

KIC 005944240

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})
005944240-01	OBS	No	0.663470	131.608096	229.3	2.215	8.1	9.0	2.15	7700	3.76	44127.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005944240-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

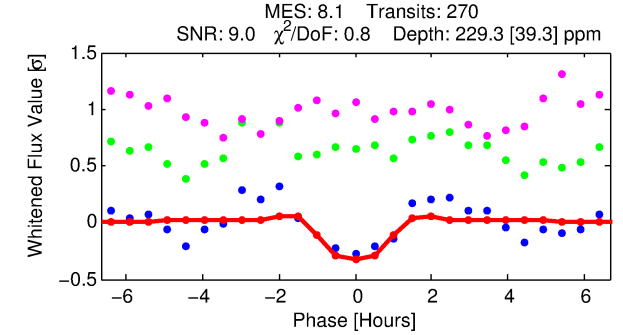
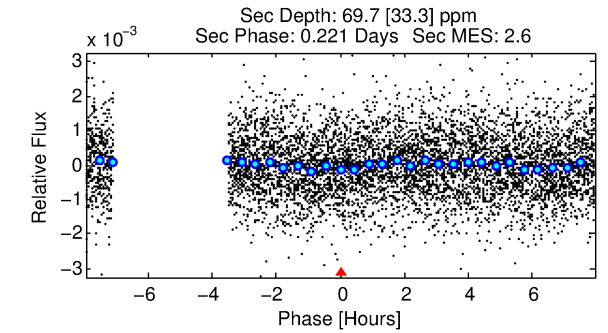
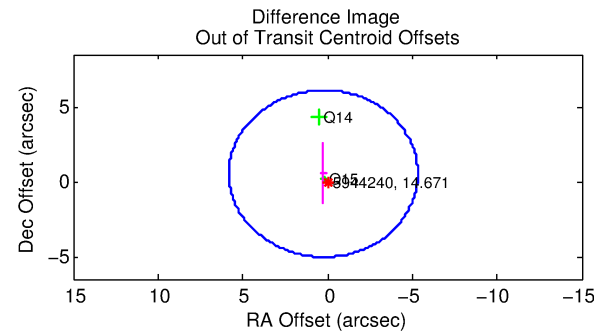
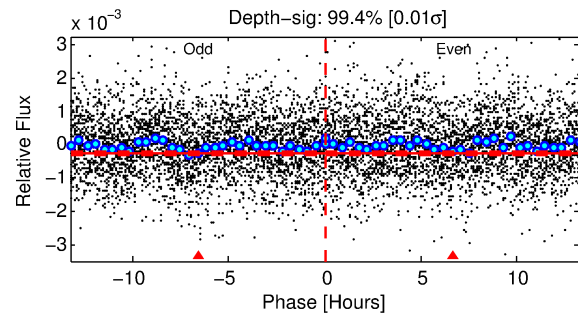
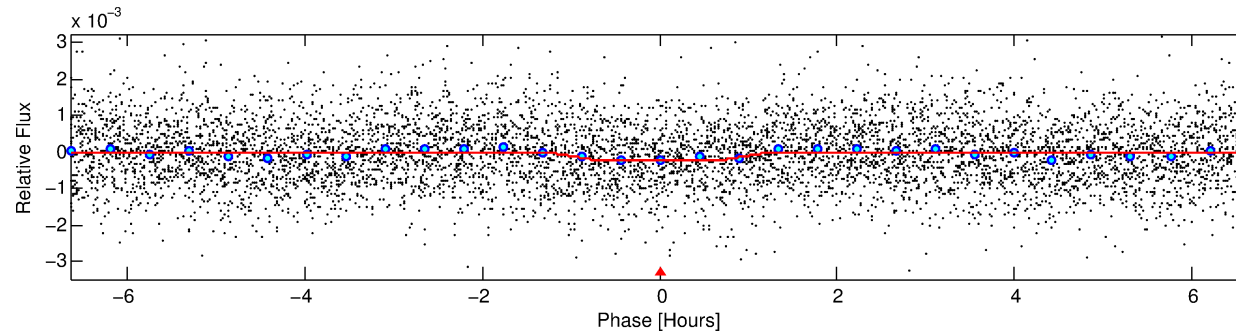
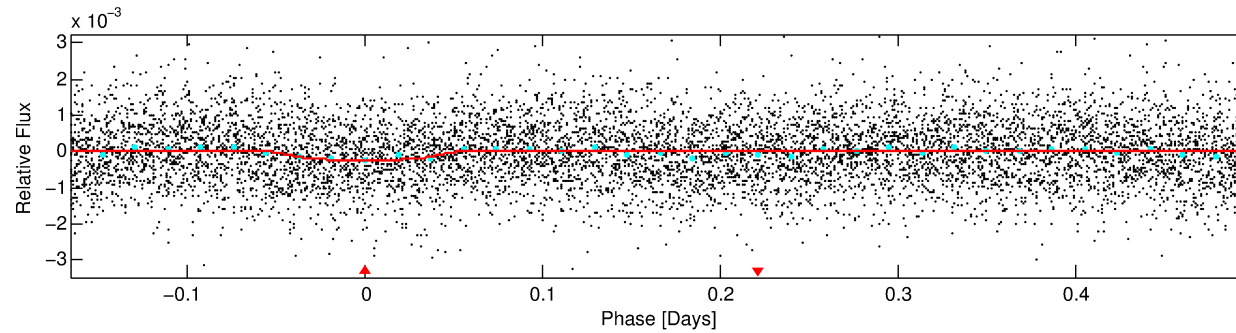
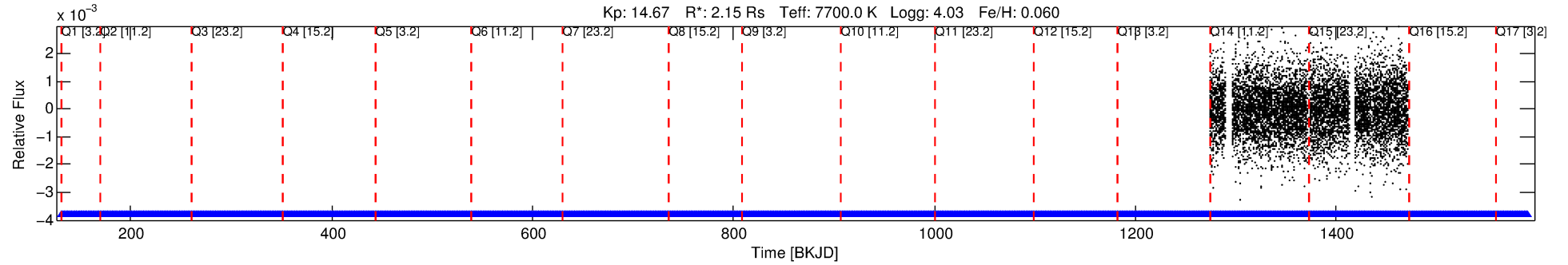
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005944240-01

No Significant Match Found

DV One-Page Summary

KIC: 5944240 Candidate: 1 of 1 Period: 0.663 d



DV Fit Results:

Period = 0.66347 [0.00001] d
Epoch = 131.6081 [0.0032] BKJD
Rp/R* = 0.0161 [0.0091]
a/R* = 1.43 [2.64]
b = 0.90 [0.77]
Seff = 44127.98 [15725.38]
Teq = 3696 [329] K
Rp = 3.76 [2.33] Re
a = 0.0181 [0.0038] AU
Ag = 0.89 [1.13] [-0.10 σ]
Teffp = 5547 [1727] K [1.05 σ]

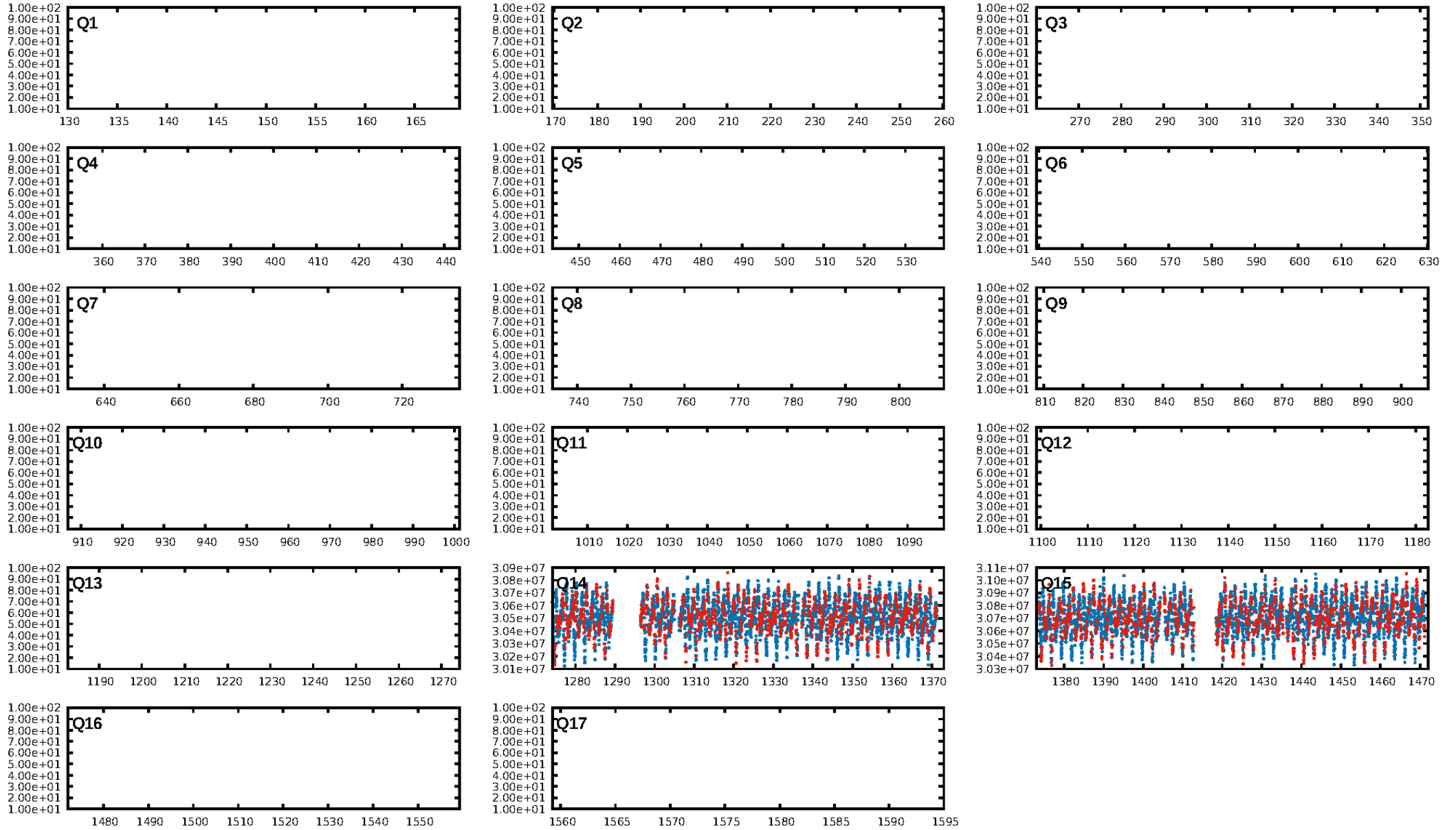
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.56e-16
RollingBand-fgt: 1.00 [270/270]
GhostDiagnostic-chr: -3.787
Centroid-sig: 0.0%
Centroid-so: 1.513 arcsec [2.16 σ]
OotOffset-rm: 0.582 arcsec [0.31 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-rm: 0.604 arcsec [0.52 σ]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

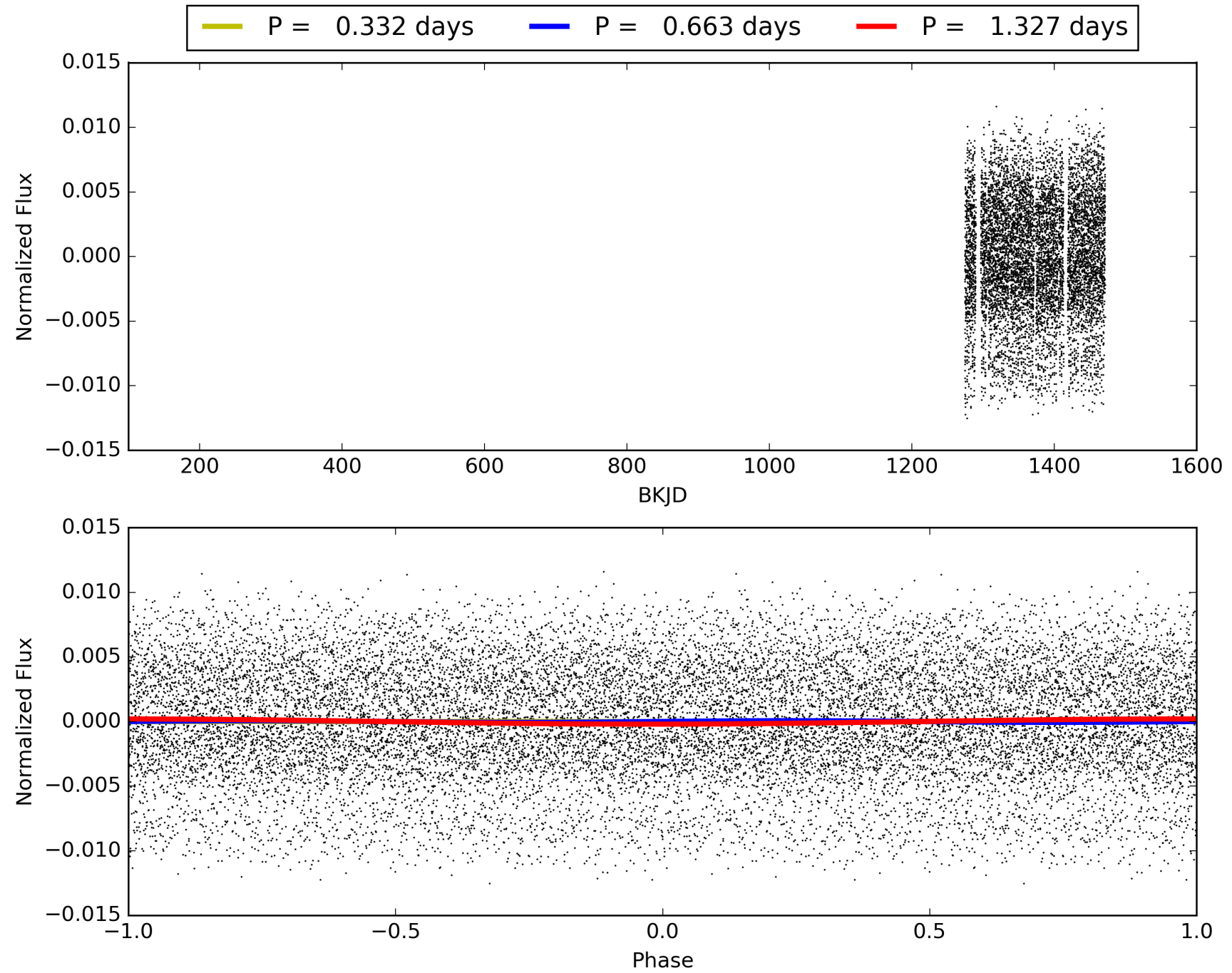
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:27:15 Z

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

TCE 005944240-01, PDC Light Curves

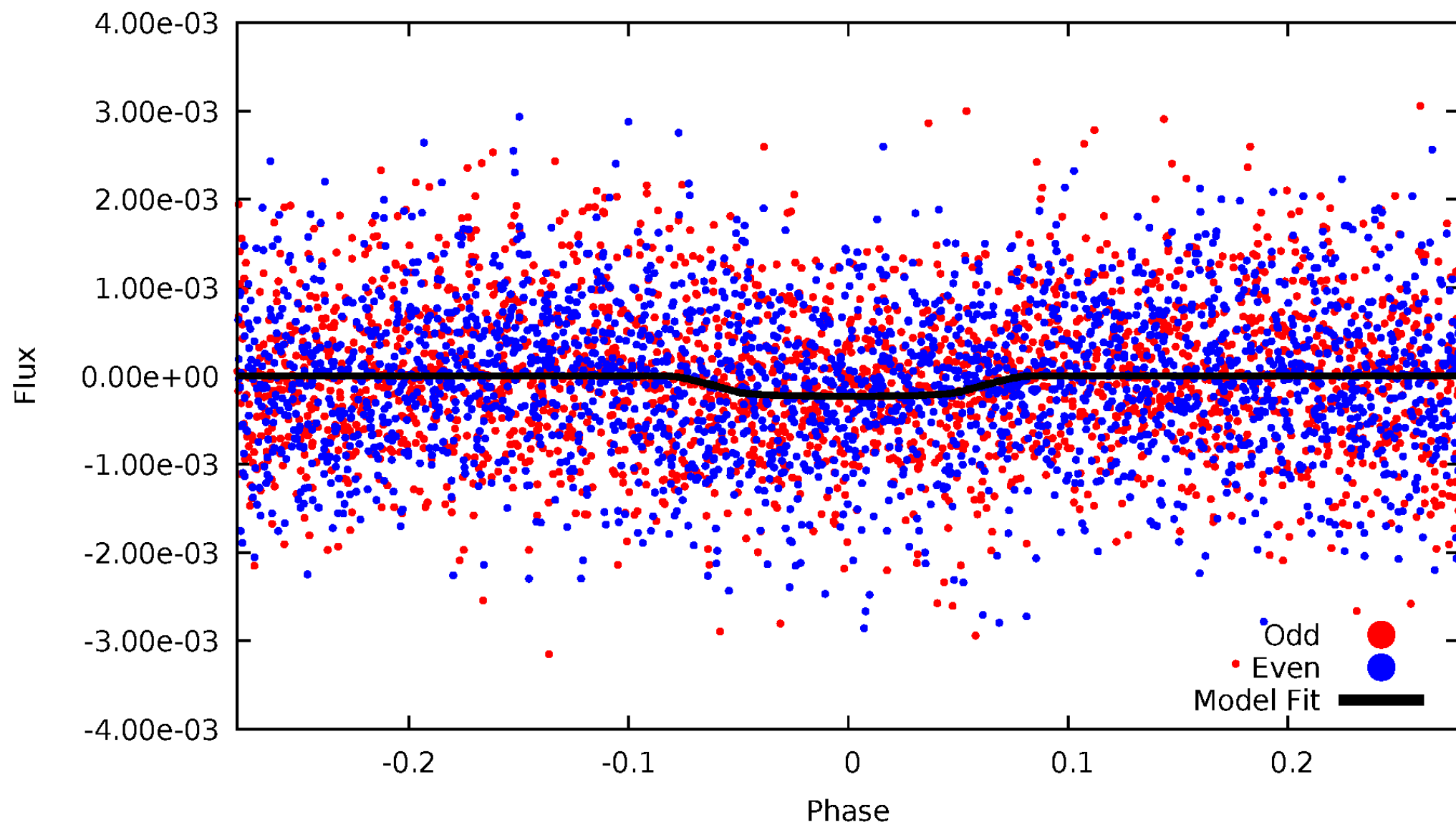


TCE 005944240-01



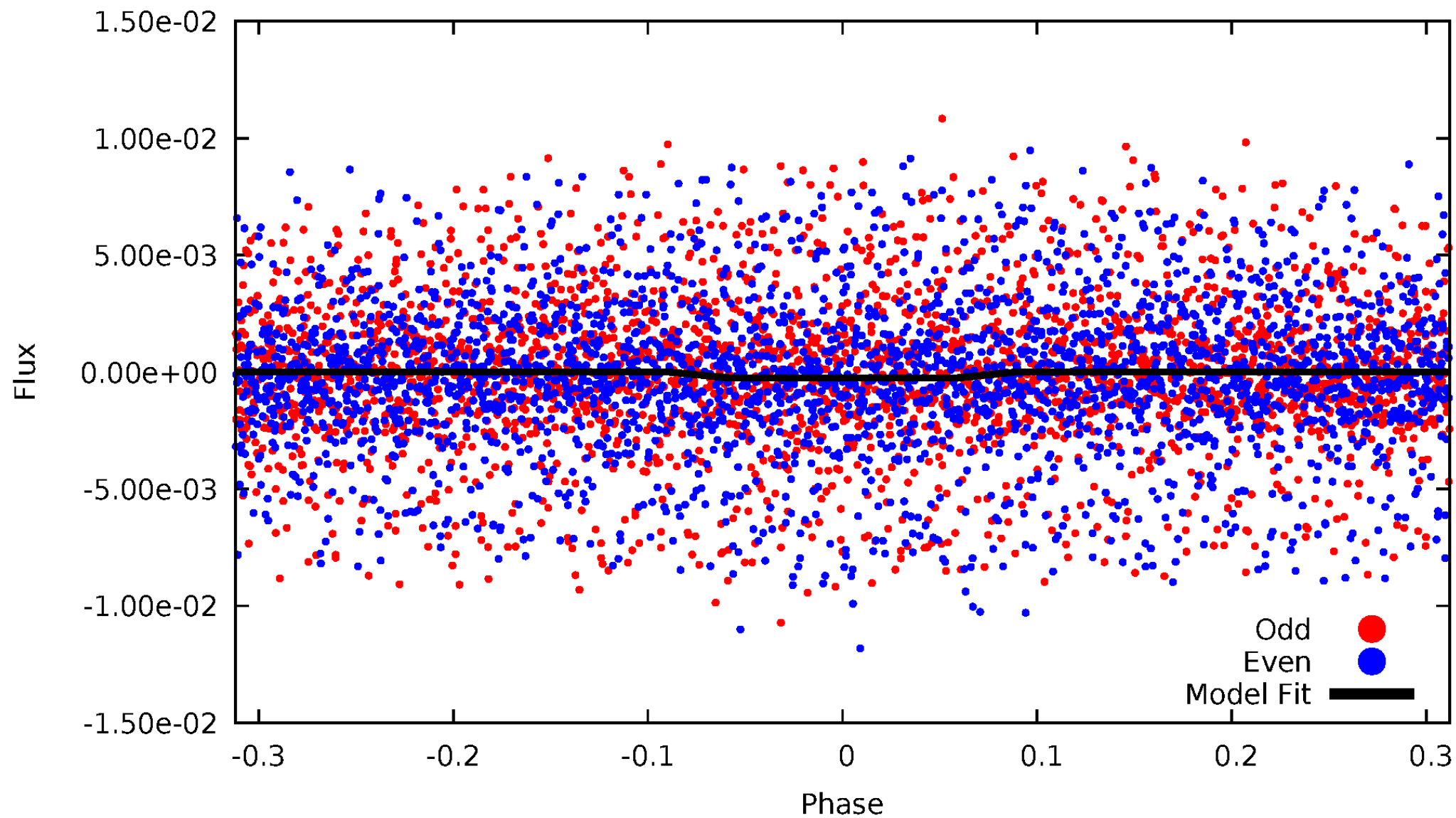
DV Odd/Even

TCE 005944240-01



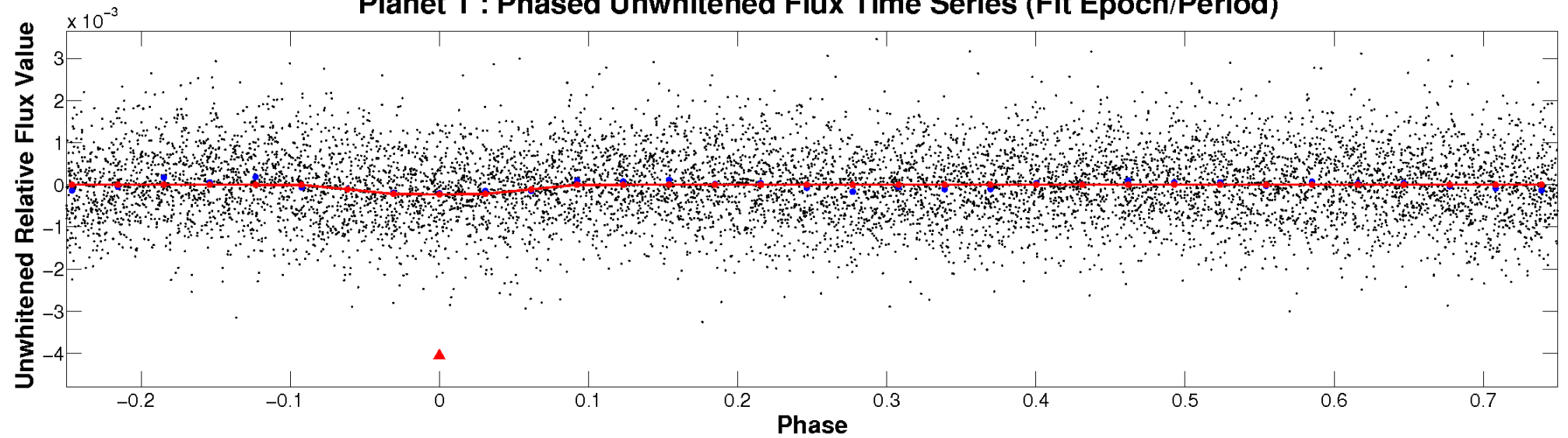
ALT Odd/Even

TCE 005944240-01

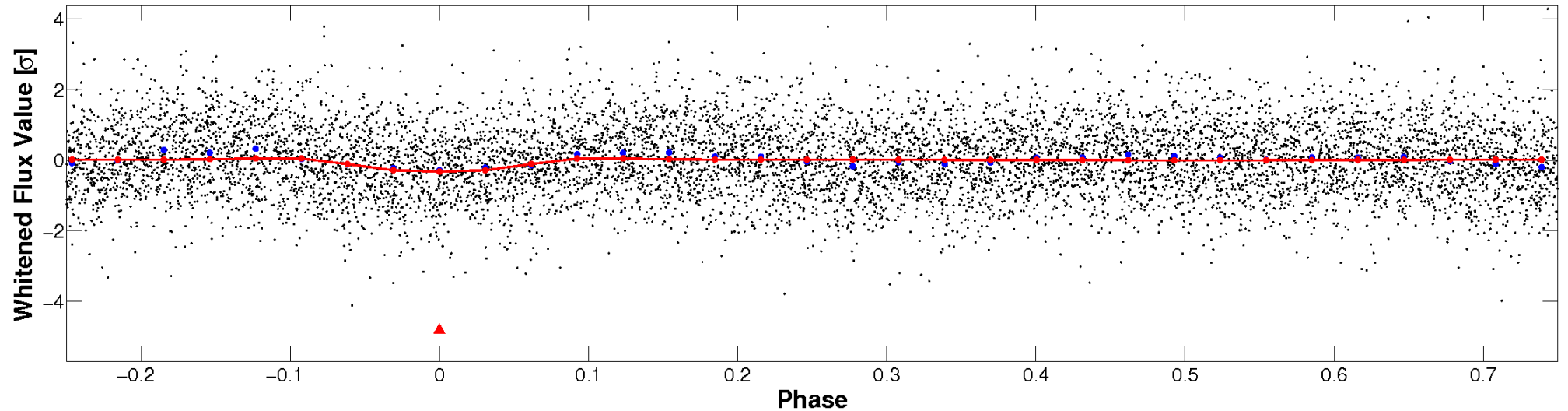


Non-Whitened Vs. Whitened Light Curve

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 005944240-01 P= 0.663470 Days $T_0=131.608096$ (BKJD)



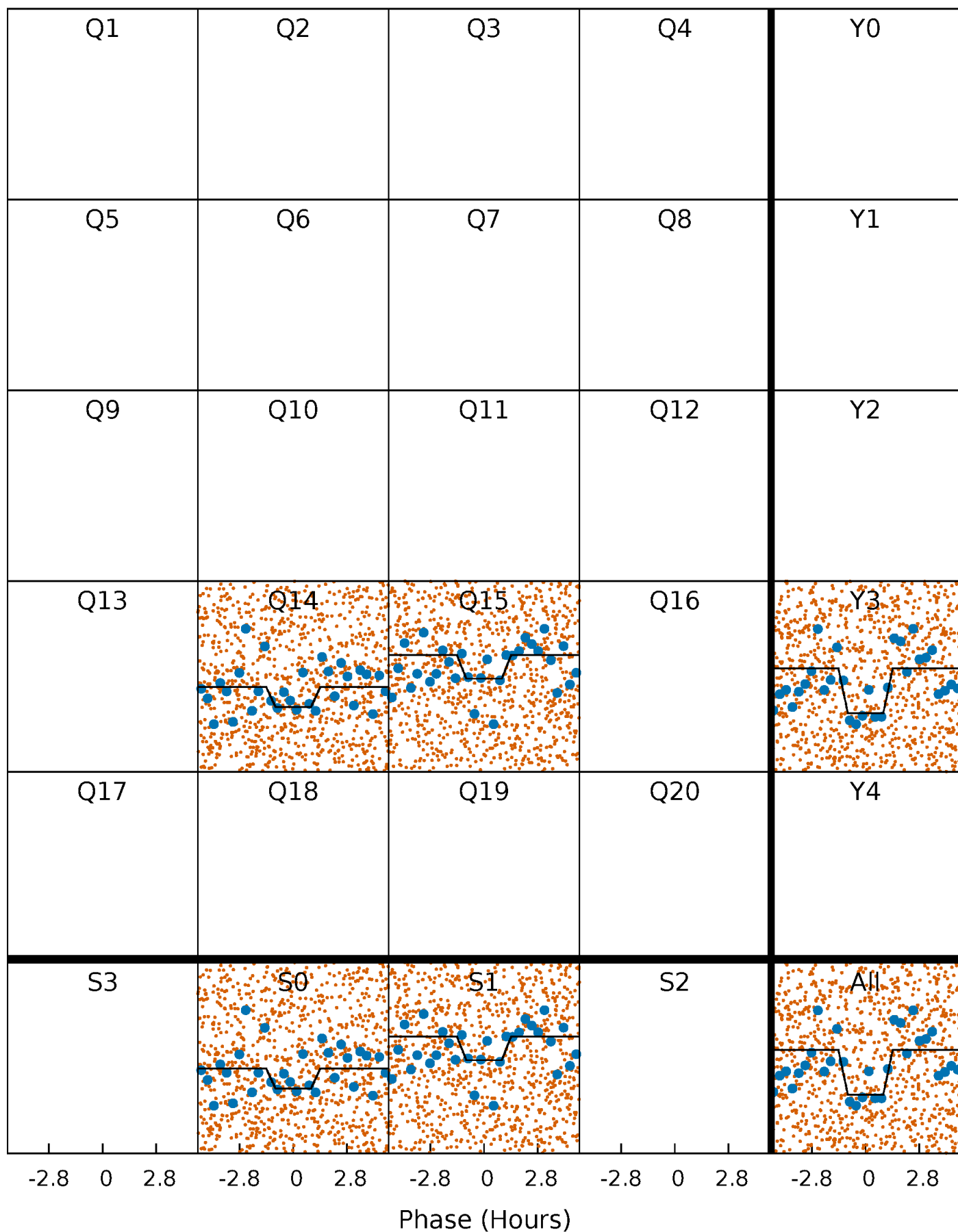
DV Quarter-Phased Transit Curves

TCE 005944240-01 P= 0.663470 Days $T_0=131.608096$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

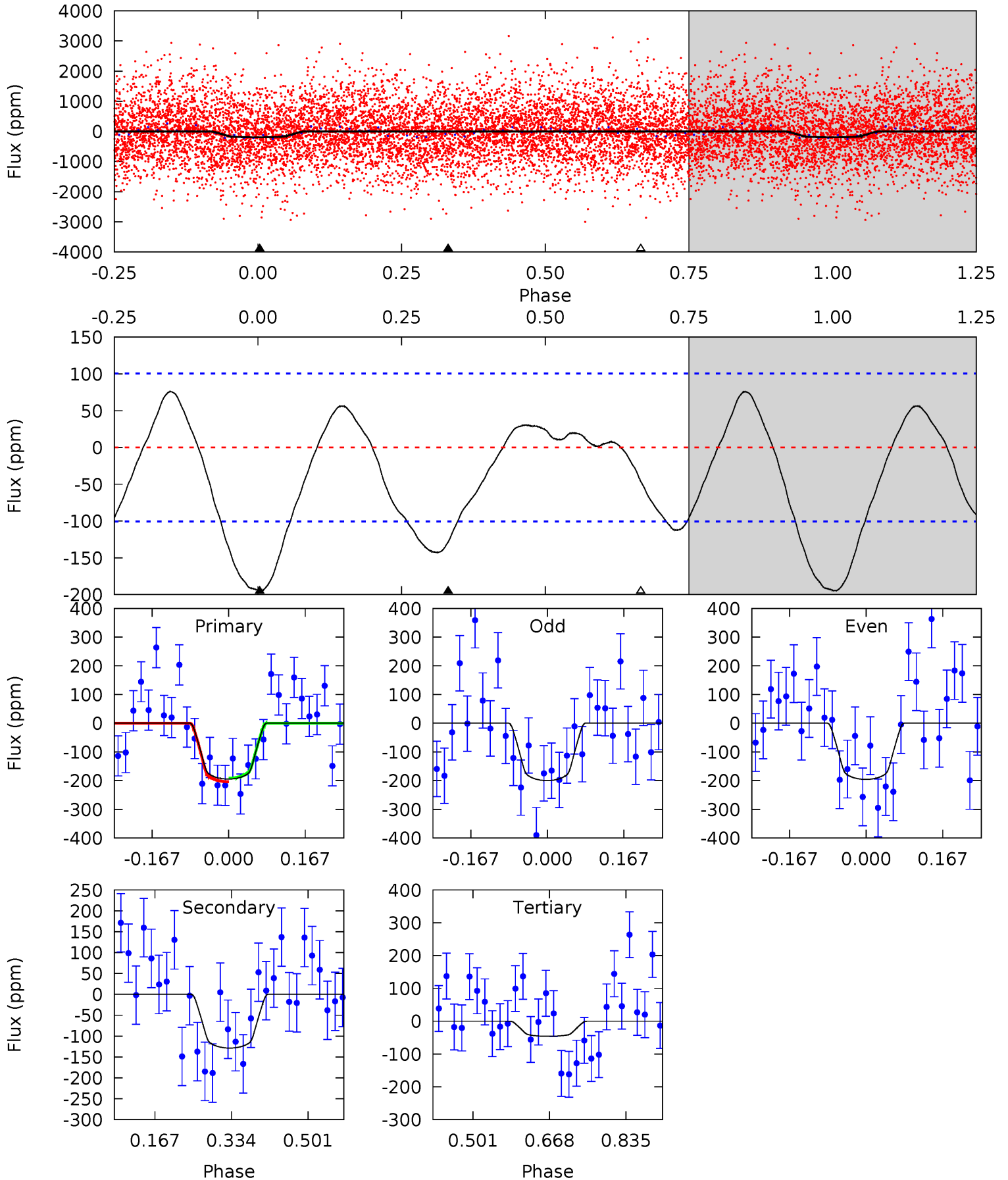
TCE 005944240-01 P= 0.663469 Days $T_0=131.608084$ (BKJD)



DV Model-Shift Uniqueness Test

005944240-01, P = 0.663470 Days, E = 131.608096 Days

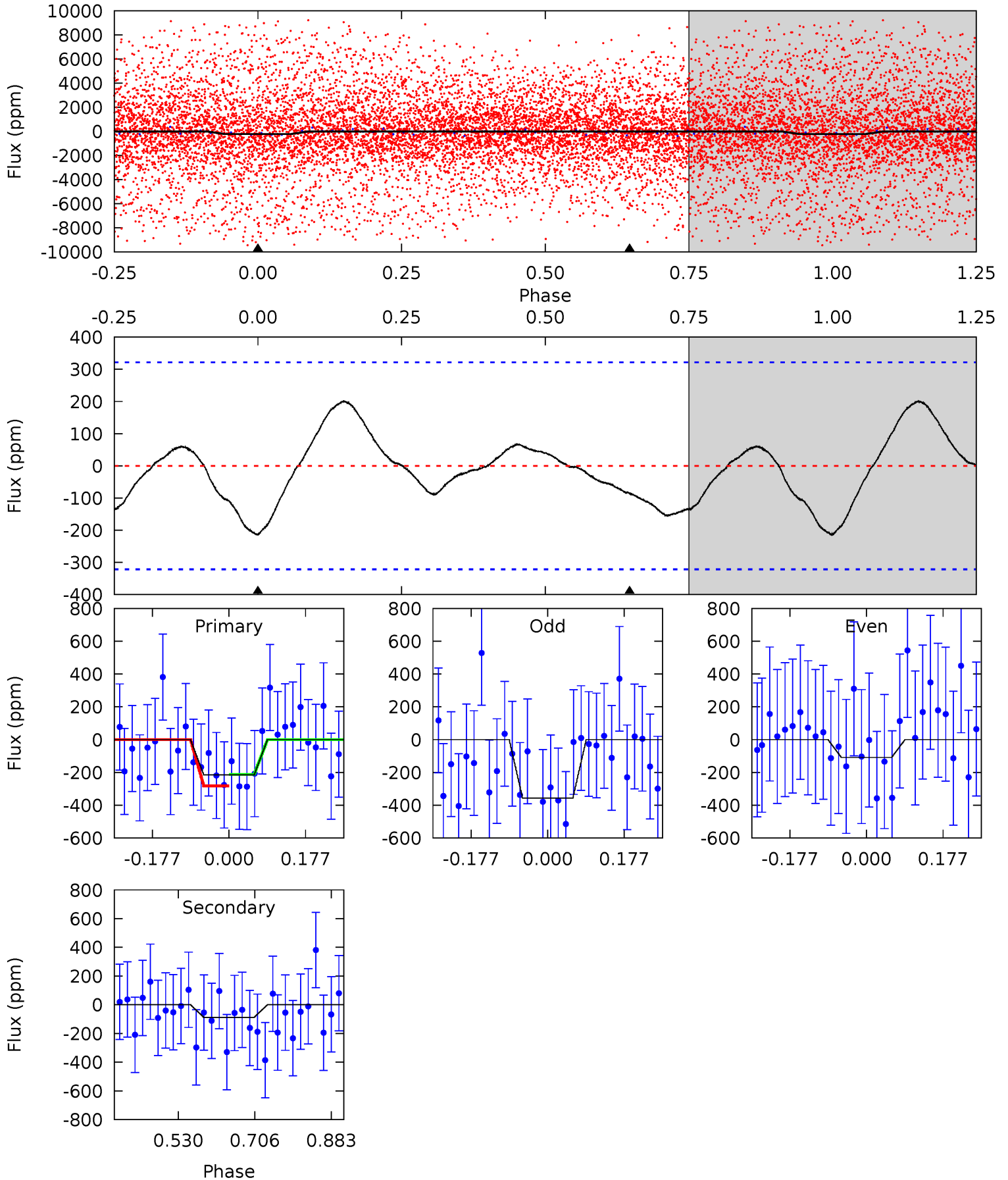
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.63	5.70	2.04	0	4.46	1.38	2.13	6.59	8.63	3.66	5.70	0.09	0.96	0.28	0.28



Alt Model-Shift Uniqueness Test

005944240-01, P = 0.663469 Days, E = 131.608084 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.97	1.21	0	0	4.44	1.35	0.77	2.97	2.97	1.21	1.21	1.67	0.94	0.48	0.46



Stellar Parameters For KIC 005944240

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7700^{+214}_{-322}	$4.031^{+0.176}_{-0.160}$	$0.060^{+0.200}_{-0.350}$	$2.145^{+0.519}_{-0.519}$	$1.801^{+0.145}_{-0.339}$	$0.257^{+0.255}_{-0.111}$
	+3%/-4%	+4%/-4%	+333%/-583%	+24%/-24%	+8%/-19%	+99%/-43%
Source	KIC0	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 005944240-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-129 ± 23	$3.78^{+2.19}_{-1.98}$	5150^{+363}_{-355}	5910^{+3686}_{-1478}	$1.617^{+5.180}_{-0.998}$
Alt.	-87 ± 72	$3.70^{+2.22}_{-1.89}$	5143^{+371}_{-409}	5059^{+3277}_{-8930}	$0.997^{+3.806}_{-0.857}$

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 $A_{obs} \gg 1.0$

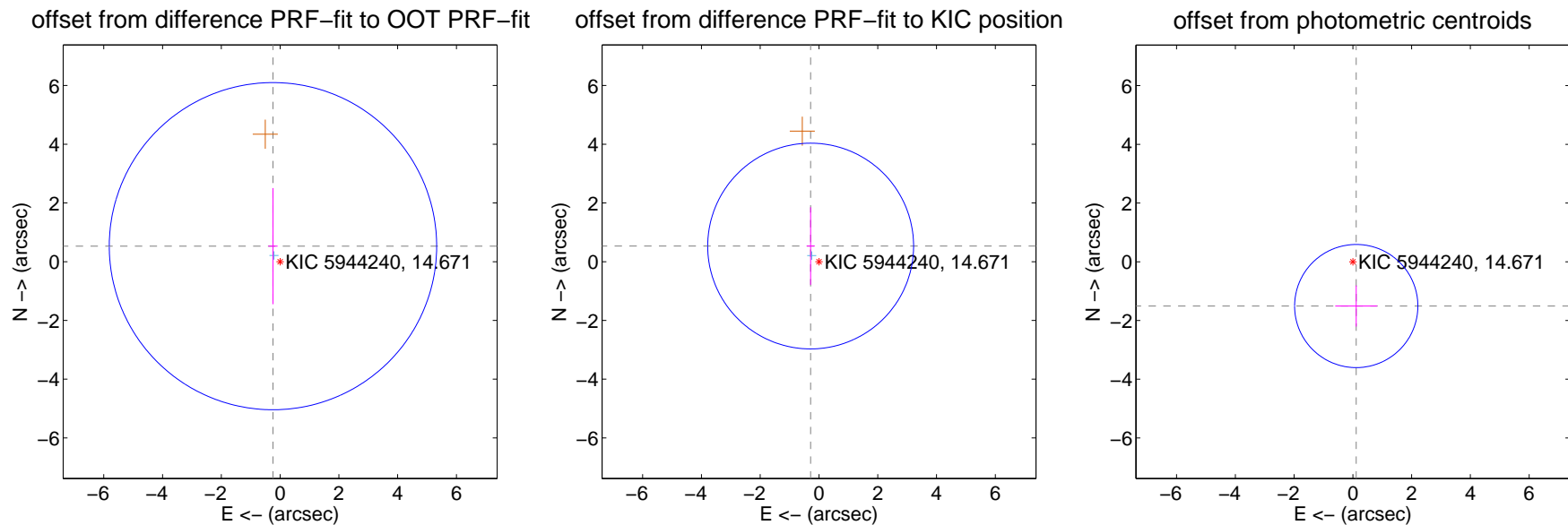
DV Centroid Data

Supplemental centroid analysis for 005944240-01. Kepler magnitude: 14.67. Transit SNR 8.96

There are 1 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.582 ± 1.857	0.31	0.243 ± 0.156	0.529 ± 1.979
PRF-fit source offset from KIC position	0.604 ± 1.168	0.52	0.284 ± 0.137	0.533 ± 1.321
photometric centroid source offset	1.51 ± 0.70	2.16	-0.11 ± 0.72	-1.51 ± 0.70



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.



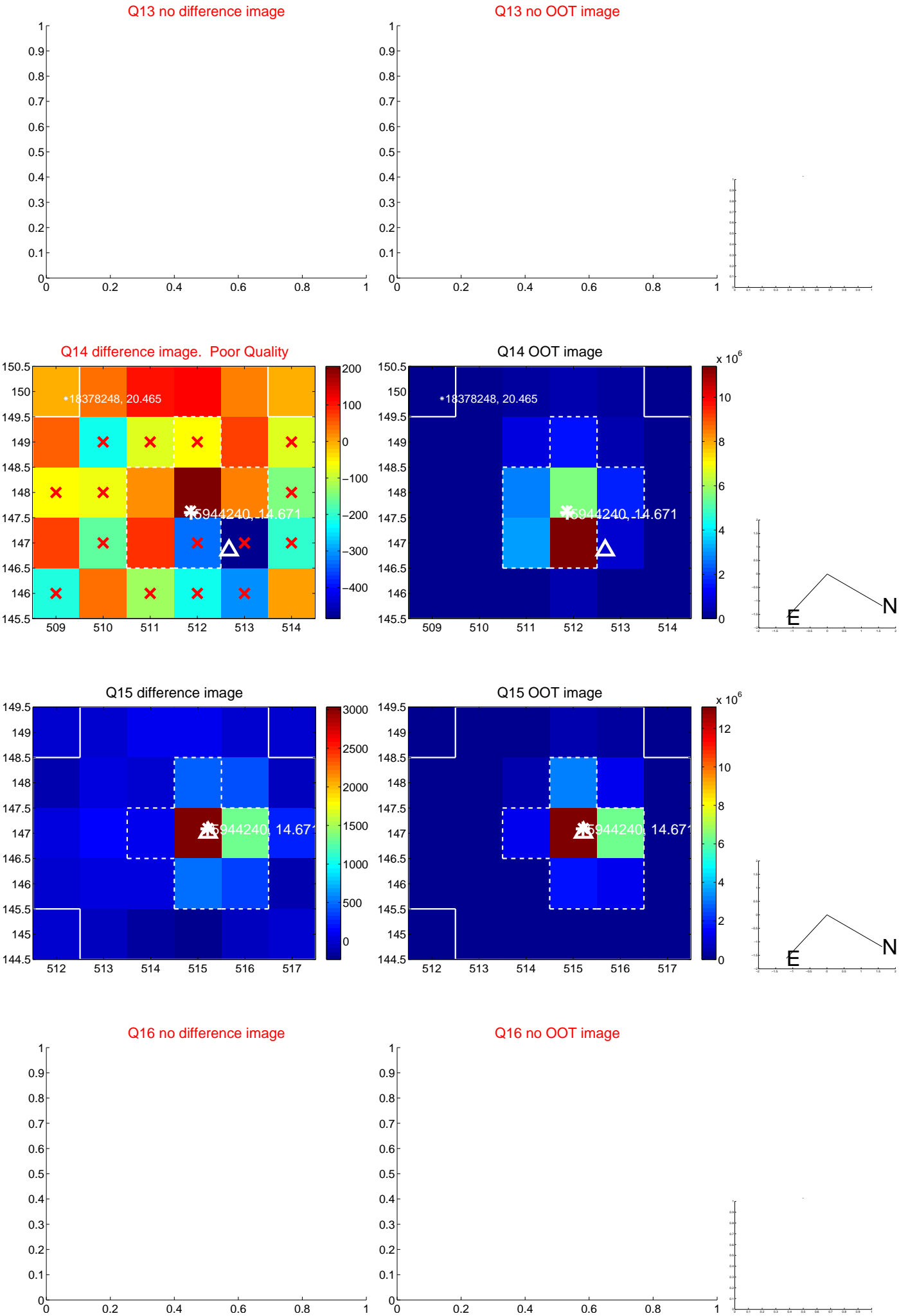
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



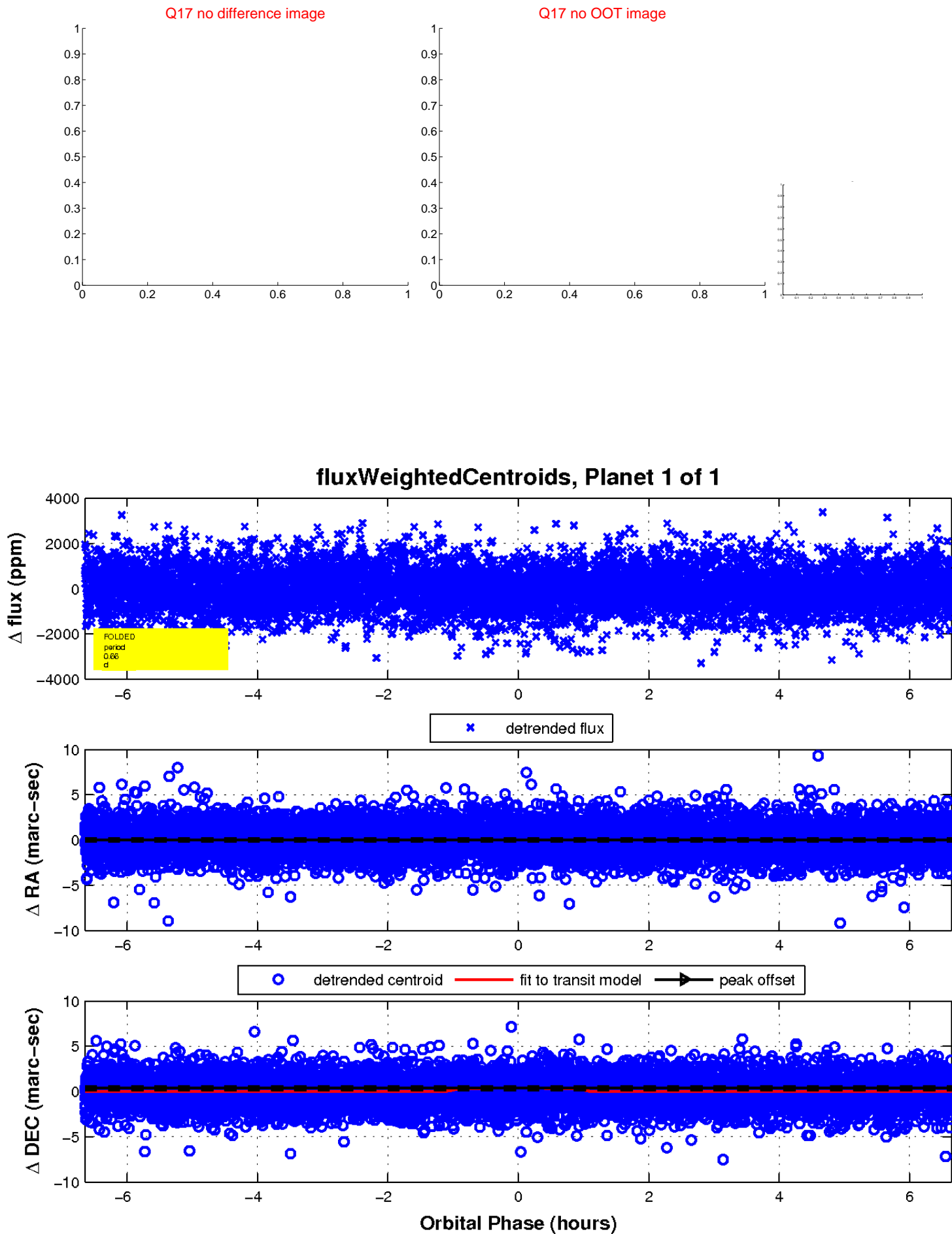
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

