

KIC 007691027

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})
007691027-01	OBS	No	424.305148	492.832963	978.6	21.157	8.9	8.6	0.79	5447	2.46	0.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007691027-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

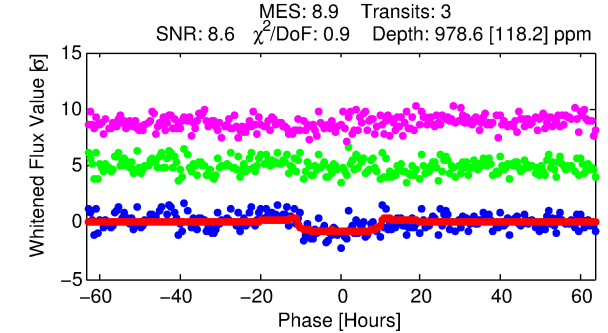
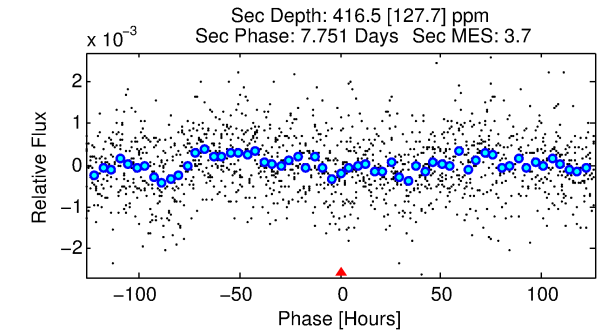
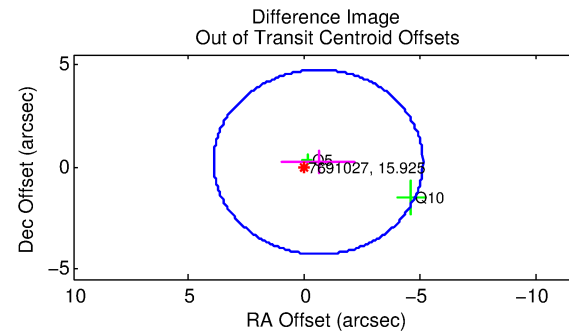
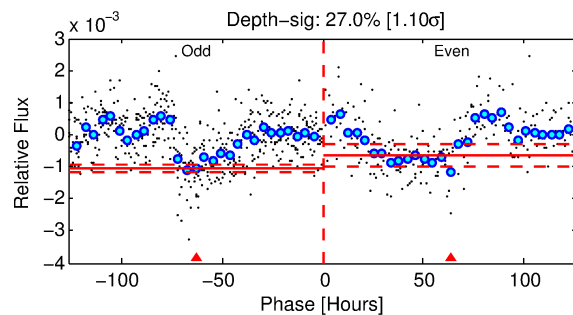
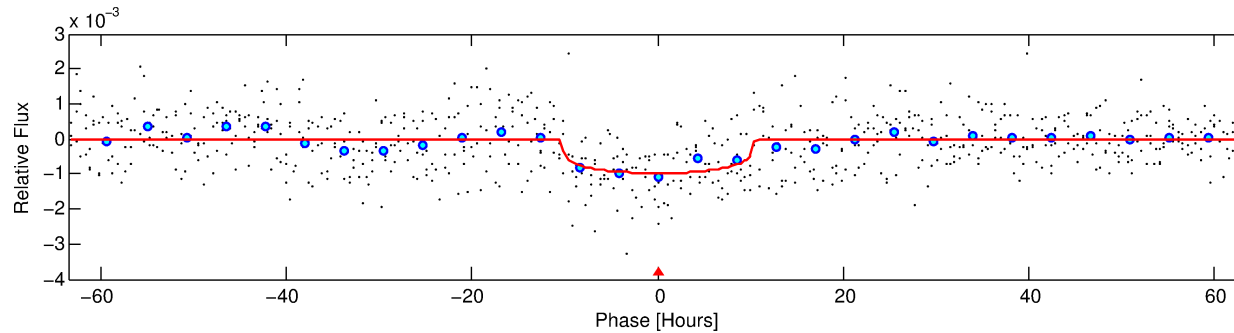
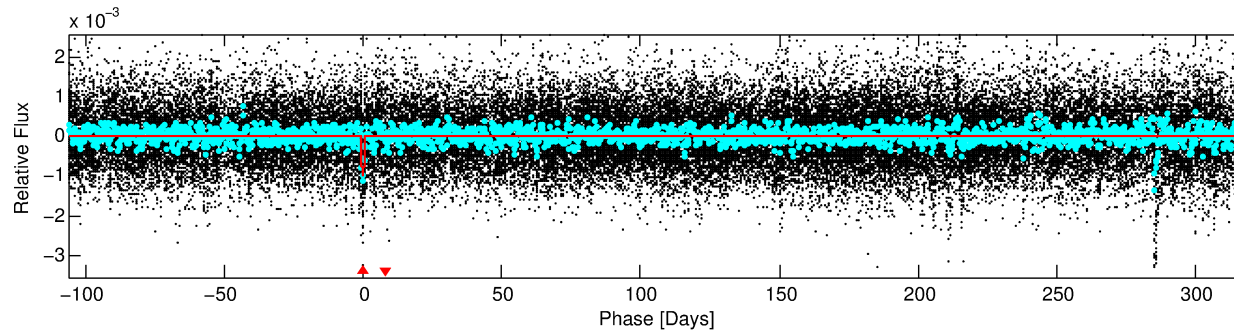
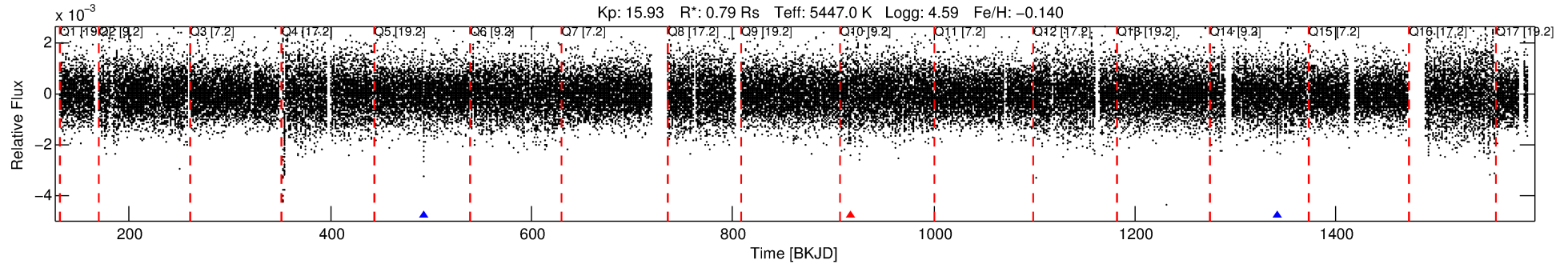
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007691027-01

No Significant Match Found

DV One-Page Summary

KIC: 7691027 Candidate: 1 of 1 Period: 424.305 d



DV Fit Results:

Period = 424.30515 [0.01649] d
Epoch = 492.8330 [0.0205] BKJD
Rp/R* = 0.0286 [0.0129]
a/R* = 149.10 [269.13]
b = 0.33 [4.84]
Seff = 0.44 [0.12]
Teq = 208 [14] K
Rp = 2.46 [1.21] Re
a = 1.0590 [0.1706] AU
Ag = 42416.64 [41763.07] [1.02 σ]
Teffp = 4605 [1110] K [3.96 σ]

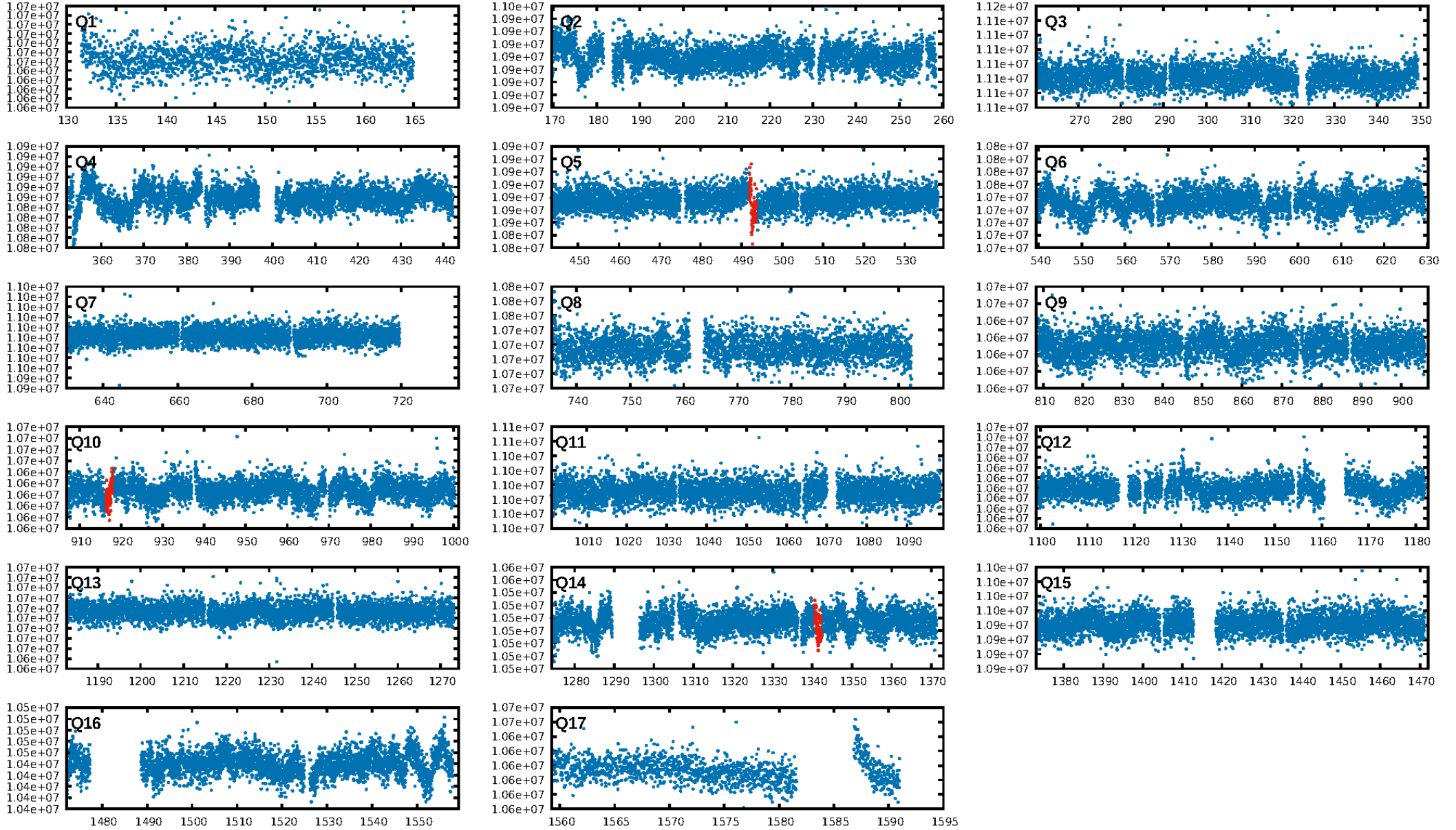
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 28.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.25e-13
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 1.161
Centroid-sig: 16.9%
Centroid-so: 2.239 arcsec [1.24 σ]
OotOffset-rm: 0.642 arcsec [0.43 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 0.675 arcsec [0.42 σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

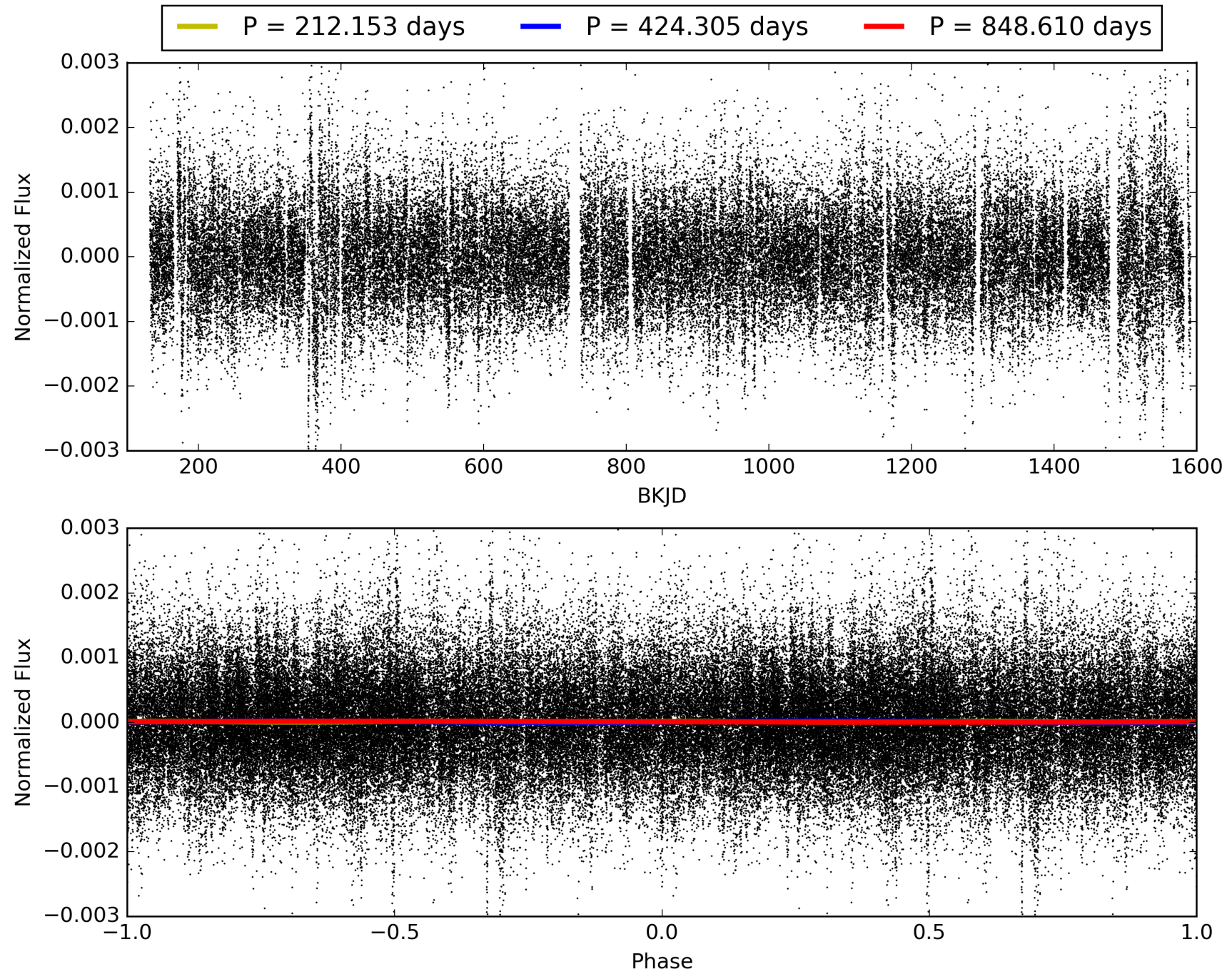
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:40:04 Z

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

TCE 007691027-01, PDC Light Curves

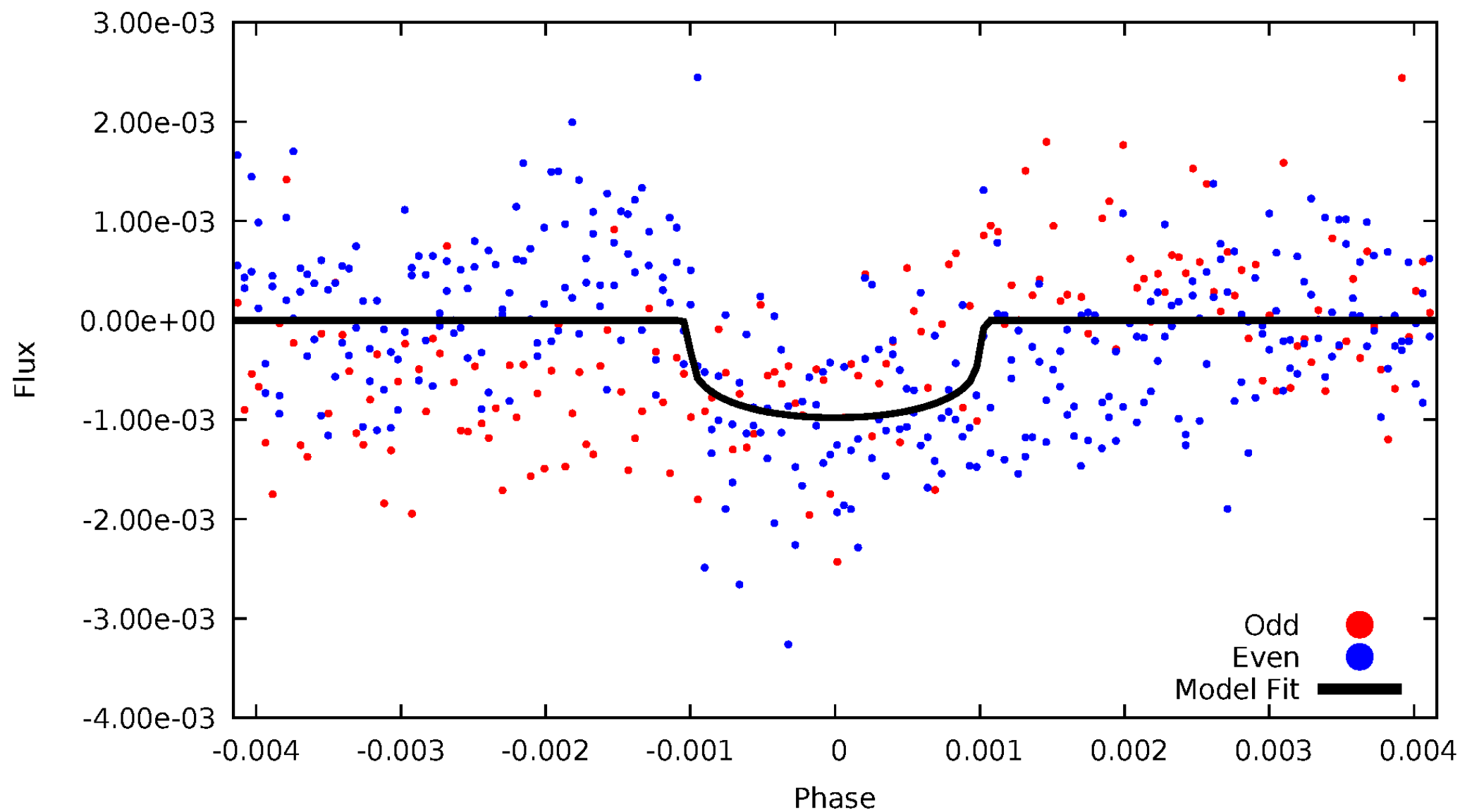


TCE 007691027-01



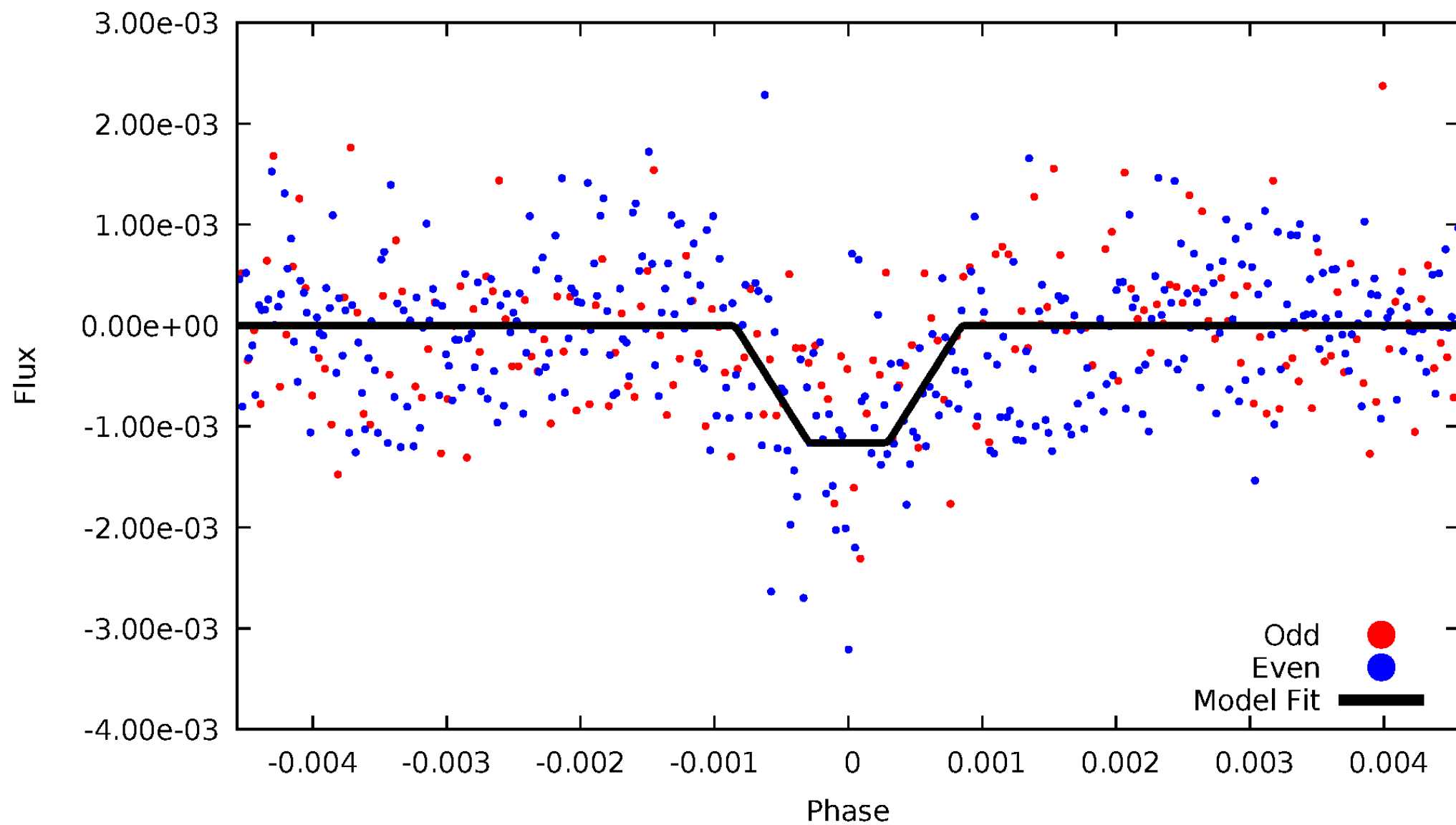
DV Odd/Even

TCE 007691027-01



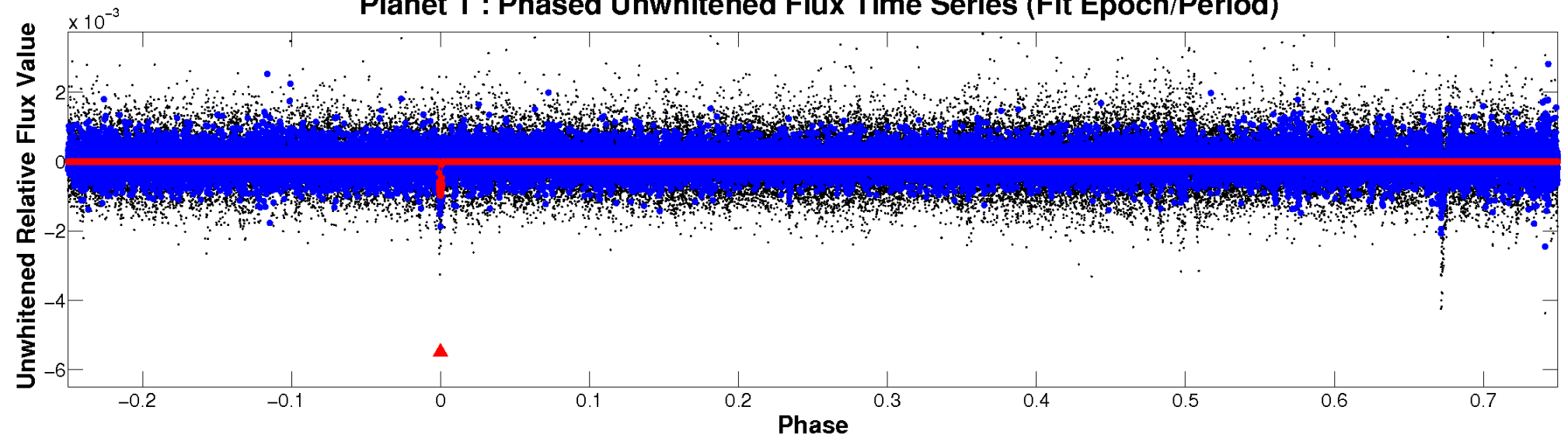
ALT Odd/Even

TCE 007691027-01

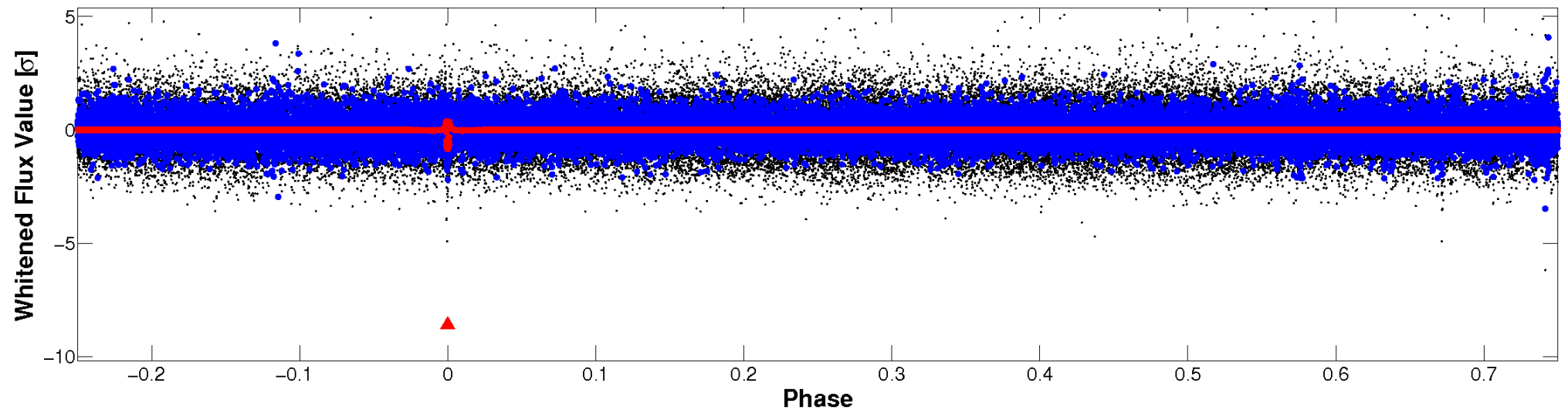


Non-Whitened Vs. Whitened Light Curve

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

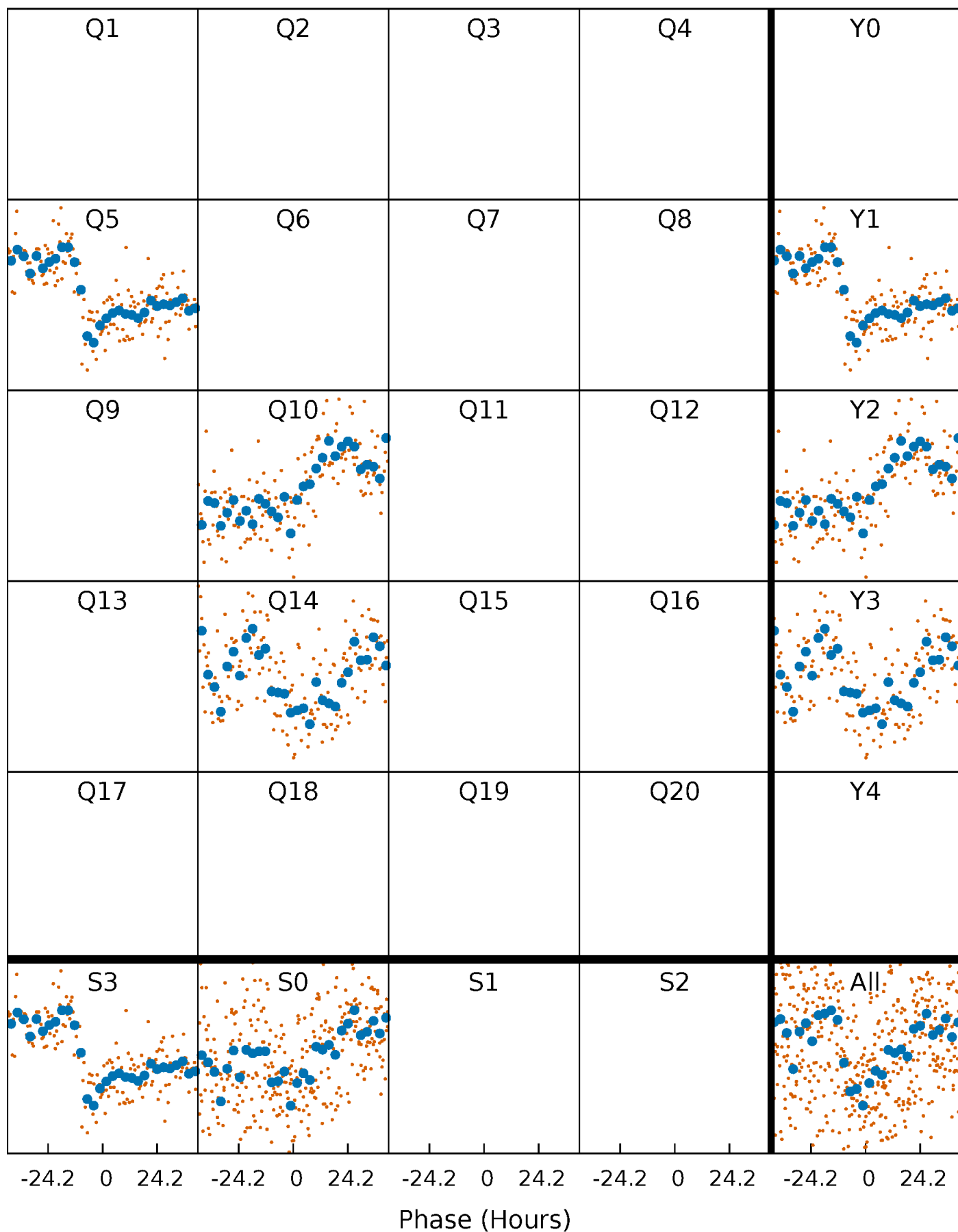


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



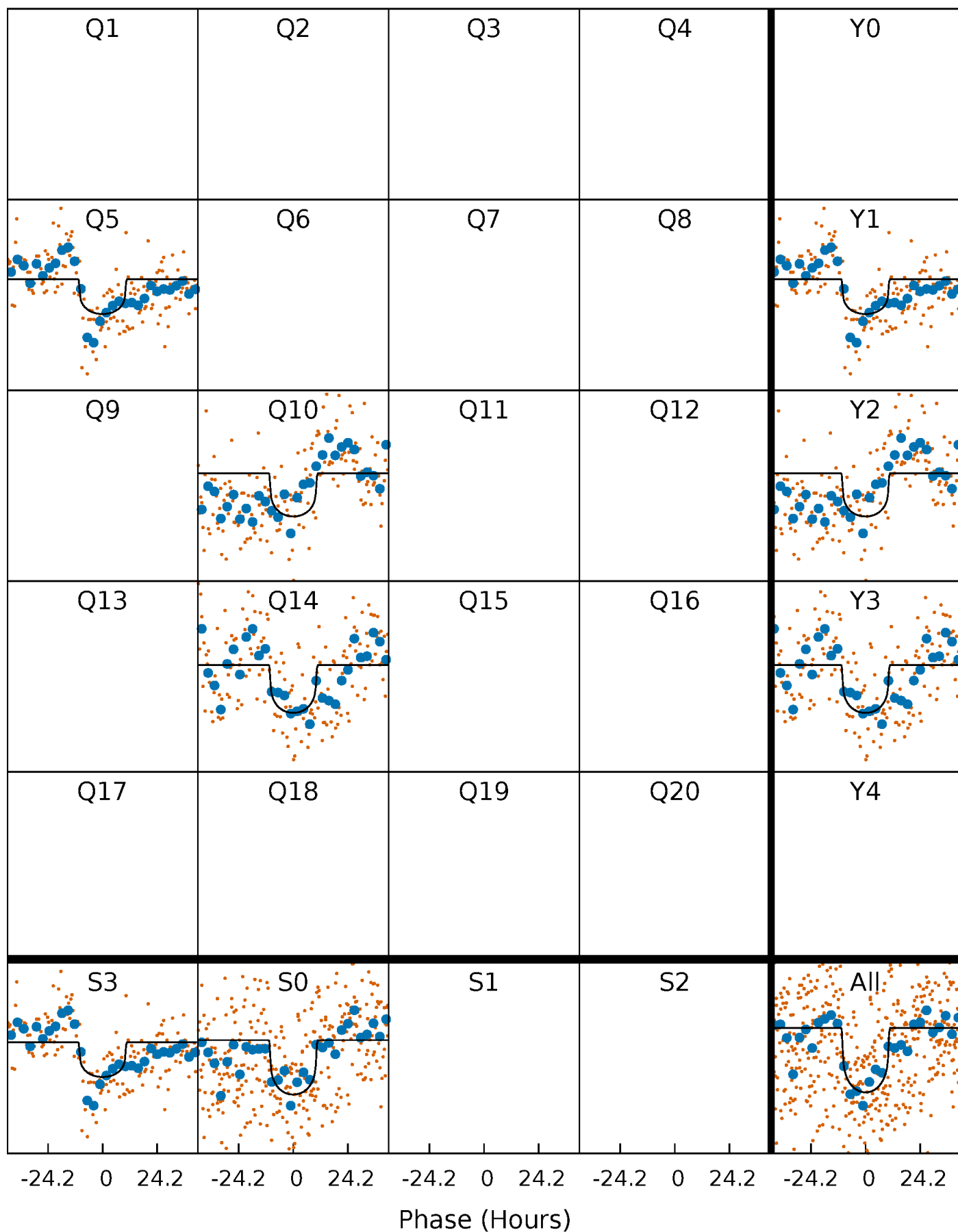
PDC Quarter-Phased Transit Curves

TCE 007691027-01 $P=424.305148$ Days $T_0=492.832963$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007691027-01 $P=424.305148$ Days $T_0=492.832963$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

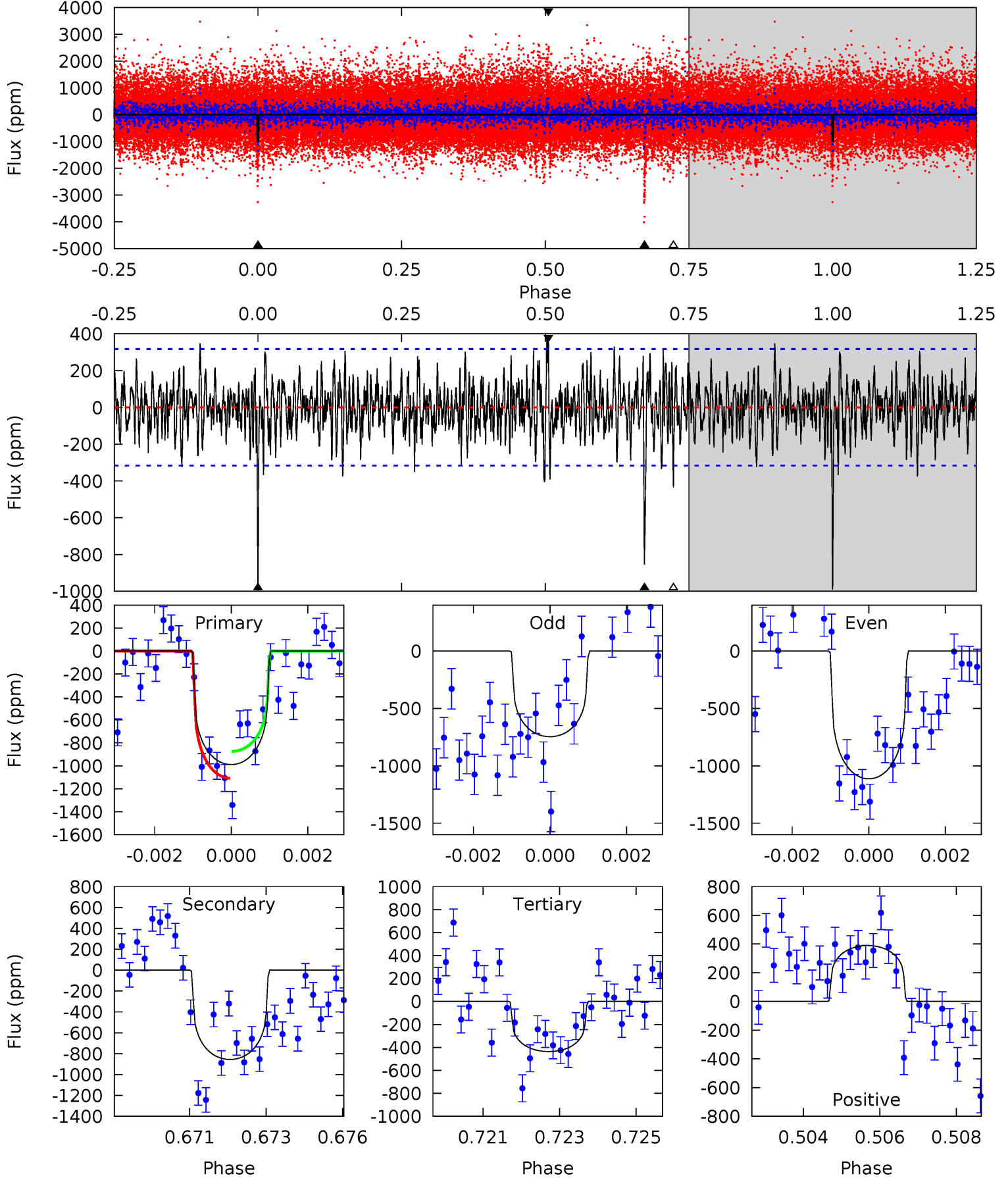
TCE 007691027-01 P=424.411852 Days $T_0=492.695082$ (BKJD)



DV Model-Shift Uniqueness Test

007691027-01, P = 424.305148 Days, E = 68.527815 Days

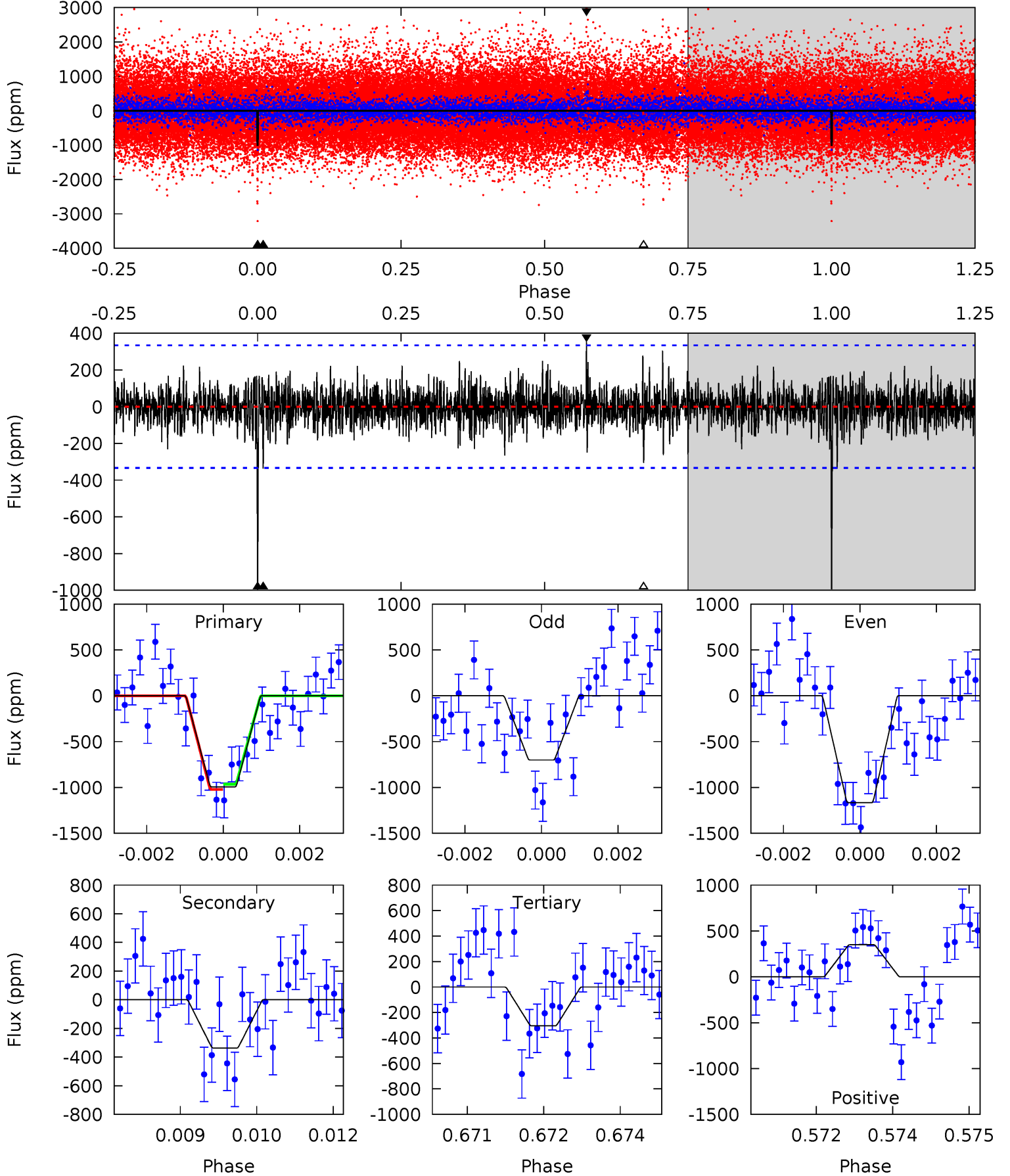
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.6	14.4	7.33	6.54	5.32	3.08	1.96	9.29	10.1	7.04	7.83	2.93	1.02	0.28	1.97



Alt Model-Shift Uniqueness Test

007691027-01, $P = 424.411852$ Days, $E = 68.283230$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	5.40	4.89	5.61	5.35	3.13	1.22	11.0	10.3	0.51	-0.21	3.54	1.25	0.26	0.46



Stellar Parameters For KIC 007691027

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5447^{+164}_{-164}	$4.587^{+0.030}_{-0.127}$	$-0.140^{+0.300}_{-0.300}$	$0.790^{+0.152}_{-0.065}$	$0.886^{+0.074}_{-0.099}$	$2.531^{+0.411}_{-0.920}$
	+3%/-3%	+1%/-3%	+214%/-214%	+19%/-8%	+8%/-11%	+16%/-36%
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 007691027-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-855 ± 60	$2.61^{+1.25}_{-1.19}$	296^{+14}_{-13}	5440^{+1952}_{-799}	$77042^{+178615}_{-41424}$
Alt.	-337 ± 62	$2.99^{+1.29}_{-1.20}$	295^{+14}_{-11}	4250^{+983}_{-526}	22804^{+41926}_{-11983}

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

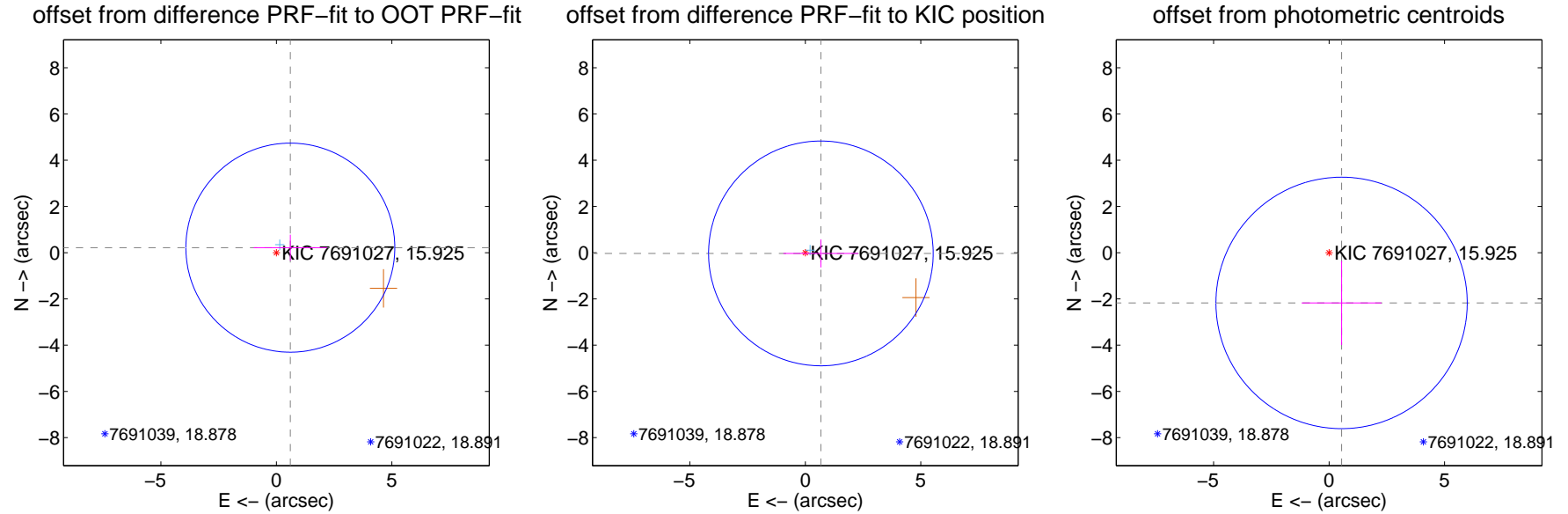
DV Centroid Data

Supplemental centroid analysis for 007691027-01. Kepler magnitude: 15.93. Transit SNR 8.57

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.642 ± 1.507	0.43	-0.604 ± 1.589	0.217 ± 0.559
PRF-fit source offset from KIC position	0.675 ± 1.620	0.42	-0.674 ± 1.622	-0.031 ± 0.606
photometric centroid source offset	2.24 ± 1.81	1.24	-0.54 ± 1.73	-2.17 ± 1.82

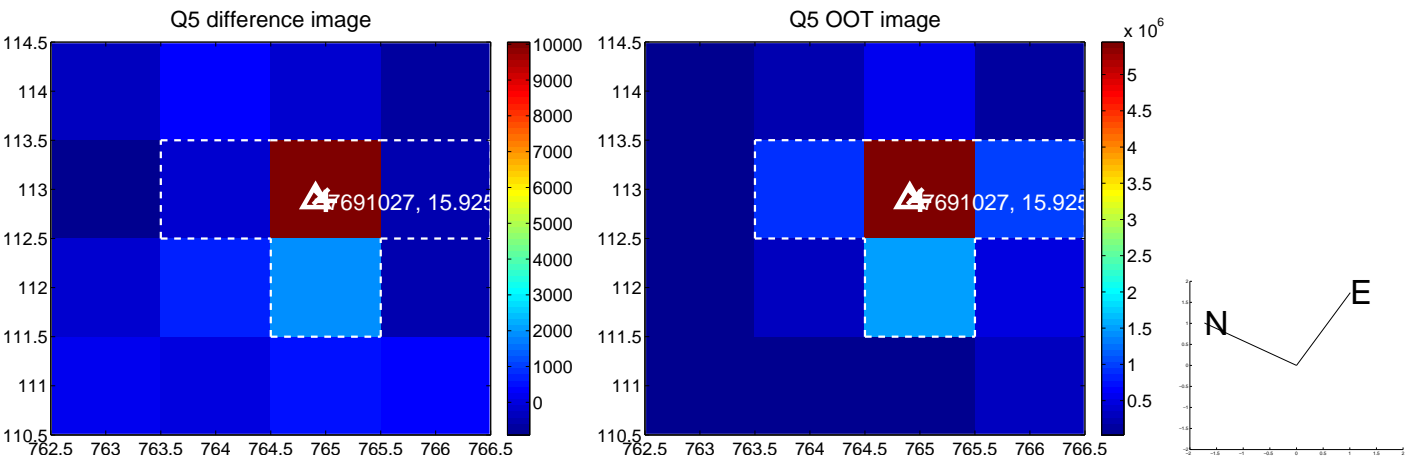


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

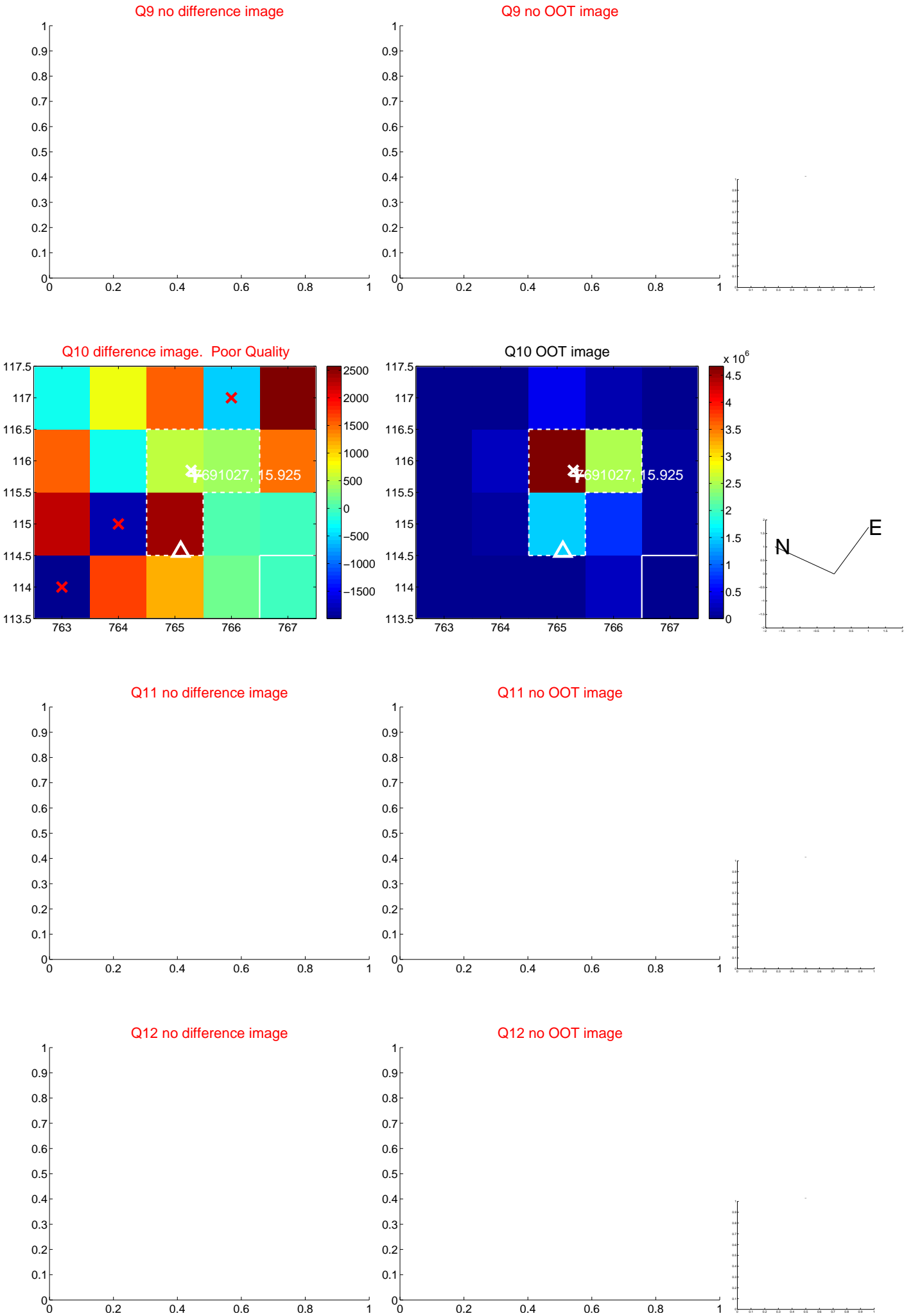
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



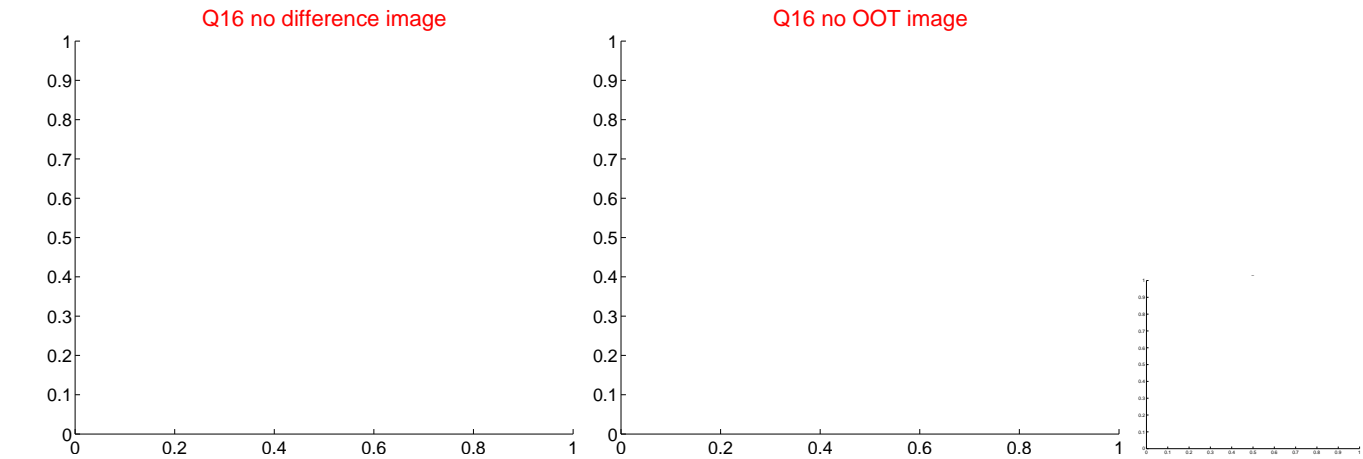
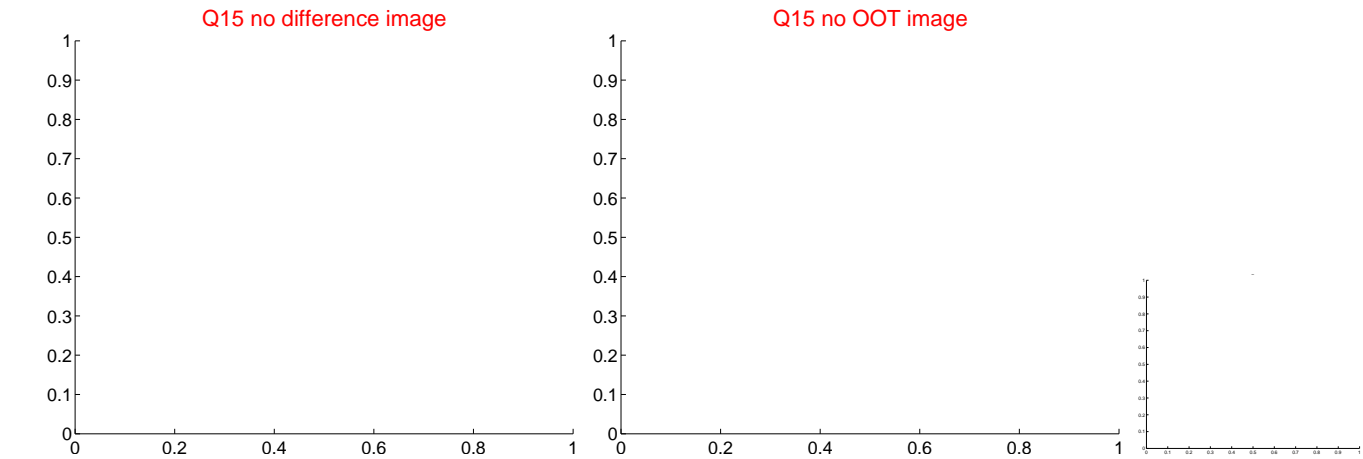
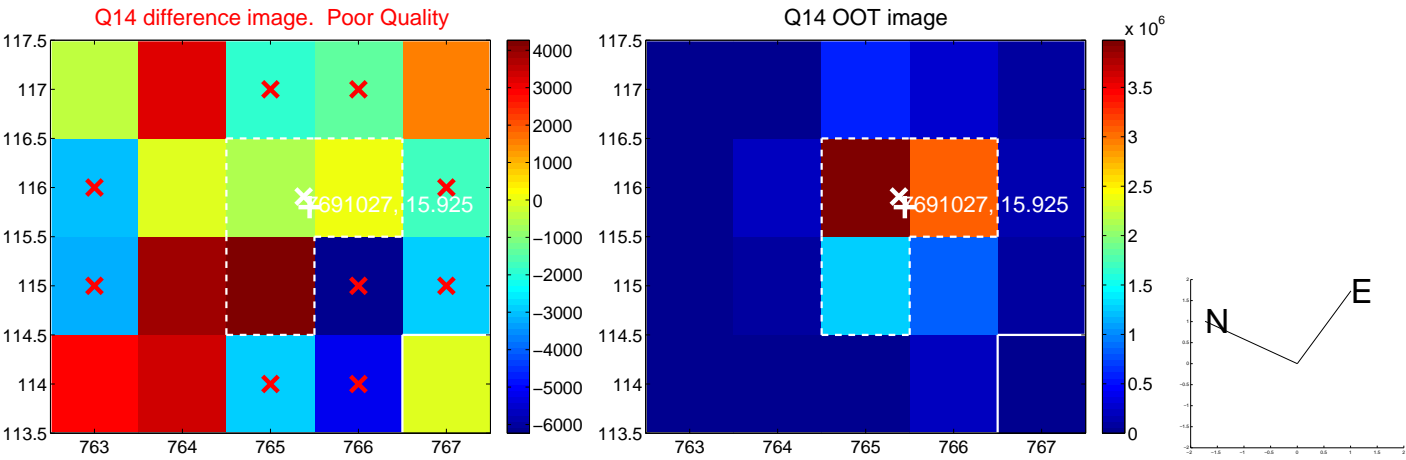
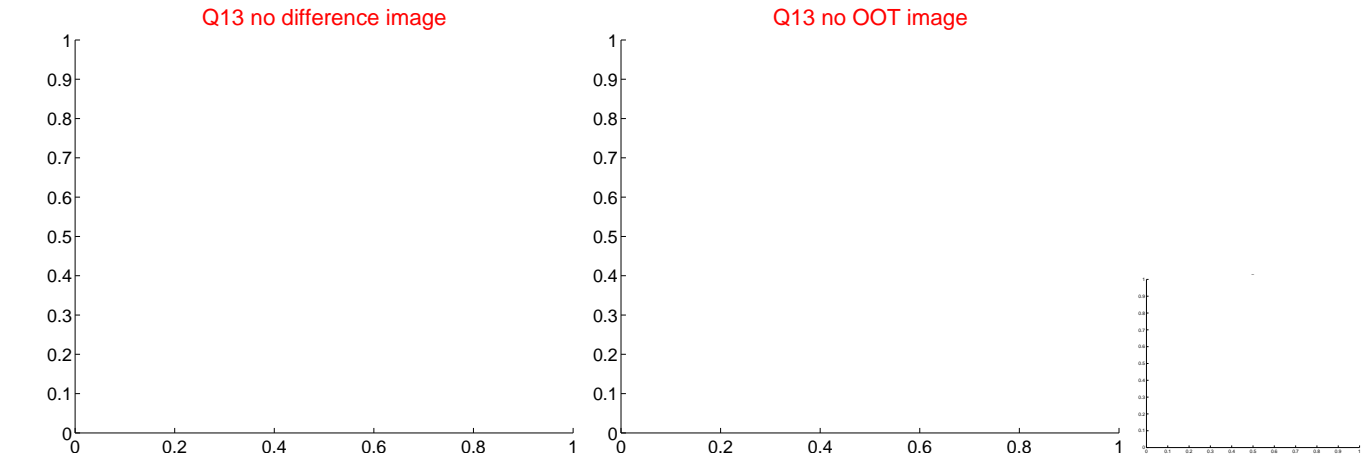
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



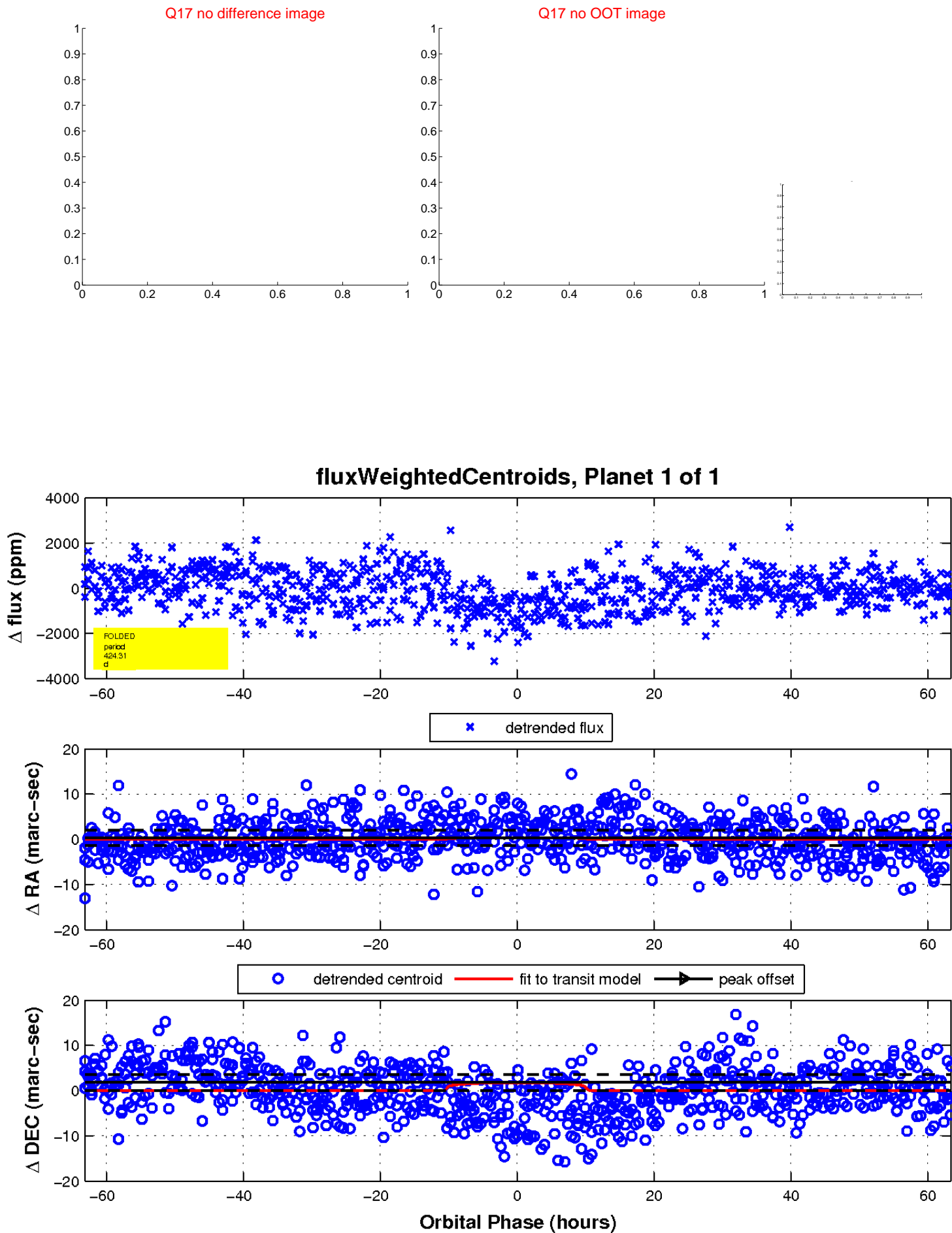
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

