

KIC 002300319

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})
002300319-01	OBS	No	324.890774	172.785019	200.9	9.942	11.5	9.0	1.39	6228	2.35	3.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002300319-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

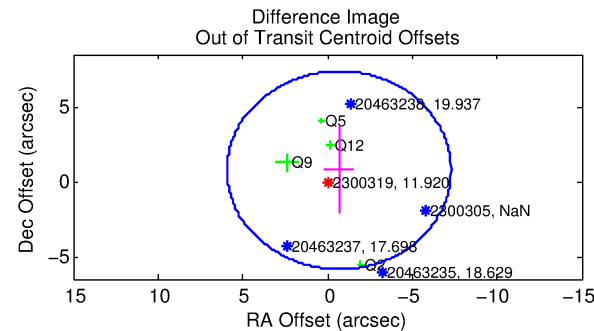
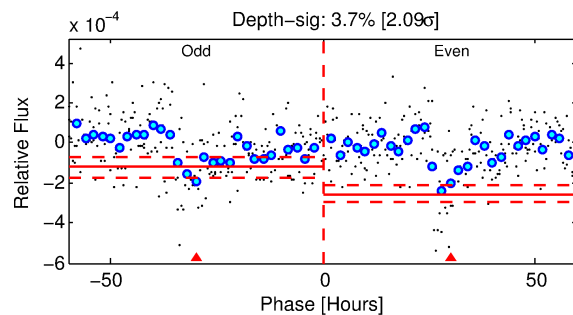
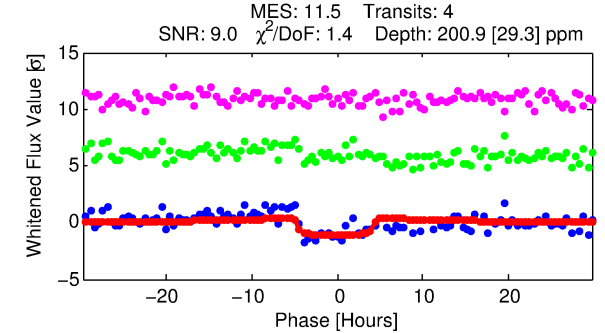
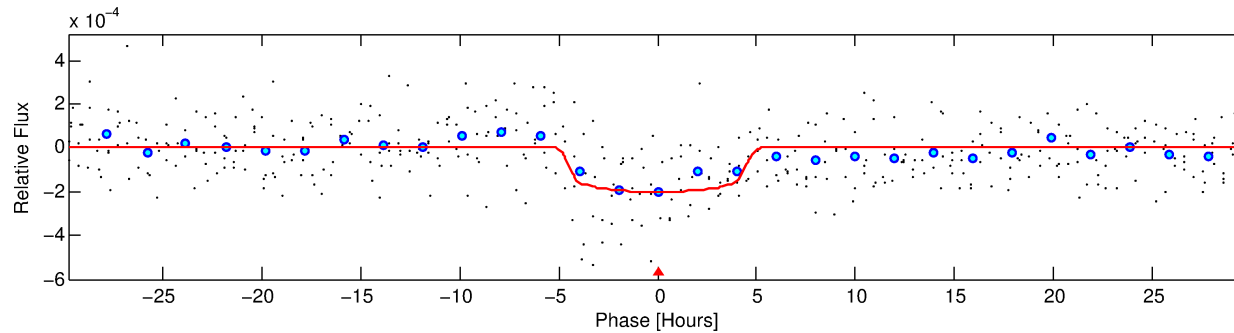
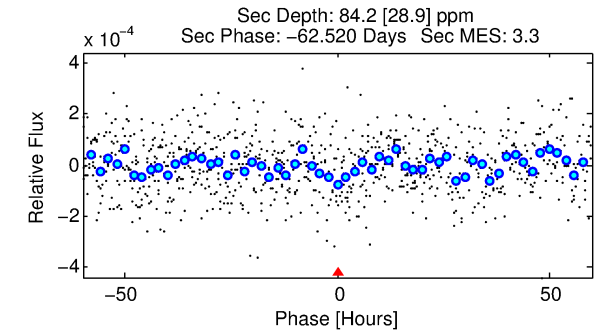
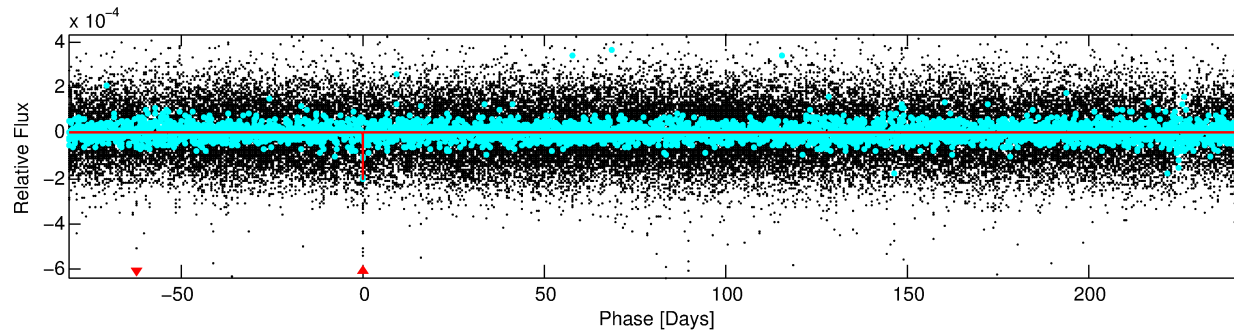
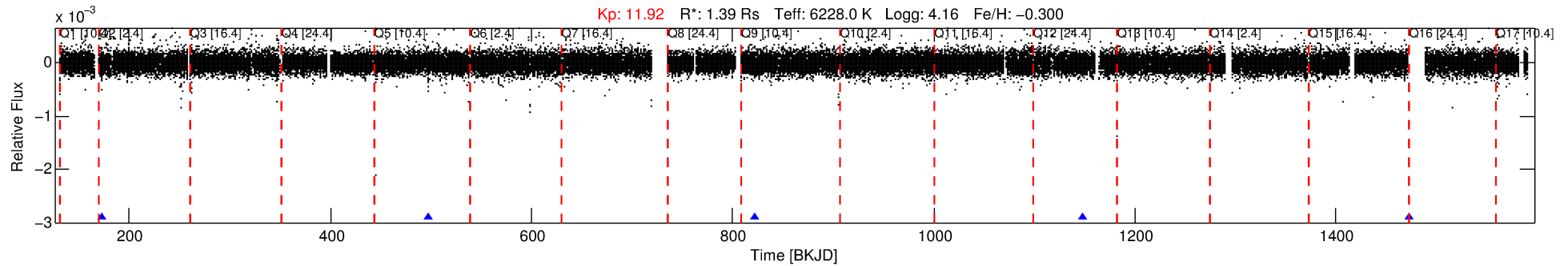
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002300319-01

No Significant Match Found

DV One-Page Summary

KIC: 2300319 Candidate: 1 of 1 Period: 324.891 d



DV Fit Results:

Period = 324.89077 [0.00866] d
Epoch = 172.7850 [0.0175] BKJD
Rp/R* = 0.0155 [0.0021]
a/R* = 108.96 [66.07]
b = 0.92 [0.11]
Seff = 3.00 [1.39]
Teq = 335 [39] K
Rp = 2.35 [0.73] Re
a = 0.9343 [0.2536] AU
Ag = 7320.22 [4545.04] [1.61 sigma]
Teff = 4798 [560] K [7.95 sigma]

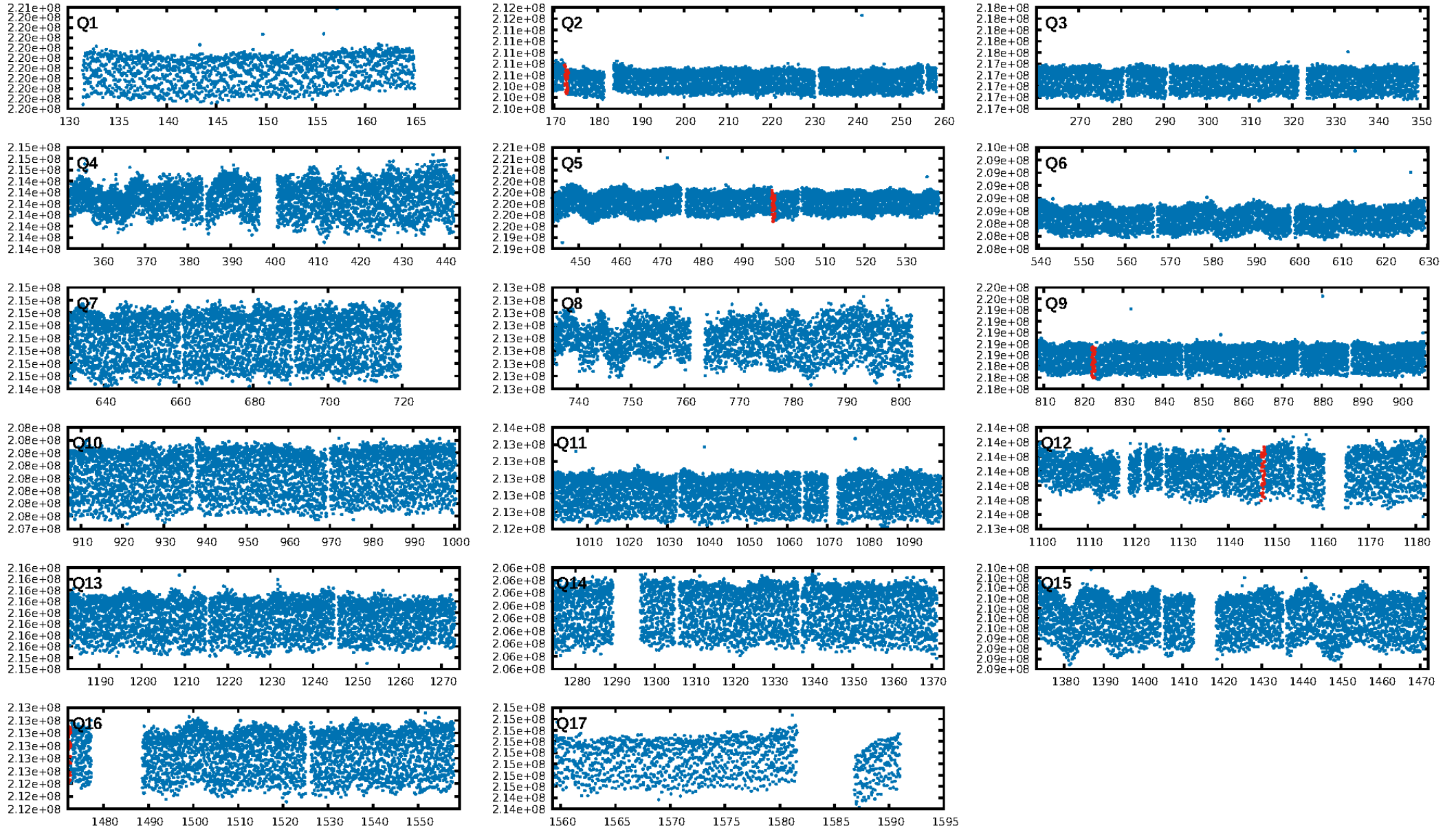
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 58.7%
Bootstrap-pfa: 7.40e-16
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 4.419
Centroid-sig: 28.3%
Centroid-so: 1.628 arcsec [1.09 sigma]
OotOffset-rm: 1.020 arcsec [0.46 sigma]
KicOffset-rm: 0.955 arcsec [0.40 sigma]
OotOffset-st: 1/0/1/2 [4]
KicOffset-st: 1/0/1/2 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [4/4]

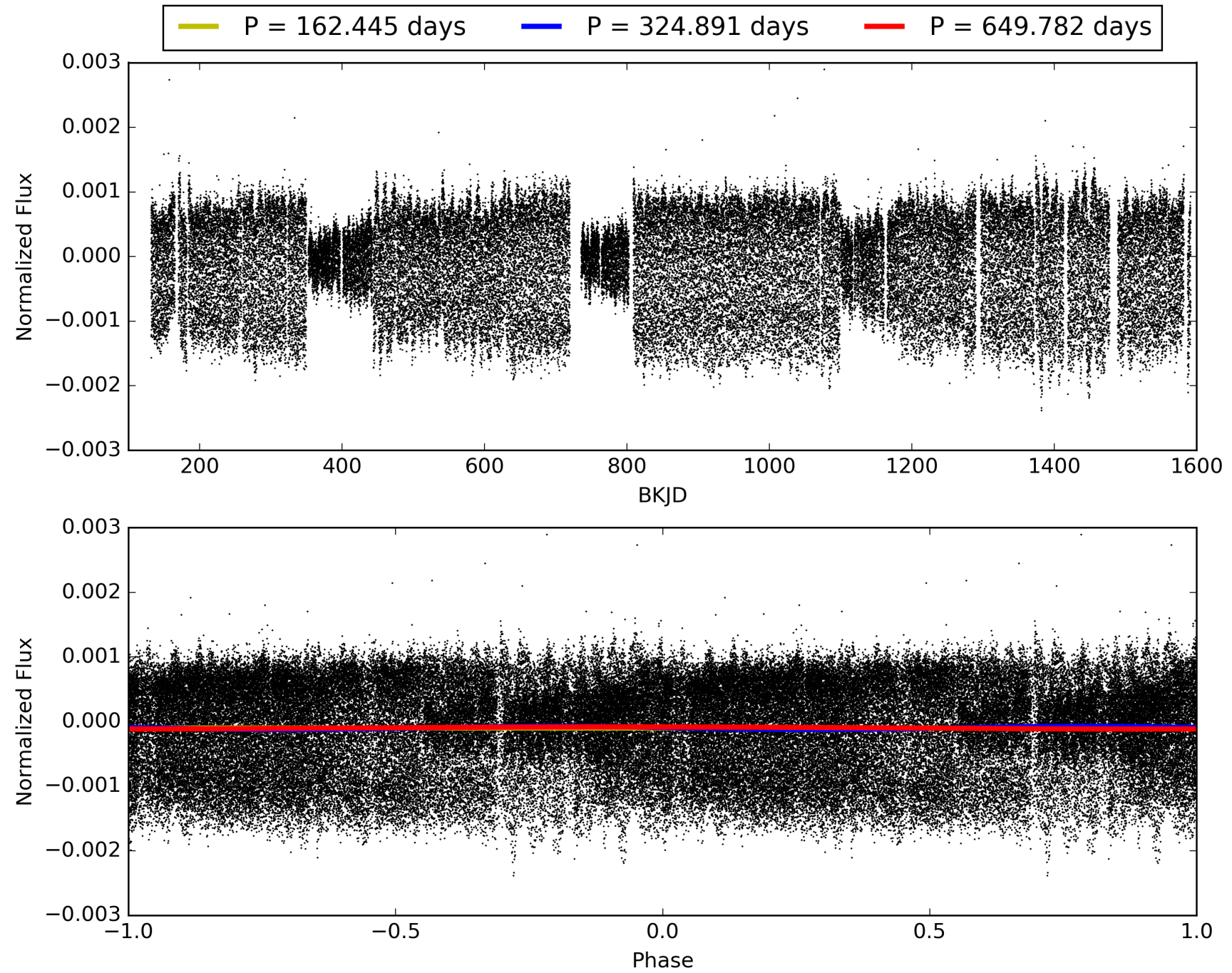
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:43:25 Z

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

TCE 002300319-01, PDC Light Curves

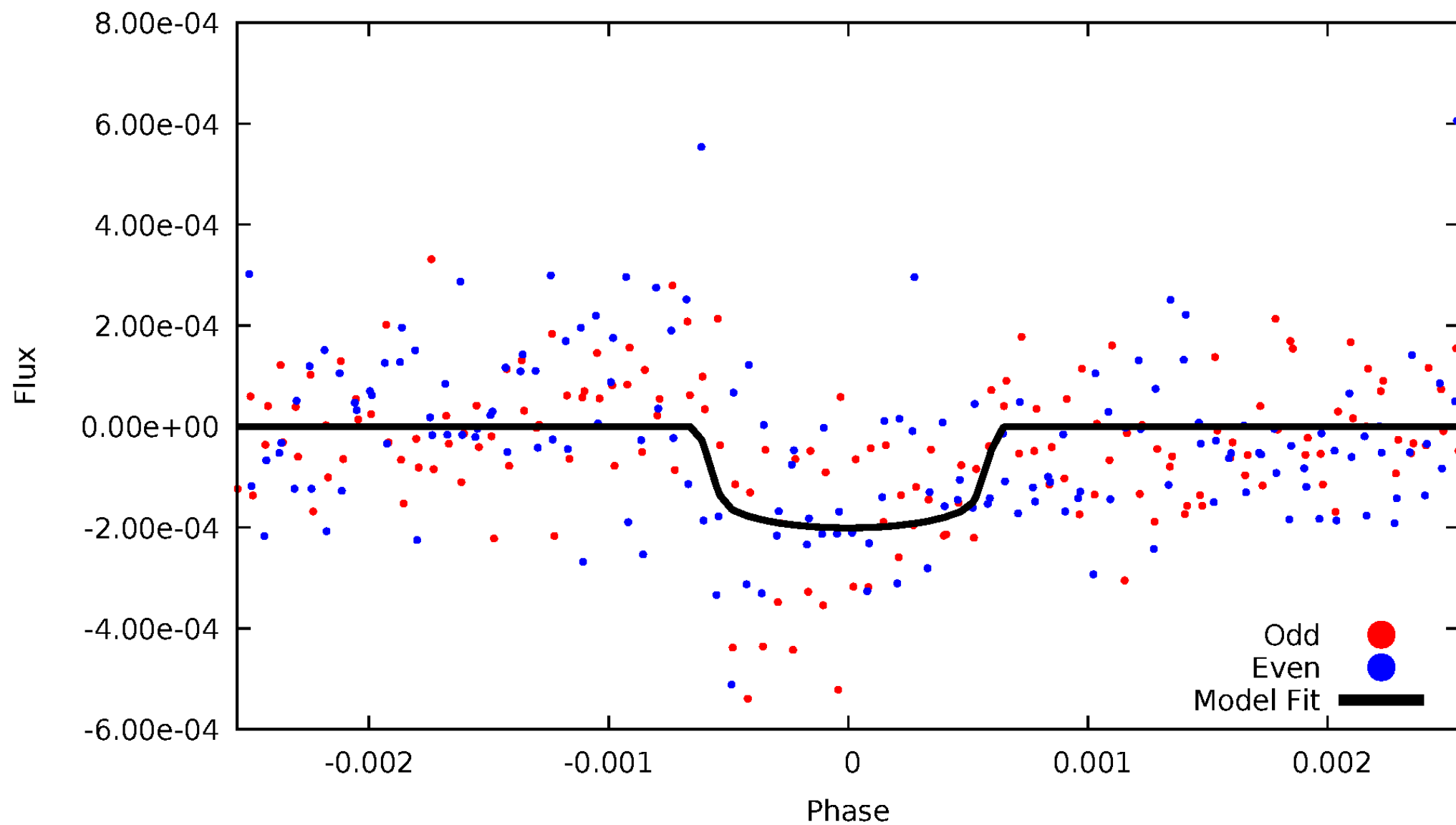


TCE 002300319-01



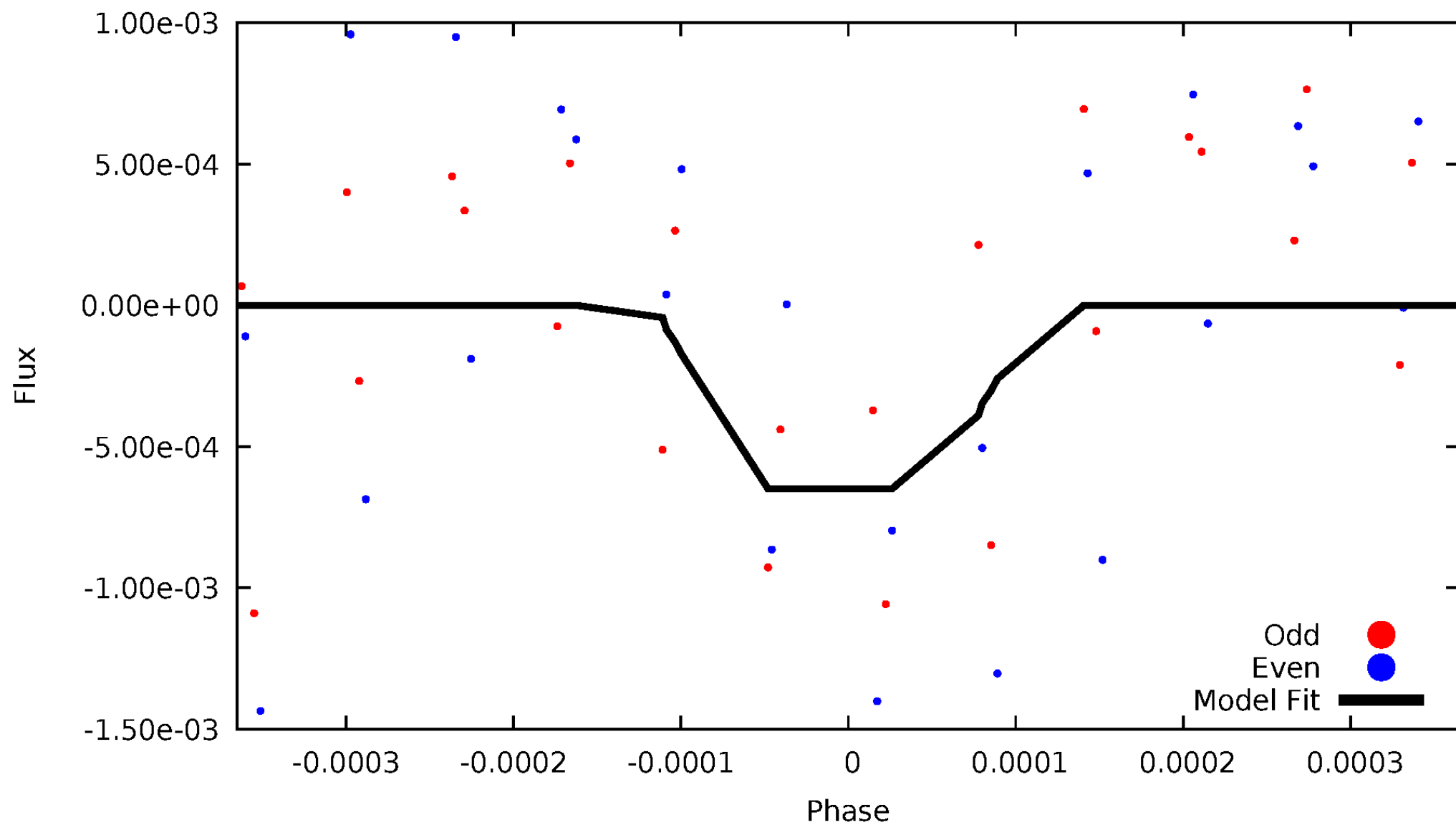
DV Odd/Even

TCE 002300319-01



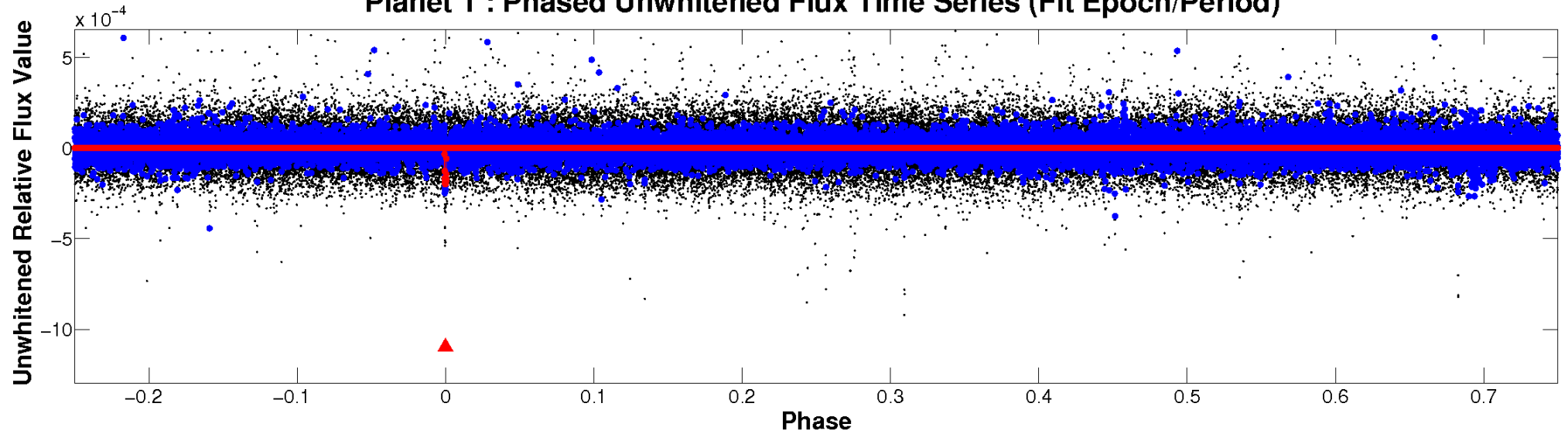
ALT Odd/Even

TCE 002300319-01

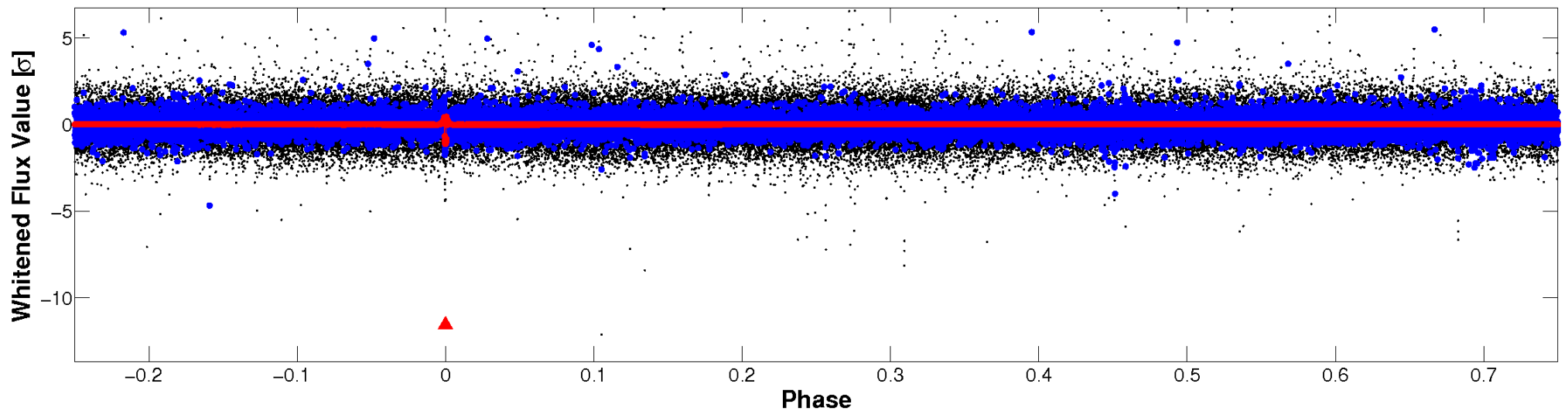


Non-Whitened Vs. Whitened Light Curve

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

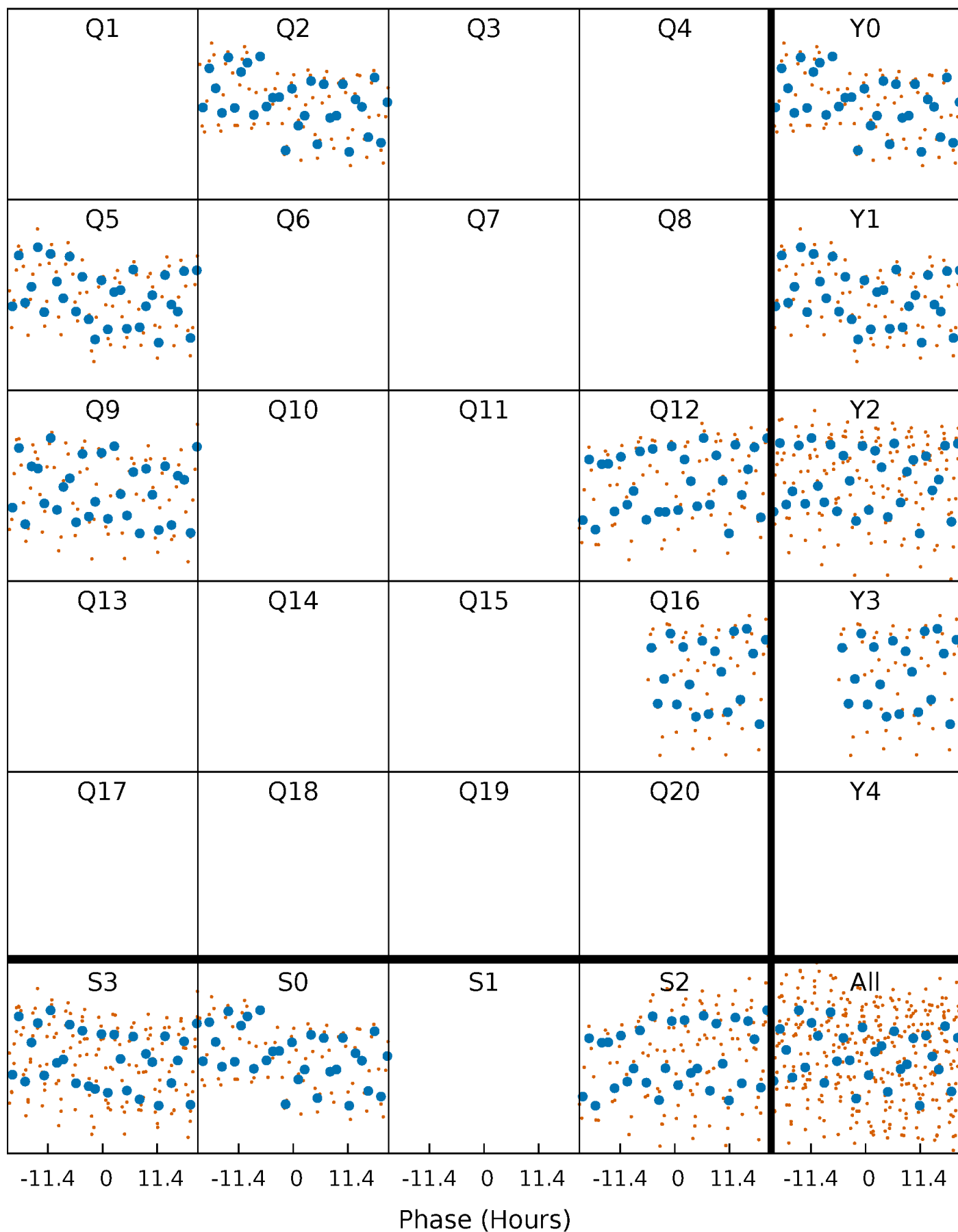


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



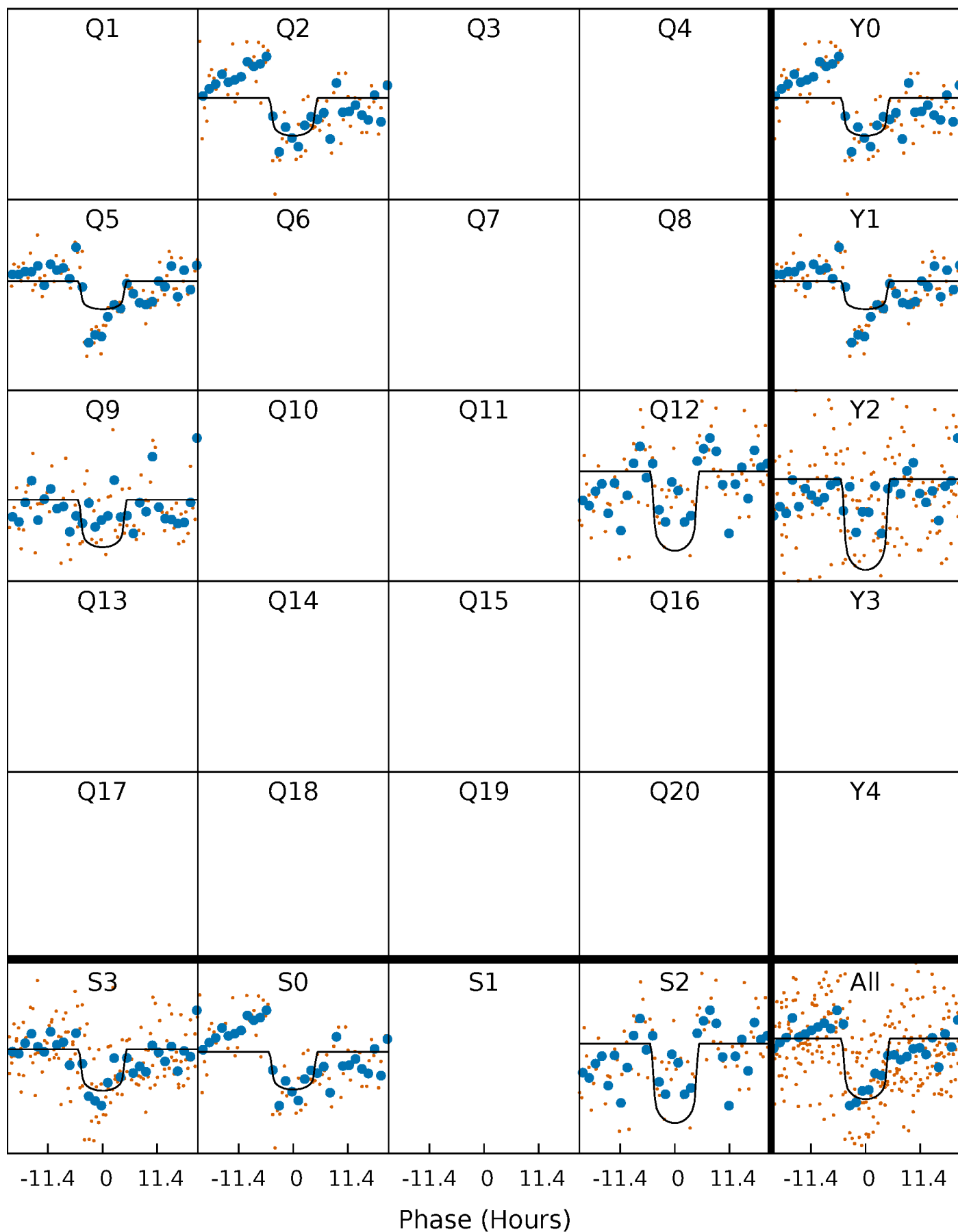
PDC Quarter-Phased Transit Curves

TCE 002300319-01 P=324.890774 Days $T_0=172.785019$ (BKJD)



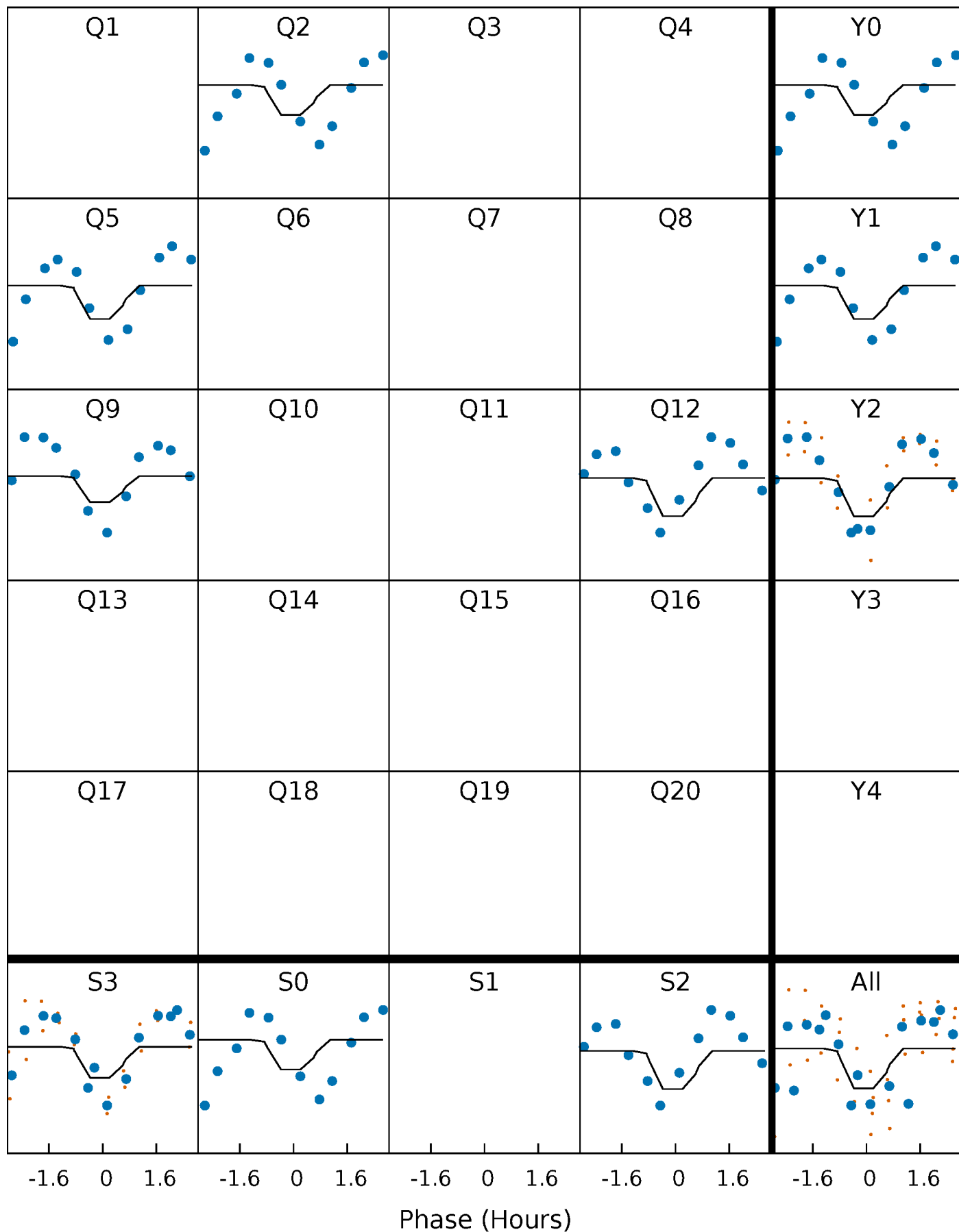
DV Quarter-Phased Transit Curves

TCE 002300319-01 P=324.890774 Days $T_0=172.785019$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

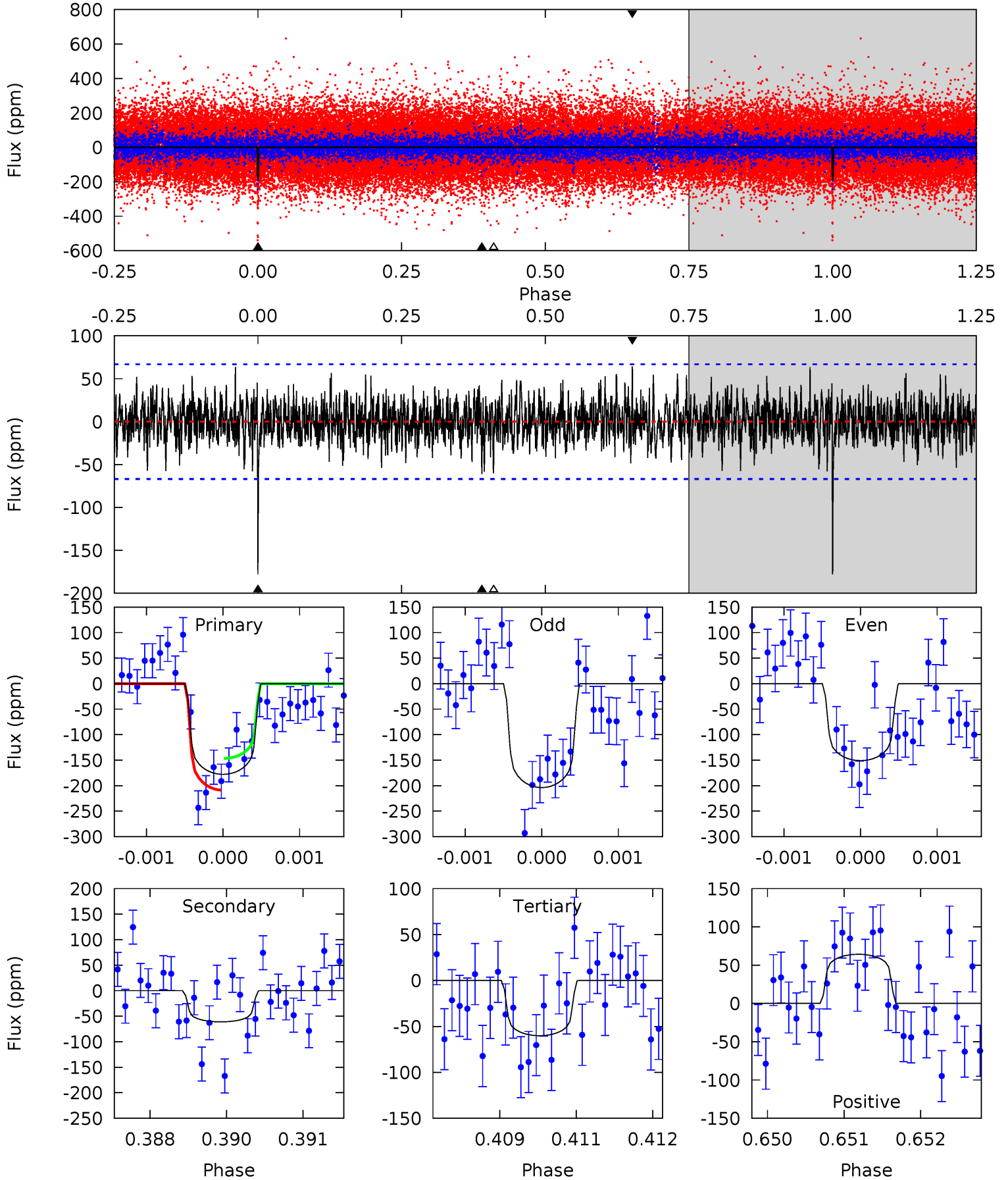
TCE 002300319-01 P=324.893604 Days $T_0=172.965605$ (BKJD)



DV Model-Shift Uniqueness Test

002300319-01, P = 324.890774 Days, E = 172.785019 Days

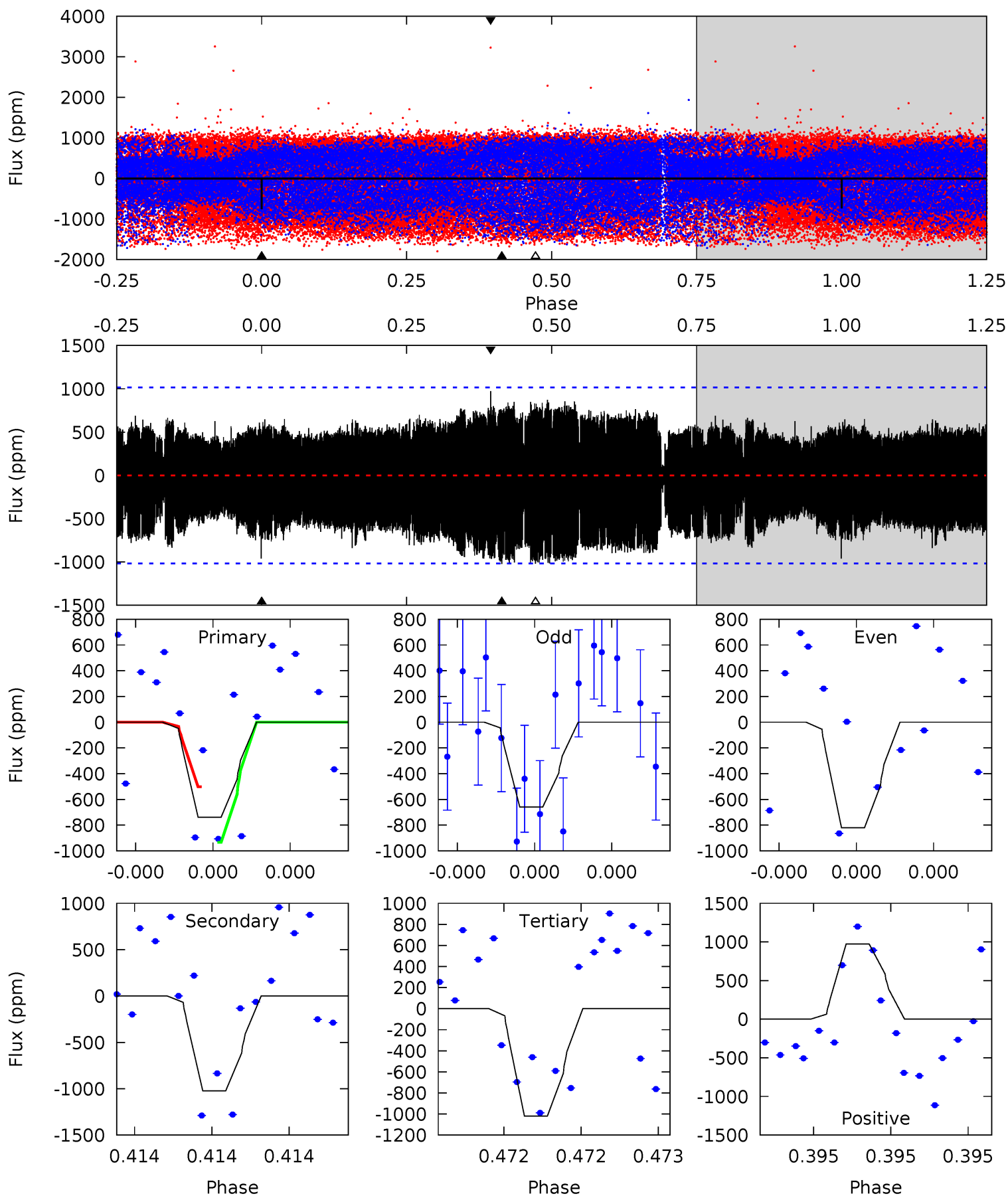
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	4.94	4.85	5.19	5.40	3.21	1.44	9.50	9.17	0.08	-0.25	2.12	1.09	0.27	2.52



Alt Model-Shift Uniqueness Test

002300319-01, P = 324.893604 Days, E = 172.965605 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.13	5.73	5.72	5.46	5.69	3.66	2.09	-1.58	-1.32	0.01	0.27	0.45	1.10	0.49	1.20



Stellar Parameters For KIC 002300319

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6228^{+197}_{-241}	$4.163^{+0.258}_{-0.172}$	$-0.300^{+0.300}_{-0.300}$	$1.393^{+0.388}_{-0.388}$	$1.029^{+0.173}_{-0.129}$	$0.536^{+0.811}_{-0.245}$
	+3%/-4%	+6%/-4%	+100%/-100%	+28%/-28%	+17%/-13%	+151%/-46%
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 002300319-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-61 ± 12	$2.33^{+0.47}_{-0.48}$	465^{+40}_{-39}	4559^{+367}_{-309}	5415^{+3373}_{-1953}
Alt.	-1023 ± 179	$3.85^{+0.66}_{-0.69}$	464^{+36}_{-37}	7008^{+612}_{-530}	33585^{+16416}_{-10835}

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

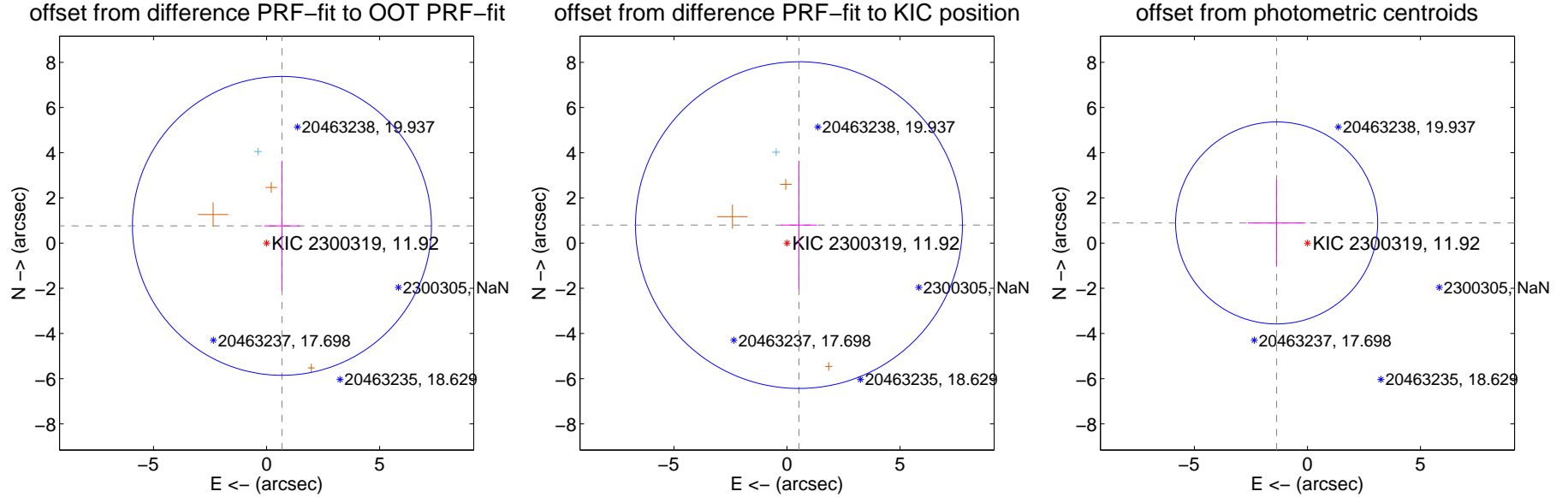
DV Centroid Data

Supplemental centroid analysis for 002300319-01. **Kepler magnitude: 11.92.** Transit SNR 9.01

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.020 ± 2.204	0.46	-0.679 ± 0.791	0.762 ± 2.866
PRF-fit source offset from KIC position	0.955 ± 2.410	0.40	-0.527 ± 0.796	0.796 ± 2.842
photometric centroid source offset	1.63 ± 1.49	1.09	1.36 ± 1.28	0.89 ± 1.90



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.

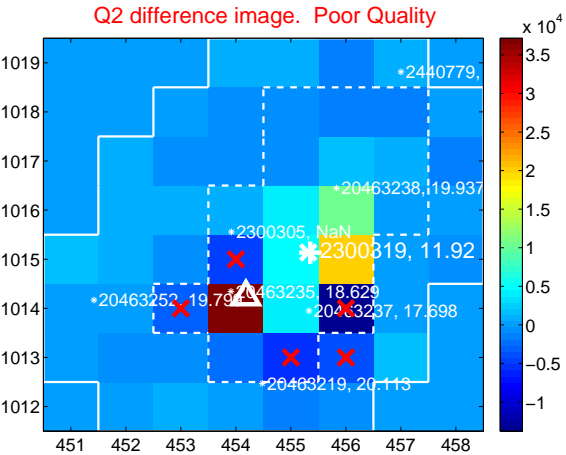
Q1 no difference image



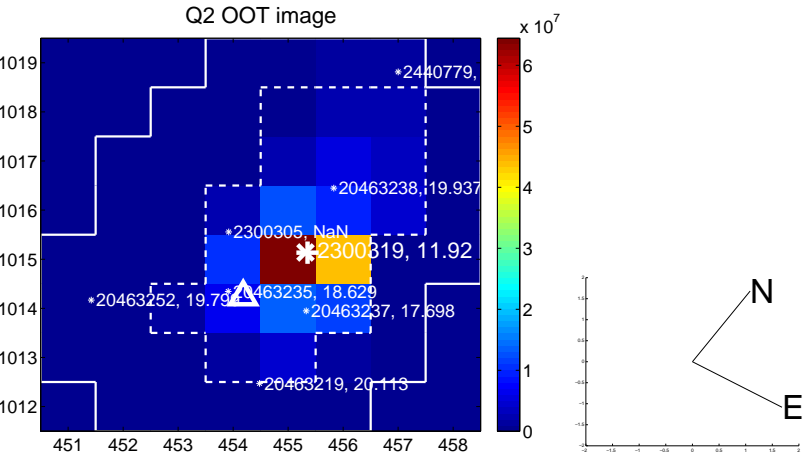
Q1 no OOT image



Q2 difference image. Poor Quality



Q2 OOT image



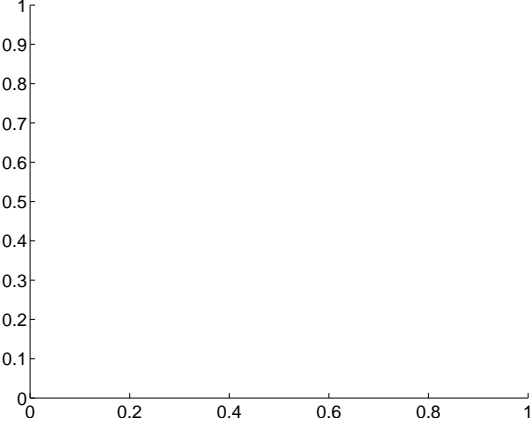
Q3 no difference image



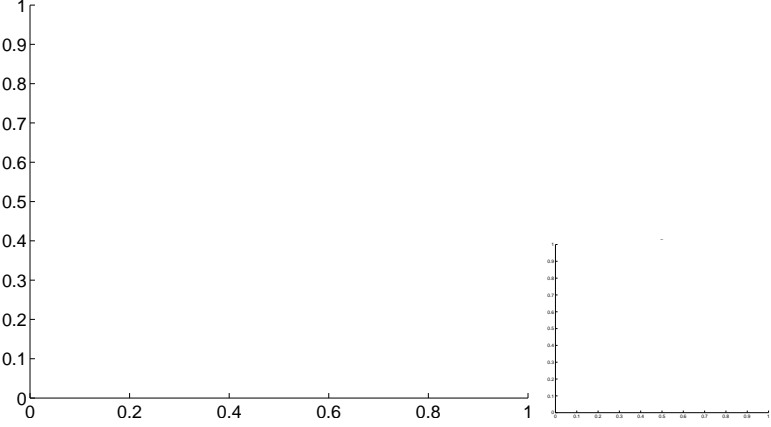
Q3 no OOT image



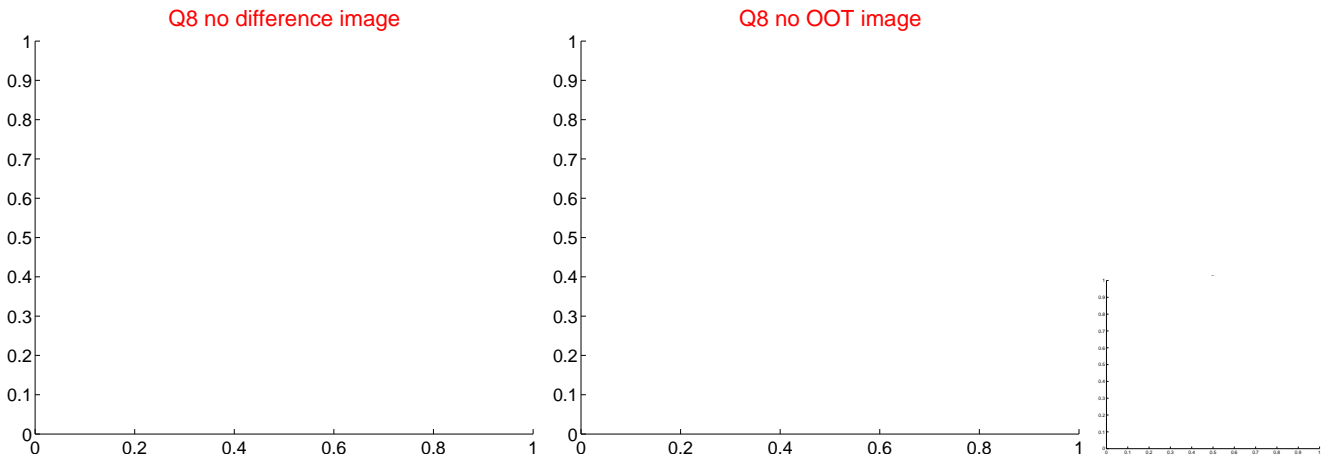
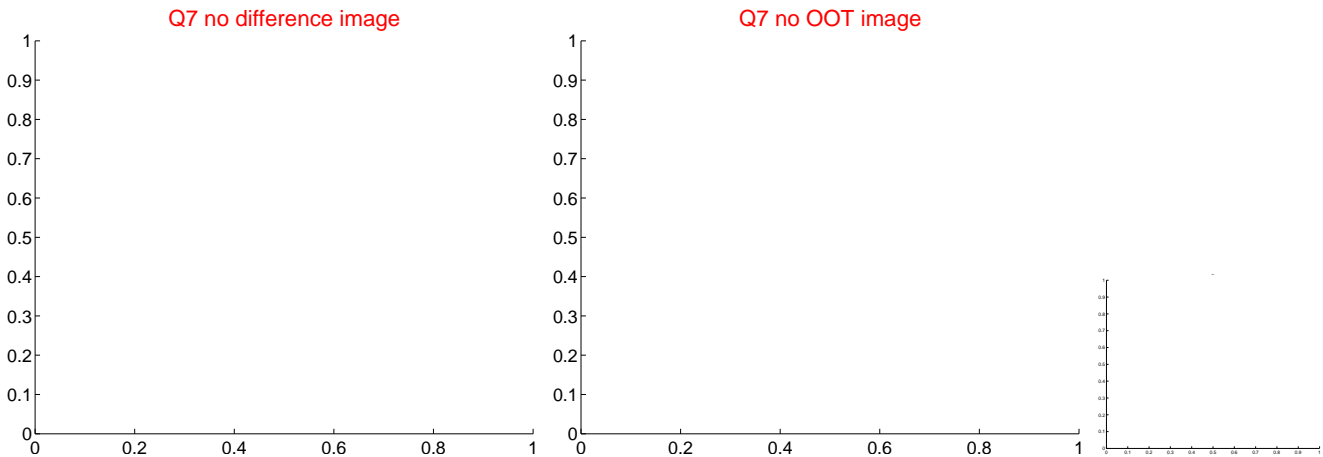
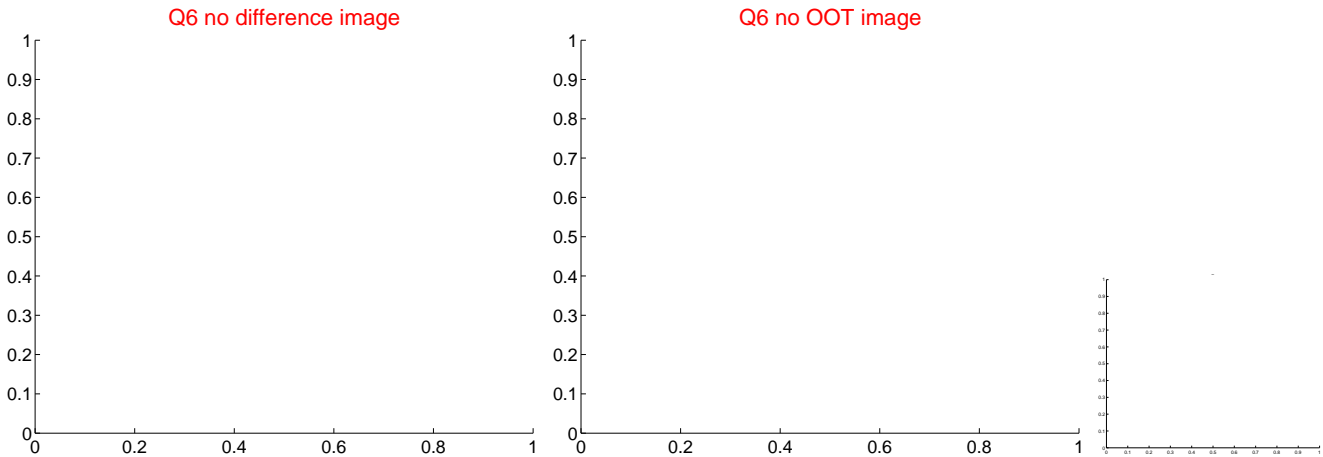
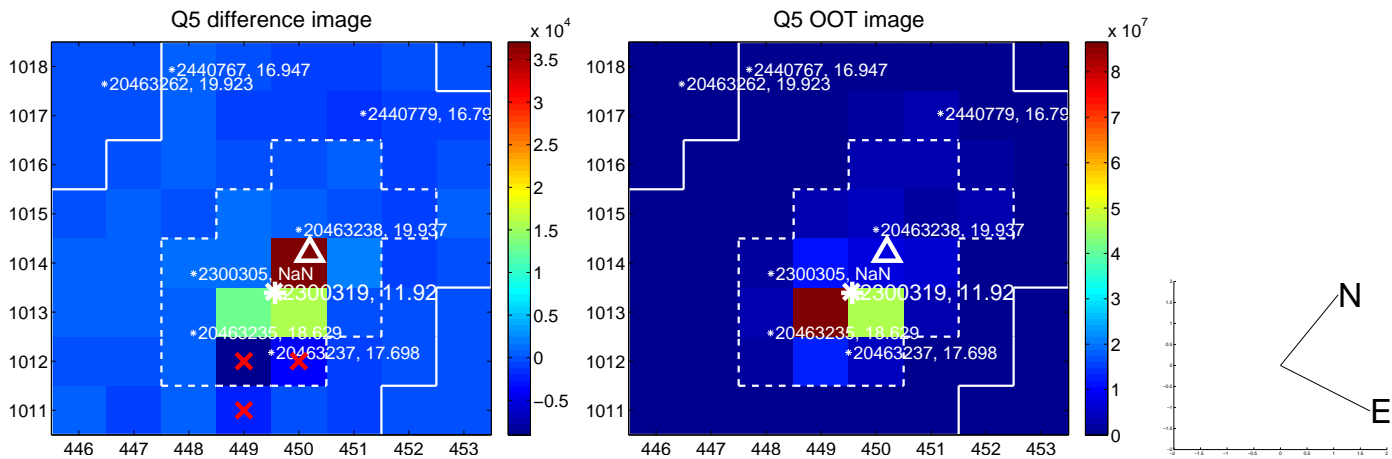
Q4 no difference image



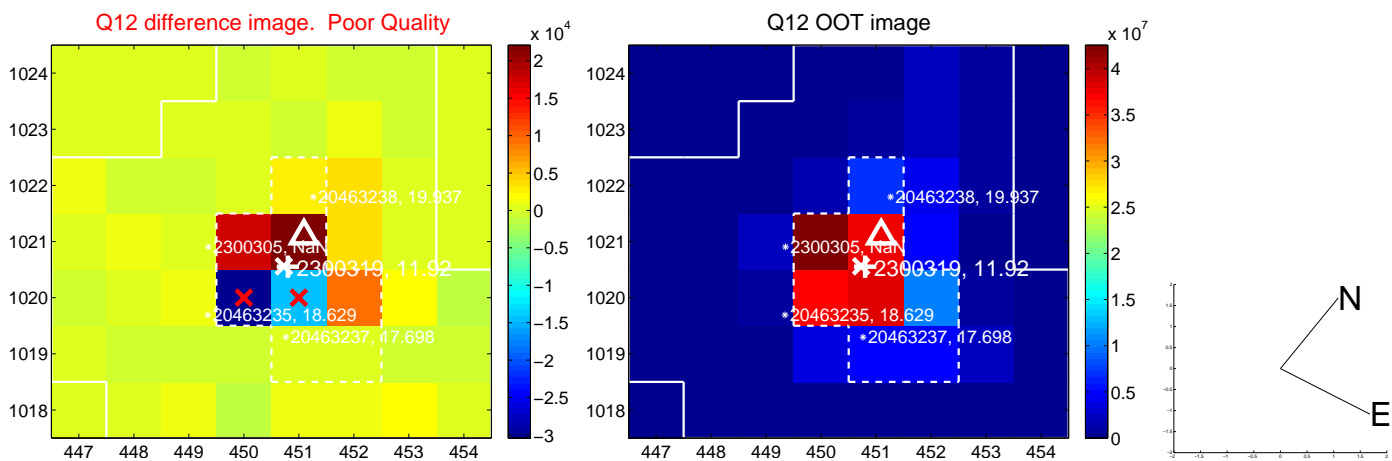
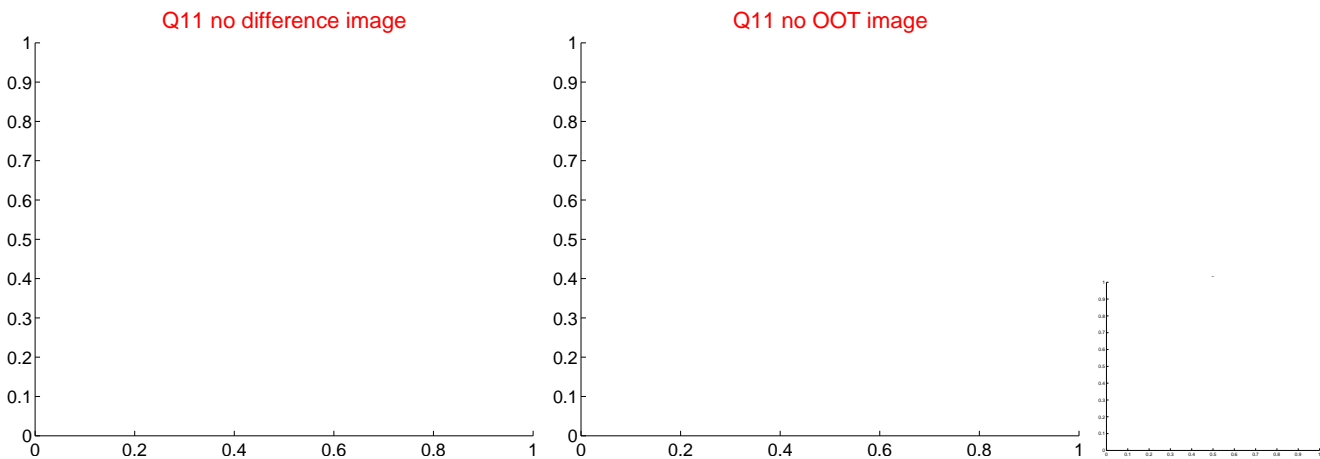
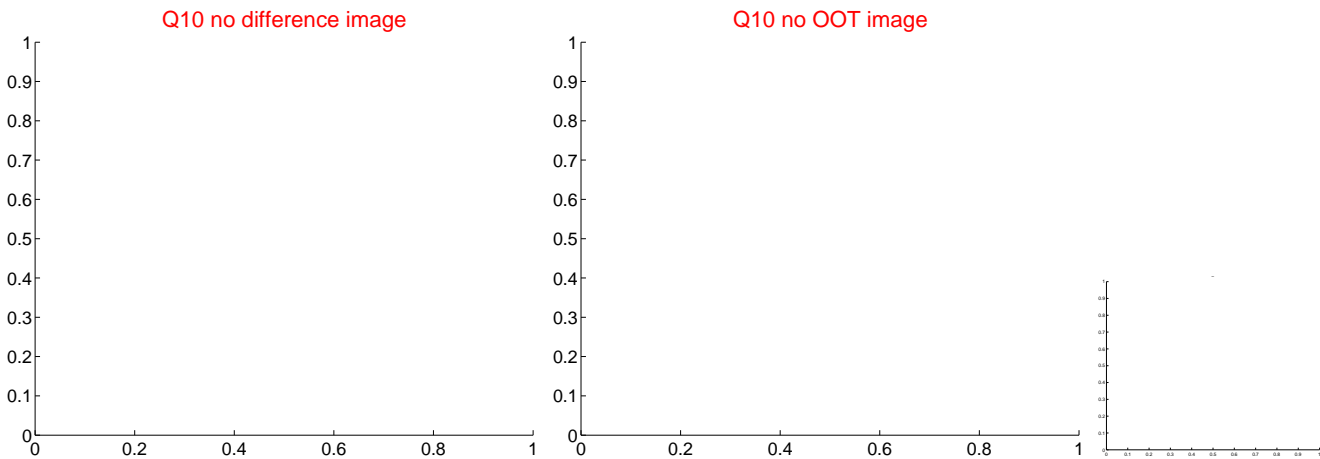
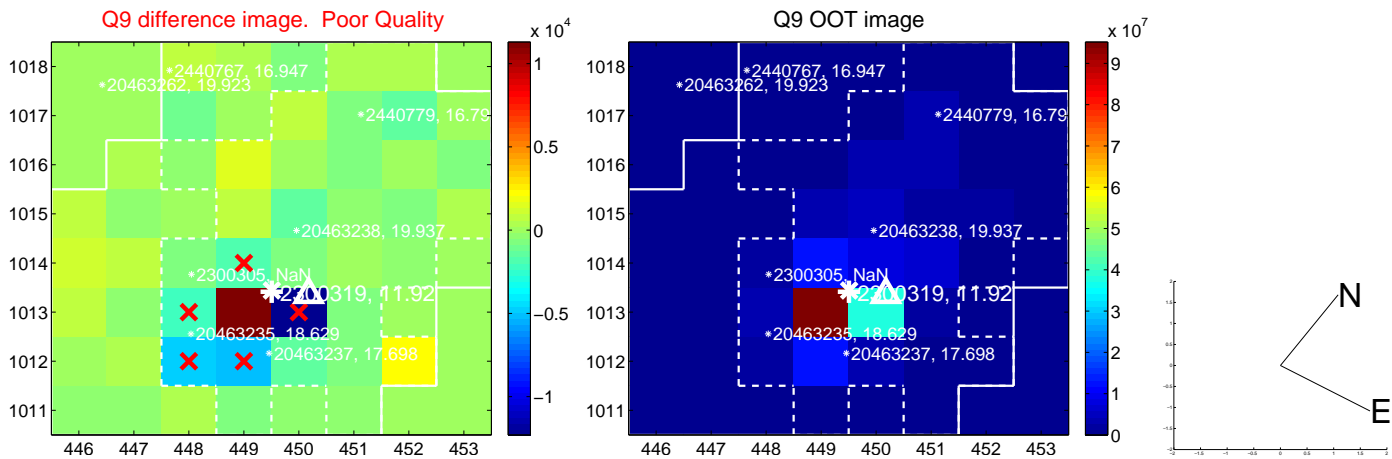
Q4 no OOT image



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



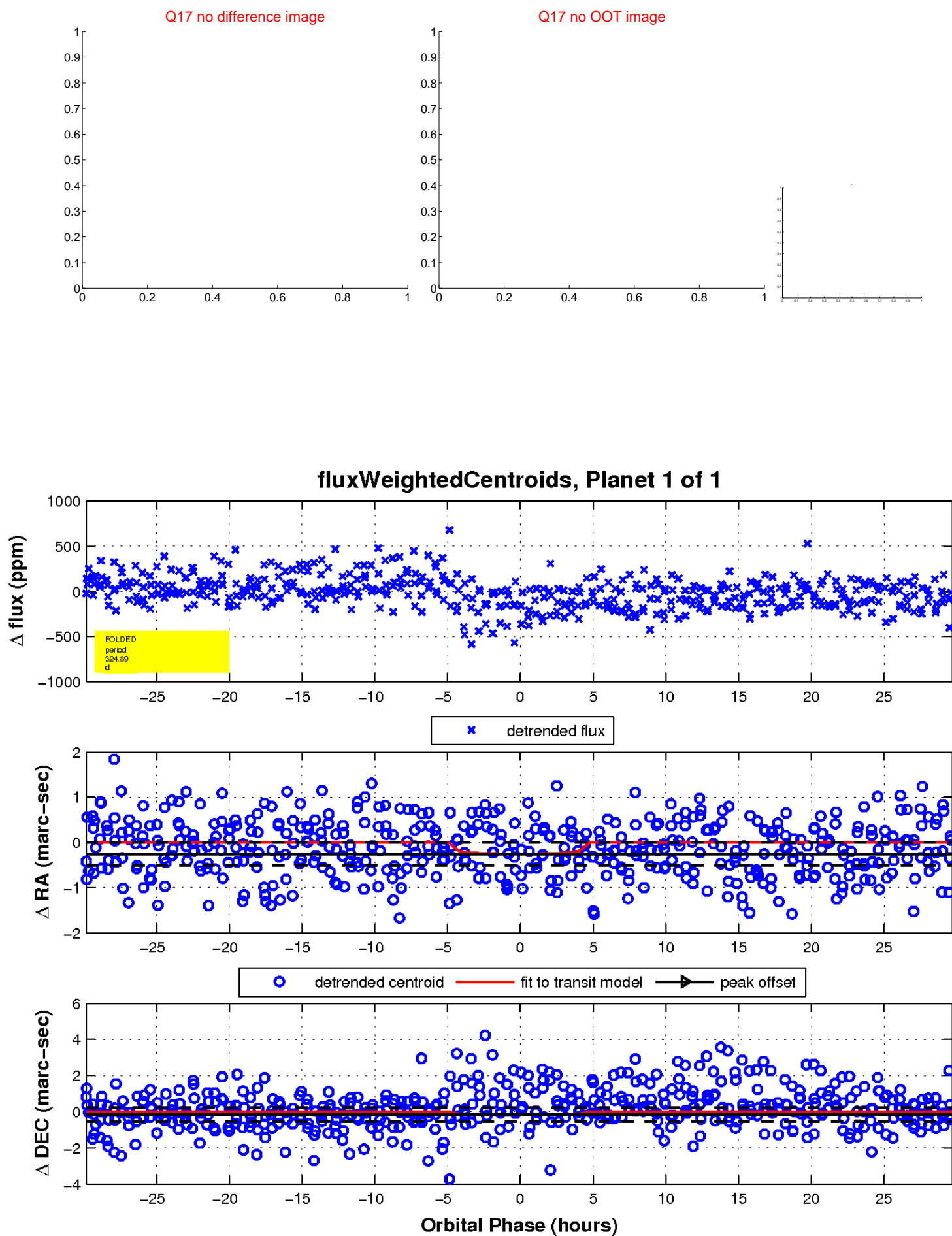
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

