

# KIC 010484892

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
010484892-01	OBS	No	355.506854	411.384246	333.8	7.764	7.4	7.2	0.98	6687	1.92	1.71

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010484892-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—MOD_NONUNIQ_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.

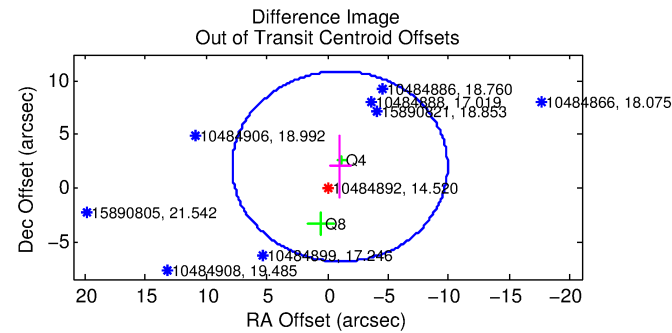
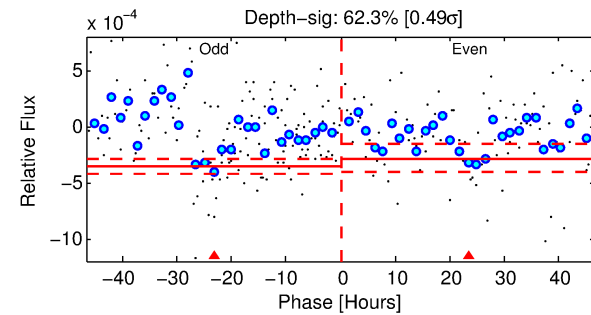
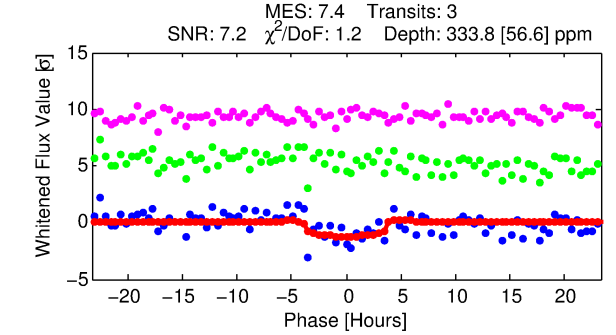
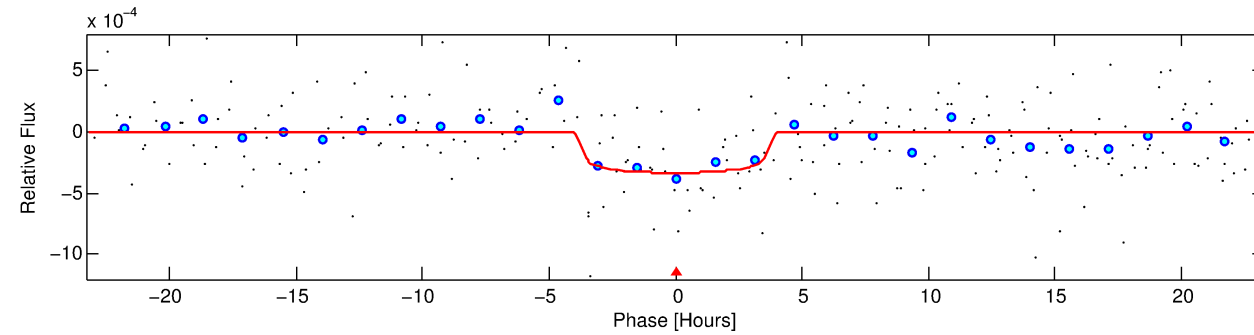
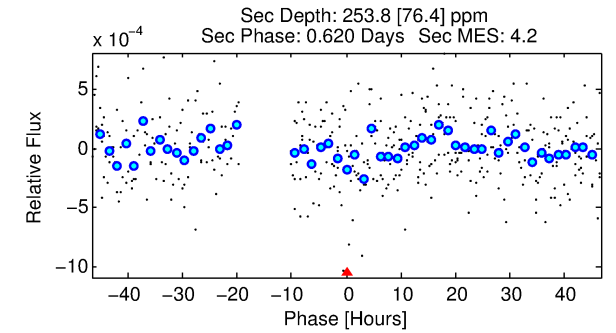
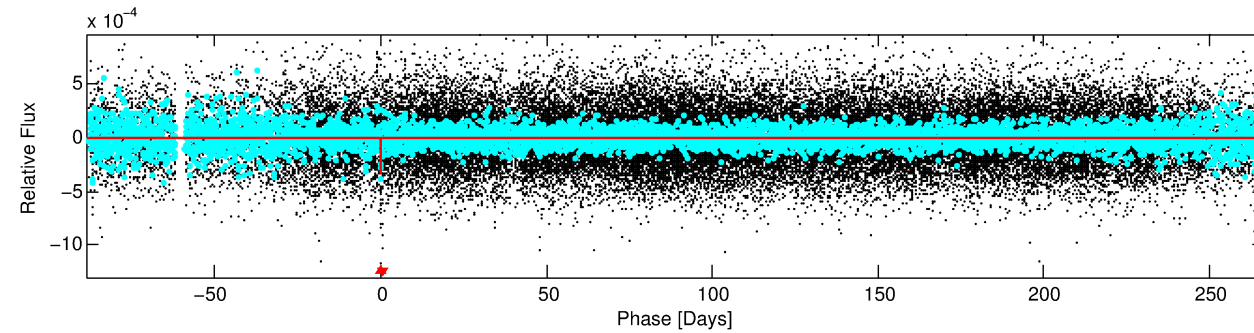
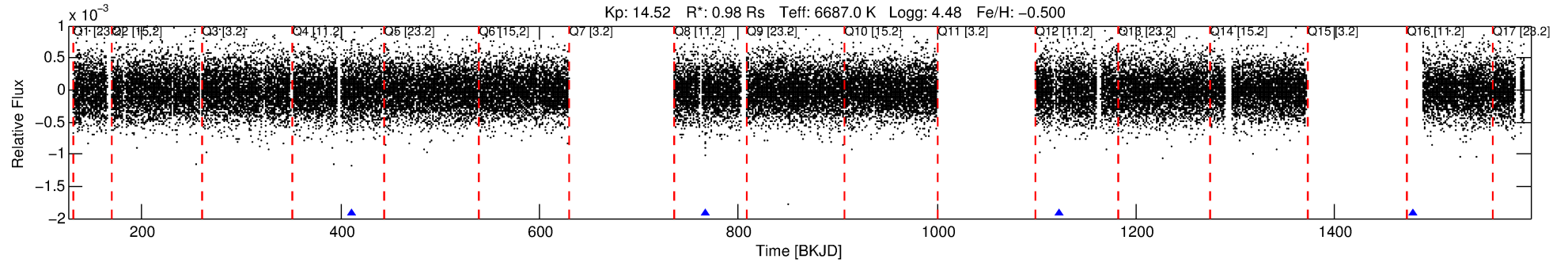
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 010484892-01

No Significant Match Found

# DV One-Page Summary

KIC: 10484892 Candidate: 1 of 1 Period: 355.507 d



## DV Fit Results:

Period = 355.50685 [0.01801] d  
Epoch = 411.3842 [0.0211] BKJD  
Rp/R\* = 0.0179 [0.0165]  
a/R\* = 257.52 [1334.64]  
b = 0.70 [3.75]  
Seff = 1.71 [0.68]  
Teff = 292 [29] K  
Rp = 1.91 [1.85] Re  
a = 1.0011 [0.2562] AU  
Ag = 38170.00 [72510.92] [0.53 $\sigma$ ]  
Teffp = 6301 [2943] K [2.04 $\sigma$ ]

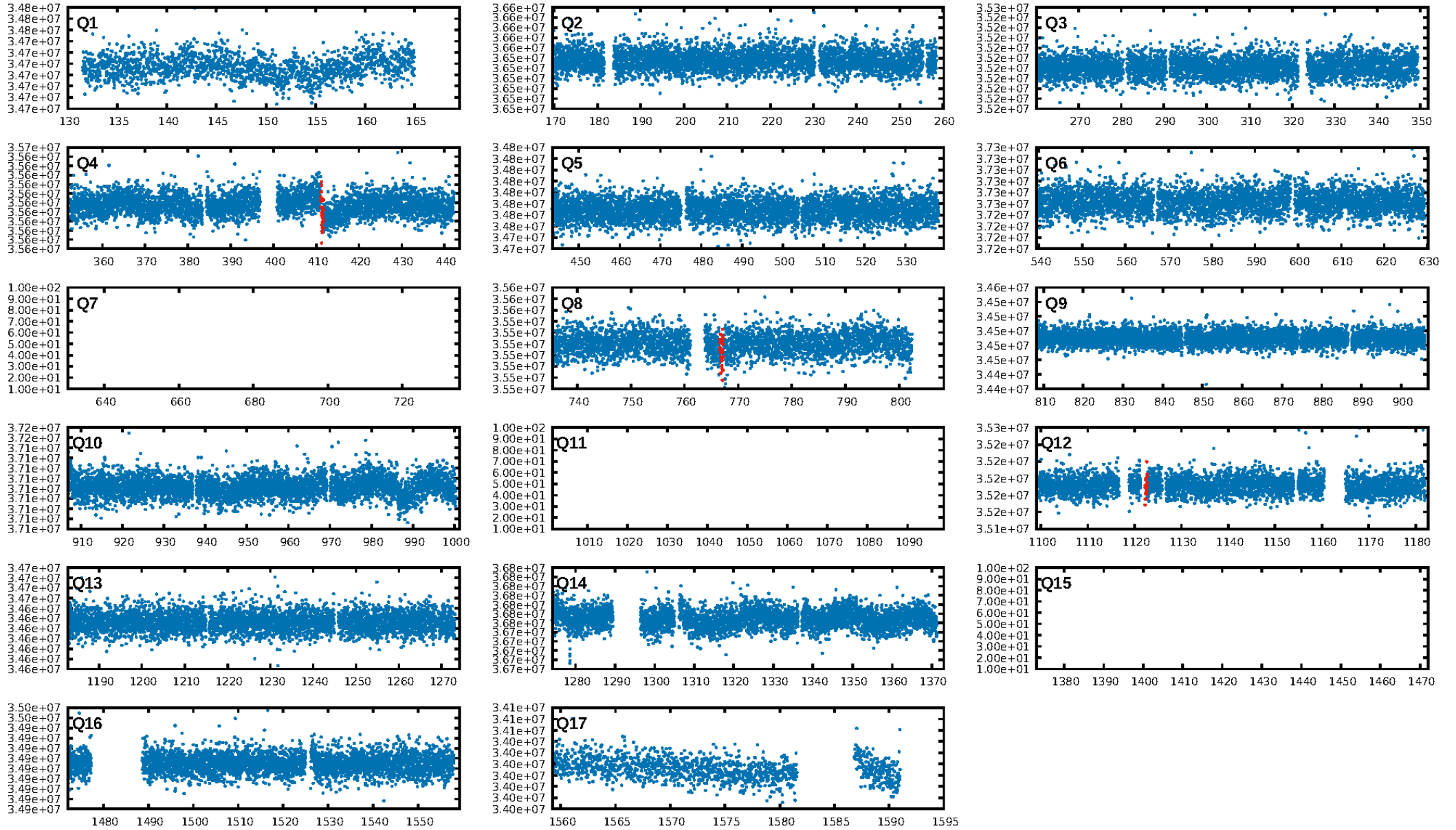
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 4.7%  
ModelChiSquareGof-sig: 91.8%  
Bootstrap-pfa: 3.57e-14  
RollingBand-fgt: 1.00 [3/3]  
GhostDiagnostic-chr: 4.89  
Centroid-sig: 72.4%  
Centroid-so: 0.993 arcsec [0.62 $\sigma$ ]  
OotOffset-rm: 2.272 arcsec [0.77 $\sigma$ ]  
KicOffset-rm: 2.228 arcsec [1.13 $\sigma$ ]  
OotOffset-st: 0/0/2/0 [2]  
KicOffset-st: 0/0/2/0 [2]  
DiffImageQuality-fgm: 0.50 [1/2]  
DiffImageOverlap-fno: 1.00 [2/2]

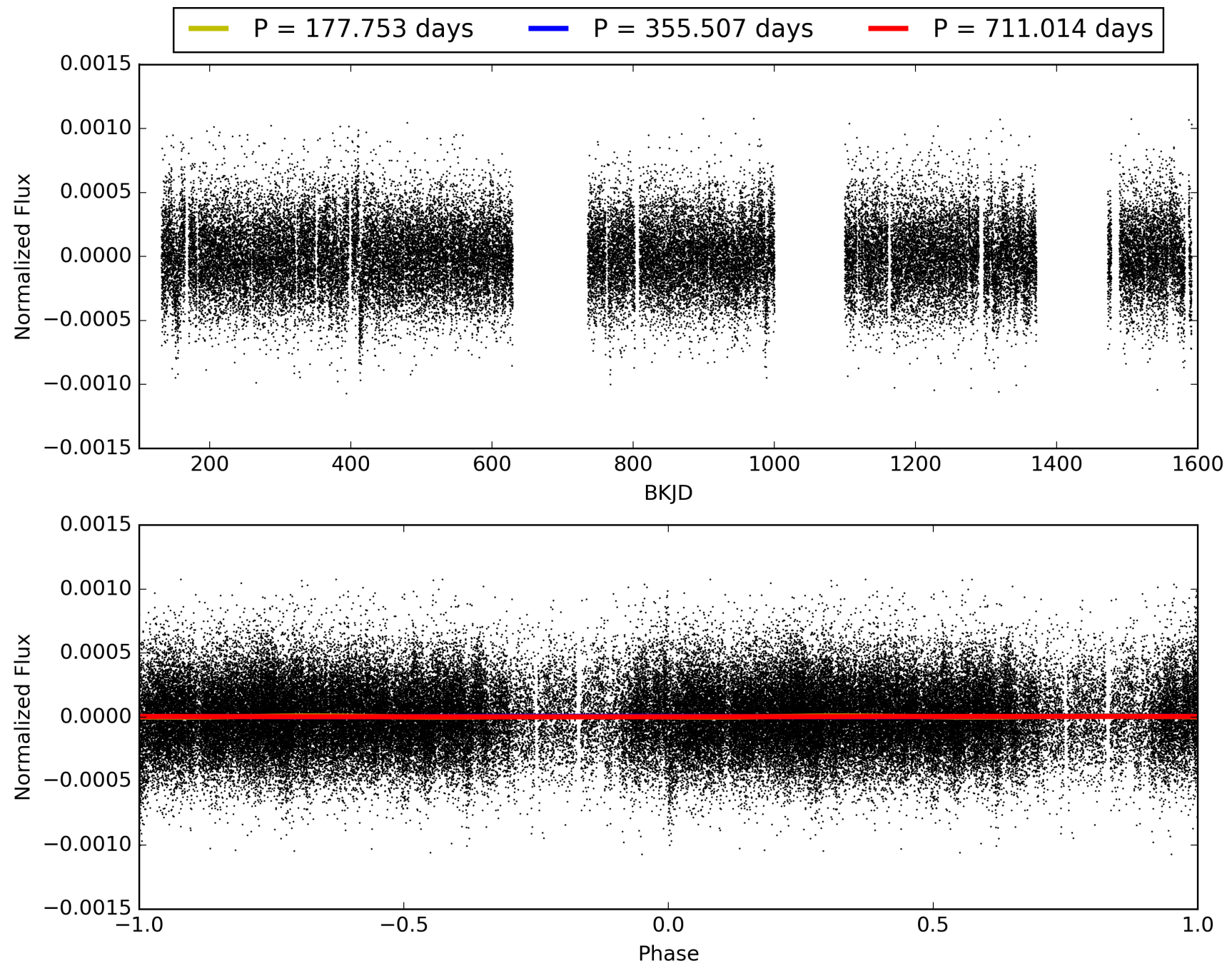
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:39:00 Z

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

# TCE 010484892-01, PDC Light Curves

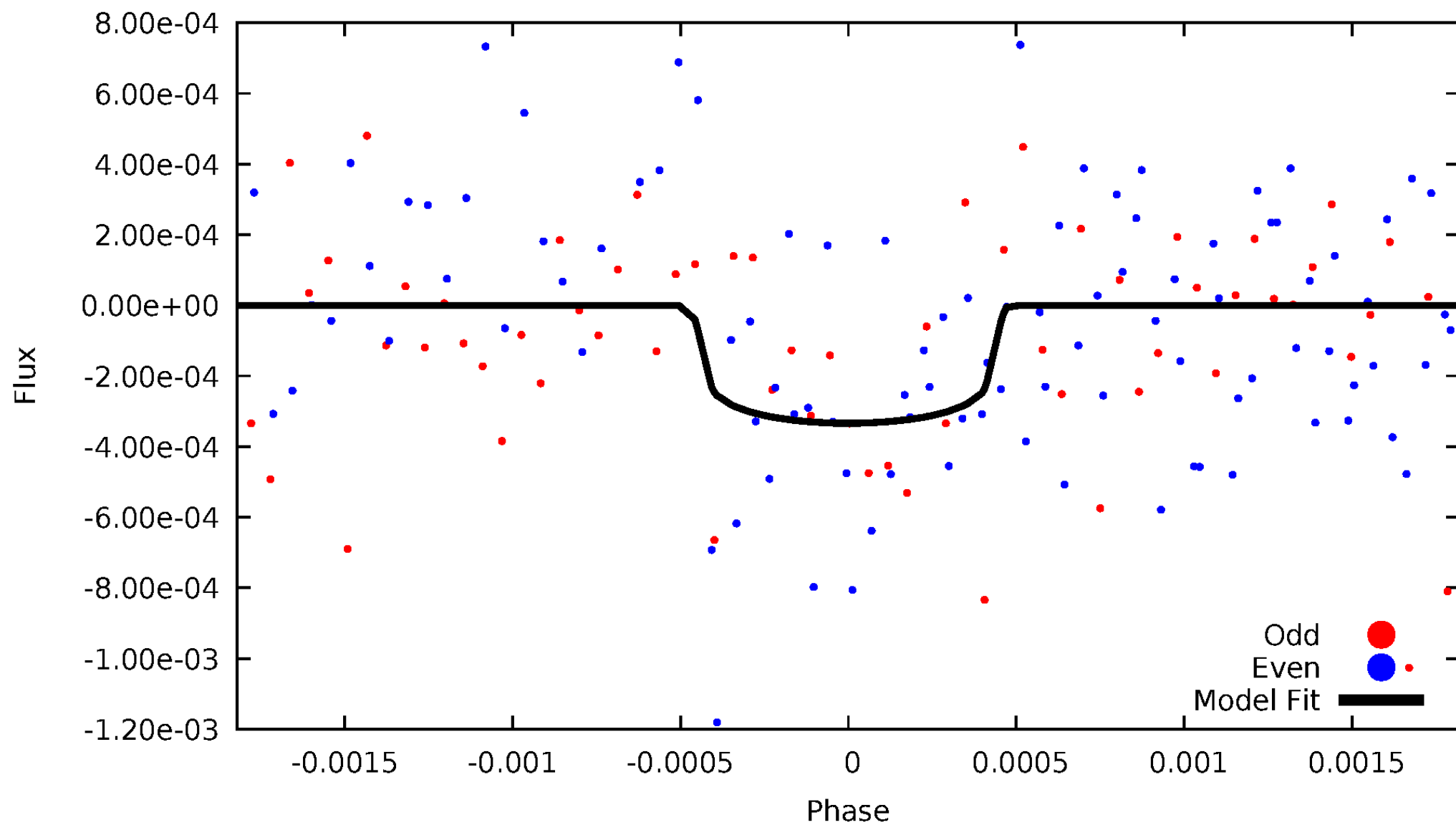


TCE 010484892-01



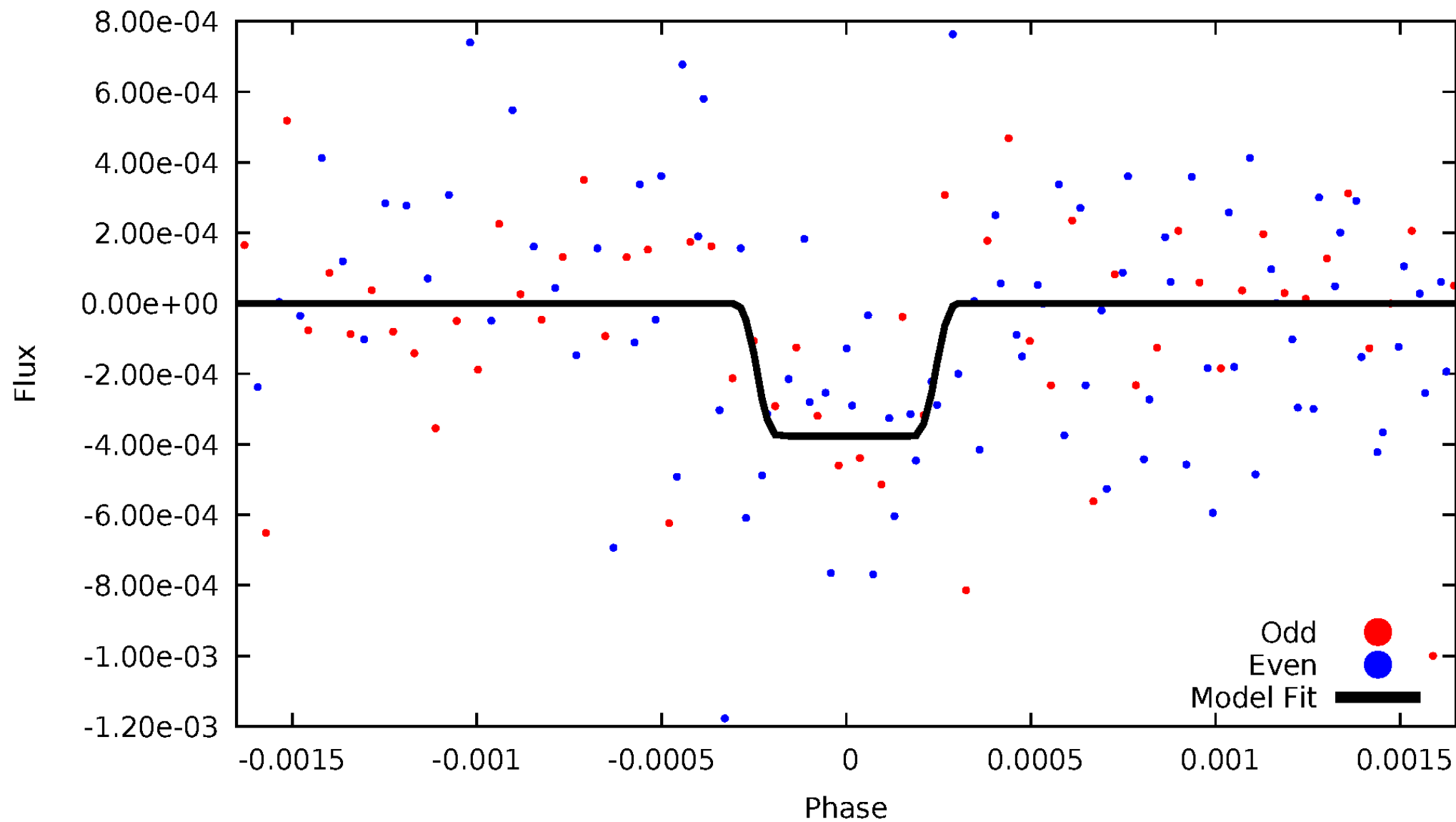
# DV Odd/Even

TCE 010484892-01

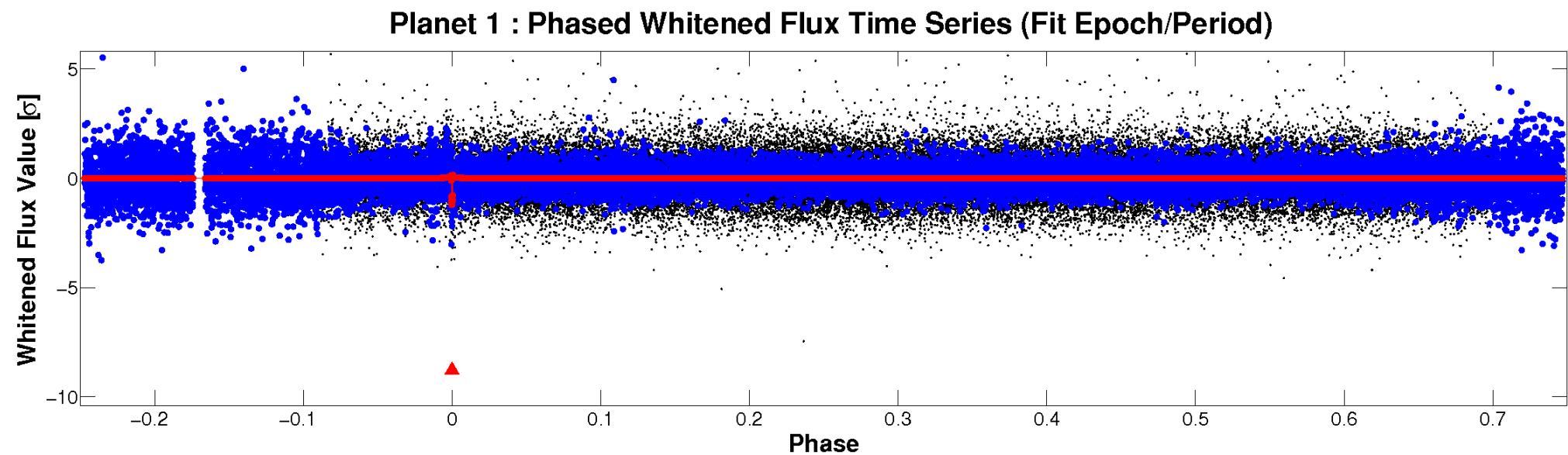
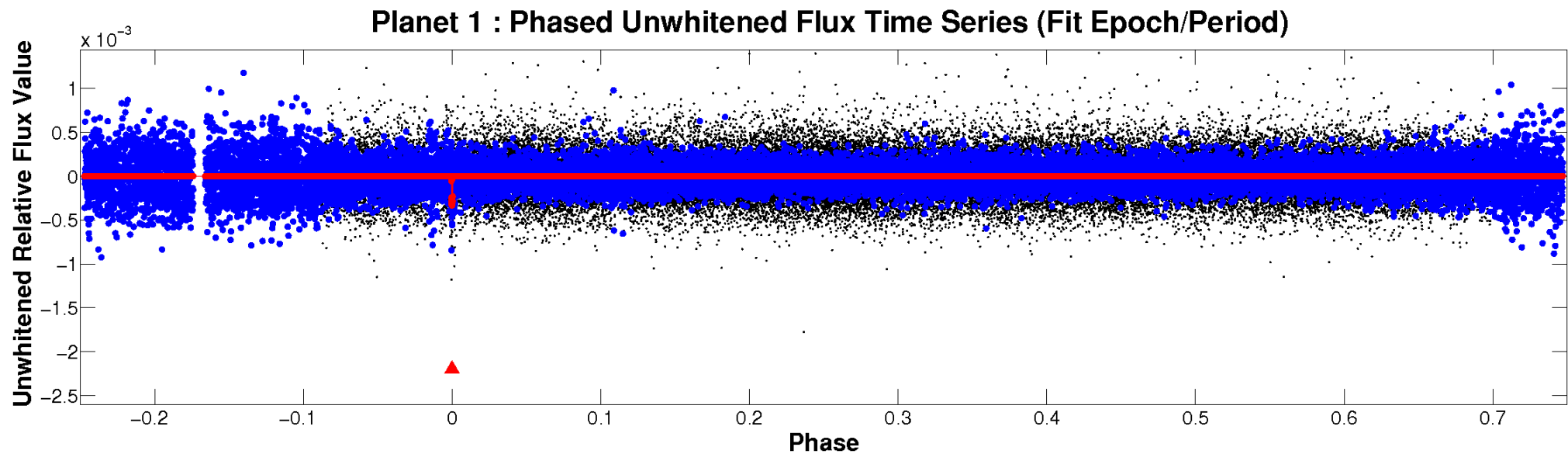


# ALT Odd/Even

TCE 010484892-01



# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

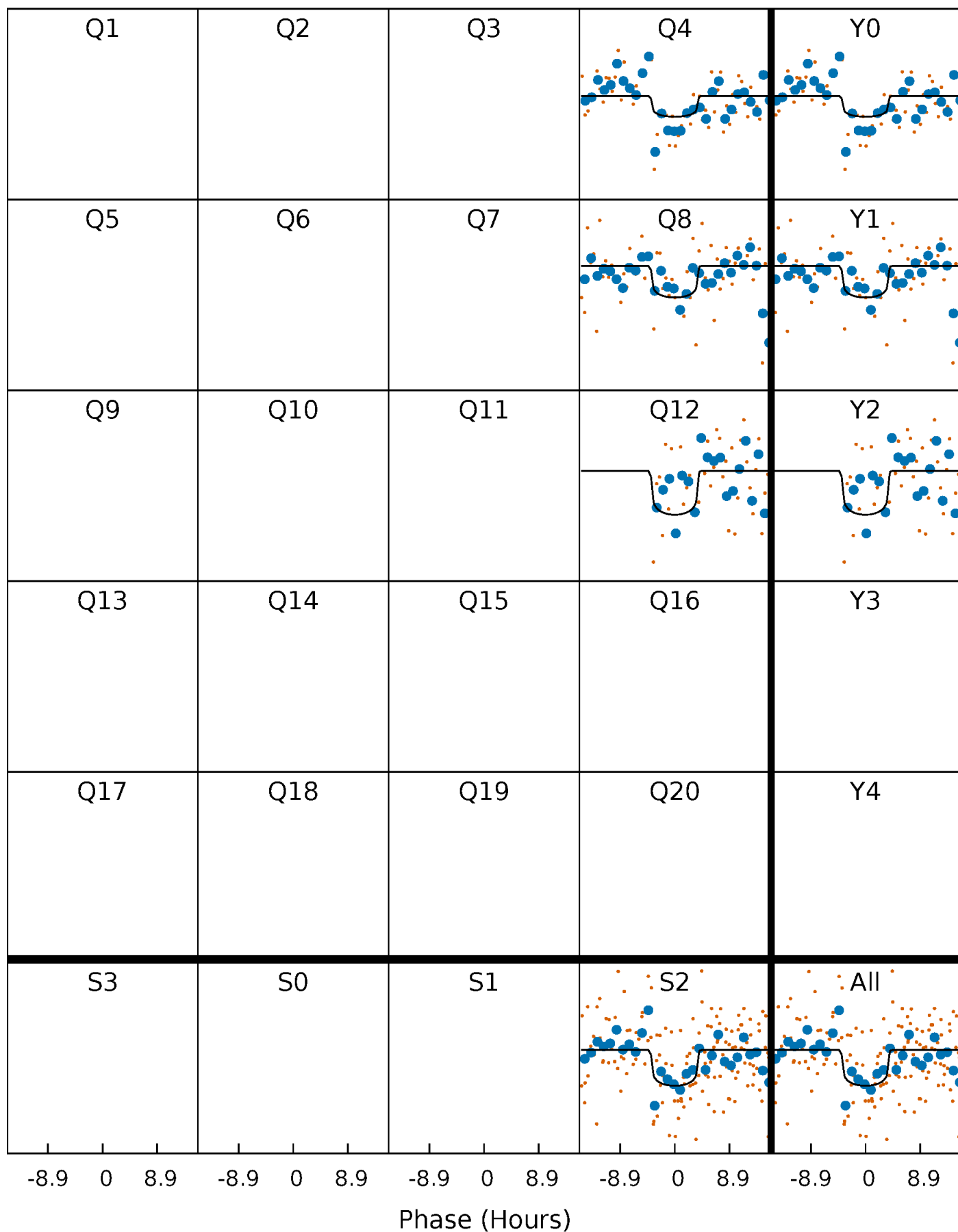
TCE 010484892-01 P=355.506854 Days  $T_0=411.384246$  (BKJD)





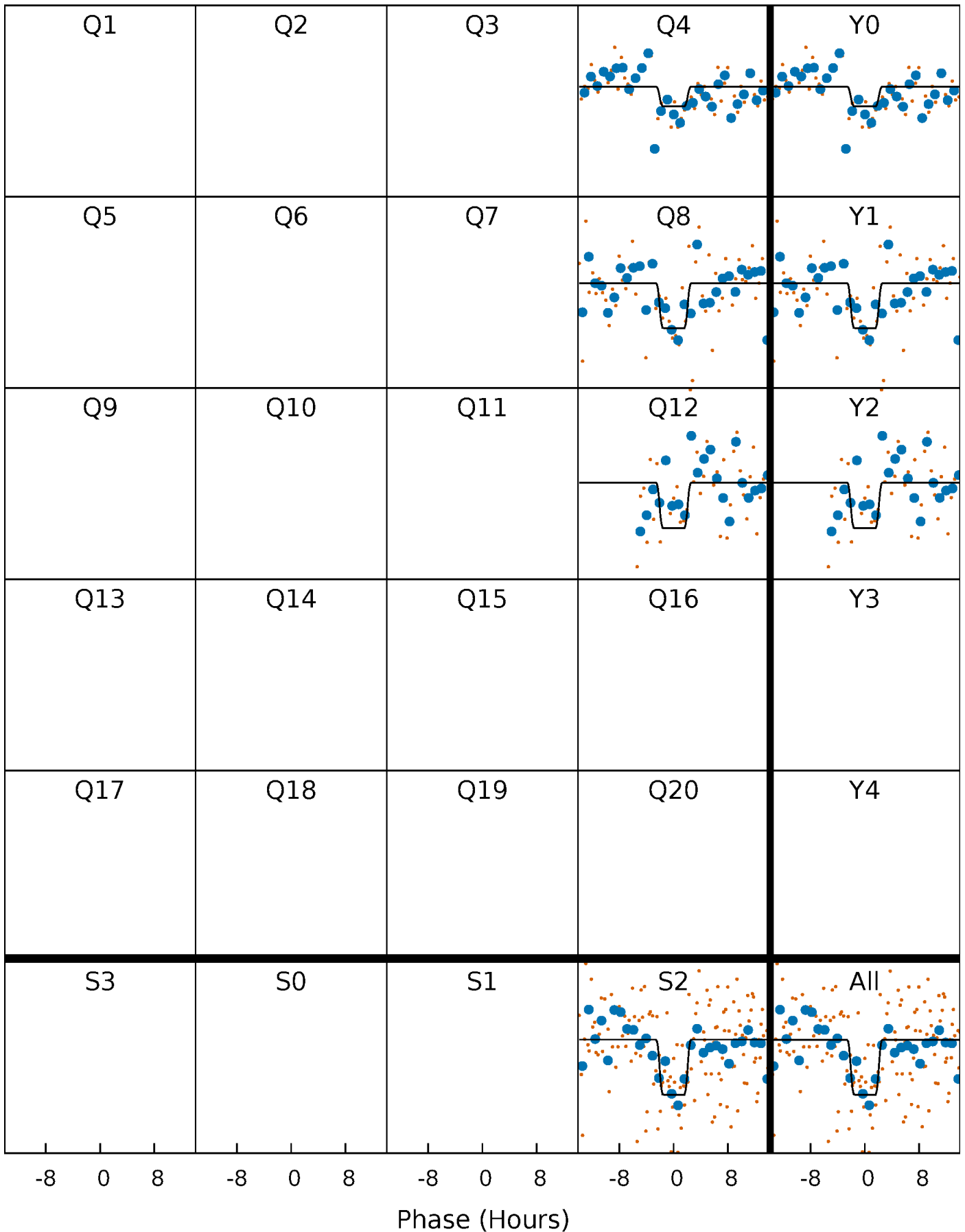
# DV Quarter-Phased Transit Curves

TCE 010484892-01 P=355.506854 Days  $T_0=411.384246$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

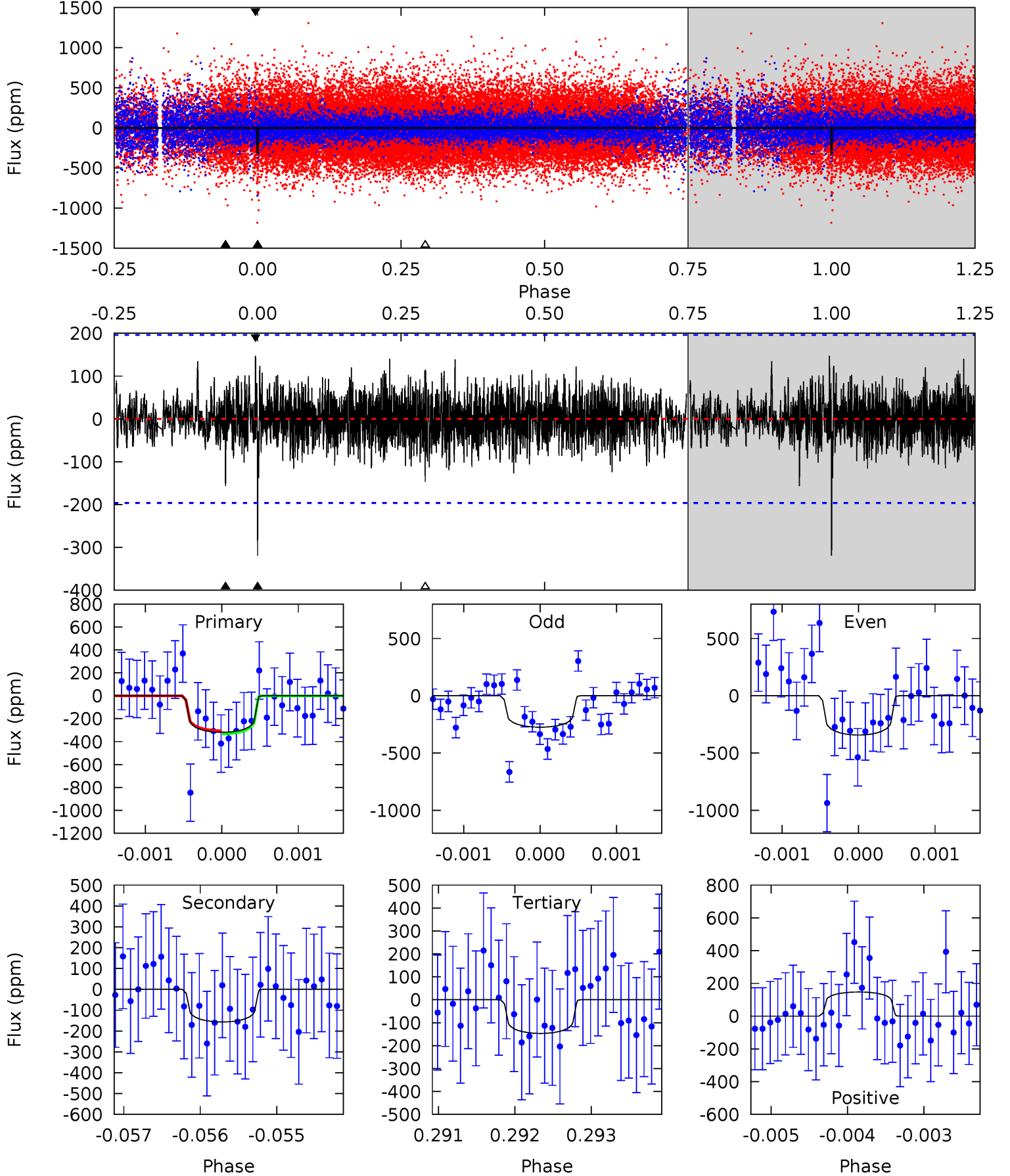
TCE 010484892-01 P=355.557566 Days  $T_0=411.362309$  (BKJD)



# DV Model-Shift Uniqueness Test

010484892-01,  $P = 355.506854$  Days,  $E = 55.877392$  Days

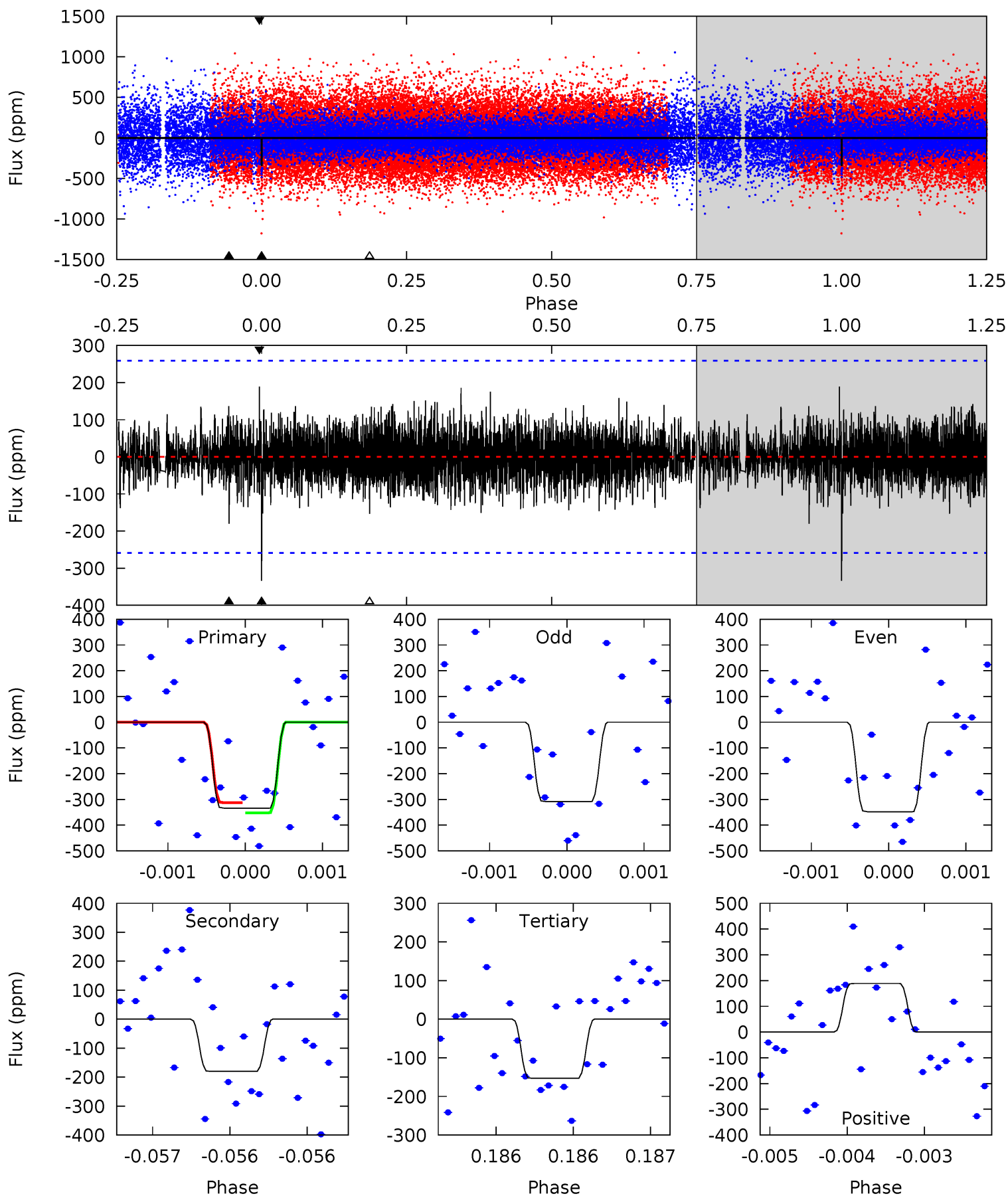
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.88	4.35	4.08	4.10	5.46	3.30	1.09	4.80	4.78	0.27	0.25	0.91	1.15	0.32	0.37



# Alt Model-Shift Uniqueness Test

010484892-01, P = 355.557566 Days, E = 55.804743 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
7.16	3.86	3.28	4.04	5.55	3.44	0.99	3.88	3.12	0.58	-0.18	0.41	1.06	0.36	0.41



### Stellar Parameters For KIC 010484892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6687^{+158}_{-238}$	$4.482^{+0.036}_{-0.204}$	$-0.500^{+0.300}_{-0.300}$	$0.978^{+0.297}_{-0.074}$	$1.089^{+0.140}_{-0.127}$	$1.639^{+0.326}_{-0.884}$
	+2%/-4%	+1%/-5%	+60%/-60%	+30%/-8%	+13%/-12%	+20%/-54%
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 010484892-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-156 \pm 36$	$2.39^{+1.85}_{-1.34}$	$418^{+29}_{-19}$	$5145^{+2745}_{-1029}$	$14349^{+58236}_{-9817}$
Alt.	$-180 \pm 47$	$2.39^{+1.87}_{-1.41}$	$417^{+26}_{-19}$	$5278^{+3105}_{-1038}$	$16612^{+77771}_{-11503}$

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

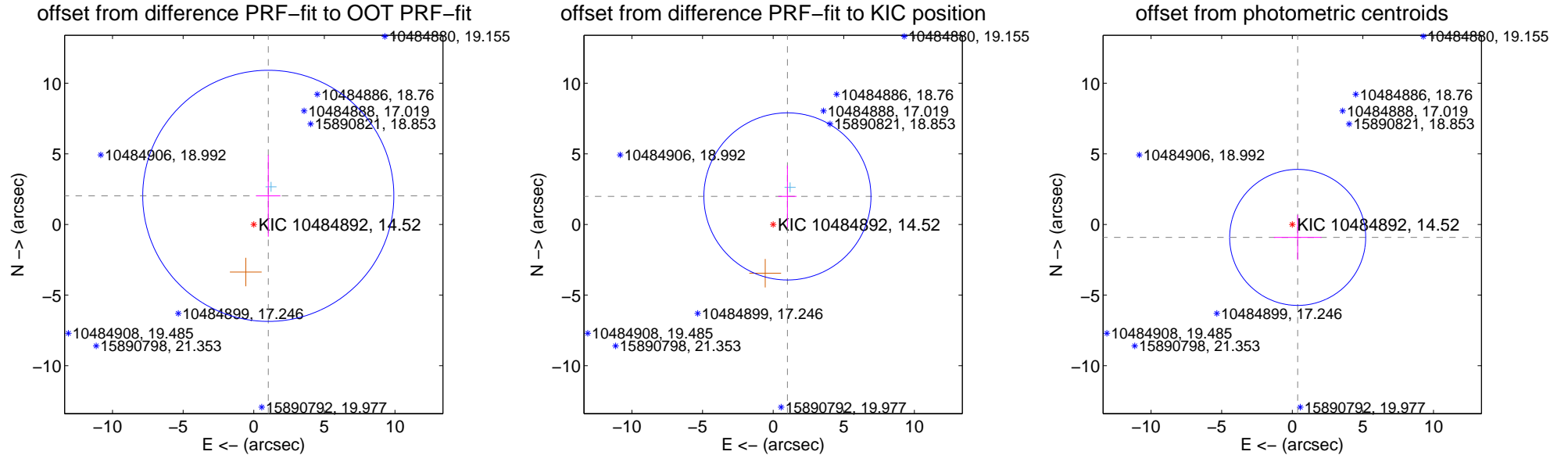
## DV Centroid Data

Supplemental centroid analysis for 010484892-01. Kepler magnitude: 14.52. Transit SNR 7.20

There are 1 quarters with good PRF difference image offsets

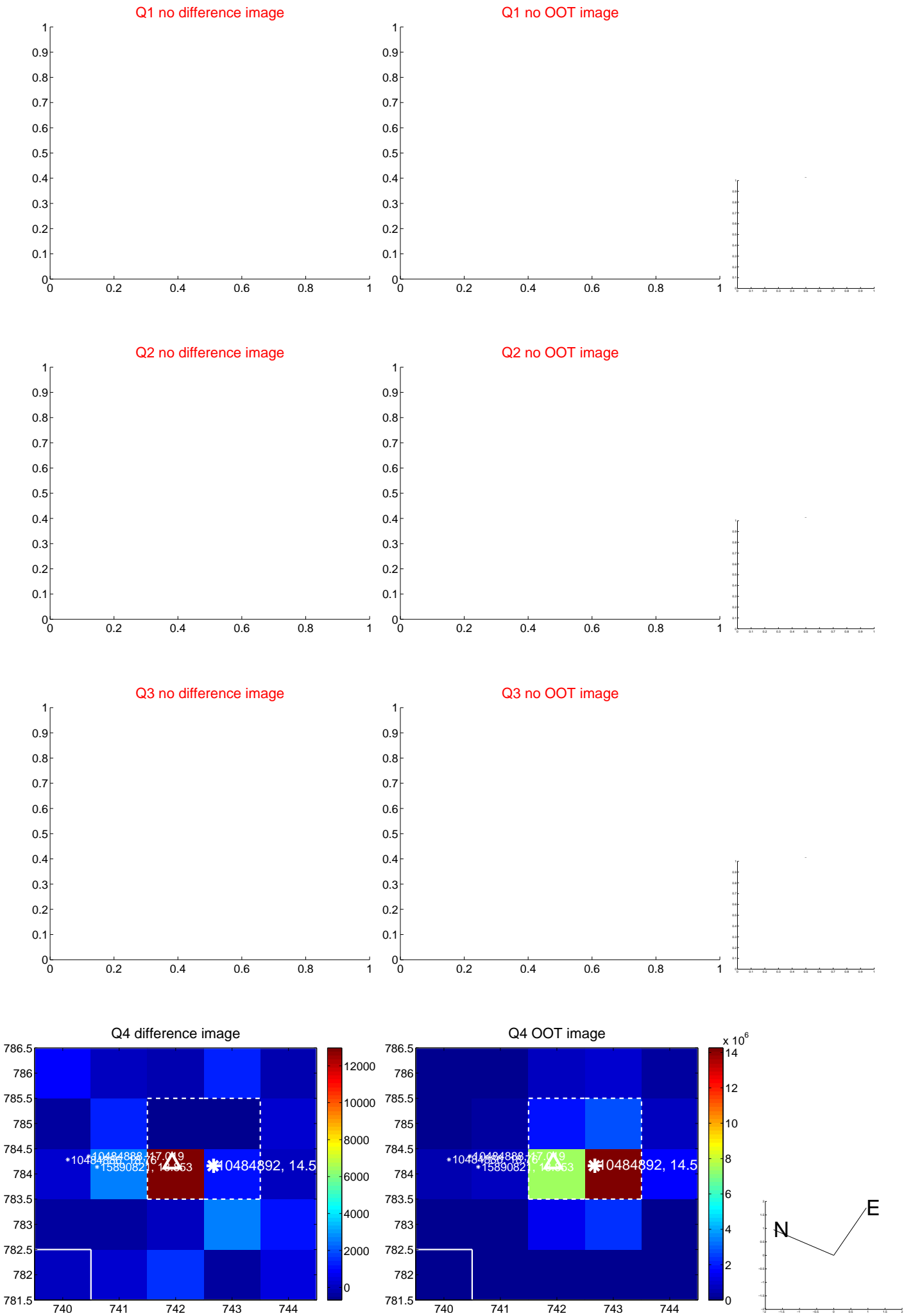
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$2.272 \pm 2.963$	0.77	$-1.030 \pm 0.858$	$2.025 \pm 2.889$
PRF-fit source offset from KIC position	$2.228 \pm 1.972$	1.13	$-1.011 \pm 0.645$	$1.985 \pm 2.189$
photometric centroid source offset	$0.99 \pm 1.61$	0.62	$-0.38 \pm 1.69$	$-0.92 \pm 1.59$

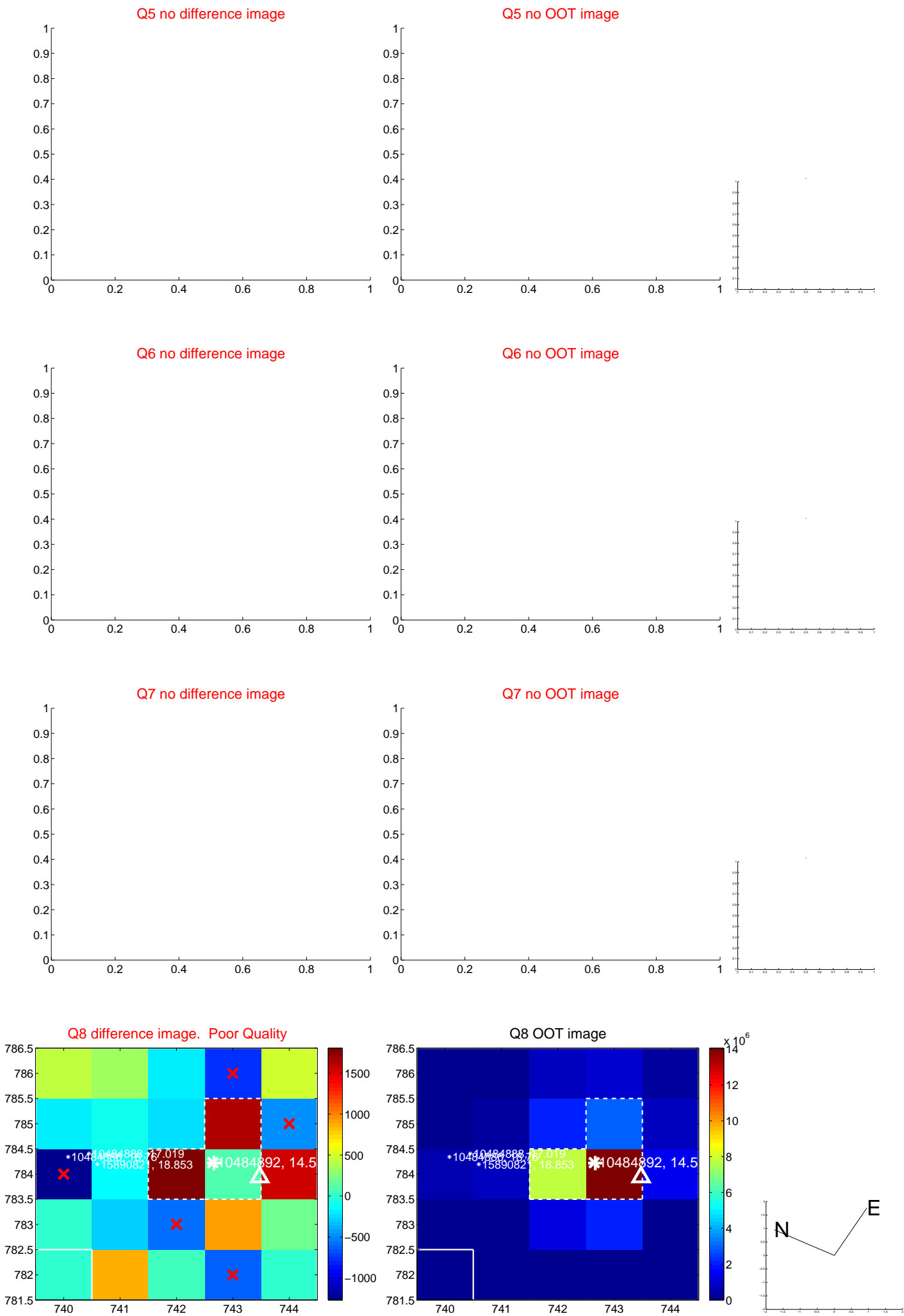


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

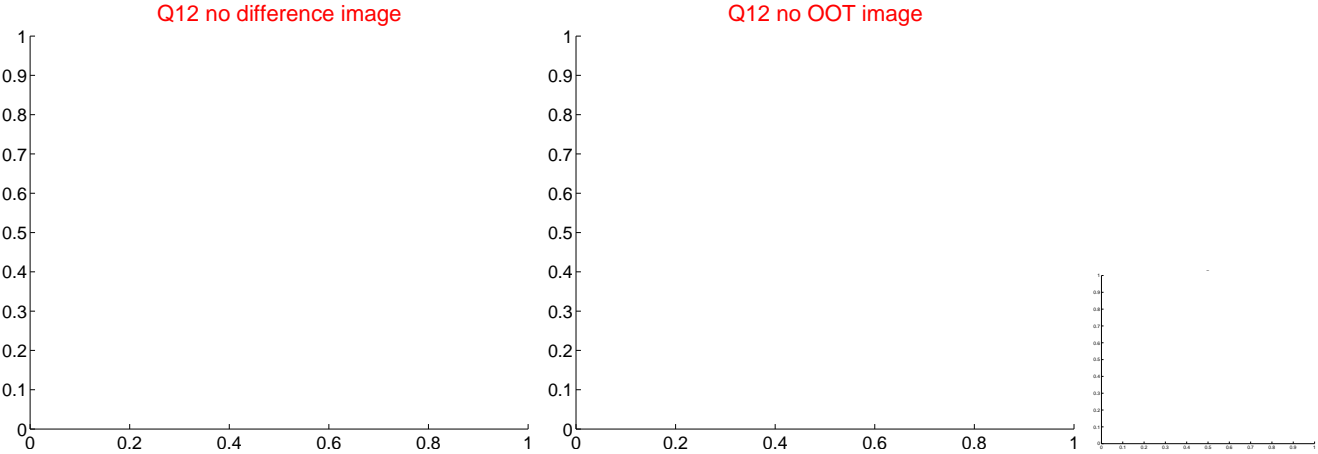
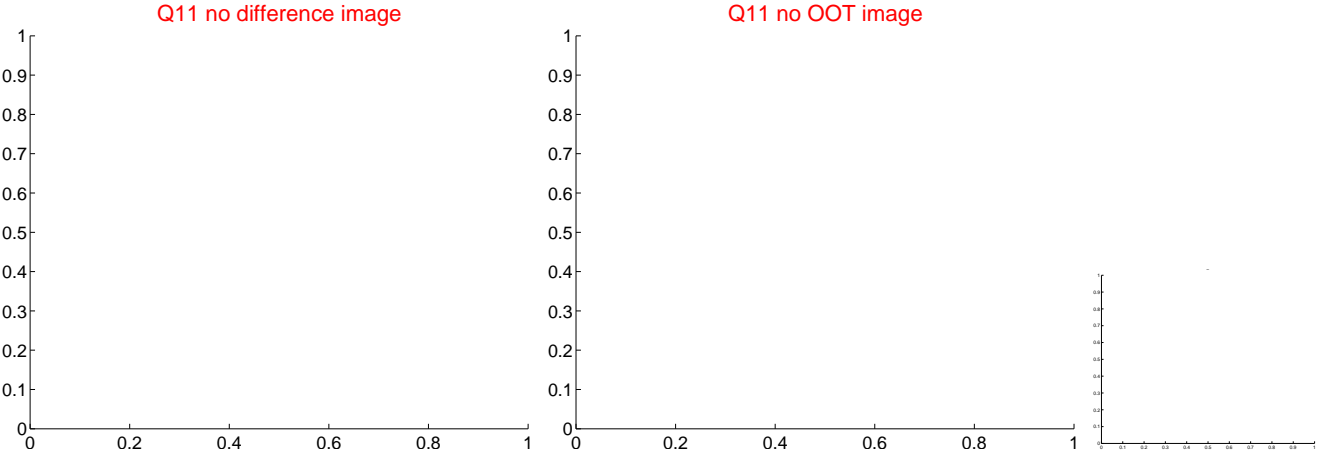
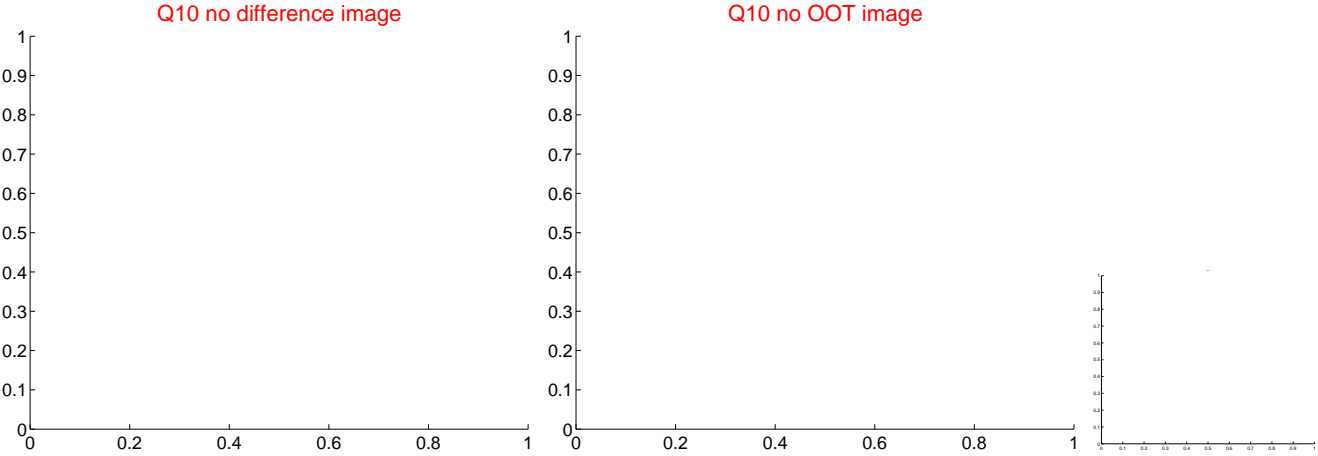
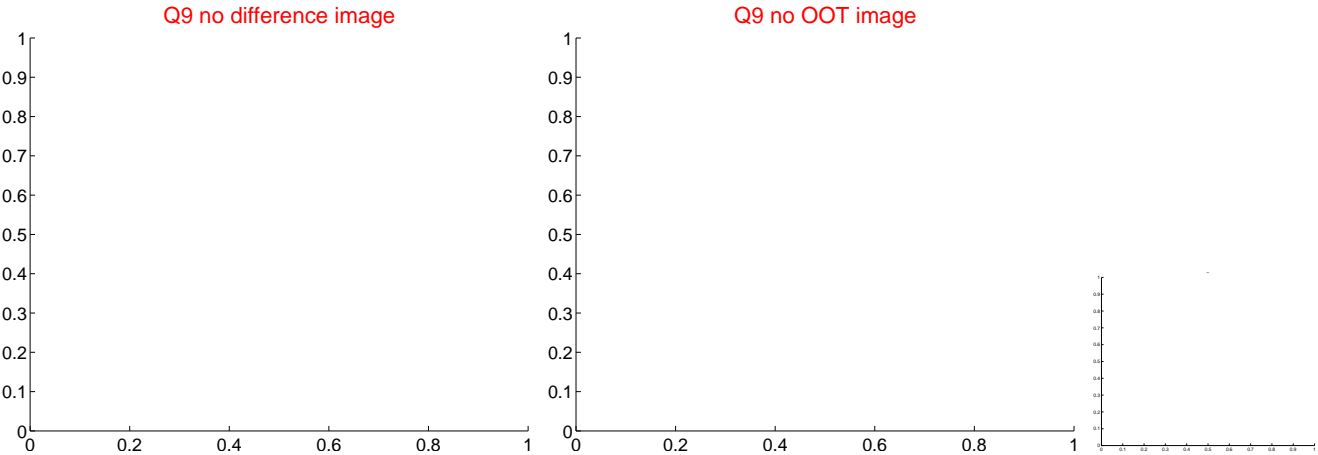


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.





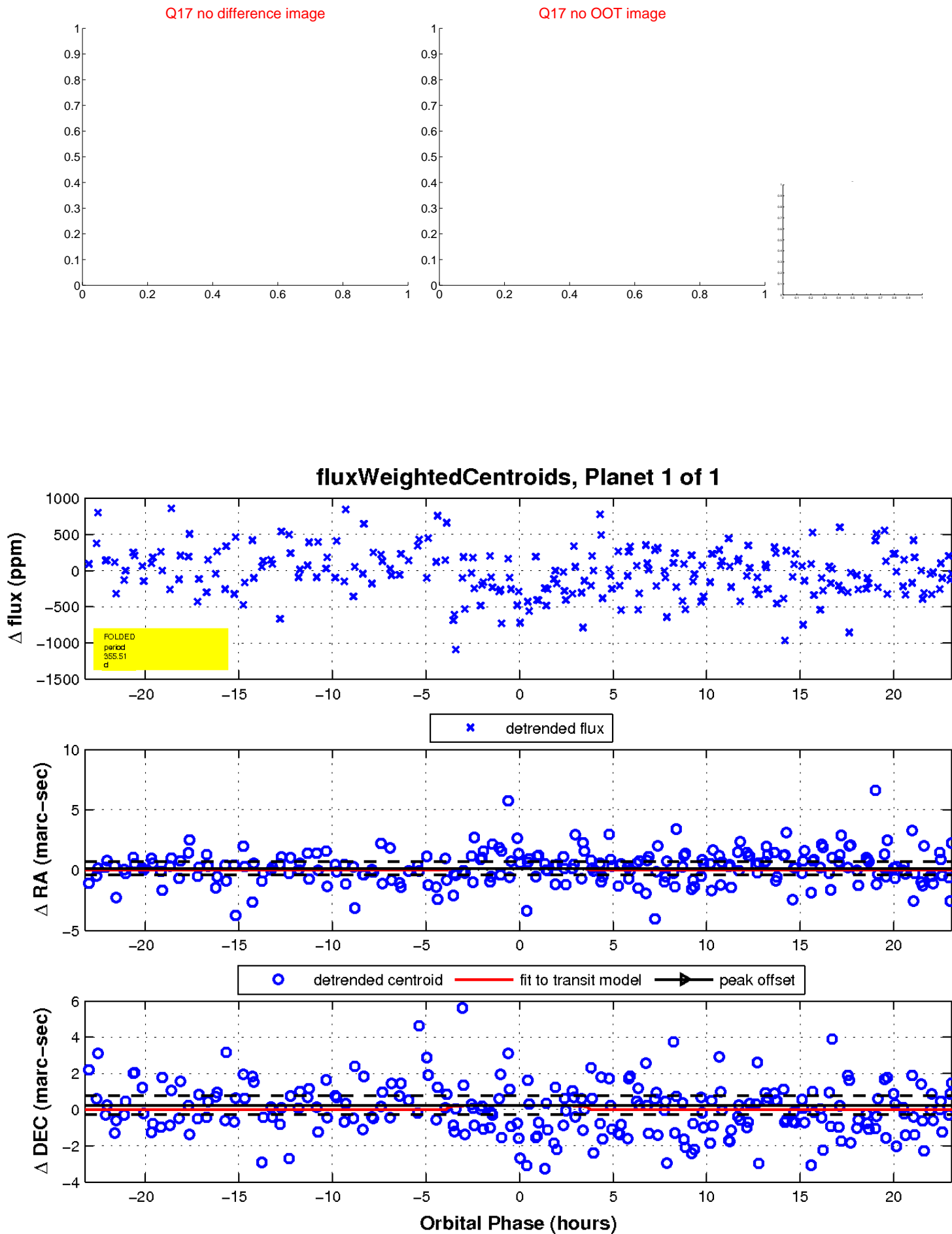
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UKIRT Image

Declination

