

# KIC 008045482

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008045482-01	OBS	No	0.931576	131.819527	190.6	3.000	8.8	-1.0	1.88	6534	2.61	13266.56

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008045482-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

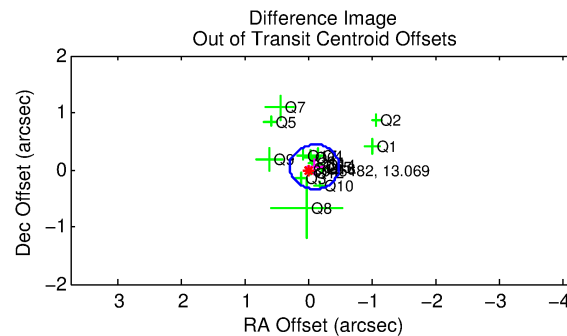
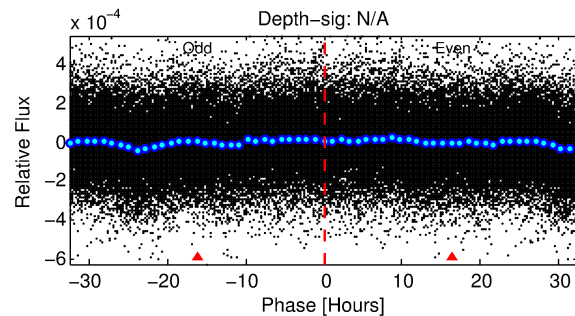
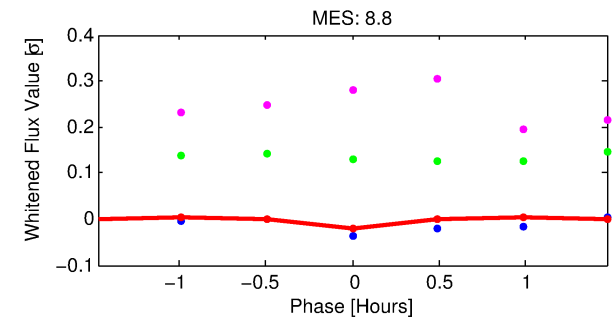
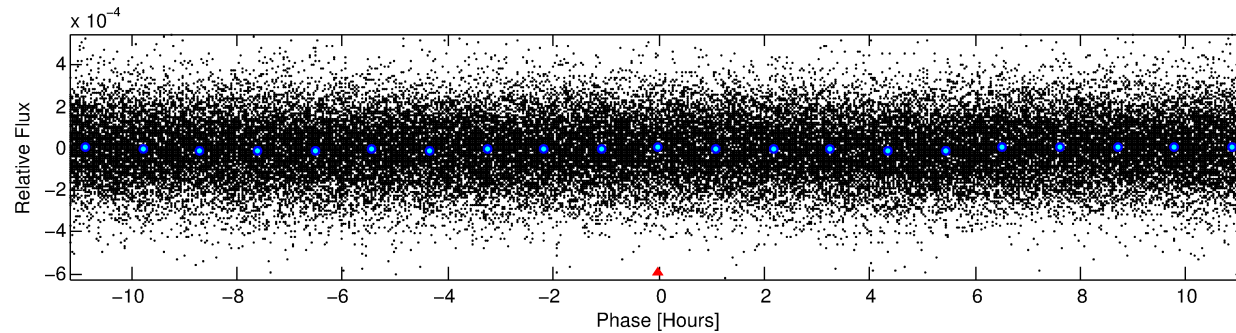
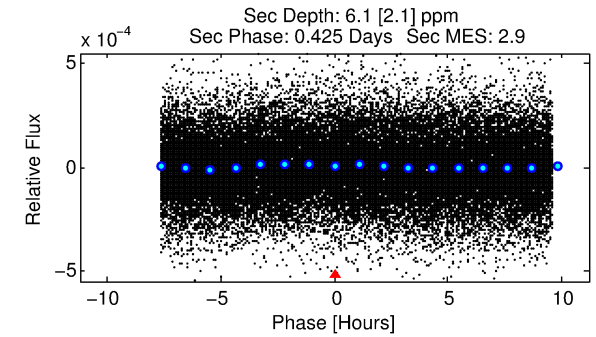
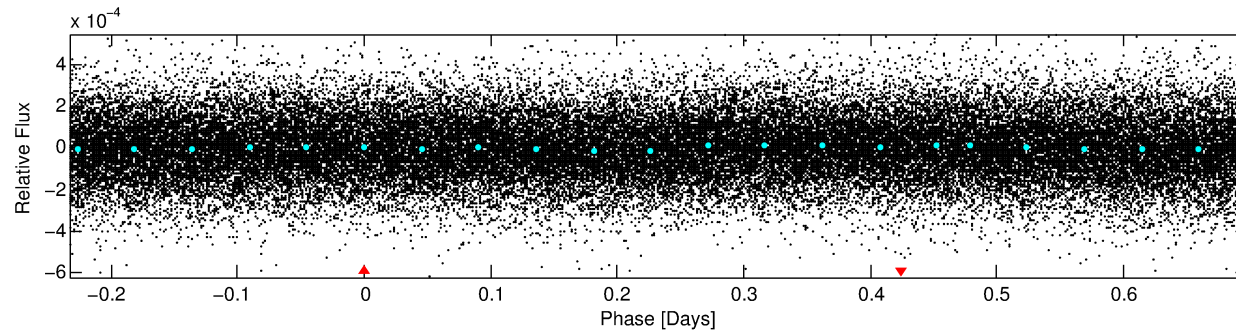
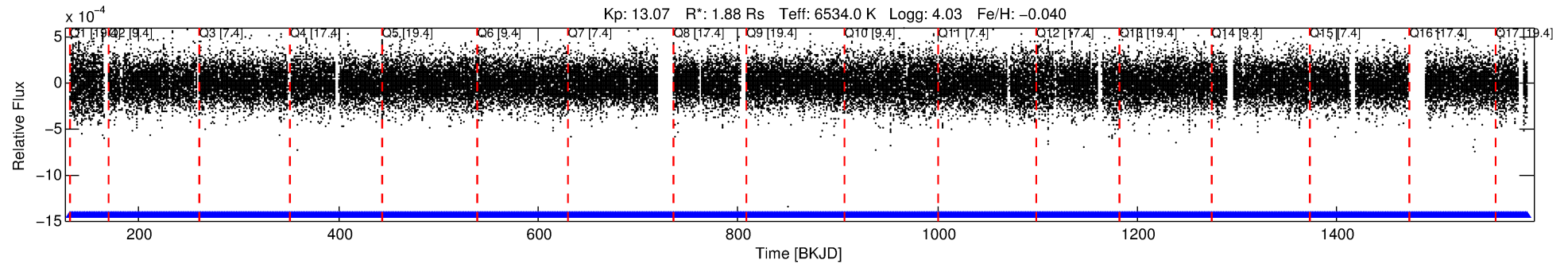
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008045482-01

No Significant Match Found

# DV One-Page Summary

KIC: 8045482 Candidate: 1 of 1 Period: 0.932 d



## TPS TCE Results:

Period = 0.93158 d  
Epoch = 131.8195 BKJD

DV fit results are unavailable

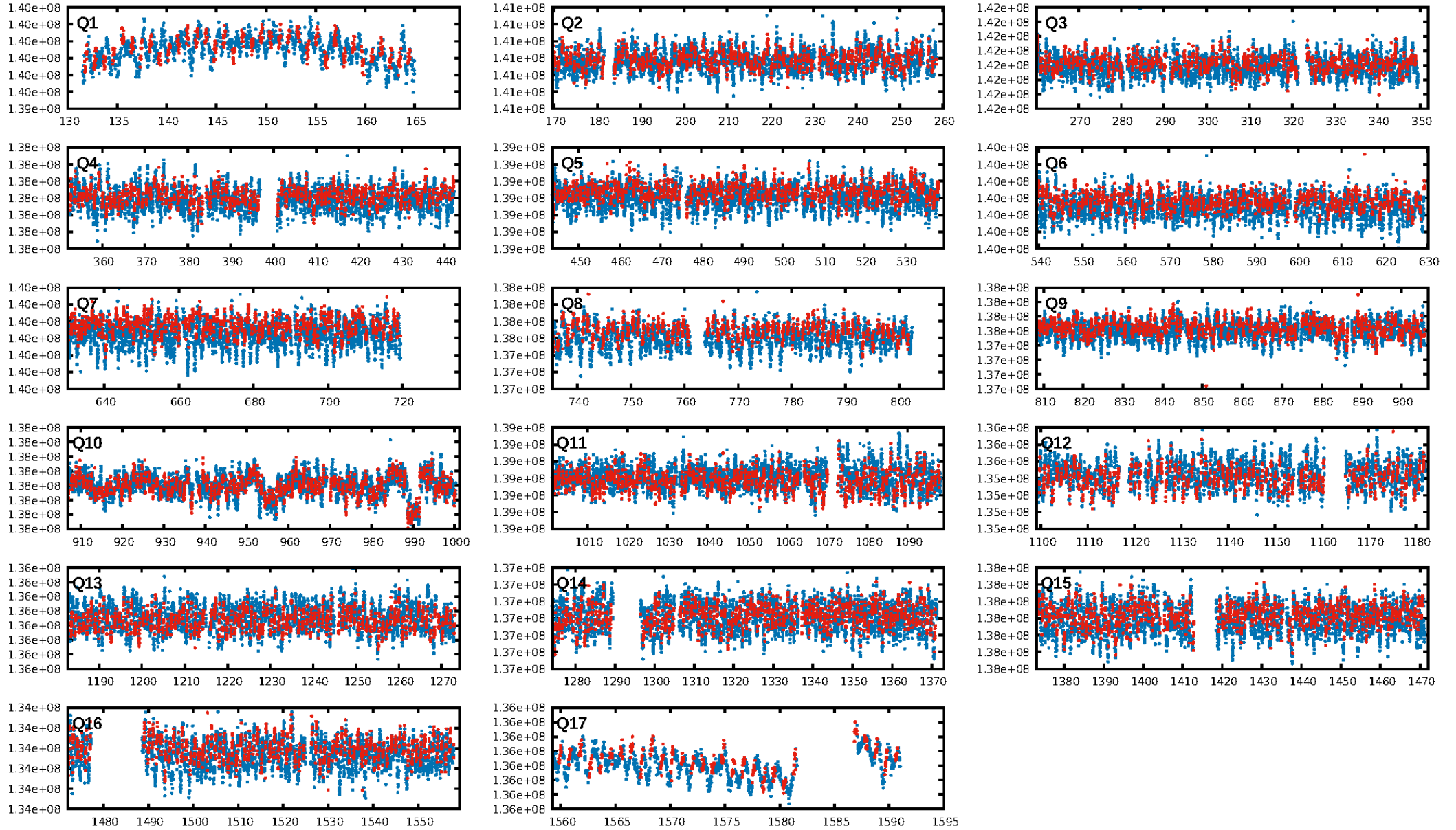
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 9.69e-18  
RollingBand-fgt: 1.00 [1383/1383]  
GhostDiagnostic-chr: 0.0134  
Centroid-sig: 0.0%  
Centroid-so: 0.340 arcsec [1.84σ]  
OotOffset-rm: 0.105 arcsec [0.81σ]  
KicOffset-rm: 0.095 arcsec [0.79σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 1.00 [17/17]

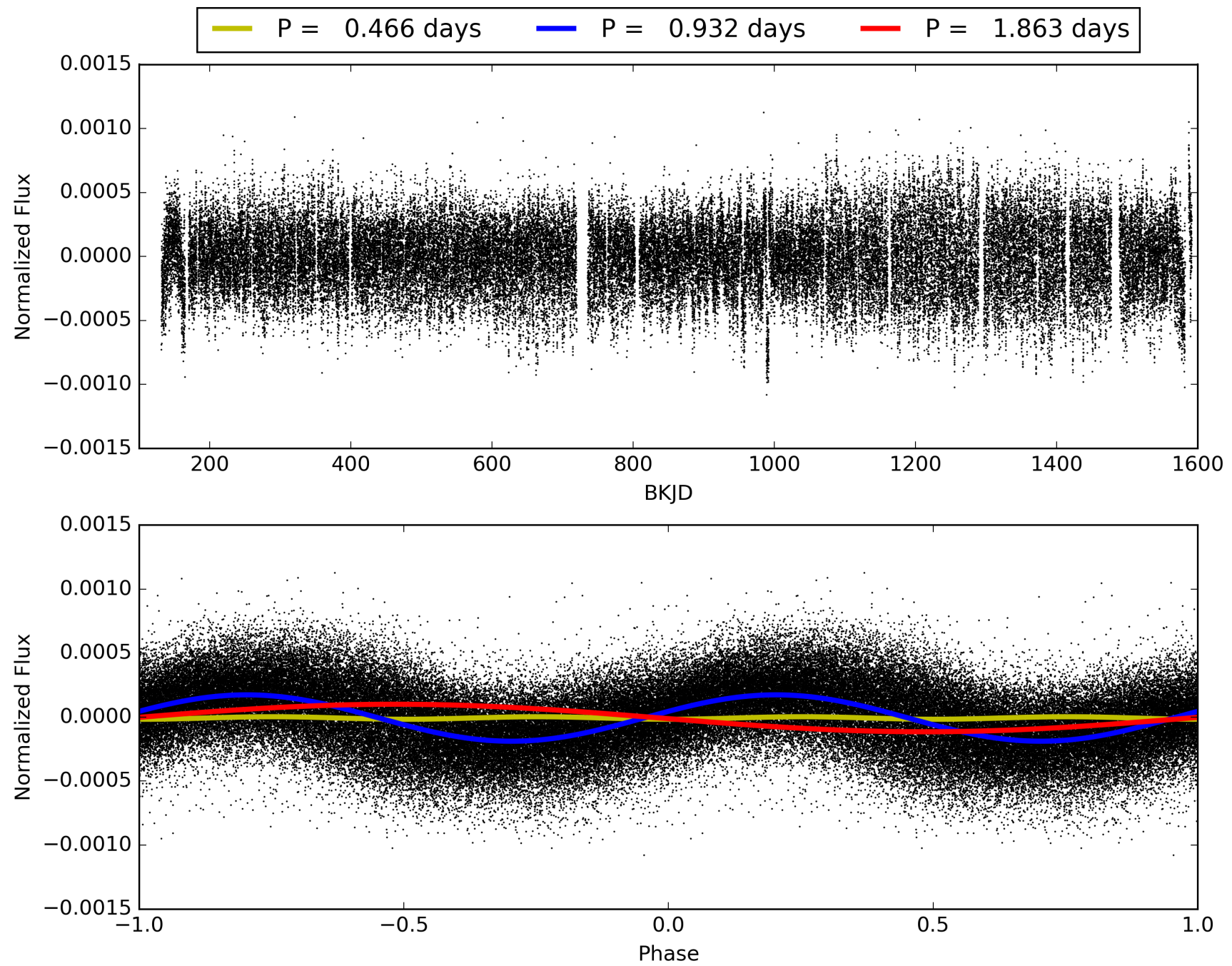
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:19:06 Z

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

# TCE 008045482-01, PDC Light Curves

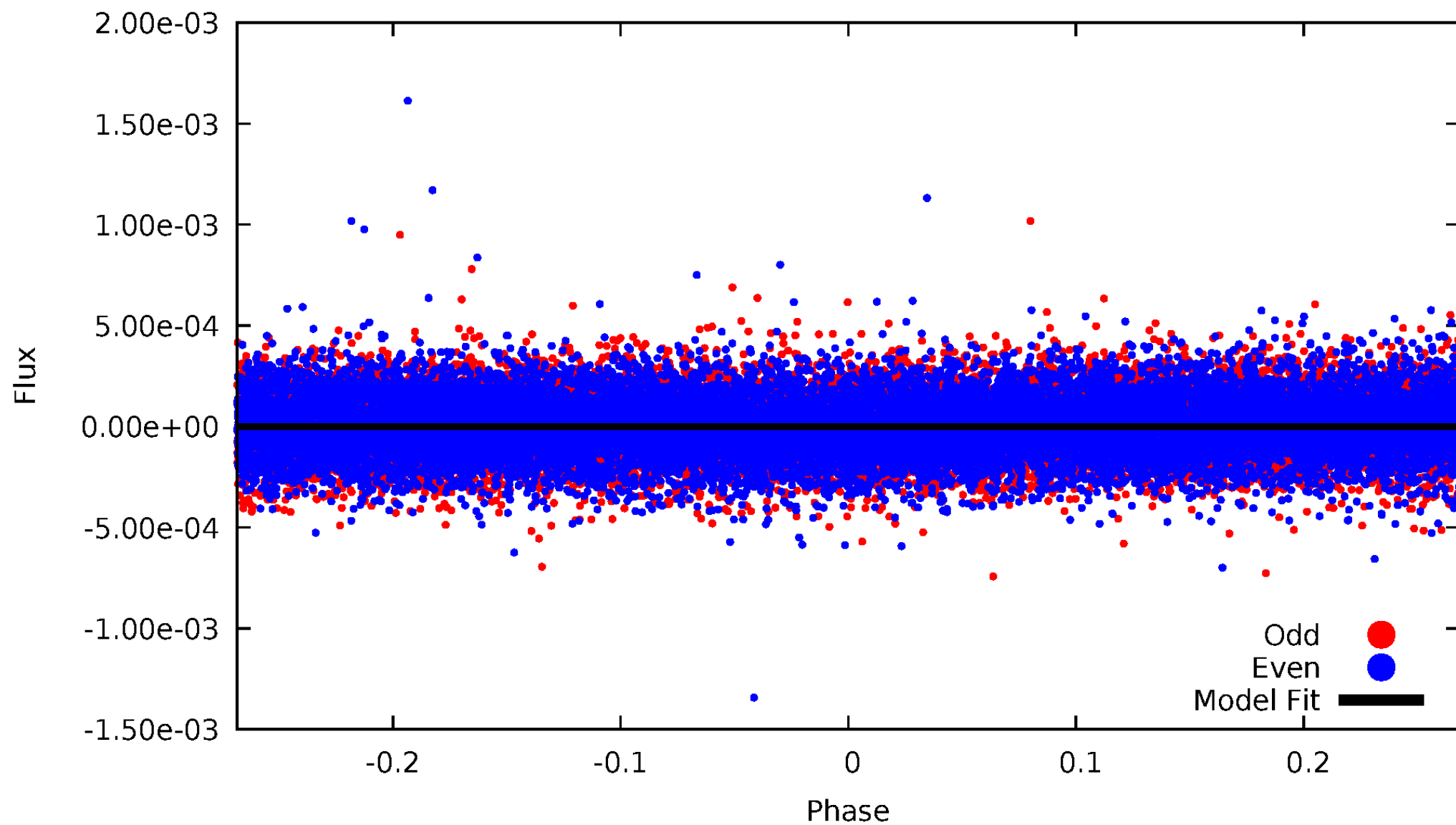


TCE 008045482-01



# DV Odd/Even

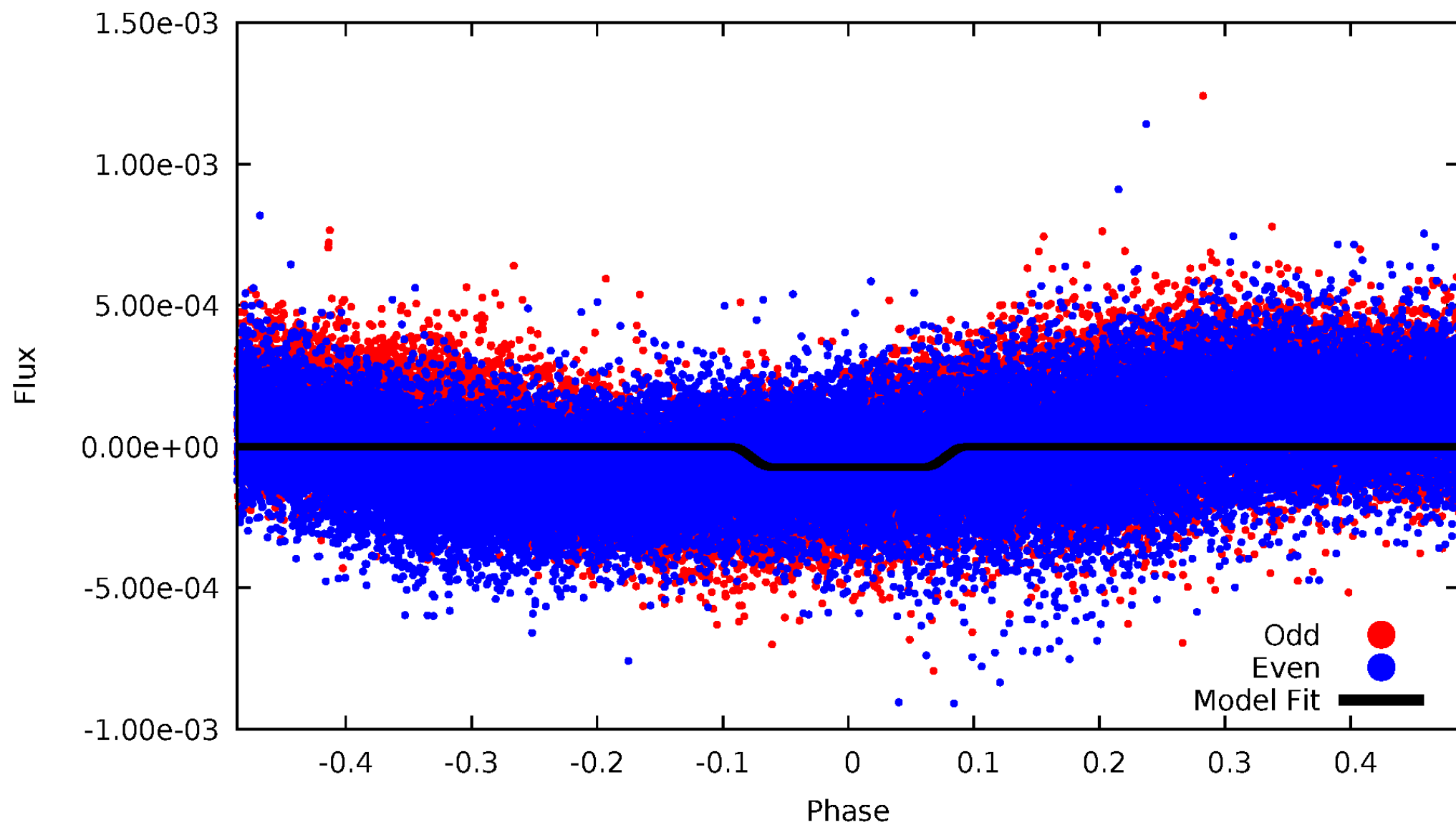
TCE 008045482-01



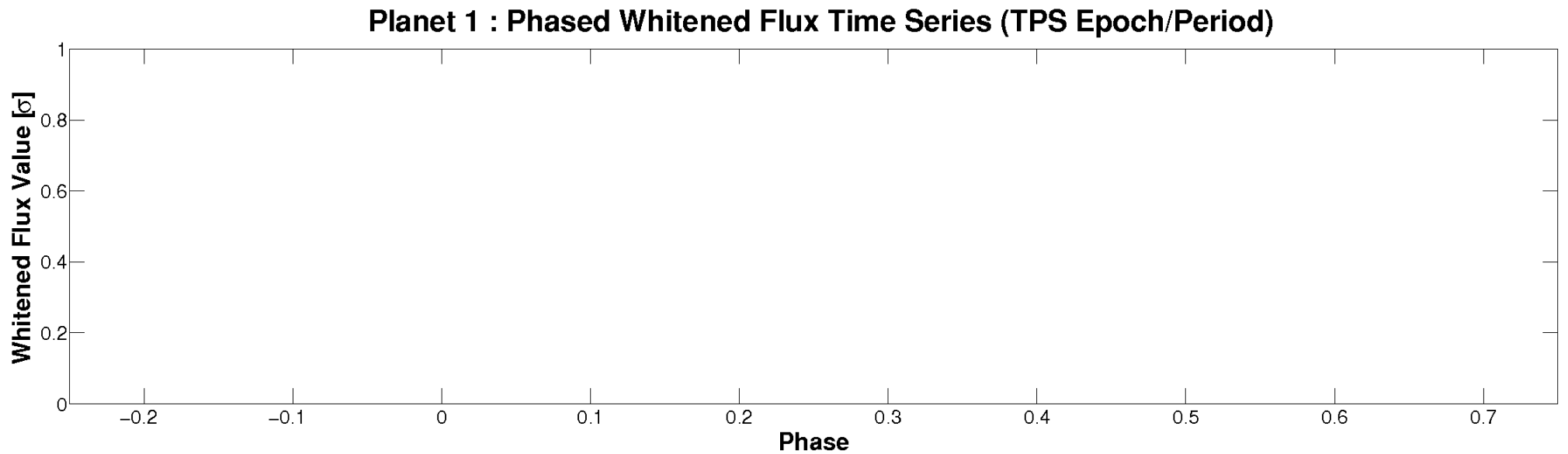
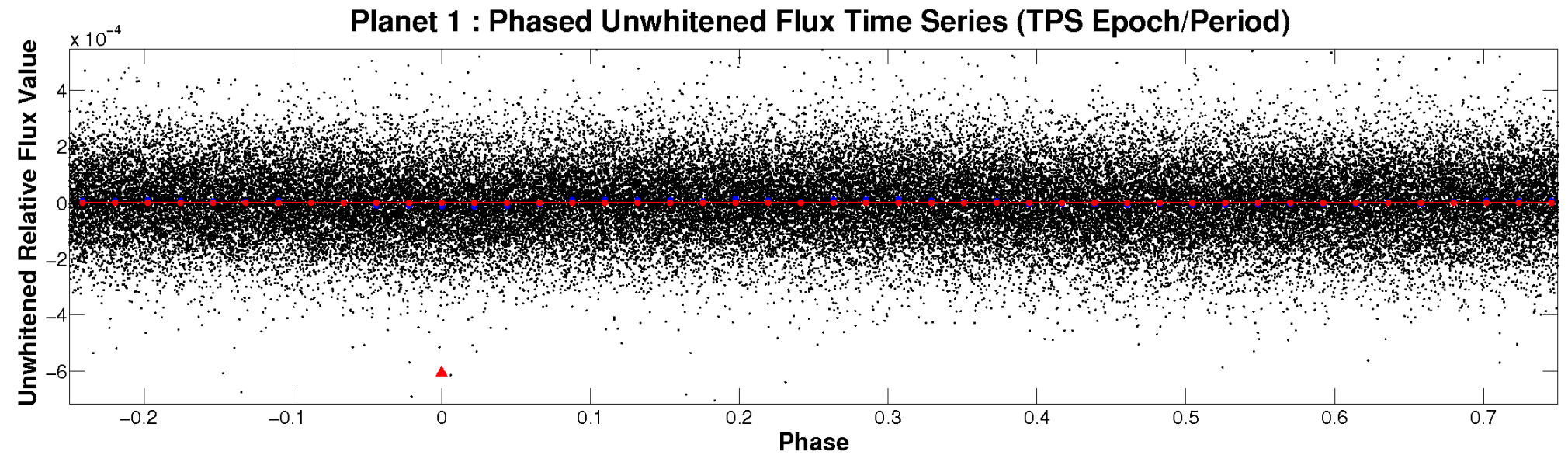


# ALT Odd/Even

TCE 008045482-01

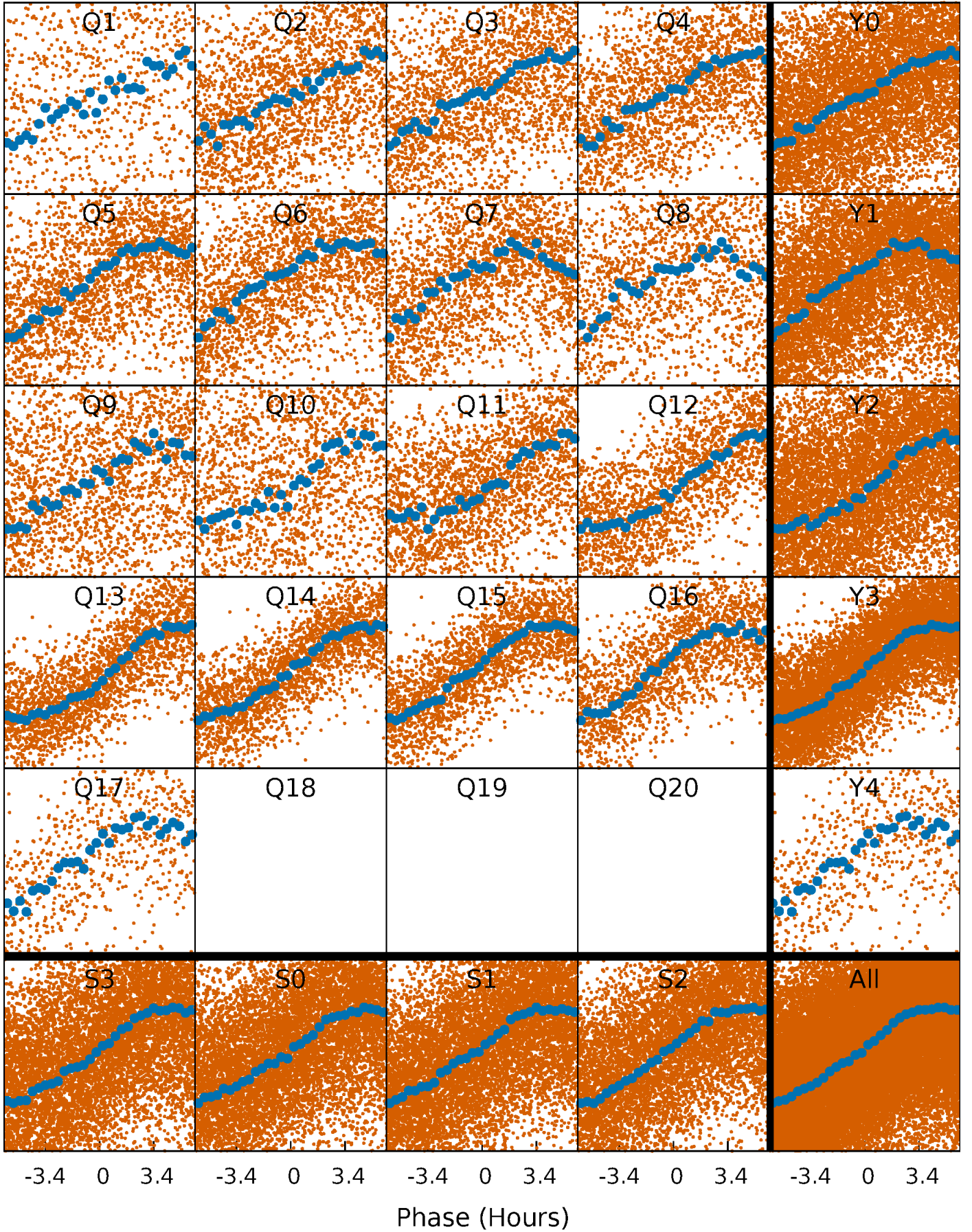


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

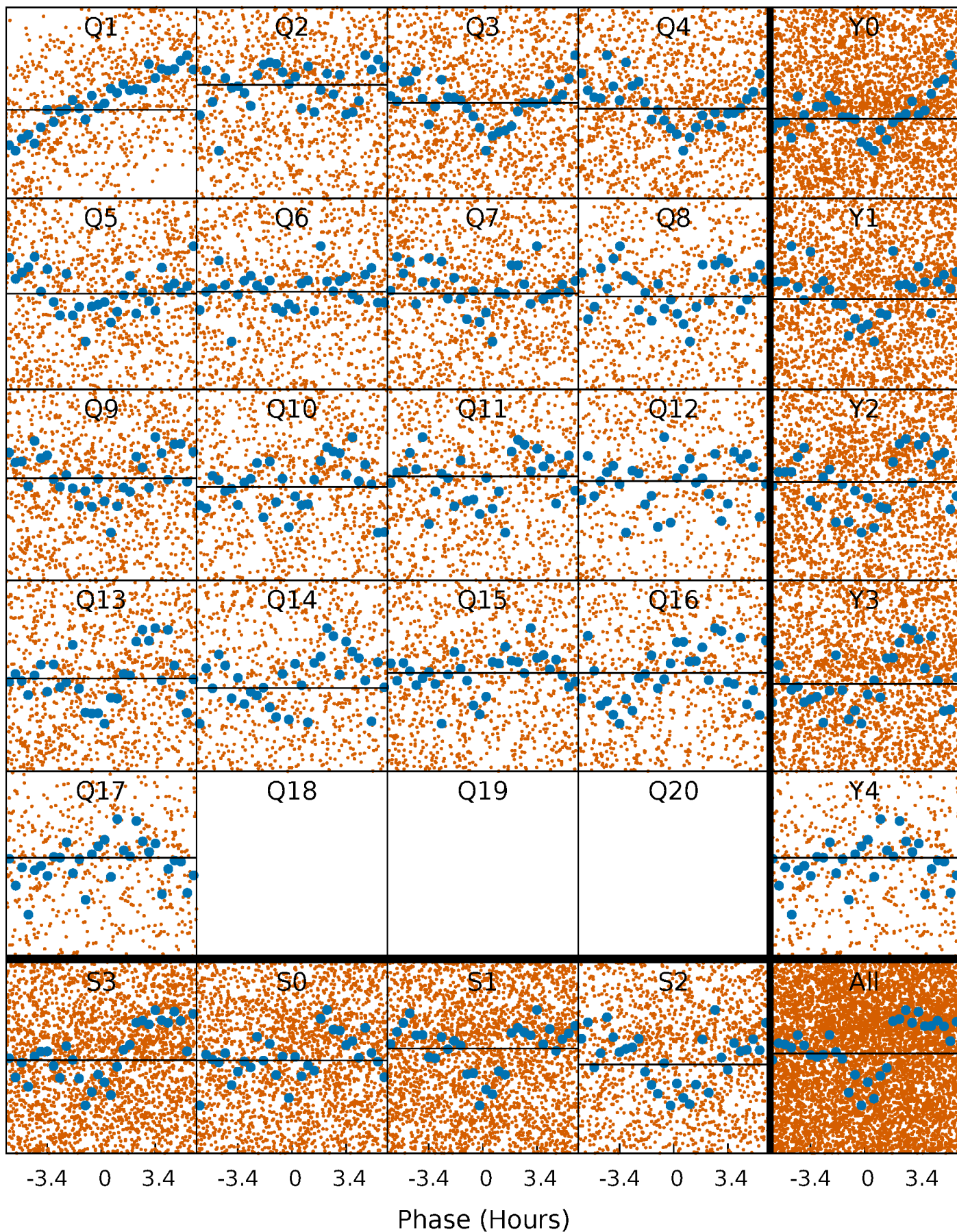
TCE 008045482-01   P= 0.931576 Days    $T_0=131.819527$  (BKJD)





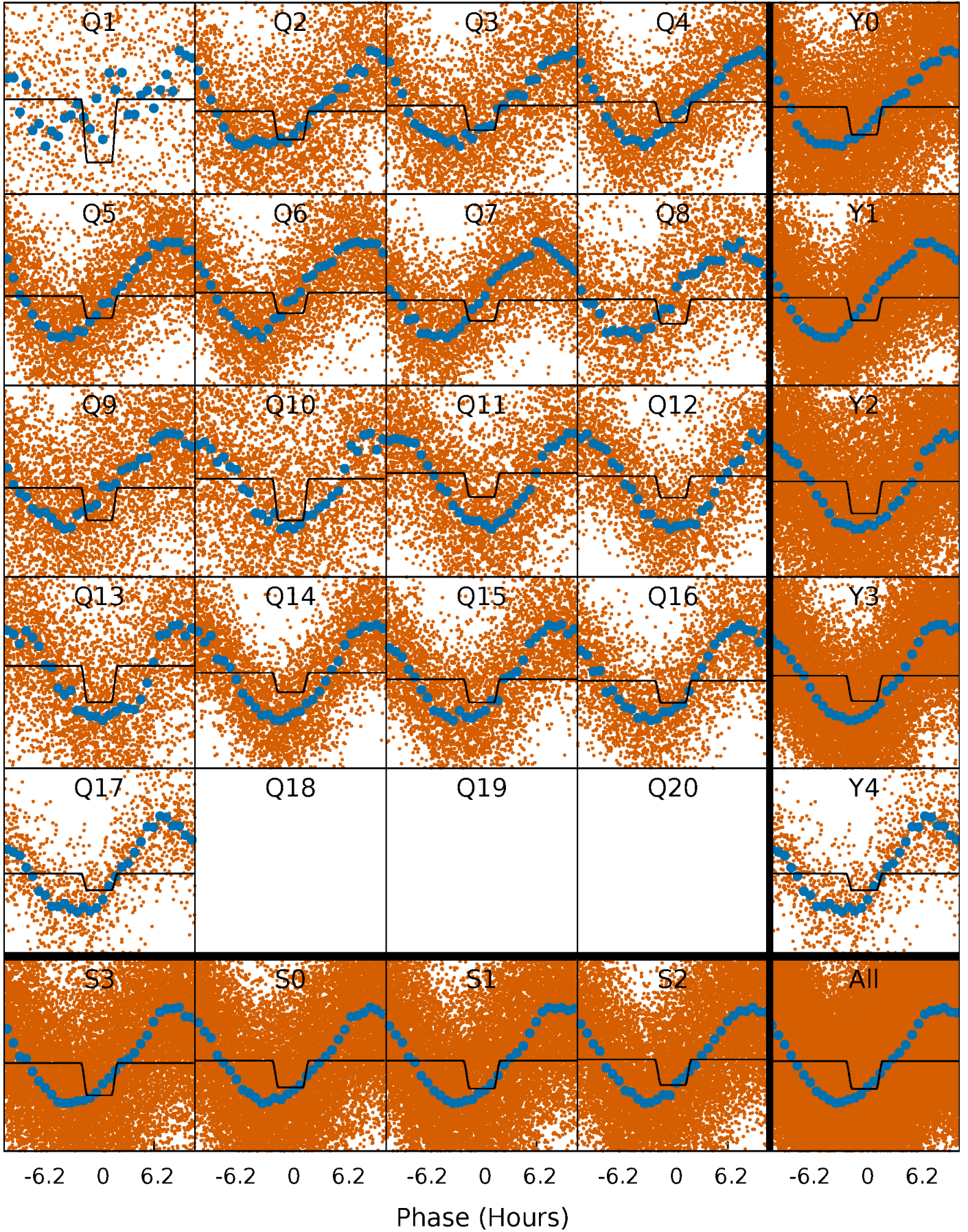
# DV Quarter-Phased Transit Curves

TCE 008045482-01   P= 0.931576 Days    $T_0=131.819527$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

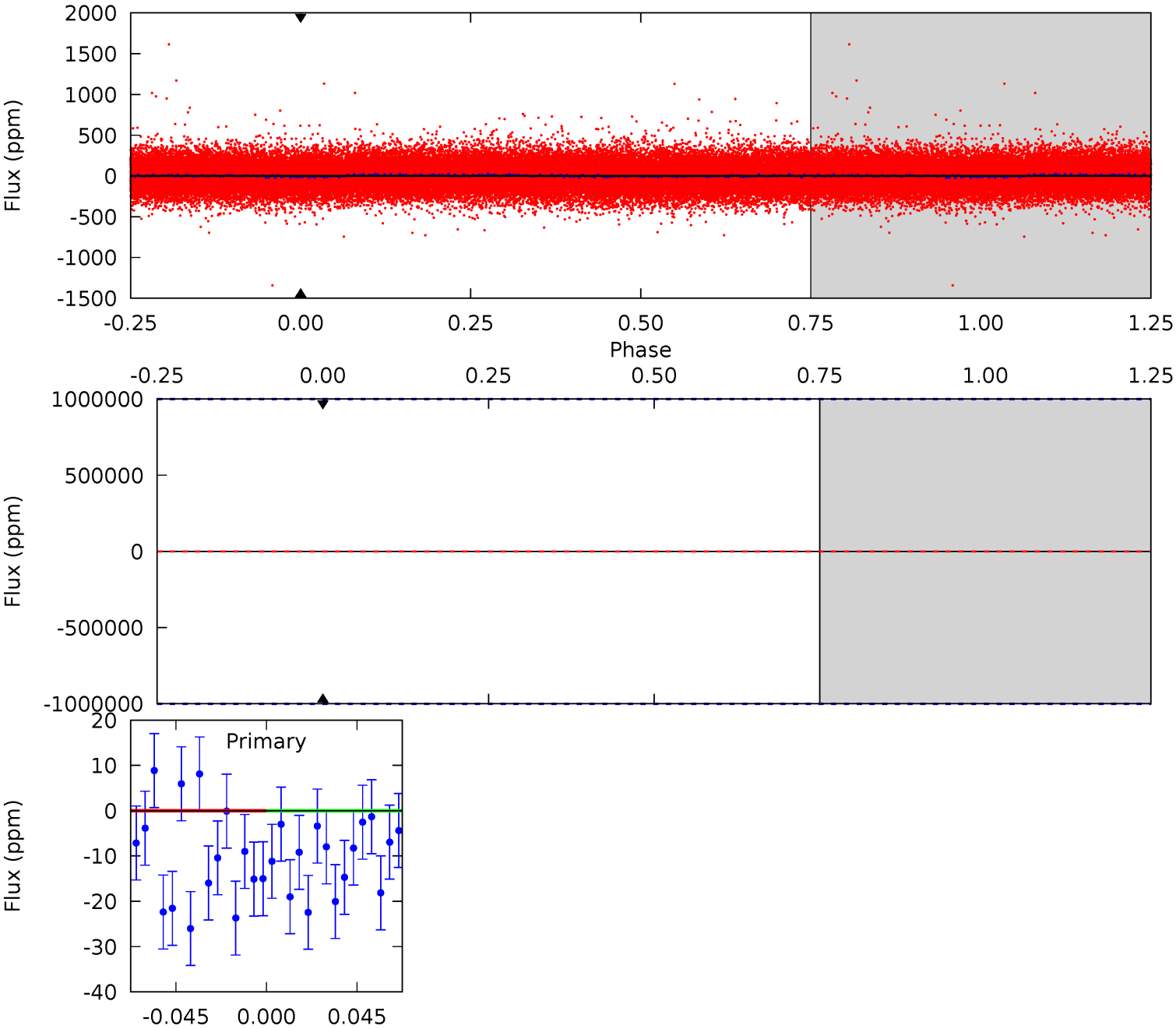
TCE 008045482-01 P= 0.931576 Days  $T_0=131.630959$  (BKJD)



# DV Model-Shift Uniqueness Test

008045482-01, P = 0.931576 Days, E = 130.887951 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
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0

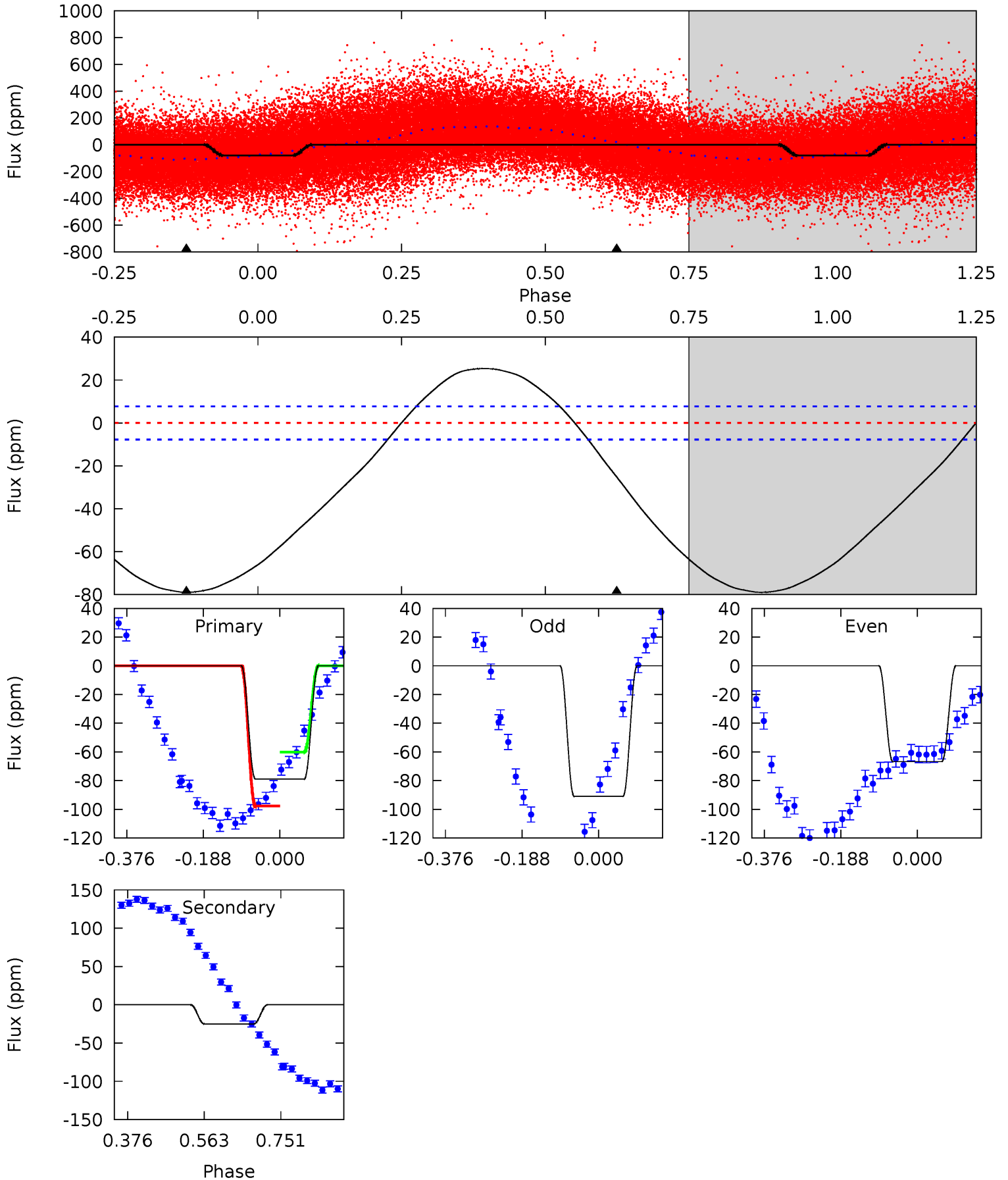




# Alt Model-Shift Uniqueness Test

008045482-01, P = 0.931576 Days, E = 130.699383 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
45.4	14.5	0	0	4.43	1.32	14.8	45.4	45.4	14.5	14.5	7.03	1.09	0.24	11.5





### Stellar Parameters For KIC 008045482

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6534^{+175}_{-194}$	$4.034^{+0.210}_{-0.140}$	$-0.040^{+0.250}_{-0.300}$	$1.880^{+0.457}_{-0.503}$	$1.399^{+0.181}_{-0.241}$	$0.296^{+0.351}_{-0.119}$
	+3%/-3%	+5%/-3%	+625%/-750%	+24%/-27%	+13%/-17%	+118%/-40%
Source	PHO1	FLK73	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 008045482-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 1000000$	$14.01^{+14.82}_{-9.68}$	$3799^{+258}_{-266}$	$5475^{+29252}_{-32788}$	$2.813^{+296.826}_{-174.711}$
Alt.	$-25 \pm 2$	$14.80^{+15.51}_{-10.27}$	$3807^{+248}_{-275}$	$-3441^{+1761}_{-212}$	$0.027^{+0.272}_{-0.021}$

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

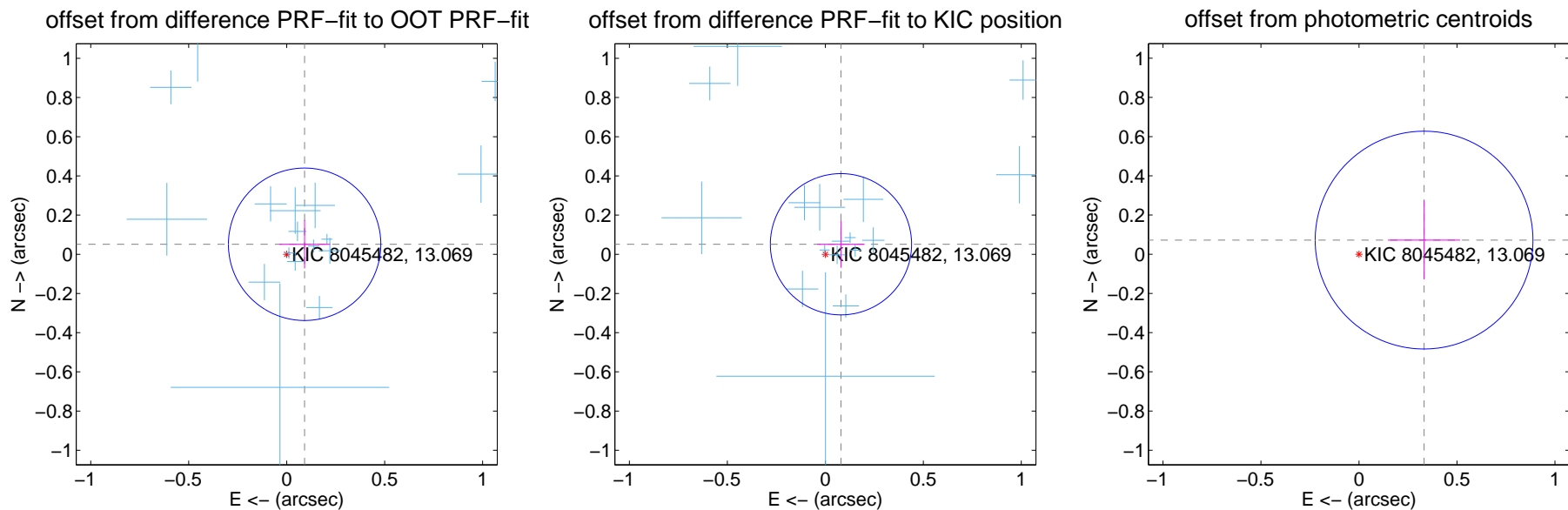
## DV Centroid Data

Supplemental centroid analysis for 008045482-01. Kepler magnitude: 13.07. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

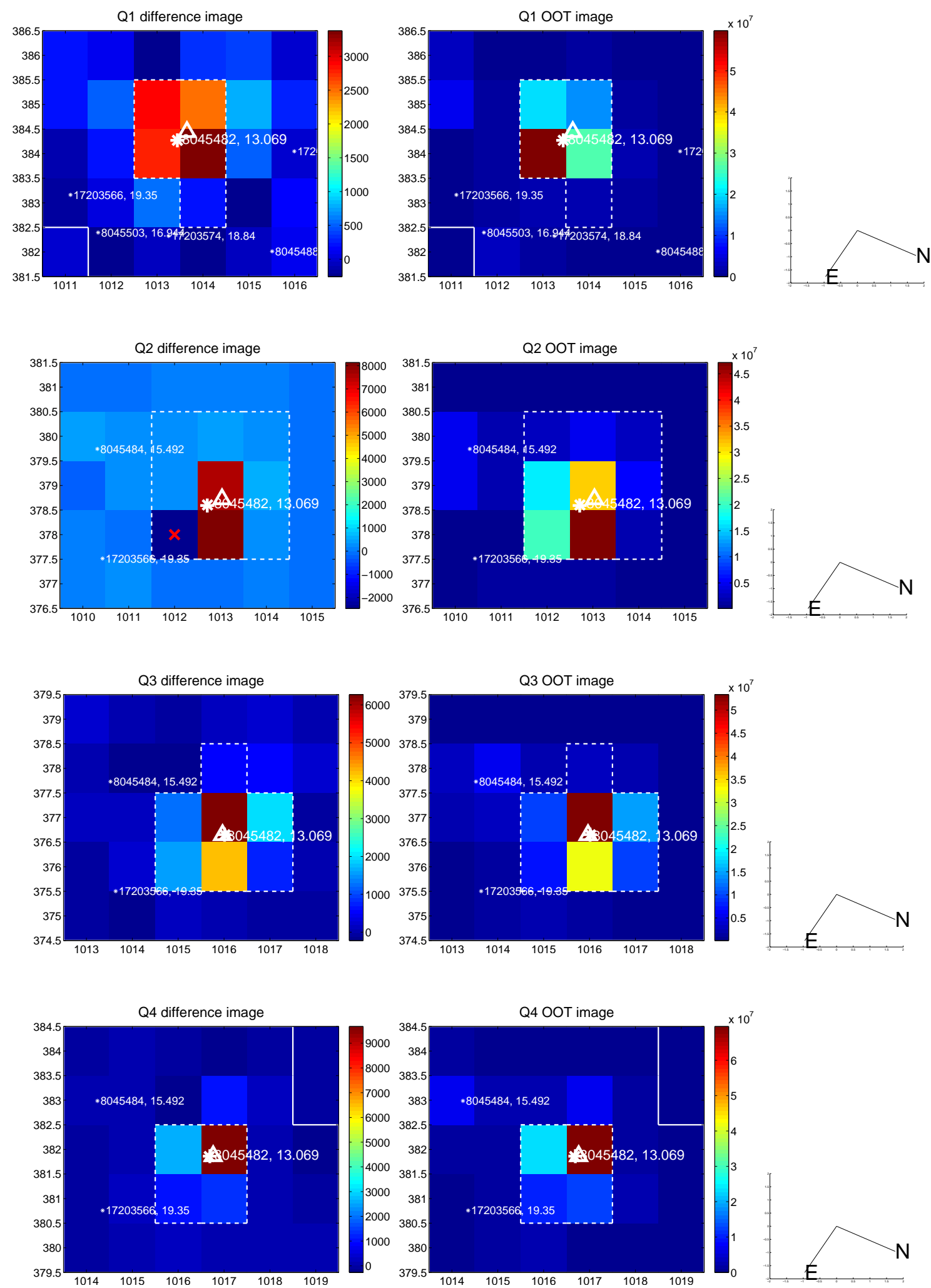
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.105 \pm 0.130$	0.81	$-0.092 \pm 0.130$	$0.051 \pm 0.123$
PRF-fit source offset from KIC position	$0.095 \pm 0.120$	0.79	$-0.080 \pm 0.120$	$0.051 \pm 0.120$
photometric centroid source offset	$0.34 \pm 0.19$	1.84	$-0.33 \pm 0.18$	$0.07 \pm 0.20$

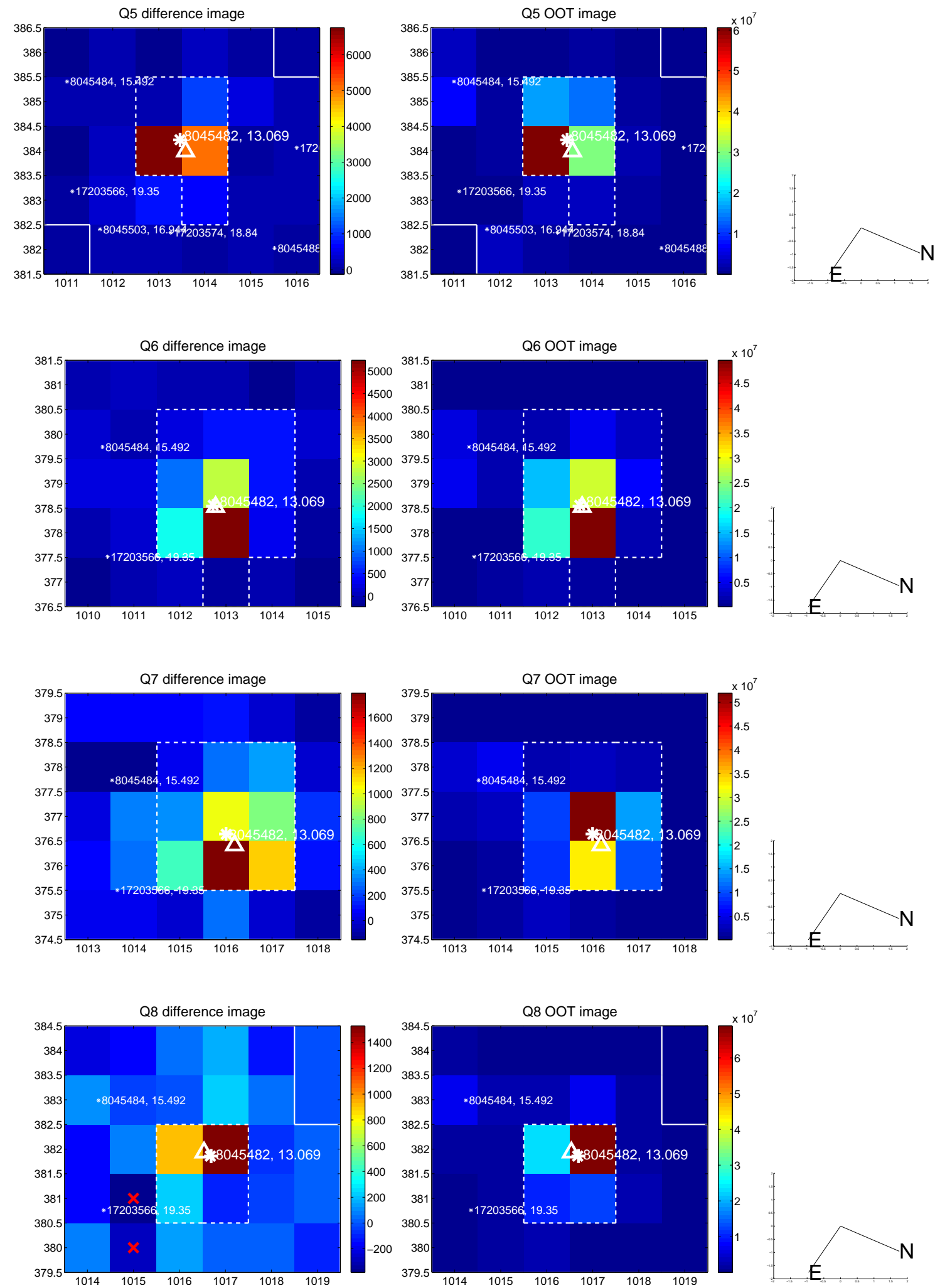


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

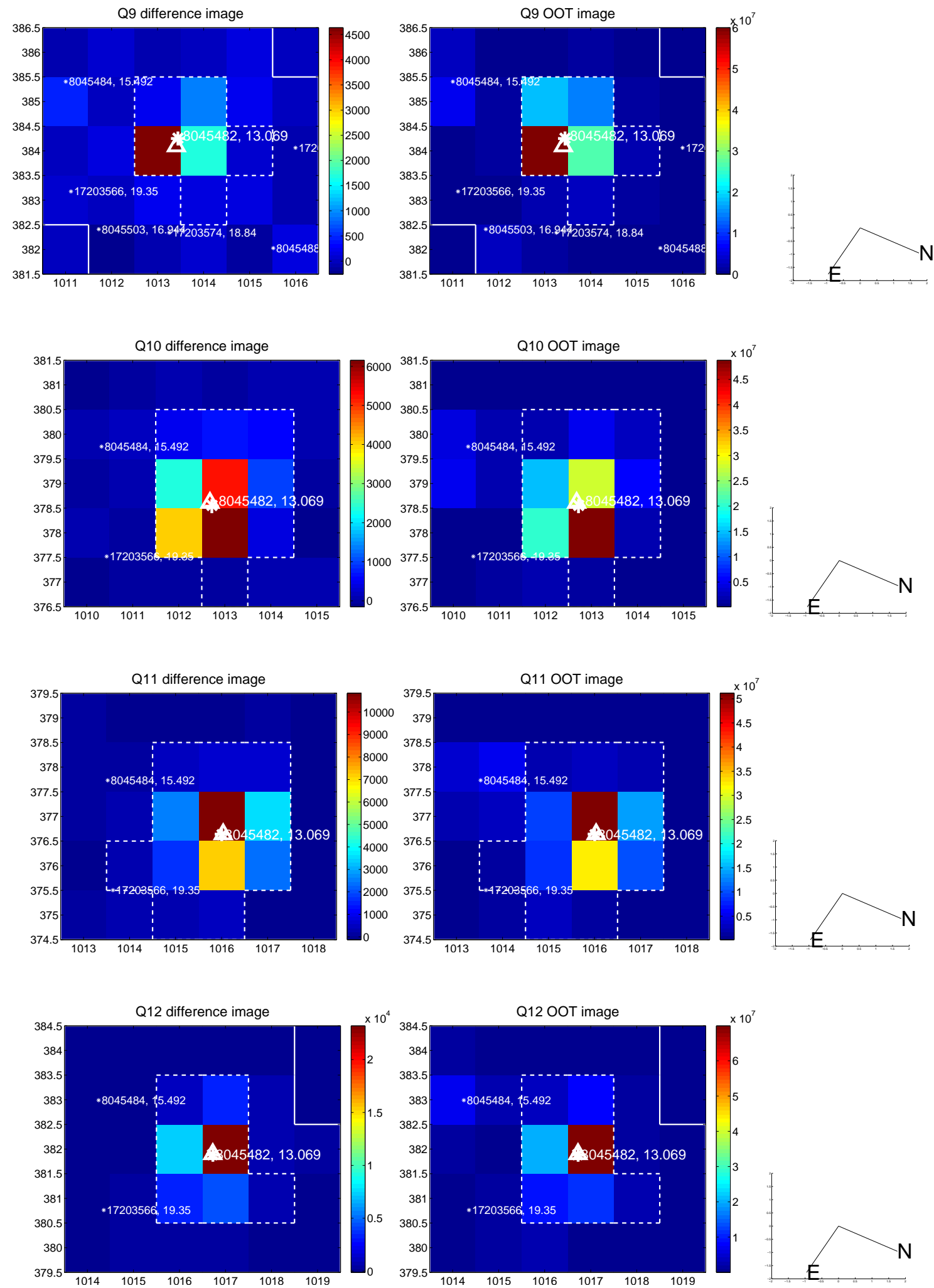


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

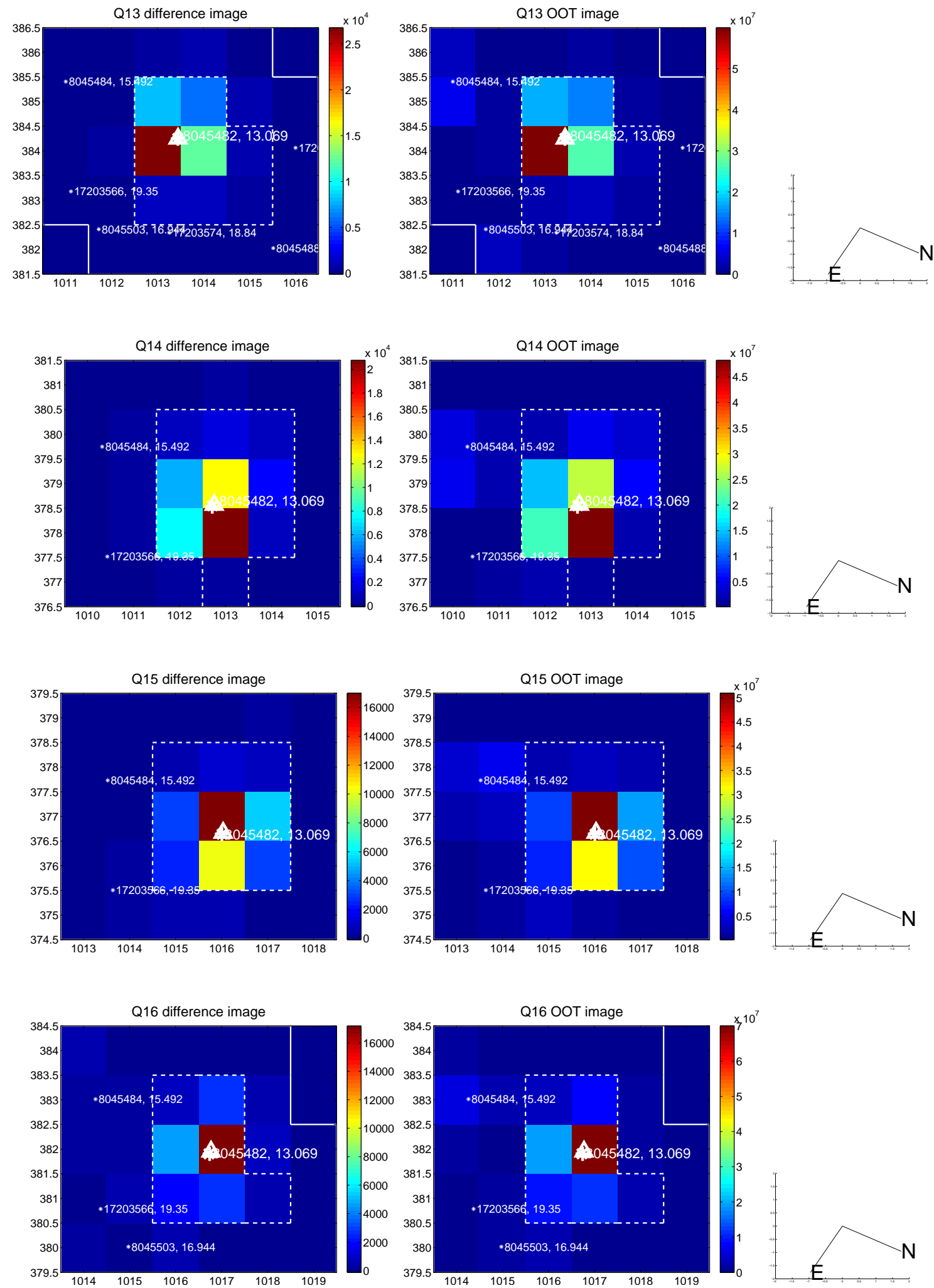




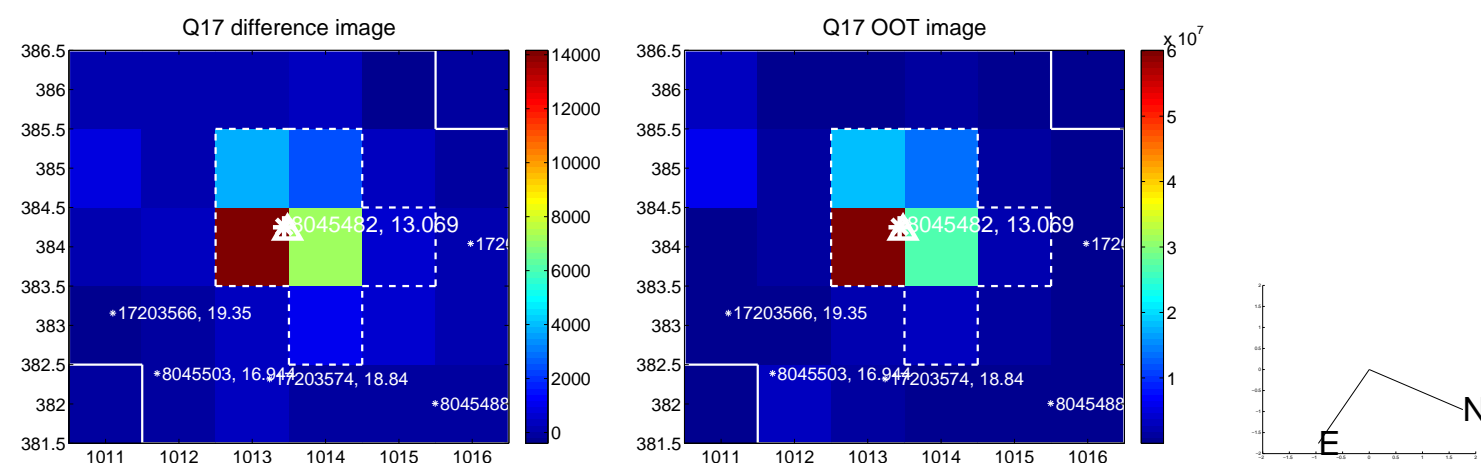
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



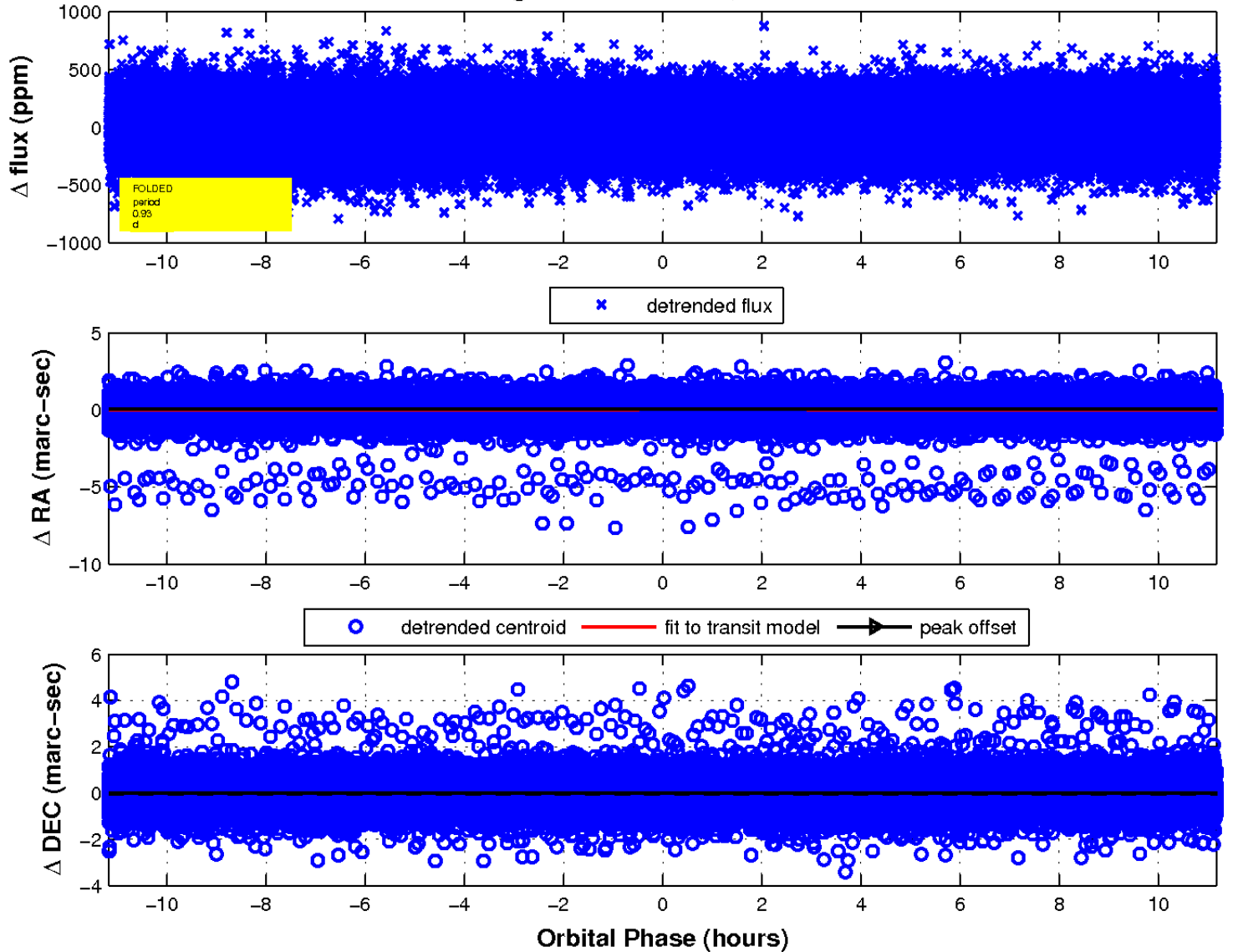
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

