

KIC 007833125

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})
007833125-01	OBS	No	338.431775	263.094000	1556.5	19.066	13.2	13.8	1.10	5888	5.03	1.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007833125-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—INCONSISTENT_TRANS—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.

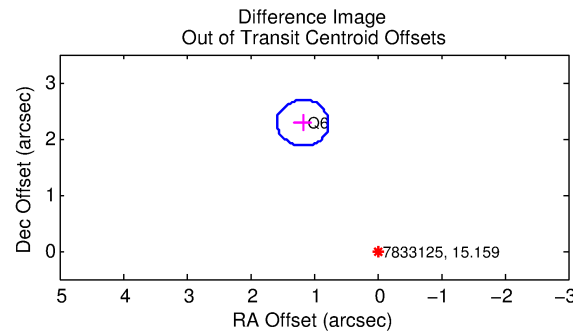
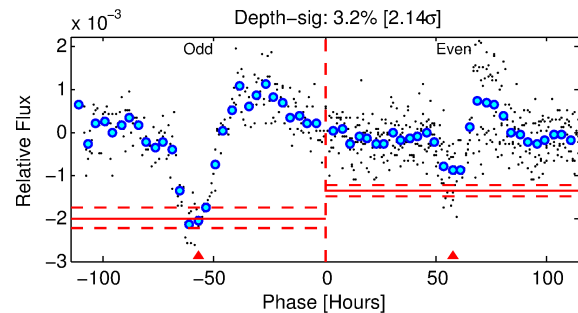
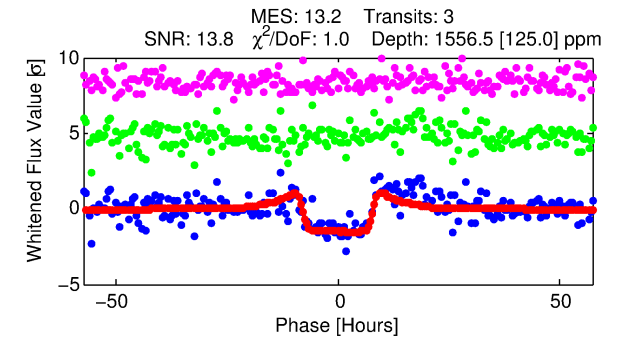
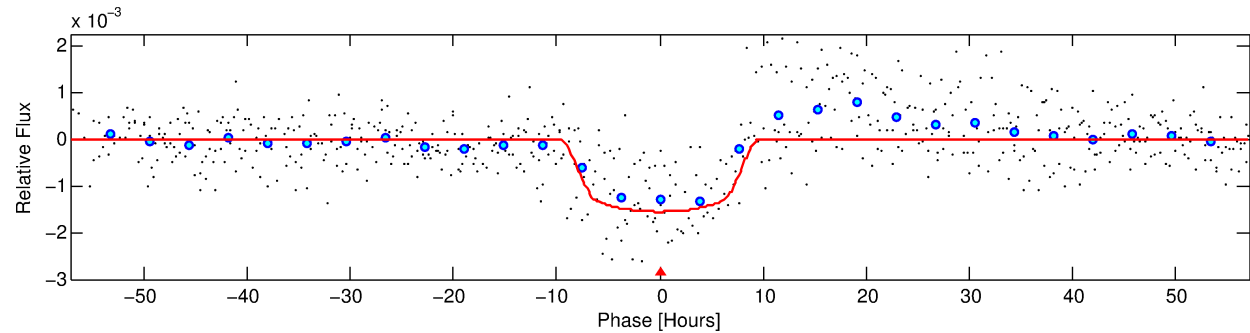
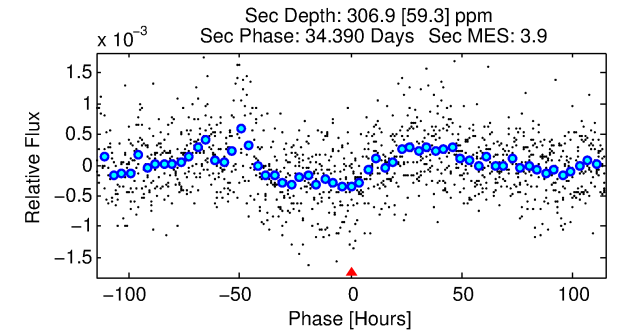
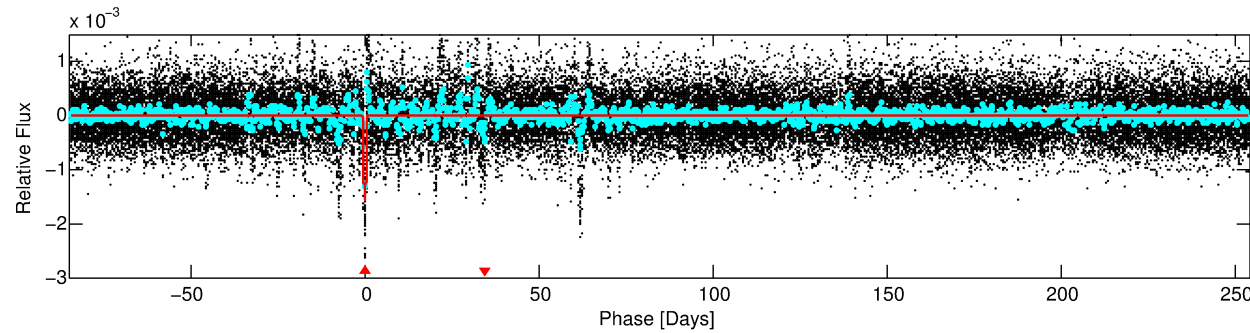
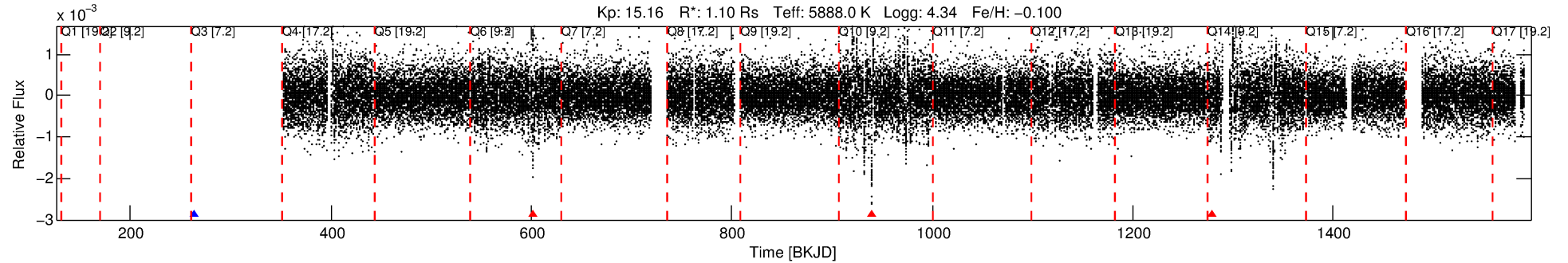
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007833125-01

No Significant Match Found

DV One-Page Summary

KIC: 7833125 Candidate: 1 of 1 Period: 338.432 d



DV Fit Results:

Period = 338.43178 [0.01114] d
Epoch = 263.0940 [0.0229] BKJD
Rp/R* = 0.0420 [0.0024]
a/R* = 76.06 [12.51]
b = 0.88 [0.04]
Seff = 1.47 [0.55]
Teq = 281 [26] K
Rp = 5.03 [1.45] Re
a = 0.9393 [0.2220] AU
Ag = 5887.31 [2413.93] [2.44σ]
Teff = 3802 [253] K [13.83σ]

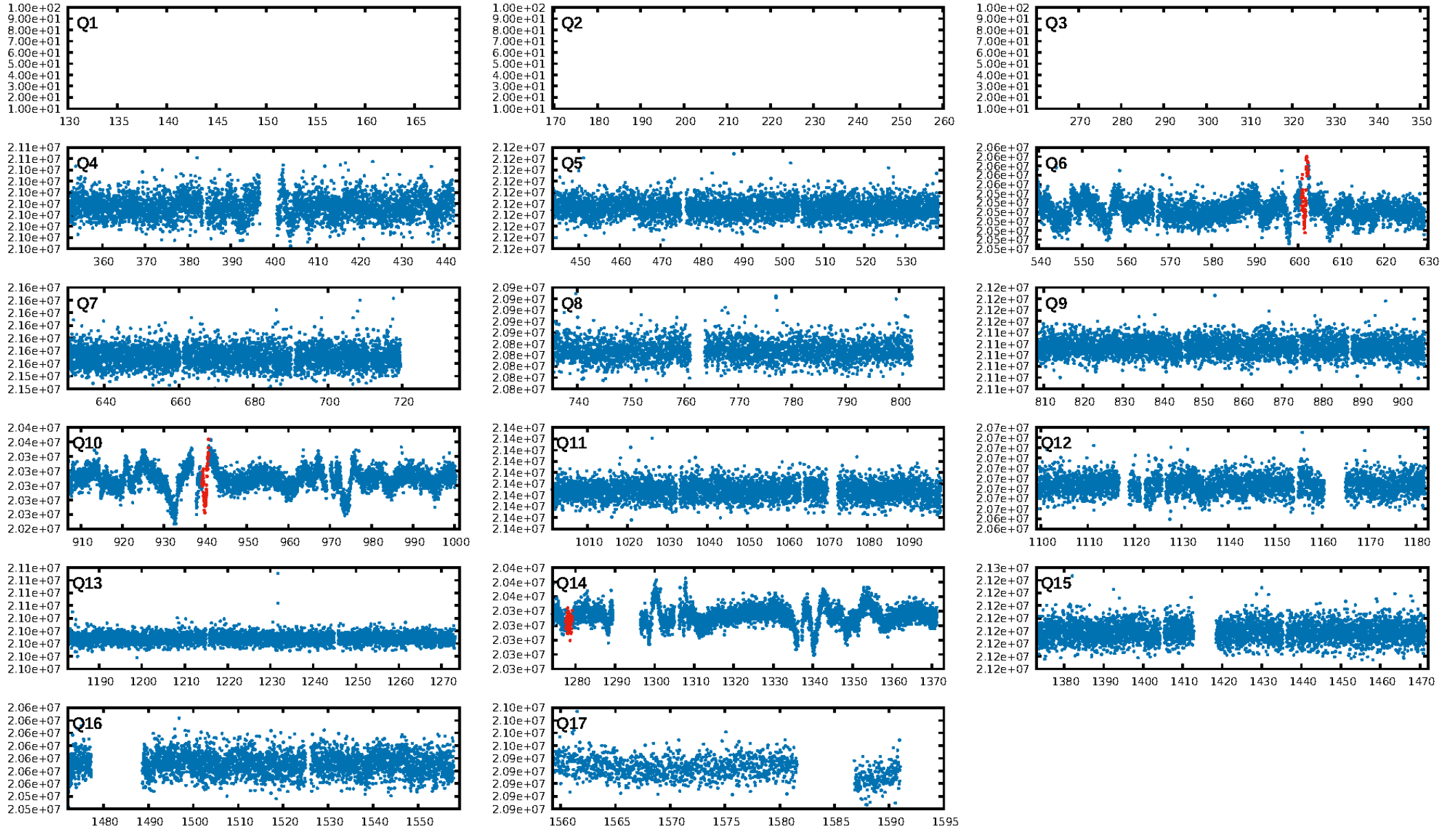
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.92e-19
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 0.8768
Centroid-sig: 39.1%
Centroid-so: 0.367 arcsec [0.41σ]
OotOffset-rm: 2.564 arcsec [18.81σ]
KicOffset-rm: 2.643 arcsec [19.40σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

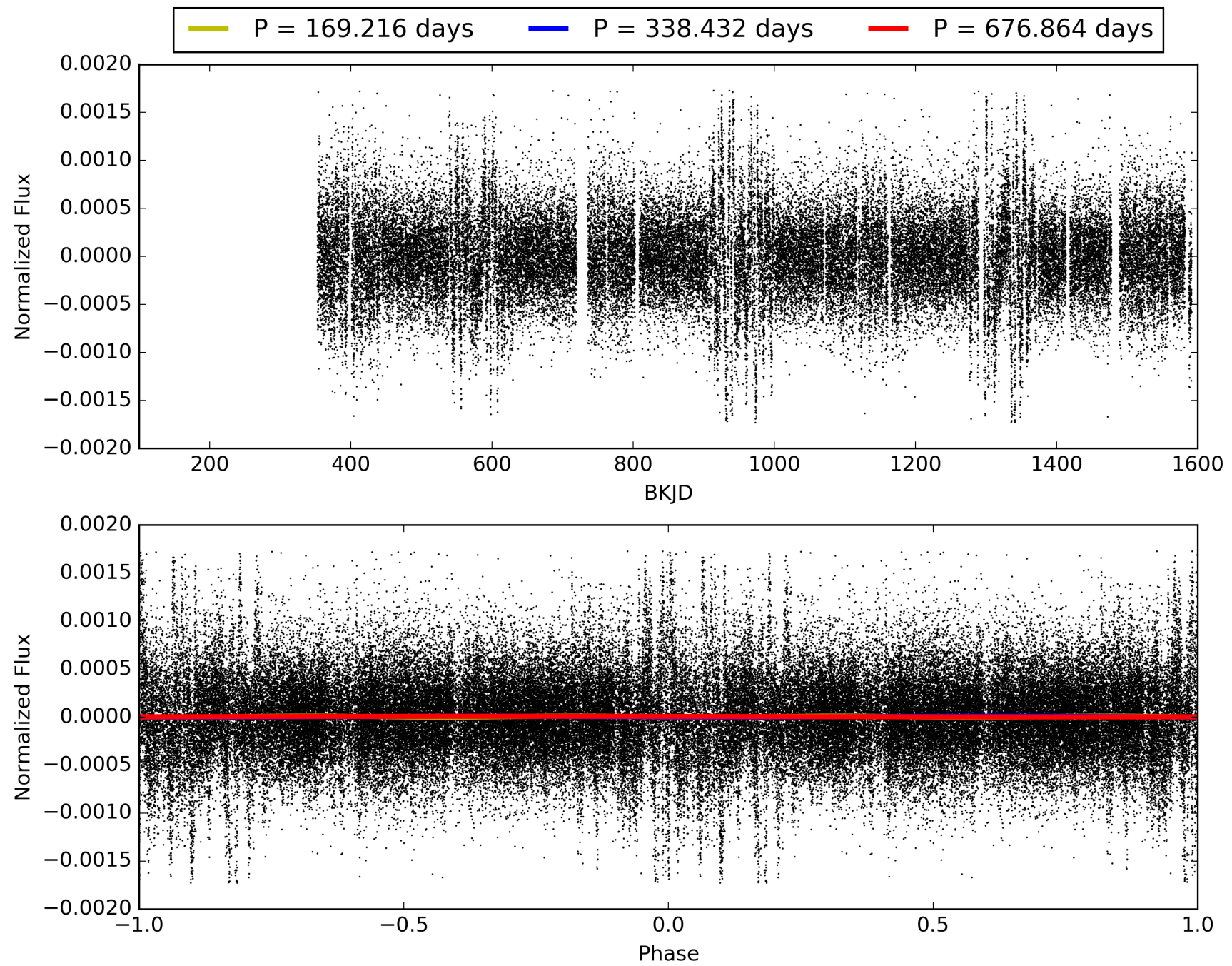
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:13:40 Z

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

TCE 007833125-01, PDC Light Curves

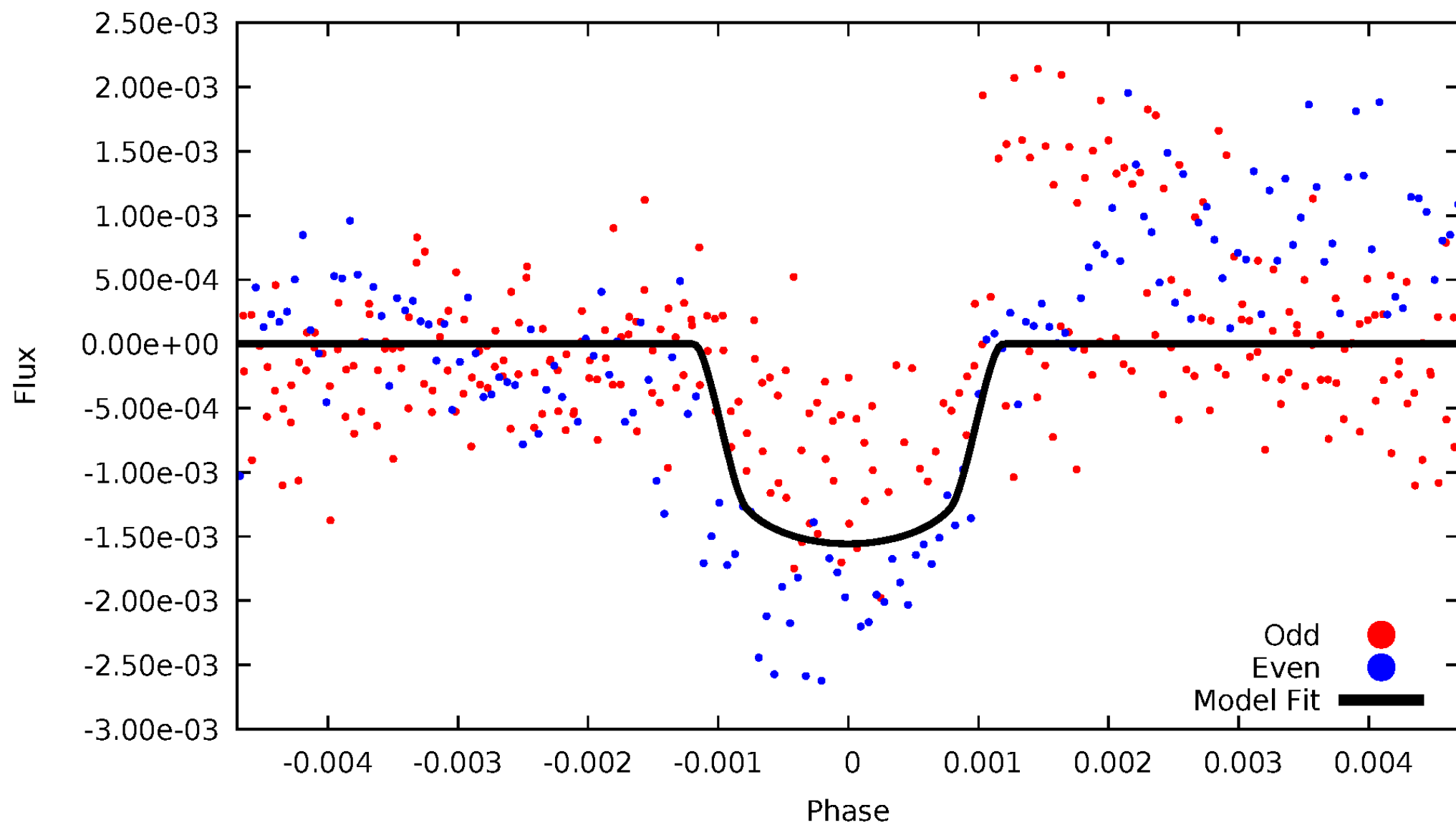


TCE 007833125-01



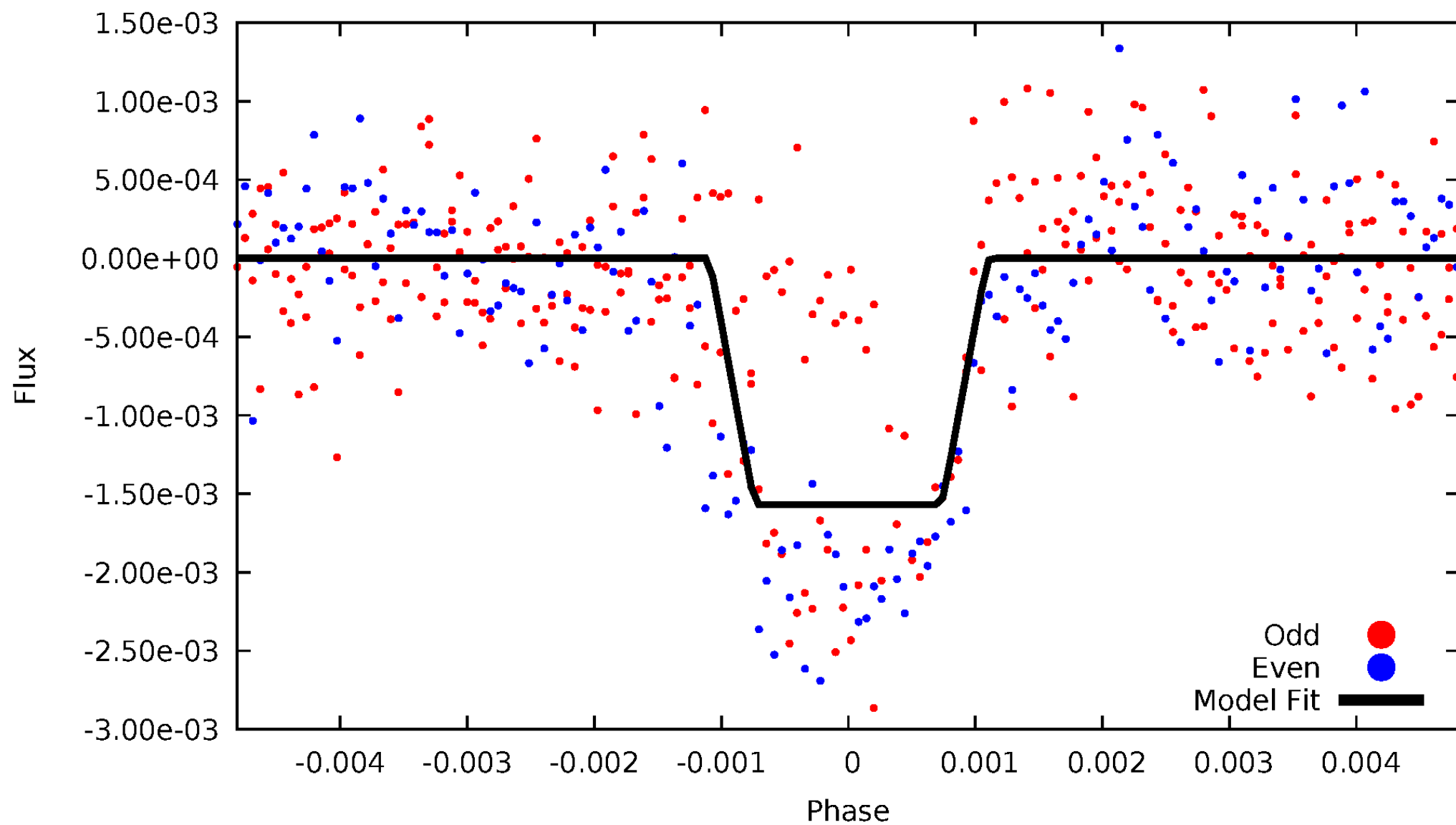
DV Odd/Even

TCE 007833125-01

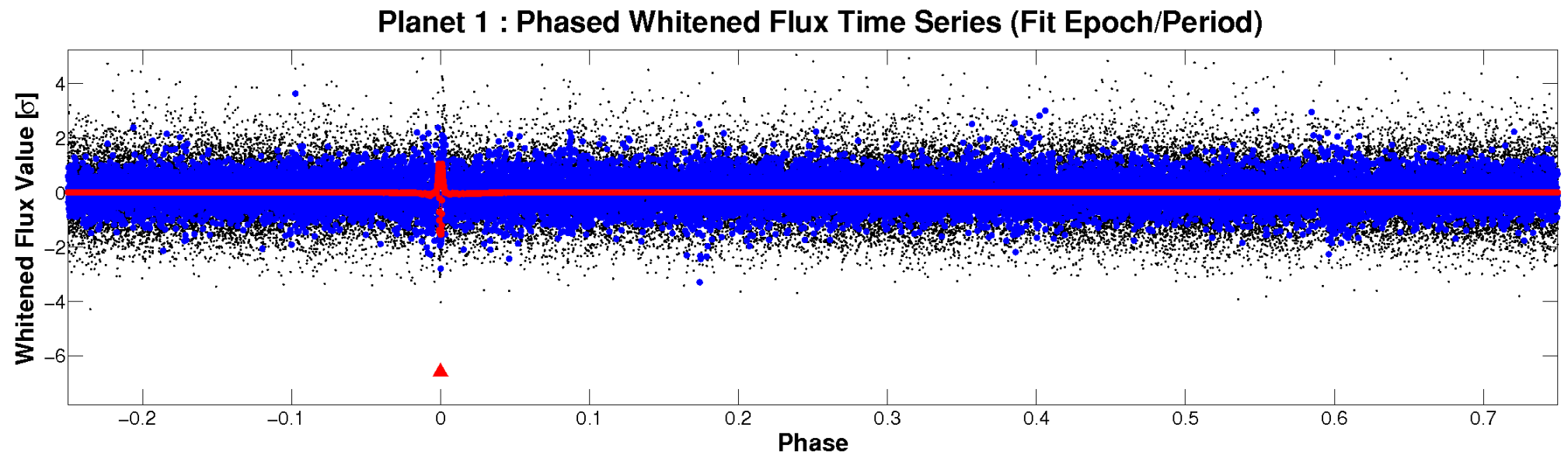
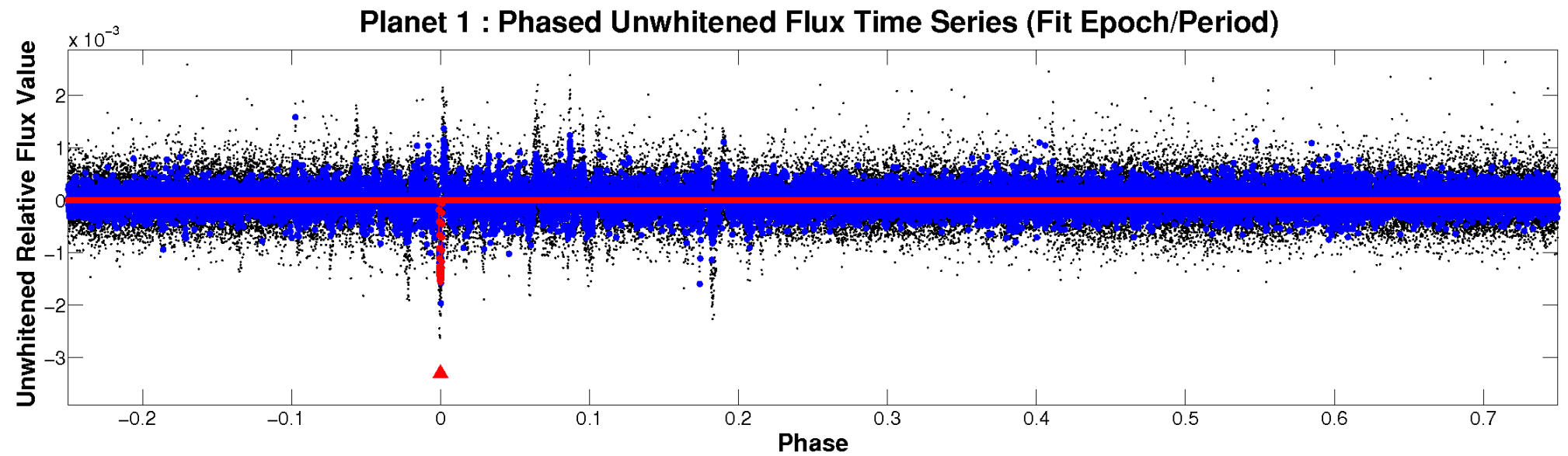


ALT Odd/Even

TCE 007833125-01

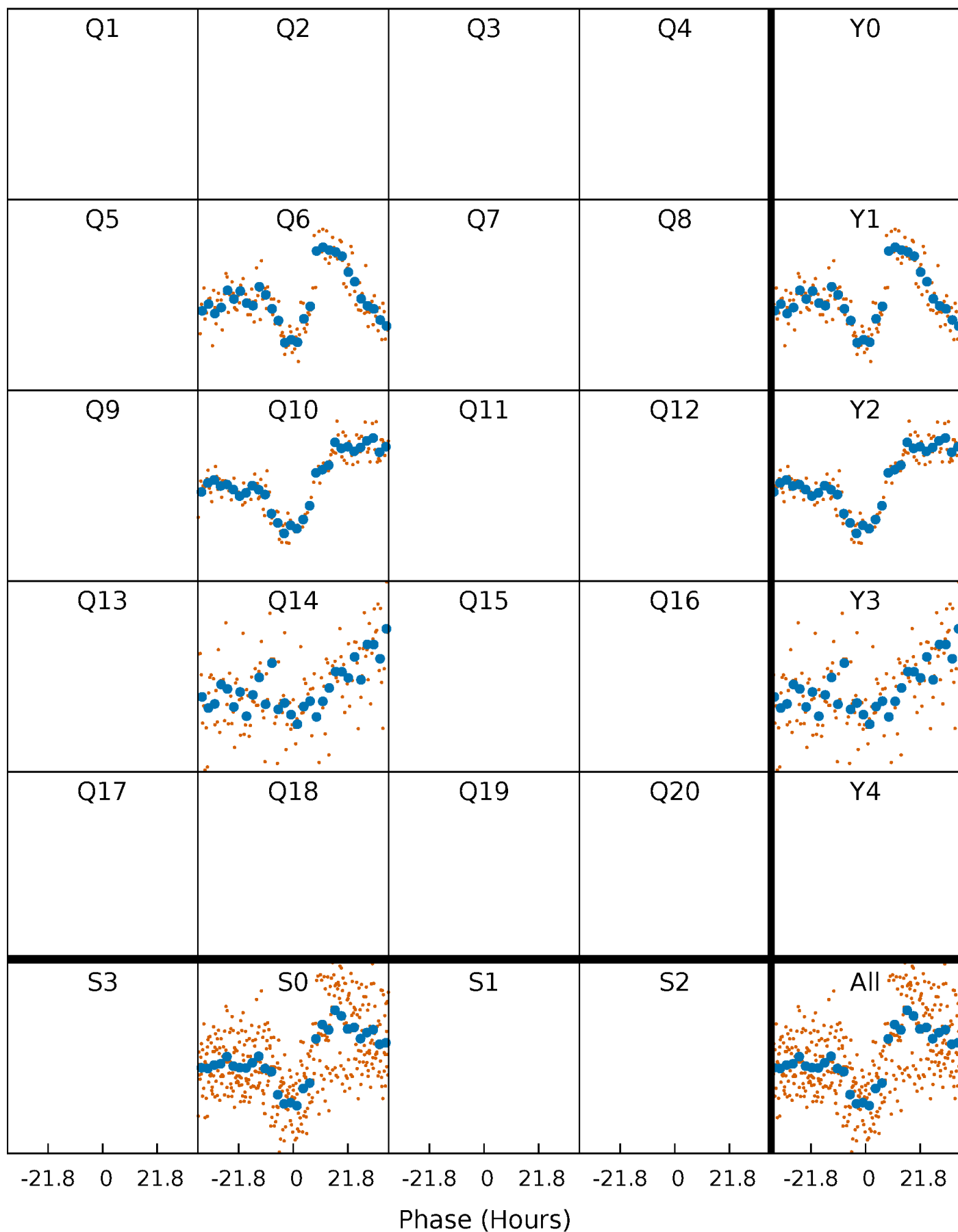


Non-Whitened Vs. Whitened Light Curve



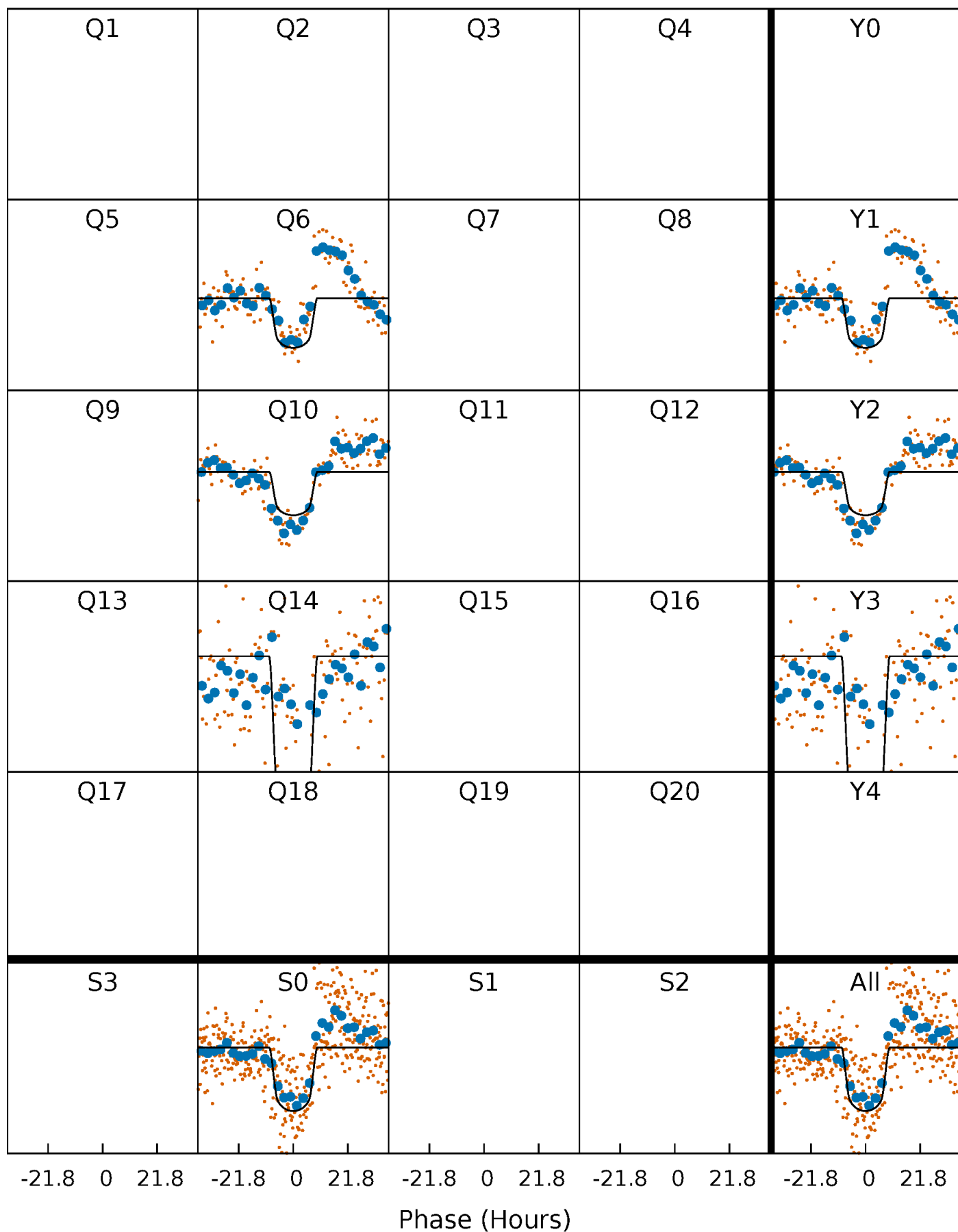
PDC Quarter-Phased Transit Curves

TCE 007833125-01 P=338.431775 Days $T_0=263.094000$ (BKJD)



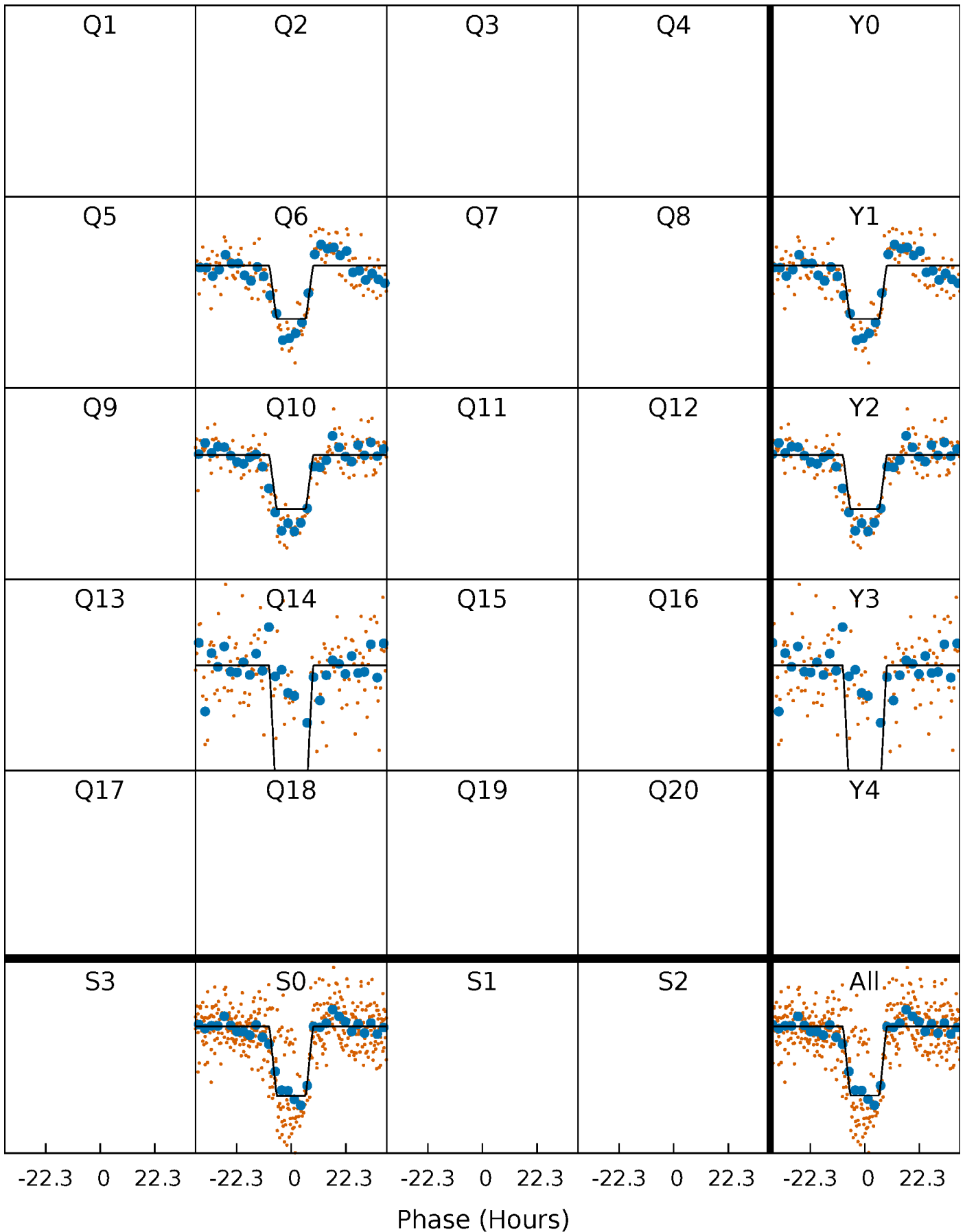
DV Quarter-Phased Transit Curves

TCE 007833125-01 P=338.431775 Days $T_0=263.094000$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

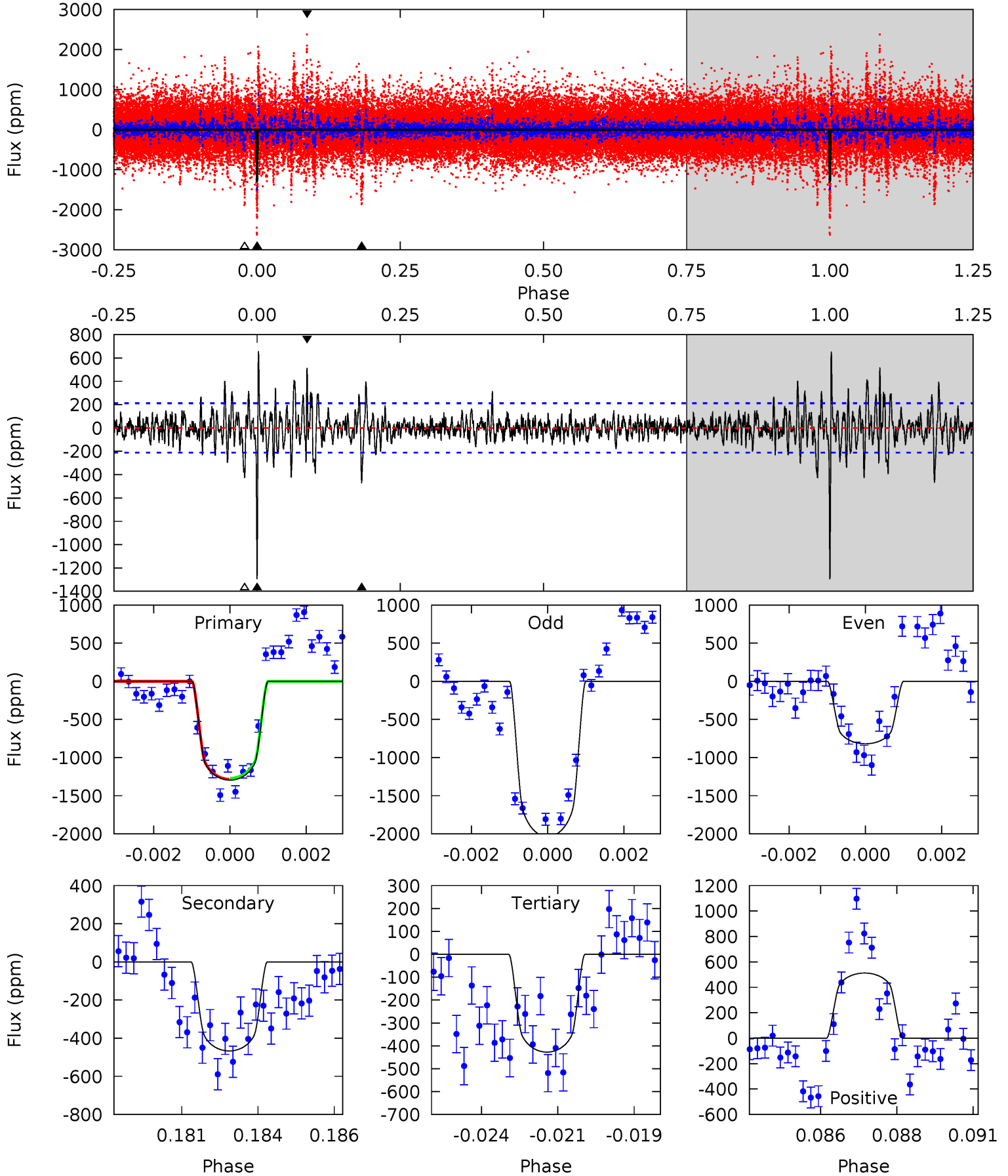
TCE 007833125-01 P=338.420621 Days $T_0=263.121306$ (BKJD)



DV Model-Shift Uniqueness Test

007833125-01, P = 338.431775 Days, E = 263.094000 Days

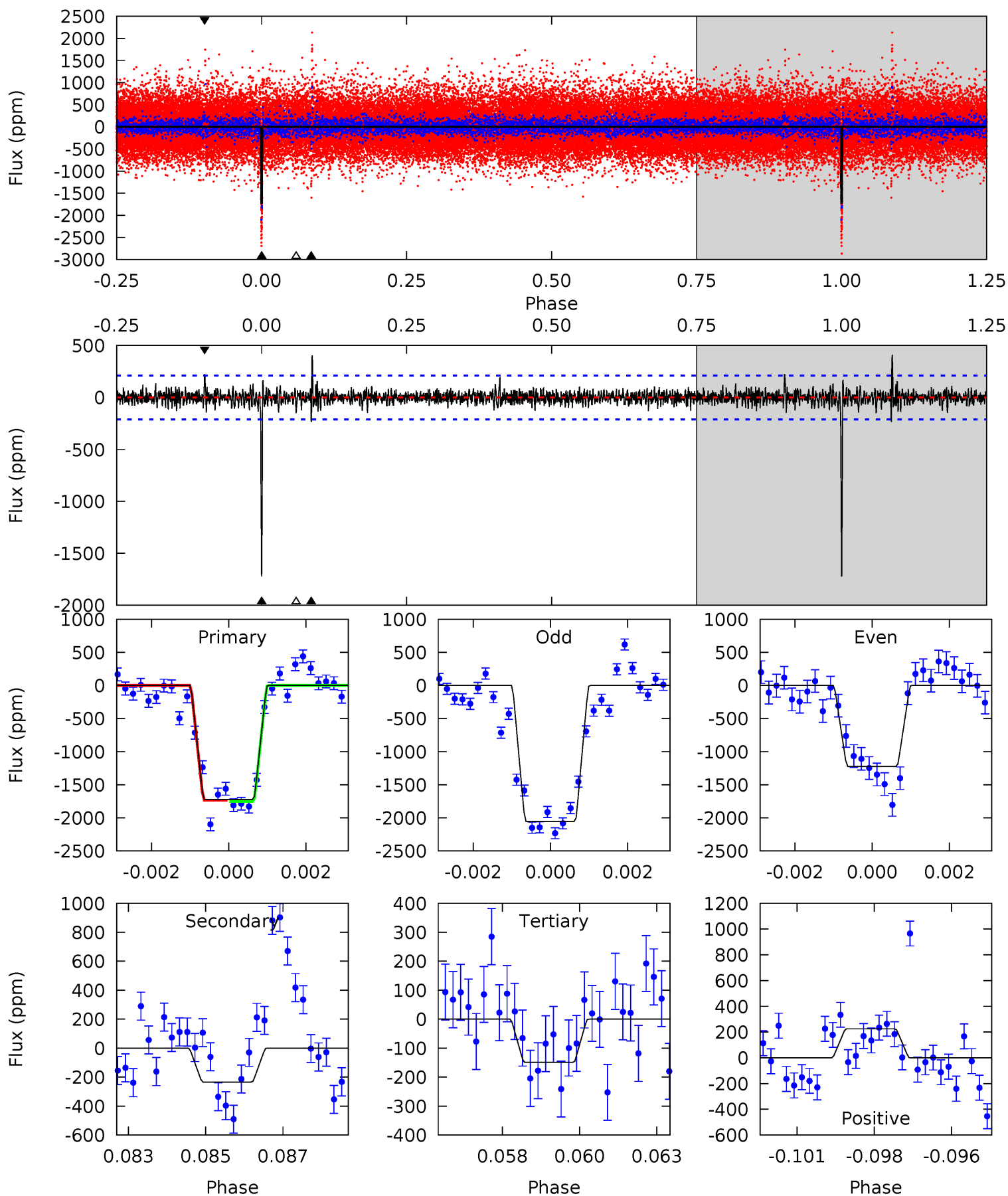
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.4	11.7	10.7	12.8	5.29	3.04	2.31	21.7	19.6	0.99	-1.14	14.8	1.11	0.34	0.17



Alt Model-Shift Uniqueness Test

007833125-01, P = 338.420621 Days, E = 263.121306 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.3	5.88	3.75	5.65	5.31	3.06	1.03	39.5	37.6	2.13	0.23	10.6	0.74	0.19	0.21



Stellar Parameters For KIC 007833125

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5888^{+176}_{-211}	$4.342^{+0.153}_{-0.187}$	$-0.100^{+0.300}_{-0.300}$	$1.097^{+0.309}_{-0.206}$	$0.966^{+0.140}_{-0.115}$	$1.031^{+0.754}_{-0.504}$
	+3%/-4%	+4%/-4%	+300%/-300%	+28%/-19%	+14%/-12%	+73%/-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 007833125-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-467 ± 40	$5.06^{+0.85}_{-0.64}$	395^{+27}_{-27}	4420^{+166}_{-165}	8806^{+2685}_{-2213}
Alt.	-234 ± 40	$4.79^{+0.78}_{-0.63}$	393^{+28}_{-24}	3969^{+178}_{-171}	4857^{+1792}_{-1405}

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

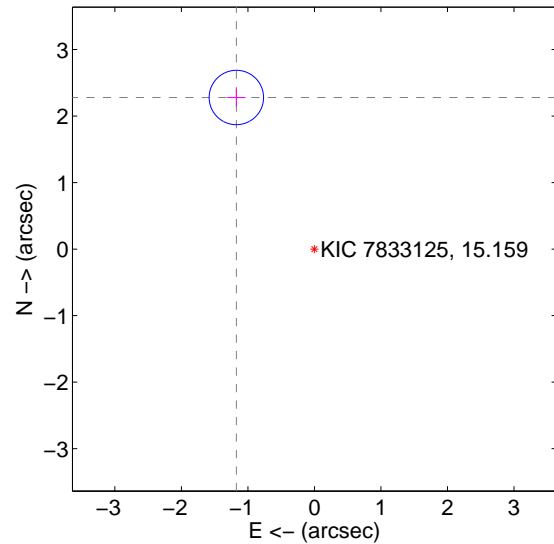
Supplemental centroid analysis for 007833125-01. Kepler magnitude: 15.16. Transit SNR 13.85

There are 0 quarters with good PRF difference image offsets

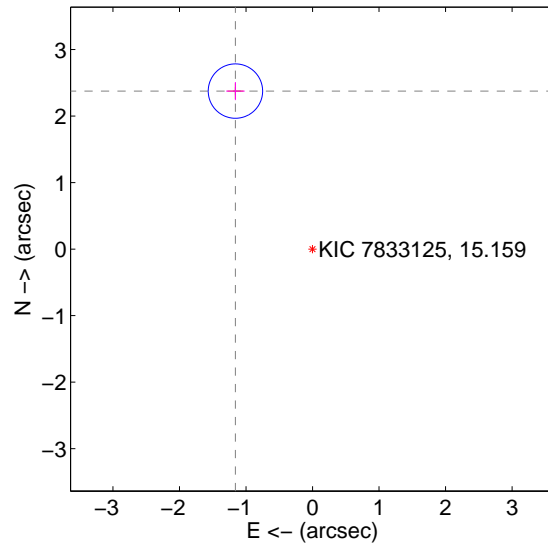
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.564 ± 0.136	18.81	1.174 ± 0.138	2.279 ± 0.136
PRF-fit source offset from KIC position	2.643 ± 0.136	19.40	1.159 ± 0.138	2.376 ± 0.136
photometric centroid source offset	0.37 ± 0.89	0.41	-0.12 ± 1.09	-0.35 ± 0.86

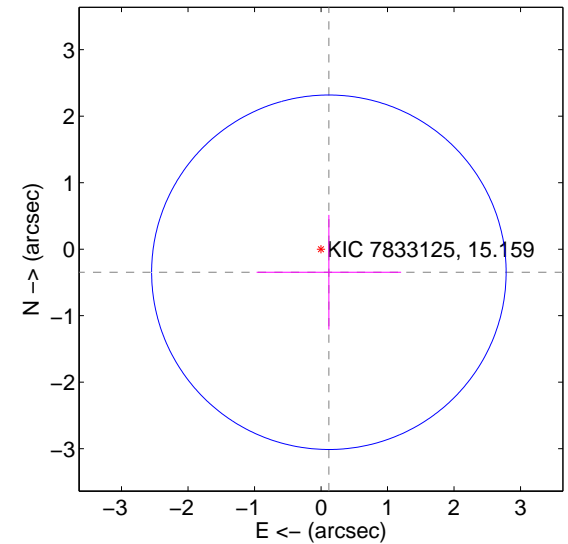
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

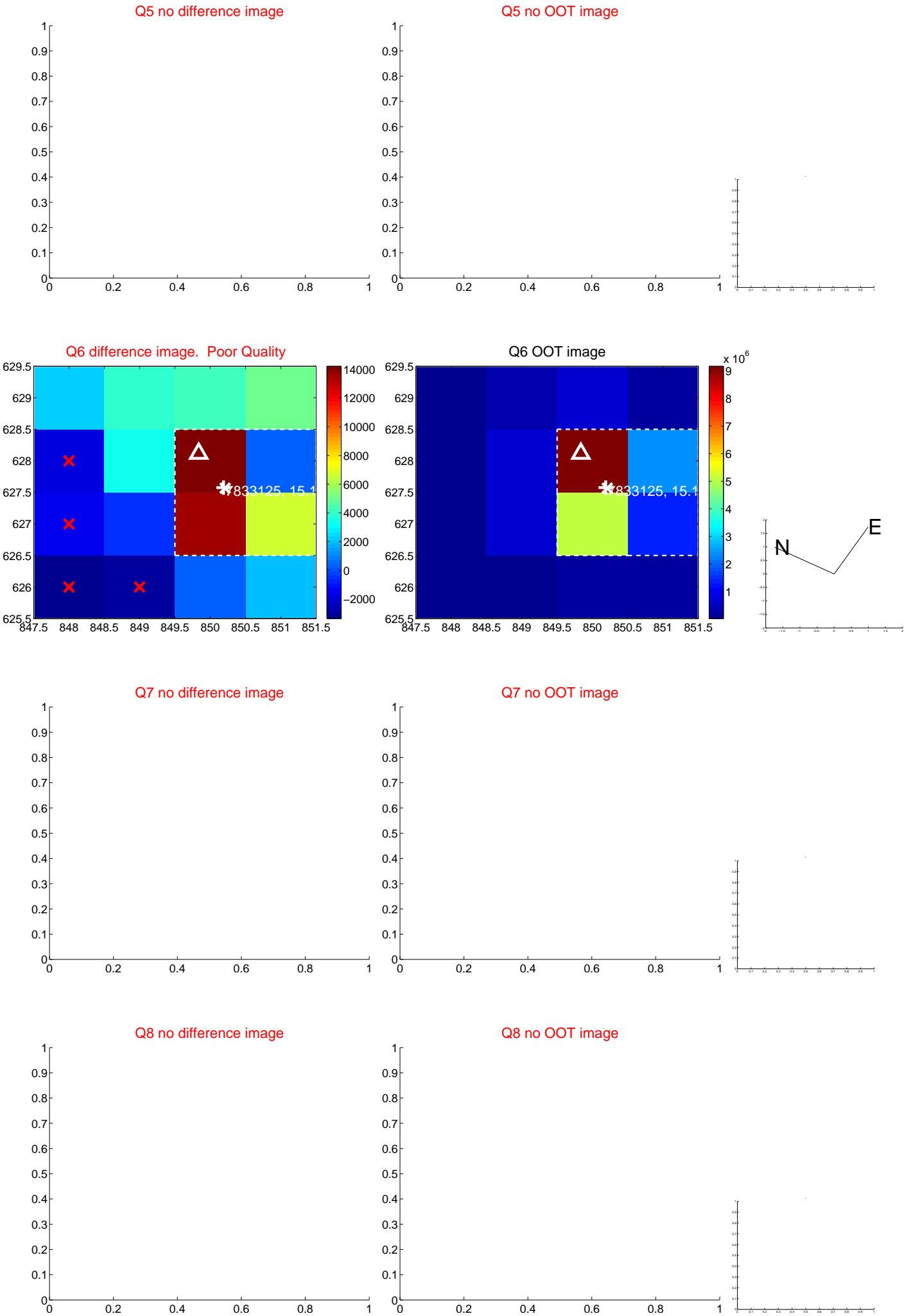


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



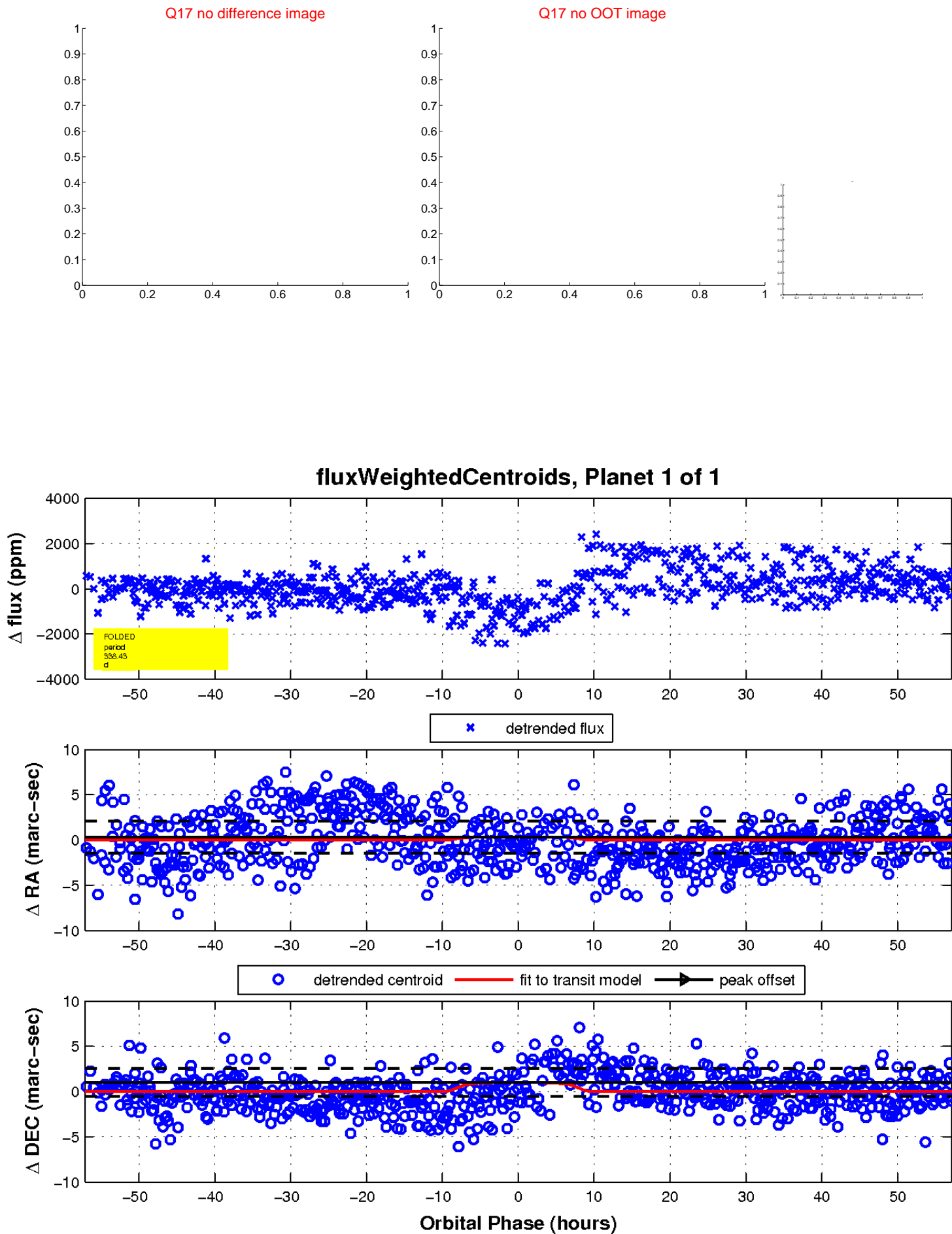
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

