

# KIC 007206132

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007206132-01	OBS	No	455.759105	547.639845	561.4	3.344	9.3	7.7	0.52	4234	1.38	0.09

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007206132-01	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_DV—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.

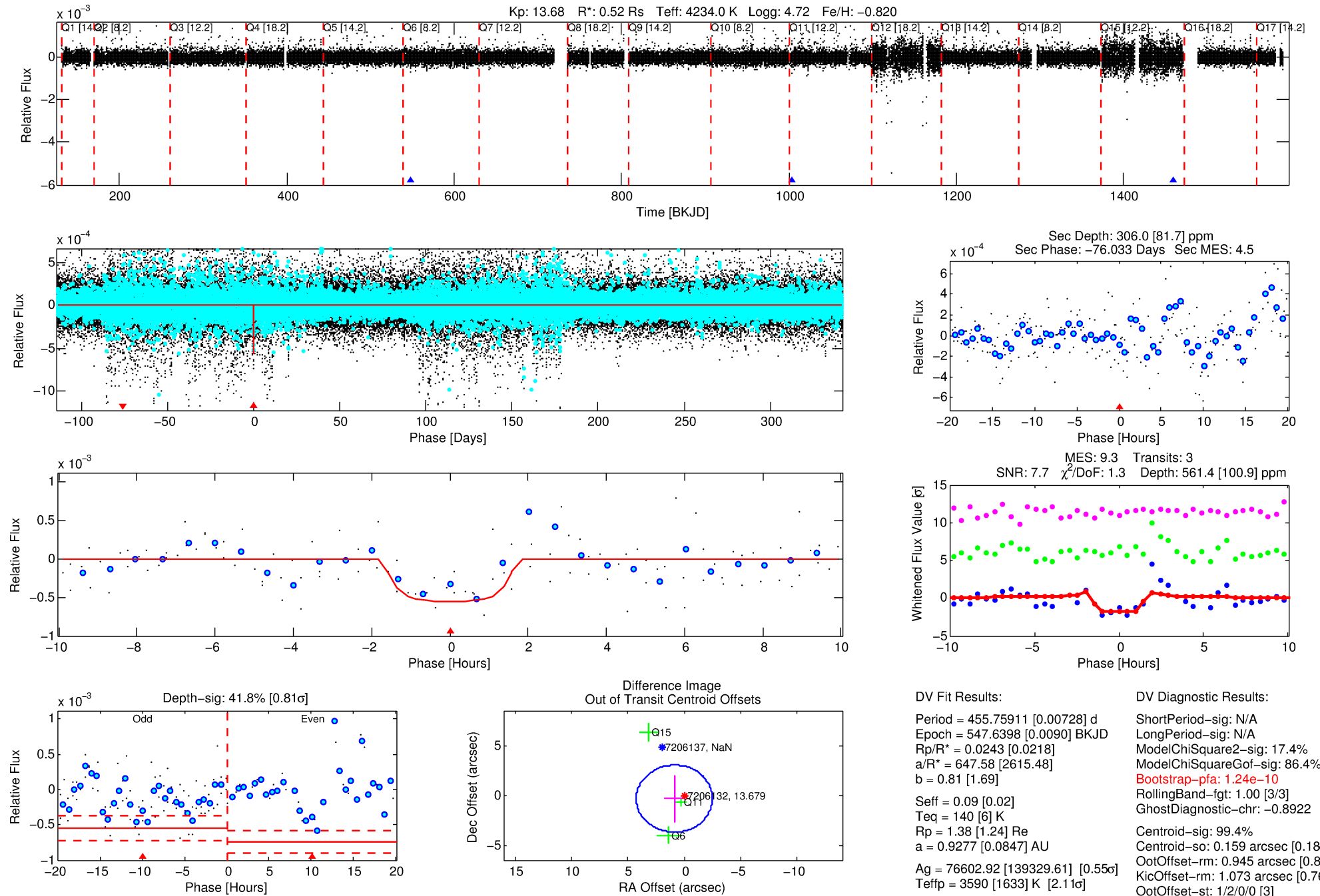
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007206132-01

No Significant Match Found

# DV One-Page Summary

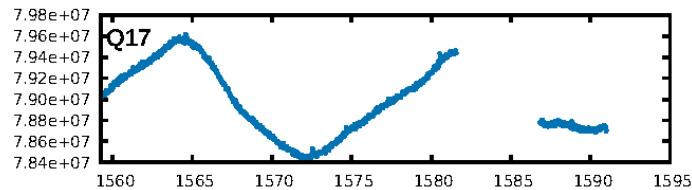
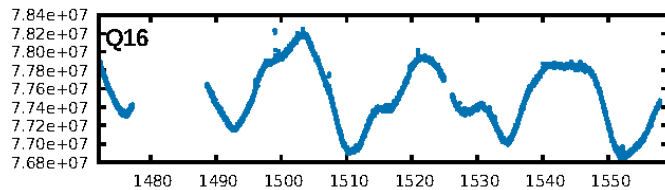
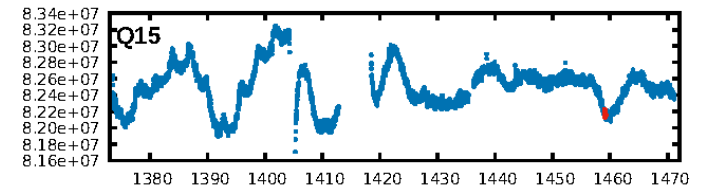
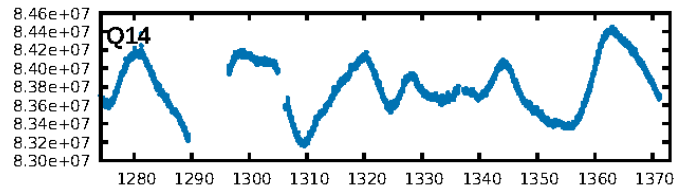
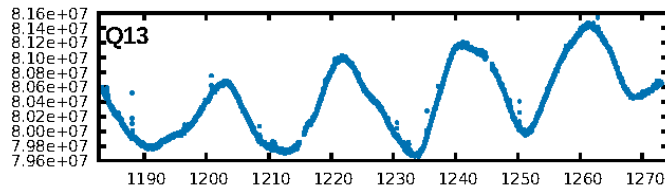
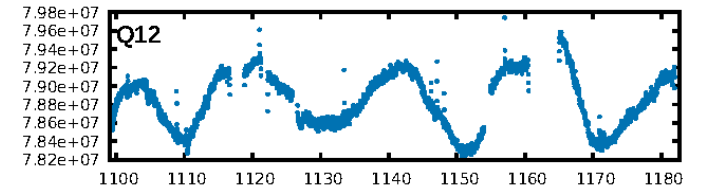
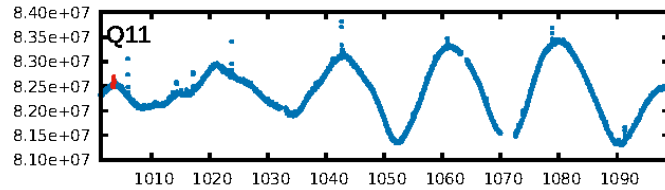
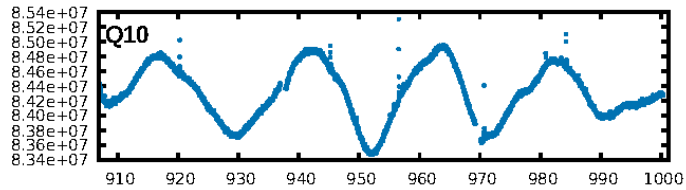
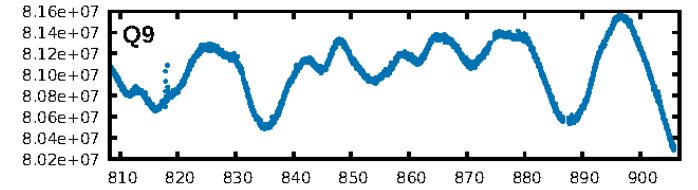
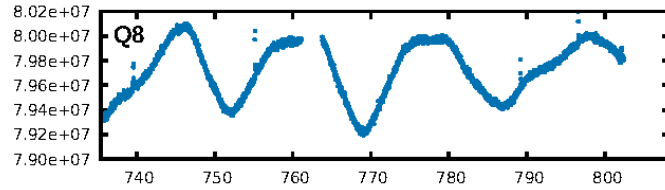
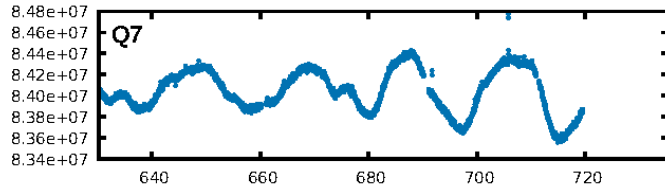
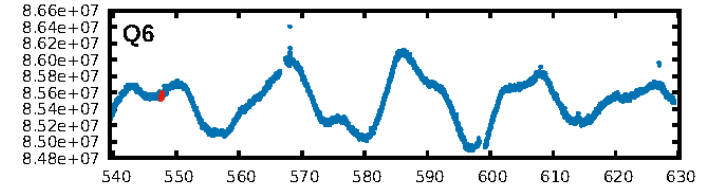
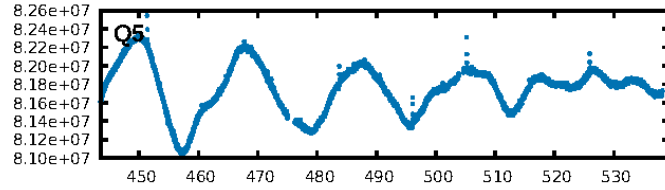
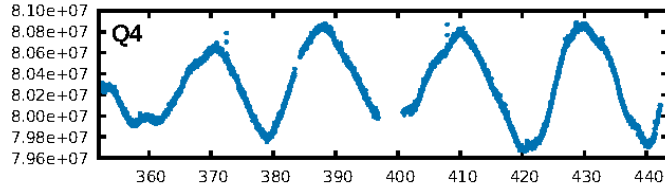
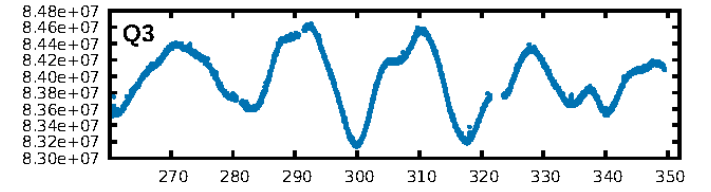
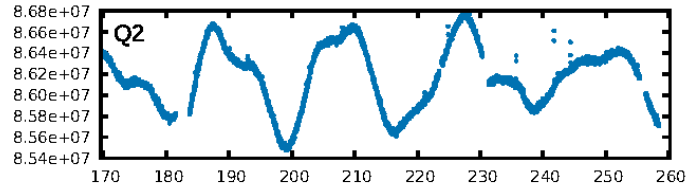
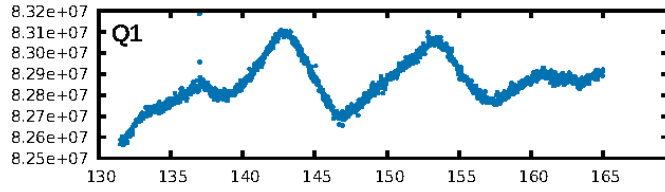
KIC: 7206132 Candidate: 1 of 1 Period: 455.759 d



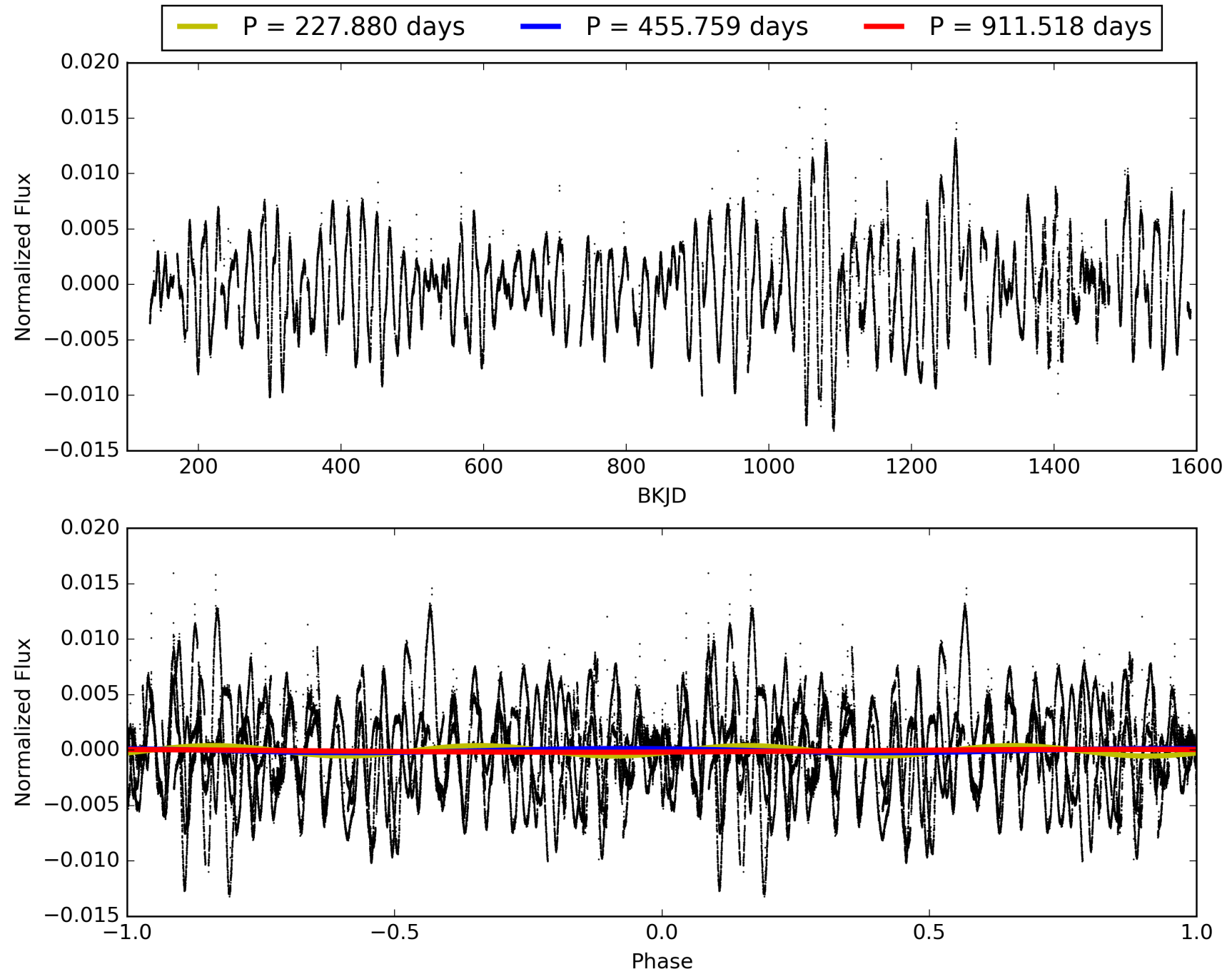
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:06:15 Z

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

# TCE 007206132-01, PDC Light Curves

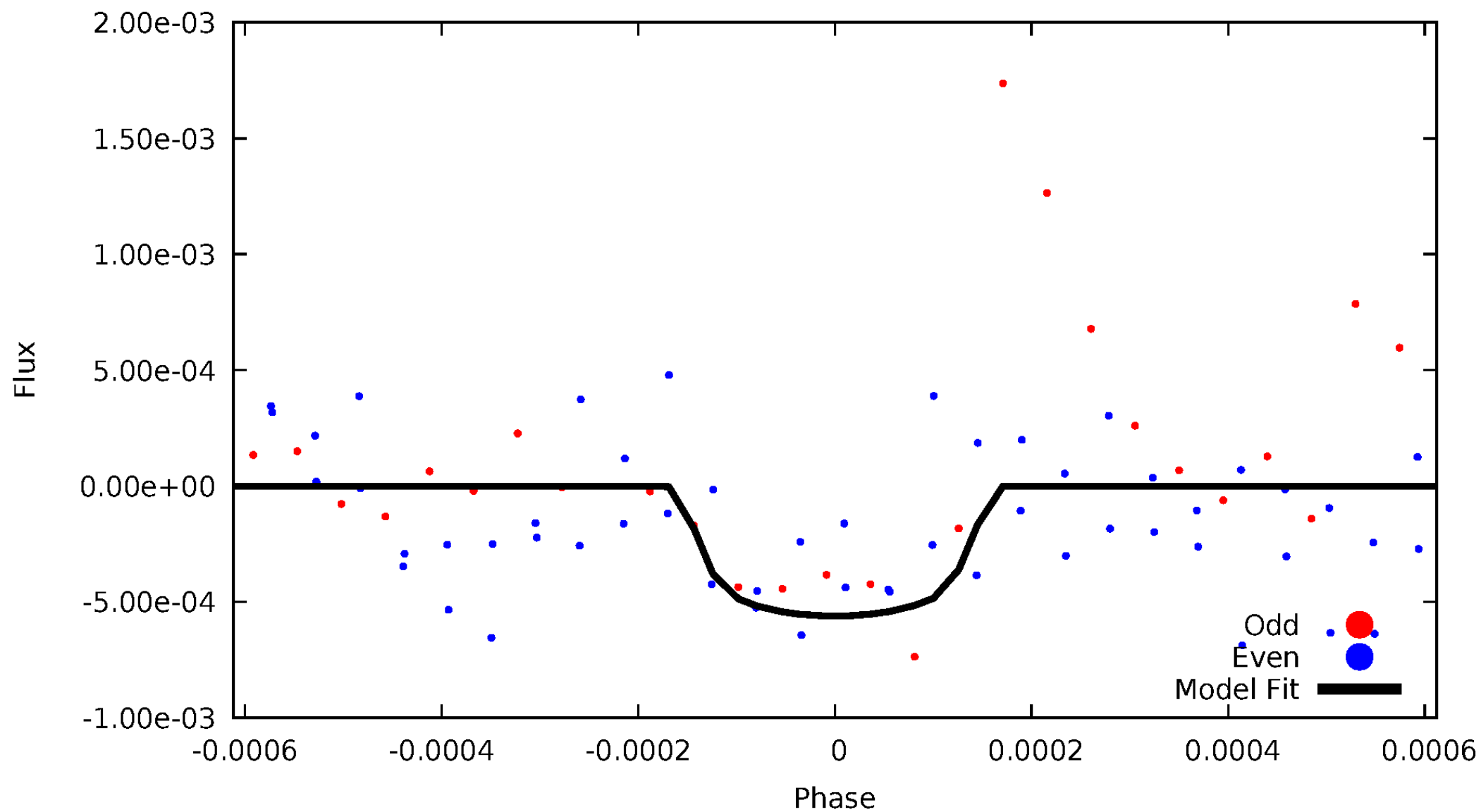


TCE 007206132-01



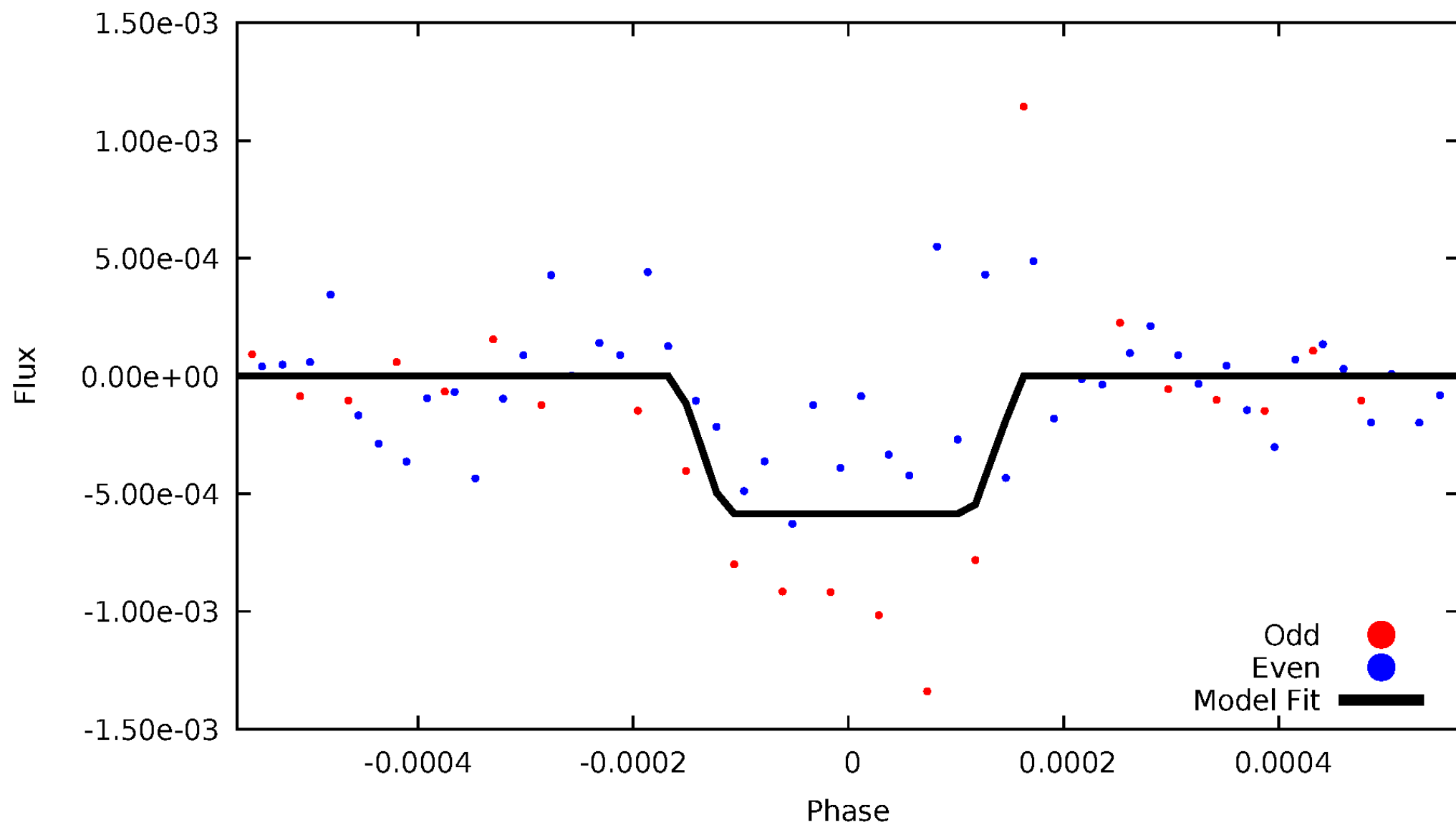
# DV Odd/Even

TCE 007206132-01



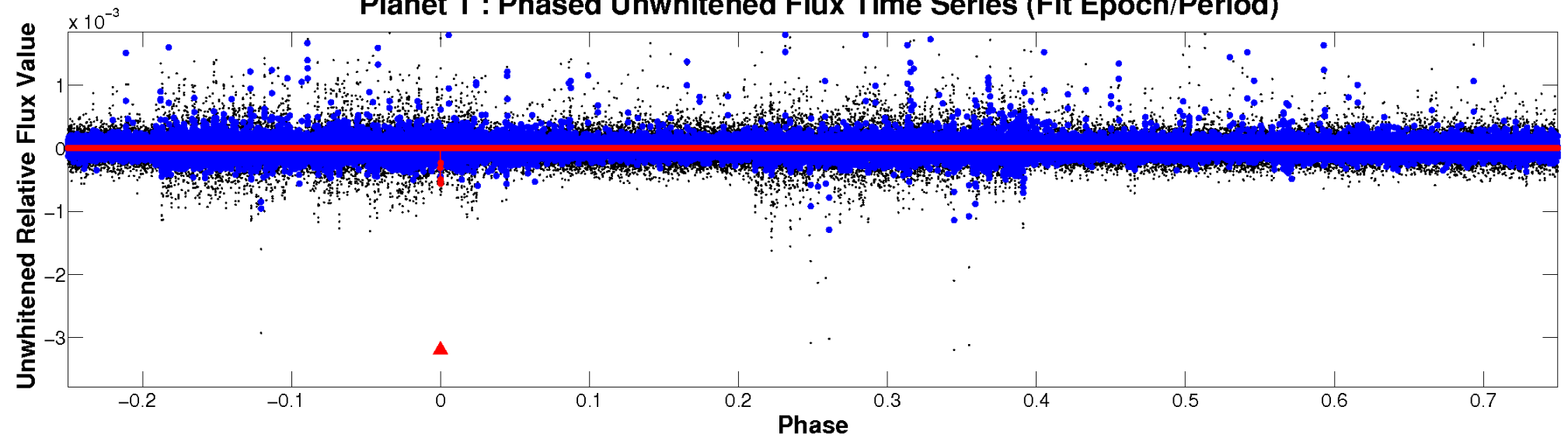
# ALT Odd/Even

TCE 007206132-01

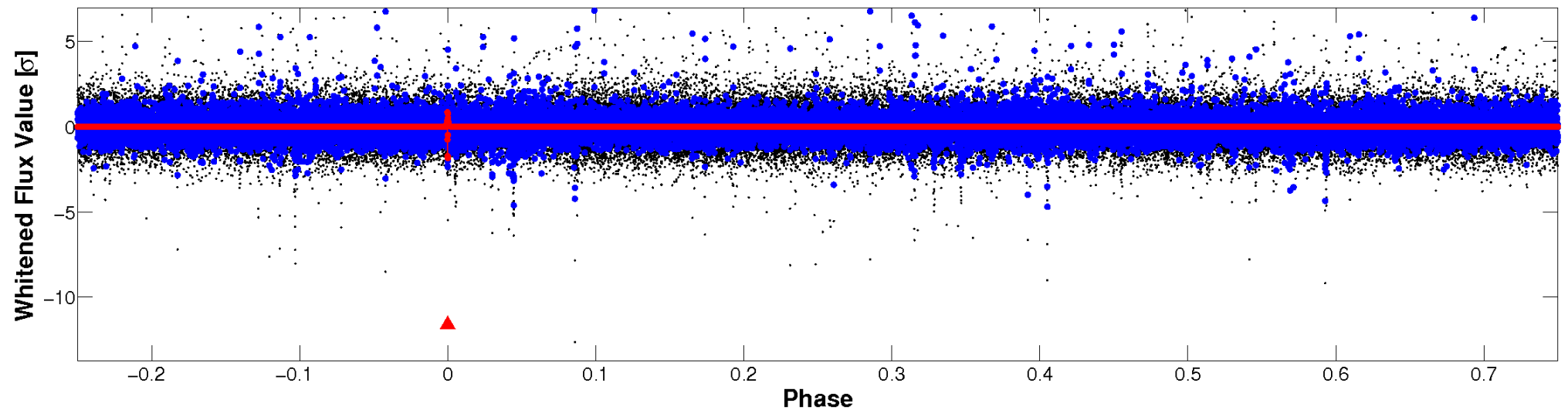


# Non-Whitened Vs. Whitened Light Curve

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

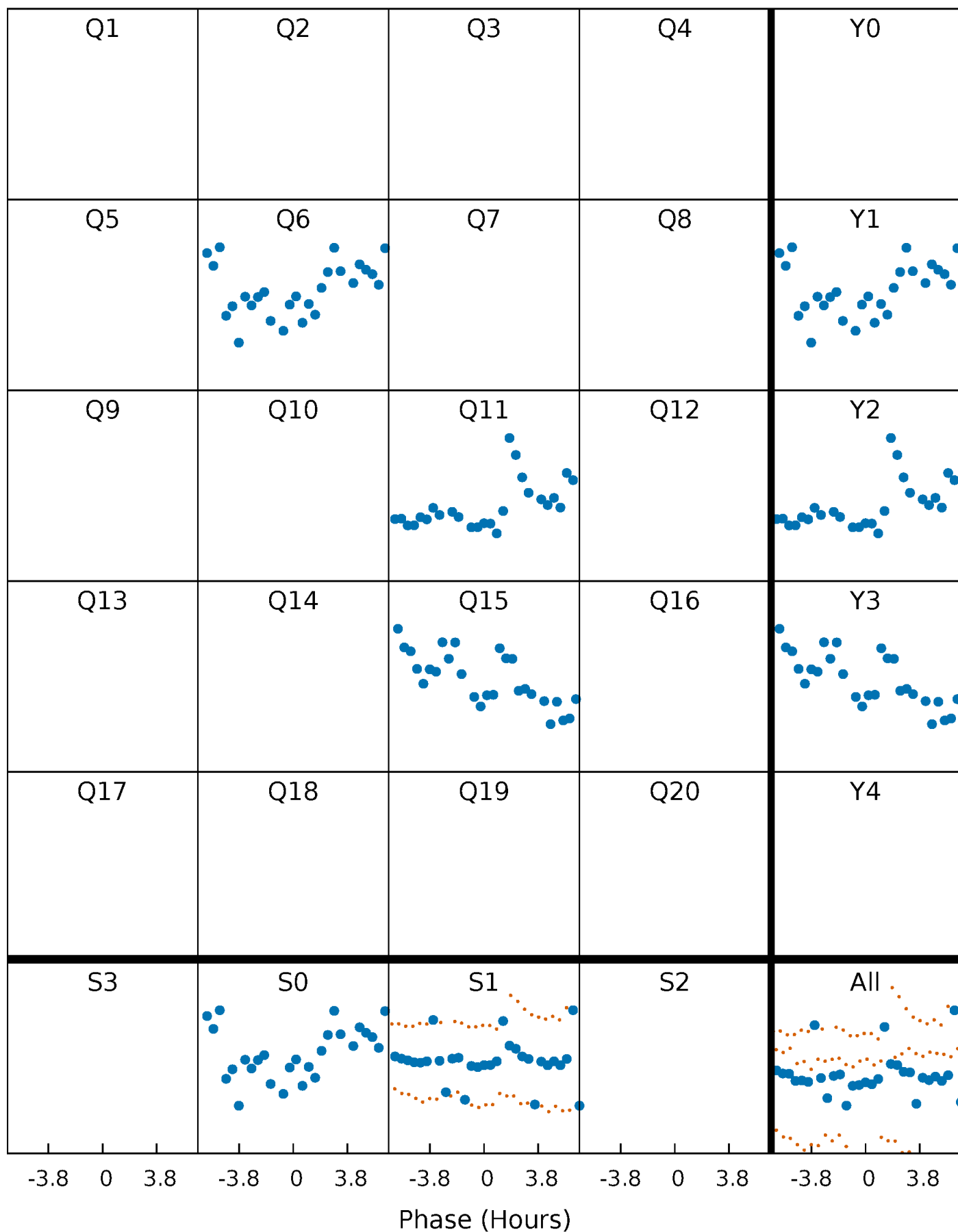


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

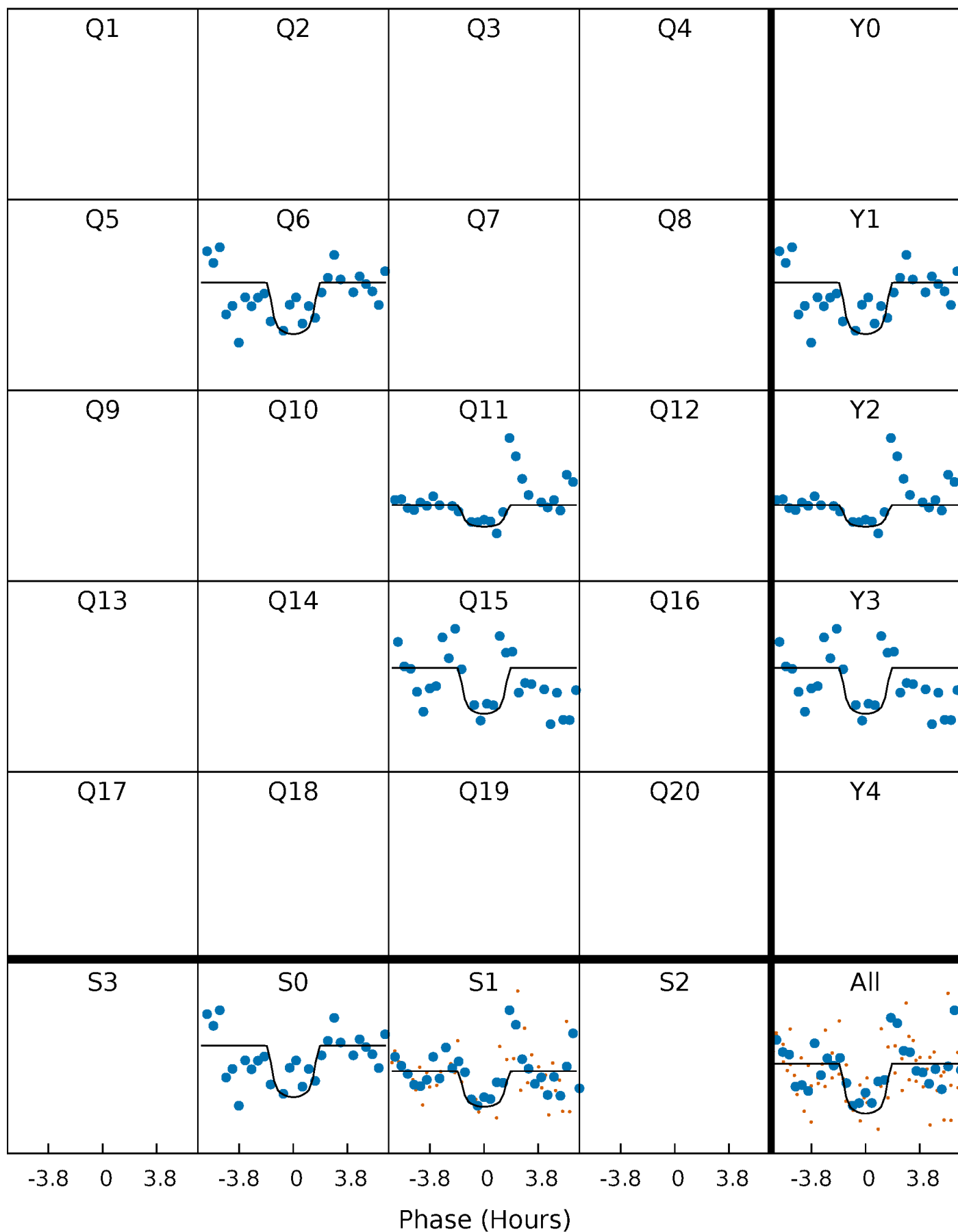
TCE 007206132-01 P=455.759105 Days  $T_0=547.639845$  (BKJD)





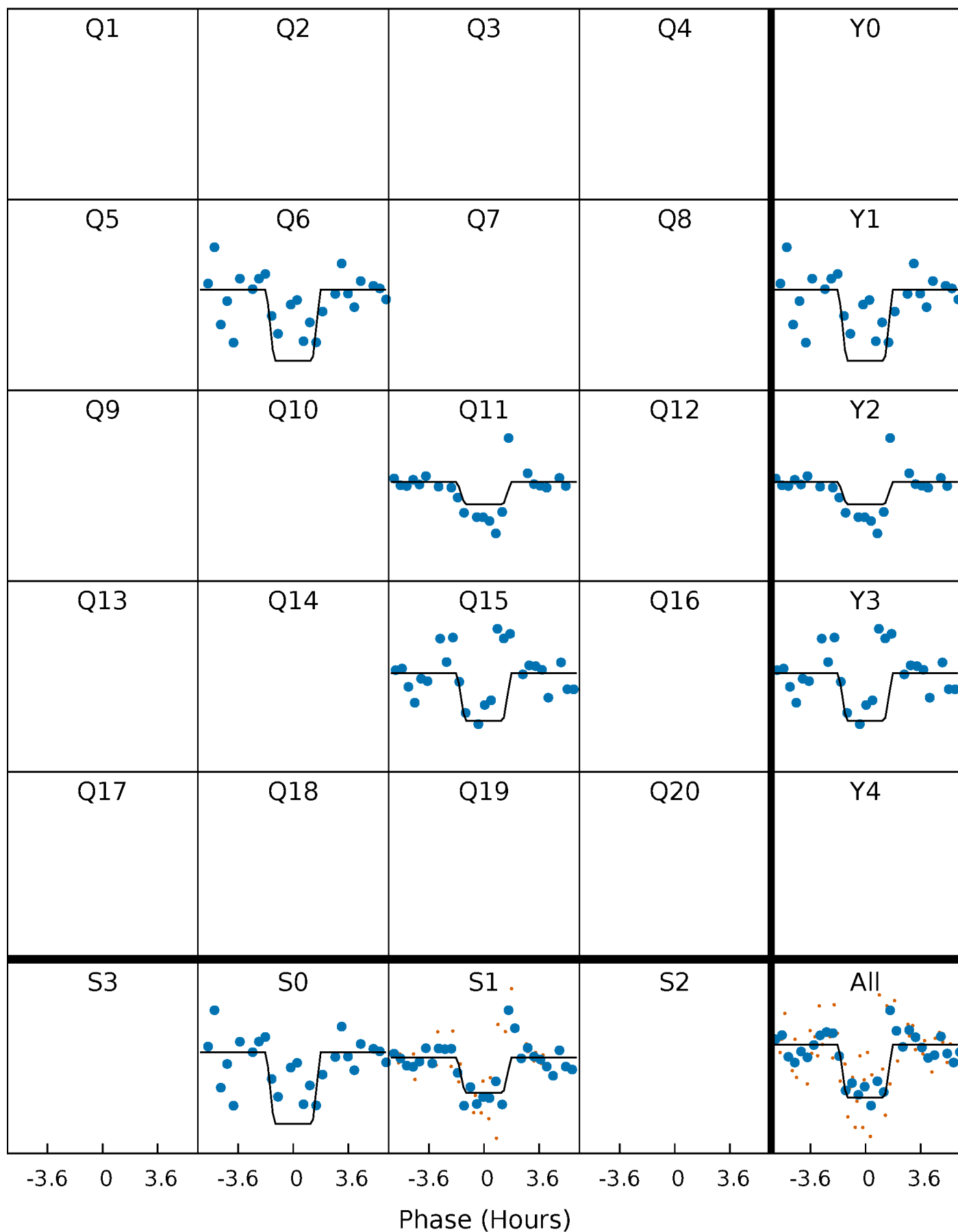
# DV Quarter-Phased Transit Curves

TCE 007206132-01 P=455.759105 Days  $T_0=547.639845$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

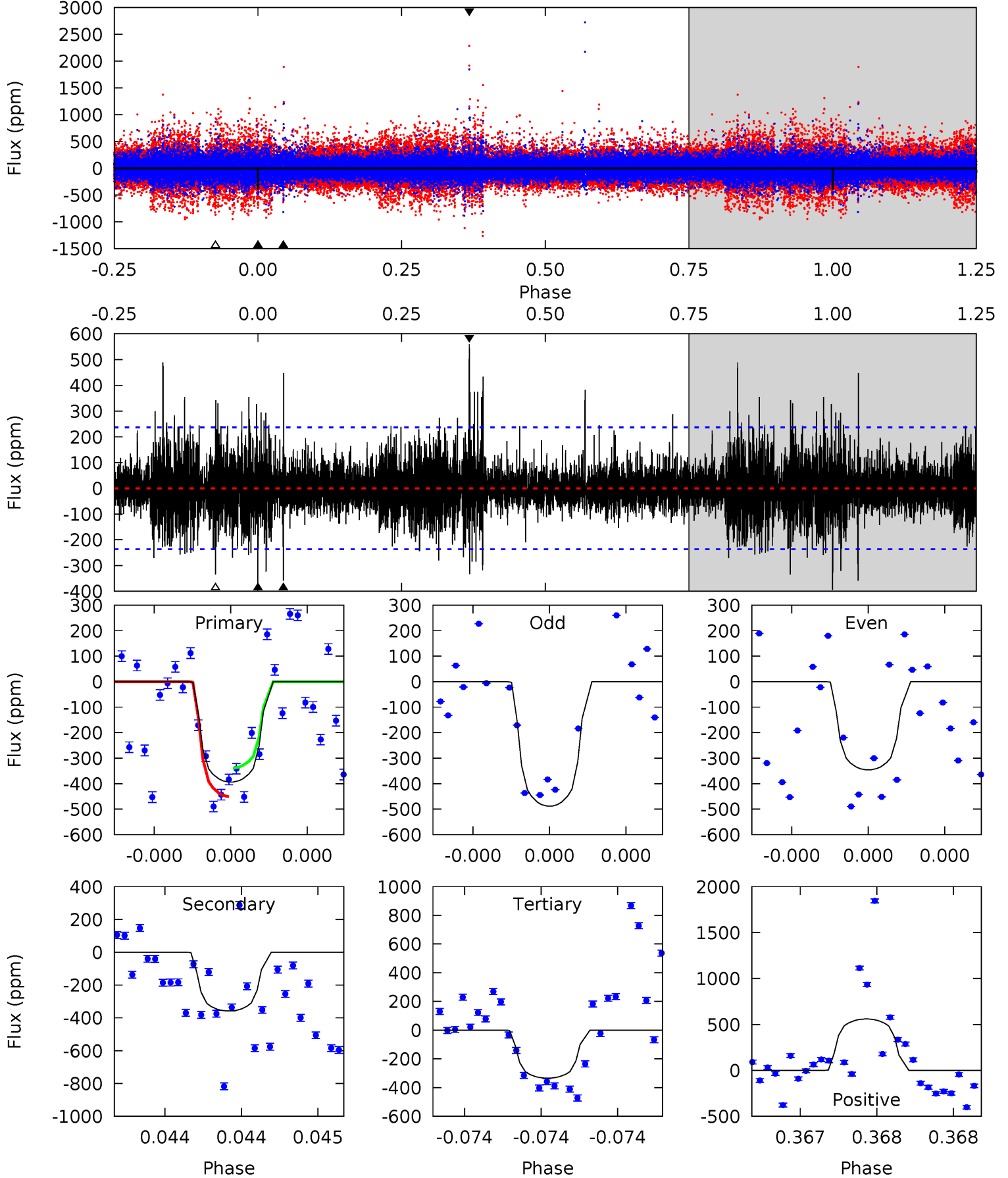
TCE 007206132-01 P=455.763745 Days  $T_0=547.638709$  (BKJD)



# DV Model-Shift Uniqueness Test

007206132-01, P = 455.759105 Days, E = 91.880740 Days

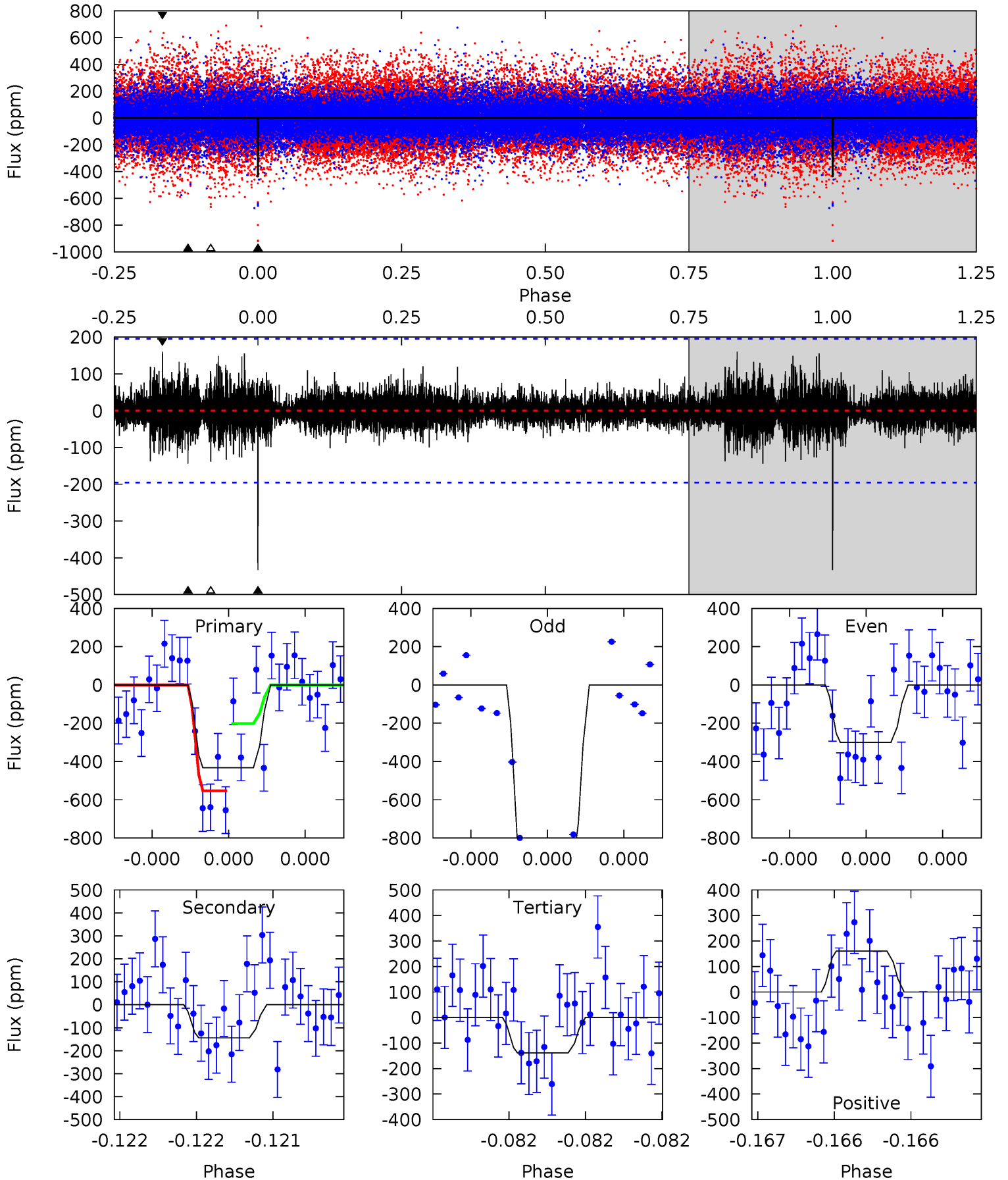
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.38	8.53	7.96	13.3	5.64	3.58	1.69	1.42	-3.94	0.57	-4.79	1.37	1.02	0.59	1.34



# Alt Model-Shift Uniqueness Test

007206132-01, P = 455.763745 Days, E = 91.874964 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
12.5	4.16	4.01	4.63	5.65	3.60	0.78	8.51	7.89	0.15	-0.47	10.0	1.75	0.27	4.96



### Stellar Parameters For KIC 007206132

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$4234^{+114}_{-139}$	$4.719^{+0.066}_{-0.033}$	$-0.820^{+0.300}_{-0.300}$	$0.518^{+0.049}_{-0.059}$	$0.511^{+0.046}_{-0.042}$	$5.189^{+1.712}_{-0.836}$
	+3%/-3%	+1%/-1%	+37%/-37%	+9%/-11%	+9%/-8%	+33%/-16%
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 007206132-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-358 \pm 42$	$1.65^{+1.11}_{-1.02}$	$194^{+6}_{-8}$	$3659^{+1531}_{-575}$	$64402^{+359391}_{-42586}$
Alt.	$-144 \pm 35$	$1.51^{+1.03}_{-0.91}$	$193^{+7}_{-7}$	$3212^{+1203}_{-458}$	$29443^{+154704}_{-19722}$

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

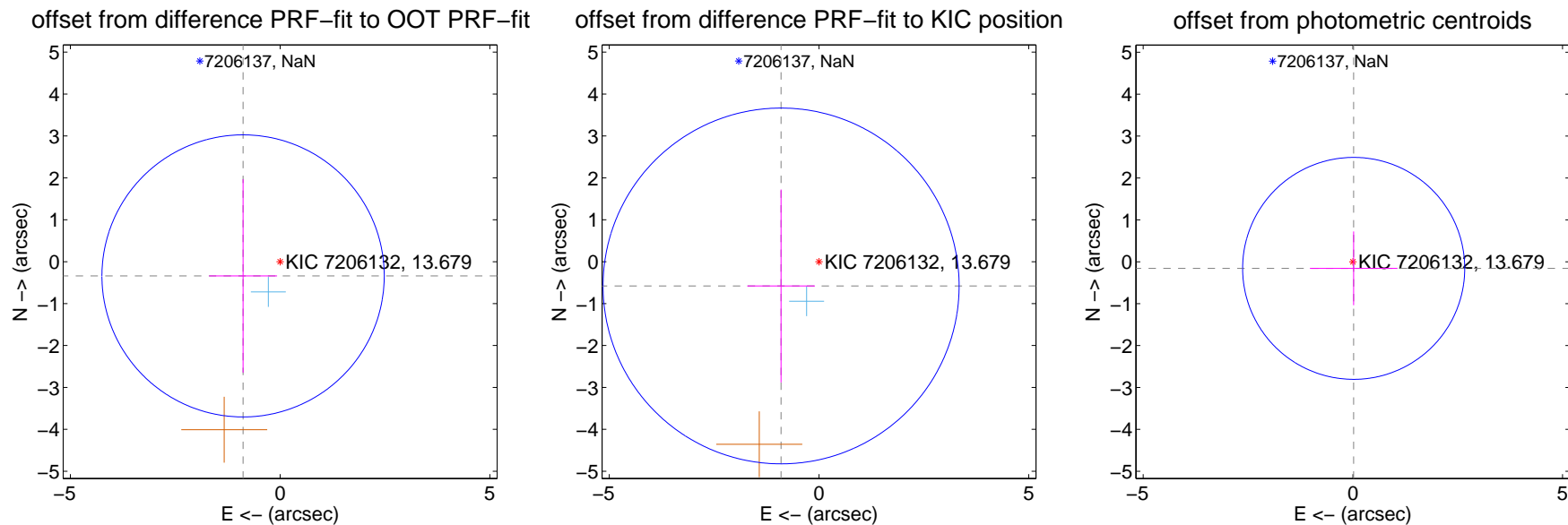
## DV Centroid Data

Supplemental centroid analysis for 007206132-01. Kepler magnitude: 13.68. Transit SNR 7.66

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.945 \pm 1.122$	0.84	$0.883 \pm 0.811$	$-0.339 \pm 2.309$
PRF-fit source offset from KIC position	$1.073 \pm 1.415$	0.76	$0.903 \pm 0.807$	$-0.579 \pm 2.301$
photometric centroid source offset	$0.16 \pm 0.88$	0.18	$-0.02 \pm 1.04$	$-0.16 \pm 0.88$

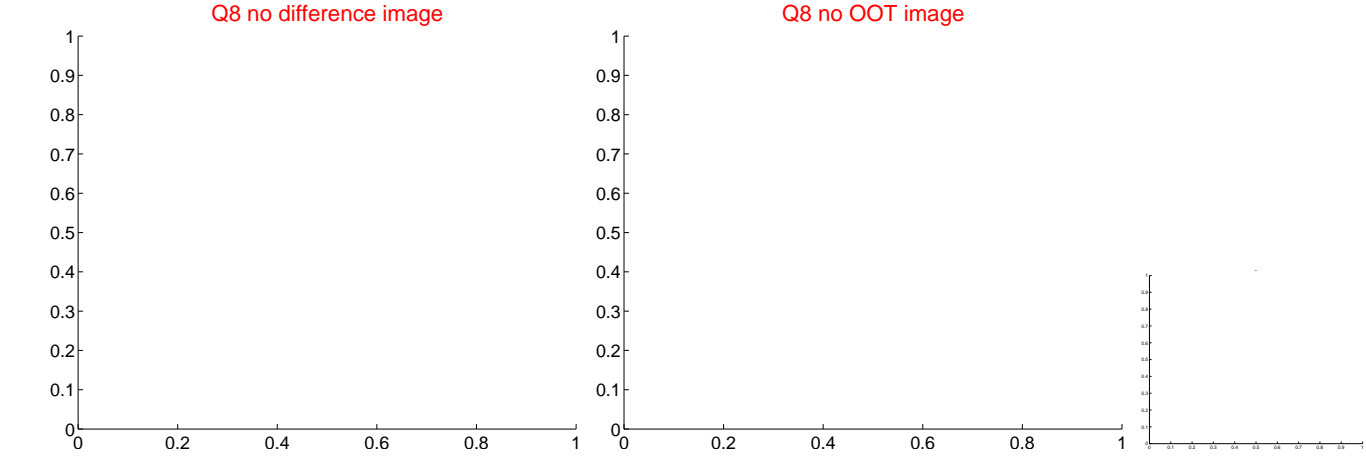
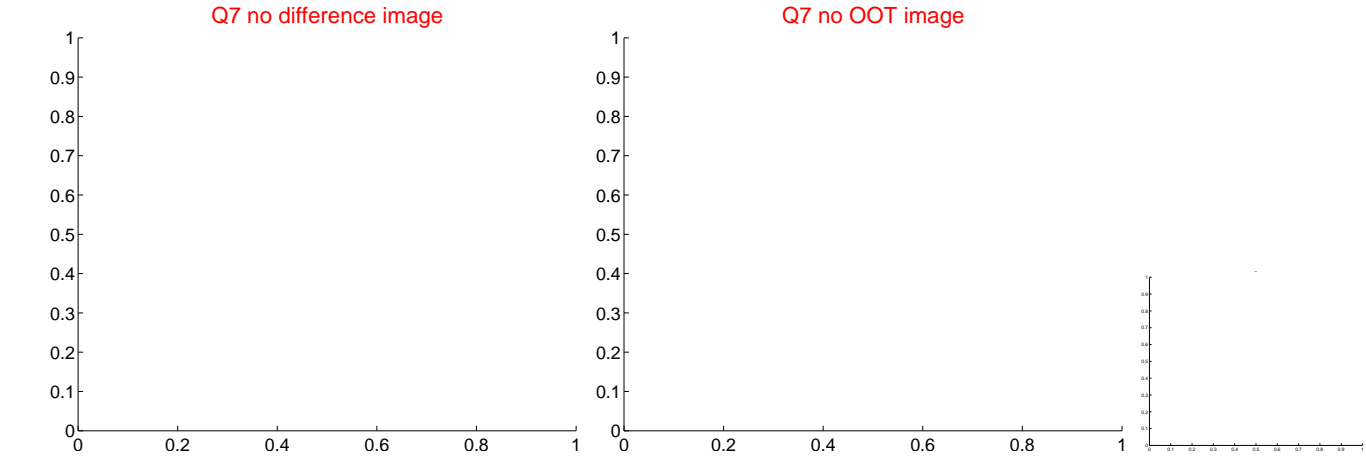
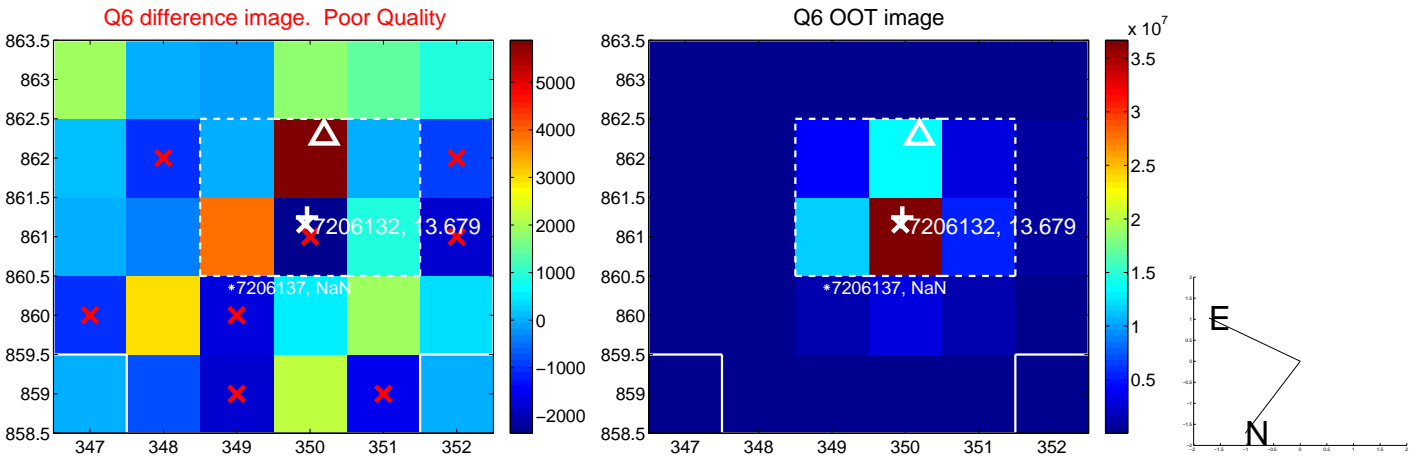
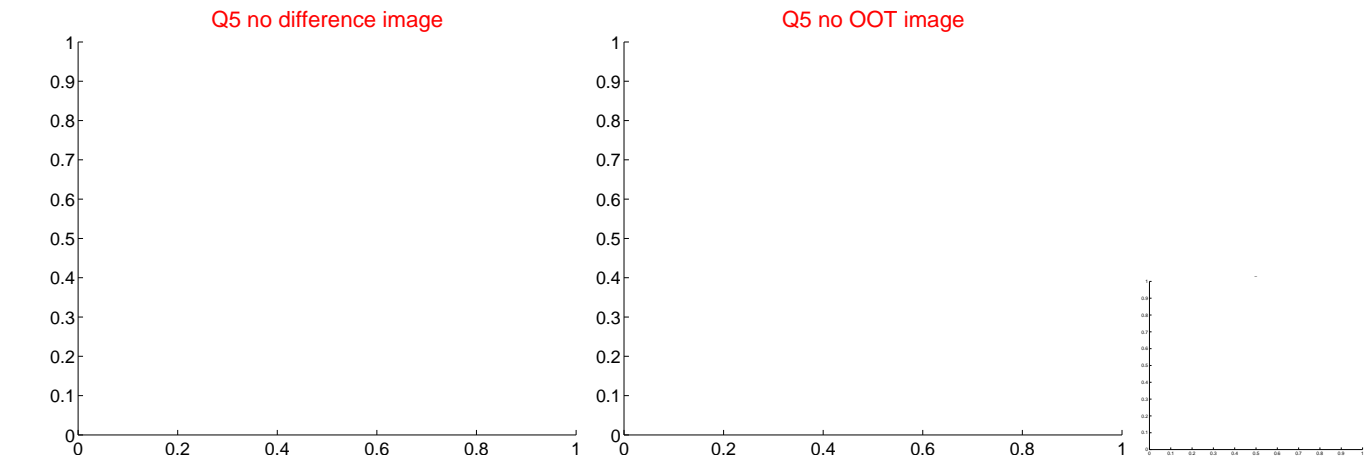


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

Q9 no difference image



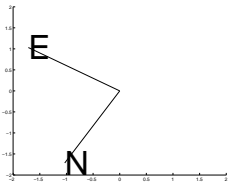
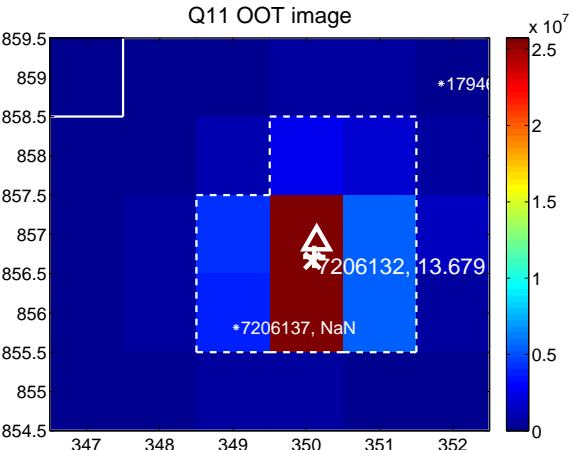
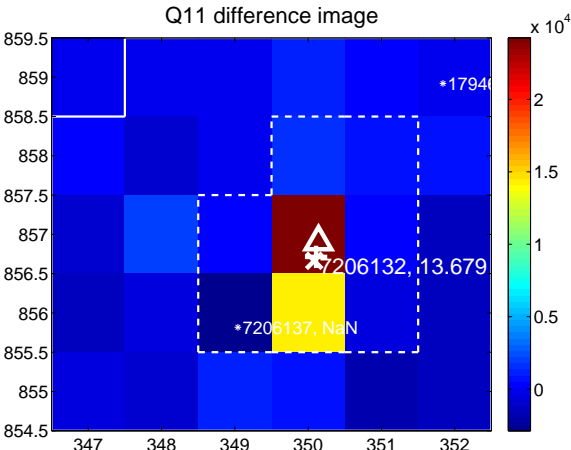
Q9 no OOT image



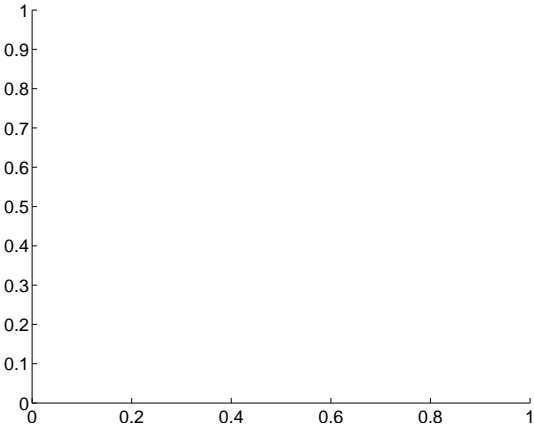
Q10 no difference image



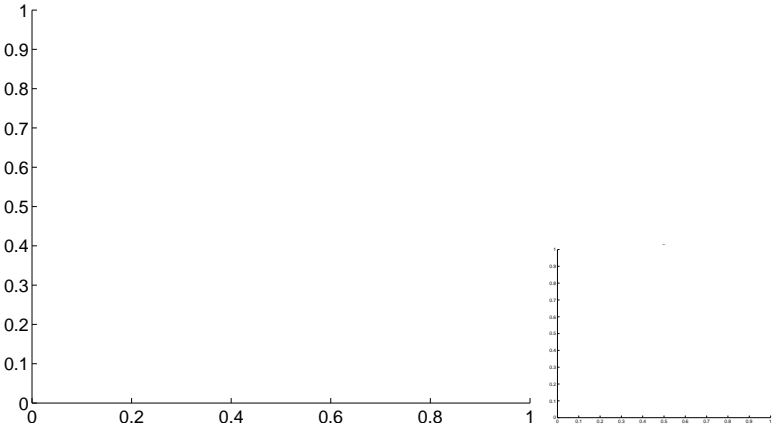
Q10 no OOT image



Q12 no difference image



Q12 no OOT image



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

Q13 no difference image



Q13 no OOT image



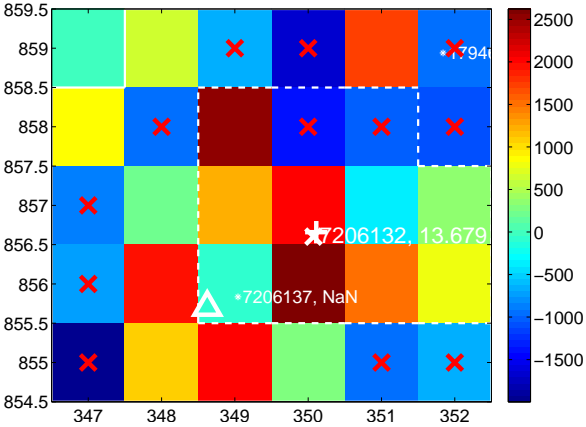
Q14 no difference image



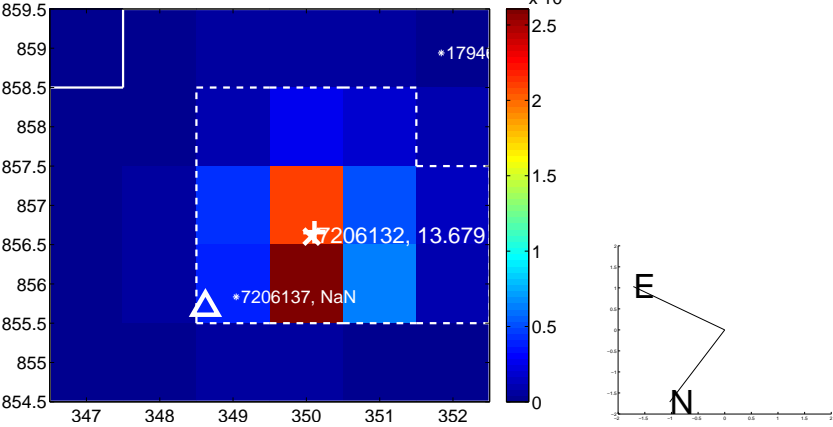
Q14 no OOT image



Q15 difference image. Poor Quality



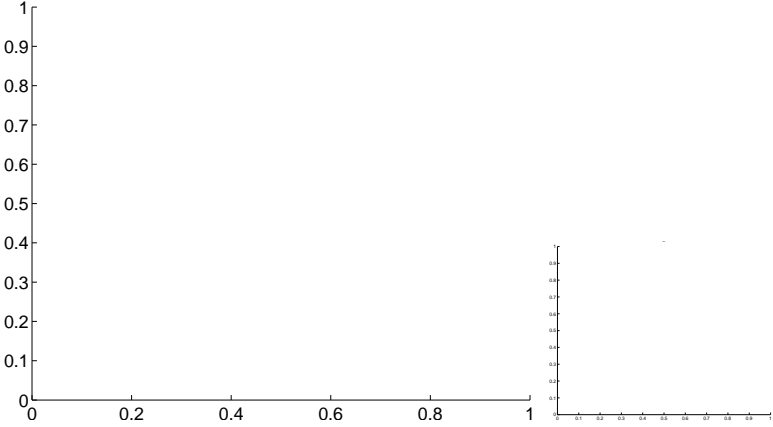
Q15 OOT image



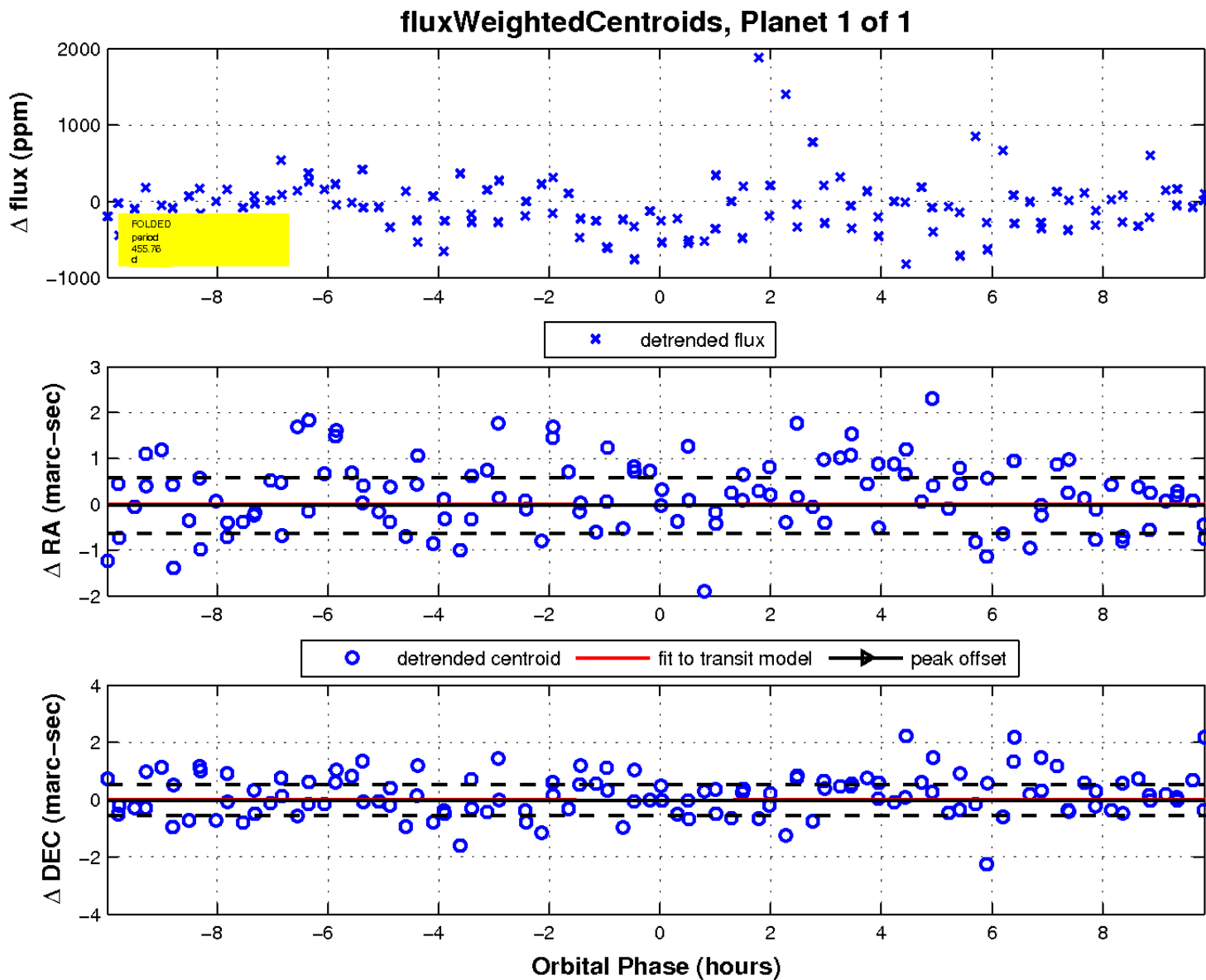
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

