

KIC 010976343

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})
010976343-01	OBS	No	480.632894	154.870790	271.6	3.221	11.7	10.7	78.69	3688	163.52	498.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010976343-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—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.

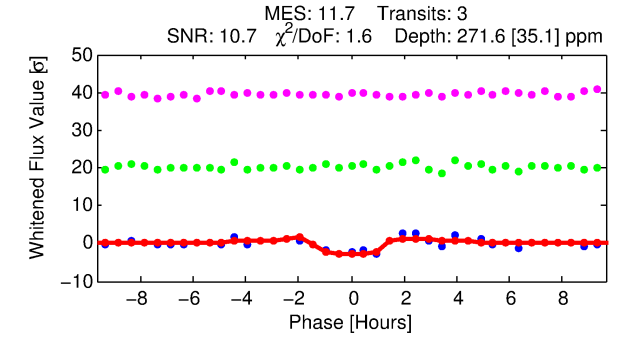
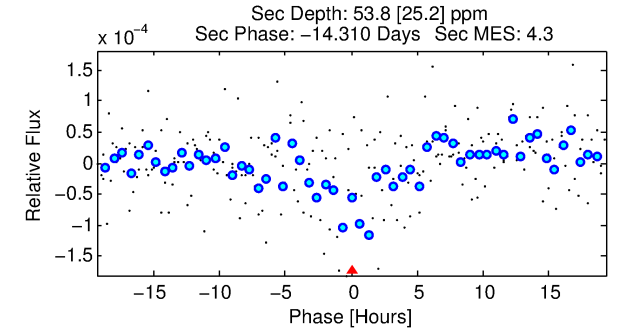
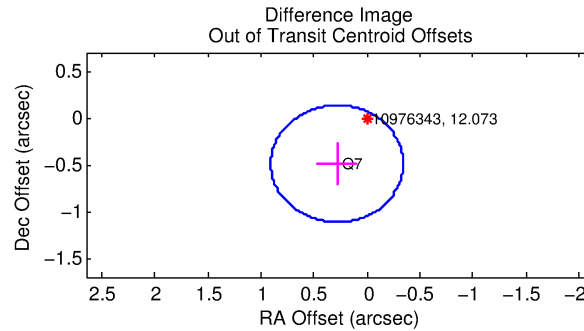
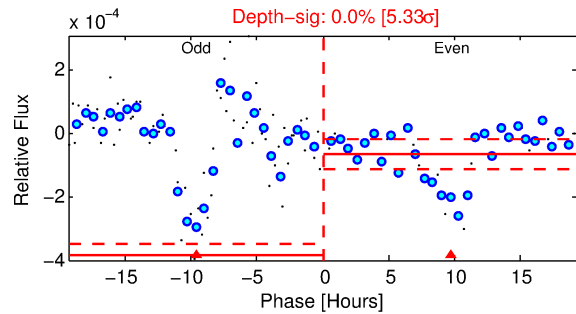
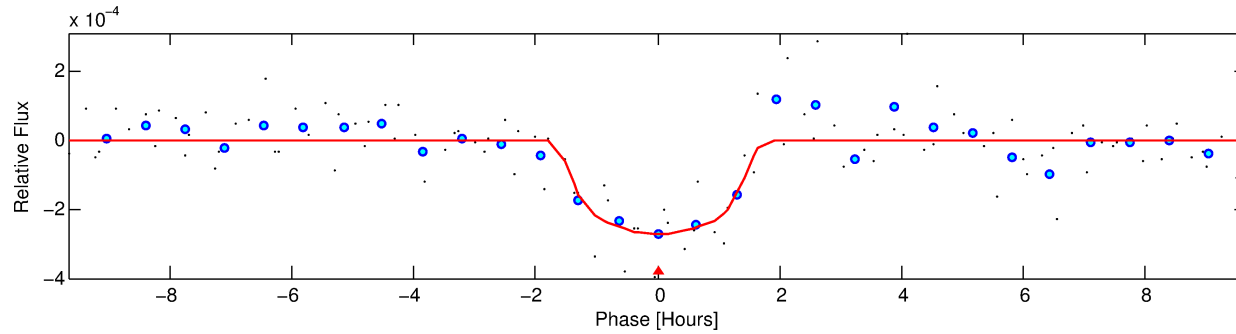
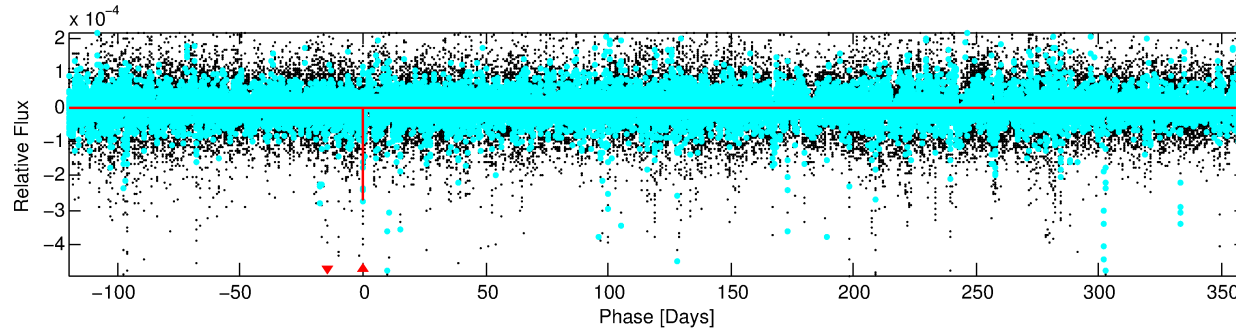
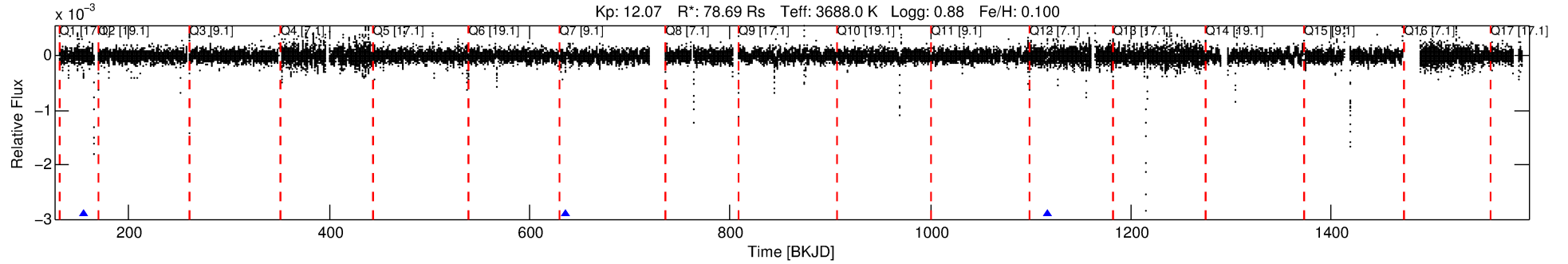
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010976343-01

No Significant Match Found

DV One-Page Summary

KIC: 10976343 Candidate: 1 of 1 Period: 480.633 d



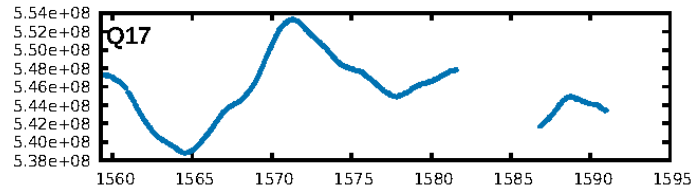
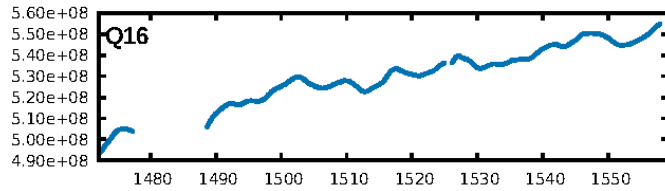
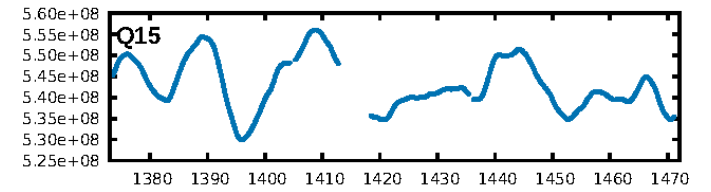
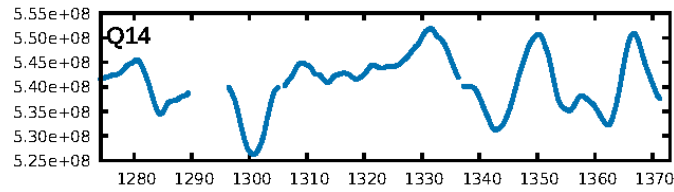
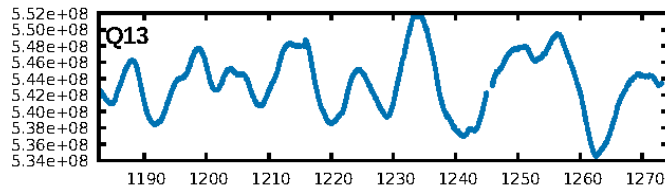
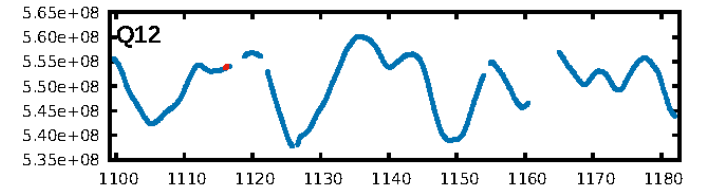
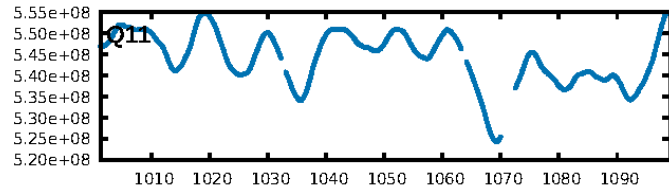
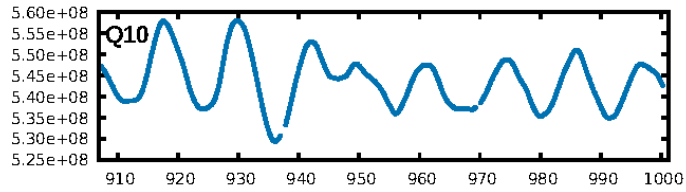
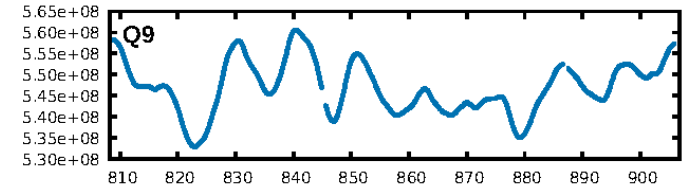
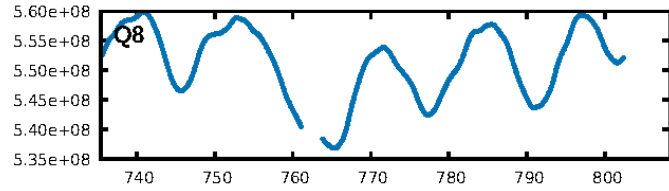
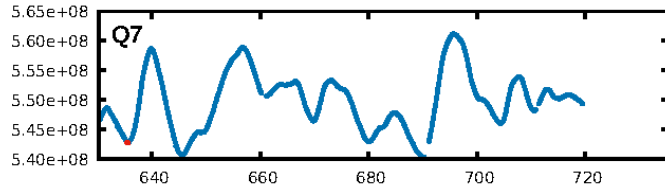
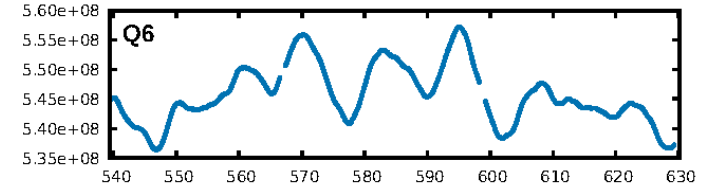
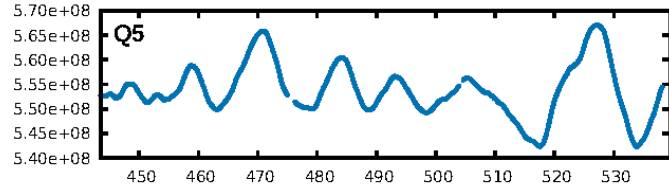
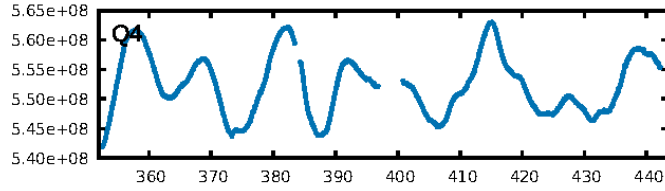
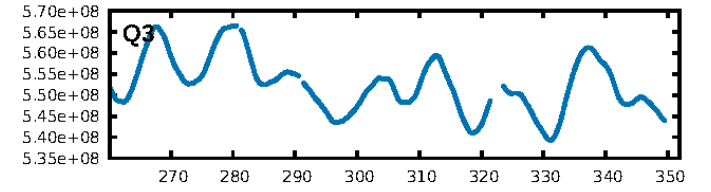
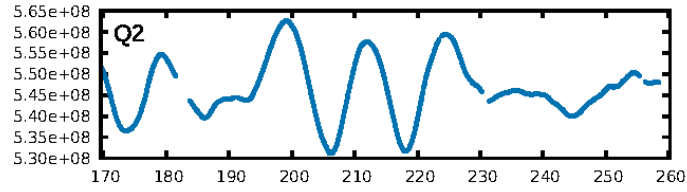
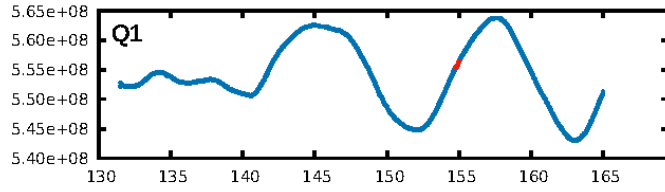
DV Fit Results:

Period = 480.63289 [0.00463] d
Epoch = 154.8708 [0.0047] BKJD
Rp/R* = 0.0190 [0.0149]
a/R* = 564.97 [1361.37]
b = 0.89 [0.58]
Seff = 498.40 [84.73]
Teq = 1205 [51] K
Rp = 163.52 [131.14] Re
a = 1.4350 [0.1762] AU
Ag = 2.28 [3.73] [0.34 σ]
Teffp = 2289 [936] K [1.16 σ]

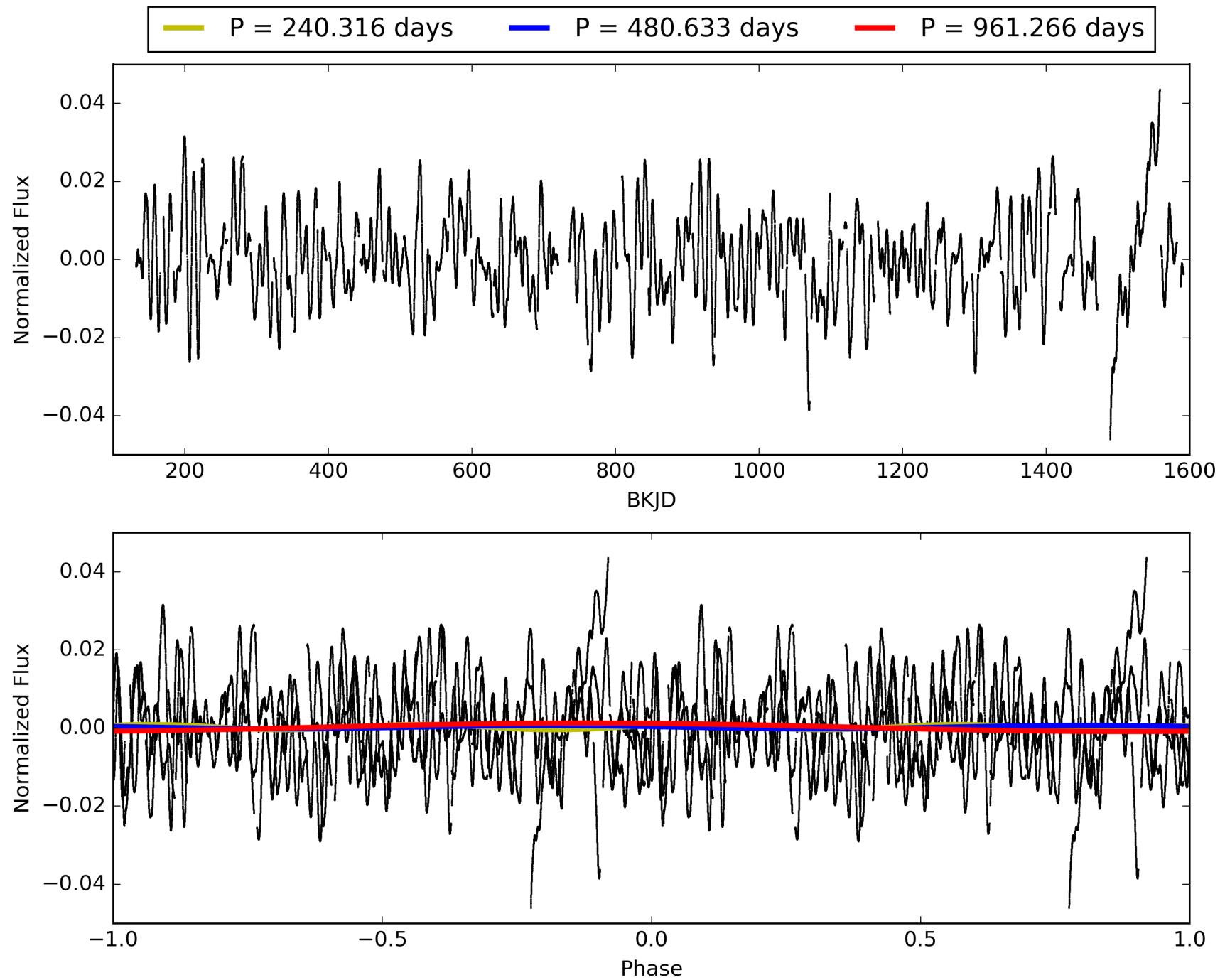
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 8.9%
Bootstrap-pfa: 5.42e-05
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.3566
Centroid-sig: 88.1%
Centroid-so: 0.398 arcsec [0.42 σ]
OotOffset-rm: 0.567 arcsec [2.72 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-rm: 0.413 arcsec [2.00 σ]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 010976343-01, PDC Light Curves

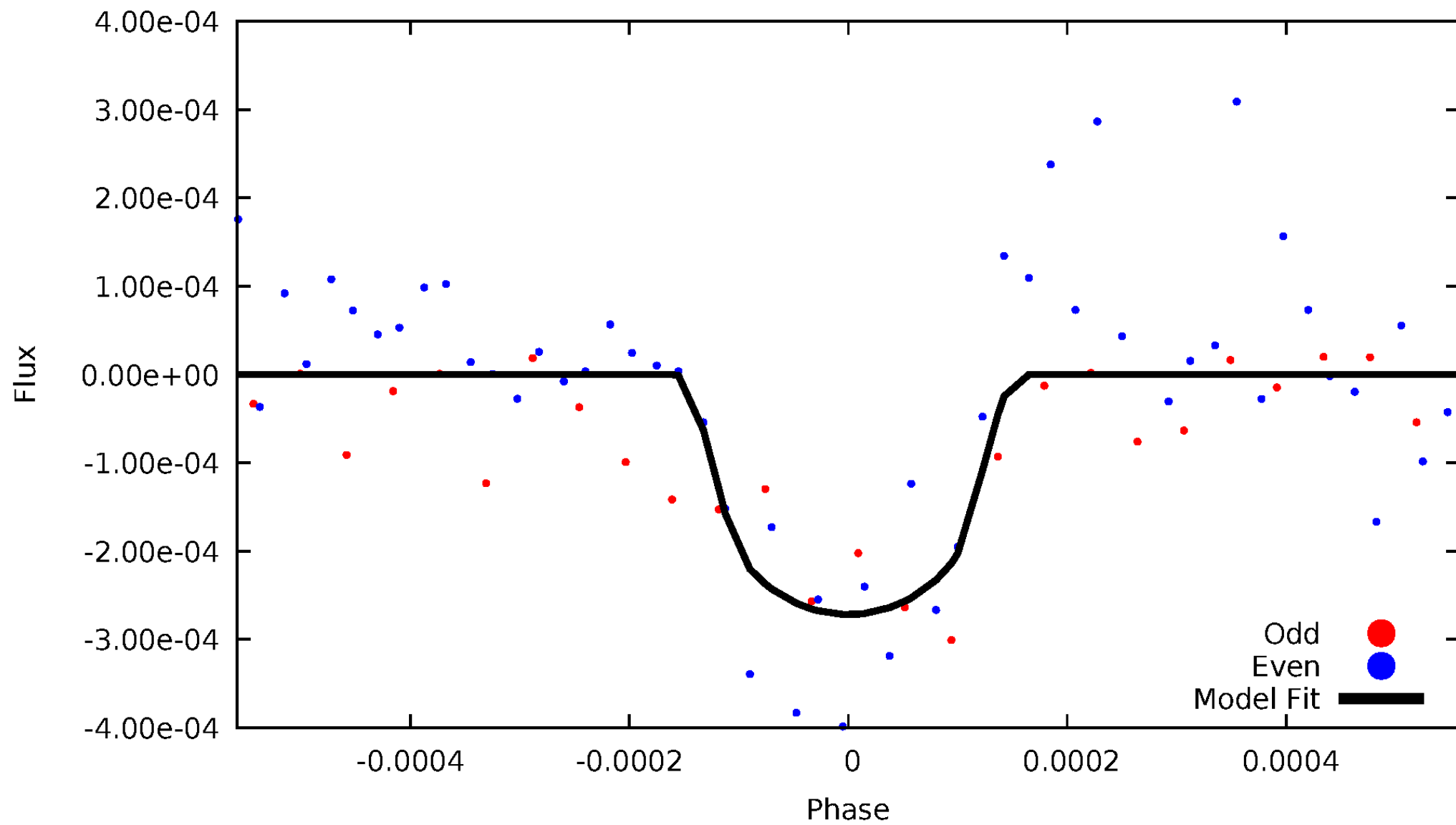


TCE 010976343-01



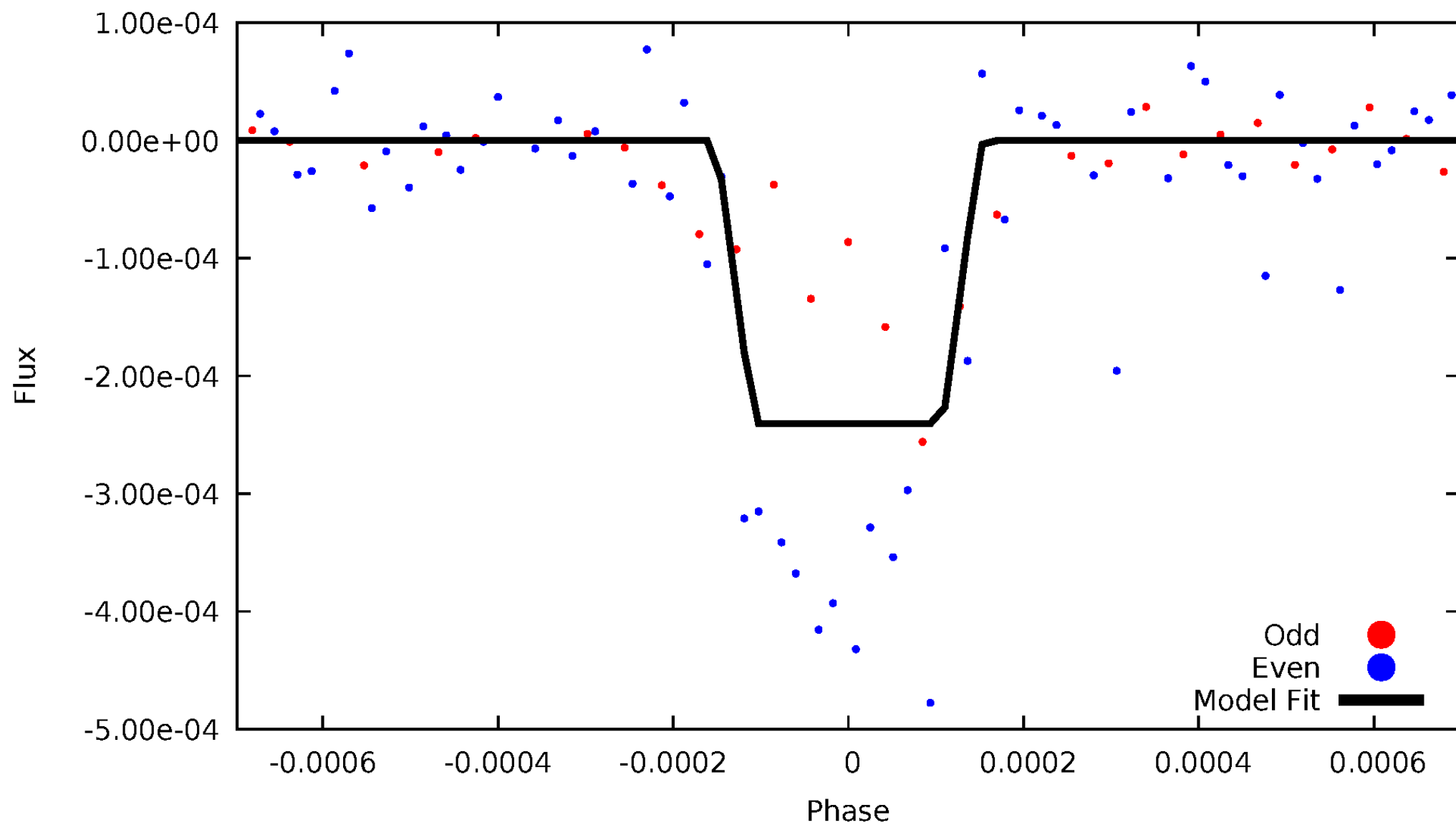
DV Odd/Even

TCE 010976343-01



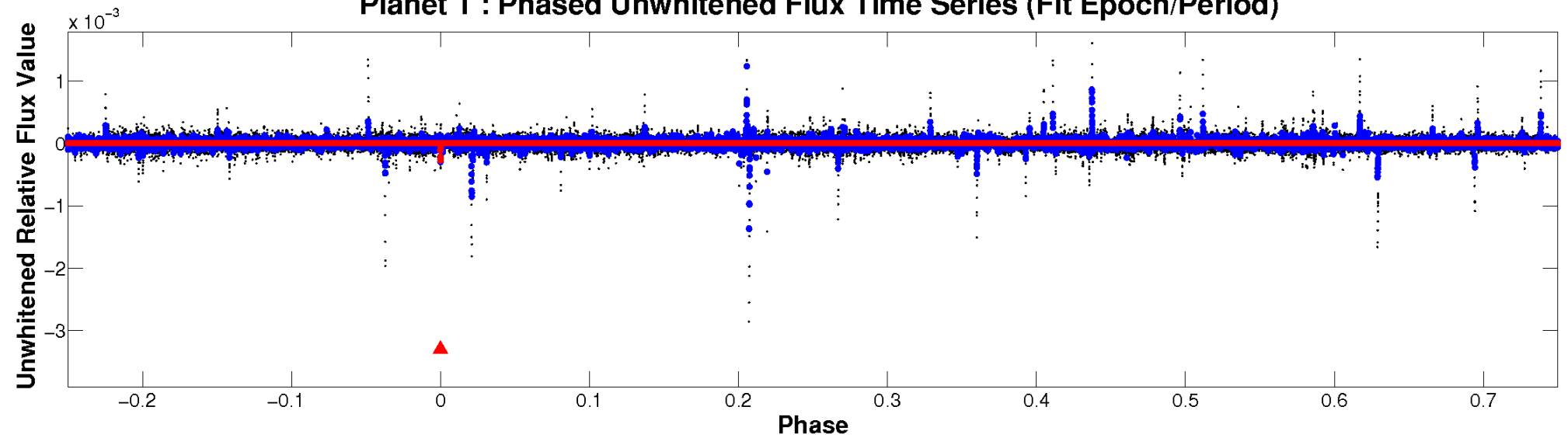
ALT Odd/Even

TCE 010976343-01

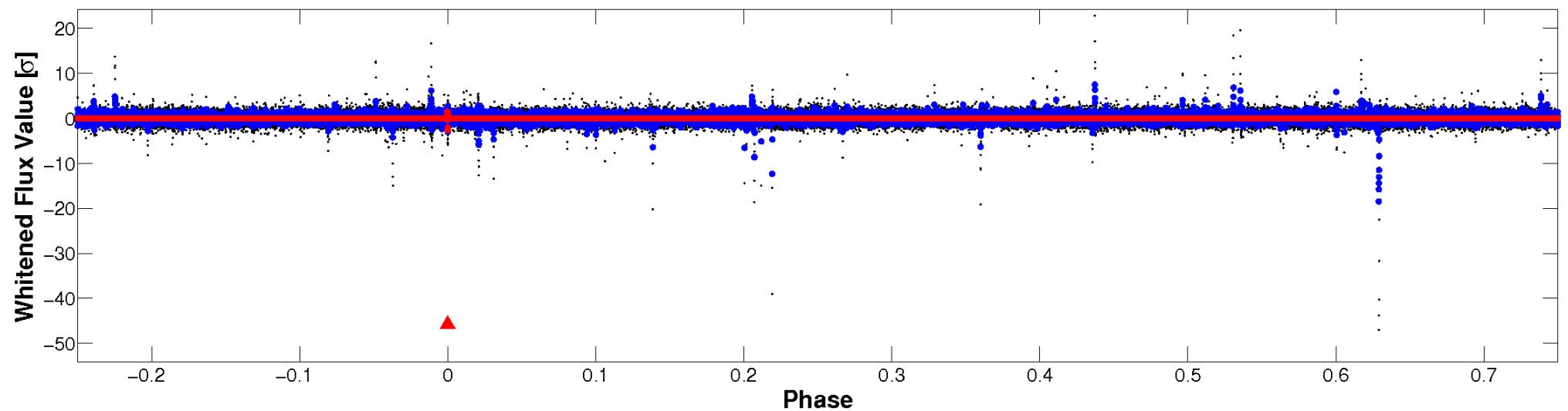


Non-Whitened Vs. Whitened Light Curve

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

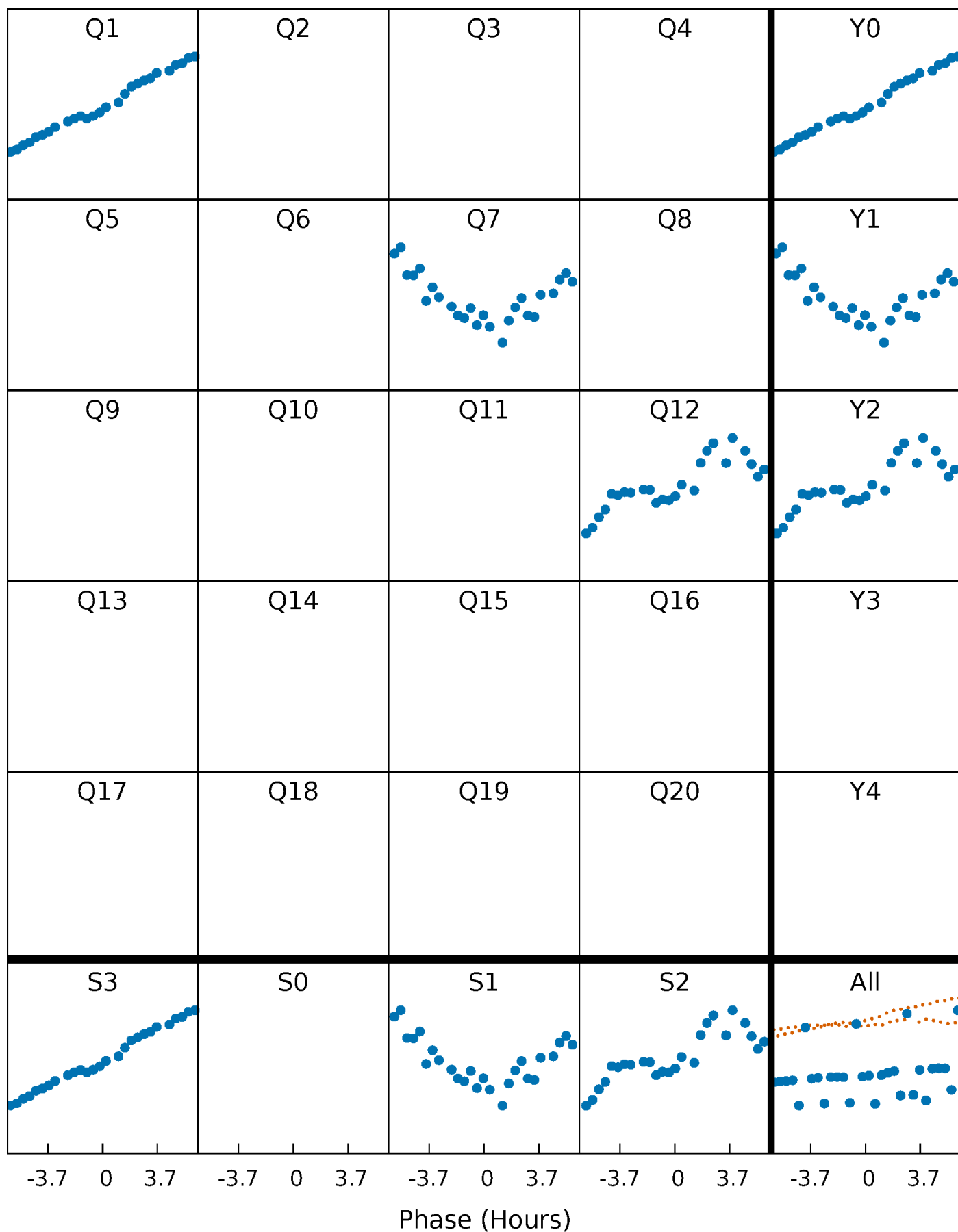


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



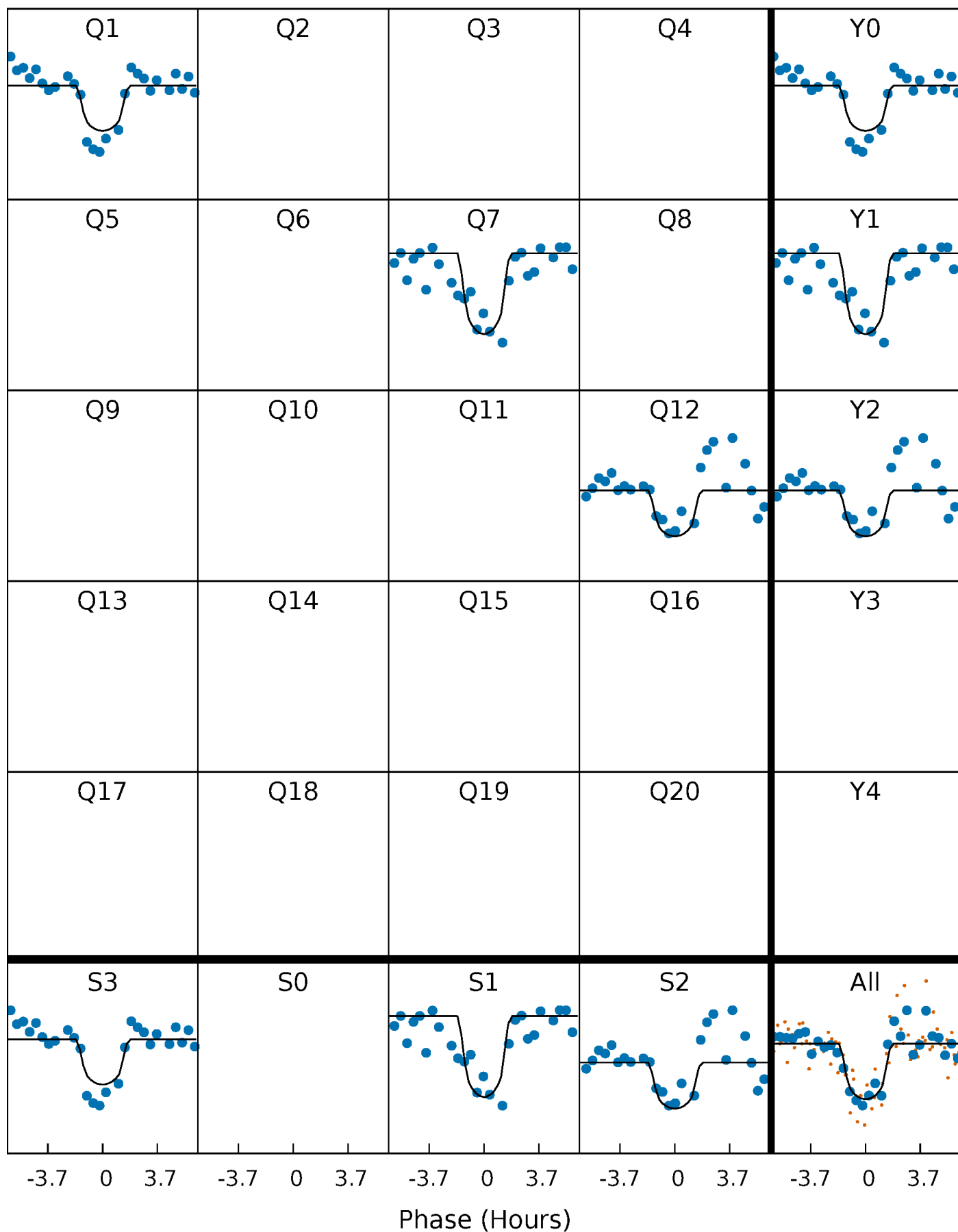
PDC Quarter-Phased Transit Curves

TCE 010976343-01 P=480.632894 Days $T_0=154.870790$ (BKJD)



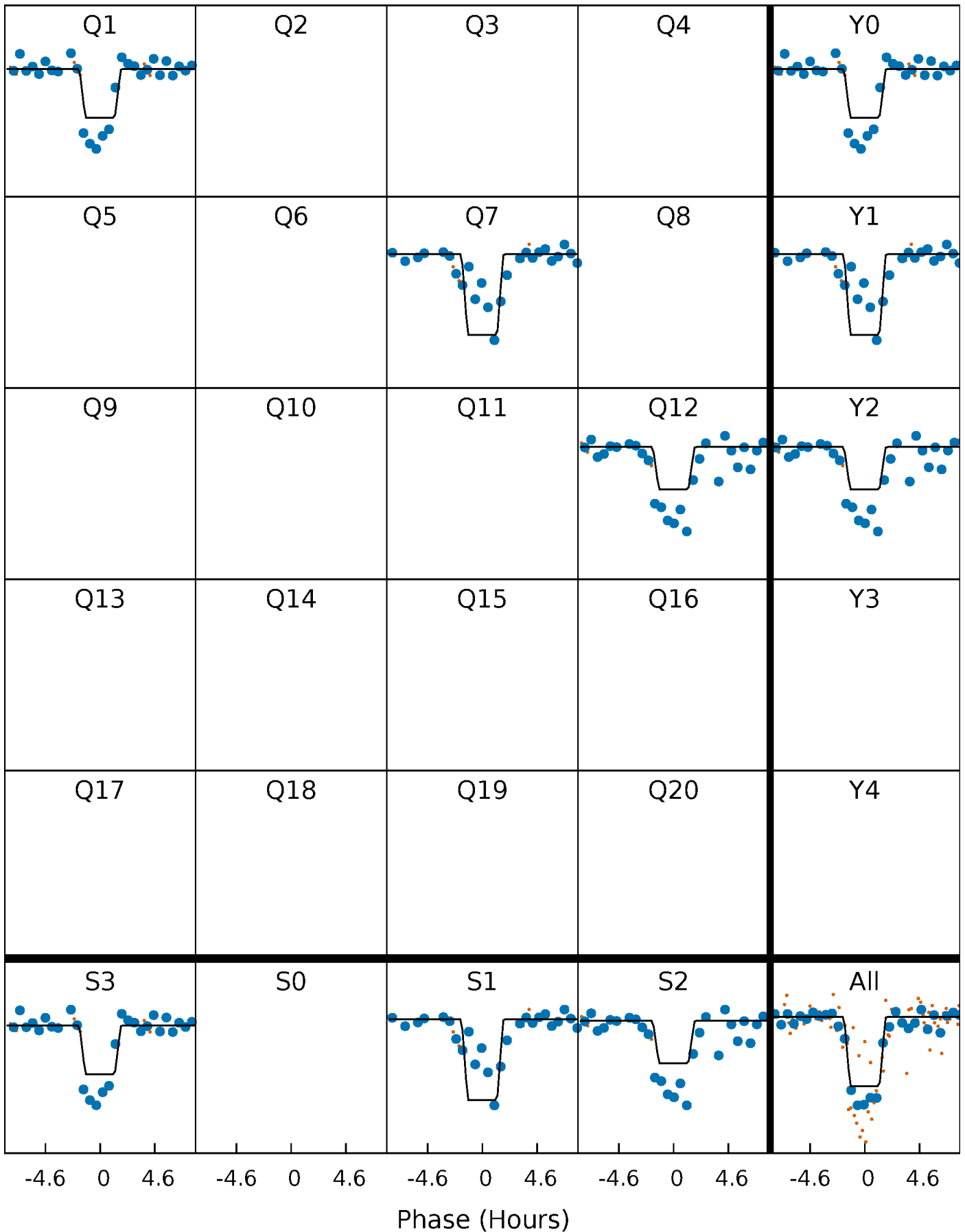
DV Quarter-Phased Transit Curves

TCE 010976343-01 P=480.632894 Days $T_0=154.870790$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

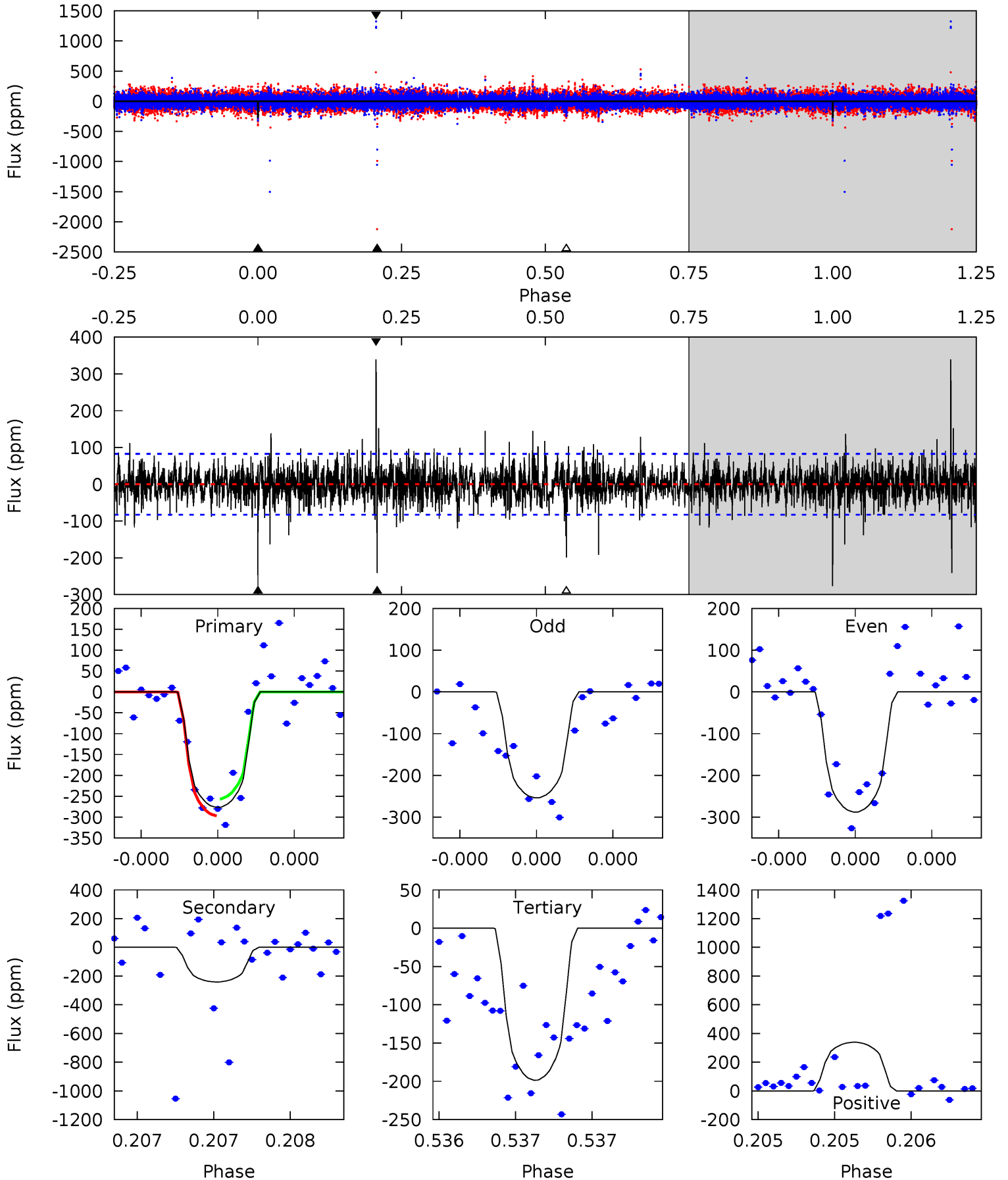
TCE 010976343-01 P=480.631387 Days $T_0=154.876794$ (BKJD)



DV Model-Shift Uniqueness Test

010976343-01, P = 480.632894 Days, E = 154.870790 Days

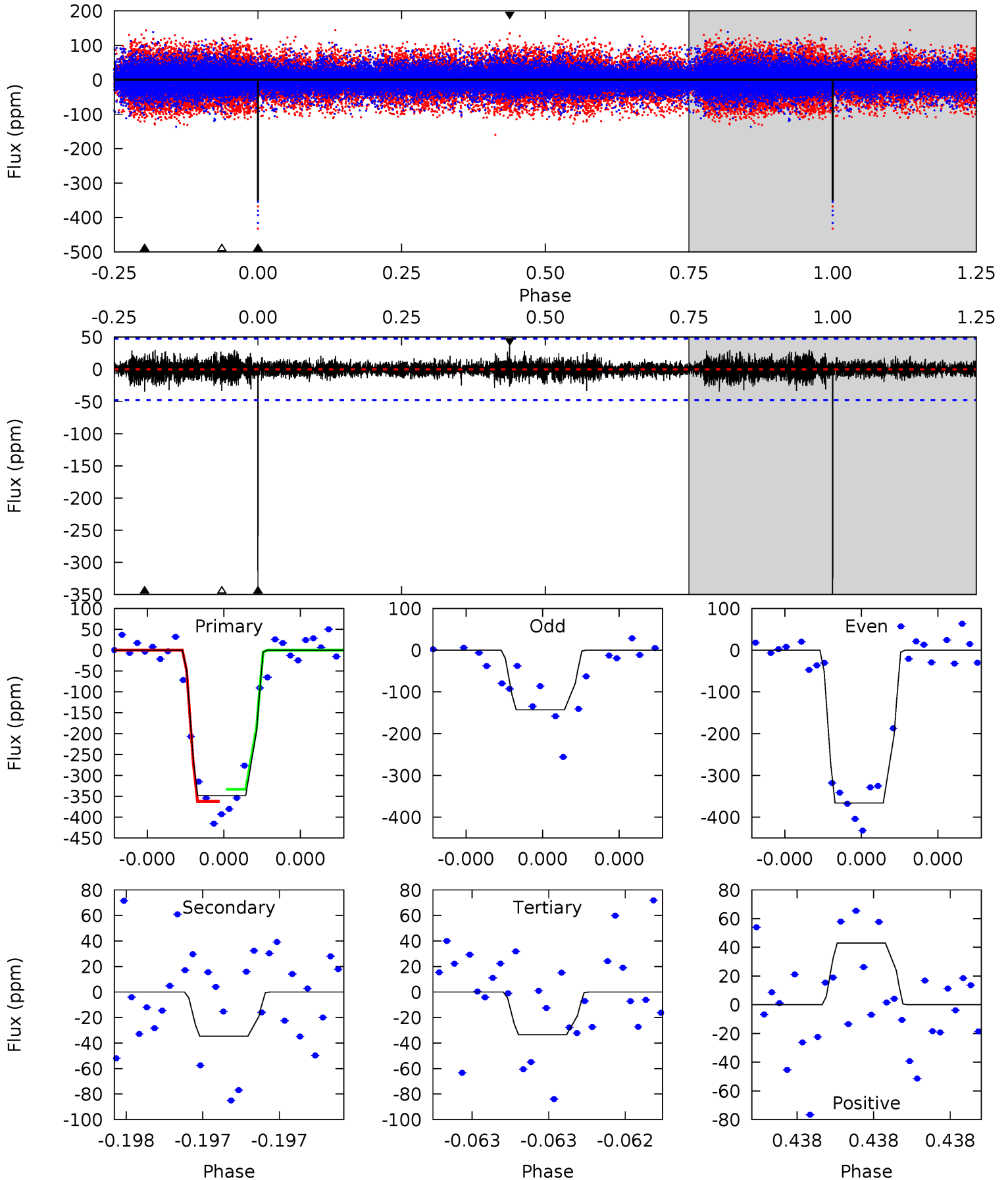
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.9	16.5	13.6	23.2	5.66	3.62	2.02	5.36	-4.27	2.92	-6.70	0.96	1.09	0.55	1.38



Alt Model-Shift Uniqueness Test

010976343-01, P = 480.631387 Days, E = 154.876794 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.5	4.12	3.97	5.12	5.66	3.62	0.74	37.5	36.4	0.15	-1.00	14.5	0.94	0.11	0



Stellar Parameters For KIC 010976343

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3688^{+83}_{-102}	$0.878^{+0.030}_{-0.030}$	$0.100^{+0.200}_{-0.250}$	$78.687^{+2.669}_{-14.232}$	$1.705^{+0.063}_{-0.567}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+3%/-3%	+200%/-250%	+3%/-18%	+4%/-33%	+27%/-9%
Source	PHO54	AST54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010976343-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-241±15	$184.08^{+122.22}_{-107.48}$	1686^{+42}_{-55}	3298^{+1156}_{-488}	$7.982^{+35.860}_{-5.099}$
Alt.	-35±8	$164.84^{+118.18}_{-108.03}$	1685^{+44}_{-50}	2537^{+947}_{-463}	$1.392^{+9.796}_{-0.905}$

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 $A_{obs} \gg 1.0$

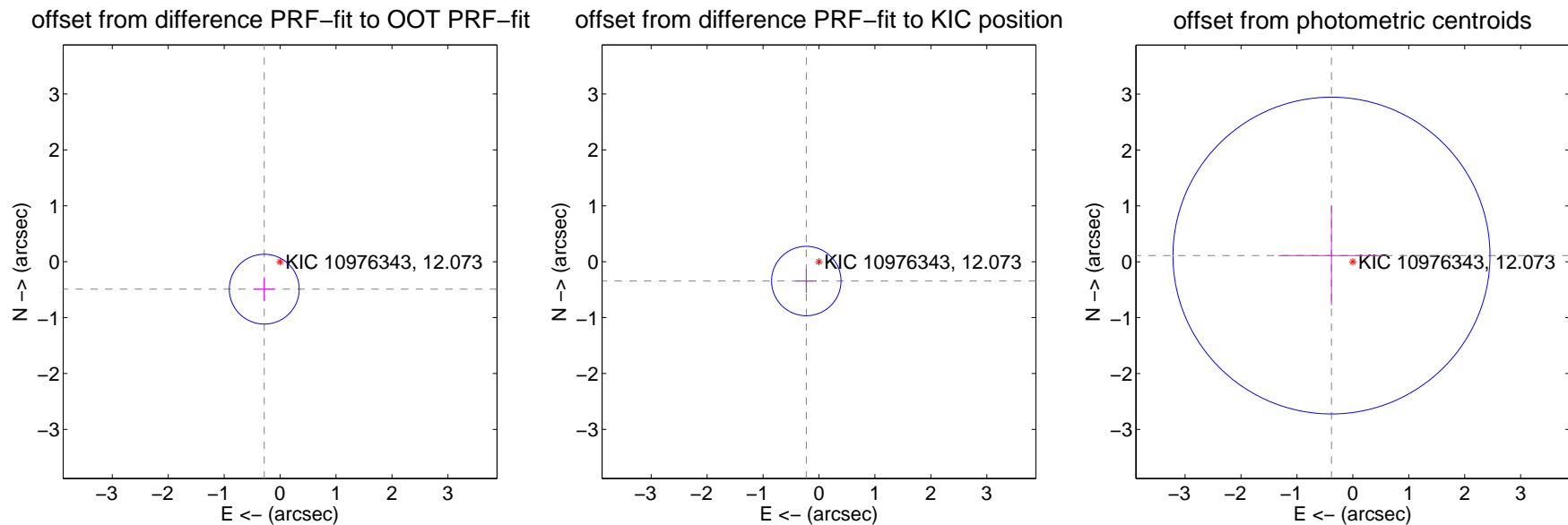
DV Centroid Data

Supplemental centroid analysis for 010976343-01. Kepler magnitude: 12.07. Transit SNR 10.66

There are 1 quarters with good PRF difference image offsets

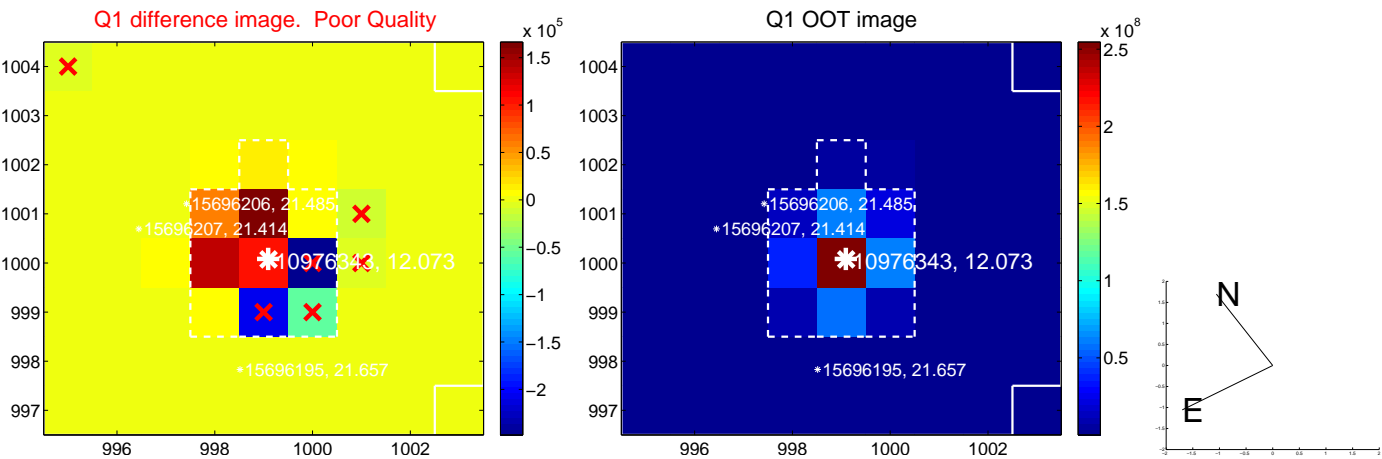
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.567 ± 0.208	2.72	0.283 ± 0.188	-0.491 ± 0.214
PRF-fit source offset from KIC position	0.413 ± 0.207	2.00	0.227 ± 0.188	-0.345 ± 0.214
photometric centroid source offset	0.40 ± 0.94	0.42	0.38 ± 0.95	0.11 ± 0.89

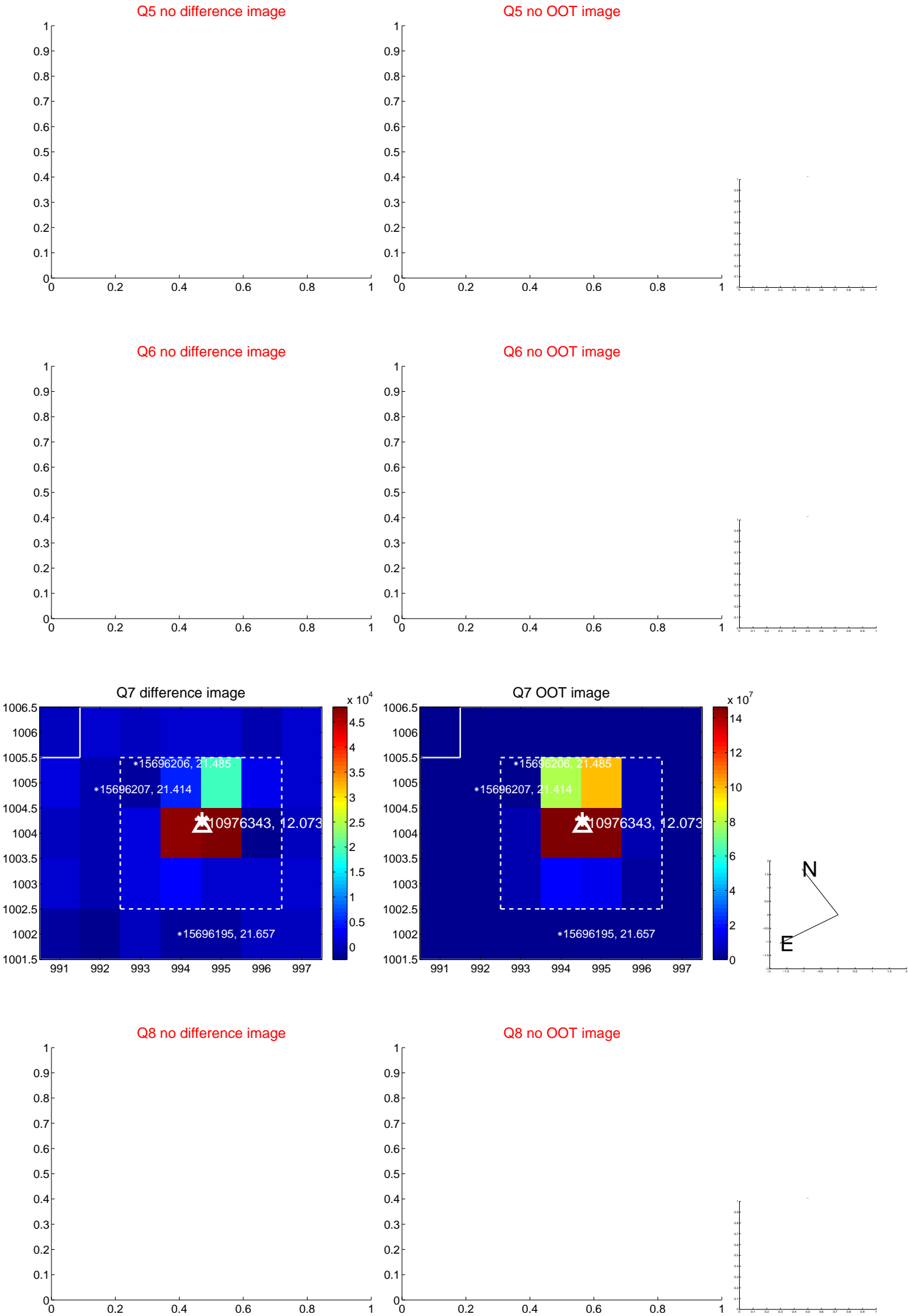


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

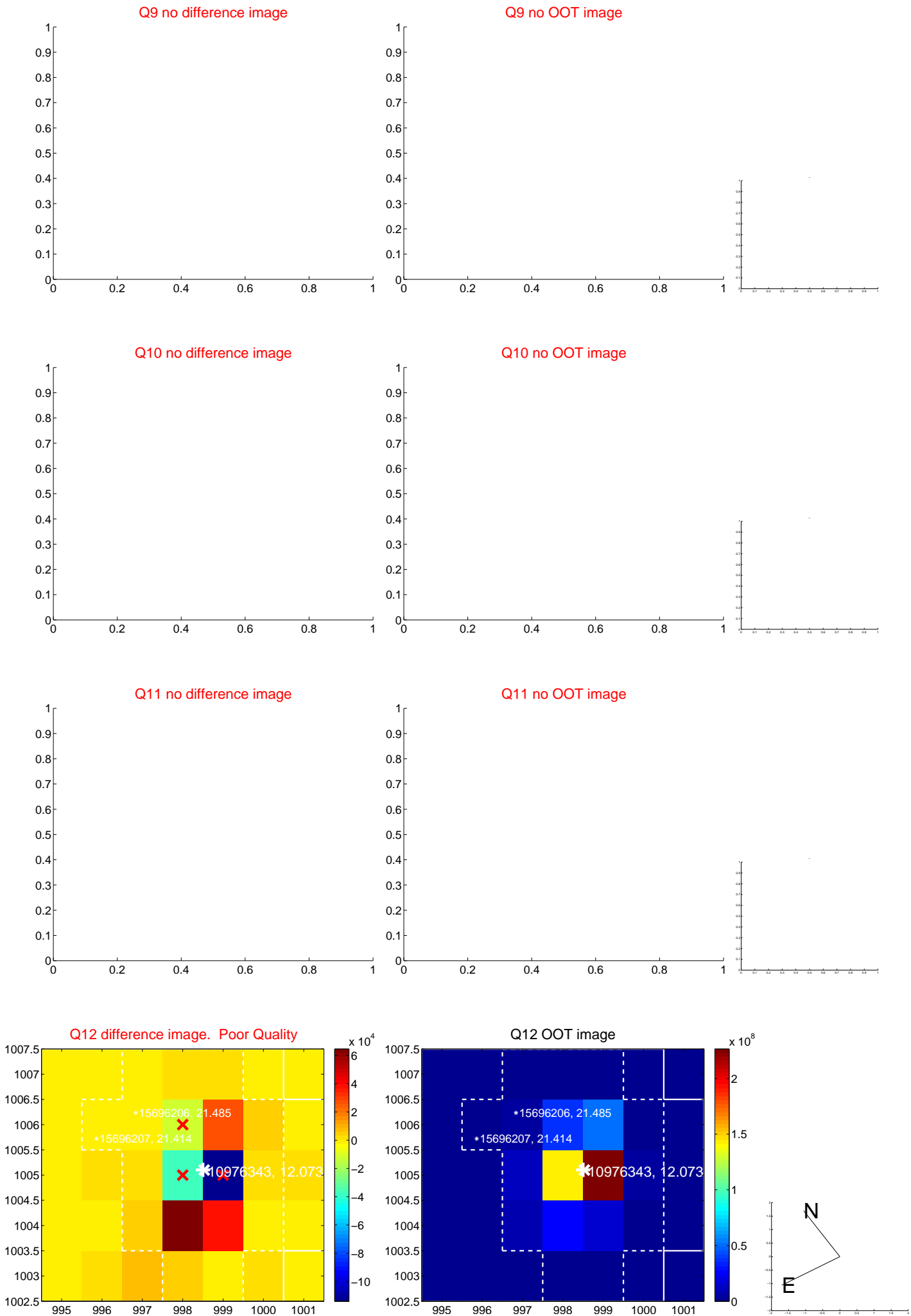
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



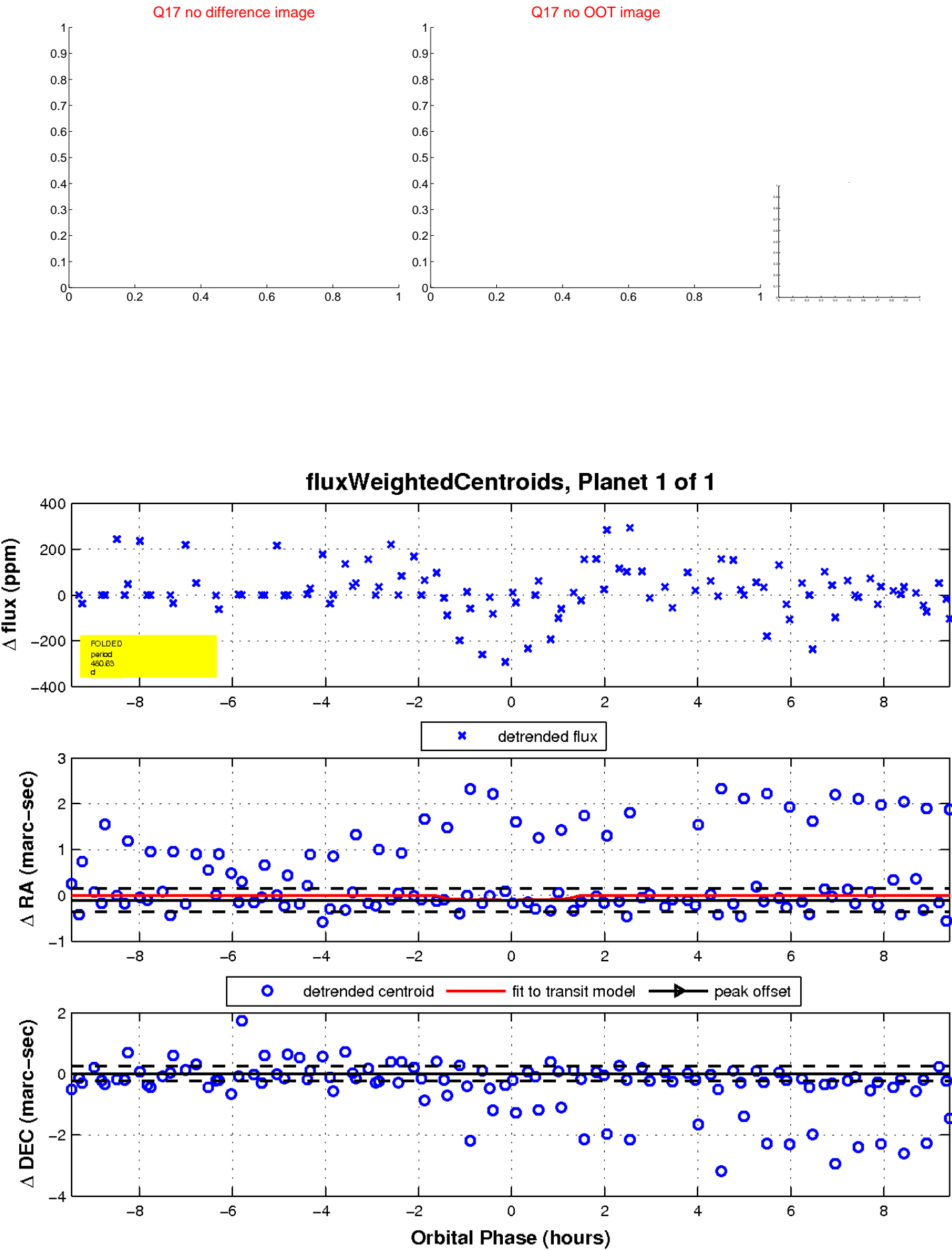
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

