

# KIC 008885132

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008885132-01	OBS	No	374.925509	134.383031	506.9	30.566	7.7	9.4	1.04	6095	2.37	1.29

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008885132-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—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.

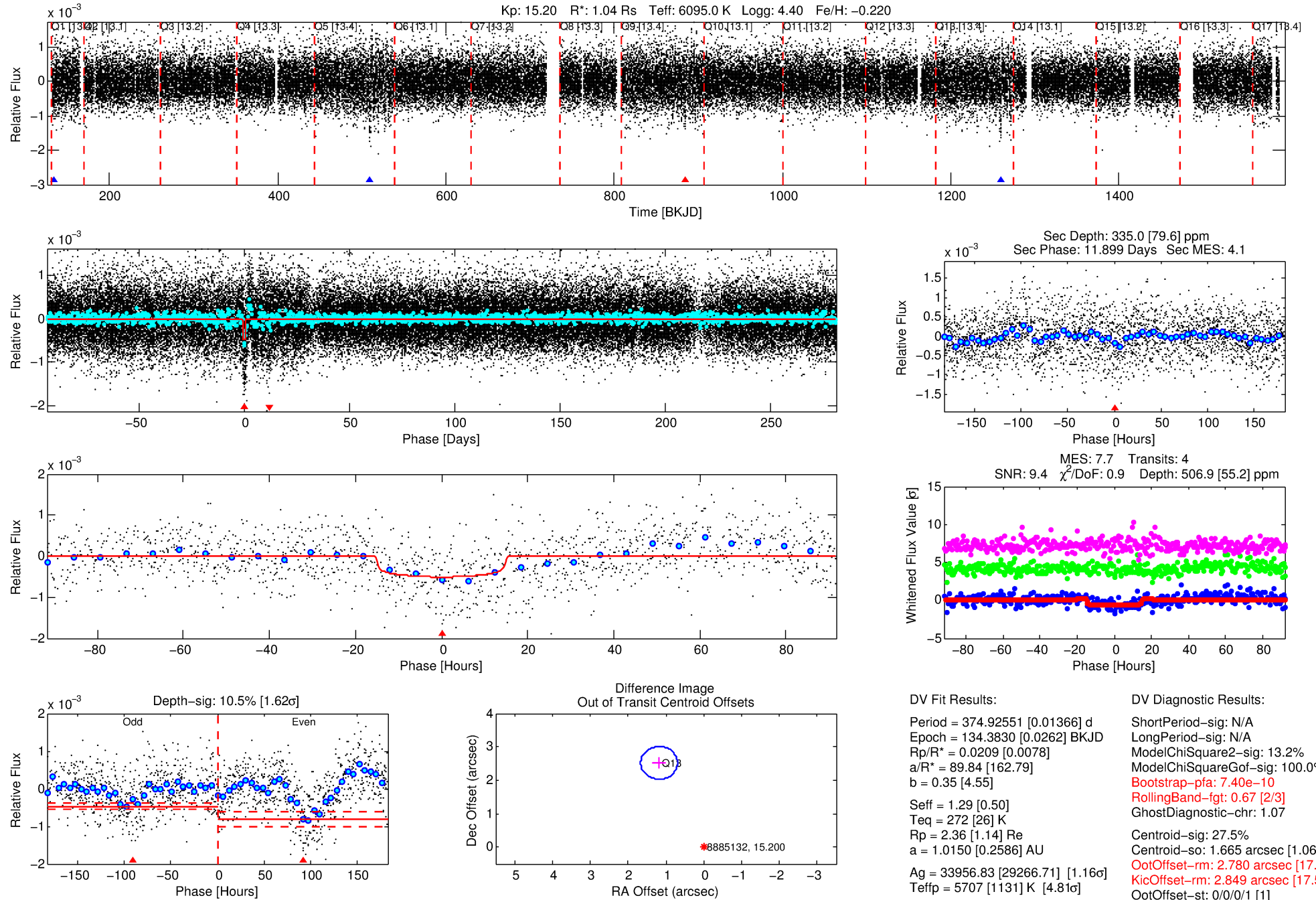
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008885132-01

No Significant Match Found

# DV One-Page Summary

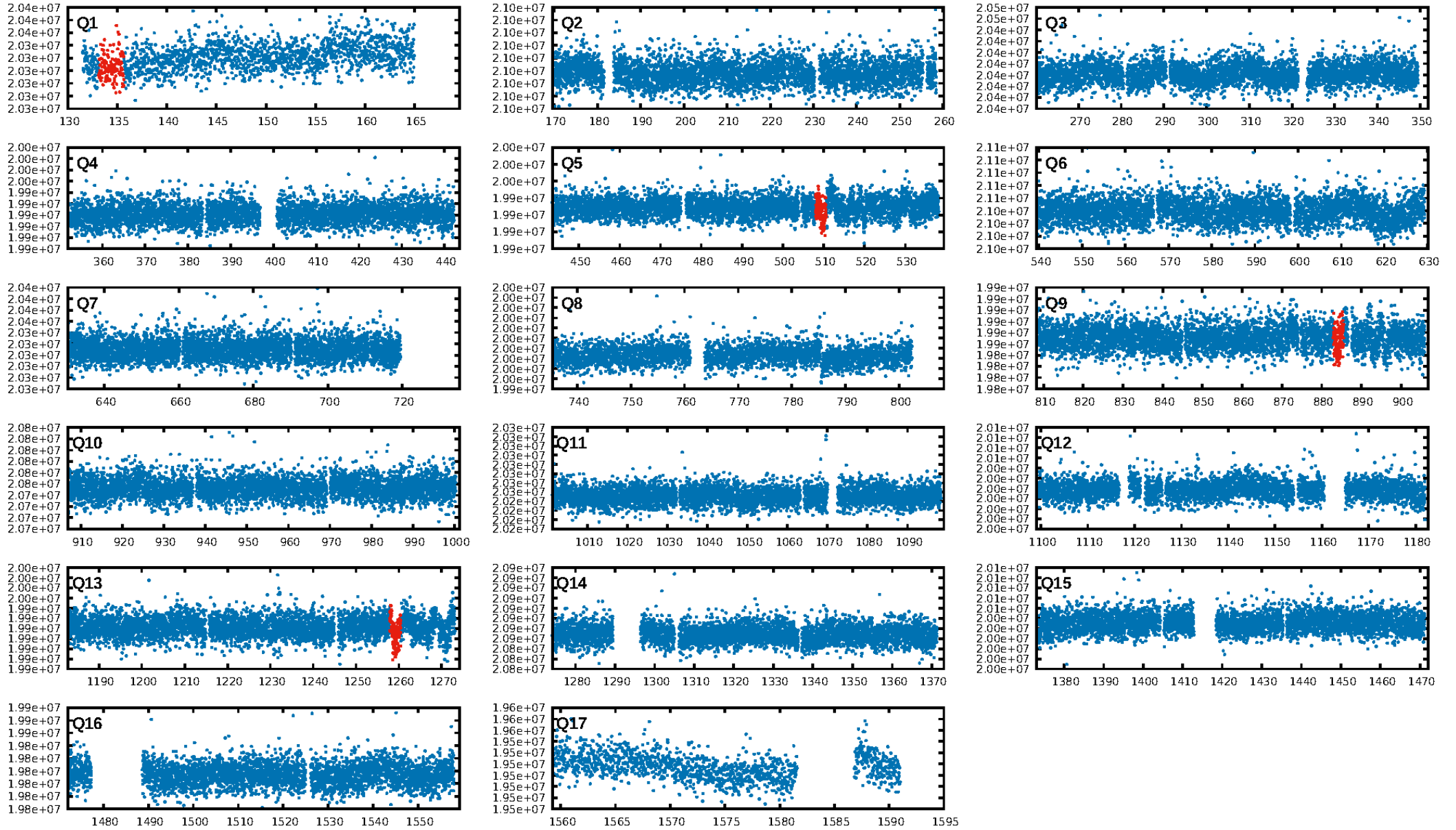
KIC: 8885132 Candidate: 1 of 1 Period: 374.926 d



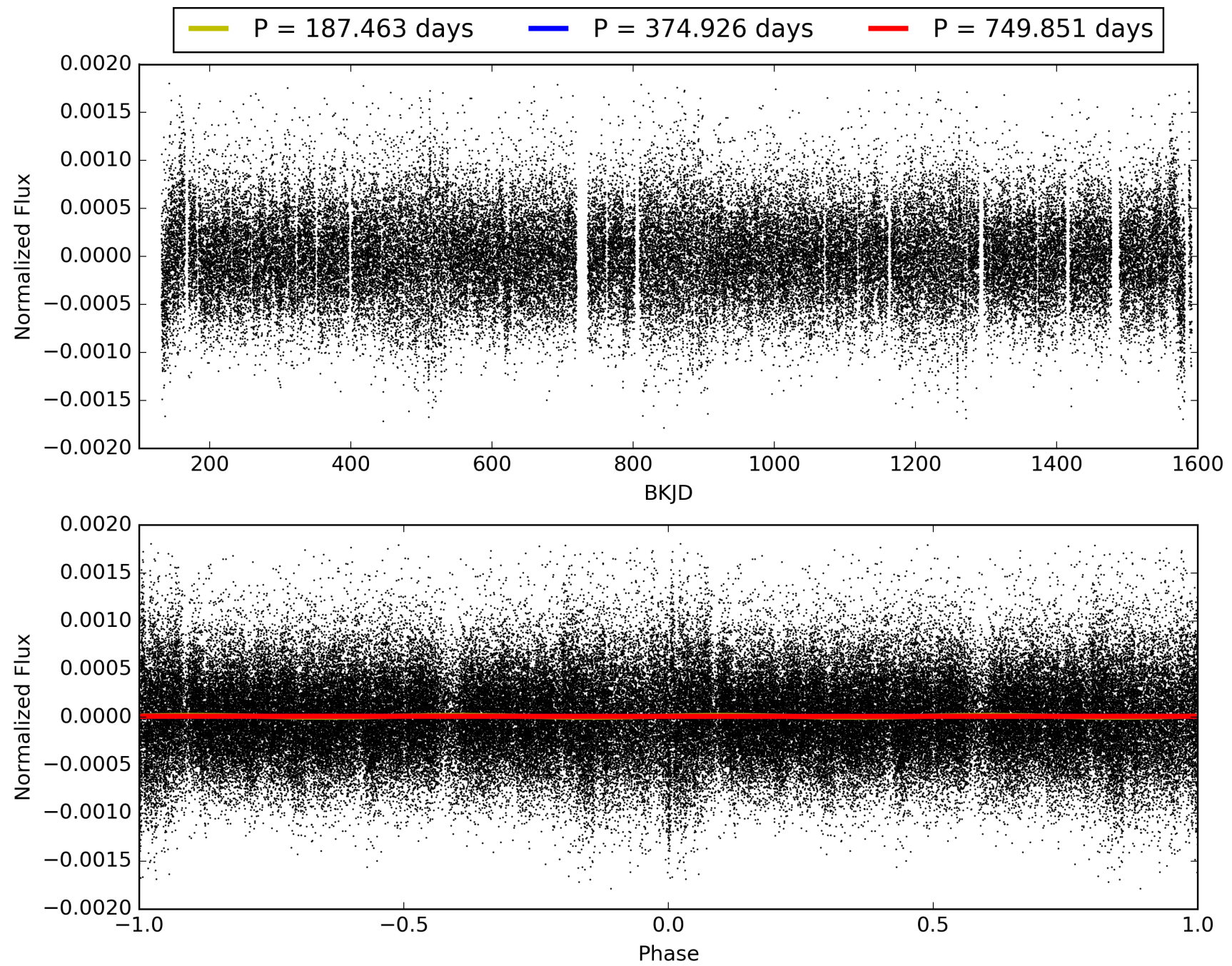
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:42:48 Z

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

# TCE 008885132-01, PDC Light Curves

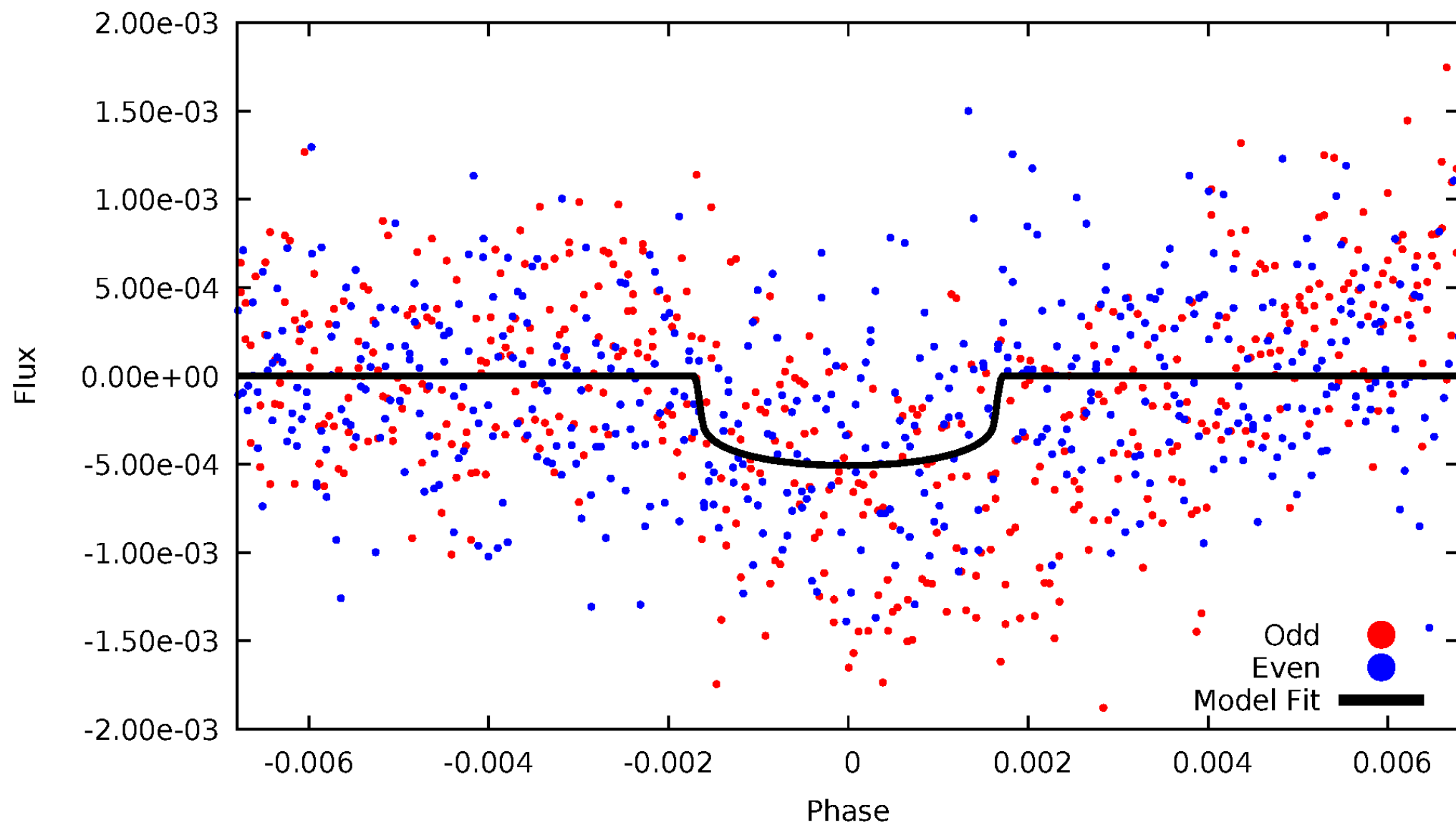


TCE 008885132-01



# DV Odd/Even

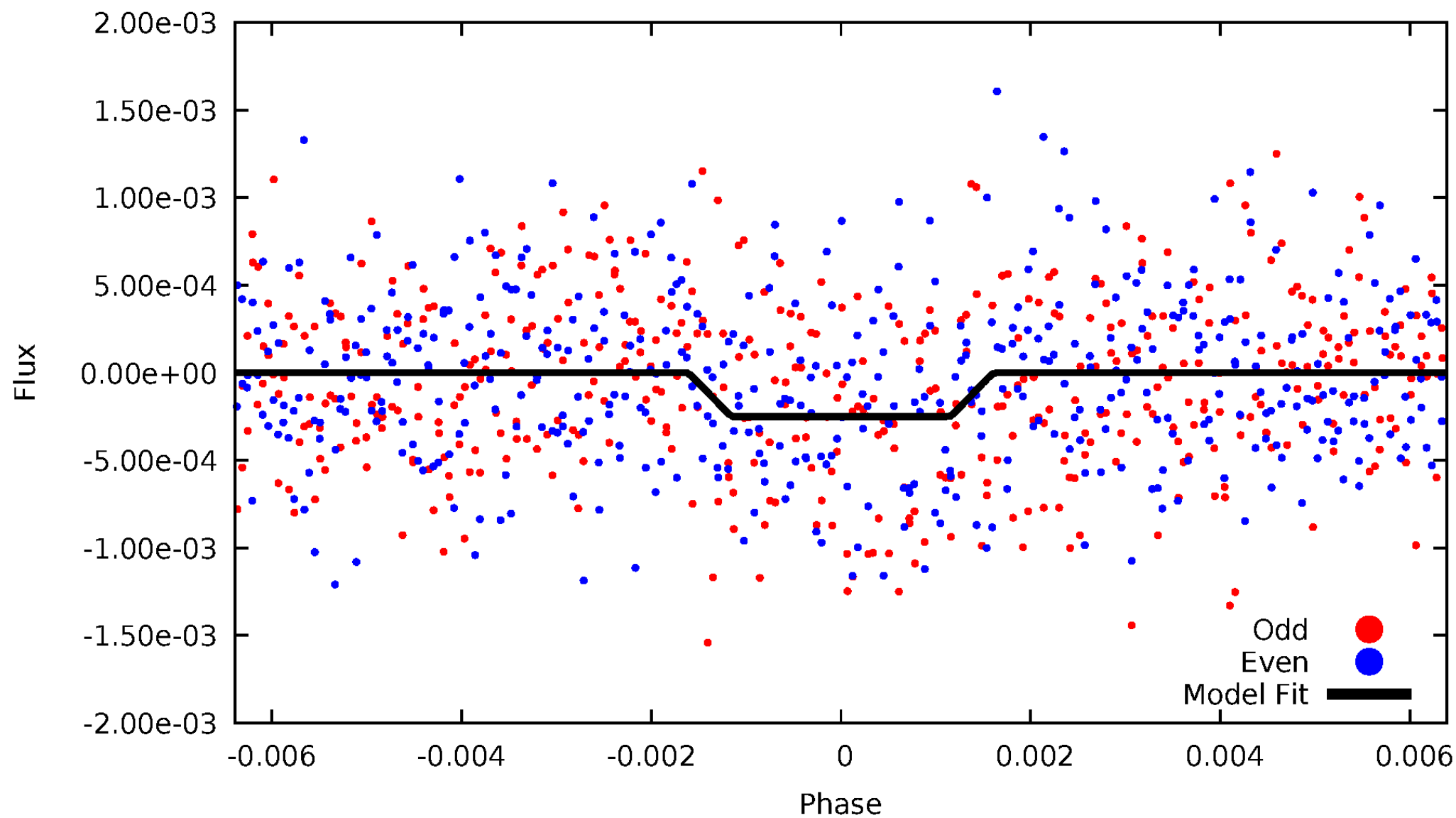
TCE 008885132-01





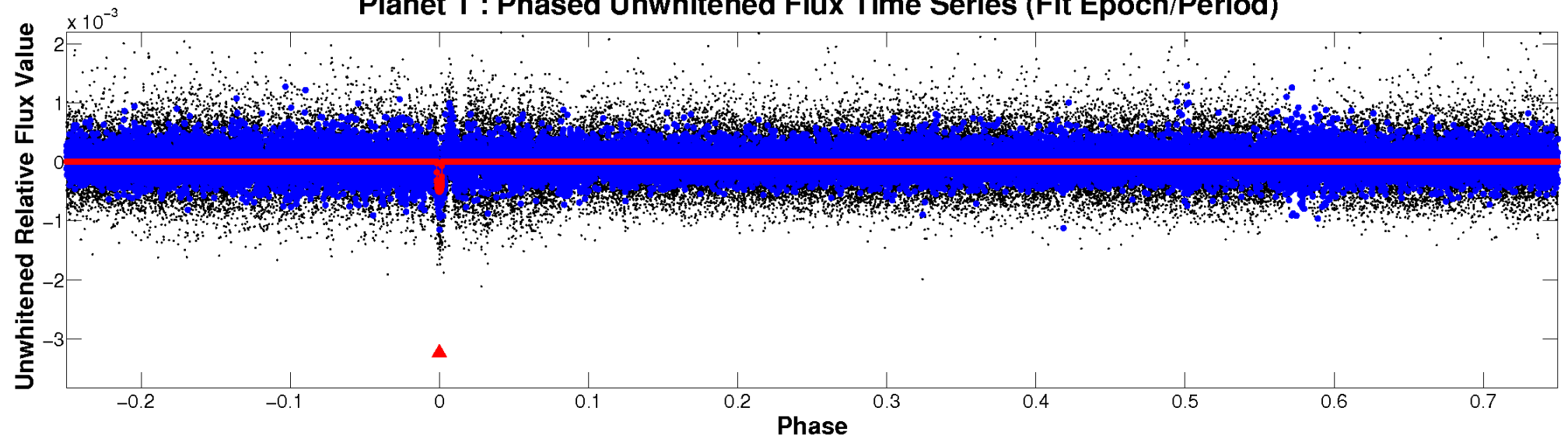
# ALT Odd/Even

TCE 008885132-01

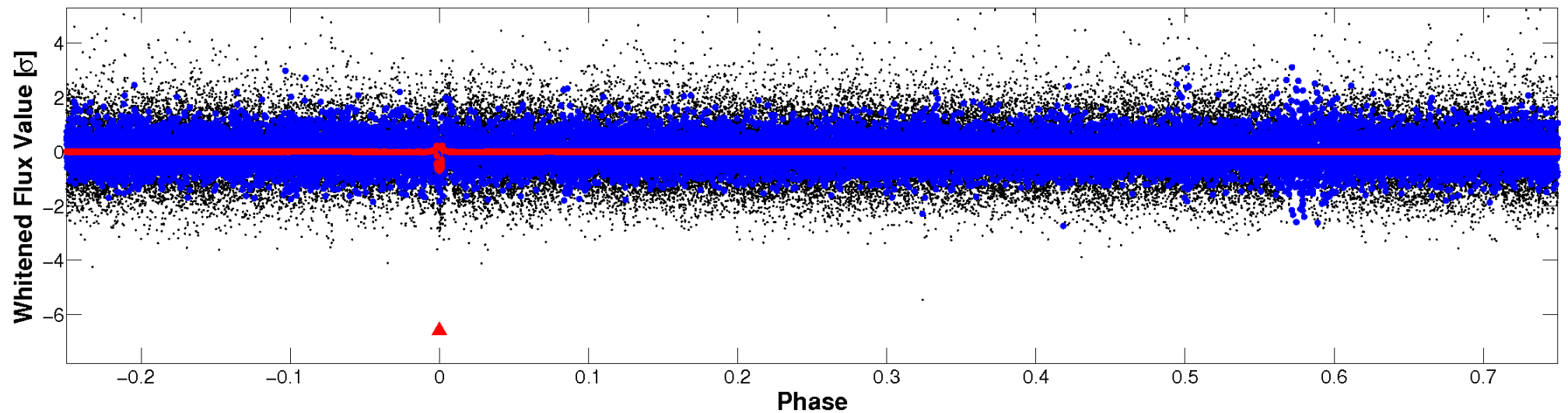


# Non-Whitened Vs. Whitened Light Curve

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

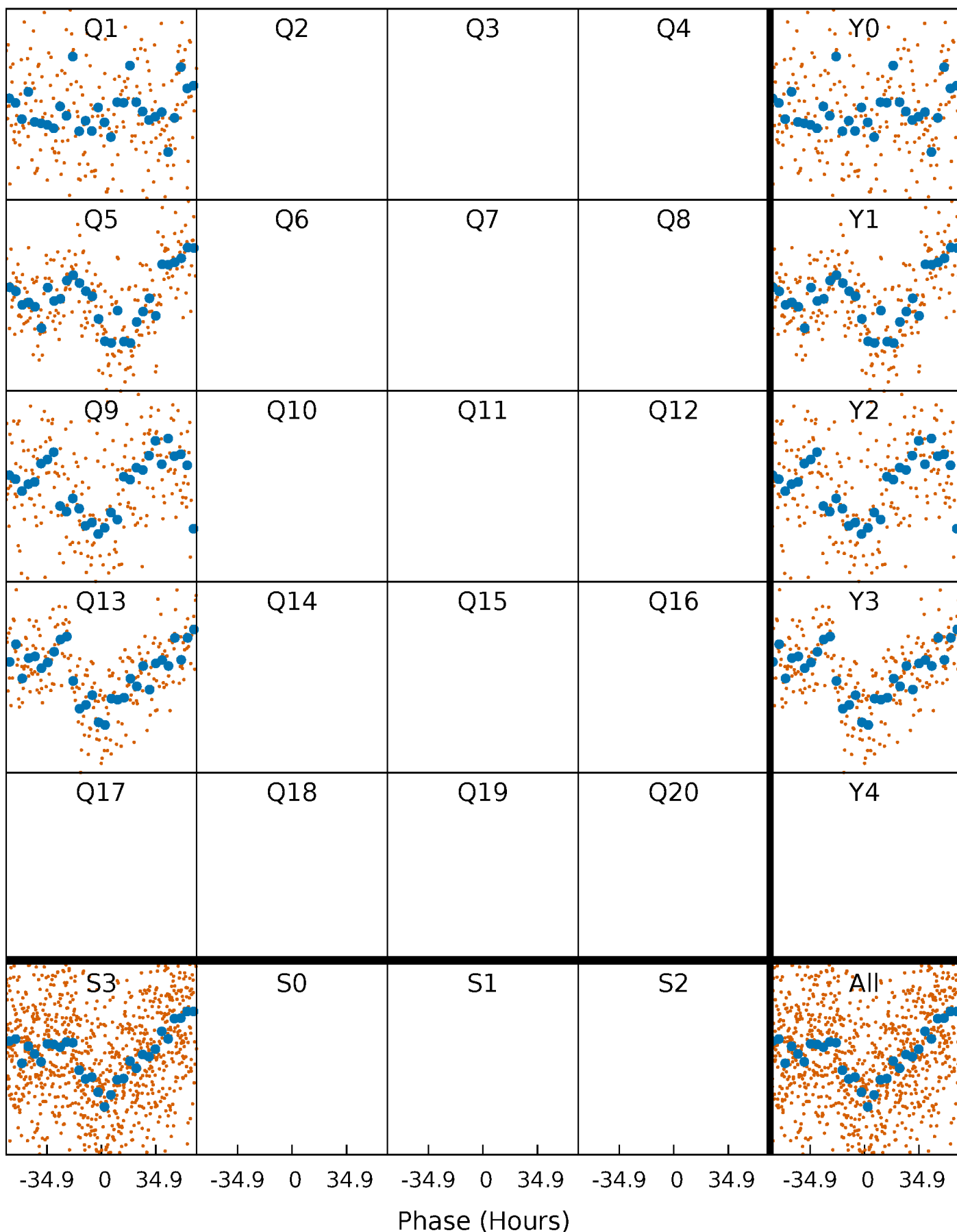


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

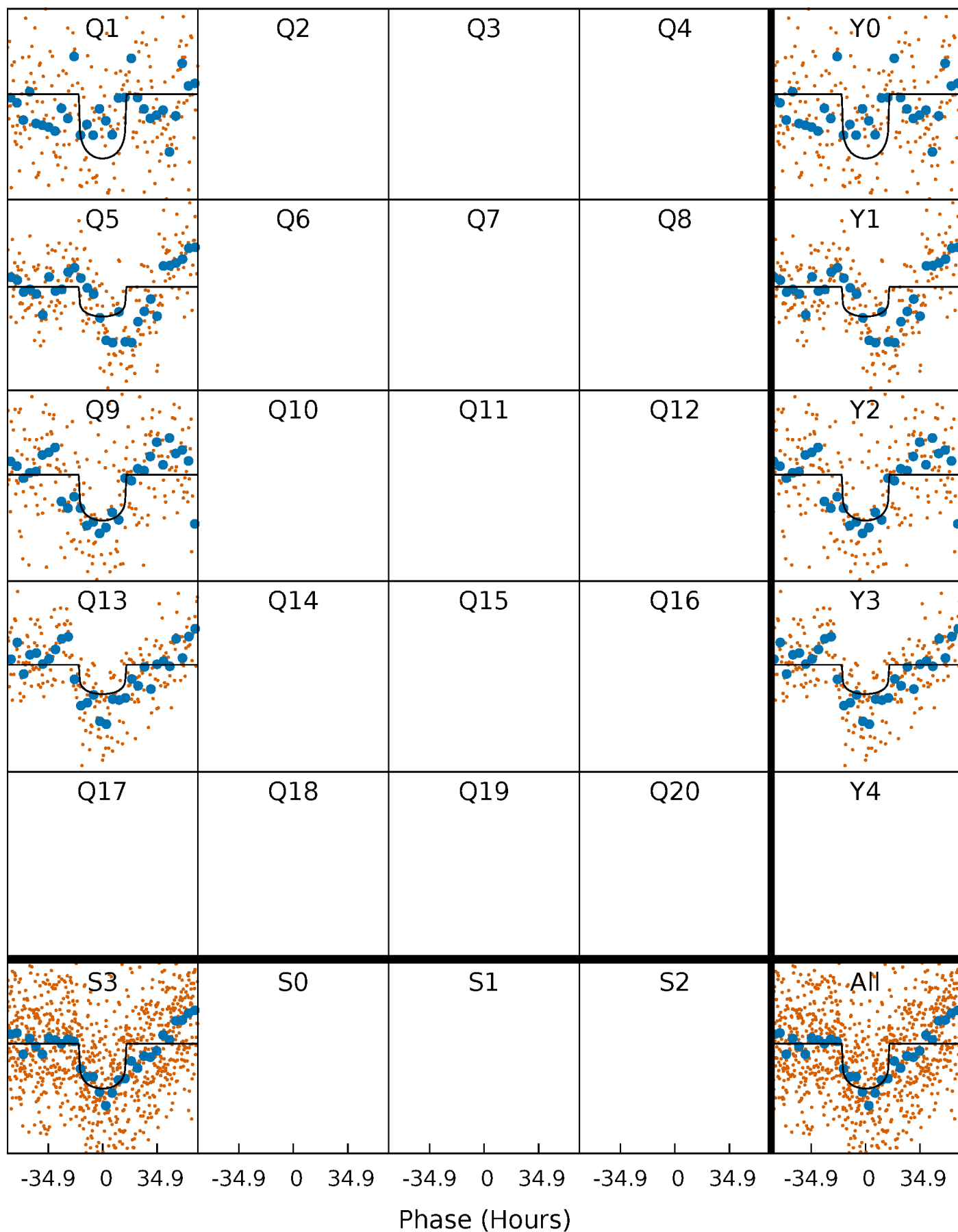
TCE 008885132-01 P=374.925509 Days  $T_0=134.383031$  (BKJD)





# DV Quarter-Phased Transit Curves

TCE 008885132-01 P=374.925509 Days  $T_0=134.383031$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

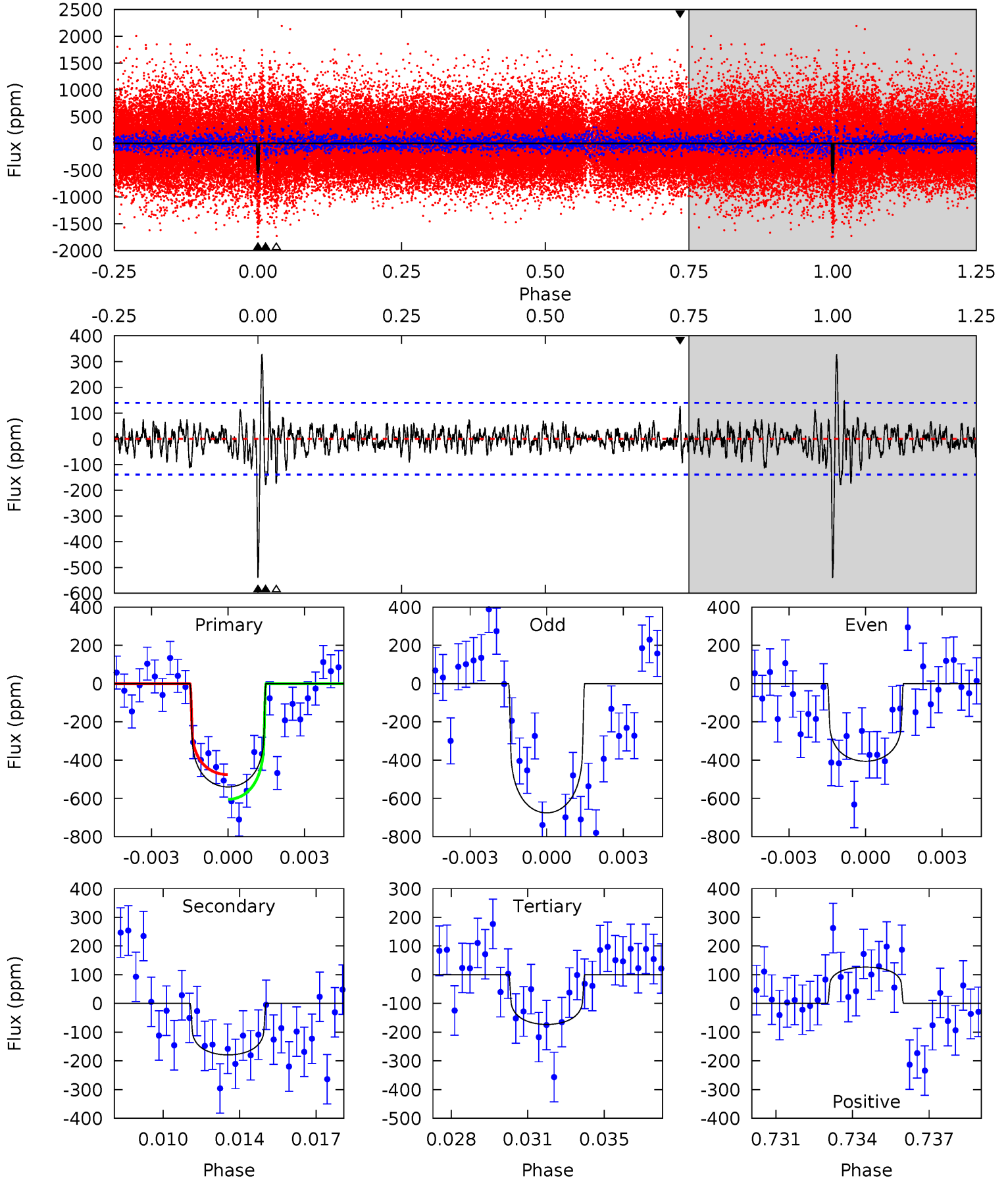
TCE 008885132-01 P=374.955826 Days  $T_0=134.267285$  (BKJD)



# DV Model-Shift Uniqueness Test

008885132-01, P = 374.925509 Days, E = 134.383031 Days

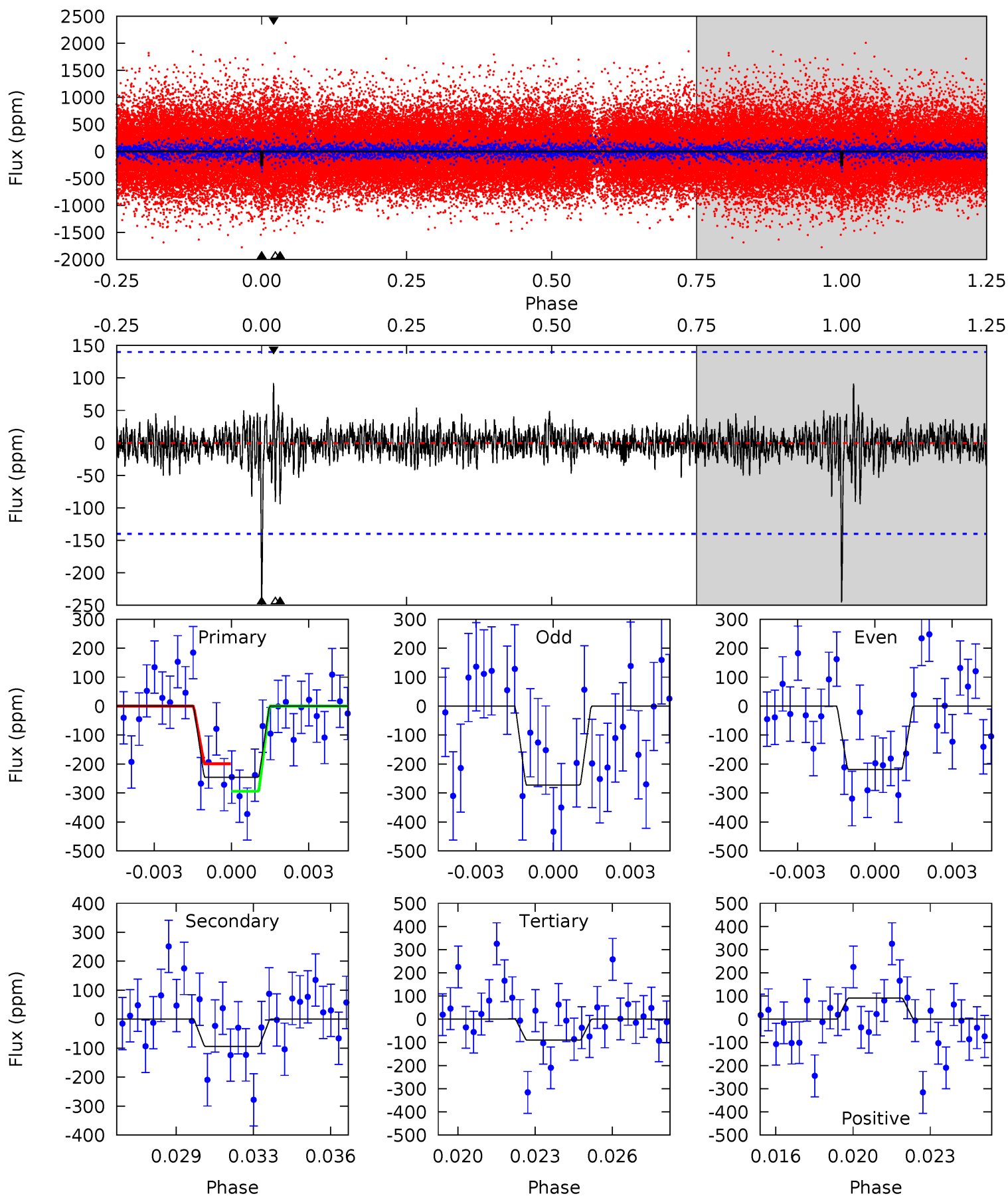
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.3	6.72	6.49	4.75	5.23	2.92	1.44	13.8	15.5	0.23	1.97	5.08	0.99	0.38	2.42



# Alt Model-Shift Uniqueness Test

008885132-01, P = 374.955826 Days, E = 134.267285 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
9.19	3.53	3.38	3.40	5.24	2.94	0.63	5.80	5.78	0.14	0.12	1.01	1.09	0.27	1.77



### Stellar Parameters For KIC 008885132

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6095^{+181}_{-200}$	$4.402^{+0.105}_{-0.195}$	$-0.220^{+0.250}_{-0.300}$	$1.038^{+0.321}_{-0.138}$	$0.992^{+0.153}_{-0.111}$	$1.248^{+0.566}_{-0.621}$
	+3%/-3%	+2%/-4%	+114%/-136%	+31%/-13%	+15%/-11%	+45%/-50%
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 008885132-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-179 \pm 27$	$2.45^{+1.02}_{-0.93}$	$385^{+26}_{-21}$	$4983^{+1174}_{-648}$	$17249^{+26395}_{-9005}$
Alt.	$-94 \pm 27$	$1.85^{+0.97}_{-0.95}$	$383^{+31}_{-20}$	$4919^{+1734}_{-820}$	$15406^{+48807}_{-9313}$

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

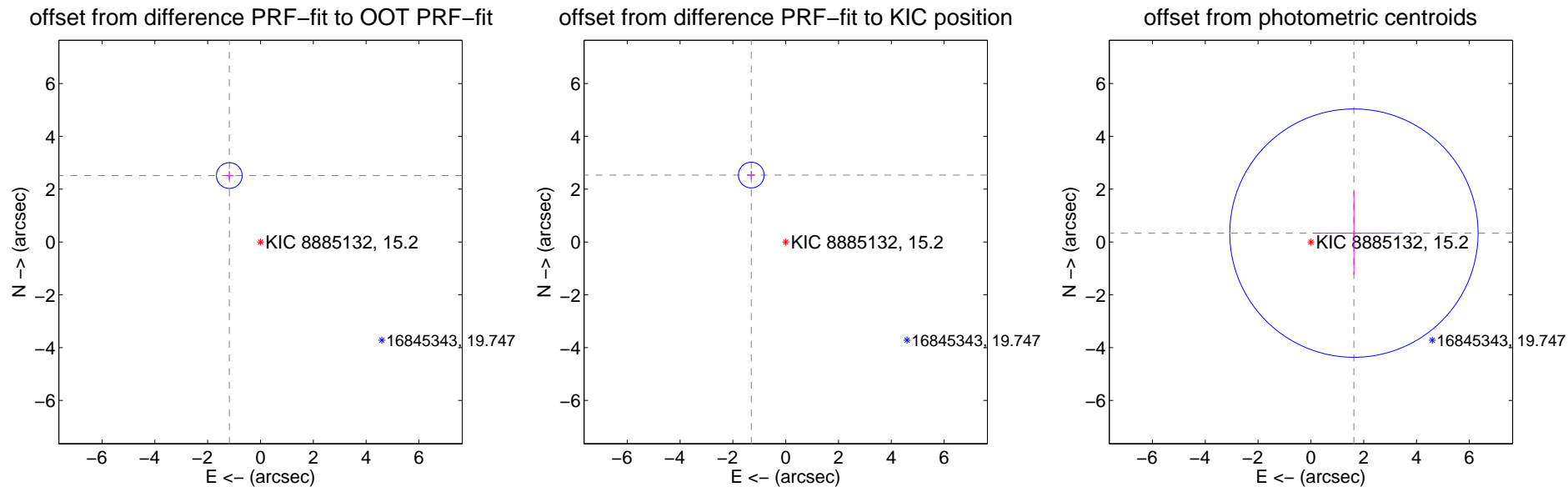
## DV Centroid Data

Supplemental centroid analysis for 008885132-01. Kepler magnitude: 15.20. Transit SNR 9.38

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

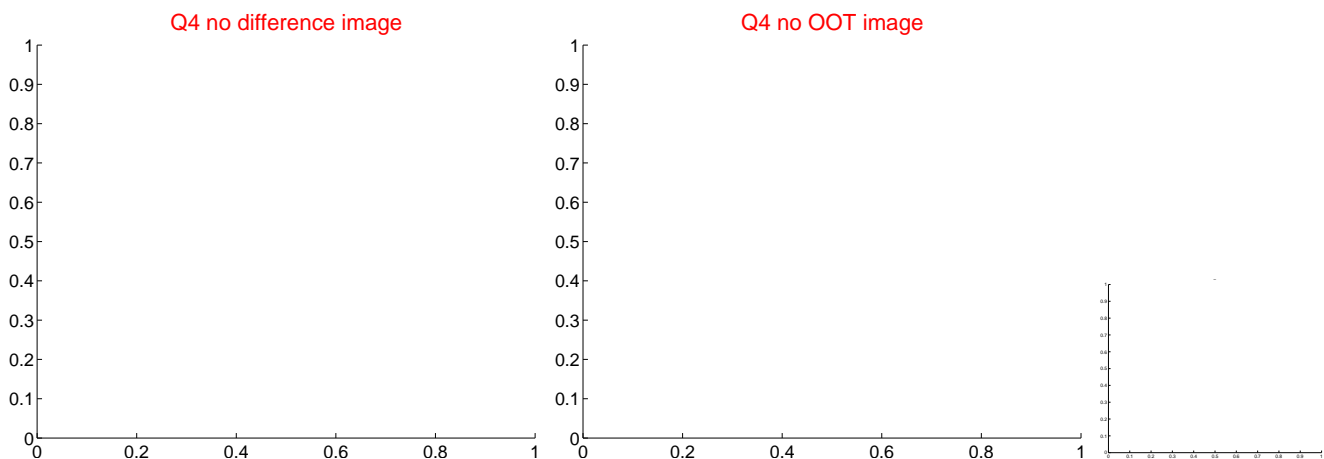
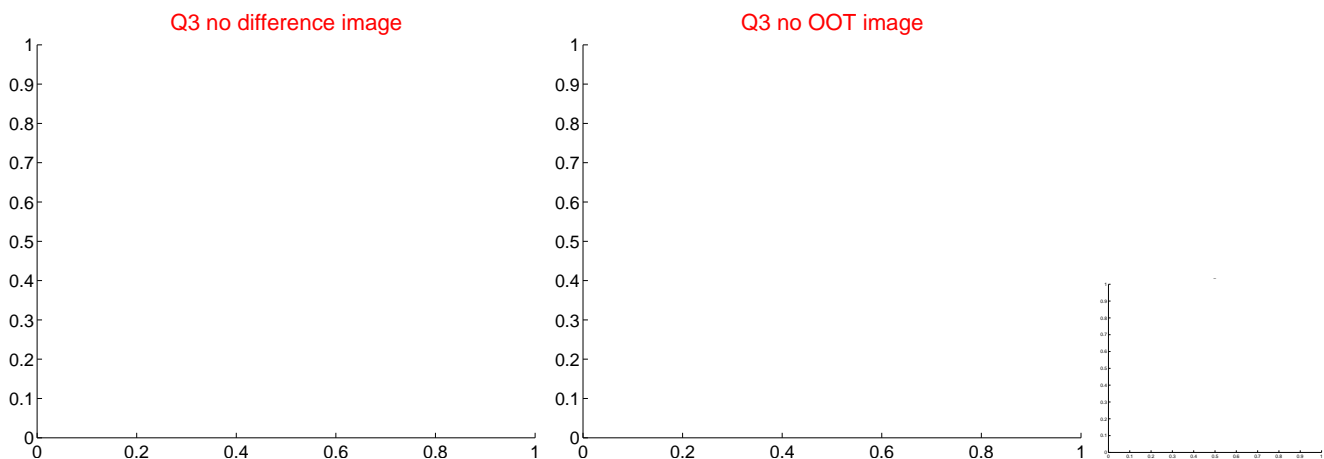
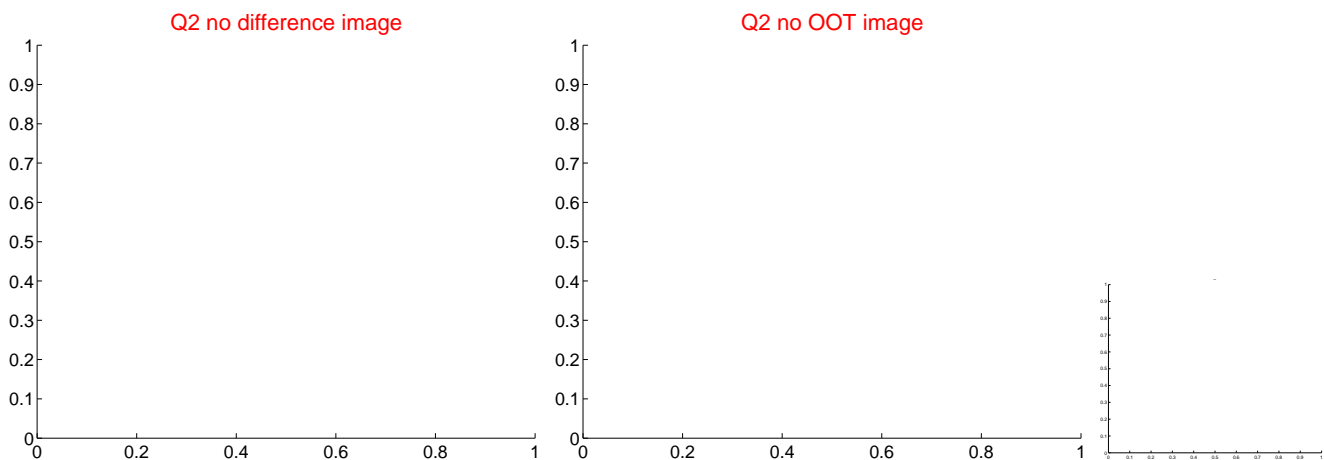
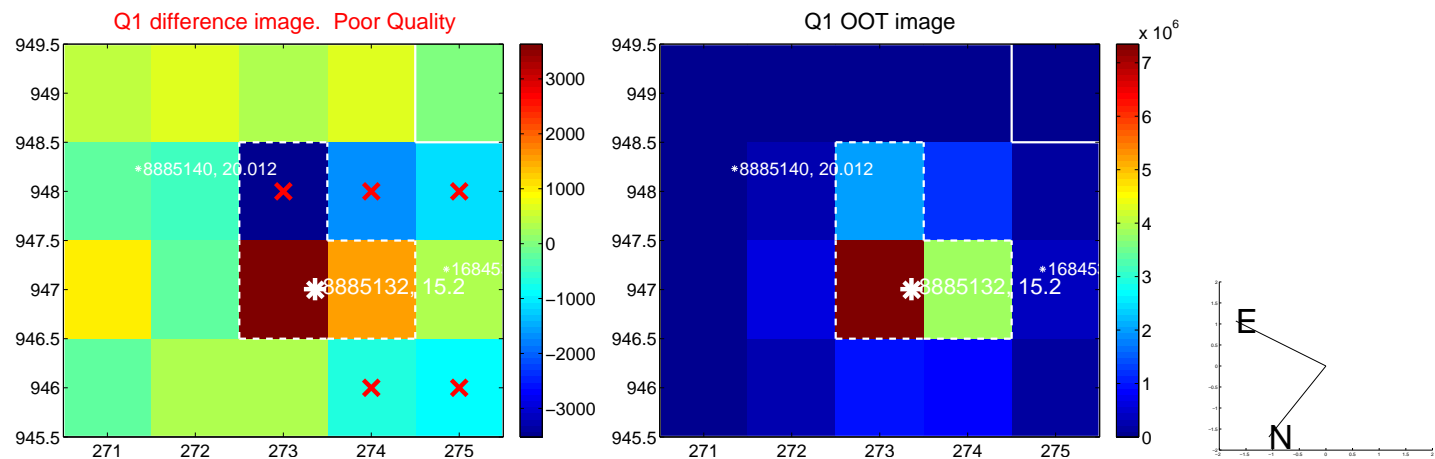
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$2.780 \pm 0.163$	17.10	$1.182 \pm 0.157$	$2.516 \pm 0.164$
PRF-fit source offset from KIC position	$2.849 \pm 0.162$	17.55	$1.304 \pm 0.157$	$2.533 \pm 0.164$
photometric centroid source offset	$1.66 \pm 1.57$	1.06	$-1.63 \pm 1.57$	$0.34 \pm 1.58$



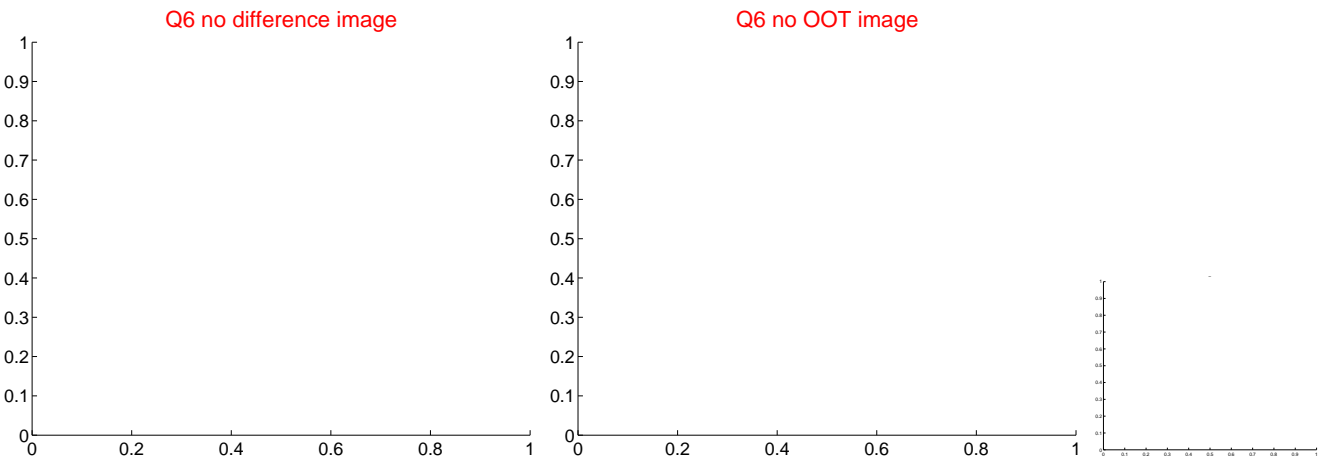
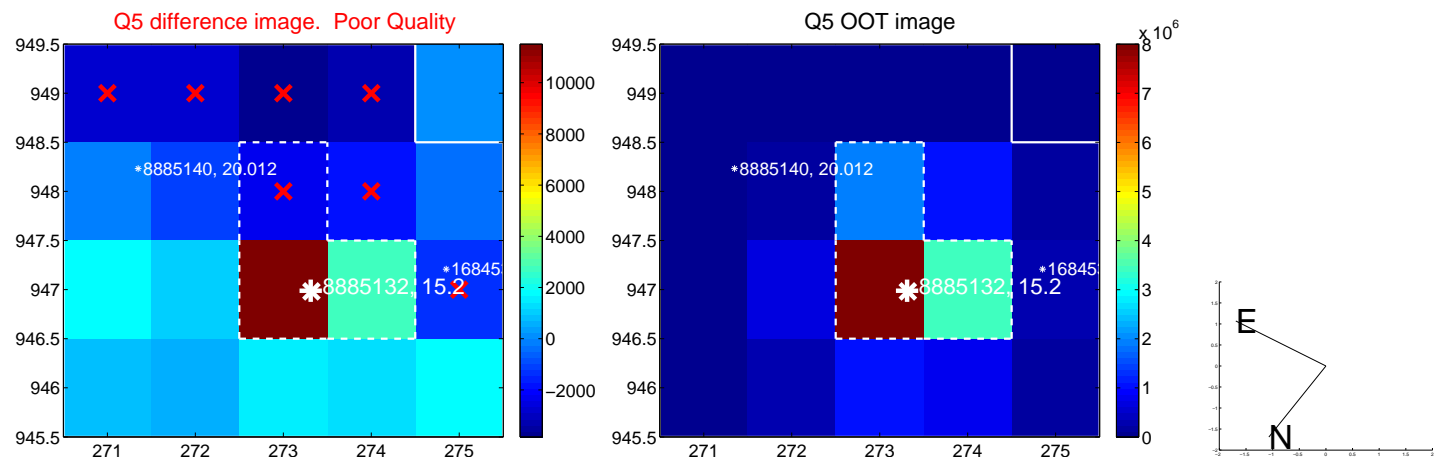
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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



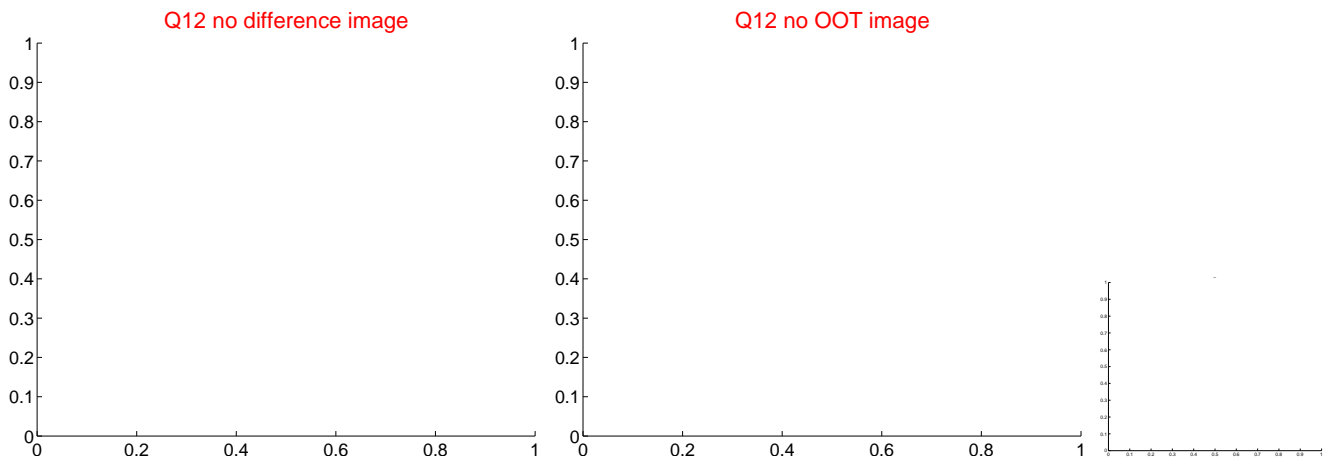
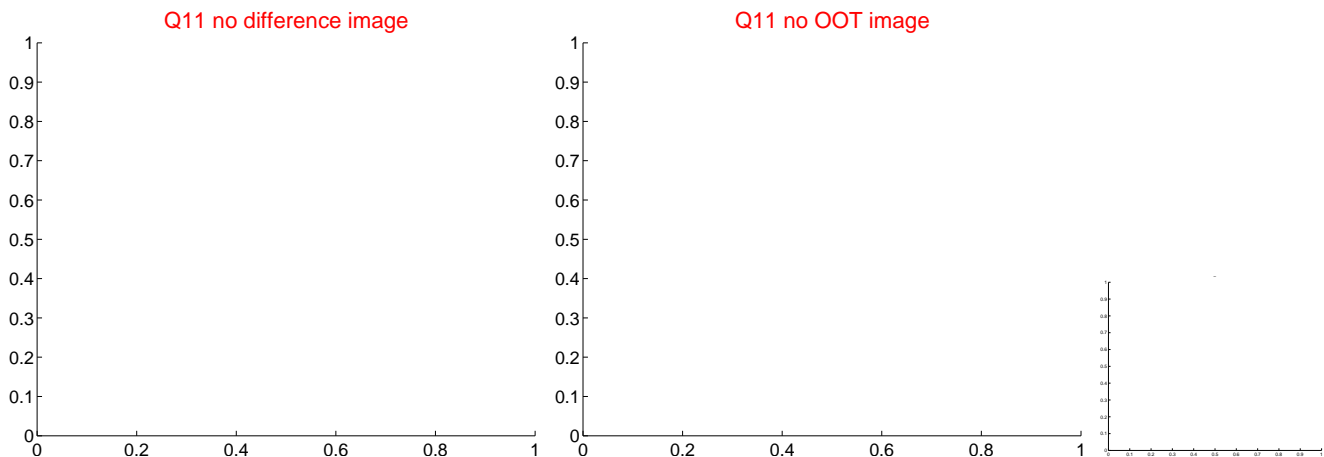
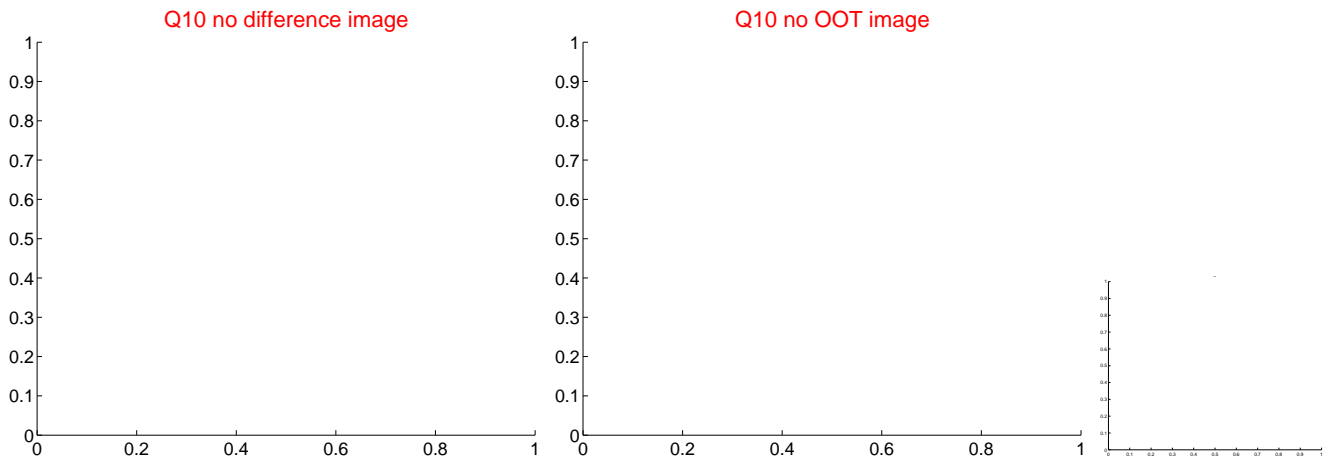
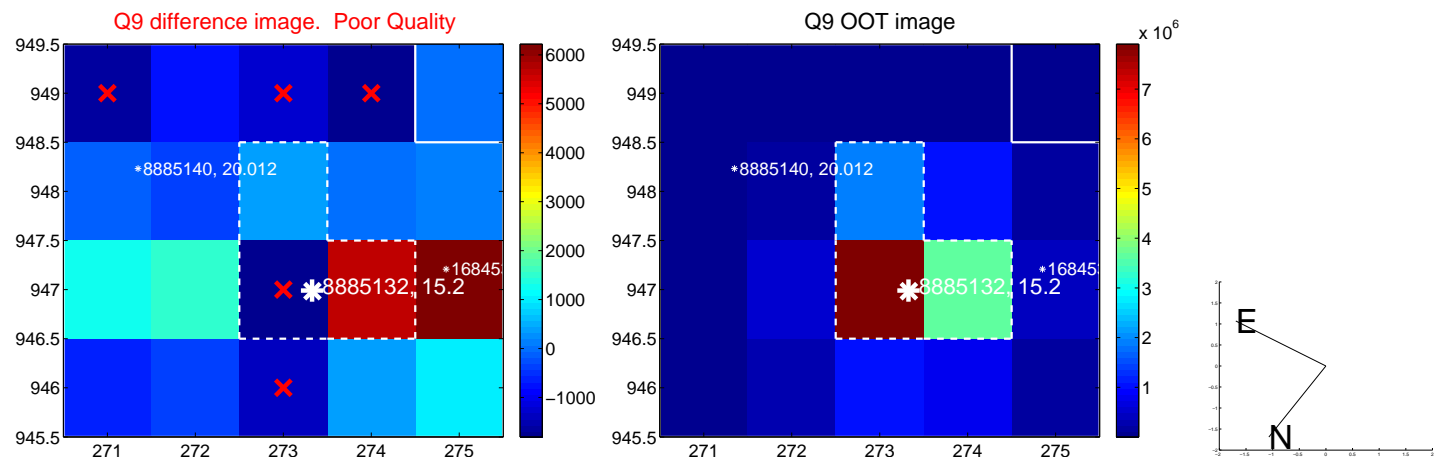
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



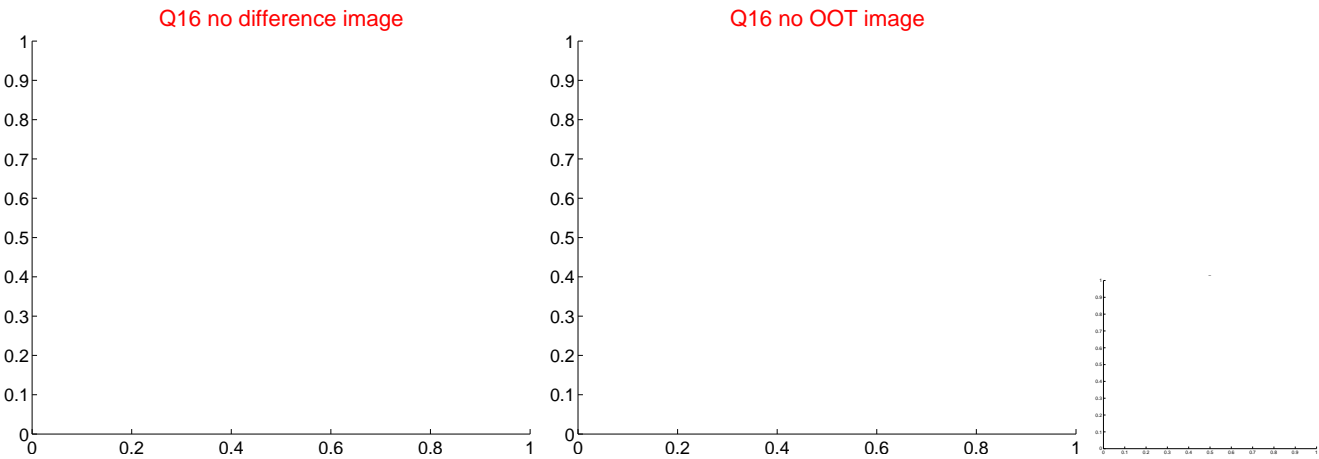
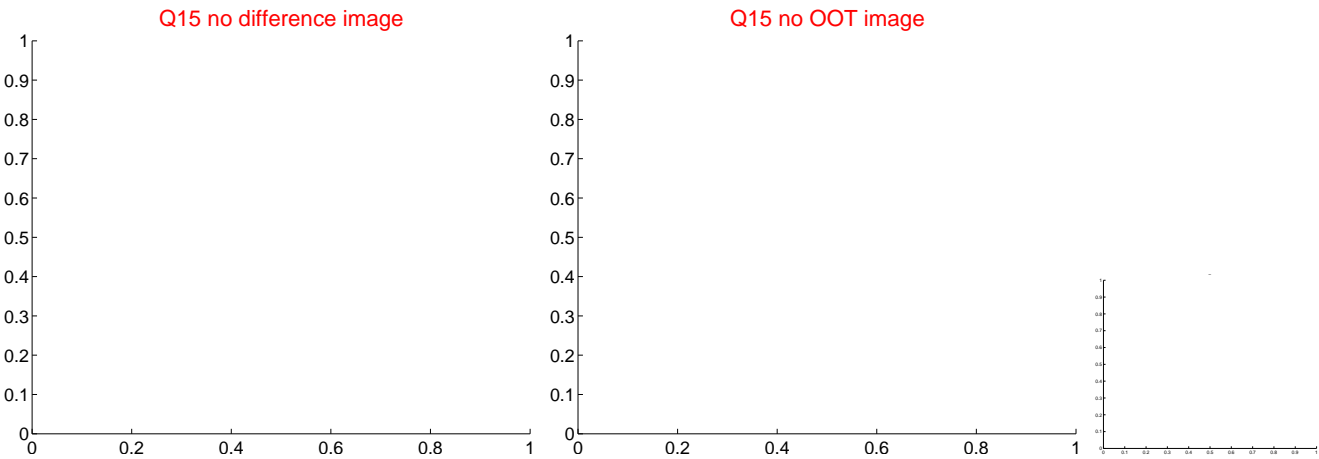
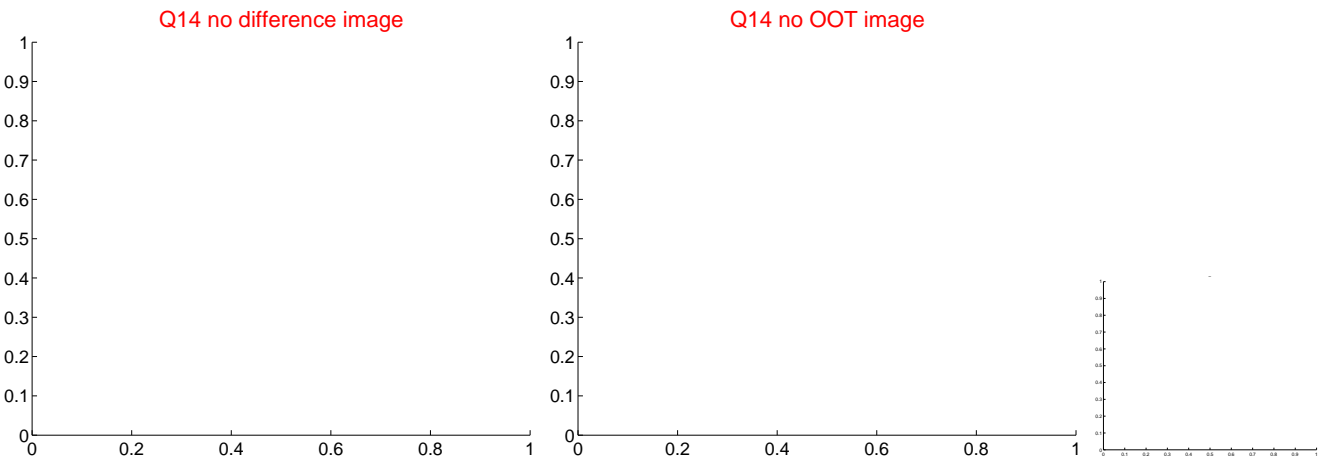
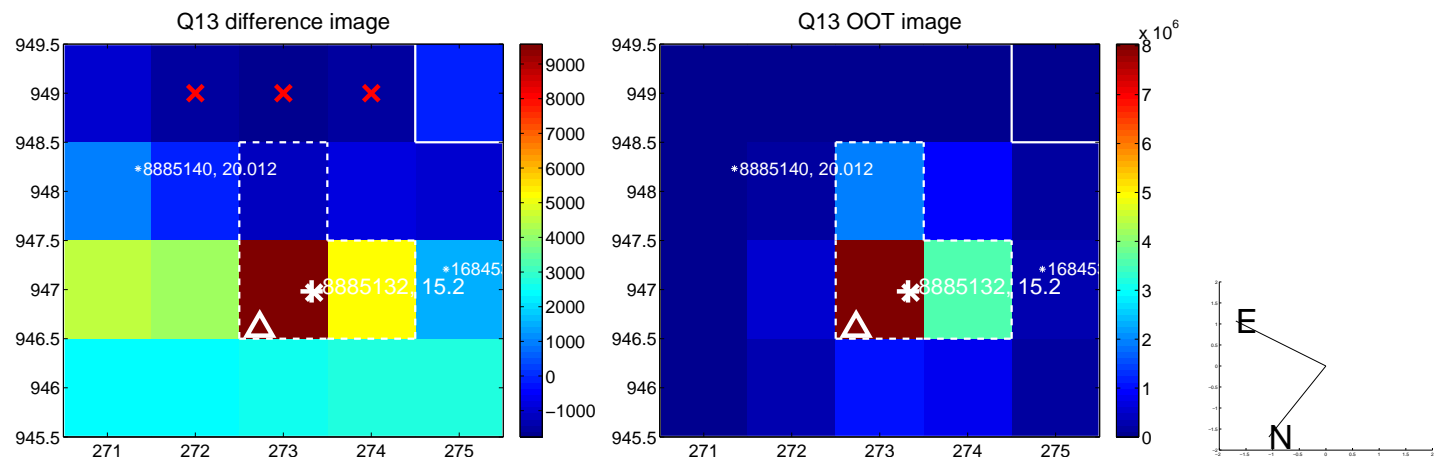
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



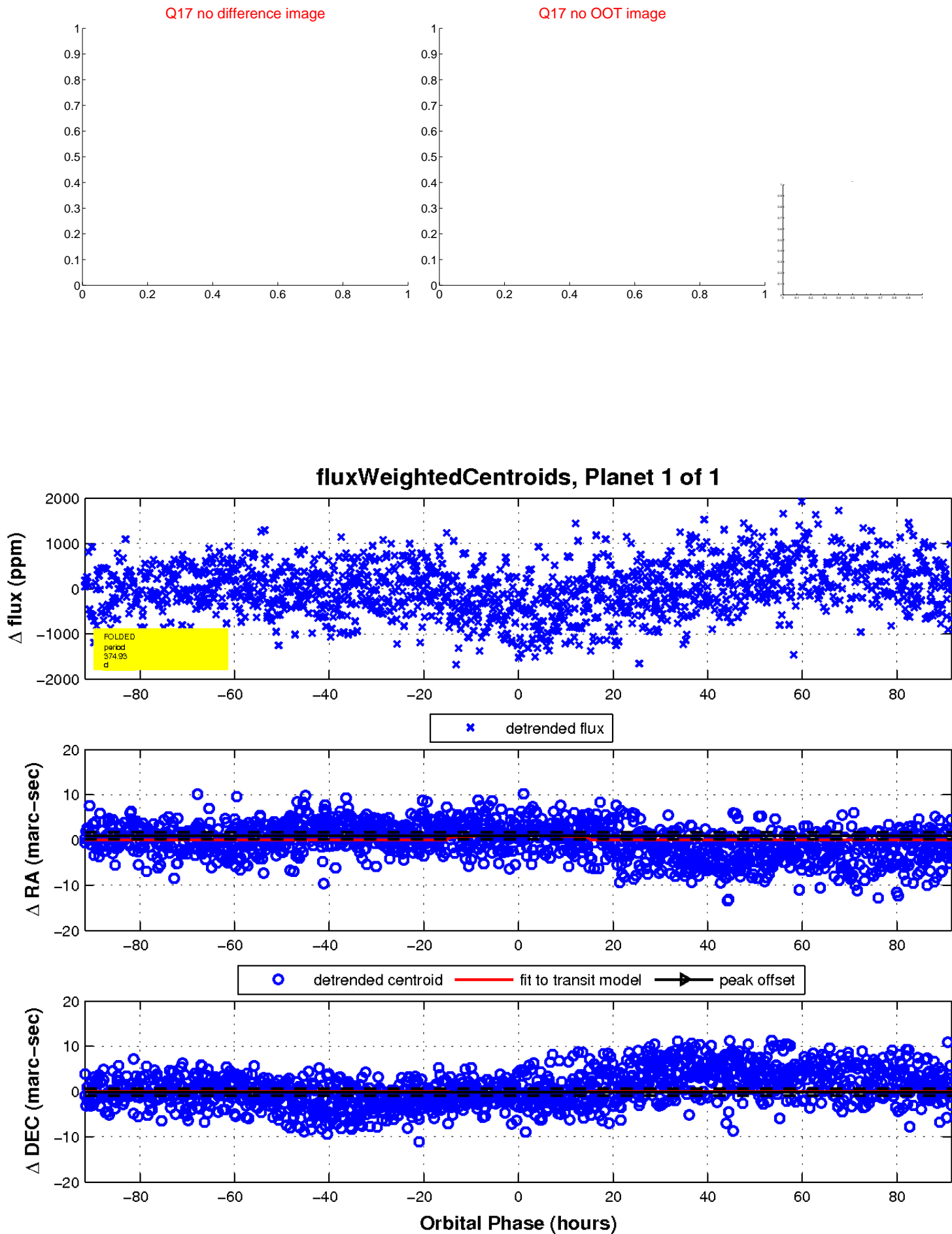
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



# UKIRT Image

Declination

