

KIC 007732163

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})
007732163-01	OBS	No	226.637011	189.664012	823.0	3.174	7.2	6.9	0.64	4893	1.98	0.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007732163-01	OBS	FP	0.01	1	0	0	0	INDIV_TRANS_MARSHALL—MOD_NONUNIQ_ALT—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.

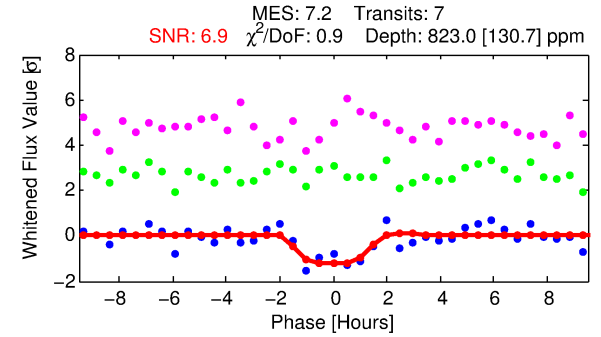
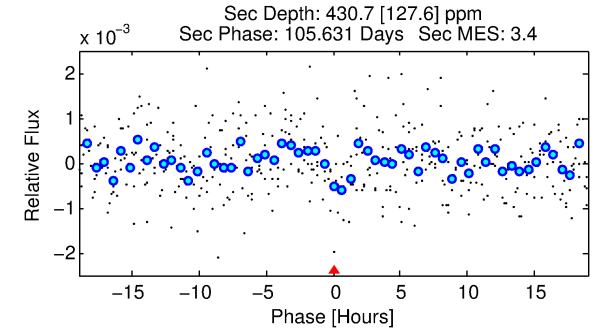
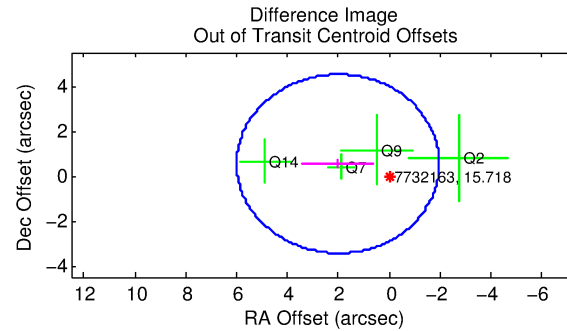
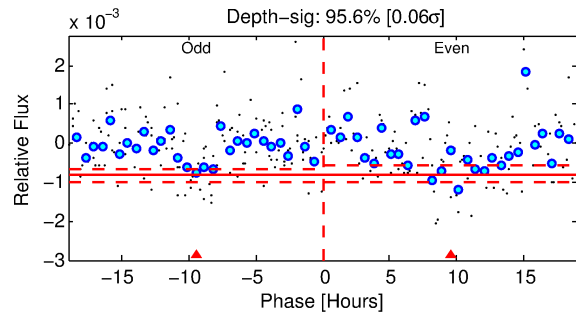
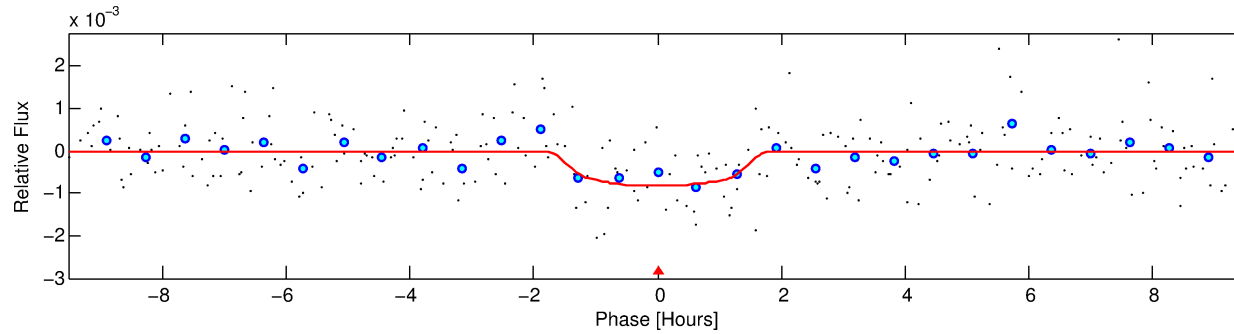
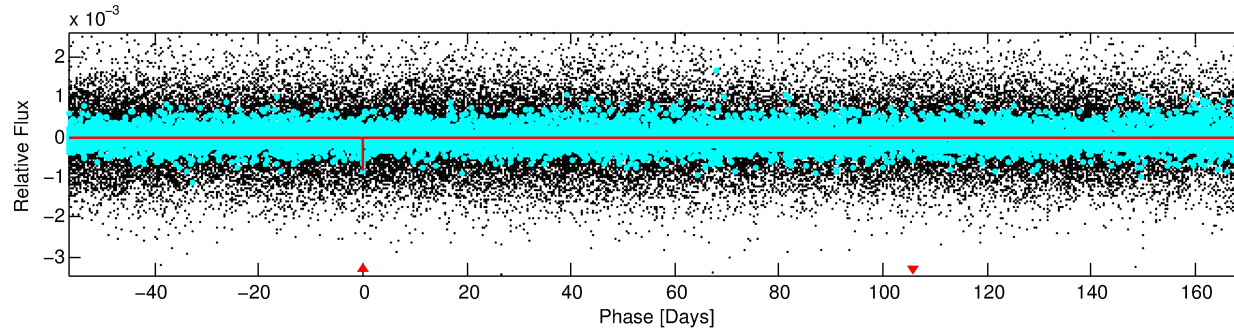
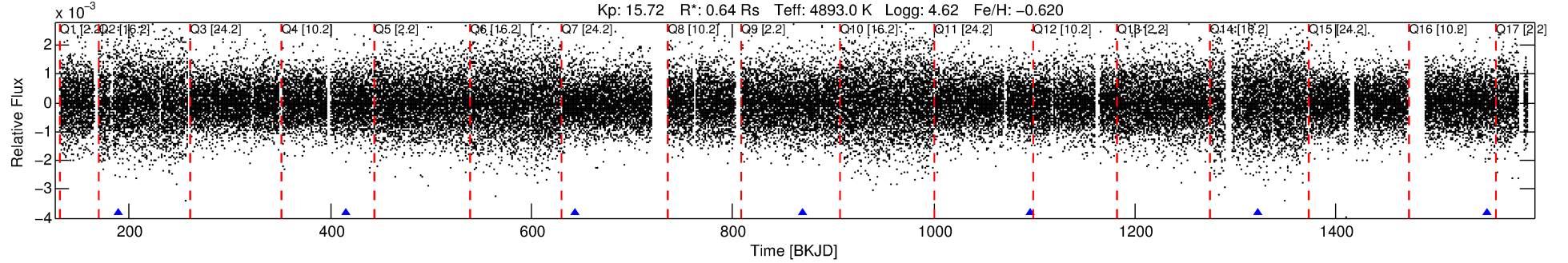
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007732163-01

No Significant Match Found

DV One-Page Summary

KIC: 7732163 Candidate: 1 of 1 Period: 226.637 d



DV Fit Results:

Period = 226.63701 [0.00293] d
Epoch = 189.6640 [0.0115] BKJD
Rp/R* = 0.0284 [0.0608]
a/R* = 393.91 [3050.01]
b = 0.73 [5.02]
Seff = 0.54 [0.09]
Teq = 219 [9] K
Rp = 1.98 [4.25] Re
a = 0.6222 [0.0468] AU
Ag = 23366.59 [100344.27] [0.23 σ]
Teff = 4182 [4490] K [0.88 σ]

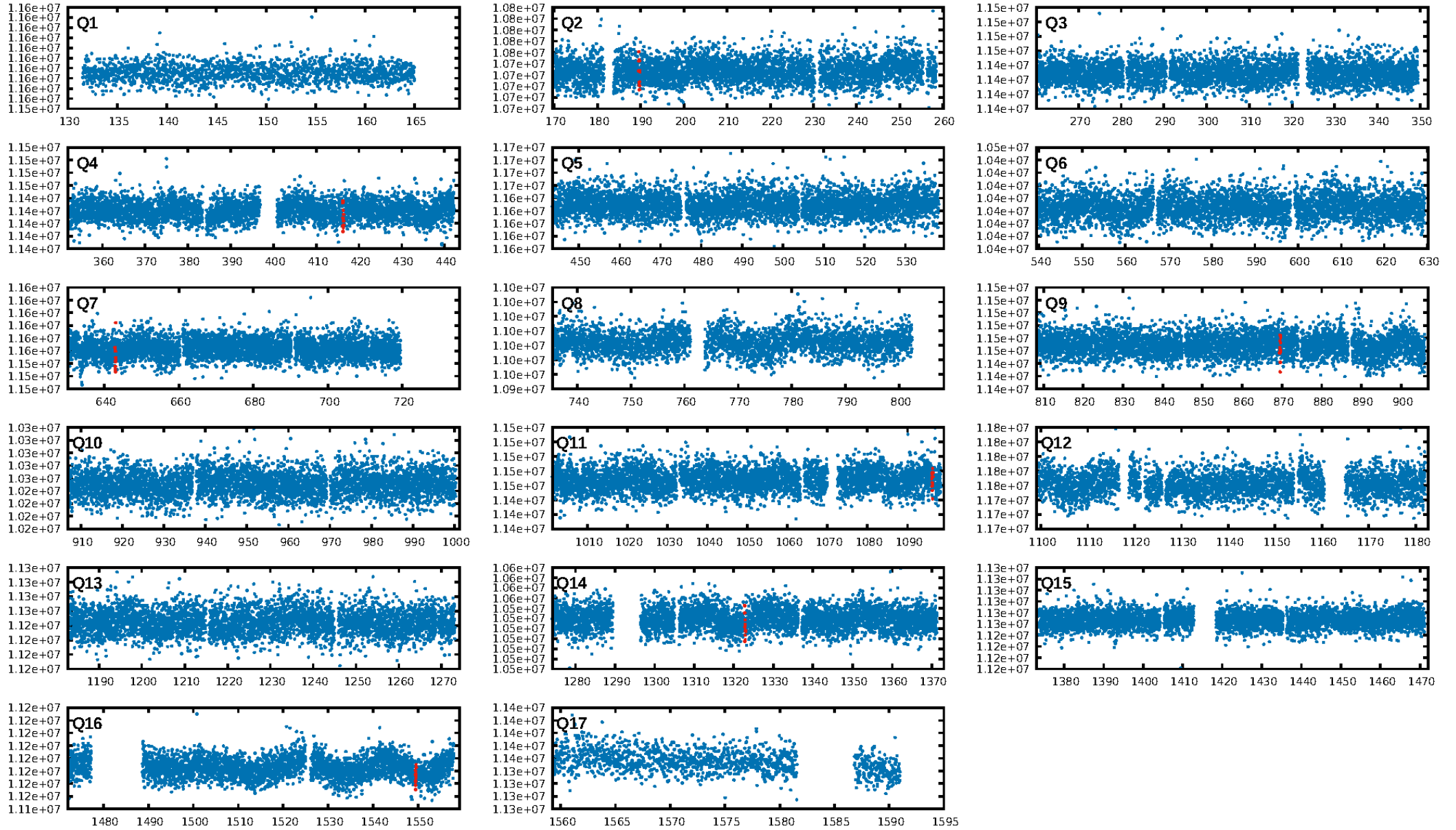
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 75.7%
ModelChiSquareGof-sig: 97.2%
Bootstrap-pfa: 5.65e-13
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -2.428
Centroid-sig: 8.6%
Centroid-so: 3.600 arcsec [1.74 σ]
OotOffset-rm: 2.083 arcsec [1.57 σ]
KicOffset-rm: 2.057 arcsec [1.61 σ]
OotOffset-st: 2/1/0/1 [4]
KicOffset-st: 2/1/0/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [5/5]

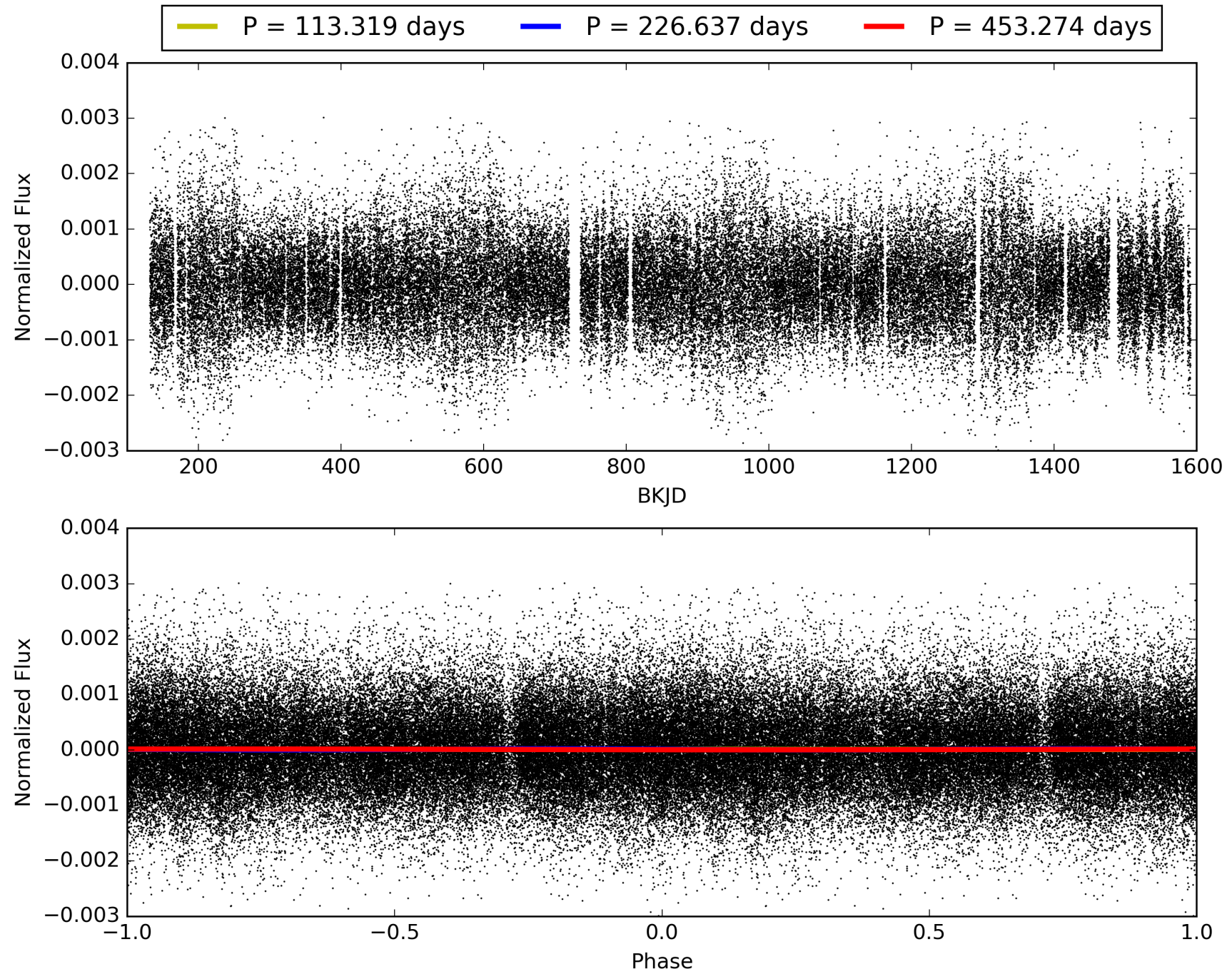
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:21:22 Z

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

TCE 007732163-01, PDC Light Curves

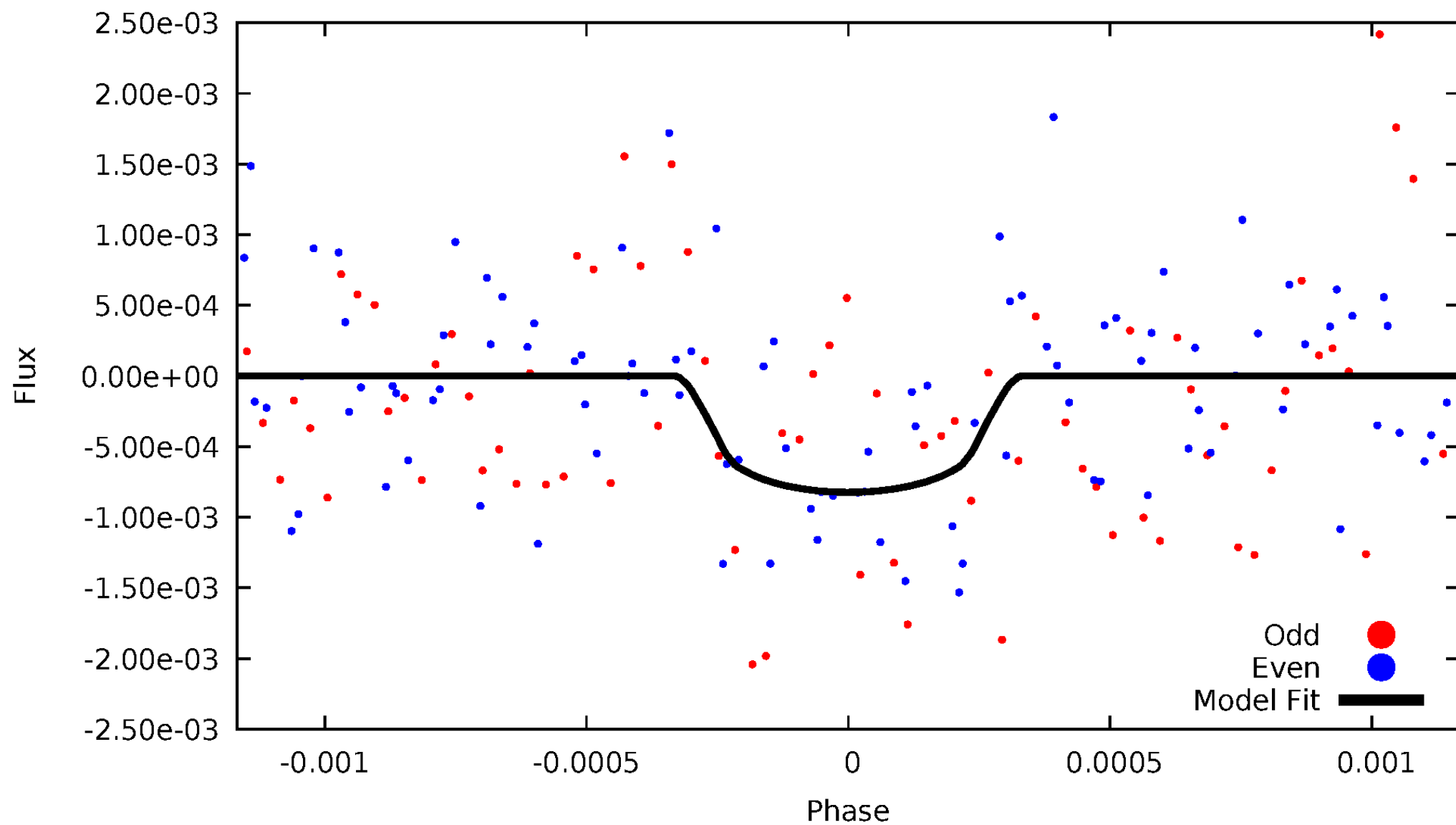


TCE 007732163-01



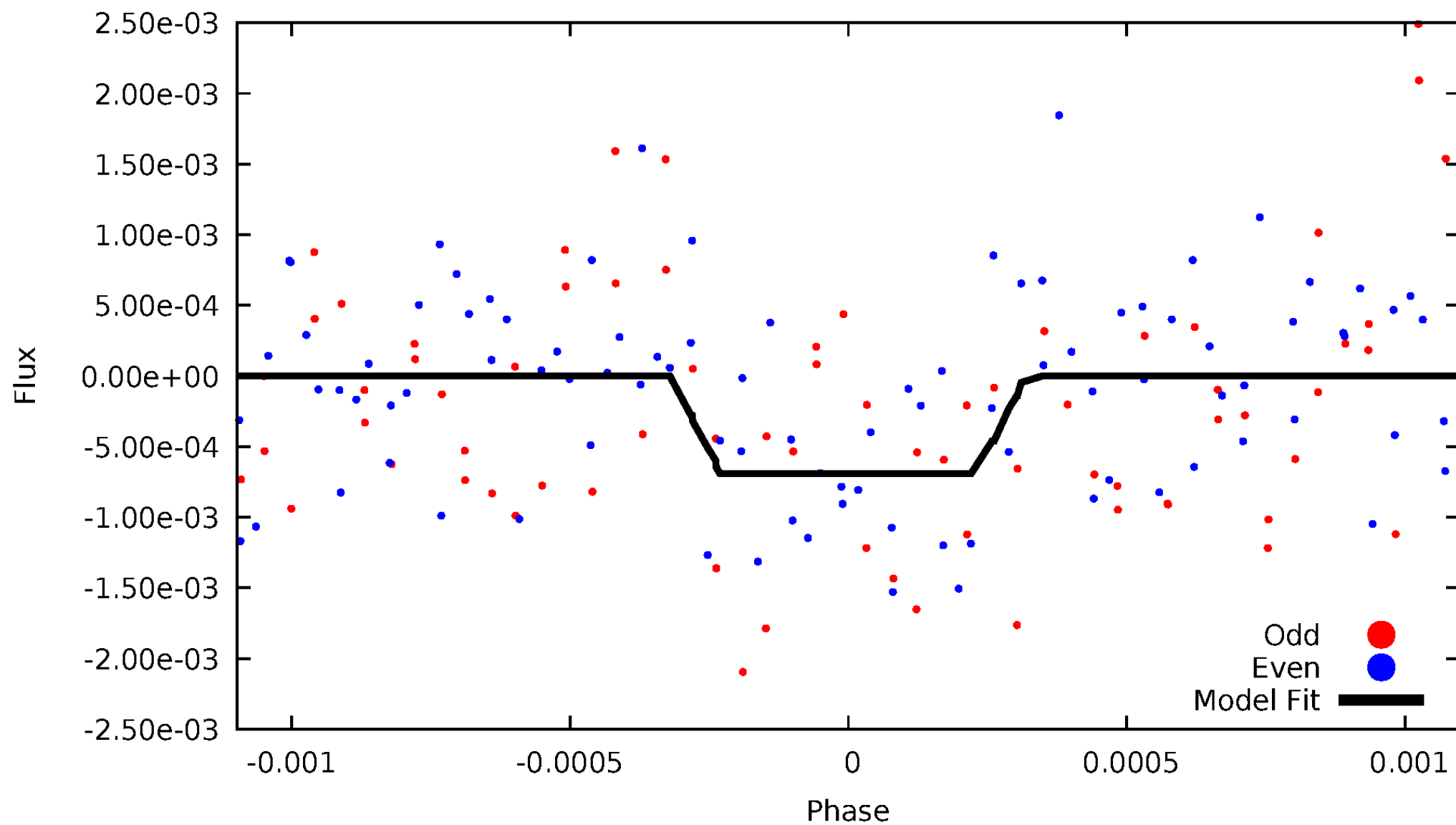
DV Odd/Even

TCE 007732163-01

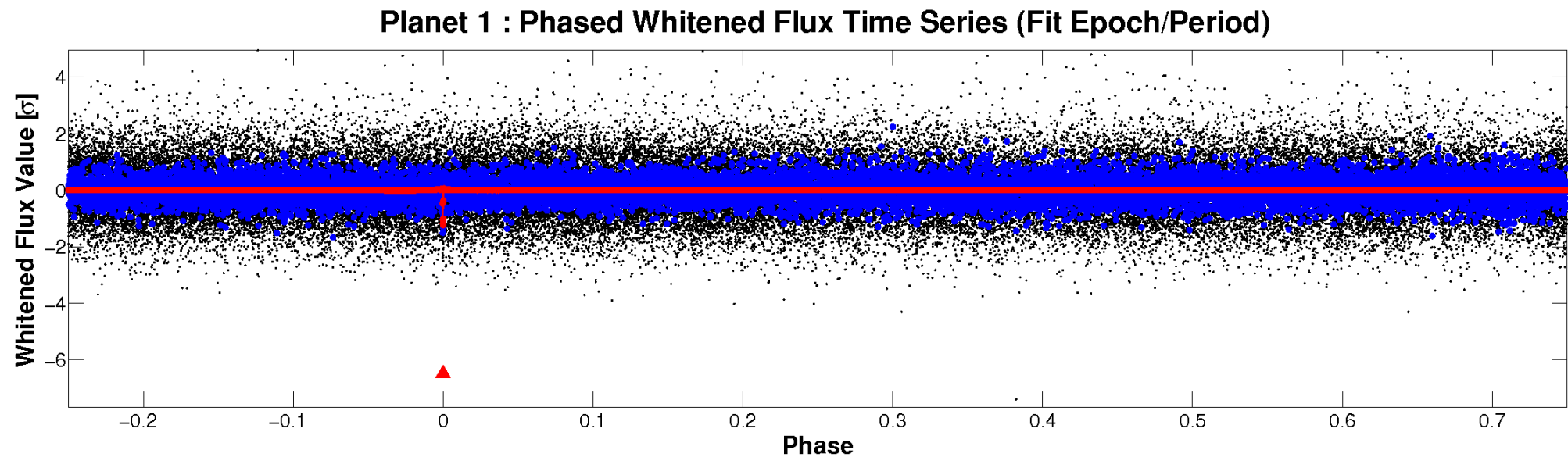
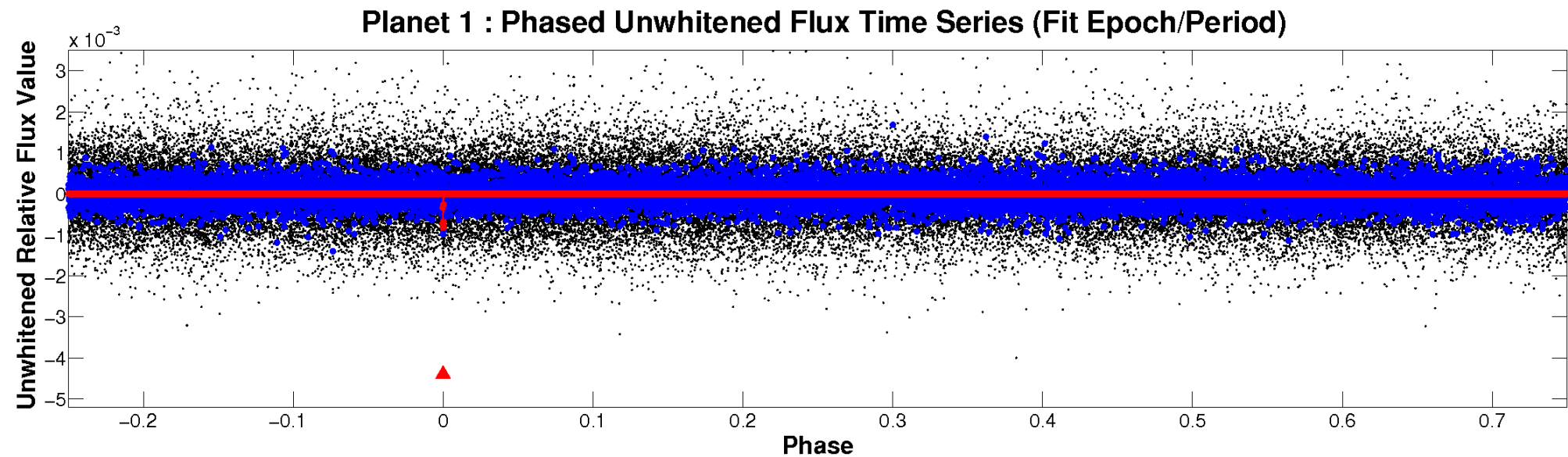


ALT Odd/Even

TCE 007732163-01

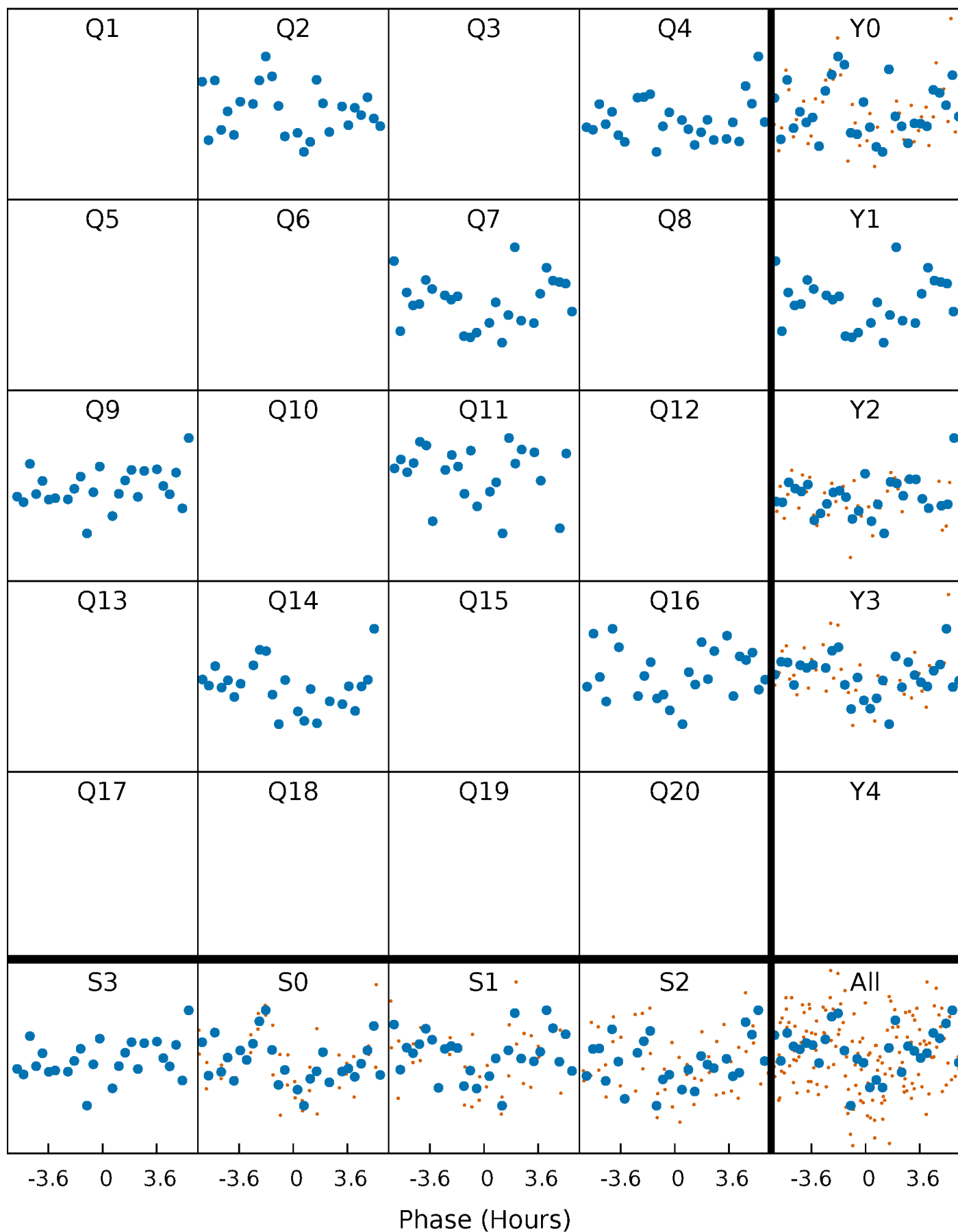


Non-Whitened Vs. Whitened Light Curve



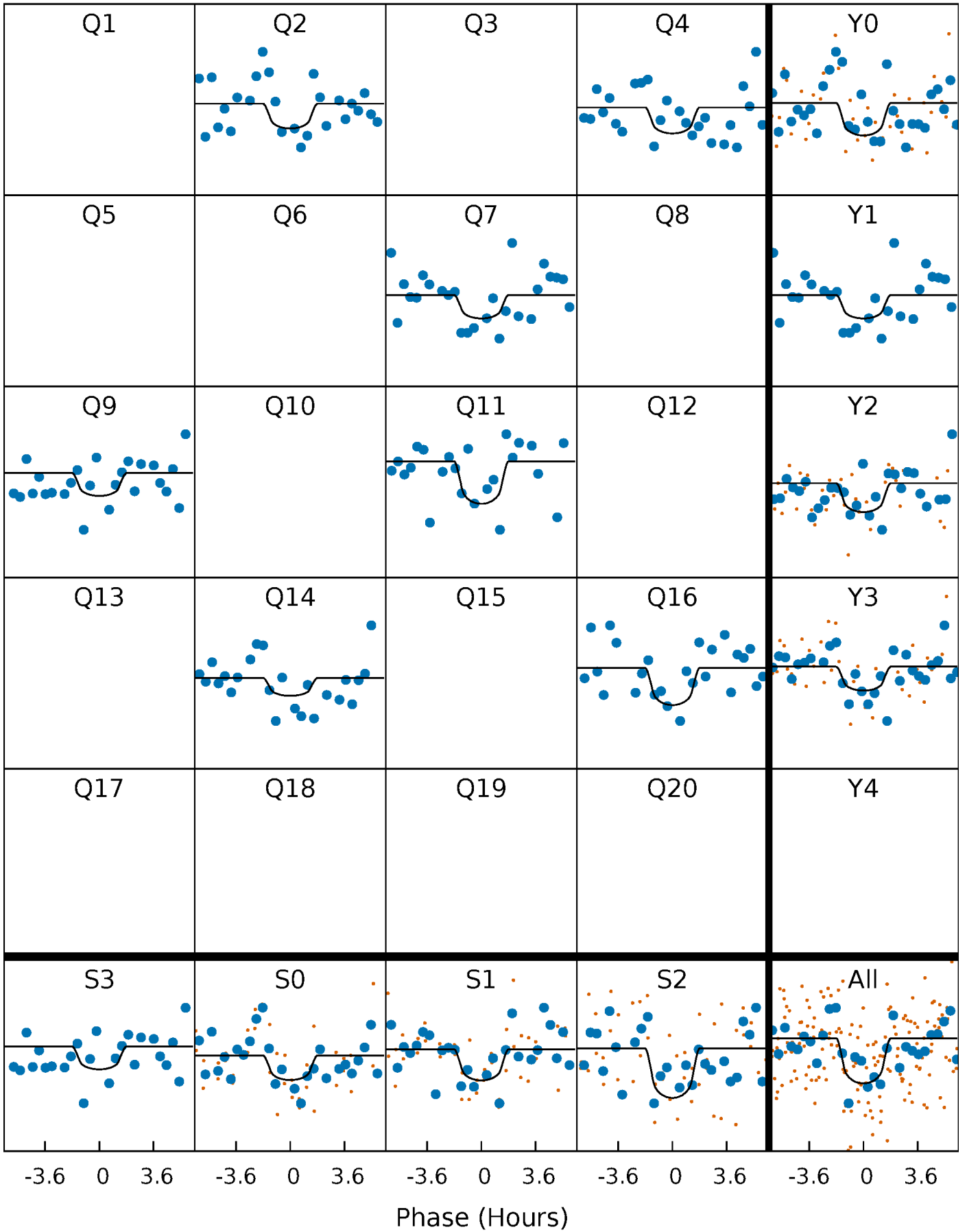
PDC Quarter-Phased Transit Curves

TCE 007732163-01 P=226.637011 Days $T_0=189.664012$ (BKJD)



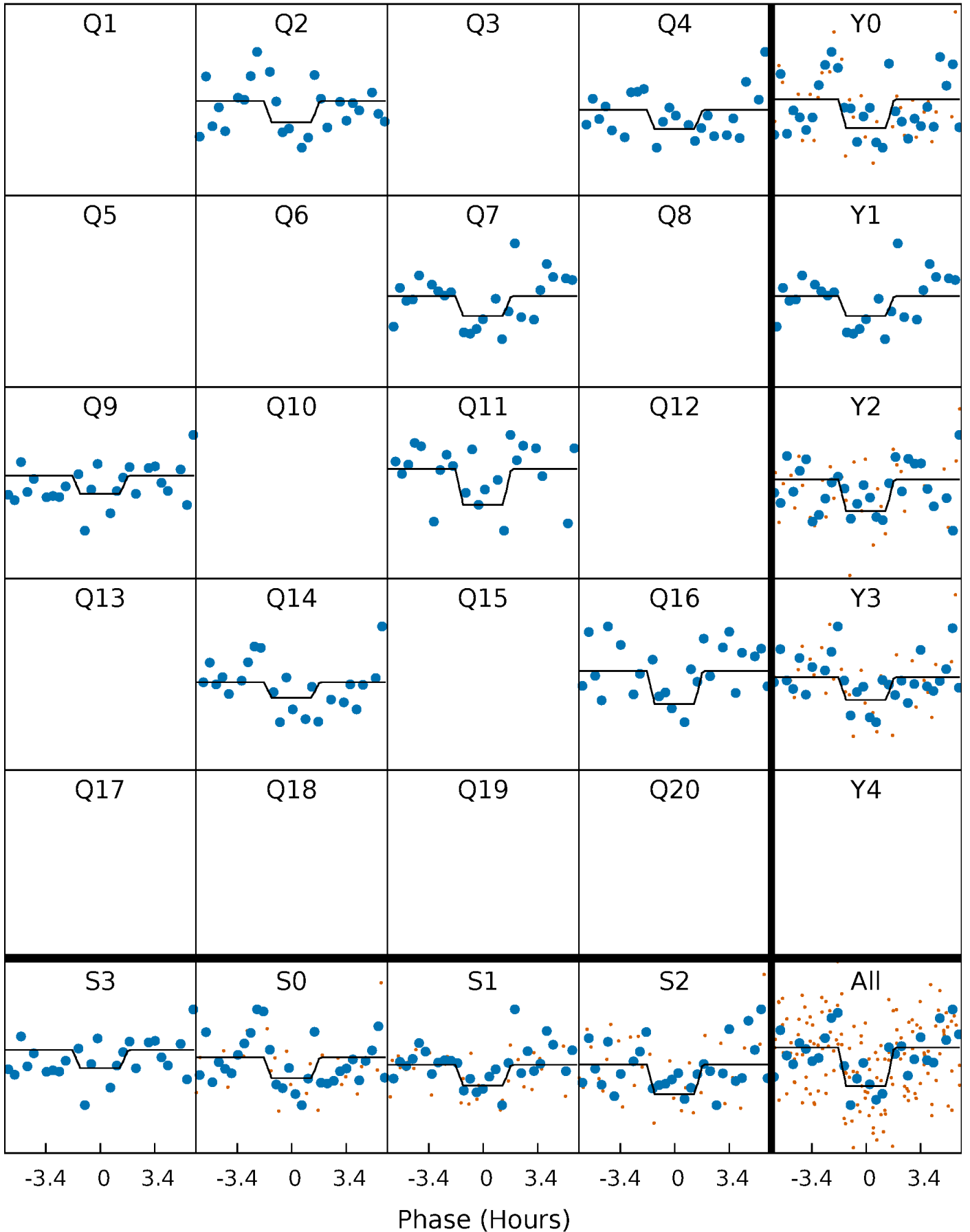
DV Quarter-Phased Transit Curves

TCE 007732163-01 P=226.637011 Days $T_0=189.664012$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

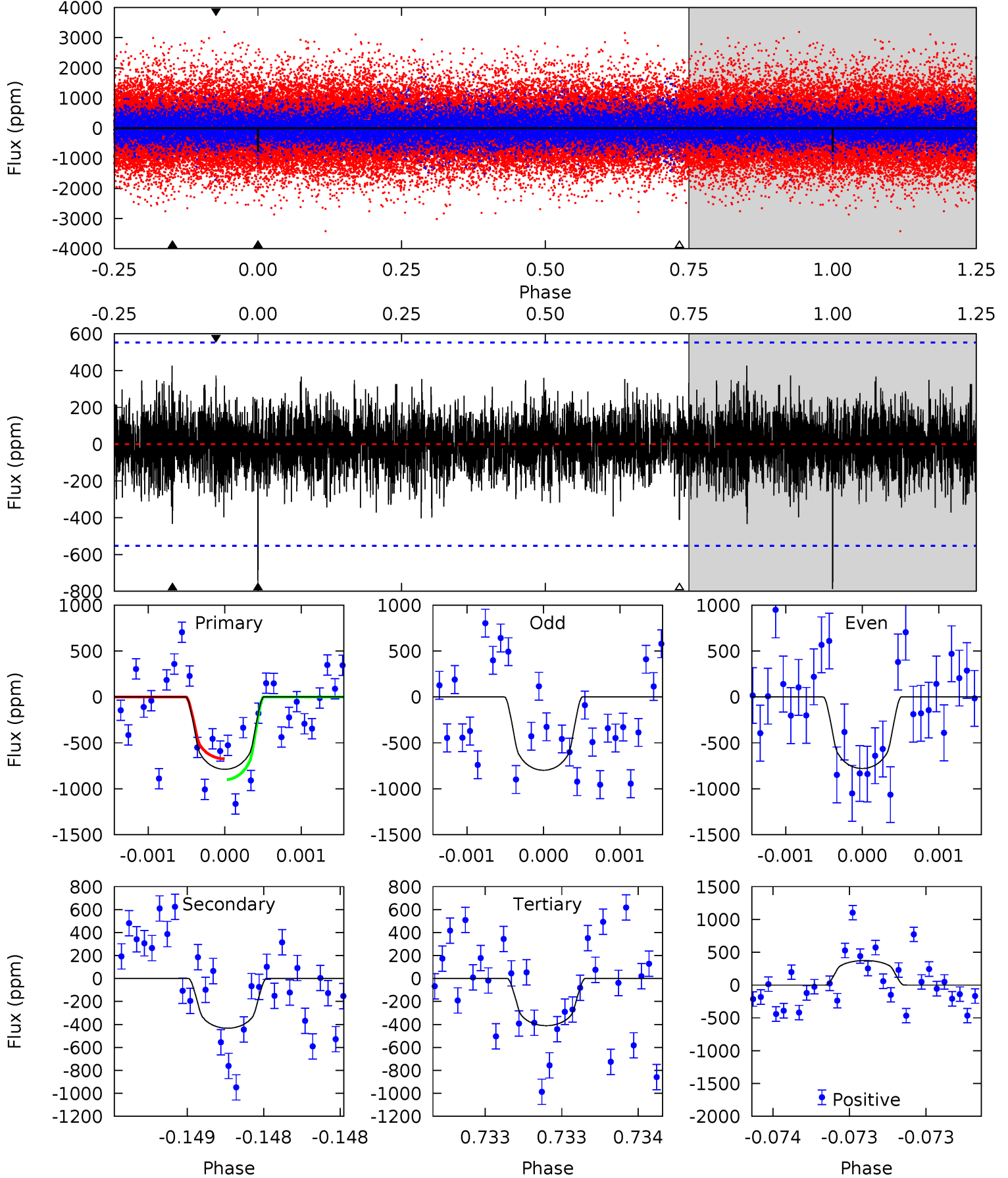
TCE 007732163-01 P=226.635297 Days $T_0=189.670478$ (BKJD)



DV Model-Shift Uniqueness Test

007732163-01, P = 226.637011 Days, E = 189.664012 Days

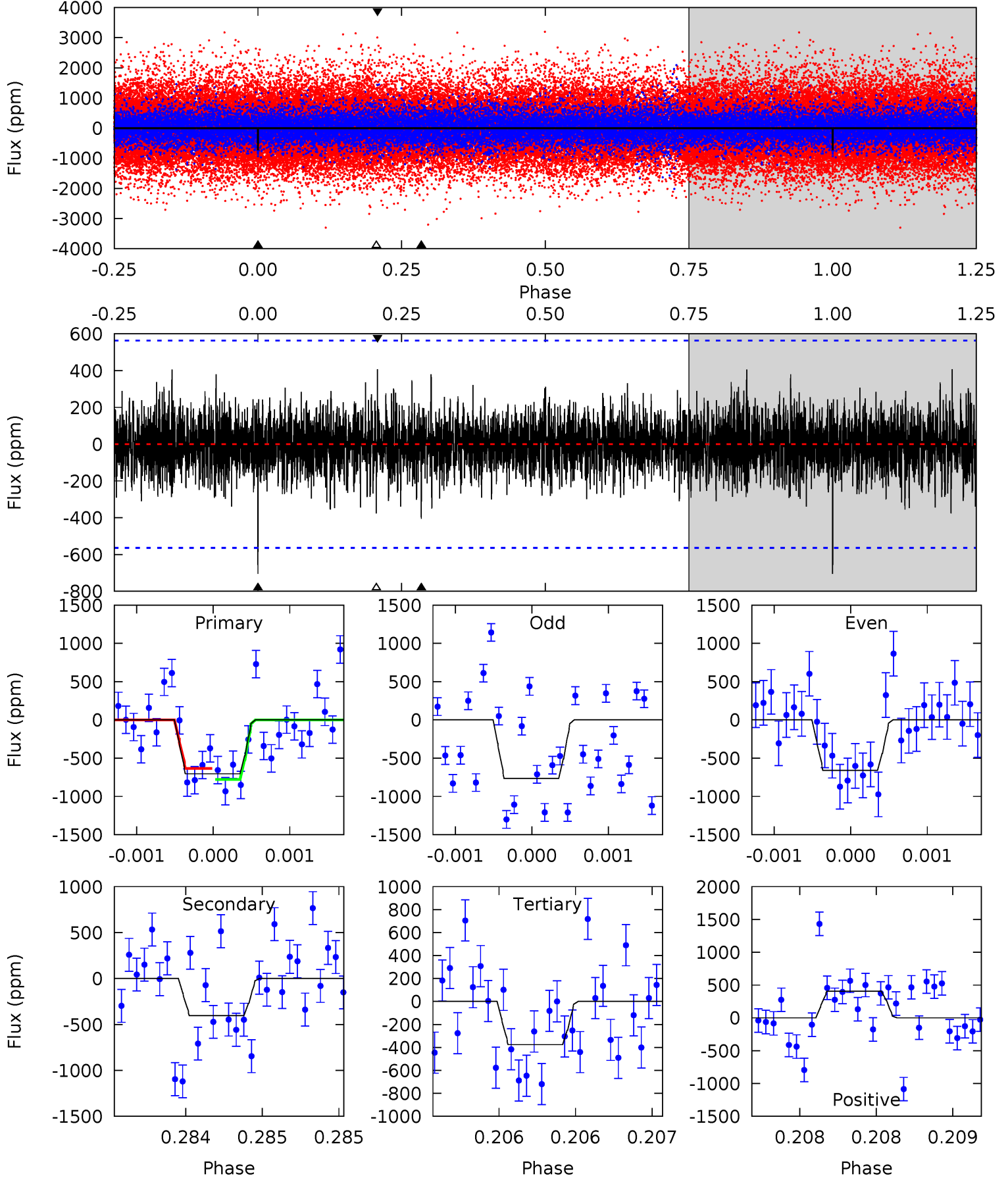
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.88	4.33	4.11	3.73	5.53	3.41	1.14	3.77	4.15	0.22	0.60	0.10	1.14	0.35	1.14



Alt Model-Shift Uniqueness Test

007732163-01, P = 226.635297 Days, E = 189.670478 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.91	3.97	3.69	4.00	5.53	3.42	1.02	3.23	2.92	0.29	-0.02	0.51	1.06	0.37	0.70



Stellar Parameters For KIC 007732163

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4893^{+147}_{-132}	$4.623^{+0.060}_{-0.035}$	$-0.620^{+0.350}_{-0.300}$	$0.639^{+0.057}_{-0.051}$	$0.625^{+0.073}_{-0.031}$	$3.369^{+0.817}_{-0.549}$
	+3%/-3%	+1%/-1%	+56%/-48%	+9%/-8%	+12%/-5%	+24%/-16%
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 007732163-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-433 ± 100	$3.62^{+3.29}_{-2.54}$	304^{+10}_{-10}	3509^{+2041}_{-638}	6980^{+75825}_{-5189}
Alt.	-405 ± 102	$3.52^{+3.54}_{-2.38}$	305^{+10}_{-10}	3497^{+1915}_{-637}	7074^{+64478}_{-5384}

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 $A_{obs} \gg 1.0$

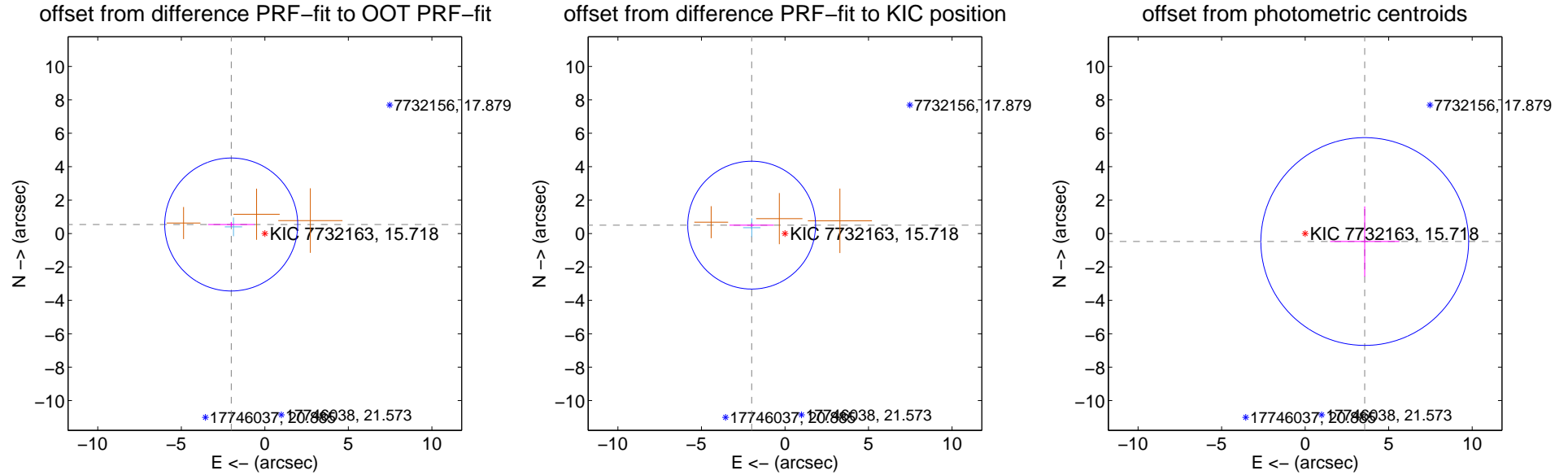
DV Centroid Data

Supplemental centroid analysis for 007732163-01. Kepler magnitude: 15.72. Transit SNR 6.93

There are 1 quarters with good PRF difference image offsets

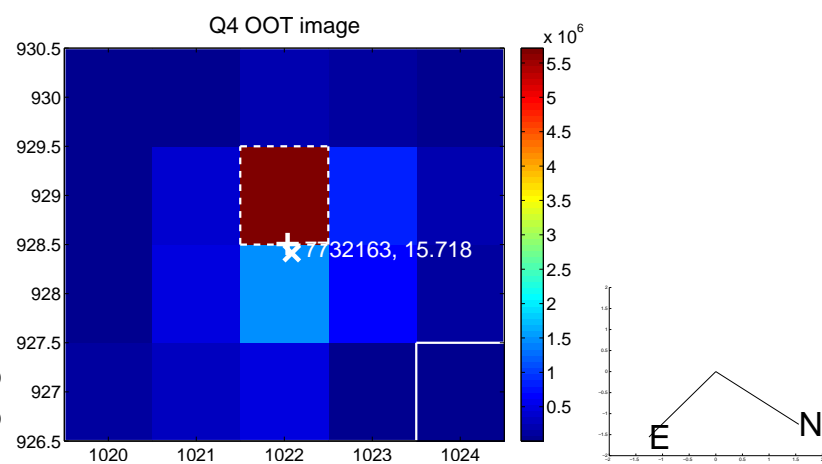
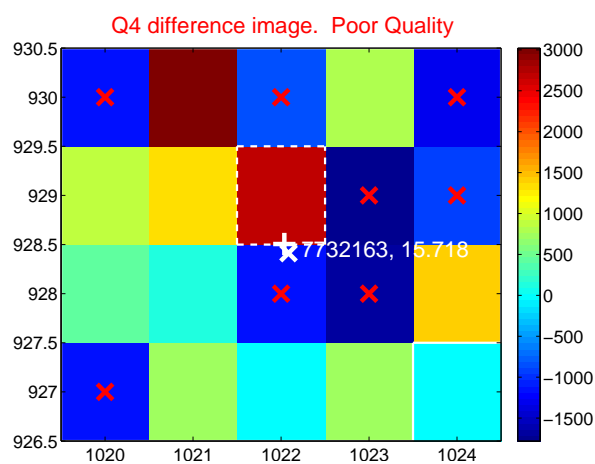
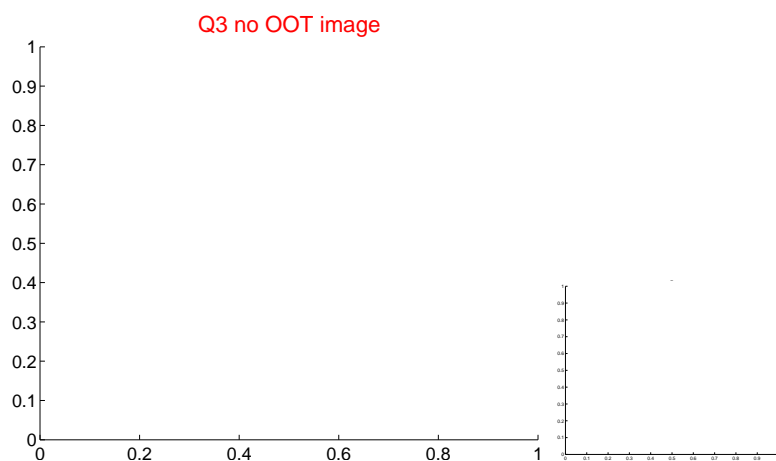
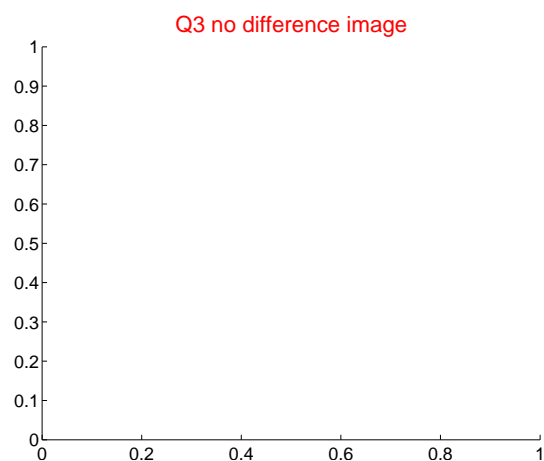
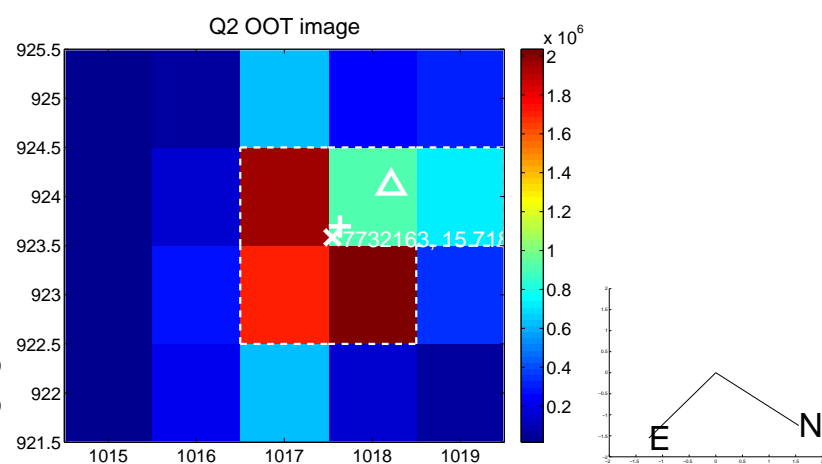
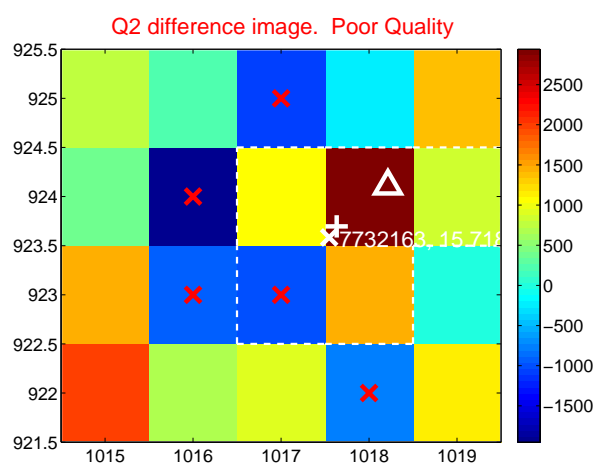
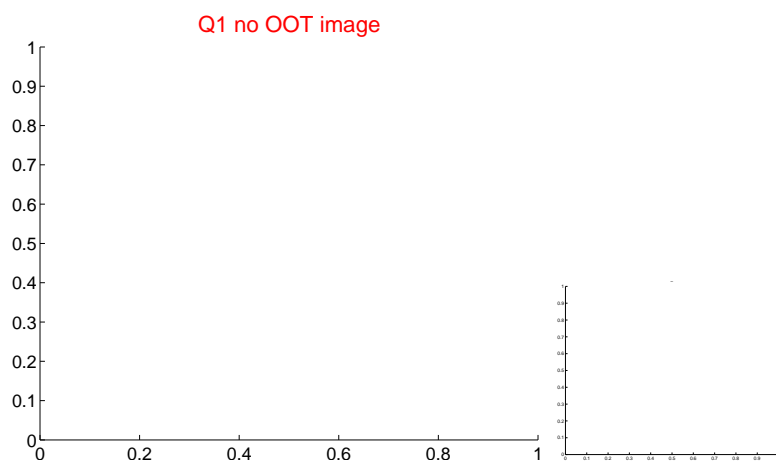
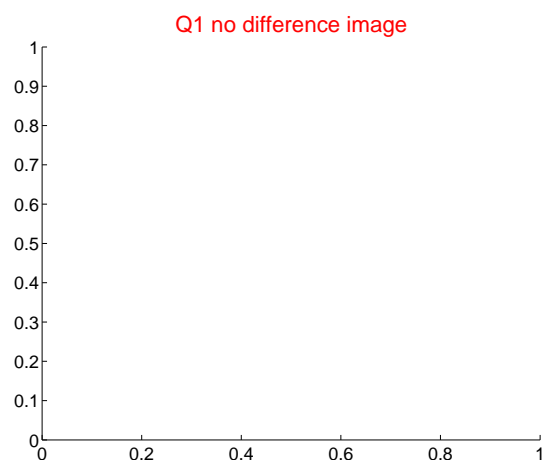
The direct PRF centroid is offset from the target star catalog position by about 0.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.083 ± 1.327	1.57	2.012 ± 1.384	0.539 ± 0.147
PRF-fit source offset from KIC position	2.057 ± 1.275	1.61	1.995 ± 1.326	0.502 ± 0.108
photometric centroid source offset	3.60 ± 2.07	1.74	-3.57 ± 2.07	-0.48 ± 2.10

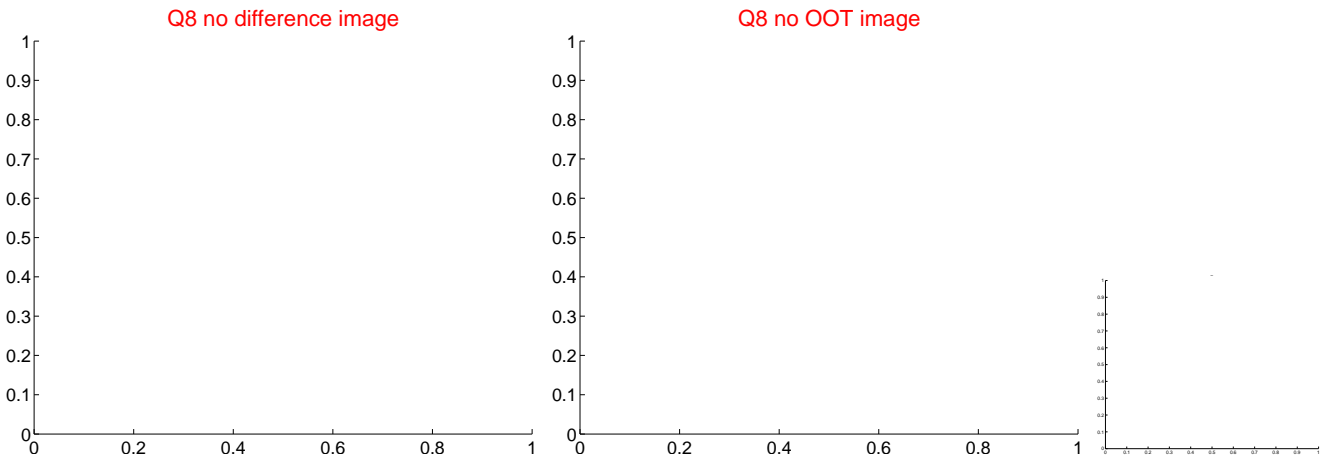
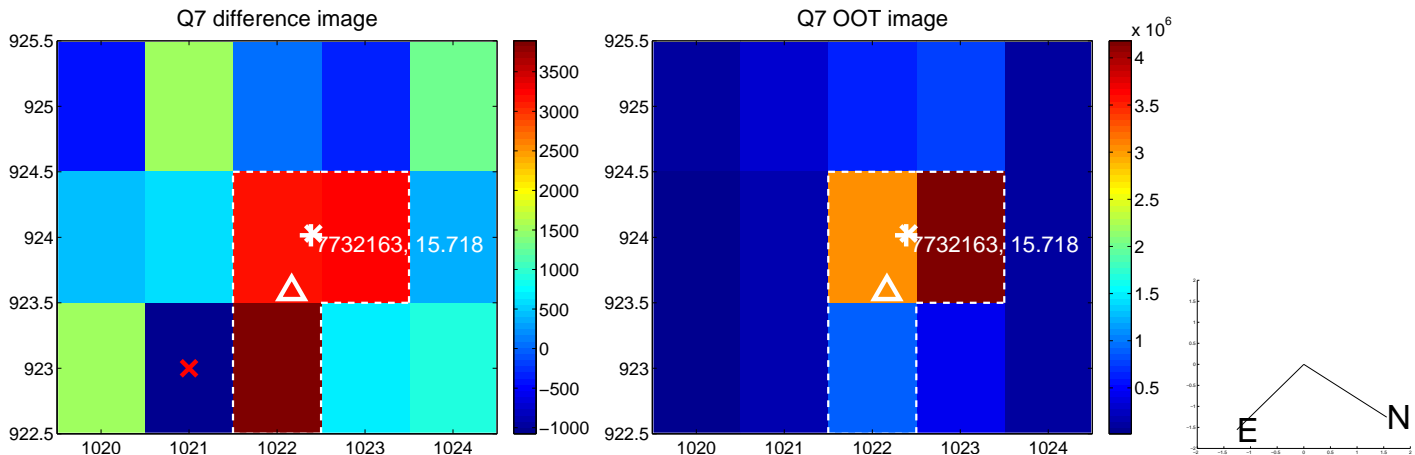
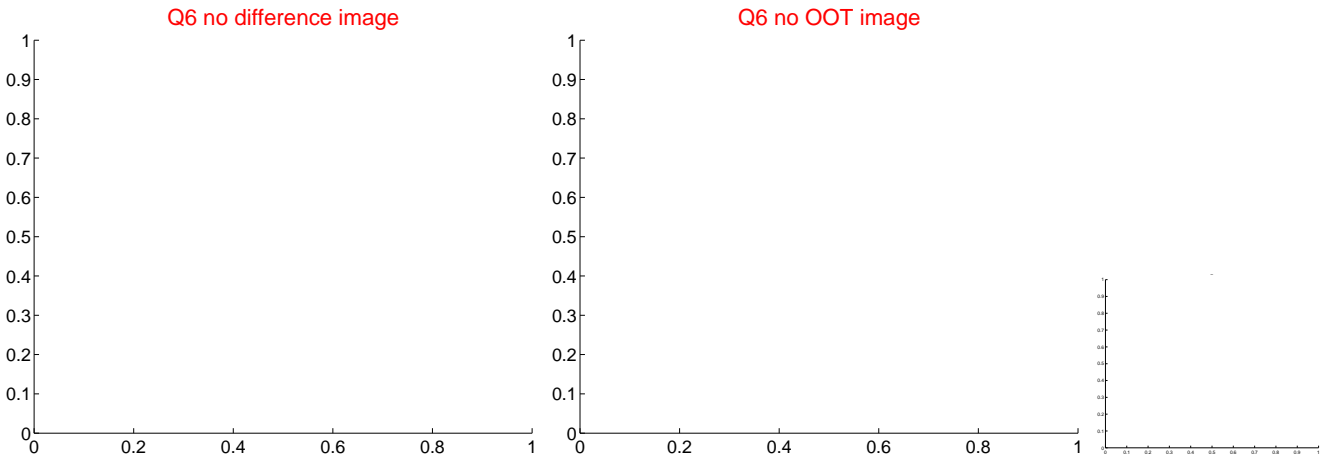
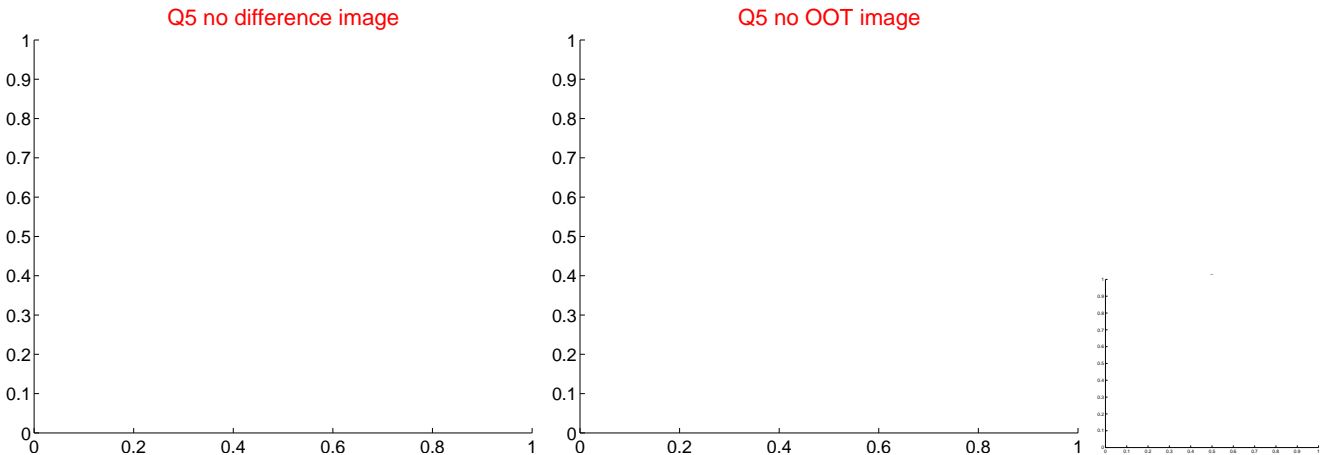


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

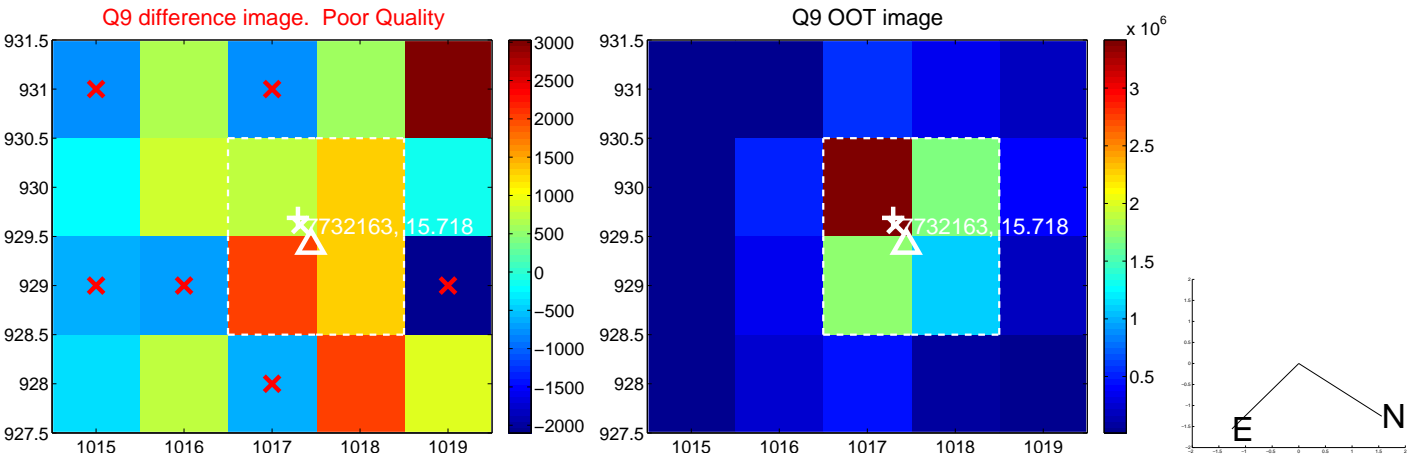
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



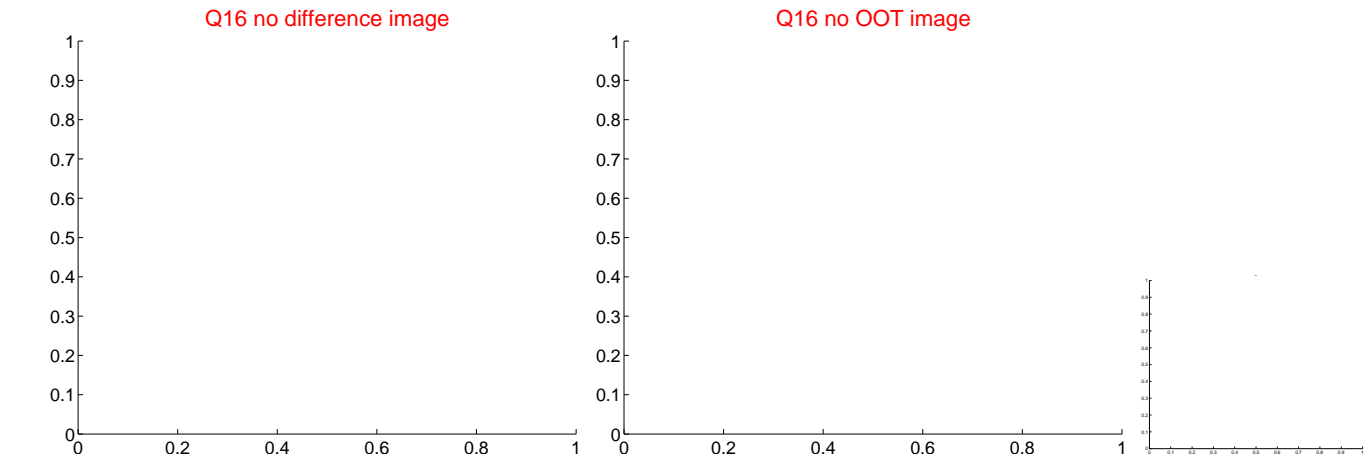
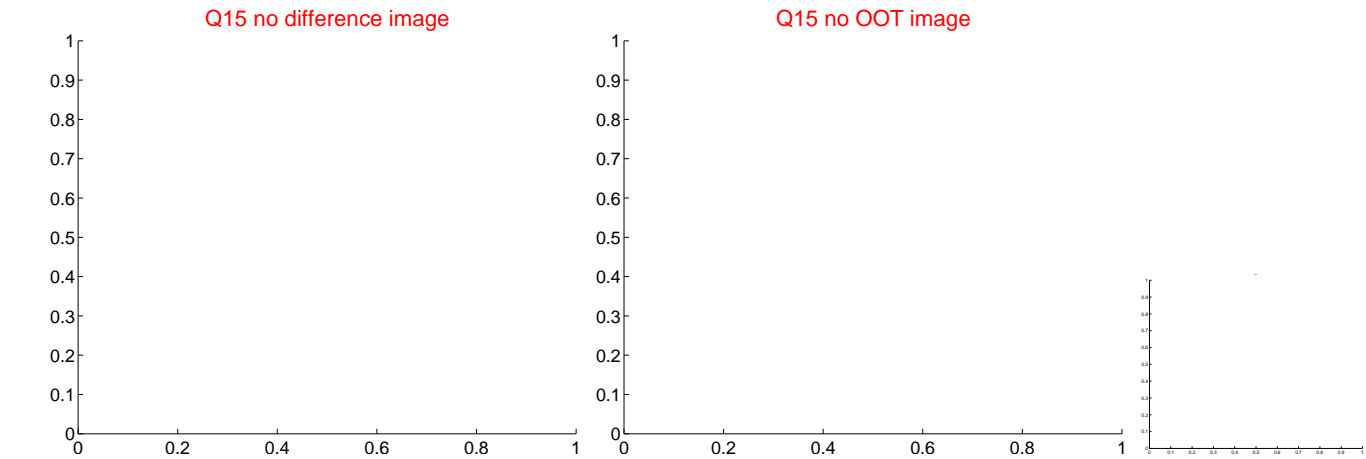
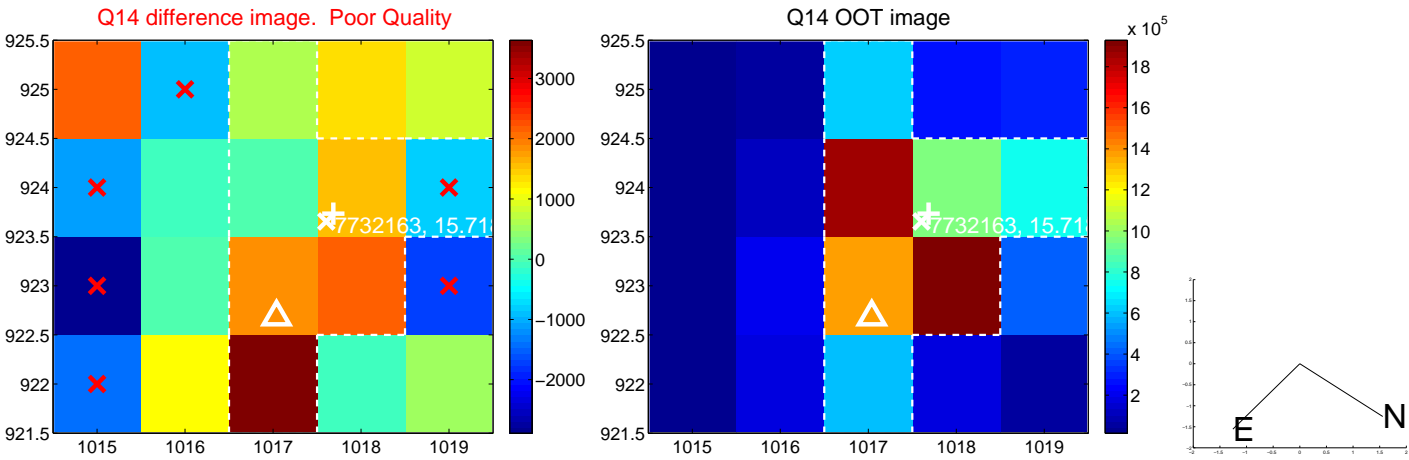
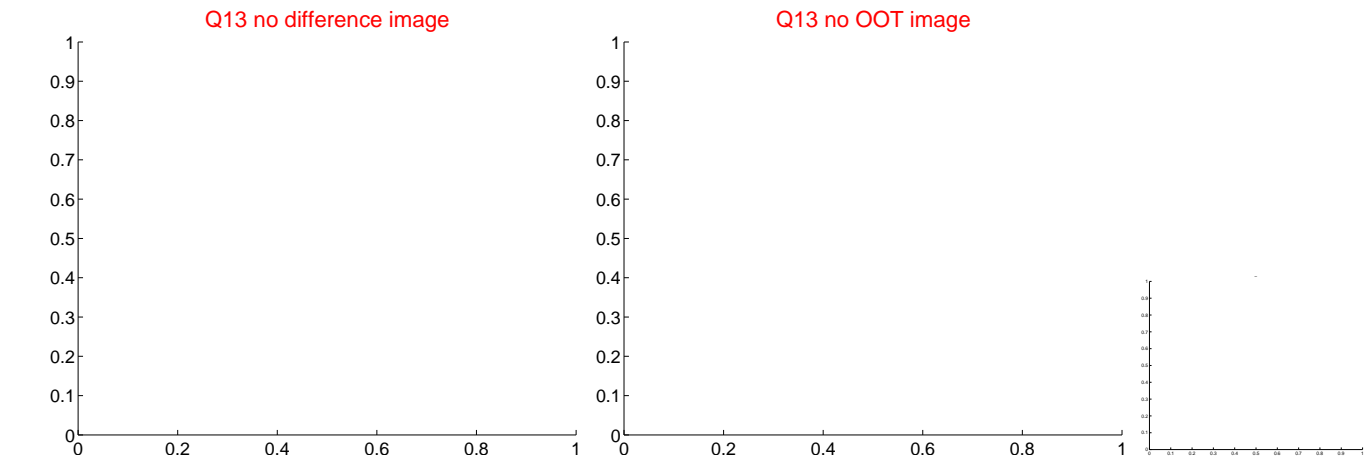
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



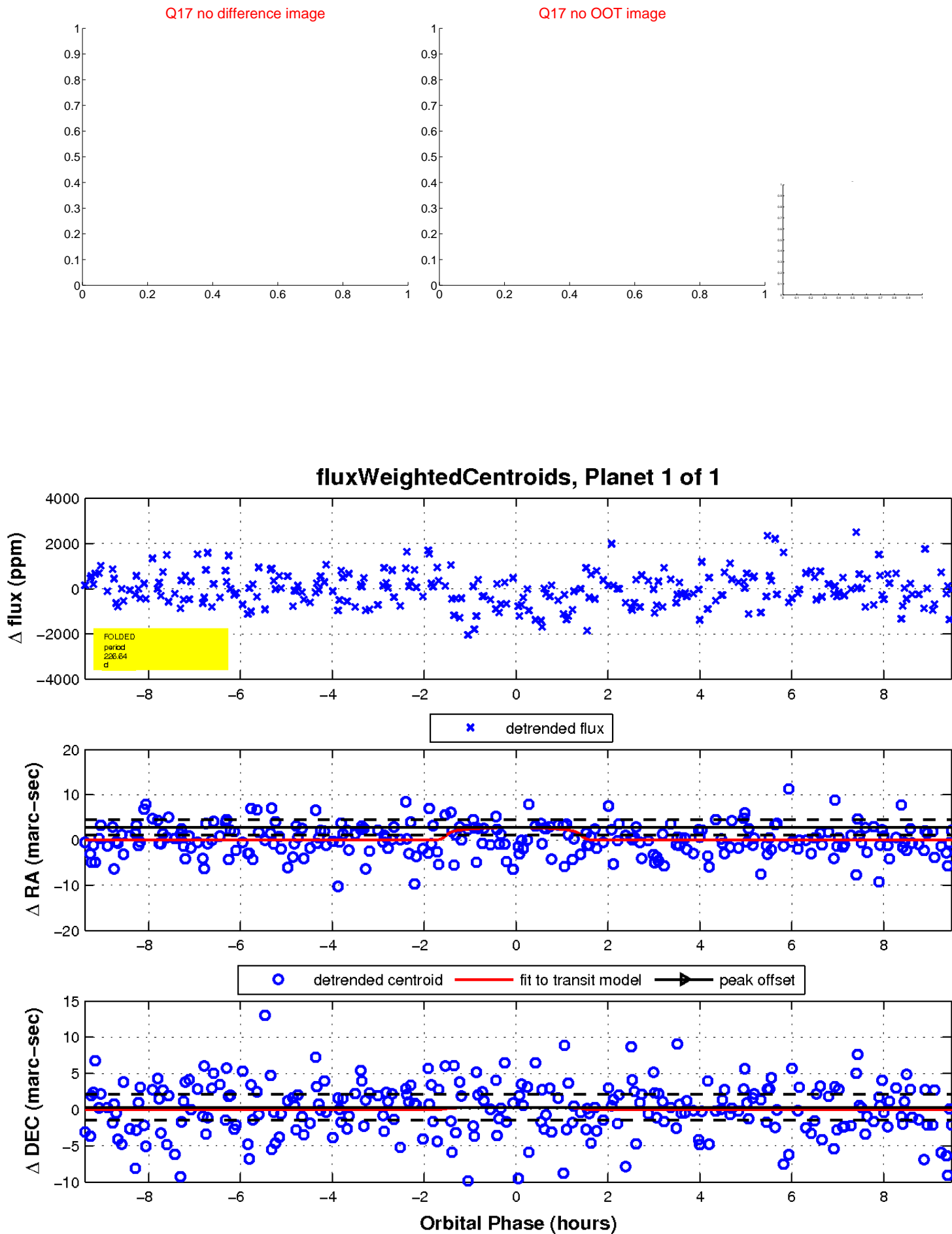
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

