

# KIC 008264567

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008264567-01	OBS	No	318.818964	204.785632	529.7	5.956	10.0	4.9	1.09	6323	2.79	1.88

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264567-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—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.

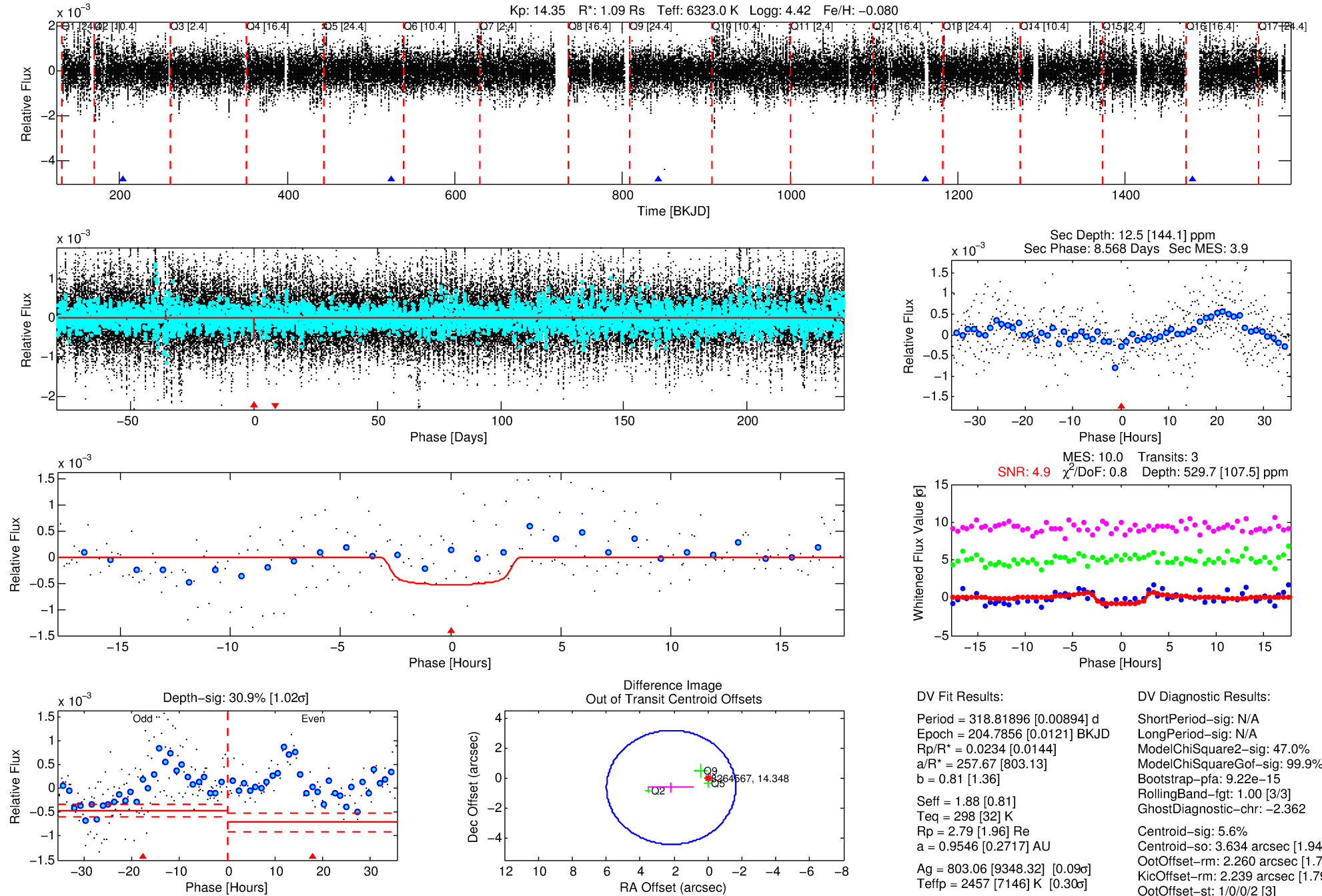
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008264567-01

No Significant Match Found

# DV One-Page Summary

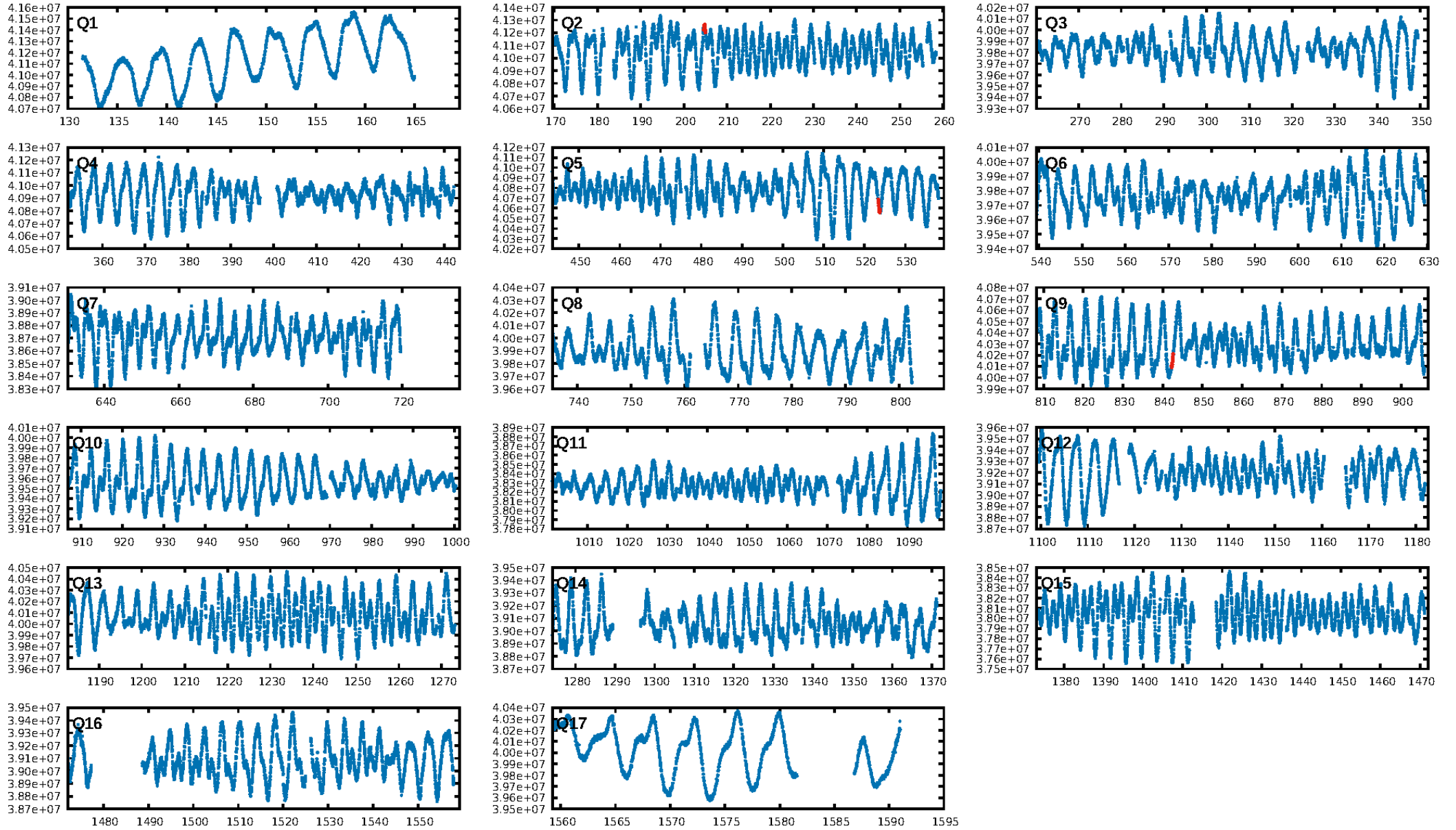
KIC: 8264567 Candidate: 1 of 1 Period: 318.819 d



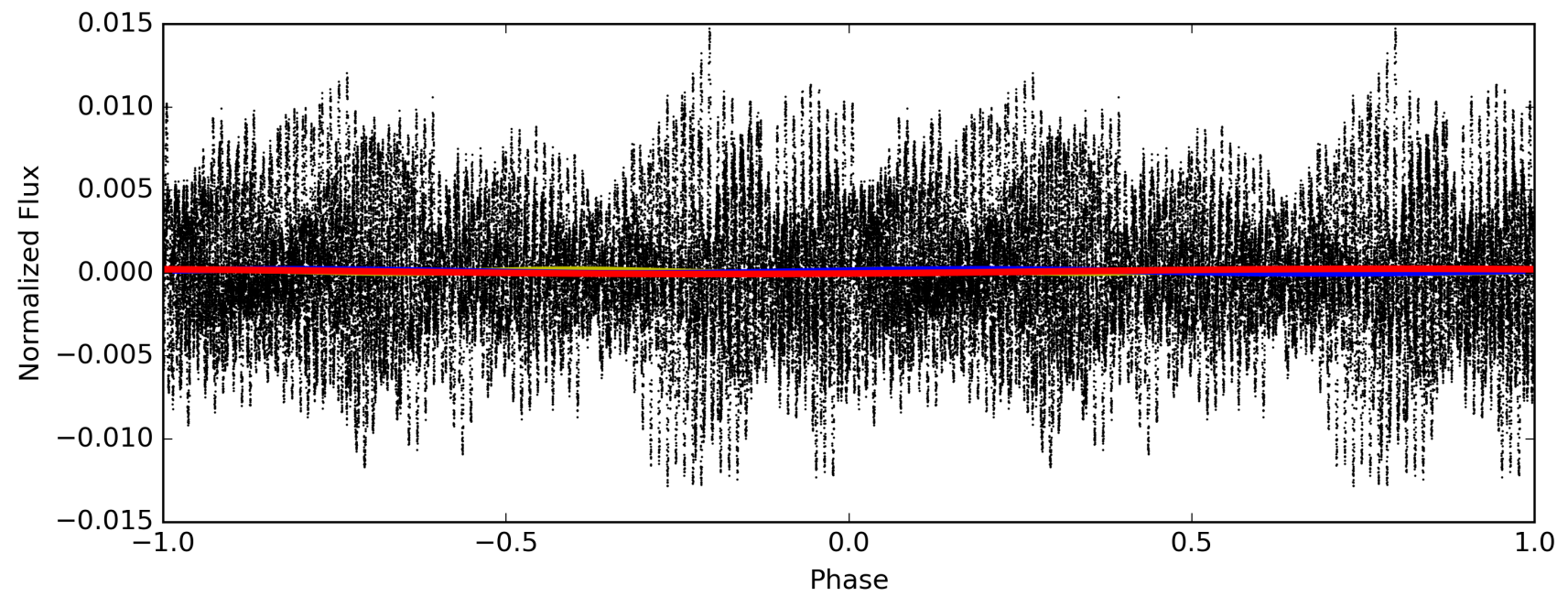
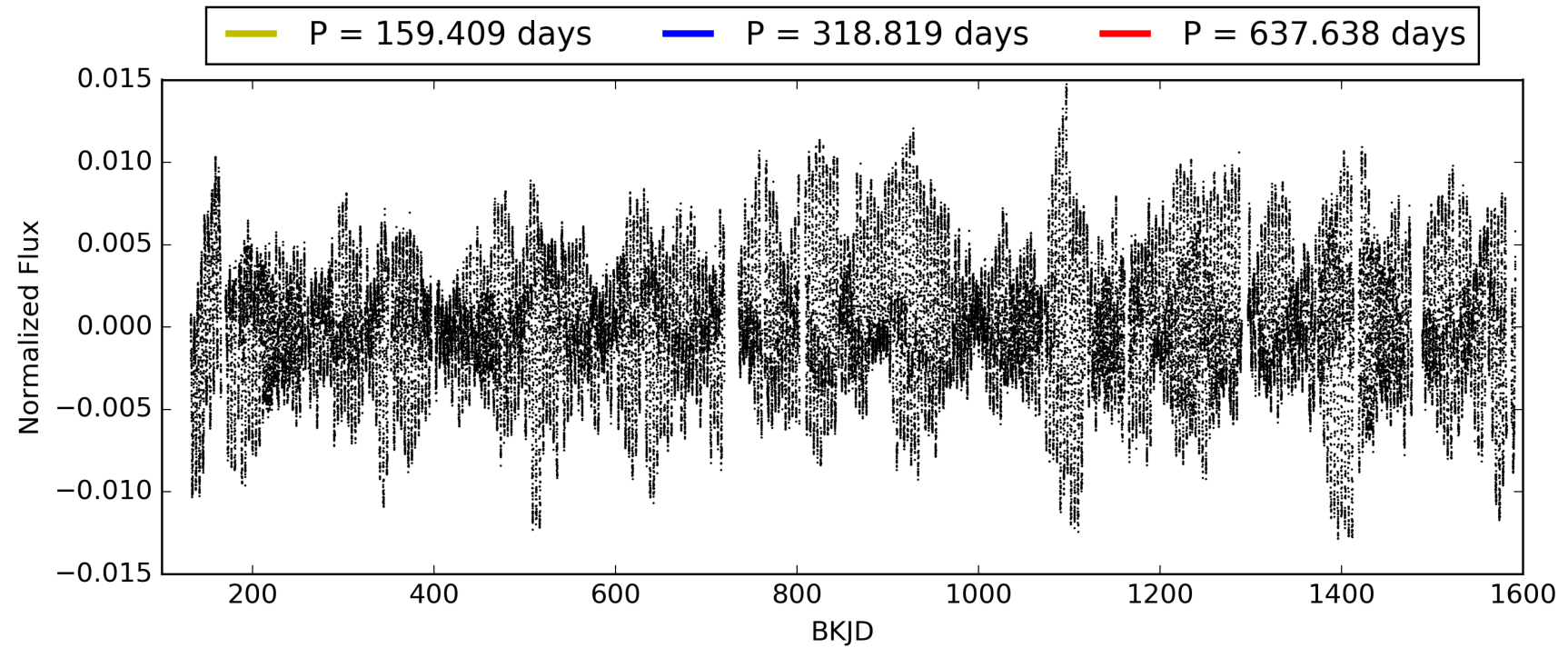
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:24:44 Z

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

# TCE 008264567-01, PDC Light Curves

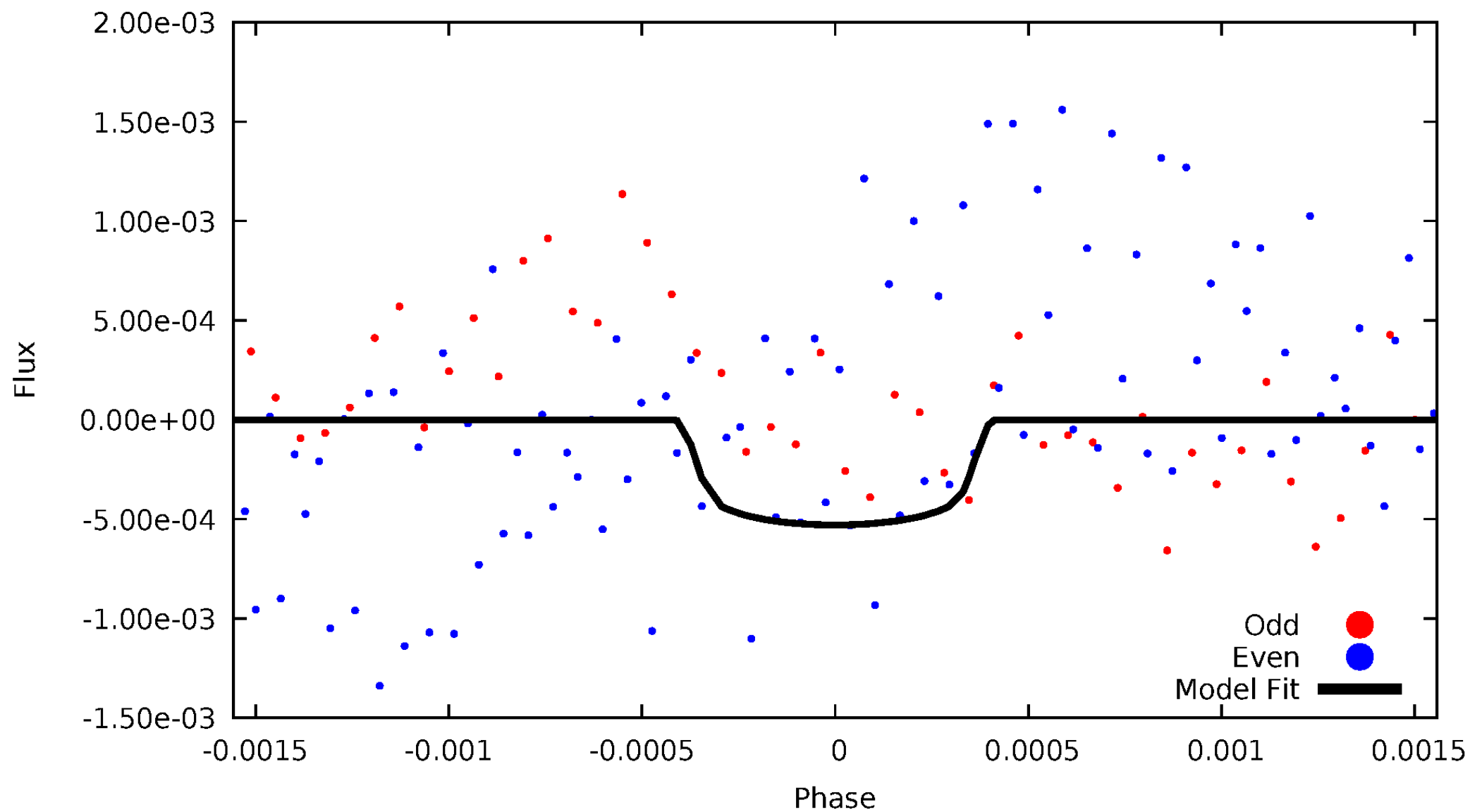


TCE 008264567-01



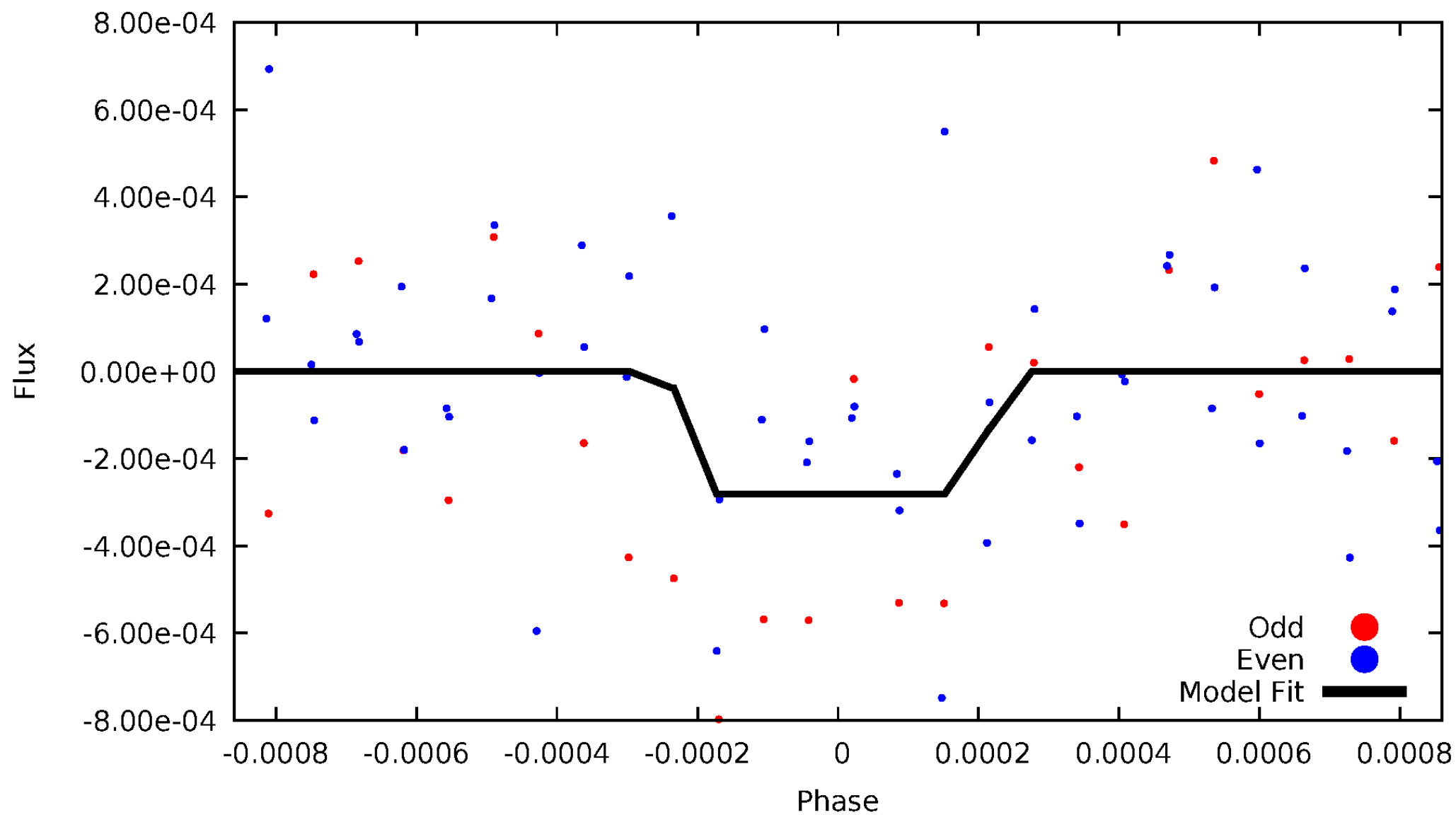
# DV Odd/Even

TCE 008264567-01



# ALT Odd/Even

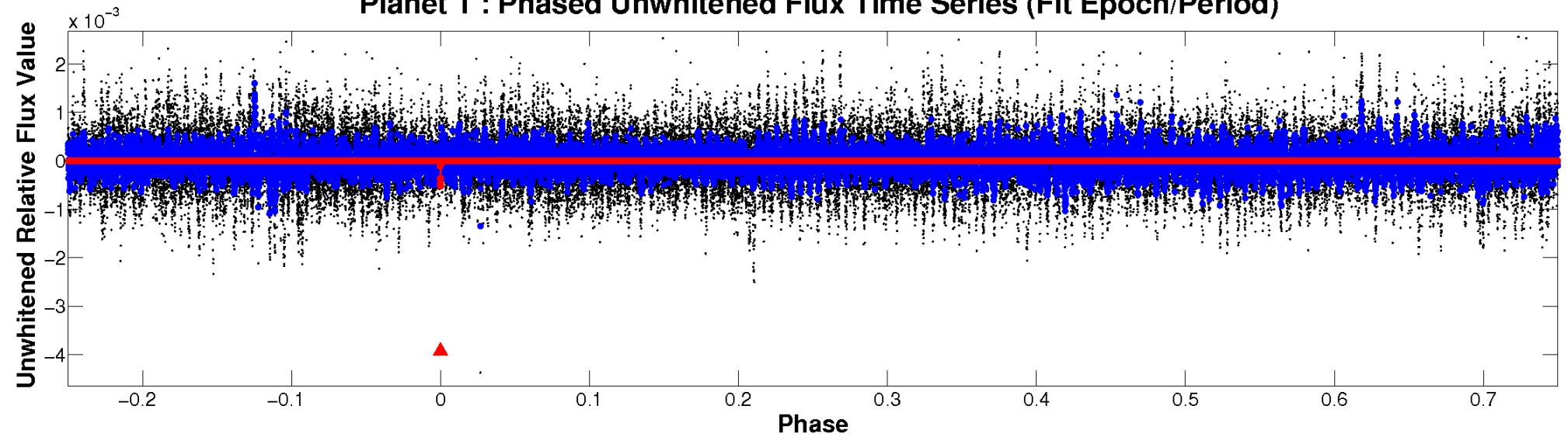
TCE 008264567-01



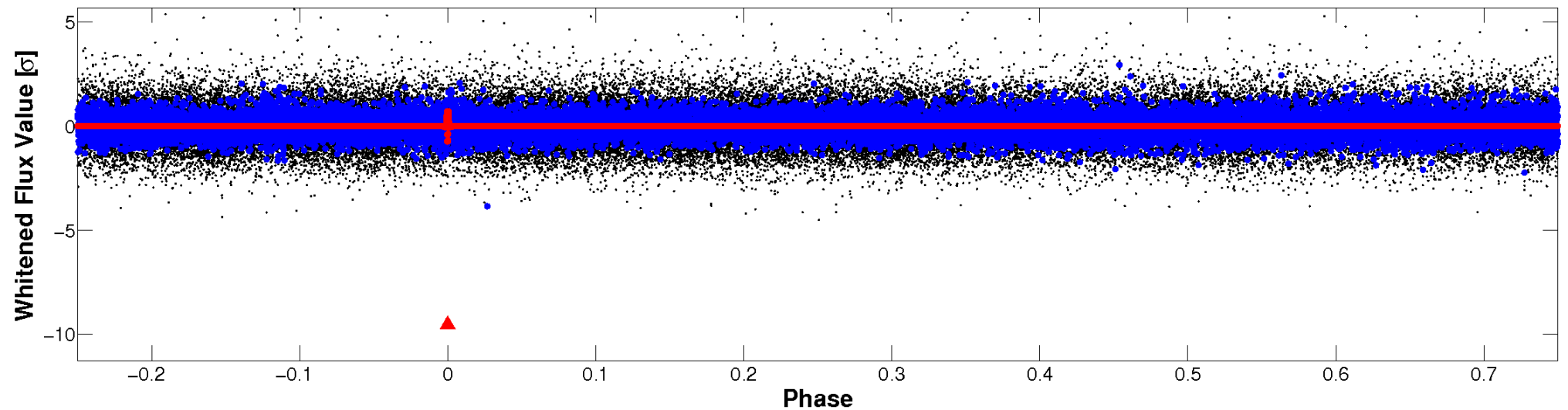


# Non-Whitened Vs. Whitened Light Curve

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

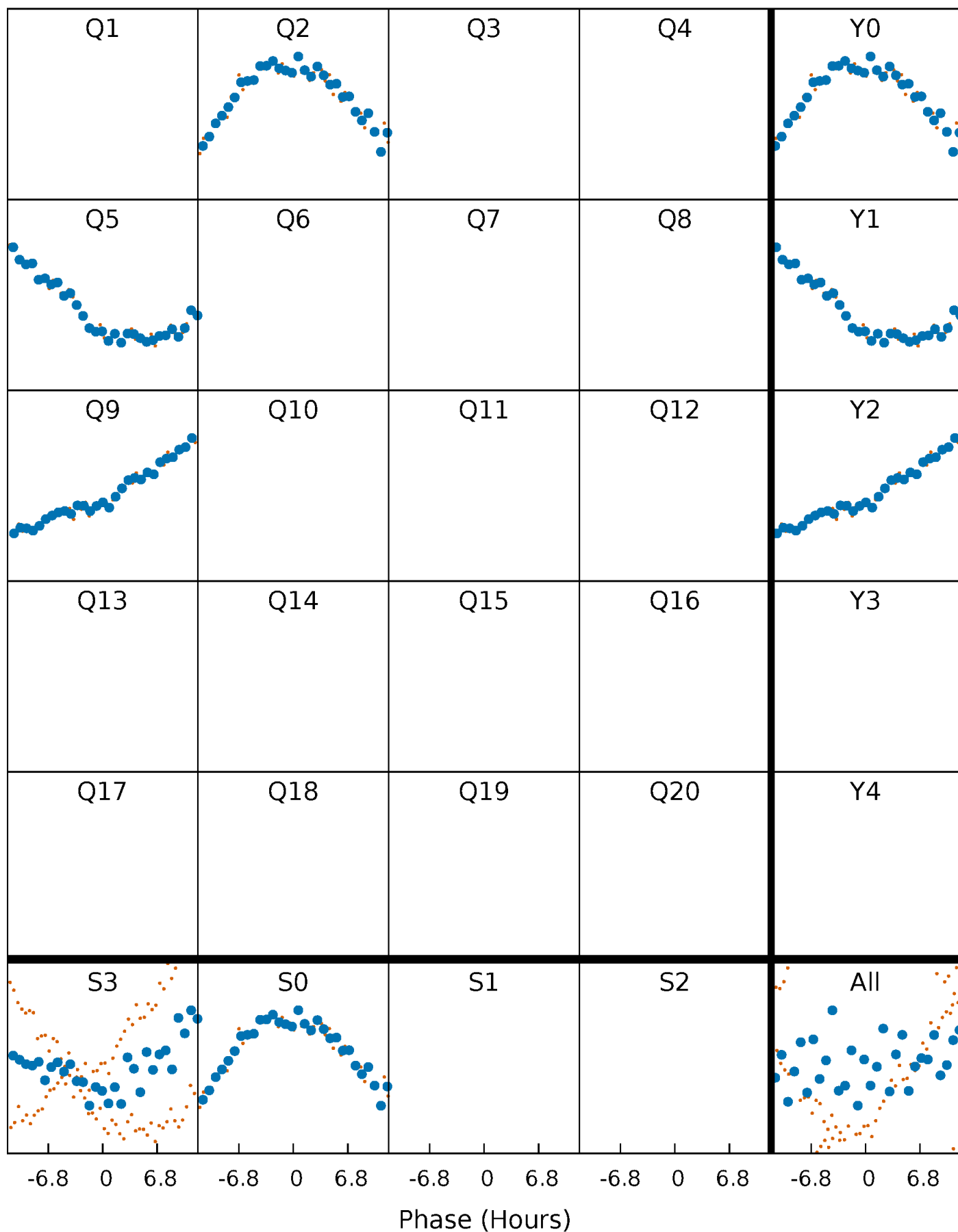


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

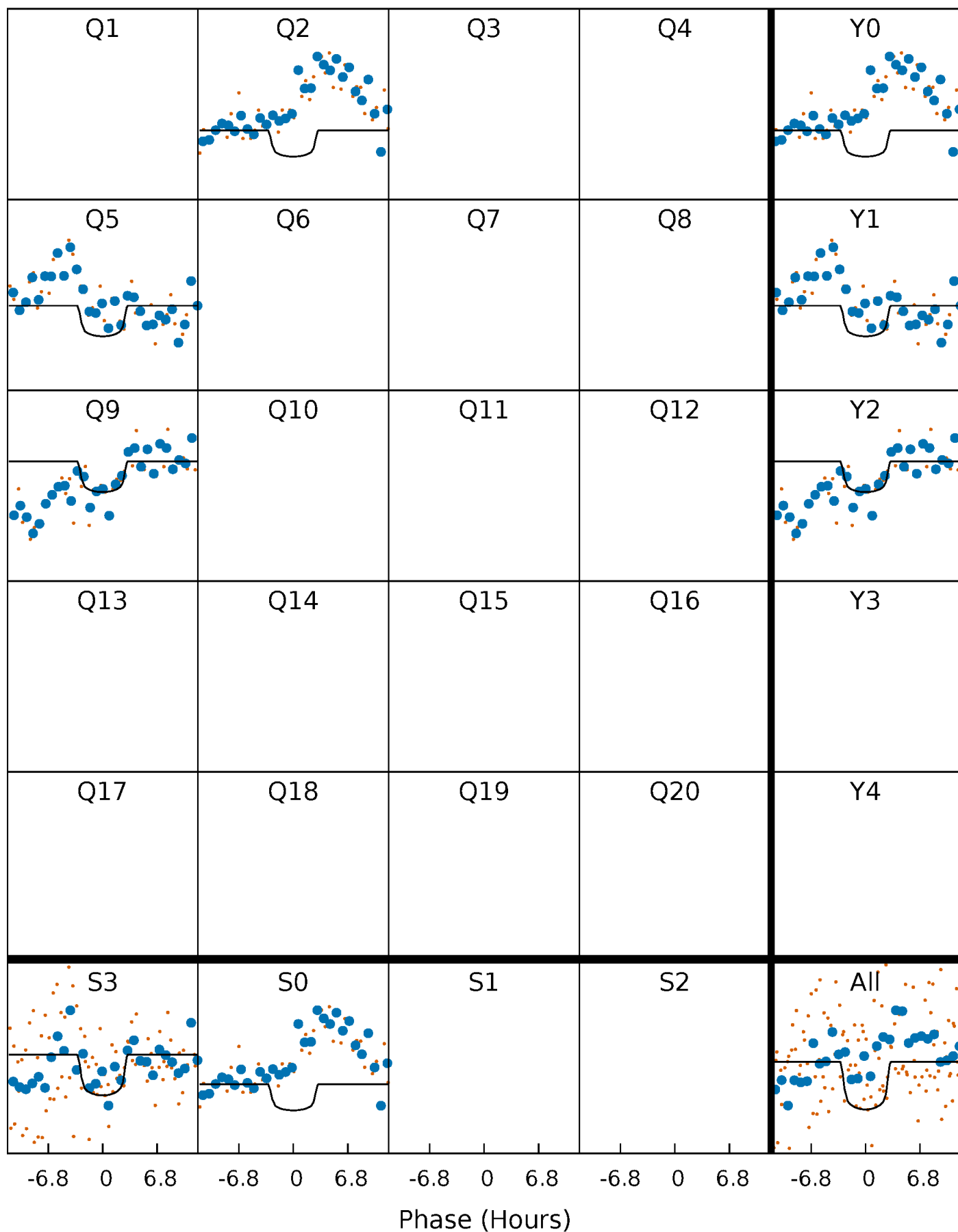
TCE 008264567-01   P=318.818964 Days    $T_0=204.785632$  (BKJD)





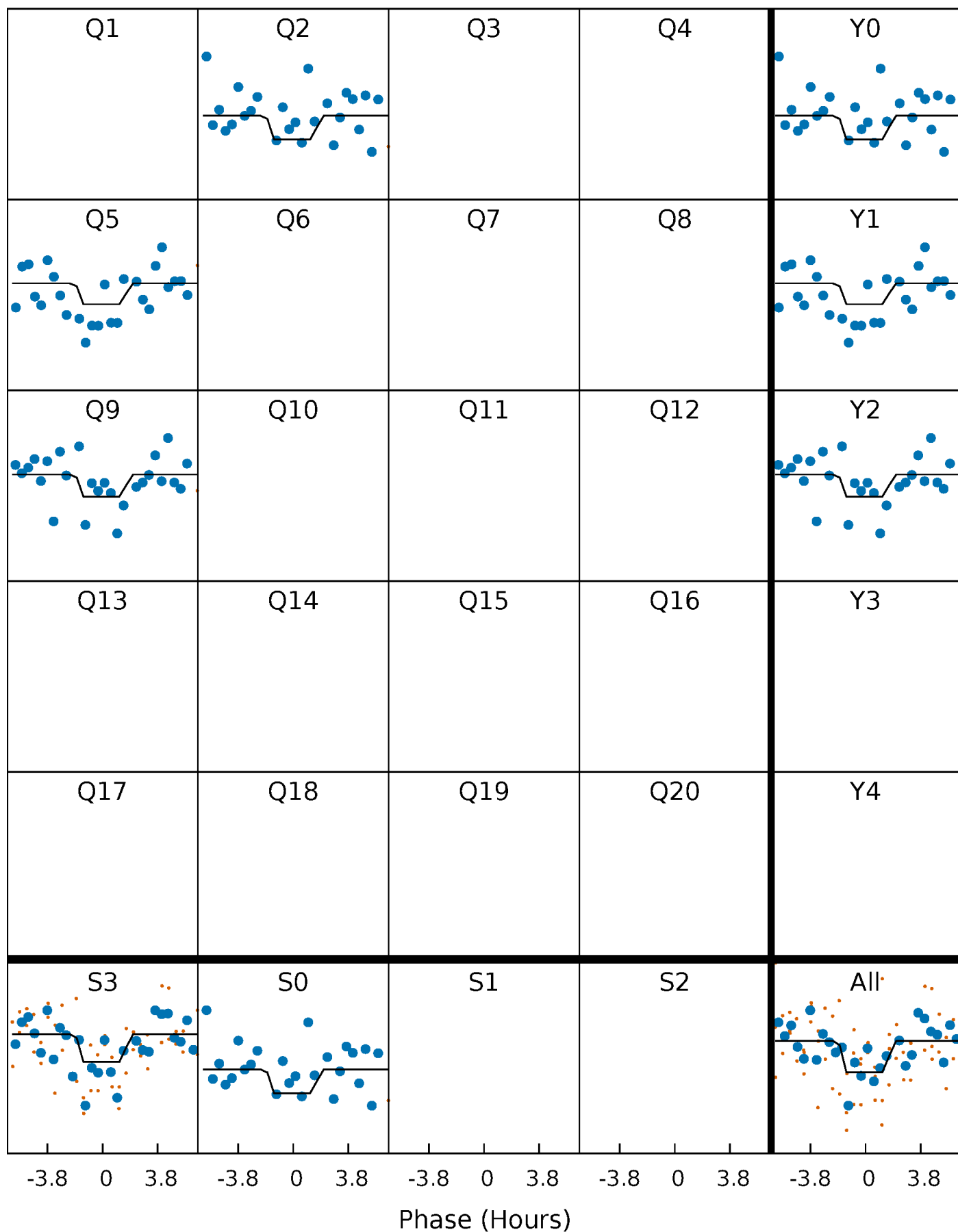
# DV Quarter-Phased Transit Curves

TCE 008264567-01 P=318.818964 Days  $T_0=204.785632$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

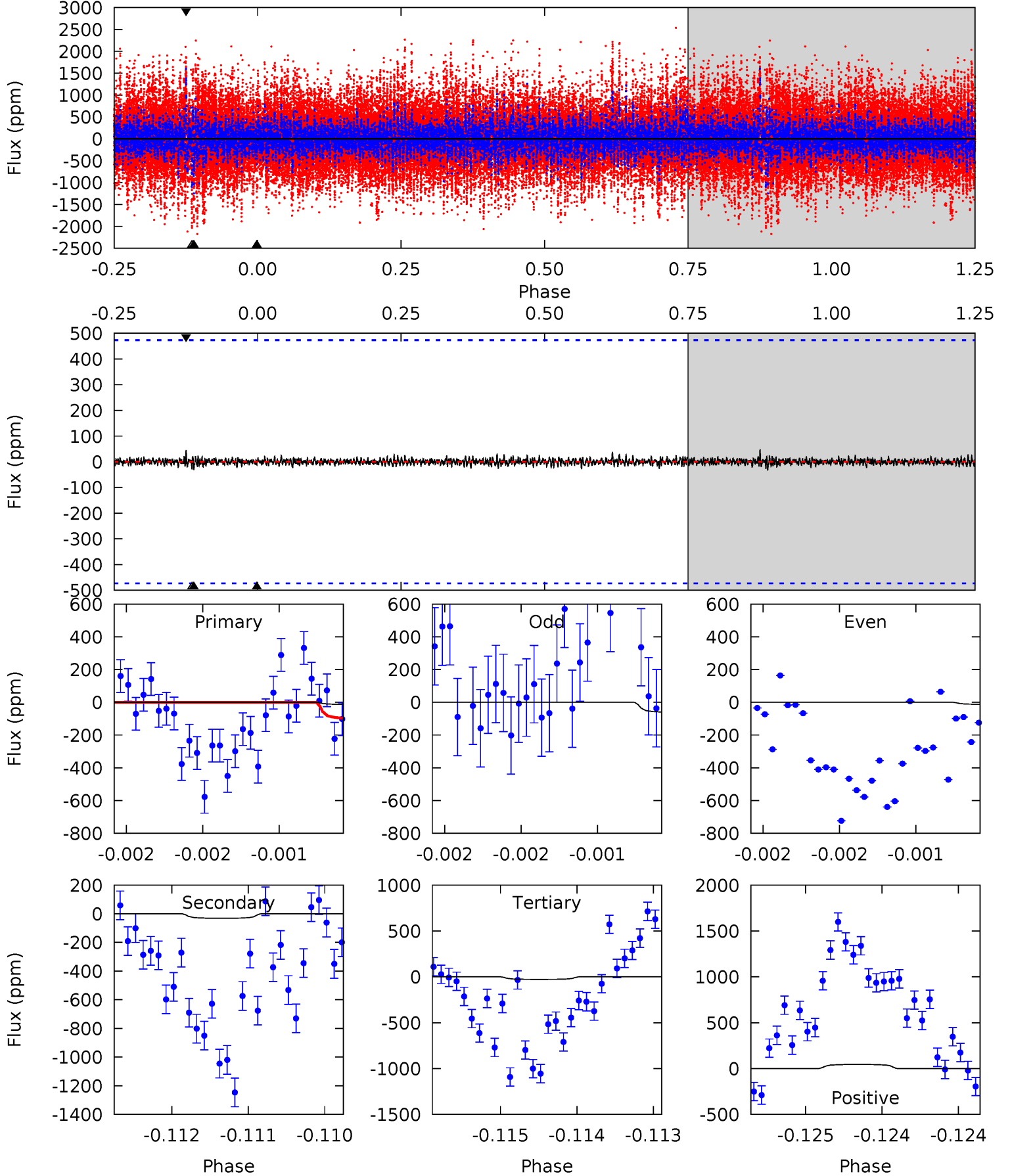
TCE 008264567-01 P=318.824069 Days  $T_0=204.761264$  (BKJD)



# DV Model-Shift Uniqueness Test

008264567-01,  $P = 318.818964$  Days,  $E = 204.785632$  Days

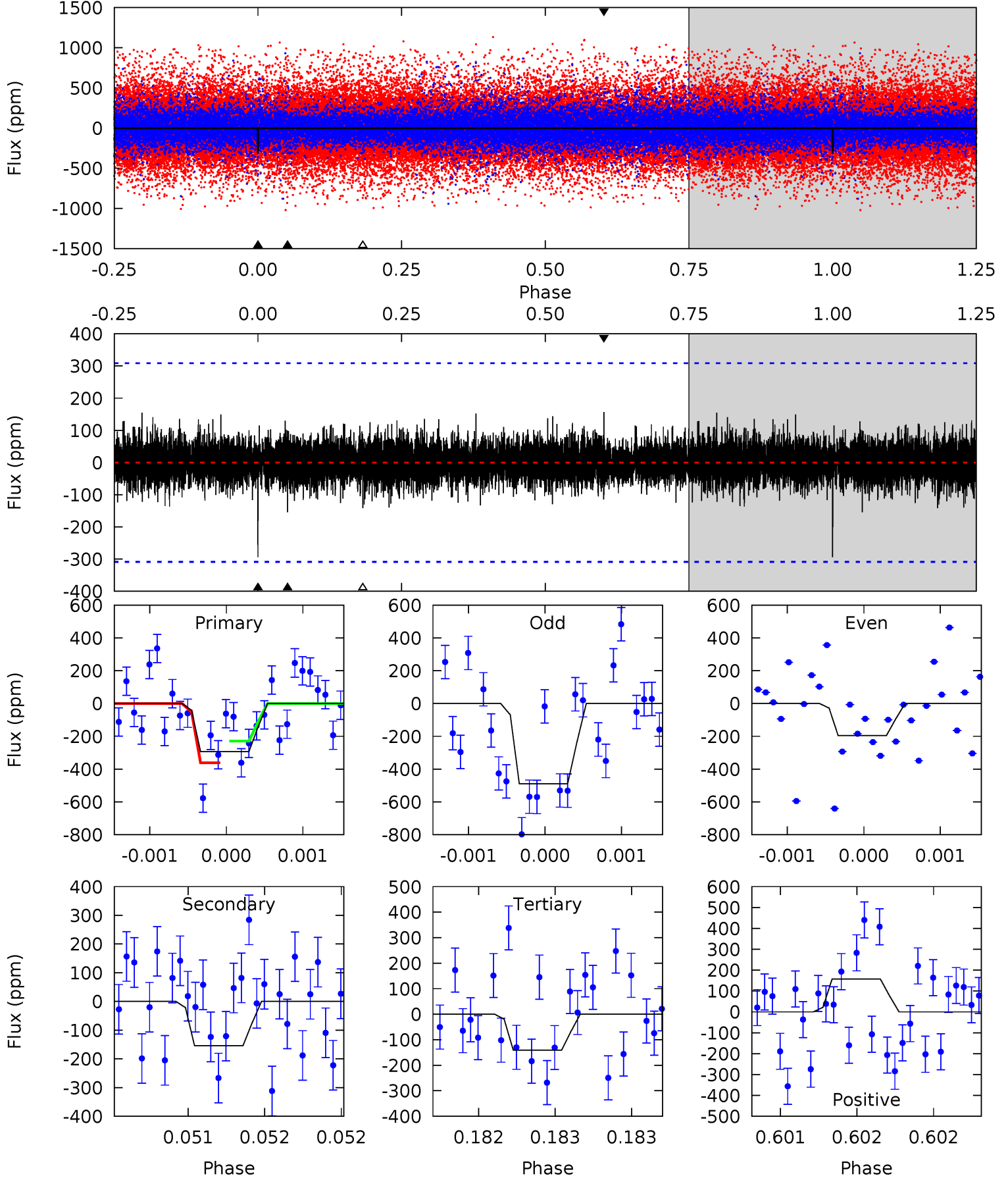
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.15	0.37	0.32	0.52	5.49	3.35	0.10	-0.17	-0.37	0.05	-0.15	0.27	-0.01	0.59	0.19



# Alt Model-Shift Uniqueness Test

008264567-01, P = 318.824069 Days, E = 204.761264 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
5.30	2.78	2.54	2.83	5.57	3.47	0.65	2.75	2.46	0.24	-0.05	2.56	0.84	0.35	1.19



### Stellar Parameters For KIC 008264567

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6323^{+172}_{-210}$	$4.418^{+0.056}_{-0.224}$	$-0.080^{+0.250}_{-0.300}$	$1.093^{+0.372}_{-0.124}$	$1.140^{+0.170}_{-0.154}$	$1.230^{+0.355}_{-0.649}$
	+3%/-3%	+1%/-5%	+312%/-375%	+34%/-11%	+15%/-14%	+29%/-53%
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 008264567-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-32 \pm 86$	$3.03^{+1.85}_{-1.63}$	$427^{+31}_{-22}$	$3317^{+1527}_{-7136}$	$1128^{+9148}_{-3912}$
Alt.	$-154 \pm 55$	$2.52^{+1.67}_{-1.51}$	$425^{+31}_{-21}$	$4983^{+3083}_{-912}$	$11508^{+59606}_{-7478}$

$T_{\text{max}}$  = 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

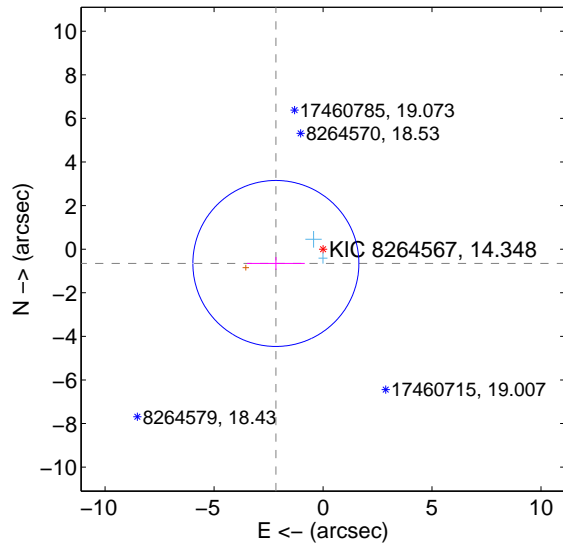
Supplemental centroid analysis for 008264567-01. Kepler magnitude: 14.35. Transit SNR 4.86

There are 2 quarters with good PRF difference image offsets

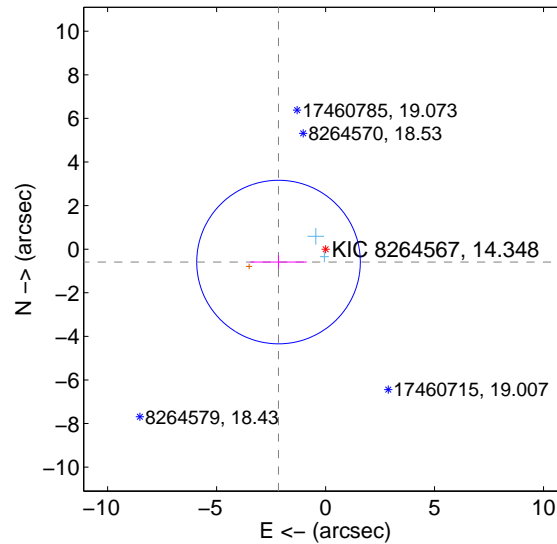
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$2.260 \pm 1.269$	1.78	$2.163 \pm 1.323$	$-0.655 \pm 0.297$
PRF-fit source offset from KIC position	$2.239 \pm 1.251$	1.79	$2.159 \pm 1.294$	$-0.591 \pm 0.313$
photometric centroid source offset	$3.63 \pm 1.87$	1.94	$3.50 \pm 1.88$	$0.97 \pm 1.79$

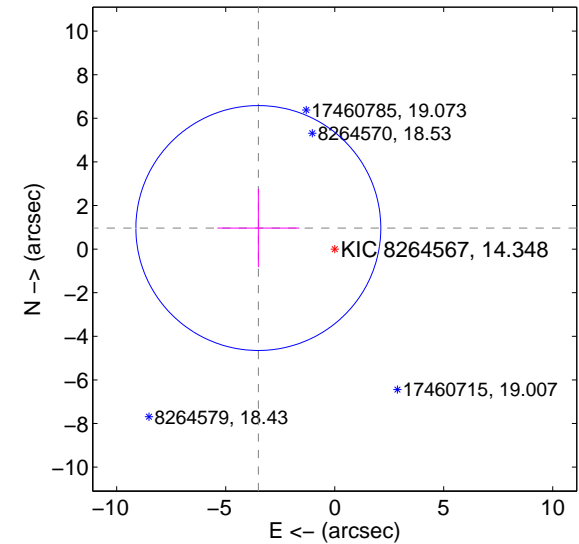
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



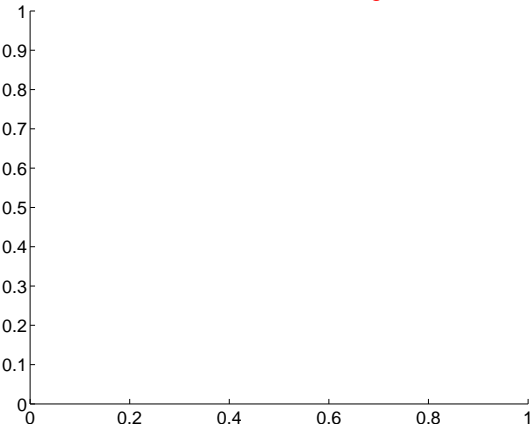
offset from photometric centroids



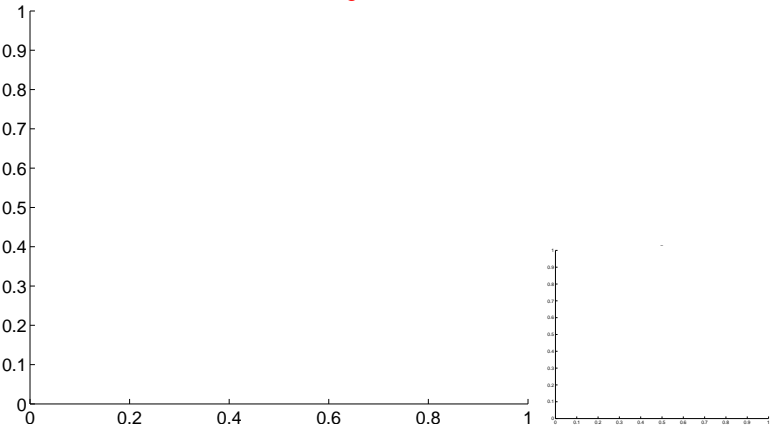
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

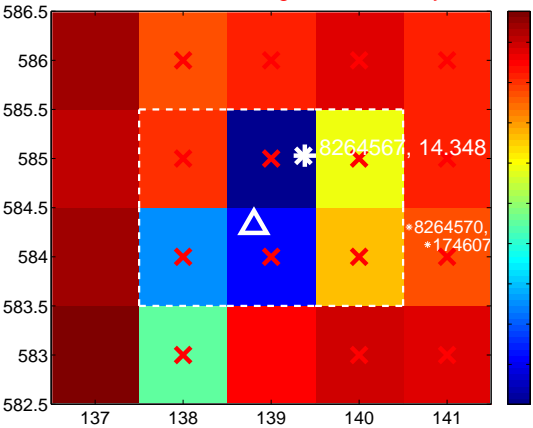
Q1 no difference image



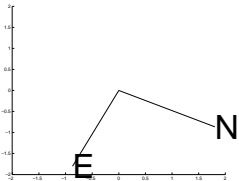
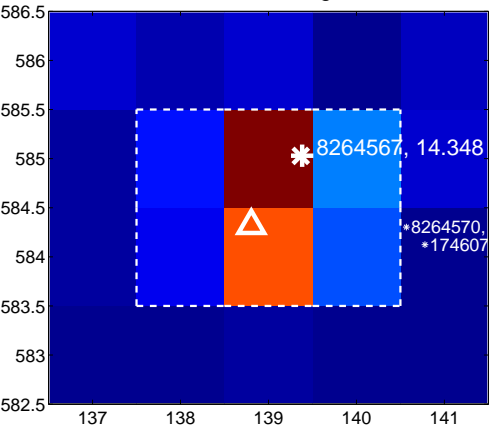
Q1 no OOT image



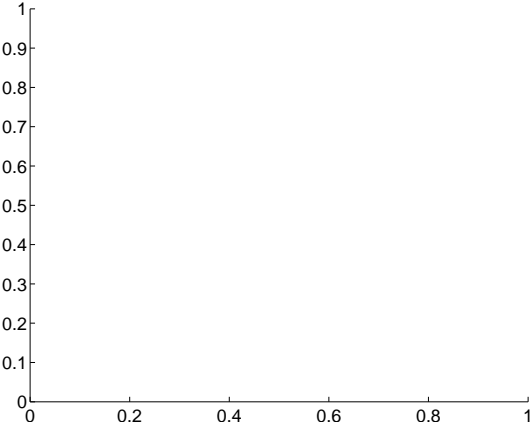
Q2 difference image. Poor Quality



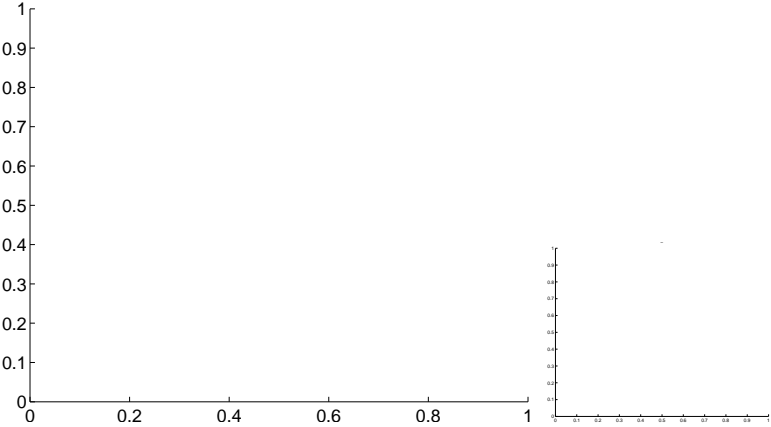
Q2 OOT image



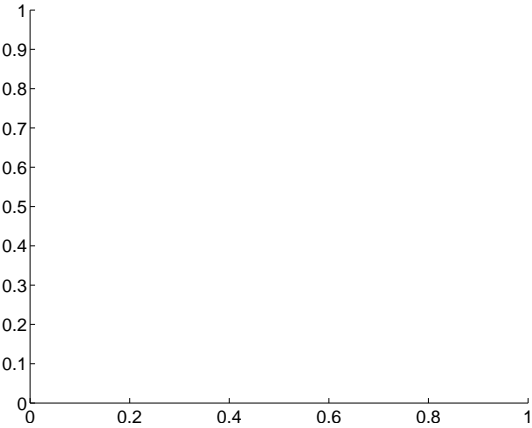
Q3 no difference image



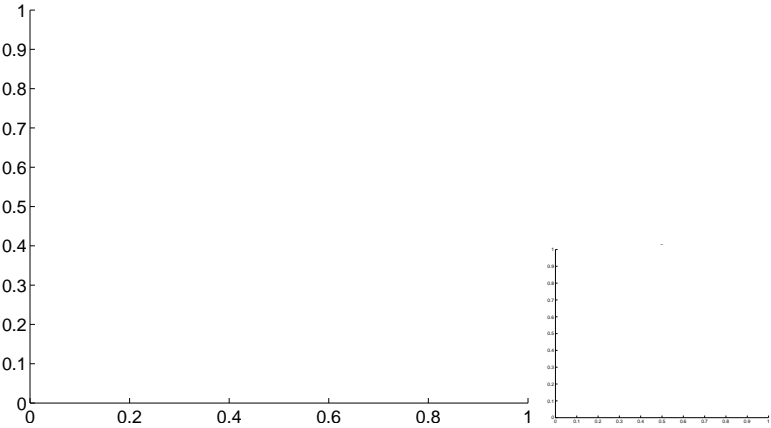
Q3 no OOT image



Q4 no difference image

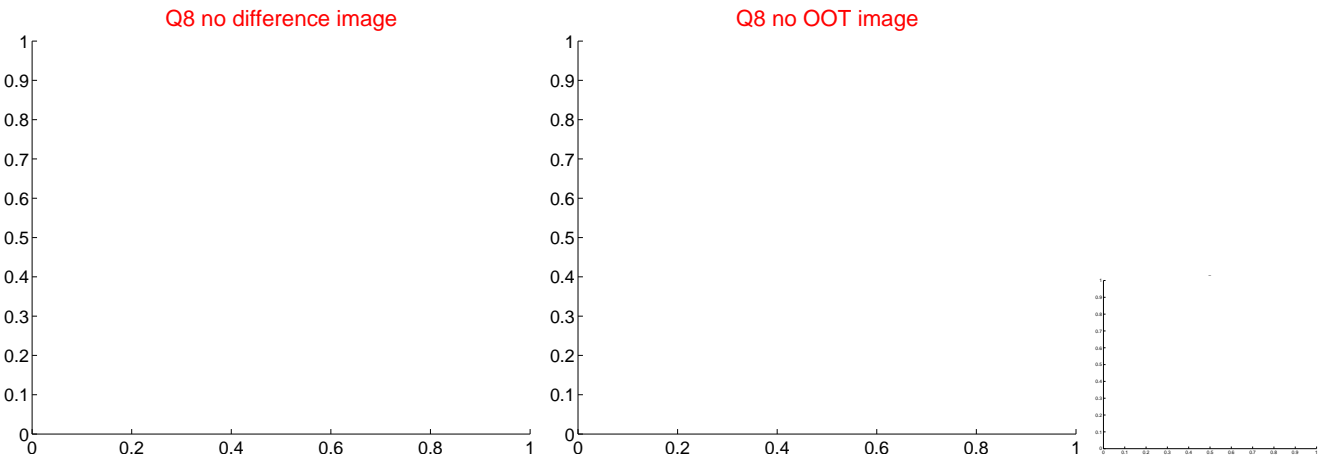
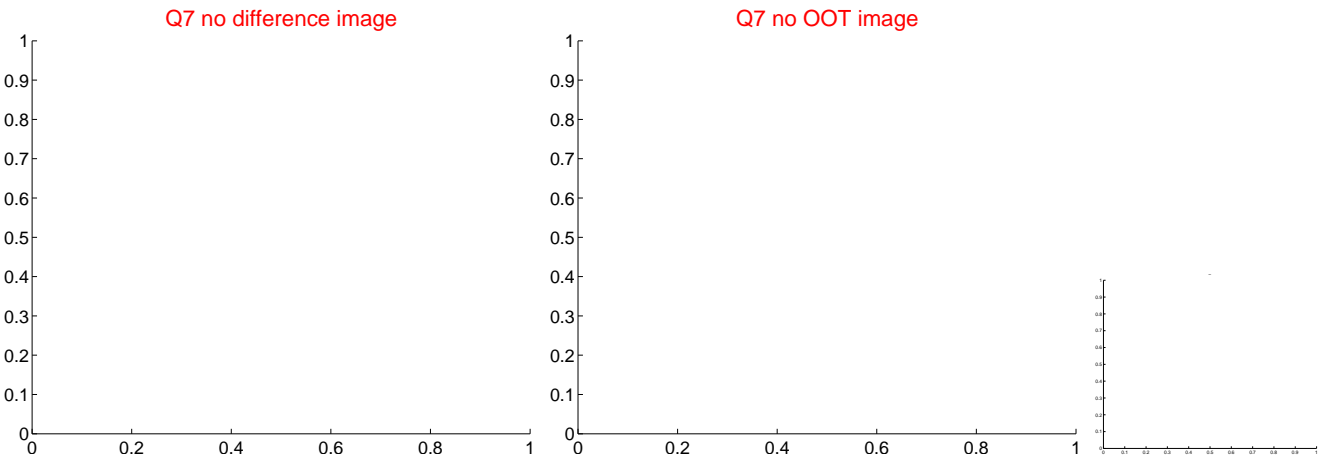
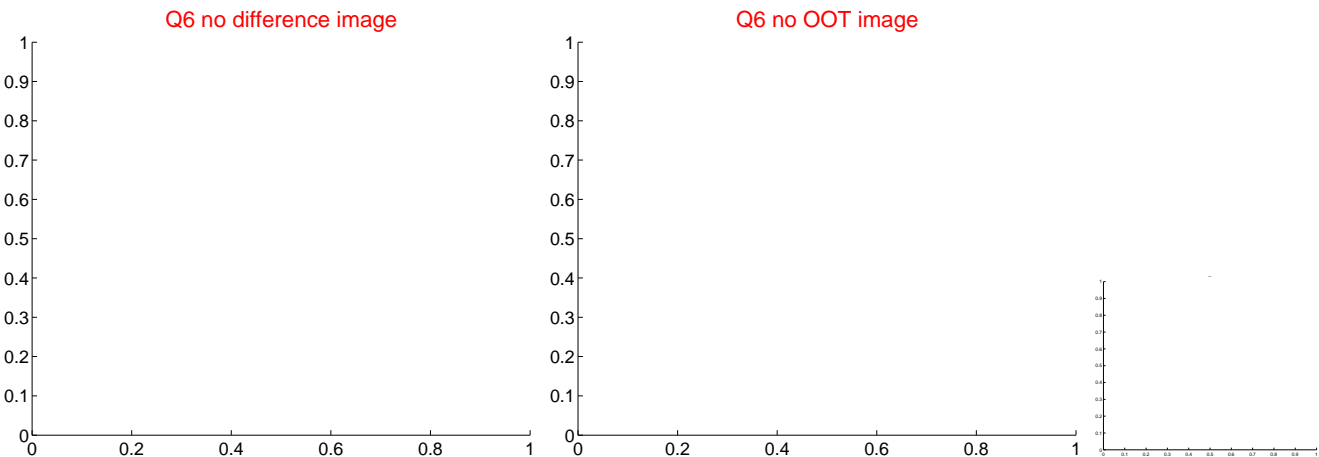
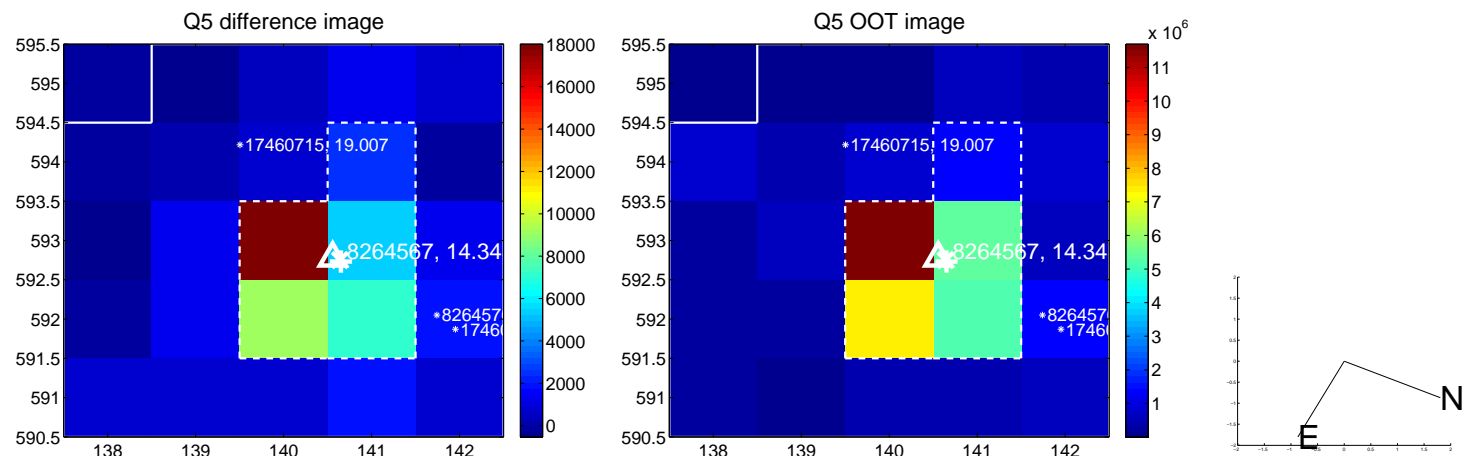


Q4 no OOT image

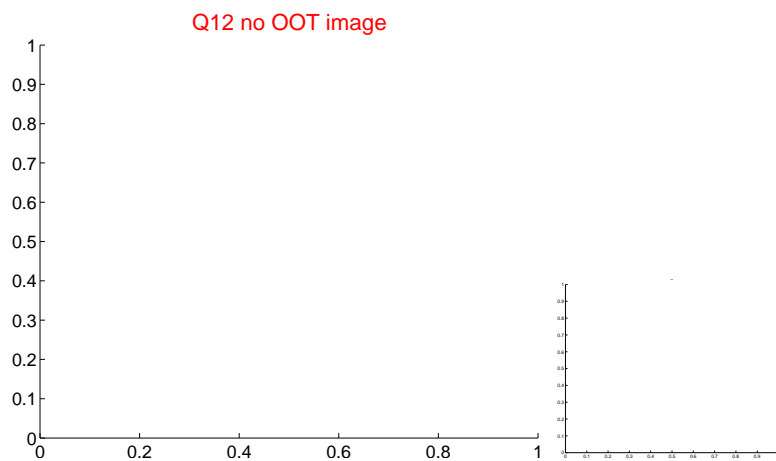
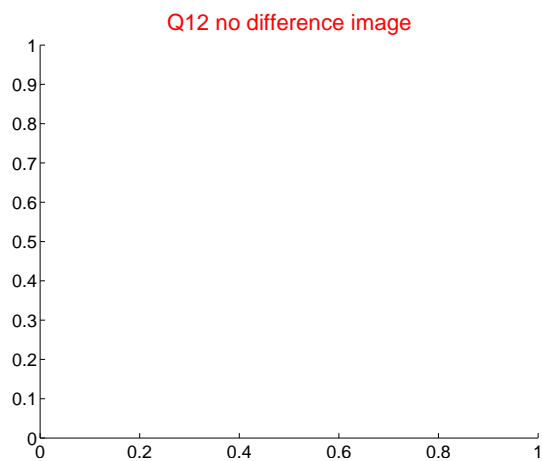
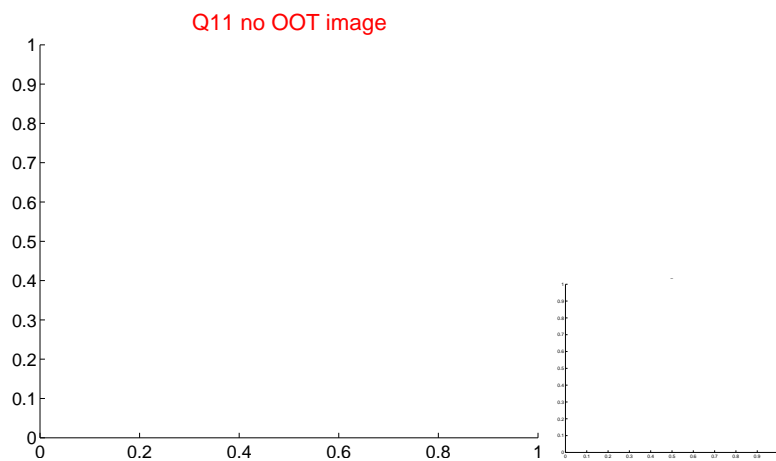
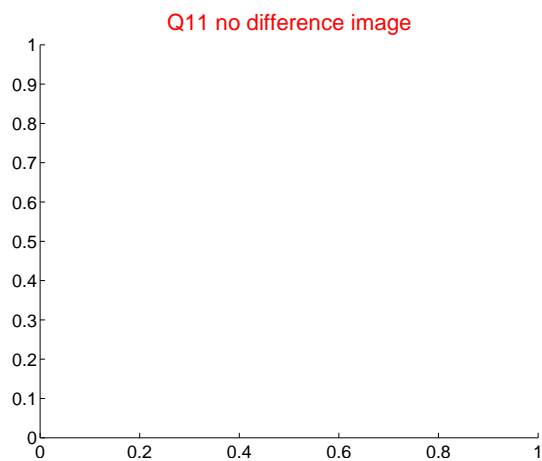
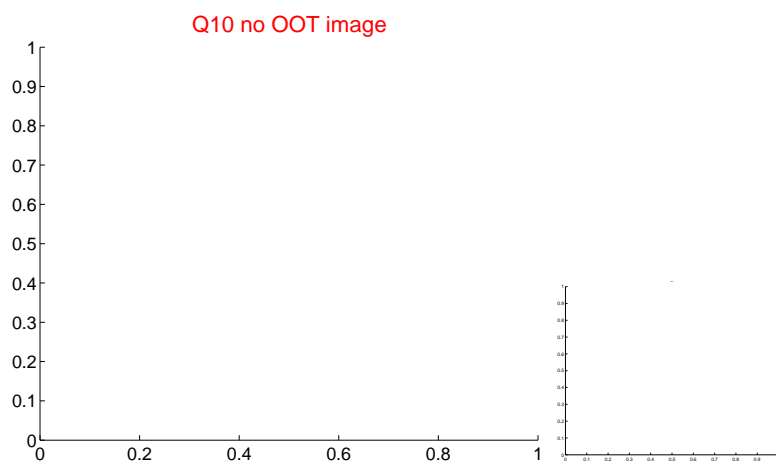
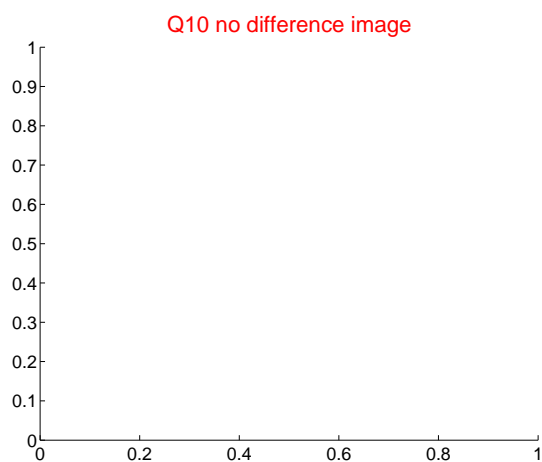
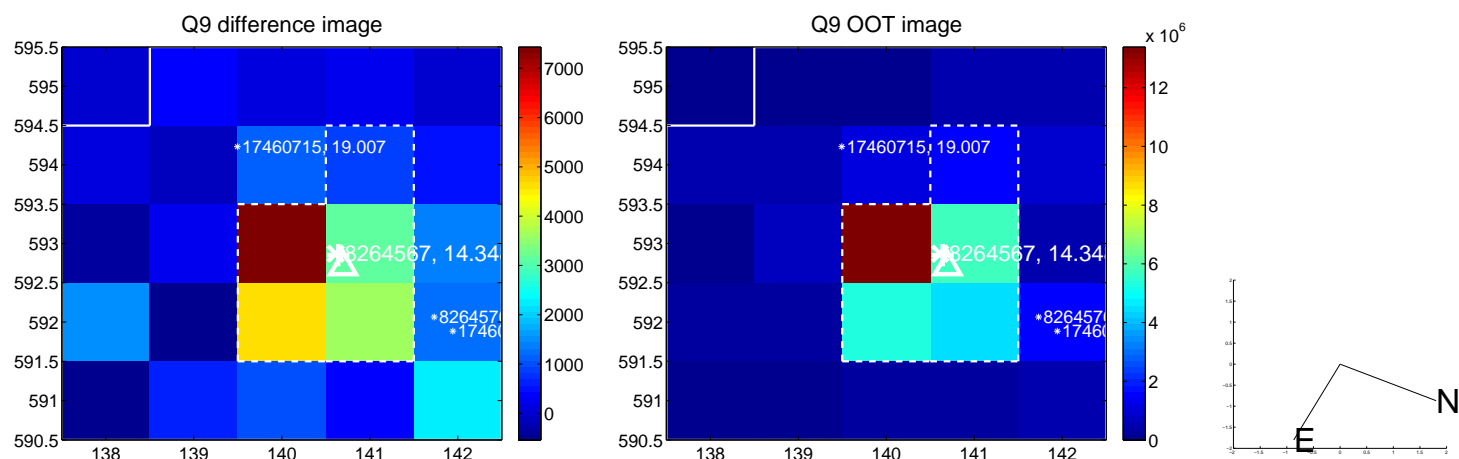




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



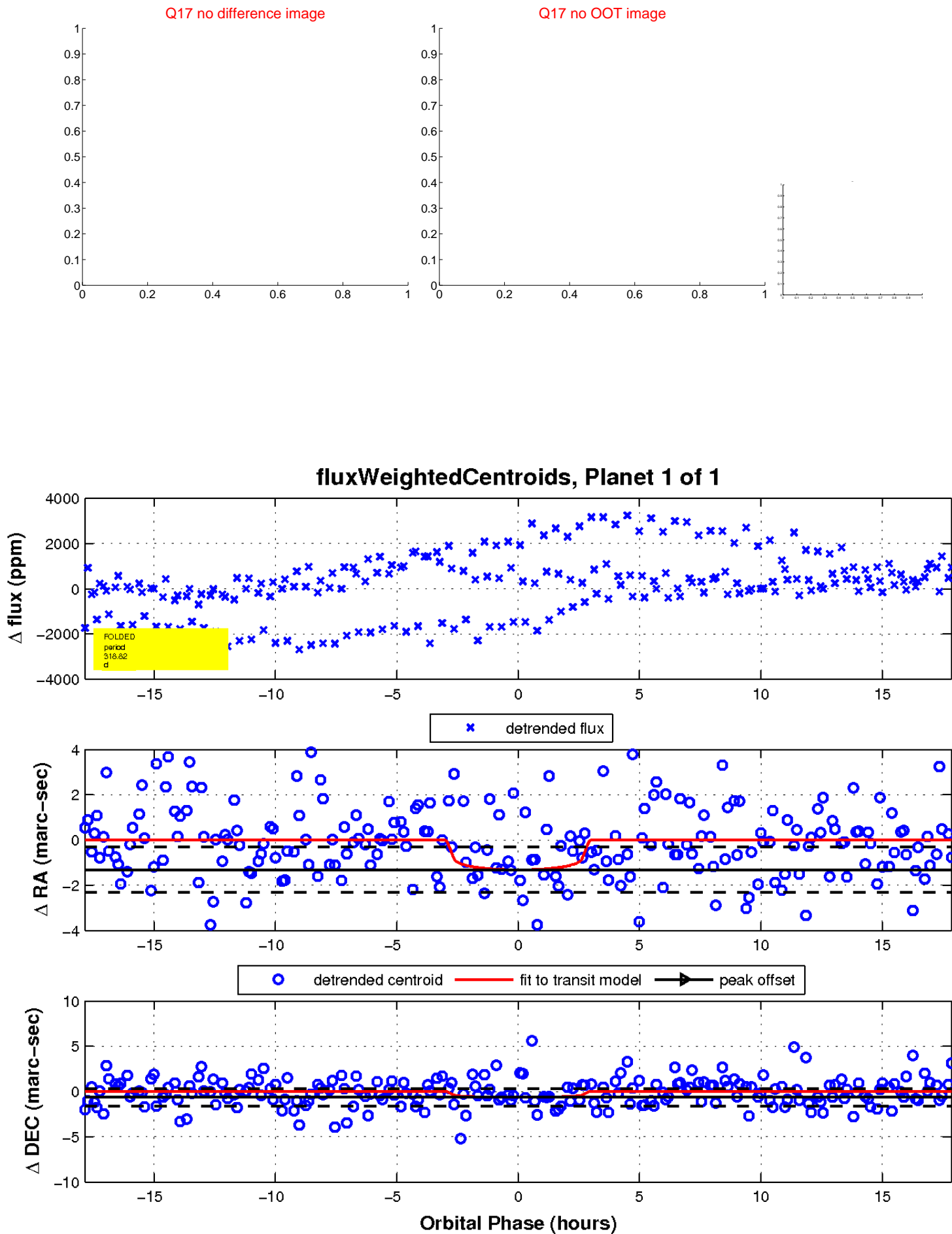
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UKIRT Image

