

KIC 008040140

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})
008040140-01	OBS	No	338.562581	262.734356	1792.3	18.243	9.2	9.3	0.96	6014	4.80	1.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008040140-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_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.

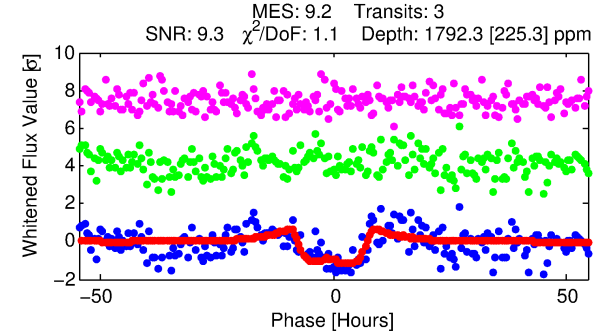
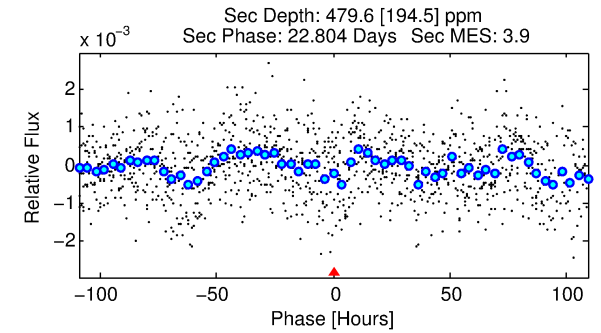
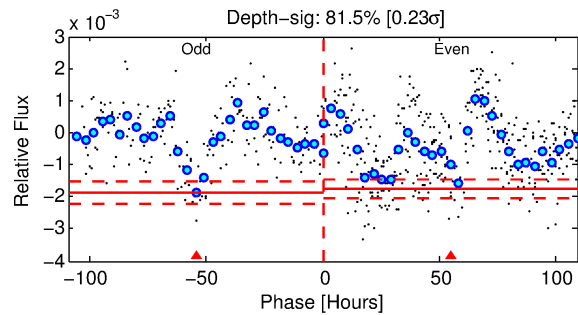
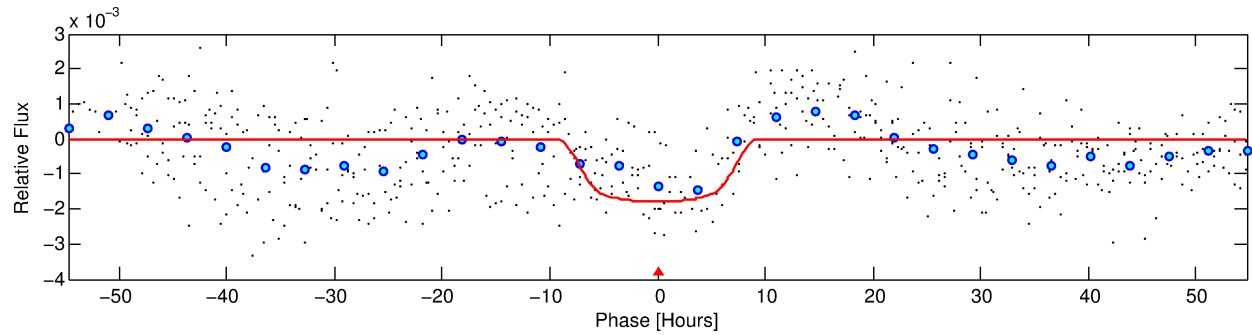
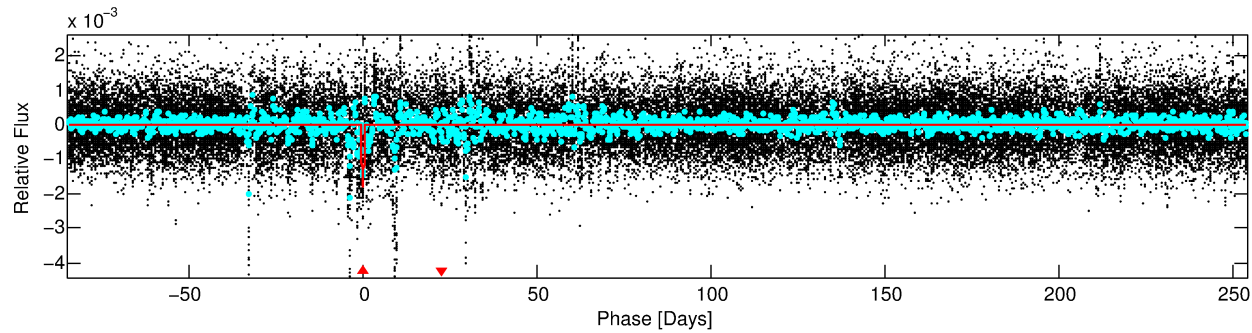
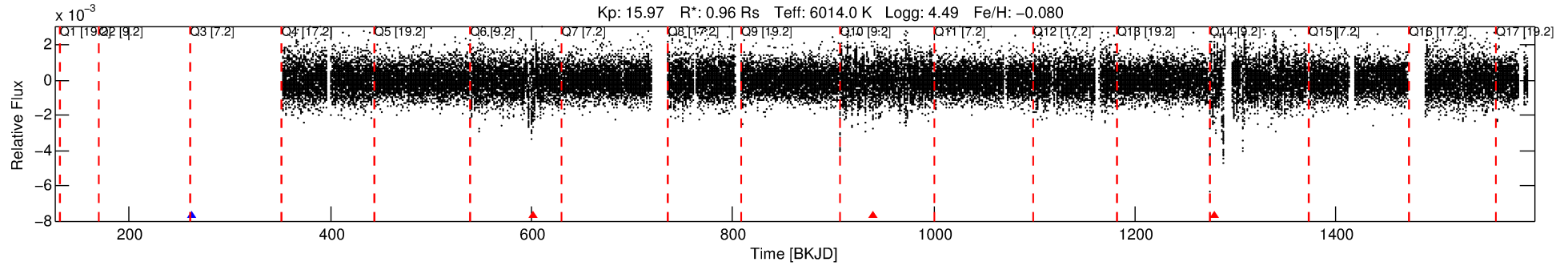
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008040140-01

No Significant Match Found

DV One-Page Summary

KIC: 8040140 Candidate: 1 of 1 Period: 338.563 d



DV Fit Results:

Period = 338.56258 [0.01960] d
Epoch = 262.7344 [0.0382] BKJD
Rp/R* = 0.0459 [0.0039]
a/R* = 75.31 [16.35]
b = 0.90 [0.05]
Seff = 1.16 [0.47]
Teq = 264 [27] K
Rp = 4.80 [1.56] Re
a = 0.9646 [0.2535] AU
Ag = 10666.30 [6207.62] [1.72 σ]
Teffp = 4154 [479] K [8.11 σ]

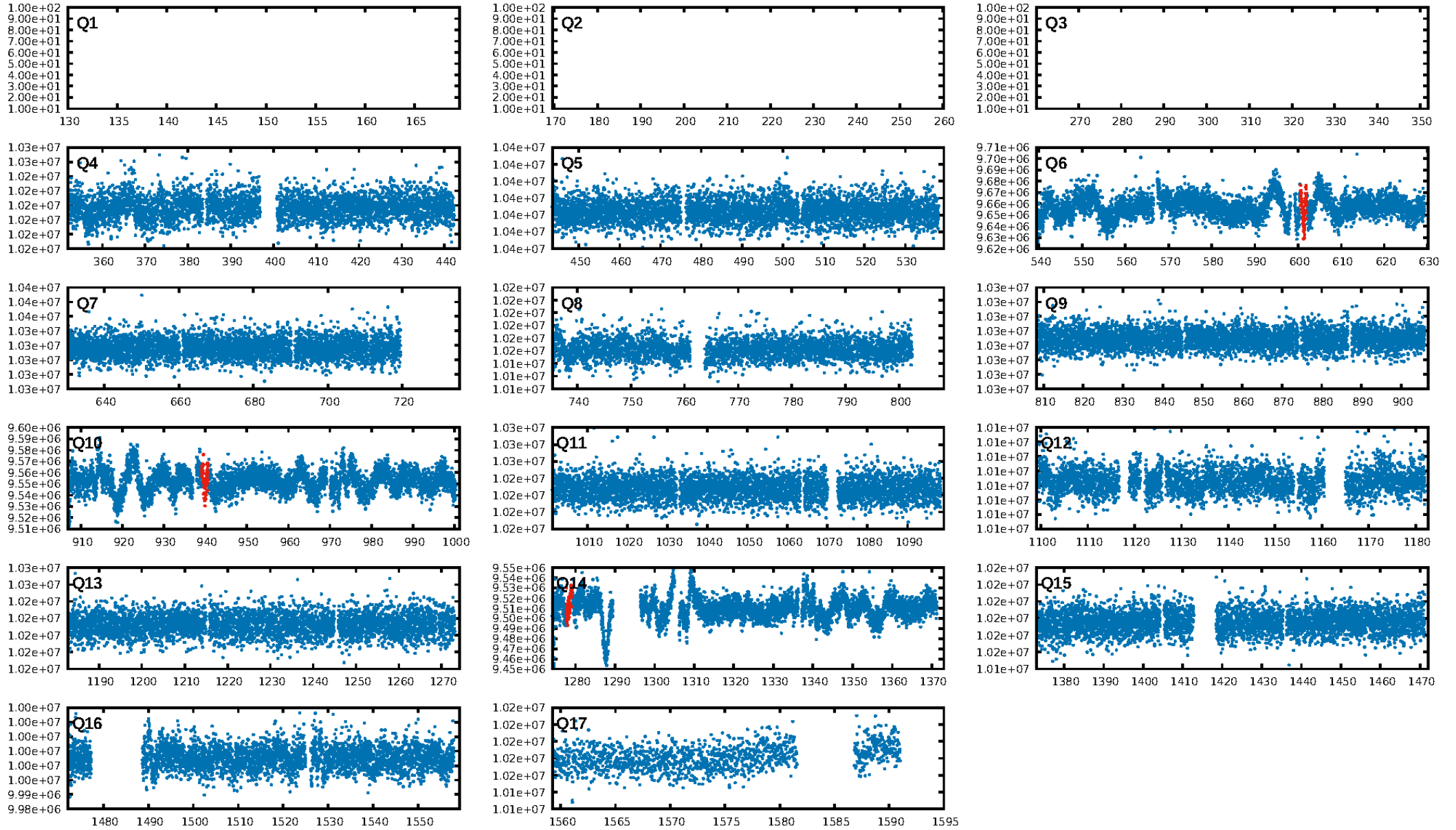
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.73e-10
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 2.008
Centroid-sig: 0.5%
Centroid-so: 3.733 arcsec [2.41 σ]
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

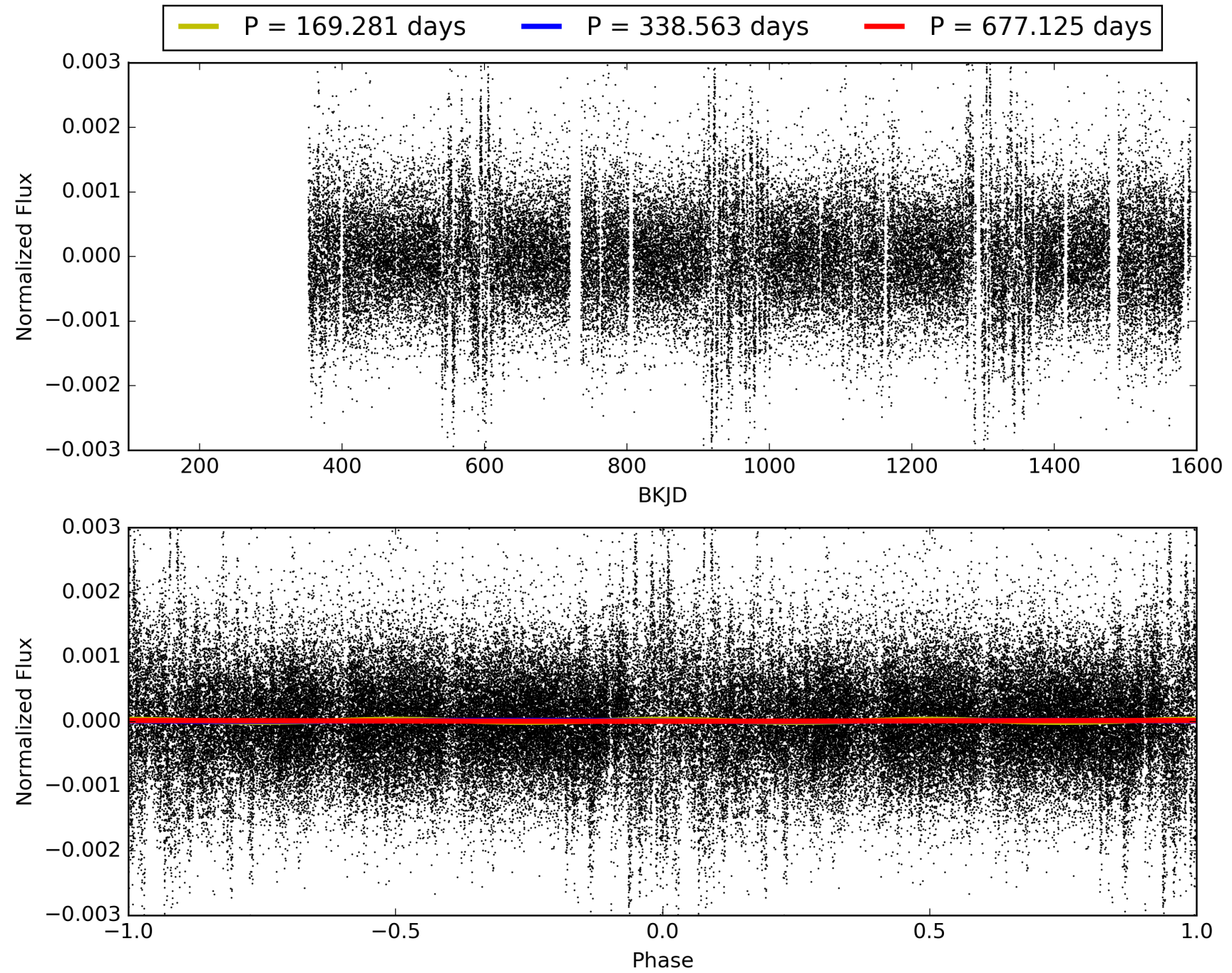
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:40:13 Z

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

TCE 008040140-01, PDC Light Curves

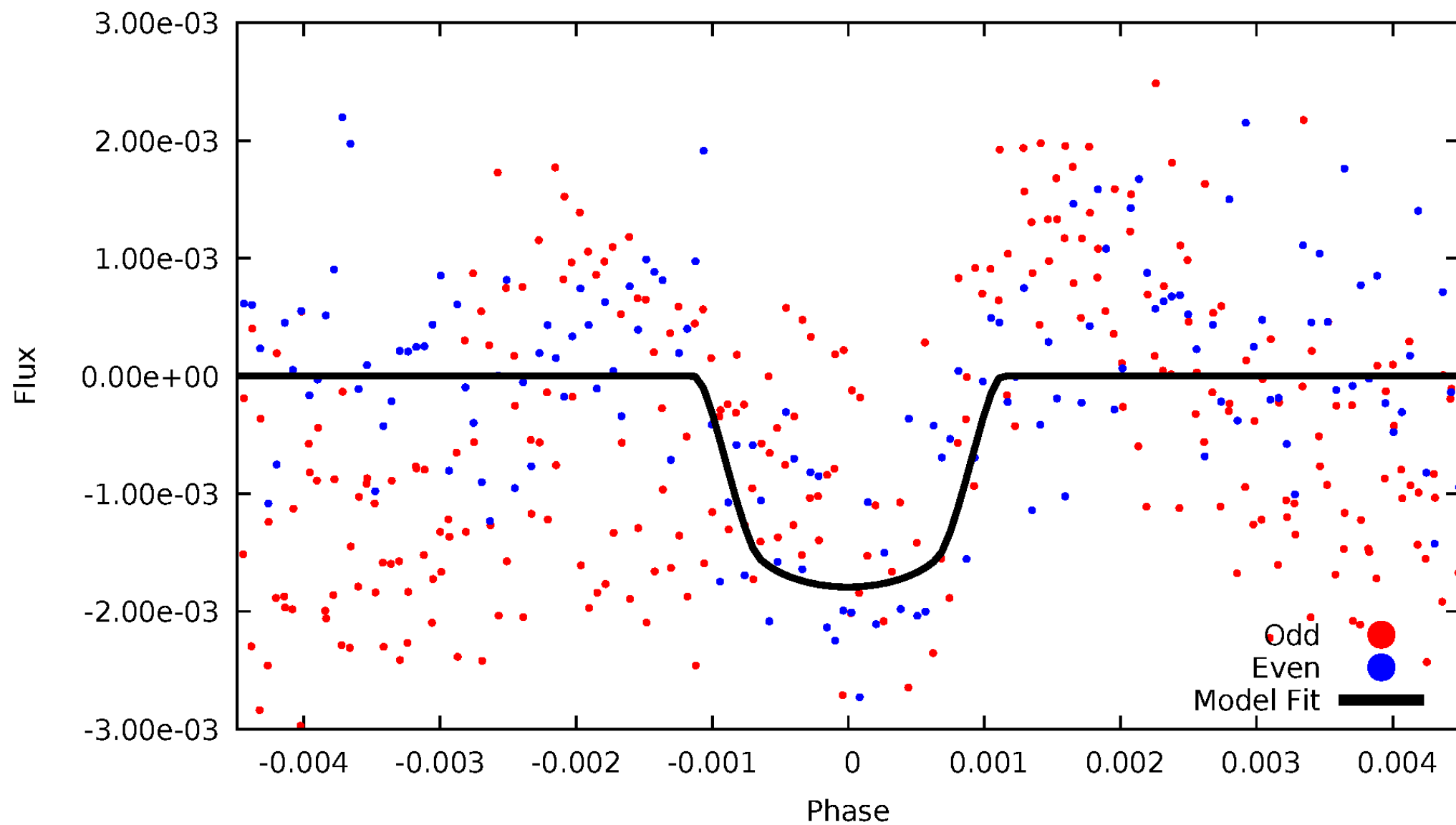


TCE 008040140-01



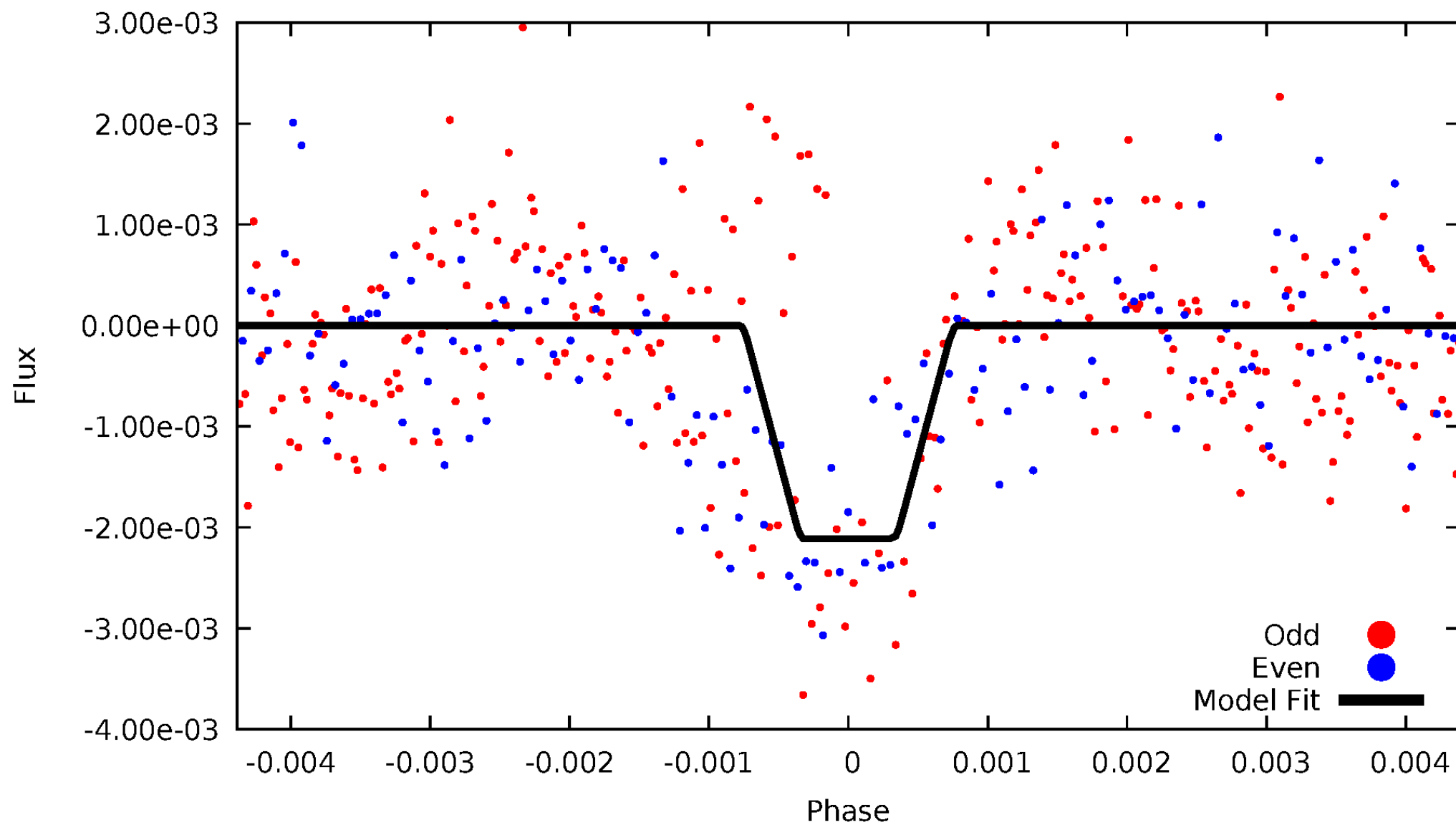
DV Odd/Even

TCE 008040140-01



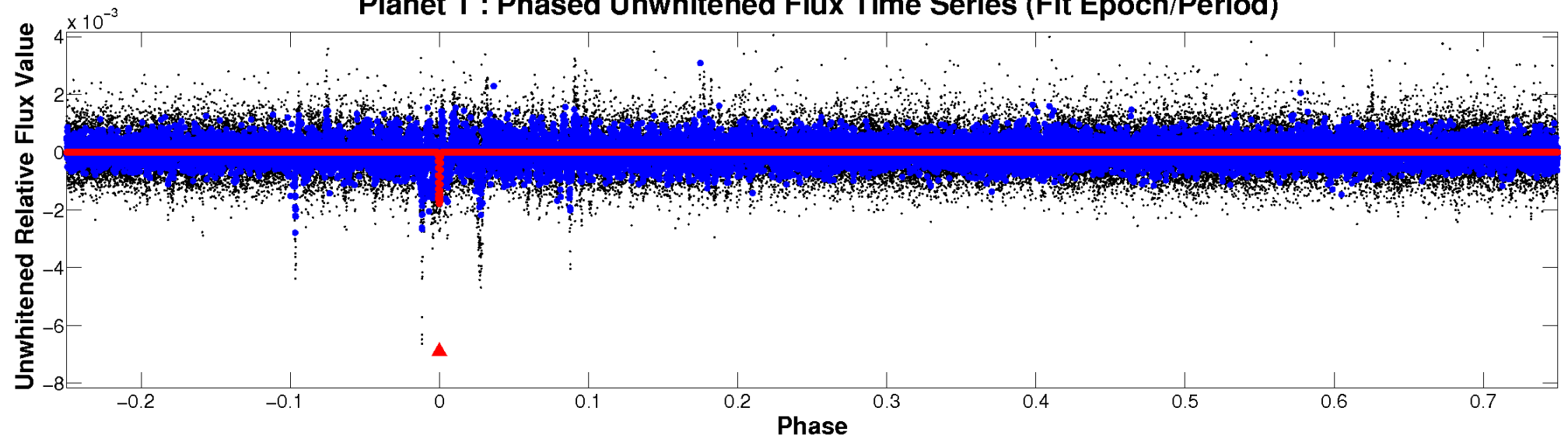
ALT Odd/Even

TCE 008040140-01

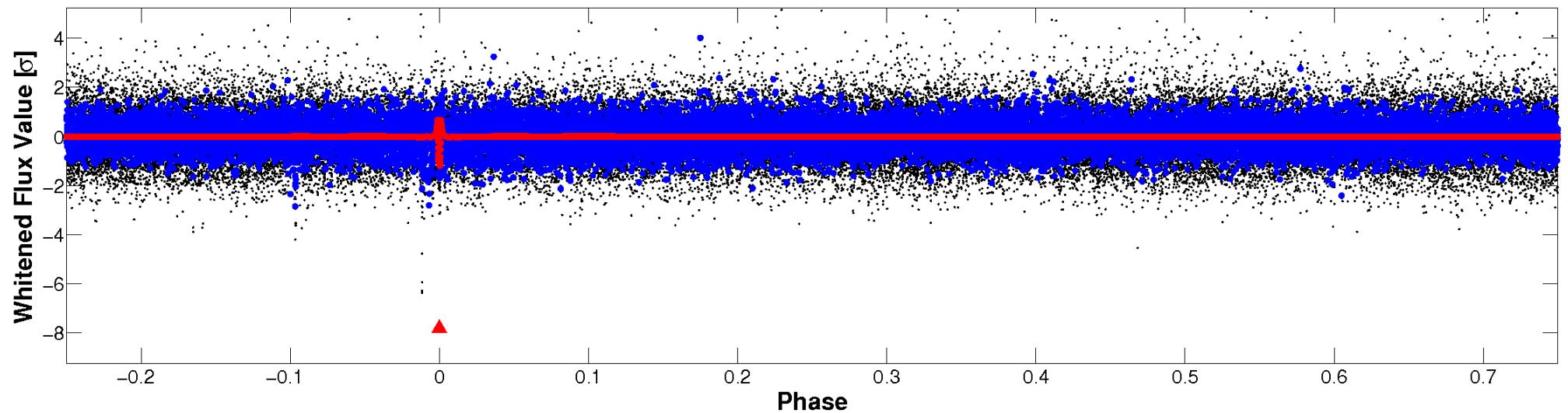


Non-Whitened Vs. Whitened Light Curve

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

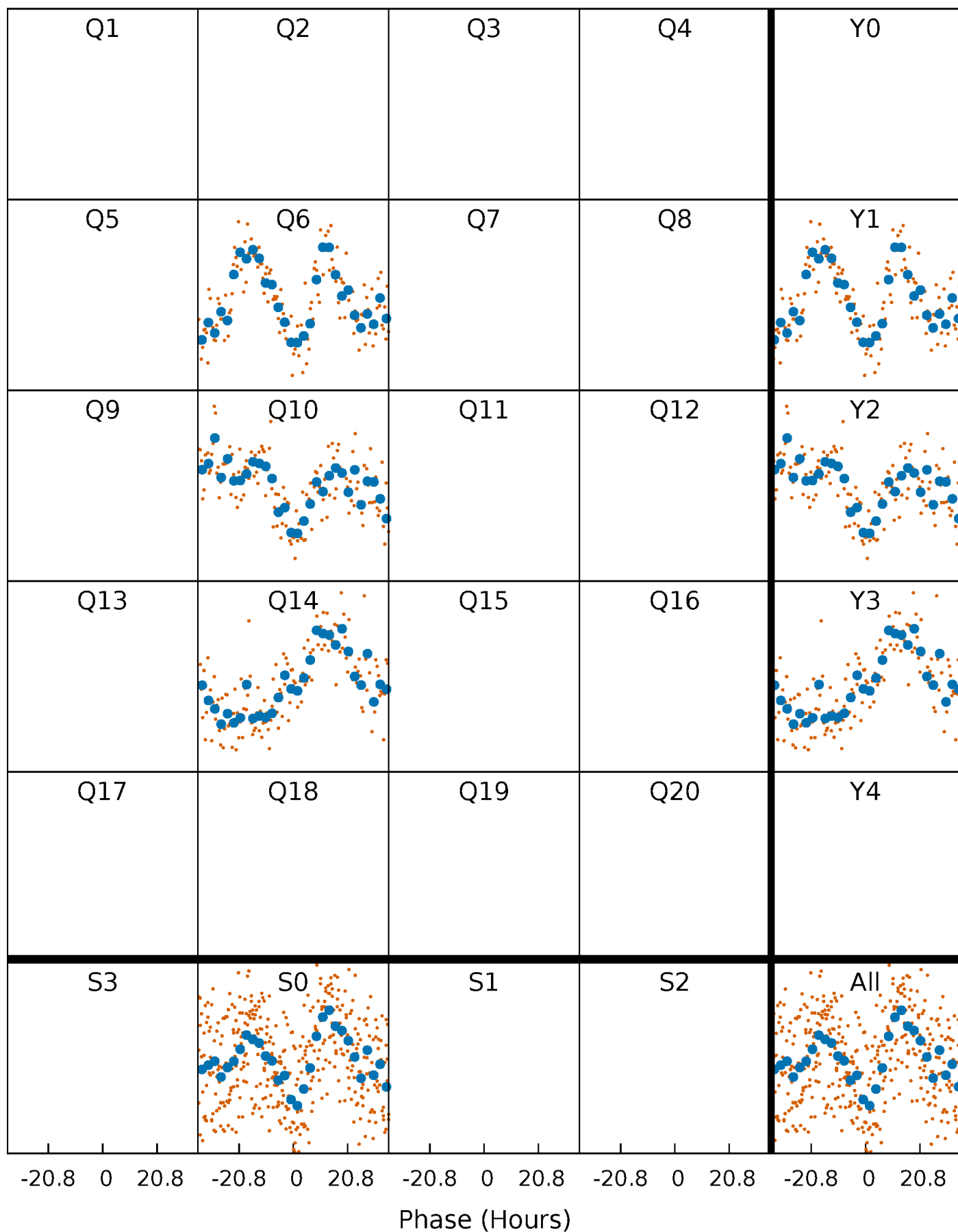


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



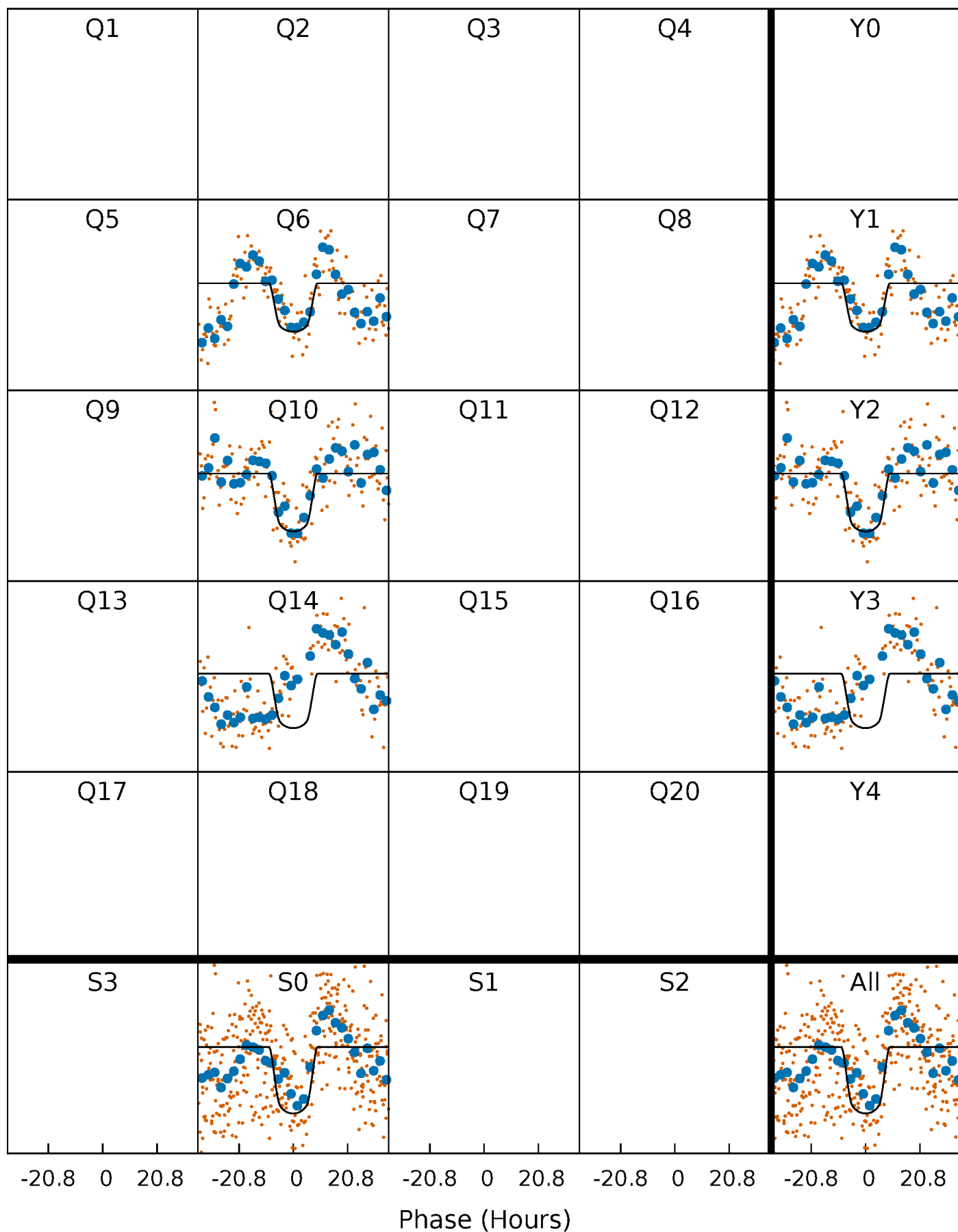
PDC Quarter-Phased Transit Curves

TCE 008040140-01 P=338.562581 Days $T_0=262.734356$ (BKJD)



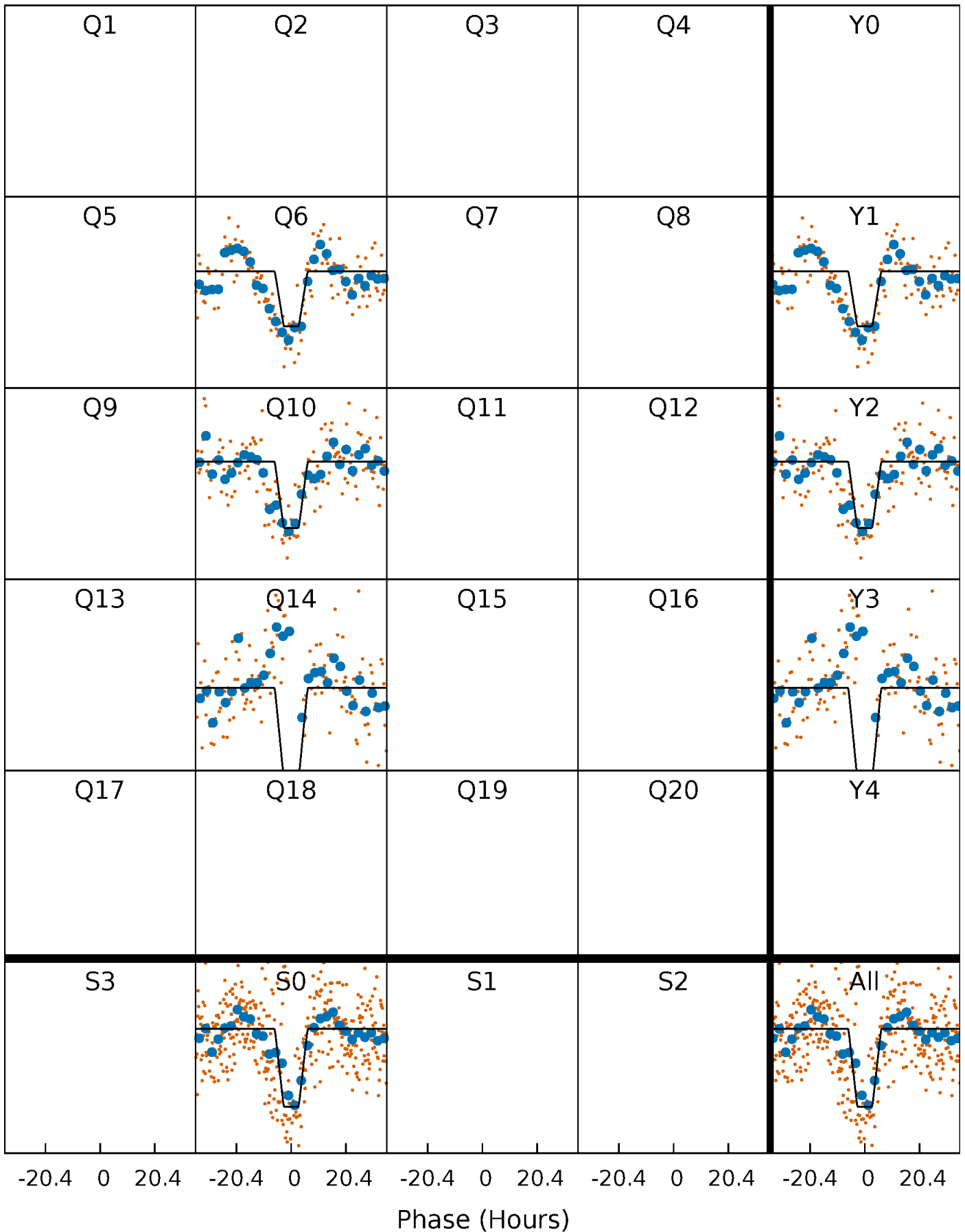
DV Quarter-Phased Transit Curves

TCE 008040140-01 P=338.562581 Days $T_0=262.734356$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

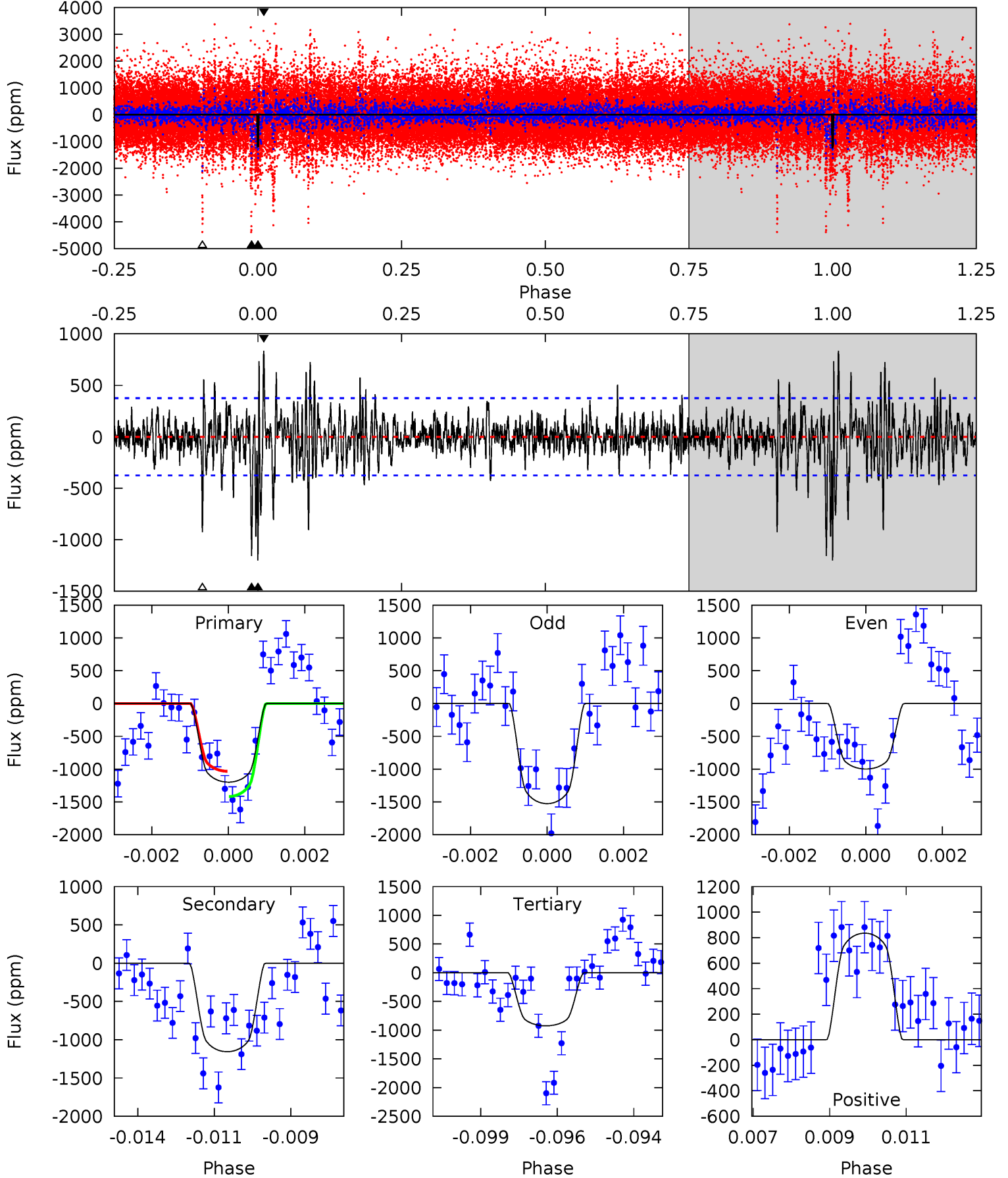
TCE 008040140-01 P=338.556844 Days $T_0=262.835827$ (BKJD)



DV Model-Shift Uniqueness Test

008040140-01, P = 338.562581 Days, E = 262.734356 Days

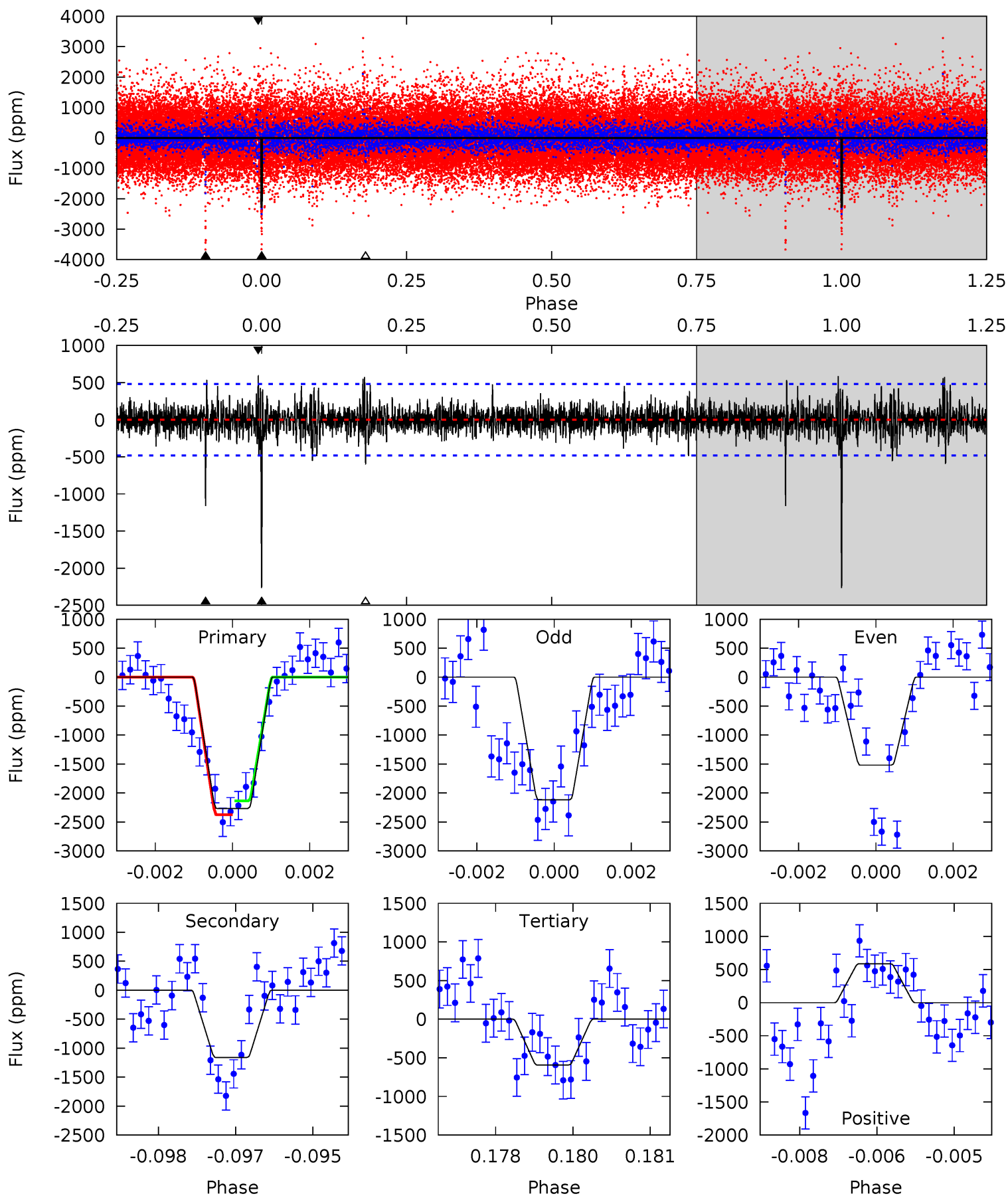
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	16.3	13.0	11.8	5.30	3.05	2.30	3.88	5.14	3.28	4.53	3.64	0.80	0.41	2.69



Alt Model-Shift Uniqueness Test

008040140-01, P = 338.556844 Days, E = 262.835827 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	12.9	6.61	6.55	5.38	3.17	1.37	18.7	18.7	6.33	6.39	3.50	0.53	0.21	1.33



Stellar Parameters For KIC 008040140

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6014^{+189}_{-210}	$4.494^{+0.052}_{-0.208}$	$-0.080^{+0.250}_{-0.350}$	$0.958^{+0.300}_{-0.100}$	$1.043^{+0.139}_{-0.139}$	$1.673^{+0.470}_{-0.876}$
	+3%/-3%	+1%/-5%	+312%/-438%	+31%/-10%	+13%/-13%	+28%/-52%
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 008040140-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1156 ± 71	$4.93^{+0.85}_{-0.59}$	376^{+29}_{-18}	5246^{+281}_{-237}	23959^{+6815}_{-6274}
Alt.	-1160 ± 90	$4.98^{+0.87}_{-0.62}$	377^{+28}_{-19}	5230^{+252}_{-260}	23390^{+6680}_{-6142}

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

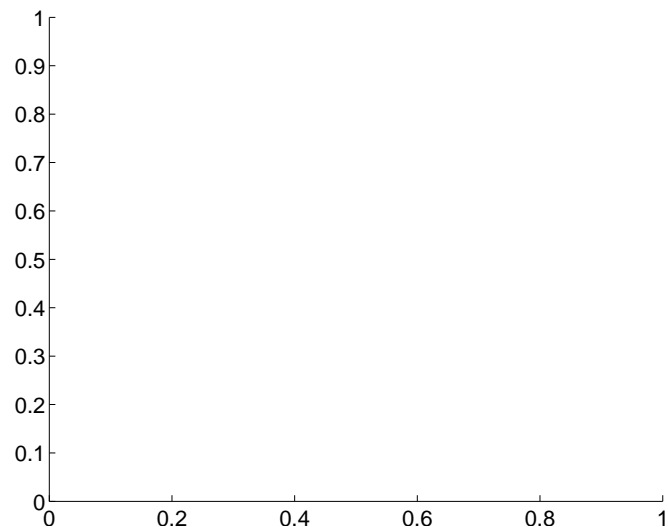
Supplemental centroid analysis for 008040140-01. Kepler magnitude: 15.96. Transit SNR 9.30

There are 0 quarters with good PRF difference image offsets

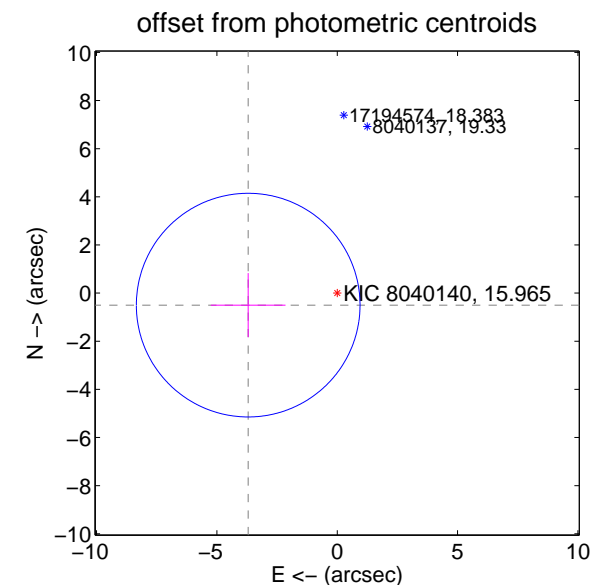
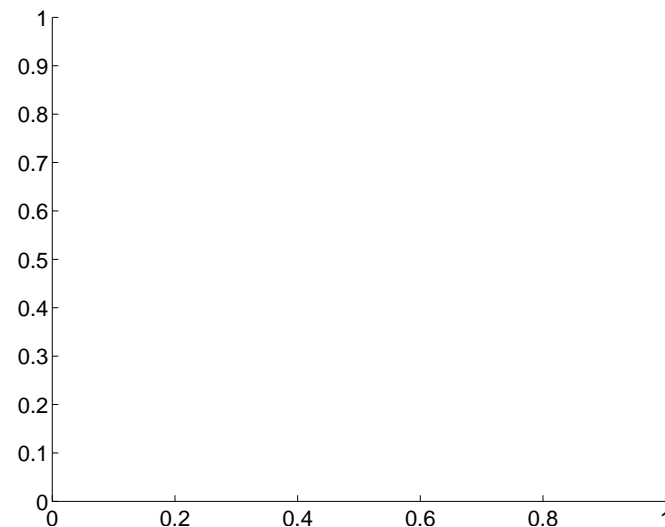
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	3.73 ± 1.55	2.41	3.70 ± 1.55	-0.50 ± 1.33

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

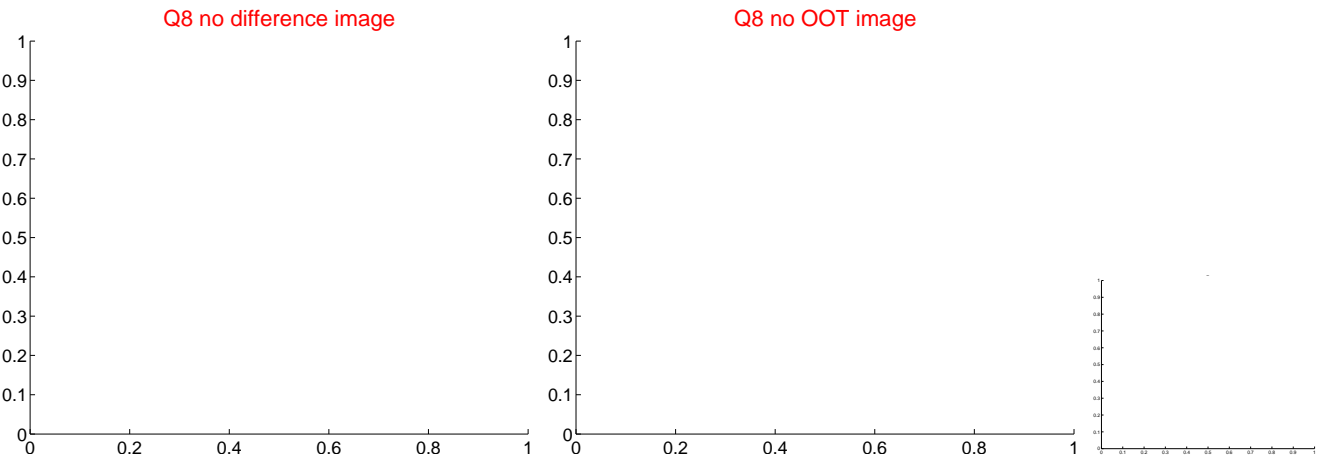
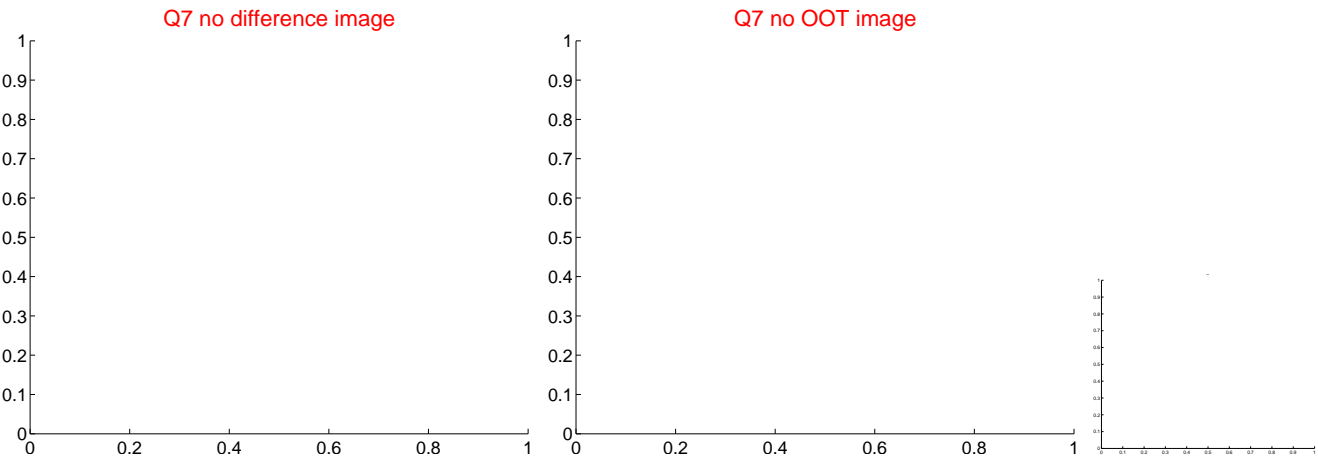
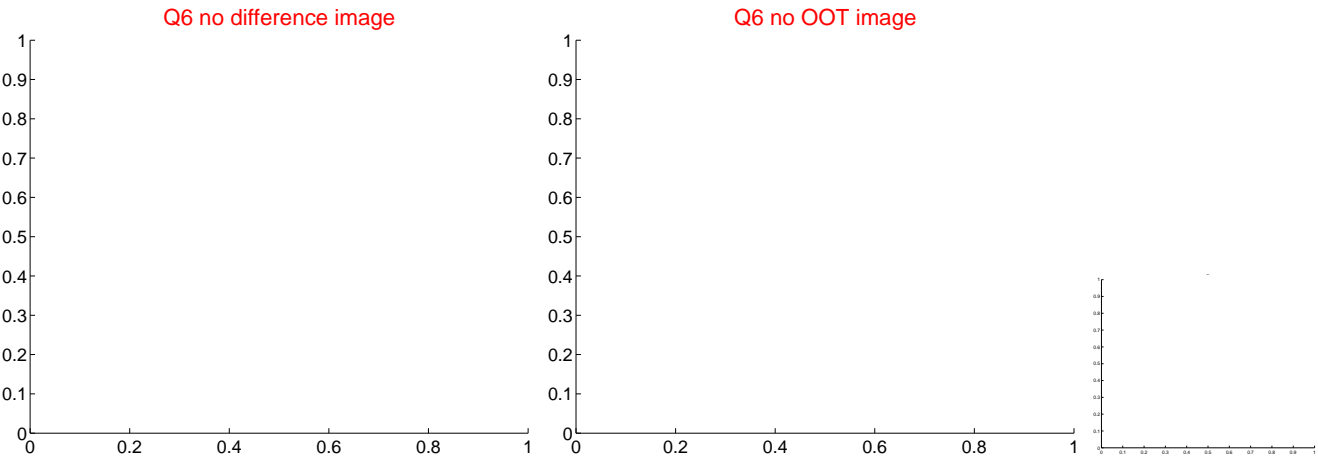
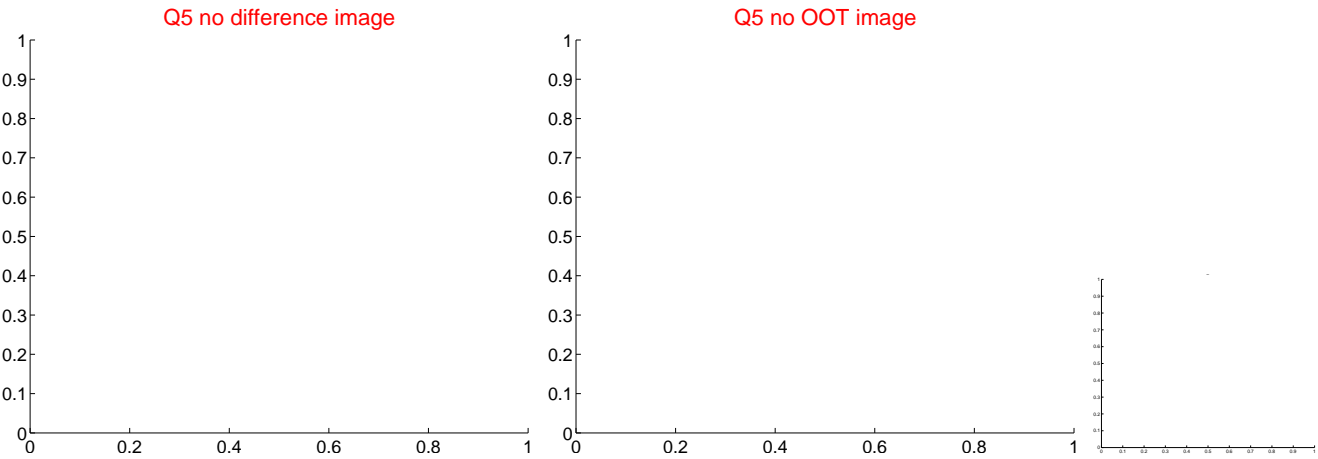


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



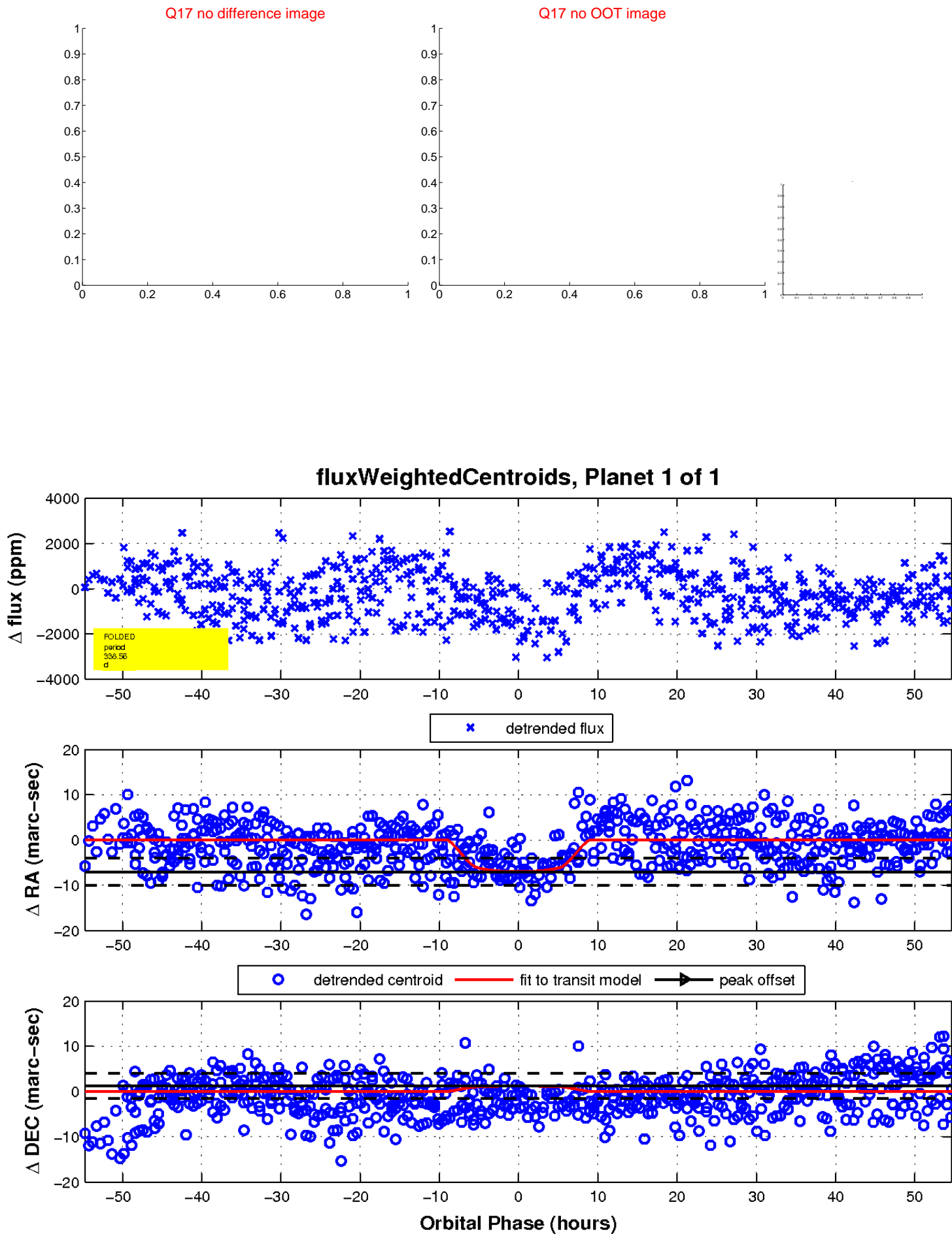
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

