

KIC 003240305

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})
003240305-01	OBS	No	364.412657	144.712343	8763.1	4.284	14.8	7.4	0.83	5598	13.58	0.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003240305-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

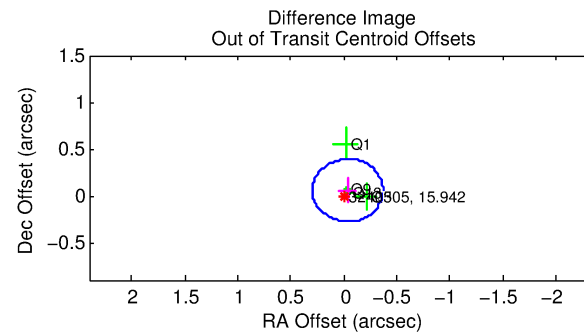
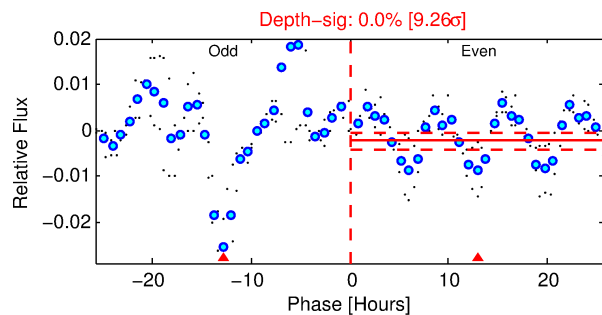
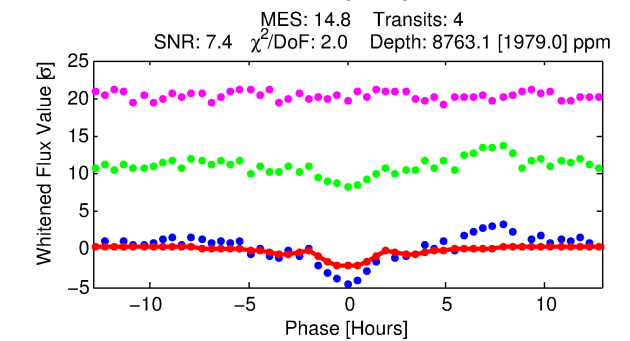
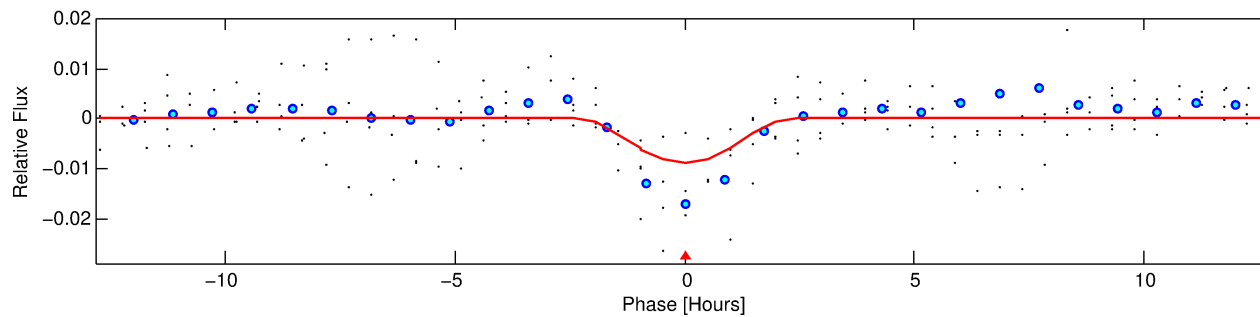
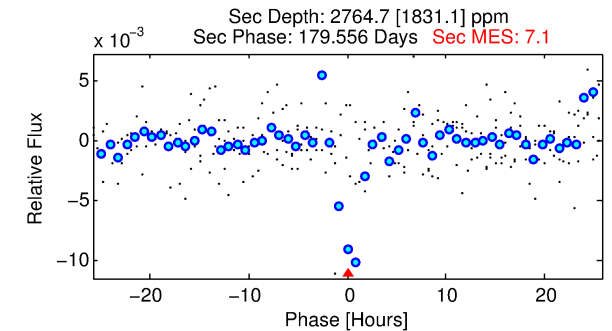
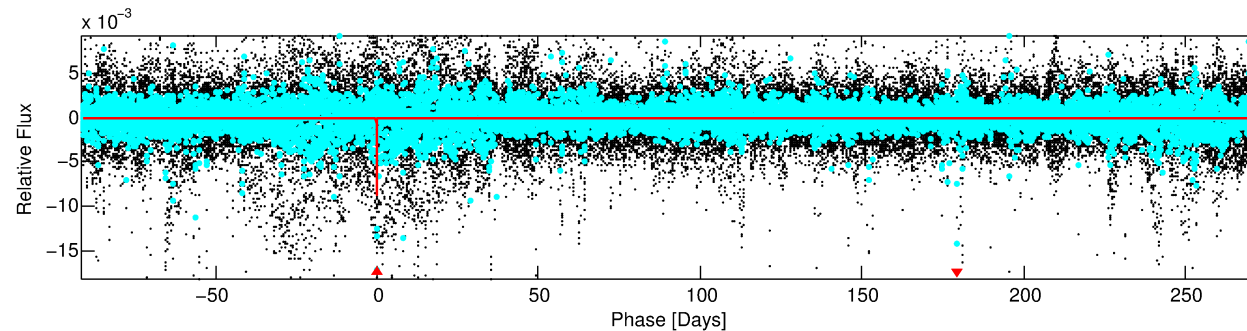
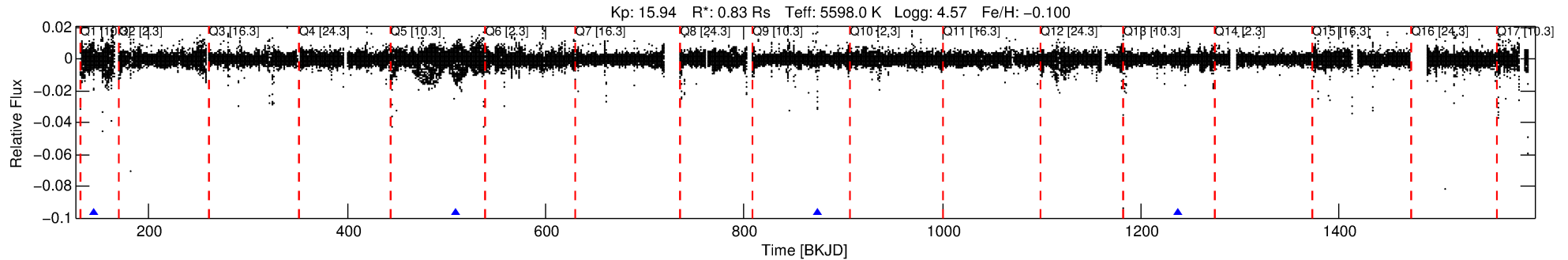
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003240305-01

No Significant Match Found

DV One-Page Summary

KIC: 3240305 Candidate: 1 of 1 Period: 364.413 d



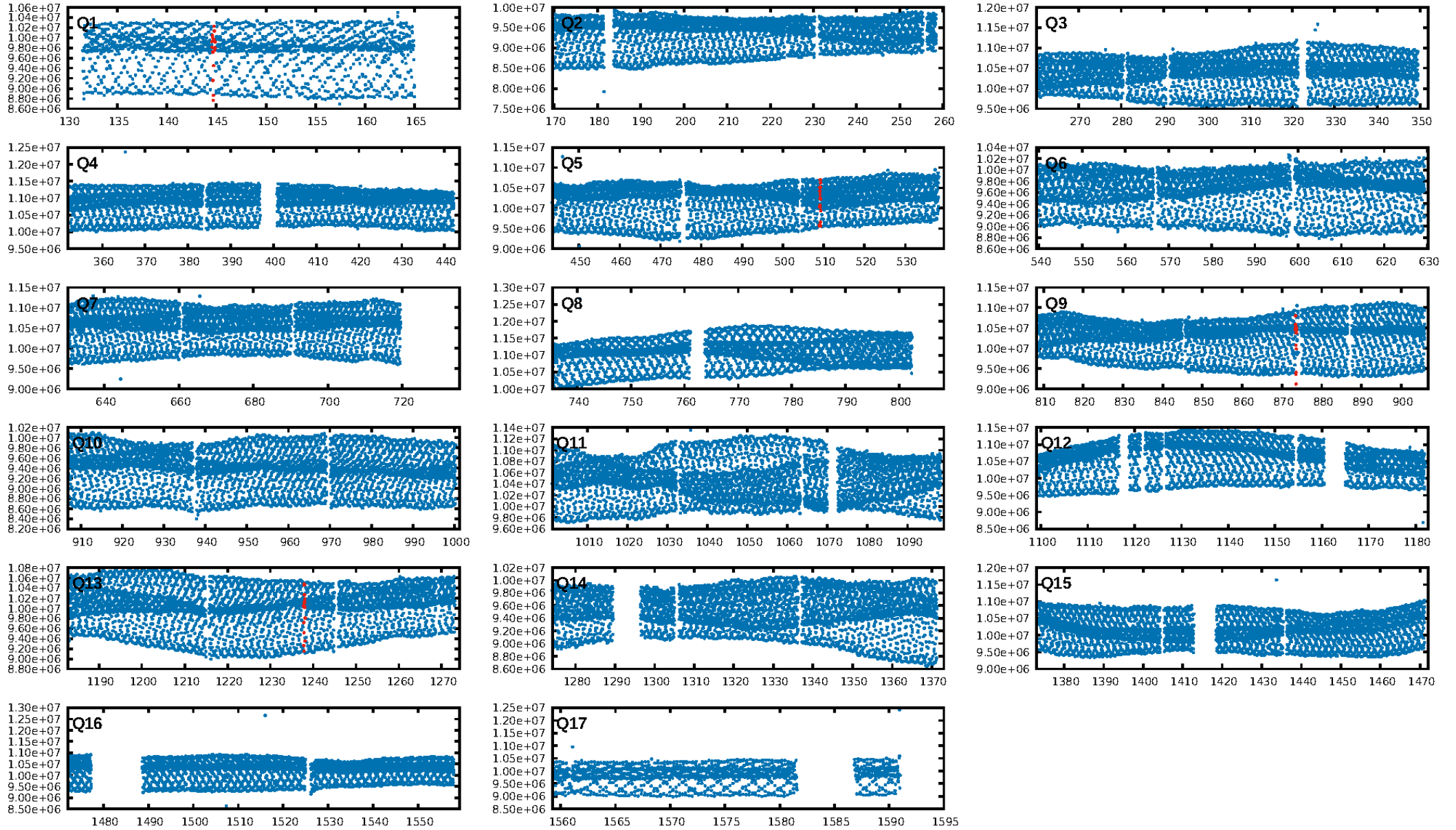
DV Fit Results:

Period = 364.41266 [0.01131] d
Epoch = 144.7123 [0.0240] BKJD
Rp/R* = 0.1499 [0.6906]
a/R* = 379.99 [292.31]
b = 0.99 [1.01]
Seff = 0.64 [0.18]
Teq = 228 [16] K
Rp = 13.58 [62.62] Re
a = 0.9723 [0.1745] AU
Ag = 7802.05 [72110.40] [0.11σ]
Teffp = 3316 [7659] K [0.40σ]

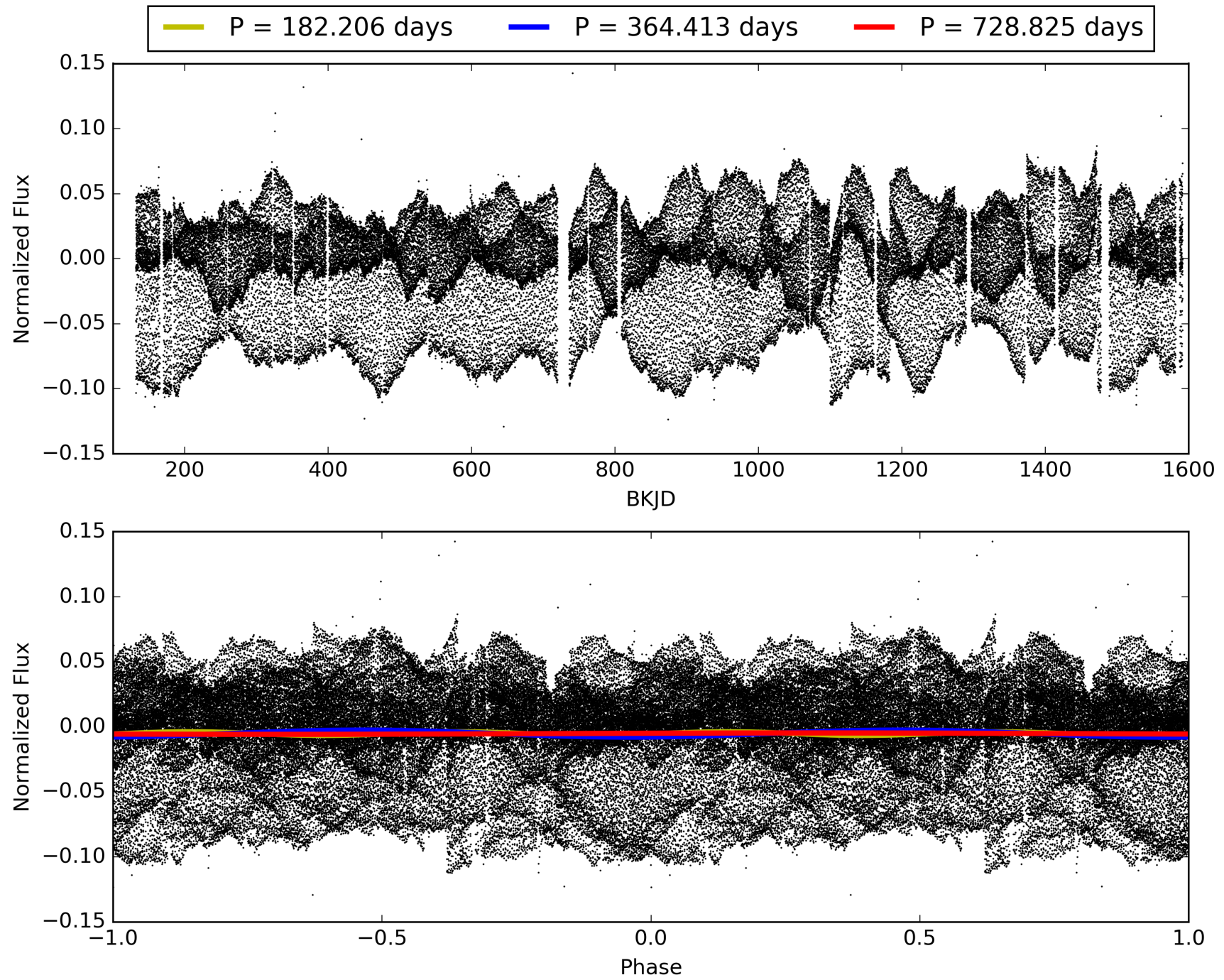
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 77.0%
Bootstrap-pfa: 2.27e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -18.39
Centroid-sig: 82.0%
Centroid-so: 0.228 arcsec [0.90σ]
OotOffset-rm: 0.069 arcsec [0.62σ]
KicOffset-rm: 0.186 arcsec [1.38σ]
OotOffset-st: 0/0/0/4 [4]
KicOffset-st: 0/0/0/4 [4]
DiffImageQuality-figm: 0.75 [3/4]
DiffImageOverlap-fno: 1.00 [4/4]

TCE 003240305-01, PDC Light Curves

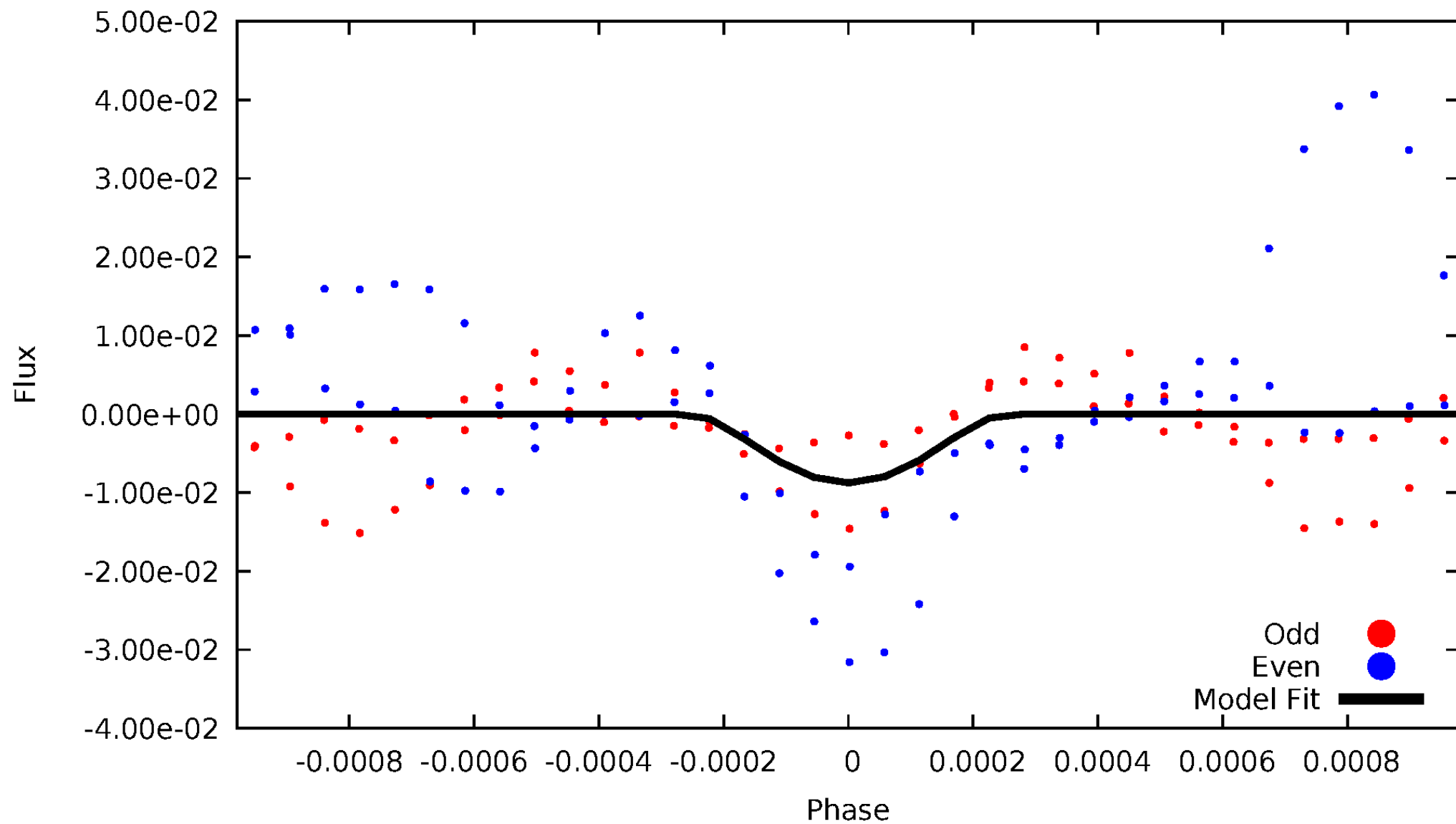


TCE 003240305-01



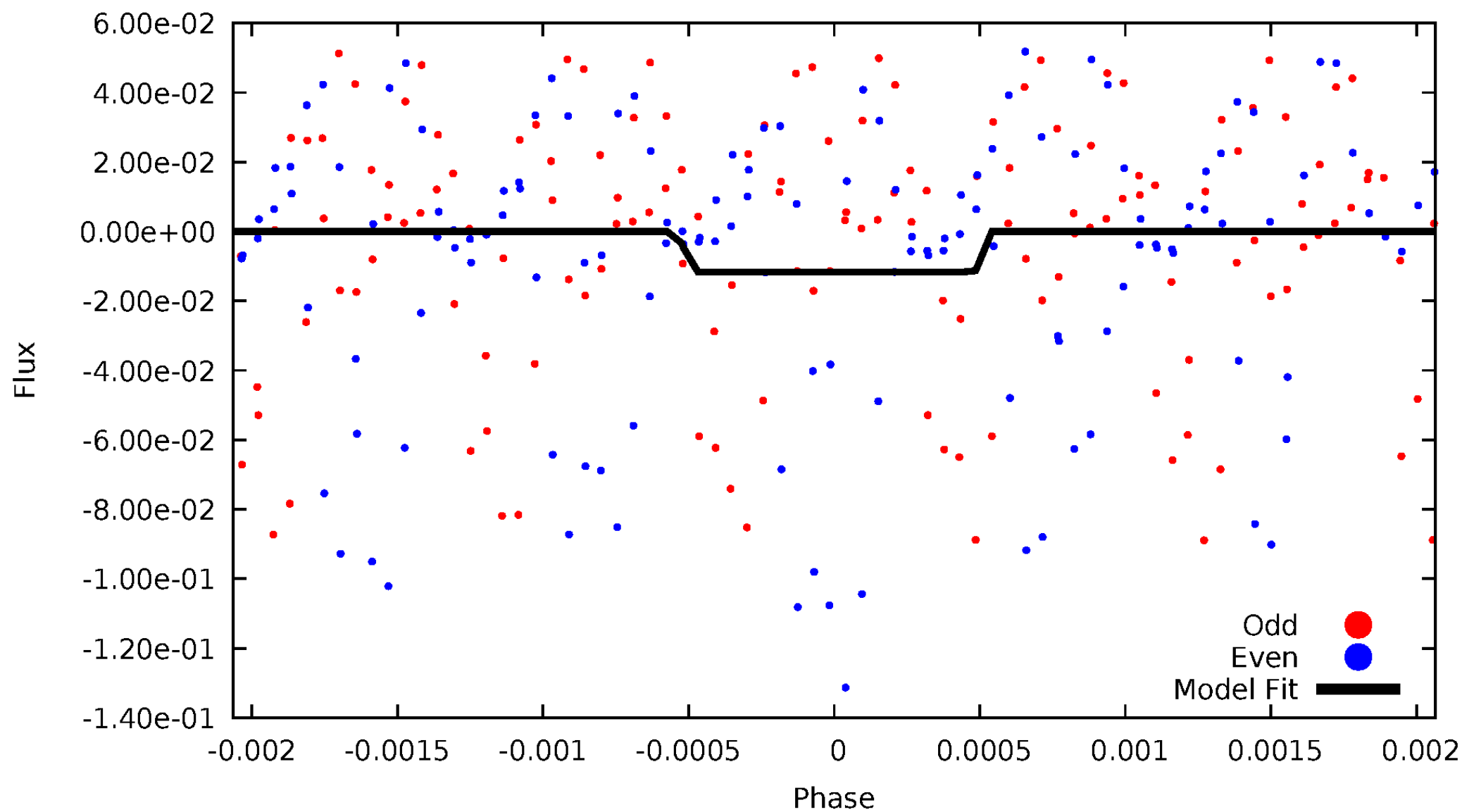
DV Odd/Even

TCE 003240305-01



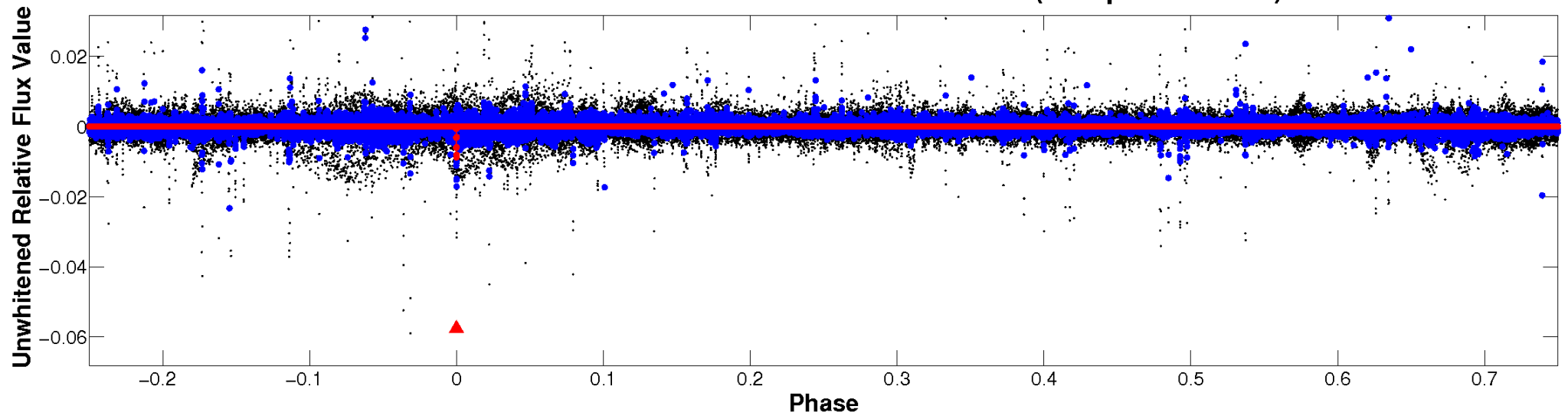
ALT Odd/Even

TCE 003240305-01

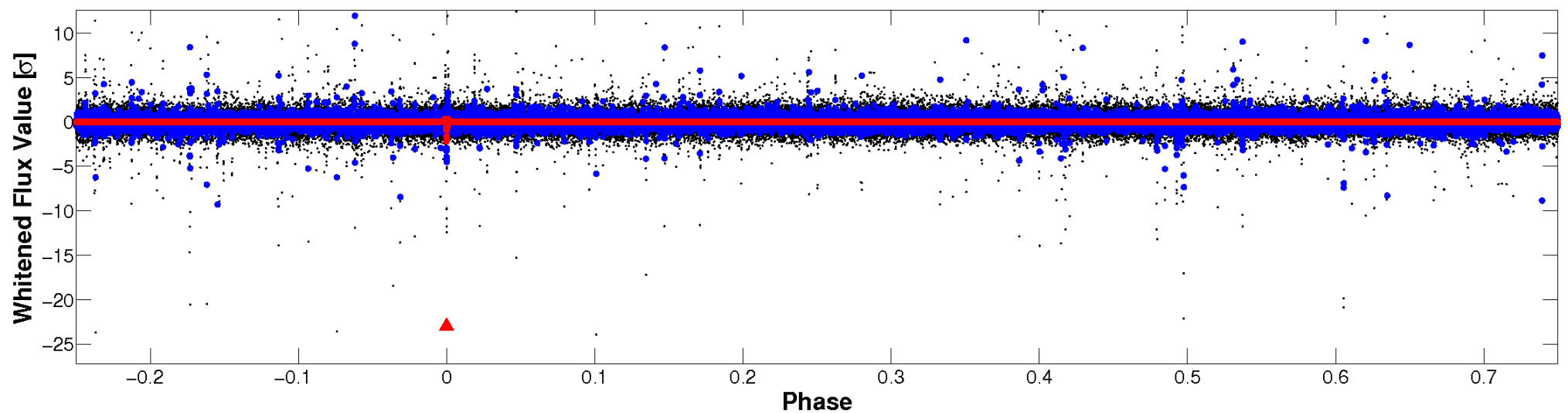


Non-Whitened Vs. Whitened Light Curve

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

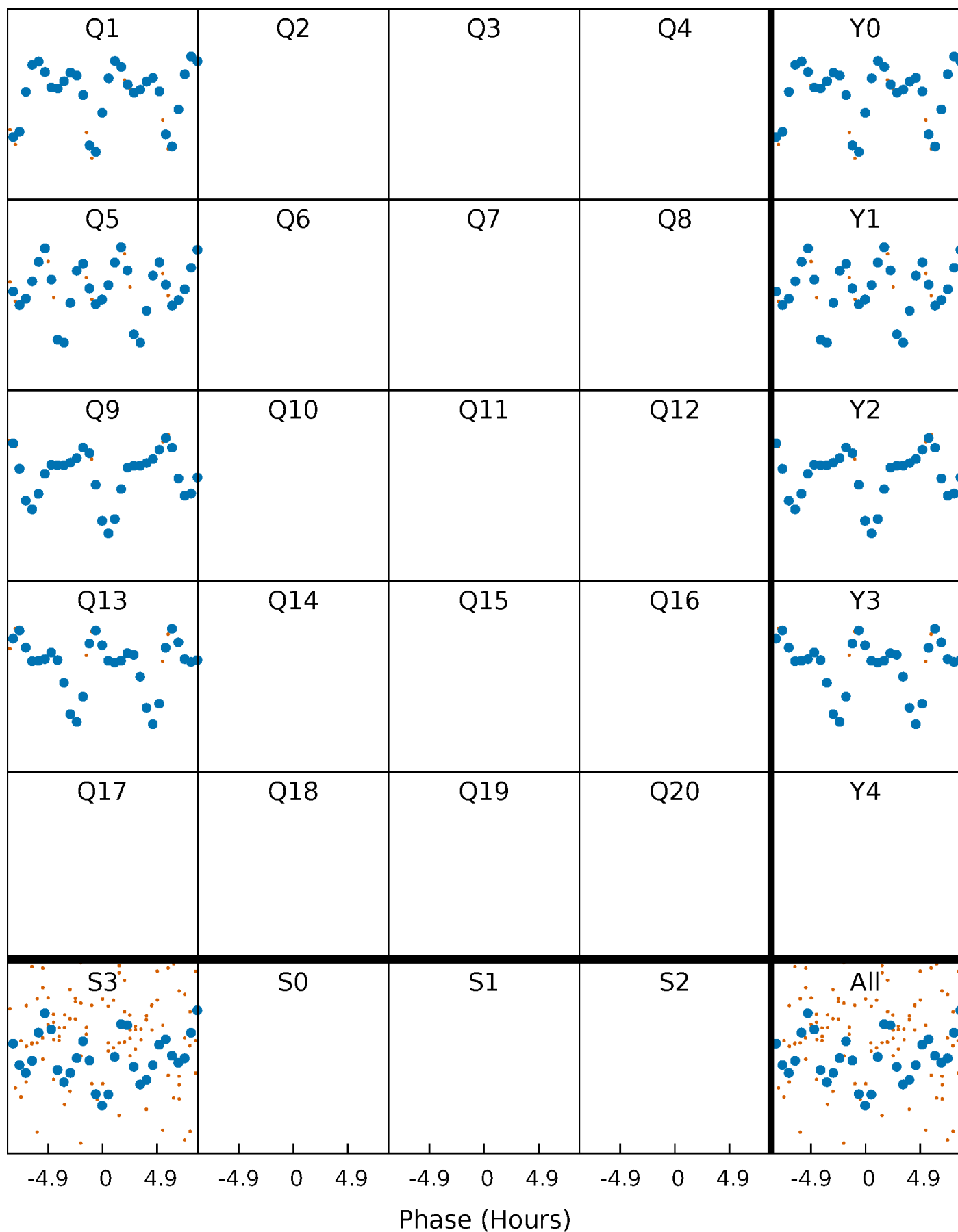


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



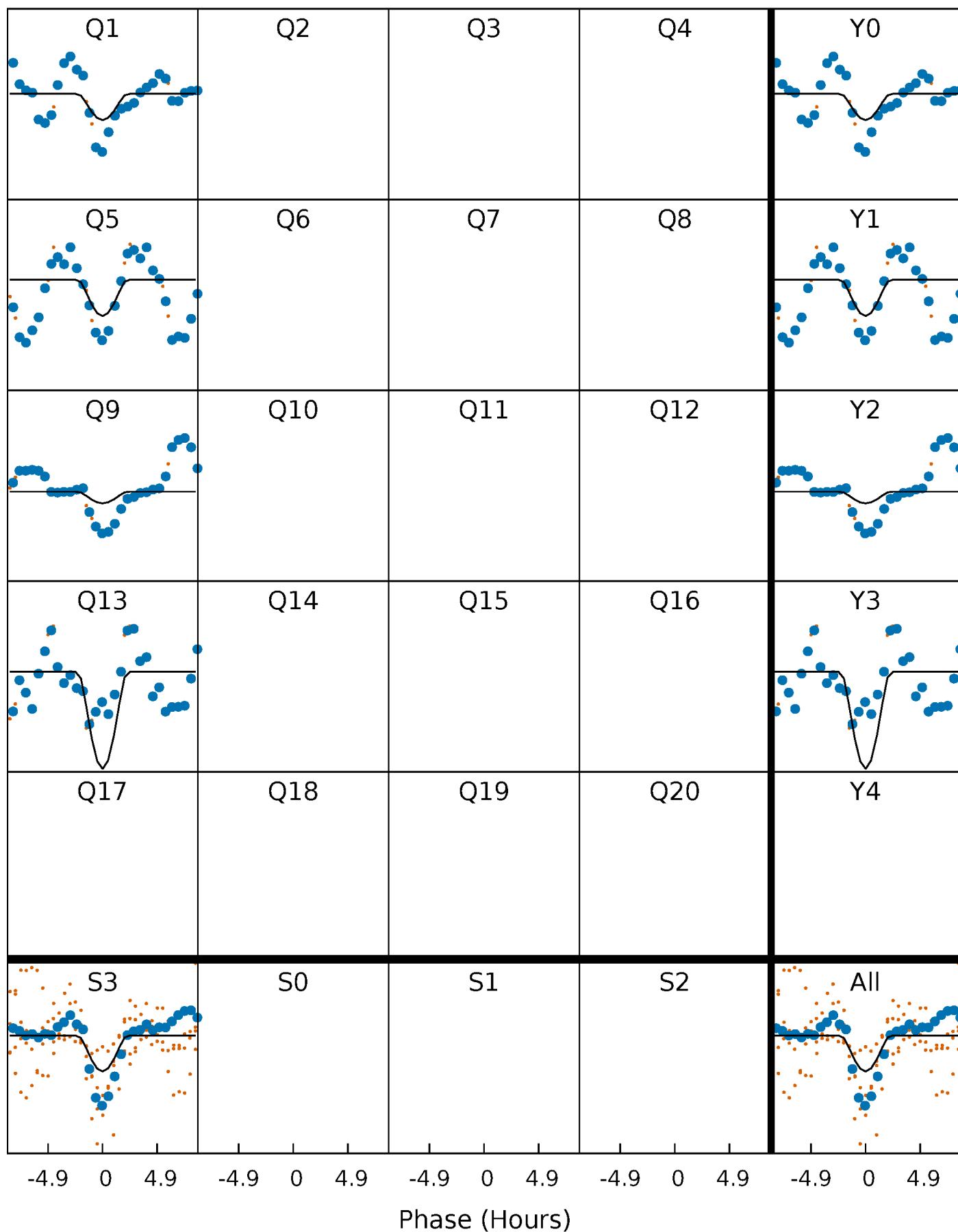
PDC Quarter-Phased Transit Curves

TCE 003240305-01 P=364.412657 Days $T_0=144.712343$ (BKJD)



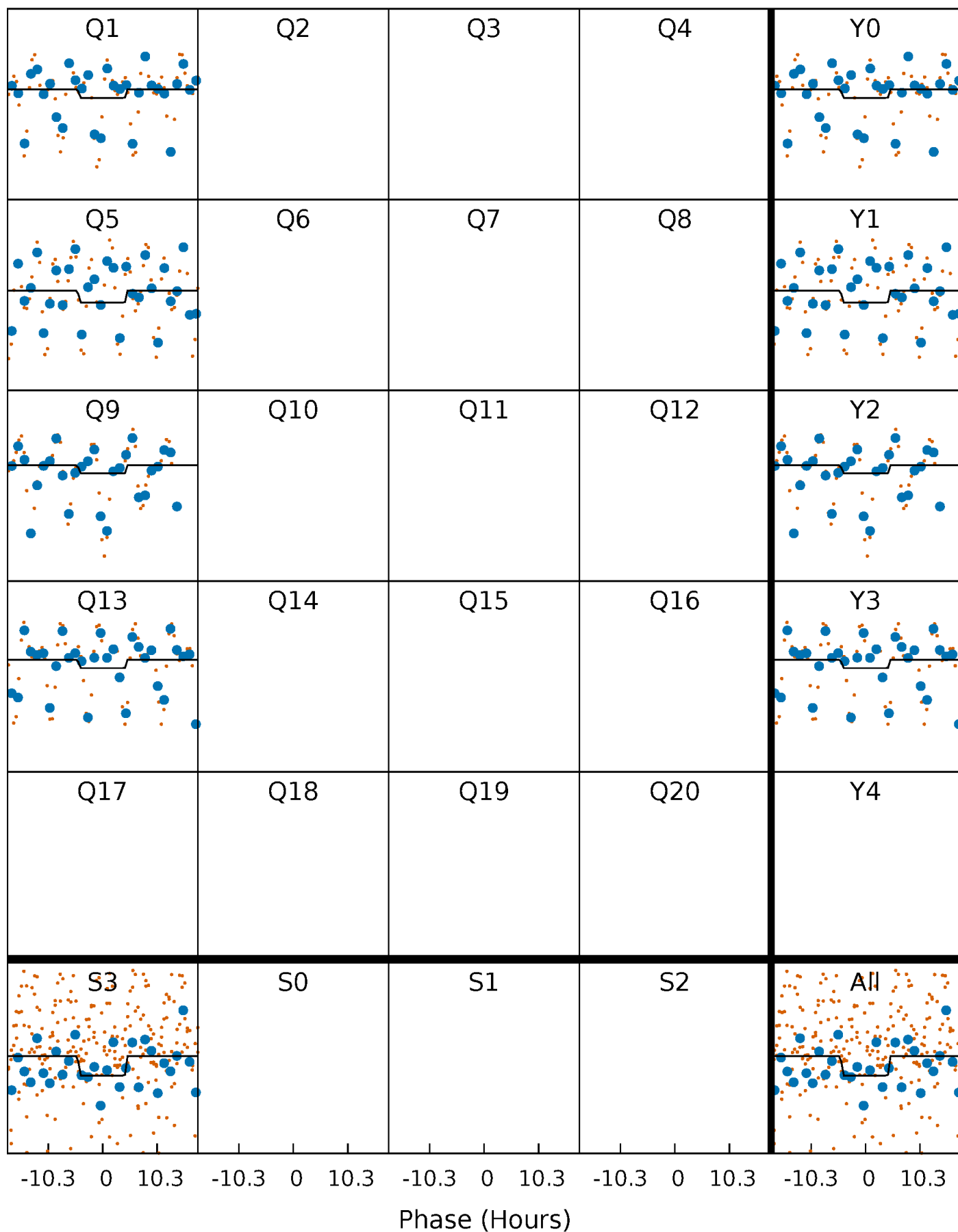
DV Quarter-Phased Transit Curves

TCE 003240305-01 $P=364.412657$ Days $T_0=144.712343$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

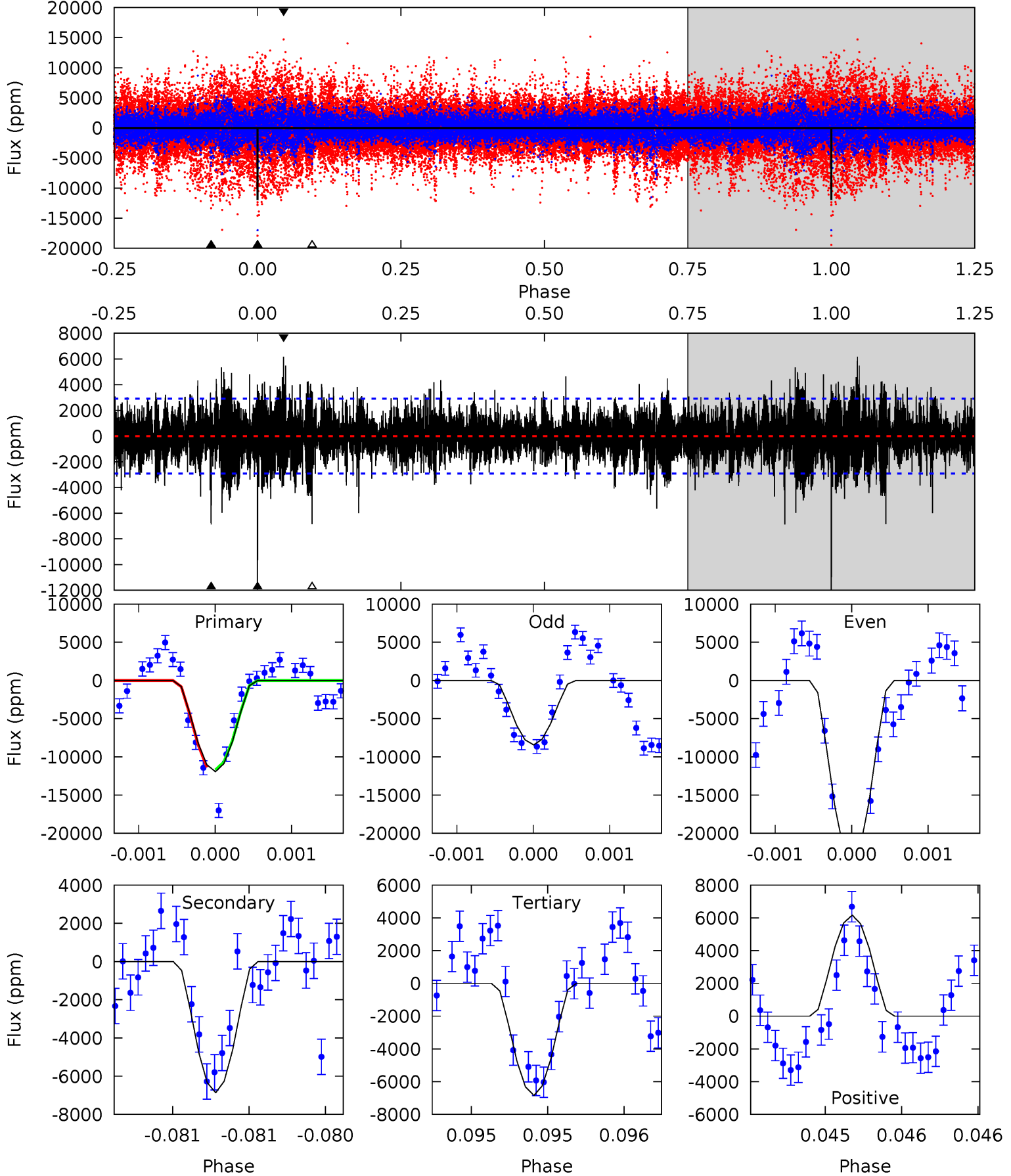
TCE 003240305-01 P=364.413187 Days $T_0=144.717985$ (BKJD)



DV Model-Shift Uniqueness Test

003240305-01, P = 364.412657 Days, E = 144.712343 Days

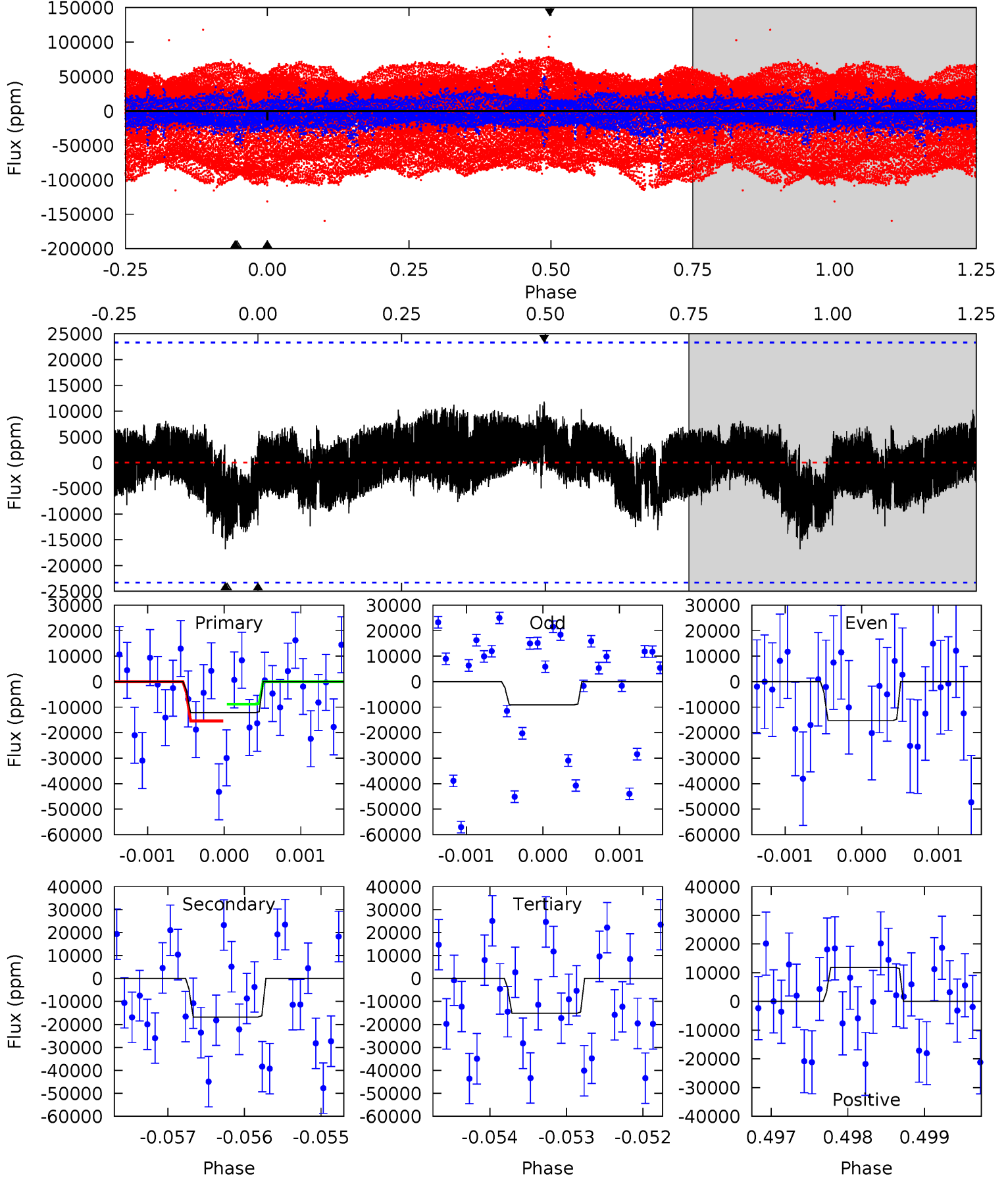
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.8	13.1	13.1	11.8	5.57	3.48	2.51	9.75	11.0	0.04	1.33	15.2	1.12	0.34	0.36



Alt Model-Shift Uniqueness Test

003240305-01, P = 364.413187 Days, E = 144.717985 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.84	3.92	3.54	2.76	5.44	3.27	0.97	-0.70	0.08	0.38	1.15	0.72	1.13	0.41	0.77



Stellar Parameters For KIC 003240305

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5598^{+149}_{-166}	$4.565^{+0.036}_{-0.144}$	$-0.100^{+0.300}_{-0.300}$	$0.830^{+0.176}_{-0.075}$	$0.928^{+0.083}_{-0.111}$	$2.285^{+0.409}_{-0.888}$
	+3%/-3%	+1%/-3%	+300%/-300%	+21%/-9%	+9%/-12%	+18%/-39%
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 003240305-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6864 ± 523	$49.50^{+50.58}_{-33.18}$	325^{+16}_{-14}	2910^{+1224}_{-468}	1432^{+11931}_{-1067}
Alt.	-16781 ± 4284	$49.94^{+50.35}_{-35.80}$	324^{+18}_{-12}	3322^{+1856}_{-616}	3540^{+38774}_{-2718}

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

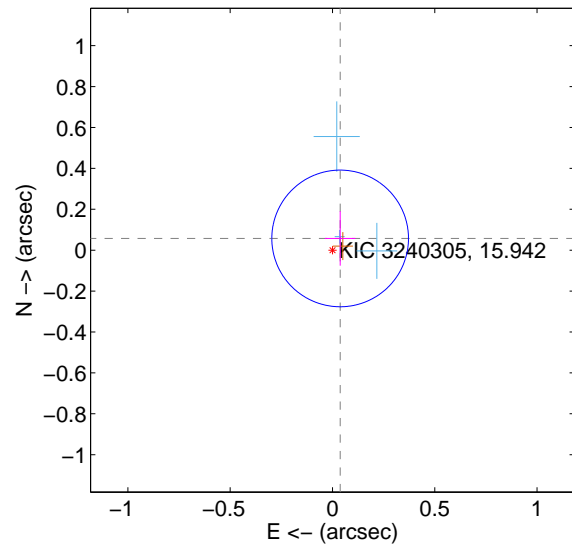
Supplemental centroid analysis for 003240305-01. Kepler magnitude: 15.94. Transit SNR 7.42

There are 3 quarters with good PRF difference image offsets

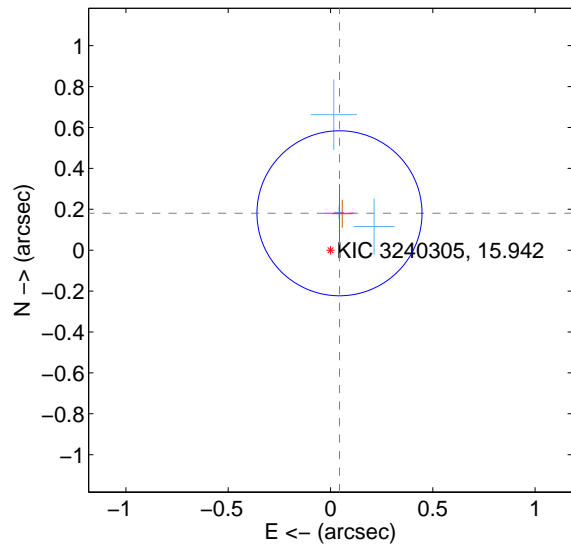
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.069 ± 0.111	0.62	-0.038 ± 0.075	0.057 ± 0.133
PRF-fit source offset from KIC position	0.186 ± 0.134	1.38	-0.044 ± 0.073	0.180 ± 0.142
photometric centroid source offset	0.23 ± 0.25	0.90	0.12 ± 0.25	-0.19 ± 0.25

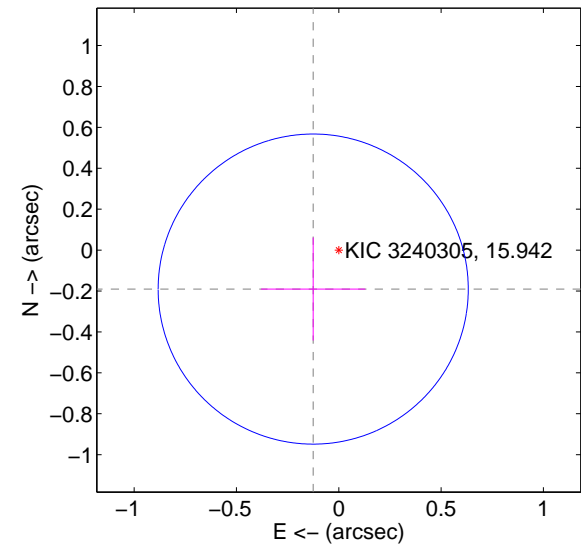
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

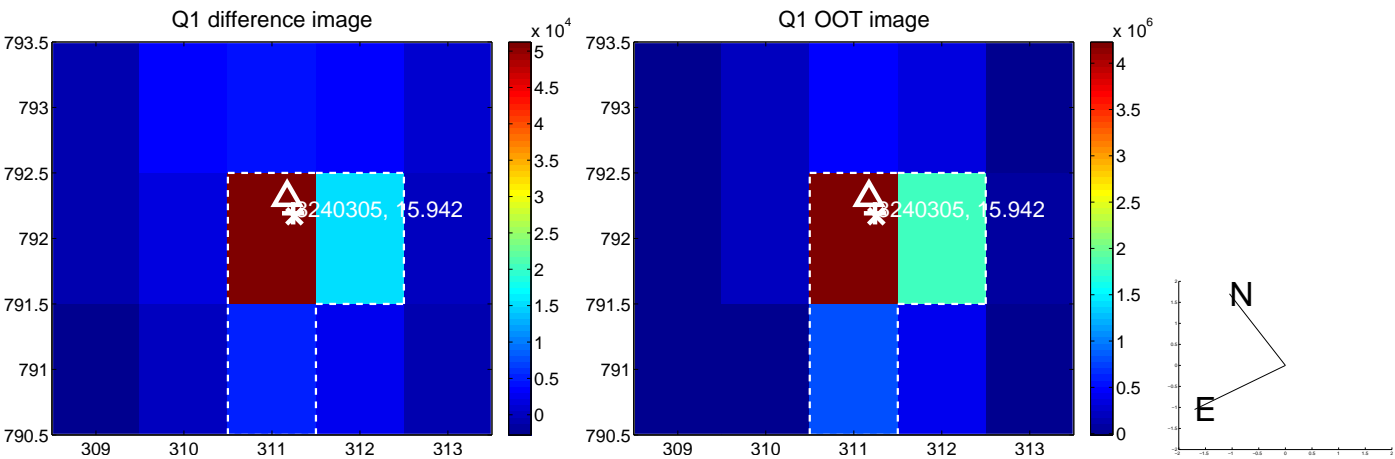


offset from photometric centroids

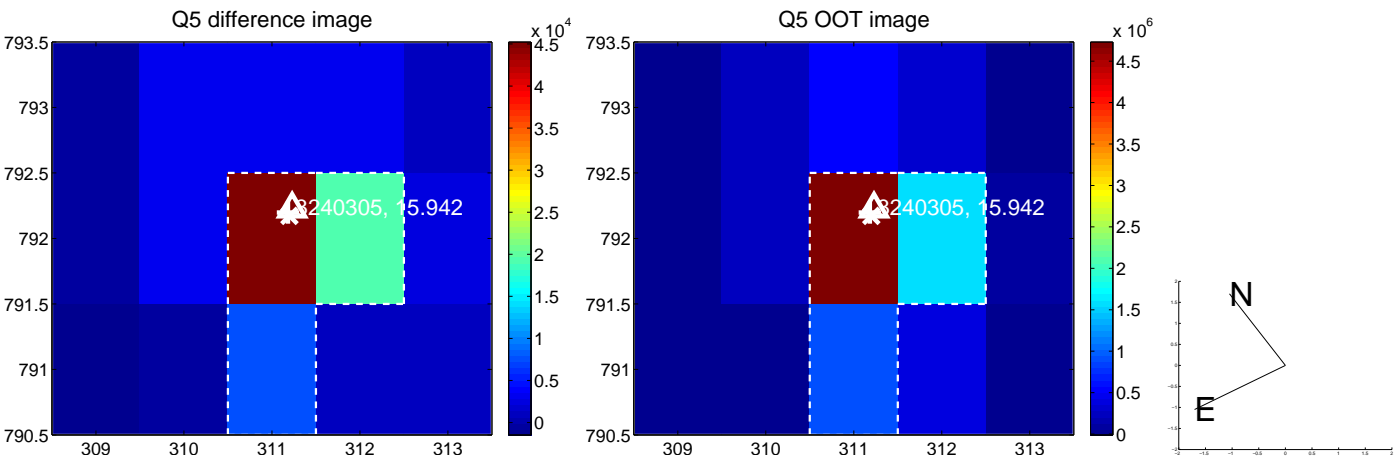


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

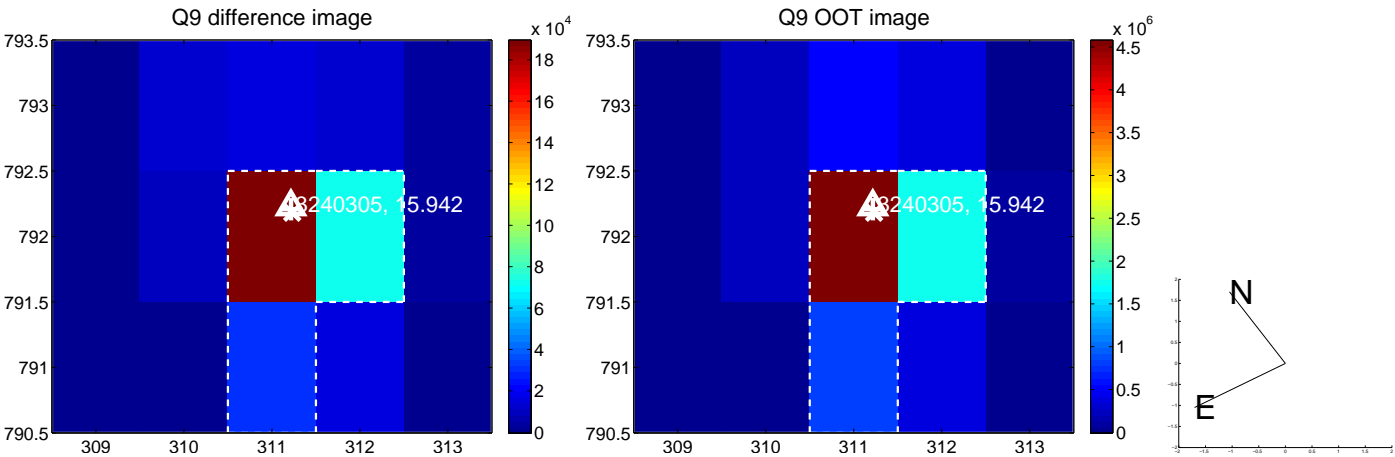
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



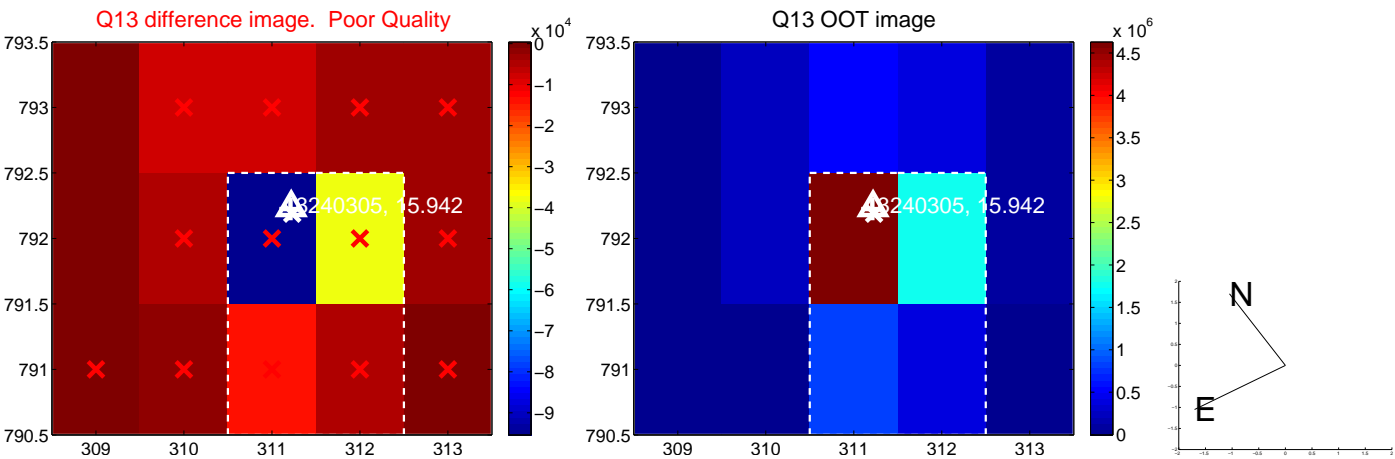
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



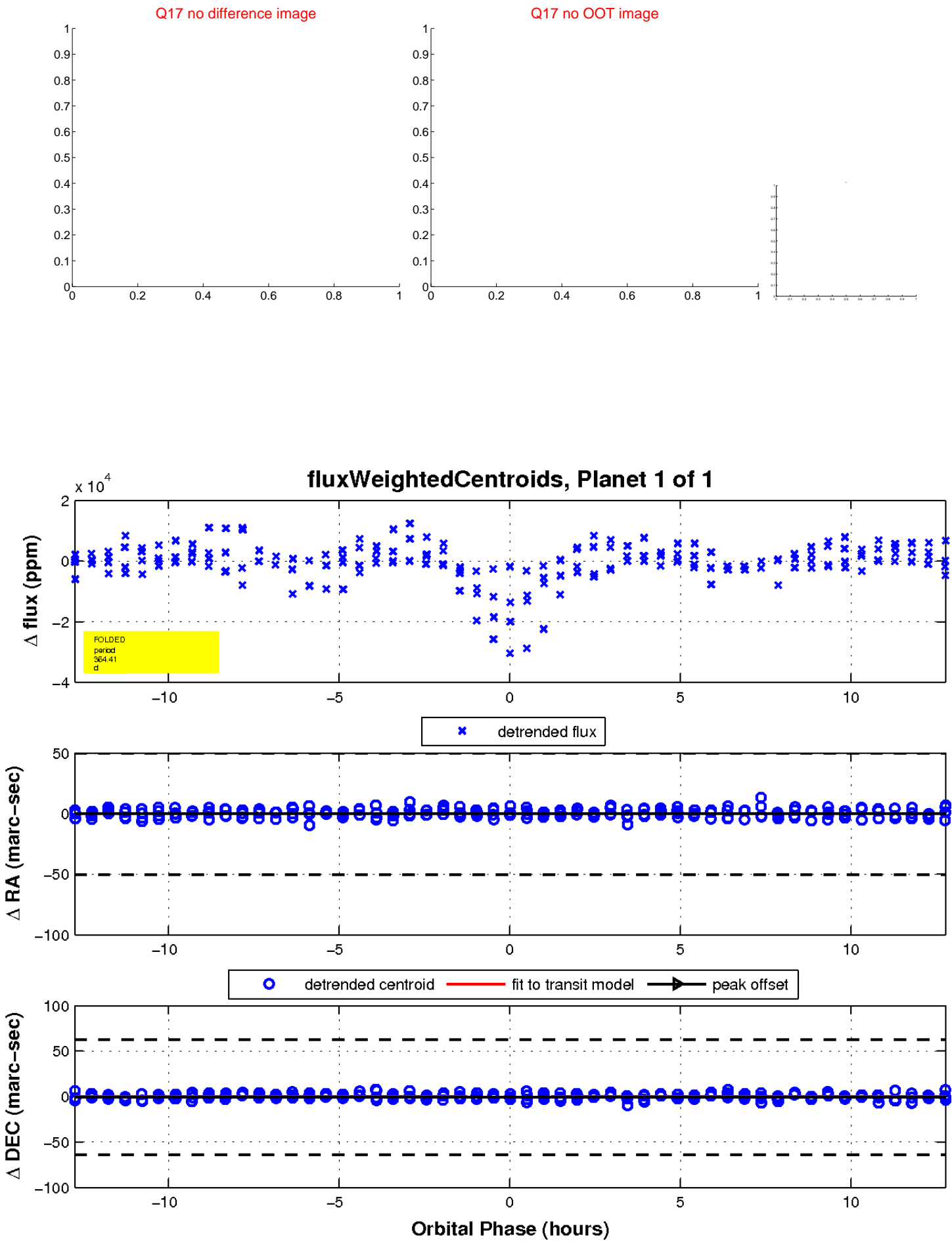
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

