

KIC 008007766

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})
008007766-01	OBS	No	136.646284	264.910661	1793.6	8.187	11.7	6.2	16.75	5140	88.96	335.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008007766-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

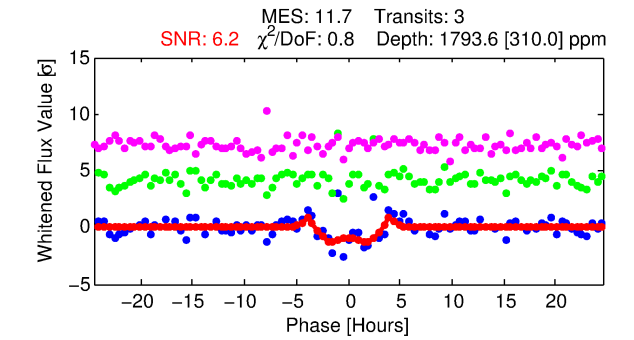
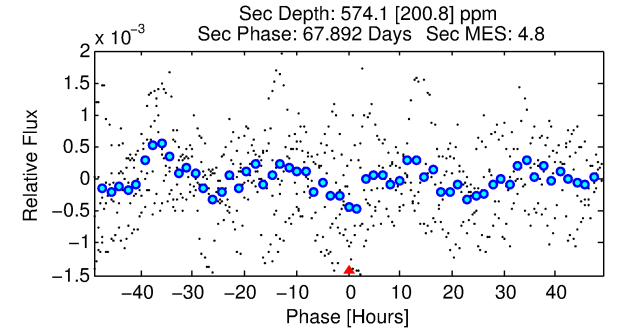
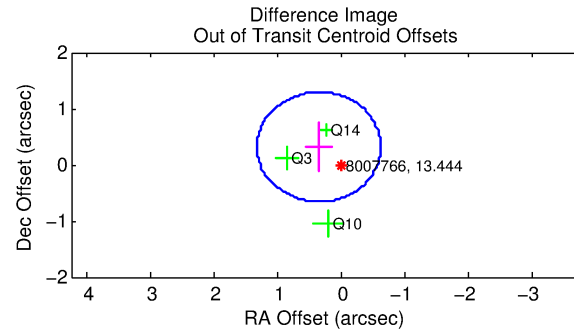
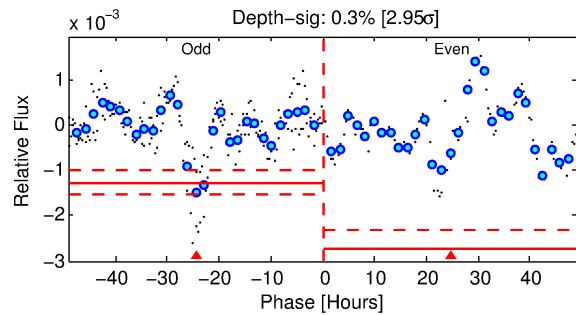
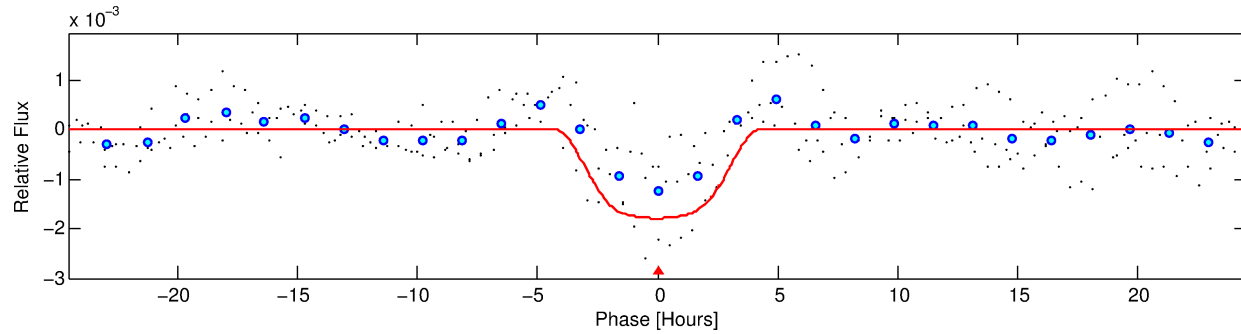
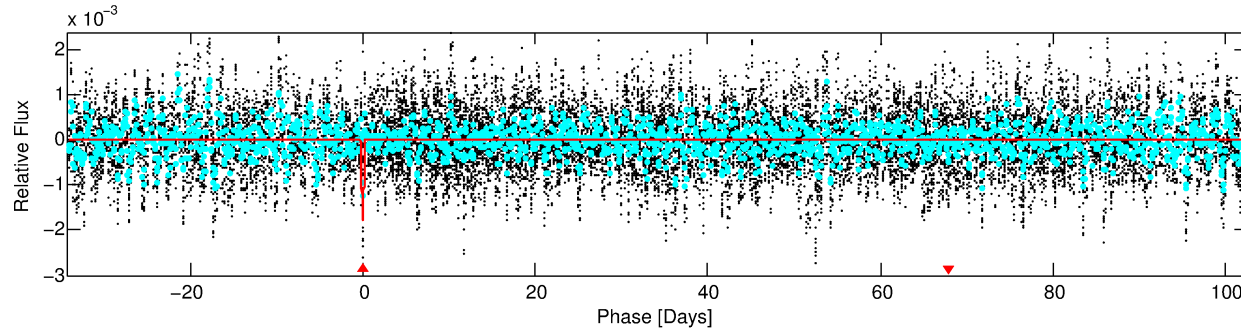
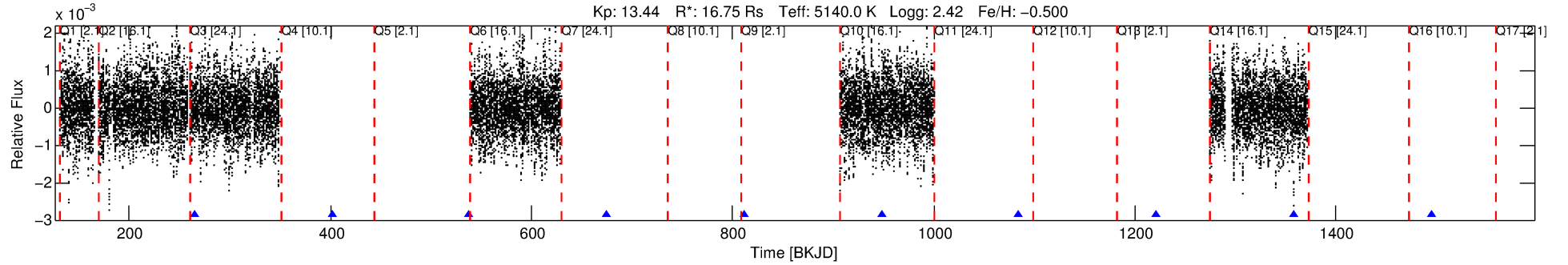
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008007766-01

No Significant Match Found

DV One-Page Summary

KIC: 8007766 Candidate: 1 of 1 Period: 136.646 d



DV Fit Results:

Period = 136.64628 [0.00198] d
Epoch = 264.9107 [0.0099] BKJD
Rp/R* = 0.0487 [0.0045]
a/R* = 61.19 [5.23]
b = 0.93 [0.01]
Seff = 335.19 [112.73]
Teq = 1091 [92] K
Rp = 88.96 [30.29] Re
a = 0.7235 [0.1591] AU
Ag = 20.89 [9.50] [2.09 σ]
Teffp = 3606 [422] K [5.82 σ]

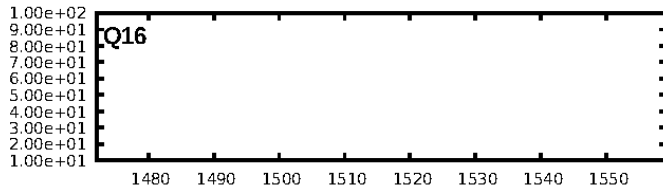
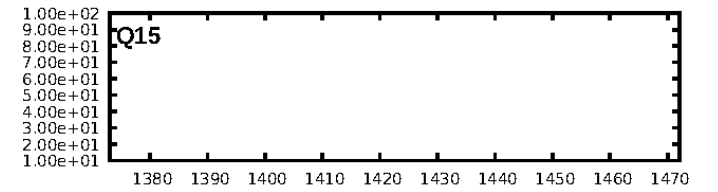
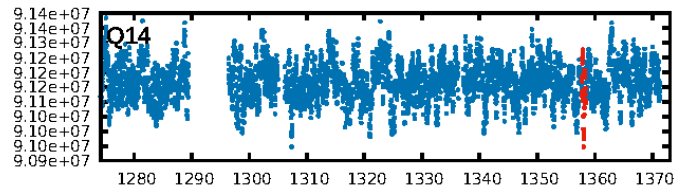
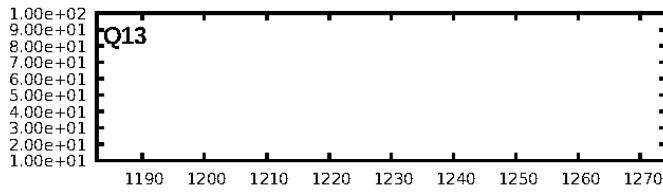
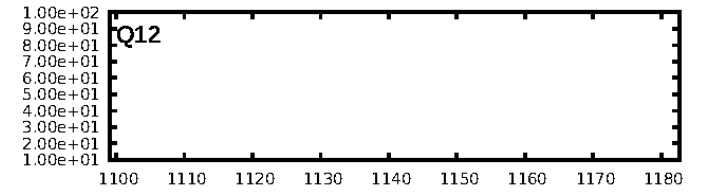
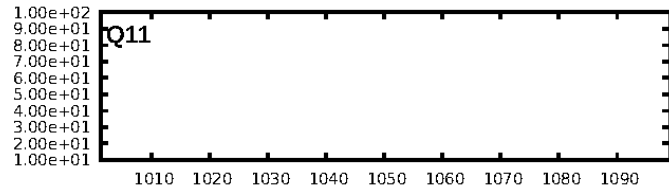
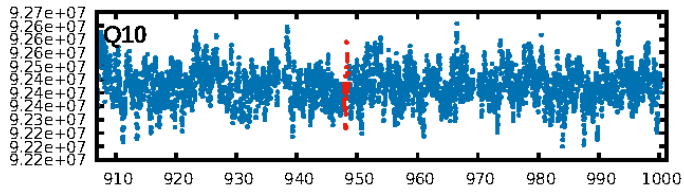
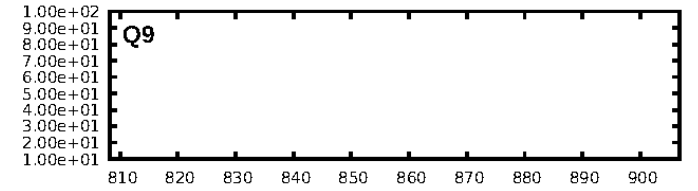
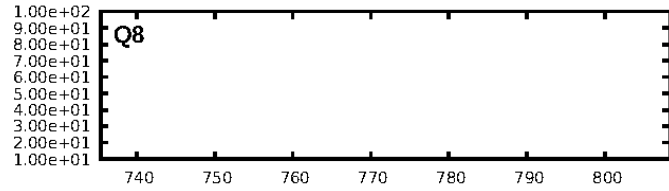
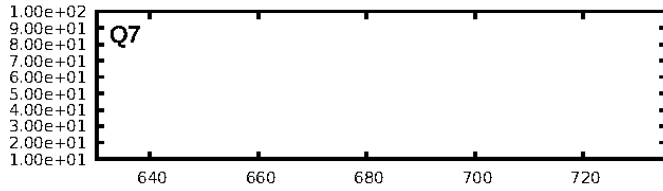
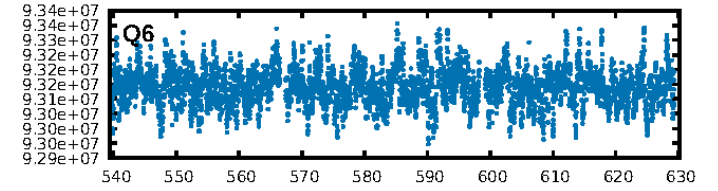
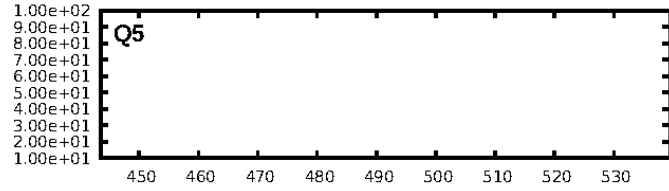
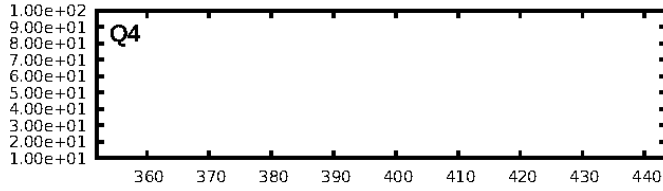
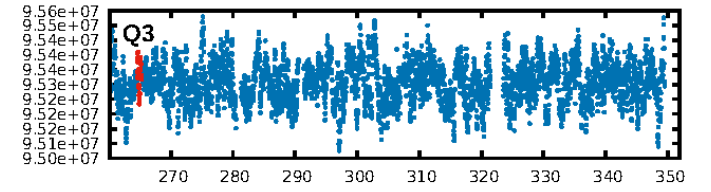
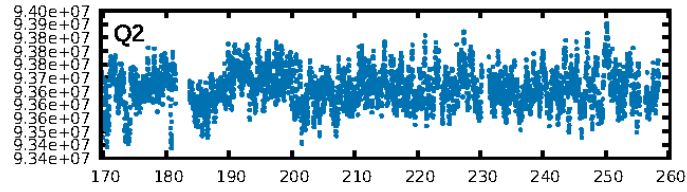
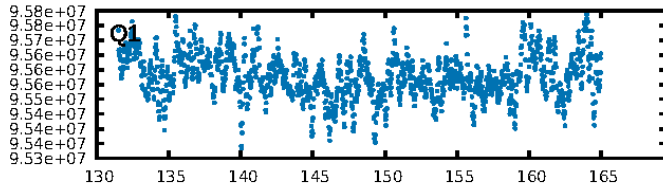
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 13.2%
ModelChiSquareGof-sig: 95.5%
Bootstrap-pfa: 3.49e-20
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.434
Centroid-sig: 64.7%
Centroid-so: 0.342 arcsec [1.16 σ]
OotOffset-rm: 0.475 arcsec [1.46 σ]
KicOffset-rm: 0.495 arcsec [1.75 σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

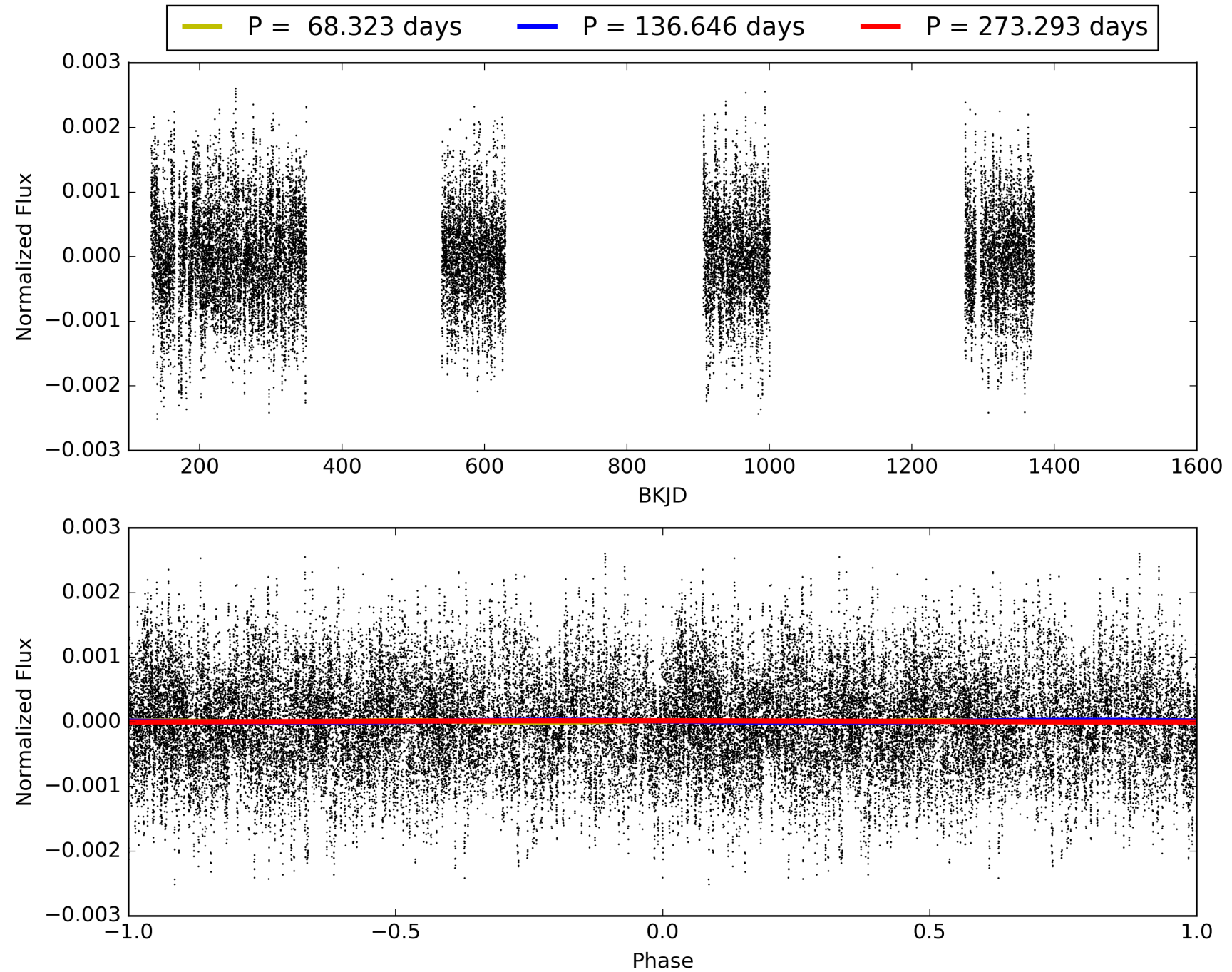
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:44:55 Z

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

TCE 008007766-01, PDC Light Curves

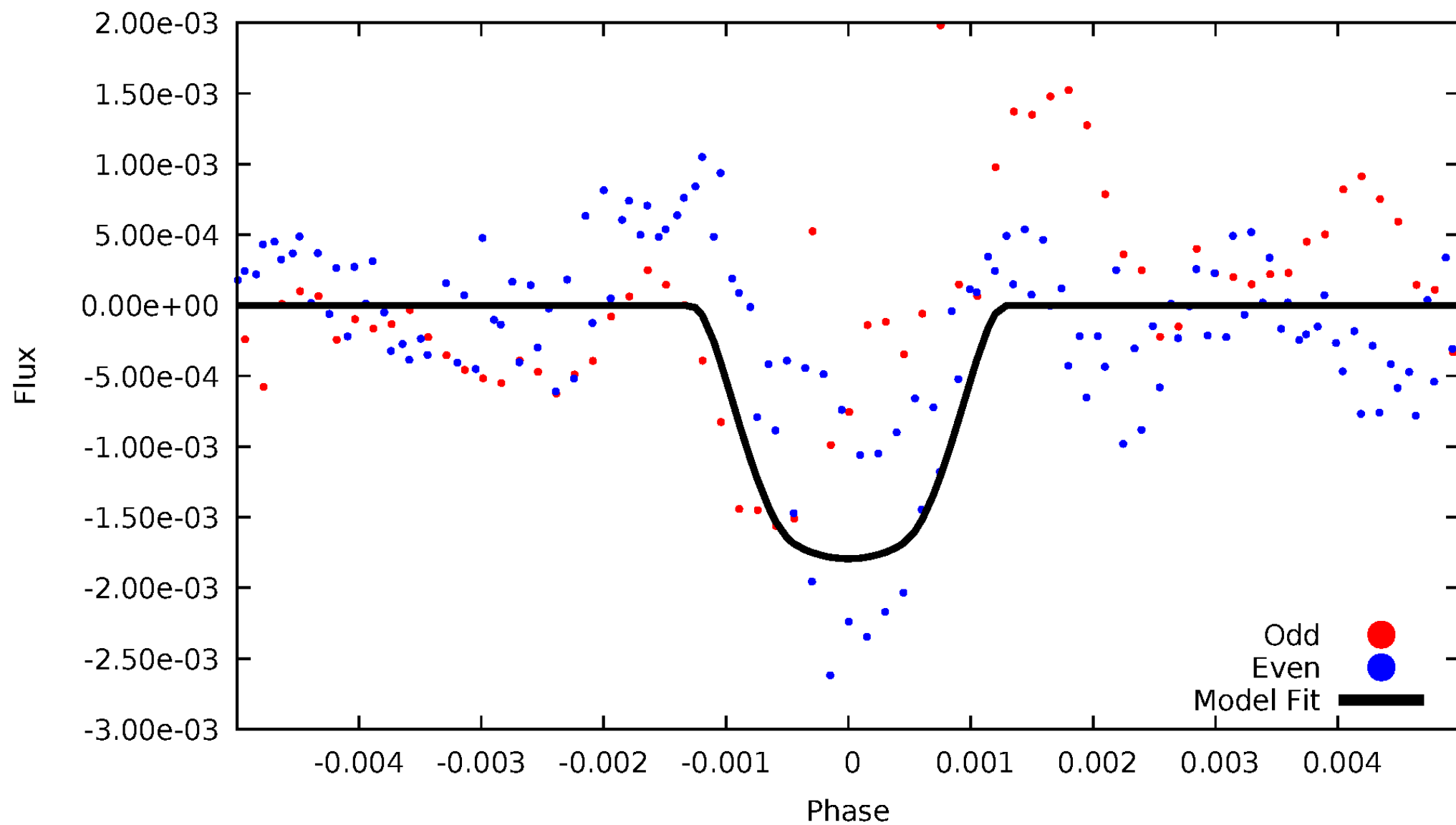


TCE 008007766-01



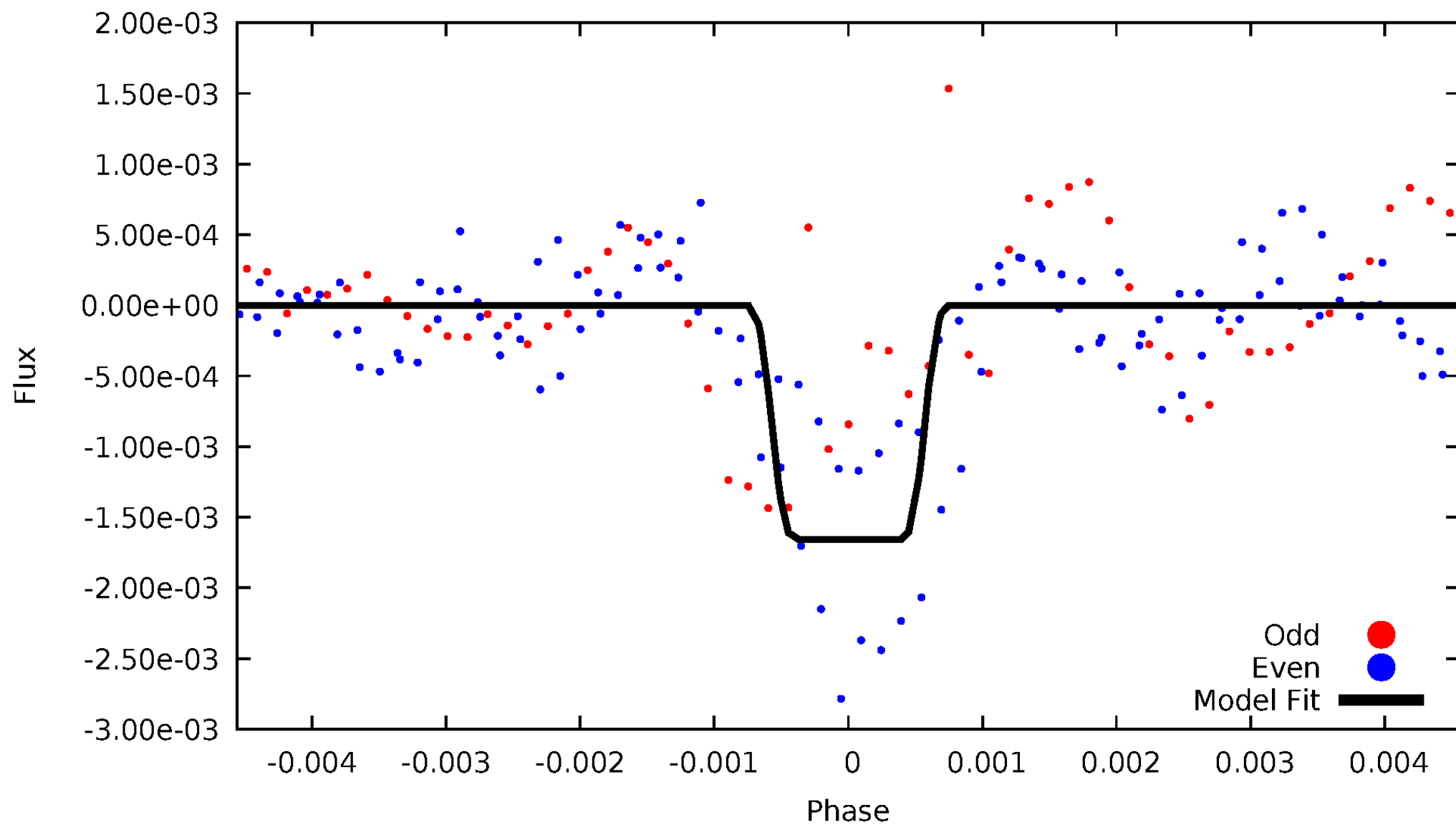
DV Odd/Even

TCE 008007766-01



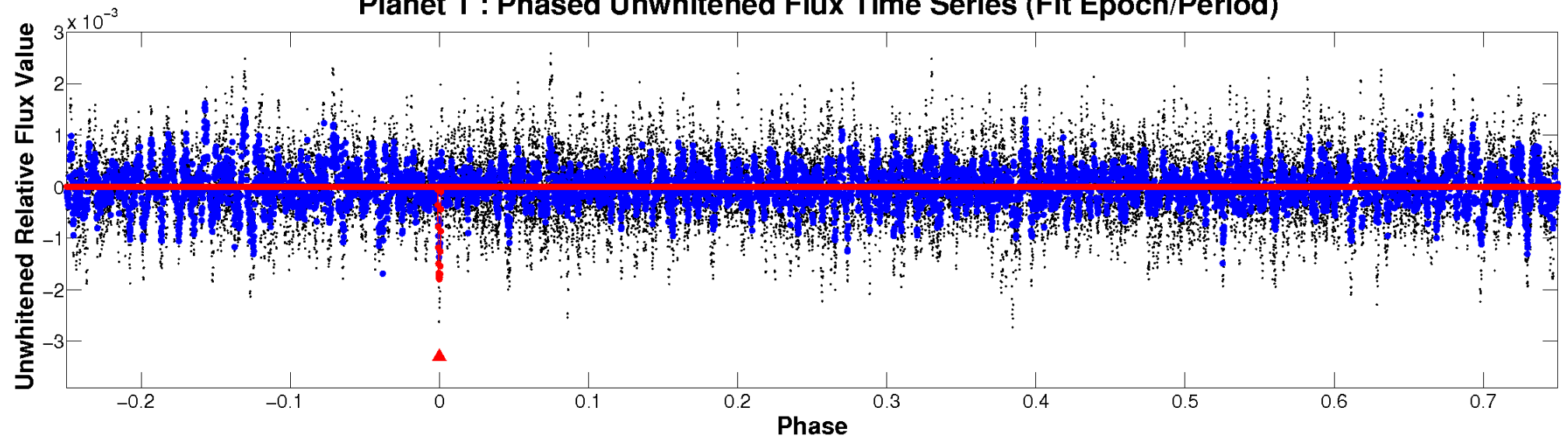
ALT Odd/Even

TCE 008007766-01

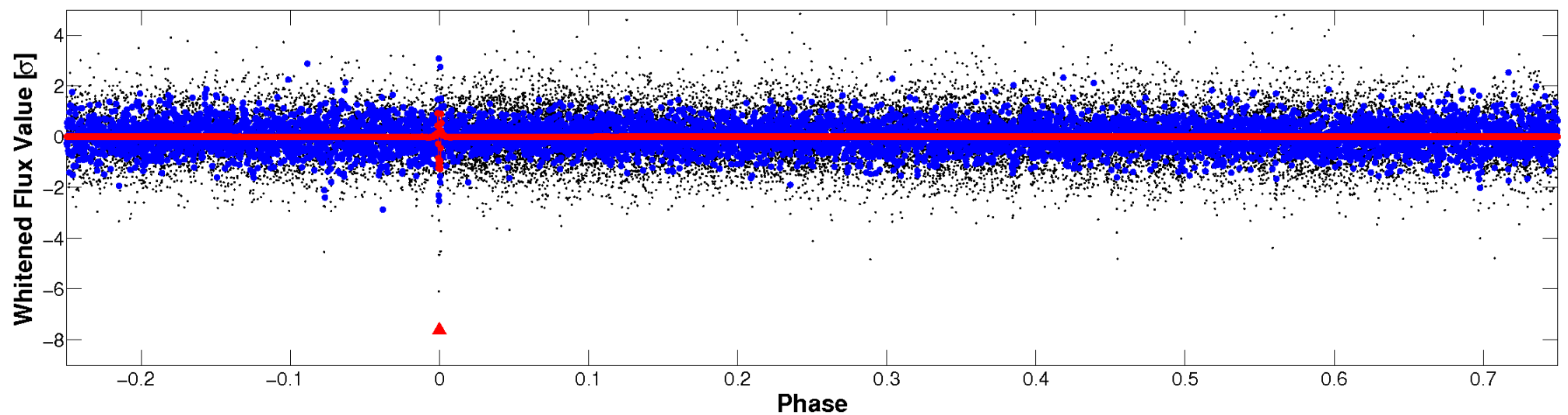


Non-Whitened Vs. Whitened Light Curve

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



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



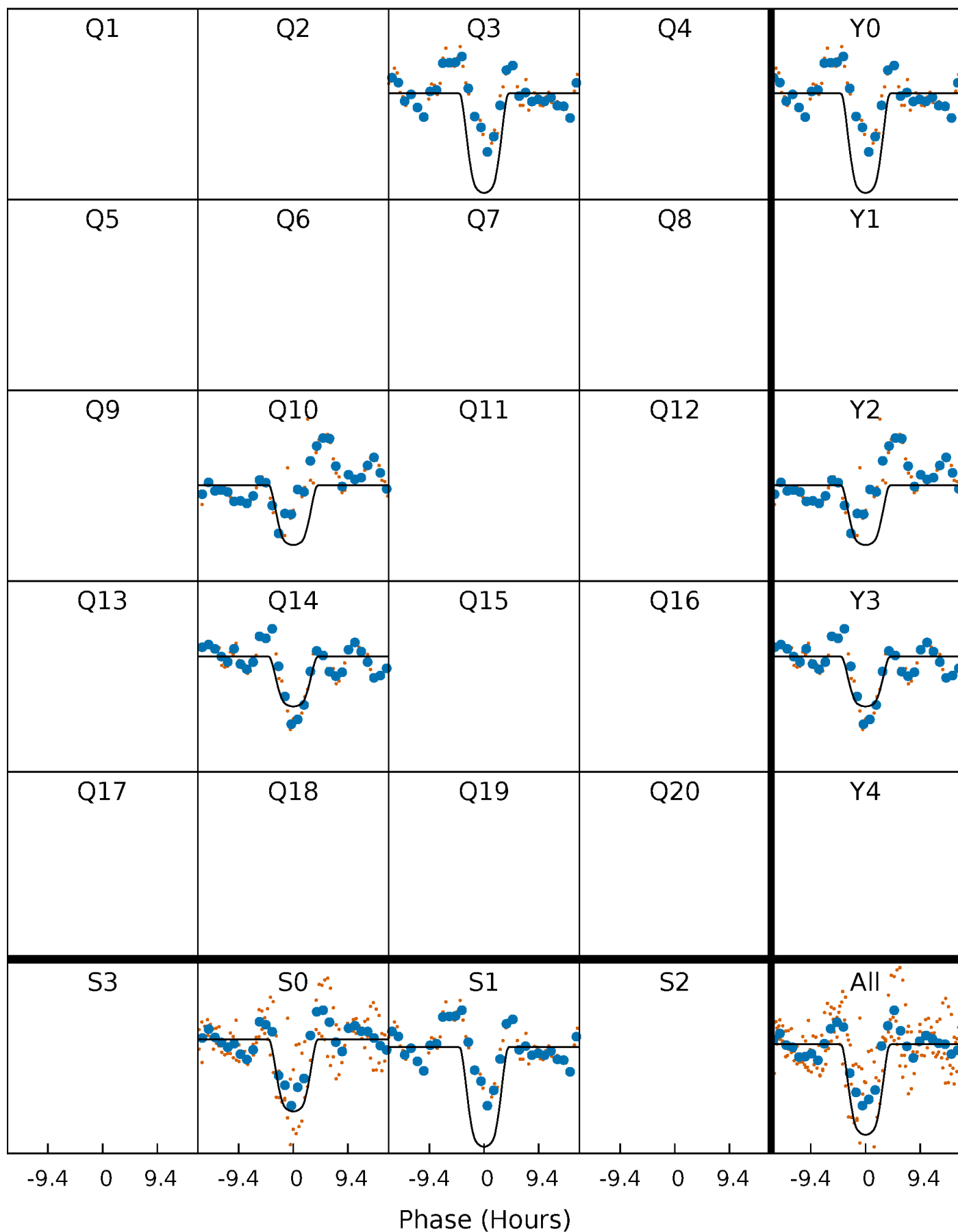
PDC Quarter-Phased Transit Curves

TCE 008007766-01 P=136.646284 Days $T_0=264.910661$ (BKJD)



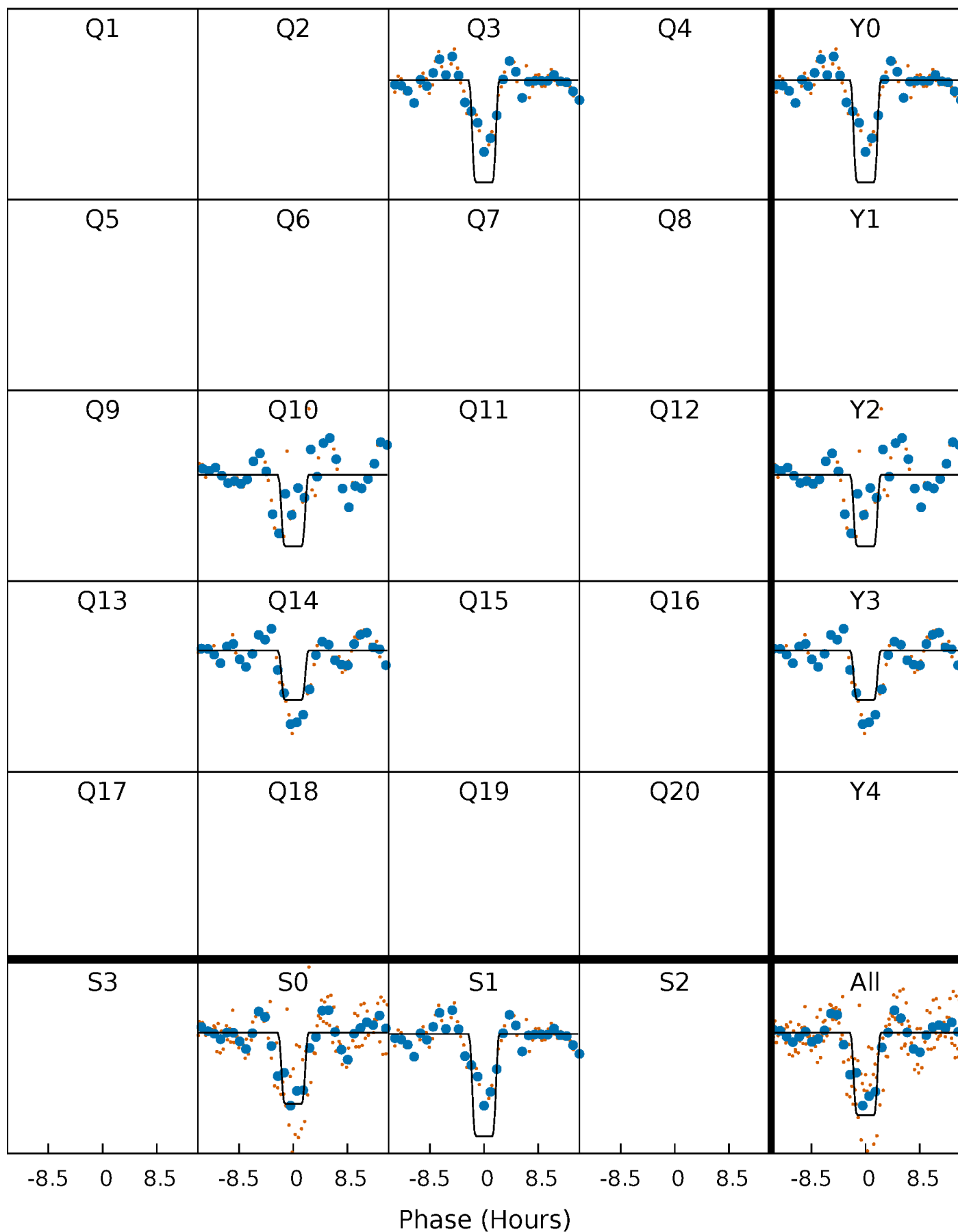
DV Quarter-Phased Transit Curves

TCE 008007766-01 P=136.646284 Days $T_0=264.910661$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

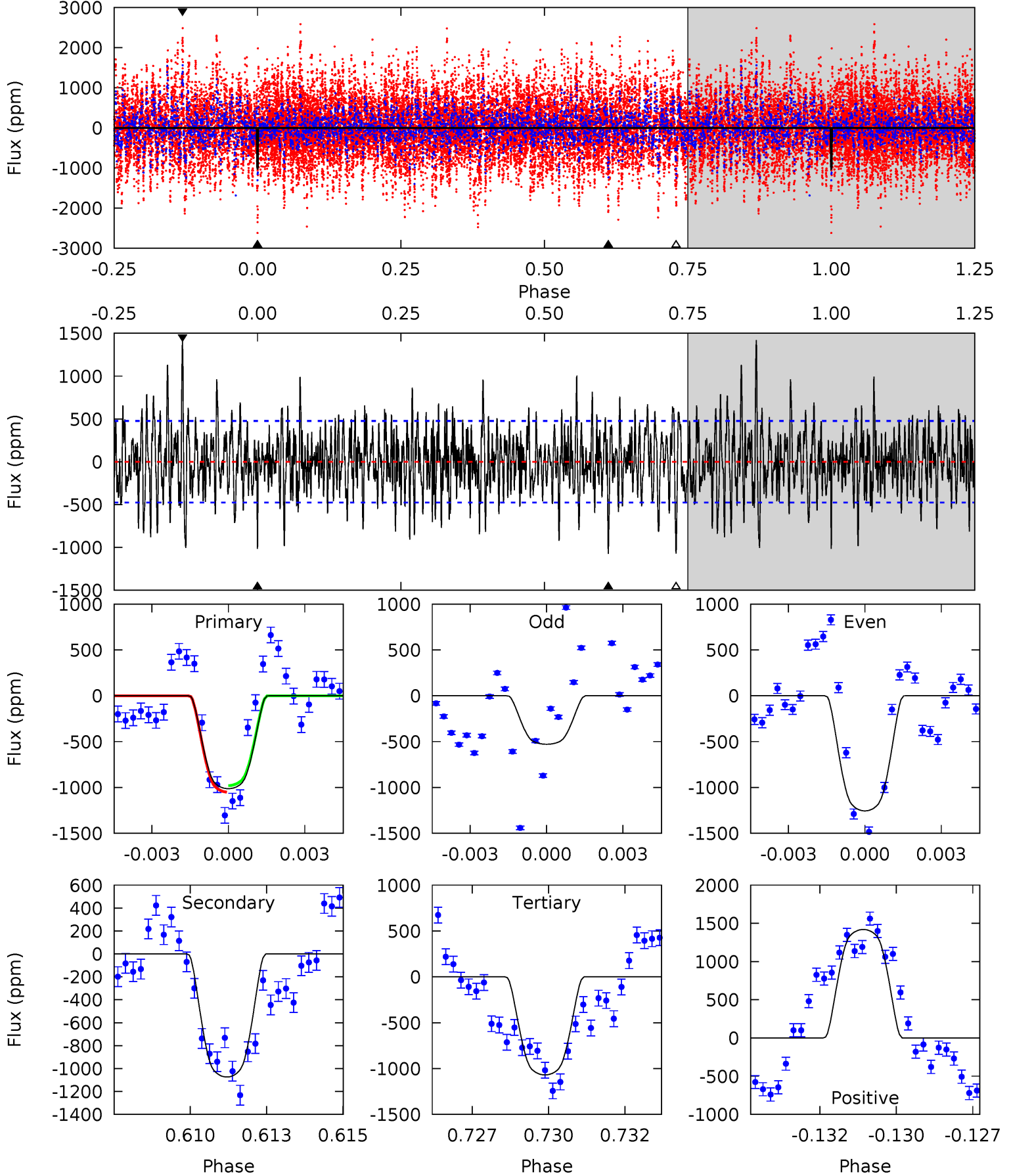
TCE 008007766-01 P=136.641819 Days $T_0=264.933661$ (BKJD)



DV Model-Shift Uniqueness Test

008007766-01, P = 136.646284 Days, E = 128.264377 Days

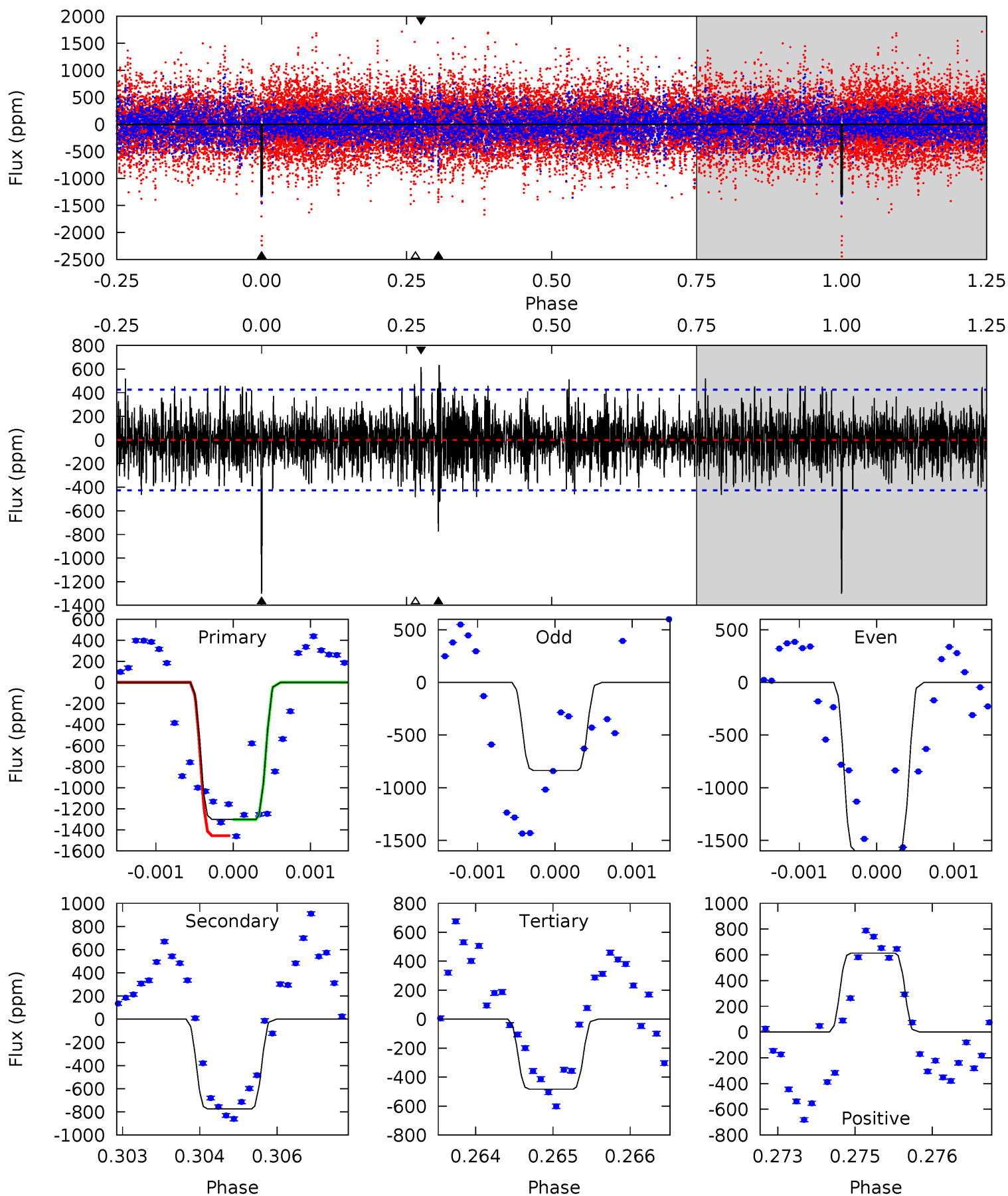
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	11.9	11.9	15.8	5.28	3.02	3.55	-0.62	-4.50	0.05	-3.84	3.80	1.55	0.57	0.40



Alt Model-Shift Uniqueness Test

008007766-01, P = 136.641819 Days, E = 128.291842 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.5	9.82	6.12	7.77	5.40	3.21	2.01	10.4	8.71	3.70	2.05	4.48	1.37	0.33	0.97



Stellar Parameters For KIC 008007766

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5140^{+115}_{-322}	$2.422^{+0.033}_{-0.030}$	$-0.500^{+0.400}_{-0.200}$	$16.750^{+1.372}_{-5.490}$	$2.703^{+0.611}_{-1.426}$	$0.001^{+0.000}_{-0.000}$
	+2%/-6%	+1%/-1%	+80%/-40%	+8%/-33%	+23%/-53%	+51%/-13%
Source	PHO1	AST9	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 008007766-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1074 ± 90	$91.69^{+10.82}_{-13.11}$	1521^{+48}_{-89}	4328^{+233}_{-233}	39^{+10}_{-8}
Alt.	-775 ± 79	$75.83^{+10.18}_{-10.85}$	1521^{+55}_{-97}	4371^{+254}_{-294}	40^{+12}_{-9}

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

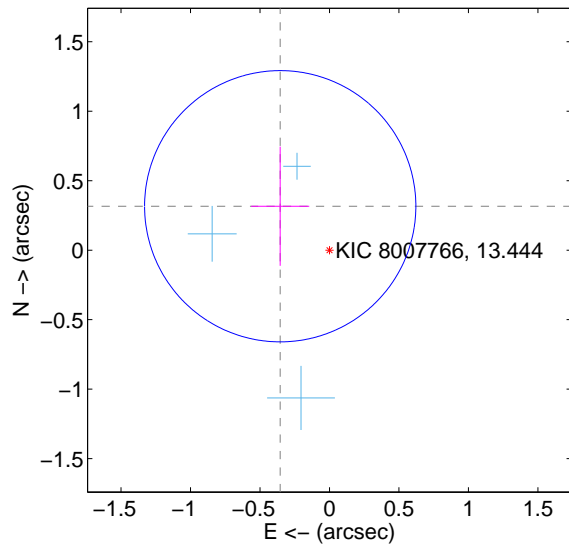
Supplemental centroid analysis for 008007766-01. Kepler magnitude: 13.44. Transit SNR 6.23

There are 3 quarters with good PRF difference image offsets

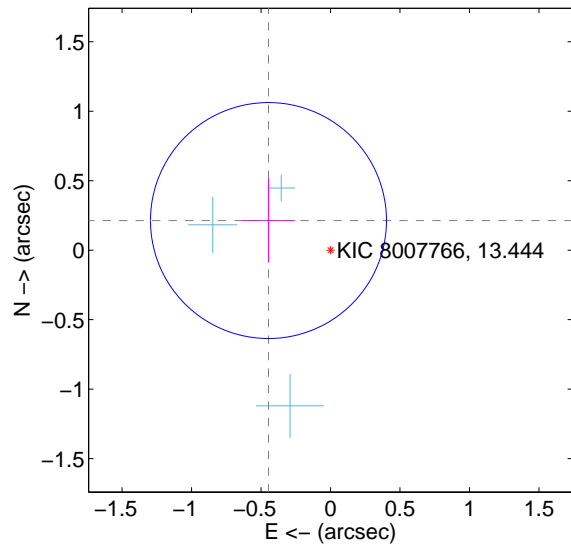
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.475 ± 0.325	1.46	0.354 ± 0.209	0.316 ± 0.429
PRF-fit source offset from KIC position	0.495 ± 0.283	1.75	0.446 ± 0.190	0.213 ± 0.302
photometric centroid source offset	0.34 ± 0.30	1.16	-0.33 ± 0.29	0.10 ± 0.31

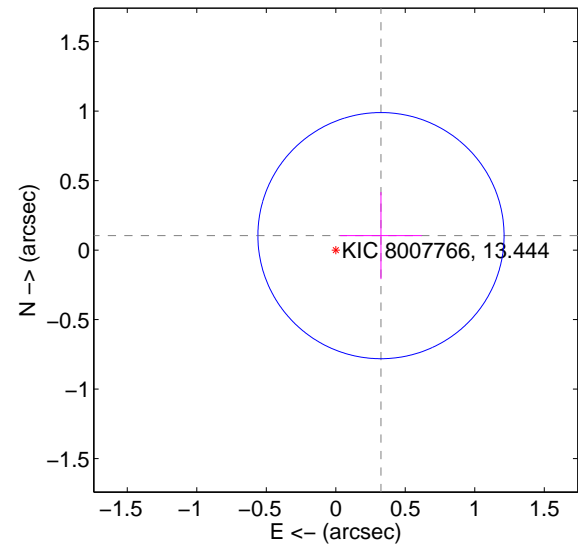
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

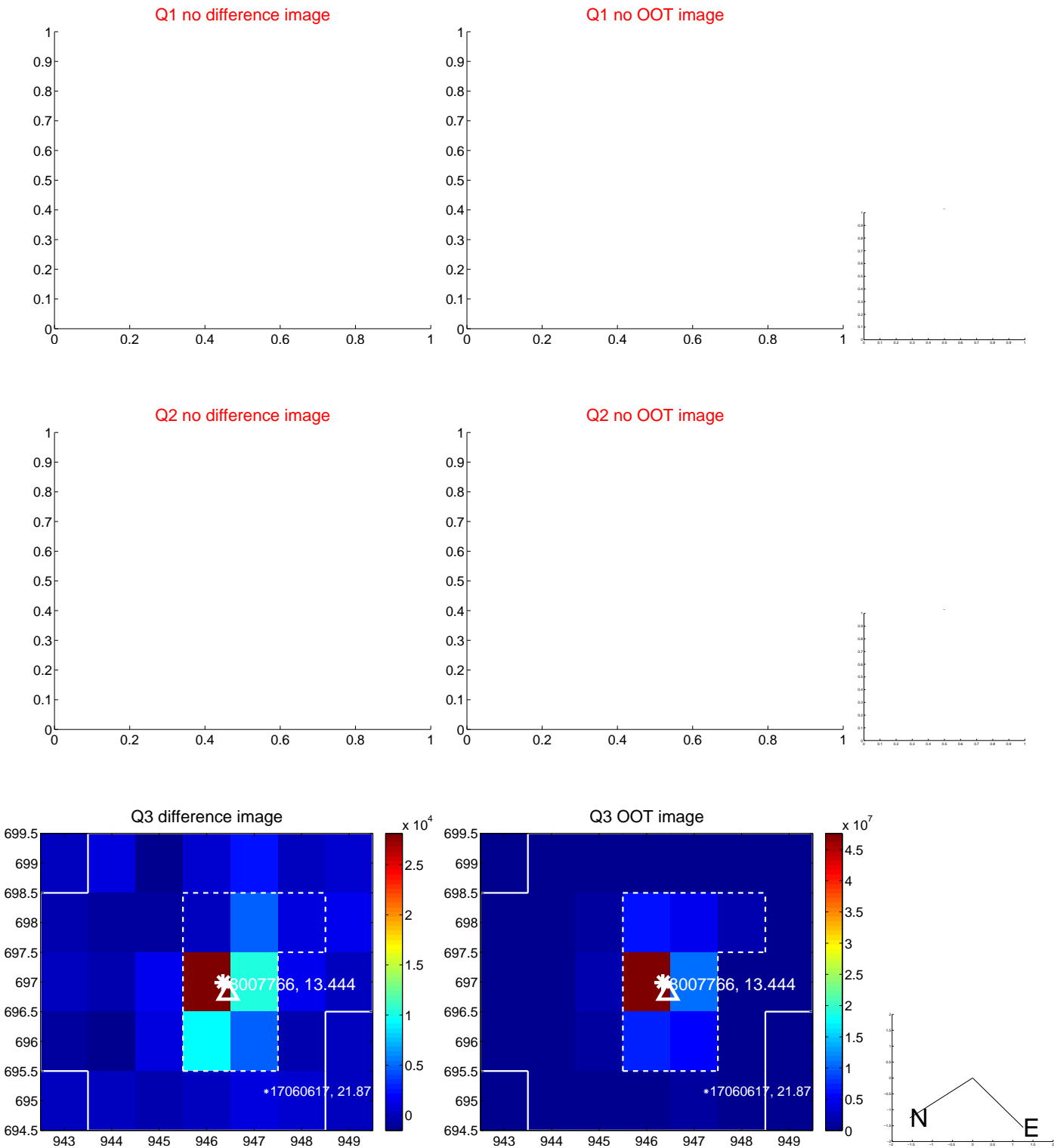


offset from photometric centroids



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.



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

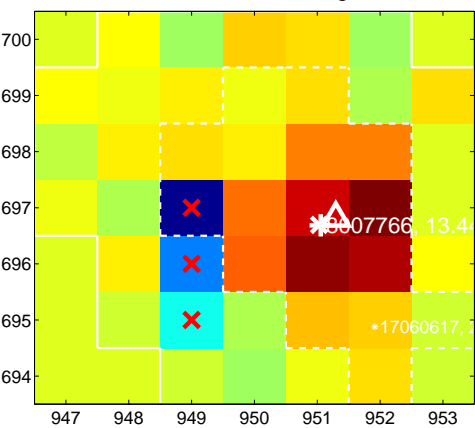
Q9 no difference image



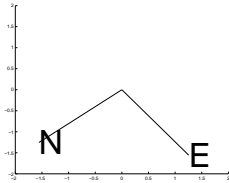
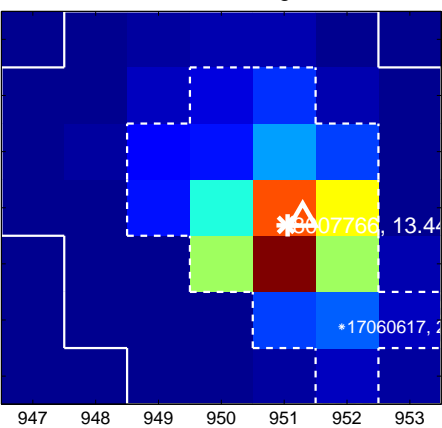
Q9 no OOT image



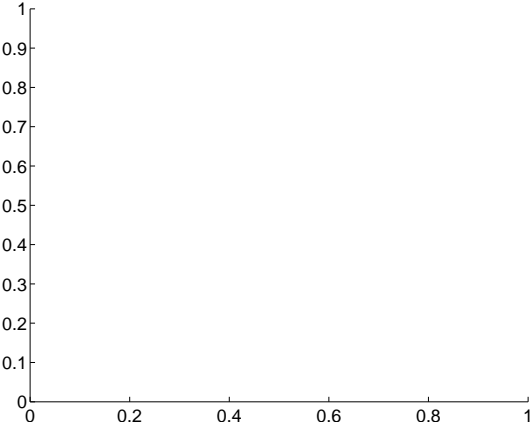
Q10 difference image



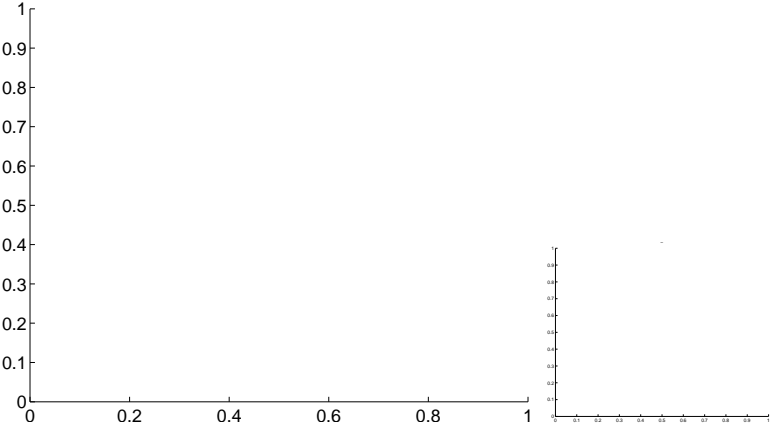
Q10 OOT image



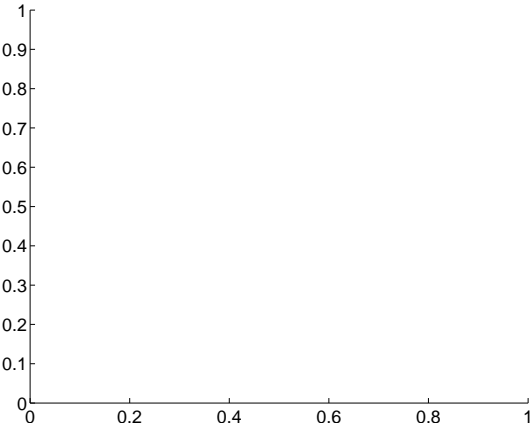
Q11 no difference image



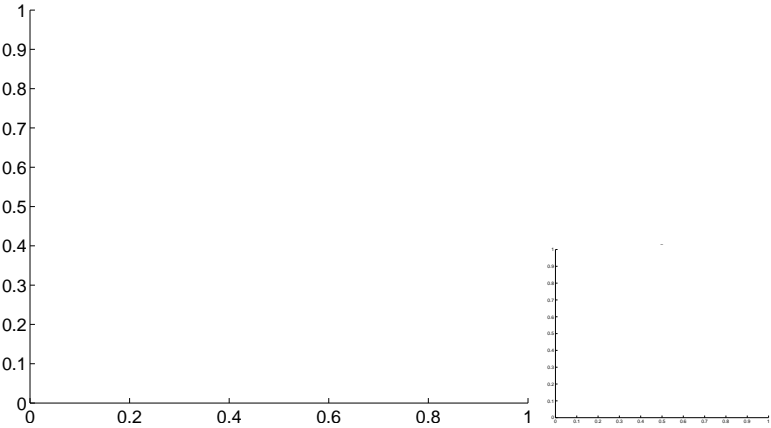
Q11 no OOT image



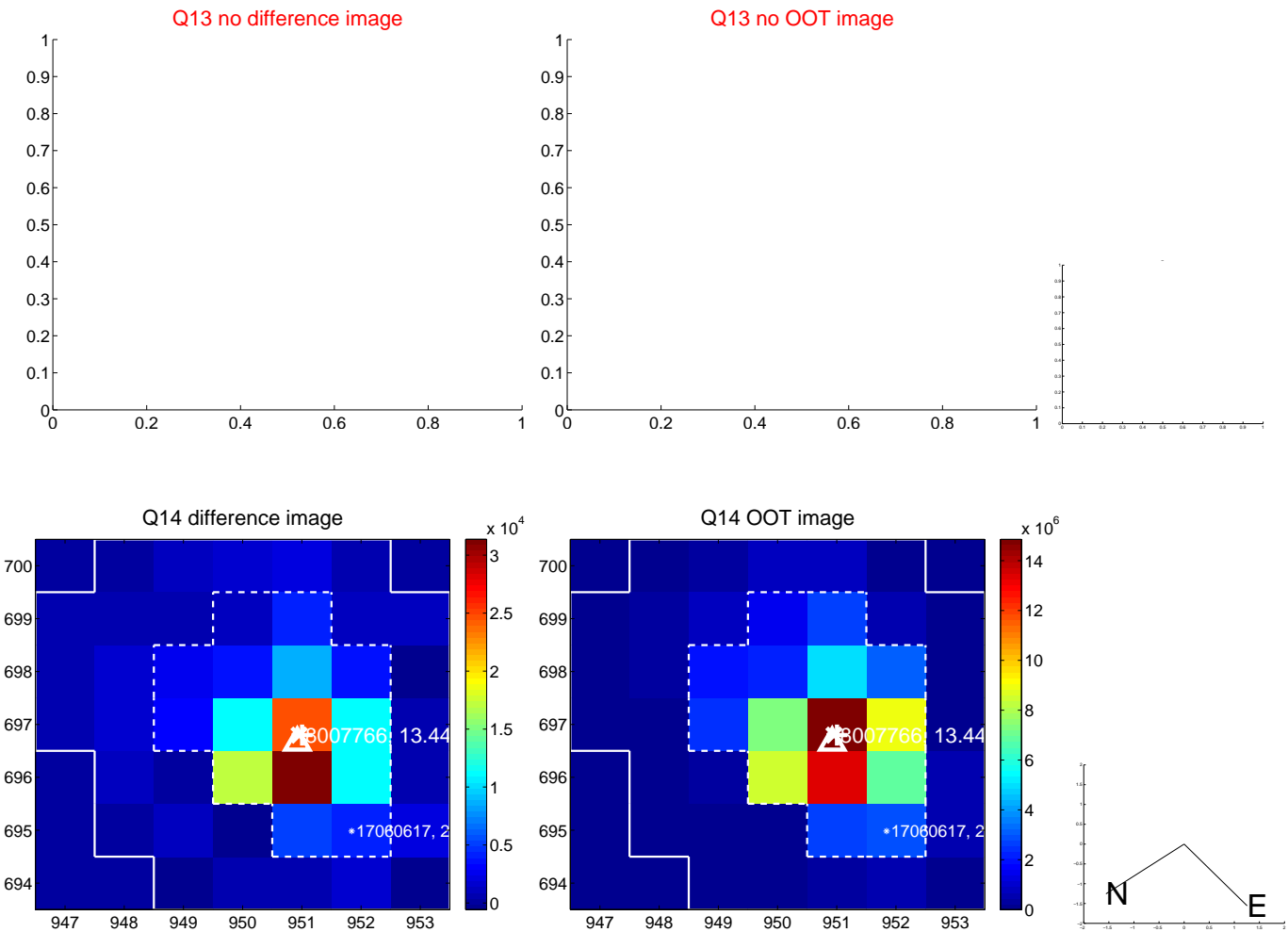
Q12 no difference image



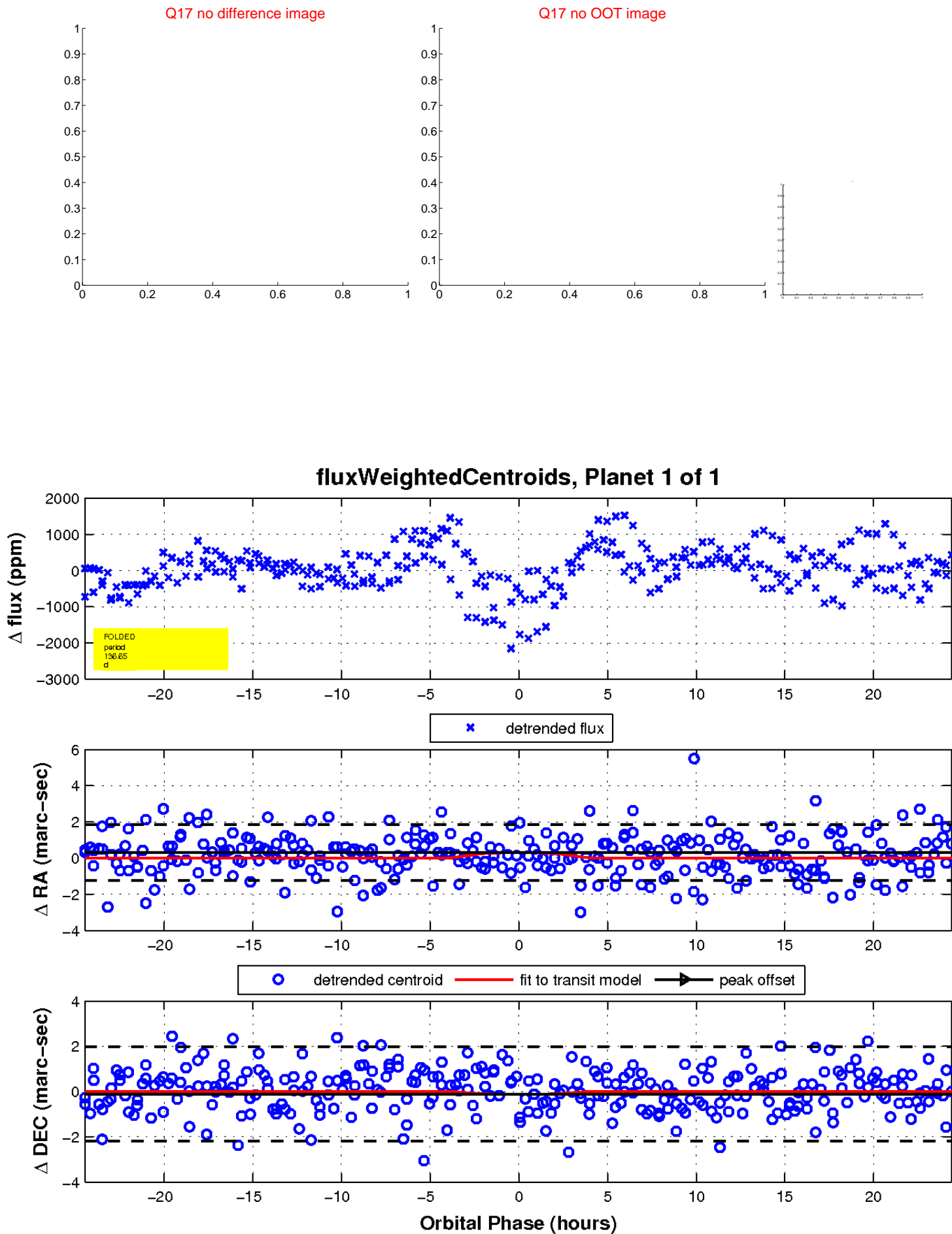
Q12 no OOT image



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

