

KIC 007023432

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})
007023432-01	OBS	No	380.769371	425.767864	190.8	8.828	7.3	6.9	2.00	6297	3.06	4.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007023432-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—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.

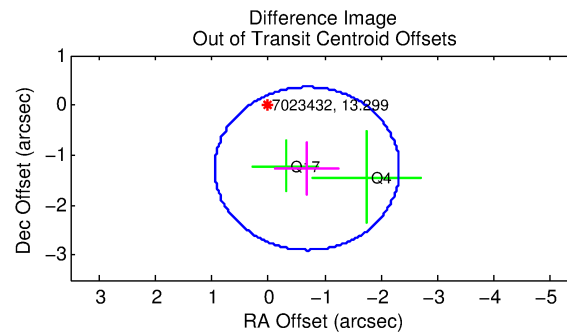
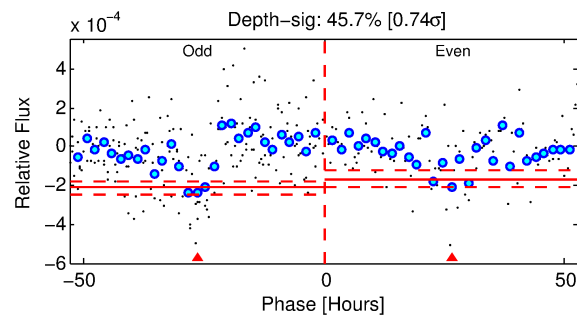
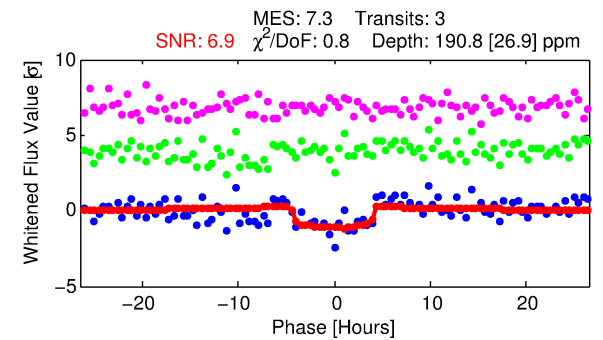
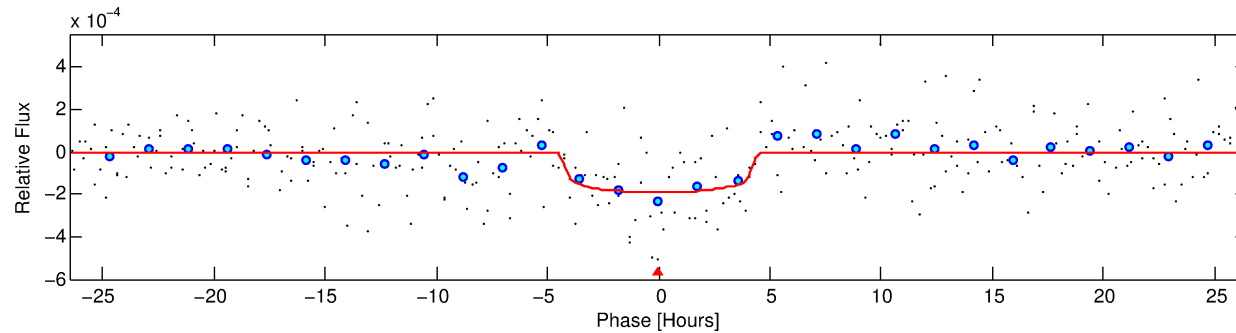
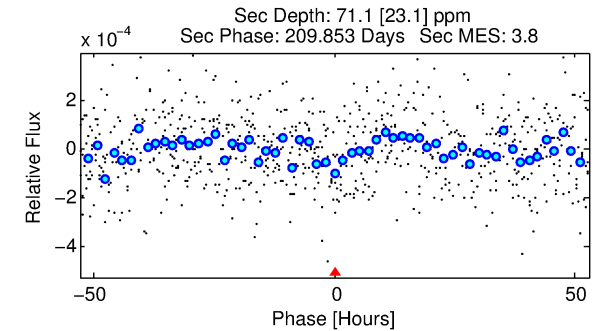
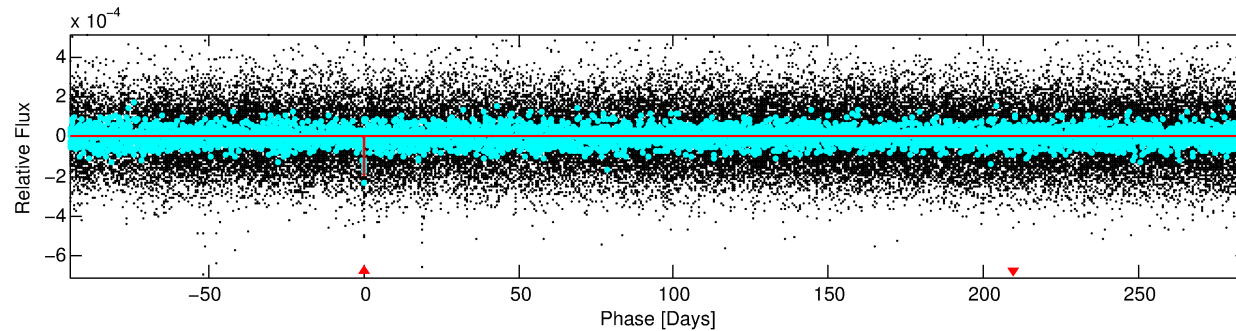
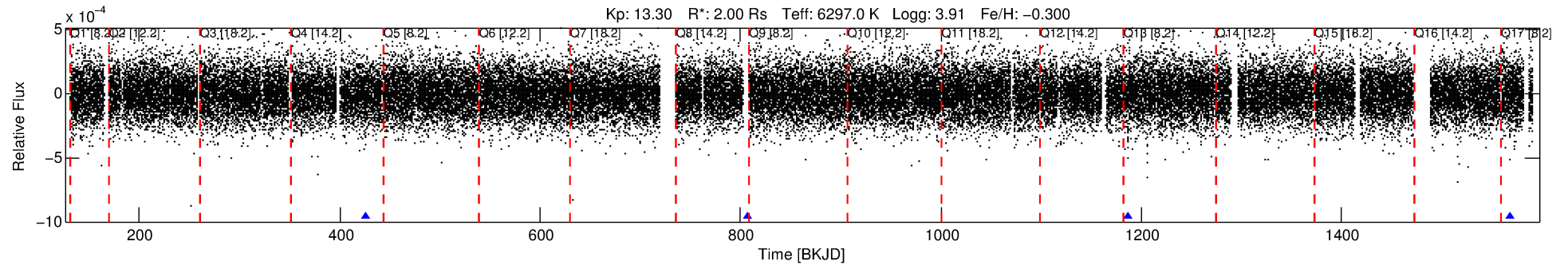
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007023432-01

No Significant Match Found

DV One-Page Summary

KIC: 7023432 Candidate: 1 of 1 Period: 380.769 d



DV Fit Results:

Period = 380.76937 [0.00789] d
Epoch = 425.7679 [0.0155] BKJD
Rp/R* = 0.0141 [0.0062]
a/R* = 199.48 [469.68]
b = 0.81 [0.99]
Seff = 4.76 [2.35]
Teff = 377 [46] K
Rp = 3.06 [1.67] Re
a = 1.0854 [0.3285] AU
Ag = 4905.49 [5187.92] [0.95σ]
Teffp = 4875 [1156] K [3.89σ]

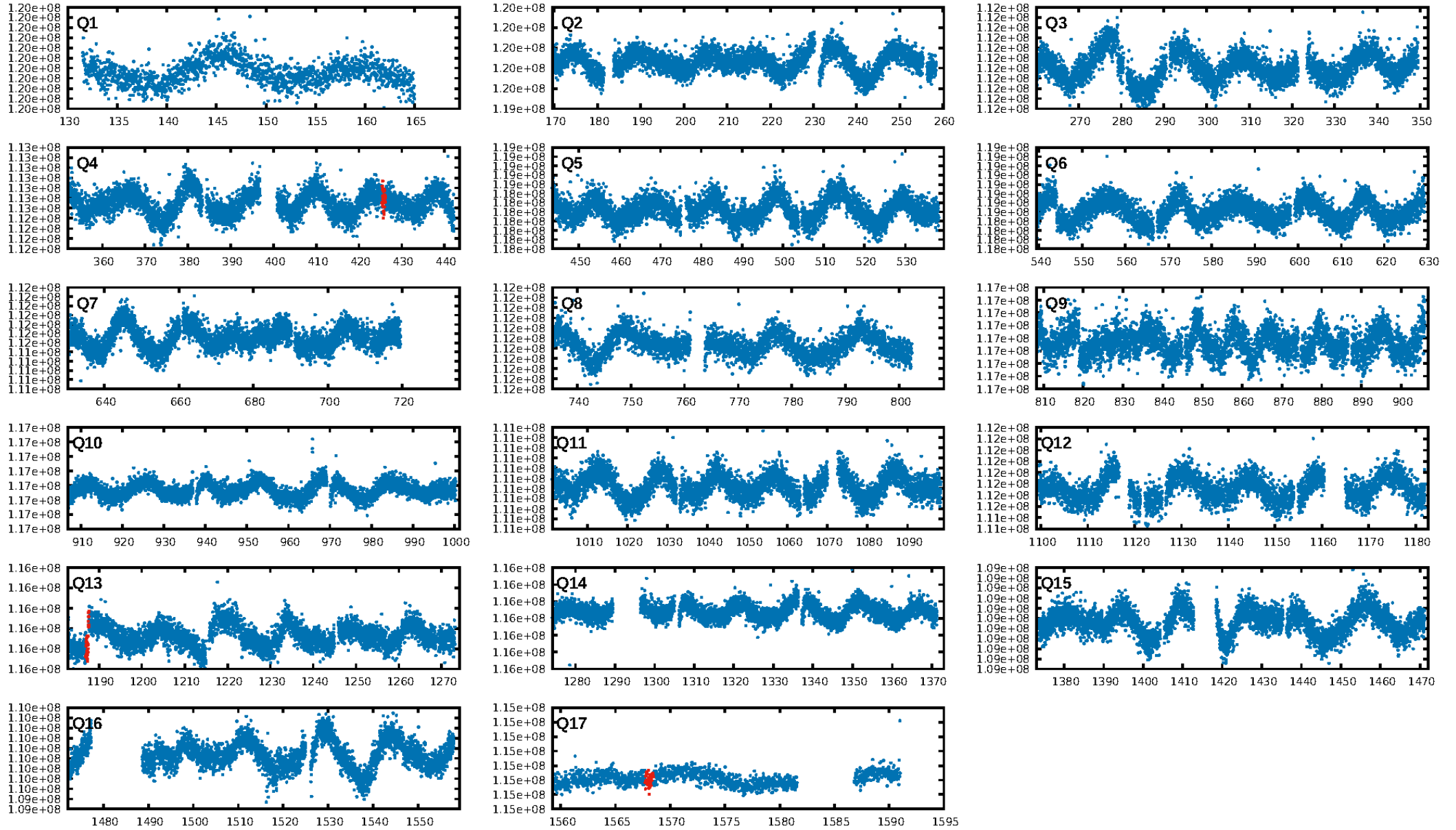
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.0%
ModelChiSquareGof-sig: 98.7%
Bootstrap-pfa: 4.42e-12
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 3.536
Centroid-sig: 93.7%
Centroid-so: 0.417 arcsec [0.28σ]
OotOffset-rm: 1.443 arcsec [2.65σ]
KicOffset-rm: 1.363 arcsec [2.50σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

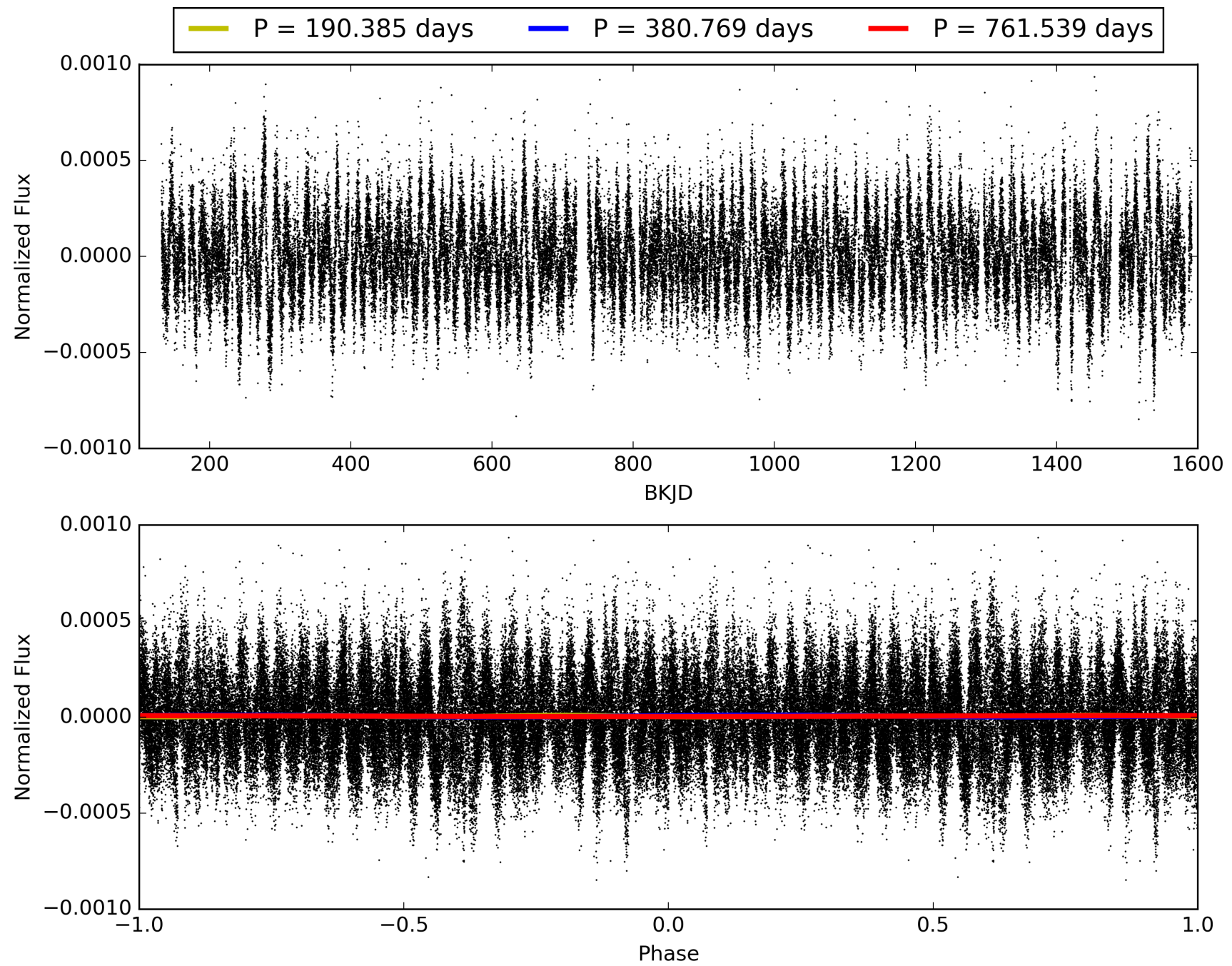
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:37:29 Z

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

TCE 007023432-01, PDC Light Curves

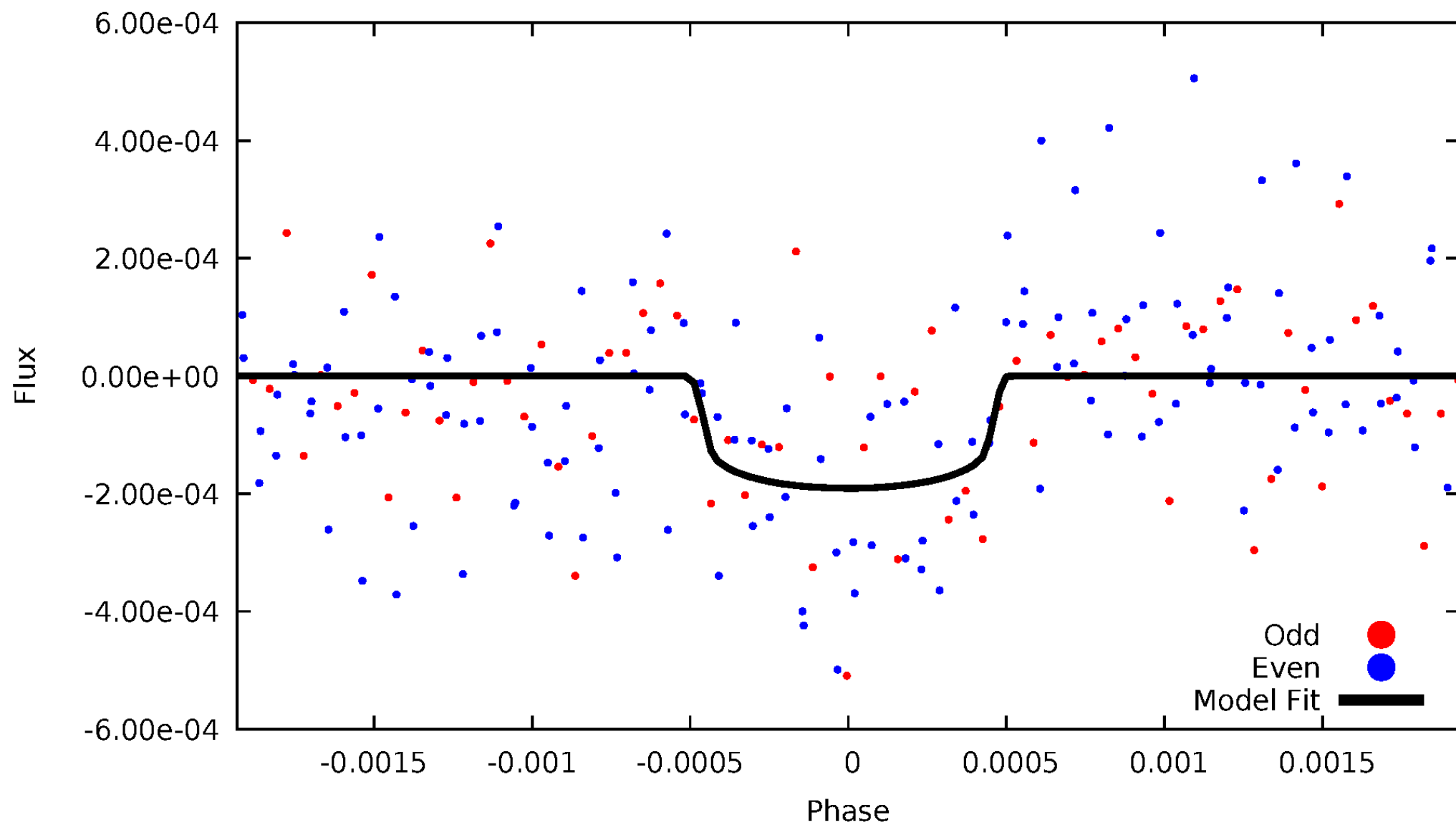


TCE 007023432-01



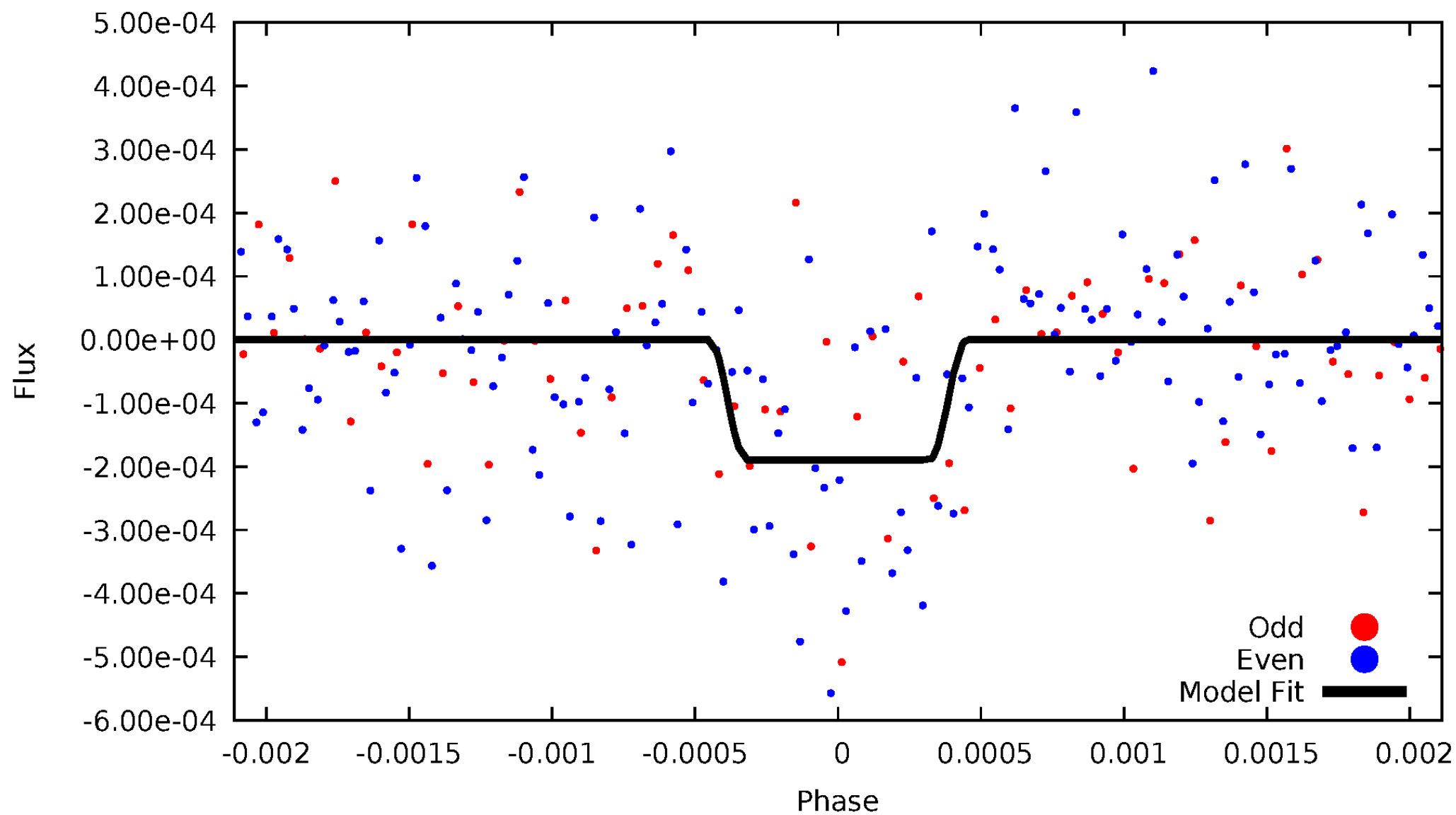
DV Odd/Even

TCE 007023432-01

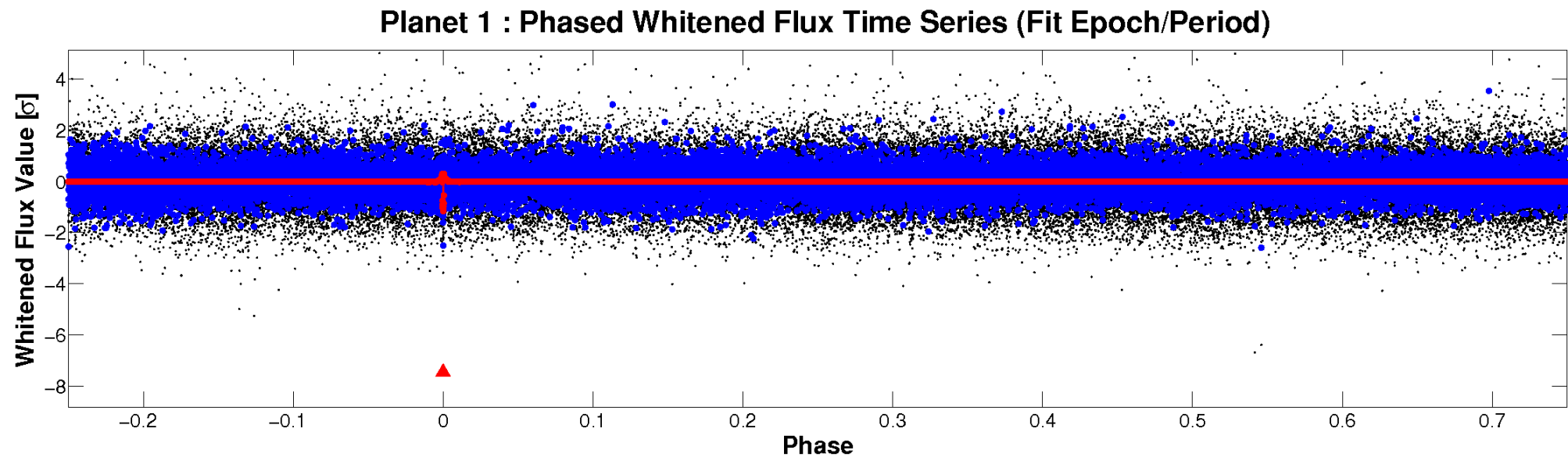
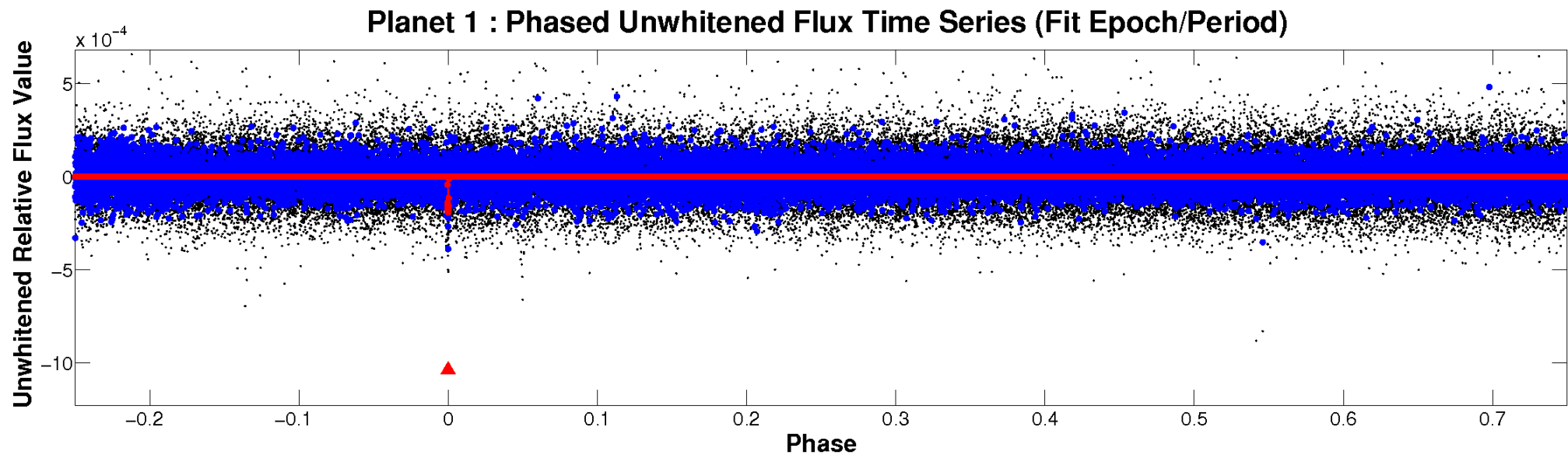


ALT Odd/Even

TCE 007023432-01

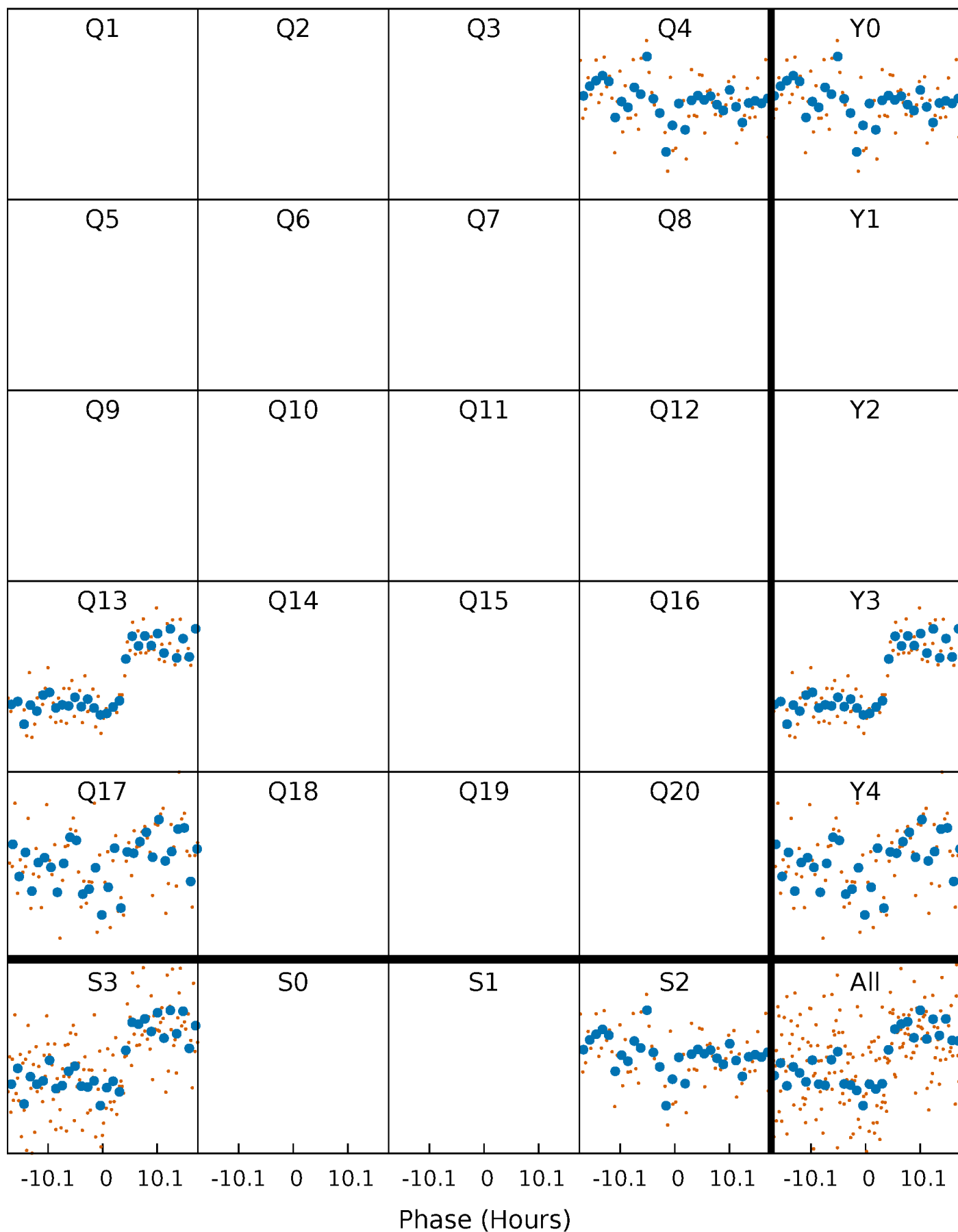


Non-Whitened Vs. Whitened Light Curve



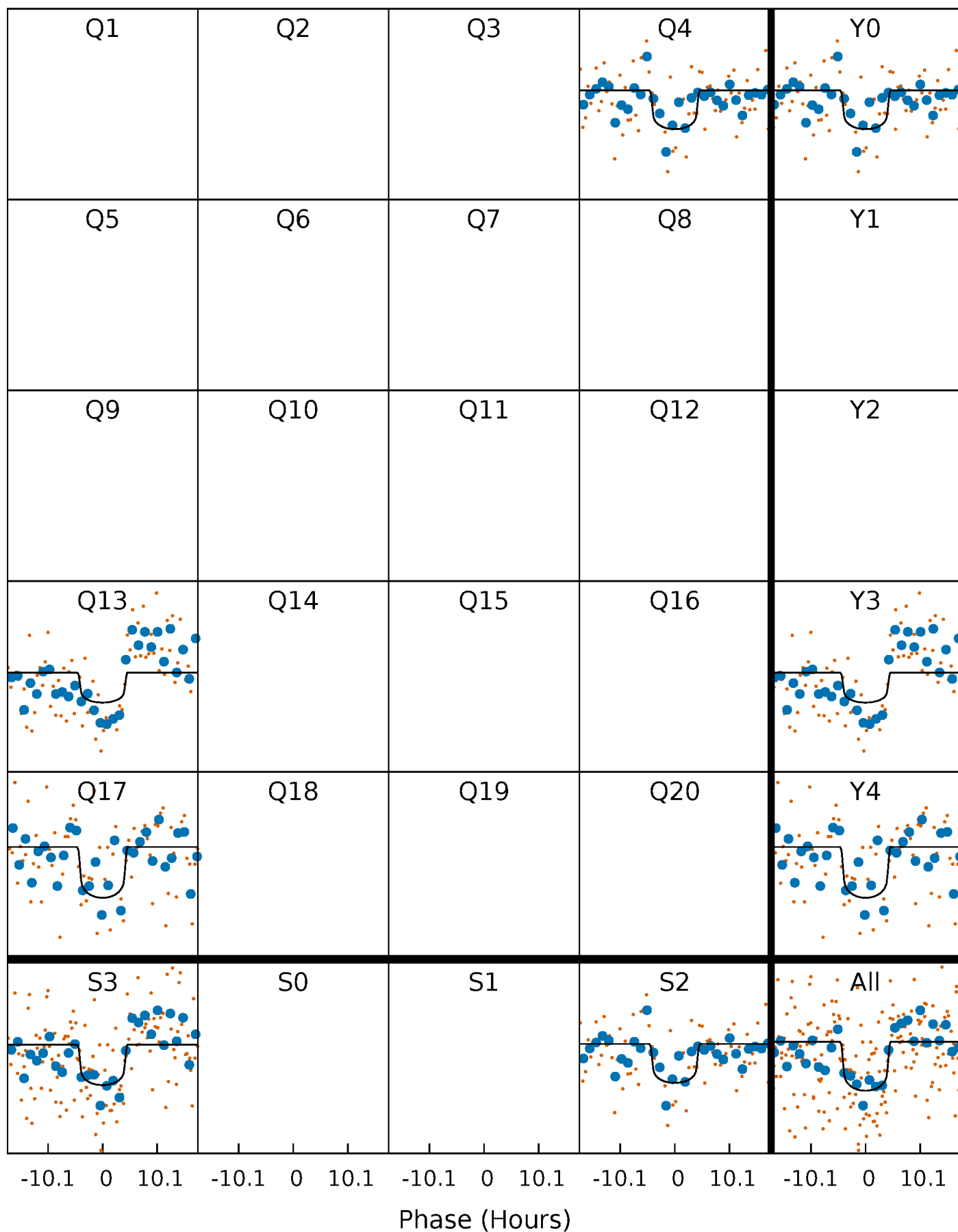
PDC Quarter-Phased Transit Curves

TCE 007023432-01 P=380.769371 Days $T_0=425.767864$ (BKJD)



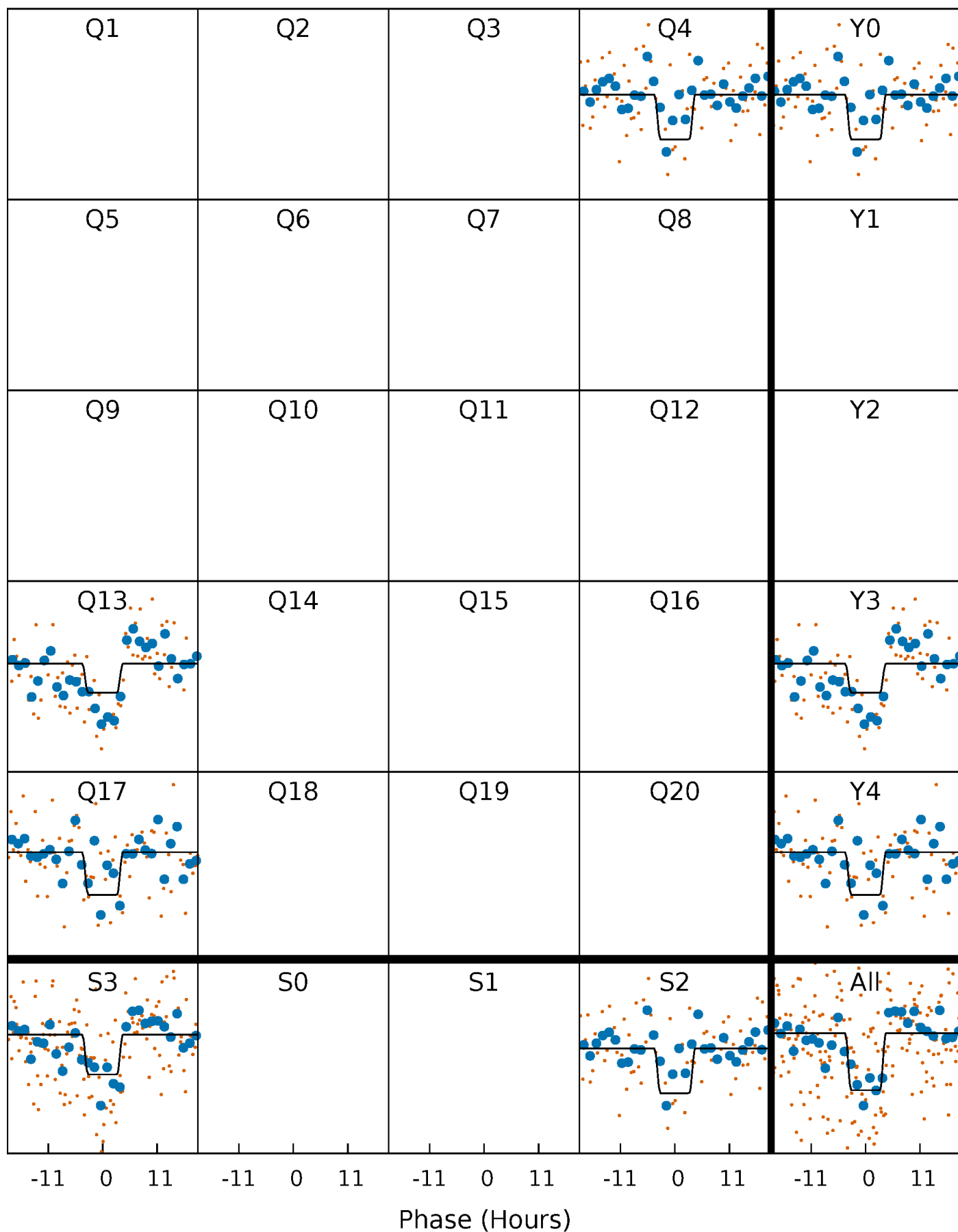
DV Quarter-Phased Transit Curves

TCE 007023432-01 P=380.769371 Days $T_0=425.767864$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

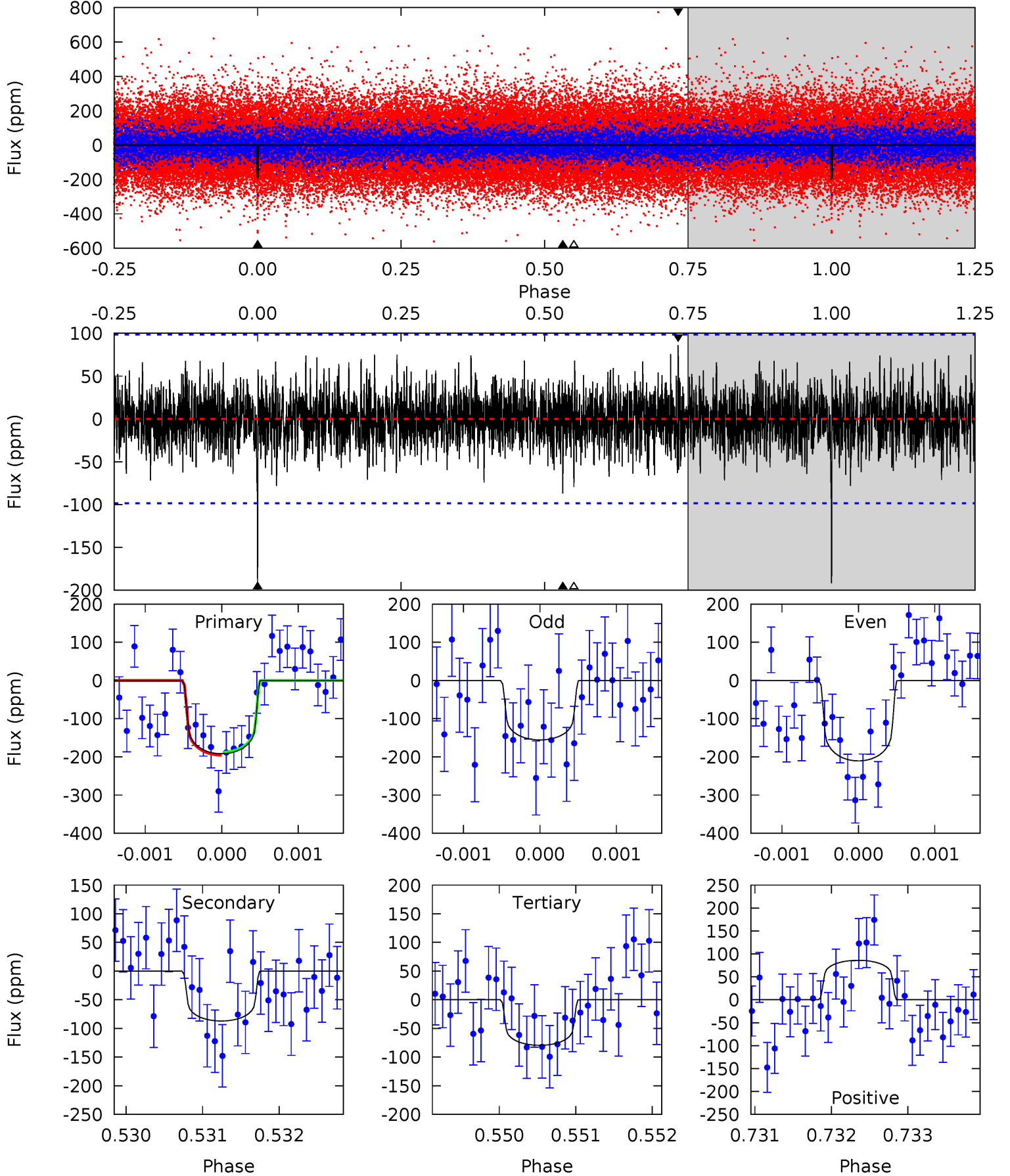
TCE 007023432-01 P=380.765768 Days $T_0=425.771856$ (BKJD)



DV Model-Shift Uniqueness Test

007023432-01, $P = 380.769371$ Days, $E = 44.998493$ Days

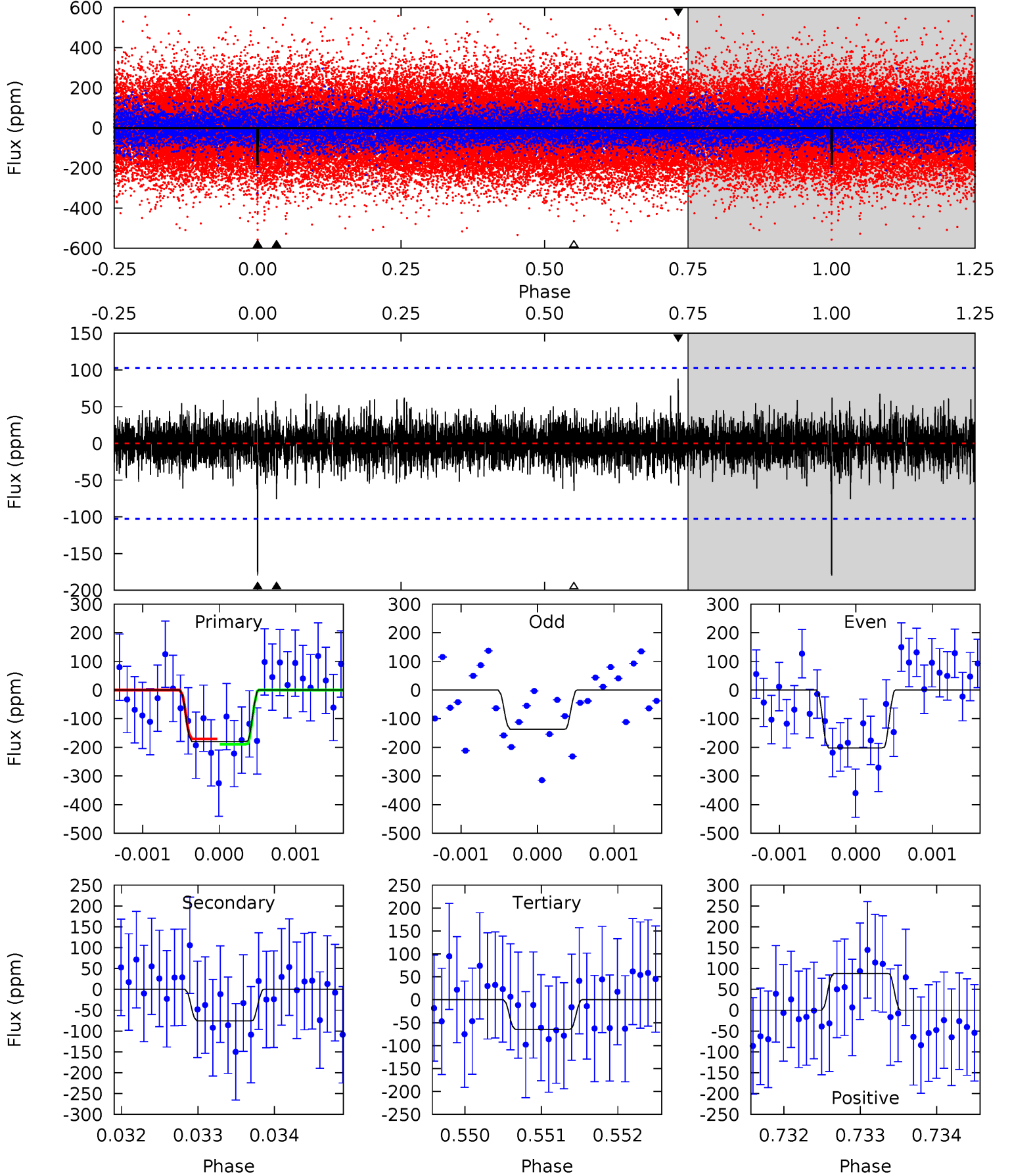
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	4.82	4.40	4.76	5.45	3.29	1.24	6.22	5.86	0.42	0.06	1.43	1.25	0.31	0.21



Alt Model-Shift Uniqueness Test

007023432-01, $P = 380.765768$ Days, $E = 45.006088$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.61	4.04	3.45	4.71	5.47	3.33	0.96	6.16	4.90	0.59	-0.67	1.66	1.34	0.33	0.51



Stellar Parameters For KIC 007023432

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6297^{+174}_{-174}	$3.908^{+0.280}_{-0.120}$	$-0.300^{+0.300}_{-0.250}$	$1.996^{+0.425}_{-0.638}$	$1.176^{+0.225}_{-0.184}$	$0.208^{+0.379}_{-0.074}$
	+3%/-3%	+7%/-3%	+100%/-83%	+21%/-32%	+19%/-16%	+182%/-36%
Source	PHO1	FLK73	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 007023432-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-87 ± 18	$2.95^{+1.34}_{-1.25}$	520^{+34}_{-40}	5204^{+1457}_{-755}	6775^{+13549}_{-3784}
Alt.	-76 ± 19	$2.90^{+1.39}_{-1.24}$	517^{+35}_{-41}	5083^{+1523}_{-756}	5888^{+12578}_{-3337}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

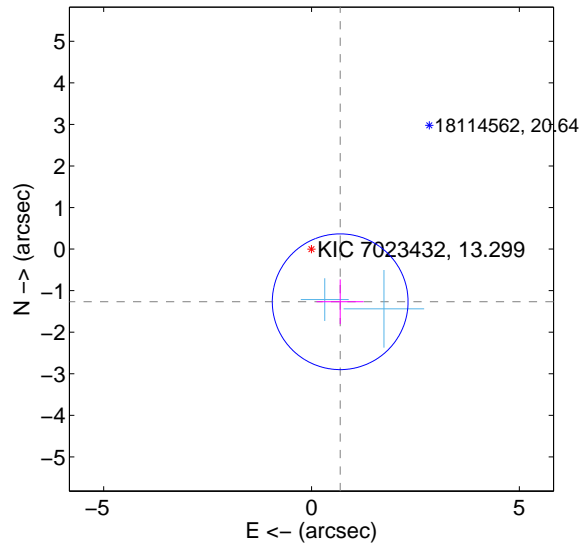
Supplemental centroid analysis for 007023432-01. Kepler magnitude: 13.30. Transit SNR 6.94

There are 2 quarters with good PRF difference image offsets

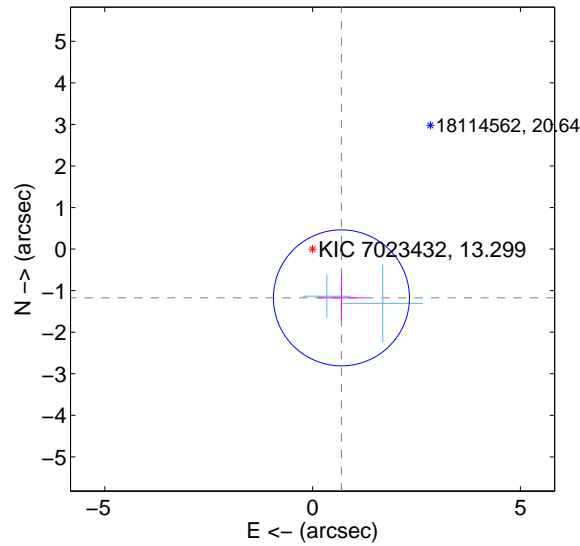
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.443 ± 0.544	2.65	-0.690 ± 0.567	-1.267 ± 0.538
PRF-fit source offset from KIC position	1.363 ± 0.545	2.50	-0.694 ± 0.567	-1.174 ± 0.538
photometric centroid source offset	0.42 ± 1.48	0.28	0.24 ± 1.40	0.34 ± 1.51

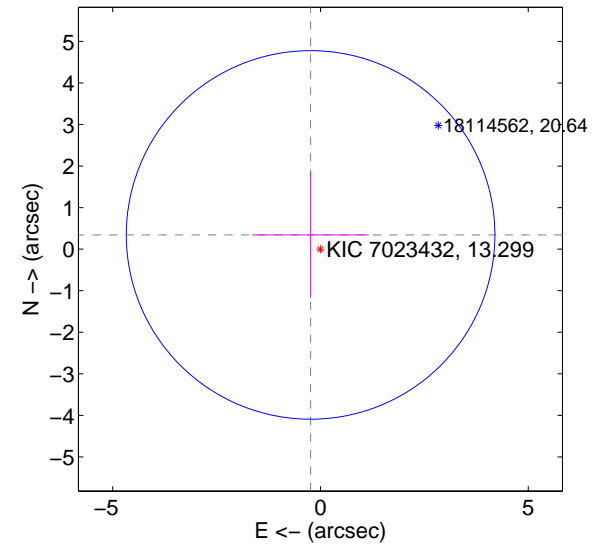
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

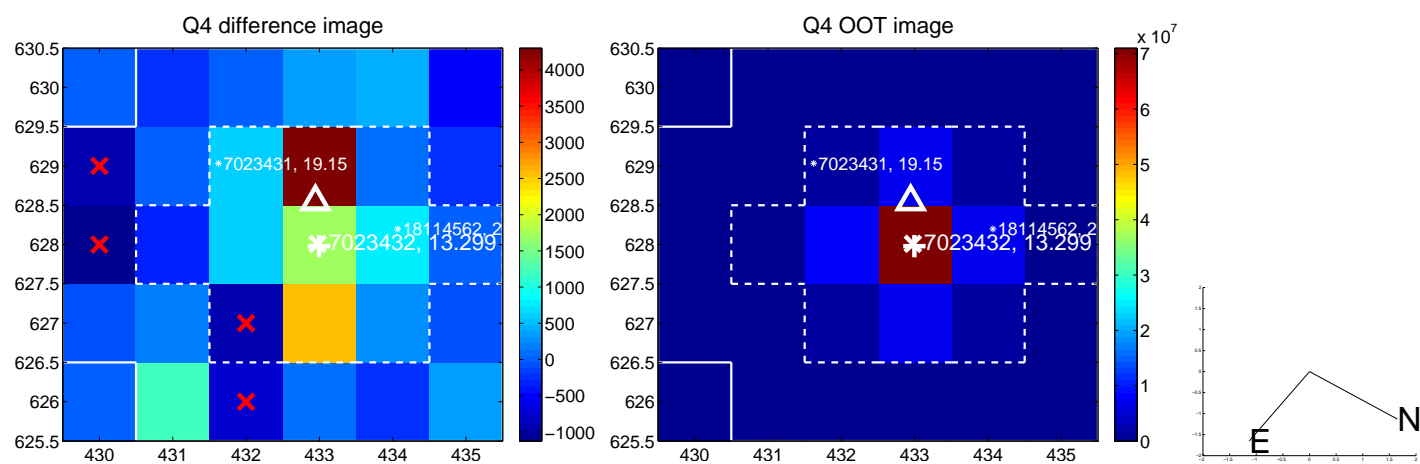
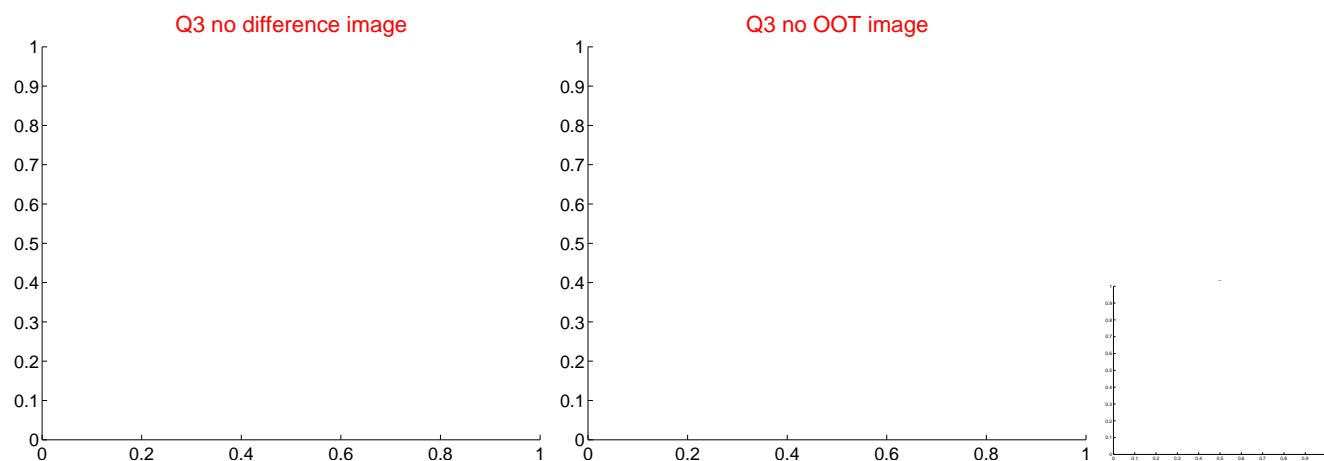
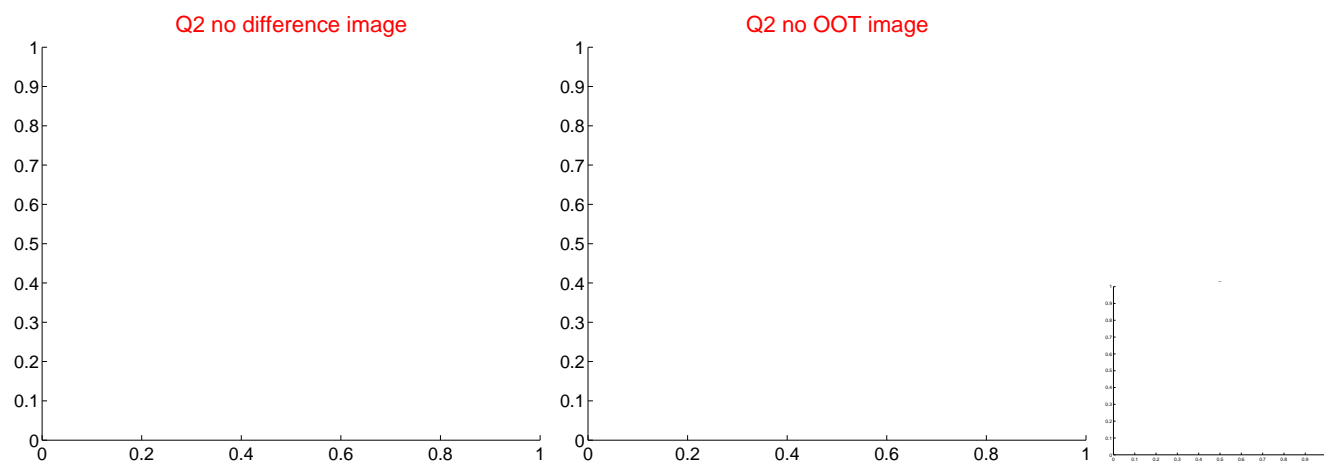
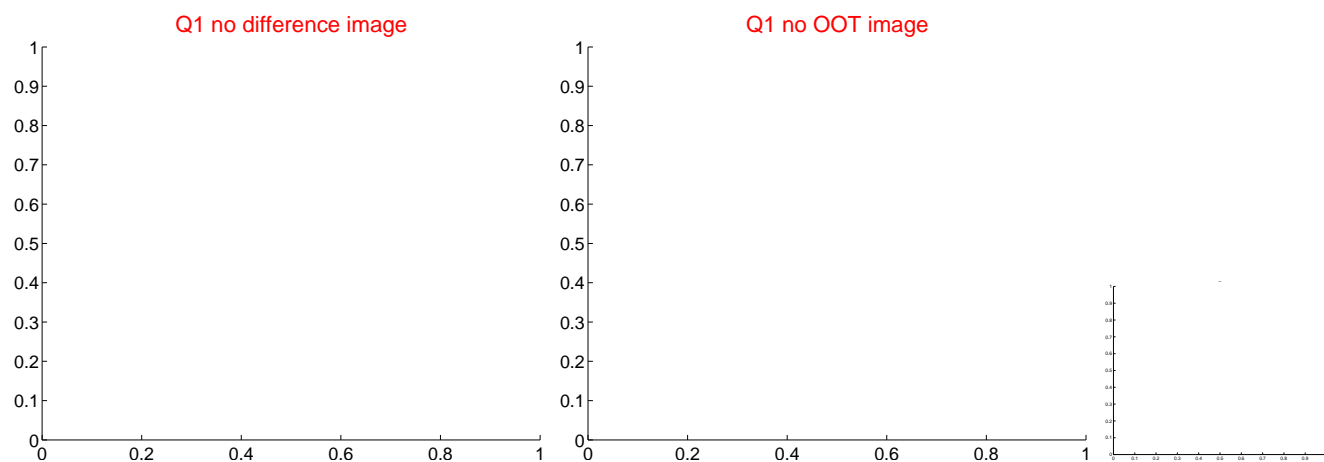


offset from photometric centroids



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.

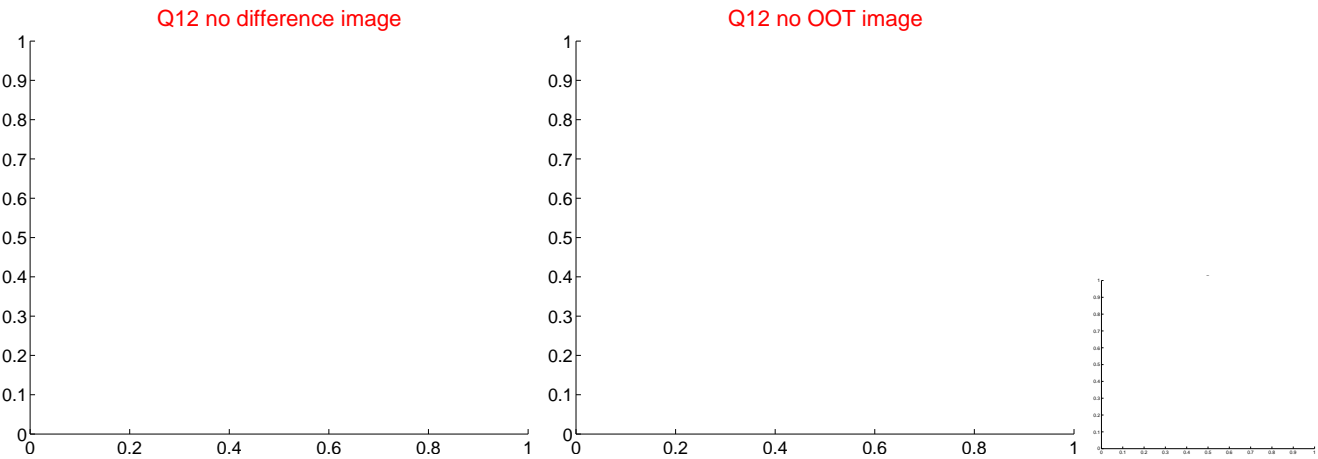
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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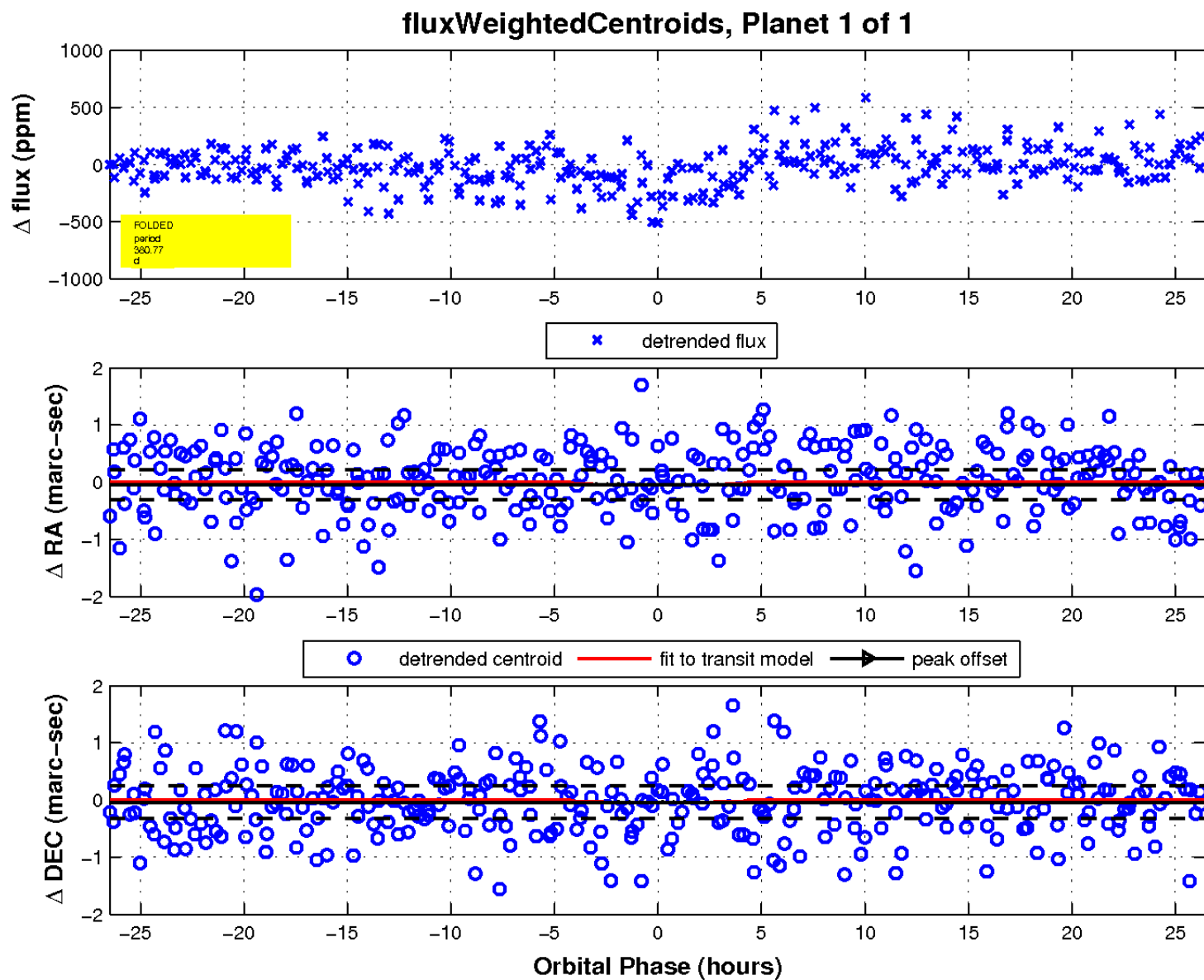
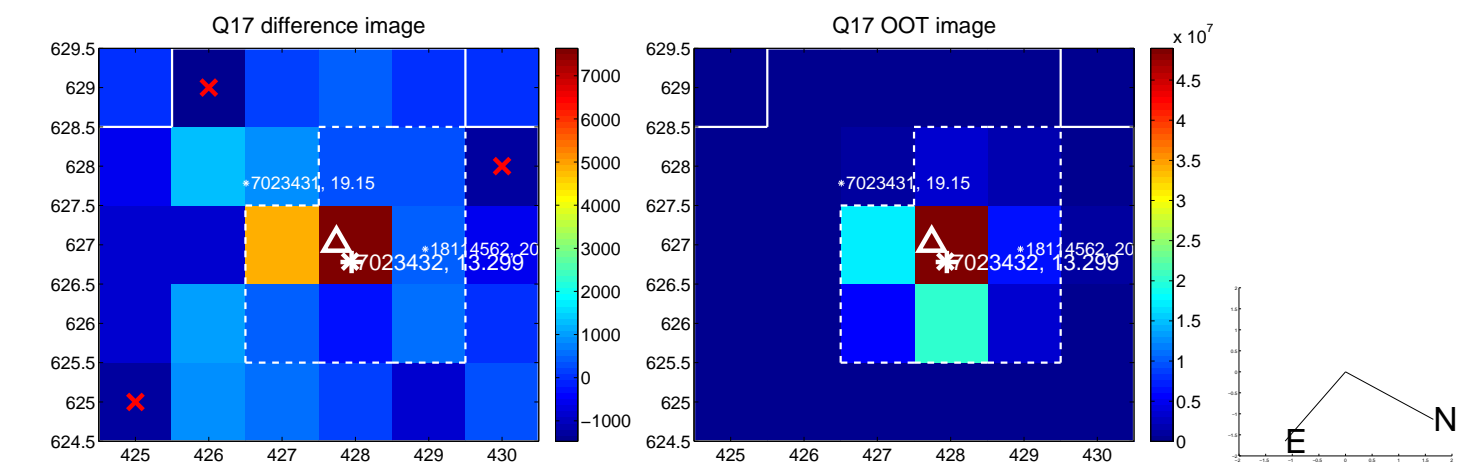
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

