

# KIC 010935383

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
010935383-01	OBS	No	0.543466	131.931994	0.2	5.540	8.1	0.1	2.16	6905	0.10	41243.35

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010935383-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

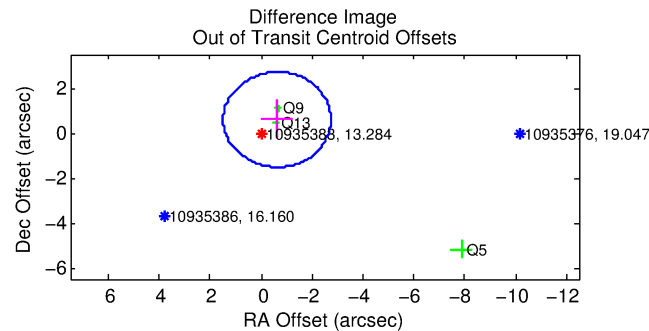
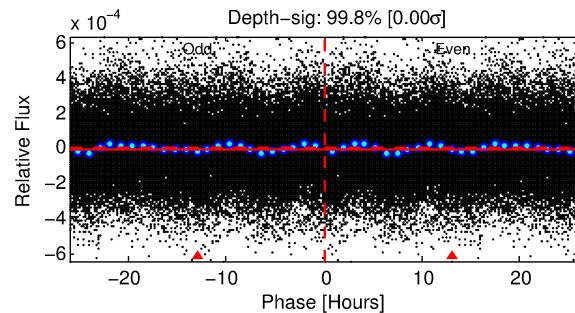
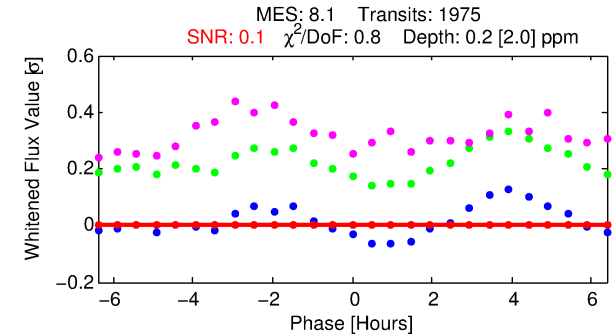
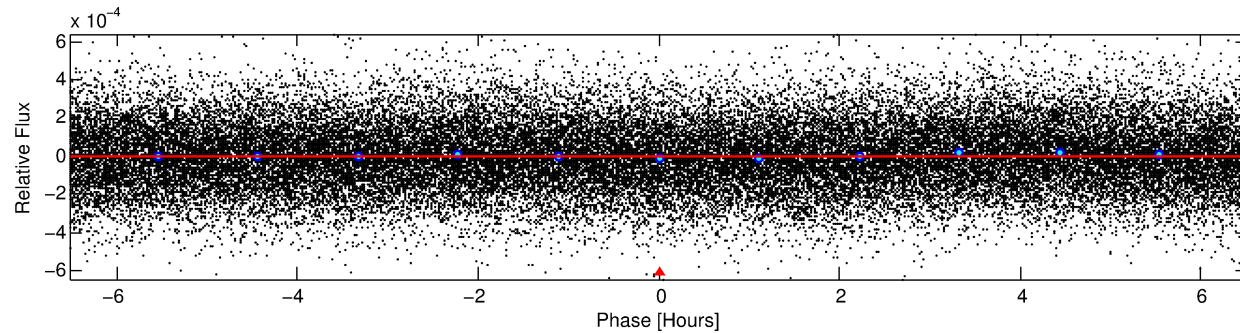
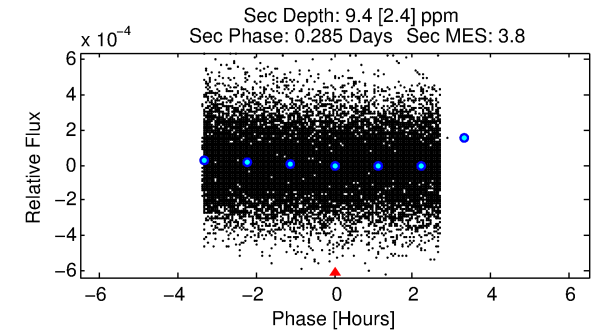
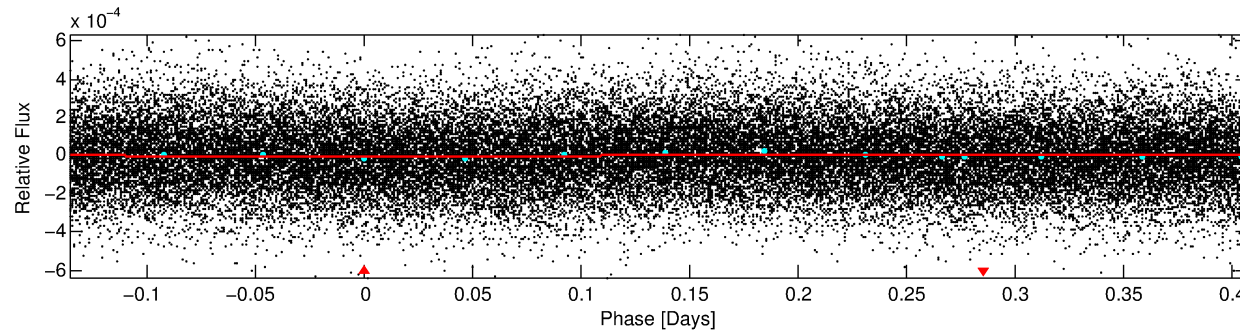
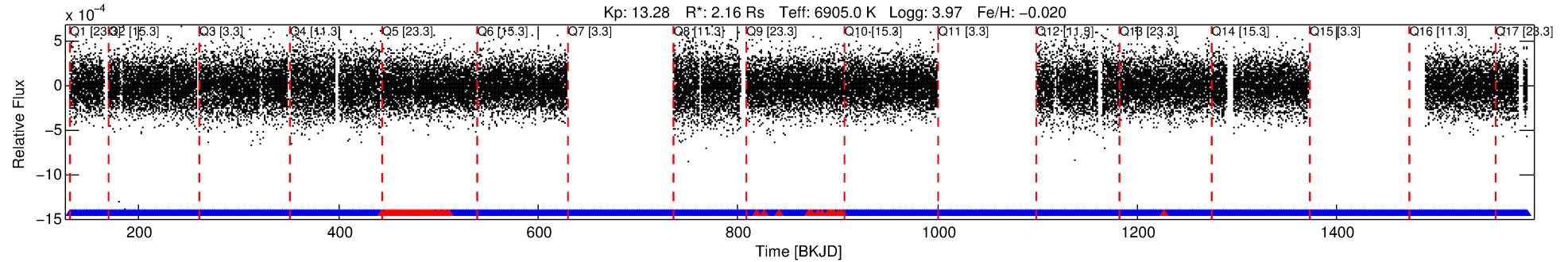
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 010935383-01

No Significant Match Found

# DV One-Page Summary

KIC: 10935383 Candidate: 1 of 1 Period: 0.543 d



## DV Fit Results:

Period = 0.54347 [0.00108] d  
Epoch = 131.9320 [0.4768] BKJD  
Rp/R\* = 0.0004 [0.0221]  
a/R\* = 1.02 [9.64]  
b = 0.70 [238.41]  
Seff = 41243.35 [12555.53]  
Teq = 3634 [277] K  
Rp = 0.10 [5.20] Re  
a = 0.0152 [0.0029] AU  
Ag = 128.26 [13848.58] [0.01σ]  
Teffp = 18907 [510354] K [0.03σ]

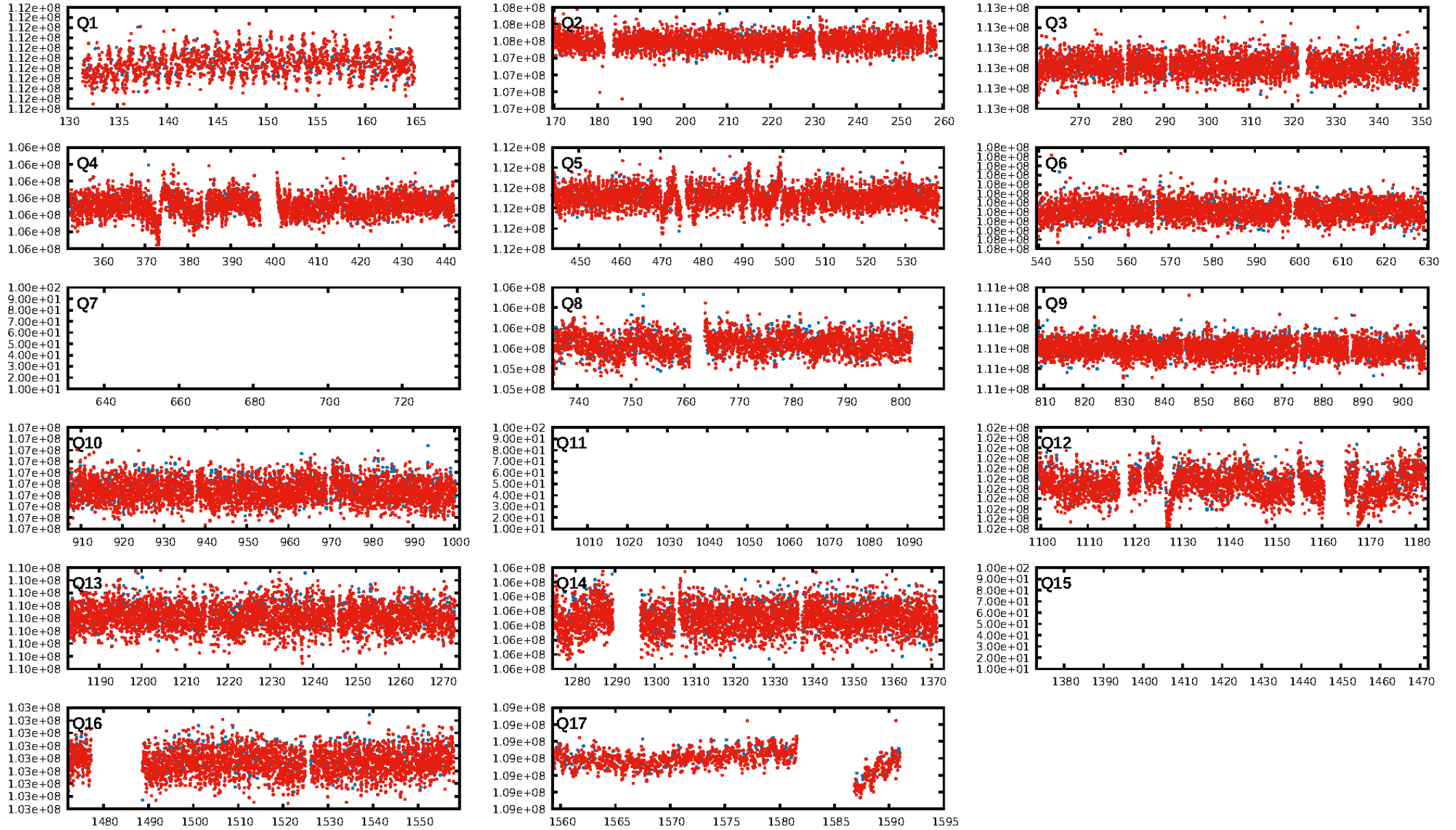
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.94 [1747/1863]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 0.868 arcsec [1.23σ]  
KicOffset-rm: 0.804 arcsec [1.14σ]  
OotOffset-st: 0/0/0/3 [3]  
KicOffset-st: 0/0/0/3 [3]  
DiffImageQuality-fgm: 0.67 [2/3]  
DiffImageOverlap-fno: 1.00 [14/14]

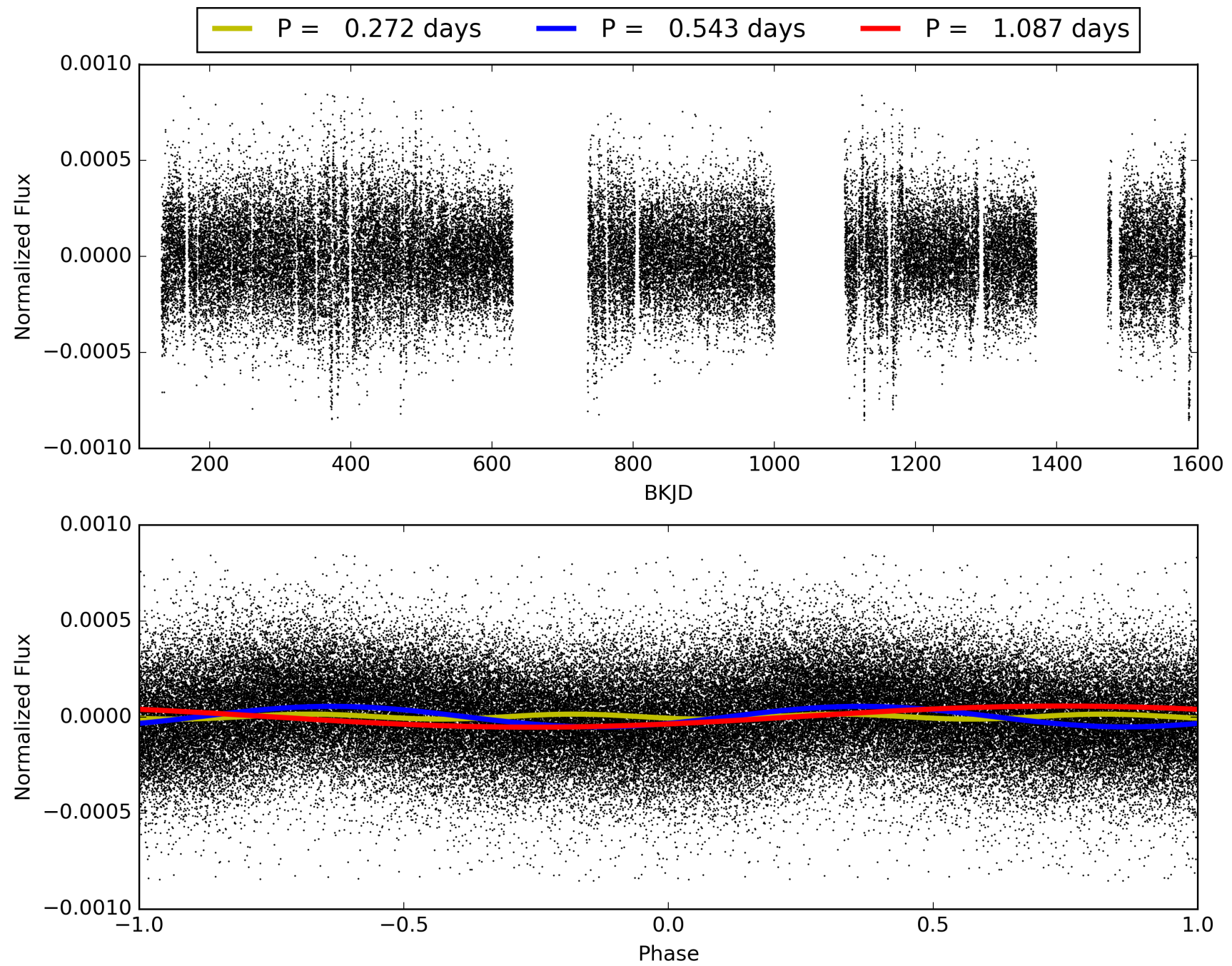
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:44:59 Z

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

# TCE 010935383-01, PDC Light Curves

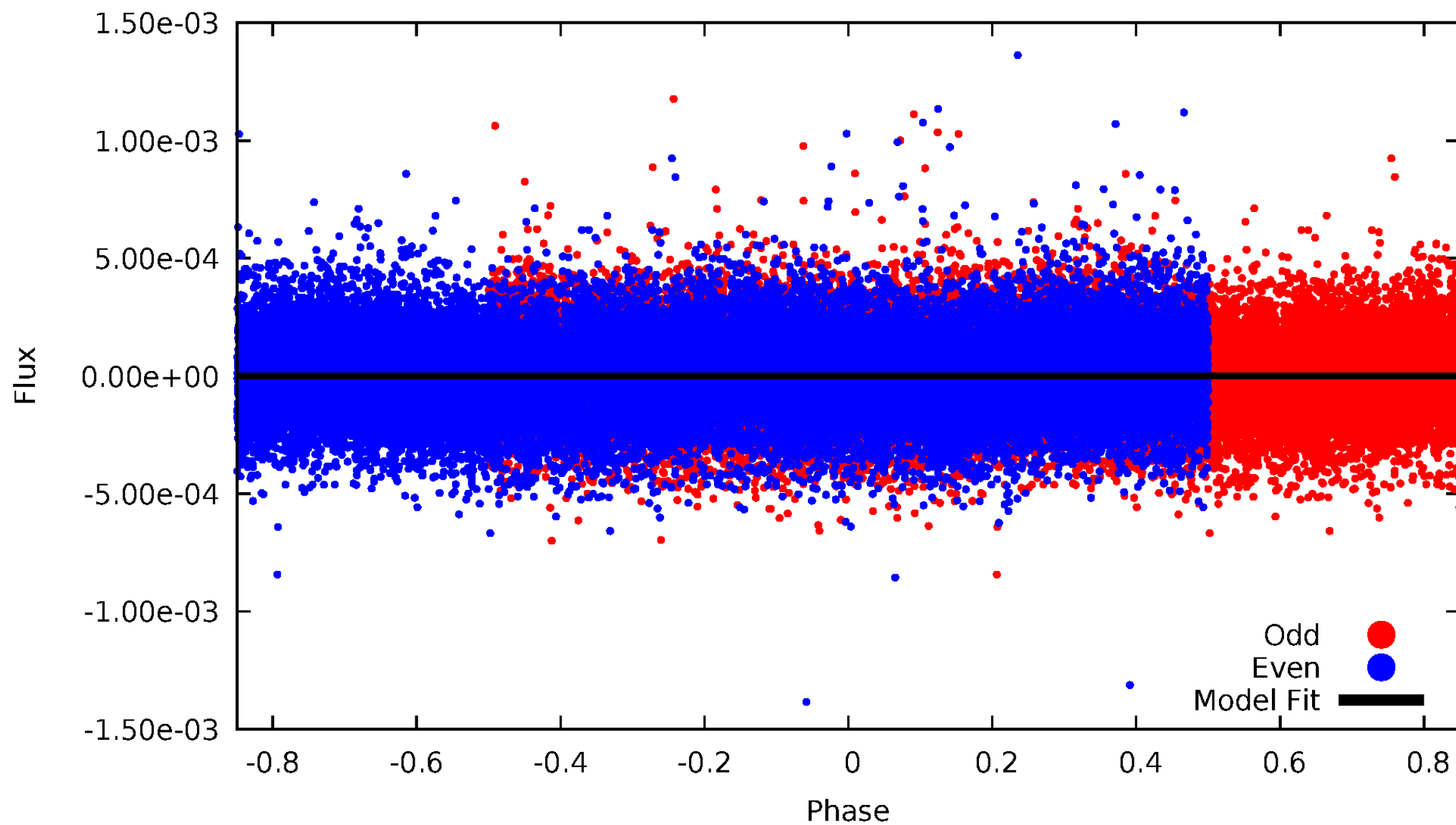


TCE 010935383-01



# DV Odd/Even

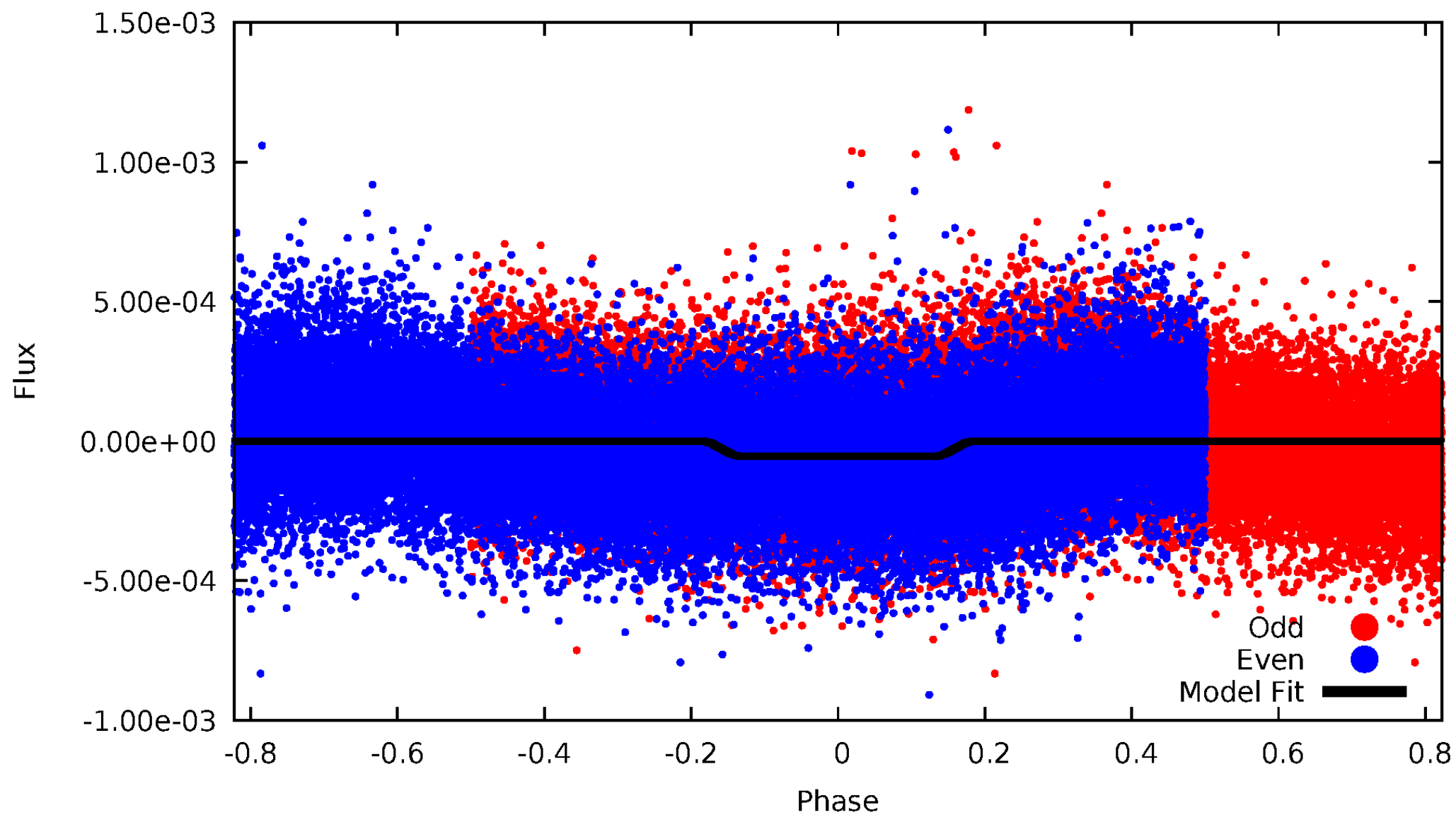
TCE 010935383-01





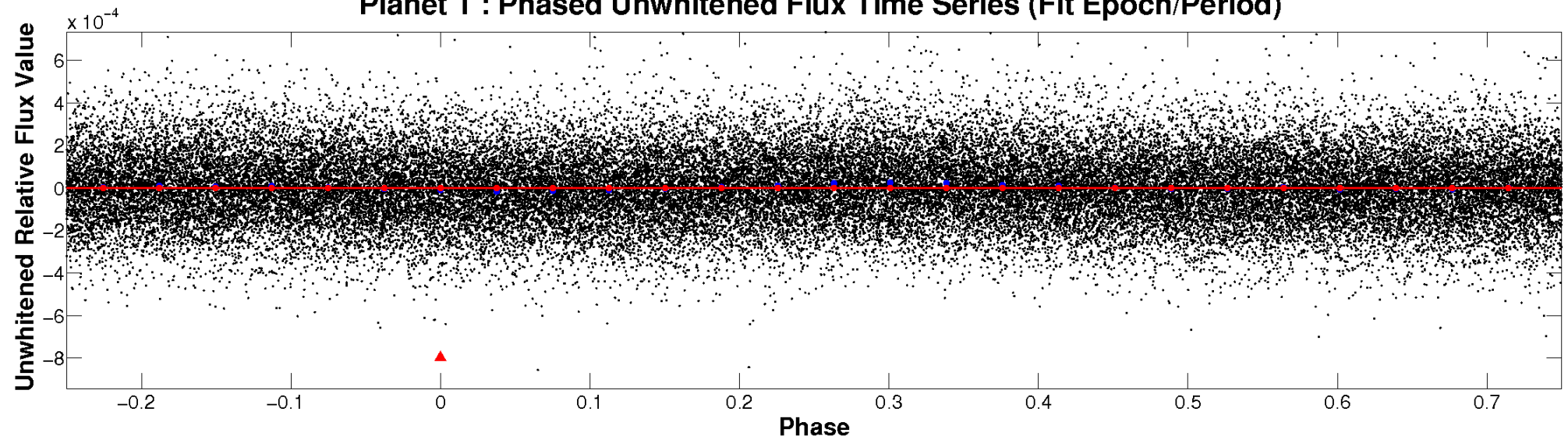
# ALT Odd/Even

TCE 010935383-01

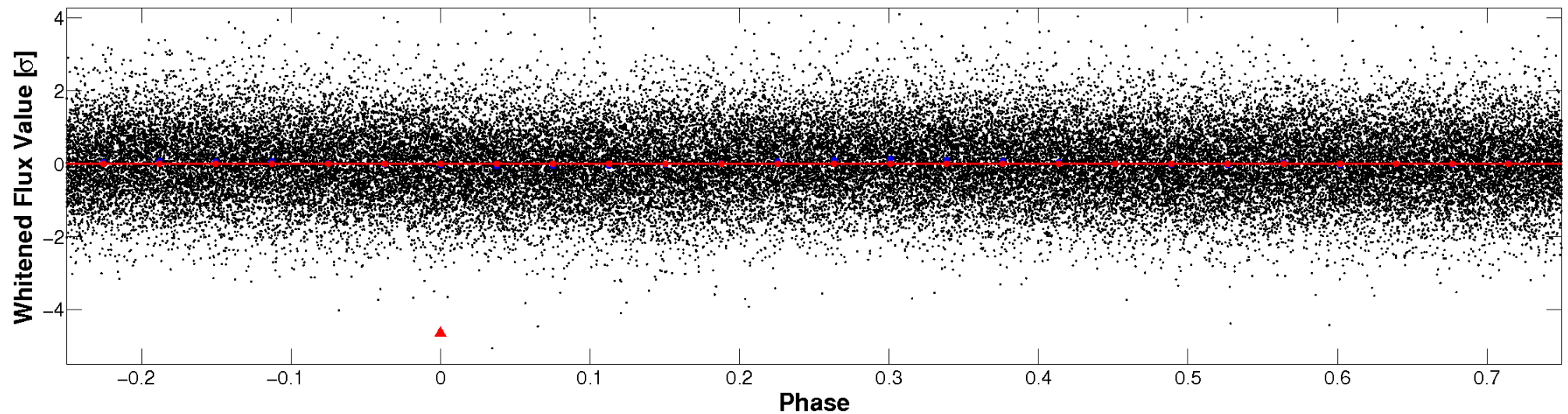


# Non-Whitened Vs. Whitened Light Curve

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

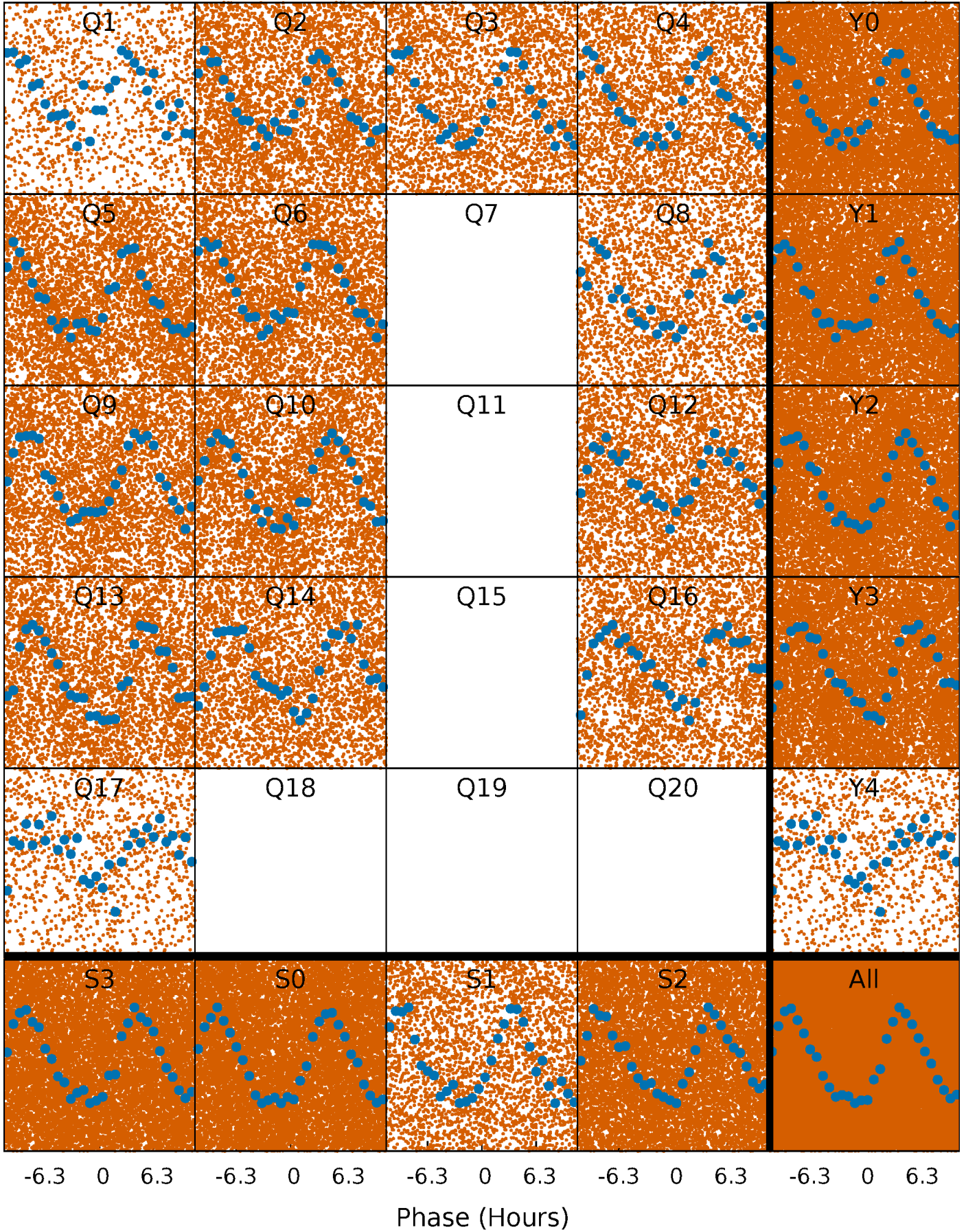


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

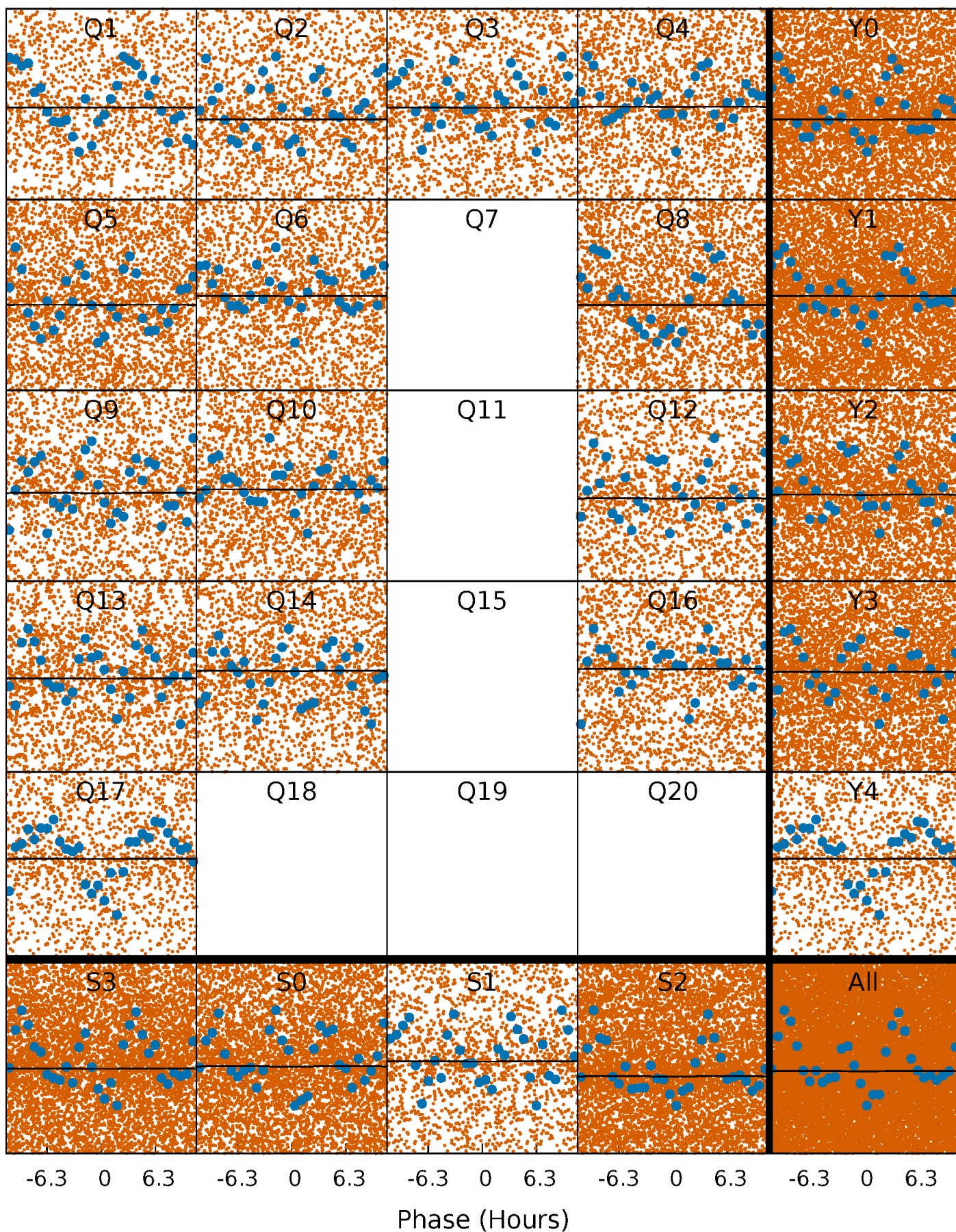
TCE 010935383-01   P= 0.543466 Days    $T_0=131.931994$  (BKJD)





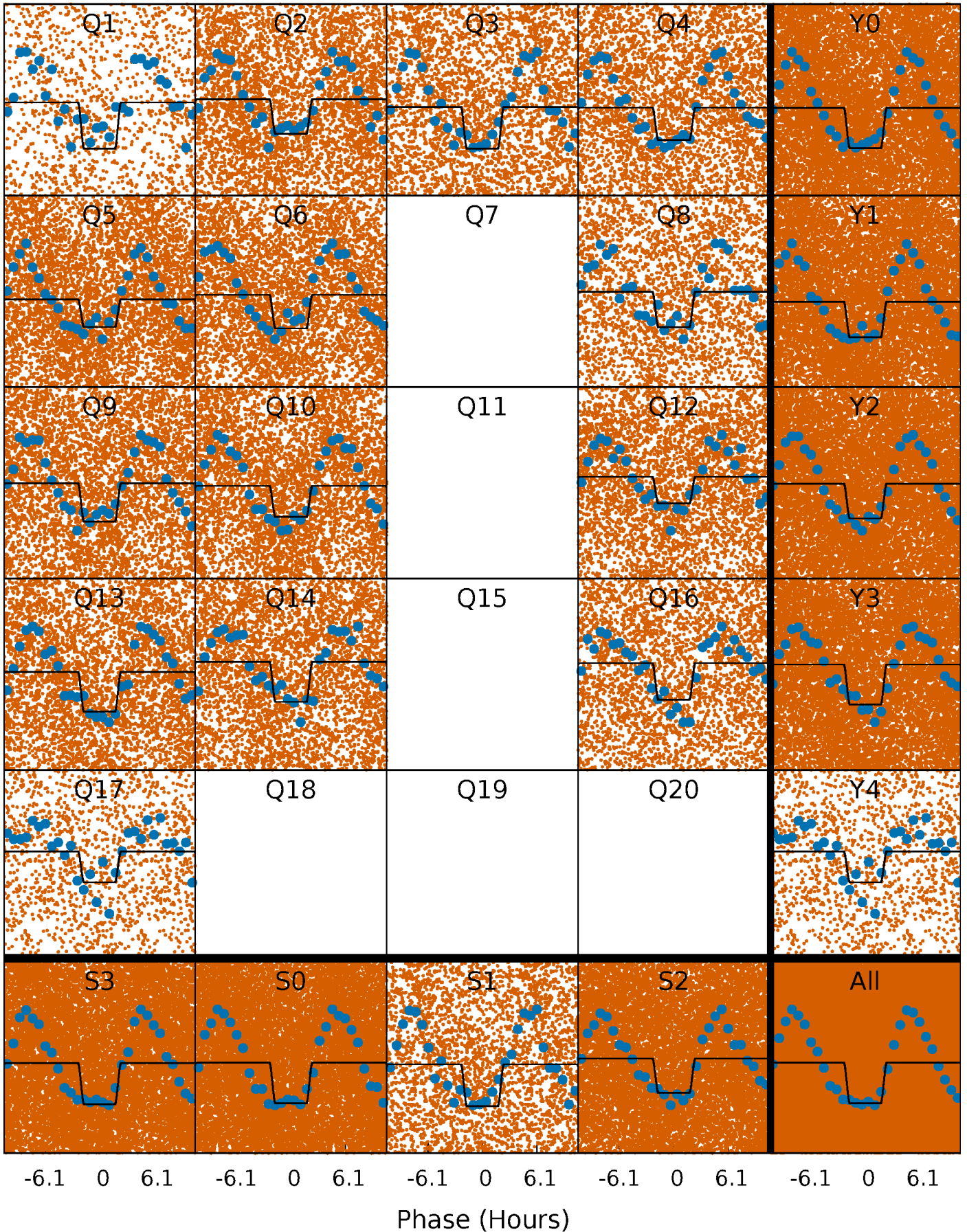
# DV Quarter-Phased Transit Curves

TCE 010935383-01 P= 0.543466 Days  $T_0=131.931994$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 010935383-01 P= 0.543505 Days  $T_0=131.854952$  (BKJD)

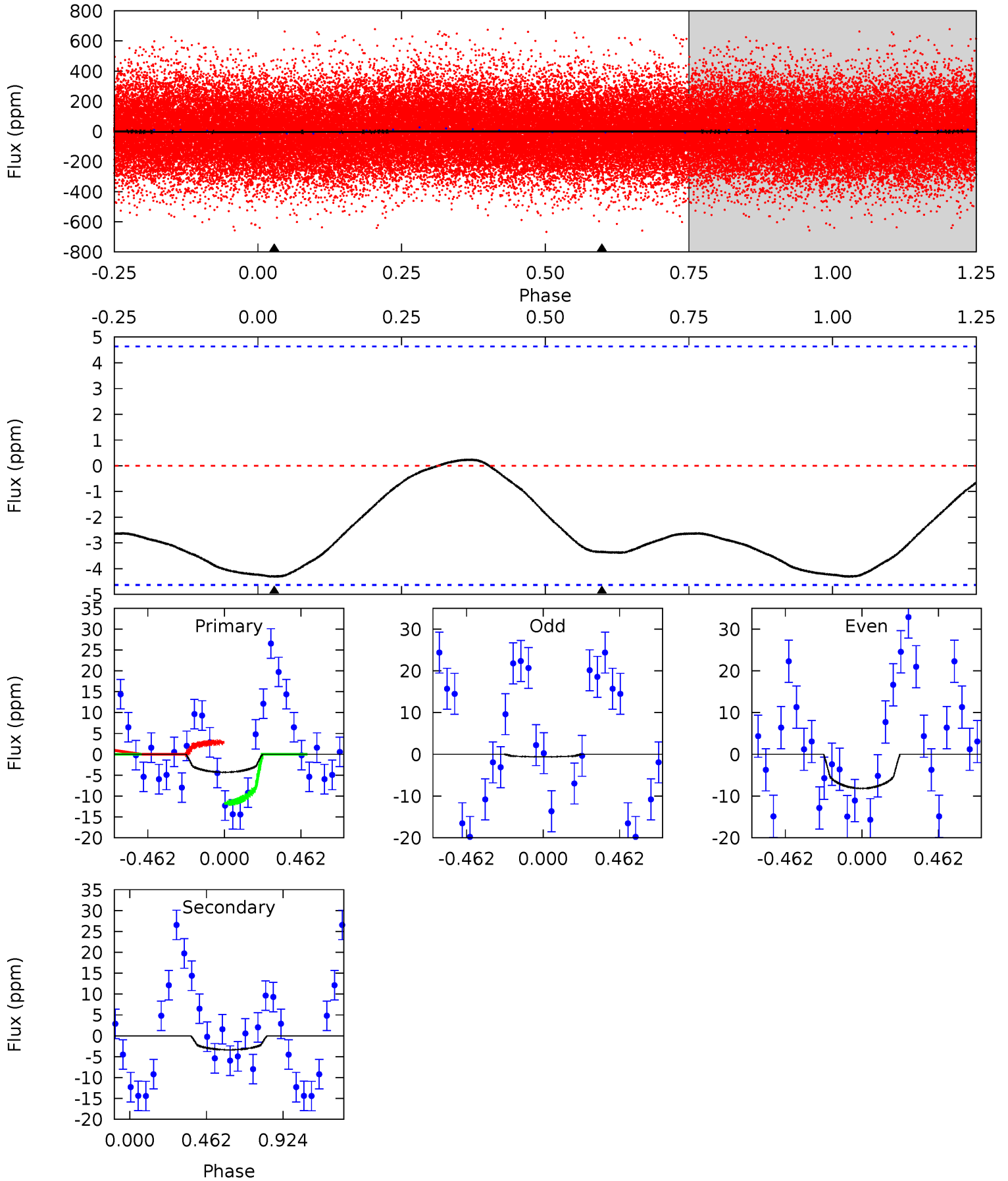




# DV Model-Shift Uniqueness Test

010935383-01, P = 0.543466 Days, E = 131.388528 Days

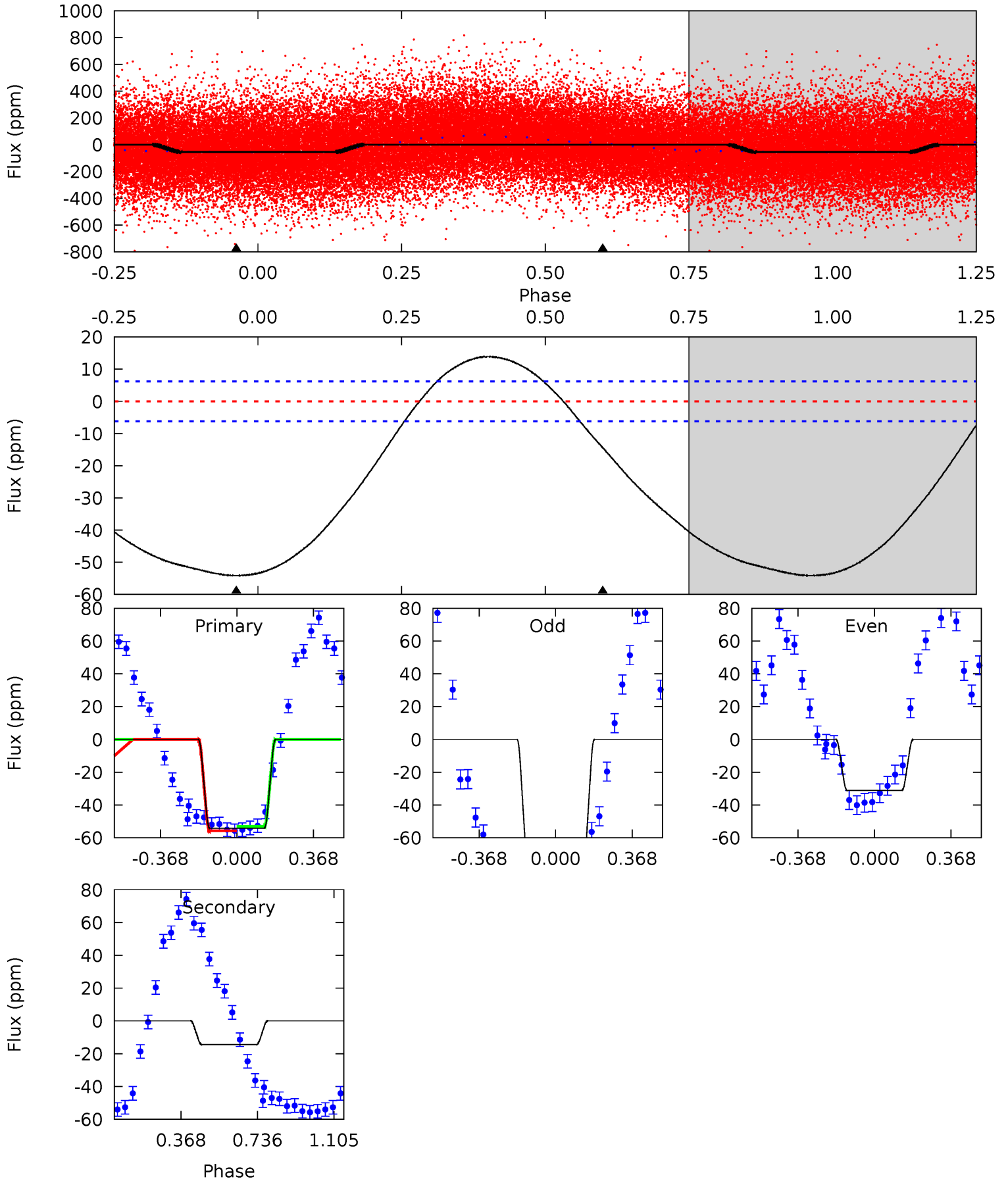
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.93	3.07	0	0	4.23	0.74	0.19	3.93	3.93	3.07	3.07	3.50	0.77	0.05	4.13



# Alt Model-Shift Uniqueness Test

010935383-01, P = 0.543505 Days, E = 131.311447 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
37.3	9.94	0	0	4.28	0.90	4.51	37.3	37.3	9.94	9.94	15.8	0.96	0.20	0.97





### Stellar Parameters For KIC 010935383

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6905^{+71}_{-82}$	$3.967^{+0.174}_{-0.116}$	$-0.020^{+0.200}_{-0.150}$	$2.158^{+0.402}_{-0.447}$	$1.572^{+0.133}_{-0.148}$	$0.221^{+0.205}_{-0.079}$
	+1%/-1%	+4%/-3%	+1000%/-750%	+19%/-21%	+8%/-9%	+93%/-36%
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 010935383-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-3\pm 1$	$3.47^{+3.78}_{-2.35}$	$5057^{+222}_{-259}$	$-4171^{+7210}_{-227}$	$0.035^{+0.299}_{-0.027}$
Alt.	$-14\pm 1$	$4.37^{+3.89}_{-2.86}$	$5053^{+228}_{-296}$	$-3968^{+8615}_{-345}$	$0.097^{+0.660}_{-0.071}$

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

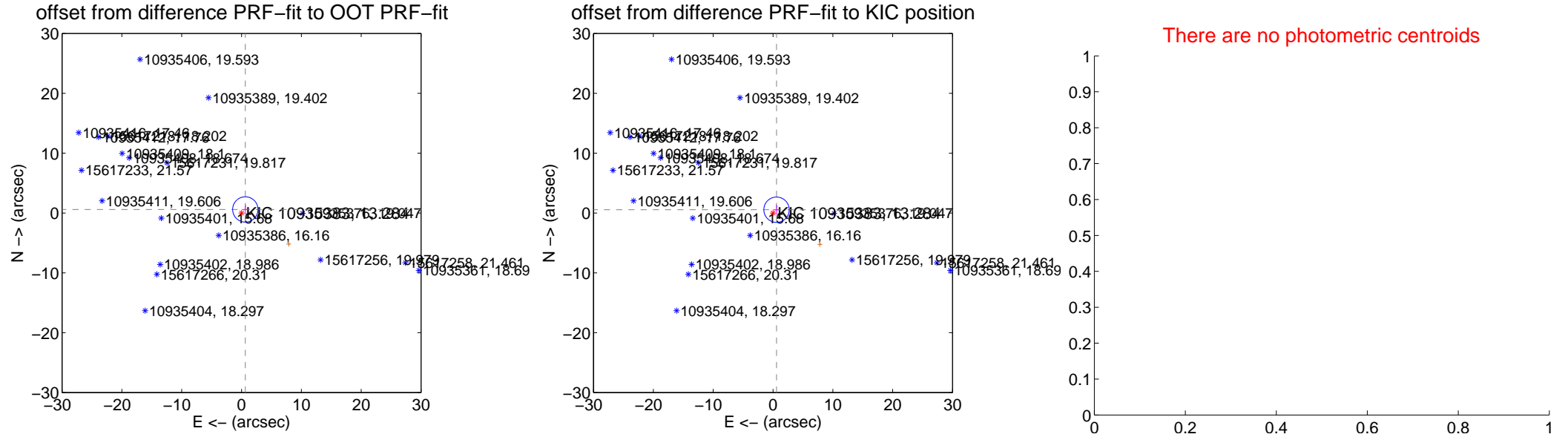
## DV Centroid Data

Supplemental centroid analysis for 010935383-01. Kepler magnitude: 13.28. Transit SNR 0.11

There are 2 quarters with good PRF difference image offsets

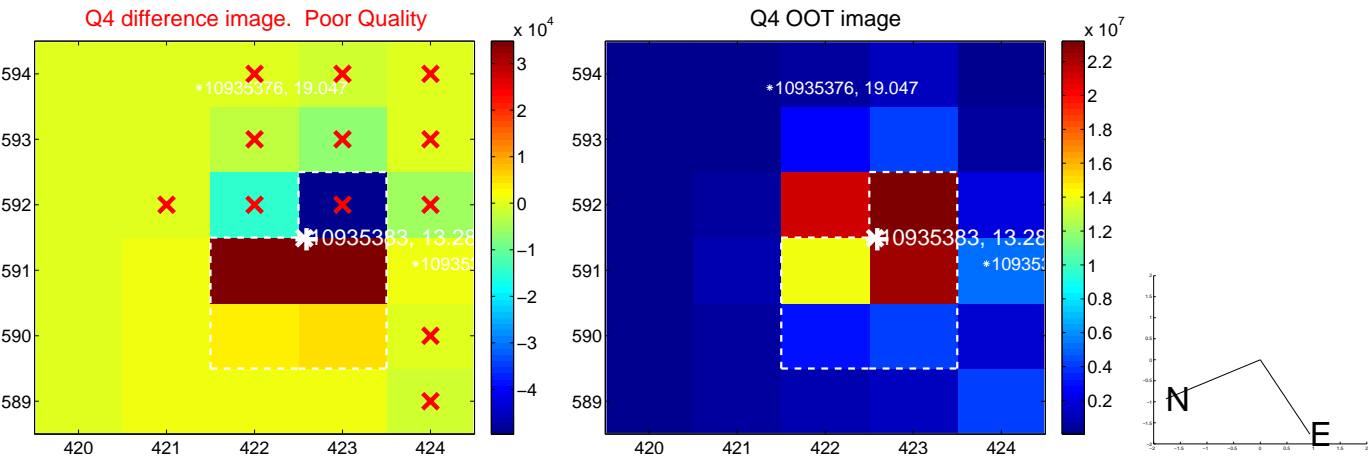
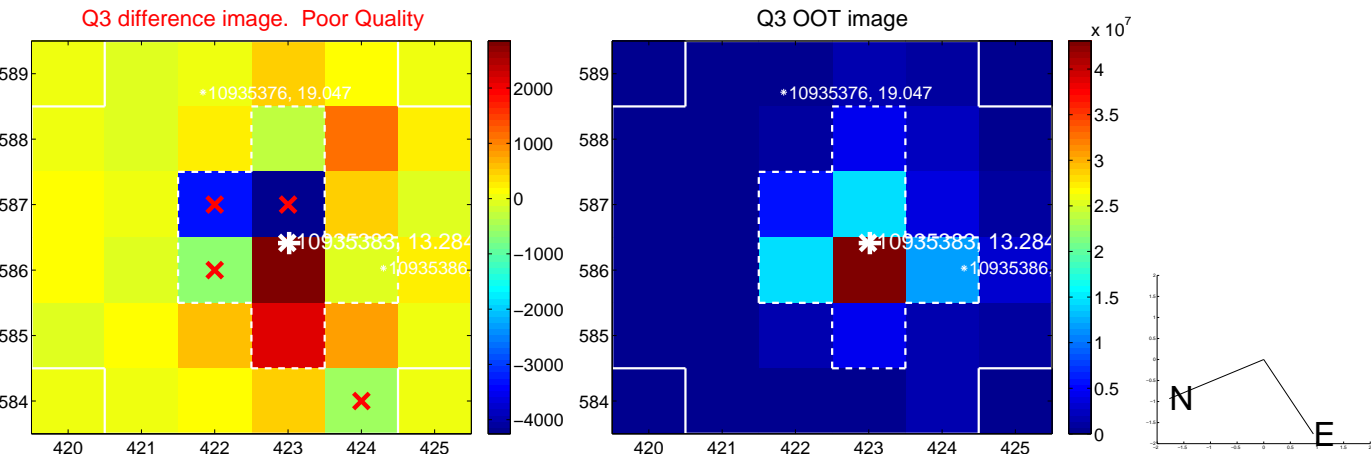
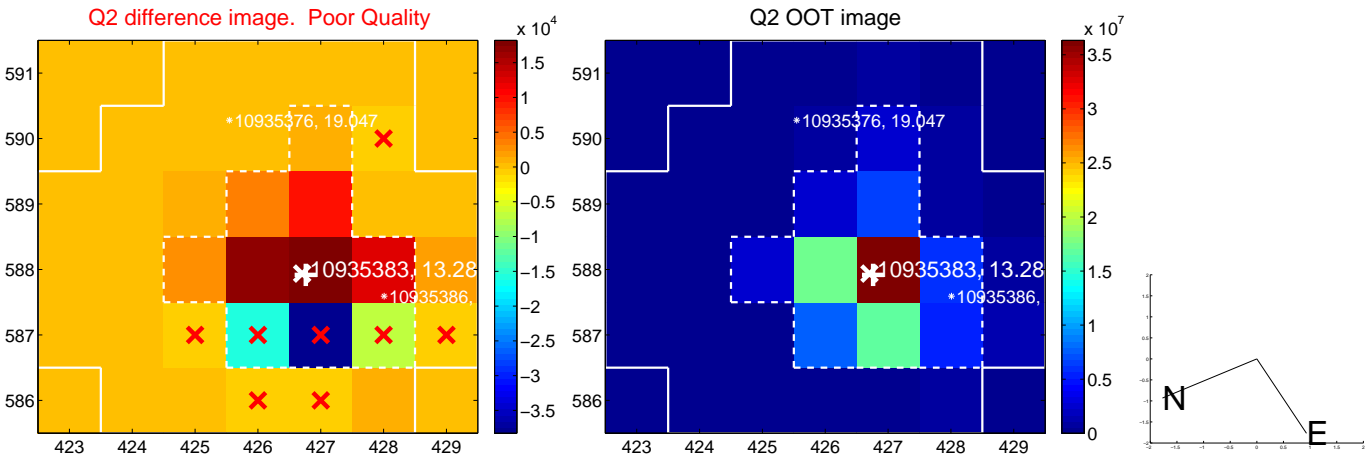
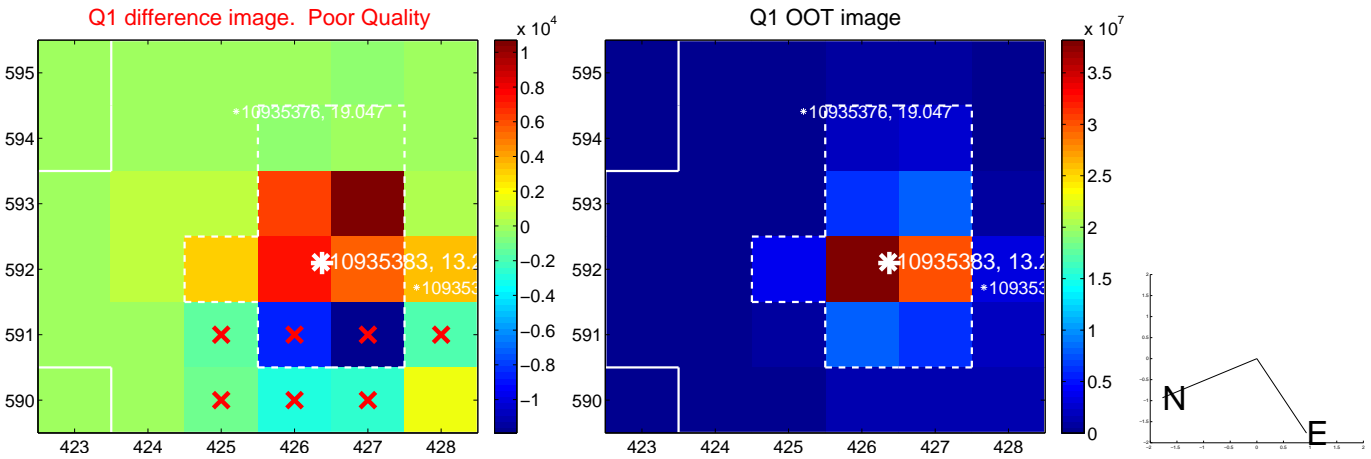
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.868 \pm 0.705$	1.23	$-0.631 \pm 0.562$	$0.595 \pm 0.837$
PRF-fit source offset from KIC position	$0.804 \pm 0.706$	1.14	$-0.588 \pm 0.562$	$0.548 \pm 0.843$
photometric centroid source offset	—	—	—	—

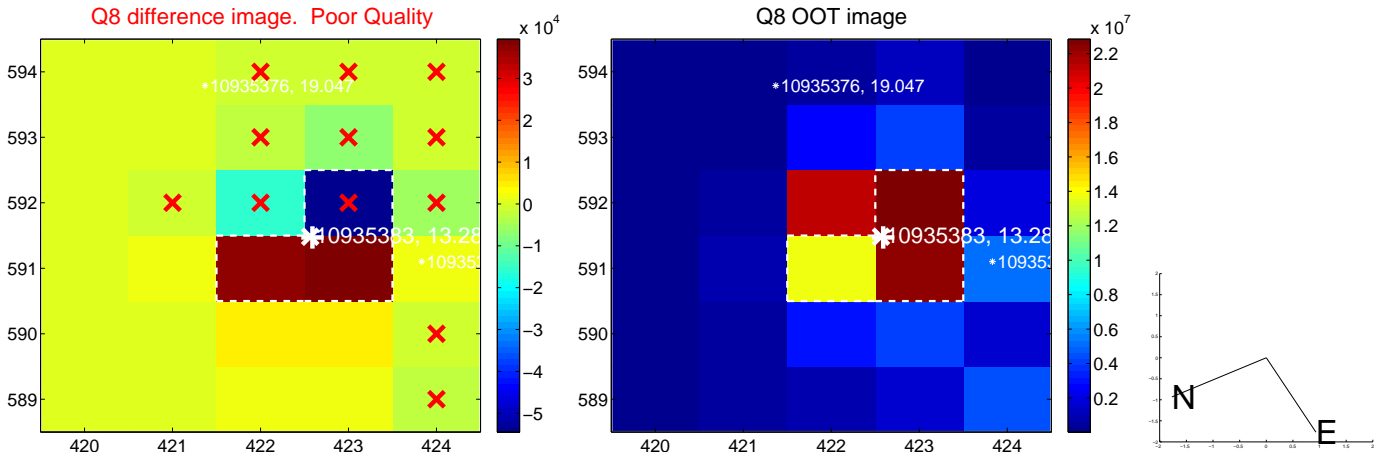
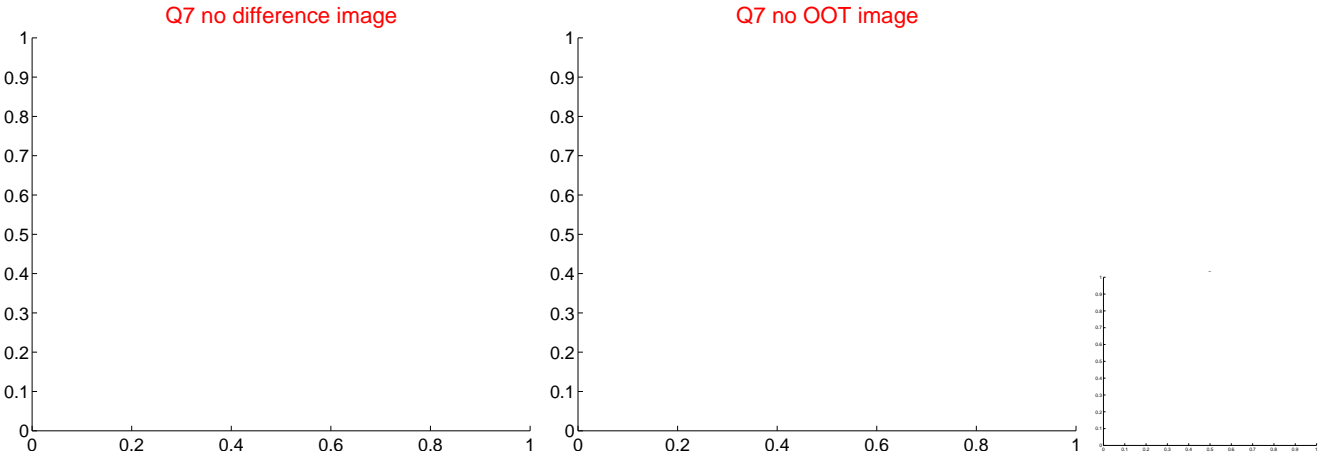
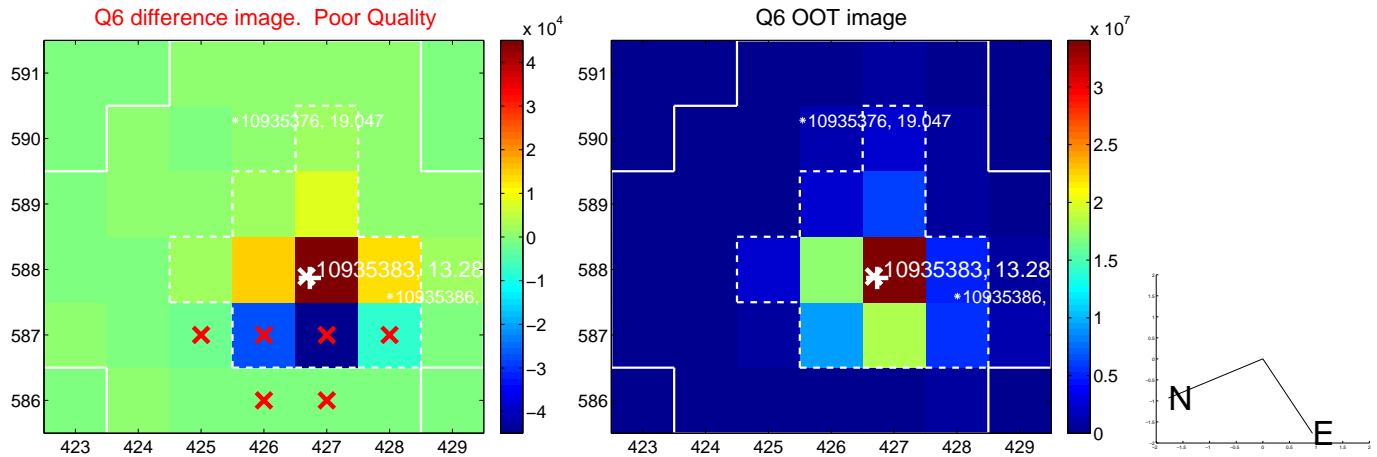
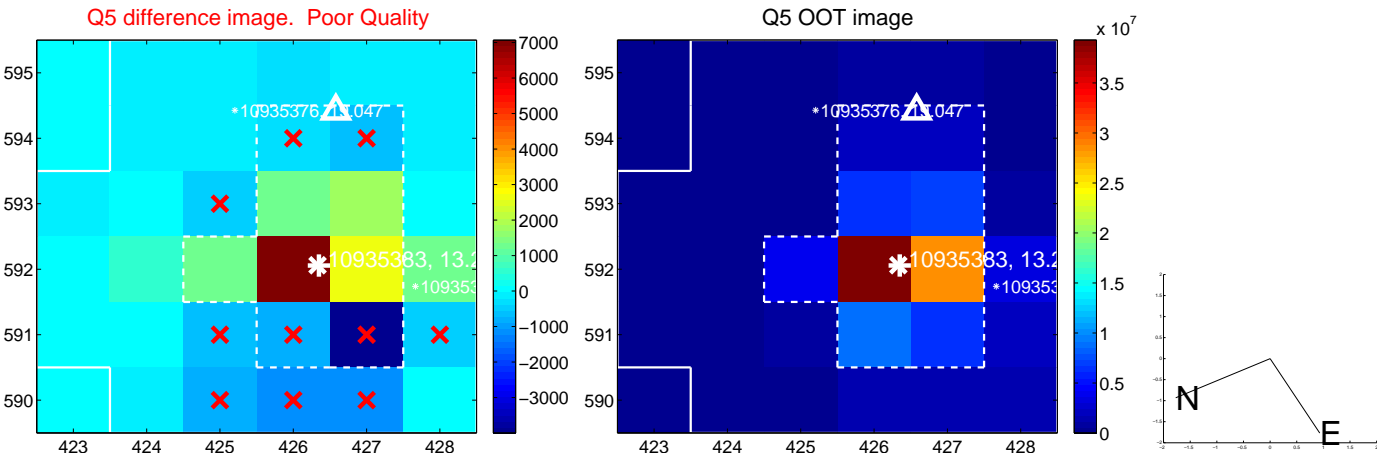


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

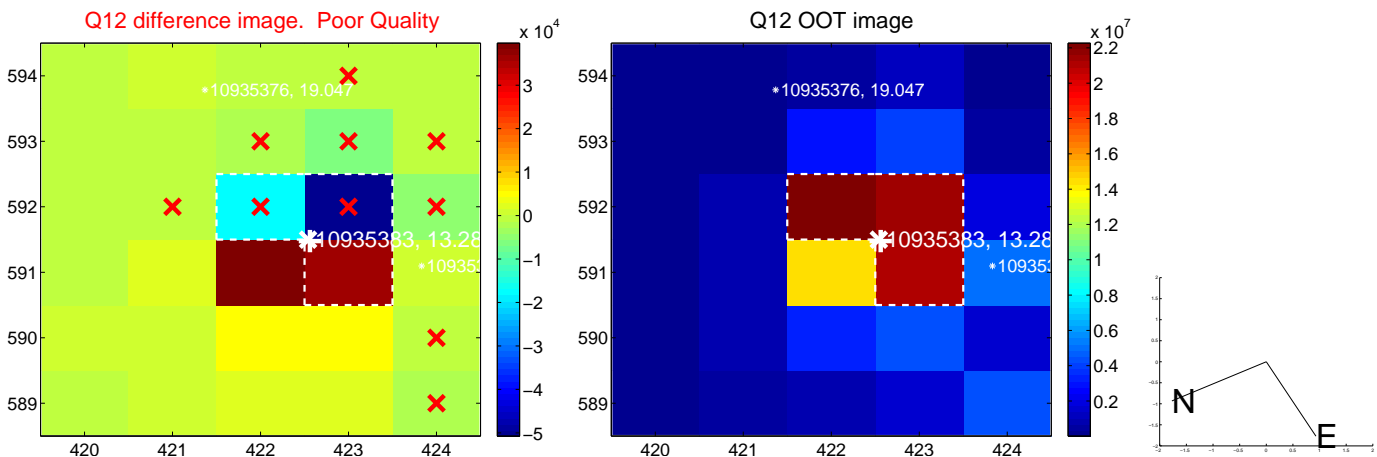
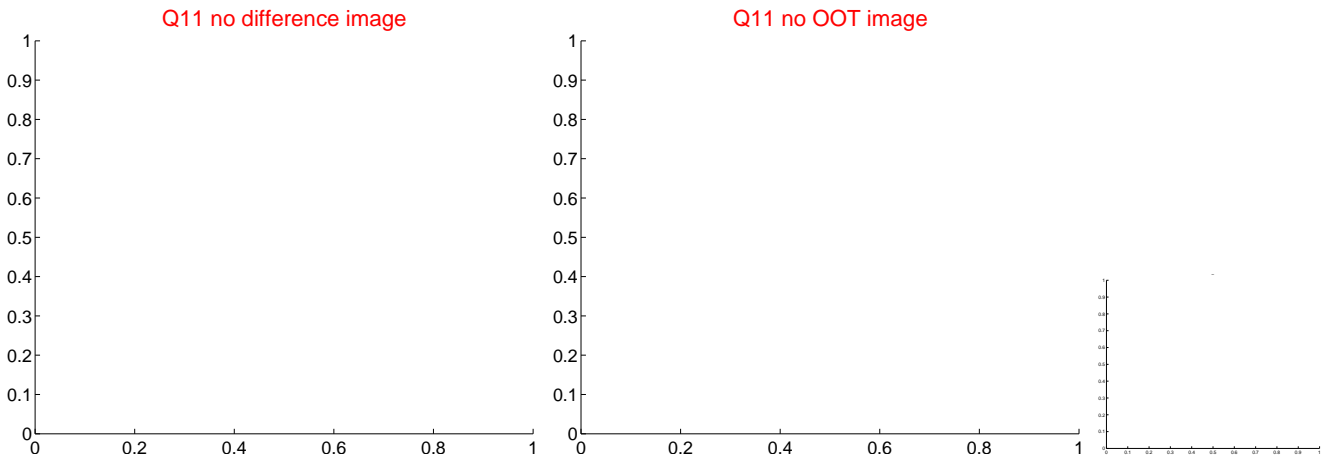
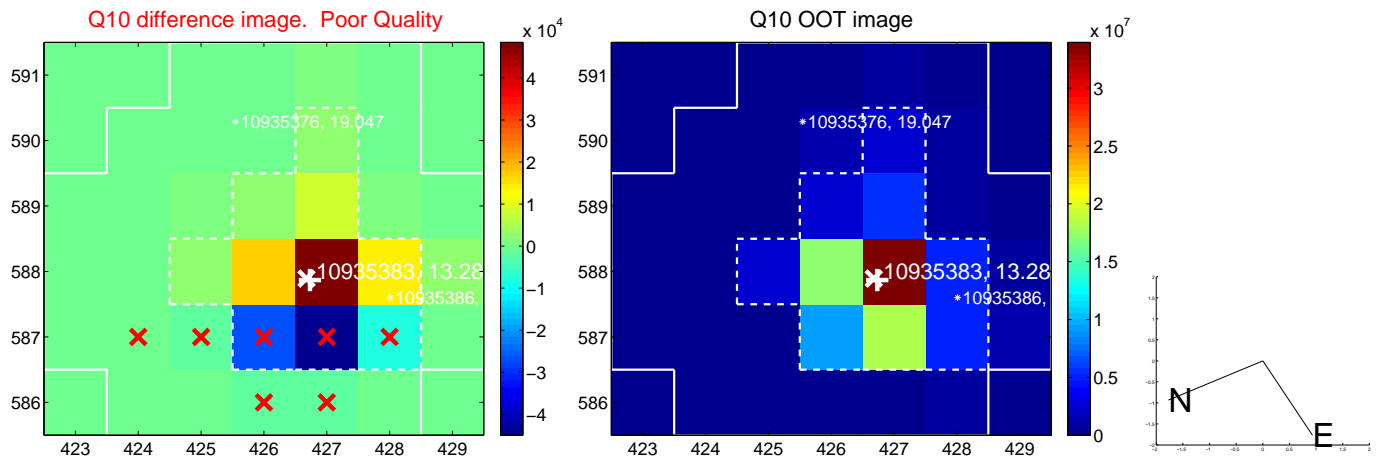
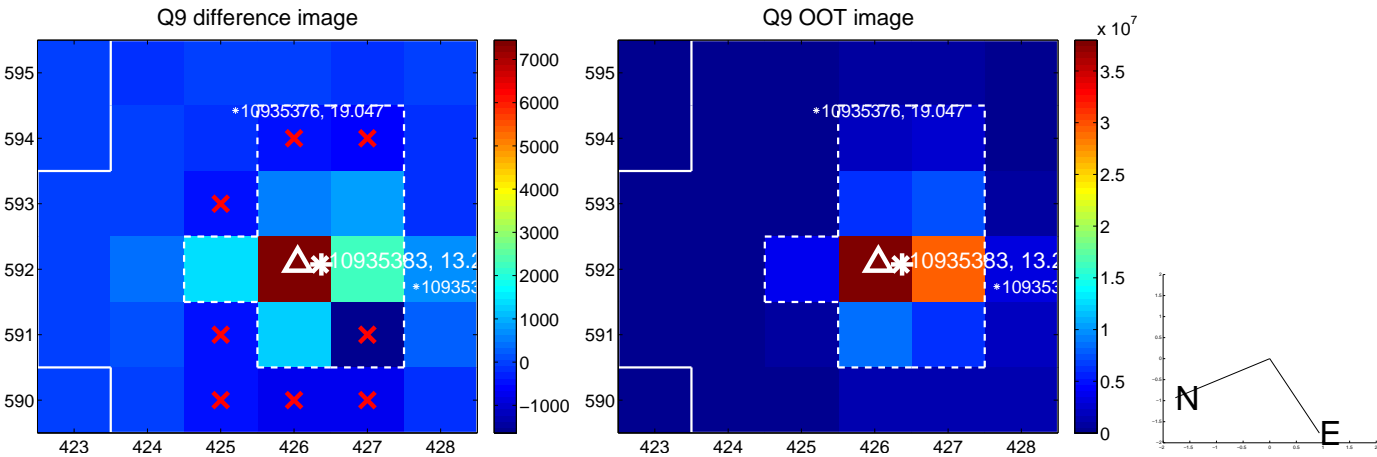


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

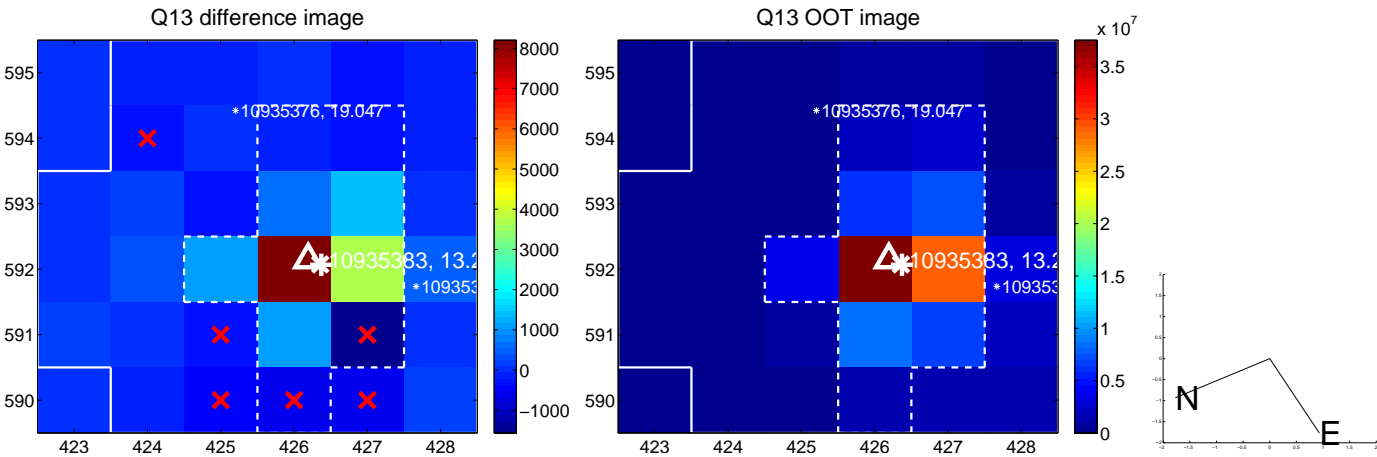




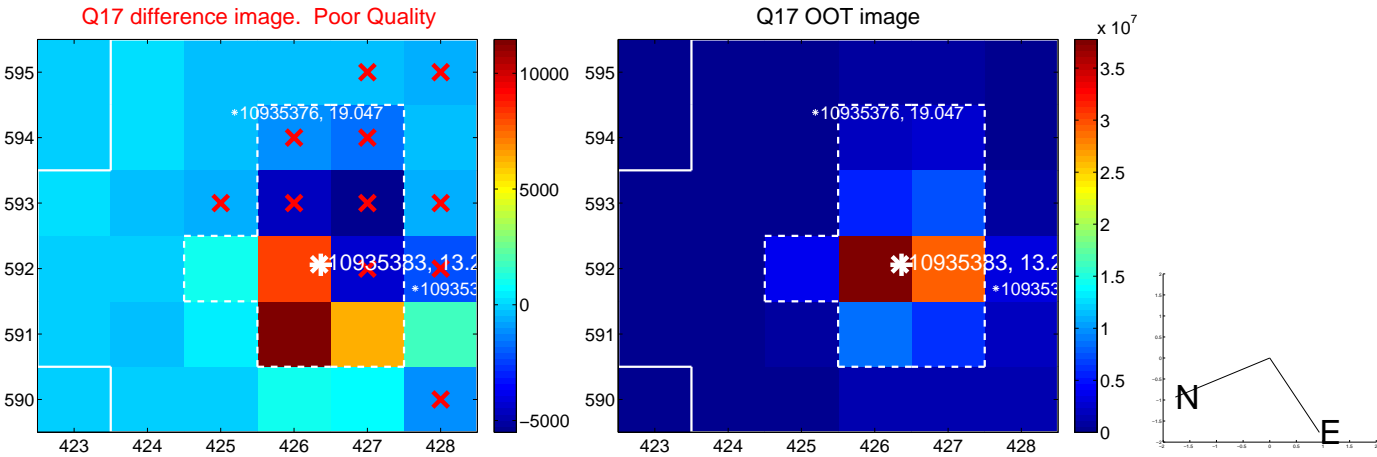
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

