

KIC 007676423

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})
007676423-01	OBS	3113.01	2.460511	133.613047	290.7	2.023	14.8	16.7	0.63	4811	1.39	208.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007676423-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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.

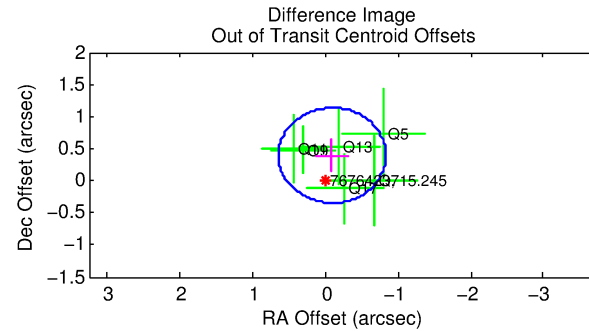
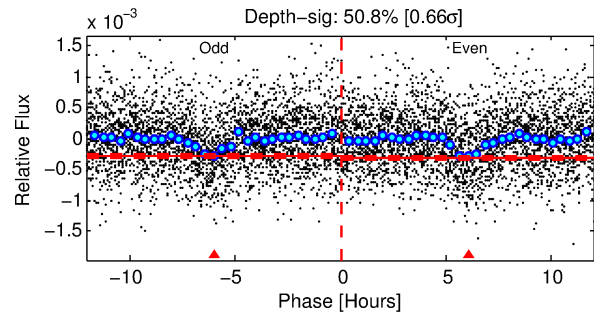
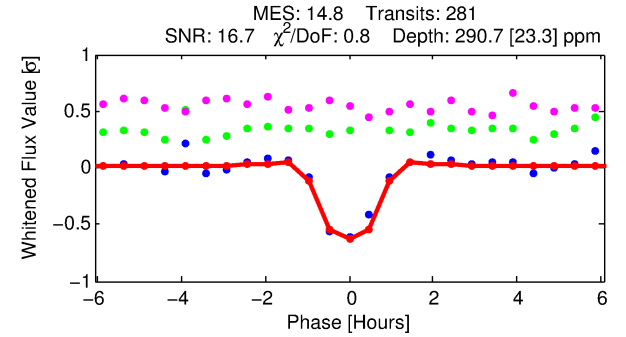
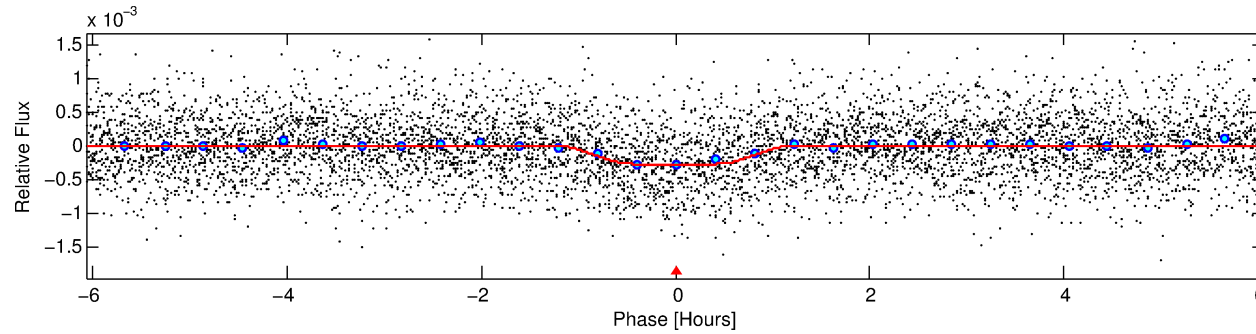
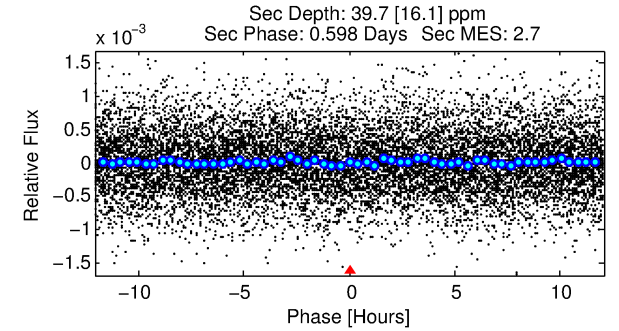
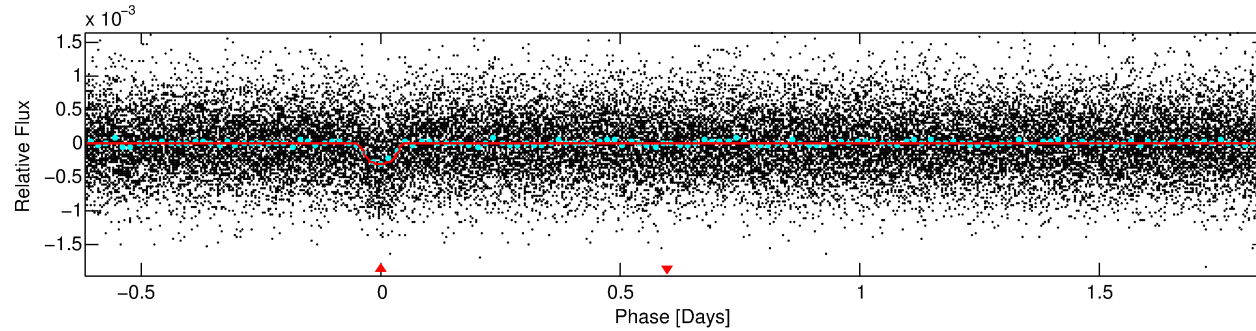
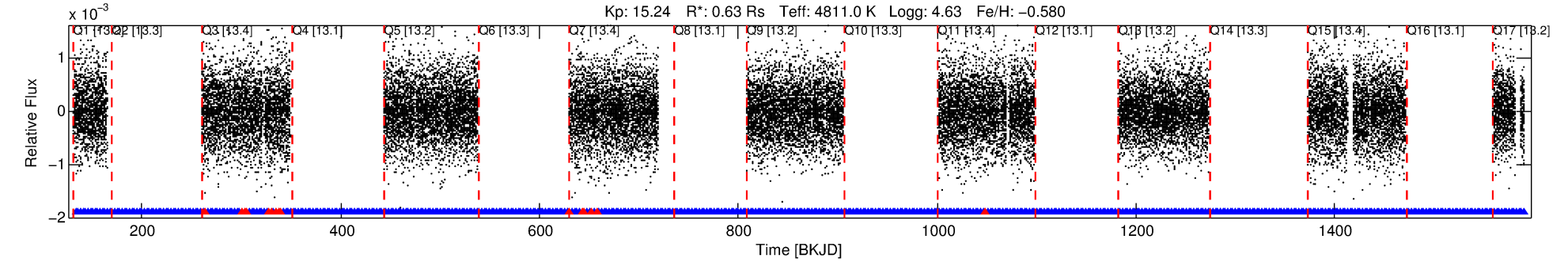
Ephemeris Match Information For 007676423-01

No Significant Match Found

DV One-Page Summary

KIC: 7676423 Candidate: 1 of 1 Period: 2.461 d

KOI: K03113.01 Corr: 0.989



DV Fit Results:

Period = 2.46051 [0.00001] d
Epoch = 133.6130 [0.0019] BKJD
Rp/R* = 0.0201 [0.0047]
a/R* = 3.88 [3.46]
b = 0.94 [0.13]
Seff = 208.54 [37.49]
Teff = 969 [44] K
Rp = 1.39 [0.35] Re
a = 0.0304 [0.0022] AU
Ag = 10.47 [6.61] [1.43σ]
Teffp = 2695 [431] K [3.99σ]

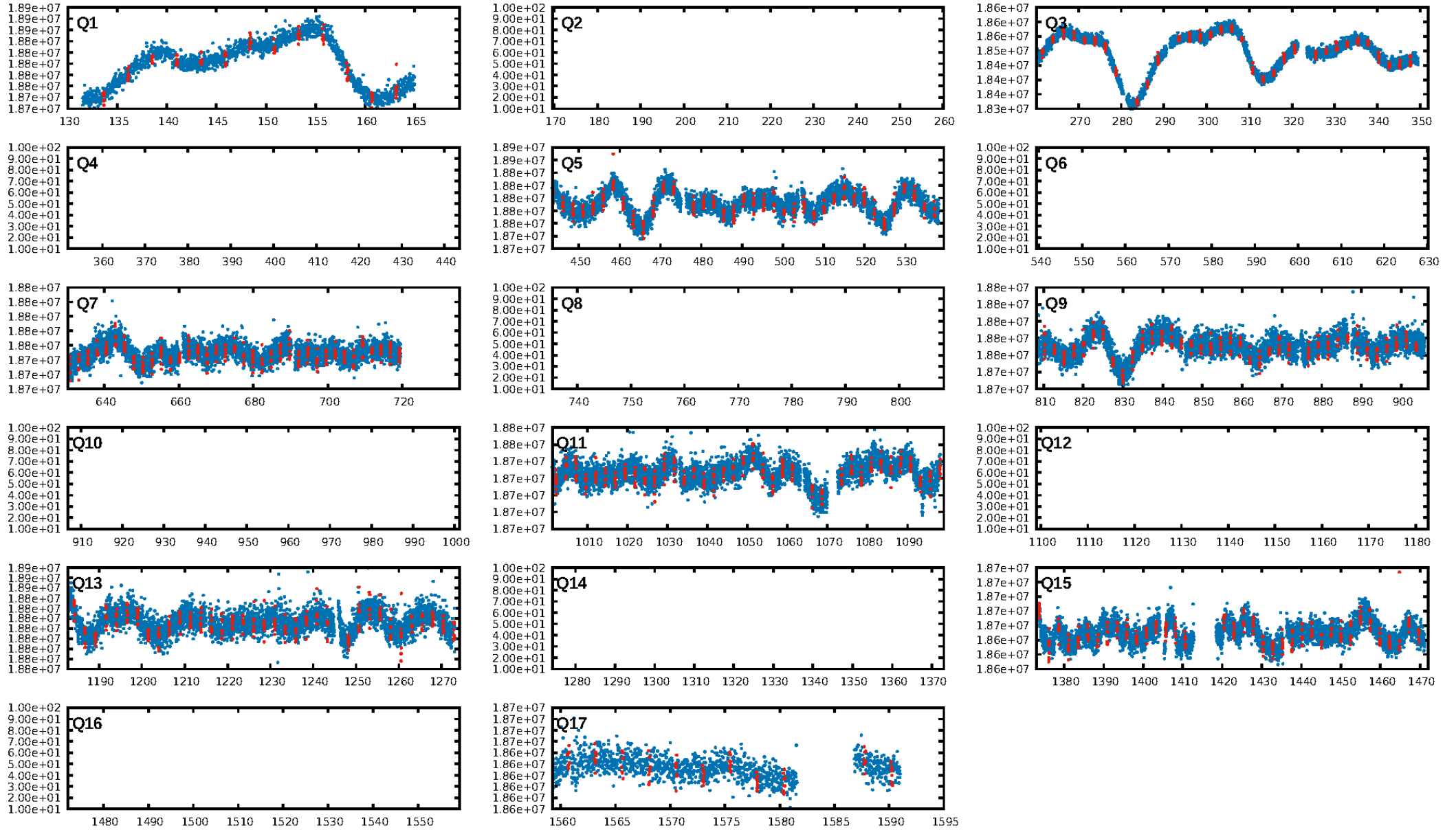
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.07e-46
RollingBand-fgt: 0.94 [242/257]
GhostDiagnostic-chr: 3.35
Centroid-sig: 53.6%
Centroid-so: 0.775 arcsec [1.06σ]
OotOffset-rm: 0.405 arcsec [1.64σ]
KicOffset-rm: 0.101 arcsec [0.41σ]
OotOffset-st: 0/2/0/4 [6]
KicOffset-st: 0/2/0/4 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [9/9]

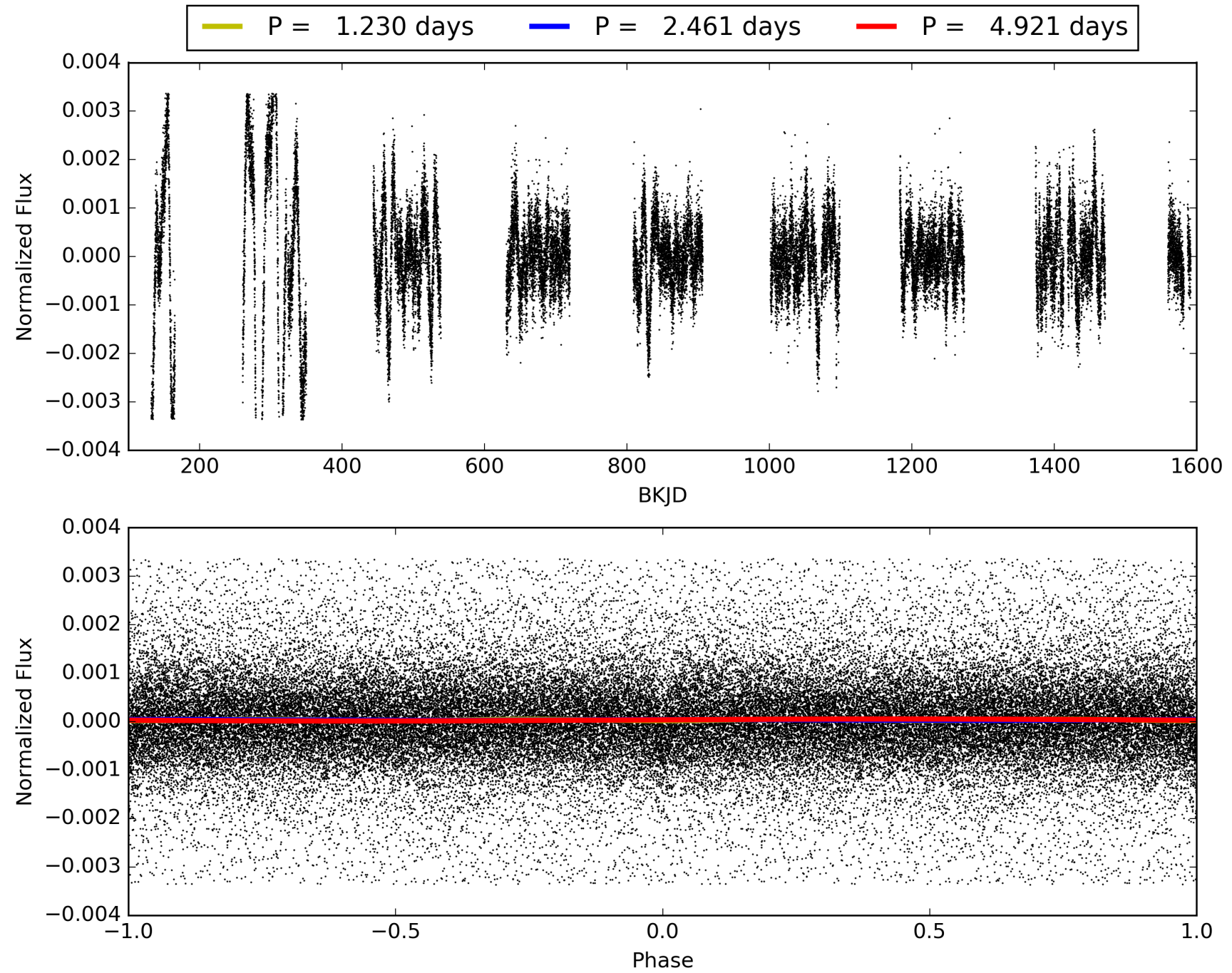
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:12:45 Z

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

TCE 007676423-01, PDC Light Curves

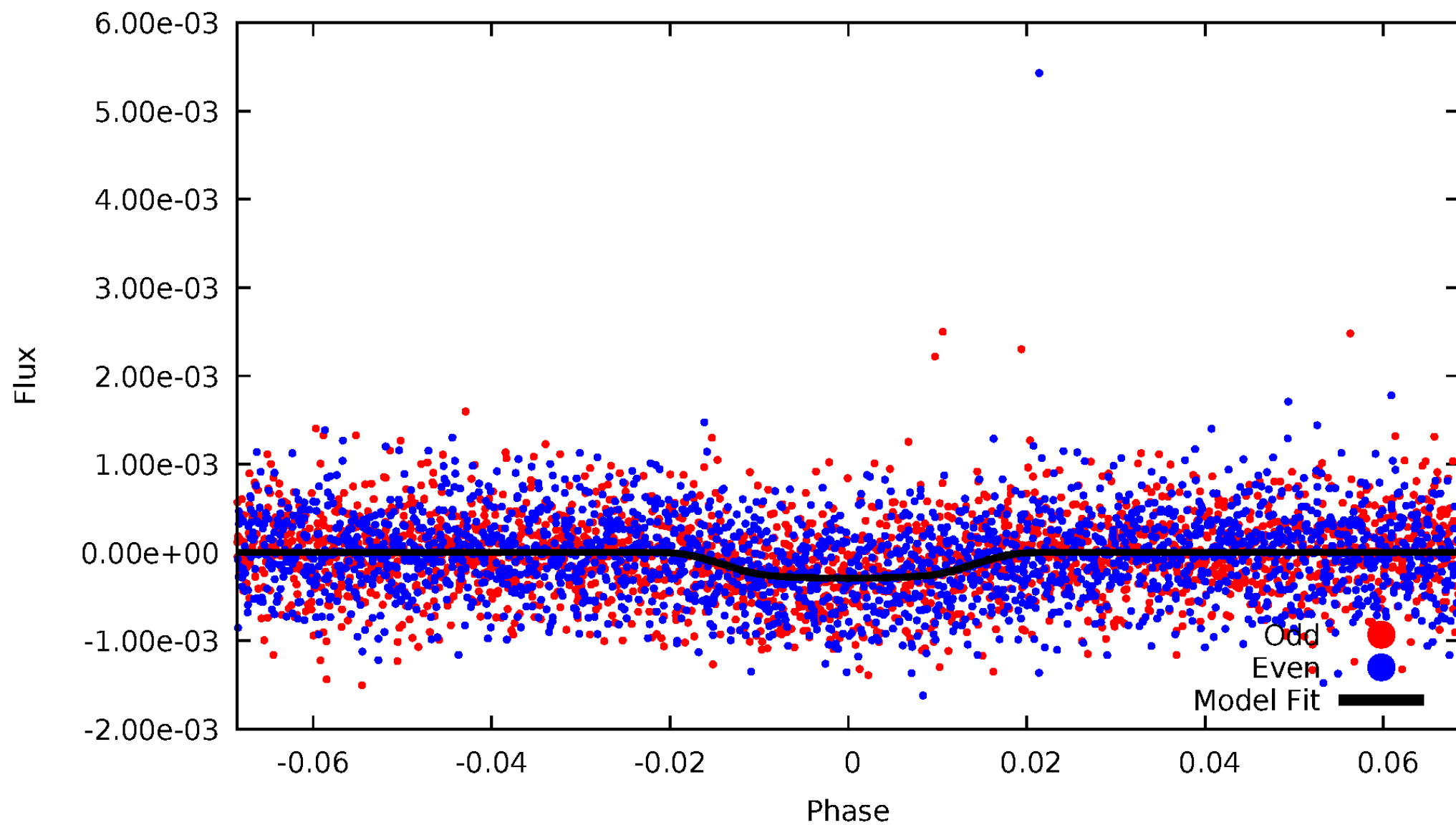


TCE 007676423-01



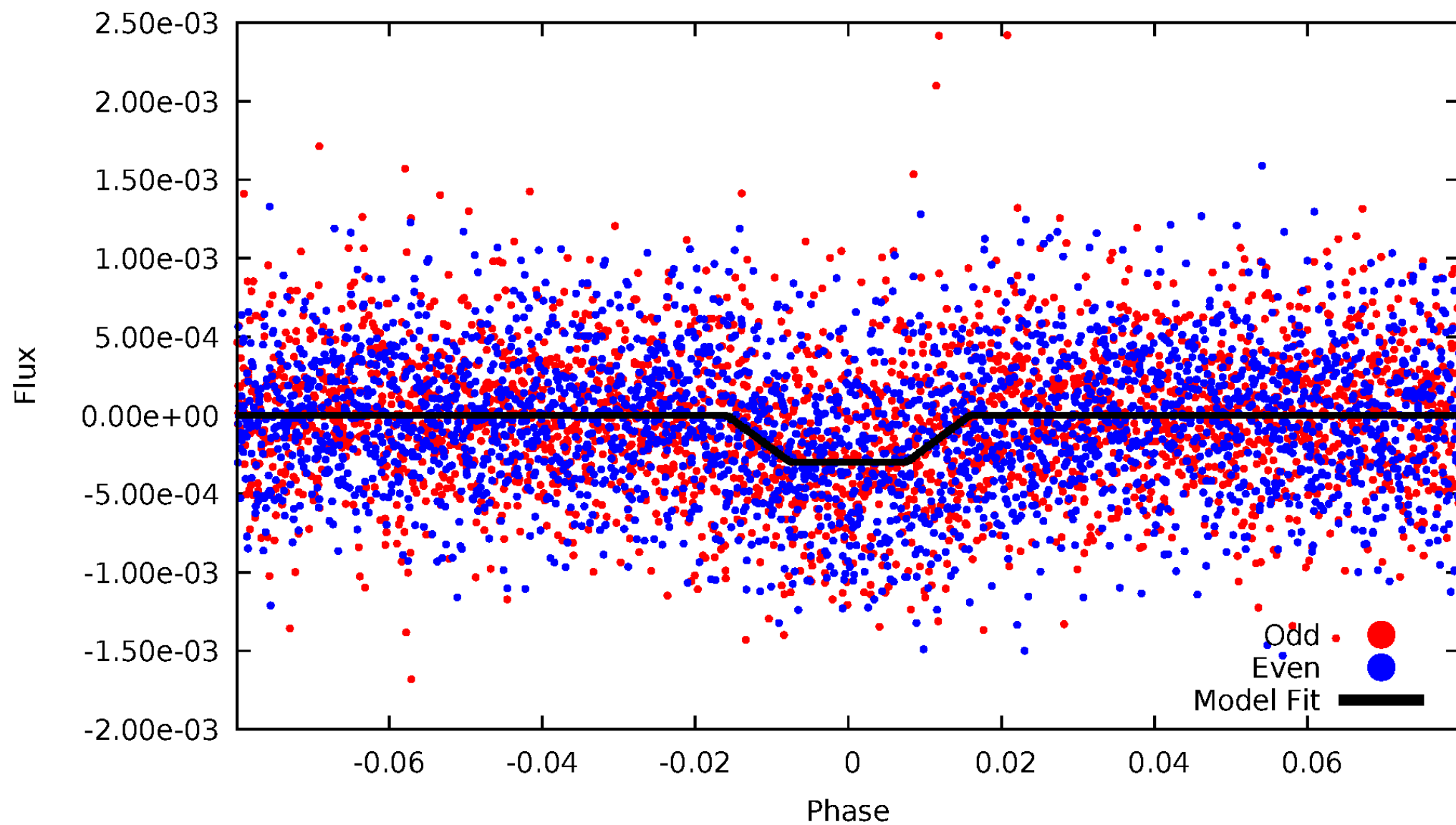
DV Odd/Even

TCE 007676423-01



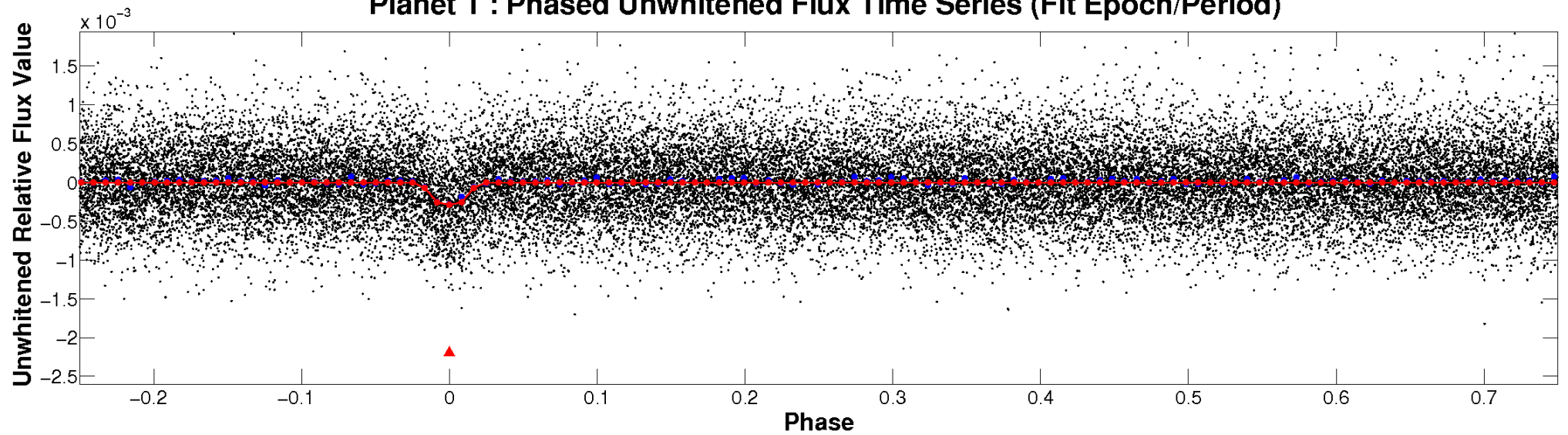
ALT Odd/Even

TCE 007676423-01

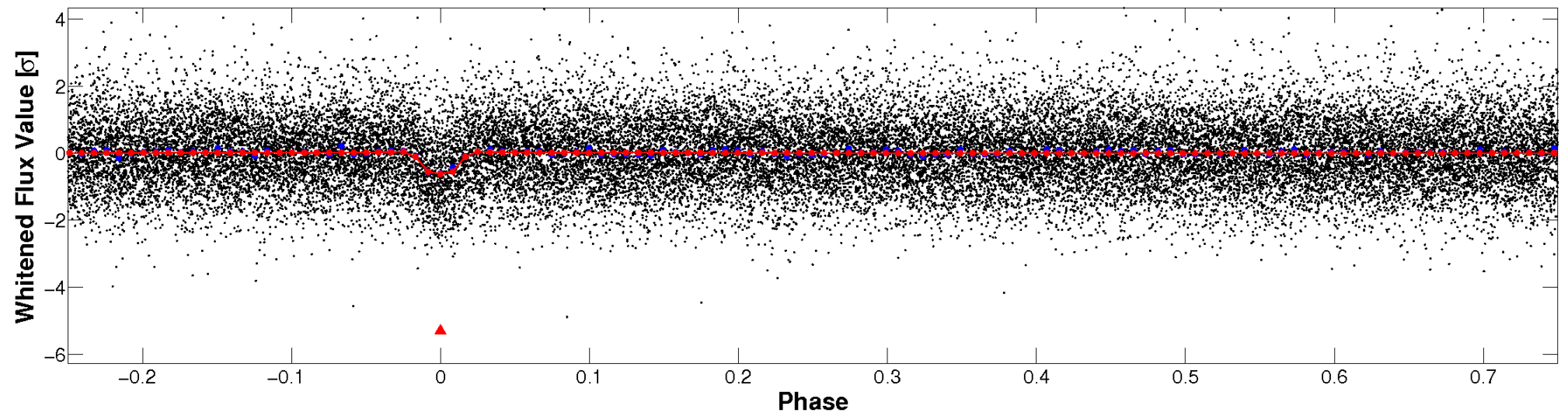


Non-Whitened Vs. Whitened Light Curve

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

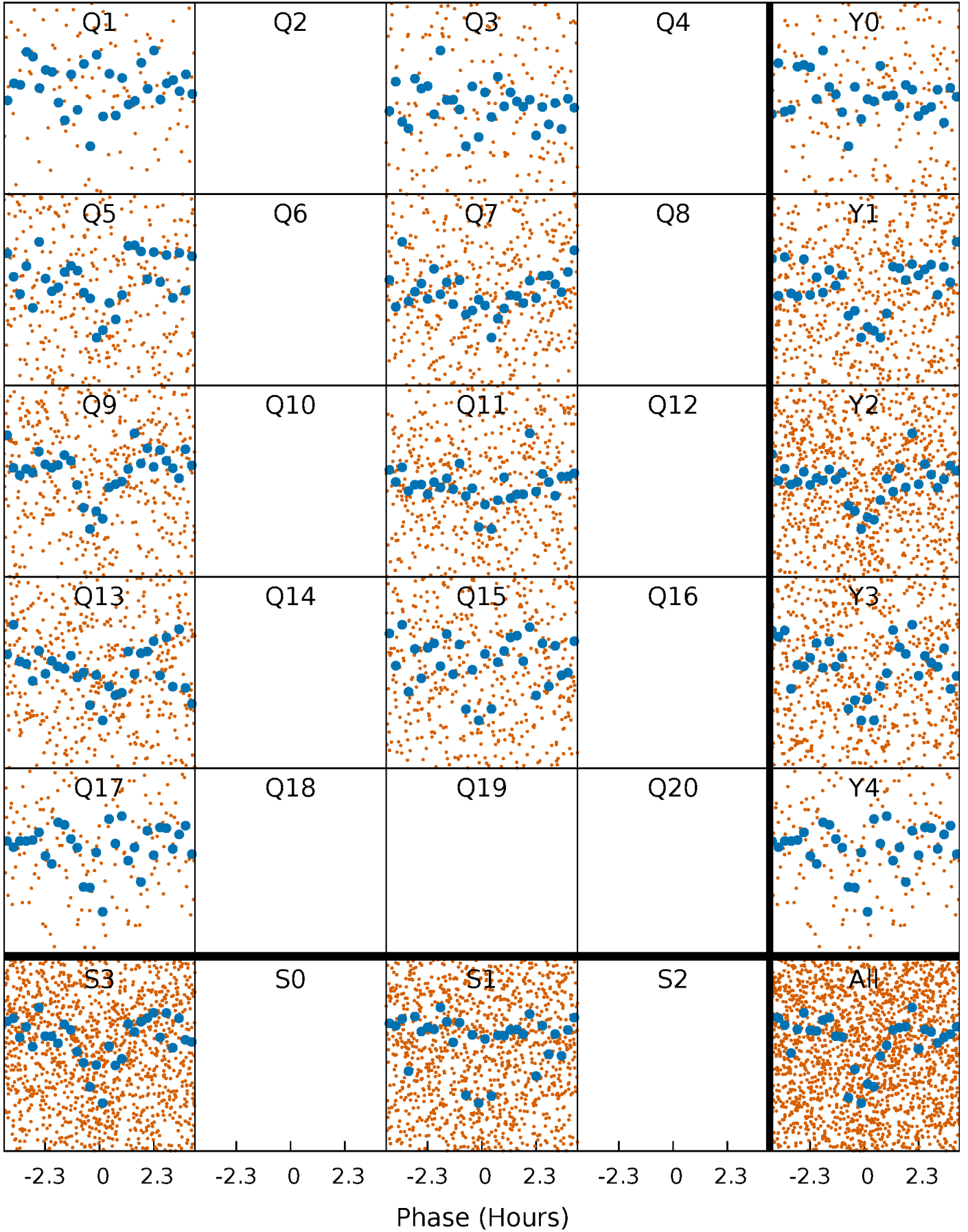


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



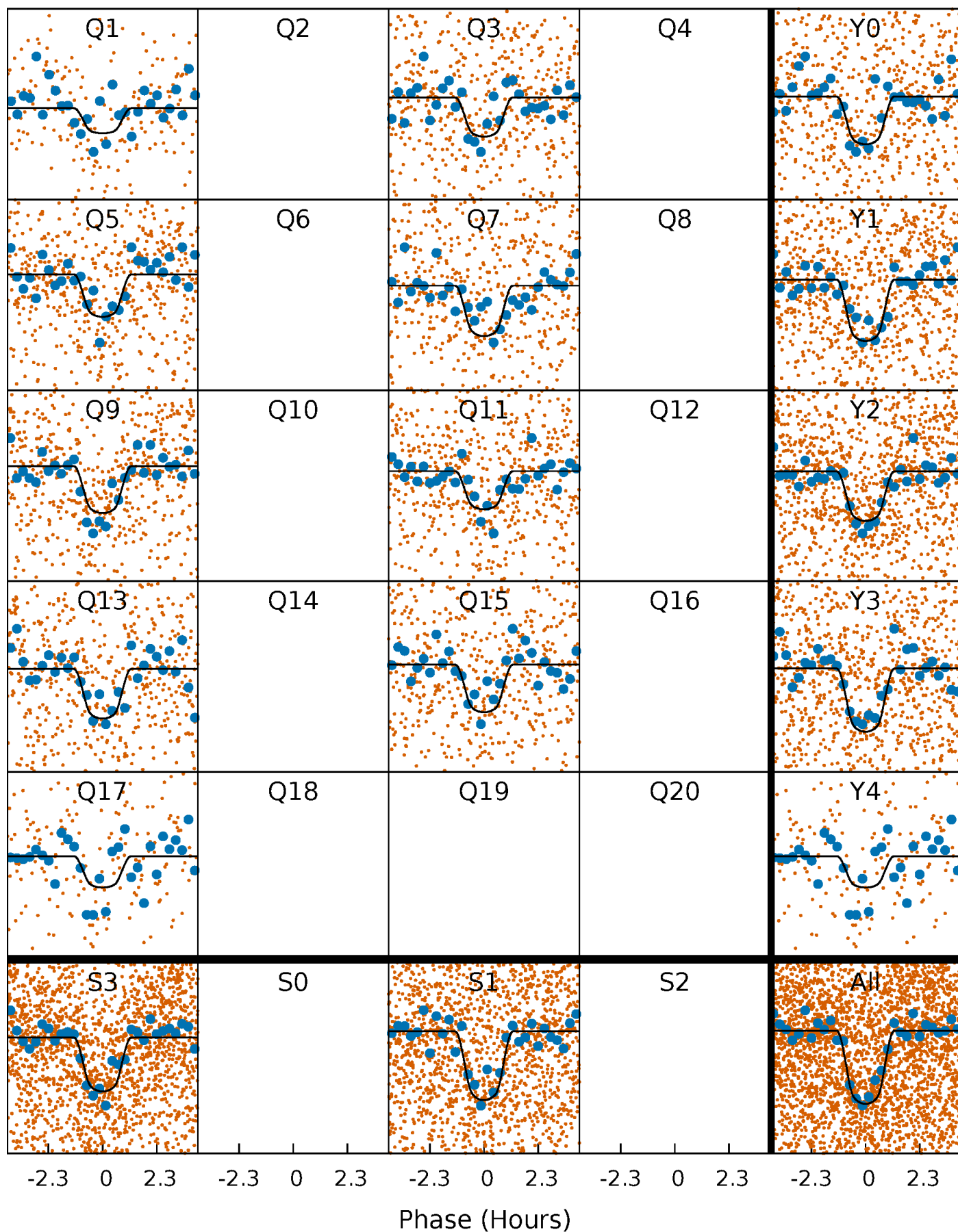
PDC Quarter-Phased Transit Curves

TCE 007676423-01 P= 2.460511 Days $T_0=133.613047$ (BKJD)



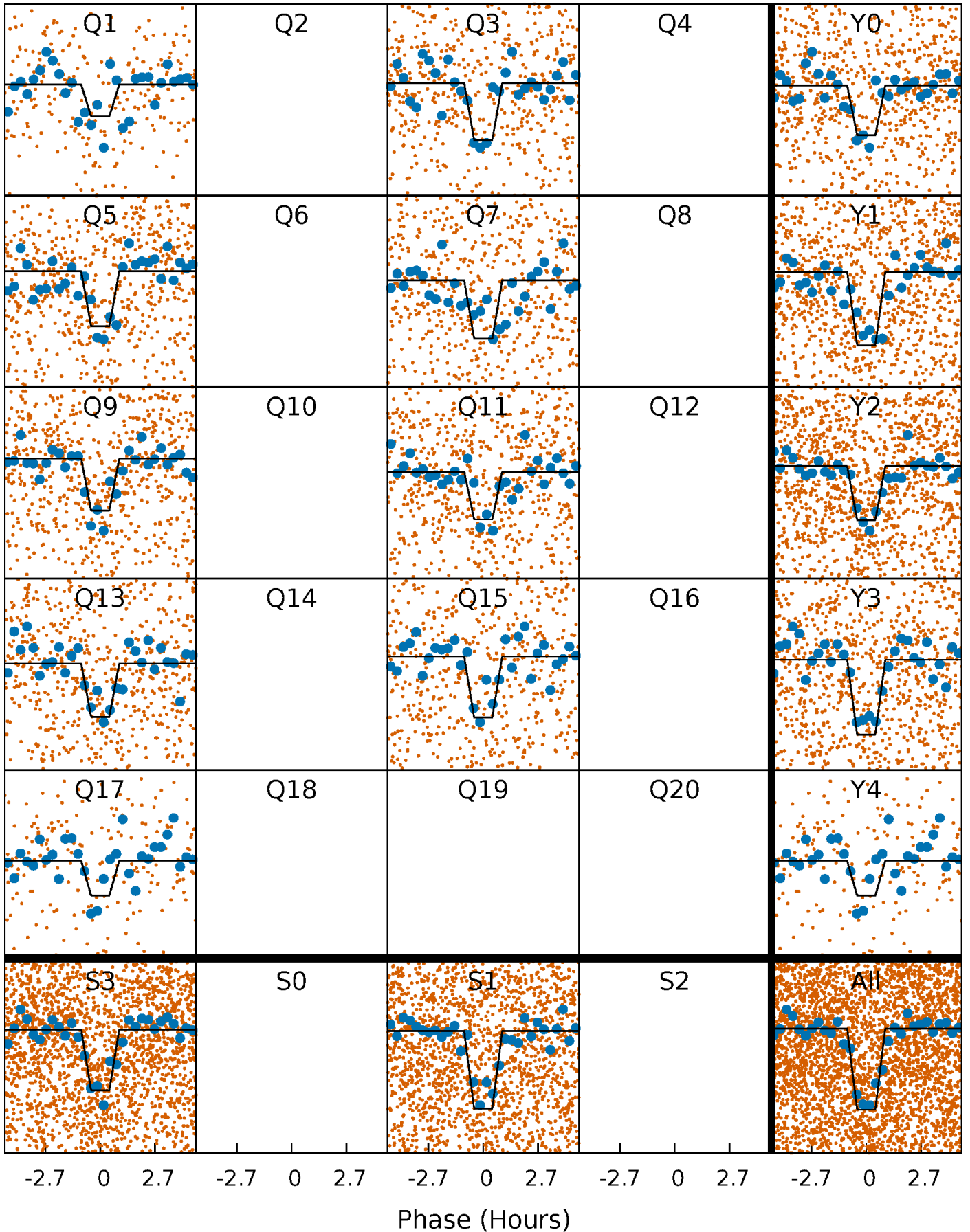
DV Quarter-Phased Transit Curves

TCE 007676423-01 P= 2.460511 Days $T_0=133.613047$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

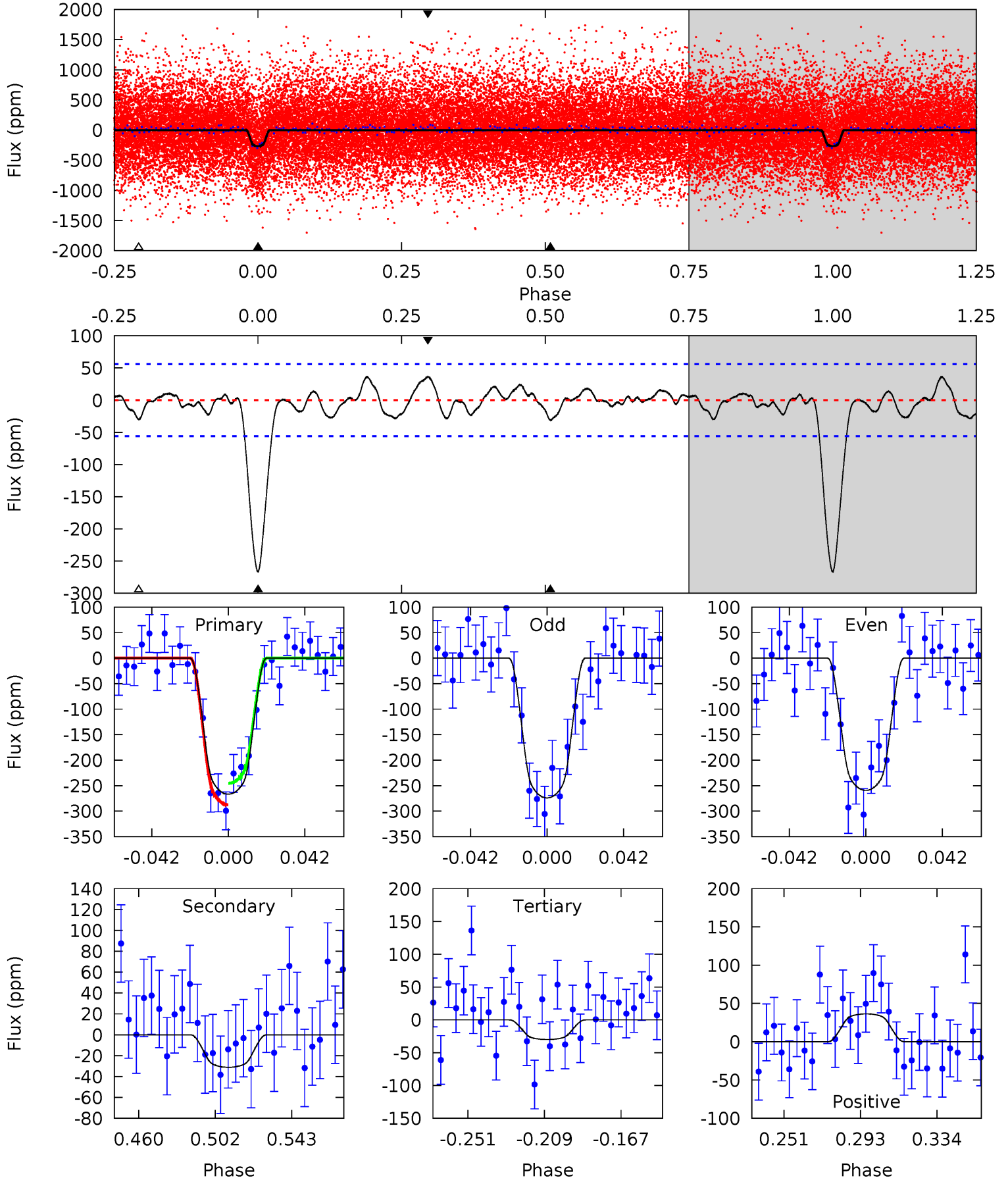
TCE 007676423-01 P= 2.460508 Days $T_0=133.610026$ (BKJD)



DV Model-Shift Uniqueness Test

007676423-01, P = 2.460511 Days, E = 131.152536 Days

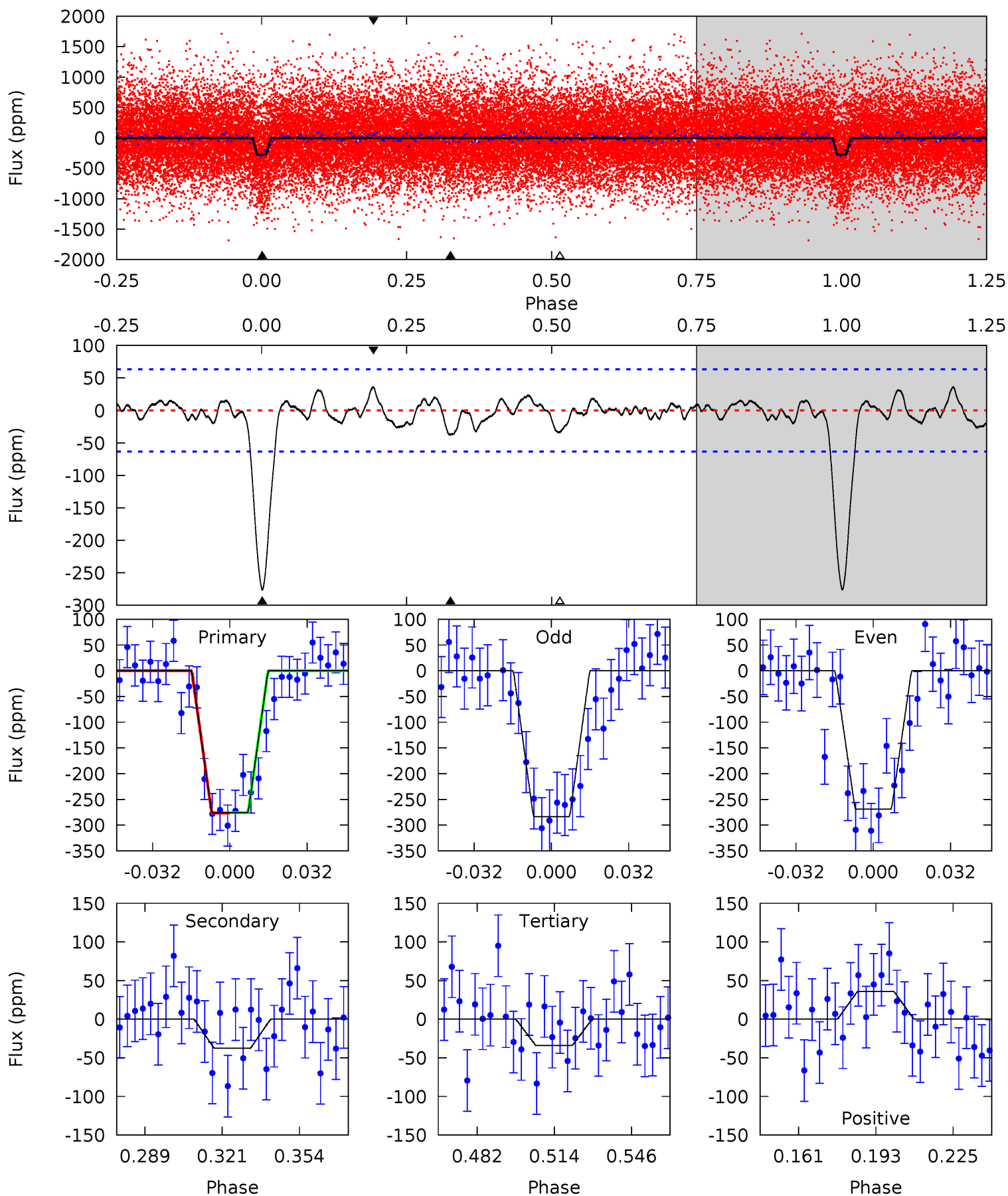
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	2.64	2.54	3.09	4.74	2.04	1.21	20.1	19.5	0.10	-0.45	0.63	0.95	0.12	1.79



Alt Model-Shift Uniqueness Test

007676423-01, P = 2.460508 Days, E = 131.149518 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	2.85	2.58	2.73	4.80	2.14	0.98	18.3	18.2	0.28	0.13	0.54	0.97	0.12	0.03



Stellar Parameters For KIC 007676423

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4811^{+174}_{-174}	$4.626^{+0.058}_{-0.036}$	$-0.580^{+0.350}_{-0.300}$	$0.634^{+0.056}_{-0.056}$	$0.620^{+0.075}_{-0.034}$	$3.424^{+0.900}_{-0.493}$
	+4%/-4%	+1%/-1%	+60%/-52%	+9%/-9%	+12%/-5%	+26%/-14%
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 007676423-01 / KOI 3113.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-31 ± 12	$1.39^{+0.33}_{-0.34}$	1350^{+56}_{-57}	3080^{+328}_{-266}	$8.255^{+7.493}_{-3.683}$
Alt.	-38 ± 13	$1.20^{+0.32}_{-0.32}$	1346^{+60}_{-54}	3329^{+392}_{-322}	14^{+13}_{-7}

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

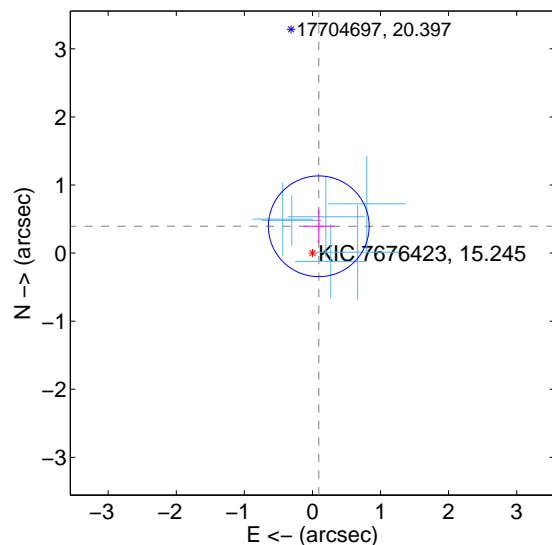
Supplemental centroid analysis for 007676423-01. Kepler magnitude: 15.24. Transit SNR 16.73

There are 6 quarters with good PRF difference image offsets

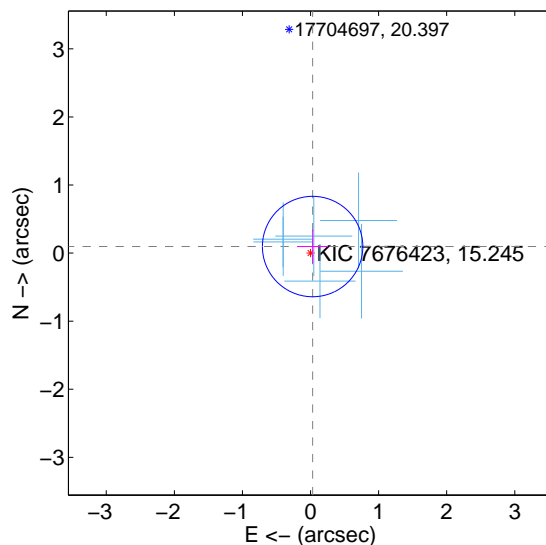
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.405 ± 0.247	1.64	-0.093 ± 0.225	0.394 ± 0.248
PRF-fit source offset from KIC position	0.101 ± 0.246	0.41	-0.031 ± 0.225	0.096 ± 0.248
photometric centroid source offset	0.78 ± 0.73	1.06	-0.68 ± 0.75	-0.38 ± 0.67

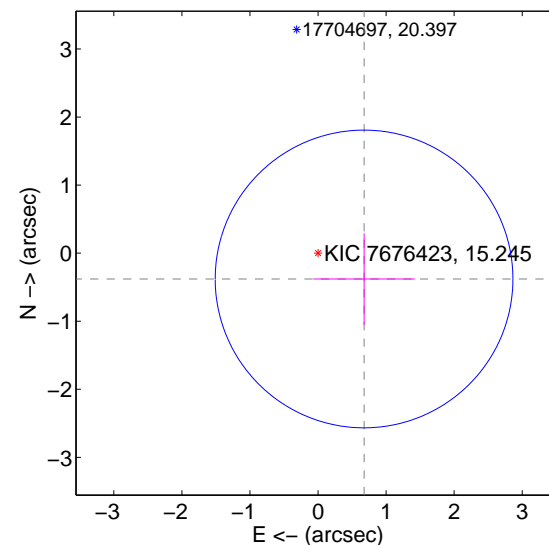
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

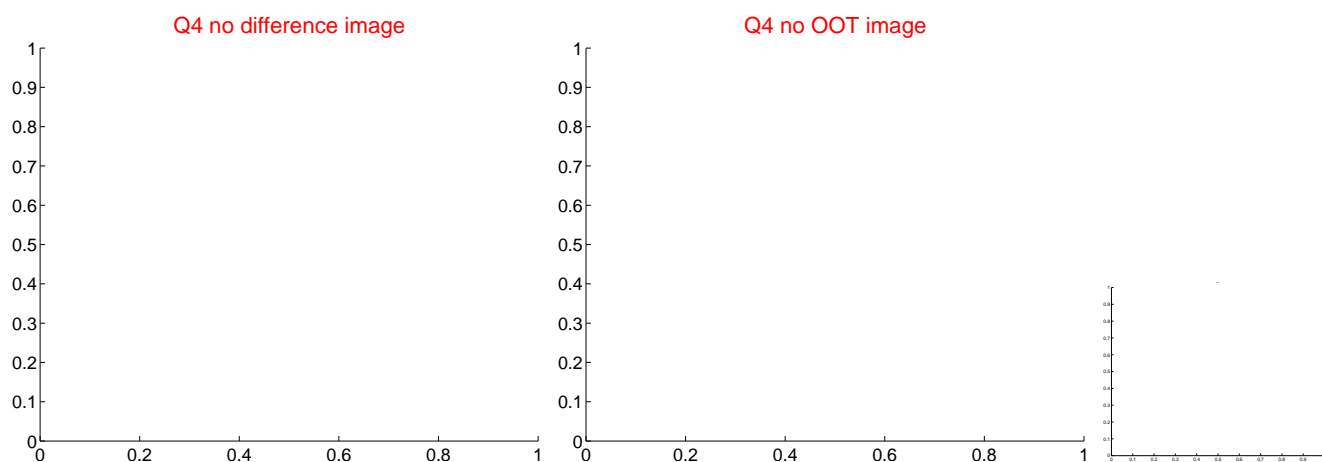
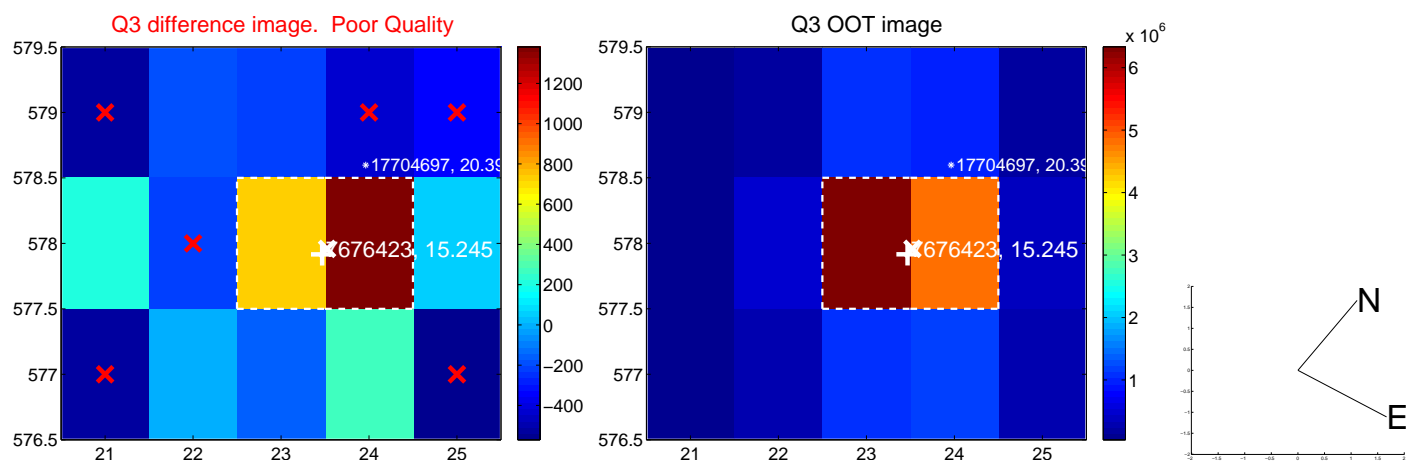
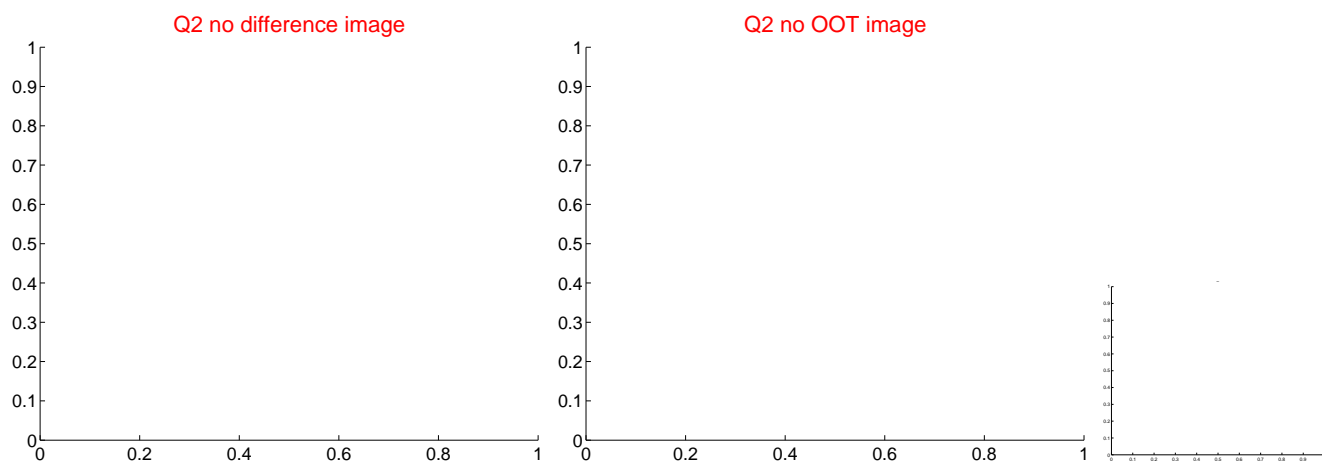
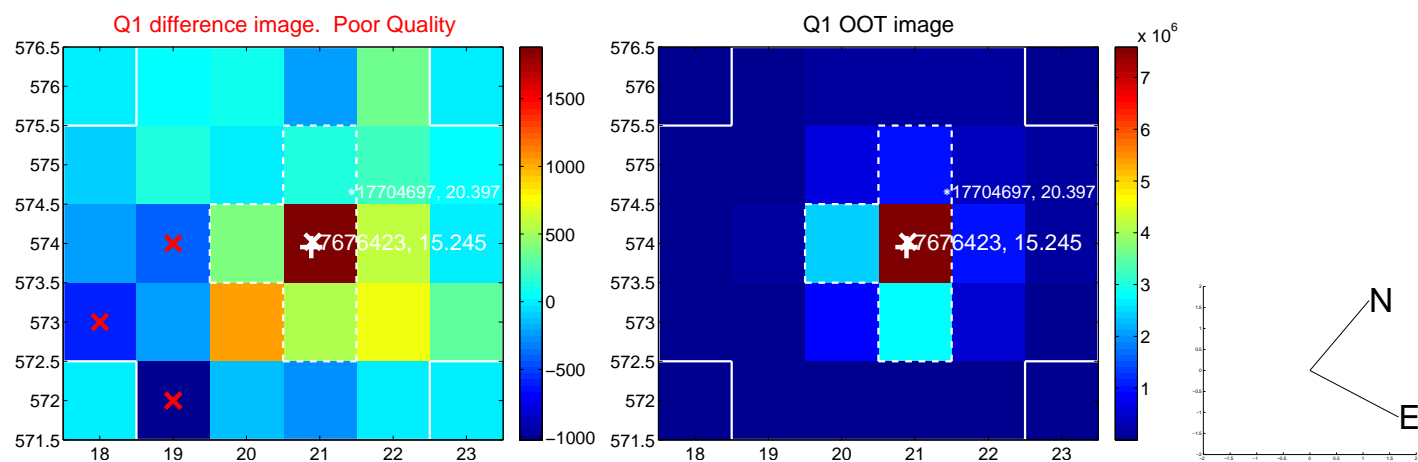


offset from photometric centroids

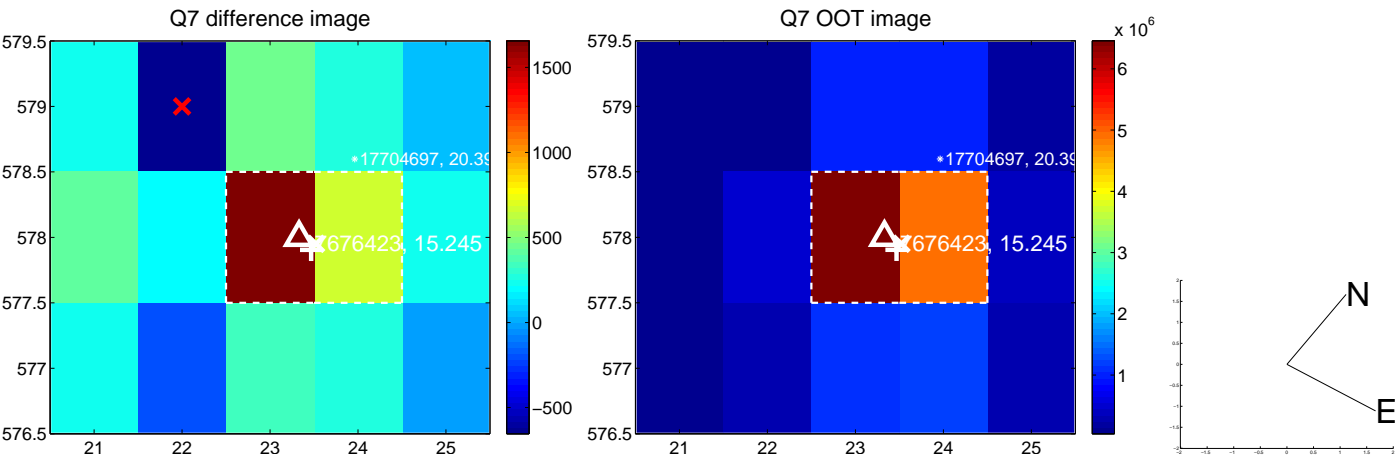
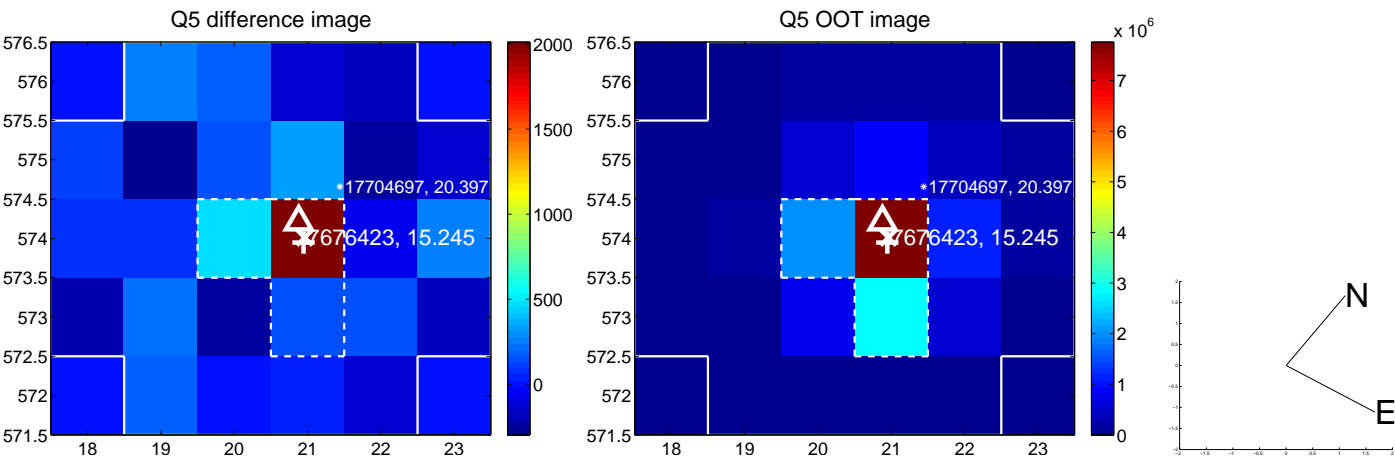


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

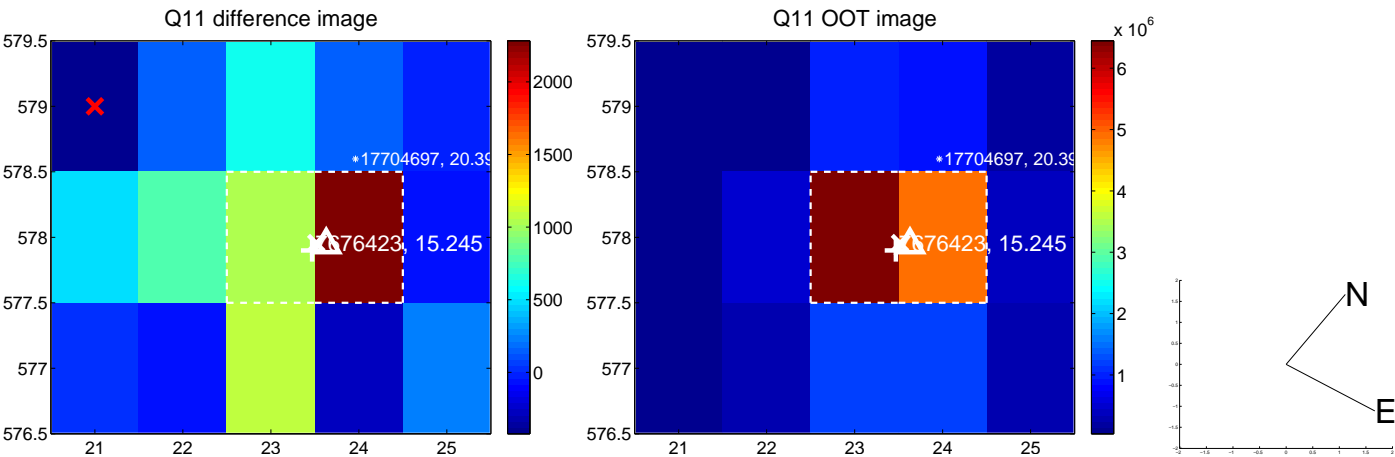
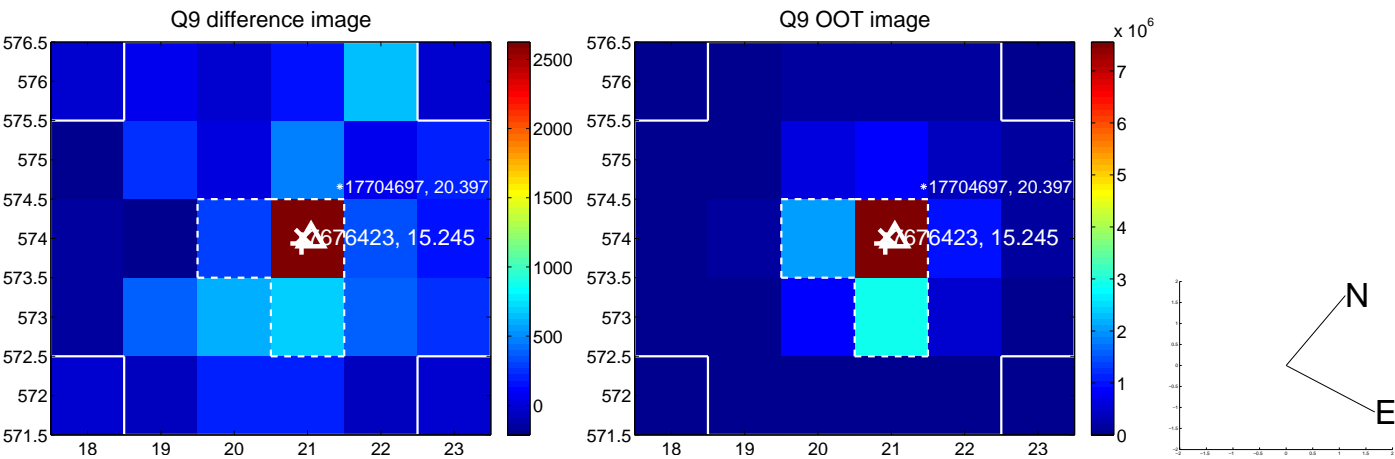
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



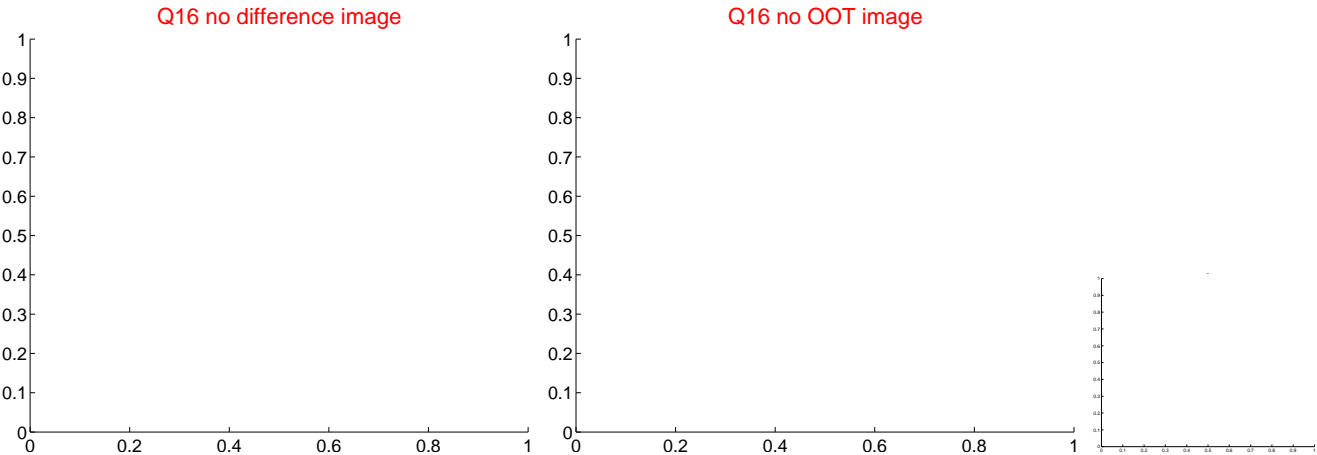
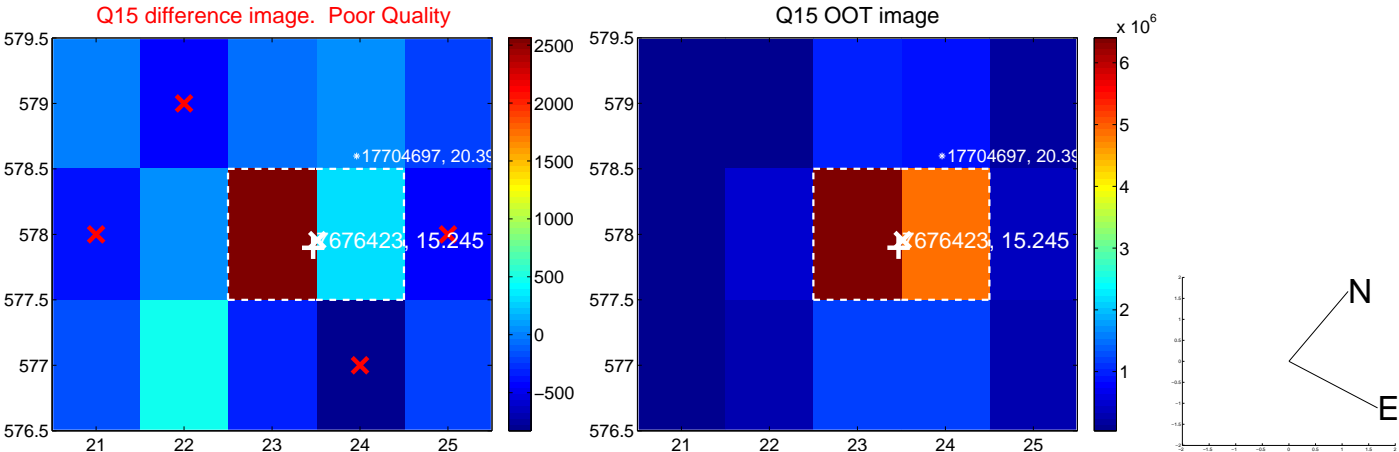
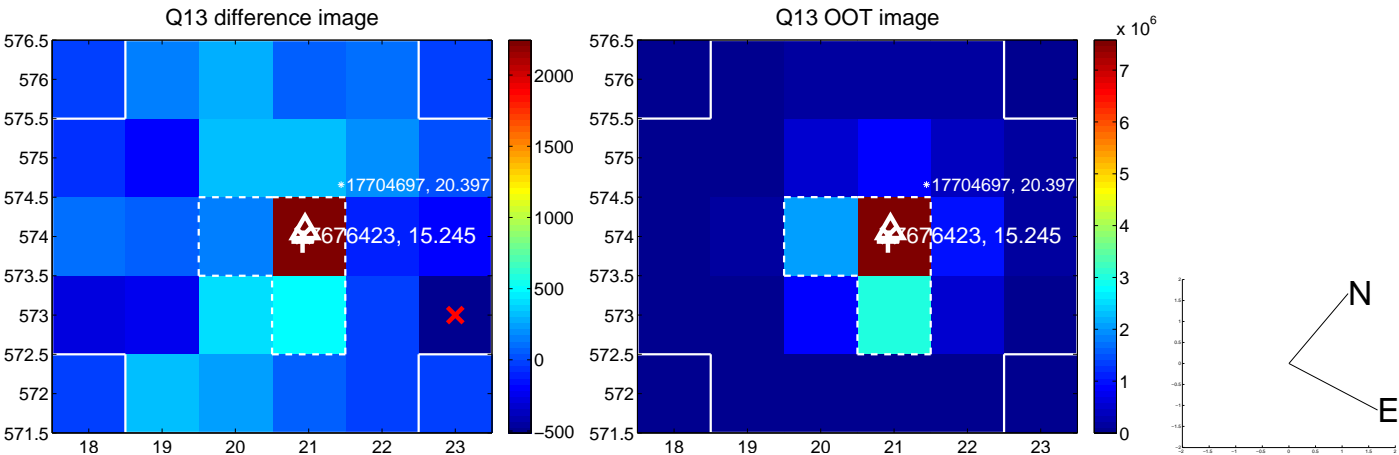
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



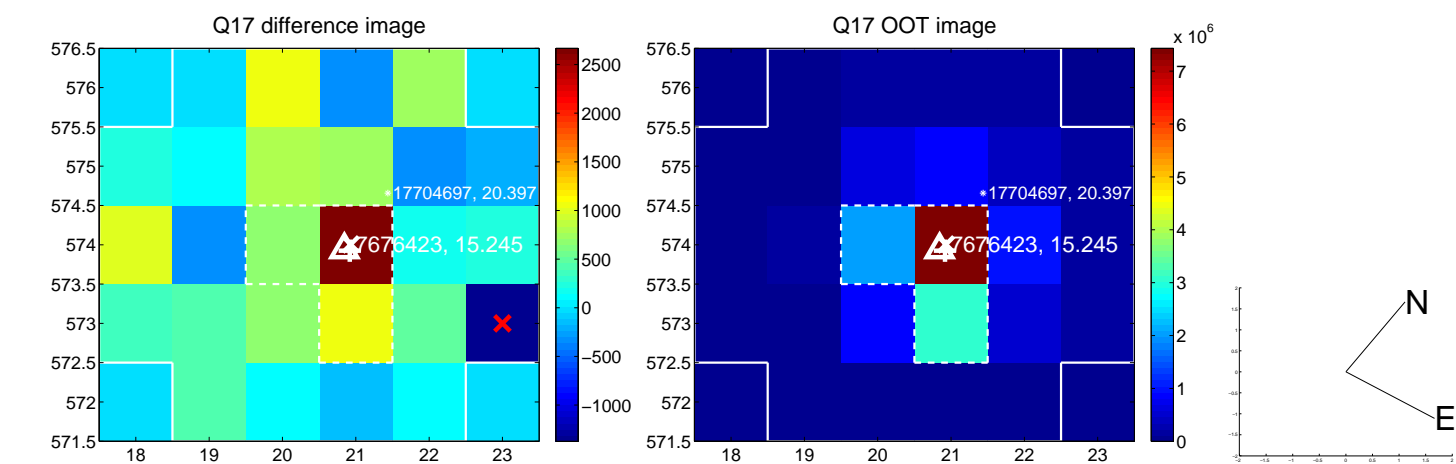
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



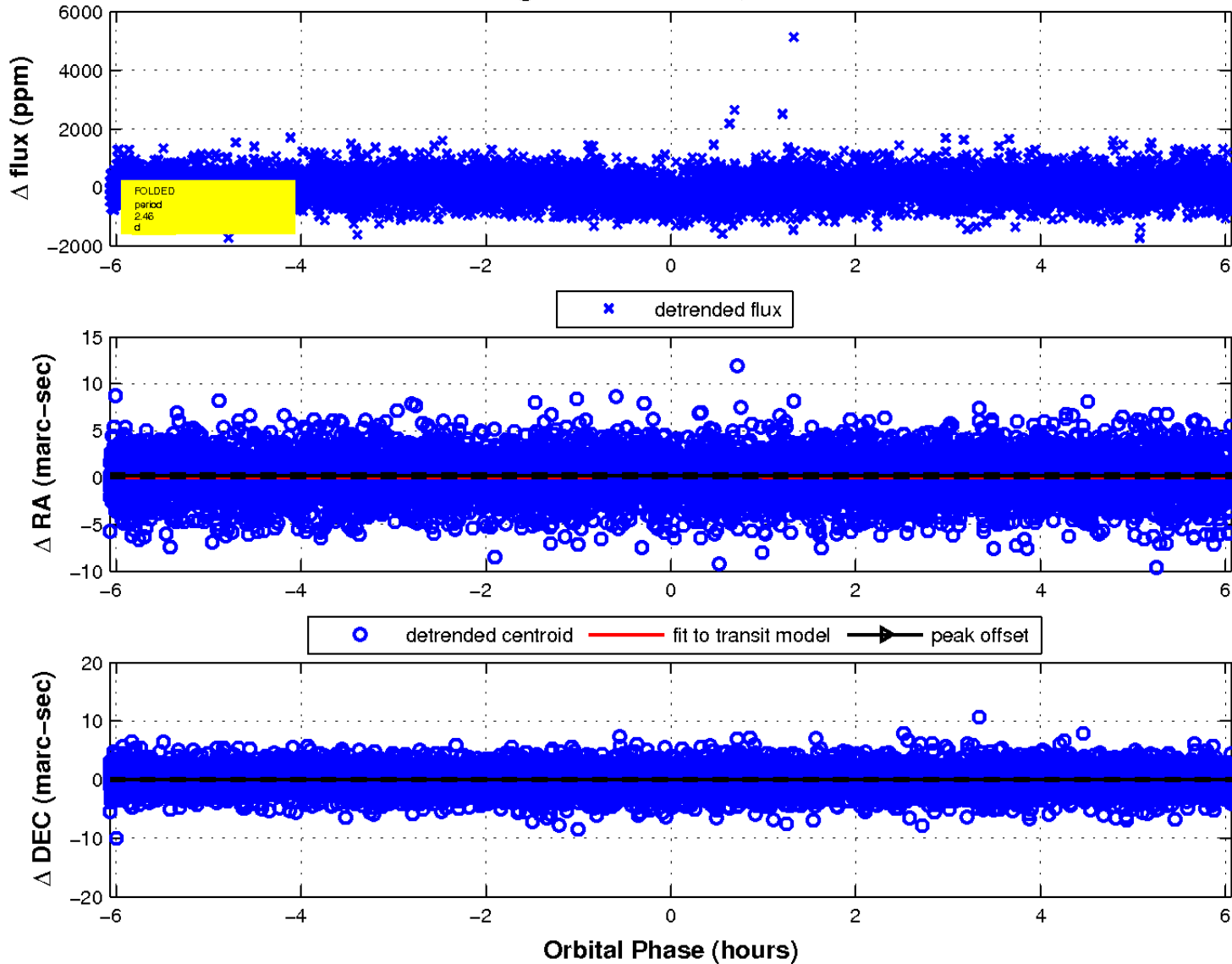
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



This is a false-color astronomical image, likely from the Sloan Digital Sky Survey, showing a dense field of stars. The stars appear as bright white and yellow points against a dark orange-brown background. A blue grid is overlaid on the image, with green text labels indicating coordinates. The labels include '18:50.0', '49.0', '48.0', '47.0', '46.0', '50.0', '10.0', '20.0', '30.0', '40.0', and '50.0'. A red horizontal line is also visible across the middle of the image.

Declination