

KIC 009206975

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})
009206975-01	OBS	No	368.986725	174.926762	927.2	55.502	7.3	10.5	1.03	5633	6.16	1.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009206975-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_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.

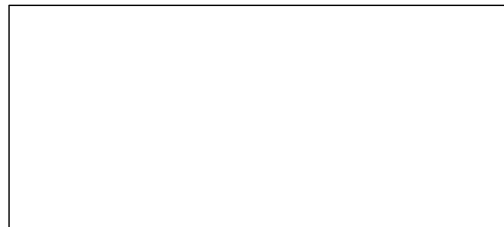
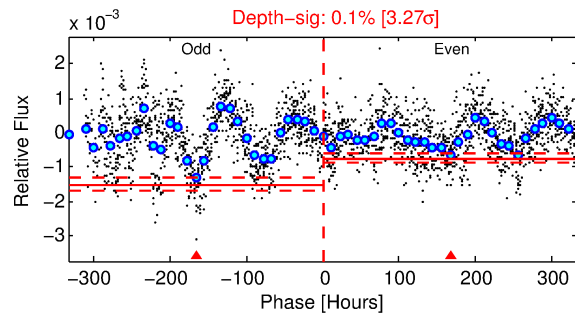
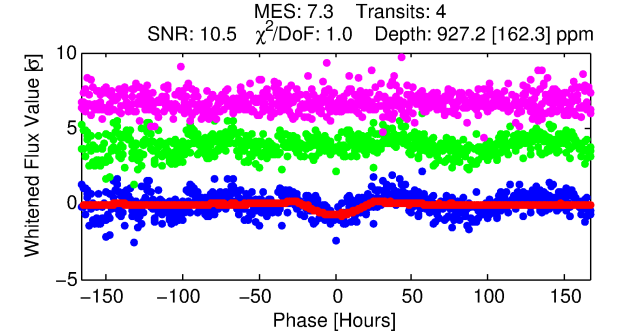
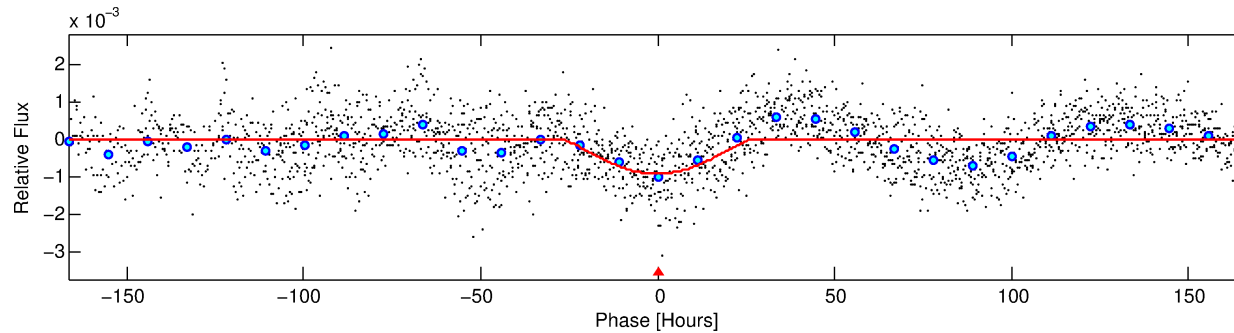
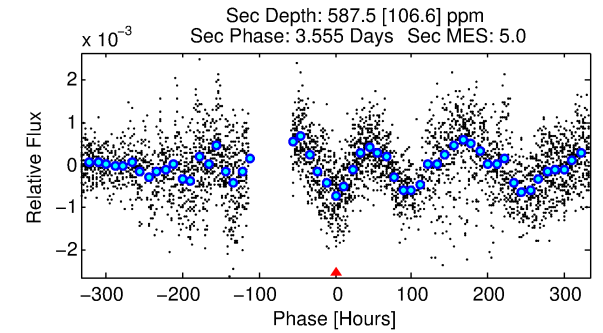
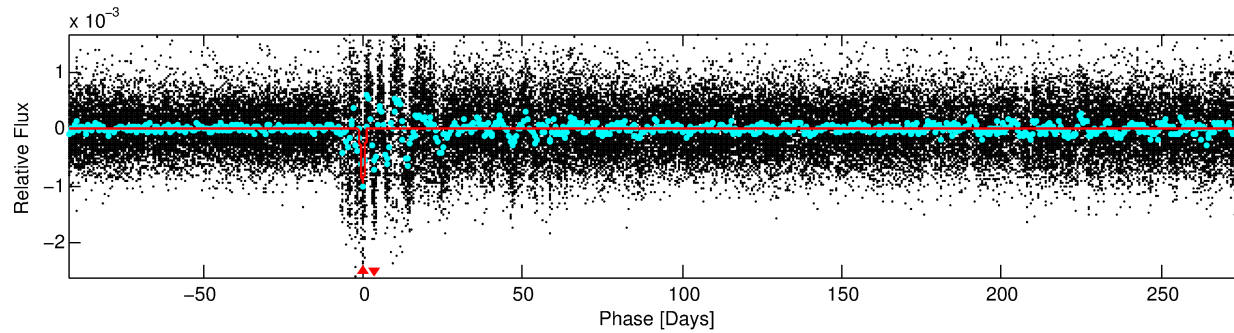
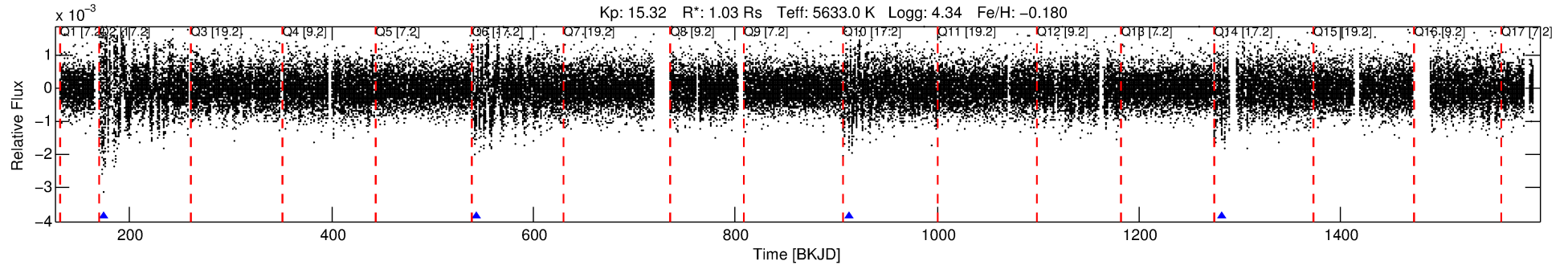
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009206975-01

No Significant Match Found

DV One-Page Summary

KIC: 9206975 Candidate: 1 of 1 Period: 368.987 d



DV Fit Results:

Period = 368.98673 [0.05852] d
Epoch = 174.9268 [0.1172] BKJD
Rp/R* = 0.0546 [0.1360]
a/R* = 17.07 [9.94]
b = 1.00 [0.19]
Seff = 1.06 [0.40]
Teq = 259 [24] K
Rp = 6.16 [15.44] Re
a = 0.9529 [0.2331] AU
Ag = 7727.13 [38591.32] [0.20σ]
Teffp = 3752 [4674] K [0.75σ]

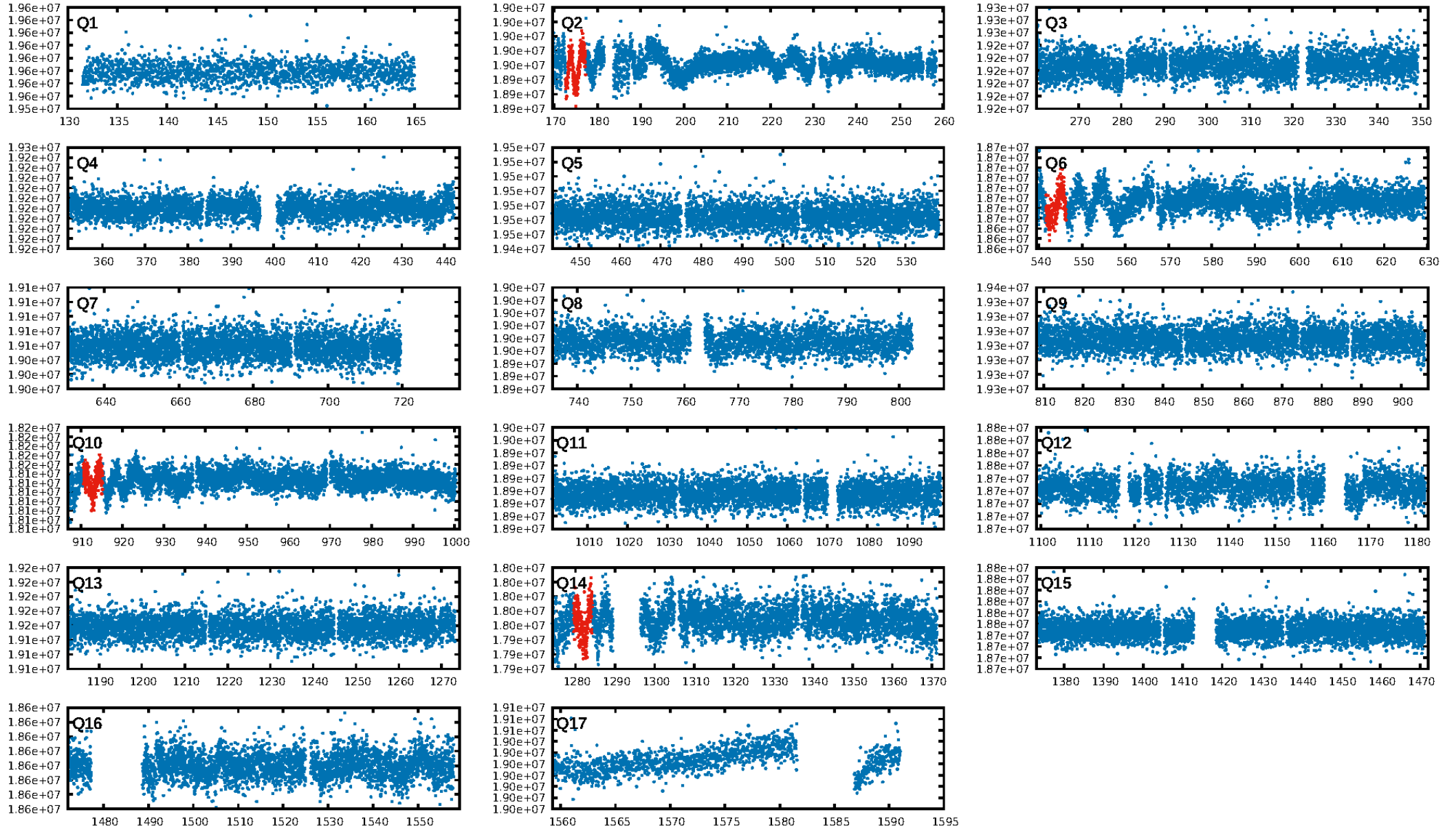
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.05e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -40.35
Centroid-sig: 0.0%
Centroid-so: 4.472 arcsec [2.38σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

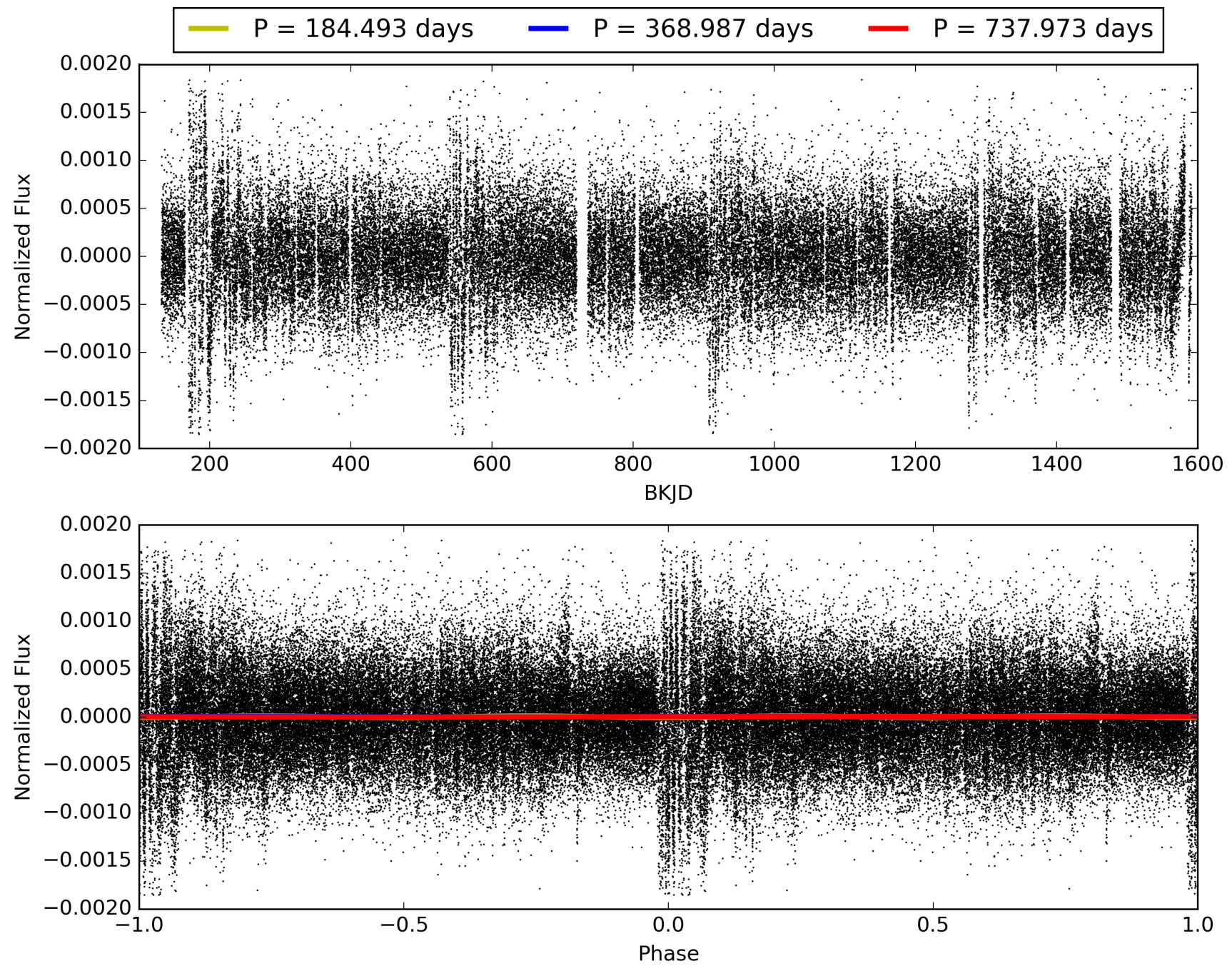
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:17:45 Z

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

TCE 009206975-01, PDC Light Curves

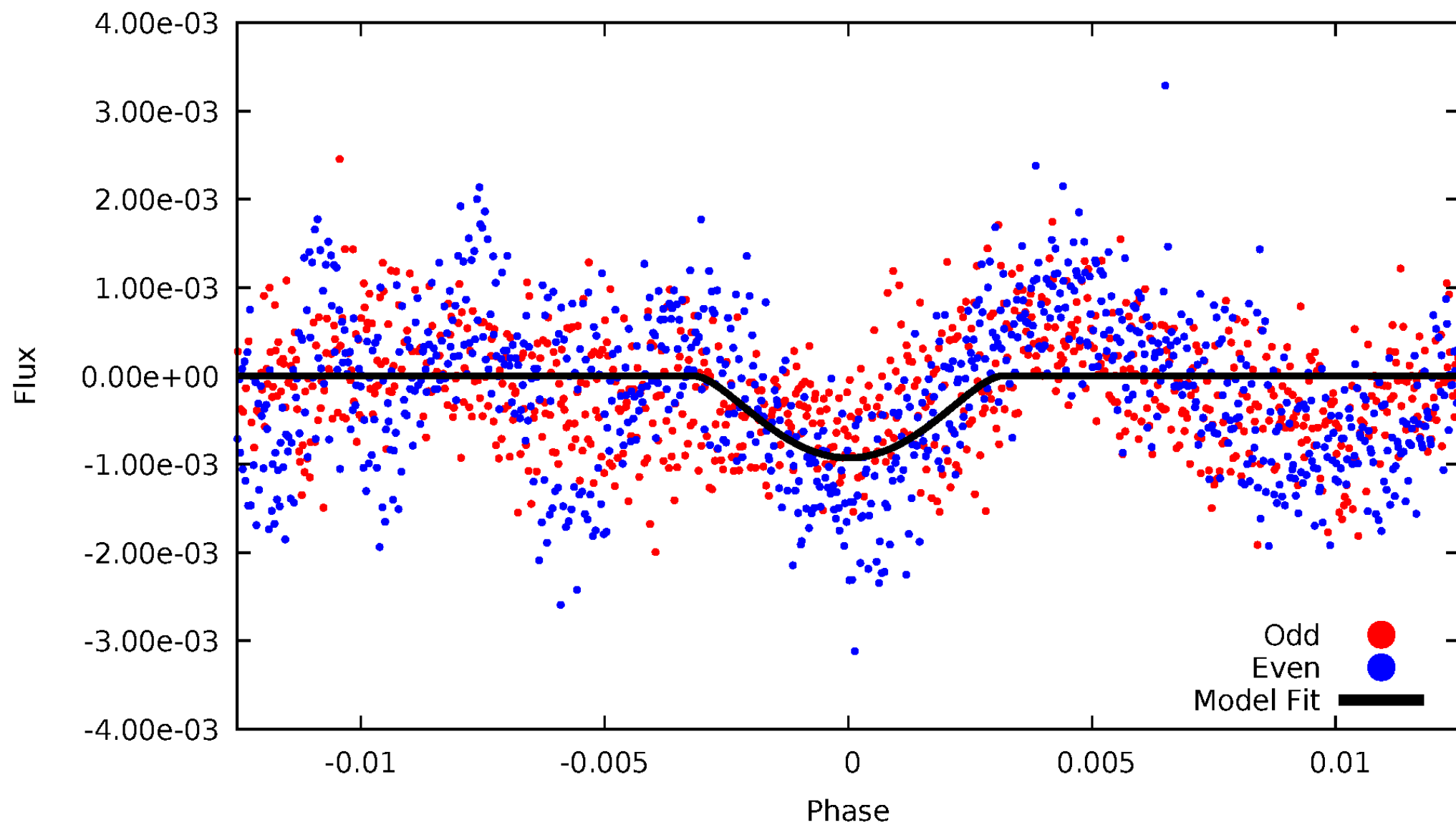


TCE 009206975-01



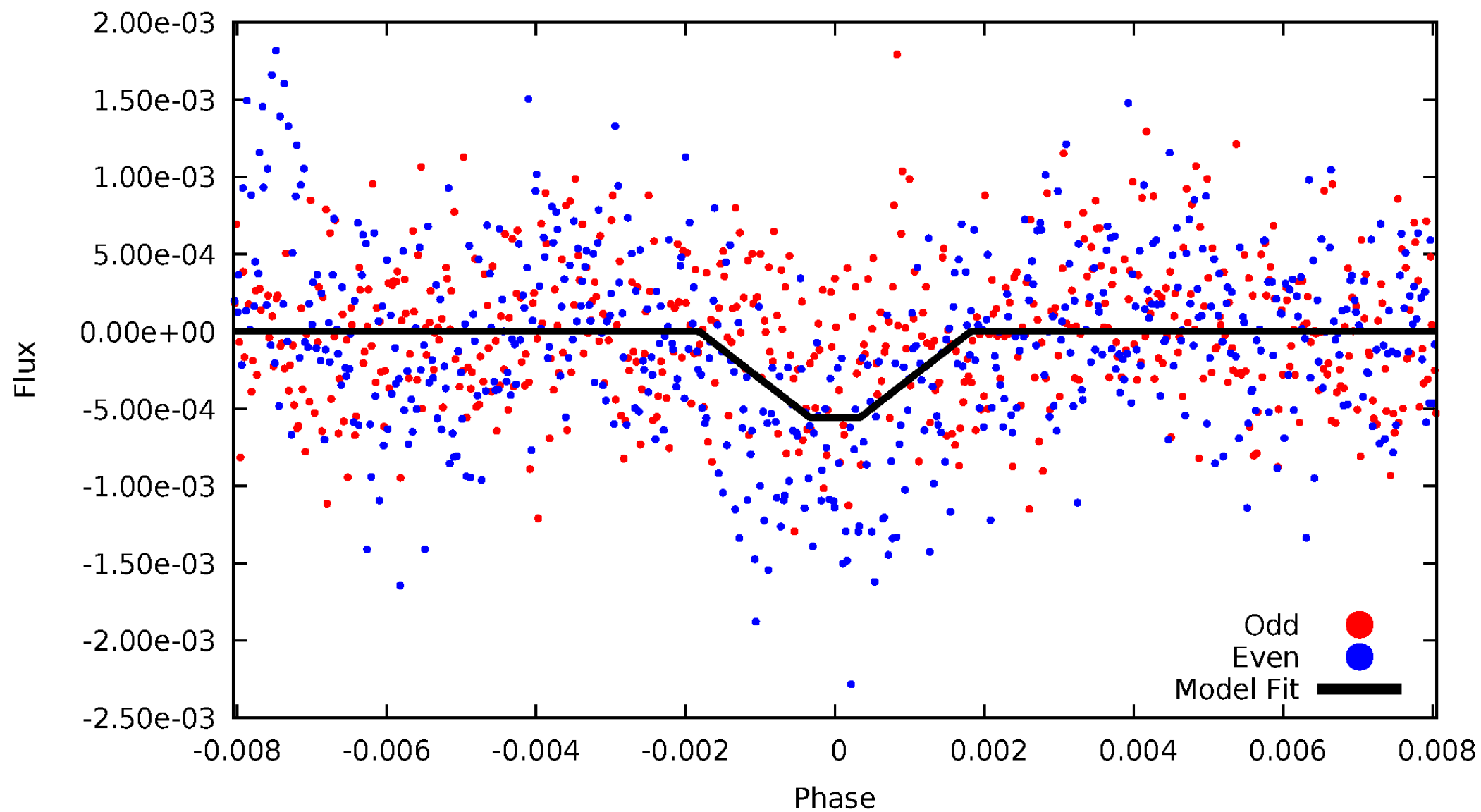
DV Odd/Even

TCE 009206975-01



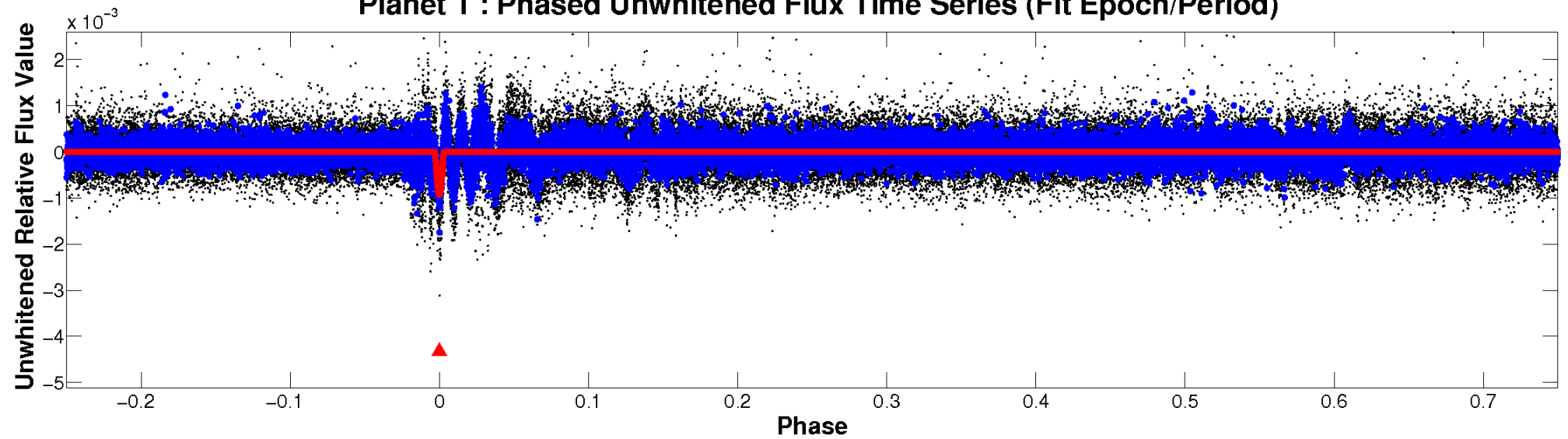
ALT Odd/Even

TCE 009206975-01

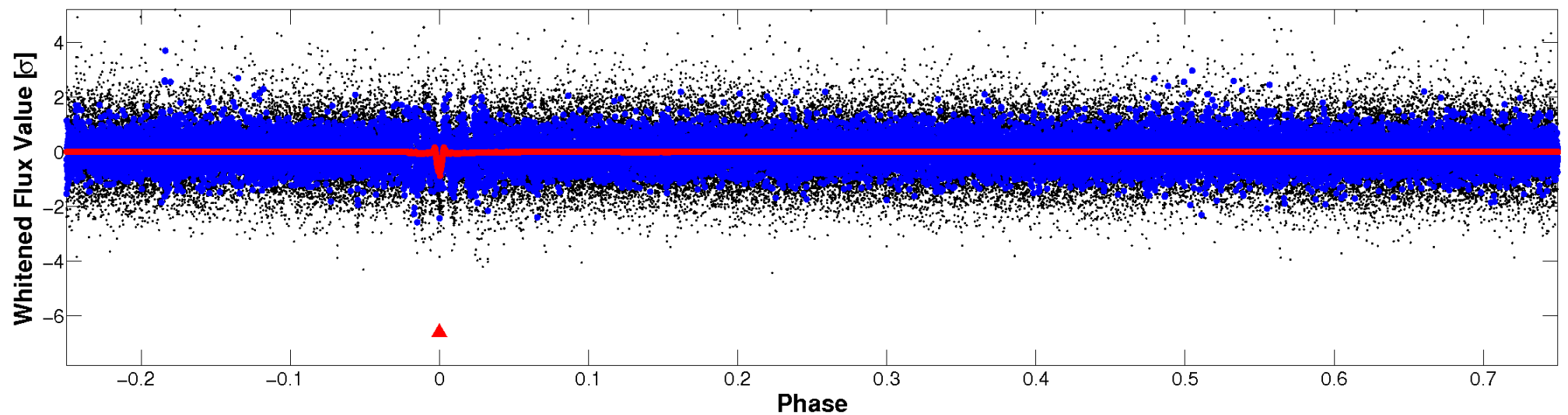


Non-Whitened Vs. Whitened Light Curve

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

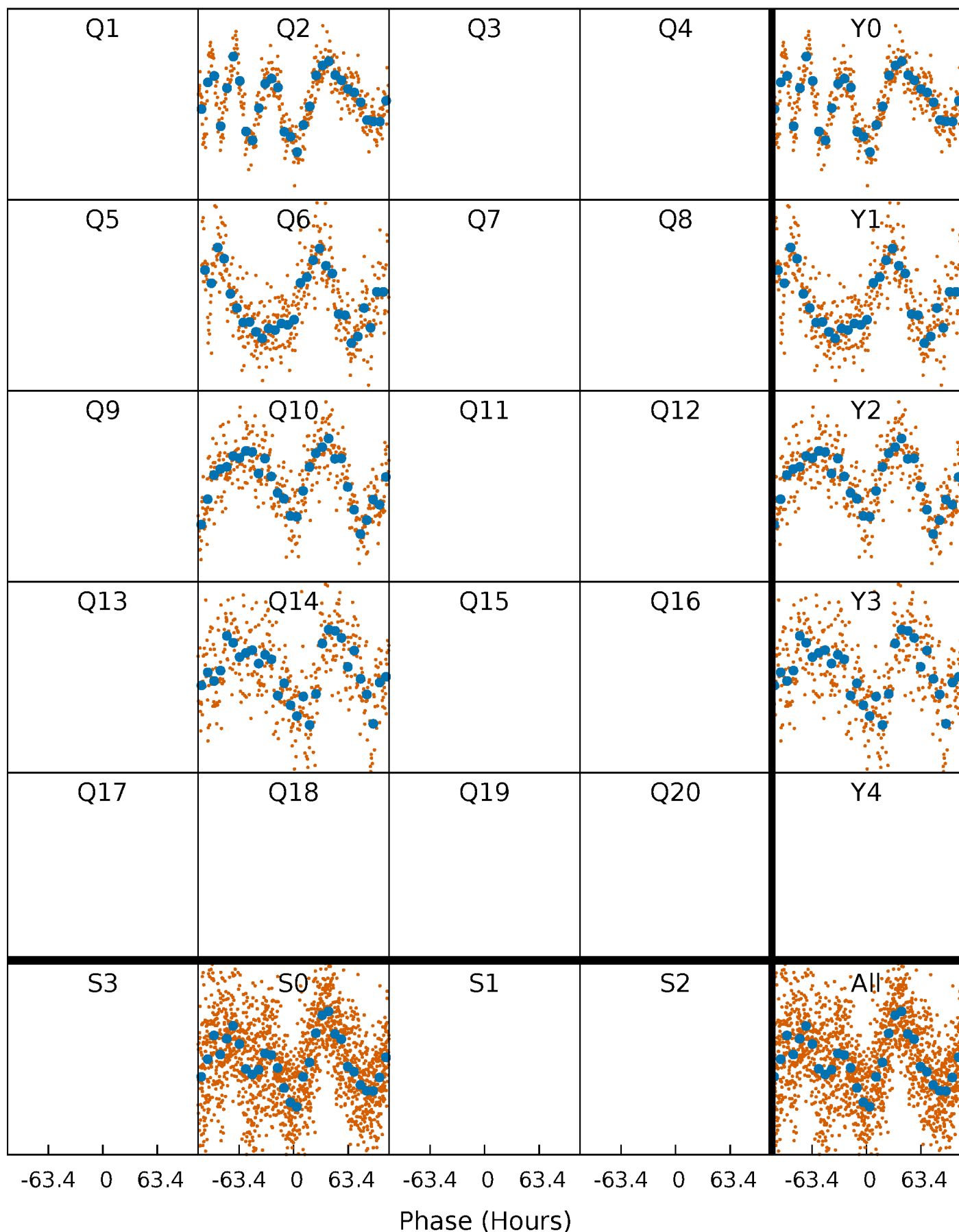


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



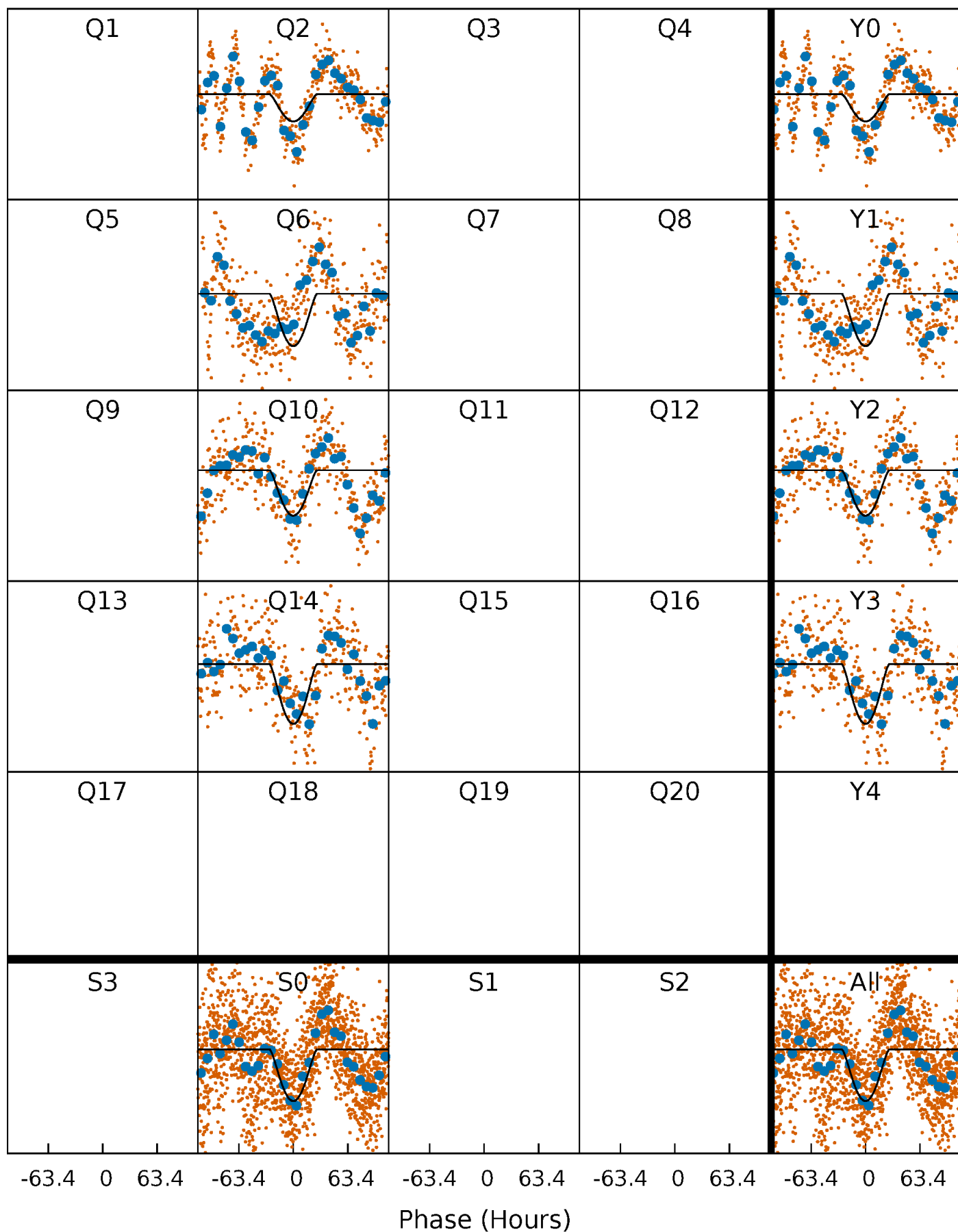
PDC Quarter-Phased Transit Curves

TCE 009206975-01 P=368.986725 Days $T_0=174.926762$ (BKJD)



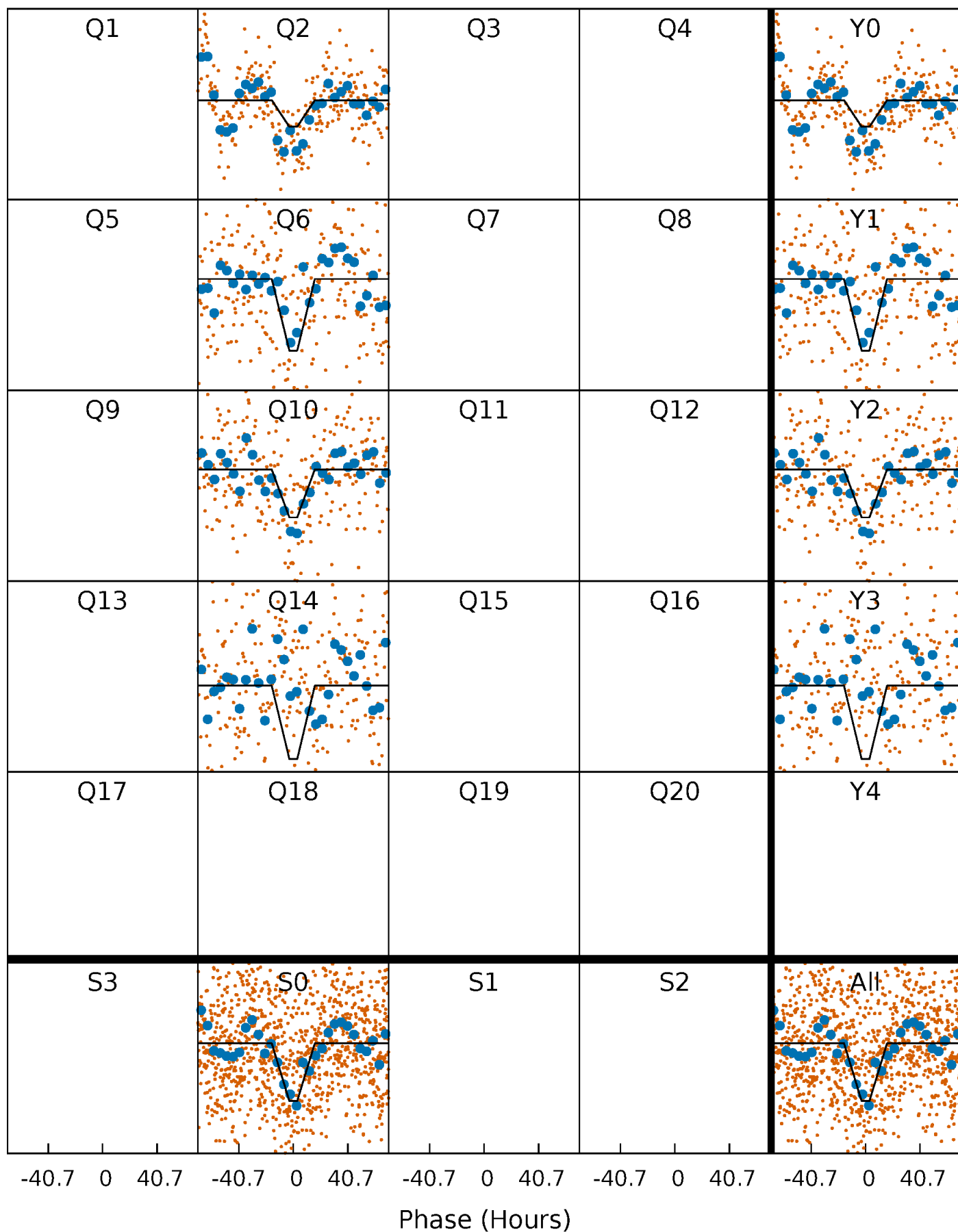
DV Quarter-Phased Transit Curves

TCE 009206975-01 P=368.986725 Days $T_0=174.926762$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

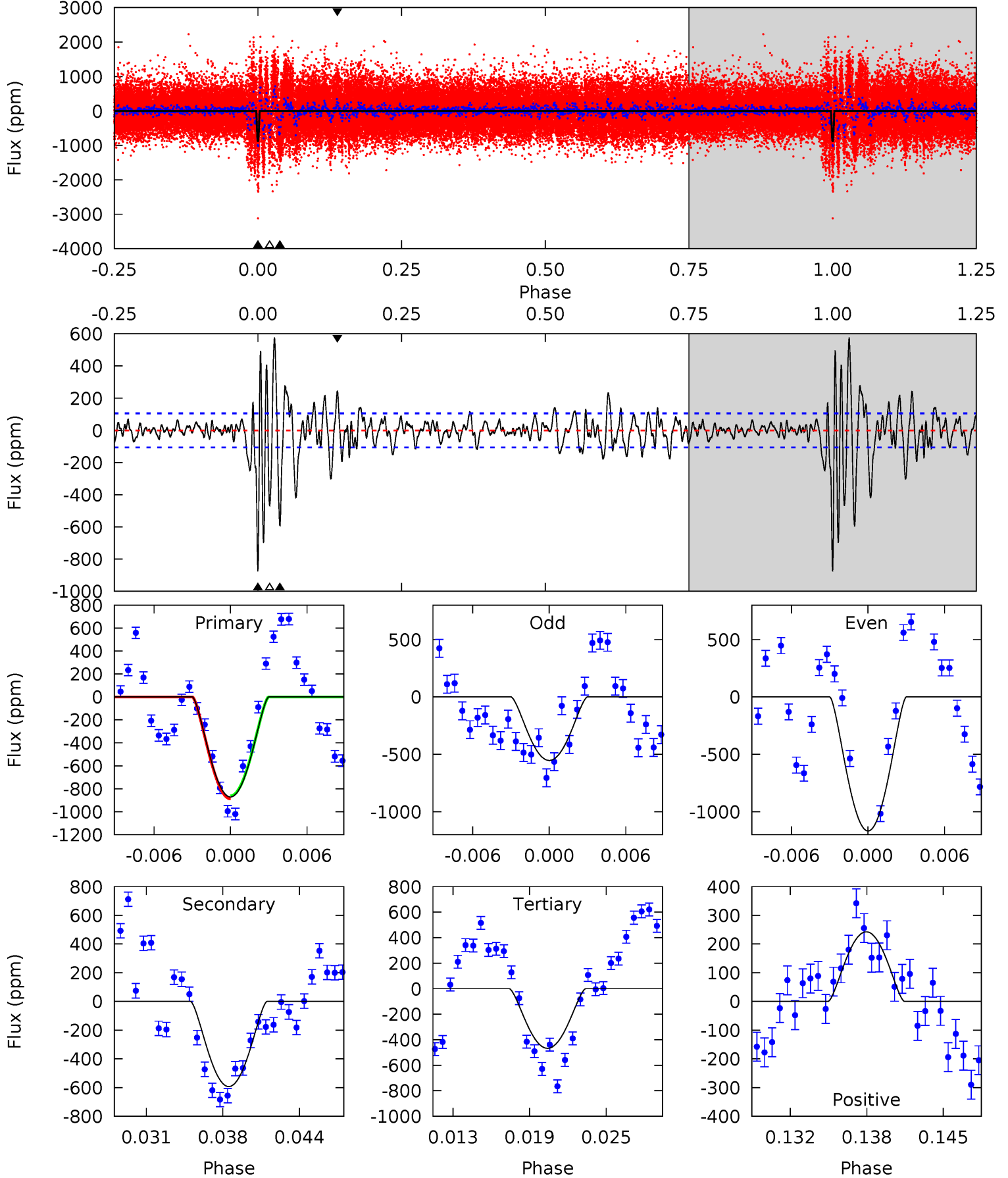
TCE 009206975-01 P=369.023282 Days $T_0=174.896376$ (BKJD)



DV Model-Shift Uniqueness Test

009206975-01, P = 368.986725 Days, E = 174.926762 Days

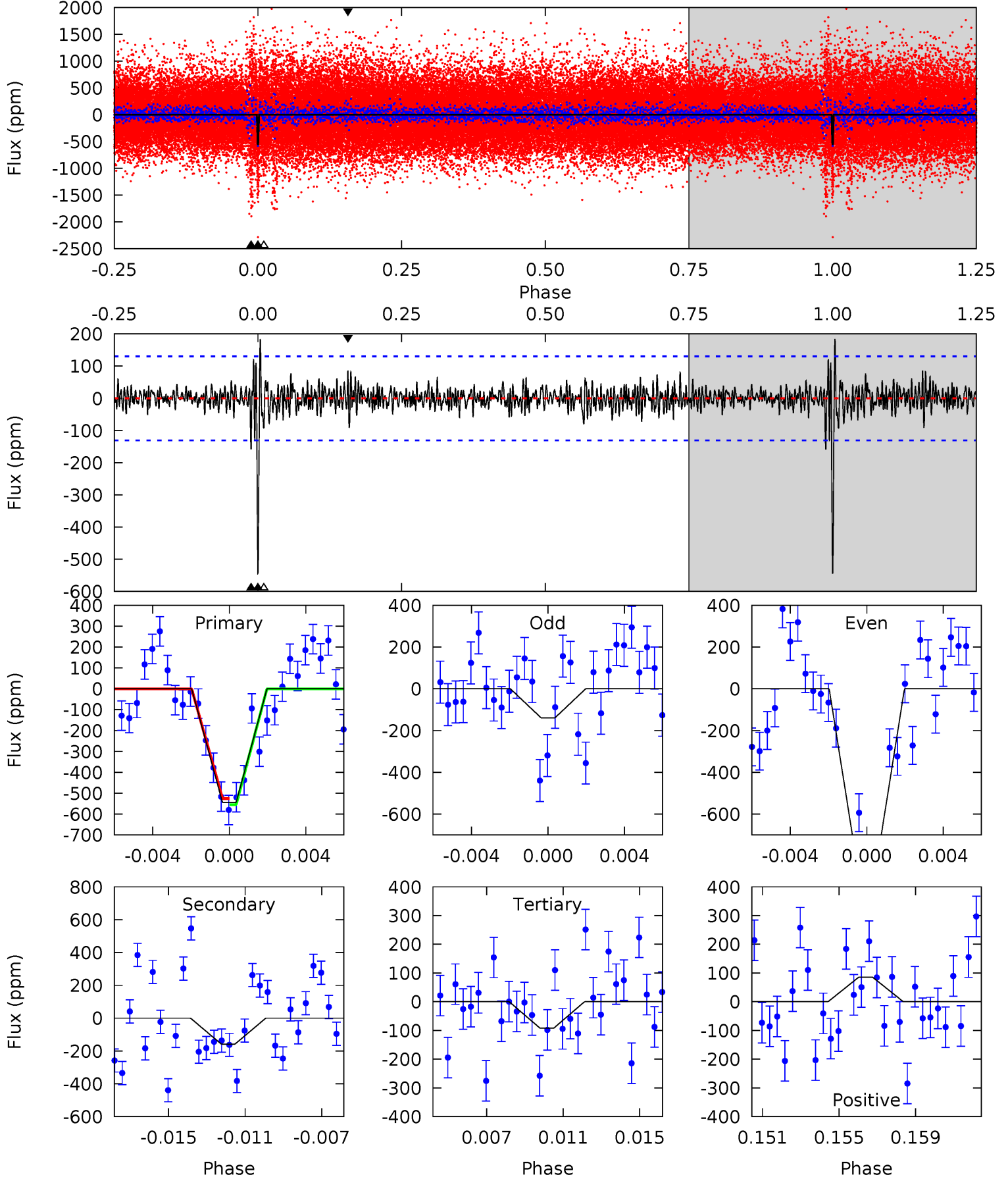
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.2	28.7	22.6	11.7	5.11	2.73	4.76	19.5	30.4	6.07	16.9	14.9	1.08	0.40	0.61



Alt Model-Shift Uniqueness Test

009206975-01, P = 369.023282 Days, E = 174.896376 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.7	6.32	3.68	3.42	5.21	2.90	1.07	18.1	18.3	2.64	2.90	15.8	0.94	0.25	0.58



Stellar Parameters For KIC 009206975

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5633^{+152}_{-152}	$4.337^{+0.195}_{-0.195}$	$-0.180^{+0.300}_{-0.250}$	$1.034^{+0.300}_{-0.200}$	$0.847^{+0.123}_{-0.066}$	$1.080^{+1.020}_{-0.517}$
	+3%/-3%	+4%/-4%	+167%/-139%	+29%/-19%	+15%/-8%	+94%/-48%
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 009206975-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-593 ± 21	$13.01^{+11.68}_{-8.34}$	361^{+26}_{-25}	3171^{+1360}_{-505}	1783^{+12152}_{-1295}
Alt.	-158 ± 25	$11.96^{+12.30}_{-8.38}$	359^{+30}_{-24}	2708^{+1135}_{-437}	534^{+5787}_{-397}

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

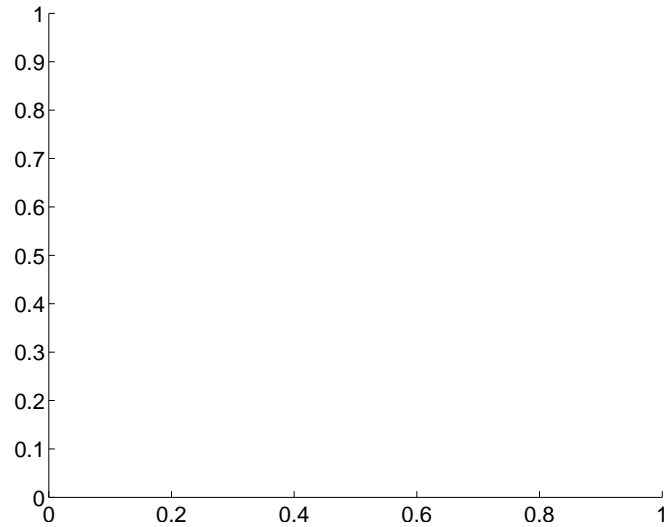
Supplemental centroid analysis for 009206975-01. Kepler magnitude: 15.32. Transit SNR 10.46

There are 0 quarters with good PRF difference image offsets

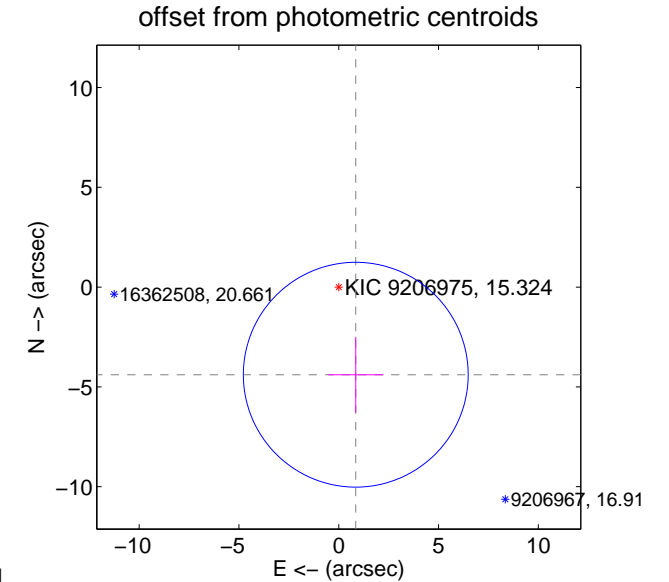
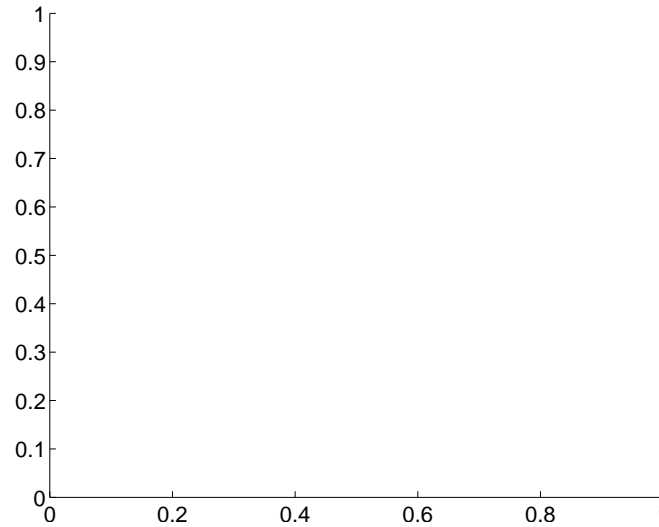
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	4.47 ± 1.88	2.38	-0.85 ± 1.38	-4.39 ± 1.89

There is no PRF-fit offset from OOT-fit

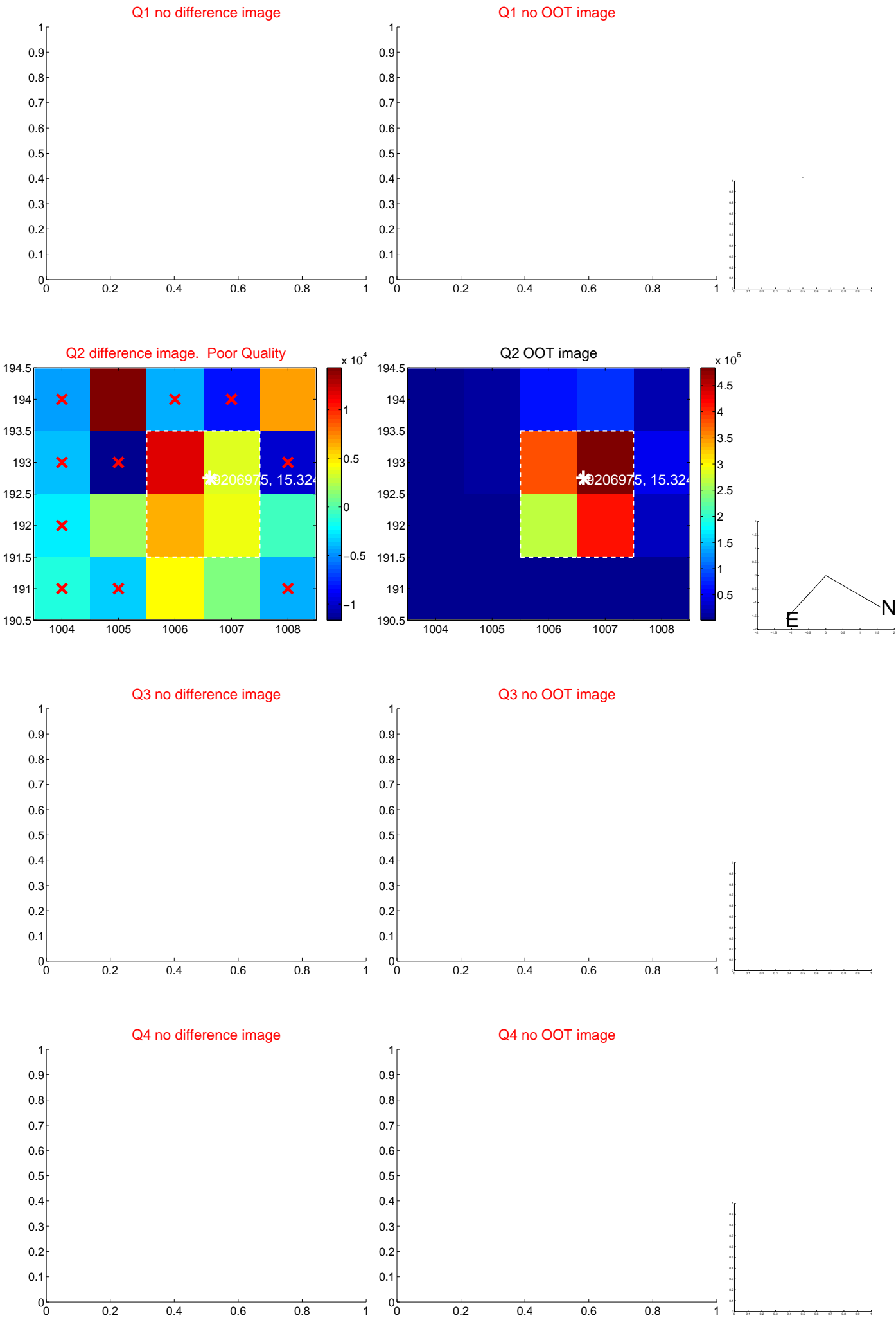


There is no PRF-fit offset from KIC



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.

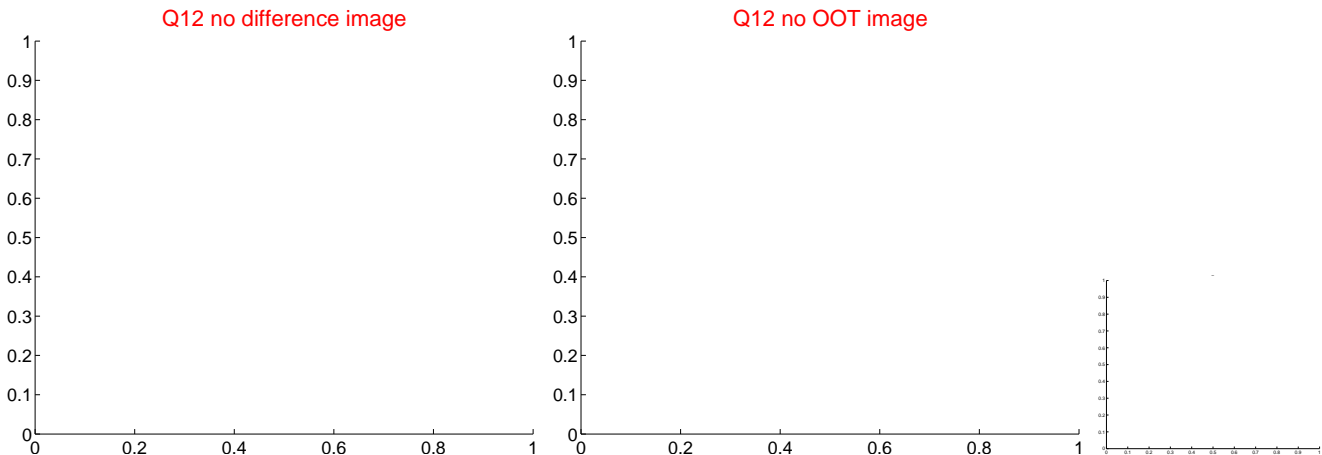
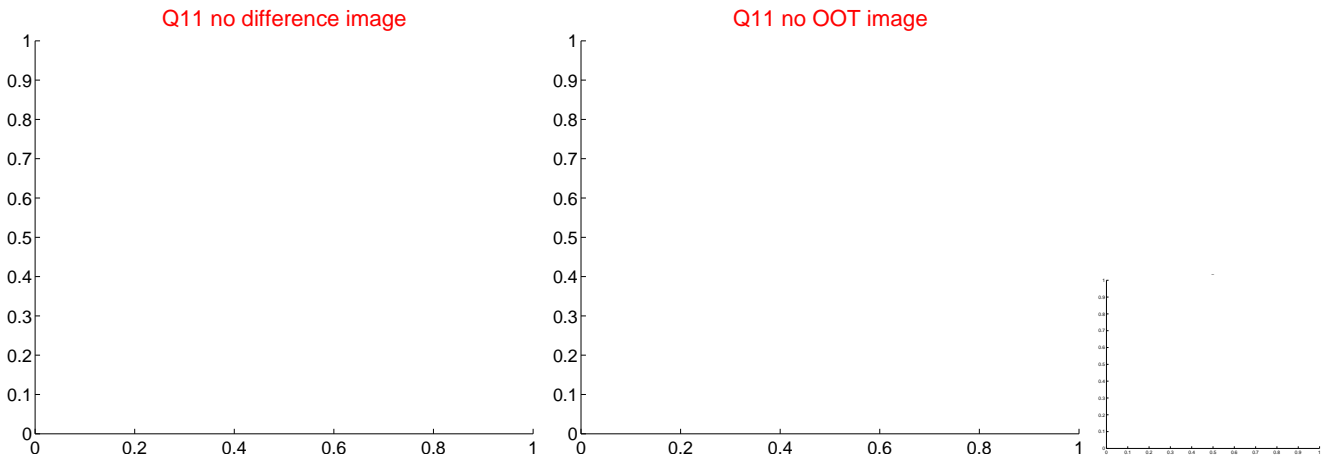
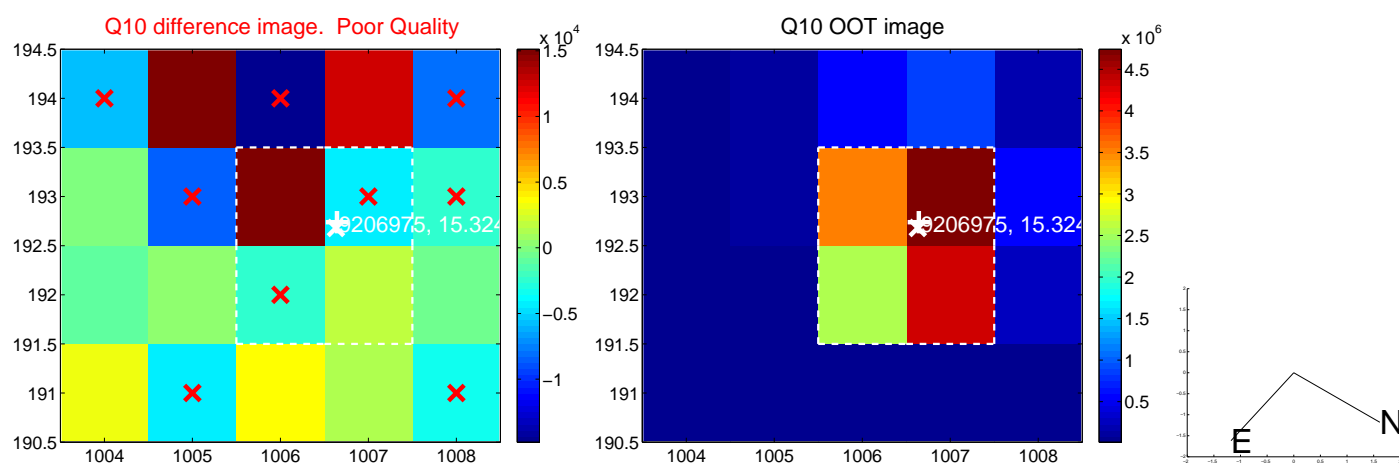
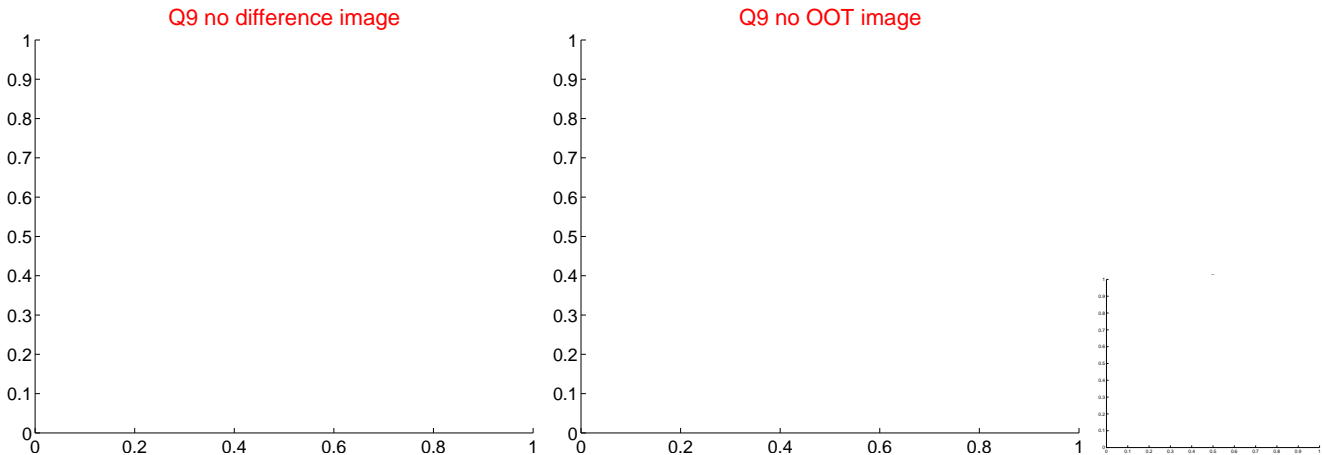
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



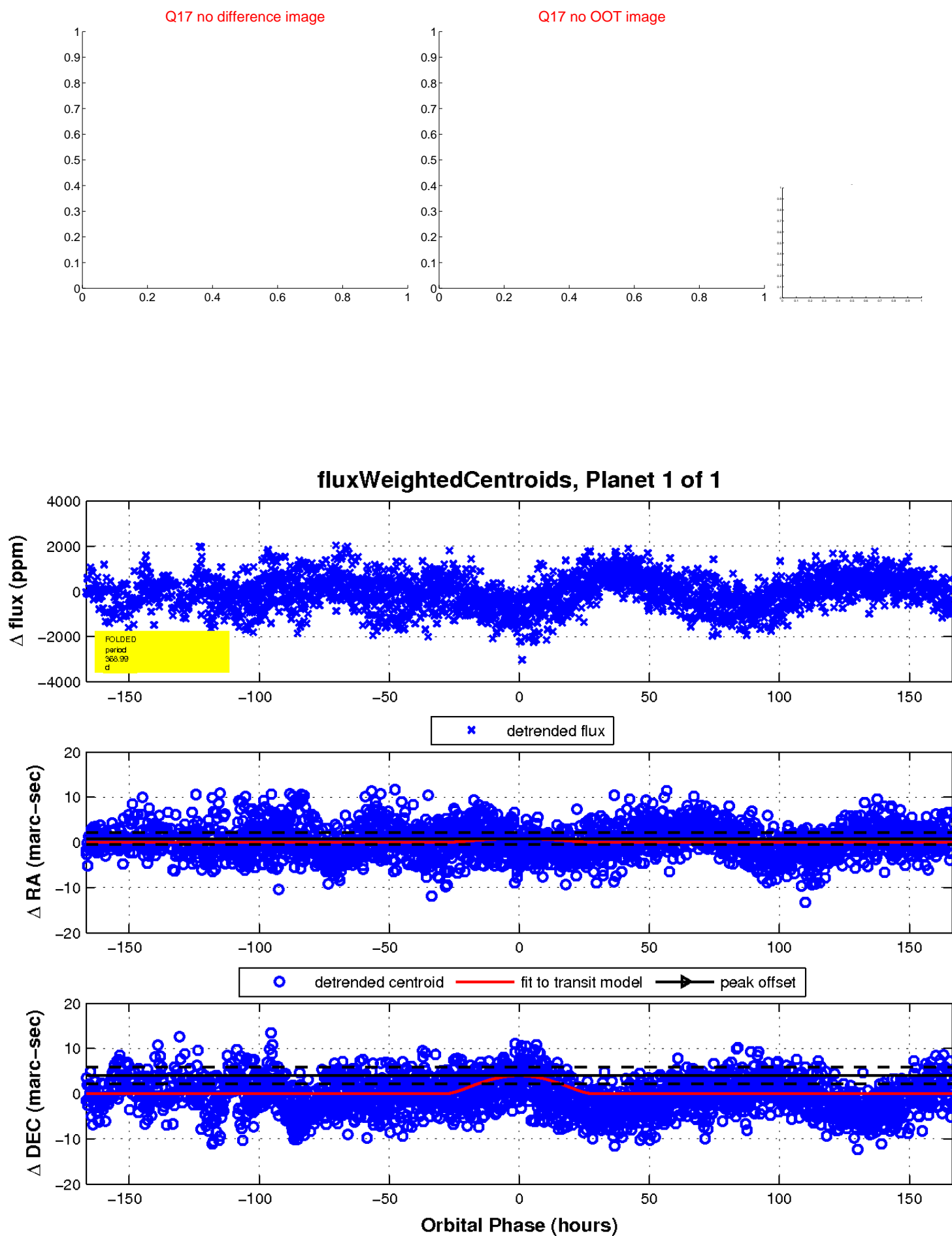
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

