

KIC 007903244

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})
007903244-01	OBS	No	395.730243	365.683142	1055.1	18.988	8.1	8.7	0.92	5880	3.79	0.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007903244-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—MOD_POS_DV—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.

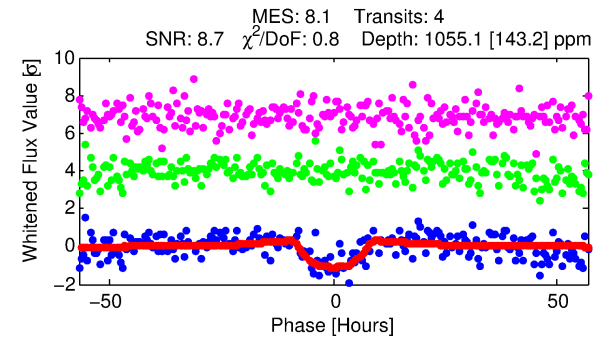
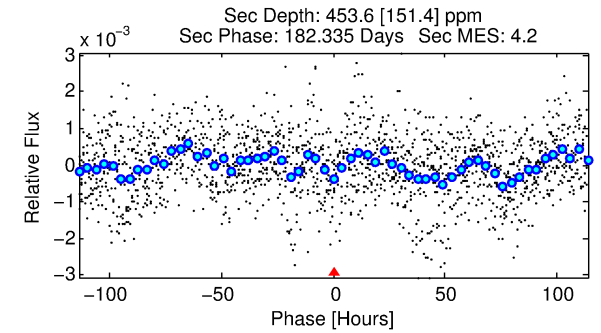
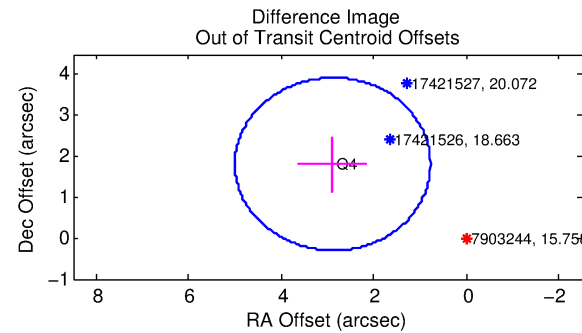
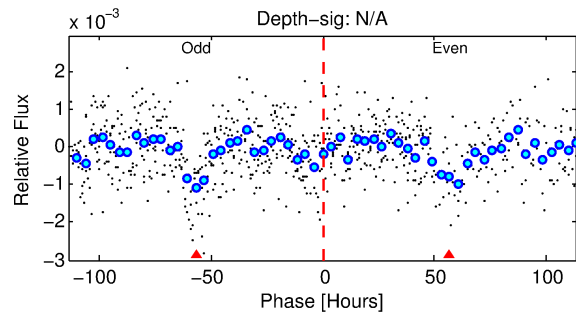
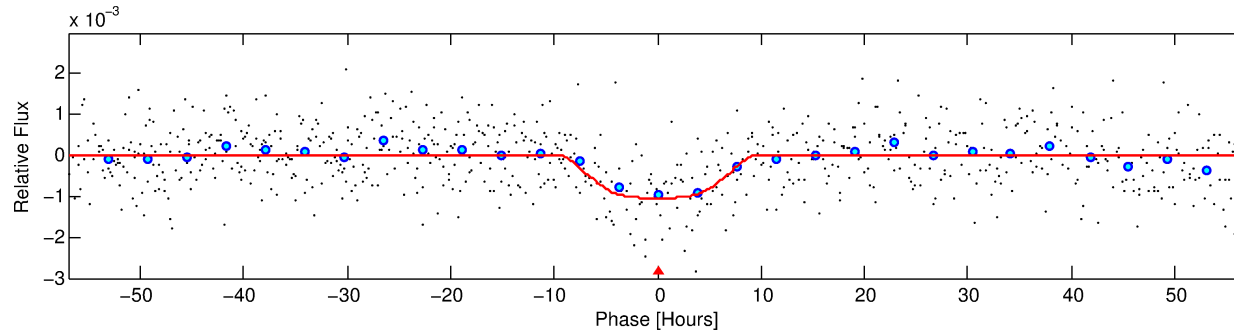
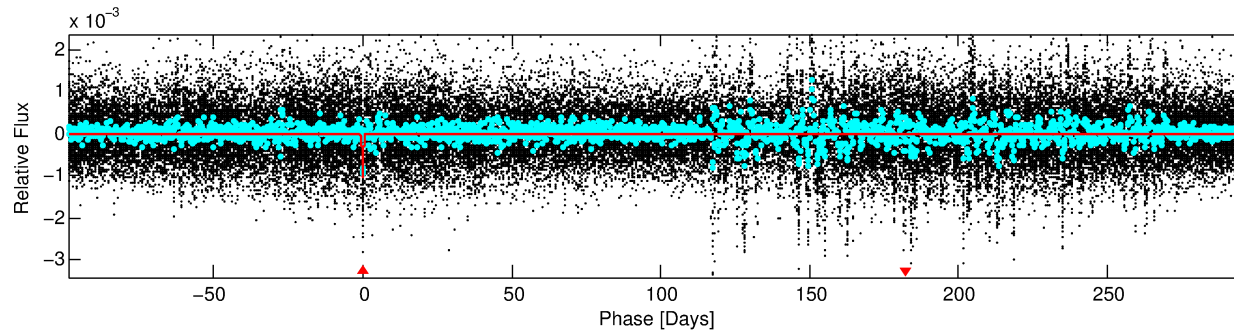
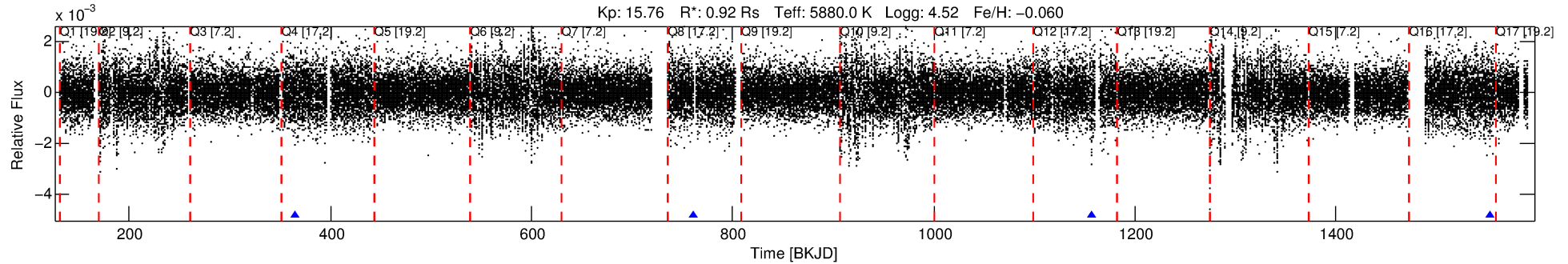
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007903244-01

No Significant Match Found

DV One-Page Summary

KIC: 7903244 Candidate: 1 of 1 Period: 395.730 d



DV Fit Results:

Period = 395.73024 [0.01804] d
Epoch = 365.6831 [0.0377] BKJD
Rp/R* = 0.0379 [0.0038]
a/R* = 65.83 [13.93]
b = 0.95 [0.02]
Seff = 0.80 [0.29]
Teq = 241 [22] K
Rp = 3.79 [1.09] Re
a = 1.0590 [0.2413] AU
Ag = 19456.88 [9988.63] [1.95σ]
Teffp = 4408 [453] K [9.19σ]

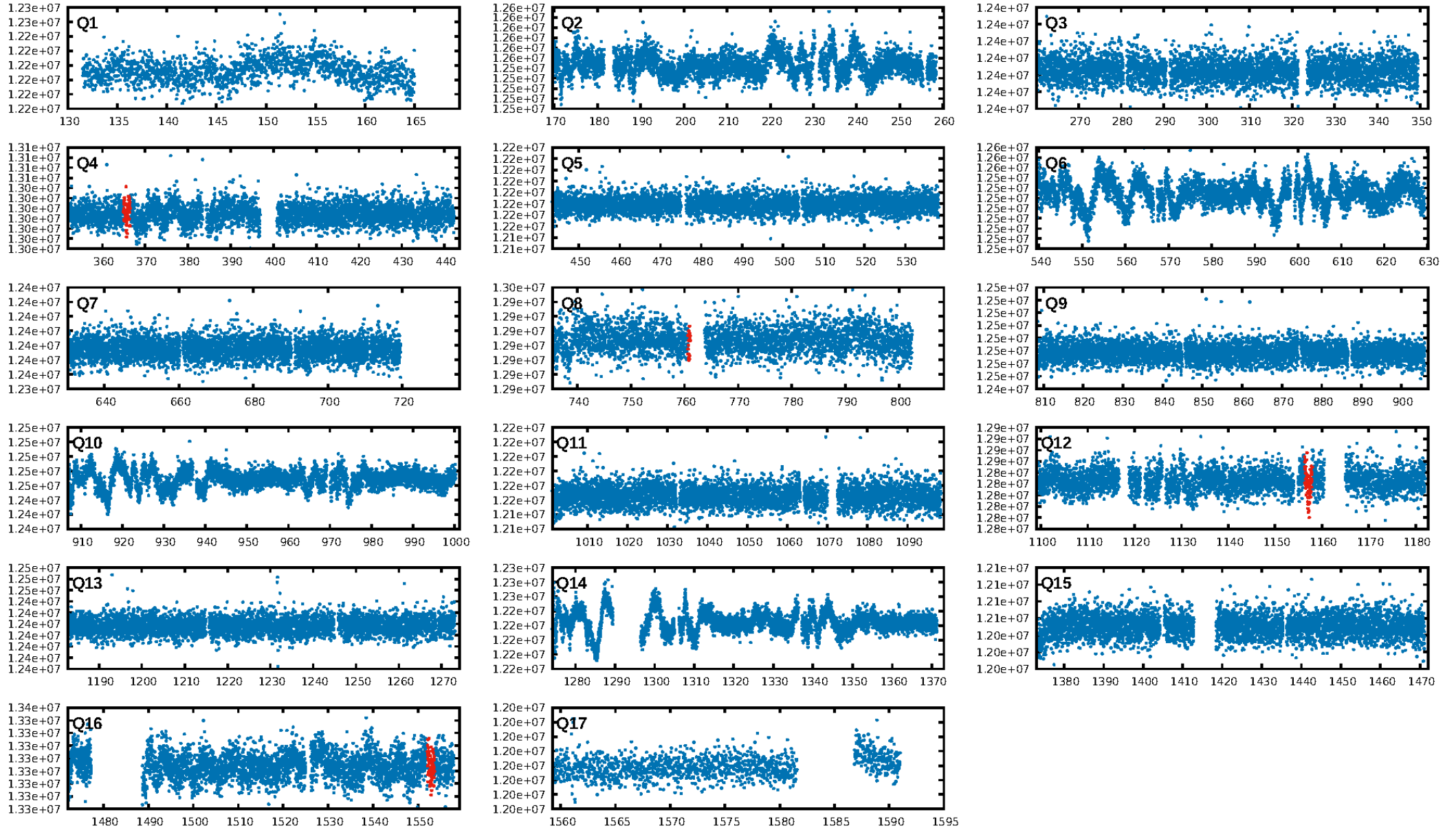
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 20.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.17e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -3.33
Centroid-sig: 11.9%
Centroid-so: 1.951 arcsec [1.29σ]
OotOffset-rm: 3.408 arcsec [4.83σ]
KicOffset-rm: 3.594 arcsec [5.11σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

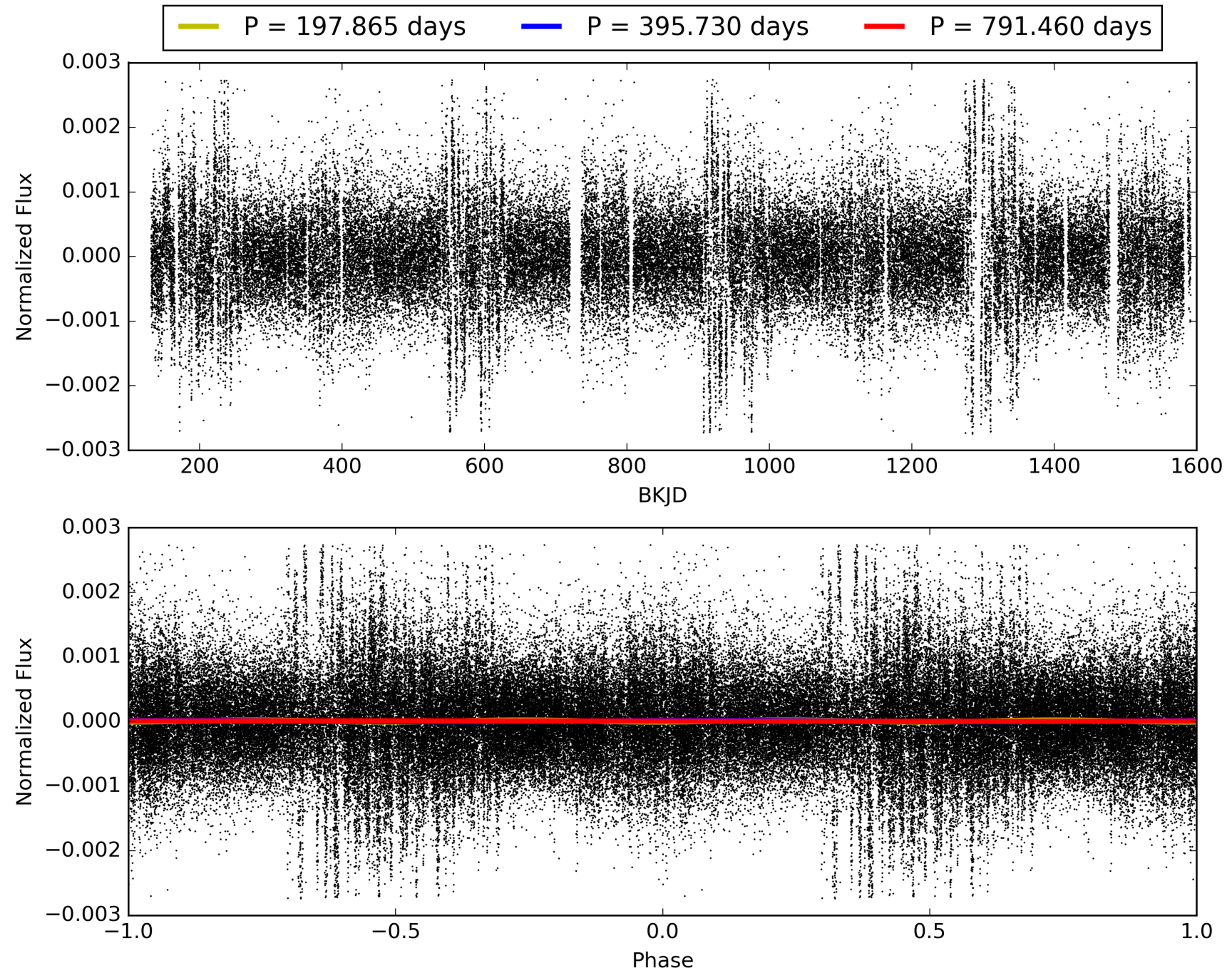
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:41:16 Z

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

TCE 007903244-01, PDC Light Curves

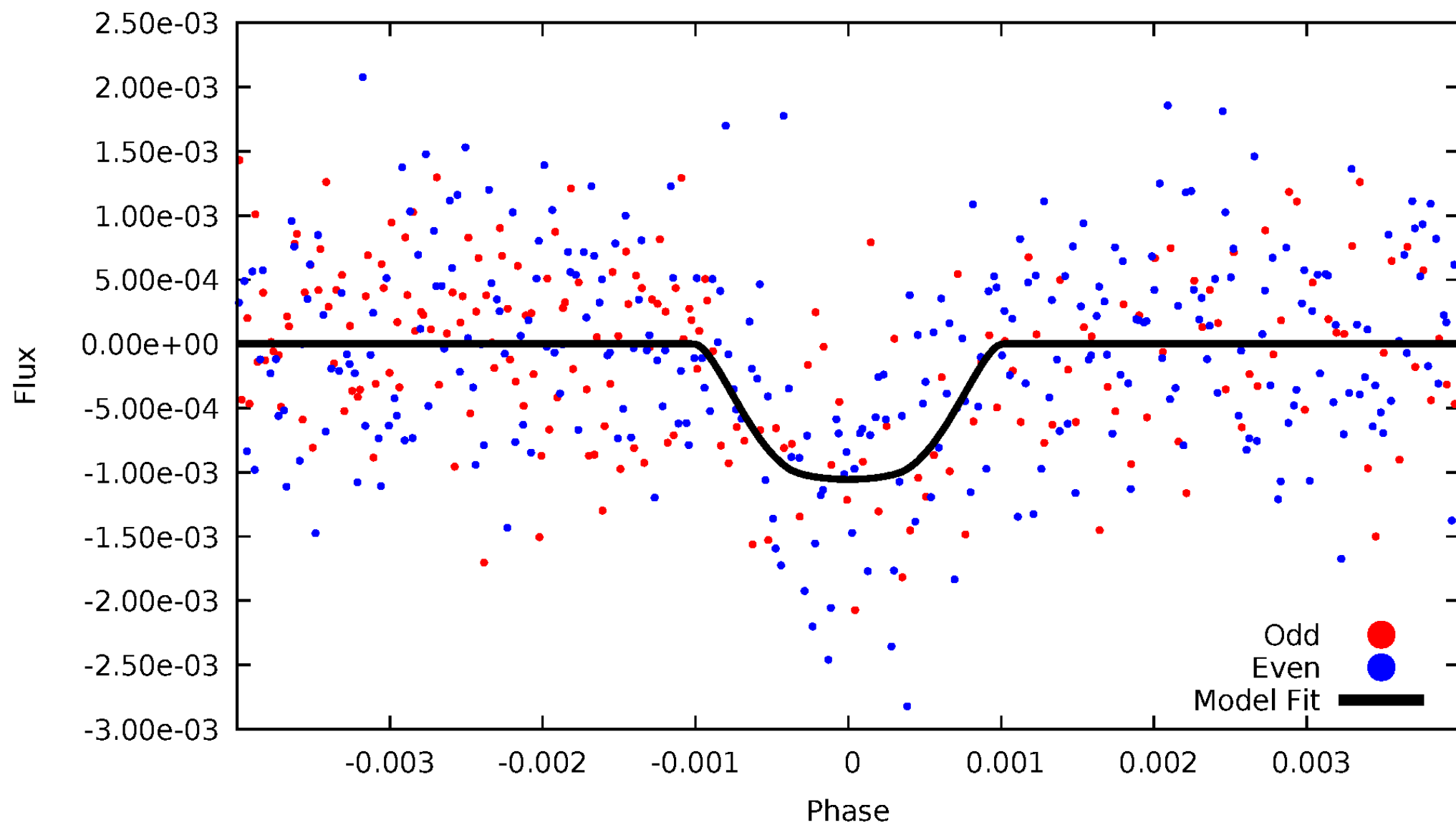


TCE 007903244-01



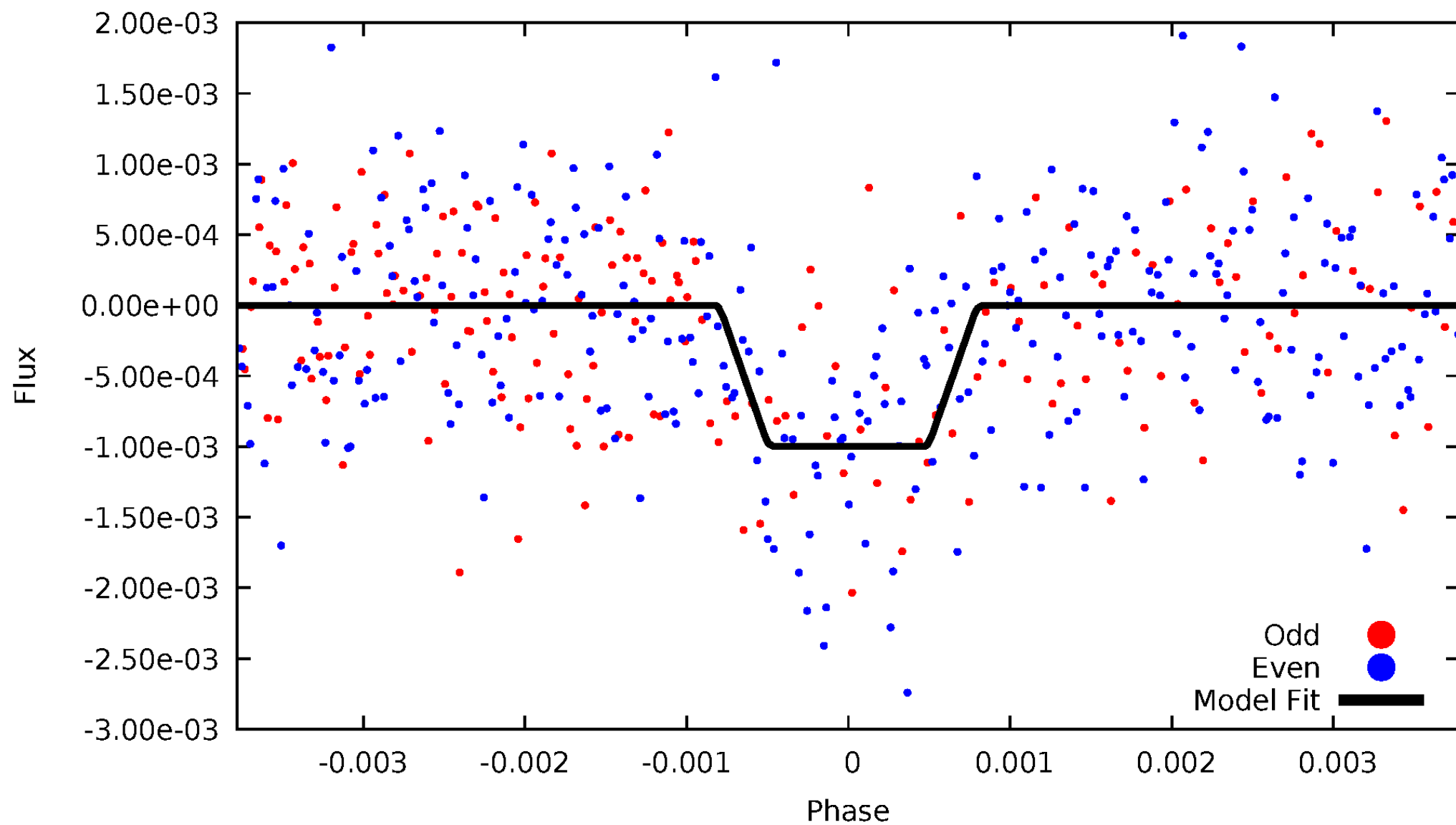
DV Odd/Even

TCE 007903244-01



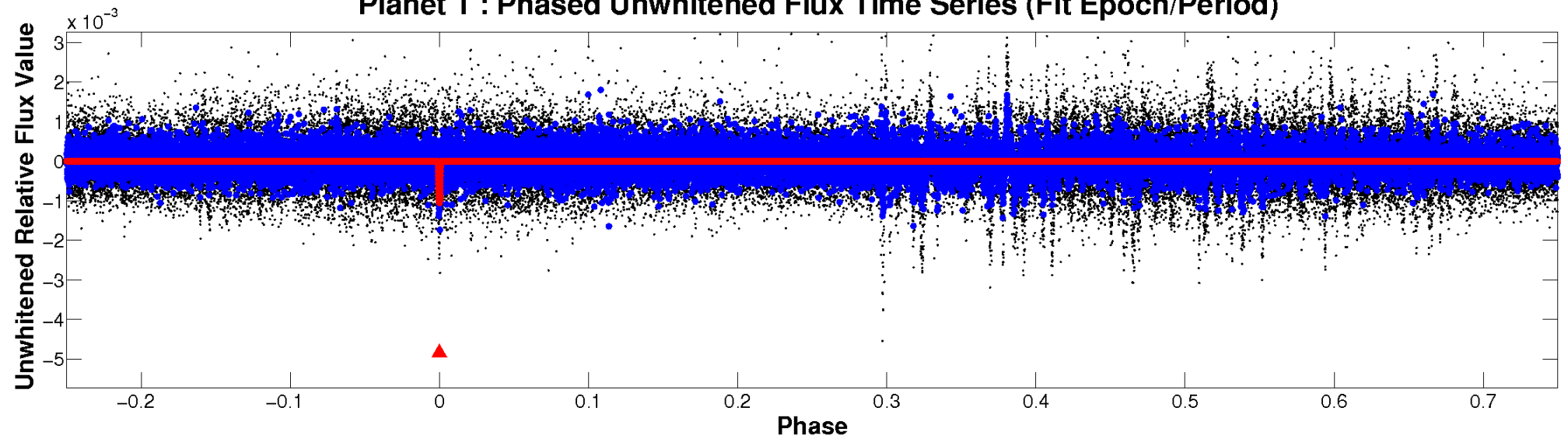
ALT Odd/Even

TCE 007903244-01

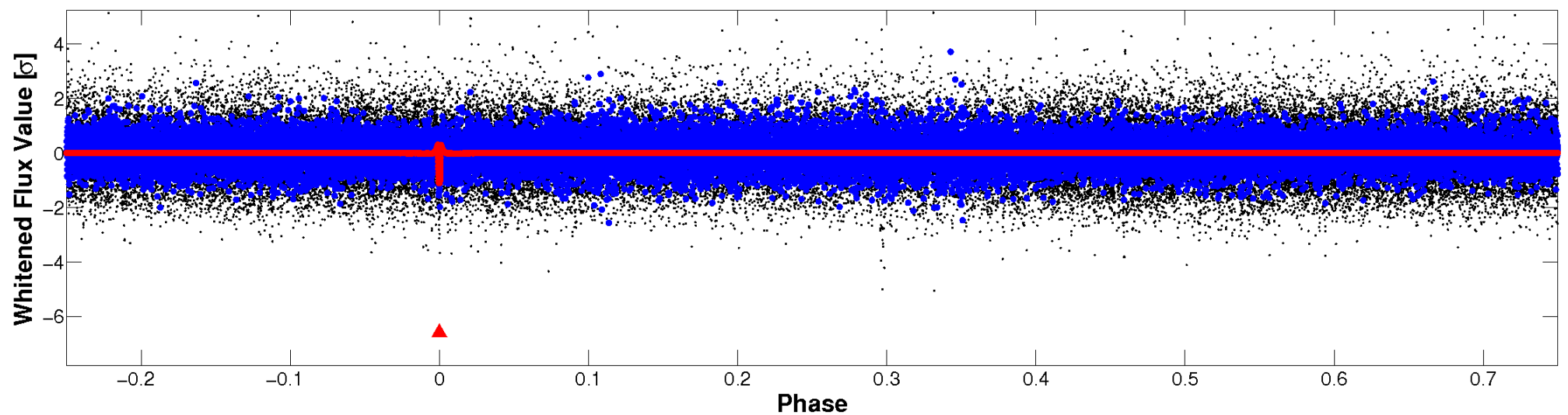


Non-Whitened Vs. Whitened Light Curve

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



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



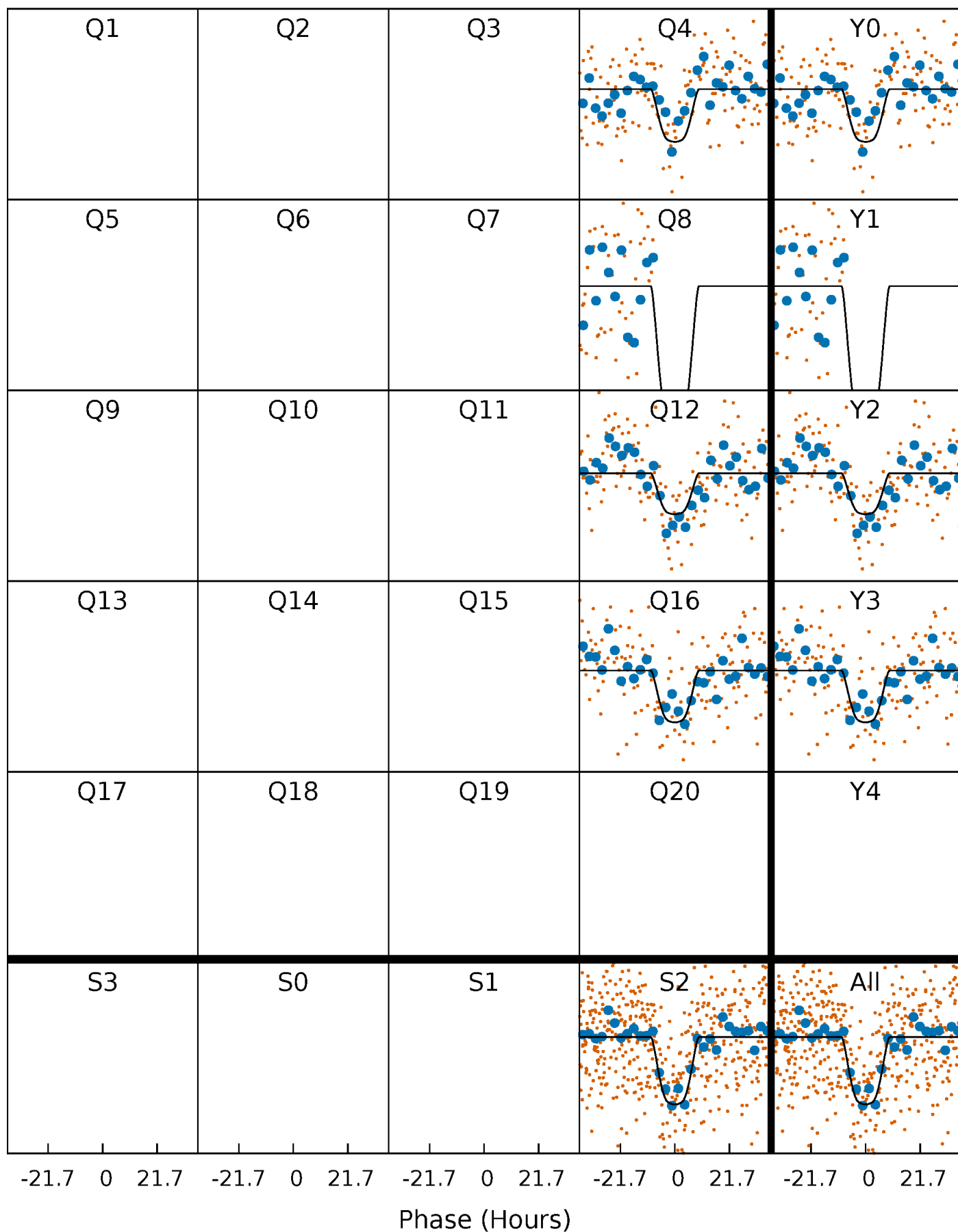
PDC Quarter-Phased Transit Curves

TCE 007903244-01 P=395.730243 Days $T_0=365.683142$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007903244-01 P=395.730243 Days $T_0=365.683142$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

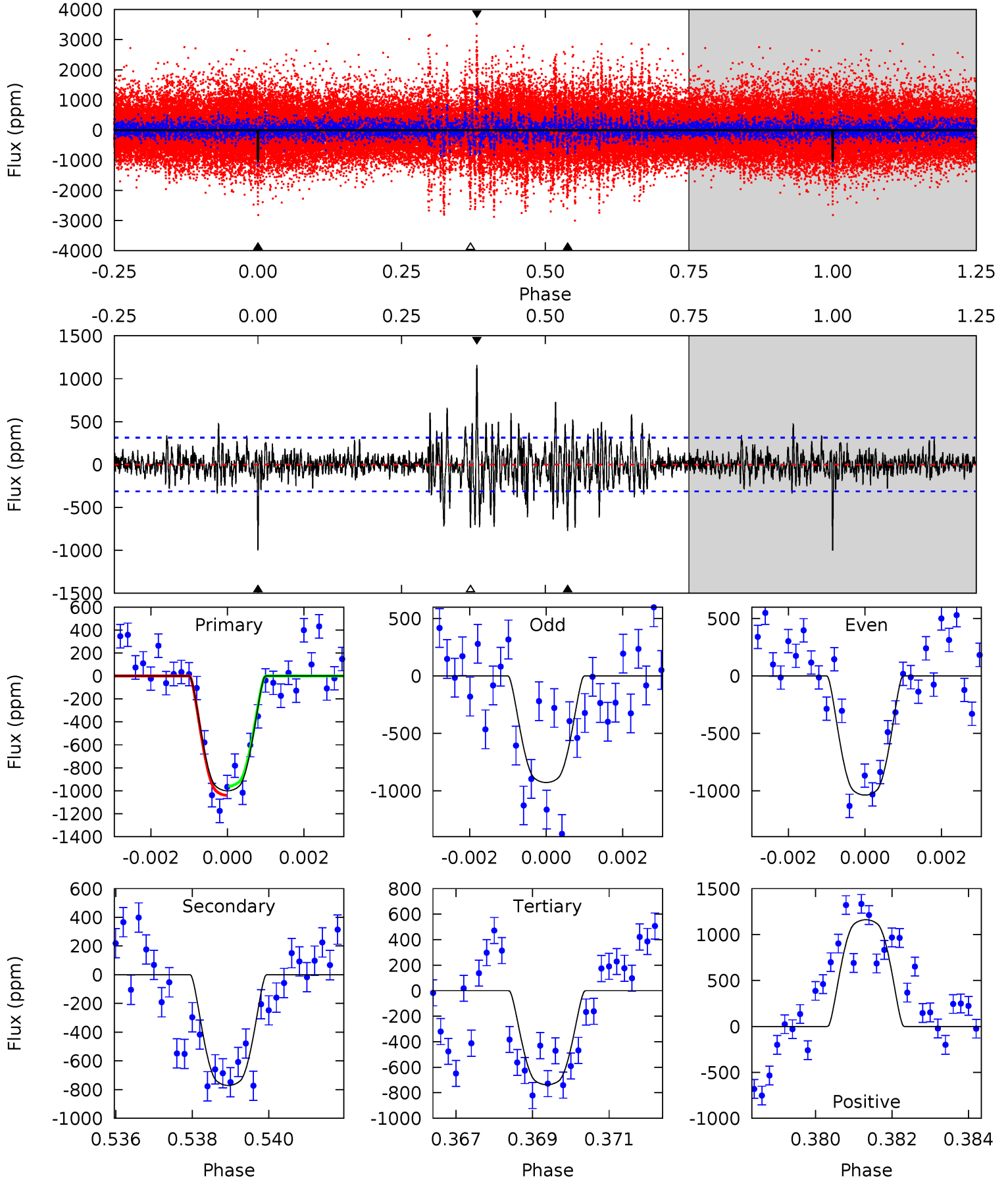
TCE 007903244-01 P=395.729945 Days $T_0=365.691915$ (BKJD)



DV Model-Shift Uniqueness Test

007903244-01, P = 395.730243 Days, E = 365.683142 Days

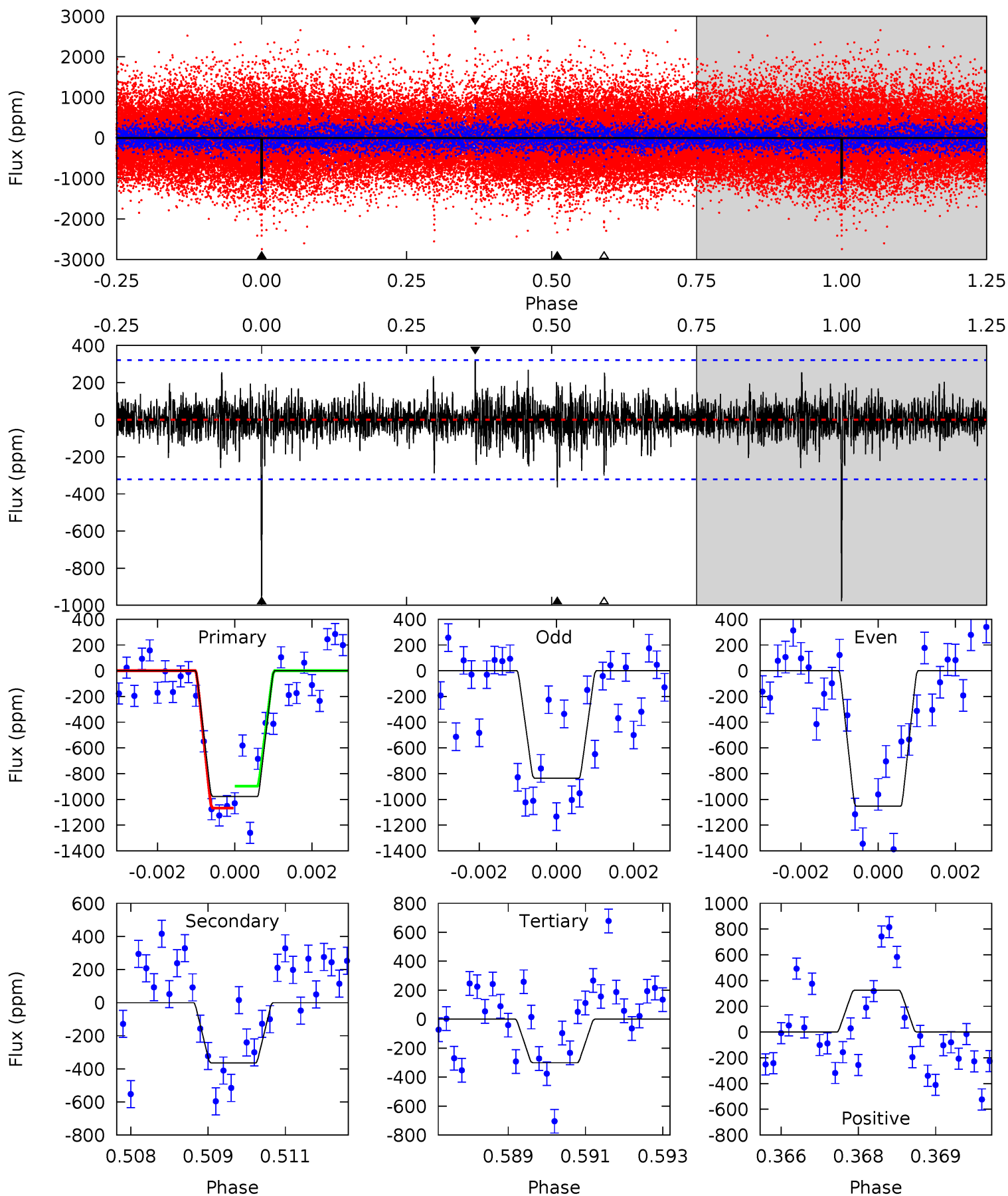
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.0	13.1	12.5	19.8	5.32	3.09	2.98	4.49	-2.74	0.59	-6.64	0.90	-0.58	0.54	0.67



Alt Model-Shift Uniqueness Test

007903244-01, P = 395.729945 Days, E = 365.691915 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	6.07	5.02	5.42	5.37	3.15	1.16	11.3	10.9	1.05	0.65	1.74	1.13	0.25	1.43



Stellar Parameters For KIC 007903244

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5880^{+157}_{-192}	$4.518^{+0.046}_{-0.184}$	$-0.060^{+0.300}_{-0.300}$	$0.917^{+0.246}_{-0.098}$	$1.010^{+0.116}_{-0.127}$	$1.844^{+0.442}_{-0.920}$
	+3%/-3%	+1%/-4%	+500%/-500%	+27%/-11%	+11%/-13%	+24%/-50%
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 007903244-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-771 ± 59	$3.94^{+0.69}_{-0.50}$	345^{+22}_{-17}	5099^{+305}_{-269}	29612^{+9618}_{-7590}
Alt.	-364 ± 60	$3.28^{+0.56}_{-0.47}$	344^{+21}_{-16}	4697^{+322}_{-276}	20376^{+8090}_{-5898}

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

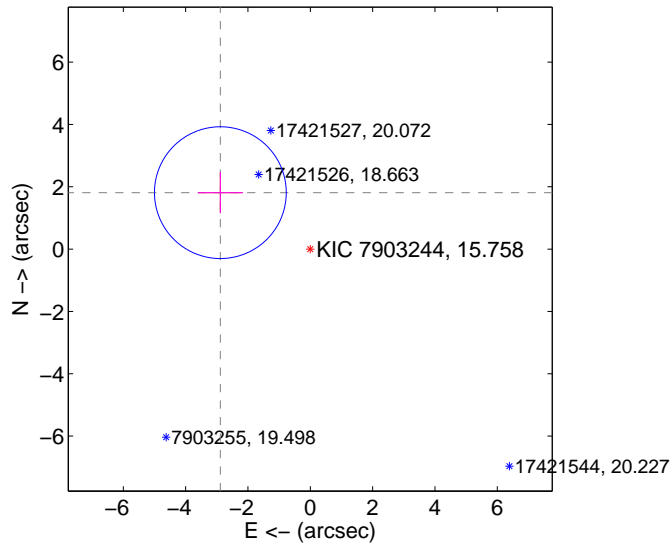
Supplemental centroid analysis for 007903244-01. Kepler magnitude: 15.76. Transit SNR 8.69

There are 0 quarters with good PRF difference image offsets

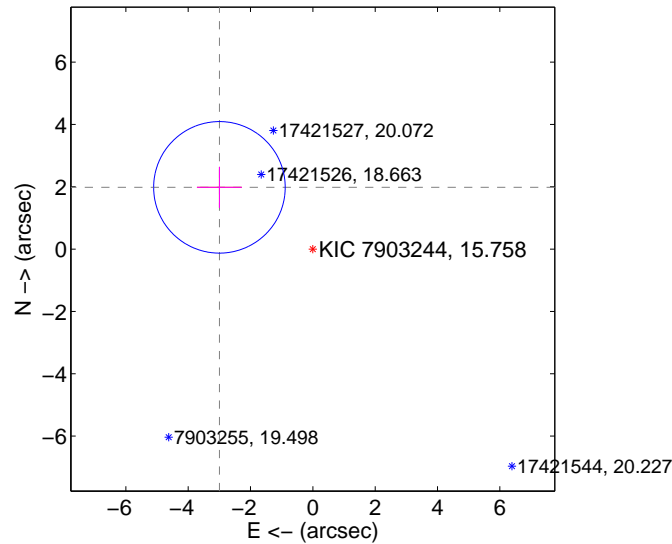
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.408 ± 0.705	4.83	2.887 ± 0.722	1.812 ± 0.661
PRF-fit source offset from KIC position	3.594 ± 0.704	5.11	2.999 ± 0.722	1.982 ± 0.661
photometric centroid source offset	1.95 ± 1.51	1.29	1.81 ± 1.44	-0.73 ± 1.88

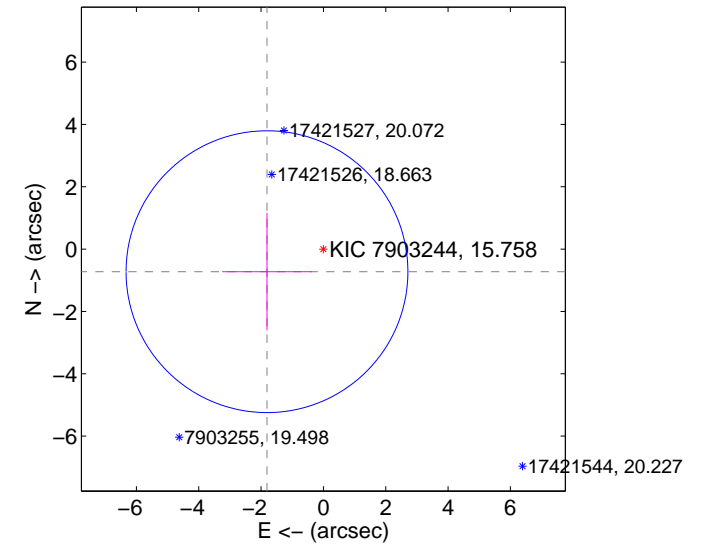
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

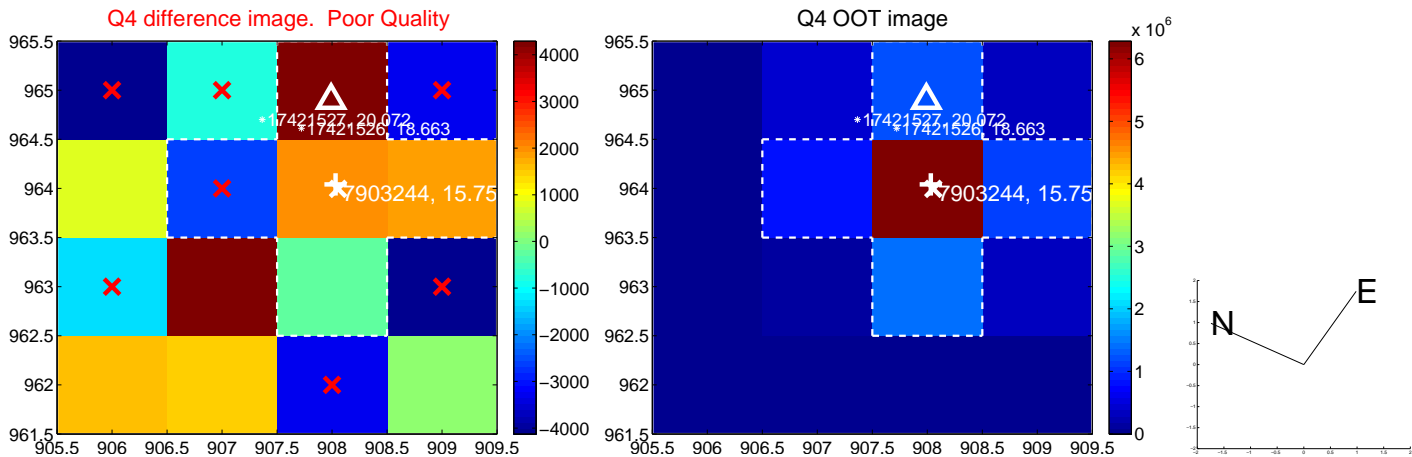
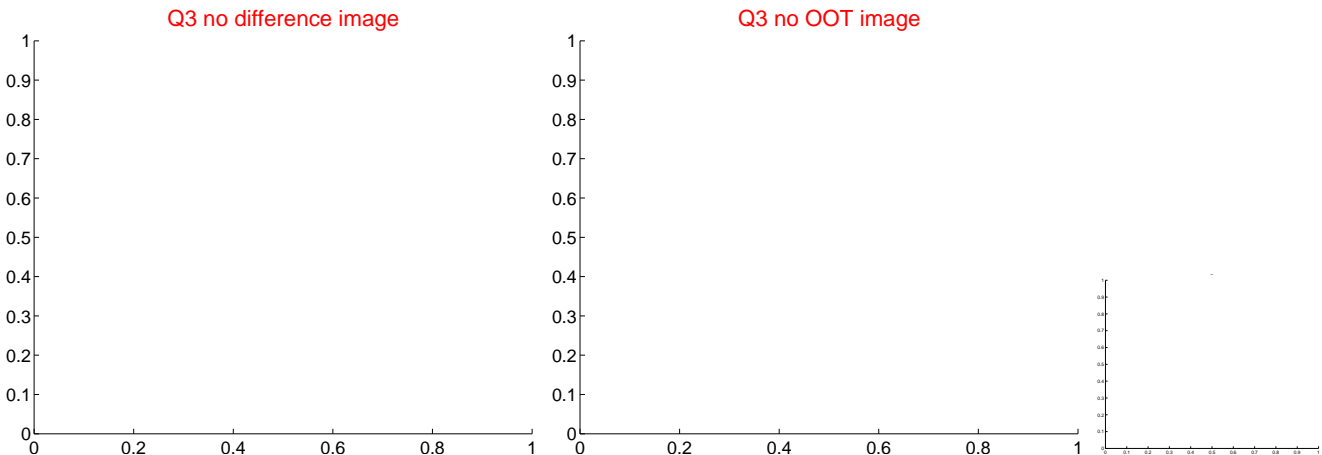
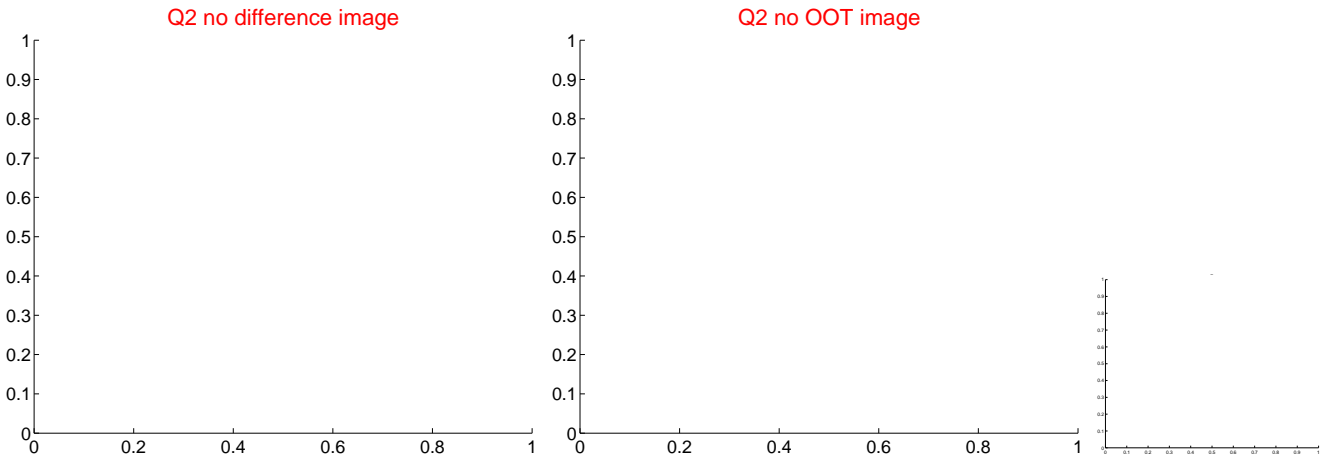
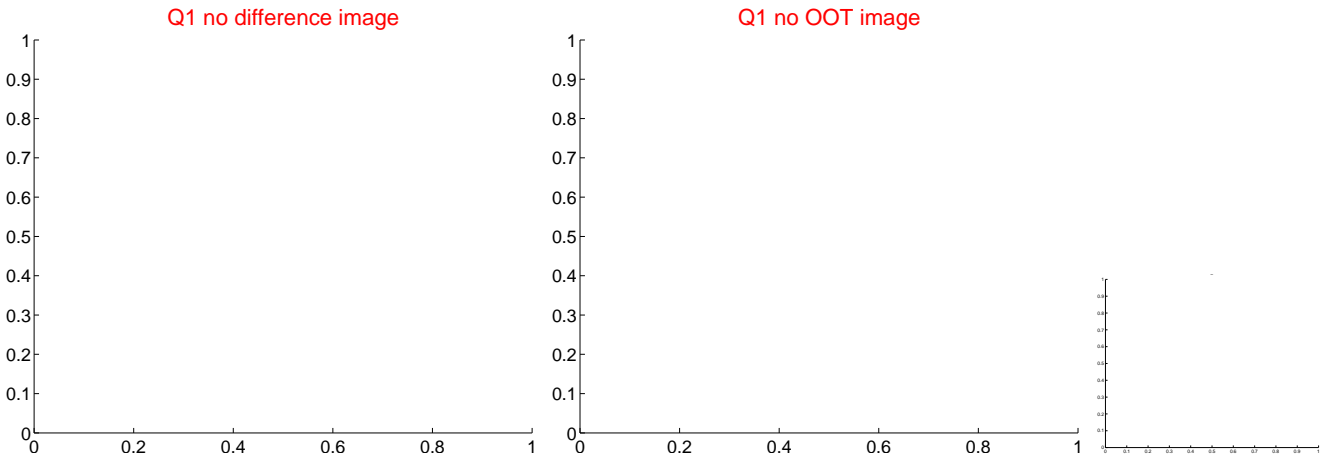


offset from photometric centroids

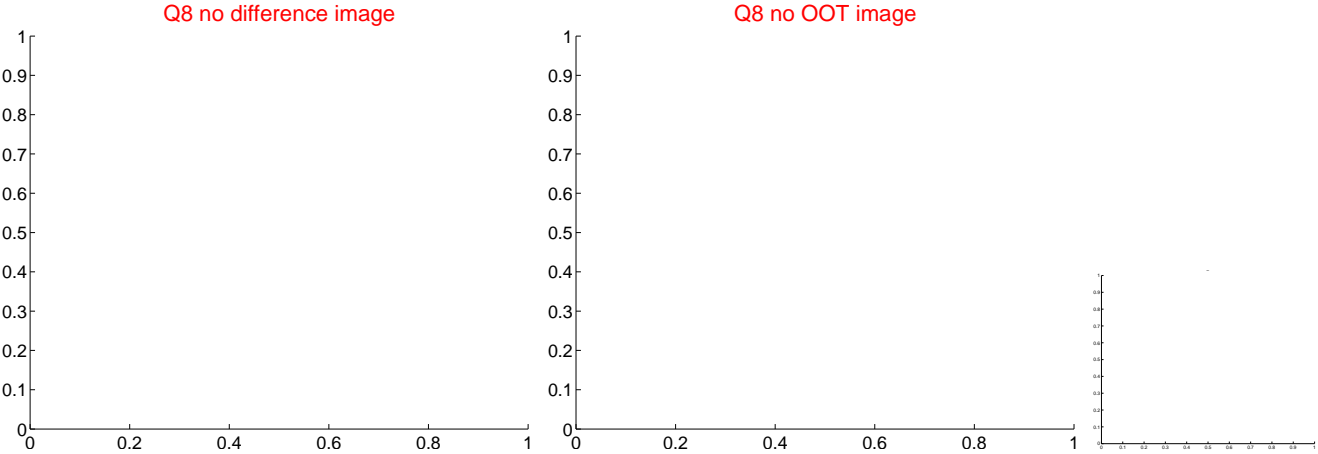
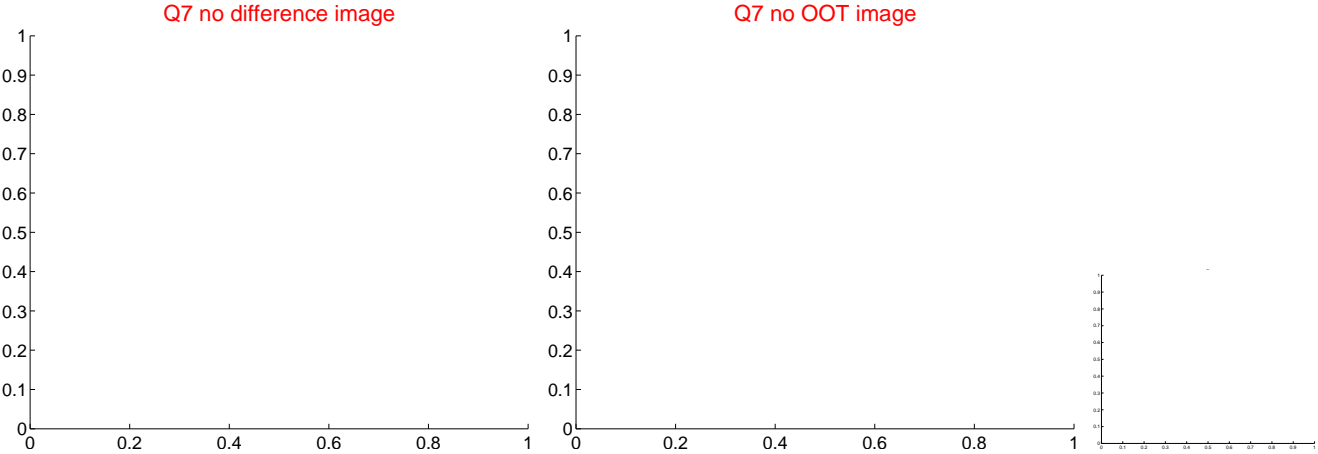
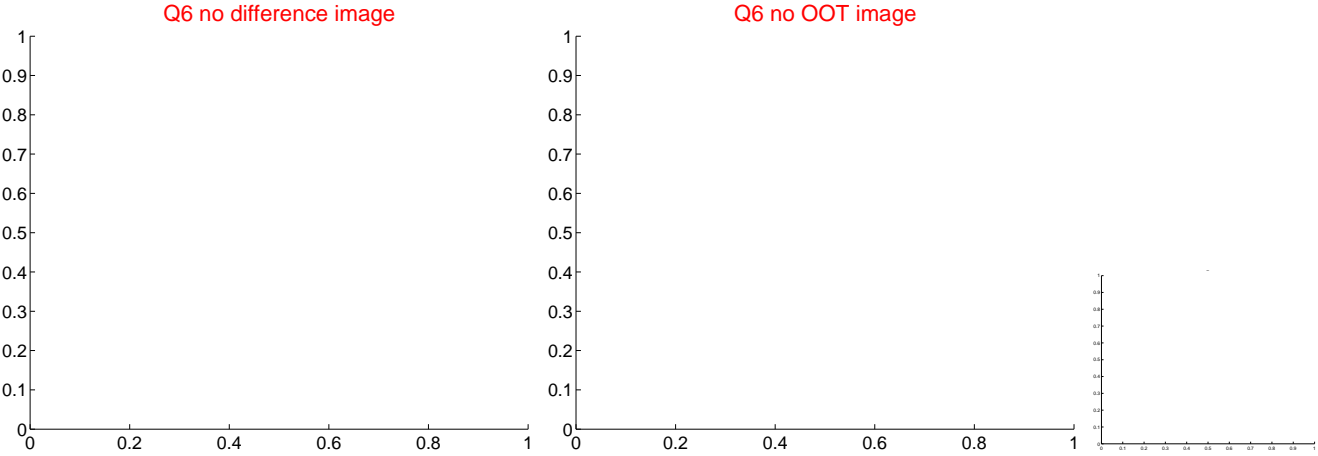


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

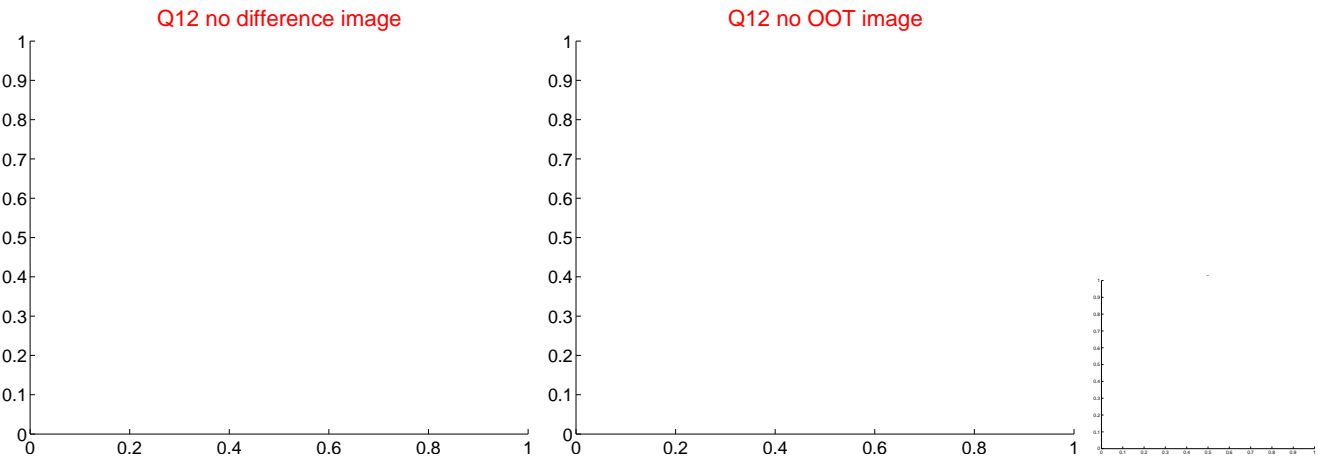
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



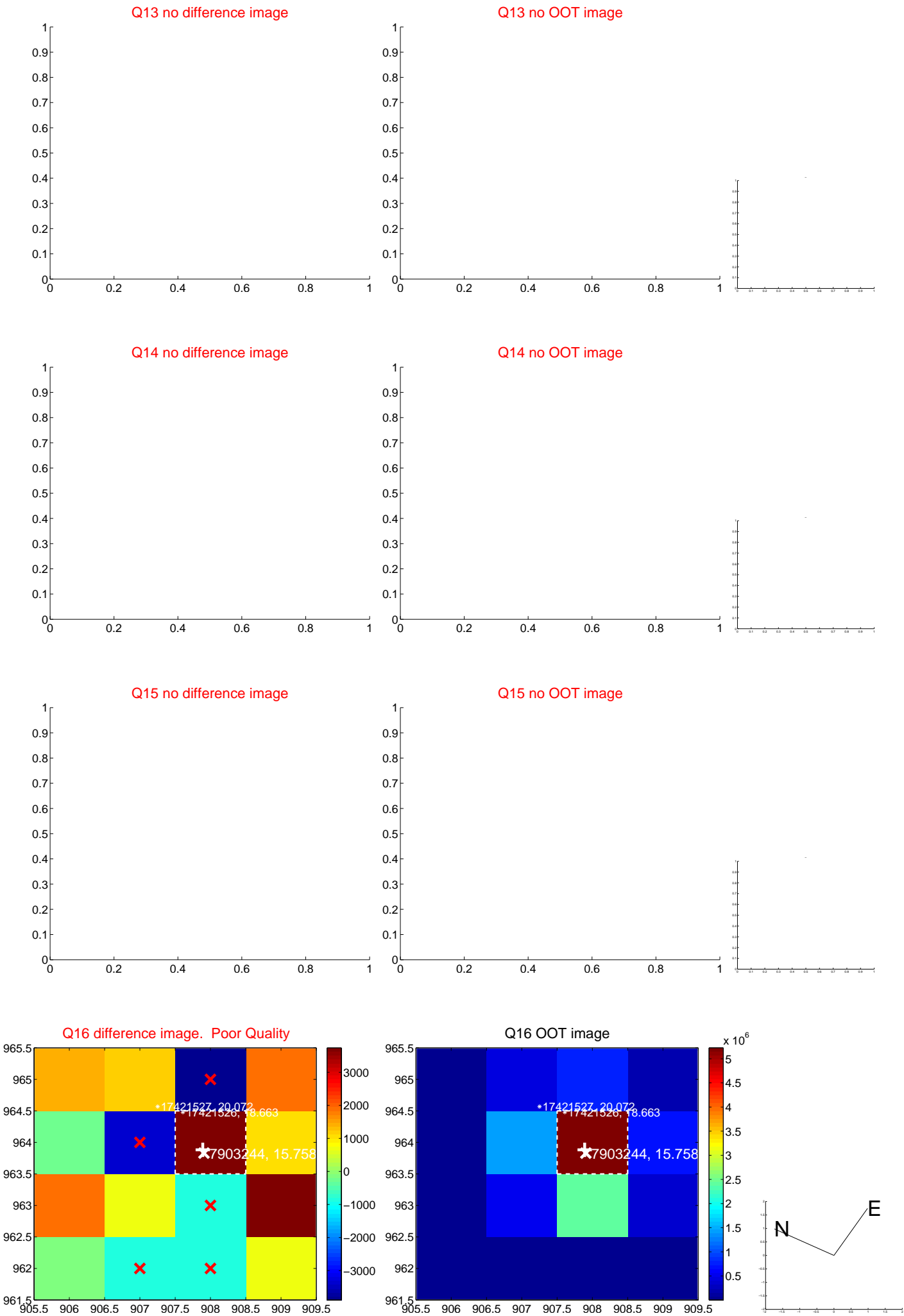
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



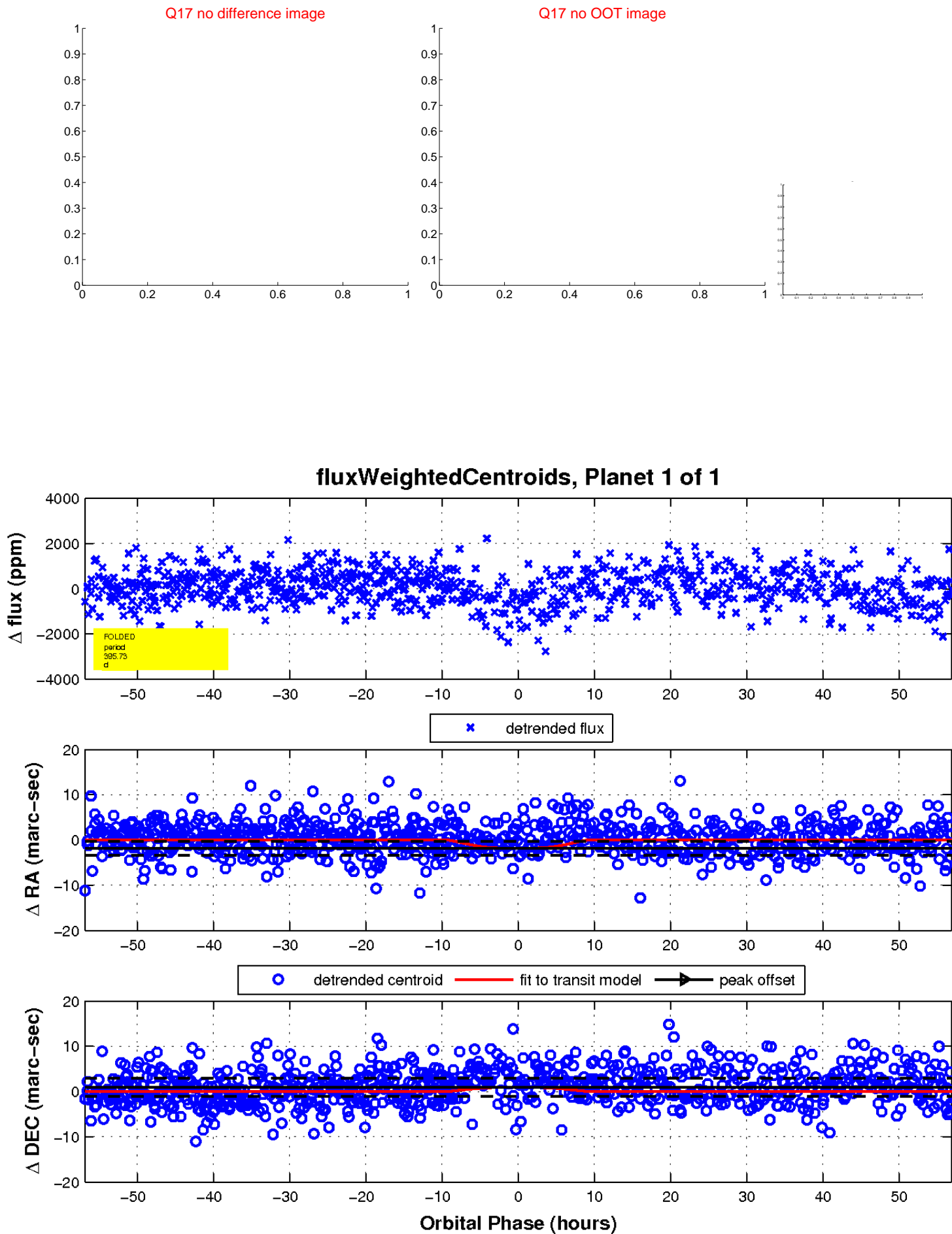
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

