

# KIC 011336883

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011336883-01	OBS	1445.01	7.168989	135.672991	106.7	4.723	27.4	28.9	1.46	6221	1.77	470.87

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011336883-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

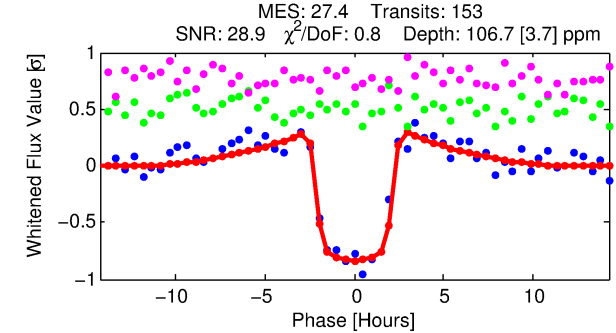
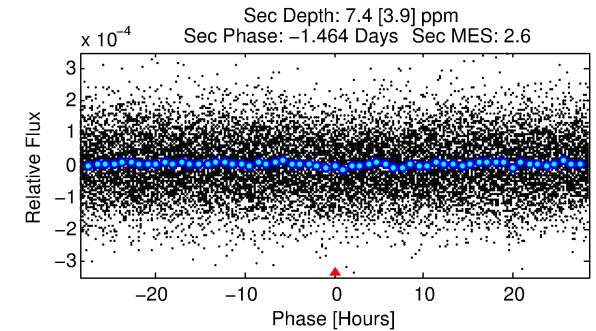
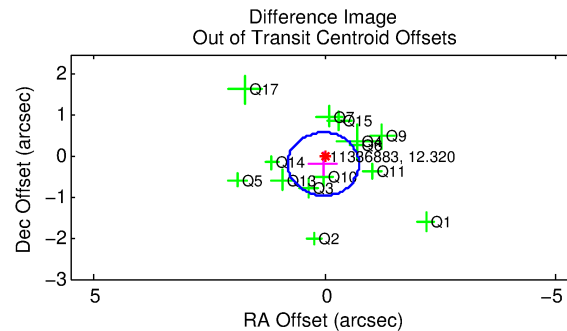
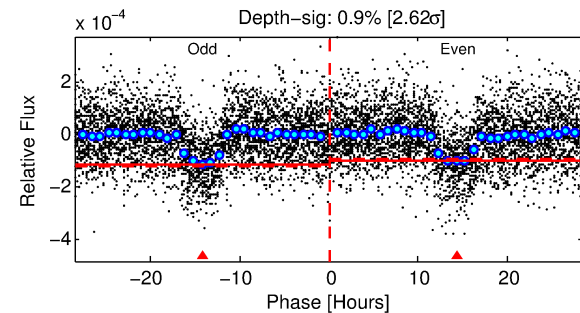
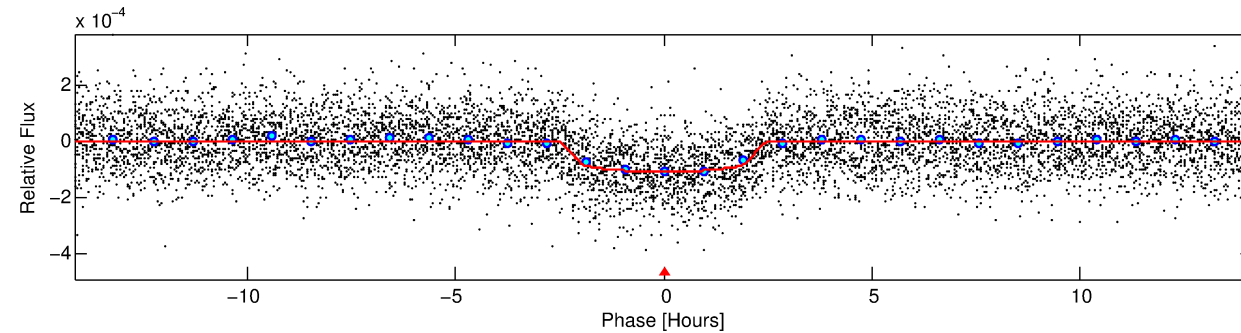
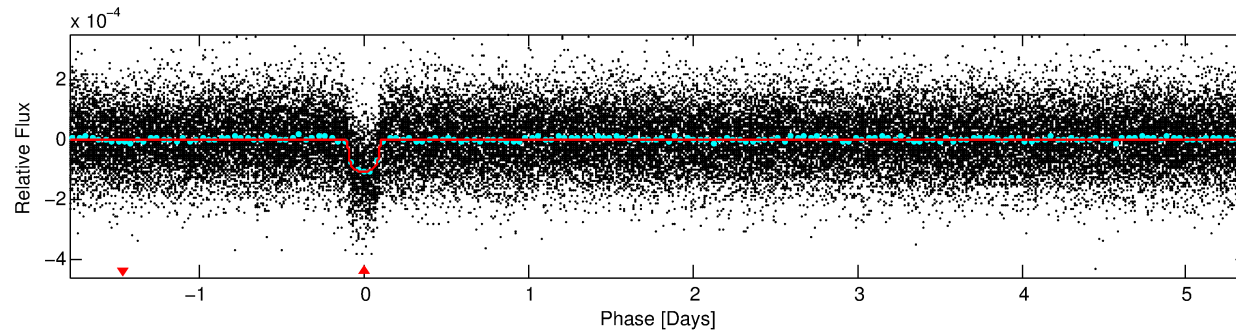
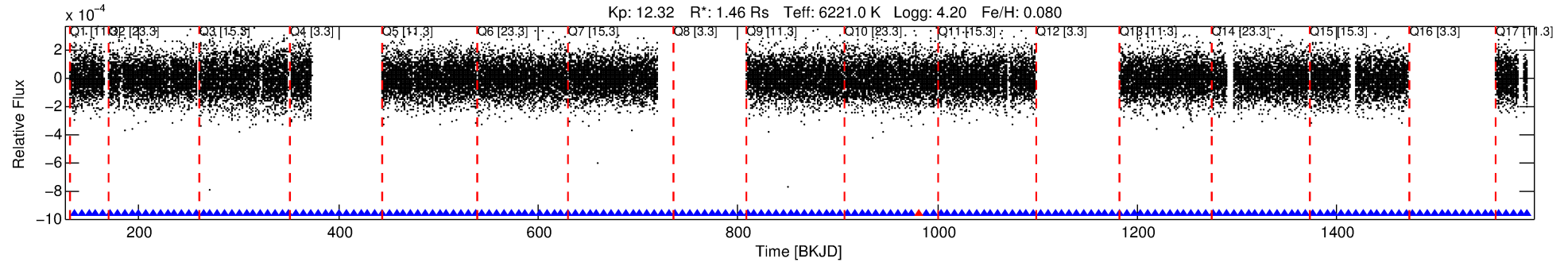
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011336883-01

No Significant Match Found

# DV One-Page Summary

KIC: 11336883 Candidate: 1 of 1 Period: 7.169 d  
KOI: K01445.01 Corr: 0.980



## DV Fit Results:

Period = 7.16899 [0.00002] d  
Epoch = 135.6730 [0.0022] BKJD  
Rp/R\* = 0.0111 [0.0013]  
a/R\* = 5.46 [3.20]  
b = 0.90 [0.13]  
Seff = 470.86 [119.31]  
Teq = 1188 [75] K  
Rp = 1.77 [0.40] Re  
a = 0.0778 [0.0127] AU  
Ag = 7.89 [4.88] [1.41 $\sigma$ ]  
Teffp = 3078 [445] K [4.19 $\sigma$ ]

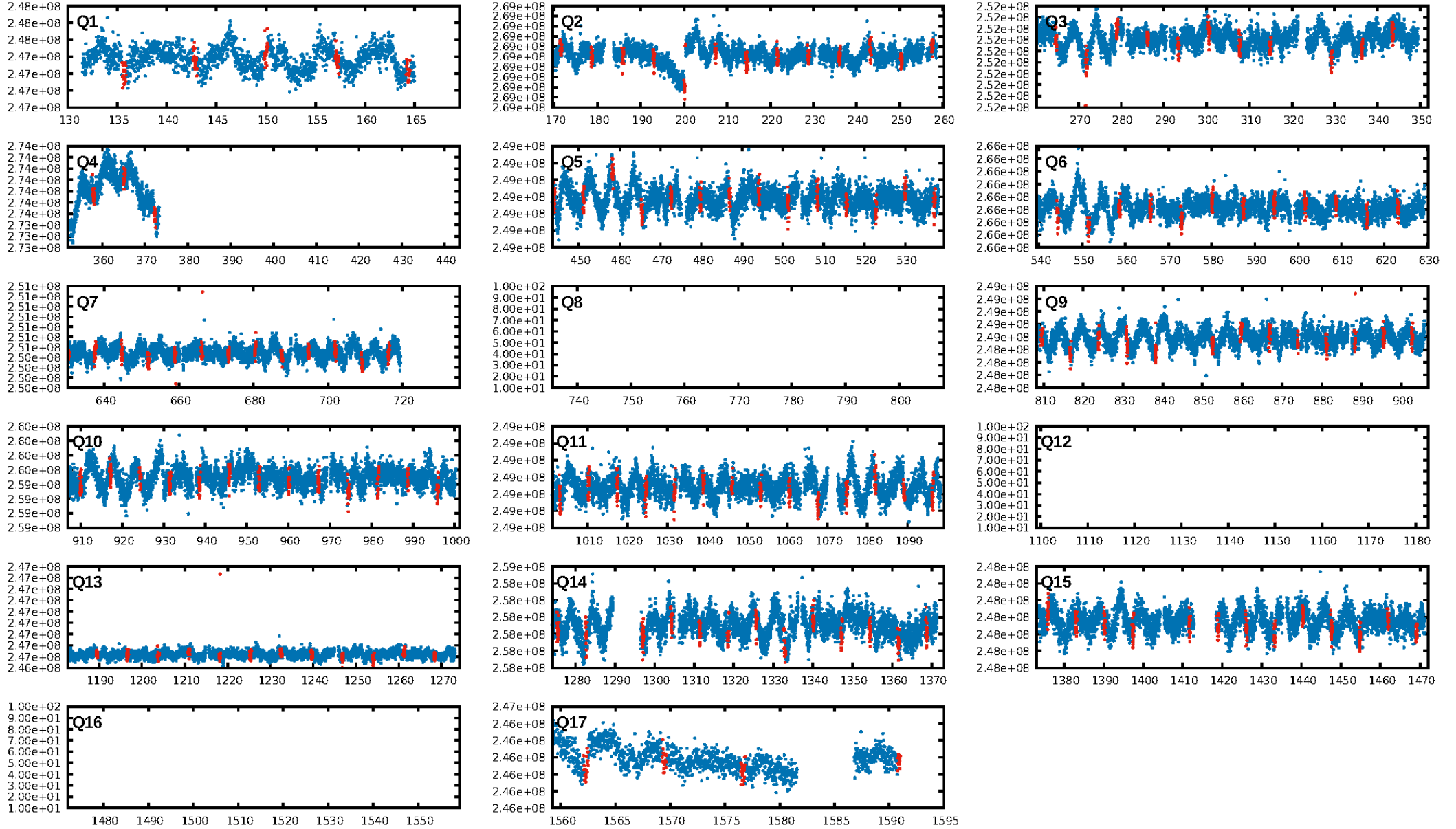
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 84.5%  
ModelChiSquareGof-sig: 100.0%  
Bootstrap-pfa: 1.23e-158  
RollingBand-fgt: 0.99 [140/141]  
GhostDiagnostic-chr: 4.898  
Centroid-sig: 9.1%  
Centroid-so: 0.424 arcsec [1.18 $\sigma$ ]  
OotOffset-rm: 0.188 arcsec [0.73 $\sigma$ ]  
OotOffset-st: 4/4/1/5 [14]  
KicOffset-rm: 0.339 arcsec [1.31 $\sigma$ ]  
KicOffset-st: 4/4/1/5 [14]  
DiffImageQuality-fgm: 0.93 [13/14]  
DiffImageOverlap-fno: 1.00 [14/14]

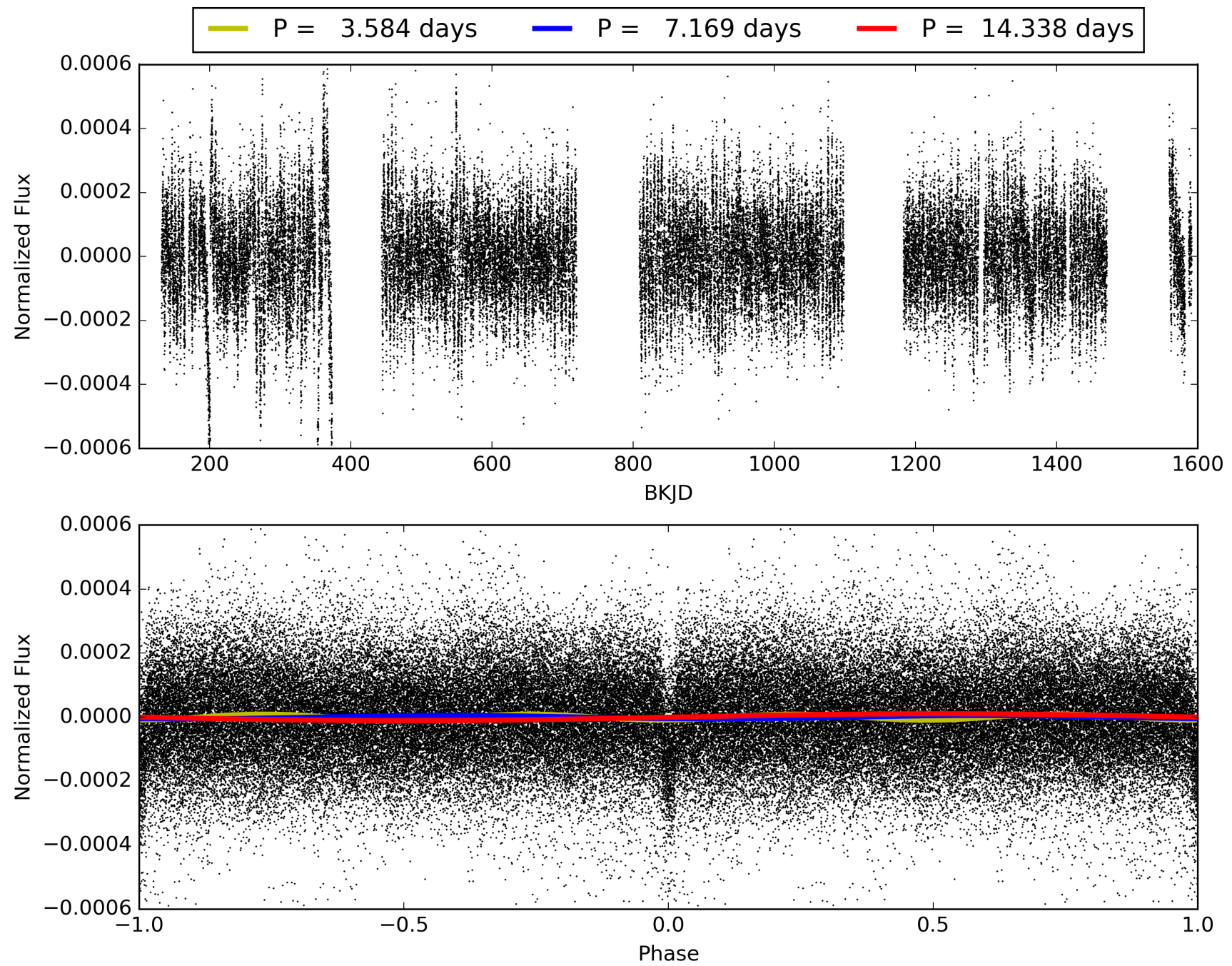
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:44:48 Z

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

# TCE 011336883-01, PDC Light Curves

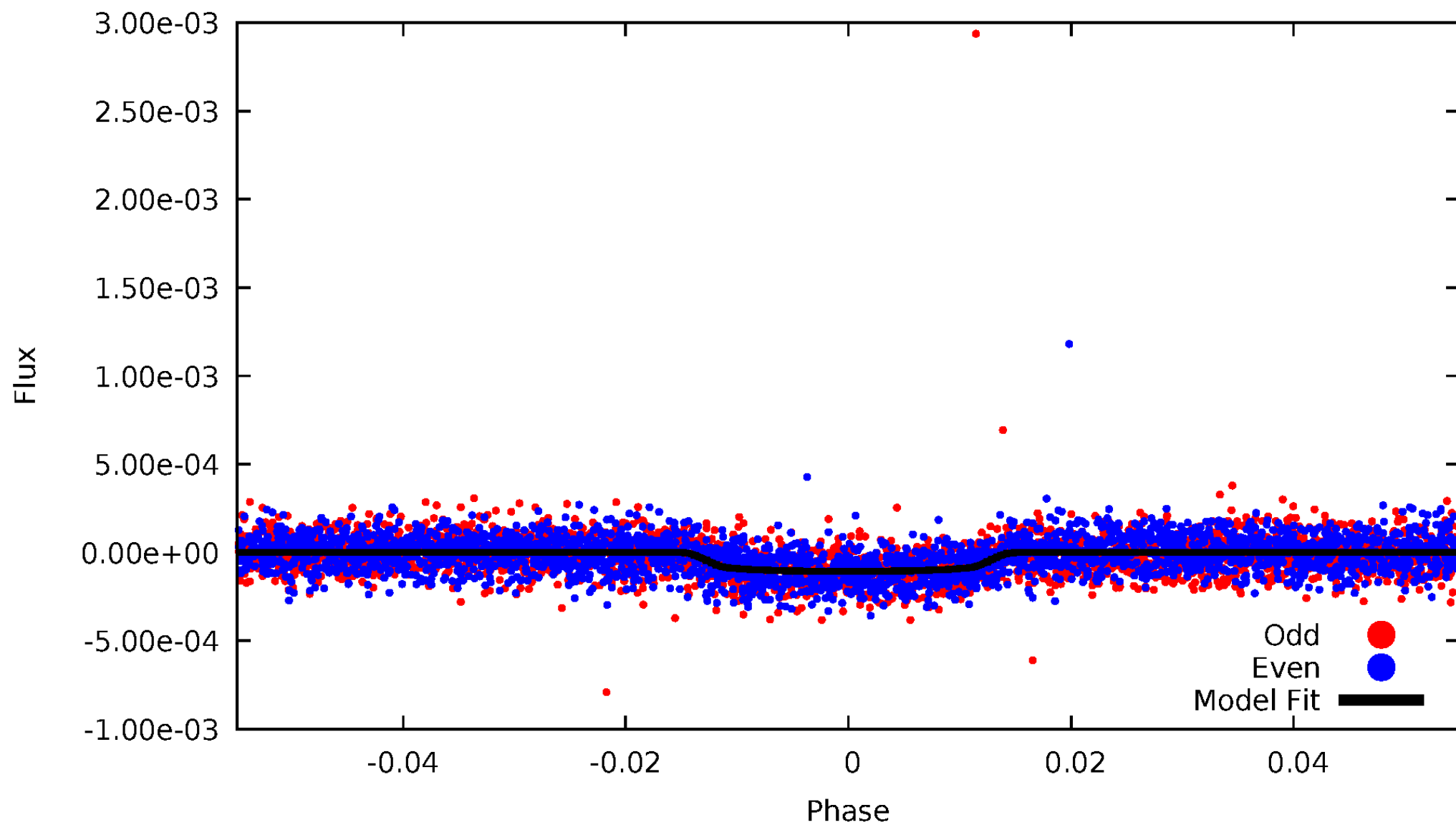


TCE 011336883-01



# DV Odd/Even

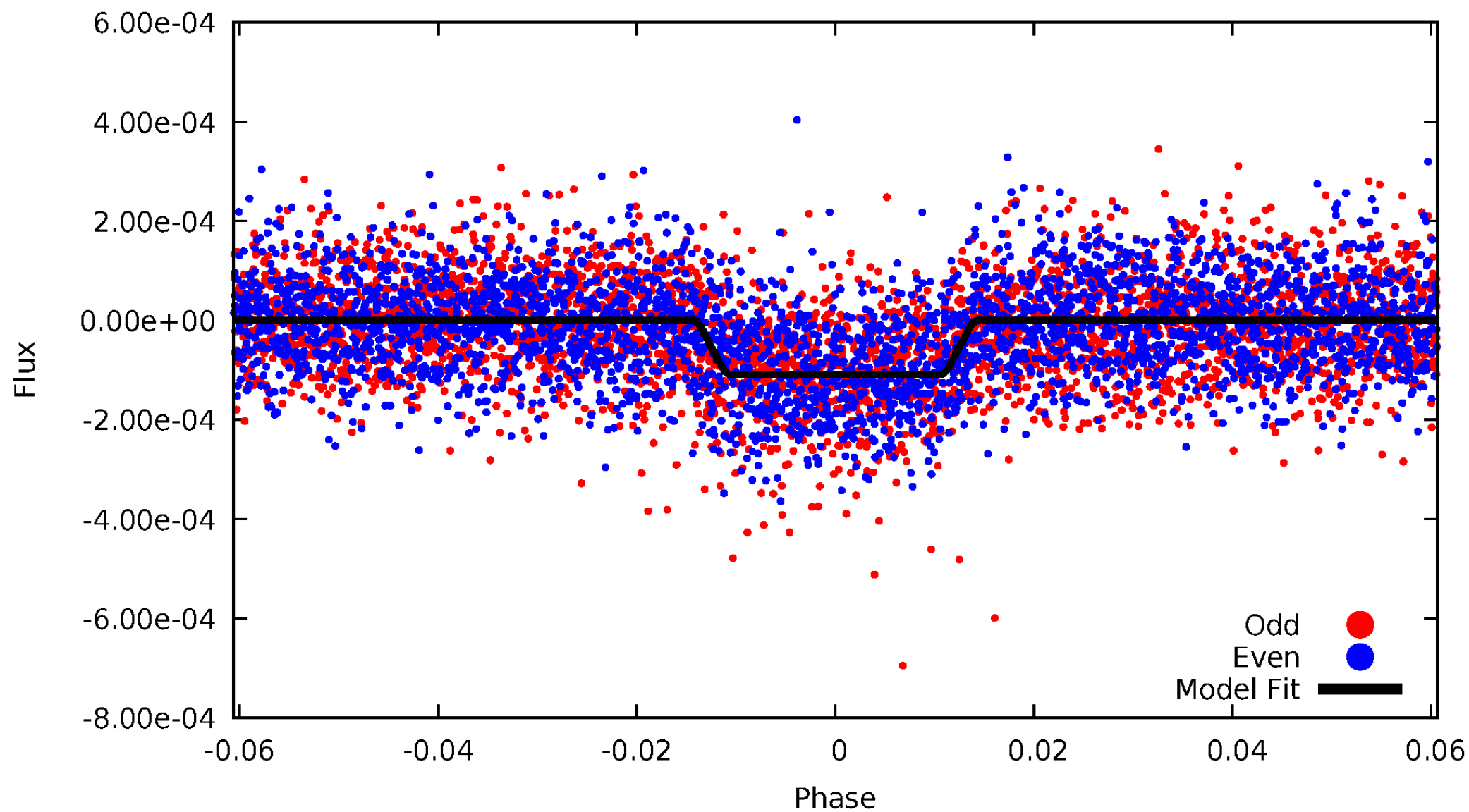
TCE 011336883-01



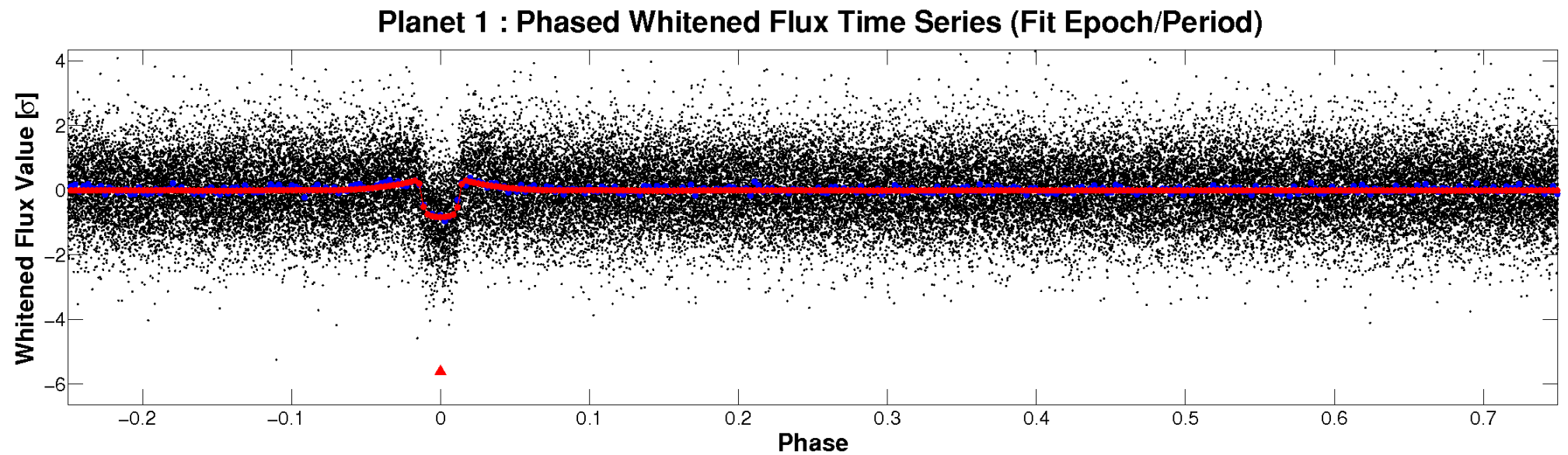
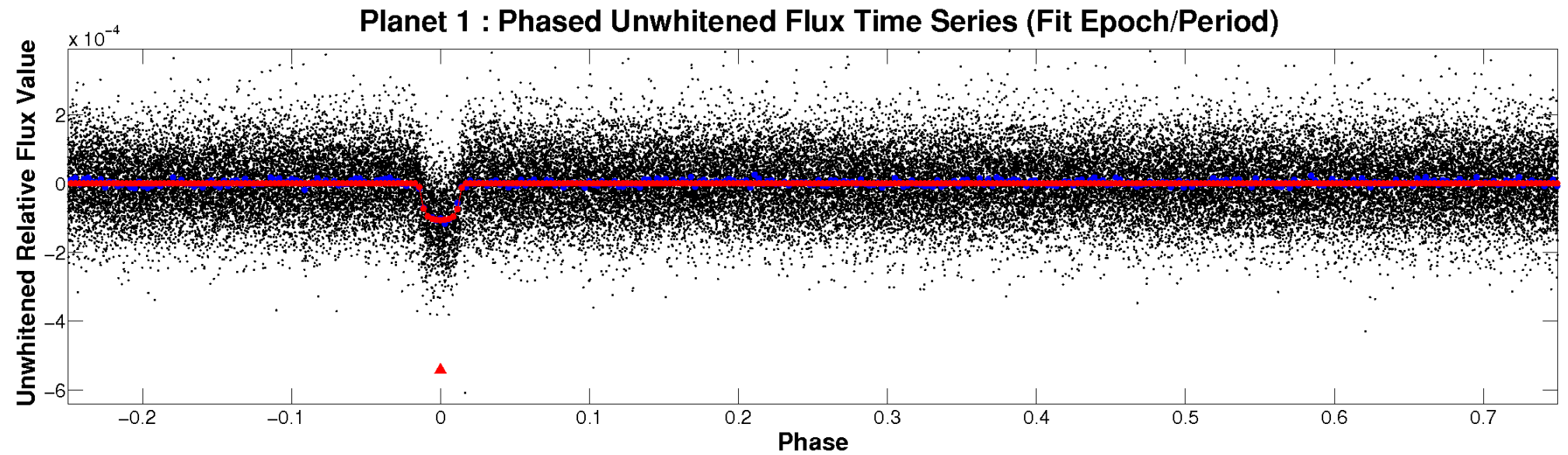


# ALT Odd/Even

TCE 011336883-01

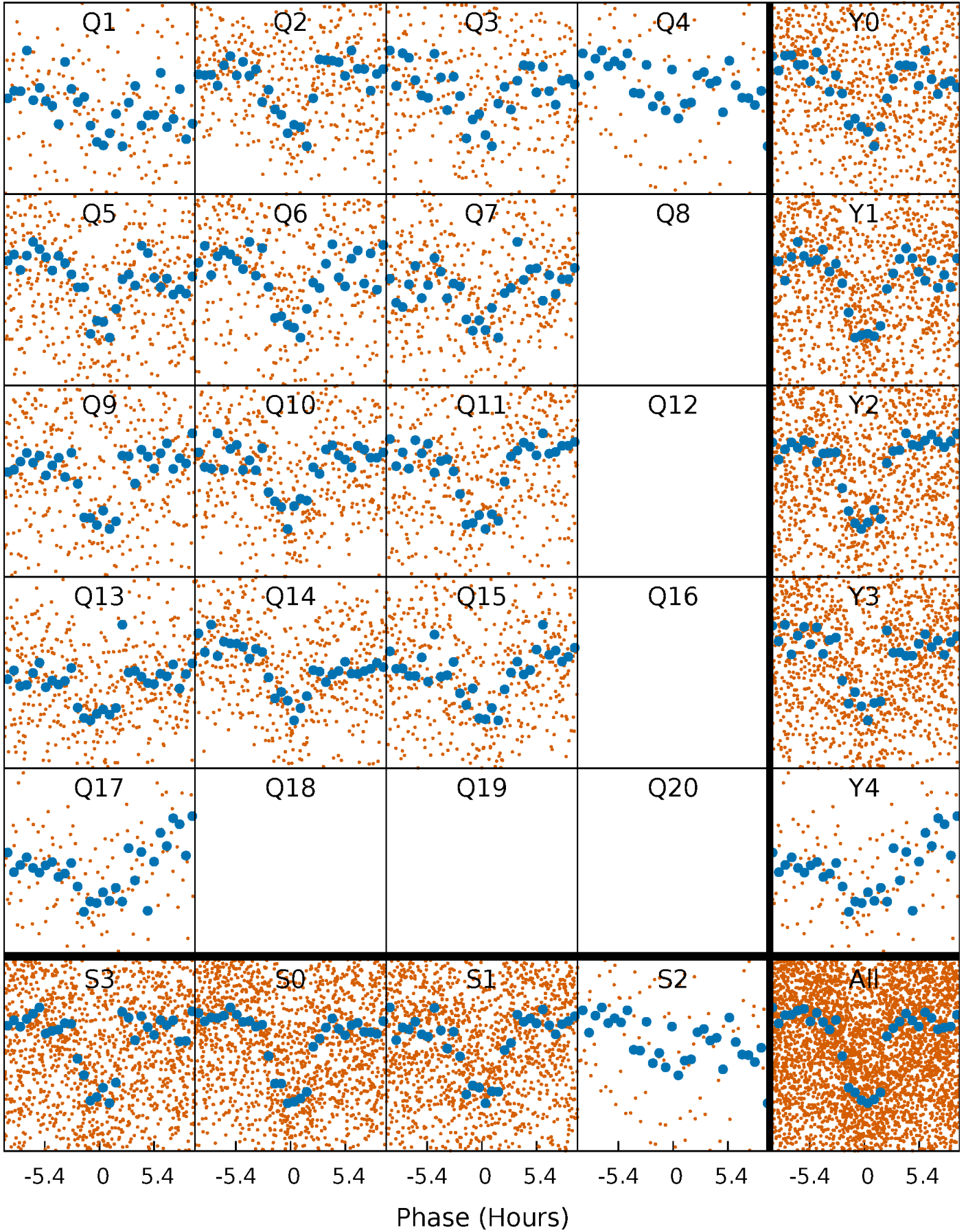


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

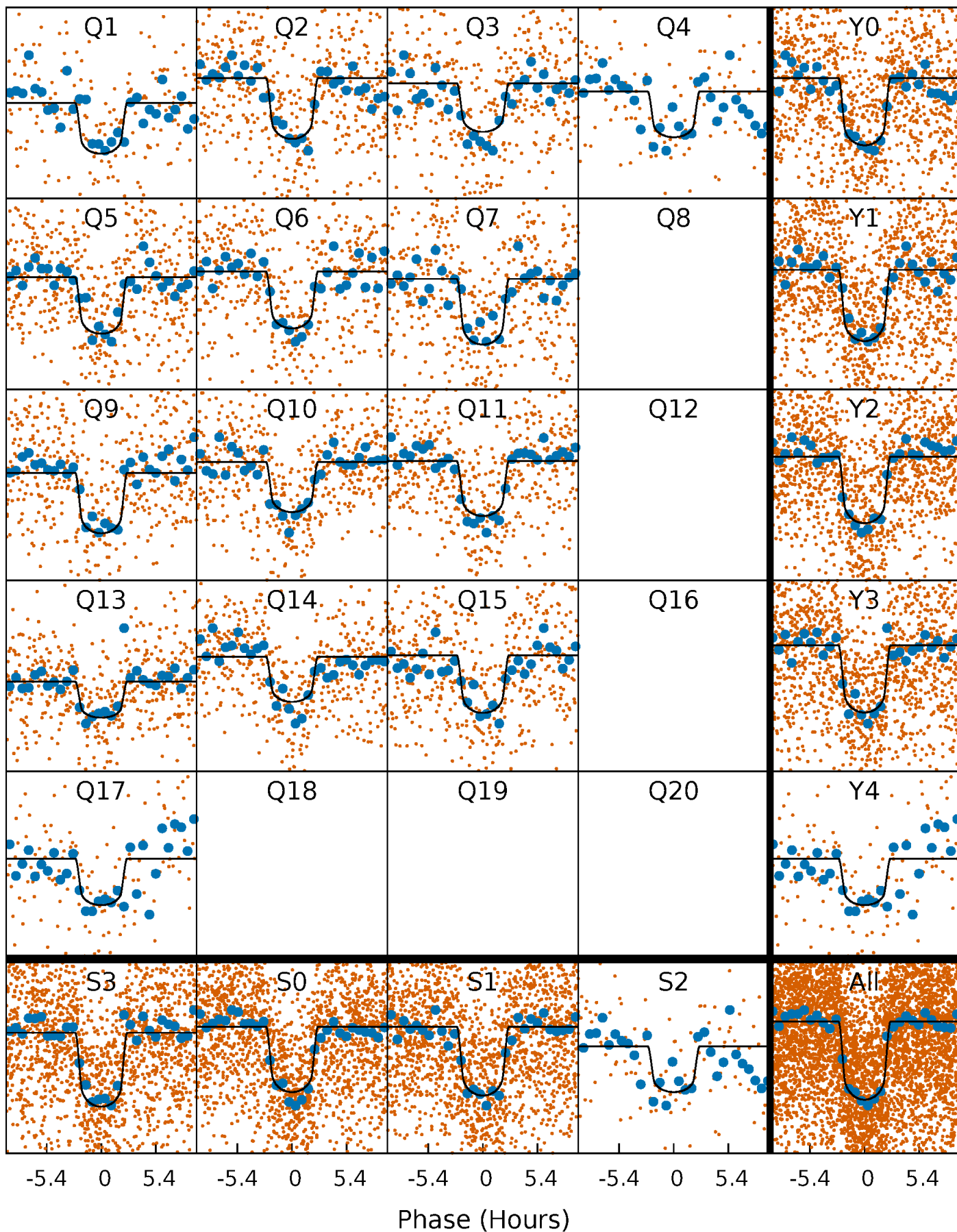
TCE 011336883-01 P= 7.168989 Days  $T_0=135.672991$  (BKJD)





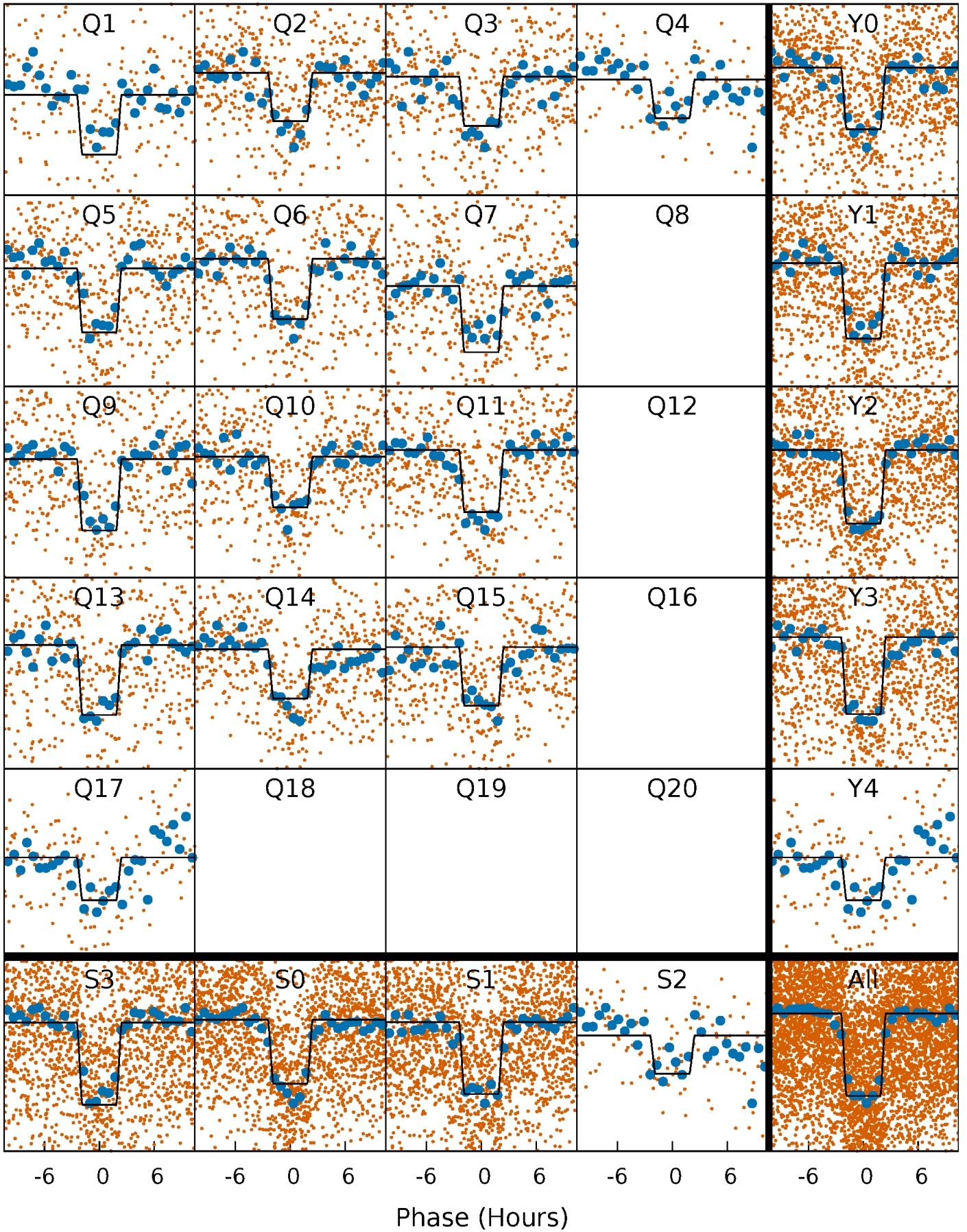
# DV Quarter-Phased Transit Curves

TCE 011336883-01 P= 7.168989 Days  $T_0=135.672991$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

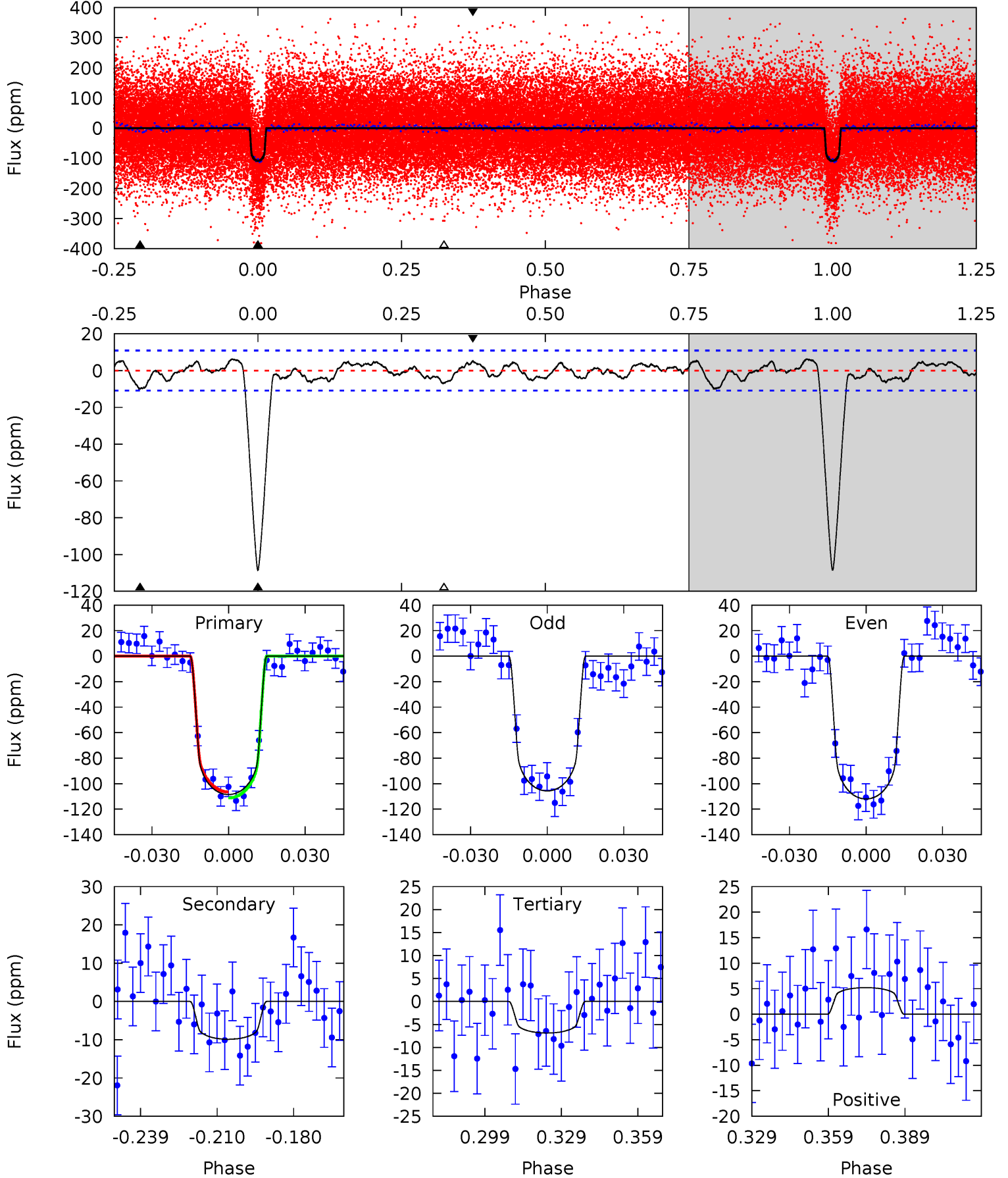
TCE 011336883-01 P= 7.168895 Days  $T_0=135.683518$  (BKJD)



# DV Model-Shift Uniqueness Test

011336883-01, P = 7.168989 Days, E = 128.504002 Days

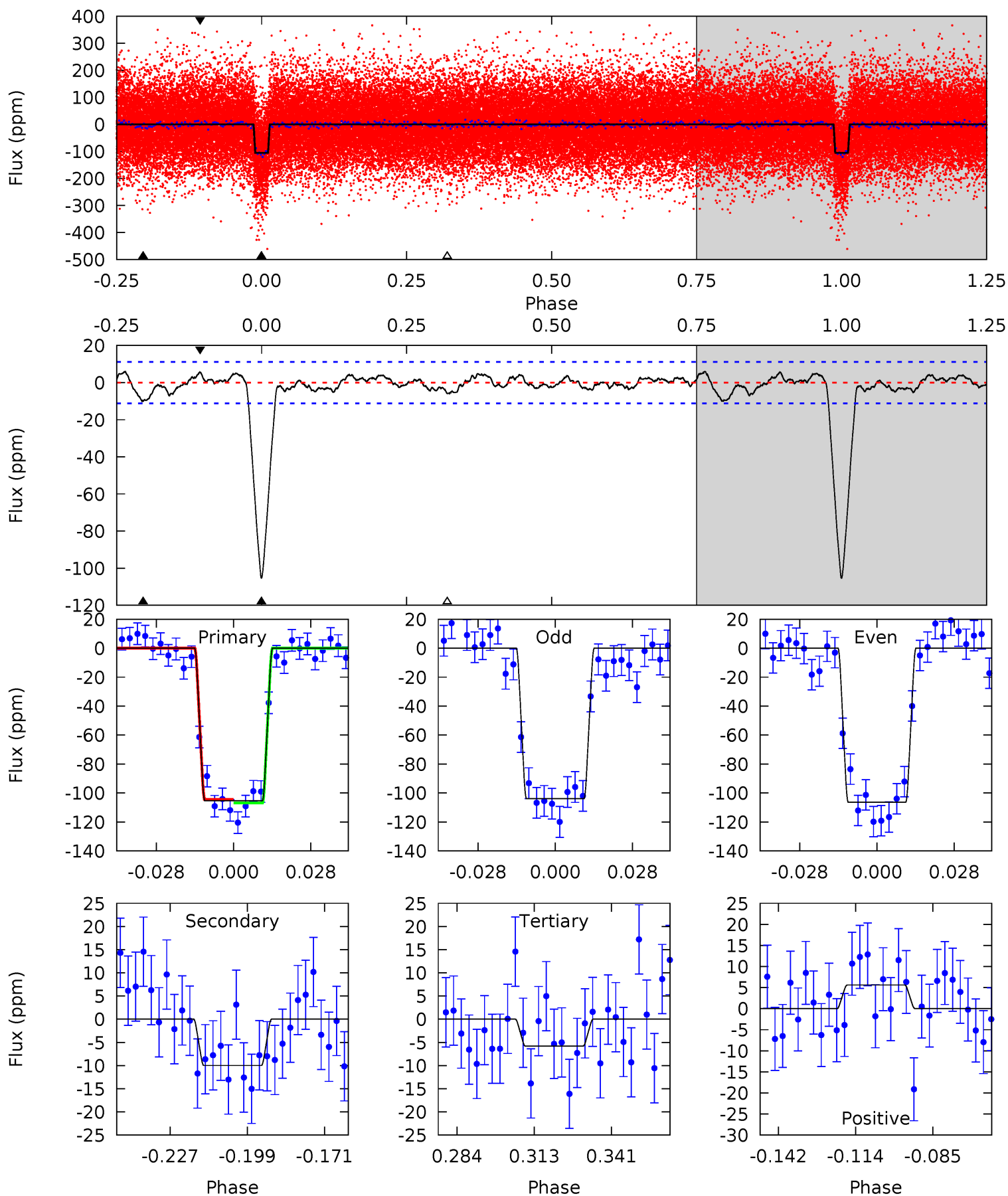
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.1	4.38	3.04	2.31	4.81	2.17	1.38	45.0	45.7	1.33	2.07	1.40	0.96	0.06	1.04



# Alt Model-Shift Uniqueness Test

011336883-01, P = 7.168895 Days, E = 128.514623 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
45.5	4.32	2.52	2.43	4.82	2.19	1.16	43.0	43.1	1.80	1.89	0.52	0.99	0.05	0.51



### Stellar Parameters For KIC 011336883

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6221^{+113}_{-138}$	$4.198^{+0.130}_{-0.130}$	$0.080^{+0.150}_{-0.150}$	$1.458^{+0.281}_{-0.255}$	$1.225^{+0.094}_{-0.117}$	$0.556^{+0.388}_{-0.195}$
	+2%/-2%	+3%/-3%	+188%/-188%	+19%/-17%	+8%/-10%	+70%/-35%
Source	SPE59	SPE59	SPE59	DSEP		

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

### Secondary Eclipse Parameters for KIC 011336883-01 / KOI 1445.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-10 \pm 2$	$1.76^{+0.29}_{-0.24}$	$1660^{+97}_{-79}$	$3703^{+218}_{-218}$	$10^{+5}_{-3}$
Alt.	$-10 \pm 2$	$1.70^{+0.27}_{-0.29}$	$1662^{+91}_{-89}$	$3782^{+232}_{-238}$	$12^{+6}_{-4}$

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



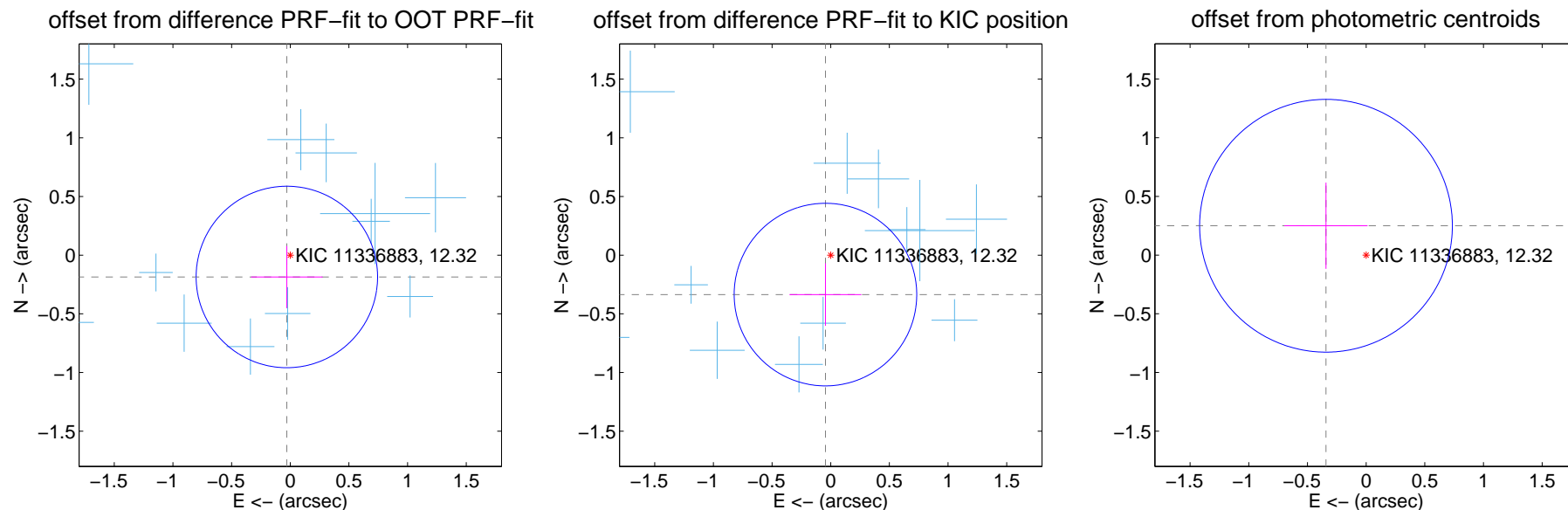
## DV Centroid Data

Supplemental centroid analysis for 011336883-01. Kepler magnitude: 12.32. Transit SNR 28.91

There are 13 quarters with good PRF difference image offsets

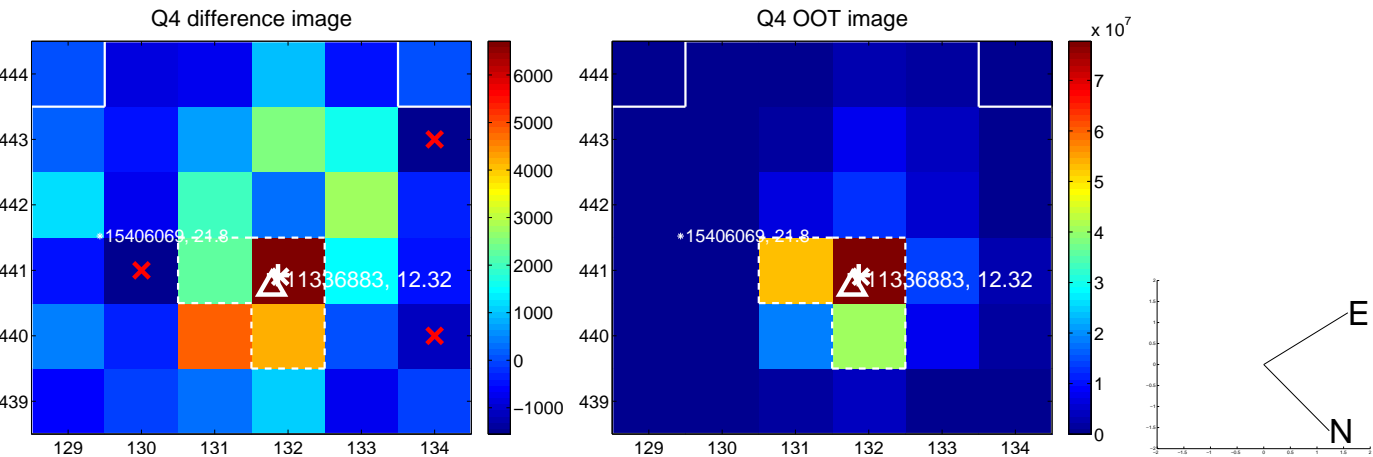
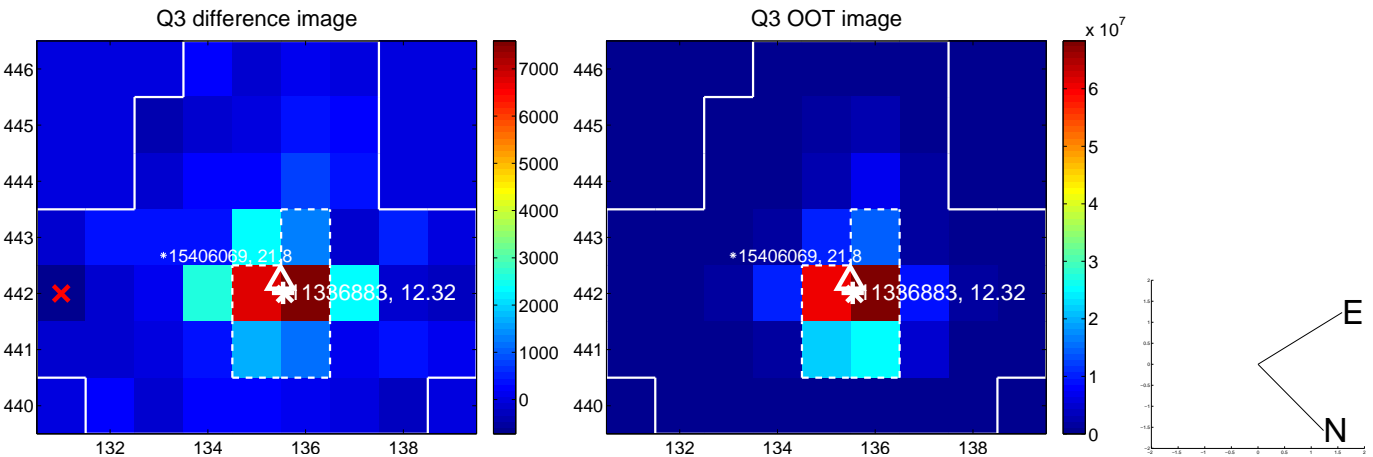
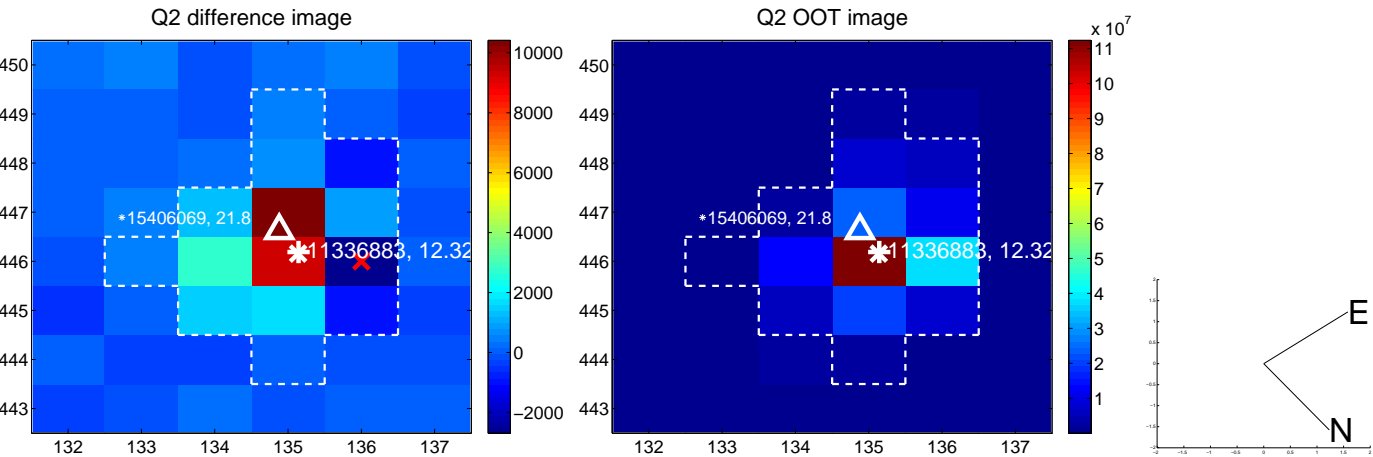
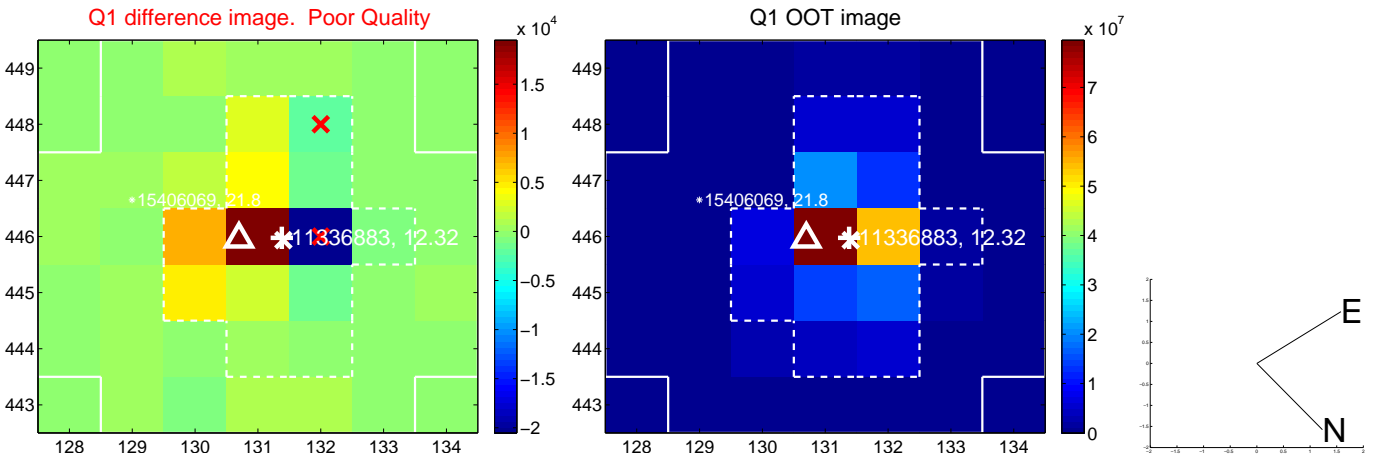
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.188 \pm 0.258$	0.73	$0.029 \pm 0.305$	$-0.186 \pm 0.264$
PRF-fit source offset from KIC position	$0.339 \pm 0.259$	1.31	$0.045 \pm 0.306$	$-0.336 \pm 0.266$
photometric centroid source offset	$0.42 \pm 0.36$	1.18	$0.34 \pm 0.35$	$0.25 \pm 0.37$

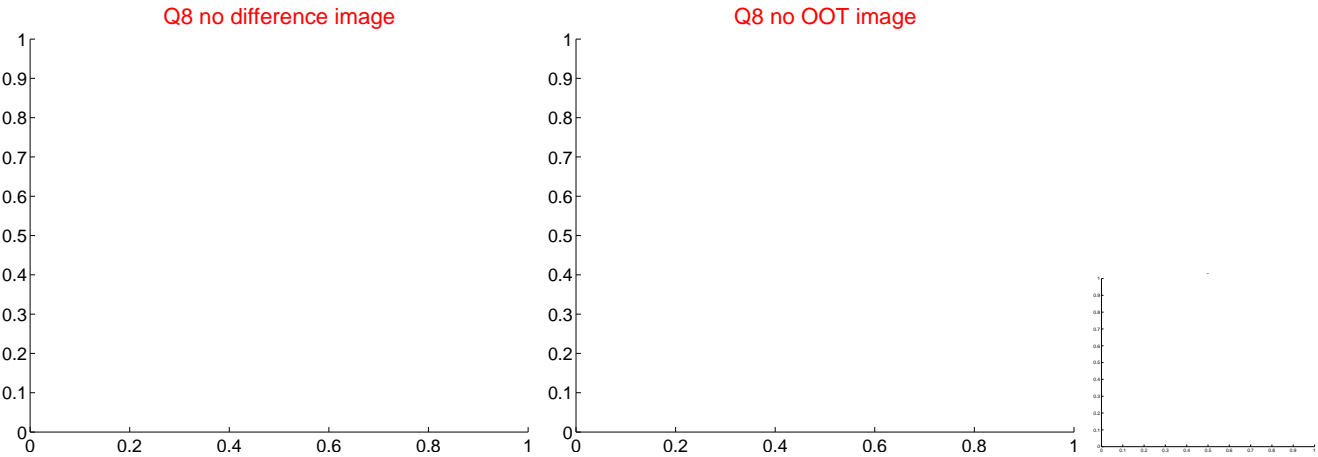
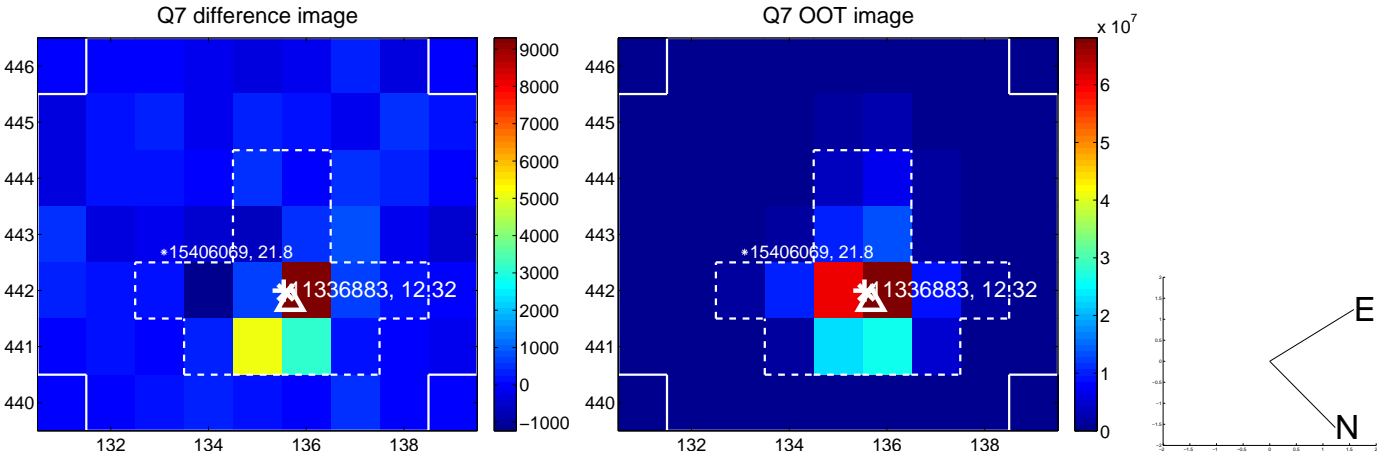
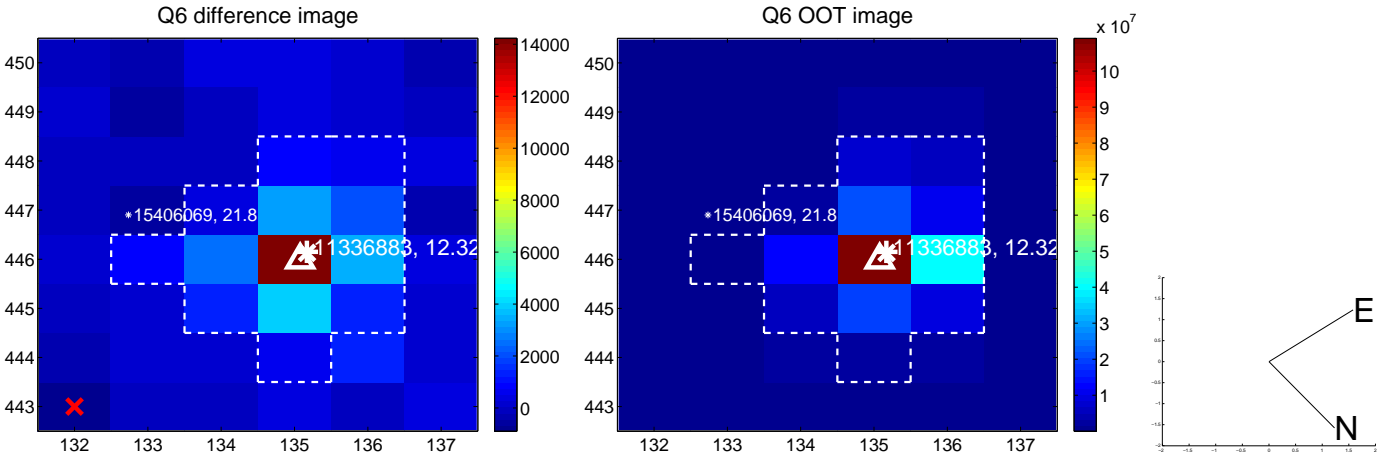
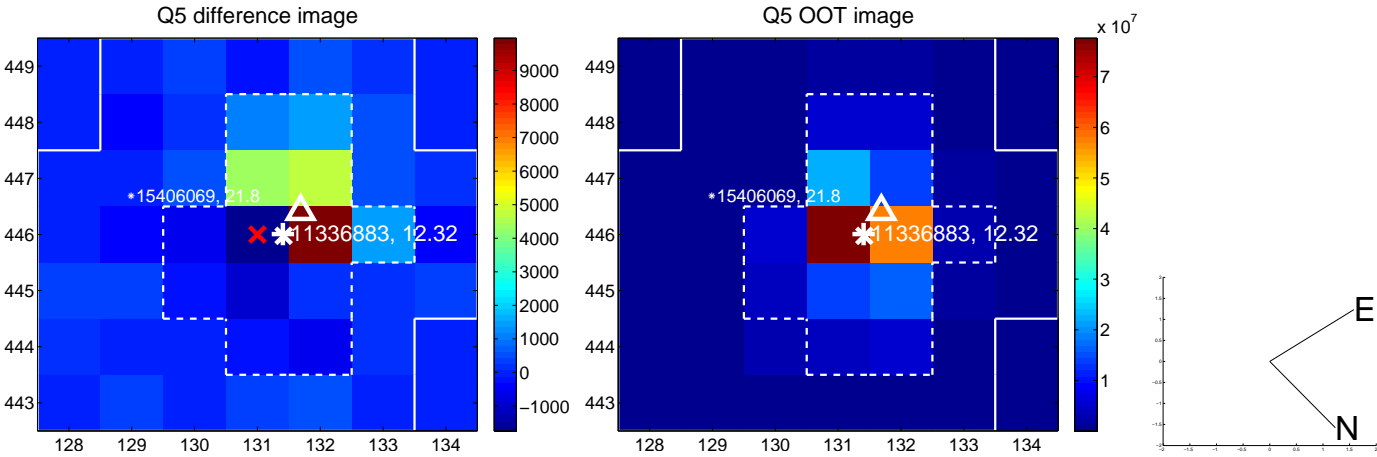


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

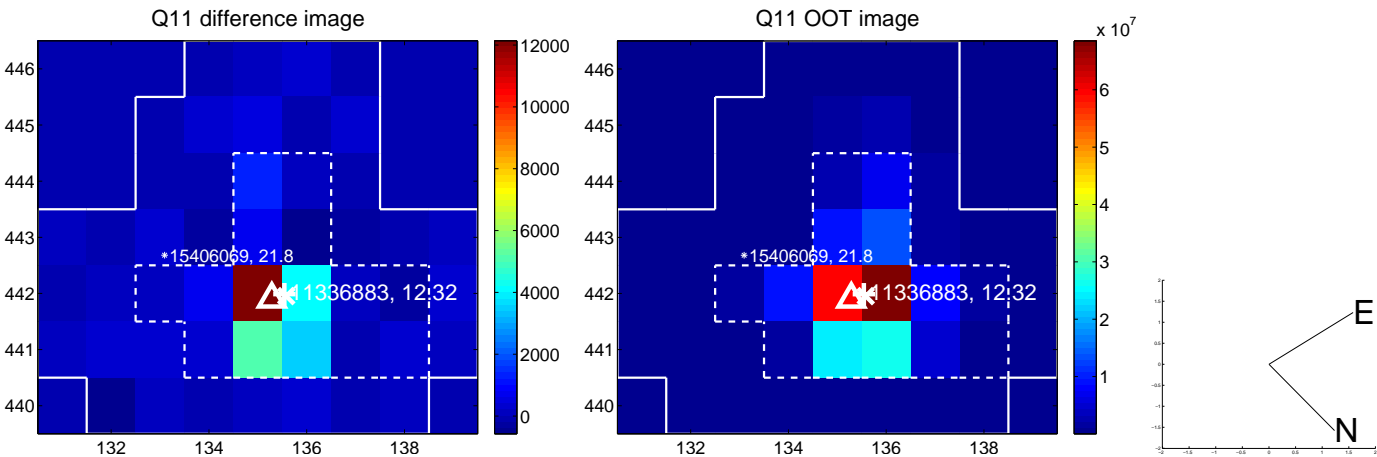
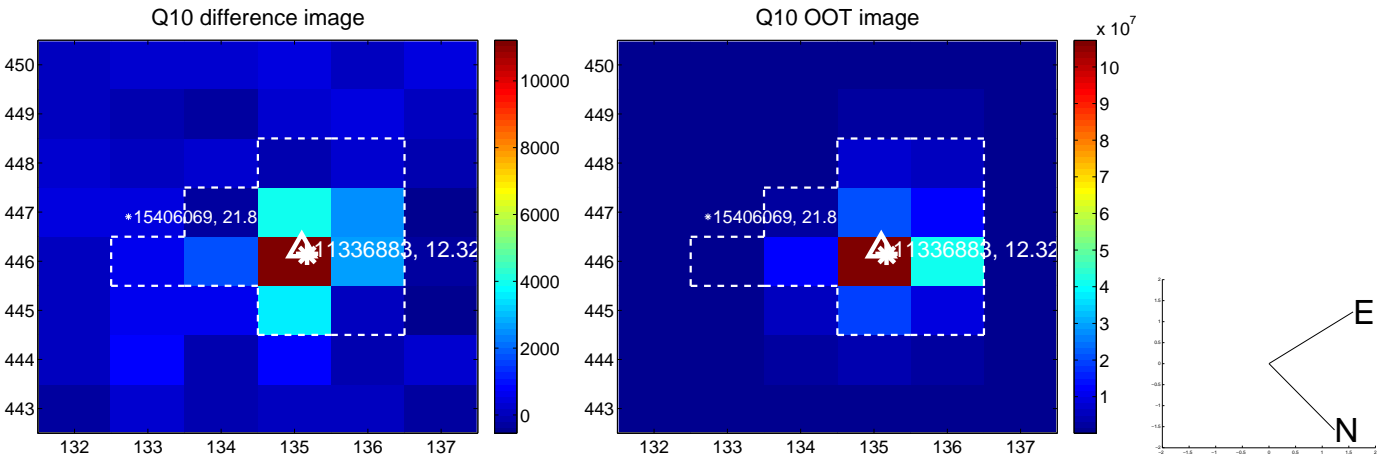
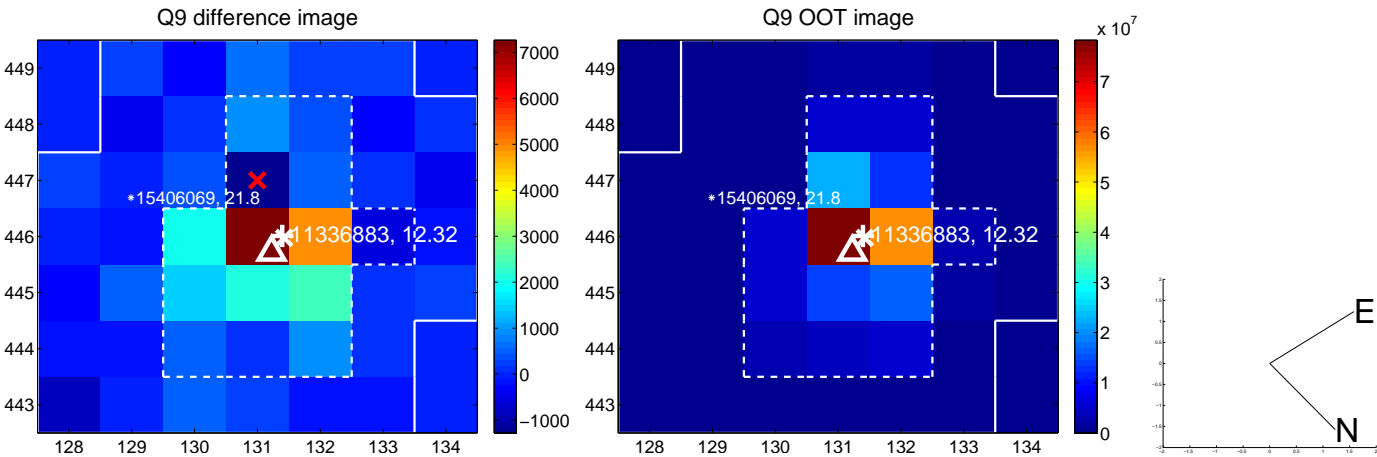
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



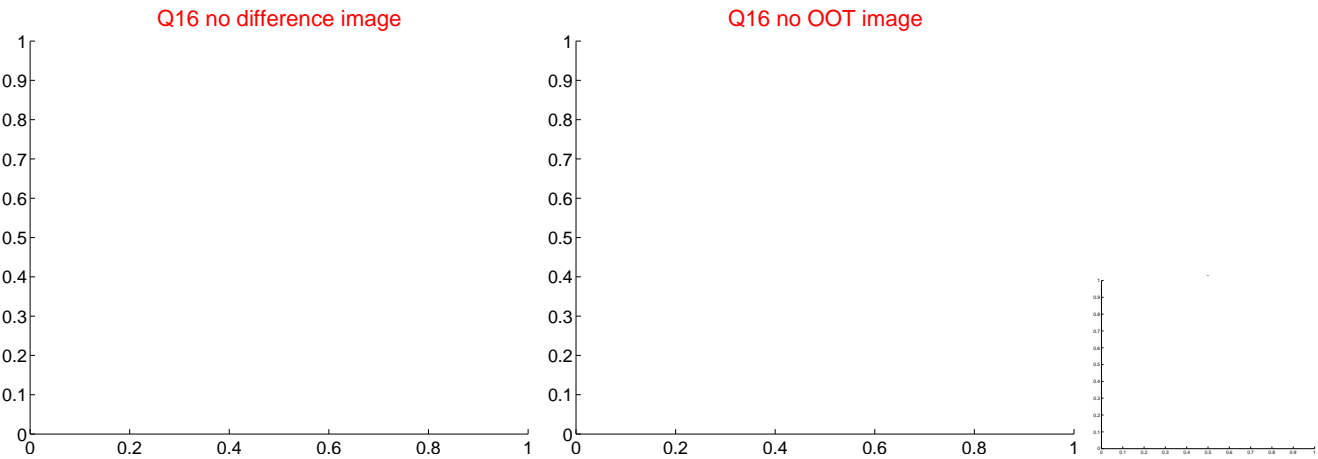
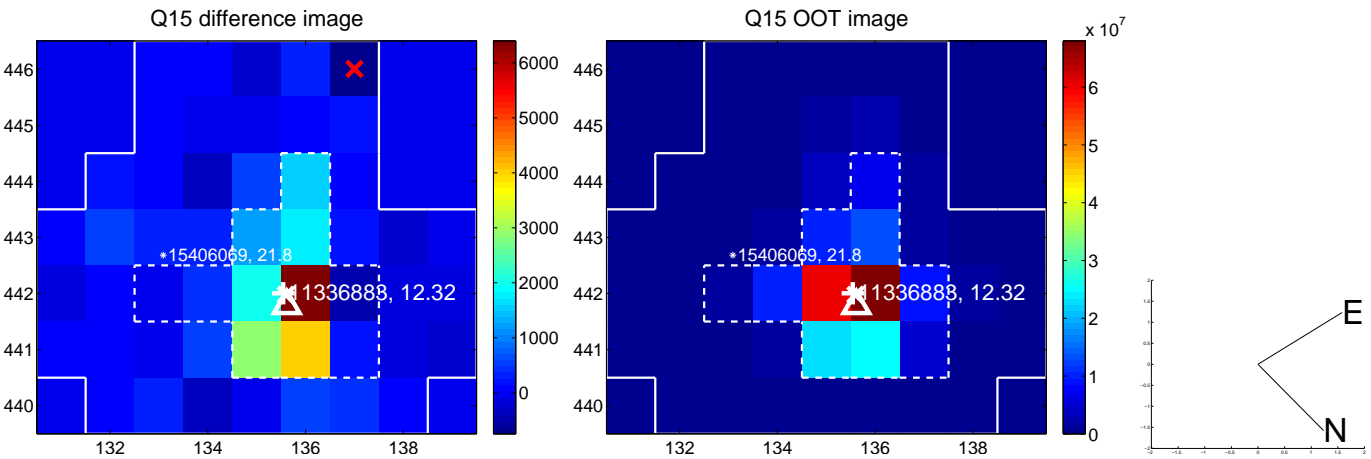
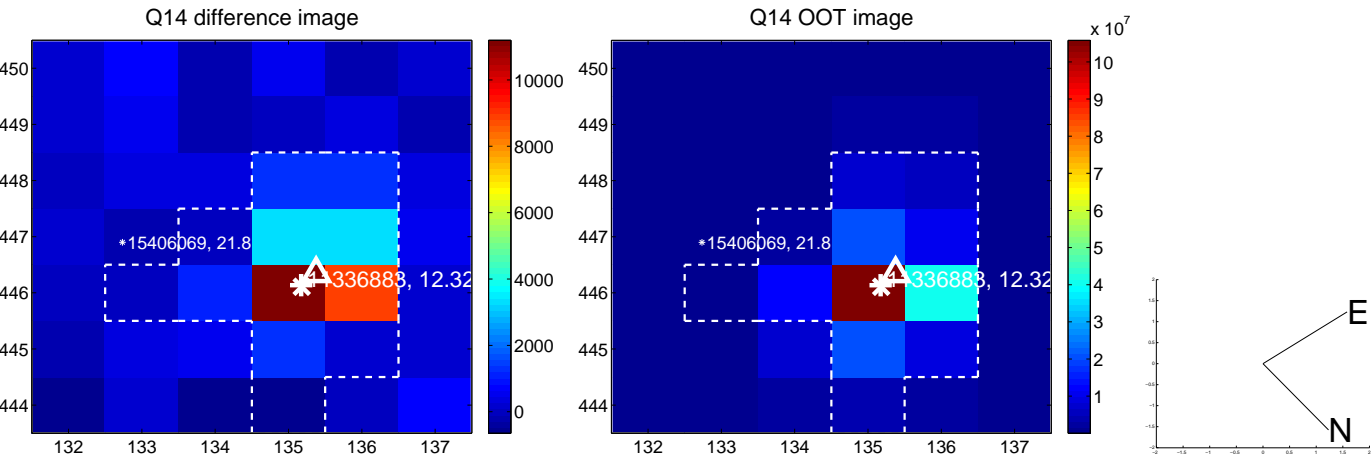
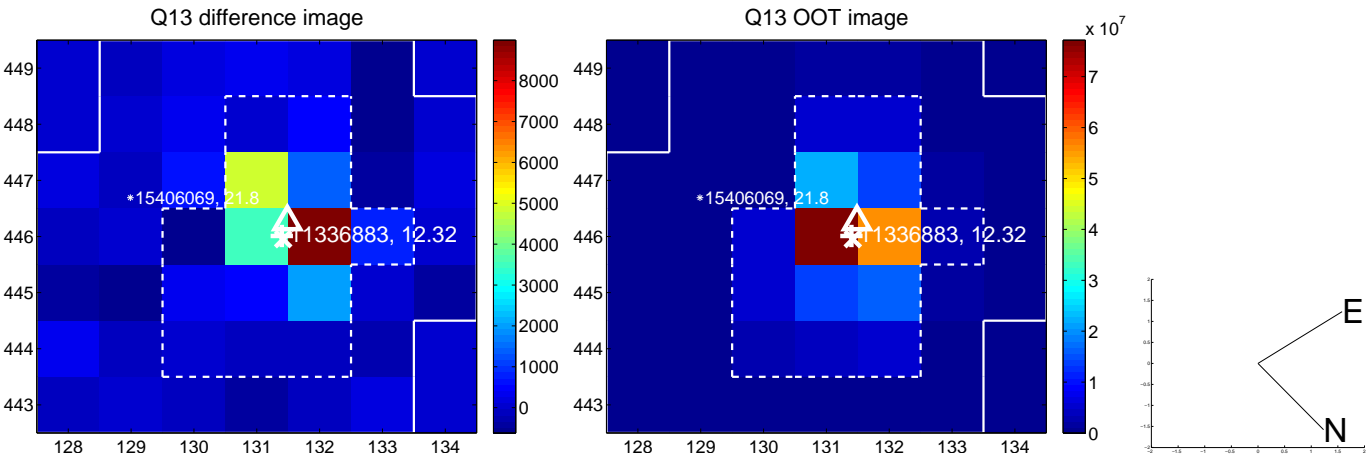
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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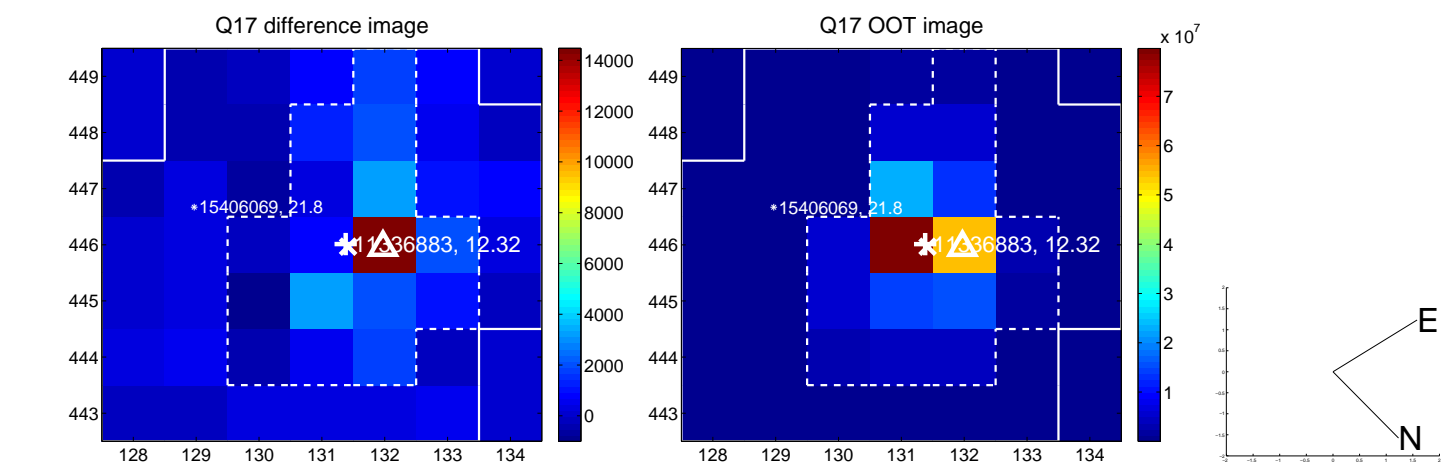


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

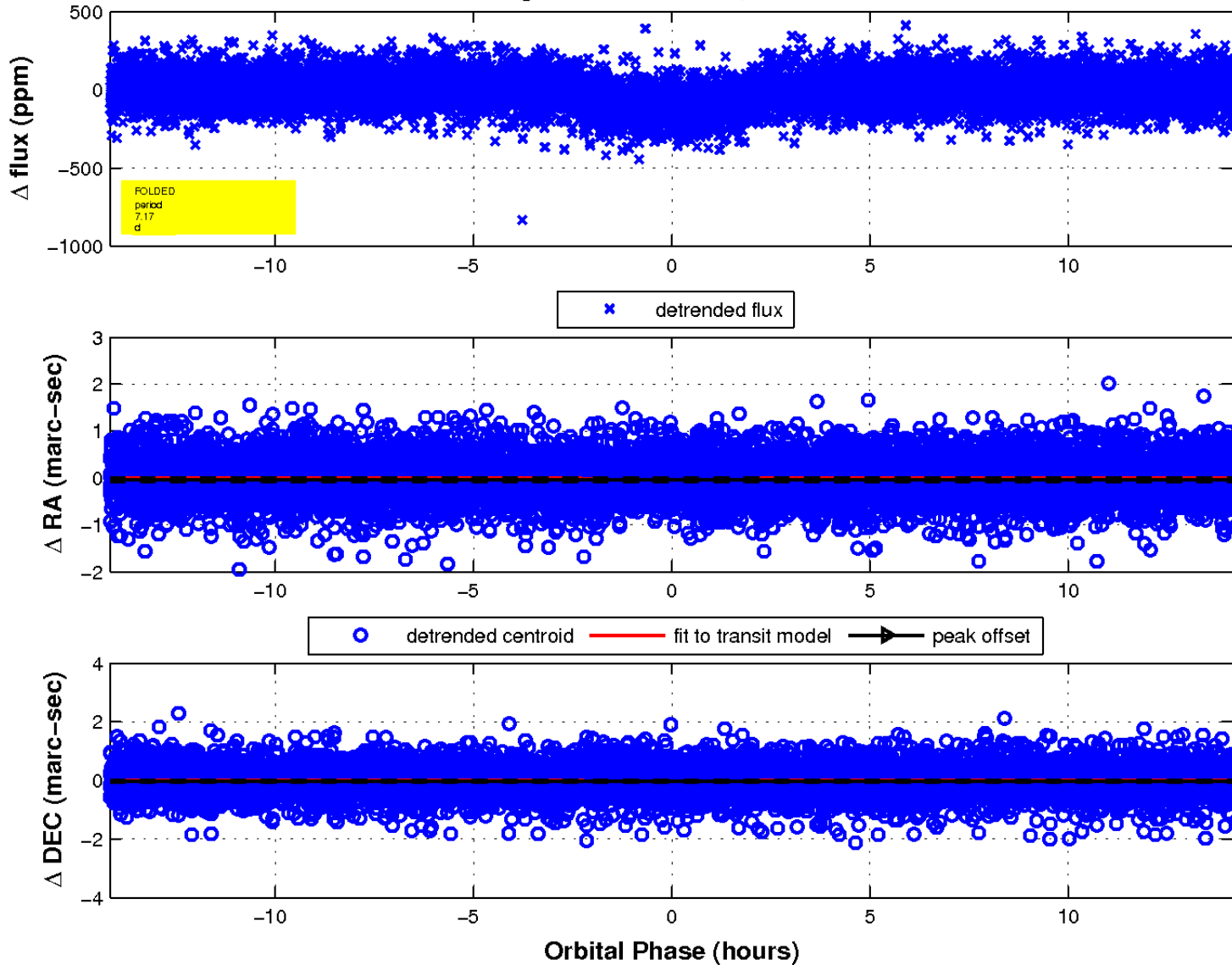




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

