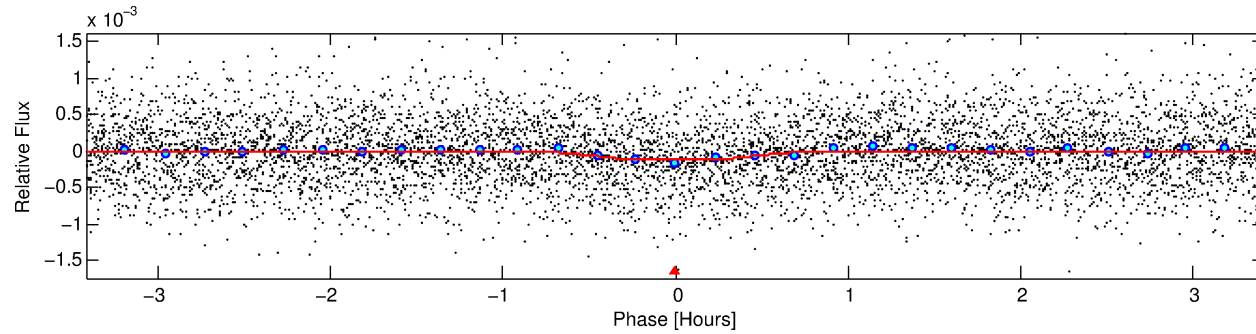
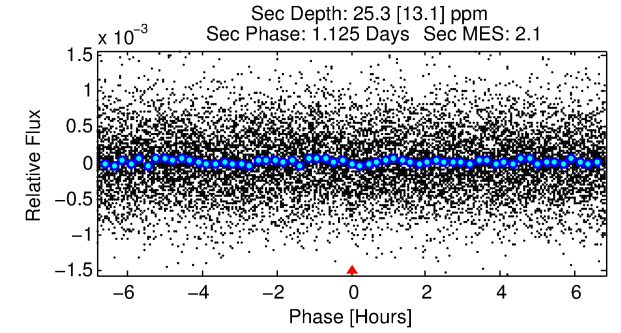
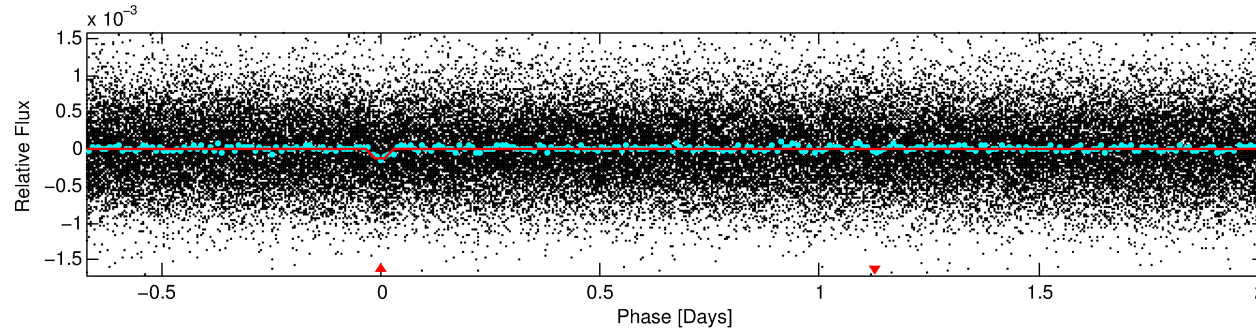
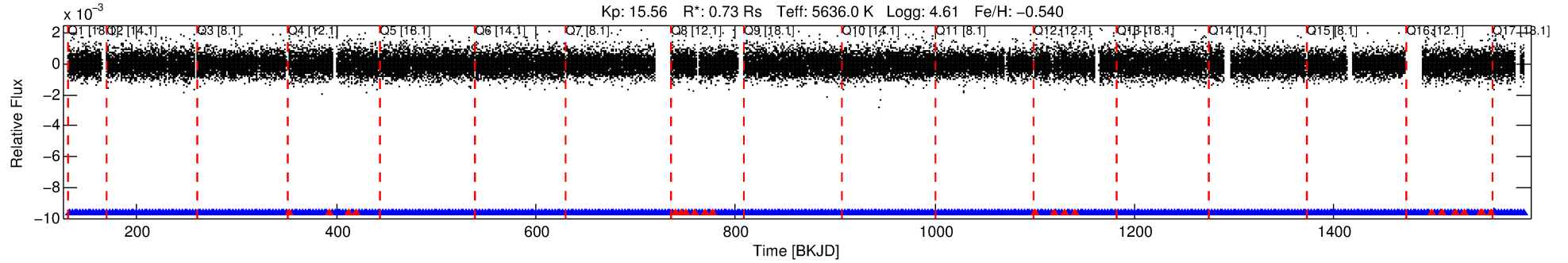
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008760760-01

No Significant Match Found

# DV One-Page Summary

KIC: 8760760 Candidate: 1 of 1 Period: 2.688 d  
KOI: K07088.01 Corr: 0.877



## DV Fit Results:

Period = 2.68812 [0.00002] d  
Epoch = 132.6717 [0.0029] BKJD  
Rp/R\* = 0.0119 [0.0131]  
a/R\* = 8.69 [46.40]  
b = 0.89 [1.28]  
Seff = 392.63 [99.17]  
Teff = 1135 [72] K  
Rp = 0.95 [1.07] Re  
a = 0.0352 [0.0055] AU  
Ag = 19.07 [43.44] [0.42σ]  
Teffp = 3667 [2081] K [1.22σ]

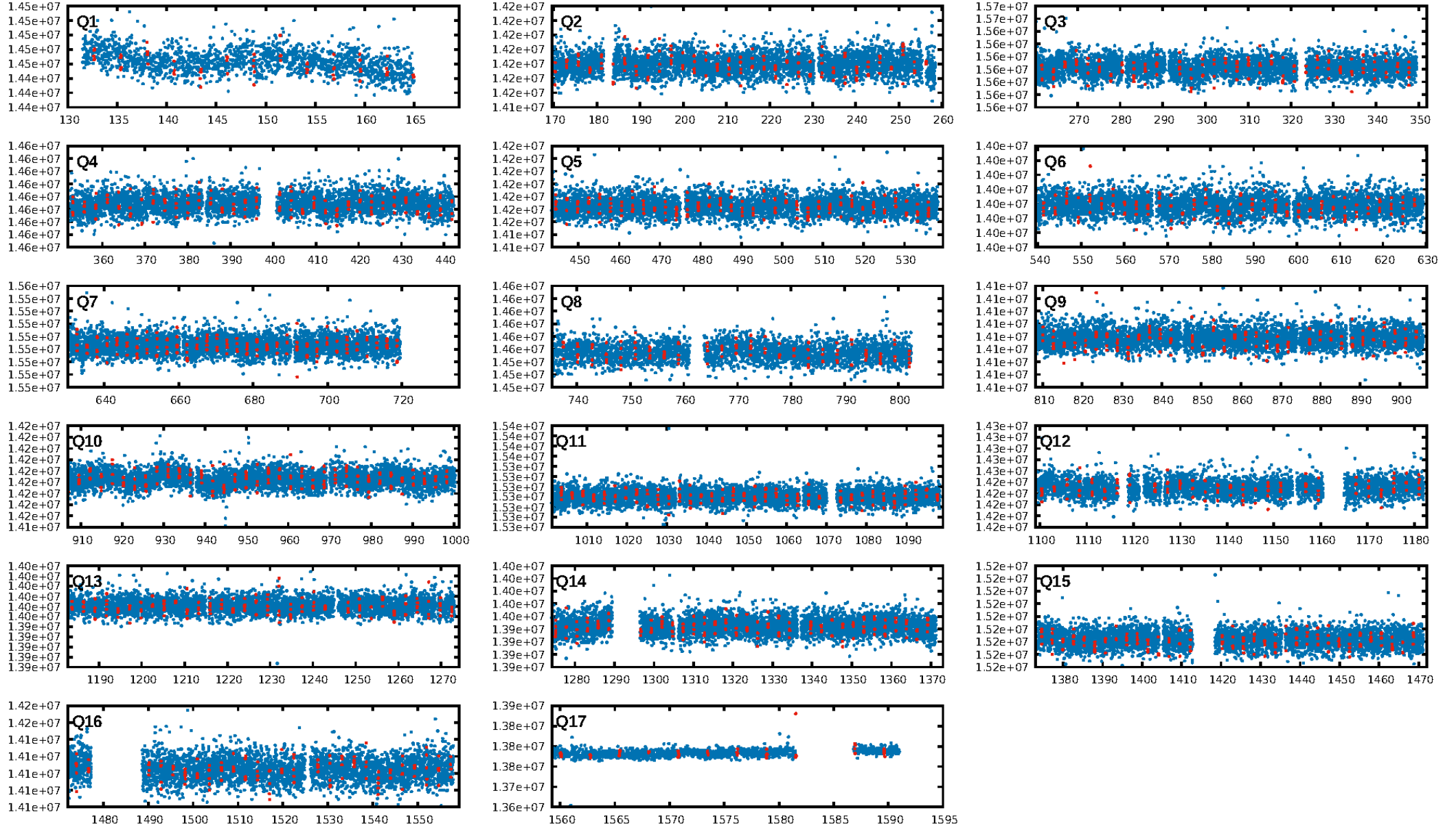
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 2.03e-15  
RollingBand-fgt: 0.96 [458/479]  
GhostDiagnostic-chr: -3.085  
Centroid-sig: 18.2%  
Centroid-so: 2.262 arcsec [1.20σ]  
OotOffset-rm: 1.073 arcsec [0.86σ]  
KicOffset-rm: 1.213 arcsec [0.85σ]  
OotOffset-st: 1/3/2/3 [9]  
KicOffset-st: 1/3/2/3 [9]  
DiffImageQuality-fgm: 0.33 [3/9]  
DiffImageOverlap-fno: 1.00 [17/17]

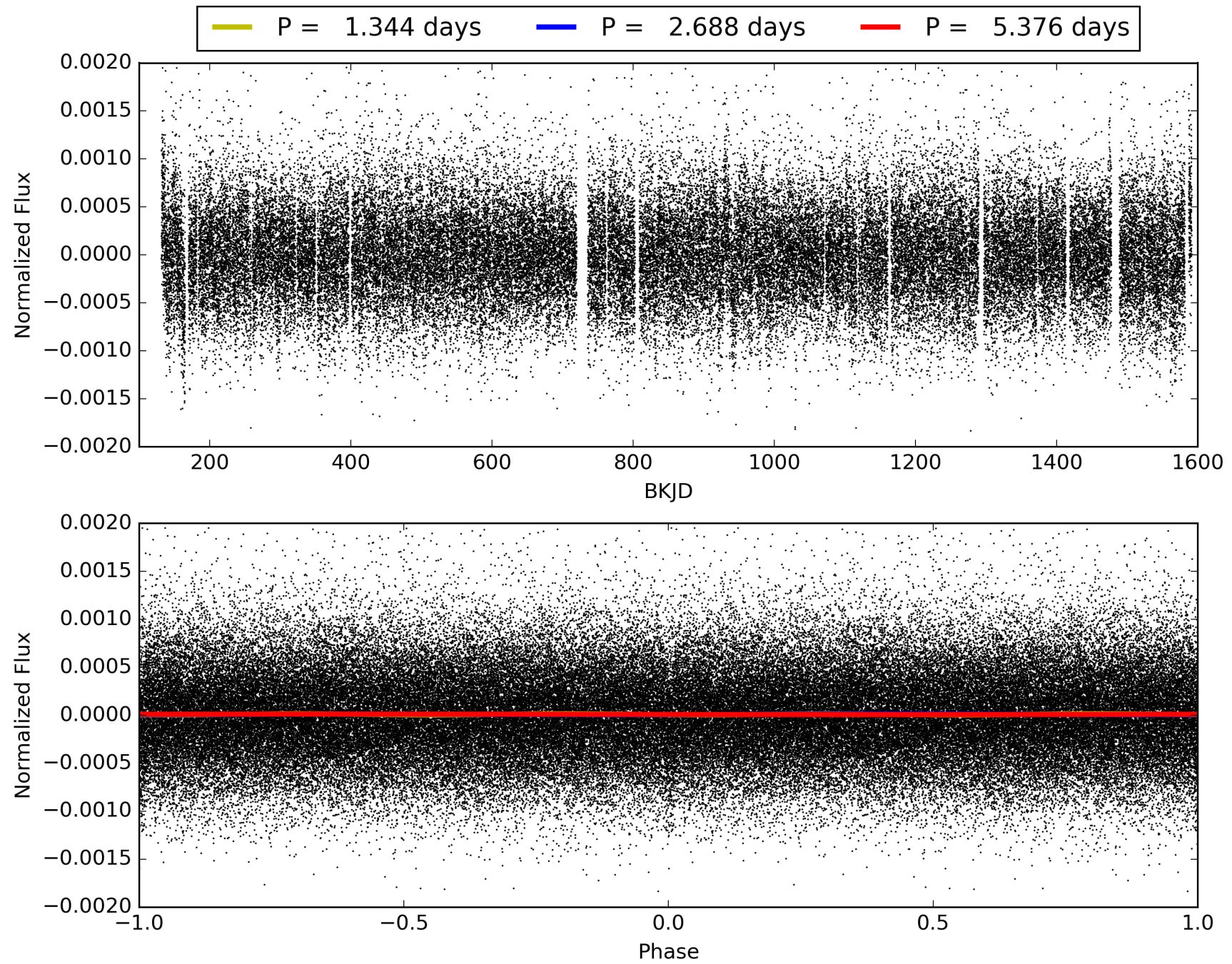
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:46:33 Z

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

# TCE 008760760-01, PDC Light Curves



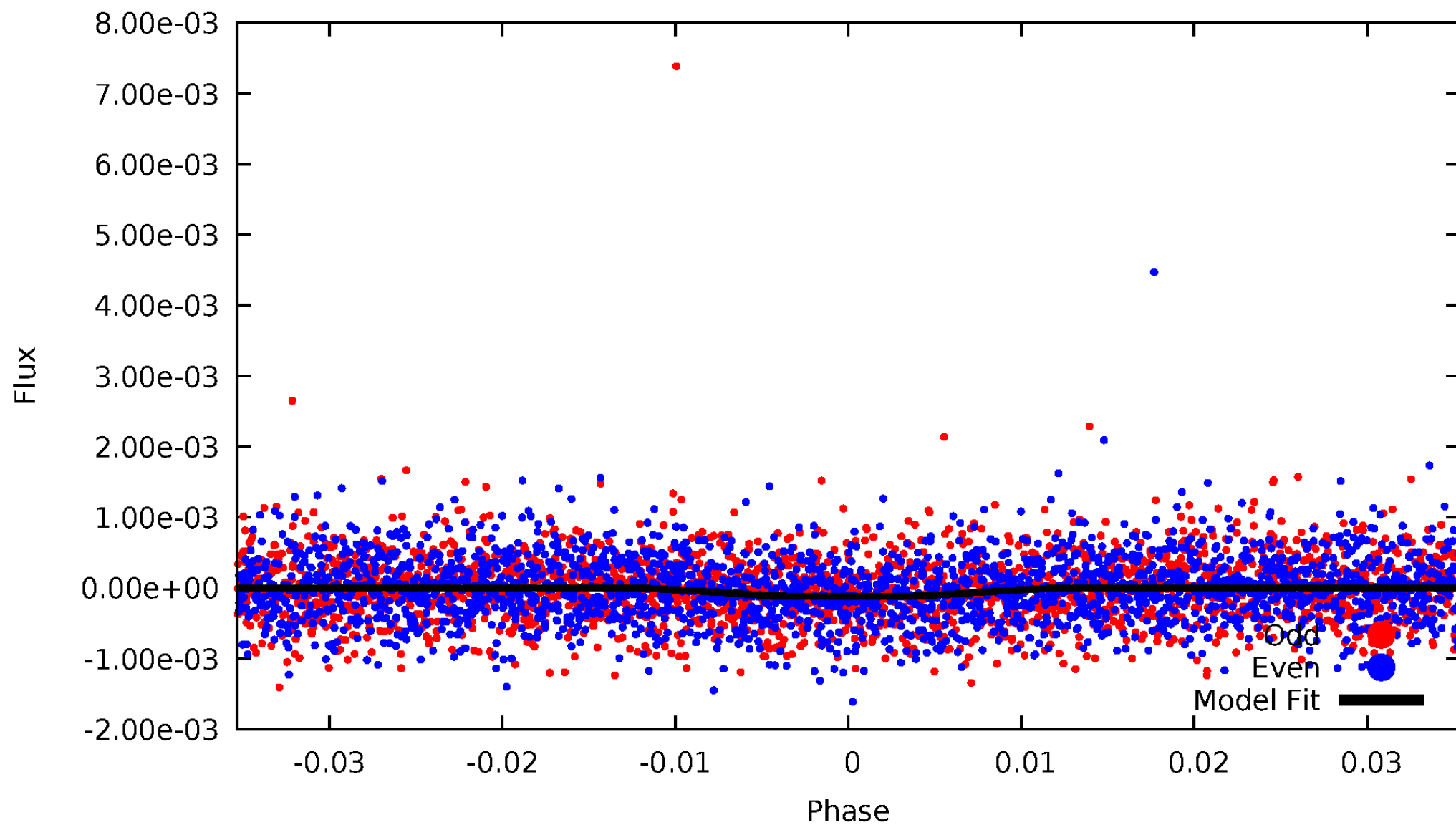
TCE 008760760-01





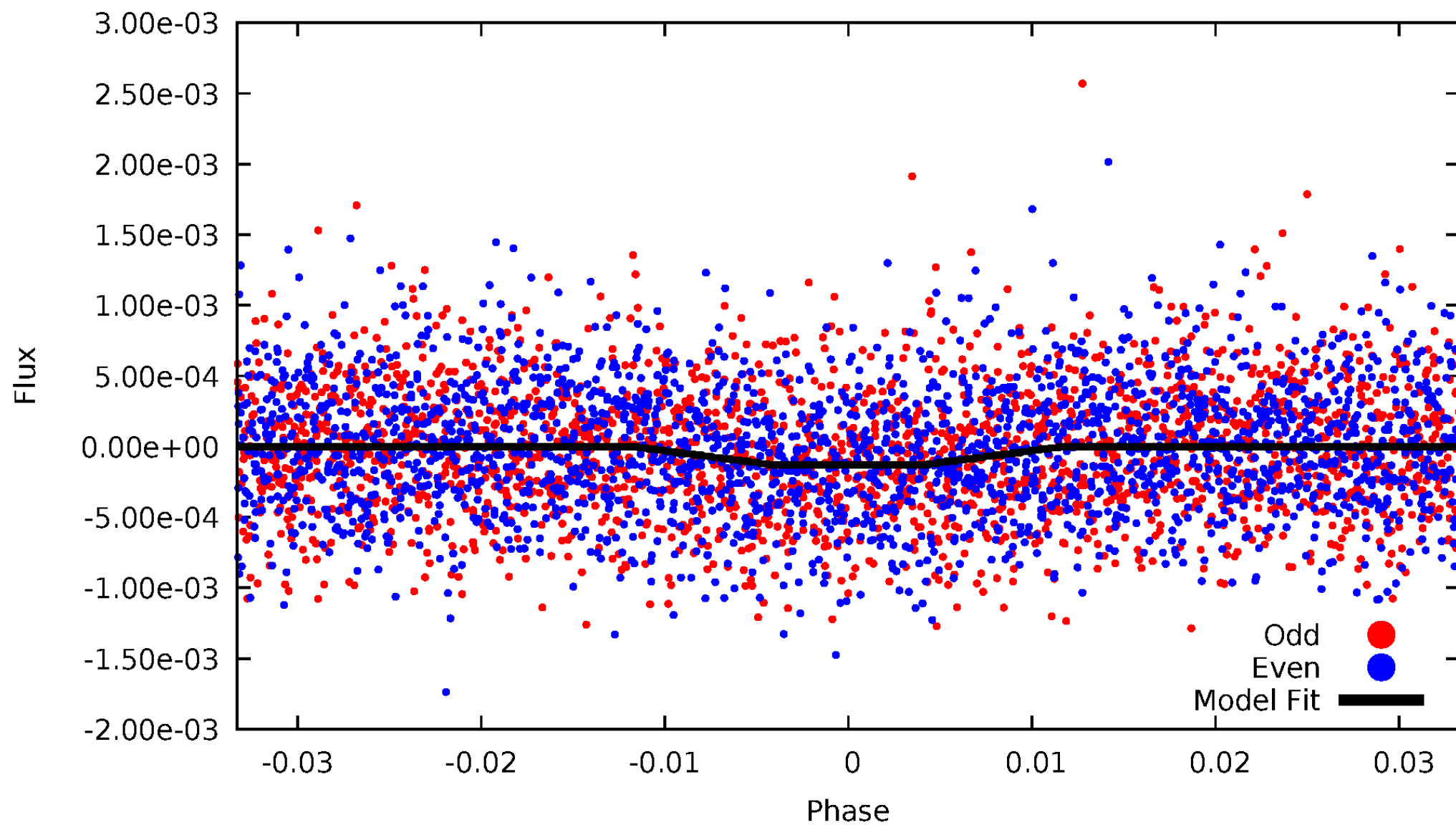
# DV Odd/Even

TCE 008760760-01



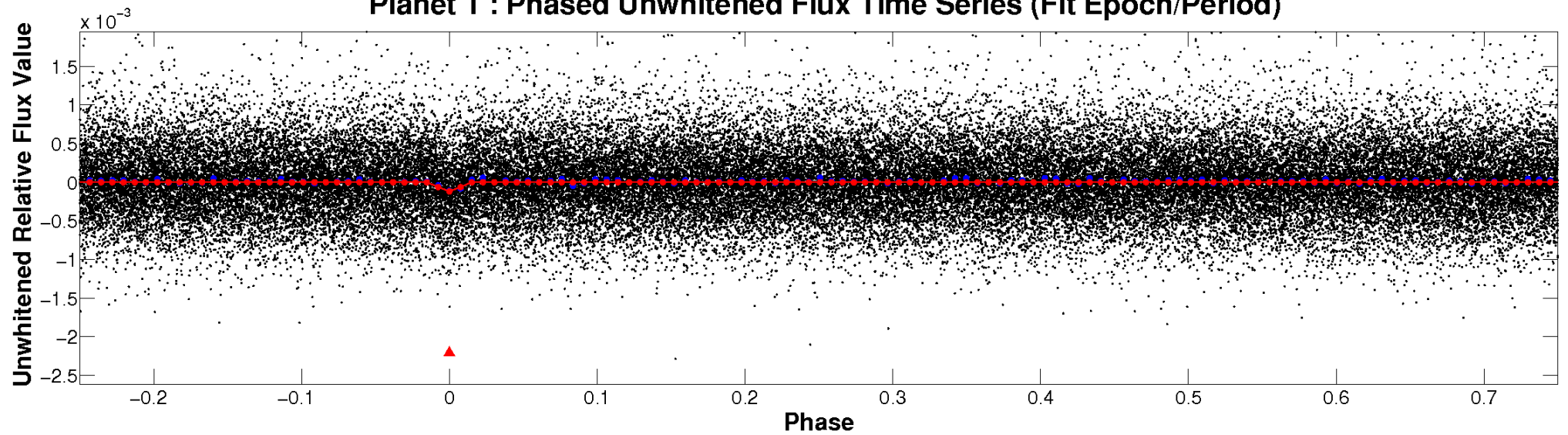
# ALT Odd/Even

TCE 008760760-01

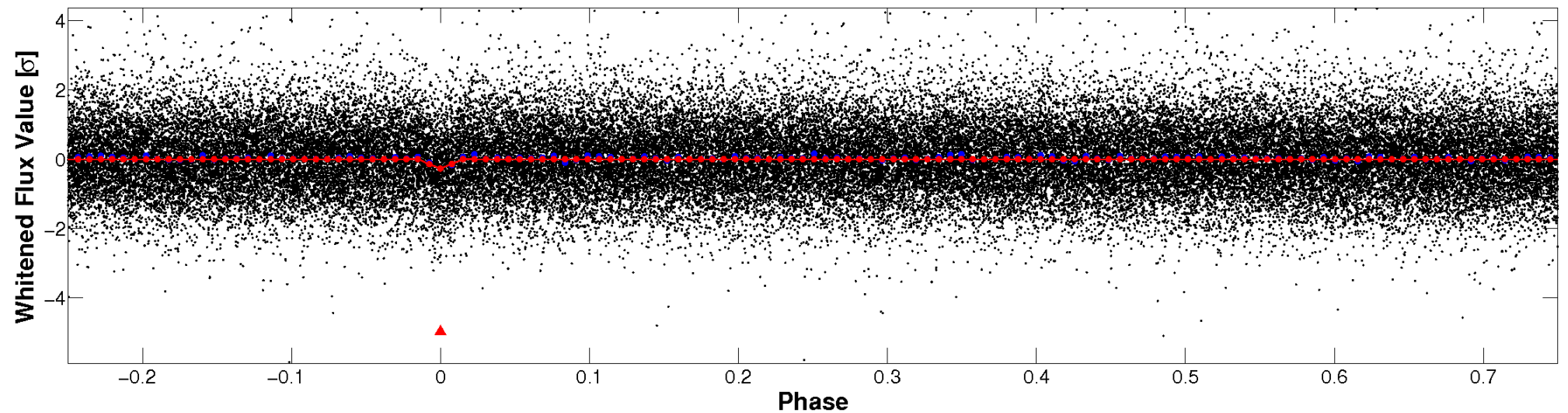


# Non-Whitened Vs. Whitened Light Curve

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

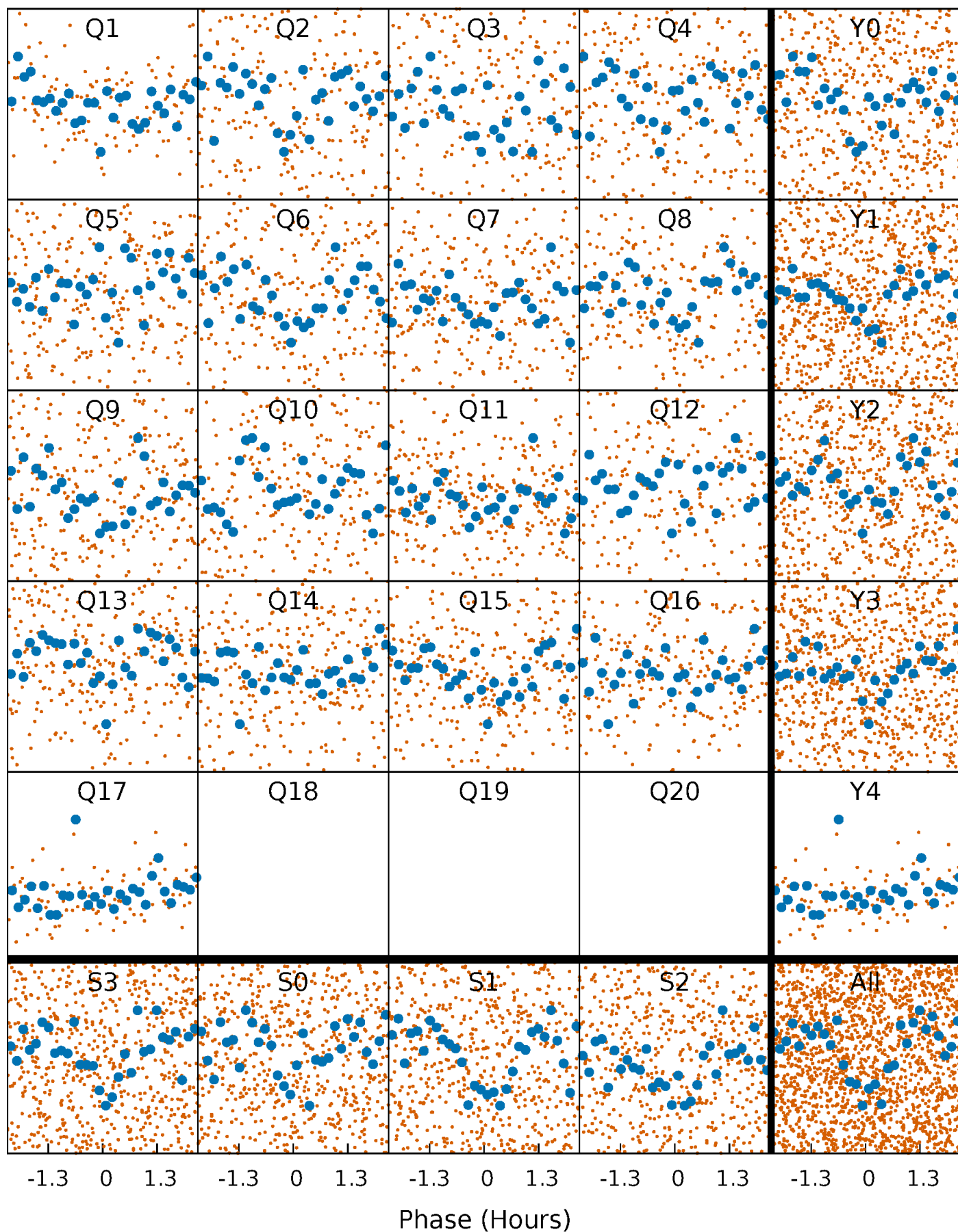


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

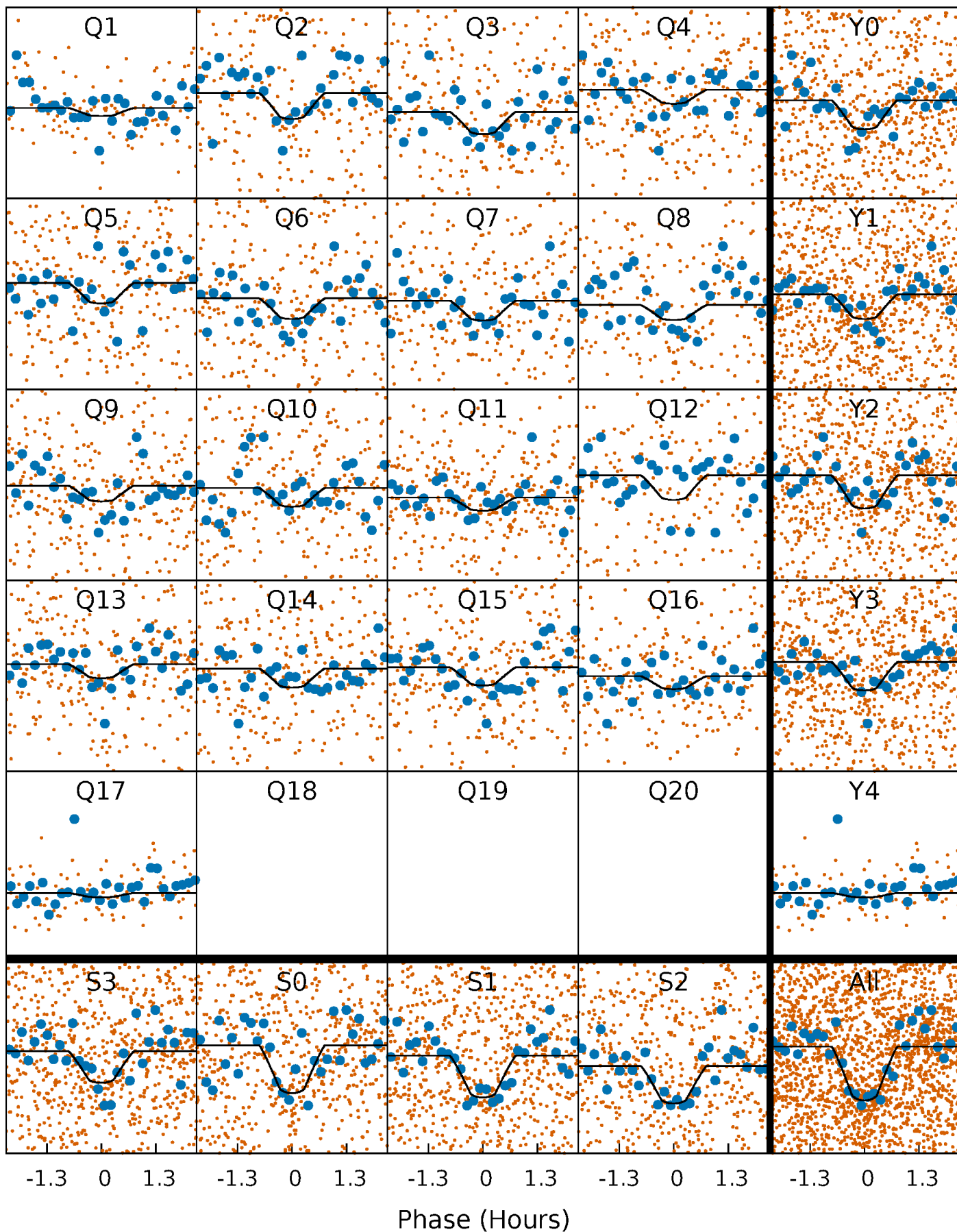
TCE 008760760-01 P= 2.688117 Days  $T_0=132.671678$  (BKJD)





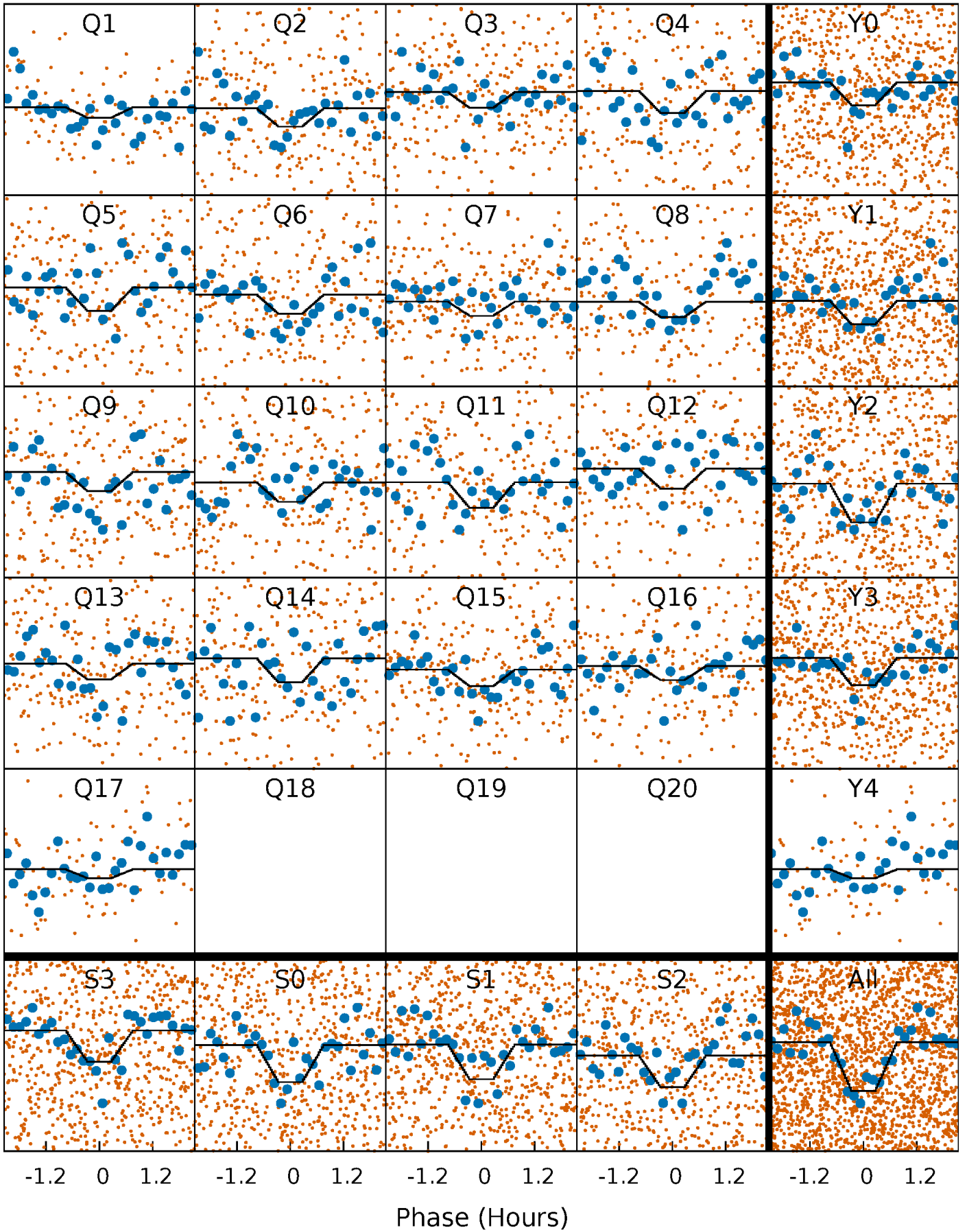
# DV Quarter-Phased Transit Curves

TCE 008760760-01 P= 2.688117 Days  $T_0=132.671678$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

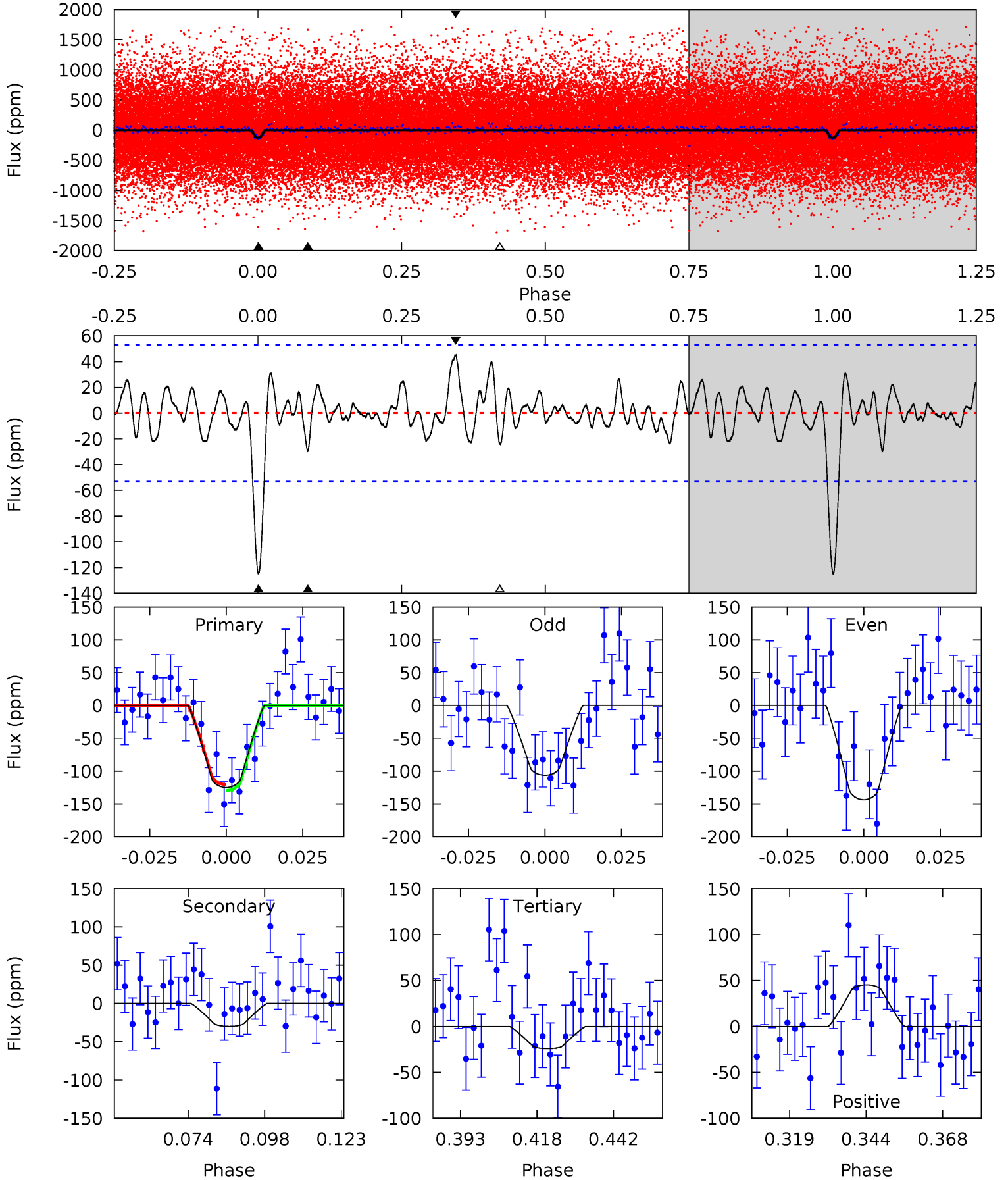
TCE 008760760-01 P= 2.688132 Days  $T_0=132.671033$  (BKJD)



# DV Model-Shift Uniqueness Test

008760760-01, P = 2.688117 Days, E = 129.983561 Days

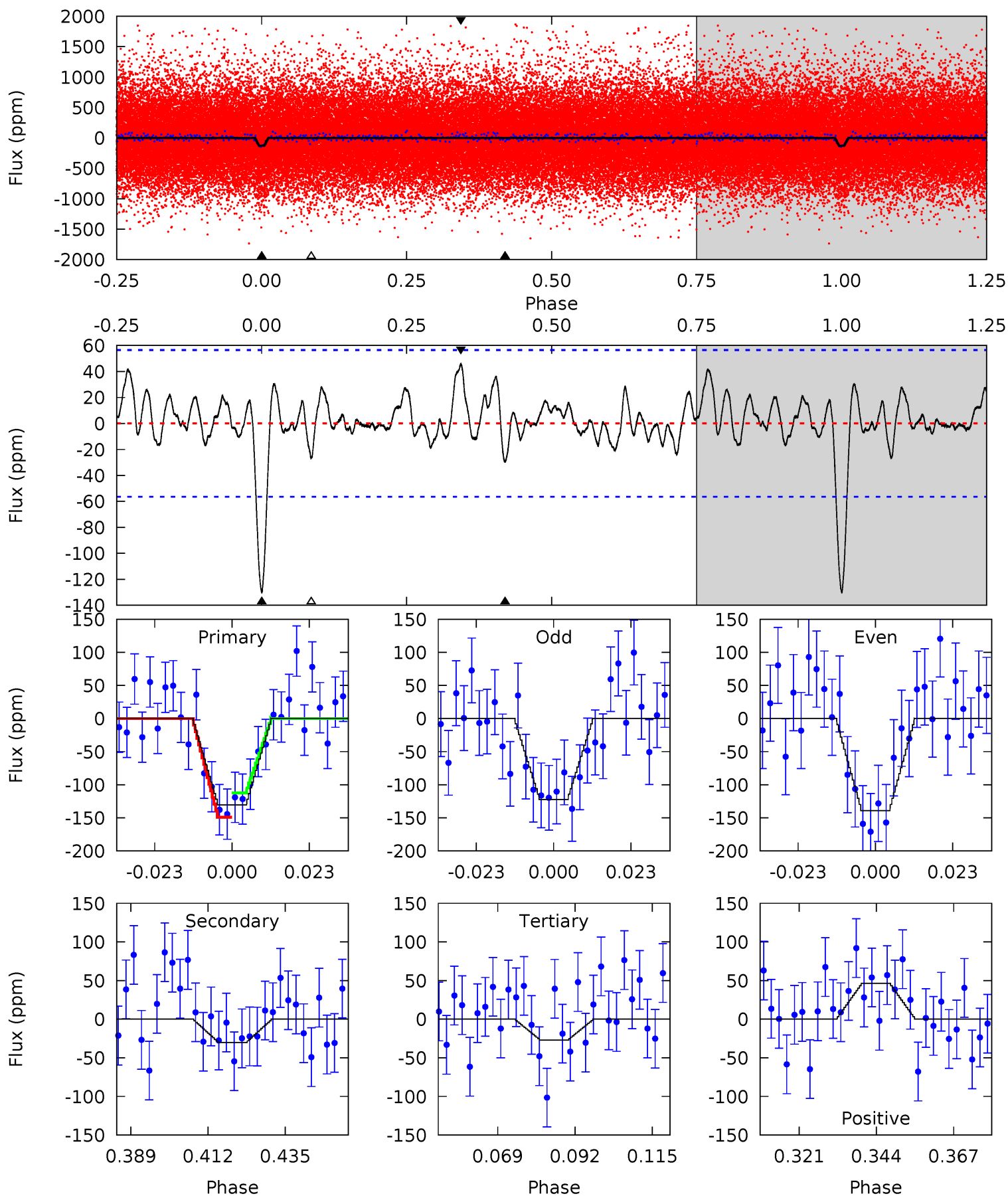
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	2.73	2.21	4.13	4.85	2.25	1.15	9.19	7.28	0.52	-1.39	1.70	1.02	0.27	0.41



# Alt Model-Shift Uniqueness Test

008760760-01, P = 2.688132 Days, E = 129.982901 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
11.3	2.59	2.32	3.99	4.86	2.27	1.12	8.94	7.27	0.27	-1.40	0.72	0.92	0.26	1.58





### Stellar Parameters For KIC 008760760

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5636^{+152}_{-169}$	$4.613^{+0.032}_{-0.120}$	$-0.540^{+0.300}_{-0.300}$	$0.734^{+0.137}_{-0.055}$	$0.821^{+0.078}_{-0.087}$	$2.928^{+0.478}_{-1.072}$
	+3%/-3%	+1%/-3%	+56%/-56%	+19%/-7%	+10%/-11%	+16%/-37%
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 008760760-01 / KOI 7088.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-30 \pm 11$	$1.18^{+1.05}_{-0.79}$	$1611^{+72}_{-63}$	$3785^{+2200}_{-720}$	$14^{+120}_{-10}$
Alt.	$-30 \pm 12$	$1.19^{+0.94}_{-0.76}$	$1608^{+74}_{-60}$	$3755^{+1873}_{-709}$	$13^{+87}_{-10}$

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

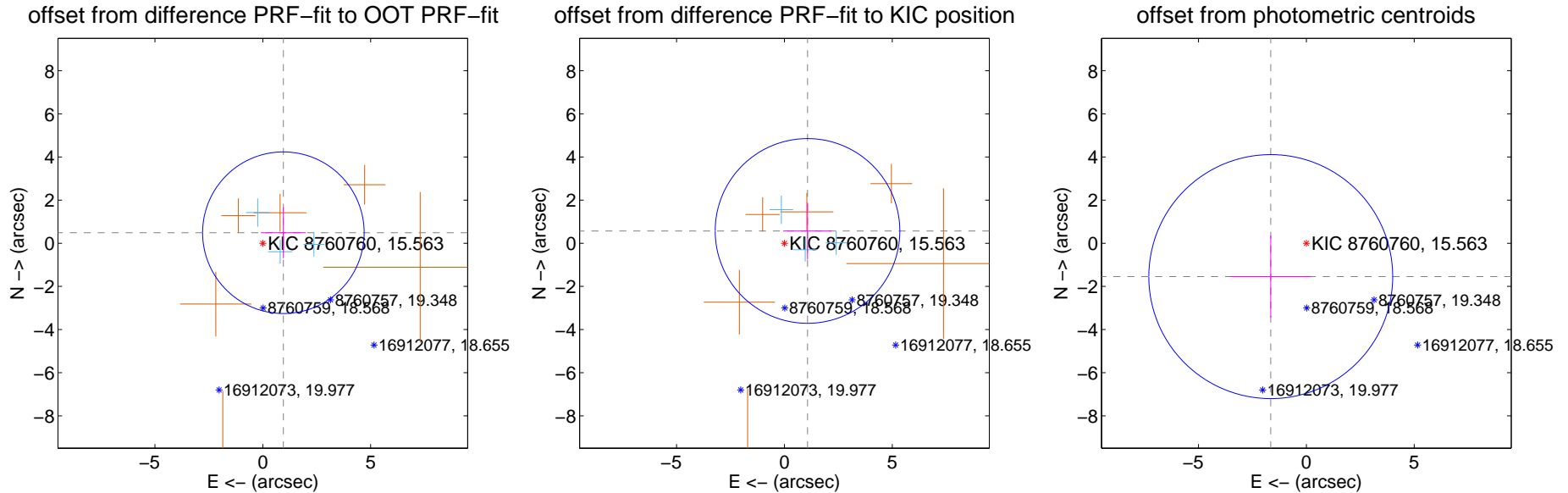
## DV Centroid Data

Supplemental centroid analysis for 008760760-01. Kepler magnitude: 15.56. Transit SNR 7.59

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

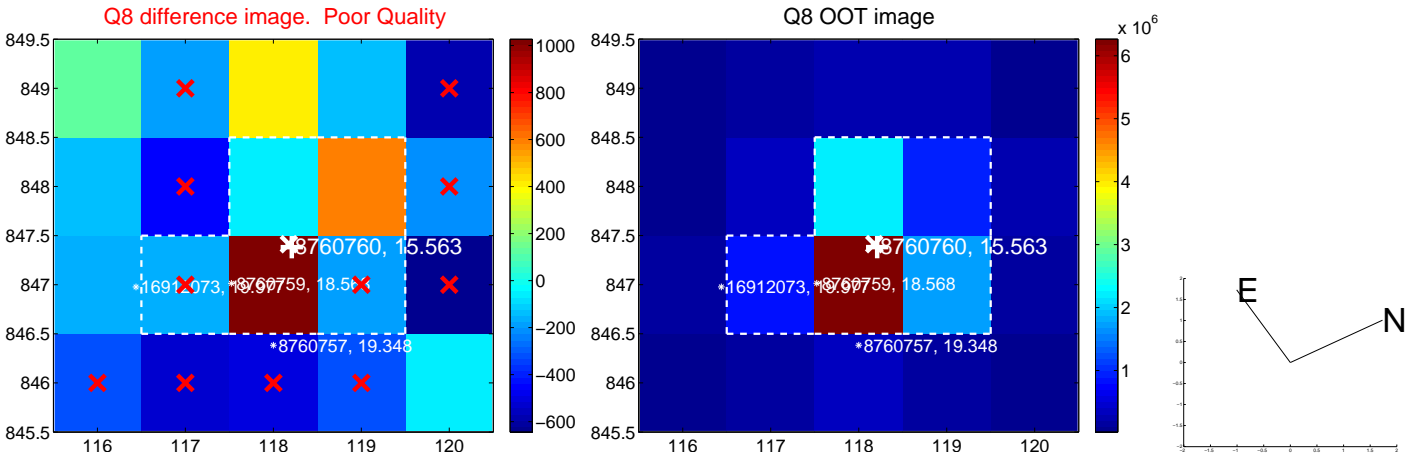
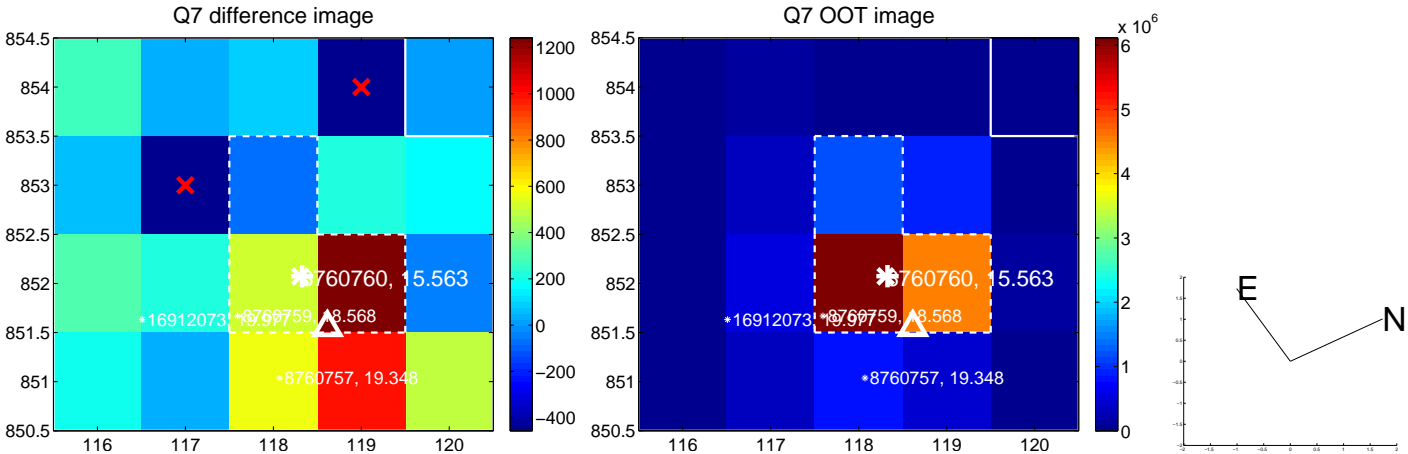
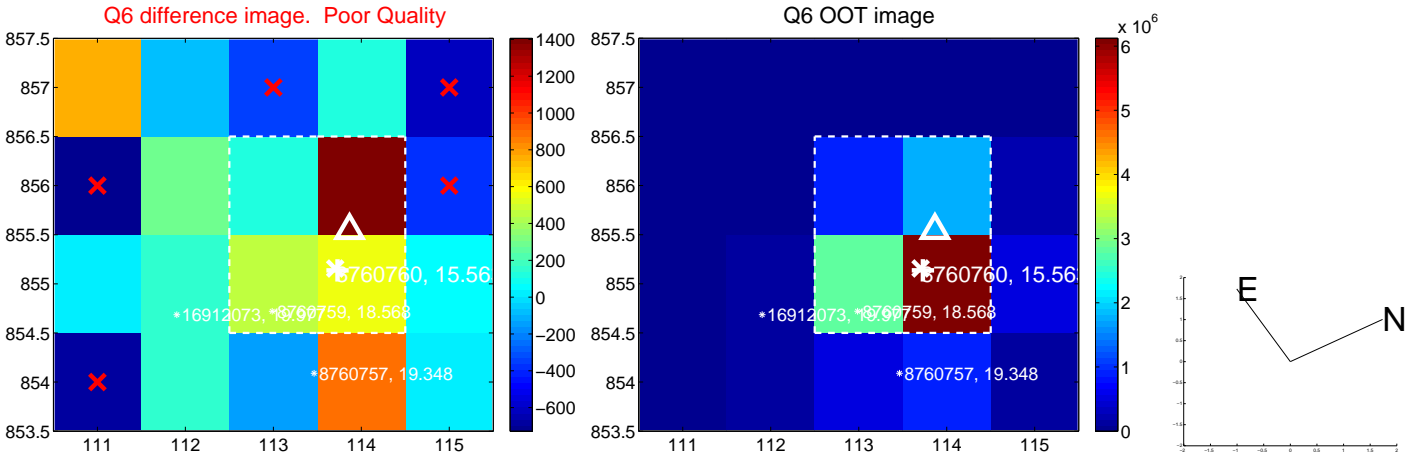
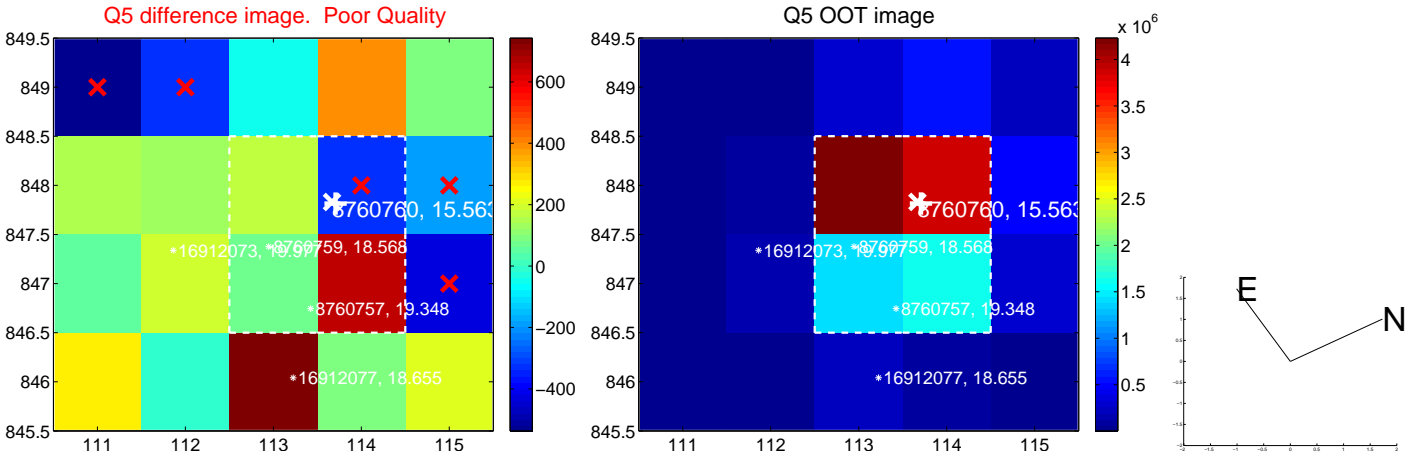
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.073 \pm 1.249$	0.86	$-0.955 \pm 1.041$	$0.489 \pm 1.184$
PRF-fit source offset from KIC position	$1.213 \pm 1.427$	0.85	$-1.071 \pm 1.127$	$0.571 \pm 1.310$
photometric centroid source offset	$2.26 \pm 1.89$	1.20	$1.65 \pm 1.87$	$-1.55 \pm 1.90$



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 are from the UKIRT catalog.

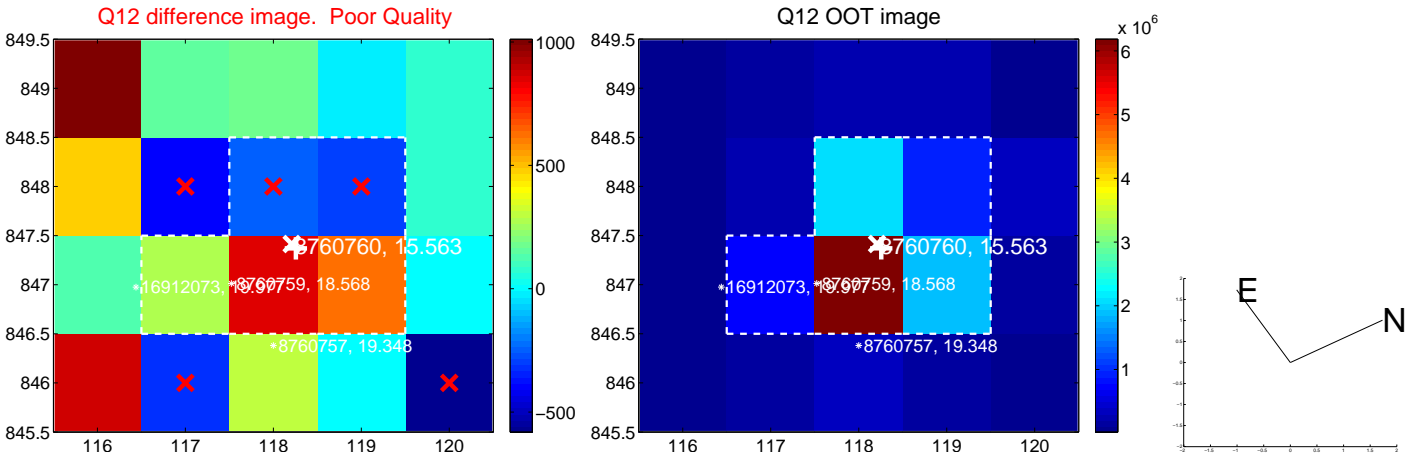
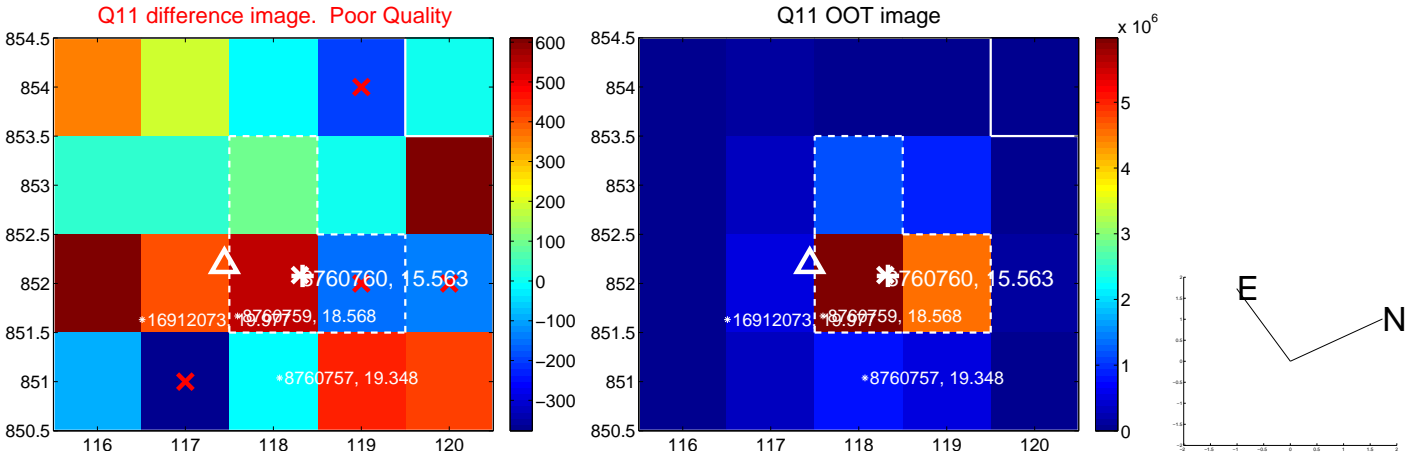
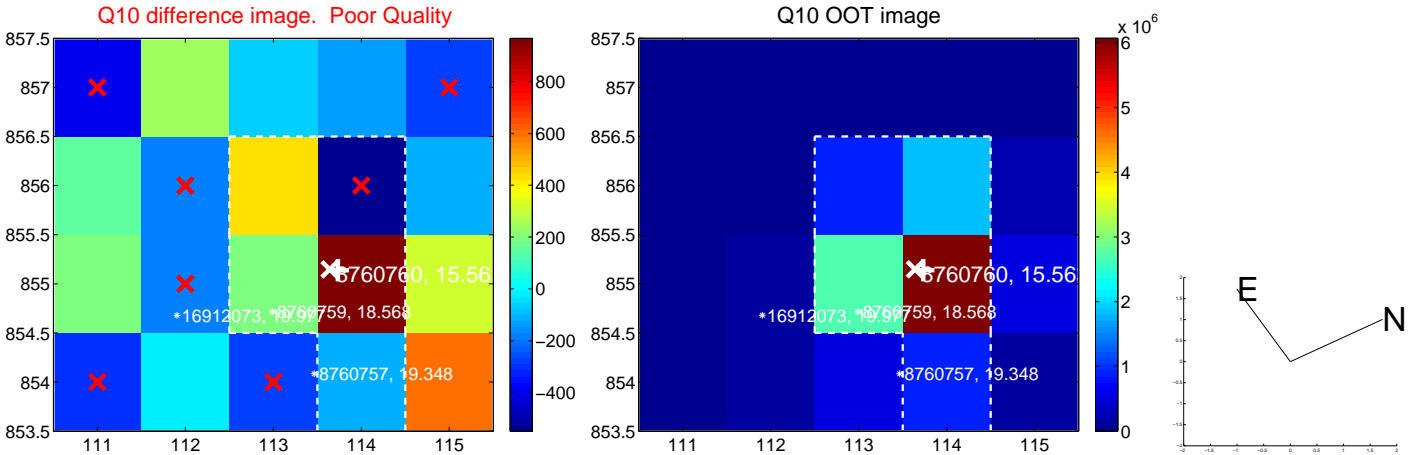
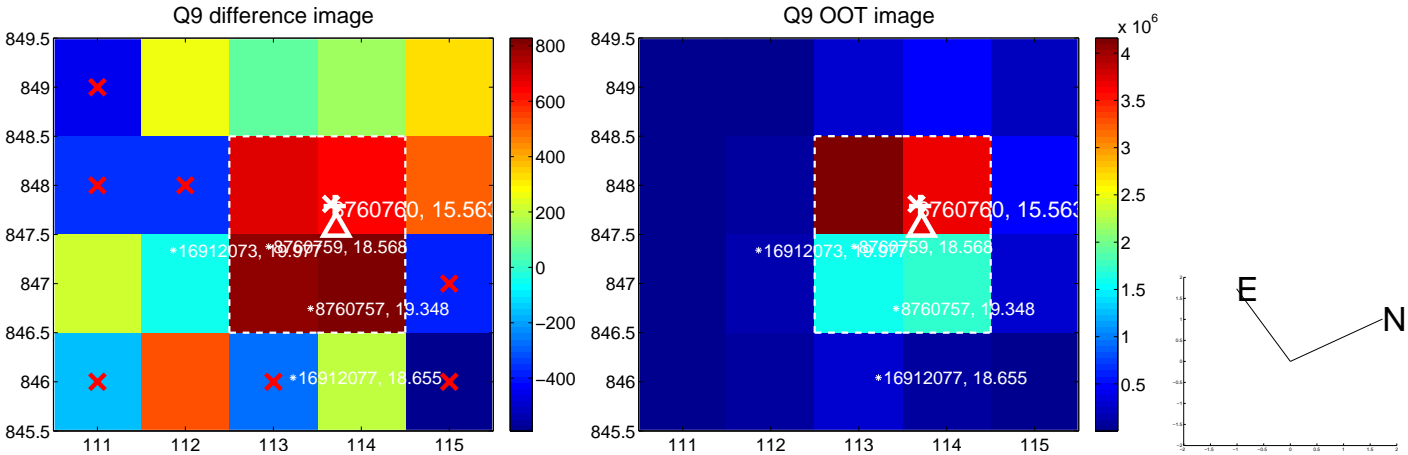


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

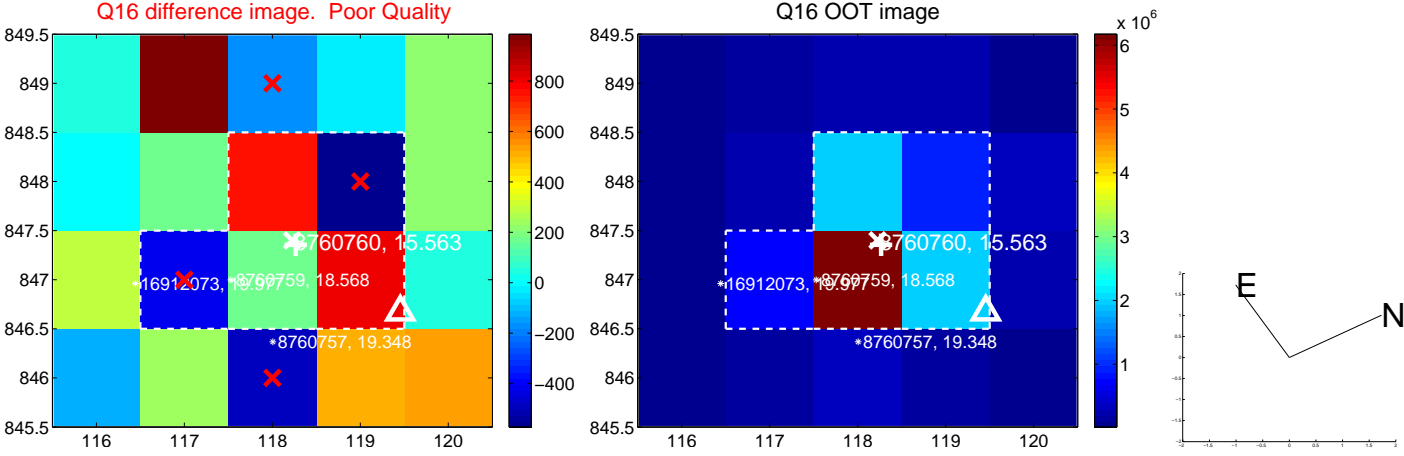
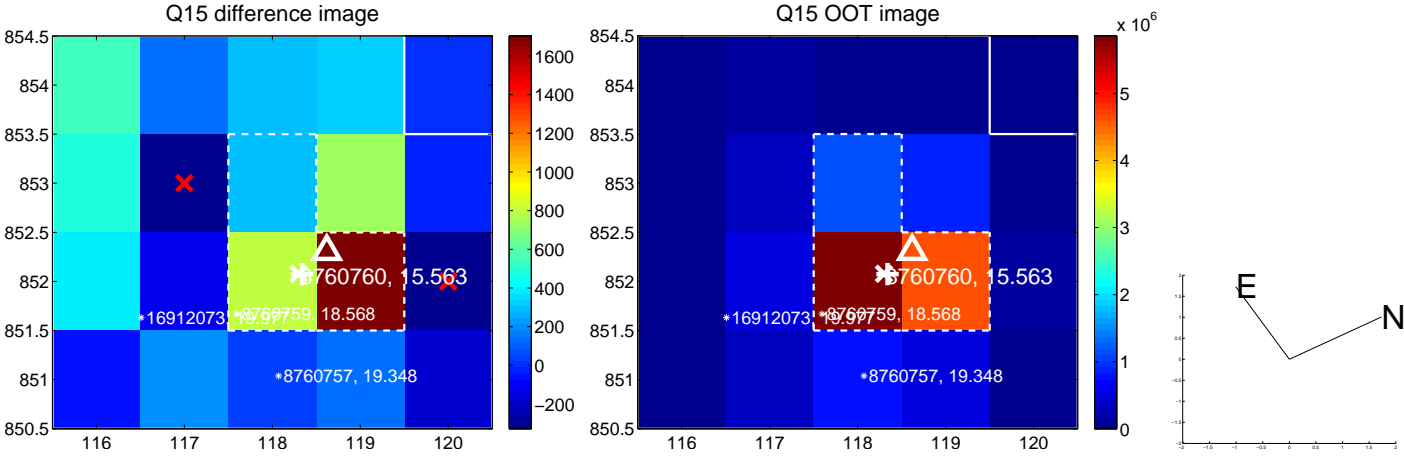
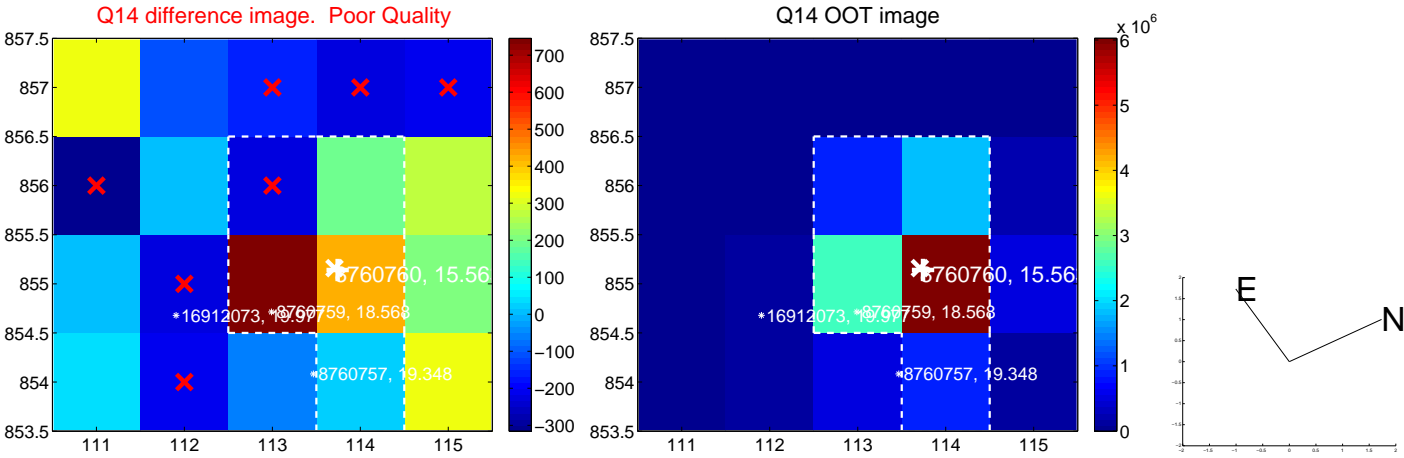
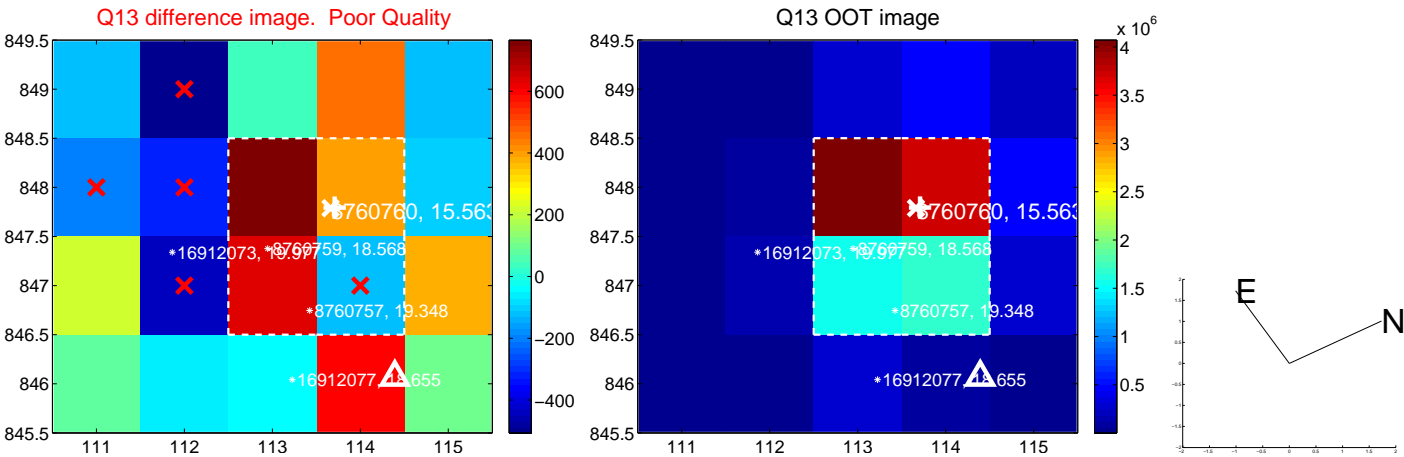




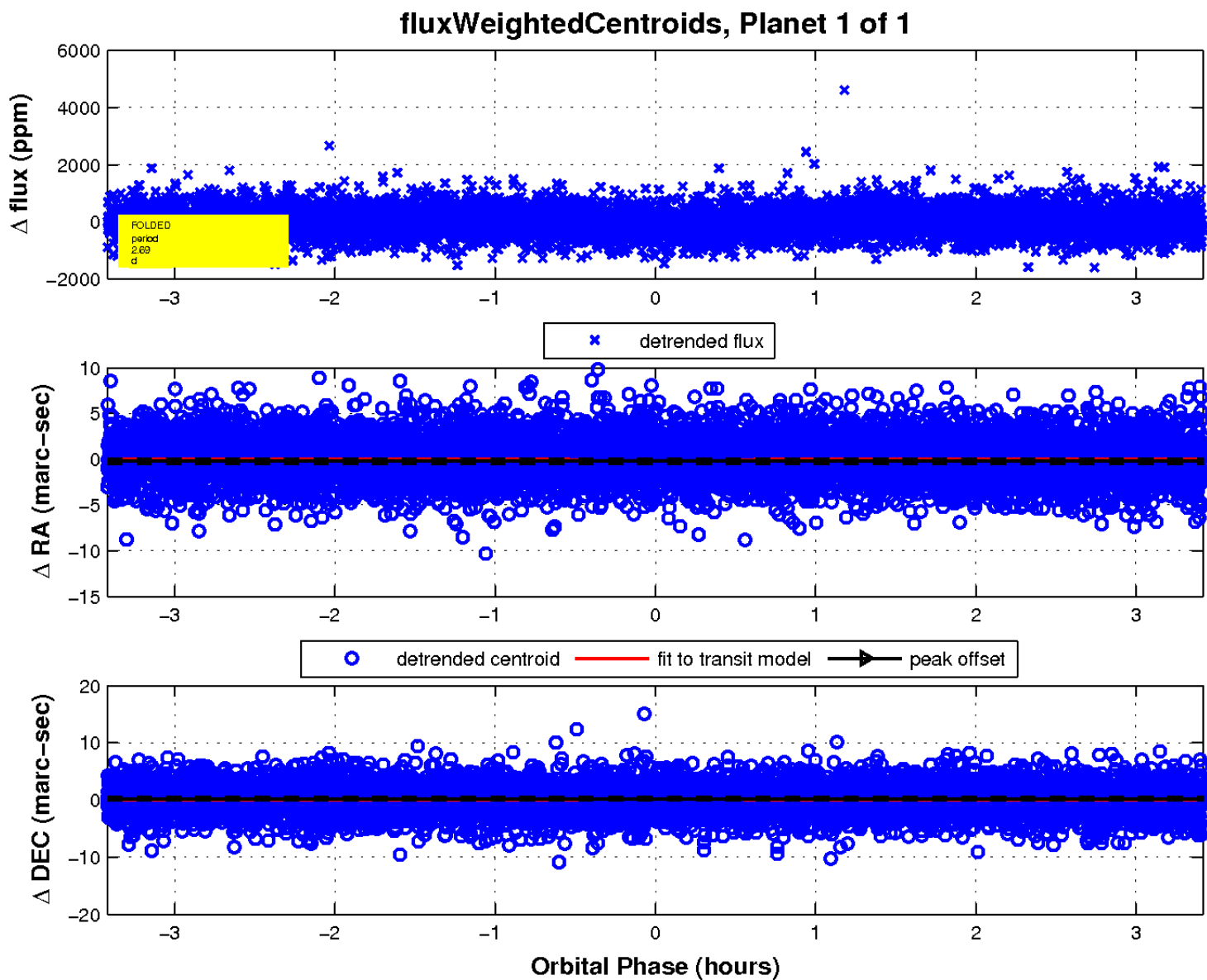
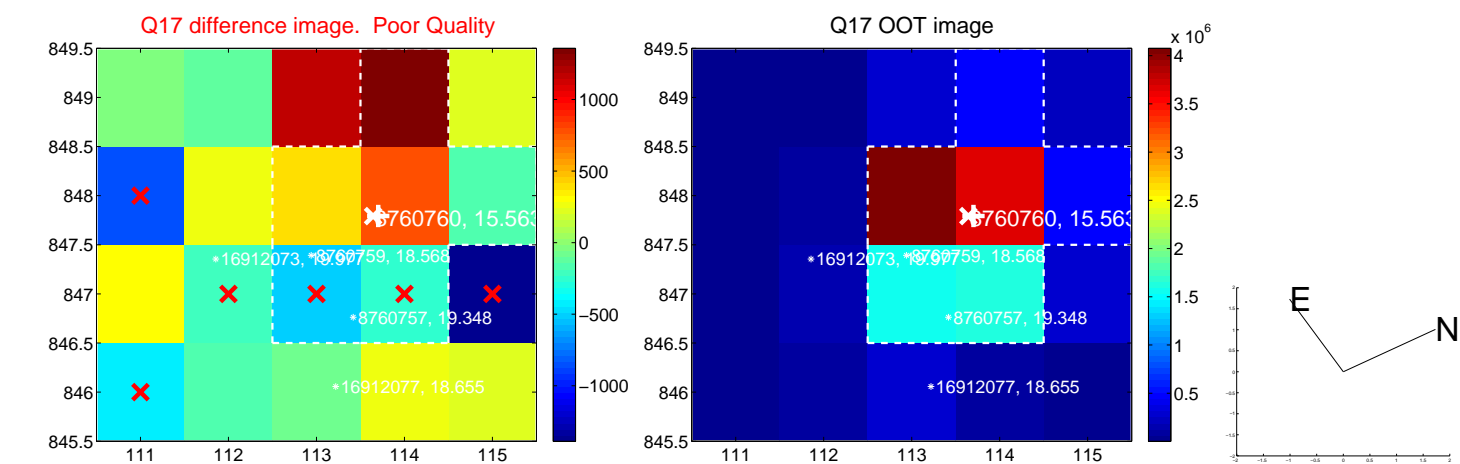
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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.



UKIRT Image

Declination

