

KIC 004364460

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})
004364460-01	OBS	No	0.680490	131.901619	12968.2	2.500	197.2	-1.0	1.05	5733	11.87	4887.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004364460-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS

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.

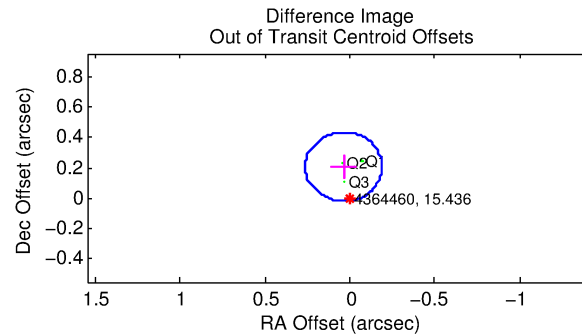
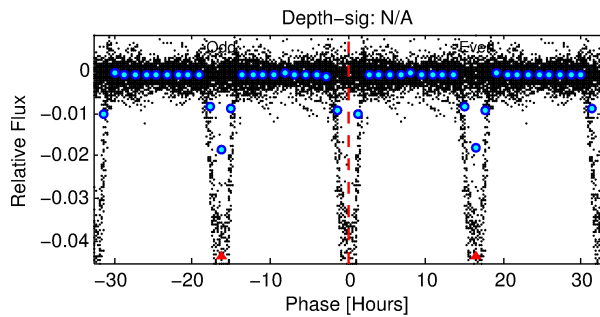
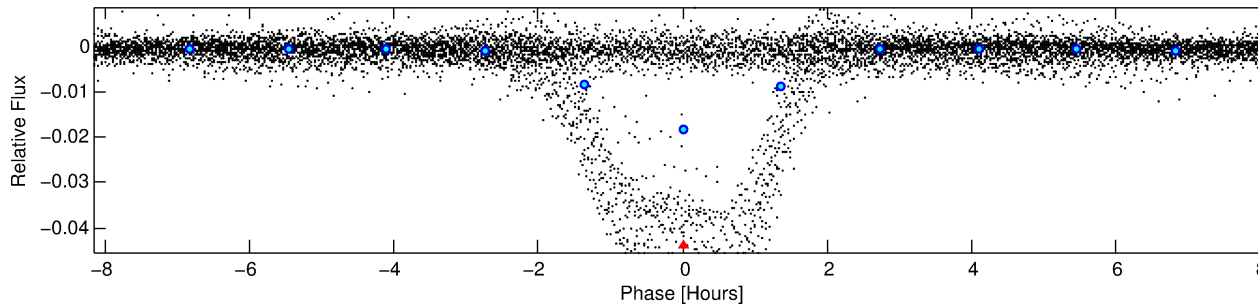
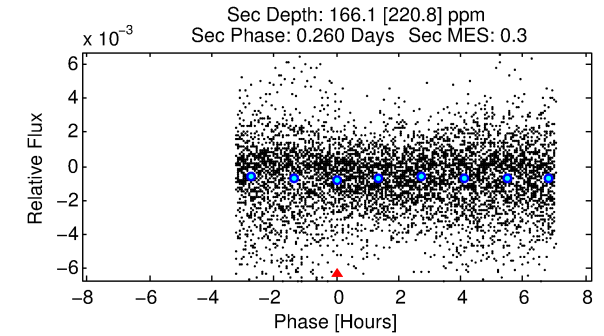
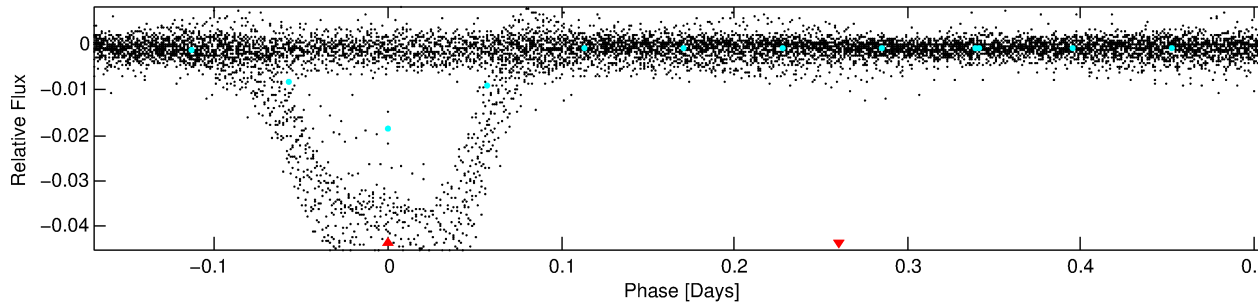
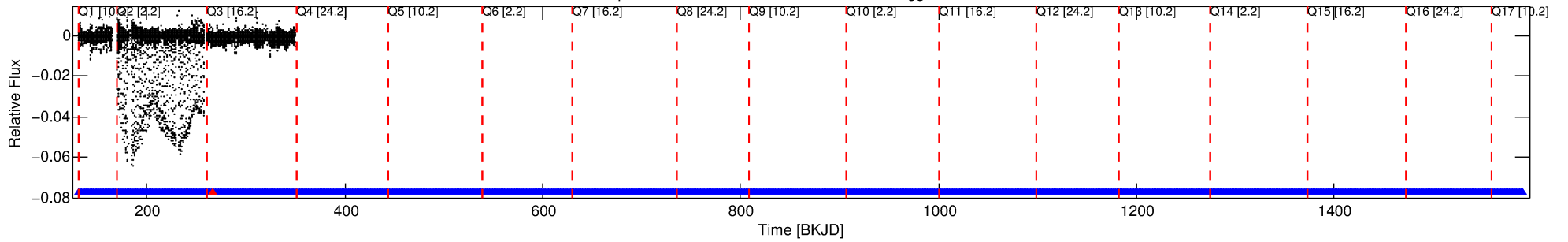
Ephemeris Match Information For 004364460-01

No Significant Match Found

DV One-Page Summary

KIC: 4364460 Candidate: 1 of 1 Period: 0.680 d

Kp: 15.44 R*: 1.05 Rs Teff: 5733.0 K Logg: 4.36 Fe/H: -0.040



TPS TCE Results:

Period = 0.68049 d
Epoch = 131.9016 BKJD

DV fit results are unavailable

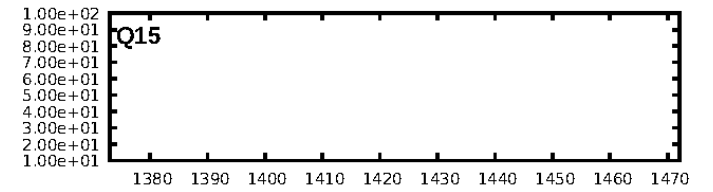
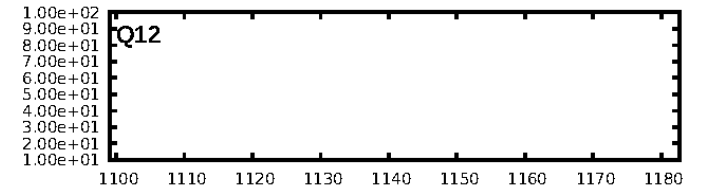
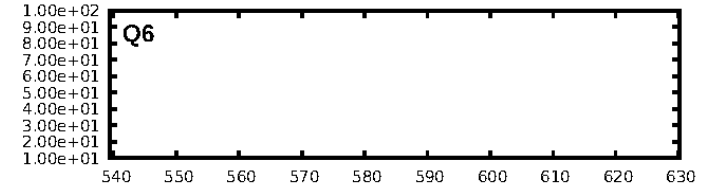
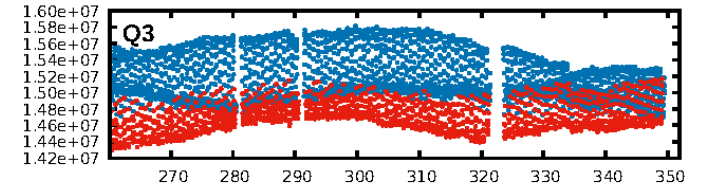
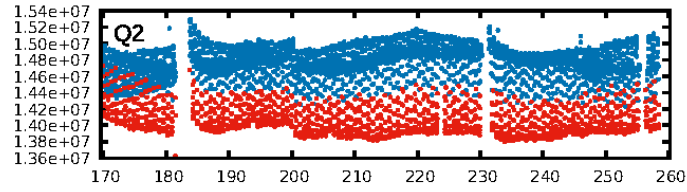
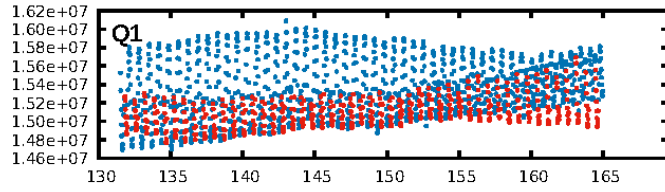
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [252/253]
GhostDiagnostic-chr: -2.887
Centroid-sig: 0.5%
Centroid-so: 0.127 arcsec [21.00σ]
OotOffset-rm: 0.210 arcsec [2.79σ]
KicOffset-rm: 0.049 arcsec [0.69σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

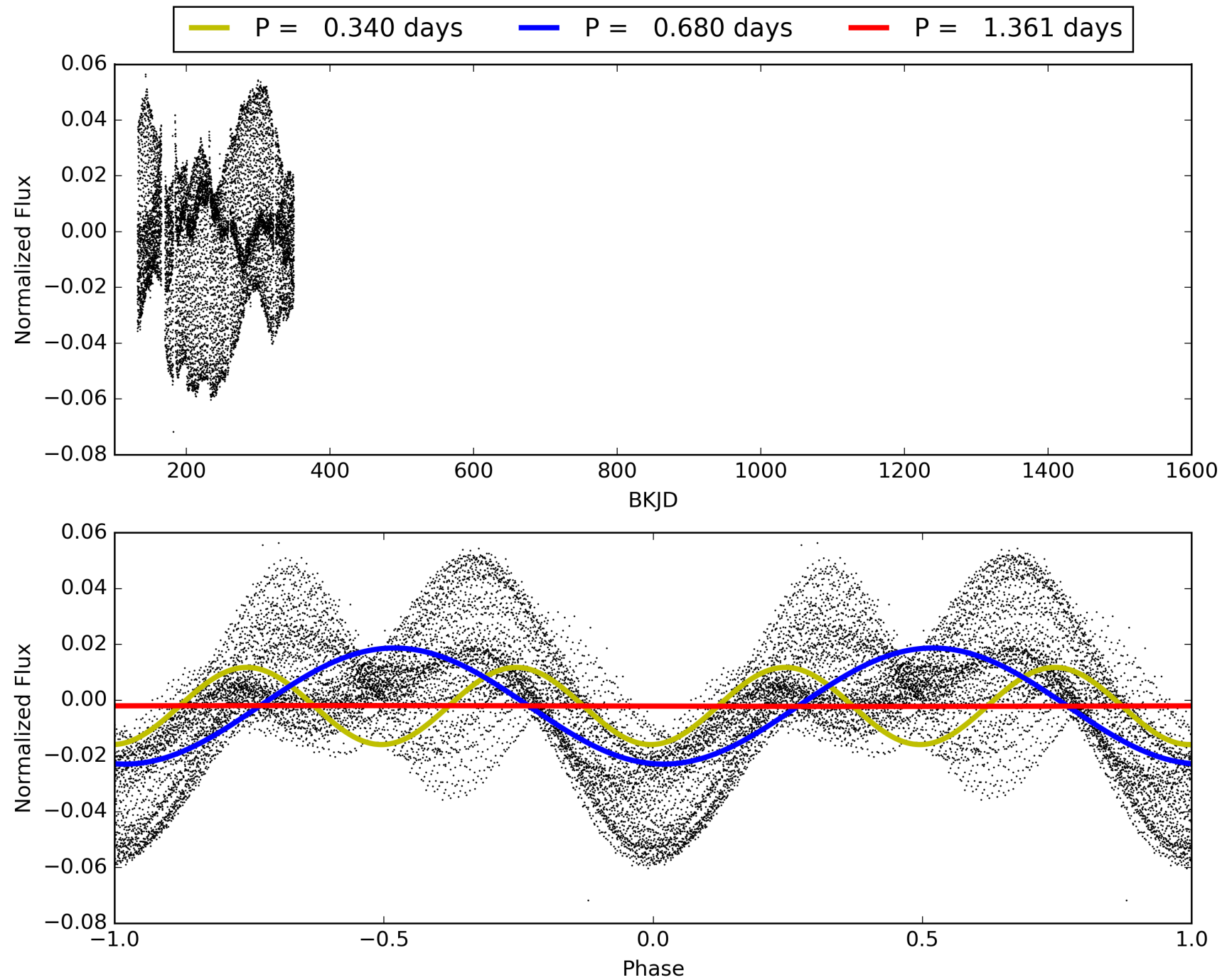
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:21:52 Z

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

TCE 004364460-01, PDC Light Curves

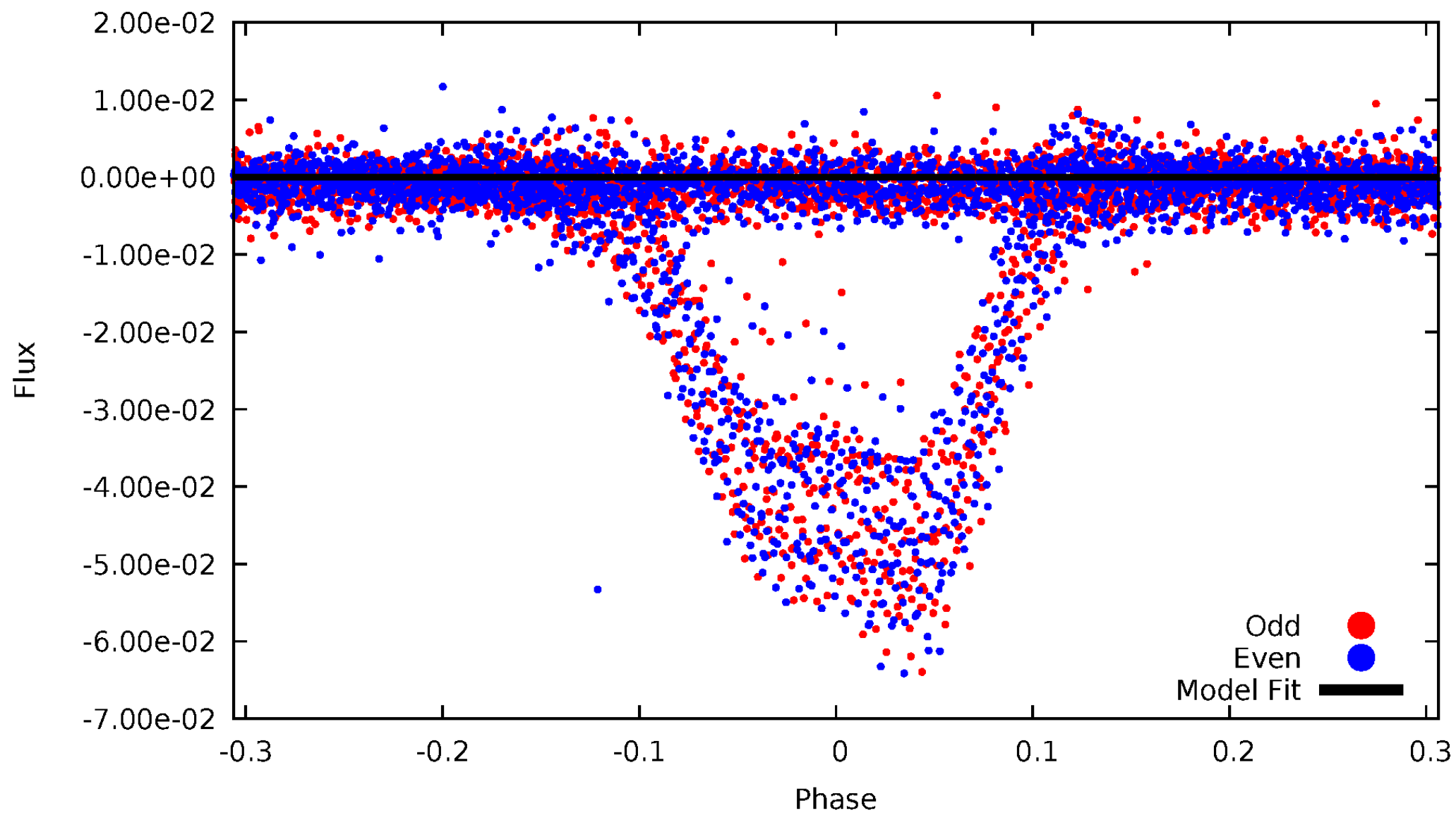


TCE 004364460-01



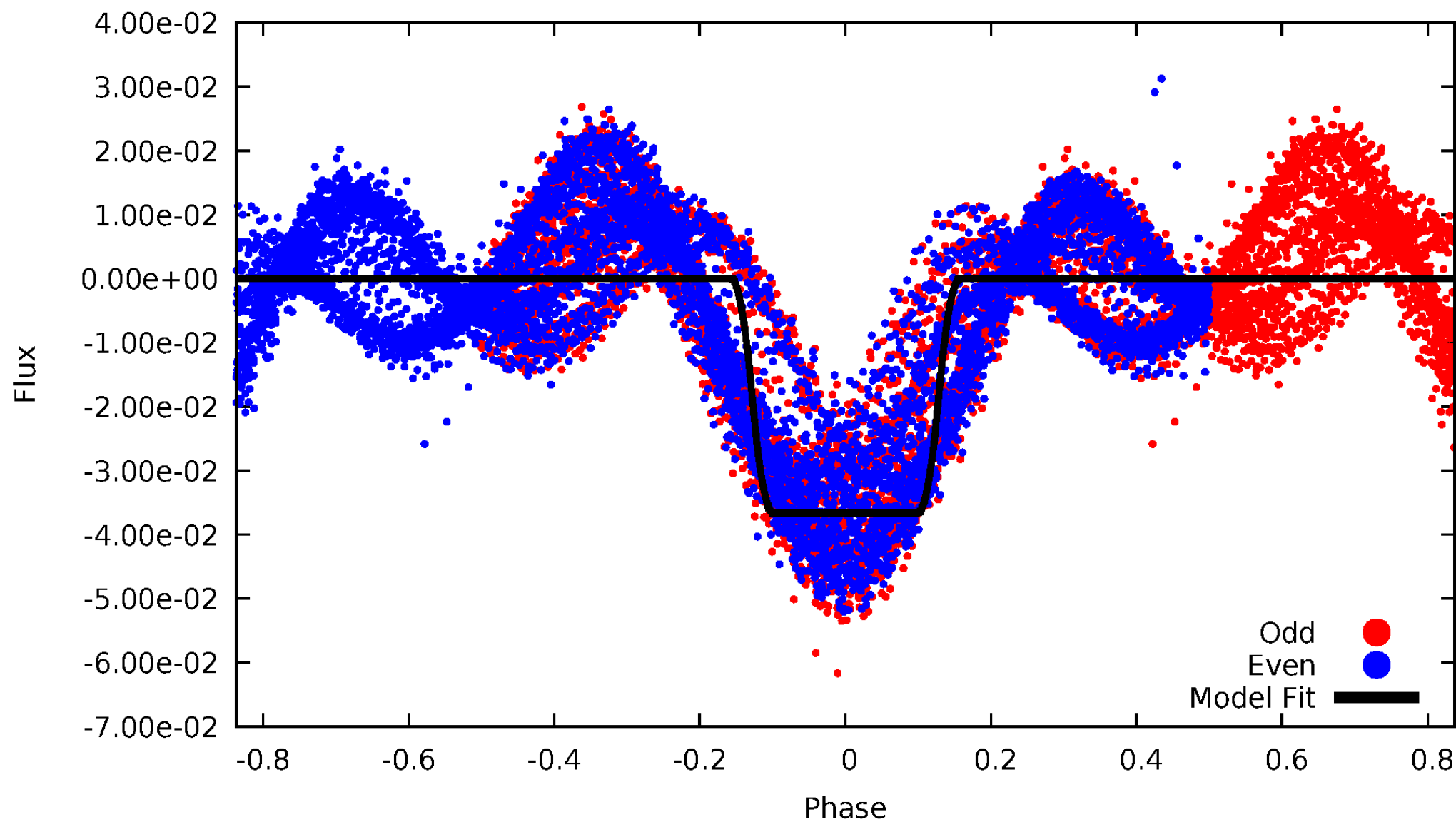
DV Odd/Even

TCE 004364460-01



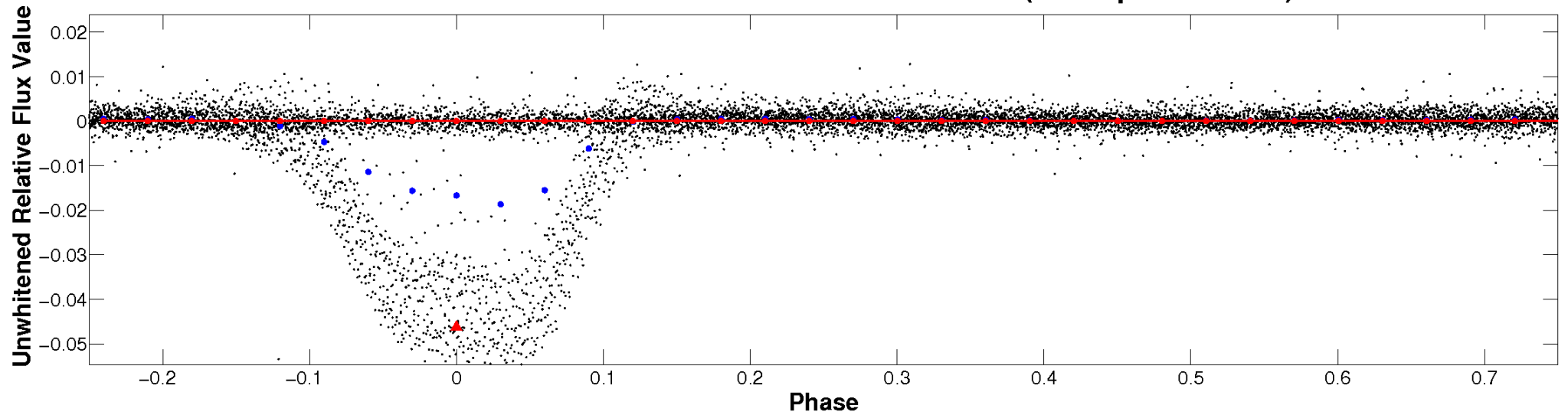
ALT Odd/Even

TCE 004364460-01

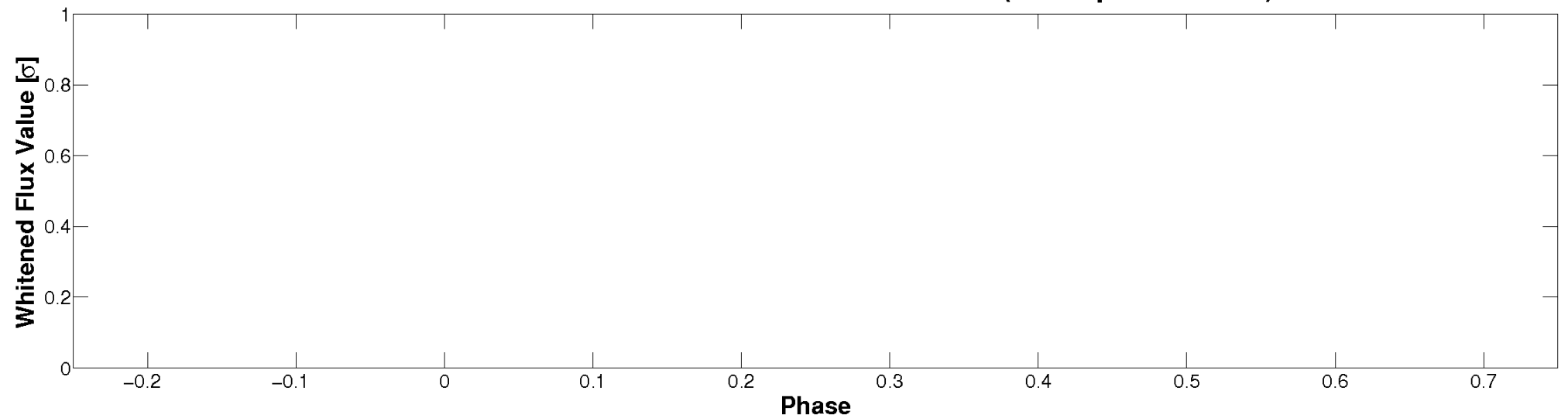


Non-Whitened Vs. Whitened Light Curve

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

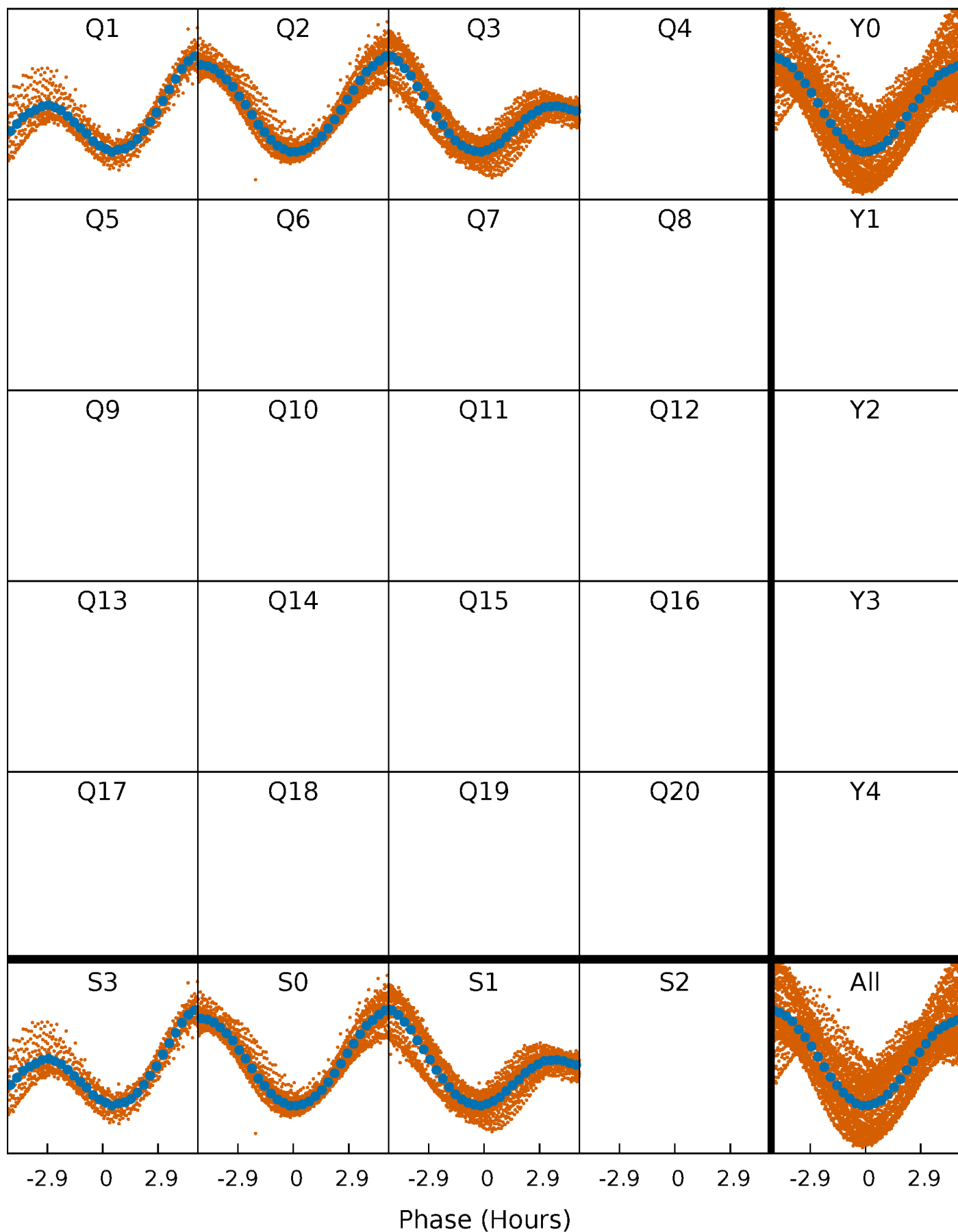


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



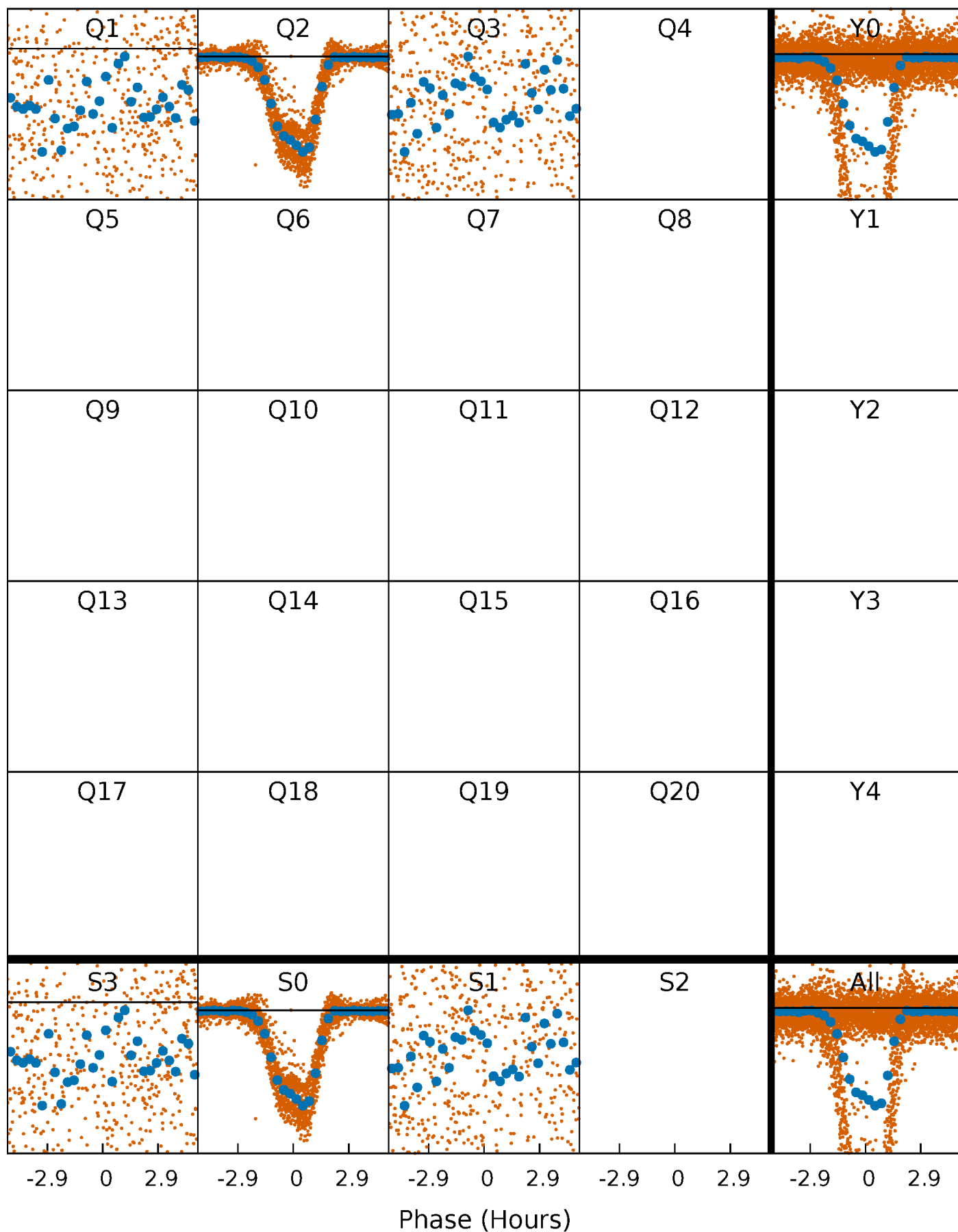
PDC Quarter-Phased Transit Curves

TCE 004364460-01 P= 0.680490 Days $T_0=131.901619$ (BKJD)



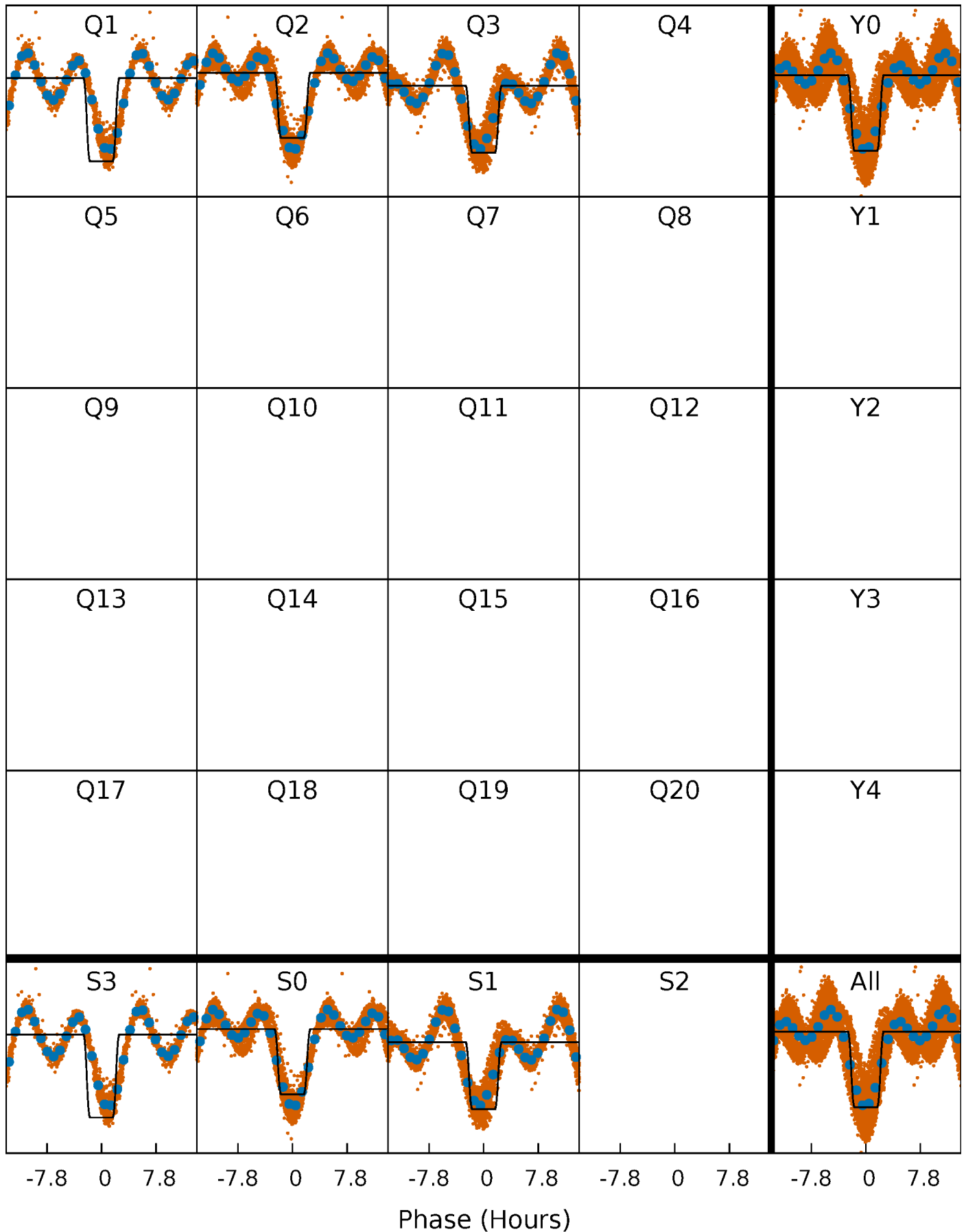
DV Quarter-Phased Transit Curves

TCE 004364460-01 $P = 0.680490$ Days $T_0 = 131.901619$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

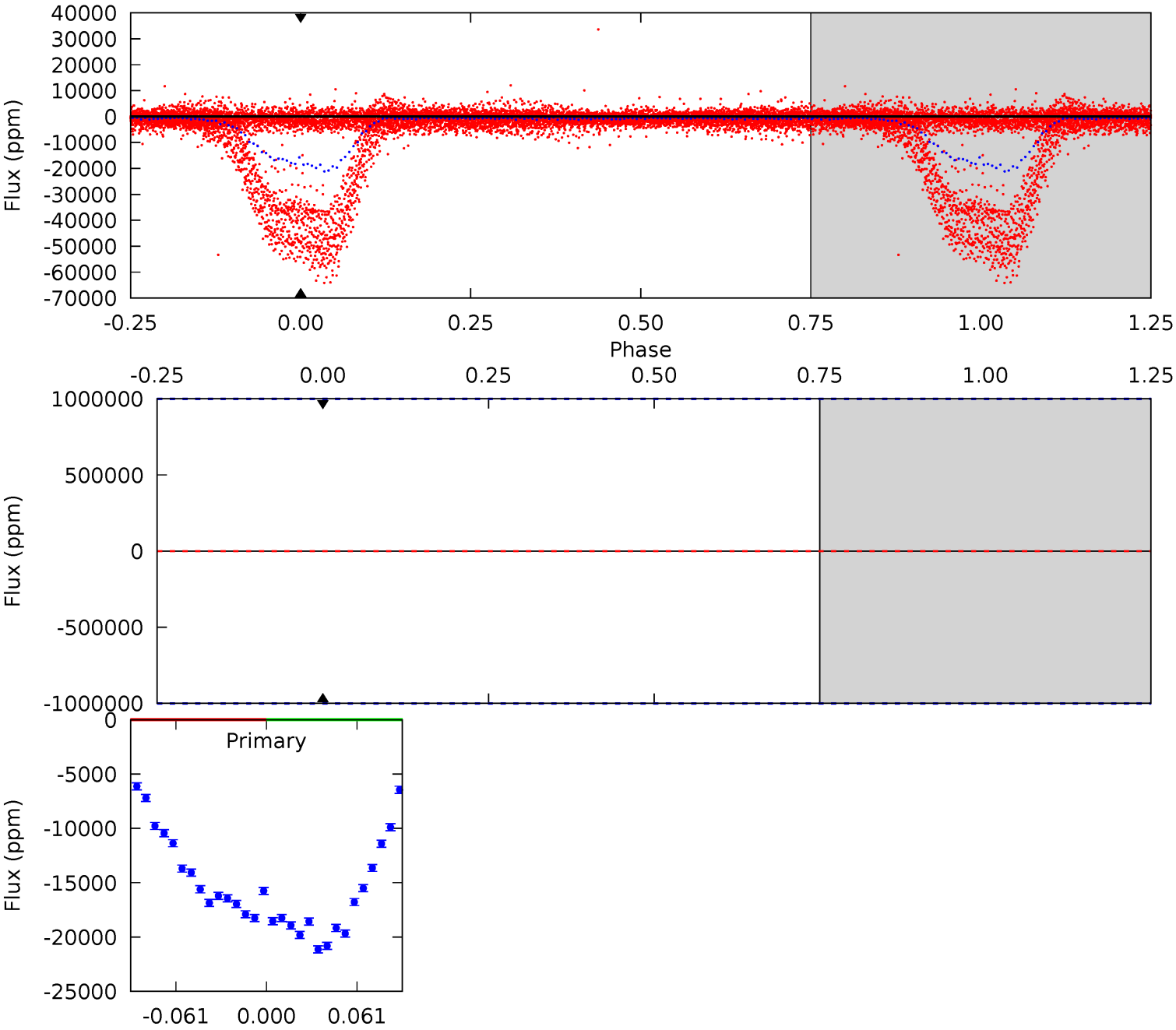
TCE 004364460-01 P= 0.680490 Days $T_0=131.903845$ (BKJD)



DV Model-Shift Uniqueness Test

004364460-01, P = 0.680490 Days, E = 131.221129 Days

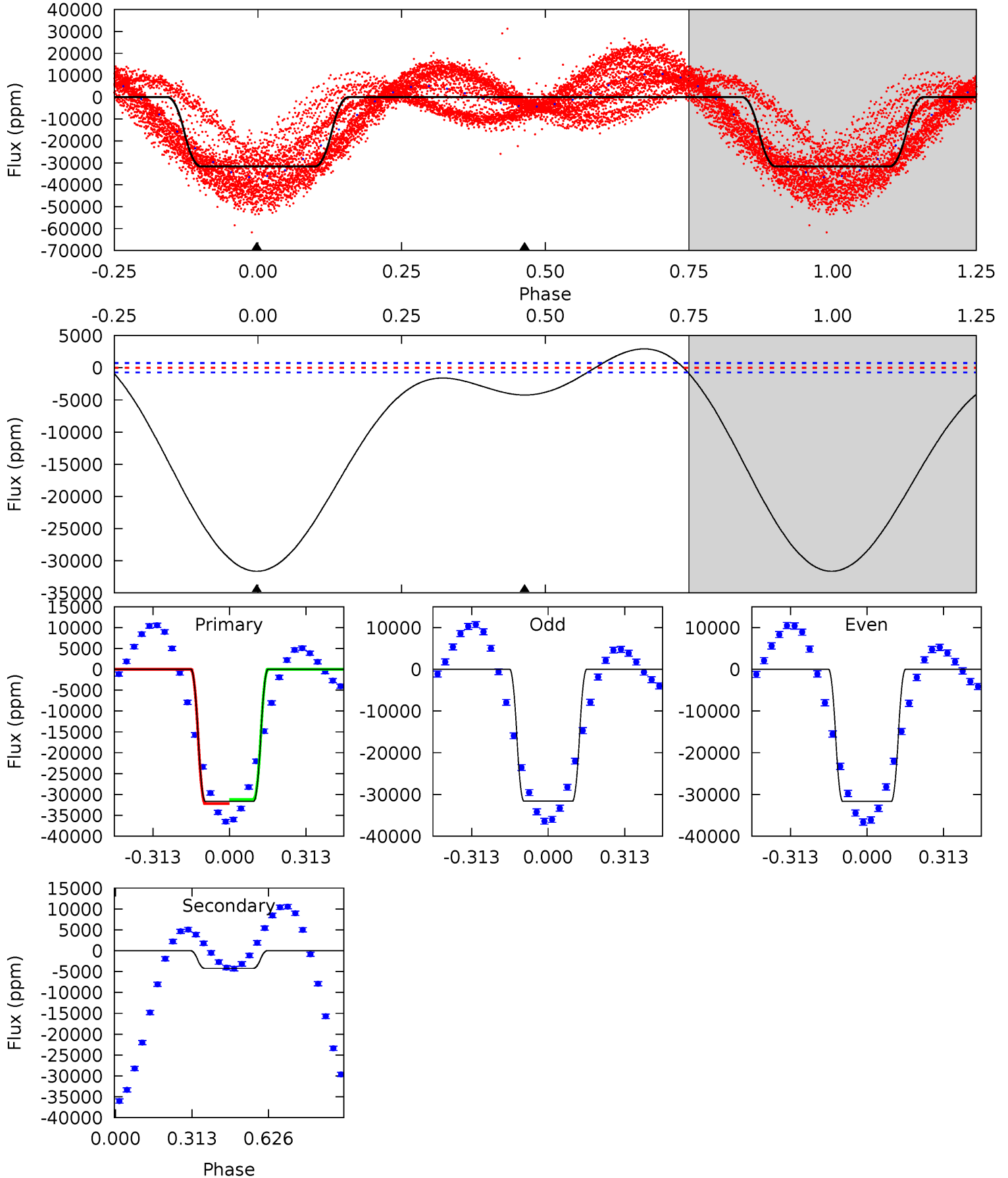
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004364460-01, P = 0.680490 Days, E = 131.223355 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
185.9	24.9	0	0	4.32	1.01	17.2	185.9	185.9	24.9	24.9	0.19	0.99	0.09	3.95



Stellar Parameters For KIC 004364460

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5733^{+156}_{-173}	$4.364^{+0.149}_{-0.182}$	$-0.040^{+0.300}_{-0.300}$	$1.051^{+0.298}_{-0.184}$	$0.933^{+0.124}_{-0.093}$	$1.131^{+0.691}_{-0.583}$
	+3%/-3%	+3%/-4%	+750%/-750%	+28%/-18%	+13%/-10%	+61%/-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 004364460-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$14.45^{+11.69}_{-9.13}$	2982^{+230}_{-184}	-3775^{+15697}_{-7921}	$-0.721^{+99.104}_{-89.783}$
Alt.	-4239 ± 170	$22.49^{+12.50}_{-10.65}$	2987^{+205}_{-188}	3486^{+1139}_{-750}	$1.000^{+2.792}_{-0.575}$

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 $A_{obs} \gg 1.0$

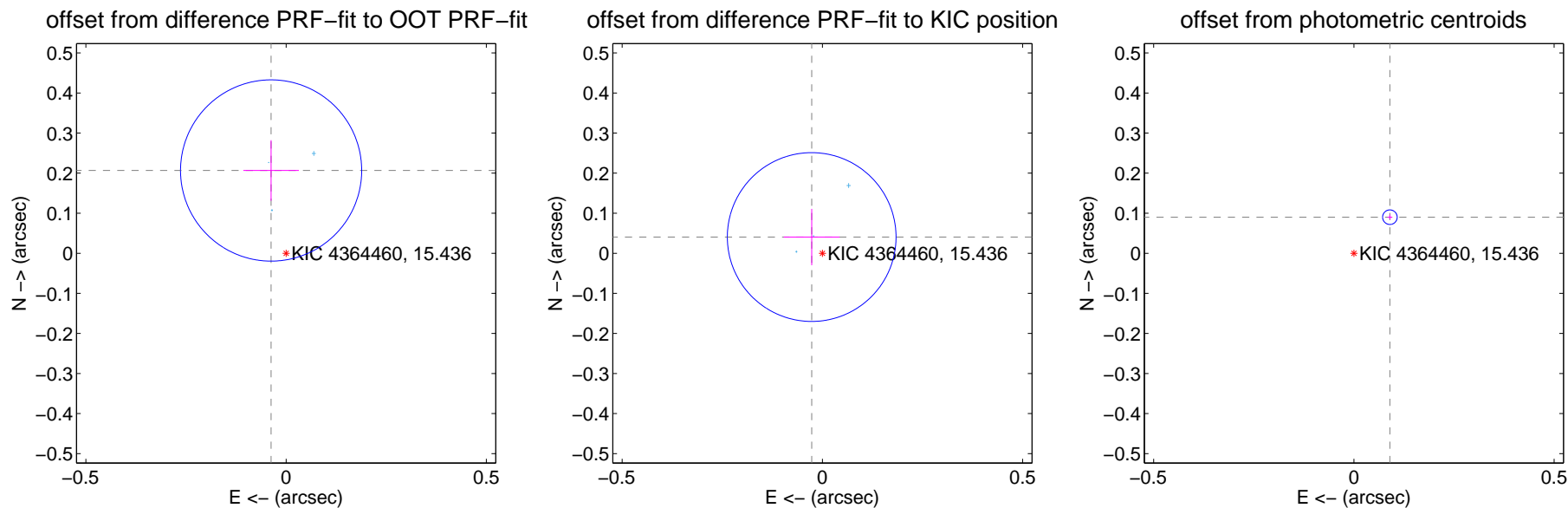
DV Centroid Data

Supplemental centroid analysis for 004364460-01. Kepler magnitude: 15.44. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

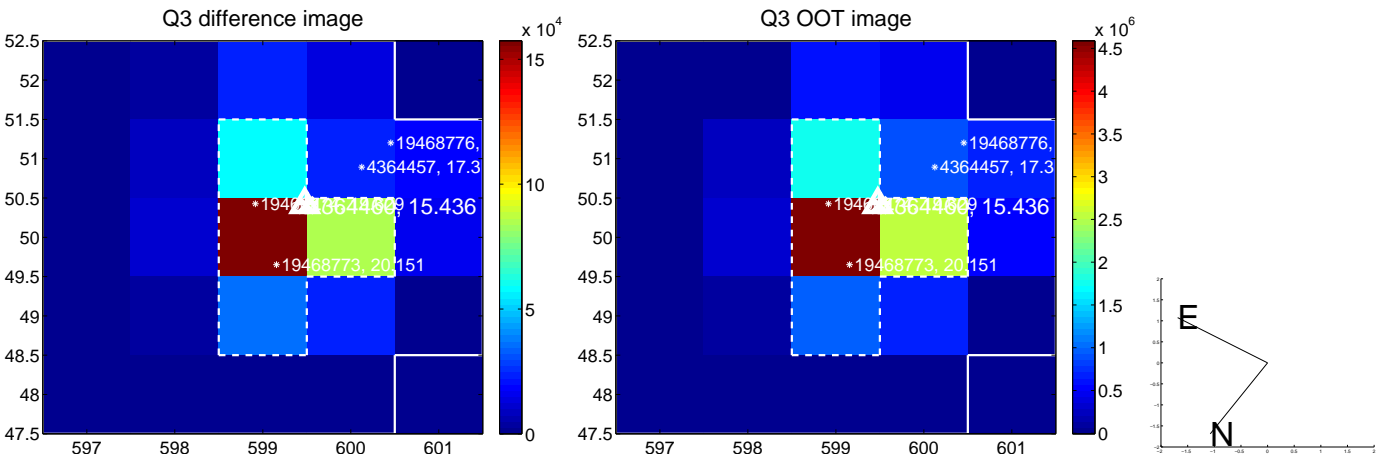
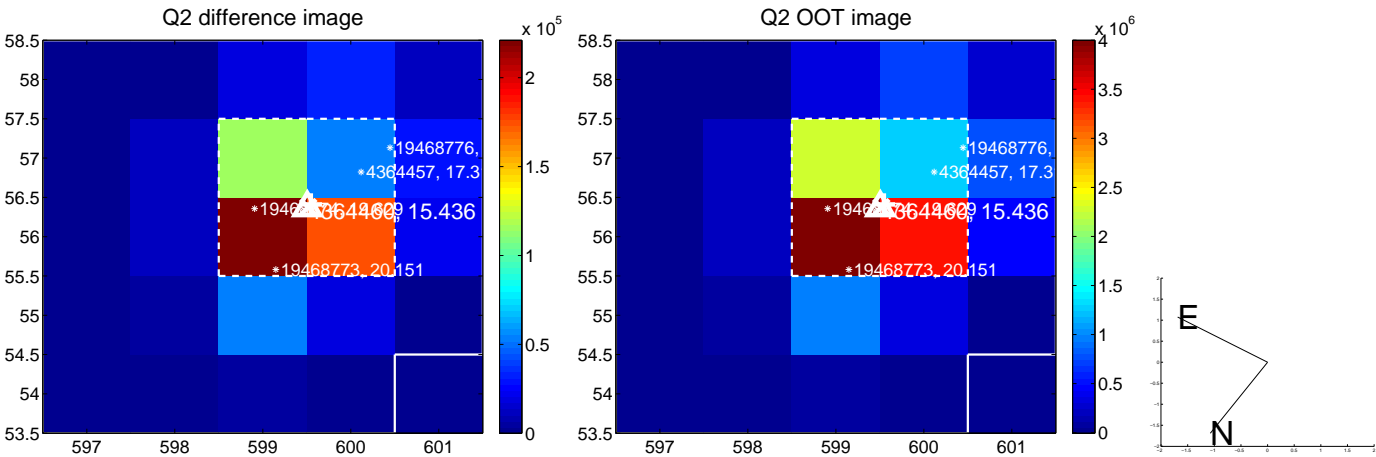
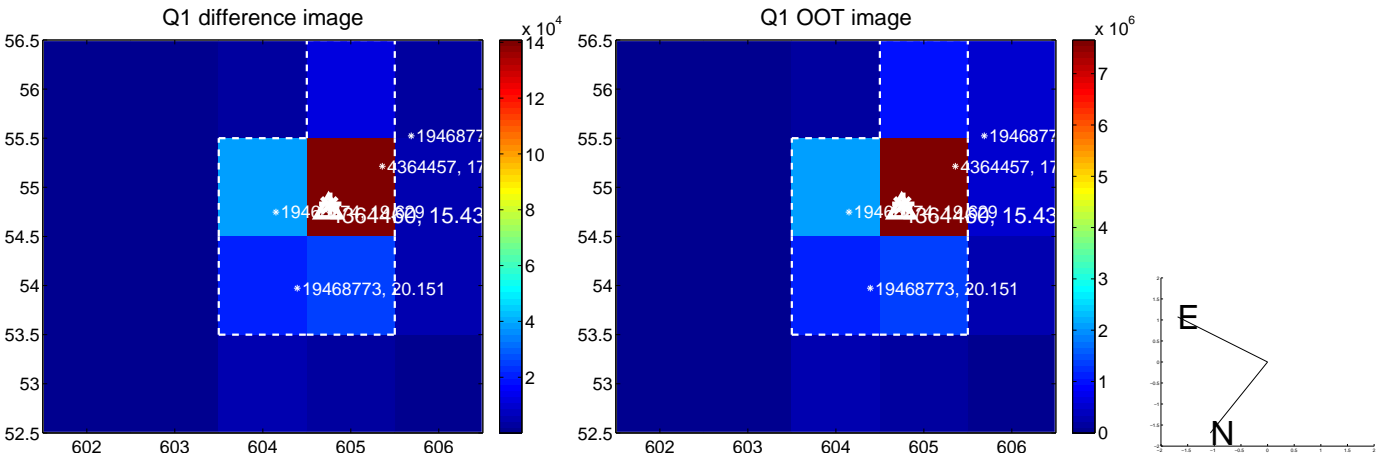
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.210 ± 0.075	2.79	0.037 ± 0.069	0.207 ± 0.076
PRF-fit source offset from KIC position	0.049 ± 0.070	0.69	0.027 ± 0.070	0.041 ± 0.070
photometric centroid source offset	0.13 ± 0.01	21.00	-0.09 ± 0.01	0.09 ± 0.01



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.



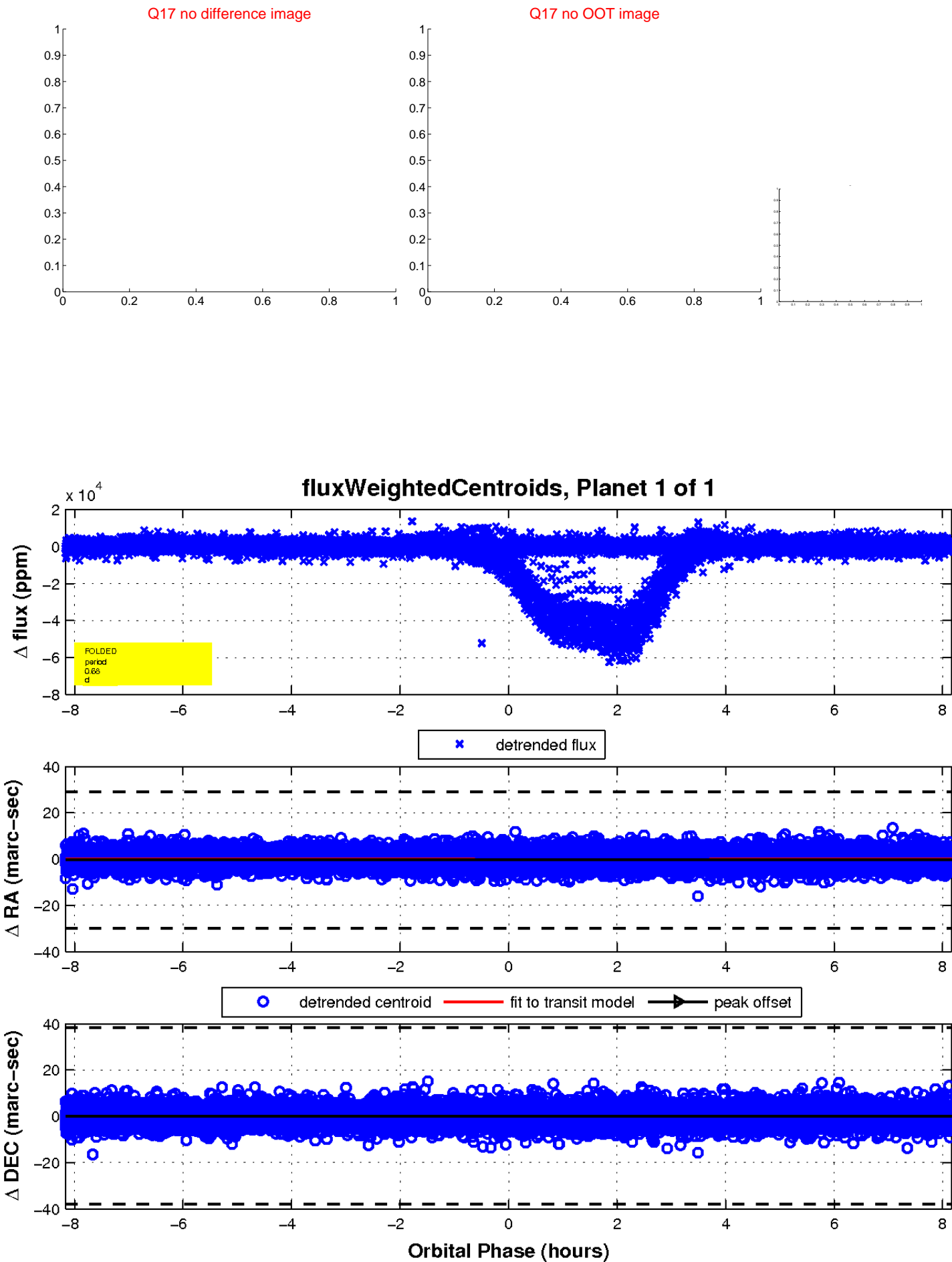
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

