

KIC 009637292

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
009637292-01	OBS	No	1.931394	132.811968	254.6	6.325	8.7	9.3	2.74	11012	5.32	52818.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009637292-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_KIC_POS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

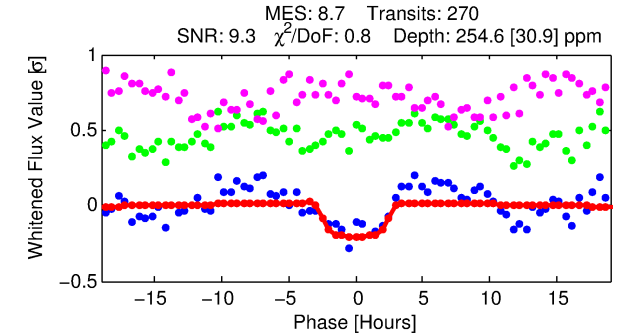
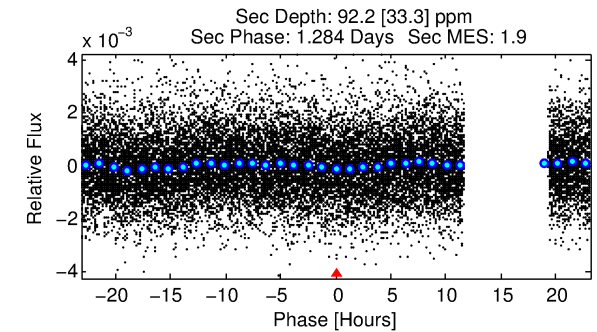
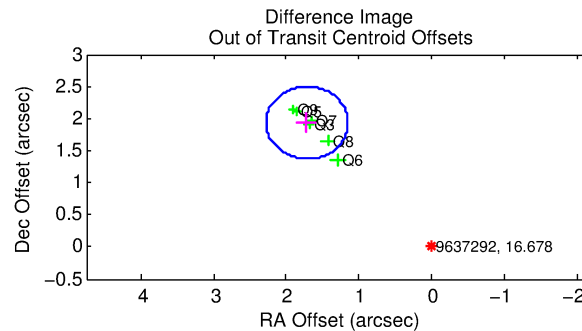
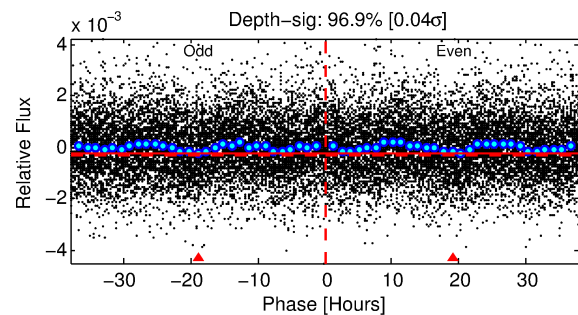
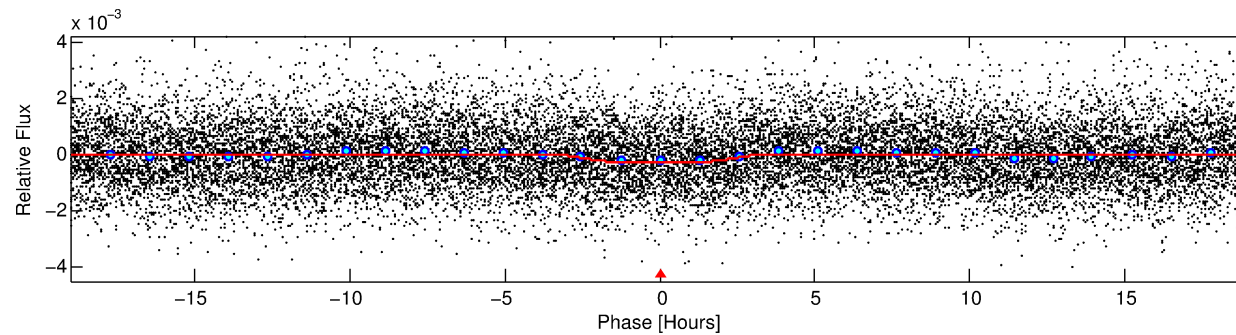
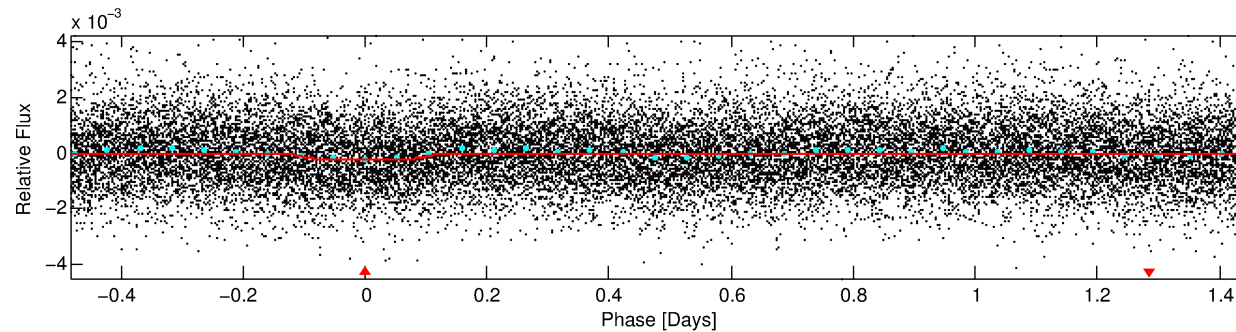
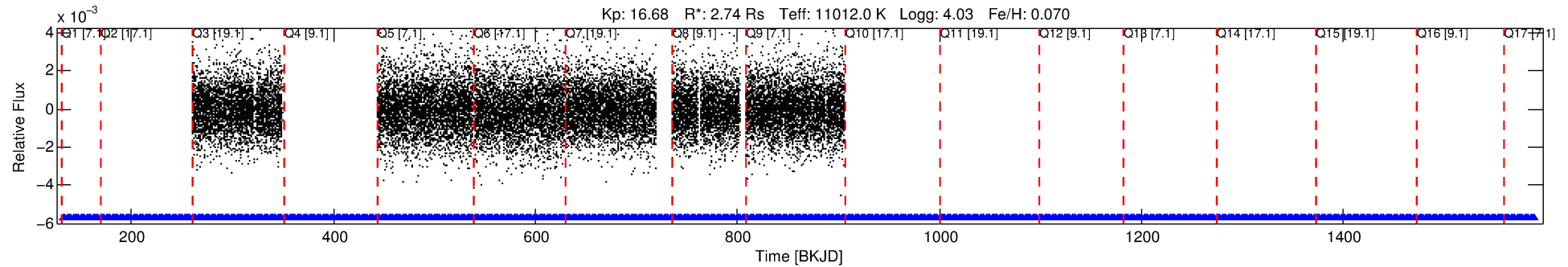
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009637292-01

No Significant Match Found

DV One-Page Summary

KIC: 9637292 Candidate: 1 of 1 Period: 1.931 d



DV Fit Results:

Period = 1.93139 [0.00006] d
Epoch = 132.8120 [0.0152] BKJD
Rp/R* = 0.0178 [0.0014]
a/R* = 1.23 [0.14]
b = 0.97 [0.02]
Seff = 52818.67 [26186.43]
Teq = 3866 [479] K
Rp = 5.32 [1.98] Re
a = 0.0433 [0.0136] AU
Ag = 3.36 [2.04] [1.16 σ]
Teff = 8094 [868] K [4.26 σ]

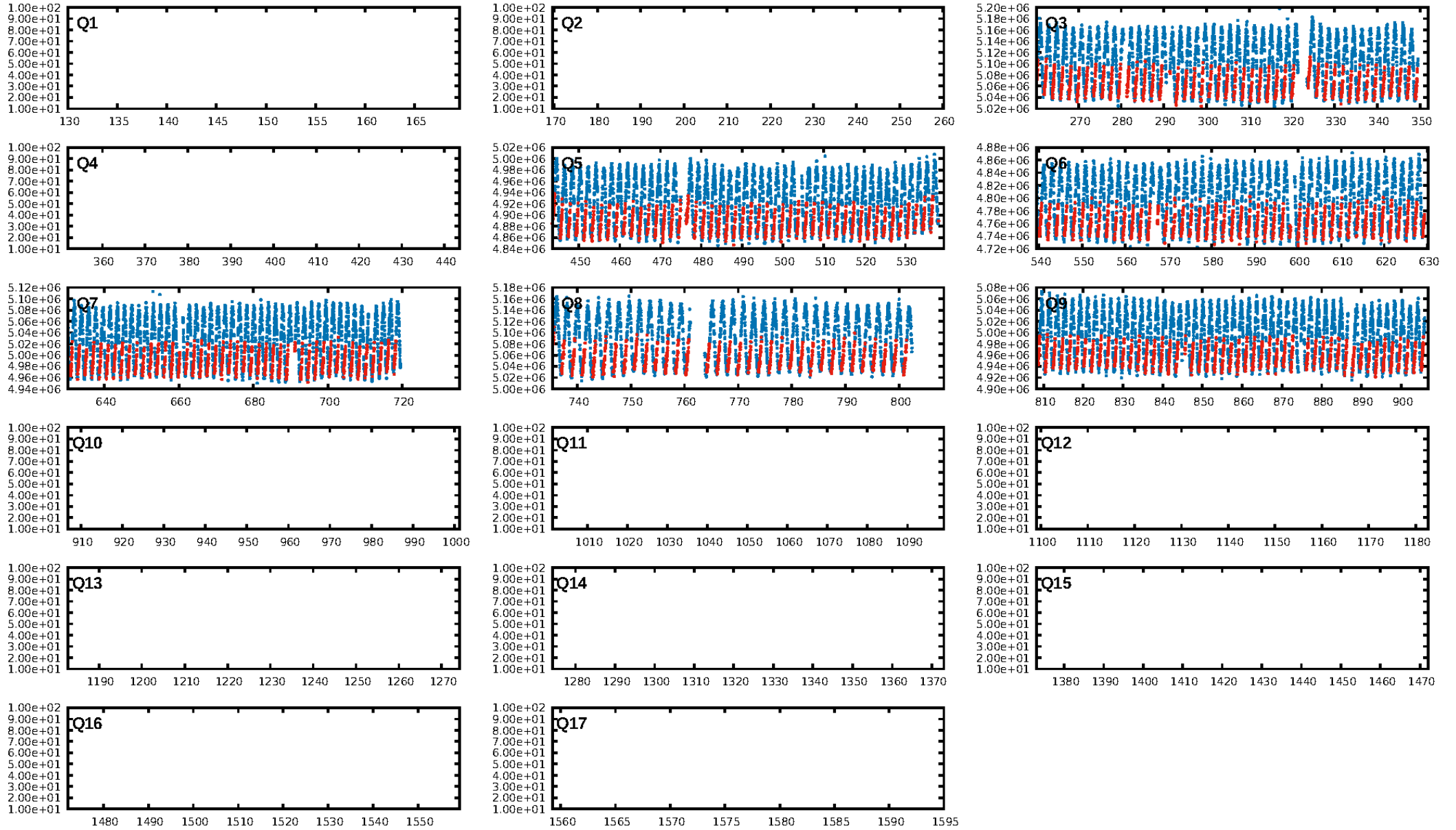
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.67e-15
RollingBand-fgt: 1.00 [270/270]
GhostDiagnostic-chr: 4.587
Centroid-sig: 0.0%
Centroid-so: 0.578 arcsec [0.61 σ]
OotOffset-rm: 2.584 arcsec [13.77 σ]
KicOffset-rm: 0.413 arcsec [4.72 σ]
OotOffset-st: 1/2/1/2 [6]
KicOffset-st: 1/2/1/2 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [6/6]

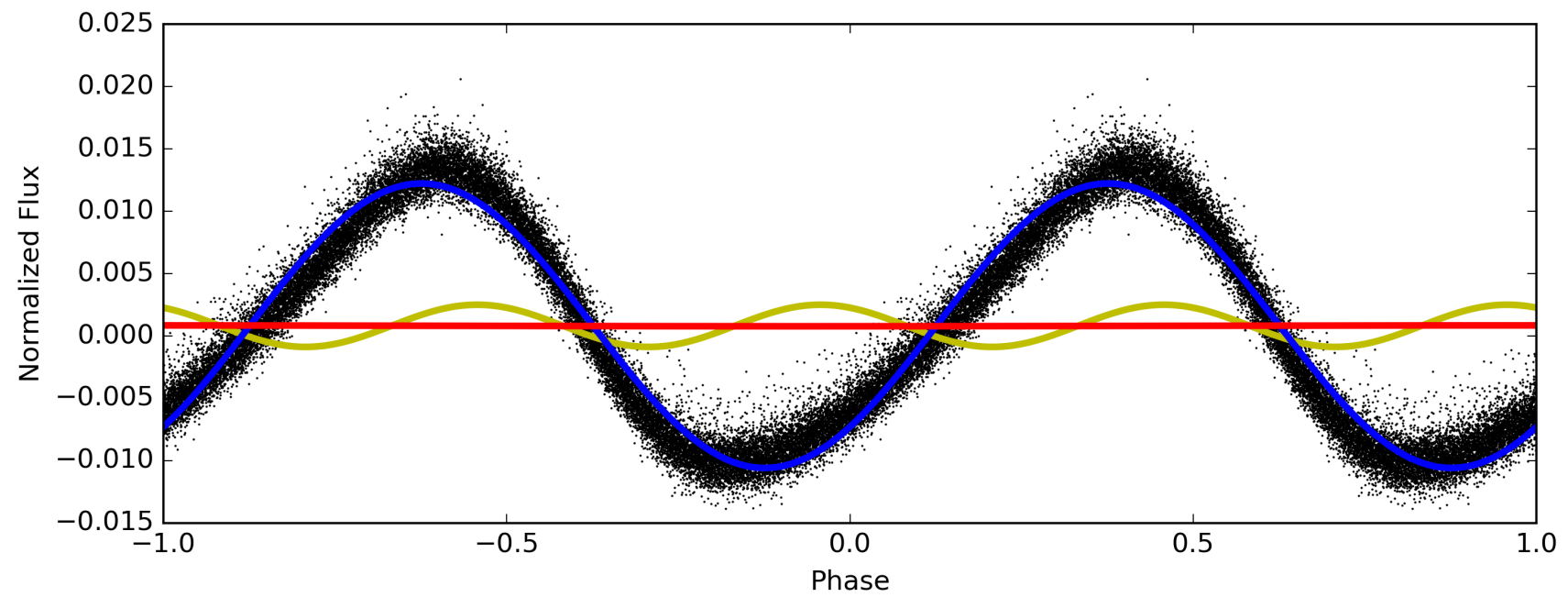
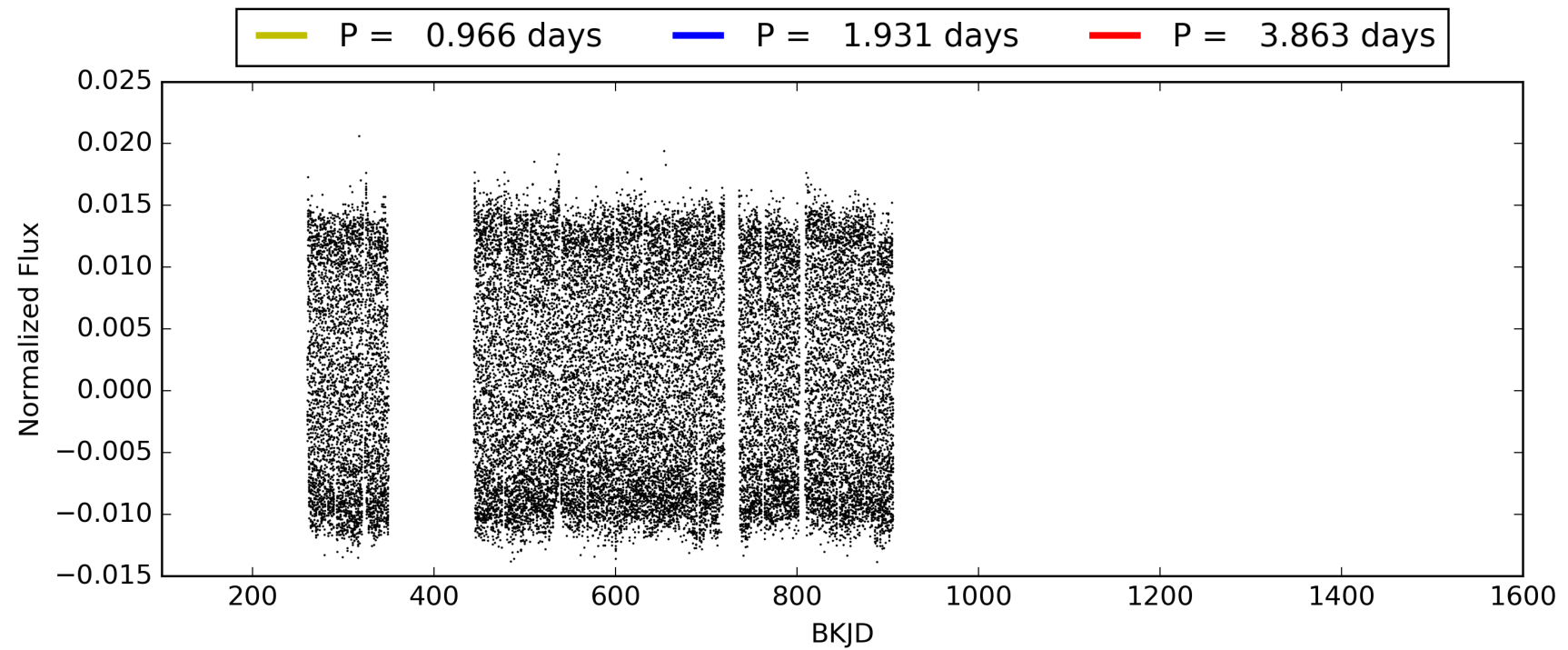
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:30:31 Z

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

TCE 009637292-01, PDC Light Curves

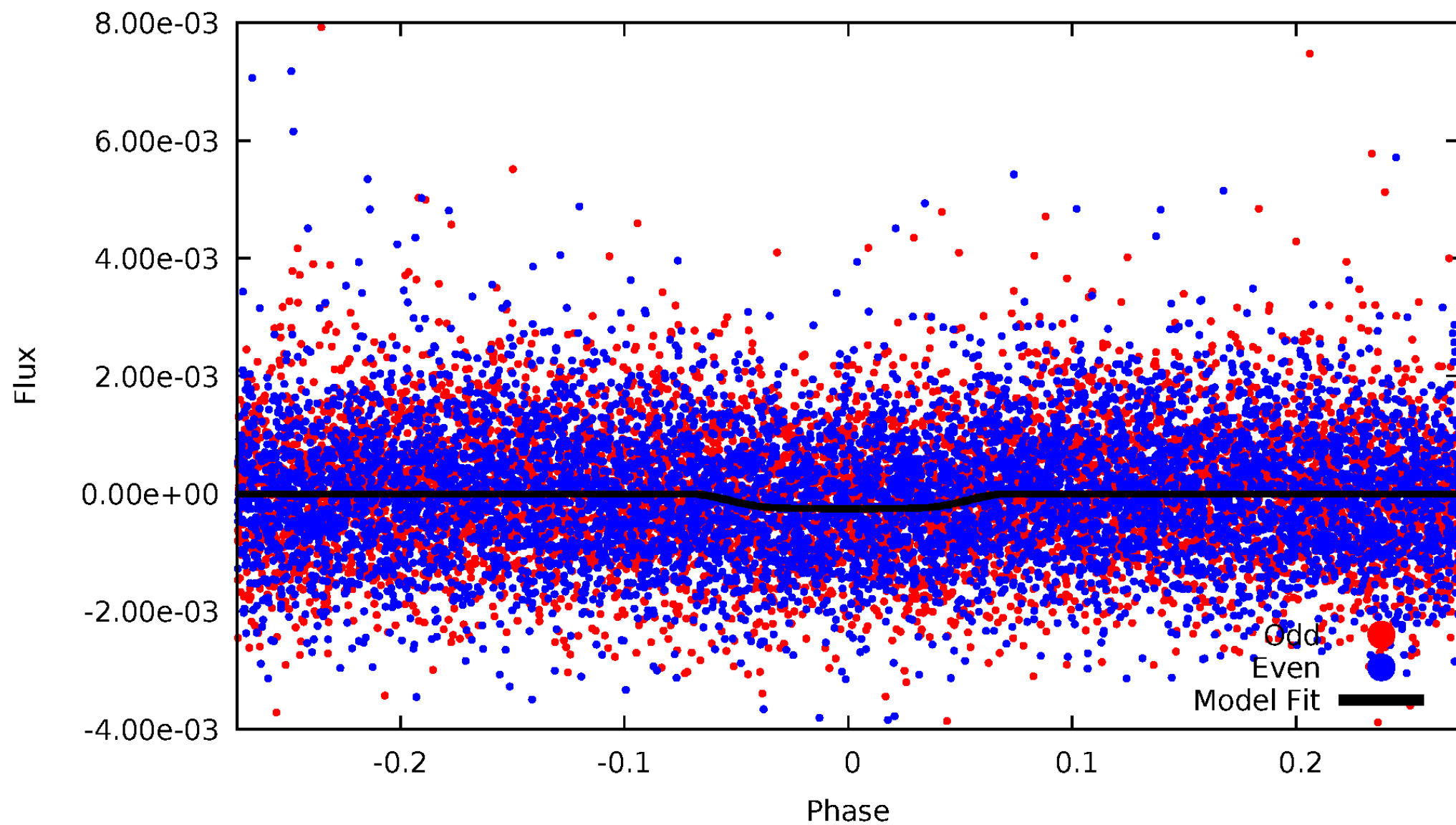


TCE 009637292-01



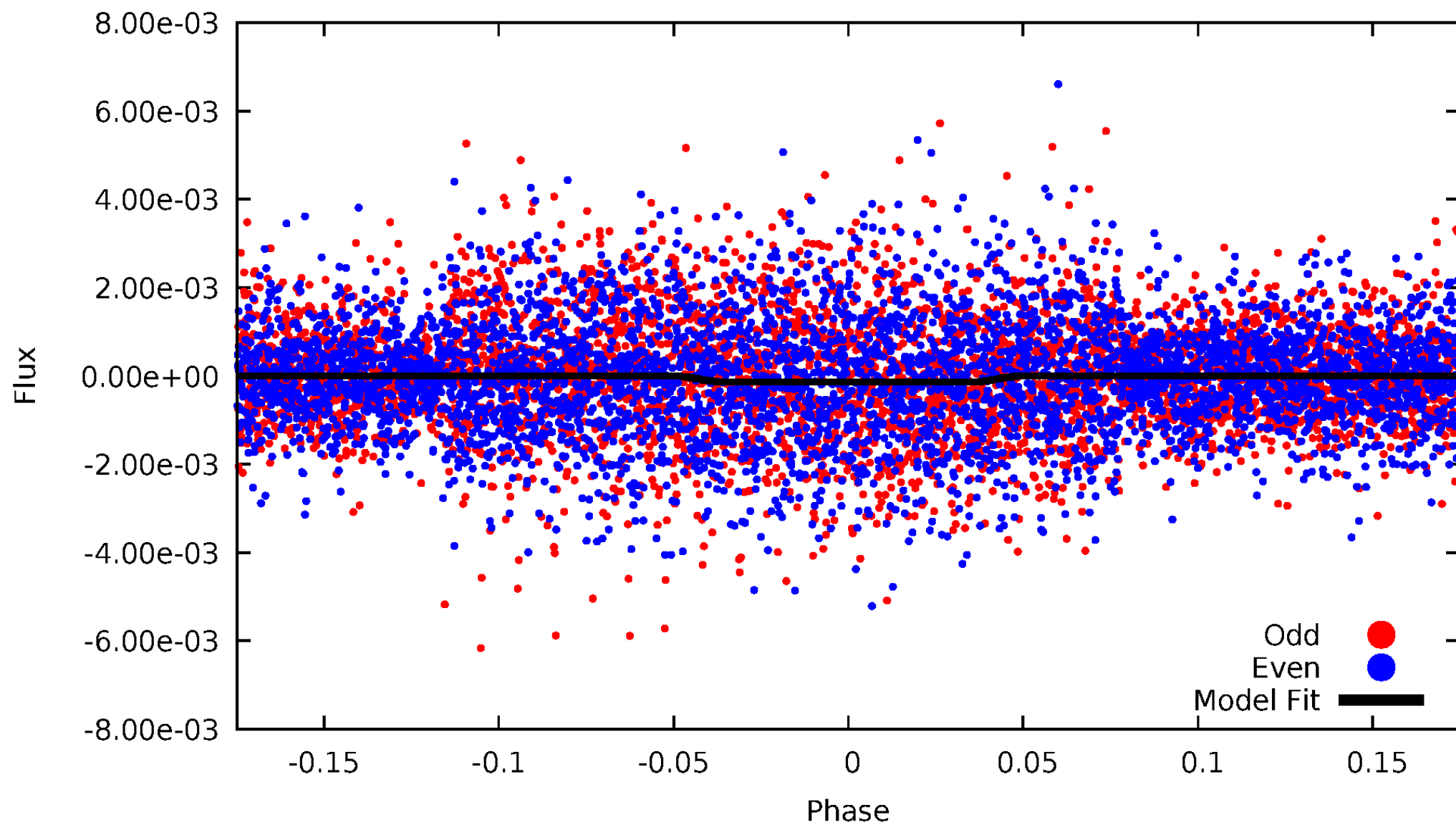
DV Odd/Even

TCE 009637292-01



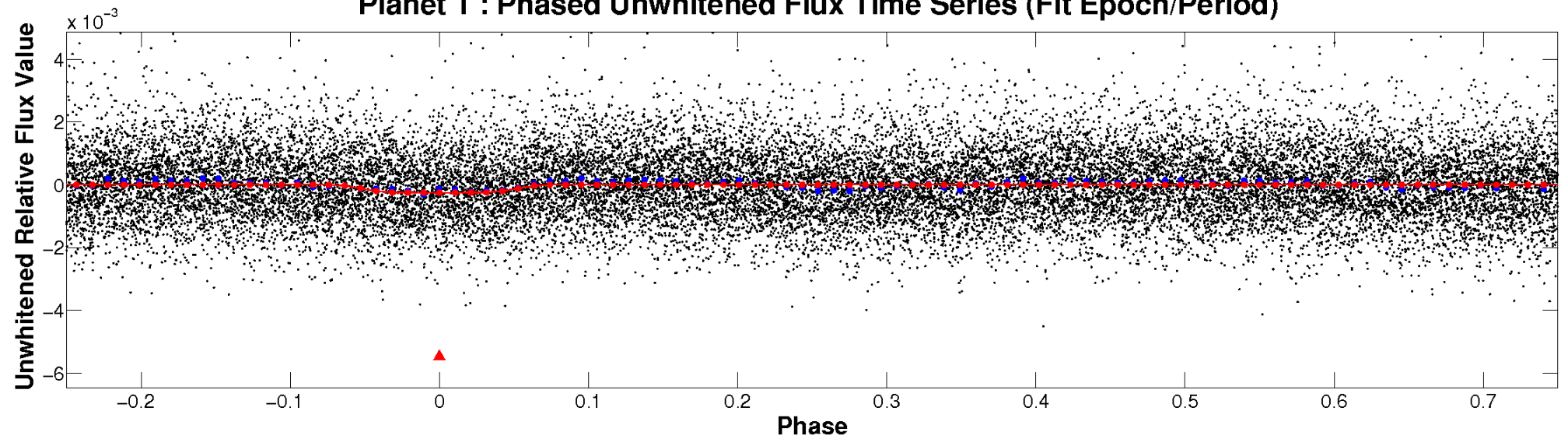
ALT Odd/Even

TCE 009637292-01

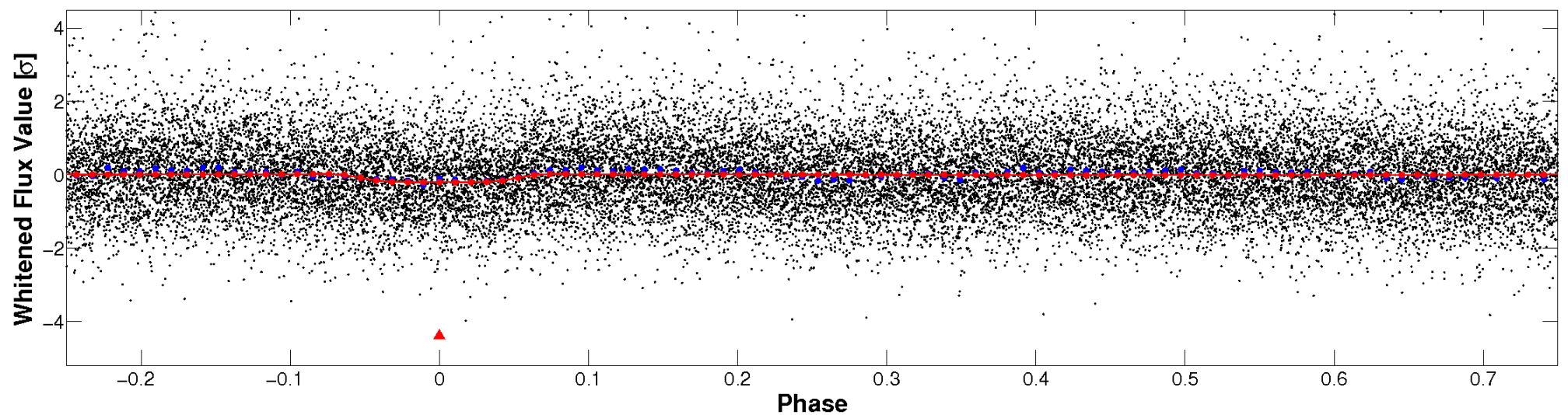


Non-Whitened Vs. Whitened Light Curve

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

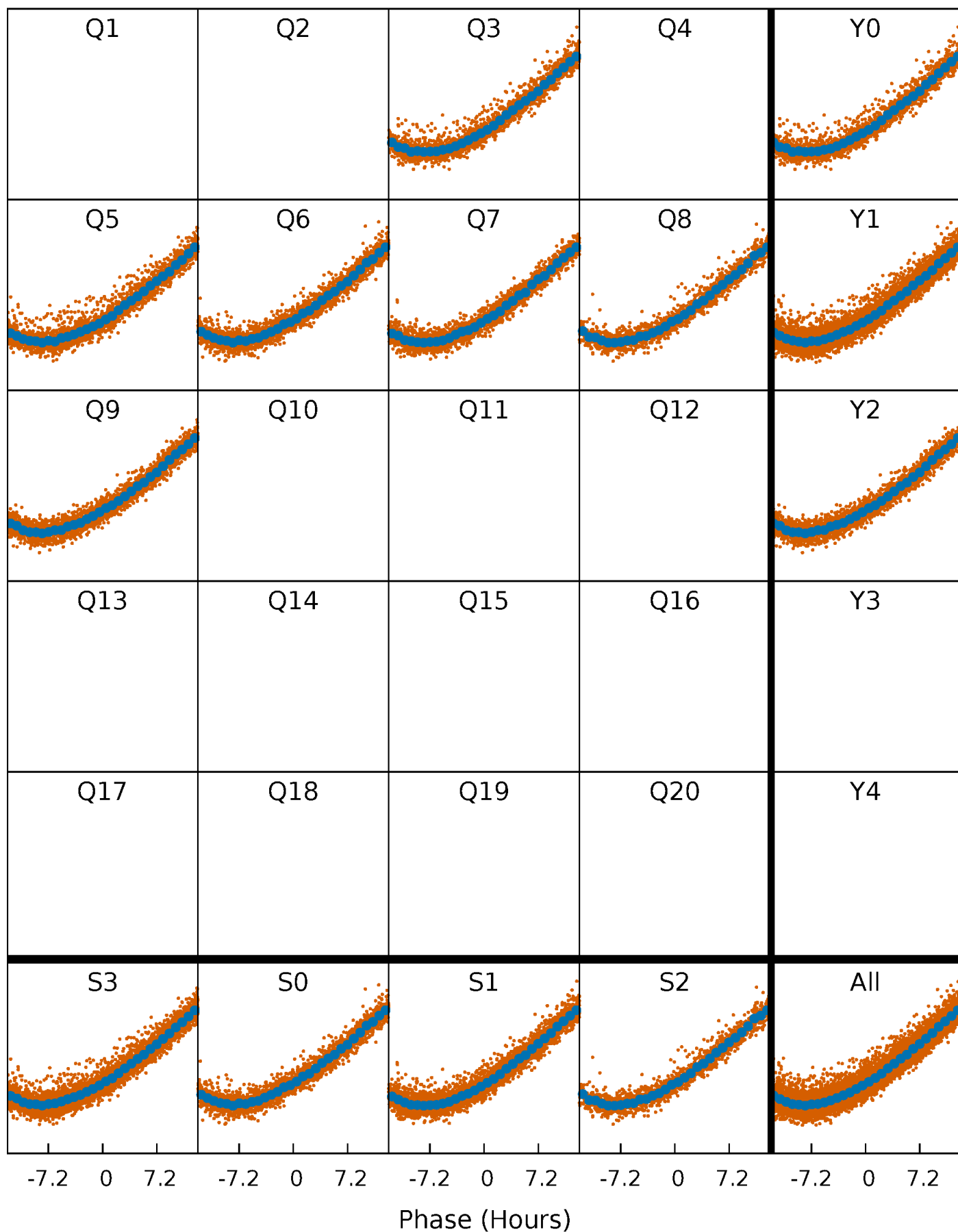


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



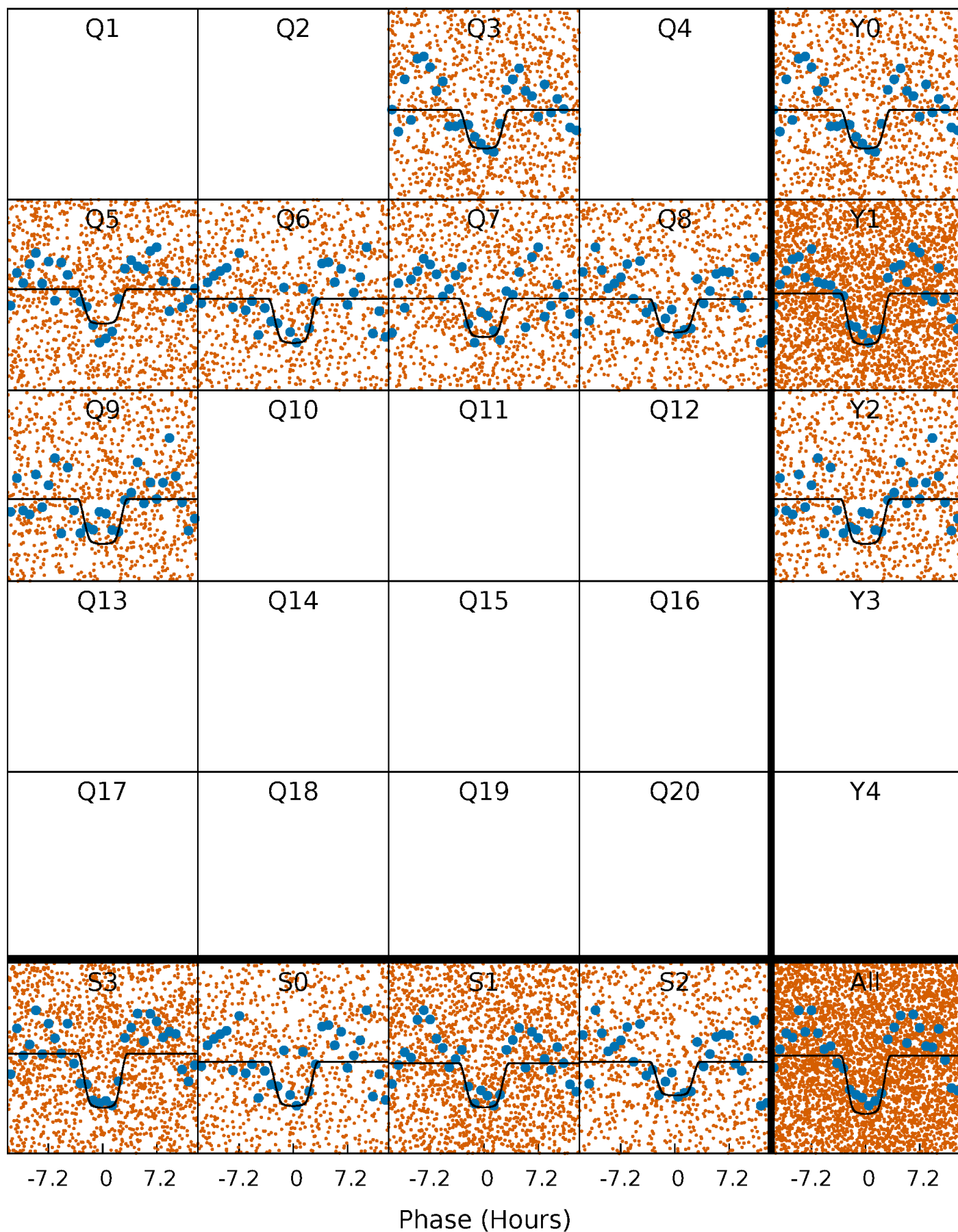
PDC Quarter-Phased Transit Curves

TCE 009637292-01 P= 1.931394 Days $T_0=132.811968$ (BKJD)



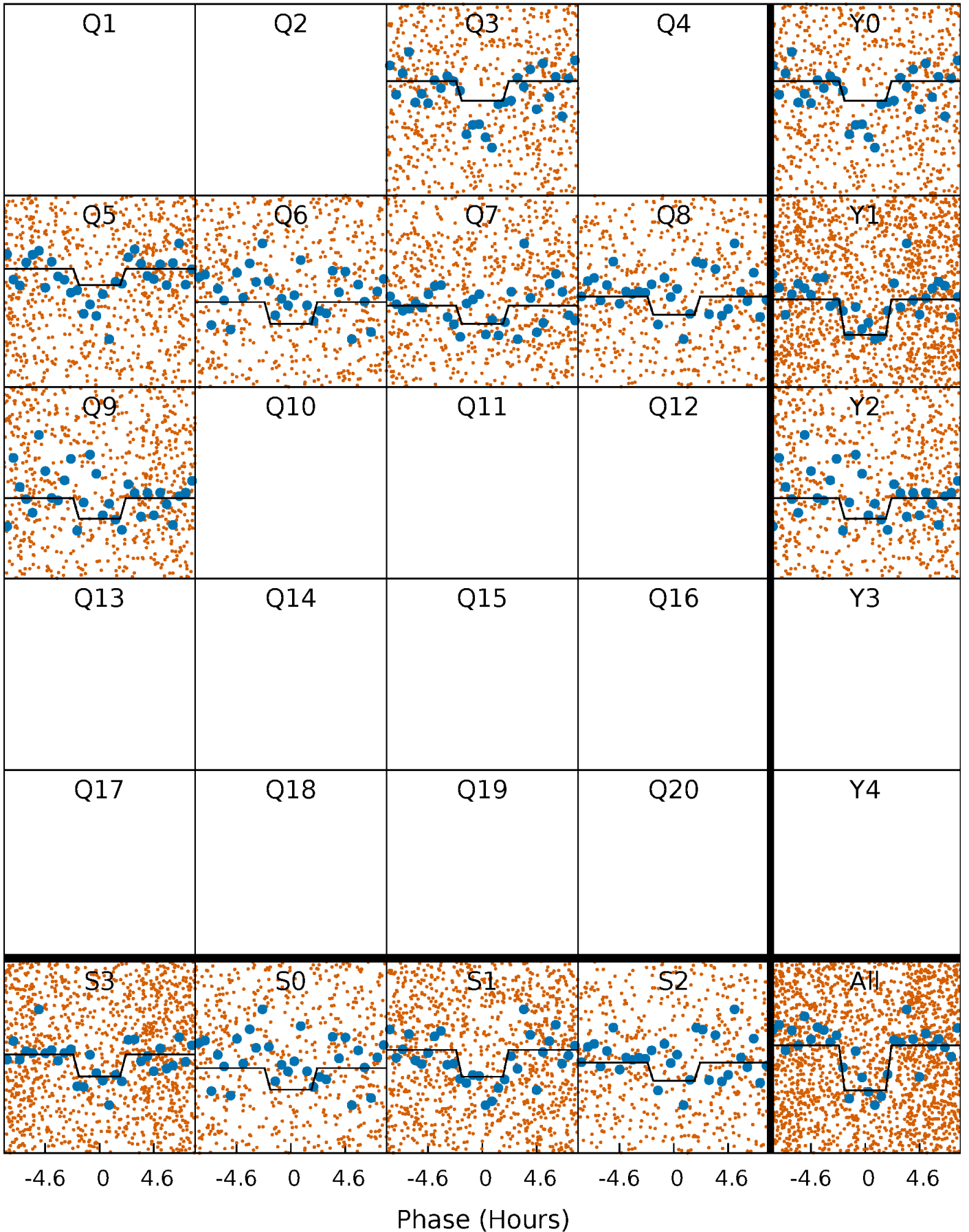
DV Quarter-Phased Transit Curves

TCE 009637292-01 P= 1.931394 Days $T_0=132.811968$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

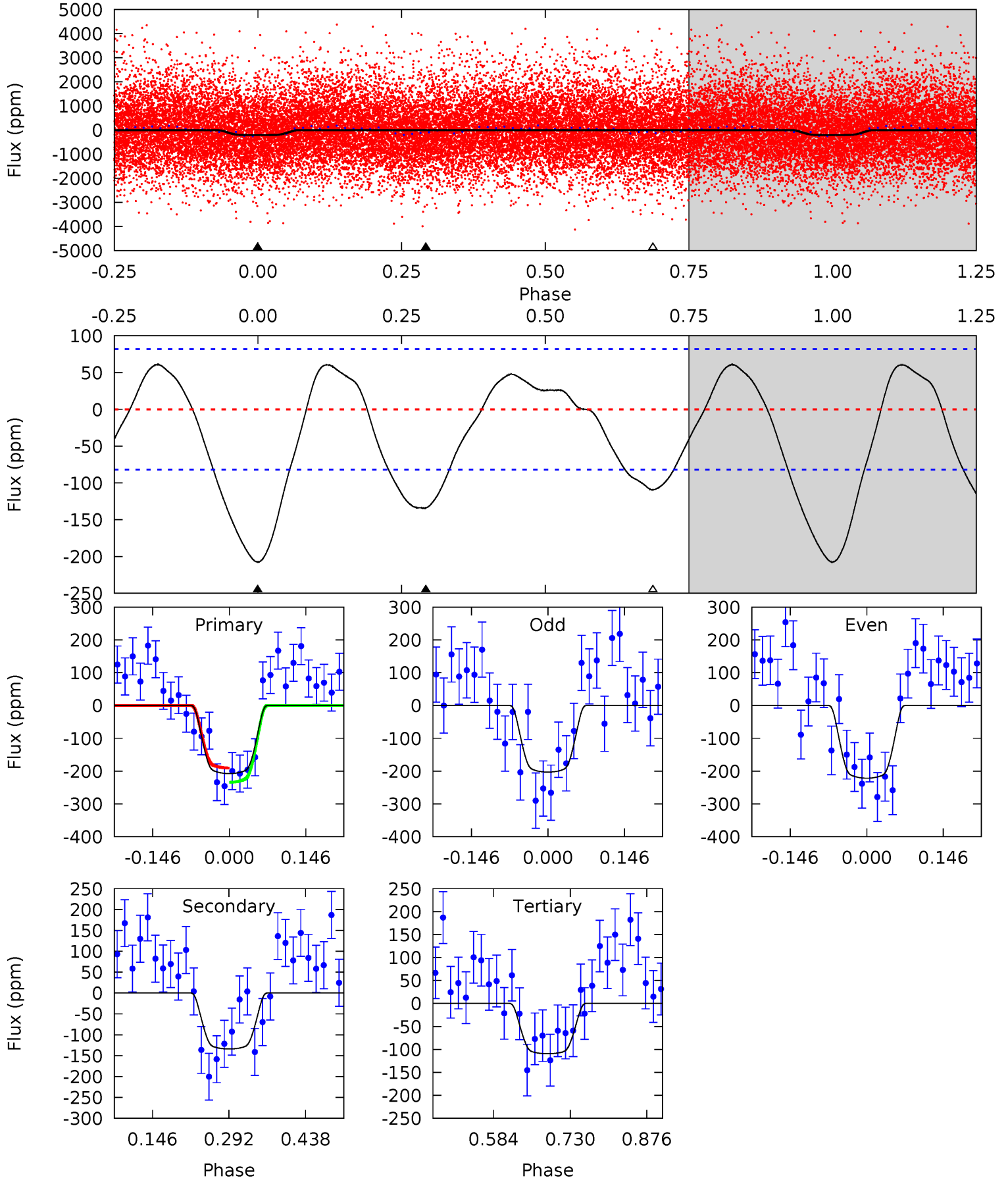
TCE 009637292-01 P= 1.931408 Days $T_0=132.836654$ (BKJD)



DV Model-Shift Uniqueness Test

009637292-01, P = 1.931394 Days, E = 132.811968 Days

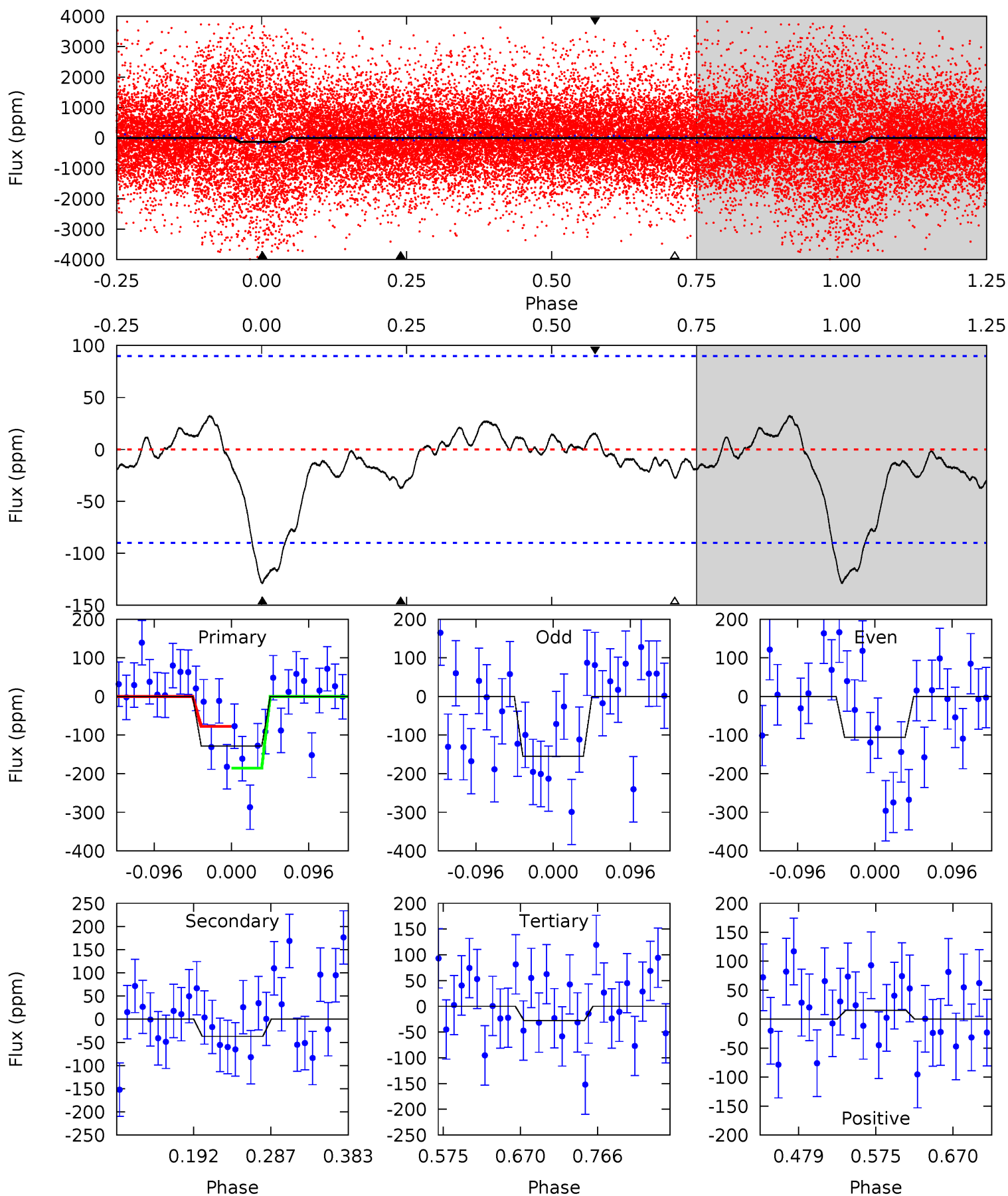
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	7.33	5.99	0	4.48	1.45	3.03	5.37	11.4	1.34	7.33	0.51	1.01	0.23	1.20



Alt Model-Shift Uniqueness Test

009637292-01, P = 1.931408 Days, E = 132.836654 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.54	1.89	1.41	0.78	4.57	1.67	0.71	5.13	5.76	0.48	1.11	1.23	4.48	0.20	2.77



Stellar Parameters For KIC 009637292

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	11012^{+304}_{-479}	$4.025^{+0.258}_{-0.172}$	$0.070^{+0.150}_{-0.650}$	$2.744^{+0.665}_{-0.997}$	$2.909^{+0.251}_{-0.754}$	$0.198^{+0.380}_{-0.086}$
	+3%/-4%	+6%/-4%	+214%/-929%	+24%/-36%	+9%/-26%	+191%/-43%
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 009637292-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-134 ± 18	$5.30^{+0.86}_{-0.98}$	5401^{+386}_{-483}	7932^{+660}_{-537}	$4.816^{+2.221}_{-1.335}$
Alt.	-37 ± 20	$3.38^{+0.68}_{-0.71}$	5360^{+426}_{-504}	6943^{+1237}_{-1393}	$3.259^{+2.777}_{-1.862}$

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

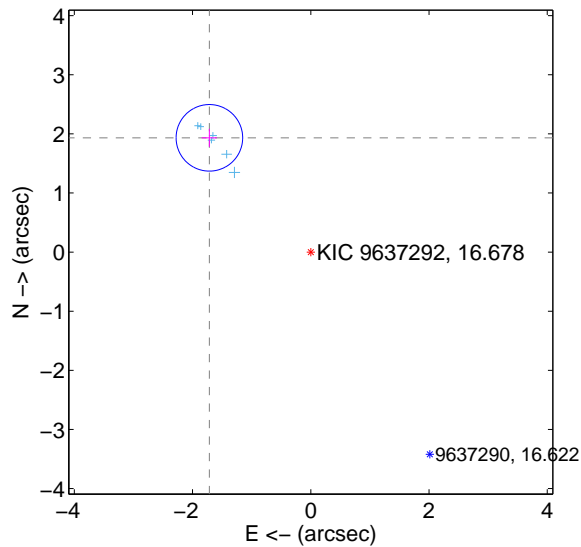
Supplemental centroid analysis for 009637292-01. Kepler magnitude: 16.68. Transit SNR 9.27

There are 6 quarters with good PRF difference image offsets

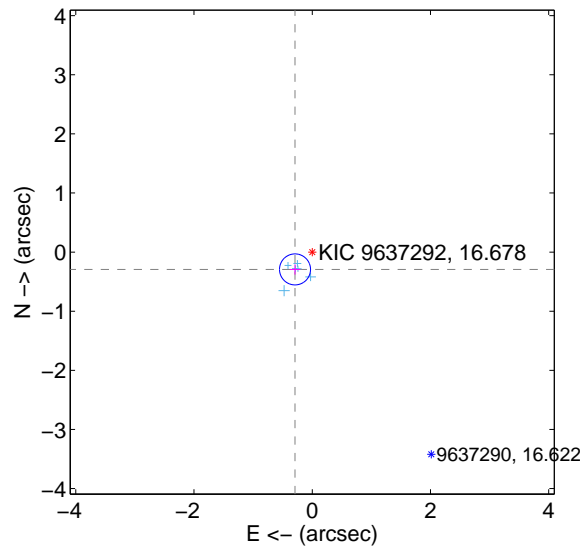
The OOT PRF centroid is offset from the target star catalog position by about 2.80 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.584 ± 0.188	13.77	1.715 ± 0.129	1.933 ± 0.152
PRF-fit source offset from KIC position	0.413 ± 0.087	4.72	0.291 ± 0.088	-0.293 ± 0.087
photometric centroid source offset	0.58 ± 0.94	0.61	-0.24 ± 0.71	0.53 ± 0.99

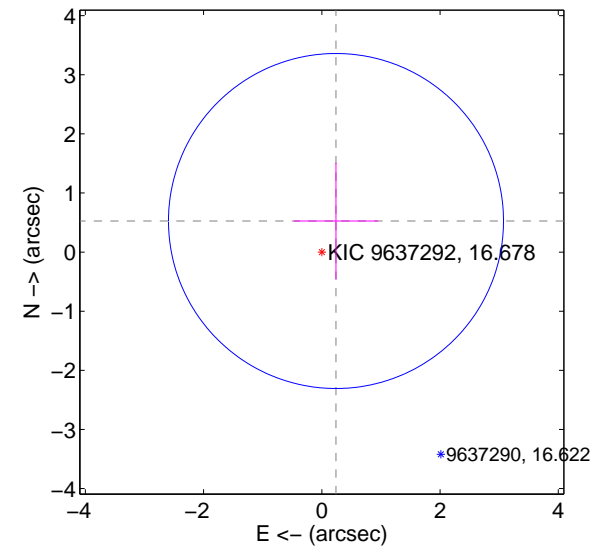
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

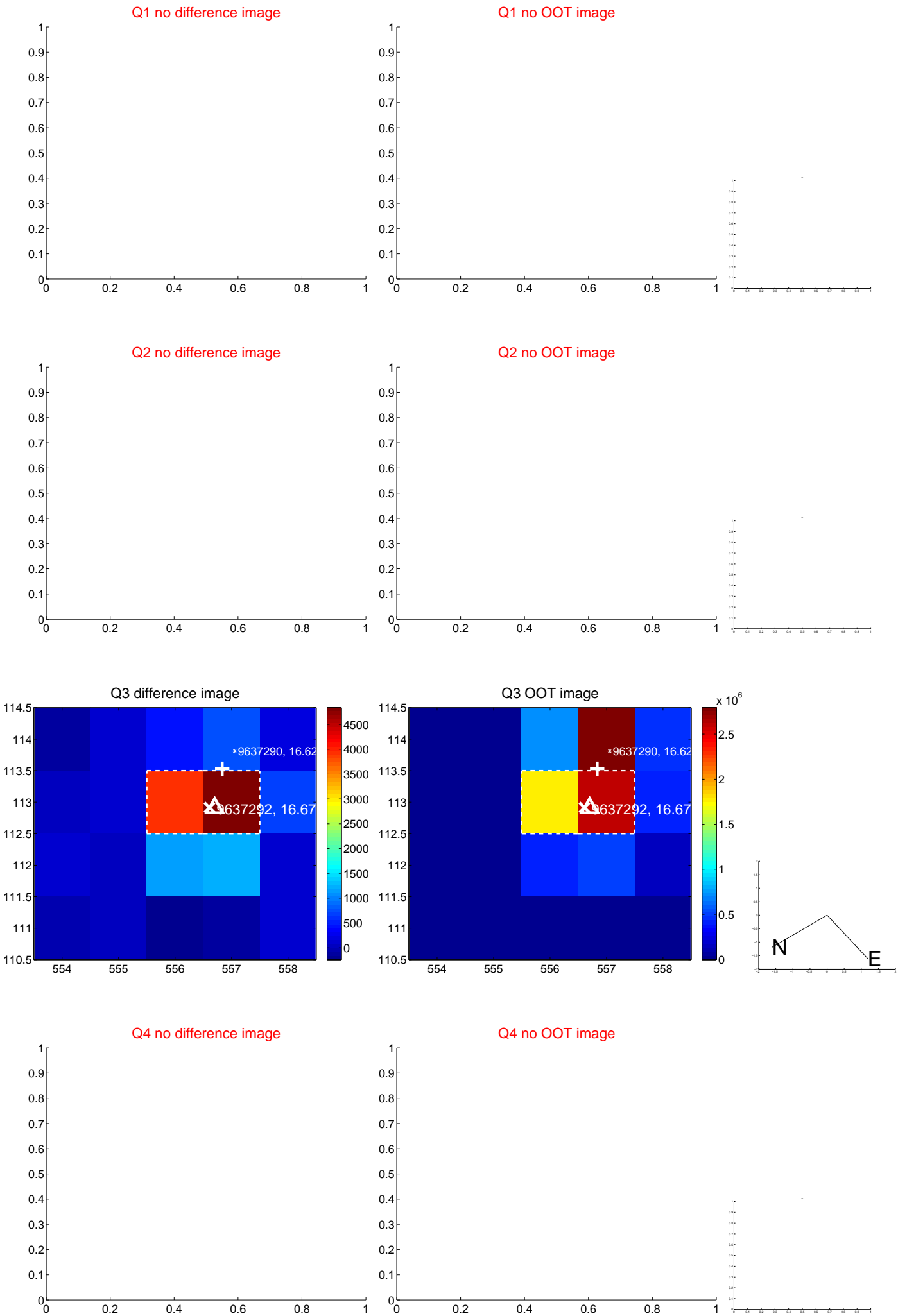


offset from photometric centroids

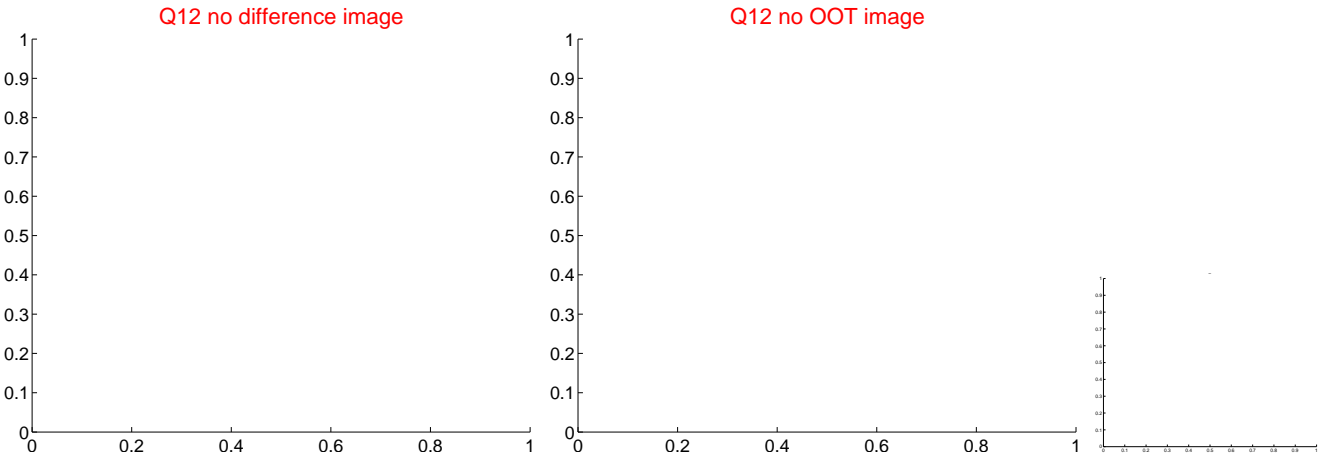
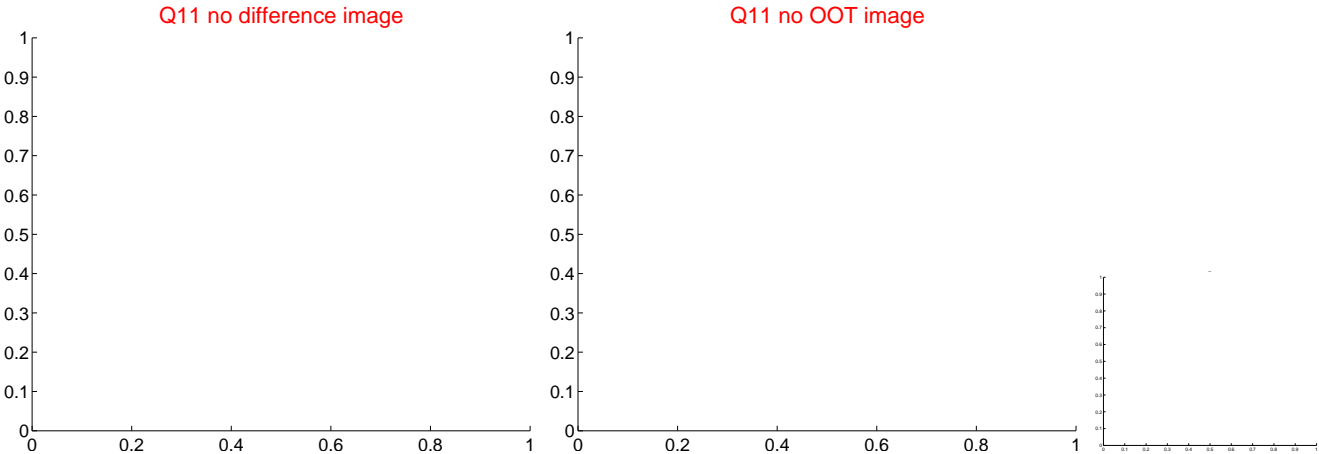
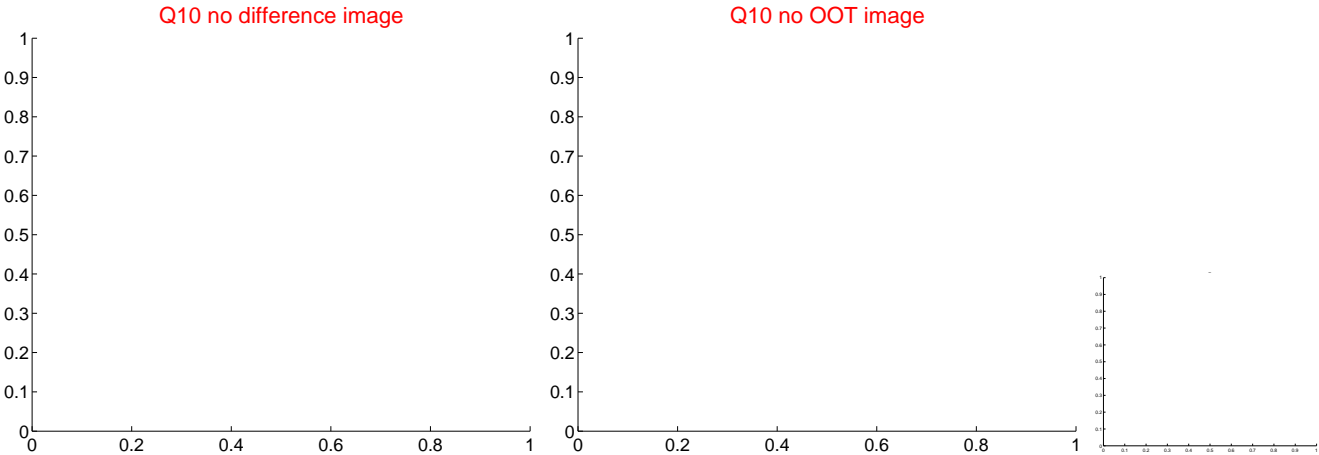
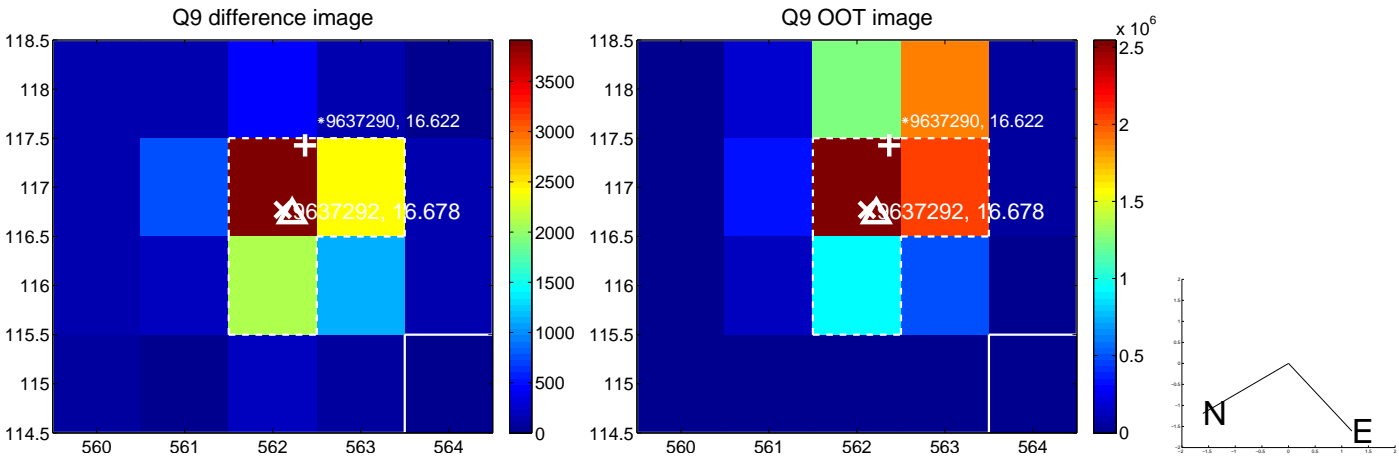


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



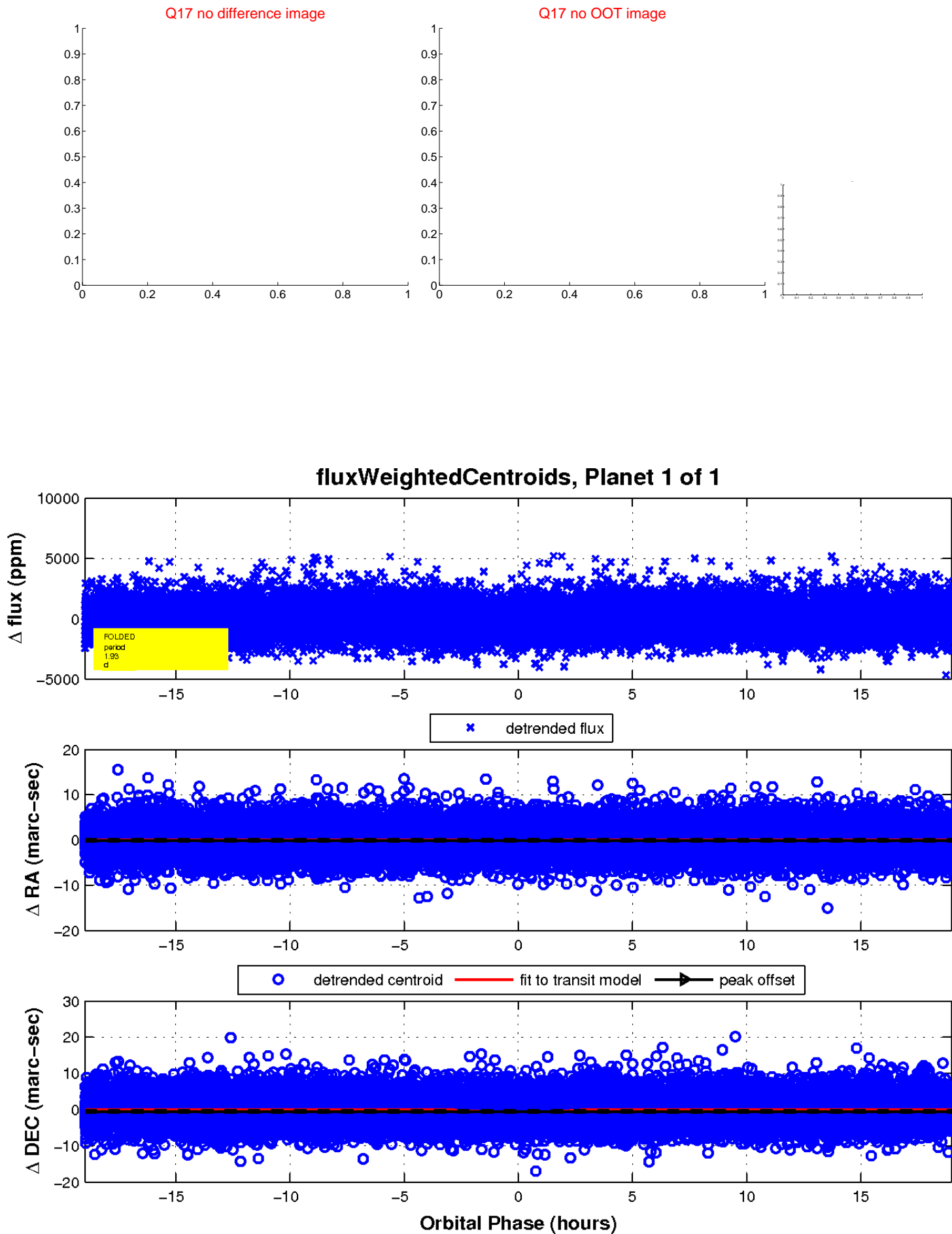
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

