

# KIC 006792983

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006792983-01	OBS	No	0.887625	132.226720	22.1	3.648	11.4	10.9	3.15	8245	1.72	78279.85

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006792983-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT

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

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

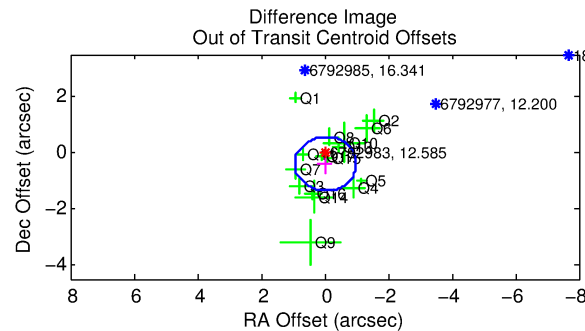
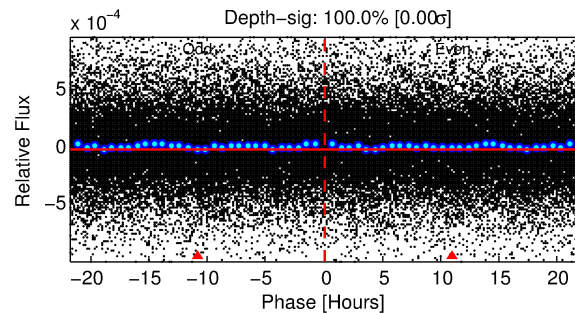
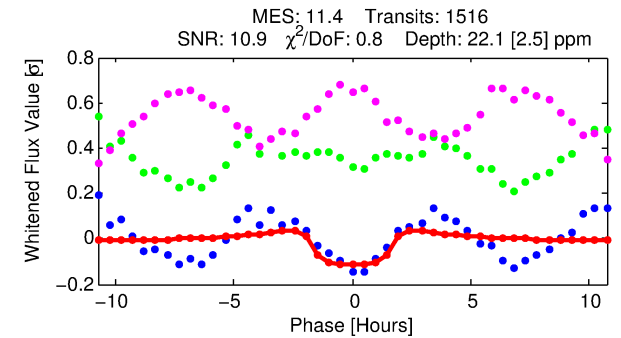
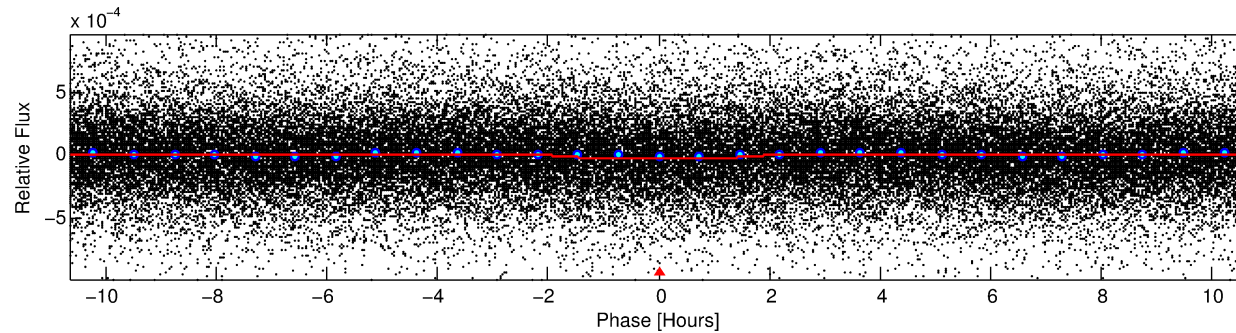
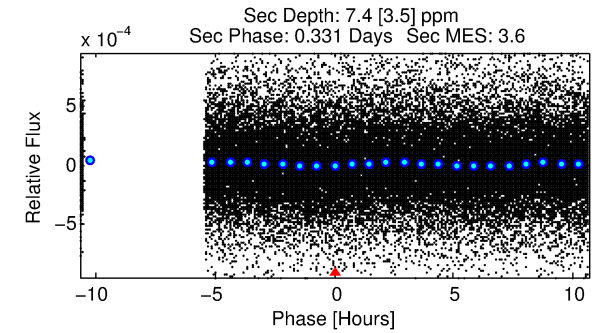
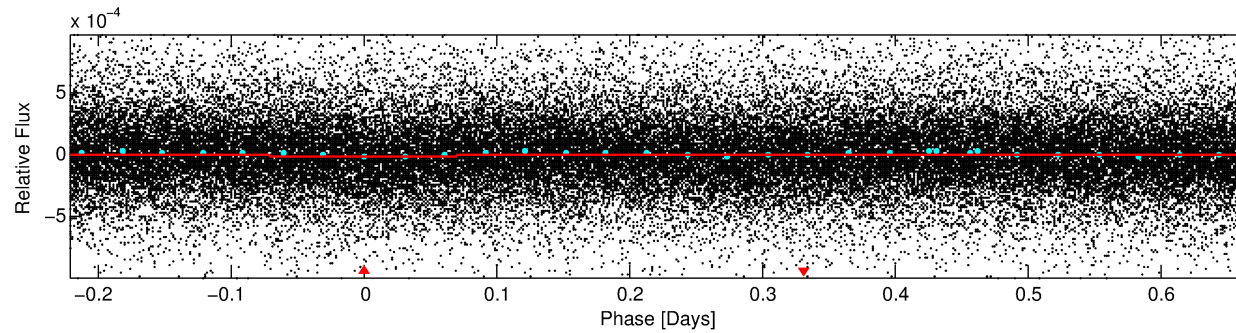
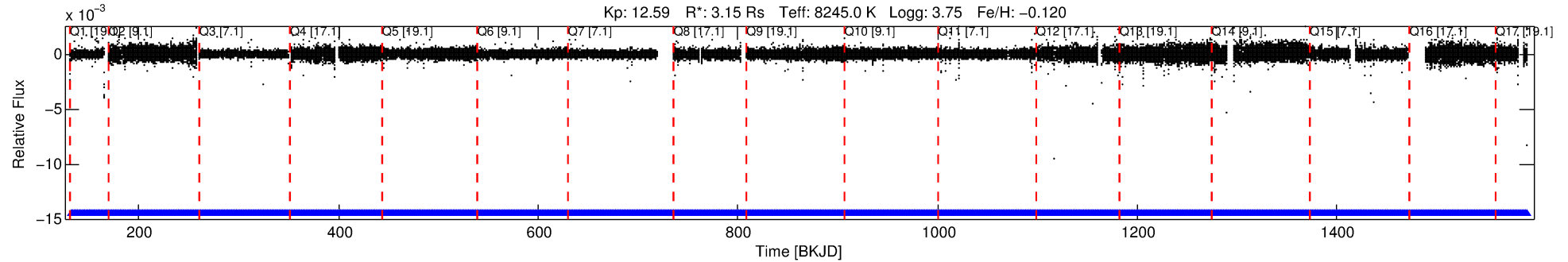
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006792983-01

No Significant Match Found

# DV One-Page Summary

KIC: 6792983 Candidate: 1 of 1 Period: 0.888 d



## DV Fit Results:

Period = 0.88762 [0.00001] d  
Epoch = 132.2267 [0.0039] BKJD  
Rp/R\* = 0.0050 [0.0023]  
a/R\* = 1.25 [1.36]  
b = 0.90 [0.64]  
Seff = 78279.85 [36980.90]  
Teq = 4265 [504] K  
Rp = 1.72 [0.98] Re  
a = 0.0229 [0.0069] AU  
Ag = 0.72 [0.83] [-0.34σ]  
Teffp = 6078 [1597] K [1.08σ]

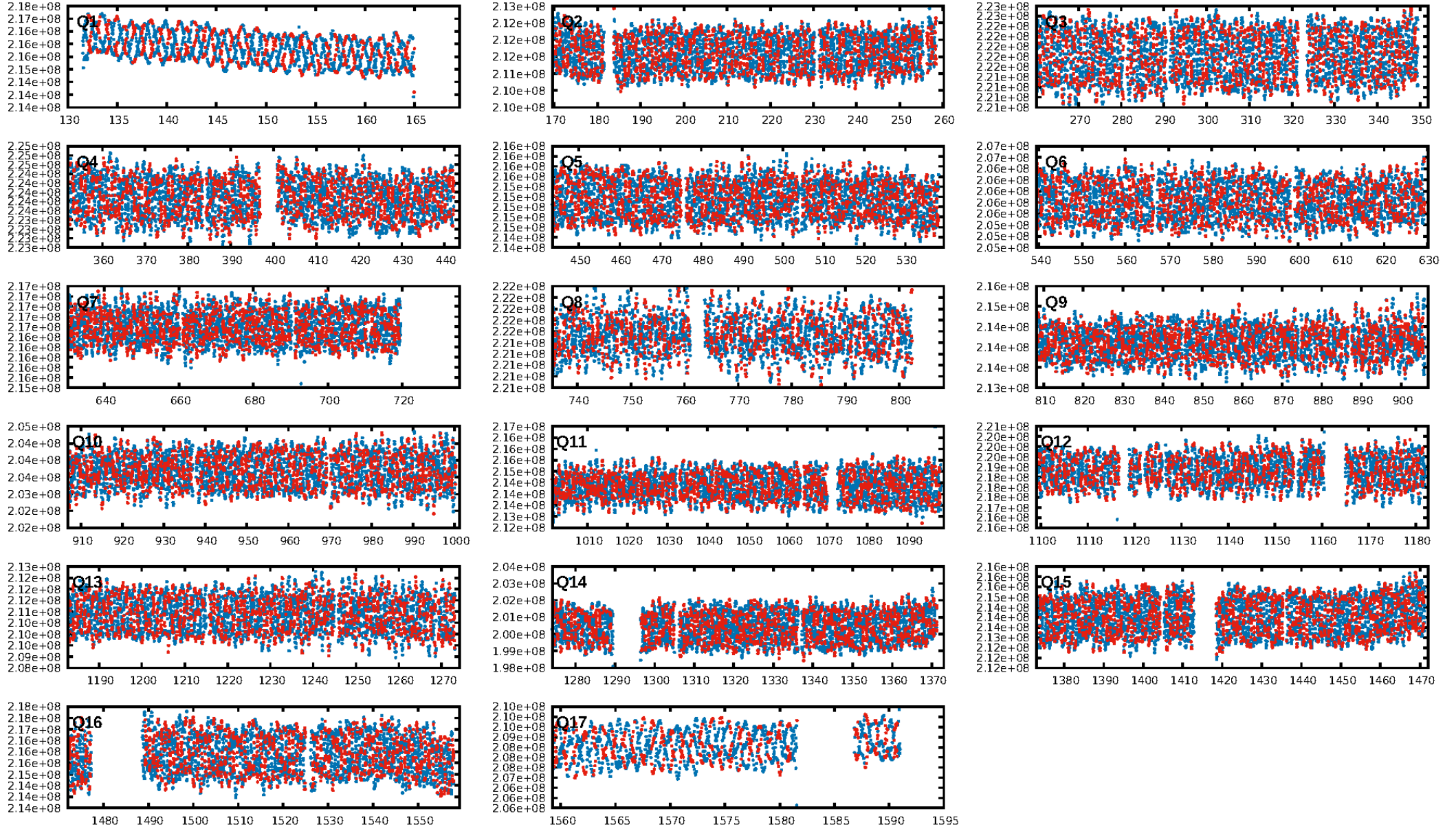
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 5.43e-33  
RollingBand-fgt: 1.00 [1448/1448]  
GhostDiagnostic-chr: -3.244  
Centroid-sig: 5.2%  
Centroid-so: 1.050 arcsec [2.17σ]  
OotOffset-rm: 0.401 arcsec [1.25σ]  
KicOffset-rm: 0.427 arcsec [1.47σ]  
OotOffset-st: 4/4/3/5 [16]  
KicOffset-st: 4/4/3/5 [16]  
DiffImageQuality-fgm: 0.69 [11/16]  
DiffImageOverlap-fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:03:48 Z

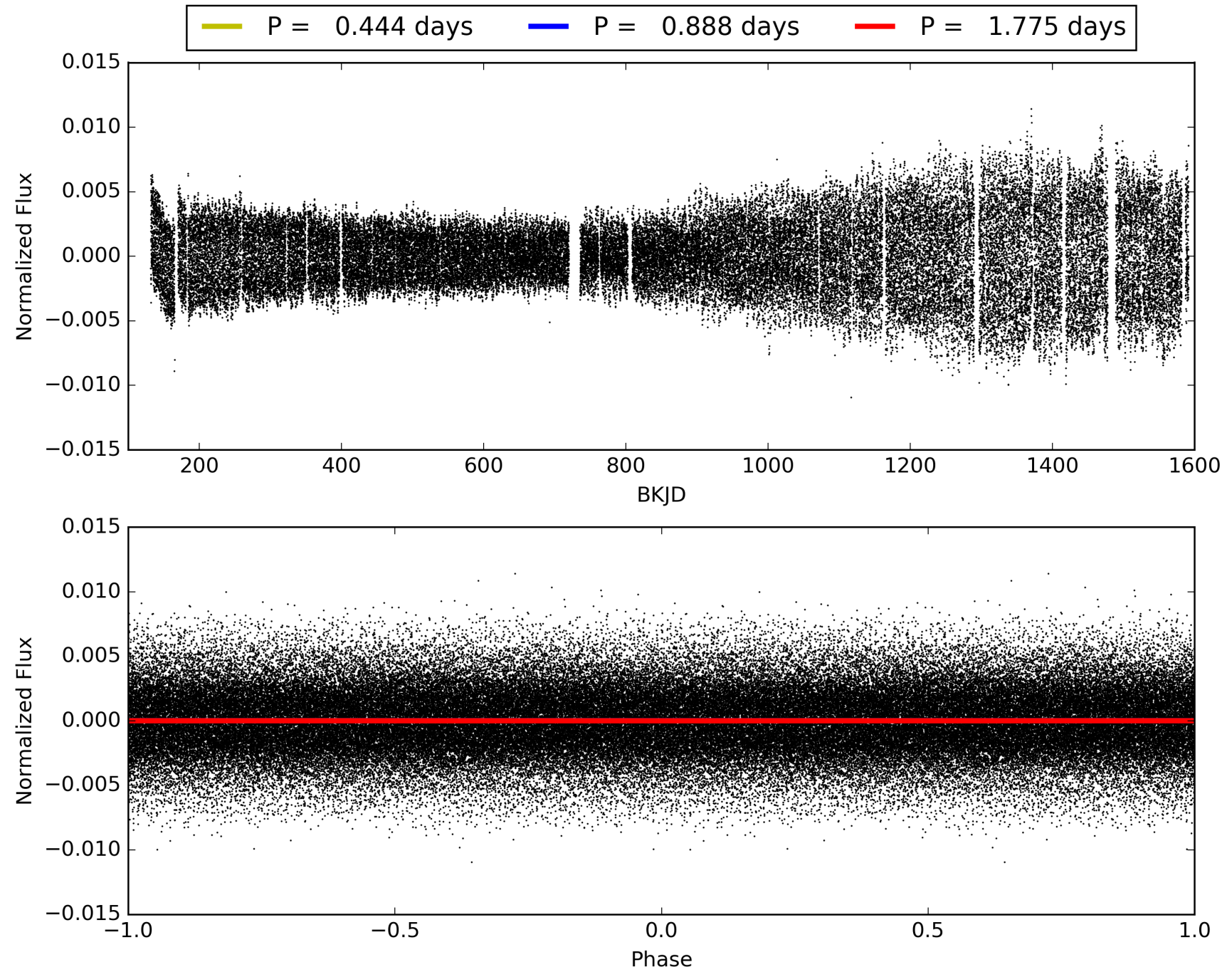
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 006792983-01, PDC Light Curves



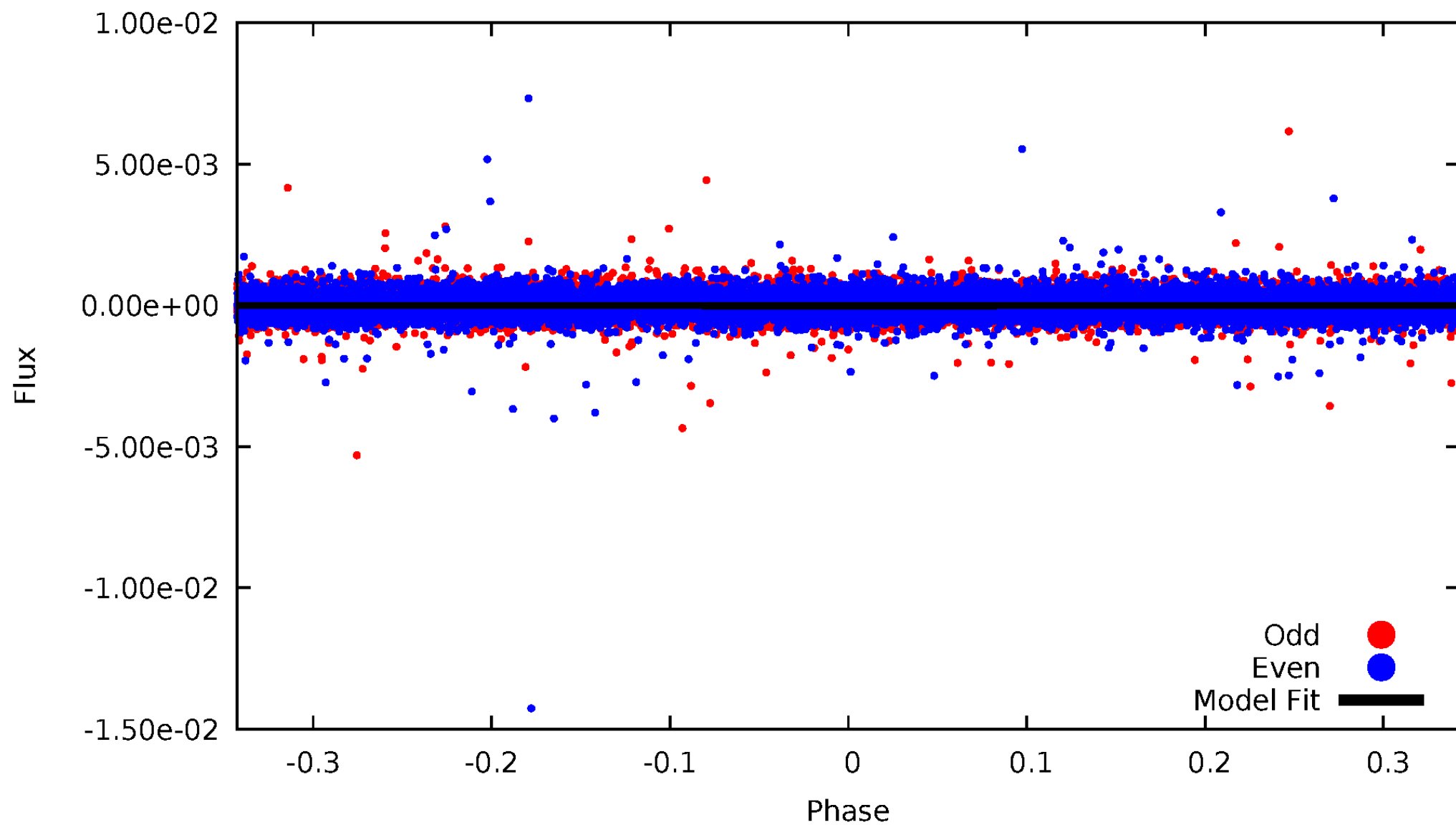


# TCE 006792983-01



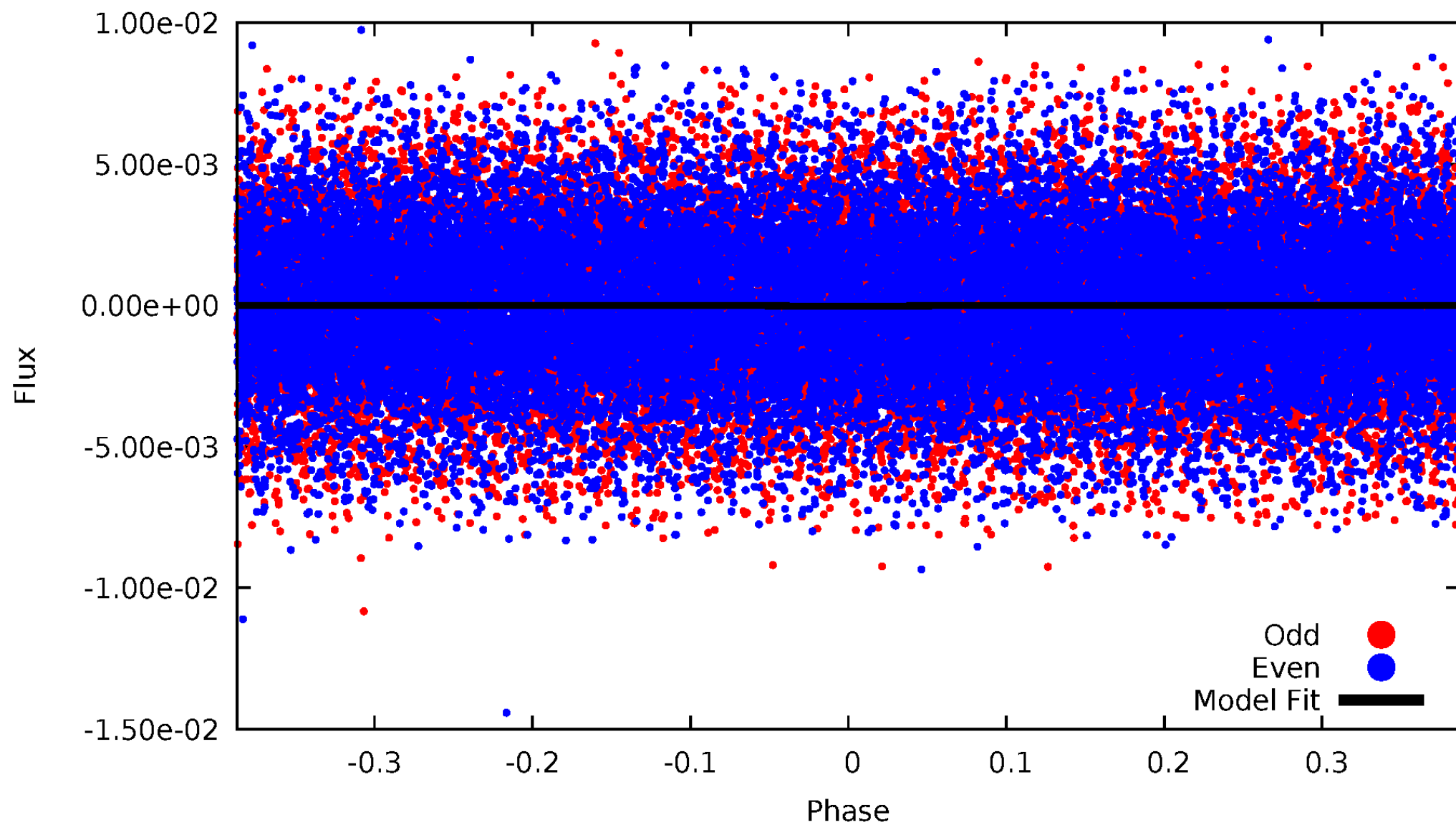
# DV Odd/Even

TCE 006792983-01



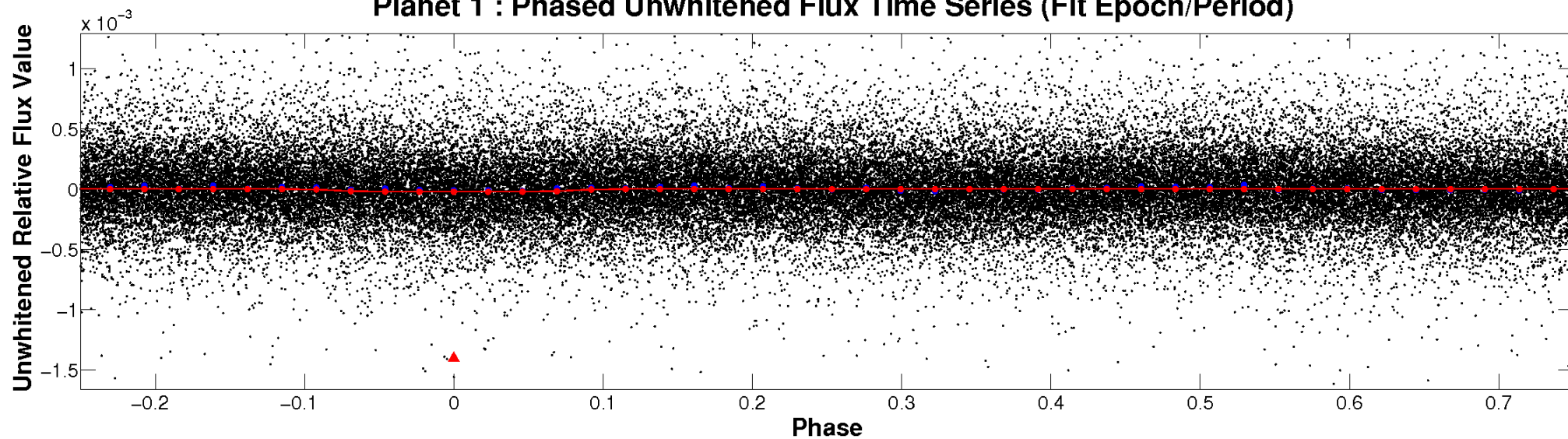
# ALT Odd/Even

TCE 006792983-01

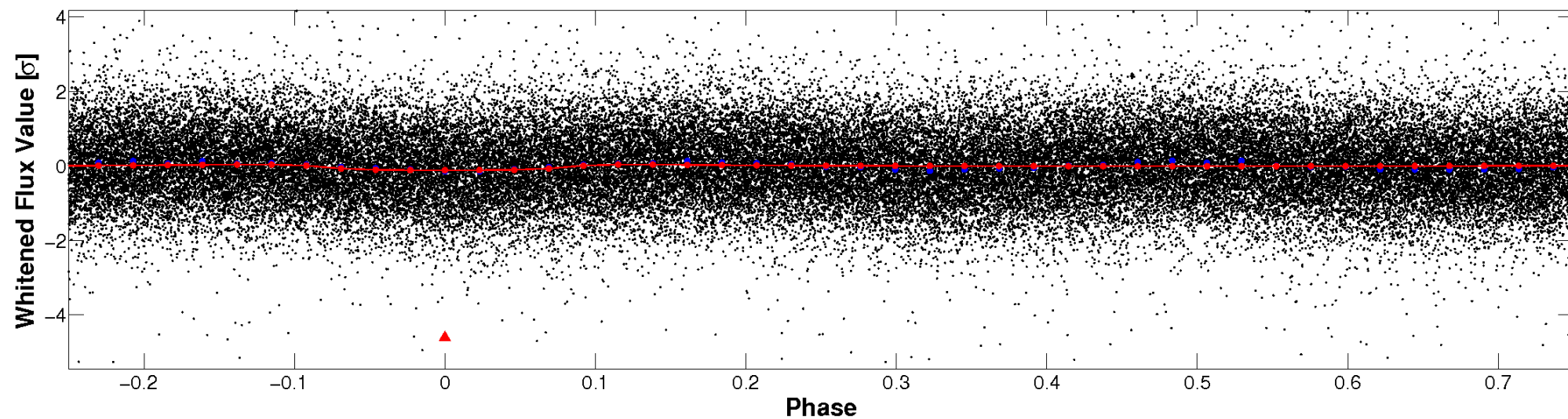


# Non-Whitened Vs. Whitened Light Curve

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

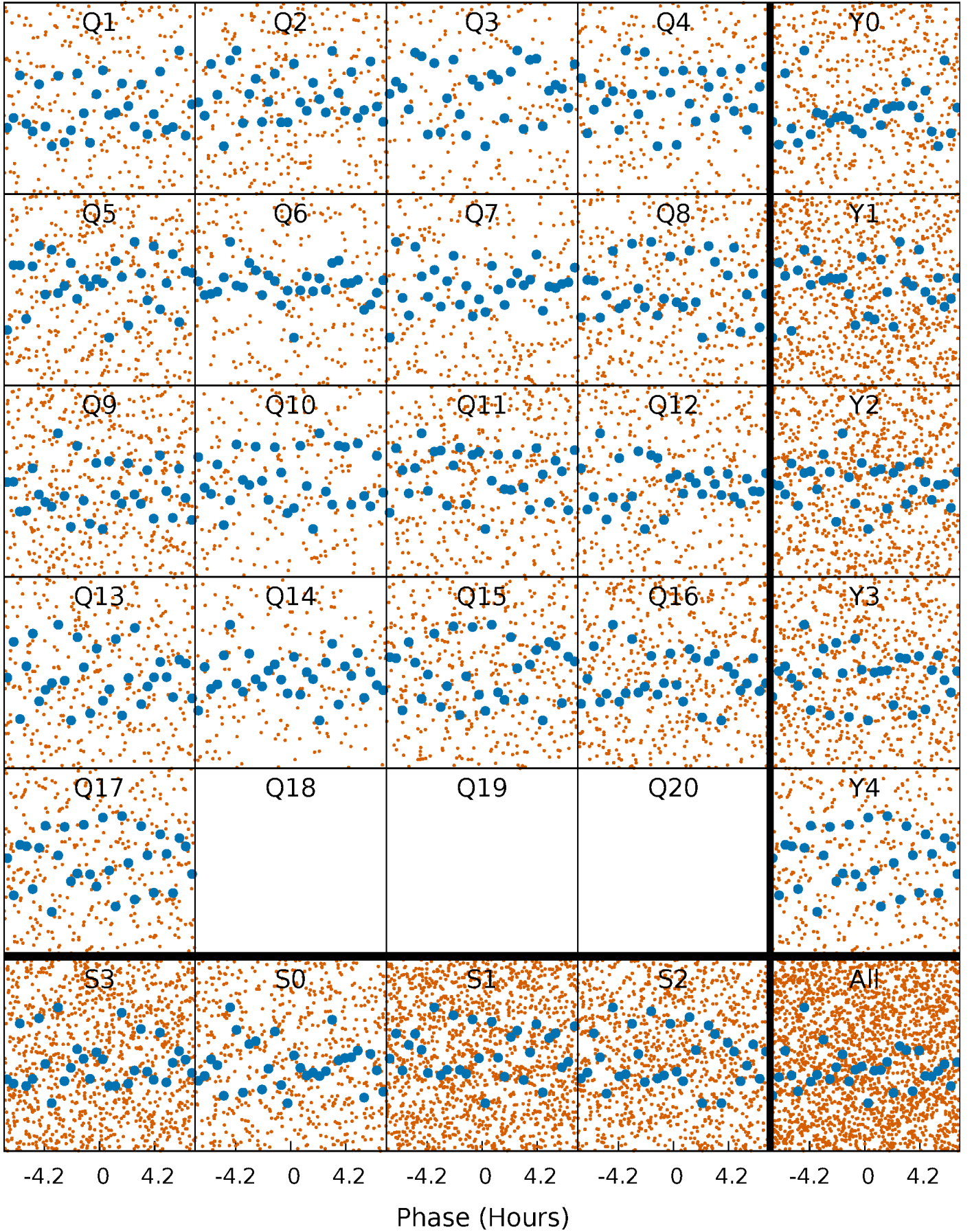


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

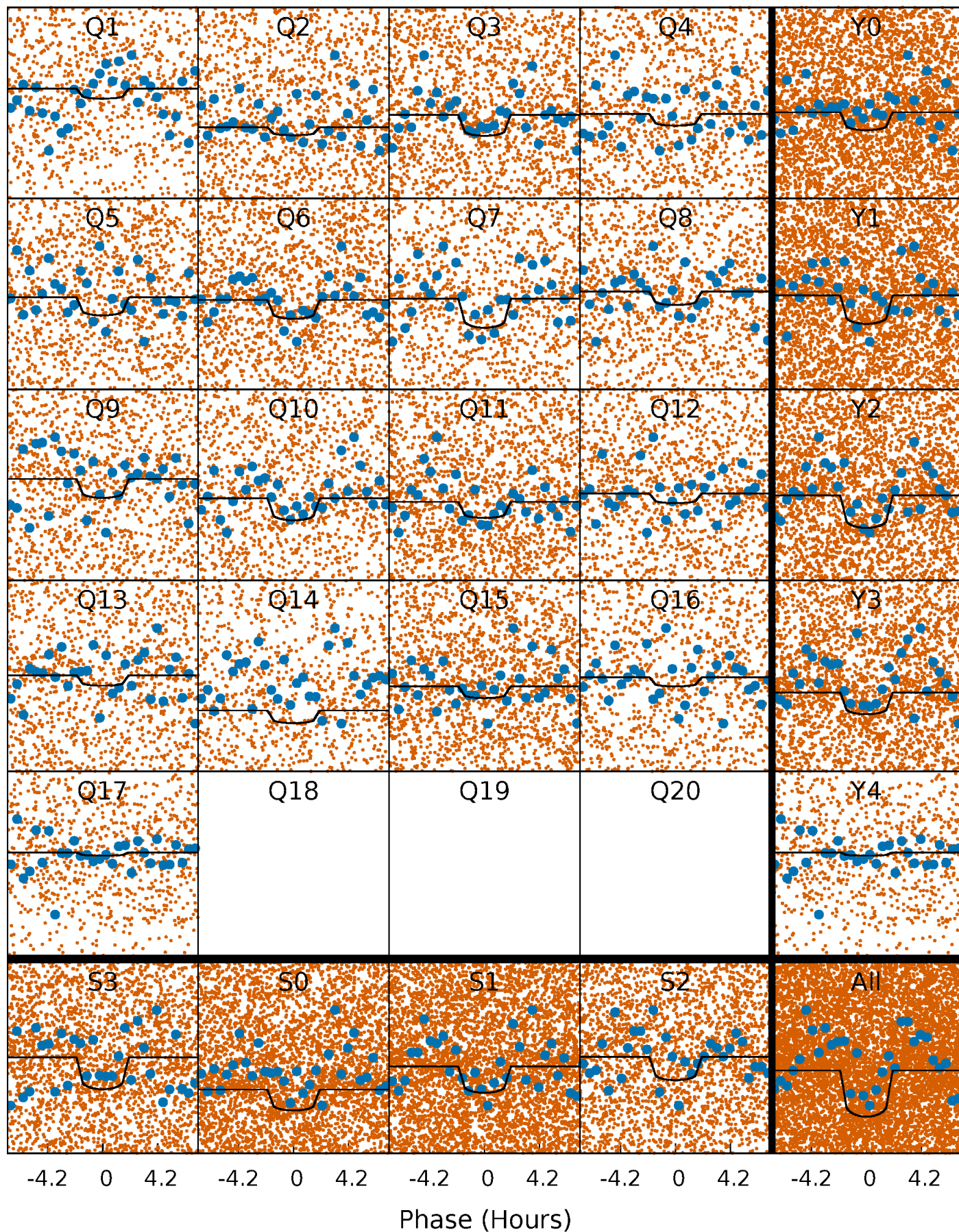
TCE 006792983-01   P= 0.887625 Days    $T_0=132.226720$  (BKJD)





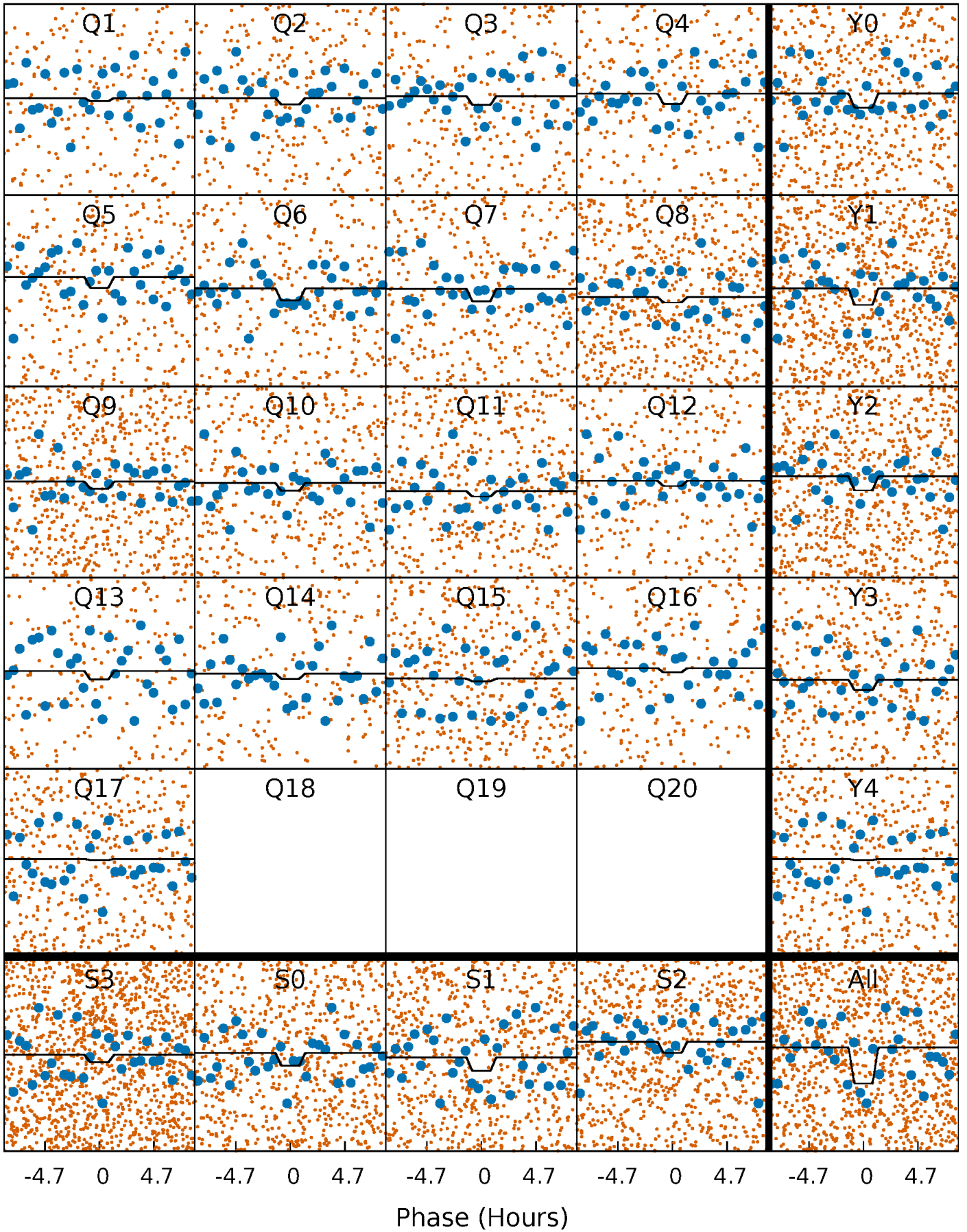
# DV Quarter-Phased Transit Curves

TCE 006792983-01   P= 0.887625 Days    $T_0=132.226720$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

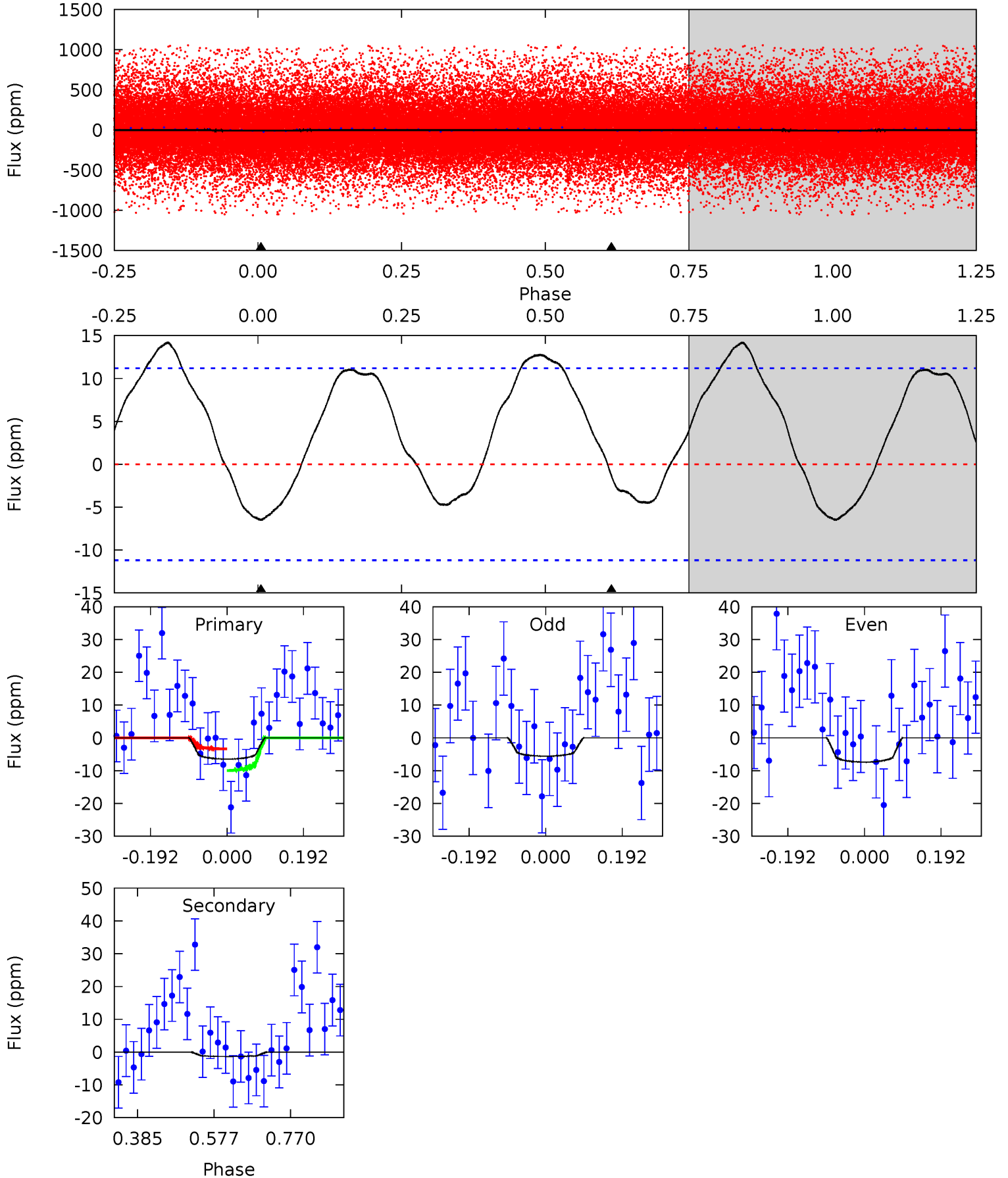
TCE 006792983-01 P= 0.887645 Days  $T_0=132.228073$  (BKJD)



# DV Model-Shift Uniqueness Test

006792983-01, P = 0.887625 Days, E = 131.339095 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
2.56	0.53	0	0	4.43	1.30	1.95	2.56	2.56	0.53	0.53	0.36	0.86	0.69	1.29

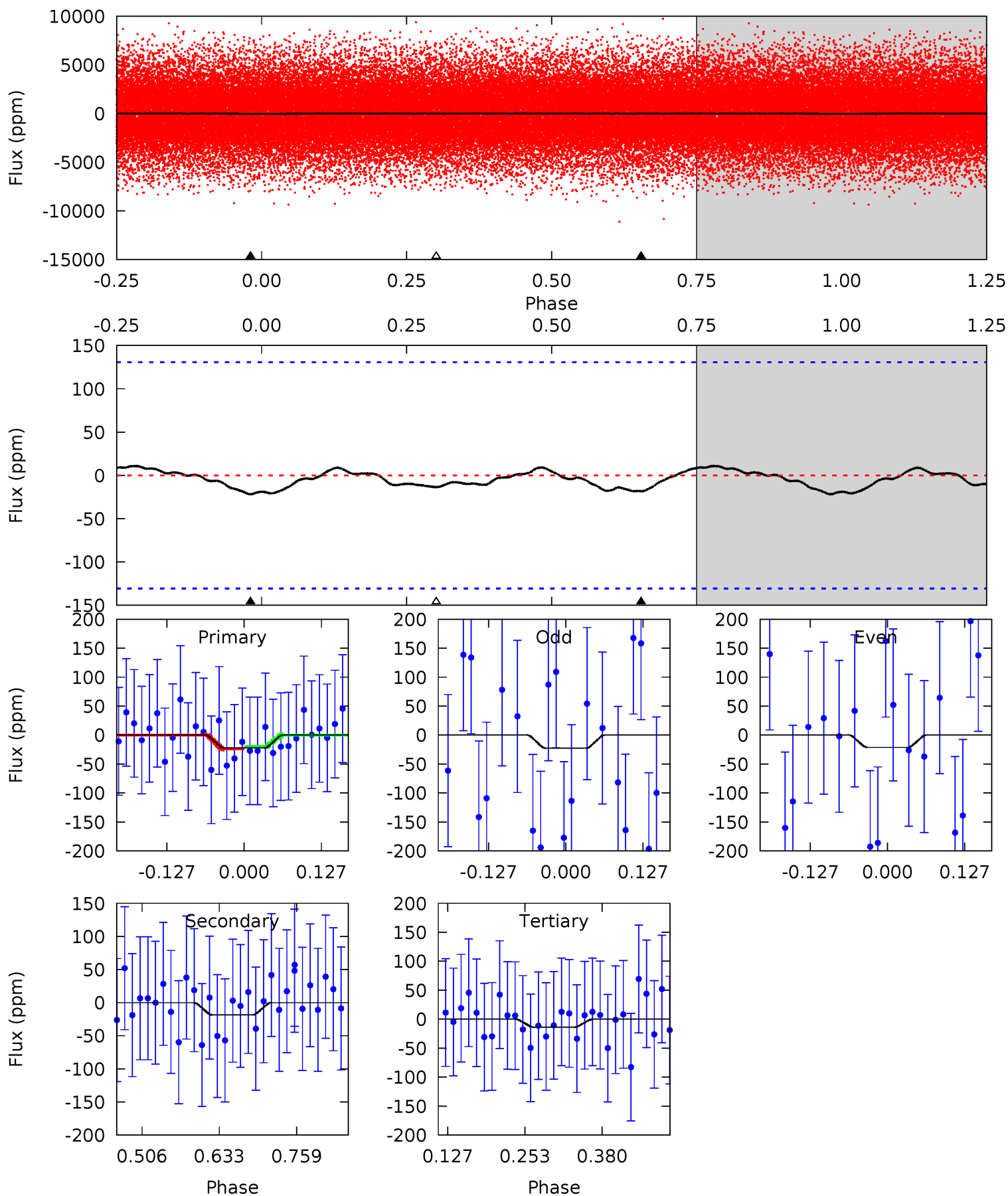




# Alt Model-Shift Uniqueness Test

006792983-01, P = 0.887645 Days, E = 131.340428 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
0.76	0.64	0.47	0	4.52	1.53	0.26	0.29	0.76	0.17	0.64	0.02	2.63	0.33	0.07





### Stellar Parameters For KIC 006792983

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$8245^{+65}_{-90}$	$3.750^{+0.272}_{-0.068}$	$-0.120^{+0.200}_{-0.200}$	$3.151^{+0.472}_{-1.024}$	$2.039^{+0.258}_{-0.258}$	$0.092^{+0.164}_{-0.022}$
	+1%/-1%	+7%/-2%	+167%/-167%	+15%/-32%	+13%/-13%	+178%/-24%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 006792983-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-1 \pm 3$	$1.59^{+0.80}_{-0.76}$	$5857^{+234}_{-494}$	$-4315^{+9215}_{-913}$	$0.108^{+0.562}_{-0.277}$
Alt.	$-18 \pm 29$	$1.70^{+0.76}_{-0.76}$	$5847^{+235}_{-436}$	$6572^{+4840}_{-12934}$	$1.531^{+5.911}_{-2.311}$

$T_{max}$  = 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

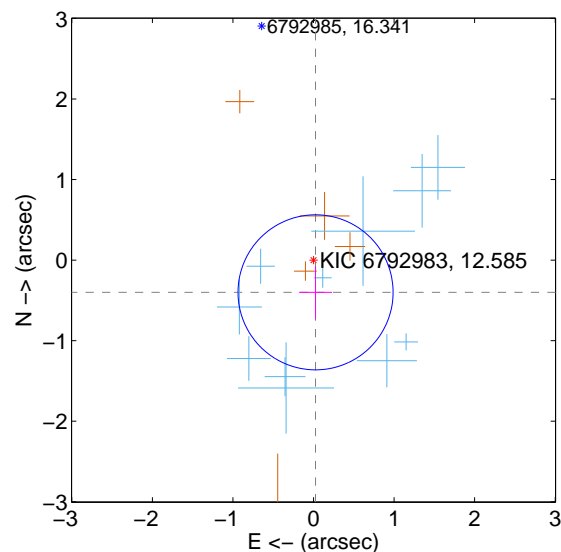
Supplemental centroid analysis for 006792983-01. Kepler magnitude: 12.59. Transit SNR 10.95

There are 11 quarters with good PRF difference image offsets

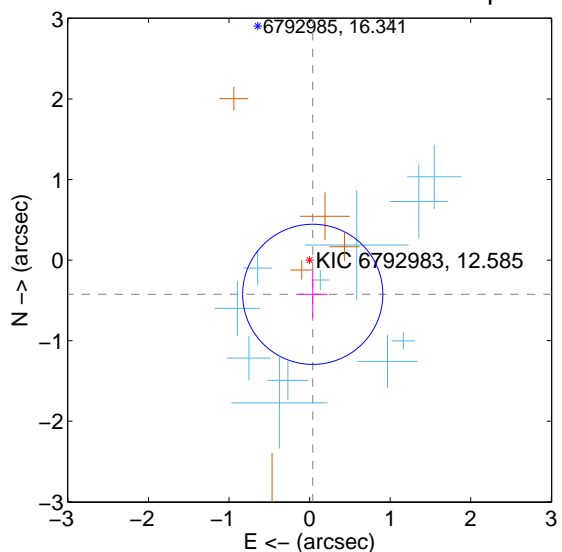
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.401 \pm 0.321$	1.25	$-0.025 \pm 0.204$	$-0.400 \pm 0.325$
PRF-fit source offset from KIC position	$0.427 \pm 0.290$	1.47	$-0.039 \pm 0.183$	$-0.425 \pm 0.294$
photometric centroid source offset	$1.05 \pm 0.48$	2.17	$-1.05 \pm 0.48$	$0.09 \pm 0.49$

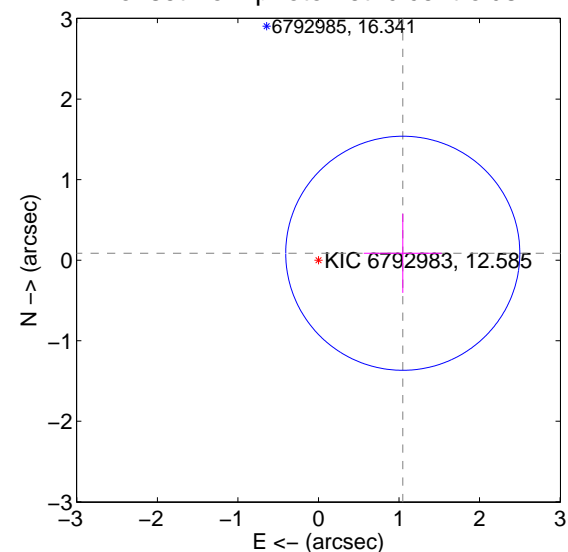
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

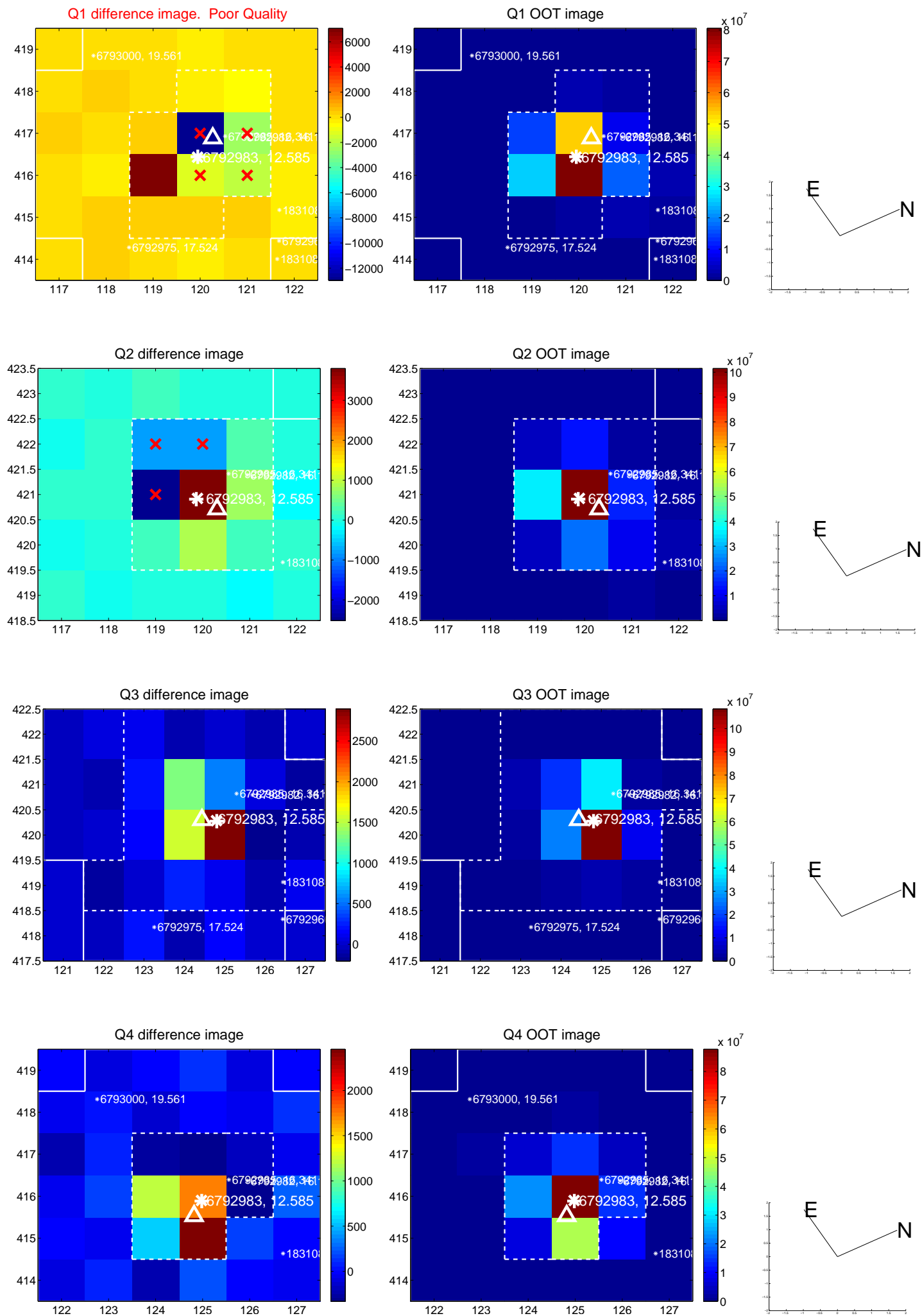


offset from photometric centroids

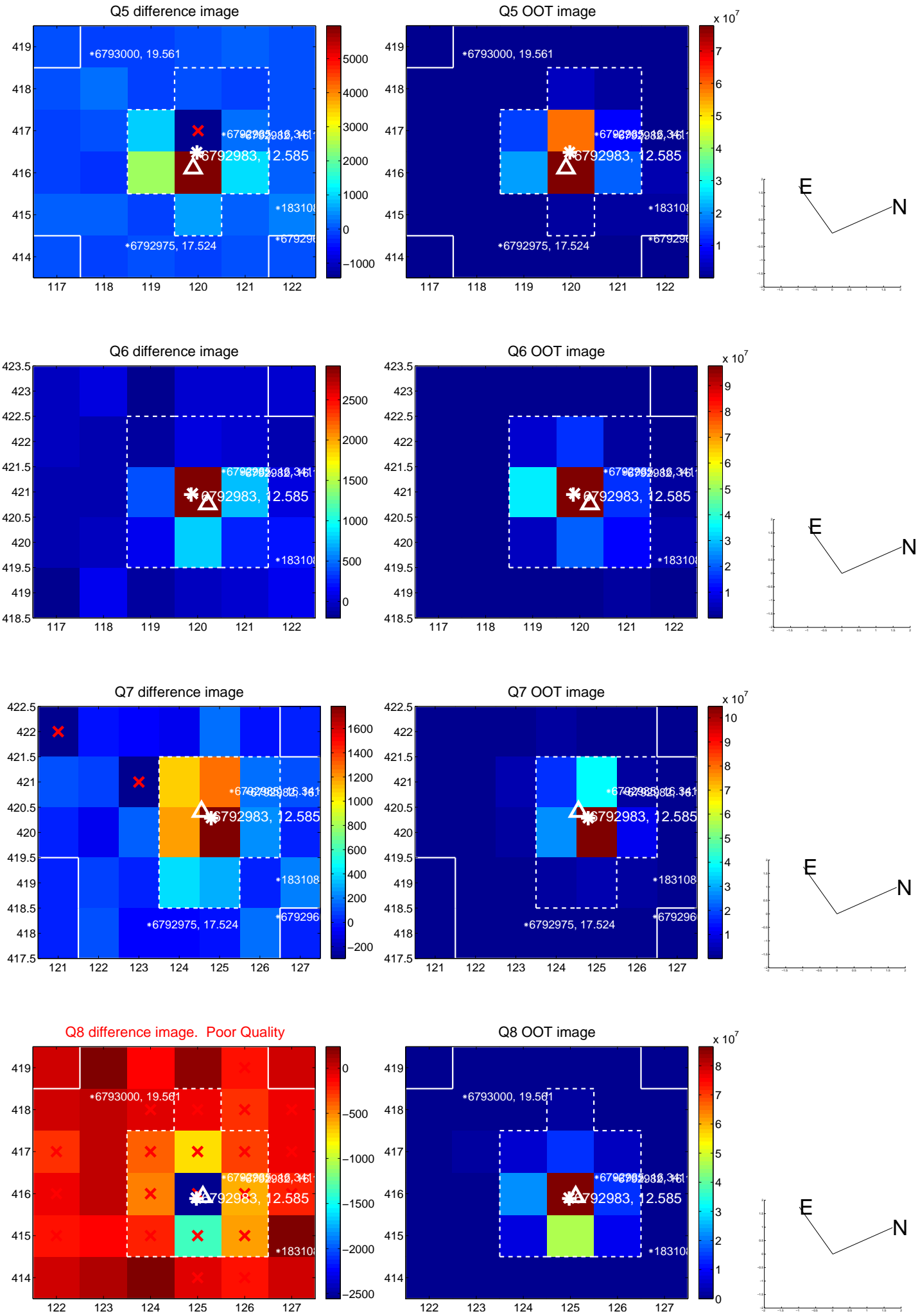


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

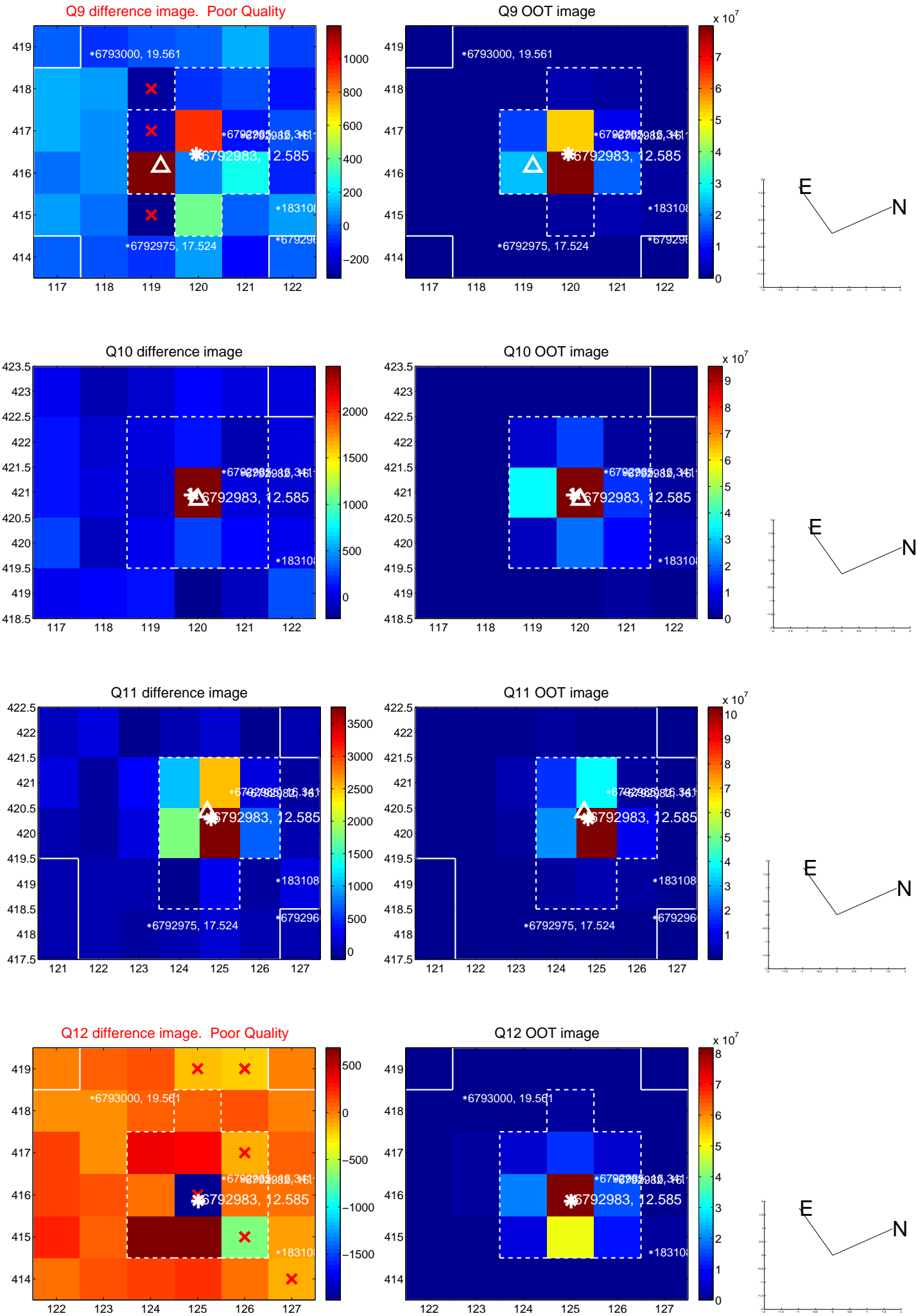


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

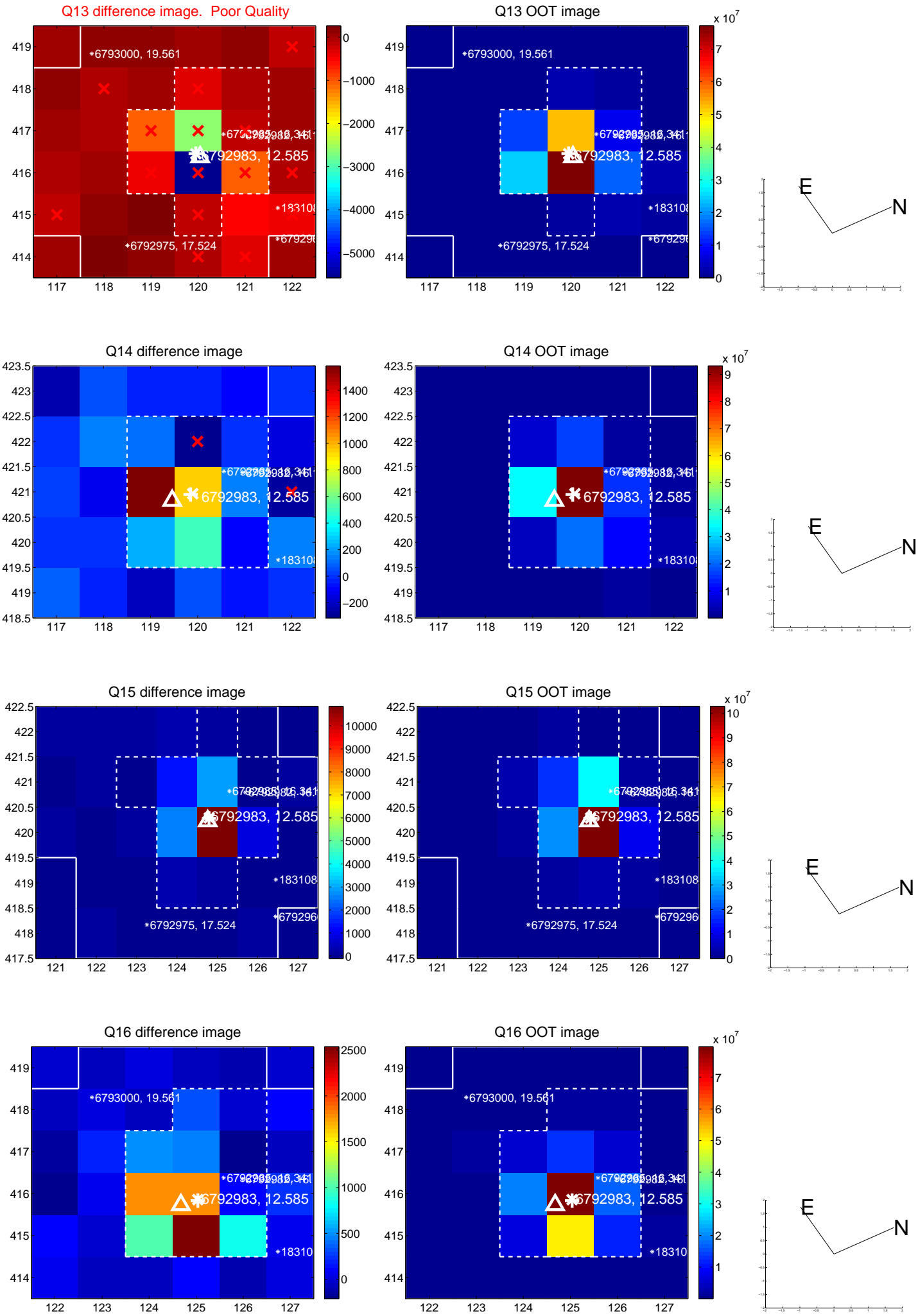




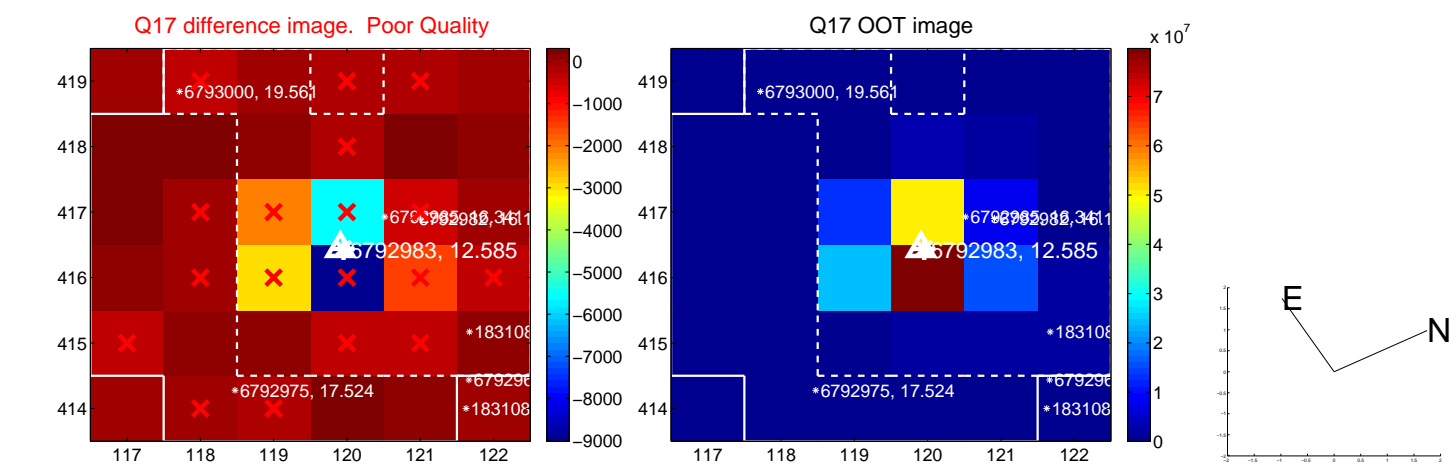
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



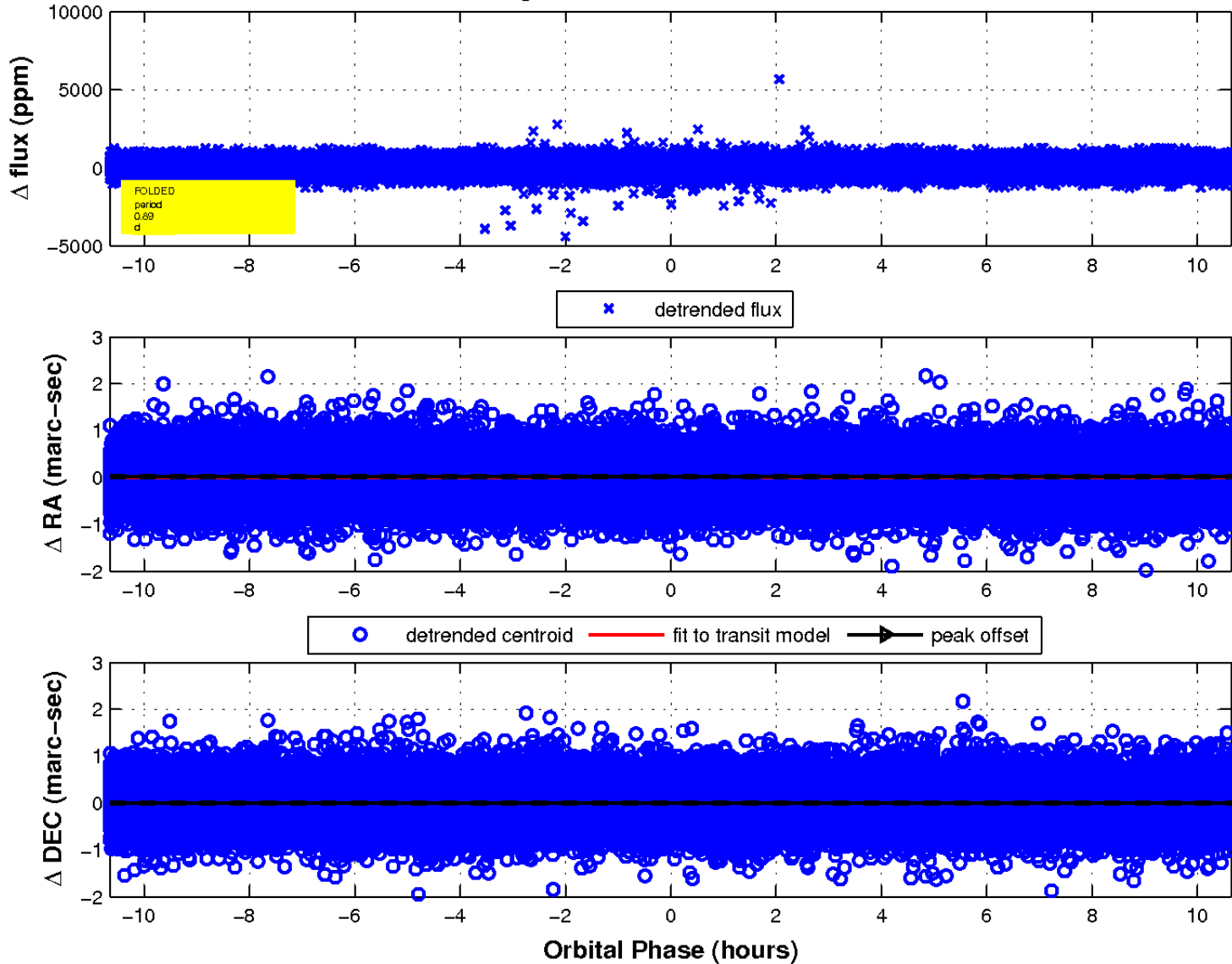
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

