

KIC 007834397

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})
007834397-01	OBS	No	368.002055	236.416572	1604.1	20.387	8.2	8.6	0.62	4593	5.02	0.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834397-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS—HALO_GHOST

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

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

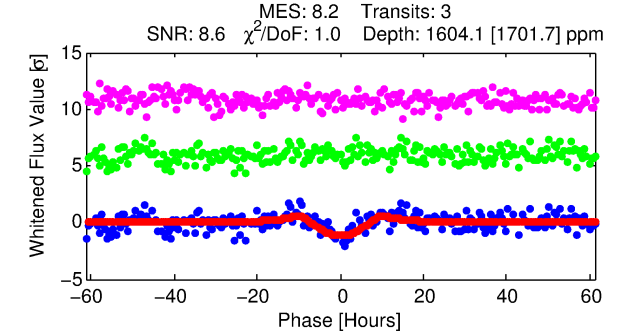
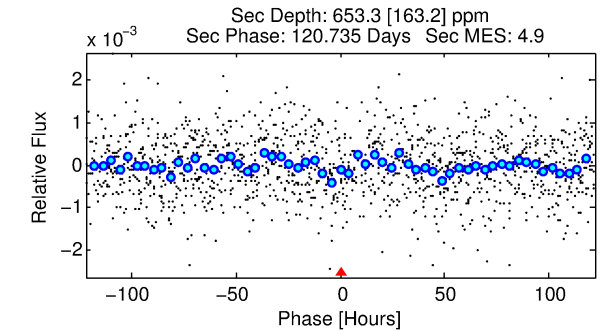
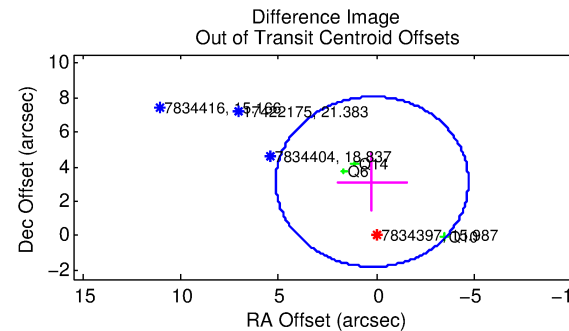
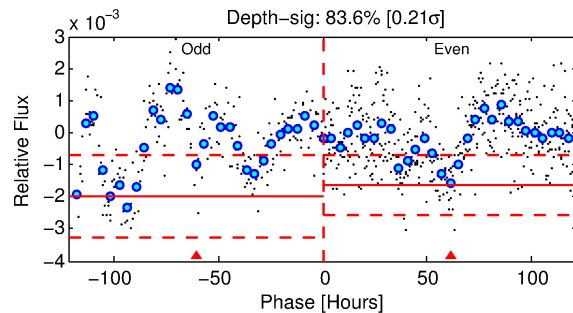
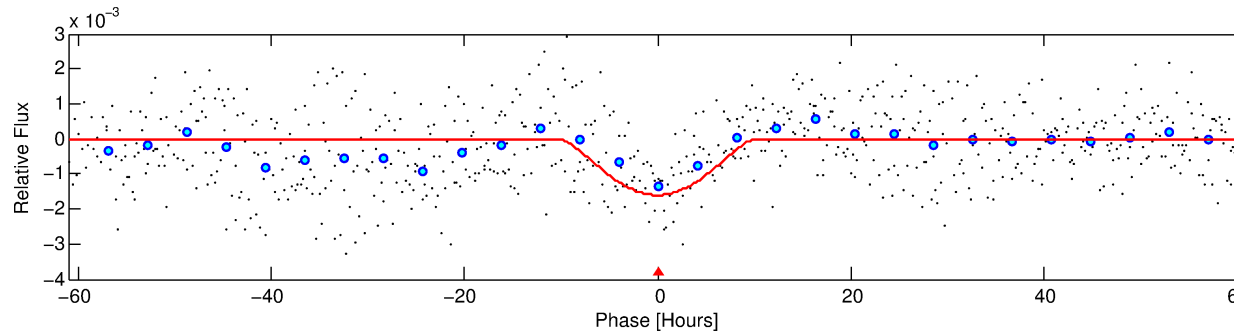
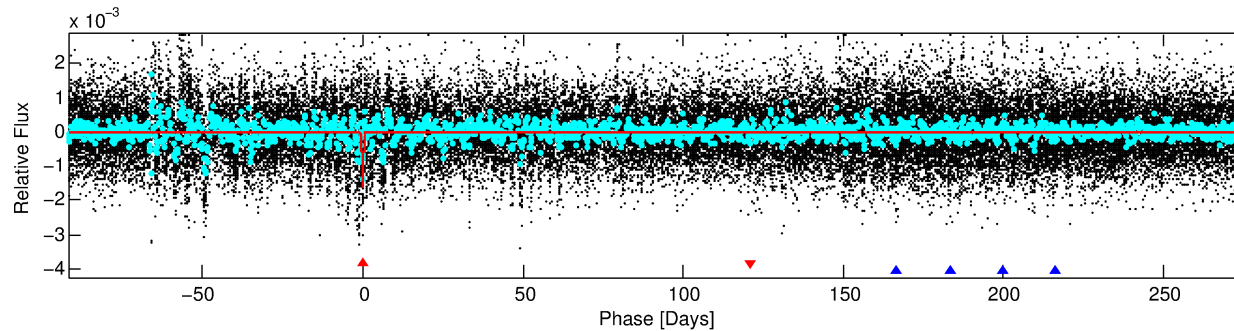
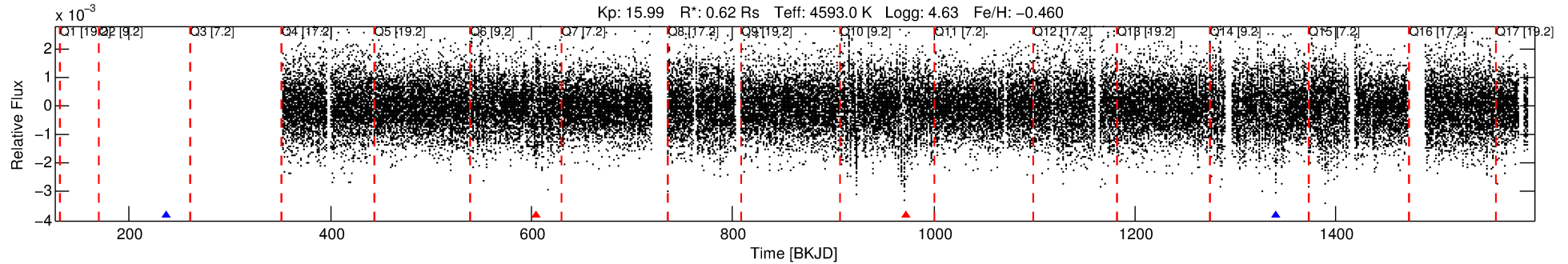
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834397-01

No Significant Match Found

DV One-Page Summary

KIC: 7834397 Candidate: 1 of 2 Period: 368.002 d



DV Fit Results:

Period = 368.00206 [0.02659] d
Epoch = 236.4166 [0.0557] BKJD
Rp/R* = 0.0738 [0.2319]
a/R* = 53.95 [36.23]
b = 1.00 [0.38]
Seff = 0.21 [0.04]
Teq = 173 [7] K
Rp = 5.02 [15.80] Re
a = 0.8519 [0.0605] AU
Ag = 10338.54 [65056.13] [0.16 σ]
Teffp = 2704 [4254] K [0.59 σ]

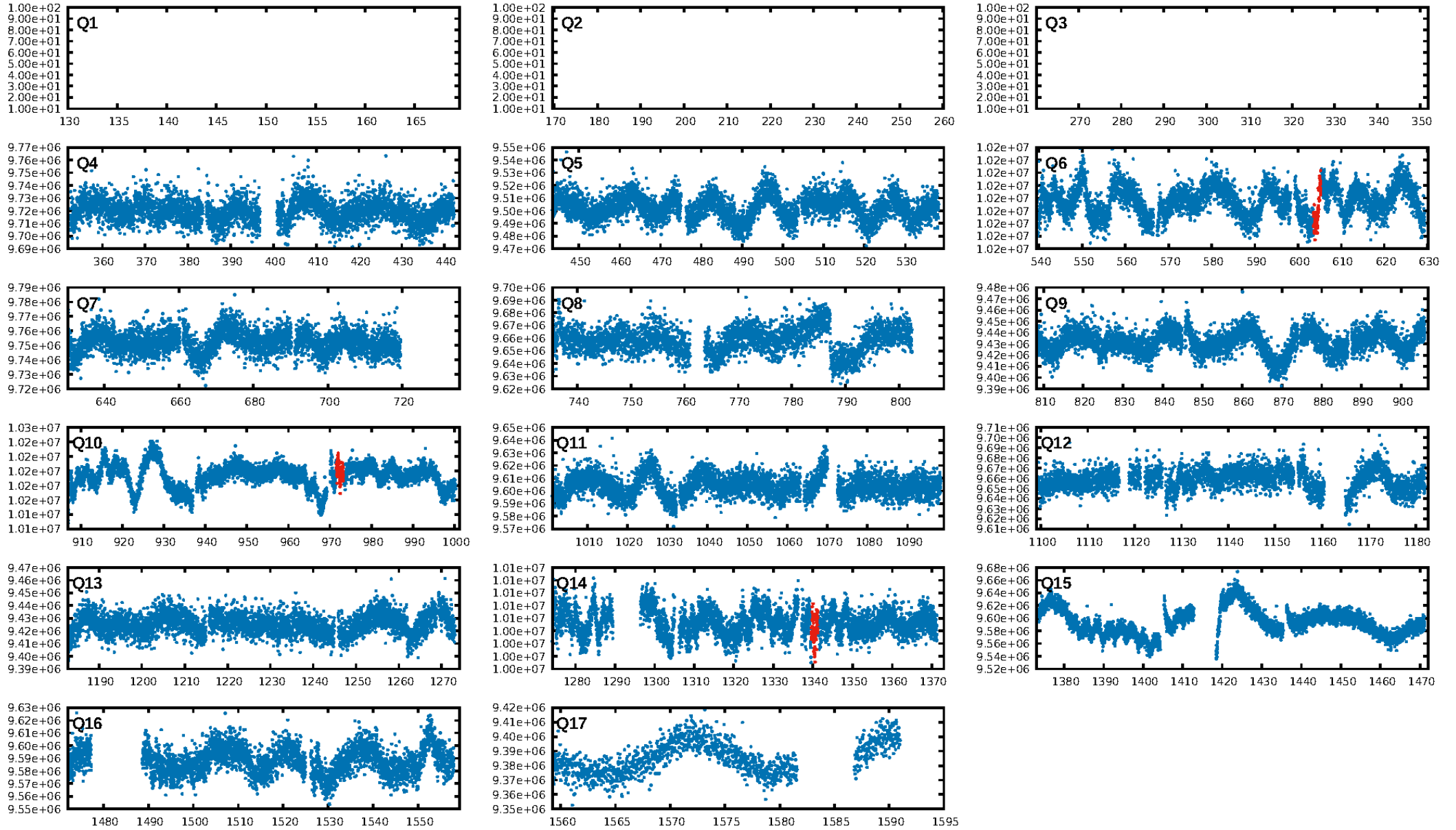
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [9.07 σ]
ModelChiSquare2-sig: 34.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.63e-09
RollingBand-fgt: 0.33 [1/3]
GhostDiagnostic-chr: 0.2261
Centroid-sig: 1.1%
Centroid-so: 2.405 arcsec [1.37 σ]
OotOffset-rm: 3.135 arcsec [1.91 σ]
KicOffset-rm: 2.237 arcsec [1.38 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

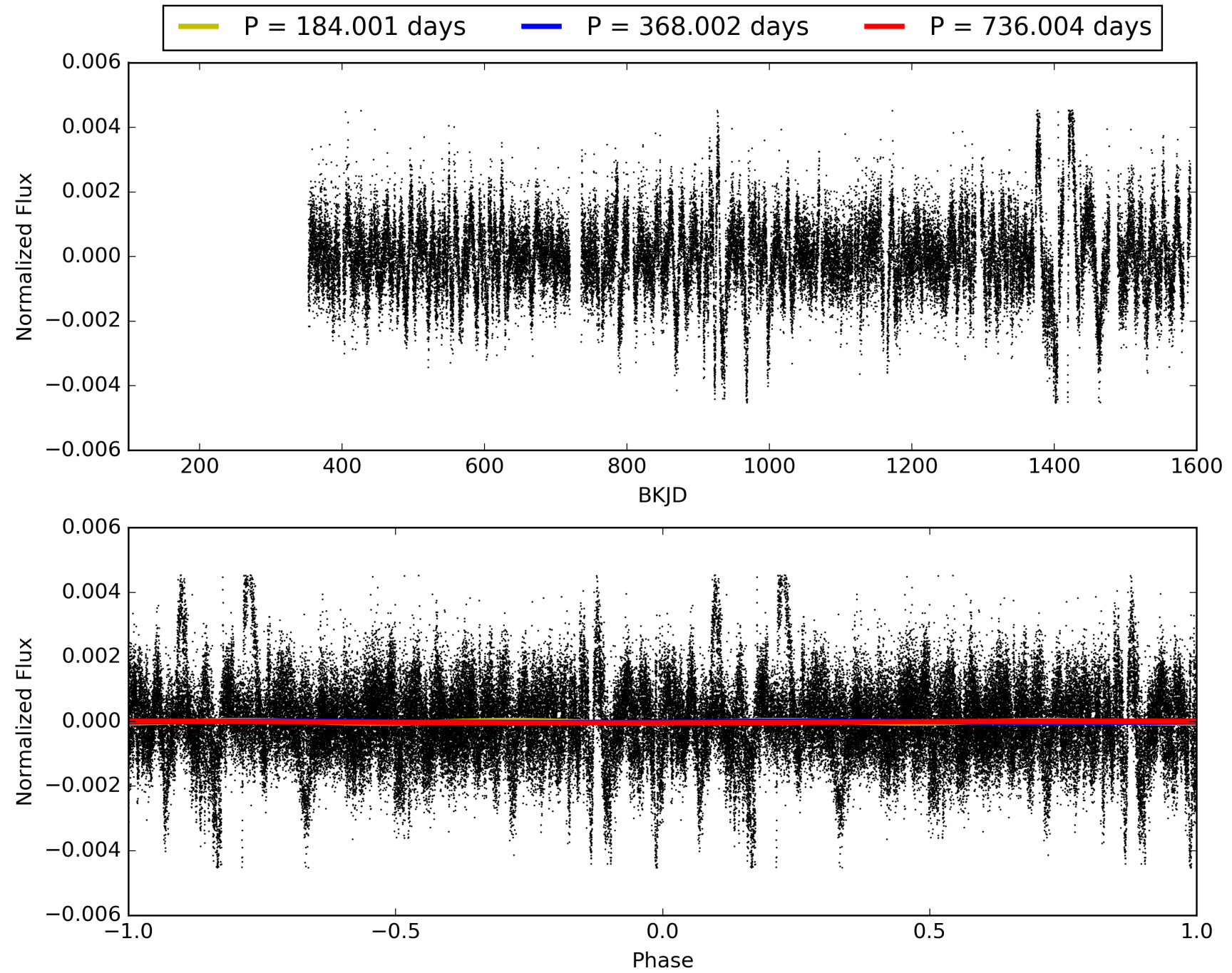
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:46:18 Z

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

TCE 007834397-01, PDC Light Curves

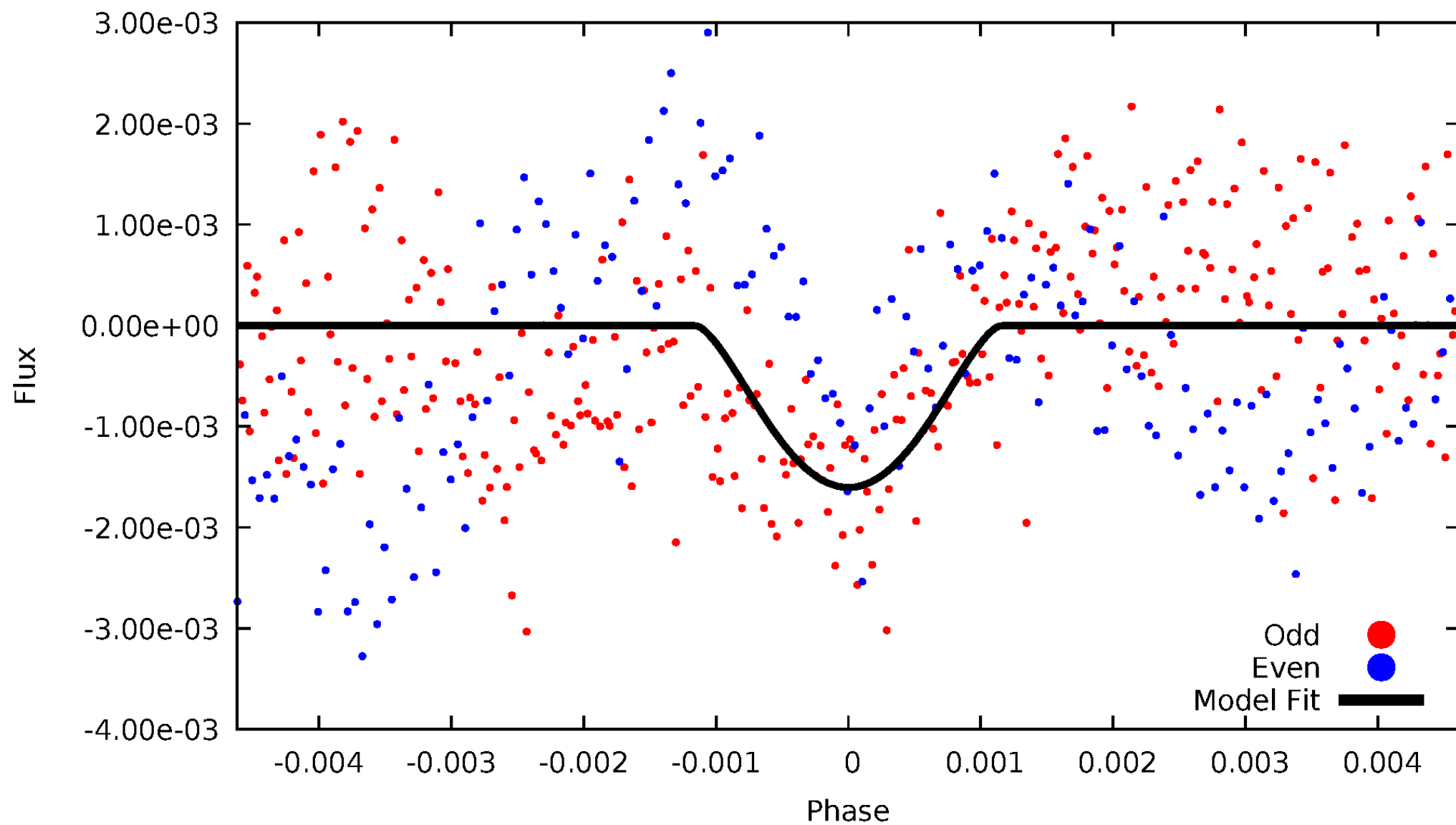


TCE 007834397-01



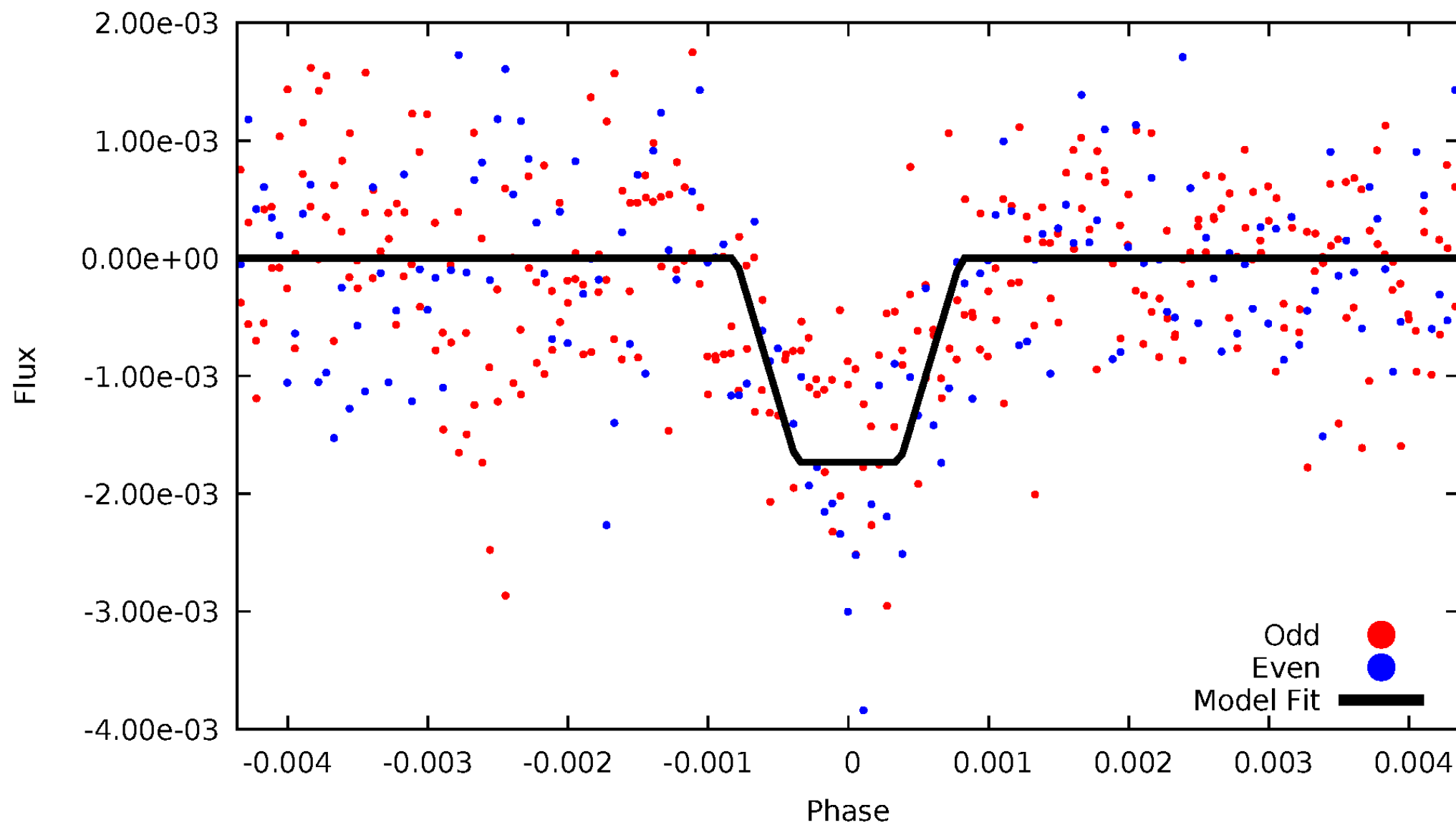
DV Odd/Even

TCE 007834397-01

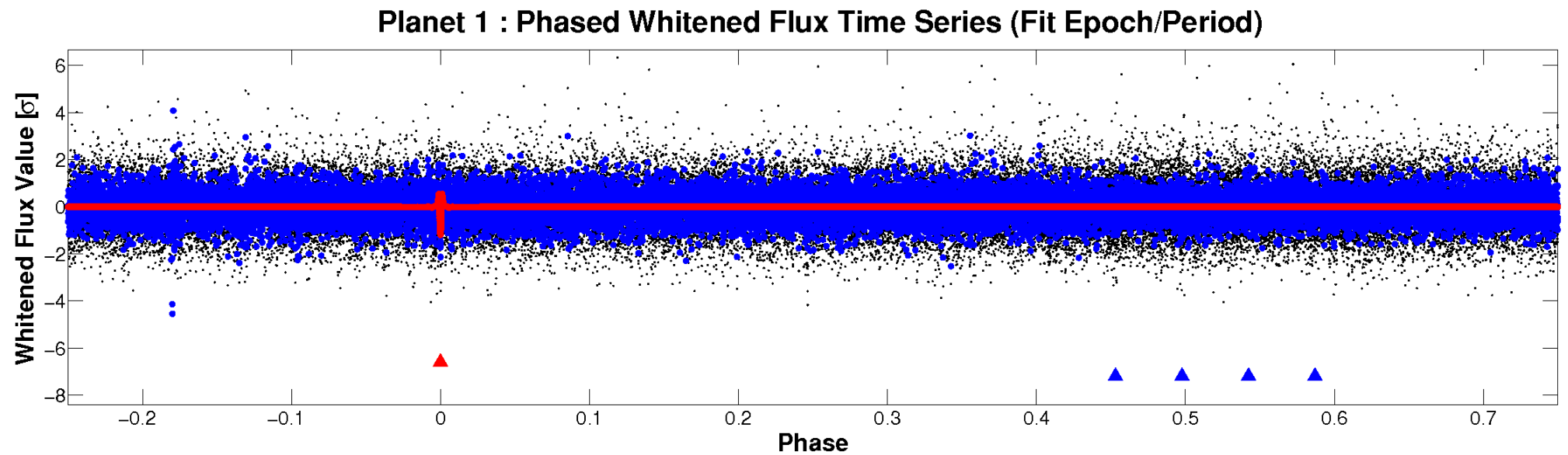
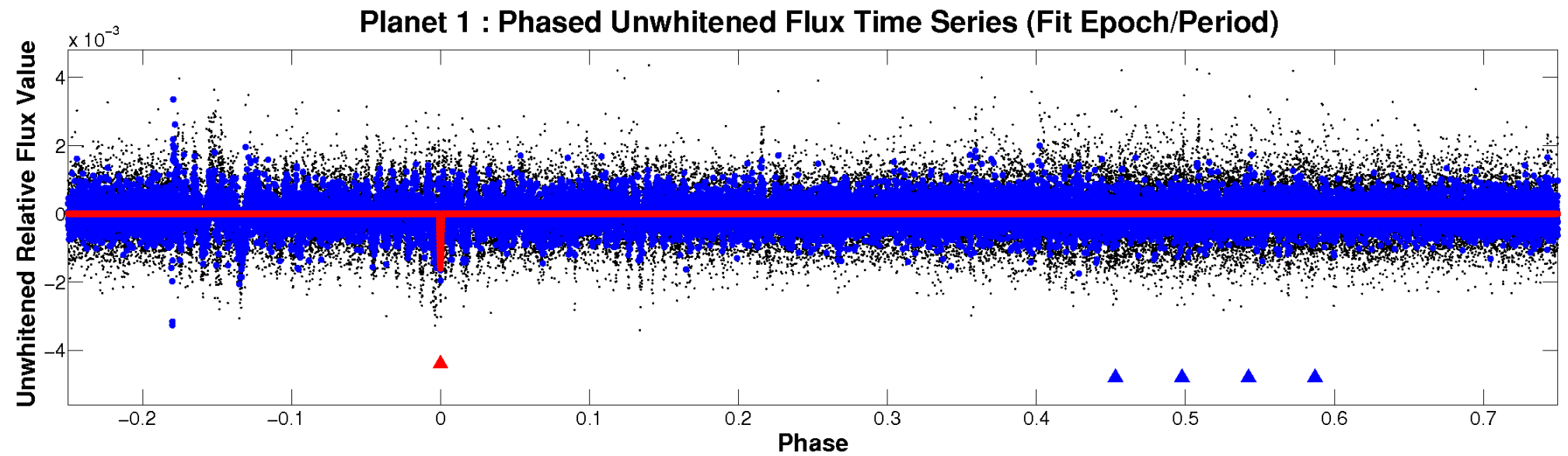


ALT Odd/Even

TCE 007834397-01

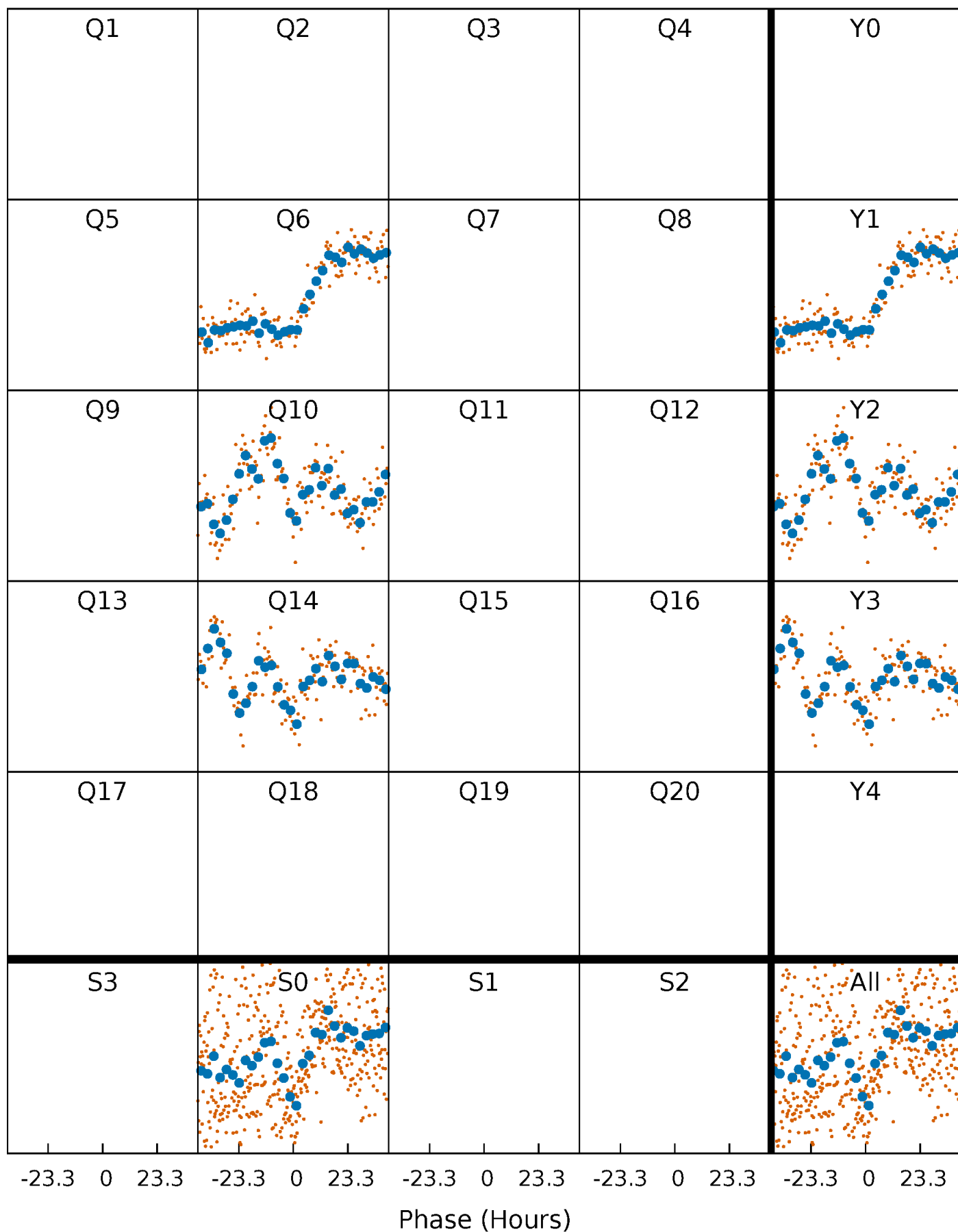


Non-Whitened Vs. Whitened Light Curve



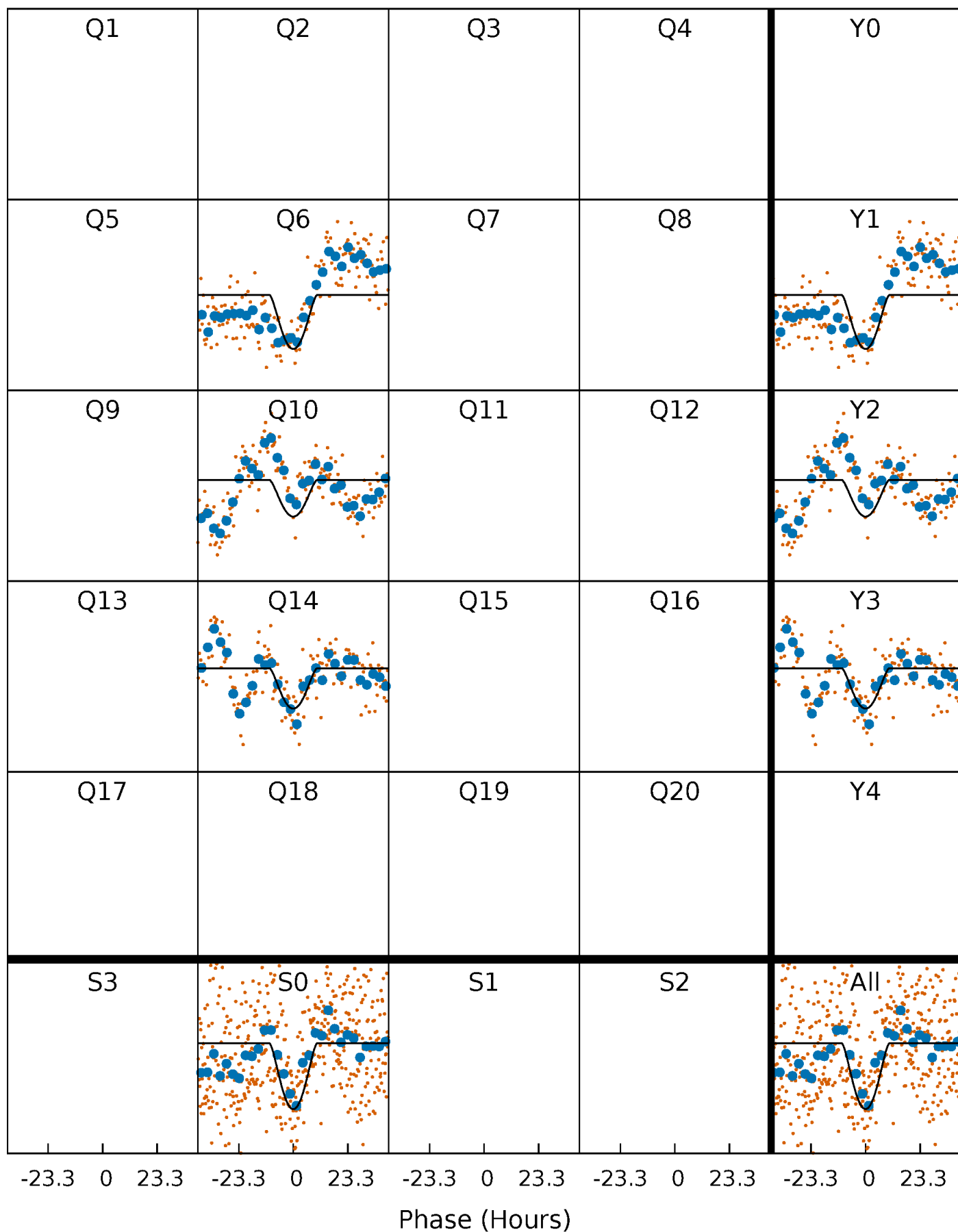
PDC Quarter-Phased Transit Curves

TCE 007834397-01 P=368.002055 Days $T_0=236.416572$ (BKJD)



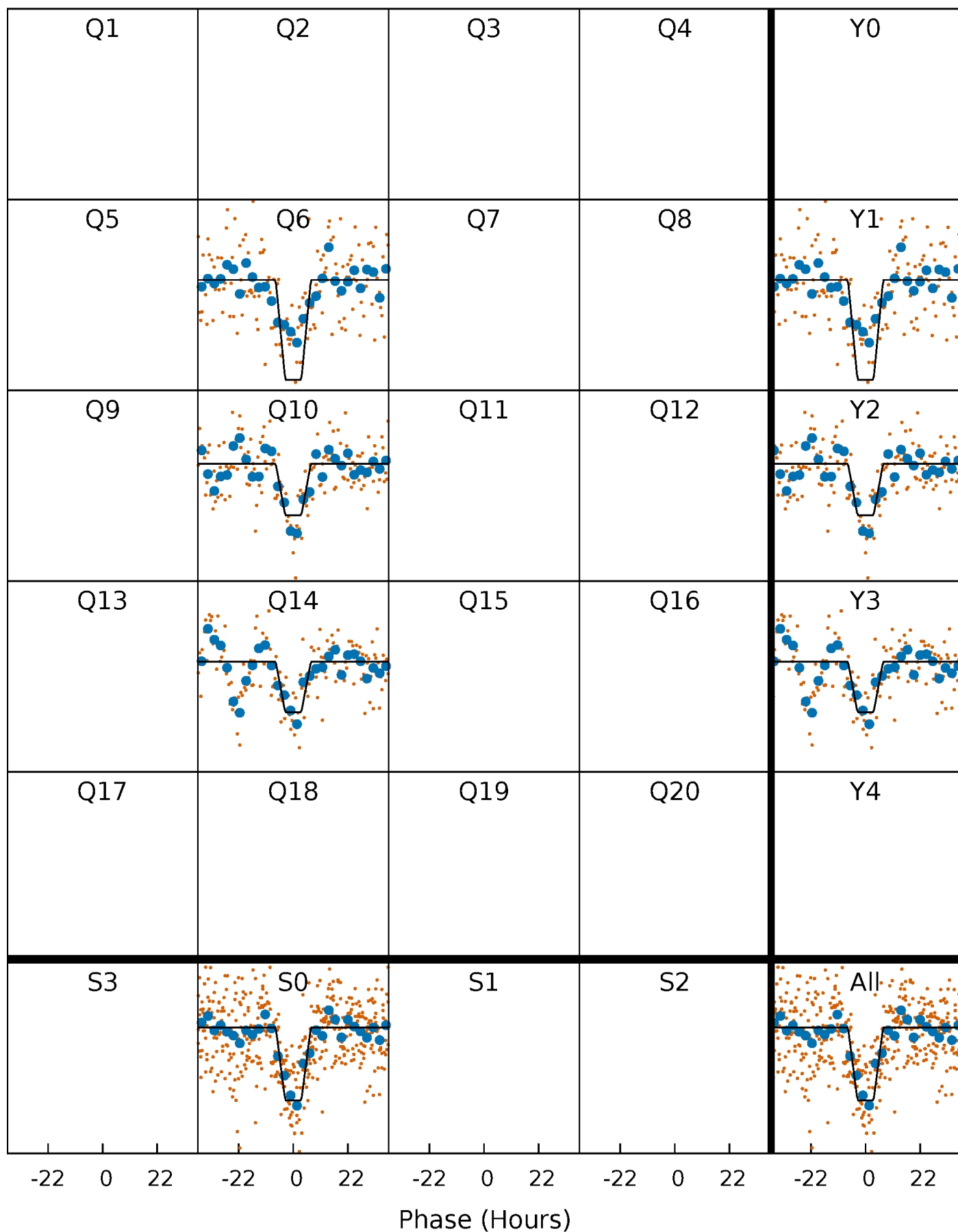
DV Quarter-Phased Transit Curves

TCE 007834397-01 $P=368.002055$ Days $T_0=236.416572$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

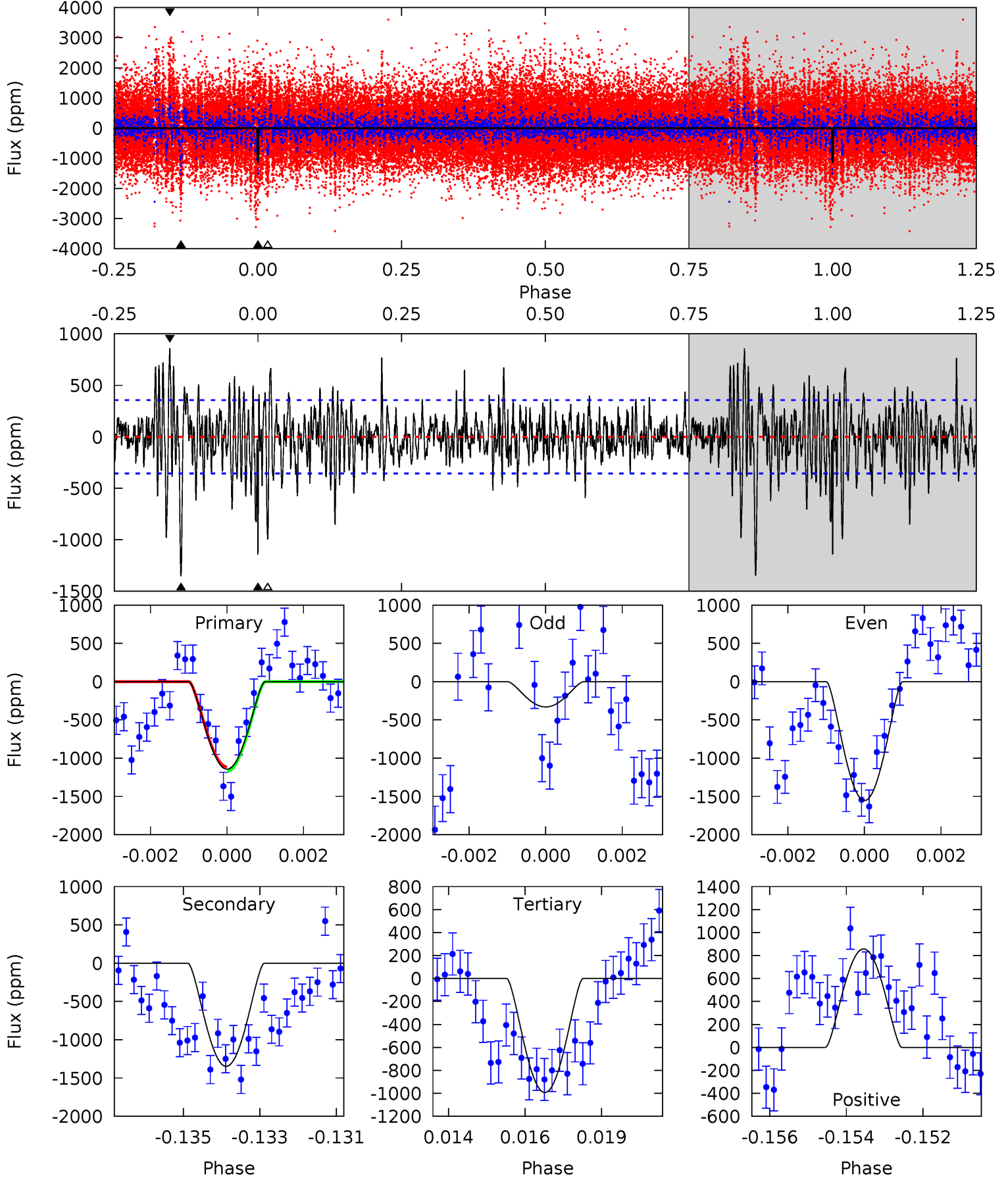
TCE 007834397-01 P=368.008416 Days $T_0=236.402633$ (BKJD)



DV Model-Shift Uniqueness Test

007834397-01, P = 368.002055 Days, E = 236.416572 Days

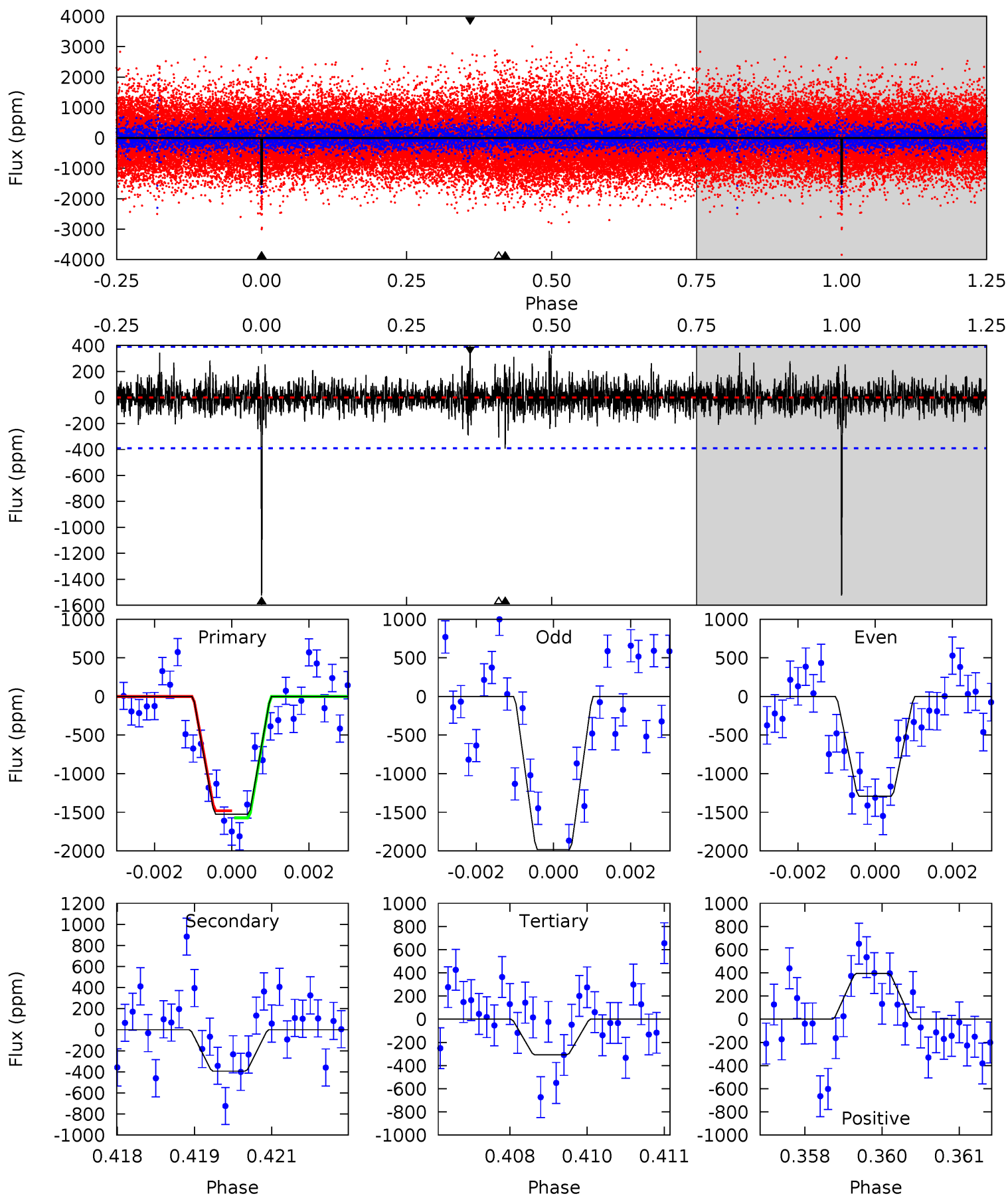
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.0	20.1	14.8	12.8	5.30	3.04	3.23	2.24	4.25	5.28	7.29	8.64	0.80	0.39	0.44



Alt Model-Shift Uniqueness Test

007834397-01, P = 368.008416 Days, E = 236.402633 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	5.40	4.22	5.43	5.37	3.15	1.05	16.7	15.5	1.18	-0.03	4.46	0.95	0.21	0.64



Stellar Parameters For KIC 007834397

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4593^{+161}_{-161}	$4.632^{+0.052}_{-0.028}$	$-0.460^{+0.300}_{-0.300}$	$0.624^{+0.055}_{-0.055}$	$0.610^{+0.072}_{-0.045}$	$3.528^{+0.798}_{-0.487}$
	+4%/-4%	+1%/-1%	+65%/-65%	+9%/-9%	+12%/-7%	+23%/-14%
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 007834397-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1347 ± 67	$12.88^{+13.15}_{-8.25}$	242^{+10}_{-10}	2721^{+987}_{-425}	3248^{+22717}_{-2438}
Alt.	-393 ± 73	$11.24^{+12.93}_{-7.73}$	241^{+9}_{-10}	2409^{+931}_{-375}	1243^{+12314}_{-976}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

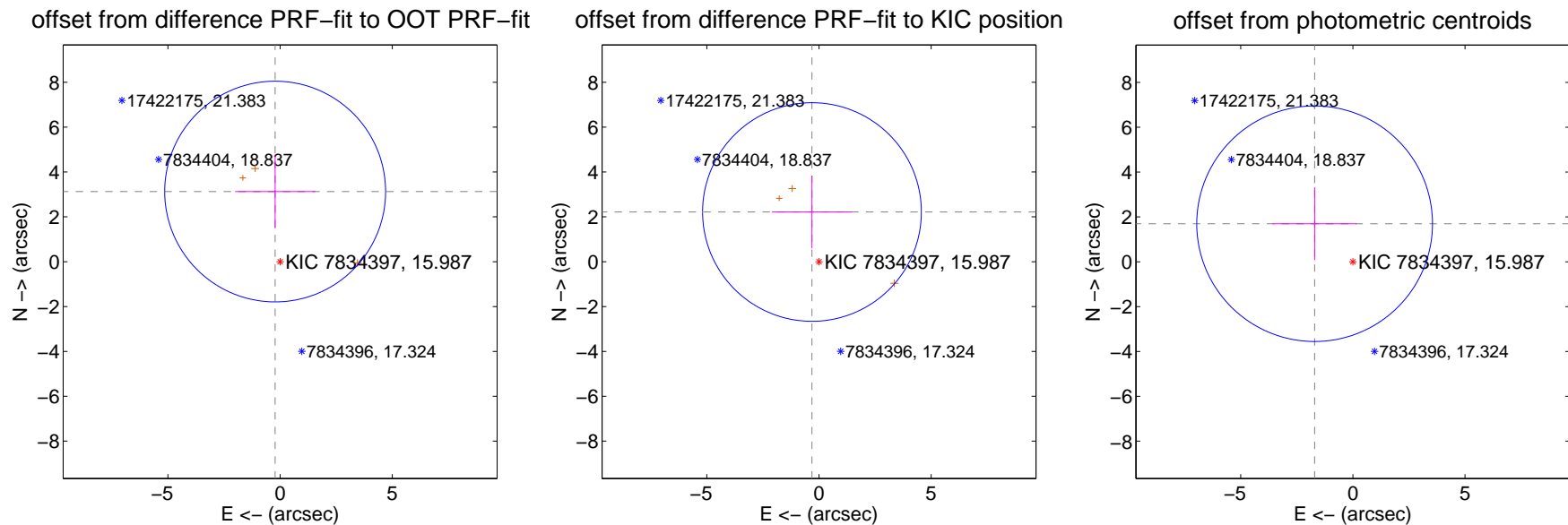
DV Centroid Data

Supplemental centroid analysis for 007834397-01. Kepler magnitude: 15.99. Transit SNR 8.63

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.90 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.135 ± 1.640	1.91	0.221 ± 1.787	3.128 ± 1.639
PRF-fit source offset from KIC position	2.237 ± 1.624	1.38	0.312 ± 1.788	2.215 ± 1.621
photometric centroid source offset	2.41 ± 1.75	1.37	1.70 ± 1.87	1.70 ± 1.62

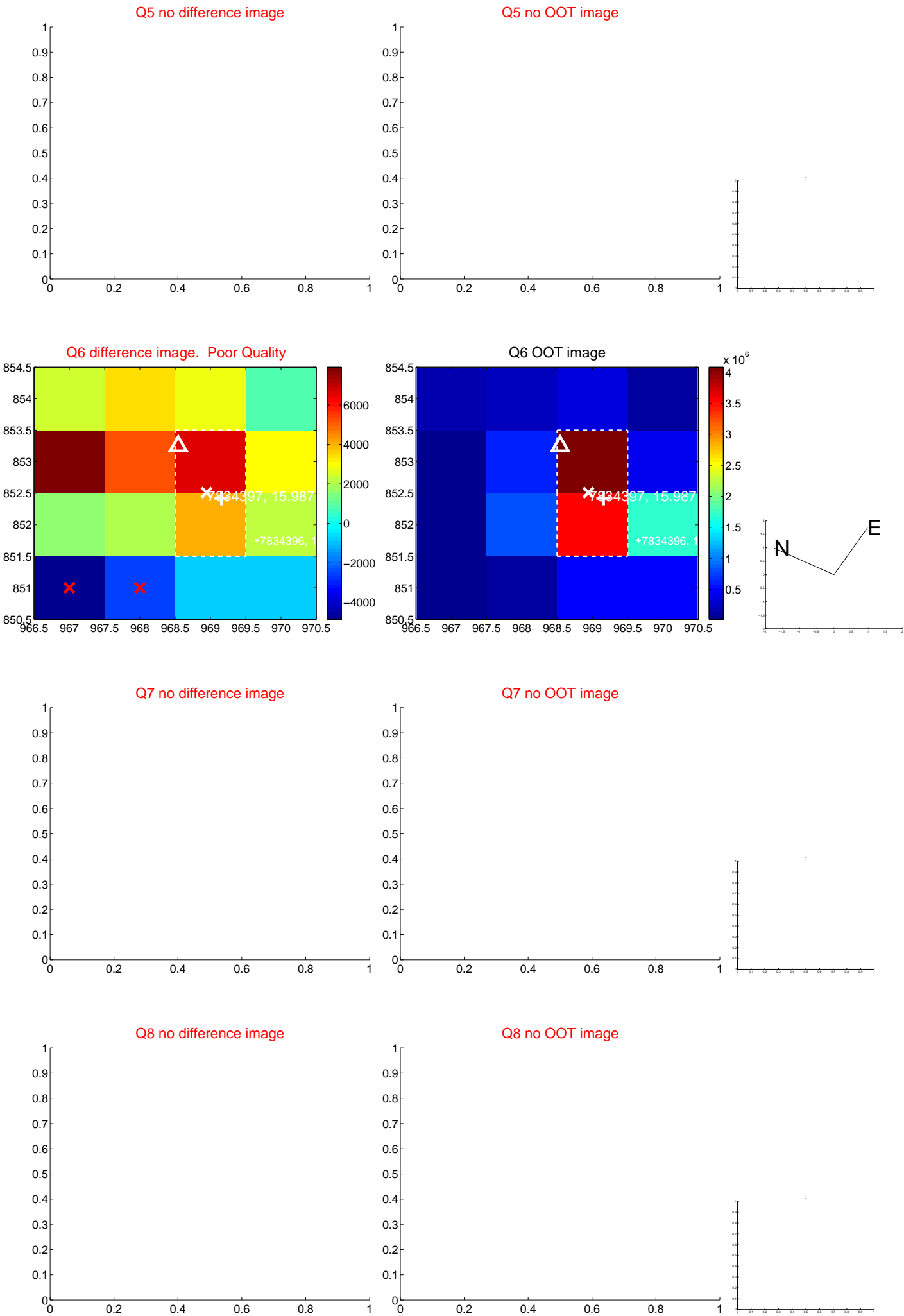


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

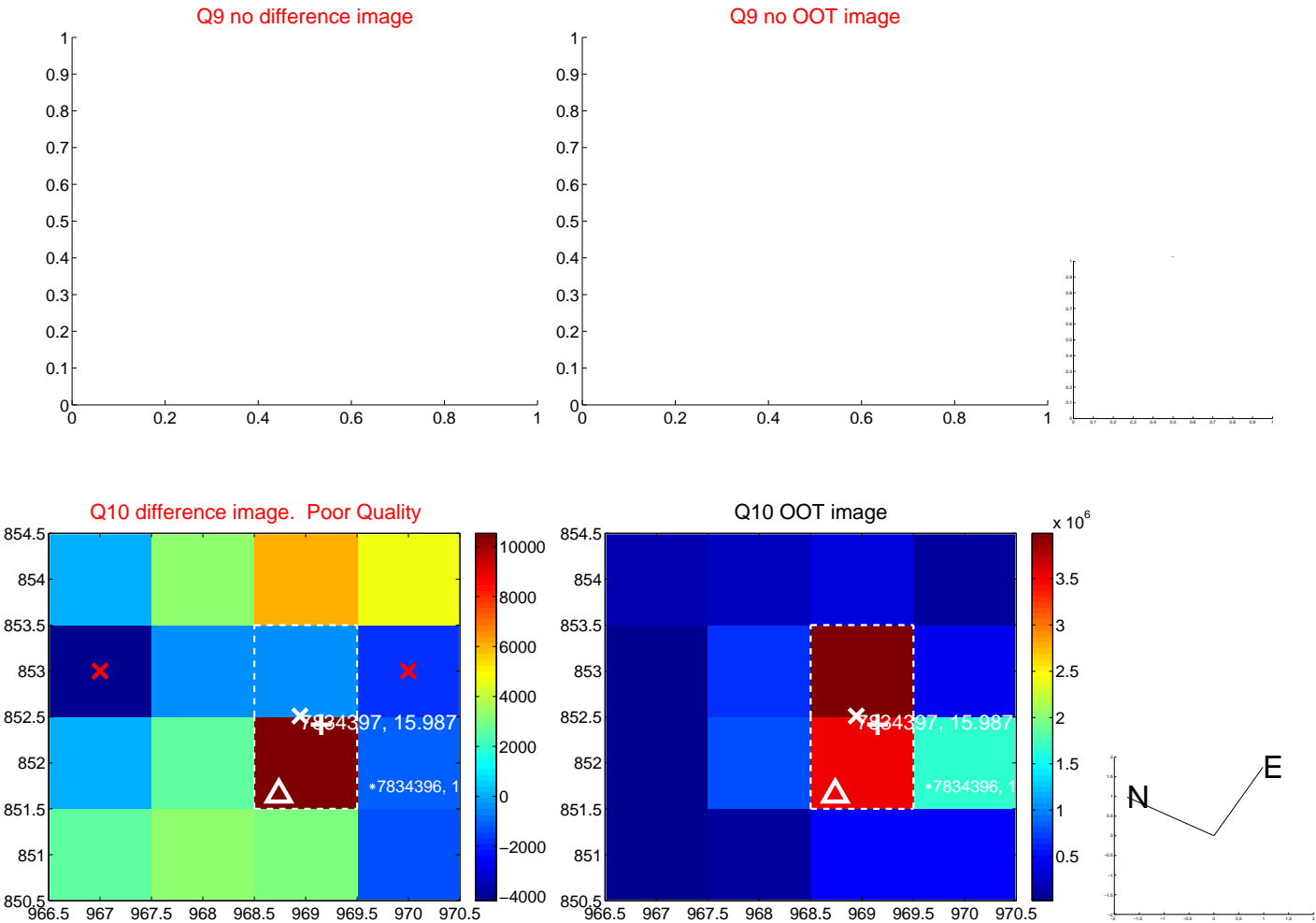
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



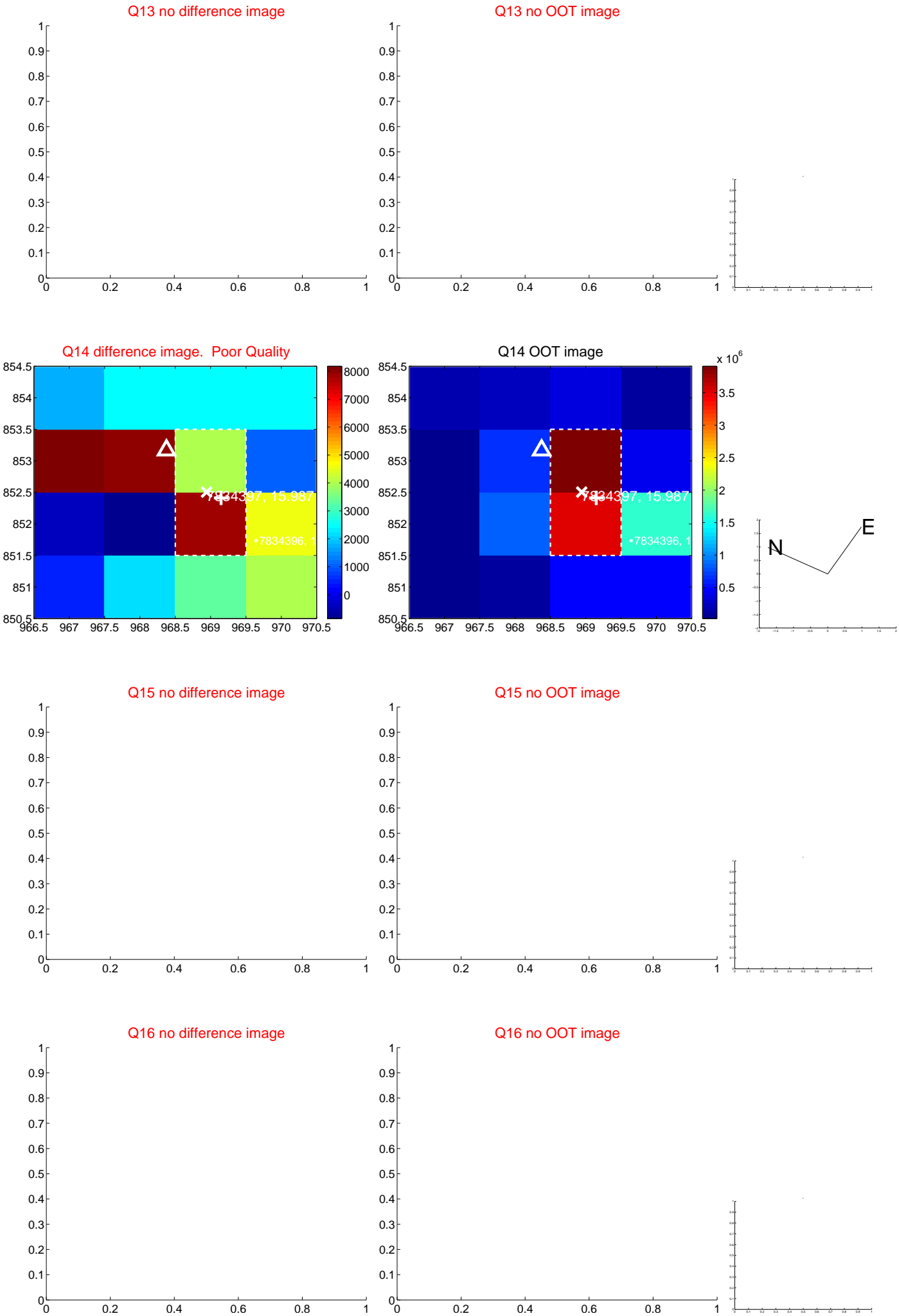
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



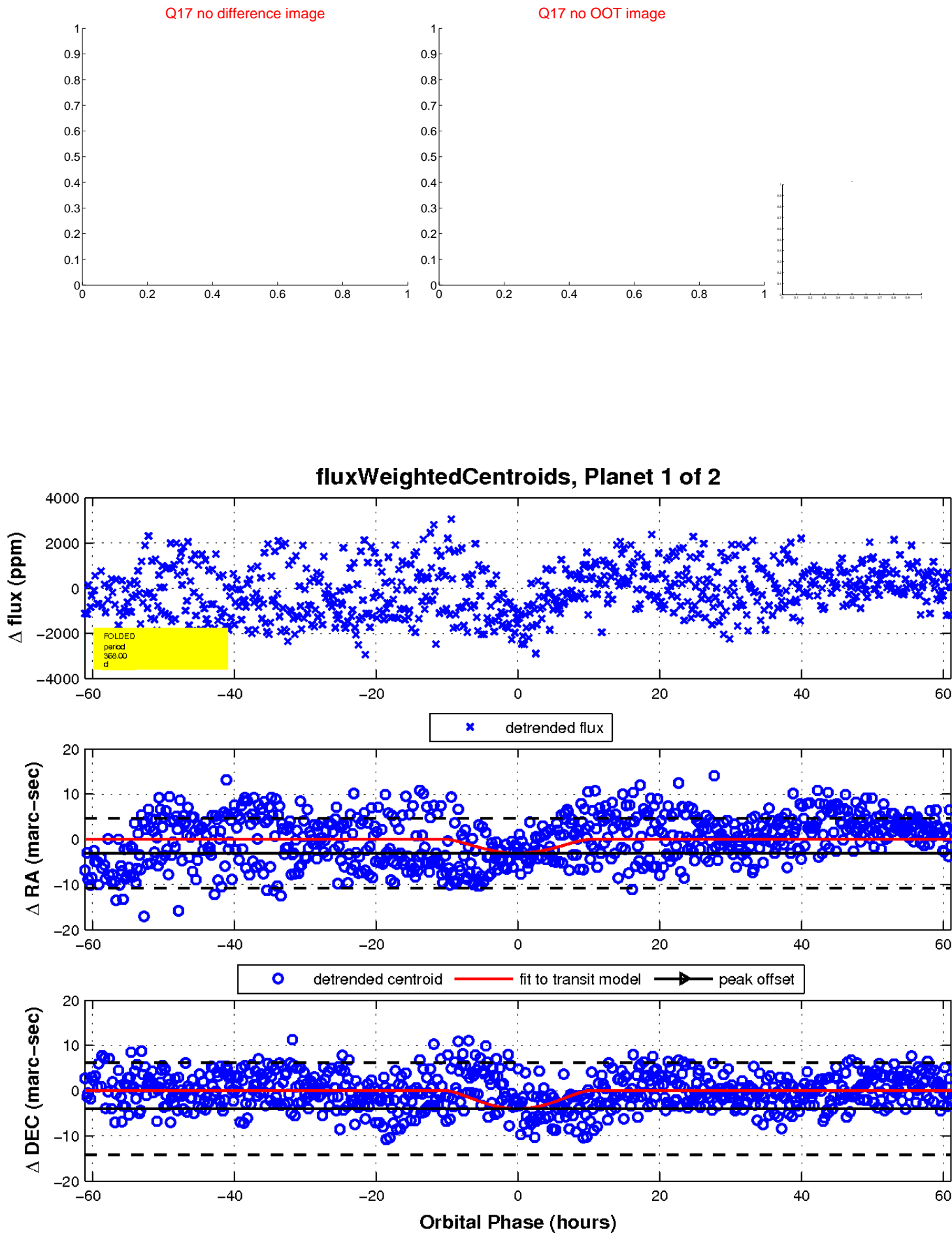
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

