

# KIC 007960410

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007960410-01	OBS	No	2.480903	133.202849	9.9	7.931	8.3	1.8	3.05	6796	1.08	10477.22

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007960410-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

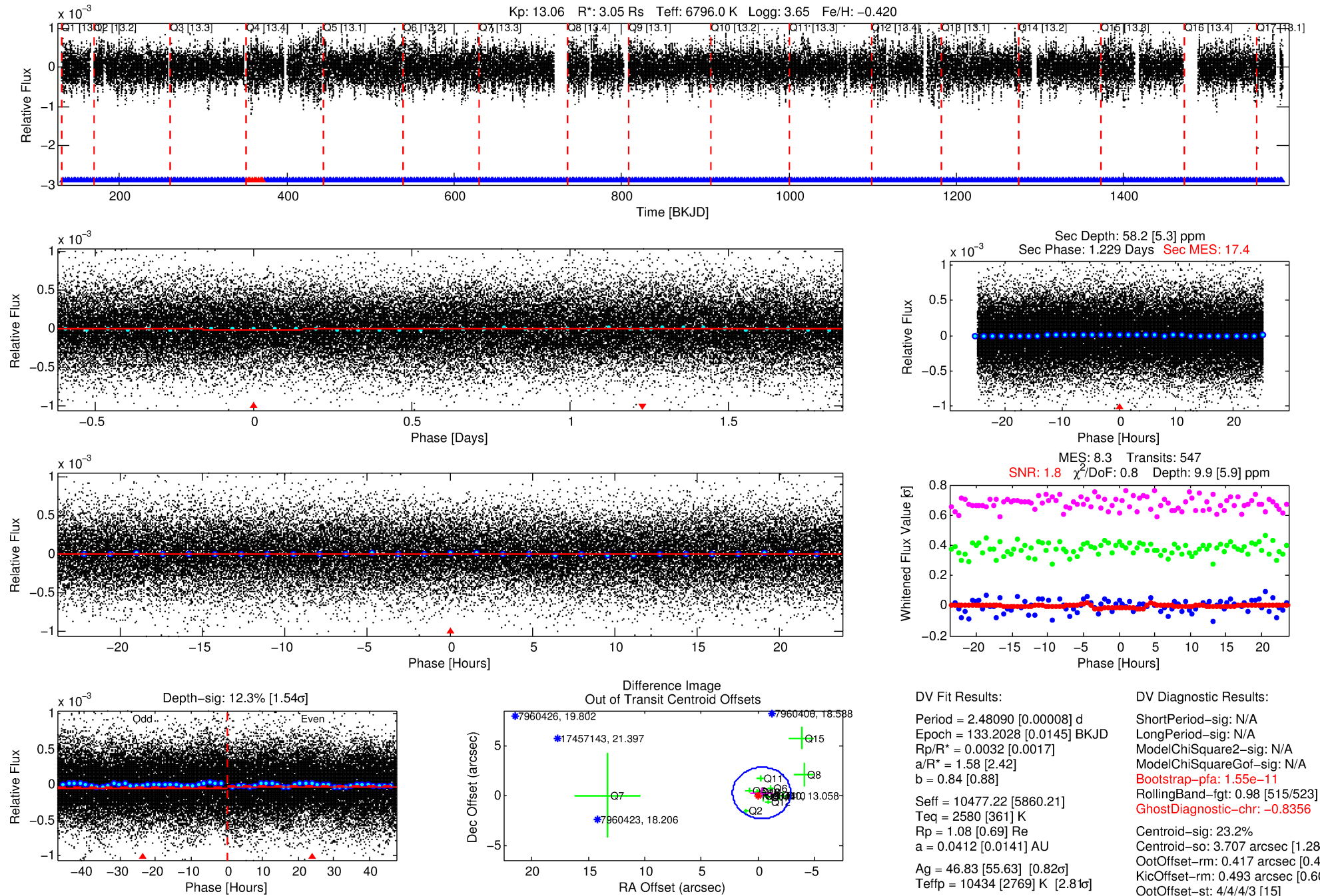
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007960410-01

No Significant Match Found

# DV One-Page Summary

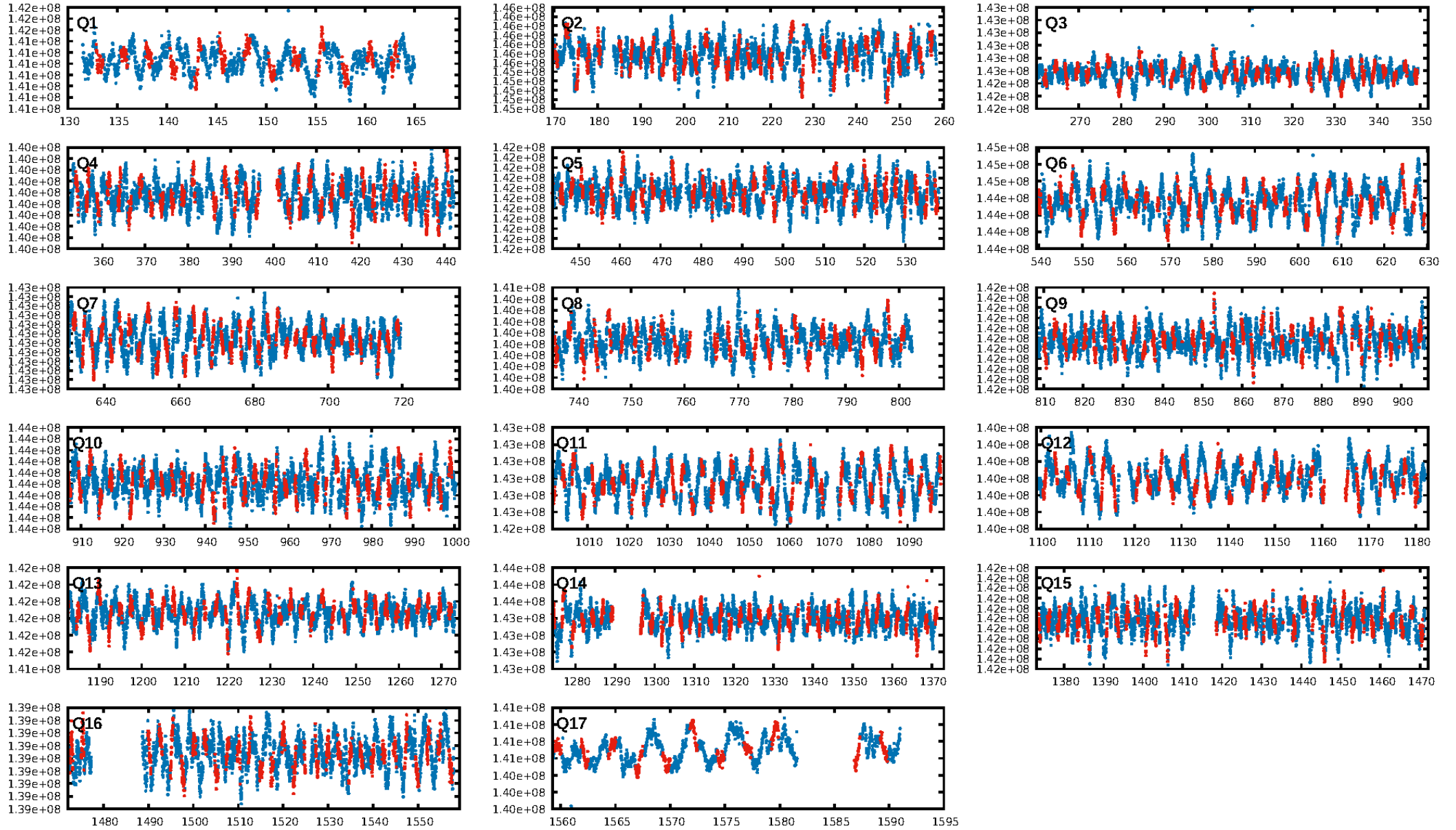
KIC: 7960410 Candidate: 1 of 1 Period: 2.481 d



Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:12:06 Z

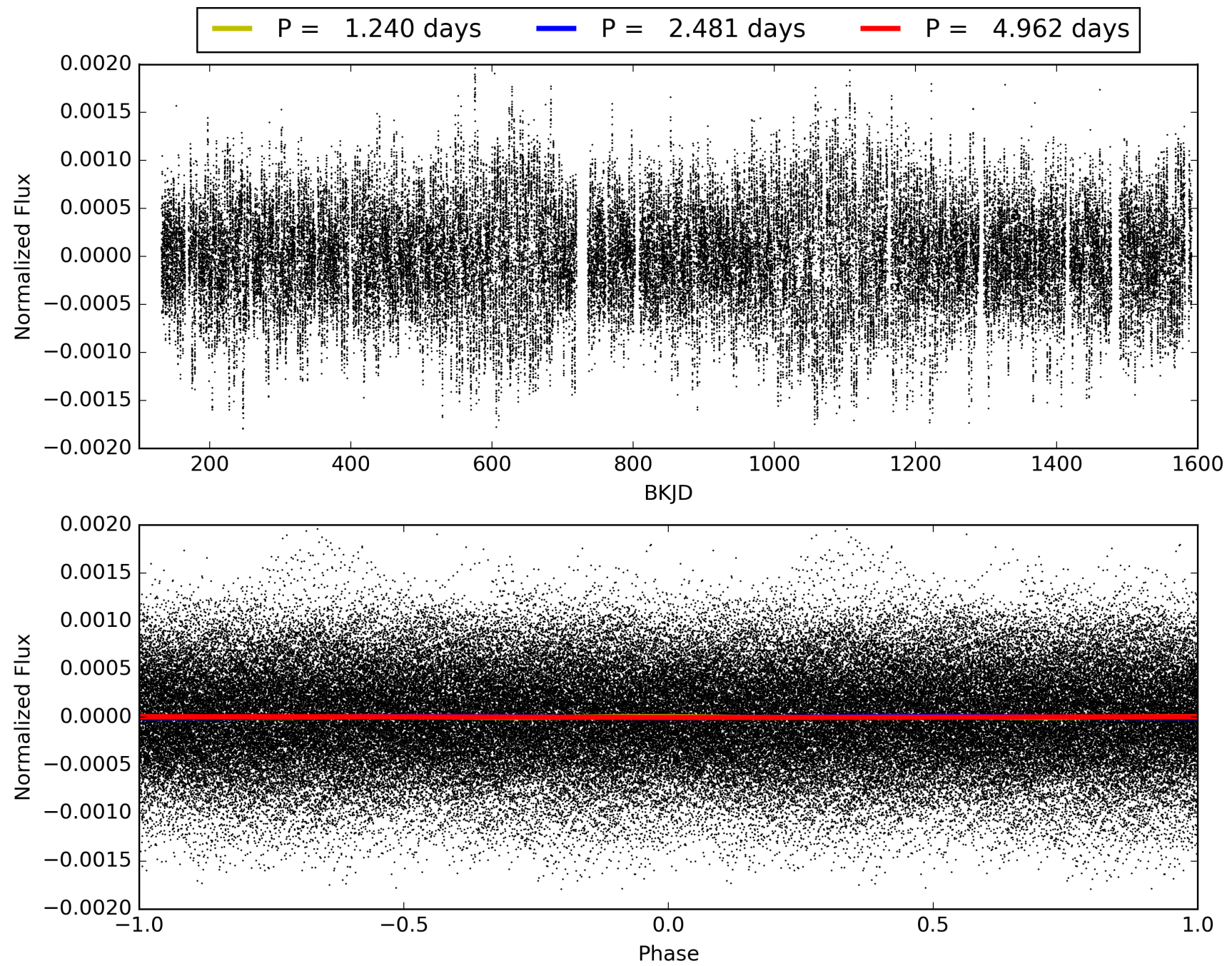
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 007960410-01, PDC Light Curves



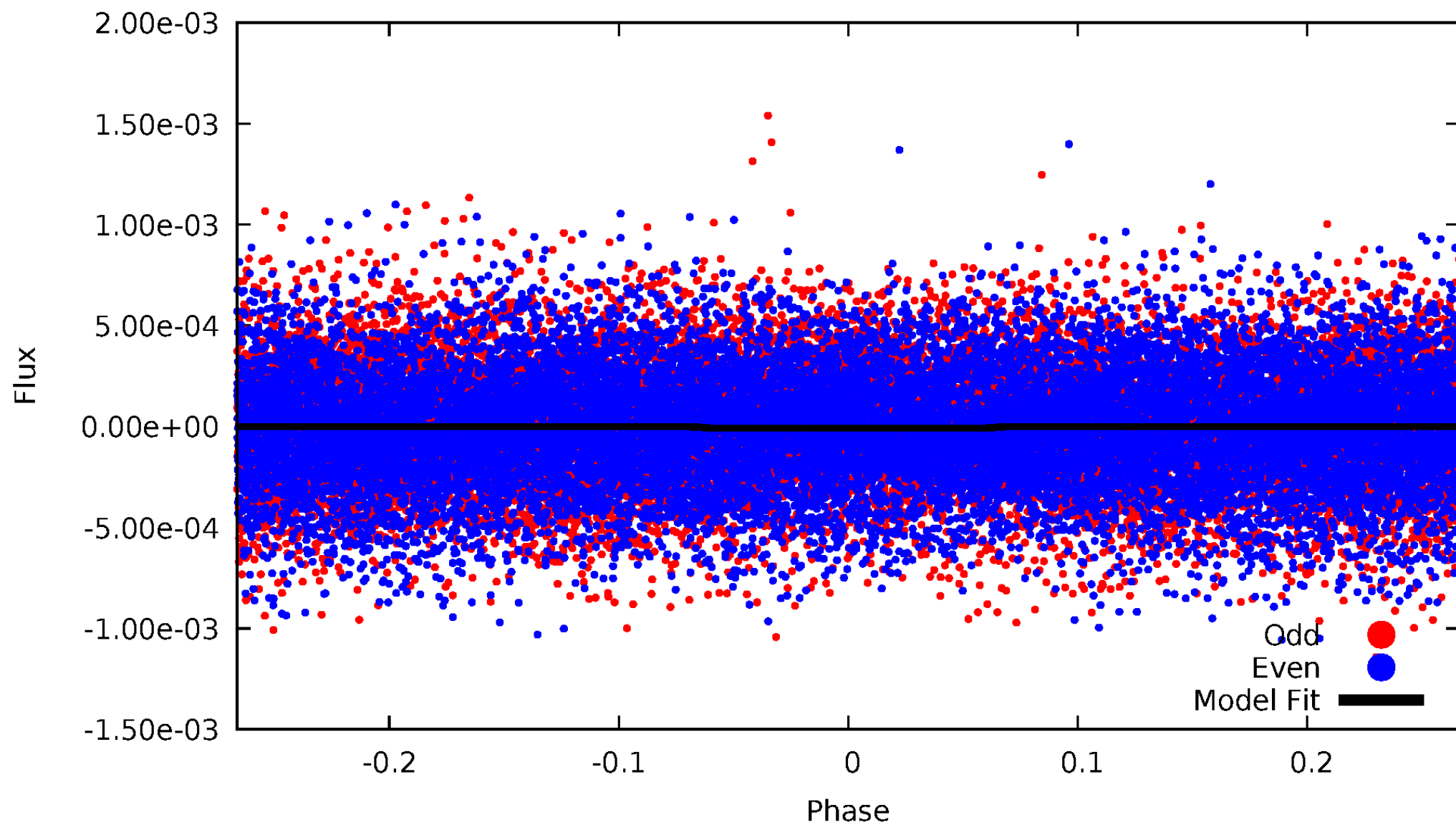


TCE 007960410-01



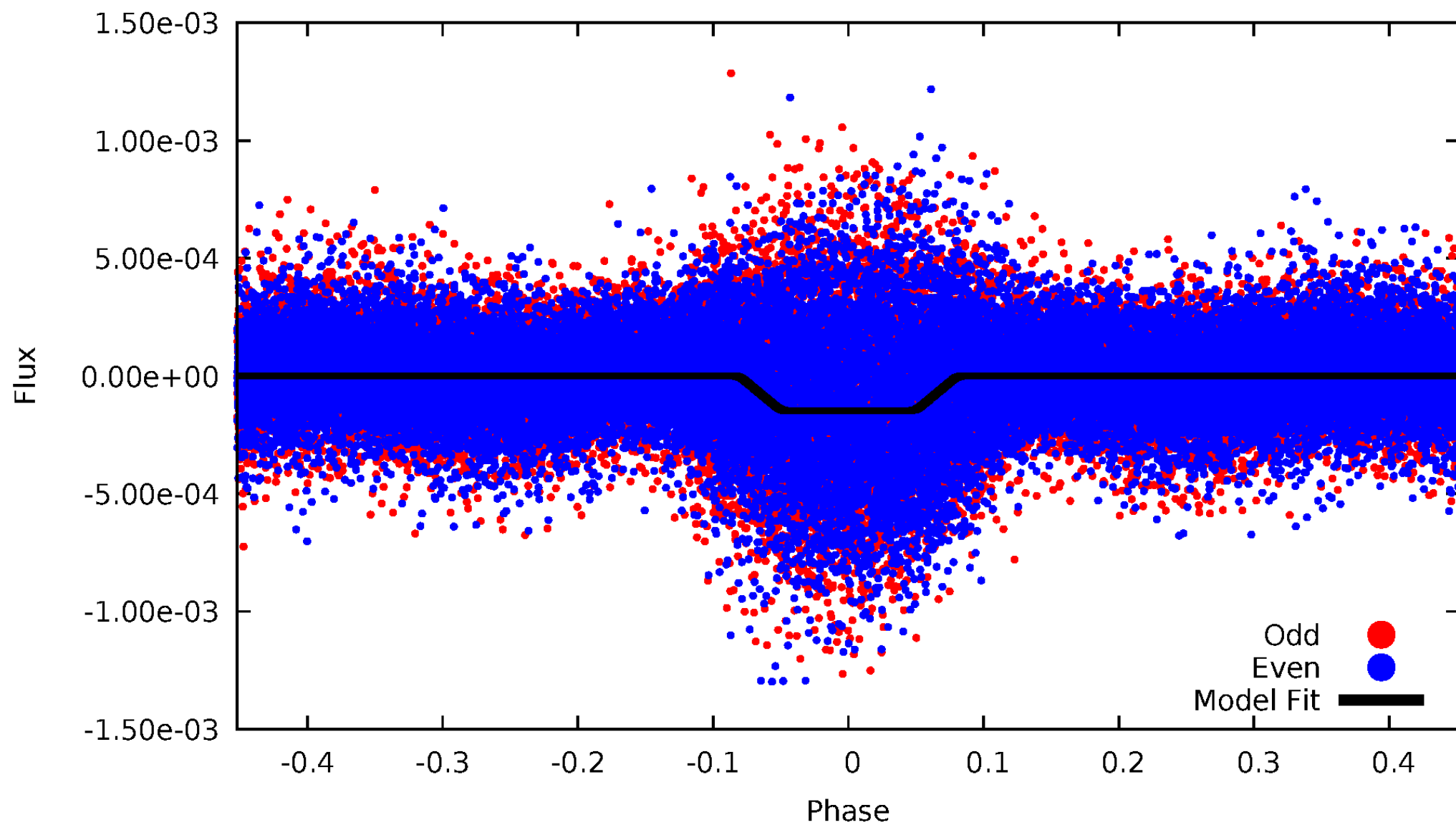
# DV Odd/Even

TCE 007960410-01

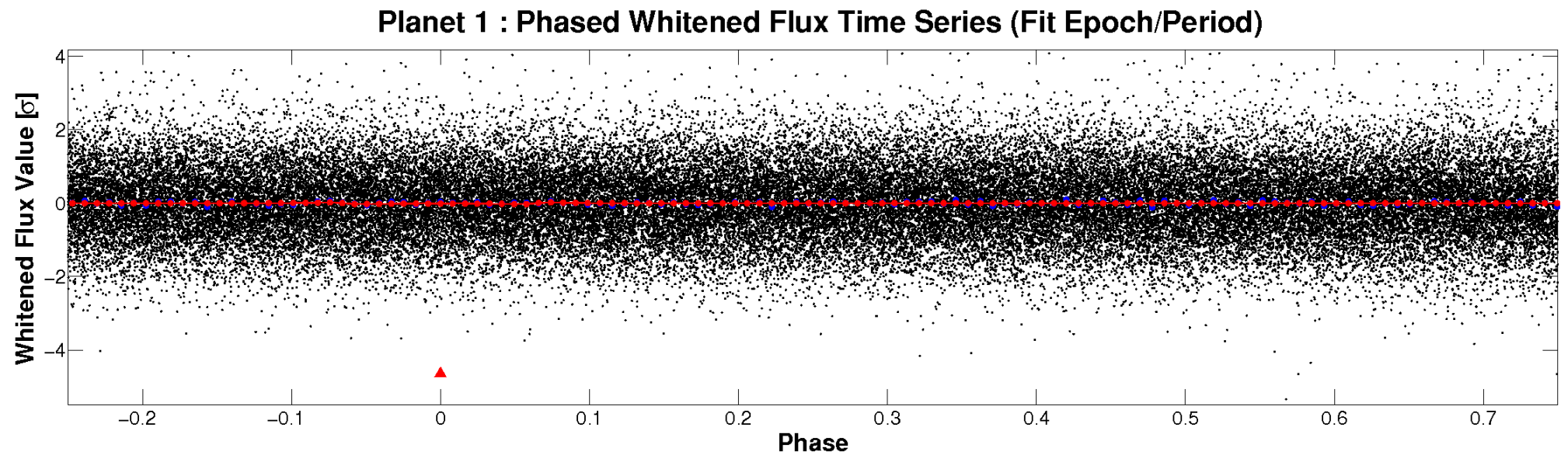
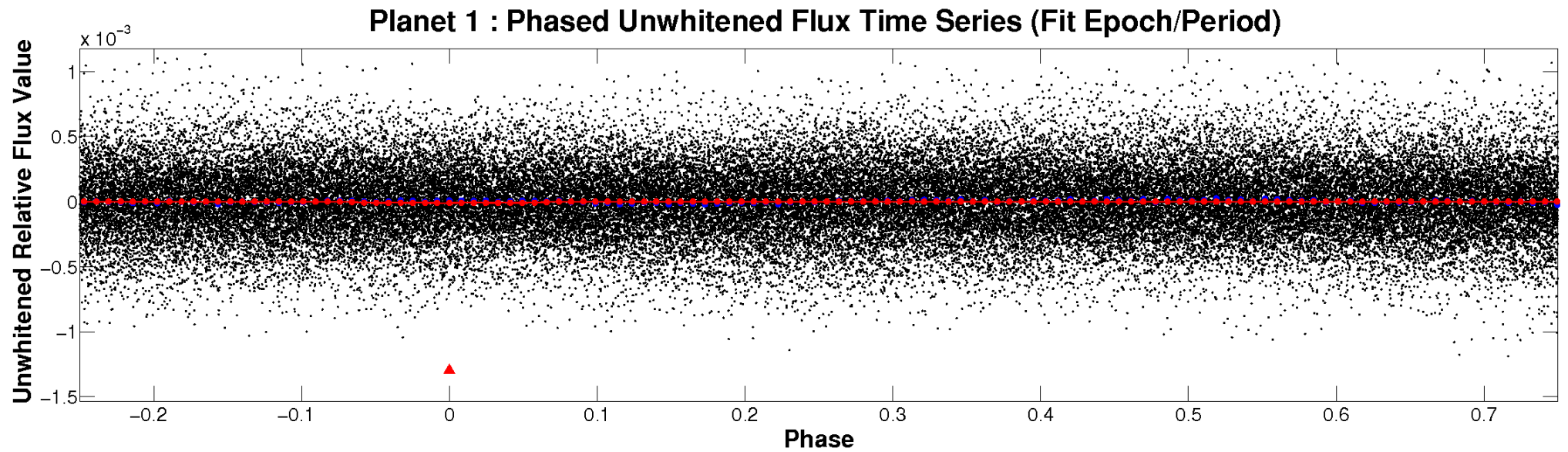


# ALT Odd/Even

TCE 007960410-01



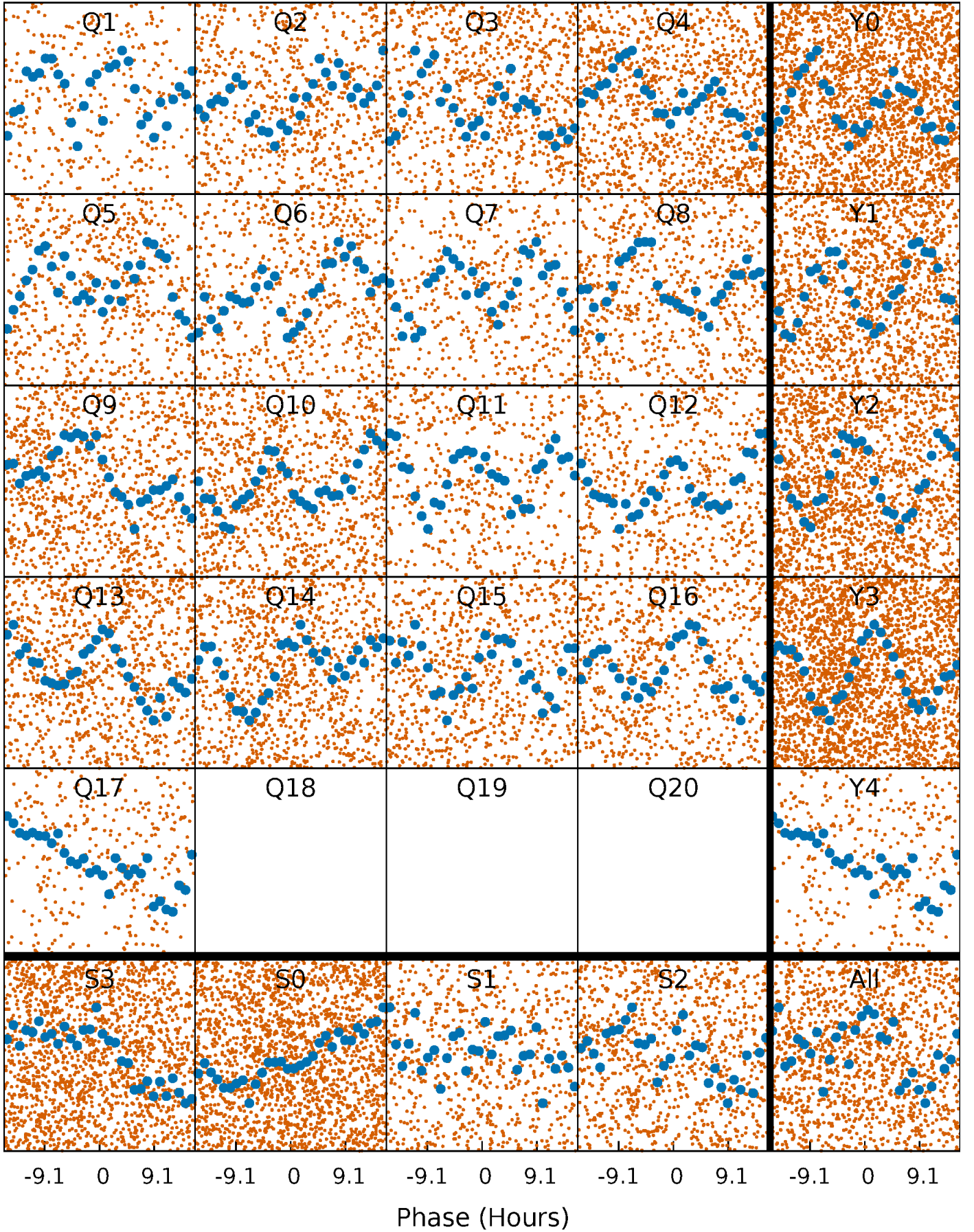
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

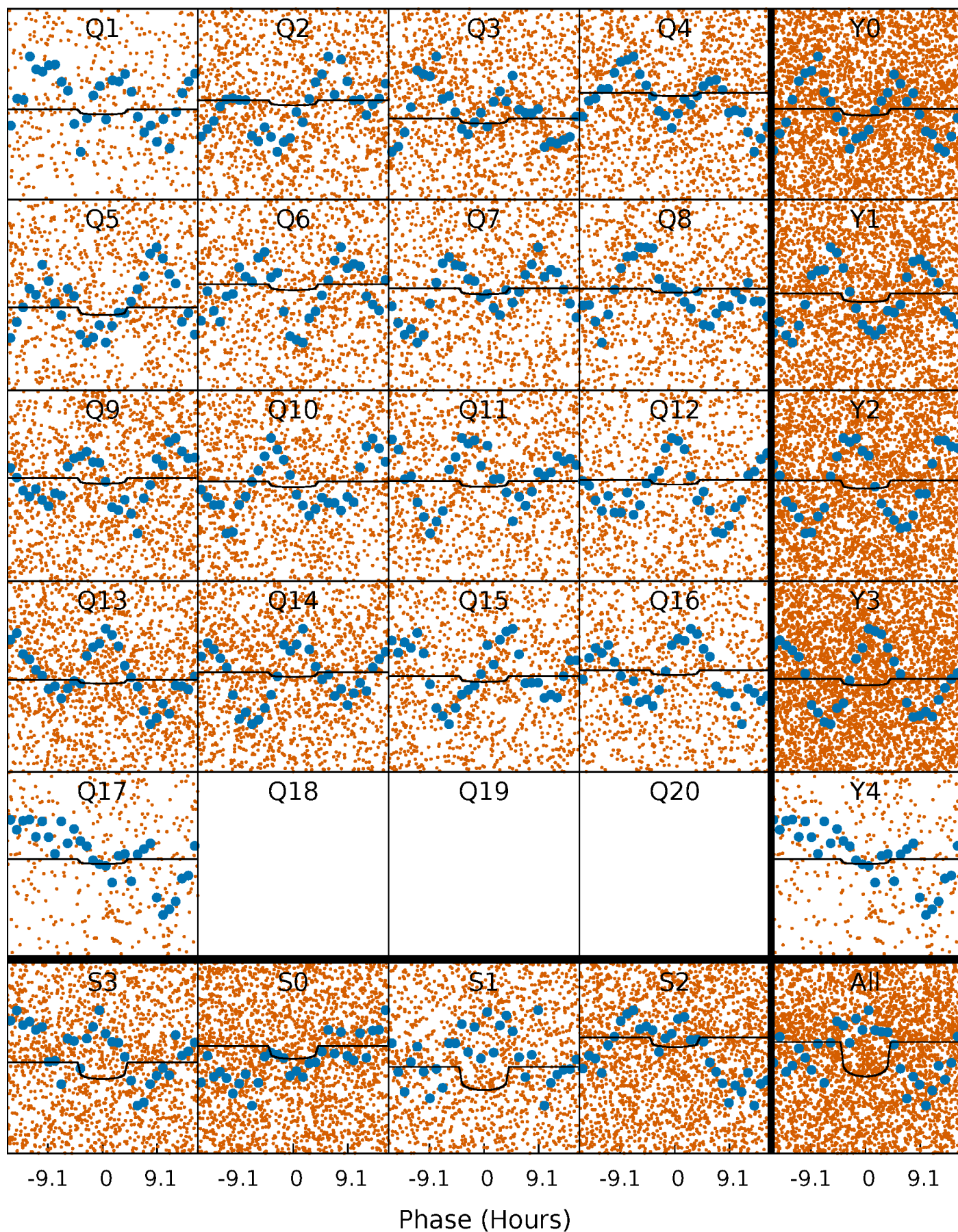
TCE 007960410-01 P= 2.480903 Days  $T_0=133.202849$  (BKJD)





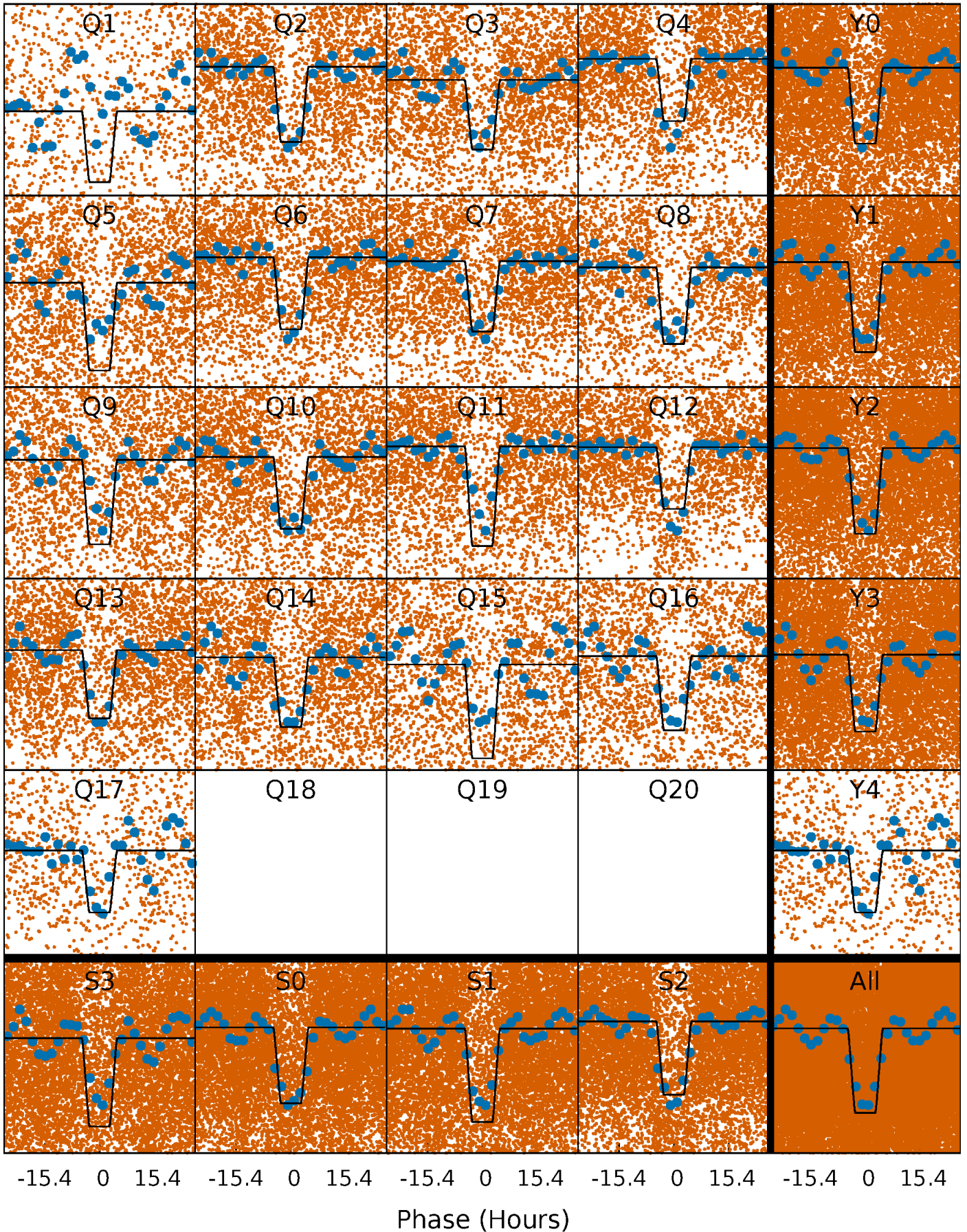
# DV Quarter-Phased Transit Curves

TCE 007960410-01 P= 2.480903 Days  $T_0=133.202849$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 007960410-01 P= 2.481966 Days  $T_0=133.058939$  (BKJD)

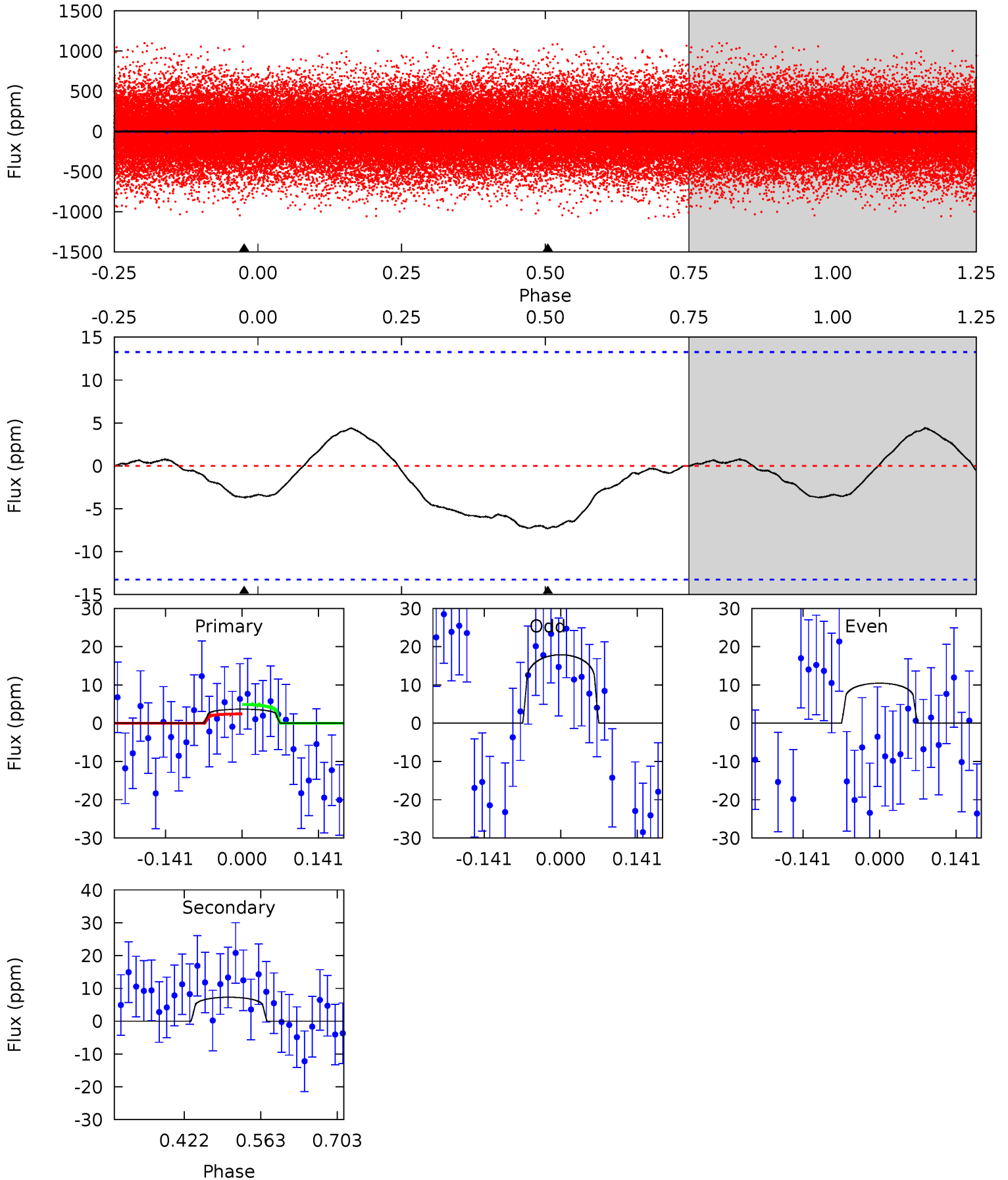




# DV Model-Shift Uniqueness Test

007960410-01, P = 2.480903 Days, E = 130.721946 Days

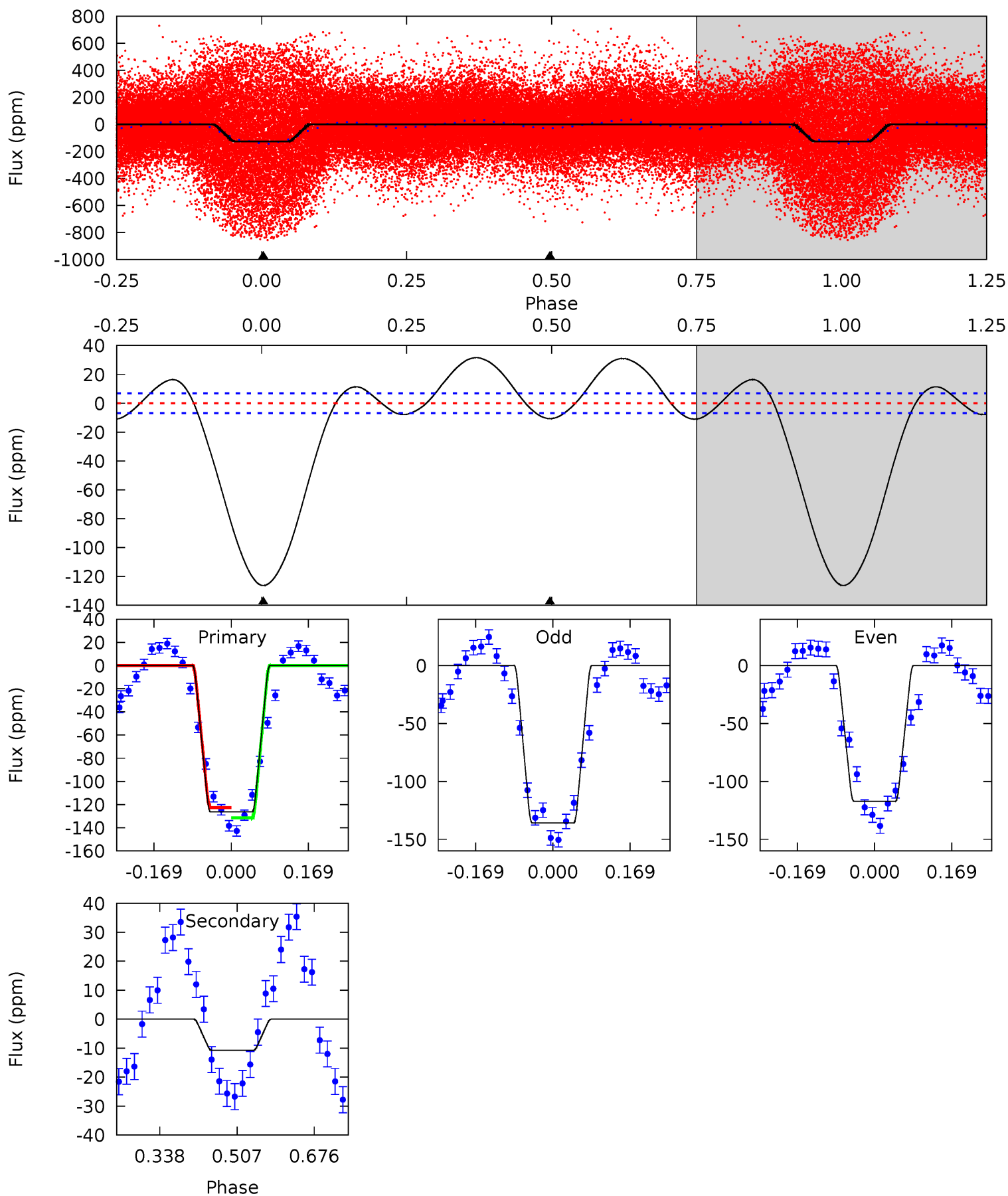
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.24	2.47	0	0	4.49	1.47	0.94	1.24	1.24	2.47	2.47	1.27	0.53	0.38	0.42



# Alt Model-Shift Uniqueness Test

007960410-01, P = 2.481966 Days, E = 130.576973 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
81.9	6.95	0	0	4.45	1.38	5.65	81.9	81.9	6.95	6.95	6.03	1.09	0.20	2.88





### Stellar Parameters For KIC 007960410

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	$6796^{+183}_{-203}$	$3.650^{+0.320}_{-0.080}$	$-0.420^{+0.350}_{-0.250}$	$3.053^{+0.470}_{-1.096}$	$1.519^{+0.228}_{-0.314}$	$0.075^{+0.176}_{-0.020}$
	+3%/-3%	+9%/-2%	+83%/-60%	+15%/-36%	+15%/-21%	+235%/-26%
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 007960410-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-7 \pm 3$	$1.00^{+0.59}_{-0.48}$	$3514^{+202}_{-333}$	$6104^{+2746}_{-1304}$	$6.954^{+19.403}_{-4.635}$
Alt.	$-11 \pm 2$	$3.82^{+0.83}_{-0.86}$	$3511^{+215}_{-299}$	$3530^{+313}_{-370}$	$0.690^{+0.416}_{-0.227}$

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

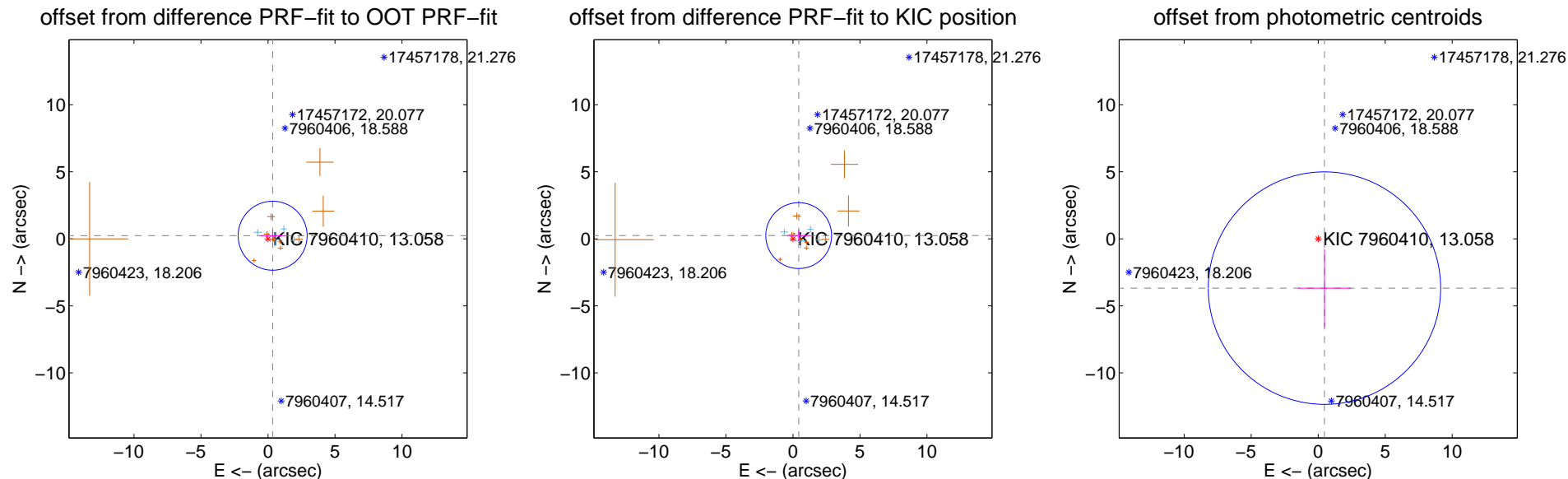
## DV Centroid Data

Supplemental centroid analysis for 007960410-01. Kepler magnitude: 13.06. Transit SNR 1.76

There are 4 quarters with good PRF difference image offsets

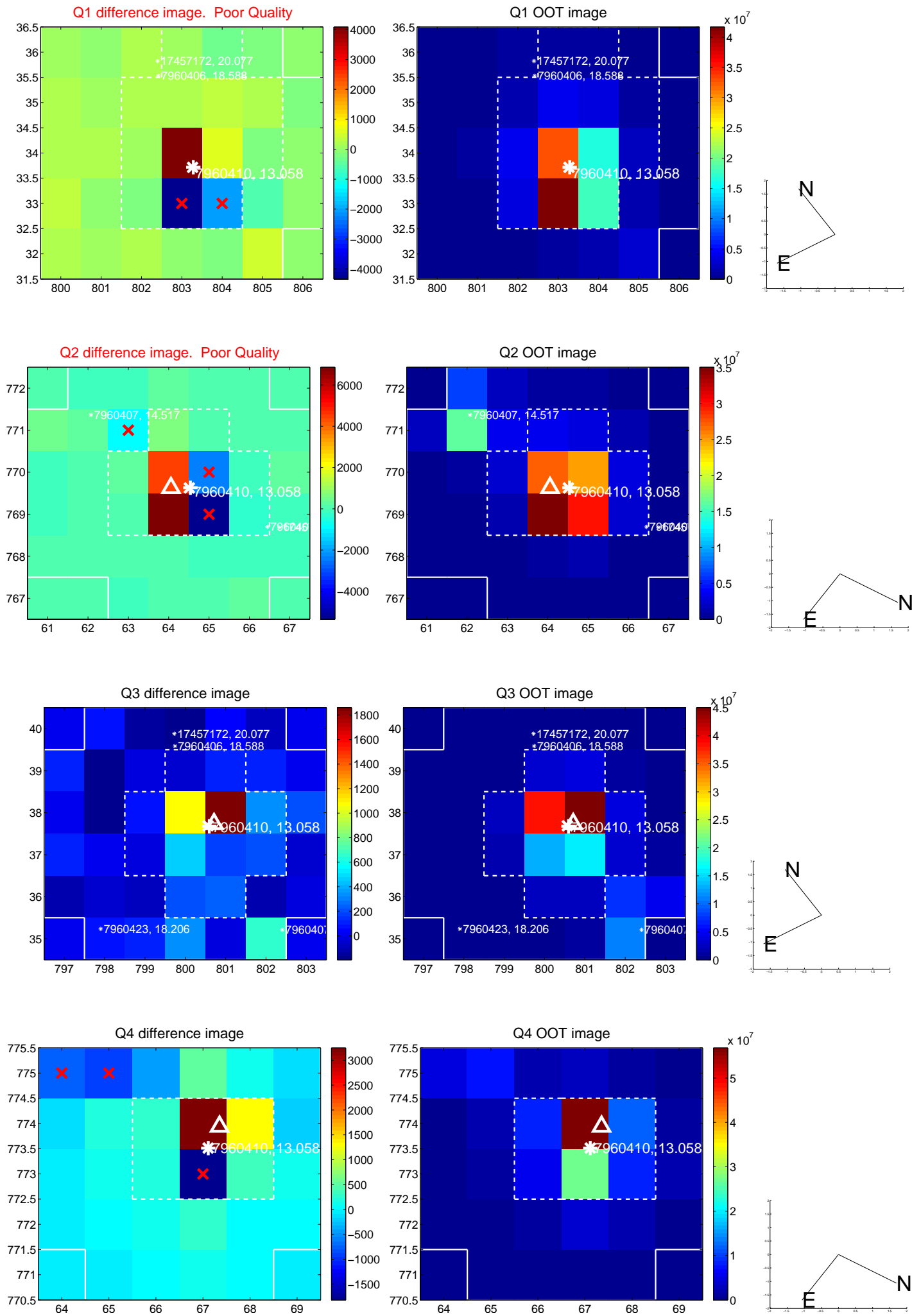
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.417 \pm 0.858$	0.49	$-0.347 \pm 0.918$	$0.232 \pm 0.407$
PRF-fit source offset from KIC position	$0.493 \pm 0.818$	0.60	$-0.430 \pm 0.845$	$0.241 \pm 0.413$
photometric centroid source offset	$3.71 \pm 2.89$	1.28	$-0.47 \pm 1.97$	$-3.68 \pm 2.90$

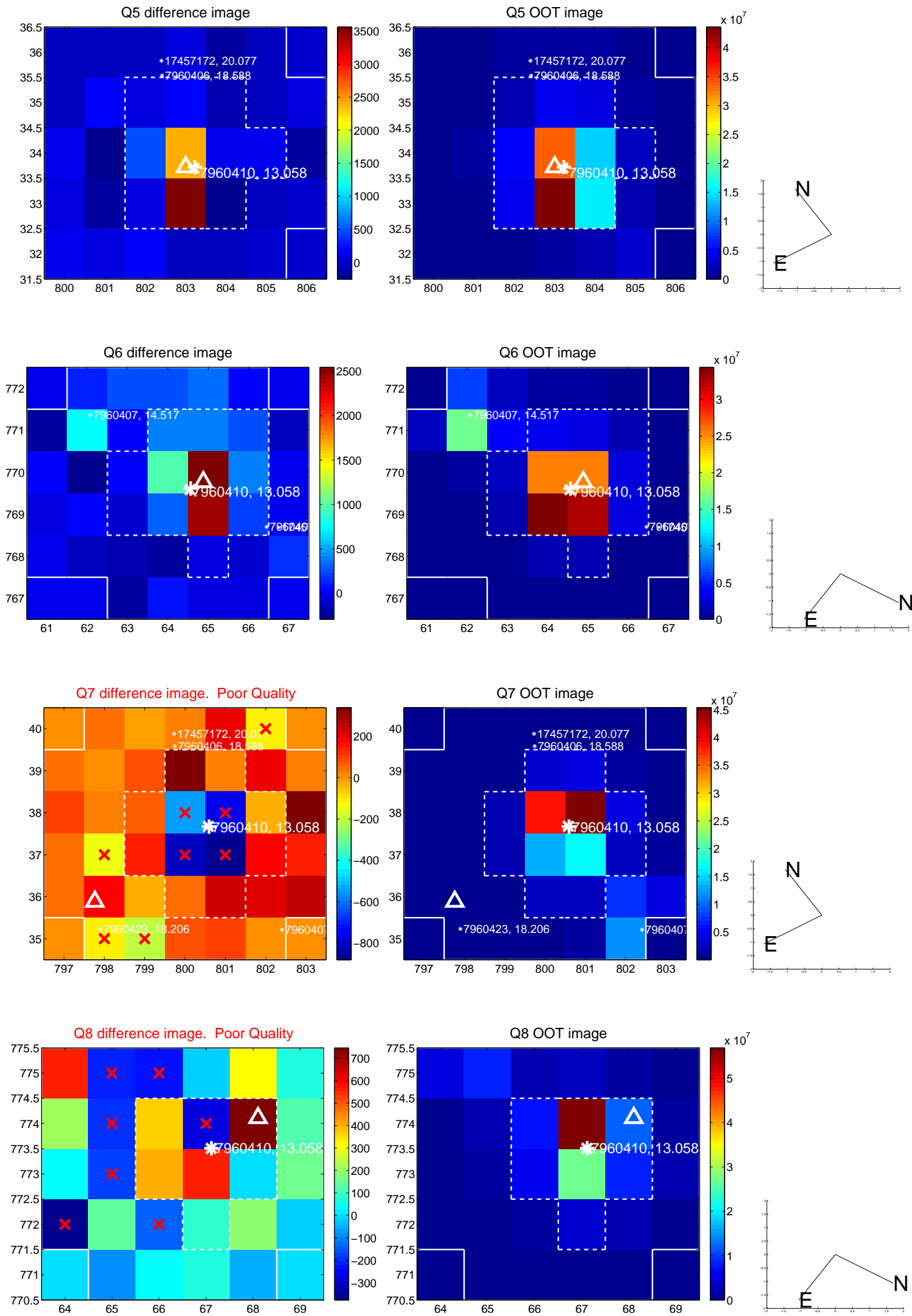


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

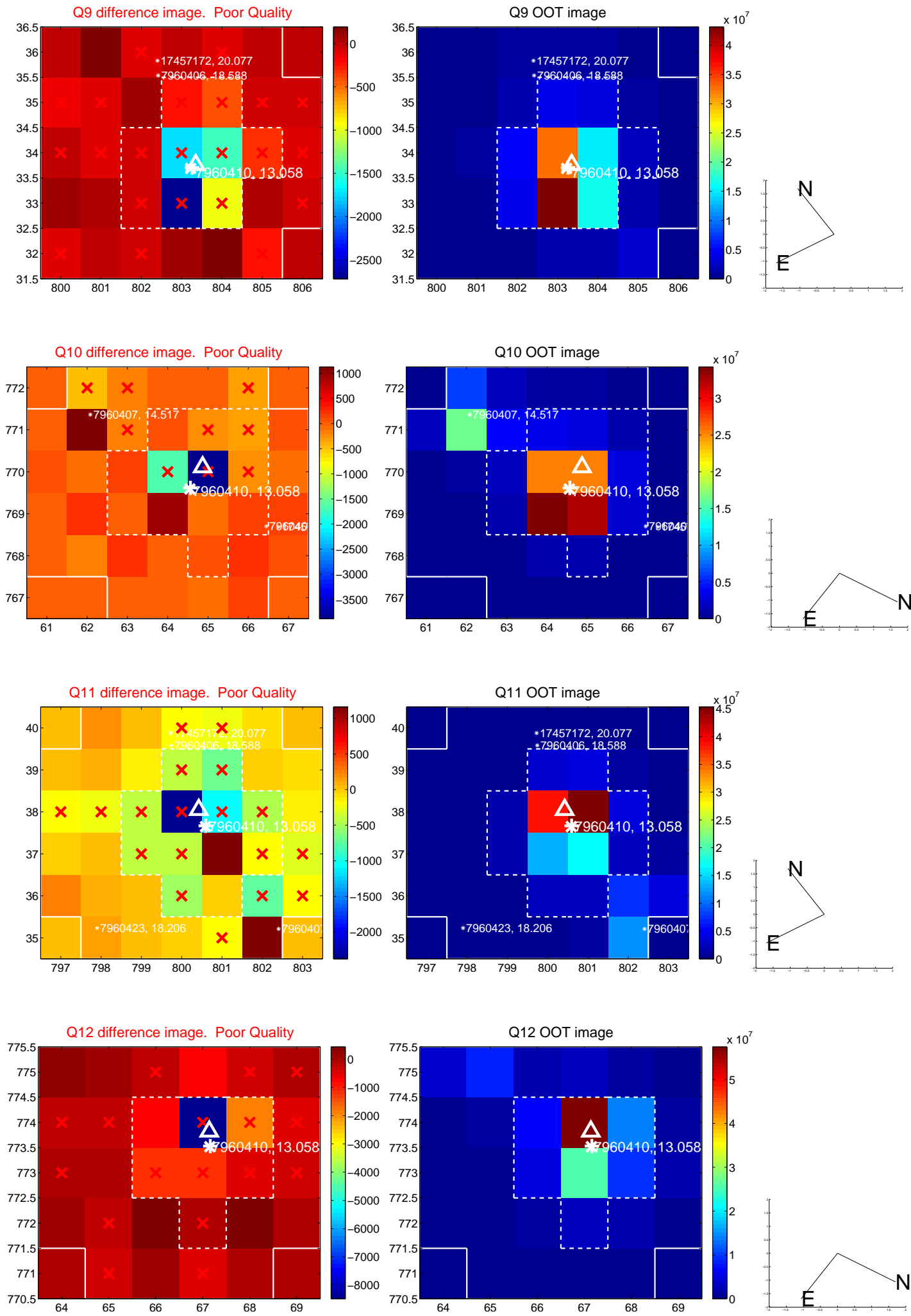


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

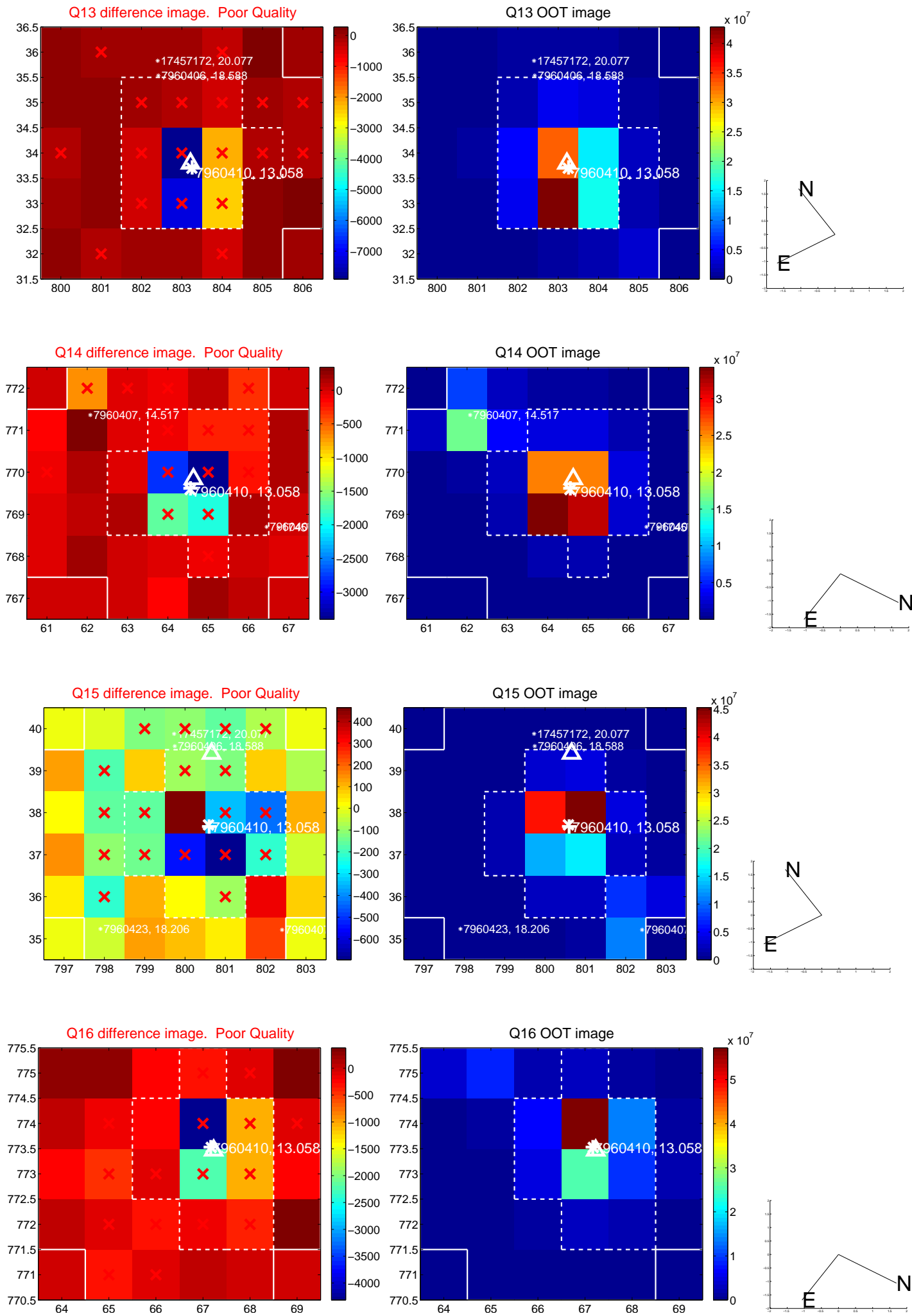




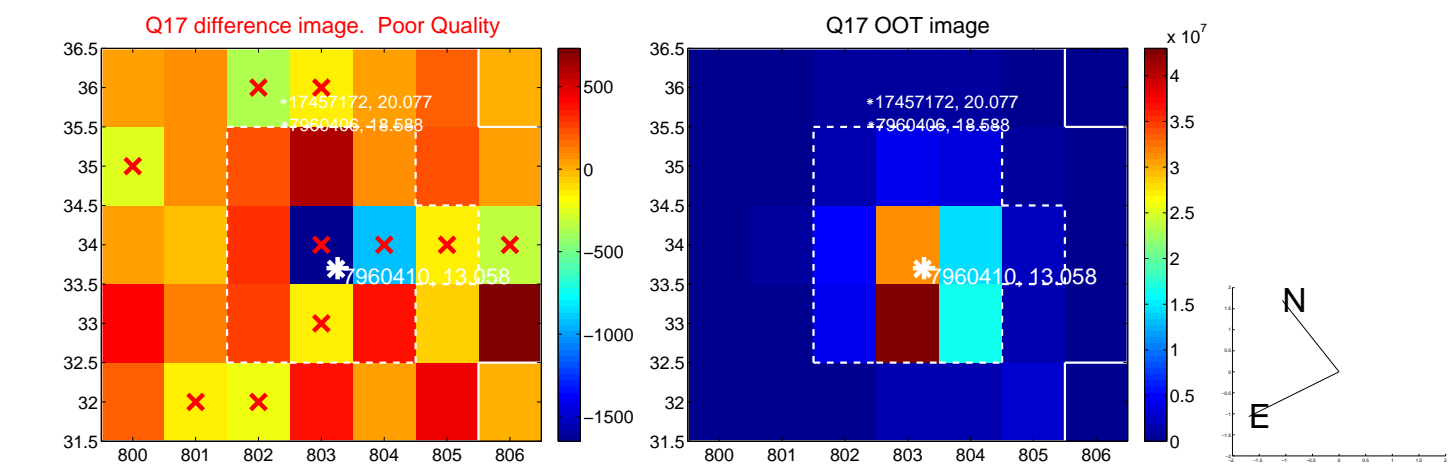
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



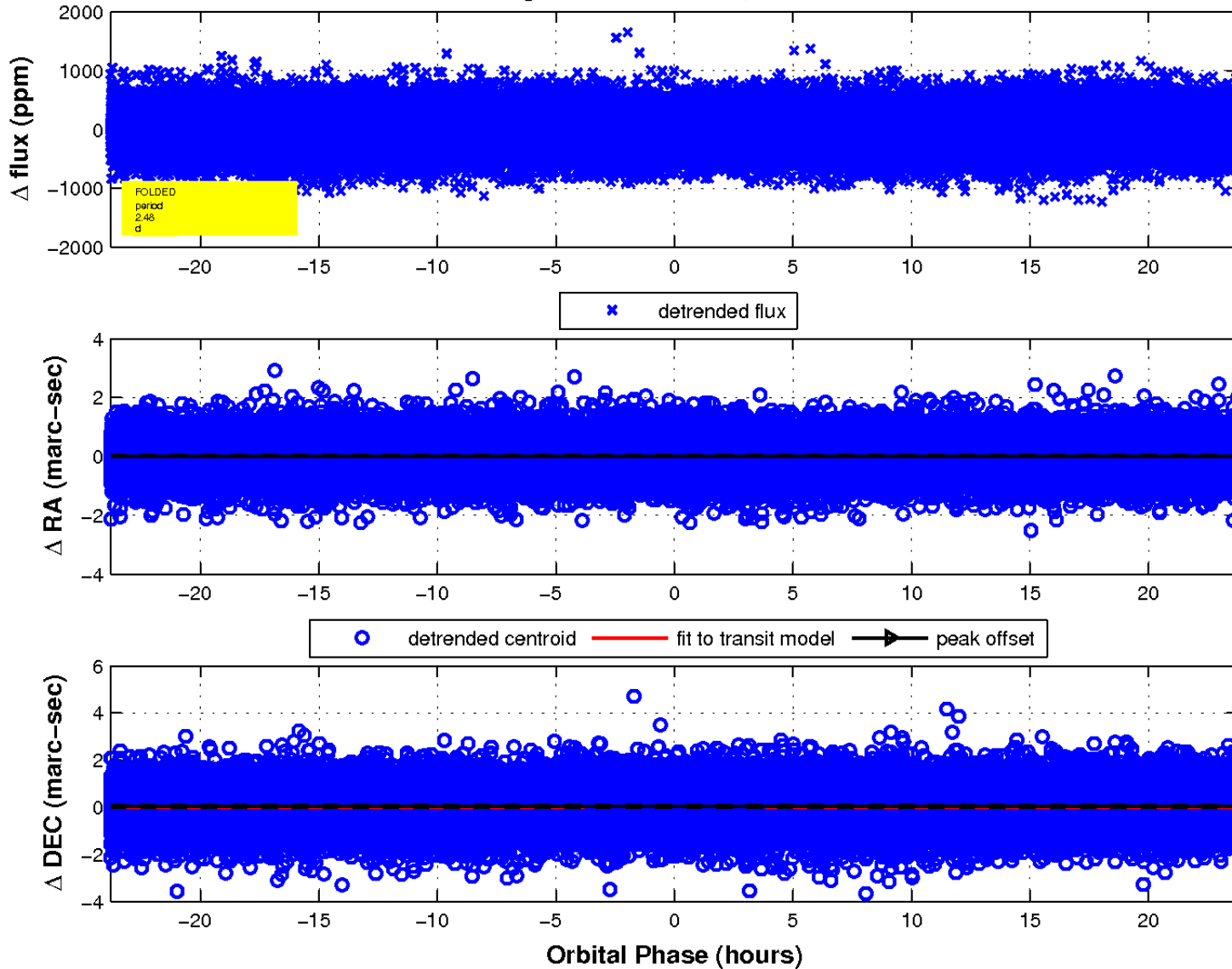
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



# UKIRT Image

Declination

