

KIC 002692708

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})
002692708-01	OBS	No	622.925584	134.730008	1056.0	6.171	11.2	6.0	0.57	3694	1.85	0.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002692708-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

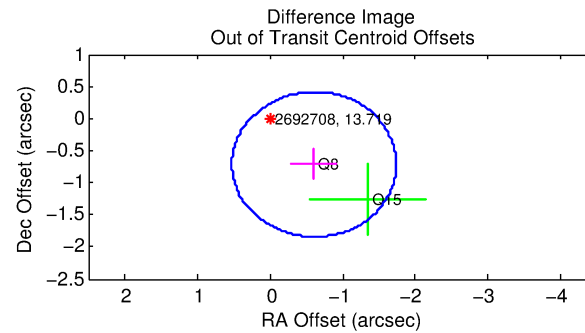
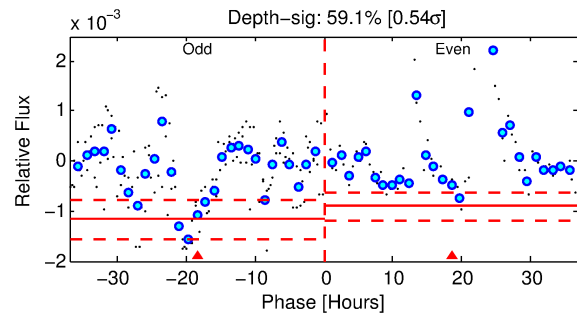
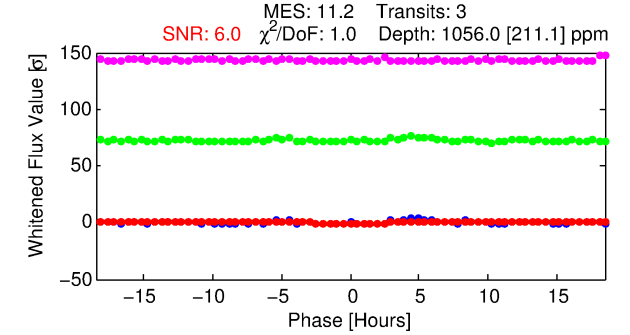
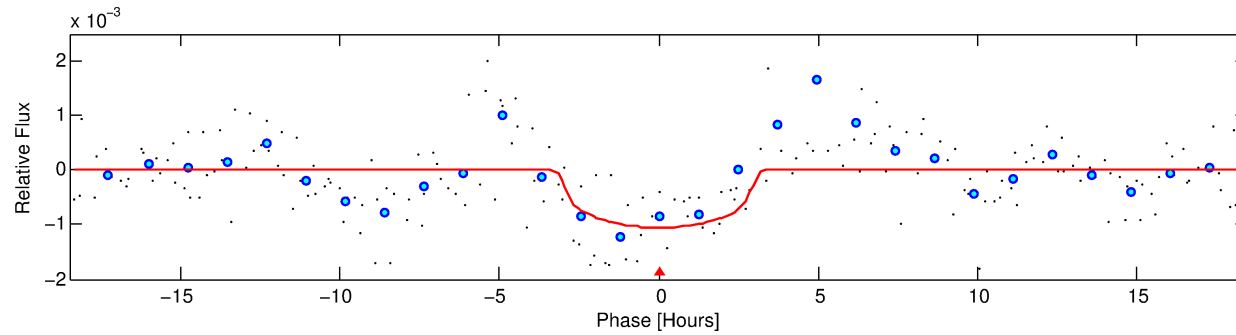
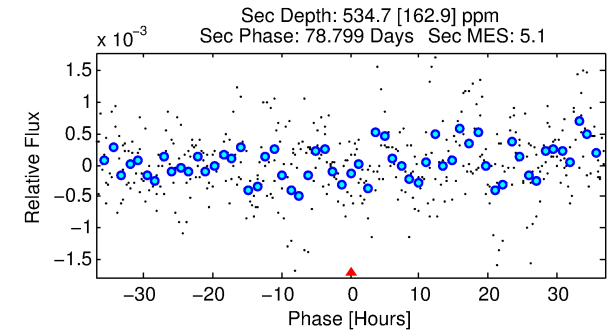
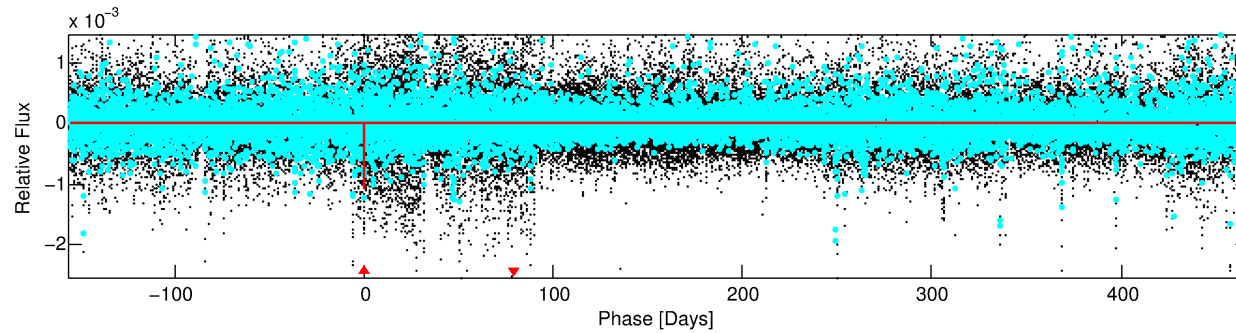
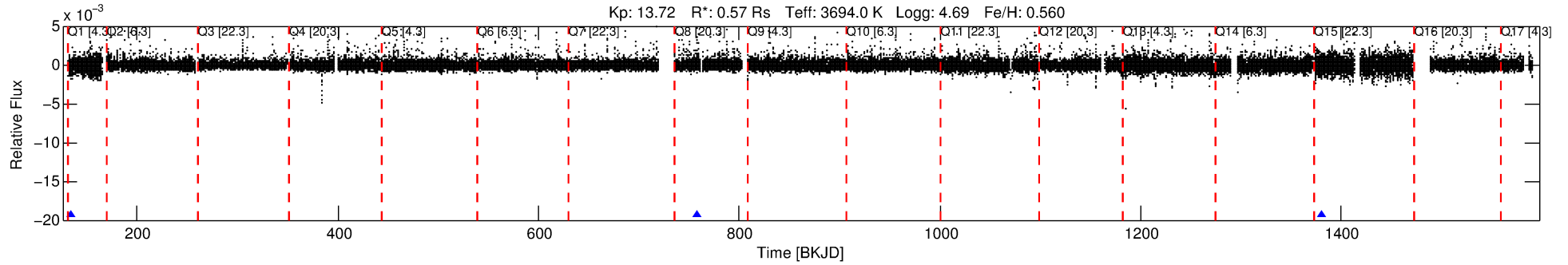
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002692708-01

No Significant Match Found

DV One-Page Summary

KIC: 2692708 Candidate: 1 of 1 Period: 622.926 d



DV Fit Results:

Period = 622.92558 [0.00879] d
Epoch = 134.7300 [0.0123] BKJD
Rp/R* = 0.0299 [0.0295]
a/R* = 696.48 [2189.11]
b = 0.49 [4.87]
Seff = 0.04 [0.01]
Teq = 113 [6] K
Rp = 1.85 [1.84] Re
a = 1.1818 [0.1263] AU
Ag = 120477.58 [241198.49] [0.50 σ]
Teffp = 3249 [1627] K [1.93 σ]

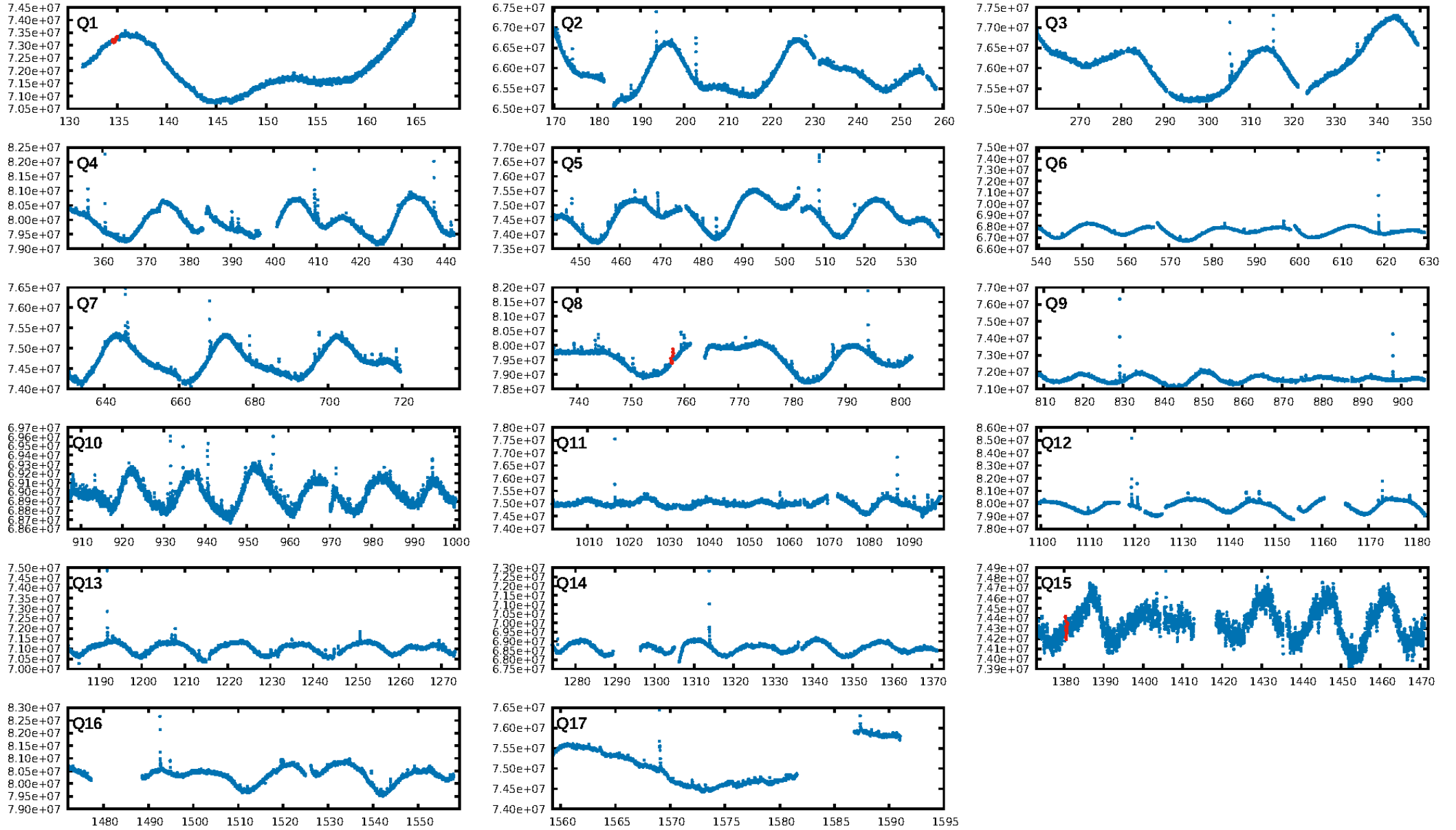
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 71.1%
ModelChiSquareGof-sig: 98.1%
Bootstrap-pfa: 1.57e-10
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.1456
Centroid-sig: N/A
Centroid-so: 3.113 arcsec [3.18 σ]
OotOffset-rm: 0.938 arcsec [2.49 σ]
KicOffset-rm: 4.793 arcsec [6.66 σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

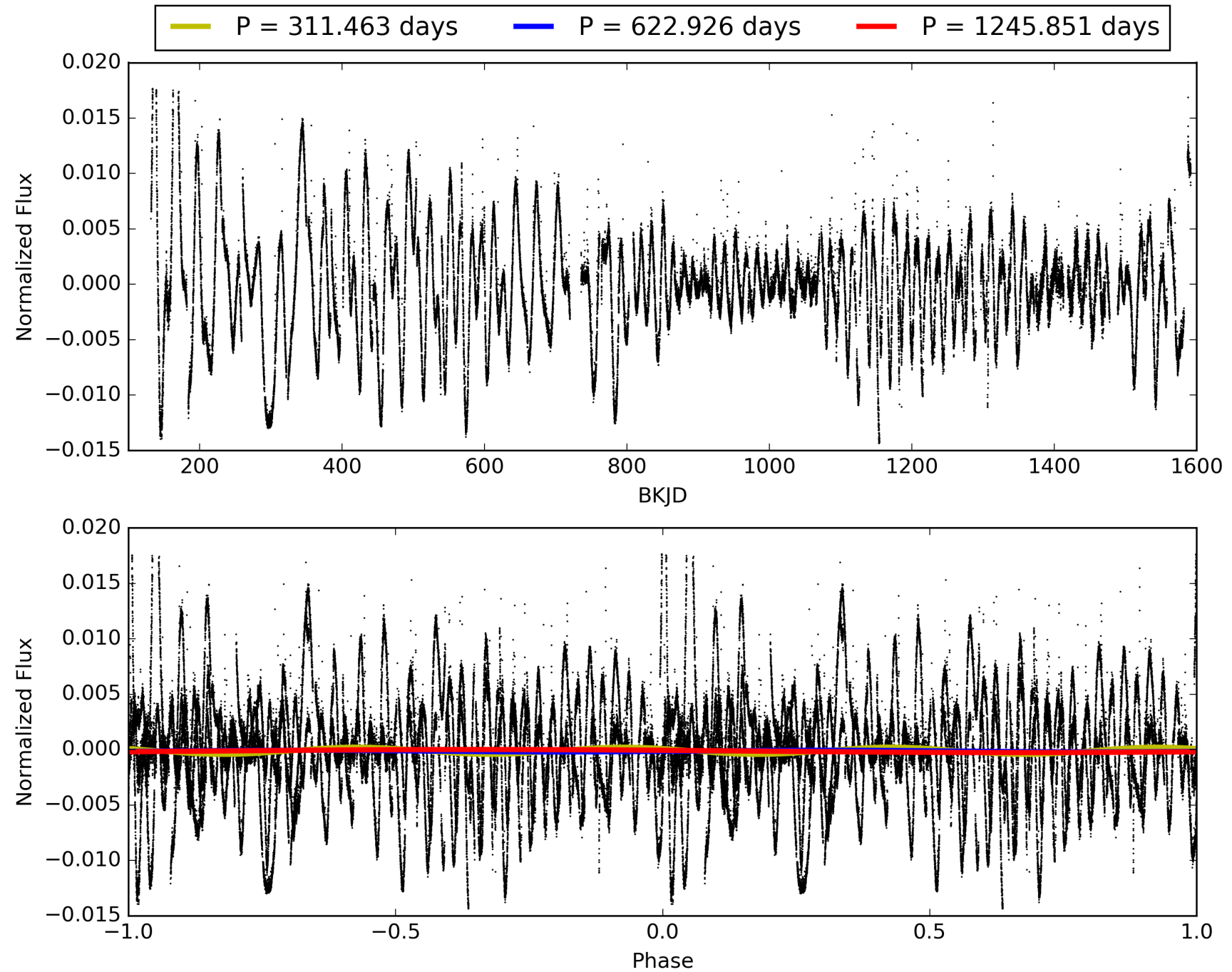
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:50:25 Z

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

TCE 002692708-01, PDC Light Curves

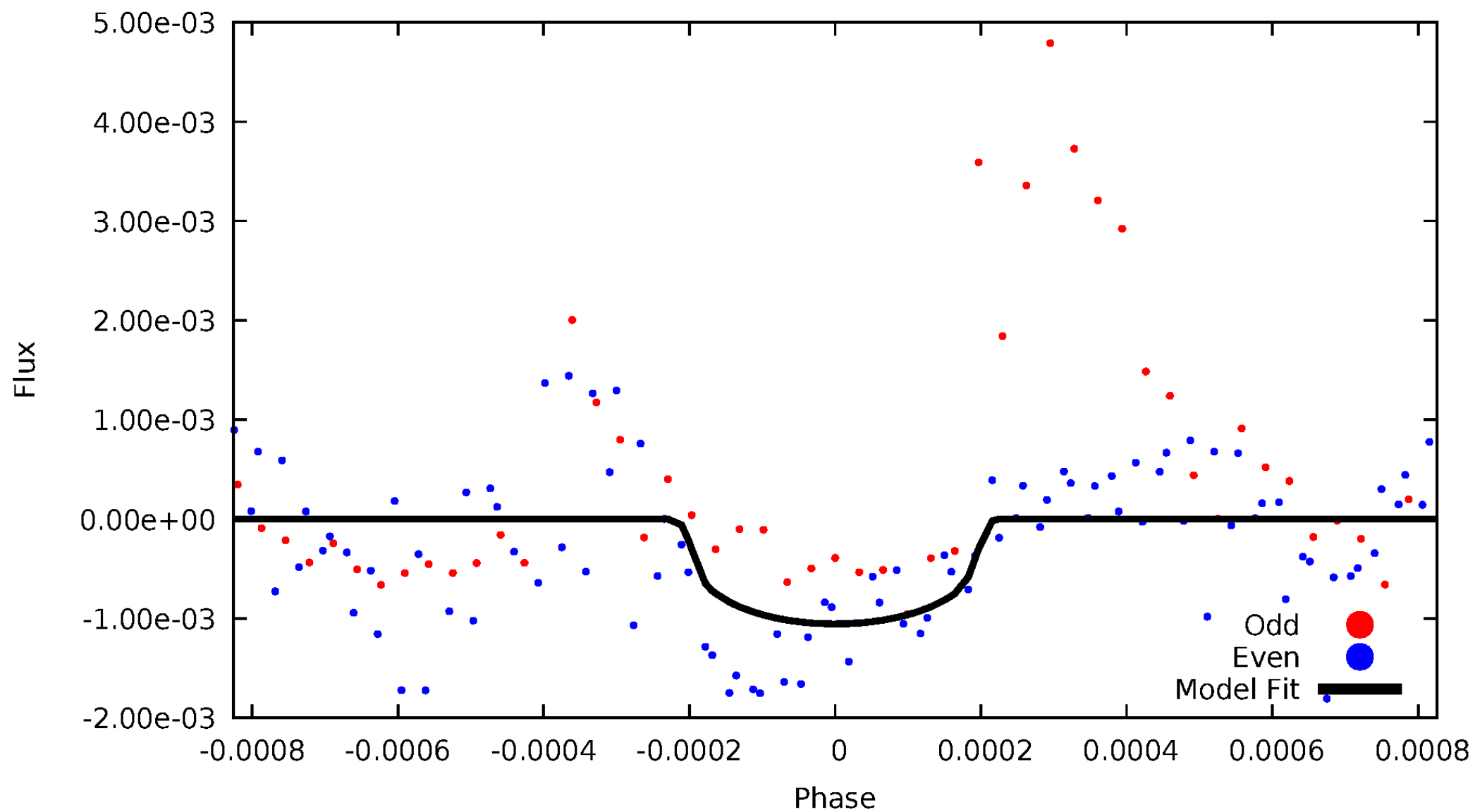


TCE 002692708-01



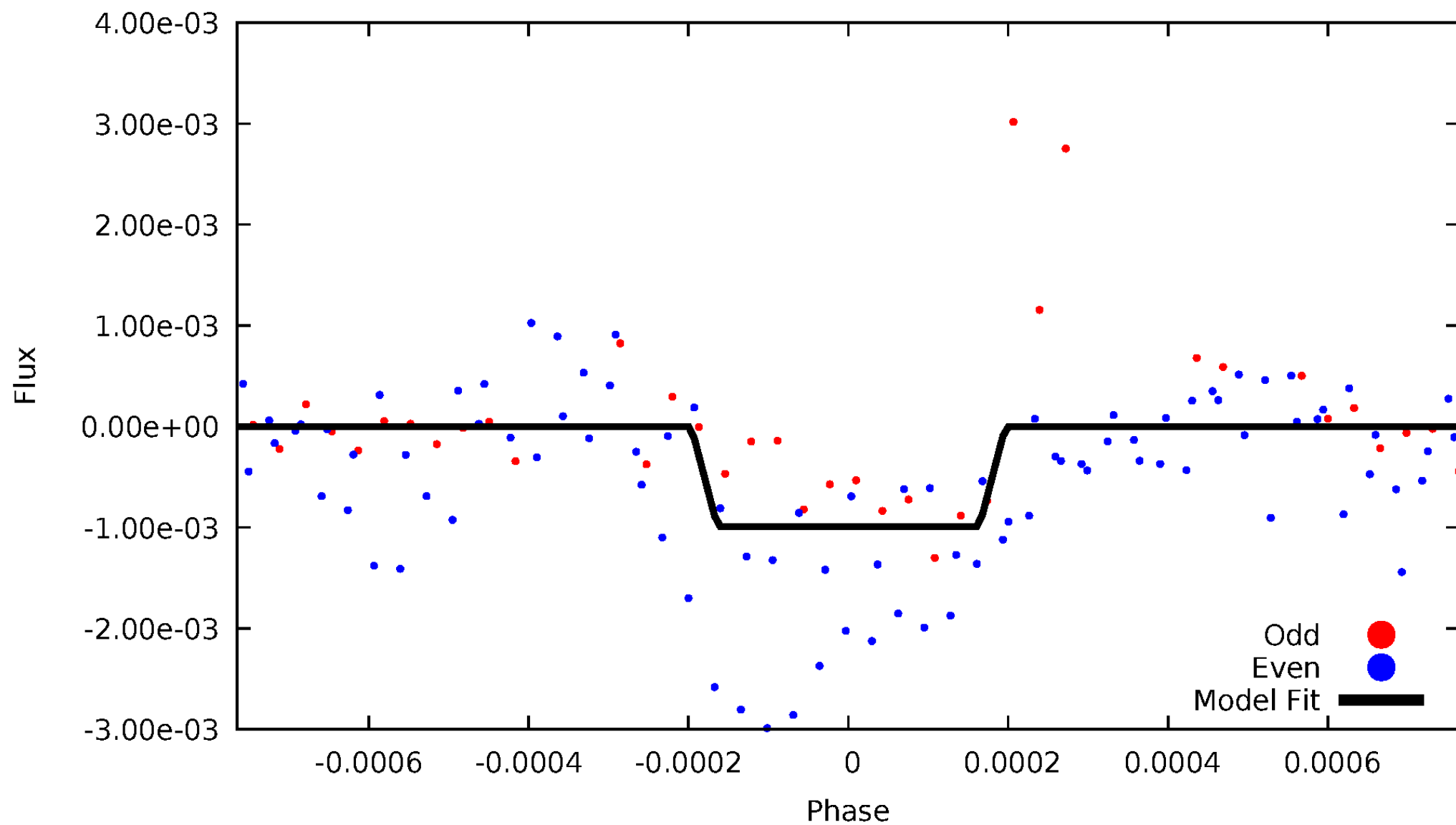
DV Odd/Even

TCE 002692708-01



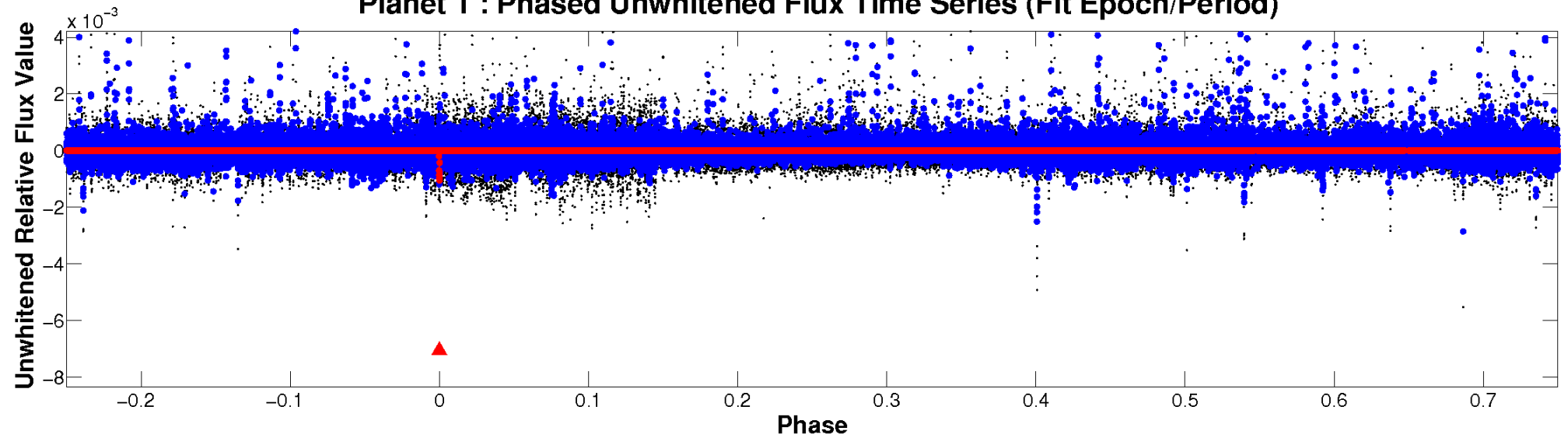
ALT Odd/Even

TCE 002692708-01

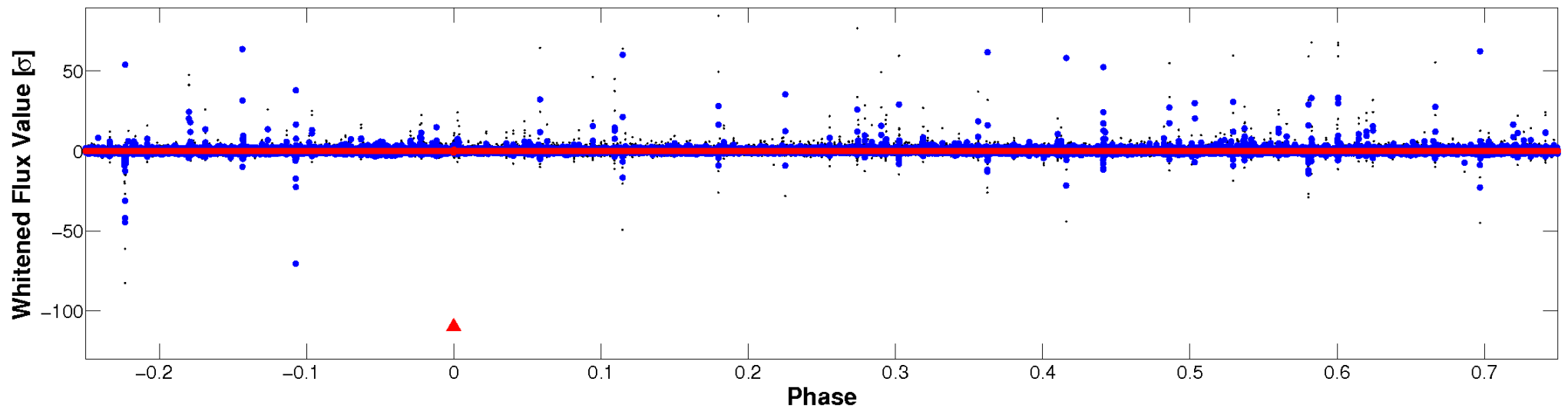


Non-Whitened Vs. Whitened Light Curve

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

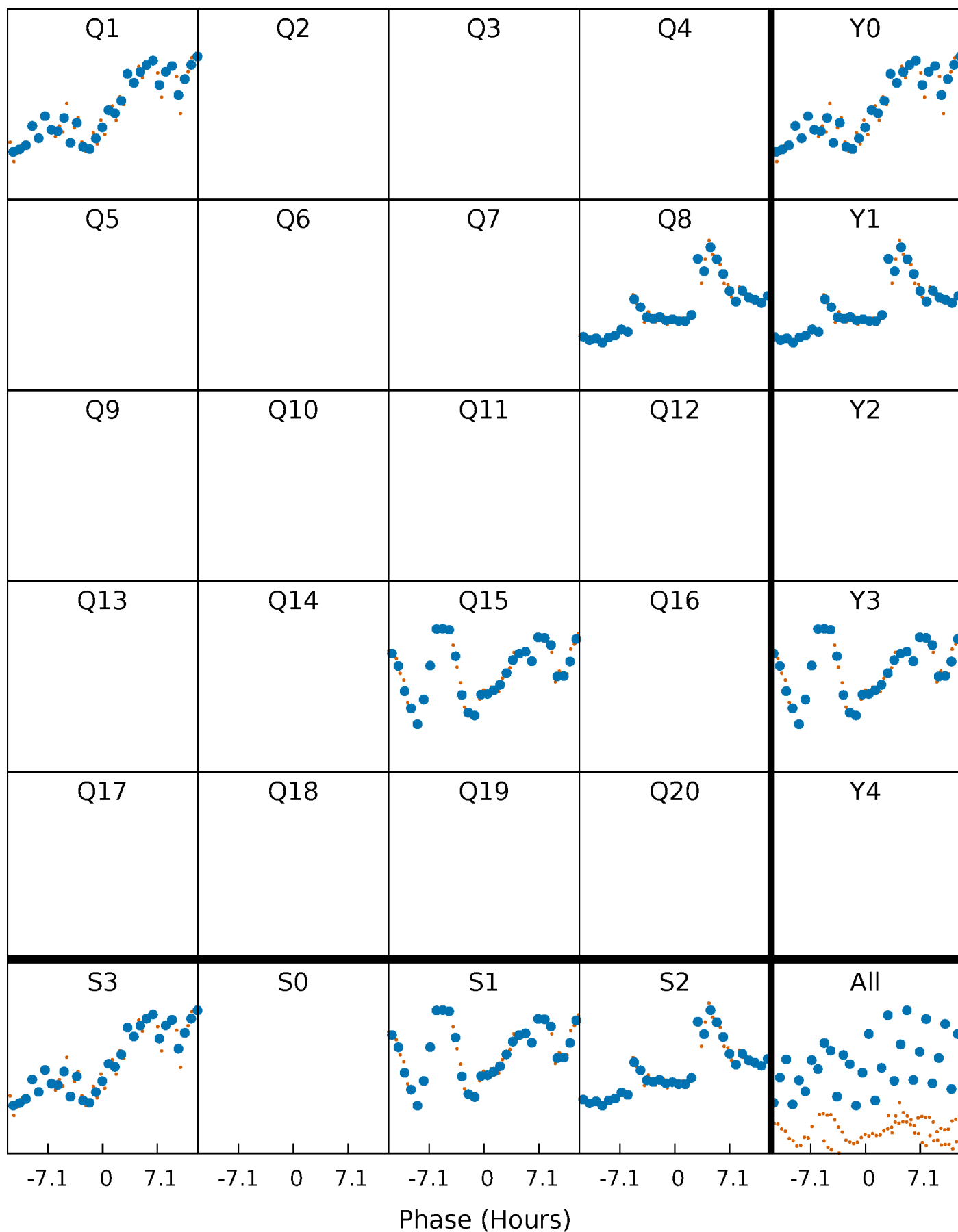


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



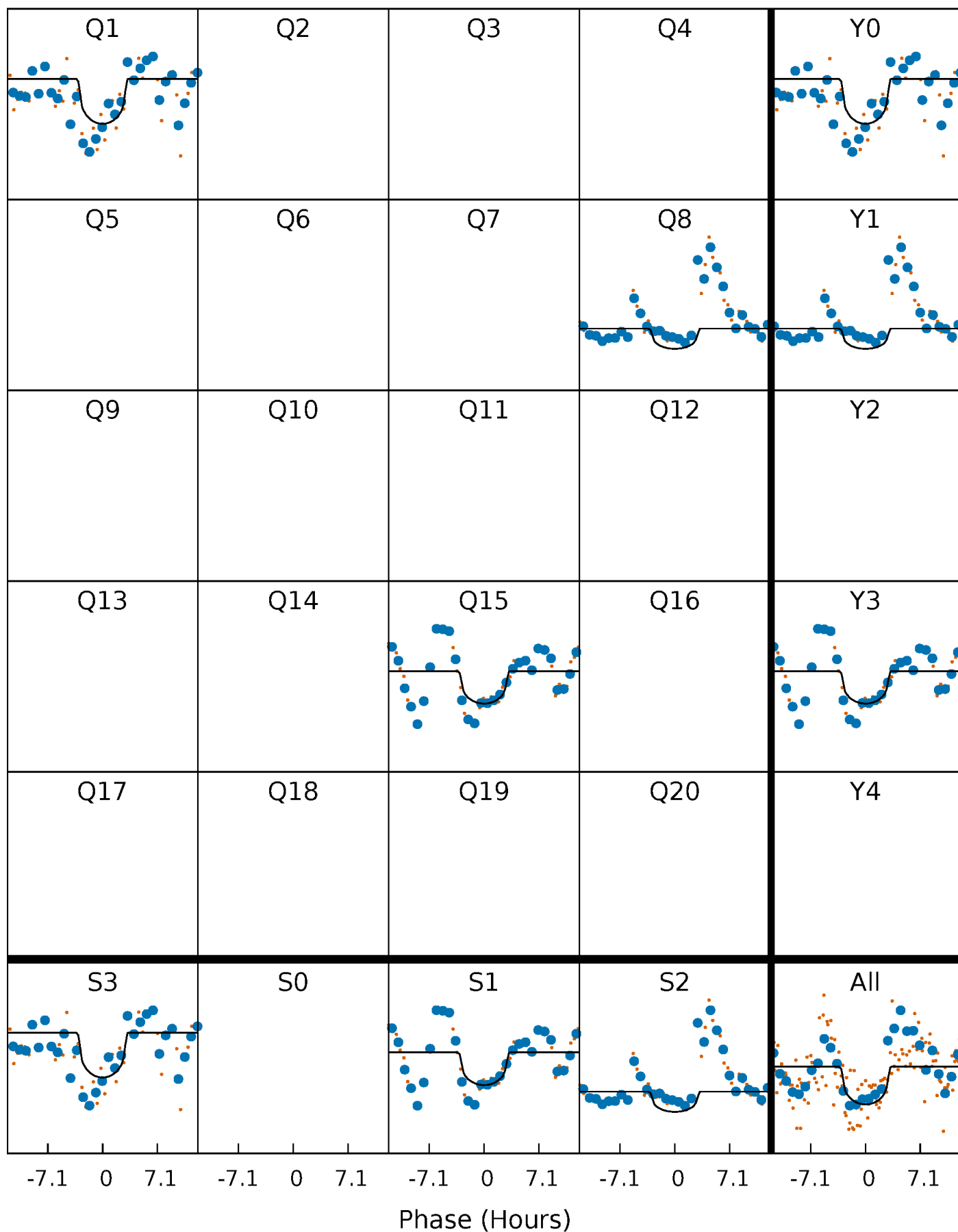
PDC Quarter-Phased Transit Curves

TCE 002692708-01 P=622.925584 Days $T_0=134.730008$ (BKJD)



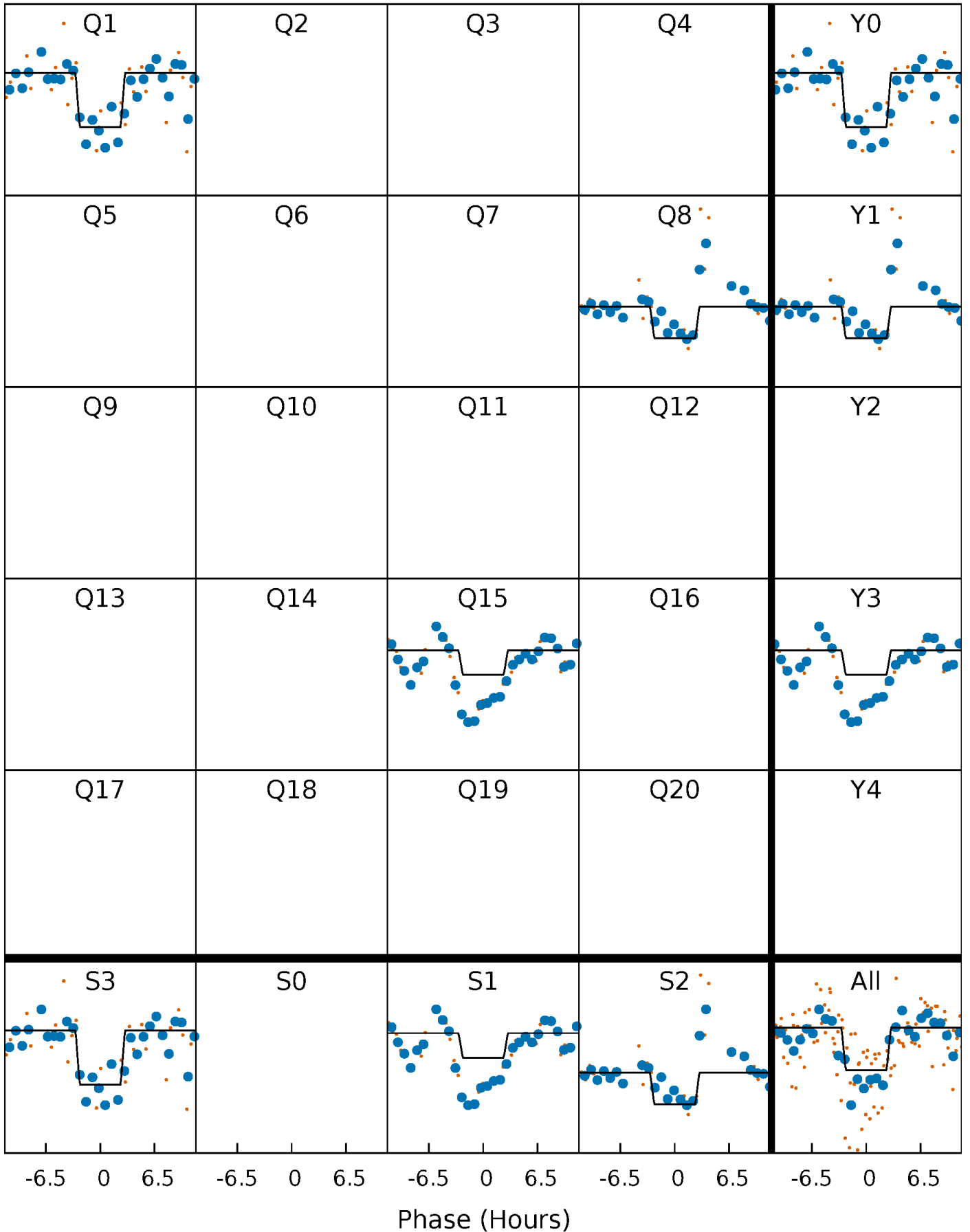
DV Quarter-Phased Transit Curves

TCE 002692708-01 $P=622.925584$ Days $T_0=134.730008$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

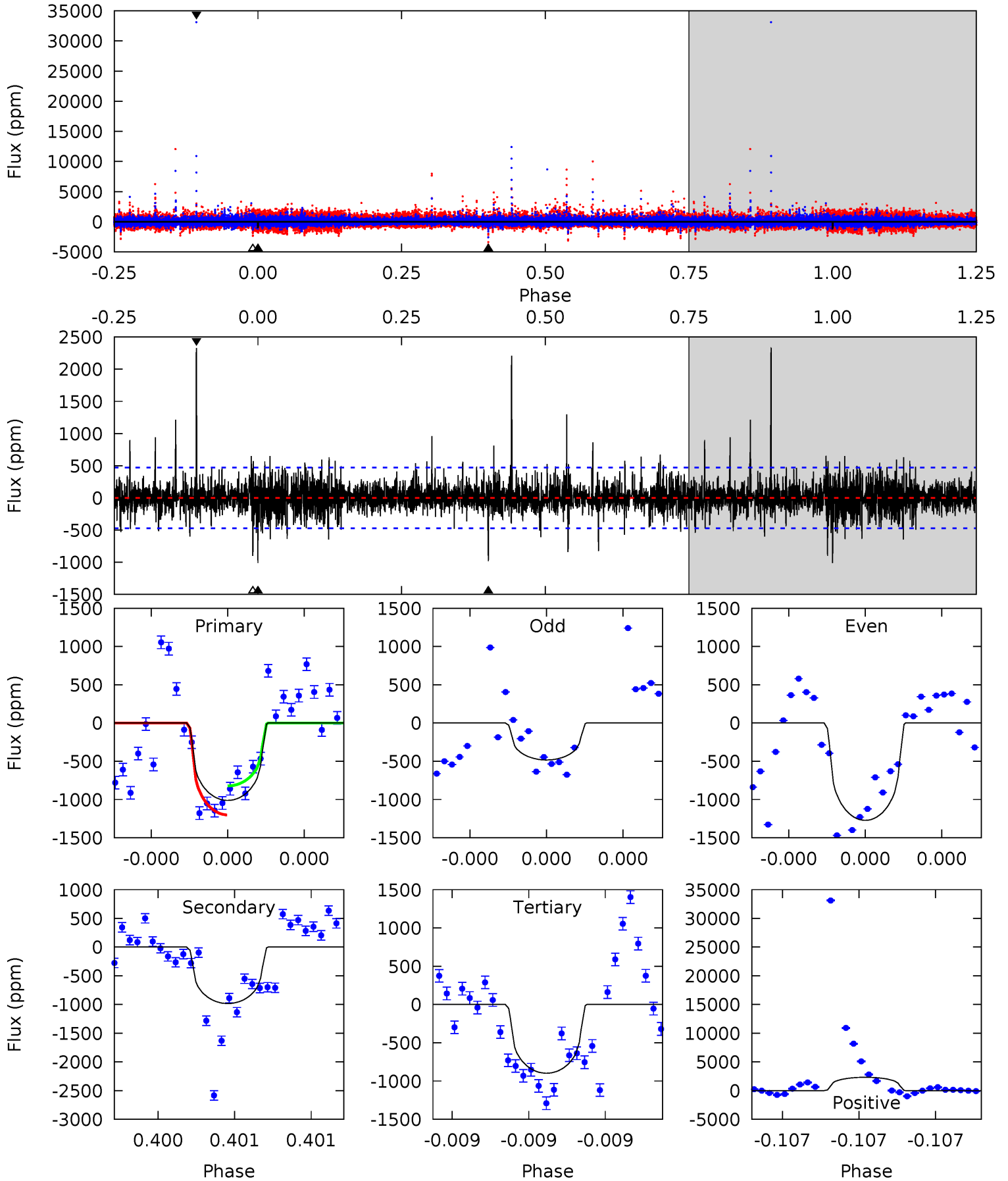
TCE 002692708-01 P=622.930699 Days $T_0=134.718891$ (BKJD)



DV Model-Shift Uniqueness Test

002692708-01, P = 622.925584 Days, E = 134.730008 Days

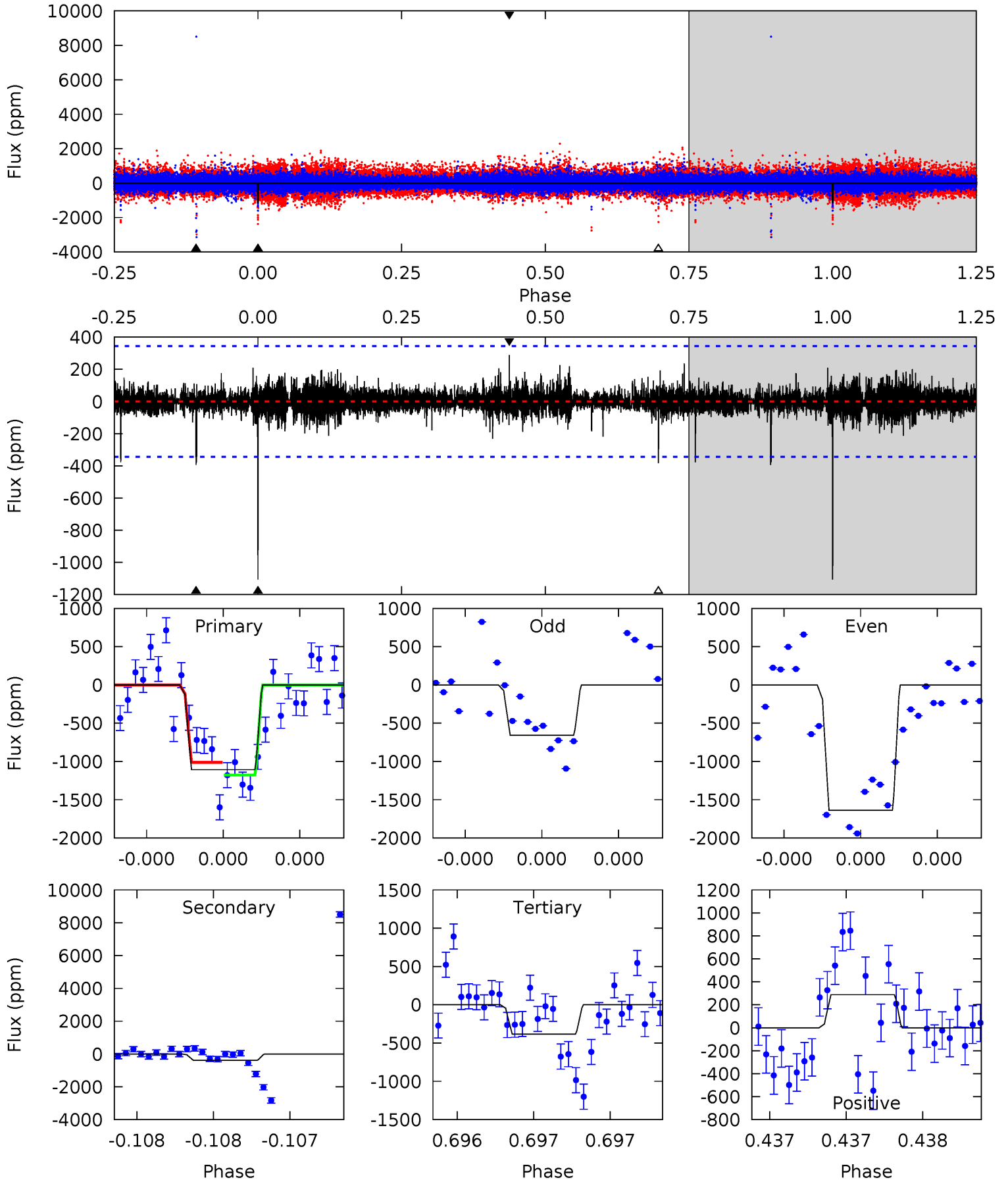
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	11.7	10.7	27.6	5.60	3.52	2.11	1.35	-15.6	1.01	-15.9	2.64	0.78	0.70	2.26



Alt Model-Shift Uniqueness Test

002692708-01, P = 622.930699 Days, E = 134.718891 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.1	6.43	6.25	4.71	5.62	3.55	0.75	11.8	13.4	0.18	1.72	8.03	1.32	0.21	1.32



Stellar Parameters For KIC 002692708

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3694^{+117}_{-147}	$4.686^{+0.076}_{-0.022}$	$0.560^{+0.050}_{-0.300}$	$0.566^{+0.033}_{-0.076}$	$0.567^{+0.036}_{-0.067}$	$4.400^{+1.720}_{-0.431}$
	+3%/-4%	+2%/-0%	+9%/-54%	+6%/-13%	+6%/-12%	+39%/-10%
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 002692708-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-984±84	$2.10^{+1.68}_{-1.29}$	156^{+6}_{-7}	3541^{+1634}_{-553}	$168987^{+1016075}_{-115332}$
Alt.	-394±61	$2.21^{+1.59}_{-1.36}$	156^{+6}_{-7}	3051^{+1095}_{-418}	$61353^{+343171}_{-39931}$

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

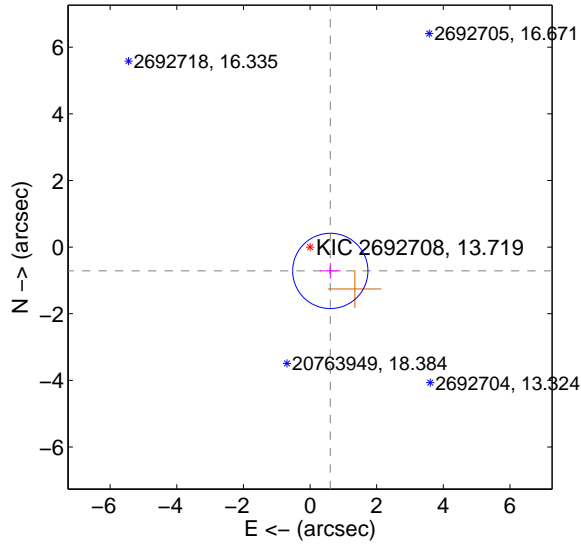
Supplemental centroid analysis for 002692708-01. Kepler magnitude: 13.72. Transit SNR 6.03

There are 1 quarters with good PRF difference image offsets

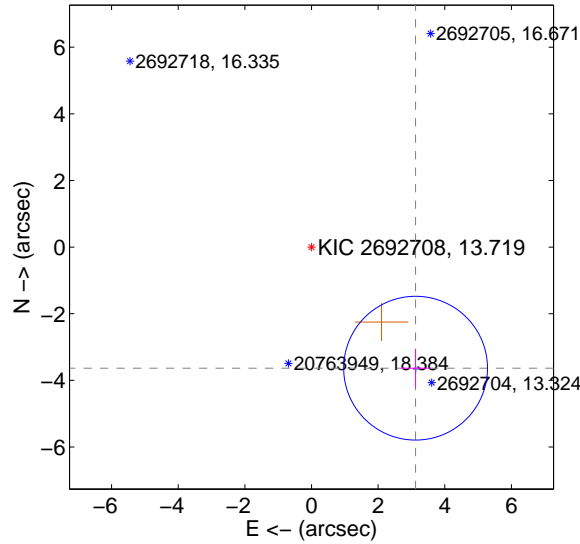
The direct PRF centroid is offset from the target star catalog position by about 1.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.938 ± 0.377	2.49	-0.607 ± 0.312	-0.715 ± 0.237
PRF-fit source offset from KIC position	4.793 ± 0.719	6.66	-3.124 ± 0.428	-3.634 ± 0.585
photometric centroid source offset	3.11 ± 0.98	3.18	-1.91 ± 0.78	-2.46 ± 1.08

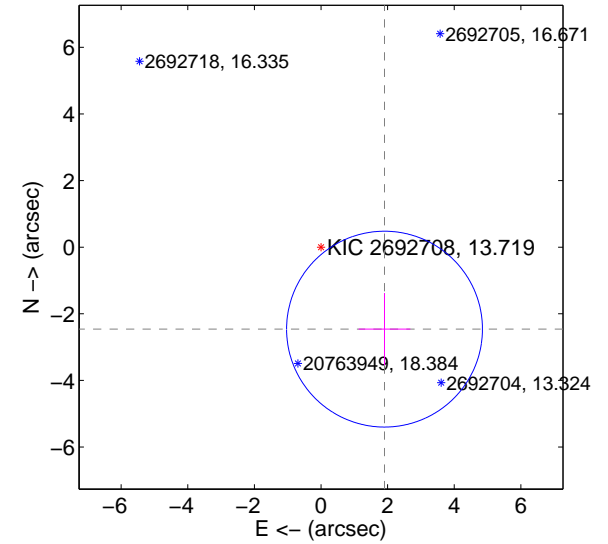
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

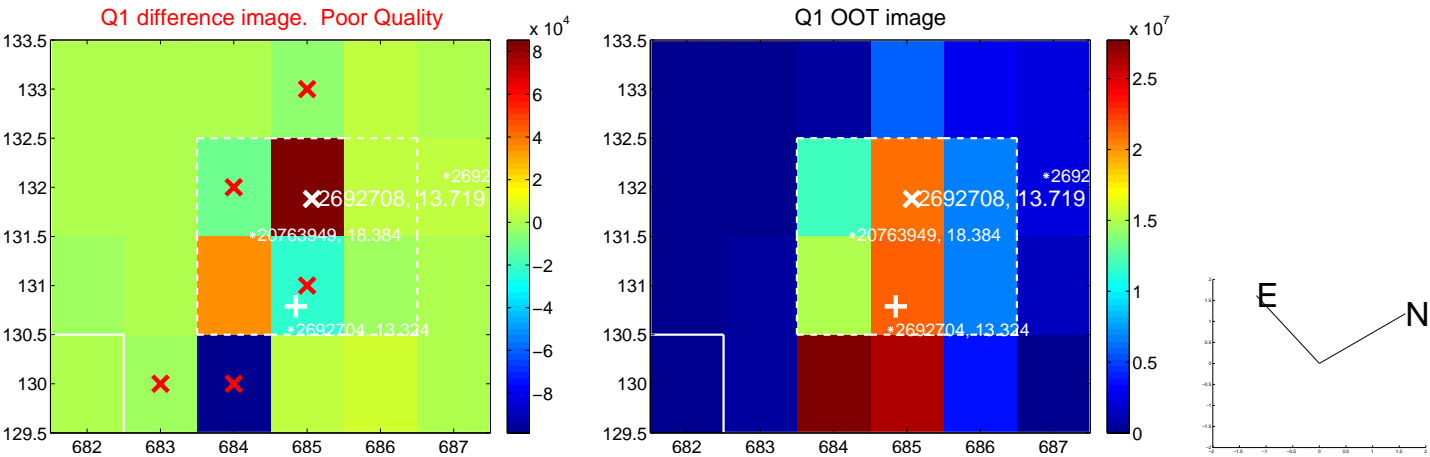


offset from photometric centroids

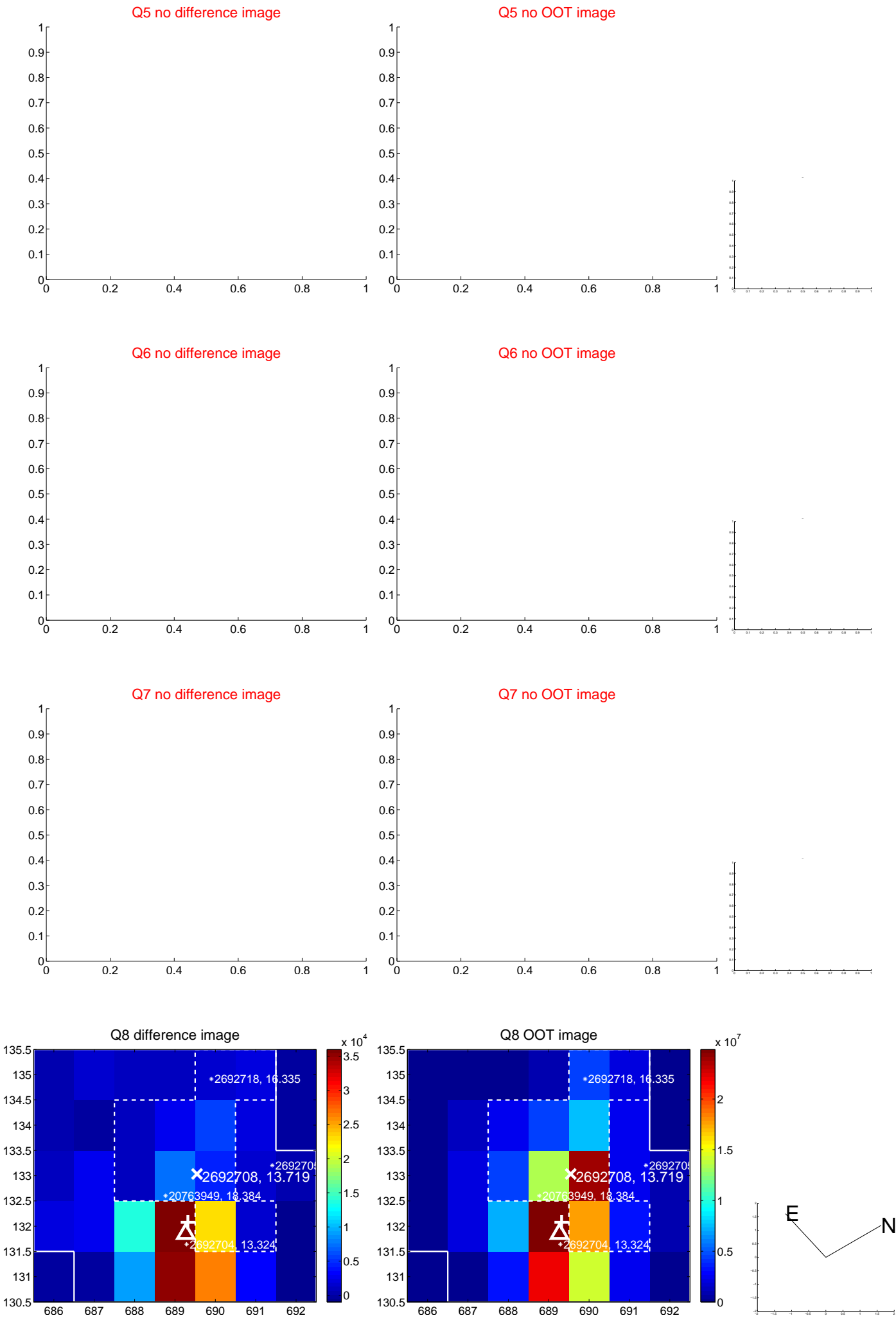


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

Q13 no difference image



Q13 no OOT image



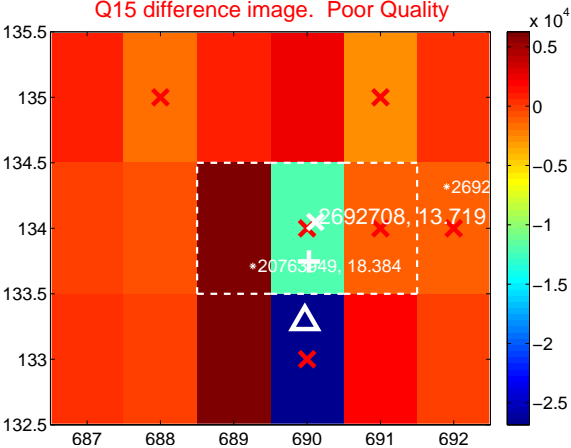
Q14 no difference image



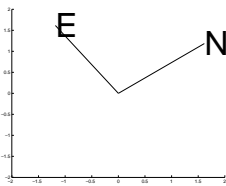
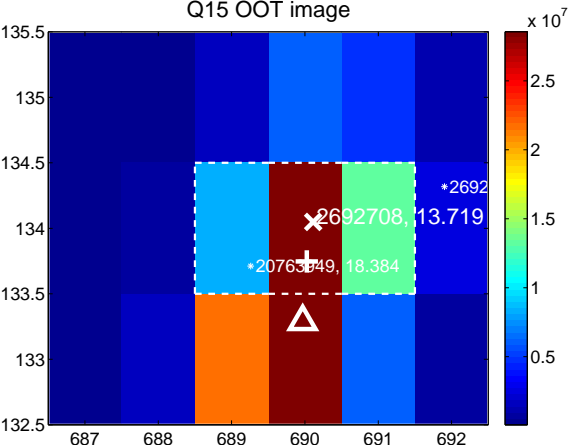
Q14 no OOT image



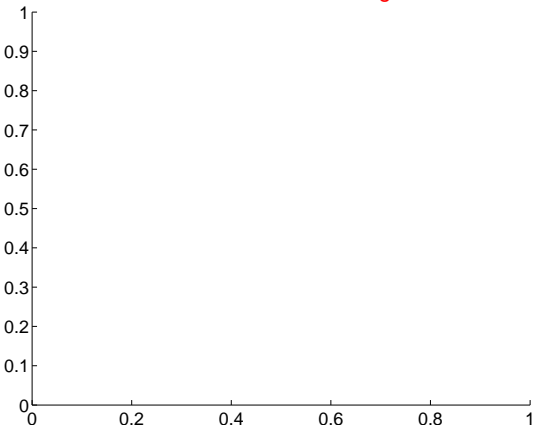
Q15 difference image. Poor Quality



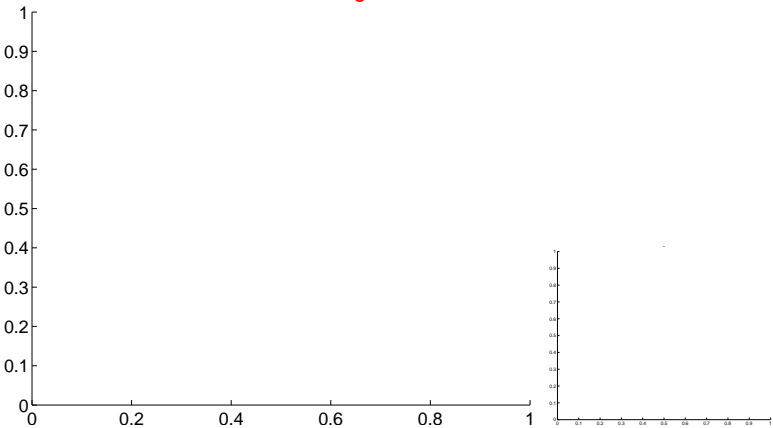
Q15 OOT image



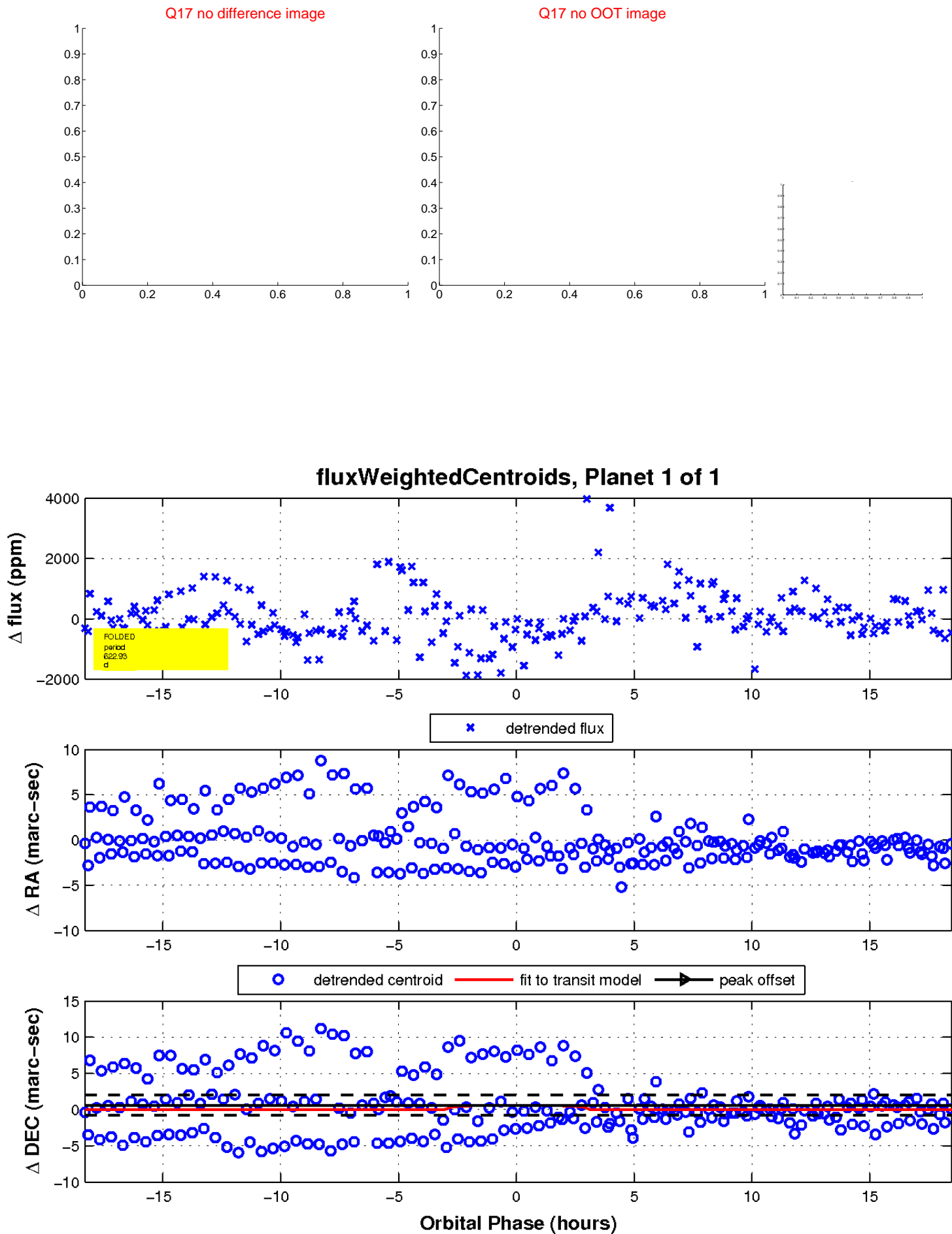
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

