

KIC 008104824

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})
008104824-01	OBS	No	371.613060	229.339185	468.5	17.828	7.2	7.9	0.59	4273	1.33	0.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008104824-01	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.

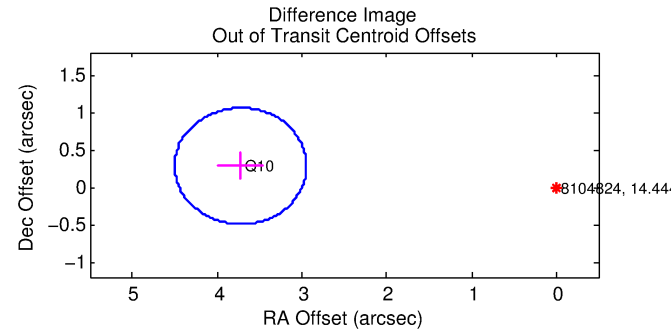
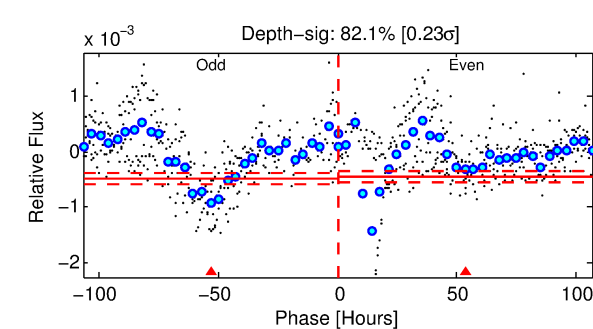
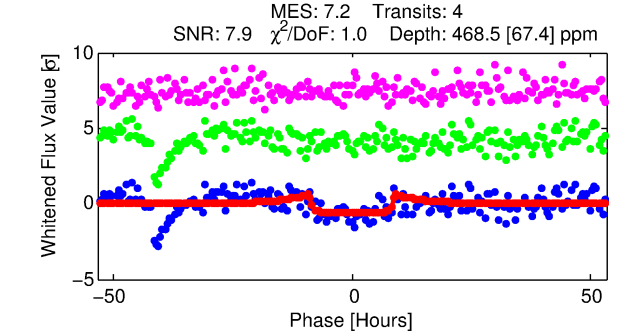
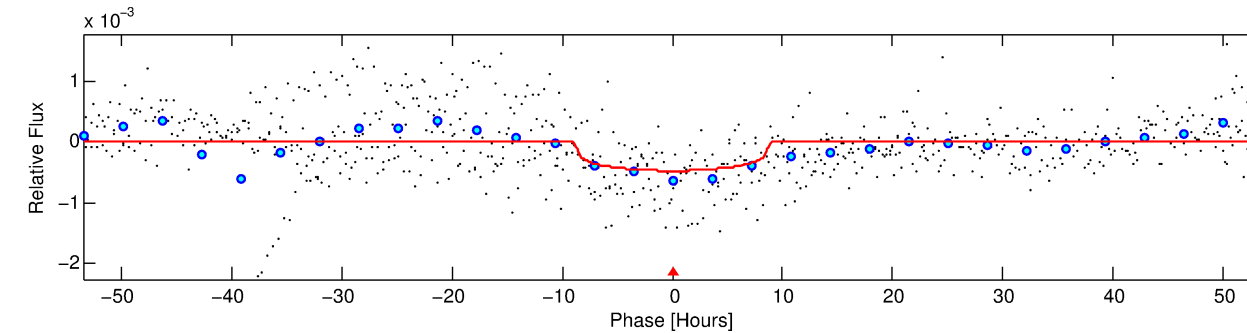
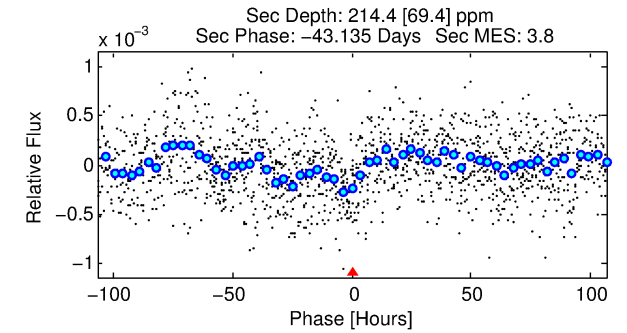
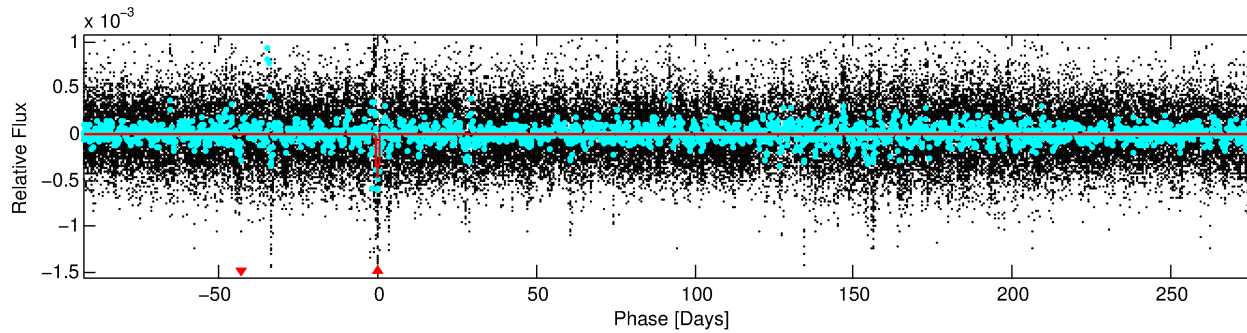
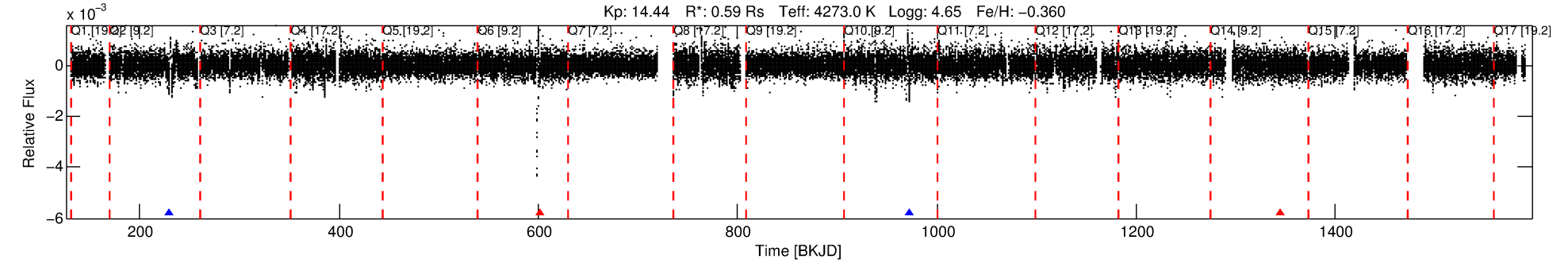
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008104824-01

No Significant Match Found

DV One-Page Summary

KIC: 8104824 Candidate: 1 of 1 Period: 371.613 d



DV Fit Results:

Period = 371.61306 [0.00862] d
Epoch = 229.3392 [0.0163] BKJD
Rp/R* = 0.0205 [0.0086]
a/R* = 132.21 [192.28]
b = 0.59 [1.60]
Seff = 0.15 [0.03]
Teq = 158 [7] K
Rp = 1.33 [0.57] Re
a = 0.8435 [0.0687] AU
Ag = 47562.29 [43074.18] [1.10σ]
Teffp = 3615 [821] K [4.21σ]

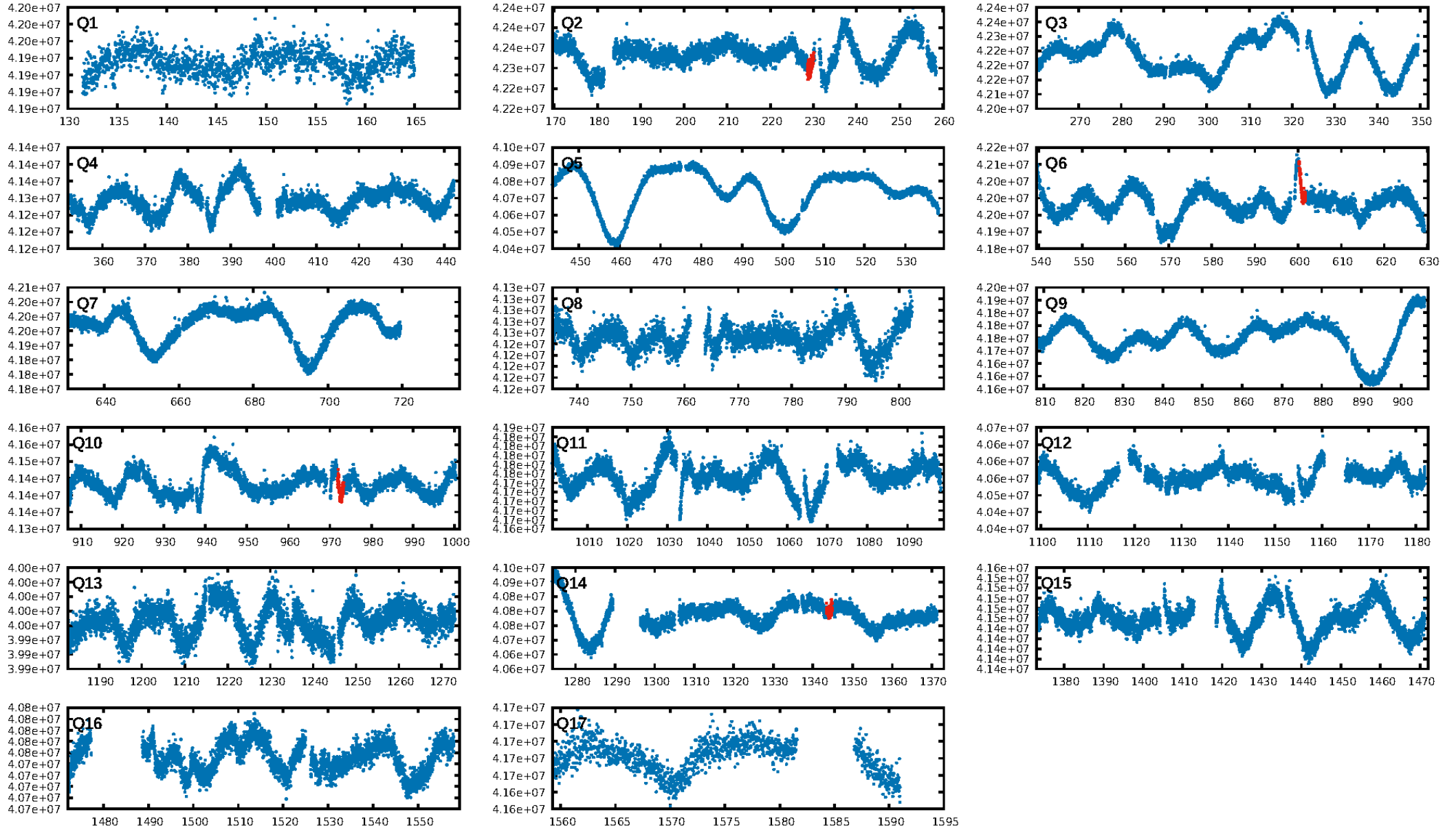
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 12.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.83e-08
RollingBand-fgt: 0.50 [2/4]
GhostDiagnostic-chr: -0.4451
Centroid-sig: 3.5%
Centroid-so: 2.839 arcsec [1.29σ]
OotOffset-rm: 3.733 arcsec [14.40σ]
KicOffset-rm: 3.442 arcsec [13.27σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

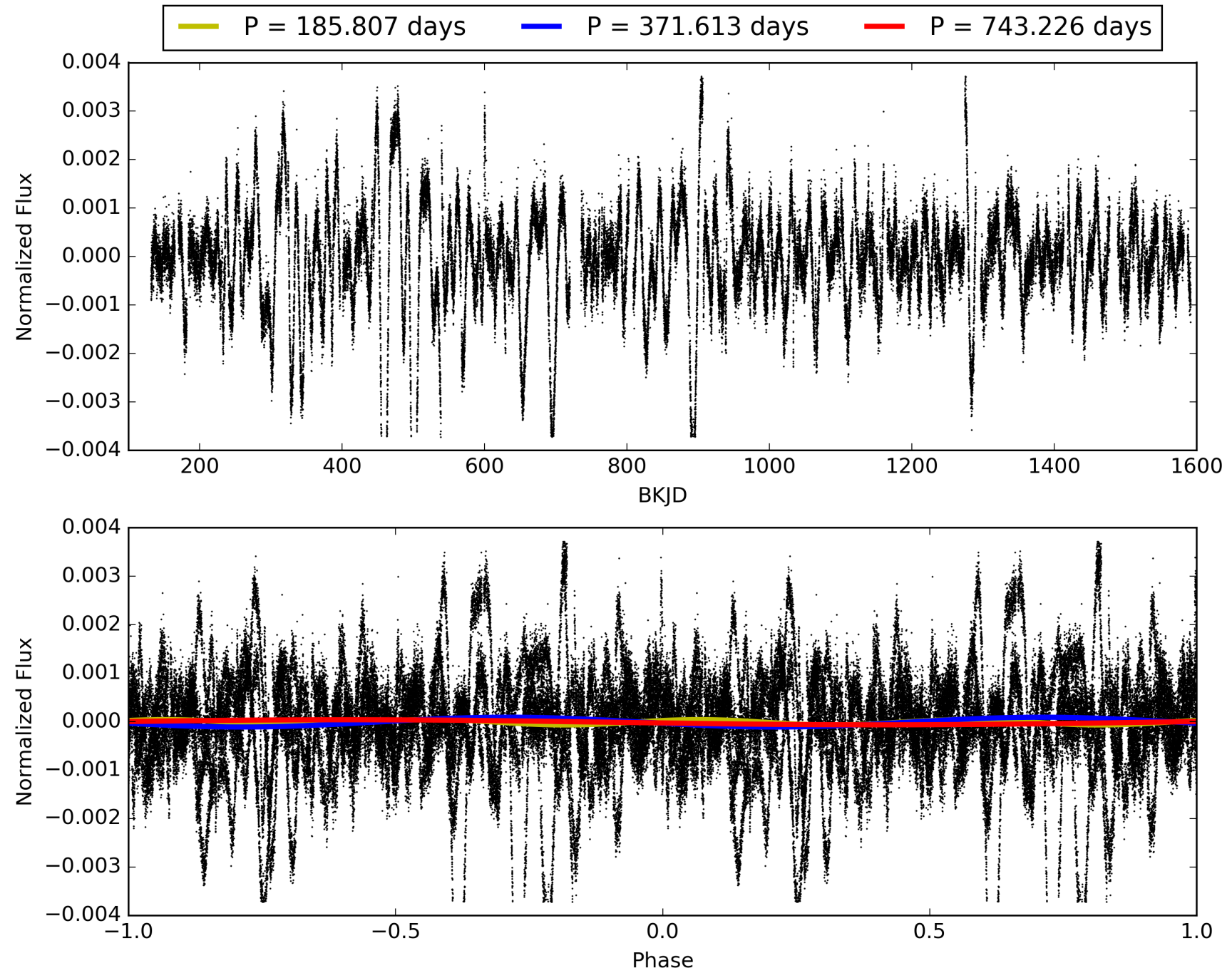
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:47:45 Z

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

TCE 008104824-01, PDC Light Curves

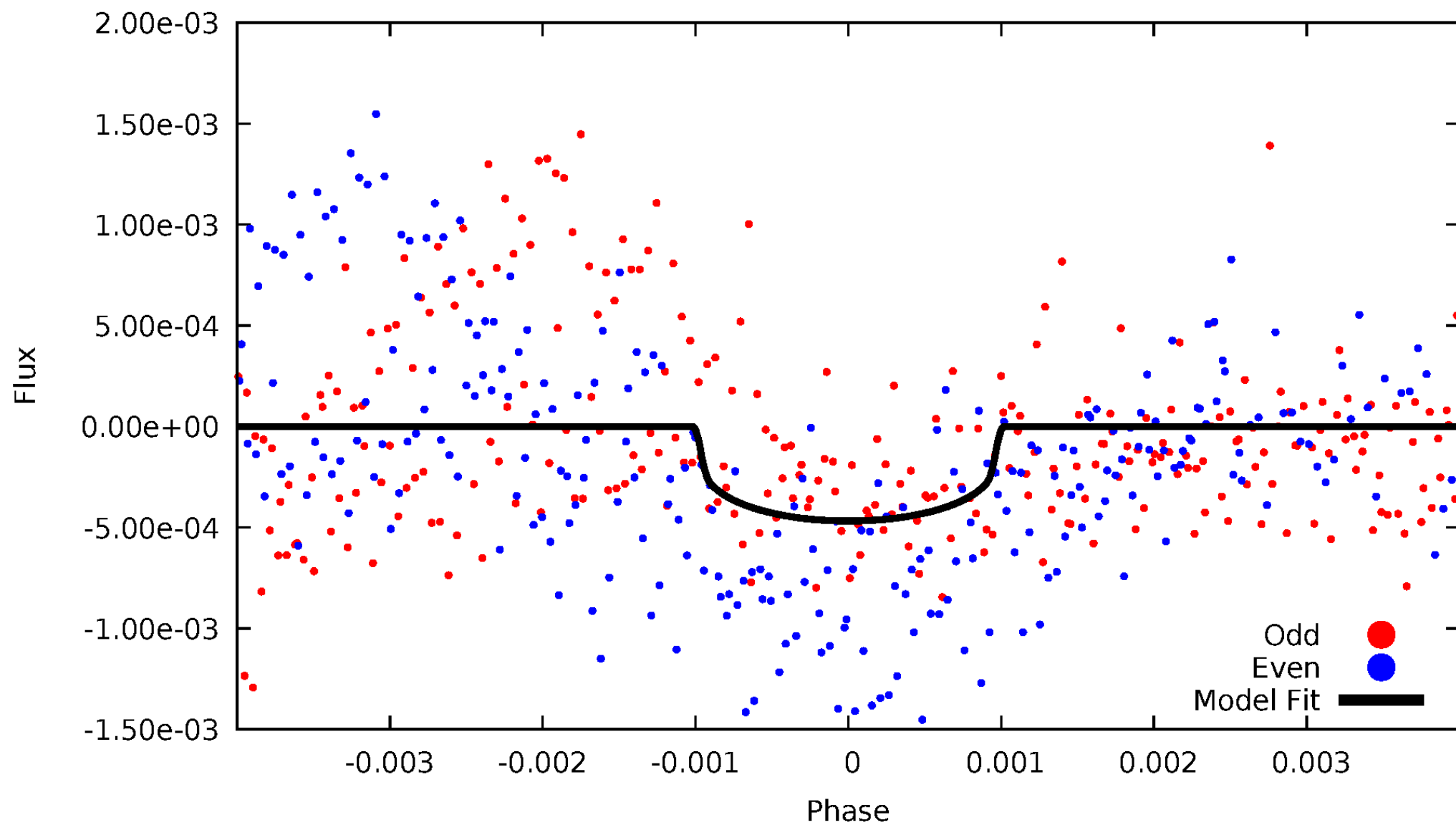


TCE 008104824-01



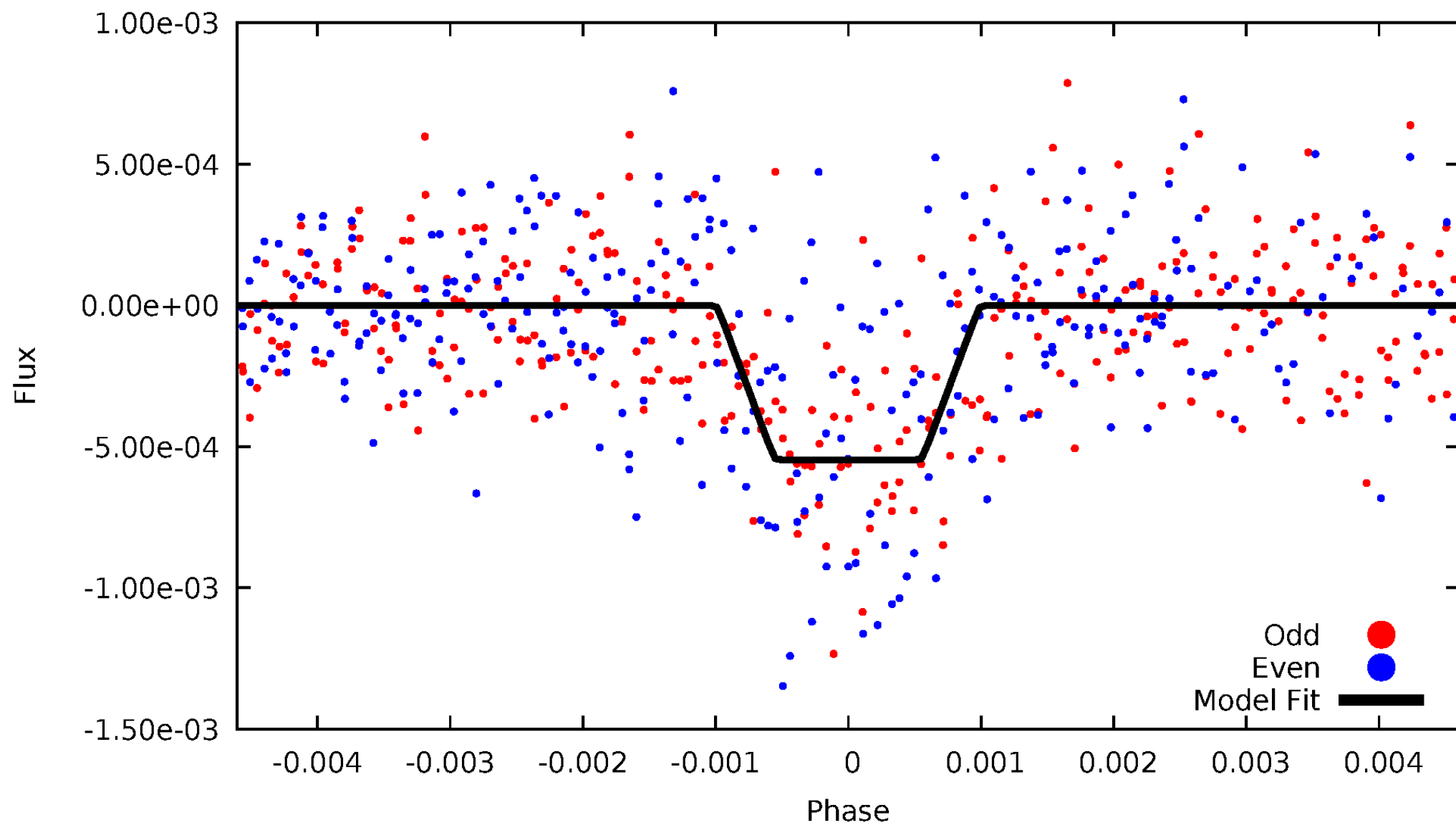
DV Odd/Even

TCE 008104824-01

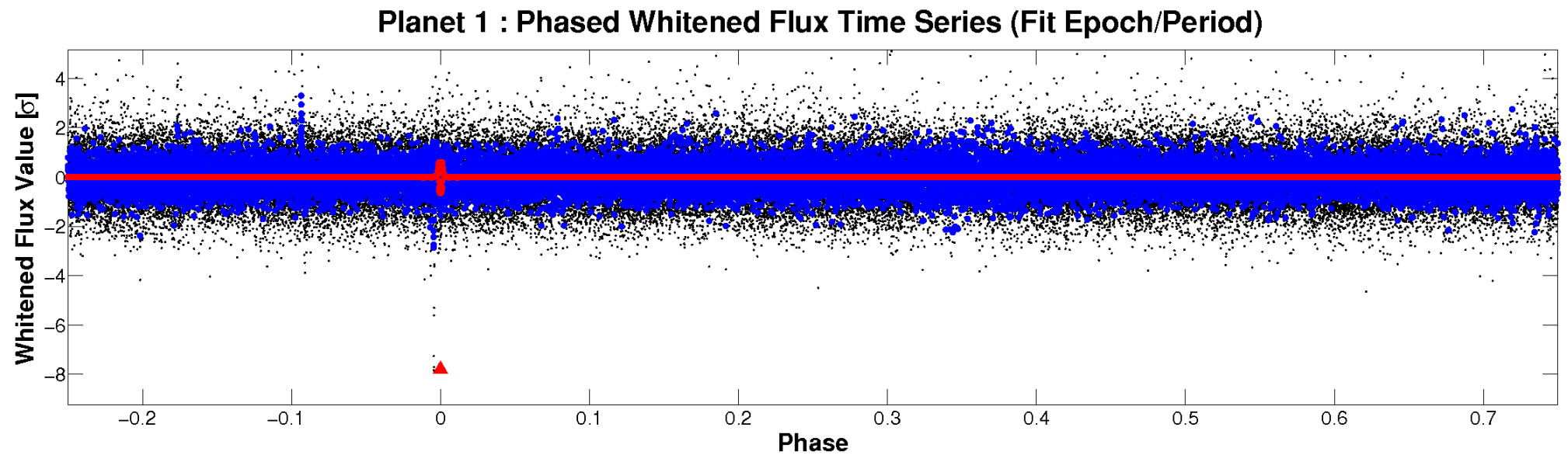
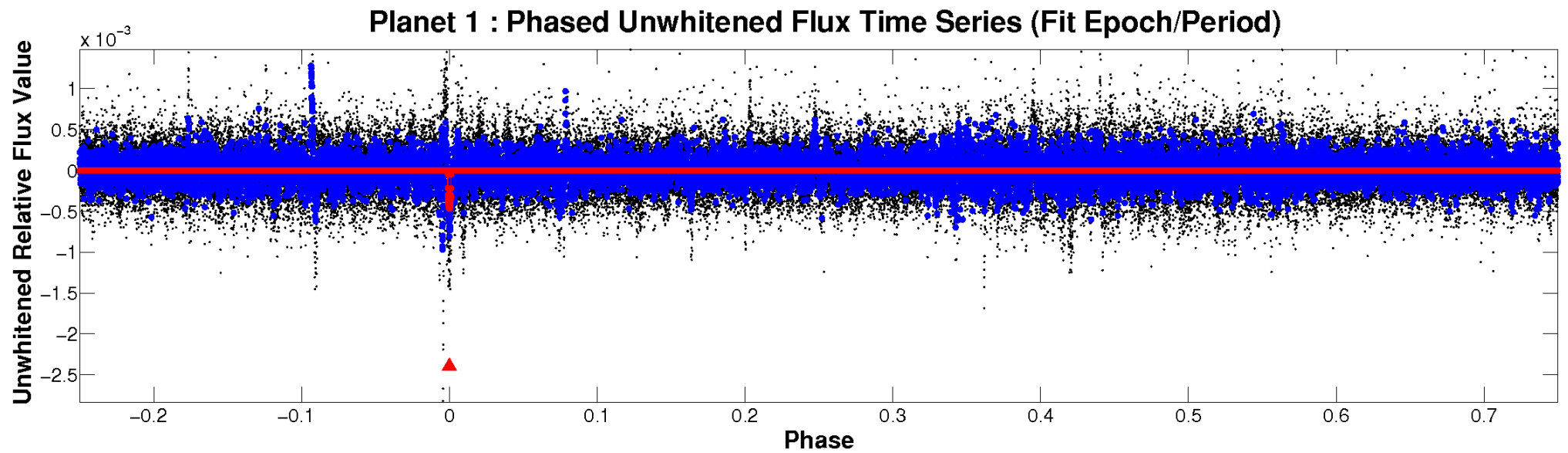


ALT Odd/Even

TCE 008104824-01

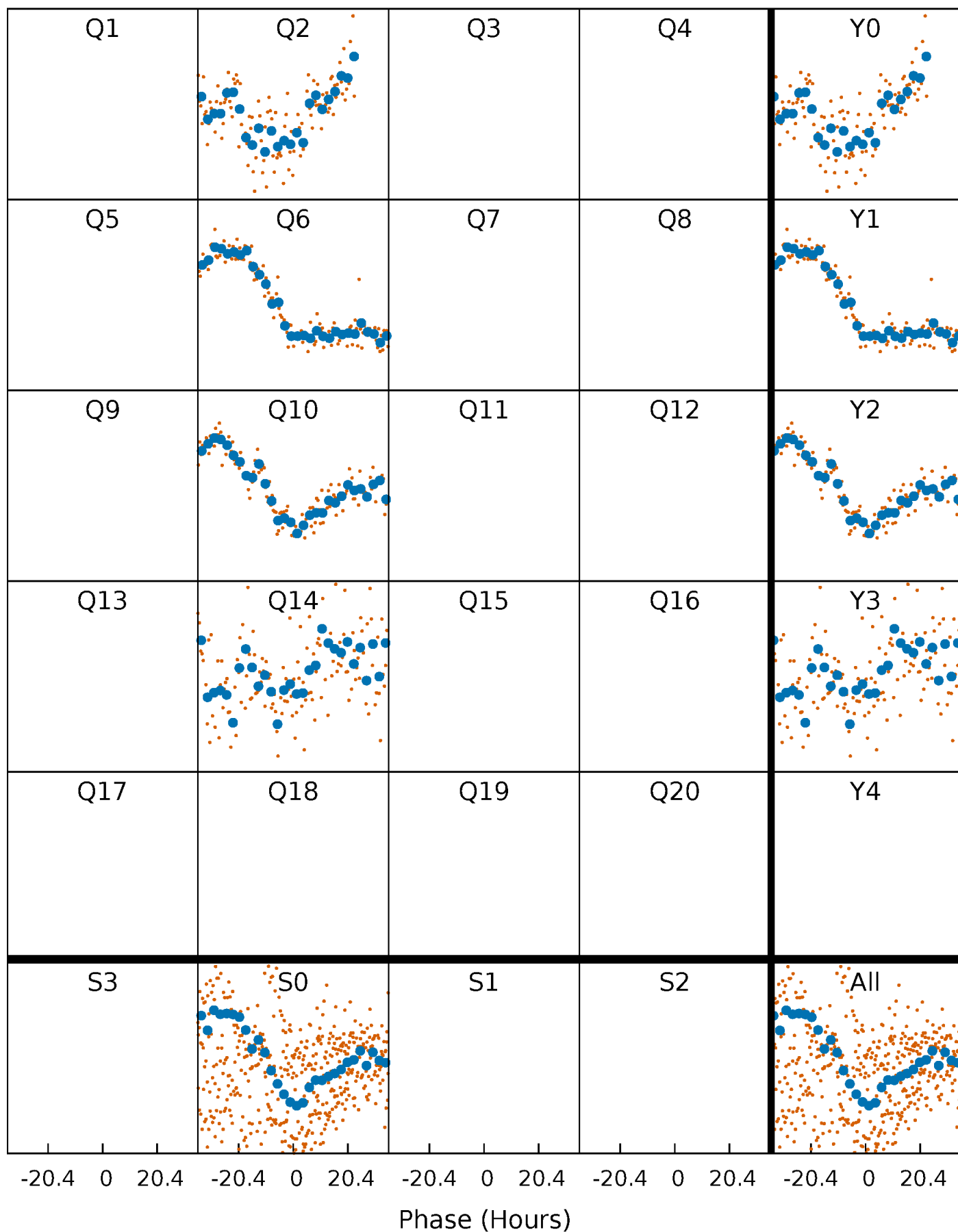


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 008104824-01 P=371.613060 Days $T_0=229.339185$ (BKJD)



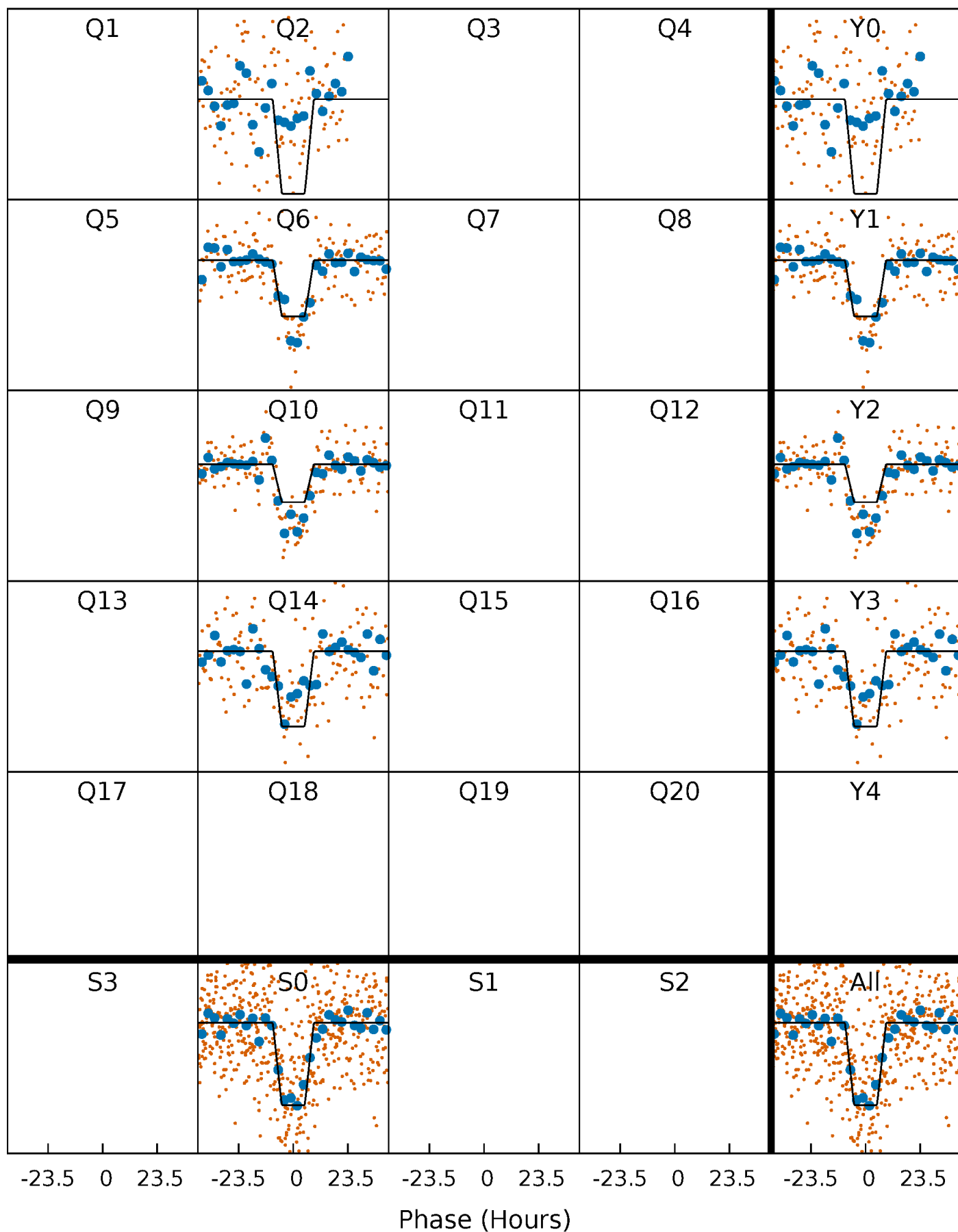
DV Quarter-Phased Transit Curves

TCE 008104824-01 P=371.613060 Days $T_0=229.339185$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

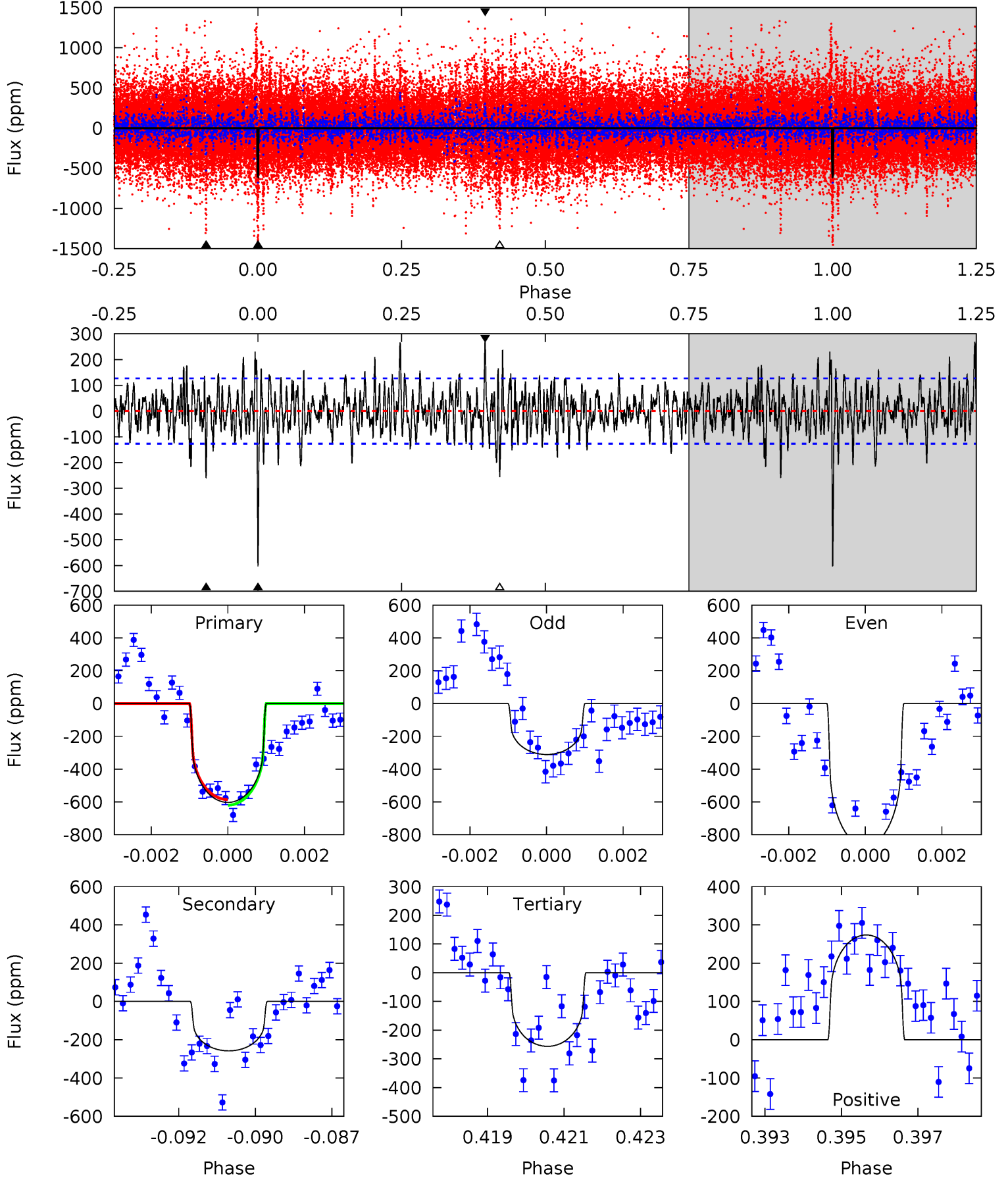
TCE 008104824-01 P=371.584289 Days $T_0=229.331256$ (BKJD)



DV Model-Shift Uniqueness Test

008104824-01, P = 371.613060 Days, E = 229.339185 Days

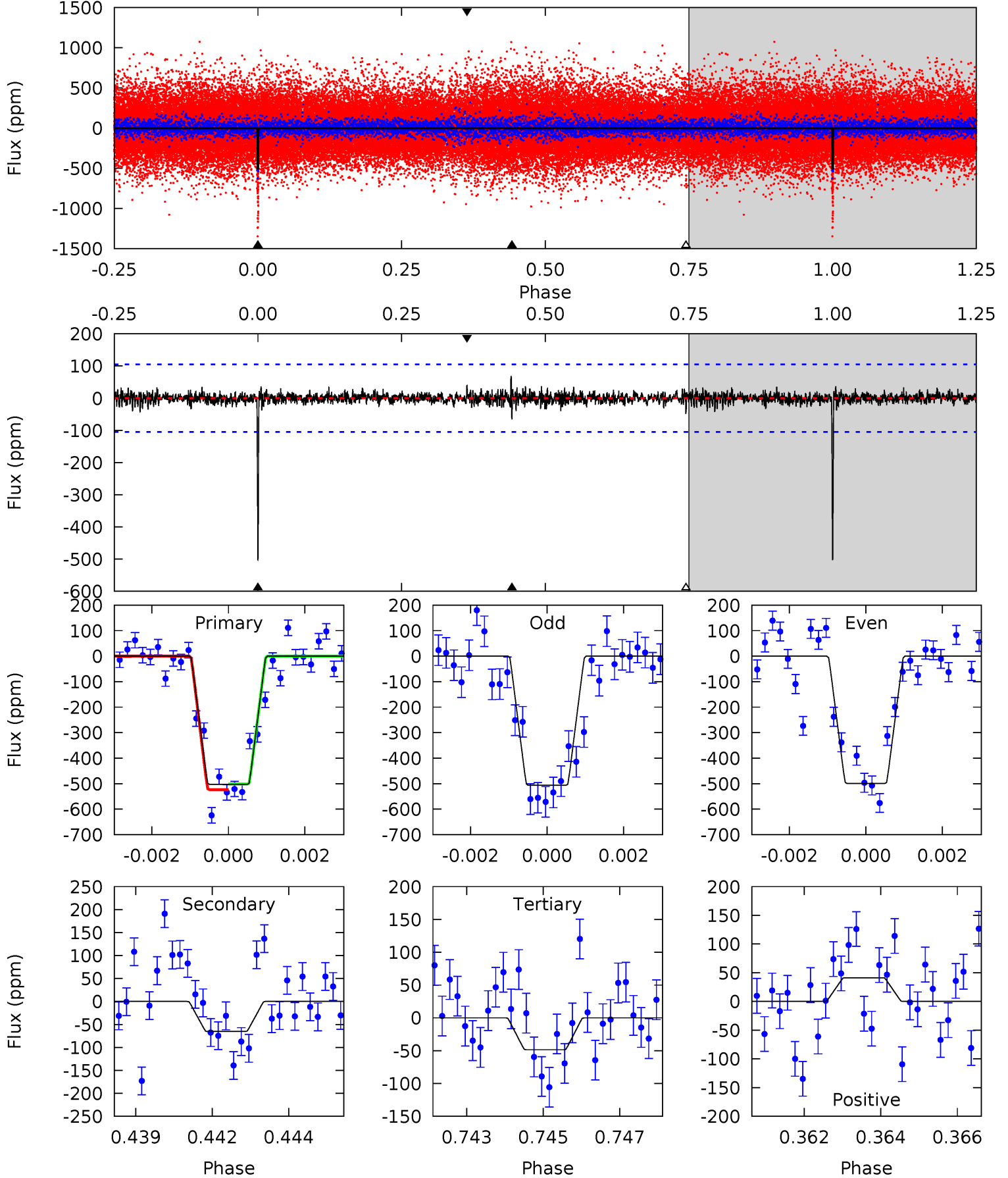
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	10.8	10.8	11.5	5.32	3.09	2.88	14.6	13.8	0.08	-0.65	11.5	1.31	0.31	0.71



Alt Model-Shift Uniqueness Test

008104824-01, P = 371.584289 Days, E = 229.331256 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.5	3.31	2.46	2.09	5.32	3.09	0.55	23.0	23.4	0.85	1.22	0.18	0.99	0.12	0.56



Stellar Parameters For KIC 008104824

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4273^{+115}_{-140}	$4.652^{+0.060}_{-0.024}$	$-0.360^{+0.300}_{-0.300}$	$0.595^{+0.044}_{-0.060}$	$0.581^{+0.061}_{-0.051}$	$3.876^{+1.052}_{-0.438}$
	+3%/-3%	+1%/-1%	+83%/-83%	+7%/-10%	+10%/-9%	+27%/-11%
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 008104824-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-258 ± 24	$1.30^{+0.59}_{-0.56}$	219^{+7}_{-8}	3910^{+947}_{-430}	$60050^{+126506}_{-31367}$
Alt.	-65 ± 20	$1.51^{+0.52}_{-0.54}$	219^{+7}_{-8}	3028^{+441}_{-295}	11595^{+16456}_{-5921}

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

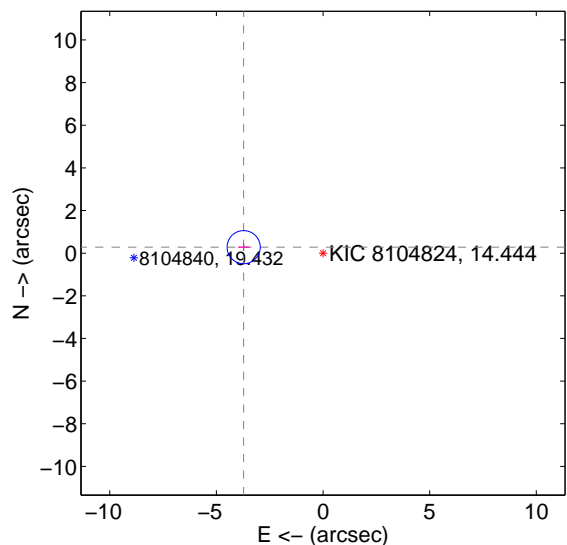
Supplemental centroid analysis for 008104824-01. Kepler magnitude: 14.44. Transit SNR 7.92

There are 0 quarters with good PRF difference image offsets

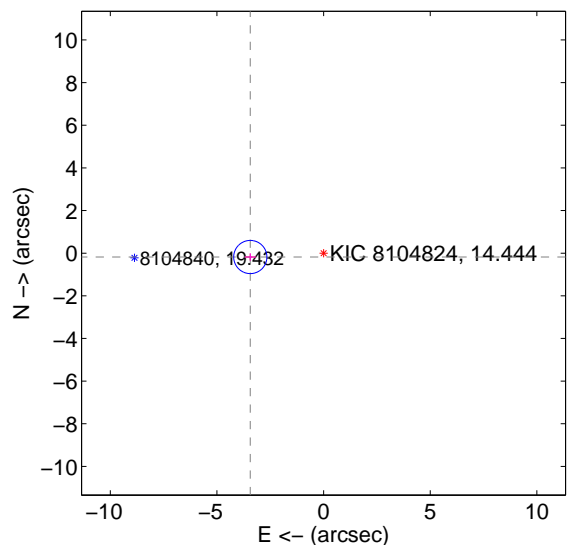
The direct PRF centroid is offset from the target star catalog position by about 0.54 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.733 ± 0.259	14.40	3.722 ± 0.260	0.281 ± 0.173
PRF-fit source offset from KIC position	3.442 ± 0.259	13.27	3.437 ± 0.260	-0.180 ± 0.173
photometric centroid source offset	2.84 ± 2.21	1.29	-1.09 ± 1.60	2.62 ± 2.29

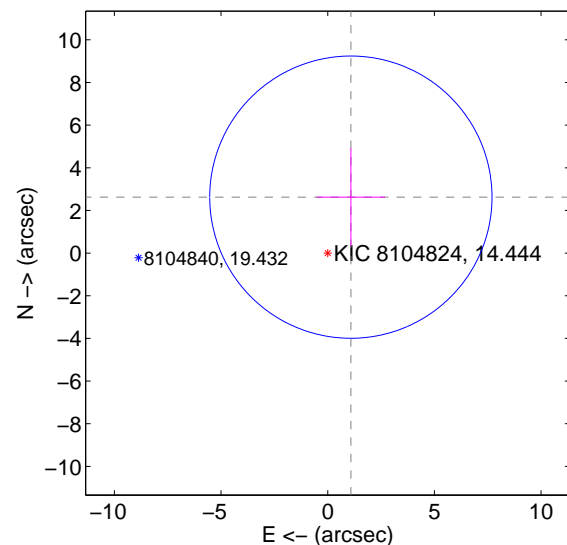
offset from difference PRF-fit to OOT PRF-fit



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 > 15,000,000 are from the UKIRT catalog.

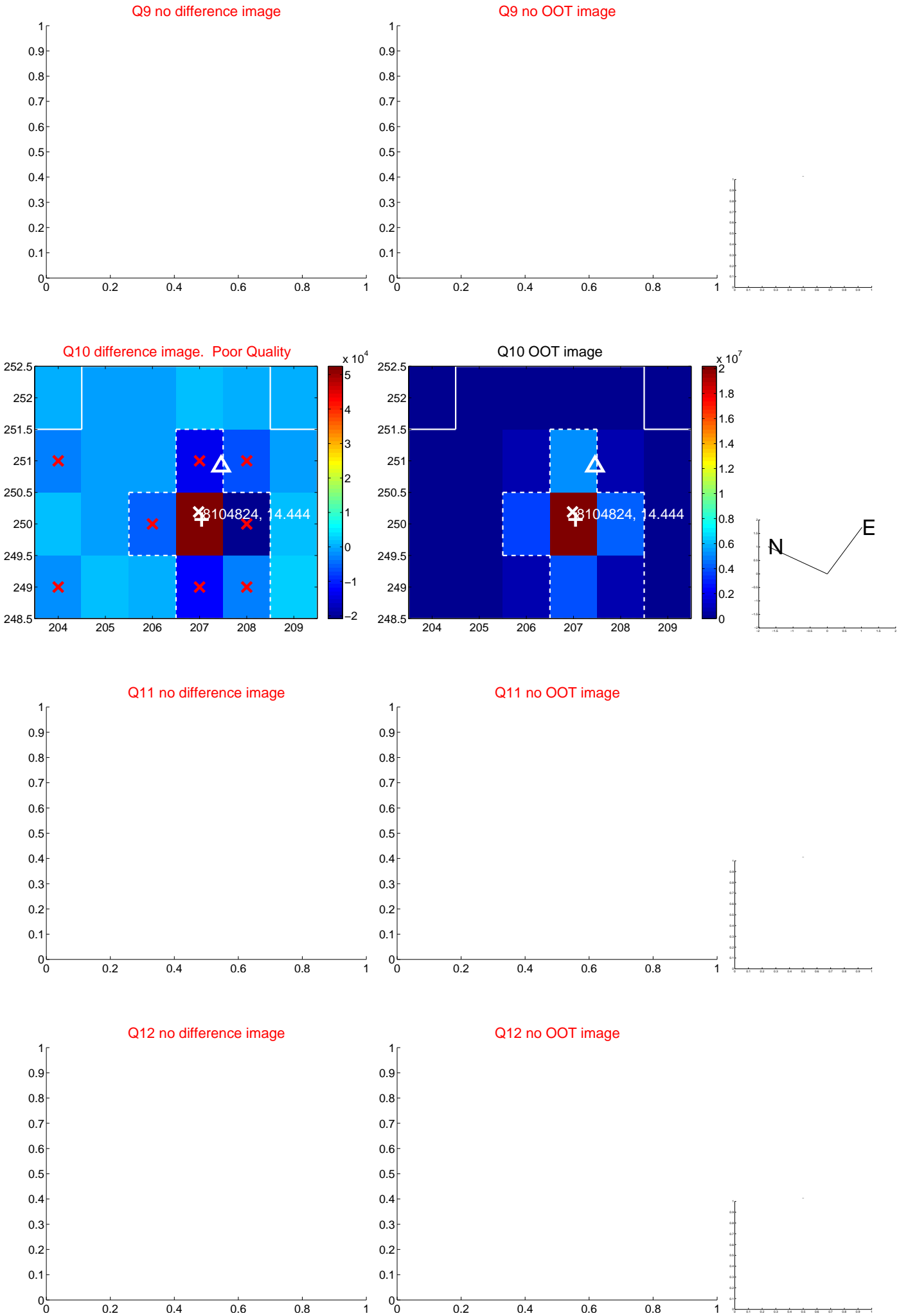
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



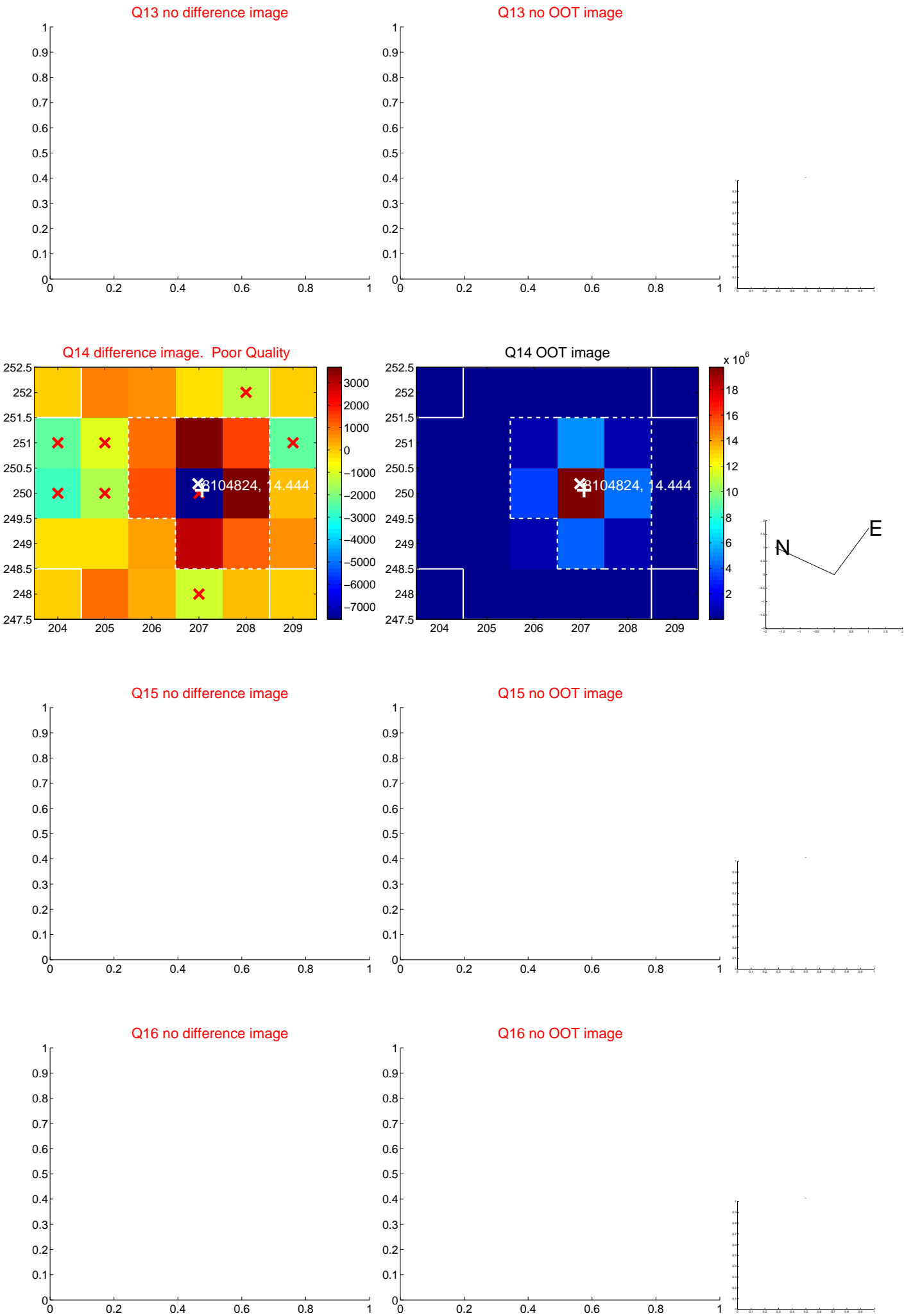
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



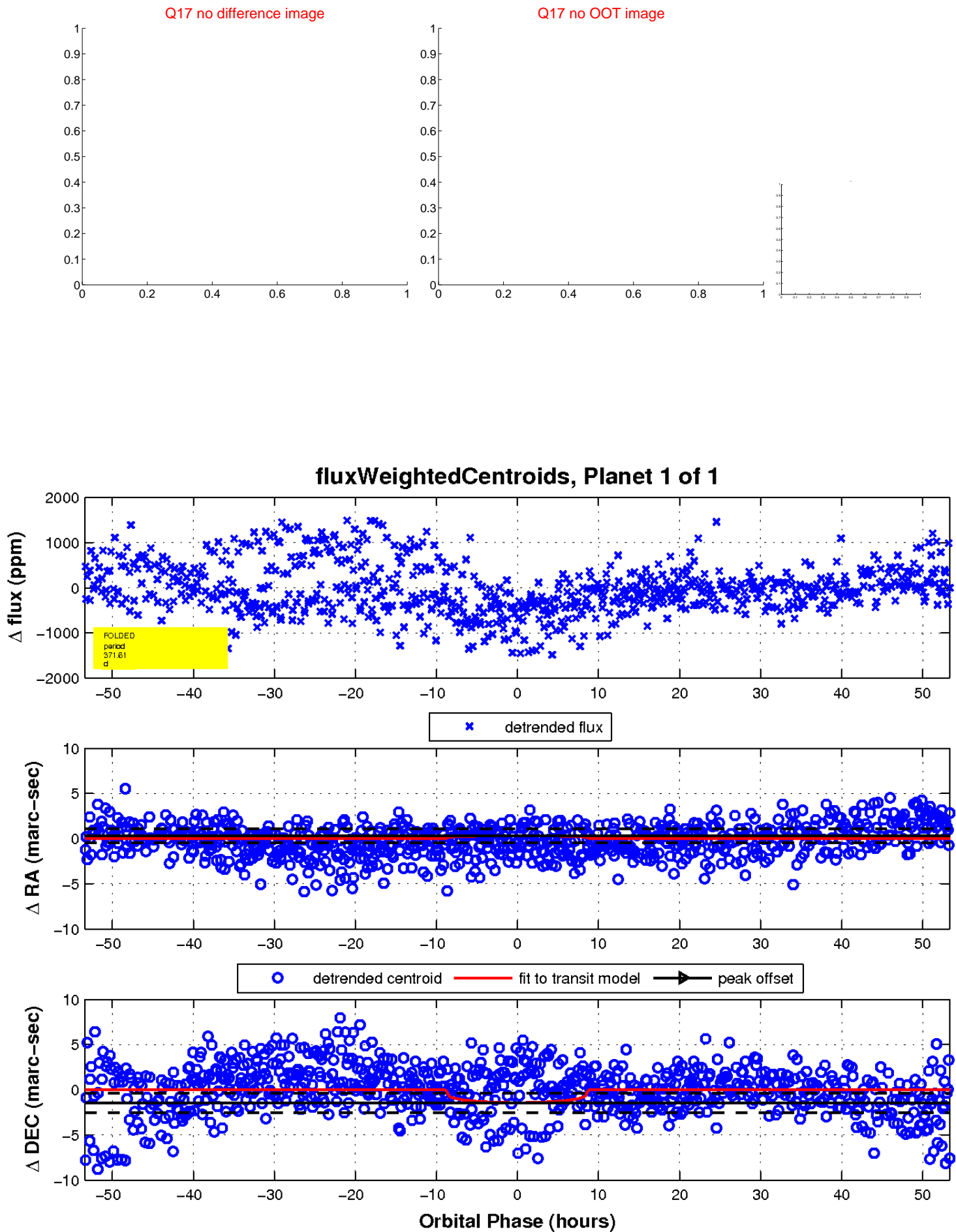
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

