

# KIC 007692575

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007692575-01	OBS	No	403.678108	235.771620	178.6	19.956	7.2	5.5	0.83	5726	1.18	0.61

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007692575-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_TER_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.

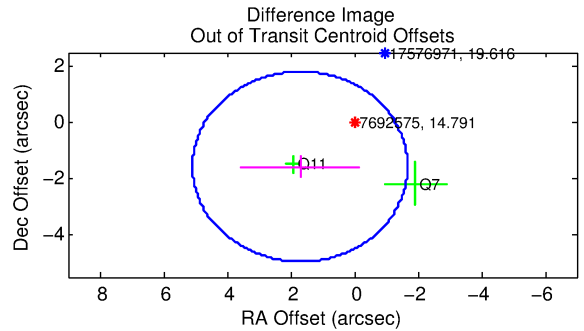
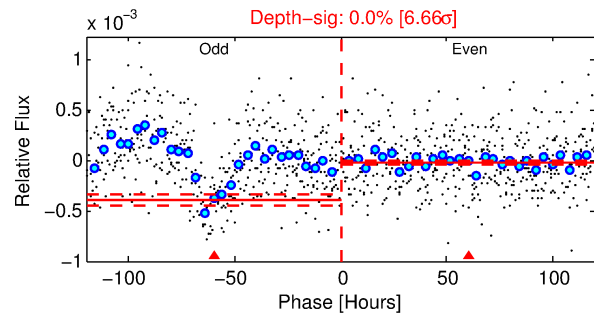
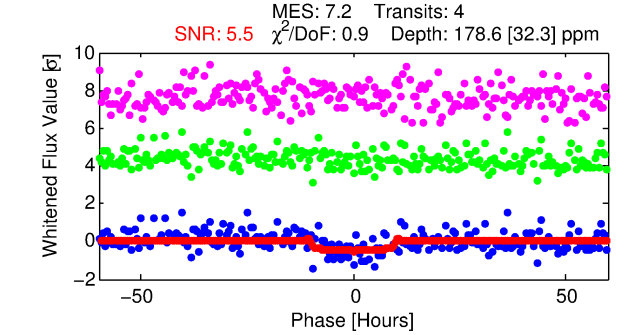
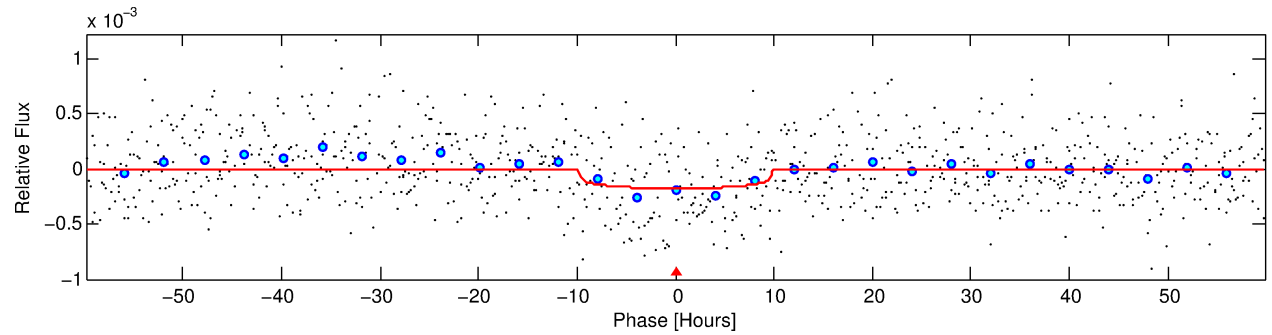
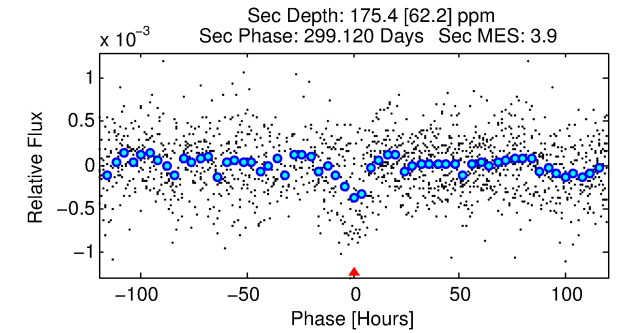
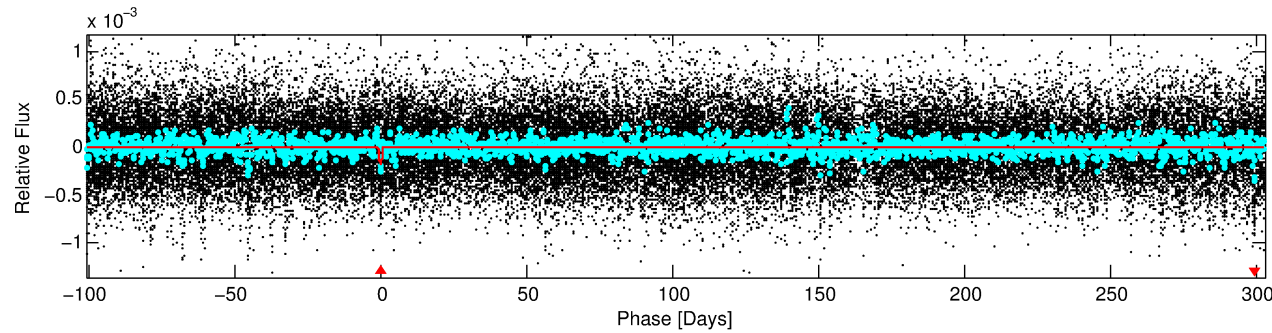
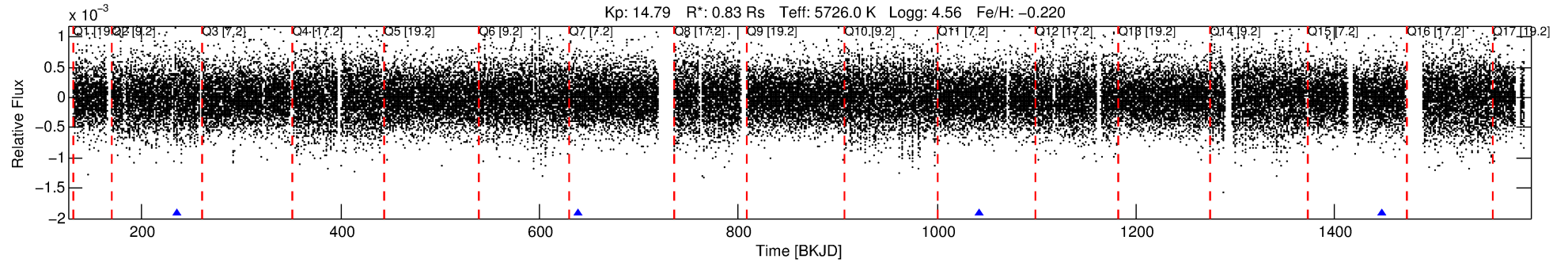
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007692575-01

No Significant Match Found

# DV One-Page Summary

KIC: 7692575 Candidate: 1 of 1 Period: 403.678 d



## DV Fit Results:

Period = 403.67811 [0.02104] d  
Epoch = 235.7716 [0.0399] BKJD  
Rp/R\* = 0.0131 [0.0076]  
a/R\* = 113.38 [294.90]  
b = 0.70 [1.92]  
Seff = 0.61 [0.21]  
Teq = 226 [19] K  
Rp = 1.18 [0.76] Re  
a = 1.0393 [0.2354] AU  
Ag = 74610.18 [94037.65] [0.79 $\sigma$ ]  
Teffp = 5765 [1762] K [3.14 $\sigma$ ]

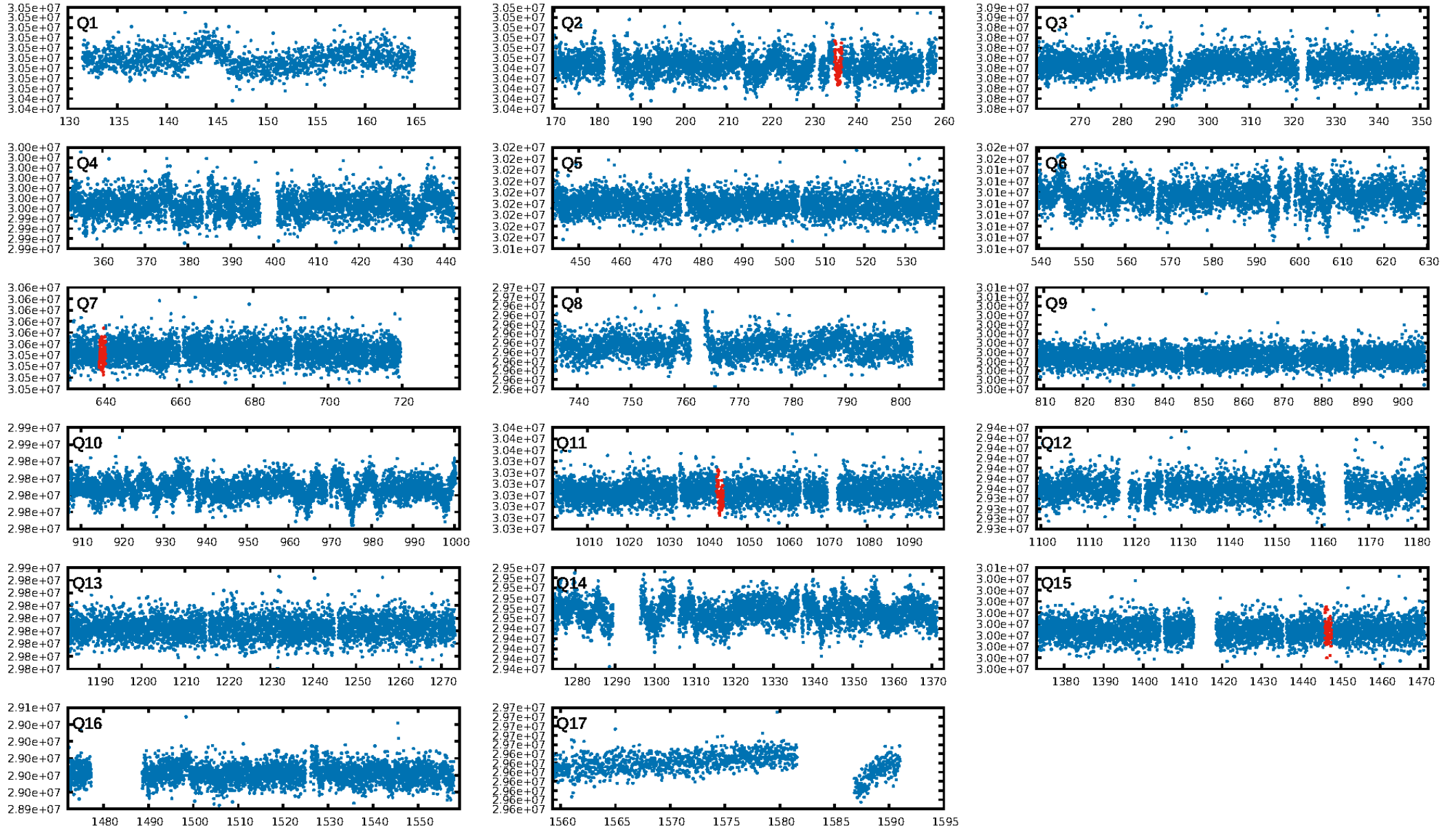
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 0.0%  
ModelChiSquareGof-sig: 100.0%  
Bootstrap-pfa: 5.18e-10  
RollingBand-fgt: 1.00 [4/4]  
GhostDiagnostic-chr: 0.6374  
Centroid-sig: 15.4%  
Centroid-so: 2.640 arcsec [1.03 $\sigma$ ]  
OotOffset-rm: 2.315 arcsec [2.05 $\sigma$ ]  
KicOffset-rm: 2.233 arcsec [2.98 $\sigma$ ]  
OotOffset-st: 0/2/0/0 [2]  
KicOffset-st: 0/2/0/0 [2]  
DiffImageQuality-fgm: 0.50 [1/2]  
DiffImageOverlap-fno: 1.00 [4/4]

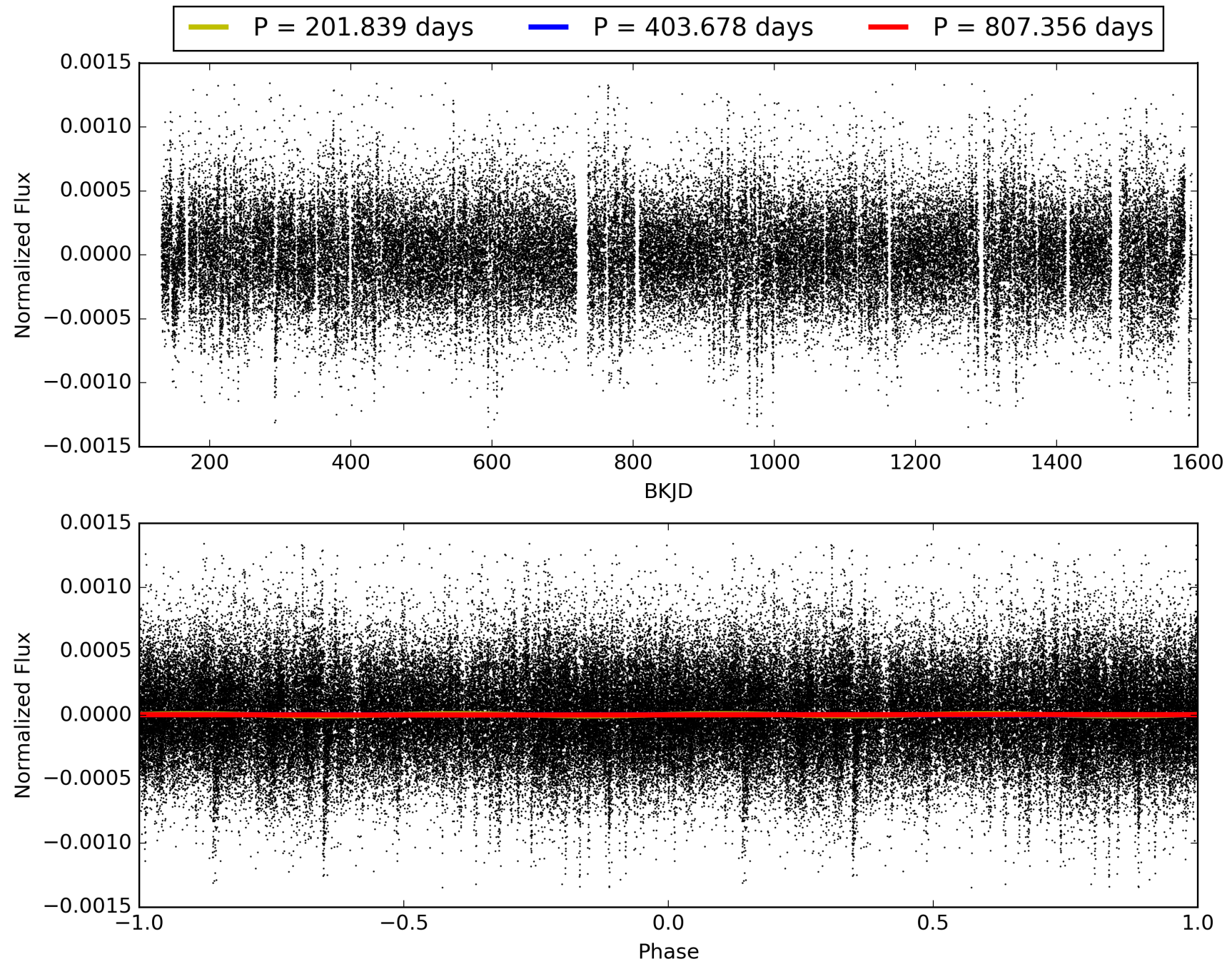
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:08:36 Z

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

# TCE 007692575-01, PDC Light Curves

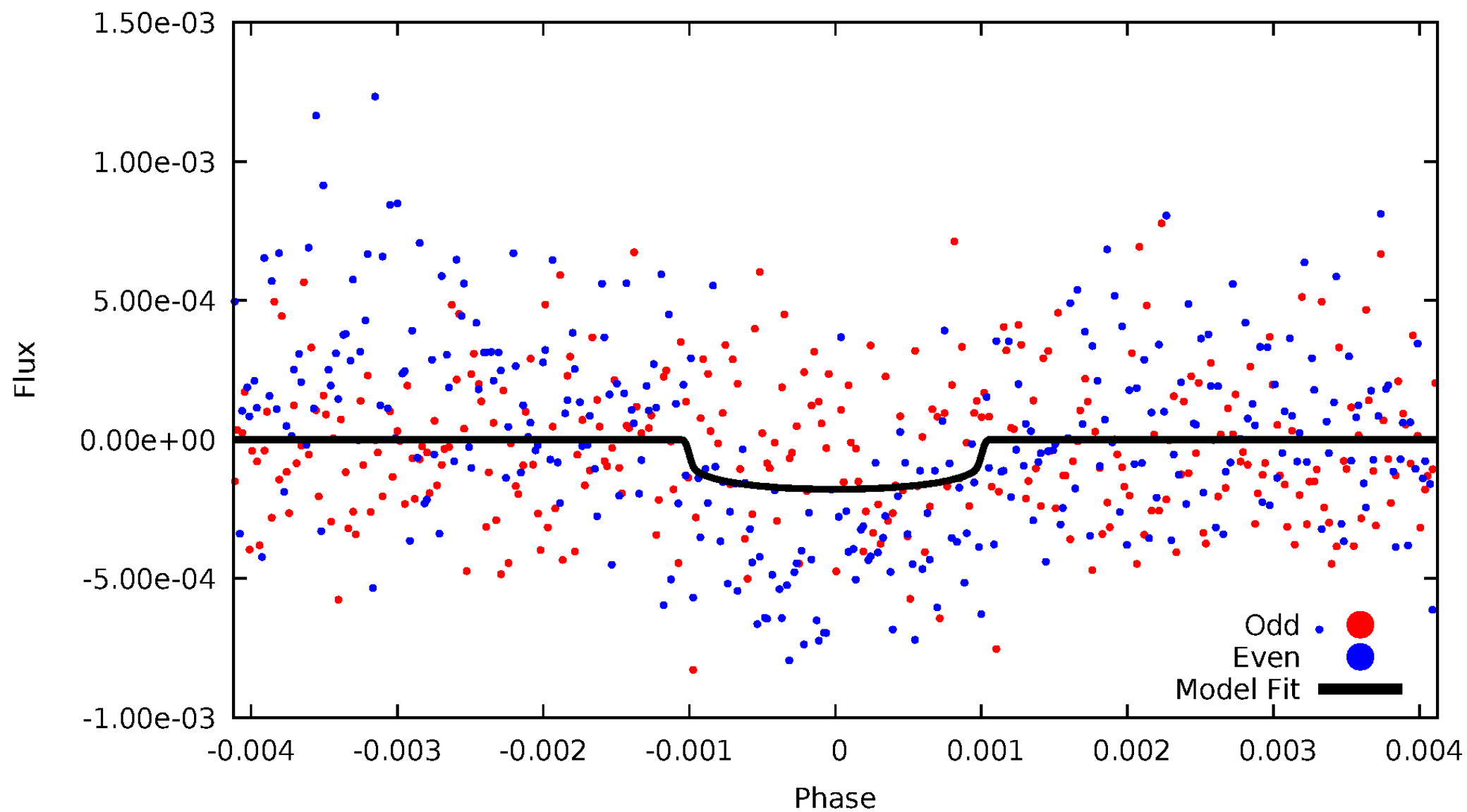


TCE 007692575-01



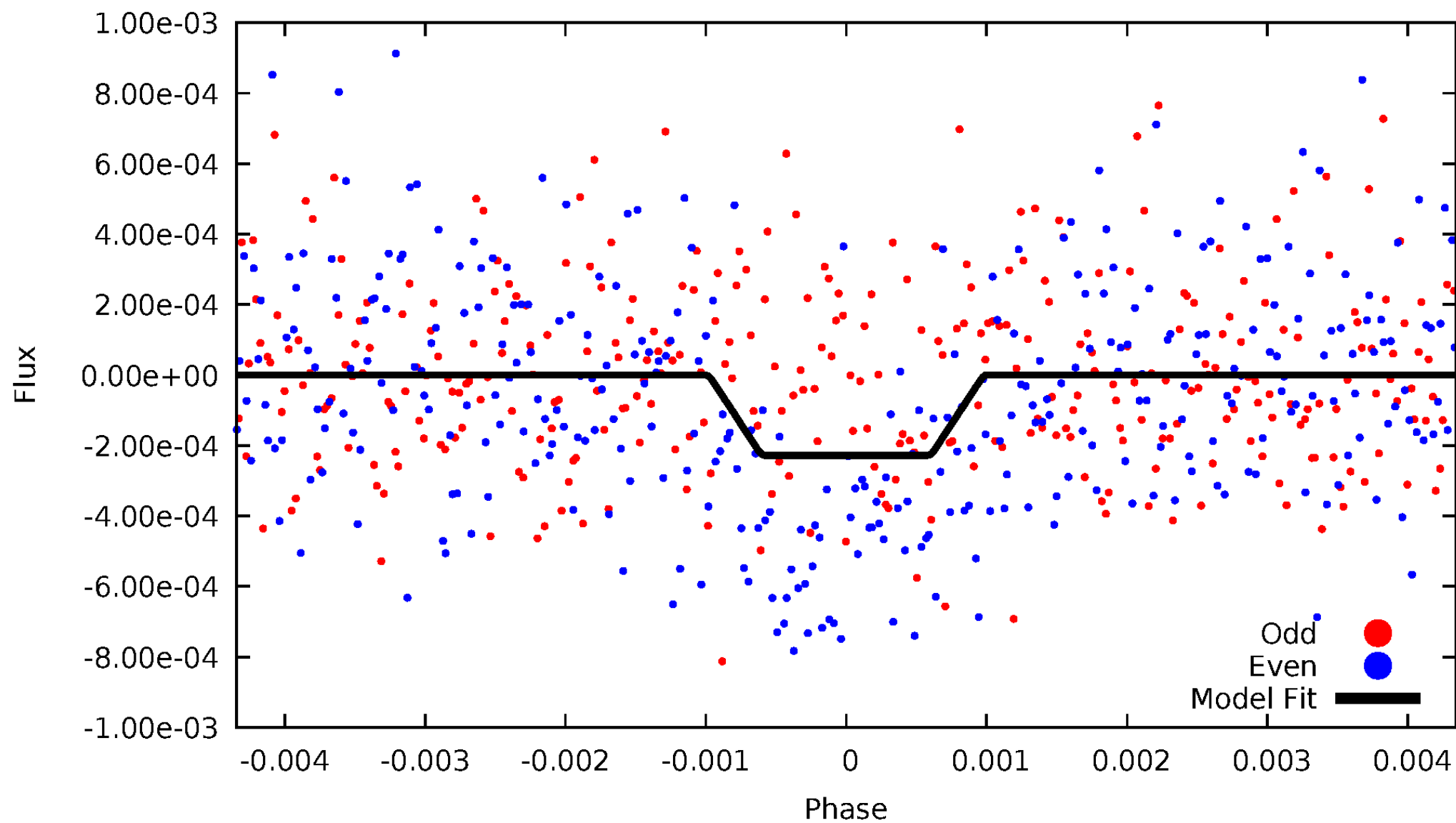
# DV Odd/Even

TCE 007692575-01



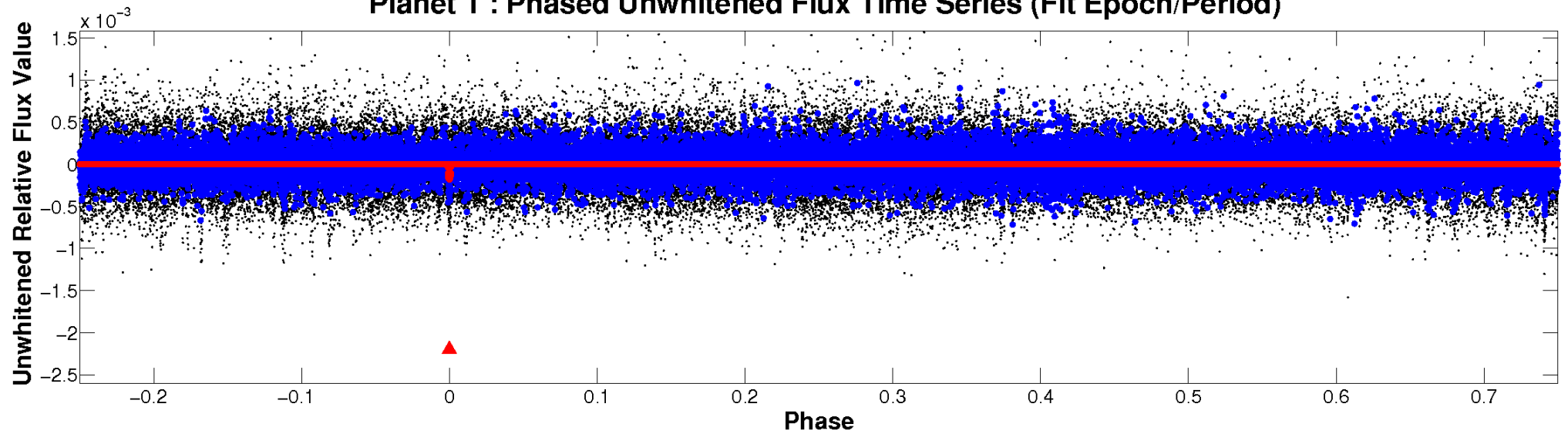
# ALT Odd/Even

TCE 007692575-01

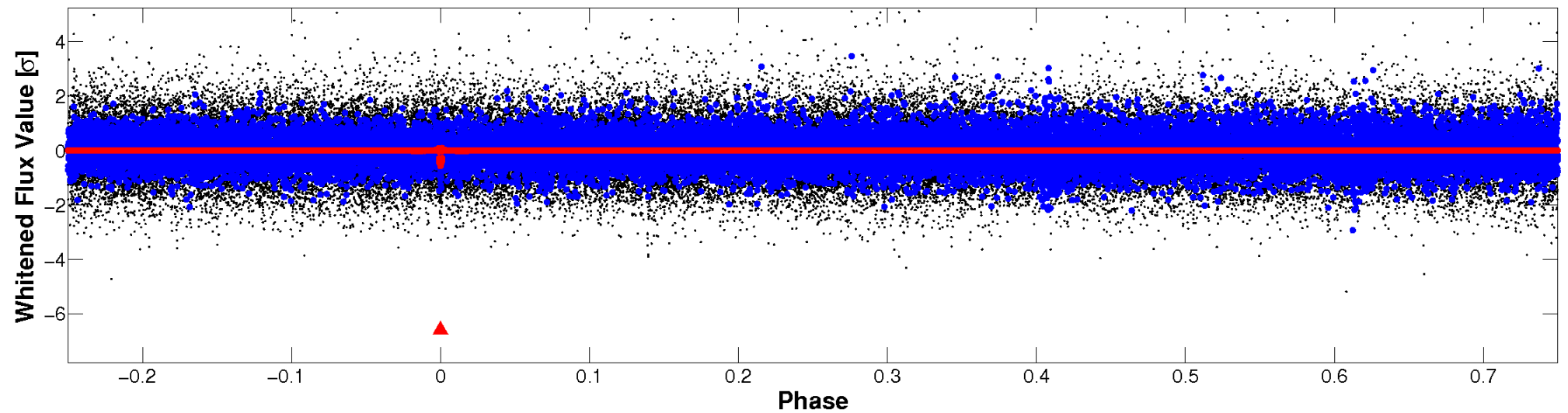


# Non-Whitened Vs. Whitened Light Curve

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

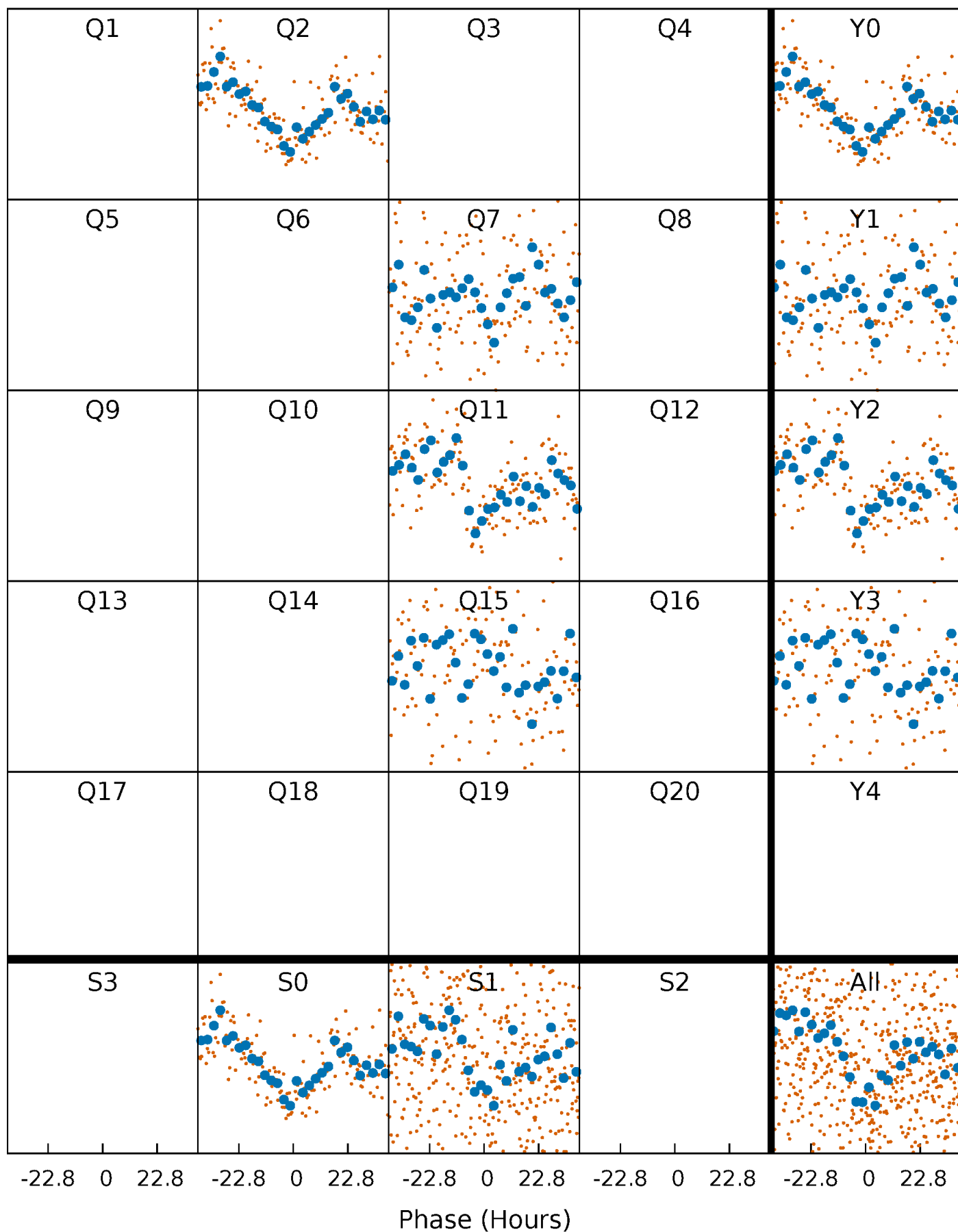


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



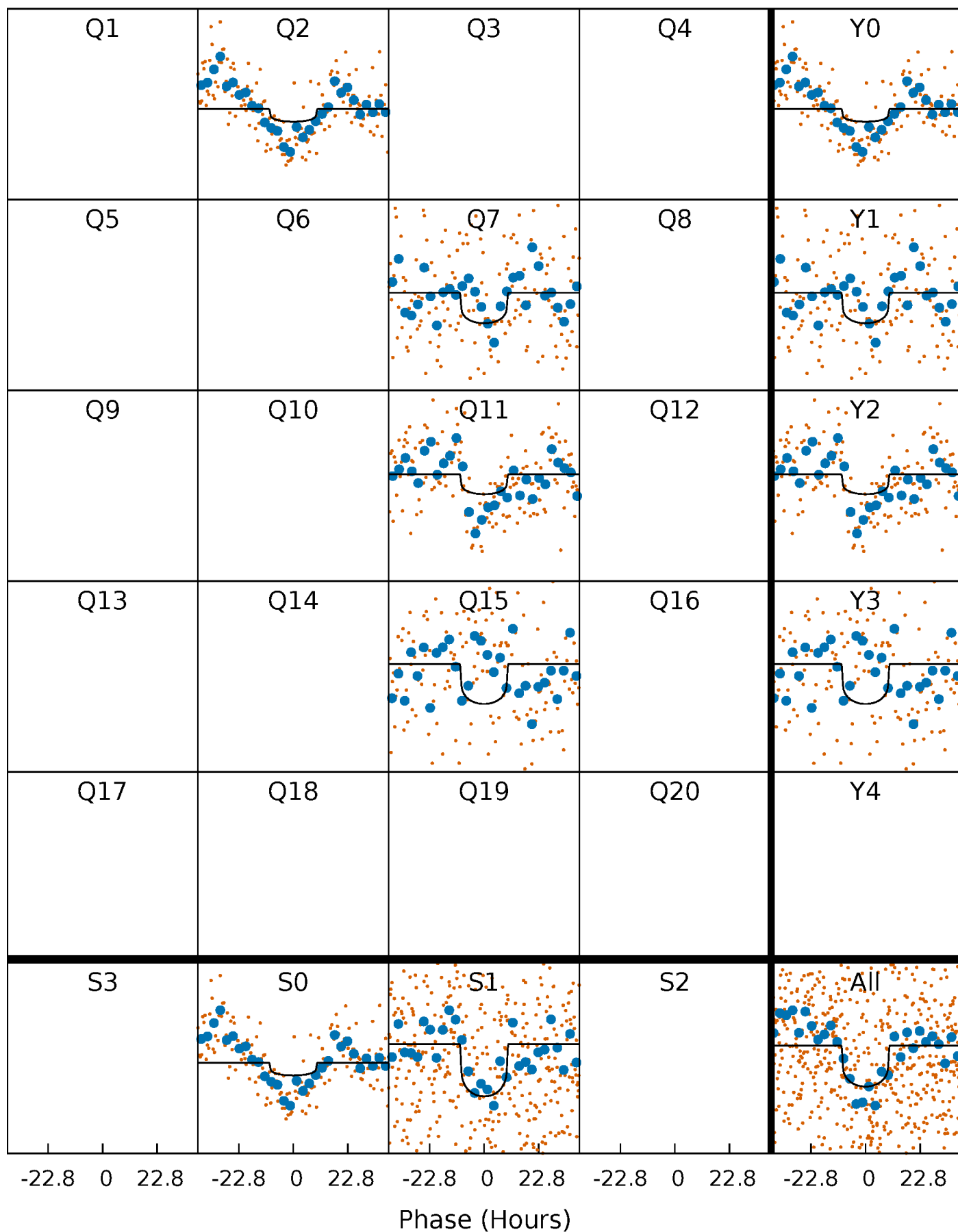
# PDC Quarter-Phased Transit Curves

TCE 007692575-01 P=403.678108 Days  $T_0=235.771620$  (BKJD)



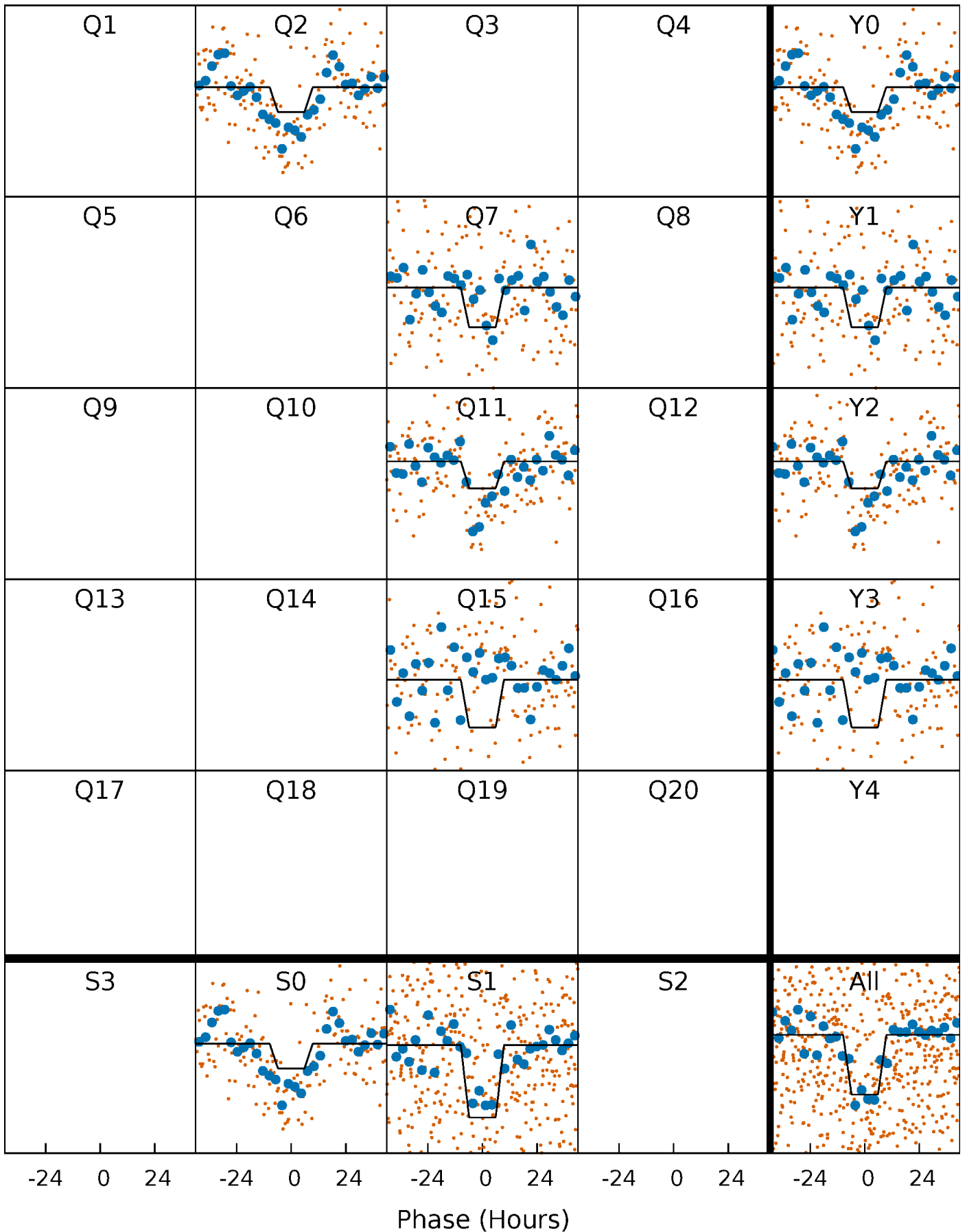
# DV Quarter-Phased Transit Curves

TCE 007692575-01 P=403.678108 Days  $T_0=235.771620$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

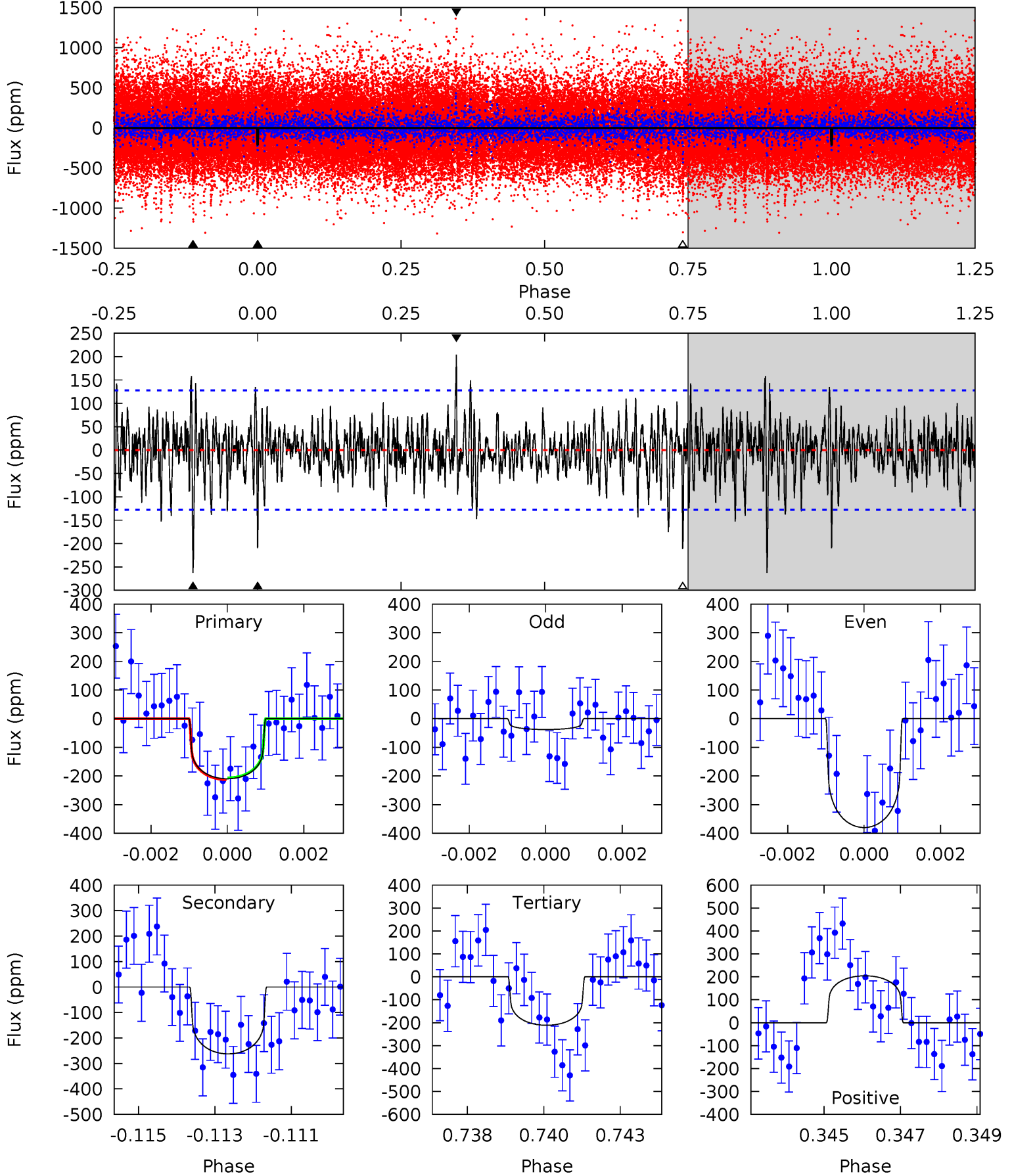
TCE 007692575-01 P=403.658167 Days  $T_0=235.794955$  (BKJD)



# DV Model-Shift Uniqueness Test

007692575-01, P = 403.678108 Days, E = 235.771620 Days

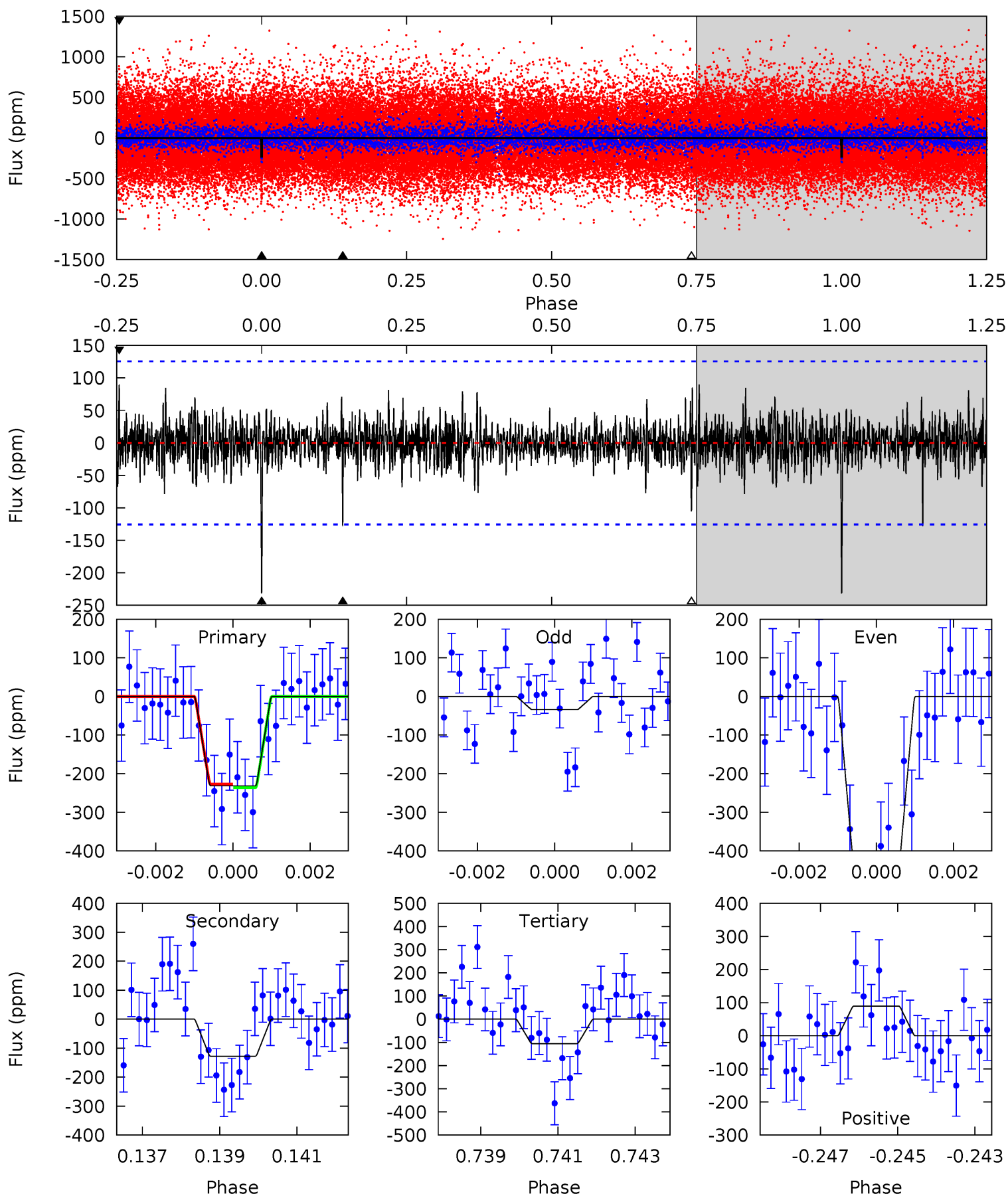
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.73	10.9	8.79	8.51	5.32	3.08	1.89	-0.06	0.22	2.13	2.42	7.12	0.98	0.44	0.13



# Alt Model-Shift Uniqueness Test

007692575-01, P = 403.658167 Days, E = 235.794955 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
9.81	5.42	4.46	3.80	5.33	3.09	0.96	5.35	6.02	0.95	1.62	8.40	0.88	0.28	0.18



### Stellar Parameters For KIC 007692575

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5726^{+158}_{-158}$	$4.564^{+0.033}_{-0.176}$	$-0.220^{+0.300}_{-0.300}$	$0.829^{+0.226}_{-0.071}$	$0.923^{+0.100}_{-0.110}$	$2.283^{+0.413}_{-1.111}$
	+3%/-3%	+1%/-4%	+136%/-136%	+27%/-9%	+11%/-12%	+18%/-49%
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 007692575-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-263 \pm 24$	$1.32^{+0.67}_{-0.63}$	$322^{+18}_{-13}$	$6201^{+2655}_{-1097}$	$89967^{+226543}_{-50870}$
Alt.	$-128 \pm 24$	$1.47^{+0.78}_{-0.71}$	$324^{+22}_{-14}$	$4937^{+1723}_{-725}$	$33306^{+97015}_{-19015}$

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

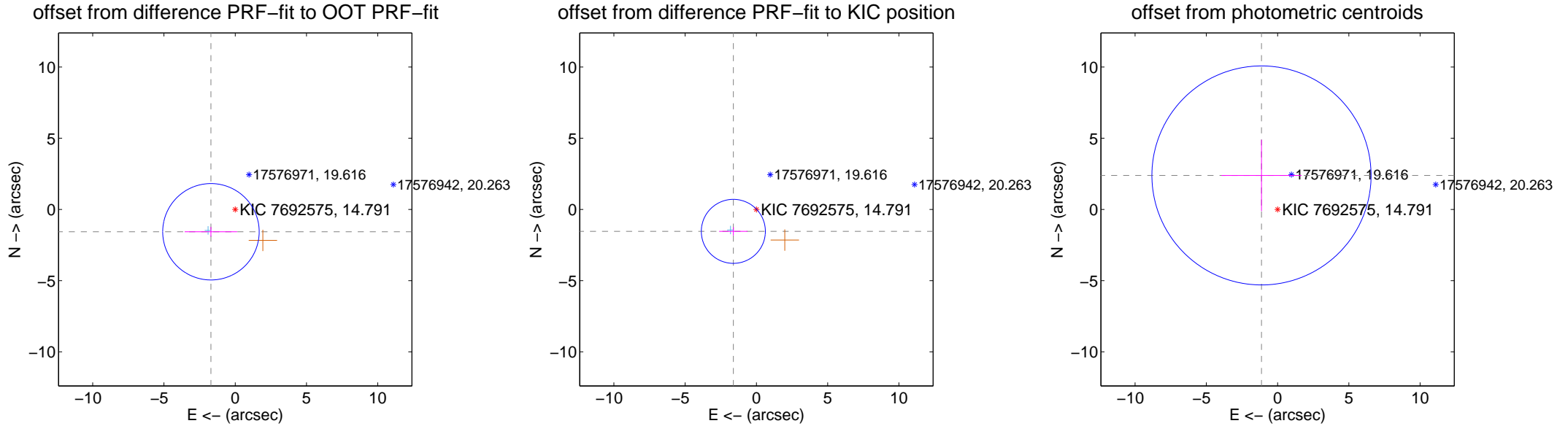
## DV Centroid Data

Supplemental centroid analysis for 007692575-01. Kepler magnitude: 14.79. Transit SNR 5.54

There are 1 quarters with good PRF difference image offsets

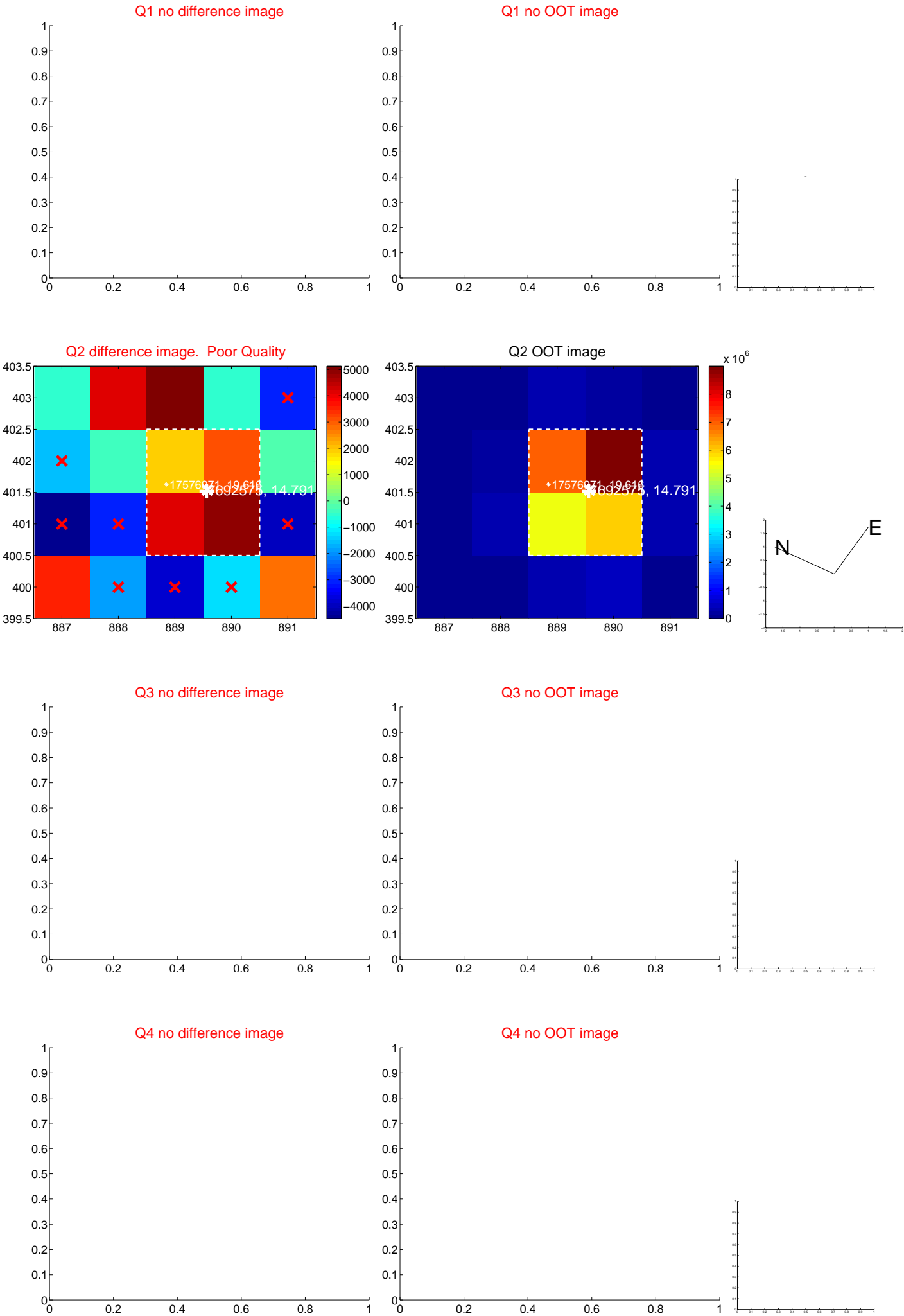
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$2.315 \pm 1.128$	2.05	$1.703 \pm 1.842$	$-1.569 \pm 0.342$
PRF-fit source offset from KIC position	$2.233 \pm 0.749$	2.98	$1.618 \pm 0.996$	$-1.539 \pm 0.291$
photometric centroid source offset	$2.64 \pm 2.56$	1.03	$1.13 \pm 2.81$	$2.39 \pm 2.51$

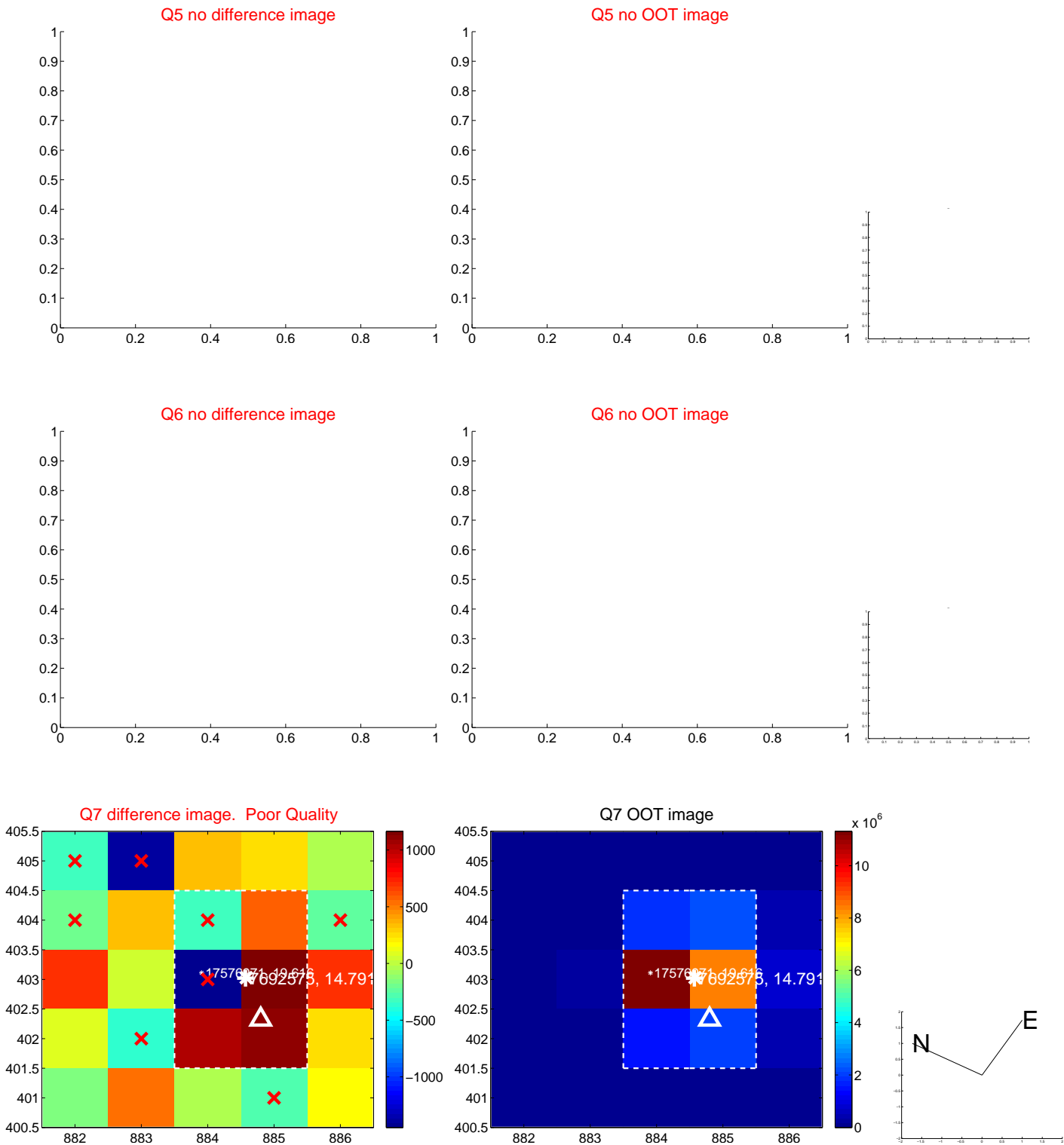


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

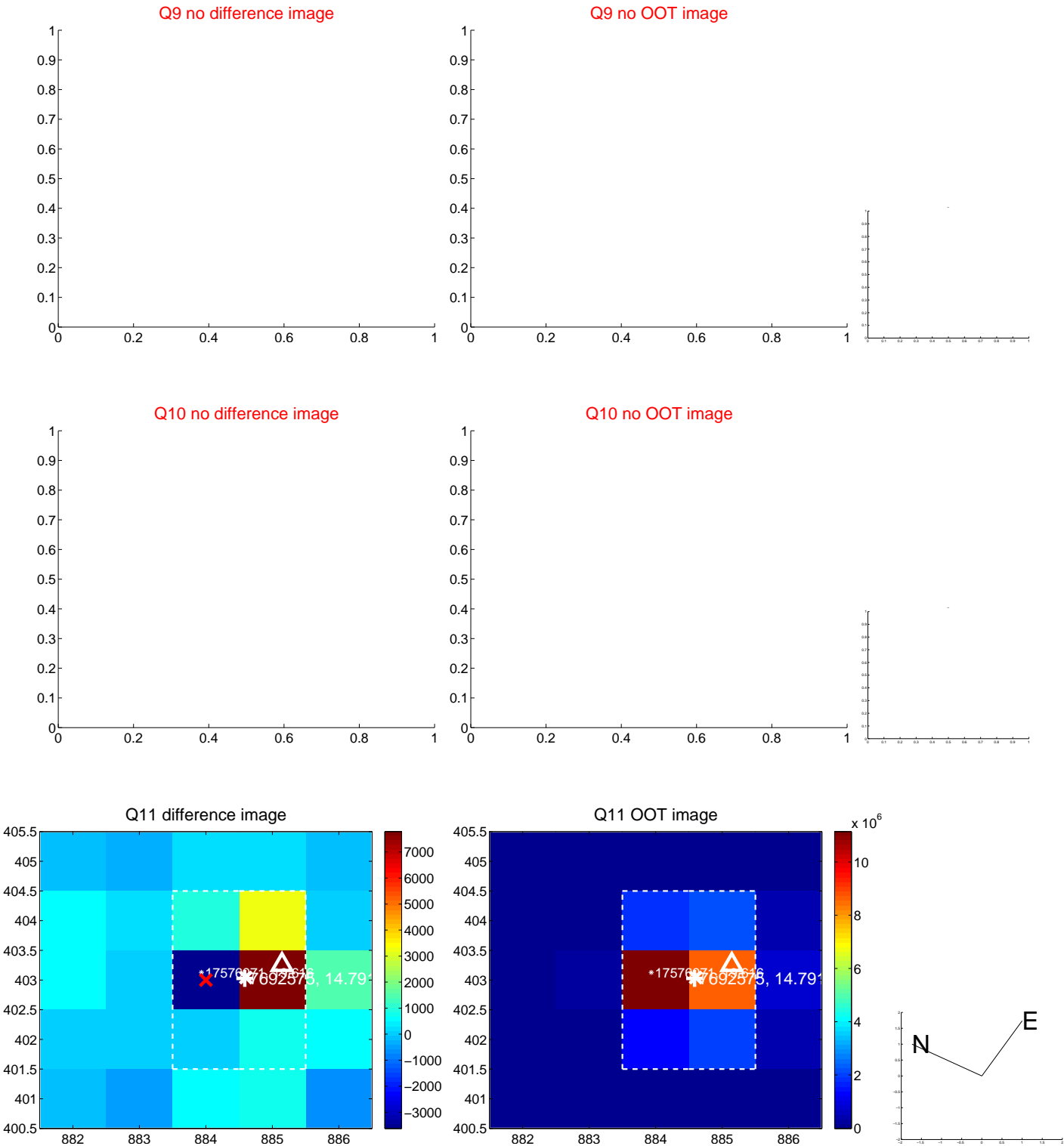
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



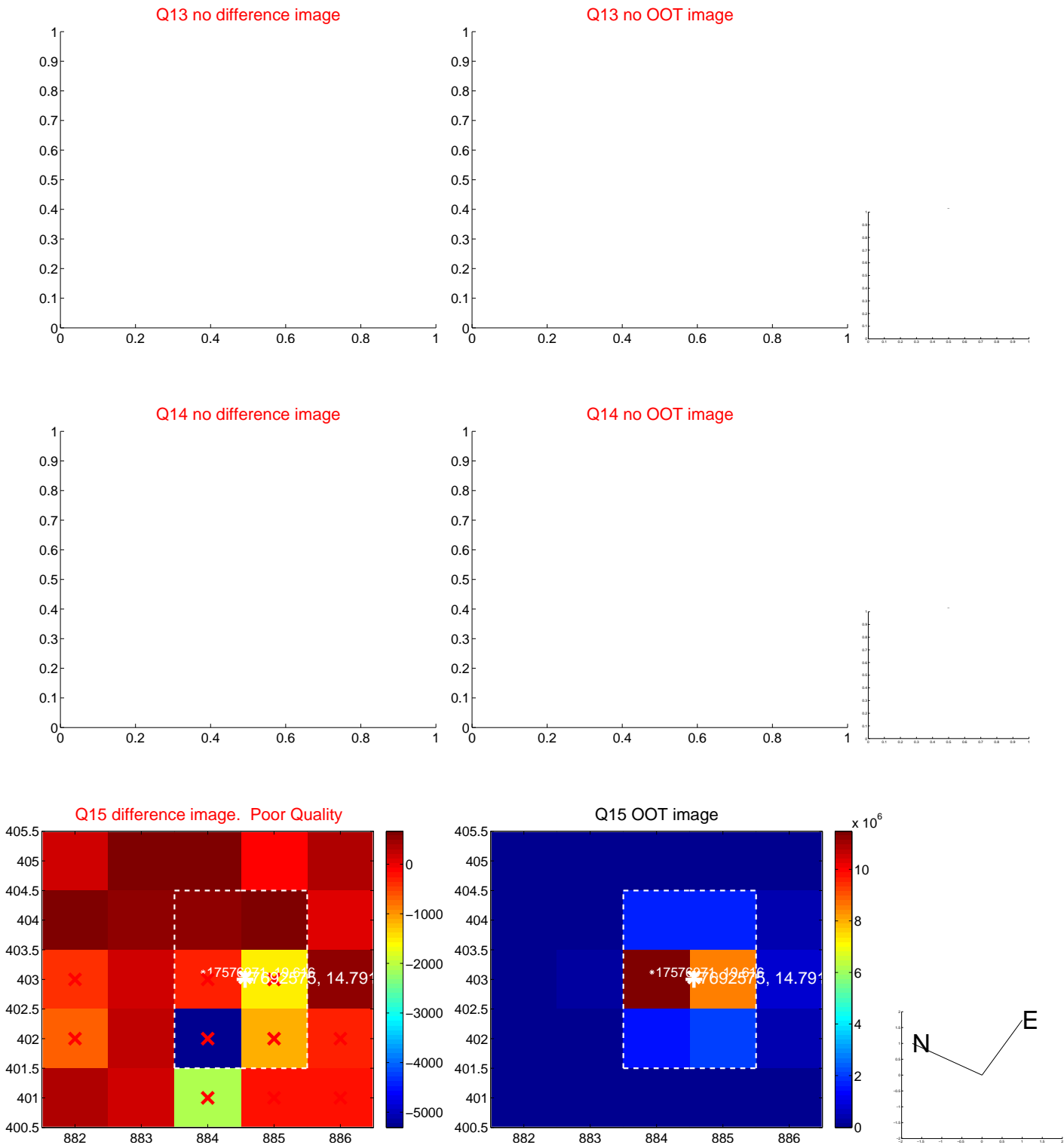
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



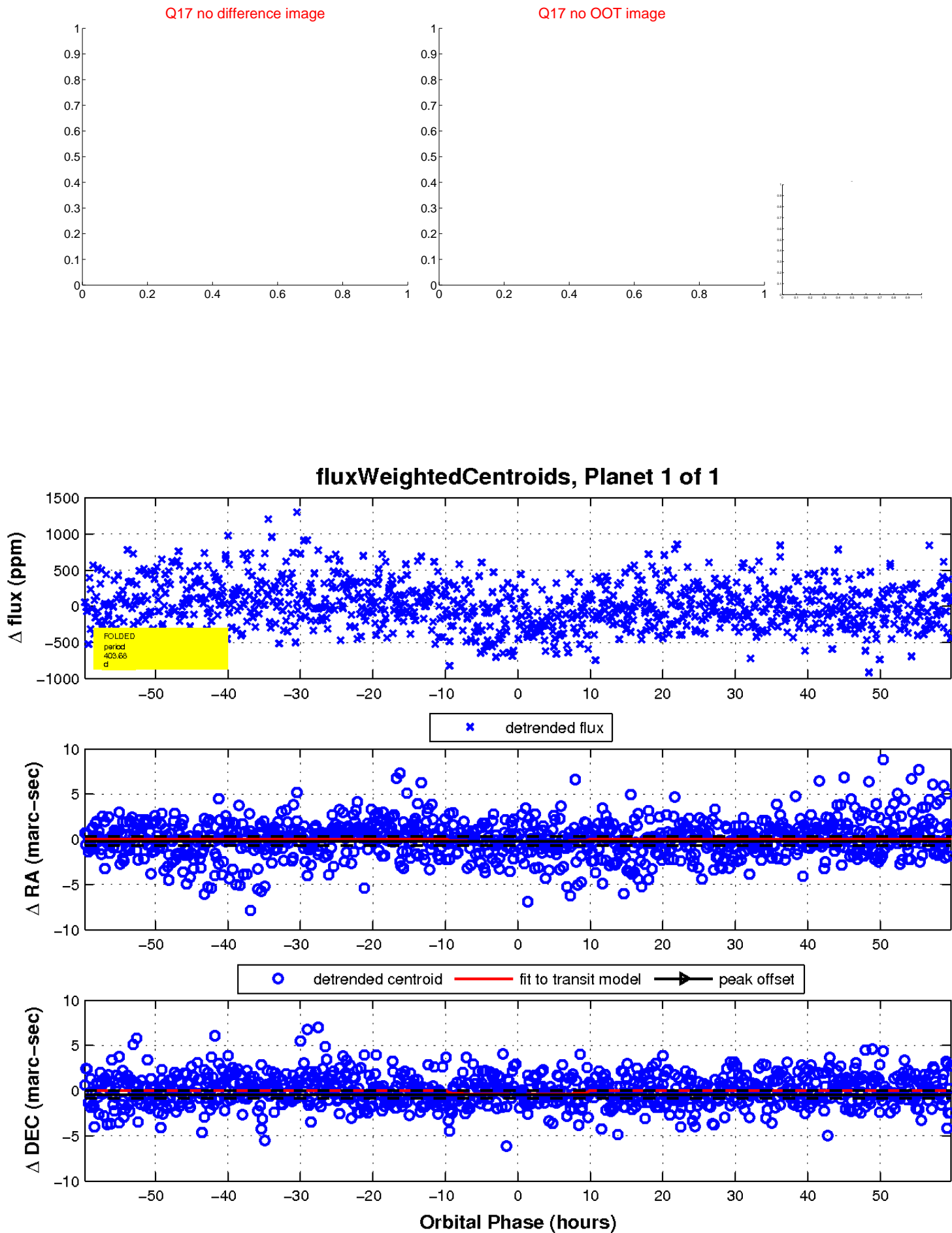
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white ×: 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

