

KIC 008174059

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})
008174059-01	OBS	No	396.747190	302.346051	213.9	17.494	7.2	6.3	1.22	6575	1.91	2.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008174059-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

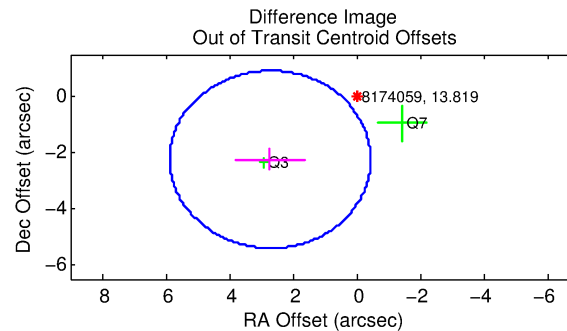
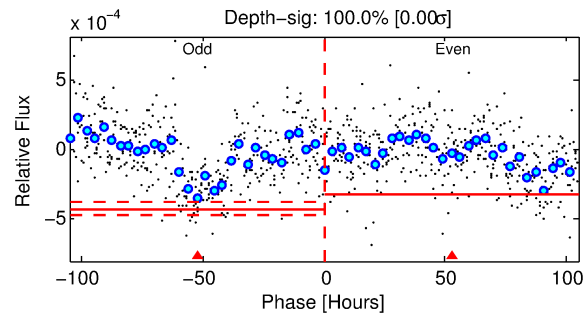
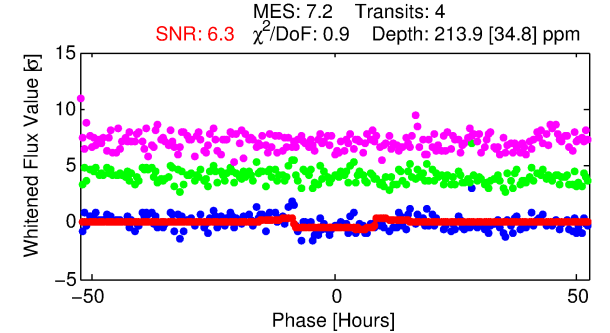
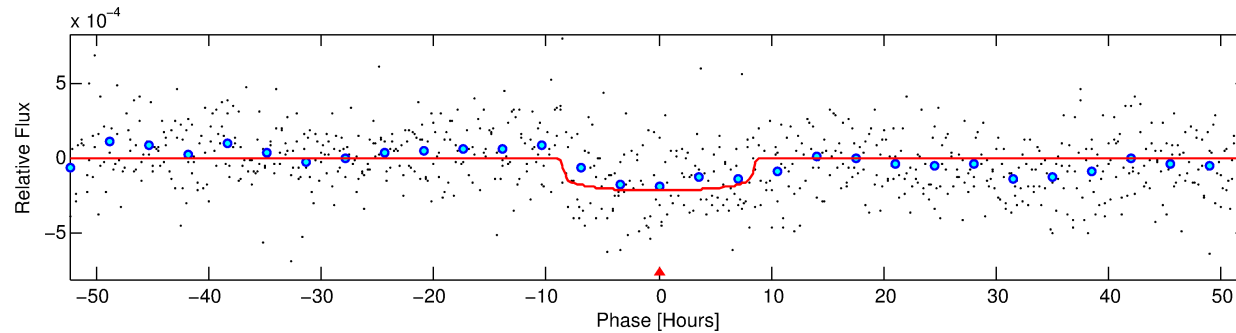
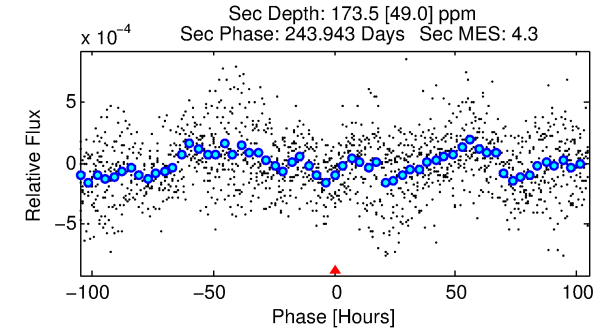
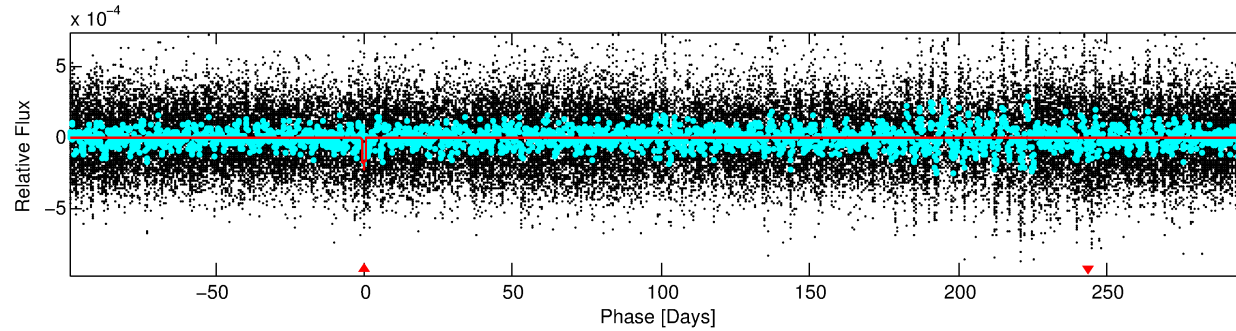
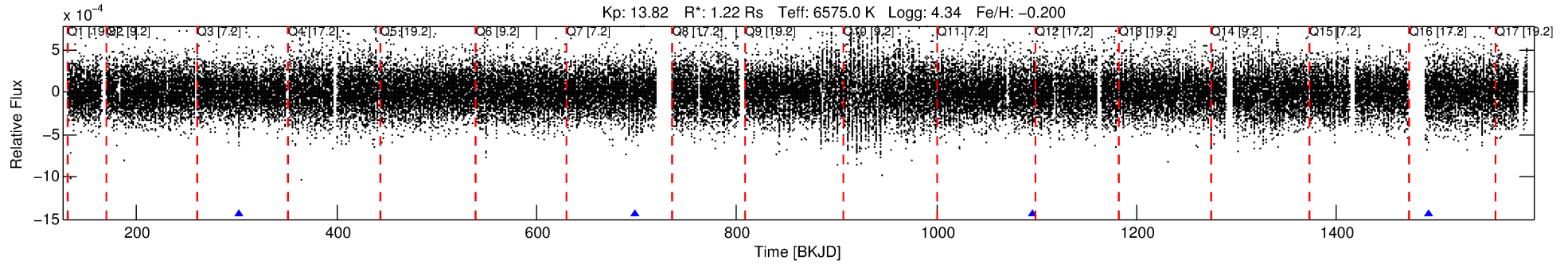
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008174059-01

No Significant Match Found

DV One-Page Summary

KIC: 8174059 Candidate: 1 of 1 Period: 396.747 d



DV Fit Results:

Period = 396.74719 [0.00957] d
Epoch = 302.3461 [0.0166] BKJD
Rp/R* = 0.0144 [0.0037]
a/R* = 125.80 [166.40]
b = 0.71 [0.94]
Seff = 2.00 [0.78]
Teq = 303 [30] K
Rp = 1.91 [0.78] Re
a = 1.1155 [0.2883] AU
Ag = 32540.12 [22662.04] [1.44σ]
Teffp = 6294 [954] K [6.28σ]

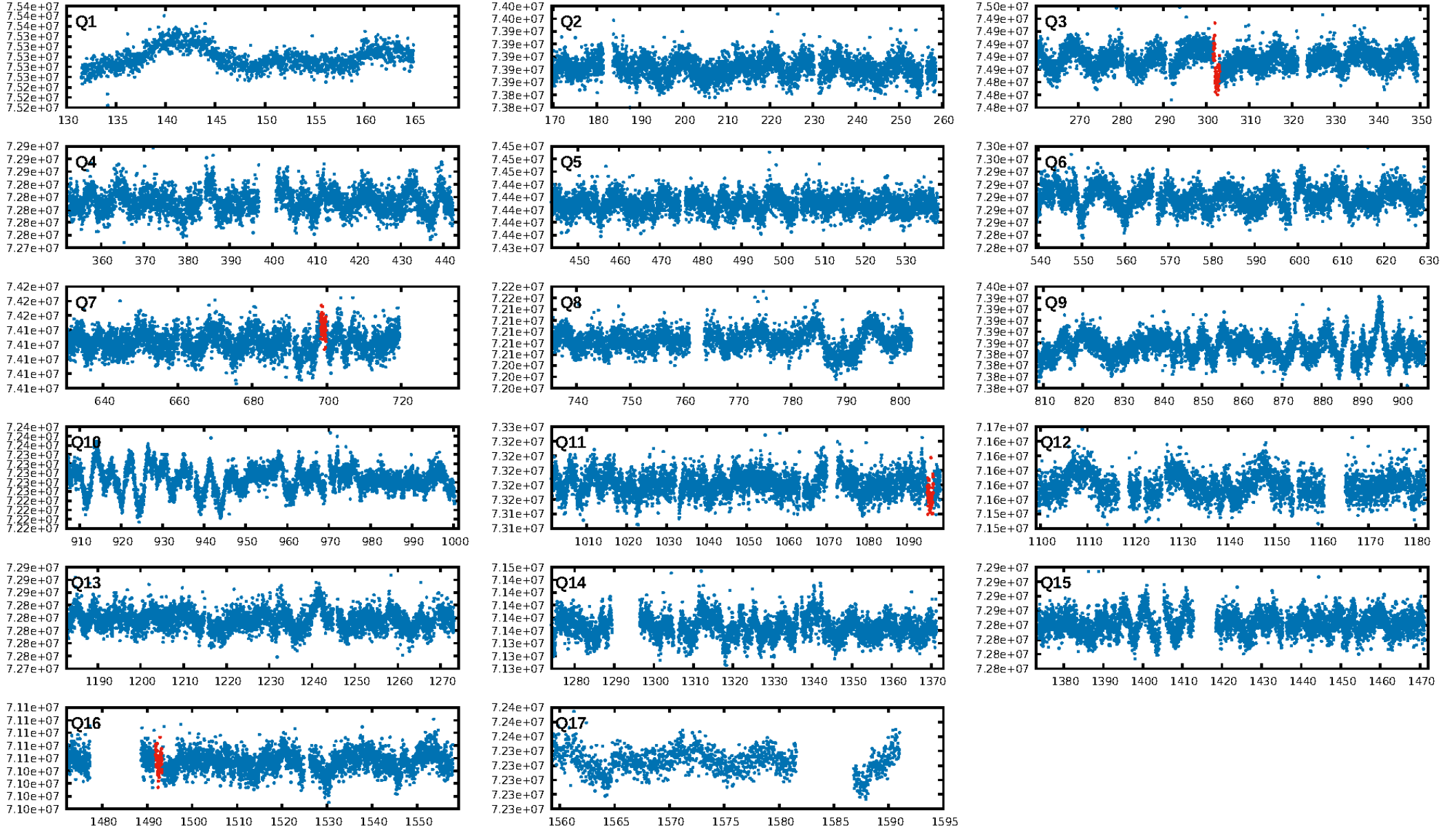
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.94e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -2.204
Centroid-sig: 13.4%
Centroid-so: 1.569 arcsec [1.54σ]
OotOffset-rm: 3.521 arcsec [3.34σ]
KicOffset-rm: 3.507 arcsec [2.04σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

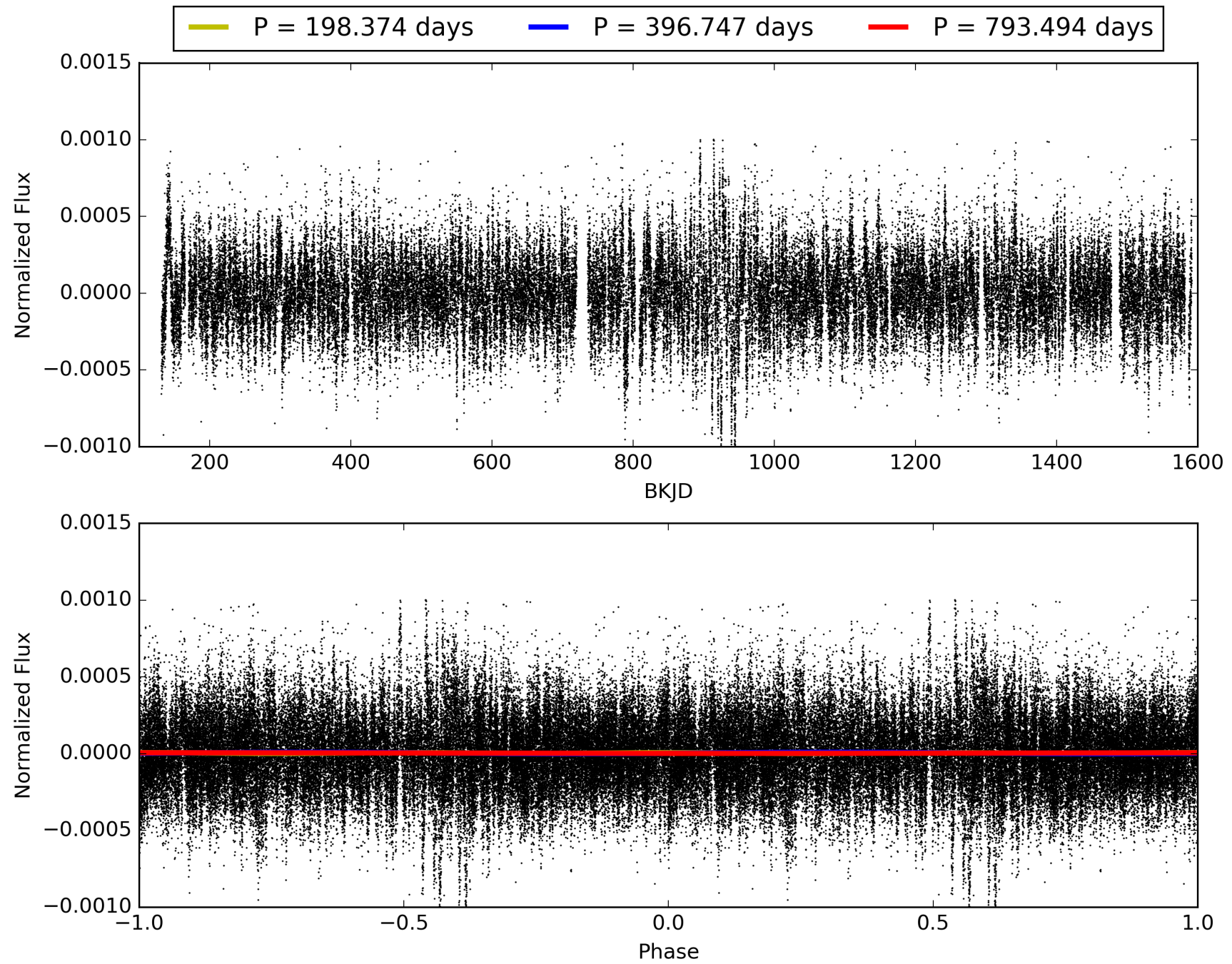
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:13:32 Z

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

TCE 008174059-01, PDC Light Curves

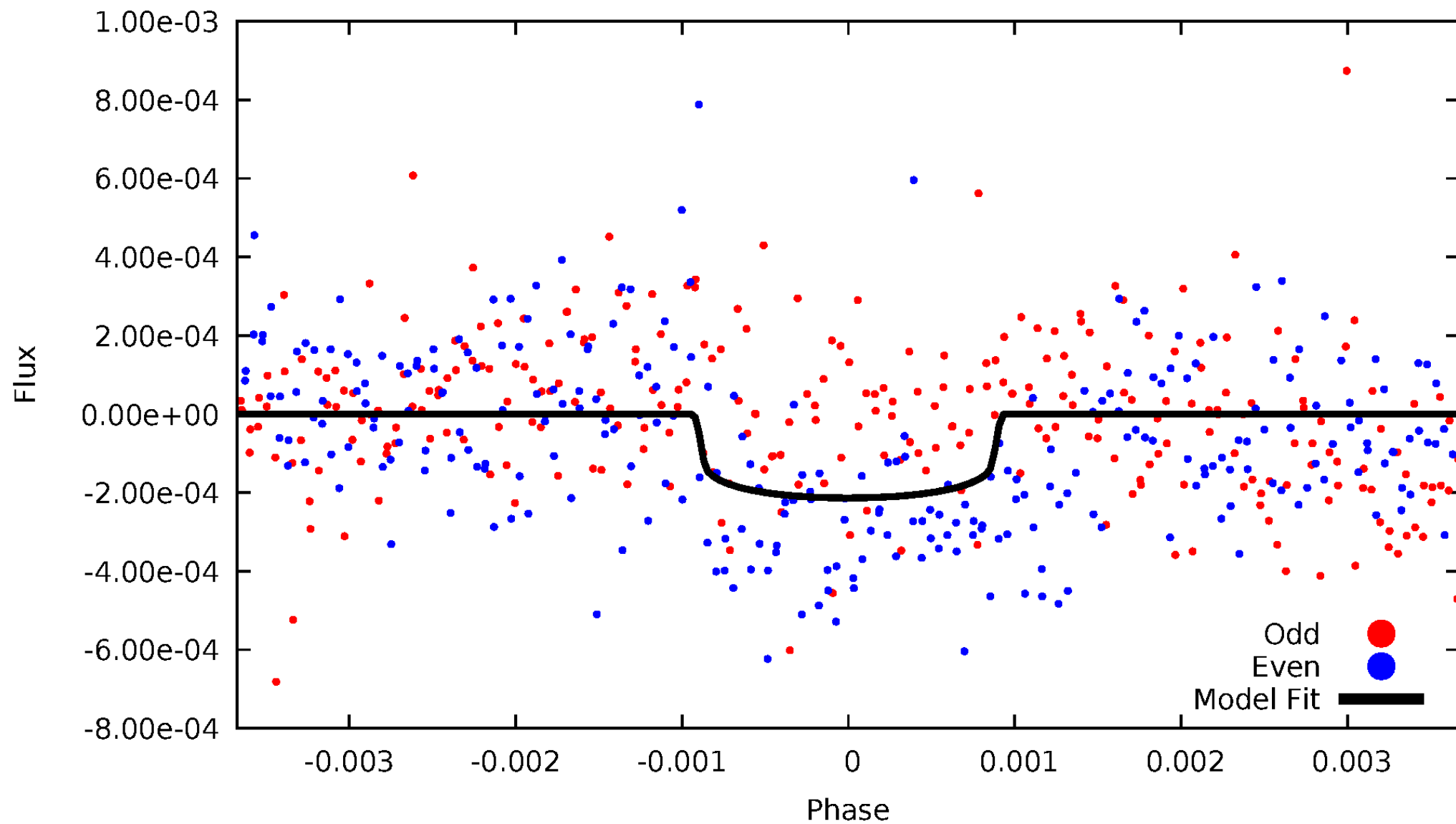


TCE 008174059-01



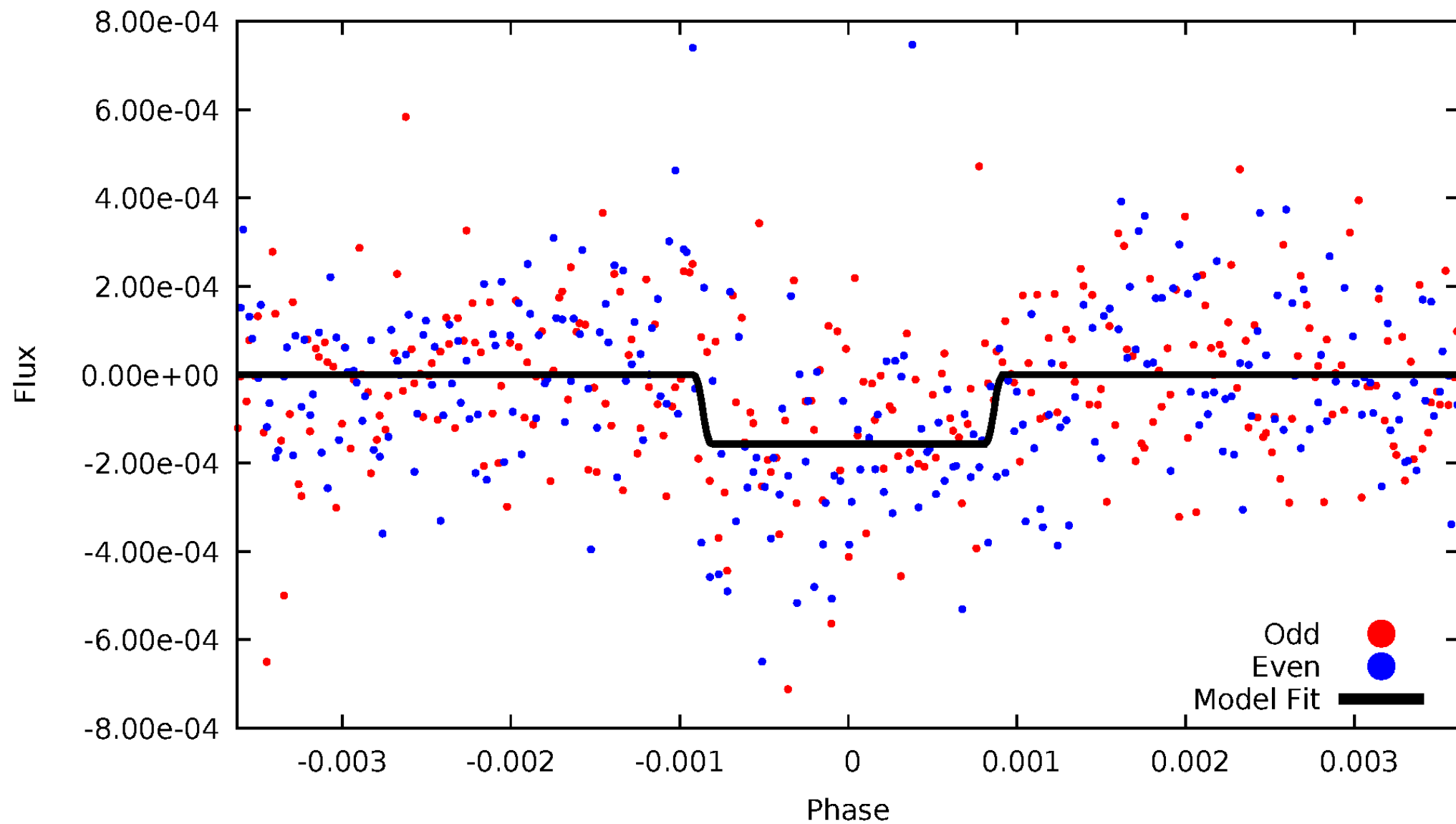
DV Odd/Even

TCE 008174059-01

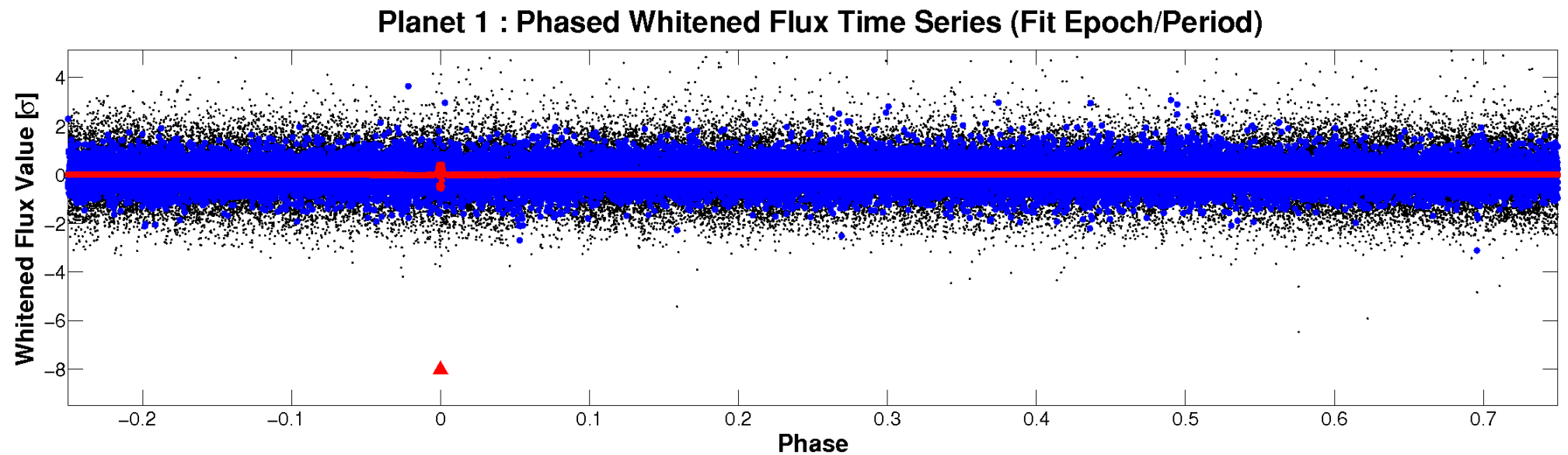
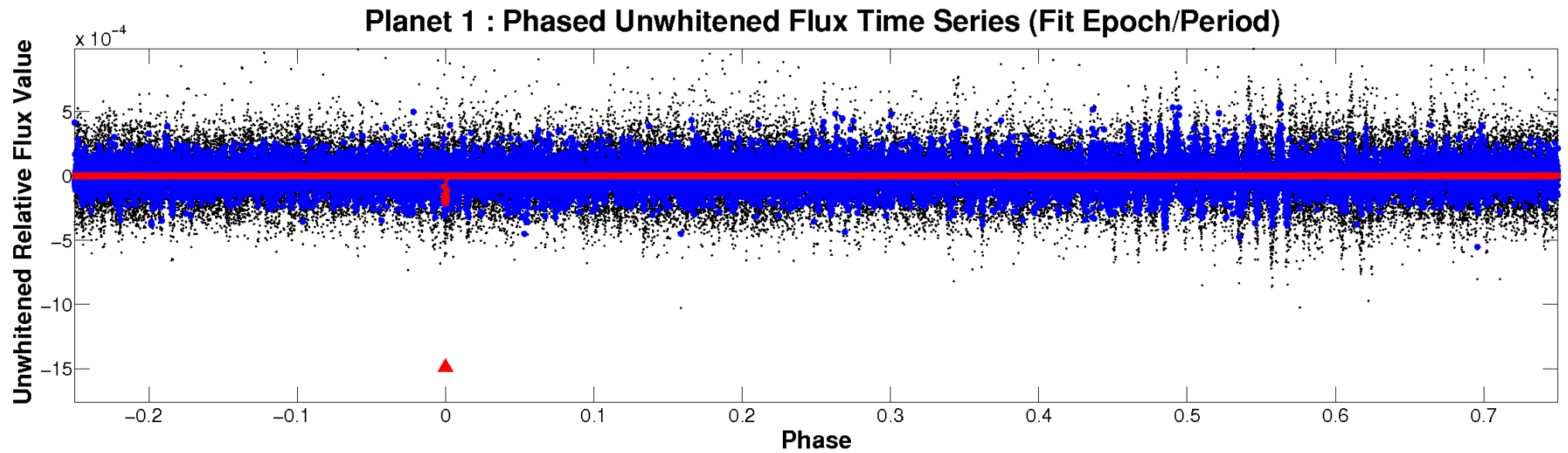


ALT Odd/Even

TCE 008174059-01



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 008174059-01 P=396.747190 Days $T_0=302.346051$ (BKJD)



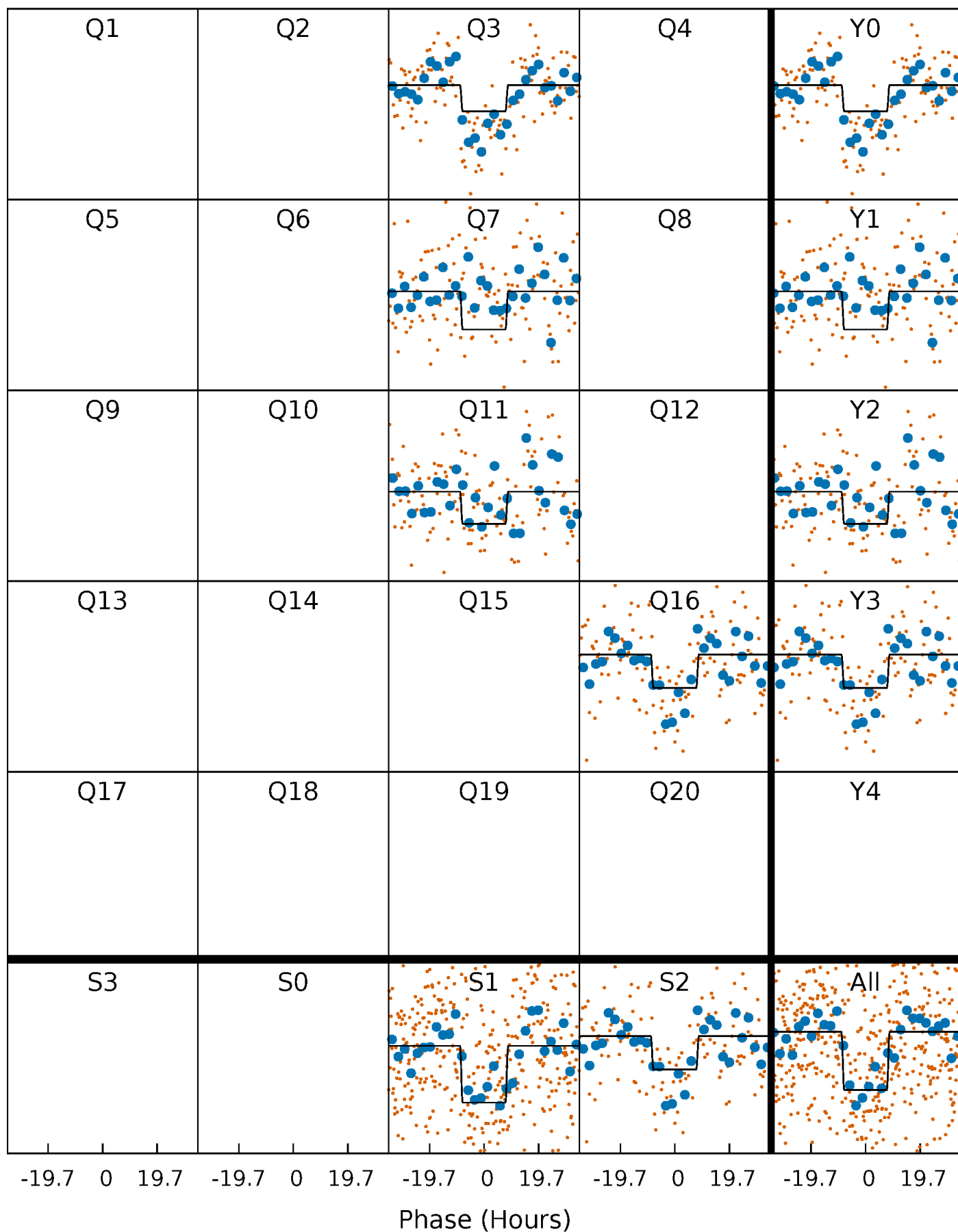
DV Quarter-Phased Transit Curves

TCE 008174059-01 P=396.747190 Days $T_0=302.346051$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

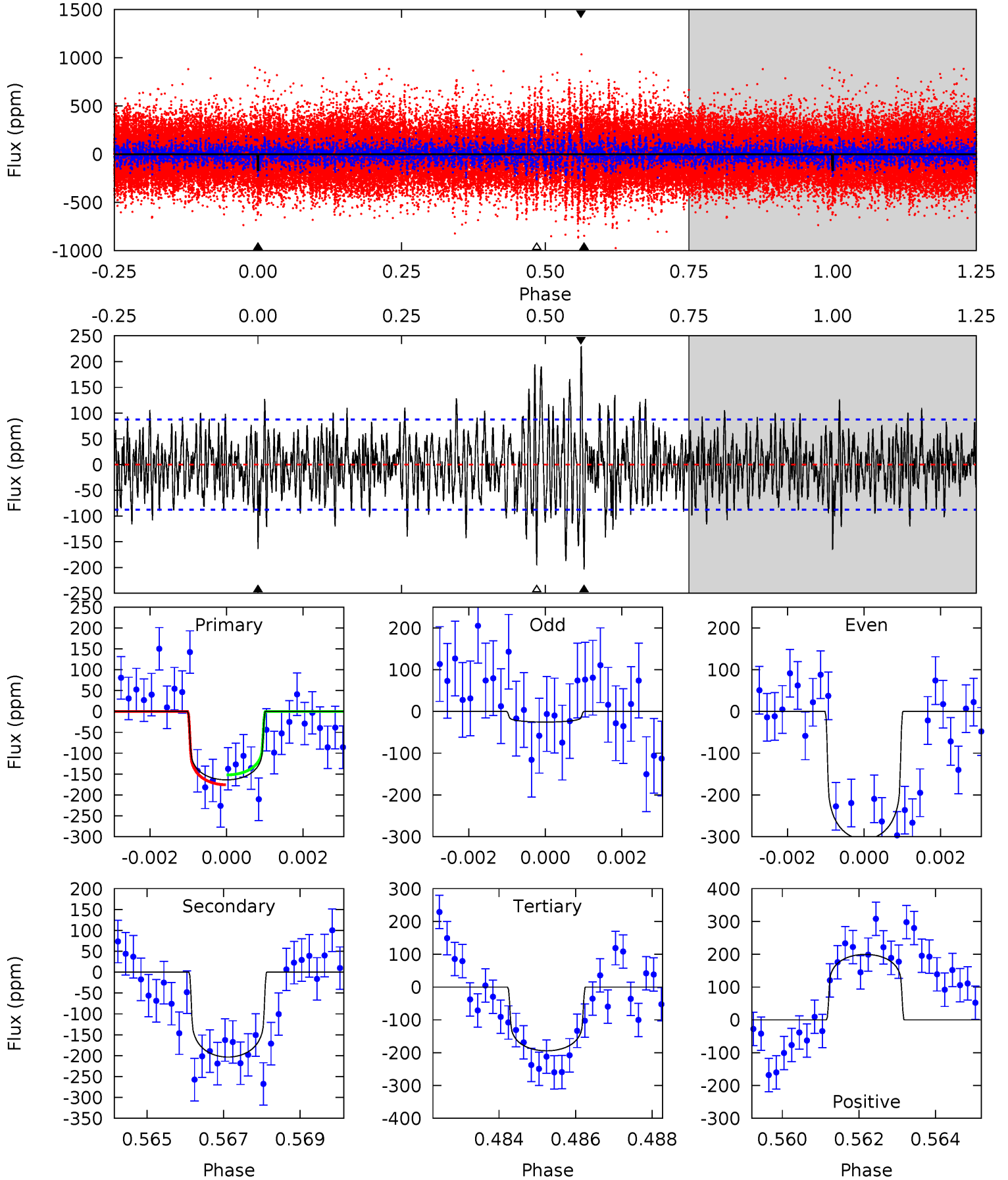
TCE 008174059-01 P=396.744812 Days $T_0=302.355768$ (BKJD)



DV Model-Shift Uniqueness Test

008174059-01, P = 396.747190 Days, E = 302.346051 Days

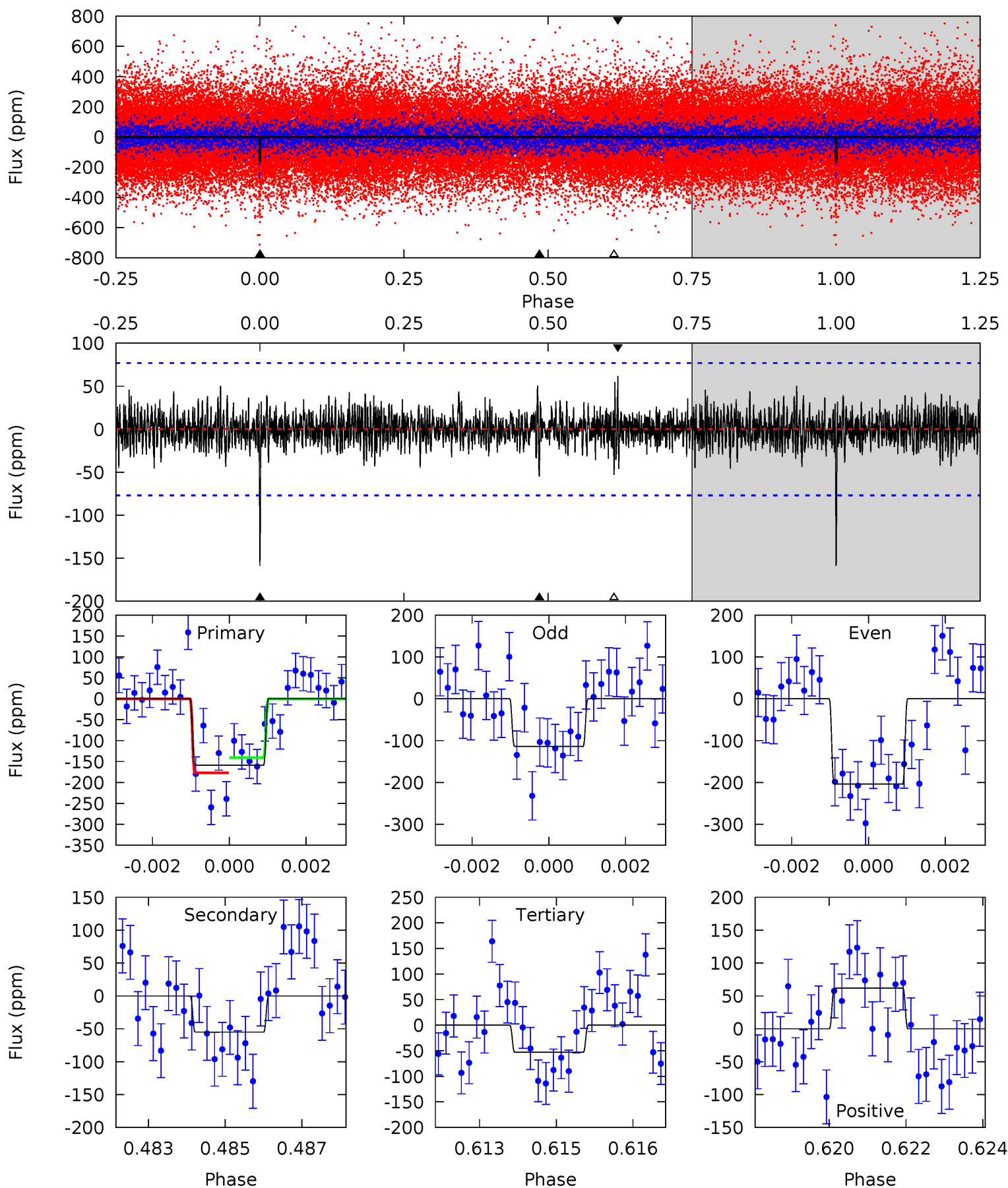
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.0	12.4	11.9	12.2	5.34	3.11	3.12	-1.86	-2.17	0.55	0.24	8.59	0.93	0.53	0.72



Alt Model-Shift Uniqueness Test

008174059-01, $P = 396.744812$ Days, $E = 302.355768$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	3.82	3.69	4.29	5.35	3.12	0.96	7.35	6.74	0.13	-0.47	3.13	1.12	0.28	1.27



Stellar Parameters For KIC 008174059

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6575^{+149}_{-216}	$4.337^{+0.084}_{-0.196}$	$-0.200^{+0.250}_{-0.300}$	$1.218^{+0.384}_{-0.165}$	$1.180^{+0.187}_{-0.153}$	$0.920^{+0.340}_{-0.476}$
	+2%/-3%	+2%/-5%	+125%/-150%	+32%/-14%	+16%/-13%	+37%/-52%
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 008174059-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-203 ± 16	$2.00^{+0.58}_{-0.56}$	428^{+29}_{-22}	6484^{+1244}_{-713}	34210^{+32455}_{-13909}
Alt.	-55 ± 14	$1.74^{+0.57}_{-0.55}$	428^{+28}_{-23}	5102^{+851}_{-606}	12331^{+13706}_{-5742}

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

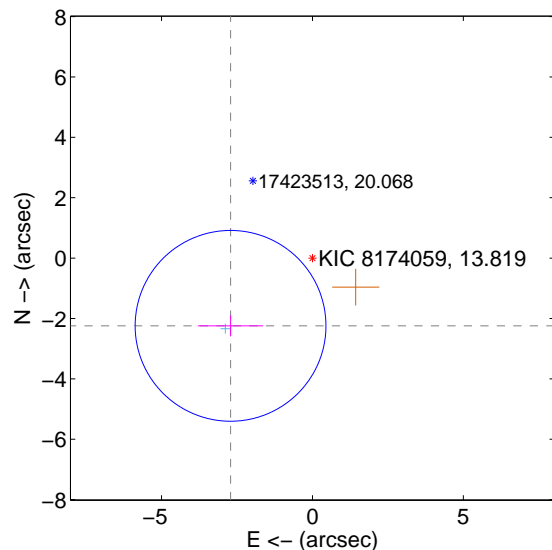
Supplemental centroid analysis for 008174059-01. Kepler magnitude: 13.82. Transit SNR 6.33

There are 1 quarters with good PRF difference image offsets

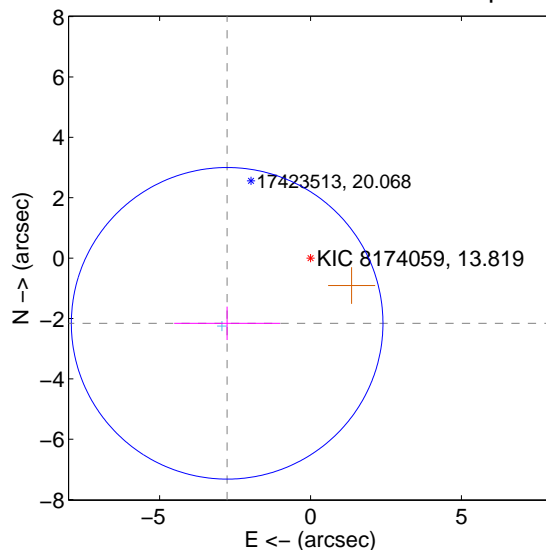
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.521 ± 1.053	3.34	2.713 ± 1.082	-2.244 ± 0.350
PRF-fit source offset from KIC position	3.507 ± 1.720	2.04	2.762 ± 1.755	-2.161 ± 0.552
photometric centroid source offset	1.57 ± 1.02	1.54	-1.53 ± 1.01	0.35 ± 1.15

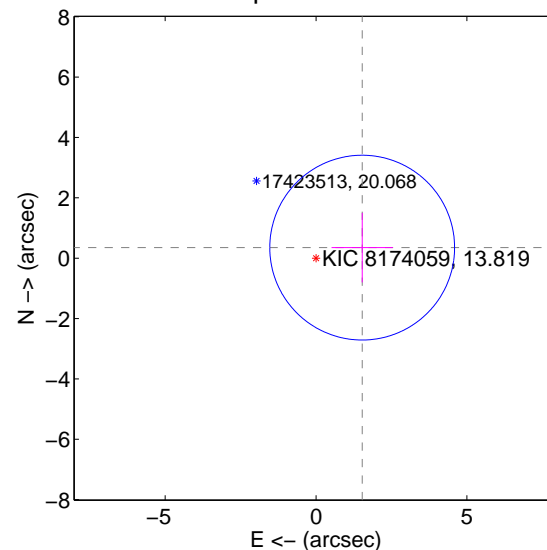
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

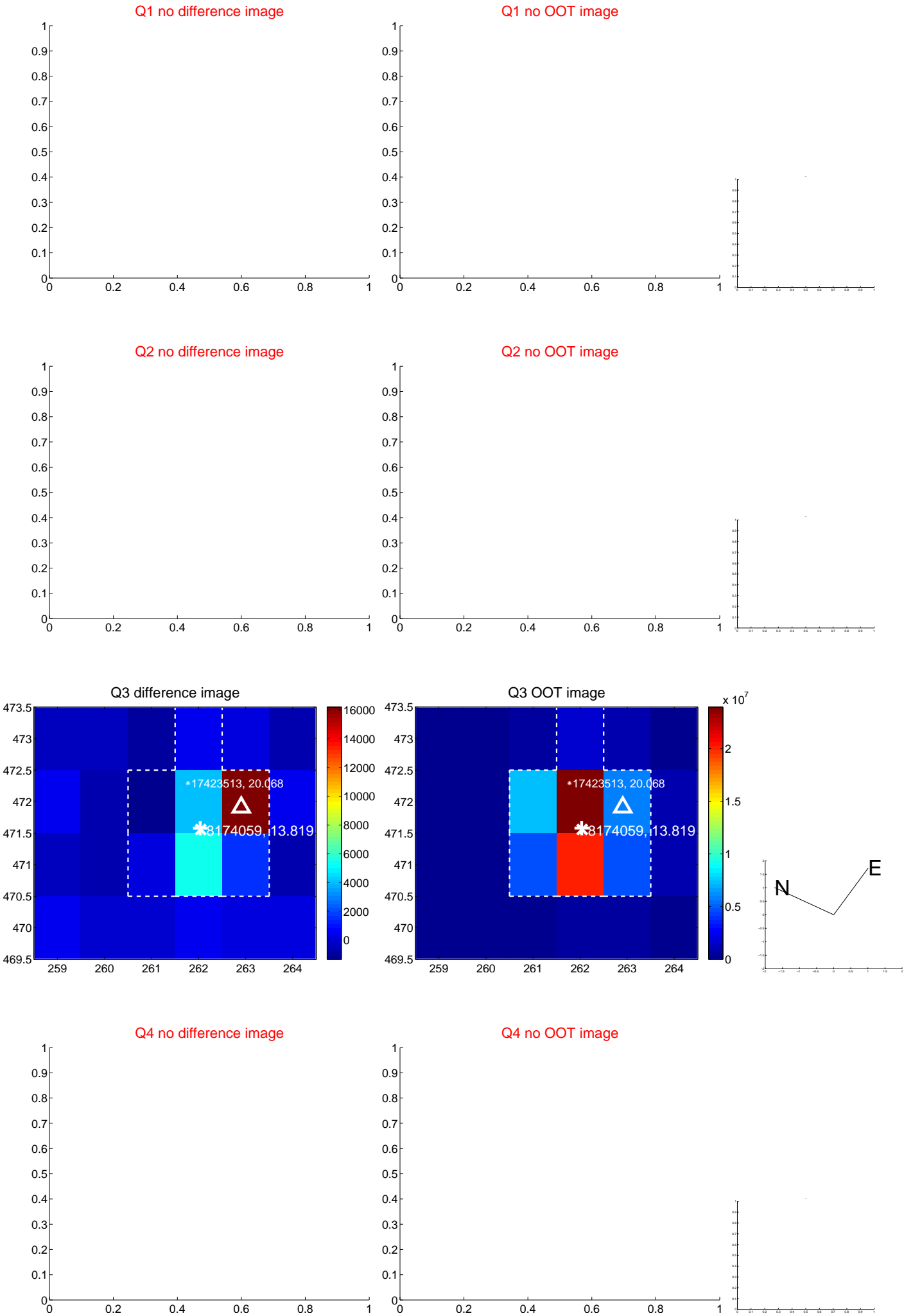


offset from photometric centroids

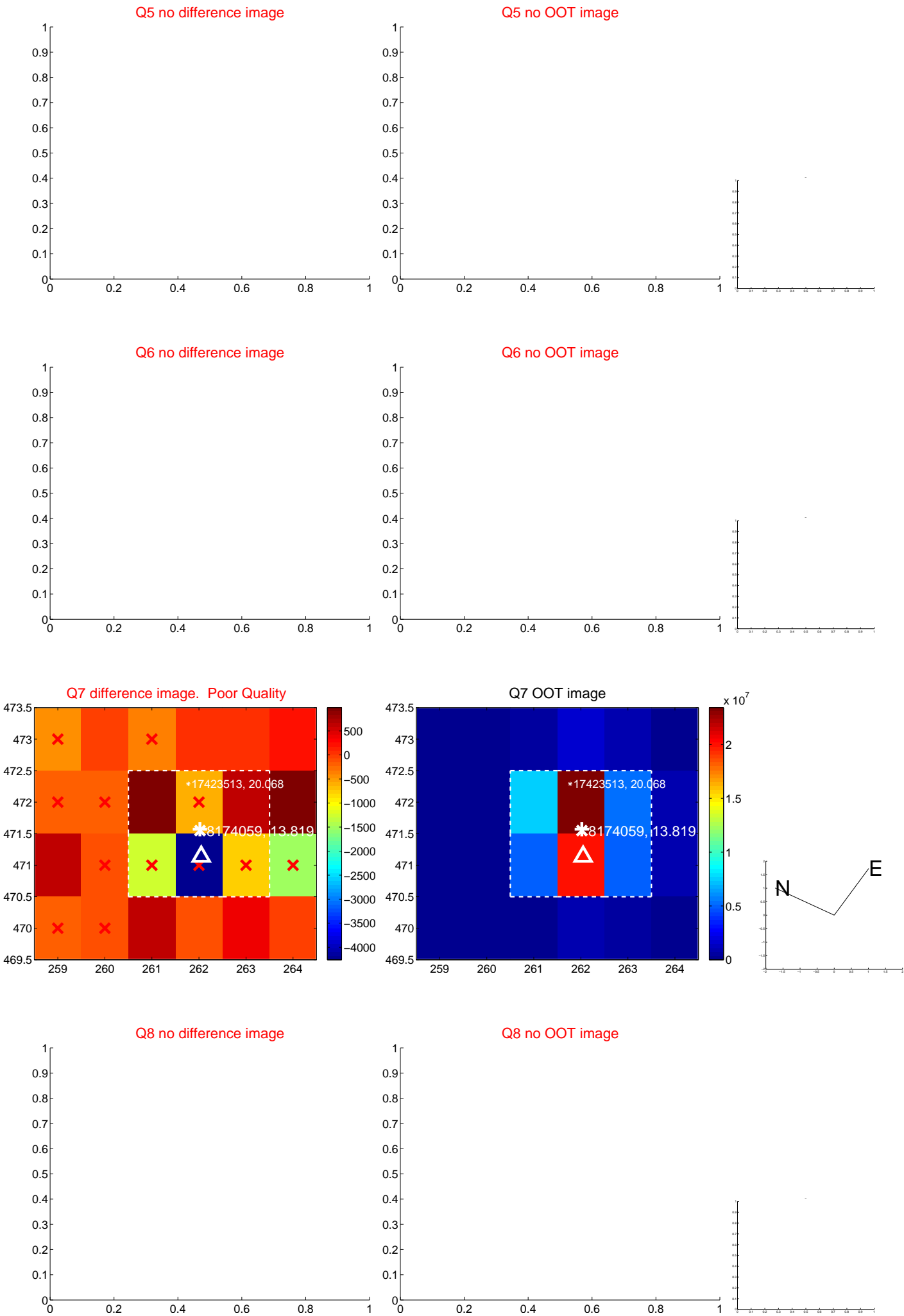


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



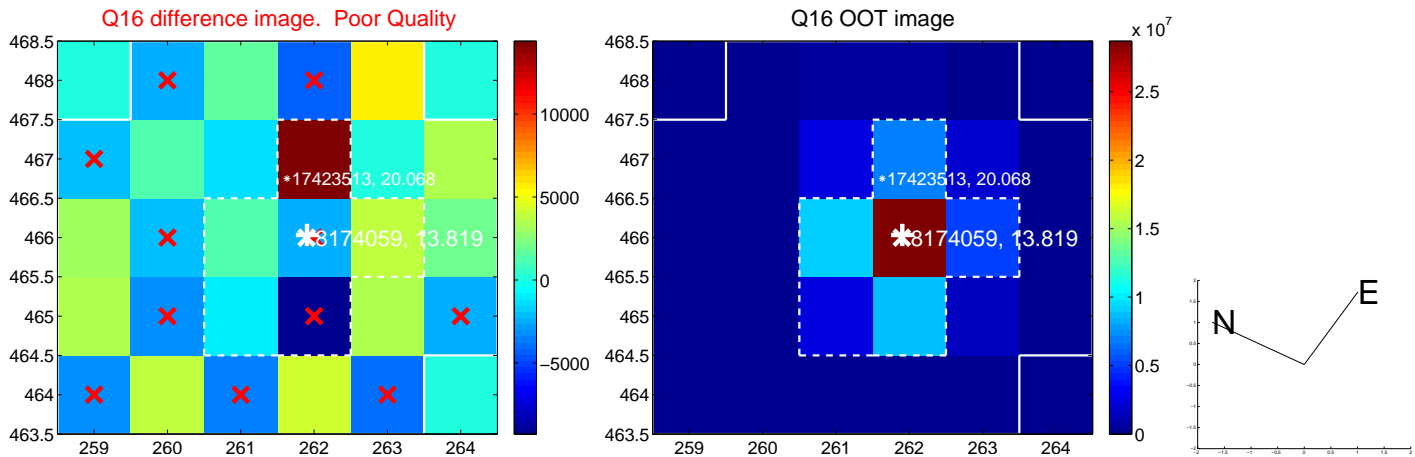
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



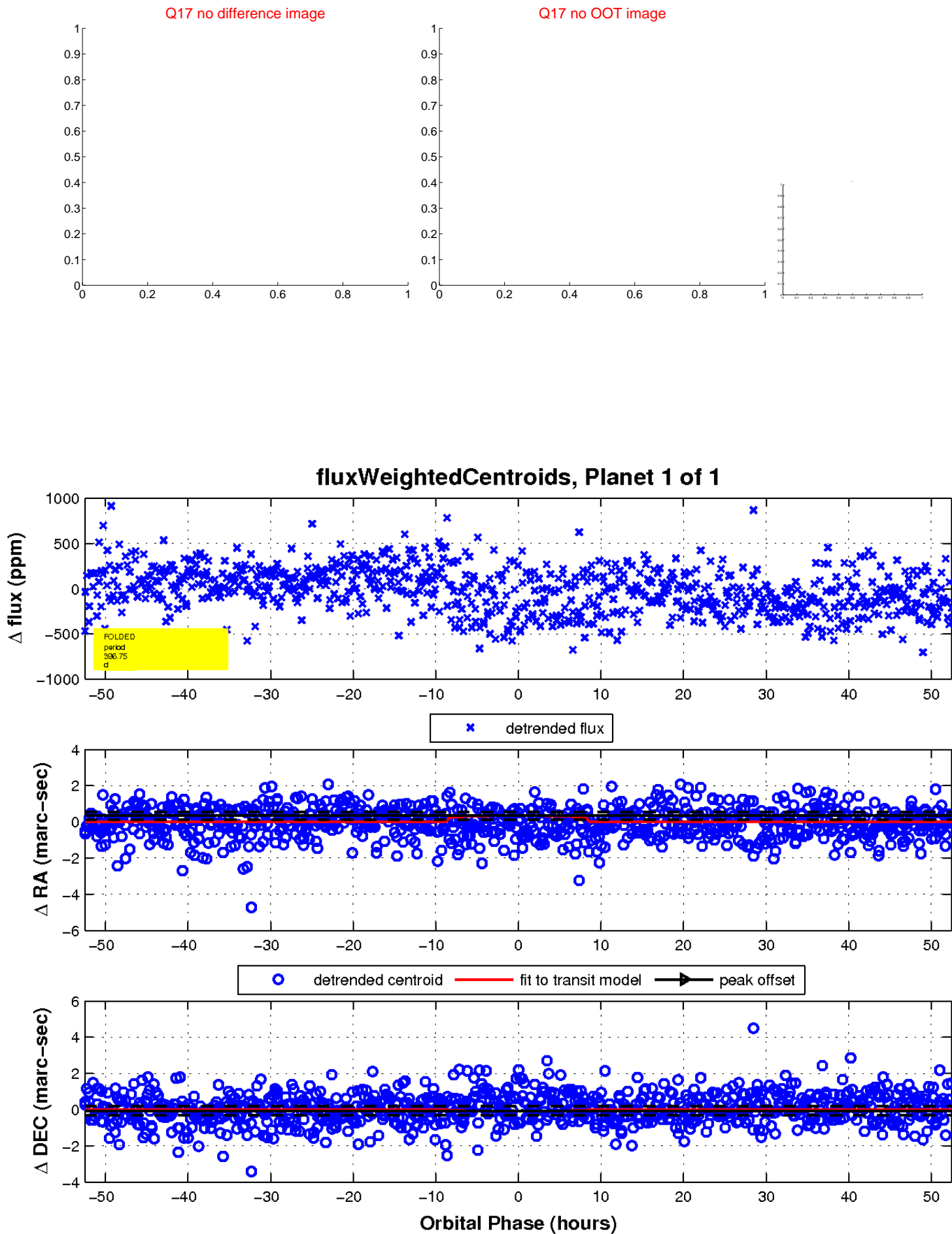
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

