

KIC 008752841

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})
008752841-01	OBS	No	374.942955	133.572427	1525.7	80.623	10.7	20.6	0.91	5984	4.23	0.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008752841-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—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.

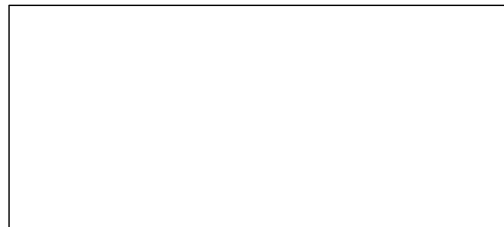
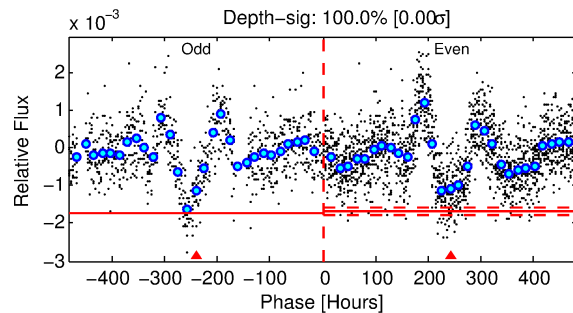
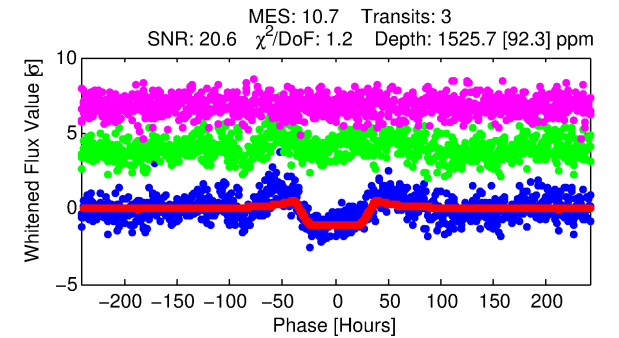
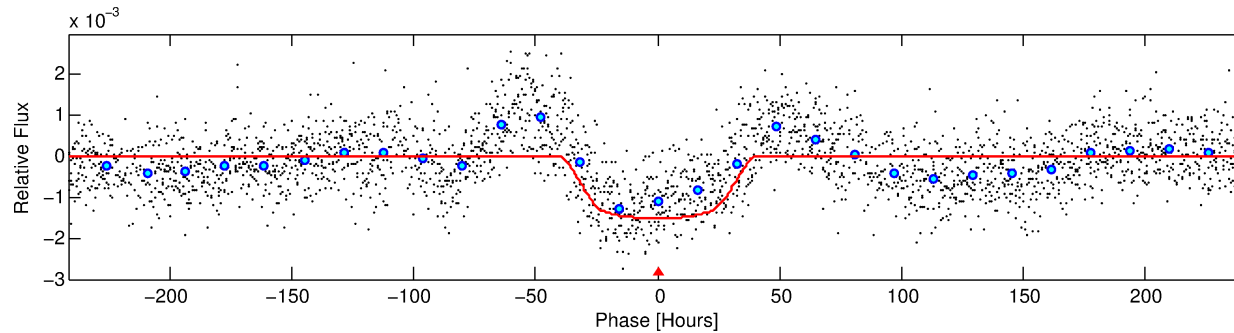
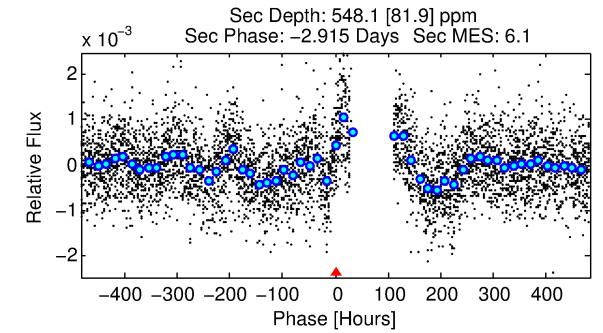
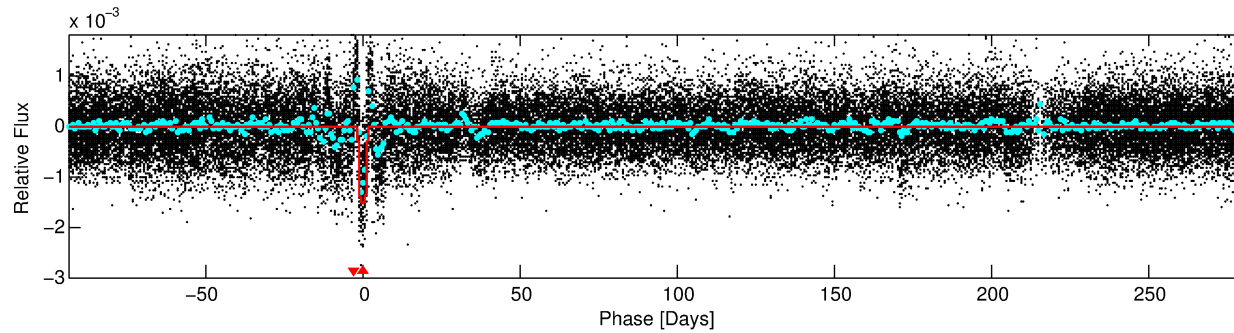
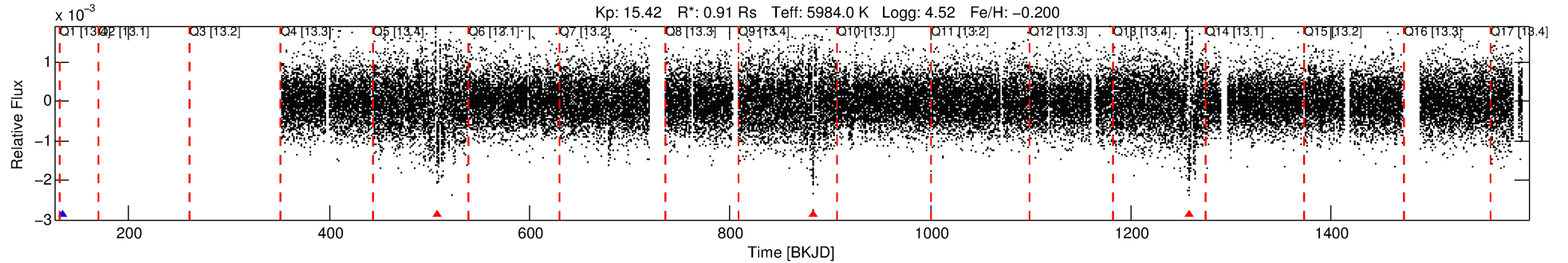
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008752841-01

No Significant Match Found

DV One-Page Summary

KIC: 8752841 Candidate: 1 of 1 Period: 374.943 d



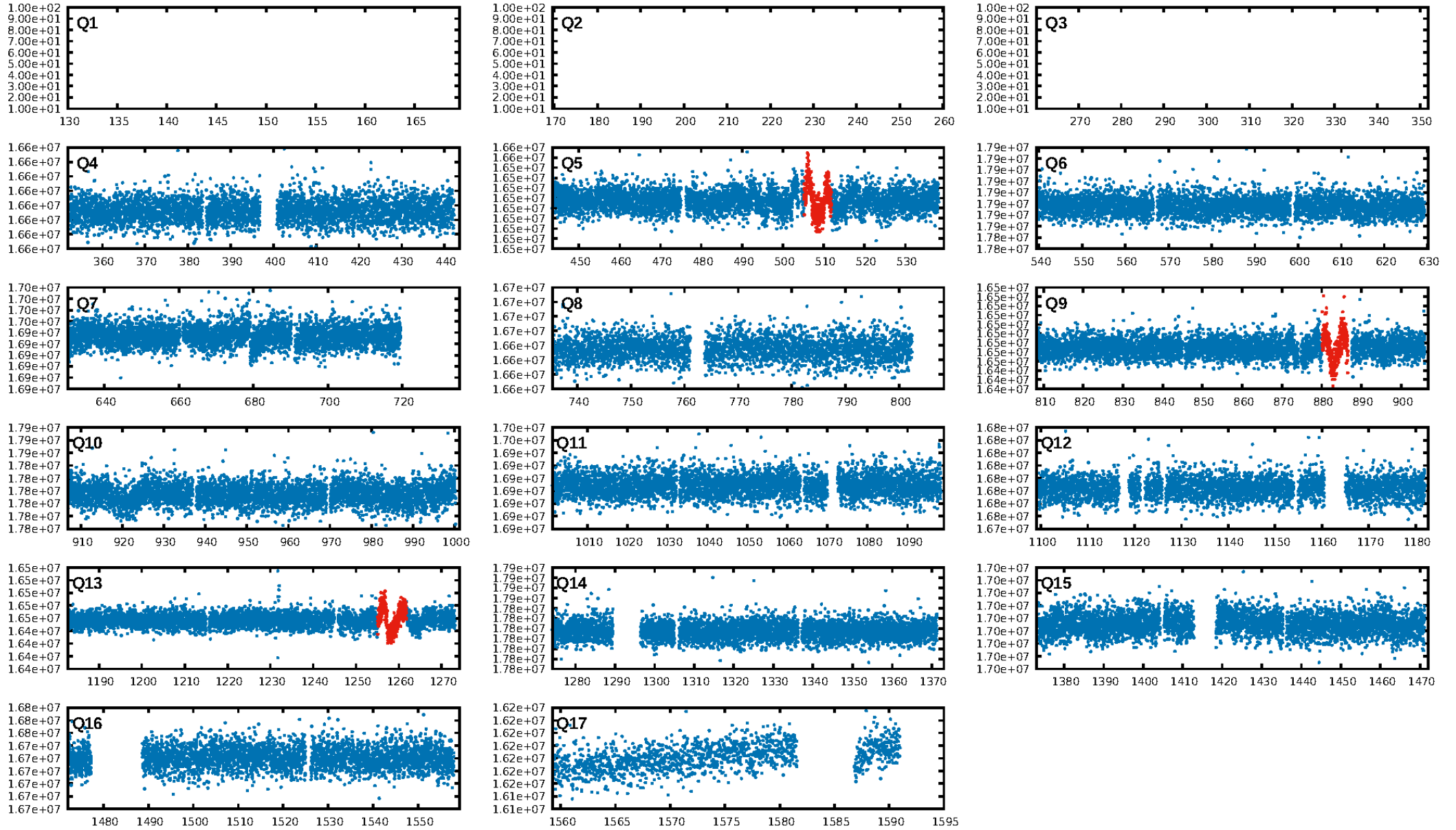
DV Fit Results:

Period = 374.94295 [0.04307] d
Epoch = 133.5724 [0.0954] BKJD
Rp/R* = 0.0428 [0.0017]
a/R* = 17.96 [1.72]
b = 0.91 [0.02]
Seff = 0.91 [0.37]
Teq = 249 [26] K
Rp = 4.23 [1.31] Re
a = 1.0157 [0.2641] AU
Ag = 17371.99 [7217.60] [2.41σ]
Teffp = 4426 [253] K [16.44σ]

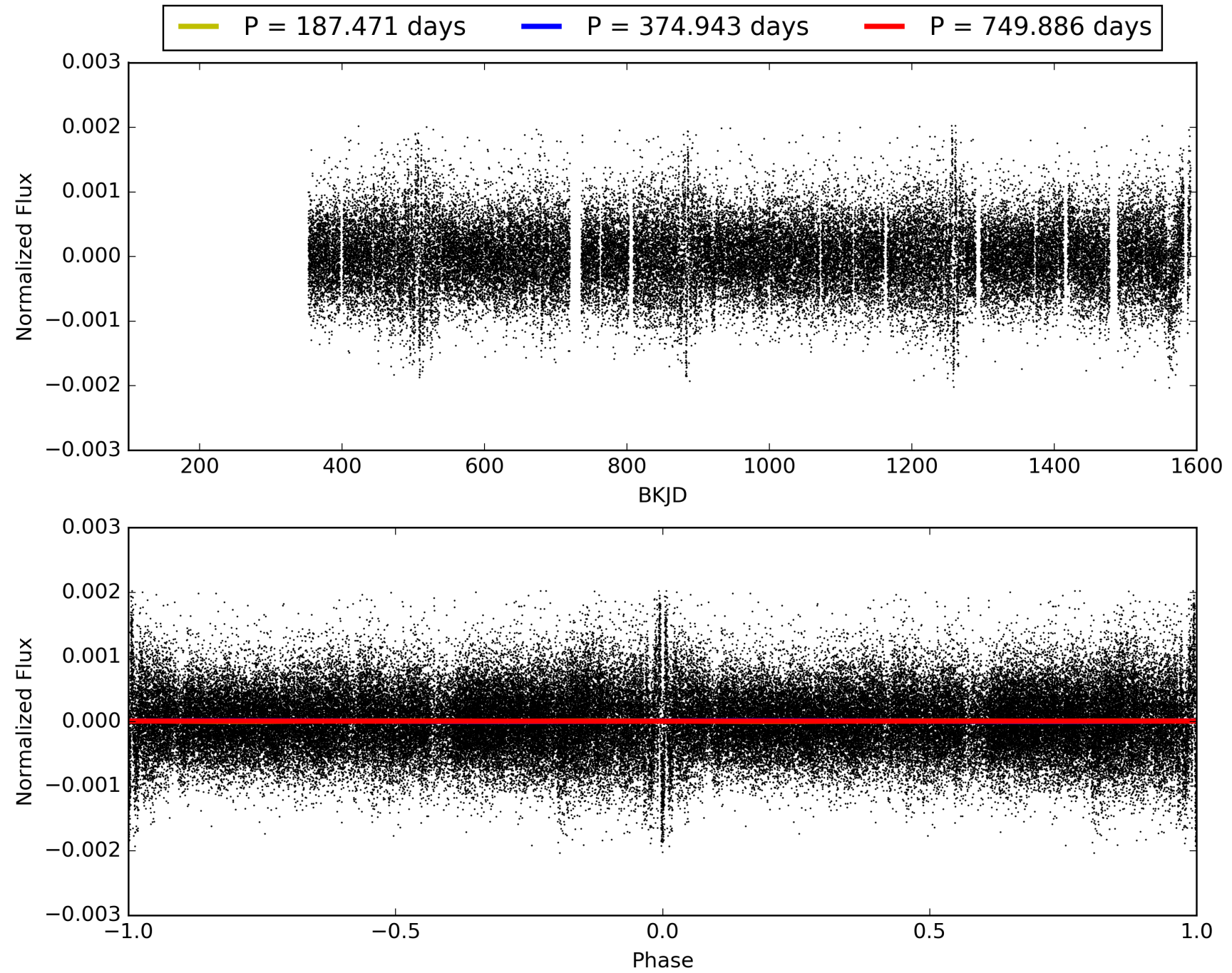
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.41e-18
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: -23.76
Centroid-sig: 0.0%
Centroid-so: 5.557 arcsec [5.12σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [1/1]

TCE 008752841-01, PDC Light Curves

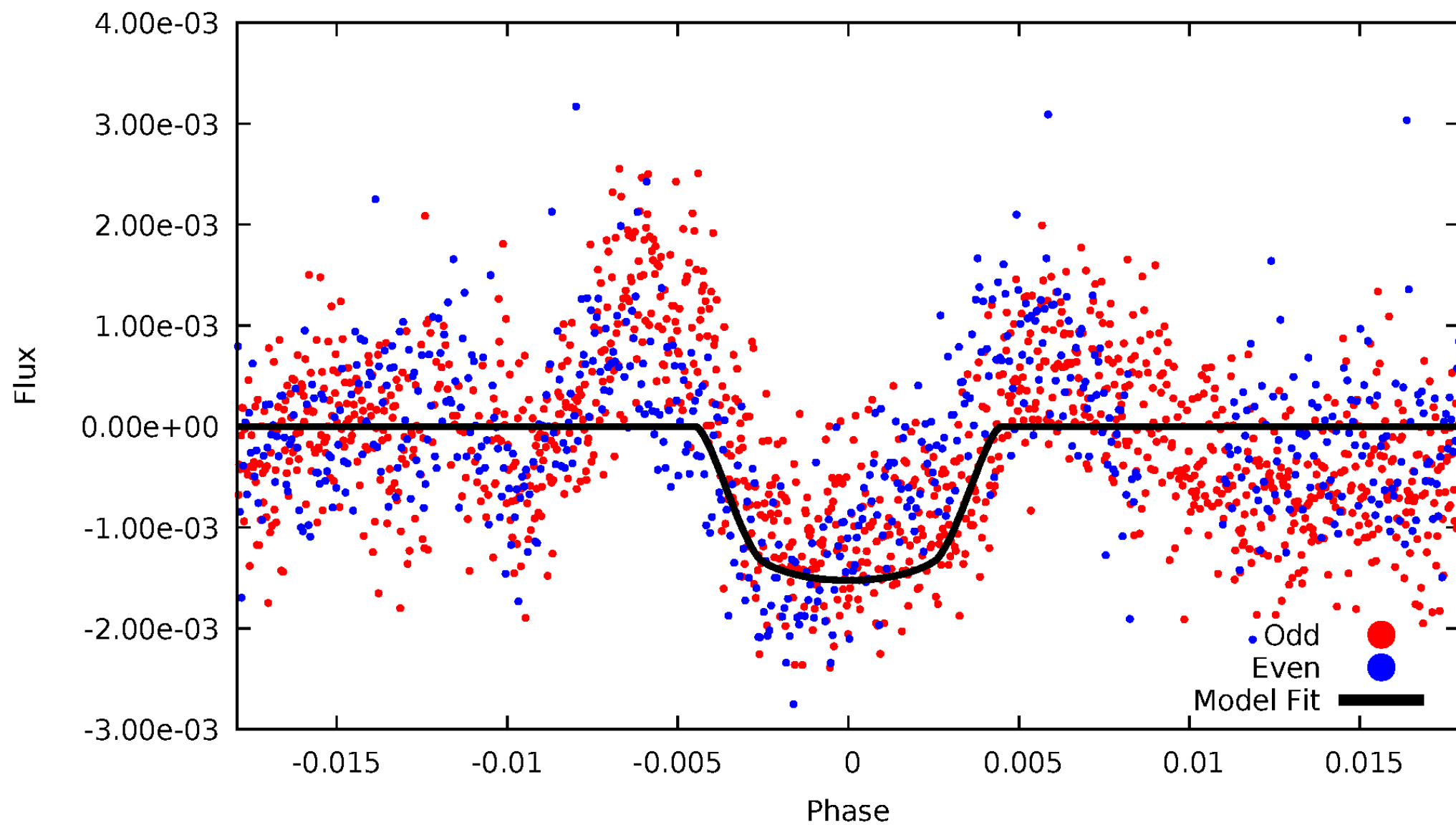


TCE 008752841-01



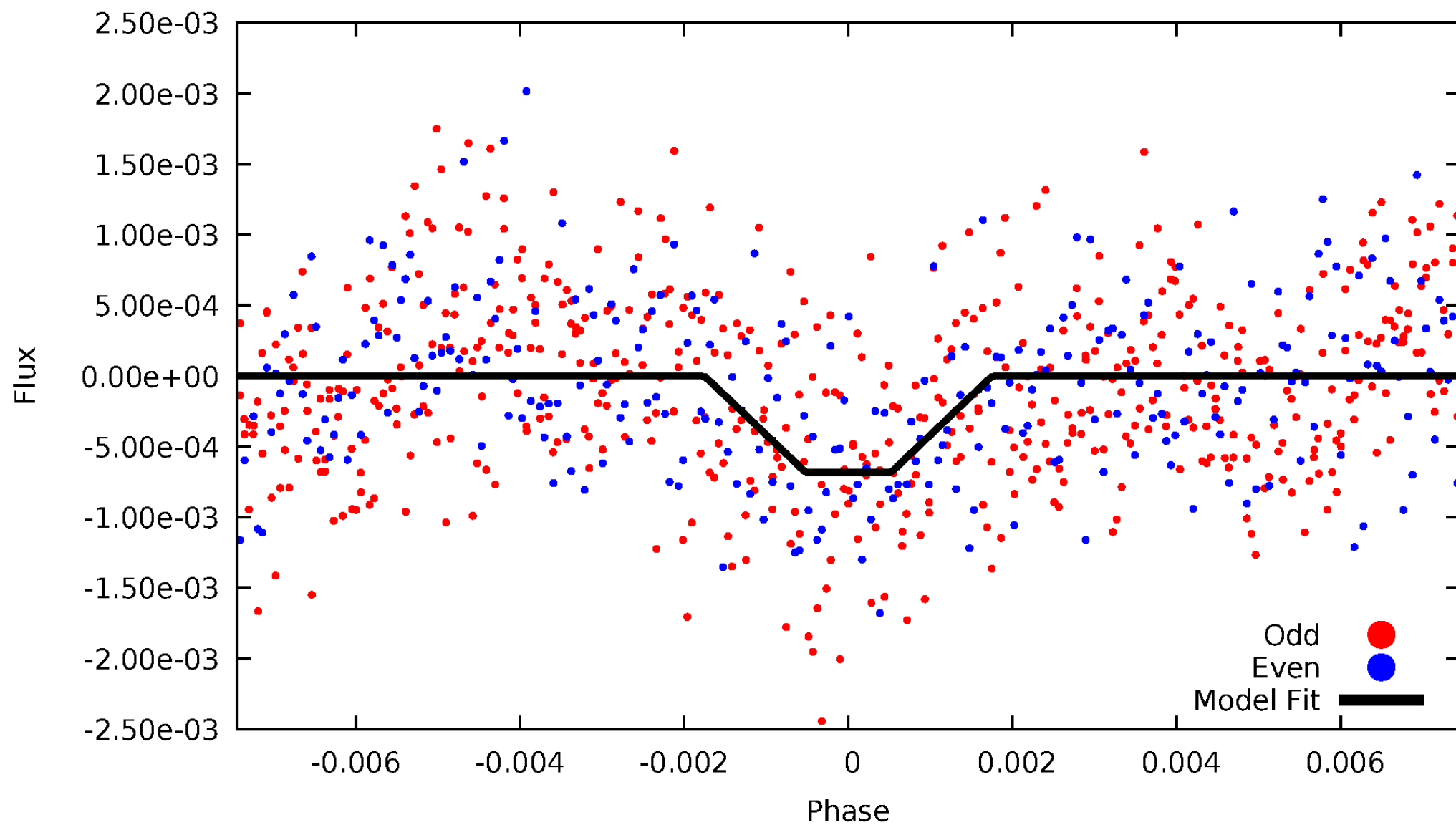
DV Odd/Even

TCE 008752841-01

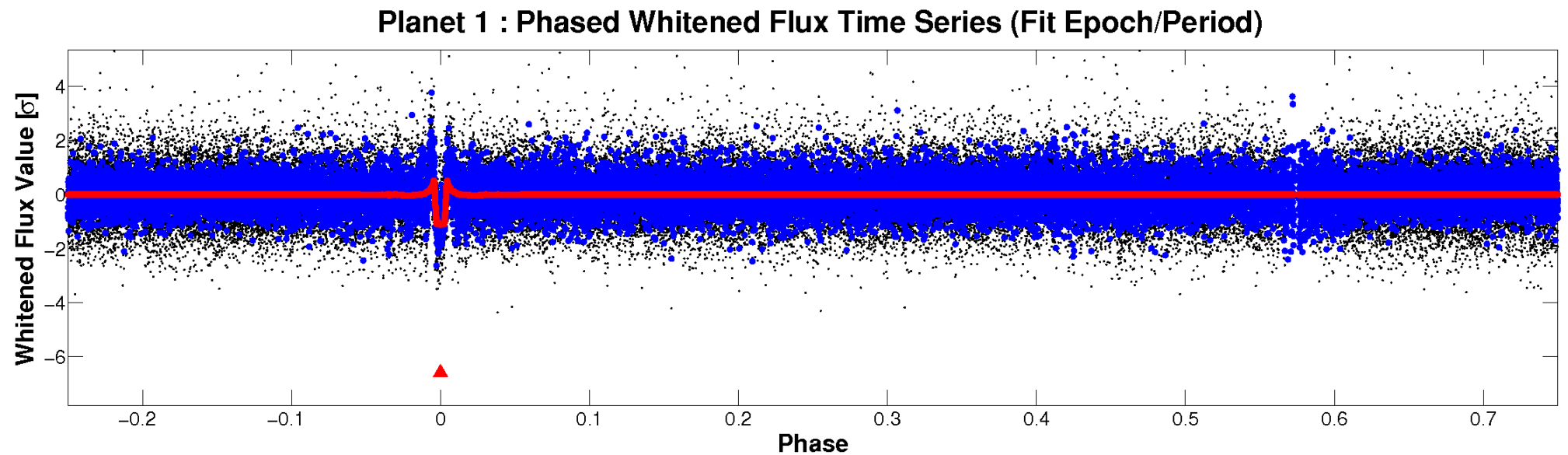
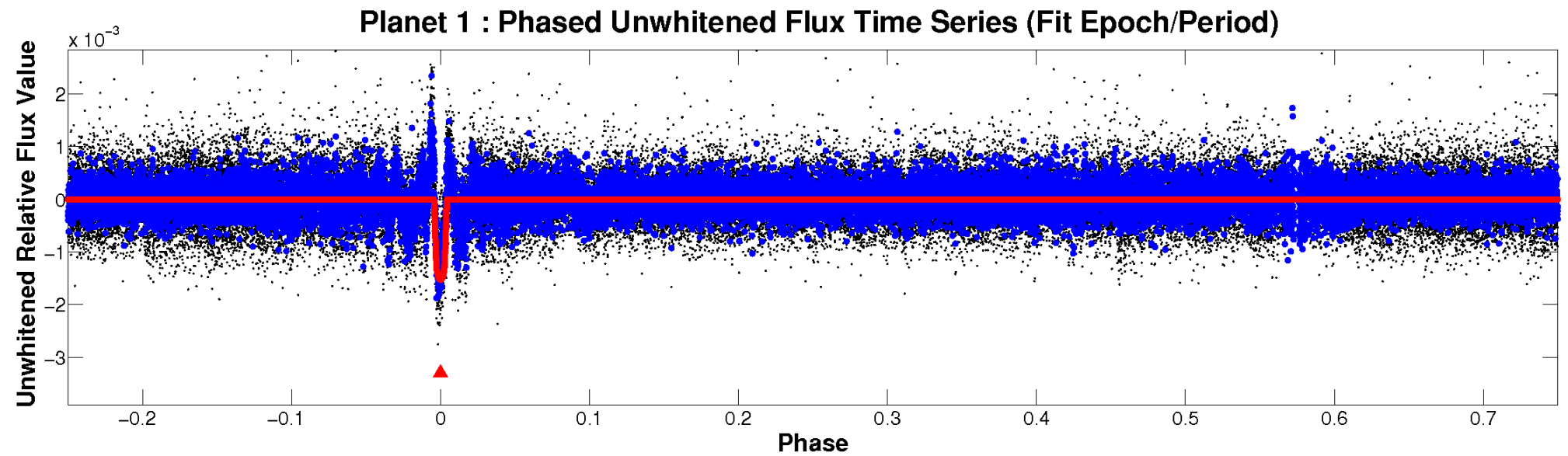


ALT Odd/Even

TCE 008752841-01

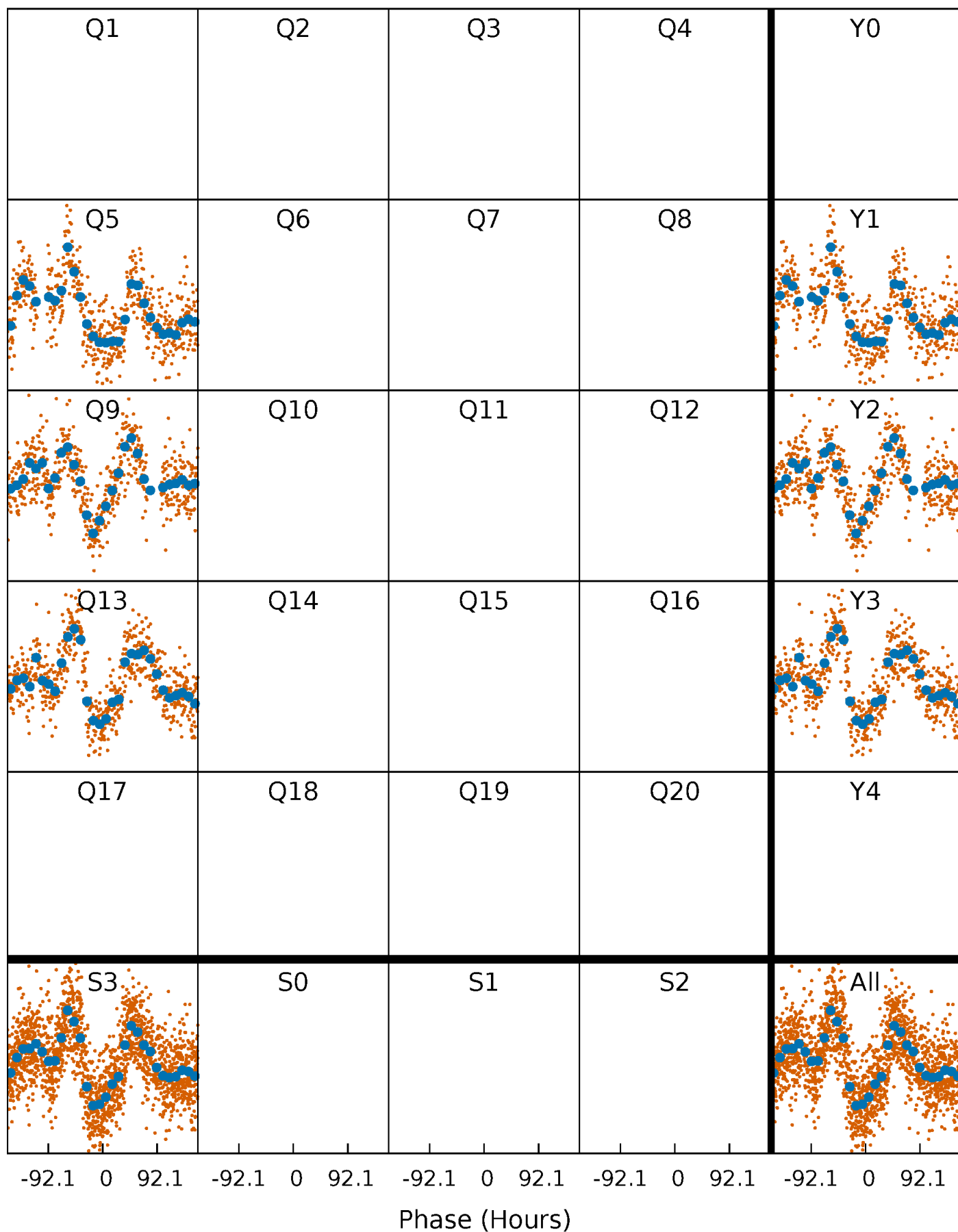


Non-Whitened Vs. Whitened Light Curve



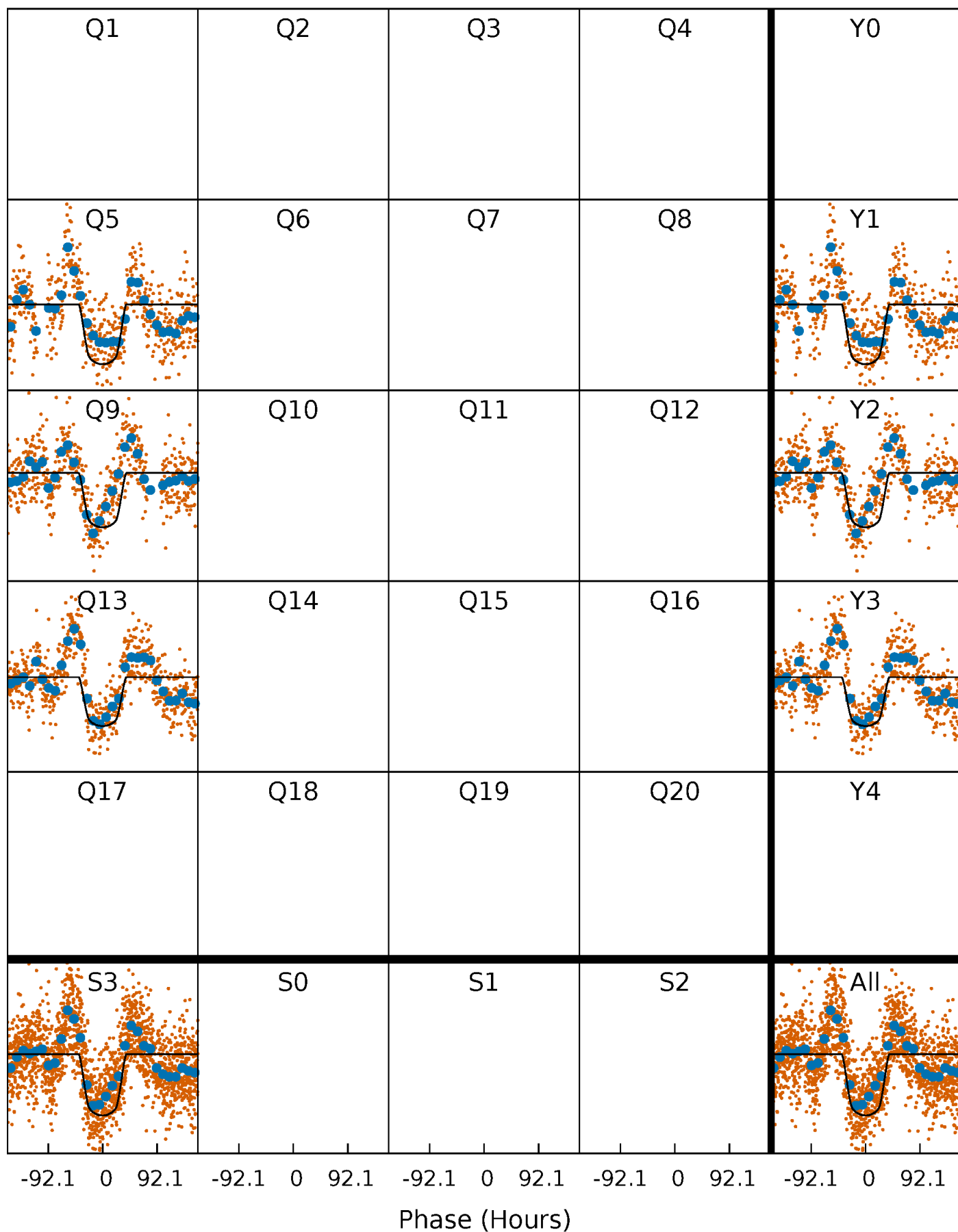
PDC Quarter-Phased Transit Curves

TCE 008752841-01 P=374.942955 Days $T_0=133.572427$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008752841-01 $P=374.942955$ Days $T_0=133.572427$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

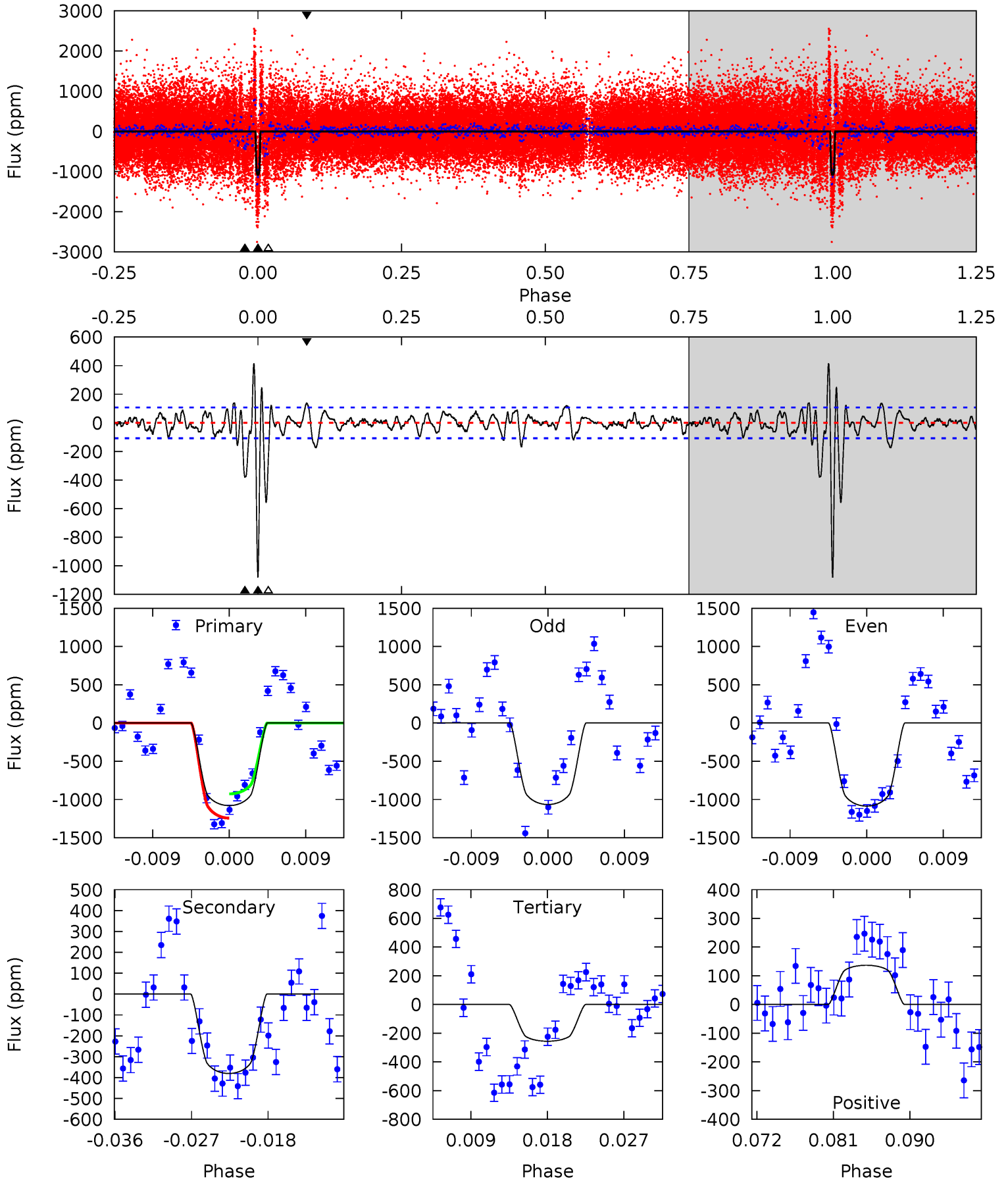
TCE 008752841-01 P=374.833225 Days $T_0=133.045272$ (BKJD)



DV Model-Shift Uniqueness Test

008752841-01, P = 374.942955 Days, E = 133.572427 Days

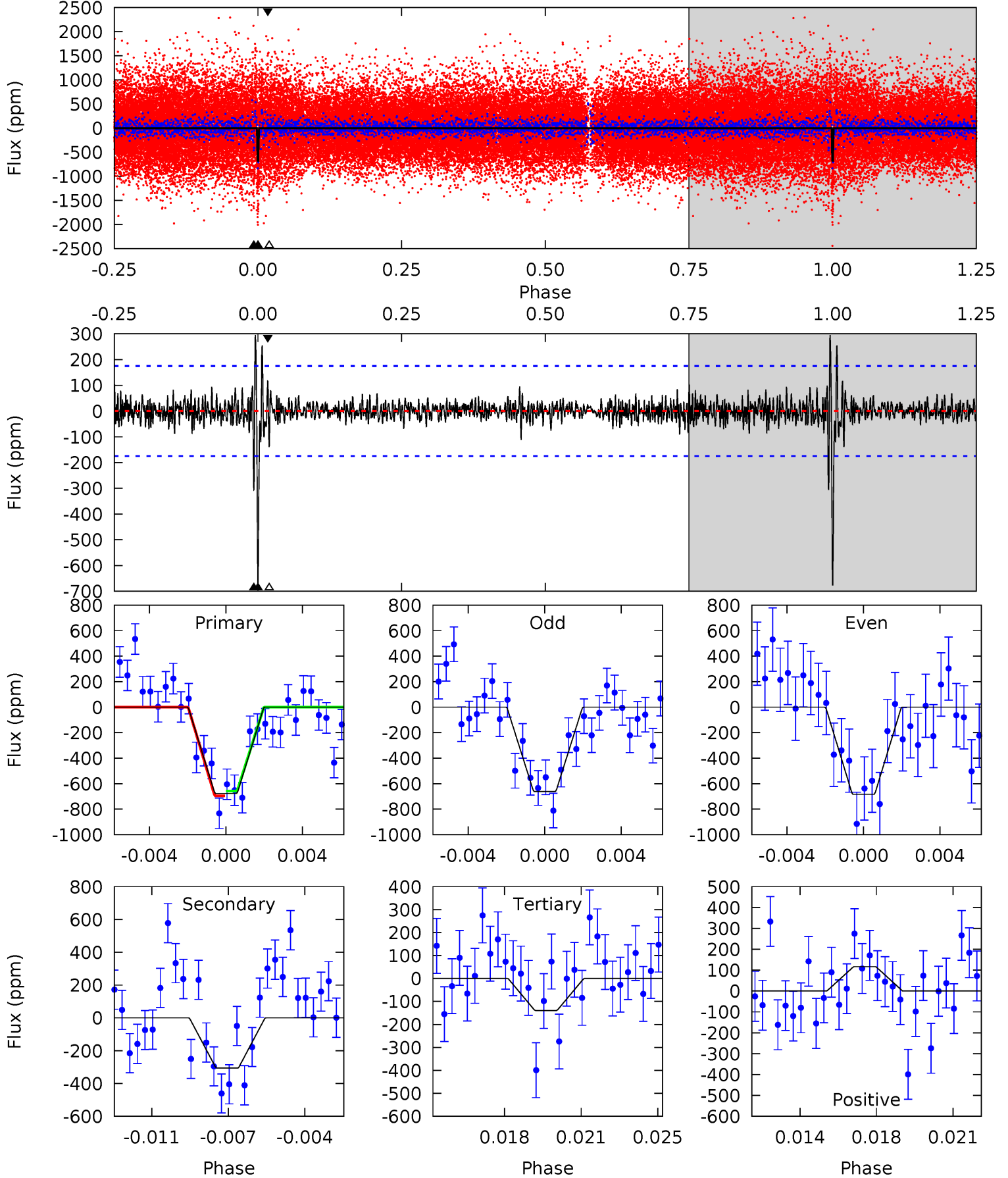
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.7	17.9	12.0	6.43	5.05	2.61	2.92	38.7	44.3	5.85	11.5	0.46	1.01	0.28	7.41



Alt Model-Shift Uniqueness Test

008752841-01, P = 374.833225 Days, E = 133.045272 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.2	9.15	4.15	3.48	5.22	2.92	0.92	16.1	16.7	5.00	5.67	0.32	1.02	0.30	0.58



Stellar Parameters For KIC 008752841

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5984^{+188}_{-230}	$4.521^{+0.052}_{-0.208}$	$-0.200^{+0.250}_{-0.300}$	$0.906^{+0.279}_{-0.093}$	$0.993^{+0.118}_{-0.131}$	$1.883^{+0.401}_{-1.022}$
	+3%/-4%	+1%/-5%	+125%/-150%	+31%/-10%	+12%/-13%	+21%/-54%
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 008752841-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-380 ± 21	$4.33^{+0.78}_{-0.36}$	355^{+26}_{-17}	4273^{+142}_{-143}	11211^{+1904}_{-2856}
Alt.	-306 ± 33	$2.67^{+0.45}_{-0.27}$	357^{+24}_{-20}	4979^{+234}_{-218}	23569^{+6541}_{-5924}

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

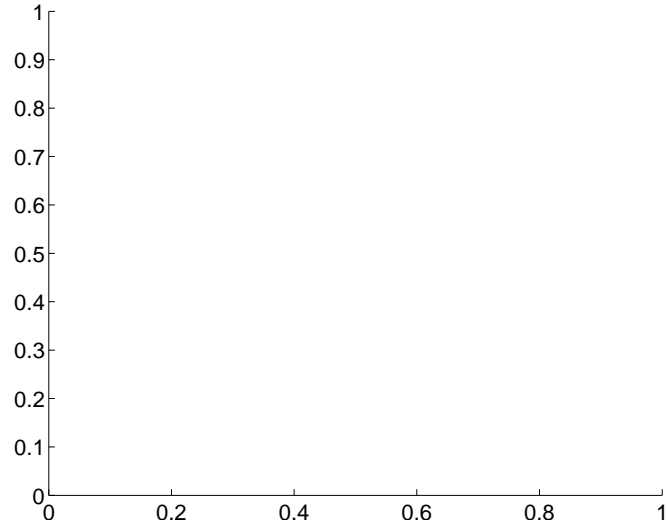
Supplemental centroid analysis for 008752841-01. Kepler magnitude: 15.42. Transit SNR 20.56

There are 0 quarters with good PRF difference image offsets

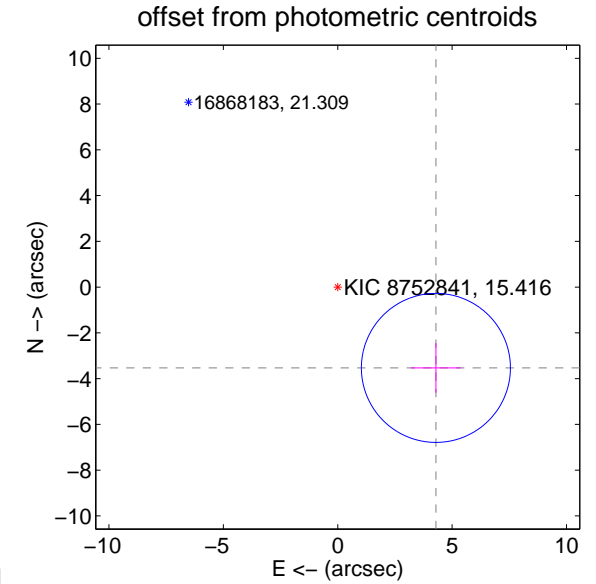
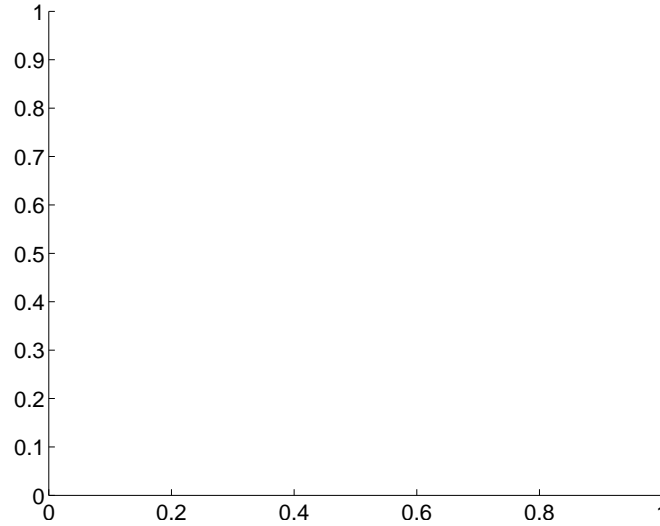
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	5.56 ± 1.09	5.12	-4.29 ± 1.09	-3.53 ± 1.08

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



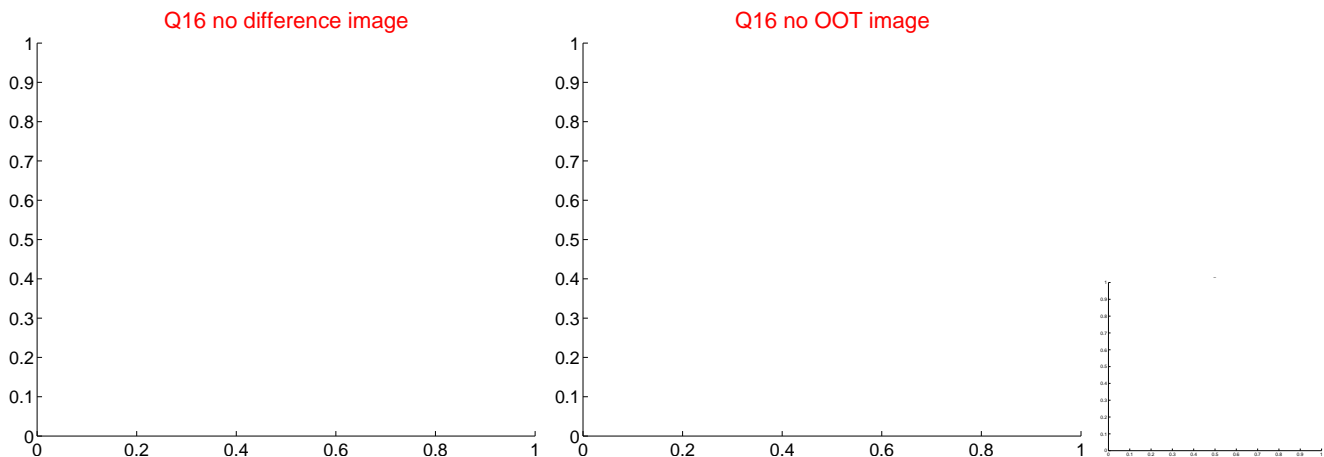
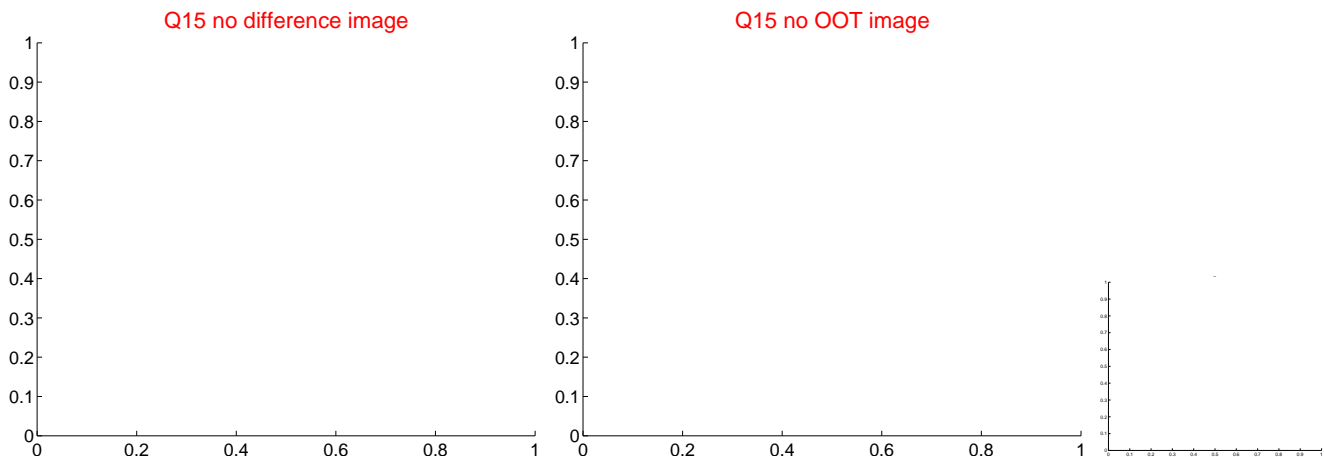
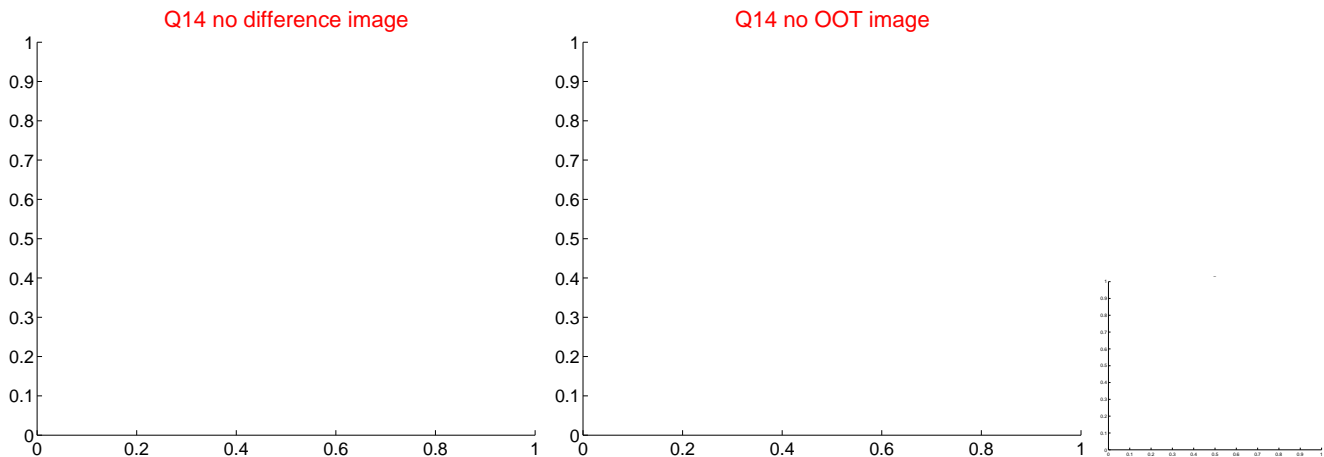
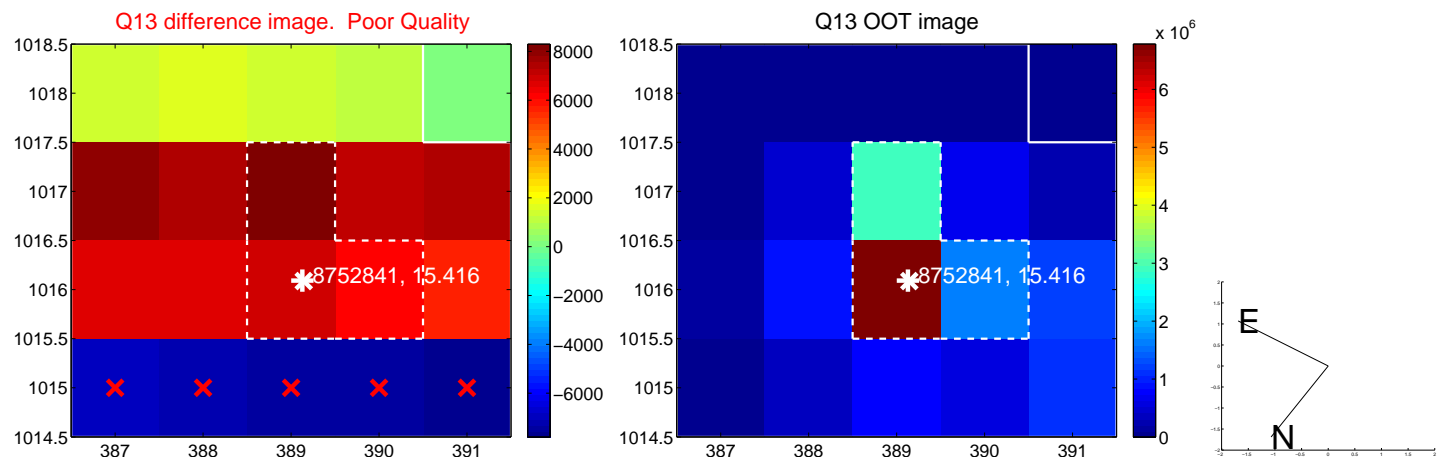
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



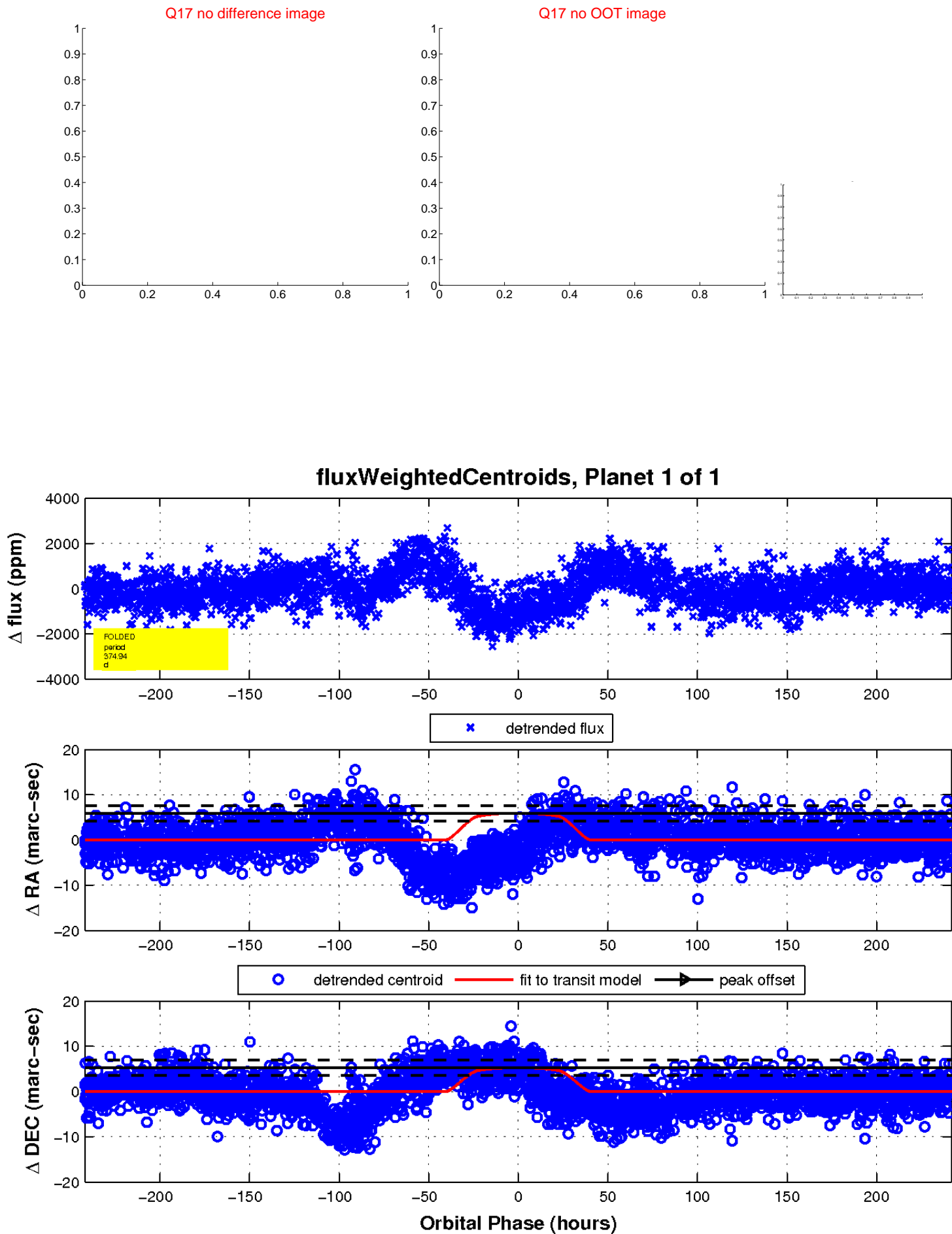
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

Declination

