

KIC 002833327

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})
002833327-01	OBS	No	360.009445	373.775390	322.2	13.788	8.0	7.2	3.92	5484	8.76	8.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002833327-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—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.

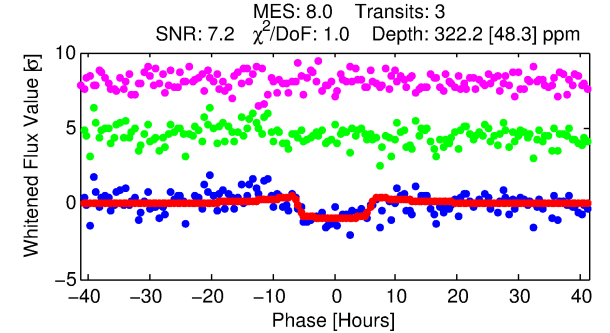
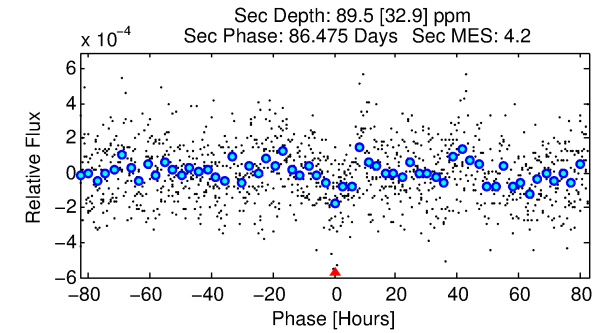
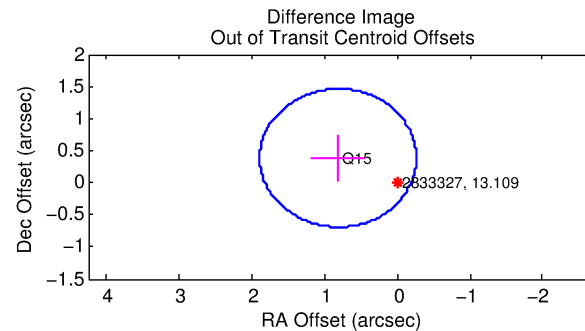
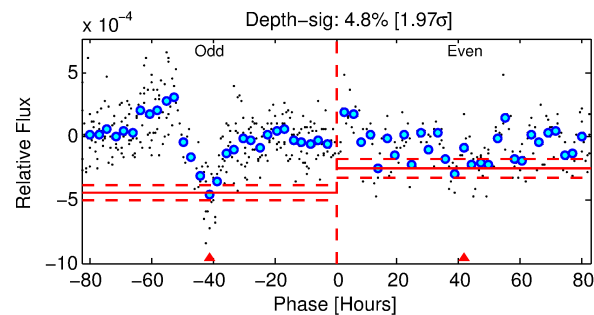
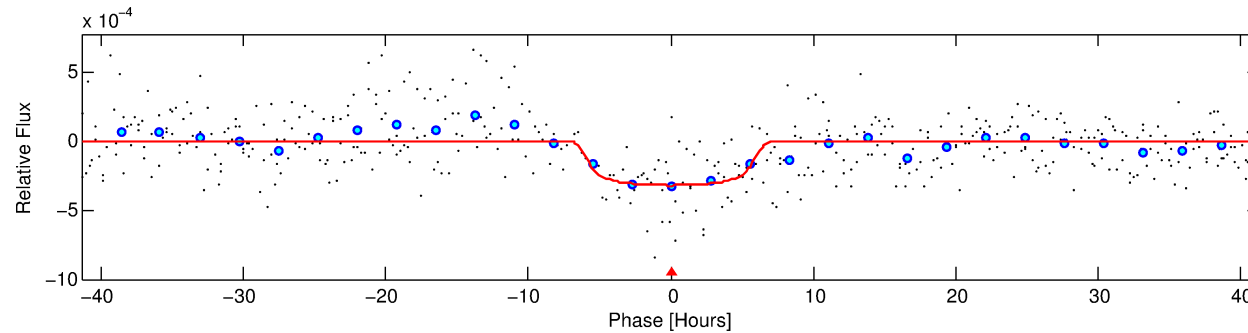
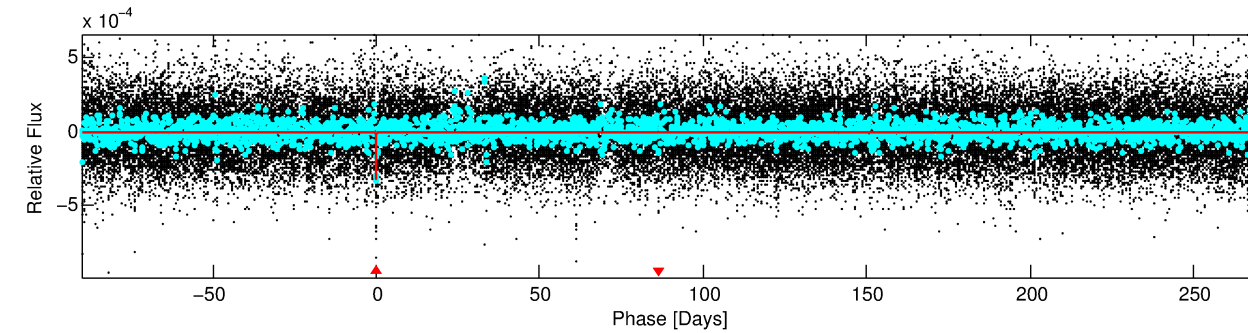
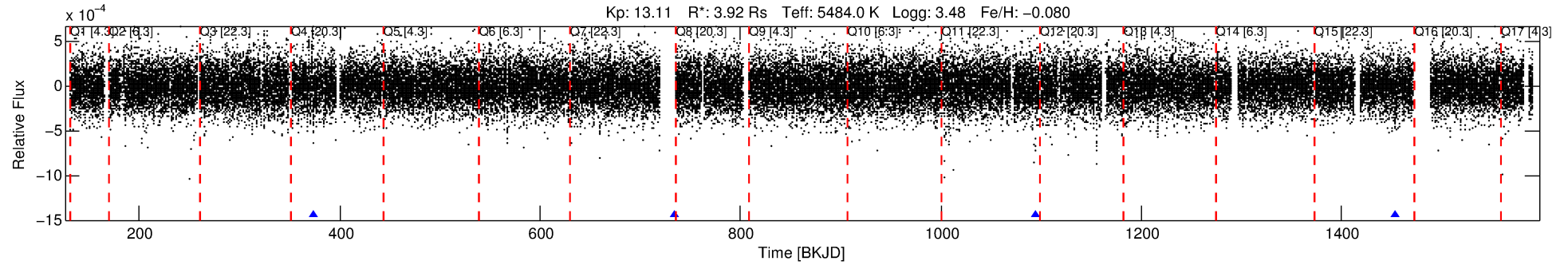
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002833327-01

No Significant Match Found

DV One-Page Summary

KIC: 2833327 Candidate: 1 of 1 Period: 360.009 d



DV Fit Results:

Period = 360.00945 [0.01100] d
Epoch = 373.7754 [0.0224] BKJD
Rp/R* = 0.0205 [0.0024]
a/R* = 82.26 [32.50]
b = 0.93 [0.06]
Seff = 8.91 [5.03]
Teq = 440 [62] K
Rp = 8.76 [3.72] Re
a = 1.1822 [0.4219] AU
Ag = 896.93 [620.92] [1.44σ]
Teffp = 3727 [441] K [7.38σ]

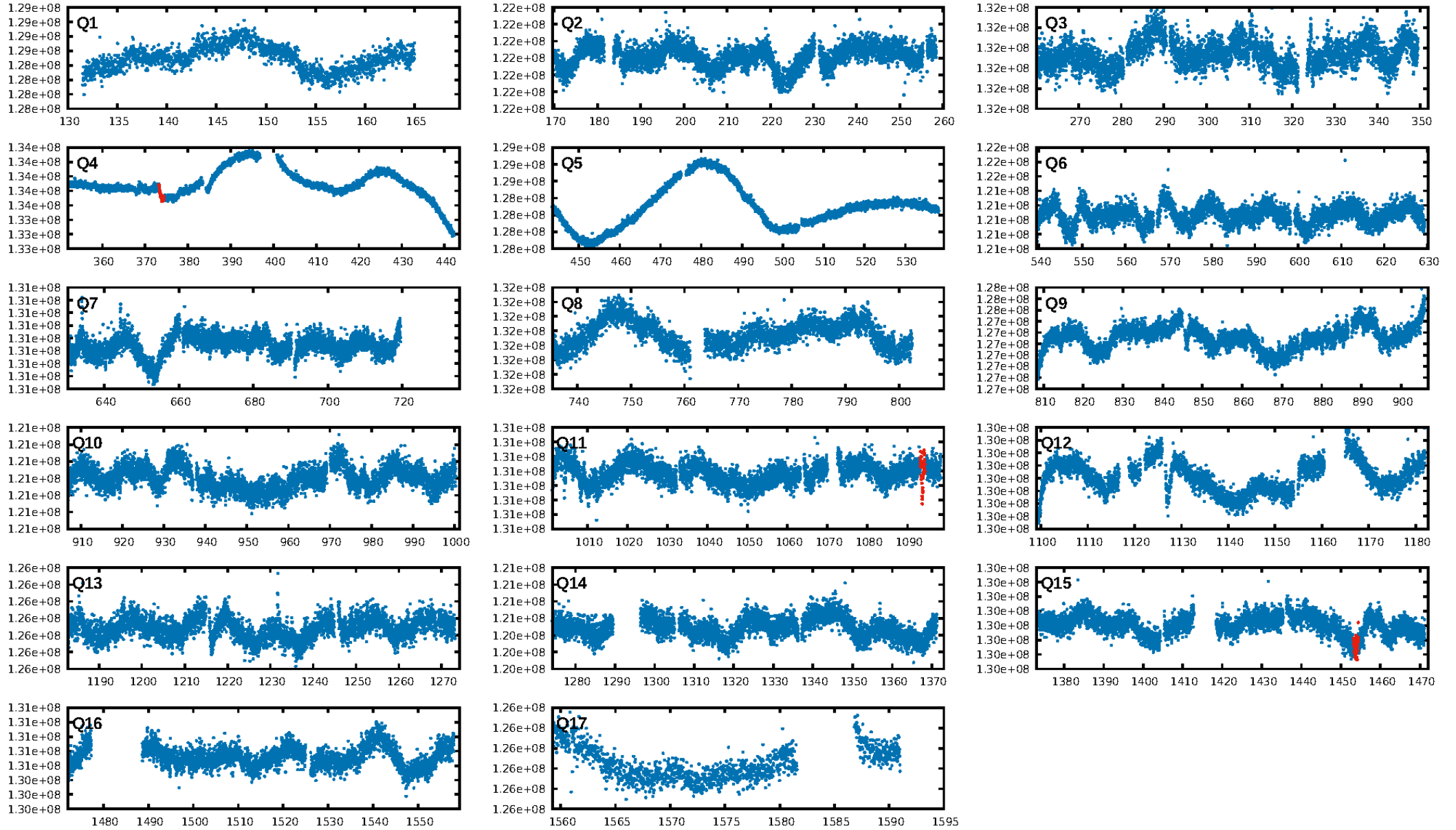
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 17.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.07e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 5.355
Centroid-sig: 7.0%
Centroid-so: 1.564 arcsec [1.43σ]
OotOffset-rm: 0.900 arcsec [2.51σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-rm: 0.985 arcsec [2.74σ]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

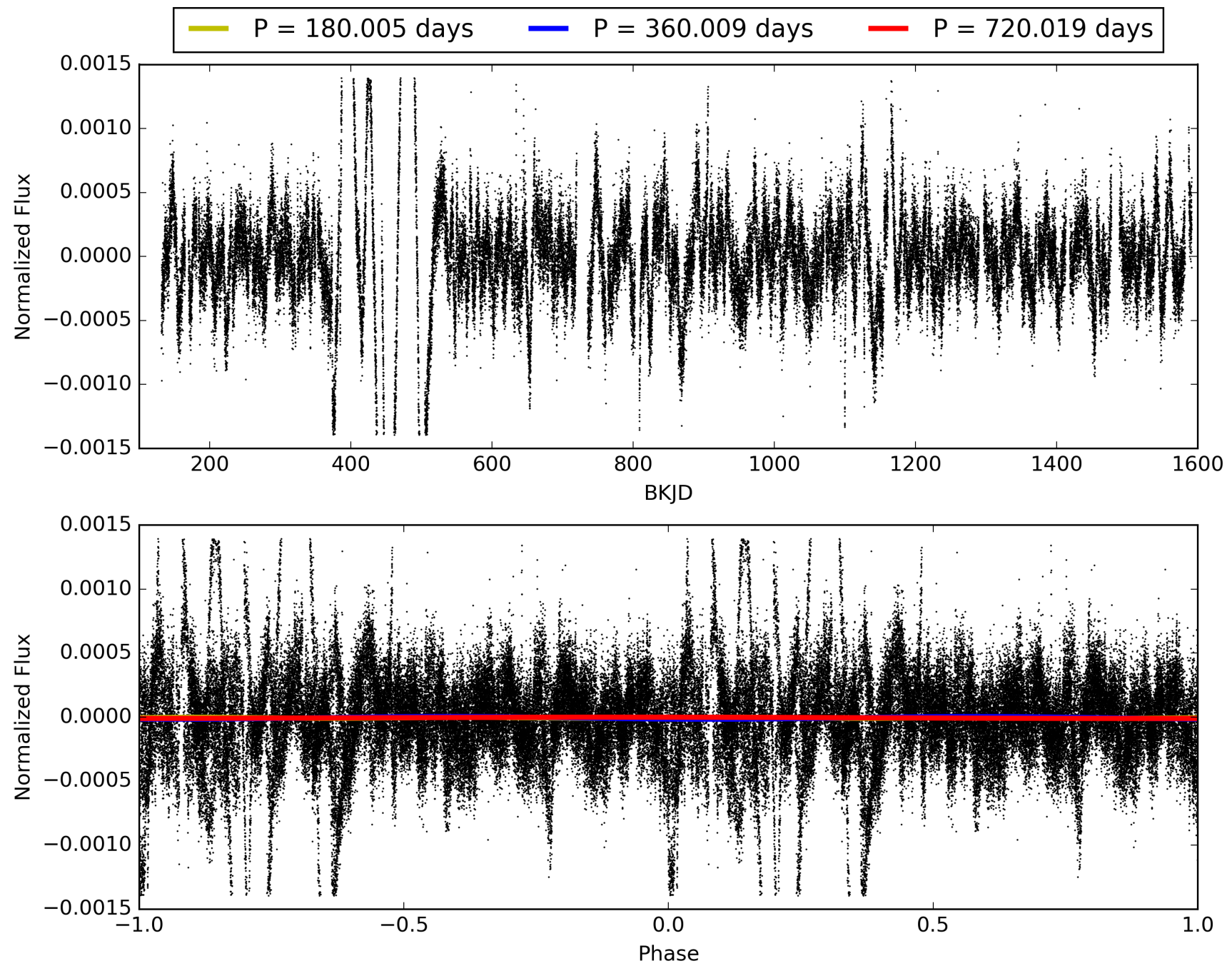
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:07:42 Z

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

TCE 002833327-01, PDC Light Curves

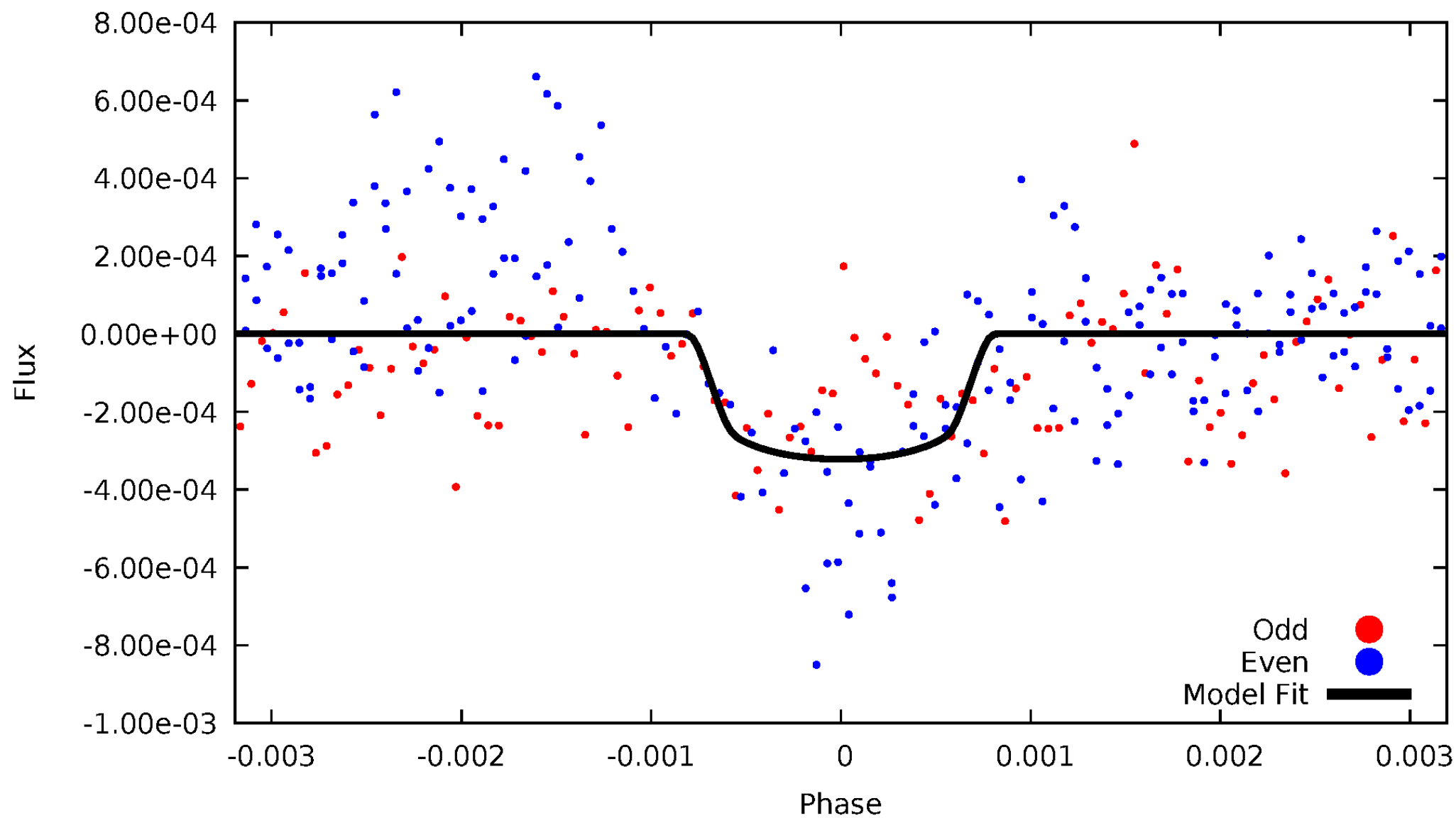


TCE 002833327-01



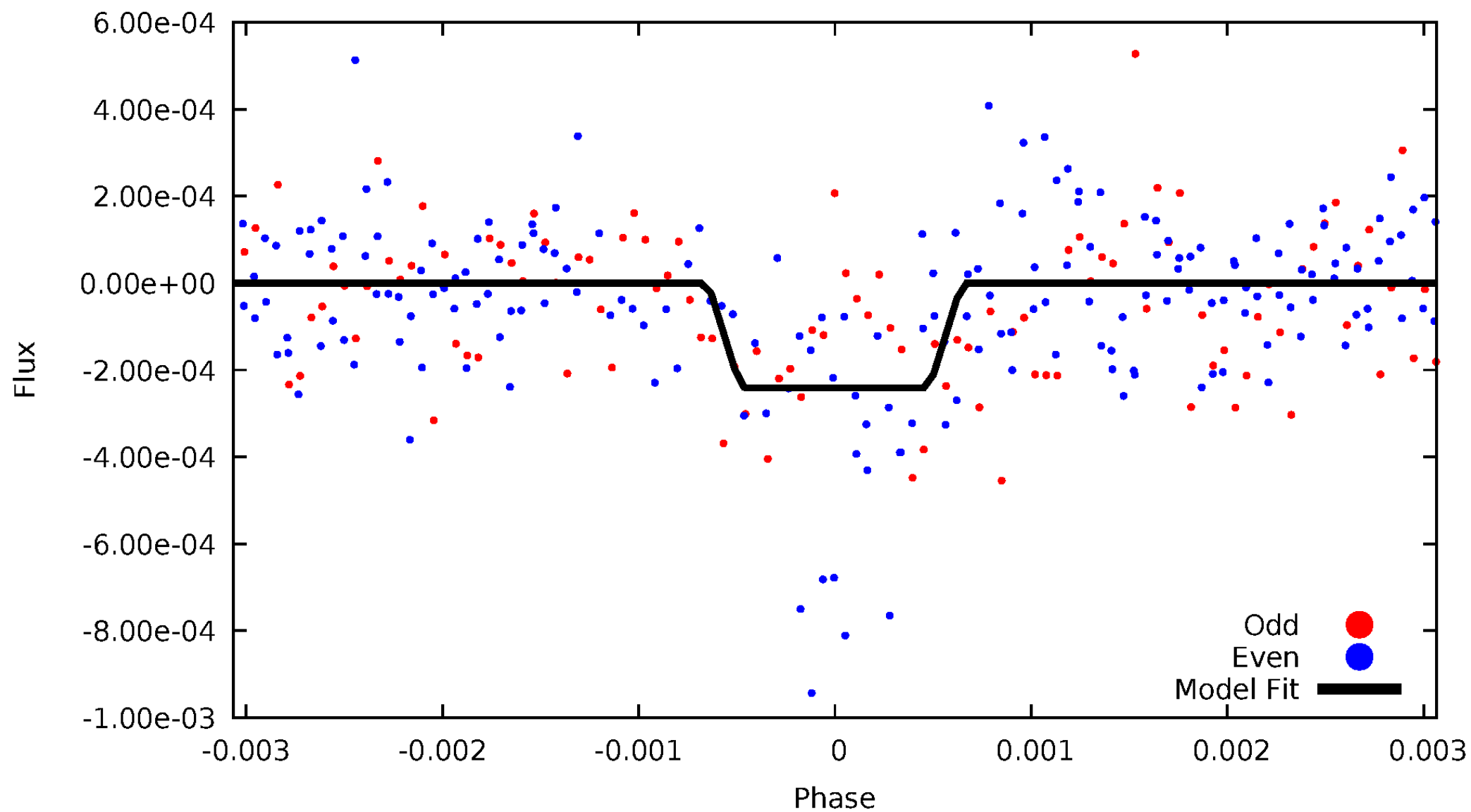
DV Odd/Even

TCE 002833327-01



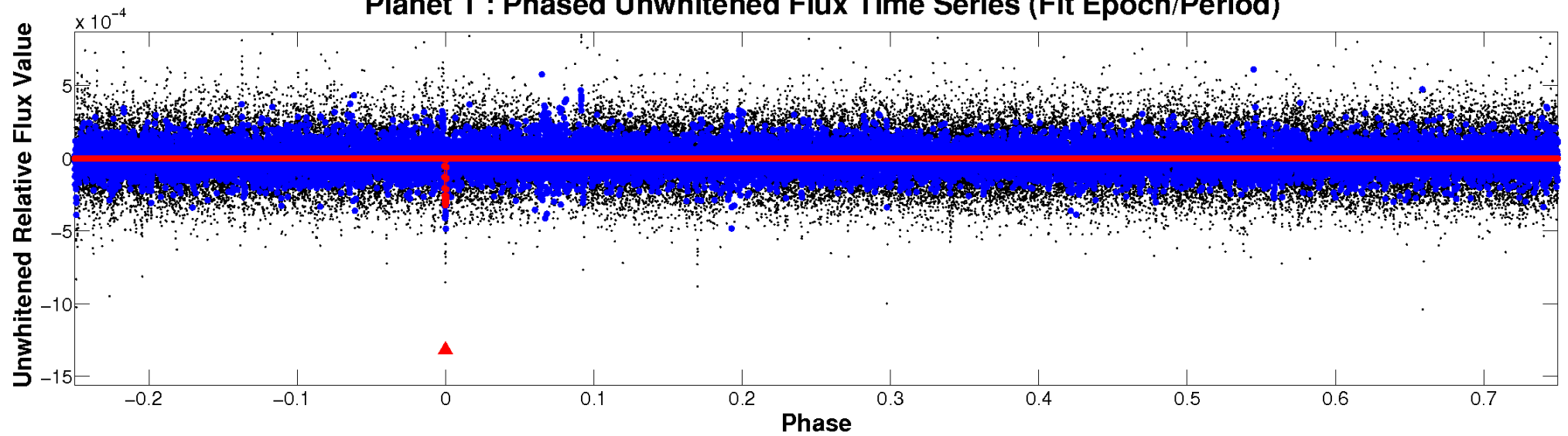
ALT Odd/Even

TCE 002833327-01

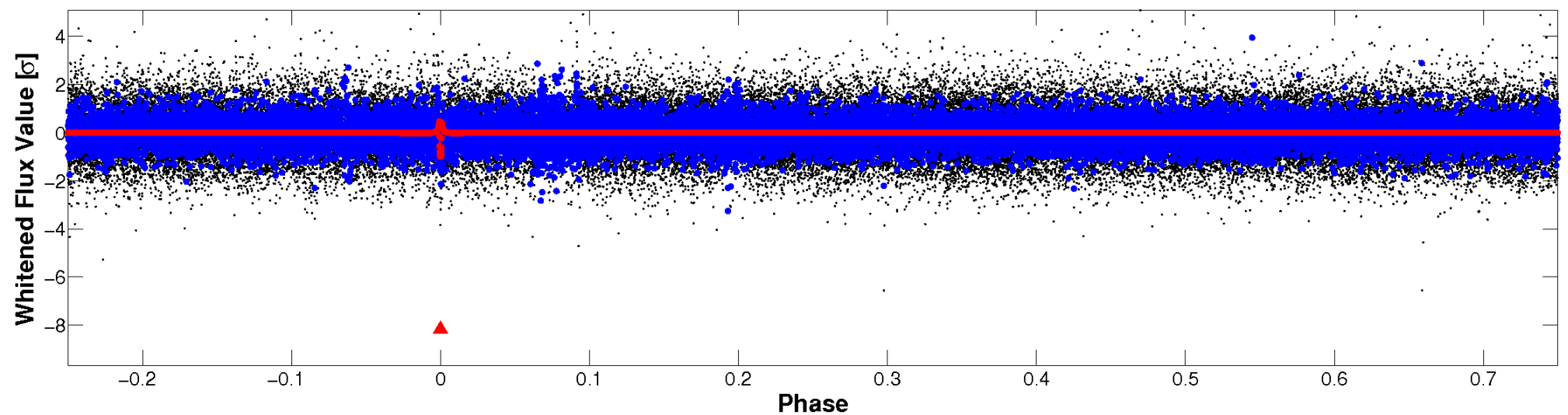


Non-Whitened Vs. Whitened Light Curve

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

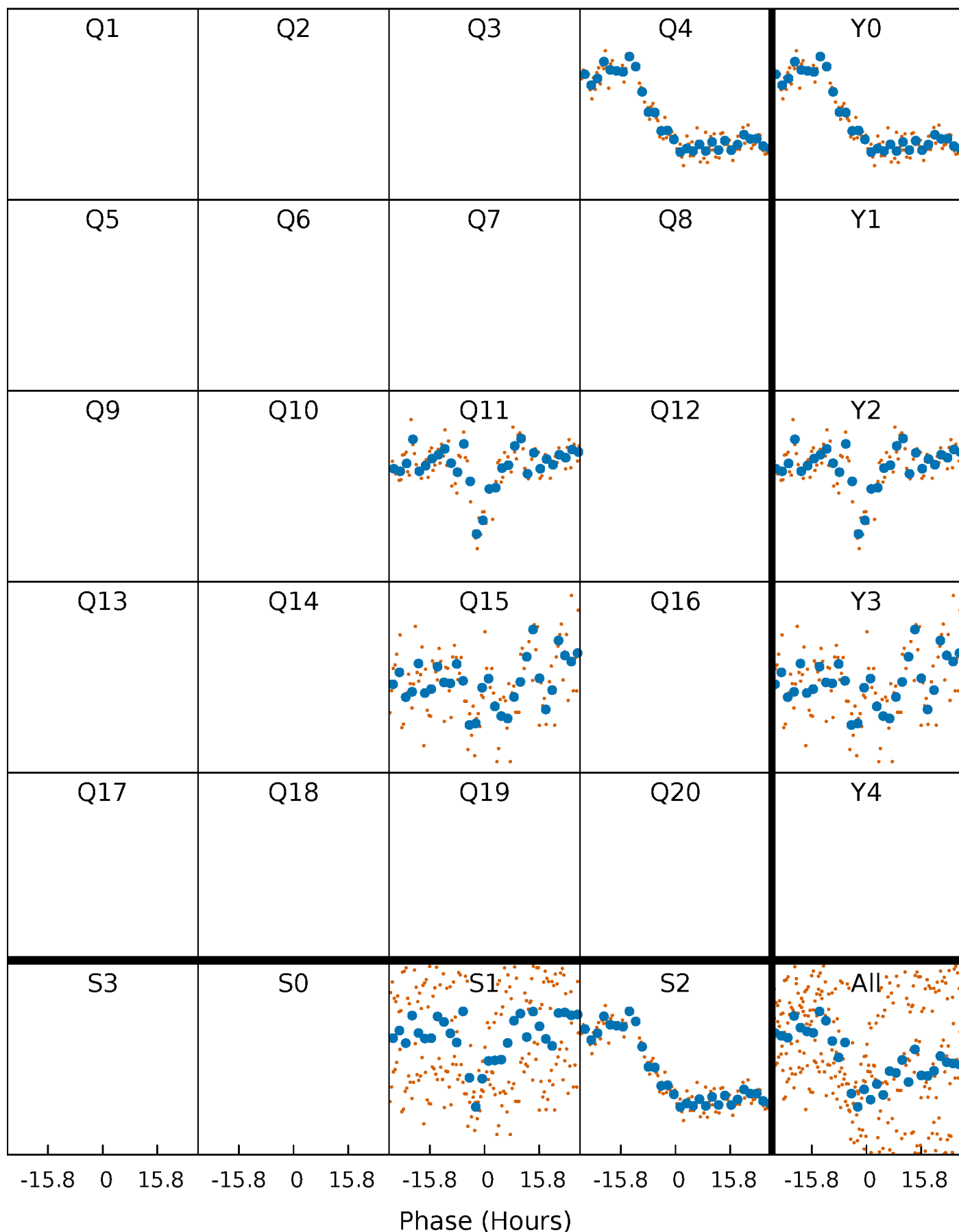


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



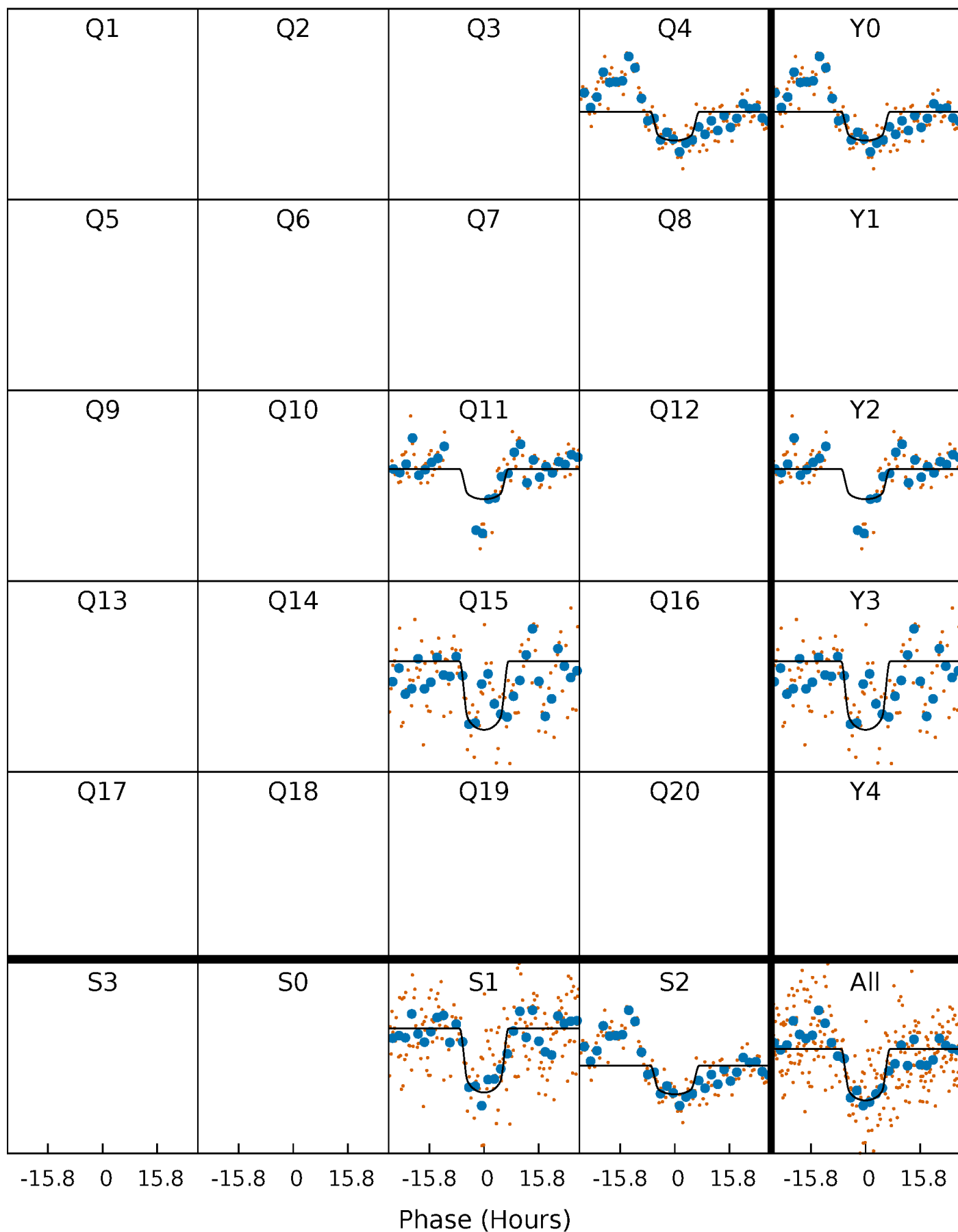
PDC Quarter-Phased Transit Curves

TCE 002833327-01 P=360.009445 Days $T_0=373.775390$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 002833327-01 P=360.009445 Days $T_0=373.775390$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

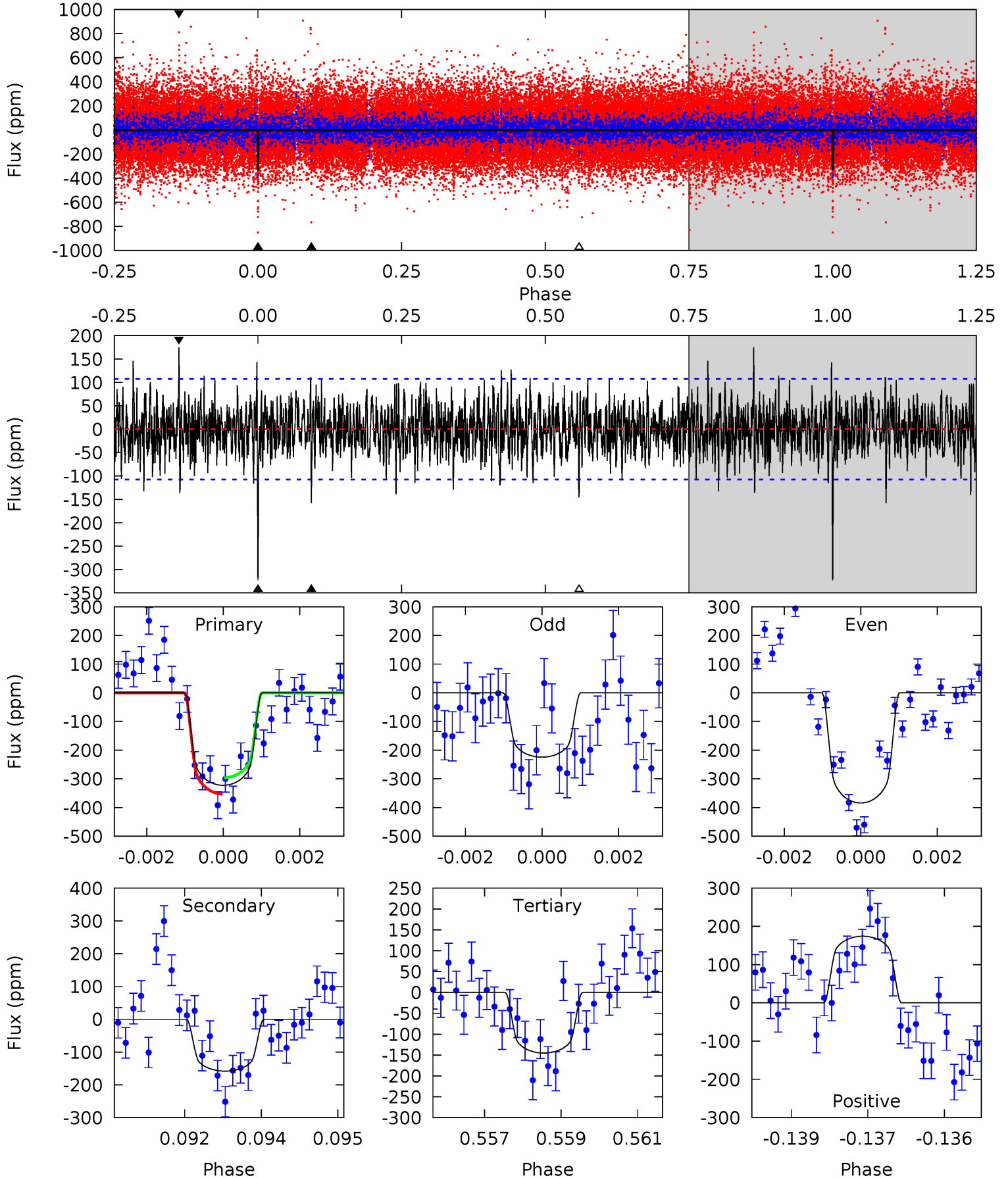
TCE 002833327-01 P=360.018894 Days $T_0=373.752632$ (BKJD)



DV Model-Shift Uniqueness Test

002833327-01, $P = 360.009445$ Days, $E = 13.765945$ Days

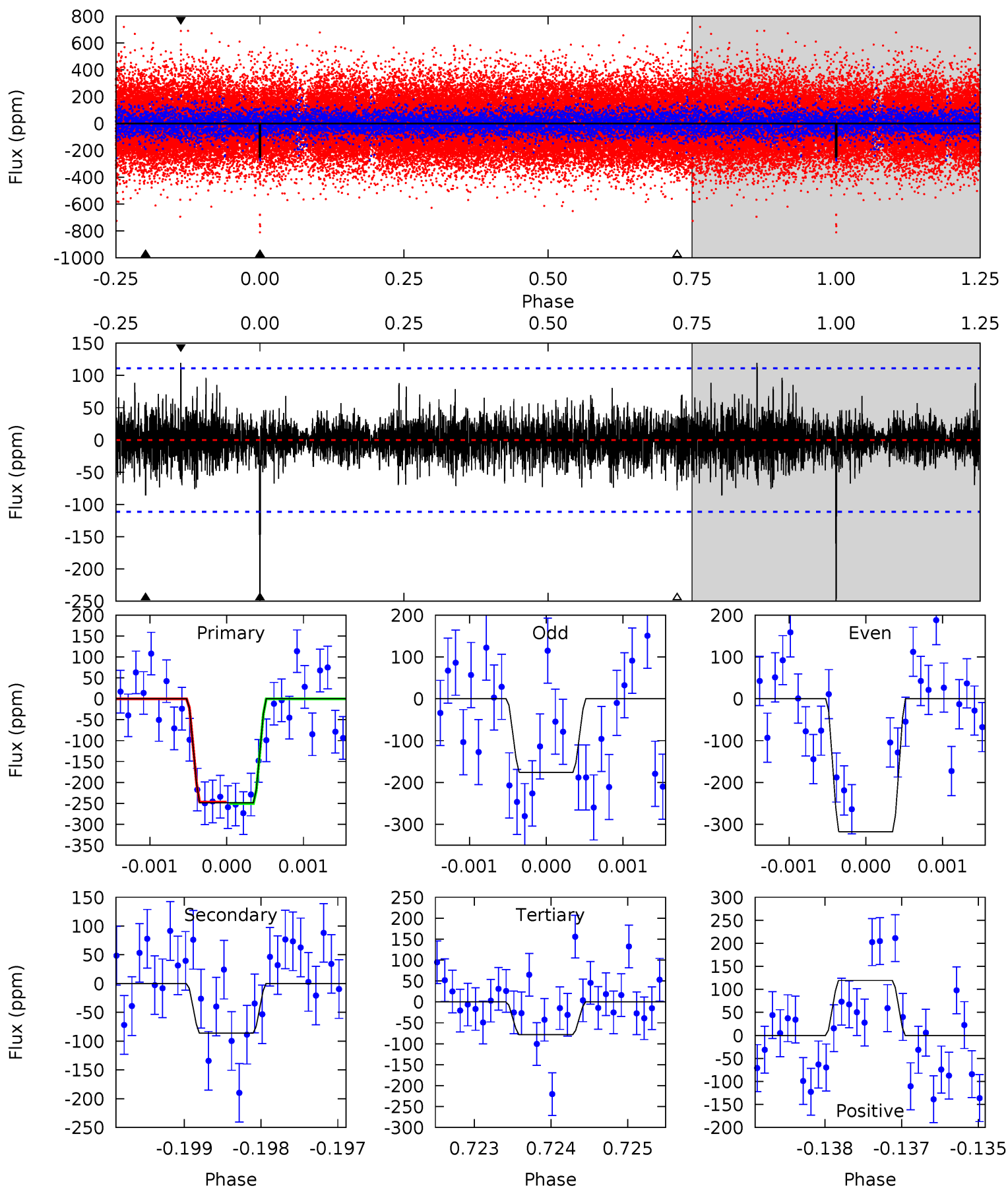
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	7.89	7.25	8.69	5.37	3.15	1.97	8.85	7.40	0.64	-0.80	3.89	0.96	0.35	1.41



Alt Model-Shift Uniqueness Test

002833327-01, P = 360.018894 Days, E = 13.733738 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	4.18	3.80	5.80	5.40	3.22	1.10	8.28	6.28	0.38	-1.62	3.38	1.68	0.32	0.08



Stellar Parameters For KIC 002833327

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5484^{+170}_{-245}	$3.482^{+0.301}_{-0.129}$	$-0.080^{+0.250}_{-0.400}$	$3.919^{+0.738}_{-1.599}$	$1.701^{+0.201}_{-0.602}$	$0.040^{+0.099}_{-0.016}$
	+3%/-4%	+9%/-4%	+312%/-500%	+19%/-41%	+12%/-35%	+249%/-39%
Source	PHO1	FLK73	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 002833327-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-158 ± 20	$8.45^{+1.69}_{-1.88}$	604^{+43}_{-54}	4449^{+284}_{-260}	1703^{+980}_{-540}
Alt.	-86 ± 21	$6.35^{+1.57}_{-1.56}$	603^{+43}_{-55}	4389^{+421}_{-369}	1581^{+1211}_{-604}

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

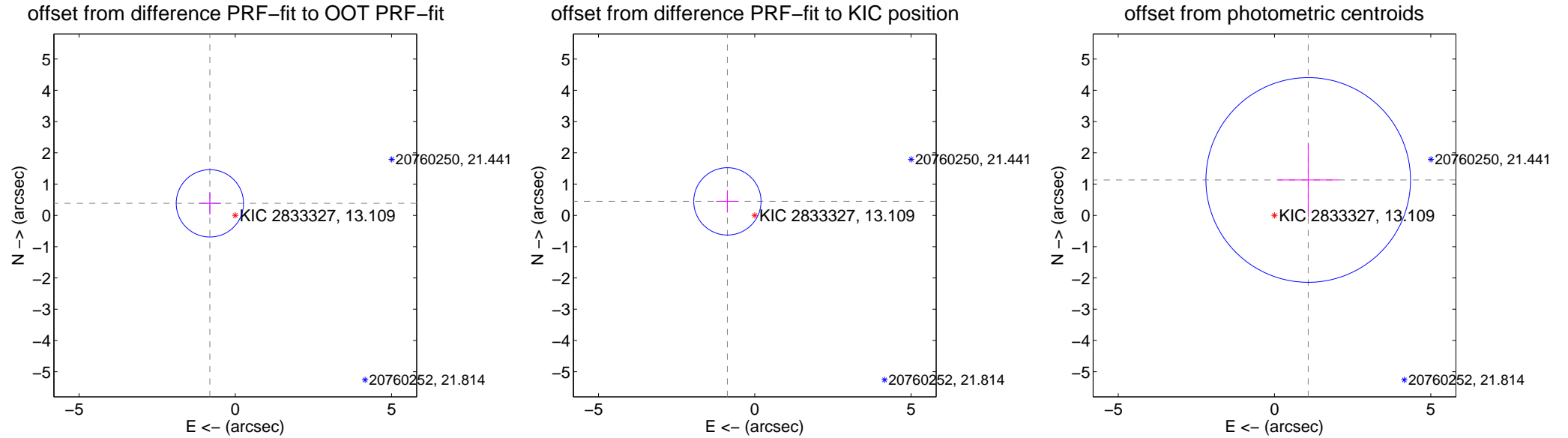
DV Centroid Data

Supplemental centroid analysis for 002833327-01. Kepler magnitude: 13.11. Transit SNR 7.25

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.900 ± 0.359	2.51	0.814 ± 0.359	0.385 ± 0.358
PRF-fit source offset from KIC position	0.985 ± 0.359	2.74	0.877 ± 0.359	0.448 ± 0.358
photometric centroid source offset	1.56 ± 1.09	1.43	-1.08 ± 0.98	1.13 ± 1.19



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.



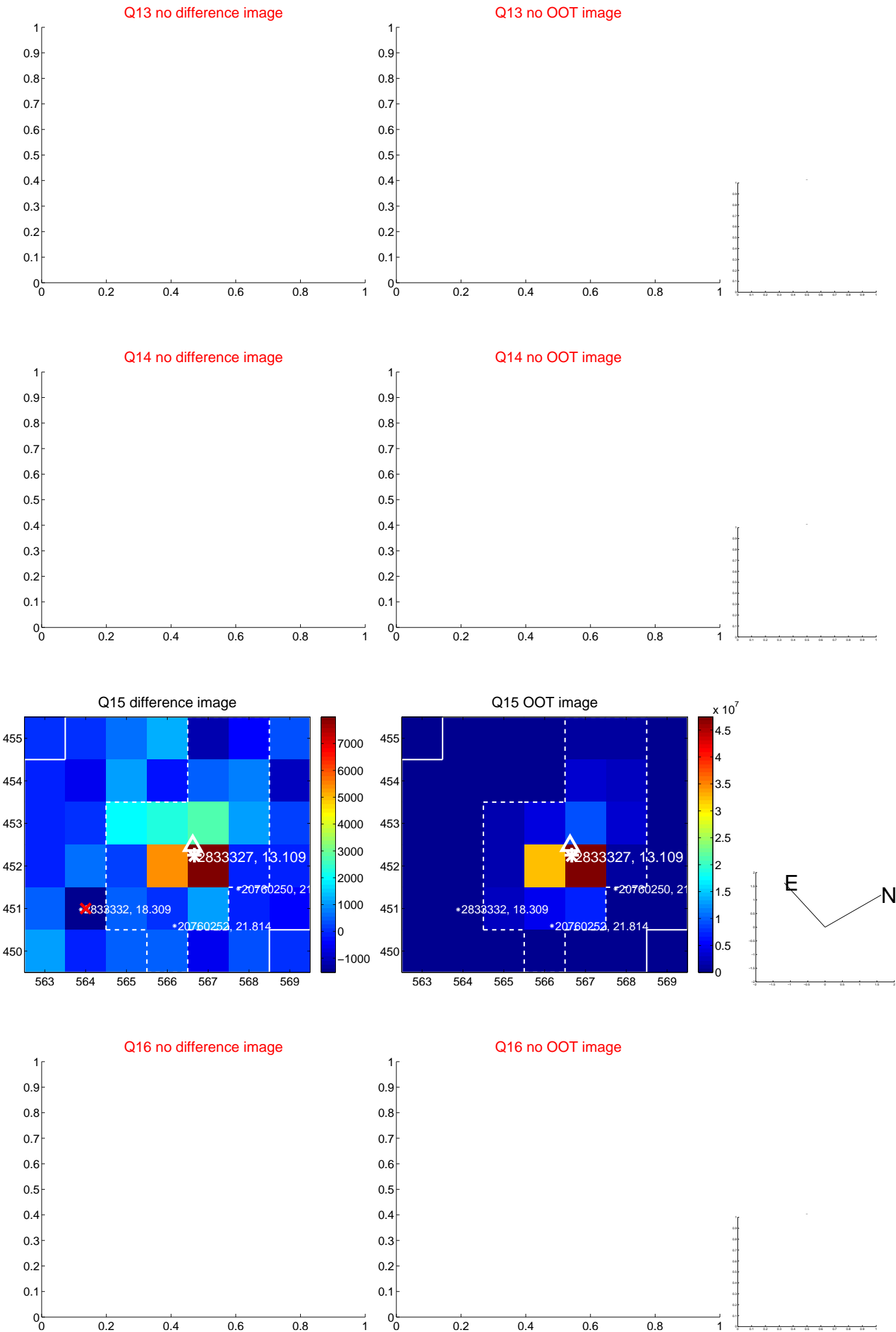
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



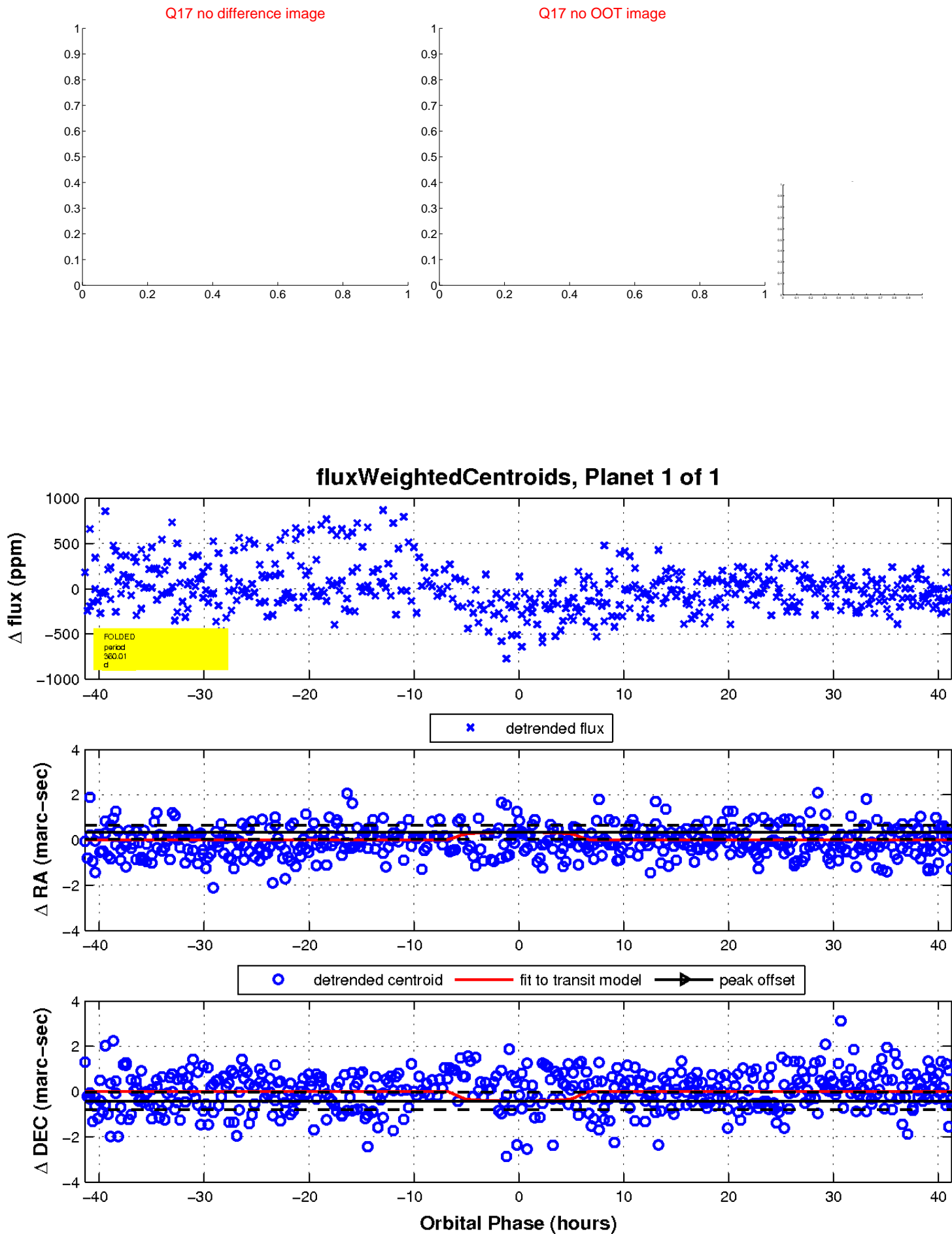
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

