

KIC 008675776

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})
008675776-01	OBS	No	367.179565	238.600360	537.1	12.450	8.4	8.5	0.80	5602	2.11	0.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008675776-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_MEAS

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

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

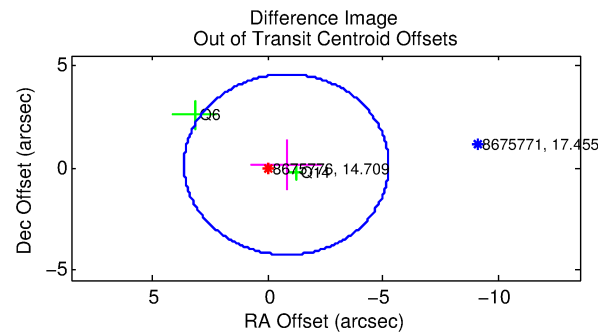
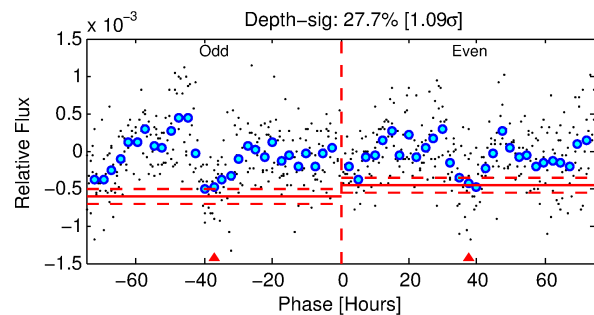
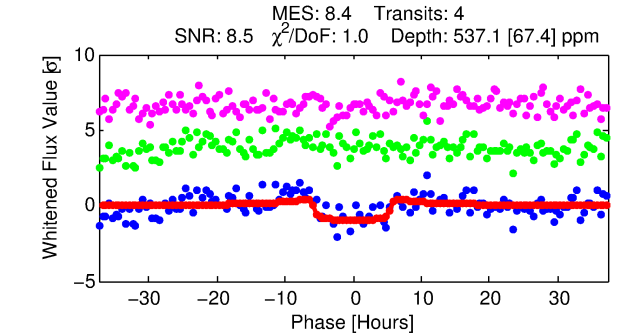
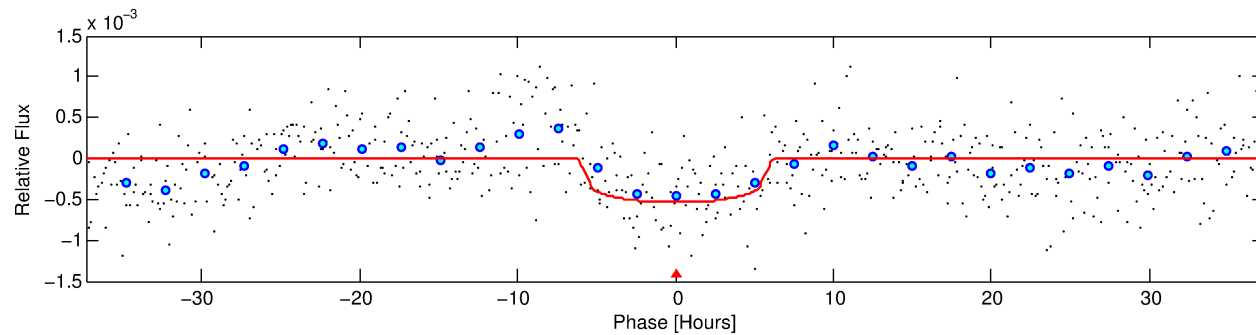
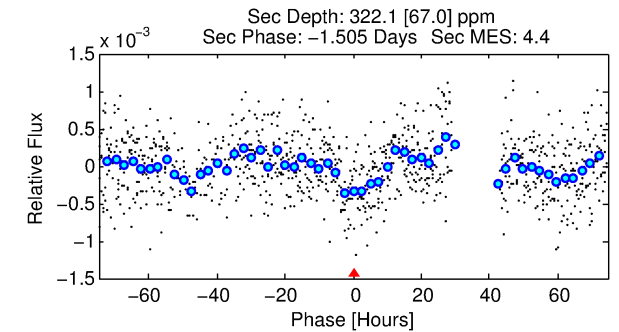
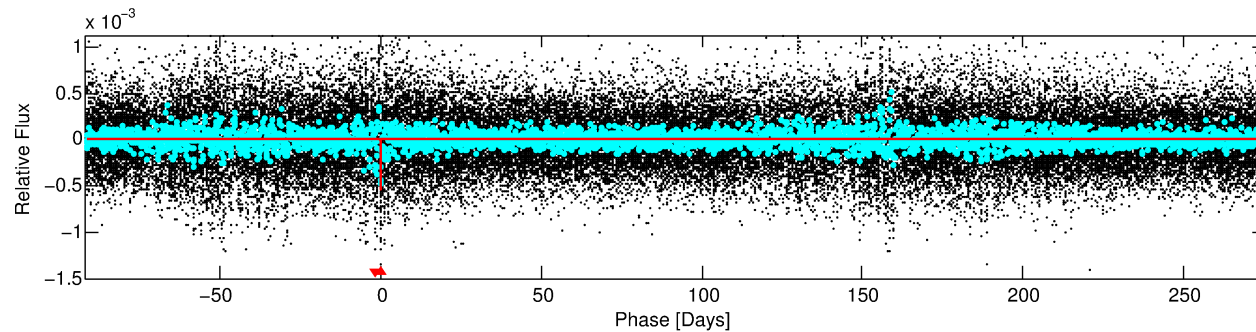
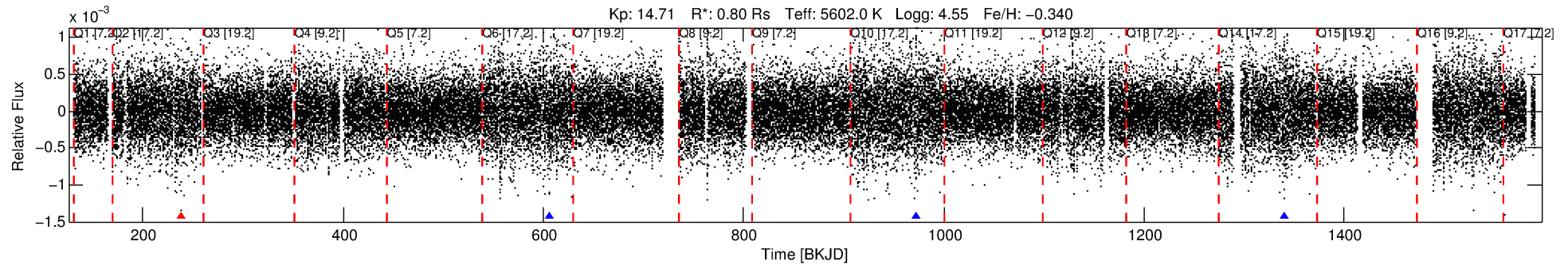
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008675776-01

No Significant Match Found

DV One-Page Summary

KIC: 8675776 Candidate: 1 of 1 Period: 367.180 d



DV Fit Results:

Period = 367.17956 [0.00881] d
Epoch = 238.6004 [0.0168] BKJD
Rp/R* = 0.0242 [0.0041]
a/R* = 129.30 [87.76]
b = 0.85 [0.23]
Seff = 0.63 [0.18]
Teff = 227 [16] K
Rp = 2.11 [0.59] Re
a = 0.9440 [0.1764] AU
Ag = 35483.23 [16876.92] [2.10 σ]
Teffp = 4822 [493] K [9.32 σ]

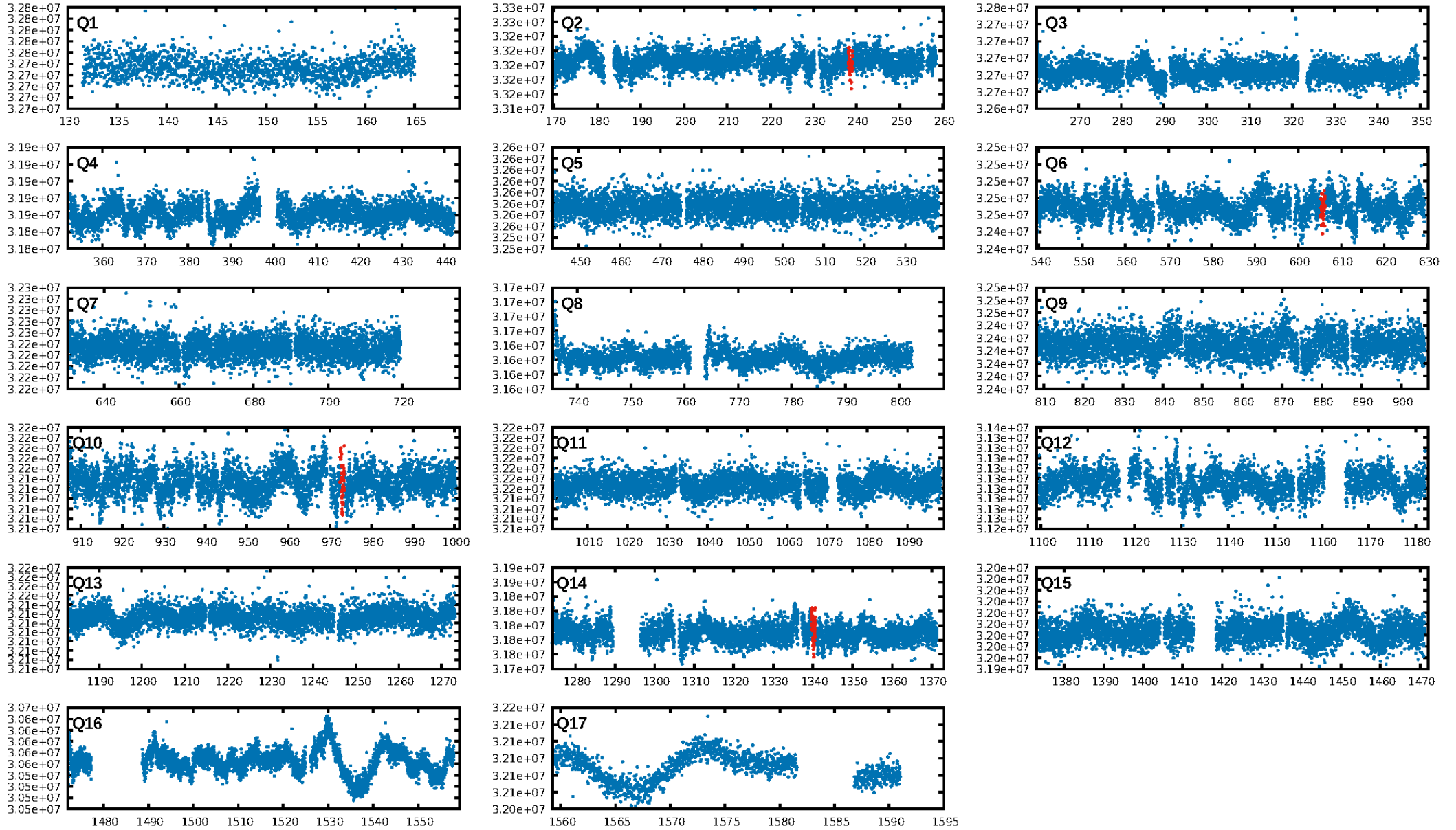
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 13.1%
ModelChiSquareGof-sig: 98.5%
Bootstrap-pfa: 1.94e-10
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: -5.257
Centroid-sig: 57.0%
Centroid-so: 0.954 arcsec [0.47 σ]
OotOffset-rm: 0.825 arcsec [0.56 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-rm: 0.988 arcsec [0.66 σ]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [4/4]

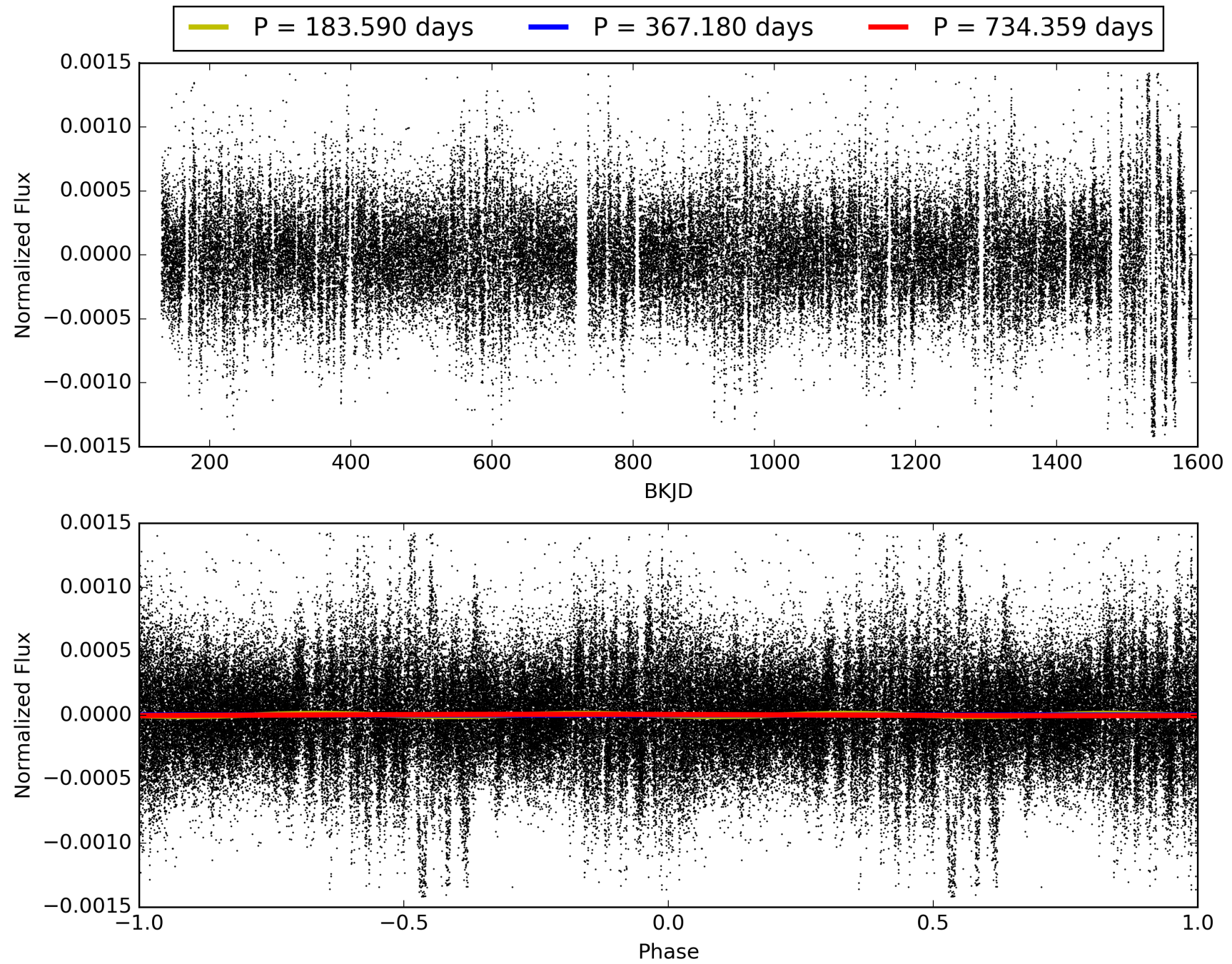
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:55:55 Z

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

TCE 008675776-01, PDC Light Curves

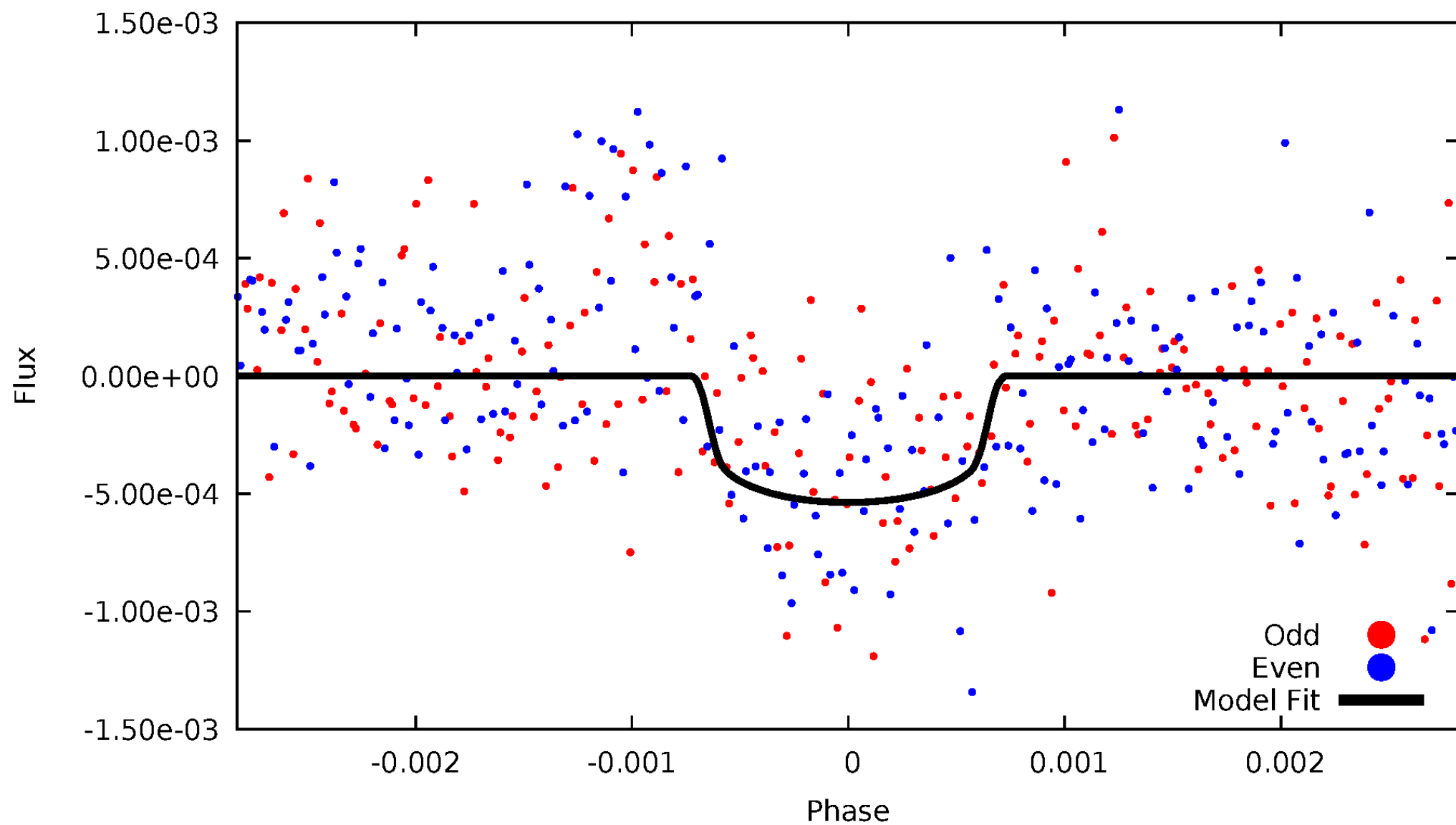


TCE 008675776-01



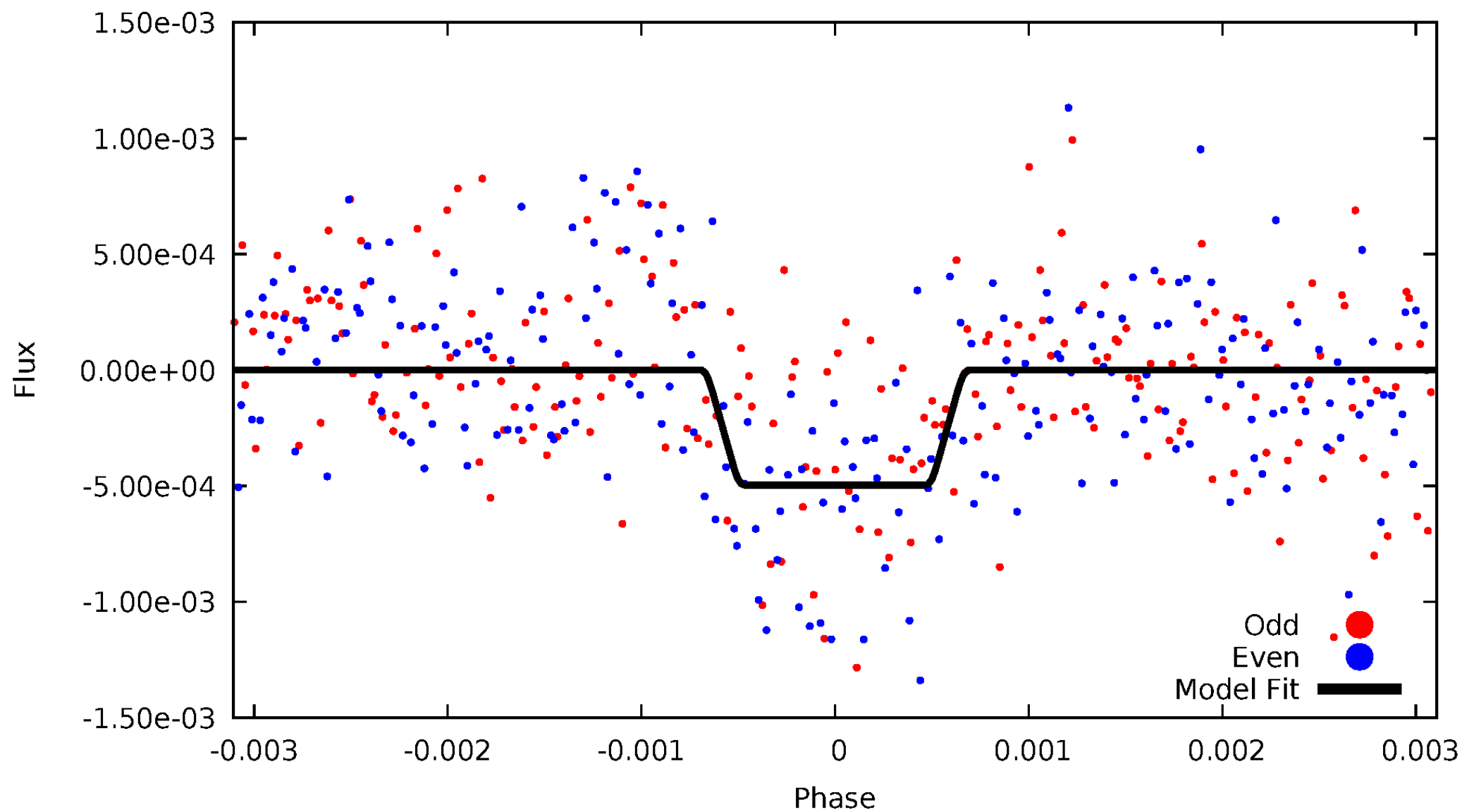
DV Odd/Even

TCE 008675776-01



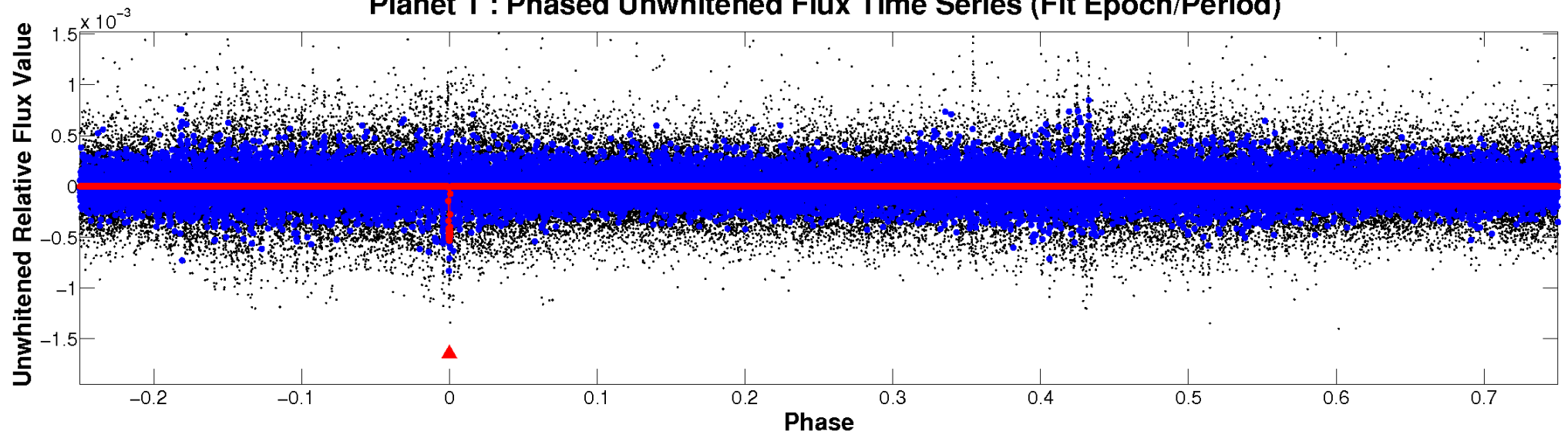
ALT Odd/Even

TCE 008675776-01

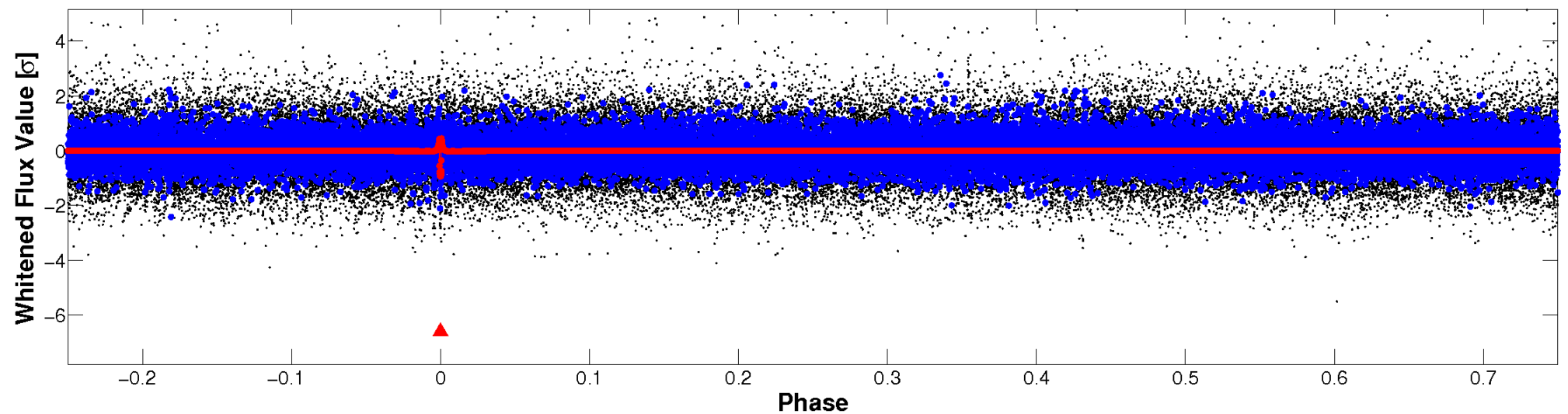


Non-Whitened Vs. Whitened Light Curve

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

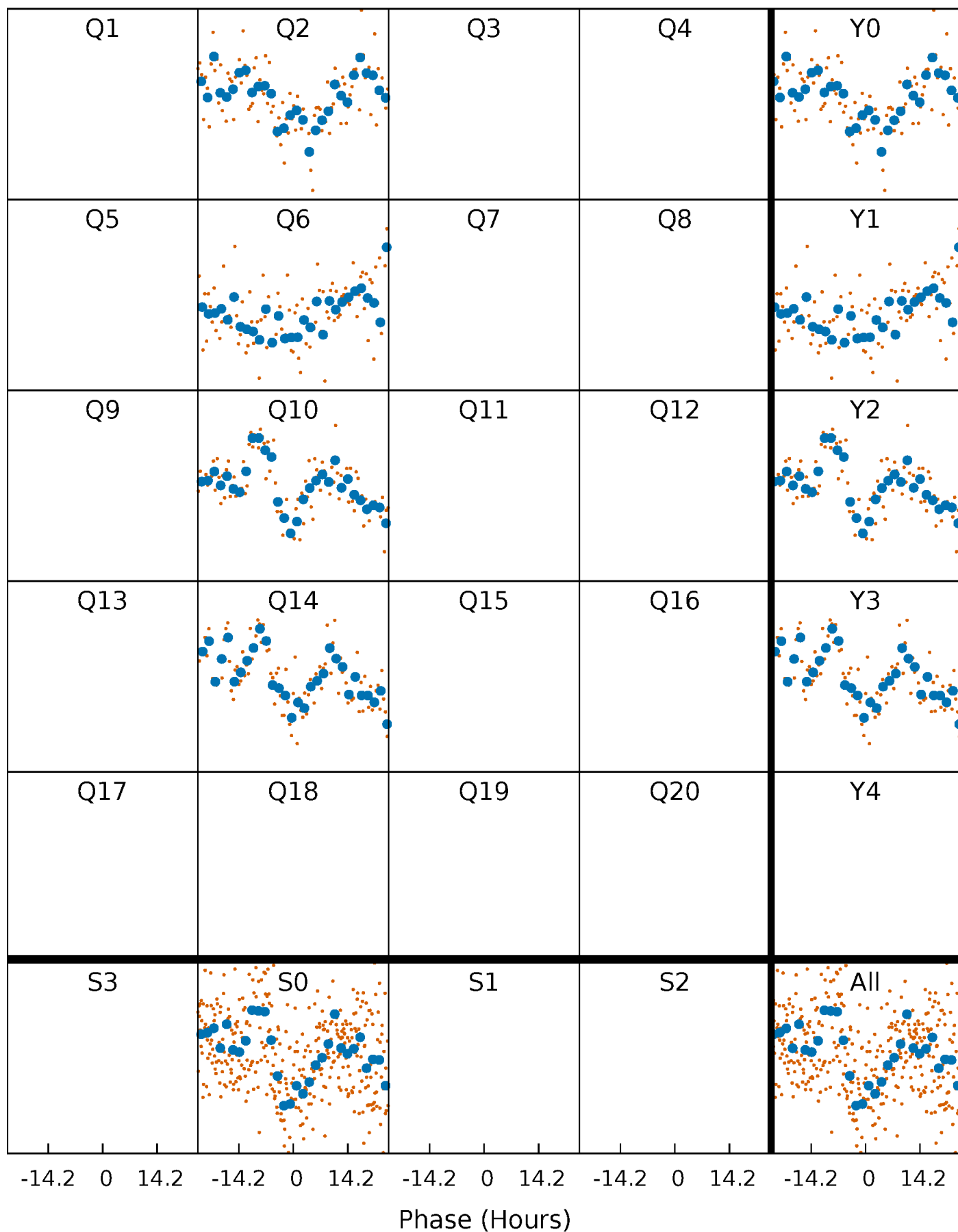


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 008675776-01 P=367.179565 Days $T_0=238.600360$ (BKJD)



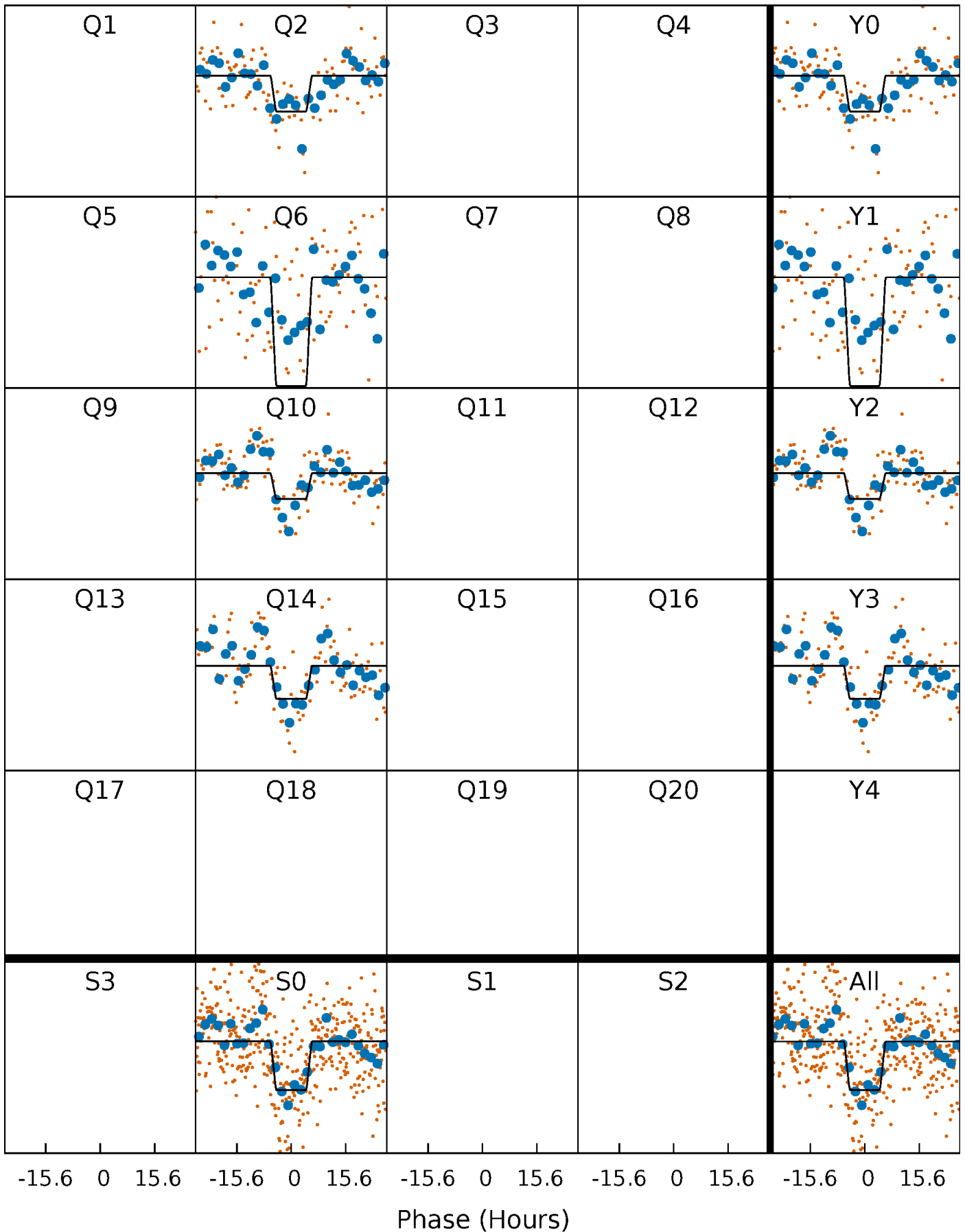
DV Quarter-Phased Transit Curves

TCE 008675776-01 P=367.179565 Days $T_0=238.600360$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

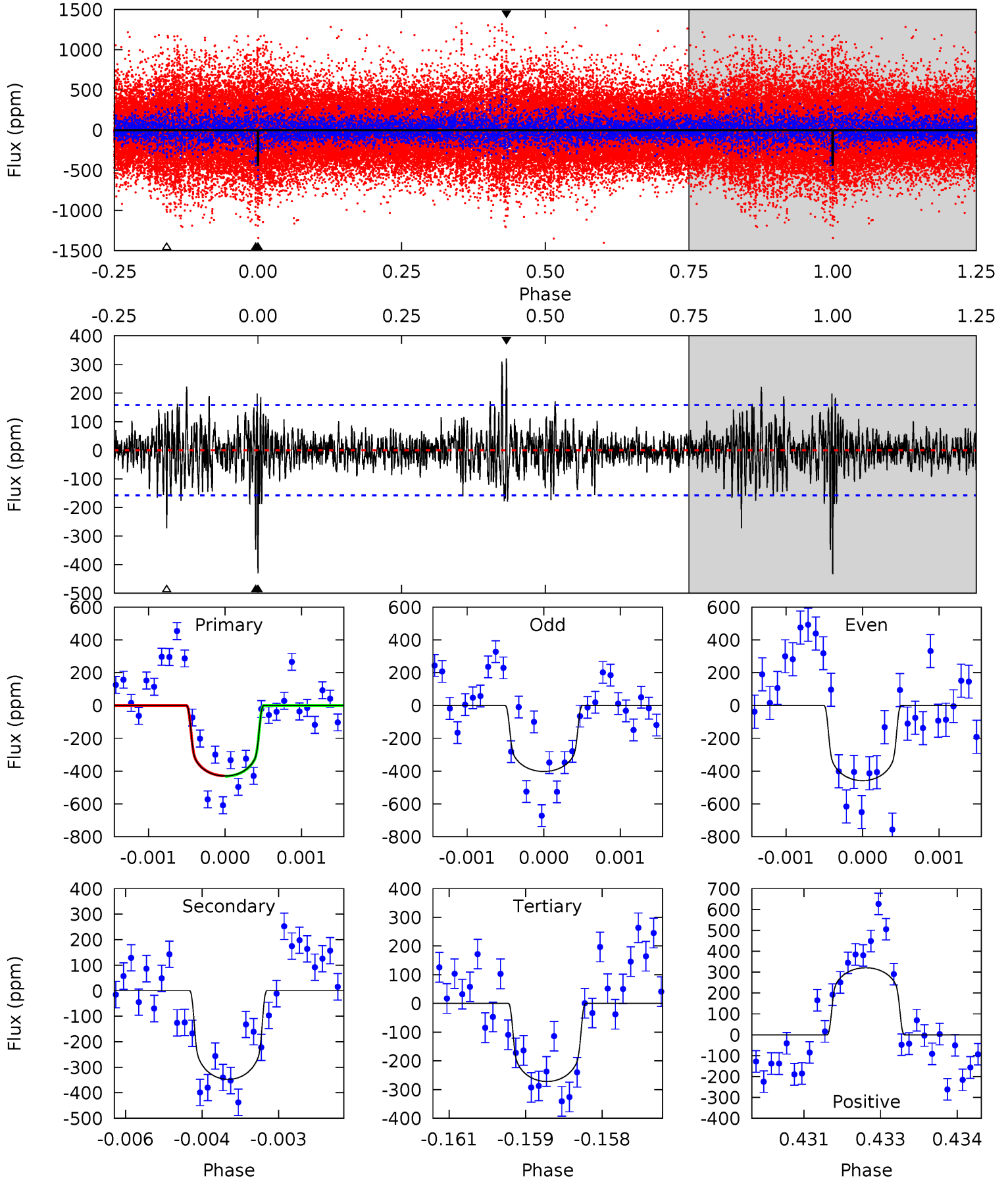
TCE 008675776-01 P=367.163828 Days $T_0=238.649013$ (BKJD)



DV Model-Shift Uniqueness Test

008675776-01, P = 367.179565 Days, E = 238.600360 Days

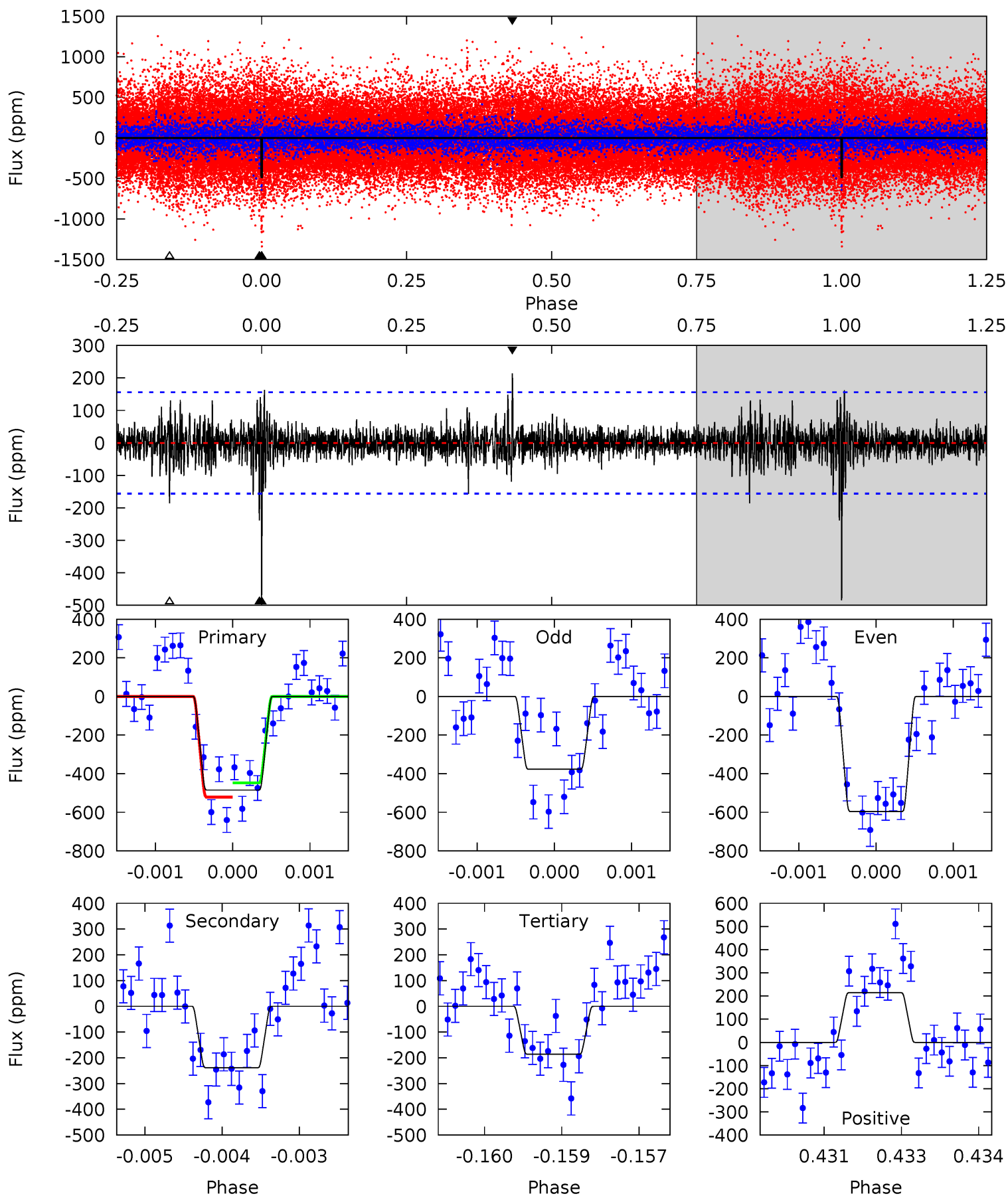
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	11.8	9.27	10.9	5.39	3.19	1.81	5.40	3.73	2.58	0.90	0.95	1.01	0.43	0.04



Alt Model-Shift Uniqueness Test

008675776-01, P = 367.163828 Days, E = 238.649013 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	8.25	6.44	7.41	5.40	3.20	1.15	10.3	9.35	1.82	0.84	3.80	0.88	0.31	1.27



Stellar Parameters For KIC 008675776

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5602^{+152}_{-152}	$4.554^{+0.048}_{-0.143}$	$-0.340^{+0.300}_{-0.300}$	$0.798^{+0.181}_{-0.077}$	$0.833^{+0.097}_{-0.080}$	$2.307^{+0.580}_{-0.996}$
	+3%/-3%	+1%/-3%	+88%/-88%	+23%/-10%	+12%/-10%	+25%/-43%
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 008675776-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-347 ± 29	$2.16^{+0.40}_{-0.40}$	322^{+19}_{-13}	5008^{+451}_{-341}	36111^{+17575}_{-10690}
Alt.	-239 ± 29	$2.00^{+0.42}_{-0.40}$	323^{+17}_{-14}	4793^{+465}_{-363}	29196^{+16202}_{-9671}

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

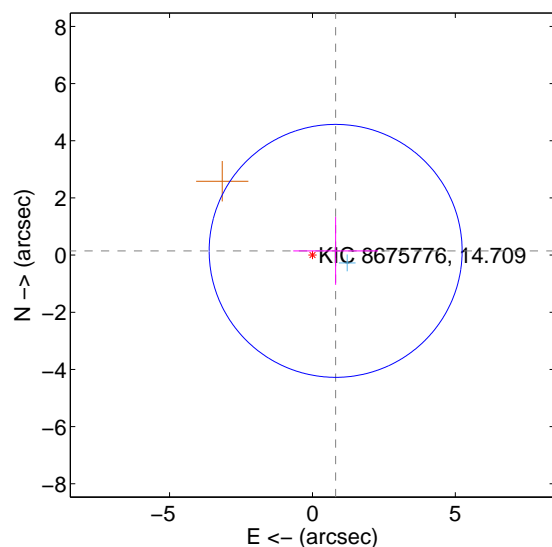
Supplemental centroid analysis for 008675776-01. Kepler magnitude: 14.71. Transit SNR 8.48

There are 1 quarters with good PRF difference image offsets

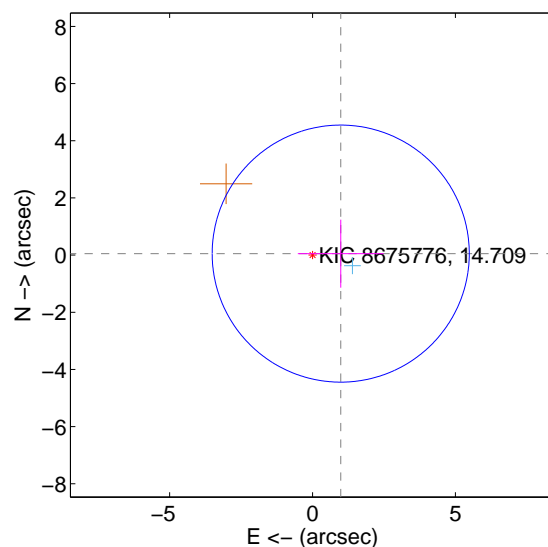
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.825 ± 1.475	0.56	-0.812 ± 1.483	0.148 ± 1.186
PRF-fit source offset from KIC position	0.988 ± 1.499	0.66	-0.987 ± 1.500	0.052 ± 1.190
photometric centroid source offset	0.95 ± 2.03	0.47	0.55 ± 2.05	0.78 ± 2.03

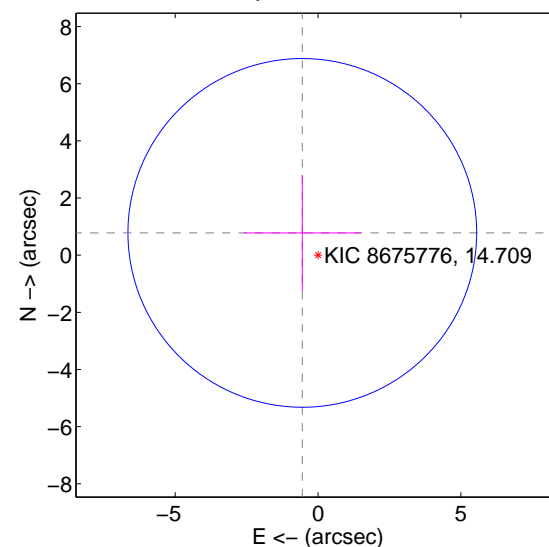
offset from difference PRF-fit to OOT PRF-fit



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.

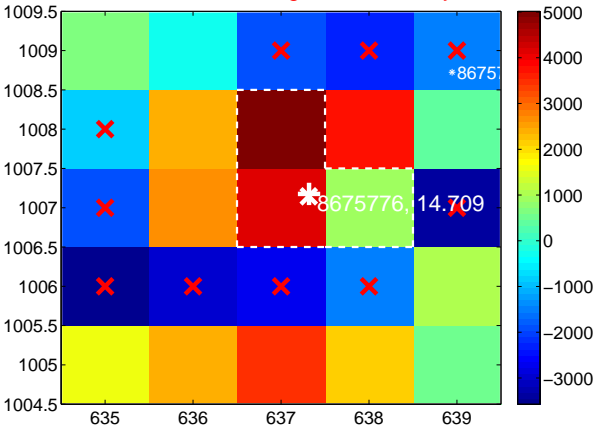
Q1 no difference image



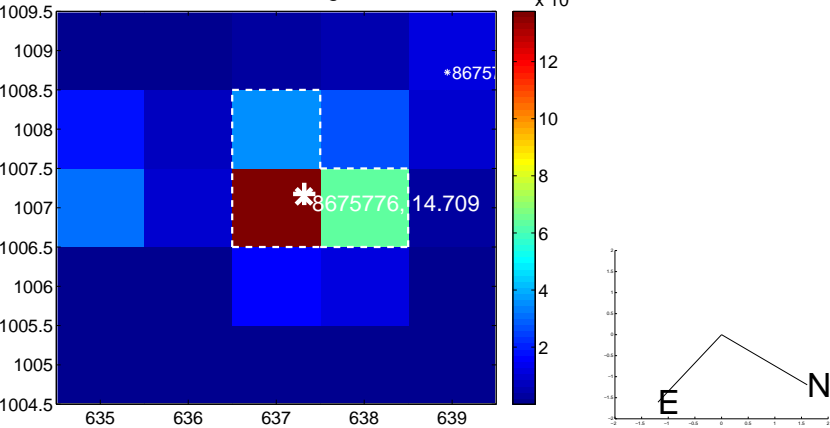
Q1 no OOT image



Q2 difference image. Poor Quality



Q2 OOT image



Q3 no difference image



Q3 no OOT image



Q4 no difference image



Q4 no OOT image



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

Q5 no difference image

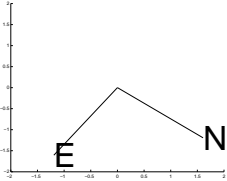
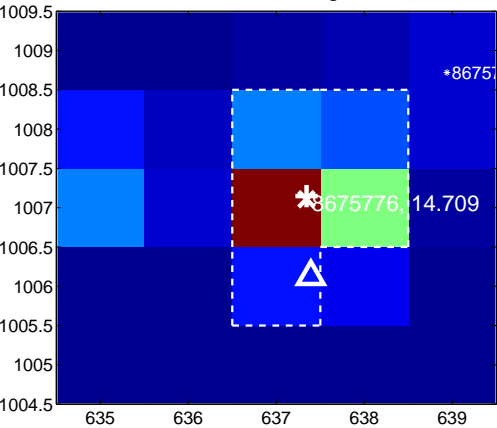
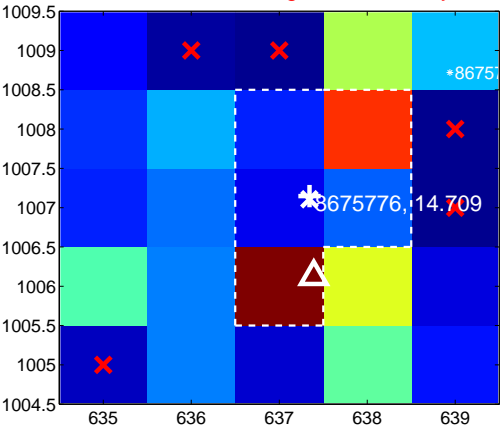


Q5 no OOT image



Q6 difference image. Poor Quality

Q6 OOT image



Q7 no difference image



Q7 no OOT image



Q8 no difference image



Q8 no OOT image



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

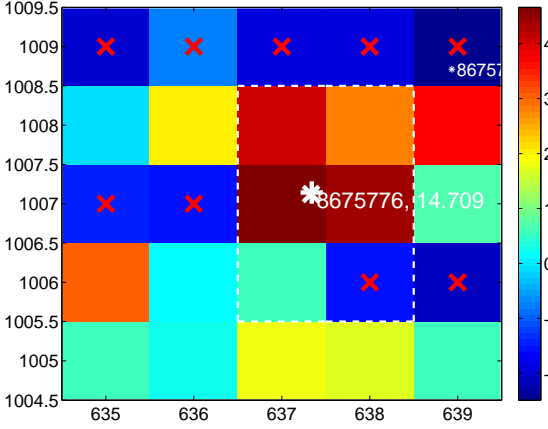
Q9 no difference image



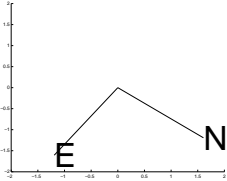
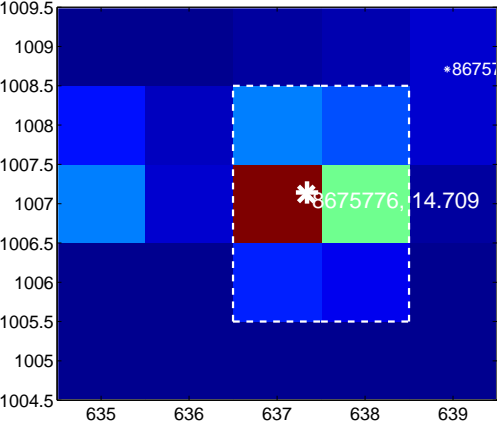
Q9 no OOT image



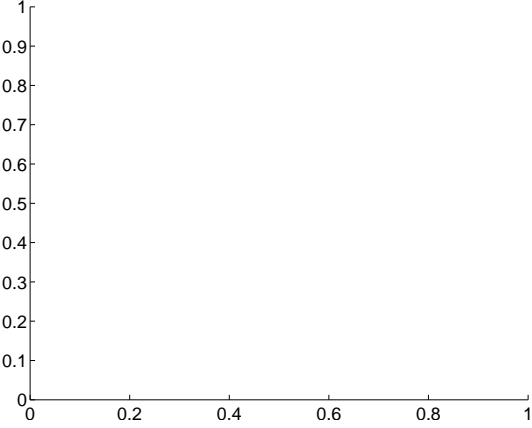
Q10 difference image. Poor Quality



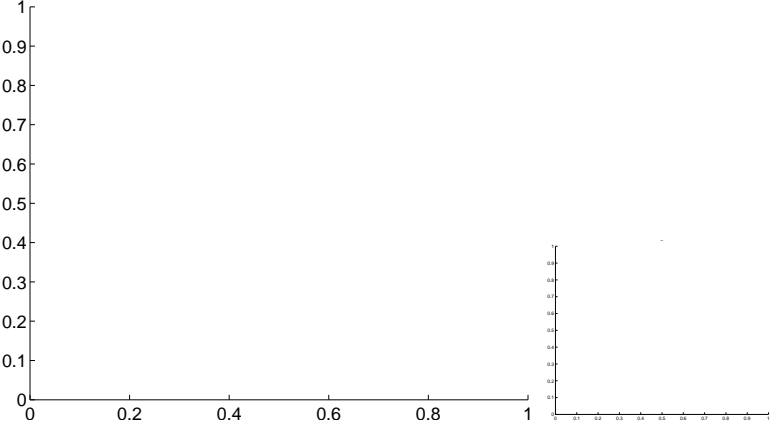
Q10 OOT image



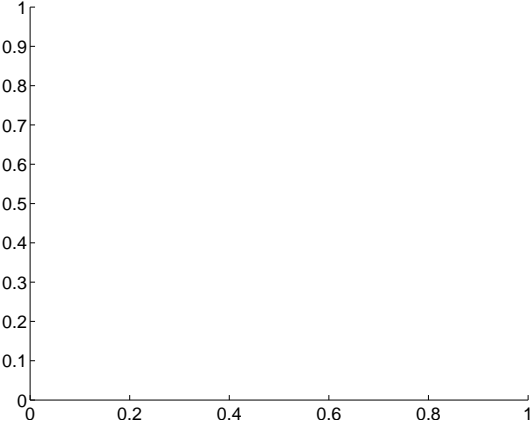
Q11 no difference image



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.

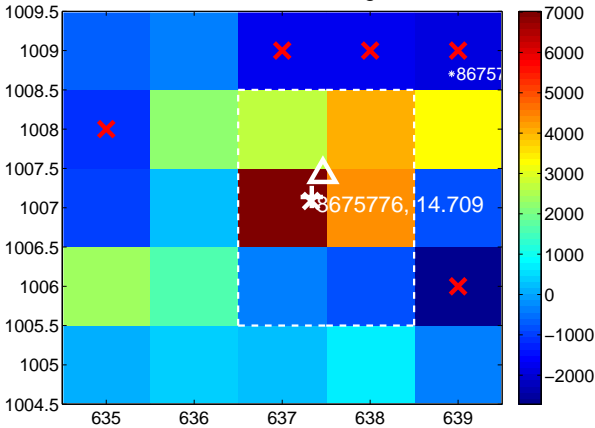
Q13 no difference image



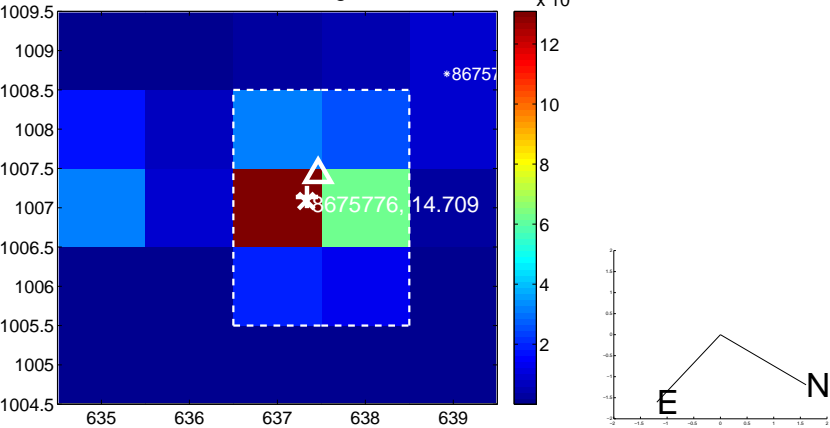
Q13 no OOT image



Q14 difference image



Q14 OOT image



Q15 no difference image



Q15 no OOT image



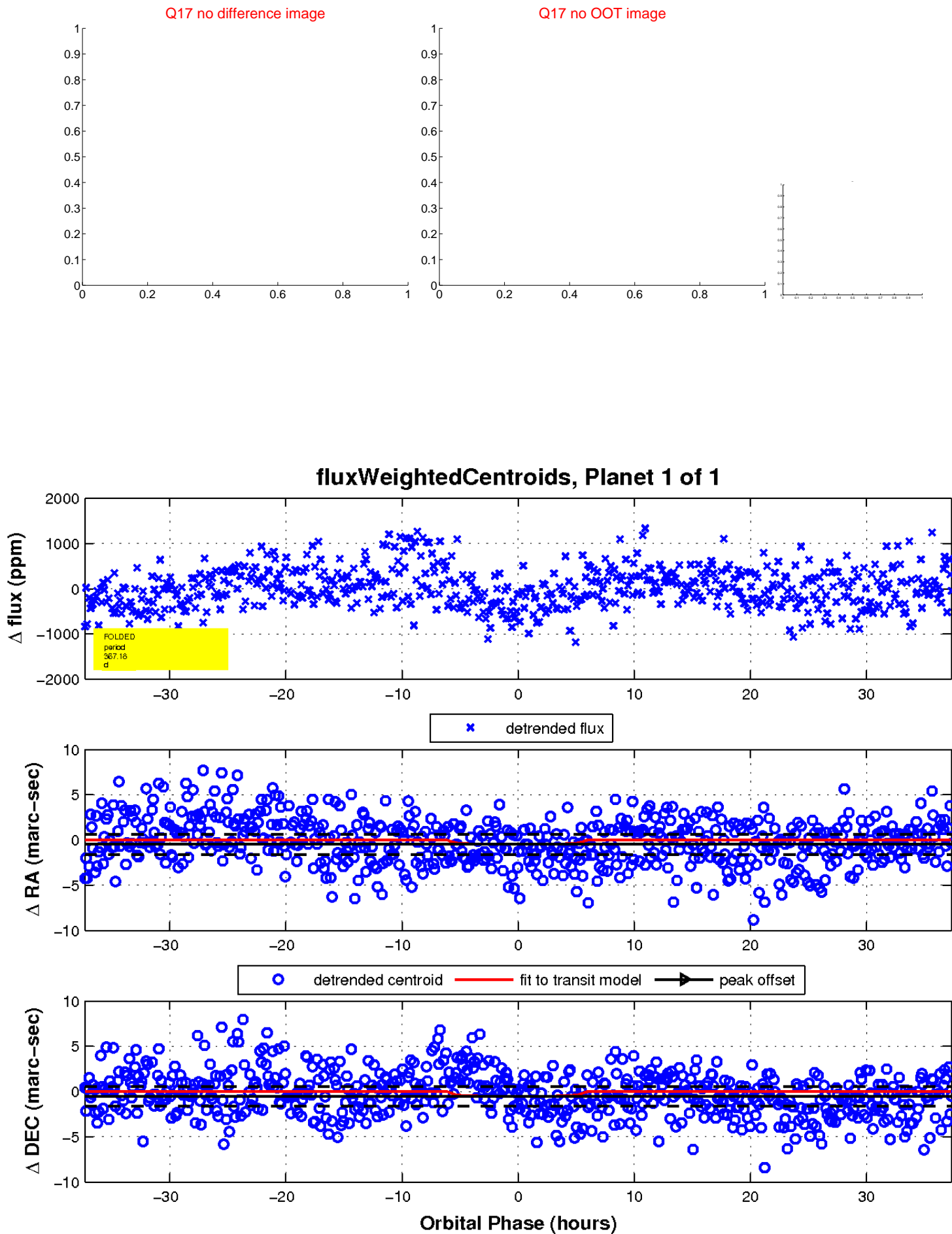
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

