

KIC 010597467

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})
010597467-01	OBS	No	367.428652	145.612484	1350.6	16.463	8.4	8.5	0.89	5623	3.27	0.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010597467-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

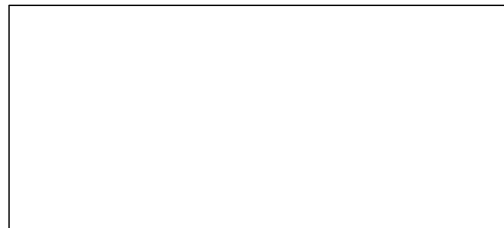
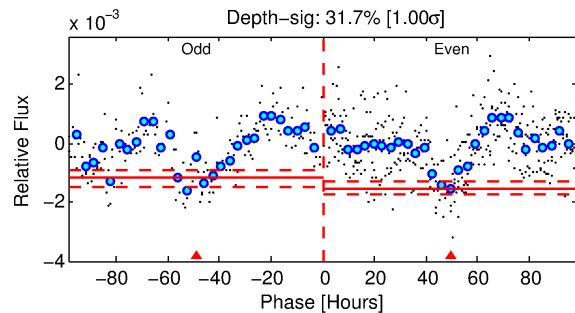
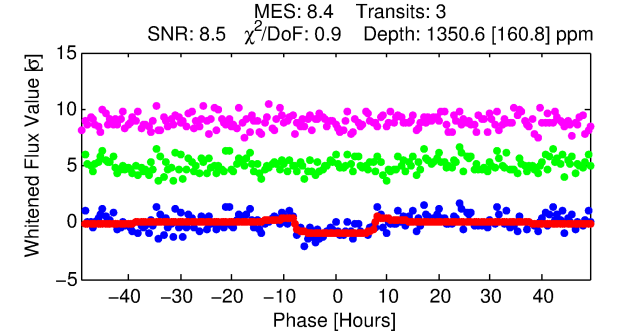
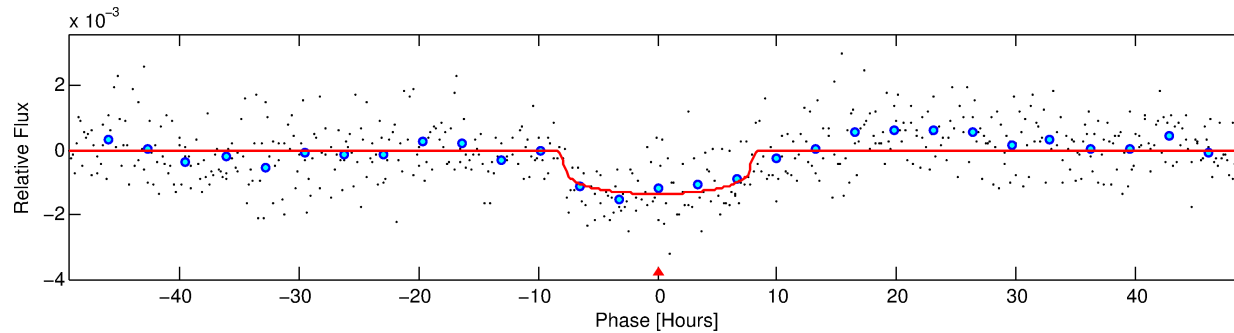
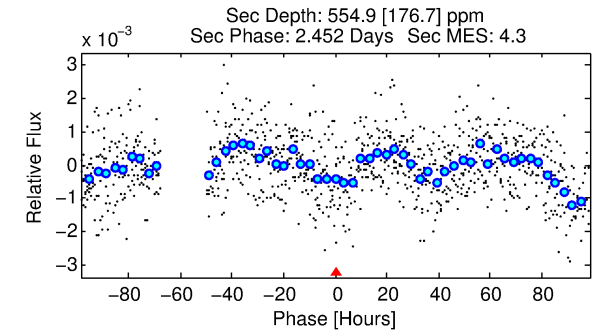
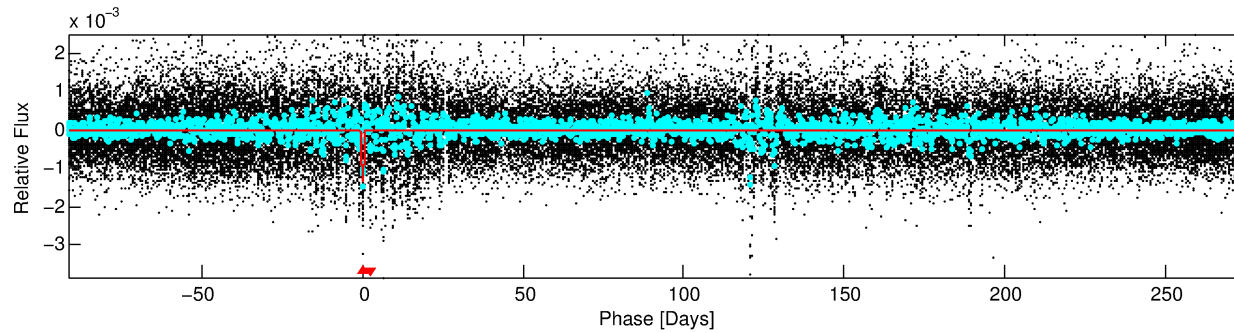
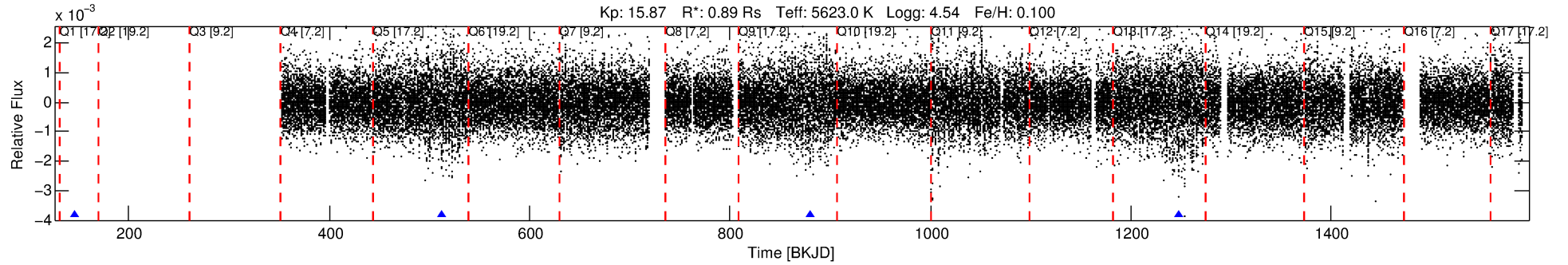
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010597467-01

No Significant Match Found

DV One-Page Summary

KIC: 10597467 Candidate: 1 of 1 Period: 367.429 d



DV Fit Results:

Period = 367.42865 [0.01247] d
Epoch = 145.6125 [0.0269] BKJD
Rp/R* = 0.0338 [0.0120]
a/R* = 162.83 [230.73]
b = 0.40 [3.04]
Seff = 0.70 [0.27]
Teq = 233 [22] K
Rp = 3.27 [1.48] Re
a = 1.0002 [0.2397] AU
Ag = 28581.46 [24456.49] [1.17σ]
Teffp = 4693 [929] K [4.80σ]

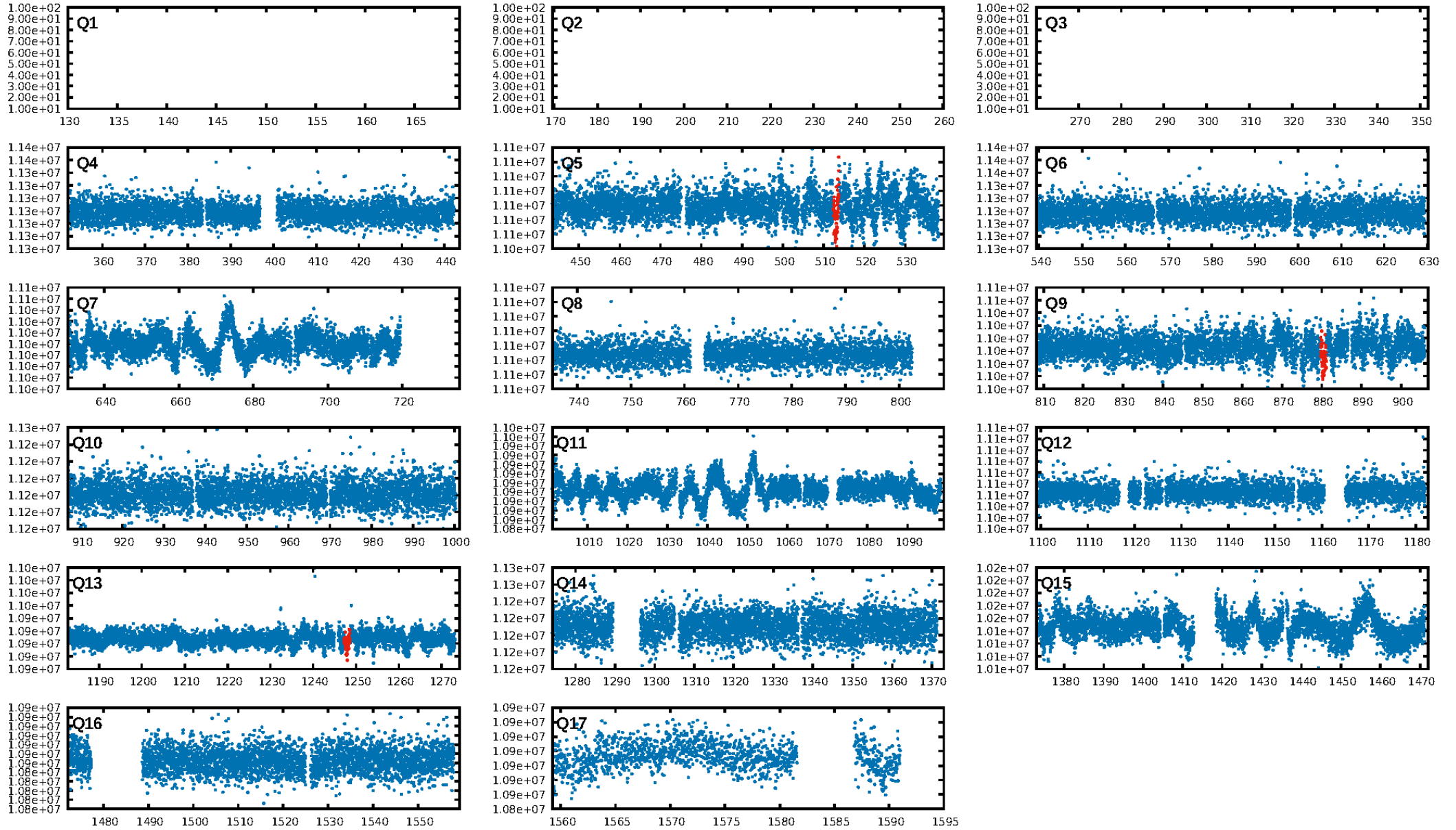
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 56.2%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 3.22e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.58
Centroid-sig: 54.7%
Centroid-so: 0.436 arcsec [0.23σ]
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 [2/2]

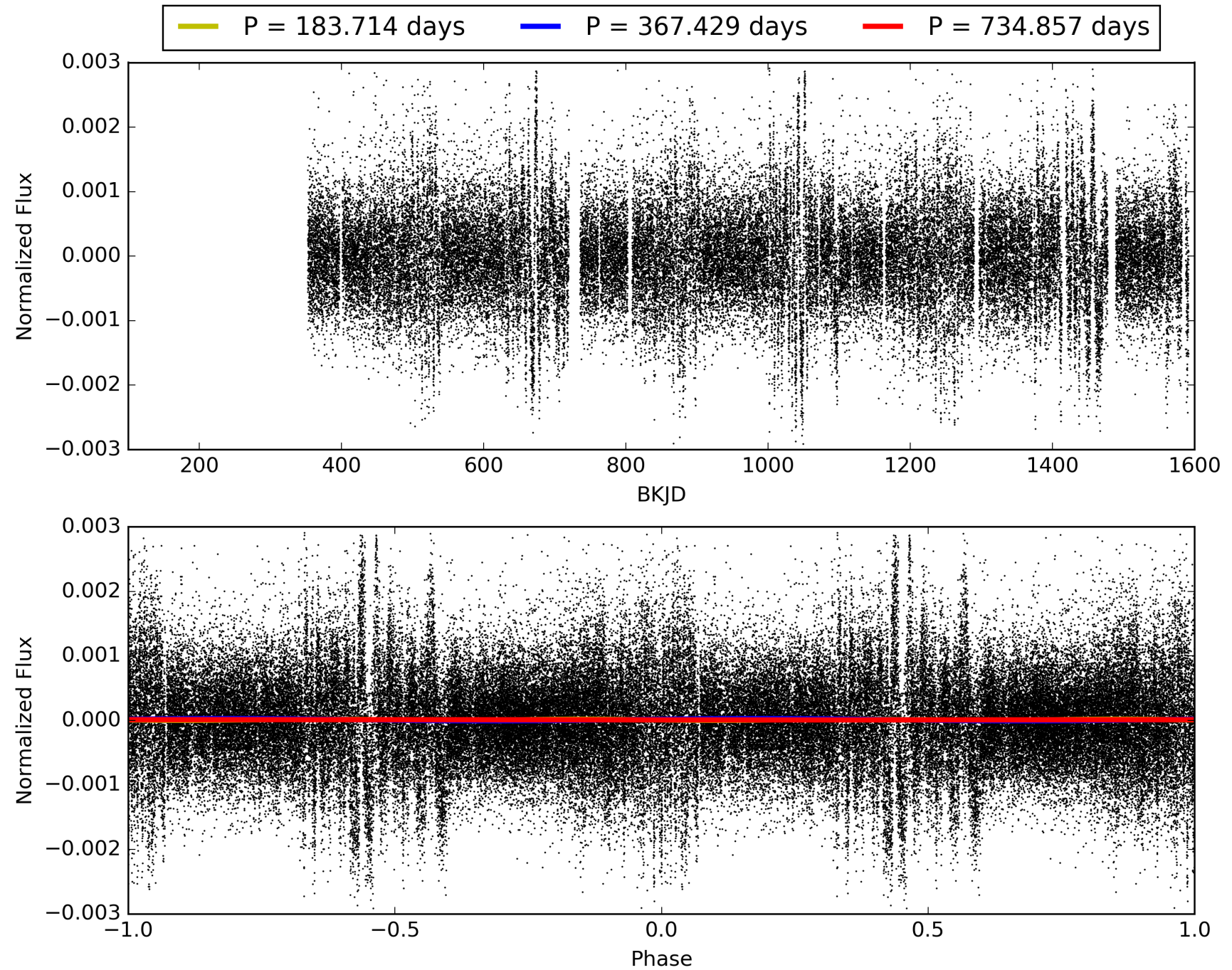
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:04:00 Z

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

TCE 010597467-01, PDC Light Curves

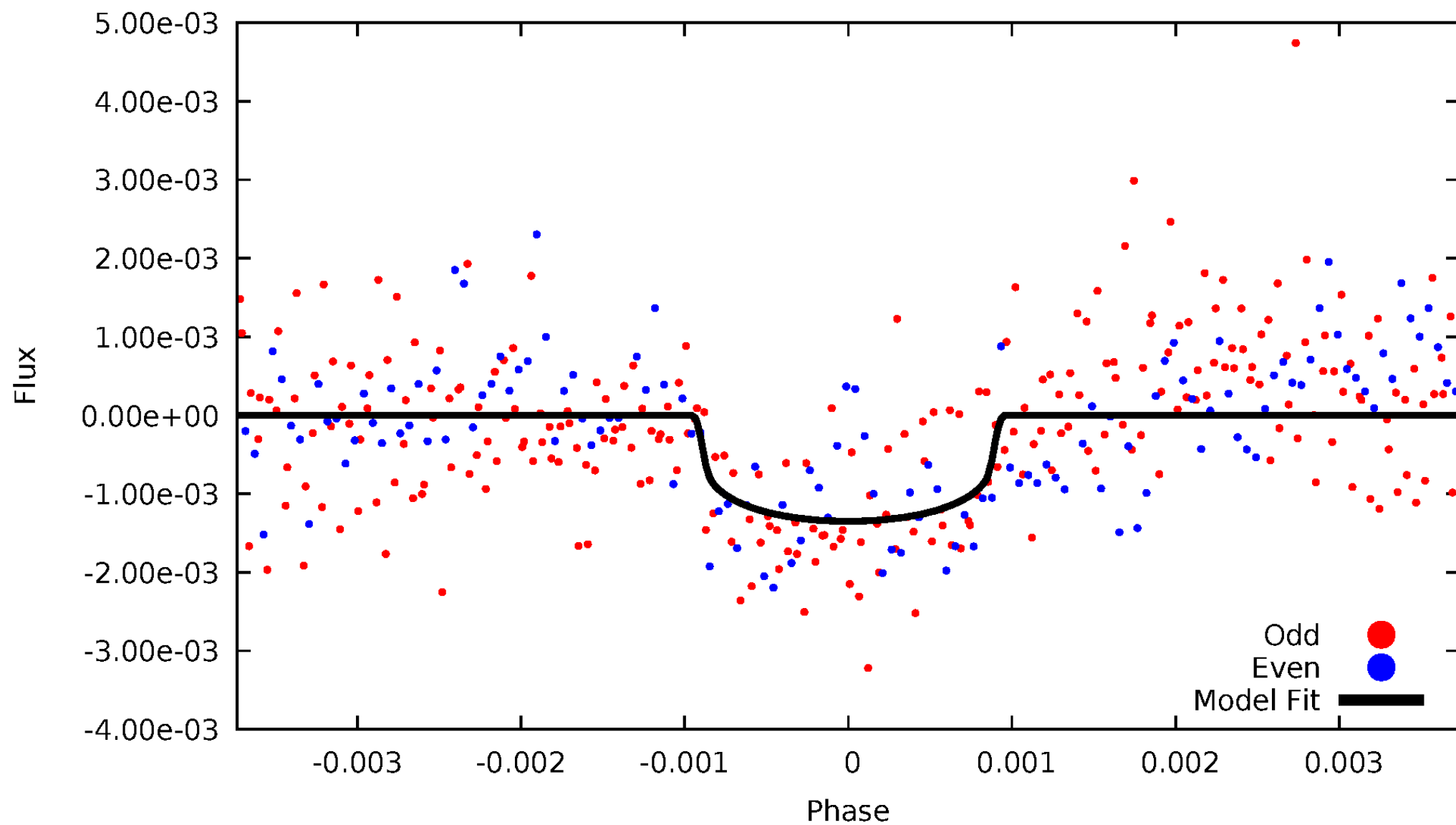


TCE 010597467-01



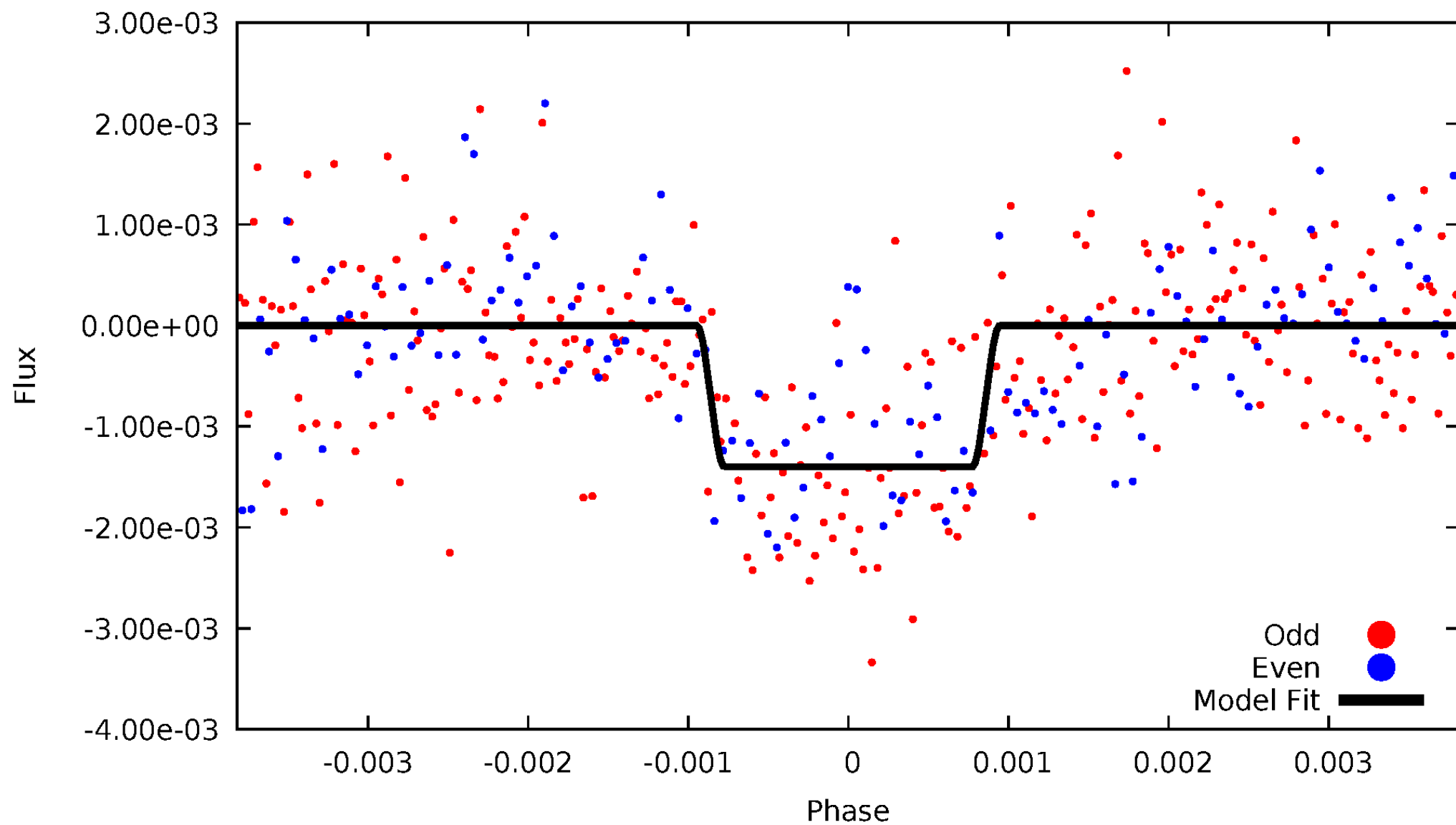
DV Odd/Even

TCE 010597467-01



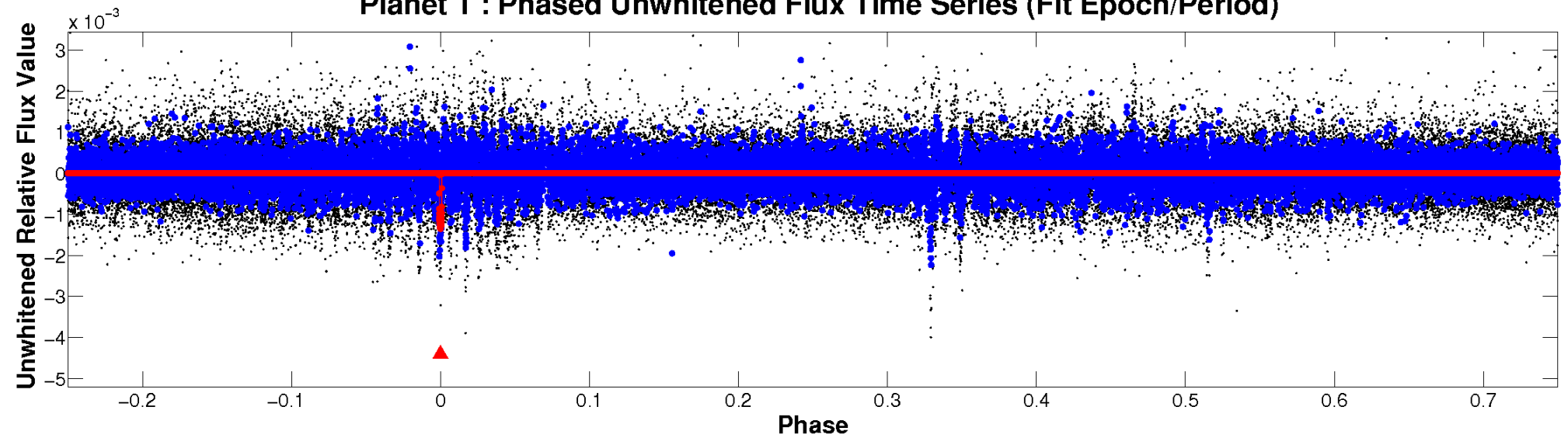
ALT Odd/Even

TCE 010597467-01

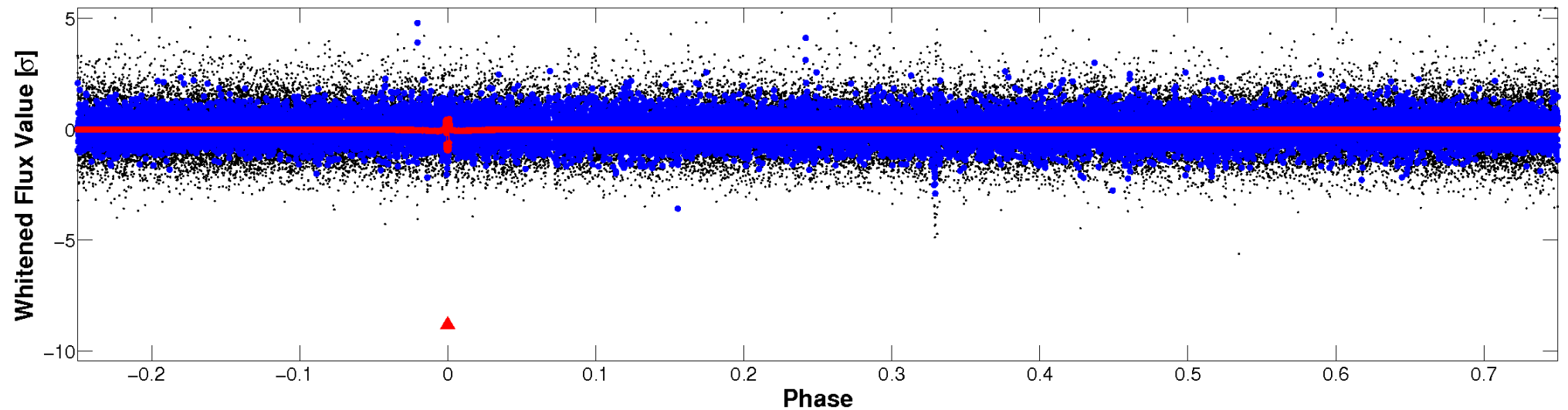


Non-Whitened Vs. Whitened Light Curve

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

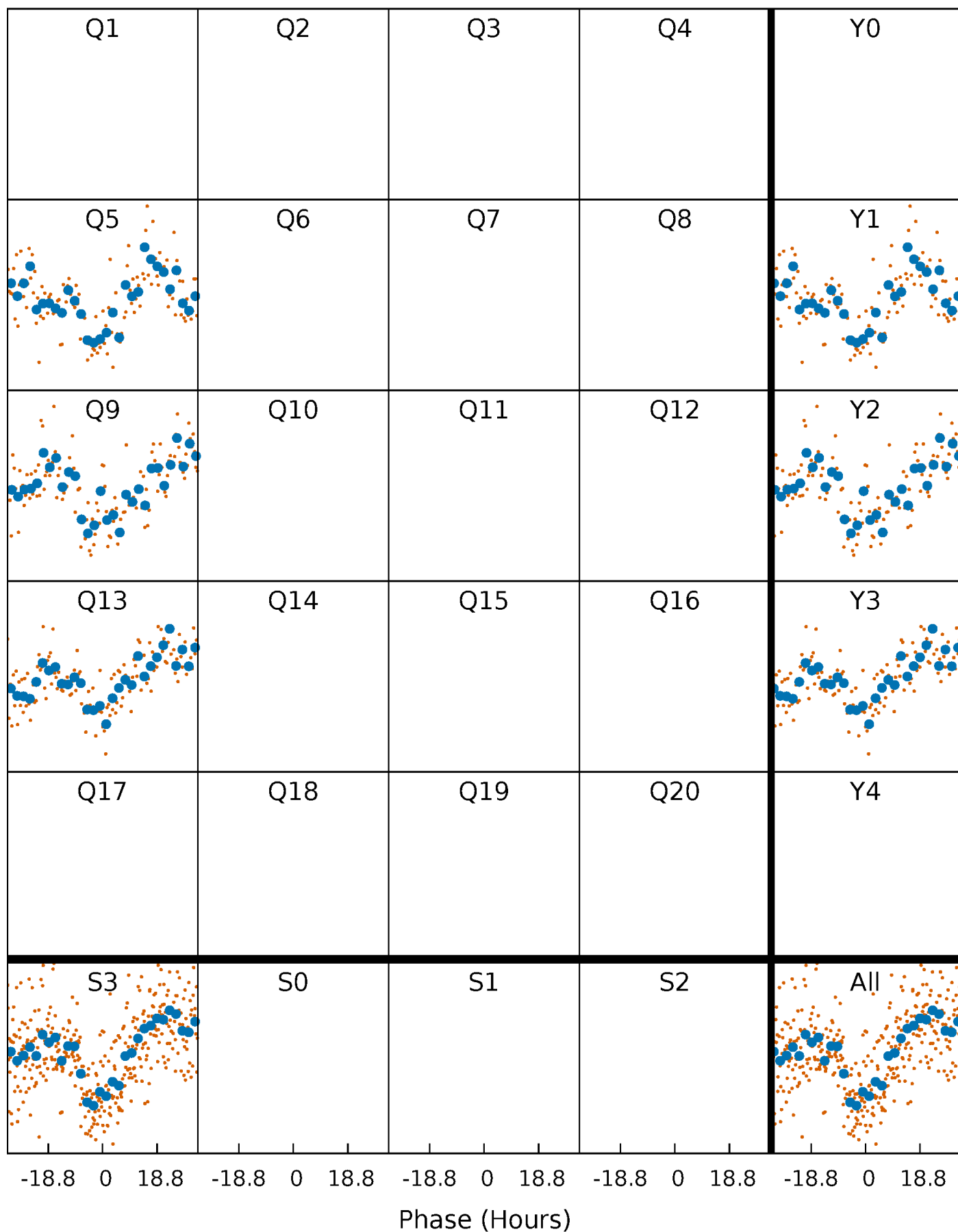


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



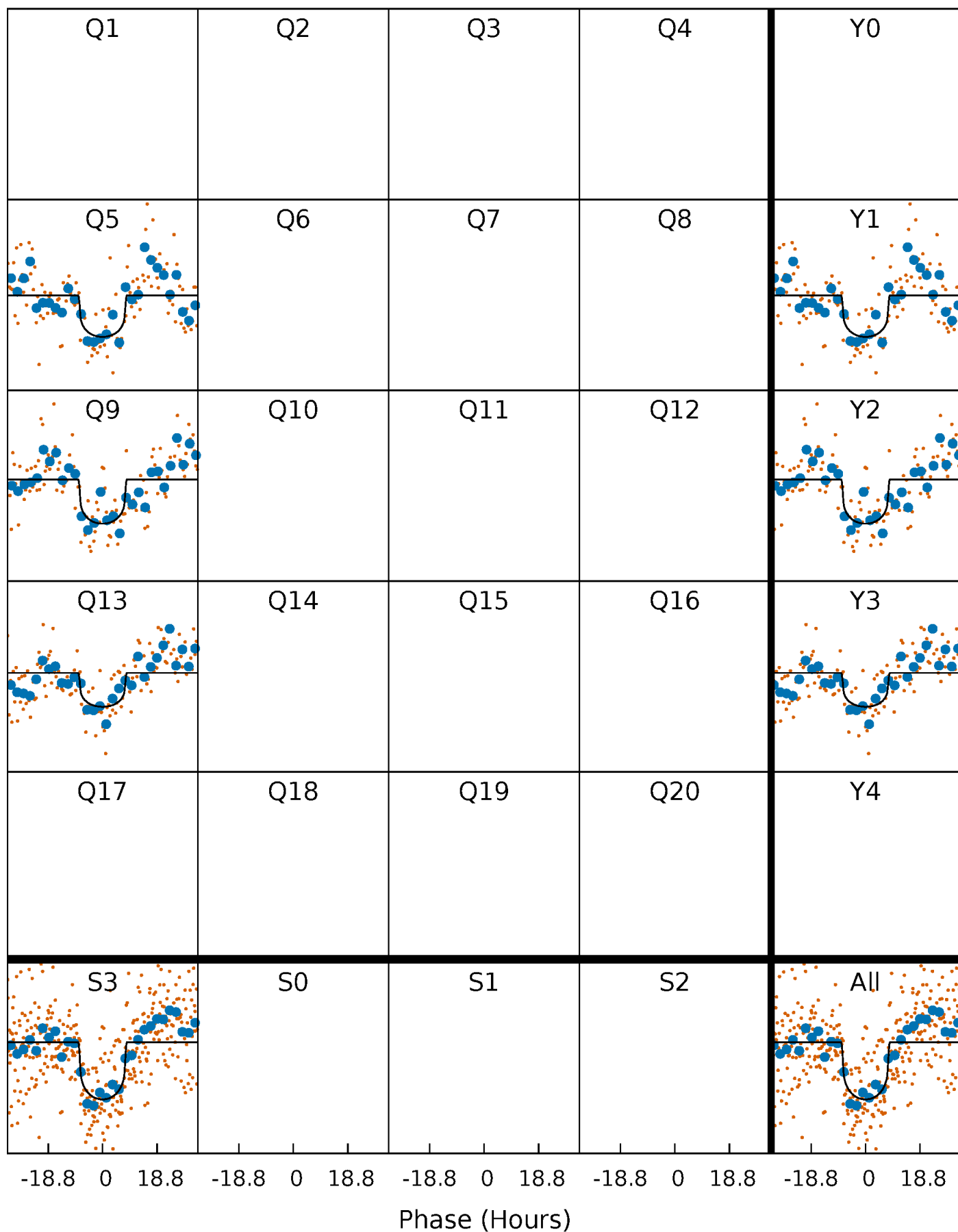
PDC Quarter-Phased Transit Curves

TCE 010597467-01 $P=367.428652$ Days $T_0=145.612484$ (BKJD)



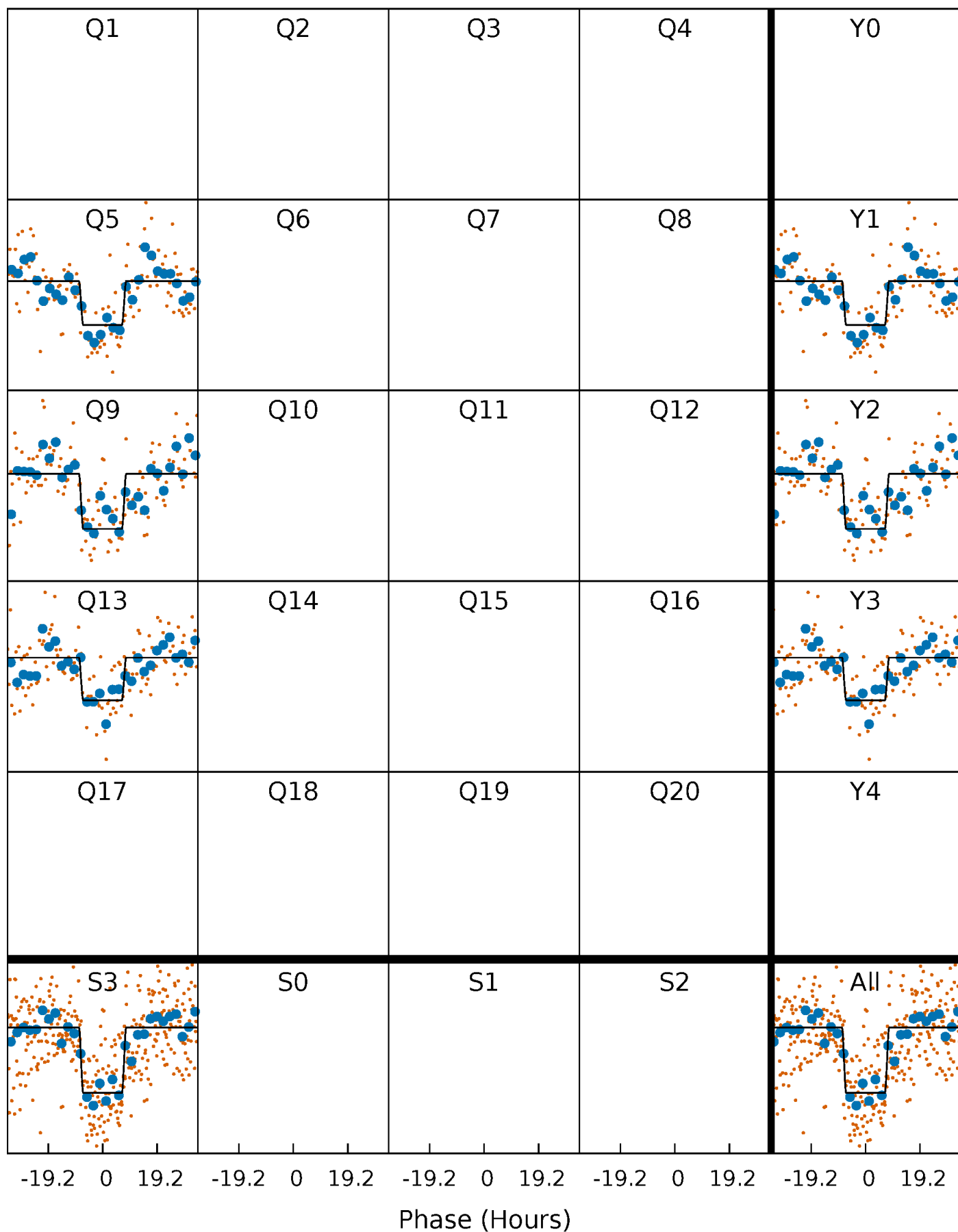
DV Quarter-Phased Transit Curves

TCE 010597467-01 $P=367.428652$ Days $T_0=145.612484$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

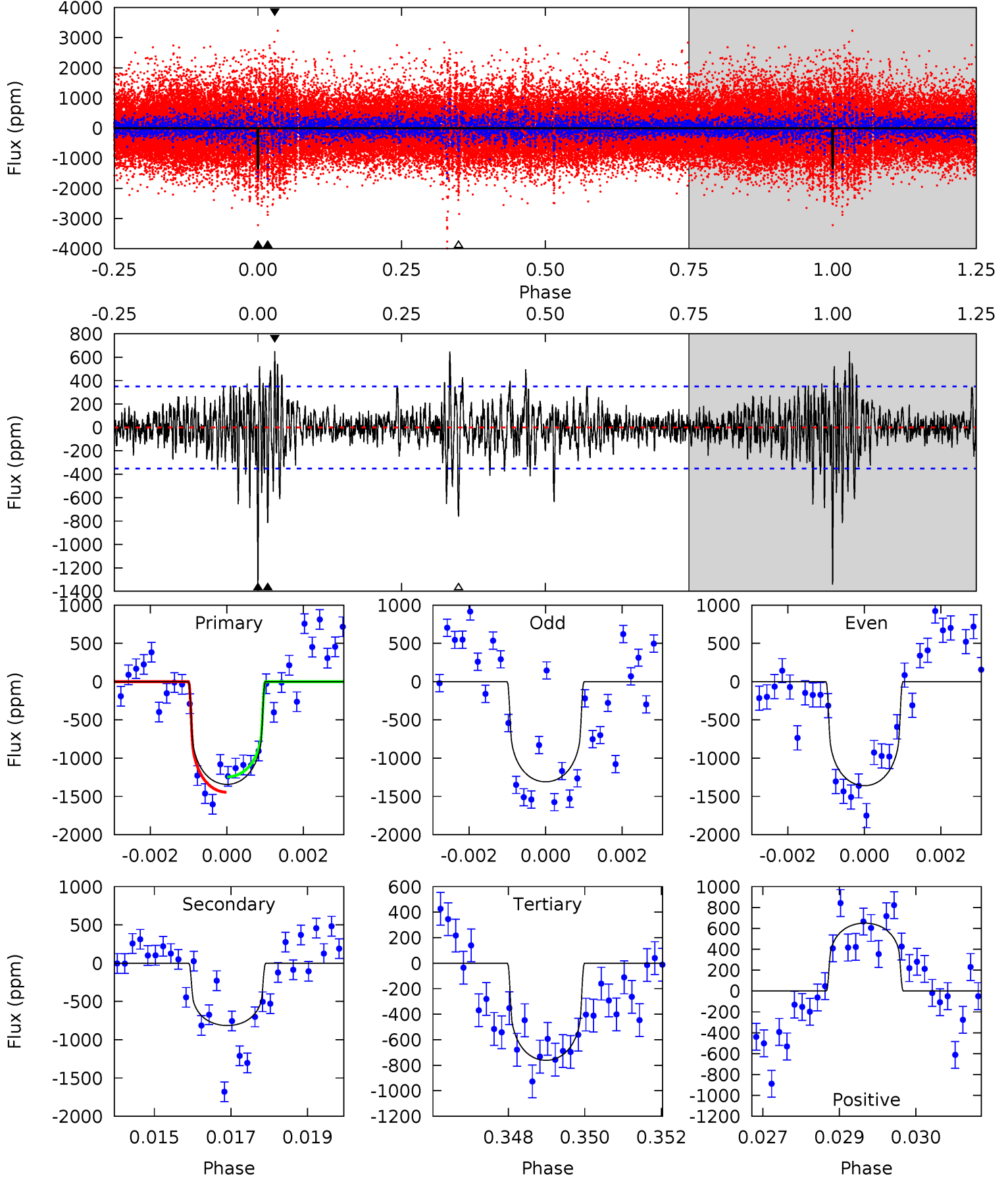
TCE 010597467-01 $P=367.422654$ Days $T_0=145.620719$ (BKJD)



DV Model-Shift Uniqueness Test

010597467-01, P = 367.428652 Days, E = 145.612484 Days

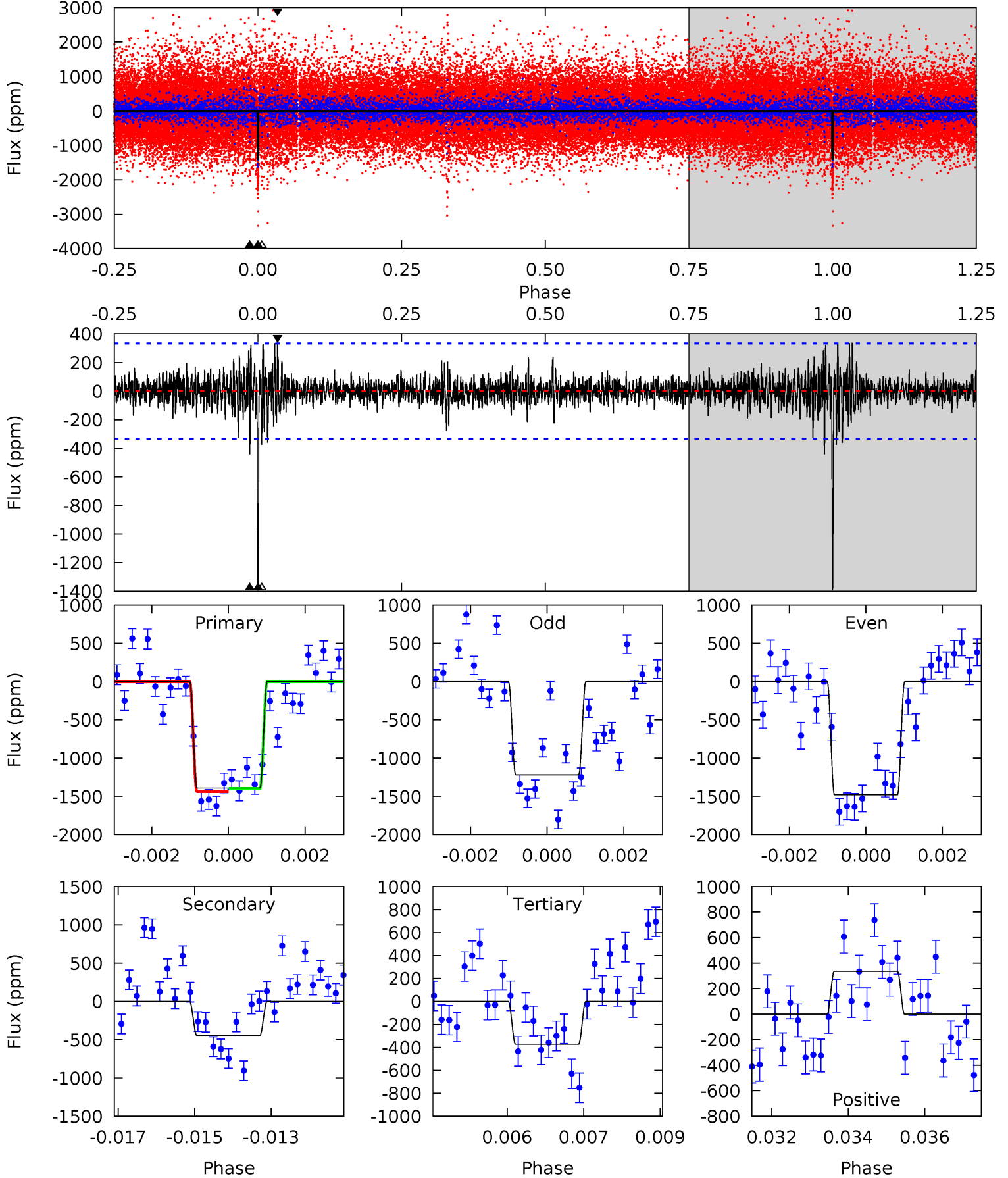
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	12.4	11.6	9.89	5.34	3.11	2.22	8.84	10.5	0.81	2.49	0.37	1.01	0.33	1.52



Alt Model-Shift Uniqueness Test

010597467-01, P = 367.422654 Days, E = 145.620719 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	7.09	5.98	5.40	5.34	3.11	1.08	16.3	16.9	1.11	1.69	1.99	1.01	0.20	0.34



Stellar Parameters For KIC 010597467

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5623^{+180}_{-200}	$4.538^{+0.035}_{-0.196}$	$0.100^{+0.250}_{-0.300}$	$0.886^{+0.248}_{-0.083}$	$0.989^{+0.090}_{-0.110}$	$1.999^{+0.368}_{-0.988}$
	+3%/-4%	+1%/-4%	+250%/-300%	+28%/-9%	+9%/-11%	+18%/-49%
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 010597467-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-815 ± 66	$3.37^{+1.33}_{-1.16}$	334^{+24}_{-16}	5240^{+1217}_{-679}	39381^{+46266}_{-19488}
Alt.	-443 ± 62	$3.84^{+1.42}_{-1.23}$	335^{+22}_{-15}	4392^{+761}_{-468}	15947^{+20002}_{-7347}

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

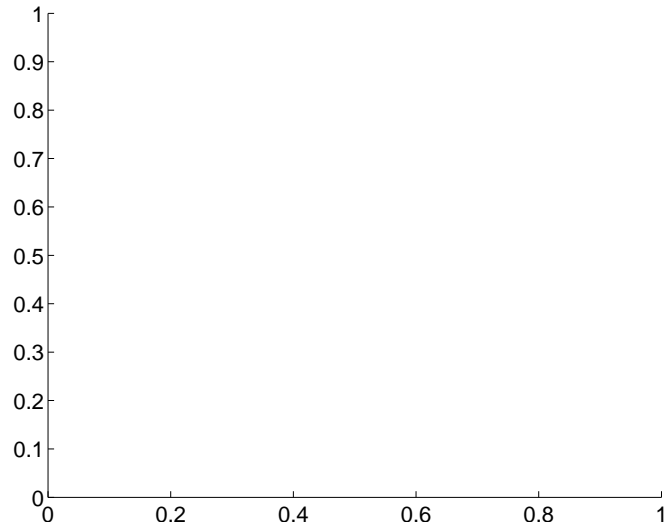
Supplemental centroid analysis for 010597467-01. Kepler magnitude: 15.87. Transit SNR 8.52

There are 0 quarters with good PRF difference image offsets

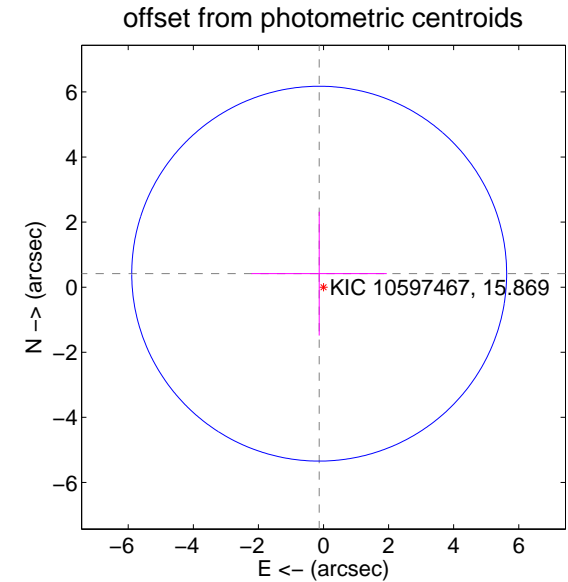
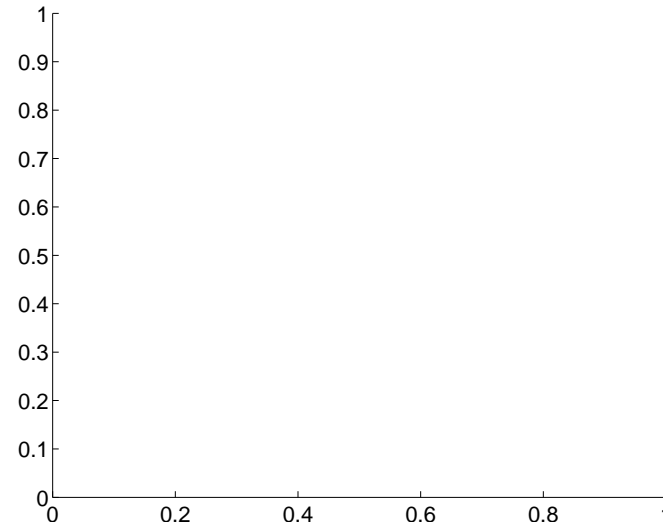
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	0.44 ± 1.92	0.23	0.13 ± 2.08	0.42 ± 1.90

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

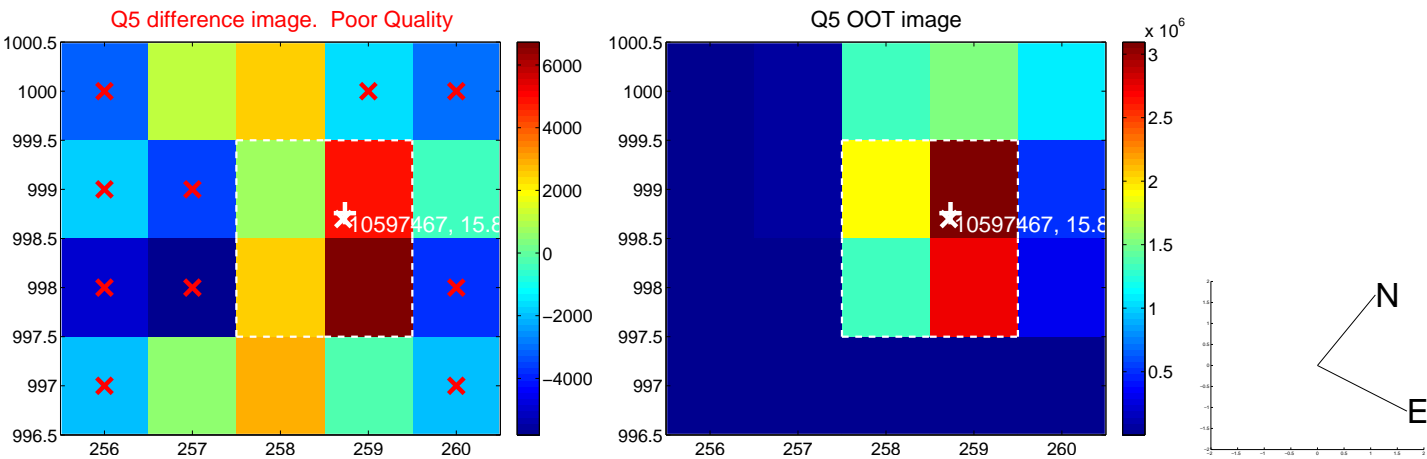


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

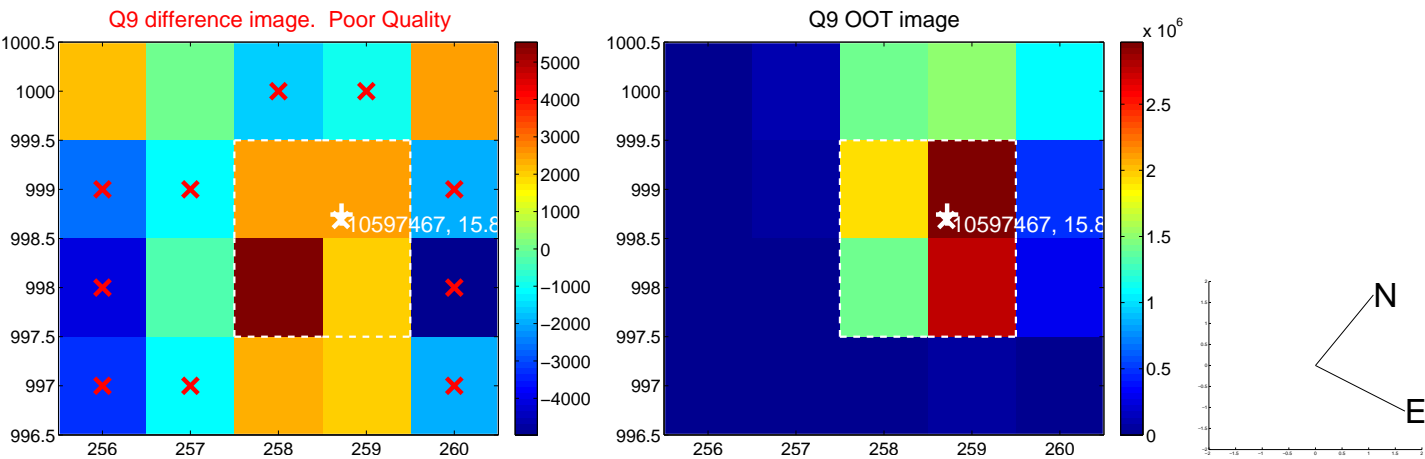
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



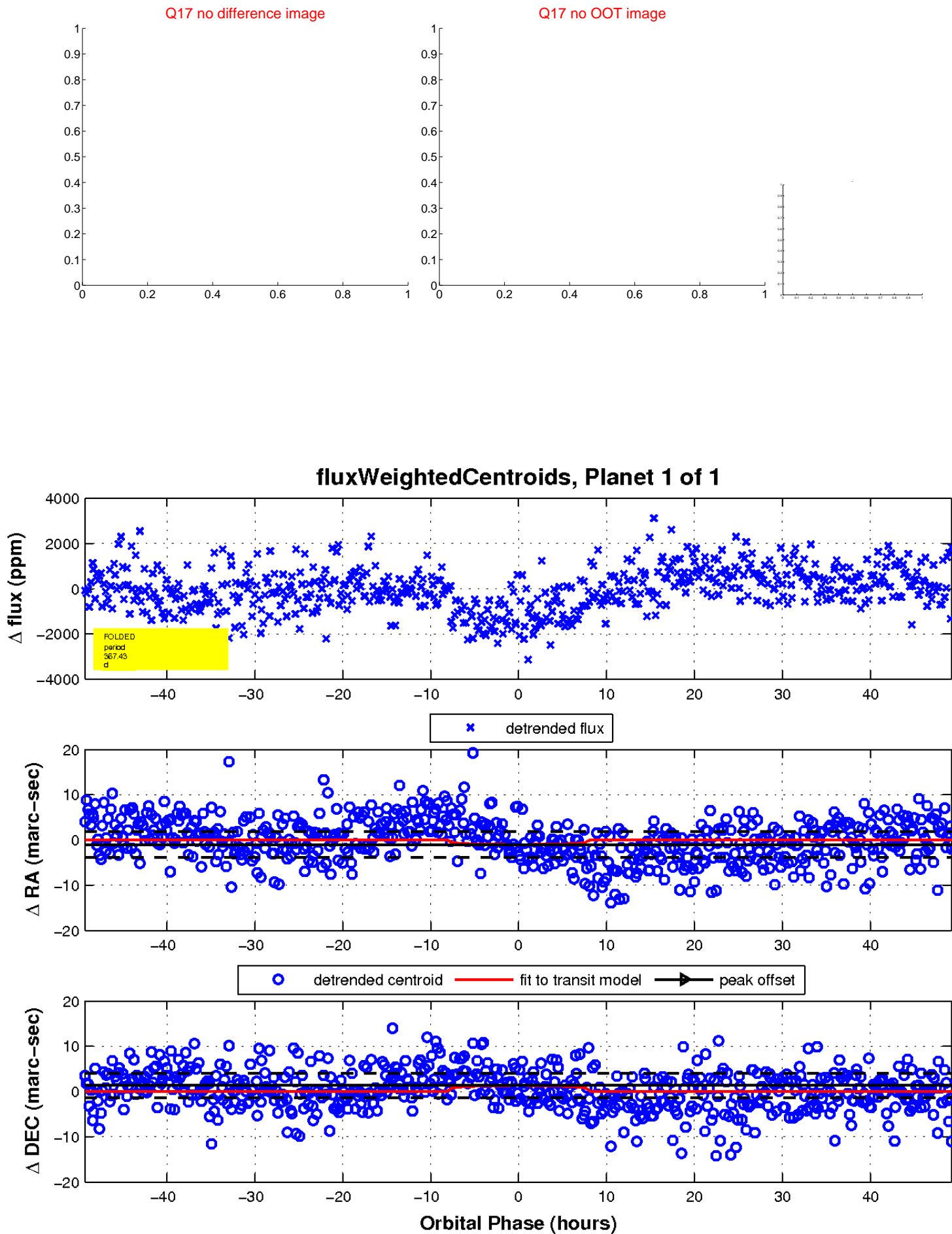
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



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



UKIRT Image

Declination

