

# KIC 011766583

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011766583-01	OBS	No	442.973790	345.722777	130.1	26.491	7.9	1.6	0.82	5561	1.10	0.47

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011766583-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

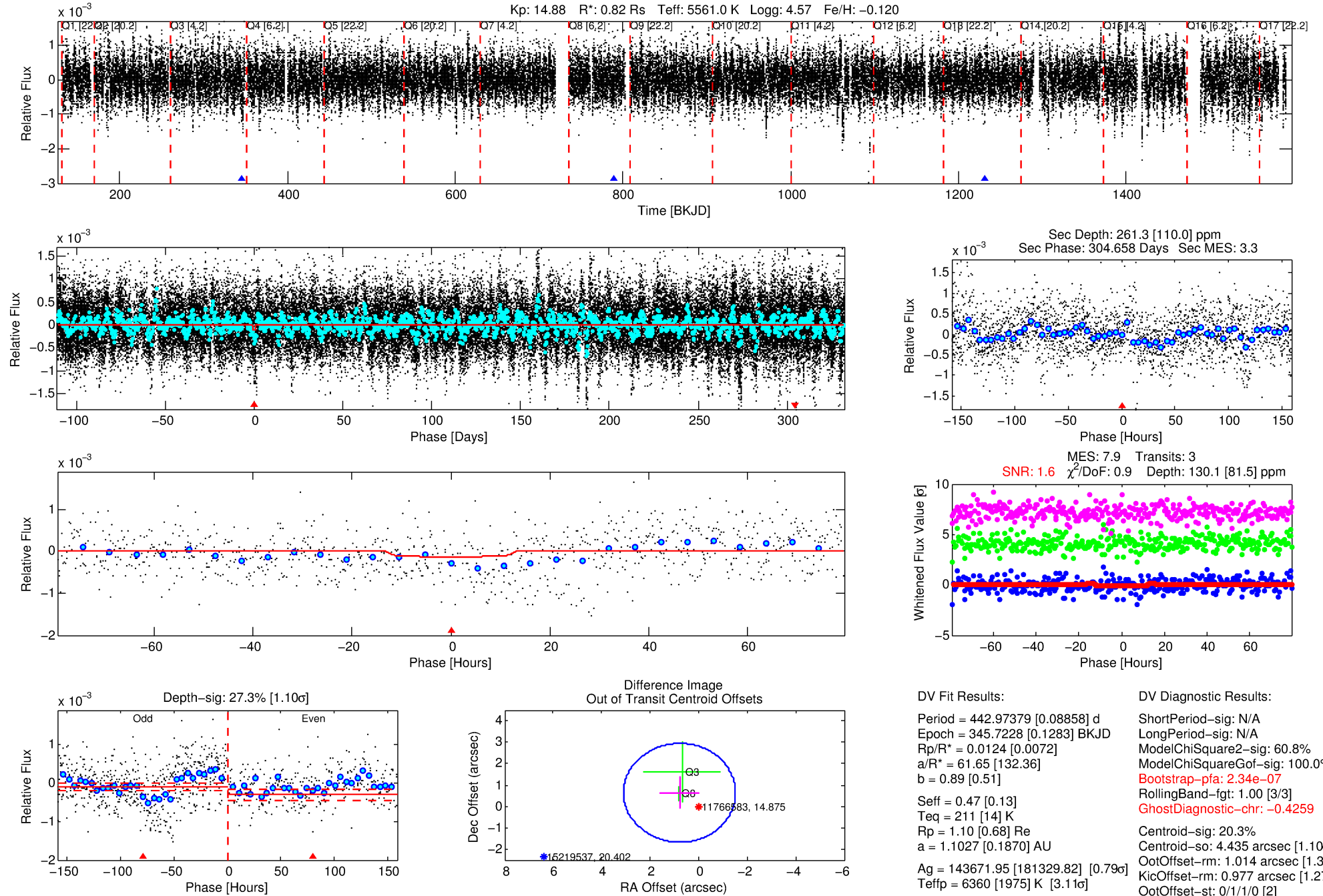
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011766583-01

No Significant Match Found

# DV One-Page Summary

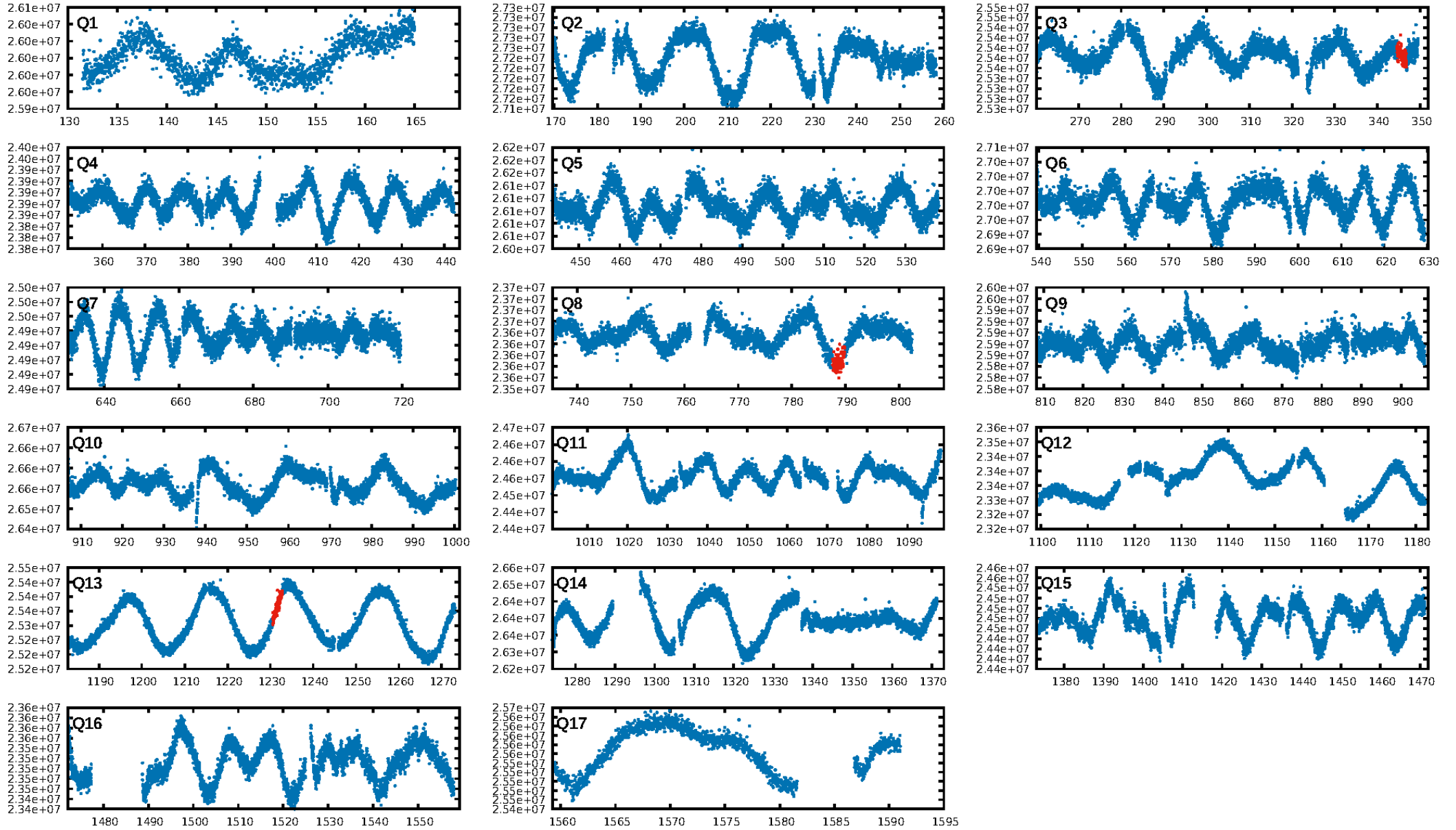
KIC: 11766583 Candidate: 1 of 1 Period: 442.974 d



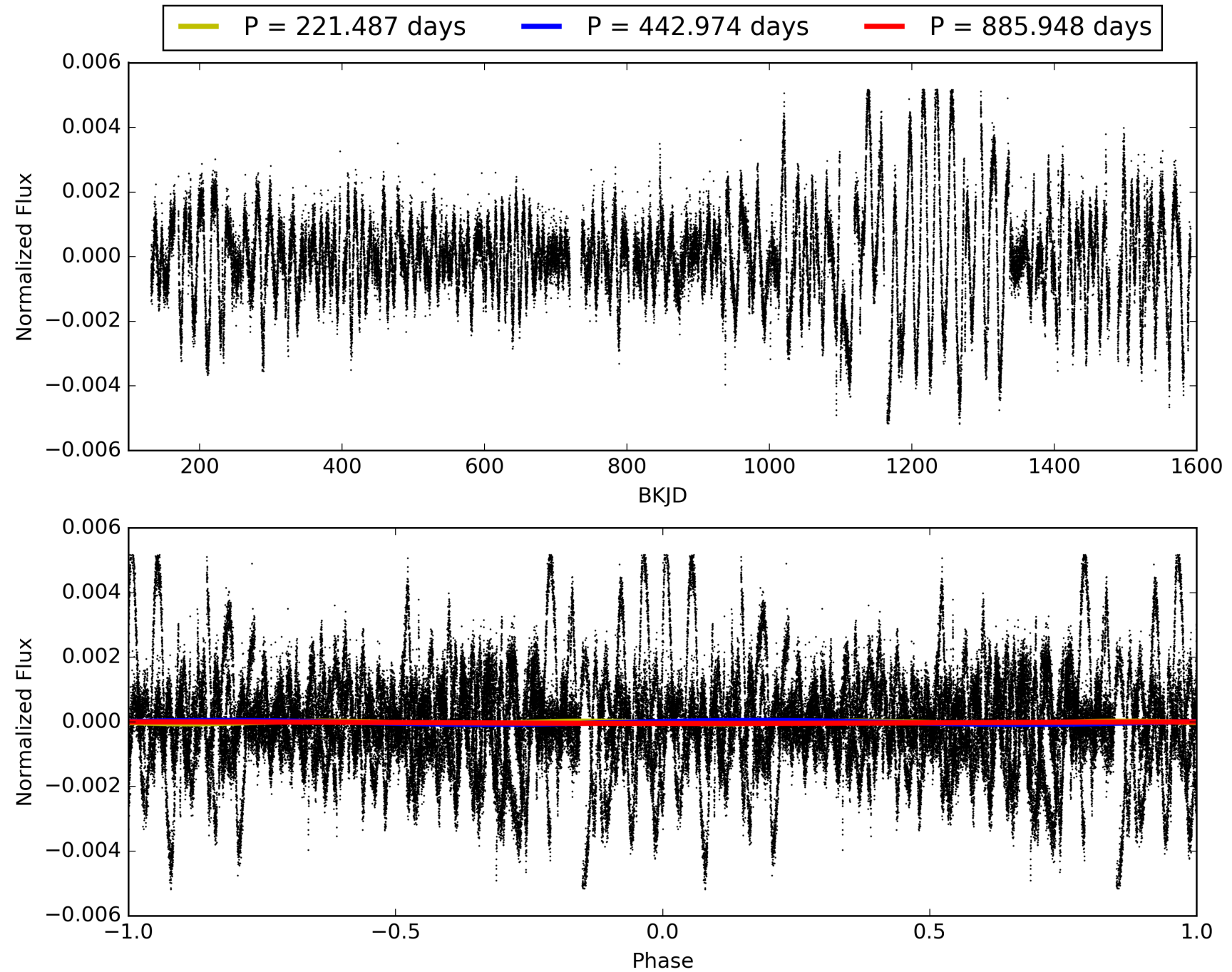
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:32:22 Z

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

# TCE 011766583-01, PDC Light Curves

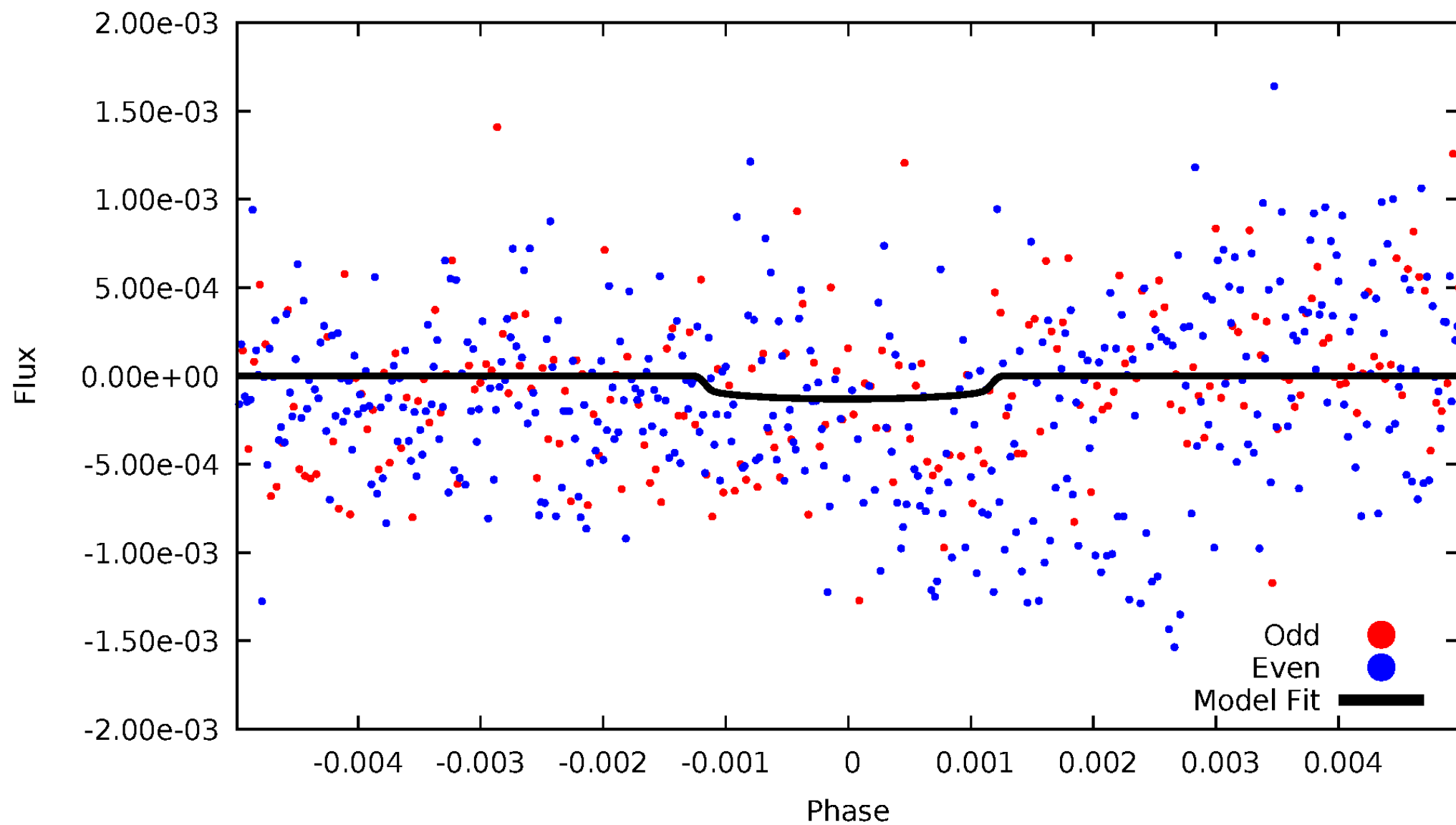


# TCE 011766583-01



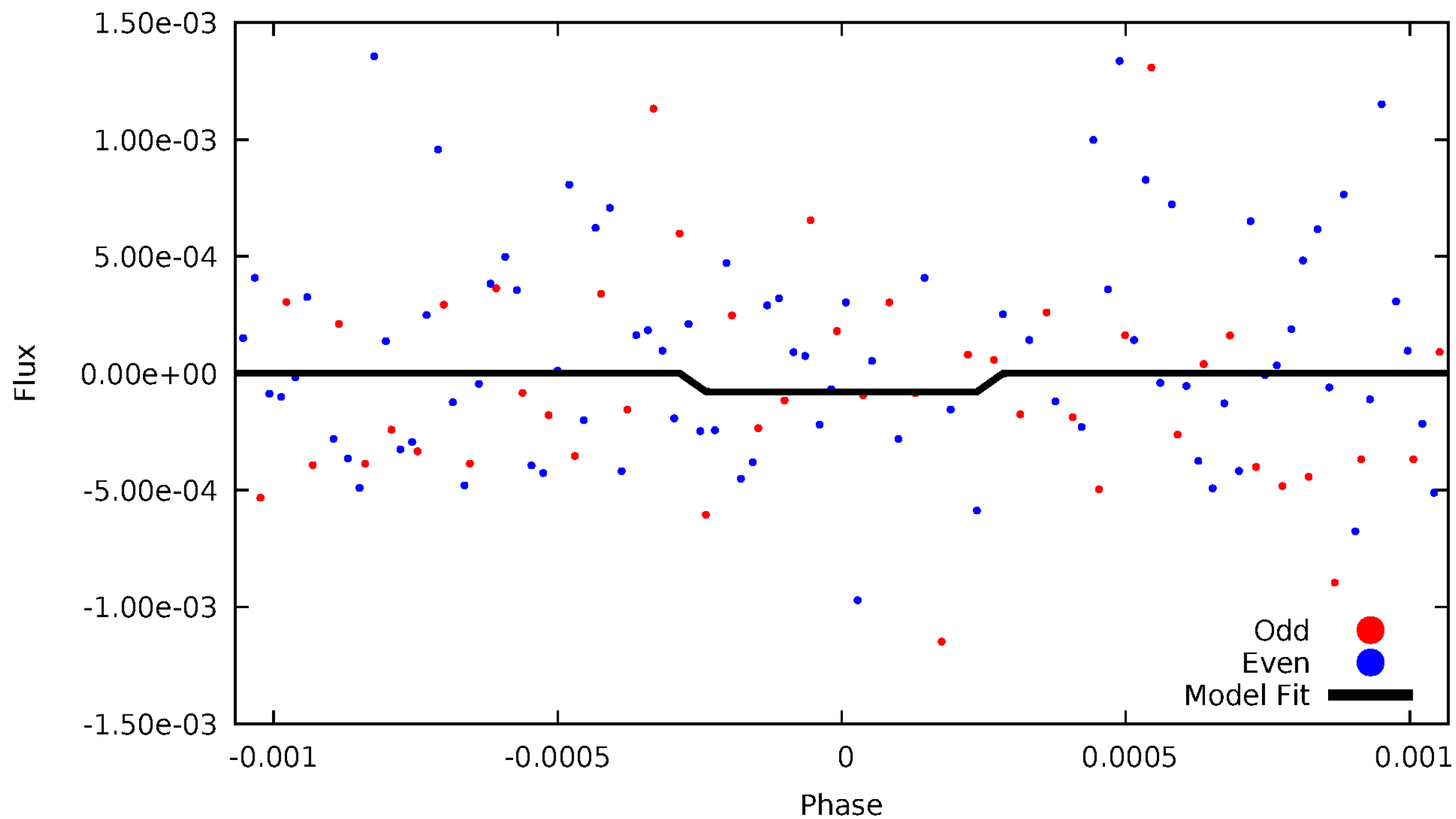
# DV Odd/Even

TCE 011766583-01



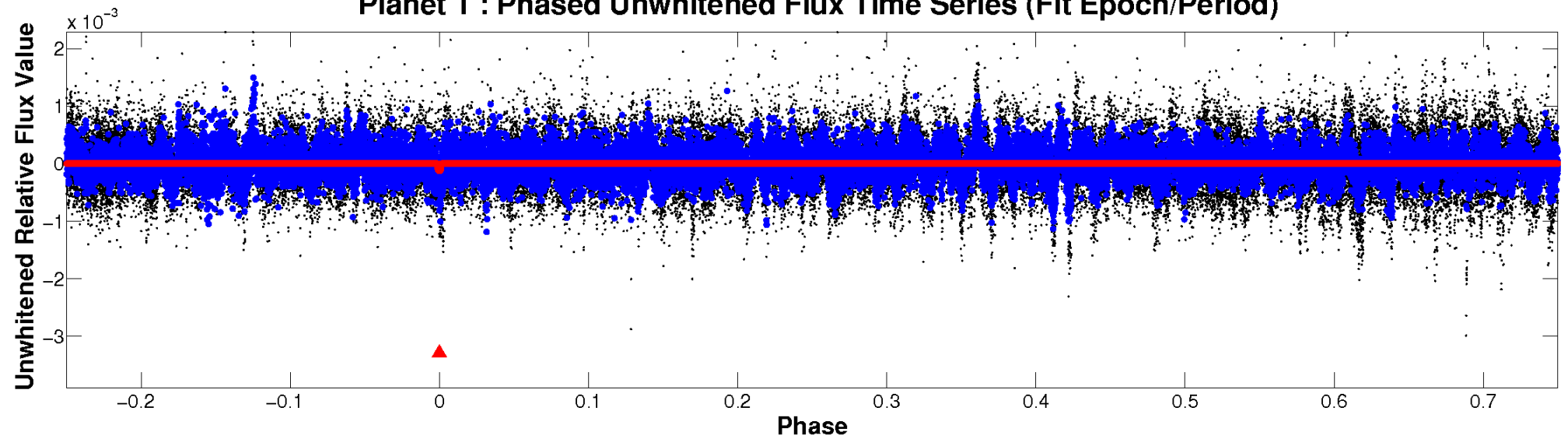
# ALT Odd/Even

TCE 011766583-01

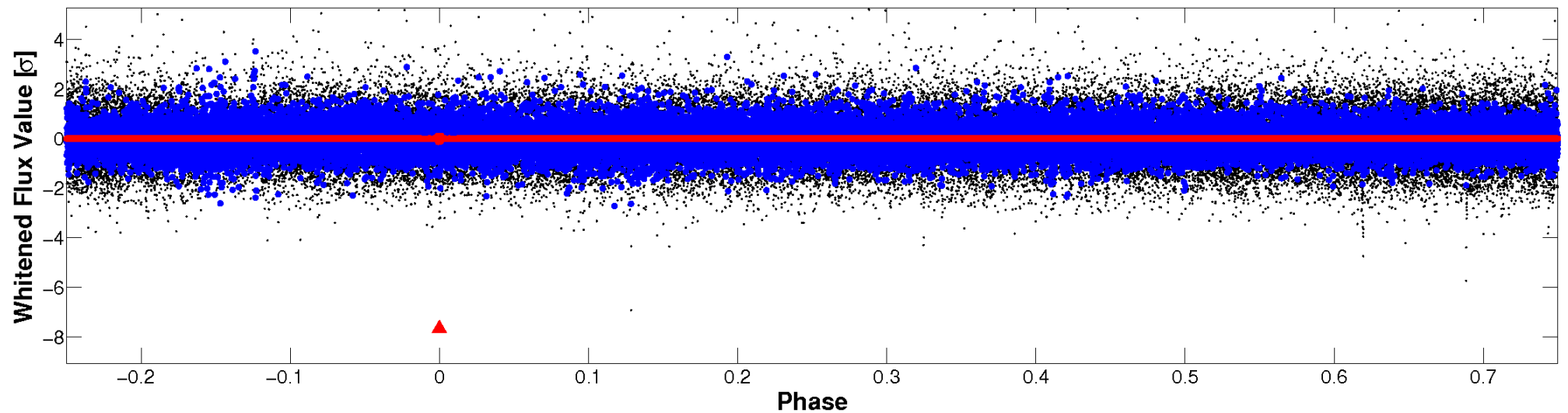


# Non-Whitened Vs. Whitened Light Curve

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



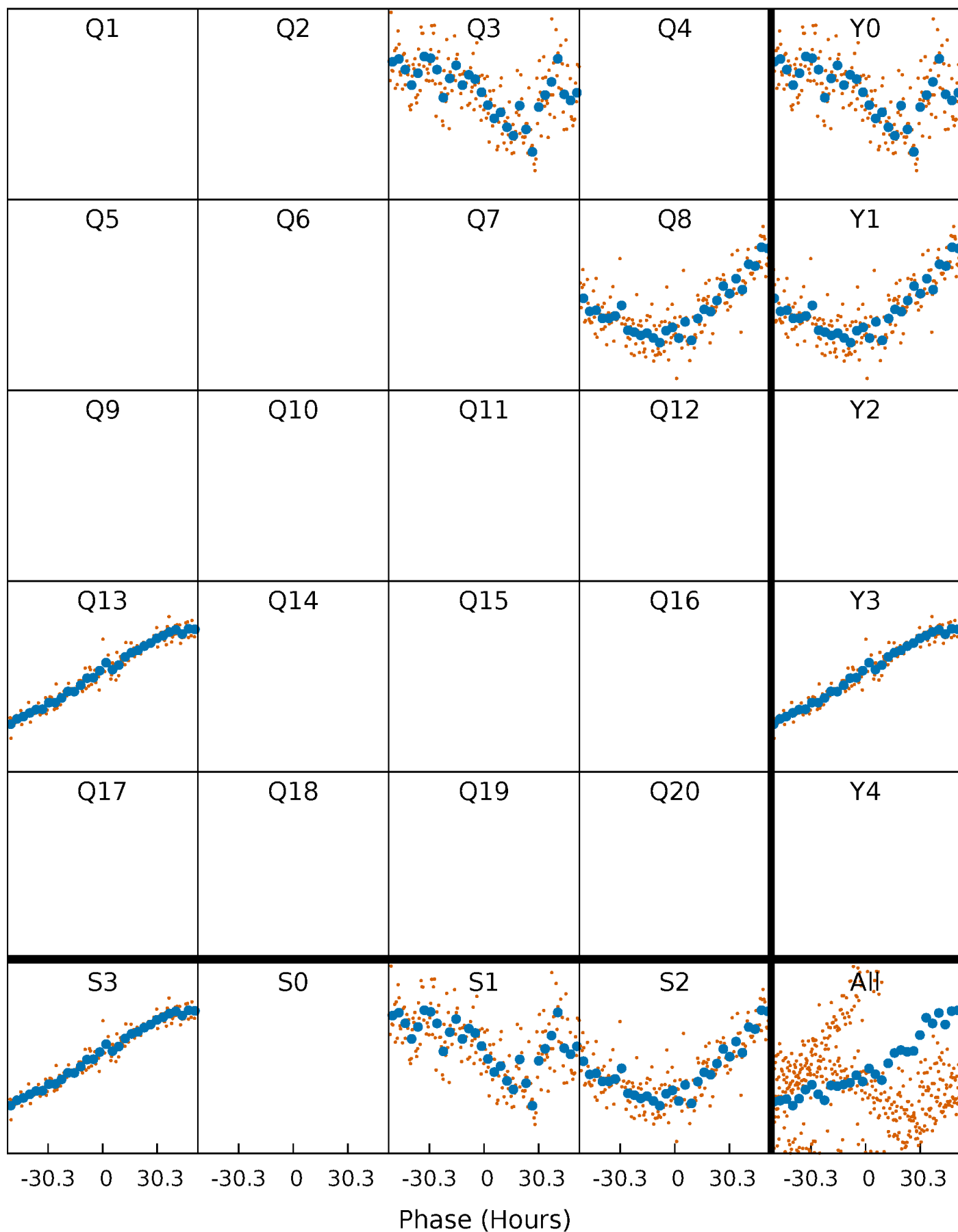
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

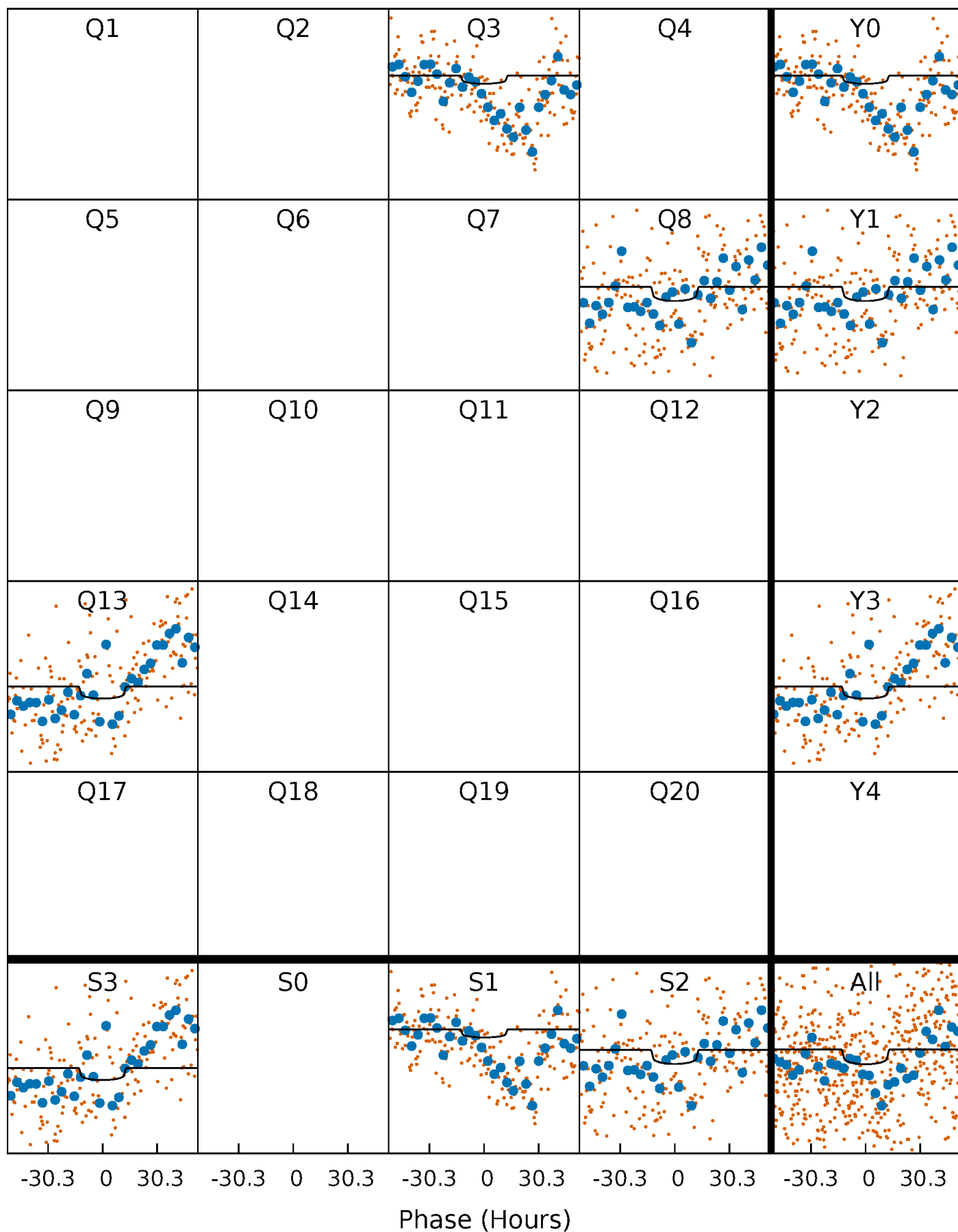
TCE 011766583-01 P=442.973790 Days  $T_0=345.722777$  (BKJD)





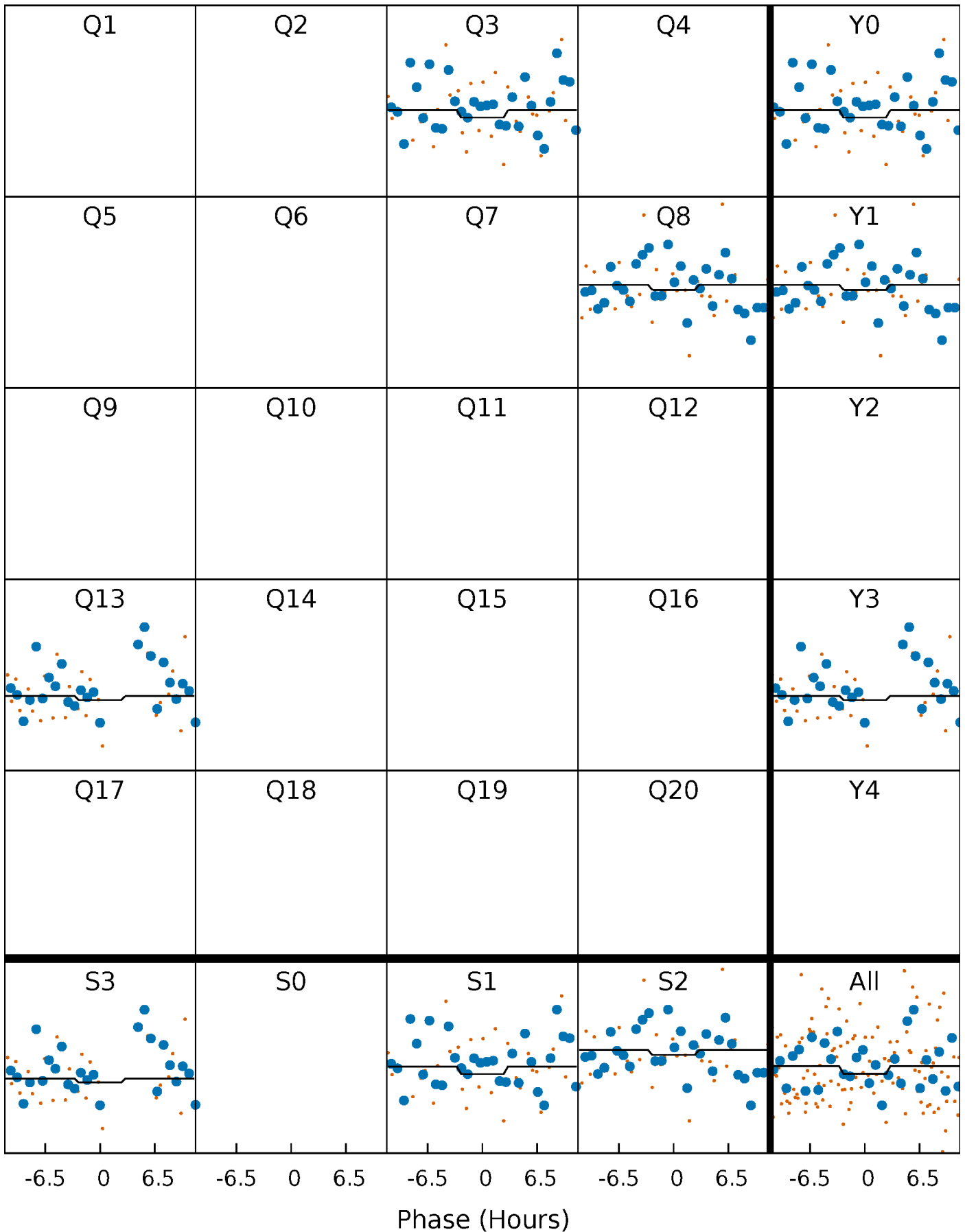
# DV Quarter-Phased Transit Curves

TCE 011766583-01 P=442.973790 Days  $T_0=345.722777$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

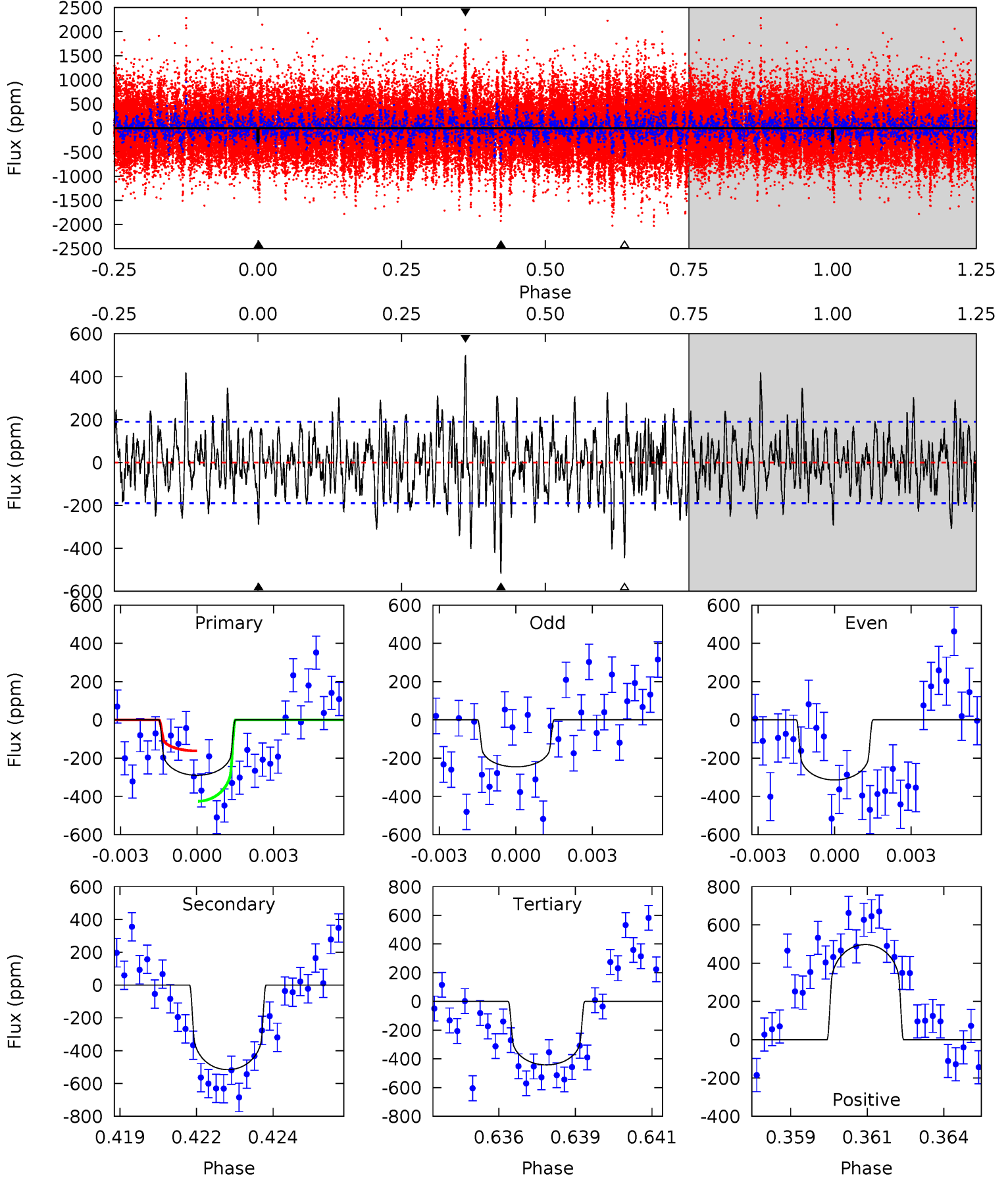
TCE 011766583-01 P=442.924658 Days  $T_0=345.733382$  (BKJD)



# DV Model-Shift Uniqueness Test

011766583-01, P = 442.973790 Days, E = 345.722777 Days

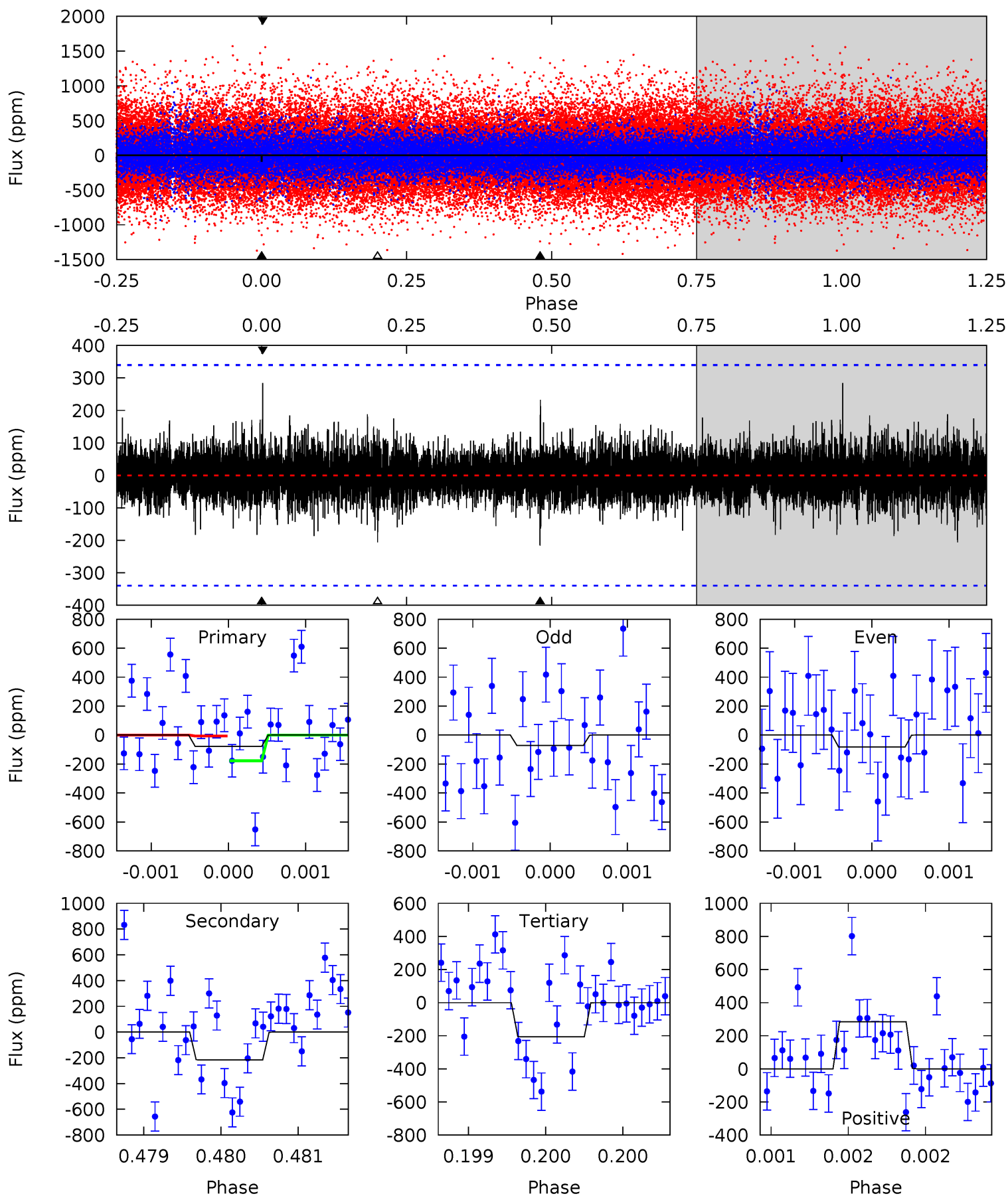
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.06	14.4	12.3	13.8	5.28	3.02	3.40	-4.24	-5.77	2.05	0.52	0.91	1.15	0.49	3.68



# Alt Model-Shift Uniqueness Test

011766583-01, P = 442.924658 Days, E = 345.733382 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
1.28	3.53	3.37	4.65	5.56	3.45	0.77	-2.08	-3.37	0.17	-1.12	0.09	1.16	0.57	1.39



### Stellar Parameters For KIC 011766583

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5561^{+149}_{-149}$	$4.572^{+0.032}_{-0.136}$	$-0.120^{+0.300}_{-0.300}$	$0.818^{+0.164}_{-0.070}$	$0.915^{+0.074}_{-0.111}$	$2.358^{+0.416}_{-0.913}$
	+3%/-3%	+1%/-3%	+250%/-250%	+20%/-9%	+8%/-12%	+18%/-39%
Source	PHO1	KIC0	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 011766583-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-516 \pm 36$	$1.15^{+0.65}_{-0.64}$	$301^{+15}_{-12}$	$7624^{+6393}_{-1645}$	$257141^{+1071725}_{-152128}$
Alt.	$-216 \pm 61$	$0.88^{+0.63}_{-0.54}$	$301^{+15}_{-12}$	$6896^{+6356}_{-1678}$	$189005^{+973760}_{-130422}$

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

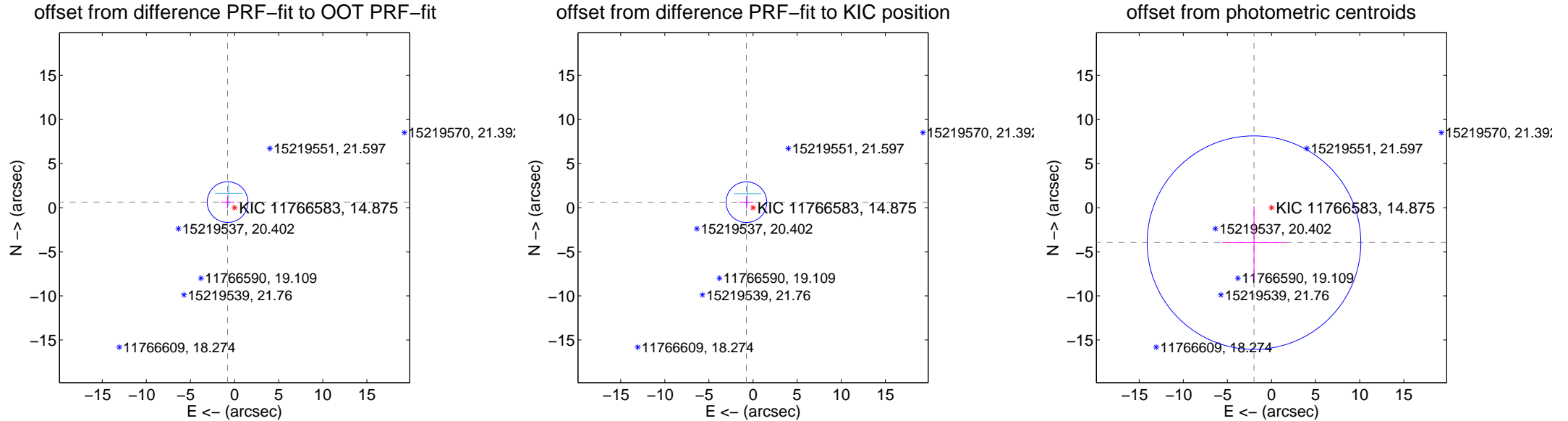
## DV Centroid Data

Supplemental centroid analysis for 011766583-01. Kepler magnitude: 14.88. Transit SNR 1.61

There are 2 quarters with good PRF difference image offsets

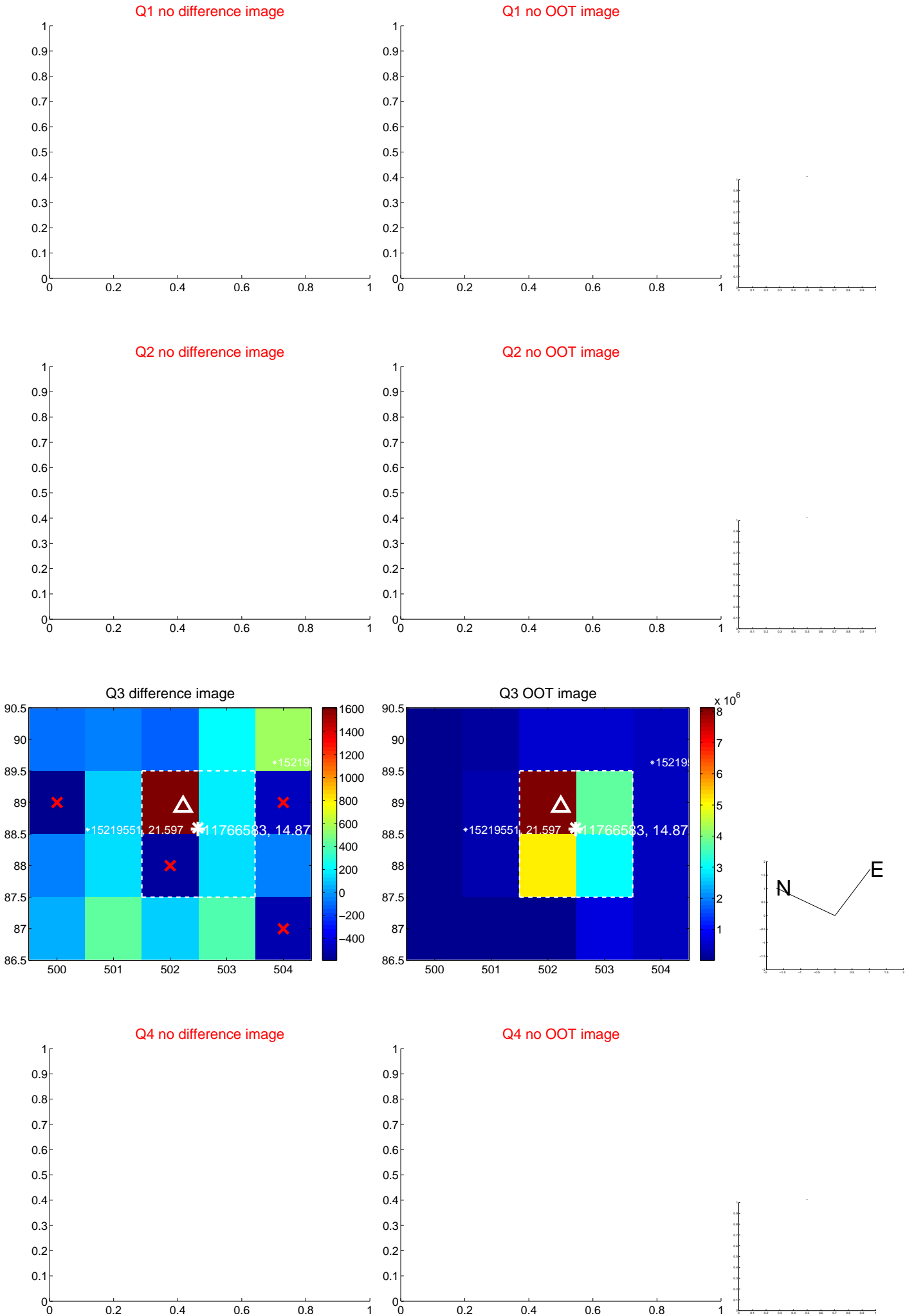
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.014 \pm 0.769$	1.32	$0.791 \pm 0.797$	$0.635 \pm 0.725$
PRF-fit source offset from KIC position	$0.977 \pm 0.768$	1.27	$0.752 \pm 0.797$	$0.624 \pm 0.725$
photometric centroid source offset	$4.44 \pm 4.04$	1.10	$1.99 \pm 3.63$	$-3.96 \pm 4.13$



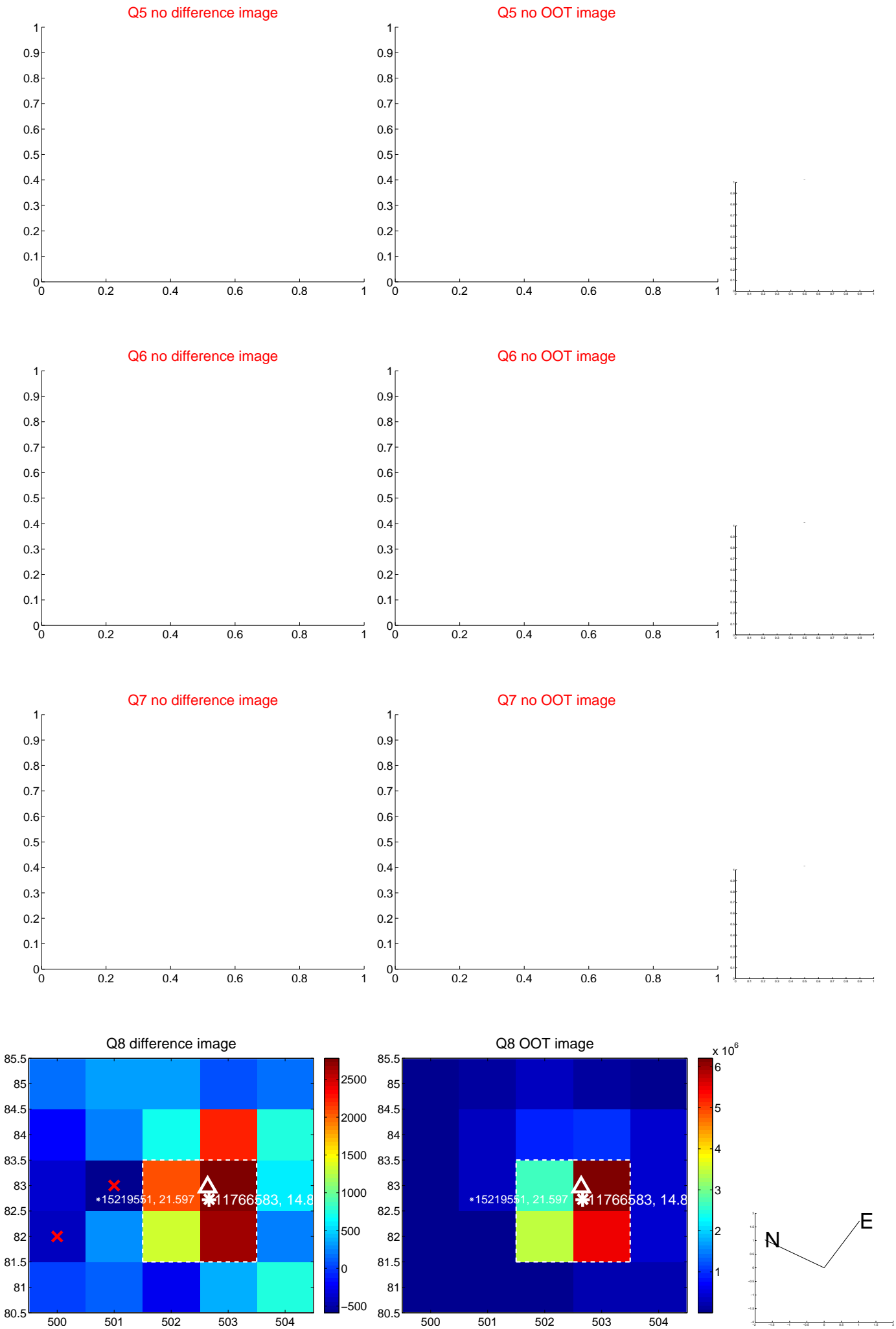
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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





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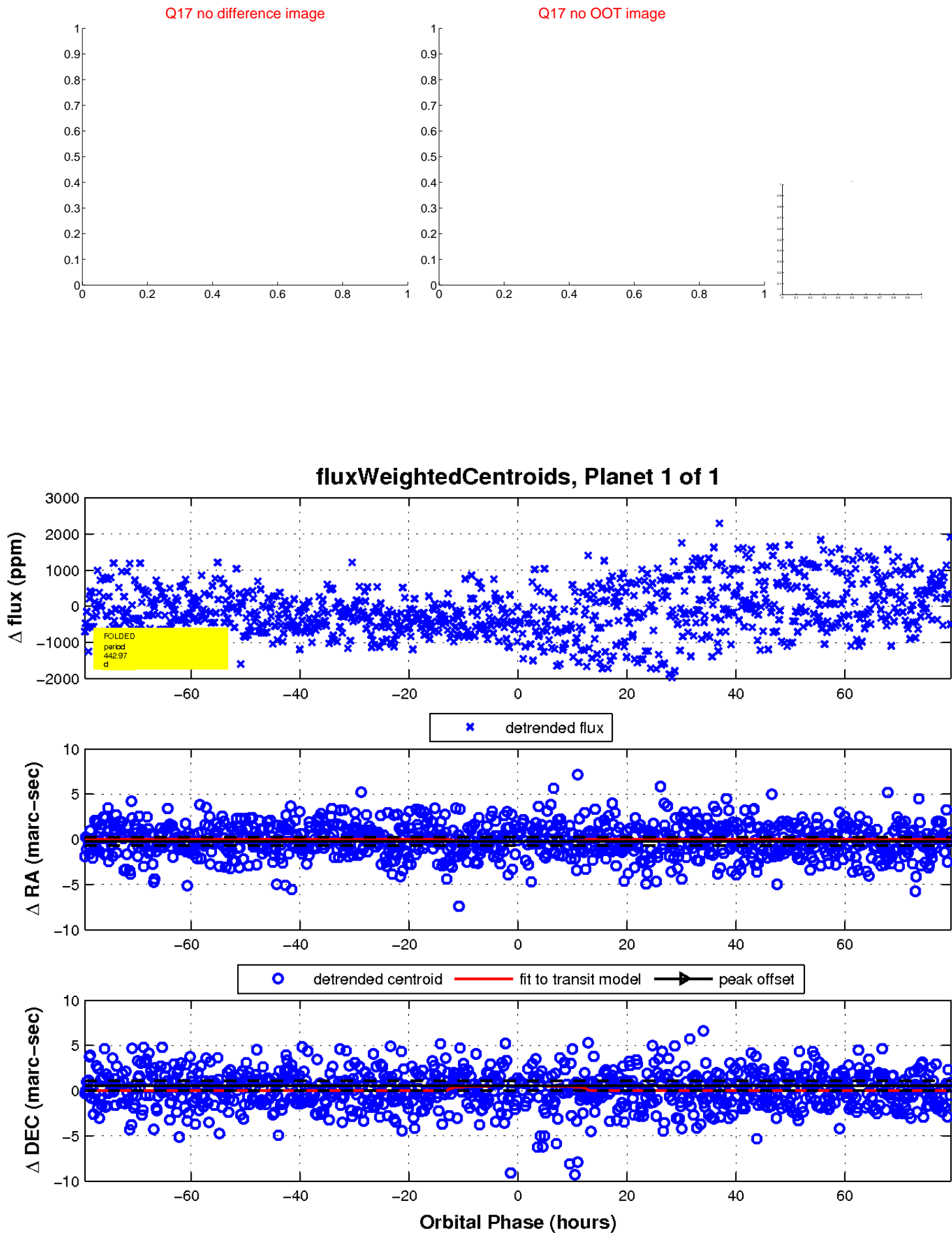
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



# UKIRT Image

Declination

