

KIC 001723078

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})
001723078-01	OBS	7624.01	330.016830	364.814777	280.4	7.040	7.5	7.1	3.47	6126	6.41	12.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001723078-01	OBS	PC	0.25	0	0	0	0	NO_COMMENT

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

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

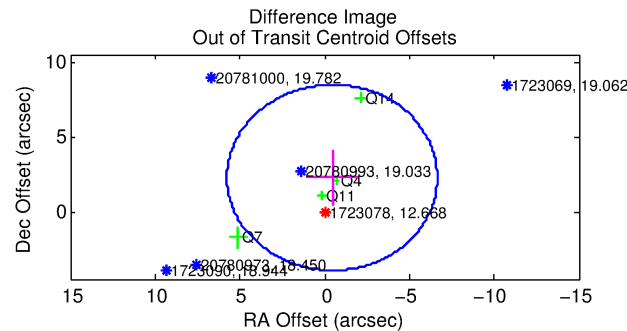
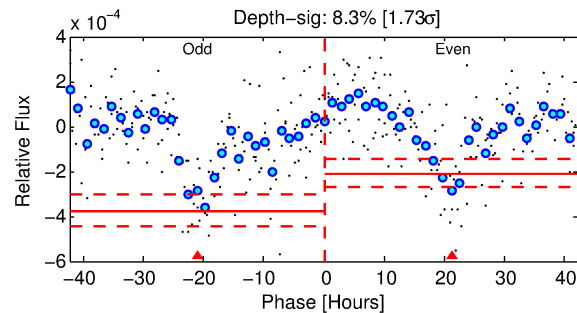
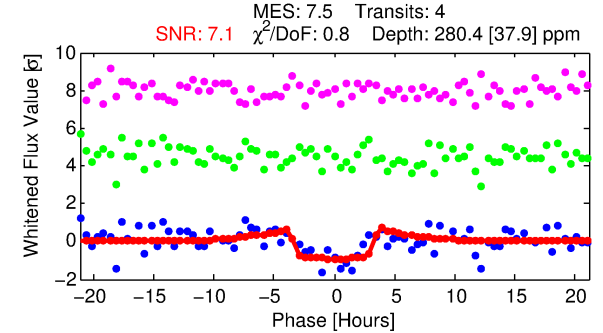
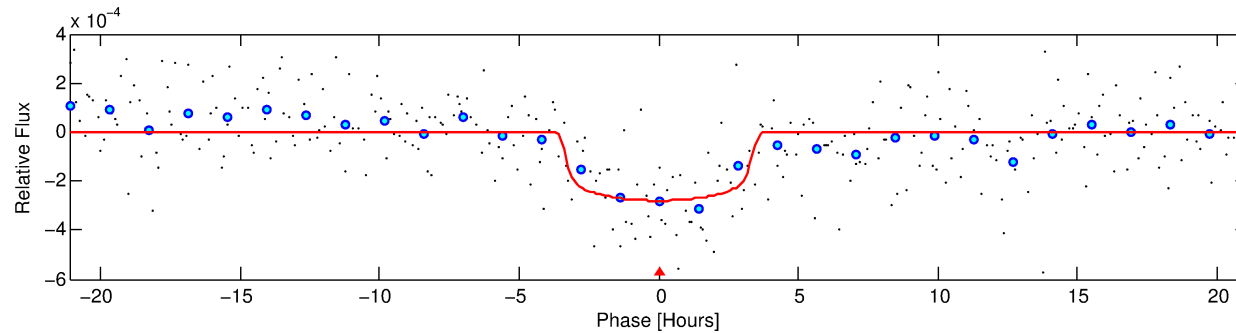
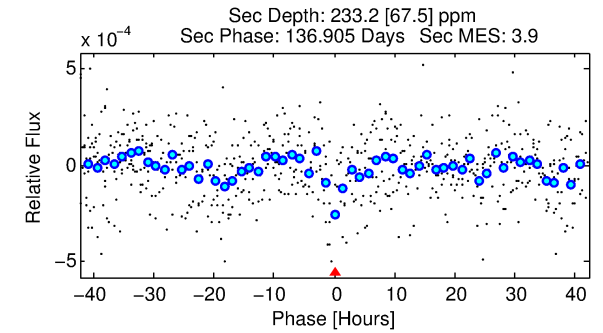
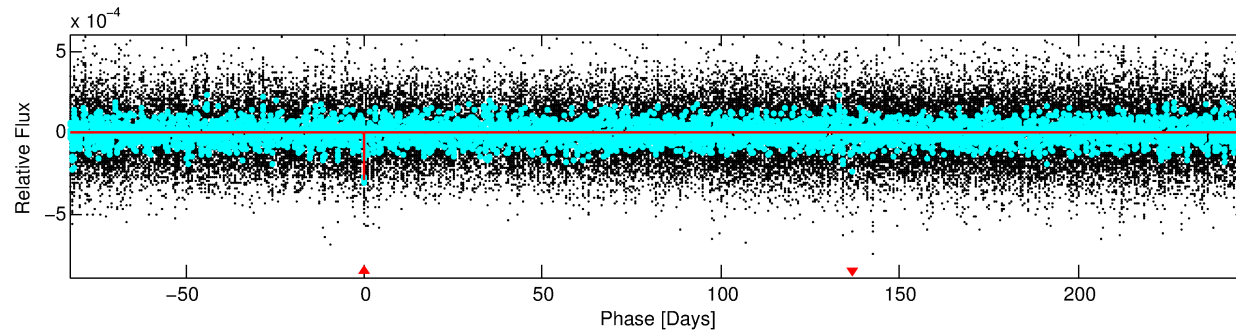
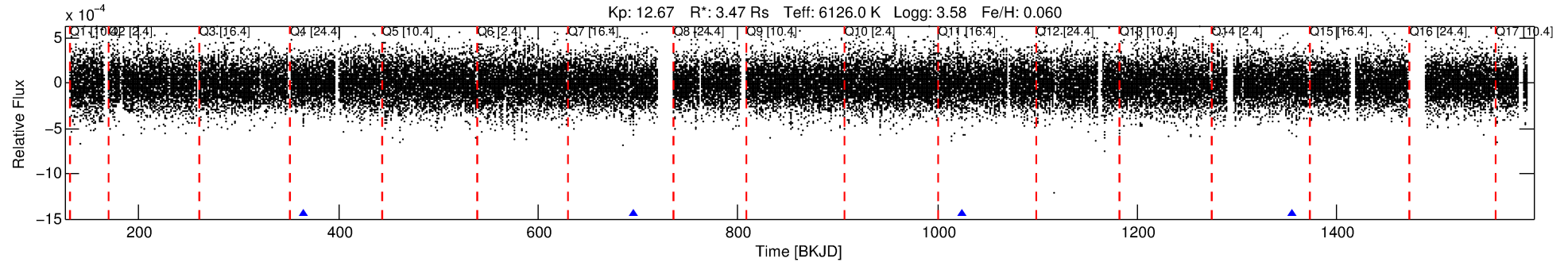
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001723078-01

No Significant Match Found

DV One-Page Summary

KIC: 1723078 Candidate: 1 of 1 Period: 330.017 d



DV Fit Results:

Period = 330.01683 [0.00491] d
Epoch = 364.8148 [0.0092] BKJD
Rp/R* = 0.0170 [0.0064]
a/R* = 226.37 [422.96]
b = 0.80 [0.86]
Seff = 12.38 [7.51]
Teff = 478 [72] K
Rp = 6.41 [3.56] Re
a = 1.1065 [0.4177] AU
Ag = 3818.26 [3846.92] [0.99σ]
Teffp = 5813 [1196] K [4.45σ]

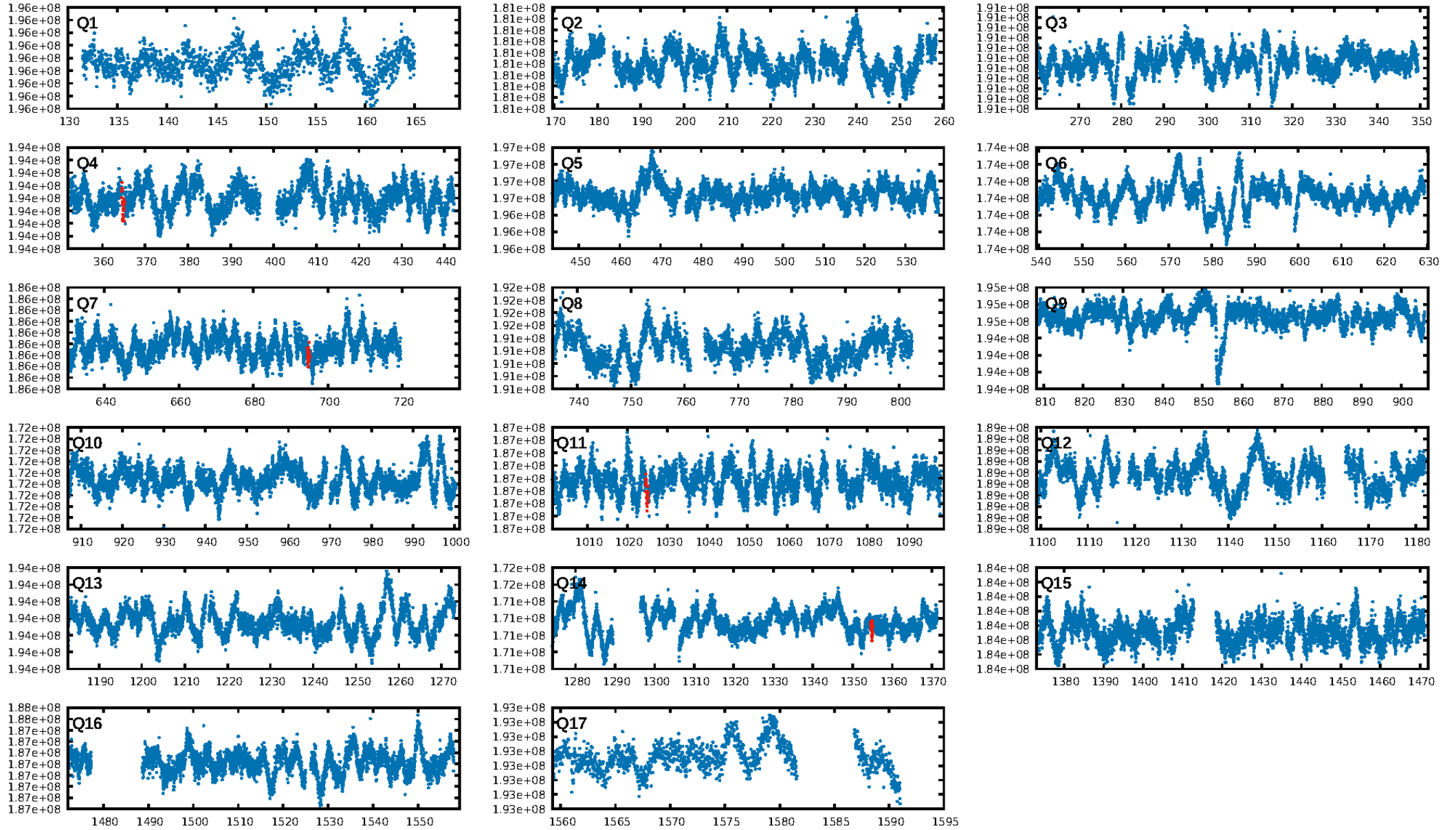
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 79.8%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.42e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.3597
Centroid-sig: 3.6%
Centroid-so: 1.443 arcsec [1.30σ]
OotOffset-rm: 2.315 arcsec [1.12σ]
OotOffset-st: 1/2/1/0 [4]
KicOffset-rm: 2.347 arcsec [1.35σ]
KicOffset-st: 1/2/1/0 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [4/4]

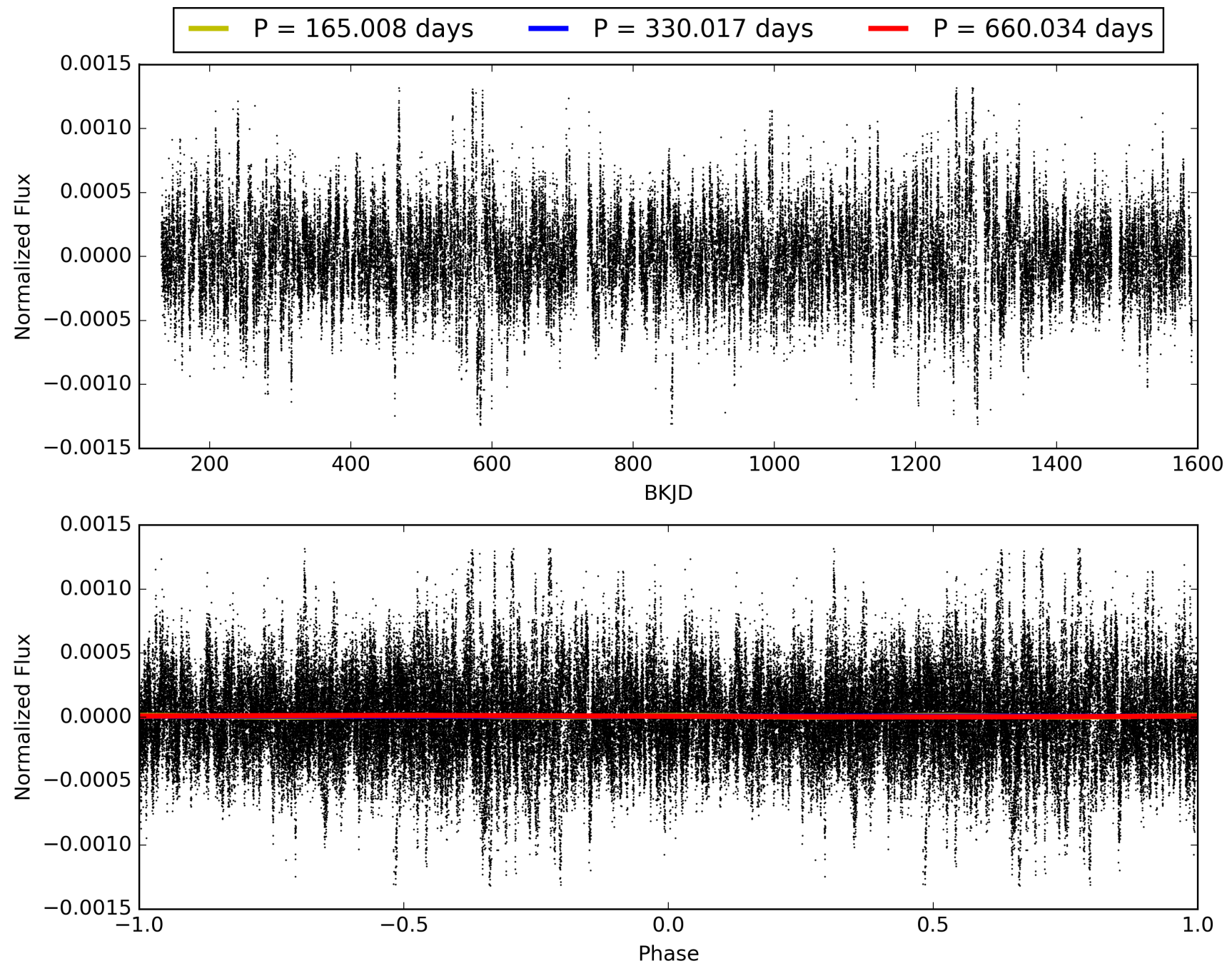
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:32:25 Z

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

TCE 001723078-01, PDC Light Curves

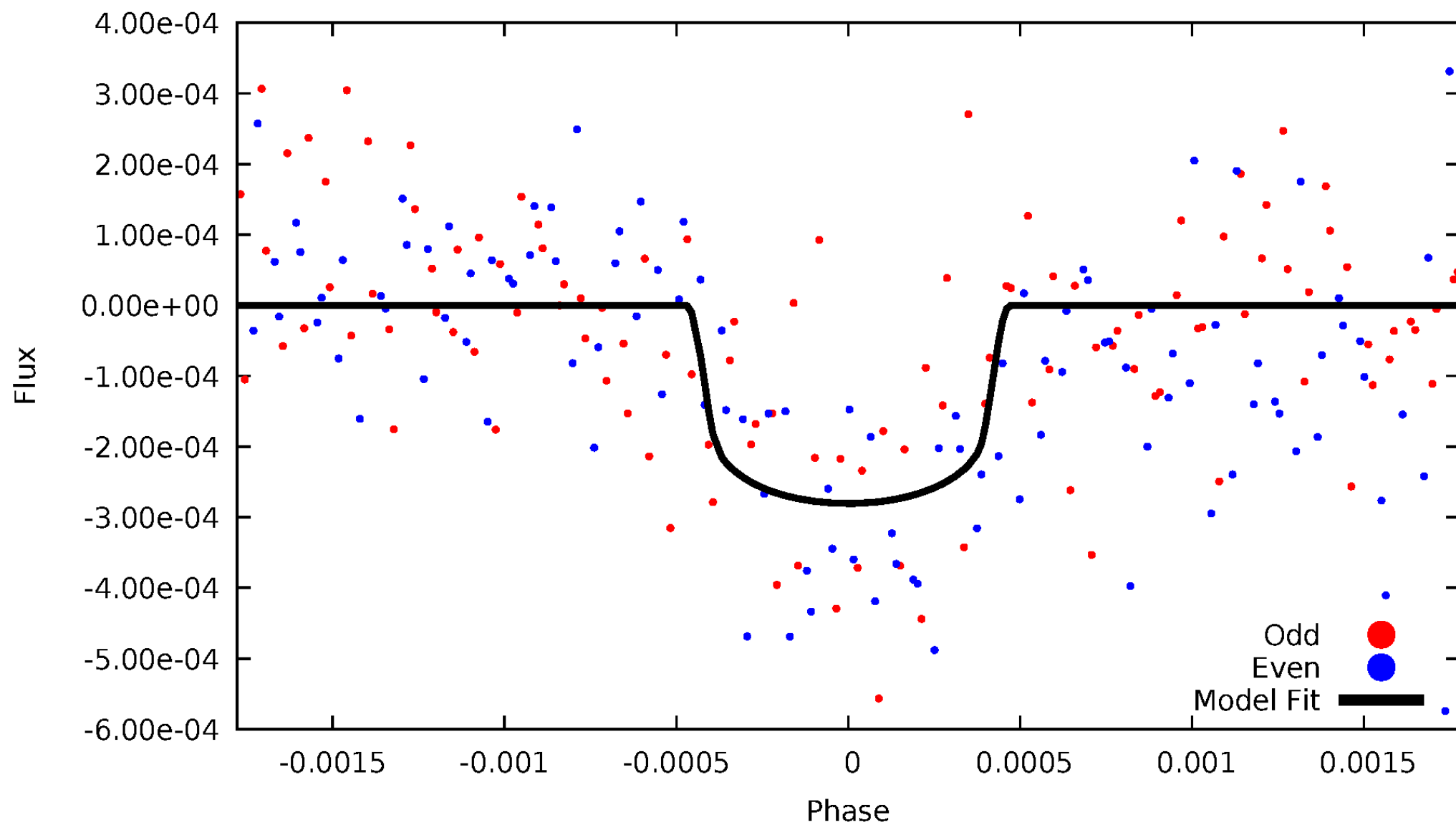


TCE 001723078-01



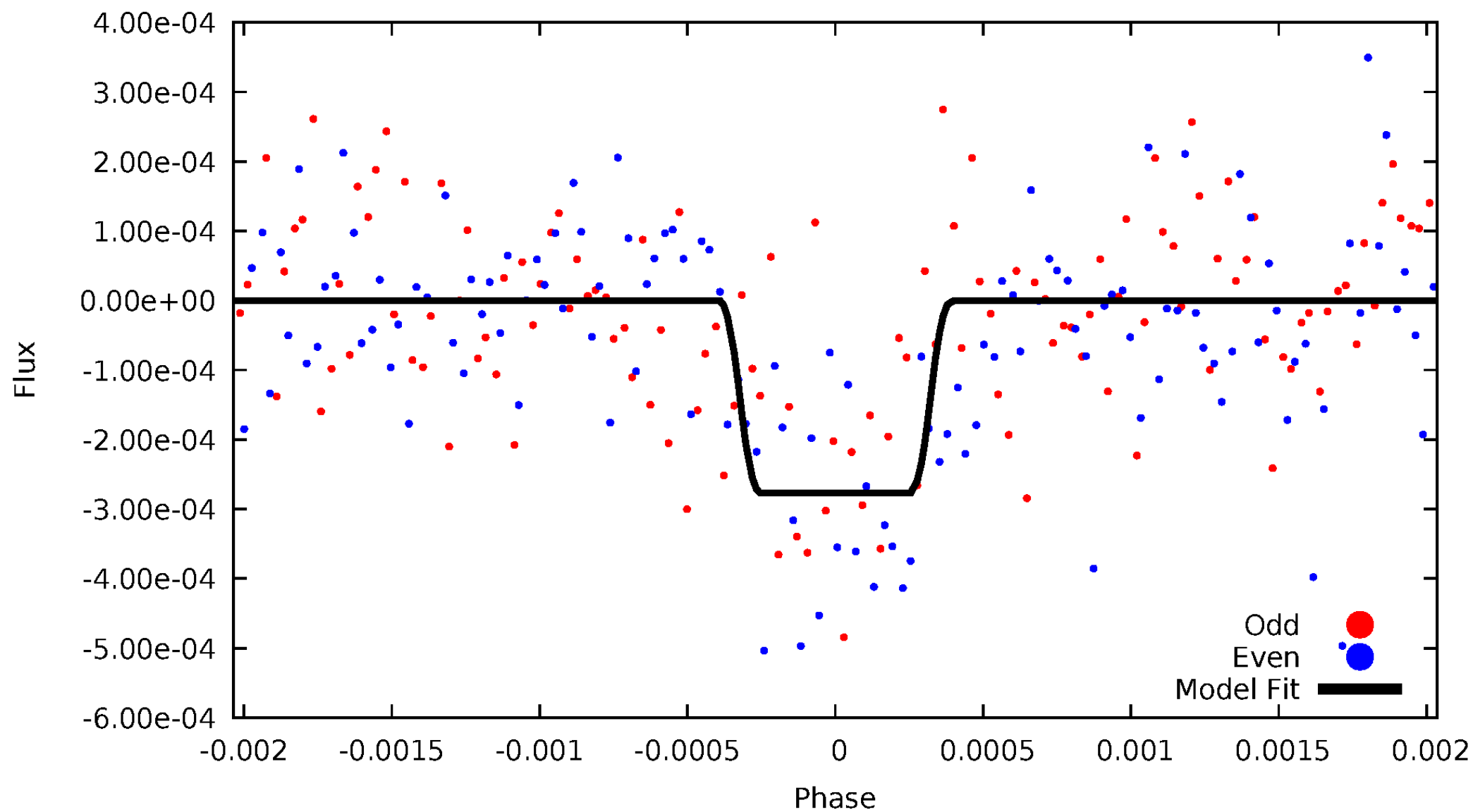
DV Odd/Even

TCE 001723078-01

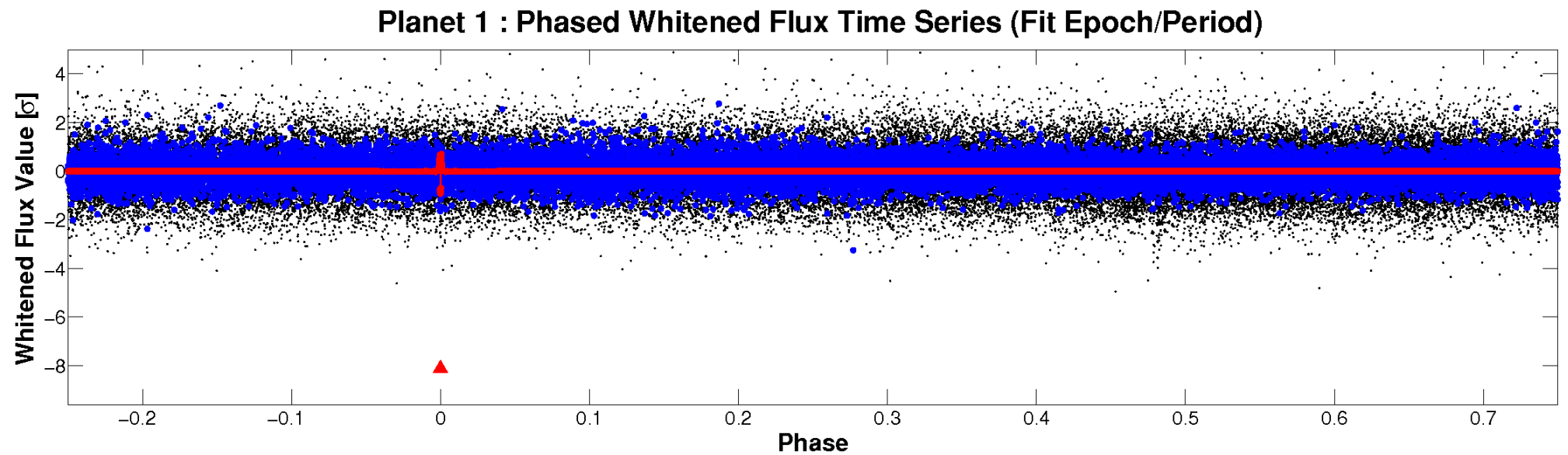
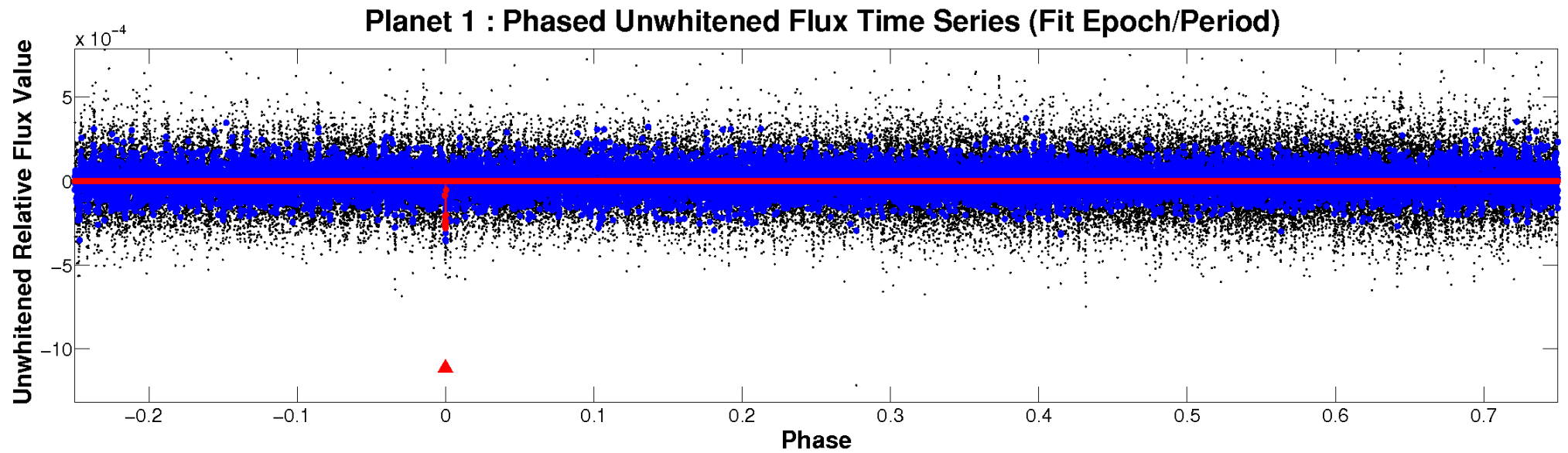


ALT Odd/Even

TCE 001723078-01

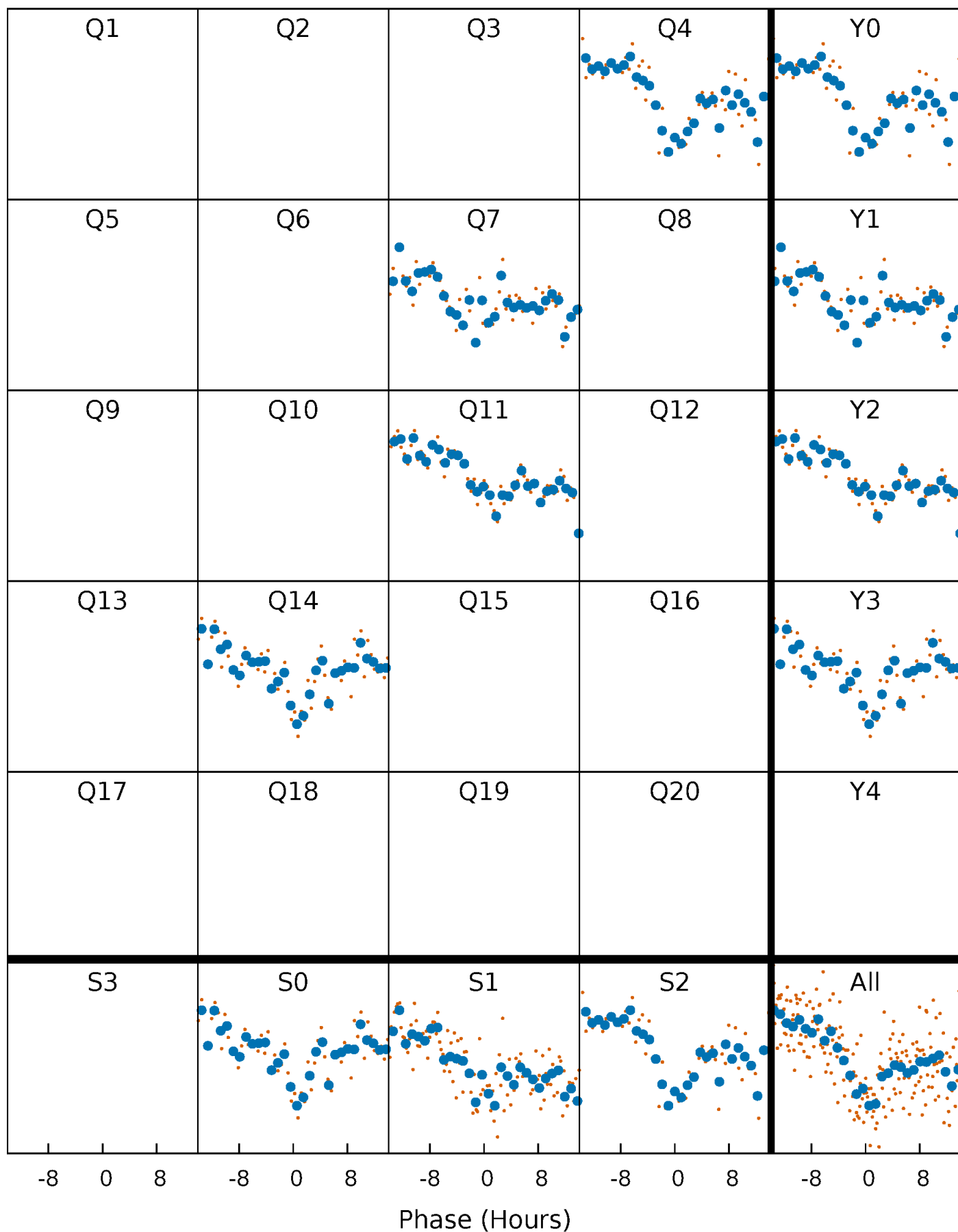


Non-Whitened Vs. Whitened Light Curve



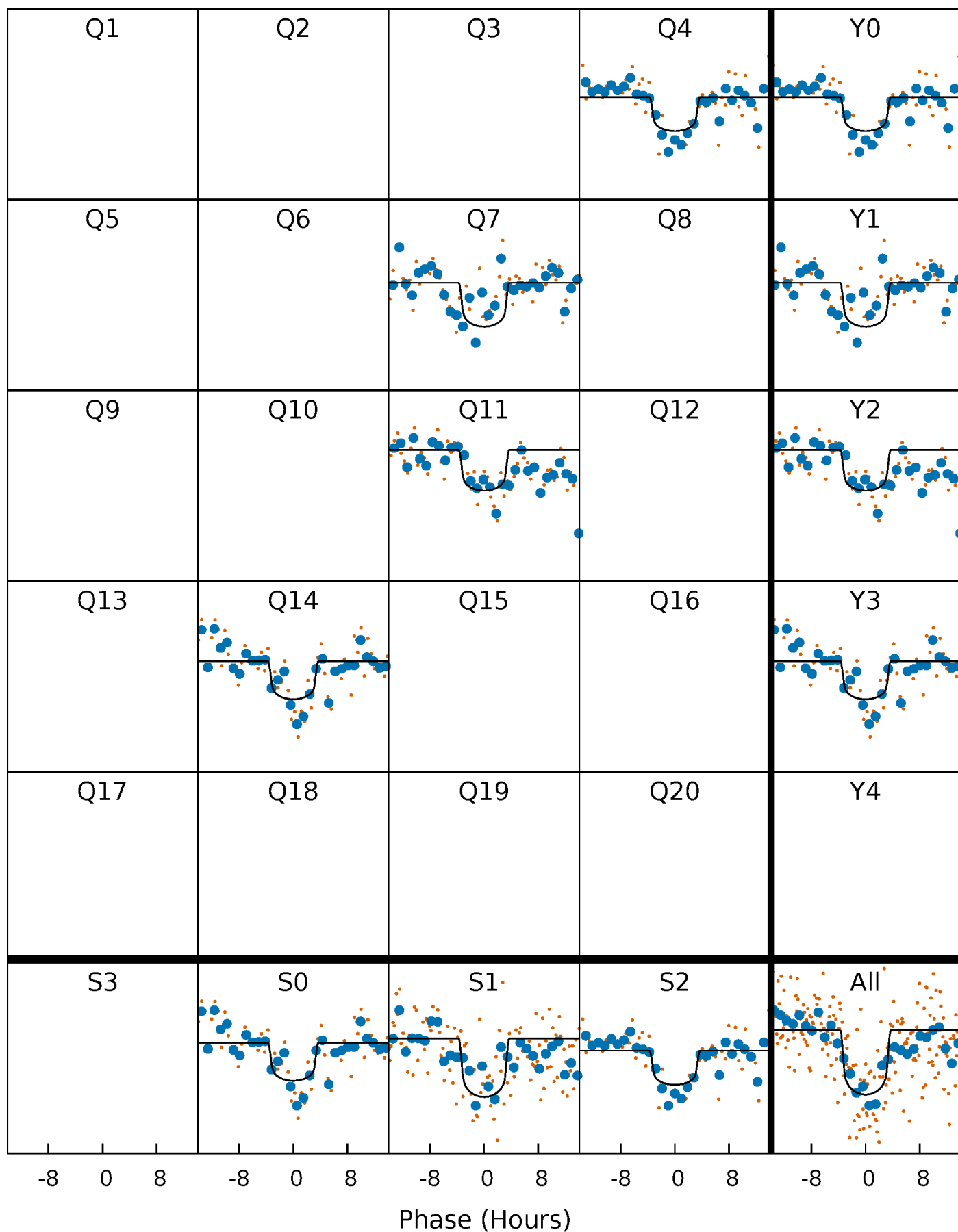
PDC Quarter-Phased Transit Curves

TCE 001723078-01 P=330.016830 Days $T_0=364.814777$ (BKJD)



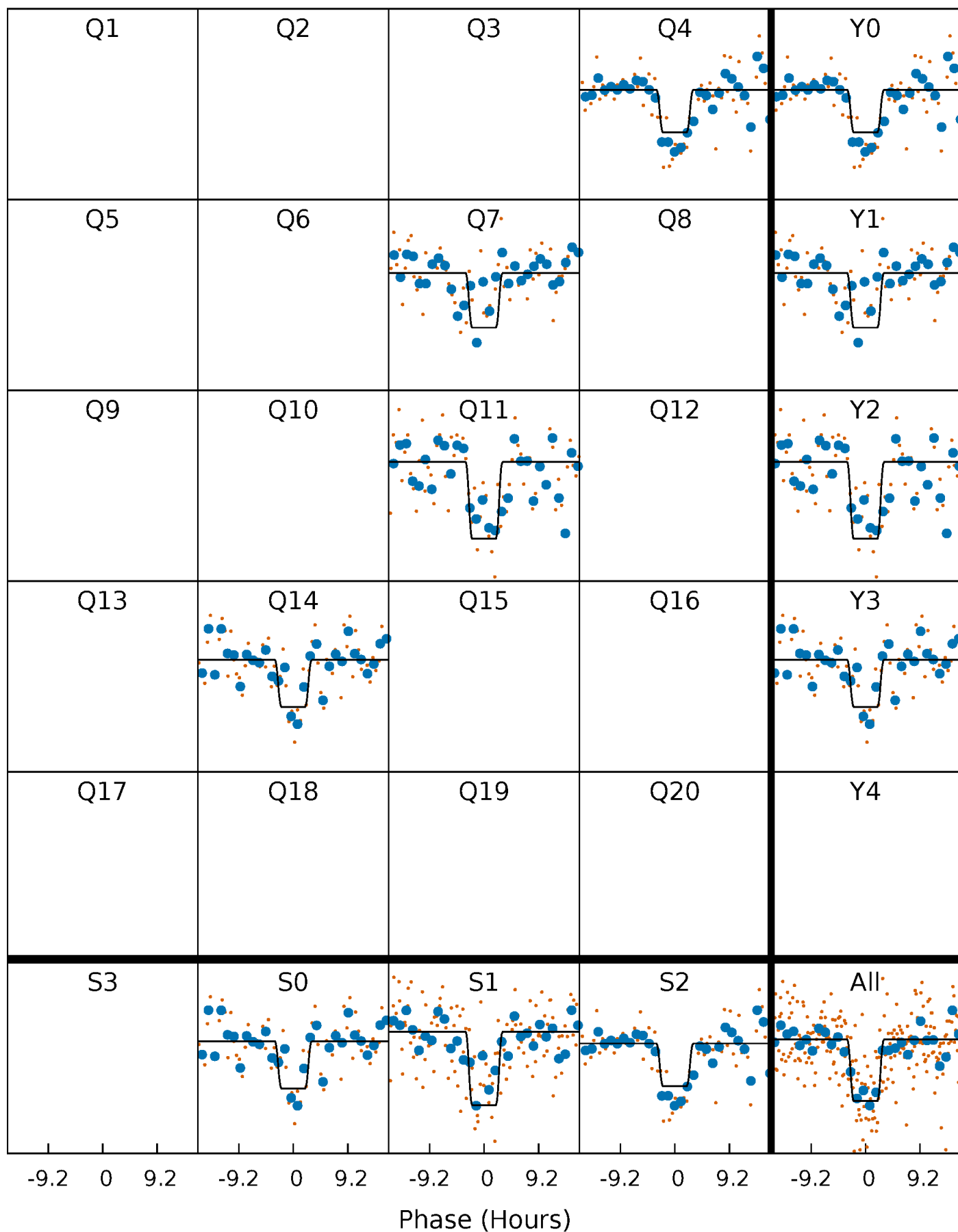
DV Quarter-Phased Transit Curves

TCE 001723078-01 P=330.016830 Days $T_0=364.814777$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

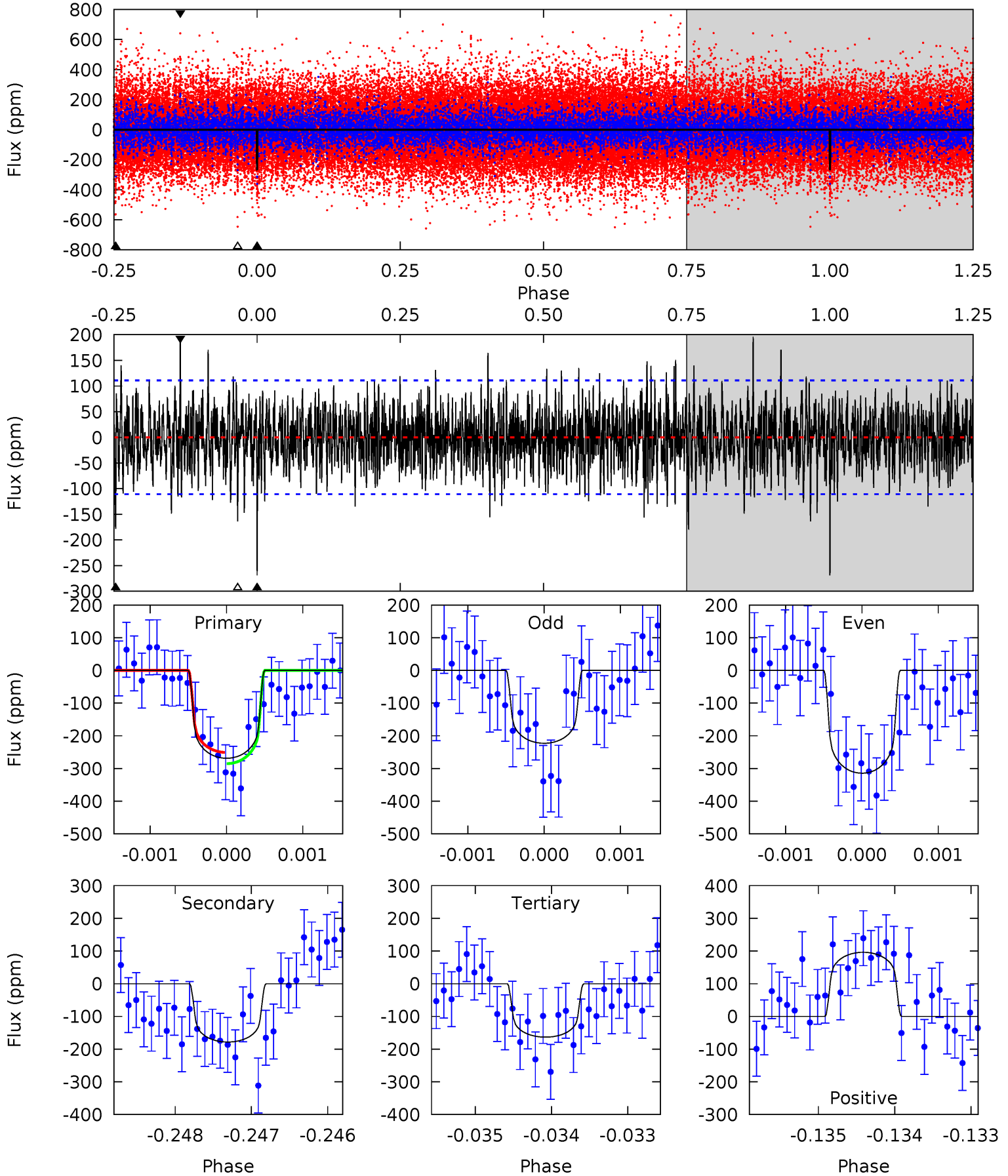
TCE 001723078-01 P=330.029239 Days $T_0=364.797064$ (BKJD)



DV Model-Shift Uniqueness Test

001723078-01, P = 330.016830 Days, E = 34.797947 Days

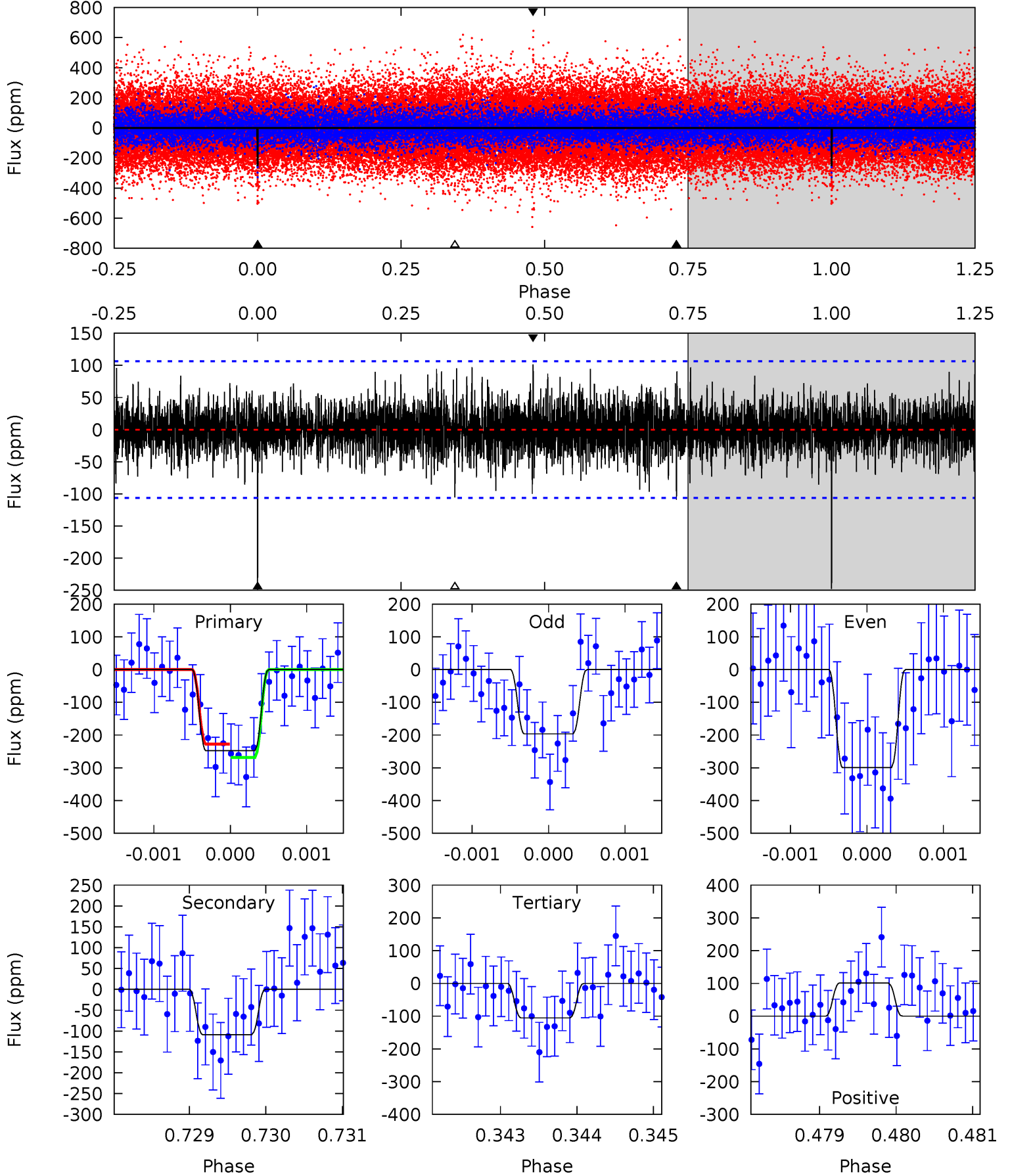
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	8.78	8.05	9.65	5.46	3.31	2.27	5.18	3.58	0.73	-0.87	2.25	0.94	0.42	0.84



Alt Model-Shift Uniqueness Test

001723078-01, P = 330.029239 Days, E = 34.767825 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	5.62	5.45	5.23	5.49	3.36	1.40	7.36	7.58	0.17	0.40	2.67	1.08	0.29	1.06



Stellar Parameters For KIC 001723078

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6126^{+185}_{-167}	$3.578^{+0.345}_{-0.115}$	$0.060^{+0.250}_{-0.250}$	$3.466^{+0.466}_{-1.399}$	$1.658^{+0.167}_{-0.390}$	$0.056^{+0.157}_{-0.016}$
	+3%/-3%	+10%/-3%	+417%/-417%	+13%/-40%	+10%/-24%	+279%/-28%
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 001723078-01 / KOI 7624.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-178 ± 20	$6.14^{+2.76}_{-2.75}$	660^{+43}_{-64}	5420^{+1523}_{-723}	3191^{+6418}_{-1657}
Alt.	-109 ± 19	$5.93^{+2.46}_{-2.21}$	665^{+38}_{-60}	4950^{+1267}_{-615}	2066^{+3251}_{-1059}

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 $A_{\text{obs}} \gg 1.0$

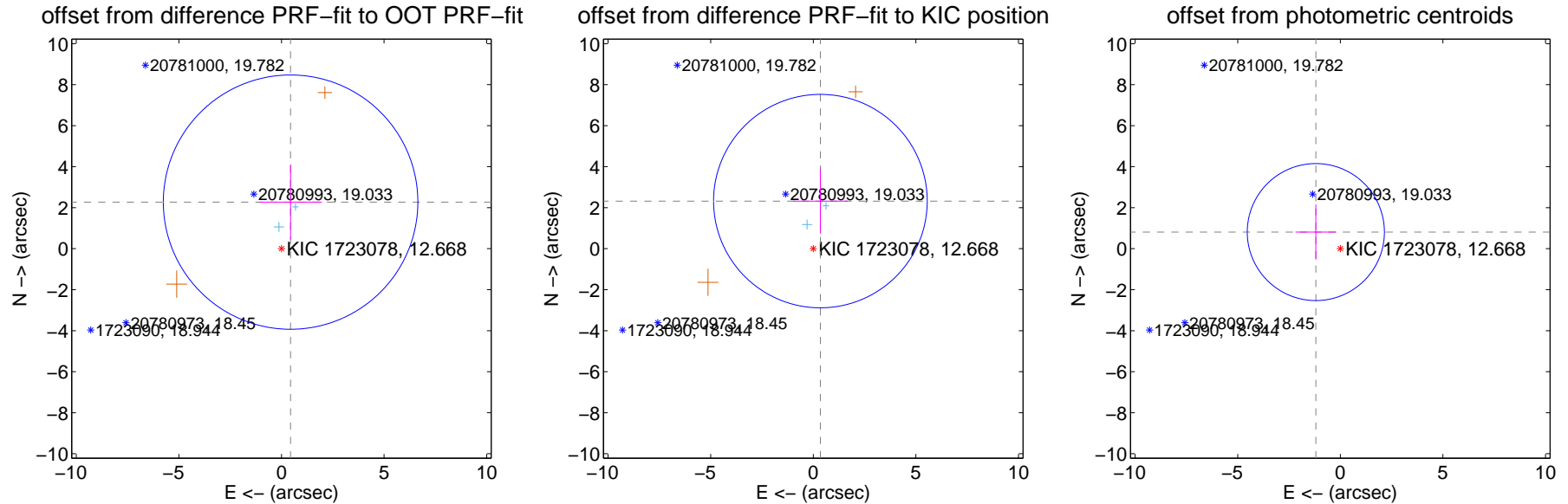
DV Centroid Data

Supplemental centroid analysis for 001723078-01. Kepler magnitude: 12.67. Transit SNR 7.10

There are 2 quarters with good PRF difference image offsets

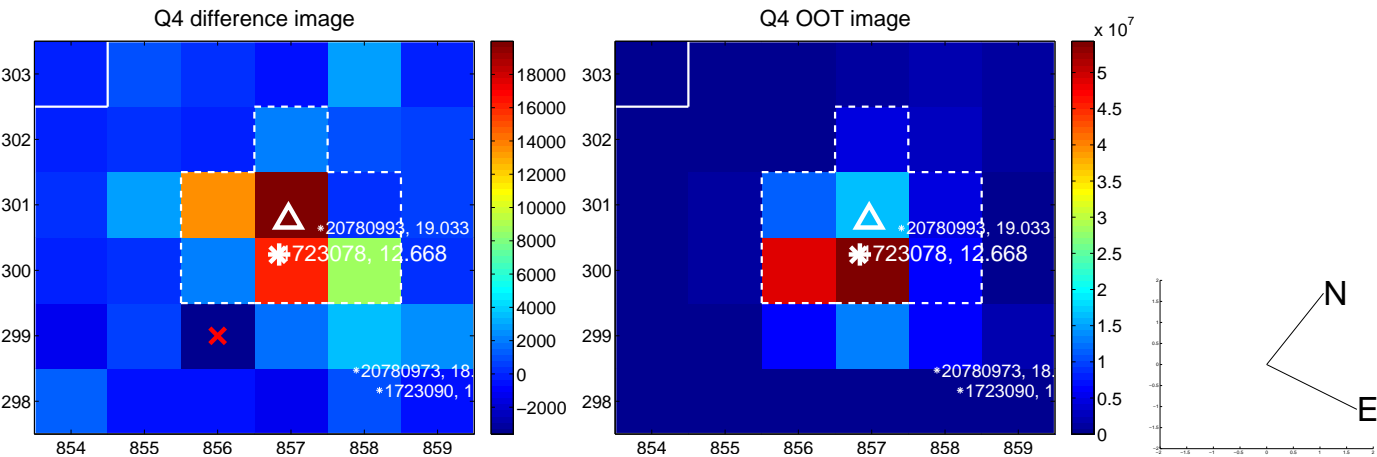
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.315 ± 2.067	1.12	-0.444 ± 1.525	2.272 ± 1.836
PRF-fit source offset from KIC position	2.347 ± 1.735	1.35	-0.347 ± 1.333	2.321 ± 1.585
photometric centroid source offset	1.44 ± 1.11	1.30	1.19 ± 0.99	0.81 ± 1.34

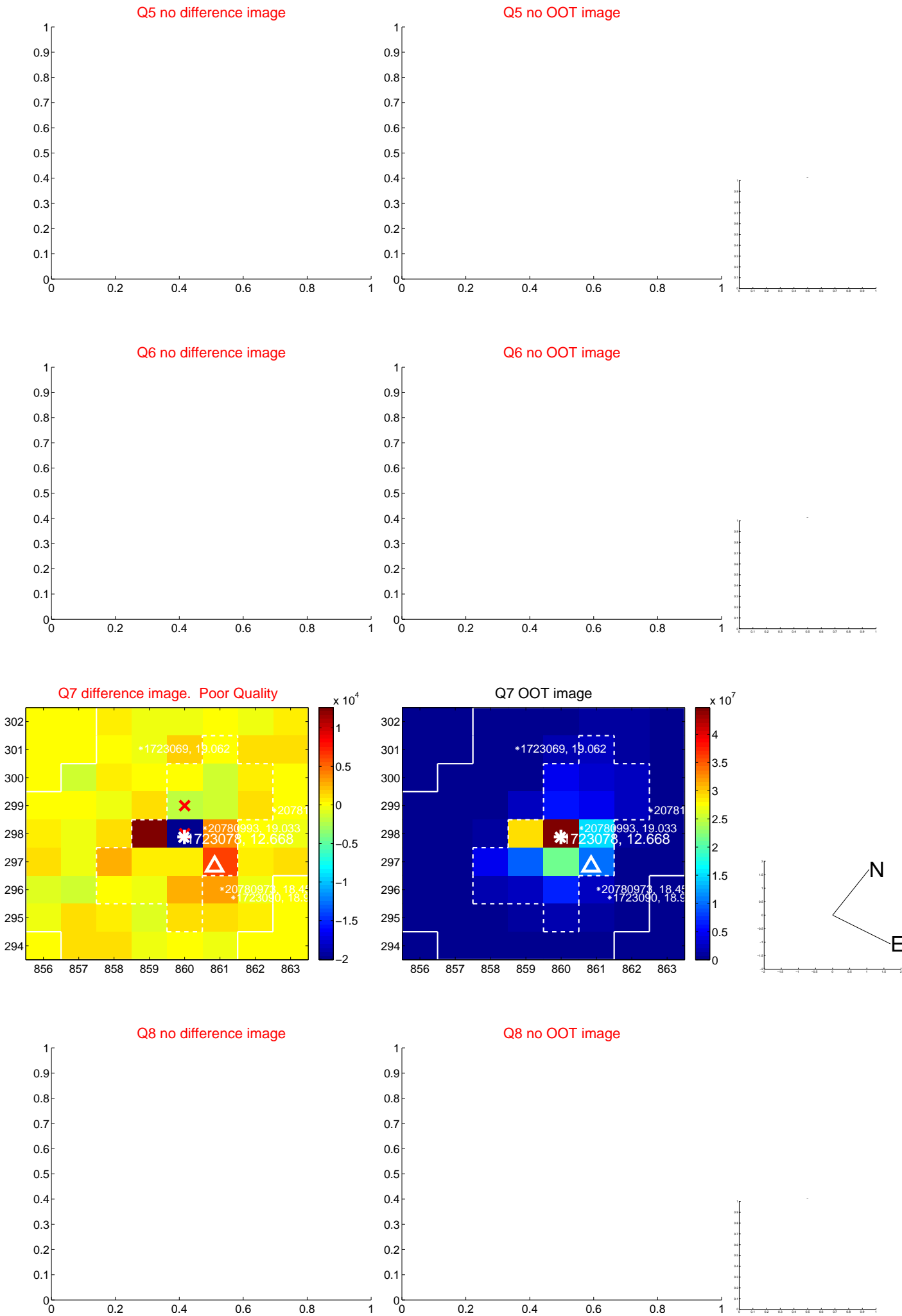


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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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Q9 no difference image



Q9 no OOT image



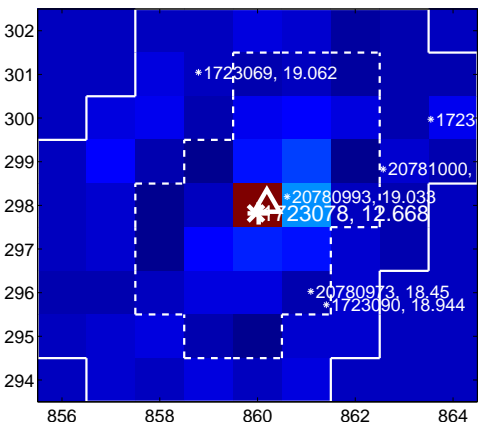
Q10 no difference image



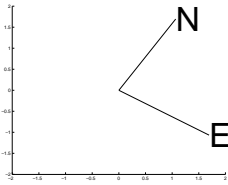
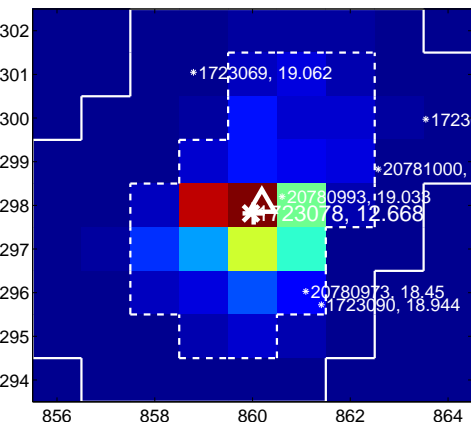
Q10 no OOT image



Q11 difference image



Q11 OOT image



Q12 no difference image

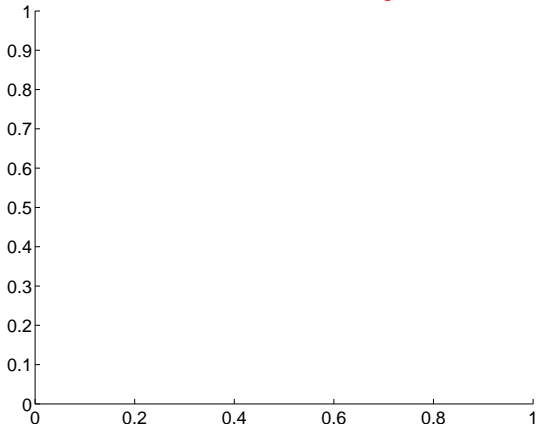


Q12 no OOT image

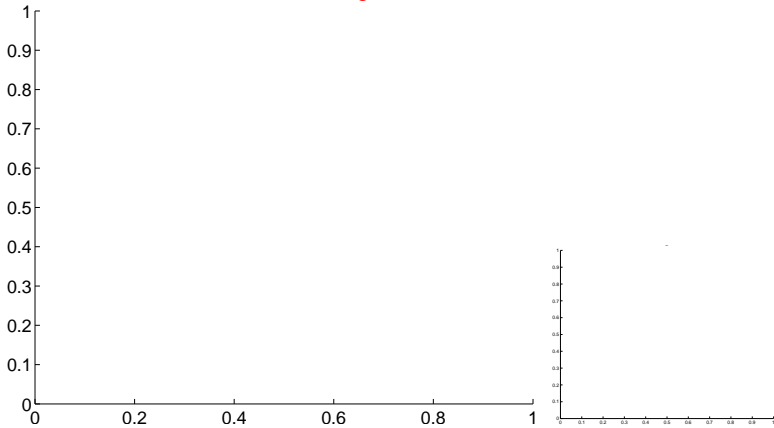


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

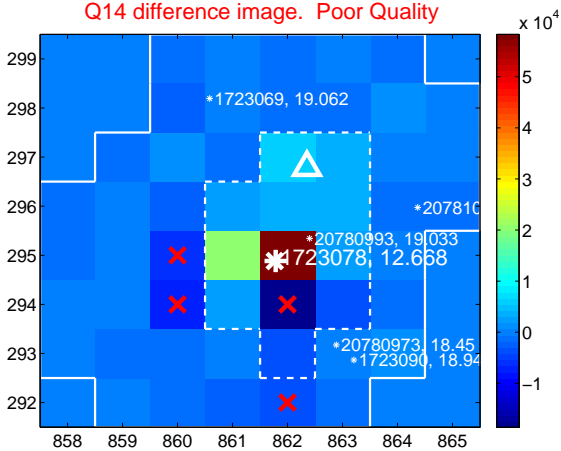
Q13 no difference image



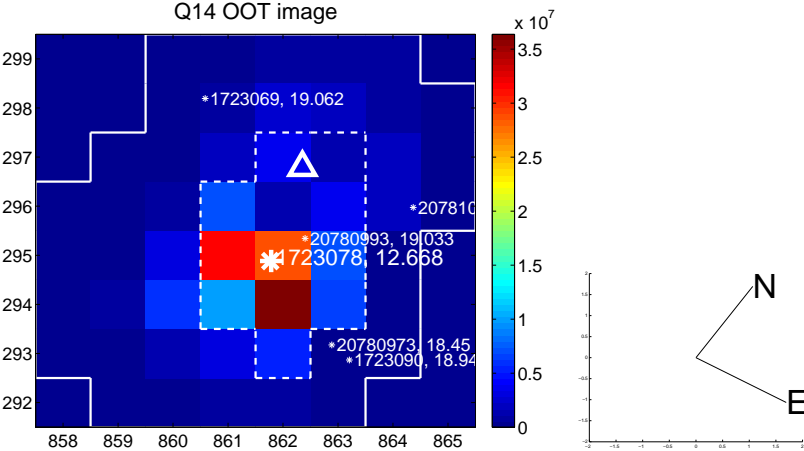
Q13 no OOT image



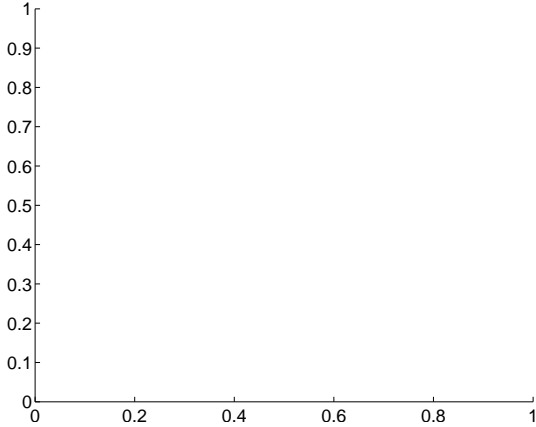
Q14 difference image. Poor Quality



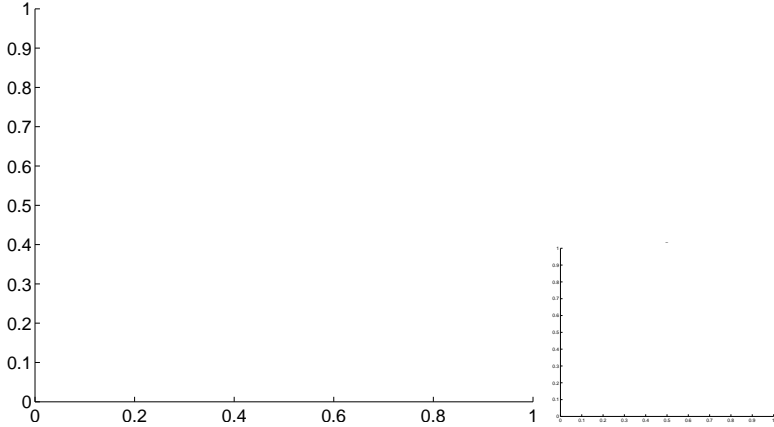
Q14 OOT image



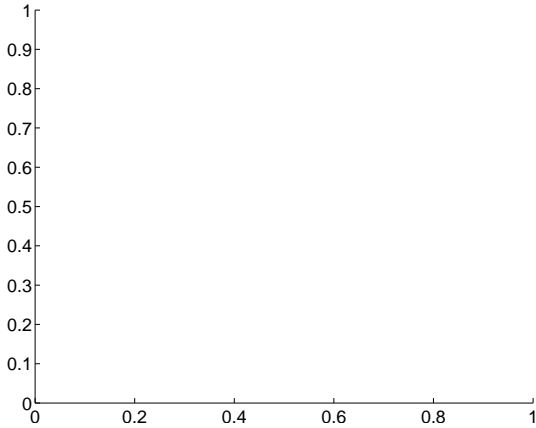
Q15 no difference image



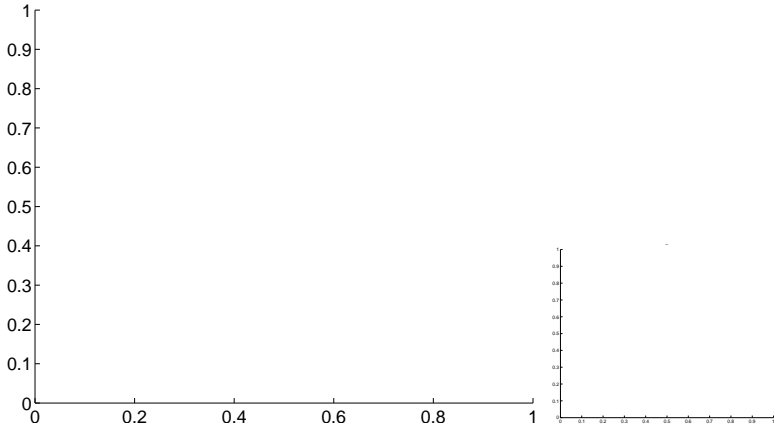
Q15 no OOT image



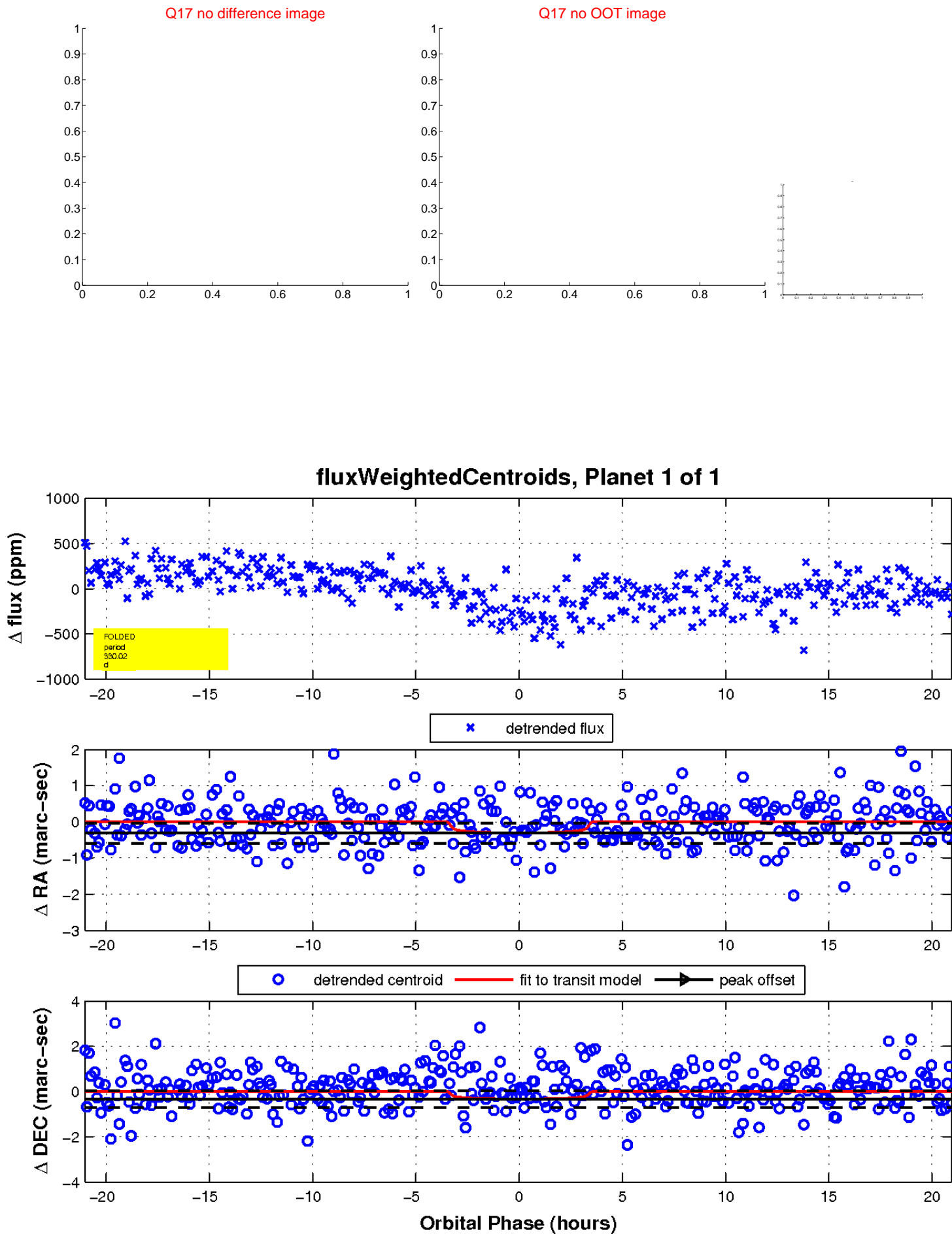
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

