

KIC 003329036

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})
003329036-01	OBS	No	632.547822	255.087397	439.8	4.673	11.4	7.4	61.22	3987	161.88	279.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003329036-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—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.

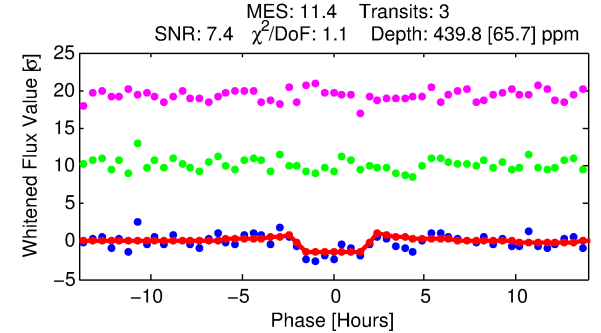
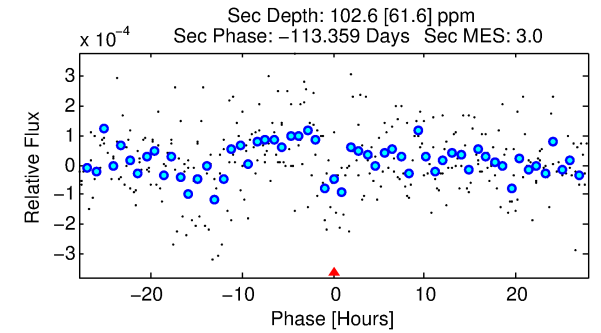
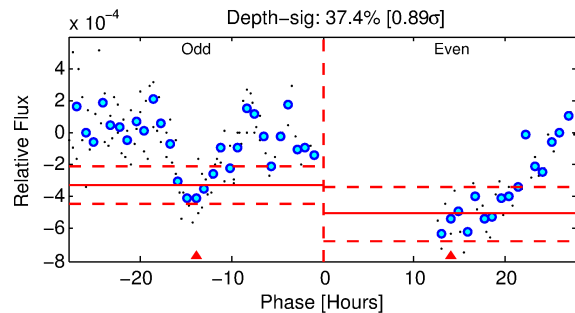
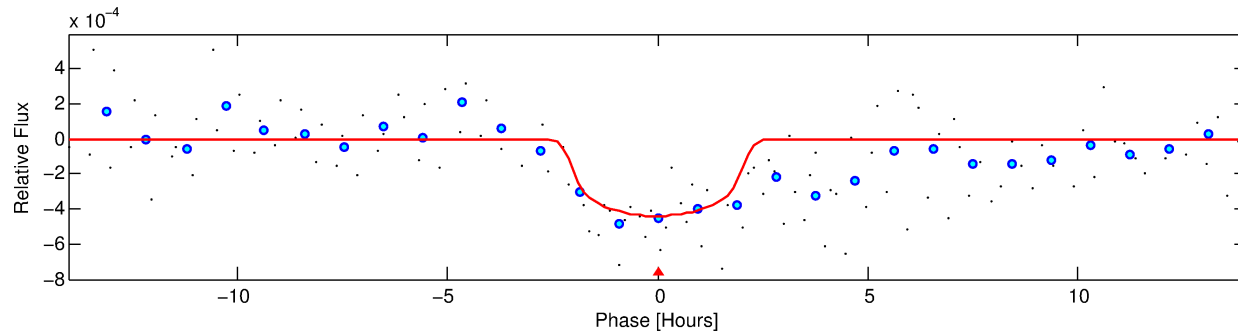
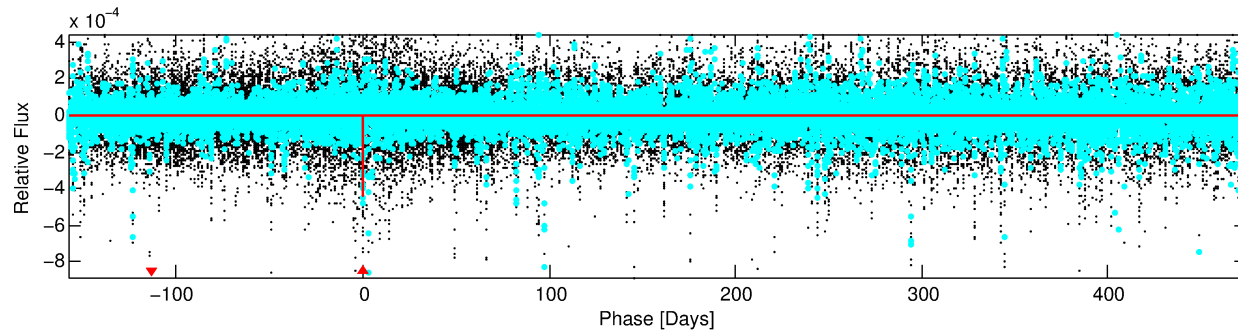
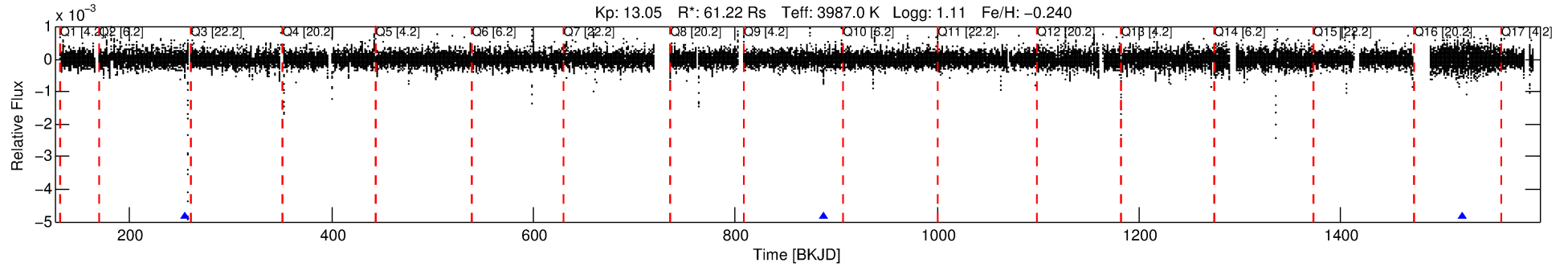
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003329036-01

No Significant Match Found

DV One-Page Summary

KIC: 3329036 Candidate: 1 of 1 Period: 632.548 d



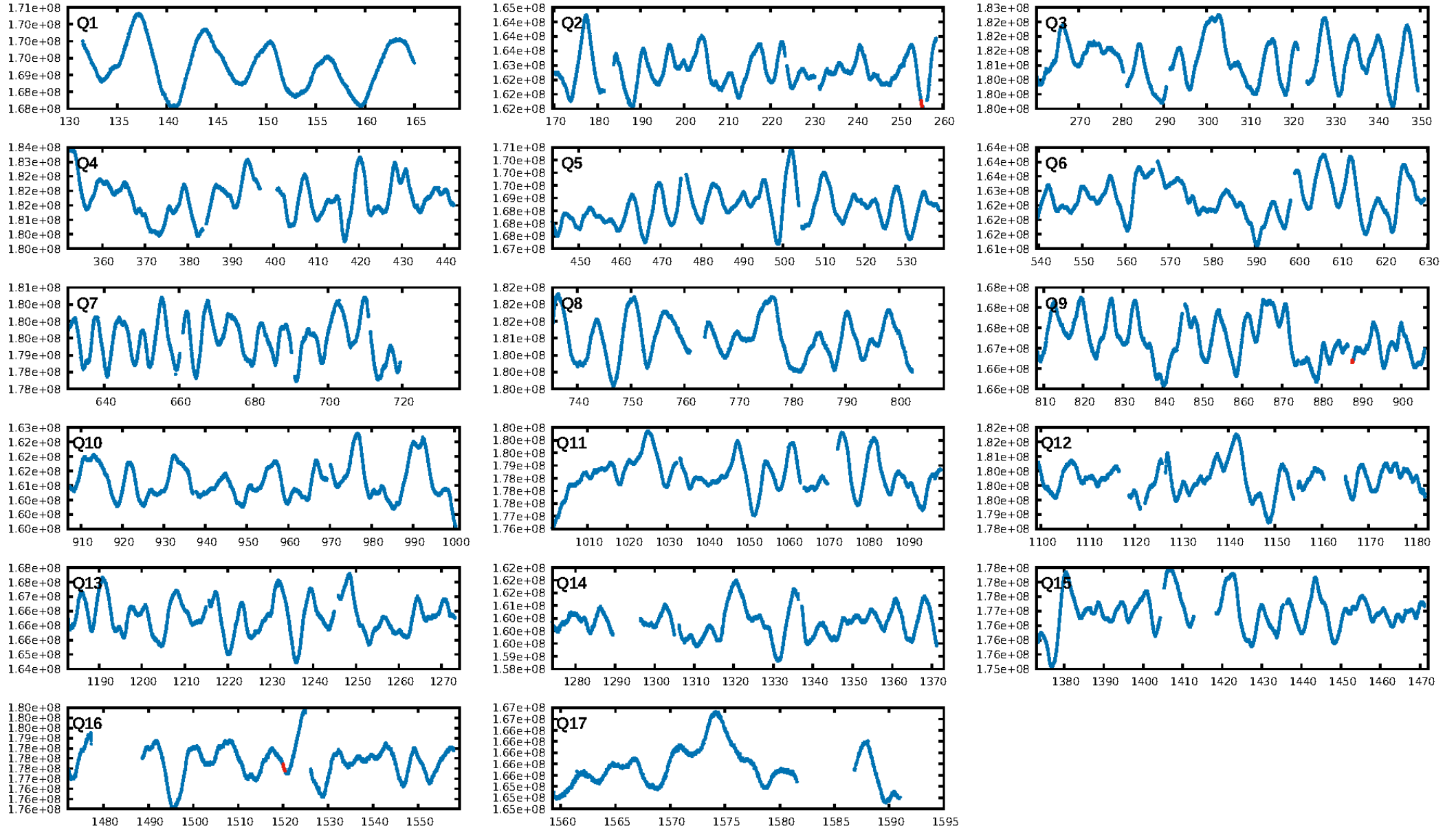
DV Fit Results:

Period = 632.54782 [0.00686] d
Epoch = 255.0874 [0.0094] BKJD
Rp/R* = 0.0242 [0.0076]
a/R* = 503.84 [491.28]
b = 0.90 [0.21]
Seff = 279.23 [50.40]
Teq = 1042 [47] K
Rp = 161.89 [60.74] Re
a = 1.7433 [0.2405] AU
Ag = 6.54 [5.77] [0.96 σ]
Teffp = 2578 [565] K [2.71 σ]

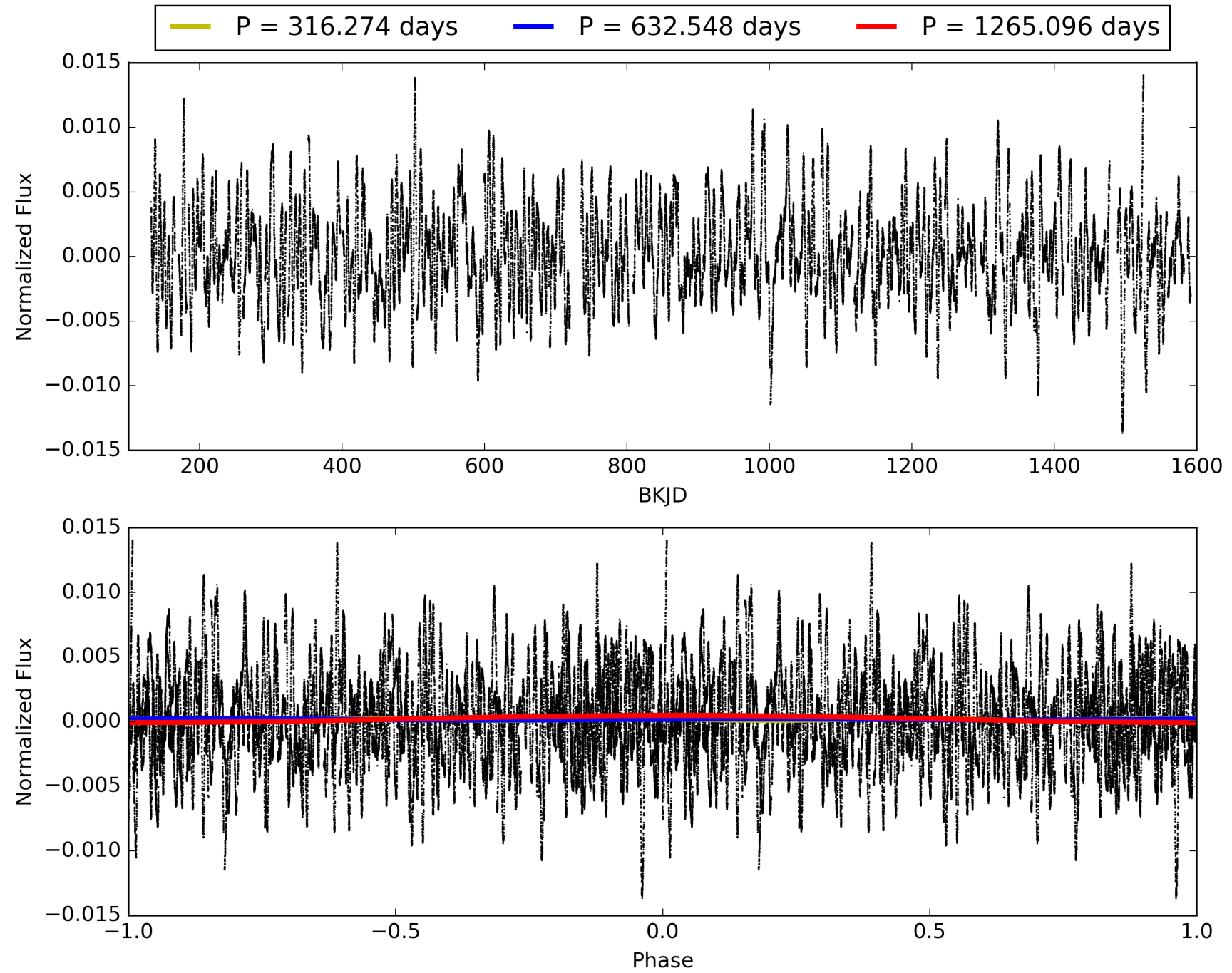
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.6%
ModelChiSquareGof-sig: 94.1%
Bootstrap-pfa: 7.40e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.367
Centroid-sig: 26.9%
Centroid-so: 0.633 arcsec [0.73 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [1/1]

TCE 003329036-01, PDC Light Curves

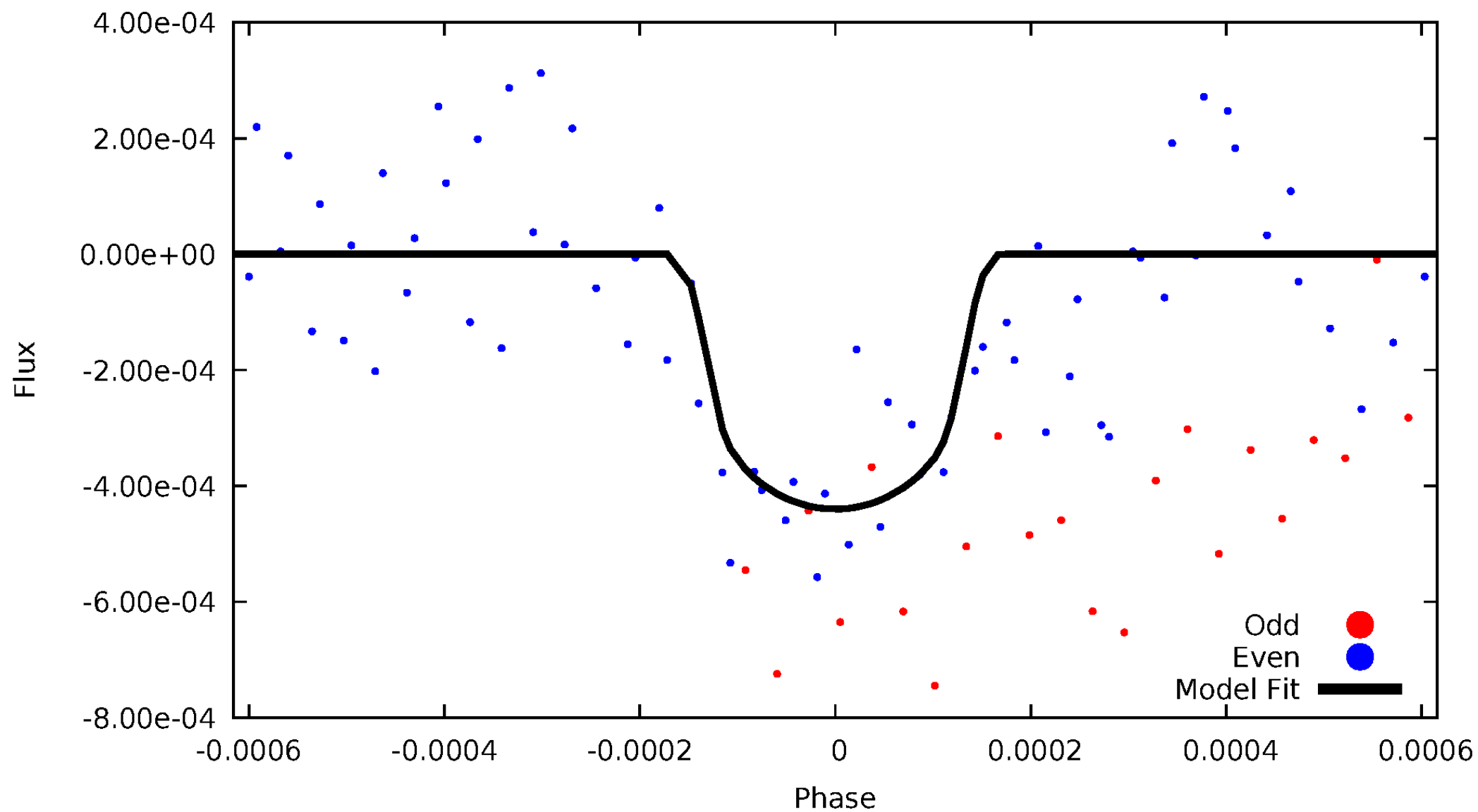


TCE 003329036-01



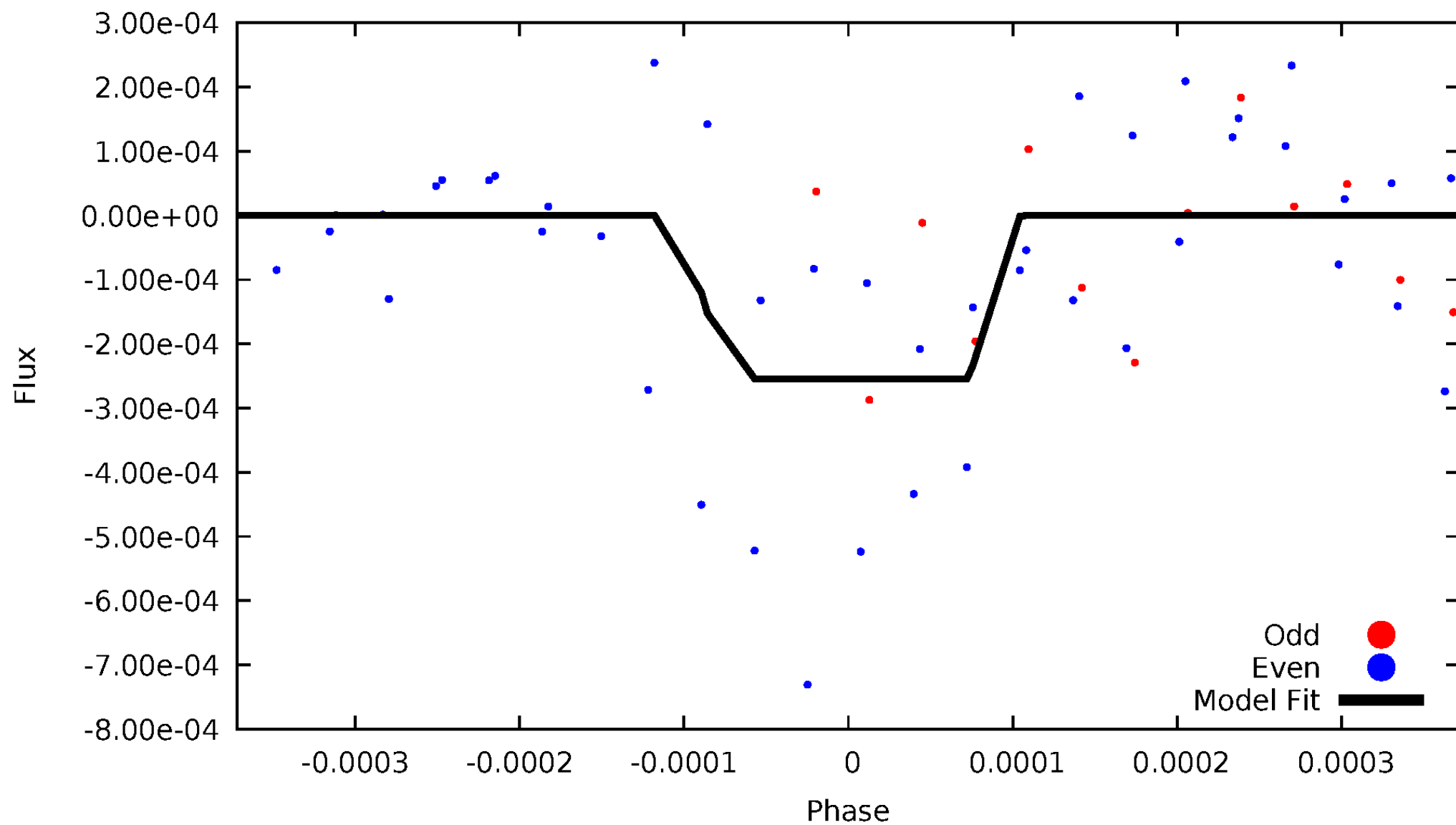
DV Odd/Even

TCE 003329036-01



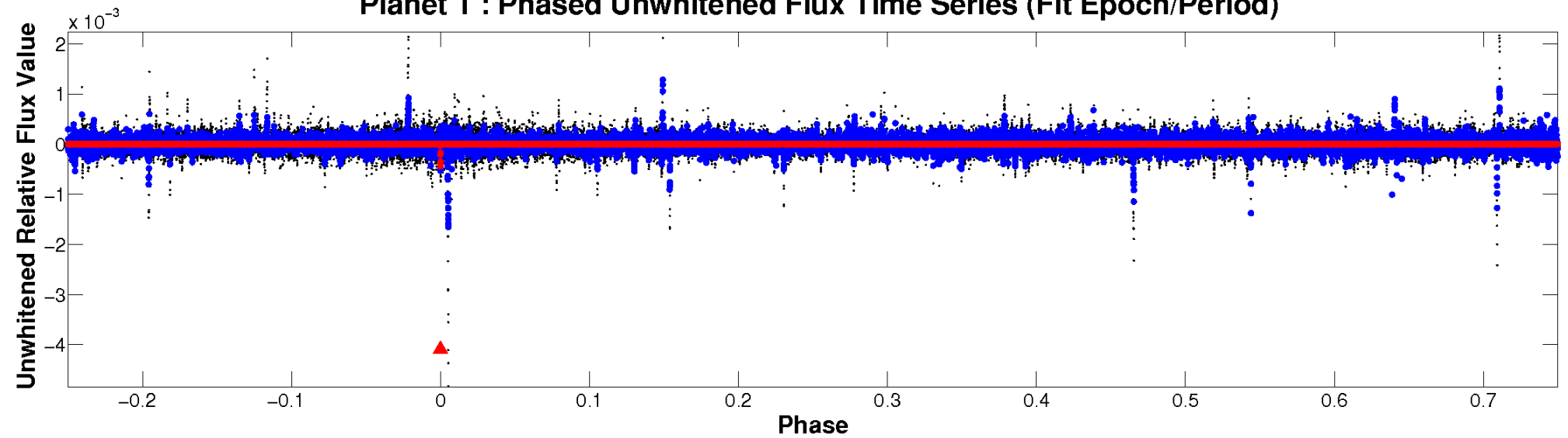
ALT Odd/Even

TCE 003329036-01

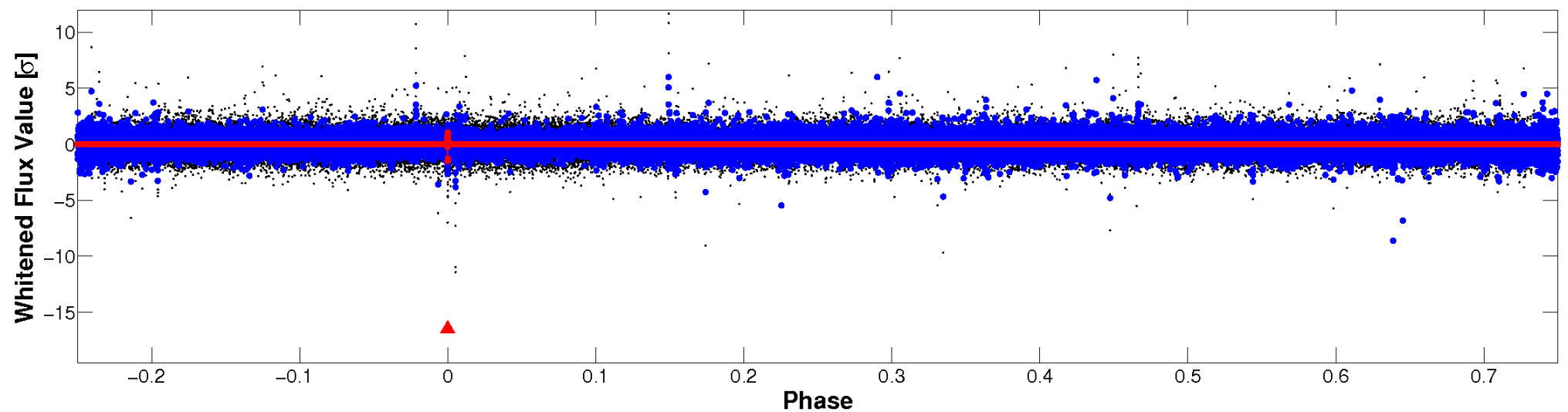


Non-Whitened Vs. Whitened Light Curve

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

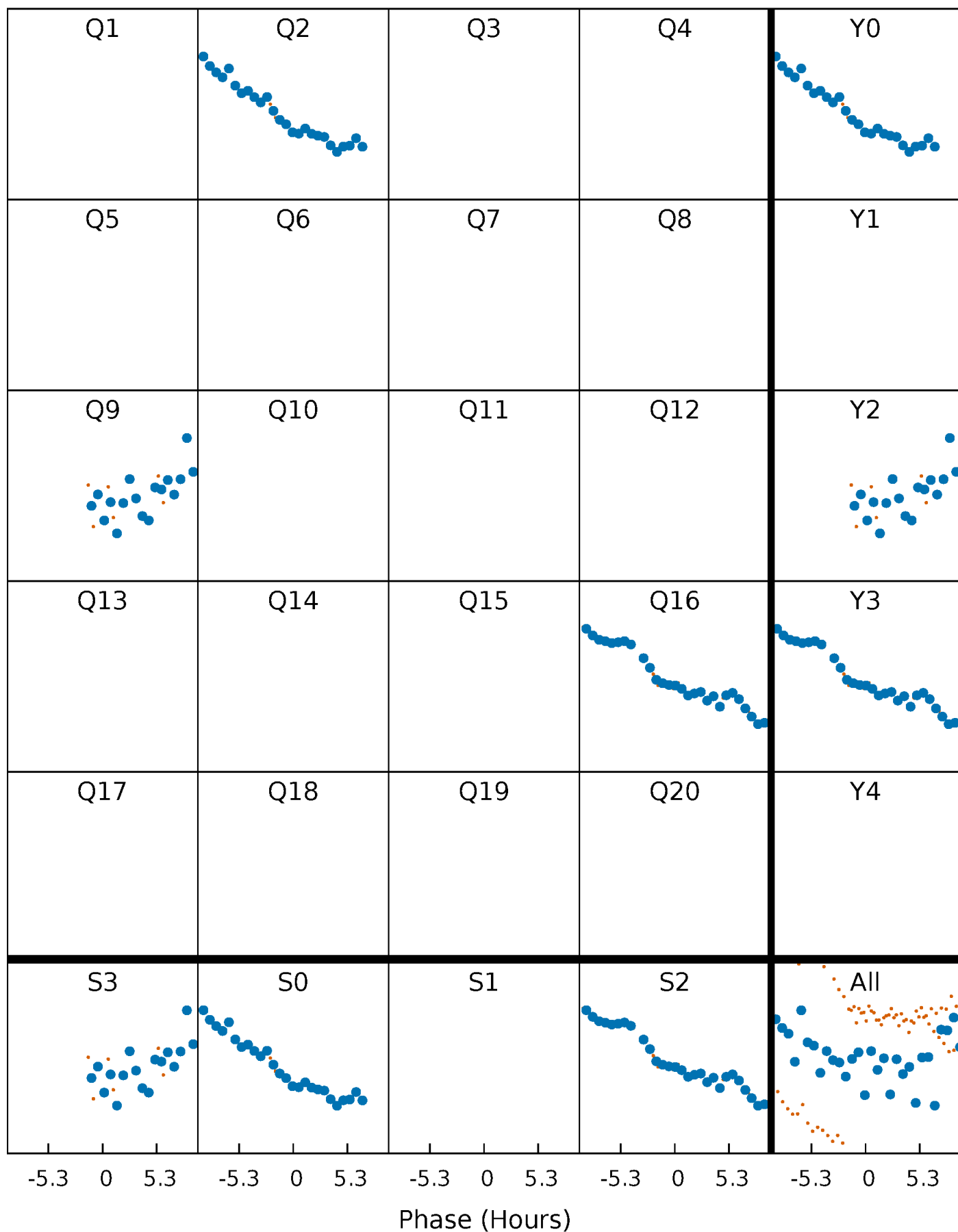


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



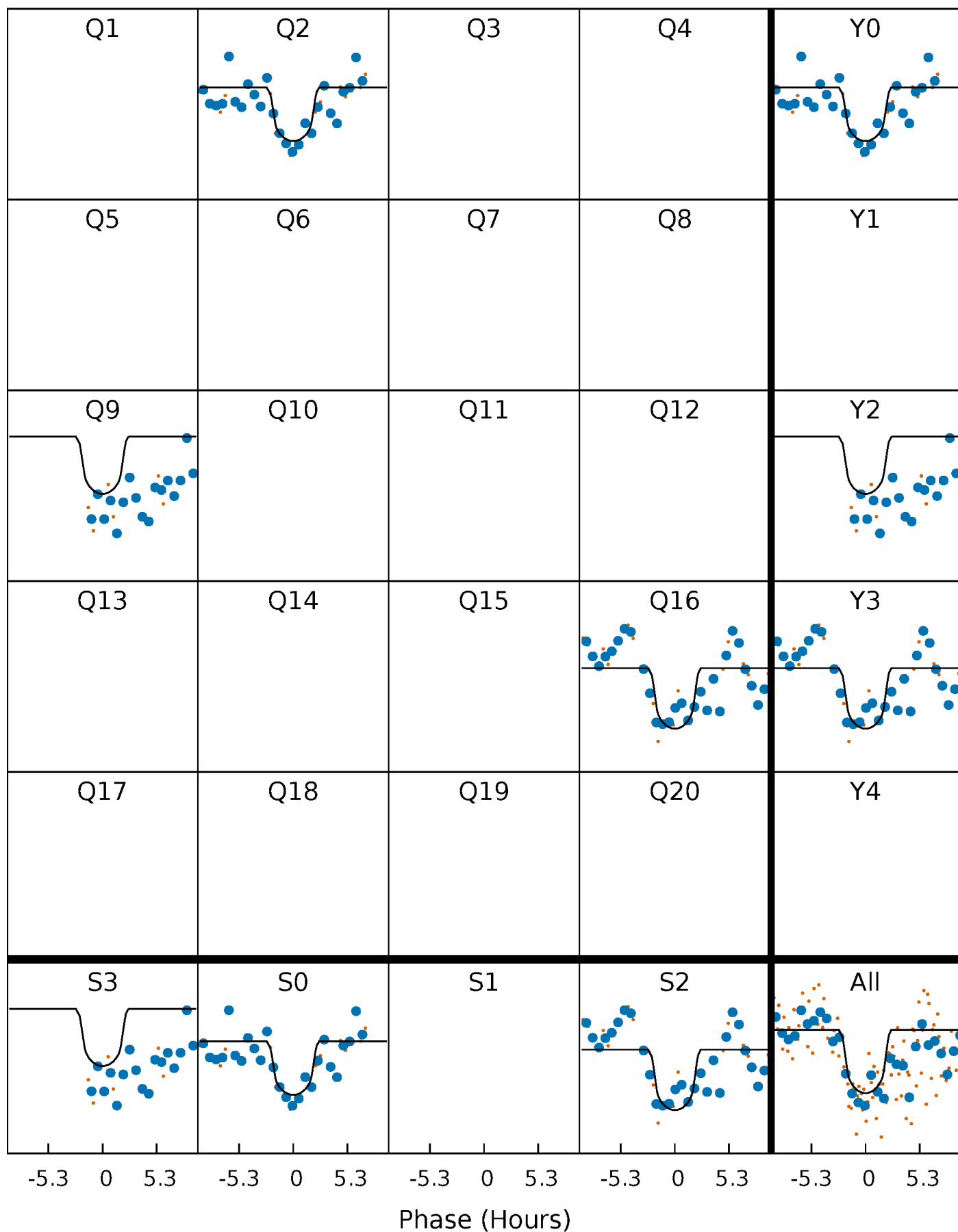
PDC Quarter-Phased Transit Curves

TCE 003329036-01 P=632.547822 Days $T_0=255.087397$ (BKJD)



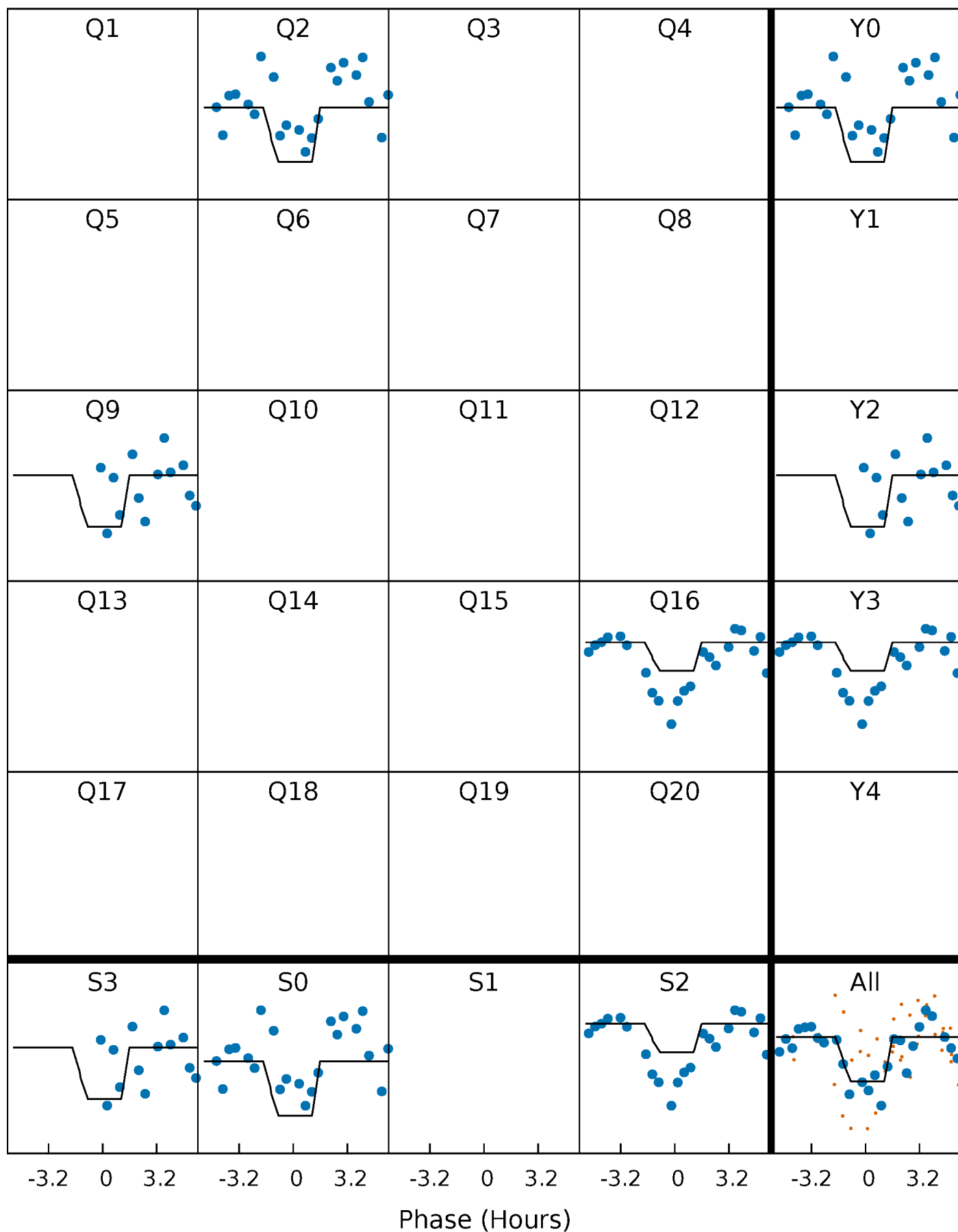
DV Quarter-Phased Transit Curves

TCE 003329036-01 P=632.547822 Days $T_0=255.087397$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

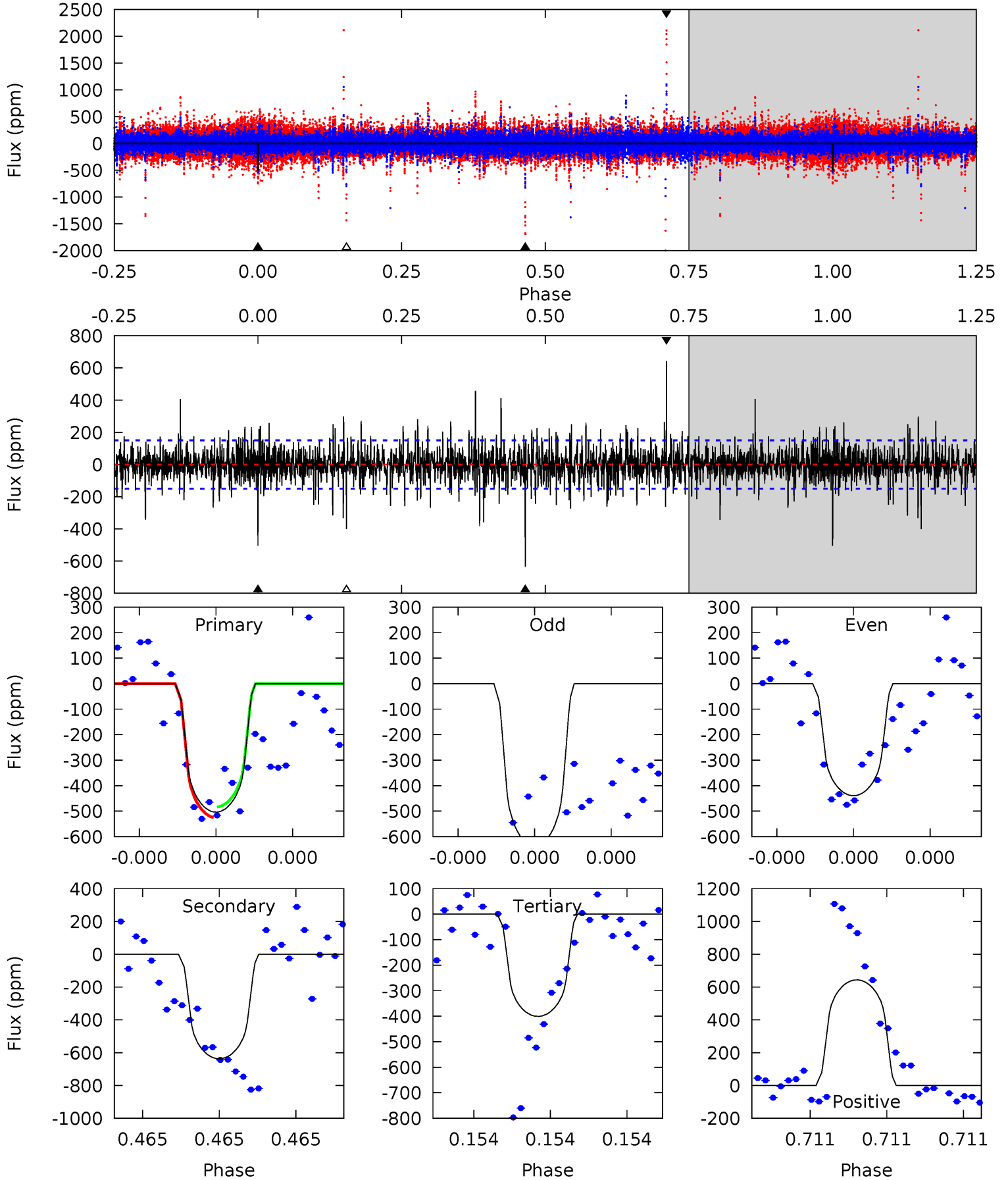
TCE 003329036-01 P=632.541283 Days $T_0=255.048153$ (BKJD)



DV Model-Shift Uniqueness Test

003329036-01, P = 632.547822 Days, E = 255.087397 Days

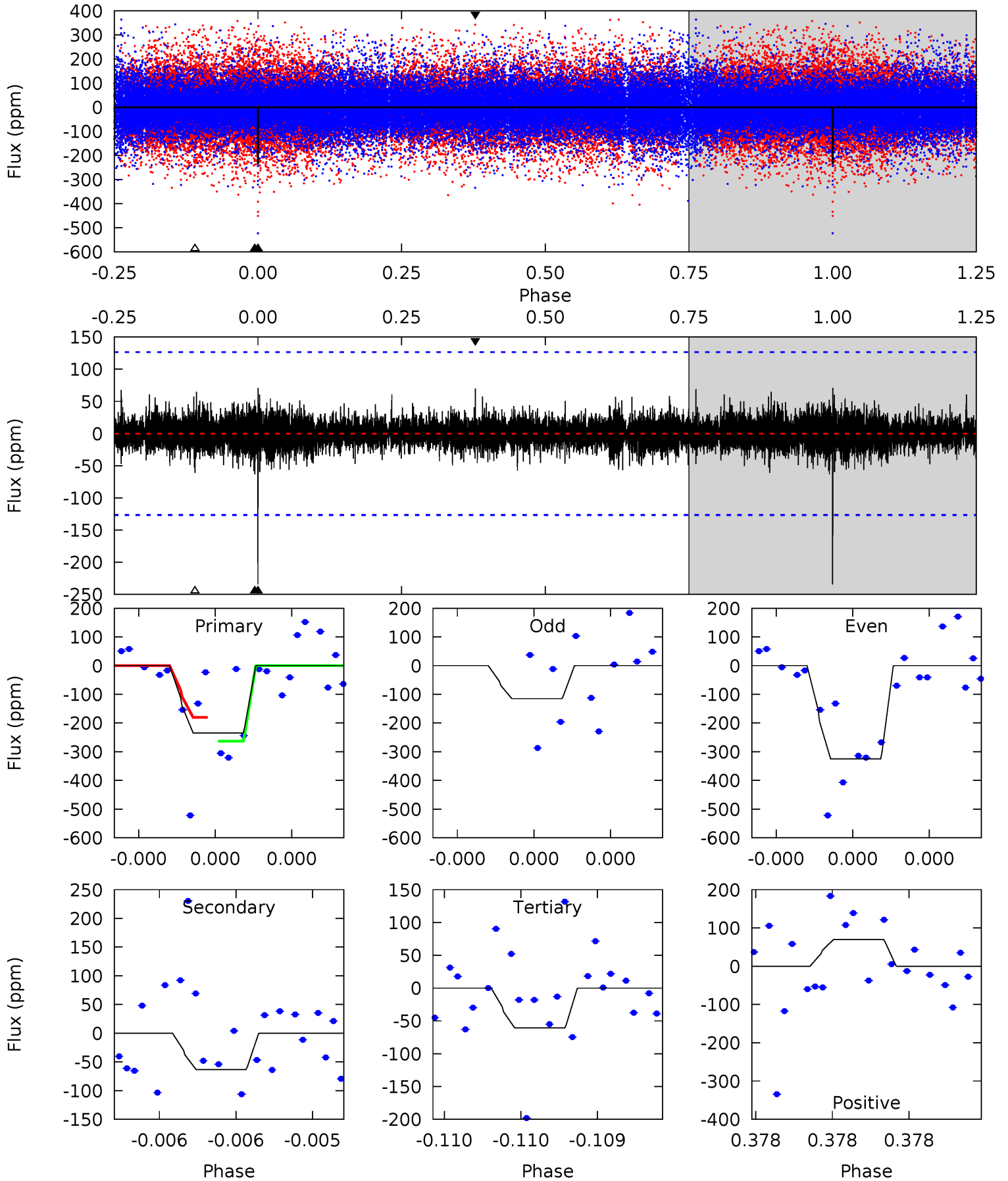
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.0	24.0	15.1	24.2	5.65	3.60	2.57	3.88	-5.27	8.89	-0.25	3.37	1.05	0.50	0.77



Alt Model-Shift Uniqueness Test

003329036-01, P = 632.541283 Days, E = 255.048153 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	2.86	2.75	3.16	5.73	3.72	0.60	7.87	7.46	0.11	-0.30	4.32	2.22	0.23	1.76



Stellar Parameters For KIC 003329036

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3987^{+79}_{-109}	$1.111^{+0.030}_{-0.030}$	$-0.240^{+0.200}_{-0.250}$	$61.222^{+2.204}_{-12.491}$	$1.765^{+0.071}_{-0.638}$	$0.000^{+0.000}_{-0.000}$
	+2%/-3%	+3%/-3%	+83%/-104%	+4%/-20%	+4%/-36%	+30%/-8%
Source	PHO54	AST54	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 003329036-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-637 ± 27	$162.21^{+55.47}_{-53.29}$	1456^{+35}_{-44}	4036^{+624}_{-412}	41^{+48}_{-18}
Alt.	-63 ± 22	$110.43^{+49.60}_{-49.10}$	1456^{+36}_{-47}	3105^{+705}_{-352}	$8.304^{+20.561}_{-4.688}$

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

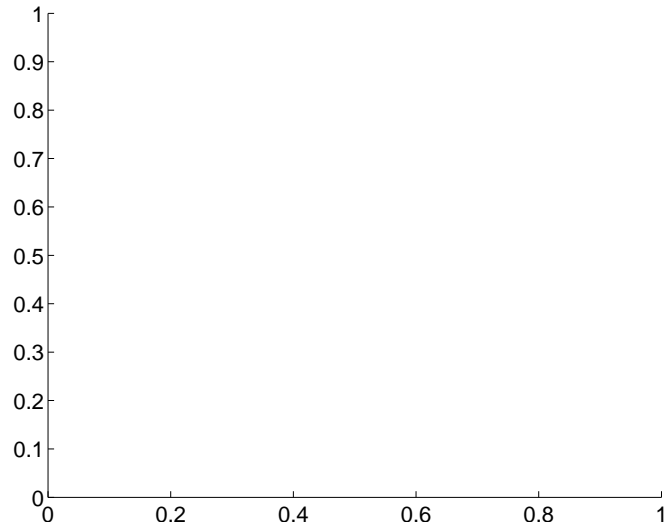
Supplemental centroid analysis for 003329036-01. Kepler magnitude: 13.05. Transit SNR 7.35

There are 0 quarters with good PRF difference image offsets

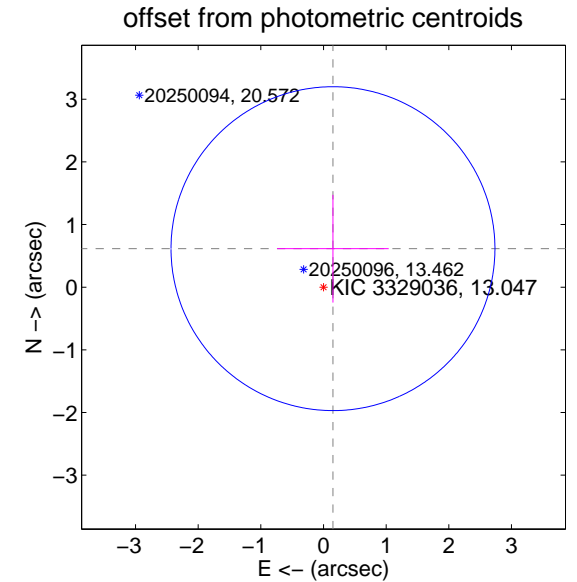
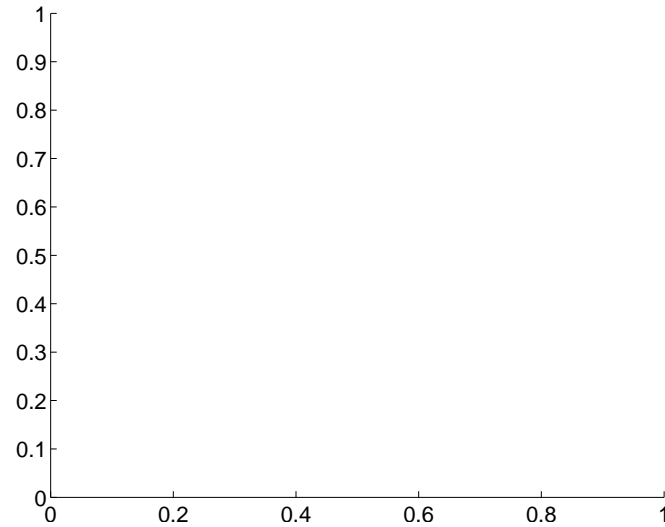
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.63 ± 0.86	0.73	-0.15 ± 0.89	0.61 ± 0.86

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



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.



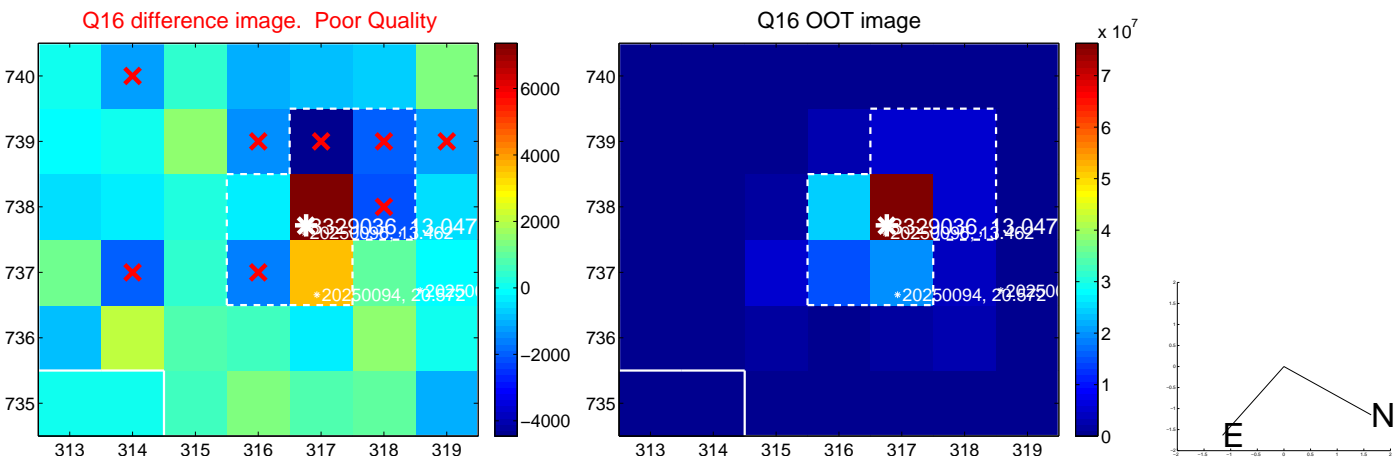
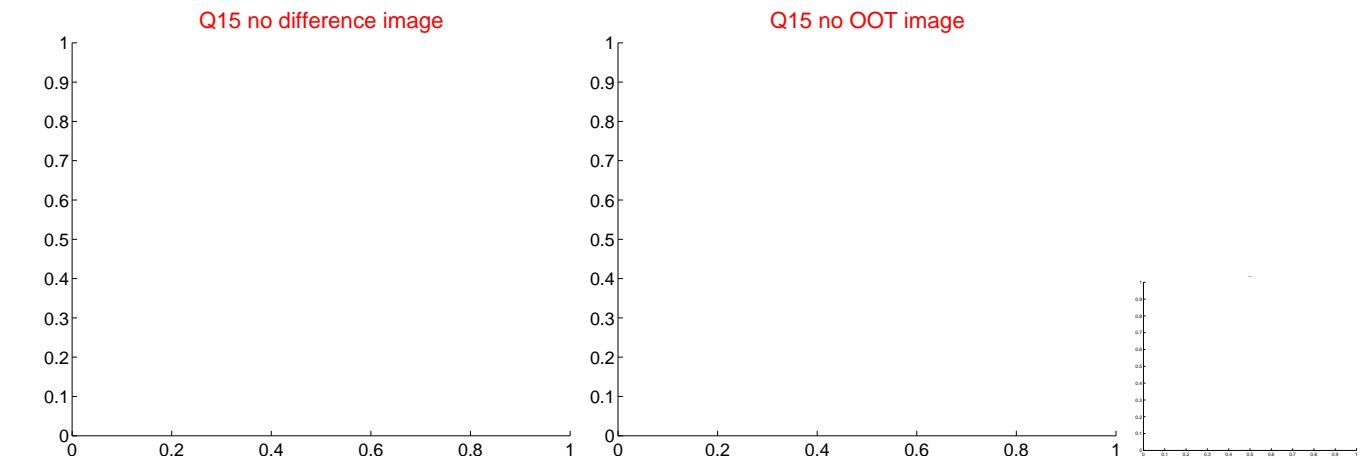
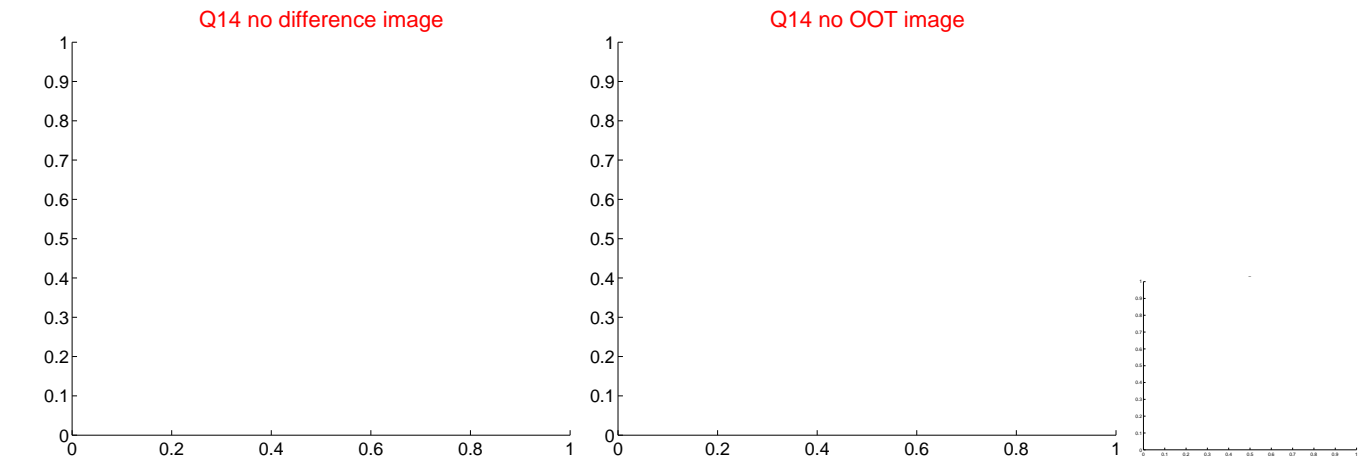
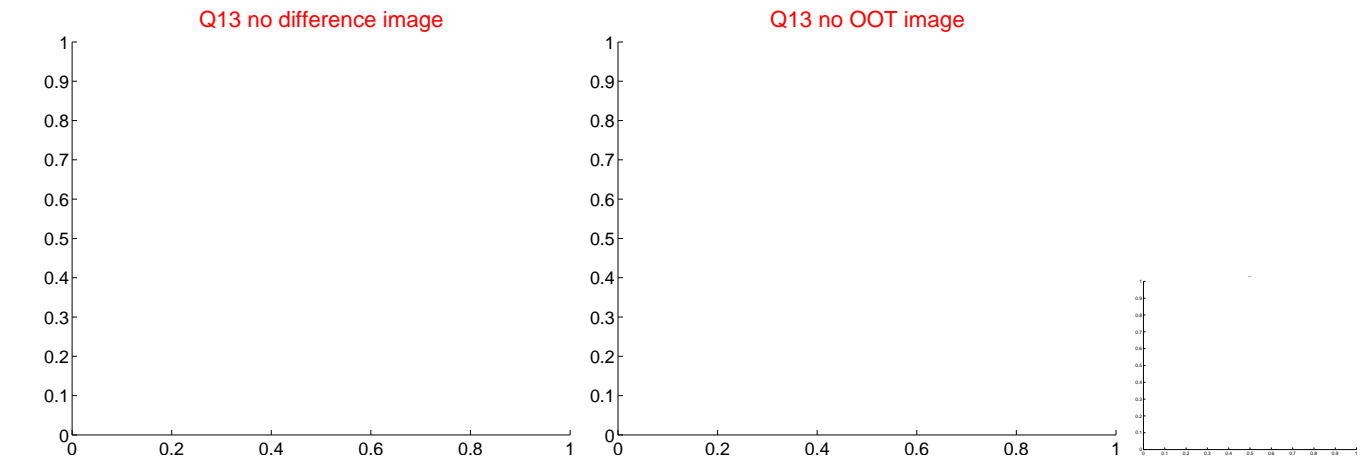
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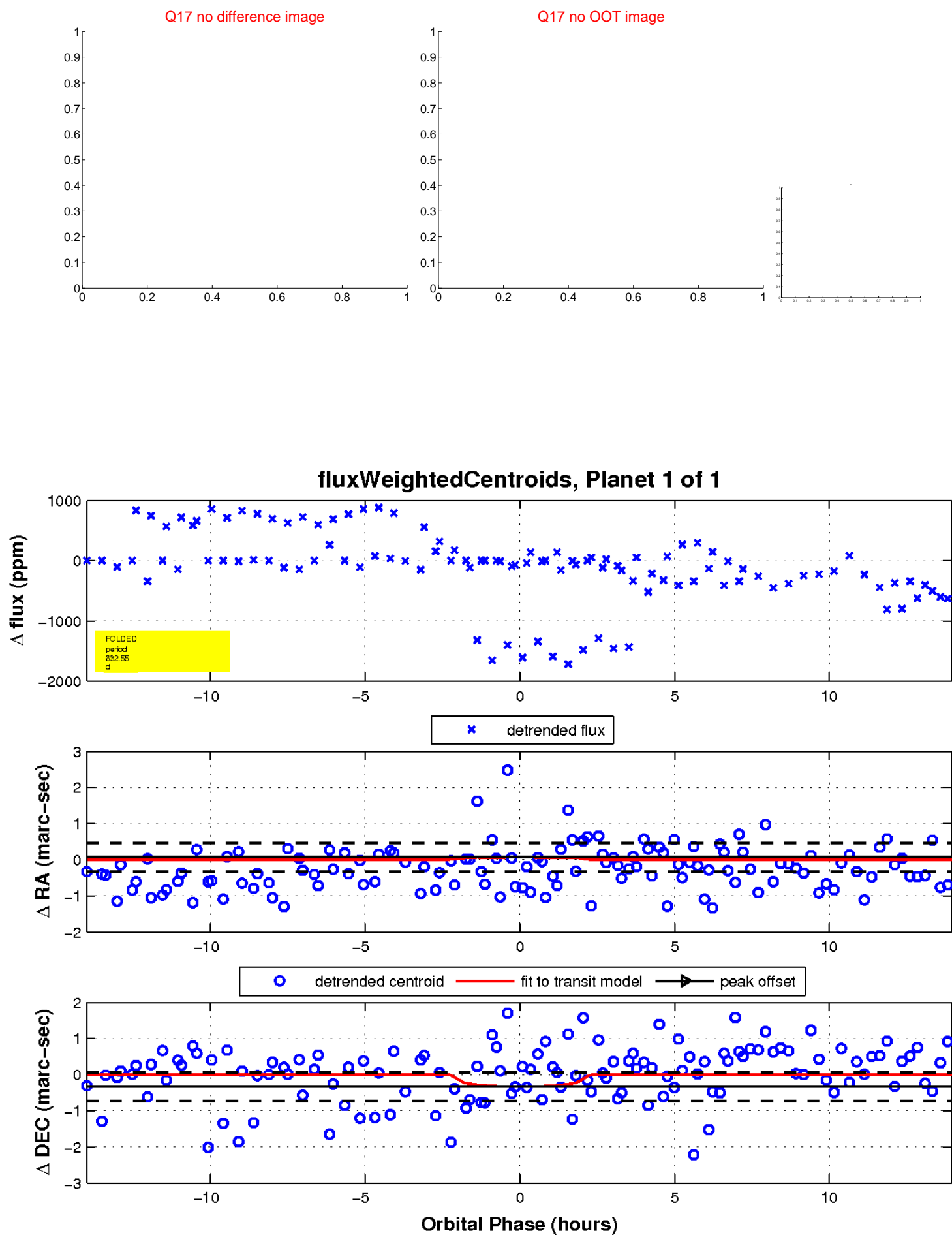
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Declination

