

KIC 007751220

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})
007751220-01	OBS	No	371.084106	260.716789	2106.7	17.394	8.6	12.3	0.85	5603	6.49	0.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007751220-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_NONUNIQ_DV—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.

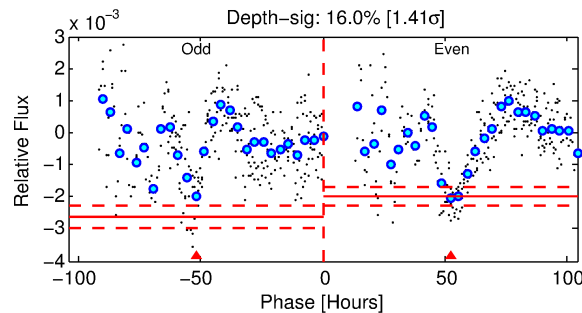
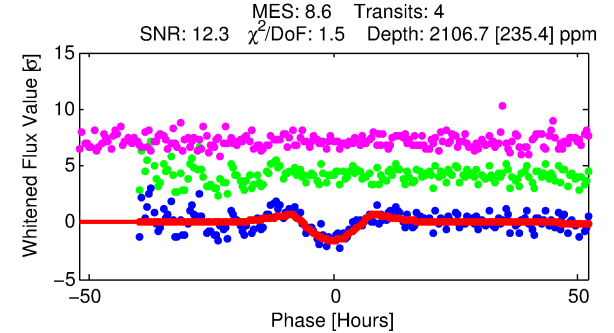
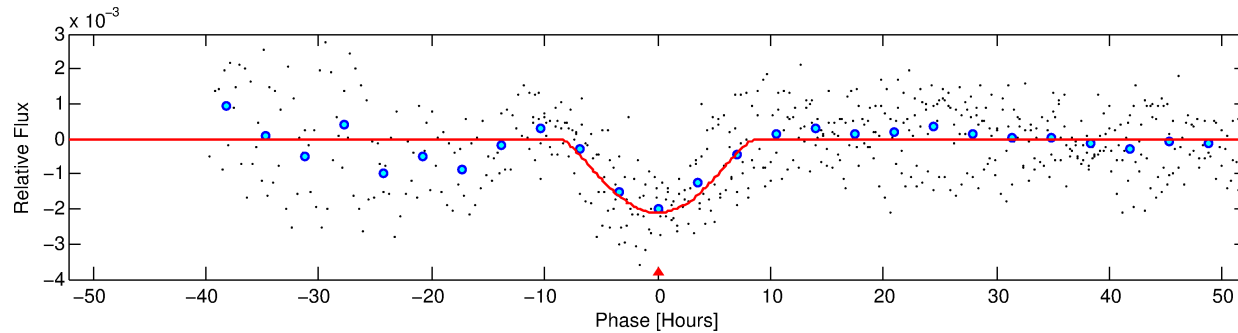
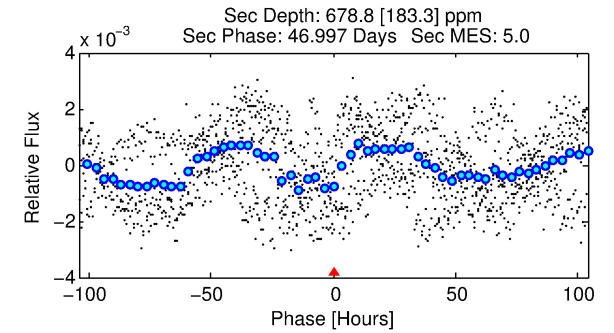
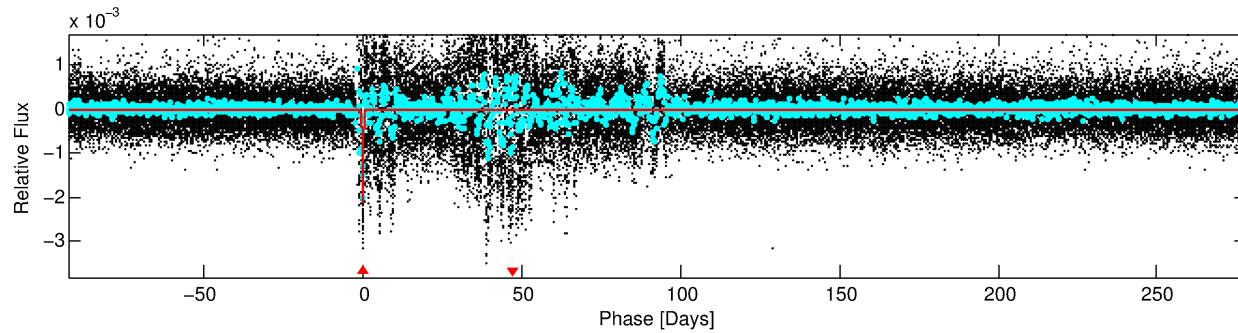
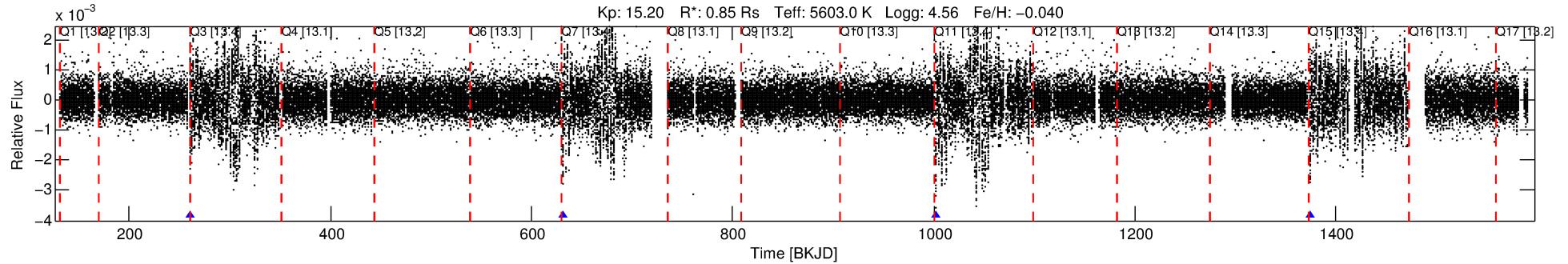
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007751220-01

No Significant Match Found

DV One-Page Summary

KIC: 7751220 Candidate: 1 of 1 Period: 371.084 d



DV Fit Results:

Period = 371.08411 [0.01411] d
Epoch = 260.7168 [0.0250] BKJD
Rp/R* = 0.0703 [0.0975]
a/R* = 68.62 [25.74]
b = 0.98 [0.16]
Seff = 0.64 [0.20]
Teq = 229 [18] K
Rp = 6.49 [9.12] Re
a = 0.9899 [0.1935] AU
Ag = 8690.58 [24358.75] [0.36σ]
Teffp = 3411 [2380] K [1.34σ]

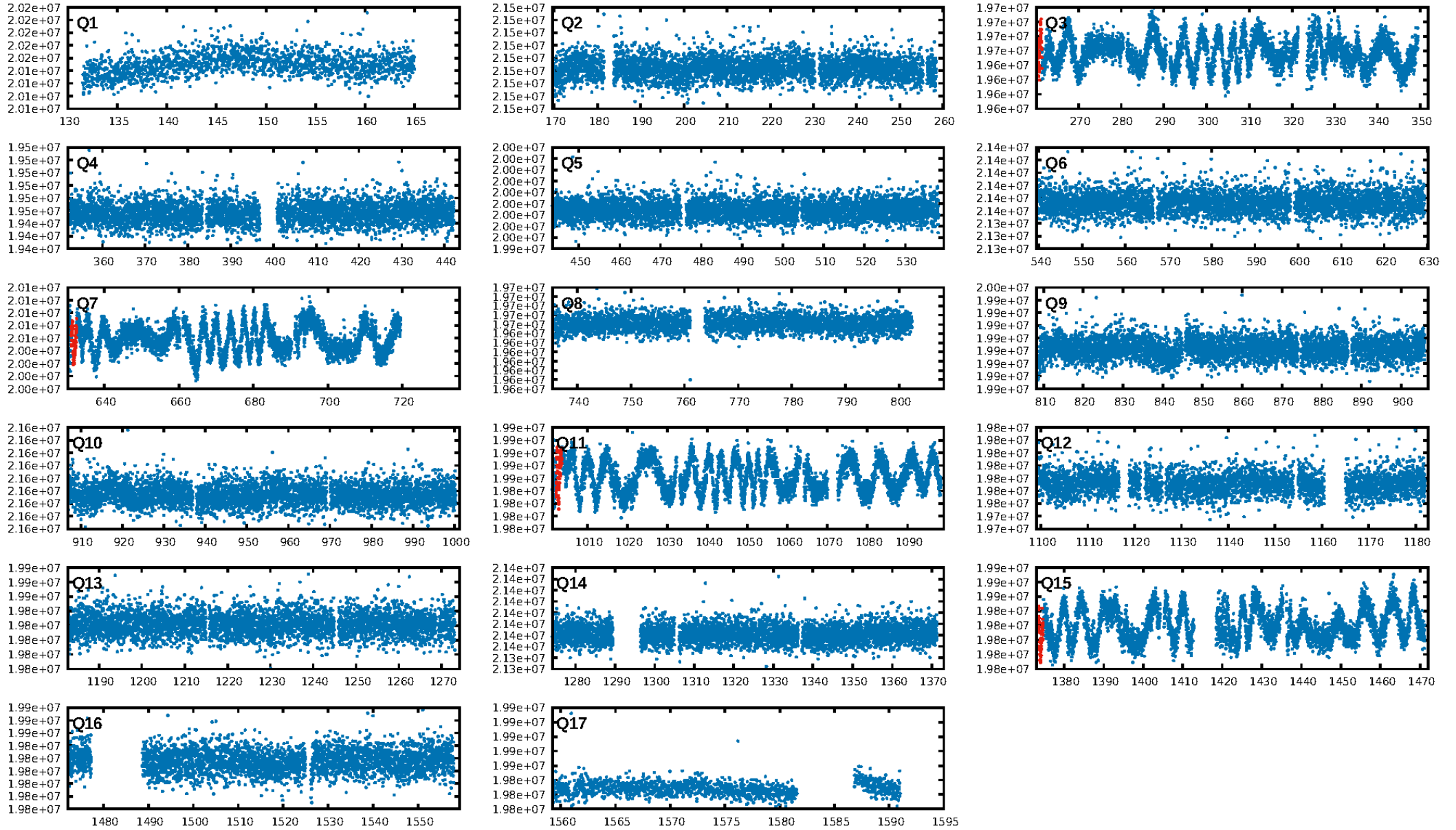
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 95.6%
ModelChiSquareGof-sig: 96.7%
Bootstrap-pfa: 2.22e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.2918
Centroid-sig: 24.9%
Centroid-so: 1.295 arcsec [0.90σ]
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: N/A

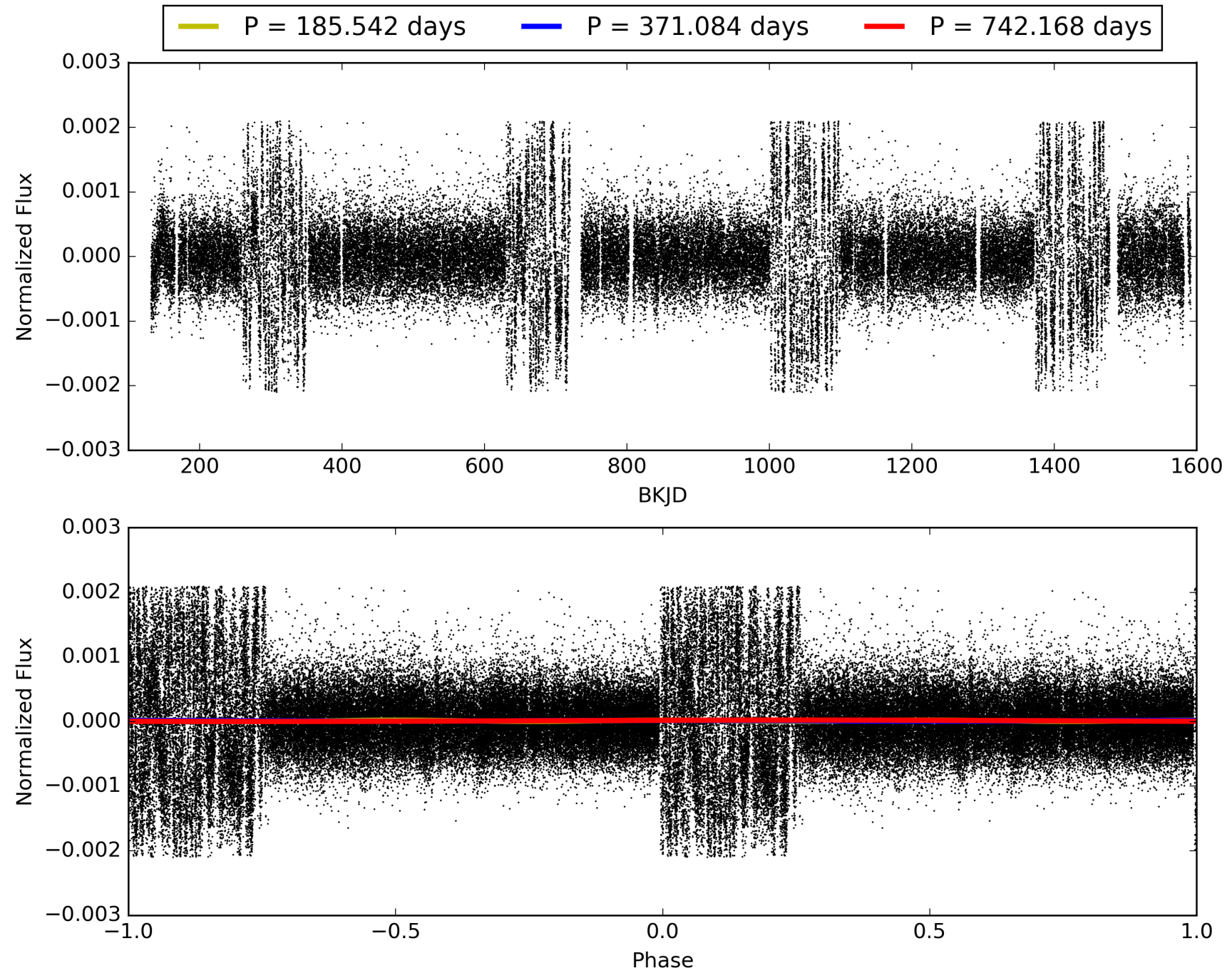
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:41:18 Z

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

TCE 007751220-01, PDC Light Curves

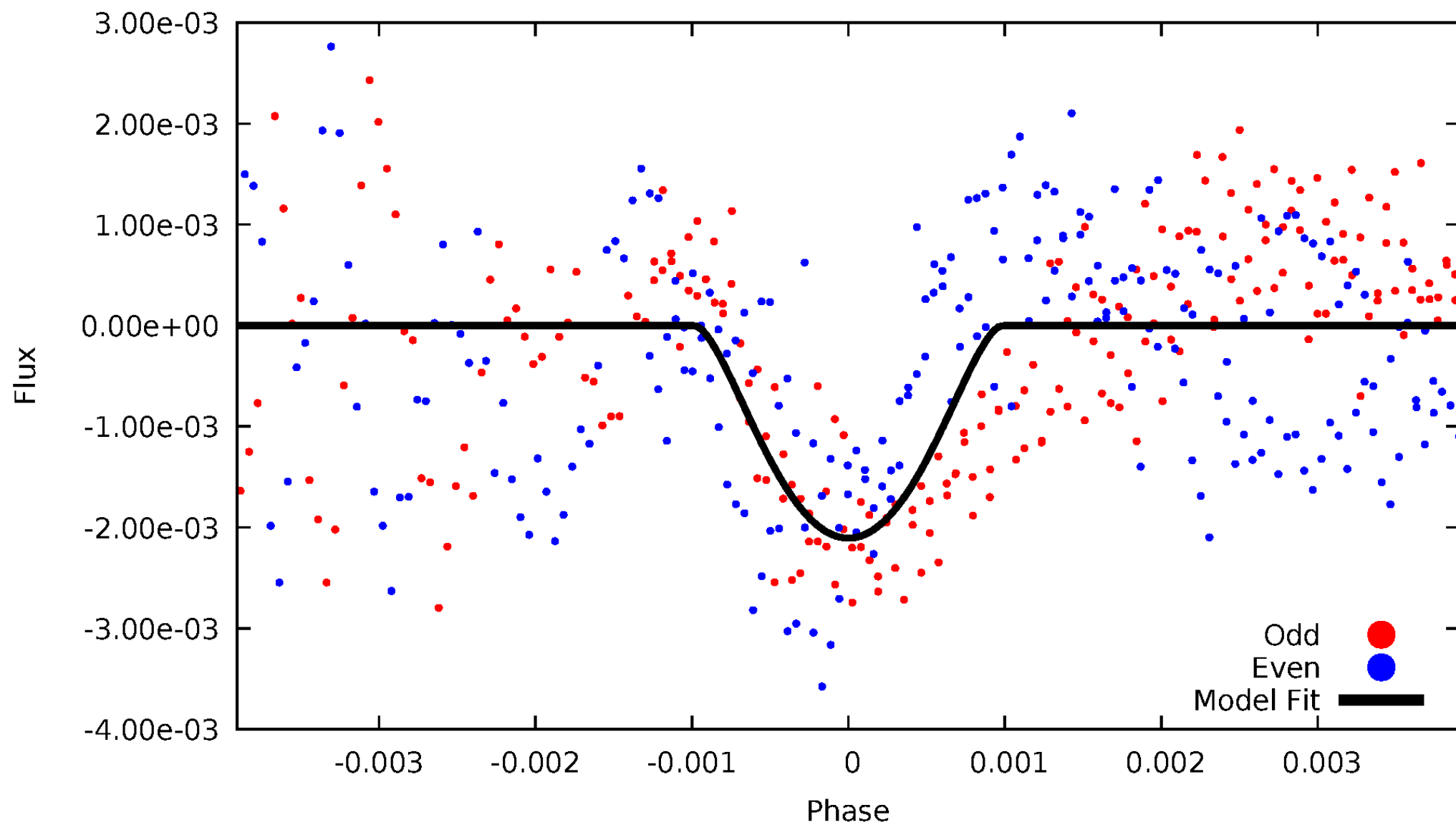


TCE 007751220-01



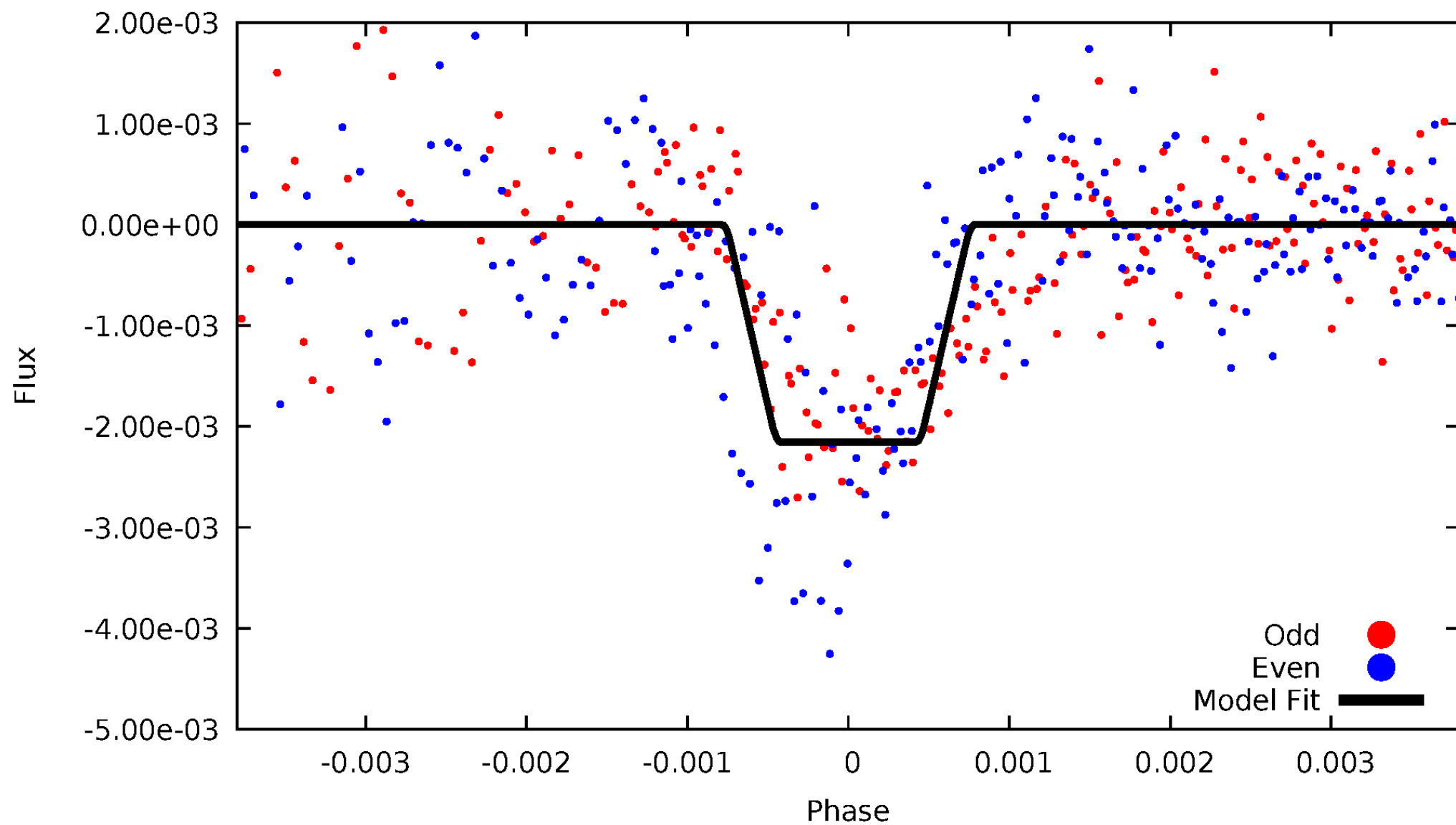
DV Odd/Even

TCE 007751220-01



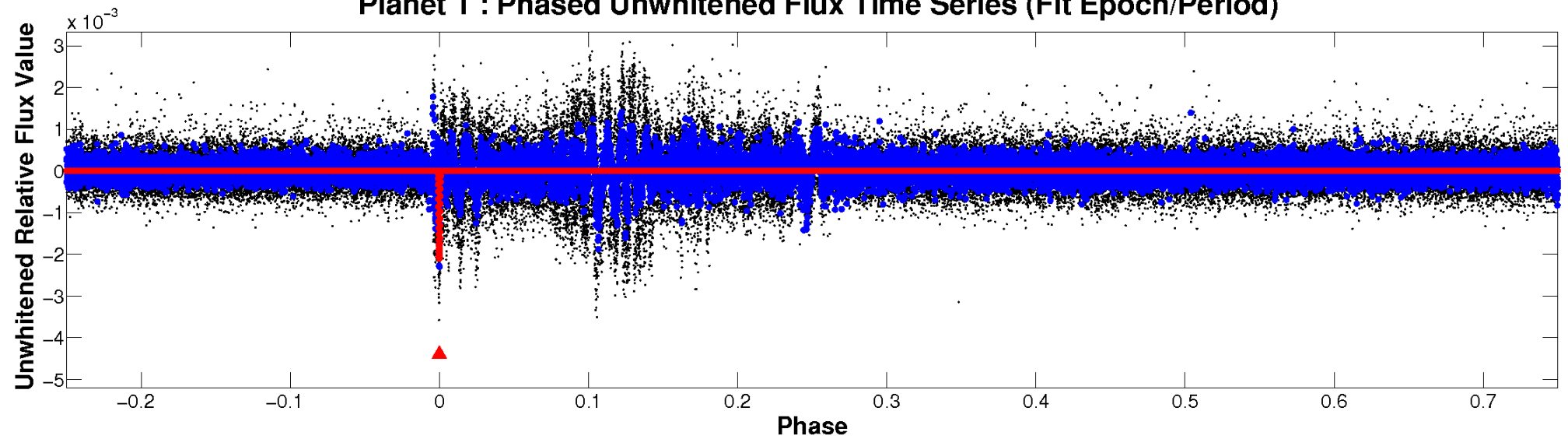
ALT Odd/Even

TCE 007751220-01

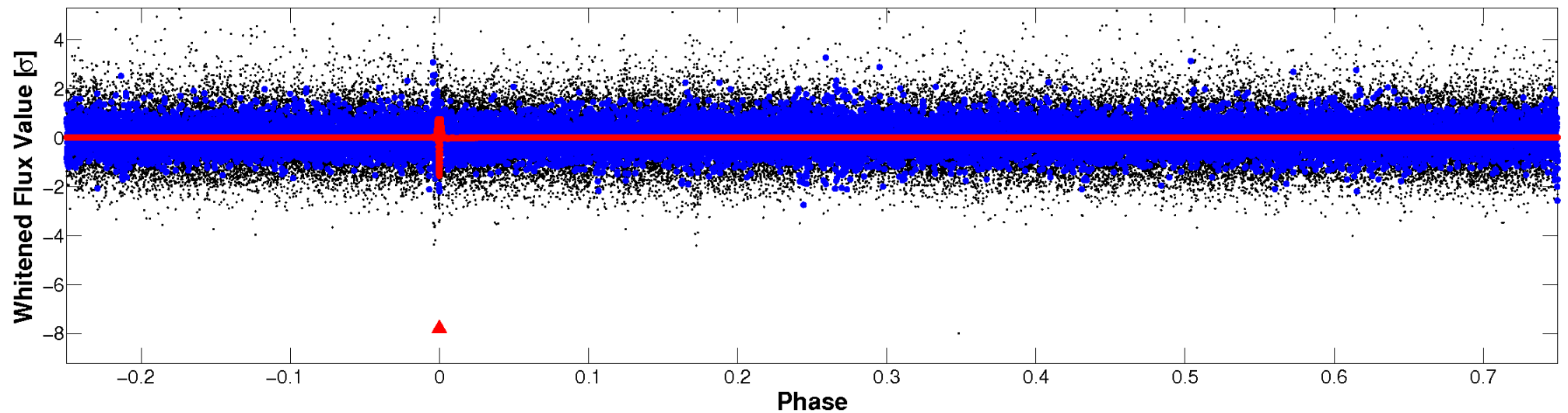


Non-Whitened Vs. Whitened Light Curve

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

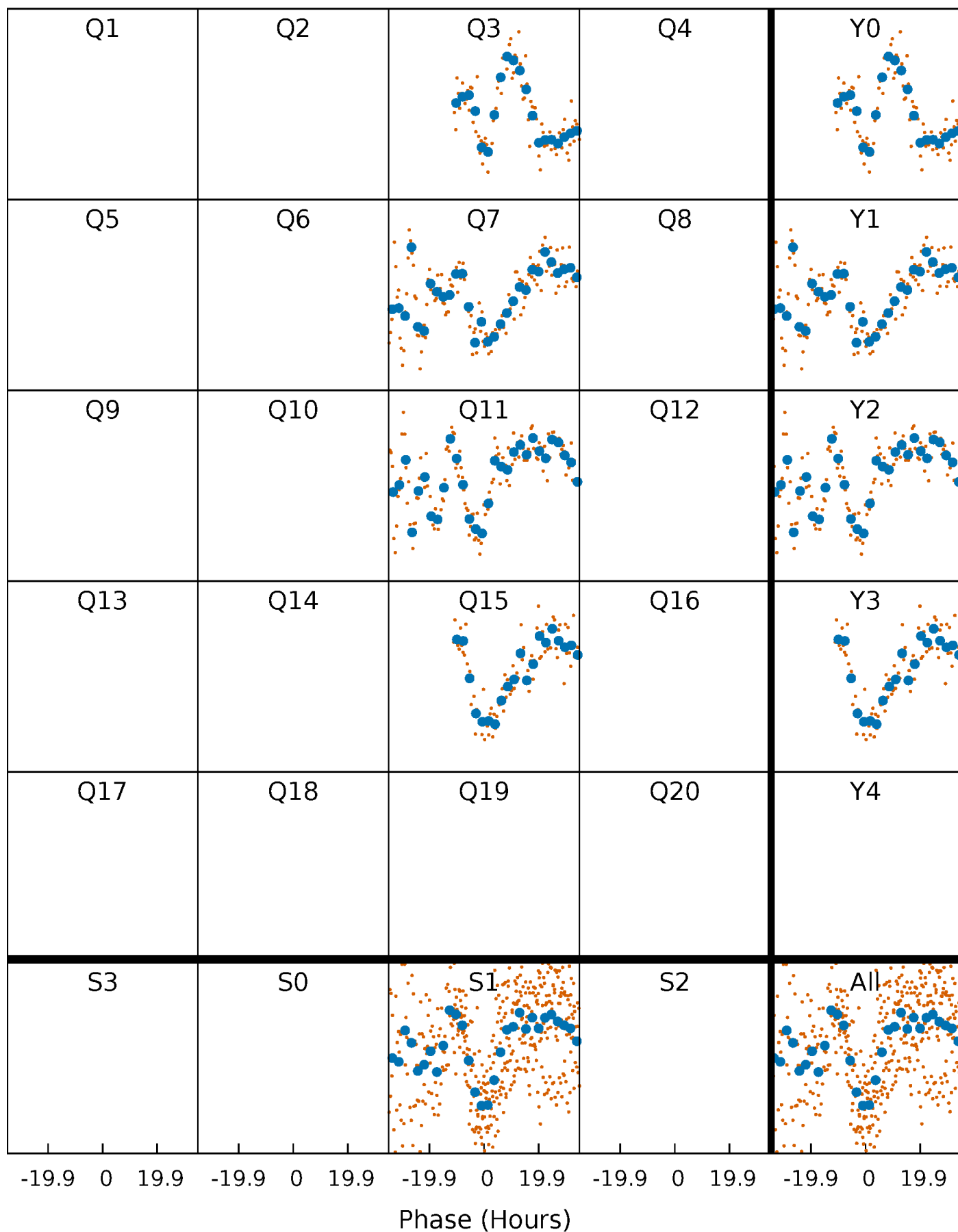


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



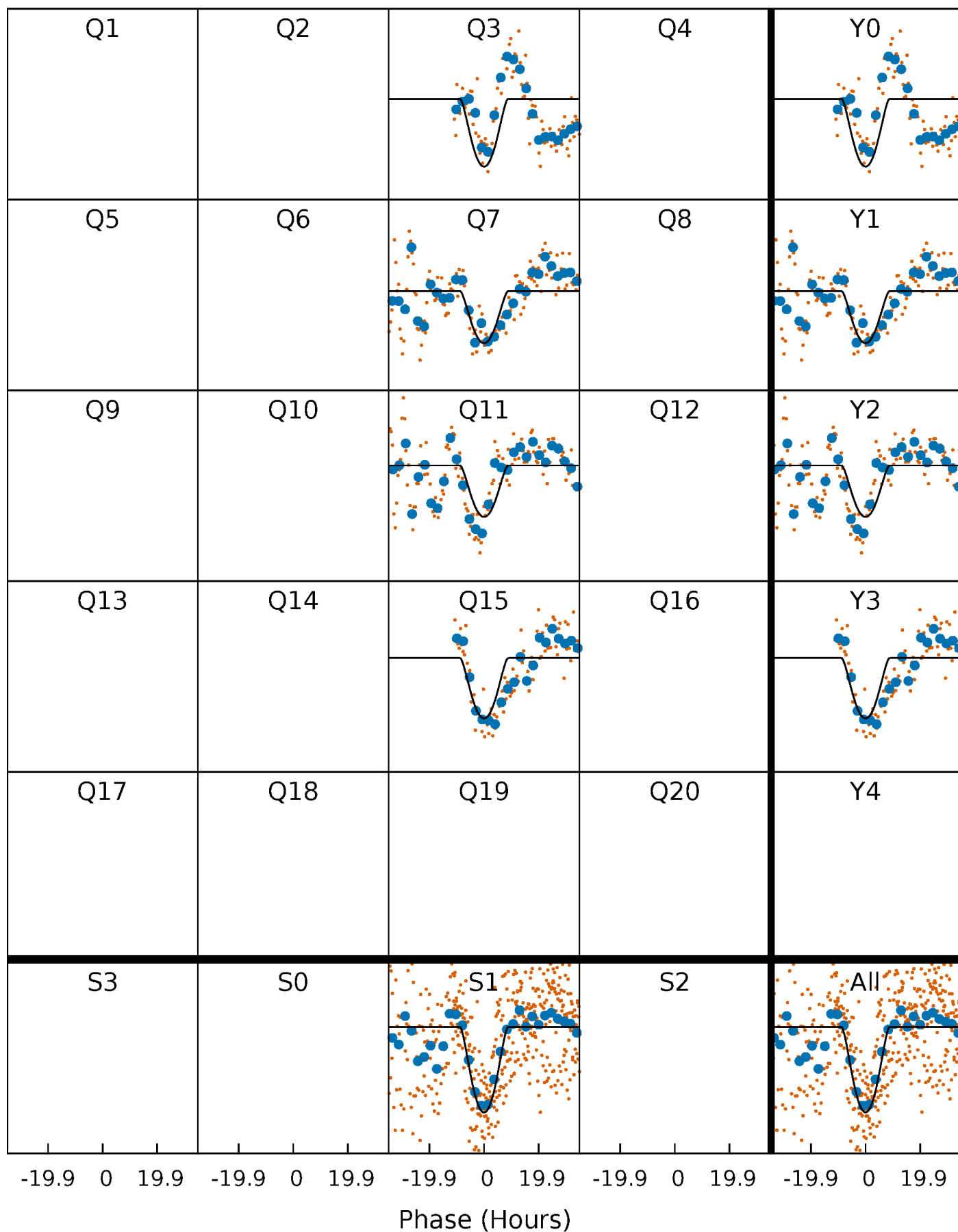
PDC Quarter-Phased Transit Curves

TCE 007751220-01 P=371.084106 Days $T_0=260.716789$ (BKJD)



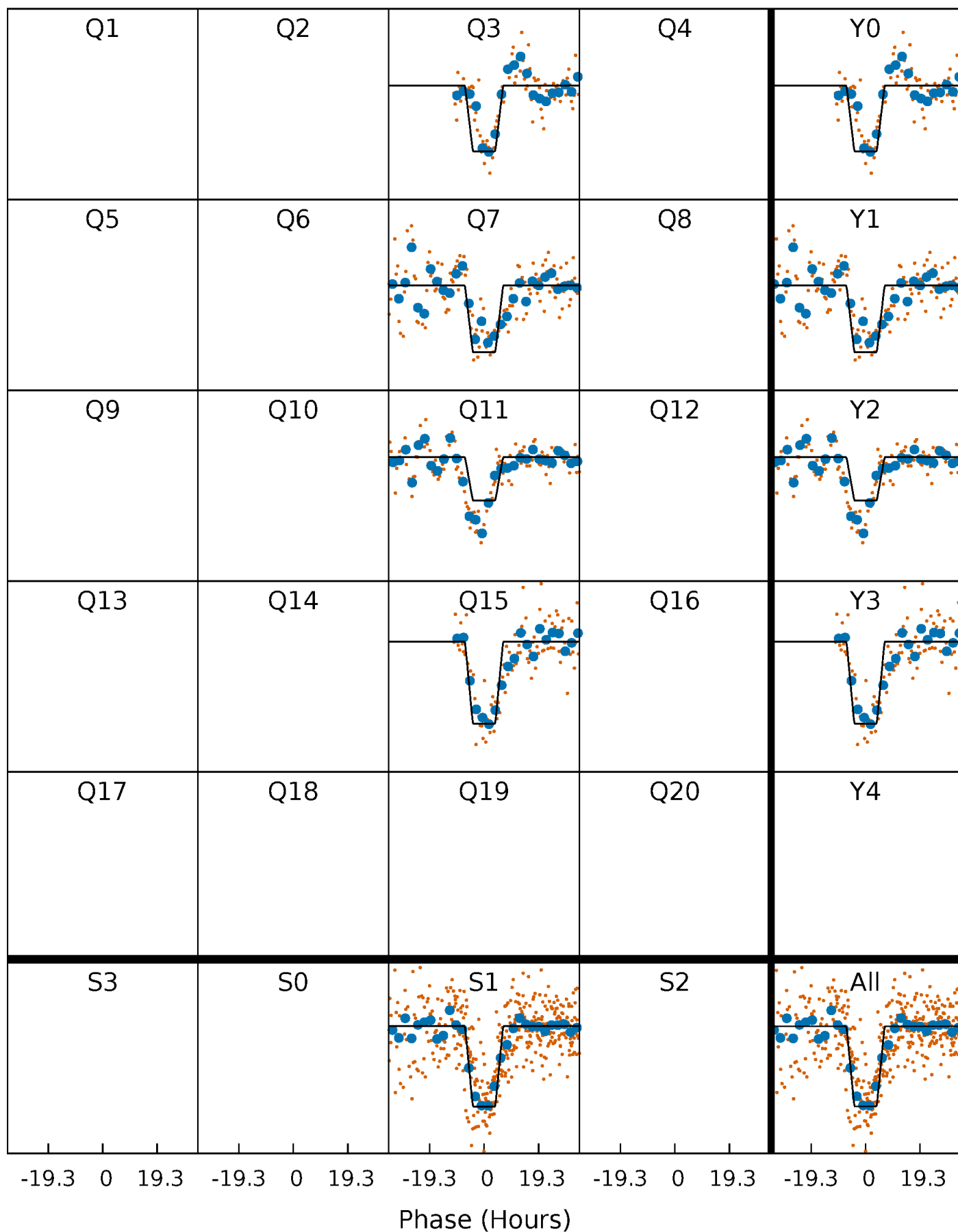
DV Quarter-Phased Transit Curves

TCE 007751220-01 P=371.084106 Days $T_0=260.716789$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

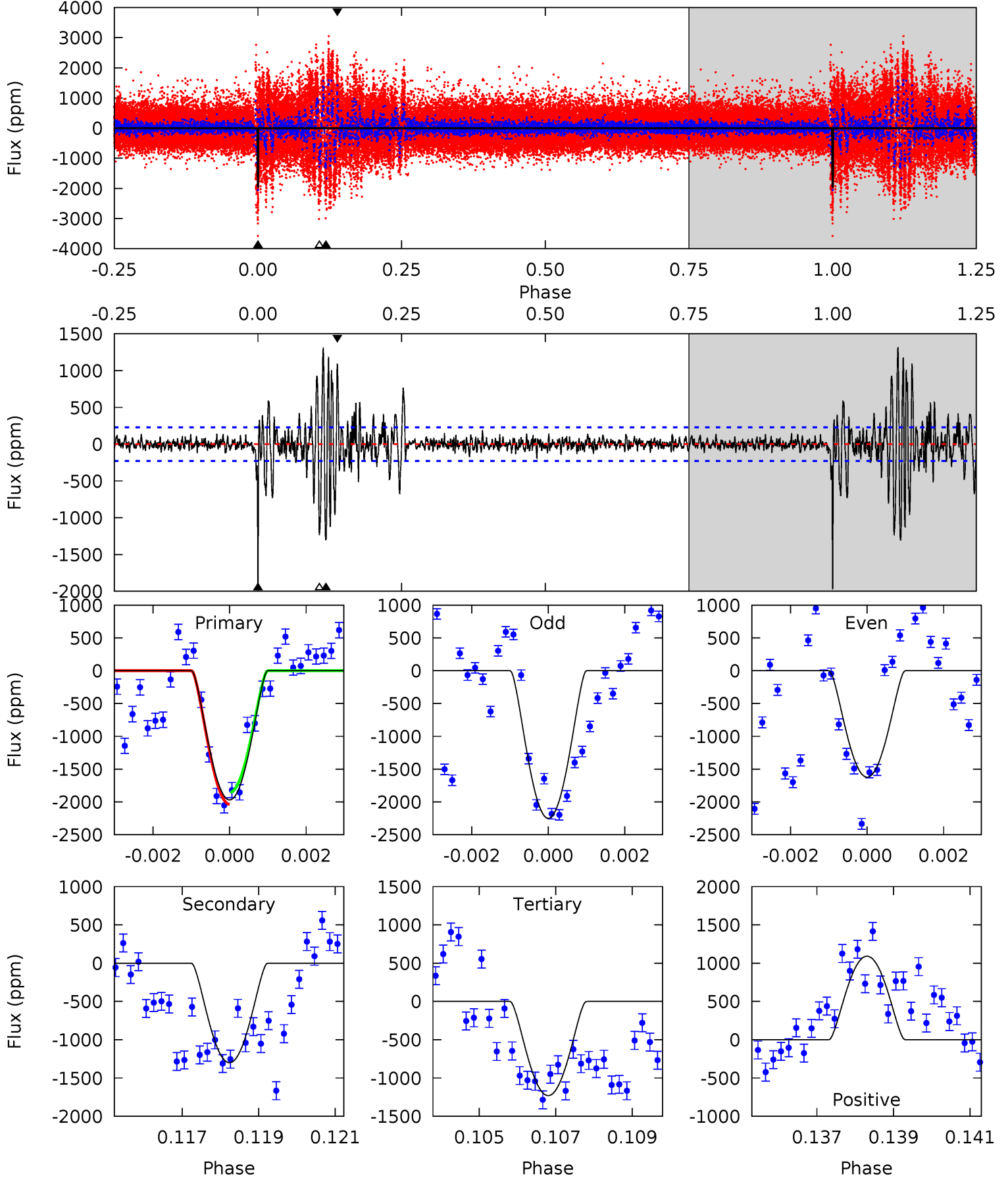
TCE 007751220-01 P=371.087072 Days $T_0=260.691301$ (BKJD)



DV Model-Shift Uniqueness Test

007751220-01, P = 371.084106 Days, E = 260.716789 Days

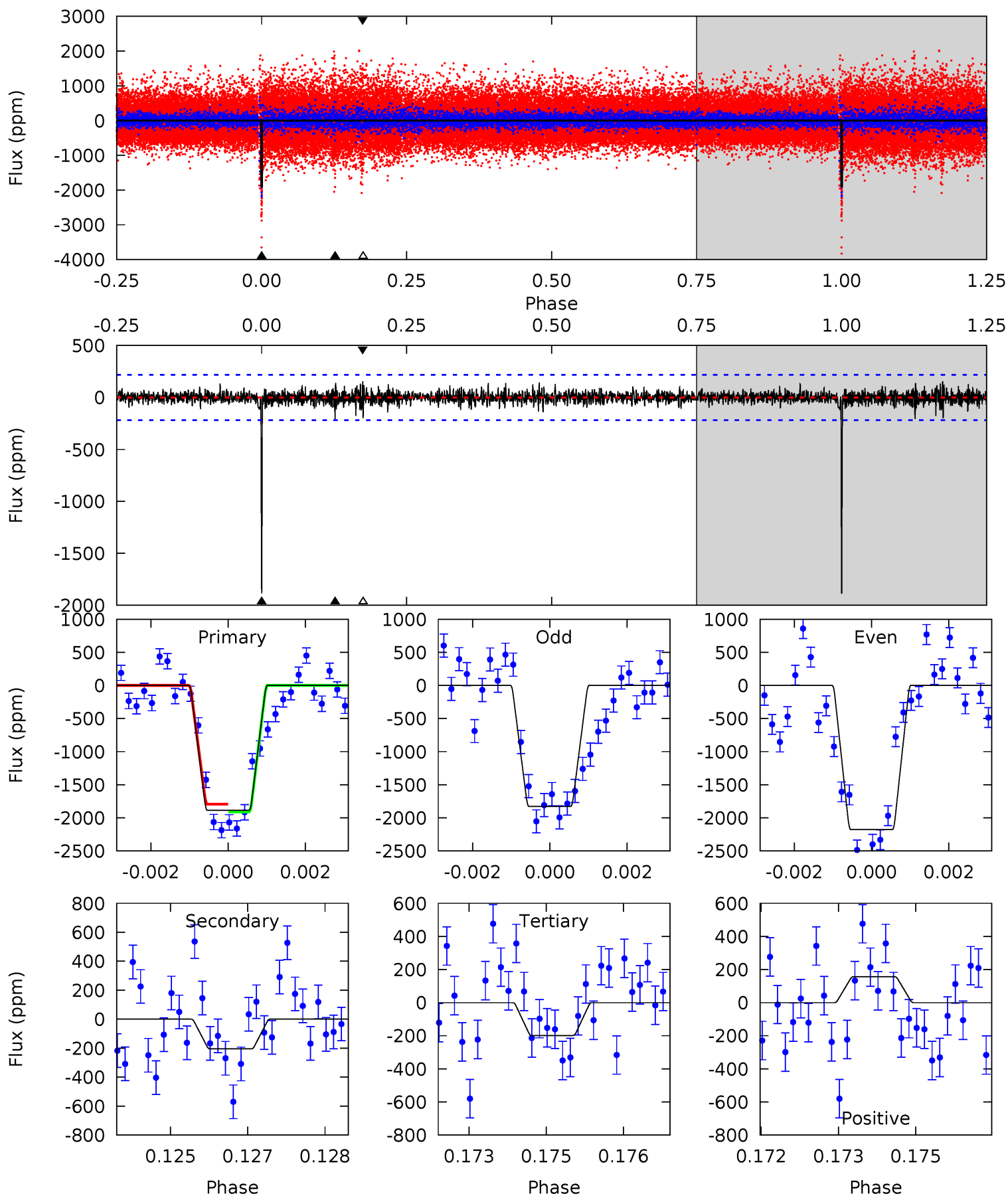
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.9	30.3	28.7	25.4	5.33	3.09	4.47	17.3	20.5	1.64	4.87	7.12	0.90	0.40	2.02



Alt Model-Shift Uniqueness Test

007751220-01, P = 371.087072 Days, E = 260.691301 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.4	5.04	4.89	3.85	5.37	3.17	0.93	41.5	42.6	0.15	1.20	4.51	1.08	0.08	1.42



Stellar Parameters For KIC 007751220

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5603^{+169}_{-152}	$4.556^{+0.040}_{-0.160}$	$-0.040^{+0.300}_{-0.300}$	$0.846^{+0.193}_{-0.069}$	$0.941^{+0.085}_{-0.104}$	$2.188^{+0.441}_{-0.970}$
	+3%/-3%	+1%/-4%	+750%/-750%	+23%/-8%	+9%/-11%	+20%/-44%
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 007751220-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1300 ± 43	$9.92^{+8.15}_{-6.27}$	325^{+17}_{-13}	3693^{+1835}_{-599}	7111^{+46146}_{-4933}
Alt.	-205 ± 41	$8.68^{+7.76}_{-5.88}$	326^{+18}_{-14}	2950^{+1201}_{-486}	1537^{+10683}_{-1143}

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 $A_{\text{obs}} \gg 1.0$

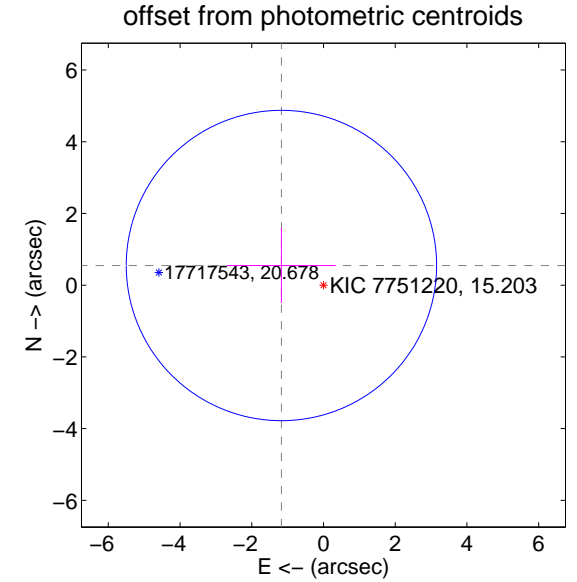
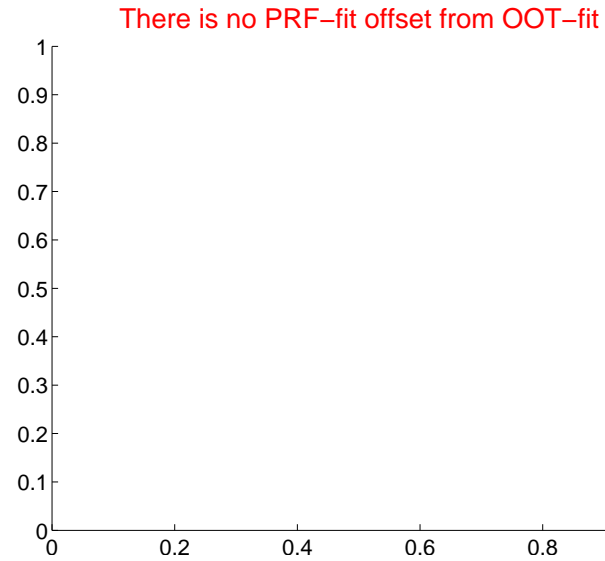
DV Centroid Data

Supplemental centroid analysis for 007751220-01. Kepler magnitude: 15.20. Transit SNR 12.33

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	1.29 ± 1.44	0.90	1.17 ± 1.52	0.55 ± 1.05



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.



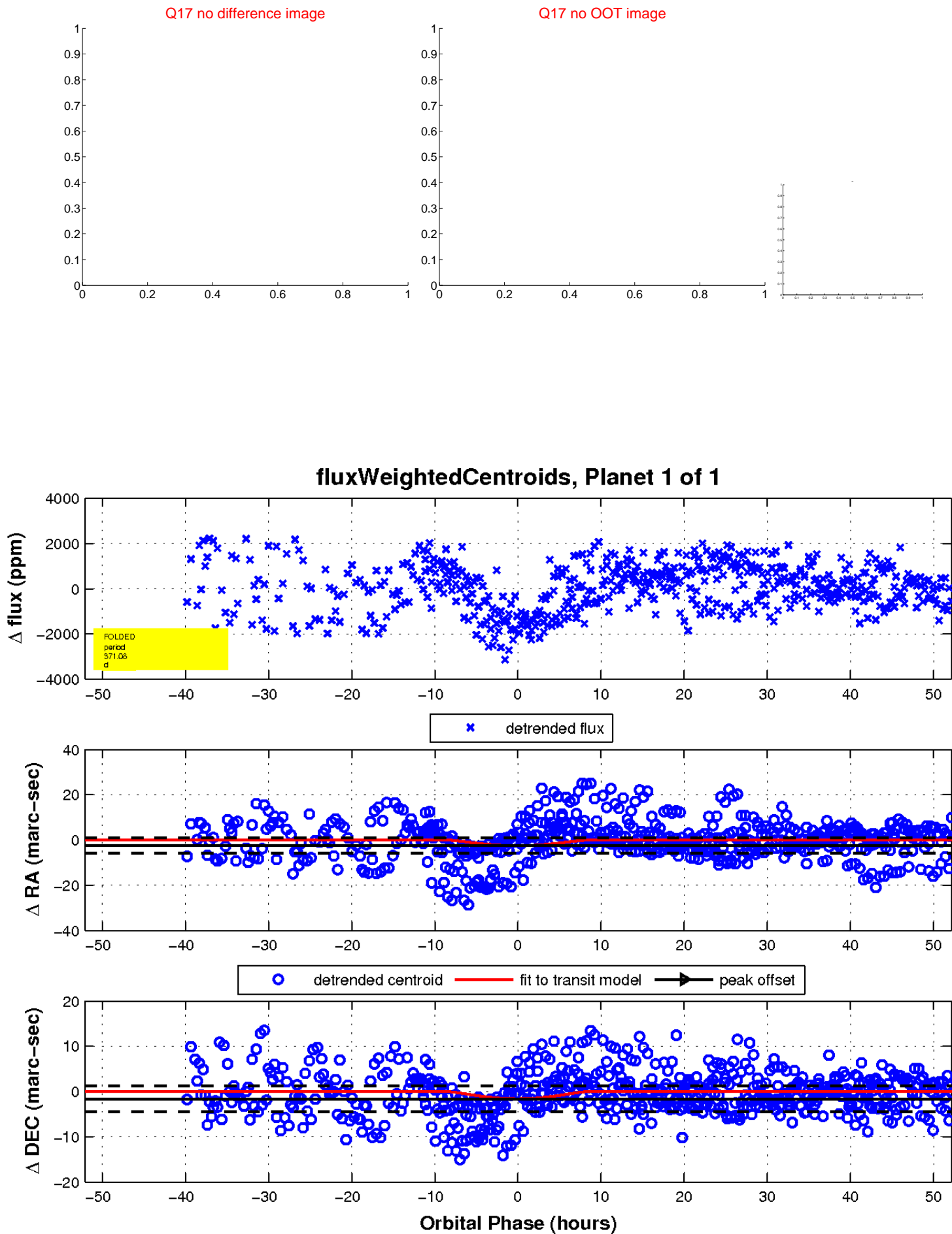
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

Declination

