

# KIC 007383764

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007383764-01	OBS	No	1.112803	131.610201	2.9	8.785	8.0	2.7	1.41	6492	0.25	6345.39

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007383764-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

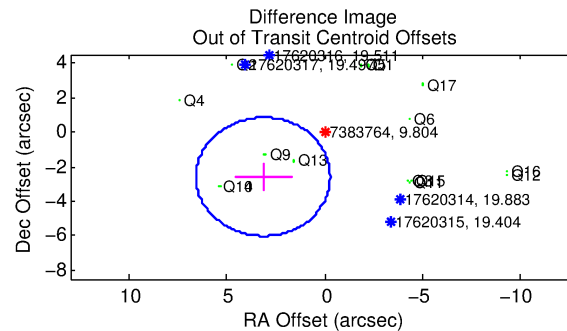
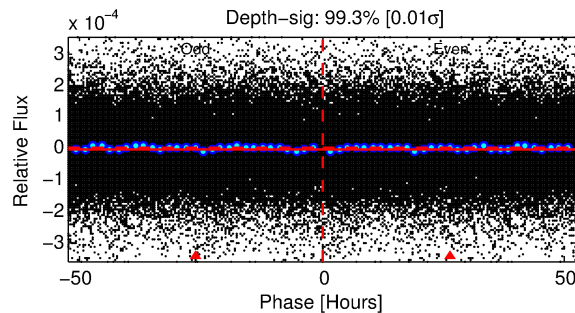
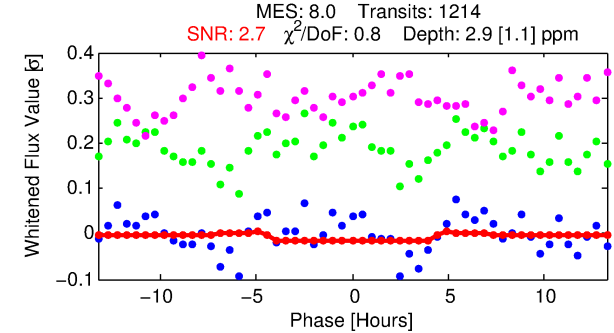
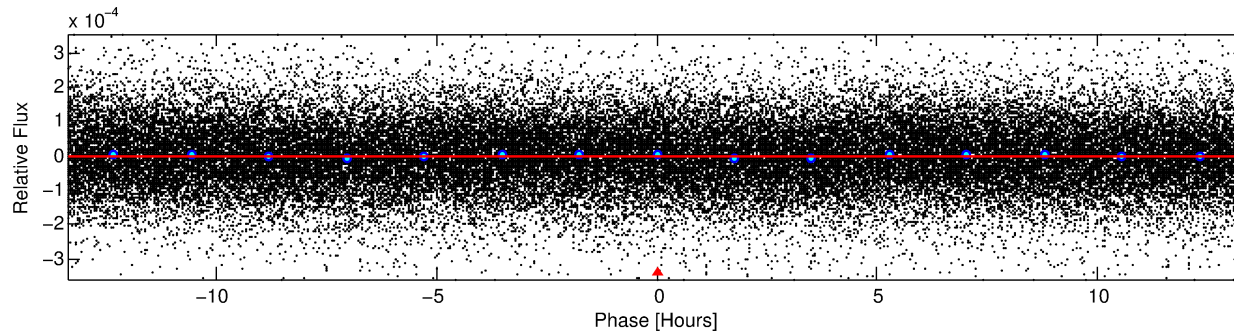
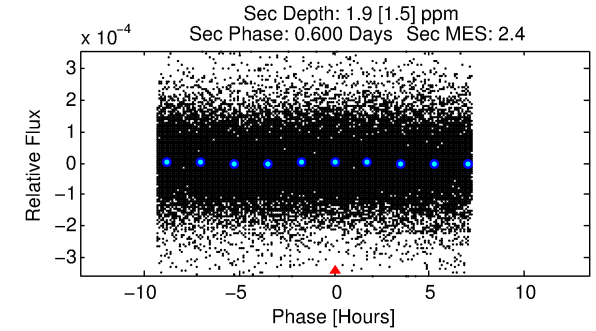
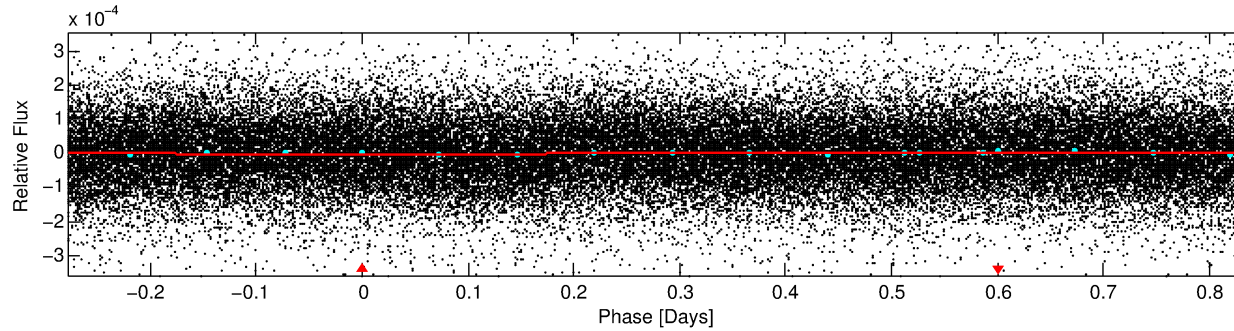
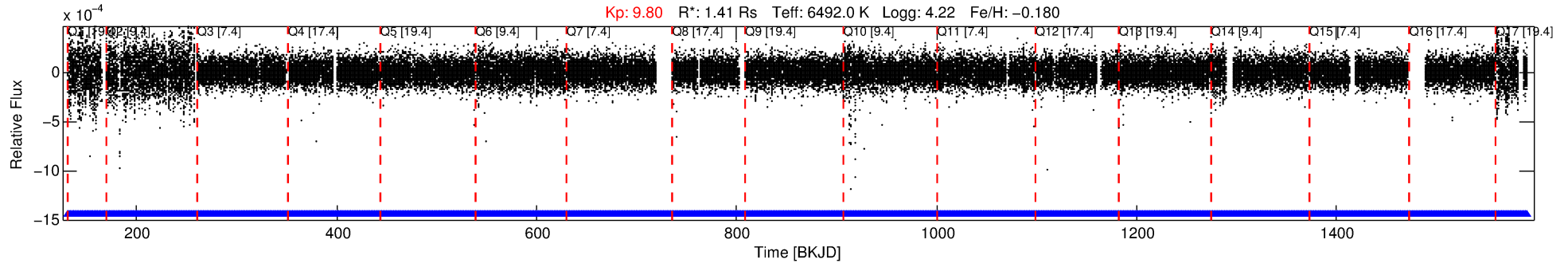
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007383764-01

No Significant Match Found

# DV One-Page Summary

KIC: 7383764 Candidate: 1 of 1 Period: 1.113 d



## DV Fit Results:

Period = 1.11280 [0.00006] d  
Epoch = 131.6102 [0.0170] BKJD  
Rp/R\* = 0.0016 [0.0016]  
a/R\* = 1.11 [1.08]  
b = 0.60 [5.58]  
Seff = 6345.39 [2438.47]  
Teq = 2276 [219] K  
Rp = 0.25 [0.25] Re  
a = 0.0223 [0.0054] AU  
Ag = 8.05 [16.92] [0.42σ]  
Teffp = 5928 [3077] K [1.18σ]

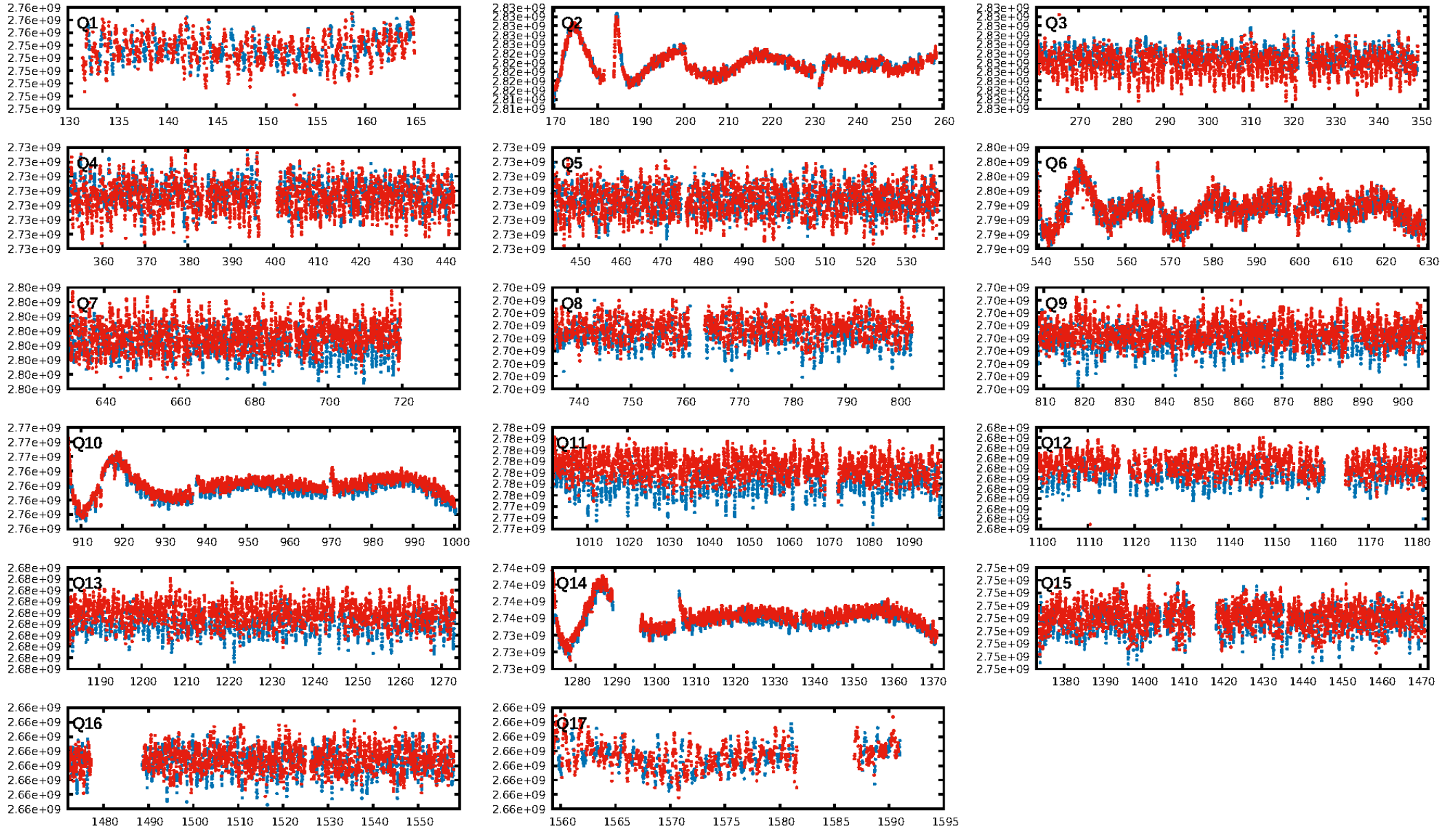
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [1158/1158]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 4.066 arcsec [3.56σ]  
KicOffset-rm: 5.650 arcsec [4.75σ]  
OotOffset-st: 4/3/3/5 [15]  
KicOffset-st: 4/3/3/5 [15]  
DiffImageQuality-fgm: 0.07 [1/15]  
DiffImageOverlap-fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:14:44 Z

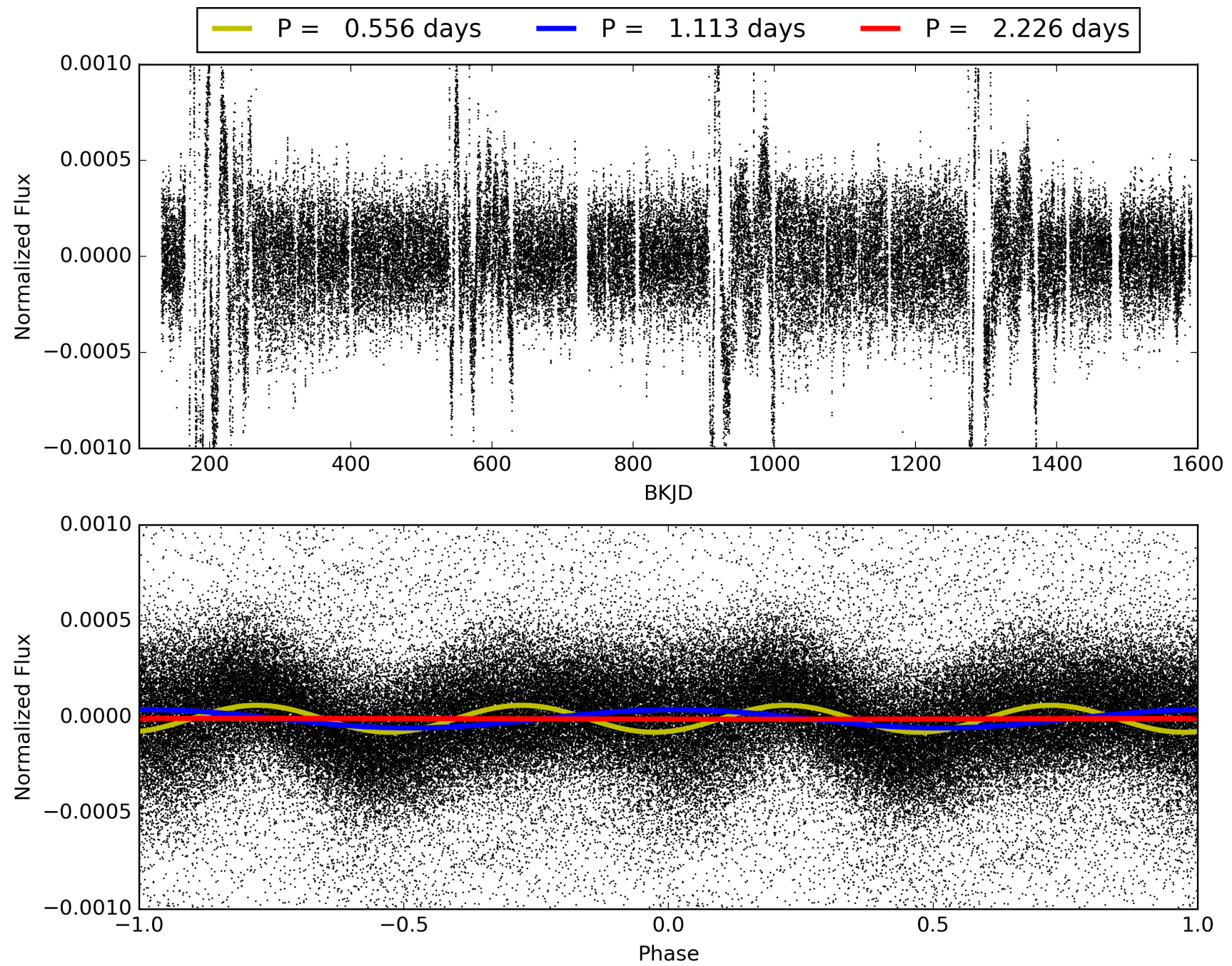
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 007383764-01, PDC Light Curves



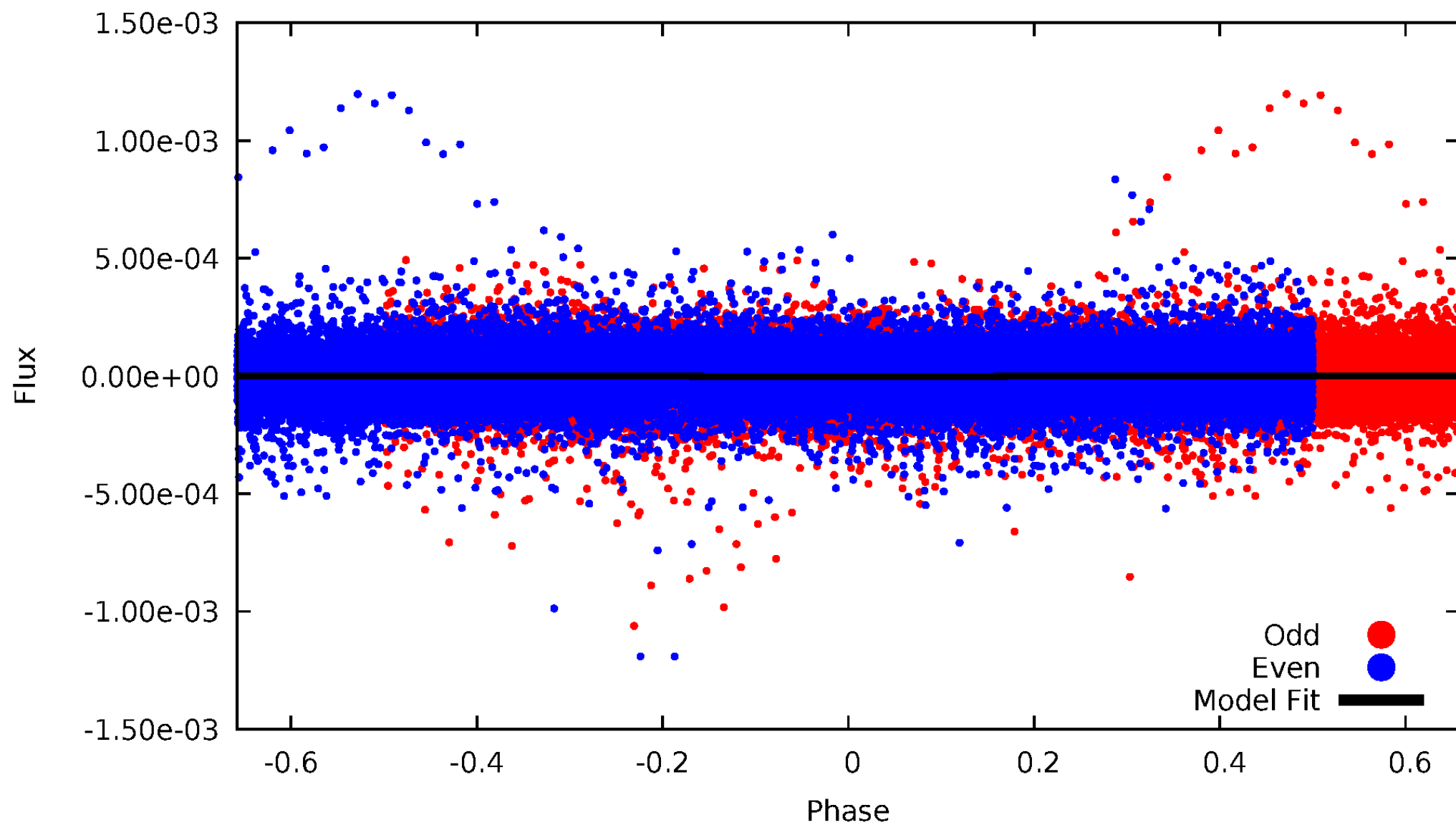


TCE 007383764-01



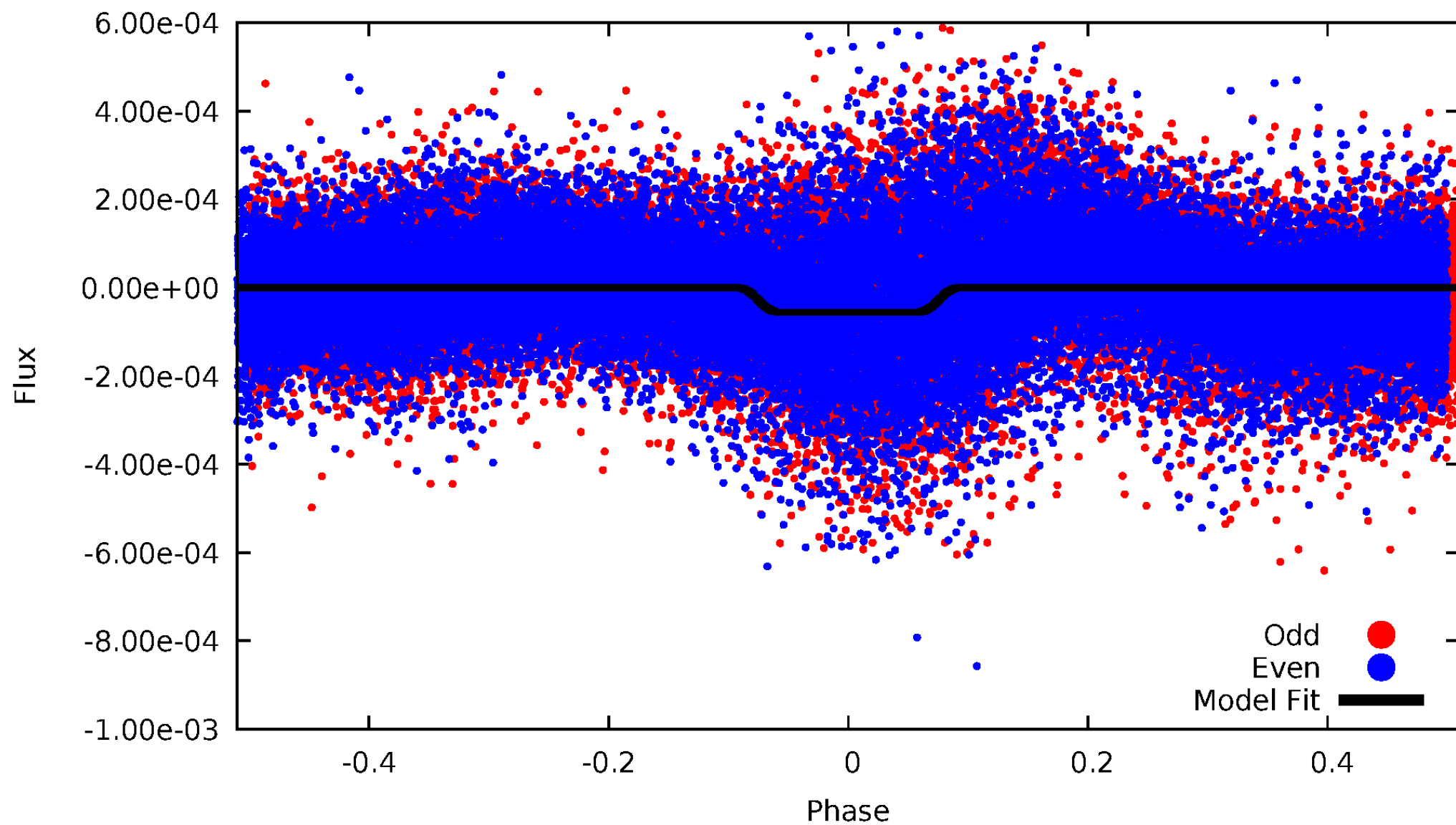
# DV Odd/Even

TCE 007383764-01



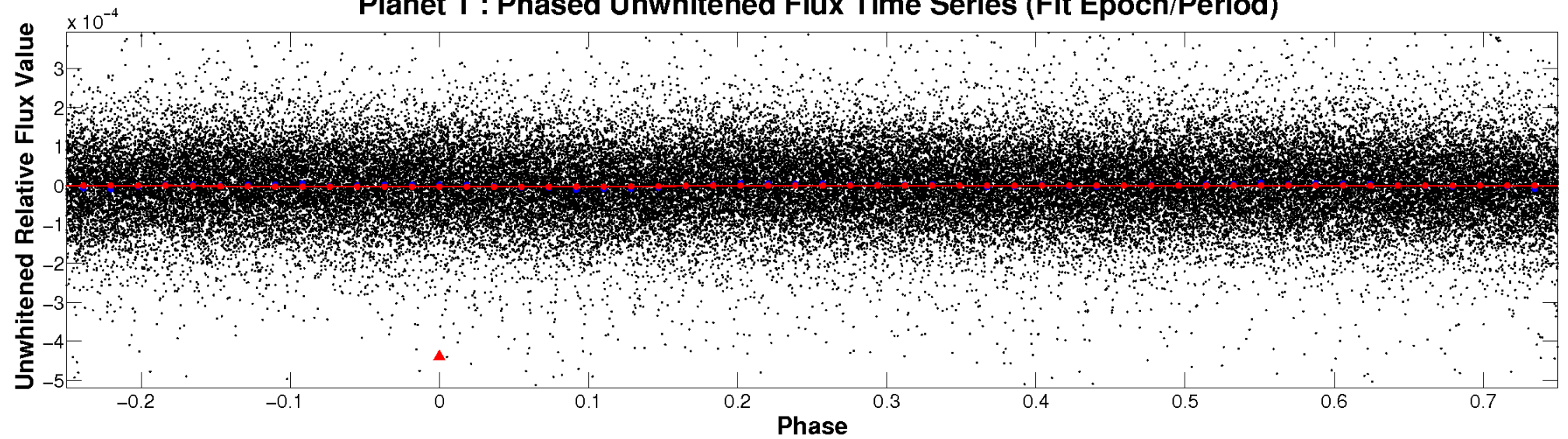
# ALT Odd/Even

TCE 007383764-01

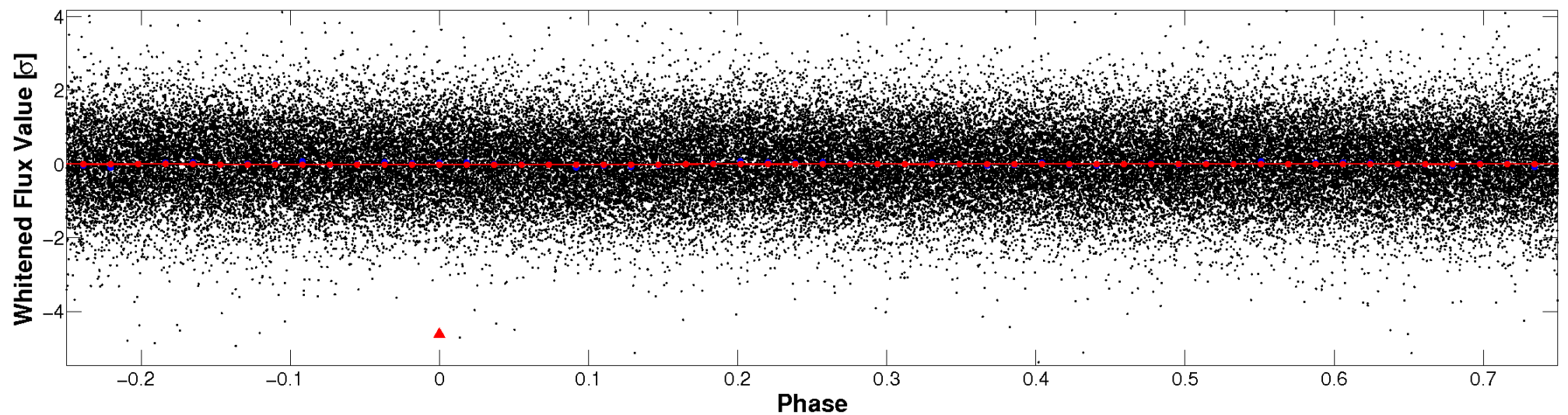


# Non-Whitened Vs. Whitened Light Curve

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



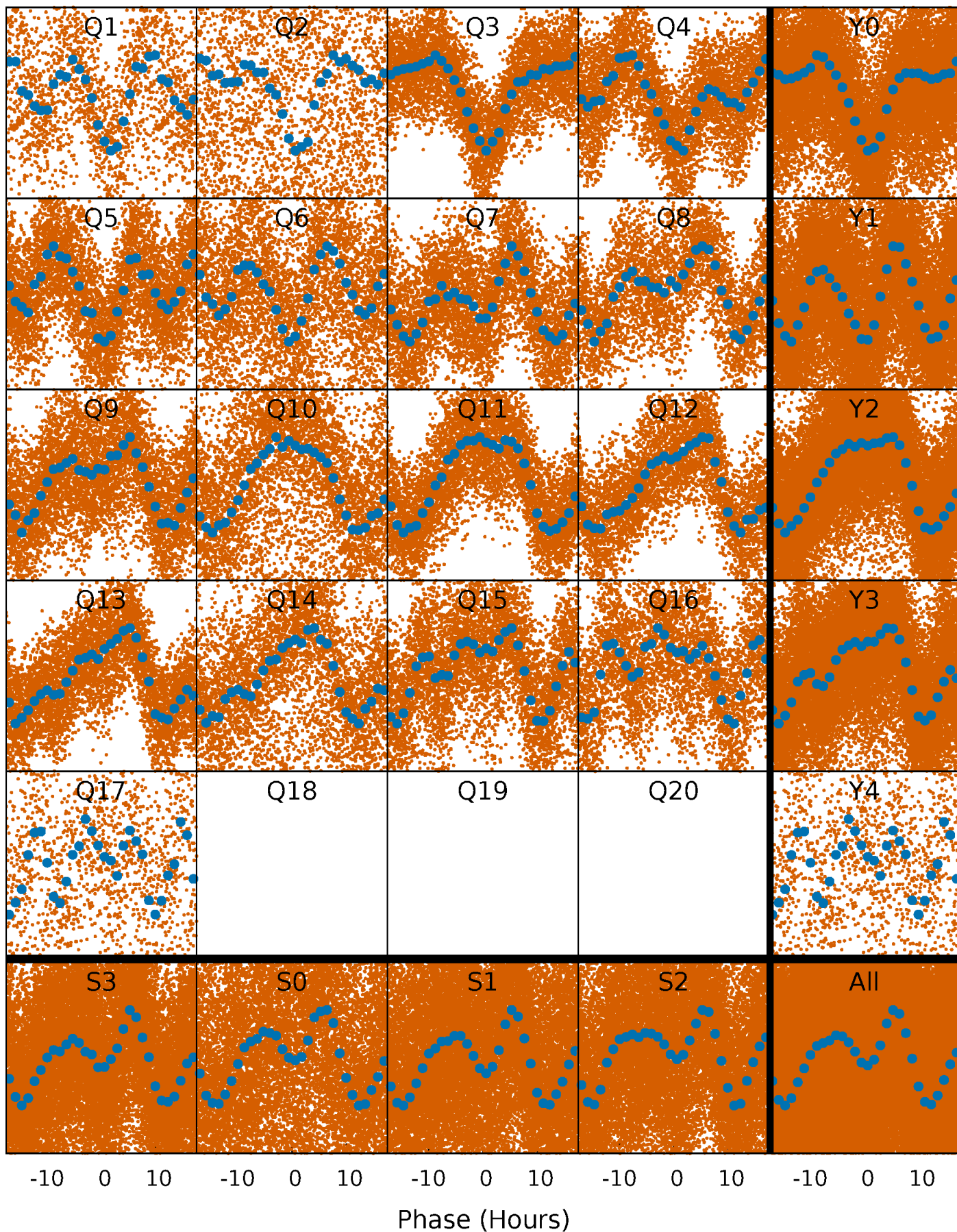
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

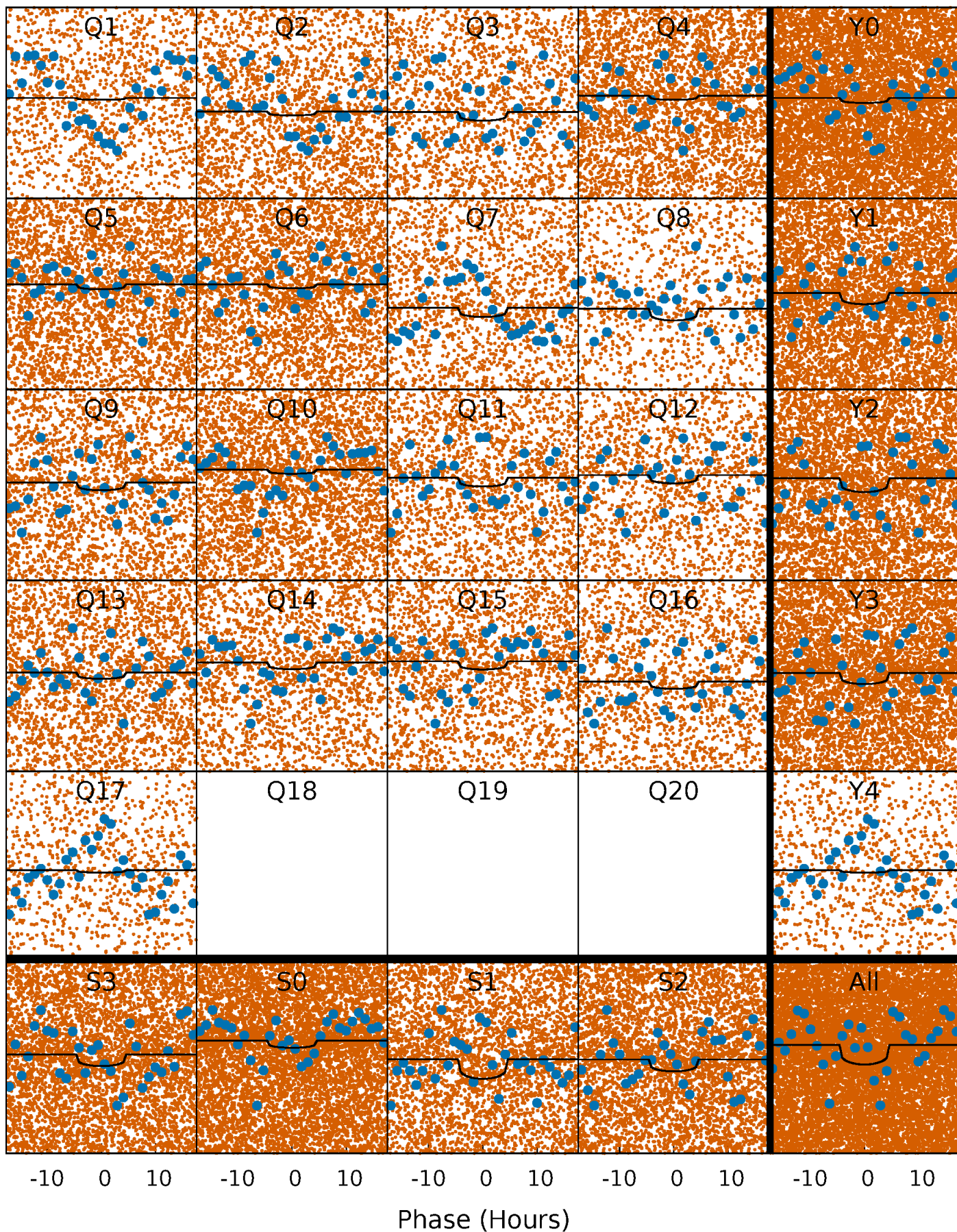
TCE 007383764-01 P= 1.112803 Days  $T_0=131.610201$  (BKJD)





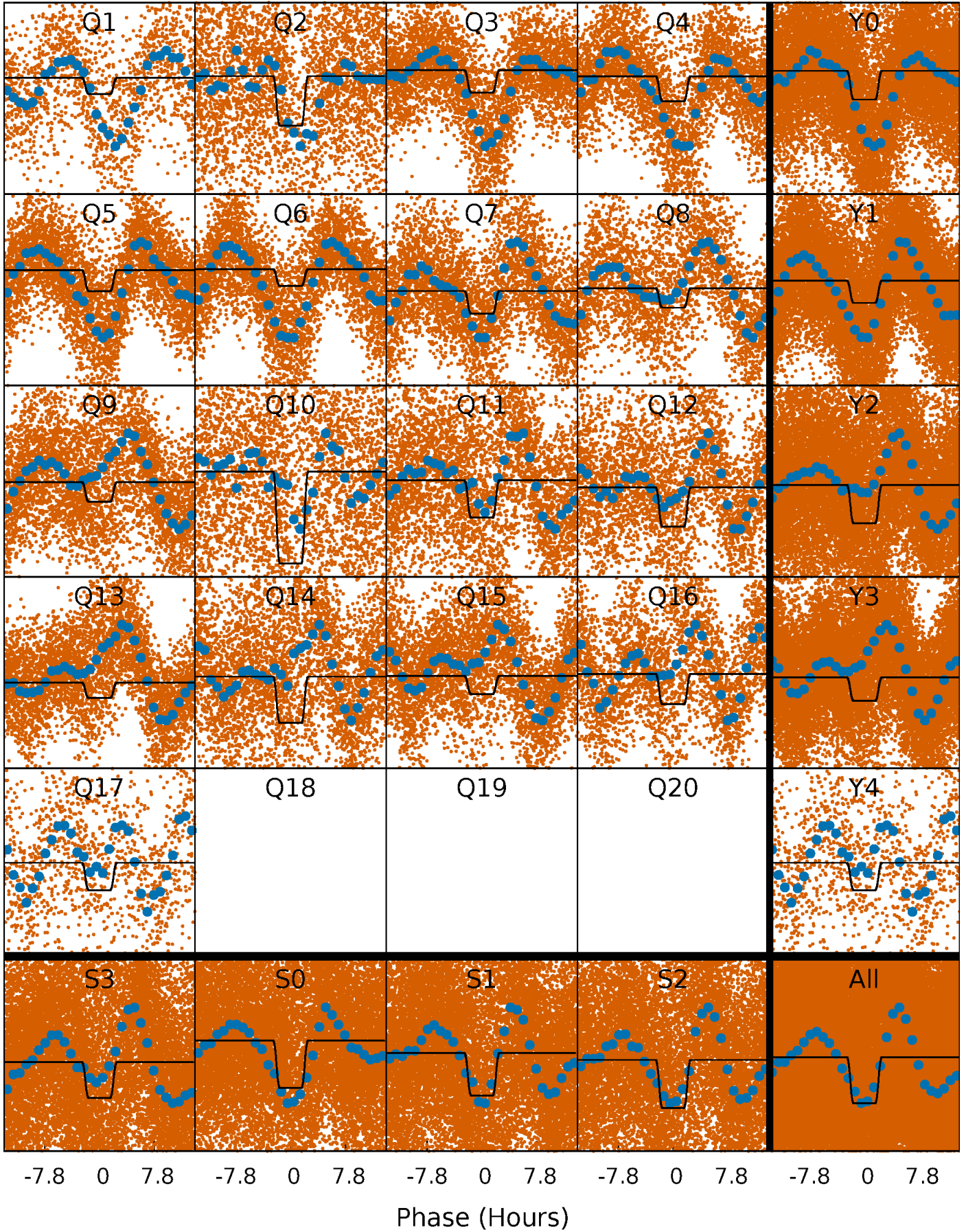
# DV Quarter-Phased Transit Curves

TCE 007383764-01 P= 1.112803 Days  $T_0=131.610201$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 007383764-01 P= 1.112910 Days  $T_0=131.583952$  (BKJD)

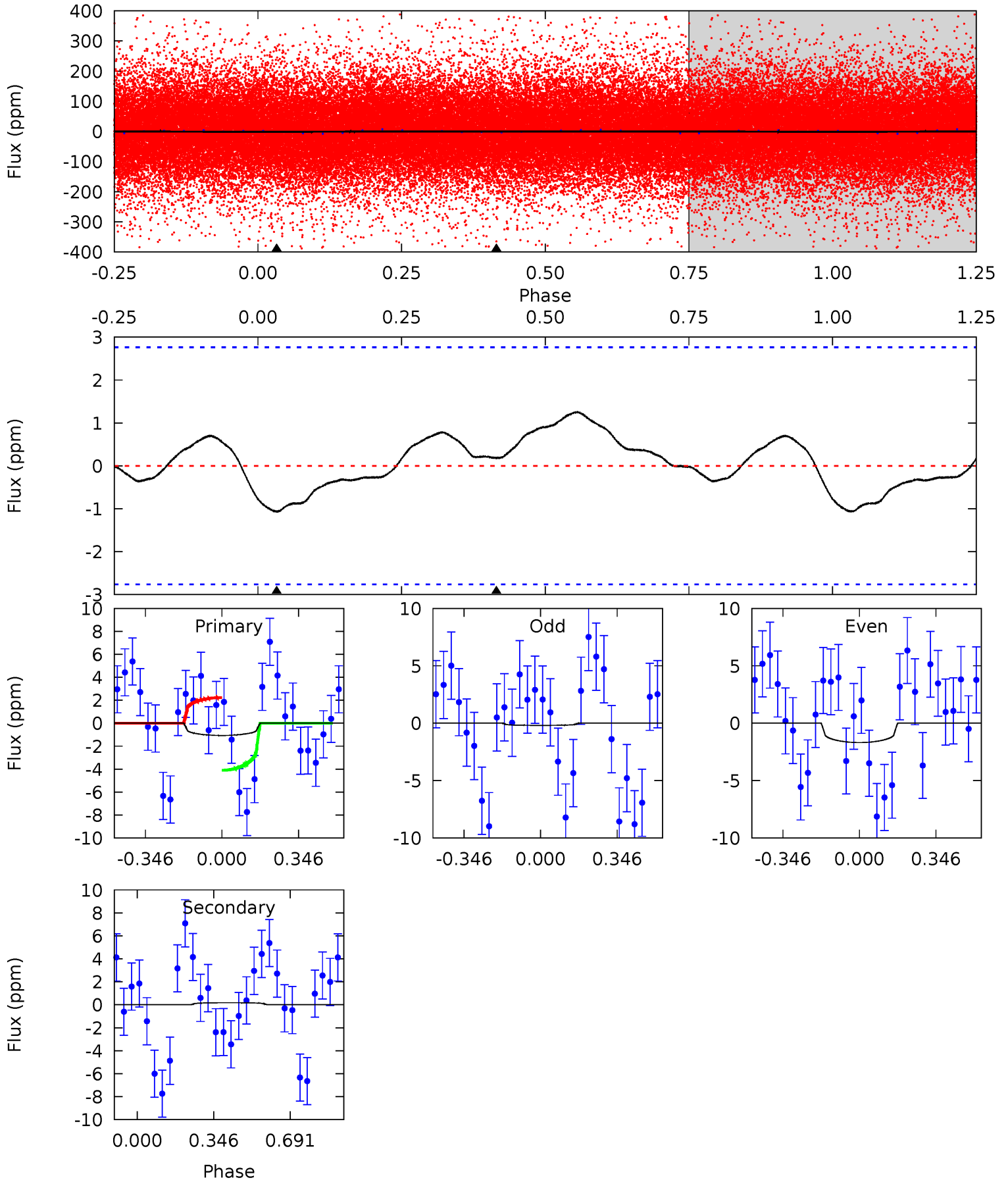




# DV Model-Shift Uniqueness Test

007383764-01, P = 1.112803 Days, E = 130.497398 Days

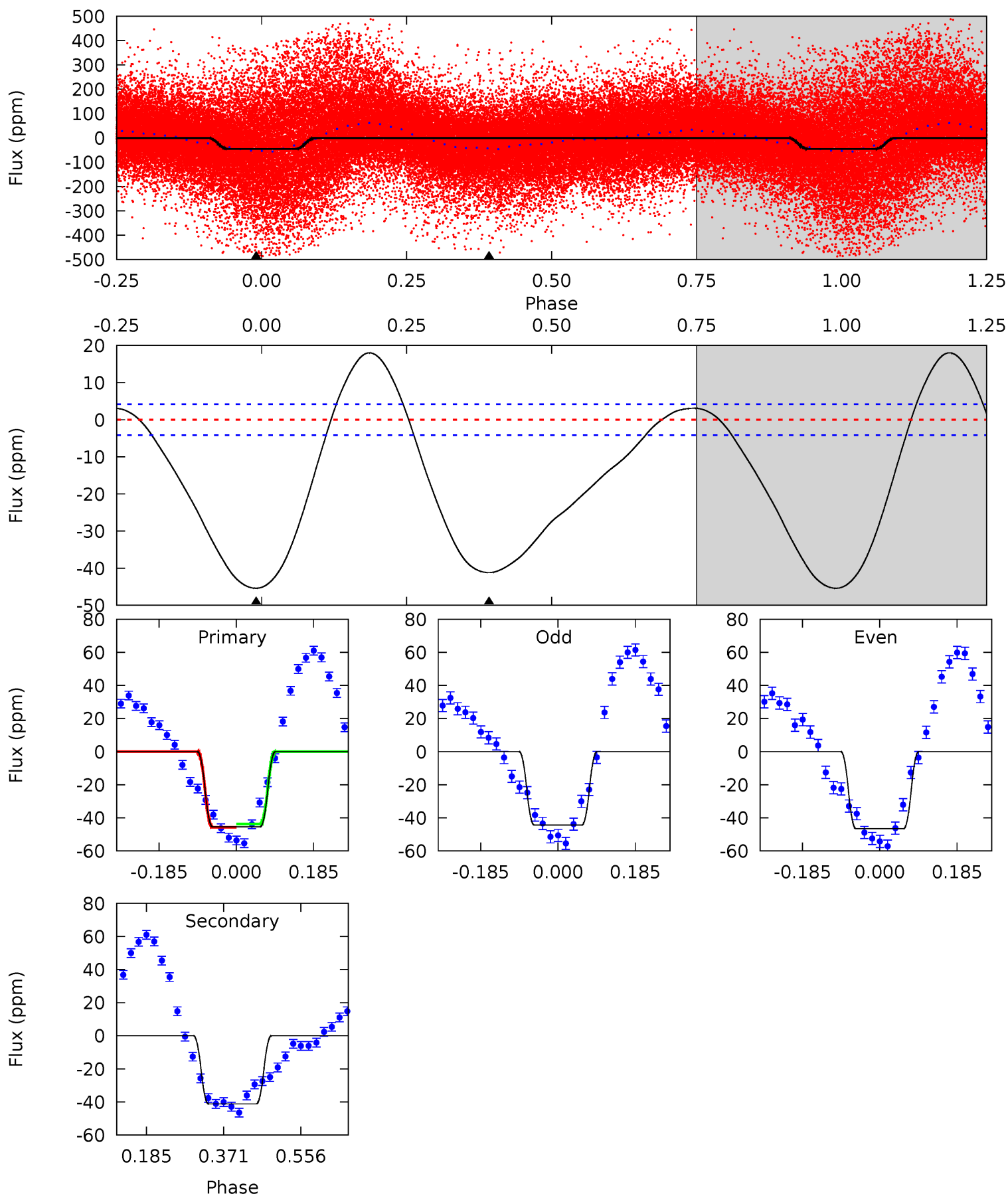
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.66	-0.28	0	0	4.30	0.94	0.25	1.66	1.66	-0.28	-0.28	1.19	0.82	0.54	1.49



# Alt Model-Shift Uniqueness Test

007383764-01, P = 1.112910 Days, E = 130.471042 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
48.2	43.7	0	0	4.43	1.32	9.52	48.2	48.2	43.7	43.7	1.19	1.12	0.28	0.81





### Stellar Parameters For KIC 007383764

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6492^{+181}_{-250}$	$4.218^{+0.158}_{-0.193}$	$-0.180^{+0.250}_{-0.300}$	$1.409^{+0.402}_{-0.329}$	$1.199^{+0.188}_{-0.188}$	$0.604^{+0.549}_{-0.285}$
	+3%/-4%	+4%/-5%	+139%/-167%	+29%/-23%	+16%/-16%	+91%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 007383764-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 1$	$0.30^{+0.25}_{-0.18}$	$3187^{+256}_{-215}$	$-3674^{+7506}_{-1811}$	$-0.414^{+1.639}_{-4.902}$
Alt.	$-41 \pm 1$	$1.14^{+0.34}_{-0.27}$	$3198^{+252}_{-219}$	$5990^{+740}_{-594}$	$8.745^{+5.543}_{-3.593}$

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

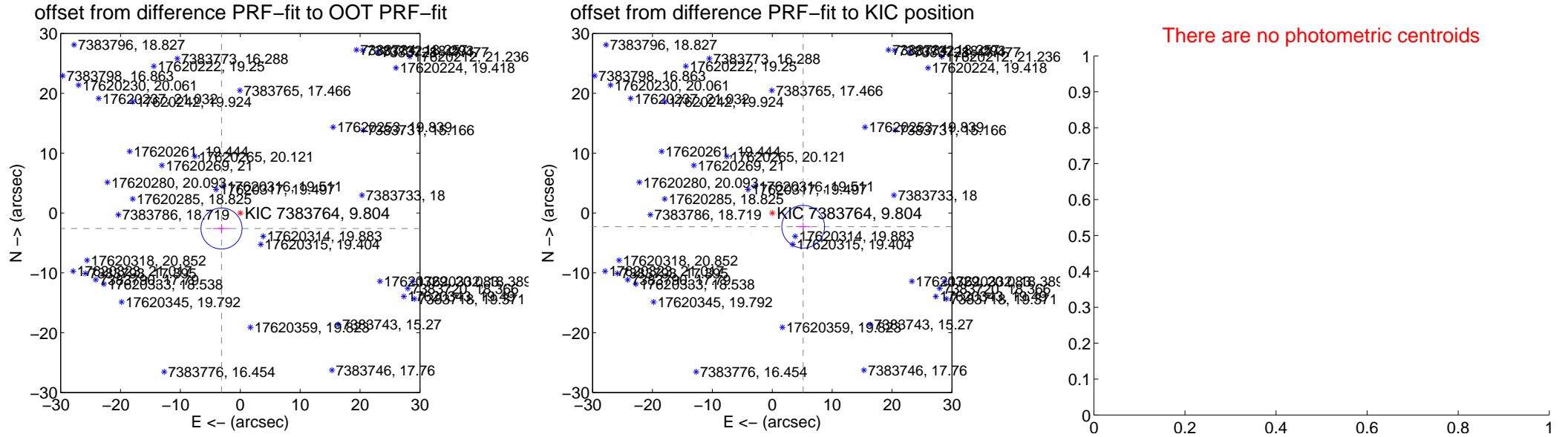
## DV Centroid Data

Supplemental centroid analysis for 007383764-01. **Kepler magnitude: 9.80.** Transit SNR 2.68

**There are 1 quarters with good PRF difference image offsets**

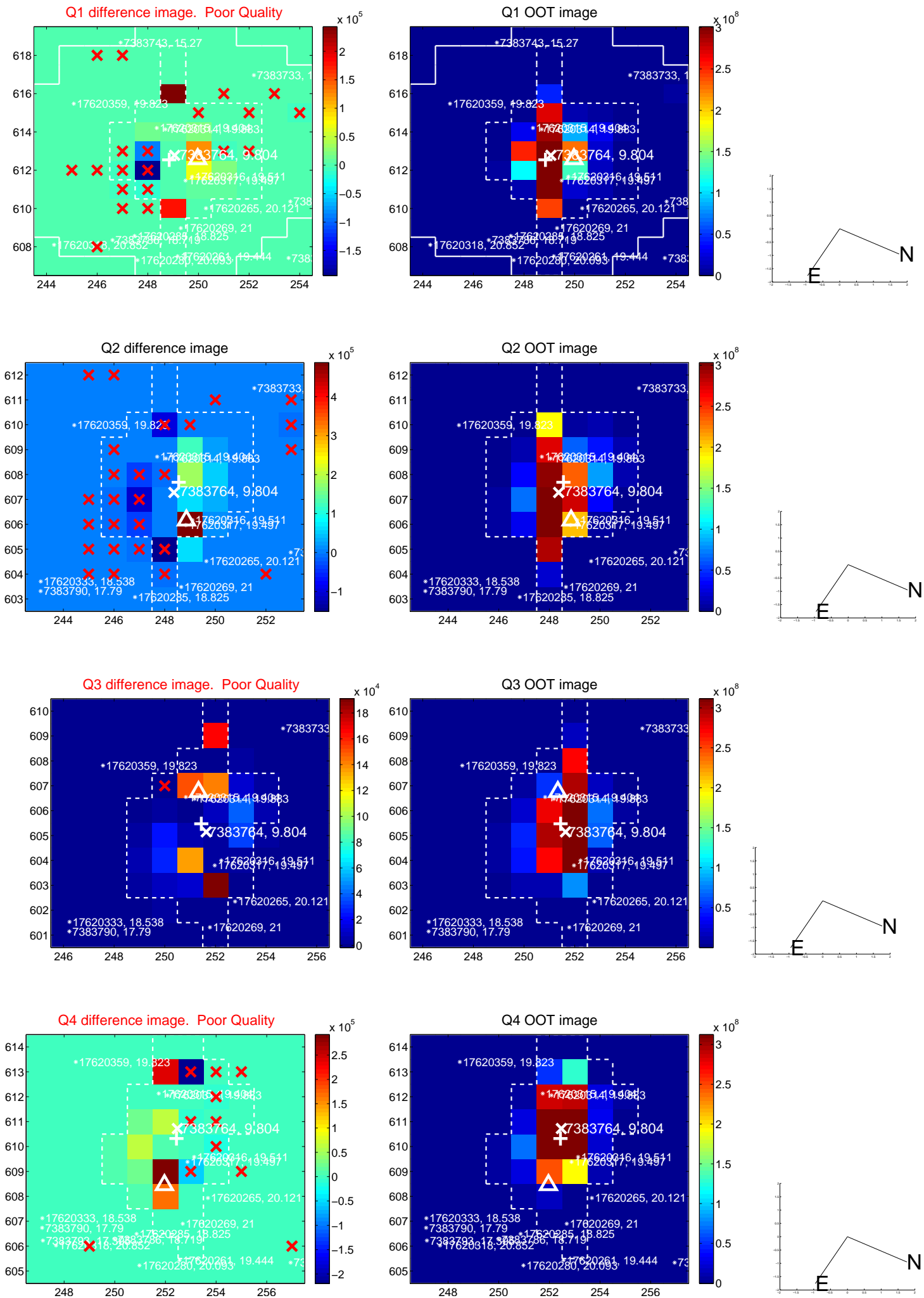
The direct PRF centroid is offset from the target star catalog position by about 1.21 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b><math>4.066 \pm 1.144</math></b>	<b>3.56</b>	$3.136 \pm 1.450$	$-2.587 \pm 0.737$
PRF-fit source offset from KIC position	<b><math>5.650 \pm 1.189</math></b>	<b>4.75</b>	$-5.165 \pm 1.198$	$-2.288 \pm 0.710$
photometric centroid source offset	—	—	—	—

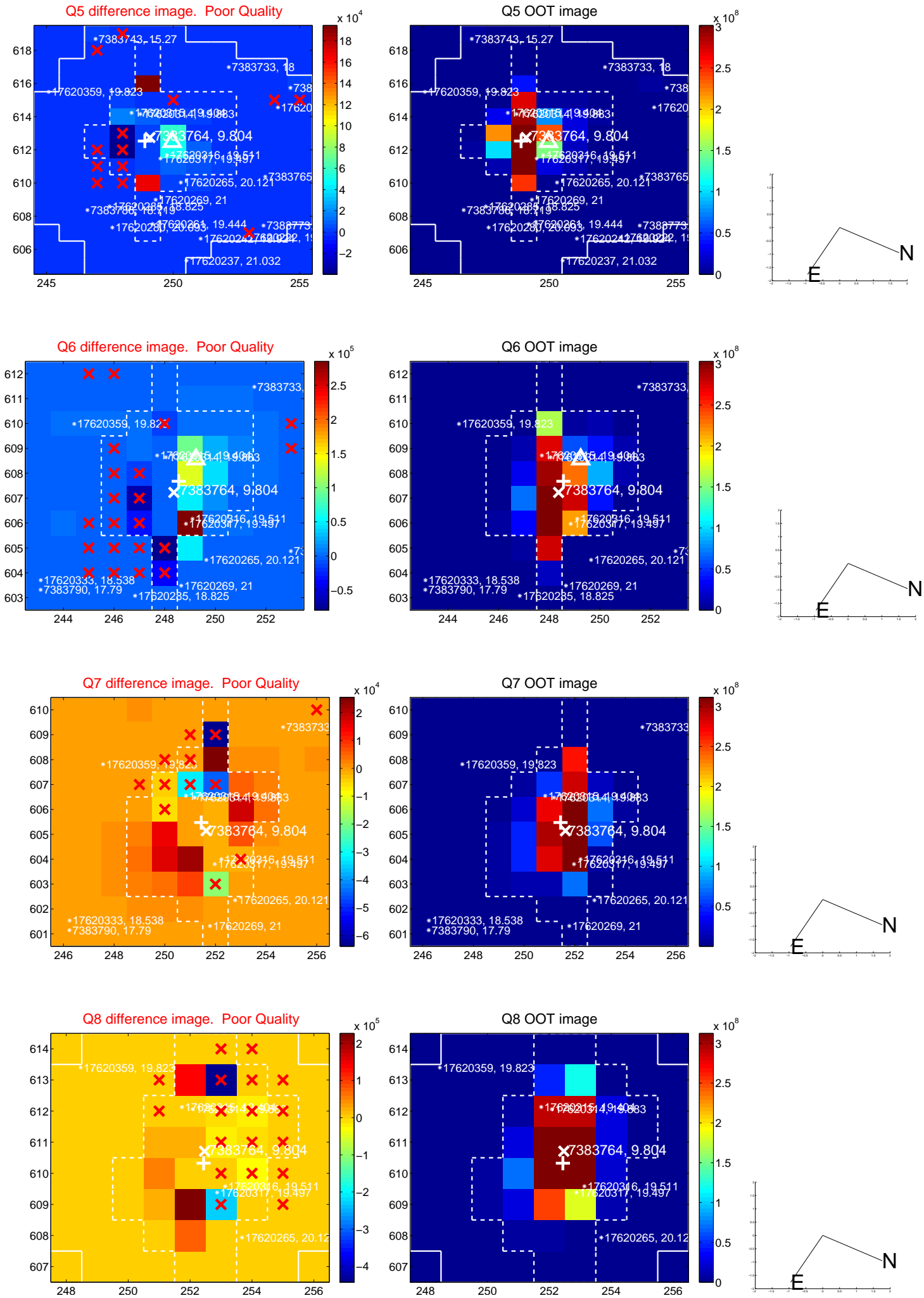


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

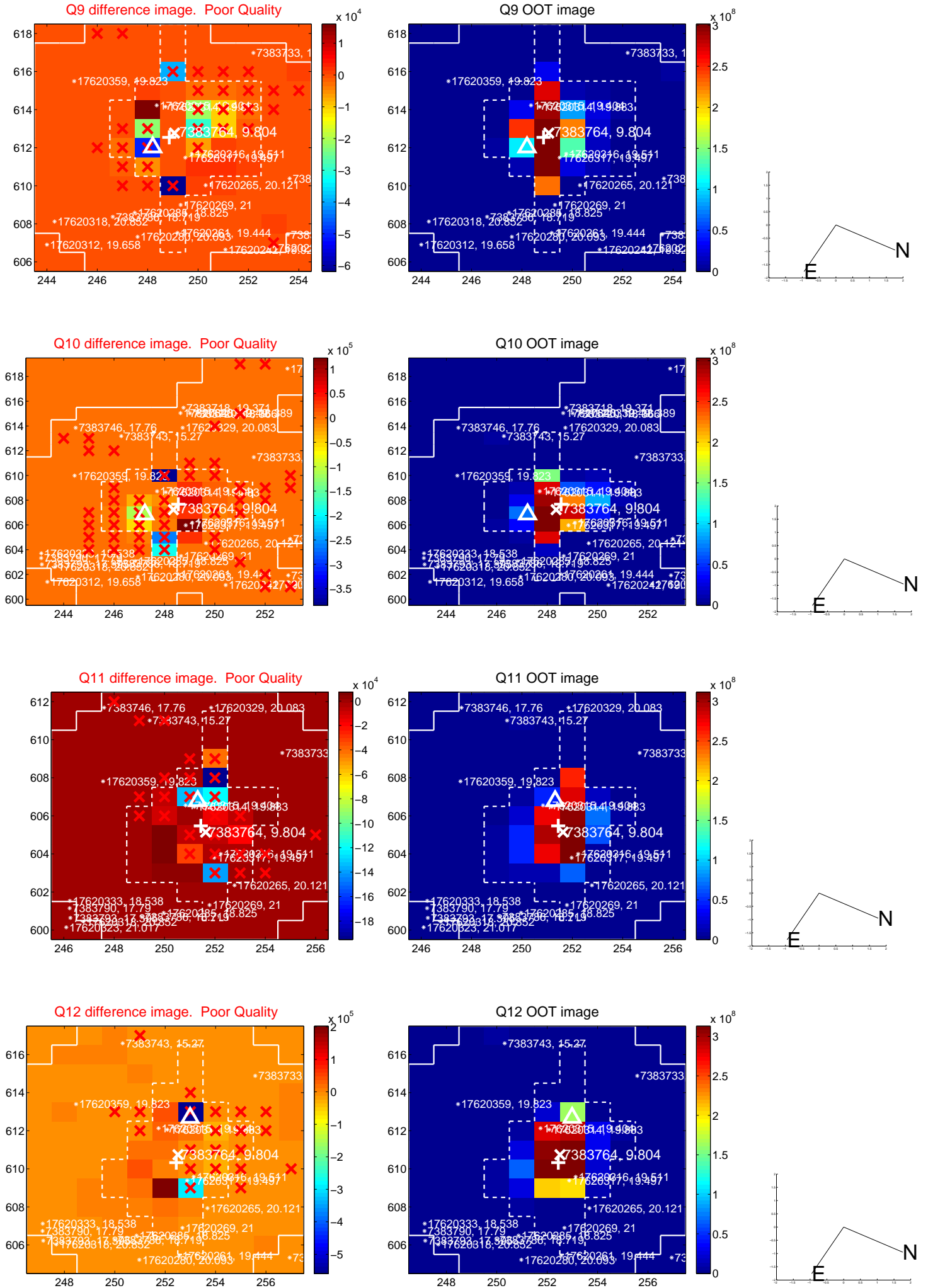


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

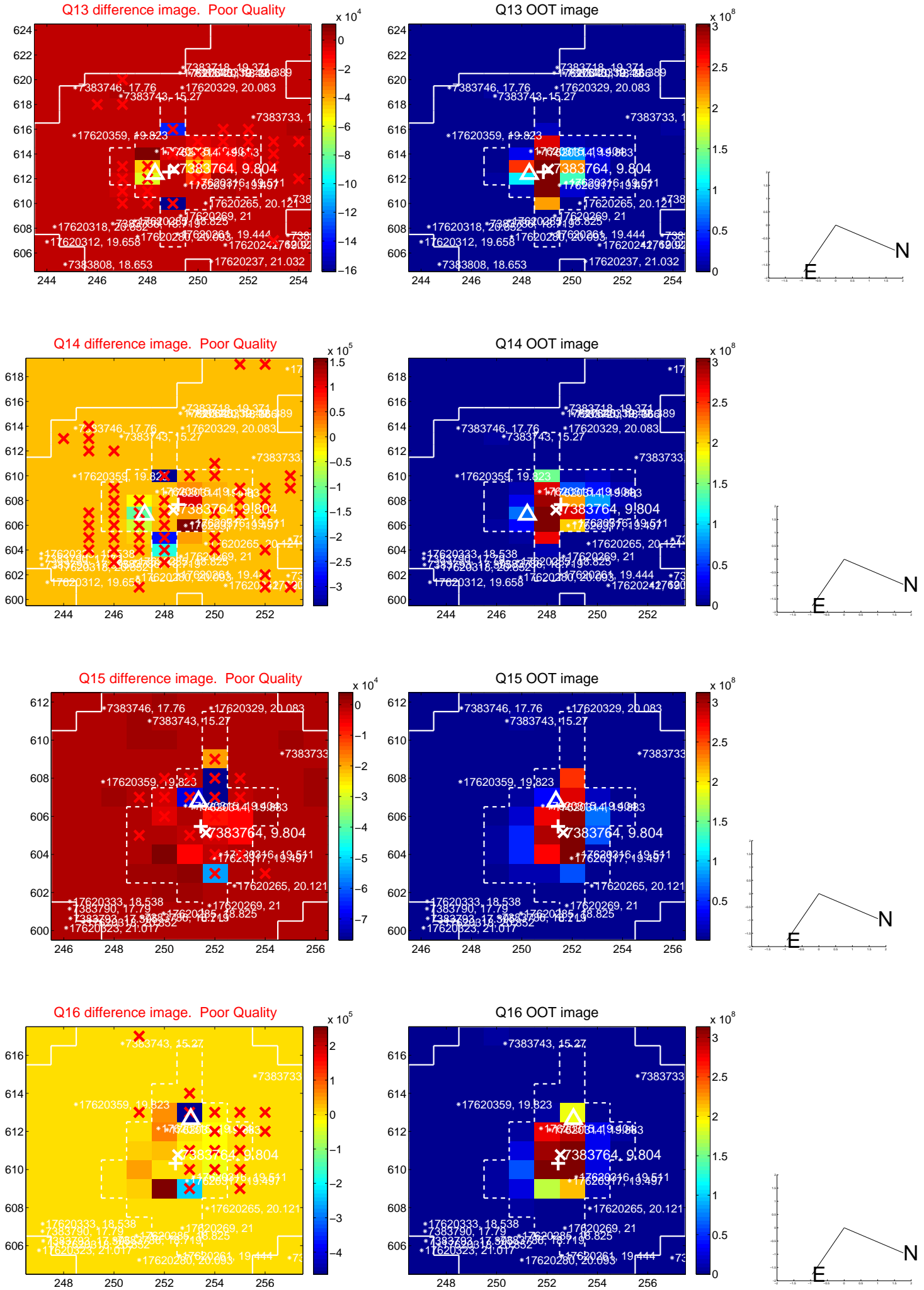




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



folded centroid time series figure for this object.



UKIRT Image

