

# KIC 008492265

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008492265-01	OBS	No	375.021015	132.543828	1993.9	64.173	11.3	17.1	0.59	4410	5.17	0.16

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008492265-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

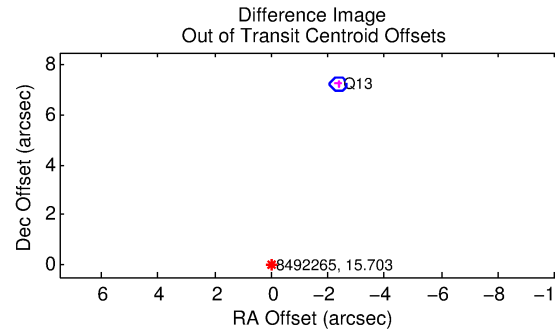
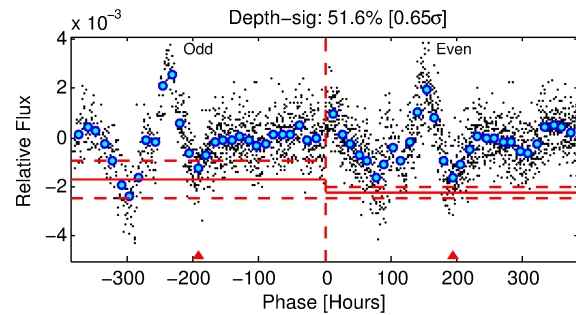
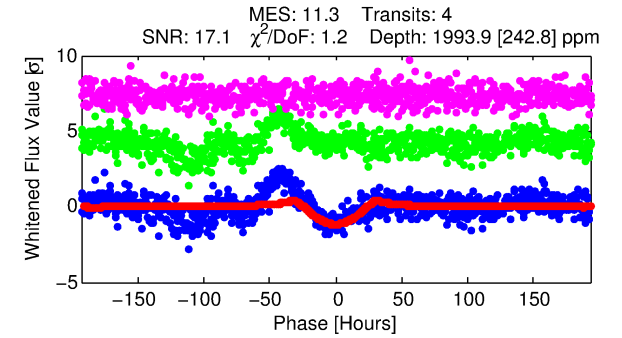
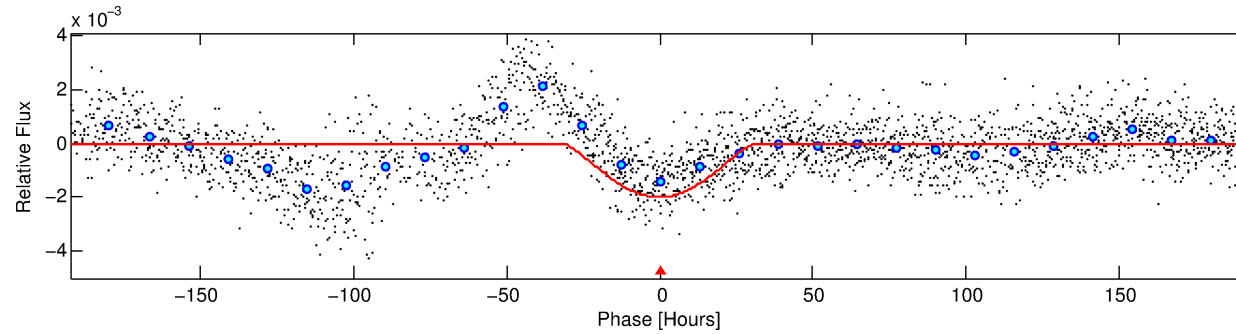
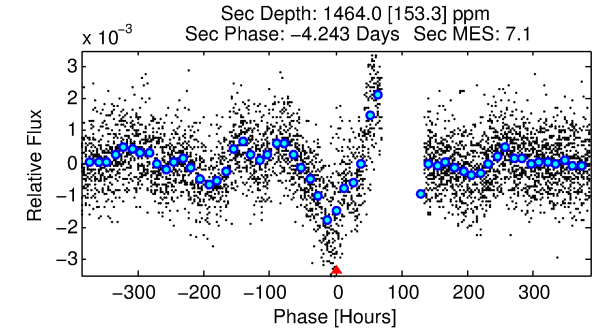
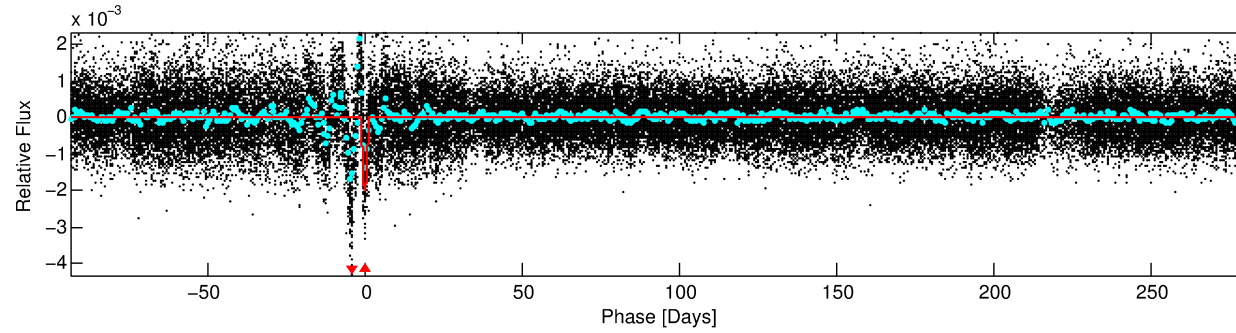
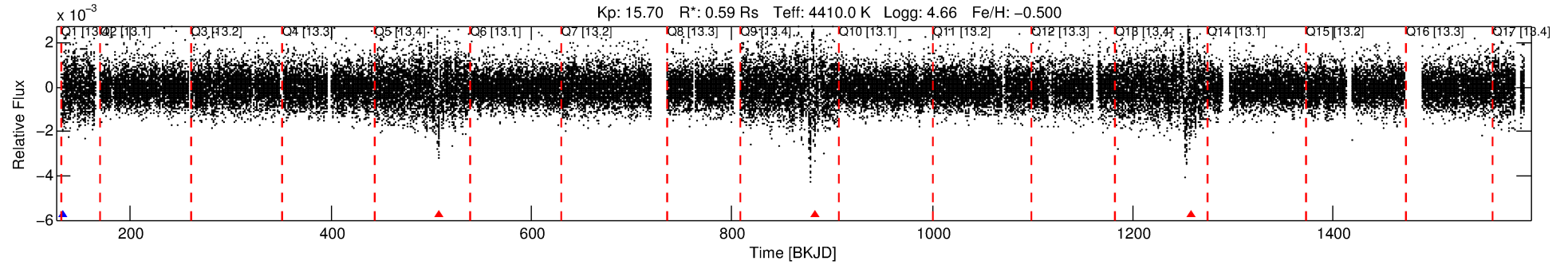
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008492265-01

No Significant Match Found

# DV One-Page Summary

KIC: 8492265 Candidate: 1 of 1 Period: 375.021 d



## DV Fit Results:

Period = 375.02101 [0.03890] d  
Epoch = 132.5438 [0.0727] BKJD  
Rp/R\* = 0.0804 [0.1284]  
a/R\* = 18.42 [6.13]  
b = 1.00 [0.19]  
Seff = 0.16 [0.03]  
Teq = 162 [7] K  
Rp = 5.17 [8.28] Re  
a = 0.8504 [0.0623] AU  
Ag = 21757.13 [69572.54] [0.31 $\sigma$ ]  
Teff = 3043 [2433] K [1.18 $\sigma$ ]

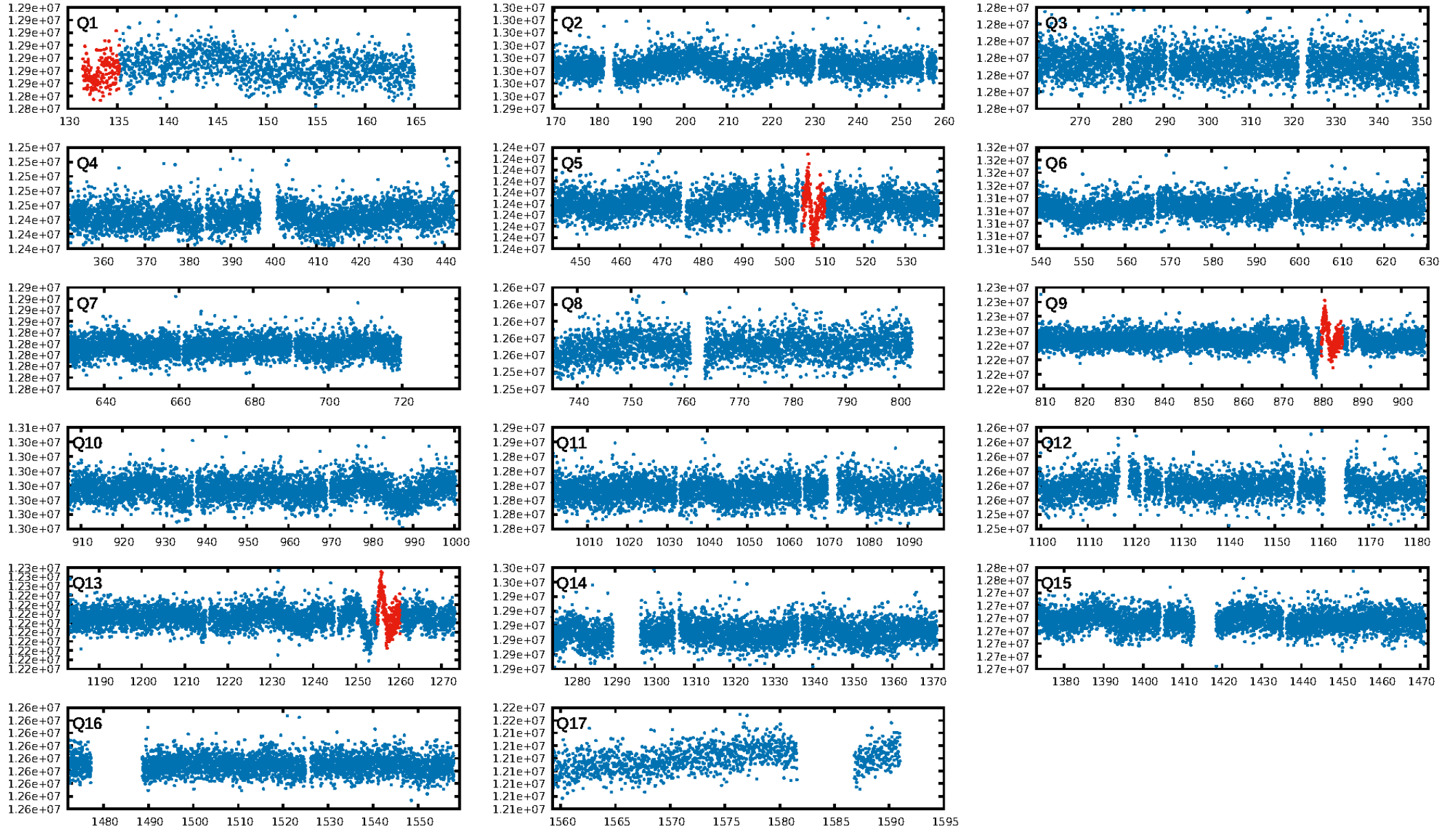
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 2.4%  
ModelChiSquareGoF-sig: 100.0%  
Bootstrap-pfa: 7.51e-26  
RollingBand-fgt: 0.00 [0/3]  
GhostDiagnostic-chr: 0.6715  
Centroid-sig: 19.2%  
Centroid-so: 0.710 arcsec [1.23 $\sigma$ ]  
OotOffset-rm: 7.620 arcsec [81.30 $\sigma$ ]  
KicOffset-rm: 7.457 arcsec [79.56 $\sigma$ ]  
OotOffset-st: 0/0/0/1 [1]  
KicOffset-st: 0/0/0/1 [1]  
DiffImageQuality-fgm: 0.00 [0/1]  
DiffImageOverlap-fno: 1.00 [1/1]

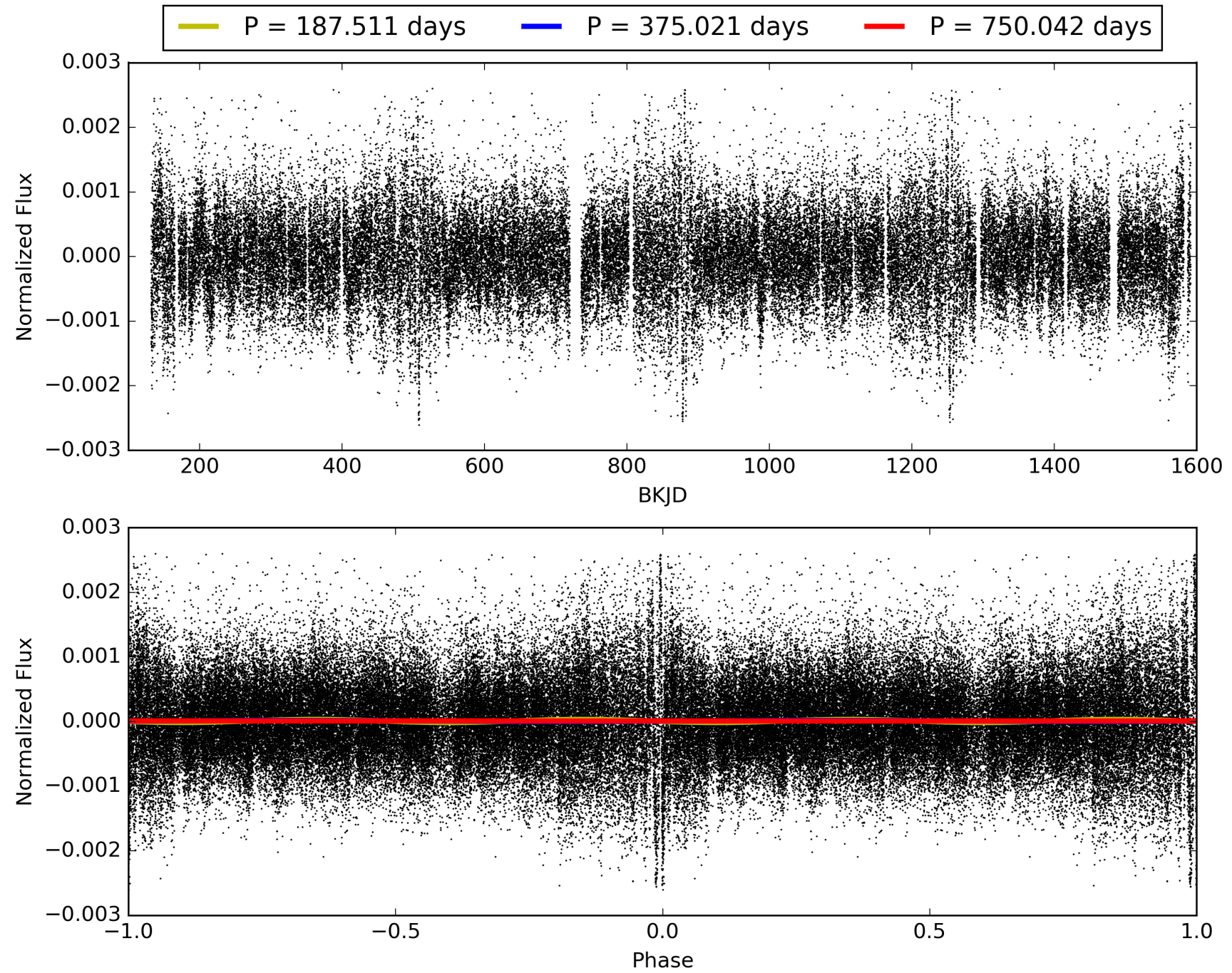
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:45:07 Z

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

# TCE 008492265-01, PDC Light Curves

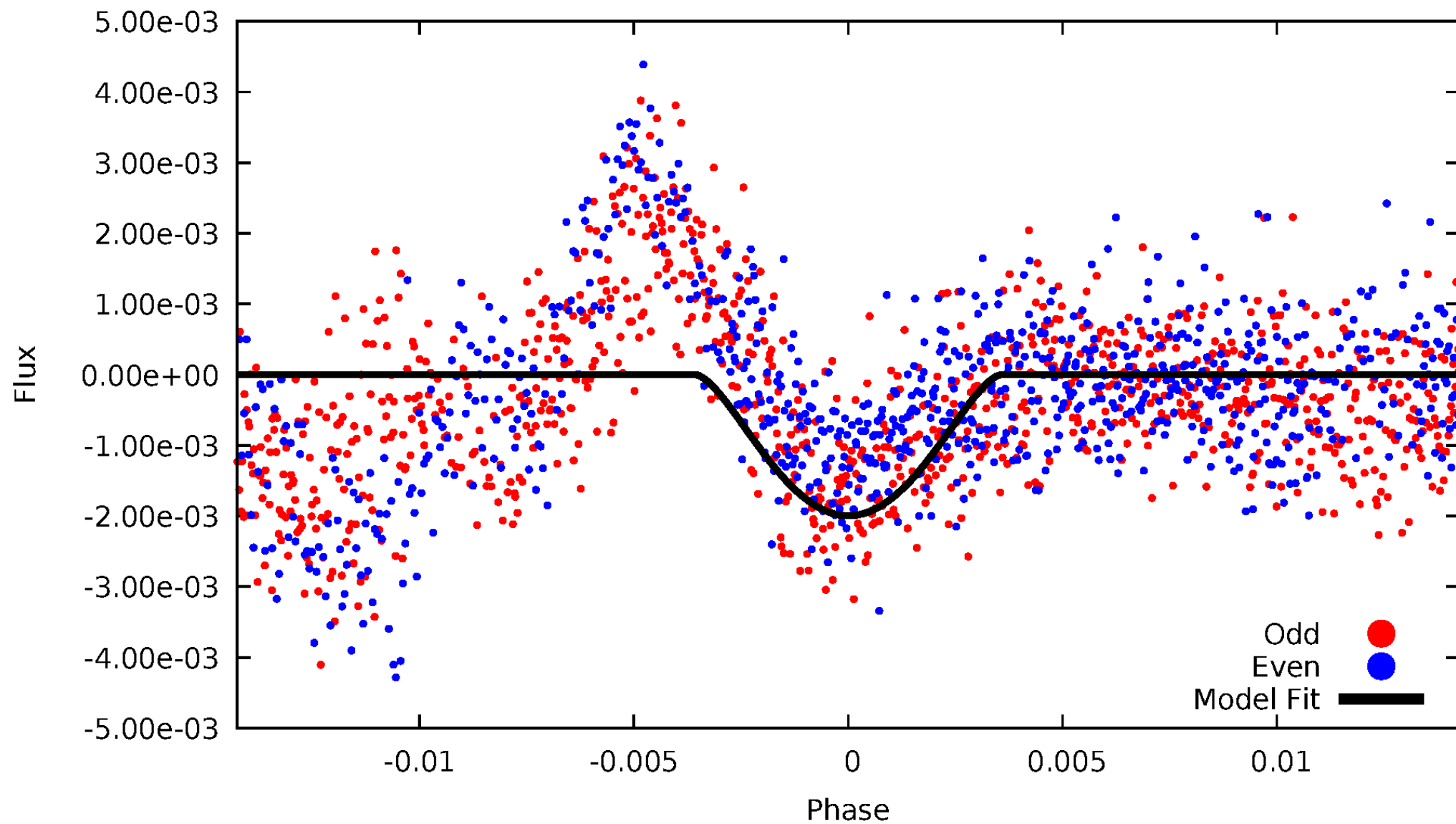


TCE 008492265-01



# DV Odd/Even

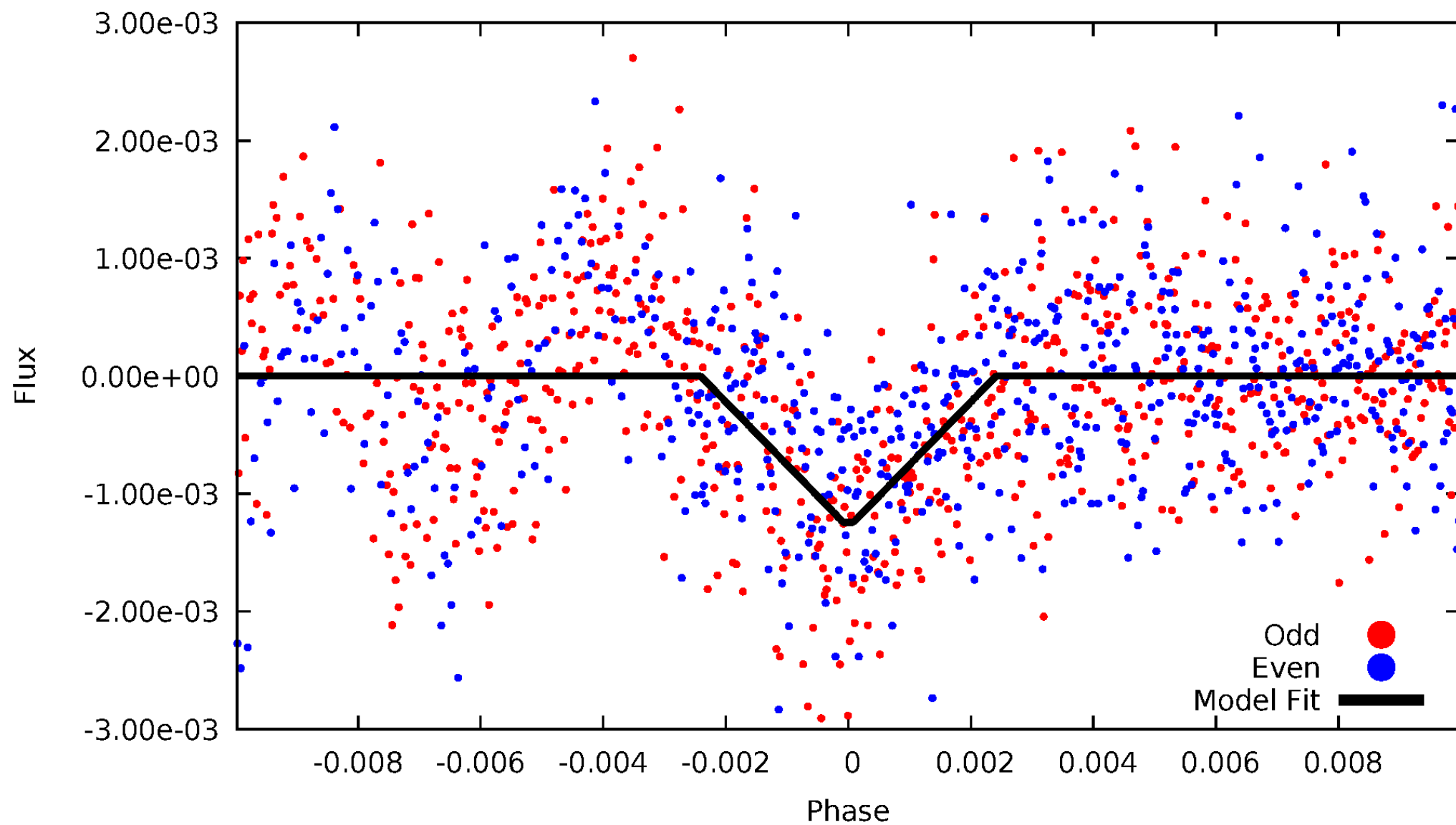
TCE 008492265-01





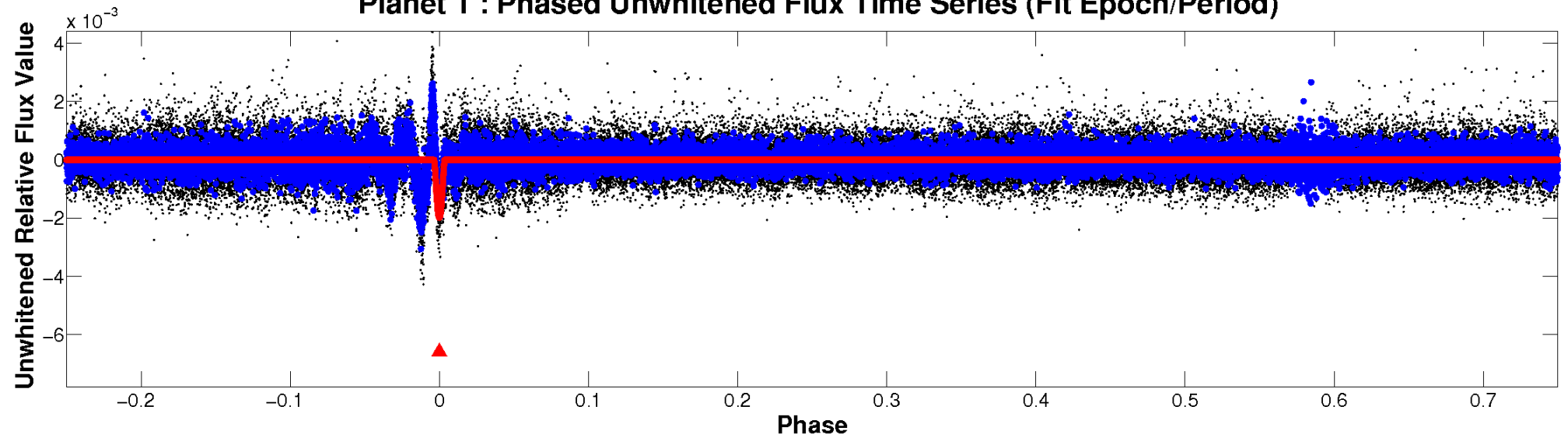
# ALT Odd/Even

TCE 008492265-01

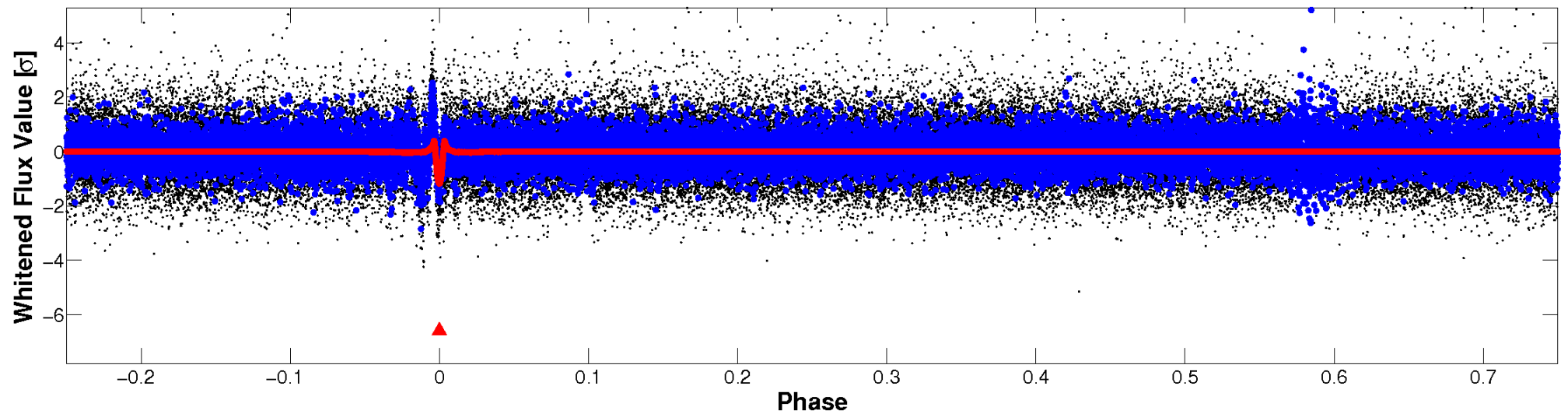


# Non-Whitened Vs. Whitened Light Curve

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

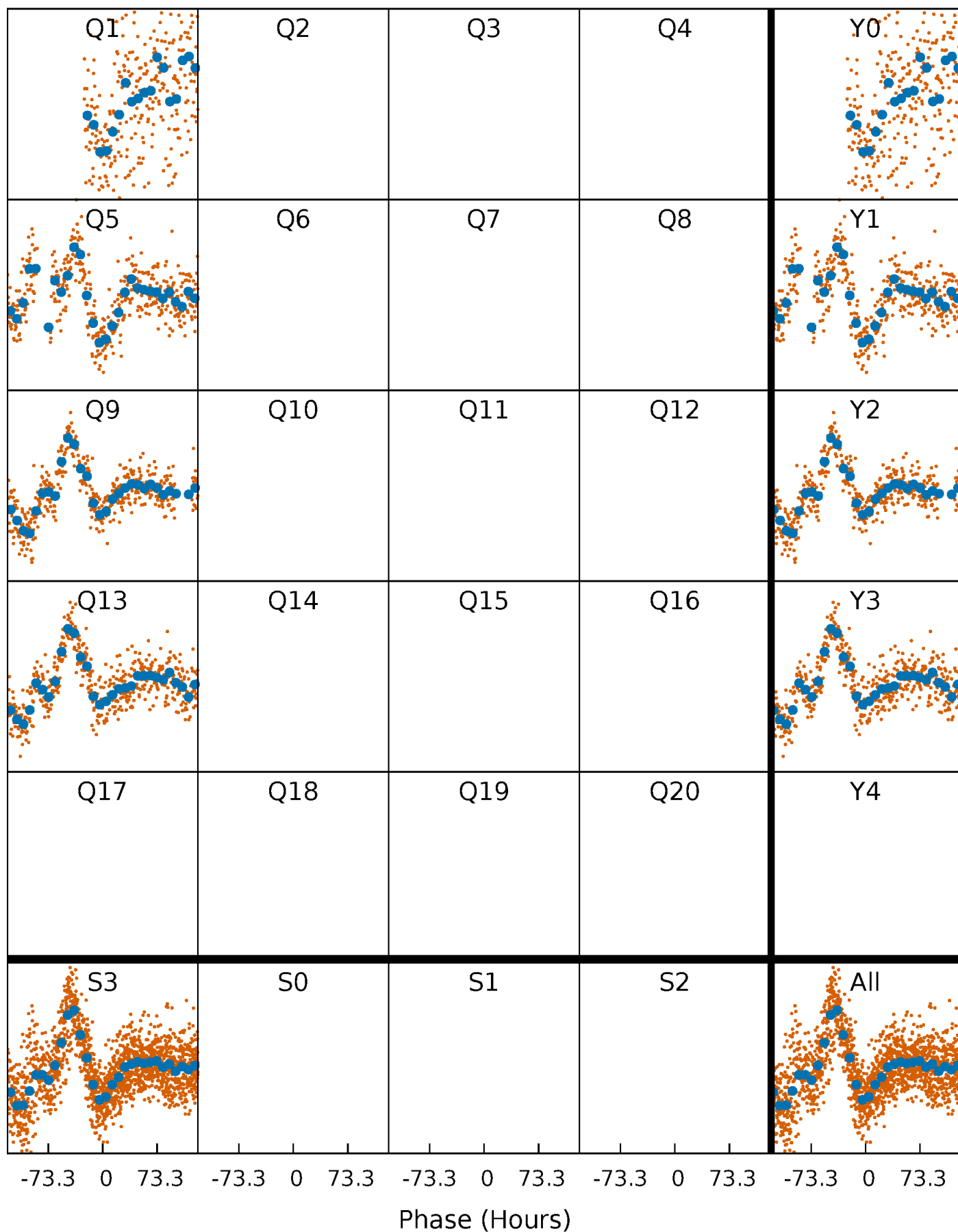


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

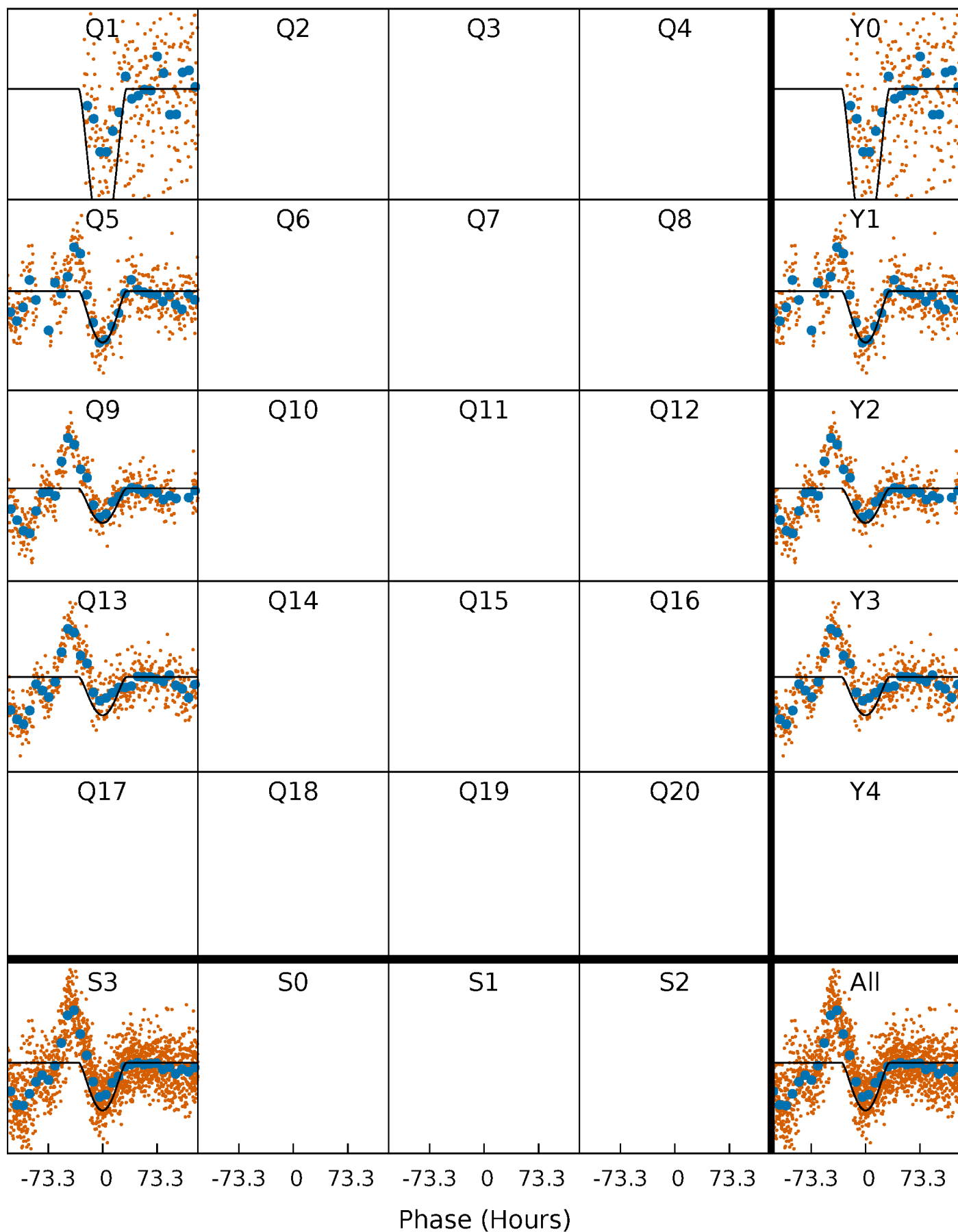
TCE 008492265-01 P=375.021014 Days  $T_0=132.543828$  (BKJD)





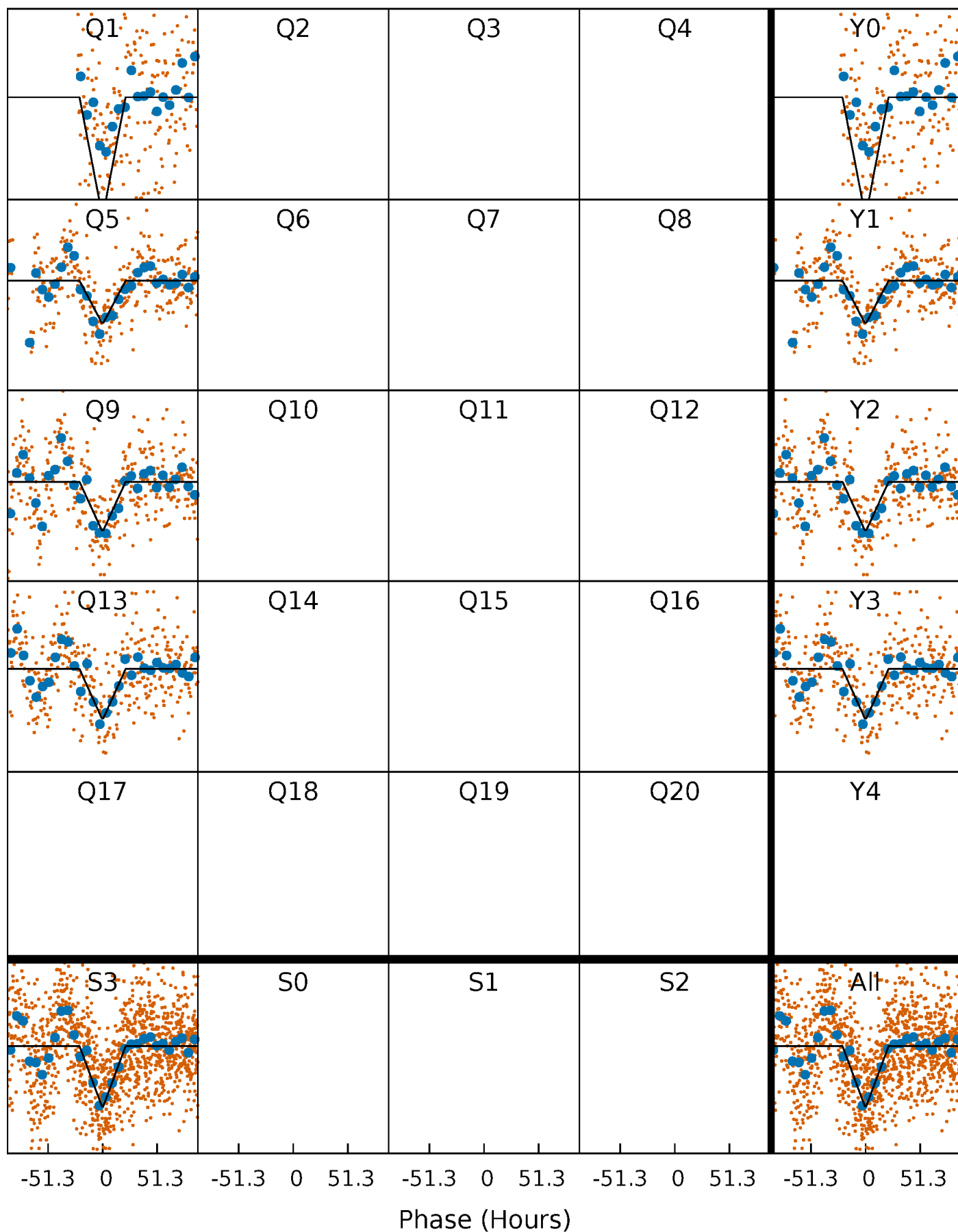
# DV Quarter-Phased Transit Curves

TCE 008492265-01 P=375.021014 Days  $T_0=132.543828$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

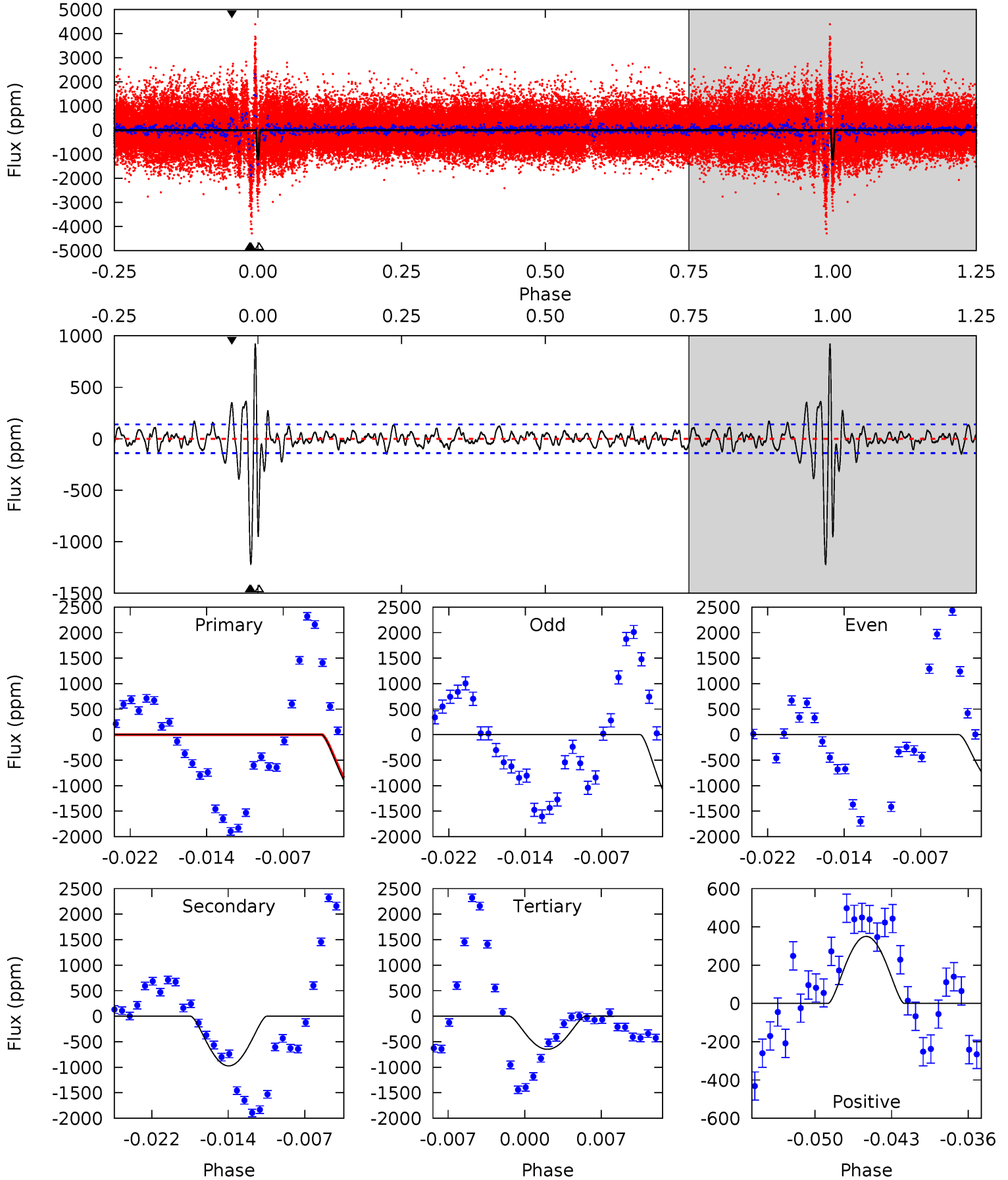
TCE 008492265-01 P=374.921770 Days  $T_0=132.498152$  (BKJD)



# DV Model-Shift Uniqueness Test

008492265-01, P = 375.021014 Days, E = 132.543828 Days

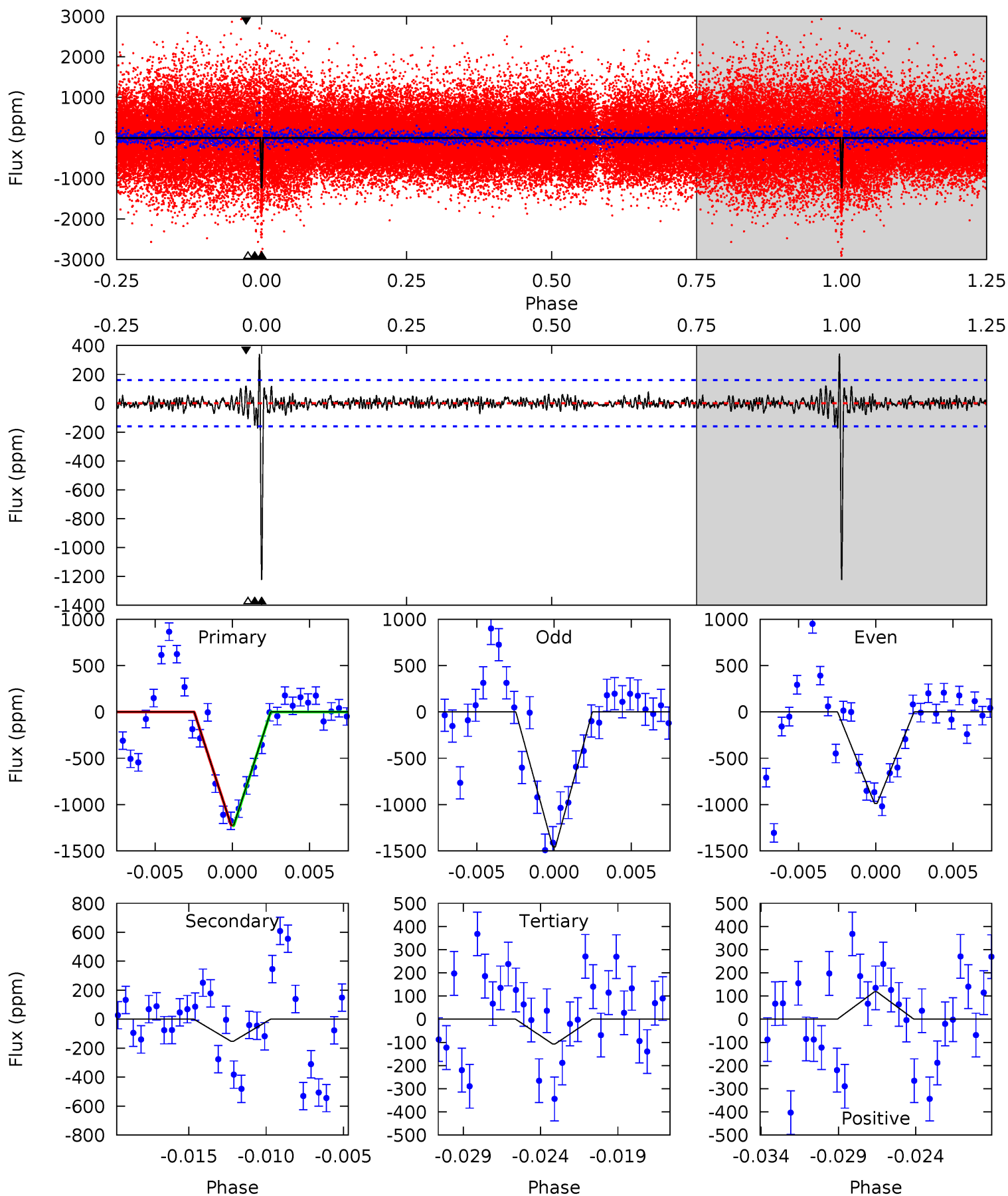
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.5	35.6	23.7	12.8	5.09	2.69	3.59	20.8	31.7	11.9	22.8	8.62	1.06	0.43	3.19



# Alt Model-Shift Uniqueness Test

008492265-01, P = 374.921770 Days, E = 132.498152 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
39.4	4.91	3.44	3.80	5.16	2.82	0.82	36.0	35.6	1.47	1.11	7.59	0.87	0.22	0.08



### Stellar Parameters For KIC 008492265

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$4410^{+131}_{-144}$	$4.662^{+0.048}_{-0.032}$	$-0.500^{+0.300}_{-0.300}$	$0.590^{+0.050}_{-0.056}$	$0.582^{+0.063}_{-0.042}$	$4.000^{+0.917}_{-0.514}$
	+3%/-3%	+1%/-1%	+60%/-60%	+8%/-9%	+11%/-7%	+23%/-13%
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 008492265-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-973 \pm 27$	$7.86^{+7.21}_{-4.91}$	$226^{+9}_{-9}$	$2844^{+998}_{-427}$	$6331^{+39174}_{-4549}$
Alt.	$-152 \pm 31$	$6.43^{+6.38}_{-4.47}$	$225^{+8}_{-8}$	$2367^{+849}_{-333}$	$1472^{+13762}_{-1104}$

$T_{\text{max}}$  = 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

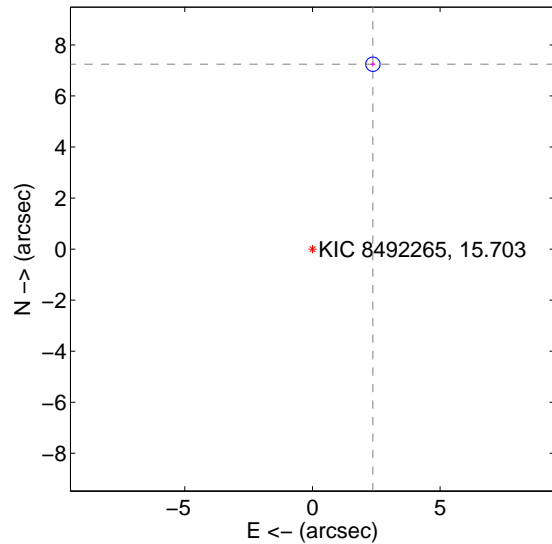
Supplemental centroid analysis for 008492265-01. Kepler magnitude: 15.70. Transit SNR 17.07

There are 0 quarters with good PRF difference image offsets

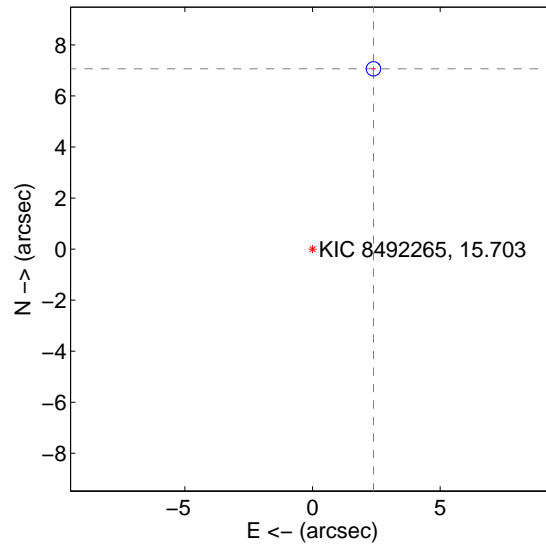
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	7.620 $\pm$ 0.094	81.30	-2.369 $\pm$ 0.093	7.243 $\pm$ 0.094
PRF-fit source offset from KIC position	7.457 $\pm$ 0.094	79.56	-2.388 $\pm$ 0.093	7.064 $\pm$ 0.094
photometric centroid source offset	0.71 $\pm$ 0.58	1.23	0.11 $\pm$ 0.51	-0.70 $\pm$ 0.58

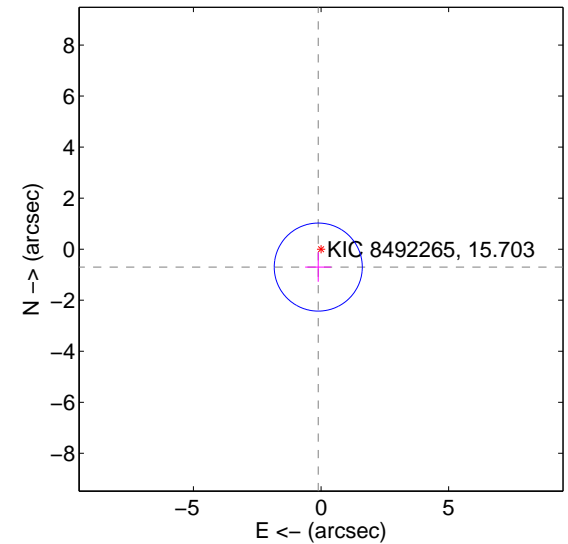
offset from difference PRF-fit to OOT PRF-fit



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.



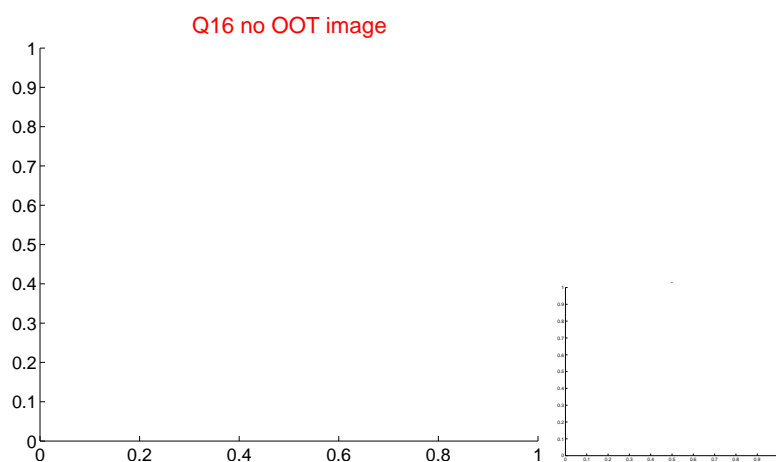
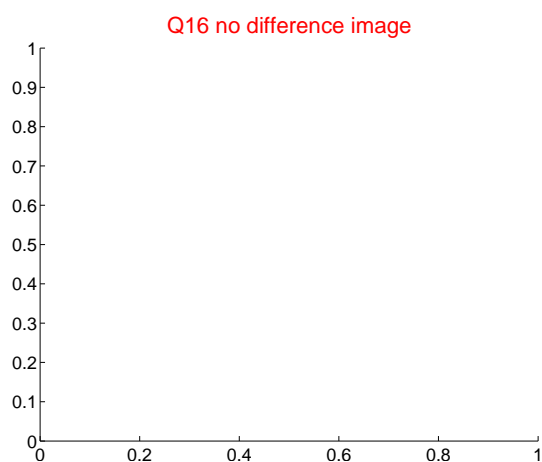
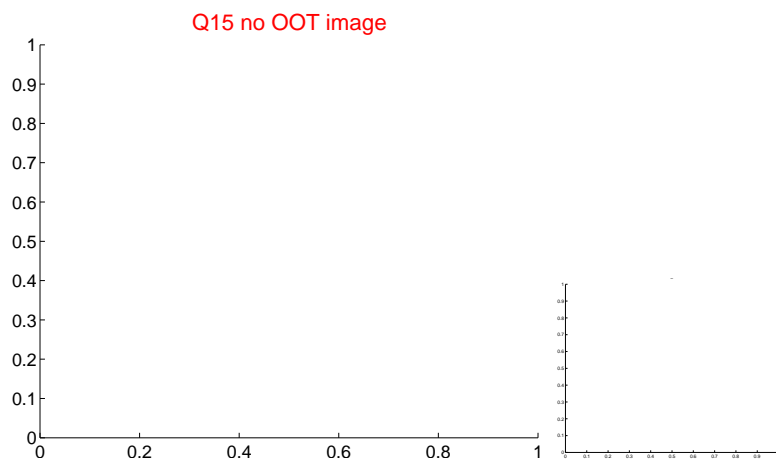
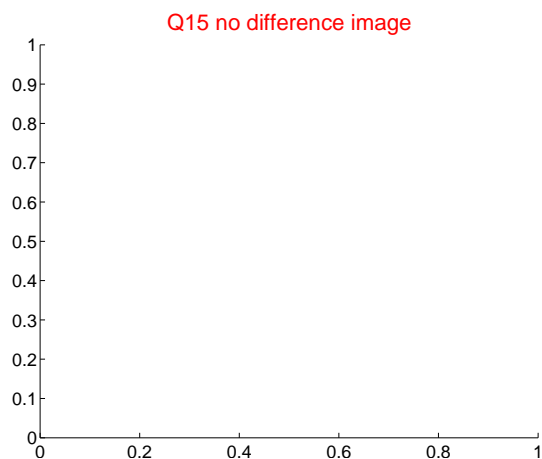
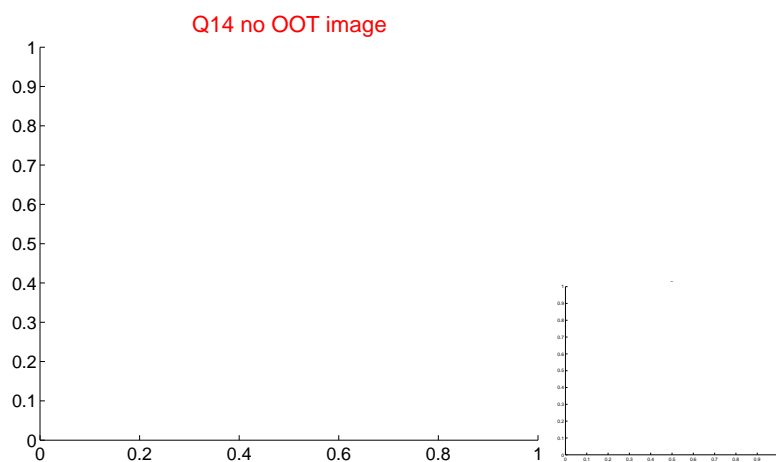
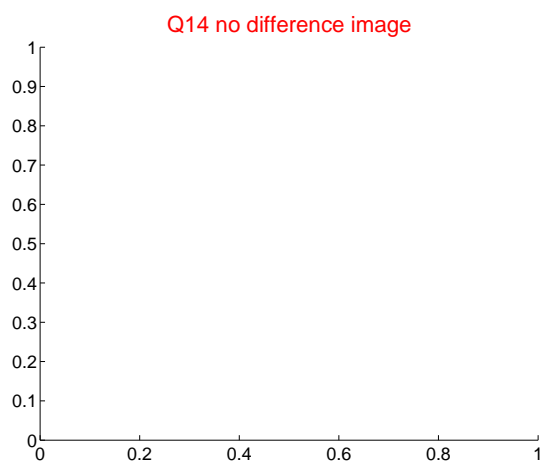
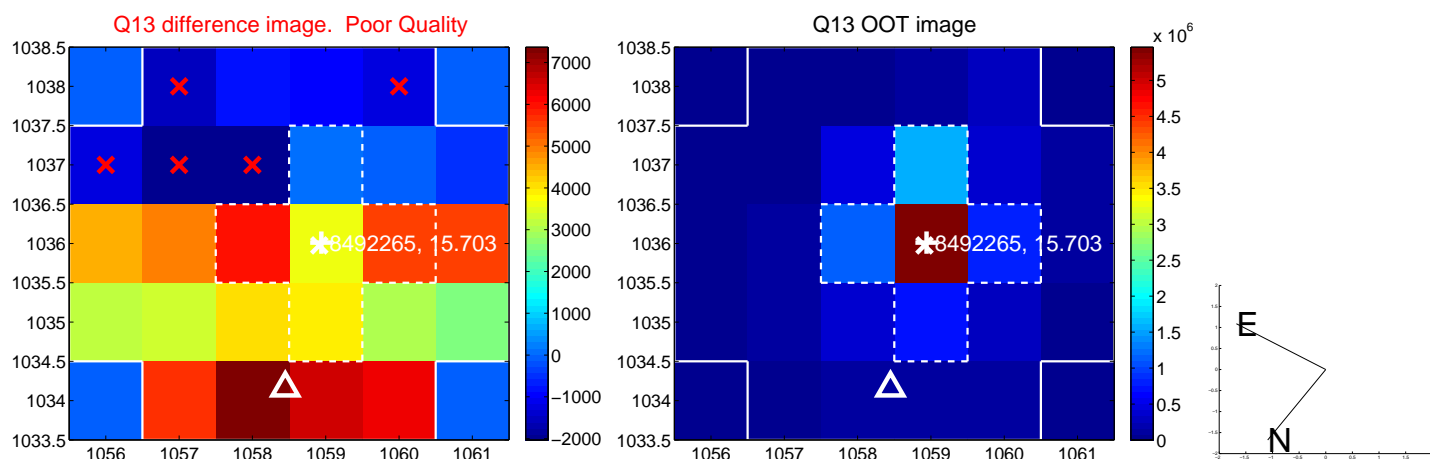
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



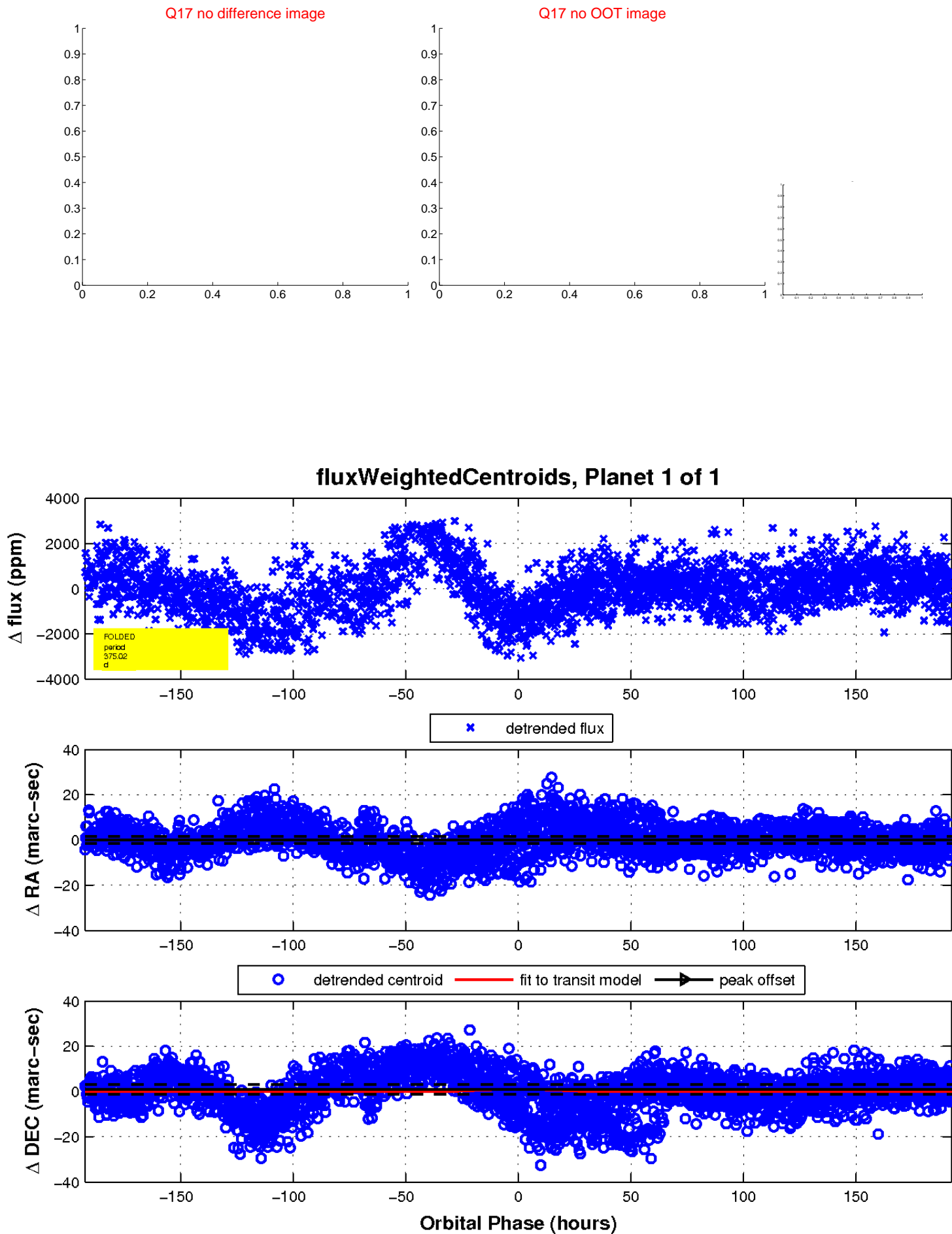
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# UKIRT Image

Declination

