

KIC 003732915

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})
003732915-01	OBS	No	349.970825	450.012080	214.2	13.691	7.9	7.7	0.74	5501	1.23	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003732915-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

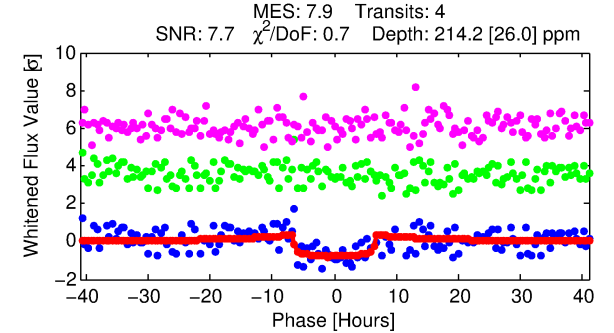
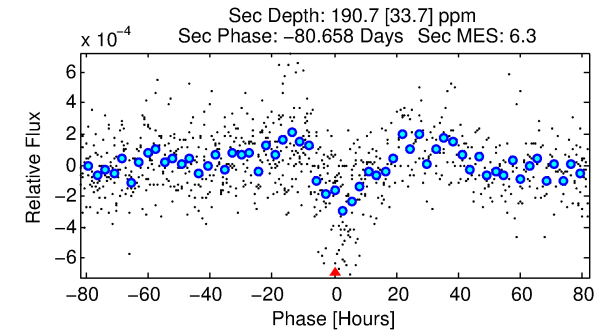
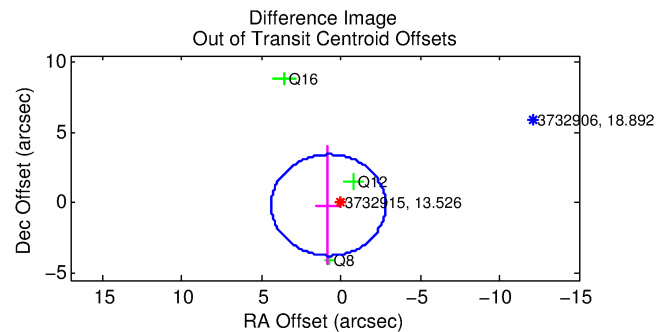
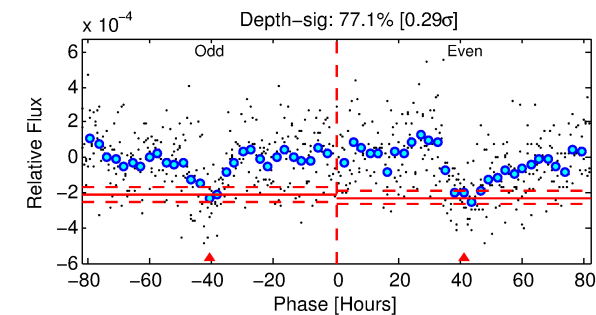
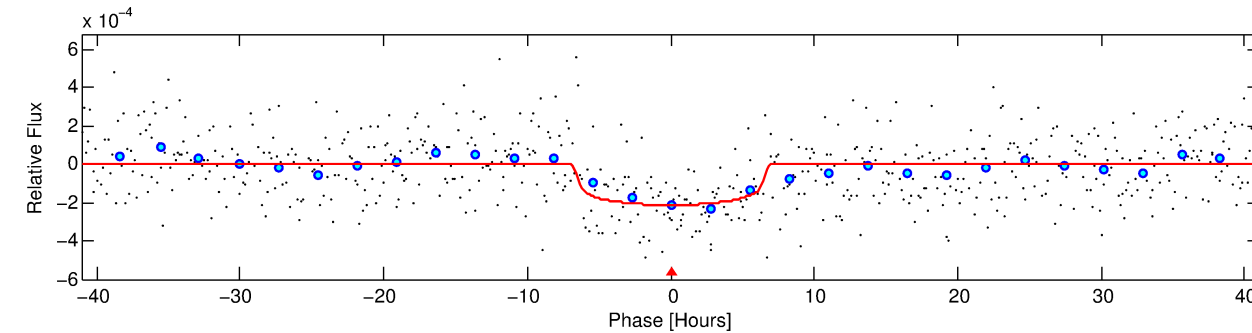
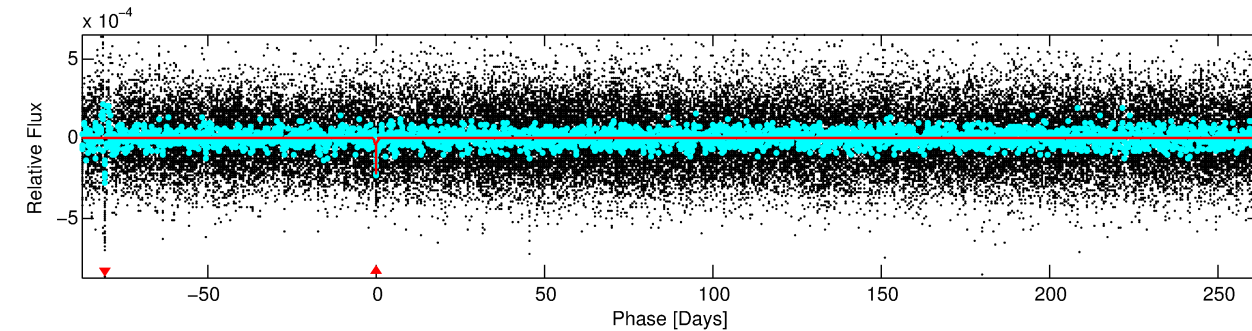
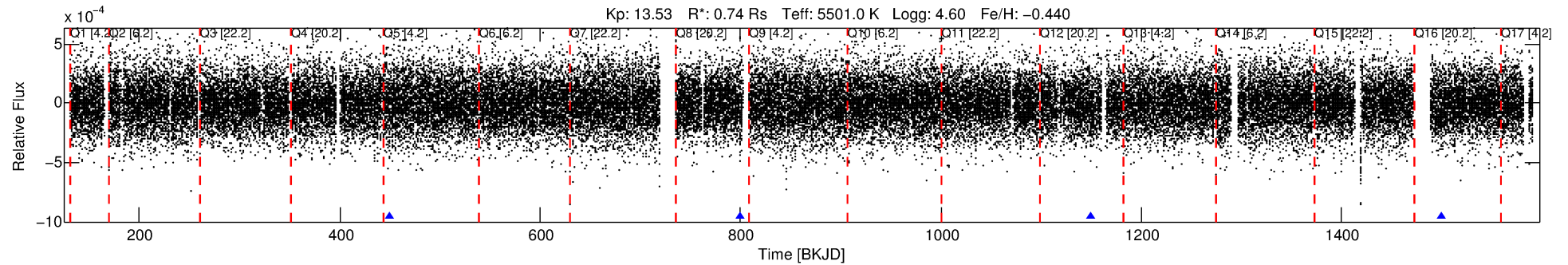
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003732915-01

No Significant Match Found

DV One-Page Summary

KIC: 3732915 Candidate: 1 of 1 Period: 349.971 d



DV Fit Results:

Period = 349.97083 [0.00935] d
Epoch = 450.0121 [0.0180] BKJD
Rp/R* = 0.0152 [0.0034]
a/R* = 111.79 [106.27]
b = 0.84 [0.34]
Seff = 0.55 [0.14]
Teq = 220 [13] K
Rp = 1.23 [0.36] Re
a = 0.8999 [0.1360] AU
Ag = 56359.50 [29450.19] [1.91σ]
Teffp = 5242 [645] K [7.78σ]

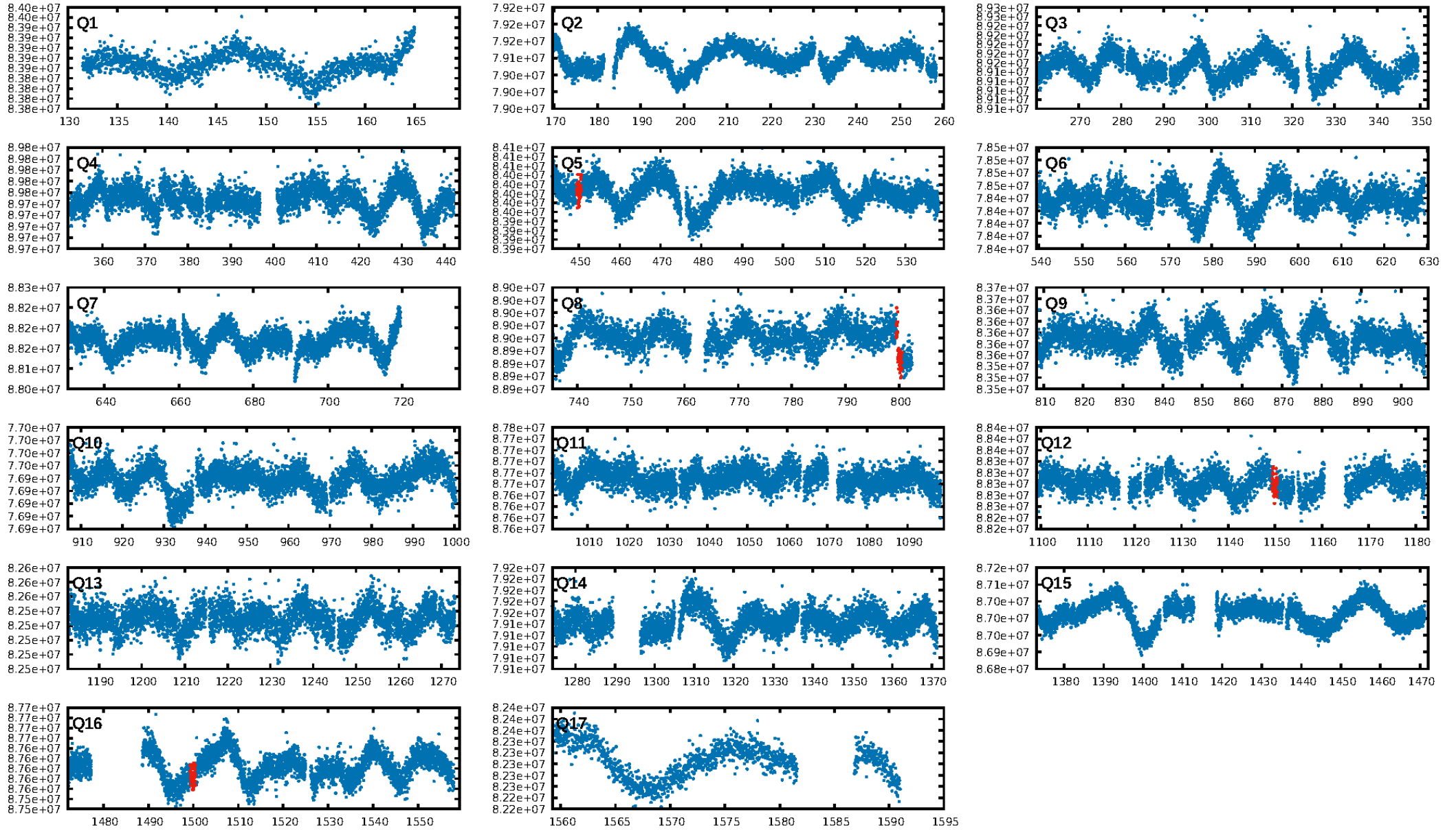
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 57.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.10e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 9.152
Centroid-sig: 88.2%
Centroid-so: 0.367 arcsec [0.24σ]
OotOffset-rm: 0.784 arcsec [0.65σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-rm: 0.879 arcsec [0.90σ]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [4/4]

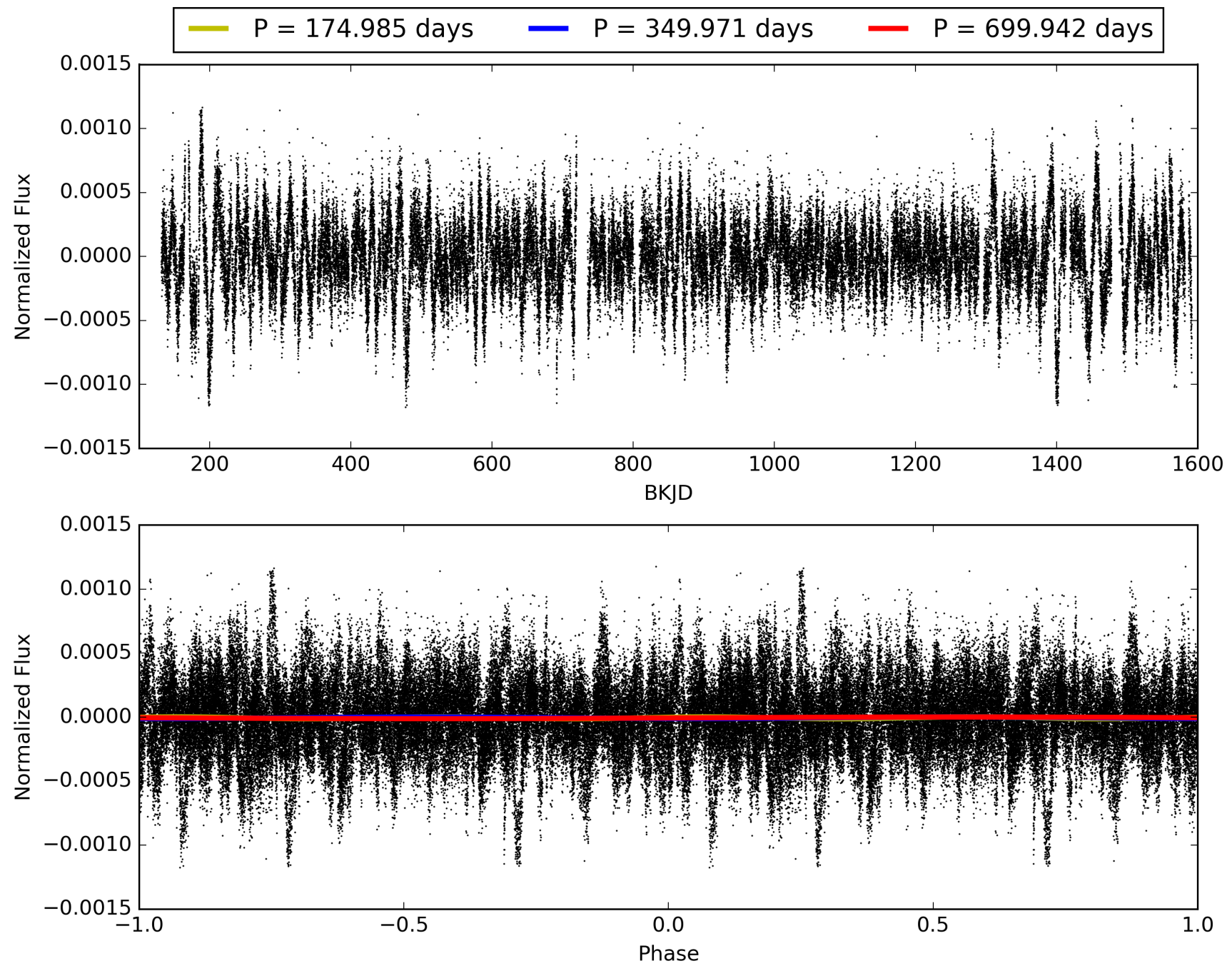
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:28:21 Z

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

TCE 003732915-01, PDC Light Curves

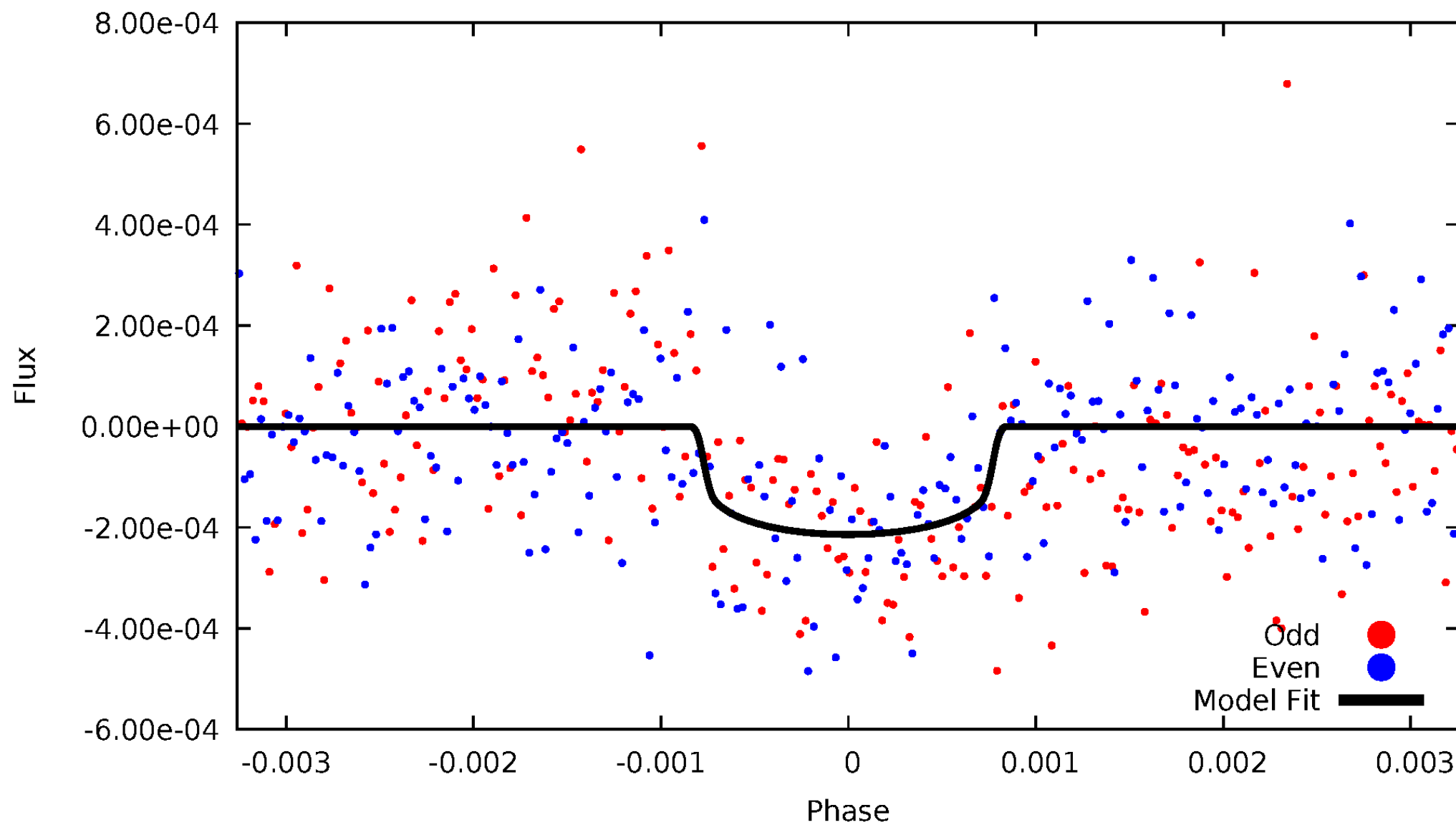


TCE 003732915-01



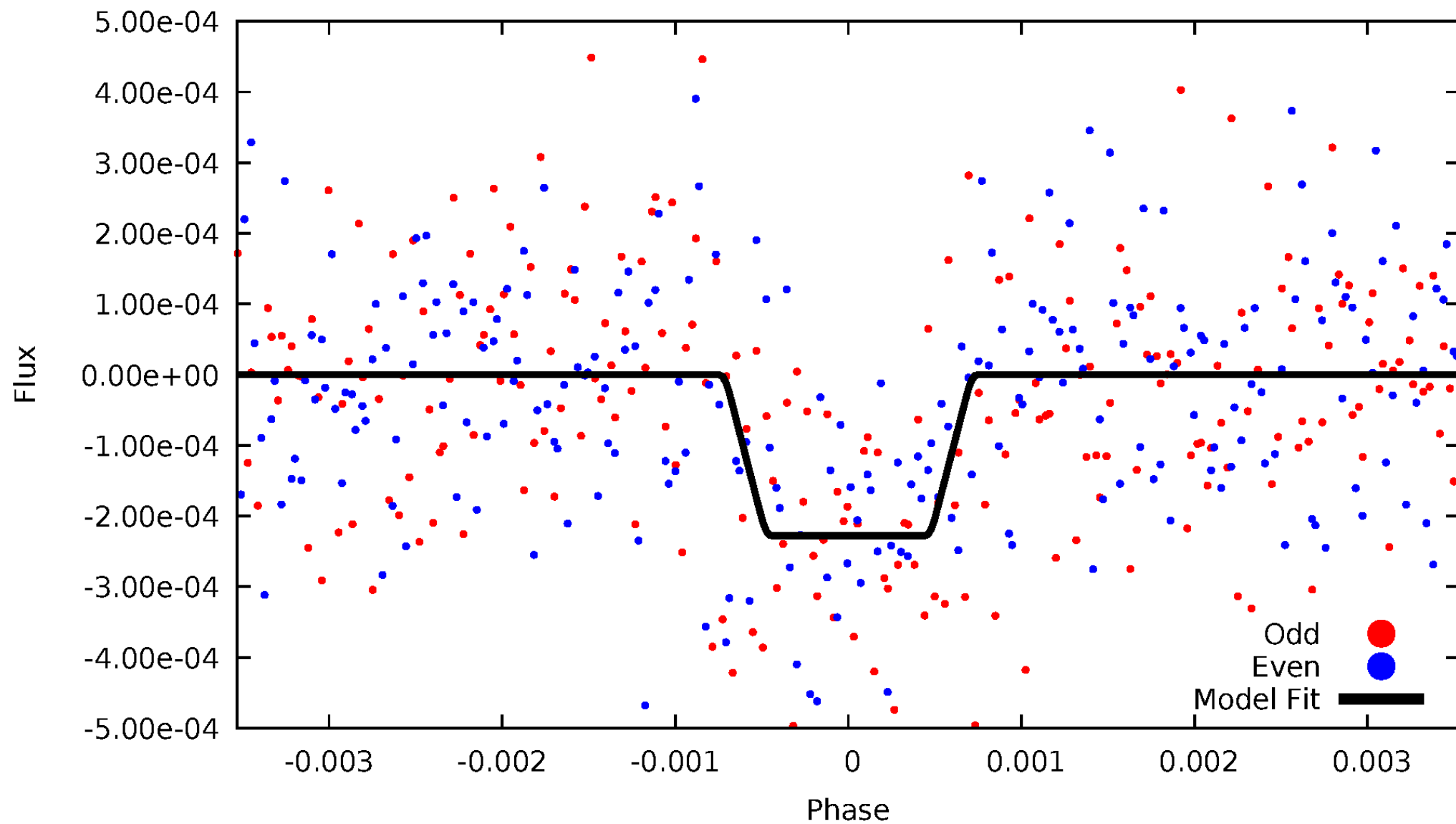
DV Odd/Even

TCE 003732915-01

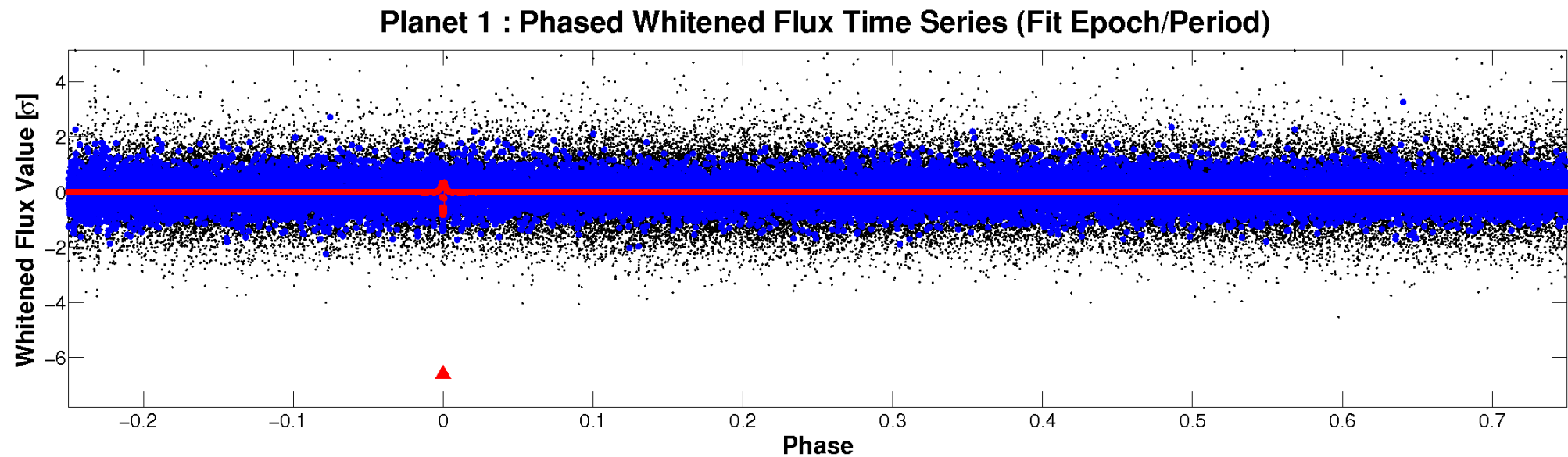
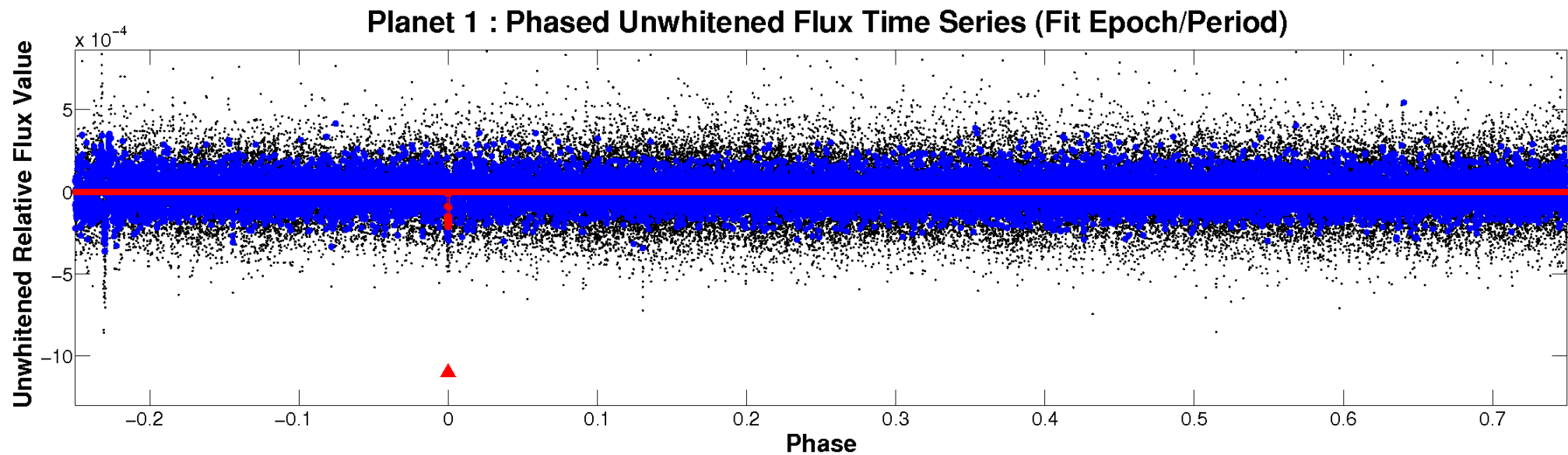


ALT Odd/Even

TCE 003732915-01



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 003732915-01 P=349.970825 Days $T_0=450.012080$ (BKJD)



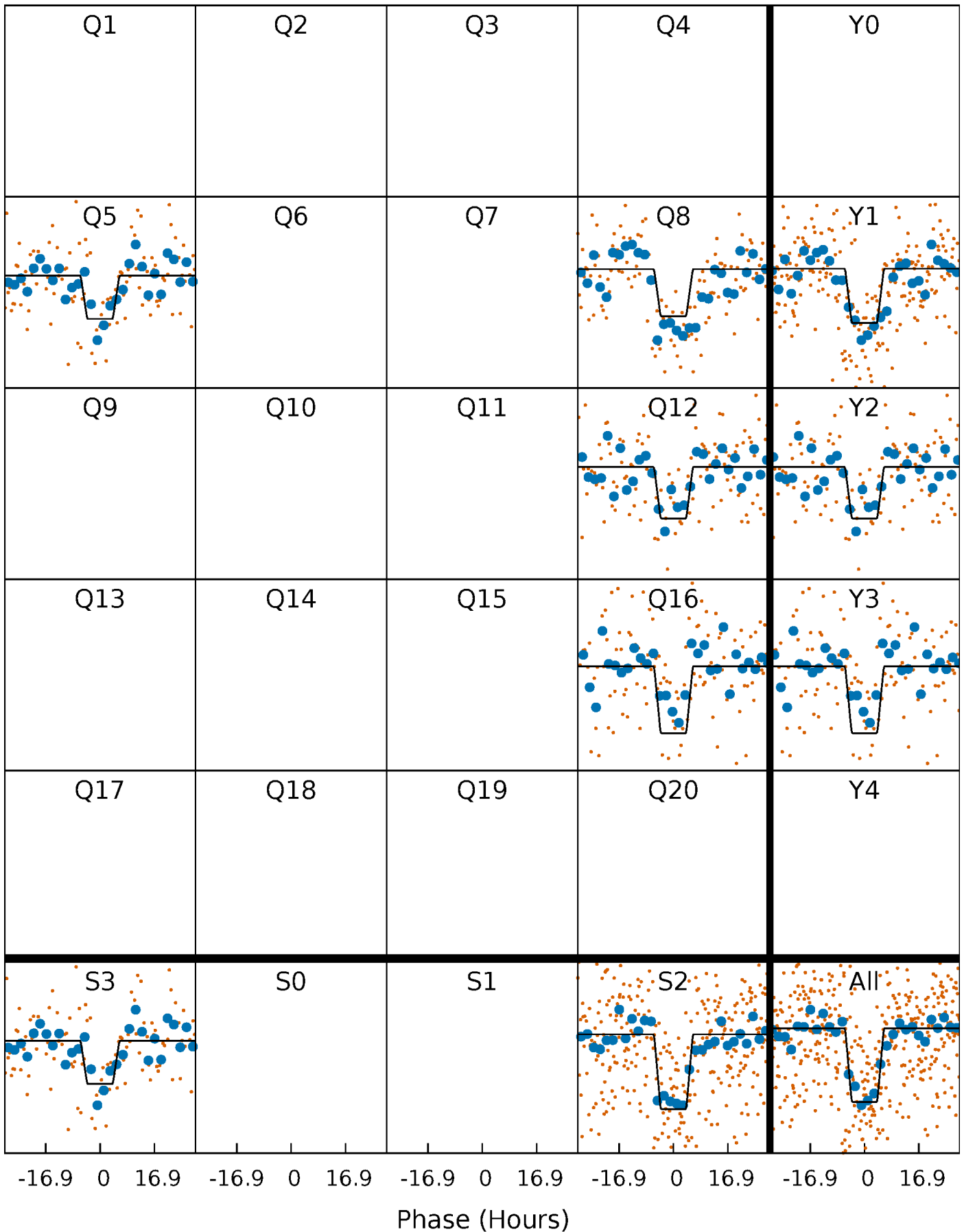
DV Quarter-Phased Transit Curves

TCE 003732915-01 P=349.970825 Days $T_0=450.012080$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

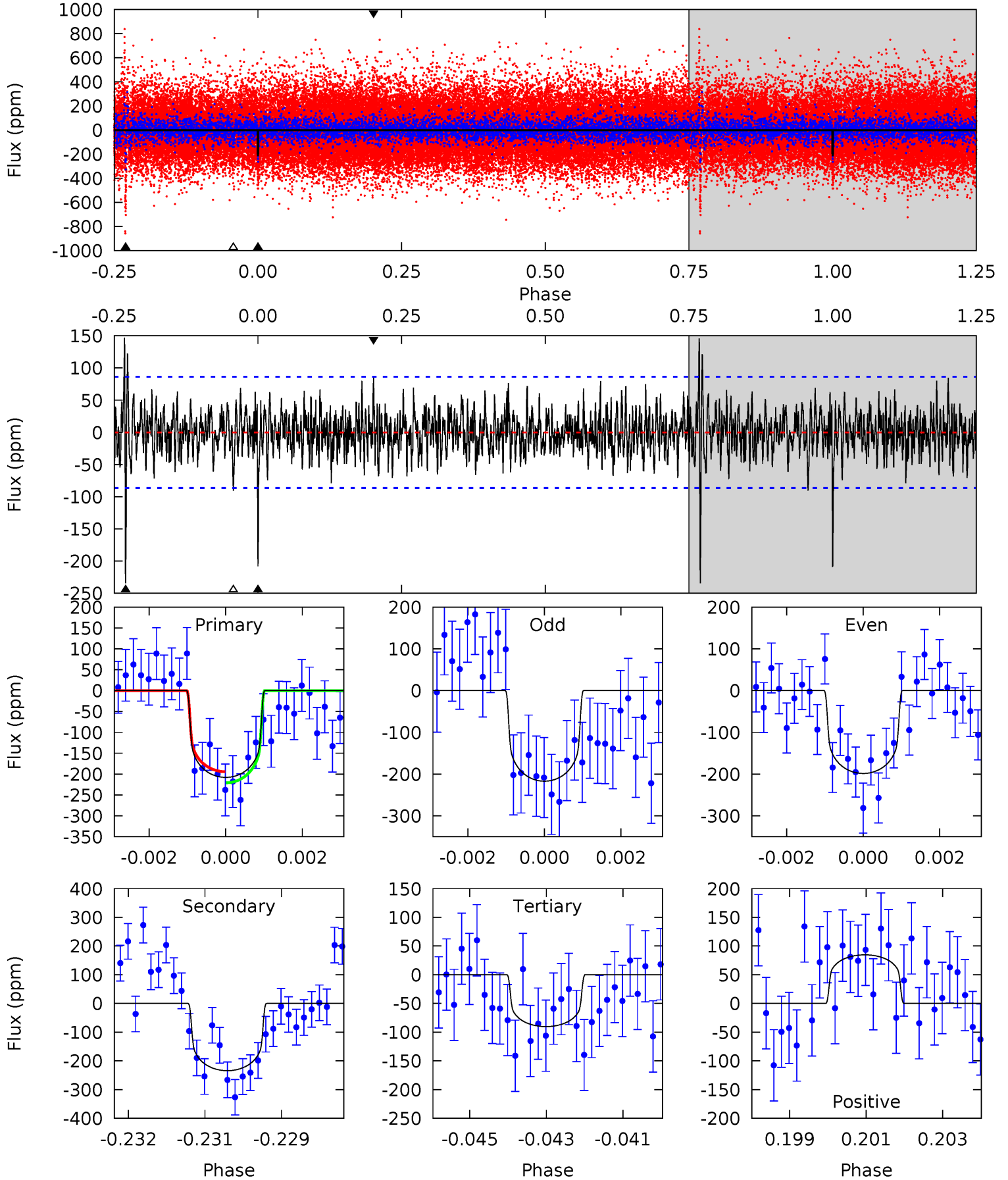
TCE 003732915-01 P=349.951960 Days $T_0=450.052044$ (BKJD)



DV Model-Shift Uniqueness Test

003732915-01, $P = 349.970825$ Days, $E = 100.041255$ Days

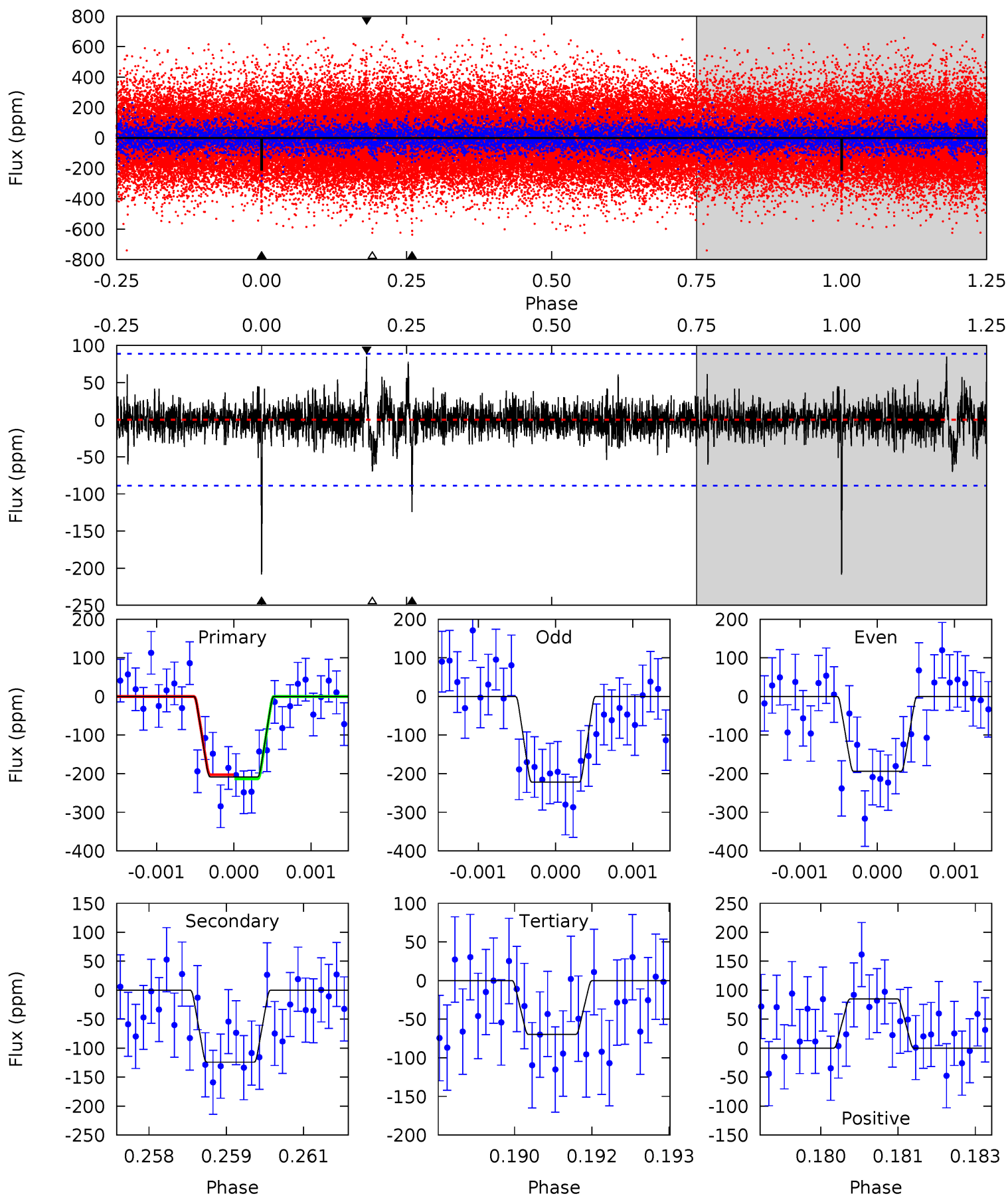
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	14.5	5.60	5.25	5.36	3.15	1.67	7.30	7.65	8.93	9.28	0.58	1.03	0.38	0.82



Alt Model-Shift Uniqueness Test

003732915-01, P = 349.951960 Days, E = 100.100084 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	7.53	4.23	5.15	5.39	3.19	0.98	8.40	7.48	3.30	2.38	0.85	1.07	0.29	0.32



Stellar Parameters For KIC 003732915

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5501^{+165}_{-148}	$4.599^{+0.040}_{-0.112}$	$-0.440^{+0.300}_{-0.300}$	$0.740^{+0.138}_{-0.059}$	$0.793^{+0.095}_{-0.069}$	$2.760^{+0.546}_{-1.005}$
	+3%/-3%	+1%/-2%	+68%/-68%	+19%/-8%	+12%/-9%	+20%/-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 003732915-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-234 ± 16	$1.26^{+0.28}_{-0.30}$	312^{+13}_{-12}	5518^{+780}_{-469}	65650^{+49723}_{-21631}
Alt.	-124 ± 16	$1.24^{+0.30}_{-0.28}$	312^{+13}_{-12}	4832^{+560}_{-400}	35788^{+24323}_{-12778}

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 $A_{obs} \gg 1.0$

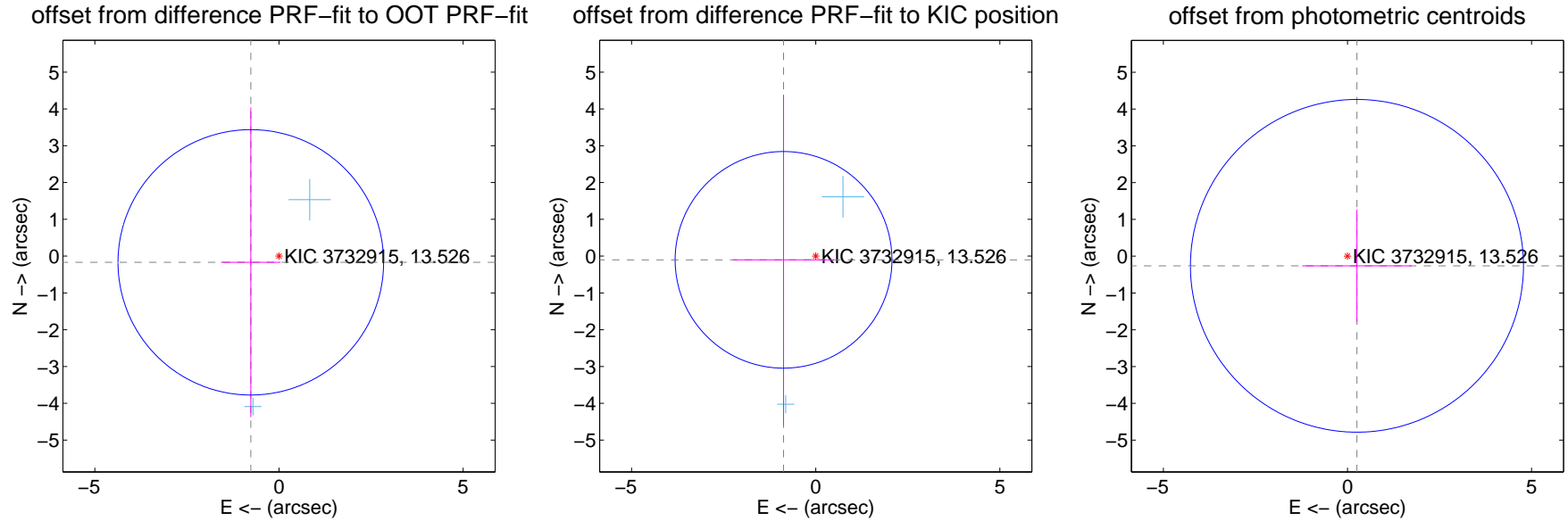
DV Centroid Data

Supplemental centroid analysis for 003732915-01. Kepler magnitude: 13.53. Transit SNR 7.67

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.784 ± 1.202	0.65	0.765 ± 0.809	-0.169 ± 4.209
PRF-fit source offset from KIC position	0.879 ± 0.981	0.90	0.873 ± 1.374	-0.101 ± 4.490
photometric centroid source offset	0.37 ± 1.51	0.24	-0.26 ± 1.49	-0.26 ± 1.53

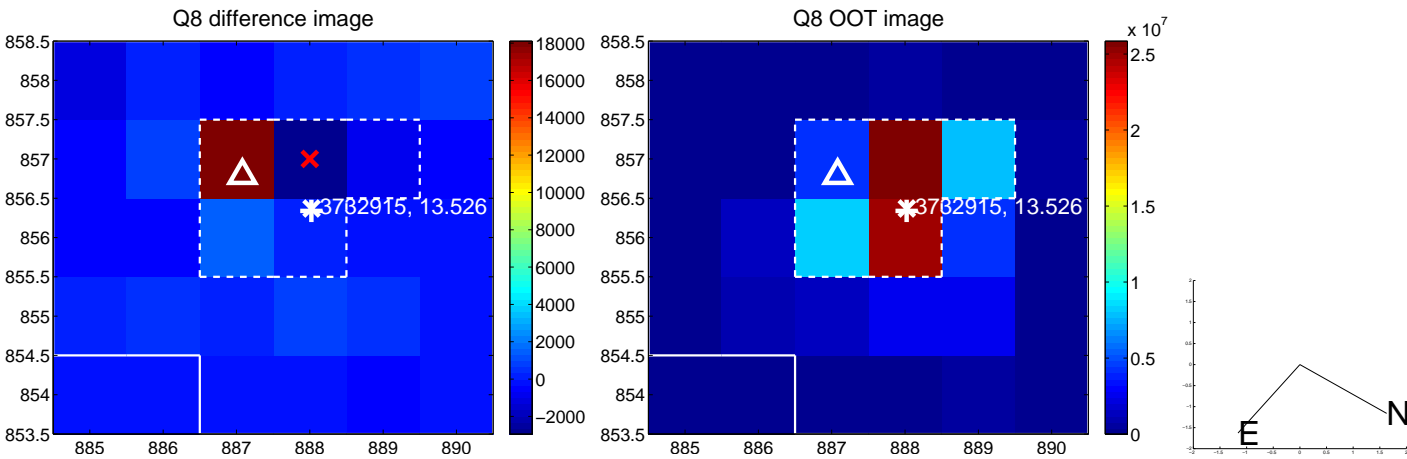
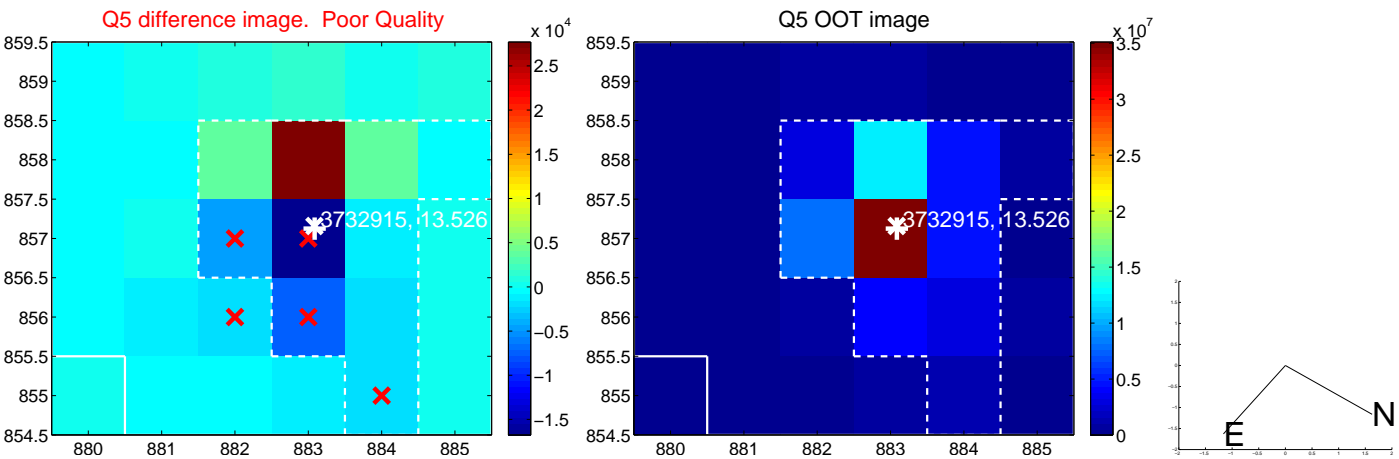


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

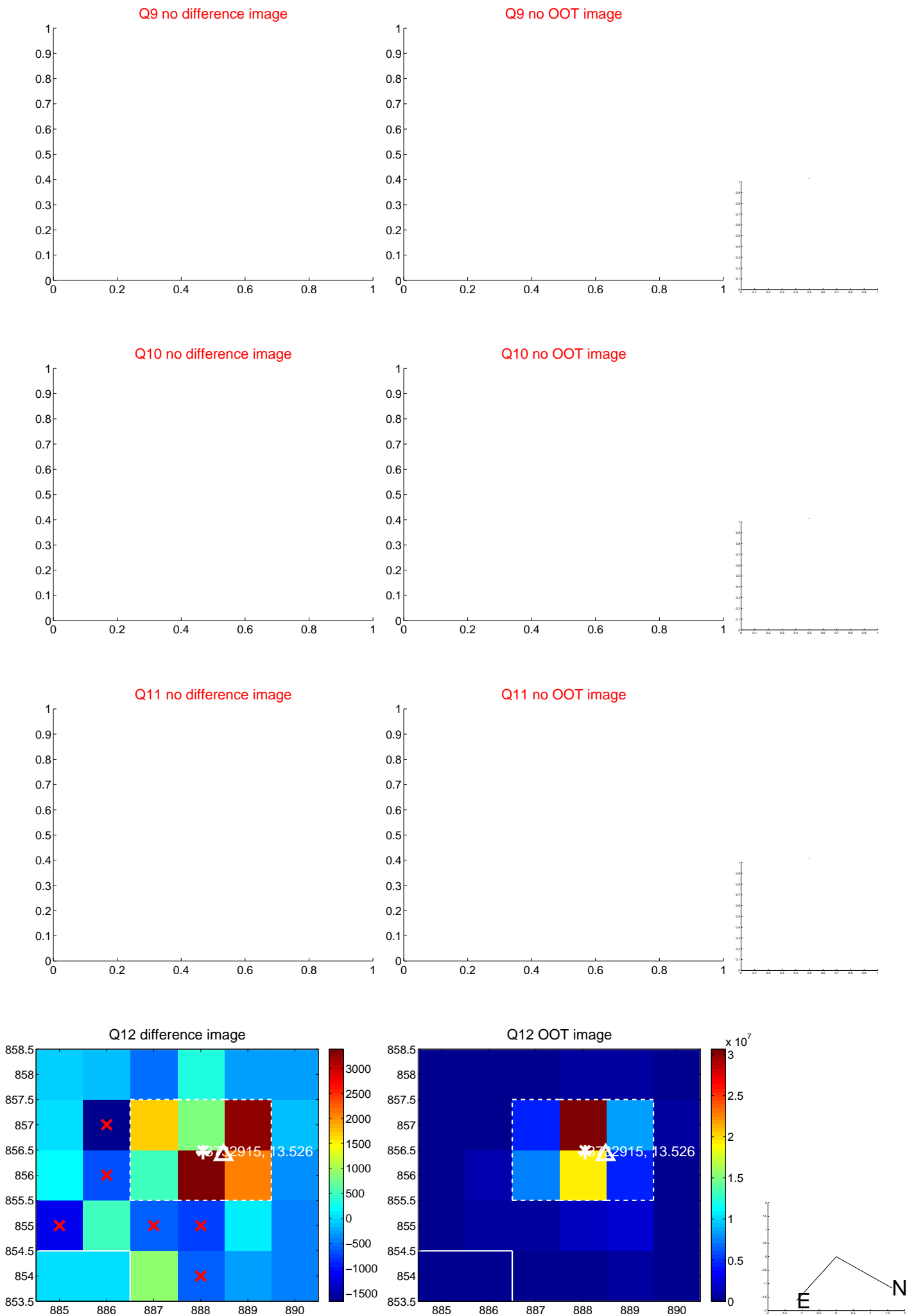
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



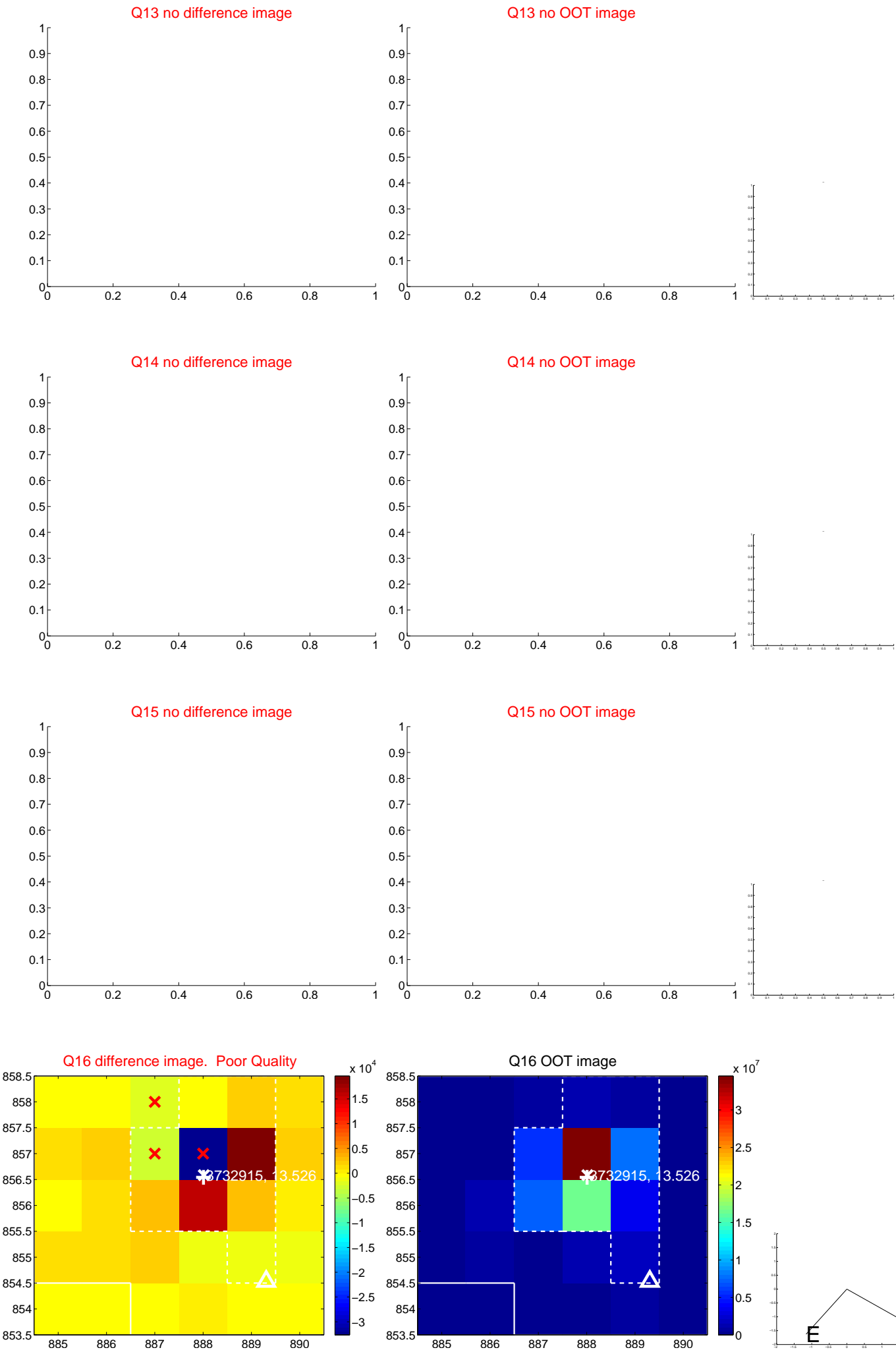
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



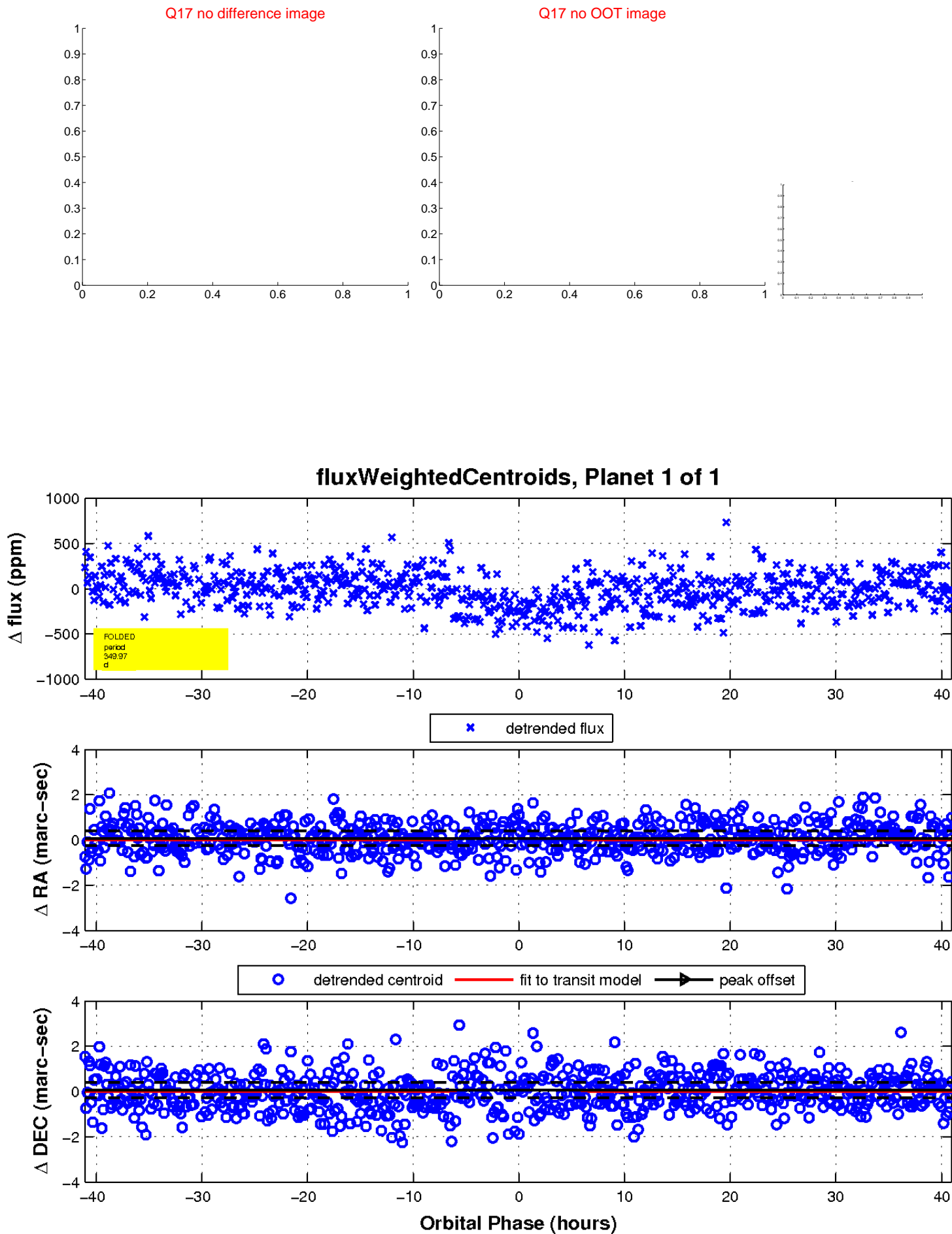
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

