

KIC 008172277

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})
008172277-01	OBS	No	380.222660	367.779064	1053.5	21.134	8.2	8.8	0.80	5398	3.02	0.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008172277-01	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.

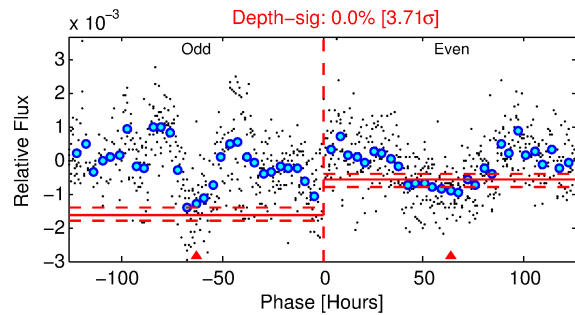
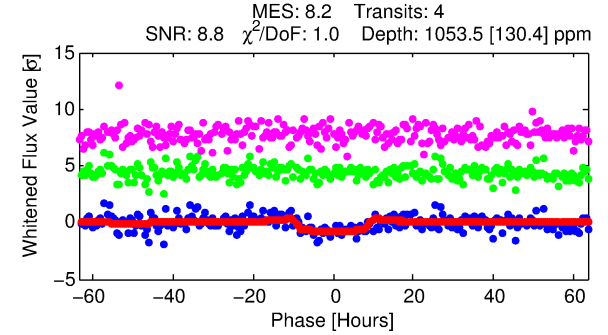
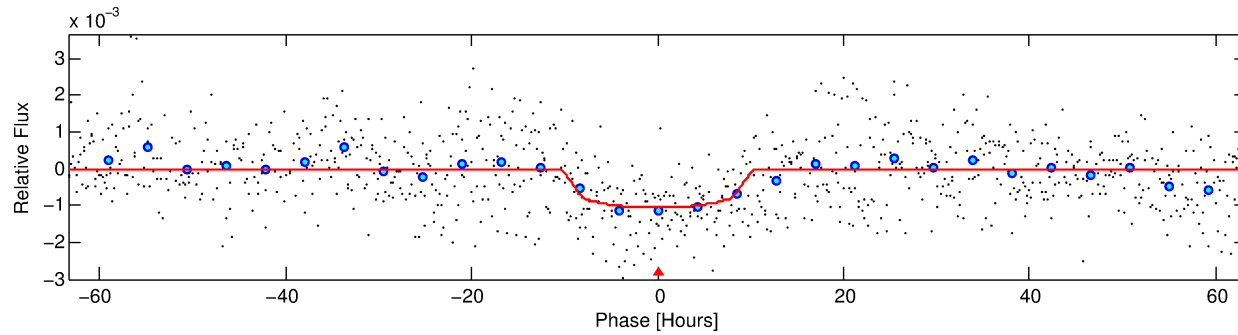
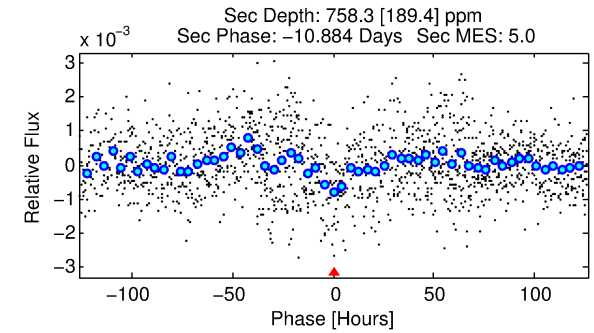
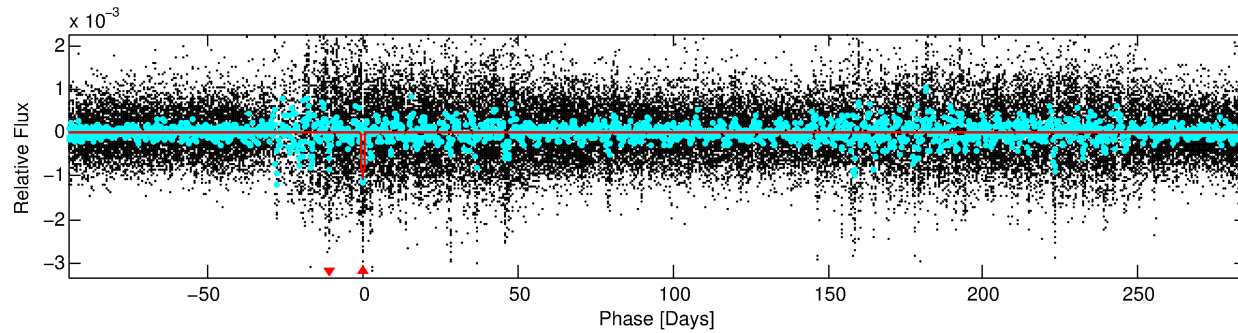
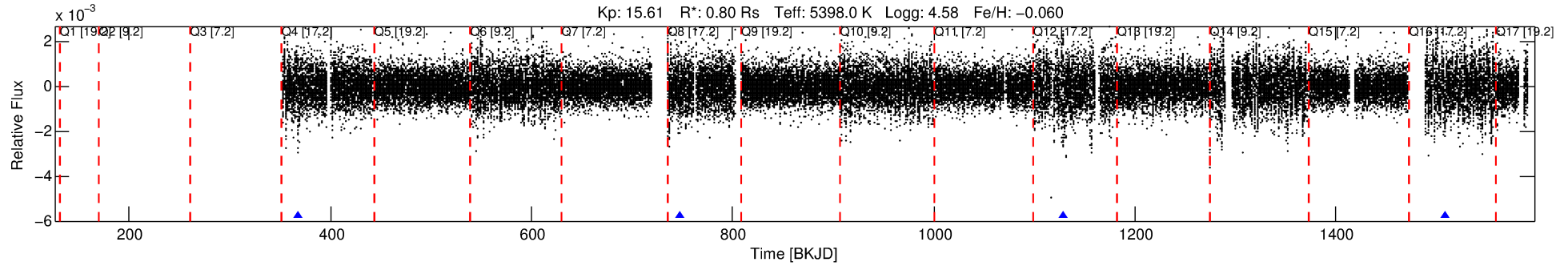
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008172277-01

No Significant Match Found

DV One-Page Summary

KIC: 8172277 Candidate: 1 of 1 Period: 380.223 d



DV Fit Results:

Period = 380.22266 [0.01612] d
Epoch = 367.7791 [0.0280] BKJD
Rp/R* = 0.0346 [0.0039]
a/R* = 78.24 [28.77]
b = 0.86 [0.11]
Seff = 0.50 [0.14]
Teq = 215 [15] K
Rp = 3.02 [0.68] Re
a = 0.9866 [0.1593] AU
Ag = 44487.94 [18303.91] [2.43σ]
Teffp = 4818 [439] K [10.47σ]

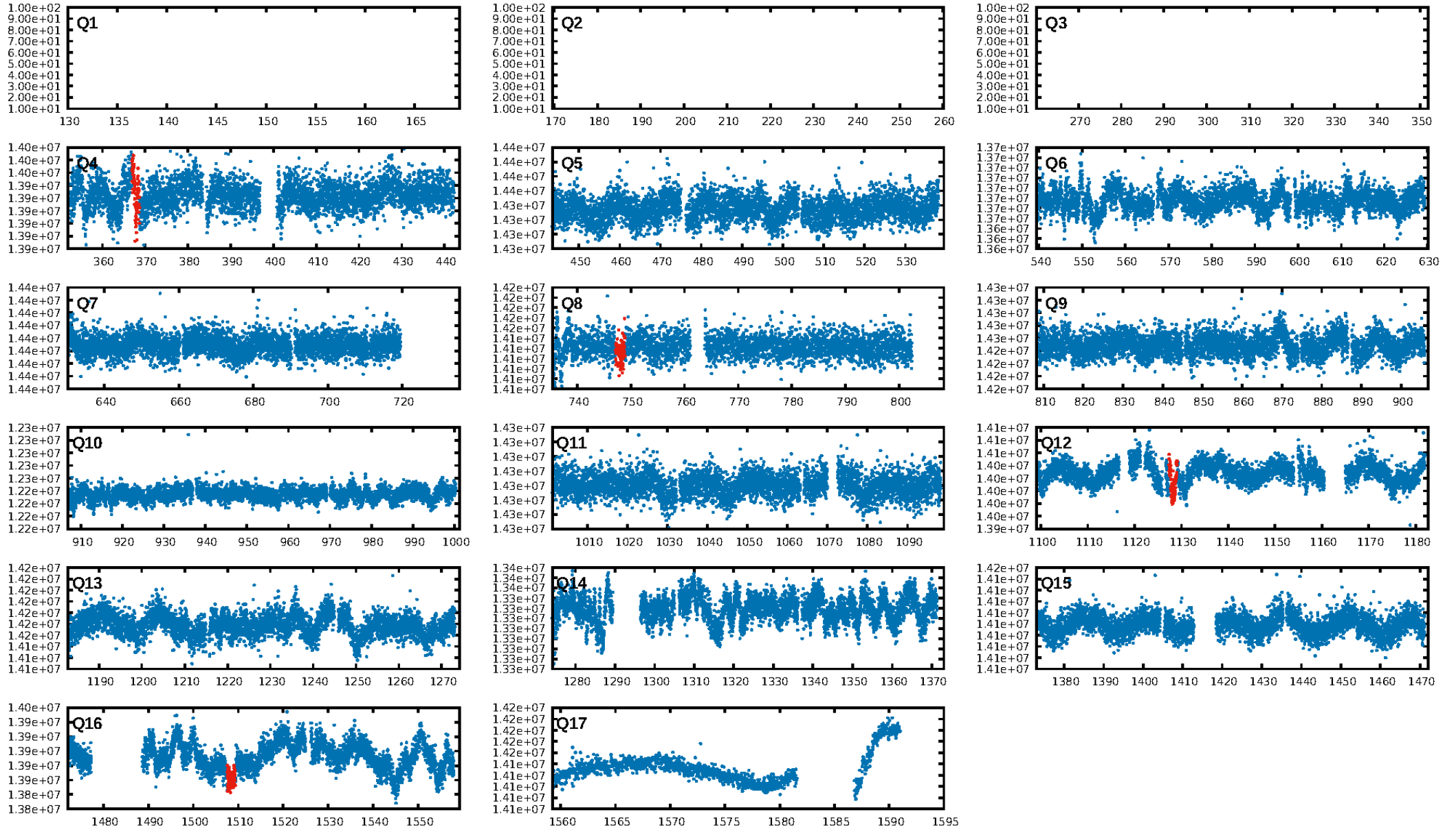
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.23e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 28.63
Centroid-sig: 4.6%
Centroid-so: 3.547 arcsec [1.87σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

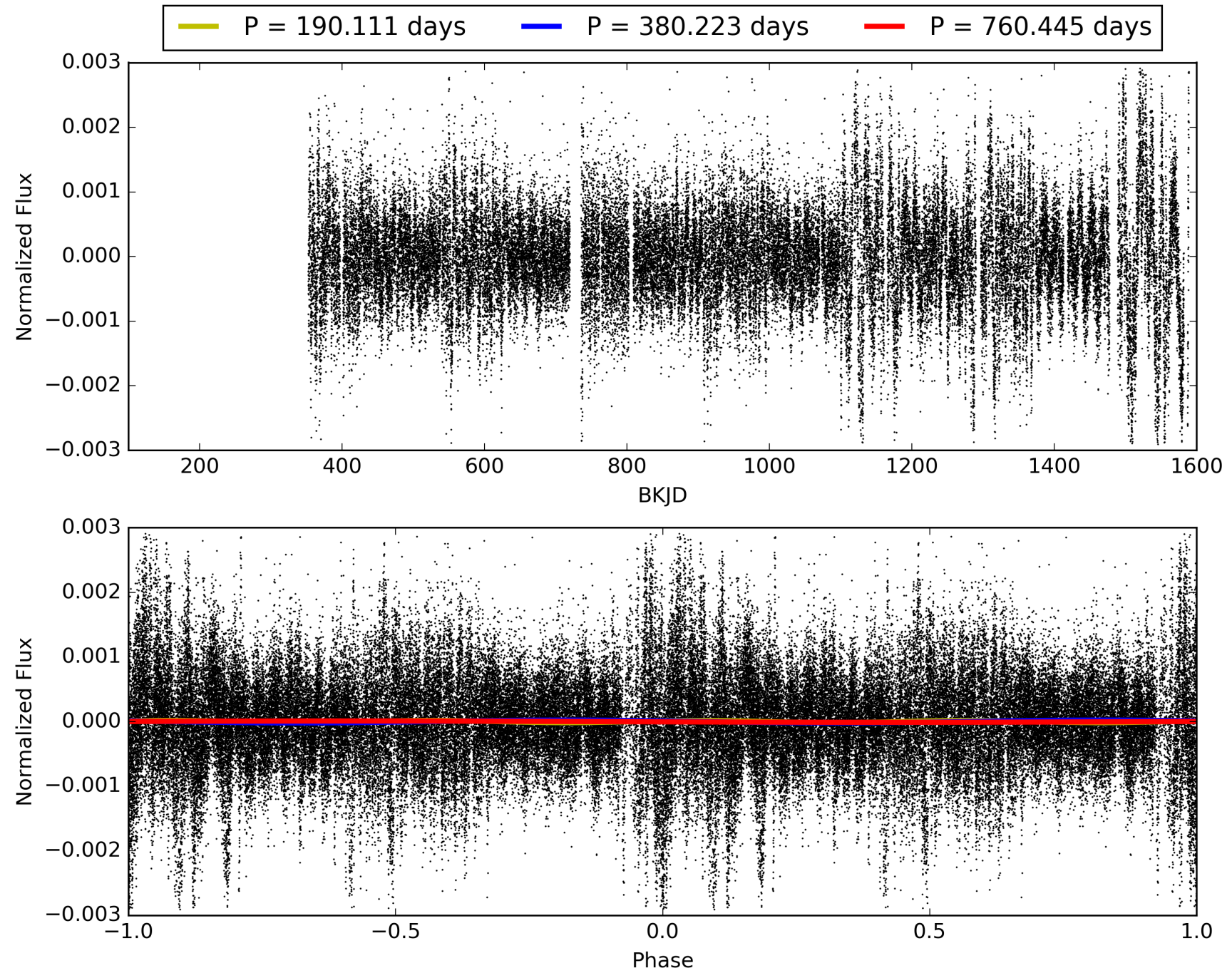
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:58:11 Z

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

TCE 008172277-01, PDC Light Curves

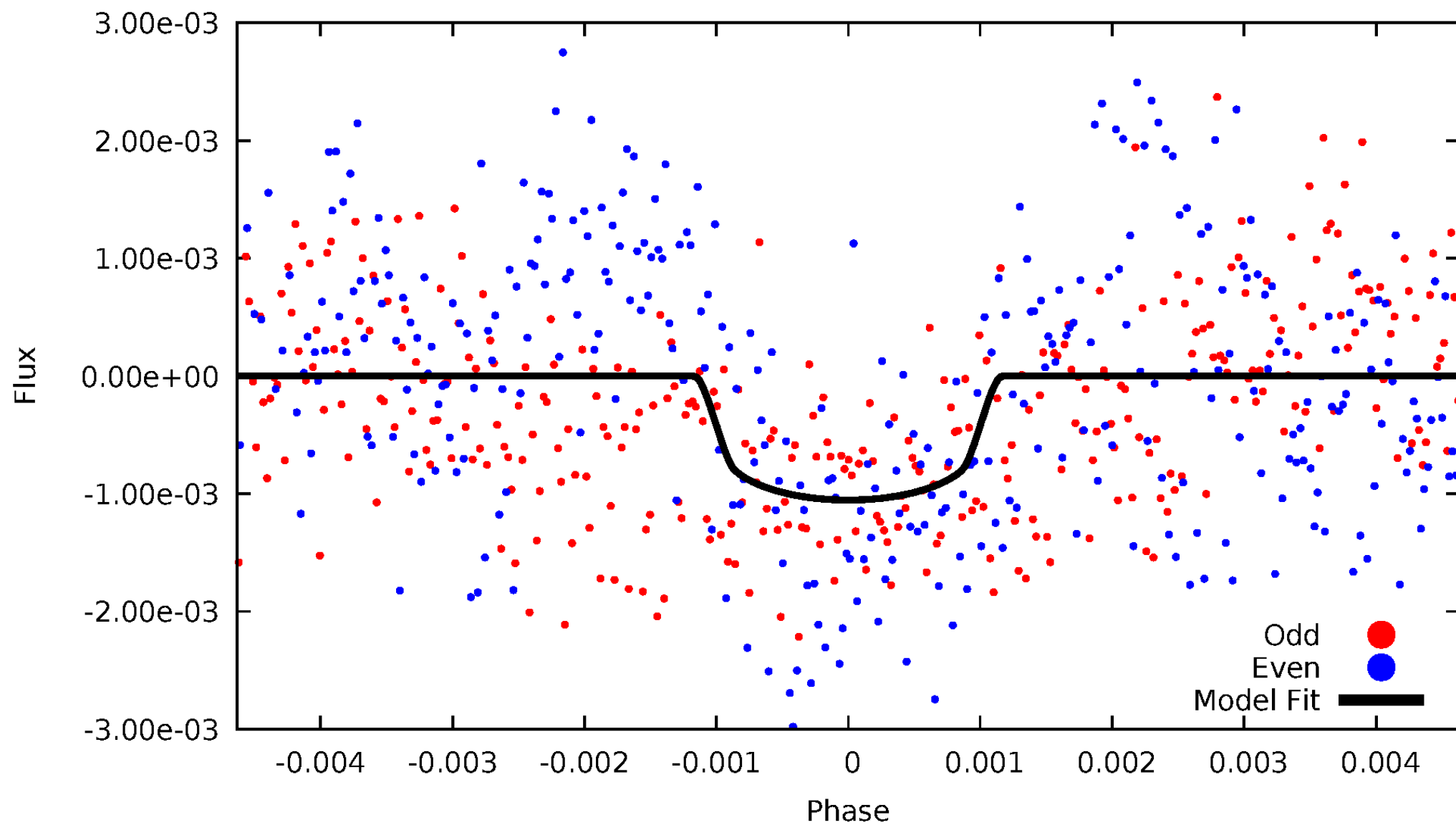


TCE 008172277-01



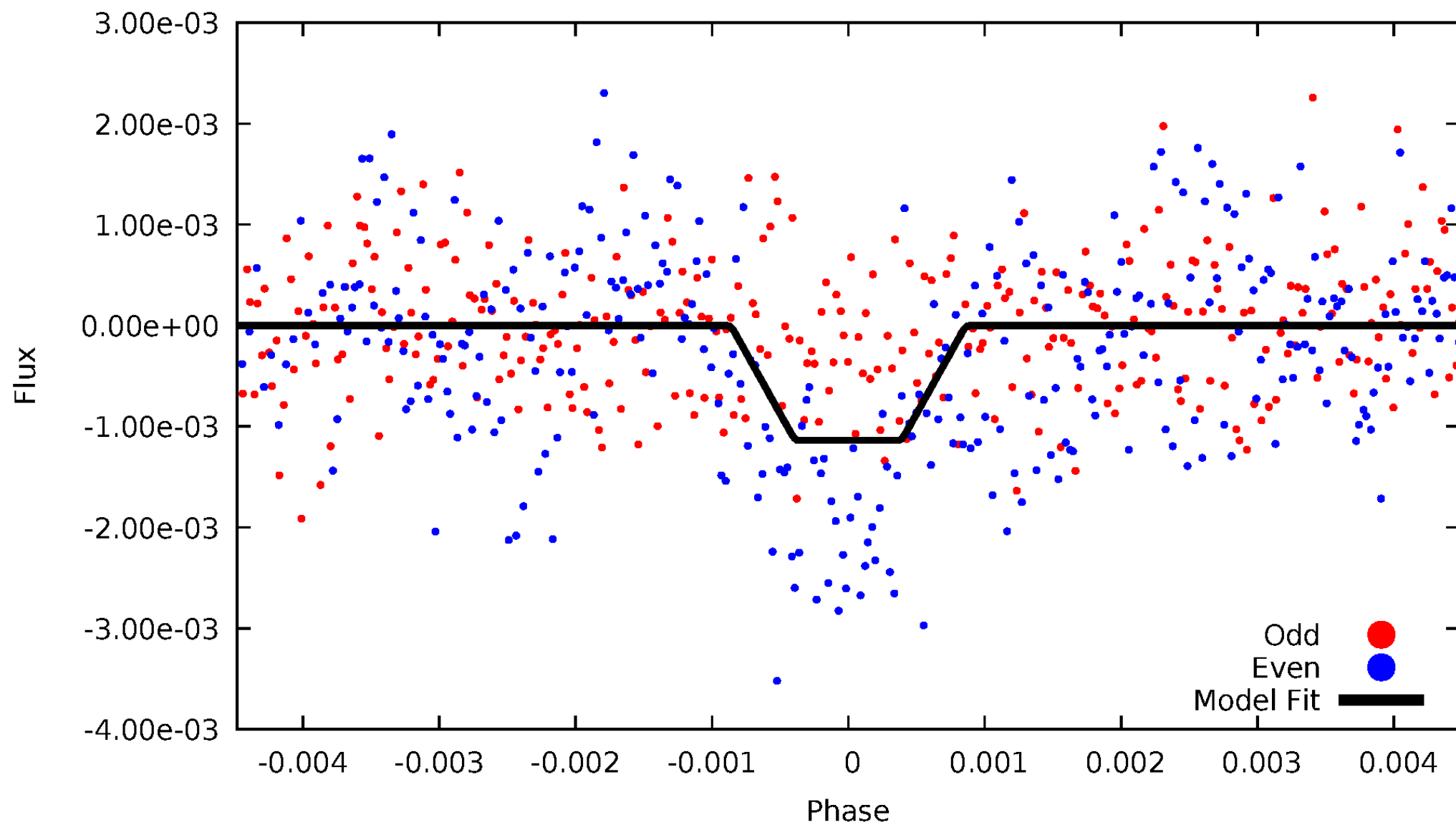
DV Odd/Even

TCE 008172277-01



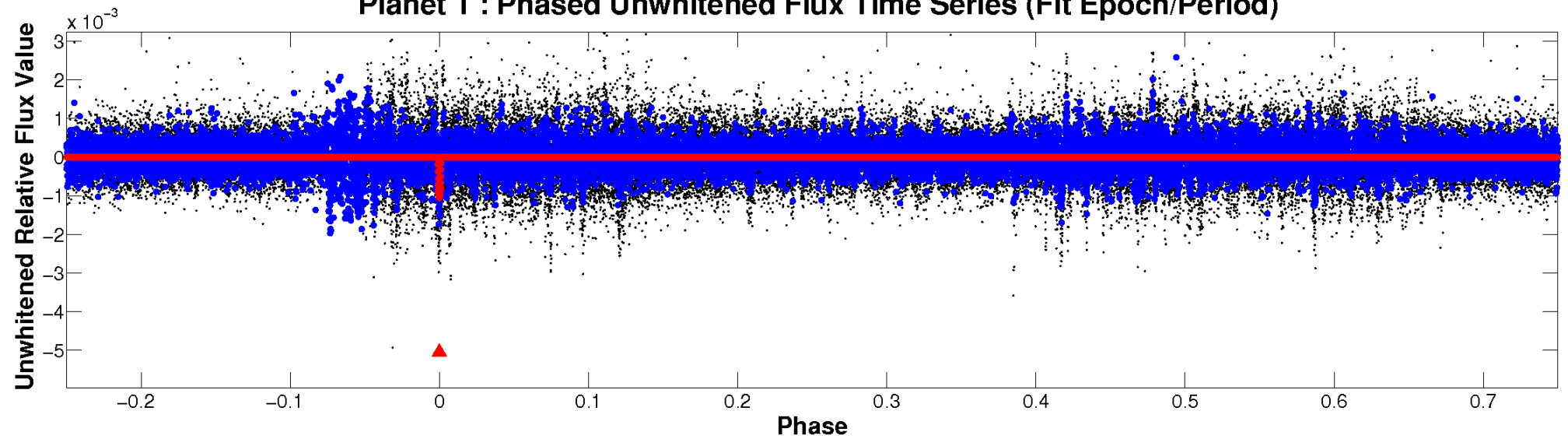
ALT Odd/Even

TCE 008172277-01

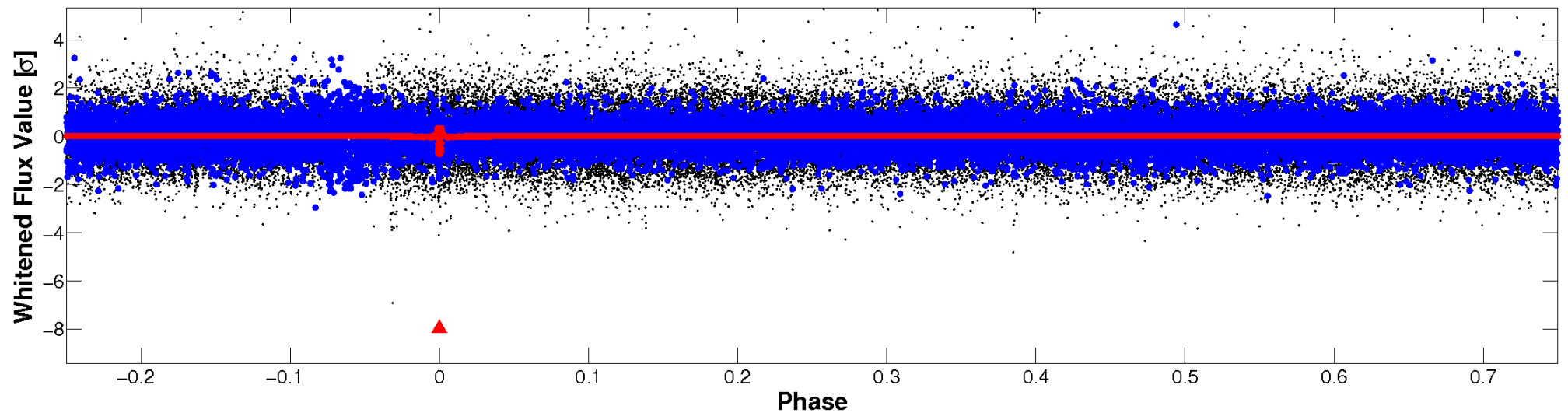


Non-Whitened Vs. Whitened Light Curve

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 008172277-01 P=380.222660 Days $T_0=367.779064$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008172277-01 P=380.222660 Days $T_0=367.779064$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

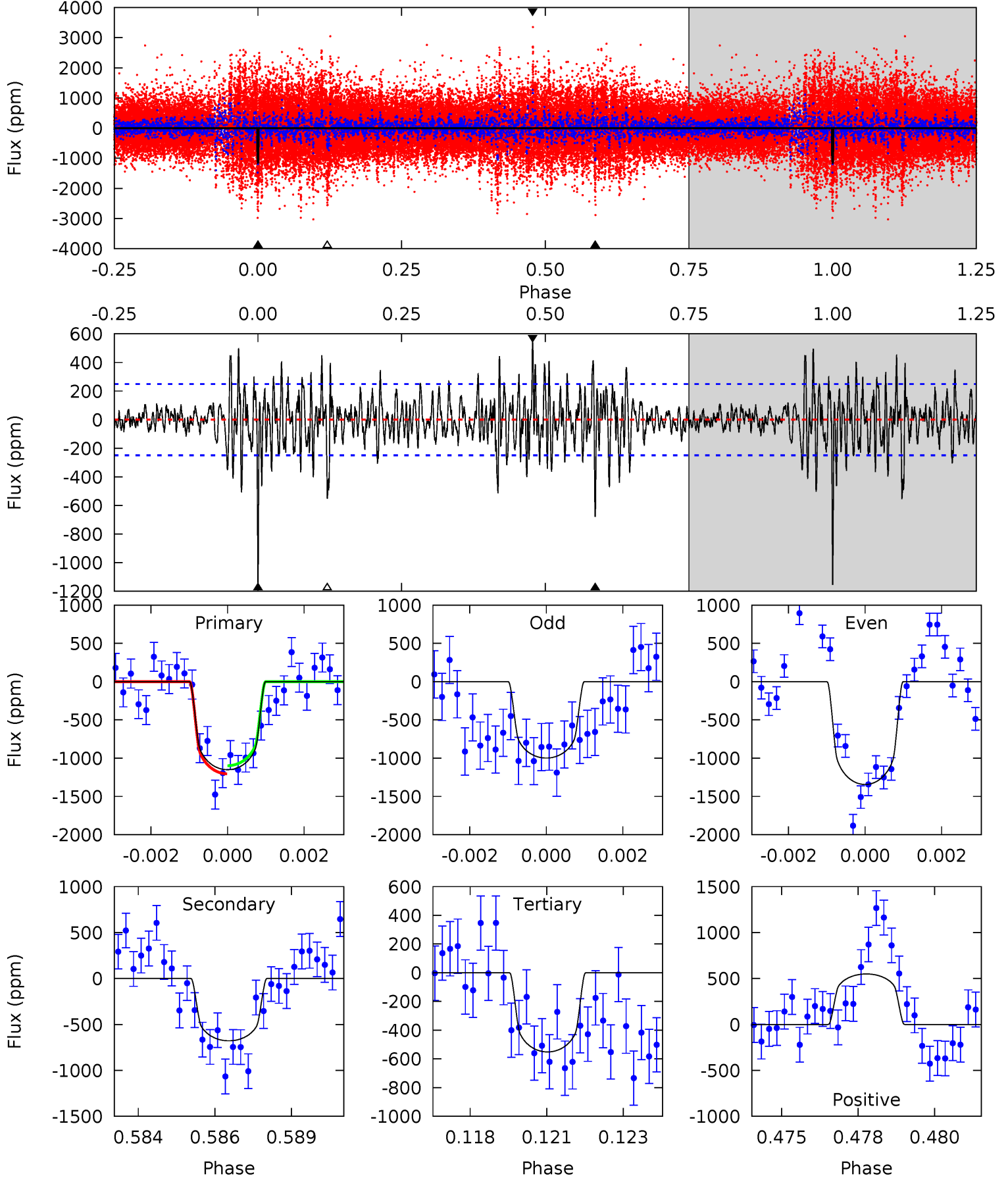
TCE 008172277-01 P=380.132328 Days $T_0=367.818400$ (BKJD)



DV Model-Shift Uniqueness Test

008172277-01, P = 380.222660 Days, E = 367.779064 Days

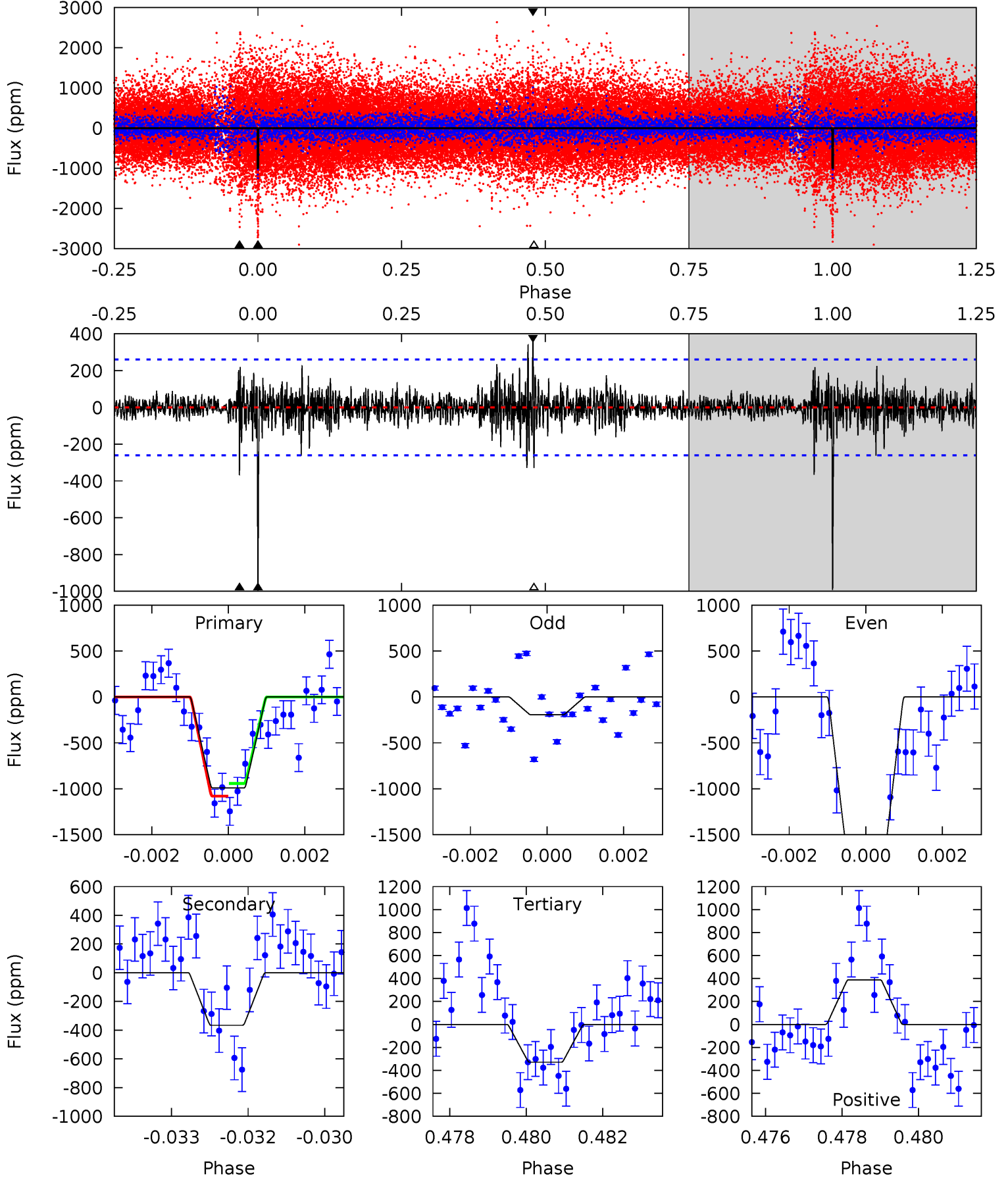
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	14.4	11.7	11.7	5.30	3.04	3.02	12.7	12.8	2.70	2.74	3.66	0.97	0.32	1.14



Alt Model-Shift Uniqueness Test

008172277-01, P = 380.132328 Days, E = 367.818400 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	7.51	6.76	7.97	5.35	3.13	1.21	13.6	12.4	0.75	-0.46	17.6	0.89	0.28	1.41



Stellar Parameters For KIC 008172277

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5398^{+185}_{-185}	$4.578^{+0.032}_{-0.128}$	$-0.060^{+0.300}_{-0.300}$	$0.801^{+0.154}_{-0.066}$	$0.891^{+0.077}_{-0.105}$	$2.441^{+0.493}_{-0.896}$
	+3%/-3%	+1%/-3%	+500%/-500%	+19%/-8%	+9%/-12%	+20%/-37%
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 008172277-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-679 ± 47	$3.11^{+0.46}_{-0.40}$	306^{+15}_{-14}	4789^{+293}_{-263}	37048^{+11196}_{-9041}
Alt.	-366 ± 49	$3.03^{+0.43}_{-0.41}$	305^{+17}_{-13}	4283^{+257}_{-230}	20751^{+7342}_{-4949}

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

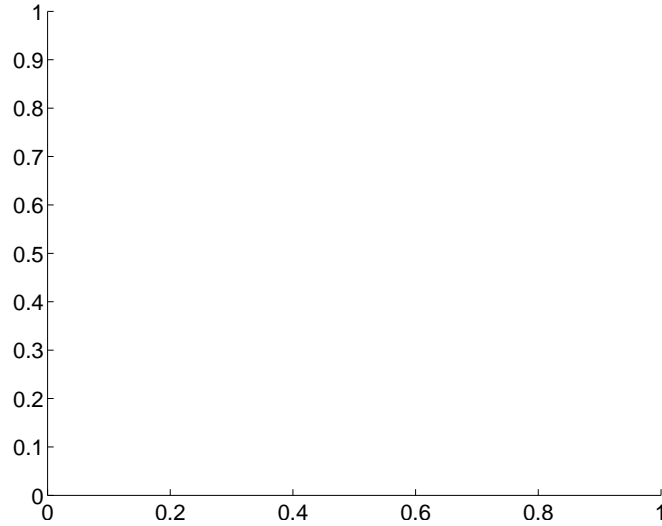
Supplemental centroid analysis for 008172277-01. Kepler magnitude: 15.61. Transit SNR 8.83

There are 0 quarters with good PRF difference image offsets

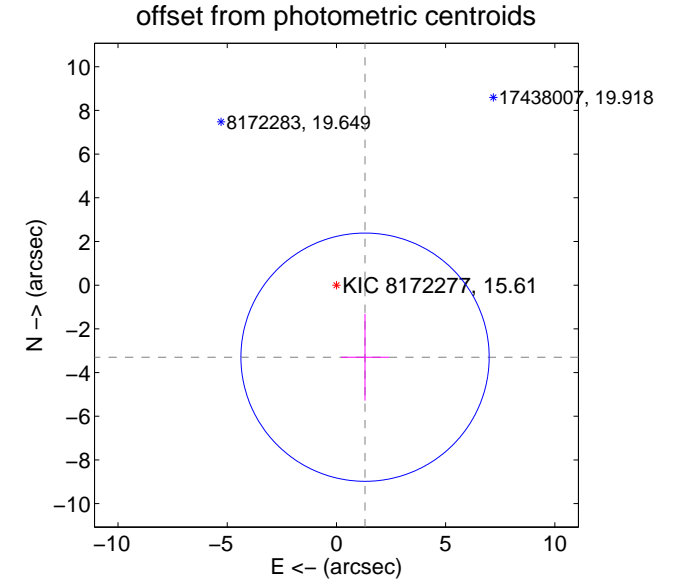
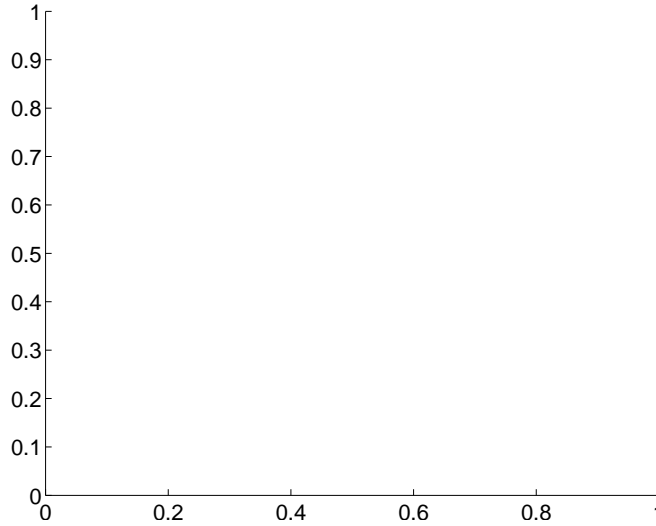
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	3.55 ± 1.89	1.87	-1.31 ± 1.09	-3.30 ± 1.99

There is no PRF-fit offset from OOT-fit

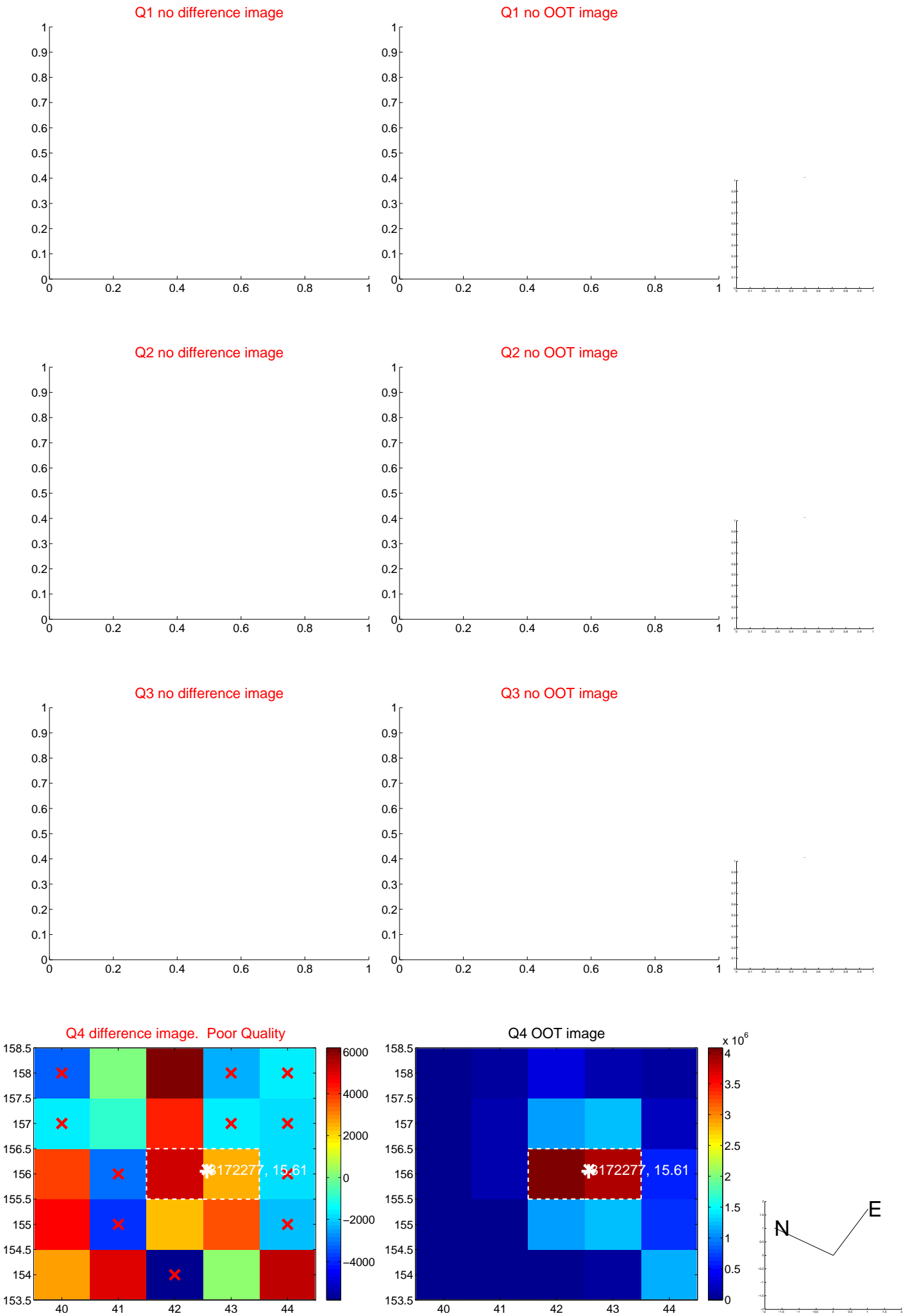


There is no PRF-fit offset from KIC

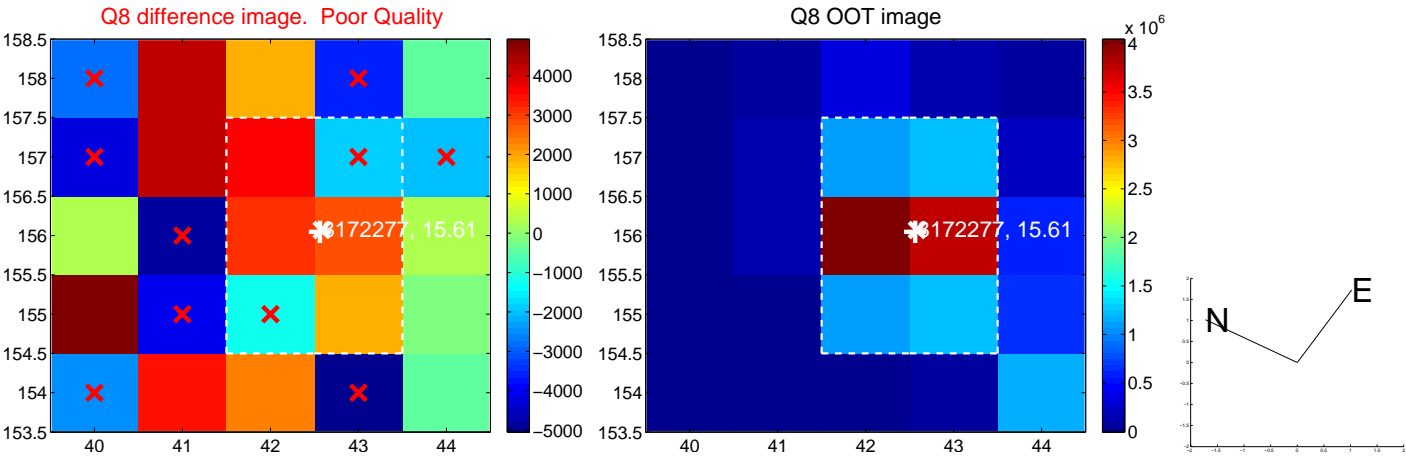
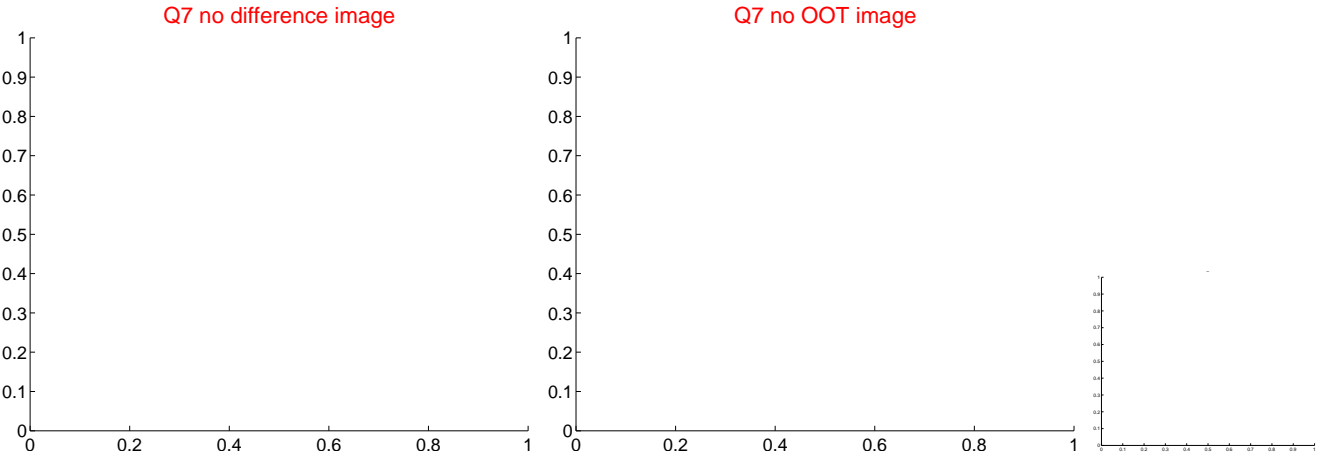
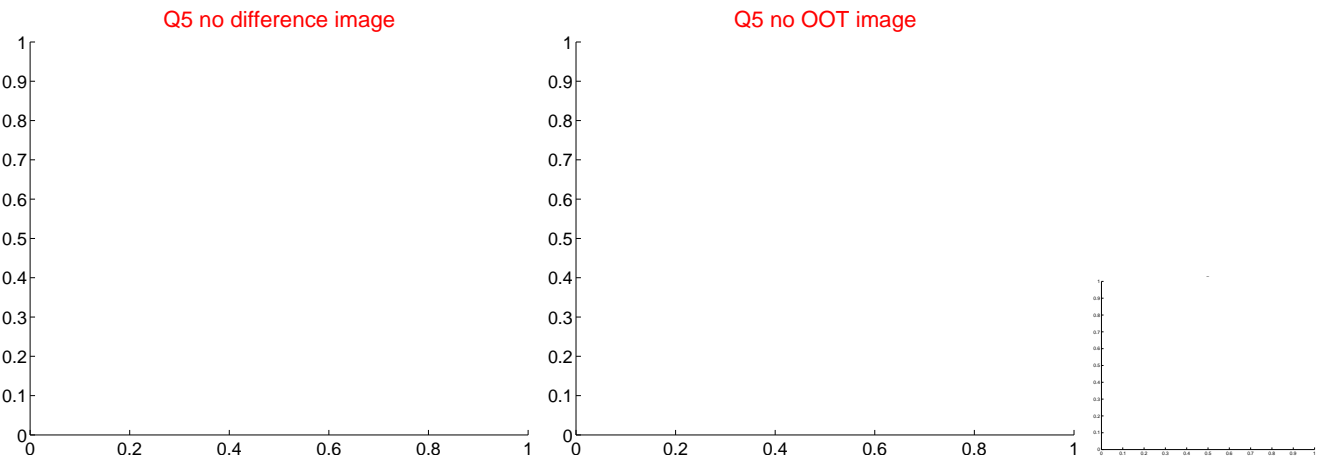


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



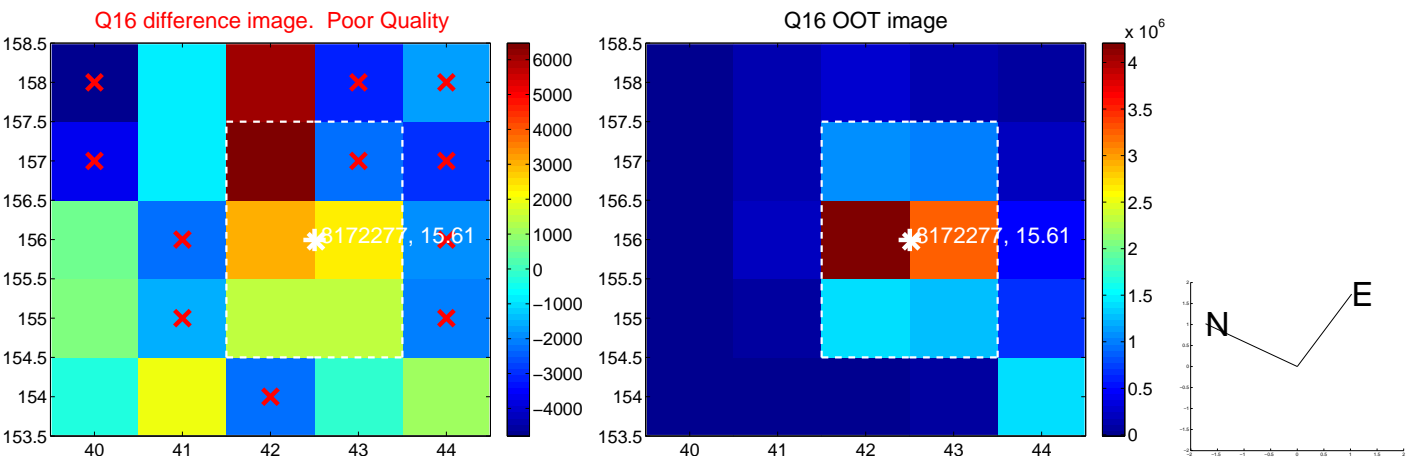
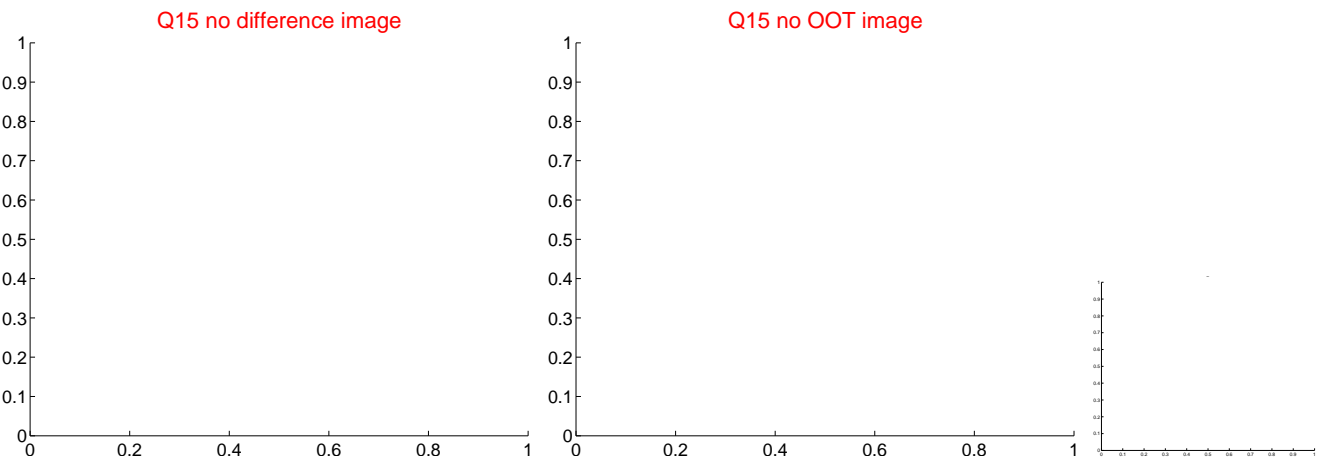
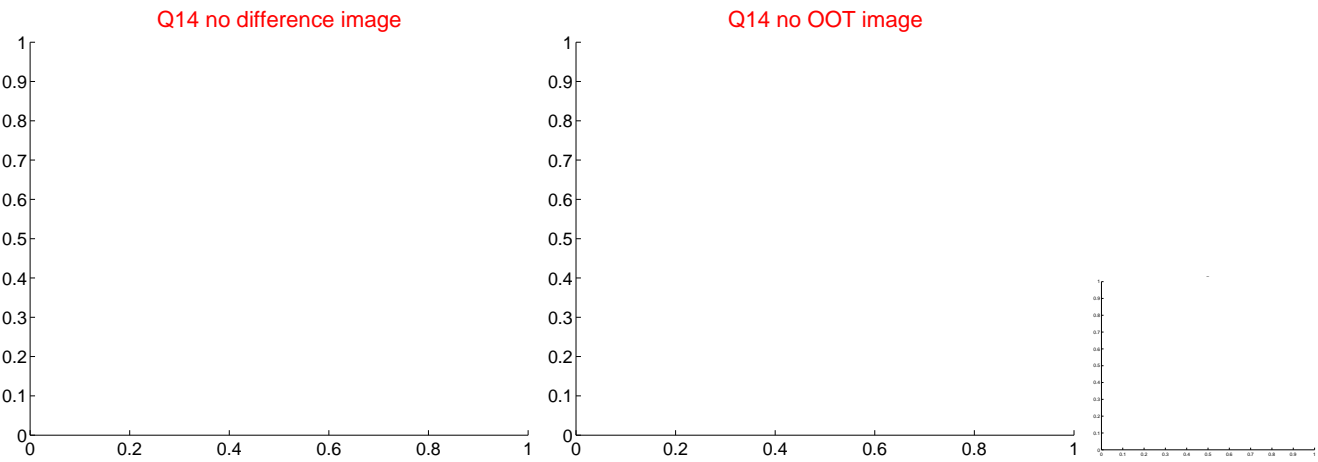
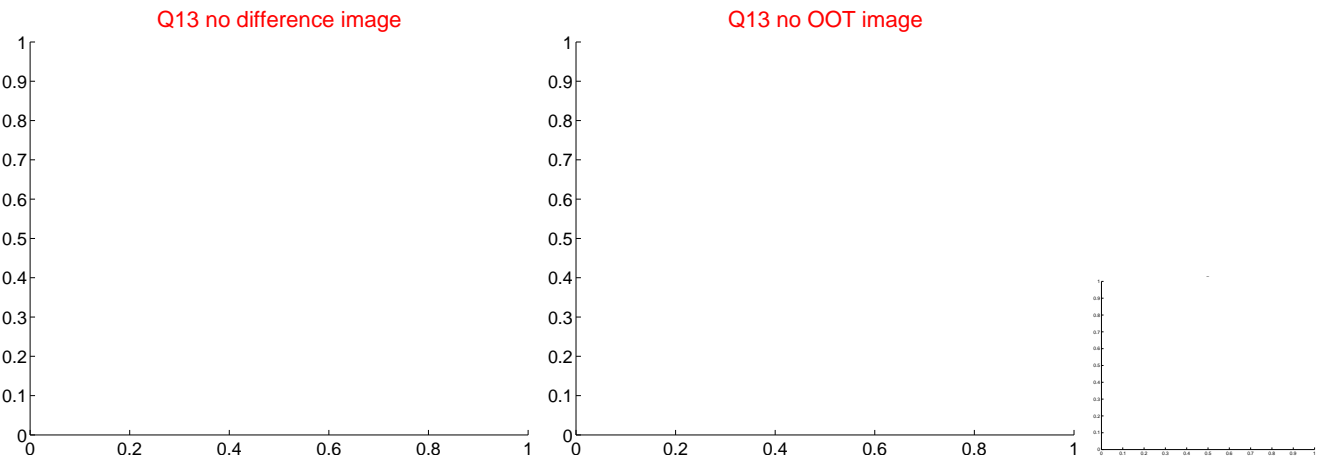
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



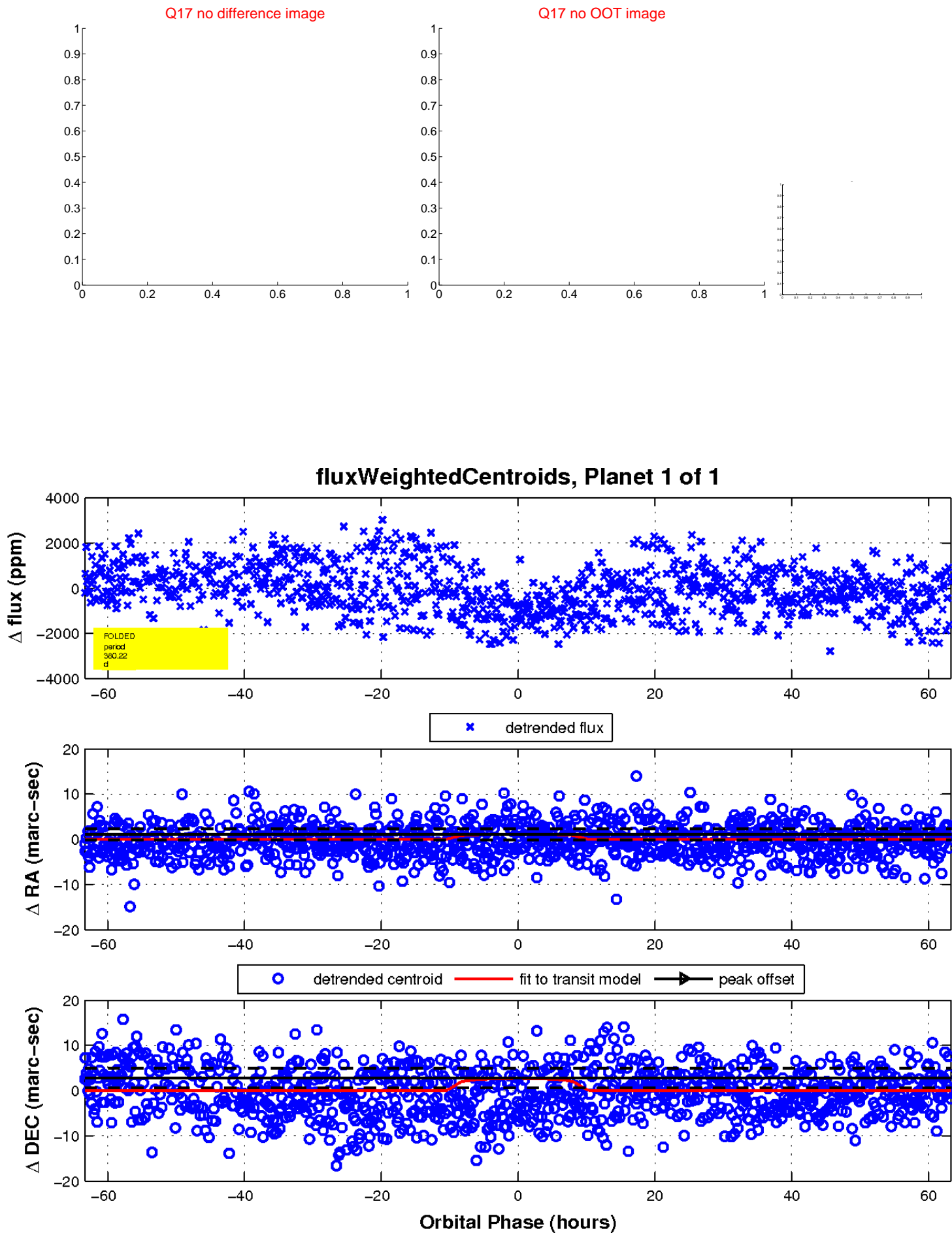
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

