

KIC 007881991

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})
007881991-01	OBS	No	426.663774	468.189898	460.6	11.787	8.0	7.3	1.55	5179	3.65	1.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007881991-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

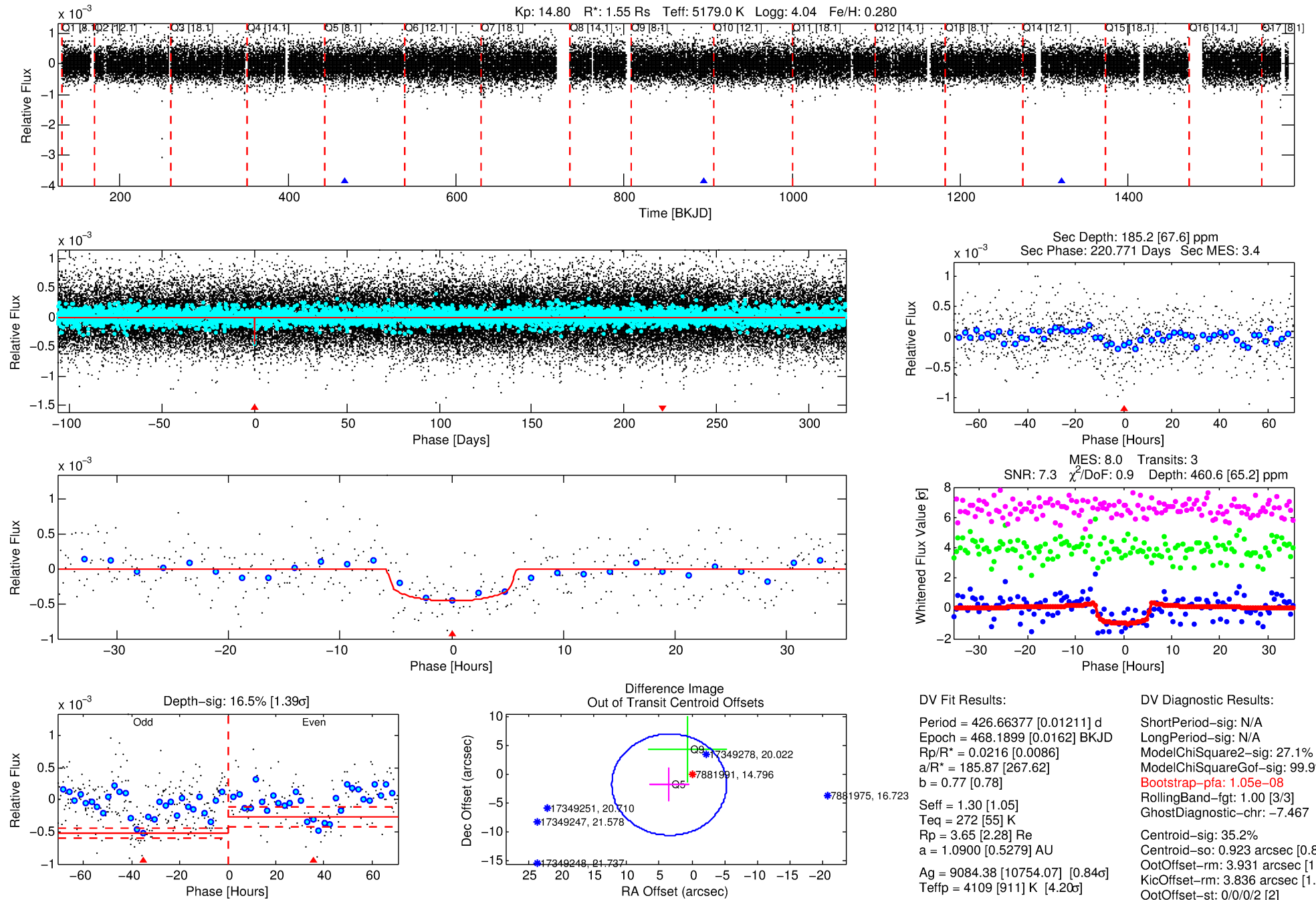
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007881991-01

No Significant Match Found

DV One-Page Summary

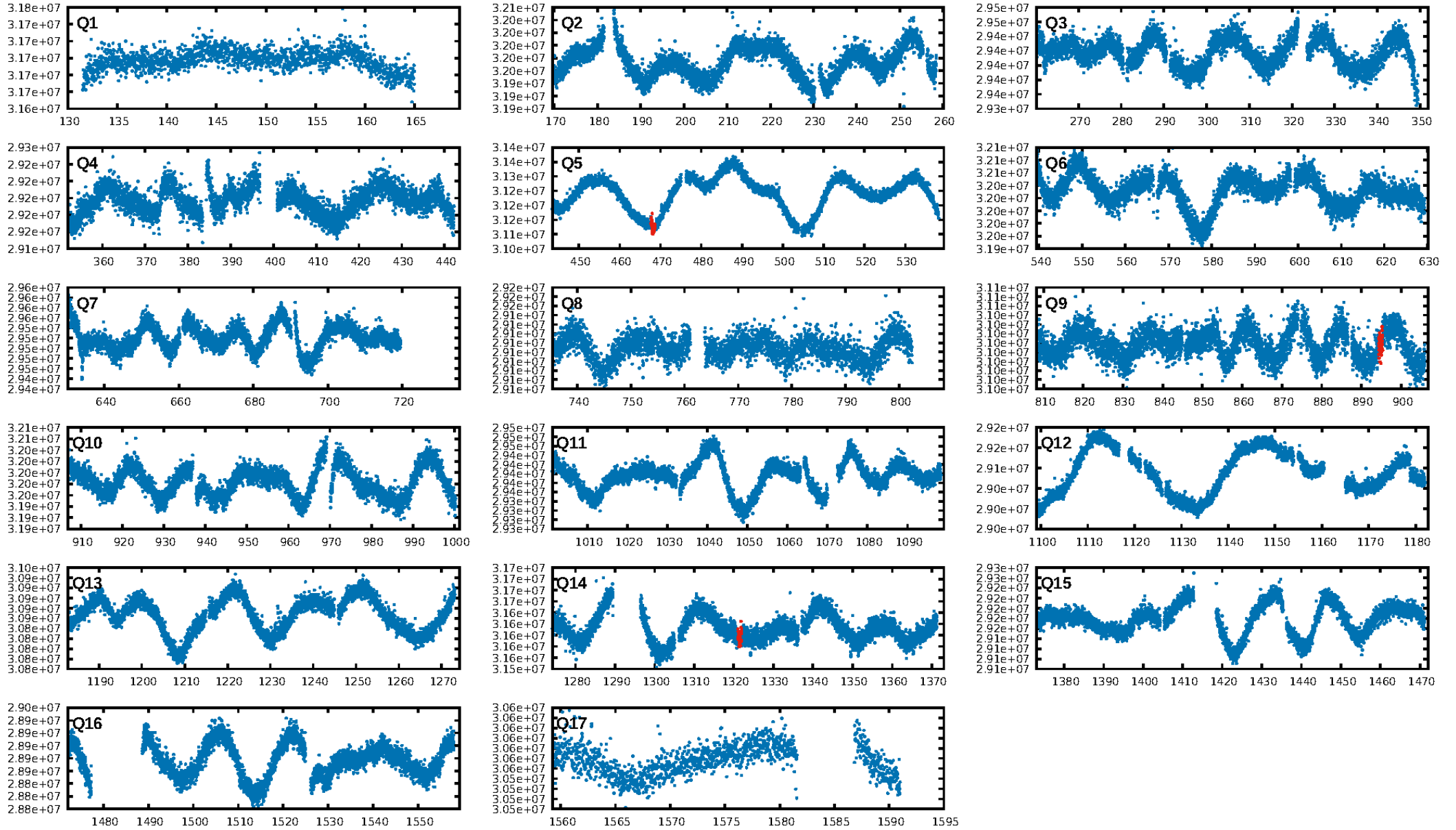
KIC: 7881991 Candidate: 1 of 1 Period: 426.664 d



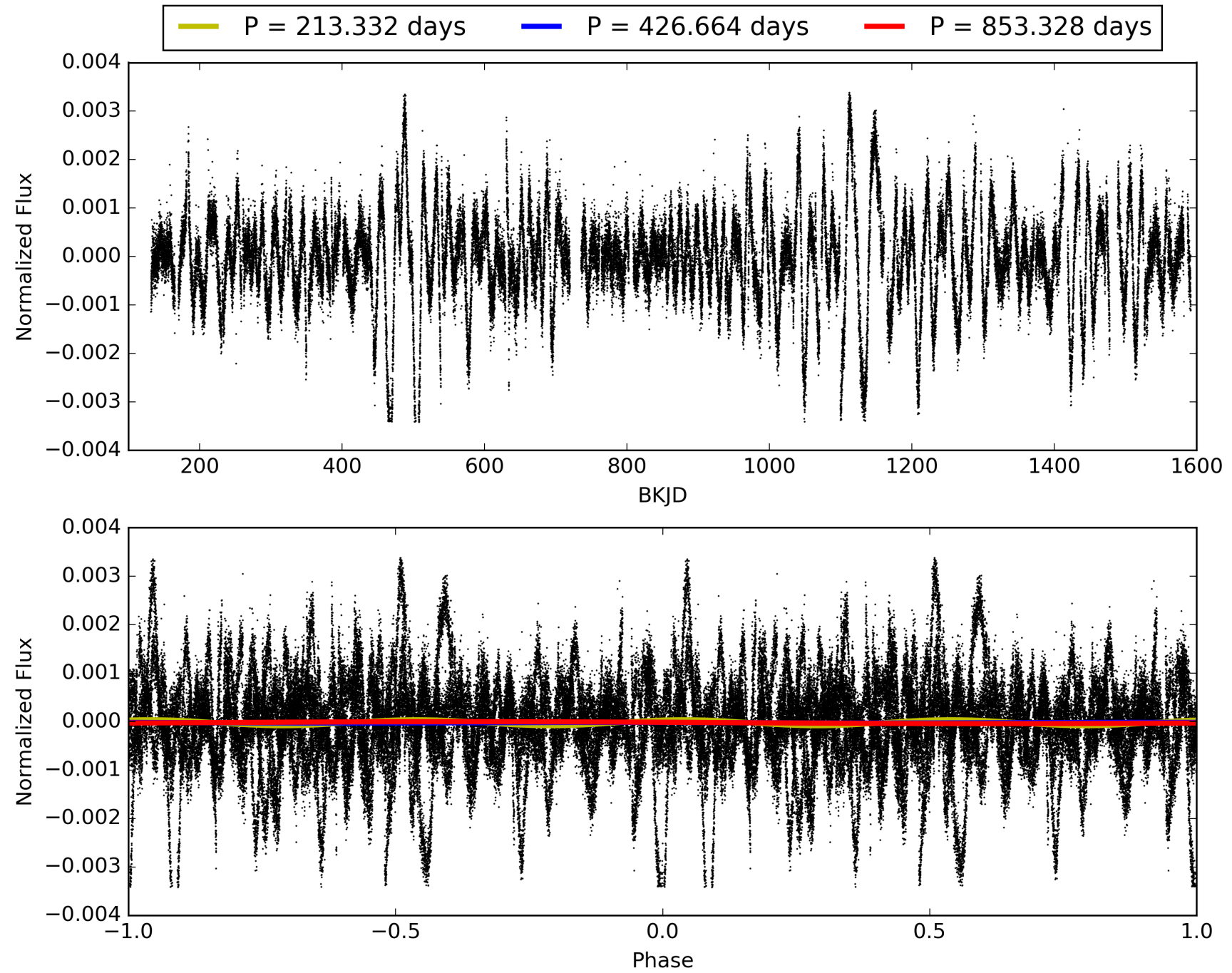
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:38:48 Z

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

TCE 007881991-01, PDC Light Curves

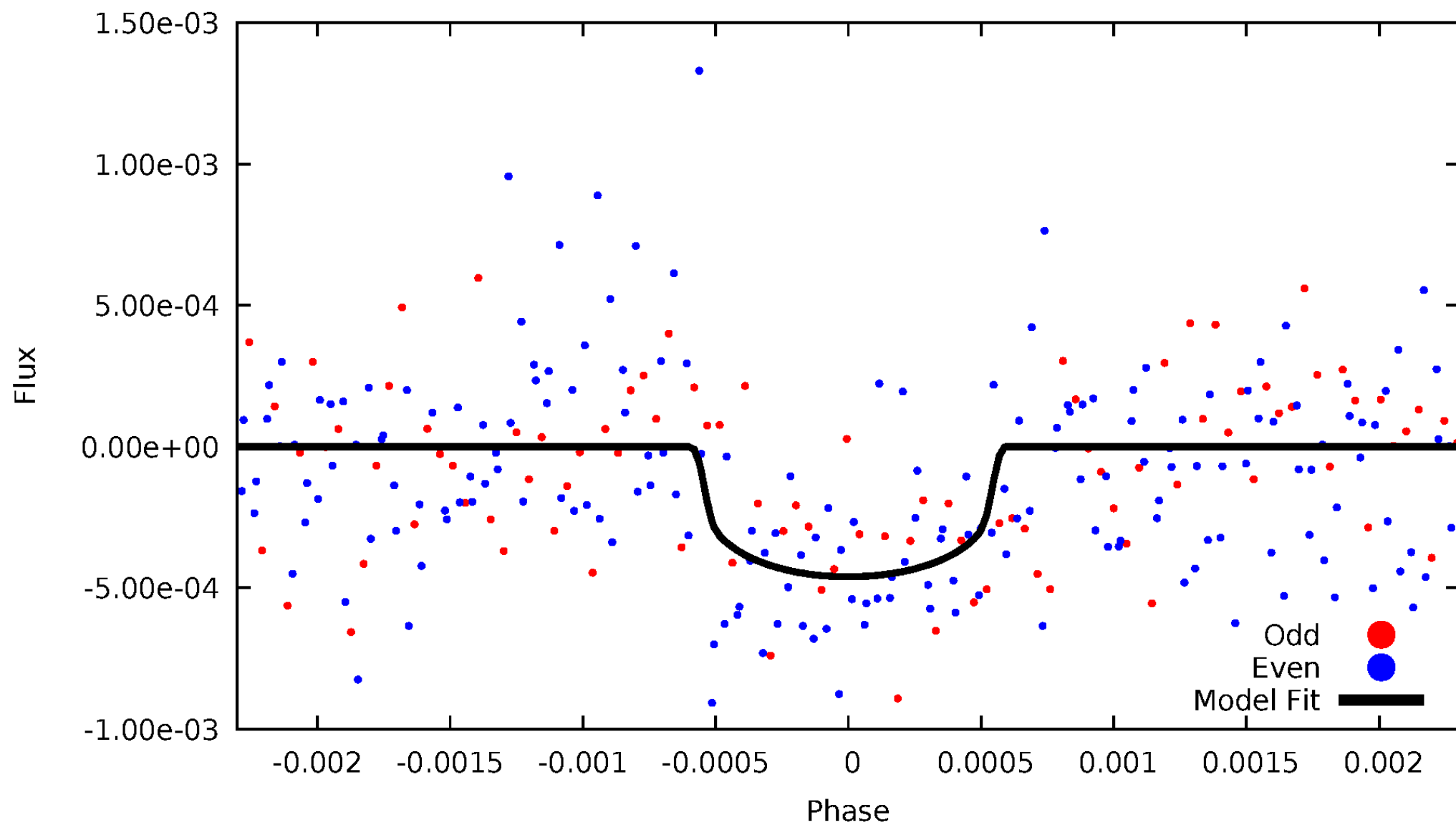


TCE 007881991-01



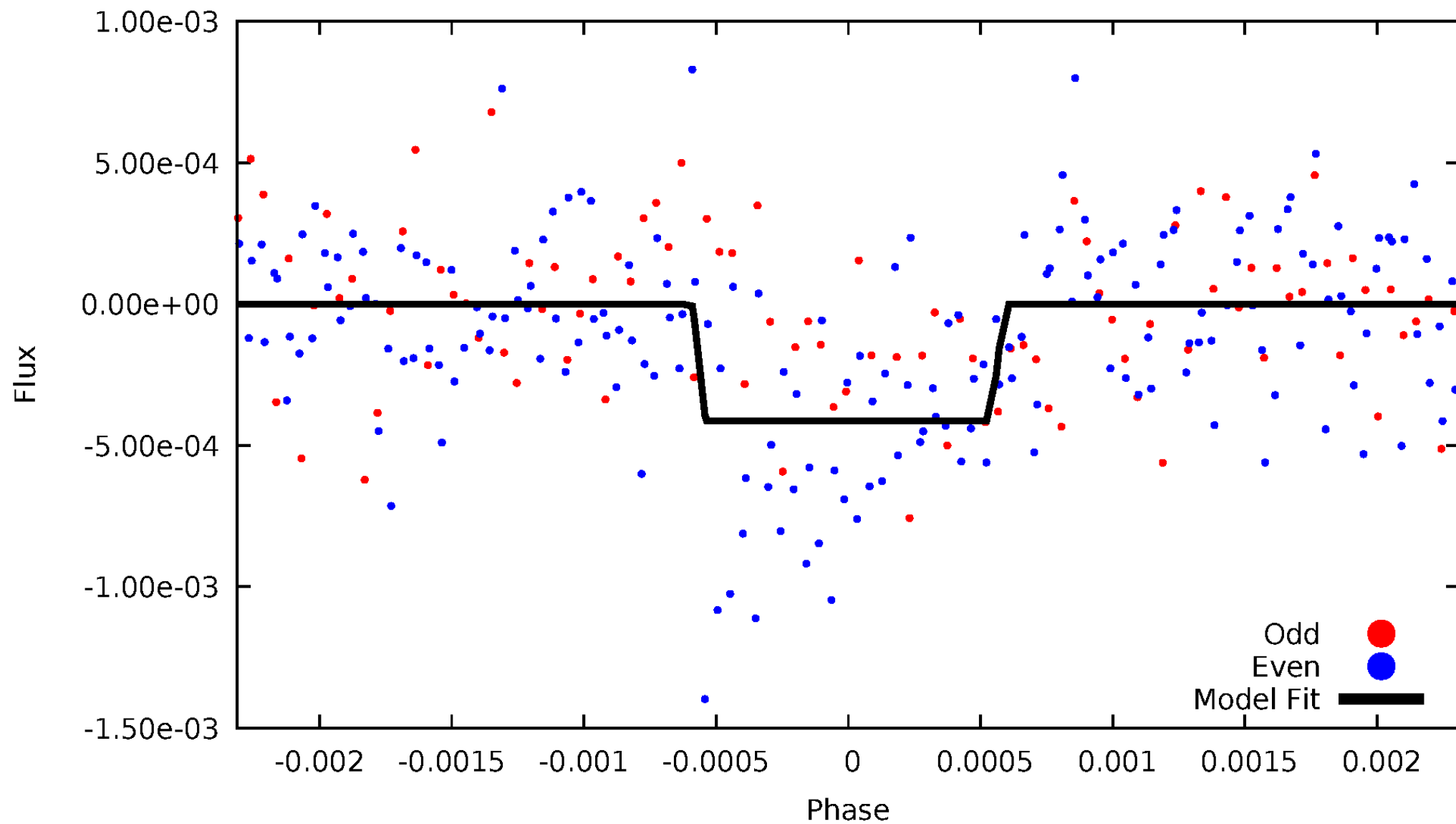
DV Odd/Even

TCE 007881991-01



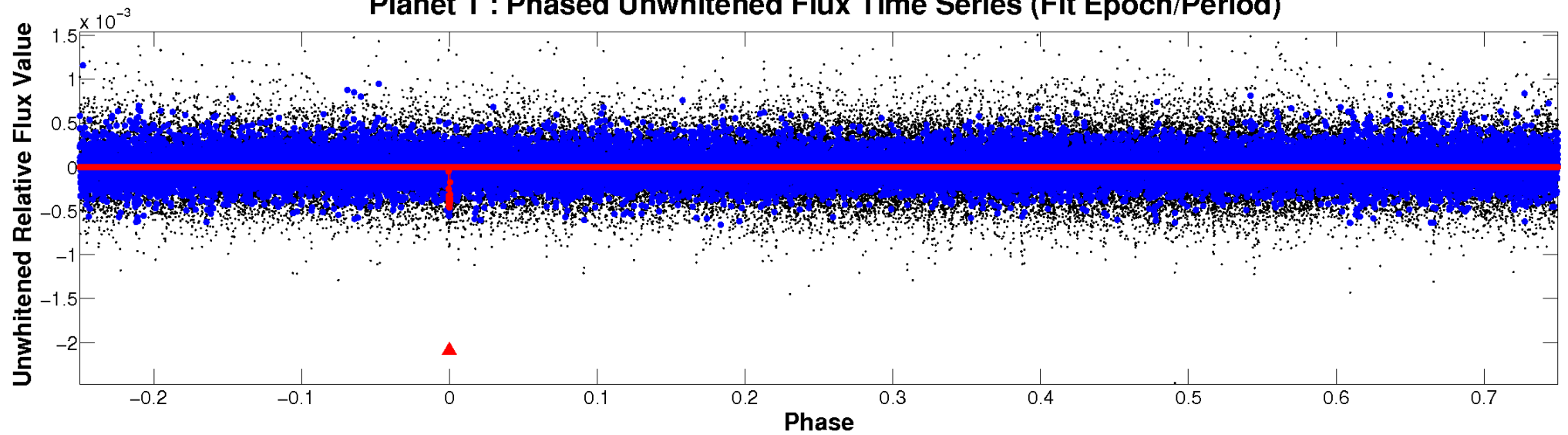
ALT Odd/Even

TCE 007881991-01

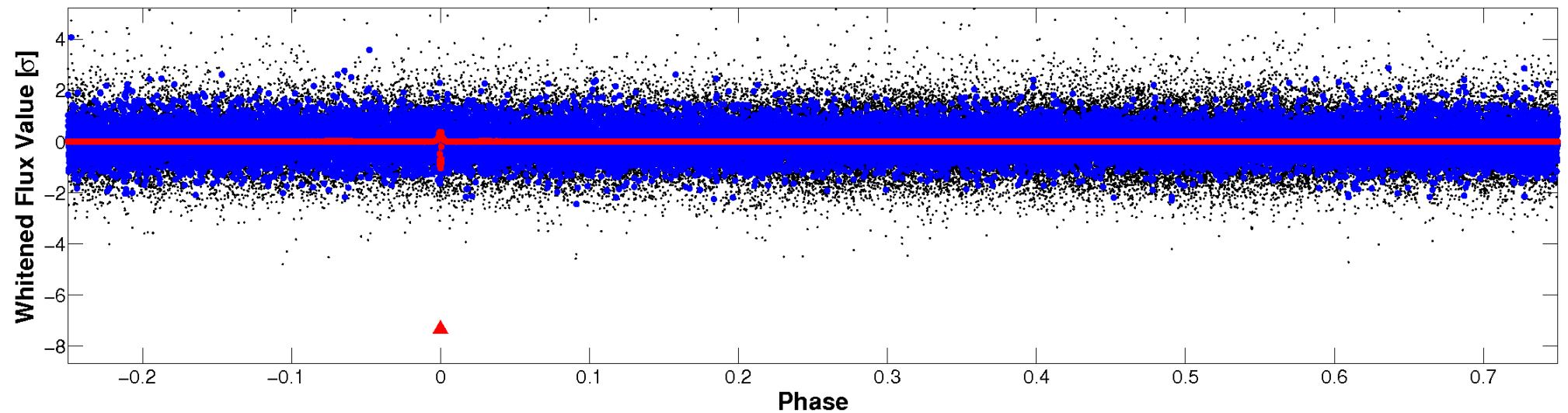


Non-Whitened Vs. Whitened Light Curve

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



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



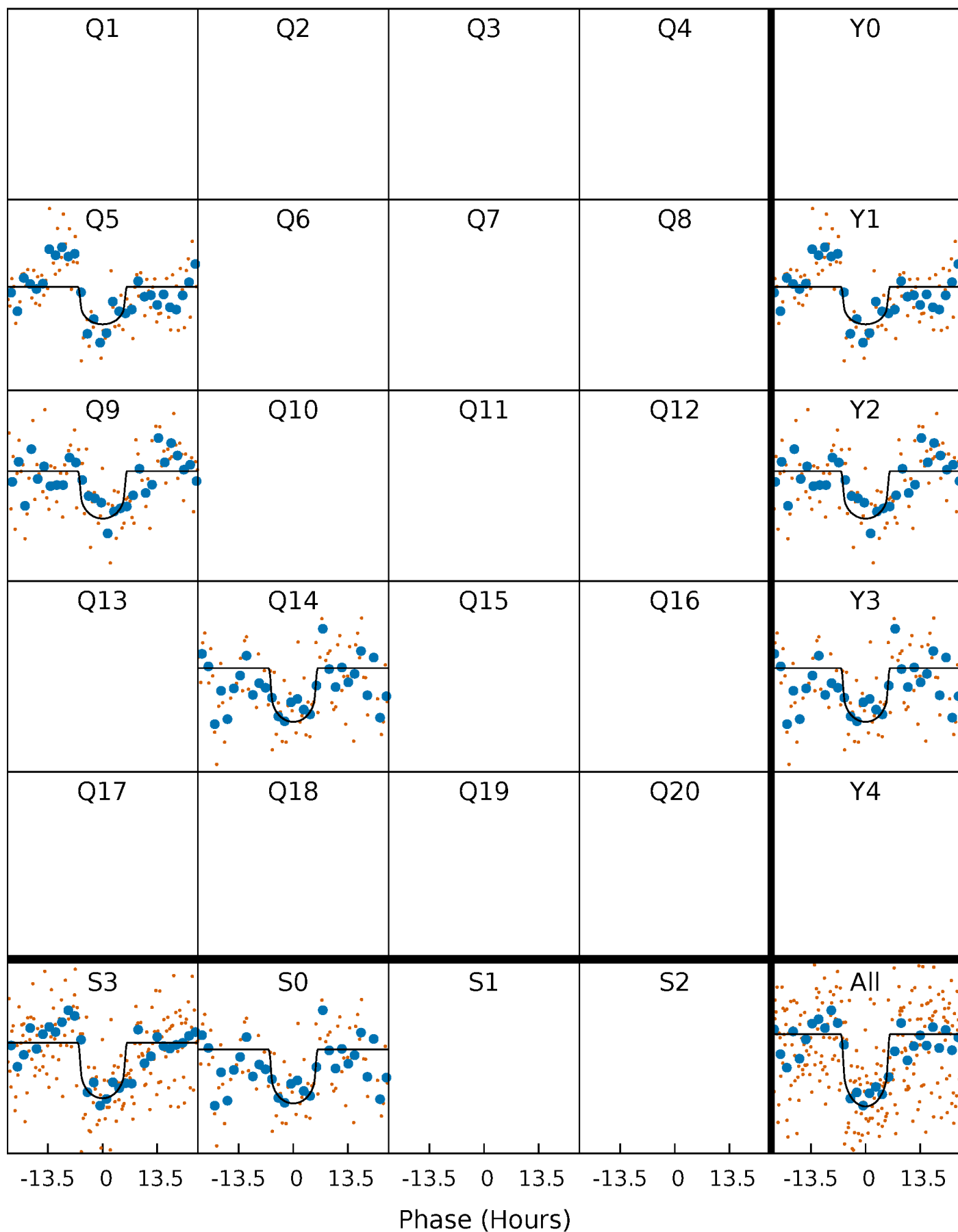
PDC Quarter-Phased Transit Curves

TCE 007881991-01 $P=426.663774$ Days $T_0=468.189898$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007881991-01 $P=426.663774$ Days $T_0=468.189898$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

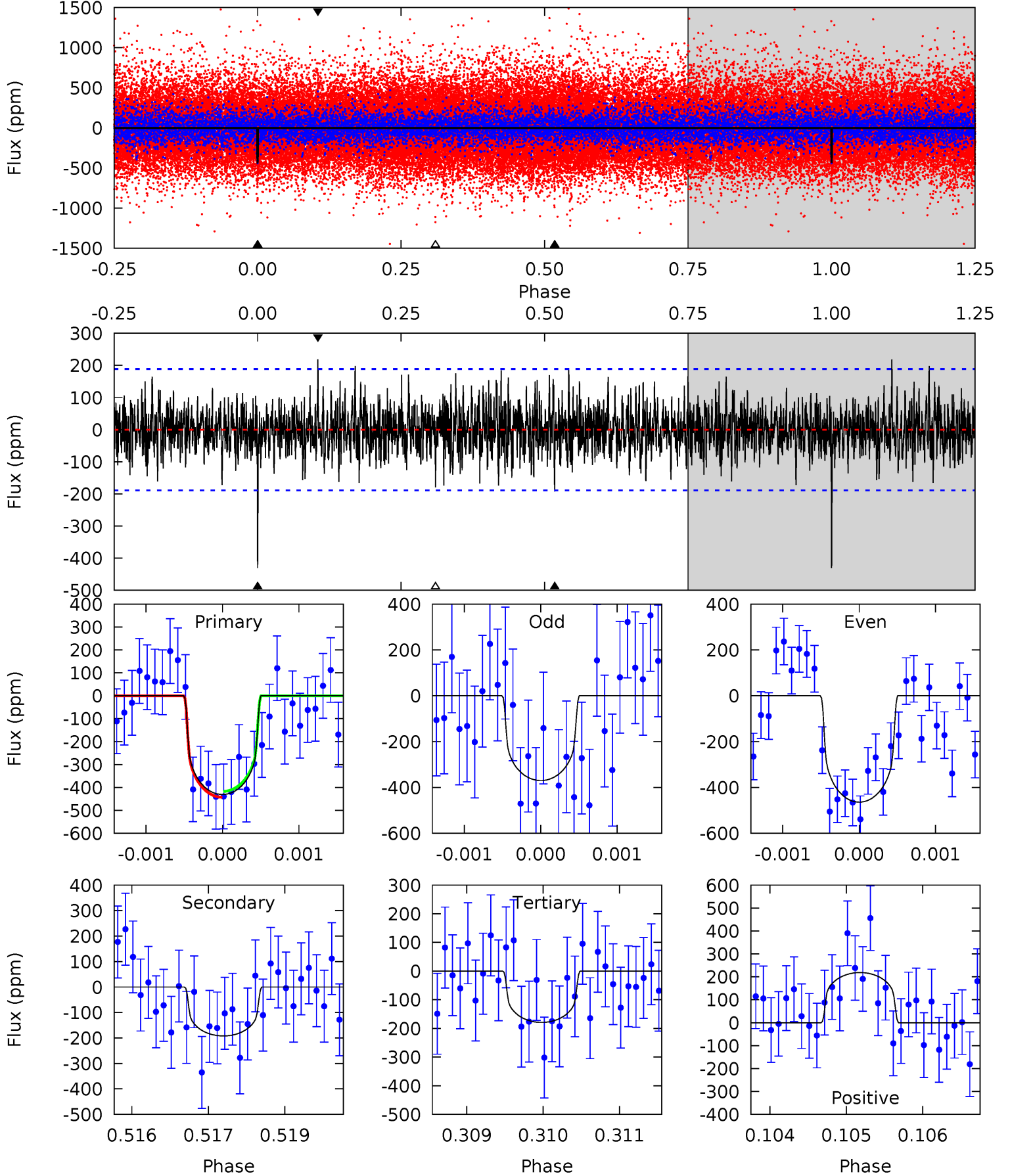
TCE 007881991-01 $P=426.632299$ Days $T_0=468.202141$ (BKJD)



DV Model-Shift Uniqueness Test

007881991-01, $P = 426.663774$ Days, $E = 41.526124$ Days

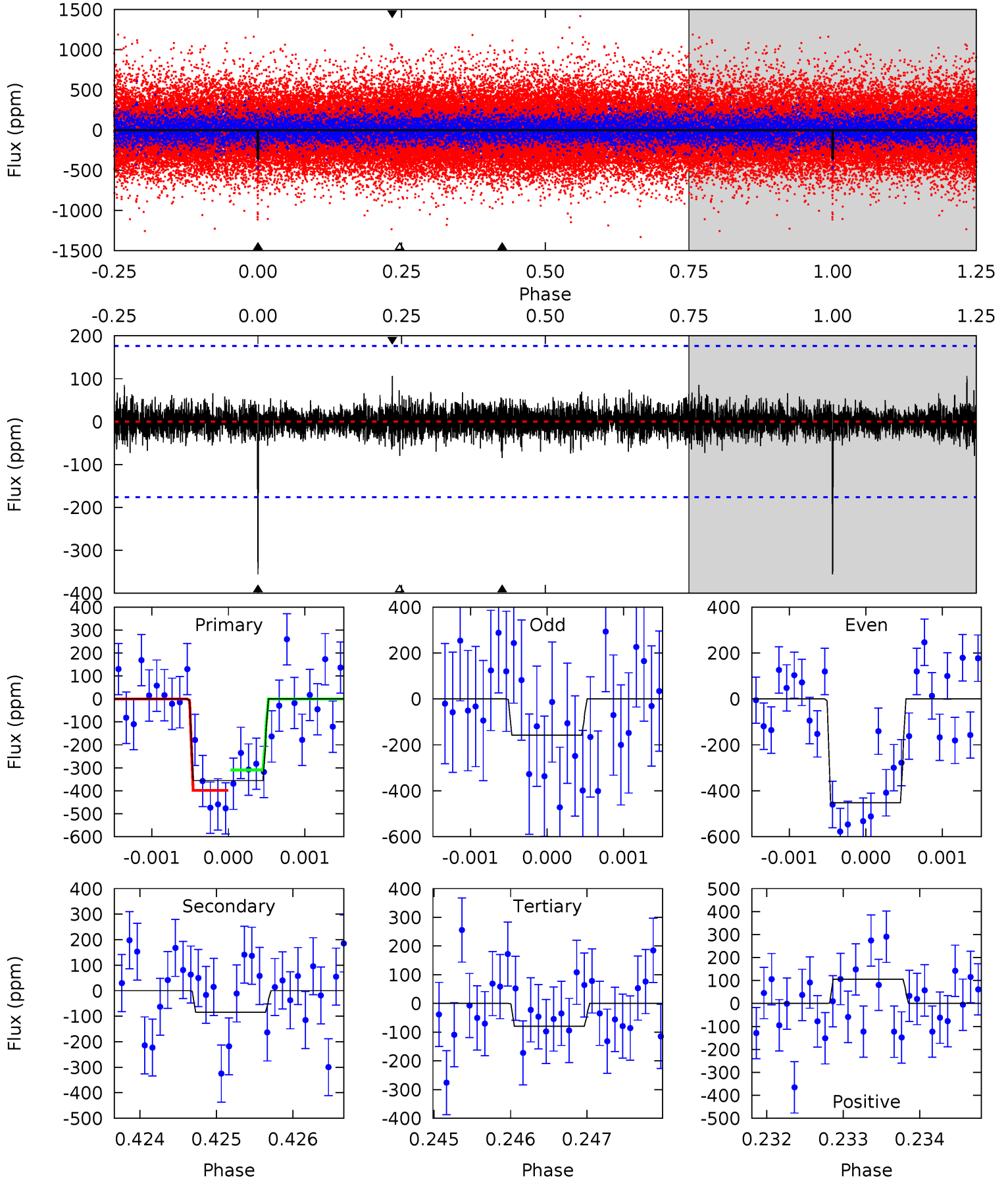
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	5.51	5.14	6.27	5.42	3.24	1.59	7.22	6.08	0.37	-0.76	1.26	1.12	0.34	0.36



Alt Model-Shift Uniqueness Test

007881991-01, $P = 426.632299$ Days, $E = 41.569842$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	2.60	2.46	3.27	5.42	3.25	0.61	8.49	7.68	0.14	-0.67	4.29	1.24	0.23	1.37



Stellar Parameters For KIC 007881991

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5179^{+171}_{-155}	$4.036^{+0.474}_{-0.255}$	$0.280^{+0.150}_{-0.250}$	$1.547^{+0.607}_{-0.742}$	$0.947^{+0.076}_{-0.105}$	$0.360^{+1.876}_{-0.211}$
	+3%/-3%	+12%/-6%	+54%/-89%	+39%/-48%	+8%/-11%	+521%/-59%
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 007881991-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-192 ± 35	$3.38^{+1.77}_{-1.48}$	381^{+40}_{-49}	4390^{+969}_{-547}	10968^{+23689}_{-6505}
Alt.	-84 ± 32	$3.31^{+1.72}_{-1.45}$	380^{+39}_{-52}	3771^{+802}_{-504}	4761^{+11179}_{-3010}

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

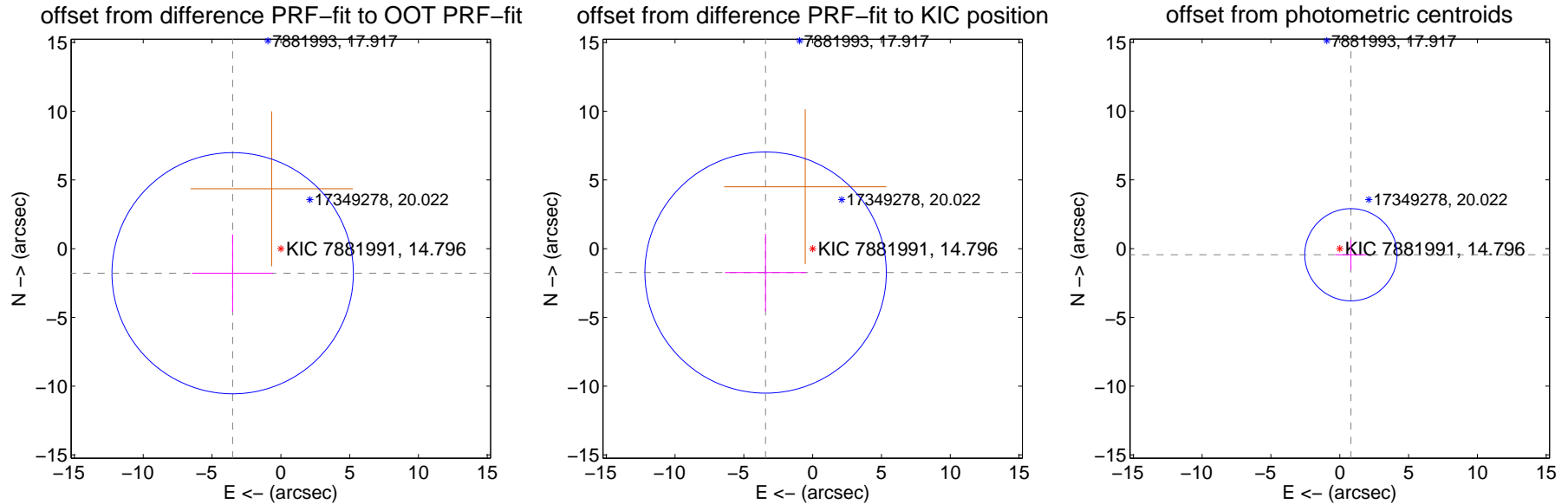
DV Centroid Data

Supplemental centroid analysis for 007881991-01. Kepler magnitude: 14.80. Transit SNR 7.32

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.931 ± 2.924	1.34	3.502 ± 2.950	-1.785 ± 2.820
PRF-fit source offset from KIC position	3.836 ± 2.924	1.31	3.420 ± 2.950	-1.738 ± 2.820
photometric centroid source offset	0.92 ± 1.12	0.83	-0.81 ± 1.12	-0.45 ± 1.10

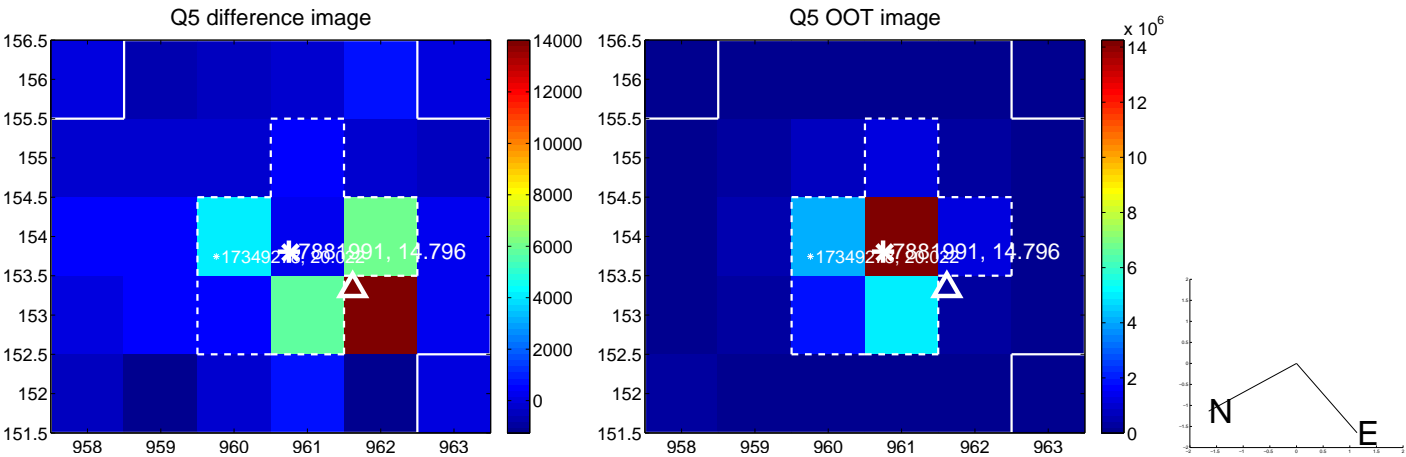


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

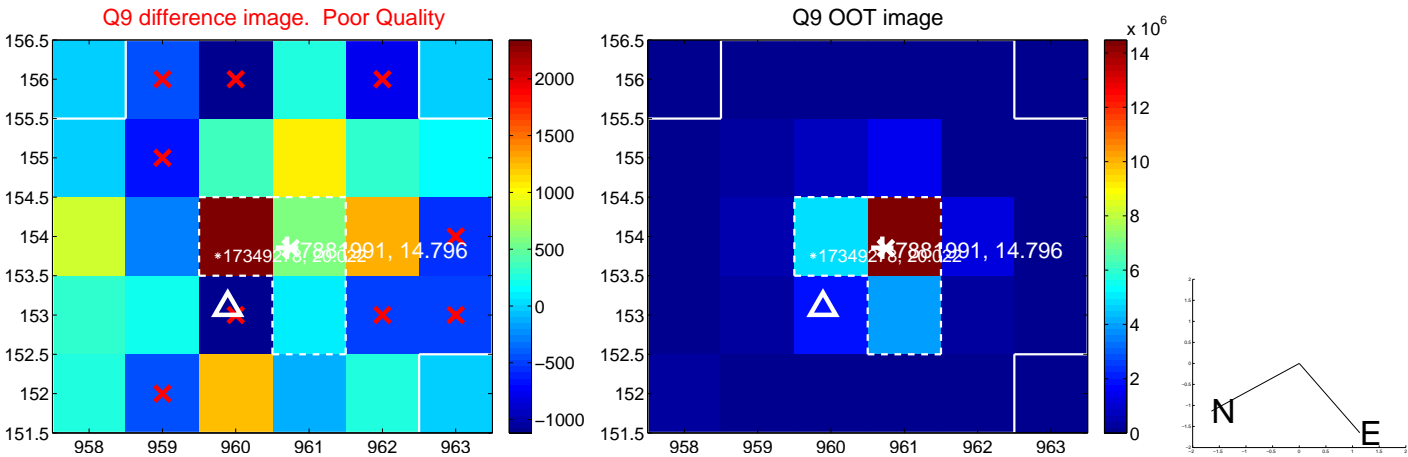
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



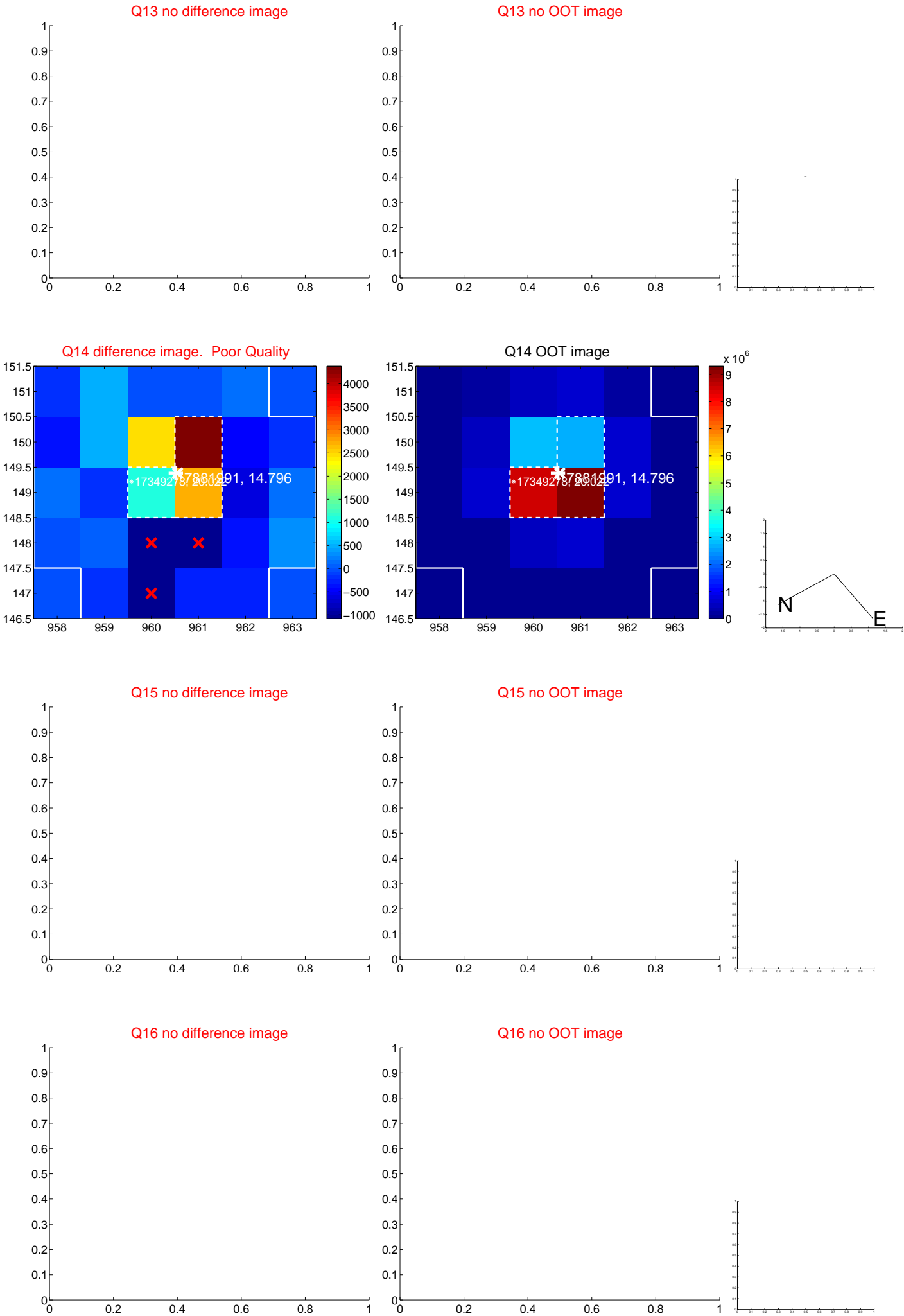
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



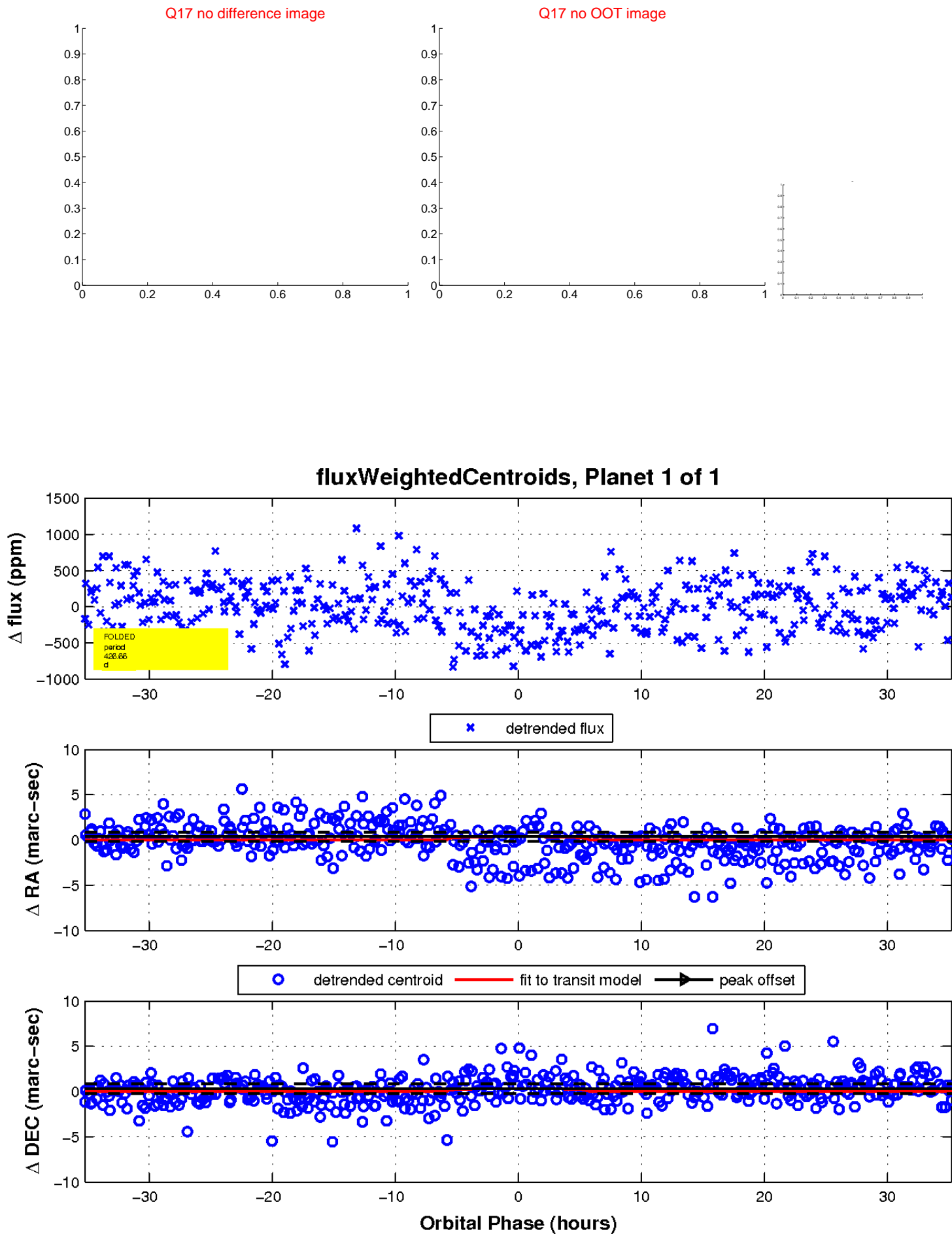
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

