

KIC 008362621

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})
008362621-01	OBS	No	374.625039	261.251004	426.9	67.668	7.8	12.1	0.98	6496	2.46	1.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008362621-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_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.

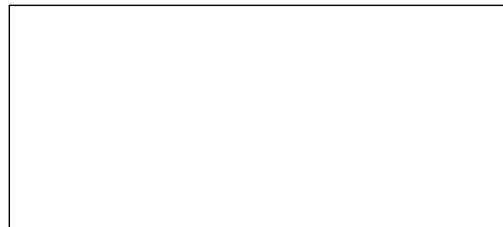
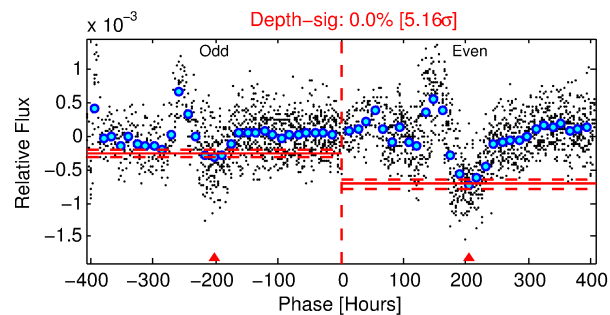
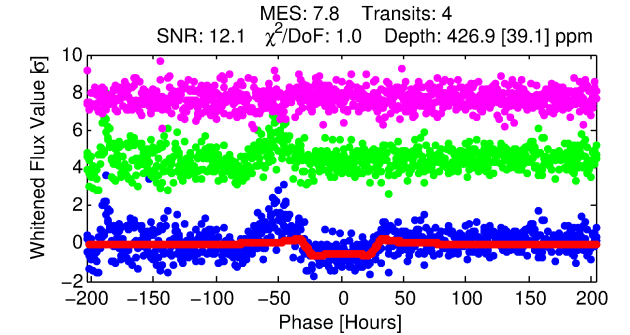
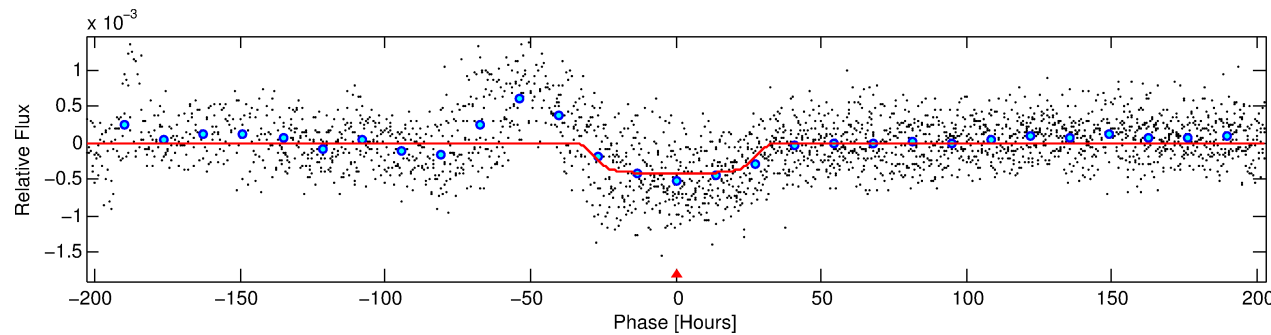
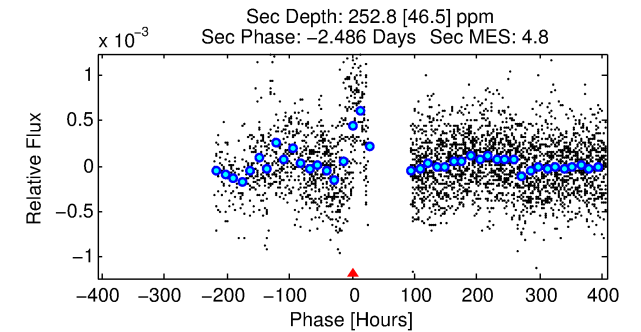
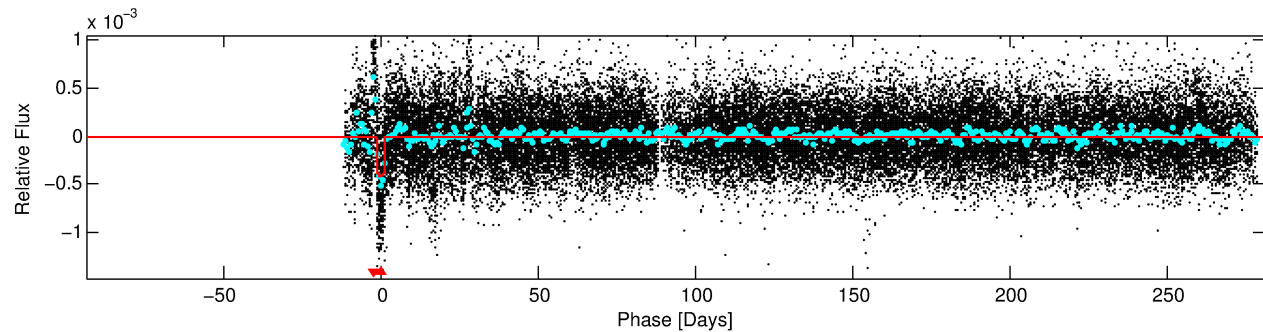
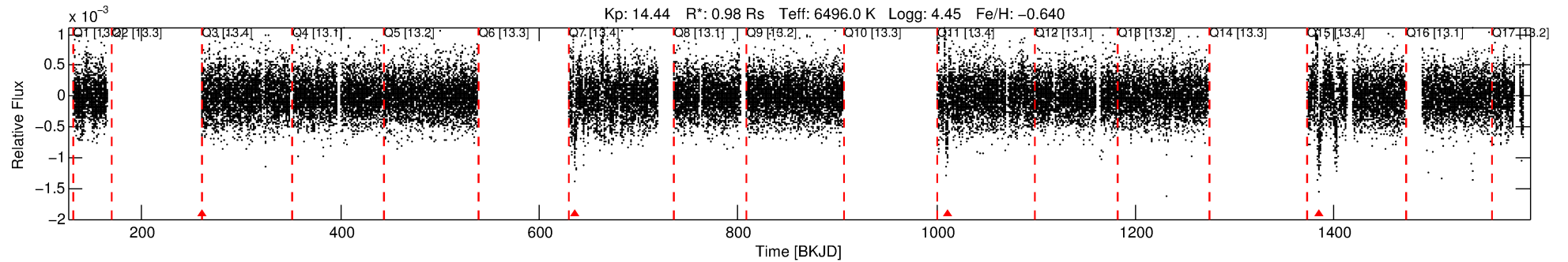
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008362621-01

No Significant Match Found

DV One-Page Summary

KIC: 8362621 Candidate: 1 of 1 Period: 374.625 d



DV Fit Results:

Period = 374.62504 [0.04168] d
Epoch = 261.2510 [0.0797] BKJD
Rp/R* = 0.0231 [0.0013]
a/R* = 16.85 [2.74]
b = 0.94 [0.02]
Seff = 1.48 [0.57]
Teq = 281 [27] K
Rp = 2.46 [0.71] Re
a = 1.0125 [0.2482] AU
Ag = 23603.63 [9986.93] [2.36σ]
Teffp = 5392 [341] K [14.92σ]

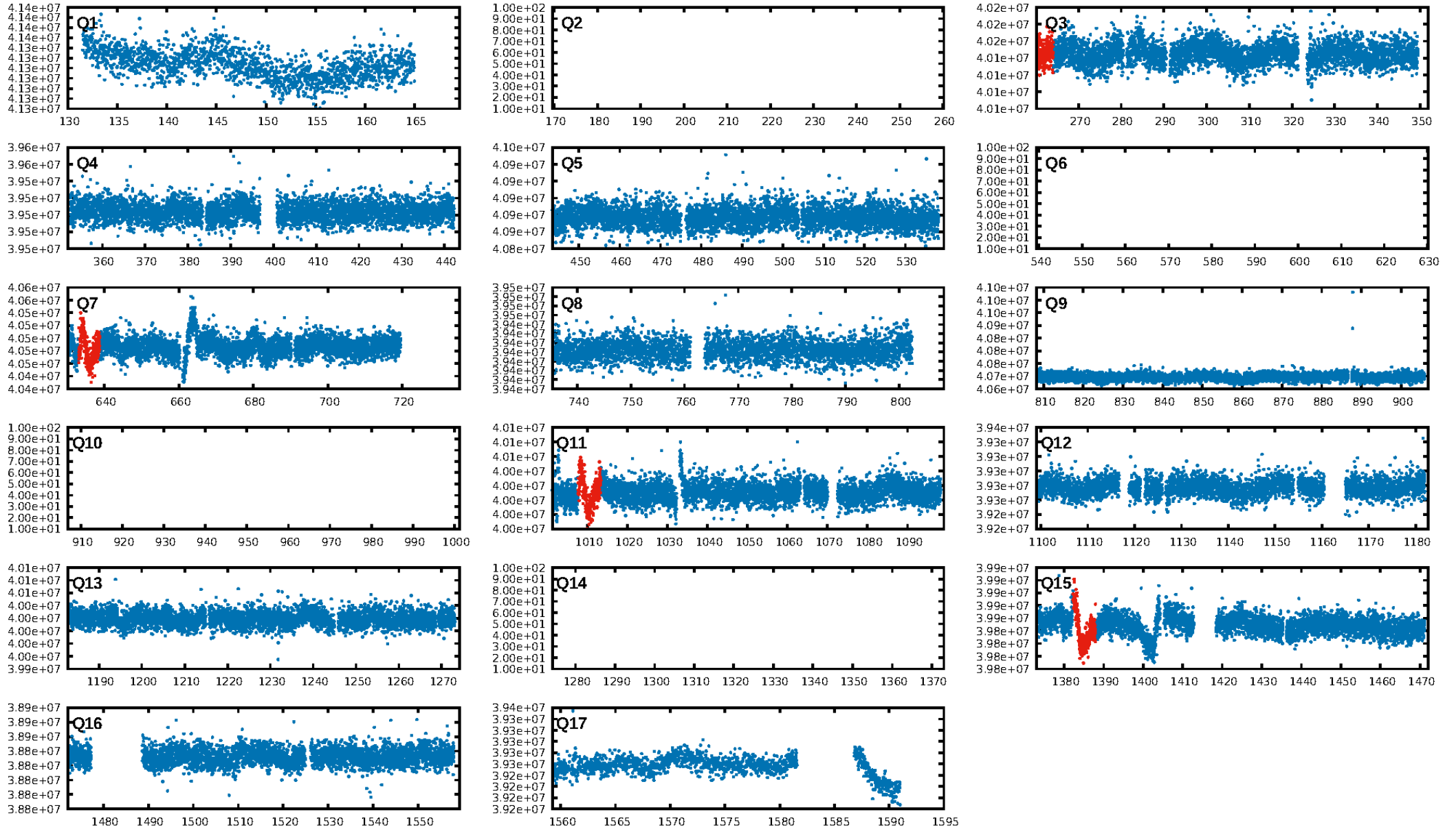
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.83e-11
RollingBand-fgt: 0.00 [0/4]
GhostDiagnostic-chr: -16.01
Centroid-sig: 0.0%
Centroid-so: 4.082 arcsec [3.17σ]
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

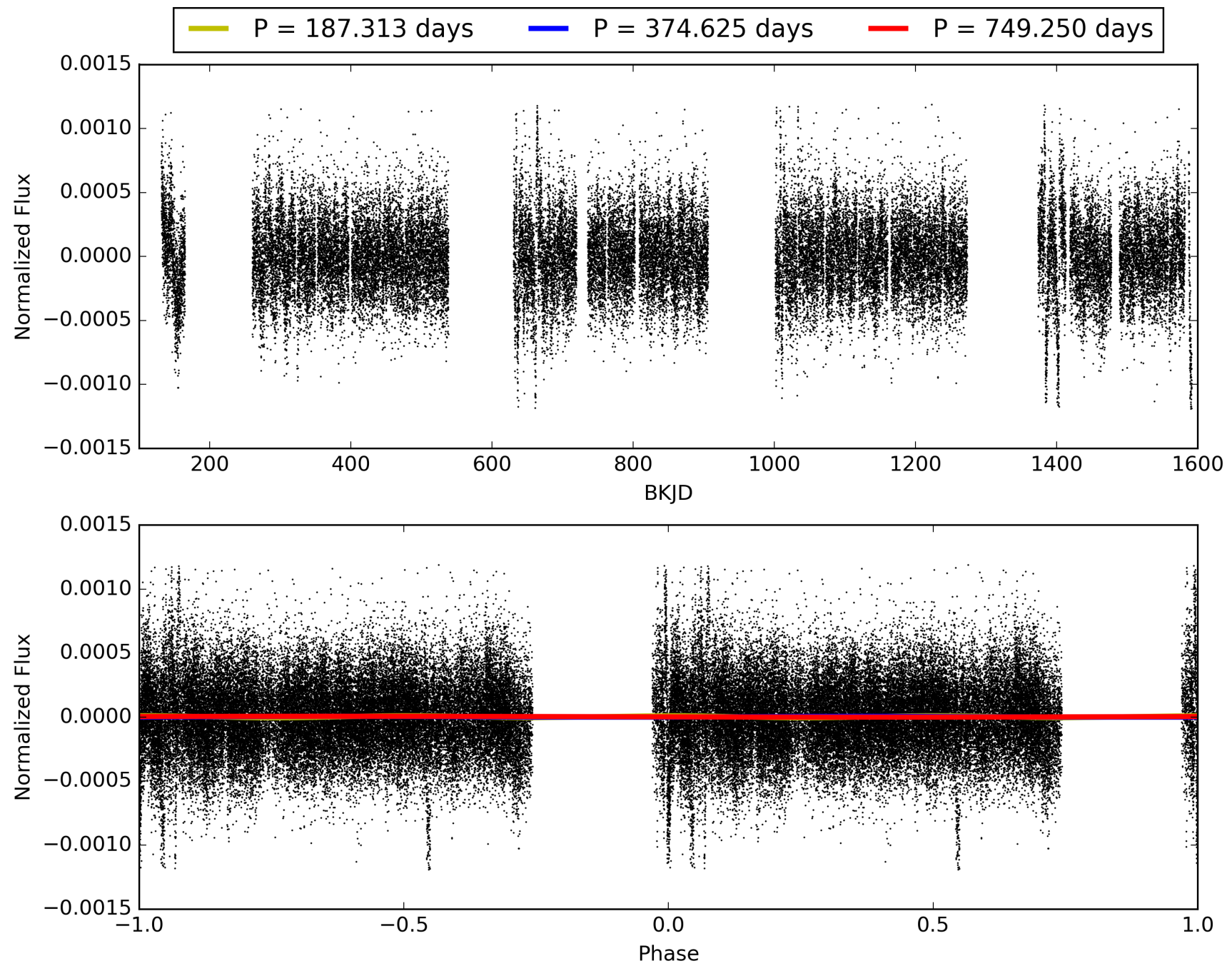
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:53:40 Z

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

TCE 008362621-01, PDC Light Curves

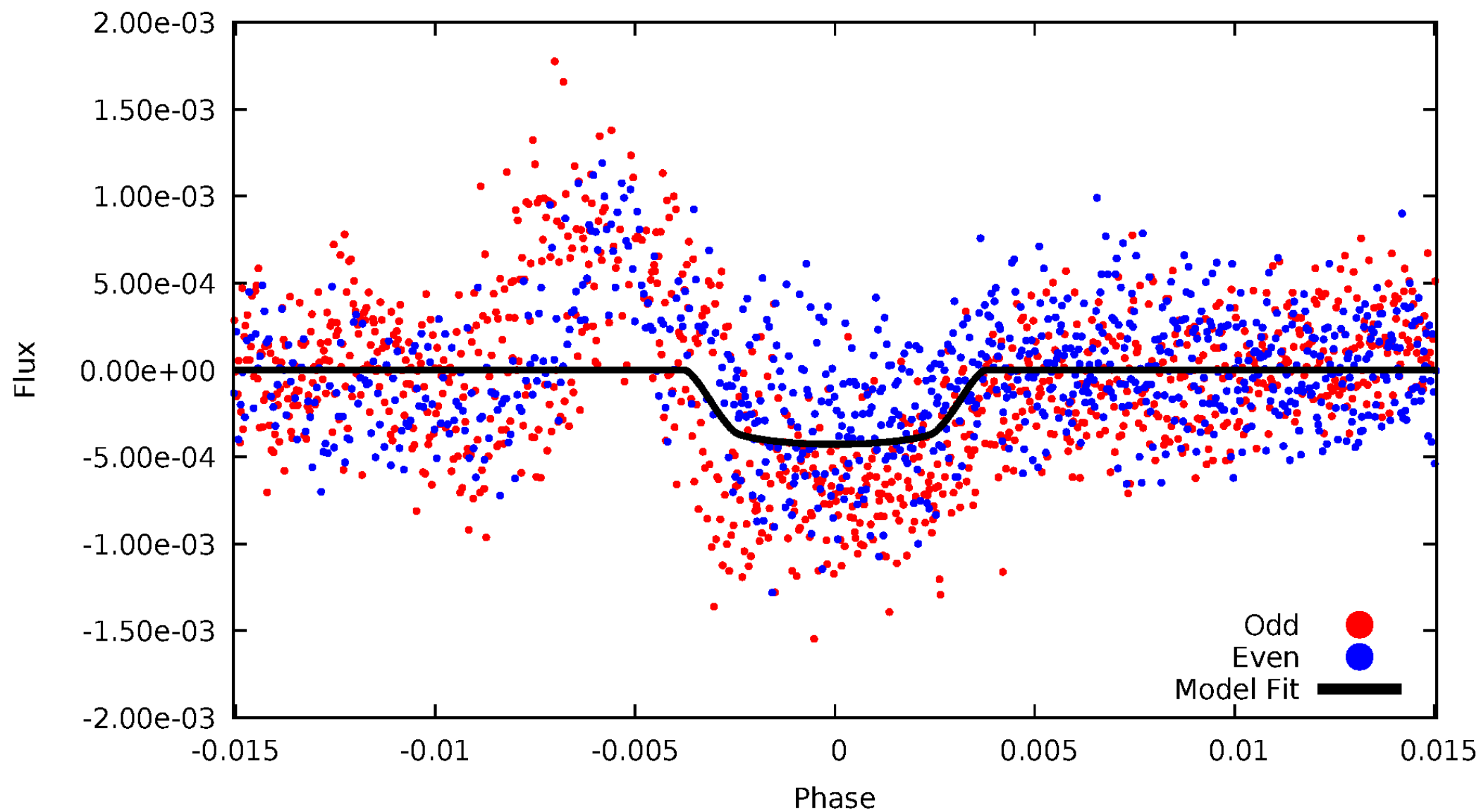


TCE 008362621-01



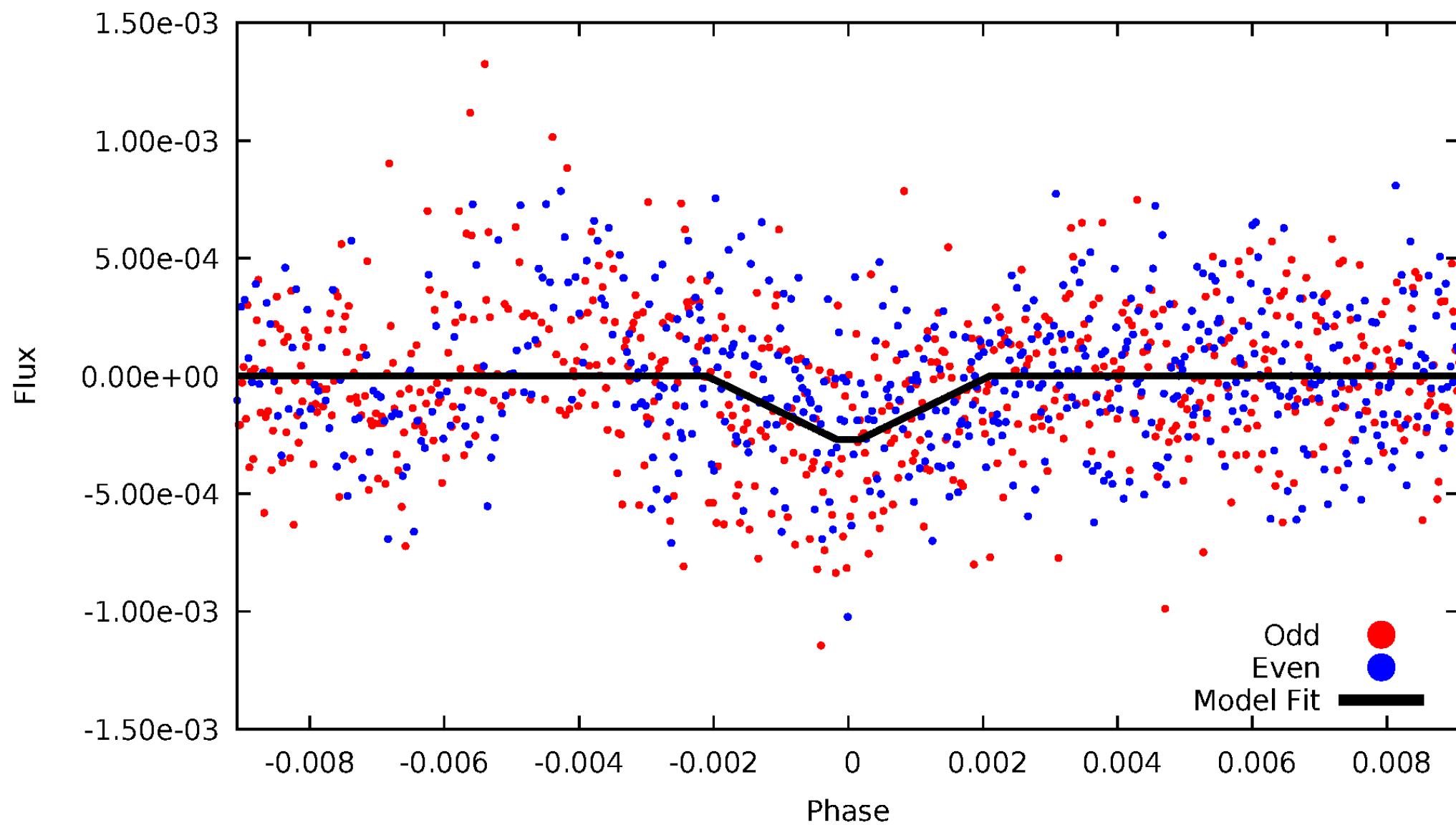
DV Odd/Even

TCE 008362621-01



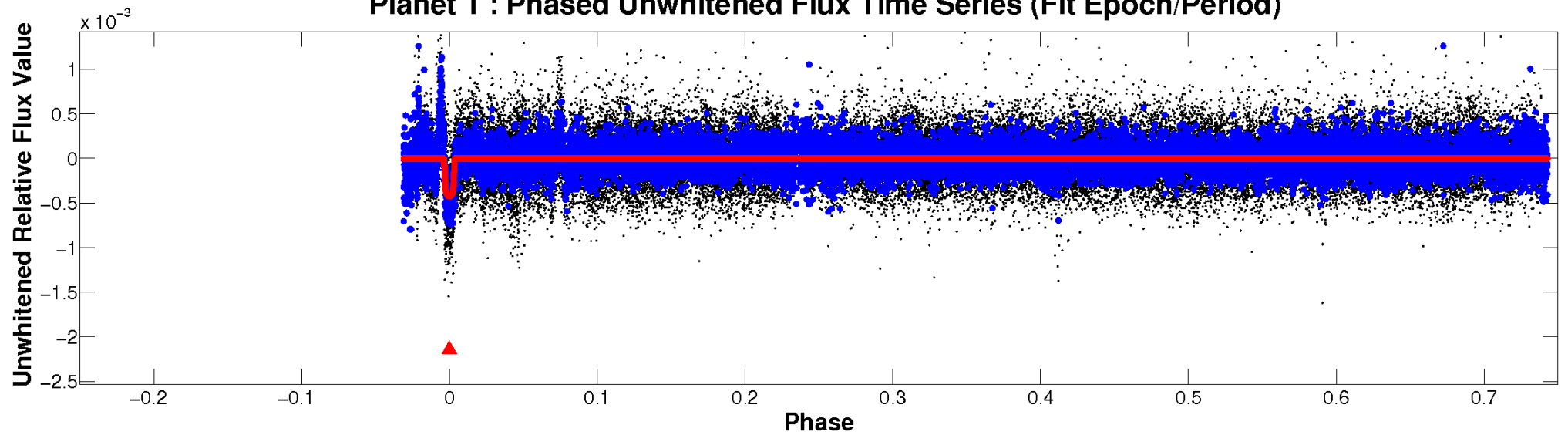
ALT Odd/Even

TCE 008362621-01

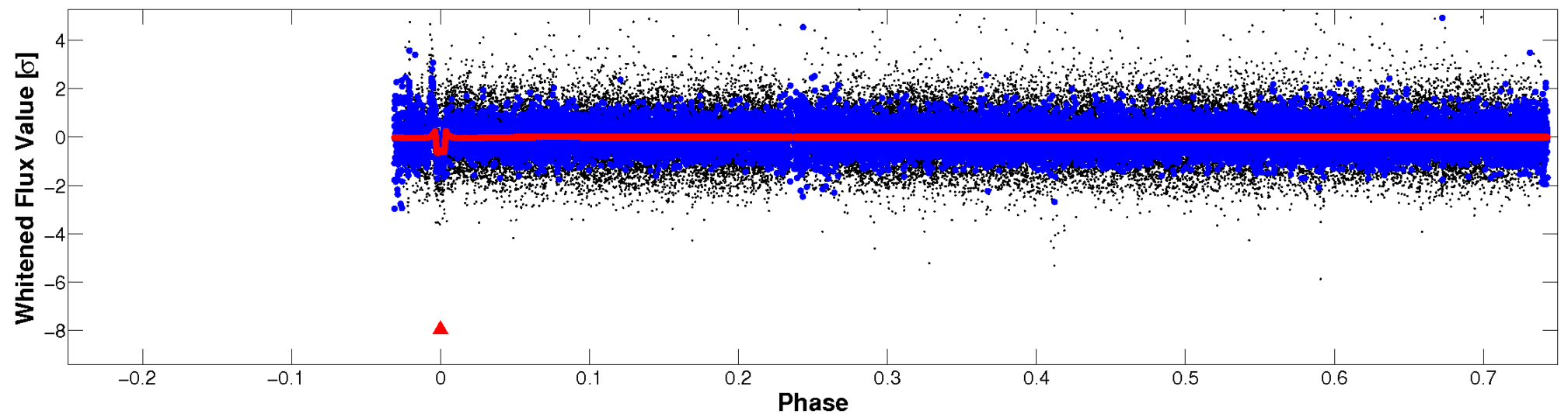


Non-Whitened Vs. Whitened Light Curve

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

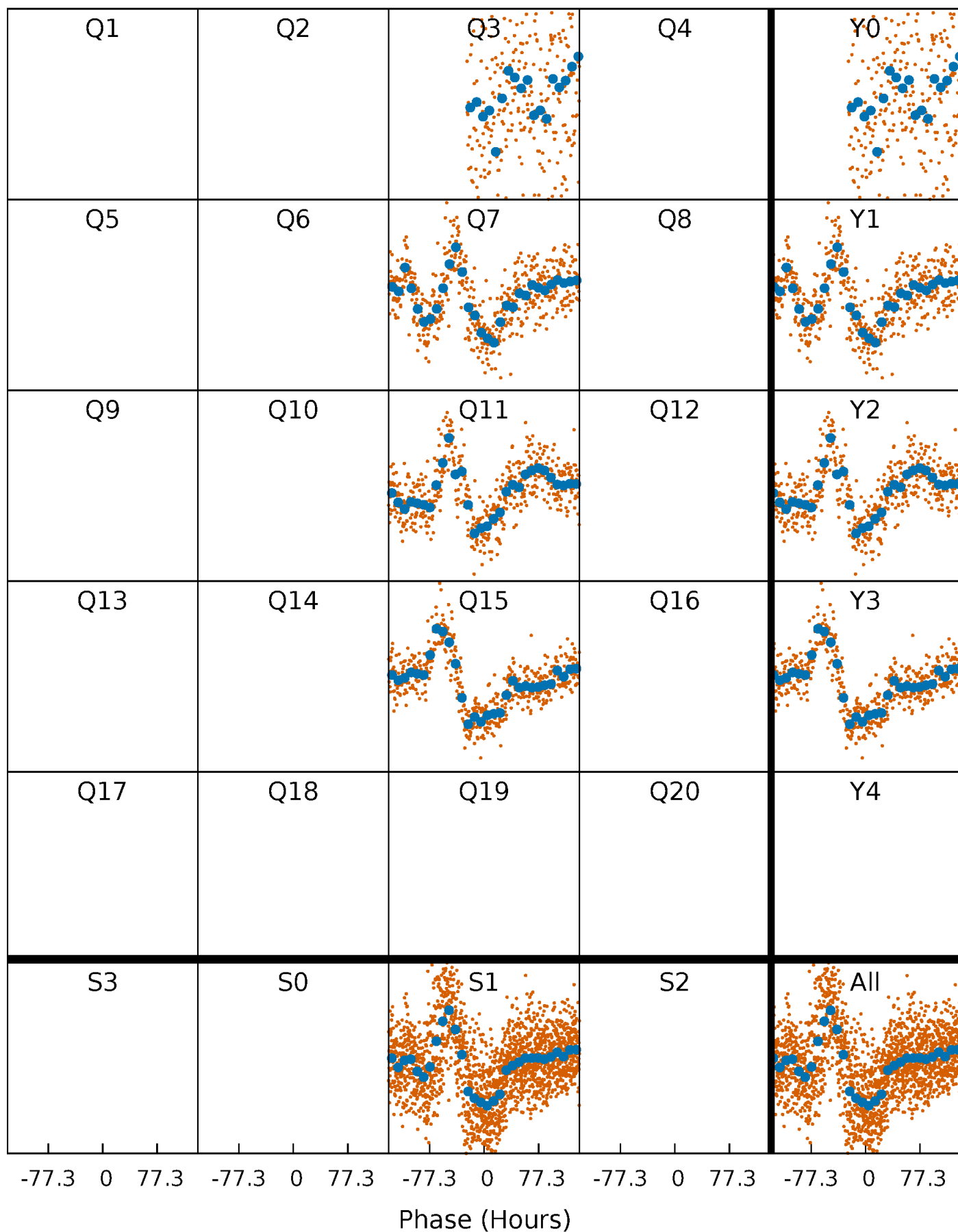


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



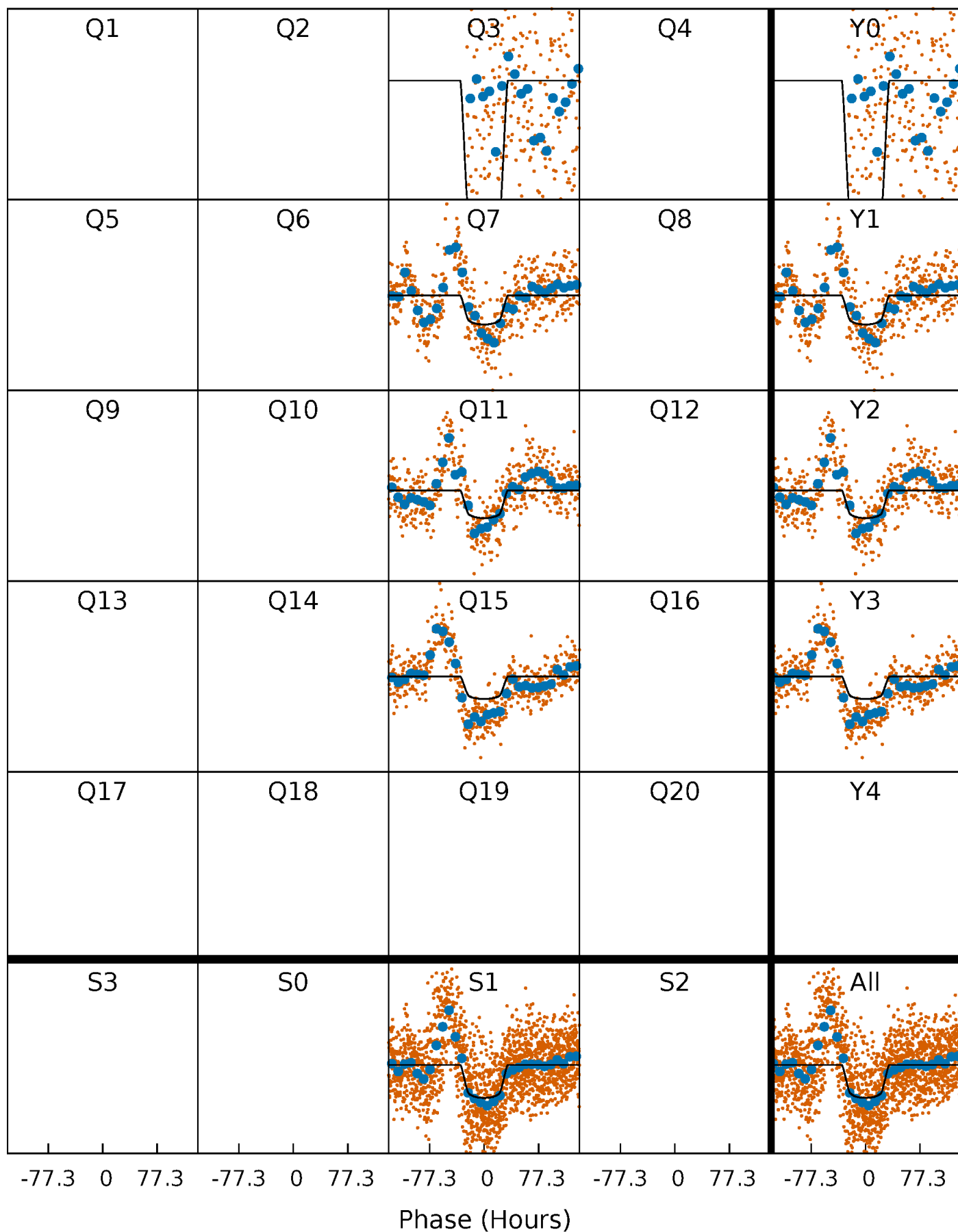
PDC Quarter-Phased Transit Curves

TCE 008362621-01 P=374.625039 Days $T_0=261.251004$ (BKJD)



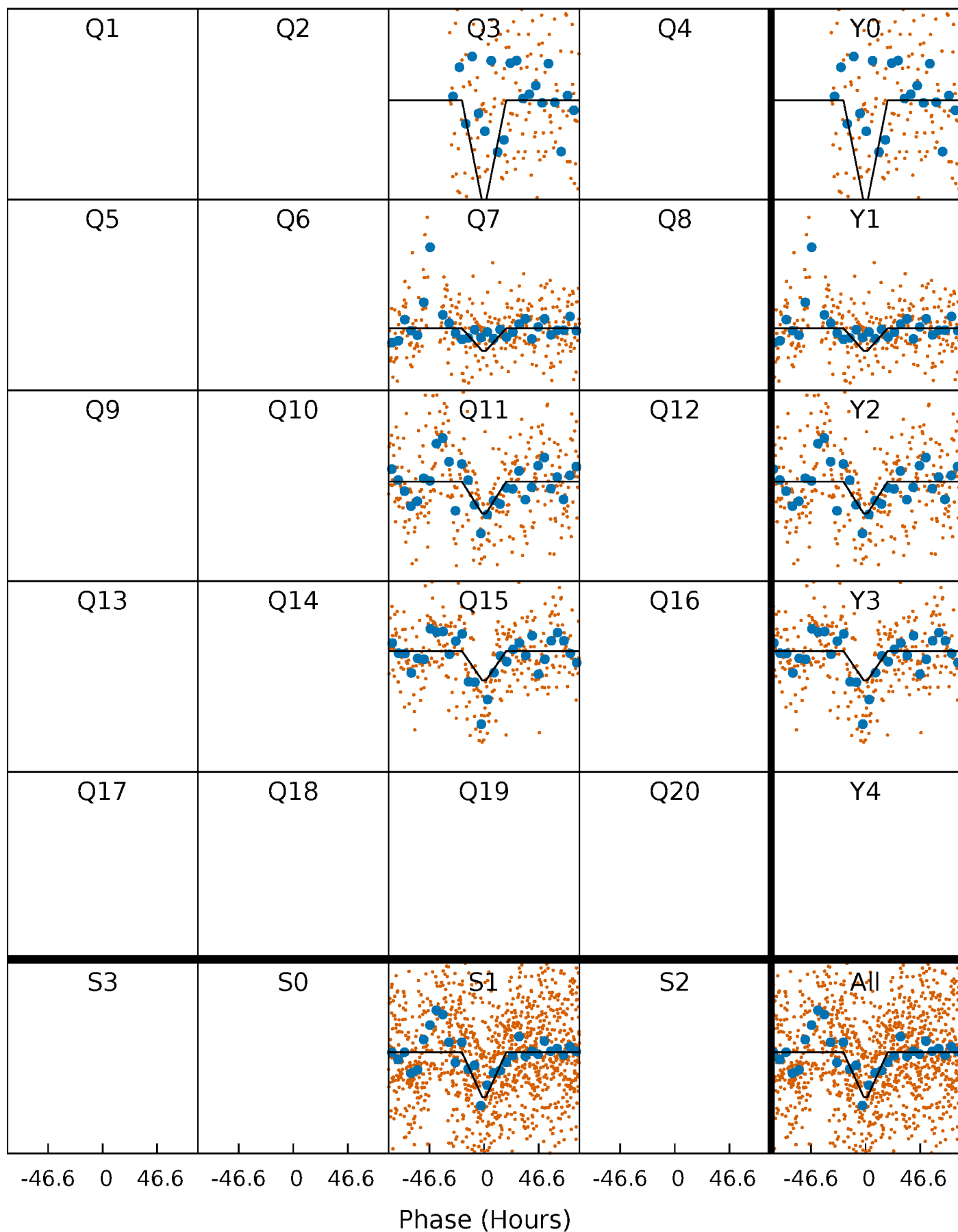
DV Quarter-Phased Transit Curves

TCE 008362621-01 P=374.625039 Days $T_0=261.251004$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

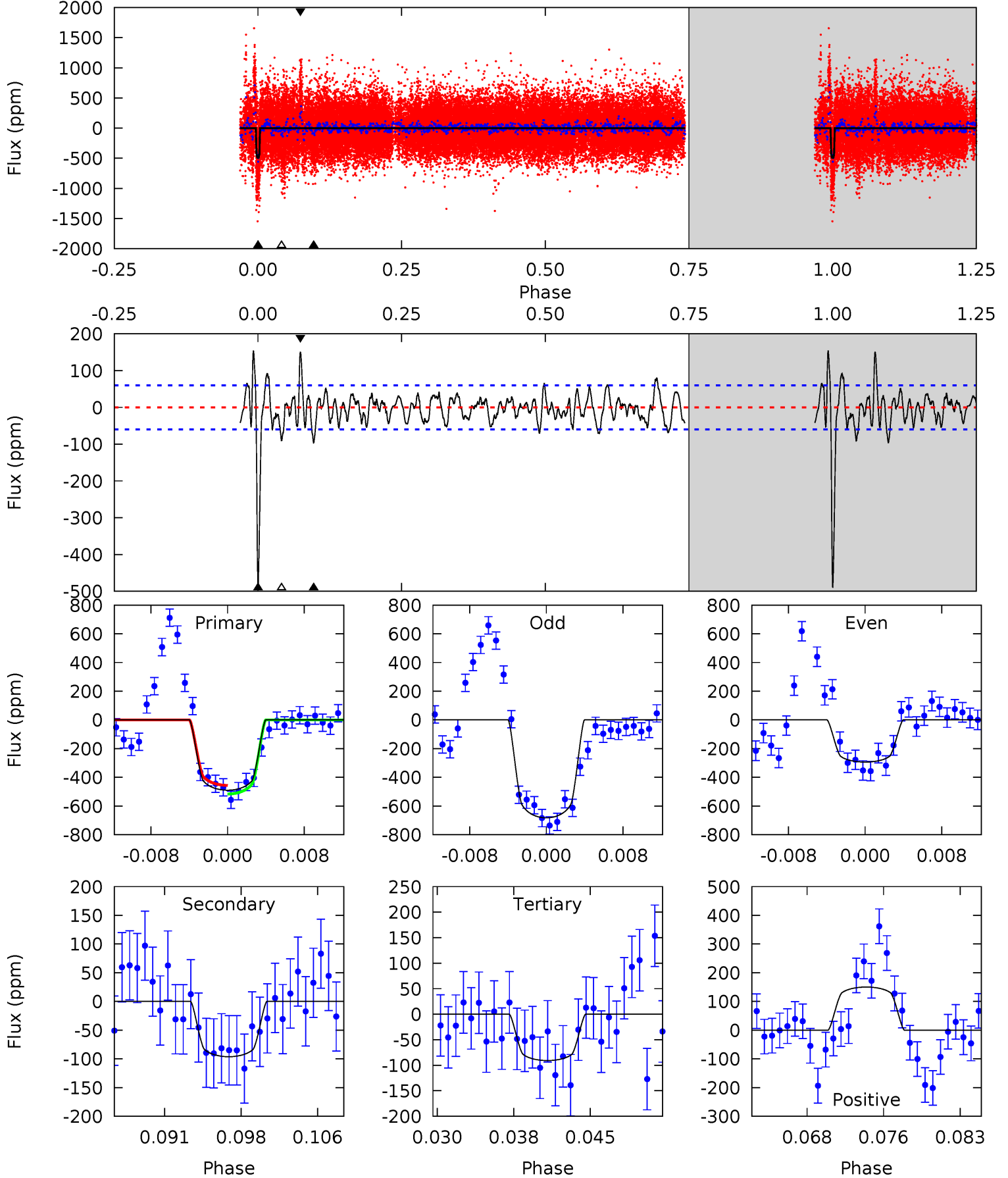
TCE 008362621-01 P=374.227029 Days $T_0=261.461935$ (BKJD)



DV Model-Shift Uniqueness Test

008362621-01, P = 374.625039 Days, E = 261.251004 Days

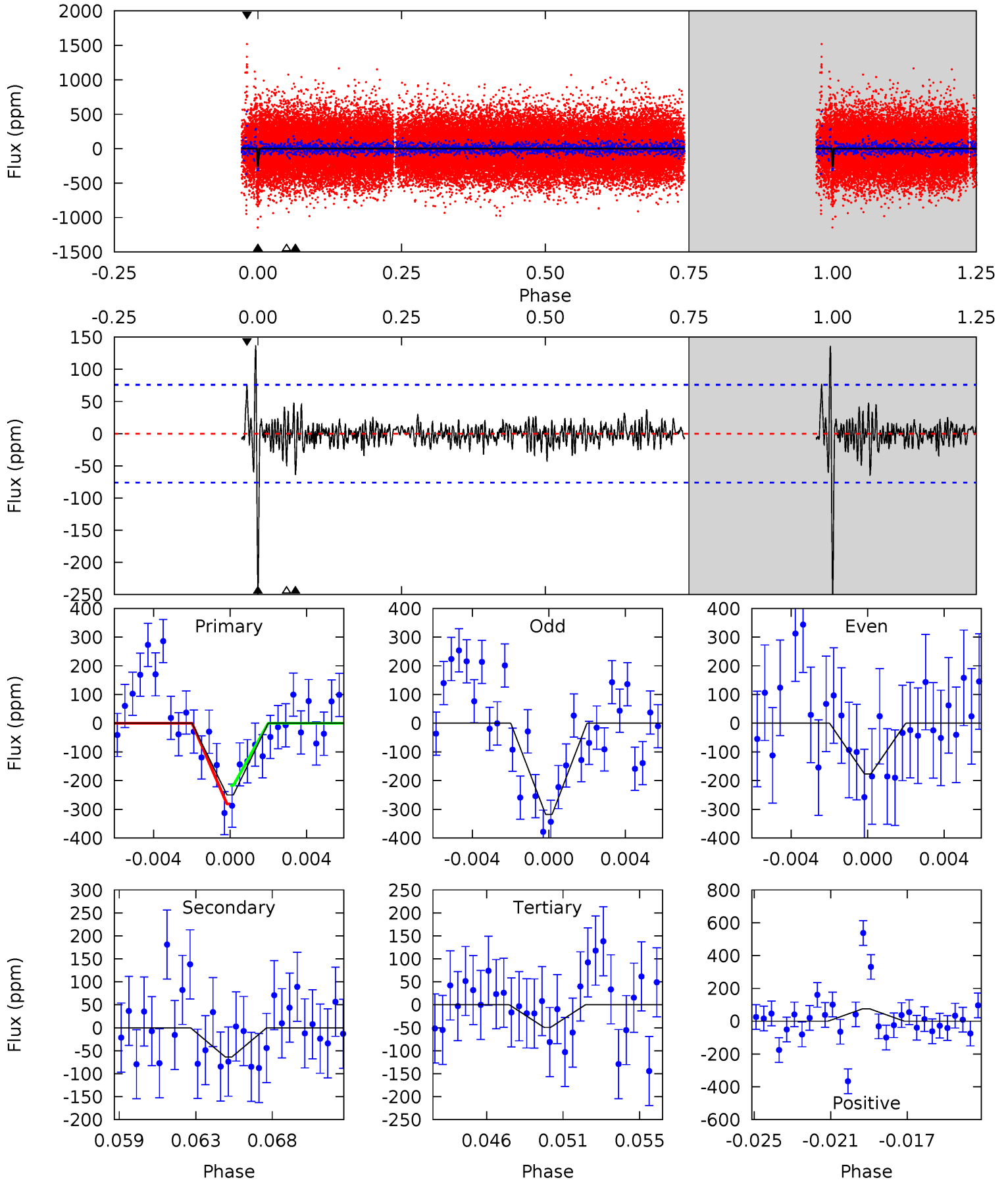
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.6	8.17	7.71	12.8	5.08	2.67	2.78	33.9	28.8	0.46	-4.59	16.6	0.95	0.24	2.57



Alt Model-Shift Uniqueness Test

008362621-01, P = 374.227029 Days, E = 261.461935 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	4.36	3.37	5.19	5.19	2.86	0.92	13.7	11.9	0.99	-0.83	4.84	1.12	0.35	2.21



Stellar Parameters For KIC 008362621

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6496^{+156}_{-214}	$4.453^{+0.067}_{-0.202}$	$-0.640^{+0.300}_{-0.300}$	$0.976^{+0.278}_{-0.111}$	$0.987^{+0.123}_{-0.112}$	$1.495^{+0.411}_{-0.739}$
	+2%/-3%	+2%/-5%	+47%/-47%	+28%/-11%	+12%/-11%	+27%/-49%
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 008362621-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-96 ± 12	$2.55^{+0.40}_{-0.27}$	400^{+27}_{-19}	4428^{+166}_{-180}	8113^{+2391}_{-1893}
Alt.	-64 ± 15	$1.80^{+0.27}_{-0.20}$	398^{+27}_{-20}	4656^{+287}_{-284}	10679^{+4365}_{-3275}

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 008362621-01. Kepler magnitude: 14.44. Transit SNR 12.13

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	4.08 ± 1.29	3.17	-0.22 ± 0.73	-4.08 ± 1.29

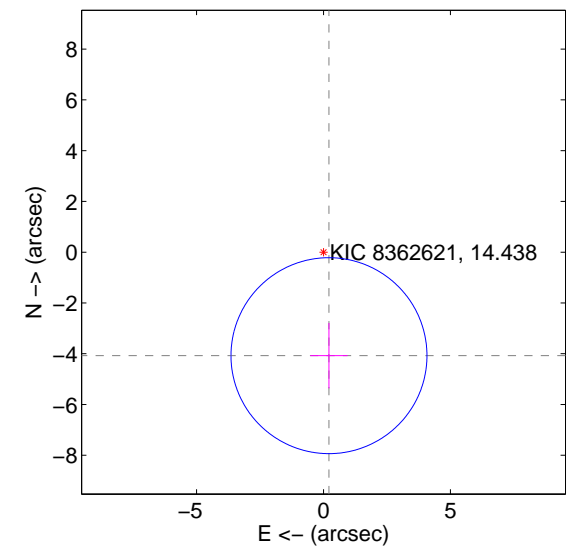
There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



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.



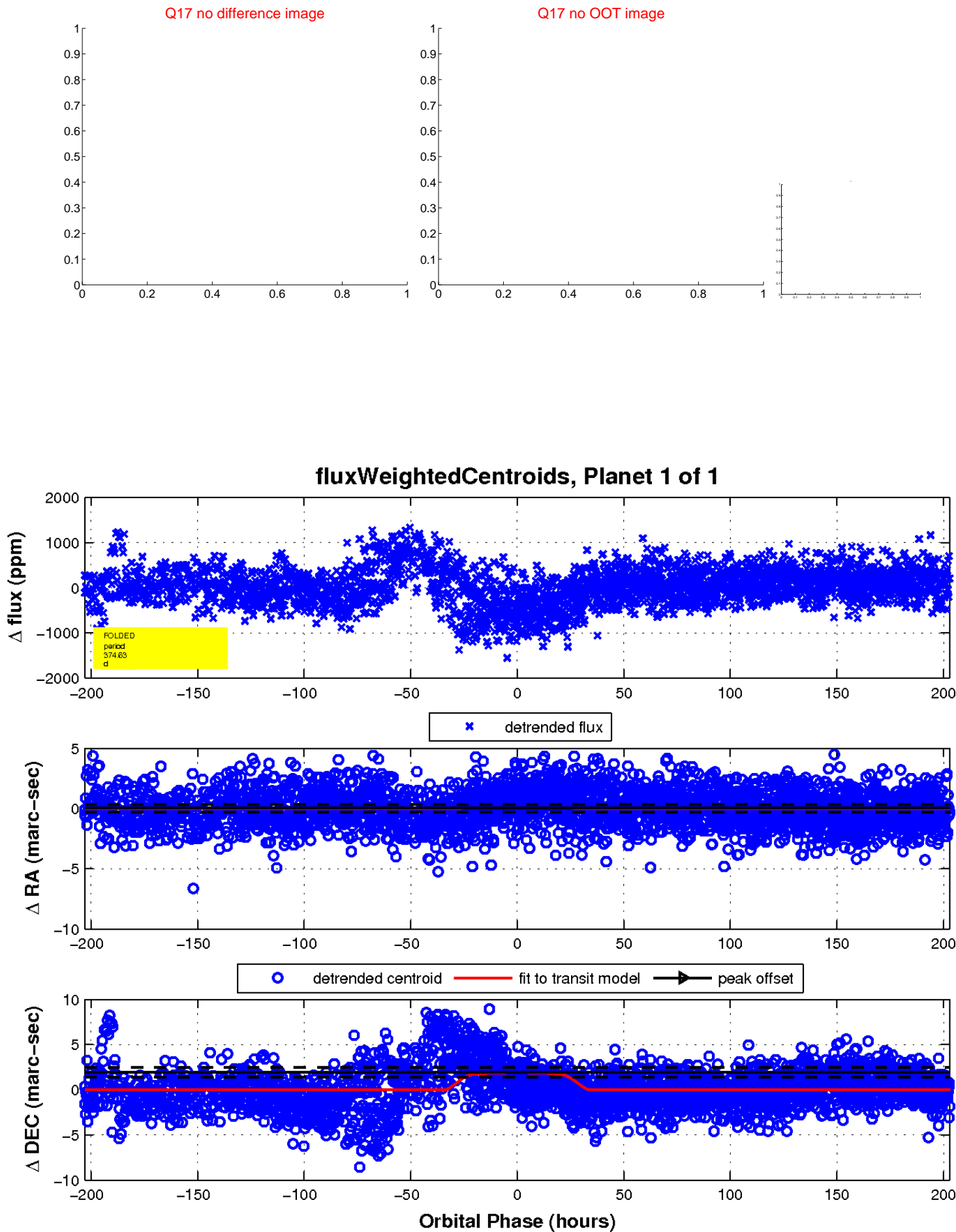
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

