

# KIC 008056286

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008056286-01	OBS	No	2.878056	133.285645	7.6	24.805	8.7	3.4	3.71	6343	1.10	9111.74

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008056286-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV

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

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

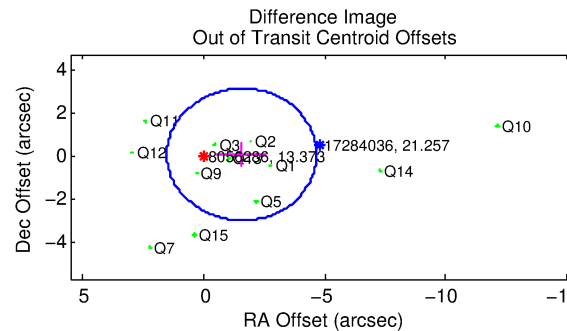
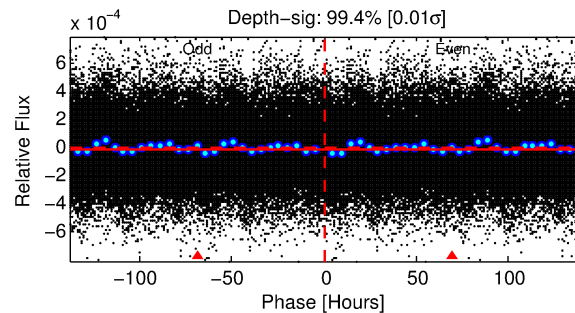
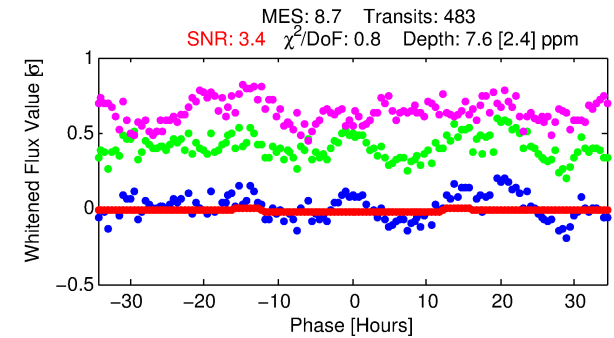
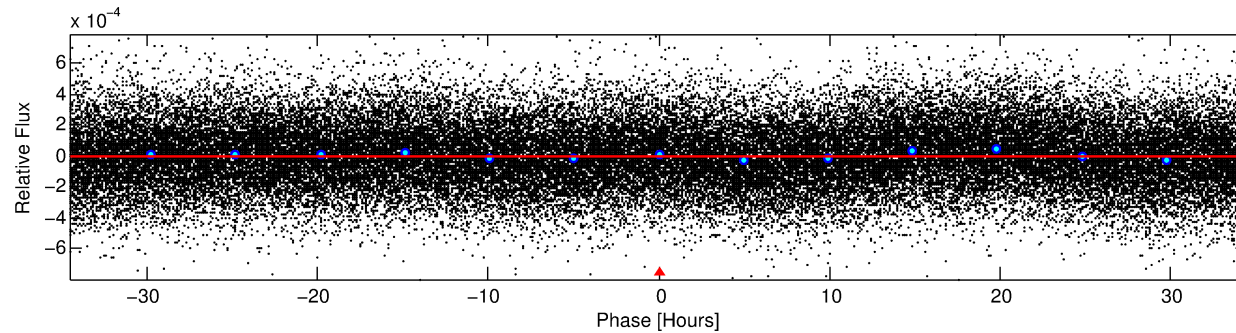
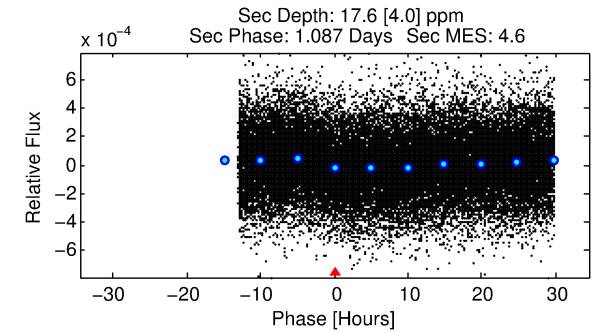
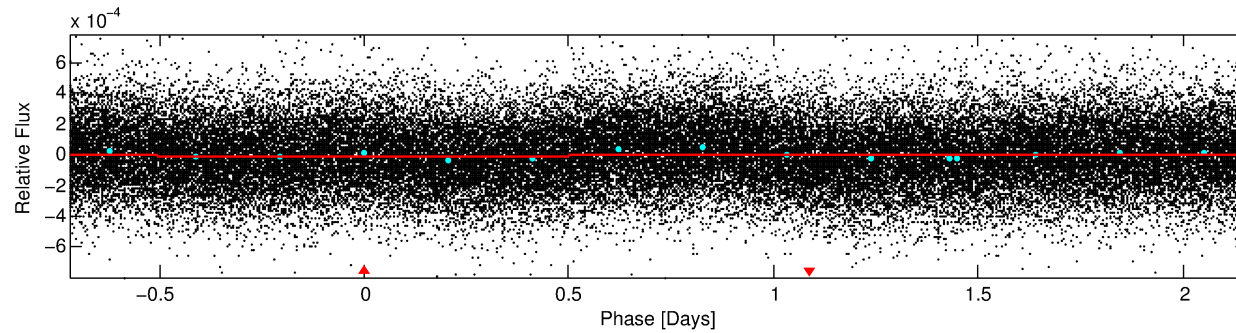
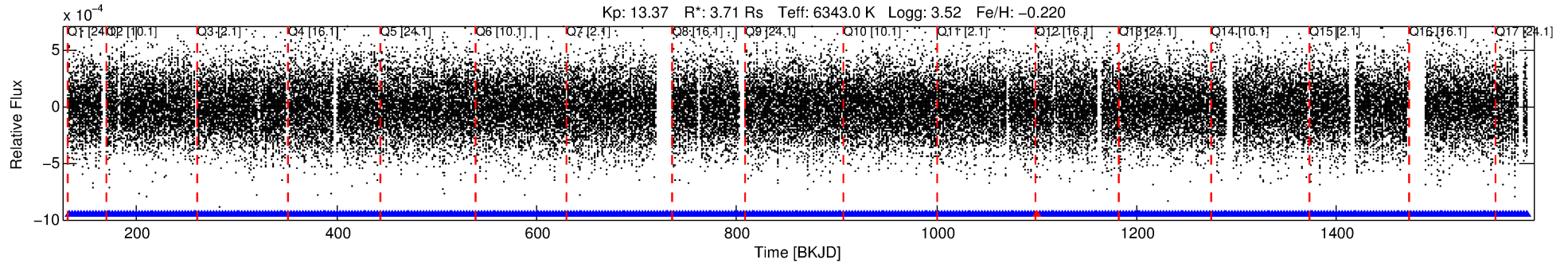
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008056286-01

No Significant Match Found

# DV One-Page Summary

KIC: 8056286 Candidate: 1 of 1 Period: 2.878 d



## DV Fit Results:

Period = 2.87806 [0.00018] d  
Epoch = 133.2856 [0.0371] BKJD  
Rp/R\* = 0.0027 [0.0045]  
a/R\* = 1.05 [0.99]  
b = 0.73 [6.05]  
Seff = 9111.74 [5962.08]  
Teff = 2491 [408] K  
Rp = 1.10 [1.88] Re  
a = 0.0468 [0.0188] AU  
Ag = 17.48 [59.19] [0.28σ]  
Teffp = 7876 [6551] K [0.82σ]

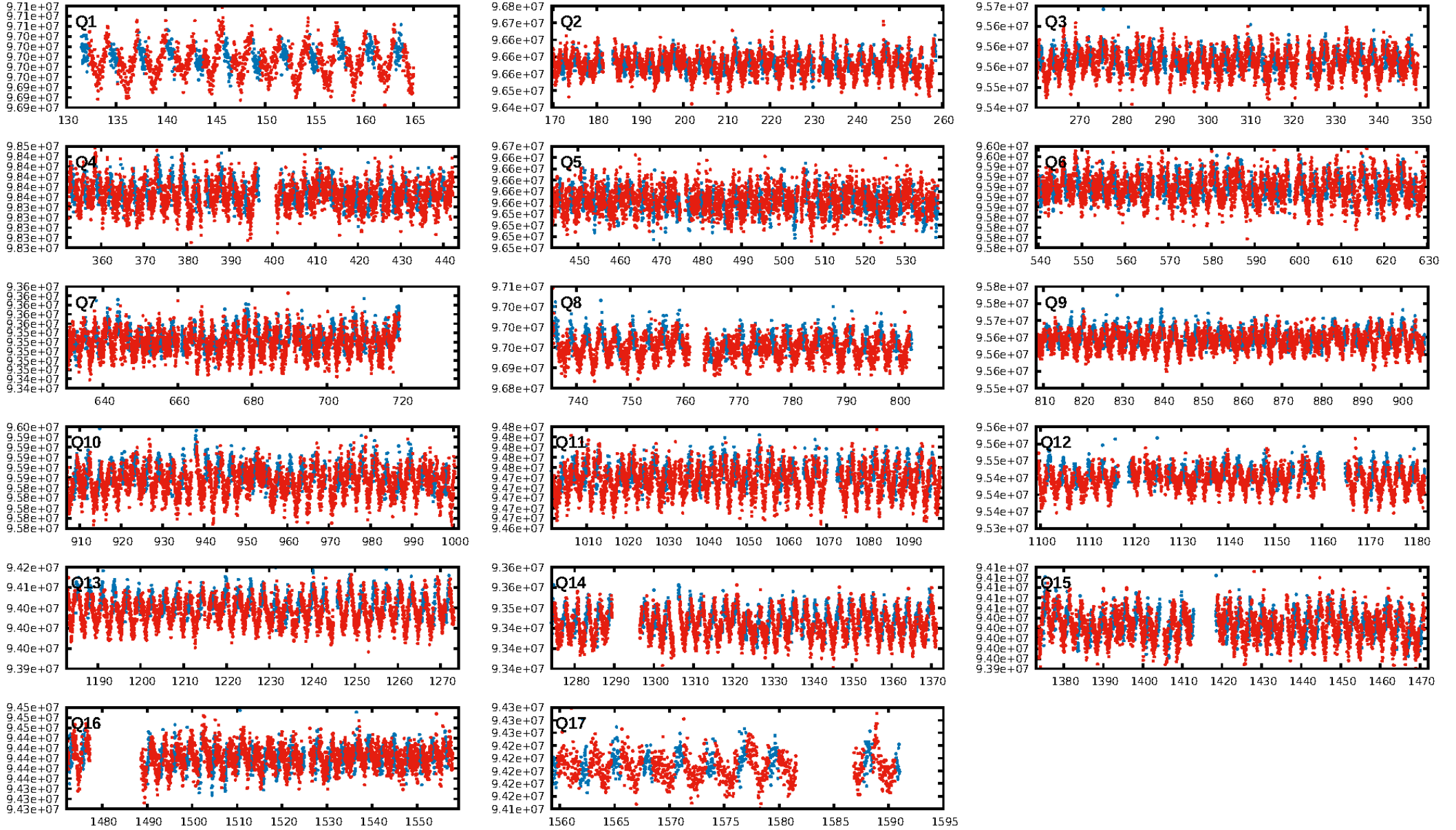
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [460/461]  
GhostDiagnostic-chr: 0.6492  
Centroid-sig: 0.0%  
Centroid-so: 6.923 arcsec [2.80σ]  
OotOffset-rm: 1.581 arcsec [1.54σ]  
KicOffset-rm: 1.552 arcsec [1.34σ]  
OotOffset-st: 3/4/1/4 [12]  
KicOffset-st: 3/4/1/4 [12]  
DiffImageQuality-fgm: 0.50 [6/12]  
DiffImageOverlap-fno: 1.00 [17/17]

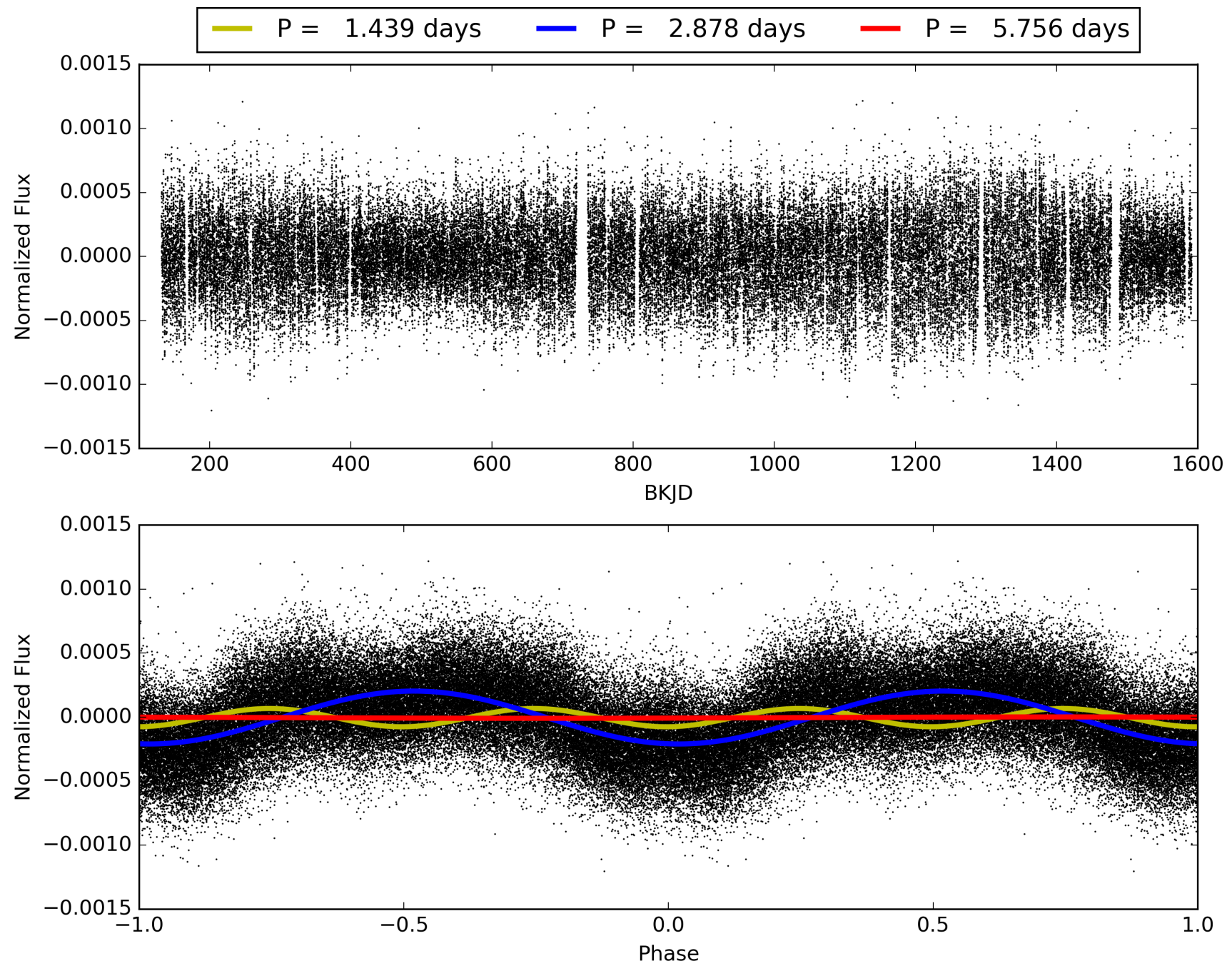
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:21:18 Z

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

# TCE 008056286-01, PDC Light Curves



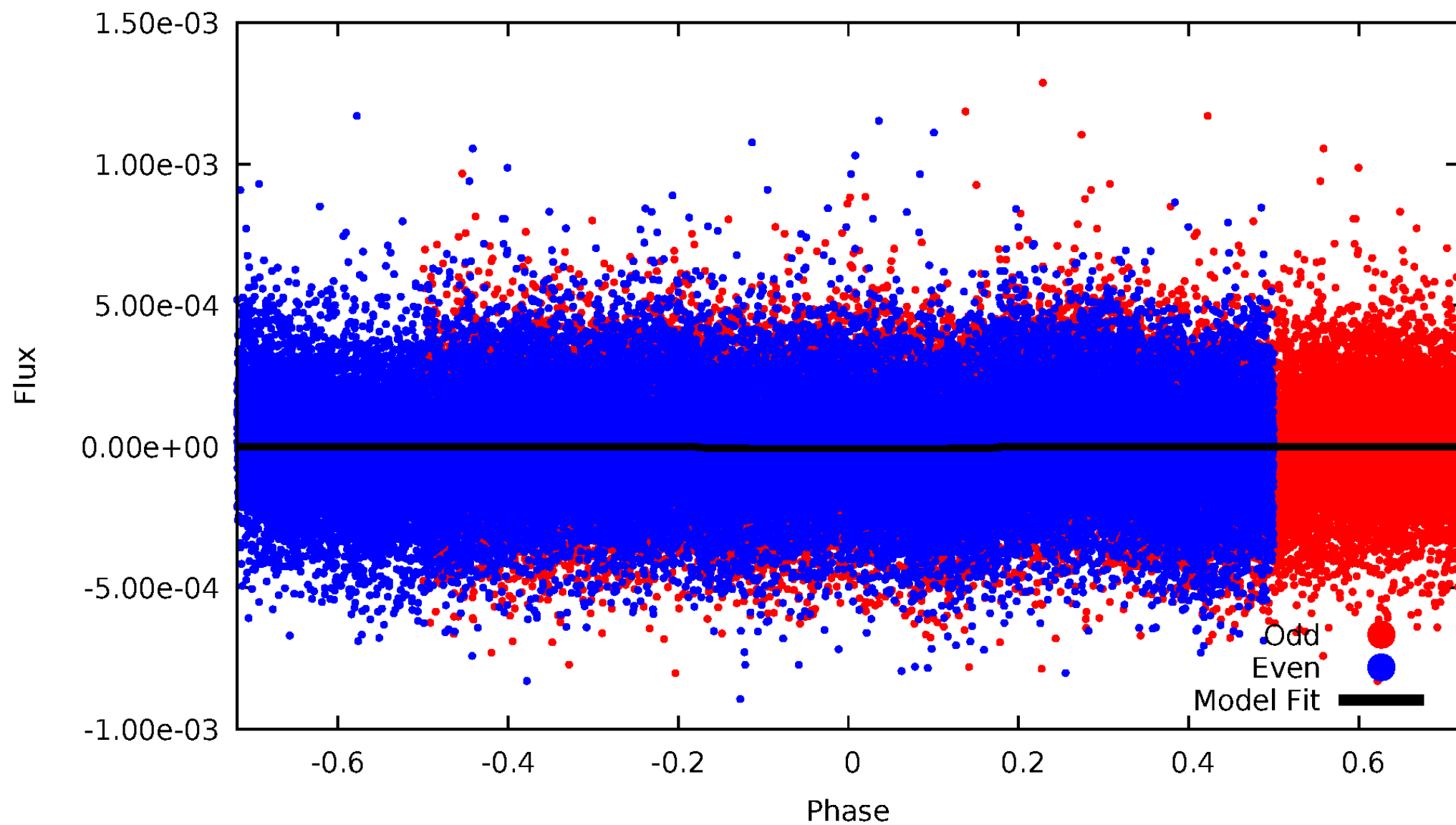
TCE 008056286-01





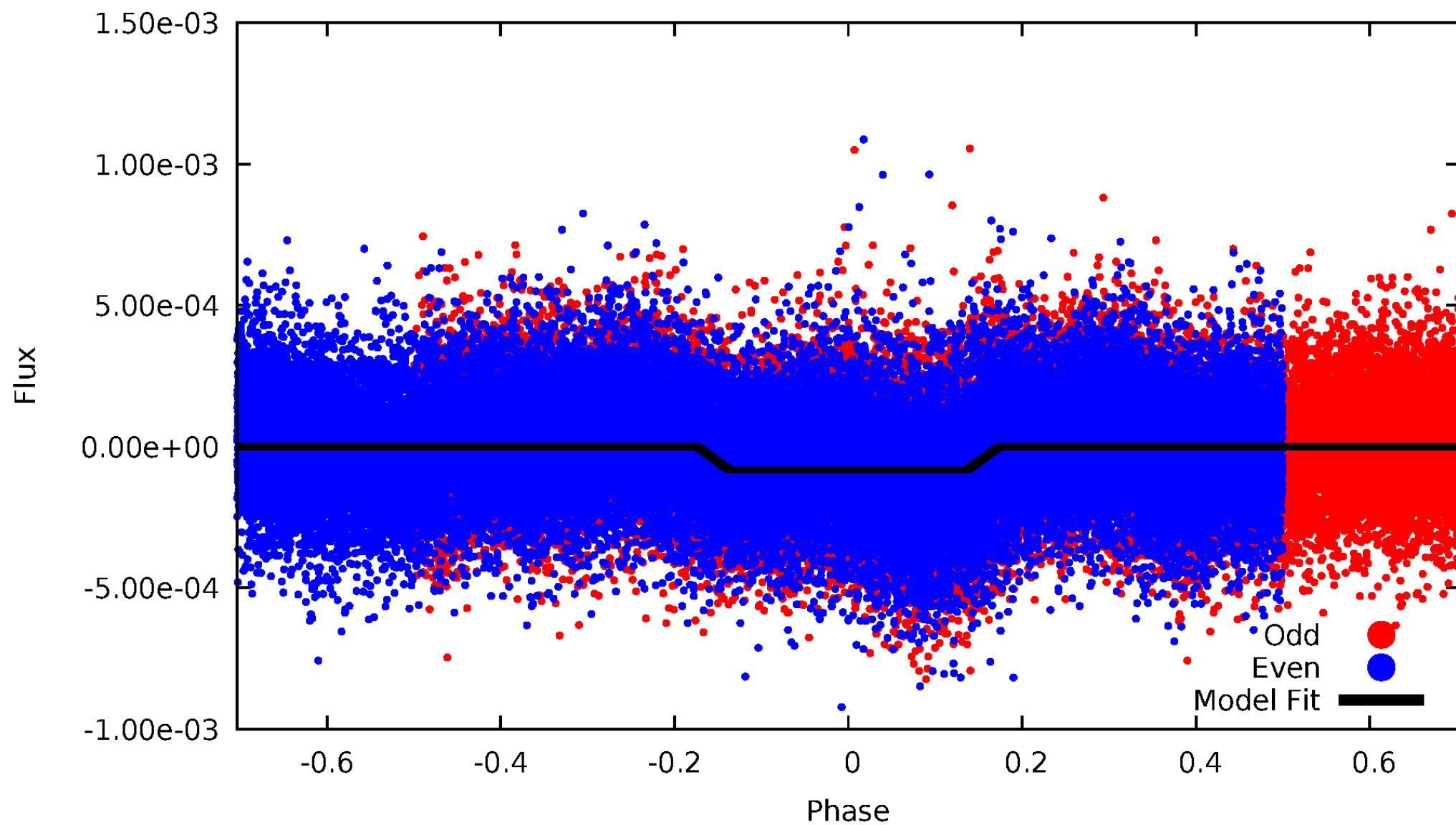
# DV Odd/Even

TCE 008056286-01

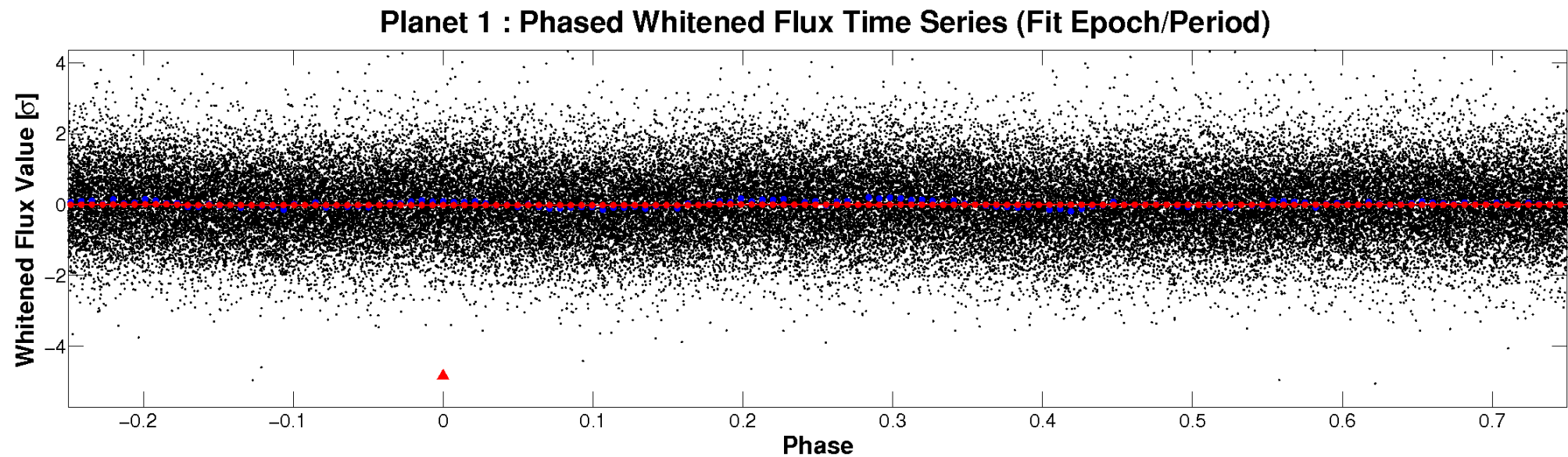
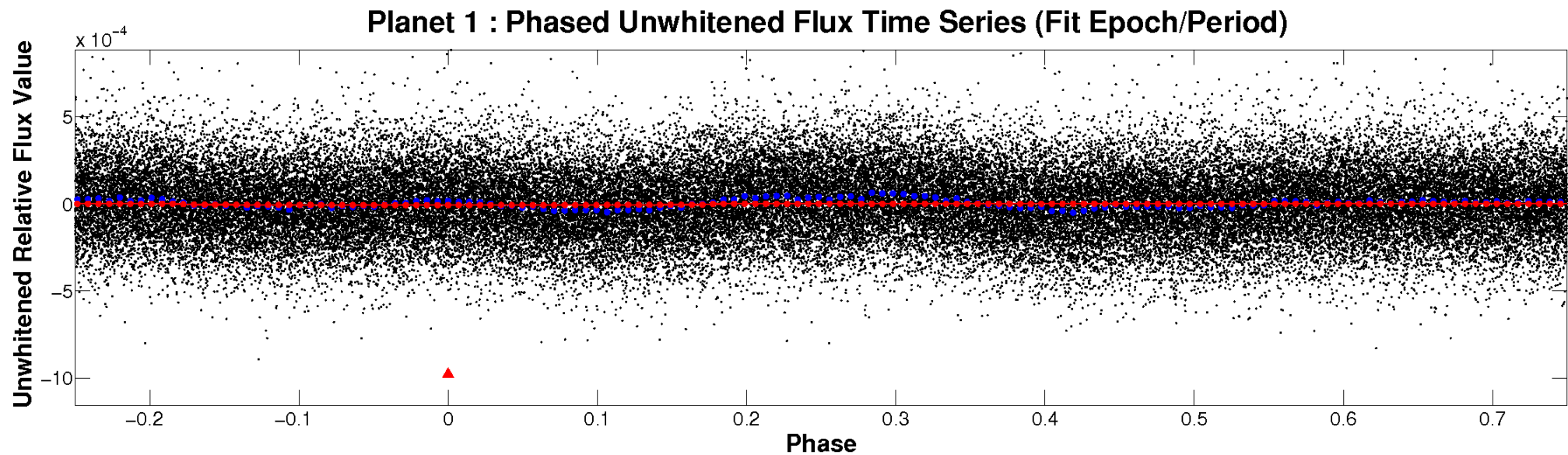


# ALT Odd/Even

TCE 008056286-01

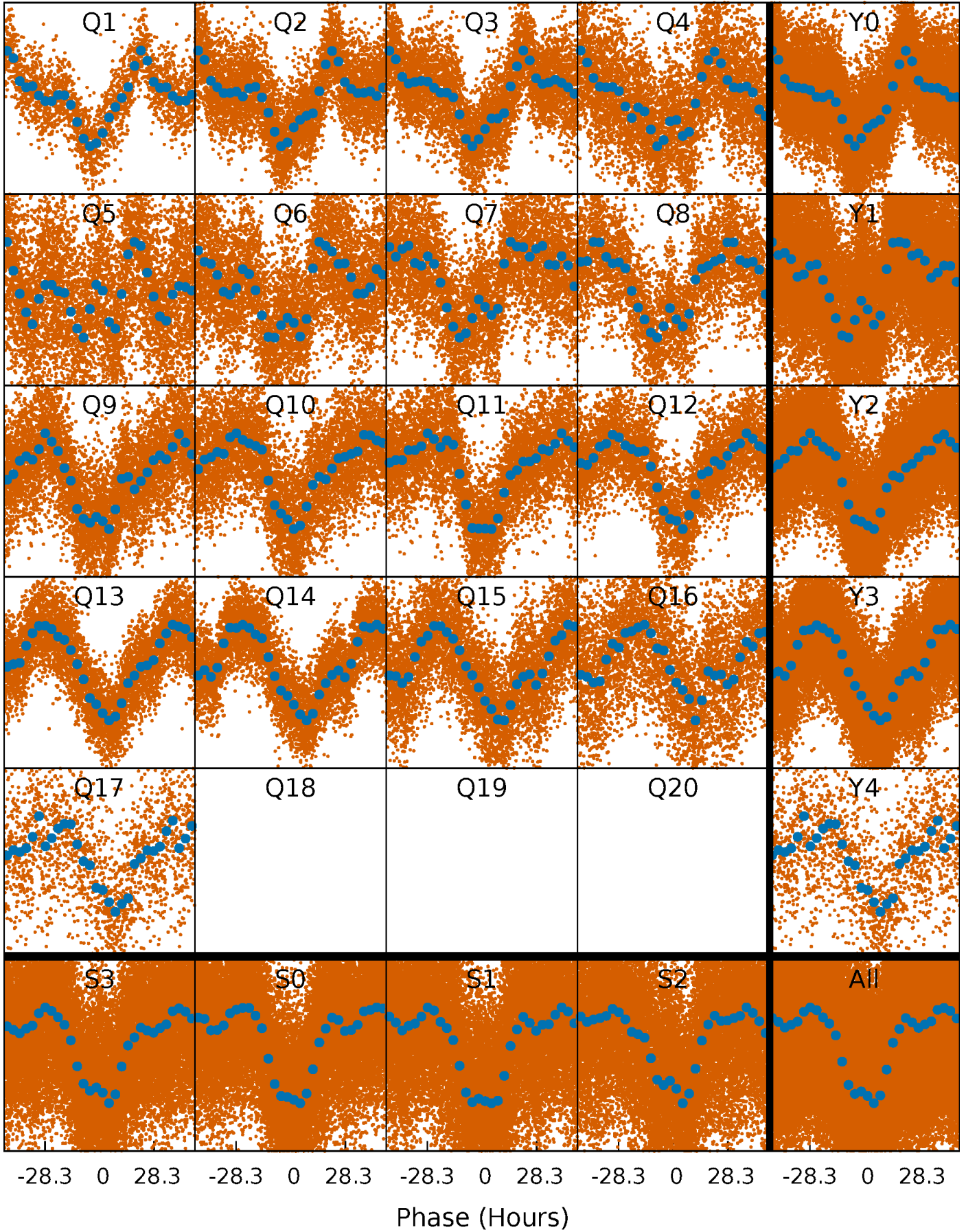


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

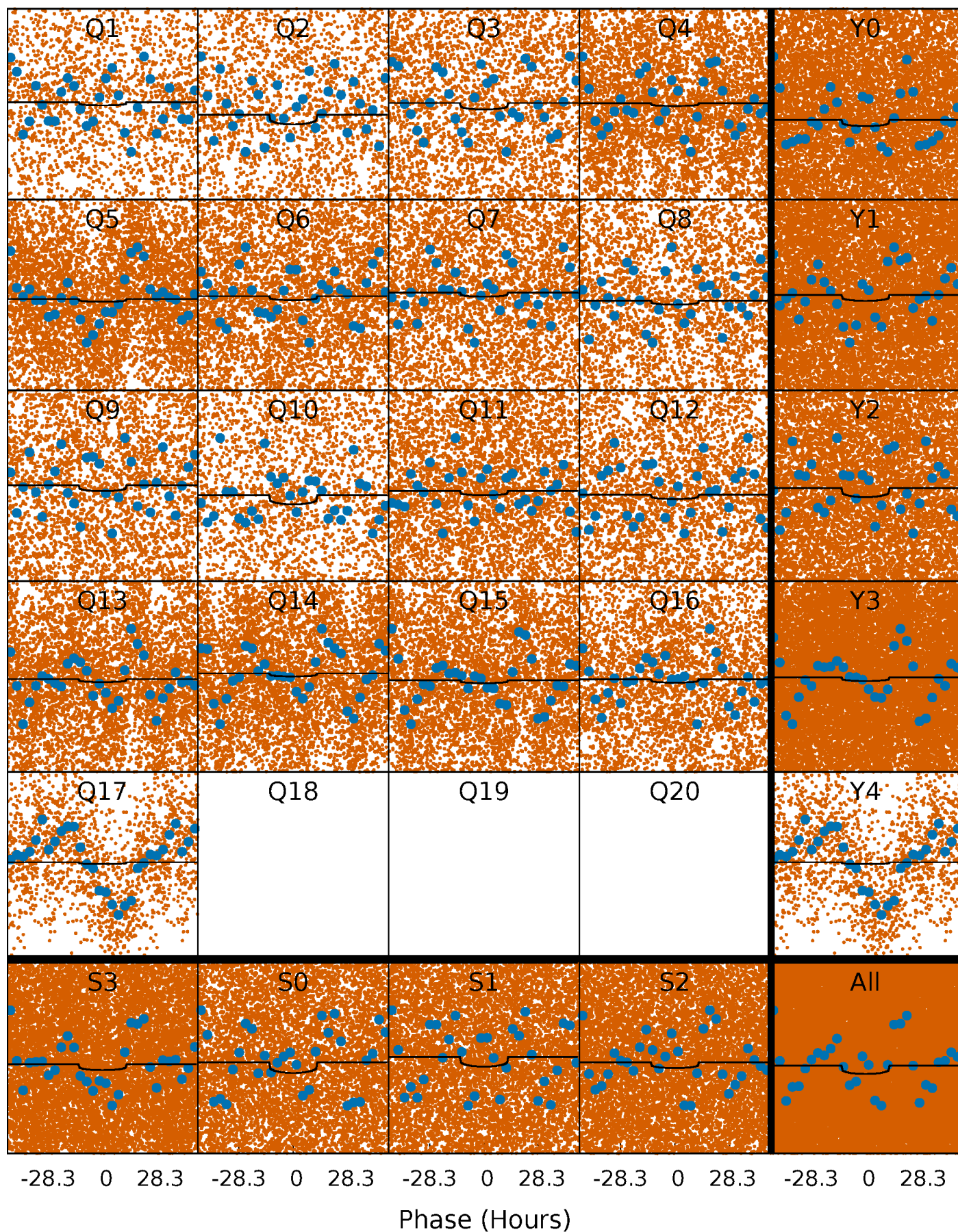
TCE 008056286-01 P= 2.878056 Days  $T_0=133.285645$  (BKJD)





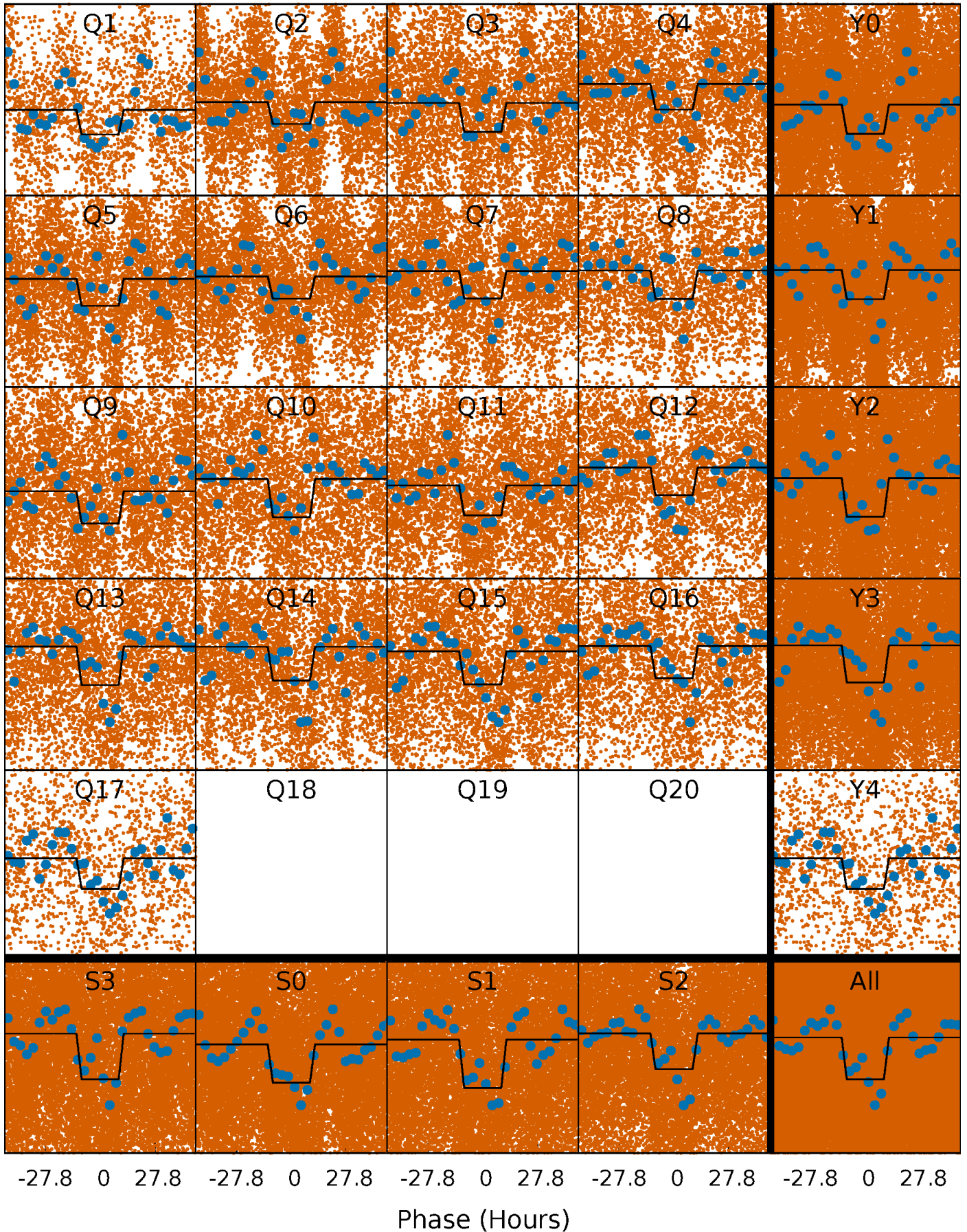
# DV Quarter-Phased Transit Curves

TCE 008056286-01 P= 2.878056 Days  $T_0=133.285645$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 008056286-01 P= 2.878344 Days  $T_0=133.271214$  (BKJD)

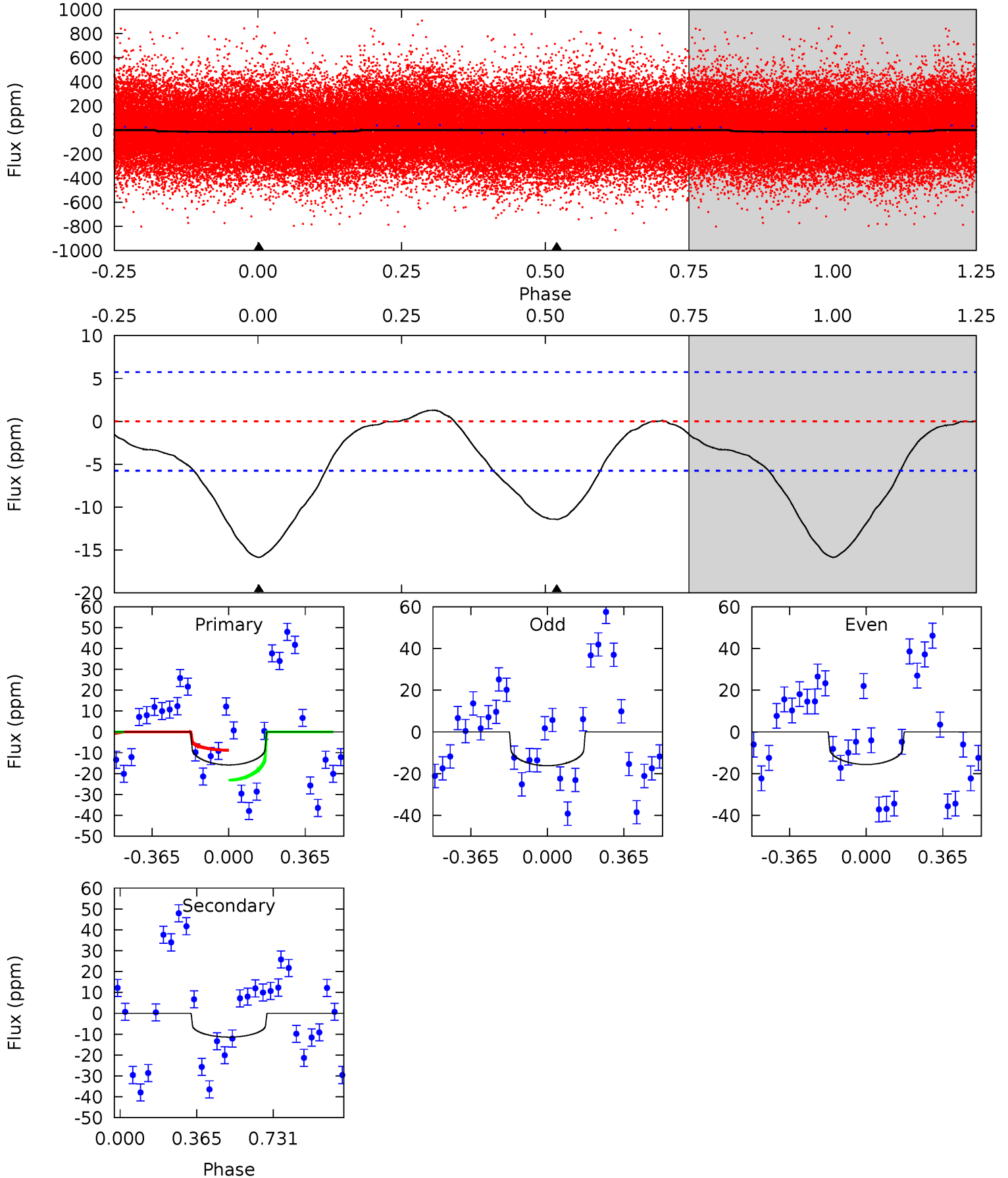




# DV Model-Shift Uniqueness Test

008056286-01, P = 2.878056 Days, E = 130.407589 Days

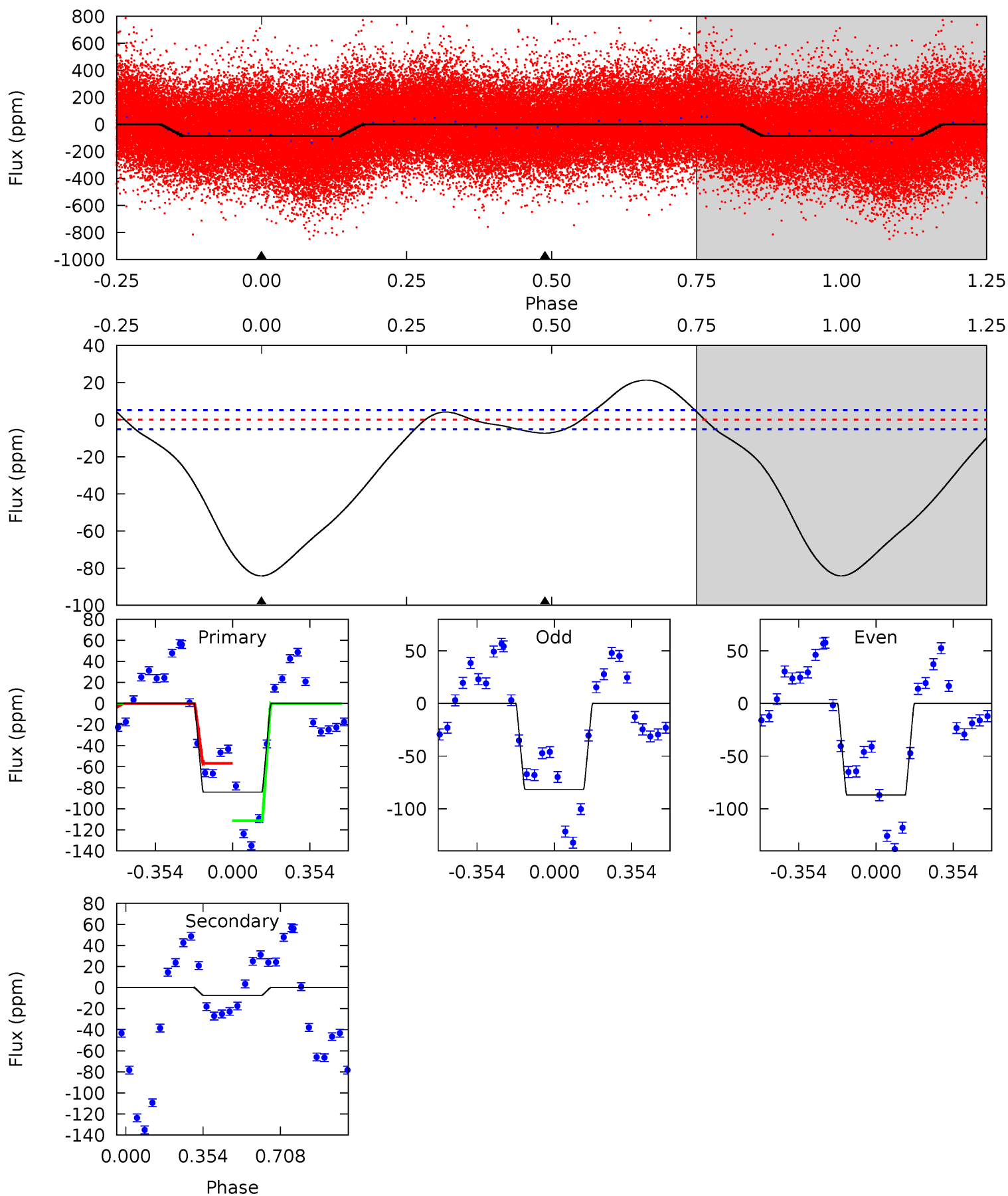
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	8.52	0	0	4.29	0.90	0.89	11.8	11.8	8.52	8.52	0.21	0.85	0.08	5.50



# Alt Model-Shift Uniqueness Test

008056286-01, P = 2.878344 Days, E = 130.392870 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
70.0	6.06	0	0	4.29	0.93	8.22	70.0	70.0	6.06	6.06	2.16	1.05	0.20	22.6





### Stellar Parameters For KIC 008056286

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6343^{+212}_{-212}$	$3.517^{+0.376}_{-0.094}$	$-0.220^{+0.350}_{-0.300}$	$3.711^{+0.515}_{-1.546}$	$1.654^{+0.214}_{-0.428}$	$0.046^{+0.139}_{-0.016}$
	+3%/-3%	+11%/-3%	+159%/-136%	+14%/-42%	+13%/-26%	+305%/-35%
Source	PHO1	FLK73	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 008056286-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-11 \pm 1$	$1.56^{+1.48}_{-1.07}$	$3418^{+213}_{-338}$	$5625^{+6021}_{-1492}$	$5.498^{+52.338}_{-3.995}$
Alt.	$-7 \pm 1$	$3.37^{+1.80}_{-1.78}$	$3424^{+211}_{-368}$	$3494^{+1378}_{-1265}$	$0.749^{+2.673}_{-0.437}$

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

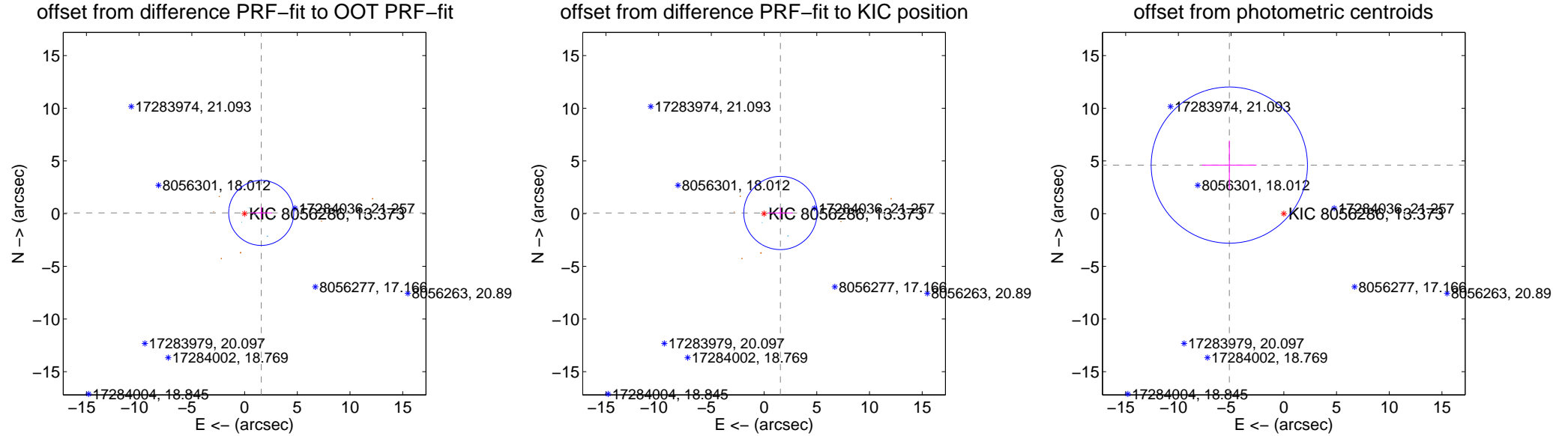
## DV Centroid Data

Supplemental centroid analysis for 008056286-01. Kepler magnitude: 13.37. Transit SNR 3.40

There are 6 quarters with good PRF difference image offsets

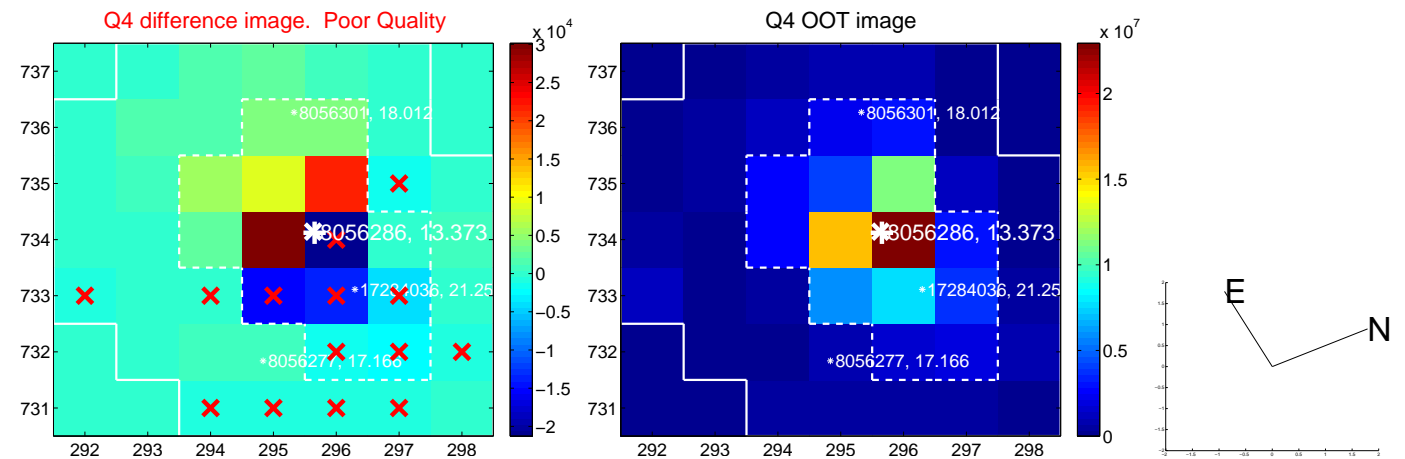
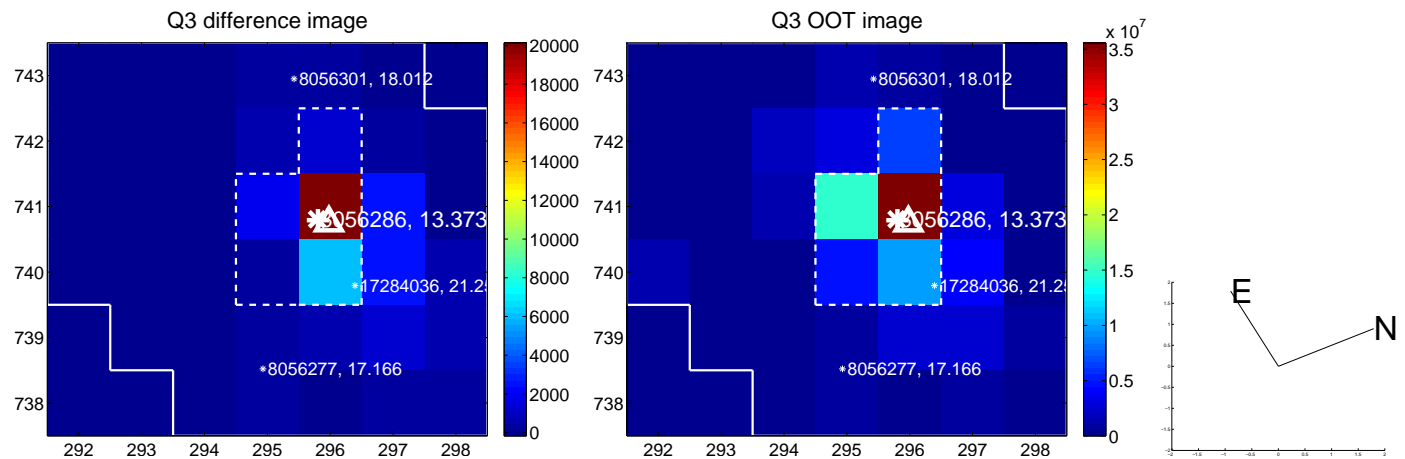
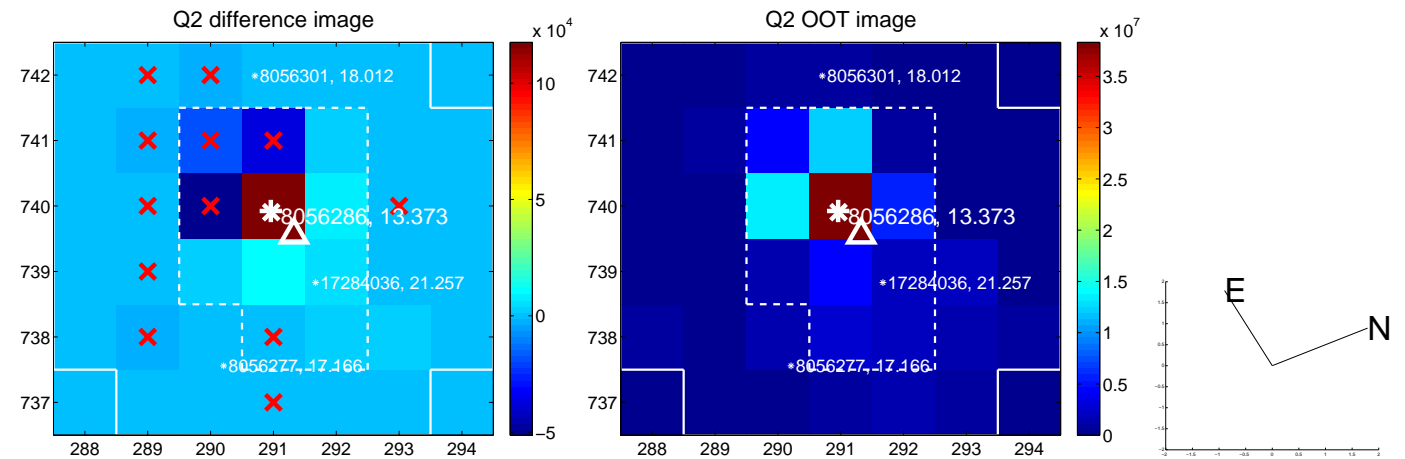
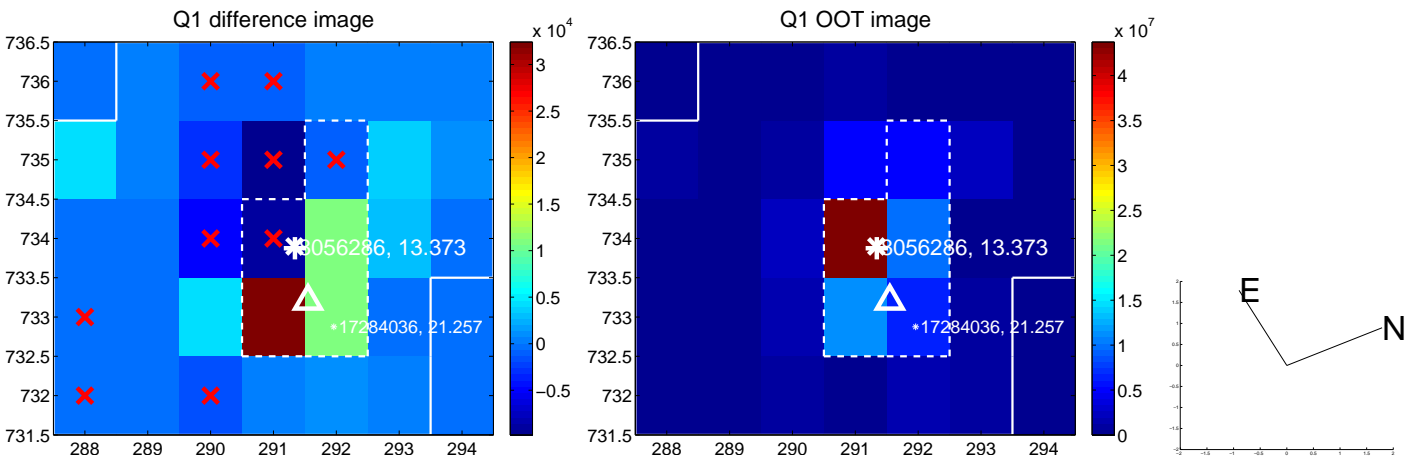
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.581 \pm 1.028$	1.54	$-1.580 \pm 1.024$	$0.067 \pm 0.555$
PRF-fit source offset from KIC position	$1.552 \pm 1.158$	1.34	$-1.550 \pm 1.154$	$0.061 \pm 0.514$
photometric centroid source offset	$6.92 \pm 2.47$	2.80	$5.17 \pm 2.58$	$4.61 \pm 2.33$

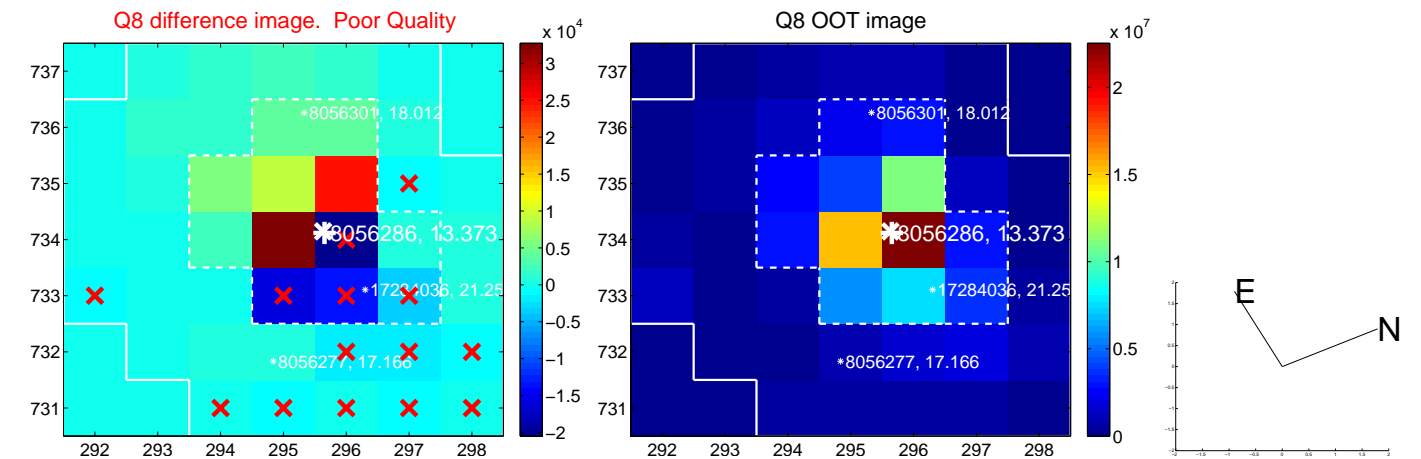
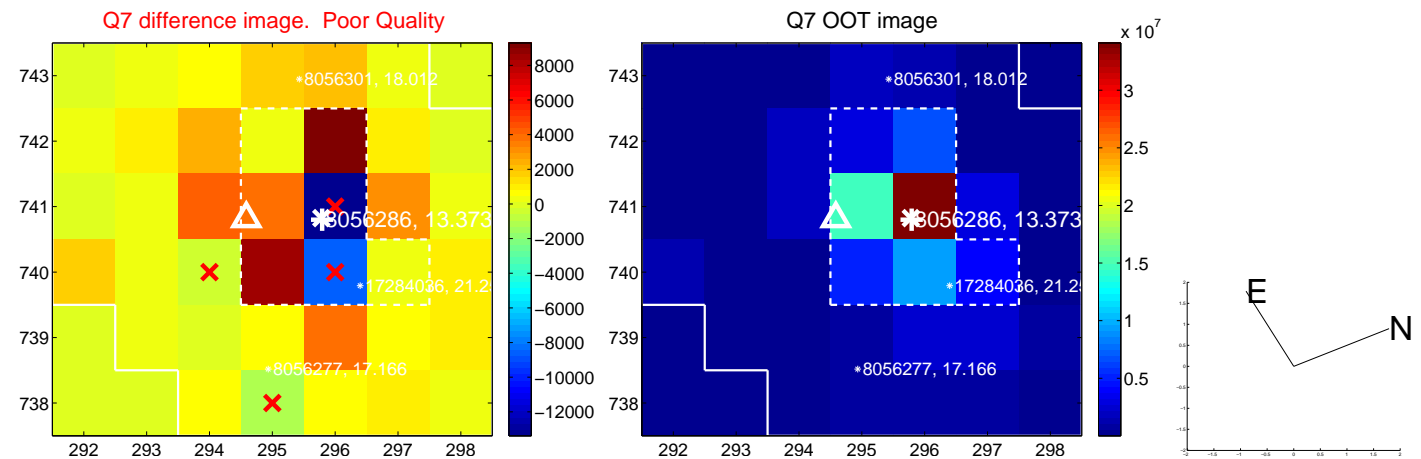
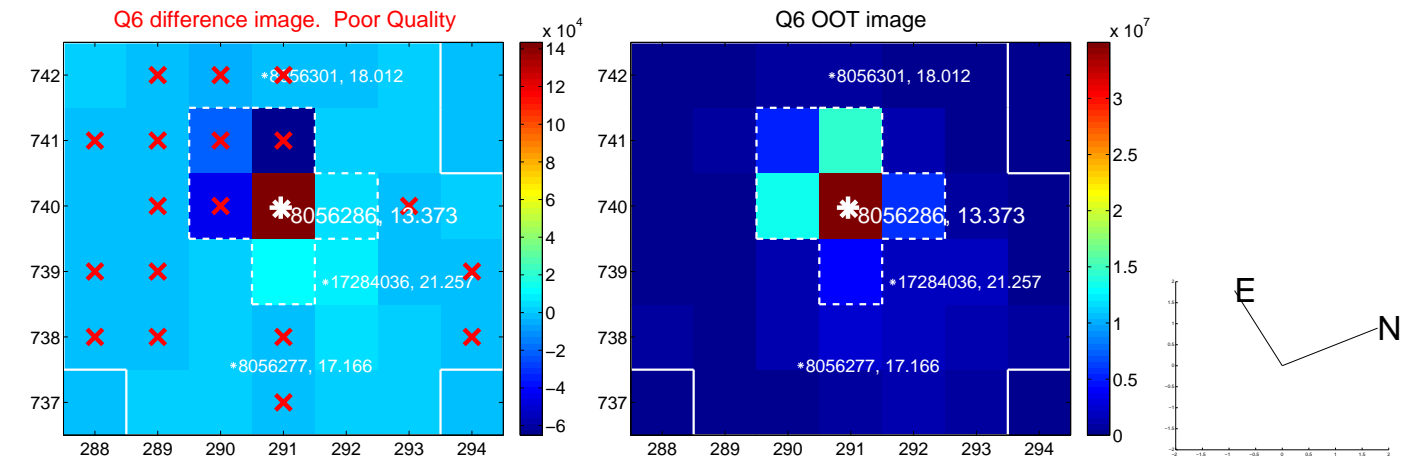
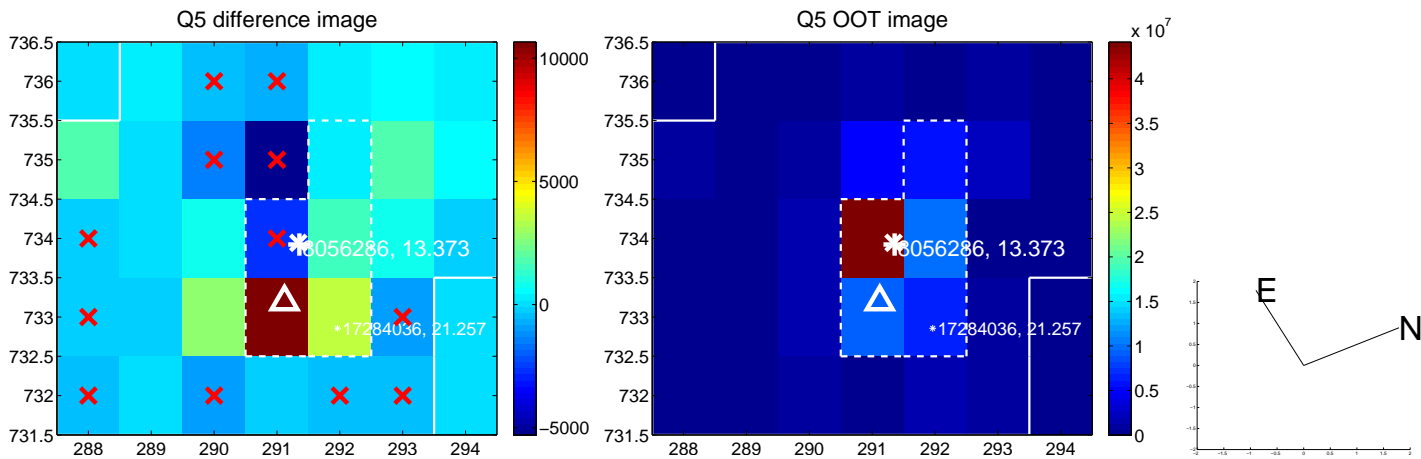


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

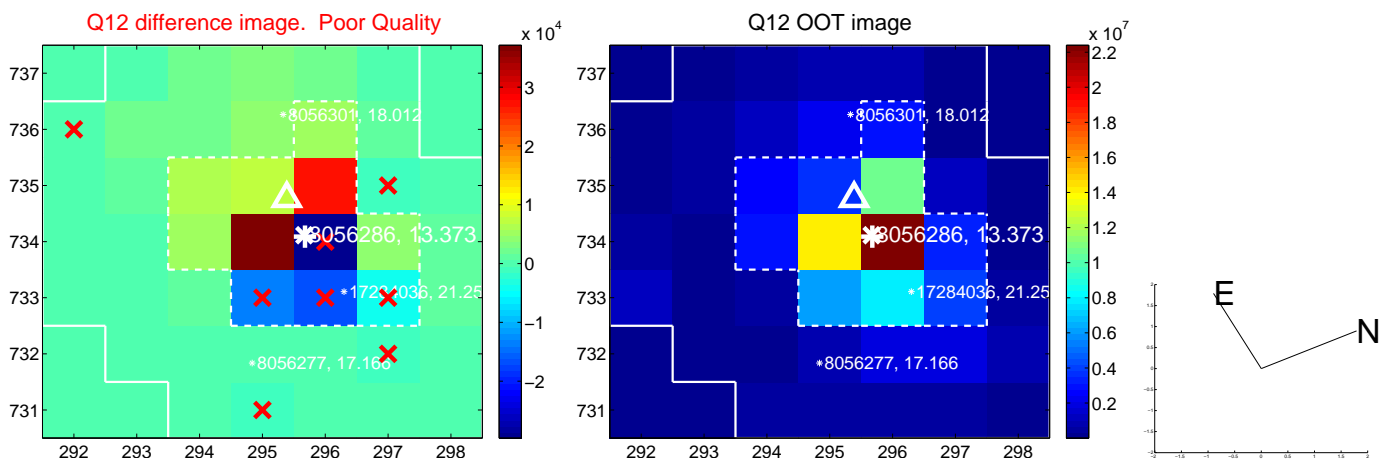
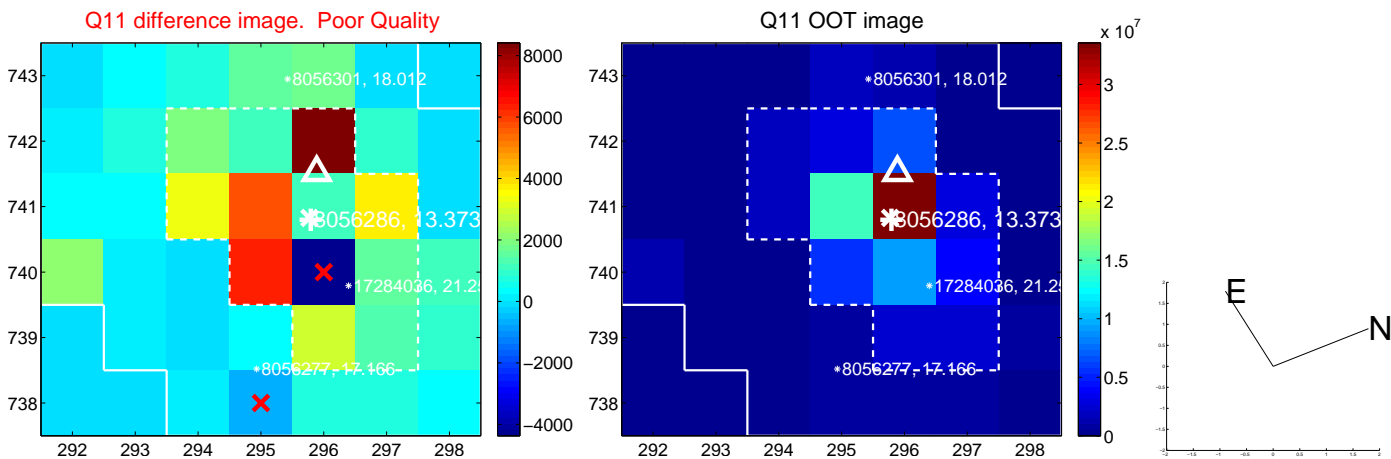
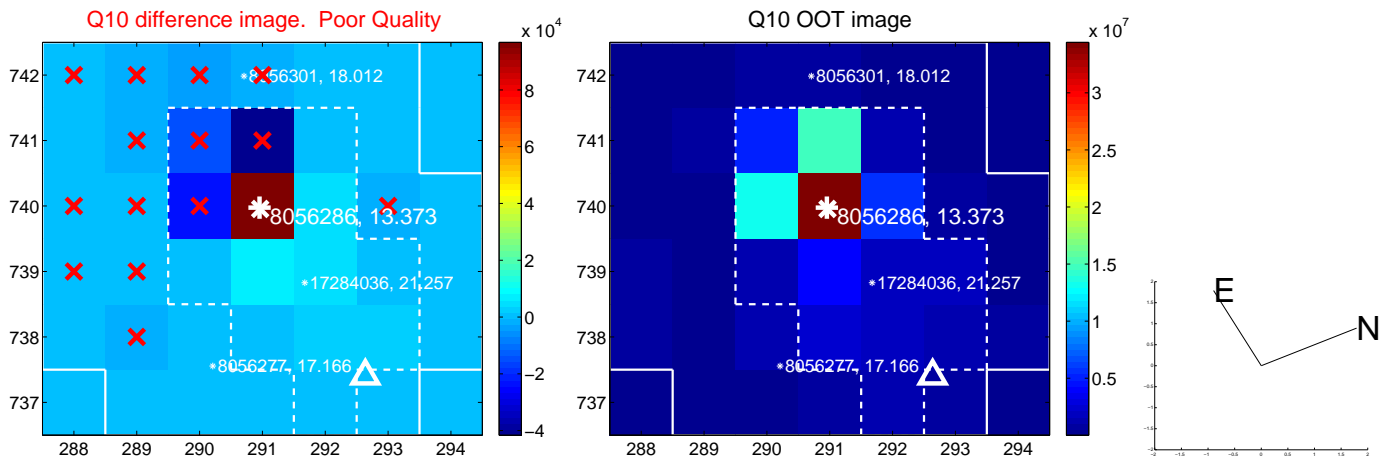
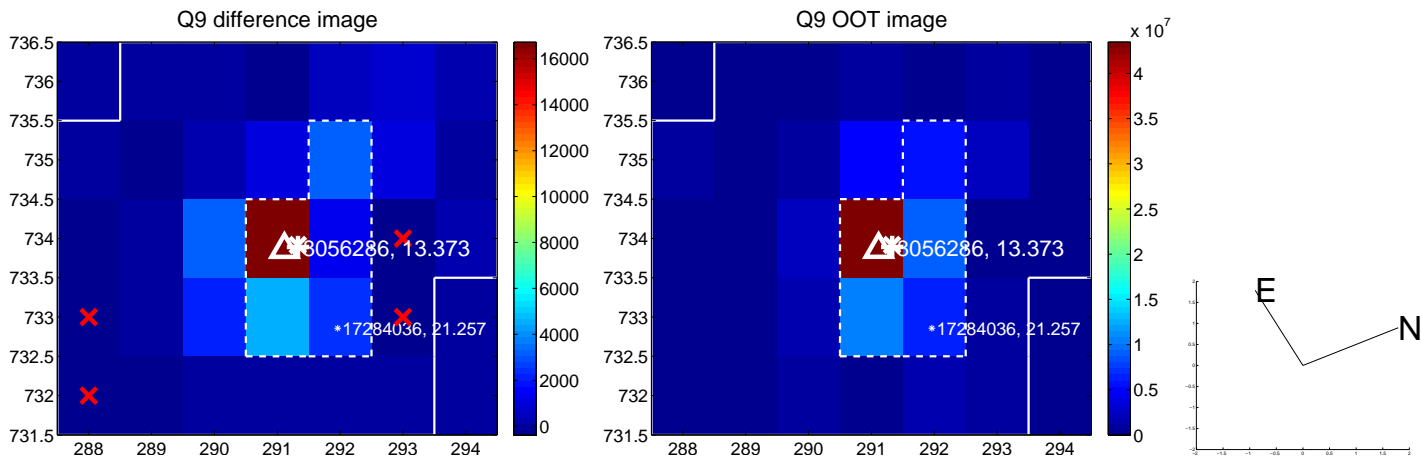


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

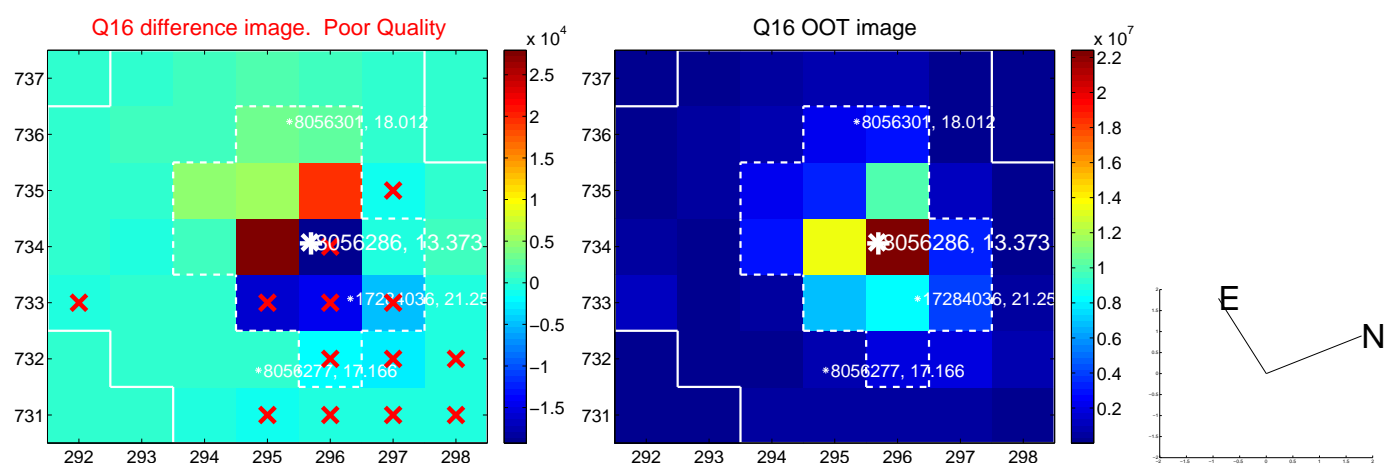
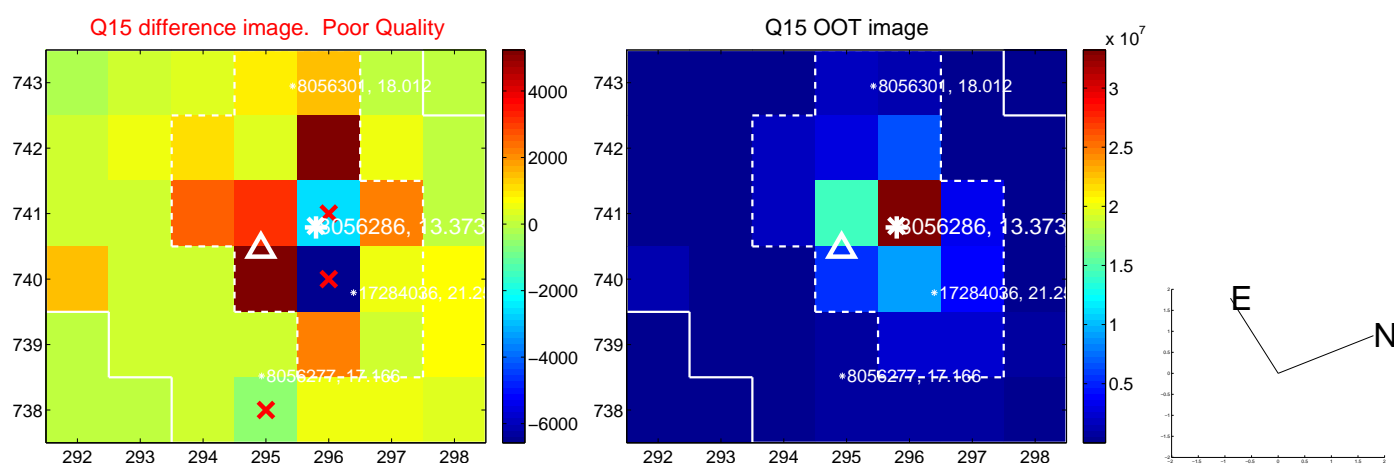
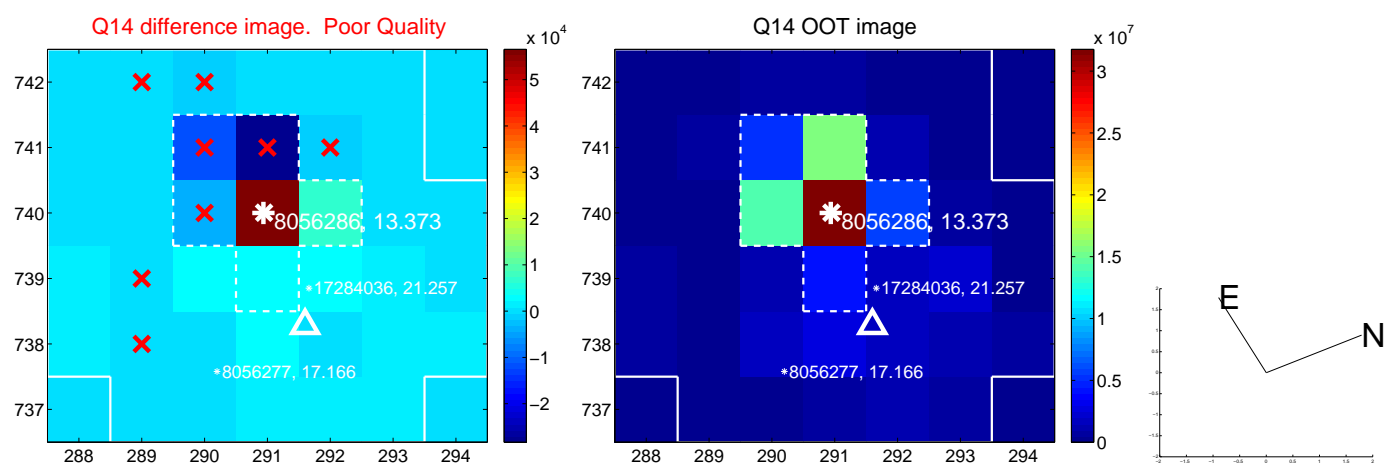
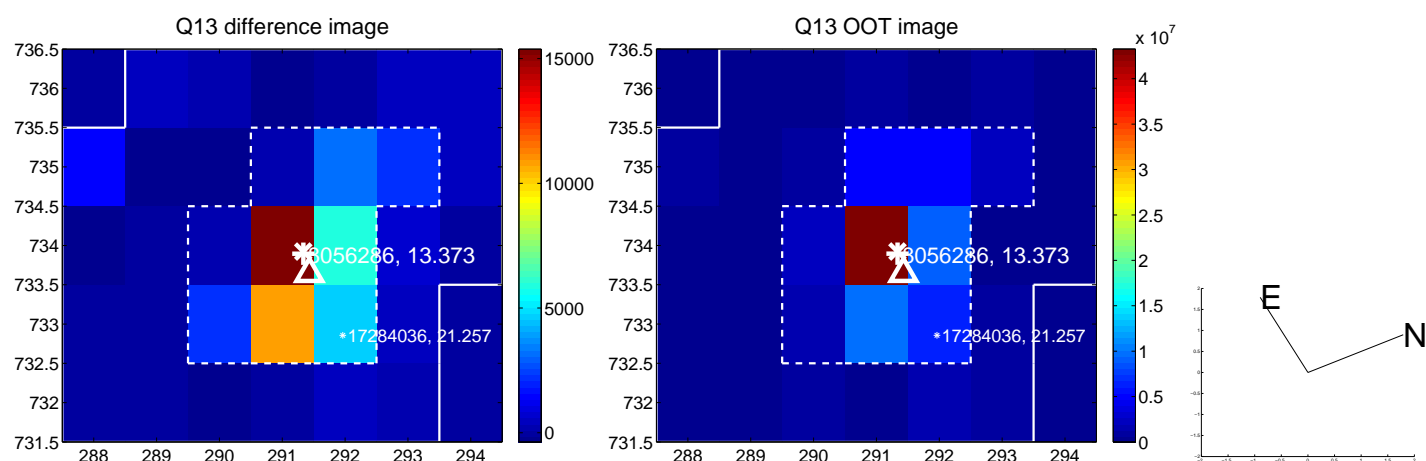




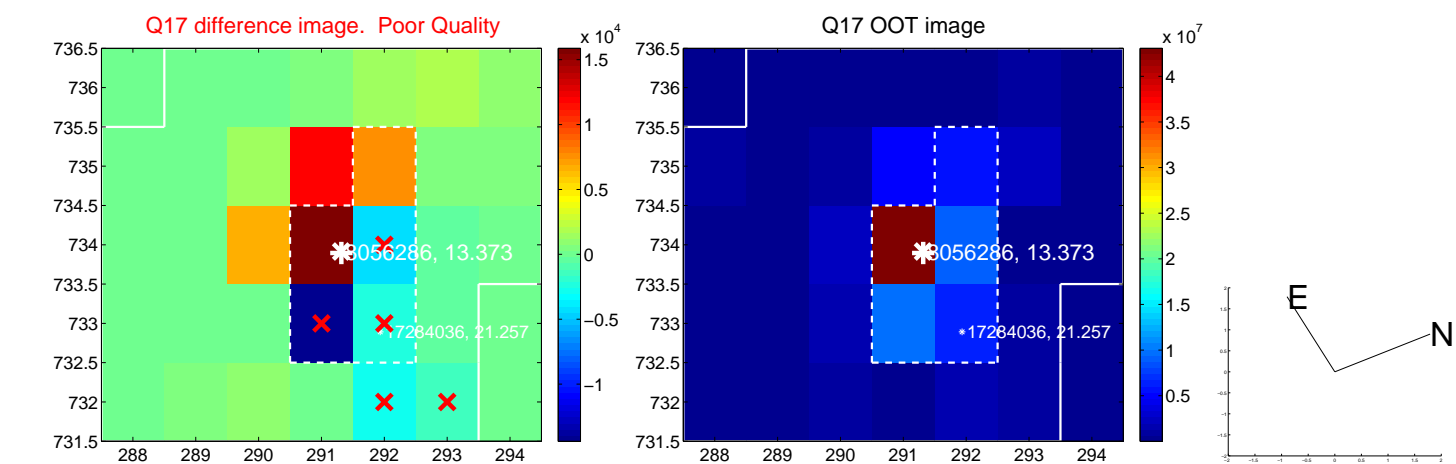
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



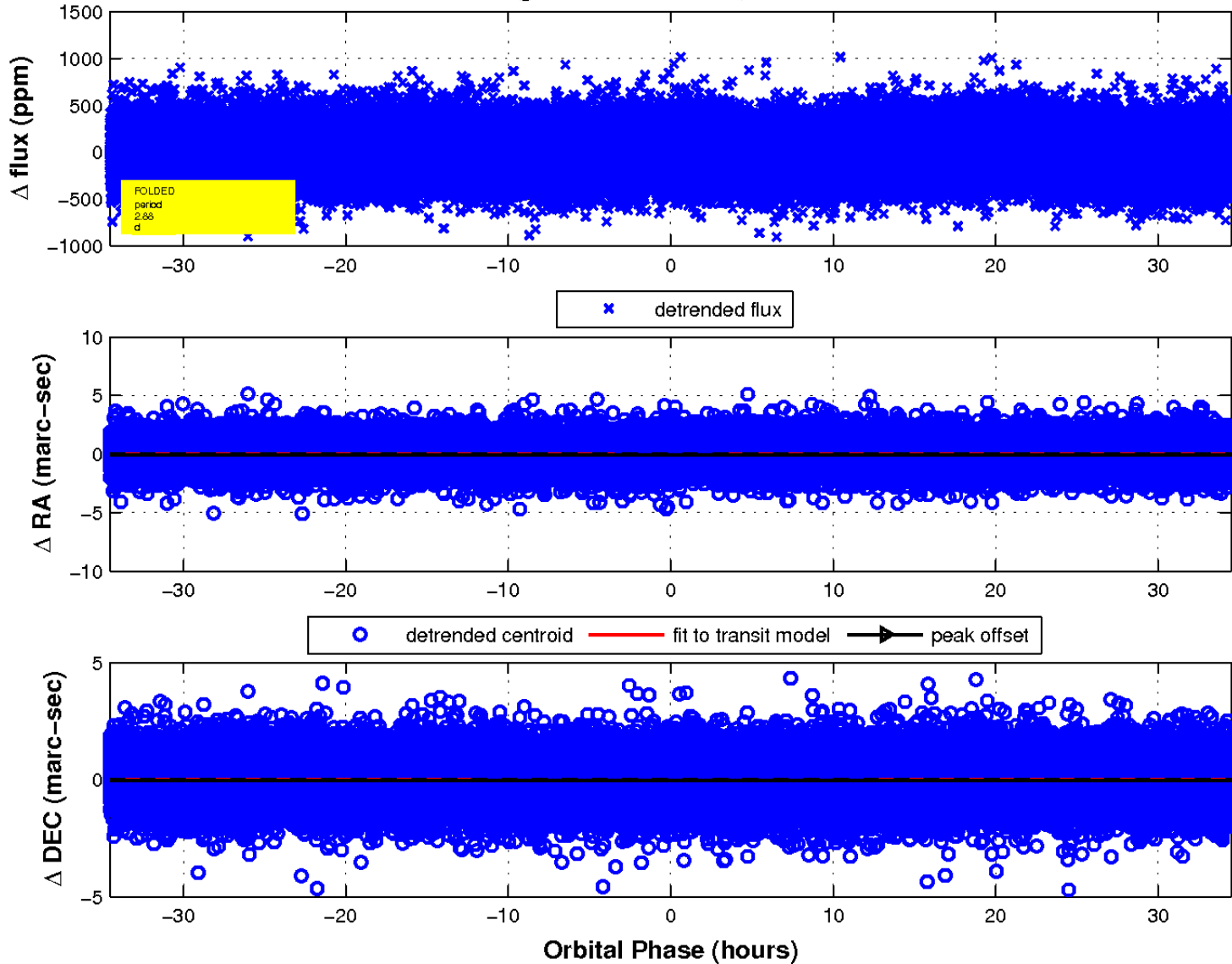
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

