

KIC 008362243

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})
008362243-01	OBS	No	373.983460	260.052179	1502.8	62.638	11.5	16.3	0.97	6046	7.14	1.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008362243-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

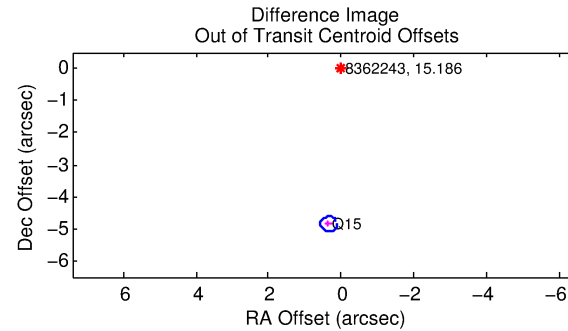
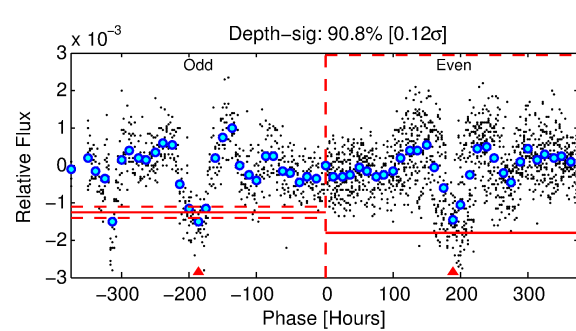
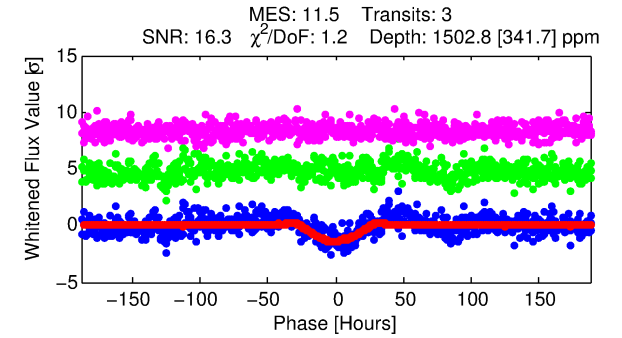
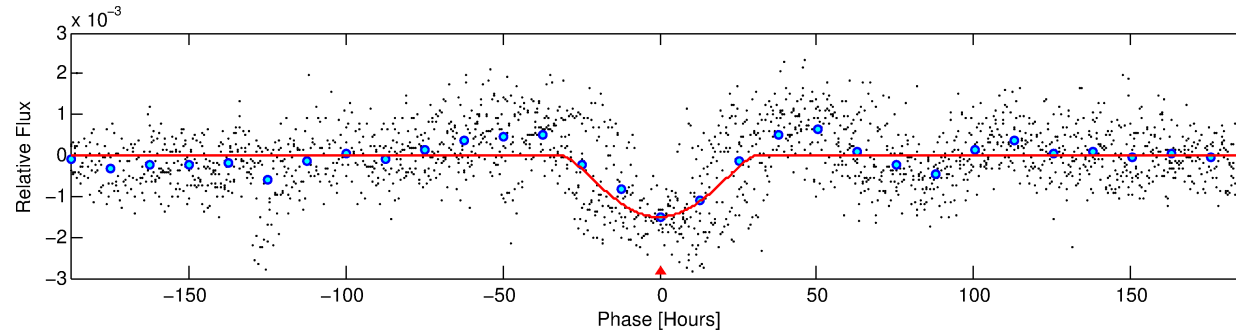
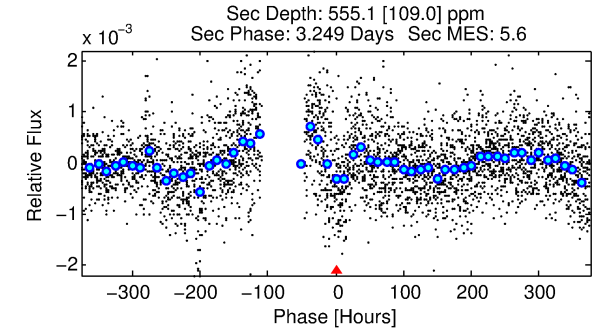
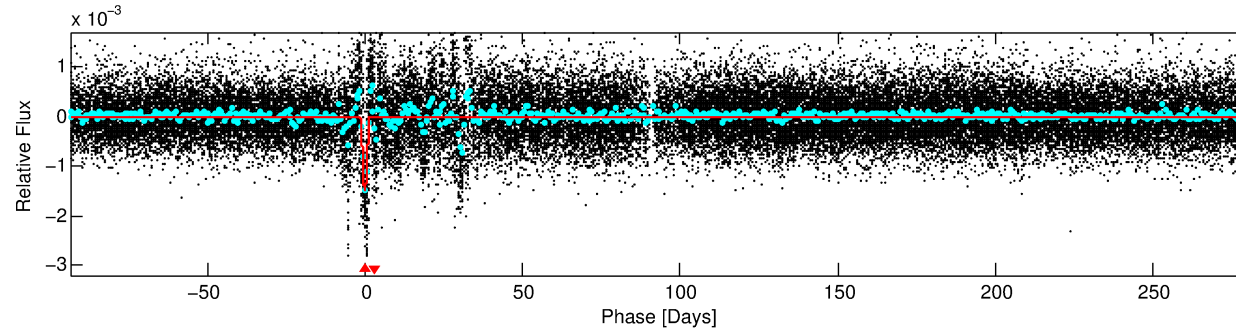
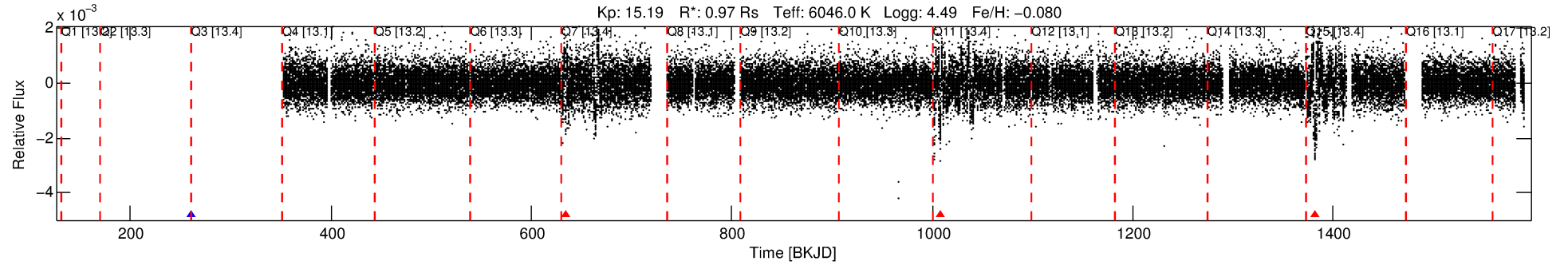
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008362243-01

No Significant Match Found

DV One-Page Summary

KIC: 8362243 Candidate: 1 of 1 Period: 373.983 d



DV Fit Results:

Period = 373.98346 [0.05720] d
Epoch = 260.0522 [0.1275] BKJD
Rp/R* = 0.0673 [0.1260]
a/R* = 17.06 [7.10]
b = 1.00 [0.19]
Seff = 1.06 [0.45]
Teq = 259 [27] K
Rp = 7.14 [13.57] Re
a = 1.0345 [0.2817] AU
Ag = 6416.59 [24205.48] [0.27σ]
Teff = 3578 [3358] K [0.99σ]

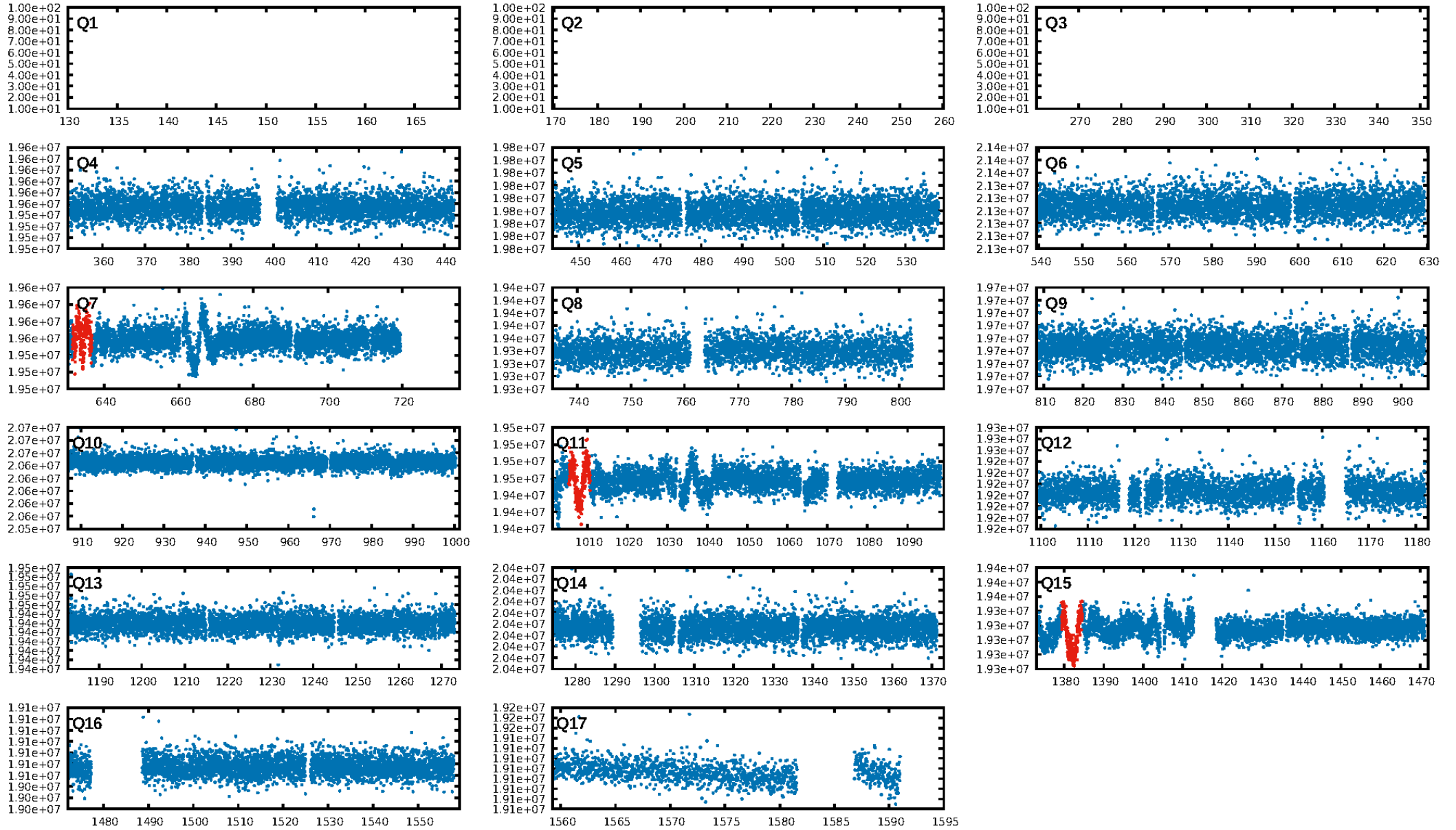
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 92.2%
Bootstrap-pfa: 2.08e-17
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 0.3573
Centroid-sig: 0.0%
Centroid-so: 2.155 arcsec [3.43σ]
OotOffset-rm: 4.860 arcsec [62.92σ]
KicOffset-rm: 3.211 arcsec [41.80σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

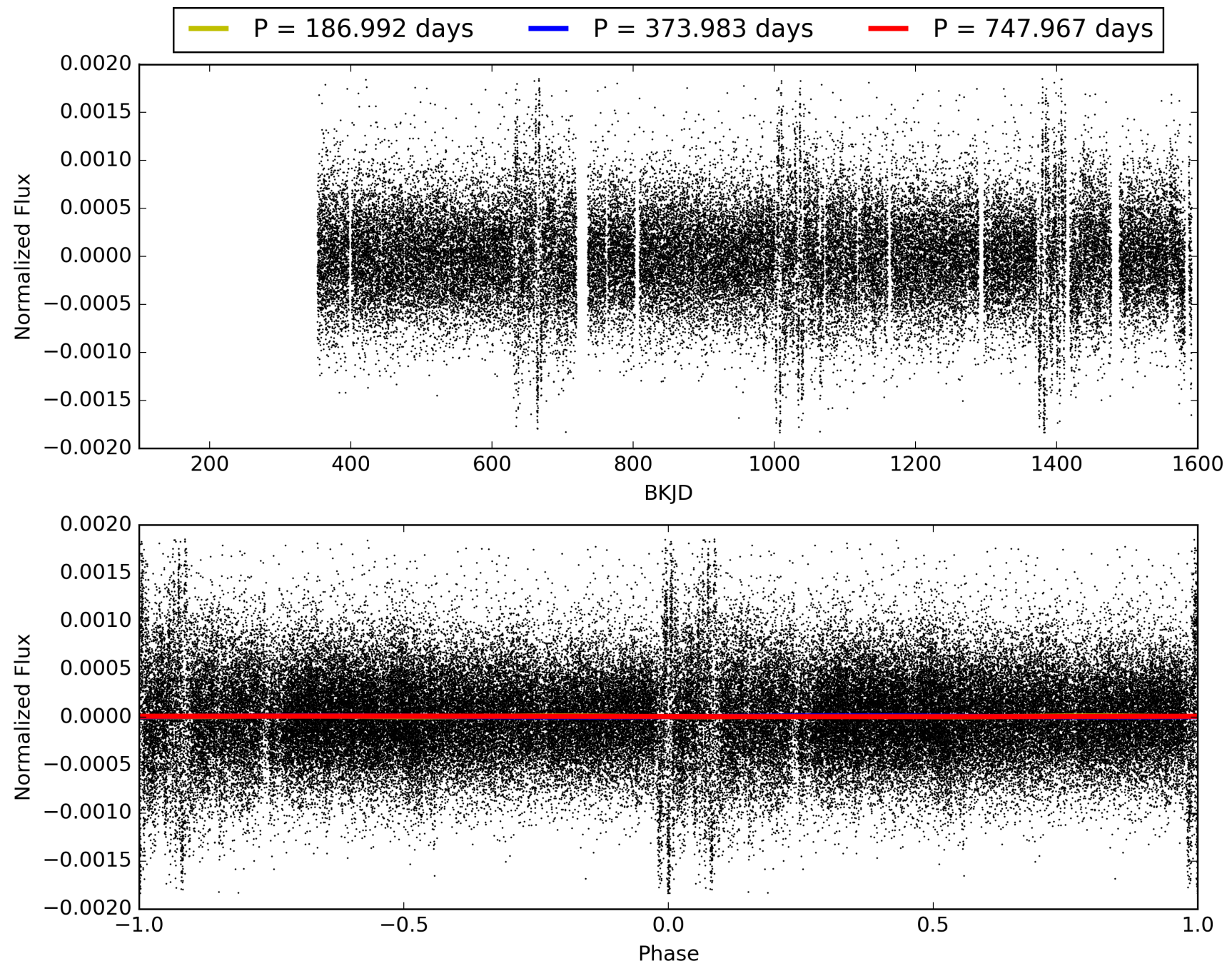
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:45:36 Z

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

TCE 008362243-01, PDC Light Curves

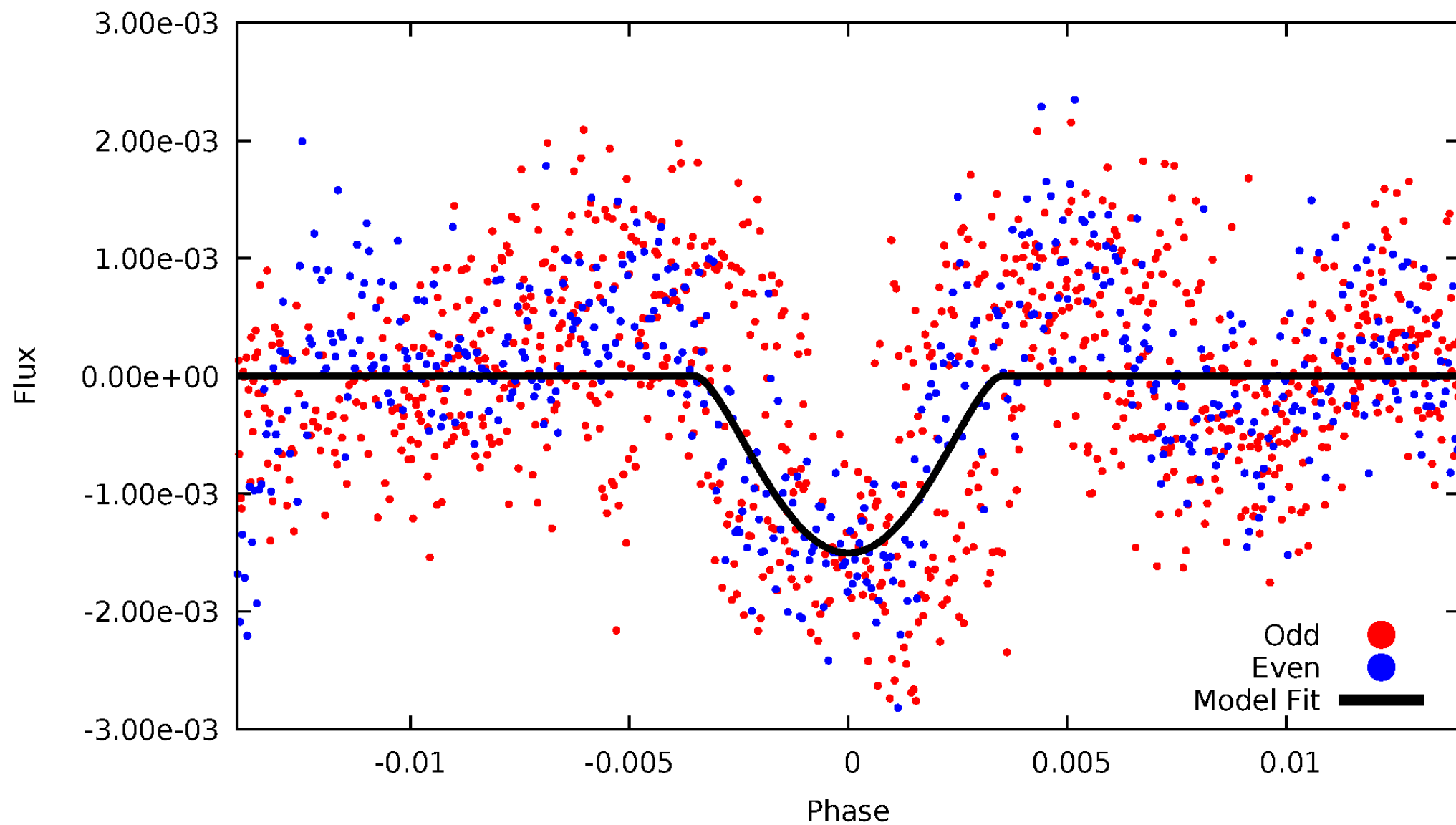


TCE 008362243-01



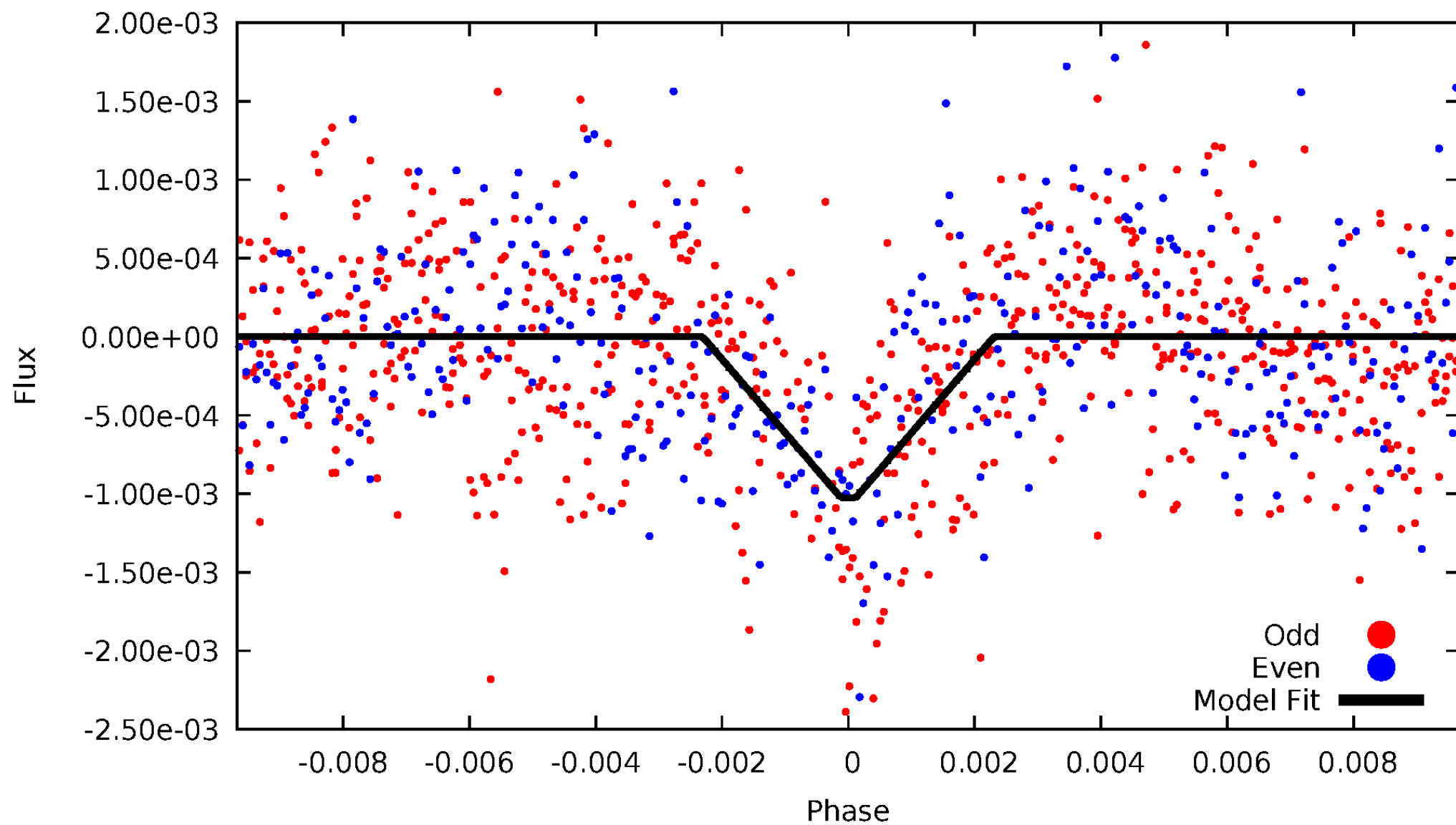
DV Odd/Even

TCE 008362243-01



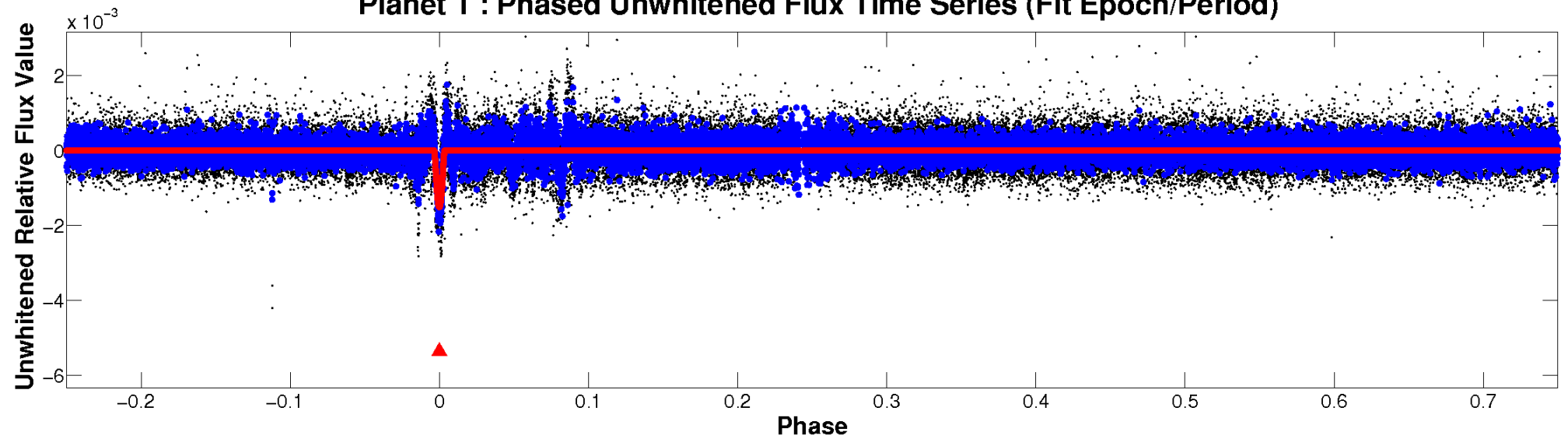
ALT Odd/Even

TCE 008362243-01

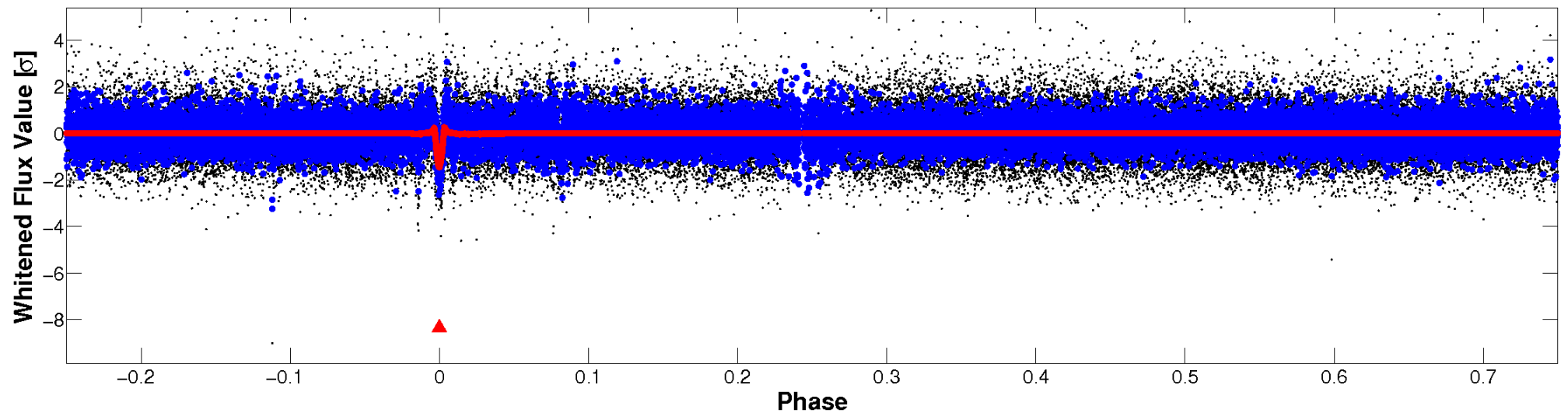


Non-Whitened Vs. Whitened Light Curve

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

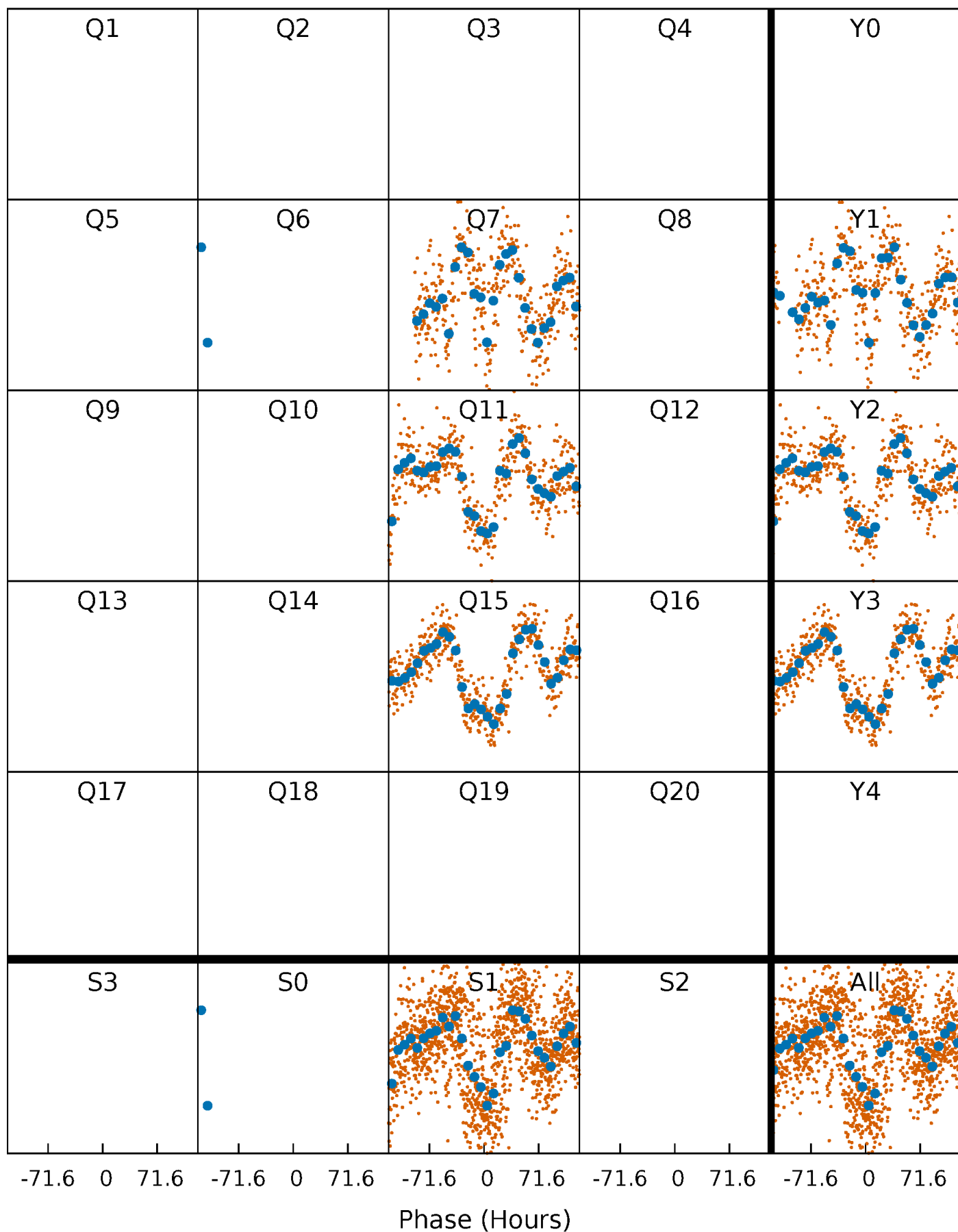


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



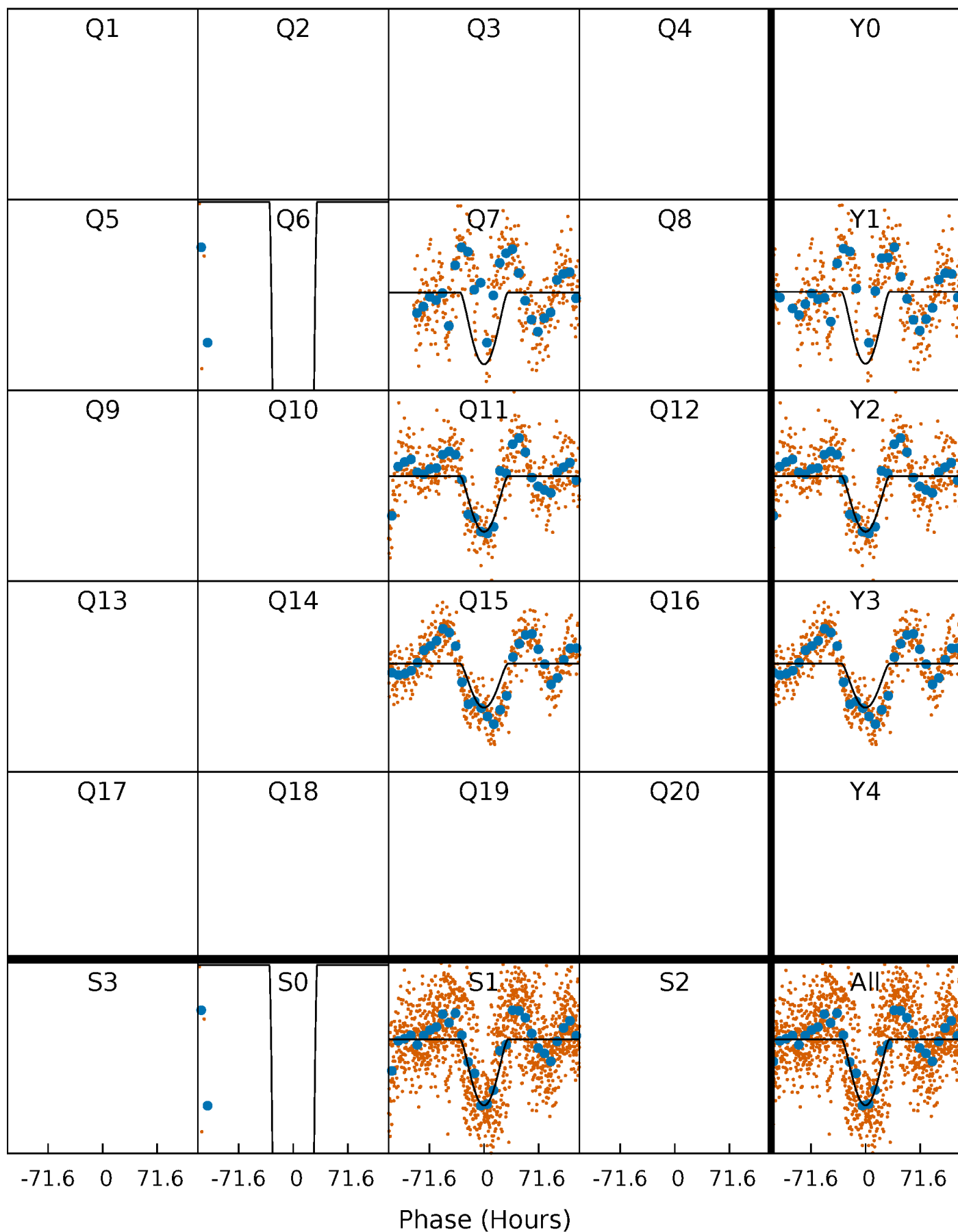
PDC Quarter-Phased Transit Curves

TCE 008362243-01 P=373.983460 Days $T_0=260.052179$ (BKJD)



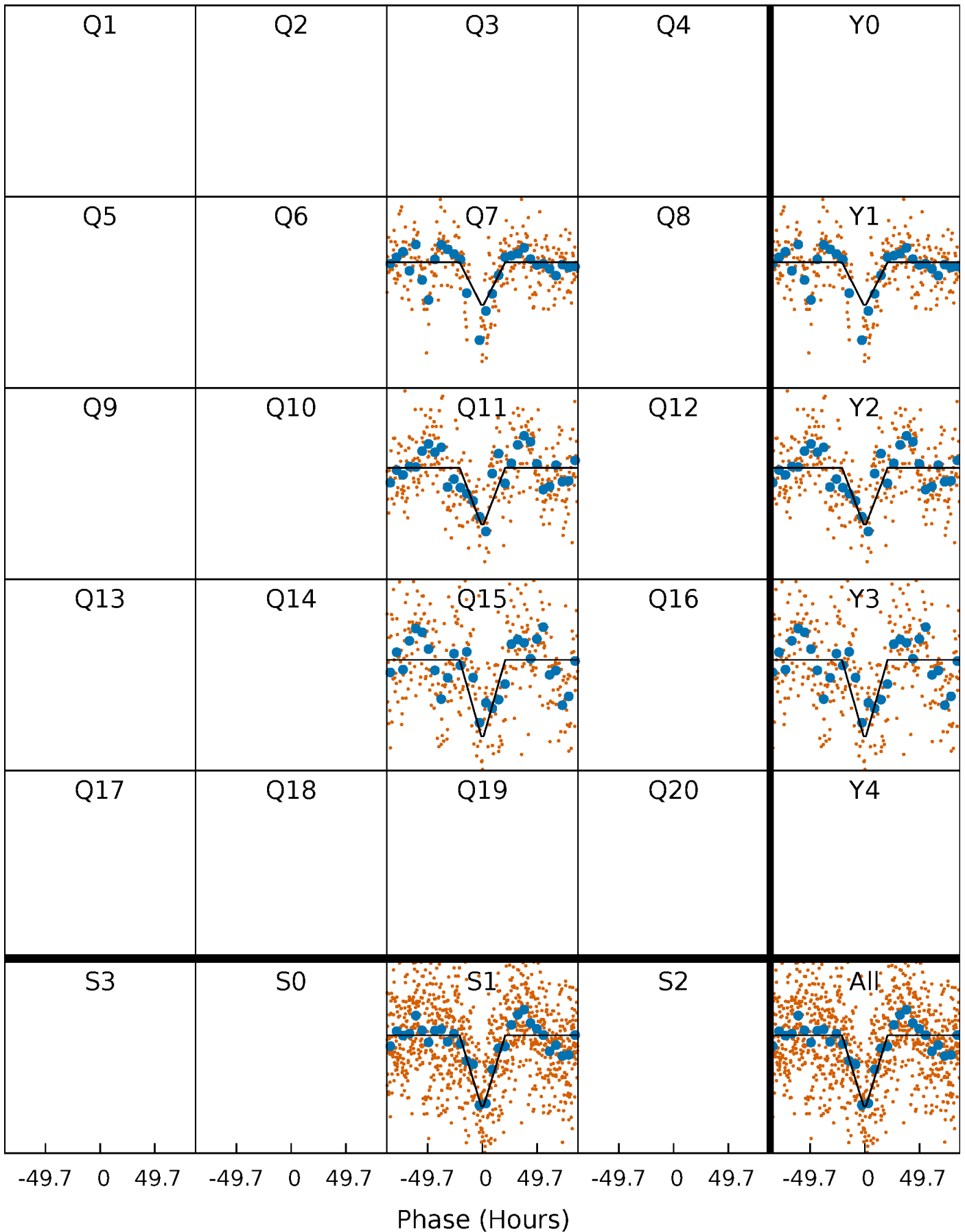
DV Quarter-Phased Transit Curves

TCE 008362243-01 $P=373.983460$ Days $T_0=260.052179$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

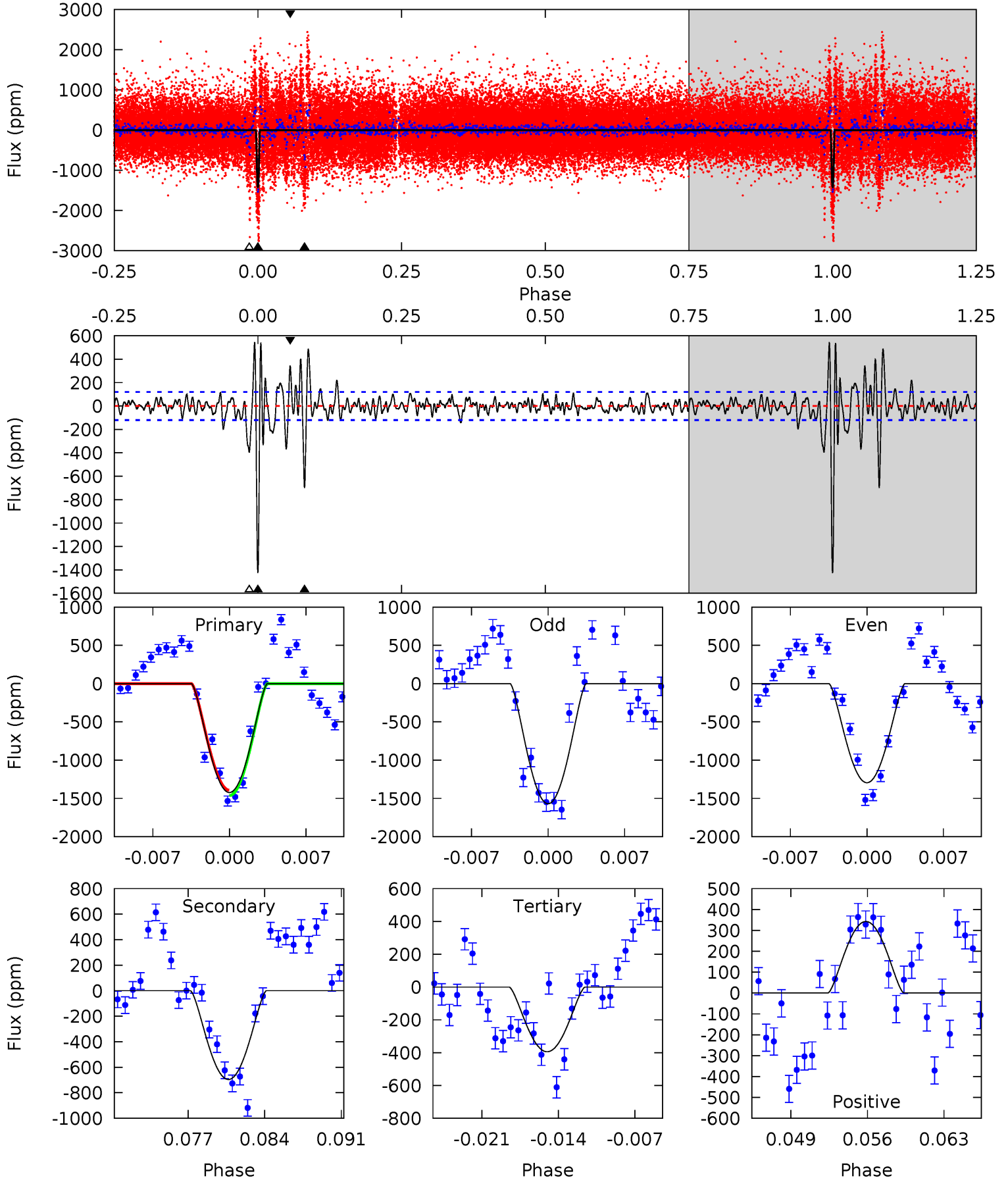
TCE 008362243-01 P=374.199784 Days $T_0=259.974278$ (BKJD)



DV Model-Shift Uniqueness Test

008362243-01, P = 373.983460 Days, E = 260.052179 Days

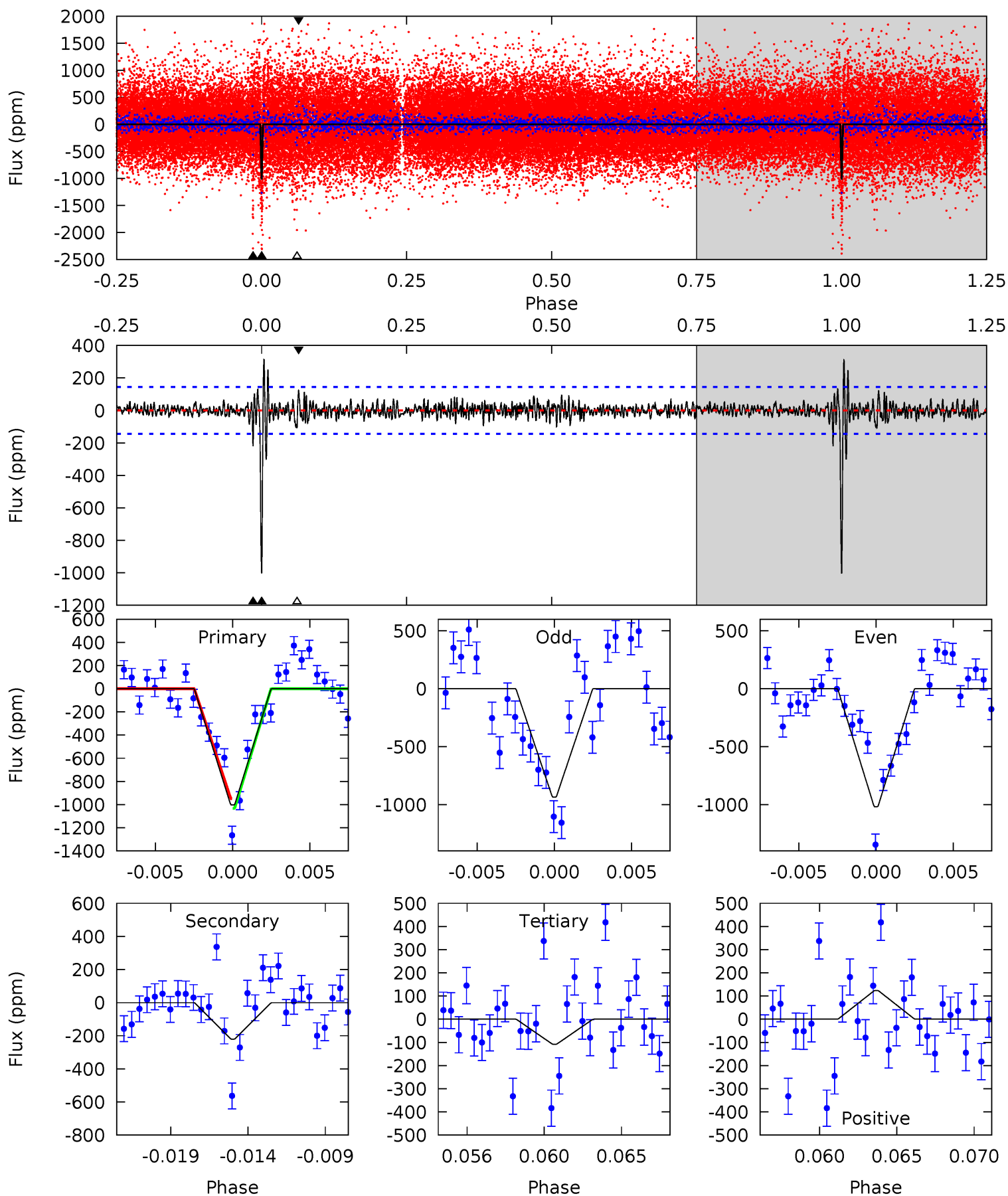
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.2	29.4	16.7	14.5	5.09	2.70	3.10	43.5	45.7	12.8	14.9	5.57	0.78	0.28	1.47



Alt Model-Shift Uniqueness Test

008362243-01, P = 374.199784 Days, E = 259.974278 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.9	7.87	3.88	4.42	5.17	2.83	1.22	32.0	31.5	4.00	3.46	1.41	1.13	0.24	1.51



Stellar Parameters For KIC 008362243

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6046^{+210}_{-232}	$4.486^{+0.054}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$0.972^{+0.315}_{-0.105}$	$1.053^{+0.135}_{-0.150}$	$1.615^{+0.370}_{-0.915}$
	+3%/-4%	+1%/-5%	+312%/-375%	+32%/-11%	+13%/-14%	+23%/-57%
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 008362243-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-696 ± 24	$13.17^{+11.70}_{-8.77}$	368^{+28}_{-18}	3392^{+1637}_{-575}	2322^{+18207}_{-1698}
Alt.	-220 ± 28	$10.68^{+11.63}_{-7.54}$	371^{+29}_{-22}	3041^{+1507}_{-542}	1088^{+11655}_{-833}

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 $A_{obs} \gg 1.0$

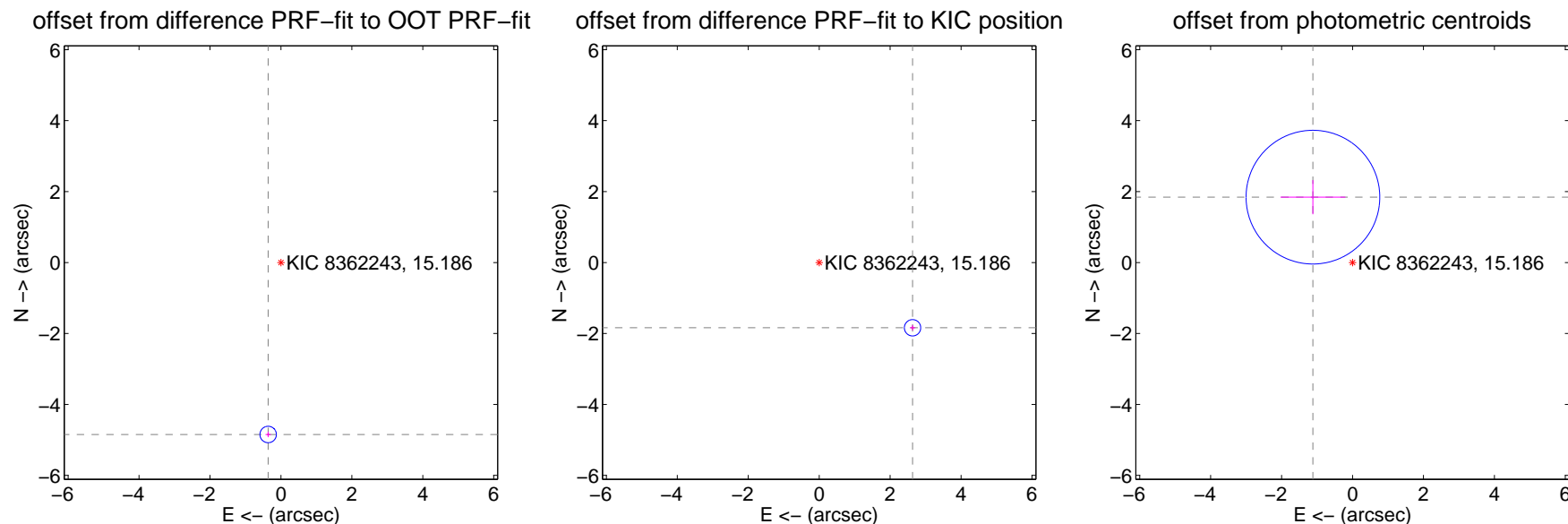
DV Centroid Data

Supplemental centroid analysis for 008362243-01. Kepler magnitude: 15.19. Transit SNR 16.30

There are 0 quarters with good PRF difference image offsets

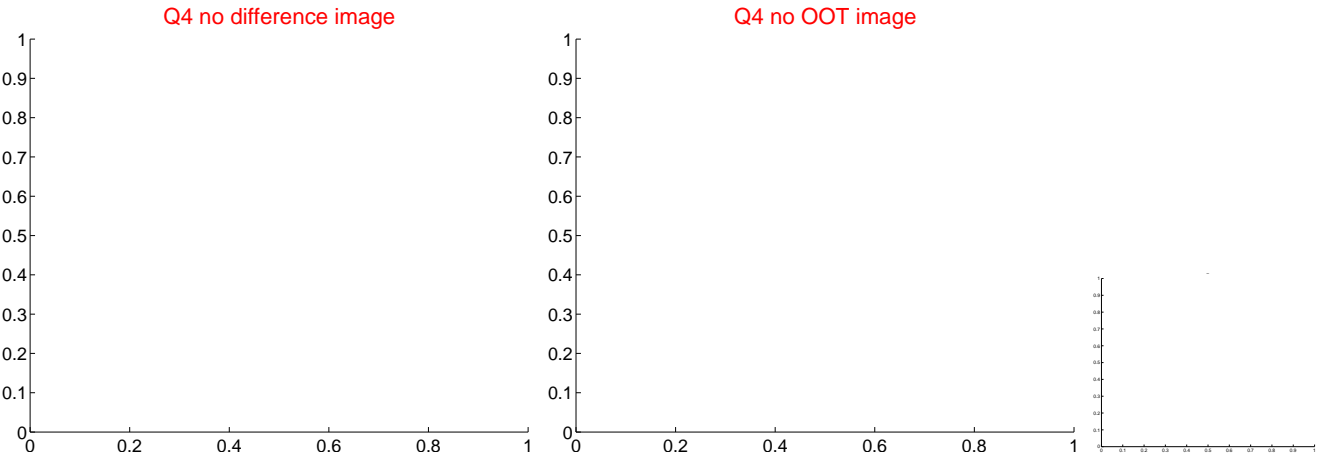
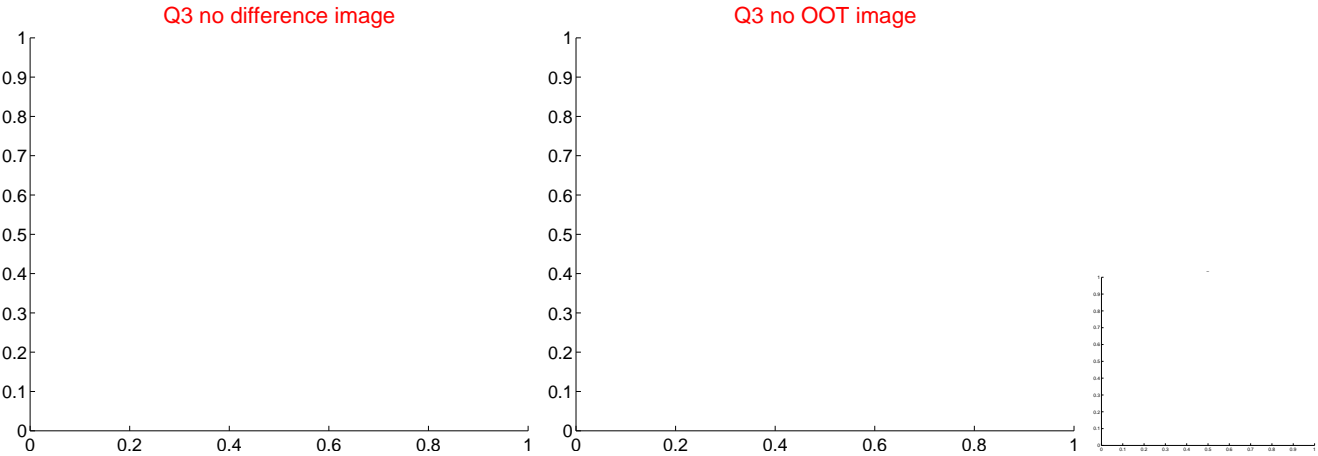
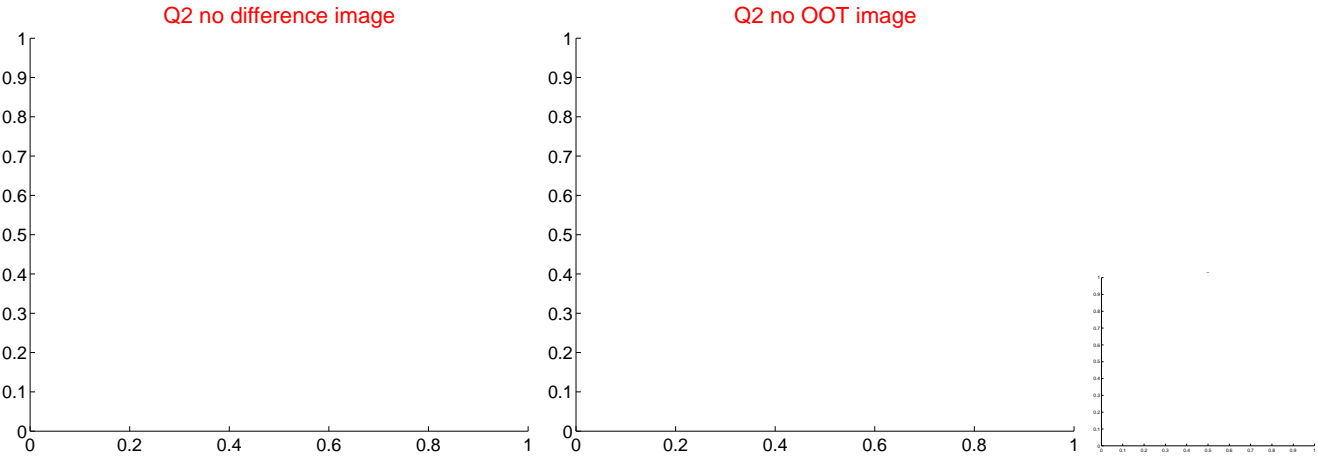
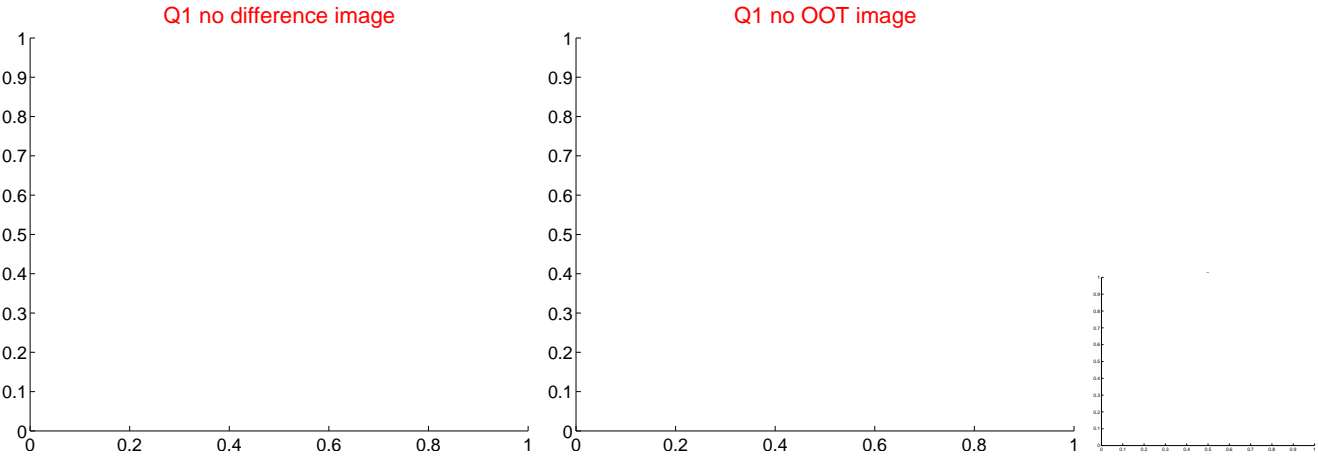
The OOT PRF centroid is offset from the target star catalog position by about 4.24 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.860 ± 0.077	62.92	0.360 ± 0.077	-4.847 ± 0.077
PRF-fit source offset from KIC position	3.211 ± 0.077	41.80	-2.632 ± 0.077	-1.839 ± 0.077
photometric centroid source offset	2.15 ± 0.63	3.43	1.12 ± 0.92	1.84 ± 0.48

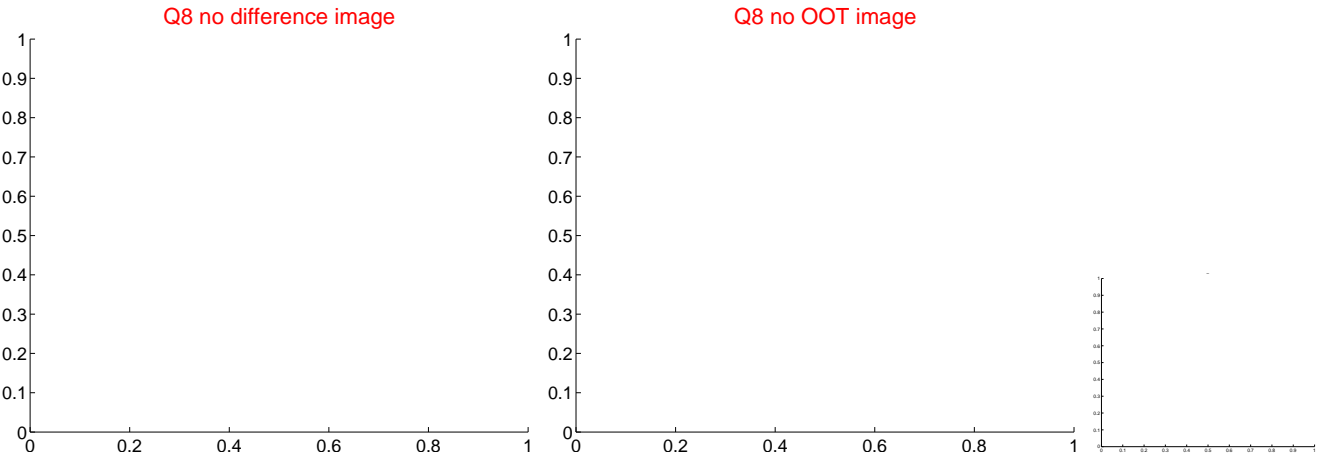
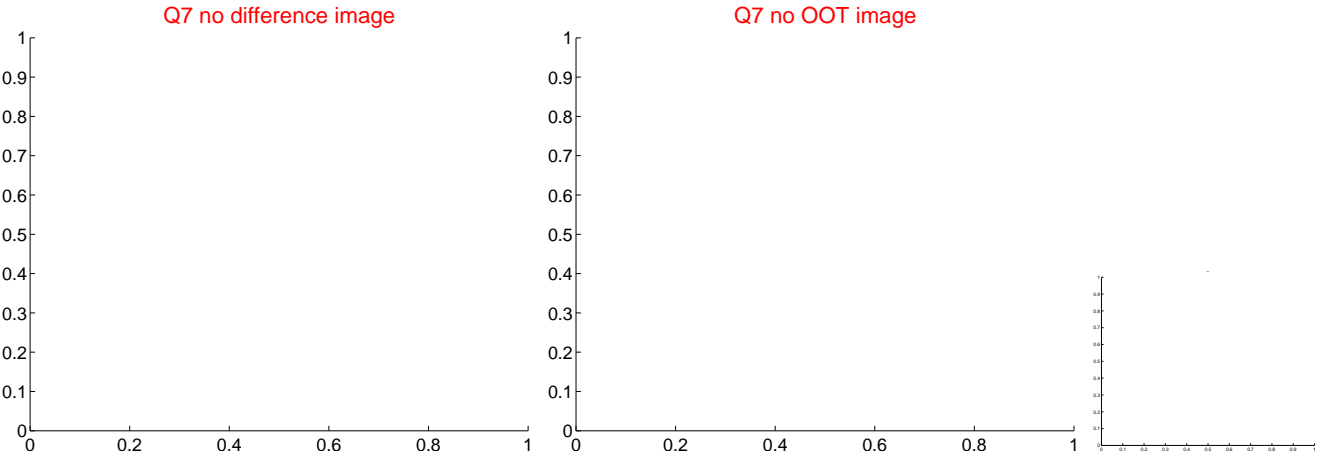
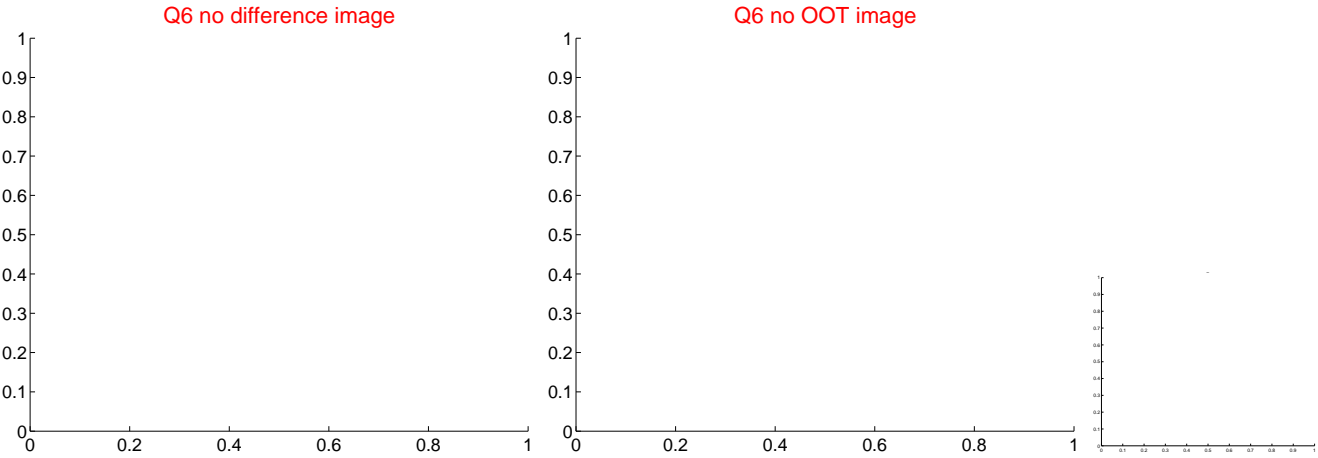
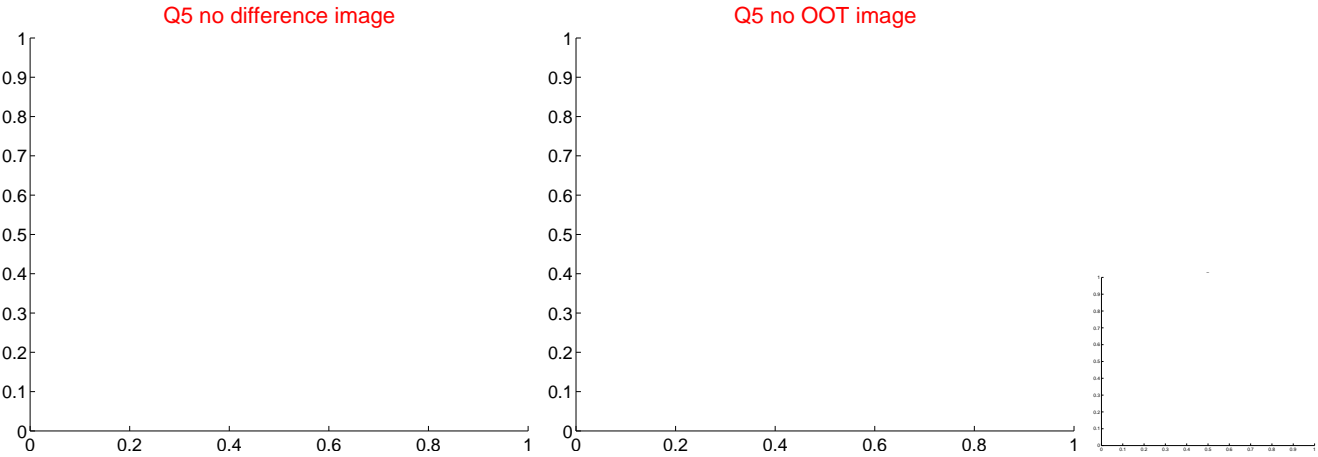


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

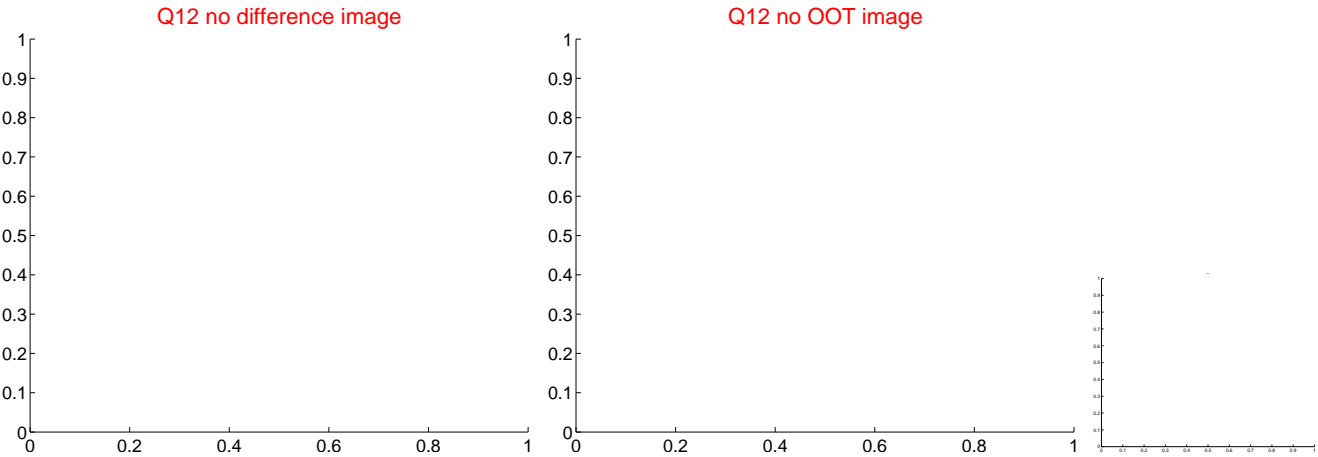
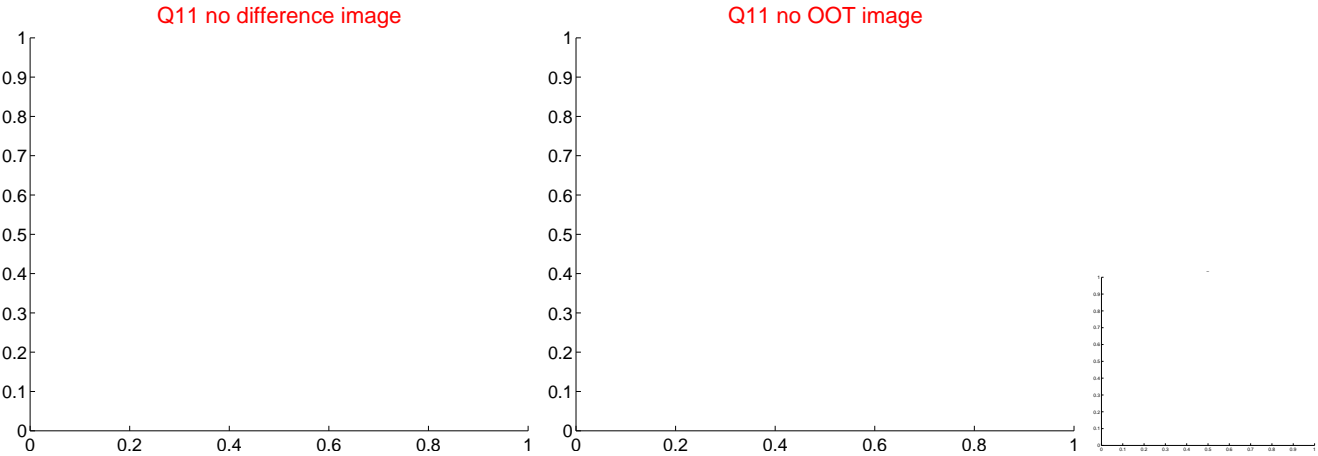
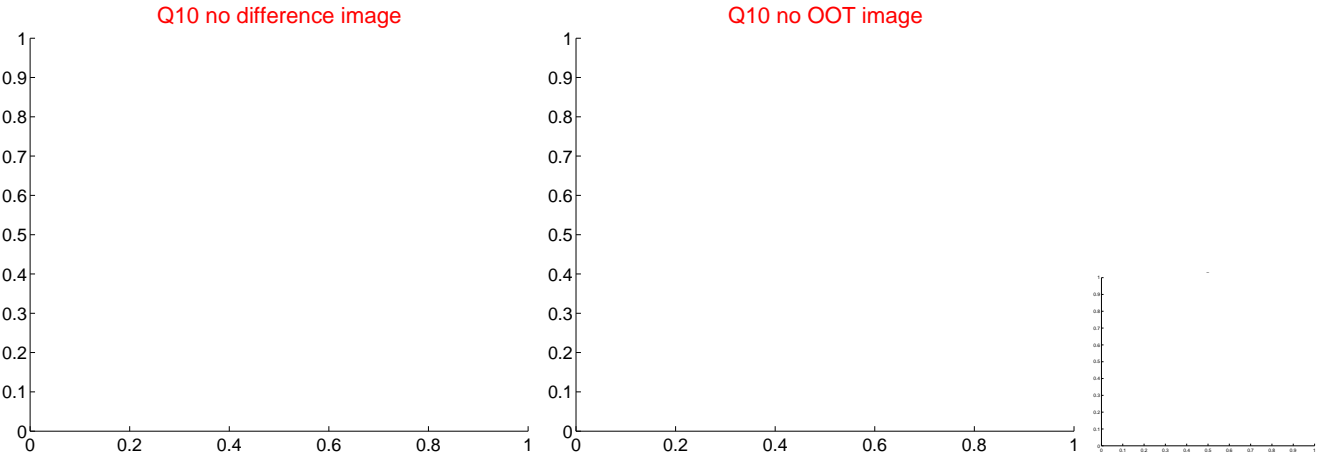
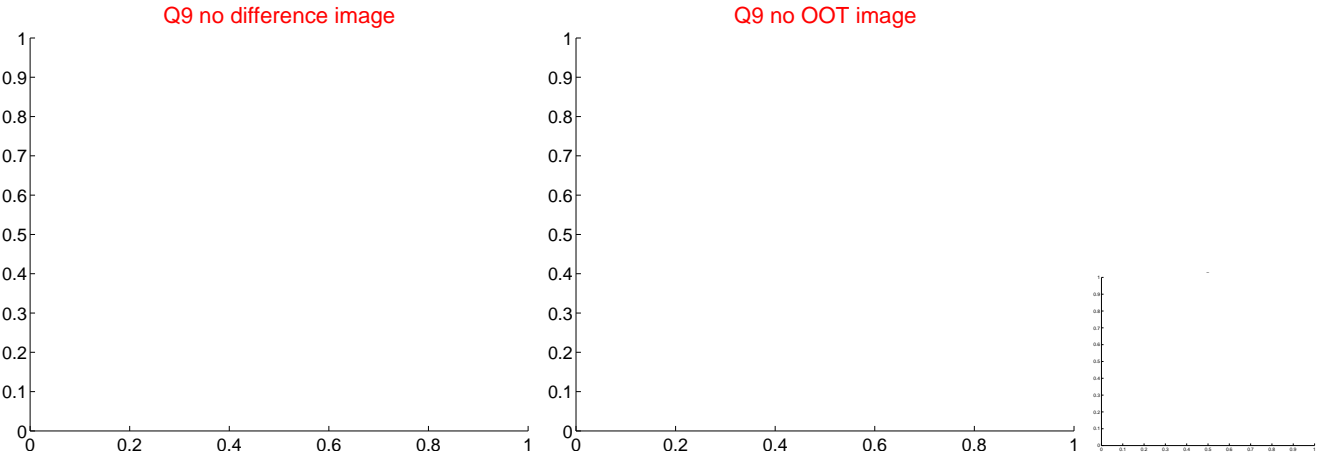
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



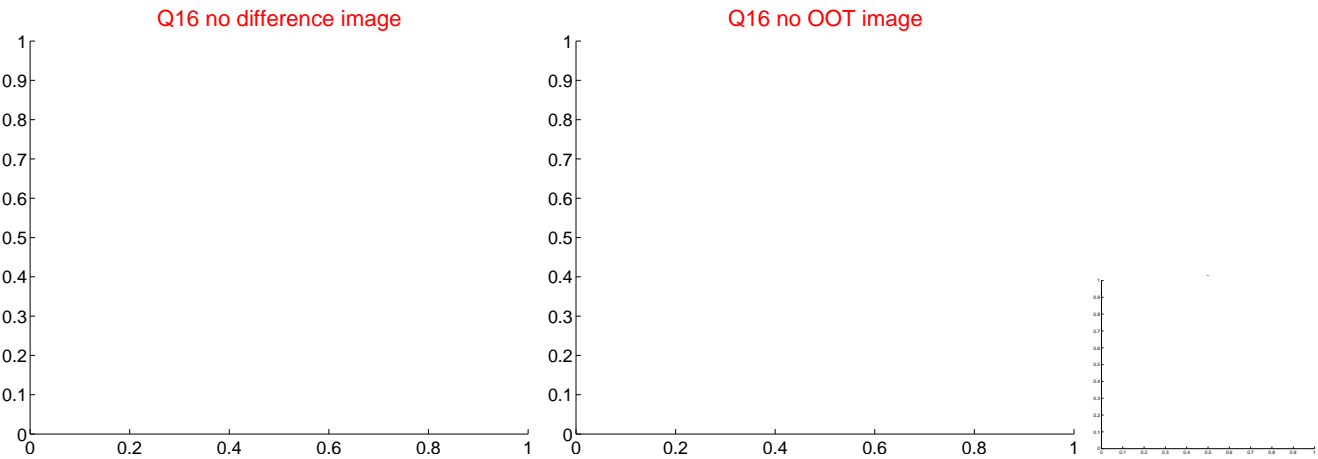
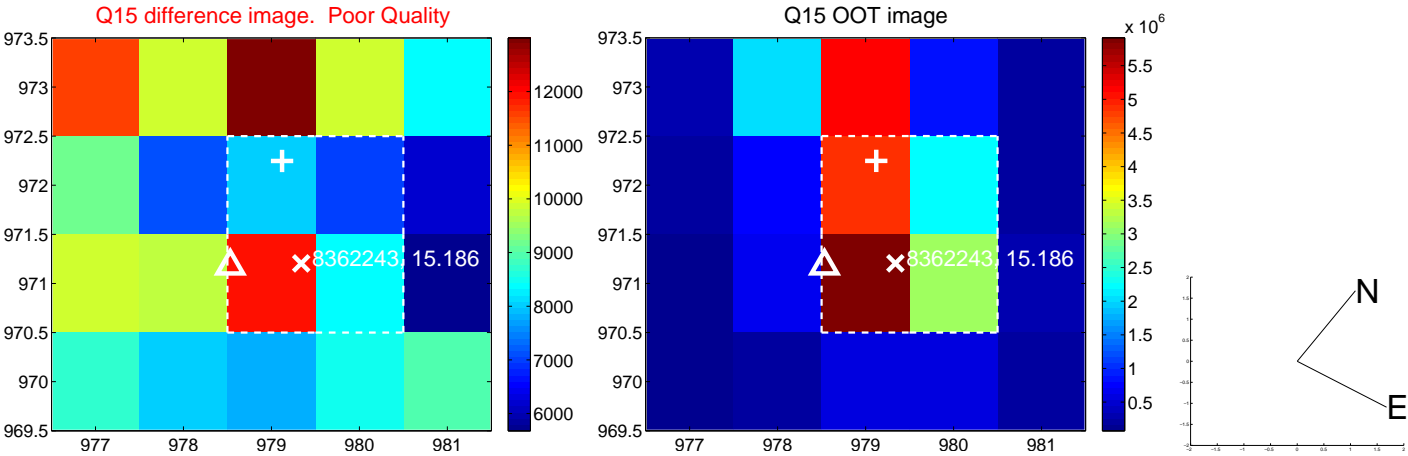
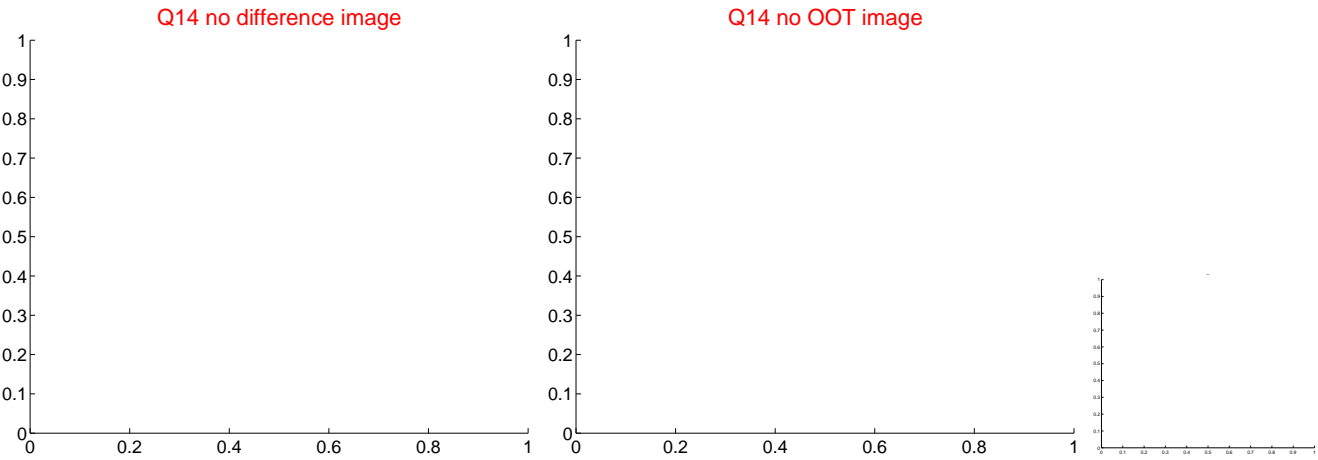
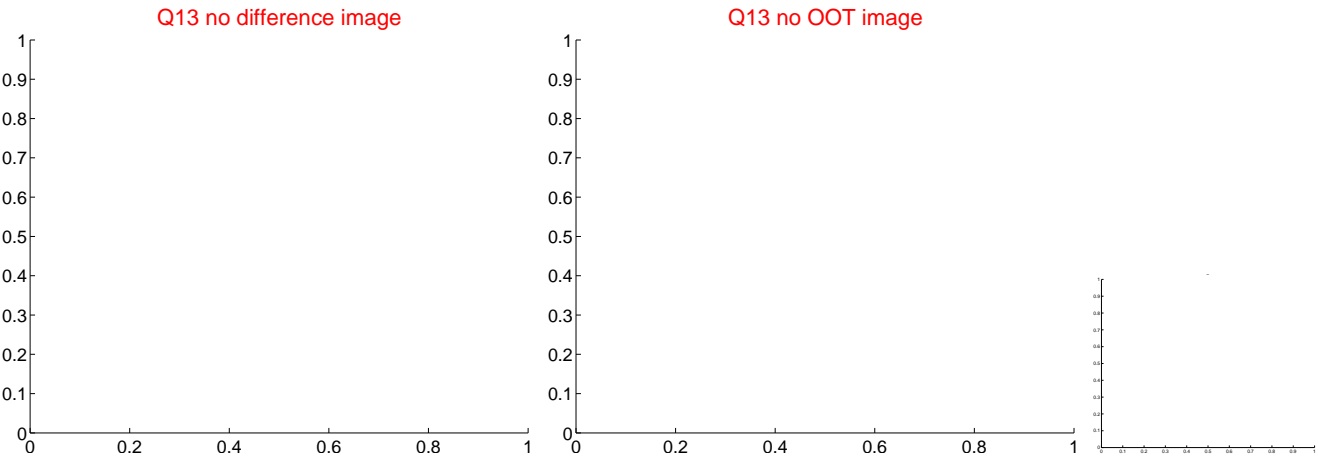
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



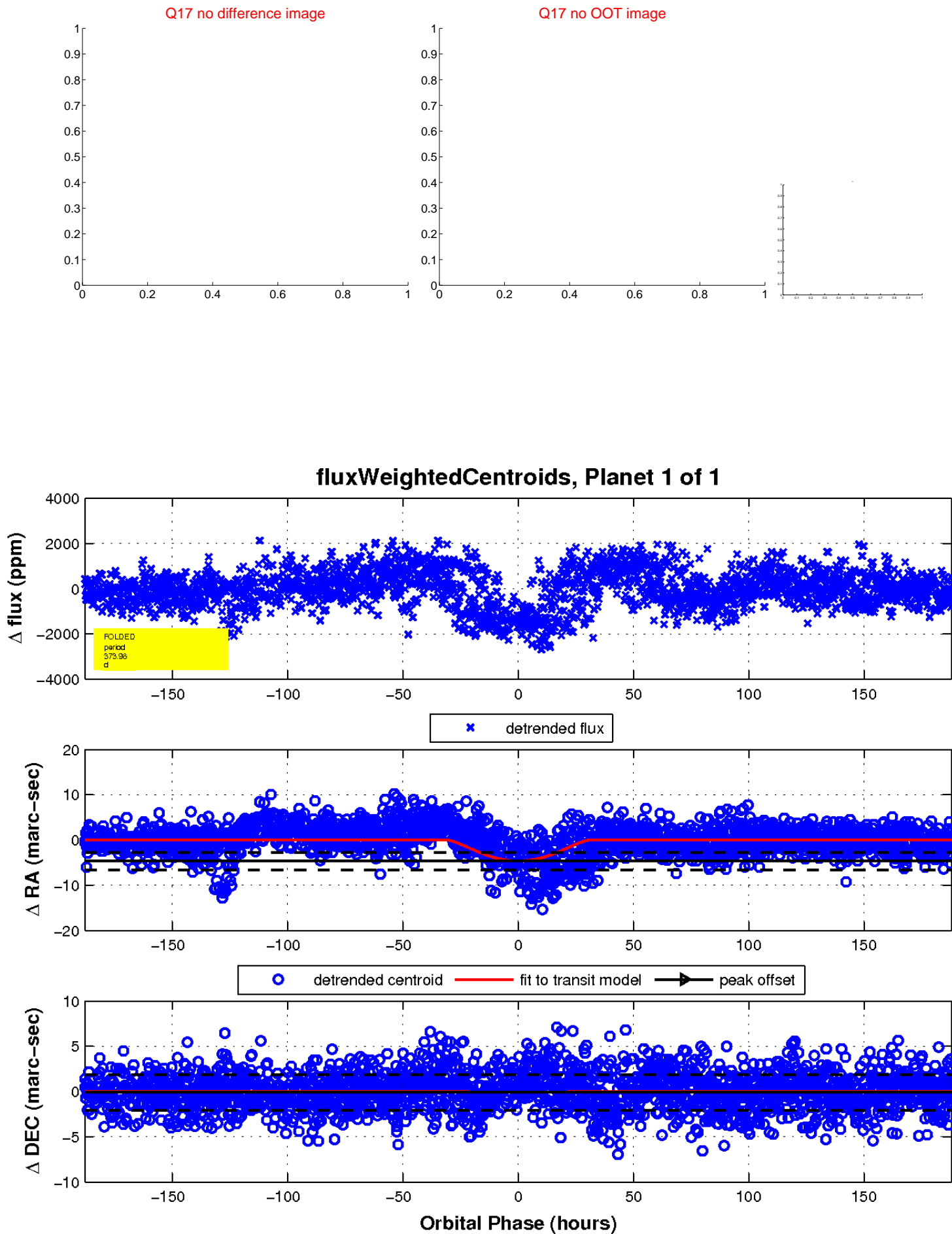
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

Declination

