

KIC 007613626

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})
007613626-01	OBS	No	365.883785	402.015388	762.8	12.383	7.8	7.9	0.85	5632	2.68	0.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007613626-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

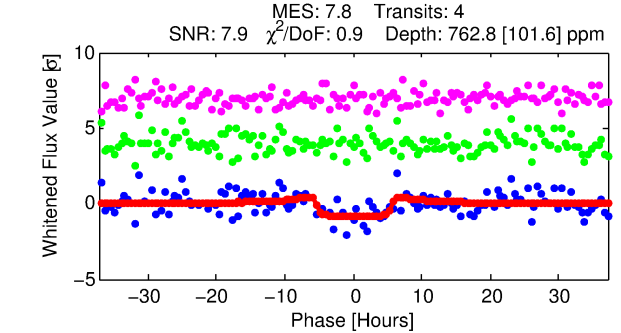
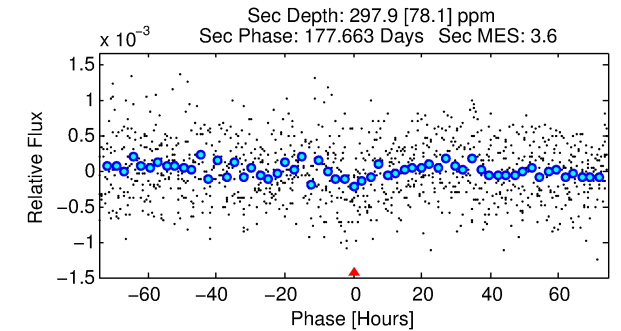
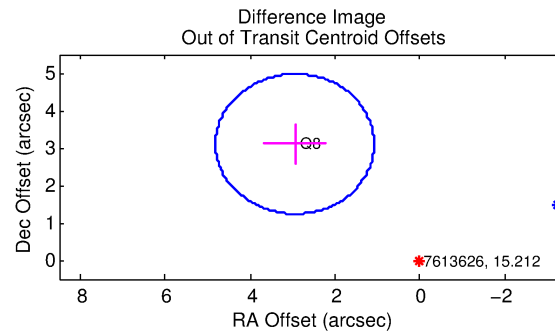
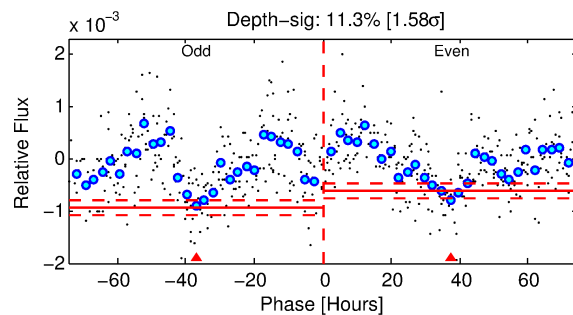
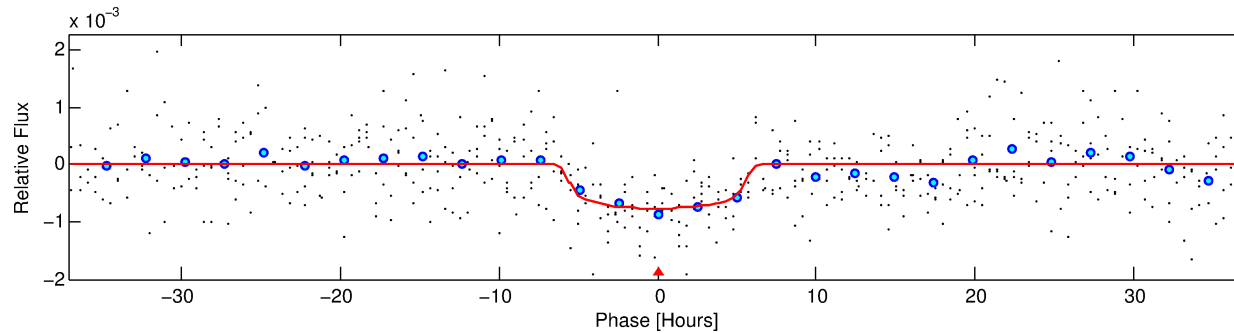
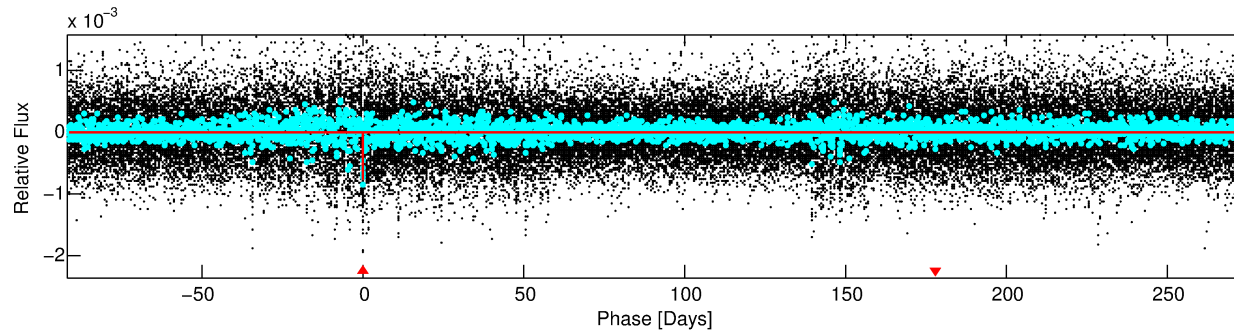
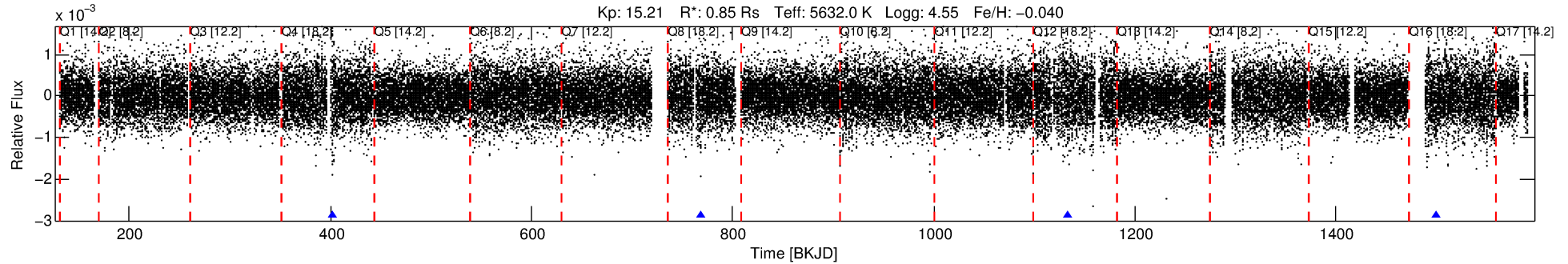
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007613626-01

No Significant Match Found

DV One-Page Summary

KIC: 7613626 Candidate: 1 of 1 Period: 365.884 d



DV Fit Results:

Period = 365.88378 [0.00924] d
Epoch = 402.0154 [0.0181] BKJD
Rp/R* = 0.0288 [0.0044]
a/R* = 133.23 [77.09]
b = 0.84 [0.20]
Seff = 0.68 [0.22]
Teff = 231 [19] K
Rp = 2.68 [0.77] Re
a = 0.9845 [0.2046] AU
Ag = 22051.49 [11200.44] [1.97 σ]
Teffp = 4357 [460] K [8.97 σ]

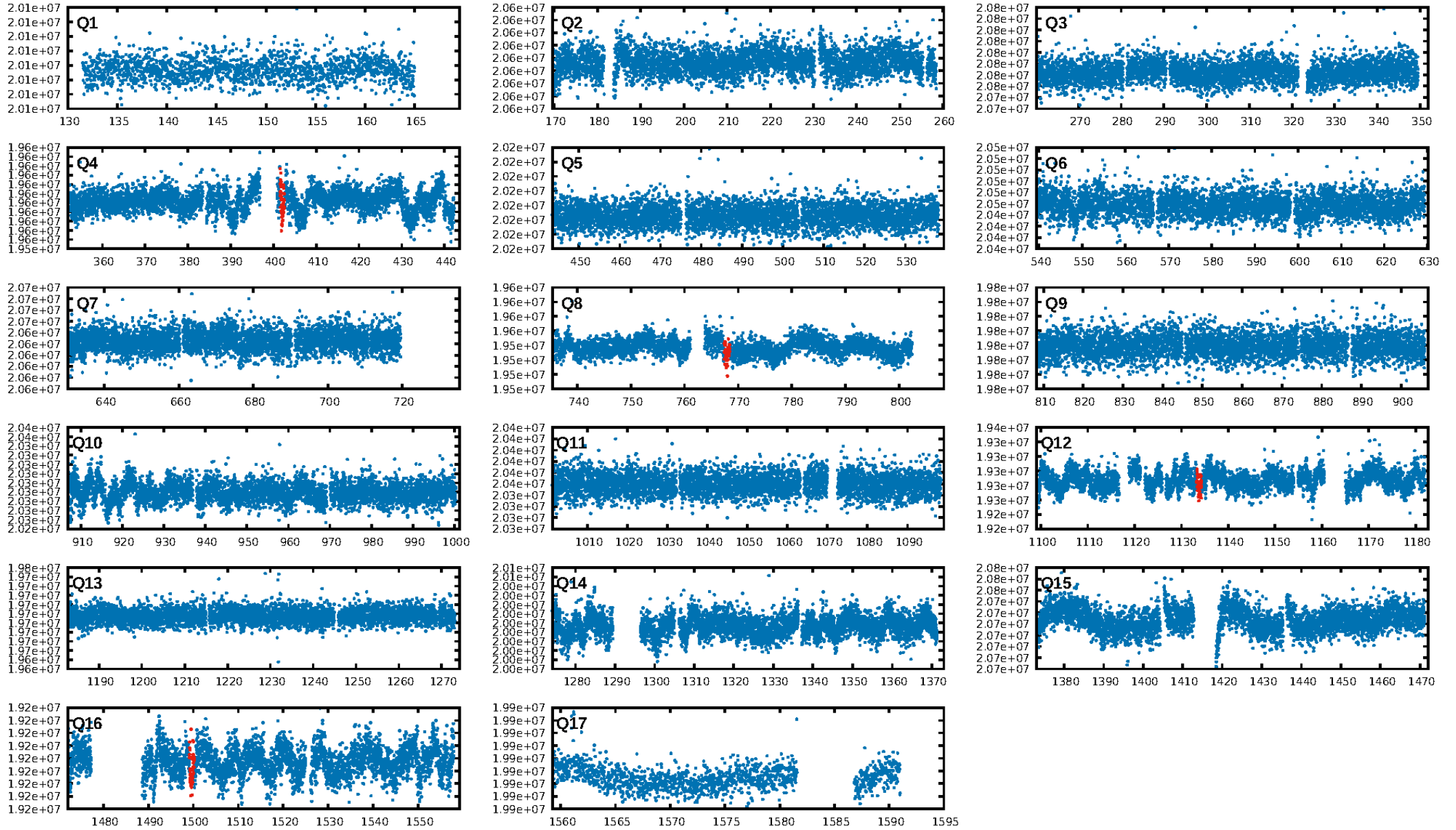
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 38.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.58e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -1.363
Centroid-sig: 0.3%
Centroid-so: 2.445 arcsec [2.11 σ]
OotOffset-rm: 4.277 arcsec [6.86 σ]
KicOffset-rm: 4.278 arcsec [6.82 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

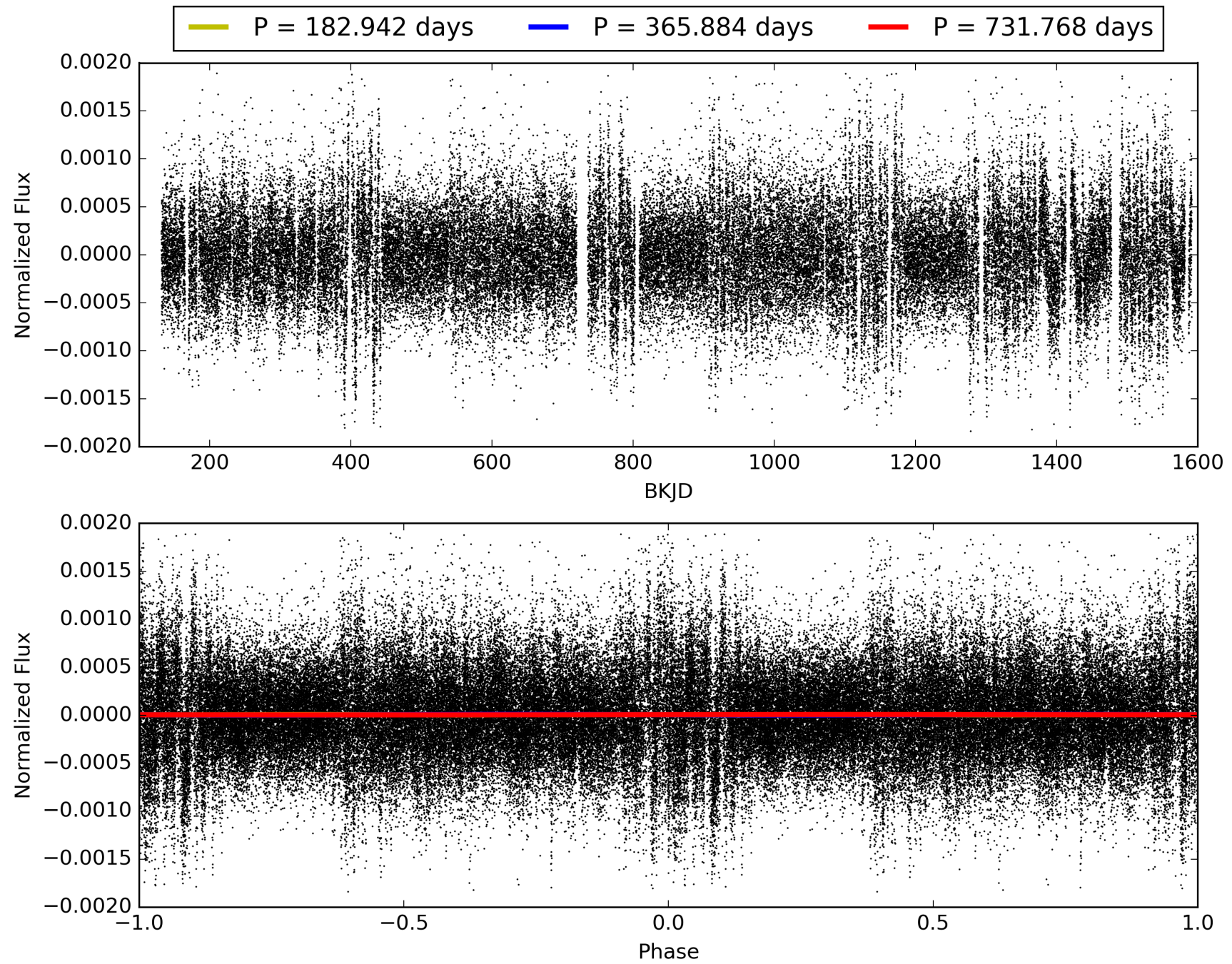
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:10:10 Z

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

TCE 007613626-01, PDC Light Curves

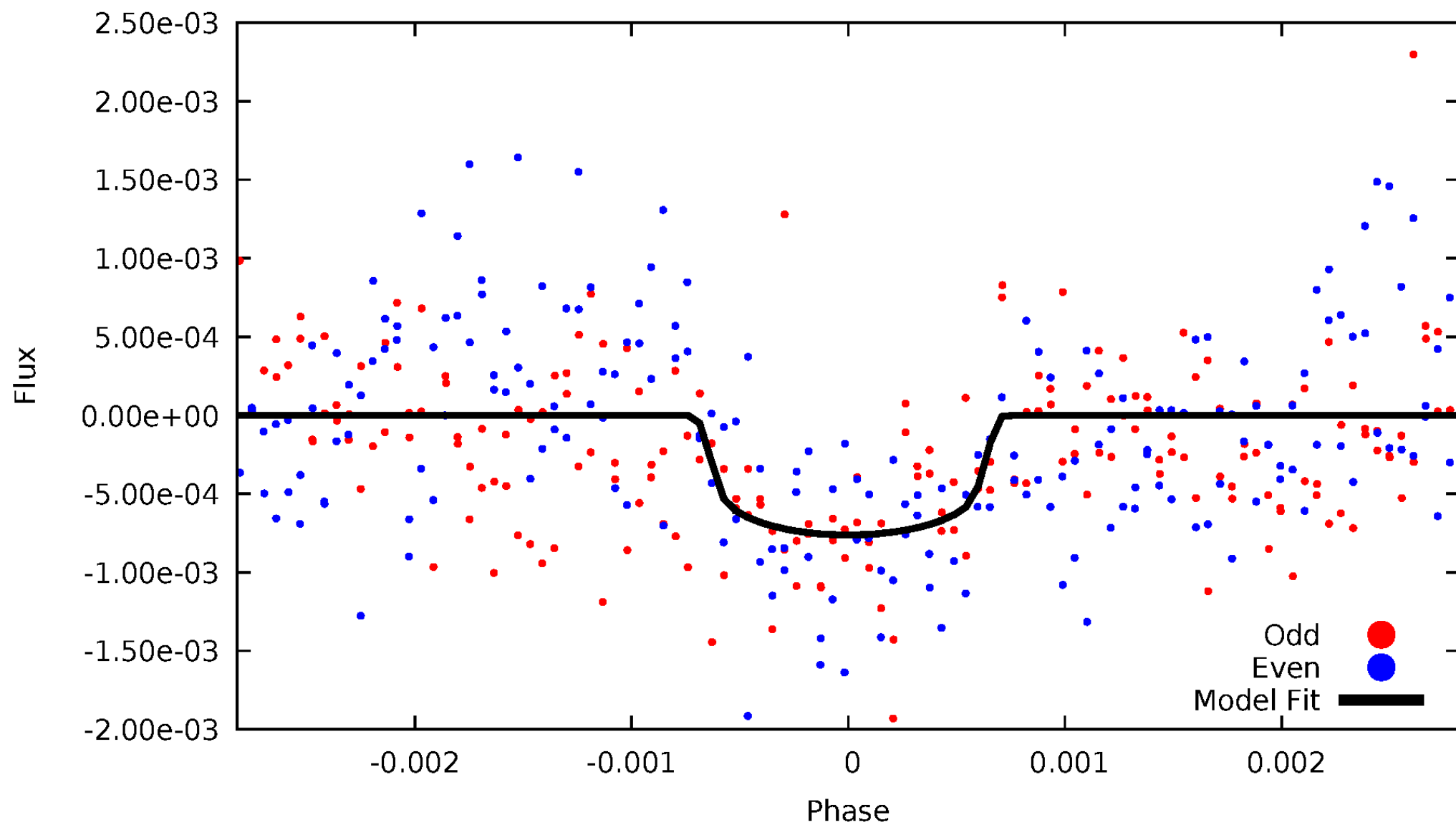


TCE 007613626-01



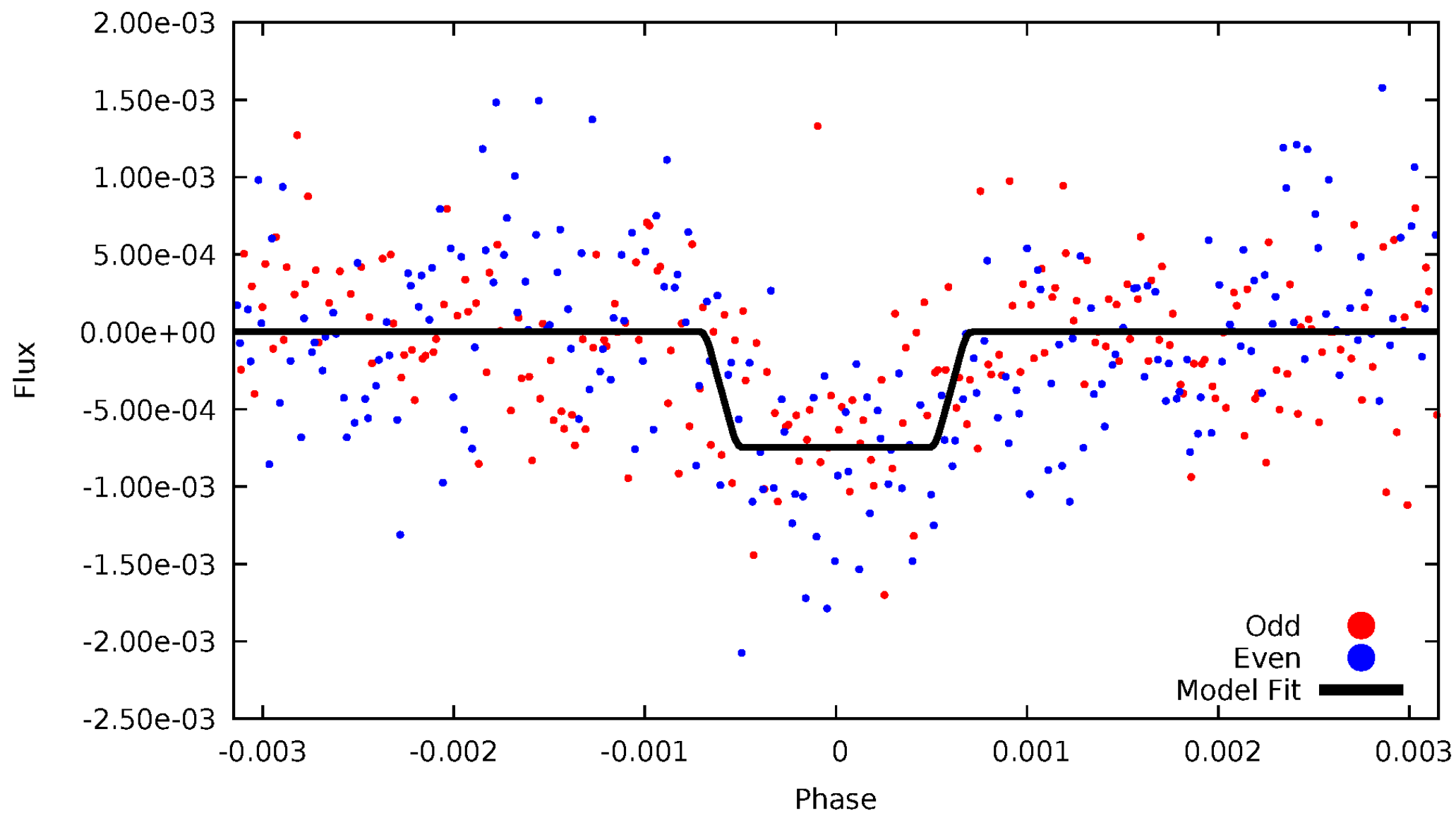
DV Odd/Even

TCE 007613626-01



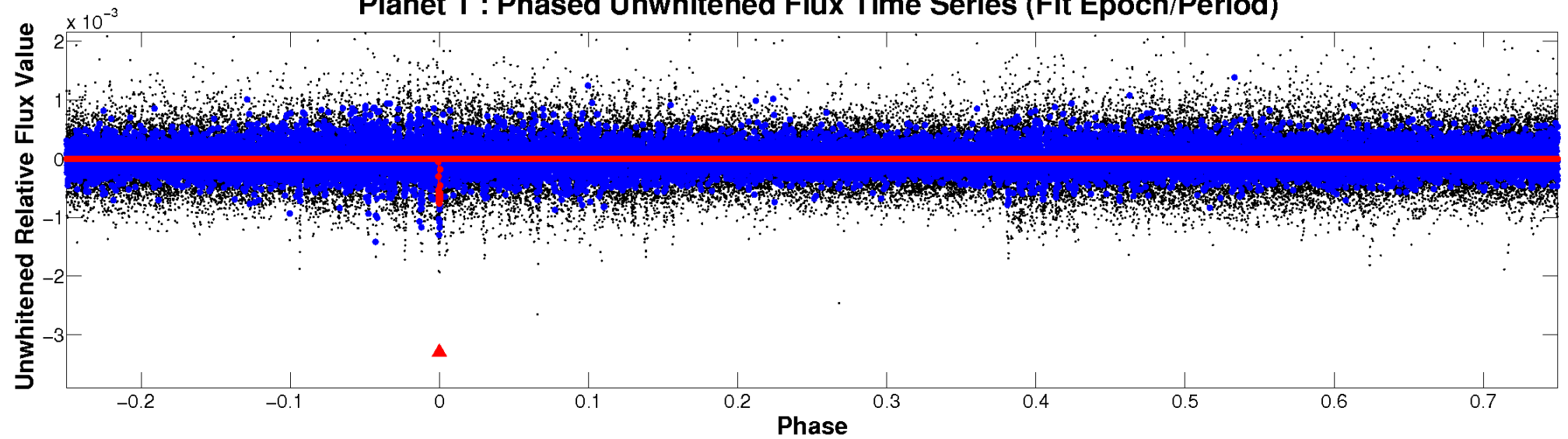
ALT Odd/Even

TCE 007613626-01

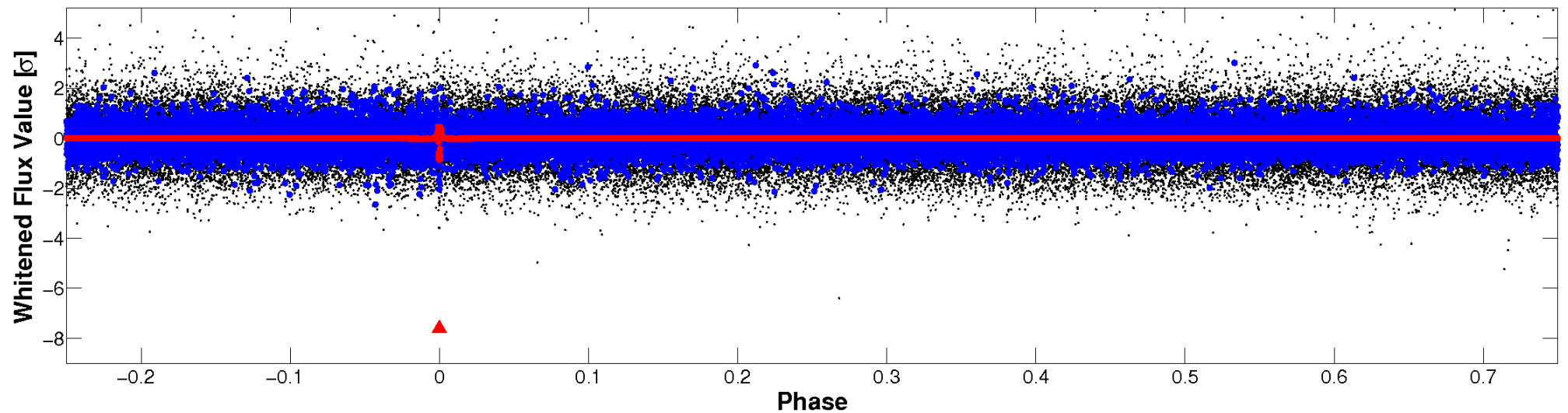


Non-Whitened Vs. Whitened Light Curve

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

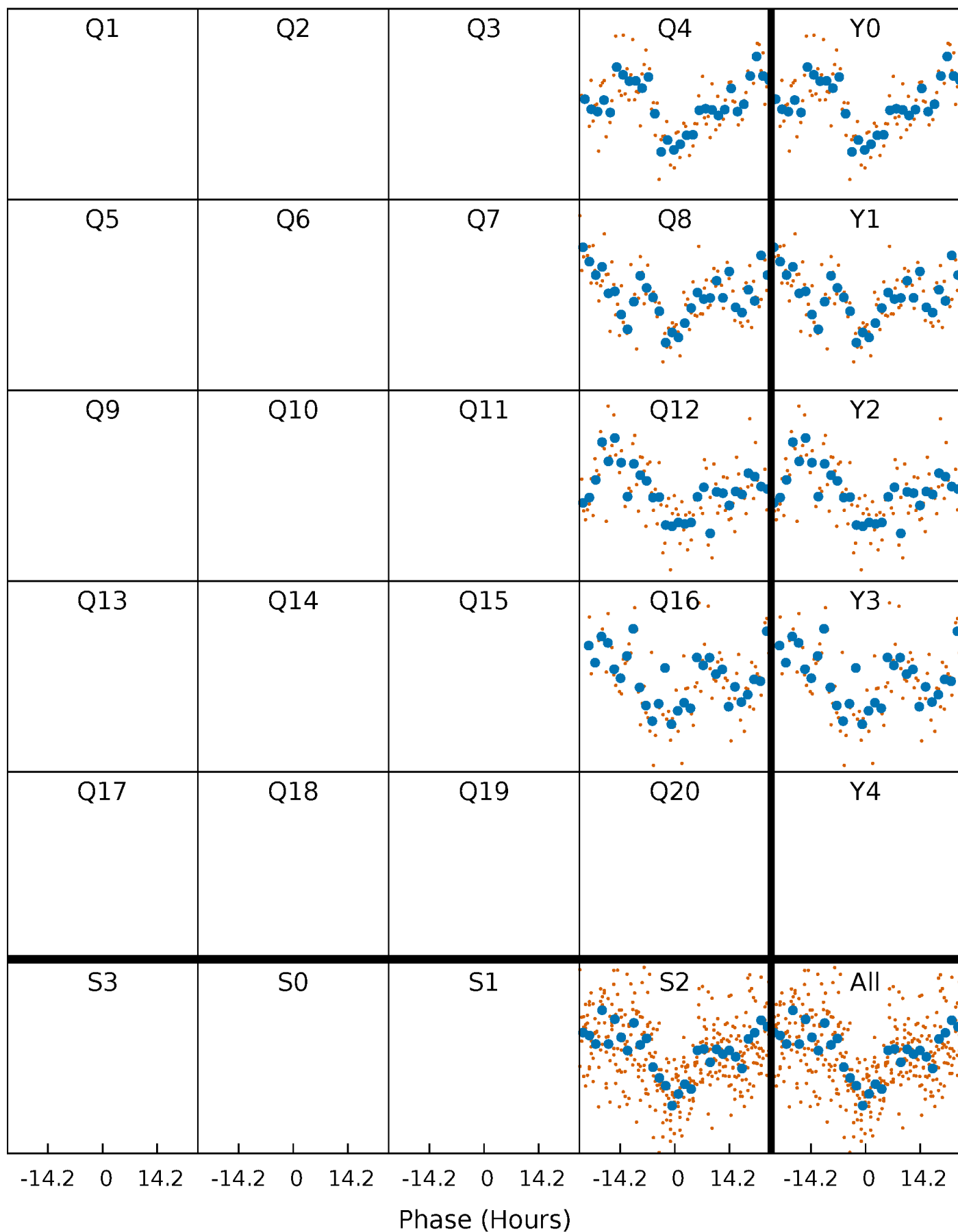


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



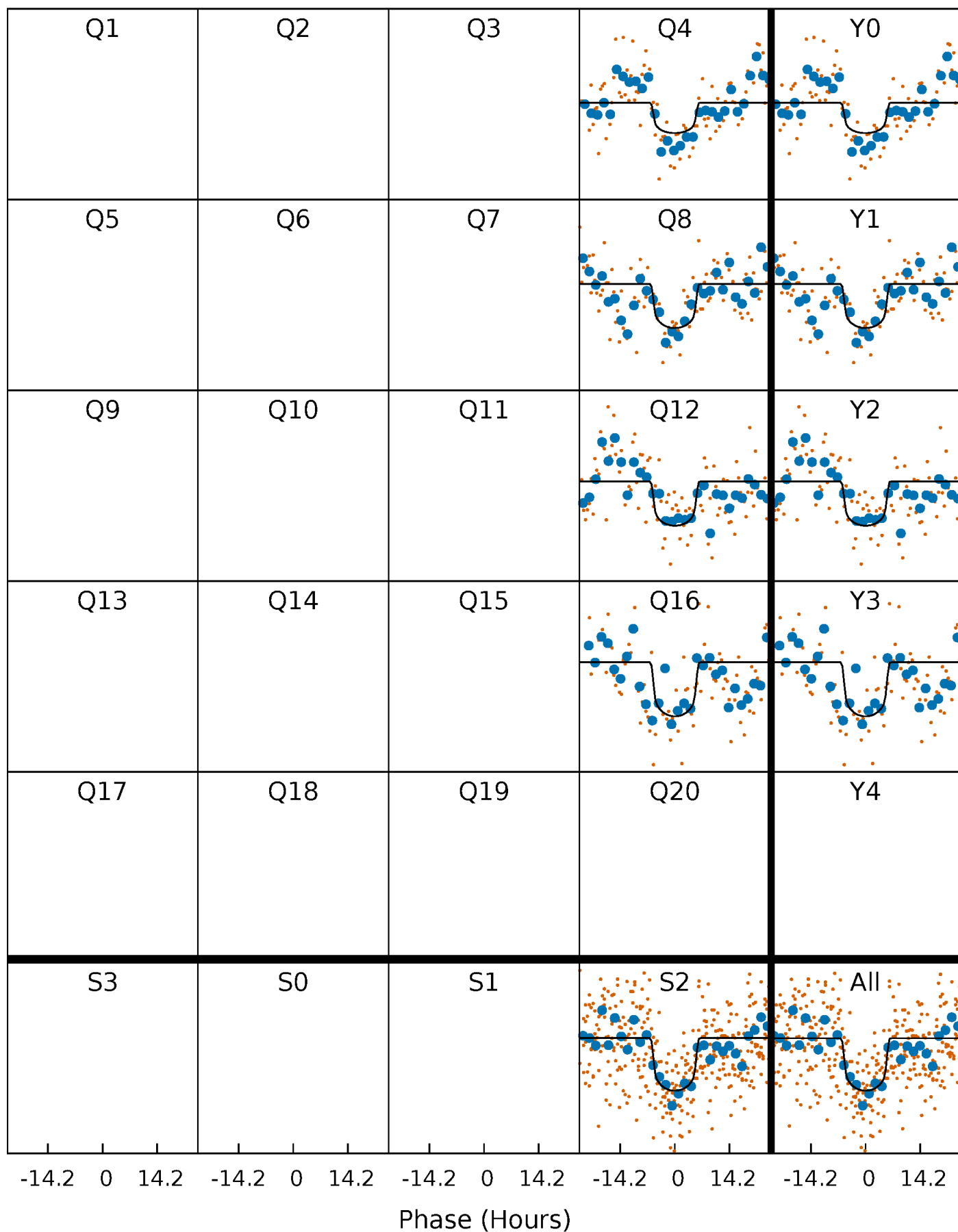
PDC Quarter-Phased Transit Curves

TCE 007613626-01 P=365.883785 Days $T_0=402.015388$ (BKJD)



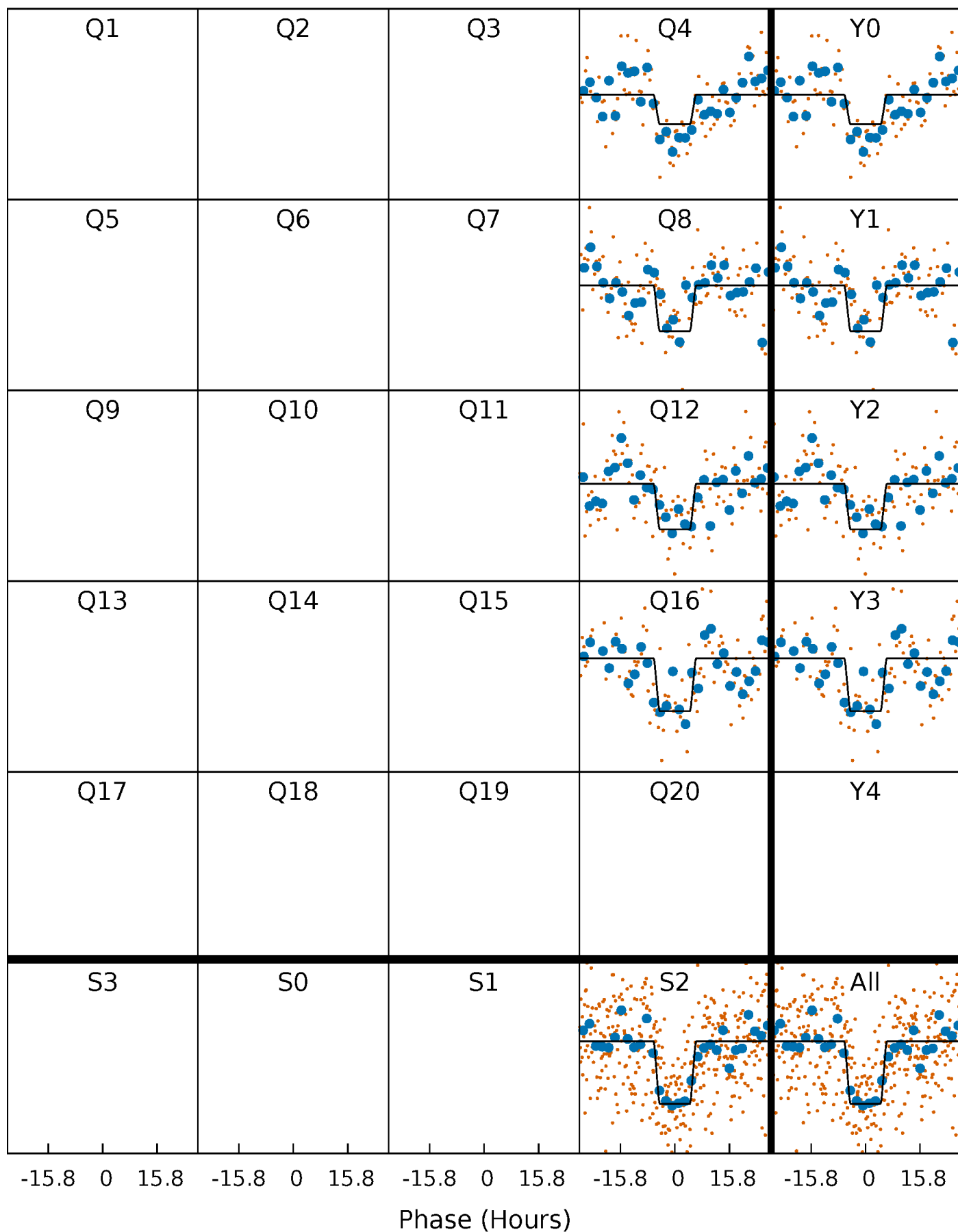
DV Quarter-Phased Transit Curves

TCE 007613626-01 P=365.883785 Days $T_0=402.015388$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

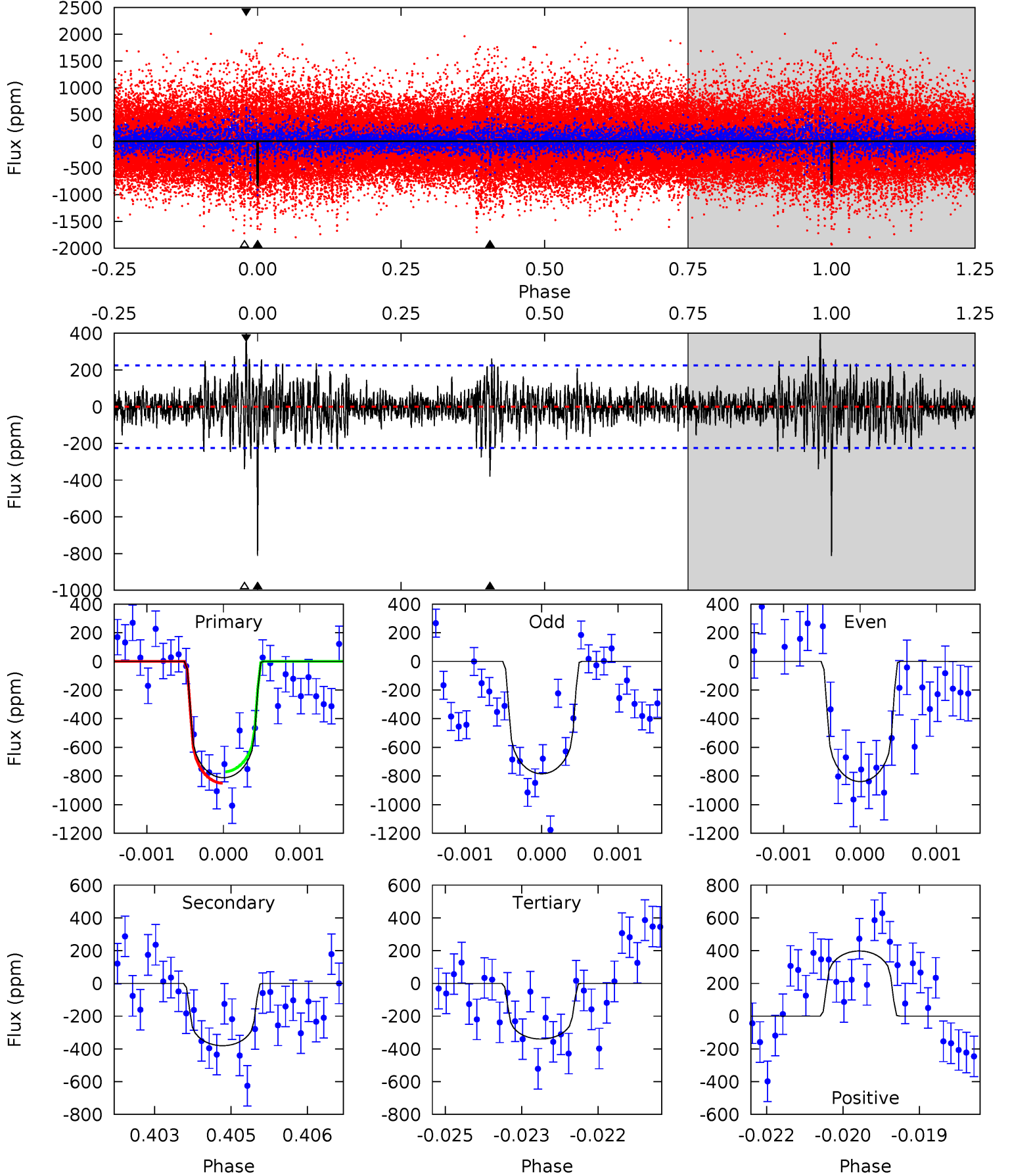
TCE 007613626-01 P=365.856081 Days $T_0=402.026119$ (BKJD)



DV Model-Shift Uniqueness Test

007613626-01, $P = 365.883785$ Days, $E = 36.131603$ Days

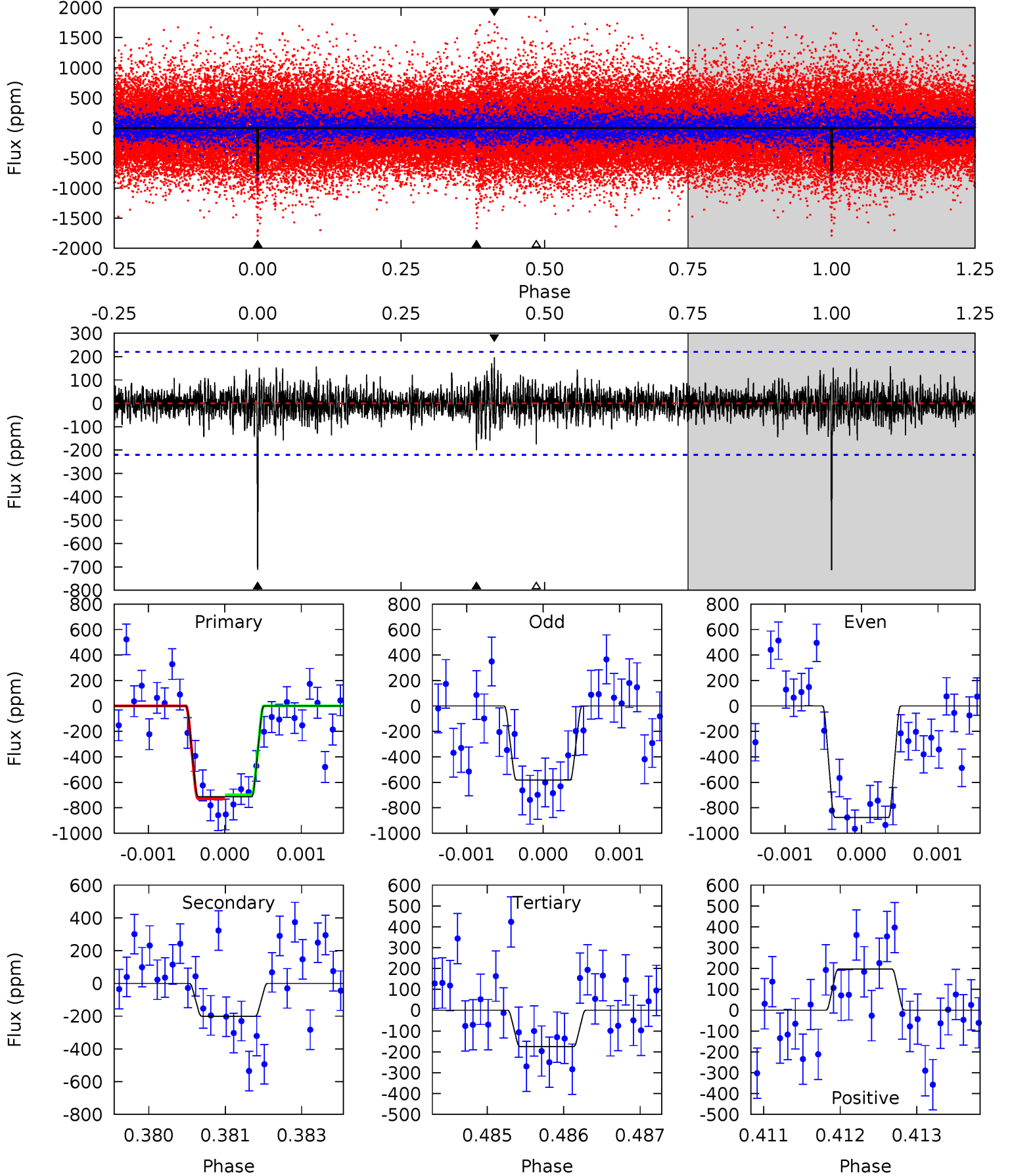
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.4	9.10	8.12	9.50	5.38	3.18	1.75	11.3	9.91	0.97	-0.41	0.65	1.08	0.33	0.95



Alt Model-Shift Uniqueness Test

007613626-01, $P = 365.856081$ Days, $E = 36.170038$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	4.89	4.28	4.82	5.39	3.20	1.05	13.2	12.6	0.62	0.07	3.63	1.19	0.22	0.39



Stellar Parameters For KIC 007613626

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5632^{+152}_{-169}	$4.554^{+0.030}_{-0.170}$	$-0.040^{+0.300}_{-0.300}$	$0.853^{+0.207}_{-0.069}$	$0.952^{+0.083}_{-0.115}$	$2.163^{+0.367}_{-1.008}$
	+3%/-3%	+1%/-4%	+750%/-750%	+24%/-8%	+9%/-12%	+17%/-47%
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 007613626-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-381 ± 42	$2.74^{+0.55}_{-0.45}$	331^{+17}_{-14}	4758^{+431}_{-290}	25670^{+12528}_{-7633}
Alt.	-200 ± 41	$2.65^{+0.55}_{-0.48}$	331^{+18}_{-14}	4261^{+376}_{-278}	14451^{+8124}_{-4772}

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

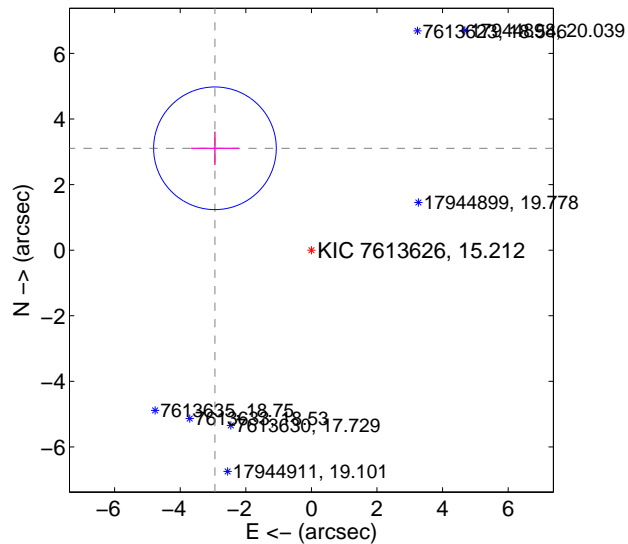
Supplemental centroid analysis for 007613626-01. Kepler magnitude: 15.21. Transit SNR 7.86

There are 0 quarters with good PRF difference image offsets

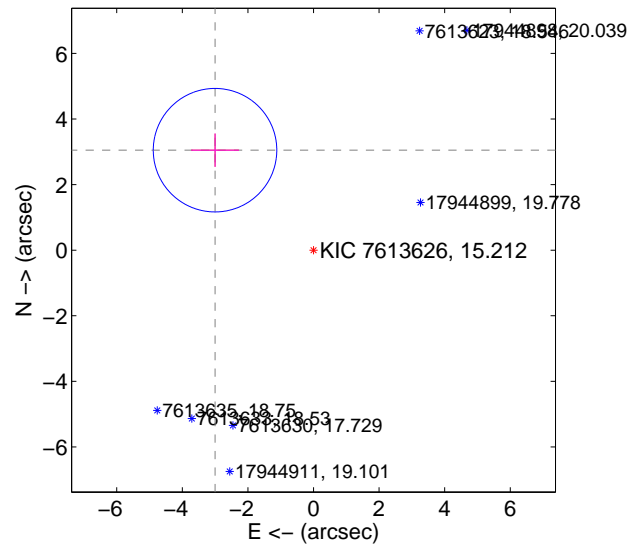
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.277 ± 0.623	6.86	2.940 ± 0.730	3.106 ± 0.509
PRF-fit source offset from KIC position	4.278 ± 0.628	6.82	3.002 ± 0.730	3.048 ± 0.509
photometric centroid source offset	2.45 ± 1.16	2.11	-0.53 ± 1.43	-2.39 ± 1.14

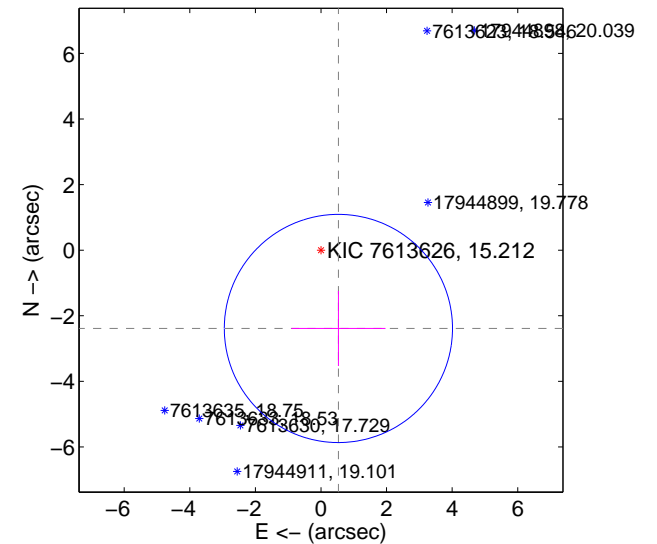
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

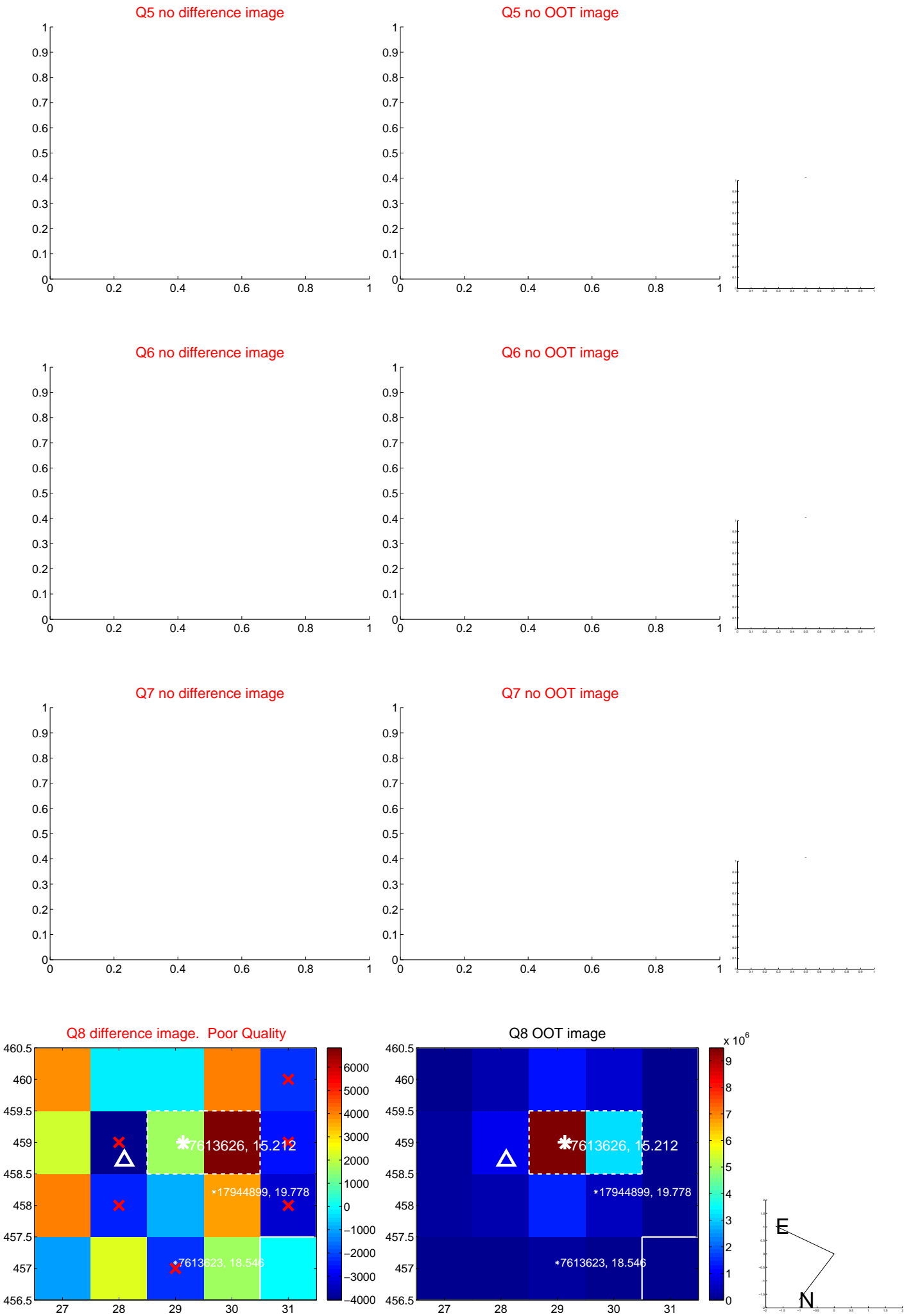


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



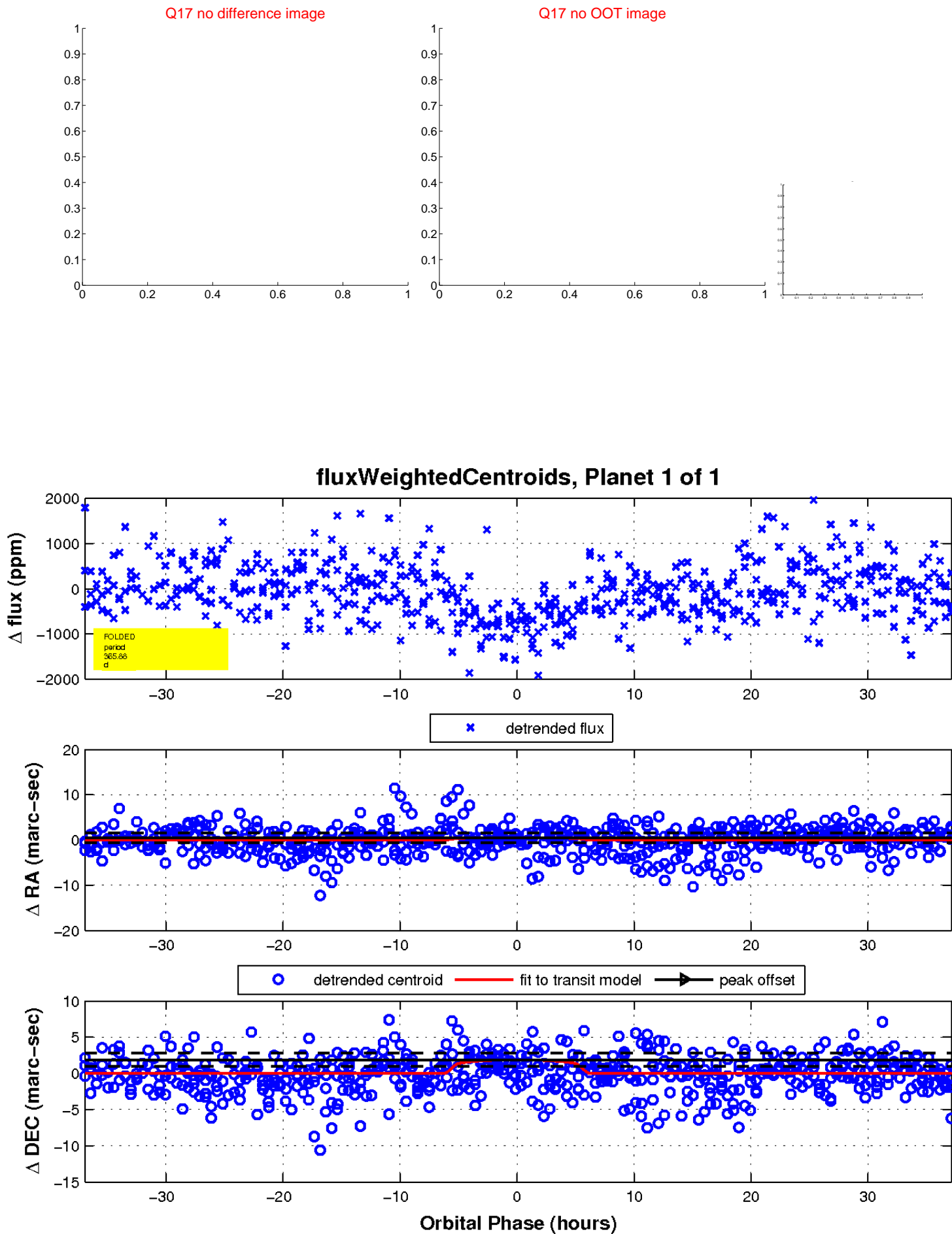
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

