

KIC 009173327

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})
009173327-01	OBS	No	319.346948	158.551979	103.5	0.966	10.4	2.8	154.30	3274	255.29	2727.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009173327-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—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.

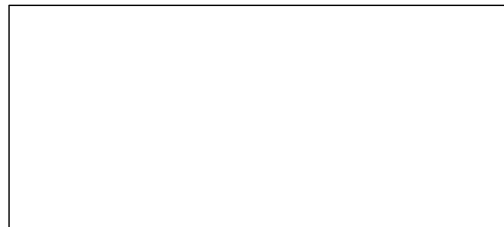
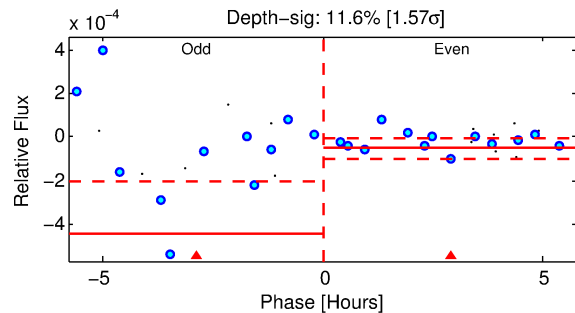
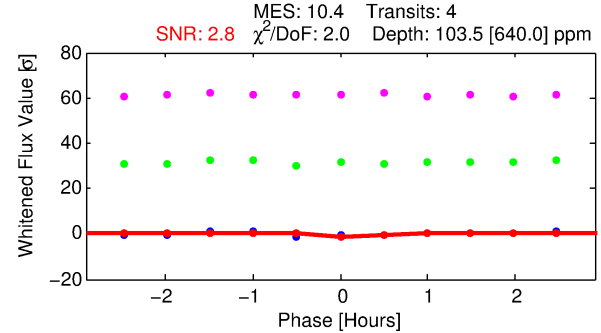
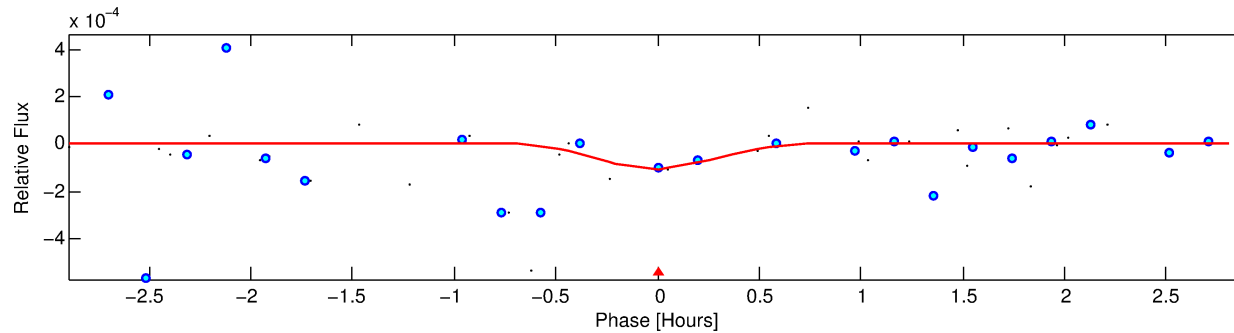
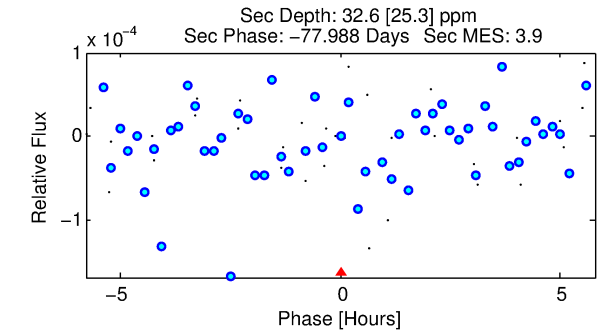
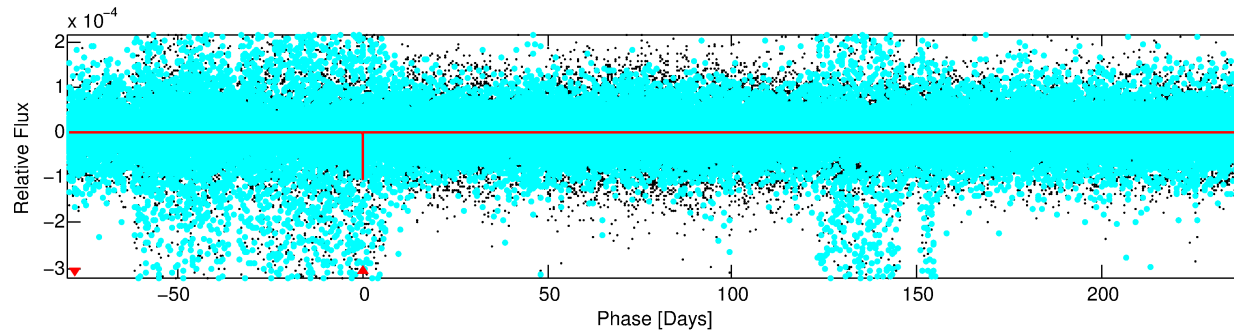
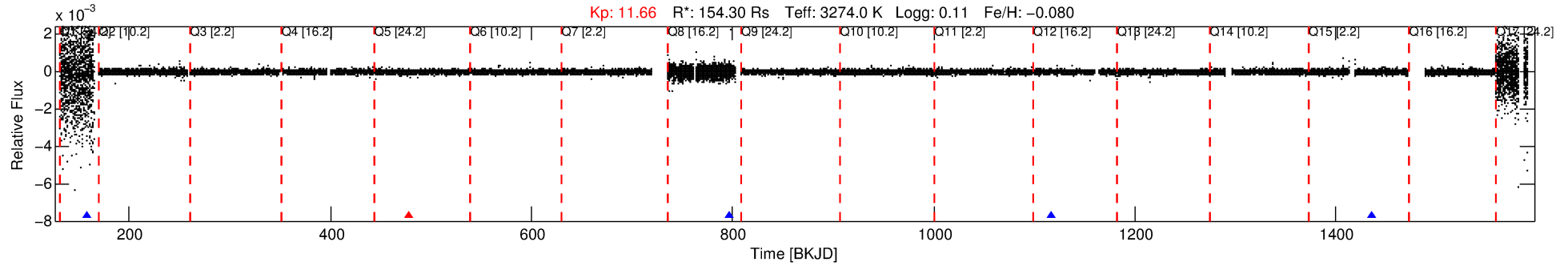
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009173327-01

No Significant Match Found

DV One-Page Summary

KIC: 9173327 Candidate: 1 of 1 Period: 319.347 d



DV Fit Results:

Period = 319.34695 [0.01416] d
Epoch = 158.5520 [0.0404] BKJD
Rp/R* = 0.0152 [0.1333]
a/R* = 668.89 [15207.71]
b = 0.98 [1.09]
Seff = 2727.48 [961.34]
Teq = 1843 [162] K
Rp = 255.29 [2245.22] Re
a = 0.9479 [0.1813] AU
Ag = 0.25 [4.35] [-0.17σ]
Teffp = 2009 [8842] K [0.02σ]

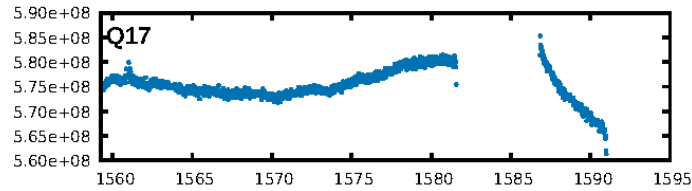
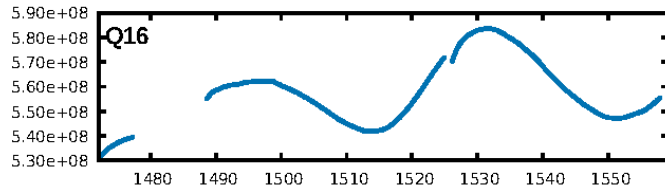
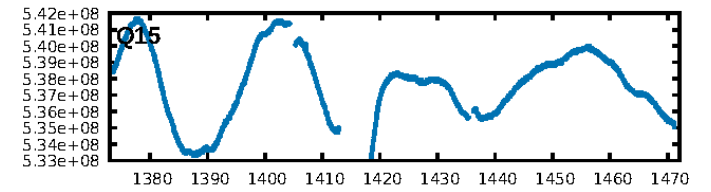
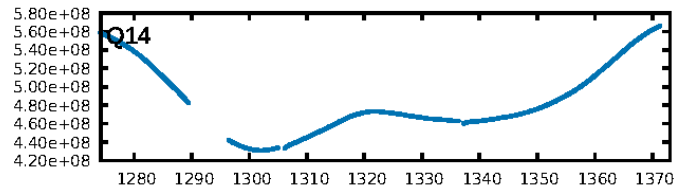
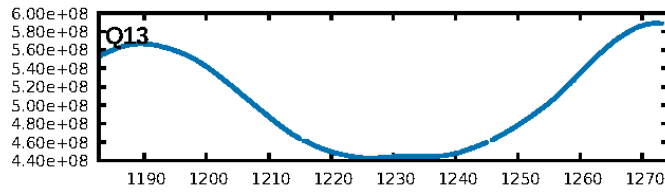
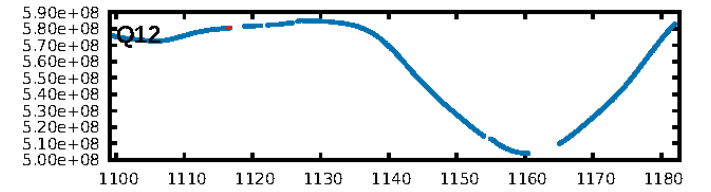
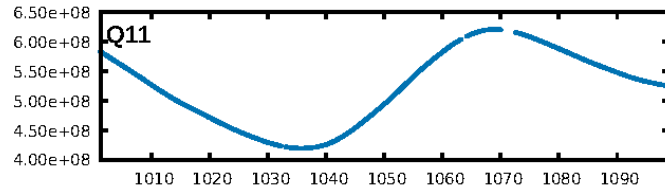
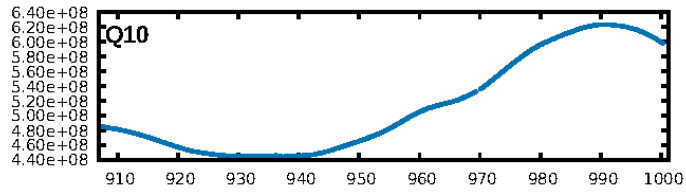
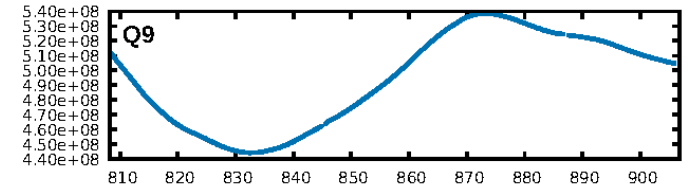
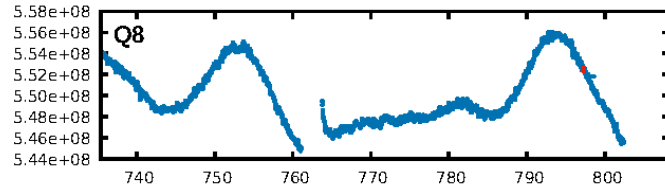
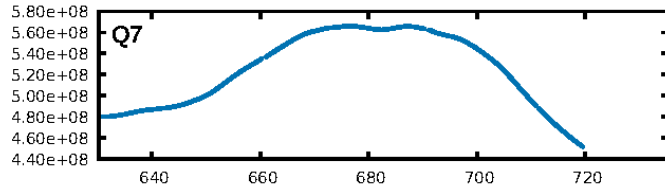
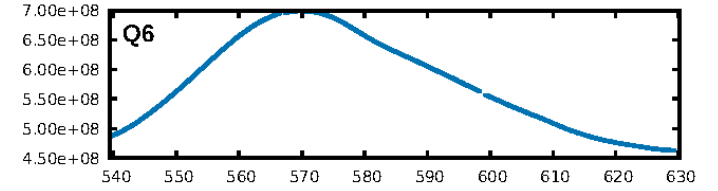
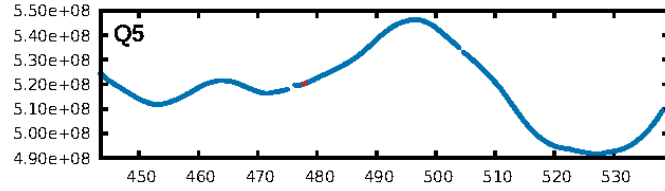
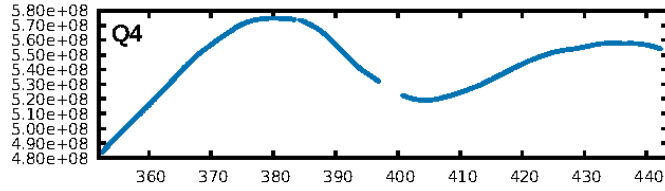
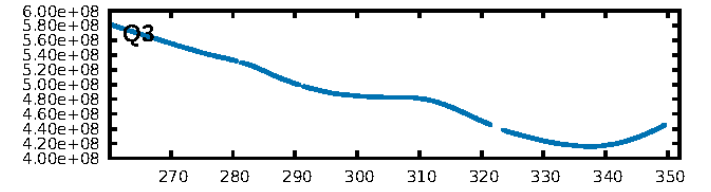
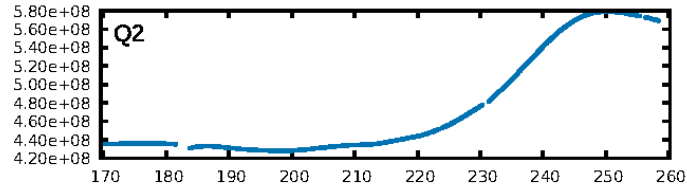
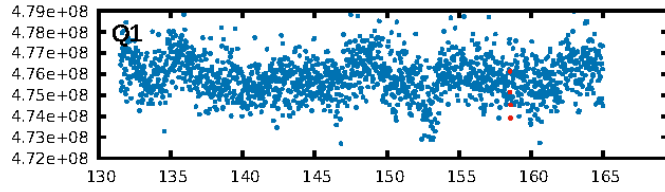
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 79.1%
ModelChiSquareGof-sig: 52.8%
Bootstrap-pfa: 1.63e-06
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 1.085
Centroid-sig: 92.9%
Centroid-so: 0.618 arcsec [0.17σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

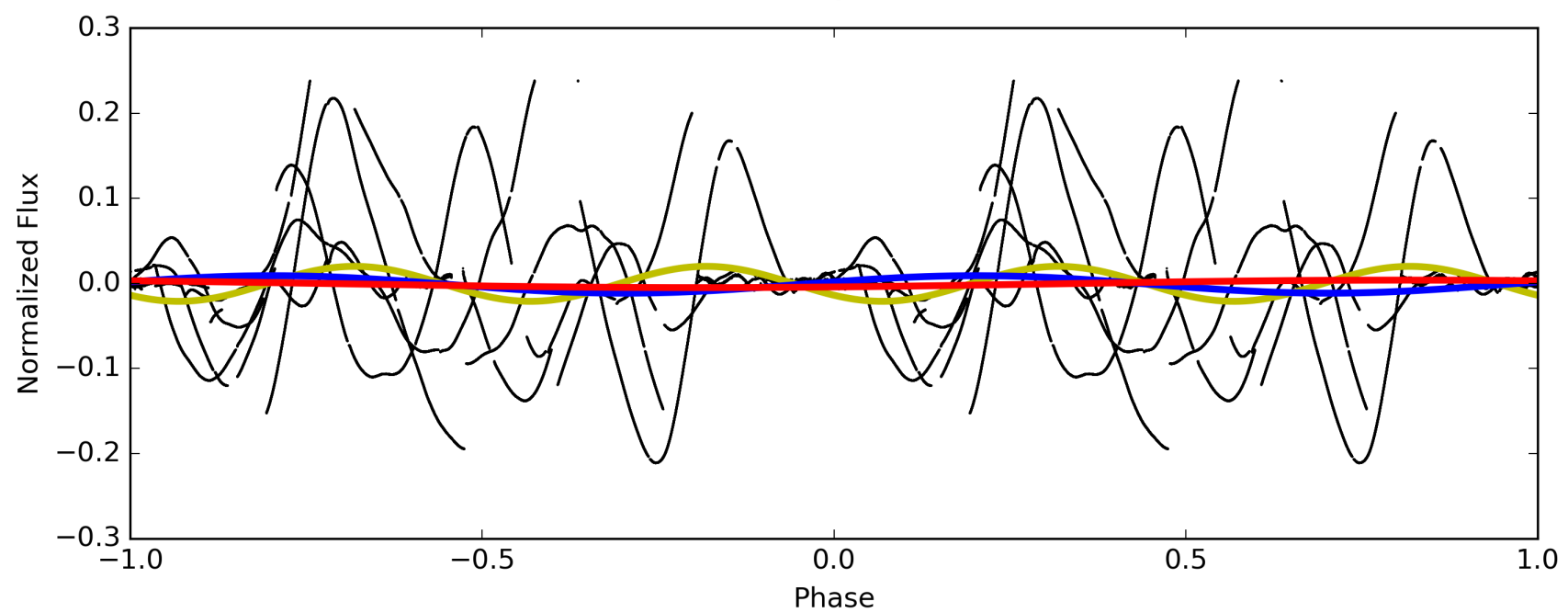
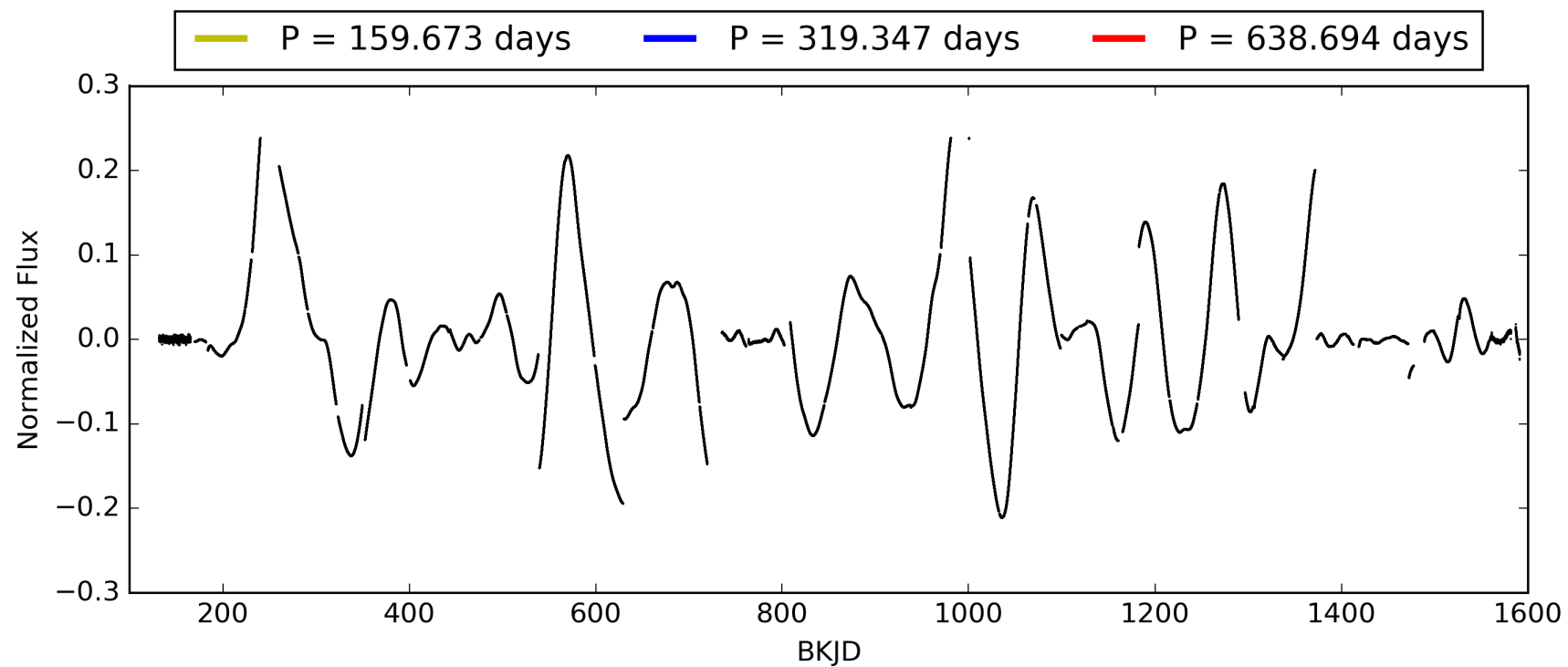
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 14:26:11 Z

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

TCE 009173327-01, PDC Light Curves

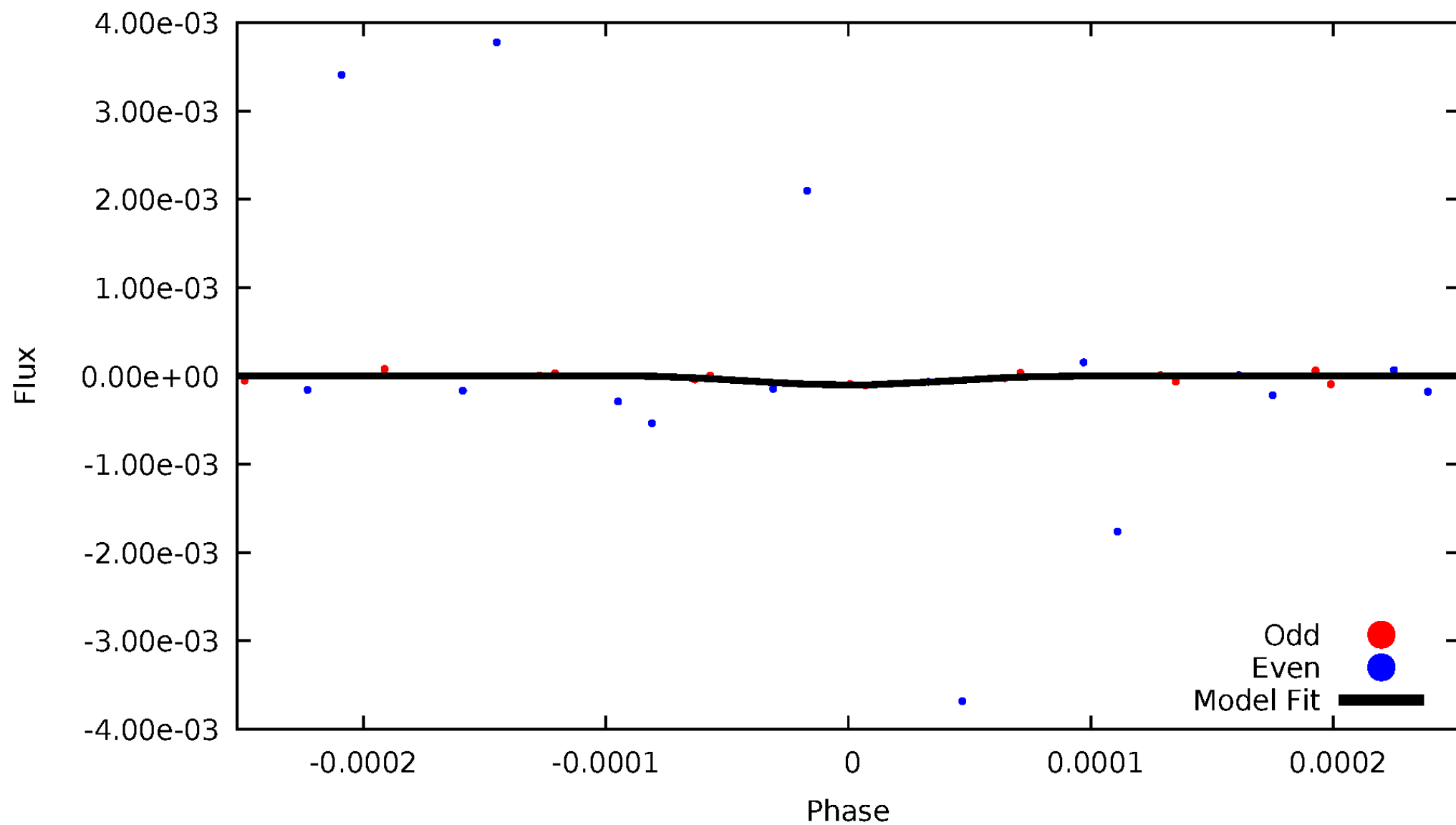


TCE 009173327-01



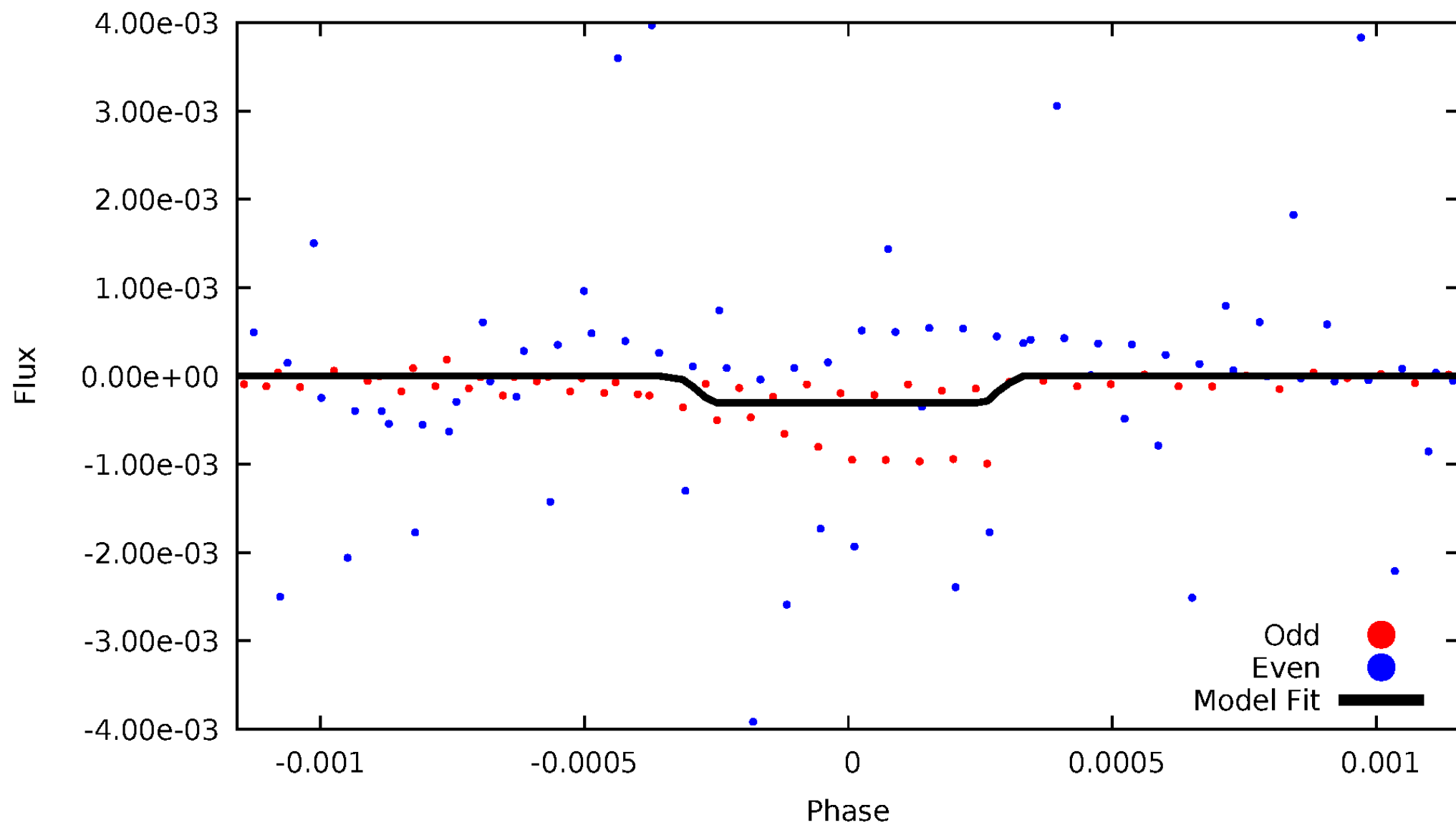
DV Odd/Even

TCE 009173327-01



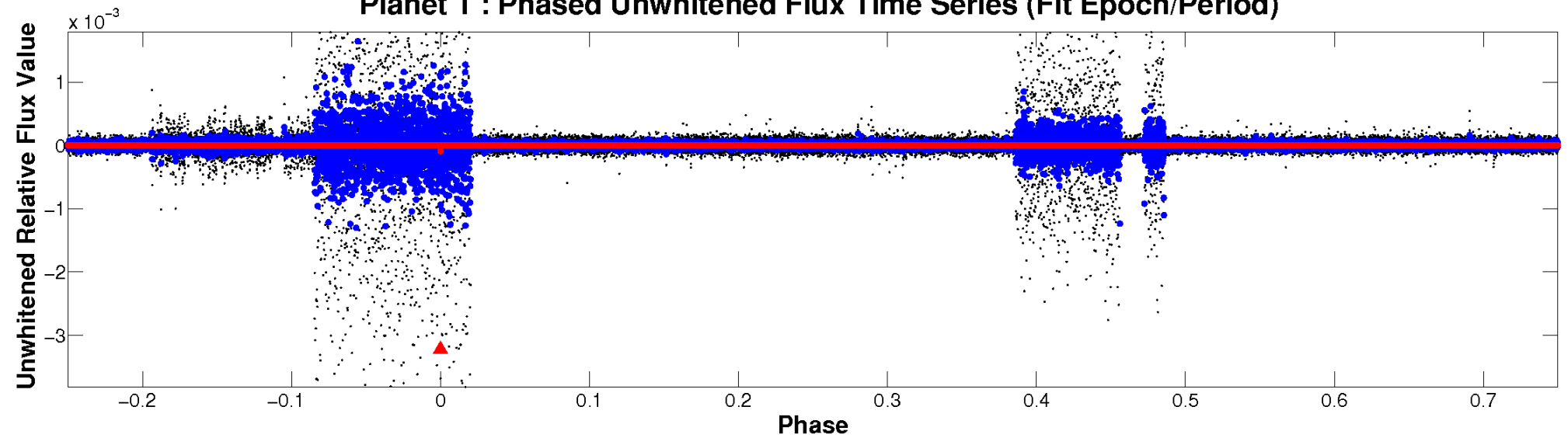
ALT Odd/Even

TCE 009173327-01

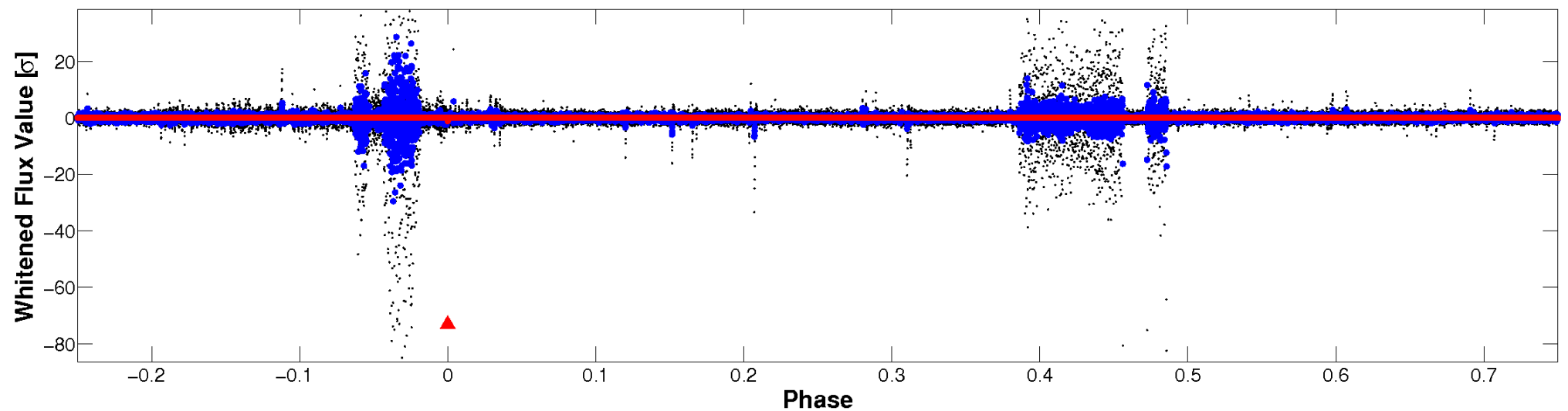


Non-Whitened Vs. Whitened Light Curve

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

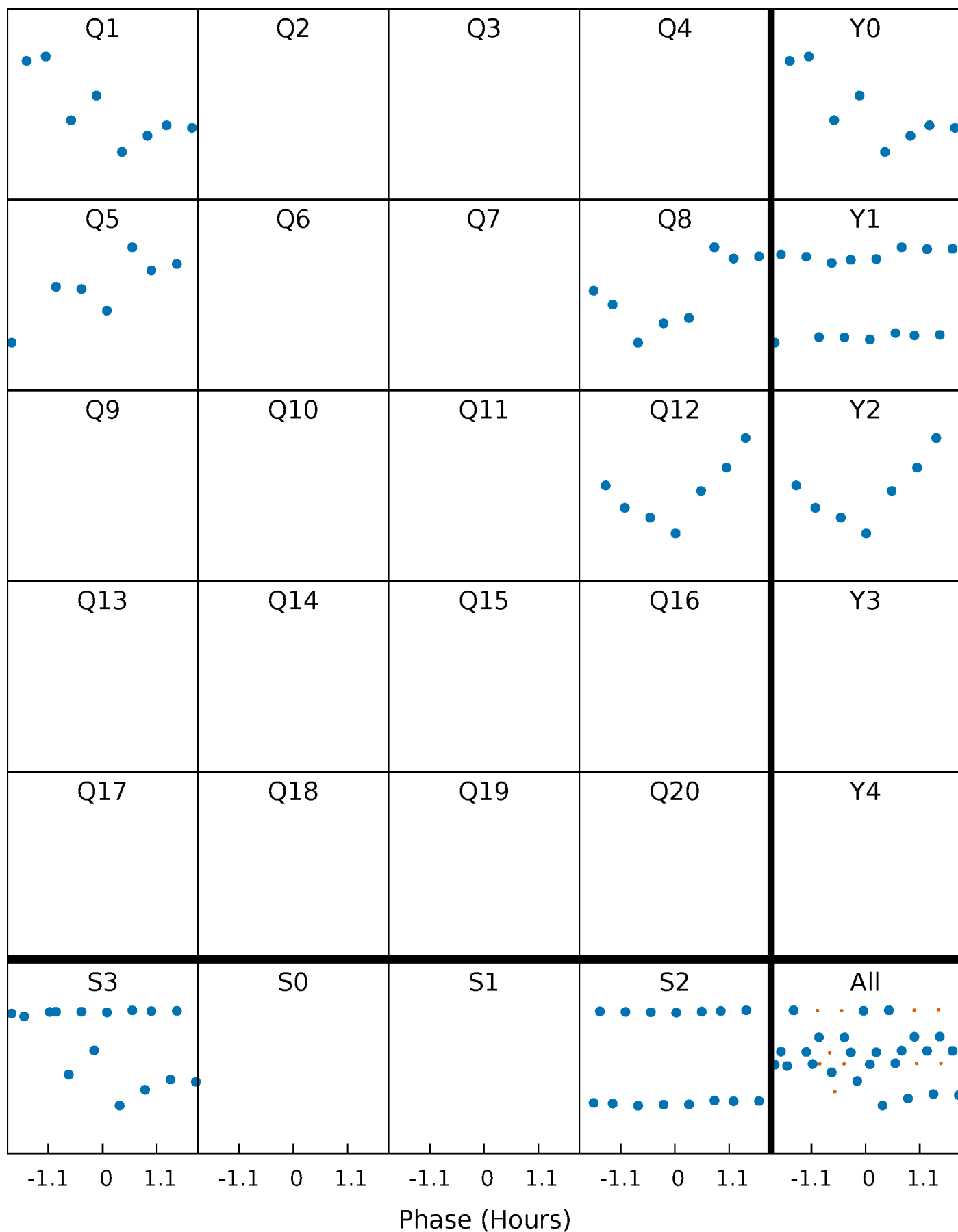


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



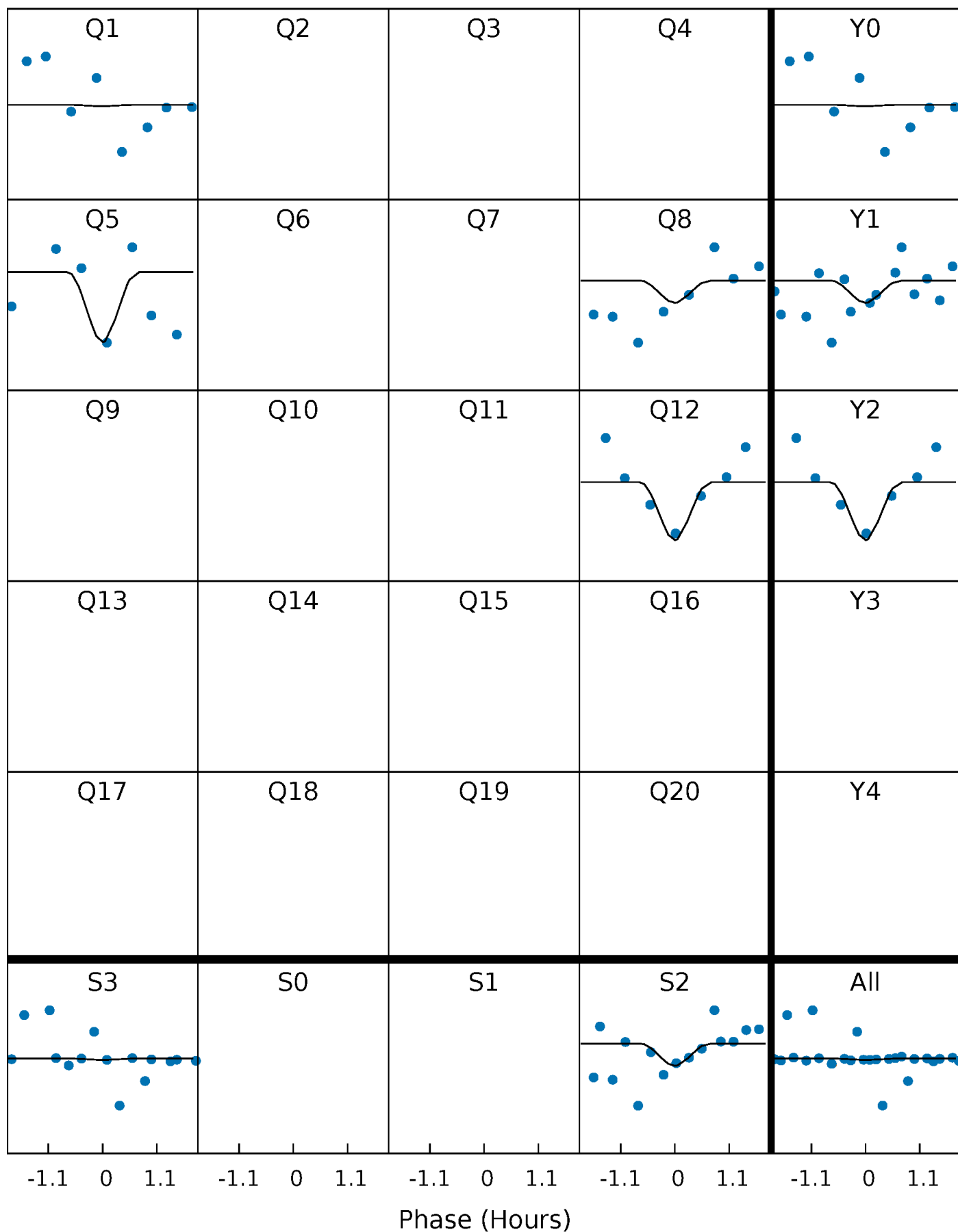
PDC Quarter-Phased Transit Curves

TCE 009173327-01 P=319.346948 Days $T_0=158.551979$ (BKJD)



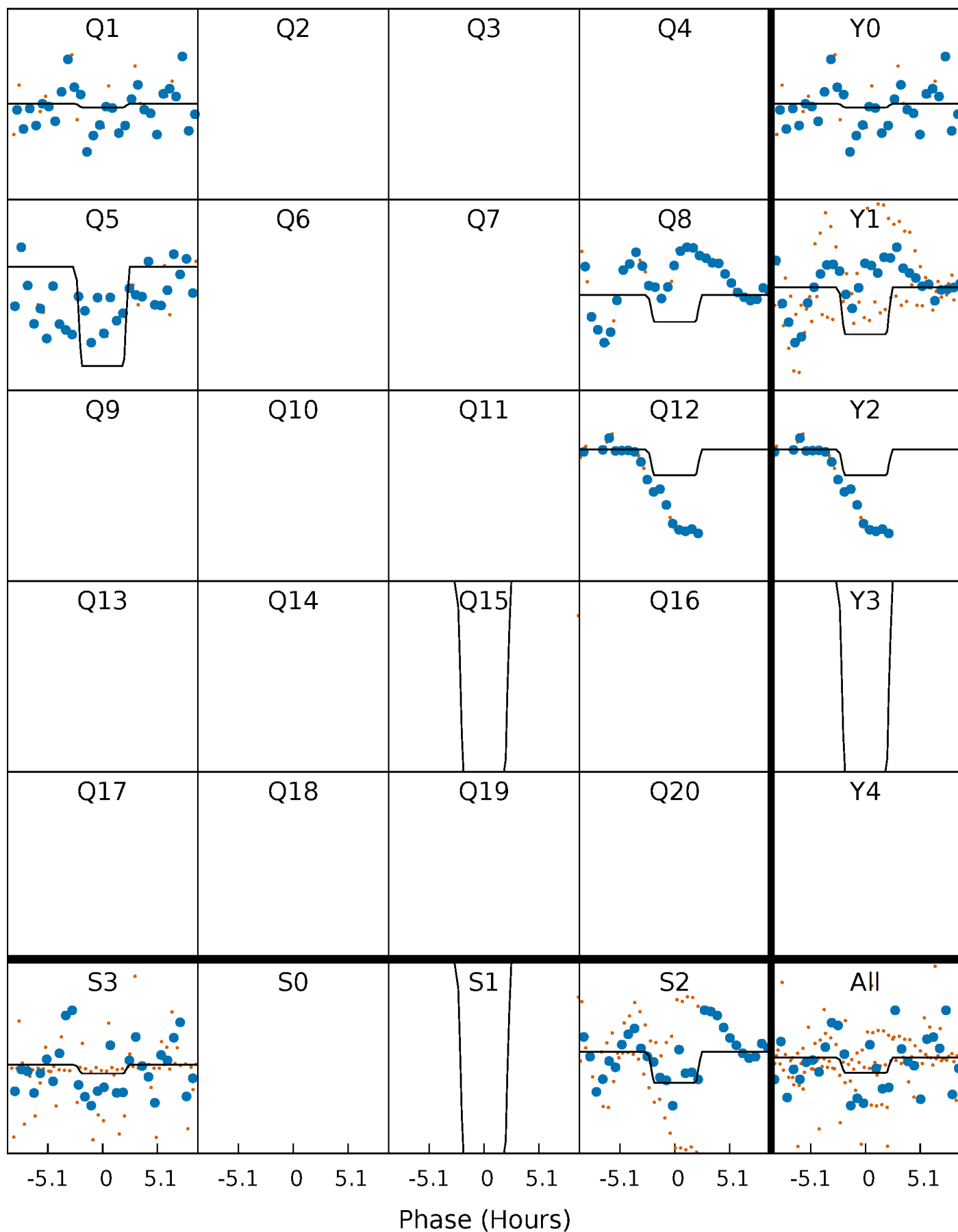
DV Quarter-Phased Transit Curves

TCE 009173327-01 P=319.346948 Days $T_0=158.551979$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

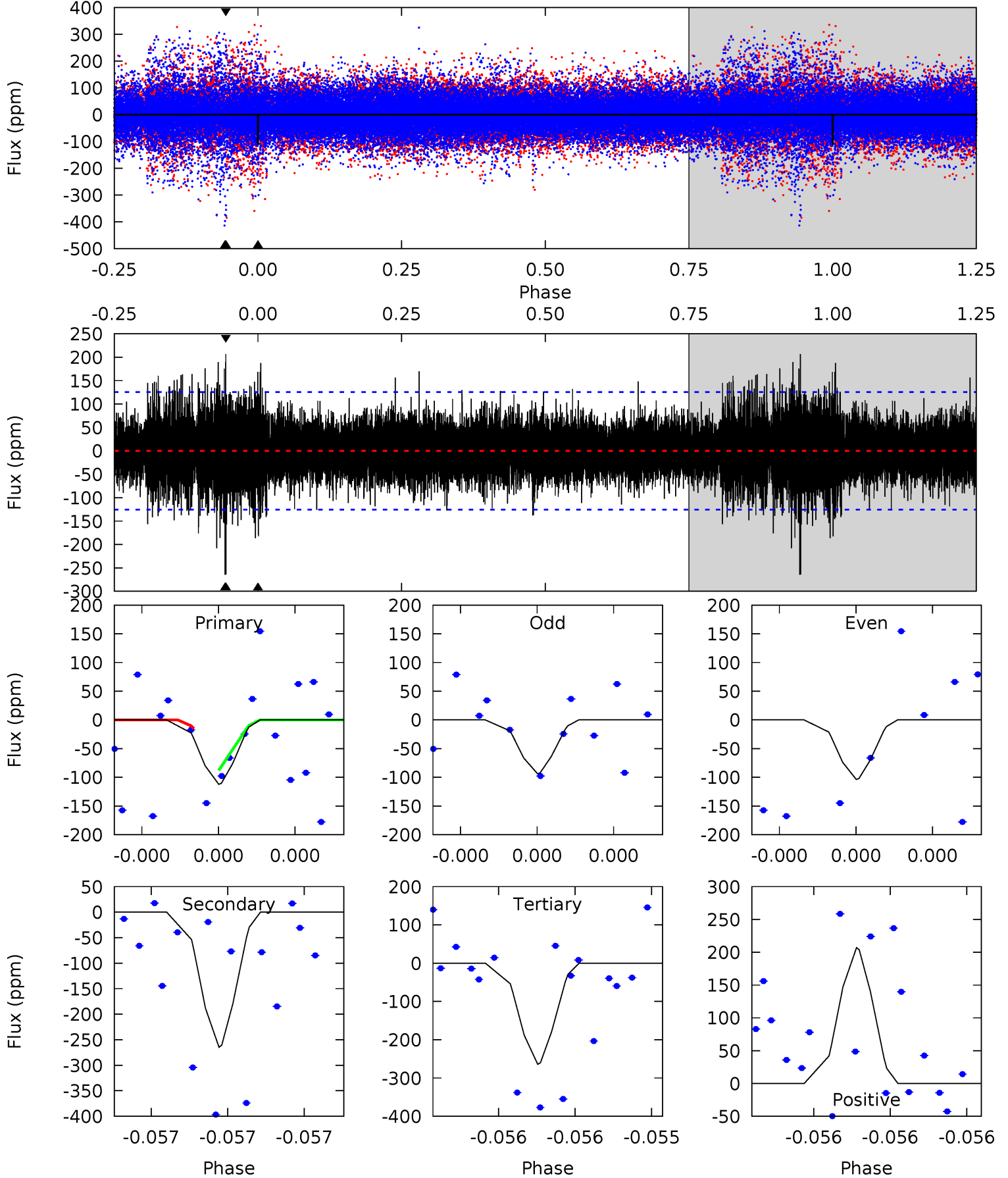
TCE 009173327-01 P=319.322053 Days $T_0=158.624654$ (BKJD)



DV Model-Shift Uniqueness Test

009173327-01, P = 319.346948 Days, E = 158.551979 Days

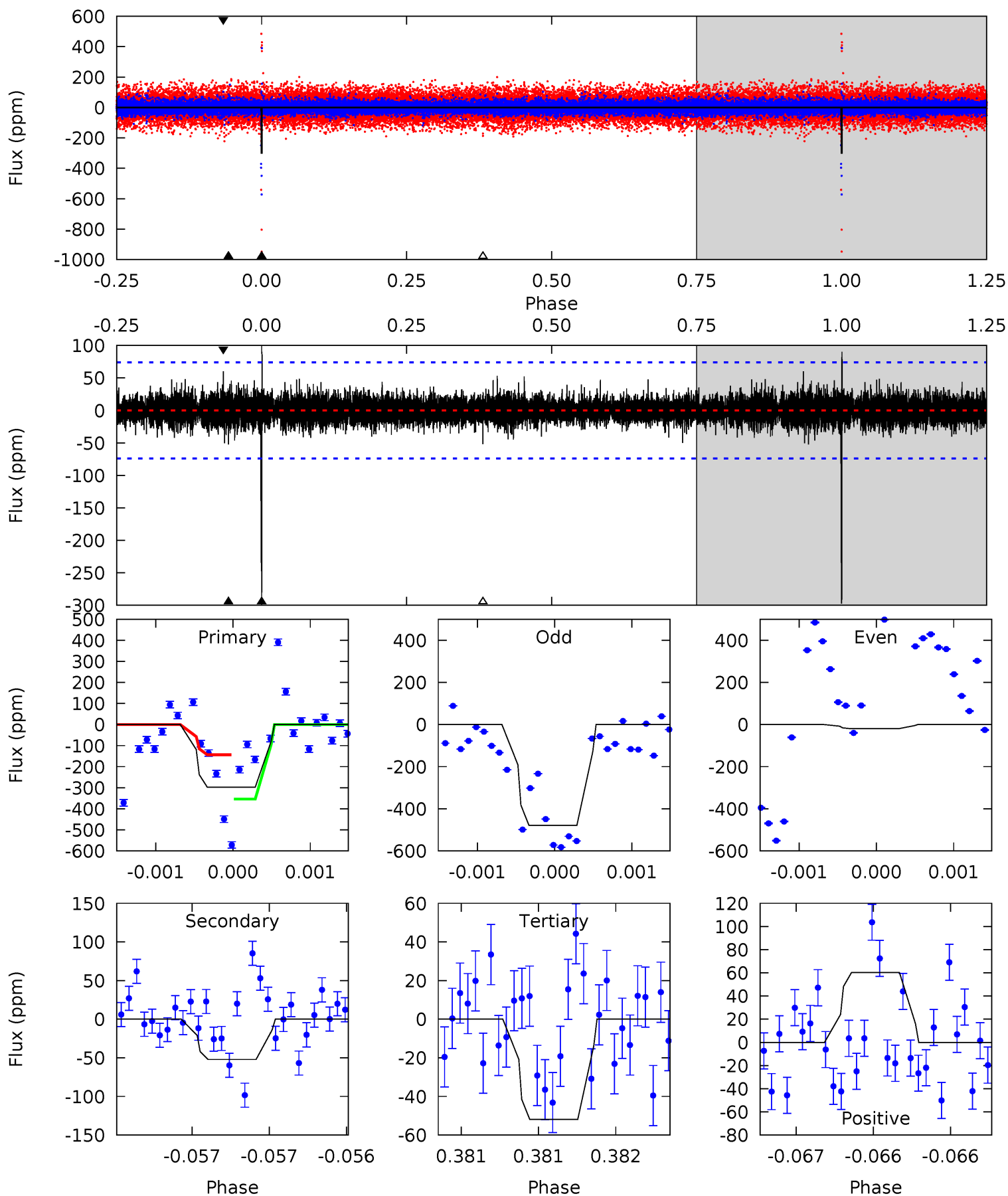
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.14	12.1	12.1	9.49	5.75	3.75	1.65	-6.97	-4.34	0.02	2.65	0.16	0.31	0.44	0



Alt Model-Shift Uniqueness Test

009173327-01, P = 319.322053 Days, E = 158.624654 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	3.91	3.89	4.51	5.54	3.42	0.87	18.4	17.7	0.02	-0.61	22.3	1.07	0.23	7.42



Stellar Parameters For KIC 009173327

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3274^{+117}_{-78}	$0.108^{+0.195}_{-0.052}$	$-0.080^{+0.250}_{-0.150}$	$154.296^{+9.192}_{-27.576}$	$1.114^{+0.207}_{-0.128}$	$0.000^{+0.000}_{-0.000}$
	+4%/-2%	+181%/-48%	+312%/-188%	+6%/-18%	+19%/-11%	+93%/-14%
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 009173327-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-265 ± 22	$1572.40^{+1660.49}_{-1073.04}$	2537^{+119}_{-125}	-2459^{+4924}_{-113}	$0.054^{+0.483}_{-0.041}$
Alt.	-52 ± 13	$1546.45^{+1609.24}_{-1079.08}$	2539^{+119}_{-138}	-2518^{+189}_{-91}	$0.011^{+0.120}_{-0.008}$

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

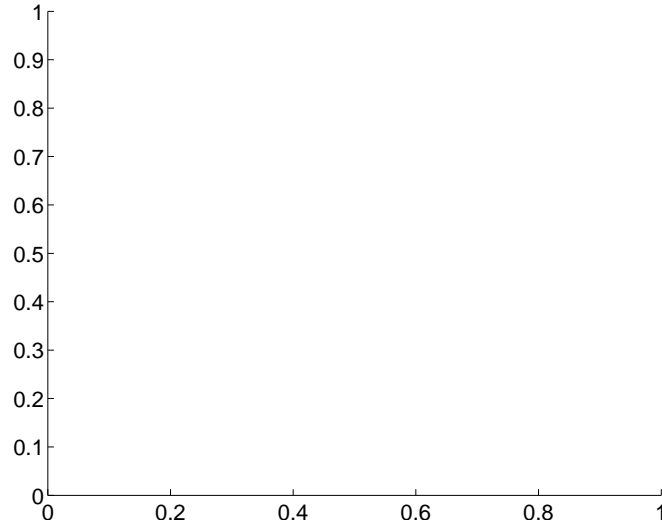
Supplemental centroid analysis for 009173327-01. **Kepler magnitude: 11.66.** Transit SNR 2.83

There are 0 quarters with good PRF difference image offsets

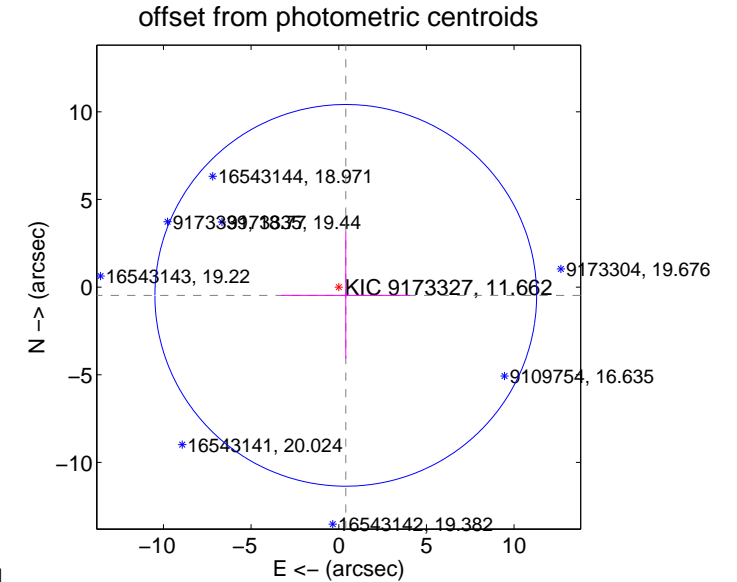
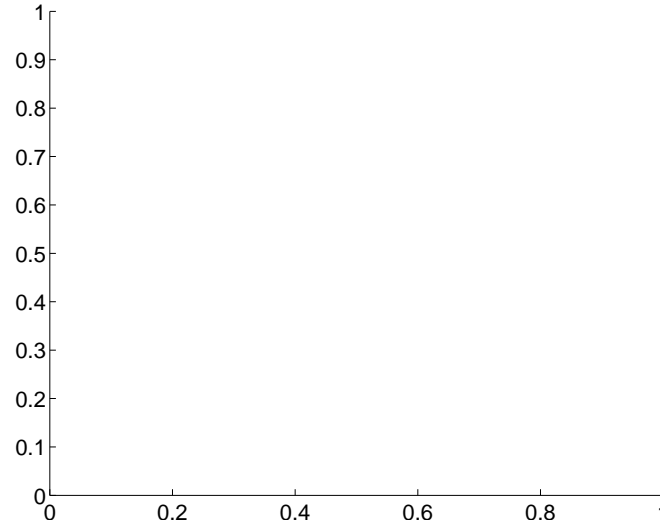
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.62 ± 3.63	0.17	-0.40 ± 3.67	-0.47 ± 3.60

There is no PRF-fit offset from OOT-fit

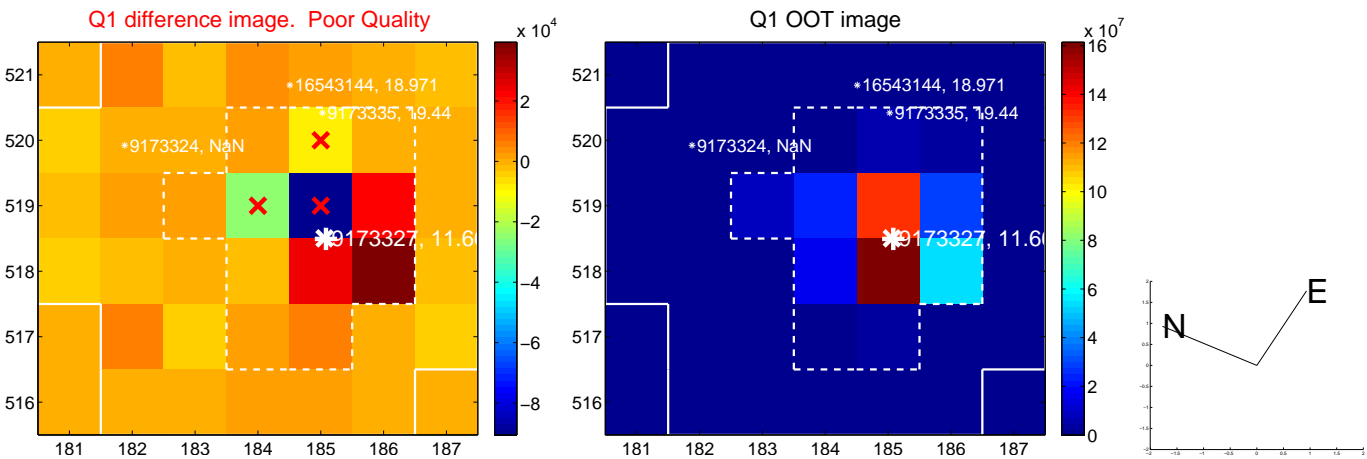


There is no PRF-fit offset from KIC

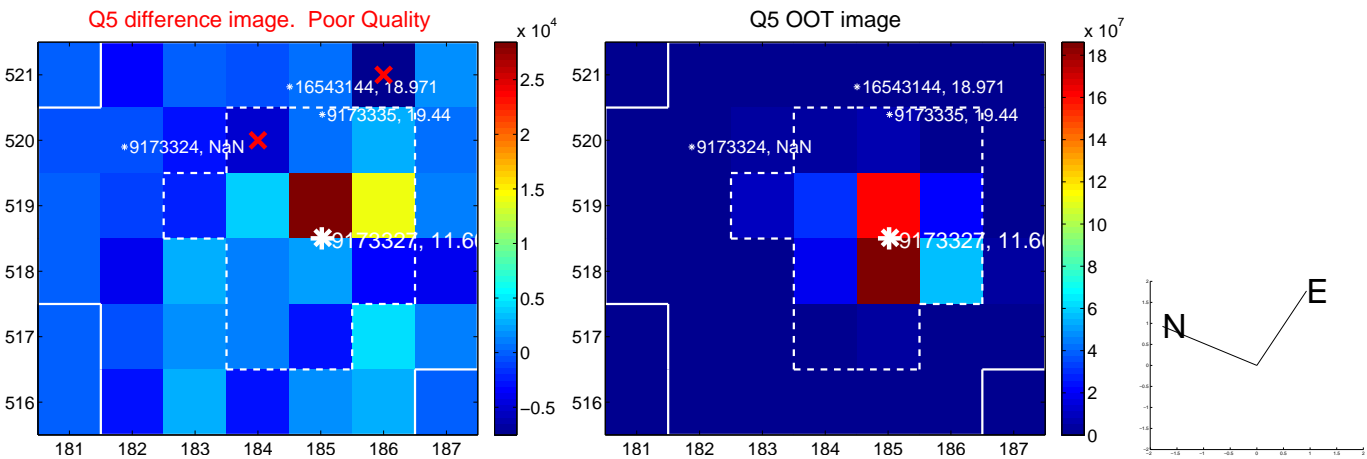


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



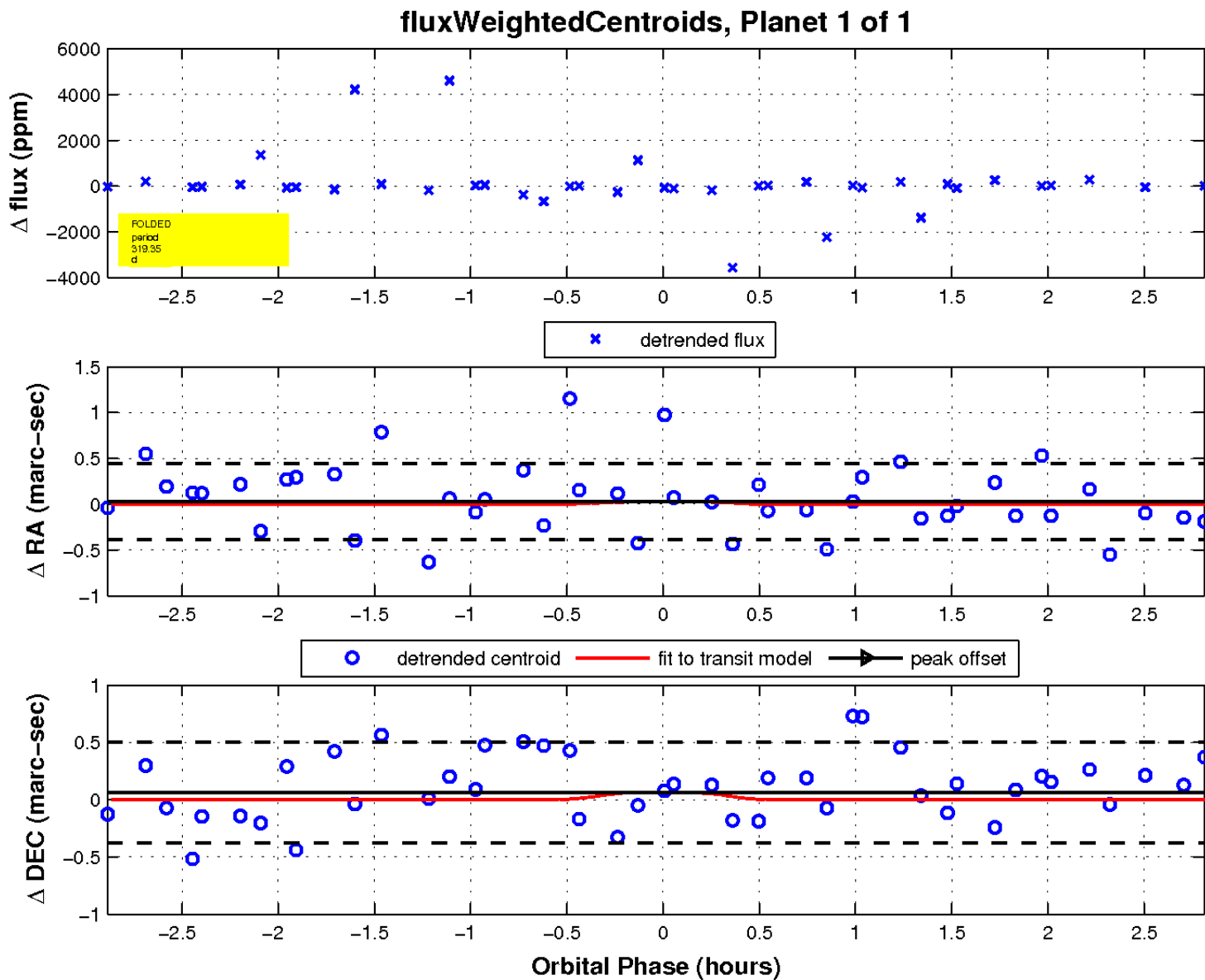
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

