

KIC 007212004

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})
007212004-01	OBS	No	396.938478	370.600211	680.4	3.545	7.4	7.8	0.77	5423	2.20	0.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007212004-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

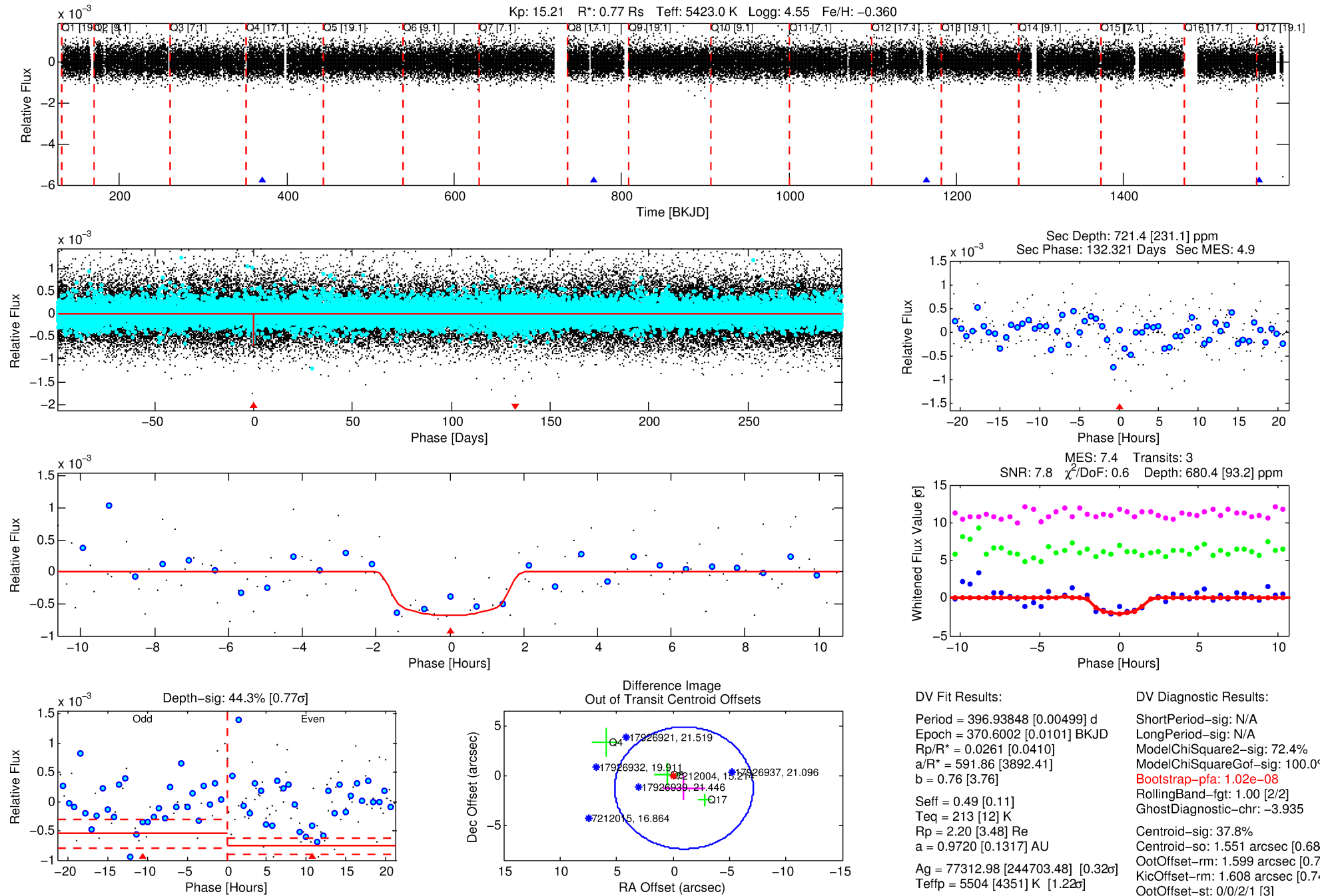
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007212004-01

No Significant Match Found

DV One-Page Summary

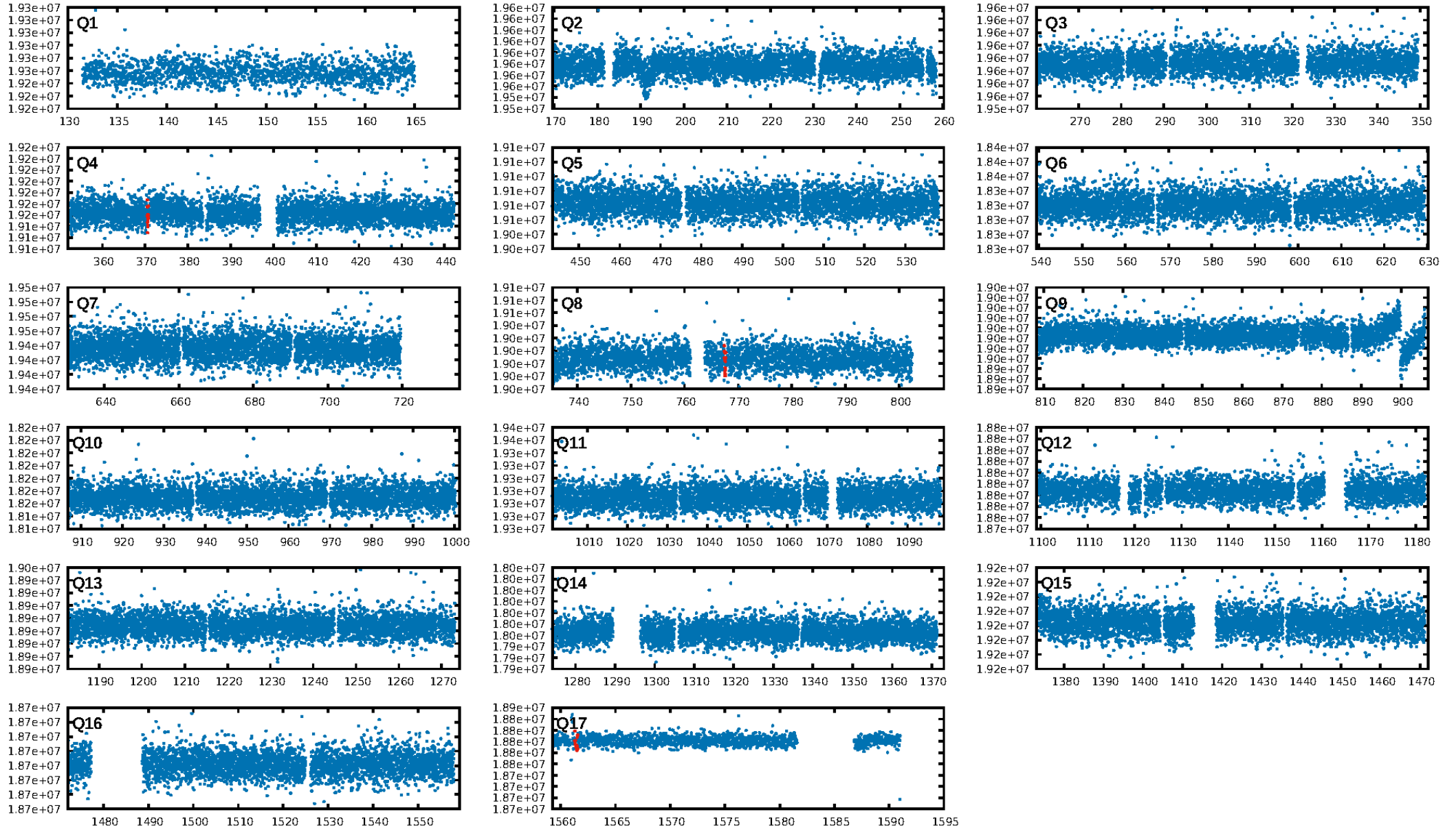
KIC: 7212004 Candidate: 1 of 1 Period: 396.938 d



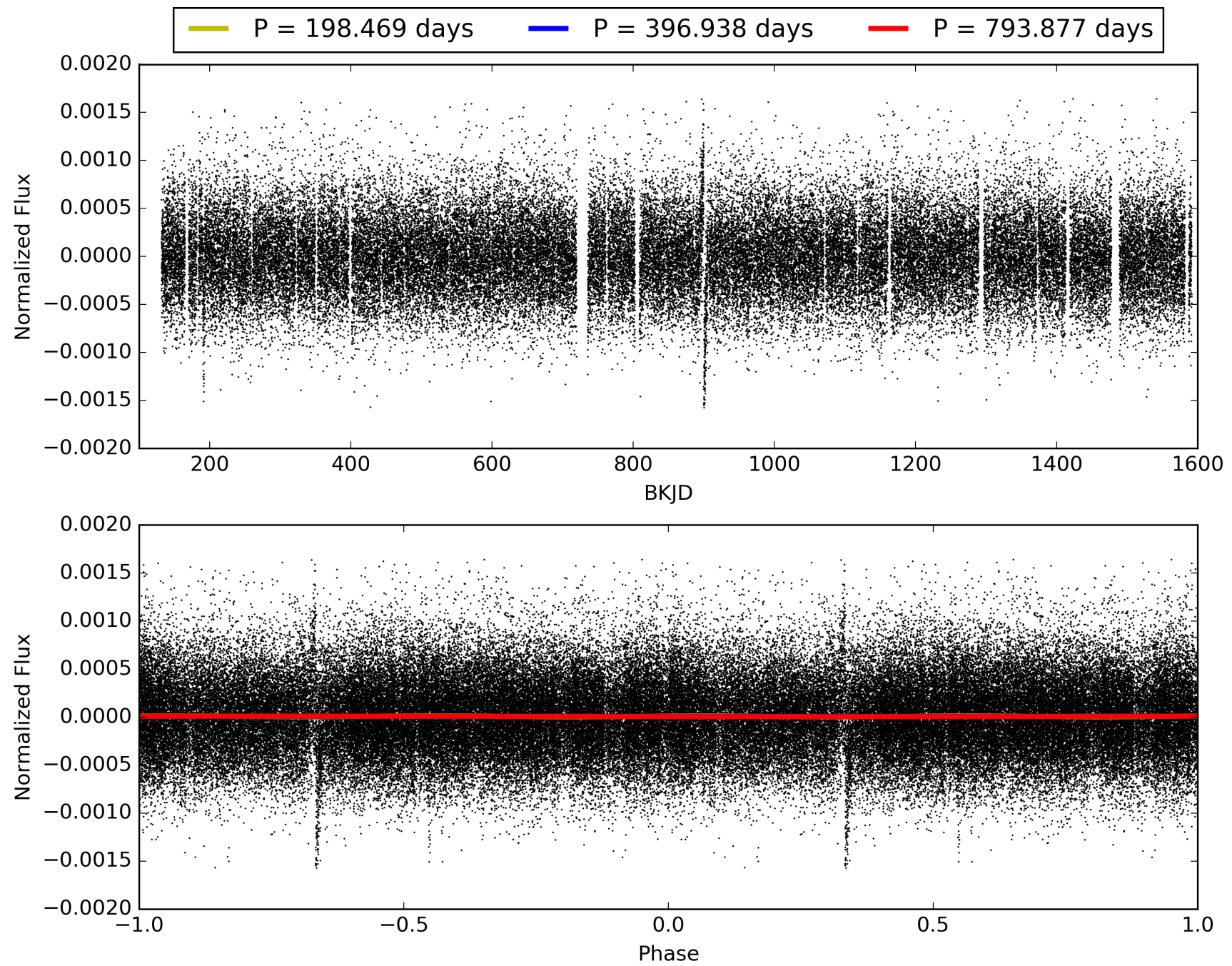
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:30:53 Z

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

TCE 007212004-01, PDC Light Curves

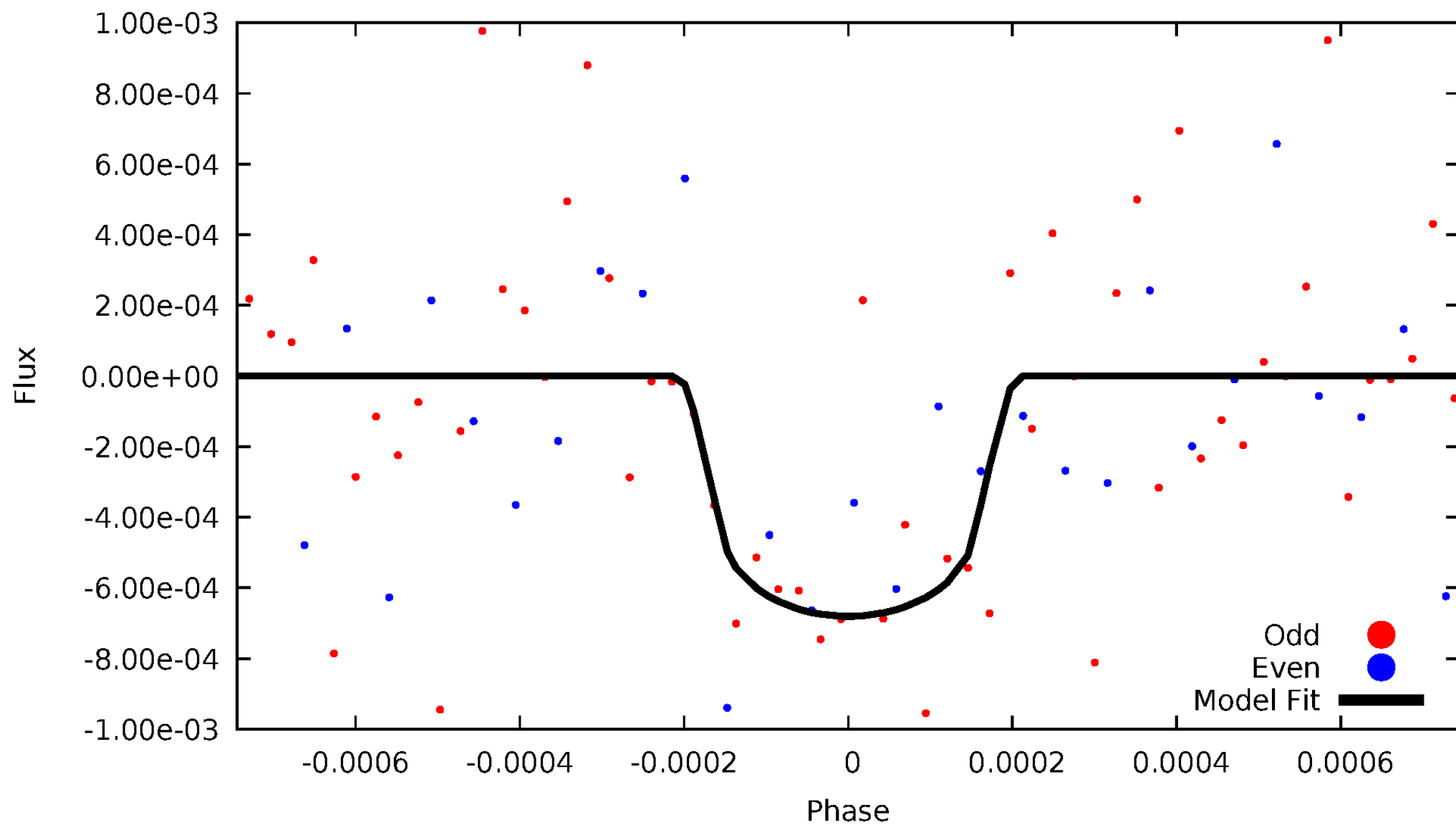


TCE 007212004-01



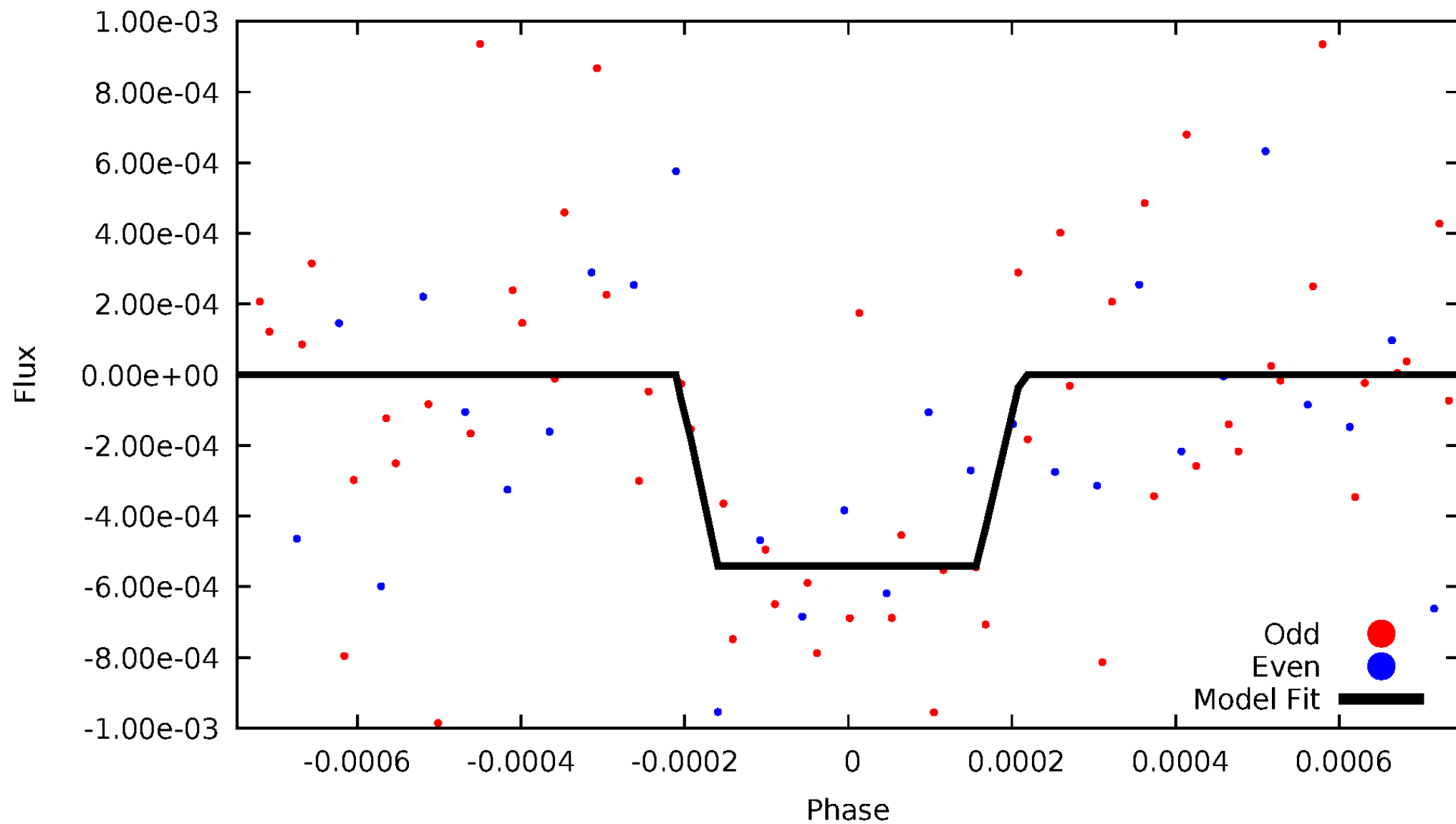
DV Odd/Even

TCE 007212004-01



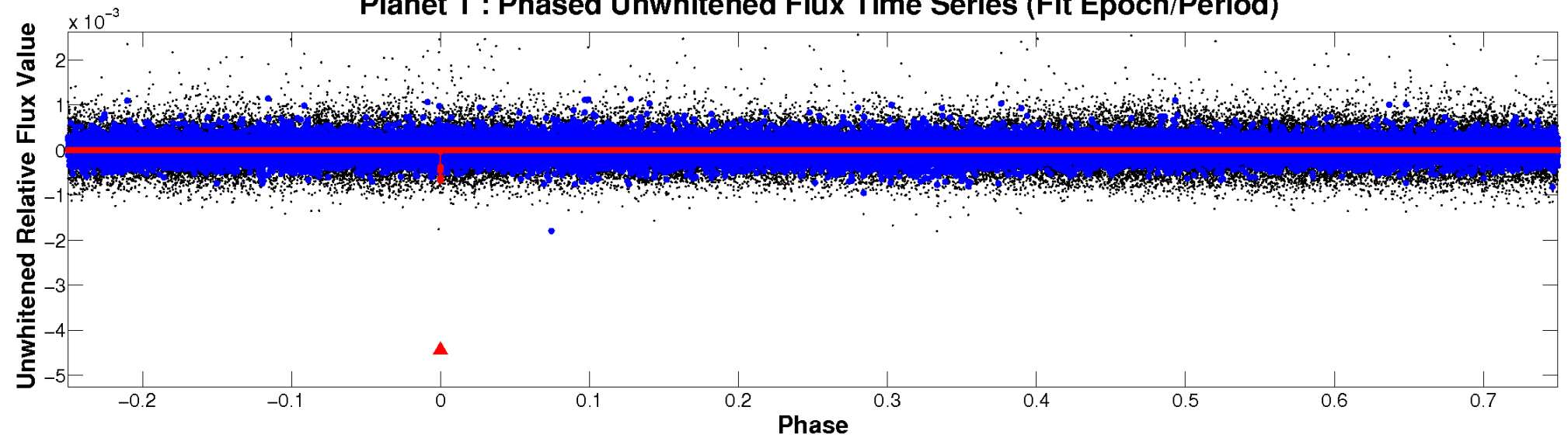
ALT Odd/Even

TCE 007212004-01

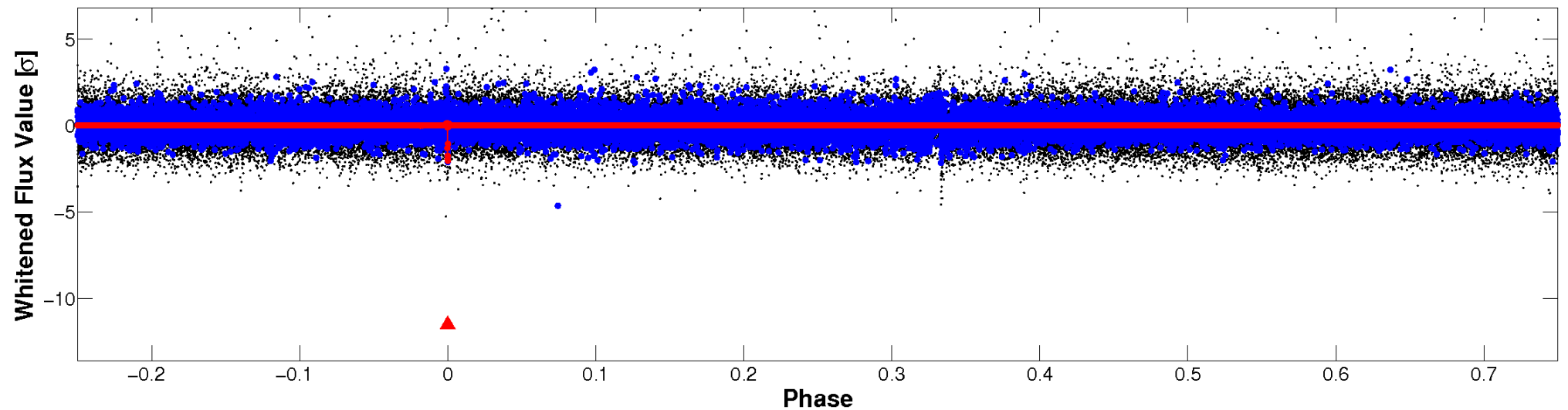


Non-Whitened Vs. Whitened Light Curve

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



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



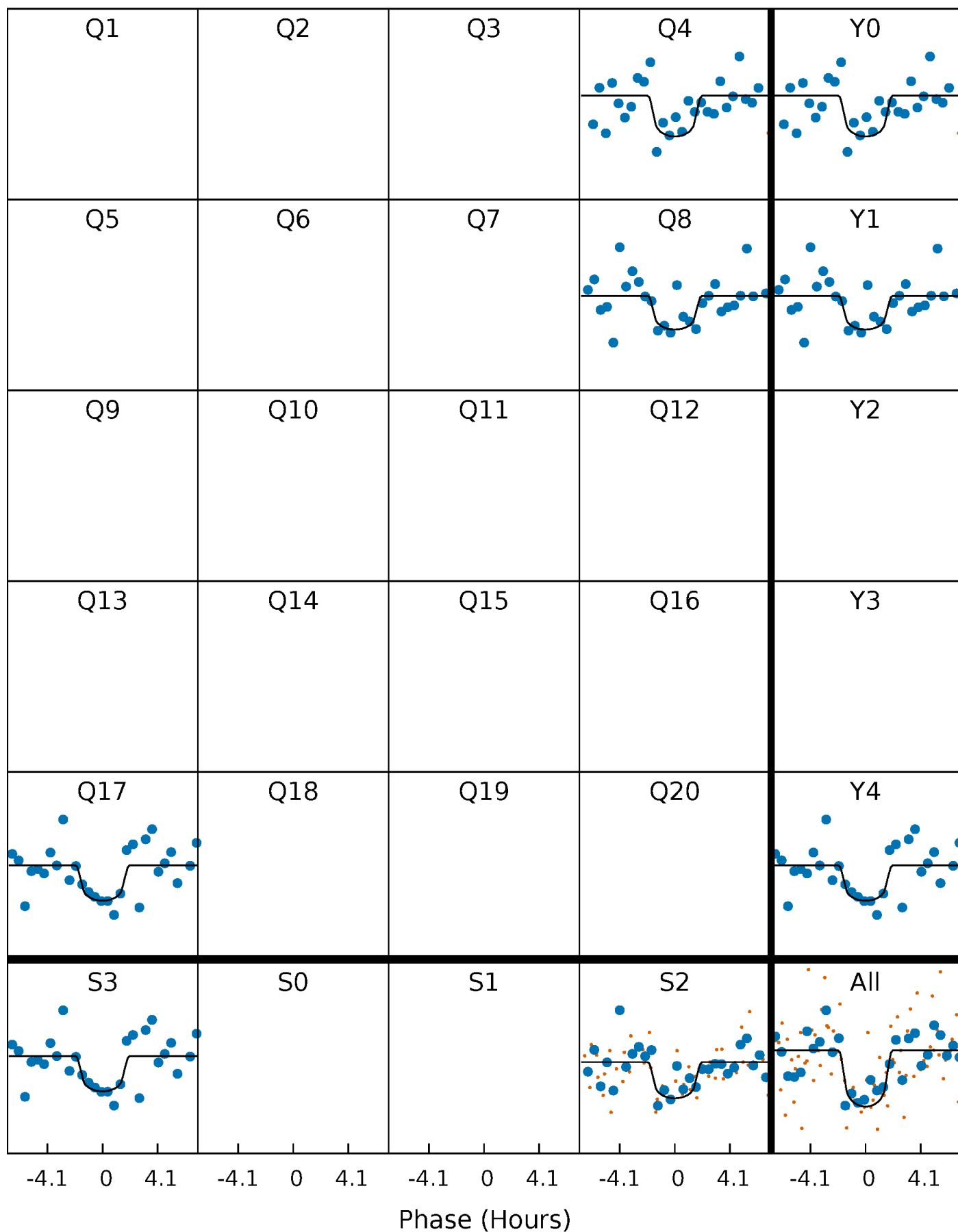
PDC Quarter-Phased Transit Curves

TCE 007212004-01 P=396.938478 Days $T_0=370.600211$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007212004-01 P=396.938478 Days $T_0=370.600211$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

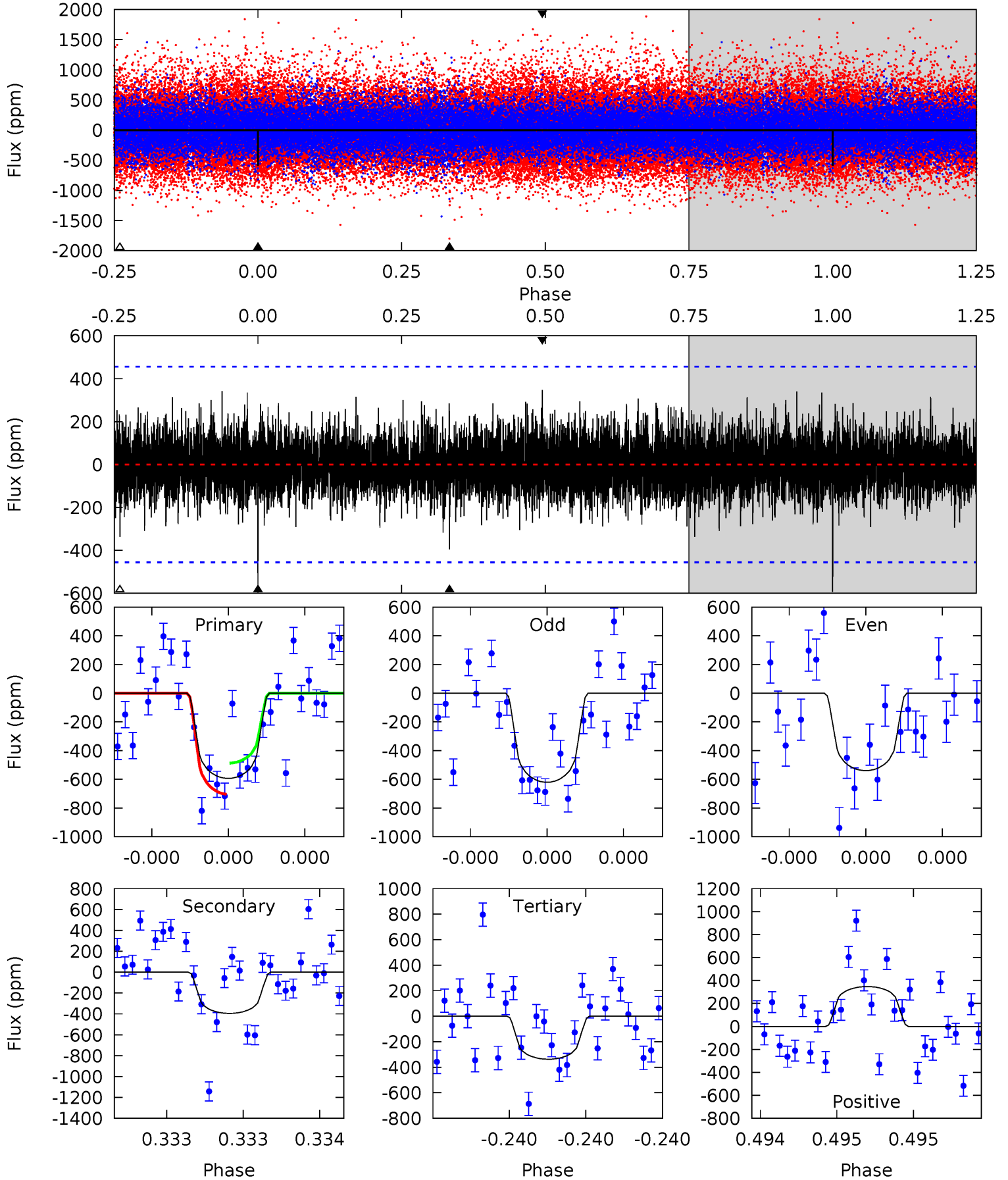
TCE 007212004-01 P=396.935525 Days $T_0=370.604894$ (BKJD)



DV Model-Shift Uniqueness Test

007212004-01, P = 396.938478 Days, E = 370.600211 Days

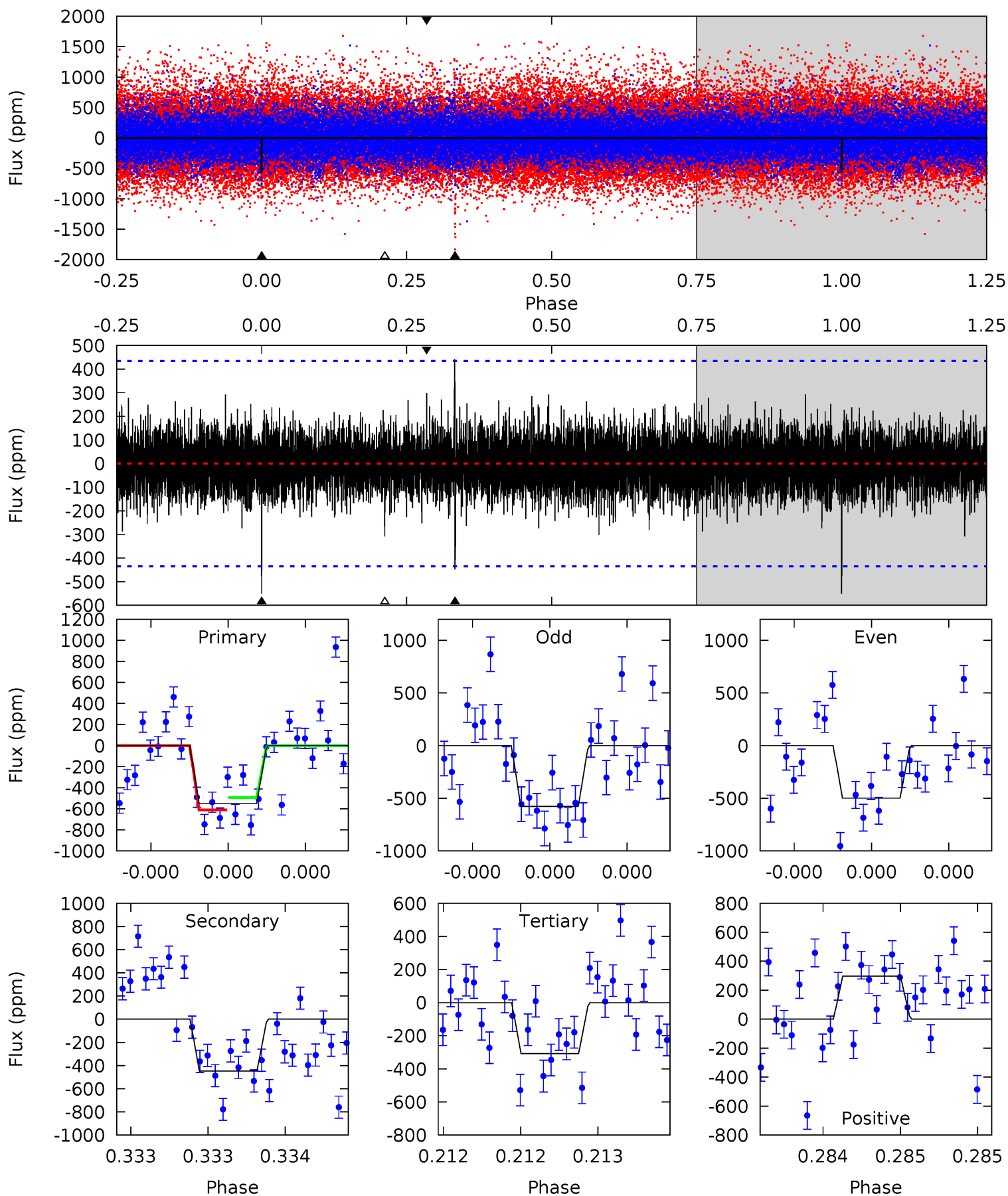
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.31	4.86	4.15	4.27	5.61	3.54	1.12	3.16	3.04	0.71	0.59	0.49	1.10	0.37	1.34



Alt Model-Shift Uniqueness Test

007212004-01, P = 396.935525 Days, E = 370.604894 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.10	5.76	3.97	3.84	5.60	3.53	1.02	3.13	3.26	1.80	1.92	0.47	1.02	0.45	0.75



Stellar Parameters For KIC 007212004

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5423^{+177}_{-144}	$4.551^{+0.064}_{-0.096}$	$-0.360^{+0.300}_{-0.300}$	$0.774^{+0.132}_{-0.071}$	$0.776^{+0.099}_{-0.061}$	$2.357^{+0.673}_{-0.742}$
	+3%/-3%	+1%/-2%	+83%/-83%	+17%/-9%	+13%/-8%	+29%/-31%
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 007212004-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-395 ± 81	$3.44^{+2.72}_{-2.18}$	299^{+15}_{-11}	4051^{+2342}_{-705}	$17283^{+118353}_{-12061}$
Alt.	-447 ± 78	$3.33^{+2.86}_{-2.35}$	300^{+14}_{-12}	4243^{+3335}_{-818}	$21042^{+240025}_{-15135}$

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 $A_{obs} \gg 1.0$

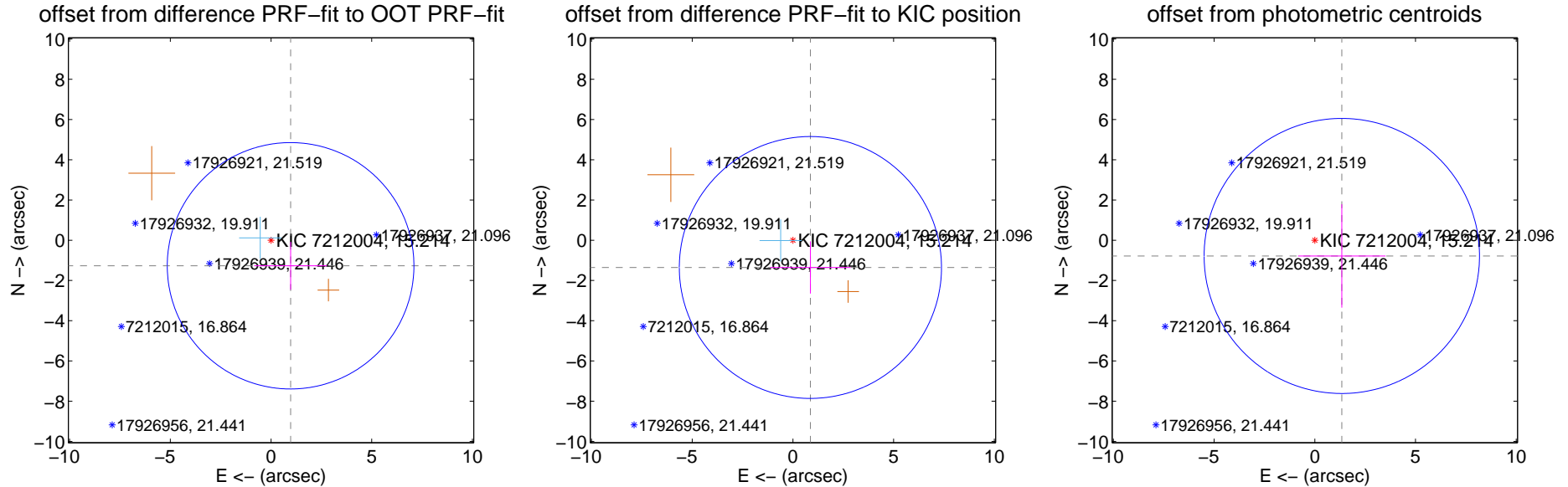
DV Centroid Data

Supplemental centroid analysis for 007212004-01. Kepler magnitude: 15.21. Transit SNR 7.83

There are 1 quarters with good PRF difference image offsets

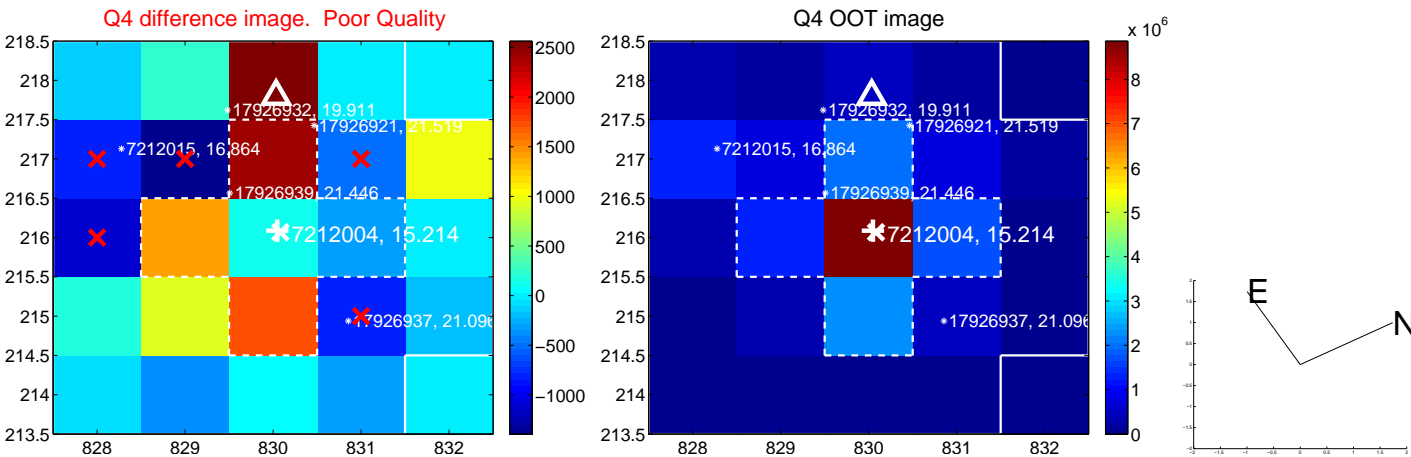
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.599 ± 2.041	0.78	-0.972 ± 1.807	-1.269 ± 1.190
PRF-fit source offset from KIC position	1.608 ± 2.169	0.74	-0.868 ± 1.997	-1.354 ± 1.298
photometric centroid source offset	1.55 ± 2.28	0.68	-1.34 ± 2.17	-0.78 ± 2.57

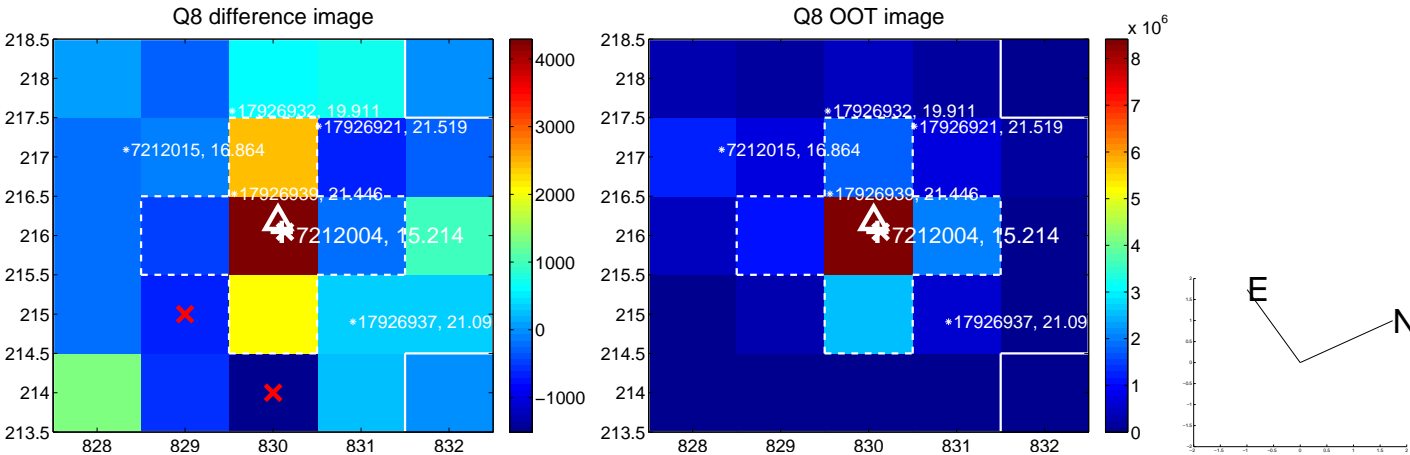


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



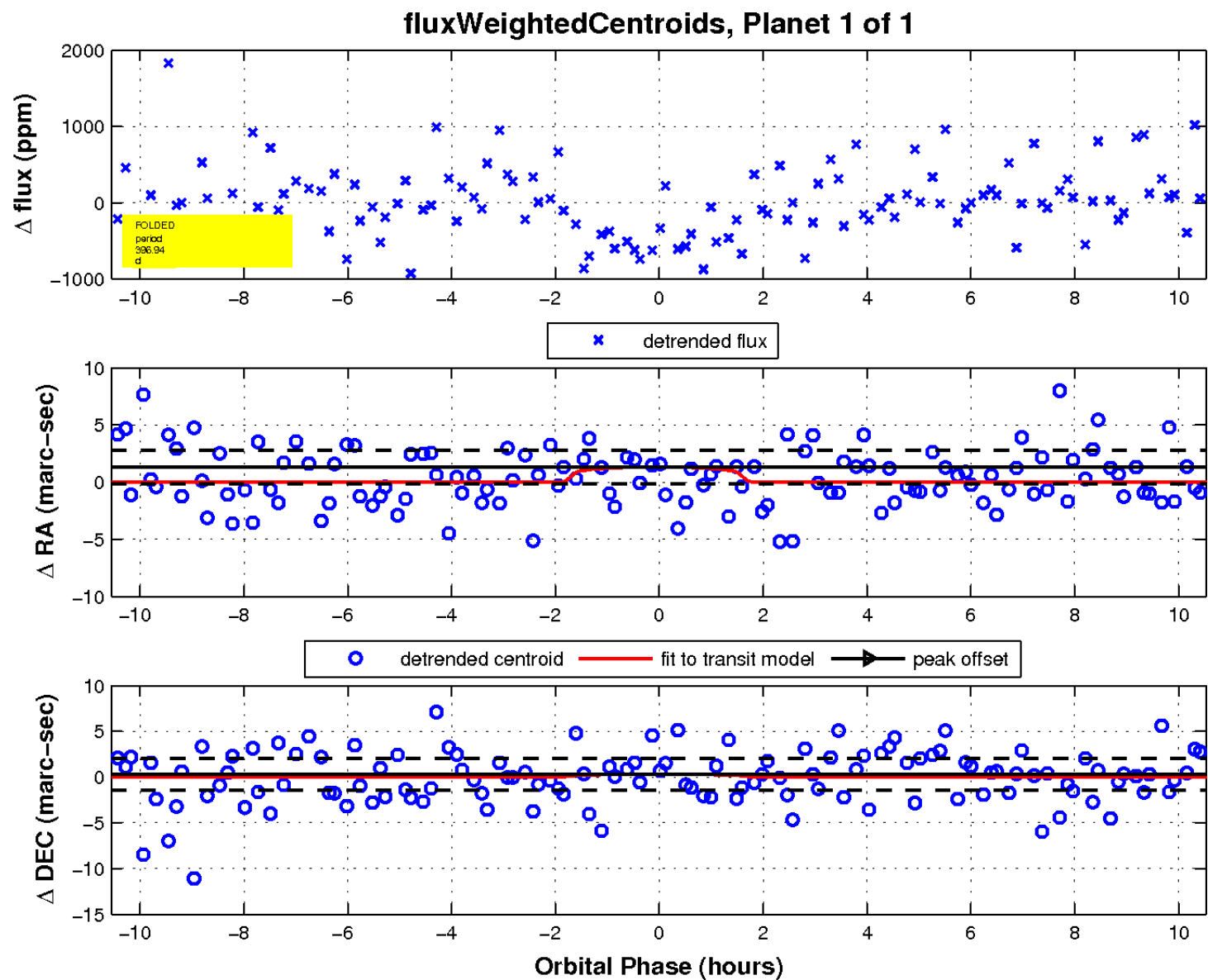
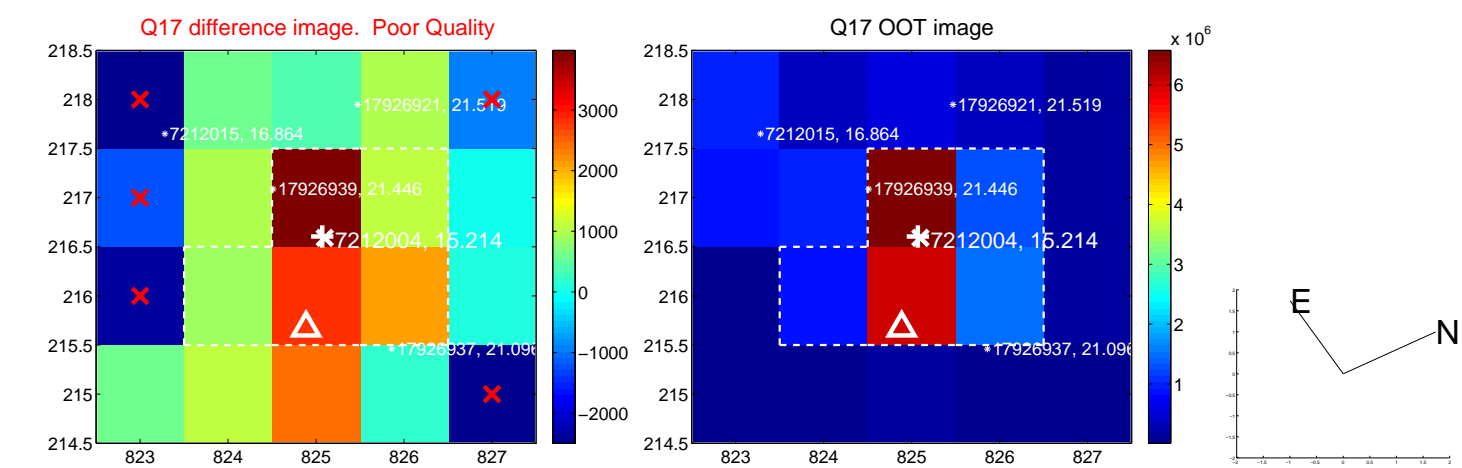
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white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

