

KIC 006600837

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})
006600837-02	OBS	No	331.406500	301.199690	283.7	12.859	7.8	7.2	2.31	6157	4.48	6.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006600837-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

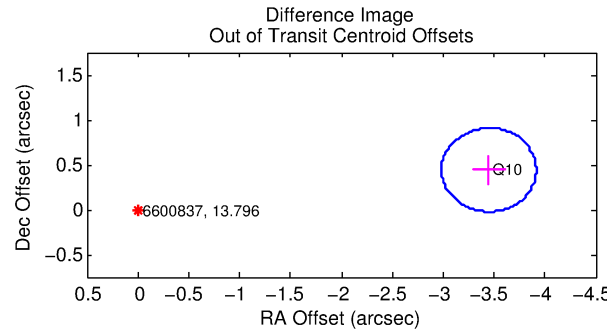
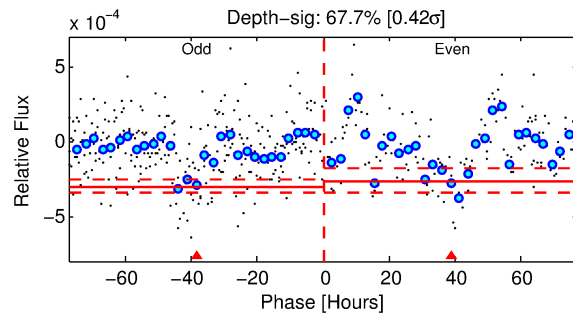
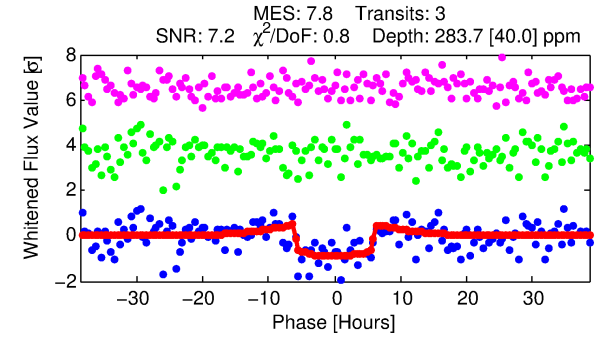
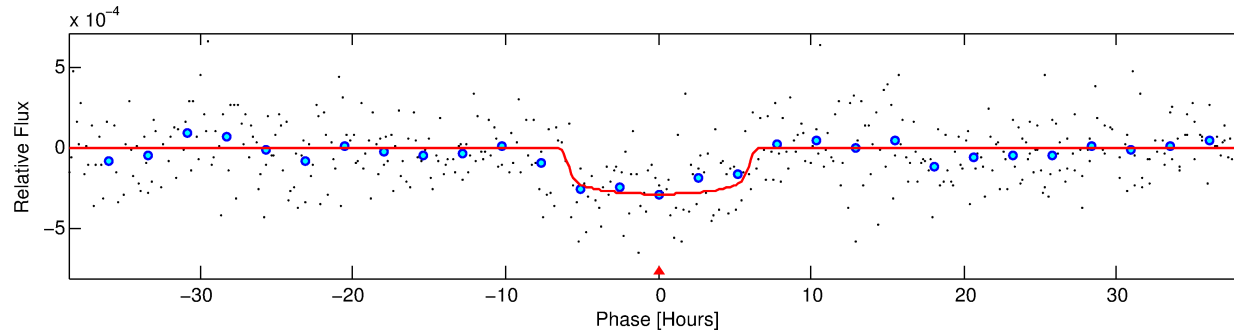
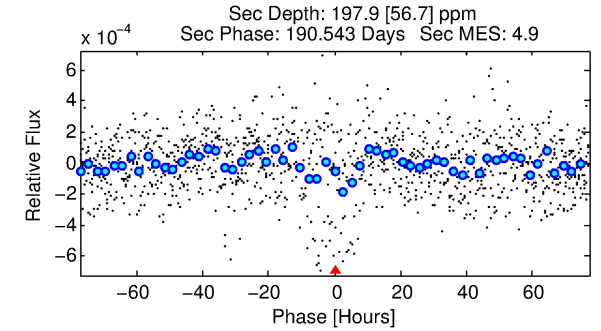
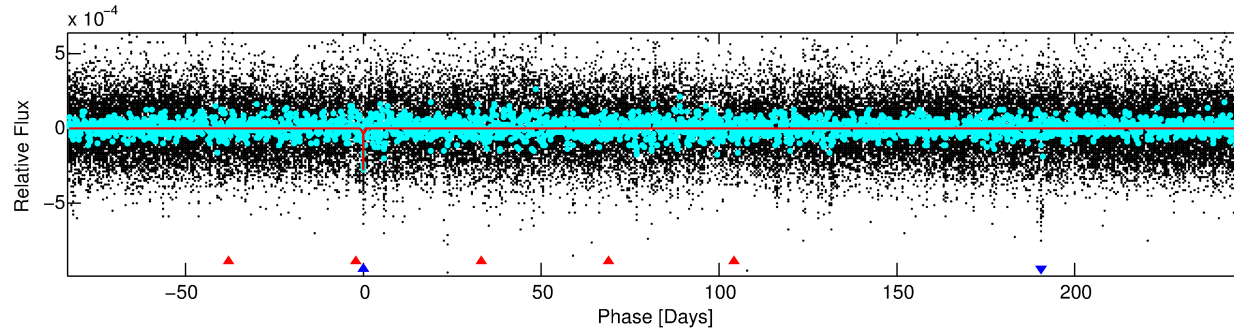
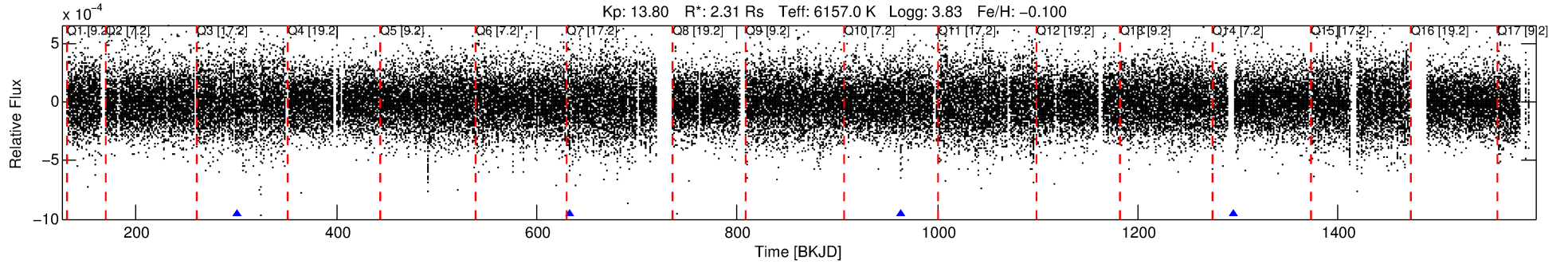
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006600837-02

No Significant Match Found

DV One-Page Summary

KIC: 6600837 Candidate: 2 of 2 Period: 331.407 d



DV Fit Results:

Period = 331.40650 [0.01339] d
Epoch = 301.1997 [0.0168] BKJD
Rp/R* = 0.0178 [0.0029]
a/R* = 102.09 [76.10]
b = 0.88 [0.20]
Seff = 6.53 [5.43]
Teq = 408 [85] K
Rp = 4.48 [2.35] Re
a = 1.0237 [0.5127] AU
Ag = 5694.27 [5279.15] [1.08σ]
Teffp = 5475 [624] K [8.05σ]

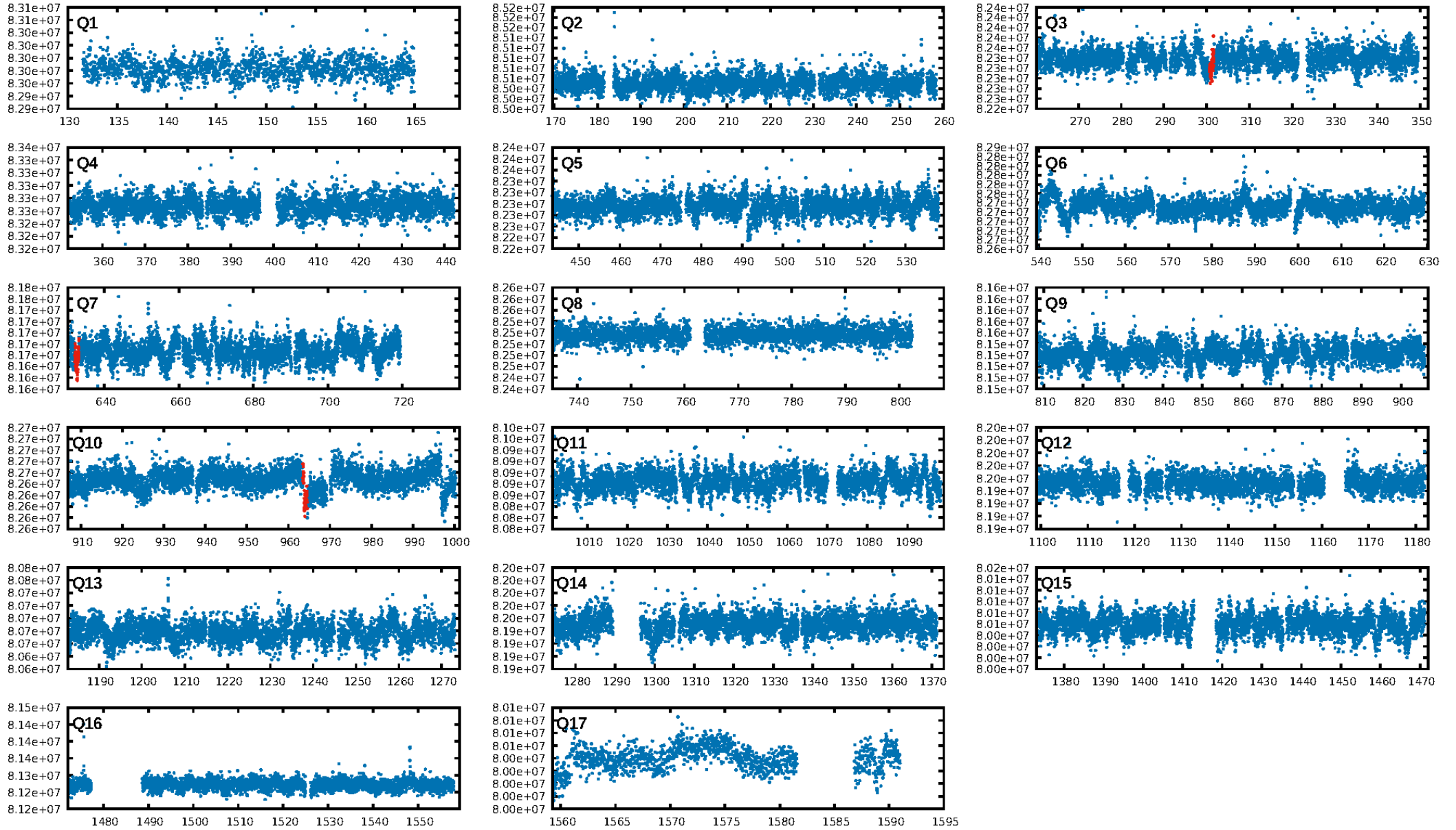
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [32.36σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 57.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.49e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.619
Centroid-sig: 45.9%
Centroid-so: 1.303 arcsec [0.79σ]
OotOffset-rm: 3.476 arcsec [22.40σ]
KicOffset-rm: 3.545 arcsec [22.84σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

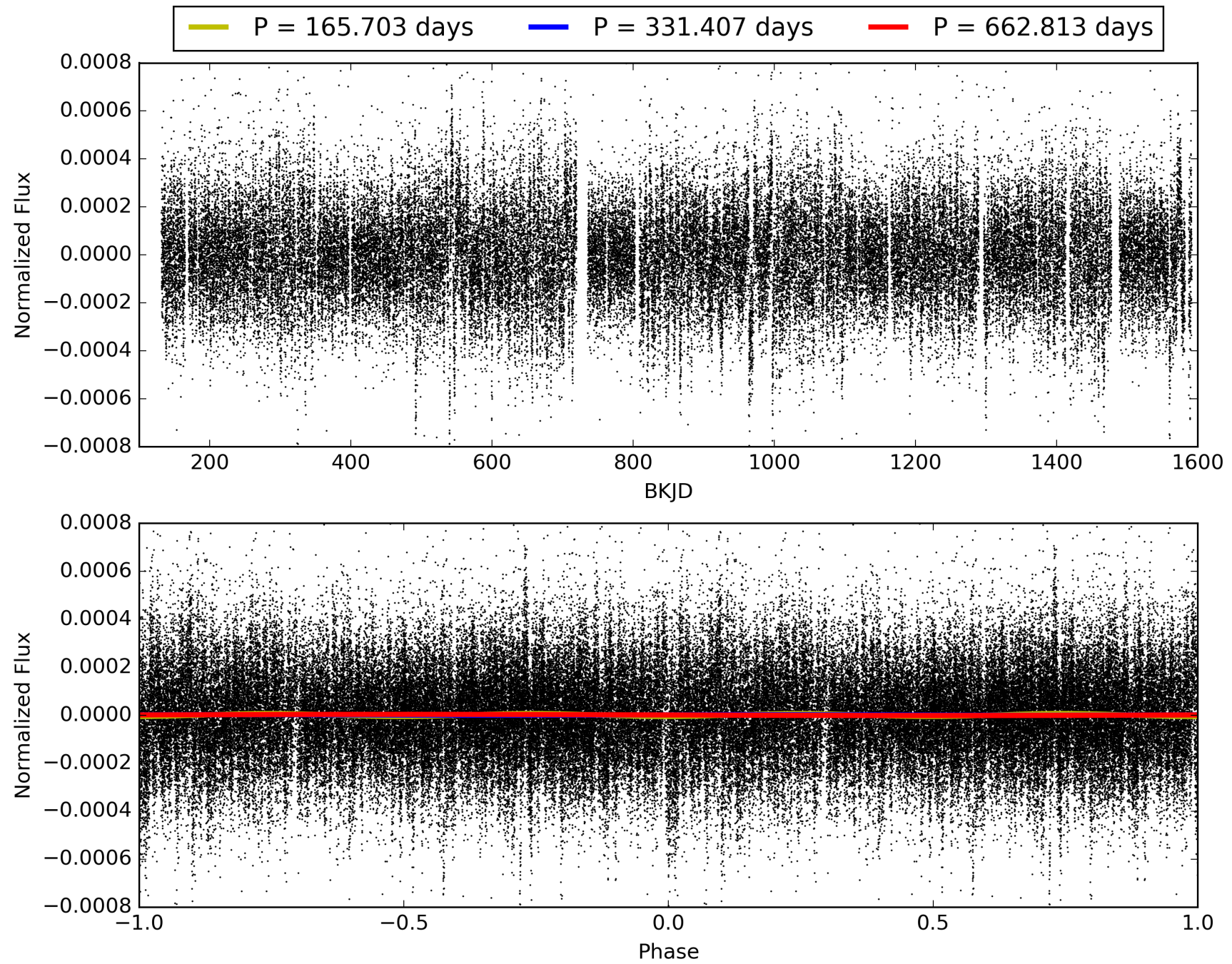
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:35:44 Z

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

TCE 006600837-02, PDC Light Curves

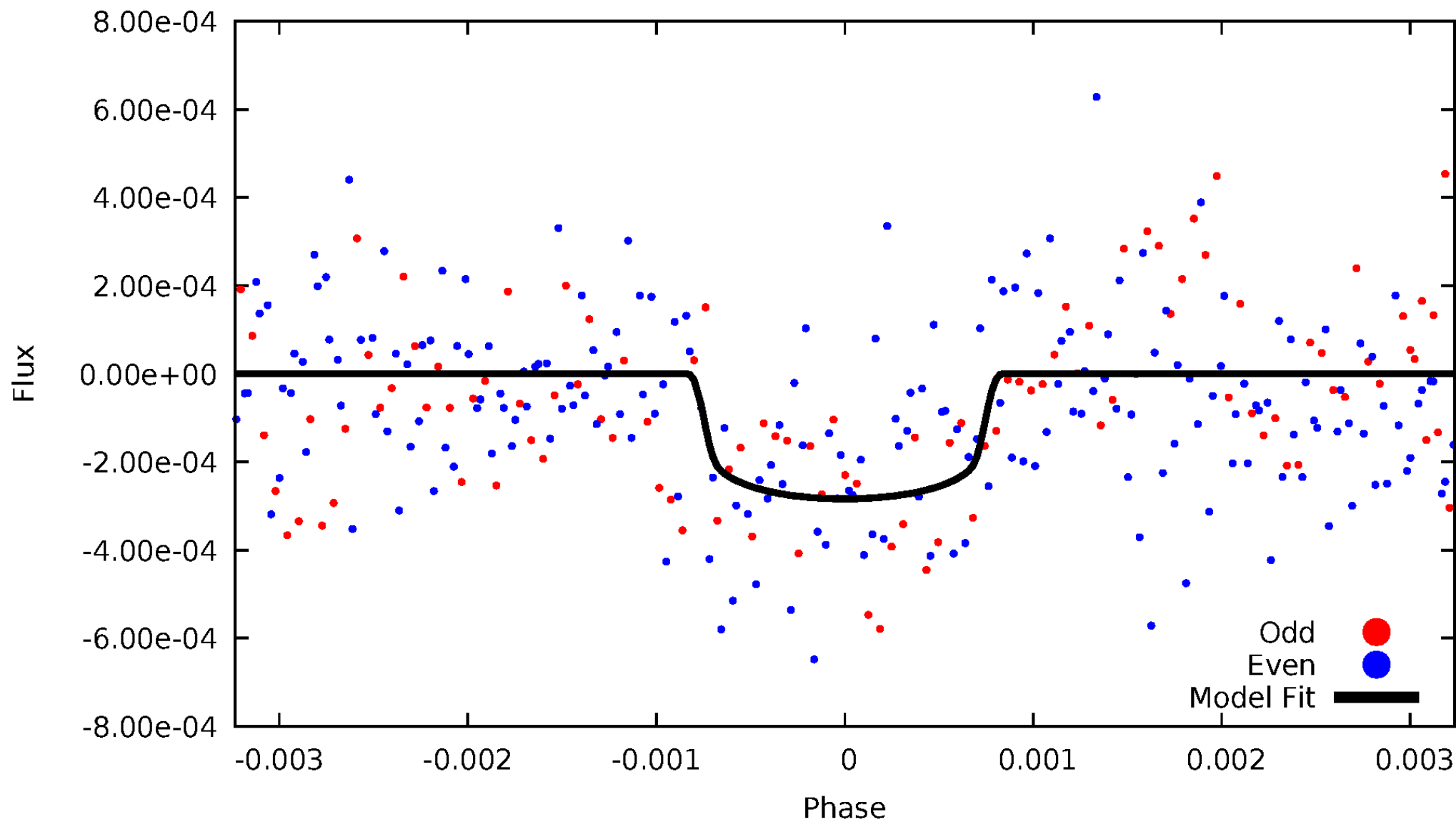


TCE 006600837-02



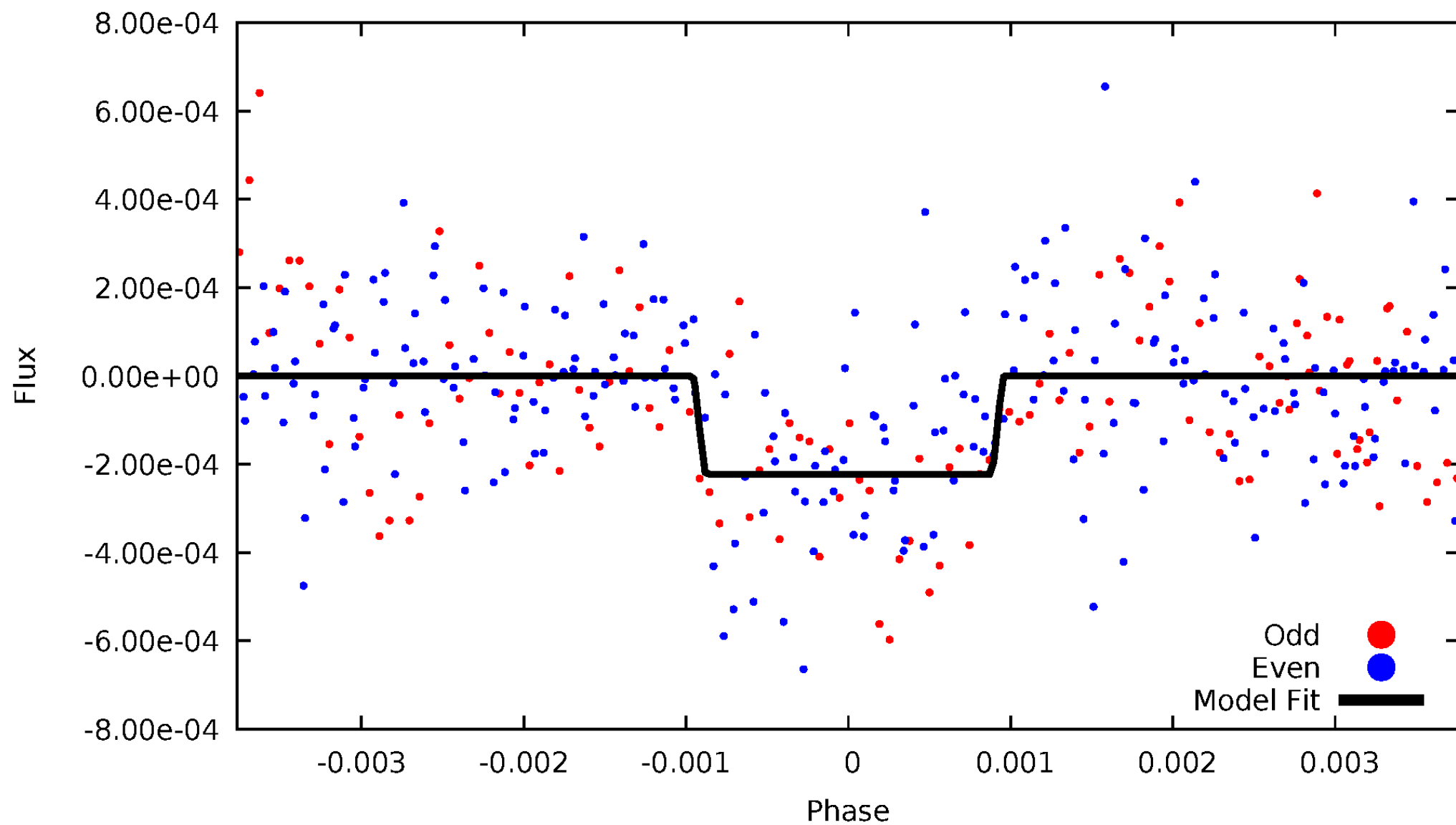
DV Odd/Even

TCE 006600837-02



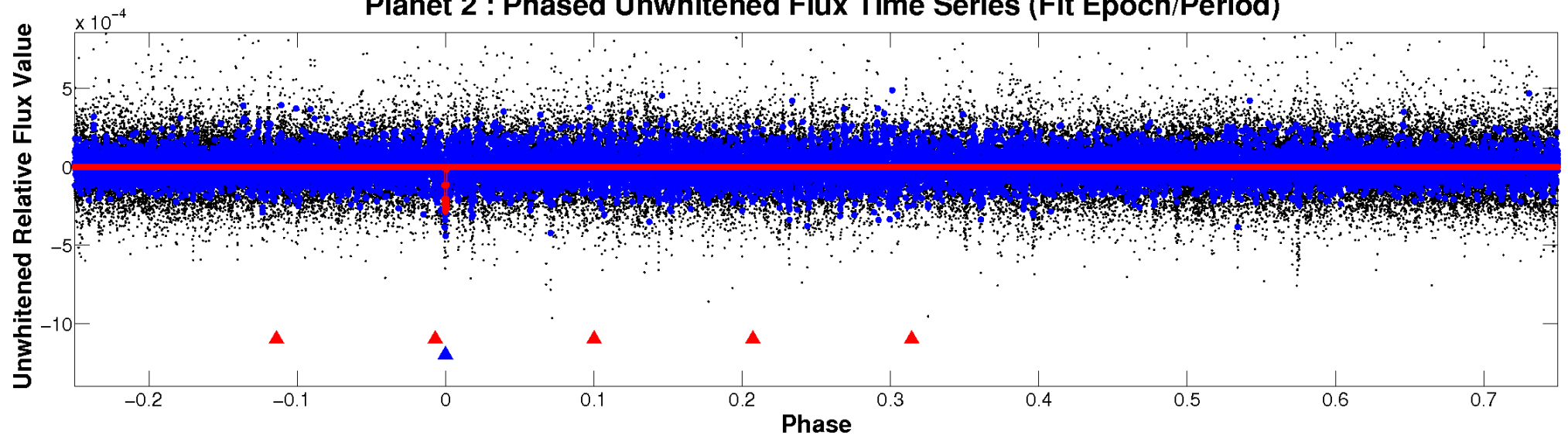
ALT Odd/Even

TCE 006600837-02

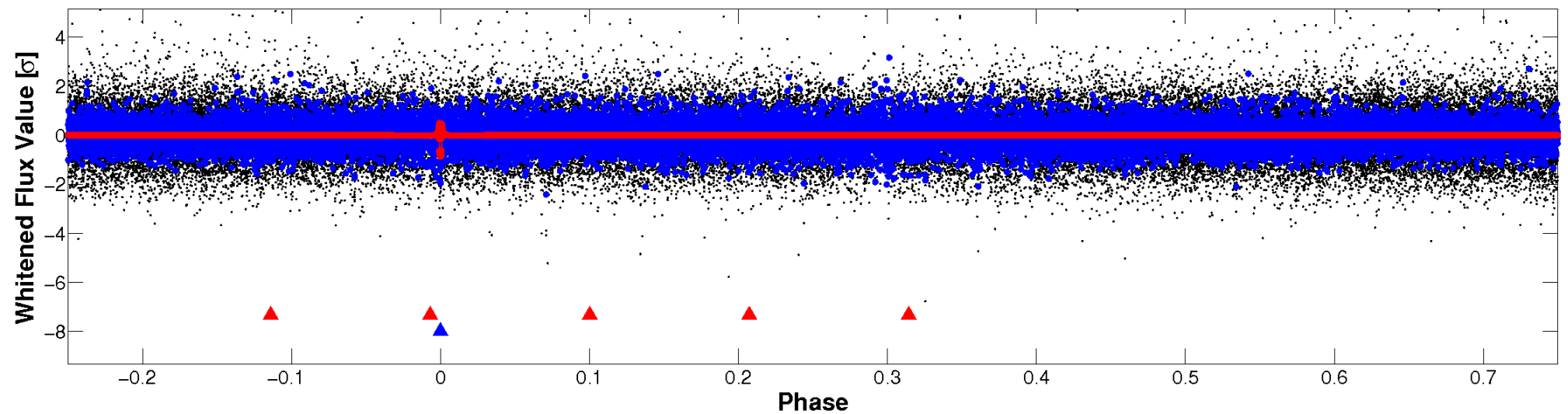


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

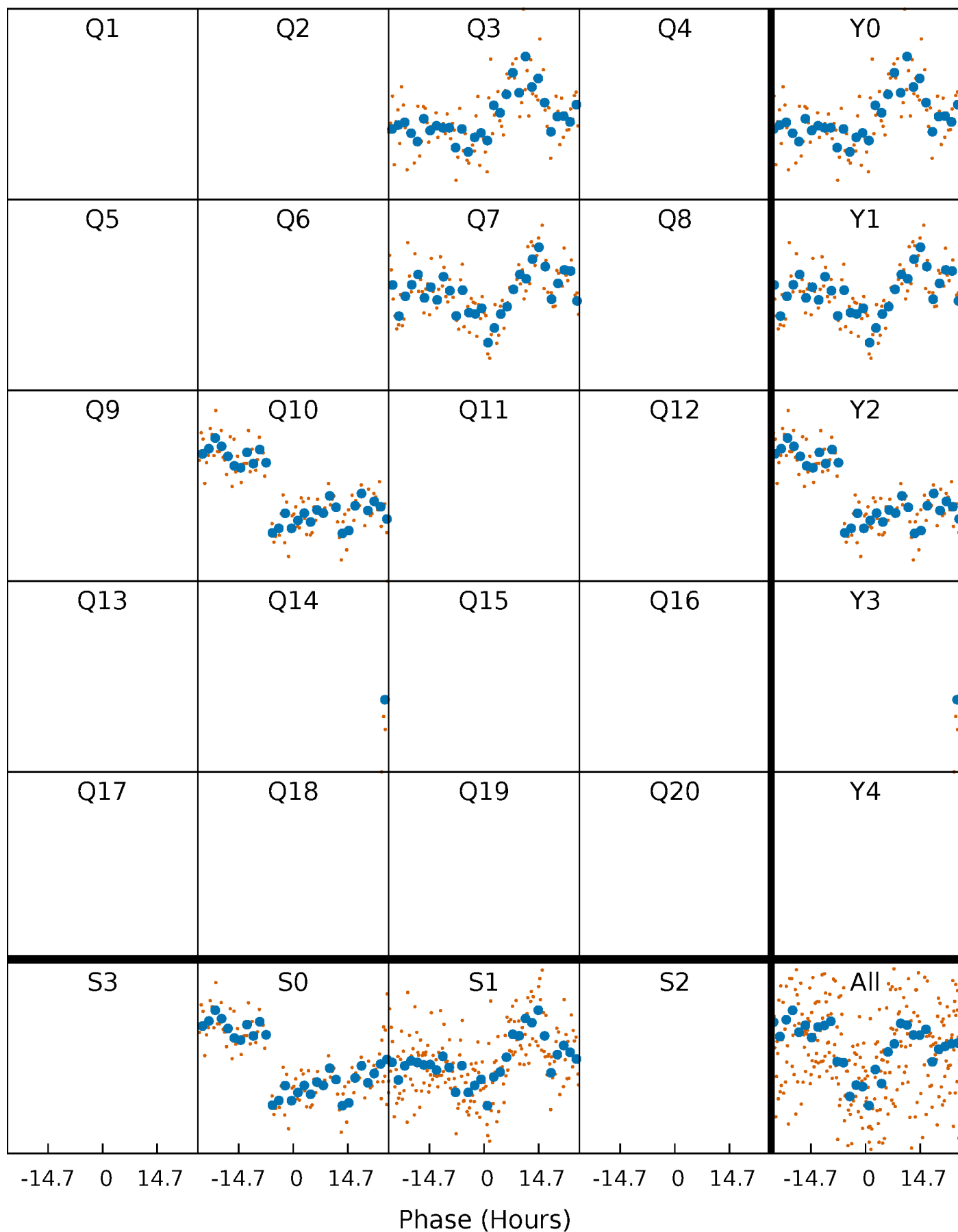


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



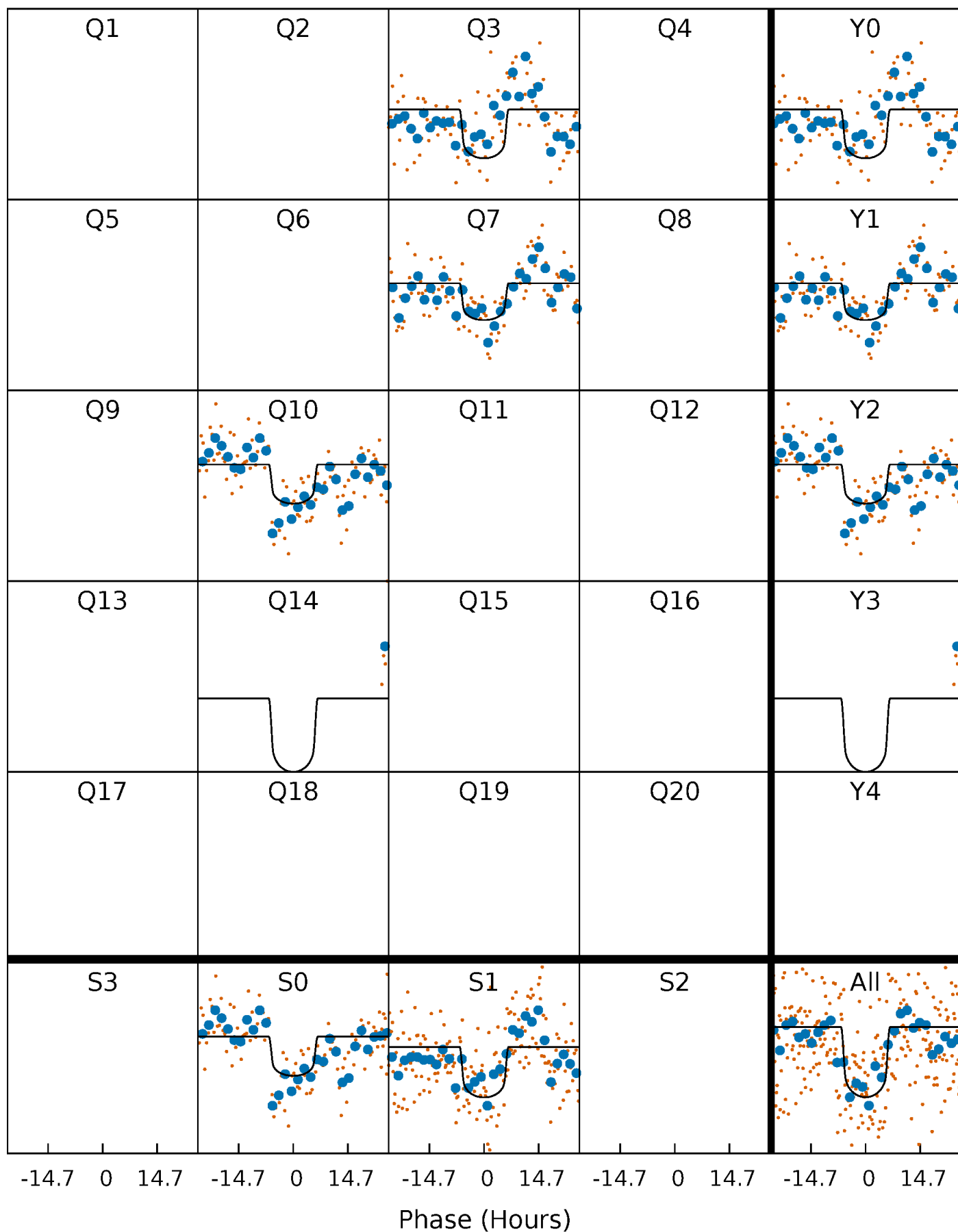
PDC Quarter-Phased Transit Curves

TCE 006600837-02 P=331.406500 Days $T_0=301.199690$ (BKJD)



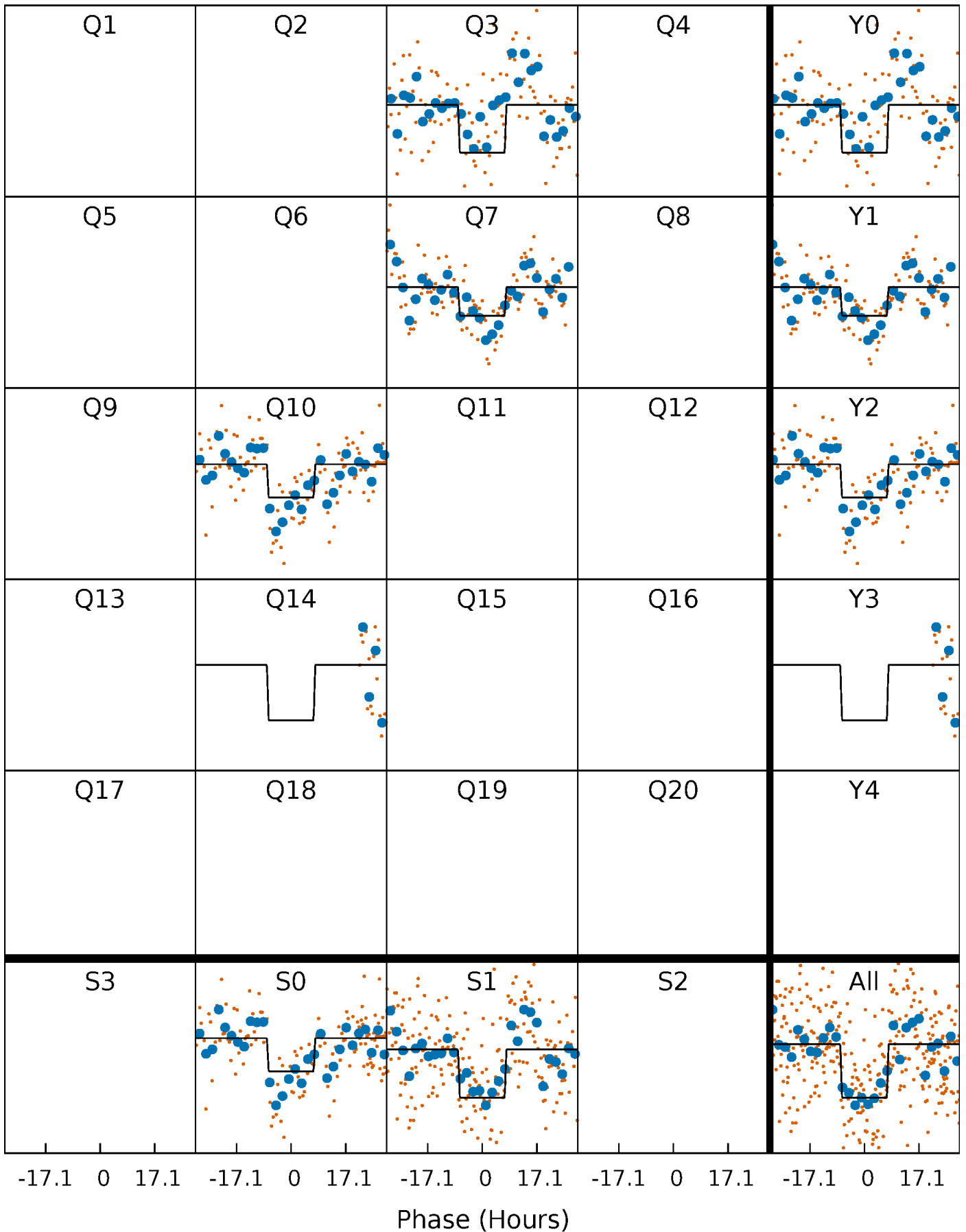
DV Quarter-Phased Transit Curves

TCE 006600837-02 $P=331.406500$ Days $T_0=301.199690$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

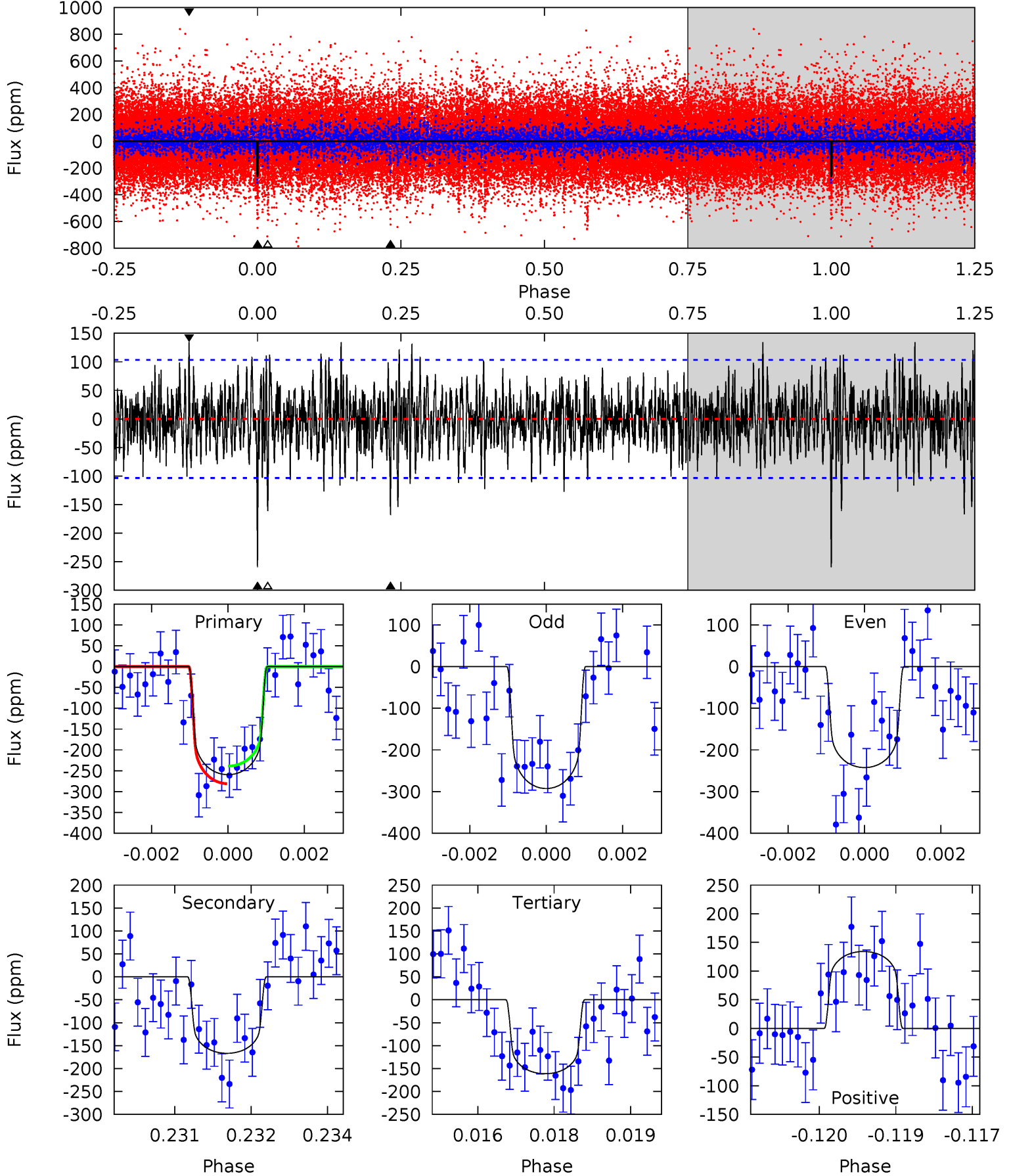
TCE 006600837-02 P=331.466399 Days $T_0=301.117472$ (BKJD)



DV Model-Shift Uniqueness Test

006600837-02, P = 331.406500 Days, E = 301.199690 Days

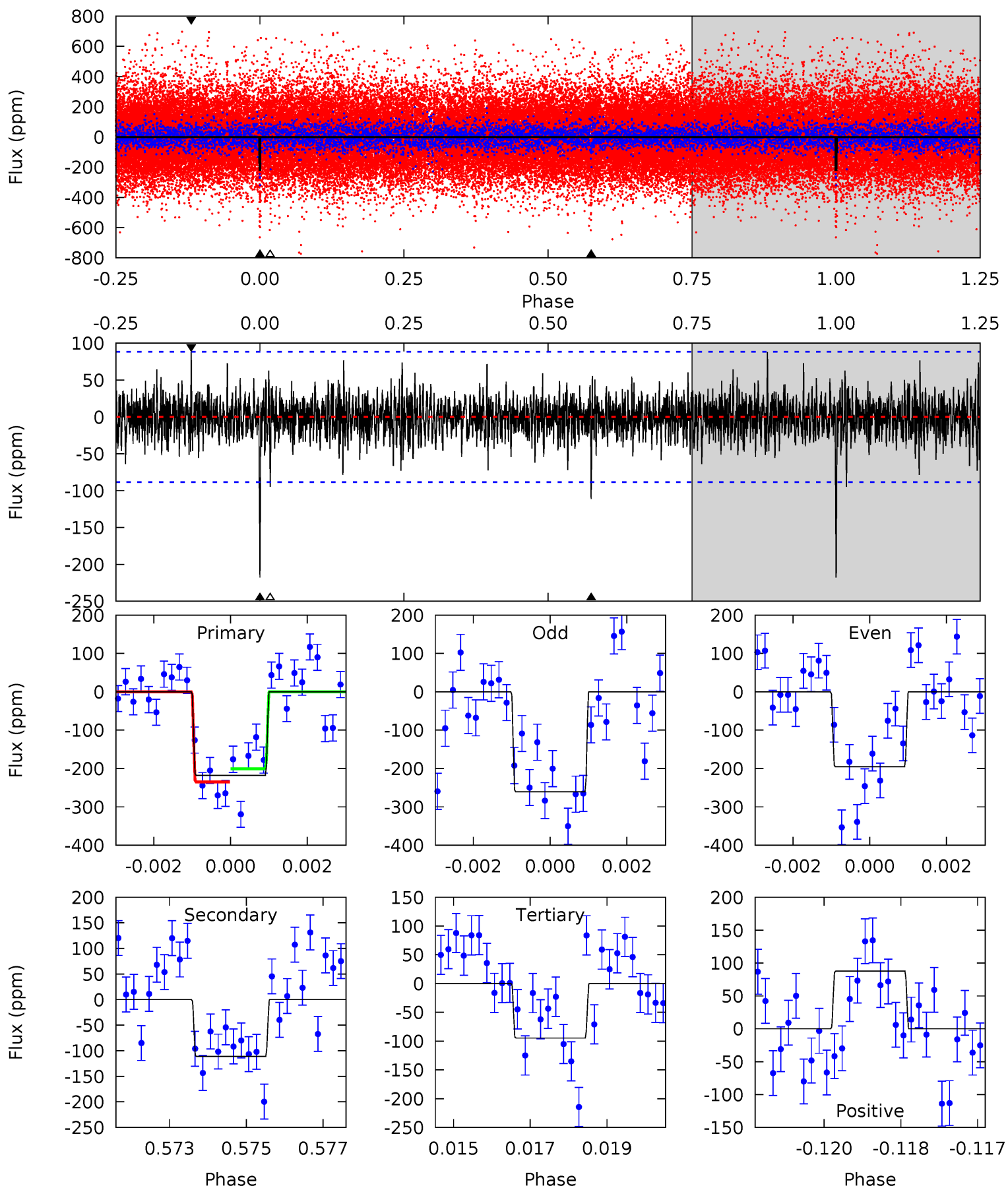
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	8.65	8.36	6.96	5.36	3.15	1.99	5.08	6.48	0.28	1.69	1.23	0.89	0.34	1.10



Alt Model-Shift Uniqueness Test

006600837-02, P = 331.466399 Days, E = 301.117472 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	6.71	5.71	5.29	5.33	3.10	1.20	7.41	7.84	0.99	1.42	1.88	0.84	0.29	1.04



Stellar Parameters For KIC 006600837

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6157^{+217}_{-217}	$3.827^{+0.488}_{-0.122}$	$-0.100^{+0.300}_{-0.300}$	$2.306^{+0.493}_{-1.150}$	$1.302^{+0.190}_{-0.309}$	$0.150^{+0.745}_{-0.053}$
	+4%/-4%	+13%/-3%	+300%/-300%	+21%/-50%	+15%/-24%	+498%/-35%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006600837-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-167 ± 19	$4.18^{+1.11}_{-1.14}$	554^{+50}_{-72}	5278^{+500}_{-386}	5595^{+4840}_{-2086}
Alt.	-111 ± 17	$3.44^{+1.15}_{-0.97}$	554^{+47}_{-68}	5199^{+540}_{-385}	5127^{+5080}_{-2077}

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

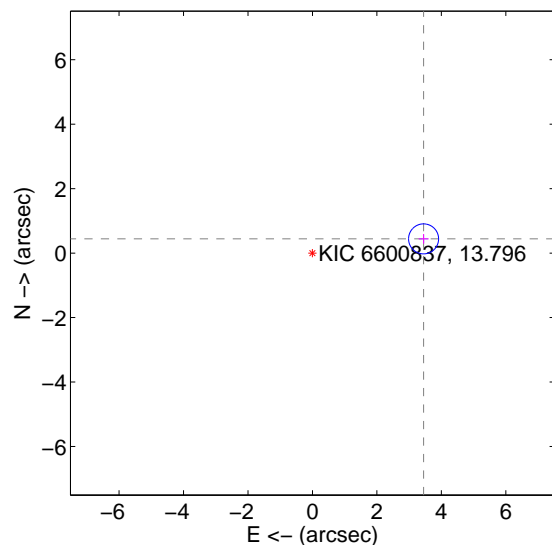
Supplemental centroid analysis for 006600837-02. Kepler magnitude: 13.80. Transit SNR 7.16

There are 1 quarters with good PRF difference image offsets

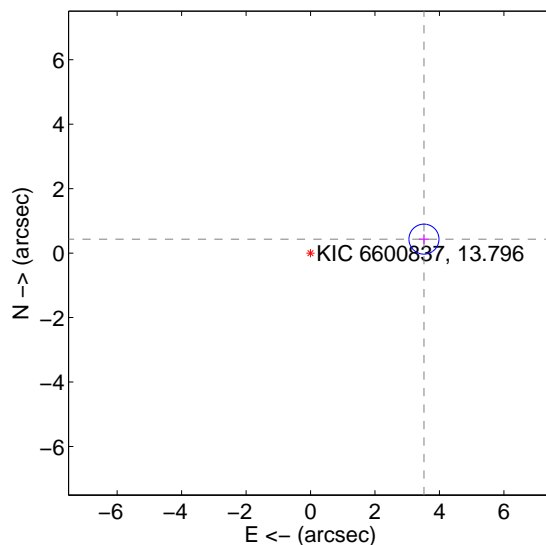
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.476 ± 0.155	22.40	-3.448 ± 0.155	0.441 ± 0.150
PRF-fit source offset from KIC position	3.545 ± 0.155	22.84	-3.519 ± 0.155	0.433 ± 0.150
photometric centroid source offset	1.30 ± 1.65	0.79	-1.01 ± 1.77	-0.83 ± 1.46

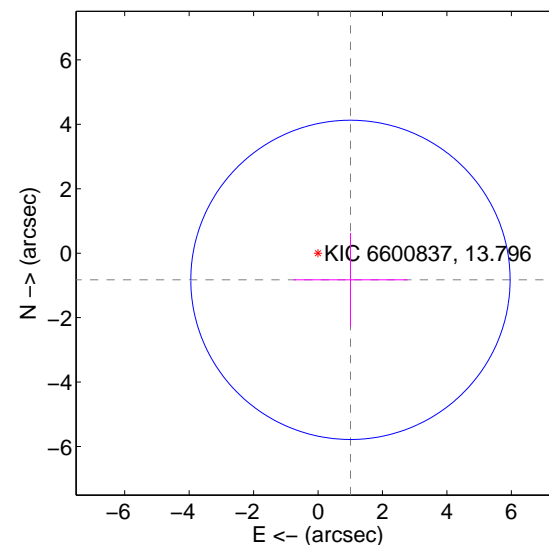
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

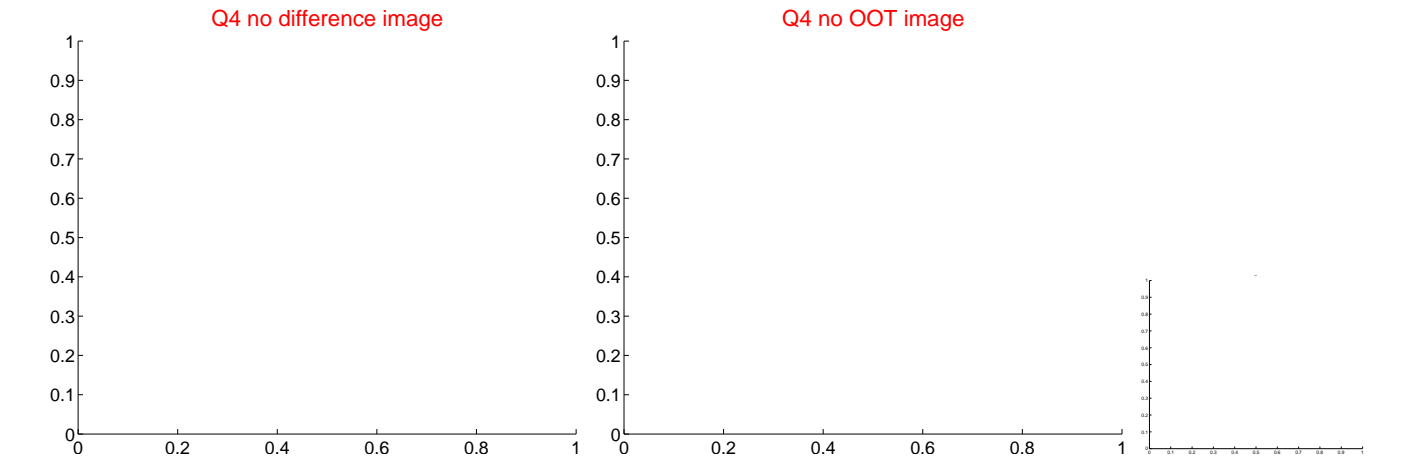
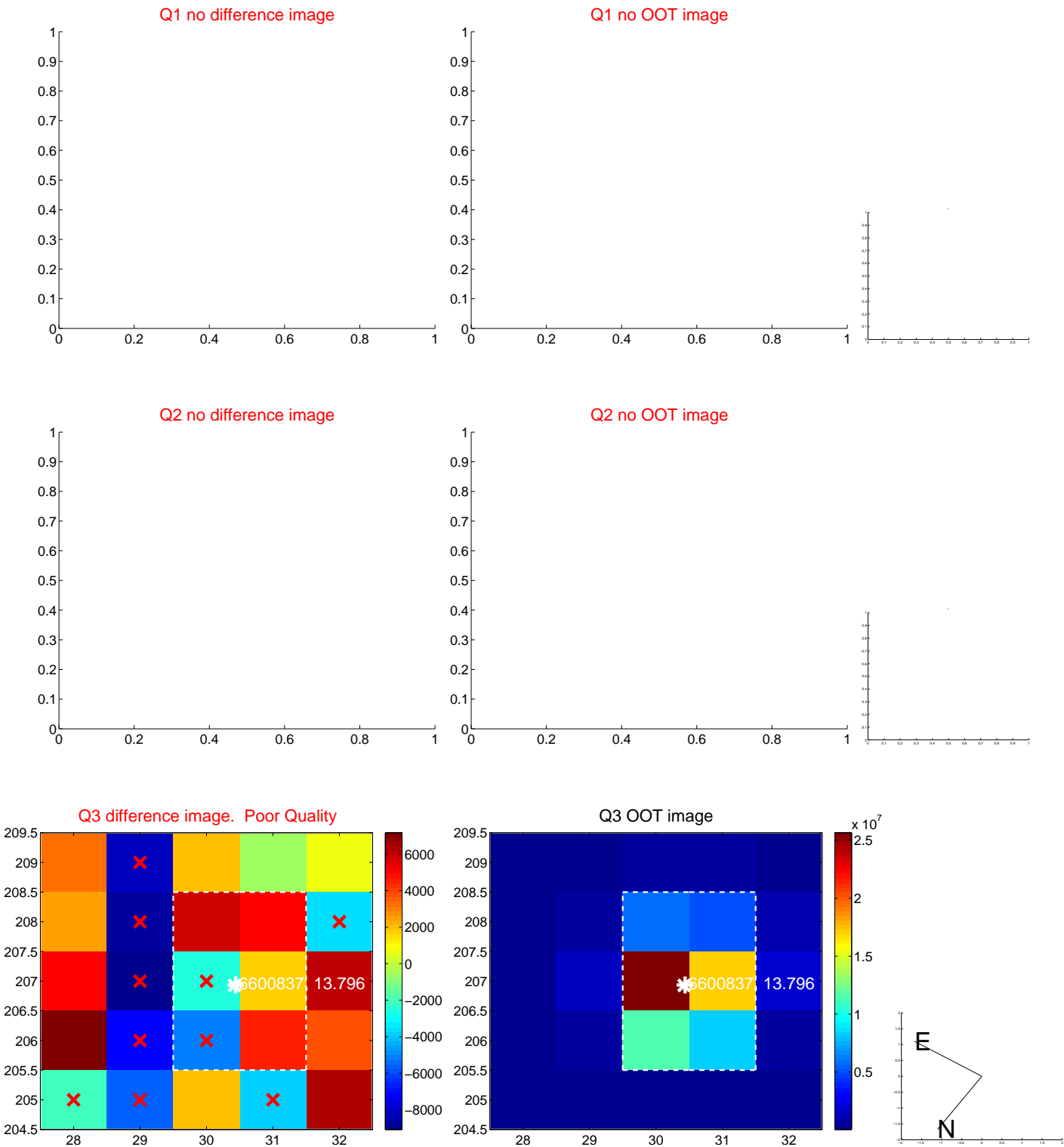


offset from photometric centroids



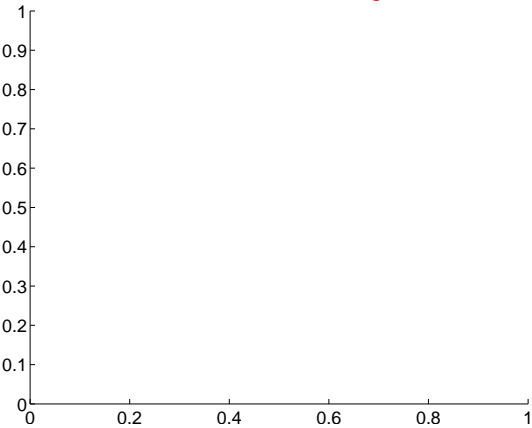
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

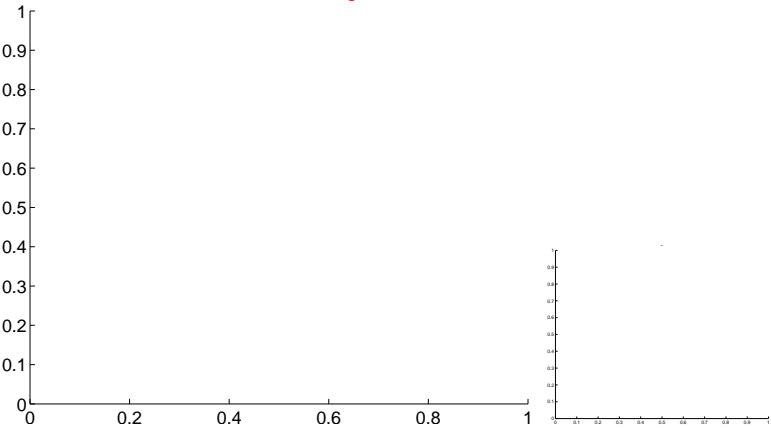


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

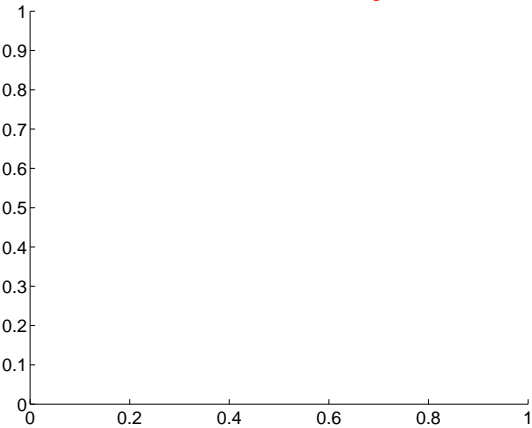
Q5 no difference image



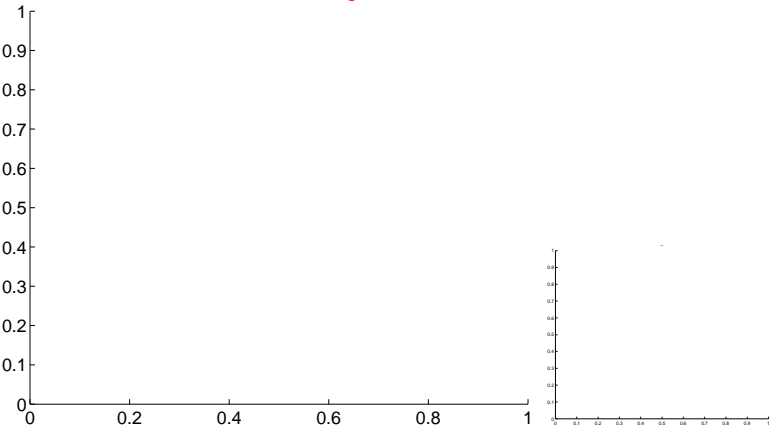
Q5 no OOT image



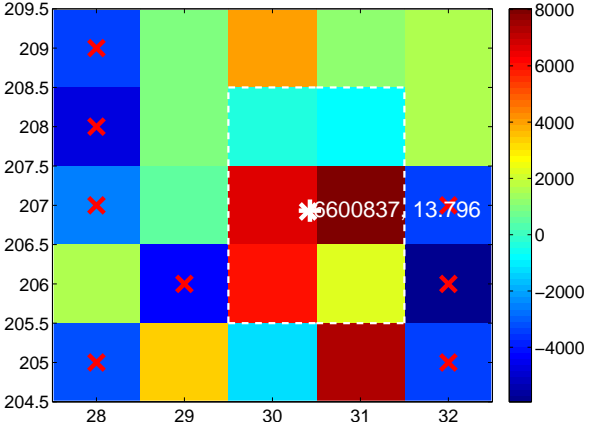
Q6 no difference image



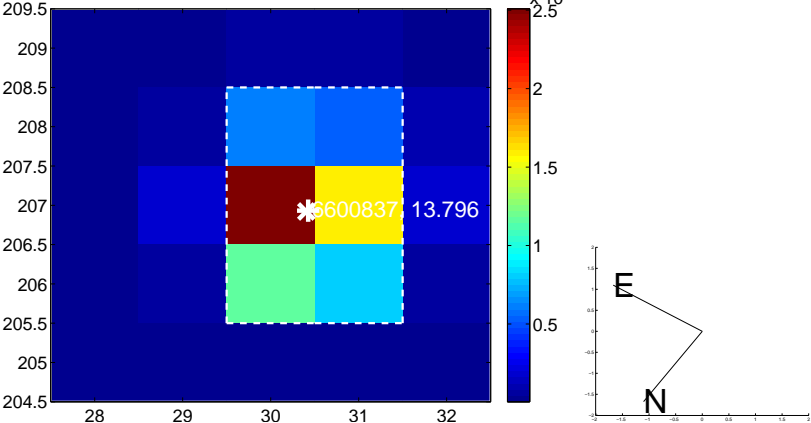
Q6 no OOT image



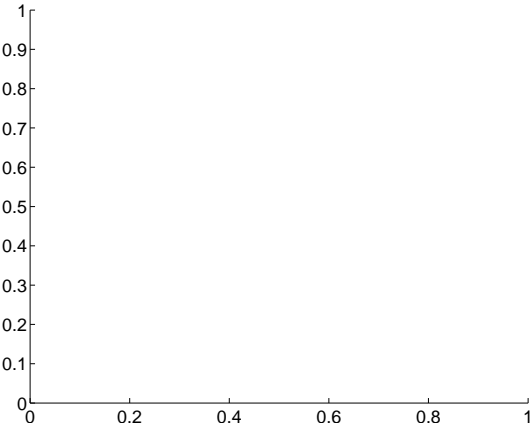
Q7 difference image. Poor Quality



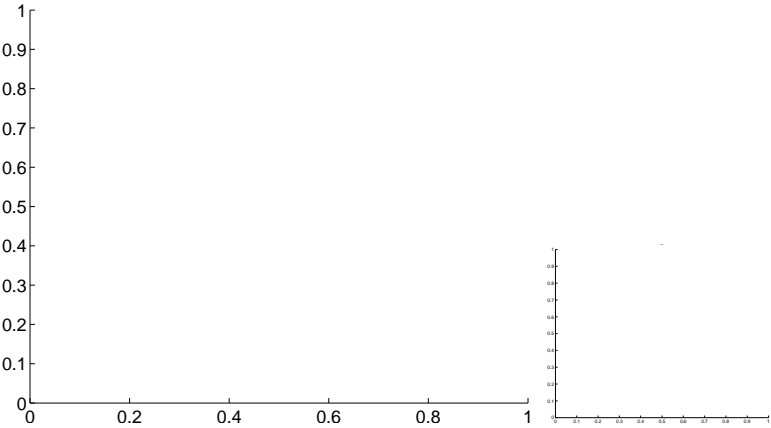
Q7 OOT image



Q8 no difference image

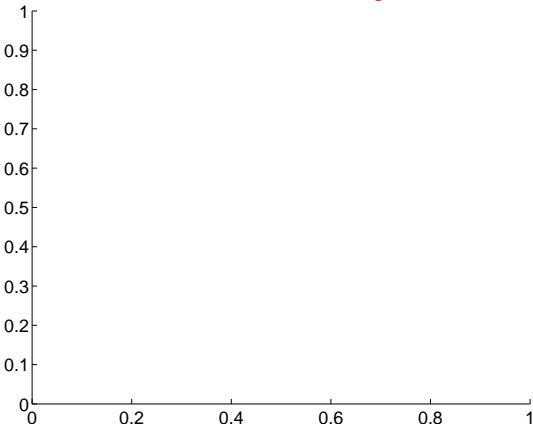


Q8 no OOT image

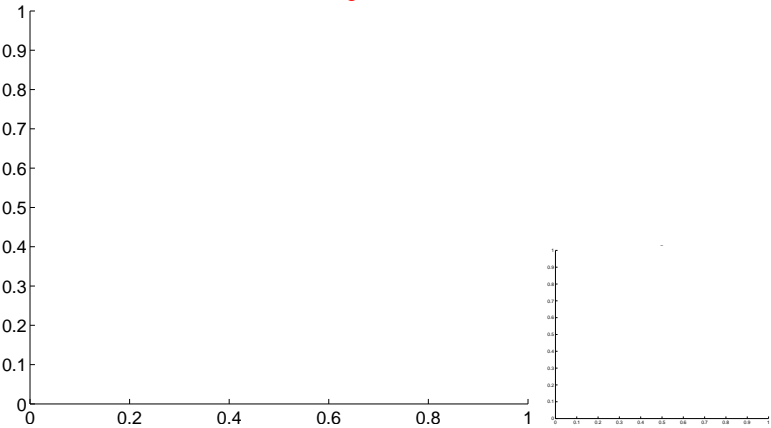


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

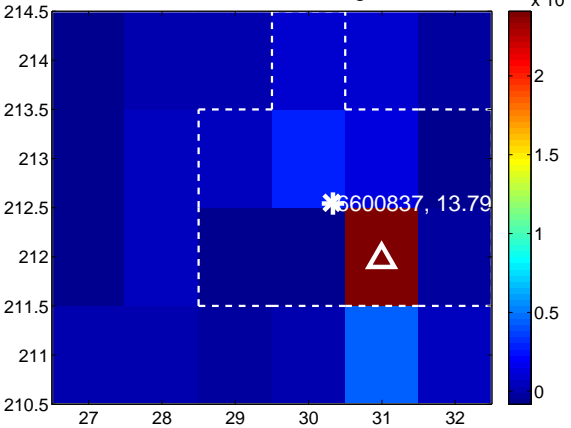
Q9 no difference image



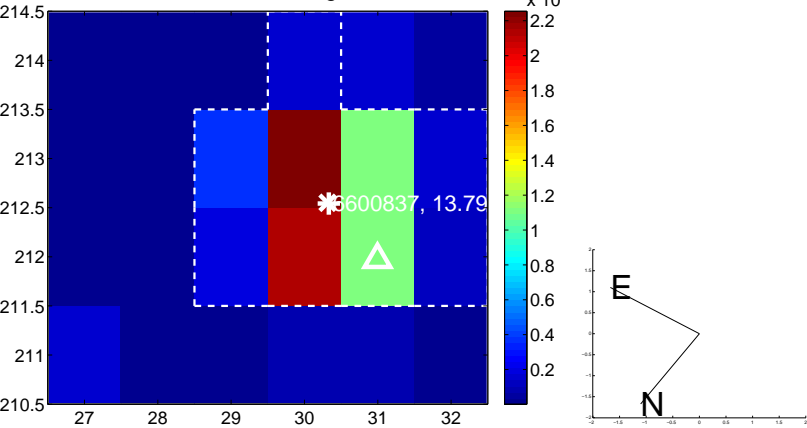
Q9 no OOT image



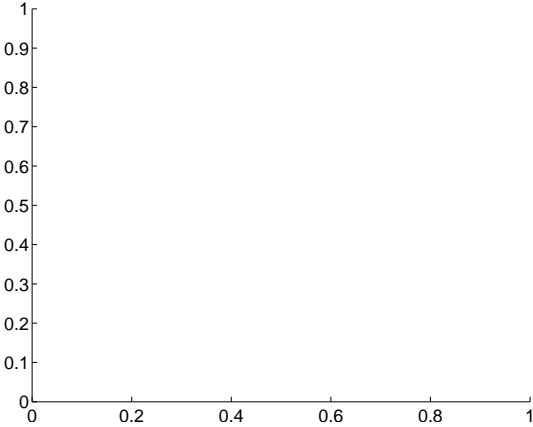
Q10 difference image



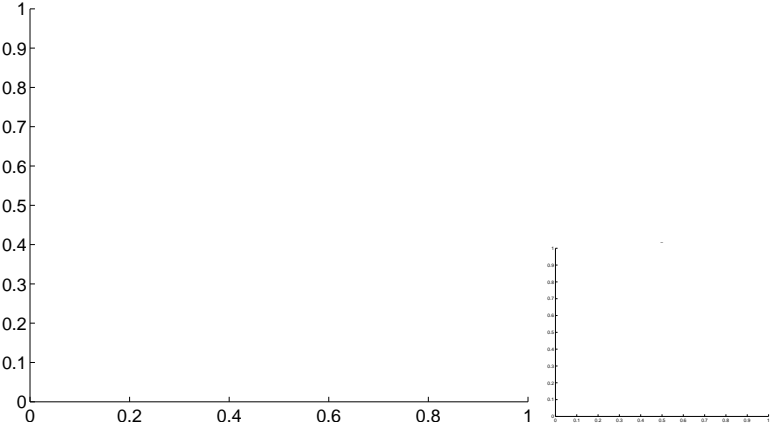
Q10 OOT image



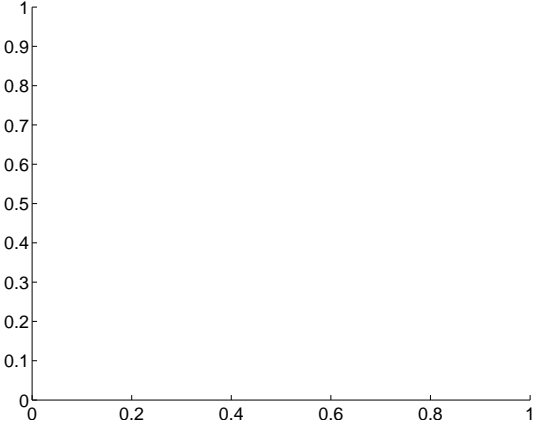
Q11 no difference image



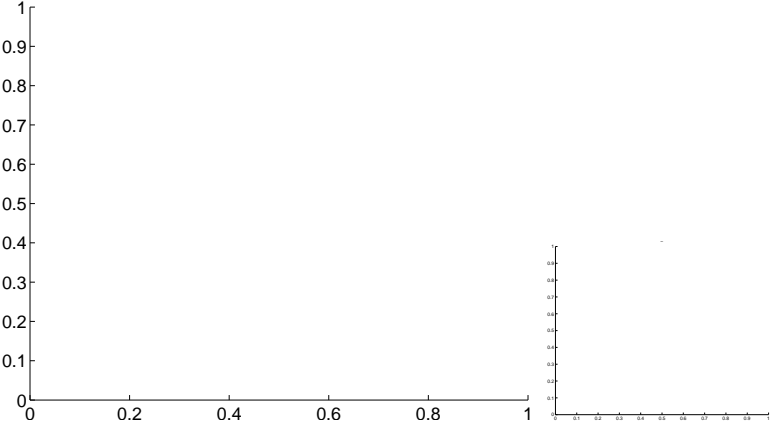
Q11 no OOT image



Q12 no difference image



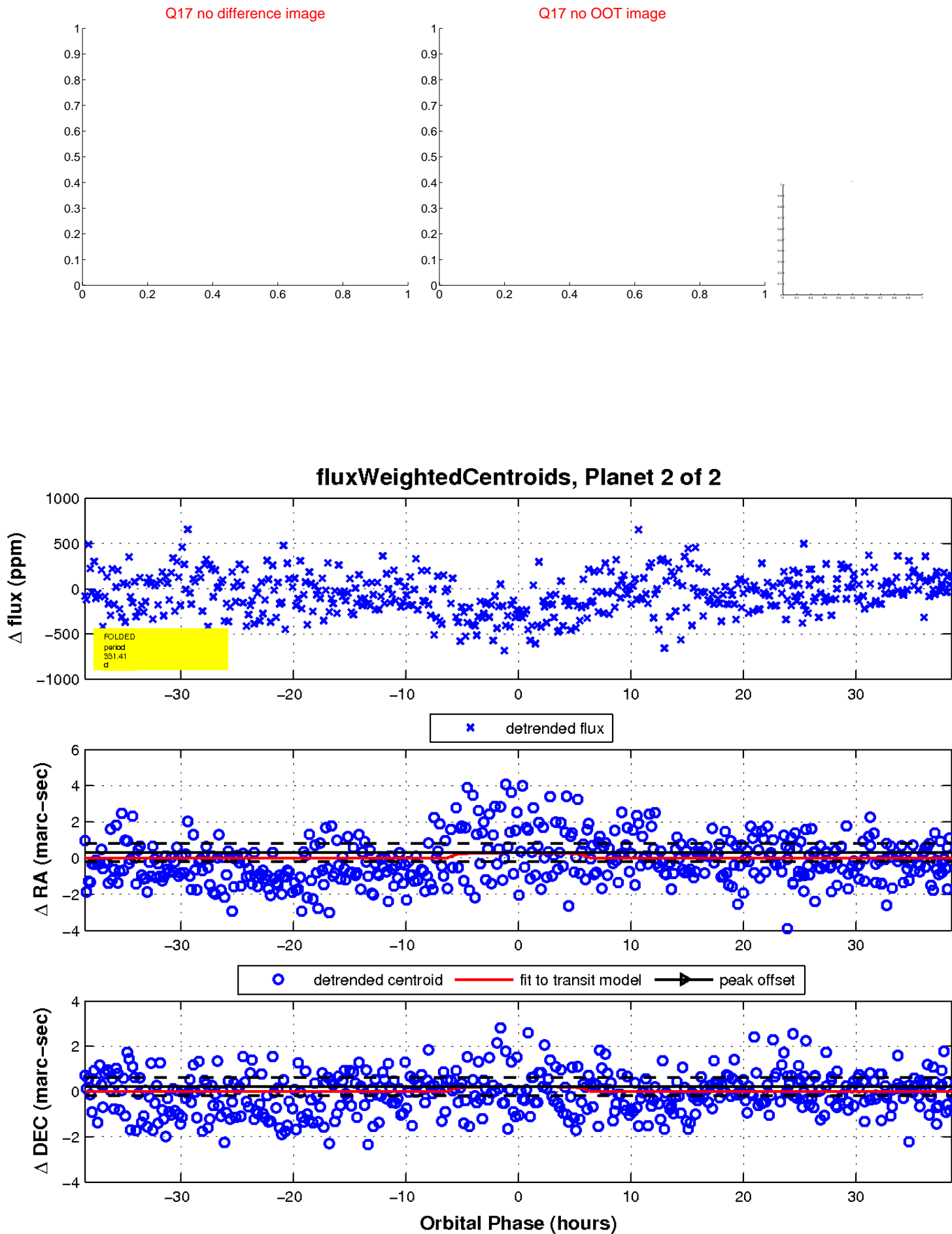
Q12 no OOT image



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



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



UKIRT Image

Declination

