

KIC 003219623

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})
003219623-01	OBS	No	405.862566	522.599134	511.7	1.665	15.4	3.9	1.83	5174	4.50	2.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003219623-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—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.

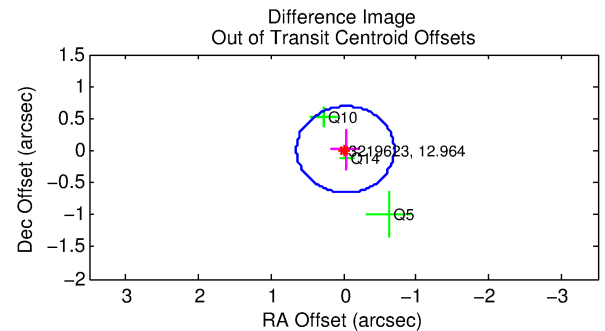
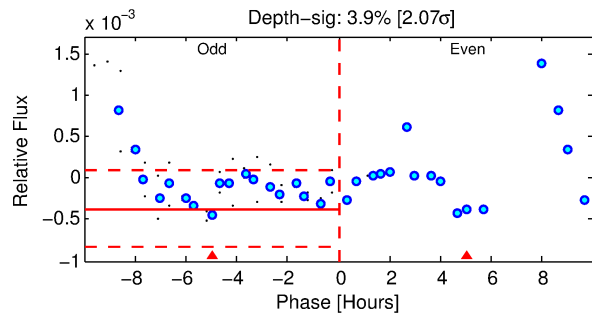
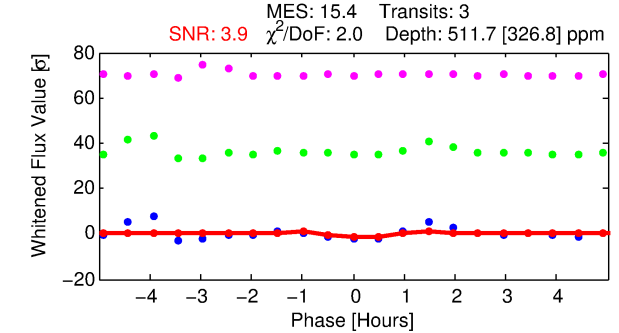
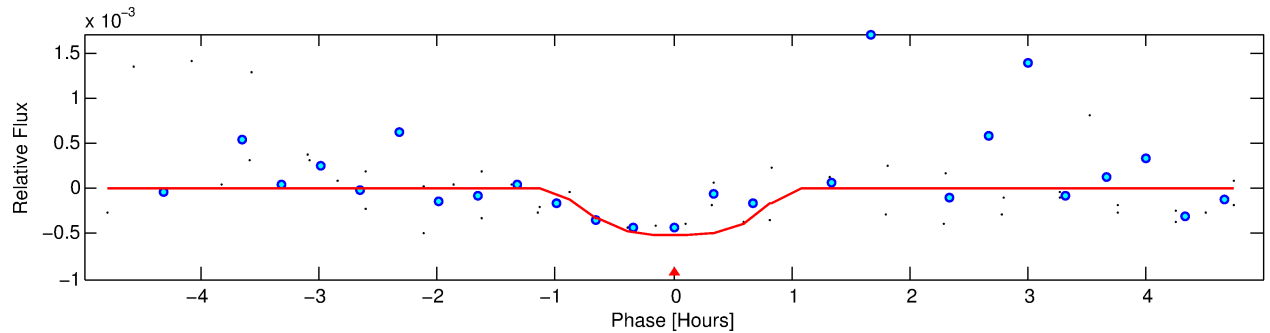
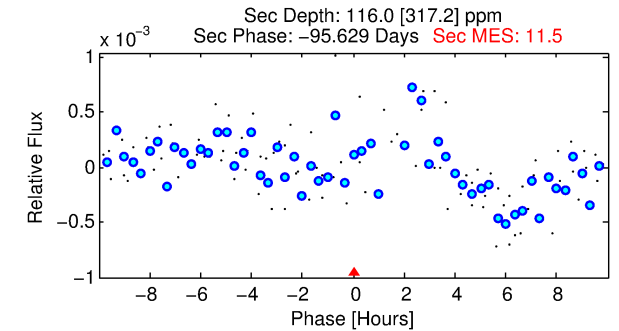
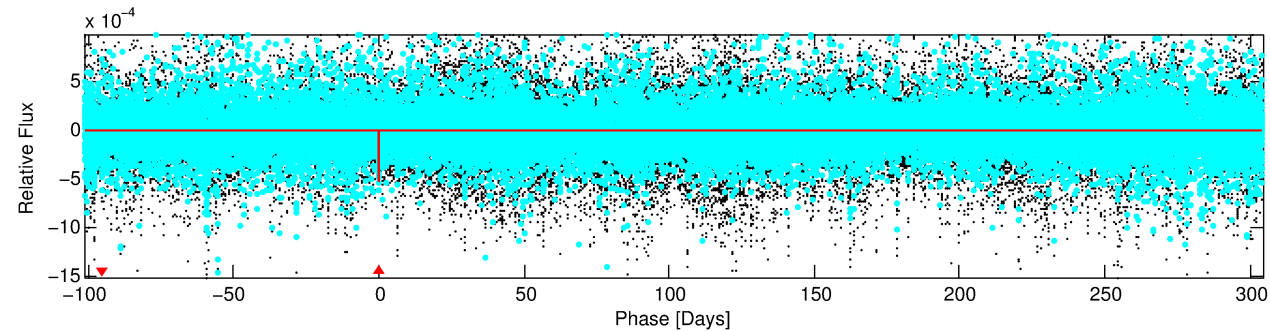
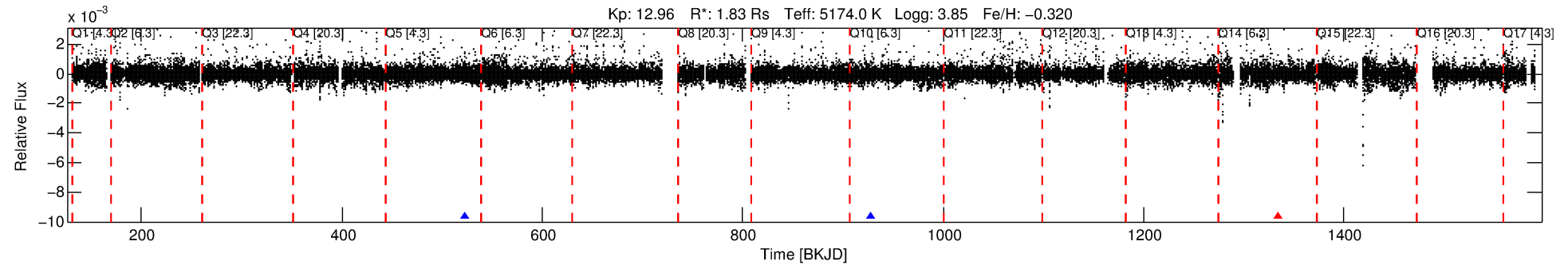
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003219623-01

No Significant Match Found

DV One-Page Summary

KIC: 3219623 Candidate: 1 of 1 Period: 405.863 d



DV Fit Results:

Period = 405.86257 [0.01156] d
Epoch = 522.5991 [0.0178] BKJD
Rp/R* = 0.0225 [0.2878]
a/R* = 1334.04 [64661.31]
b = 0.73 [32.07]
Seff = 2.08 [2.59]
Teq = 306 [95] K
Rp = 4.50 [57.69] Re
a = 1.0203 [0.7307] AU
Ag = 3276.91 [84436.79] [0.04σ]
Teffp = 3581 [23041] K [0.14σ]

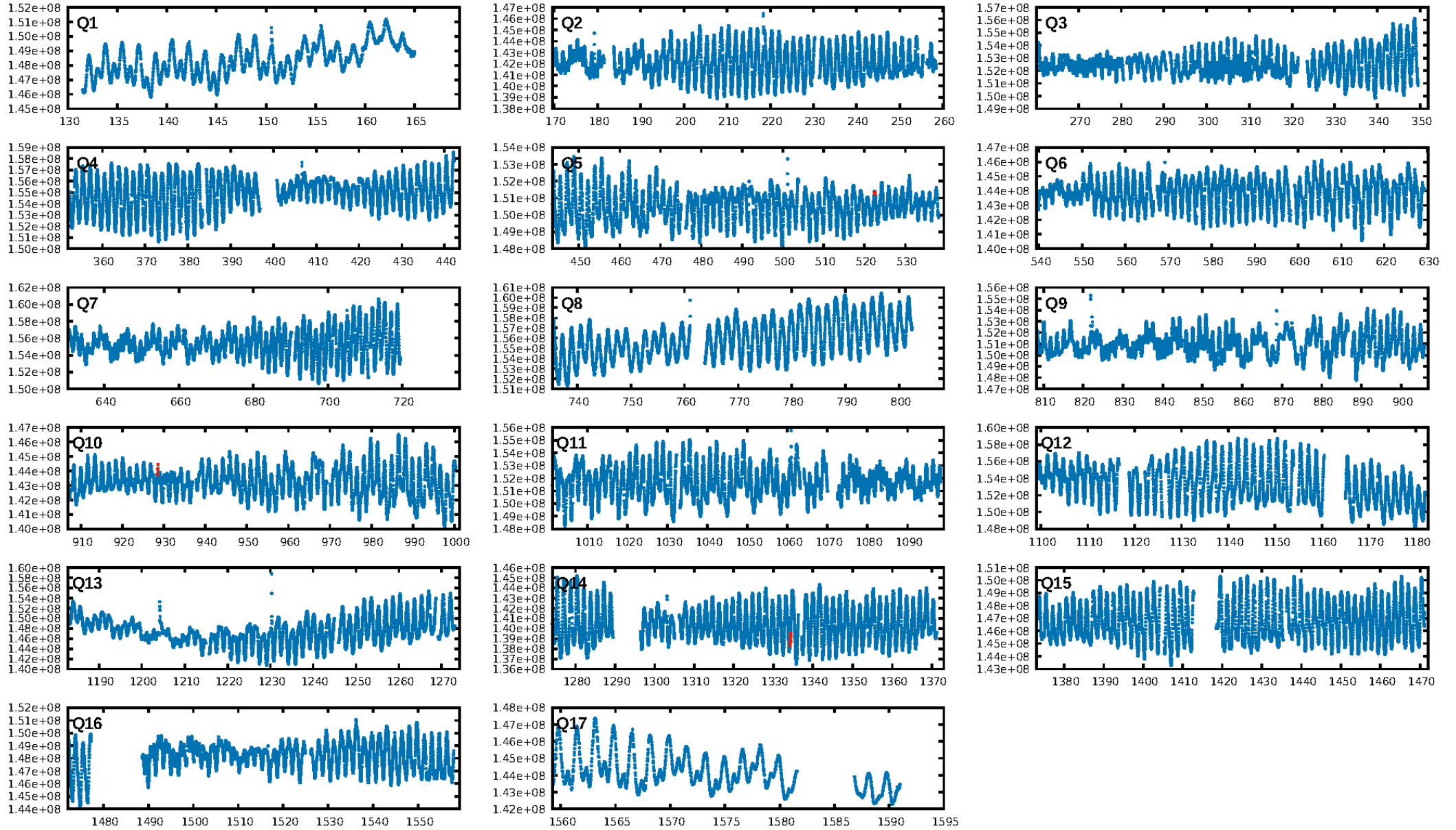
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.5%
ModelChiSquareGof-sig: 30.5%
Bootstrap-pfa: 3.61e-10
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: -1.703
Centroid-sig: 58.7%
Centroid-so: 0.417 arcsec [0.36σ]
OotOffset-rm: 0.031 arcsec [0.14σ]
KicOffset-rm: 0.207 arcsec [0.56σ]
OotOffset-st: 2/0/0/1 [3]
KicOffset-st: 2/0/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

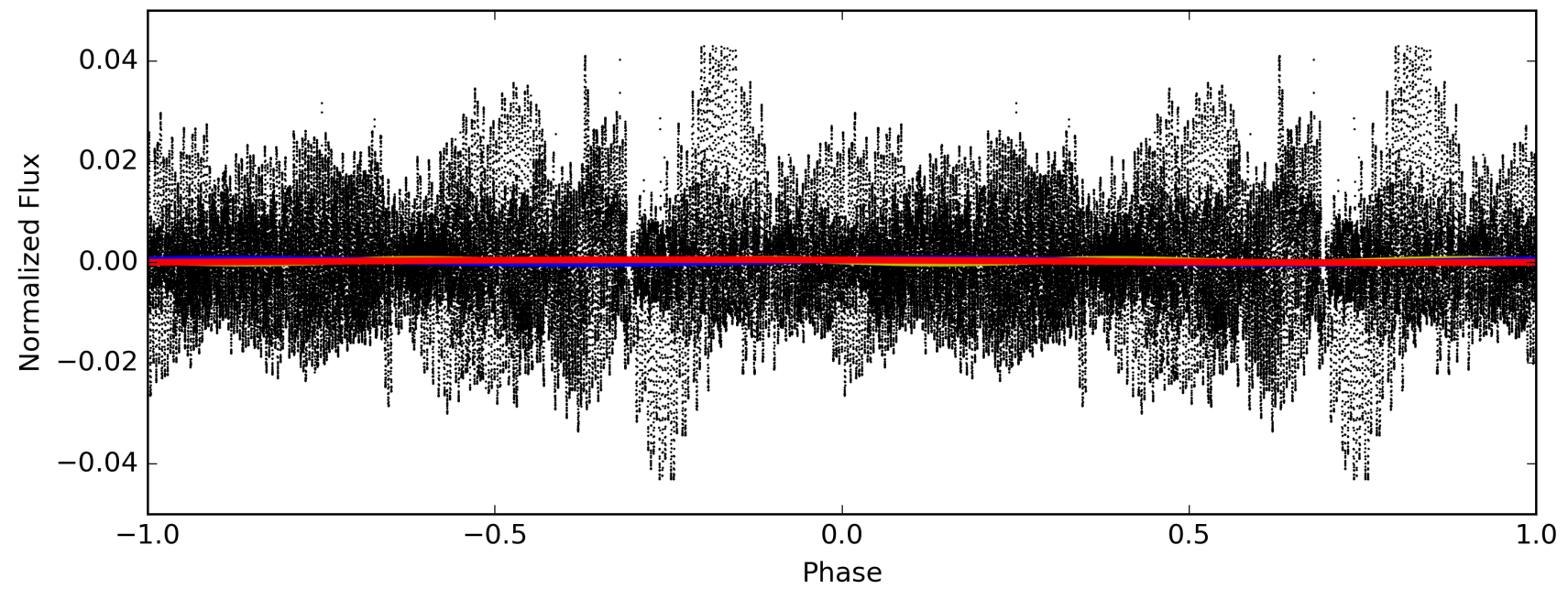
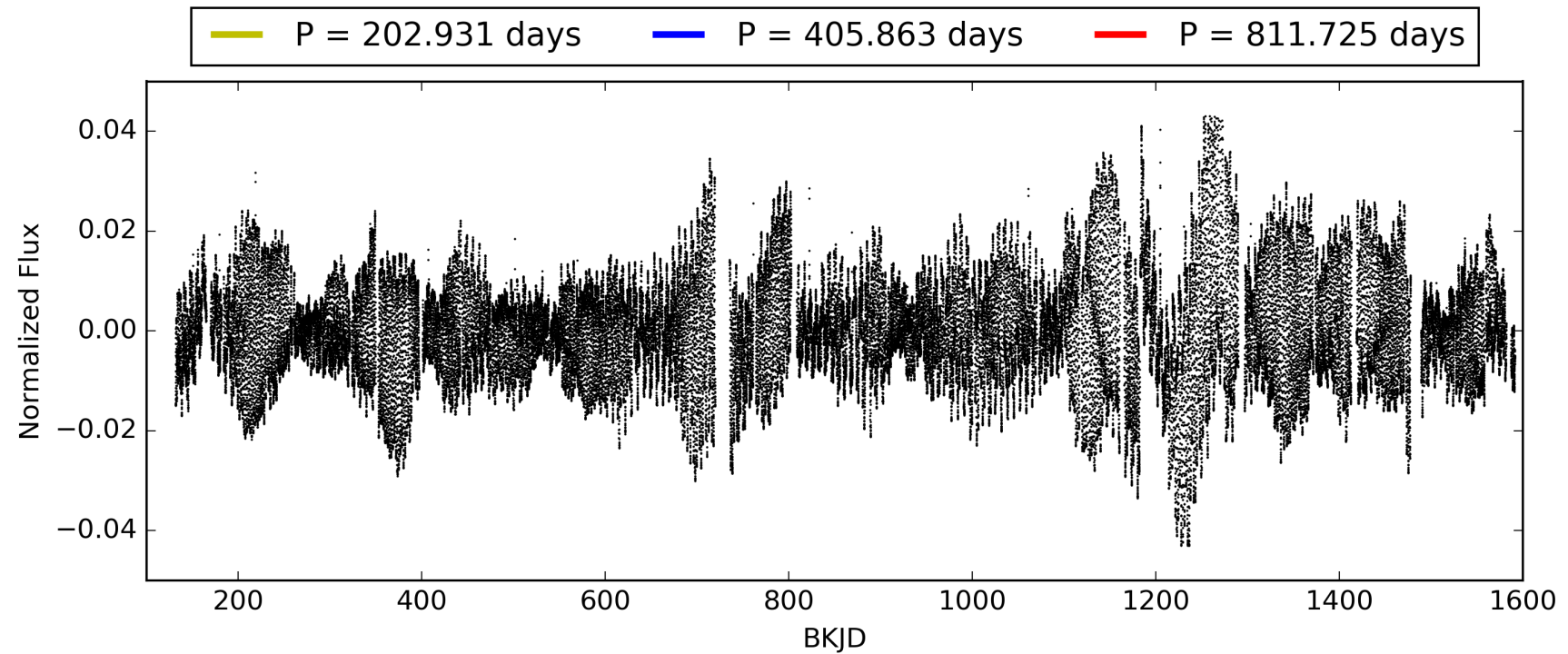
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 11:56:37 Z

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

TCE 003219623-01, PDC Light Curves

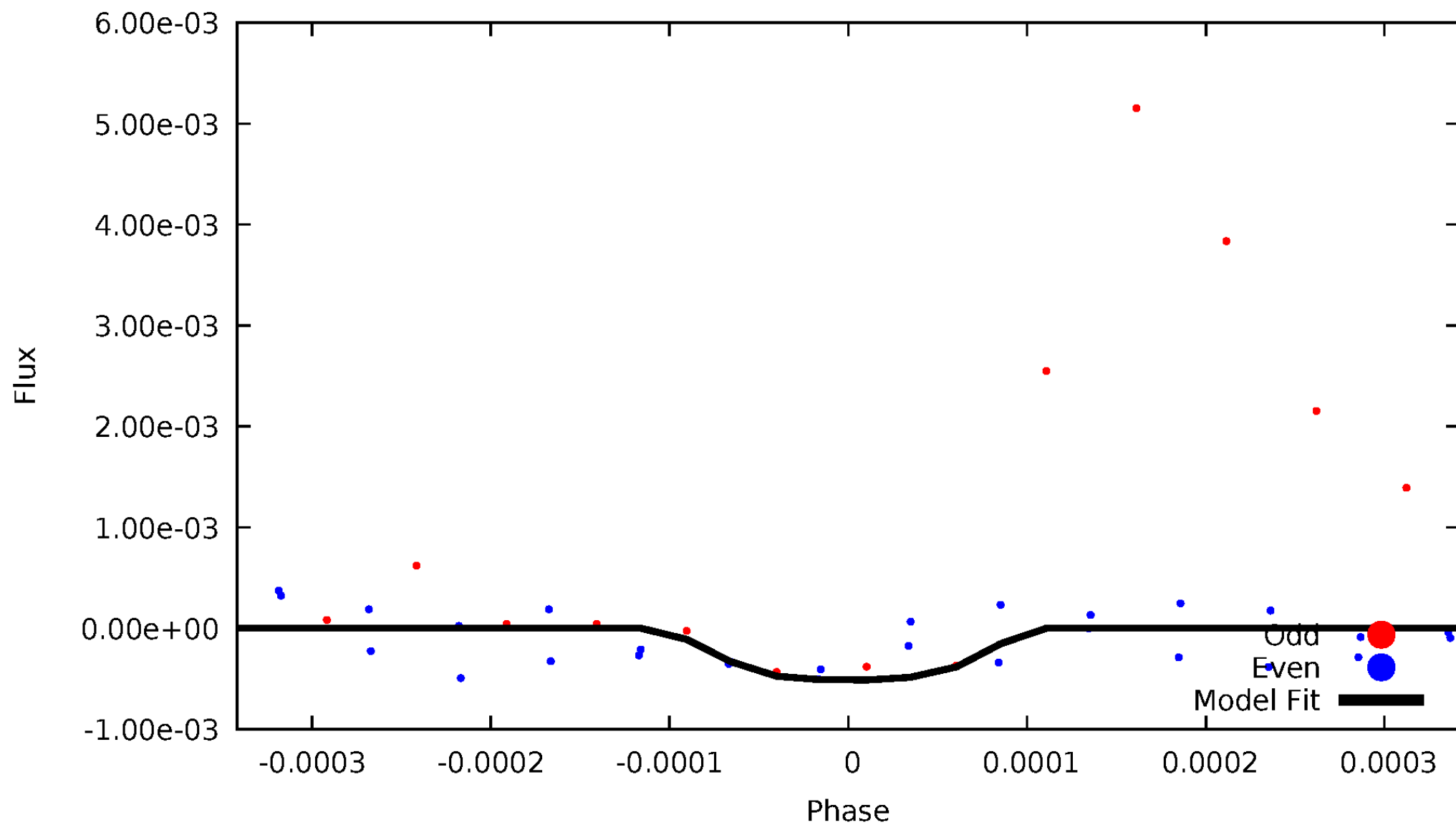


TCE 003219623-01



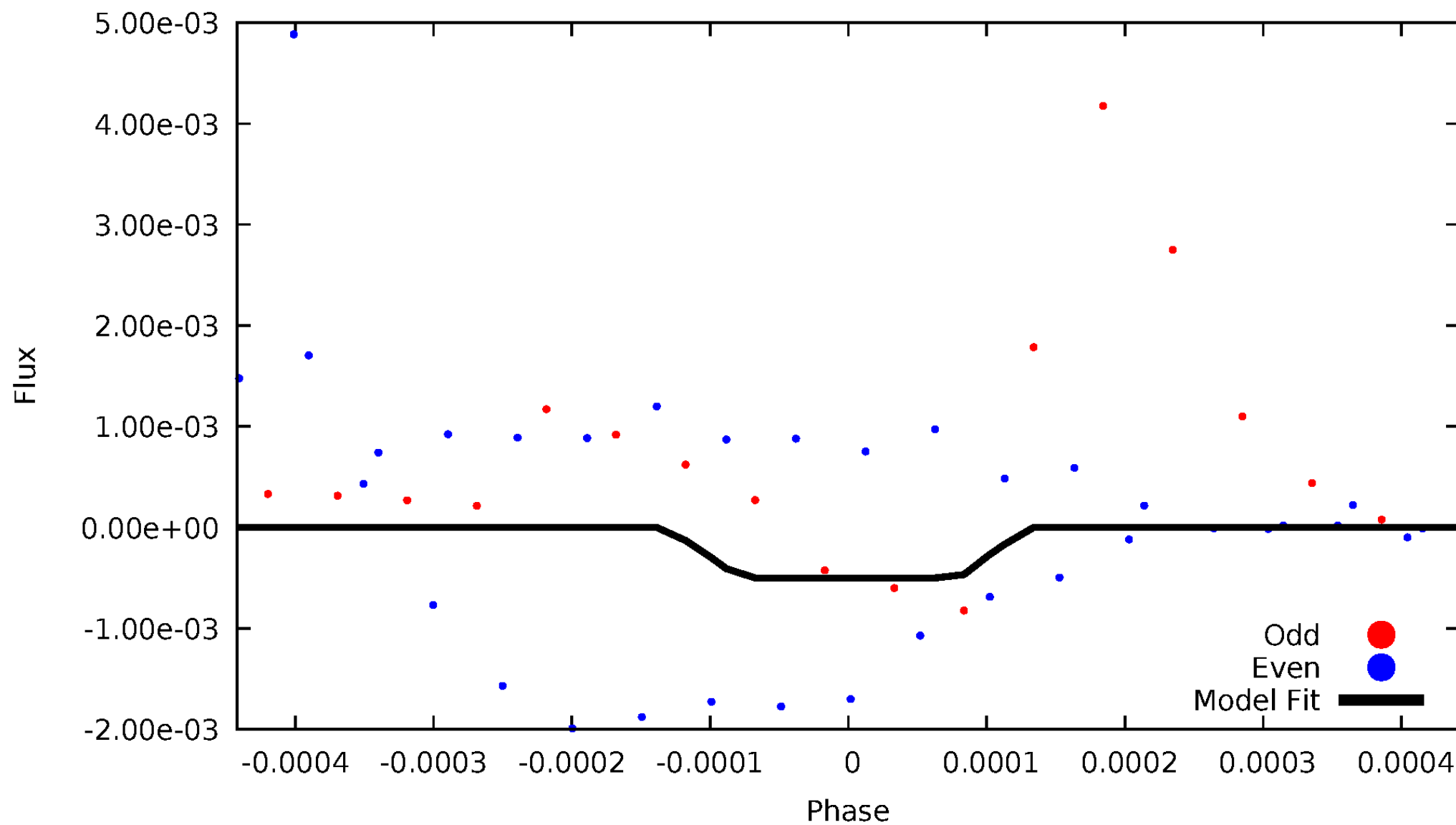
DV Odd/Even

TCE 003219623-01



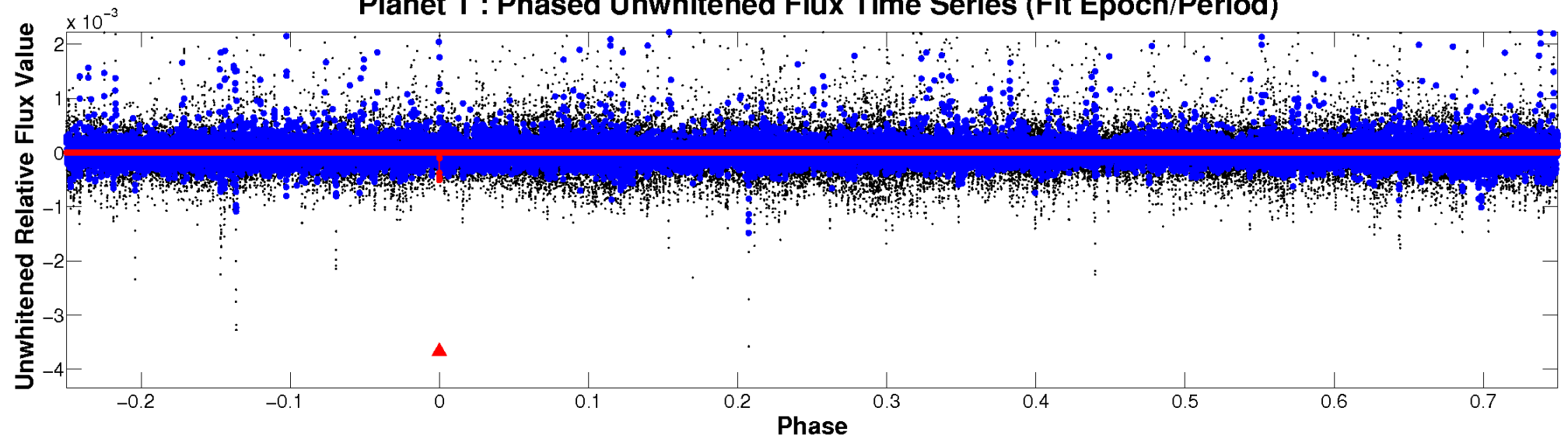
ALT Odd/Even

TCE 003219623-01

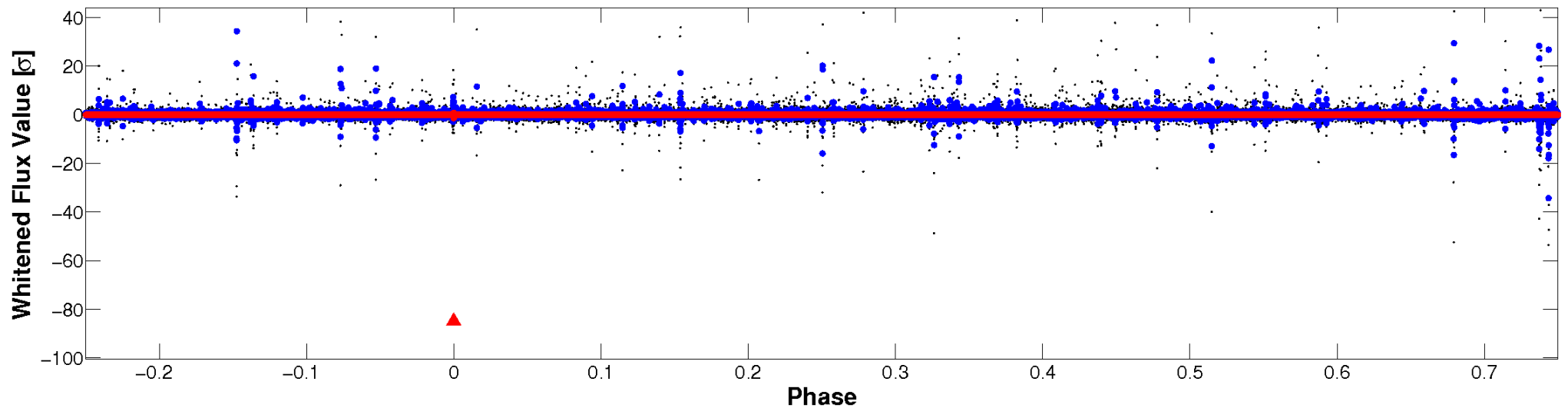


Non-Whitened Vs. Whitened Light Curve

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

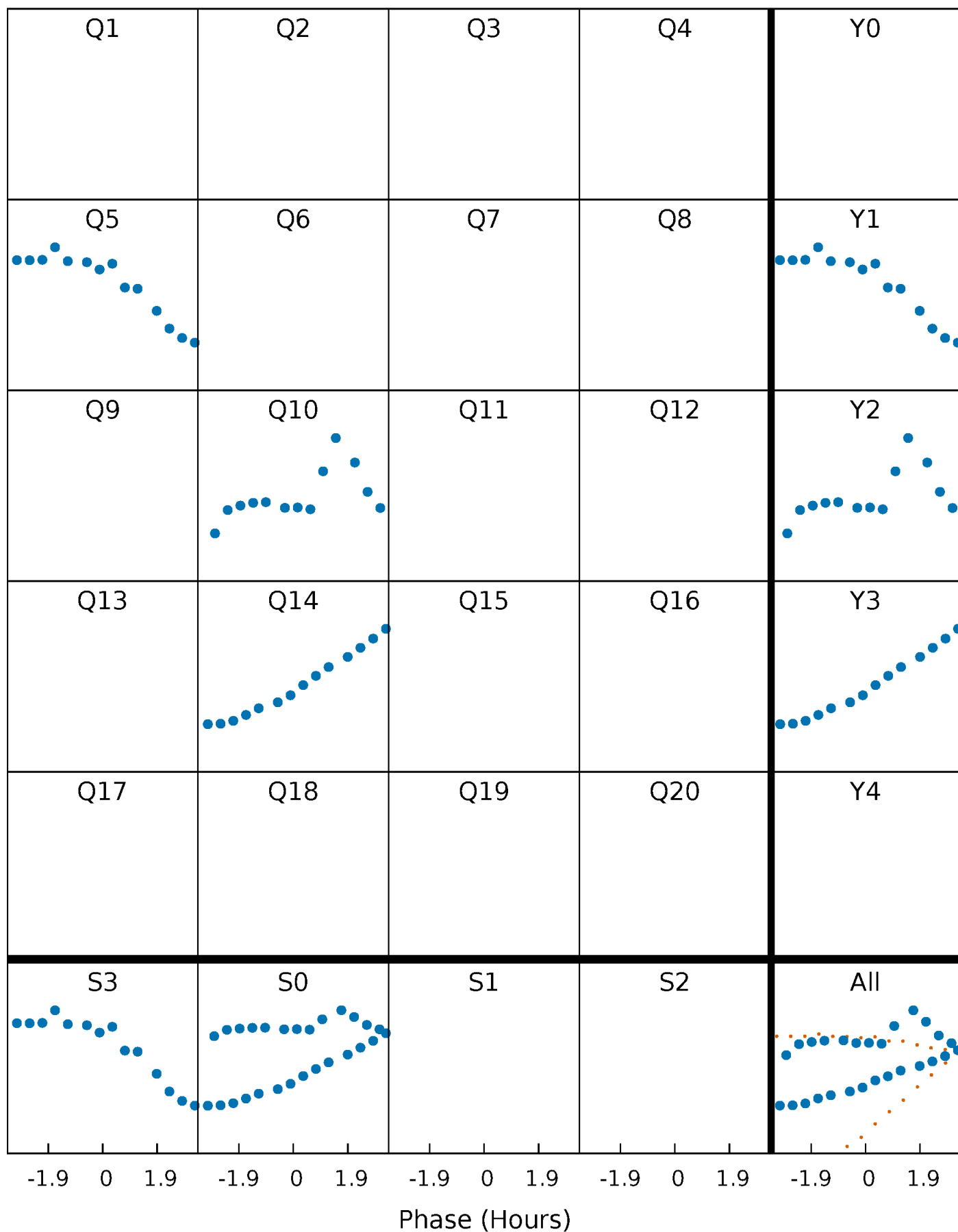


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



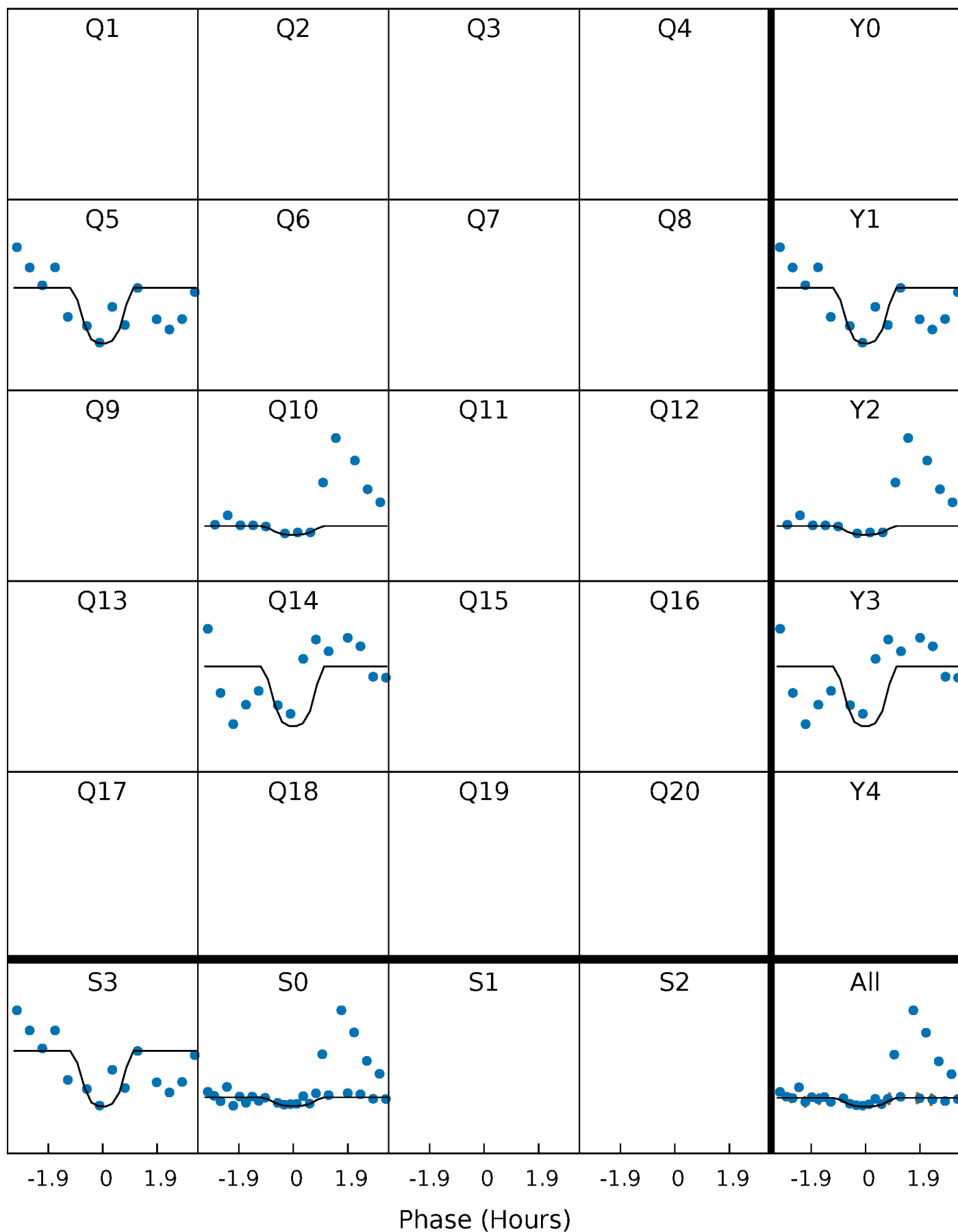
PDC Quarter-Phased Transit Curves

TCE 003219623-01 P=405.862566 Days $T_0=522.599134$ (BKJD)



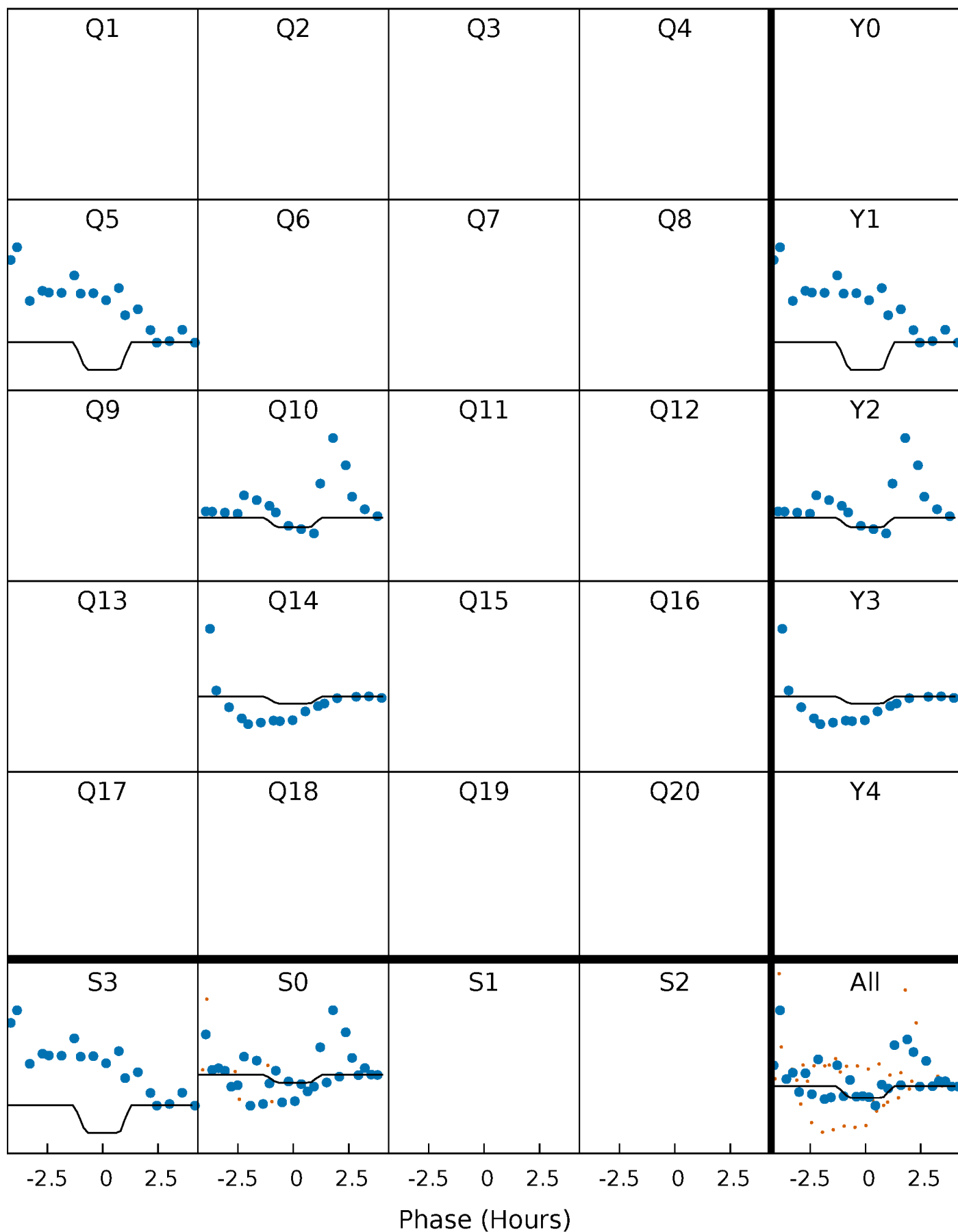
DV Quarter-Phased Transit Curves

TCE 003219623-01 P=405.862566 Days $T_0=522.599134$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

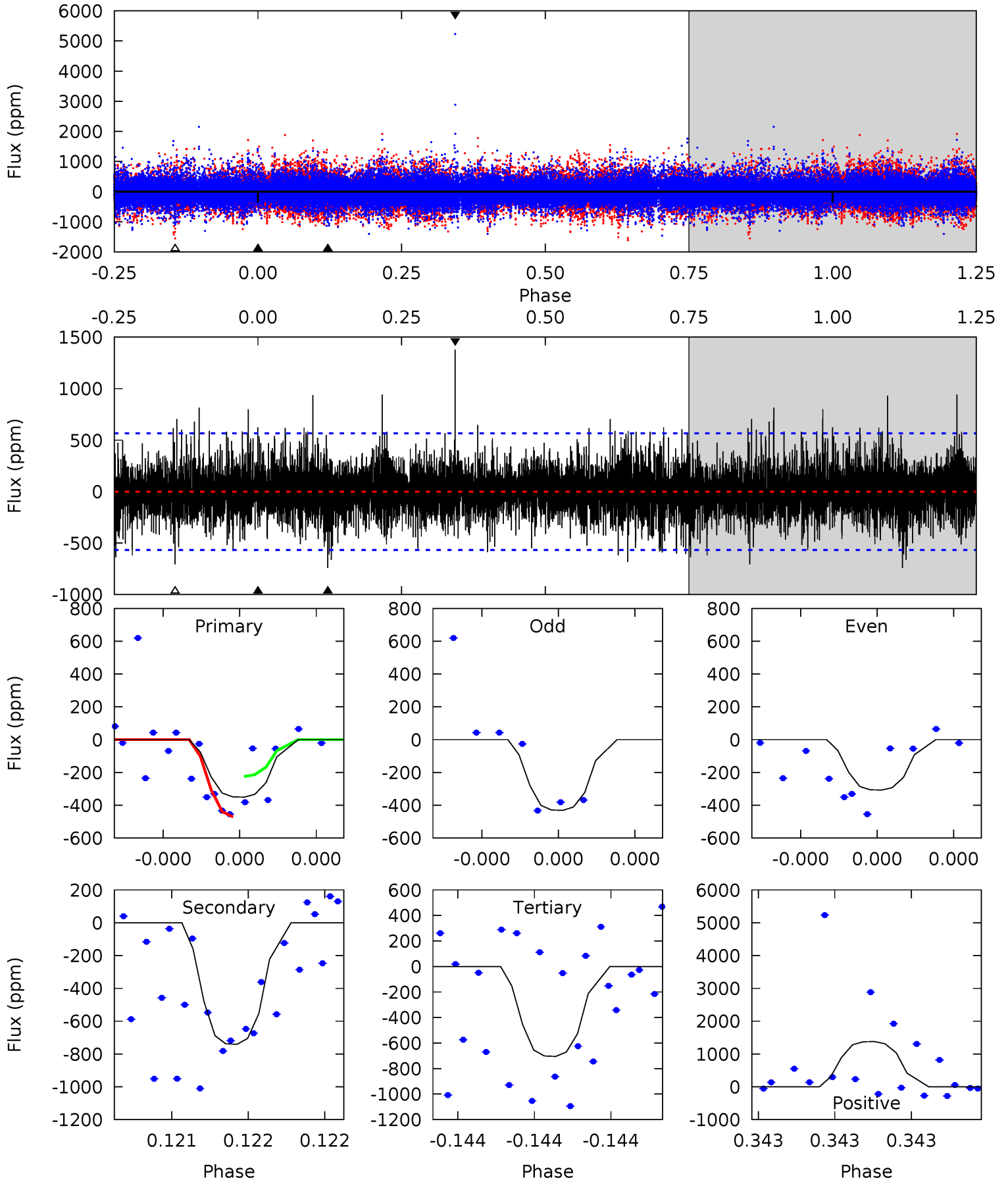
TCE 003219623-01 P=405.864991 Days $T_0=522.587329$ (BKJD)



DV Model-Shift Uniqueness Test

003219623-01, P = 405.862566 Days, E = 116.736568 Days

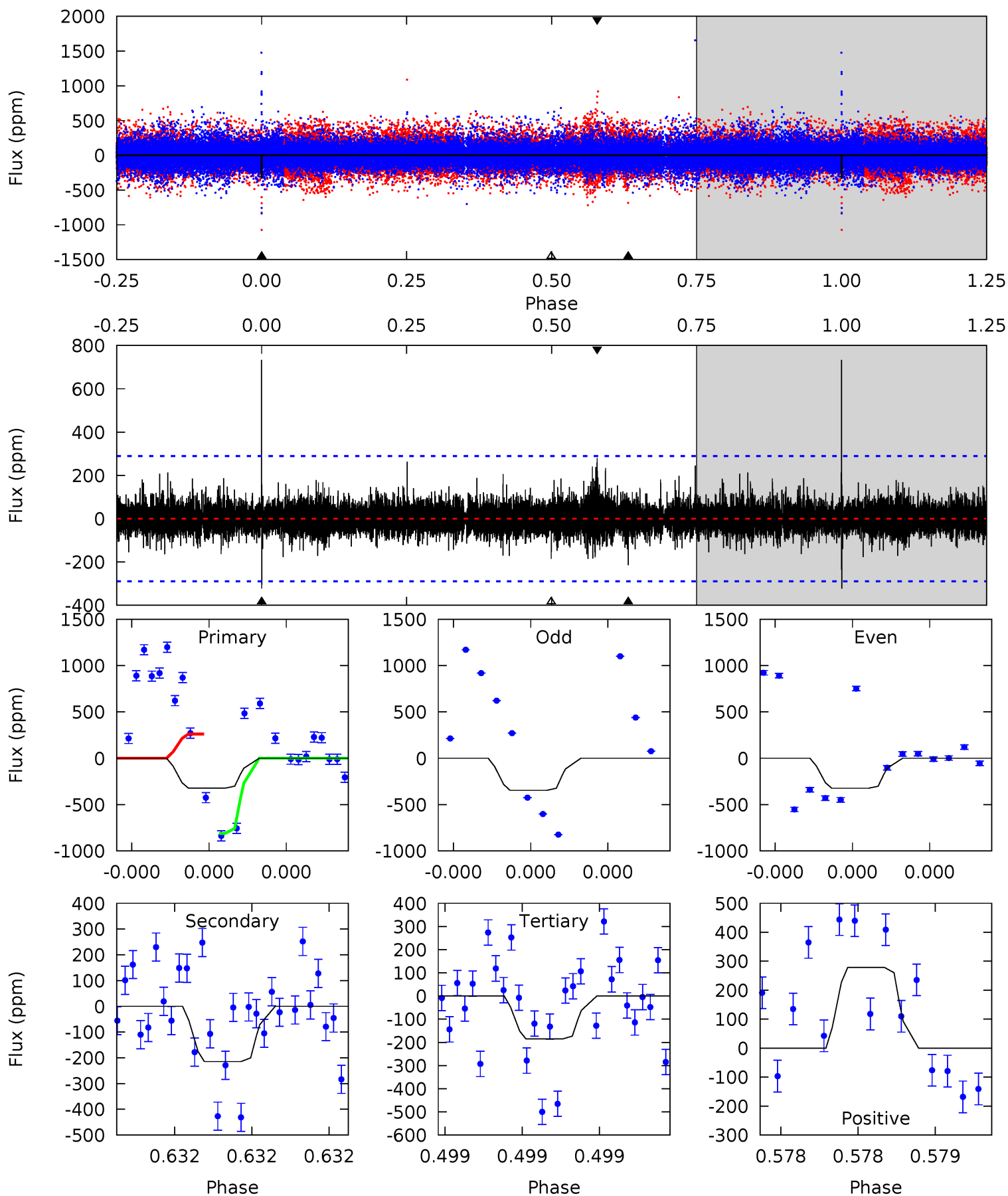
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.56	7.53	7.16	14.0	5.75	3.75	1.70	-3.59	-10.4	0.37	-6.47	0.47	0.84	0.65	1.25



Alt Model-Shift Uniqueness Test

003219623-01, P = 405.864991 Days, E = 116.722338 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.35	4.22	3.65	5.48	5.69	3.66	0.83	2.70	0.86	0.57	-1.27	0.25	1.02	0.69	5.19



Stellar Parameters For KIC 003219623

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5174^{+153}_{-138}	$3.845^{+0.763}_{-0.327}$	$-0.320^{+0.350}_{-0.250}$	$1.835^{+1.135}_{-1.135}$	$0.859^{+0.186}_{-0.124}$	$0.196^{+2.900}_{-0.138}$
	+3%/-3%	+20%/-9%	+109%/-78%	+62%/-62%	+22%/-14%	+1481%/-71%
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 003219623-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-741 ± 99	$37.27^{+47.50}_{-26.32}$	420^{+69}_{-79}	2650^{+1086}_{-424}	312^{+3179}_{-255}
Alt.	-214 ± 51	$36.43^{+48.41}_{-26.44}$	419^{+66}_{-69}	2302^{+887}_{-334}	91^{+1206}_{-73}

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

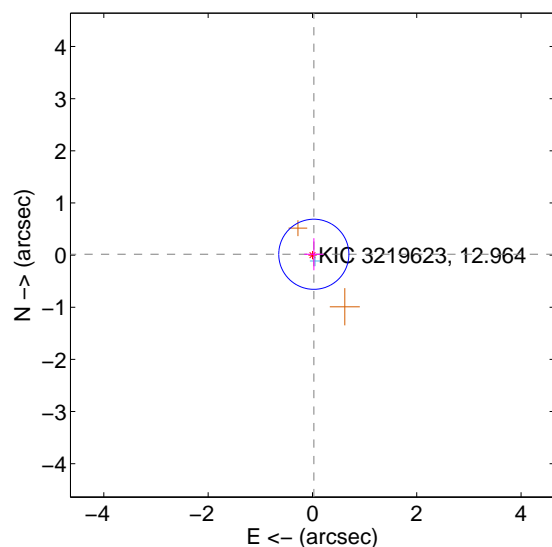
Supplemental centroid analysis for 003219623-01. Kepler magnitude: 12.96. Transit SNR 3.88

There are 1 quarters with good PRF difference image offsets

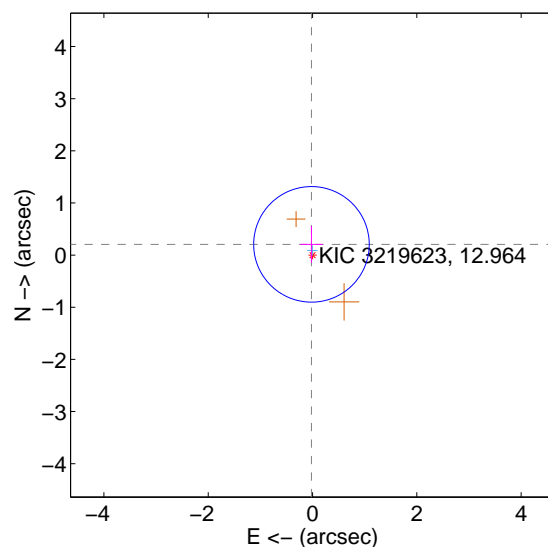
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.031 ± 0.224	0.14	-0.026 ± 0.185	0.016 ± 0.307
PRF-fit source offset from KIC position	0.207 ± 0.369	0.56	0.020 ± 0.214	0.206 ± 0.351
photometric centroid source offset	0.42 ± 1.15	0.36	0.41 ± 1.15	0.05 ± 1.23

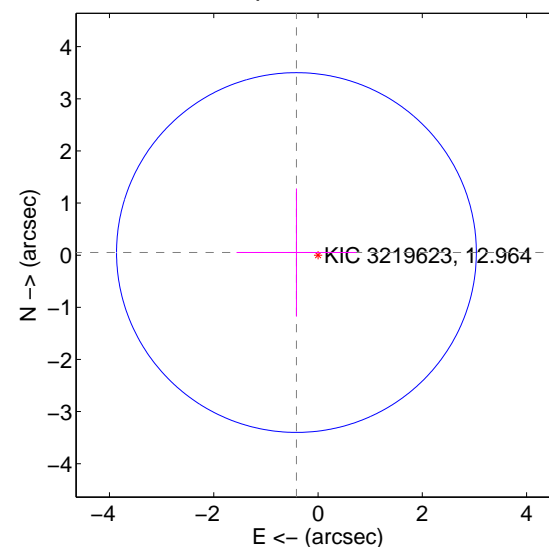
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

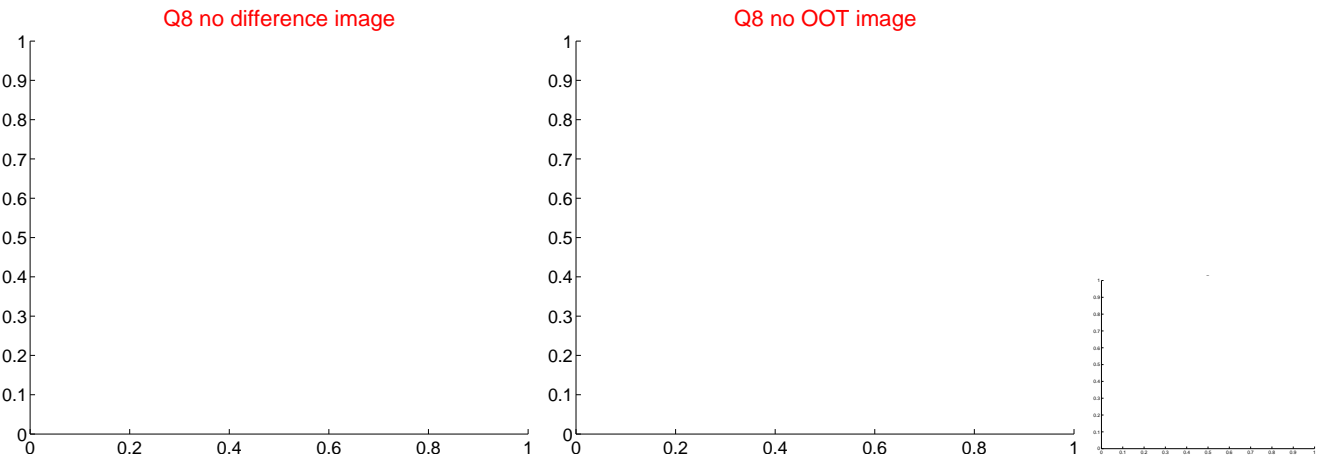
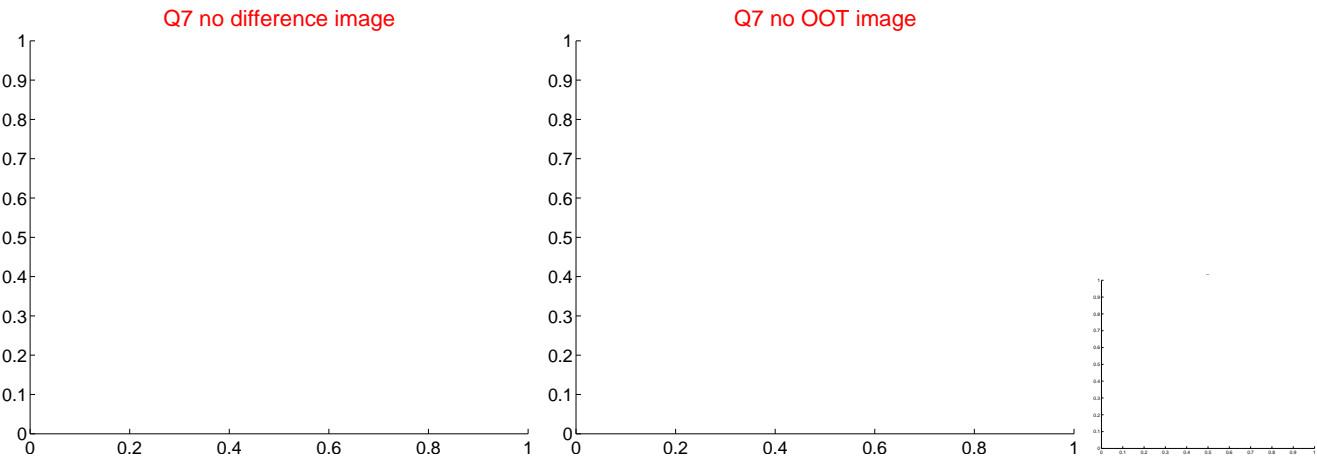
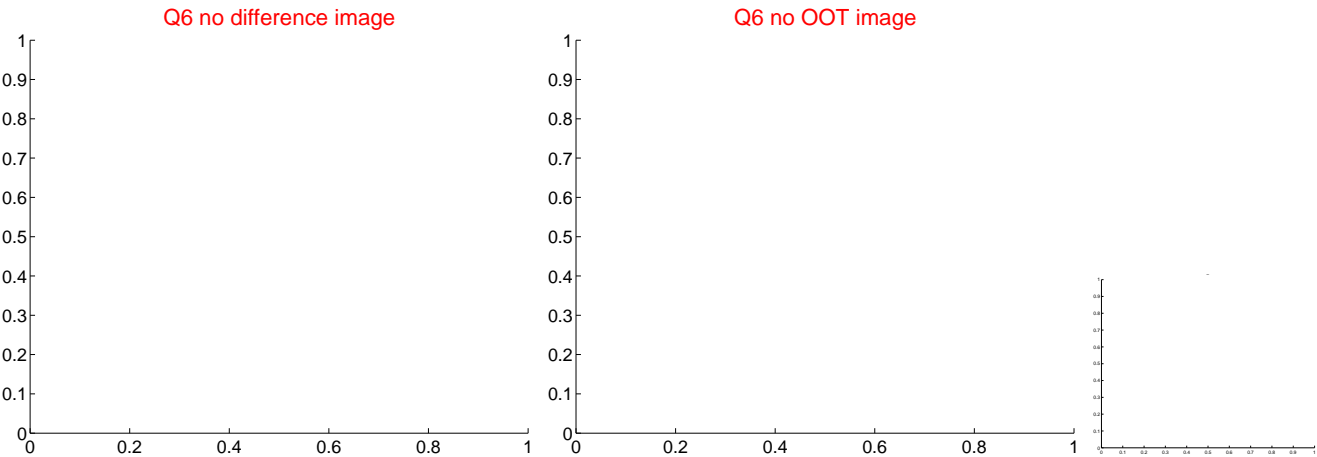
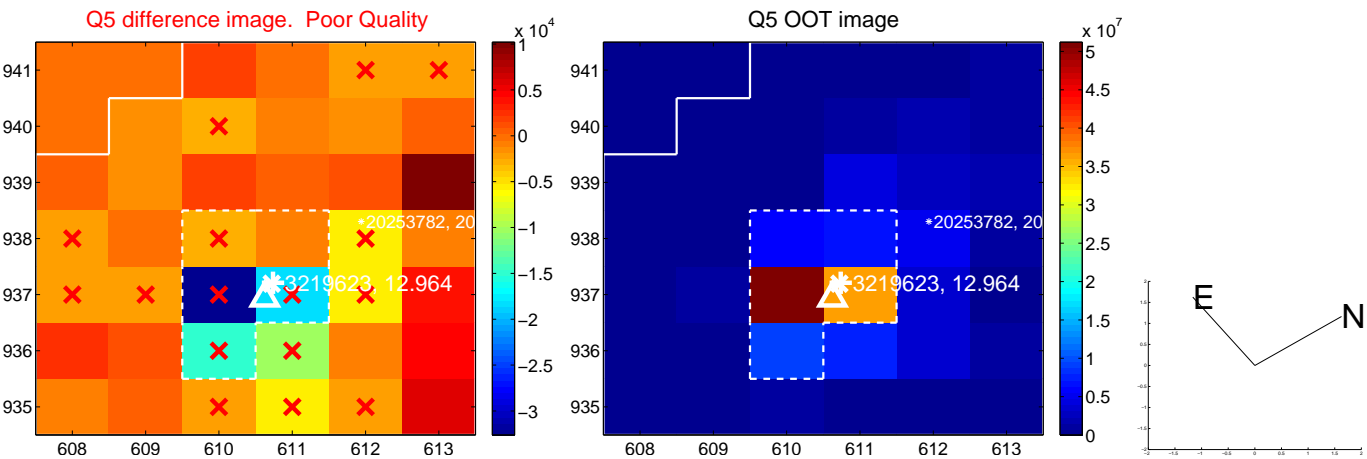


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

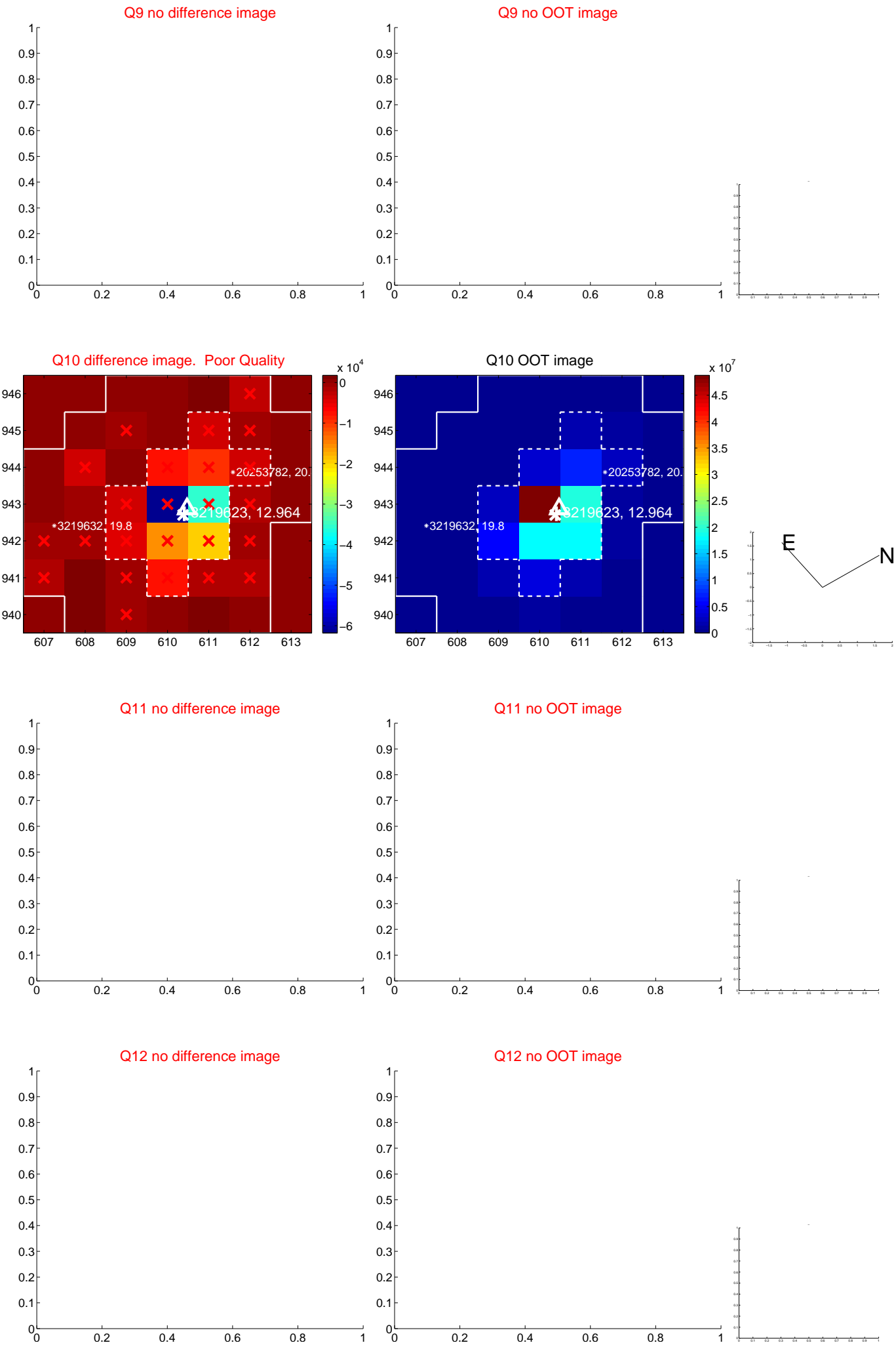
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



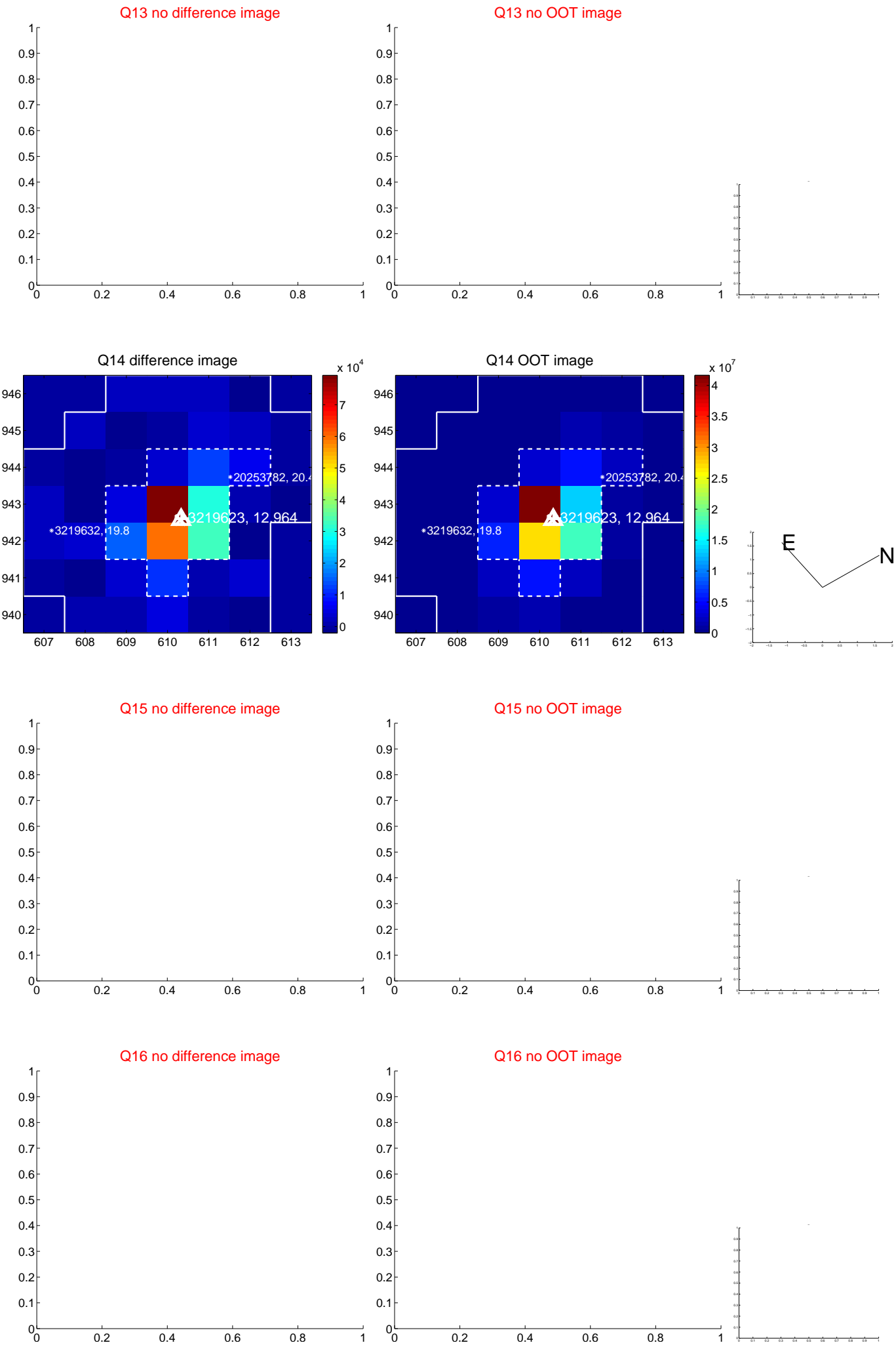
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



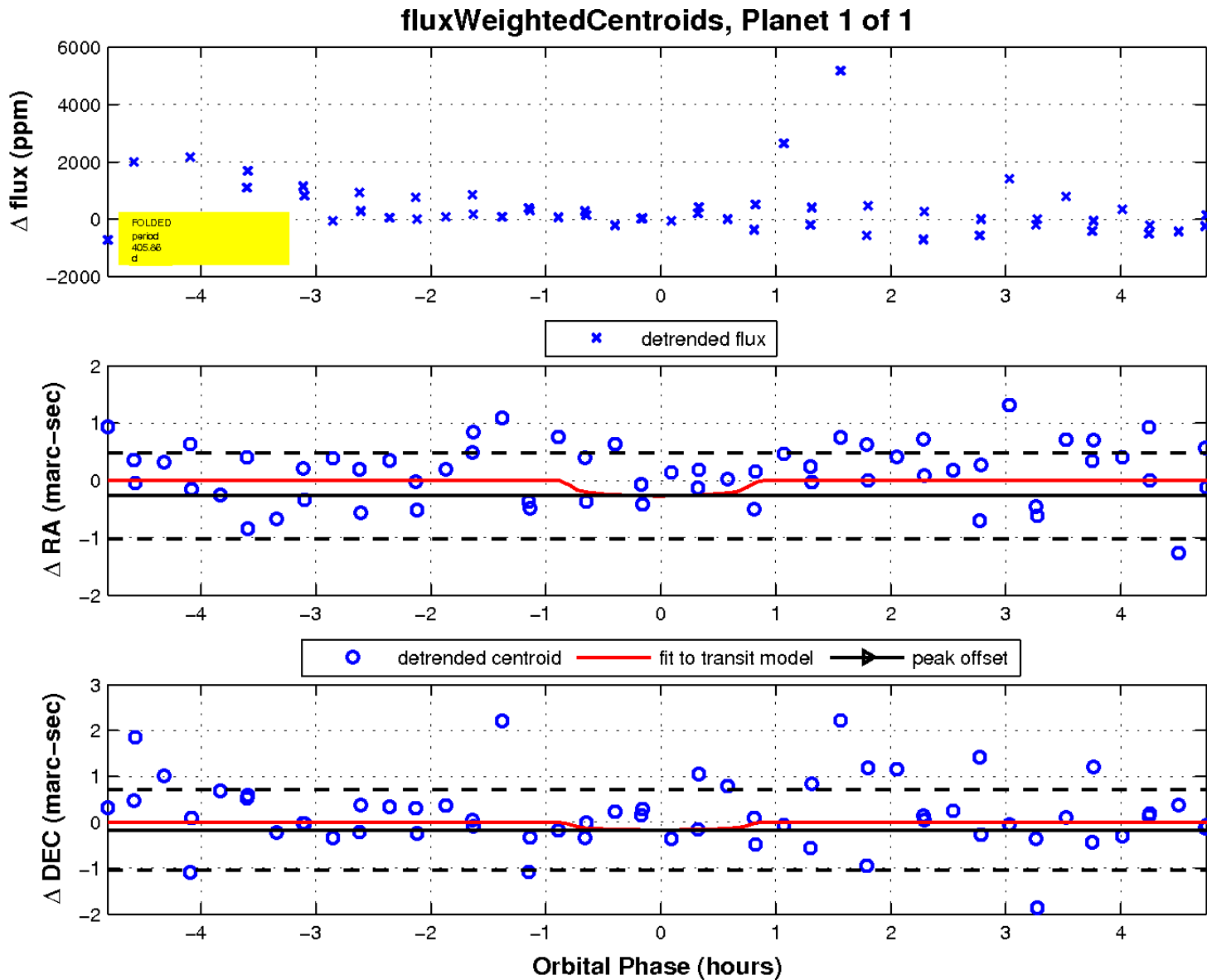
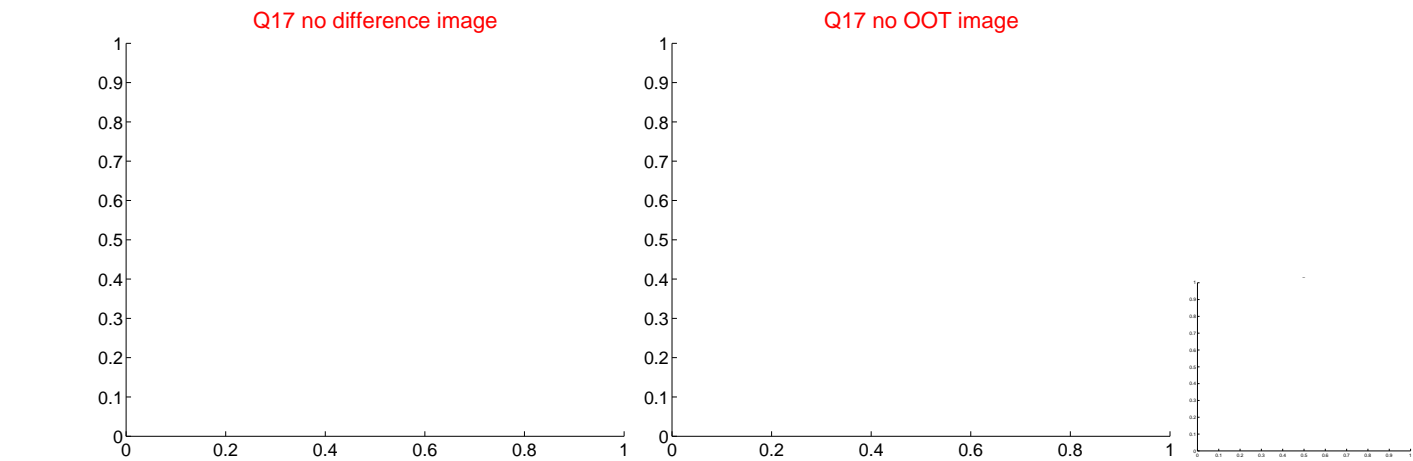
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

