

KIC 008040119

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})
008040119-01	OBS	No	367.363329	172.532336	3165.1	14.440	10.4	17.2	1.08	6306	7.47	1.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008040119-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

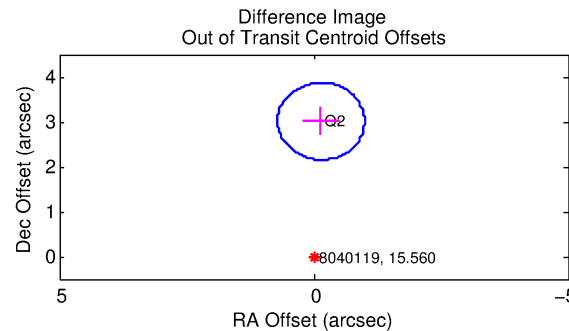
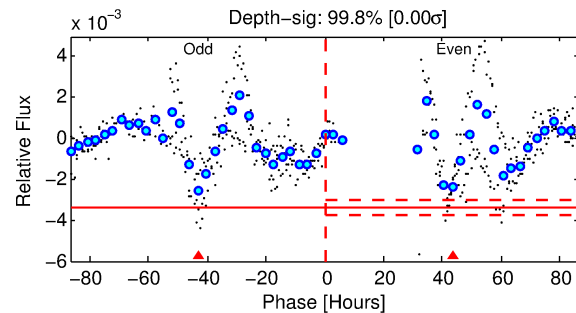
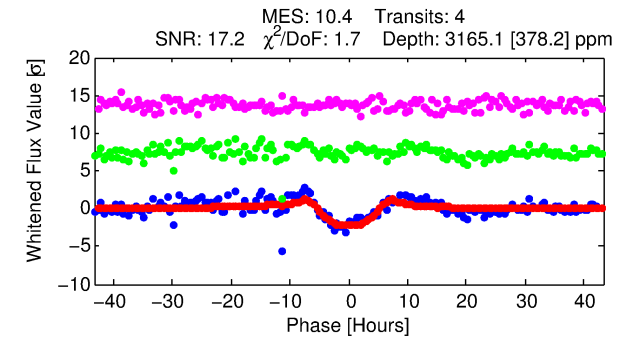
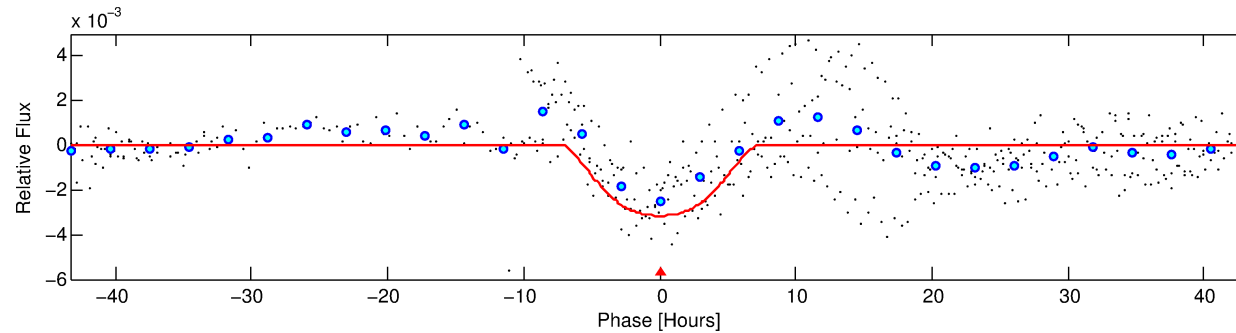
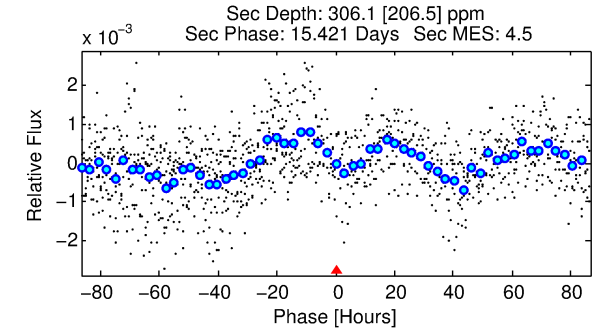
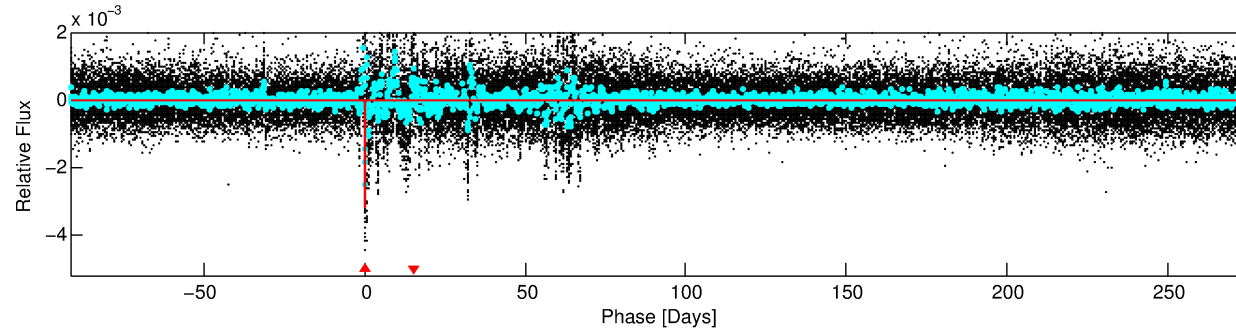
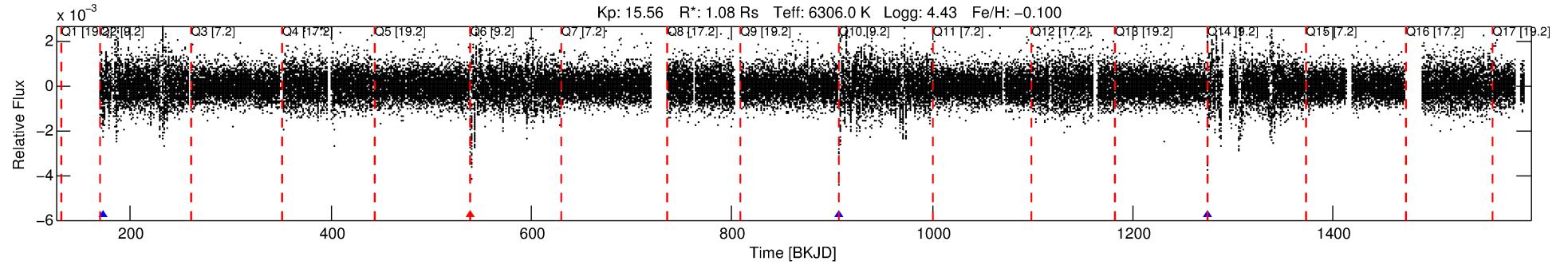
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008040119-01

No Significant Match Found

DV One-Page Summary

KIC: 8040119 Candidate: 1 of 1 Period: 367.363 d



DV Fit Results:

Period = 367.36333 [0.00892] d
Epoch = 172.5323 [0.0160] BKJD
Rp/R* = 0.0636 [0.0058]
a/R* = 97.72 [9.08]
b = 0.94 [0.02]
Seff = 1.50 [0.64]
Teq = 282 [30] K
Rp = 7.47 [2.60] Re
a = 1.0446 [0.2908] AU
Ag = 3295.78 [2653.44] [1.24σ]
Teffp = 3308 [591] K [5.1σ]

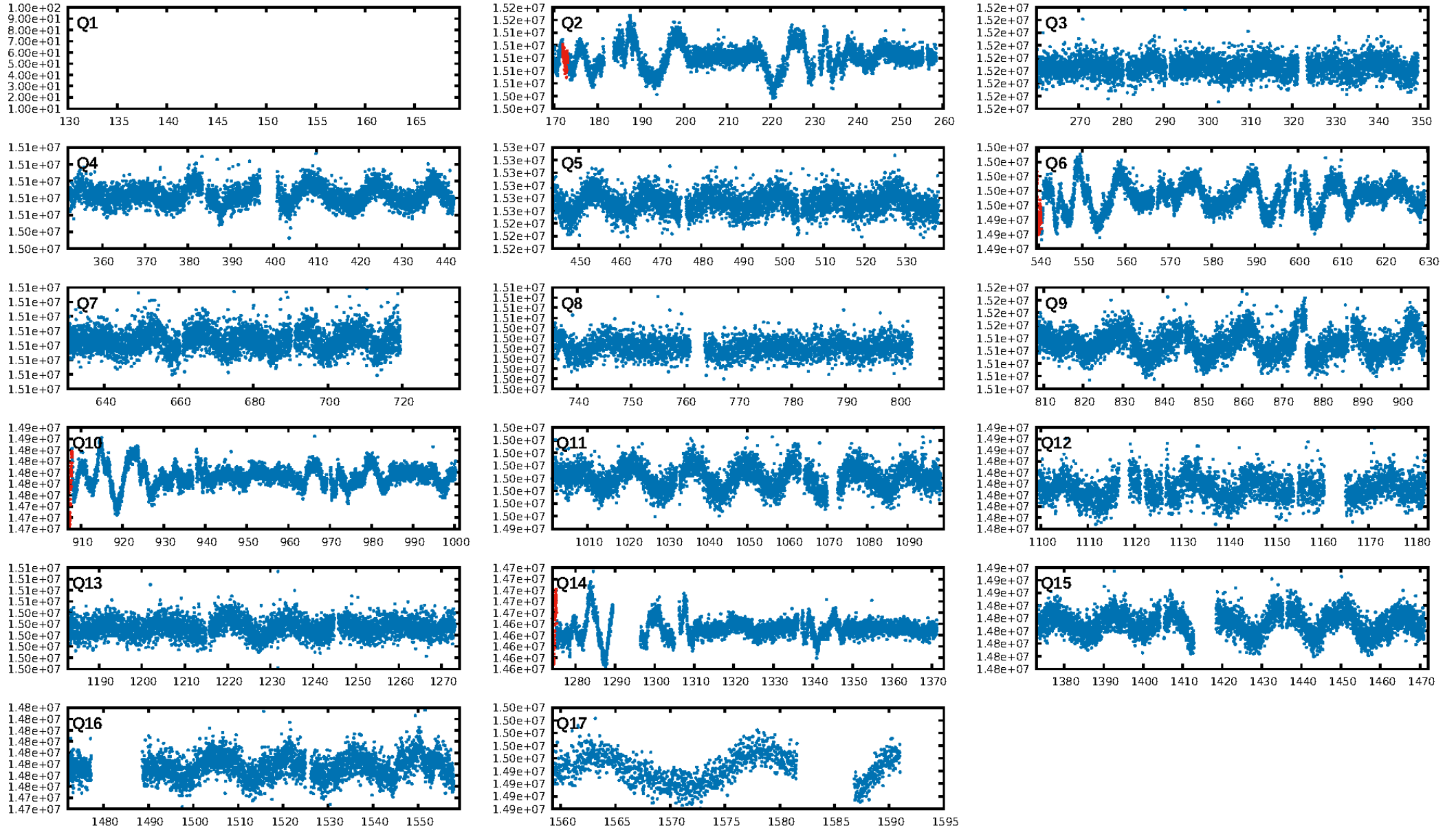
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 0.9%
Bootstrap-pfa: 1.11e-11
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 0.9928
Centroid-sig: 0.0%
Centroid-so: 5.626 arcsec [5.29σ]
OotOffset-rm: 3.012 arcsec [10.56σ]
KicOffset-rm: 2.936 arcsec [10.29σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

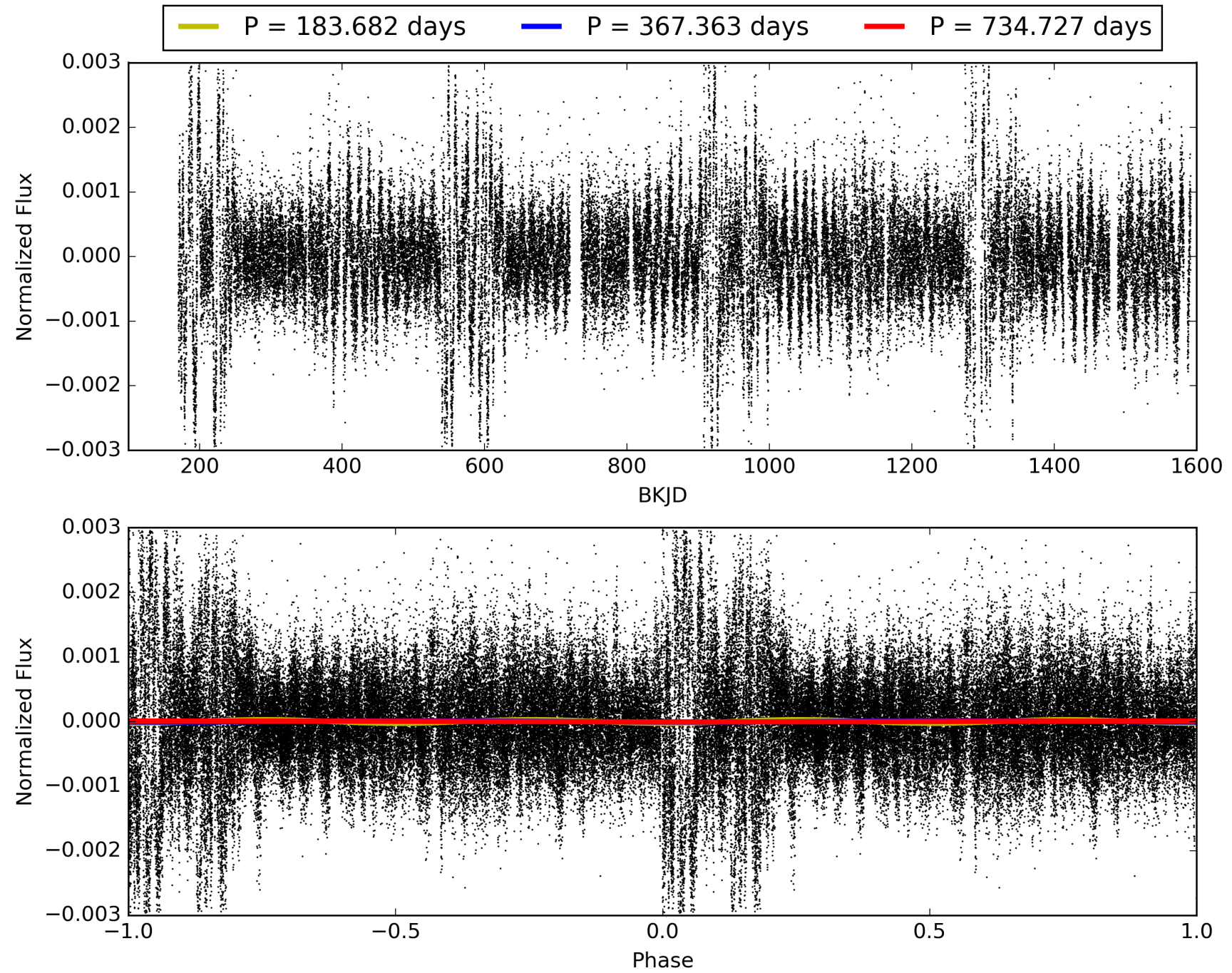
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:15:29 Z

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

TCE 008040119-01, PDC Light Curves

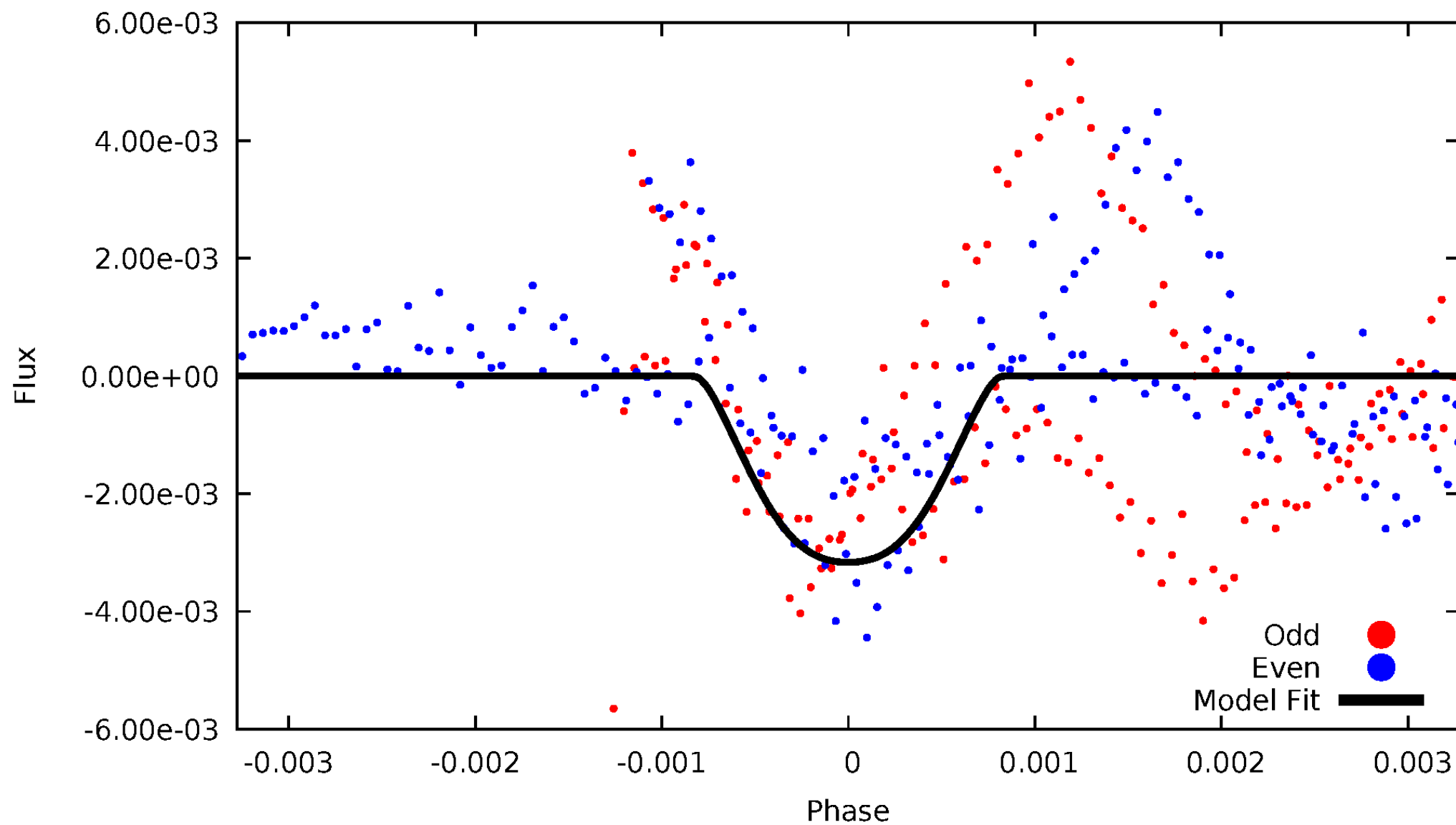


TCE 008040119-01



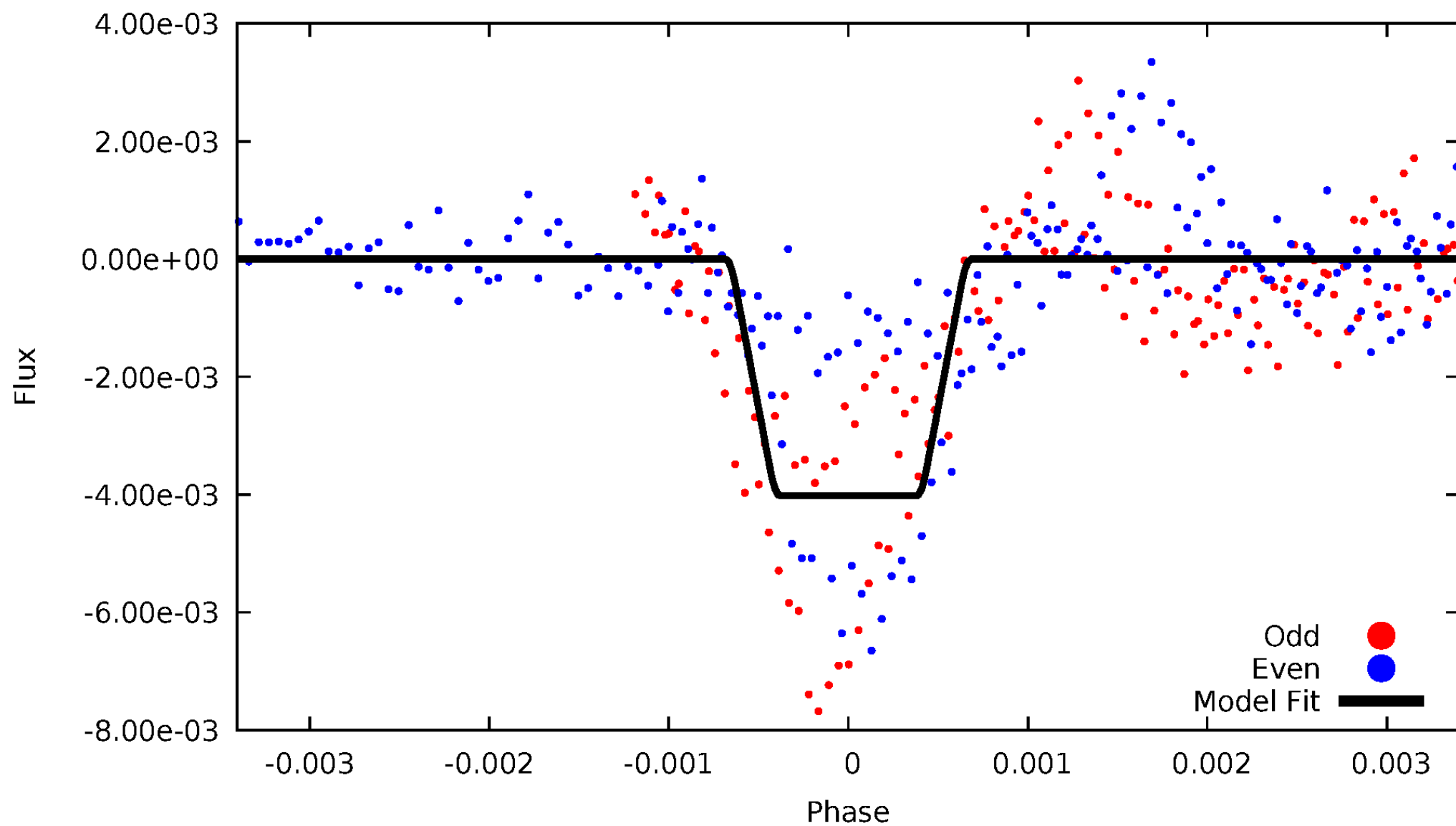
DV Odd/Even

TCE 008040119-01



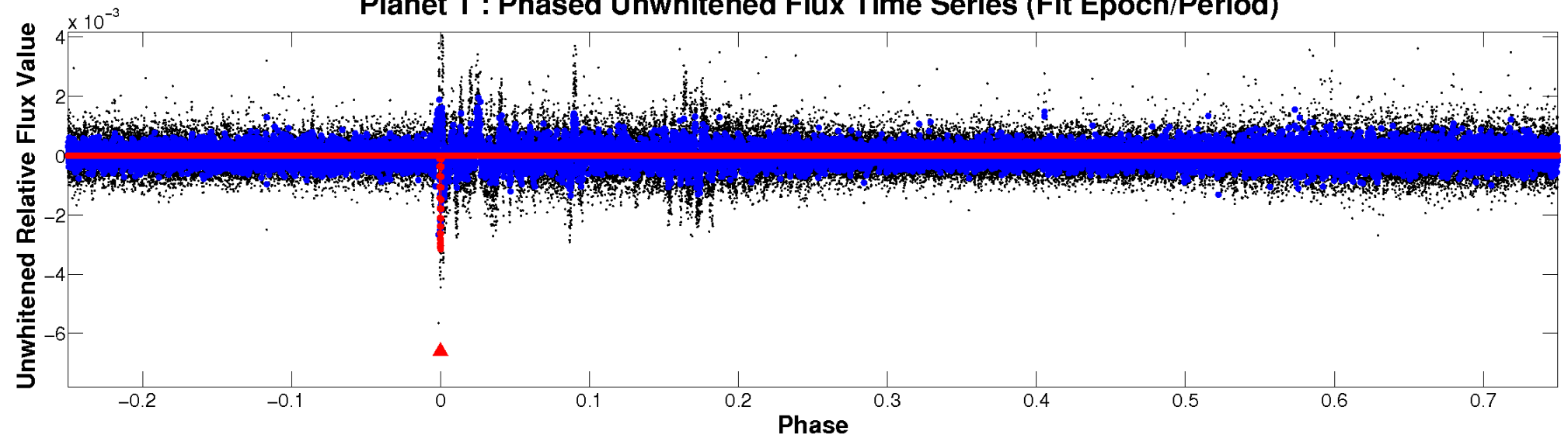
ALT Odd/Even

TCE 008040119-01

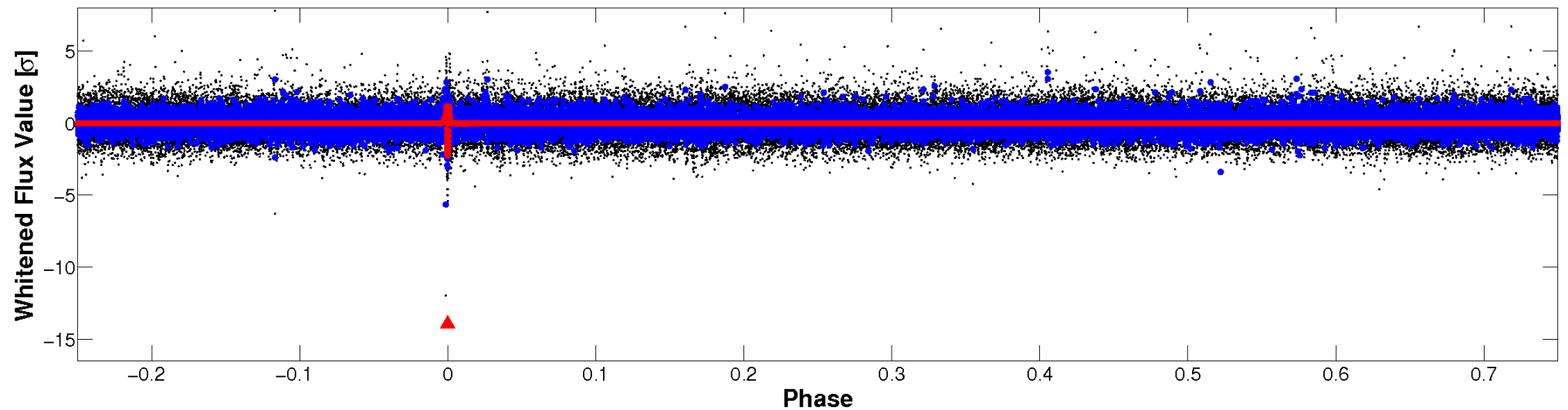


Non-Whitened Vs. Whitened Light Curve

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

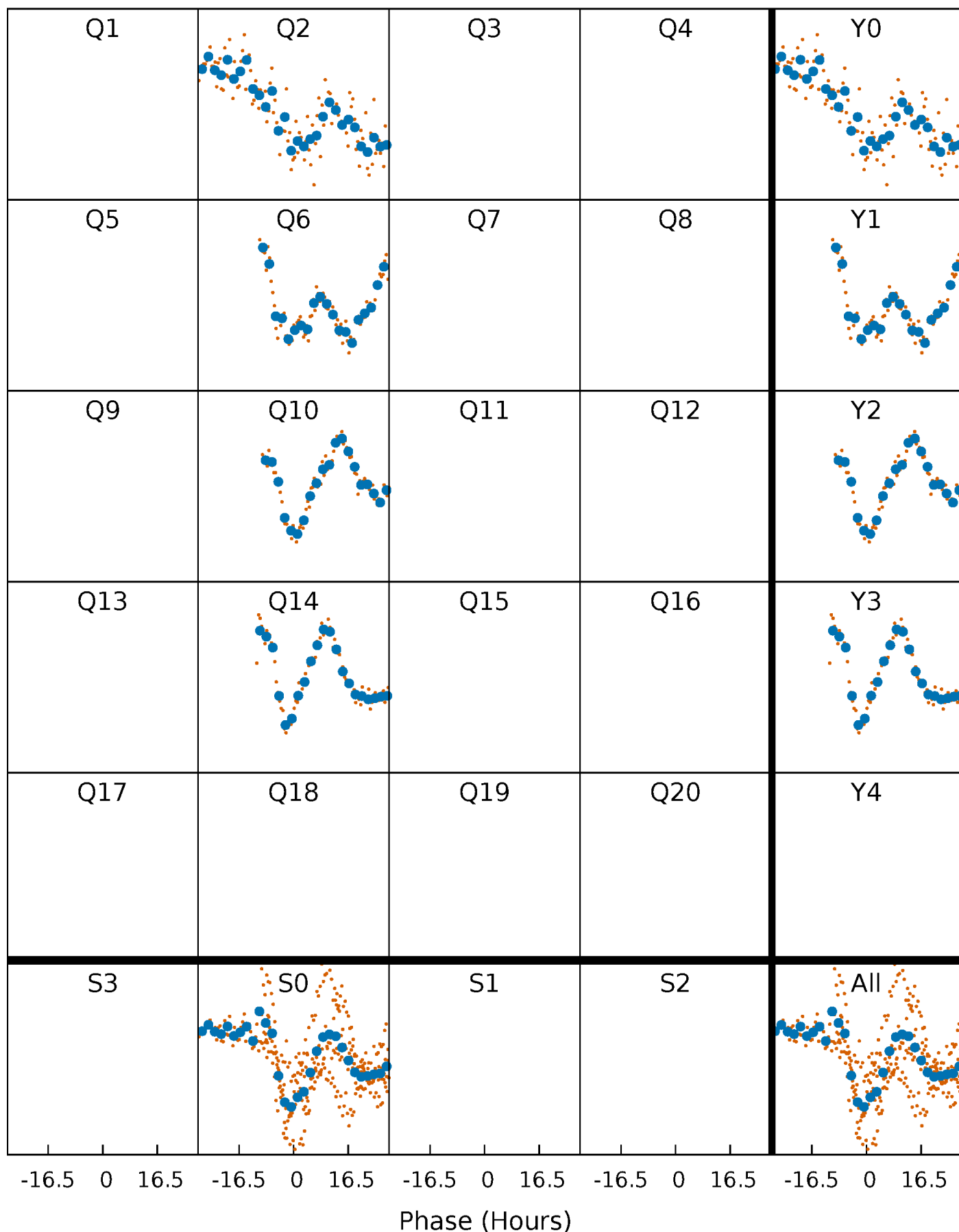


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



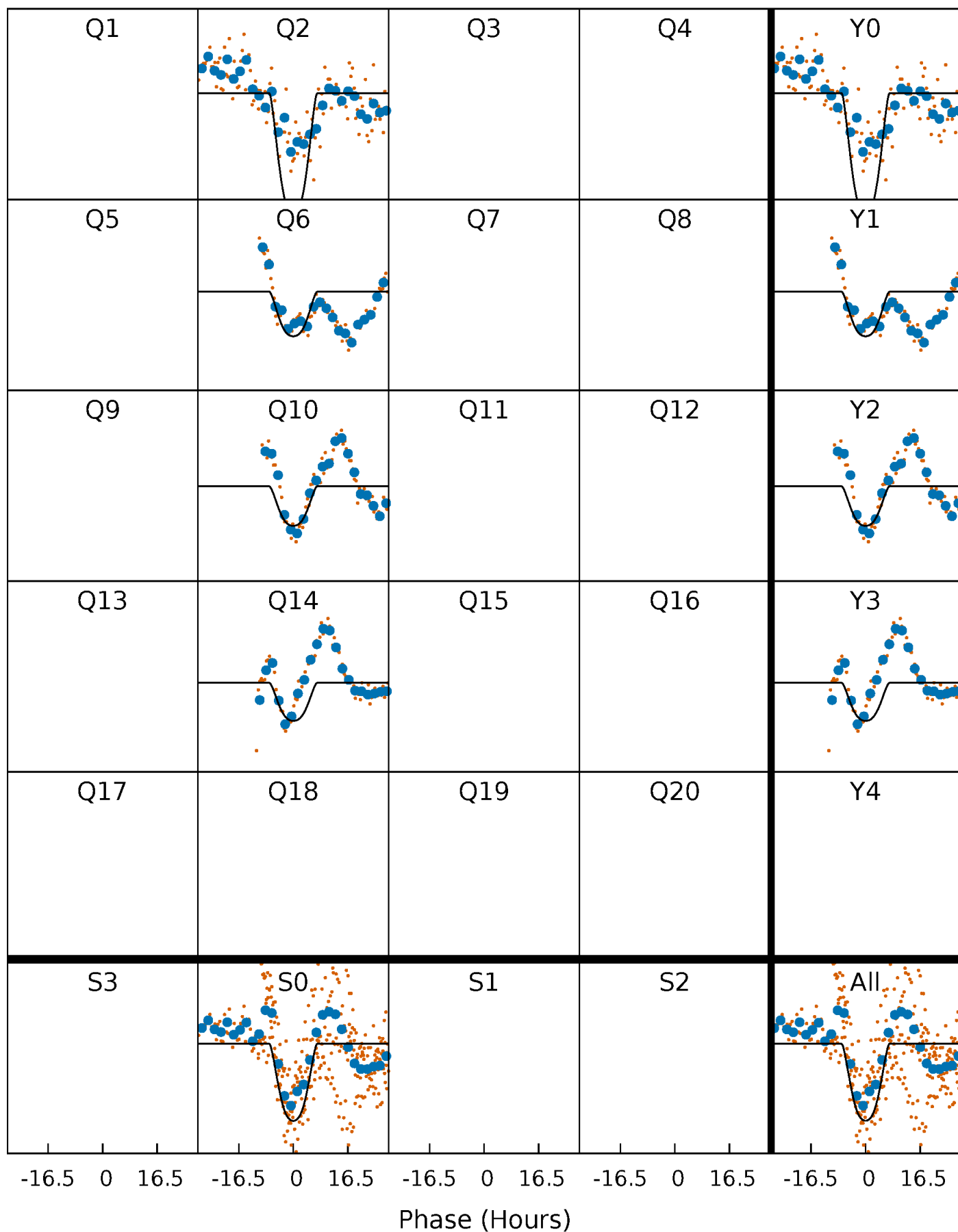
PDC Quarter-Phased Transit Curves

TCE 008040119-01 P=367.363329 Days $T_0=172.532336$ (BKJD)



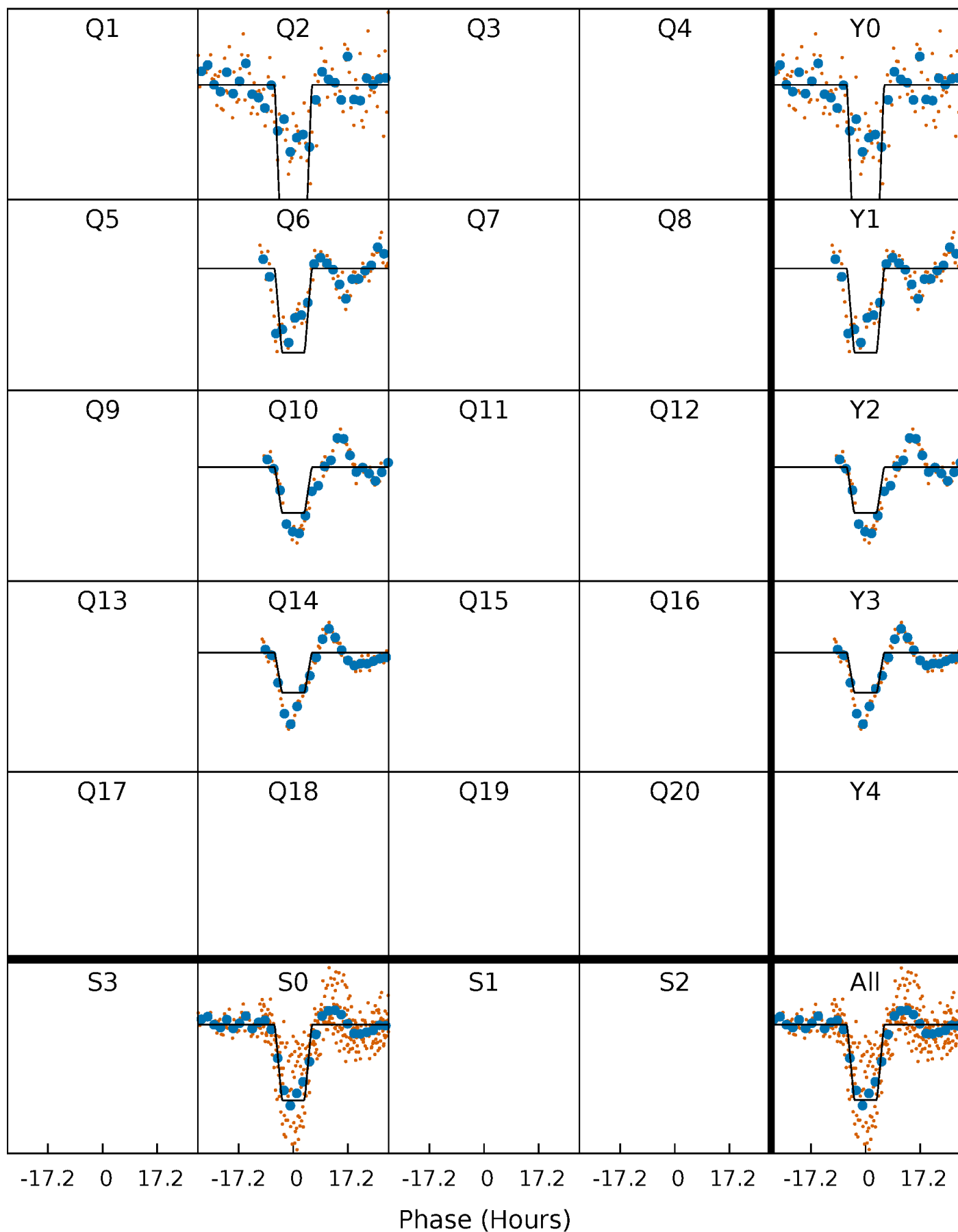
DV Quarter-Phased Transit Curves

TCE 008040119-01 P=367.363329 Days $T_0=172.532336$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

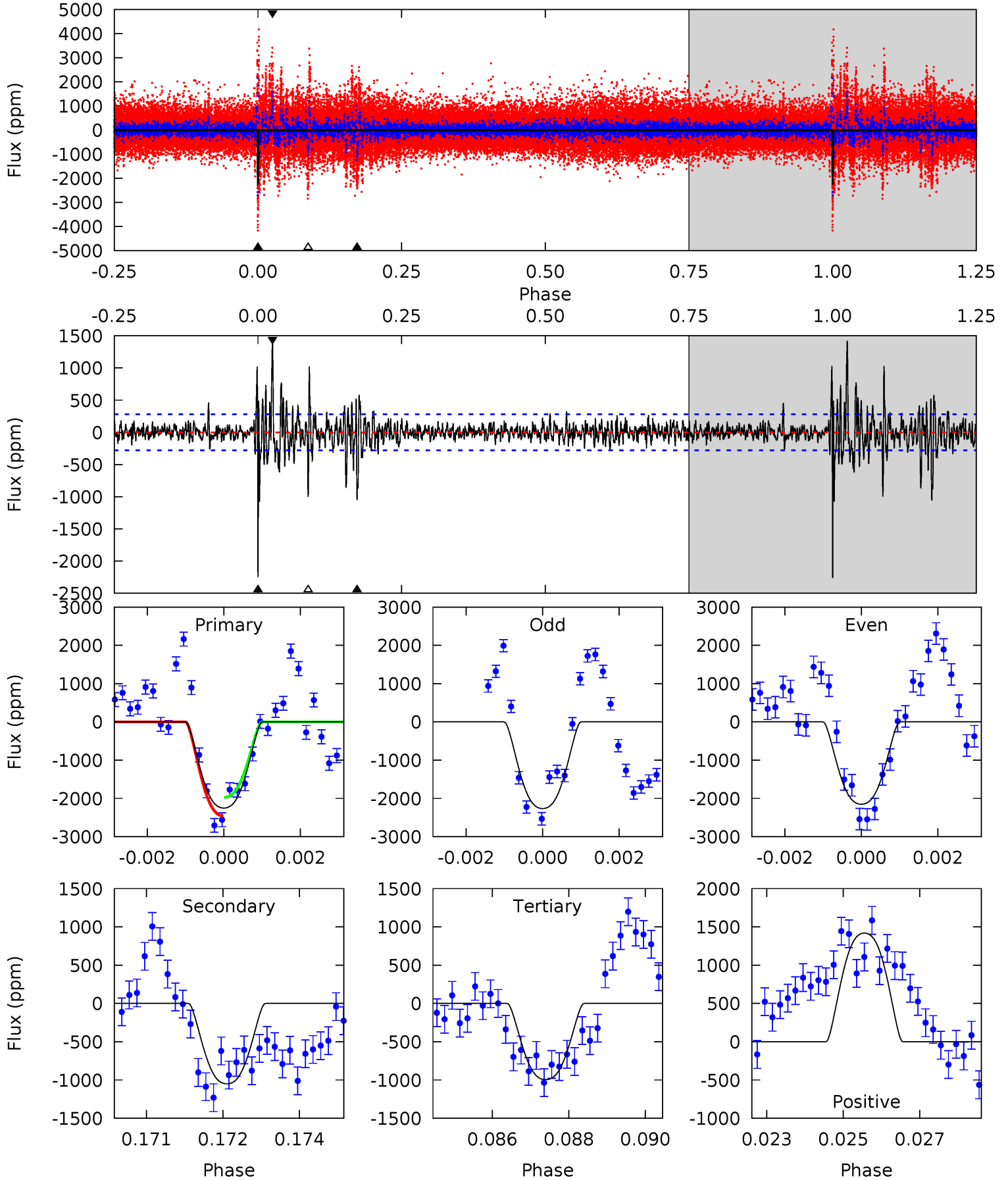
TCE 008040119-01 P=367.340919 Days $T_0=172.565716$ (BKJD)



DV Model-Shift Uniqueness Test

008040119-01, P = 367.363329 Days, E = 172.532336 Days

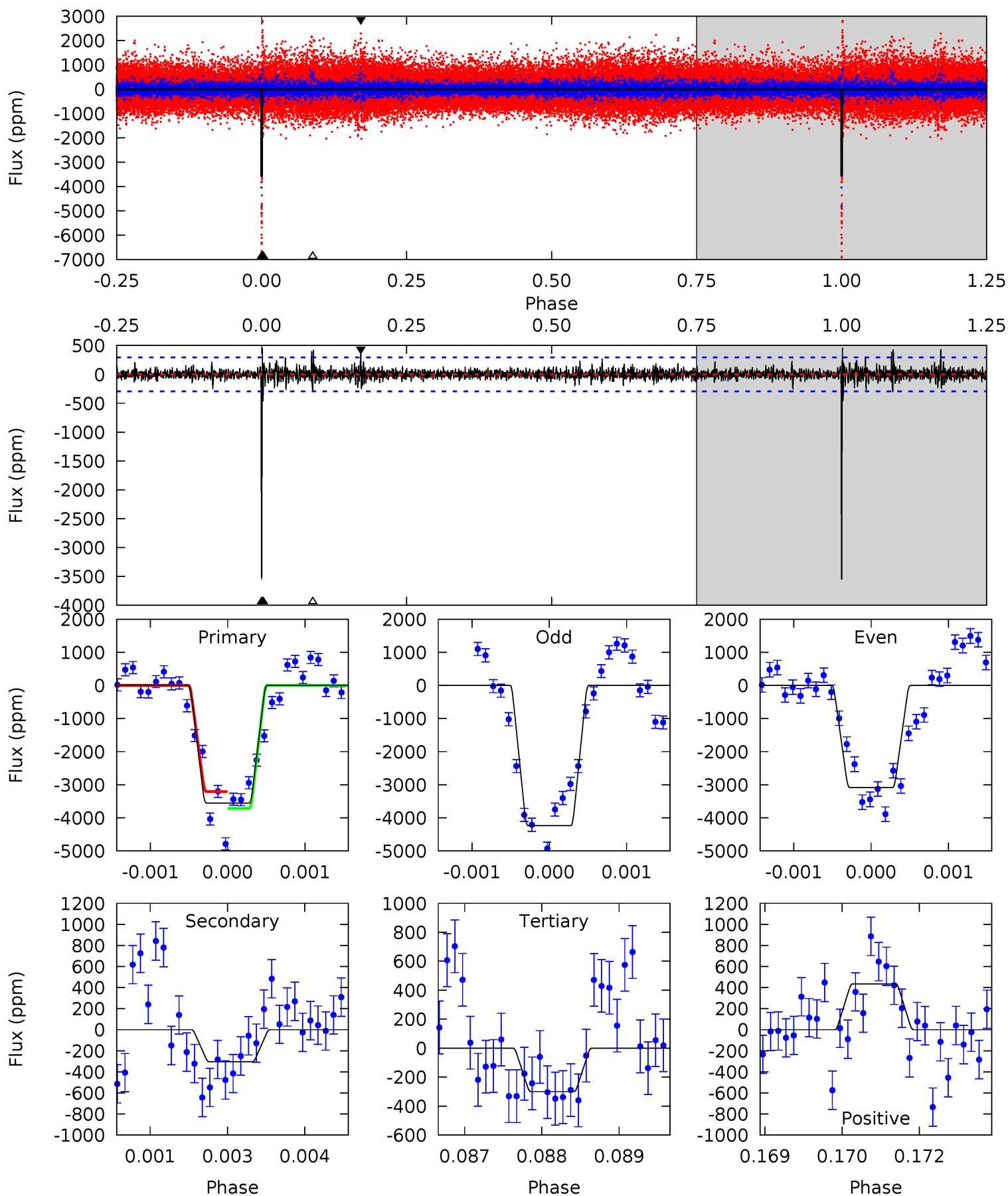
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.2	20.2	19.1	27.2	5.36	3.15	3.21	24.1	16.0	1.06	-7.08	1.10	0.99	0.39	4.66



Alt Model-Shift Uniqueness Test

008040119-01, P = 367.340919 Days, E = 172.565716 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
65.4	5.60	5.52	8.02	5.40	3.20	1.14	59.9	57.4	0.08	-2.41	11.3	0.93	0.11	4.54



Stellar Parameters For KIC 008040119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6306^{+174}_{-240}	$4.426^{+0.067}_{-0.216}$	$-0.100^{+0.250}_{-0.300}$	$1.076^{+0.361}_{-0.120}$	$1.126^{+0.168}_{-0.151}$	$1.272^{+0.378}_{-0.690}$
	+3%/-4%	+2%/-5%	+250%/-300%	+34%/-11%	+15%/-13%	+30%/-54%
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 008040119-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1050 ± 52	$7.71^{+1.51}_{-1.00}$	401^{+33}_{-22}	4643^{+223}_{-204}	10370^{+3150}_{-2895}
Alt.	-304 ± 54	$7.70^{+1.40}_{-0.94}$	400^{+34}_{-18}	3705^{+196}_{-178}	2974^{+1069}_{-943}

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

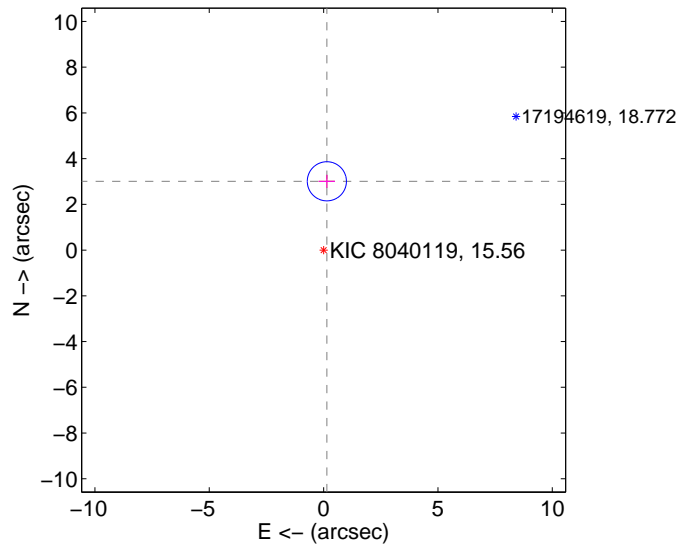
Supplemental centroid analysis for 008040119-01. Kepler magnitude: 15.56. Transit SNR 17.19

There are 0 quarters with good PRF difference image offsets

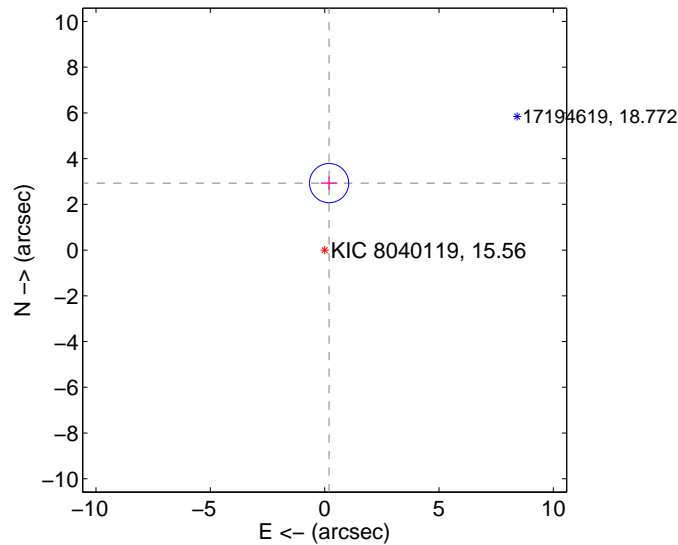
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.012 ± 0.285	10.56	-0.142 ± 0.359	3.009 ± 0.285
PRF-fit source offset from KIC position	2.936 ± 0.285	10.29	-0.194 ± 0.359	2.929 ± 0.285
photometric centroid source offset	5.63 ± 1.06	5.29	-1.81 ± 1.12	-5.33 ± 1.06

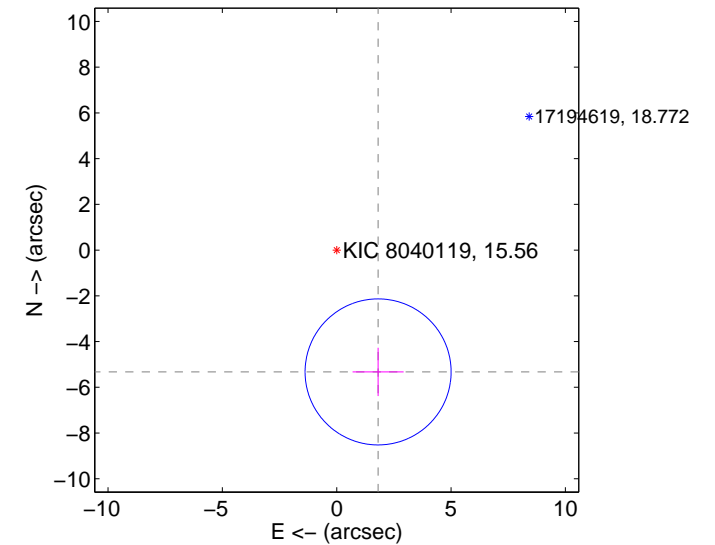
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

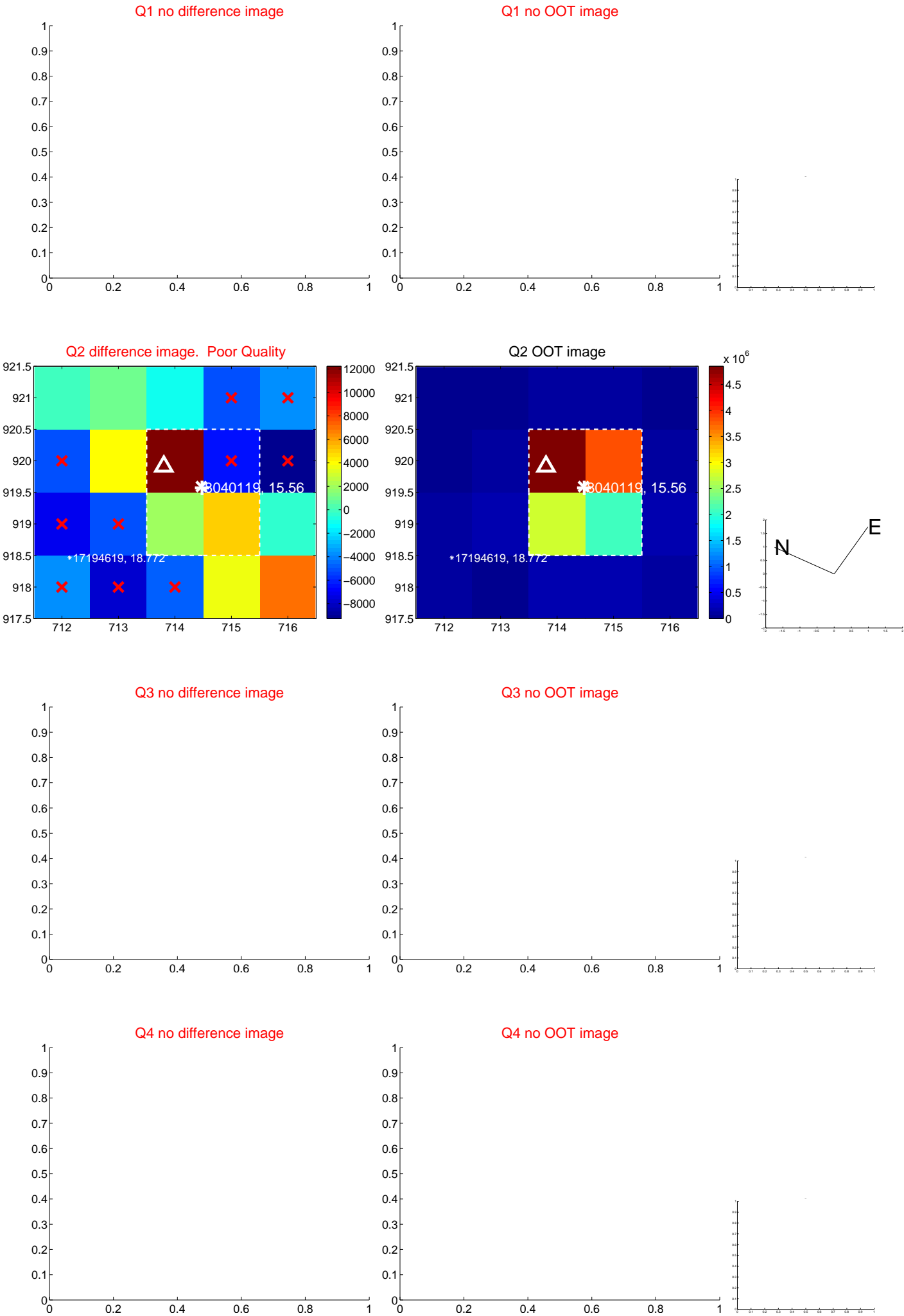


offset from photometric centroids



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.



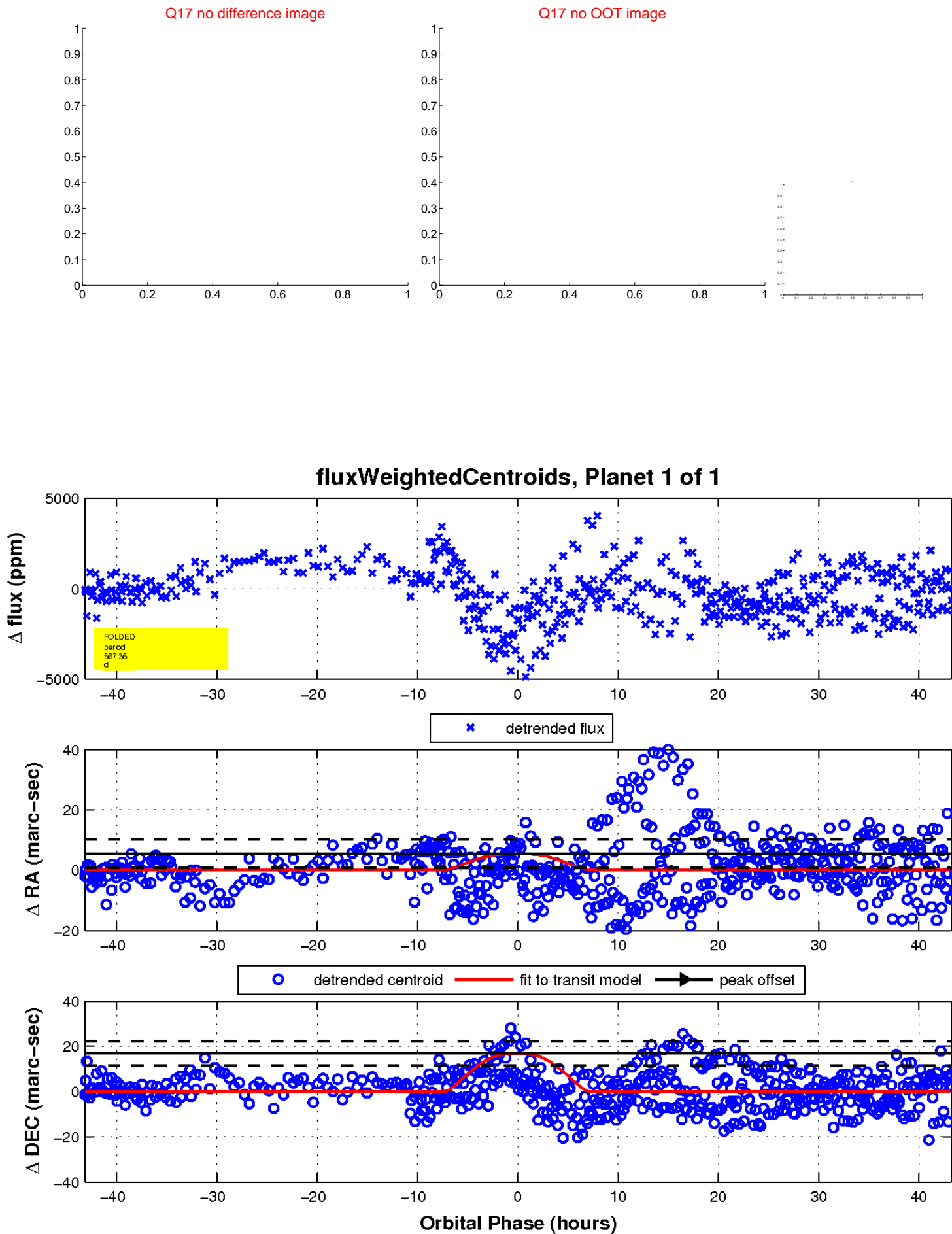
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

