

# KIC 009269898

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
009269898-01	OBS	No	277.157098	172.862651	198.9	31.993	8.3	6.3	0.96	5982	1.43	1.48

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009269898-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

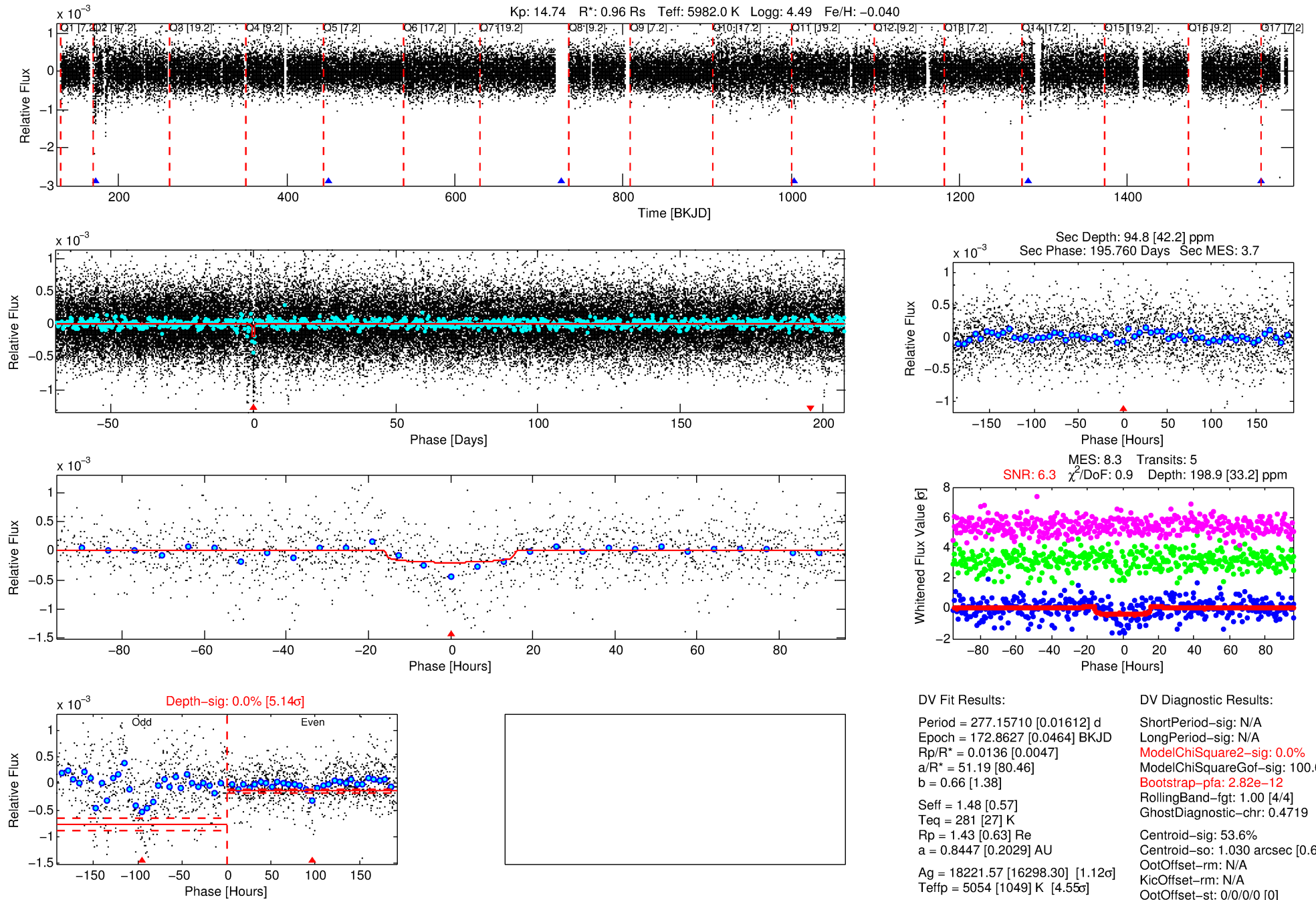
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 009269898-01

No Significant Match Found

# DV One-Page Summary

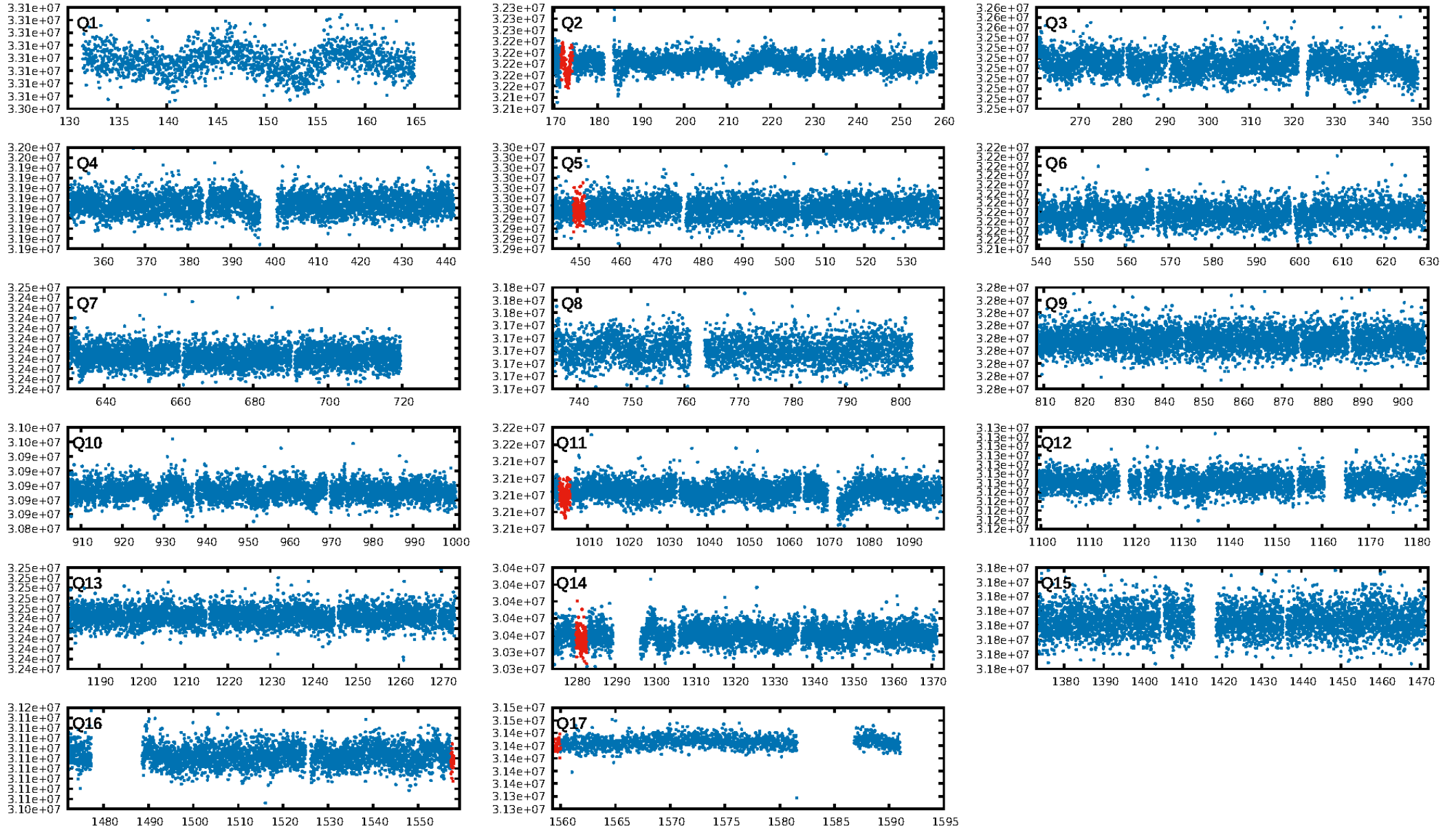
KIC: 9269898 Candidate: 1 of 1 Period: 277.157 d



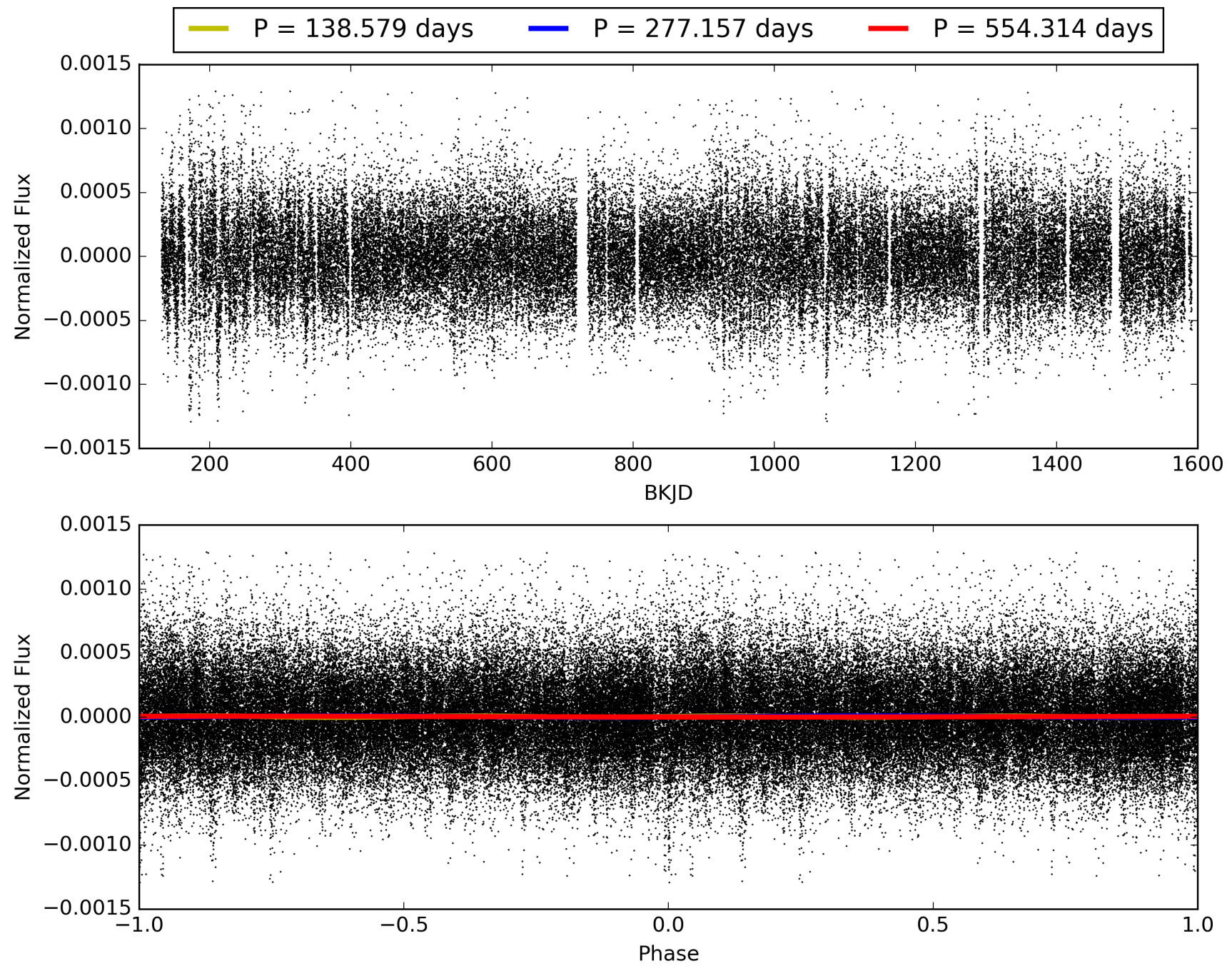
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:04:02 Z

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

# TCE 009269898-01, PDC Light Curves

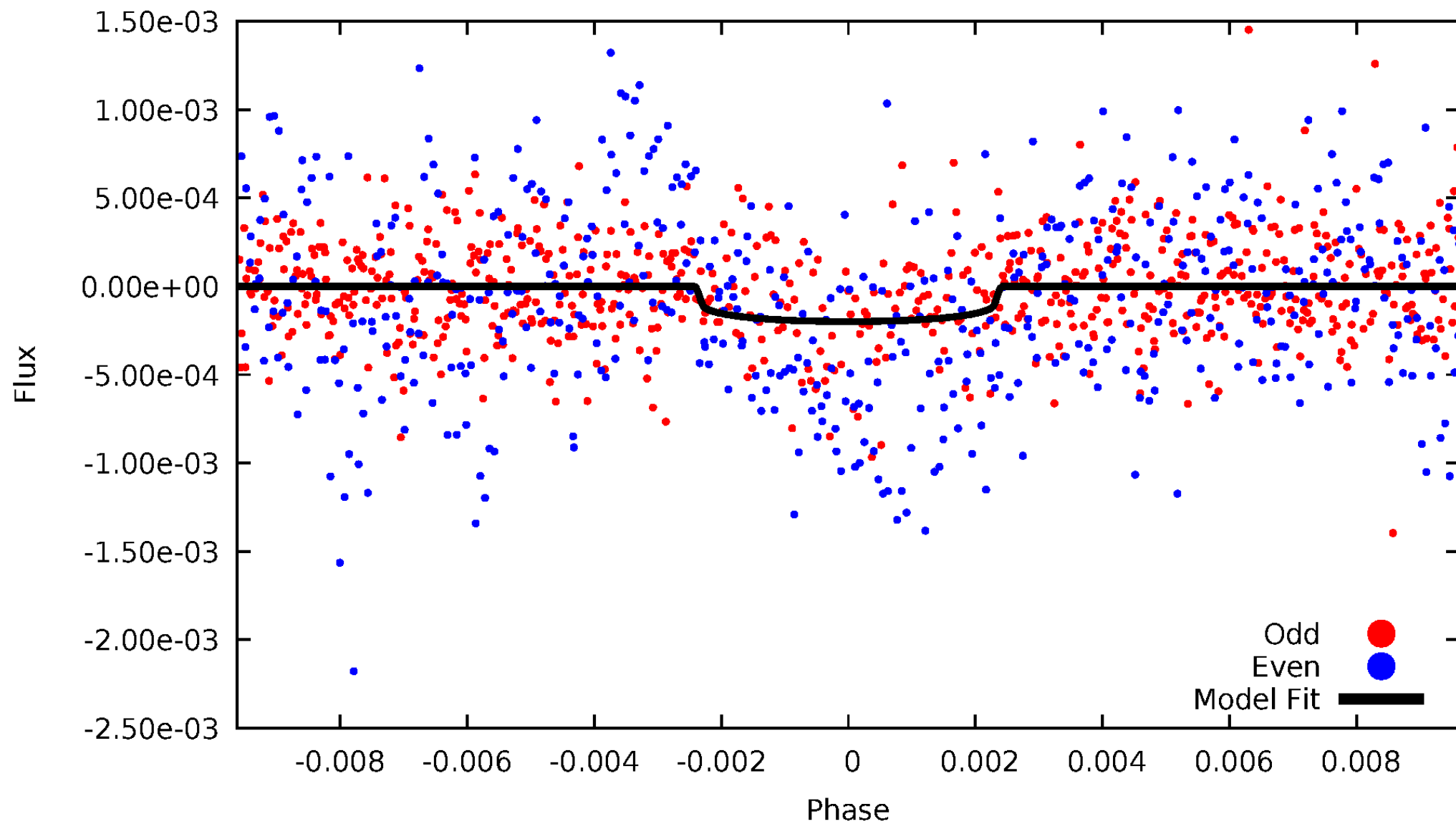


# TCE 009269898-01



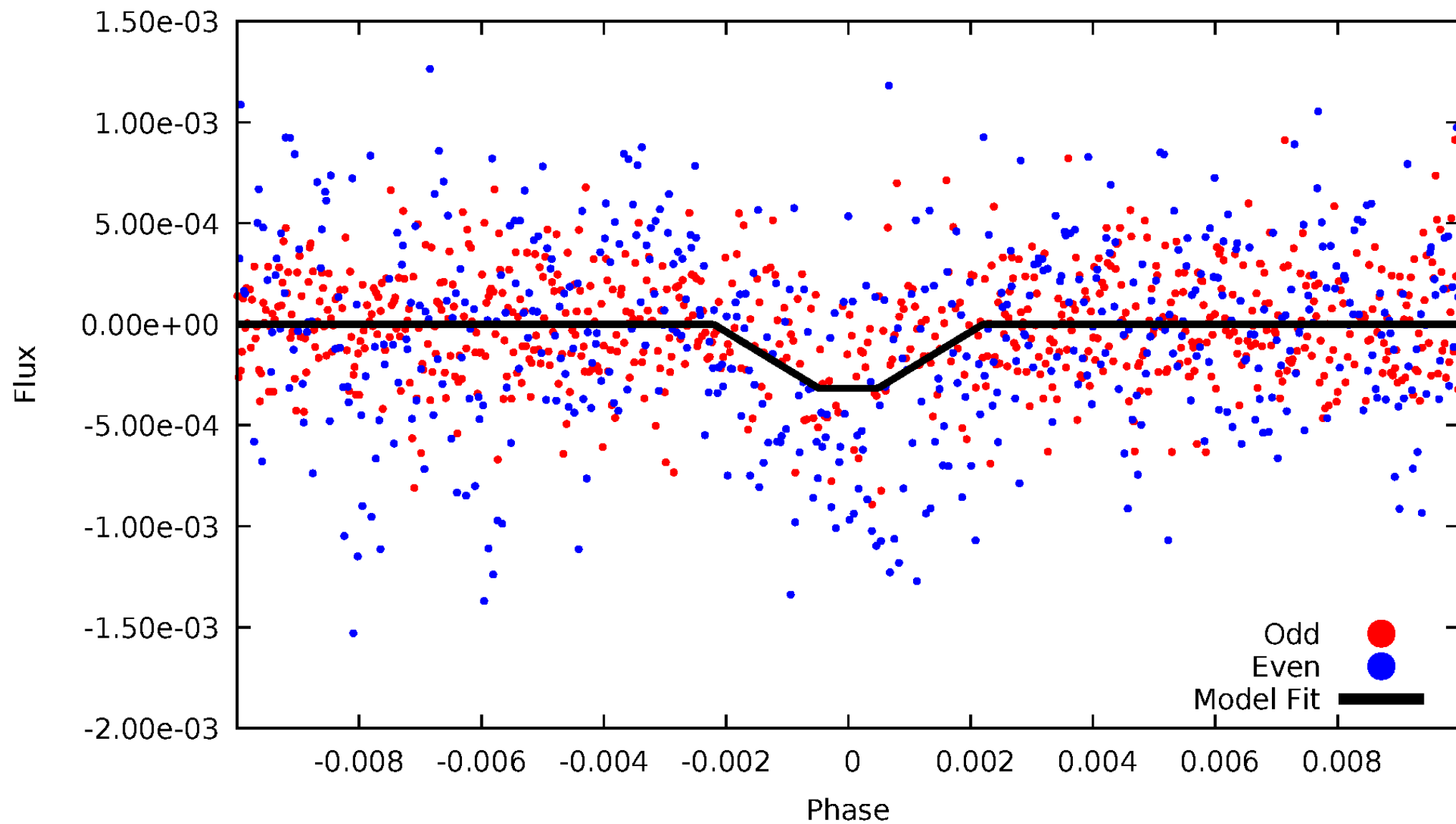
# DV Odd/Even

TCE 009269898-01



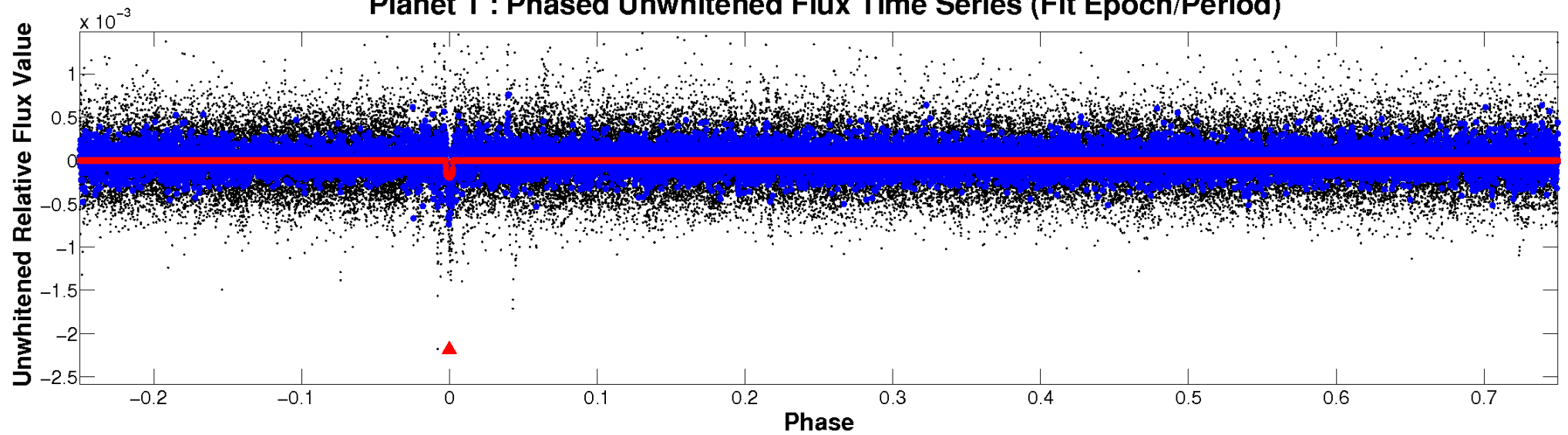
# ALT Odd/Even

TCE 009269898-01

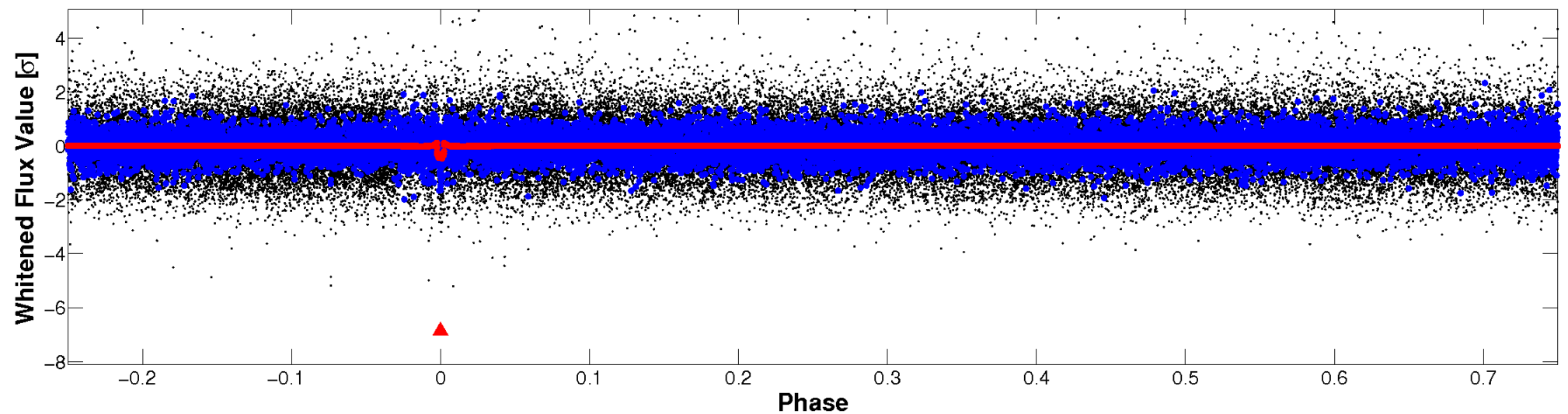


# Non-Whitened Vs. Whitened Light Curve

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

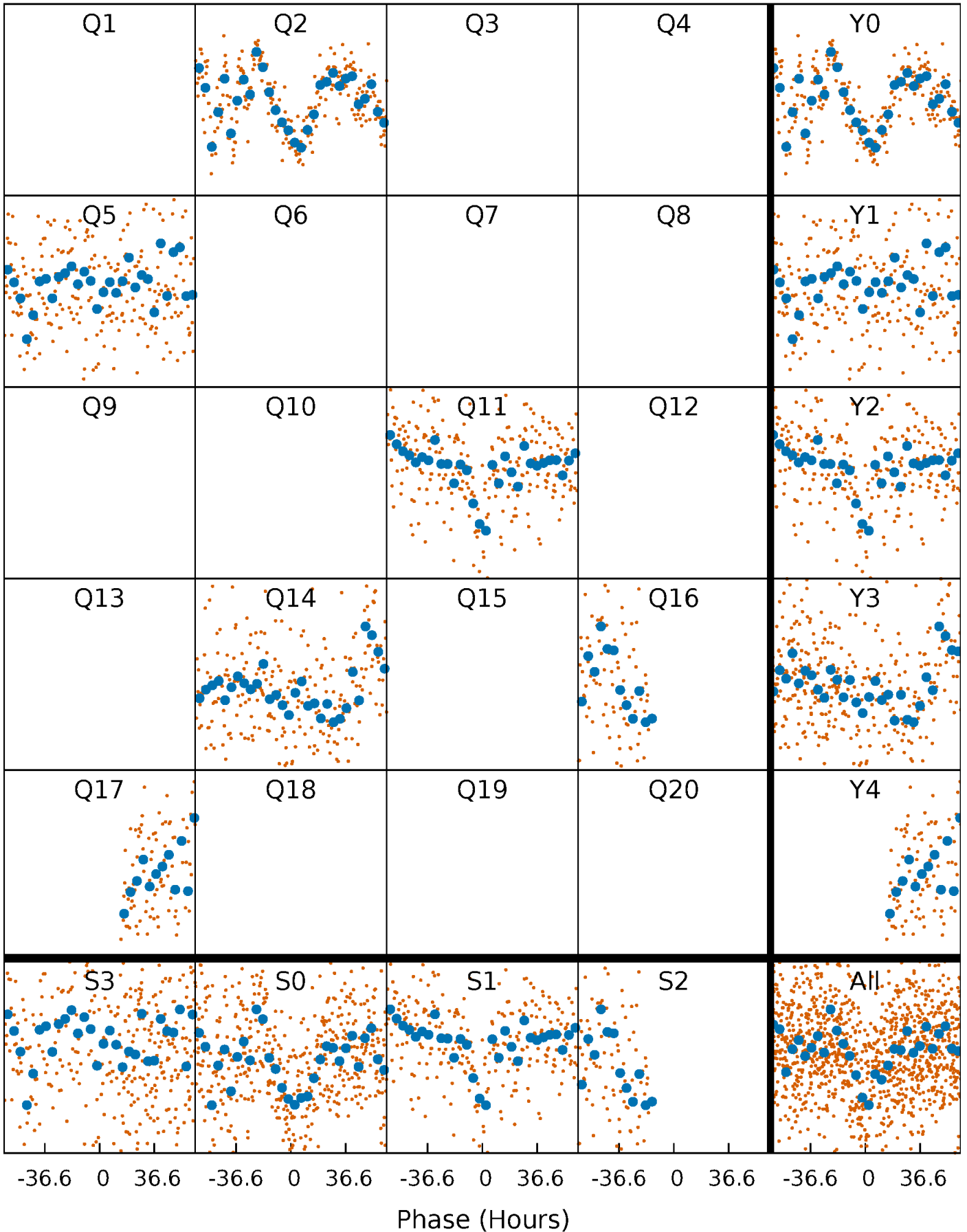


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



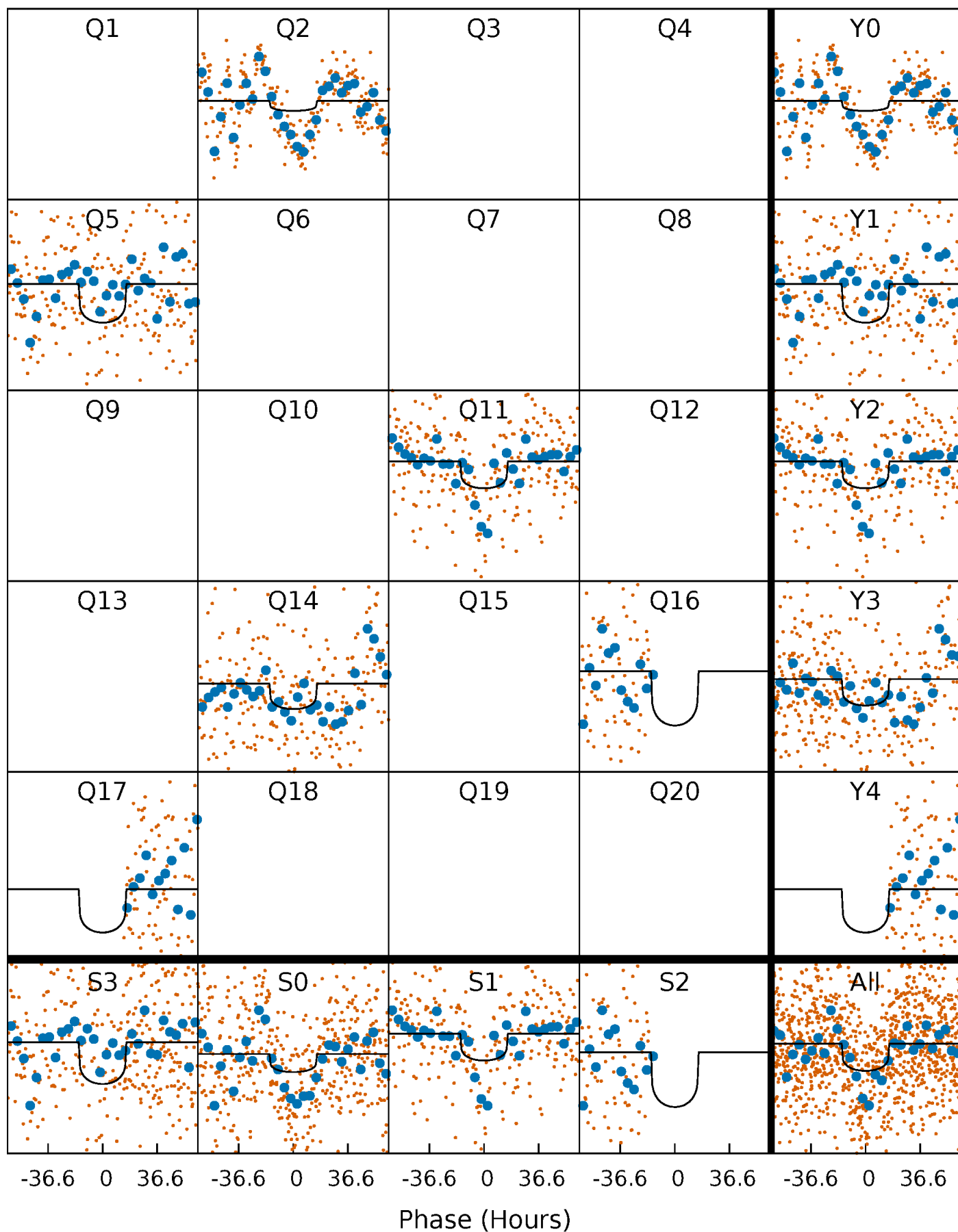
# PDC Quarter-Phased Transit Curves

TCE 009269898-01     $P=277.157098$  Days     $T_0=172.862651$  (BKJD)



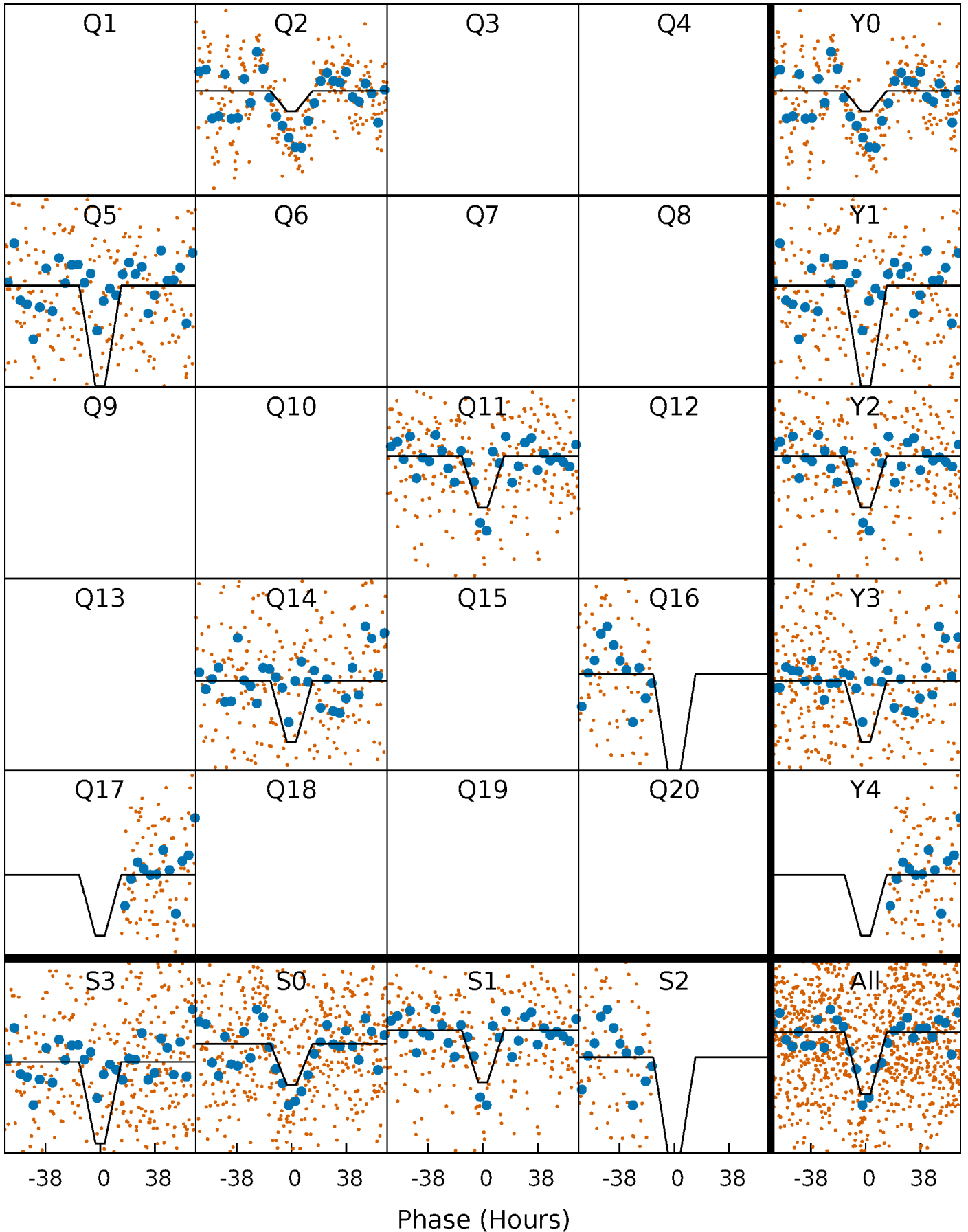
# DV Quarter-Phased Transit Curves

TCE 009269898-01 P=277.157098 Days  $T_0=172.862651$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

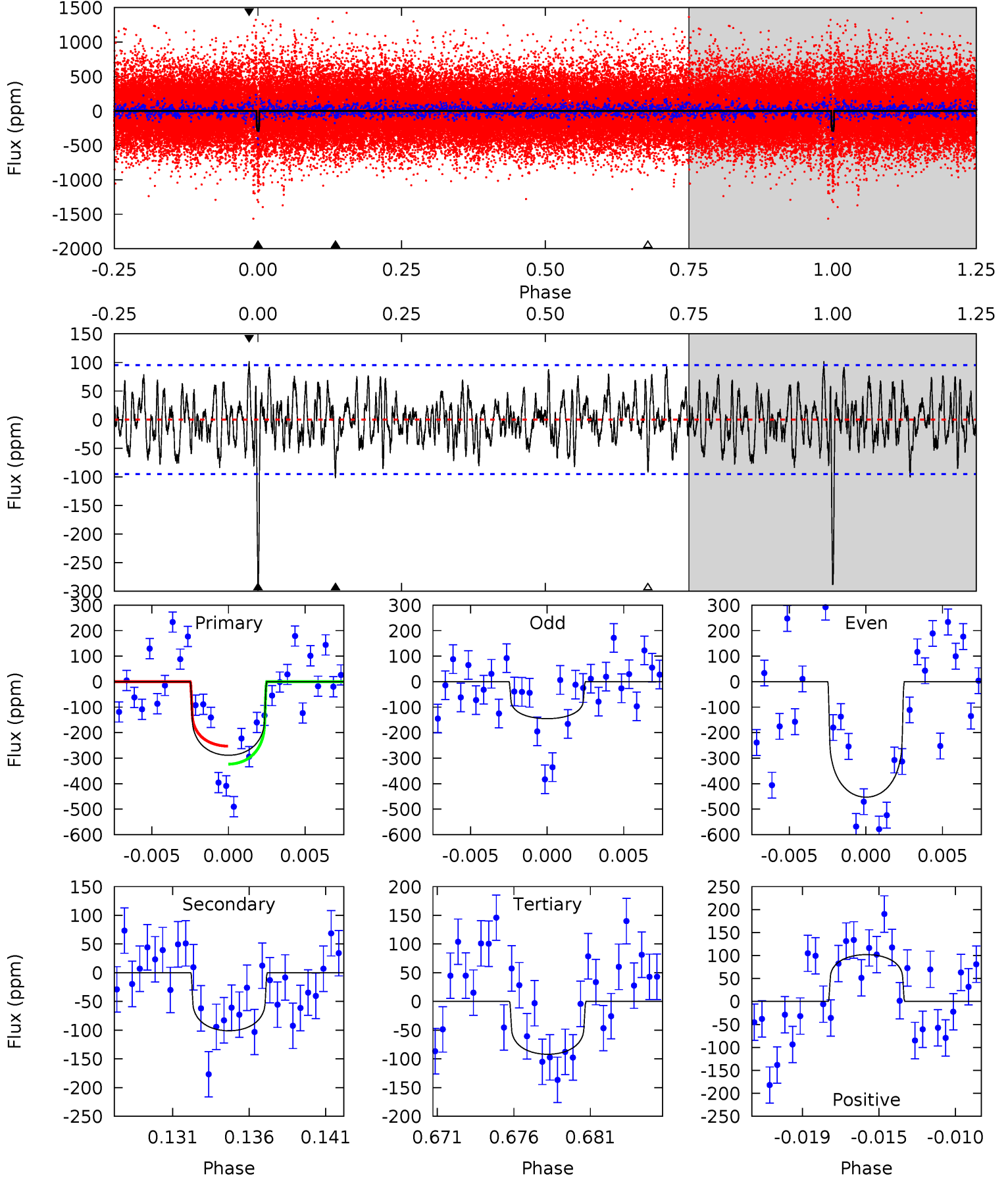
TCE 009269898-01 P=277.147185 Days  $T_0=172.887276$  (BKJD)



# DV Model-Shift Uniqueness Test

009269898-01, P = 277.157098 Days, E = 172.862651 Days

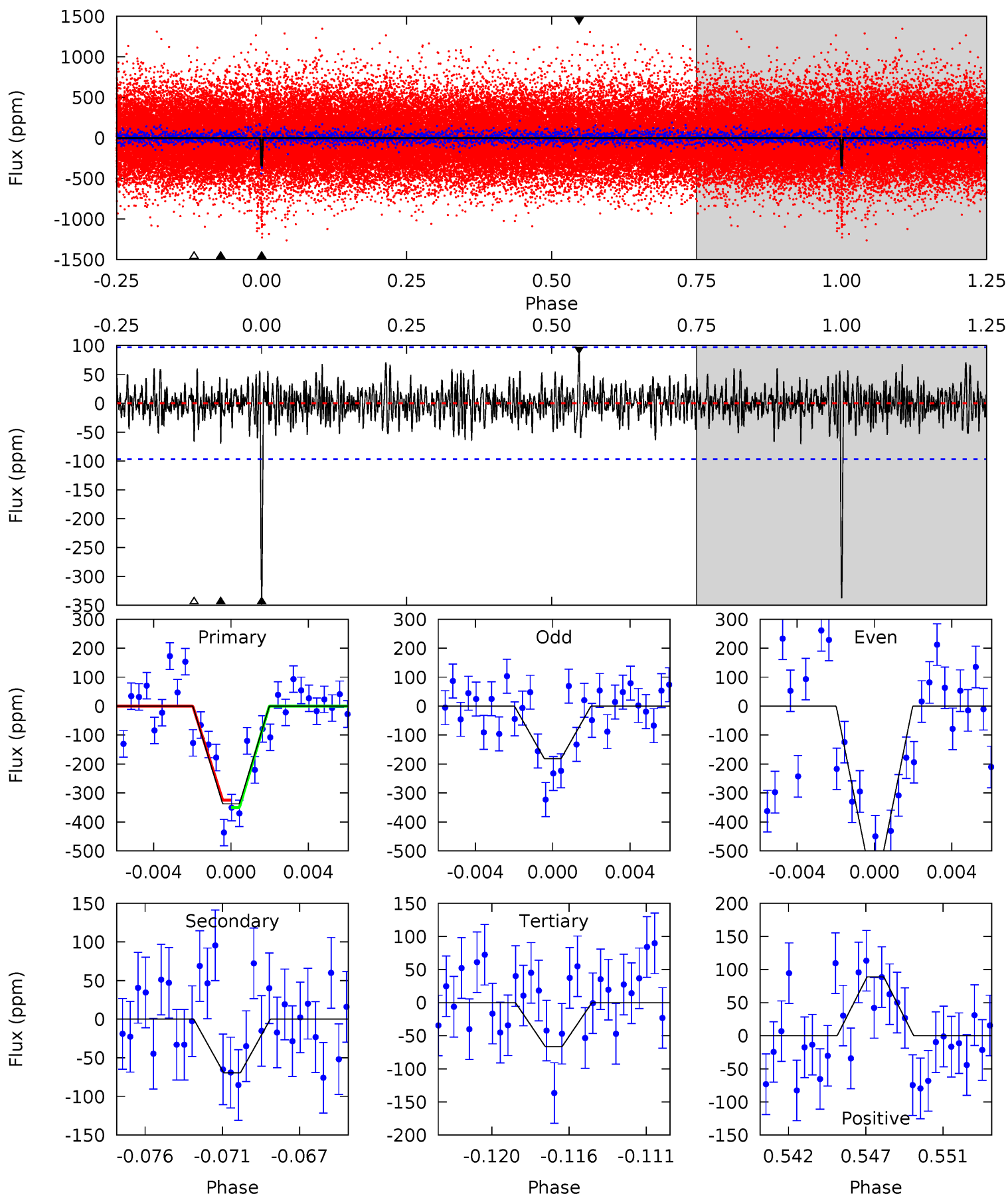
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	5.48	4.99	5.53	5.16	2.82	1.80	10.7	10.1	0.49	-0.05	8.38	1.35	0.26	1.91



# Alt Model-Shift Uniqueness Test

009269898-01, P = 277.147185 Days, E = 172.887276 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
18.0	3.70	3.54	4.74	5.18	2.84	1.17	14.5	13.3	0.16	-1.04	8.92	1.76	0.21	0.68



### Stellar Parameters For KIC 009269898

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5982^{+162}_{-198}$	$4.493^{+0.050}_{-0.200}$	$-0.040^{+0.250}_{-0.350}$	$0.960^{+0.266}_{-0.095}$	$1.047^{+0.116}_{-0.142}$	$1.667^{+0.439}_{-0.846}$
	+3%/-3%	+1%/-4%	+625%/-875%	+28%/-10%	+11%/-14%	+26%/-51%
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 009269898-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-101 \pm 18$	$1.54^{+0.56}_{-0.55}$	$401^{+27}_{-18}$	$5136^{+1118}_{-644}$	$16533^{+22077}_{-7936}$
Alt.	$-69 \pm 19$	$1.94^{+0.54}_{-0.56}$	$400^{+29}_{-18}$	$4328^{+620}_{-420}$	$7033^{+6930}_{-3239}$

$T_{\text{max}}$  = 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

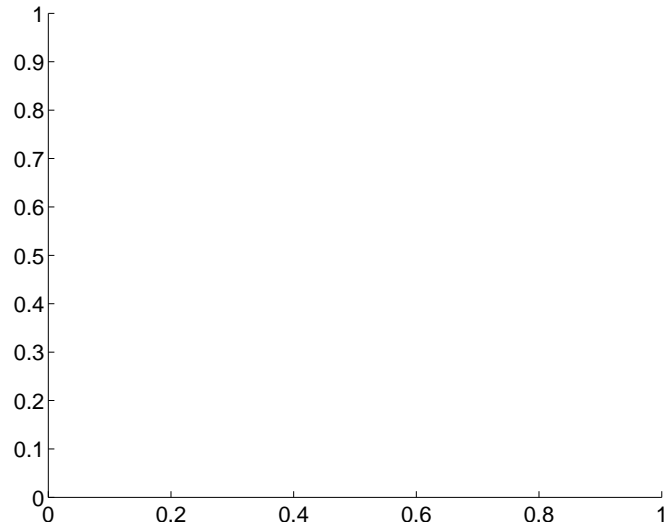
Supplemental centroid analysis for 009269898-01. Kepler magnitude: 14.74. Transit SNR 6.29

There are 0 quarters with good PRF difference image offsets

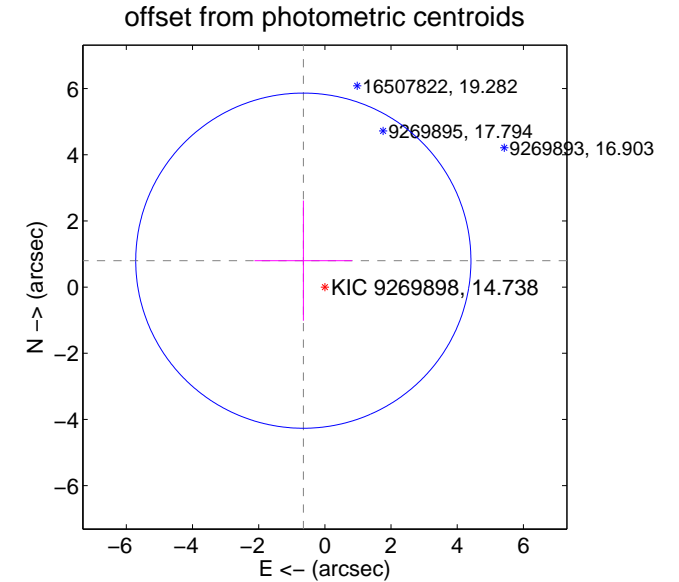
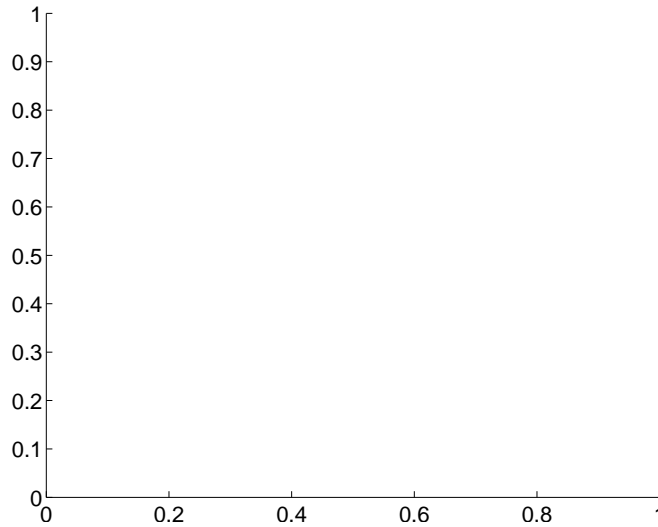
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	$1.03 \pm 1.69$	0.61	$0.65 \pm 1.48$	$0.80 \pm 1.82$

There is no PRF-fit offset from OOT-fit

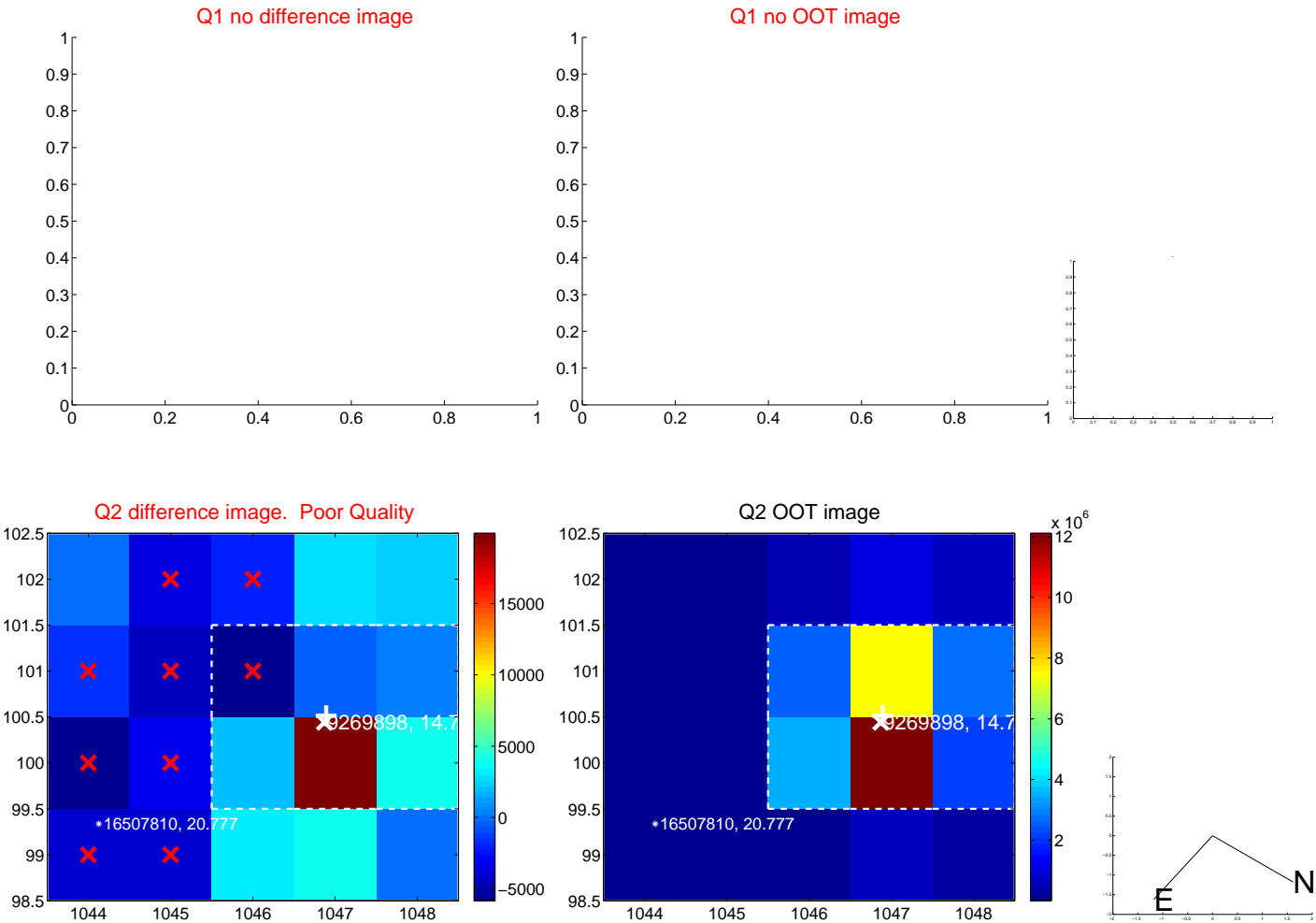


There is no PRF-fit offset from KIC



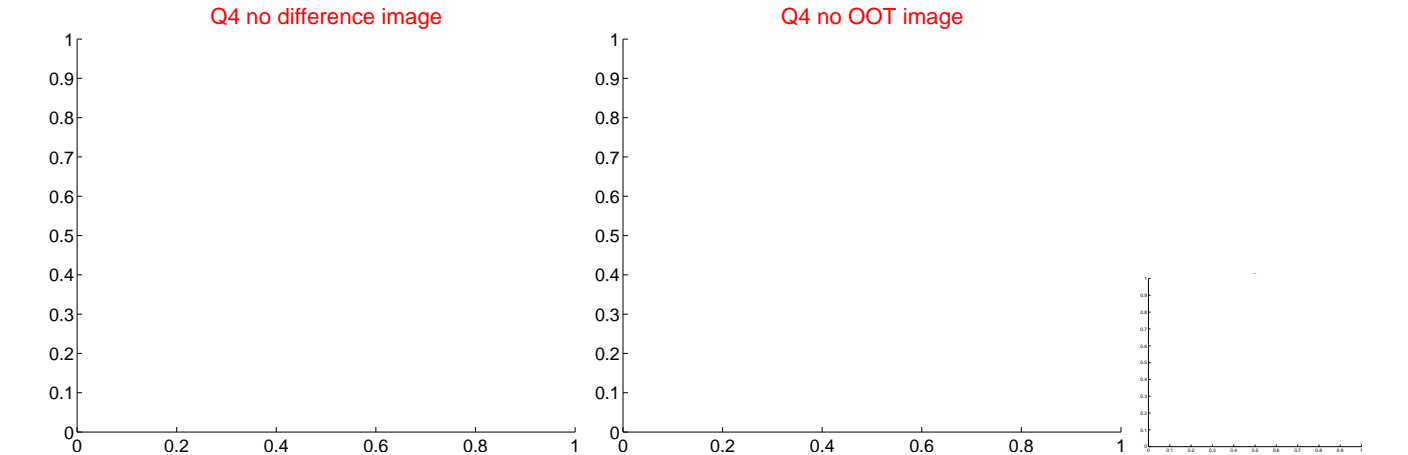
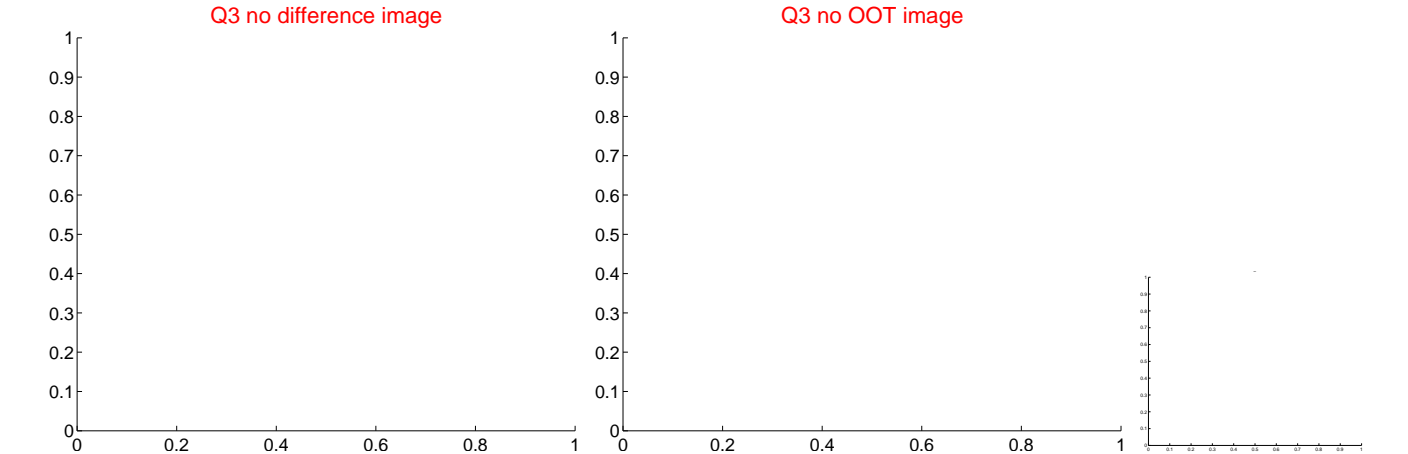
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

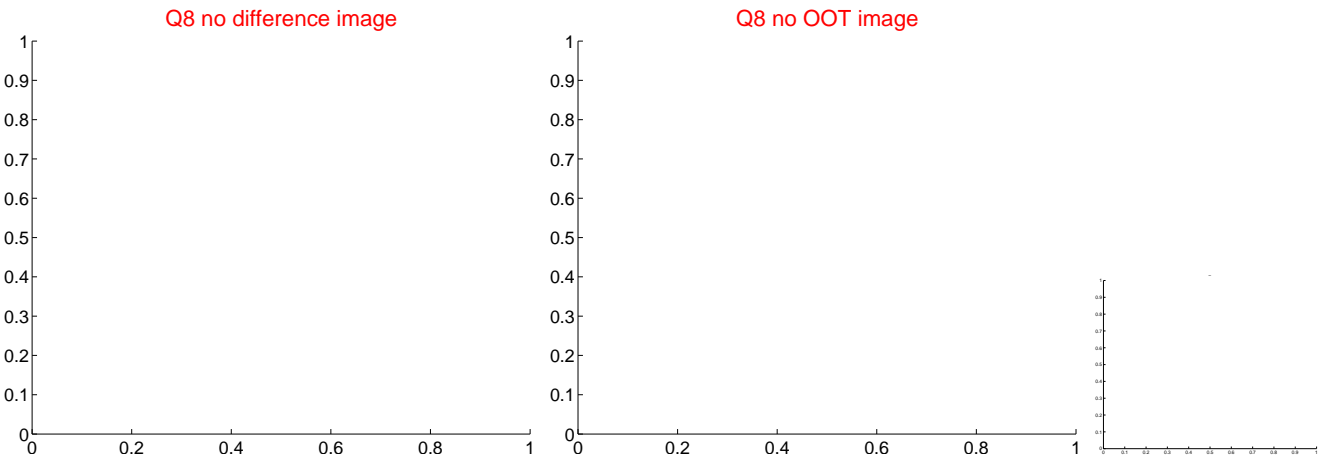
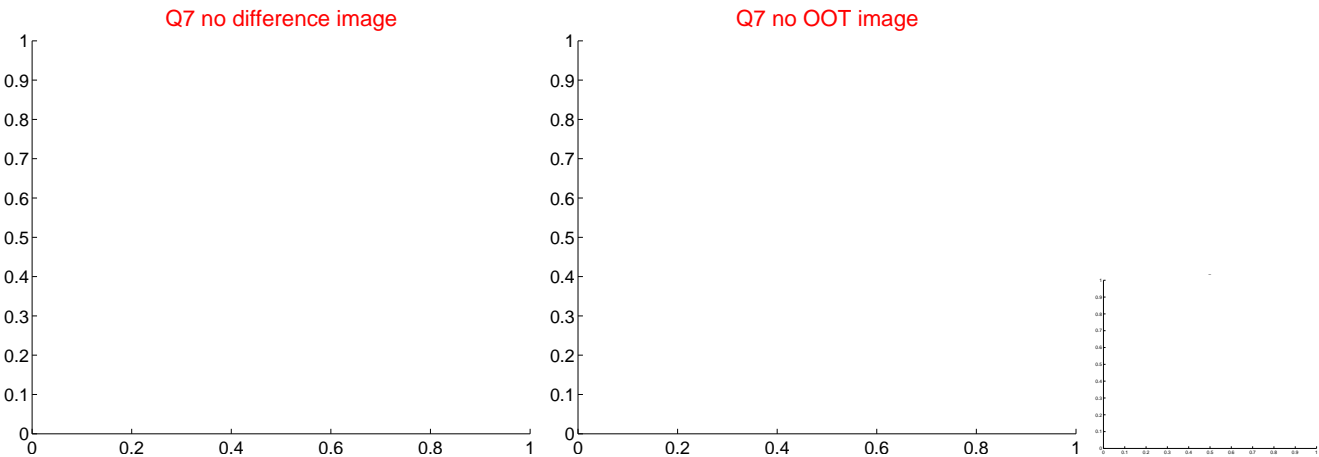
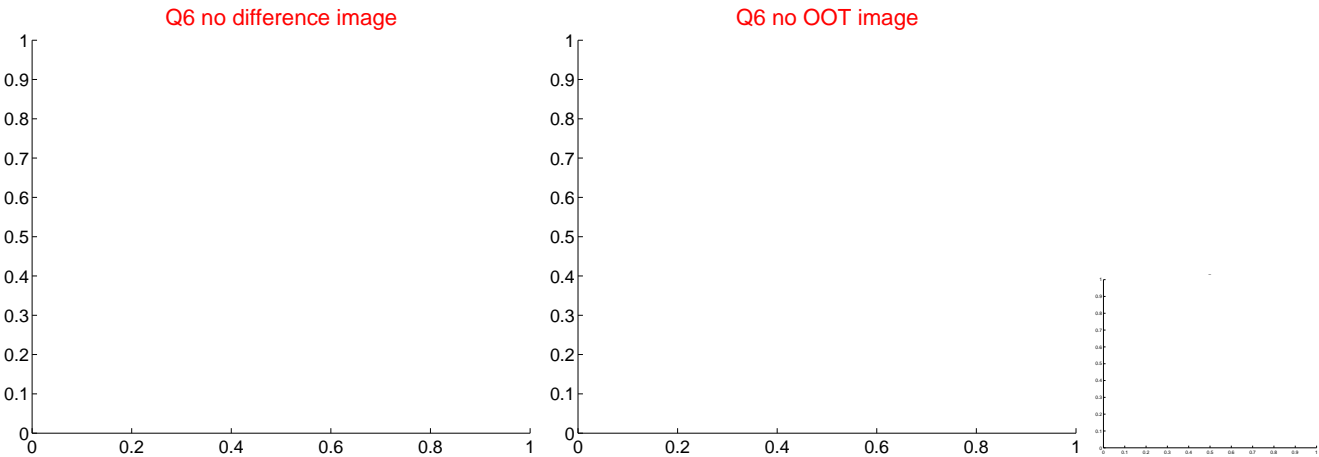
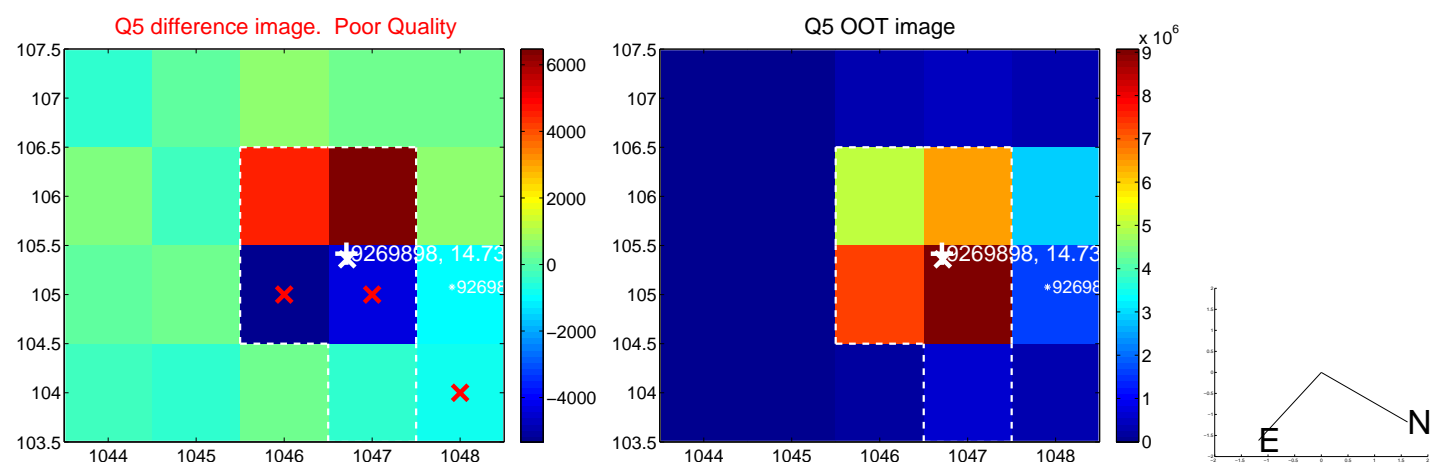


Q2 difference image. Poor Quality

Q2 OOT image



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



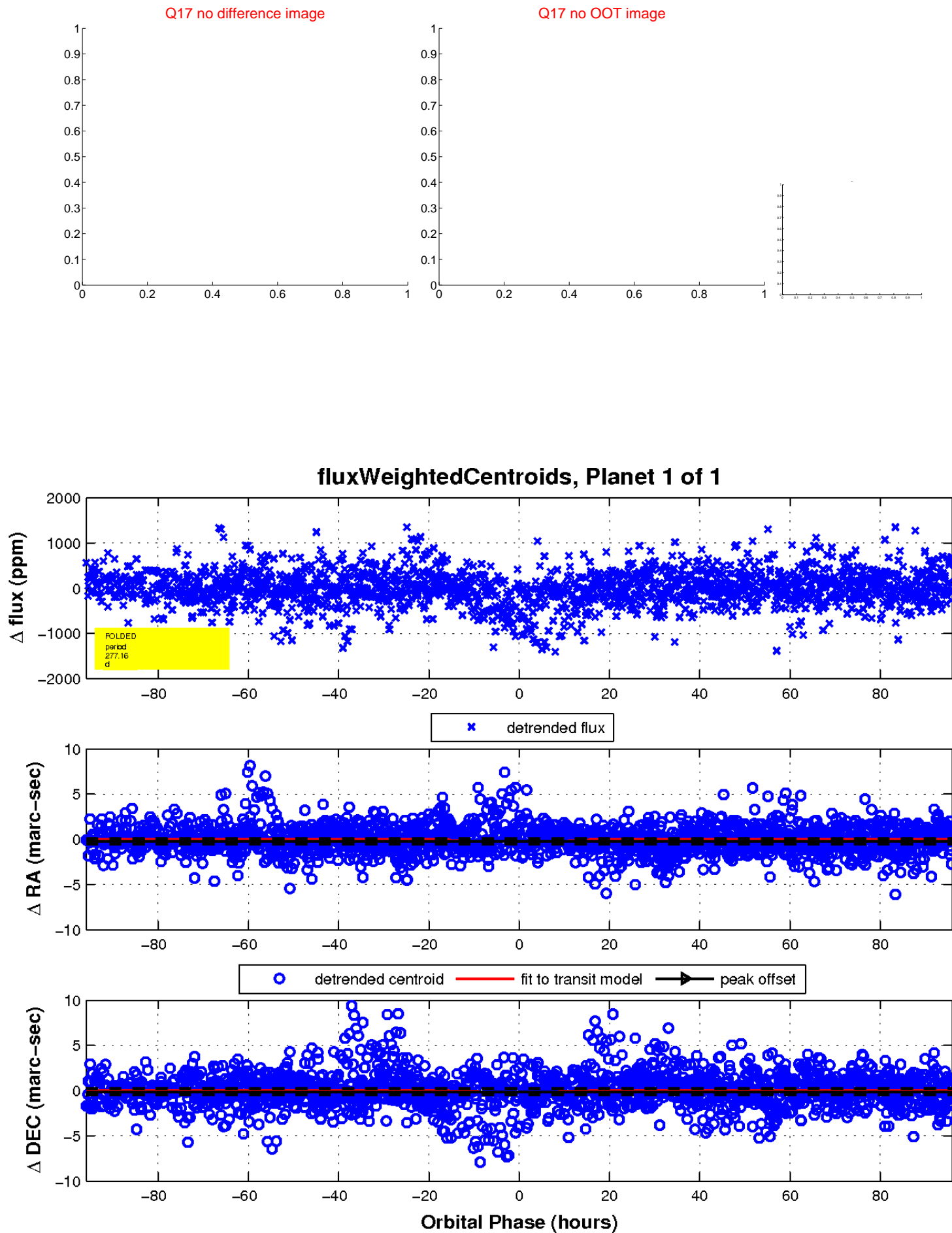
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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.



# UKIRT Image

Declination

