

KIC 010844823

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})
010844823-01	OBS	8033.01	362.142025	369.536444	897.2	5.416	7.4	7.2	0.77	5176	2.46	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010844823-01	OBS	PC	0.32	0	0	0	0	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.

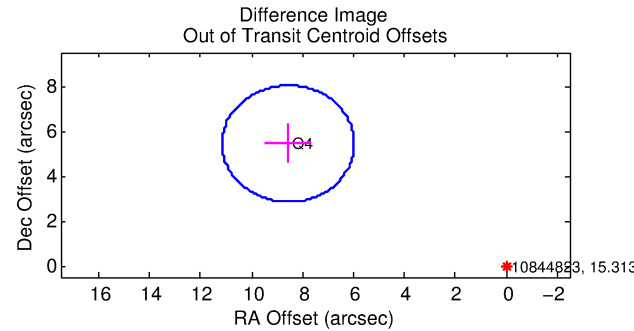
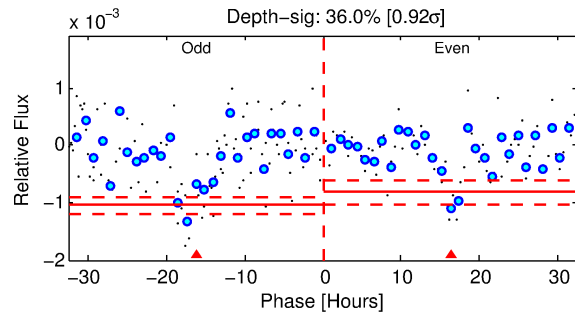
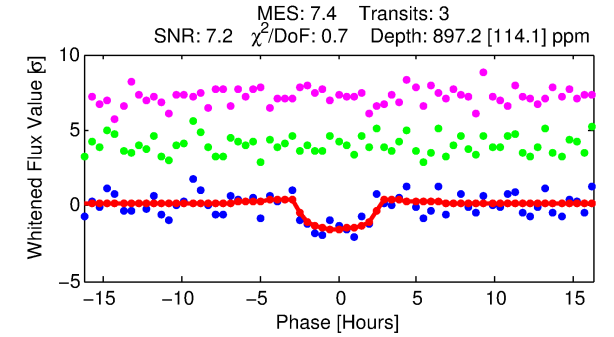
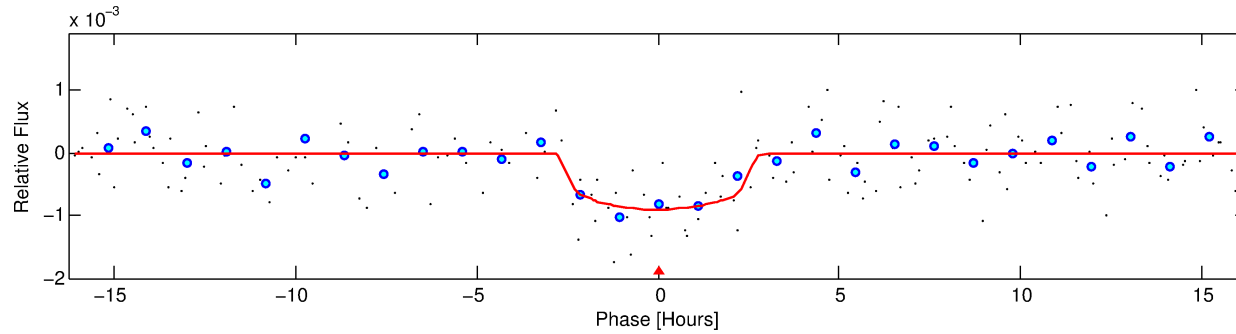
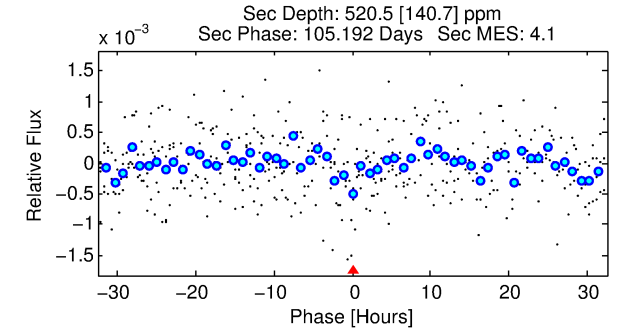
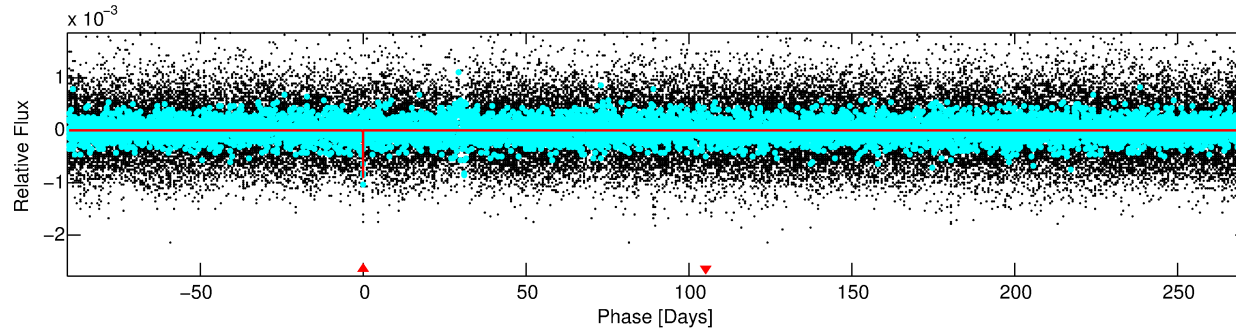
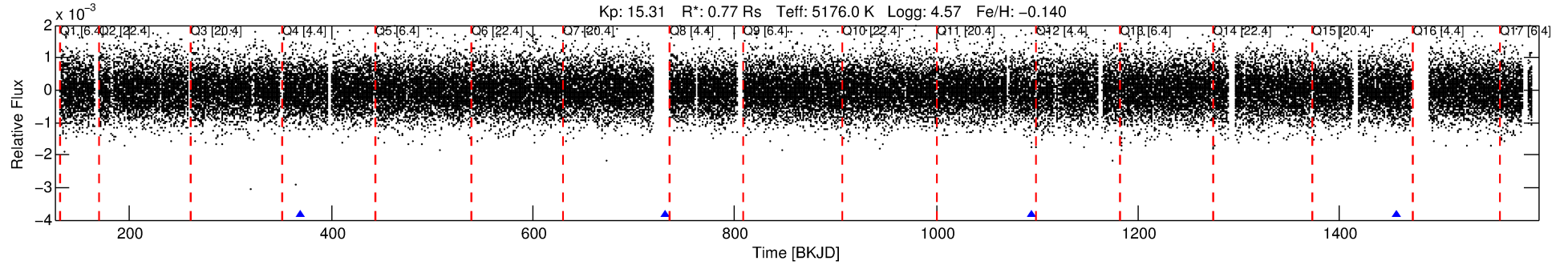
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010844823-01

No Significant Match Found

DV One-Page Summary

KIC: 10844823 Candidate: 1 of 1 Period: 362.142 d



DV Fit Results:

Period = 362.14202 [0.00511] d
Epoch = 369.5364 [0.0111] BKJD
Rp/R* = 0.0294 [0.0296]
a/R* = 379.45 [1412.24]
b = 0.71 [2.62]
Seff = 0.45 [0.08]
Teq = 208 [10] K
Rp = 2.46 [2.50] Re
a = 0.9193 [0.0928] AU
Ag = 40005.40 [81504.72] [0.49σ]
Teff = 4558 [2320] K [1.87σ]

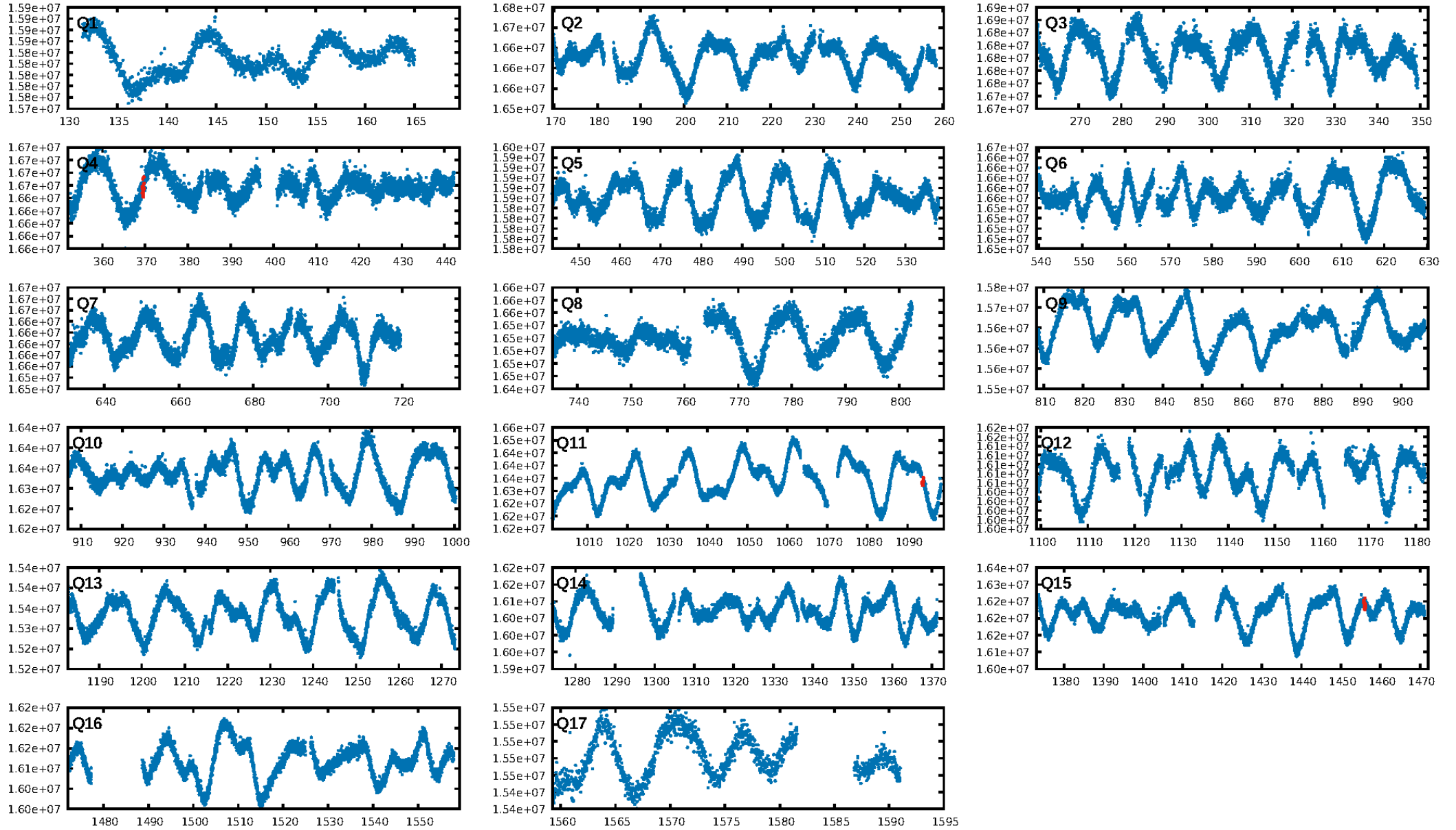
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 12.5%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 5.93e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.034
Centroid-sig: 39.6%
Centroid-so: 1.020 arcsec [0.78σ]
OotOffset-rm: 10.138 arcsec [11.72σ]
KicOffset-rm: 10.187 arcsec [11.77σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

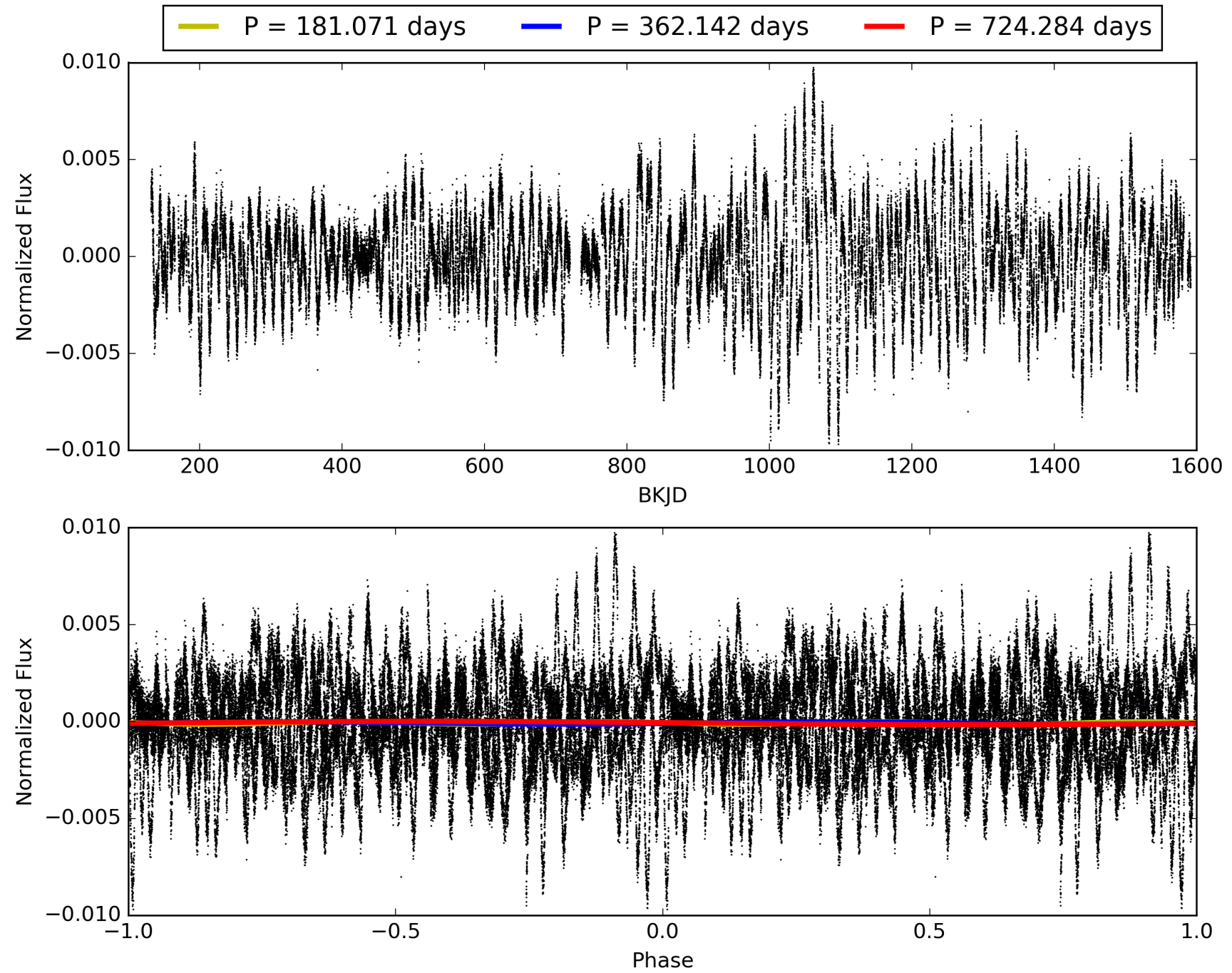
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:59:48 Z

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

TCE 010844823-01, PDC Light Curves

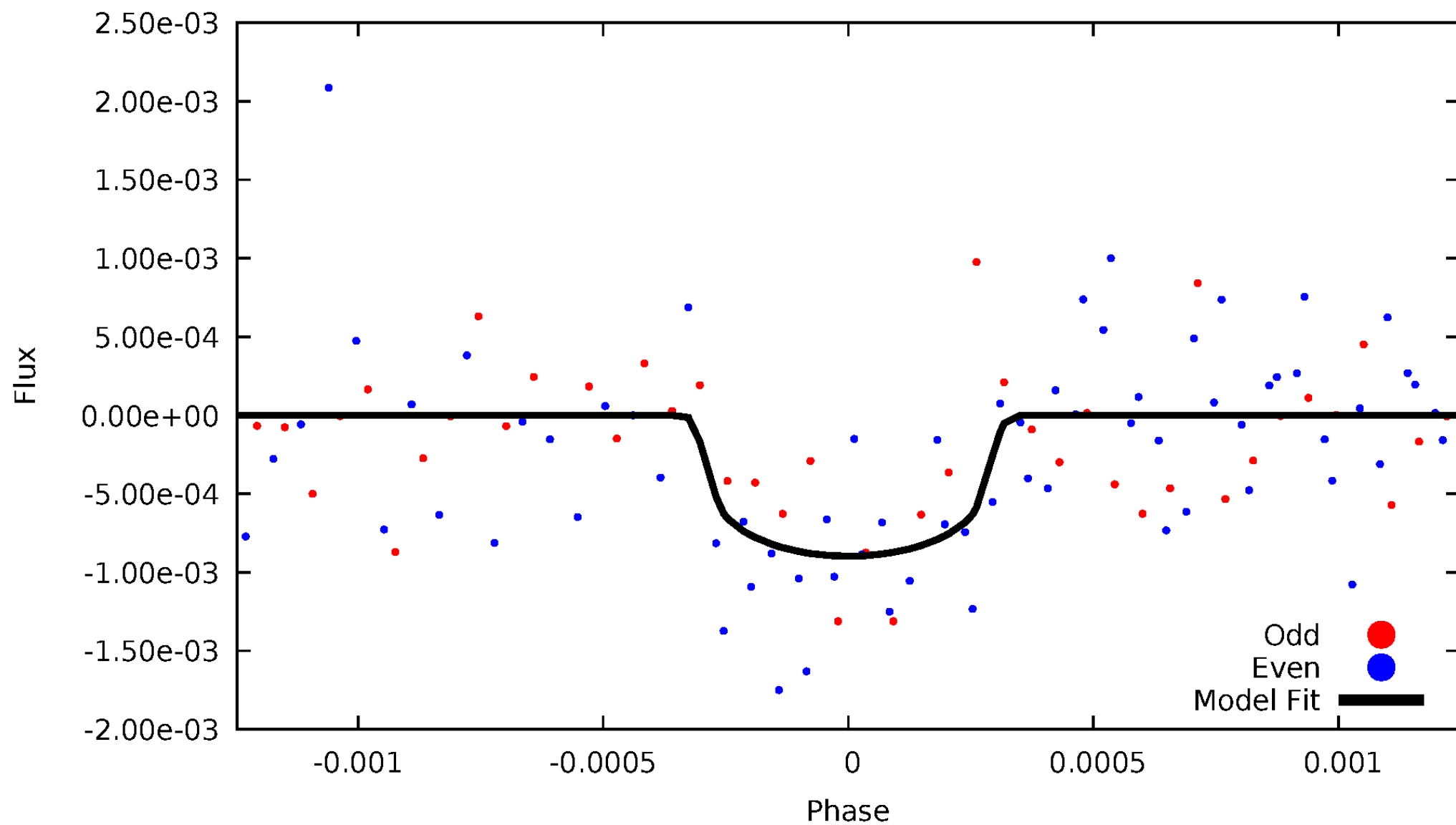


TCE 010844823-01



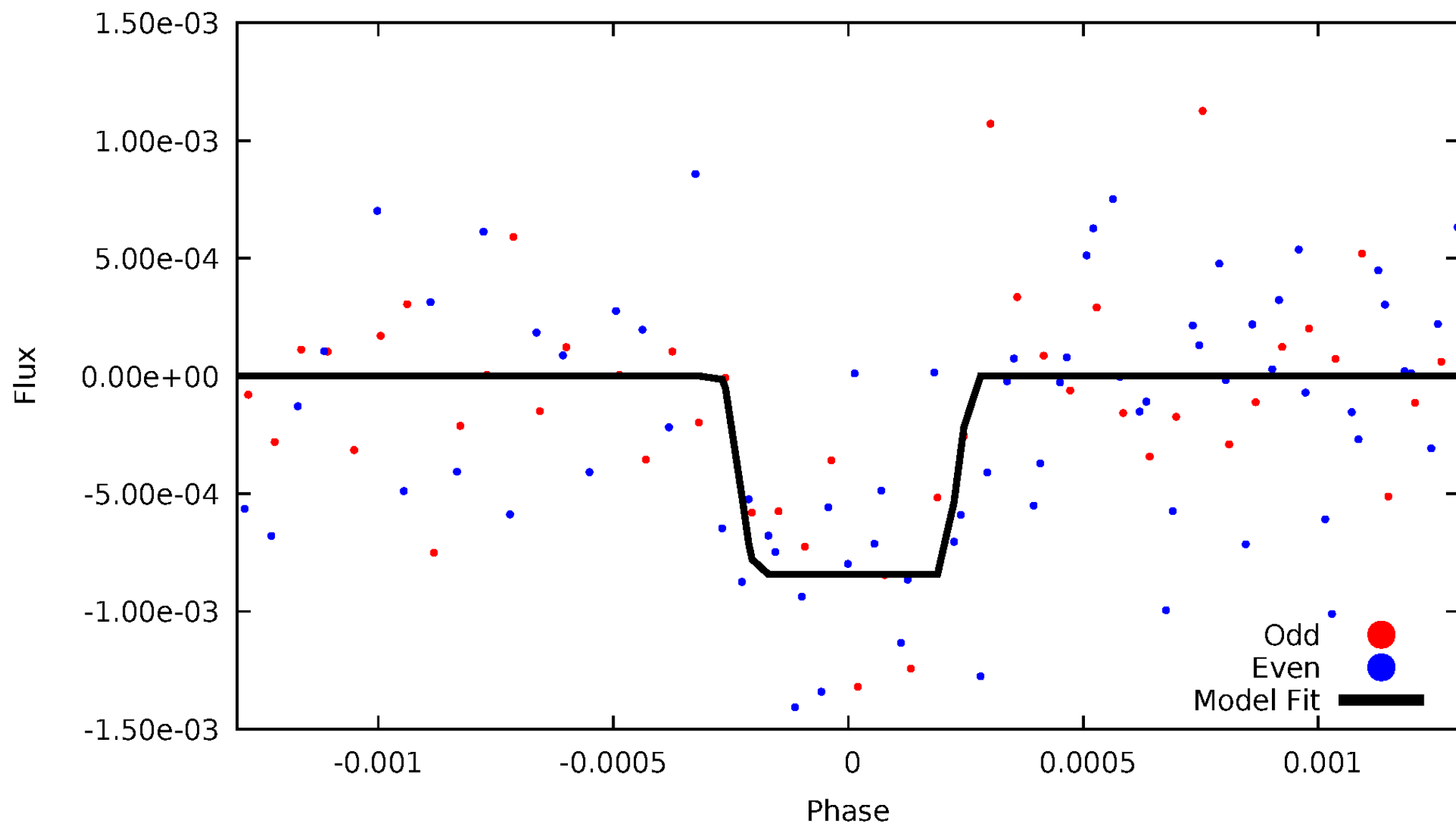
DV Odd/Even

TCE 010844823-01

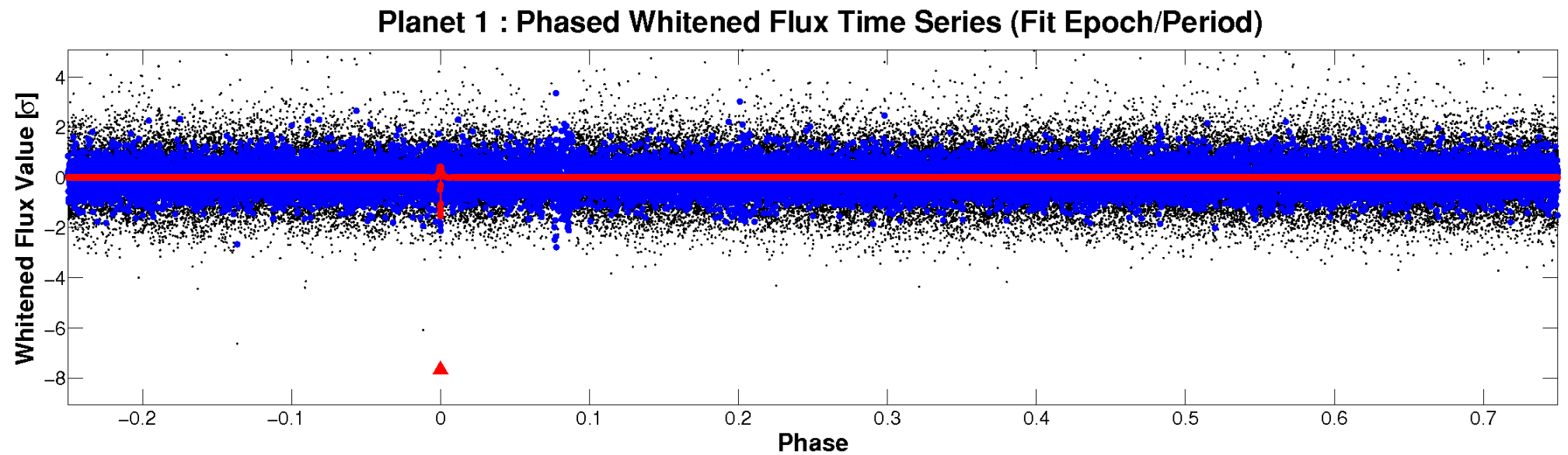
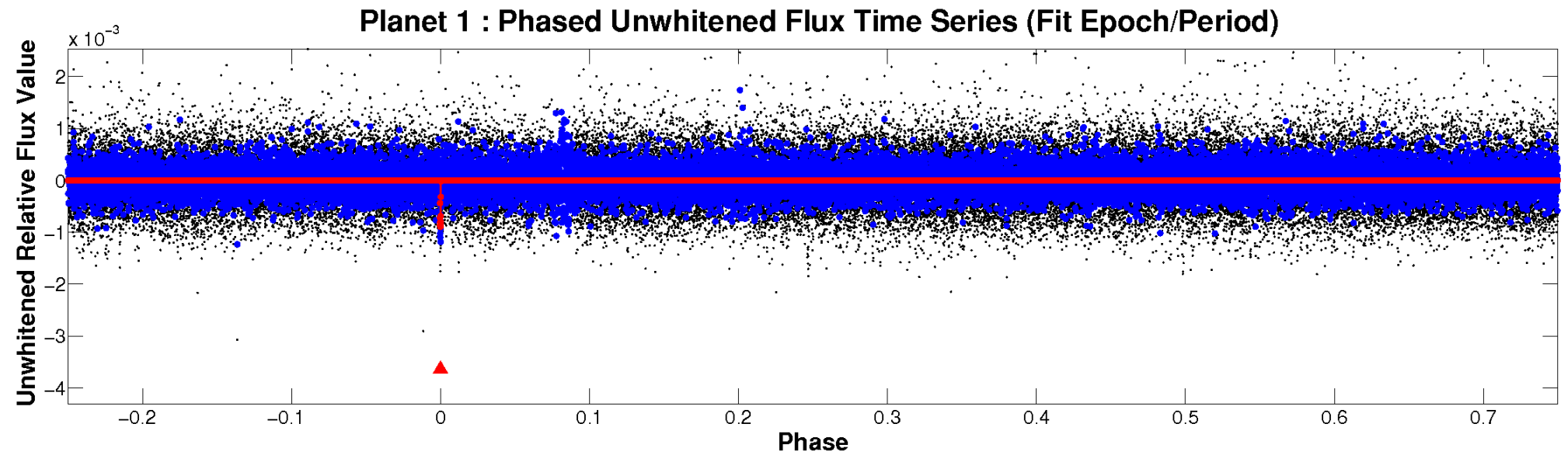


ALT Odd/Even

TCE 010844823-01

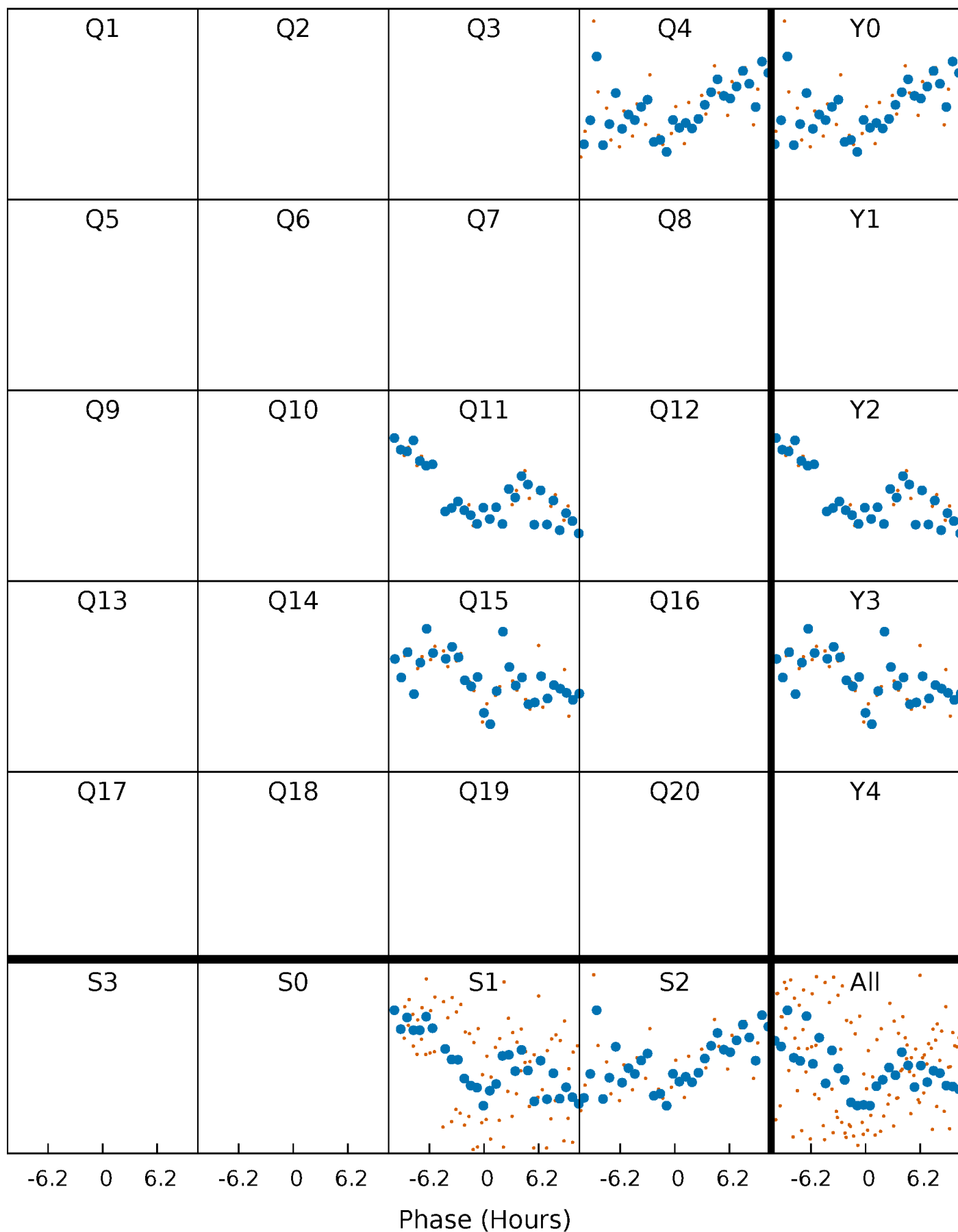


Non-Whitened Vs. Whitened Light Curve



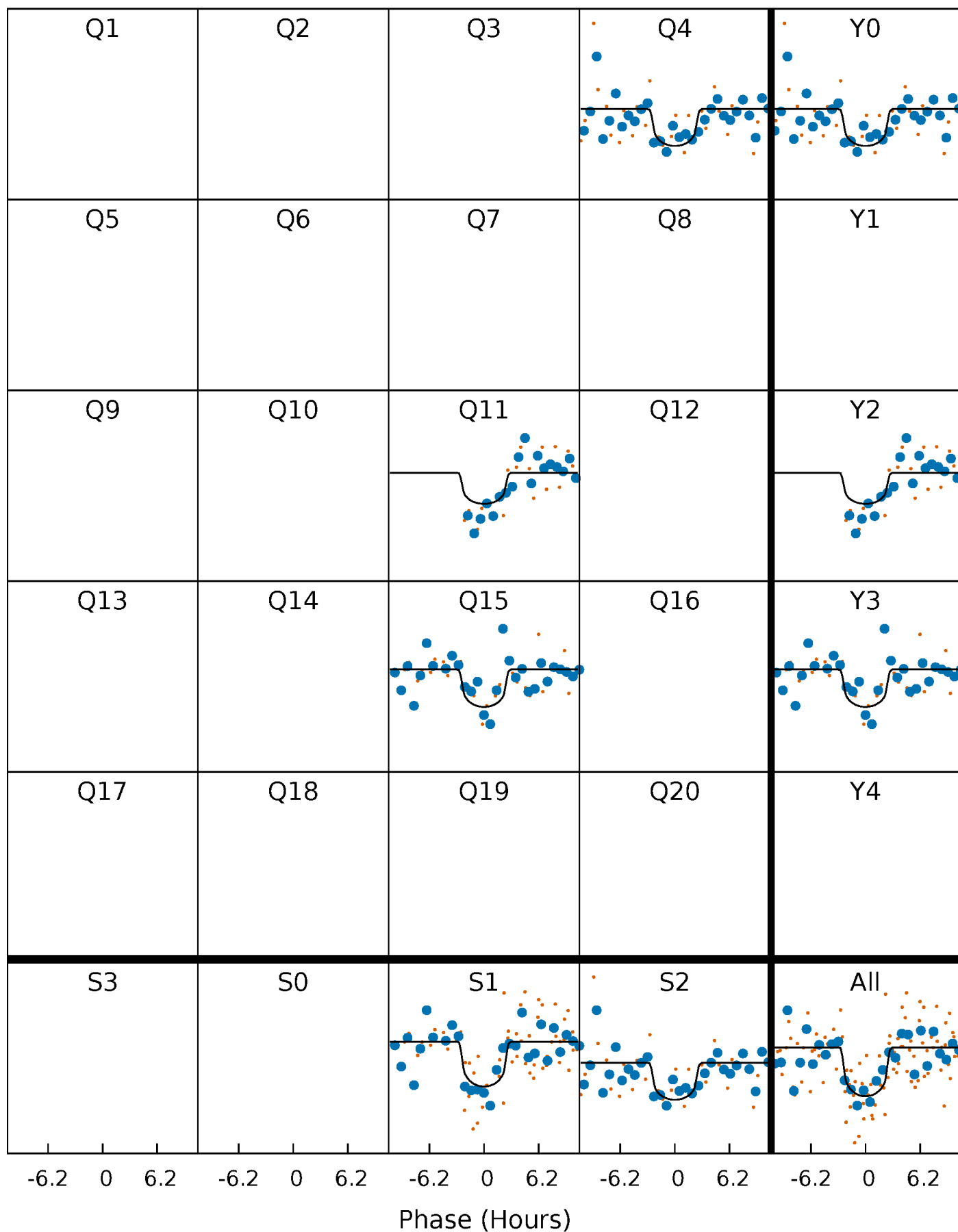
PDC Quarter-Phased Transit Curves

TCE 010844823-01 P=362.142025 Days $T_0=369.536444$ (BKJD)



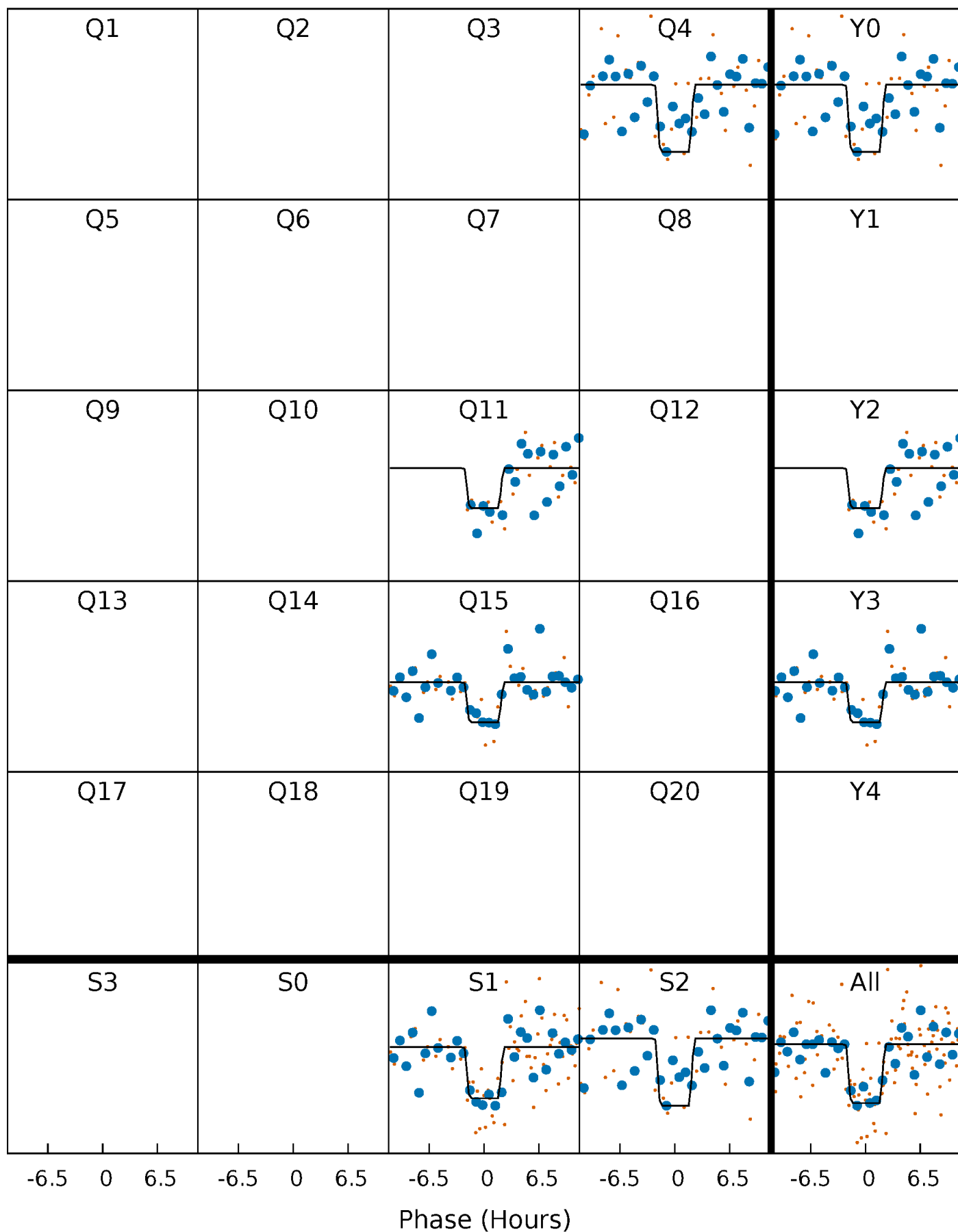
DV Quarter-Phased Transit Curves

TCE 010844823-01 P=362.142025 Days $T_0=369.536444$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

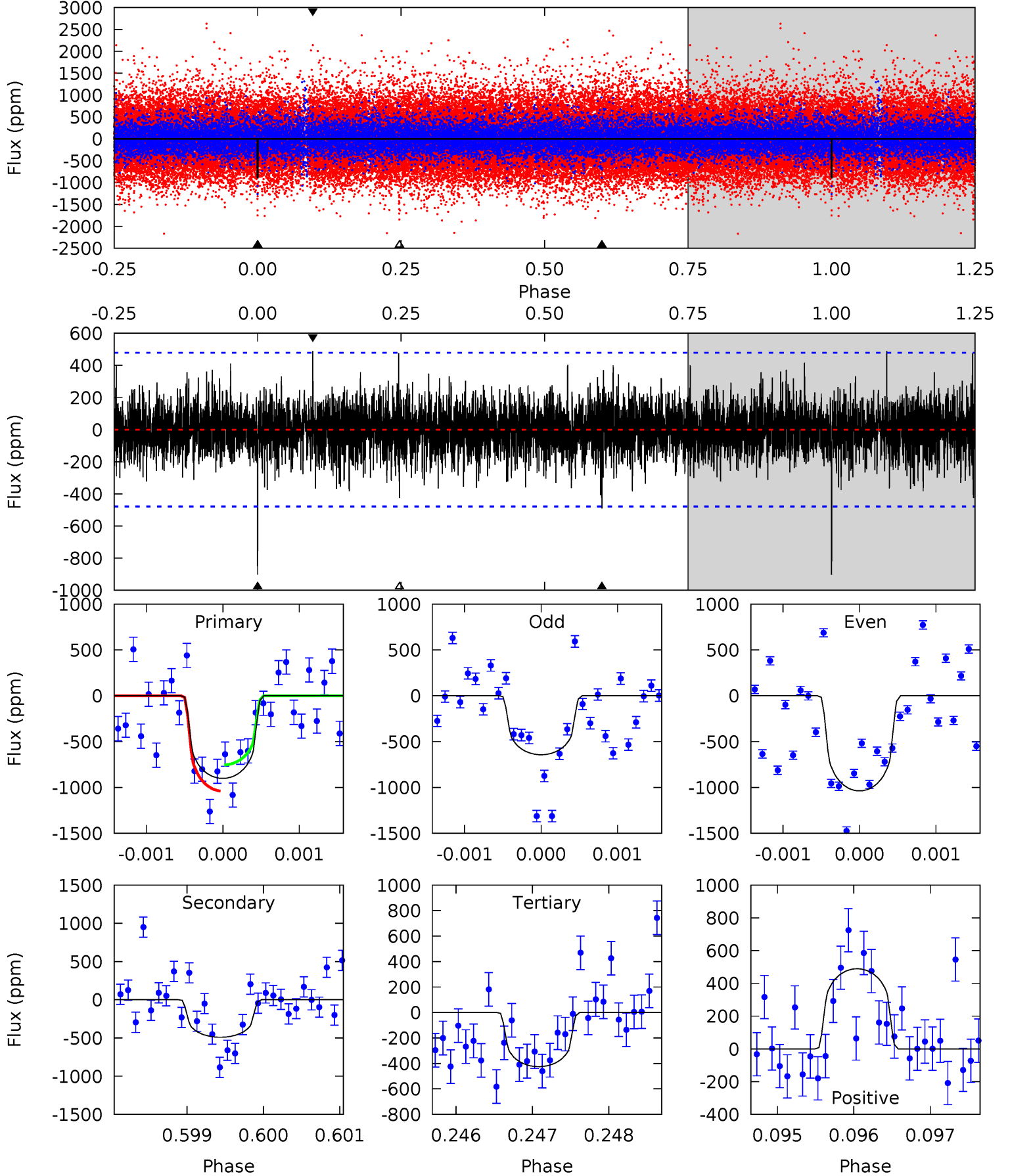
TCE 010844823-01 P=362.137173 Days $T_0=369.535991$ (BKJD)



DV Model-Shift Uniqueness Test

010844823-01, P = 362.142025 Days, E = 7.394419 Days

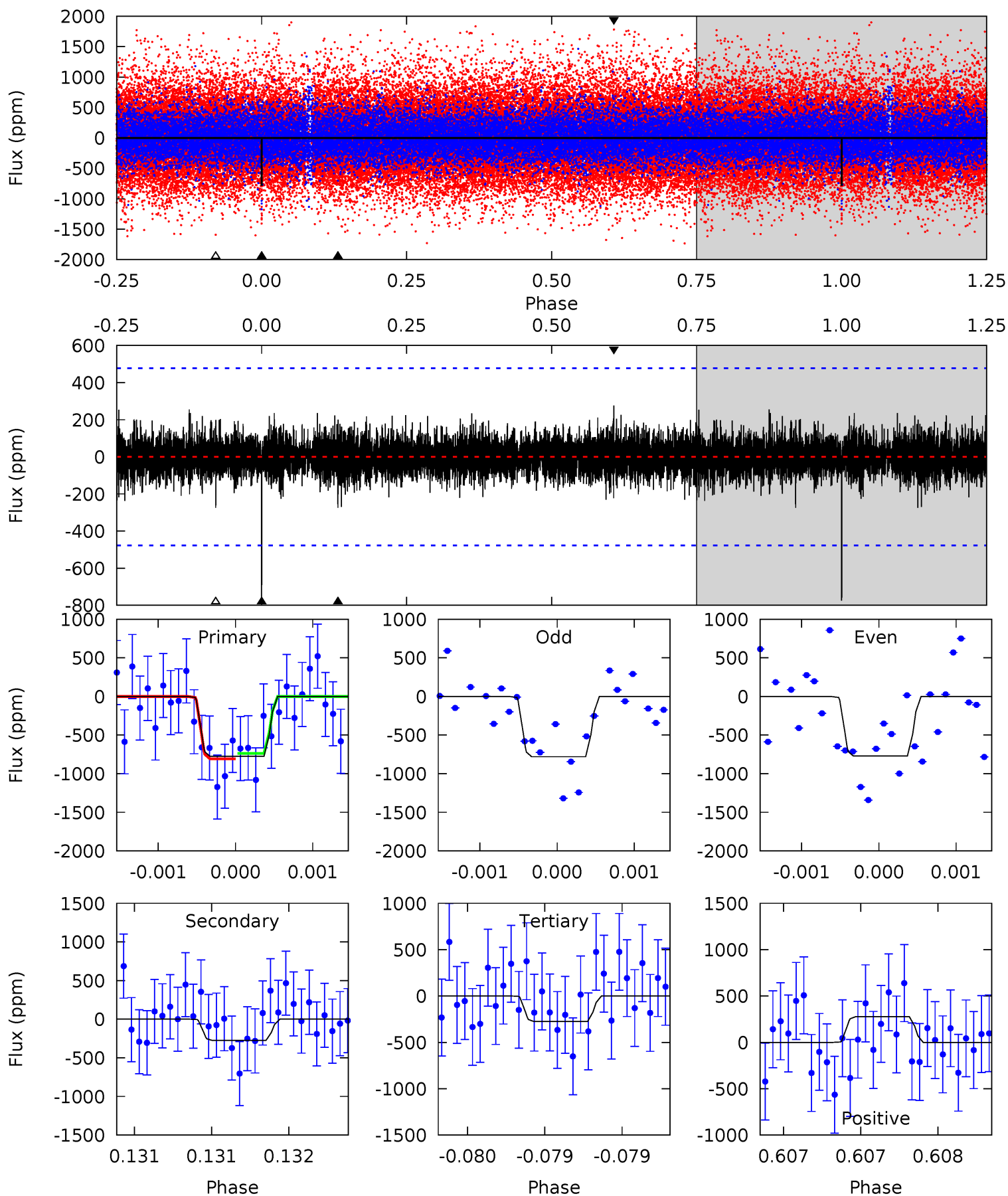
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	5.66	4.91	5.64	5.53	3.41	1.28	5.49	4.76	0.75	0.02	2.18	1.20	0.35	1.64



Alt Model-Shift Uniqueness Test

010844823-01, P = 362.137173 Days, E = 7.398818 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.04	3.20	3.20	3.22	5.57	3.47	0.73	5.84	5.82	0.00	-0.02	0.05	1.01	0.26	0.41



Stellar Parameters For KIC 010844823

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5176^{+153}_{-153}	$4.567^{+0.048}_{-0.072}$	$-0.140^{+0.300}_{-0.300}$	$0.766^{+0.097}_{-0.071}$	$0.790^{+0.082}_{-0.073}$	$2.475^{+0.602}_{-0.624}$
	+3%/-3%	+1%/-2%	+214%/-214%	+13%/-9%	+10%/-9%	+24%/-25%
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 010844823-01 / KOI 8033.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-490 ± 87	$3.02^{+2.06}_{-1.90}$	293^{+12}_{-11}	4251^{+2325}_{-706}	$25047^{+160862}_{-16384}$
Alt.	-274 ± 86	$3.06^{+2.23}_{-1.94}$	292^{+12}_{-11}	3829^{+1956}_{-655}	13804^{+92264}_{-9605}

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

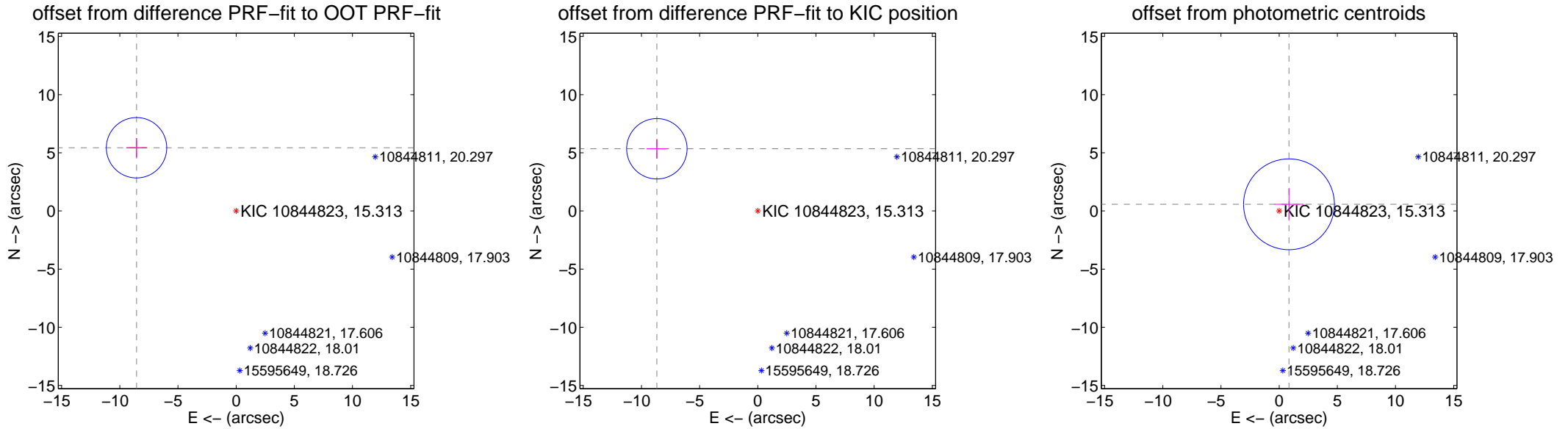
DV Centroid Data

Supplemental centroid analysis for 010844823-01. Kepler magnitude: 15.31. Transit SNR 7.24

There are 0 quarters with good PRF difference image offsets

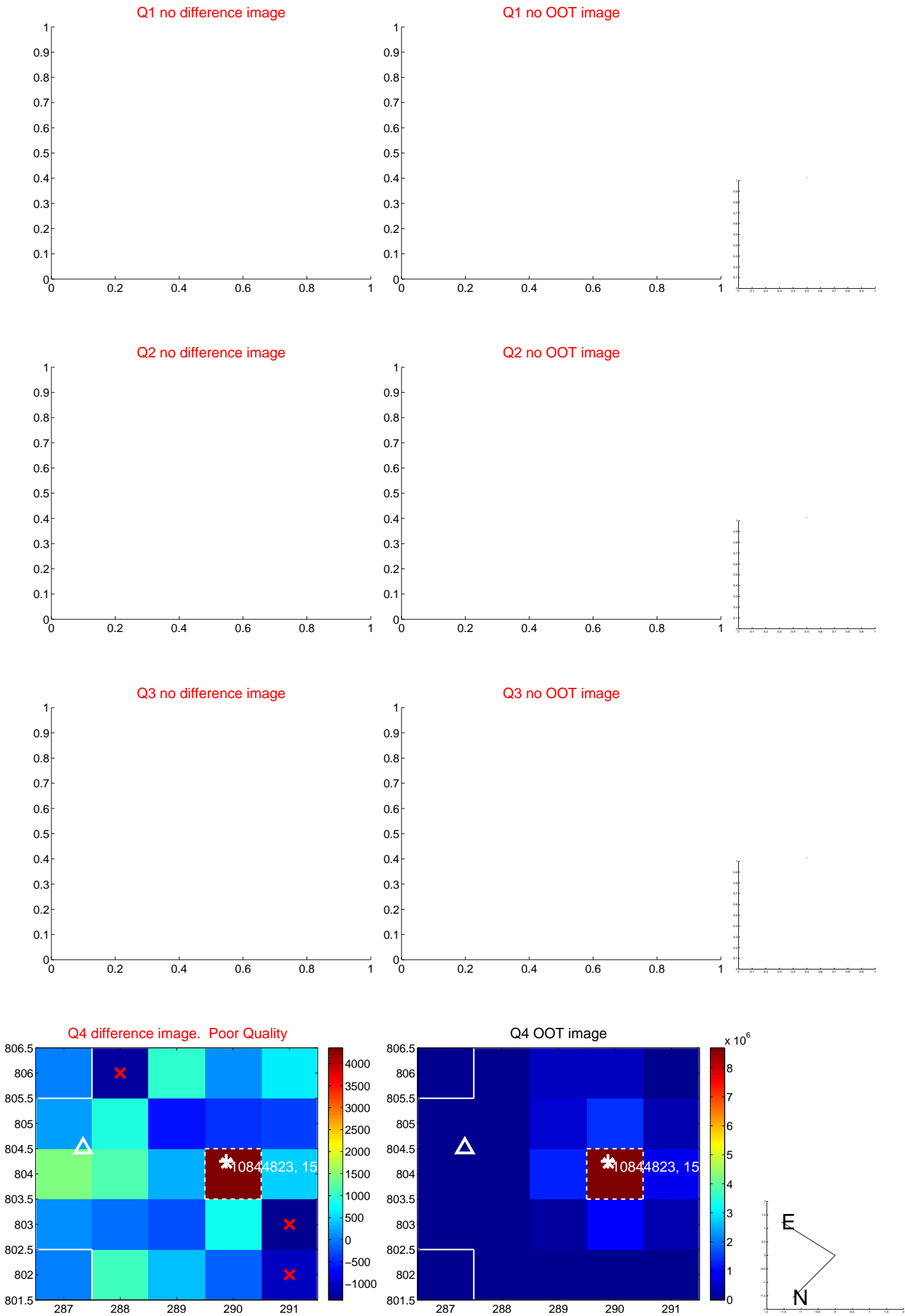
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.138 \pm 0.865	11.72	8.559 \pm 0.876	5.433 \pm 0.836
PRF-fit source offset from KIC position	10.187 \pm 0.865	11.77	8.672 \pm 0.876	5.345 \pm 0.836
photometric centroid source offset	1.02 \pm 1.30	0.78	-0.84 \pm 1.25	0.57 \pm 1.41



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.



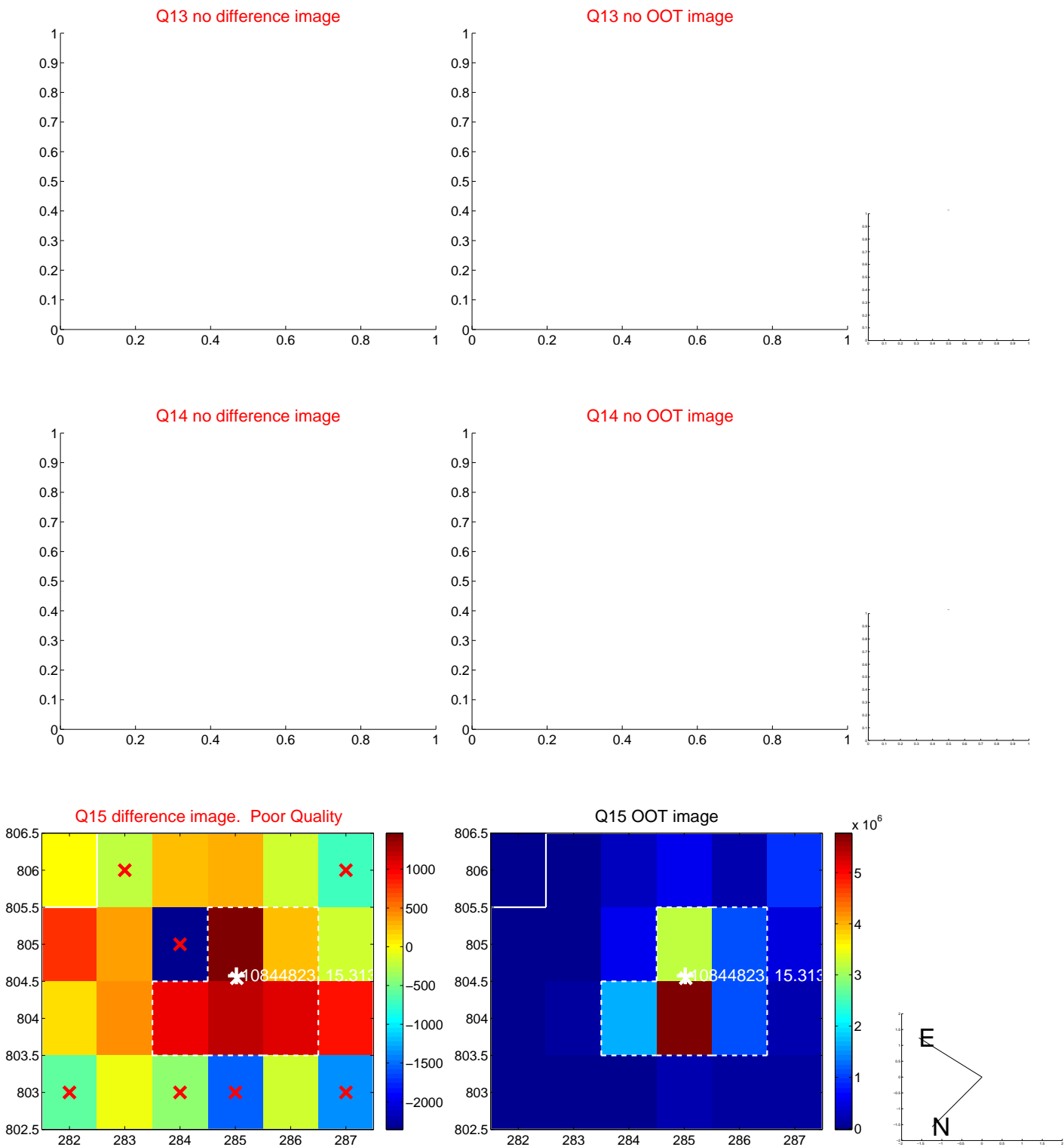
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



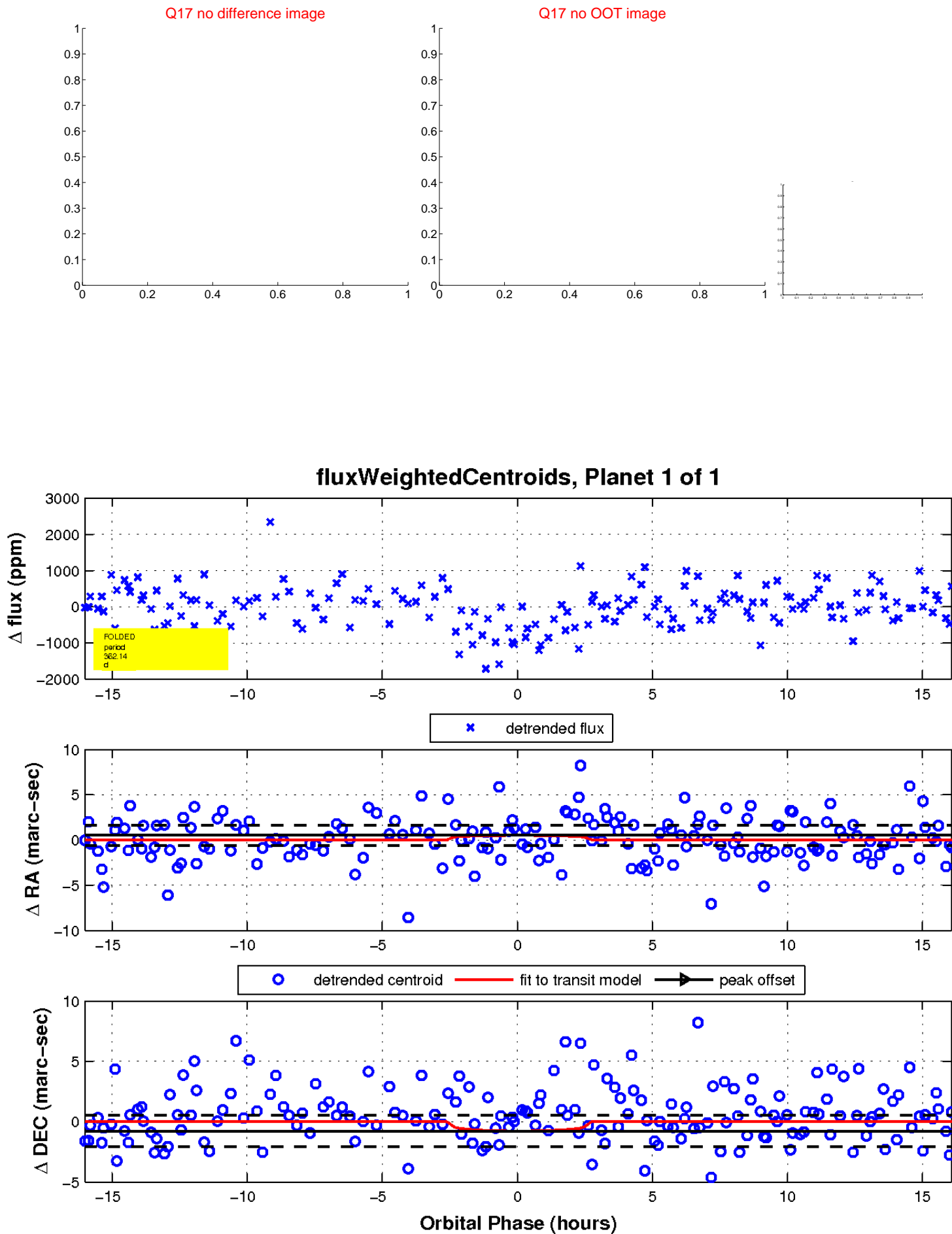
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

