

KIC 008017834

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
008017834-01	OBS	No	1.892083	132.883076	318.5	4.990	7.2	7.5	2.94	11086	6.36	62504.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008017834-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_ALT—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.

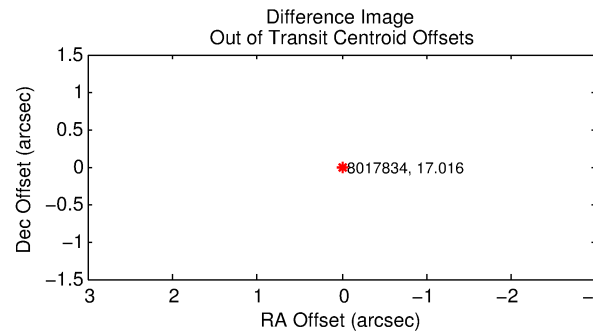
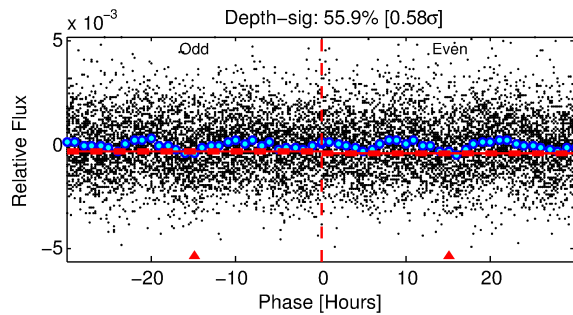
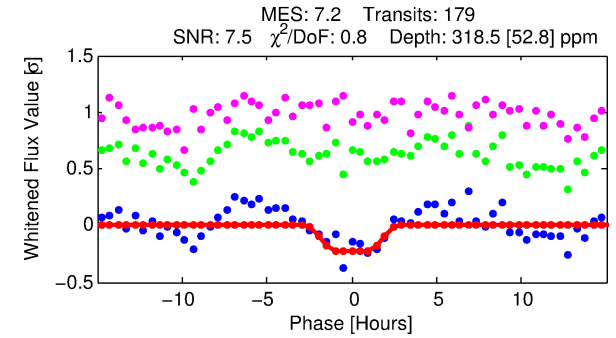
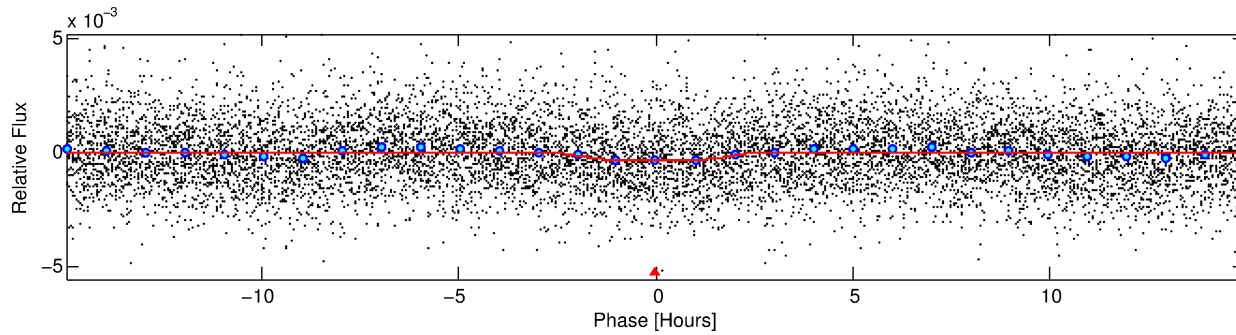
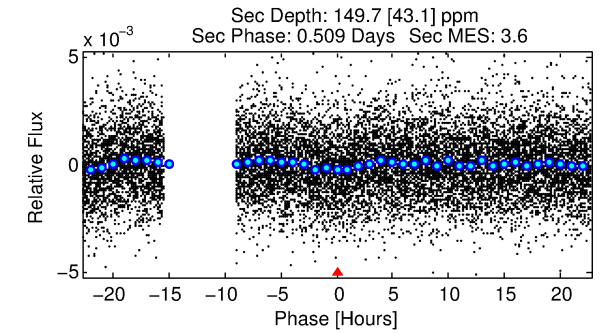
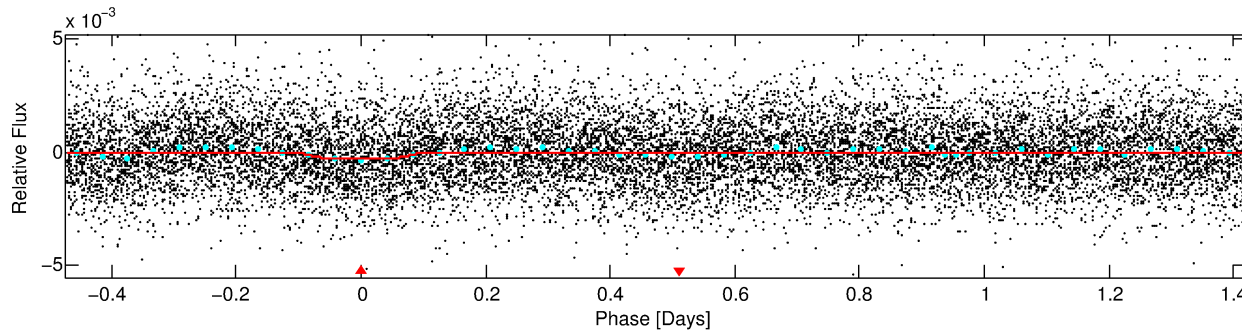
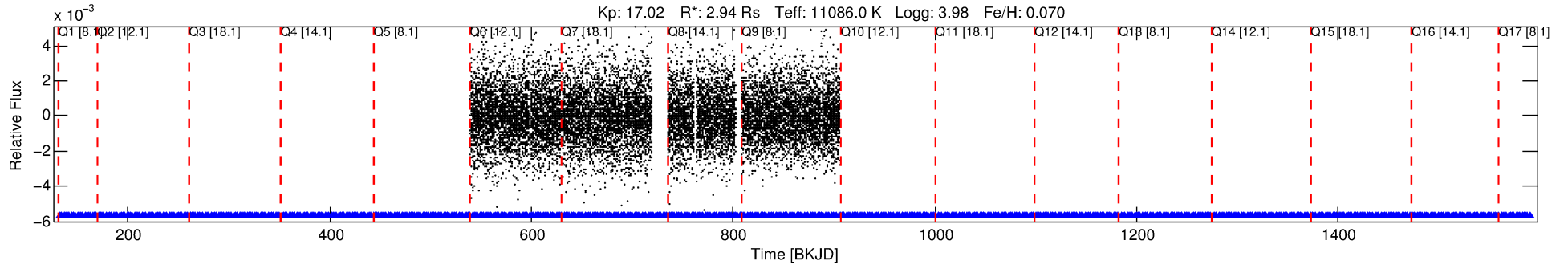
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008017834-01

No Significant Match Found

DV One-Page Summary

KIC: 8017834 Candidate: 1 of 1 Period: 1.892 d



DV Fit Results:

Period = 1.89208 [0.00007] d
Epoch = 132.8831 [0.0183] BKJD
Rp/R* = 0.0199 [0.0021]
a/R* = 1.35 [0.32]
b = 0.97 [0.03]
Seff = 62504.44 [33475.65]
Teq = 4032 [540] K
Rp = 6.36 [2.43] Re
a = 0.0432 [0.0142] AU
Ag = 3.80 [2.35] [1.19σ]
Teffp = 8701 [875] K [4.54σ]

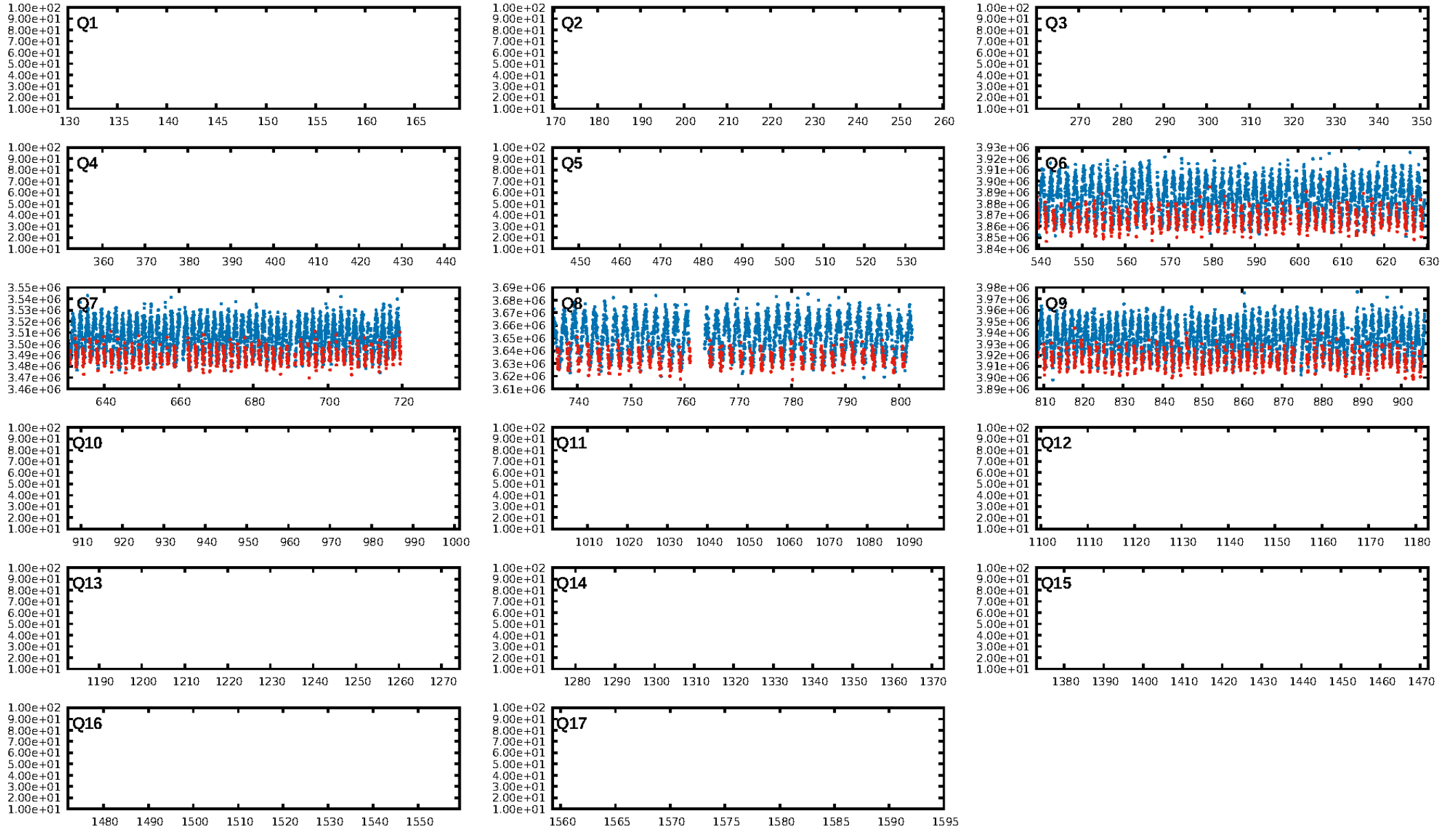
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.94e-14
RollingBand-fgt: 1.00 [179/179]
GhostDiagnostic-chr: 1.686
Centroid-sig: 0.0%
Centroid-so: 0.499 arcsec [0.55σ]
OotOffset-rm: N/A
KicOffset-rm: 0.072 arcsec [0.81σ]
OotOffset-st: 0/0/0 [0]
KicOffset-st: 1/1/1 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [4/4]

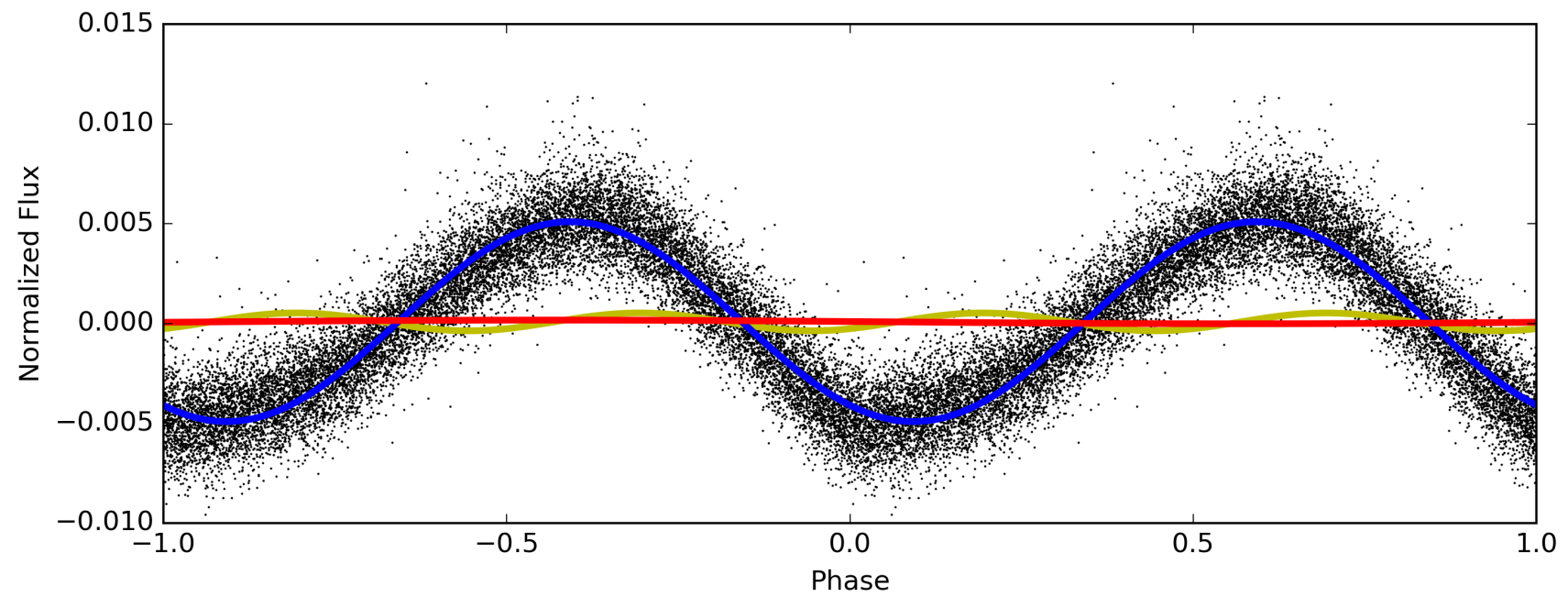
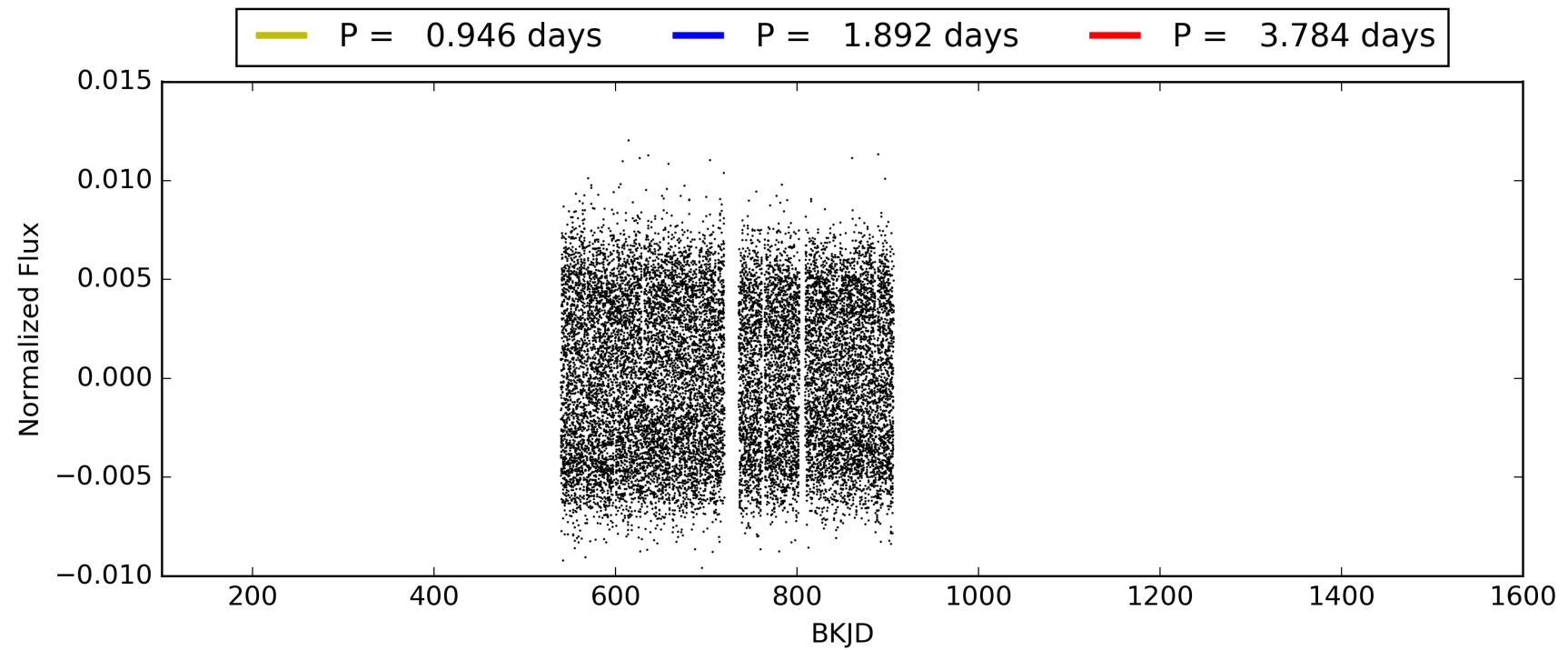
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 03:41:05 Z

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

TCE 008017834-01, PDC Light Curves

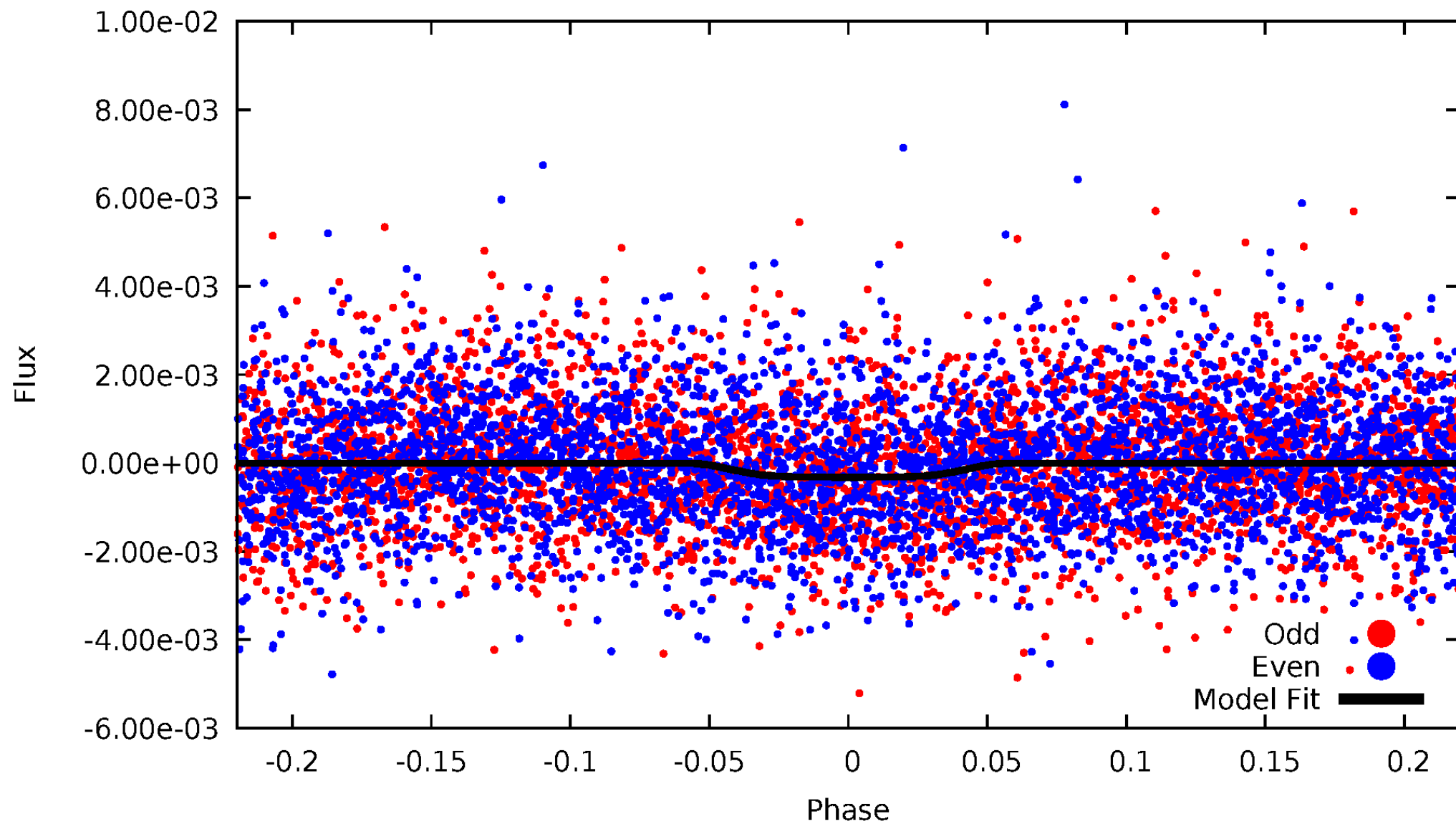


TCE 008017834-01



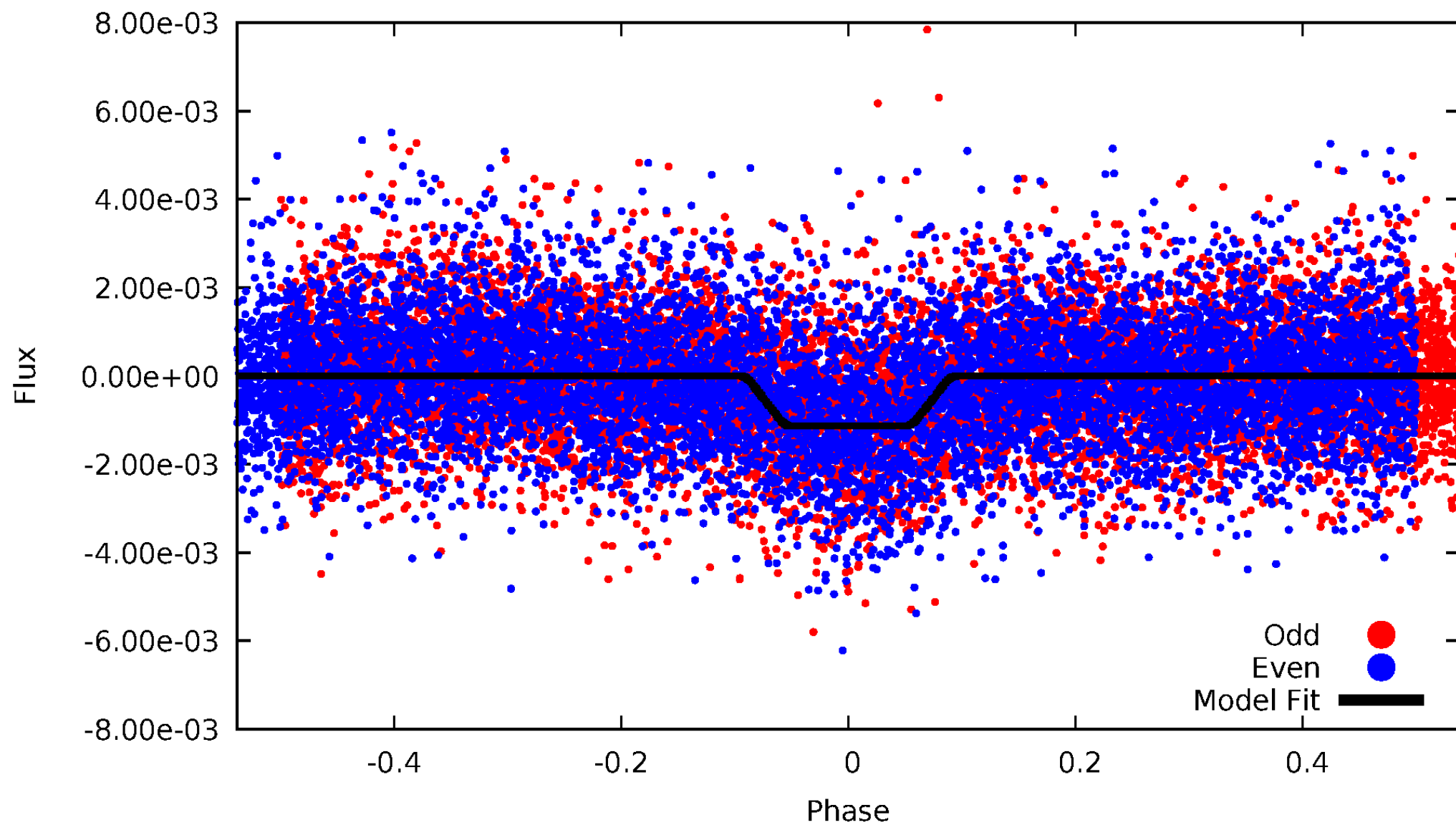
DV Odd/Even

TCE 008017834-01



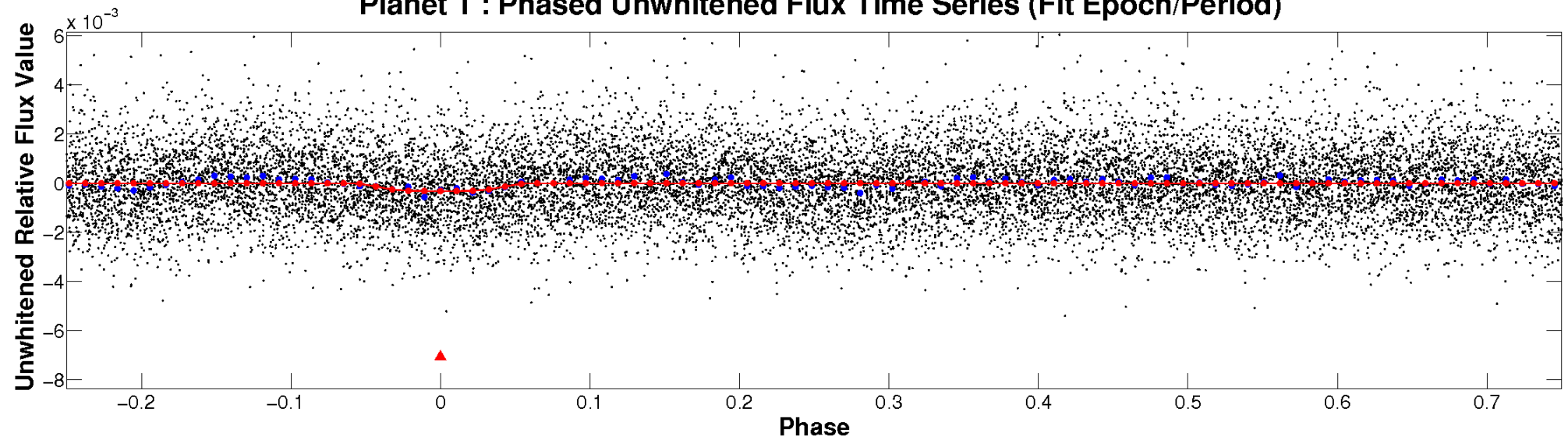
ALT Odd/Even

TCE 008017834-01

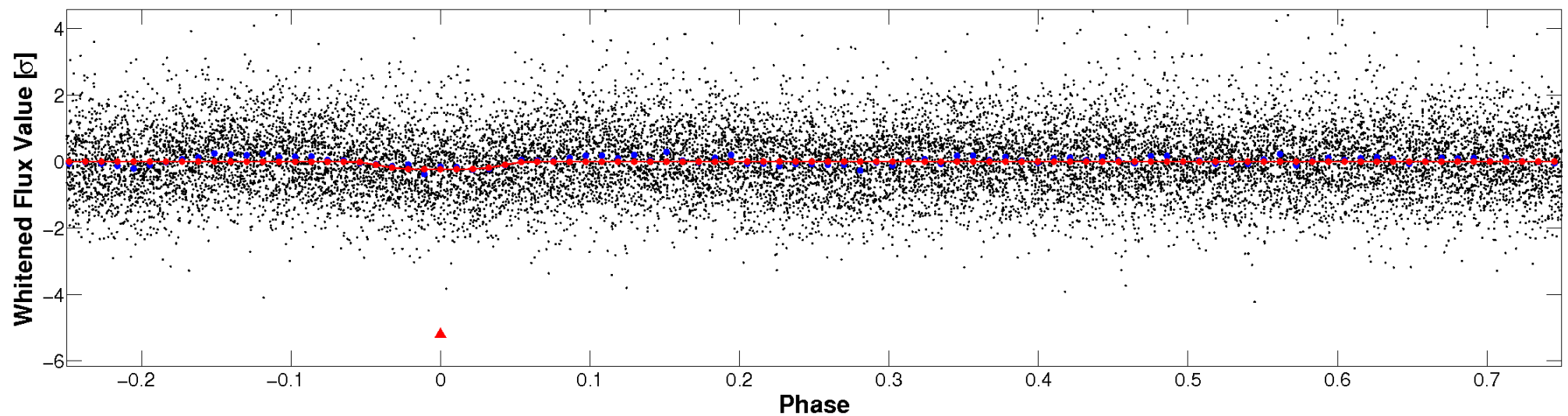


Non-Whitened Vs. Whitened Light Curve

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

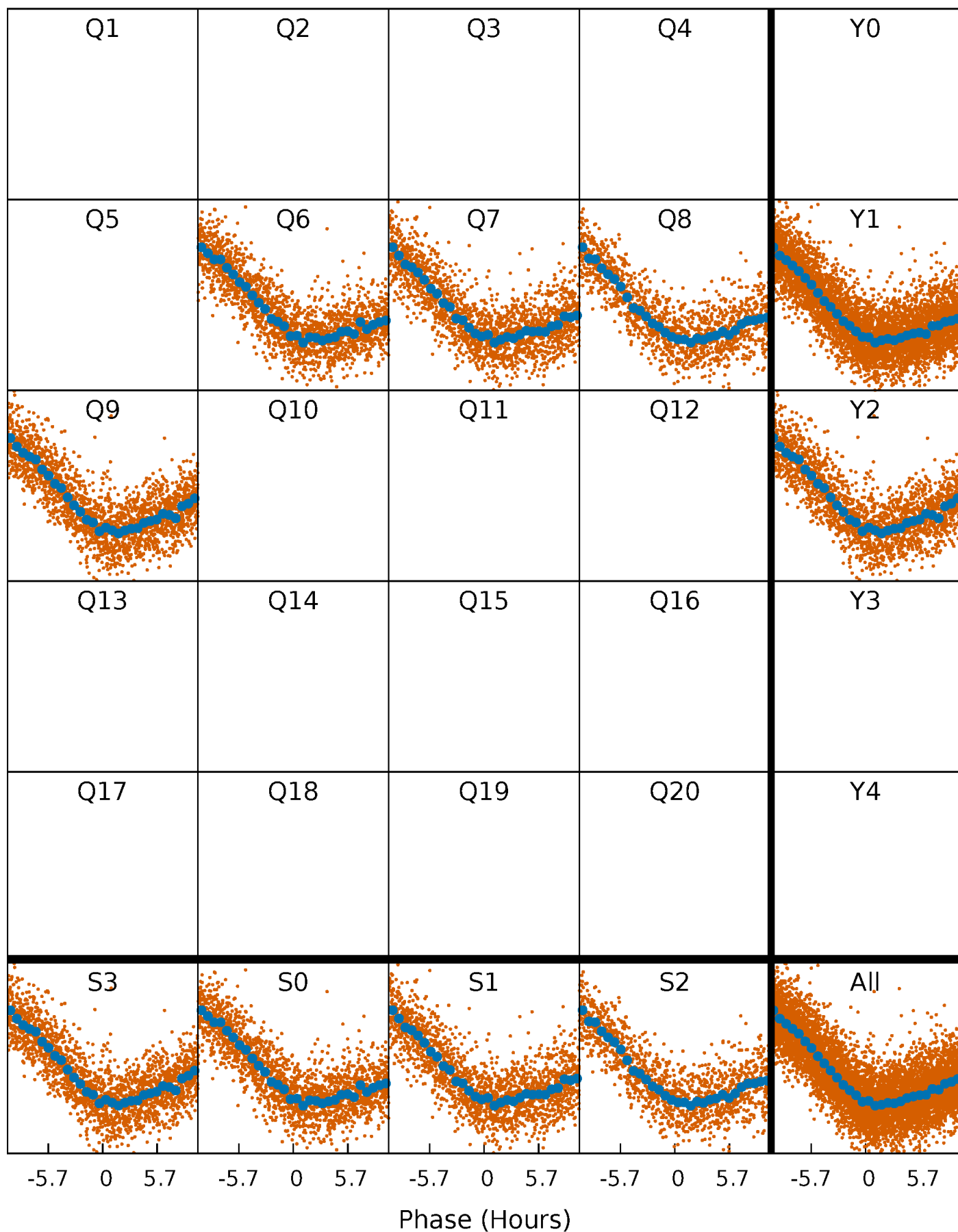


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



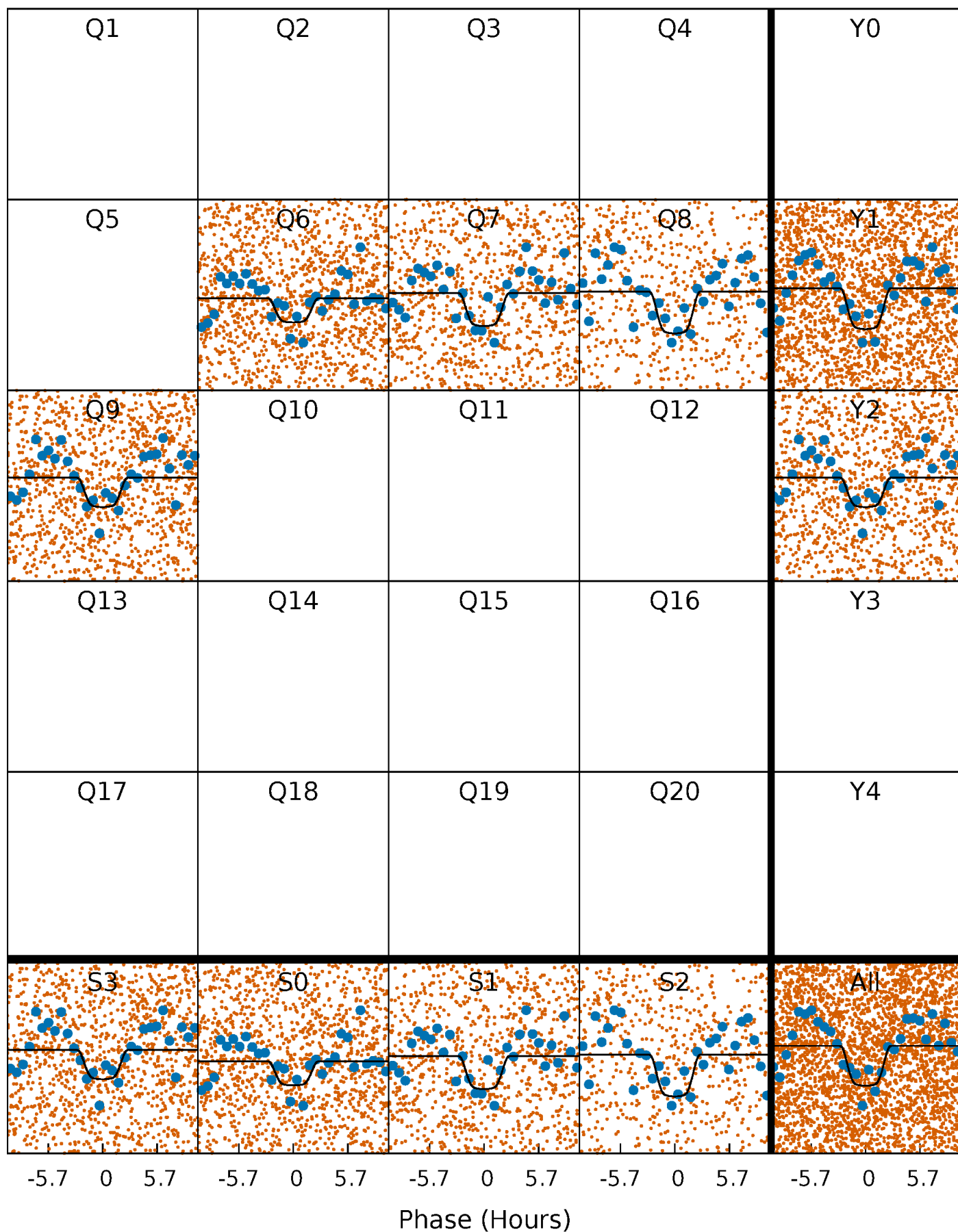
PDC Quarter-Phased Transit Curves

TCE 008017834-01 P= 1.892083 Days $T_0=132.883076$ (BKJD)



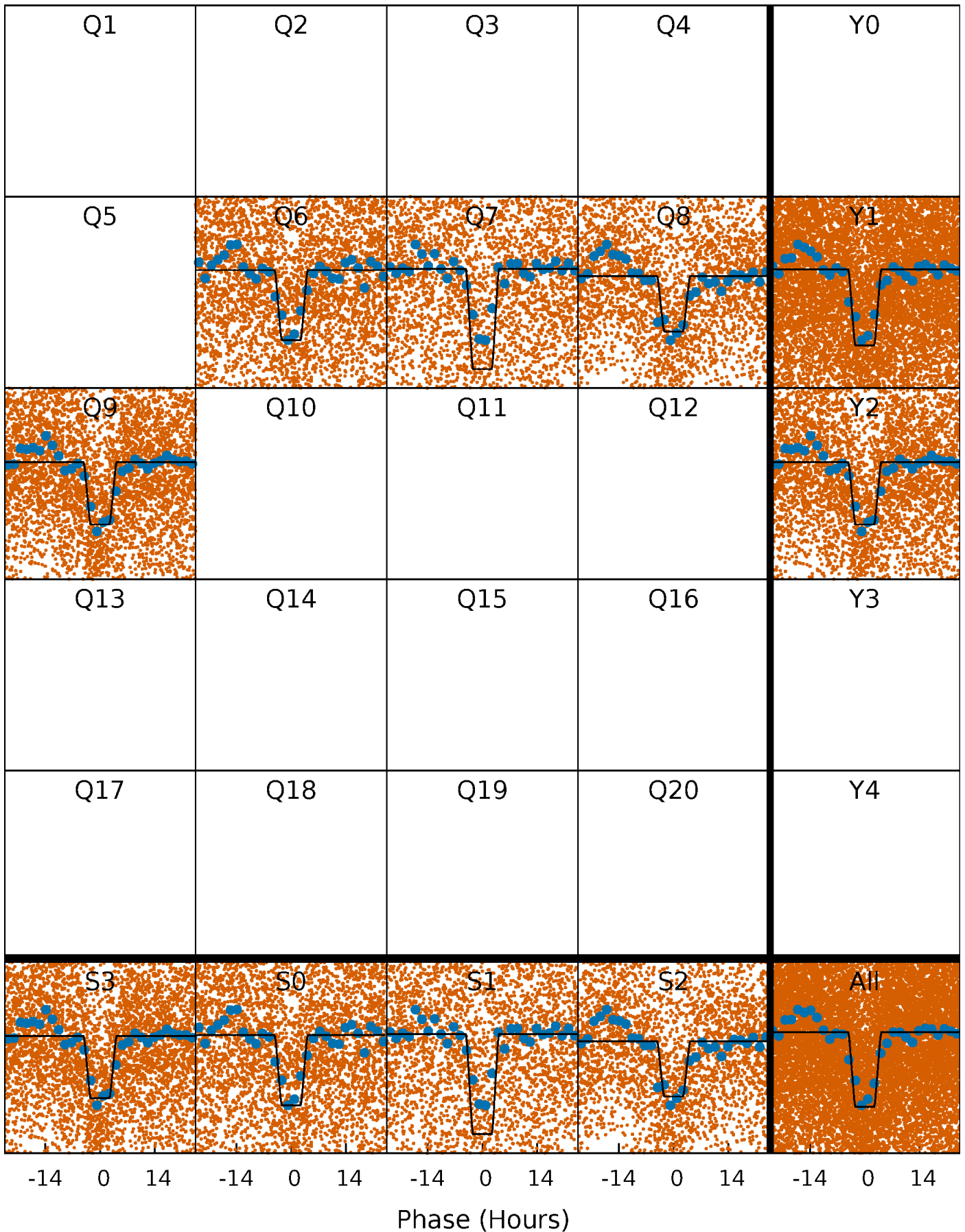
DV Quarter-Phased Transit Curves

TCE 008017834-01 P= 1.892083 Days $T_0=132.883076$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

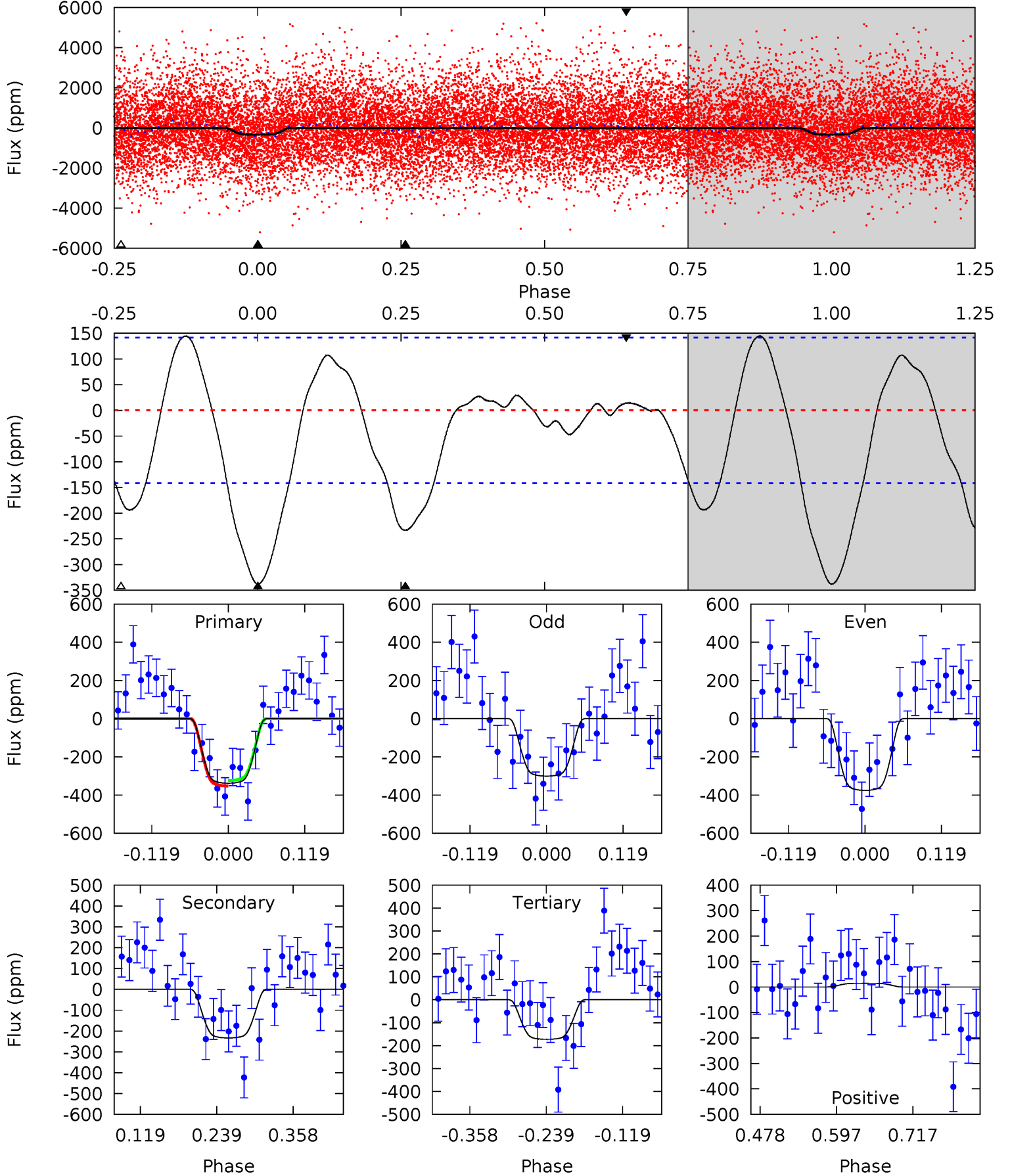
TCE 008017834-01 P= 1.891866 Days $T_0=132.949885$ (BKJD)



DV Model-Shift Uniqueness Test

008017834-01, P = 1.892083 Days, E = 132.883076 Days

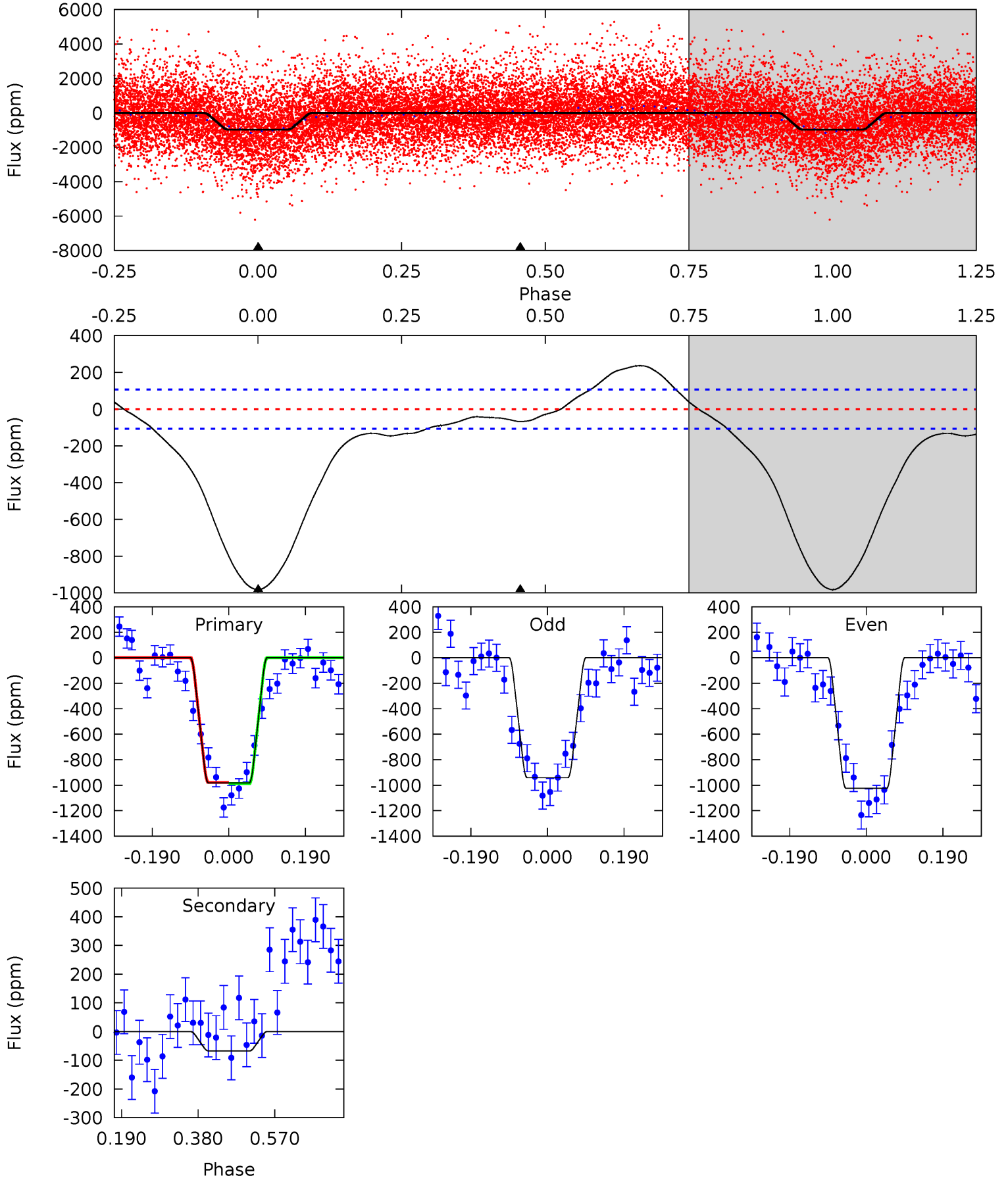
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	7.46	5.52	0.46	4.53	1.56	2.39	5.29	10.3	1.94	7.00	1.20	1.03	0.30	0.46



Alt Model-Shift Uniqueness Test

008017834-01, P = 1.891866 Days, E = 132.949885 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.8	2.80	0	0	4.43	1.31	5.94	40.8	40.8	2.80	2.80	1.70	0.99	0.19	0.18



Stellar Parameters For KIC 008017834

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	11086^{+387}_{-503}	$3.980^{+0.287}_{-0.143}$	$0.070^{+0.150}_{-0.700}$	$2.936^{+0.580}_{-1.077}$	$3.002^{+0.190}_{-0.712}$	$0.167^{+0.336}_{-0.062}$
	+3%/-5%	+7%/-4%	+214%/-1000%	+20%/-37%	+6%/-24%	+201%/-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 008017834-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-233 ± 31	$6.13^{+1.12}_{-1.23}$	5570^{+413}_{-517}	8942^{+896}_{-819}	$6.150^{+3.365}_{-1.847}$
Alt.	-67 ± 24	$10.56^{+1.60}_{-2.07}$	5564^{+432}_{-525}	4337^{+561}_{-862}	$0.614^{+0.409}_{-0.238}$

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 $A_{\text{obs}} \gg 1.0$

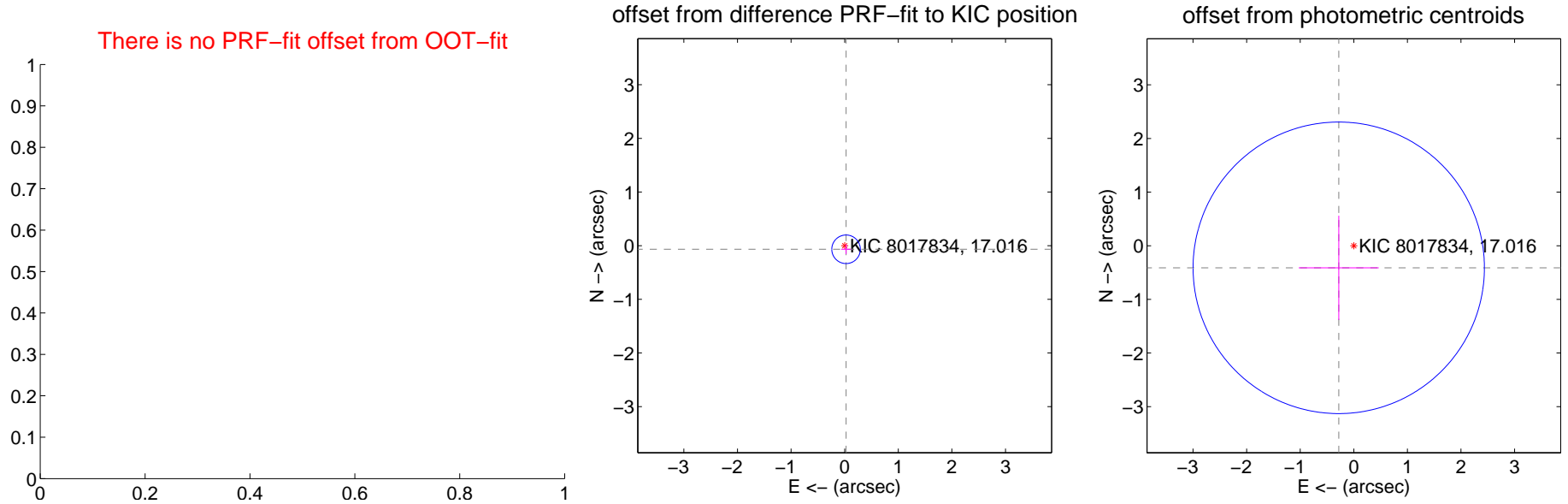
DV Centroid Data

Supplemental centroid analysis for 008017834-01. Kepler magnitude: 17.02. Transit SNR 7.48

There are 4 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	0.072 ± 0.089	0.81	-0.026 ± 0.091	-0.067 ± 0.088
photometric centroid source offset	0.50 ± 0.91	0.55	0.28 ± 0.75	-0.41 ± 0.97

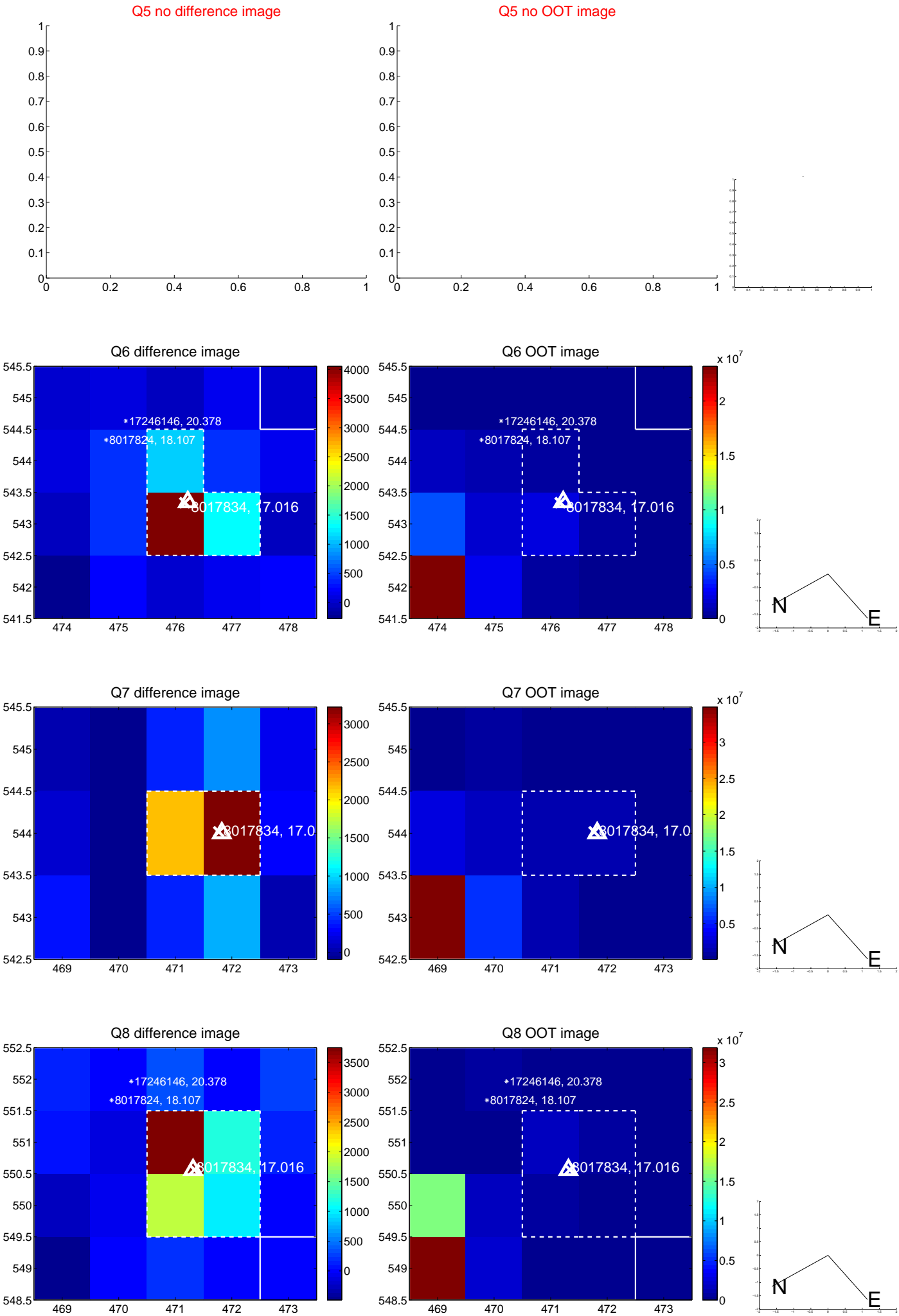


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

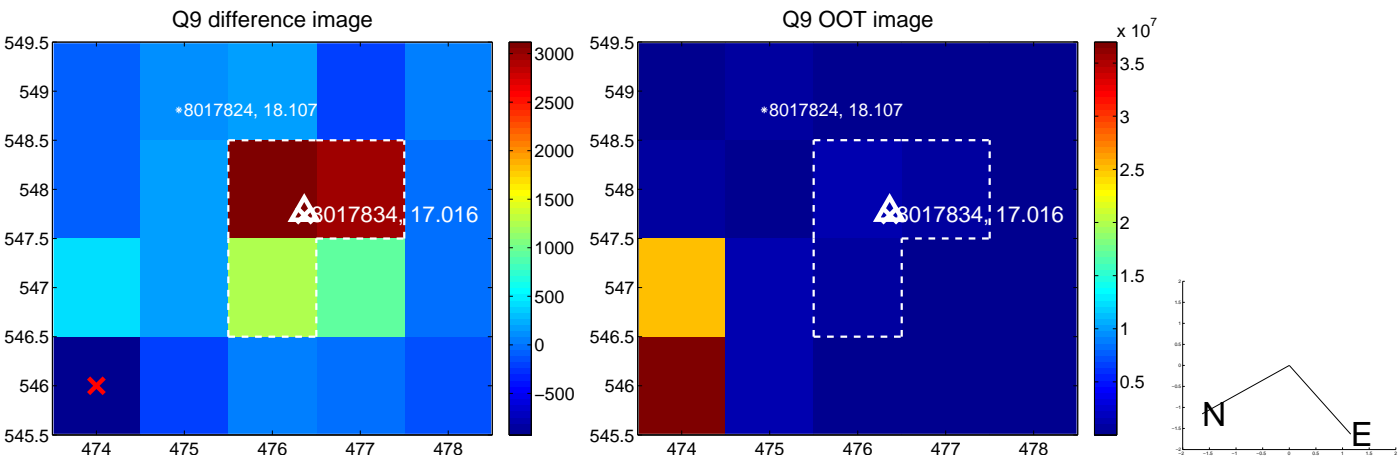
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



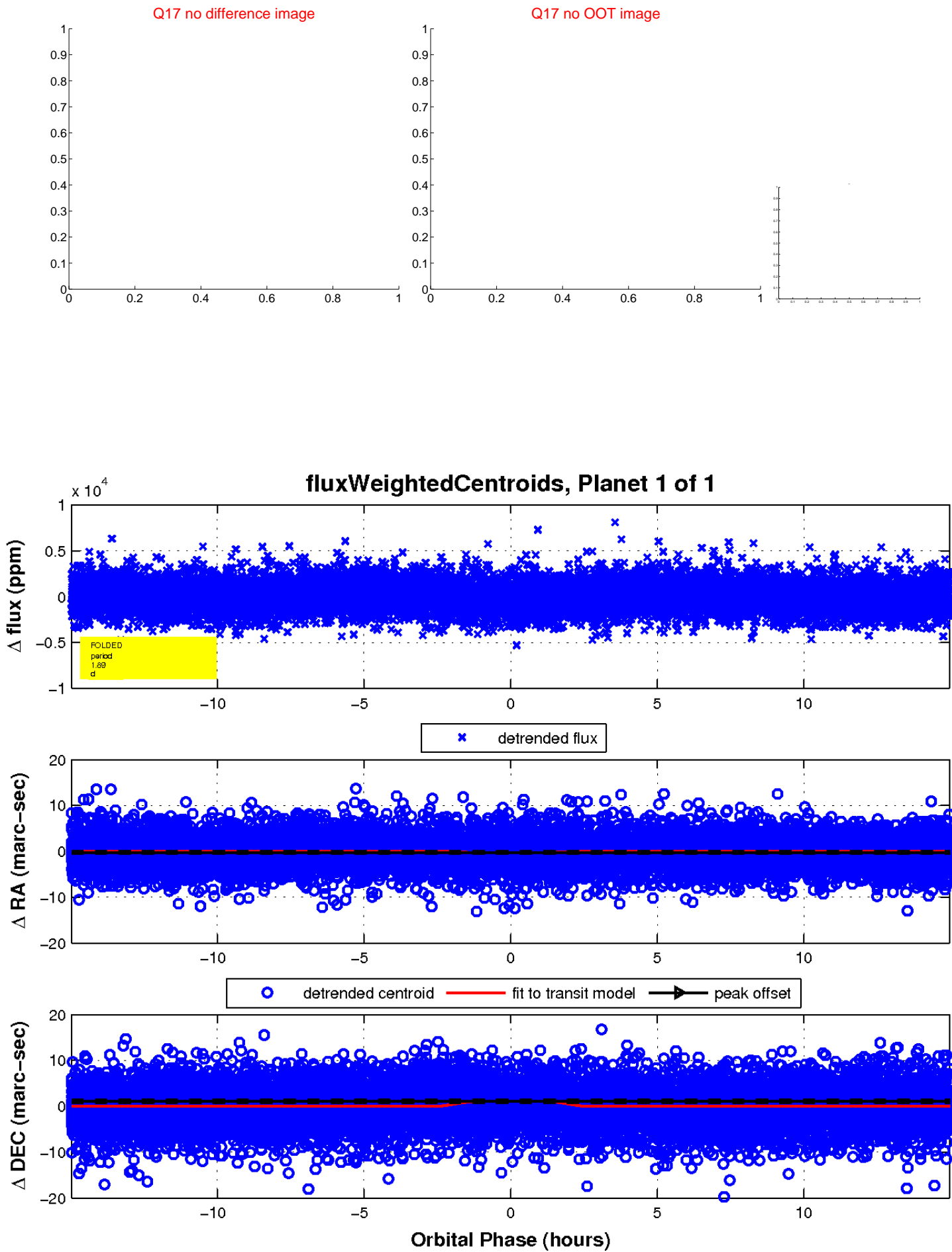
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

