

KIC 008293403

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})
008293403-01	OBS	No	391.609947	175.506386	542.8	15.022	8.8	7.8	1.02	5778	2.55	1.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008293403-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

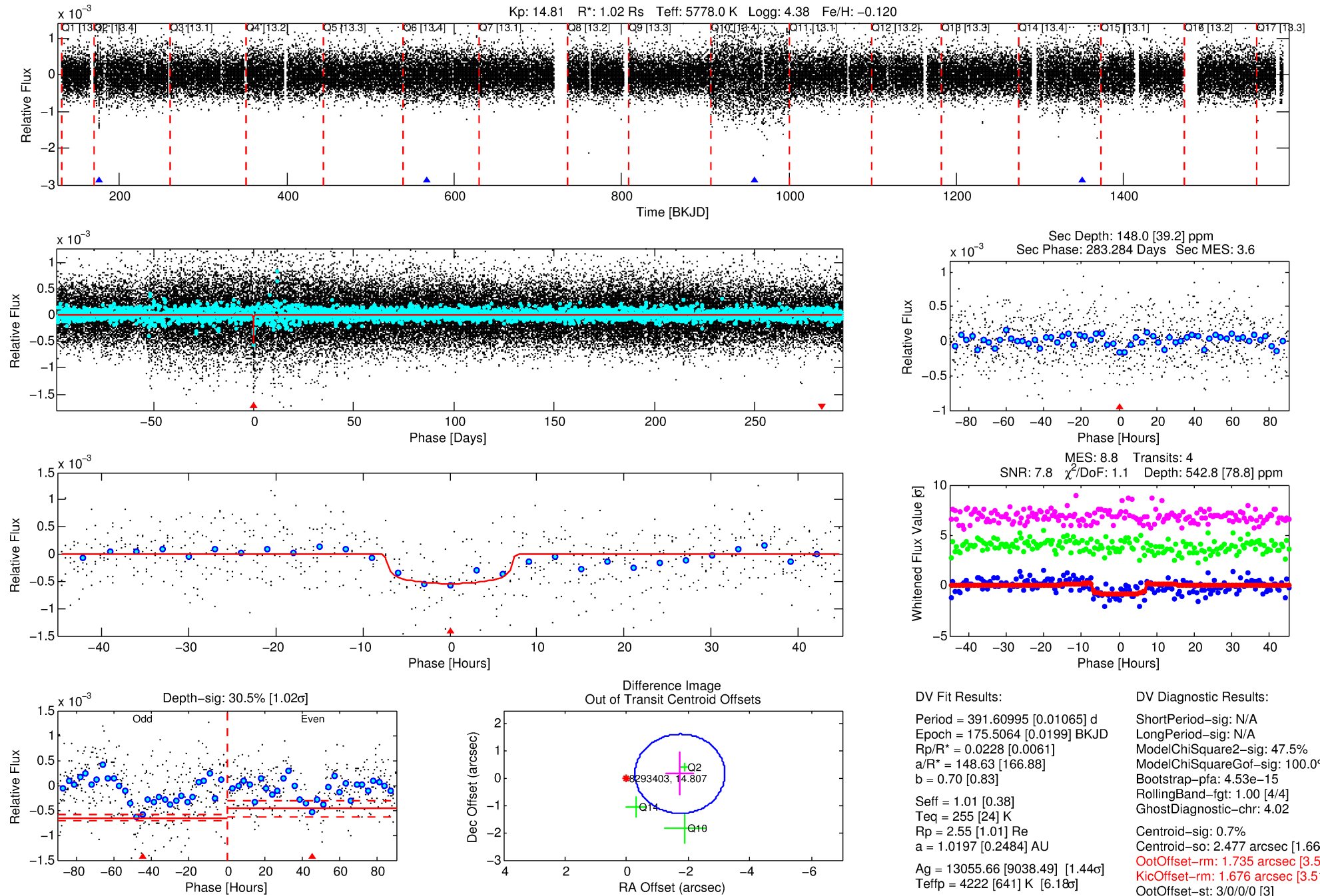
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008293403-01

No Significant Match Found

DV One-Page Summary

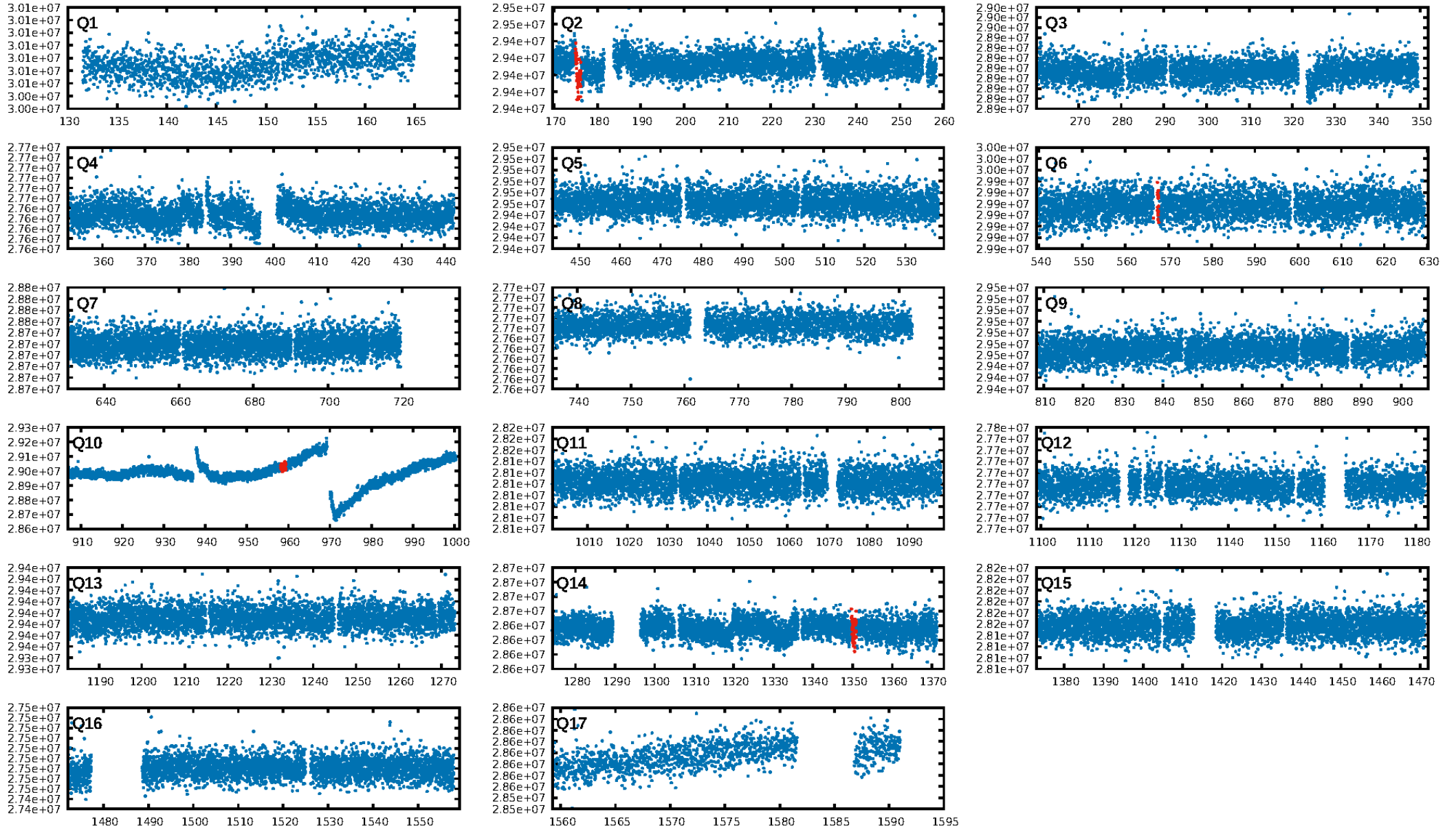
KIC: 8293403 Candidate: 1 of 1 Period: 391.610 d



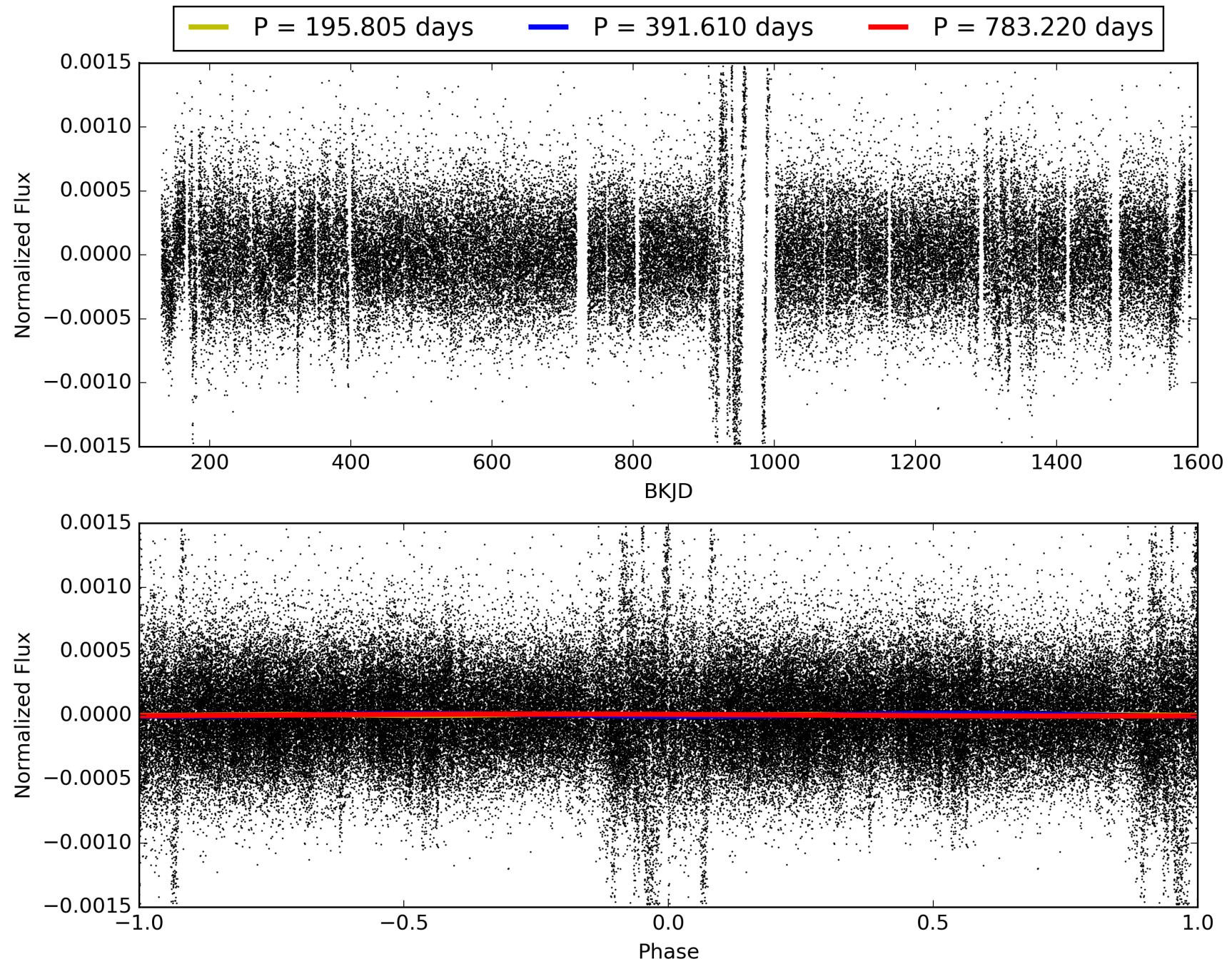
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:22:34 Z

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

TCE 008293403-01, PDC Light Curves

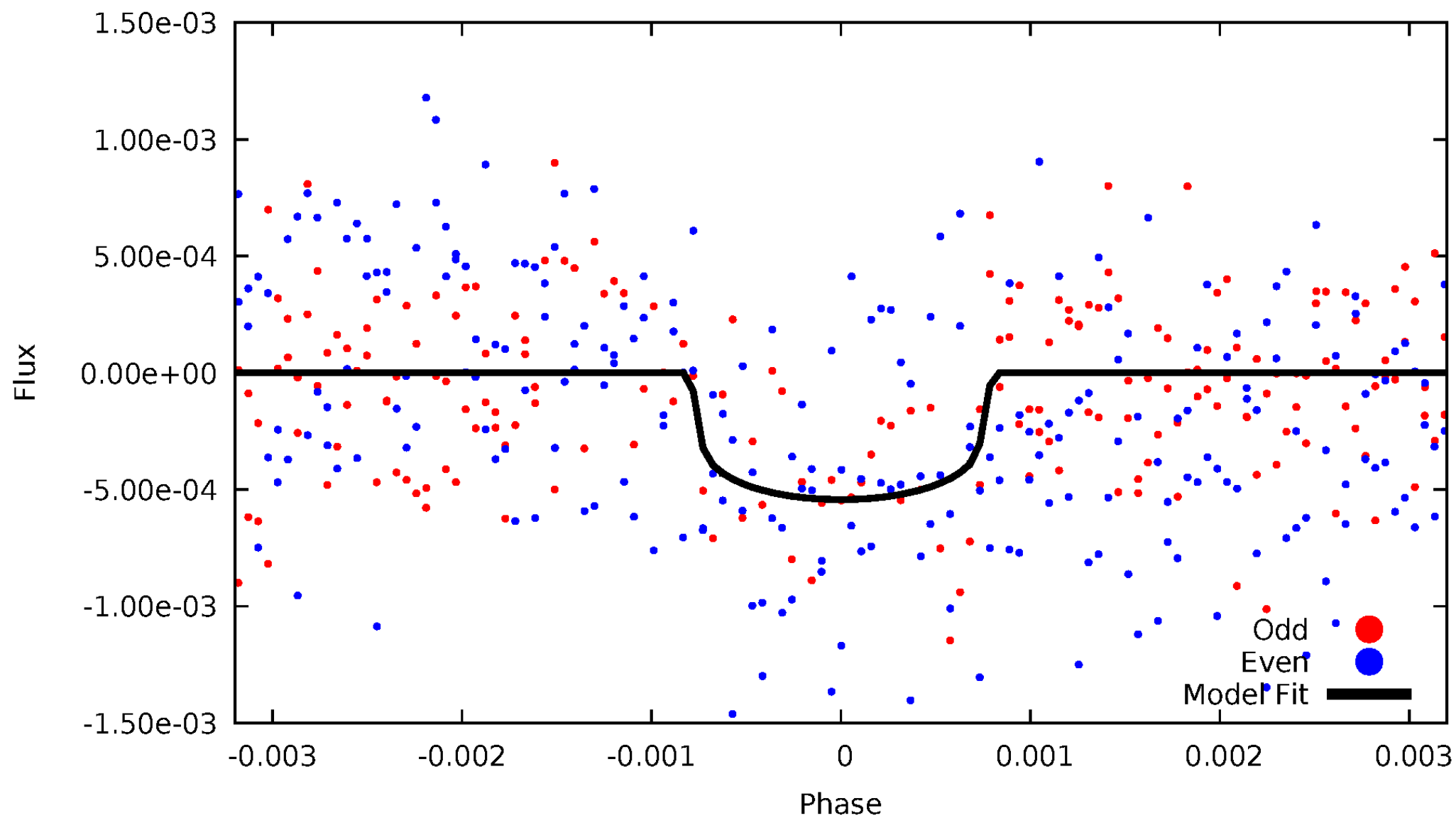


TCE 008293403-01



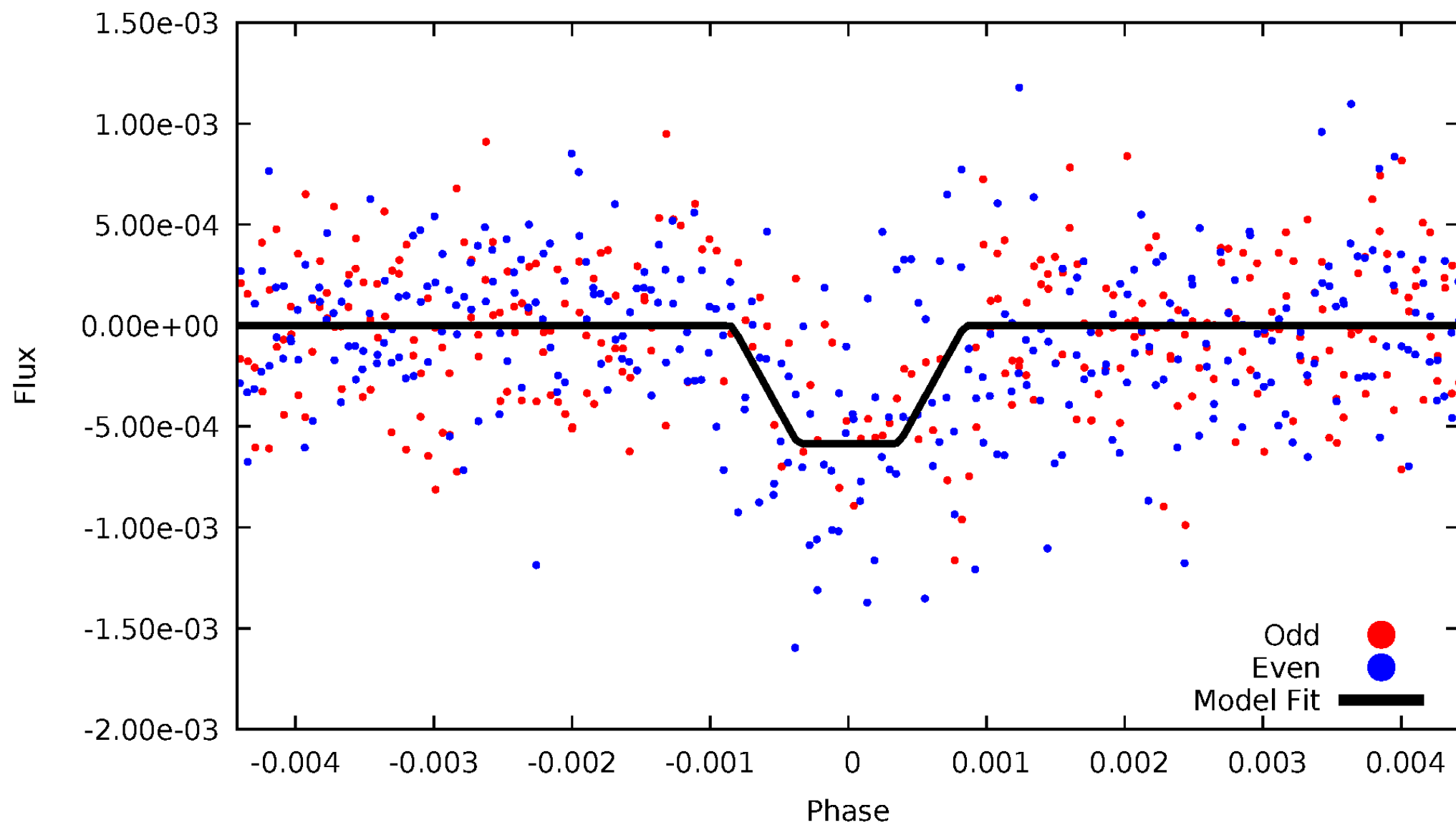
DV Odd/Even

TCE 008293403-01



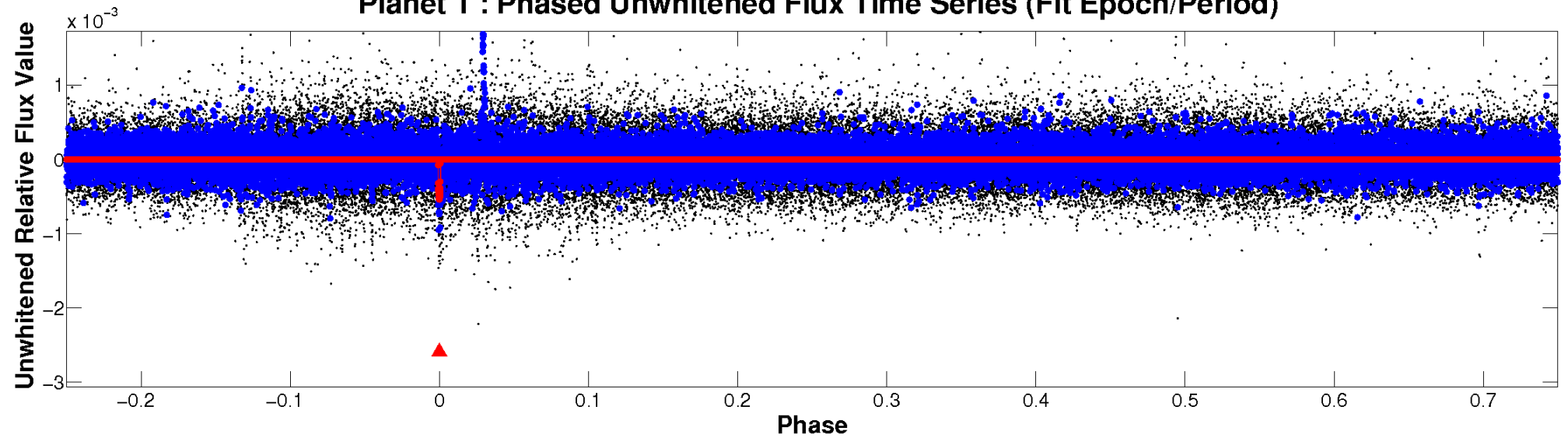
ALT Odd/Even

TCE 008293403-01

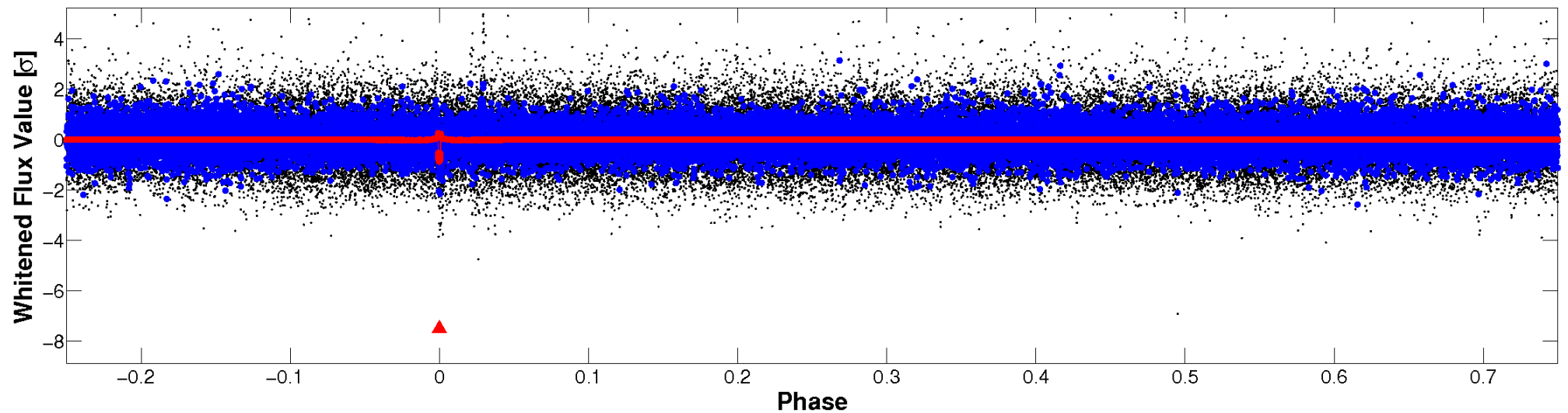


Non-Whitened Vs. Whitened Light Curve

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

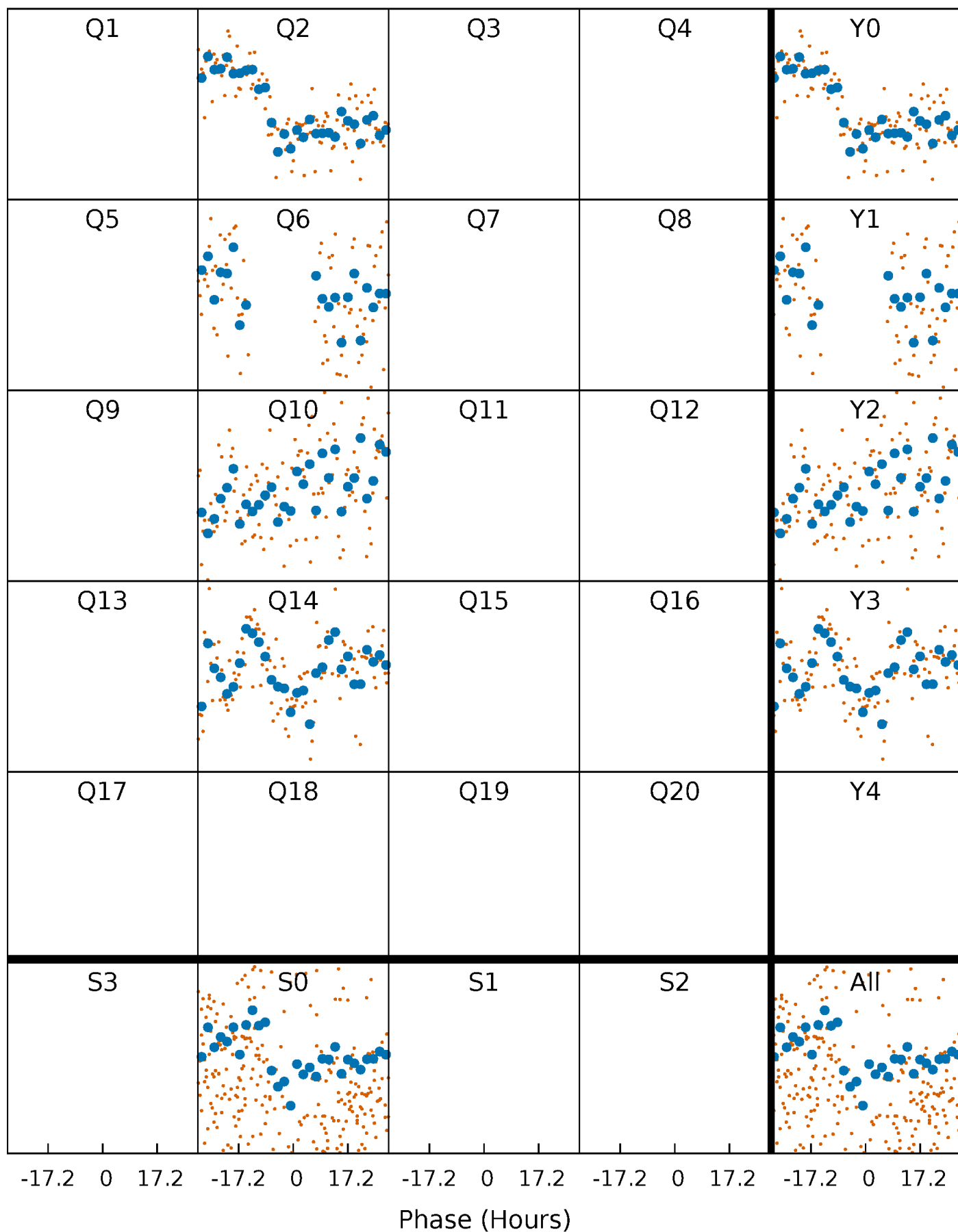


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



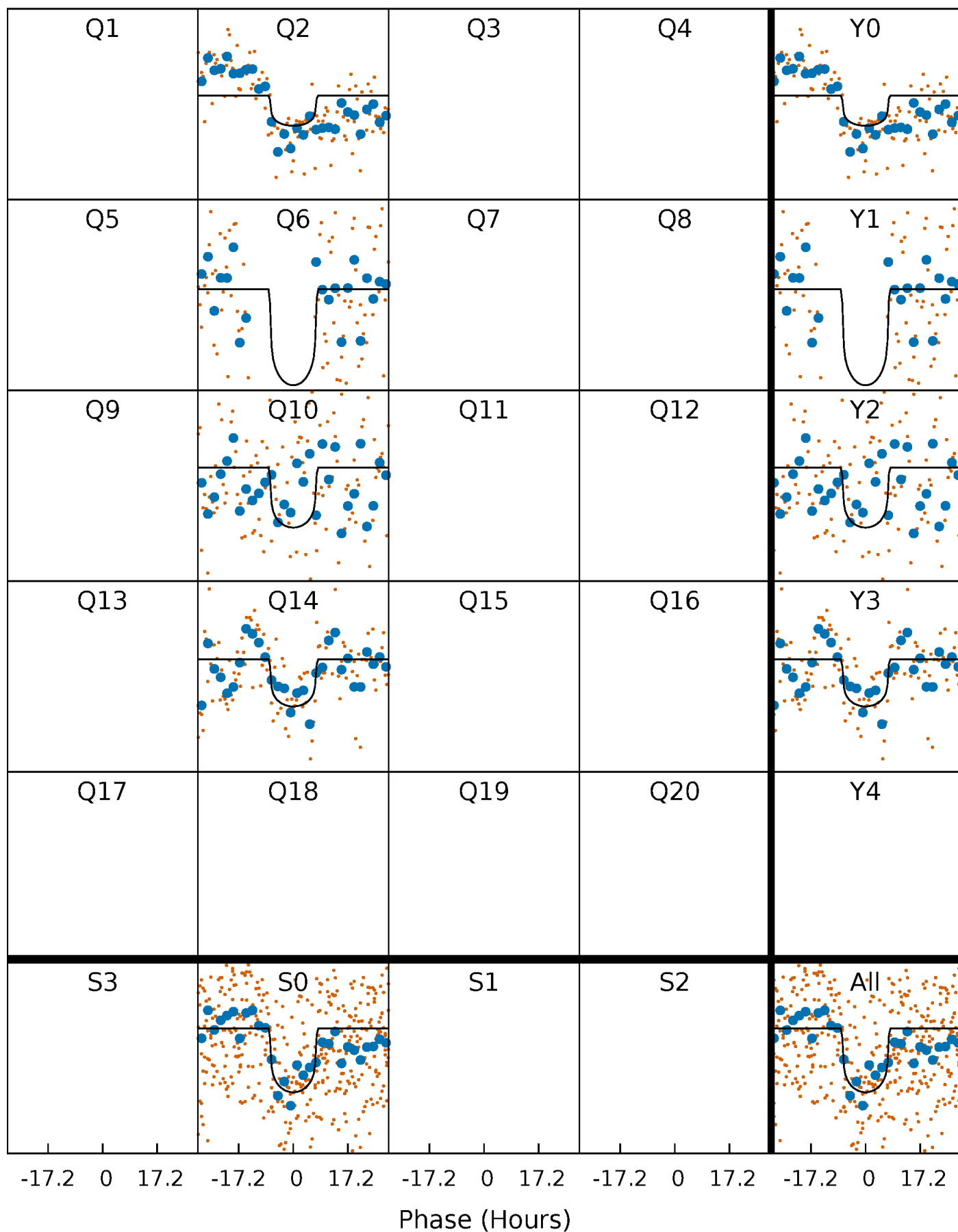
PDC Quarter-Phased Transit Curves

TCE 008293403-01 P=391.609947 Days $T_0=175.506386$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008293403-01 P=391.609947 Days $T_0=175.506386$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

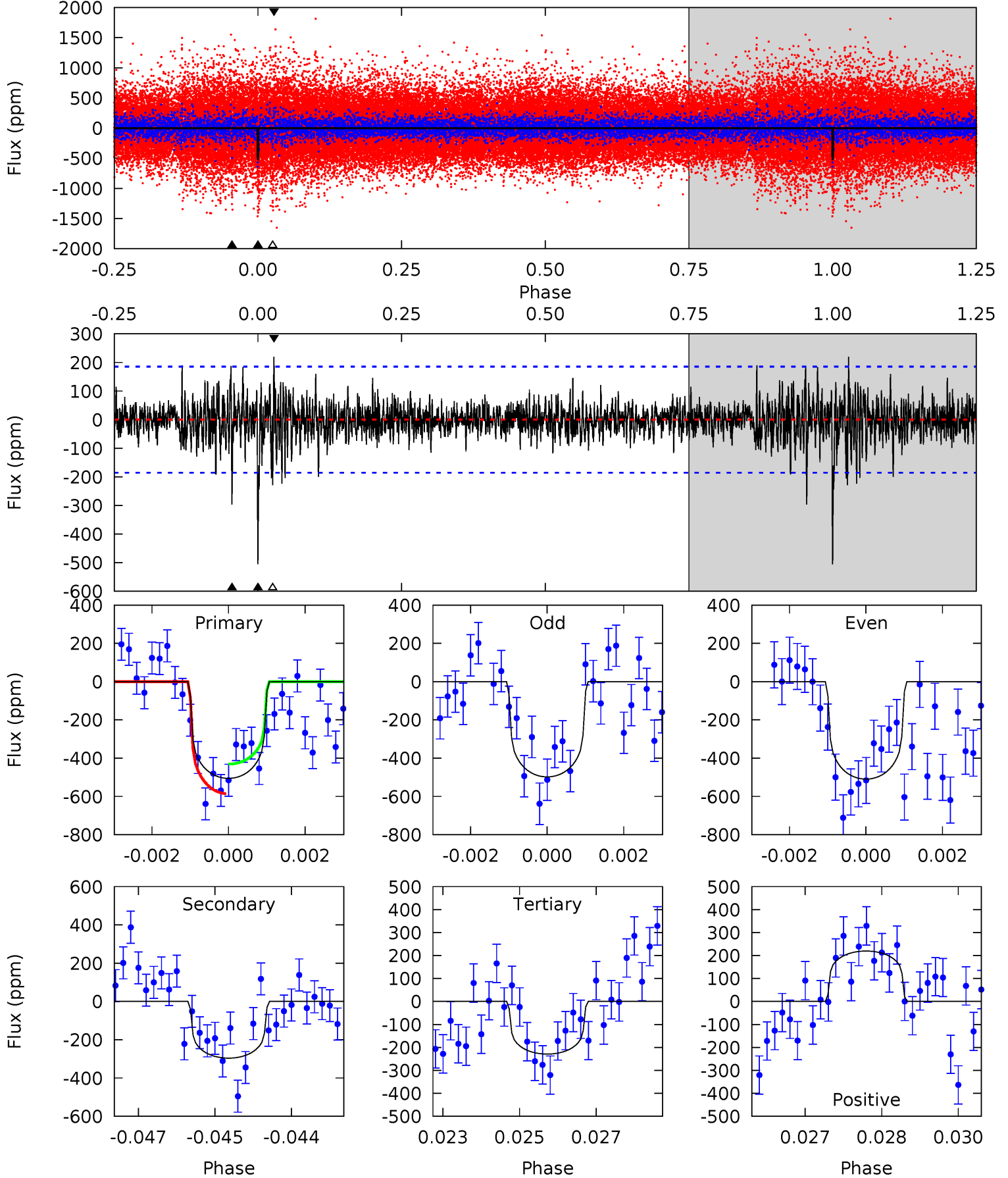
TCE 008293403-01 $P=391.609177$ Days $T_0=175.433290$ (BKJD)



DV Model-Shift Uniqueness Test

008293403-01, P = 391.609947 Days, E = 175.506386 Days

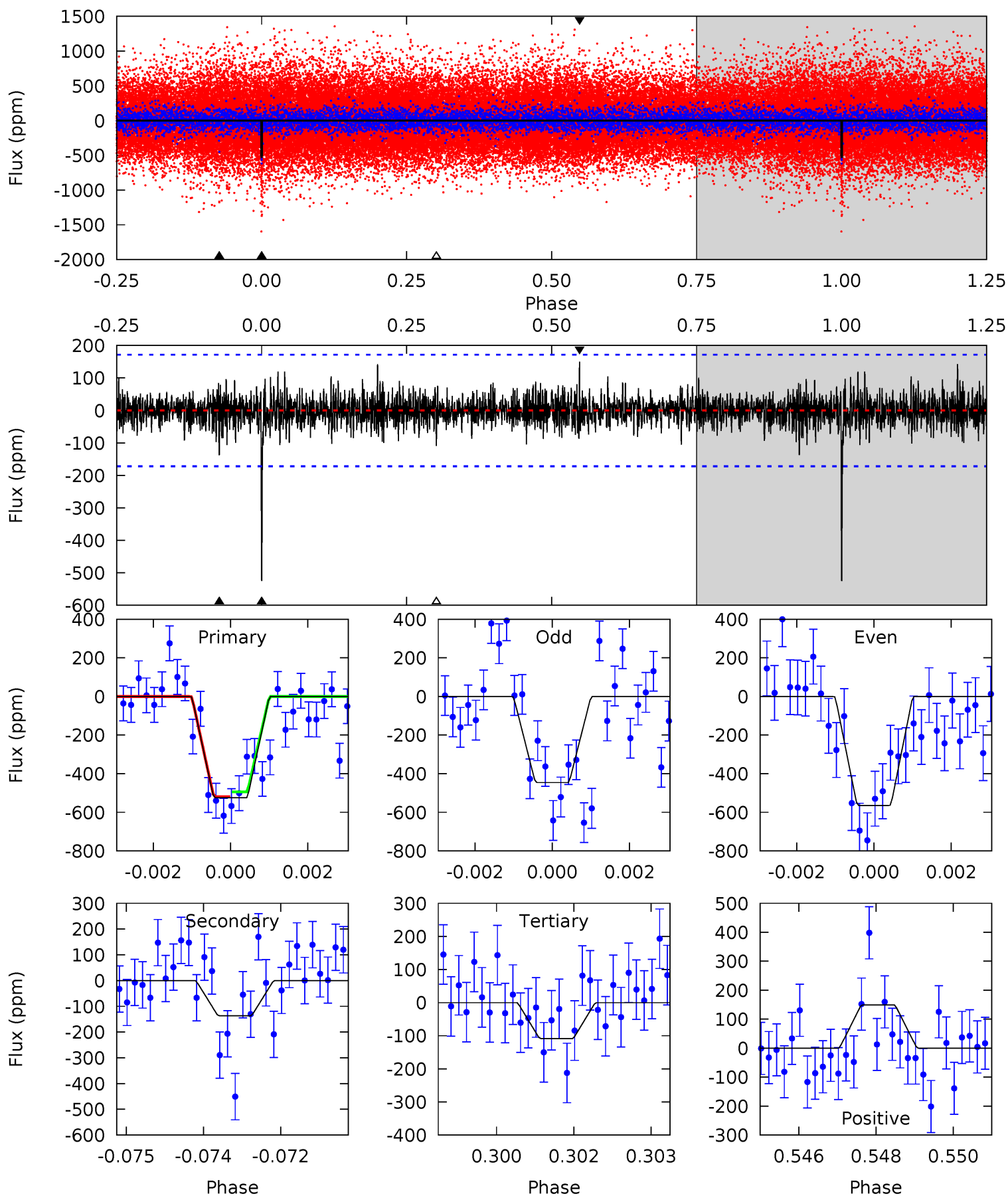
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	8.57	6.63	6.36	5.37	3.16	1.36	8.00	8.28	1.94	2.22	0.16	1.06	0.30	2.25



Alt Model-Shift Uniqueness Test

008293403-01, P = 391.609177 Days, E = 175.433290 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	4.27	3.40	4.67	5.36	3.14	1.04	13.0	11.7	0.87	-0.40	1.74	1.18	0.22	0.40



Stellar Parameters For KIC 008293403

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5778^{+156}_{-173}	$4.382^{+0.144}_{-0.192}$	$-0.120^{+0.300}_{-0.300}$	$1.024^{+0.298}_{-0.161}$	$0.922^{+0.124}_{-0.093}$	$1.210^{+0.685}_{-0.591}$
	+3%/-3%	+3%/-4%	+250%/-250%	+29%/-16%	+13%/-10%	+57%/-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 008293403-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-296 ± 35	$2.57^{+0.88}_{-0.74}$	357^{+30}_{-22}	5099^{+836}_{-547}	26261^{+23842}_{-12102}
Alt.	-137 ± 32	$2.78^{+0.83}_{-0.72}$	358^{+29}_{-21}	4218^{+509}_{-356}	10017^{+8650}_{-4423}

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

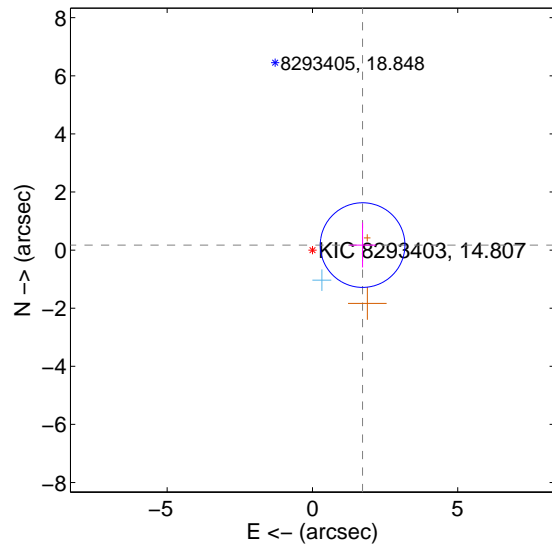
Supplemental centroid analysis for 008293403-01. Kepler magnitude: 14.81. Transit SNR 7.81

There are 1 quarters with good PRF difference image offsets

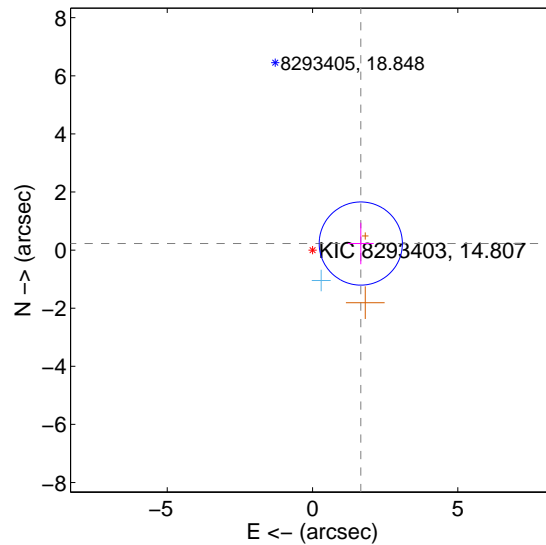
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.735 ± 0.486	3.57	-1.726 ± 0.456	0.173 ± 0.770
PRF-fit source offset from KIC position	1.676 ± 0.477	3.51	-1.661 ± 0.443	0.226 ± 0.713
photometric centroid source offset	2.48 ± 1.49	1.66	-0.30 ± 1.53	2.46 ± 1.49

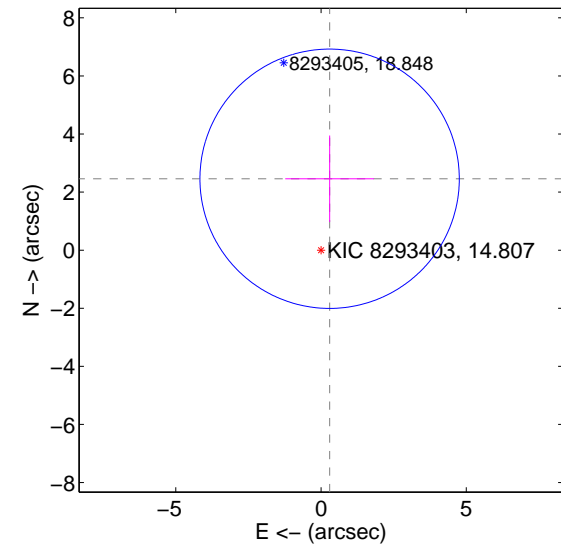
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

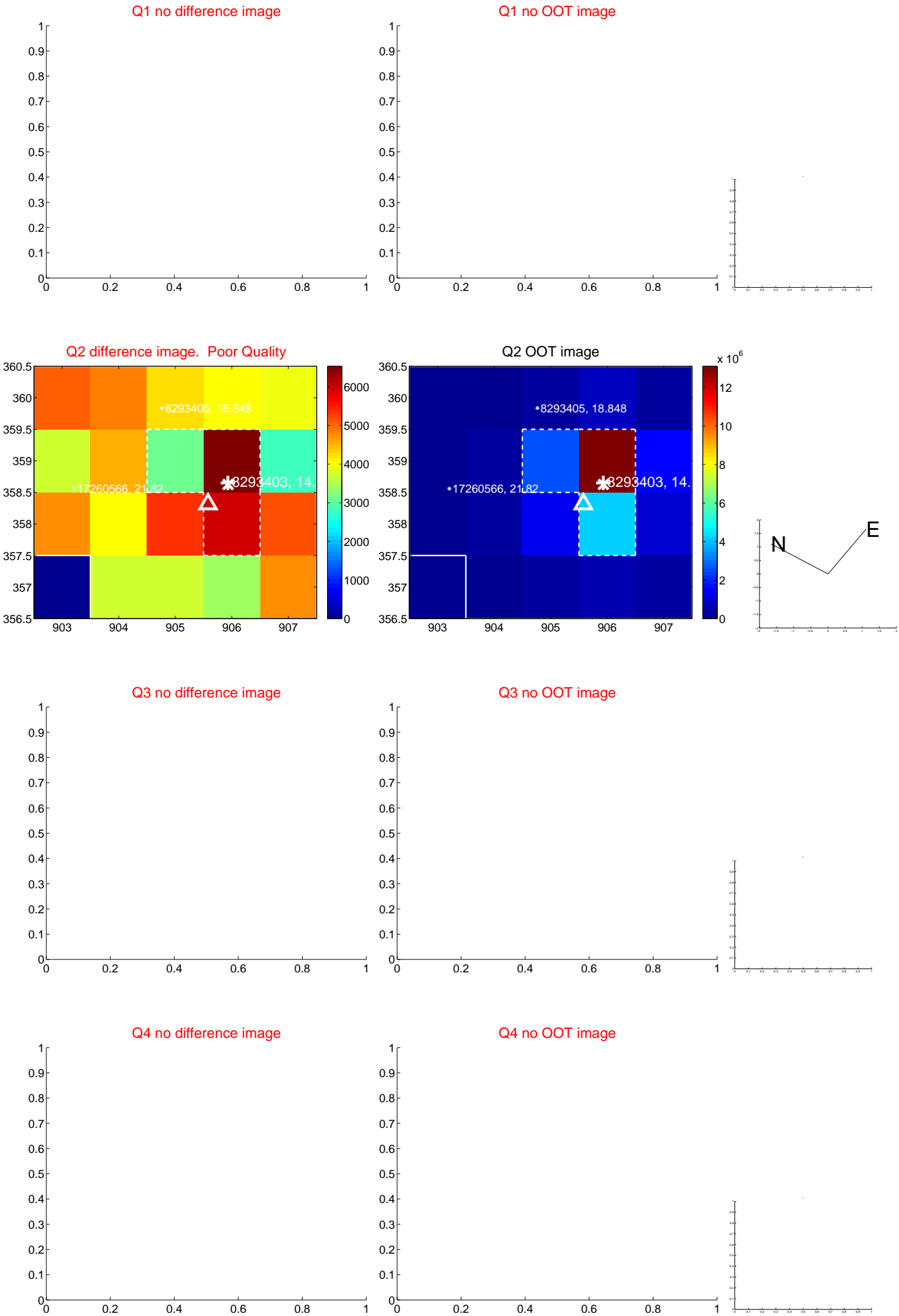


offset from photometric centroids



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- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

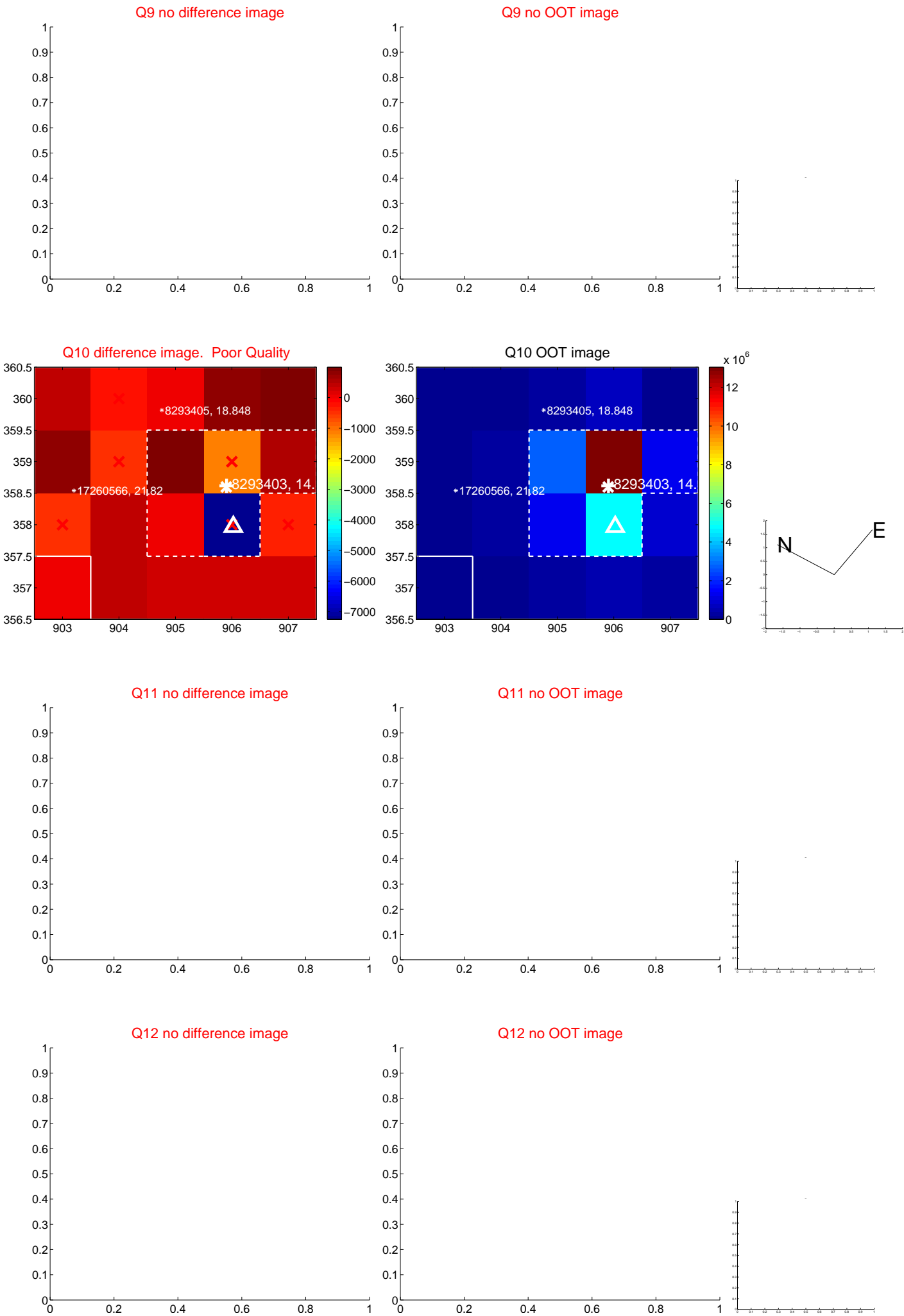
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



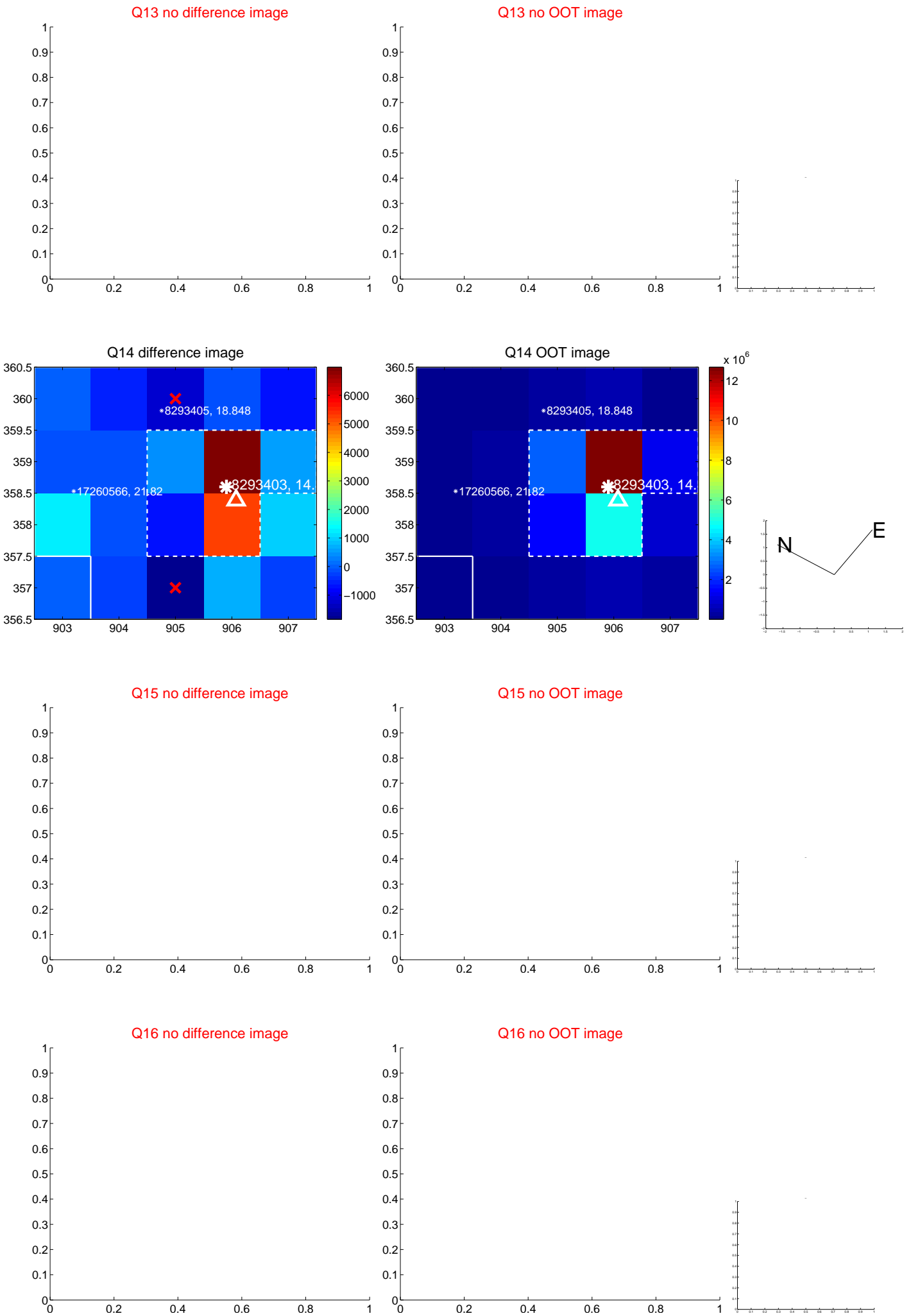
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



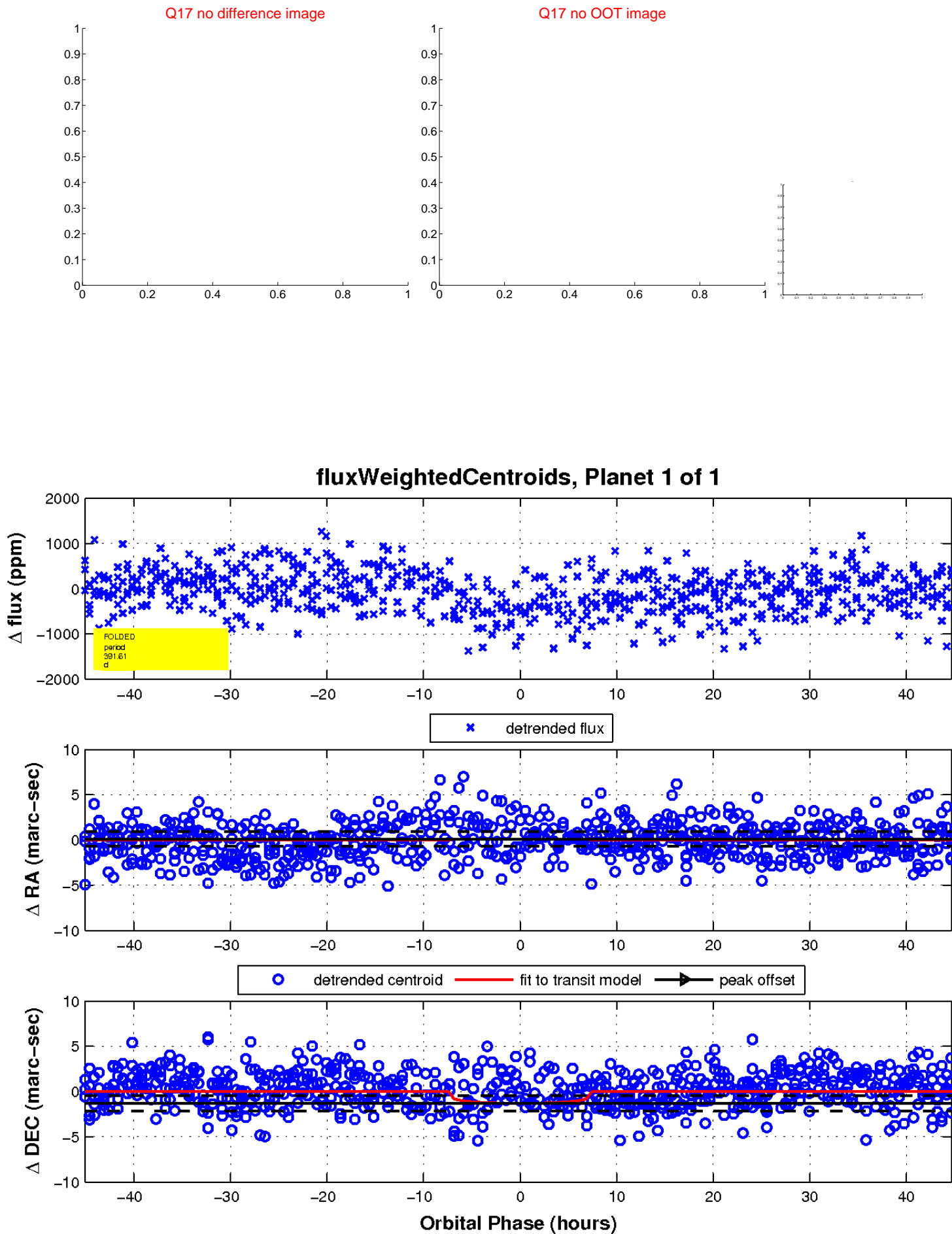
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

