

KIC 006804018

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})
006804018-01	OBS	No	493.005368	190.745320	252.9	7.711	9.5	6.0	0.25	3375	0.41	0.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006804018-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

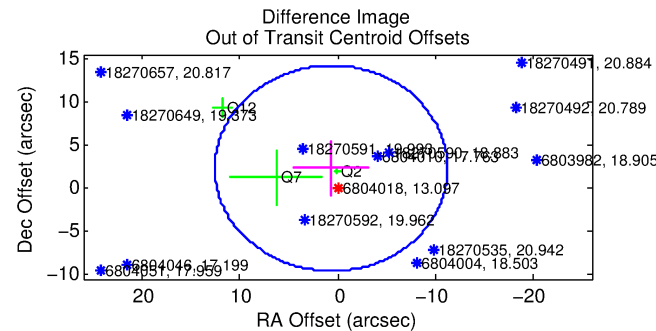
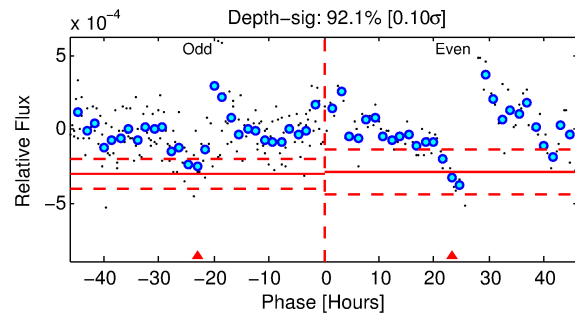
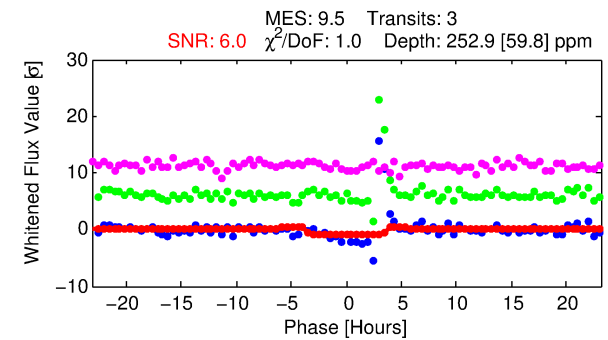
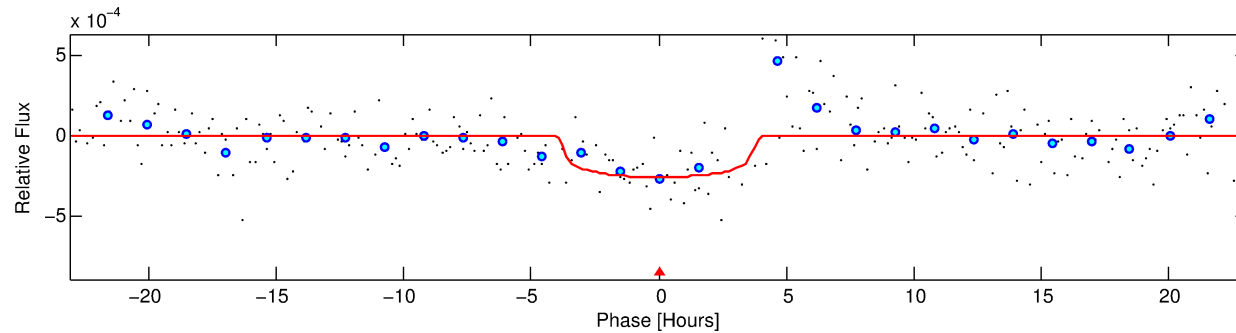
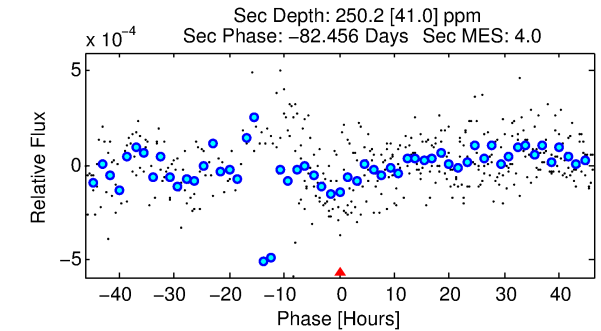
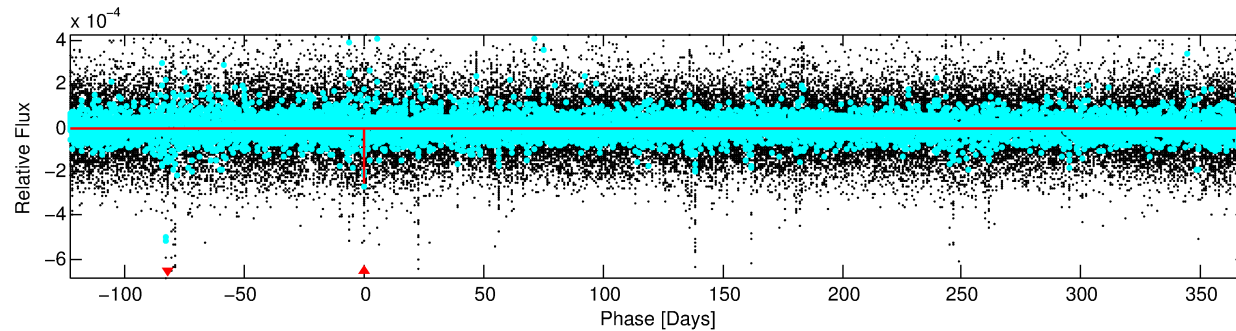
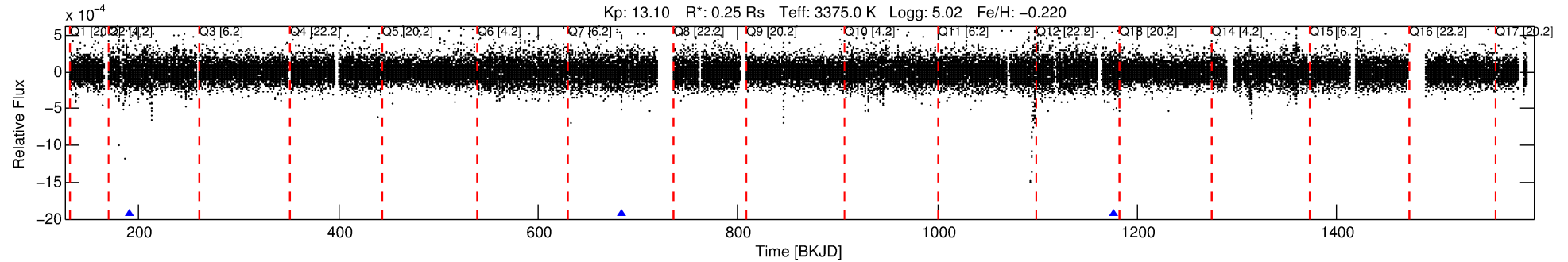
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006804018-01

No Significant Match Found

DV One-Page Summary

KIC: 6804018 Candidate: 1 of 1 Period: 493.005 d



DV Fit Results:

Period = 493.00537 [0.01256] d
Epoch = 190.7453 [0.0152] BKJD
Rp/R* = 0.0154 [0.0152]
a/R* = 373.16 [1658.07]
b = 0.67 [3.69]
Seff = 0.01 [0.00]
Teq = 85 [7] K
Rp = 0.41 [0.44] Re
a = 0.7486 [0.2067] AU
Ag = 451786.65 [906757.07] [0.50 σ]
Teffp = 3421 [1700] K [1.96 σ]

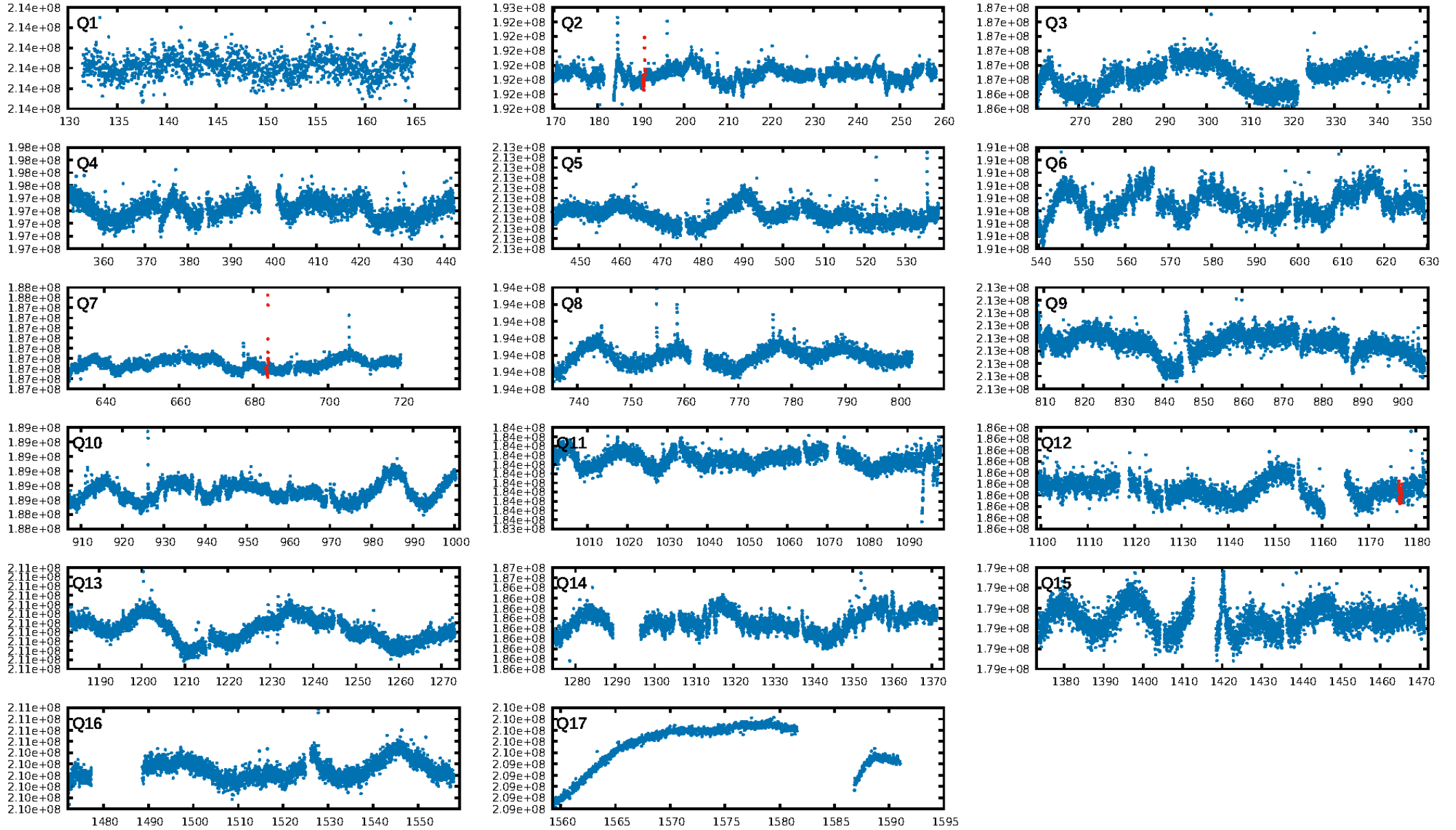
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 14.7%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: 5.20e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.857
Centroid-sig: 37.5%
Centroid-so: 1.962 arcsec [1.42 σ]
OotOffset-rm: 2.397 arcsec [0.60 σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-rm: 2.834 arcsec [0.95 σ]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

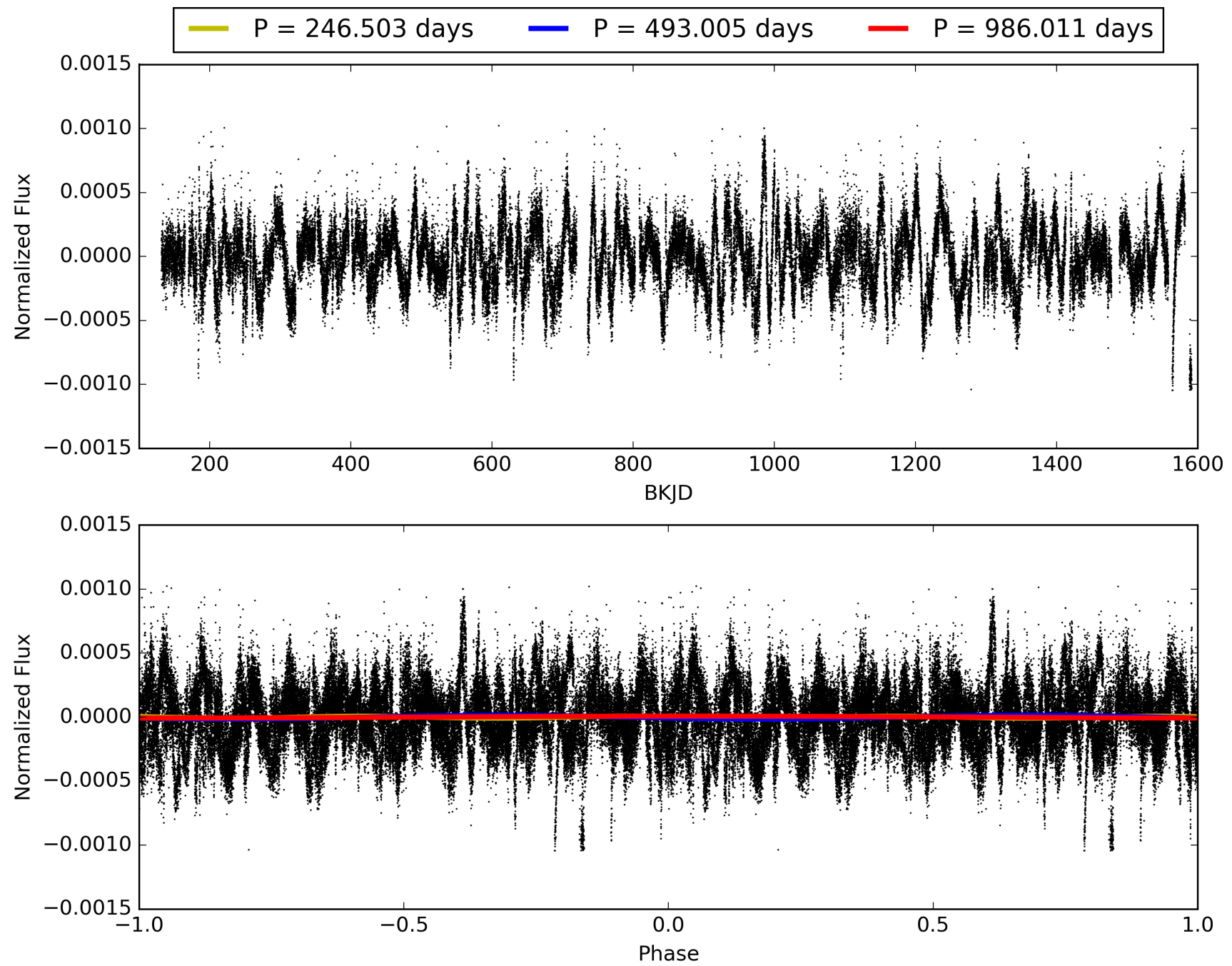
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:29:51 Z

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

TCE 006804018-01, PDC Light Curves

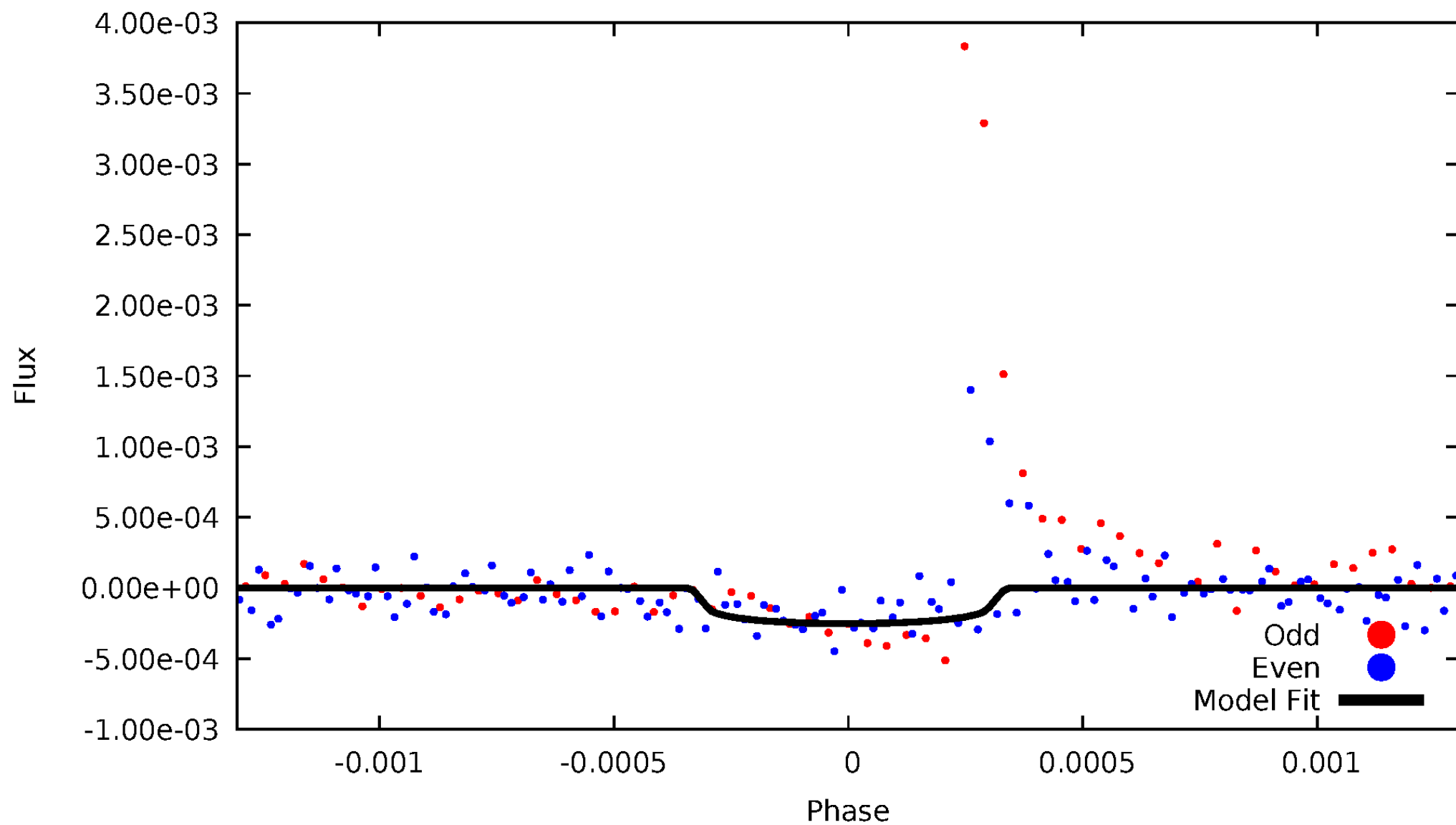


TCE 006804018-01



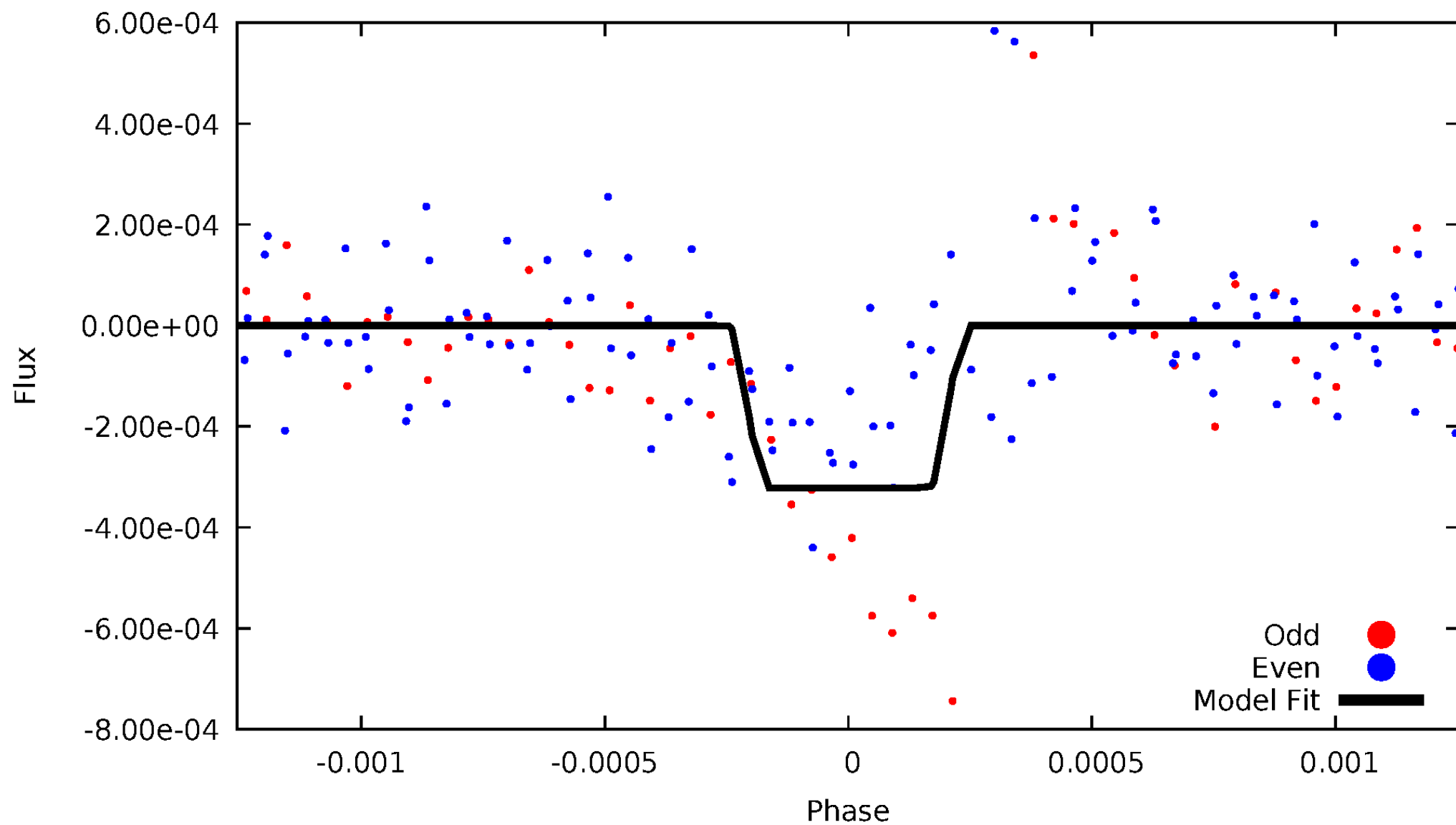
DV Odd/Even

TCE 006804018-01



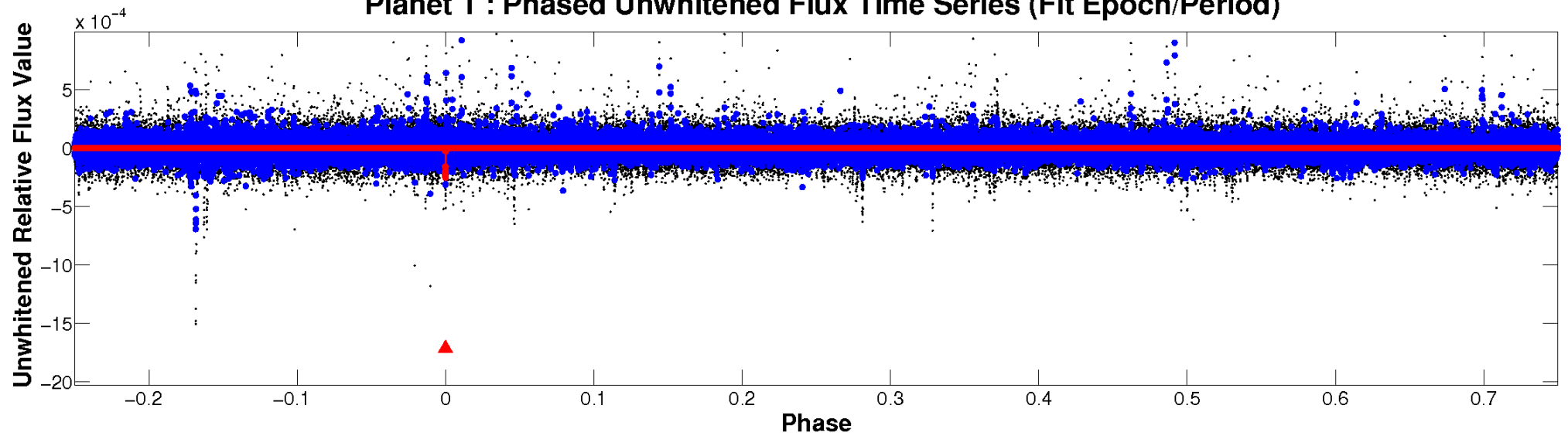
ALT Odd/Even

TCE 006804018-01

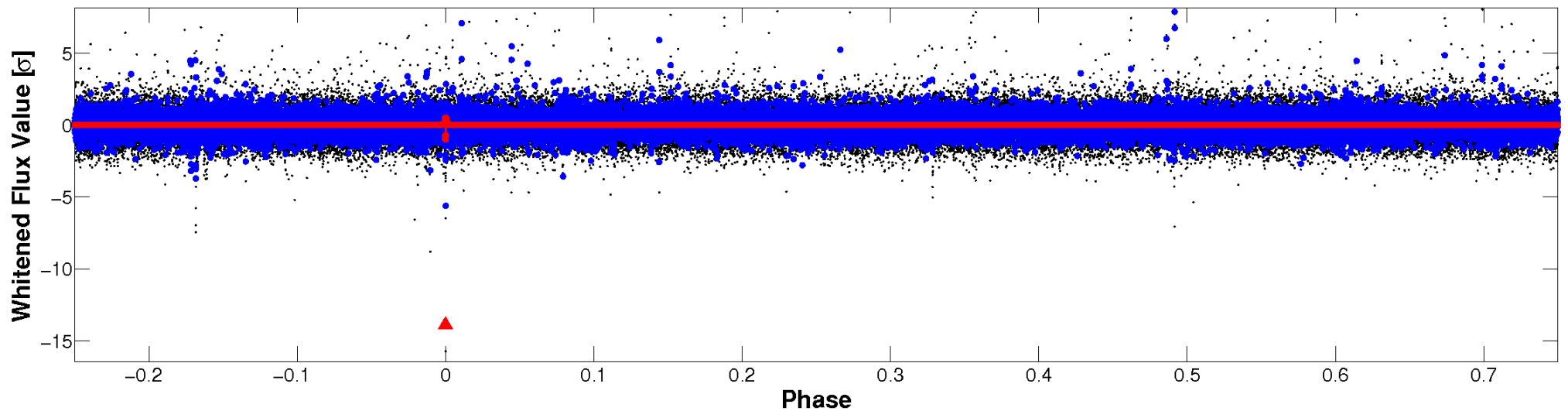


Non-Whitened Vs. Whitened Light Curve

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

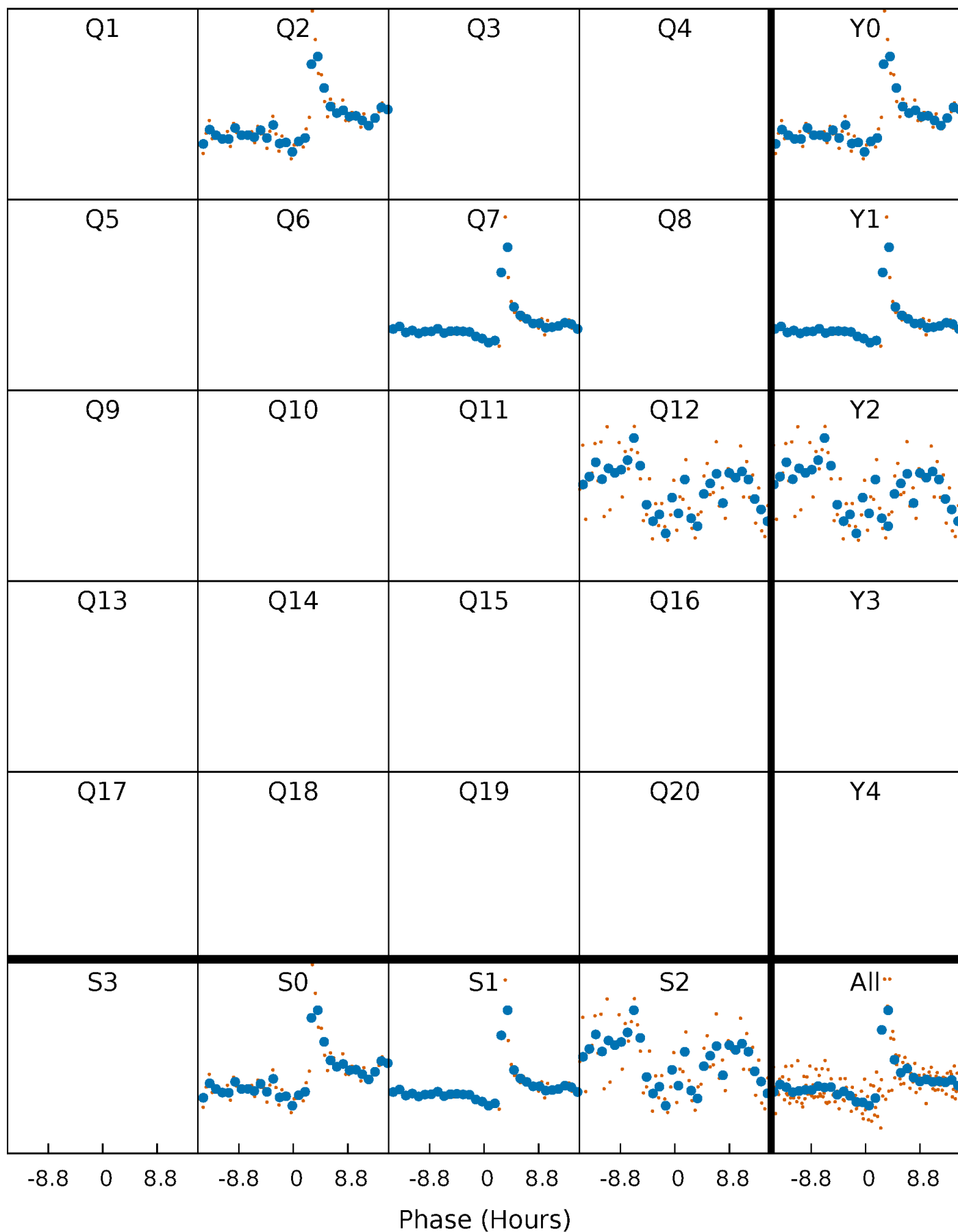


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



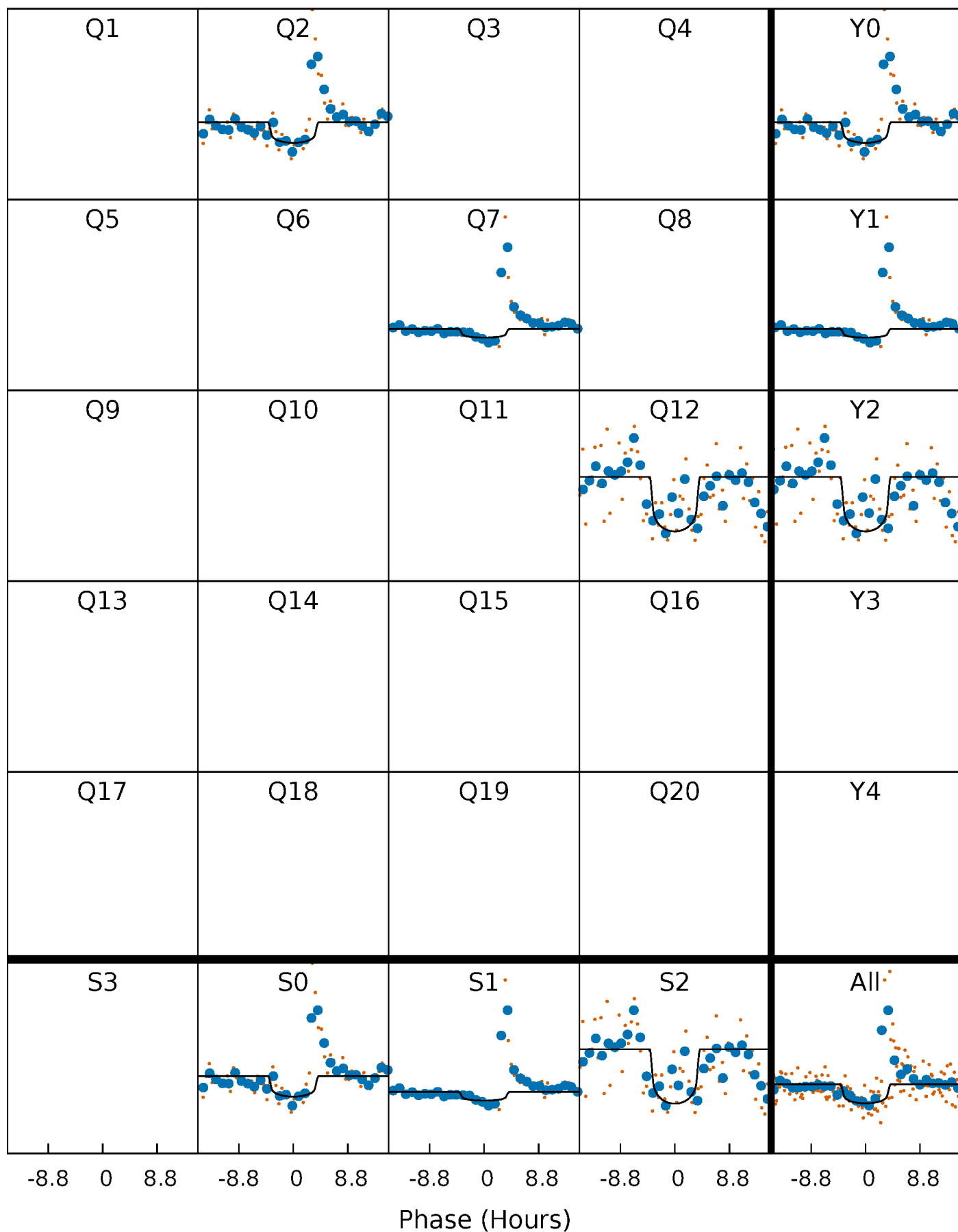
PDC Quarter-Phased Transit Curves

TCE 006804018-01 P=493.005368 Days $T_0=190.745320$ (BKJD)



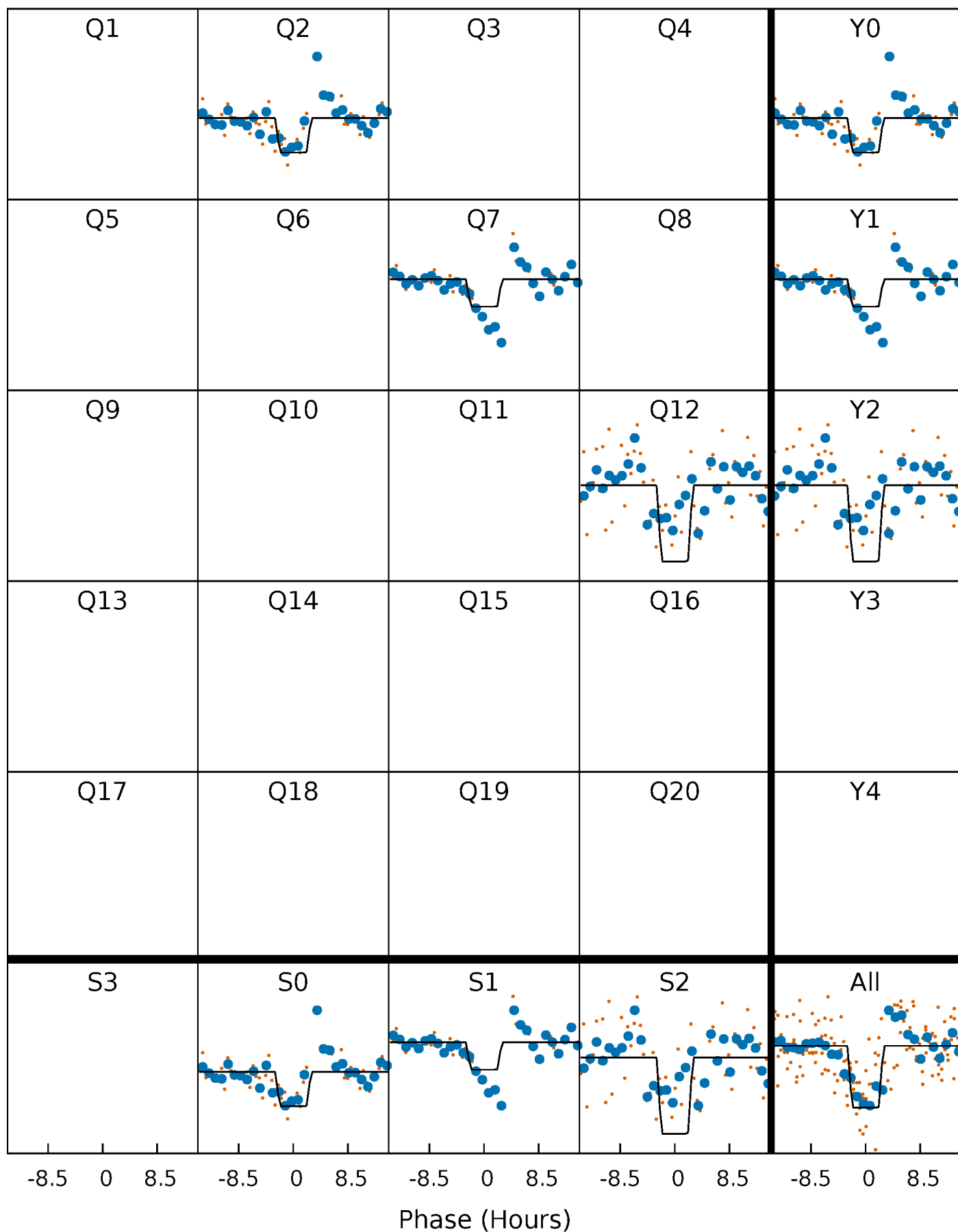
DV Quarter-Phased Transit Curves

TCE 006804018-01 P=493.005368 Days $T_0=190.745320$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

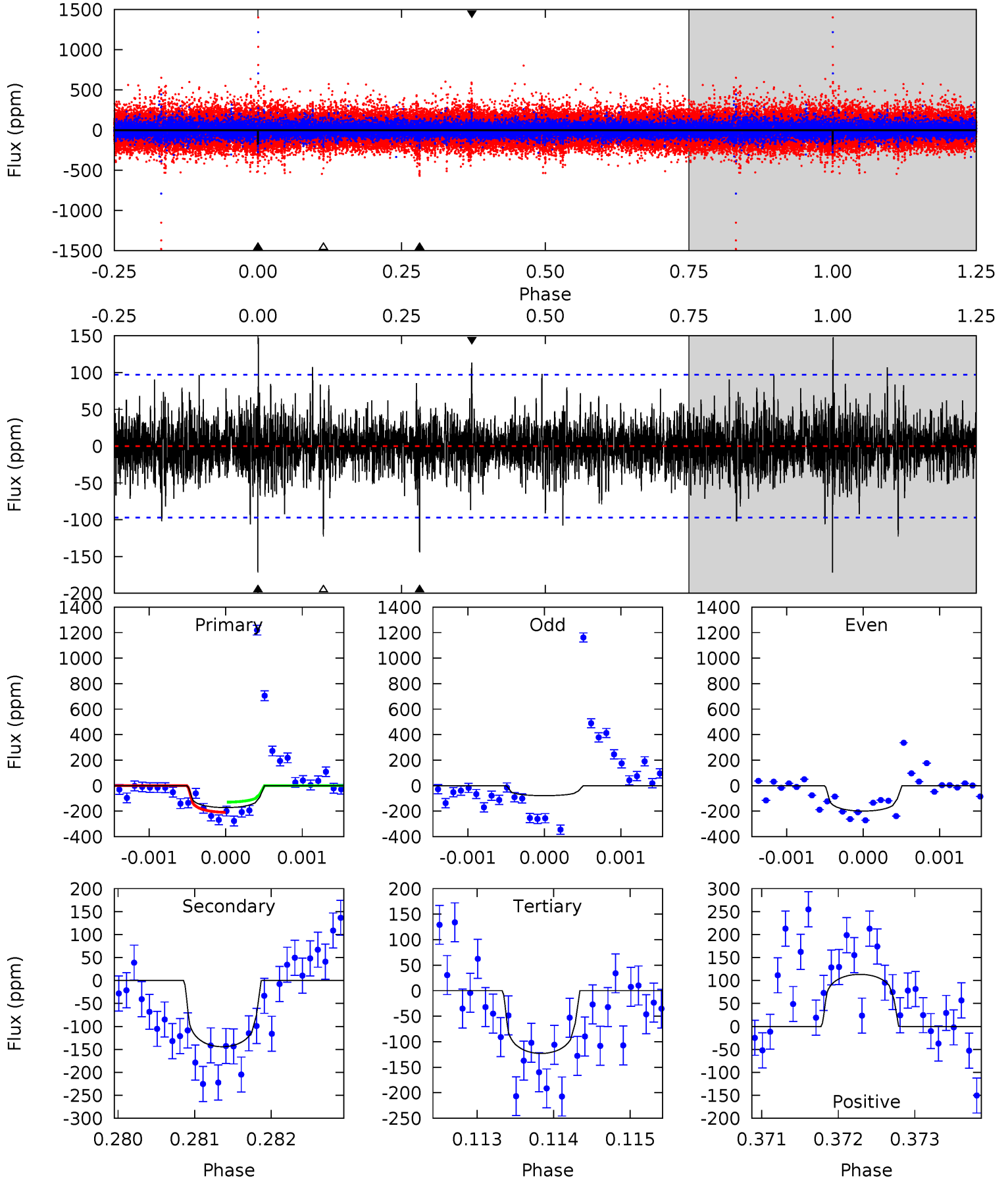
TCE 006804018-01 P=492.980069 Days $T_0=190.766802$ (BKJD)



DV Model-Shift Uniqueness Test

006804018-01, P = 493.005368 Days, E = 190.745320 Days

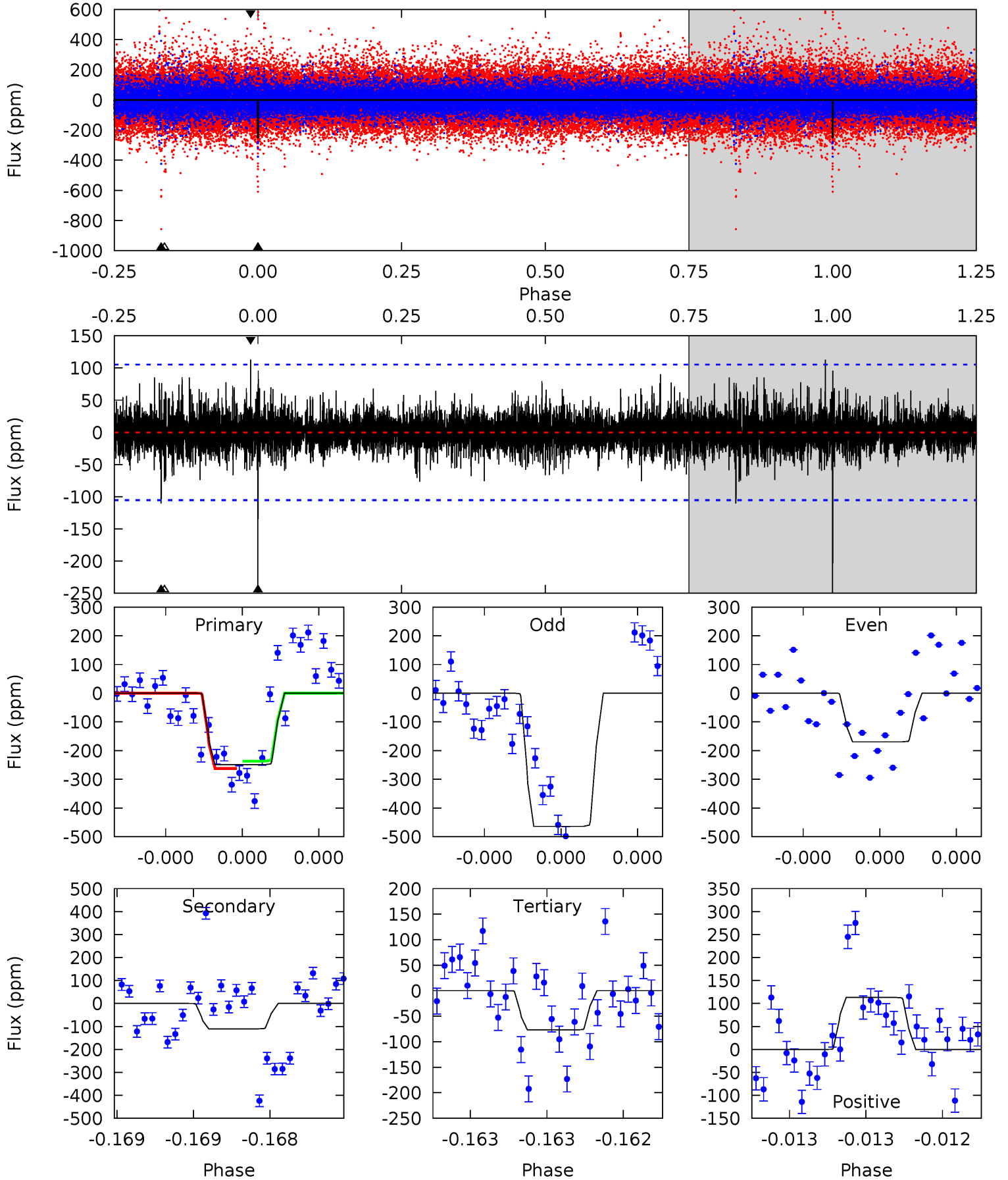
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.77	8.20	6.98	6.44	5.52	3.40	1.43	2.78	3.33	1.21	1.76	3.24	0.33	0.46	2.26



Alt Model-Shift Uniqueness Test

006804018-01, P = 492.980069 Days, E = 190.766802 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	5.86	4.08	6.01	5.59	3.51	1.08	9.15	7.22	1.79	-0.15	7.41	1.20	0.31	0.68



Stellar Parameters For KIC 006804018

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3375^{+112}_{-92}	$5.018^{+0.110}_{-0.110}$	$-0.220^{+0.300}_{-0.250}$	$0.246^{+0.097}_{-0.064}$	$0.230^{+0.112}_{-0.075}$	$21.740^{+16.470}_{-9.263}$
	+3%/-3%	+2%/-2%	+136%/-114%	+39%/-26%	+49%/-33%	+76%/-43%
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 006804018-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-144 ± 18	$0.49^{+0.38}_{-0.31}$	120^{+7}_{-7}	2999^{+1104}_{-422}	$184489^{+1171403}_{-123477}$
Alt.	-110 ± 19	$0.55^{+0.42}_{-0.35}$	120^{+8}_{-7}	2806^{+965}_{-361}	$115885^{+745554}_{-78649}$

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

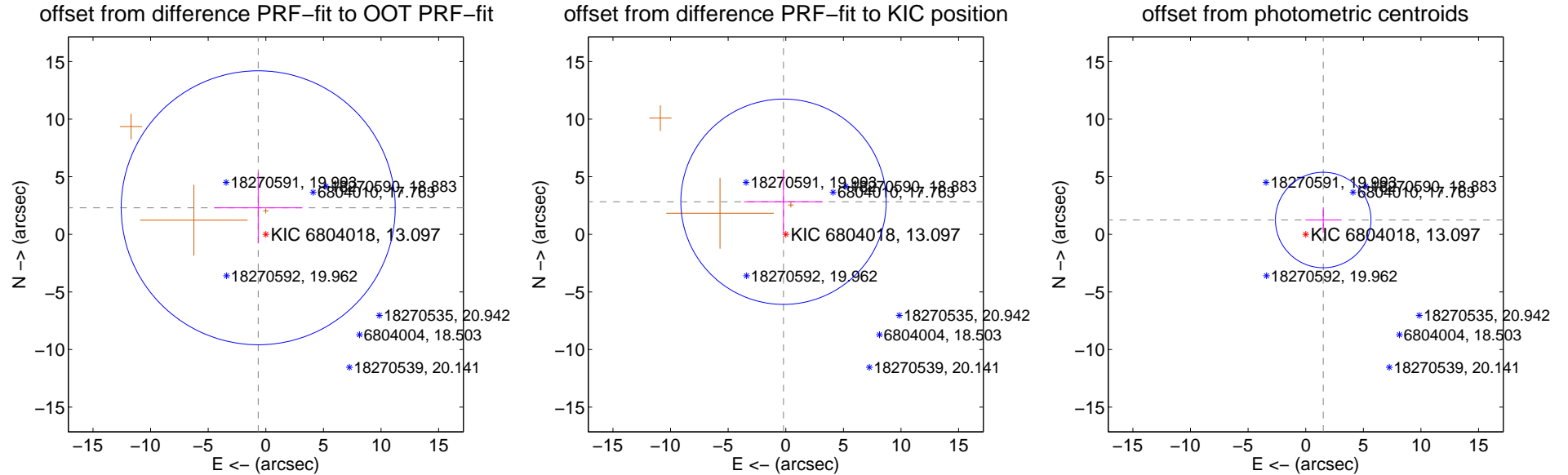
DV Centroid Data

Supplemental centroid analysis for 006804018-01. Kepler magnitude: 13.10. Transit SNR 6.02

There are 0 quarters with good PRF difference image offsets

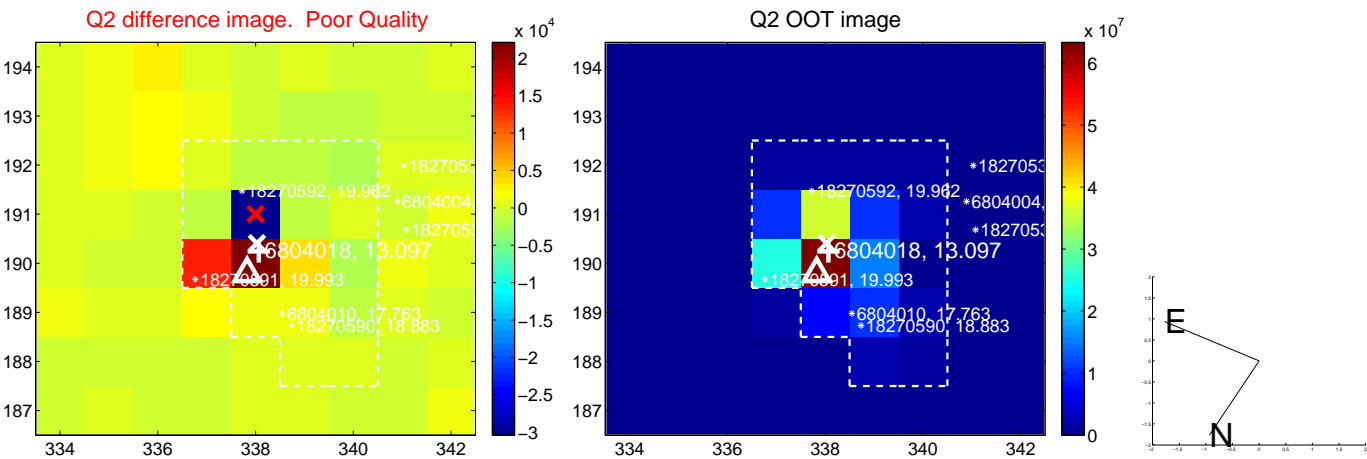
The direct PRF centroid is offset from the target star catalog position by about 1.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.397 ± 3.964	0.60	0.661 ± 3.826	2.304 ± 3.062
PRF-fit source offset from KIC position	2.834 ± 2.970	0.95	0.197 ± 3.414	2.827 ± 2.780
photometric centroid source offset	1.96 ± 1.38	1.42	-1.52 ± 1.54	1.24 ± 1.11



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.

Q5 no difference image



Q5 no OOT image



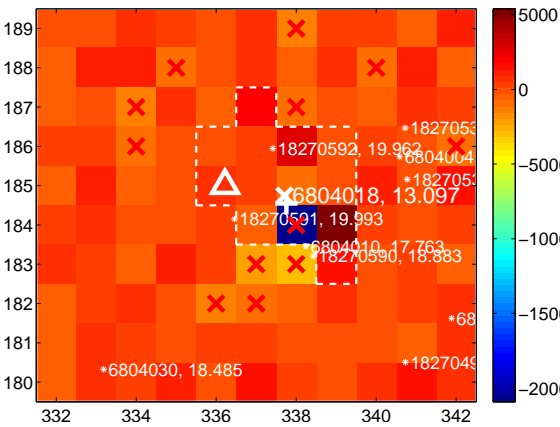
Q6 no difference image



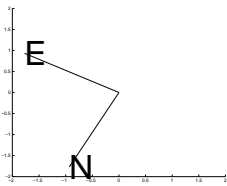
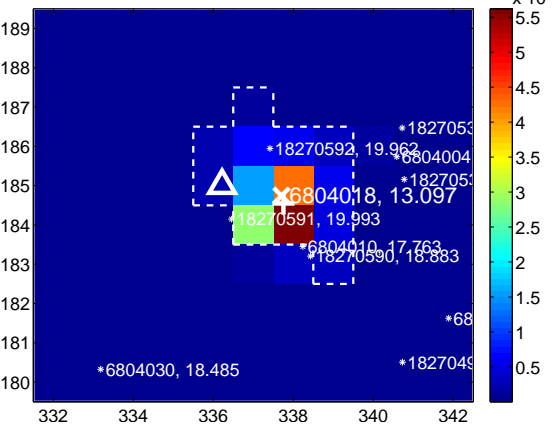
Q6 no OOT image



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 no difference image



Q10 no OOT image



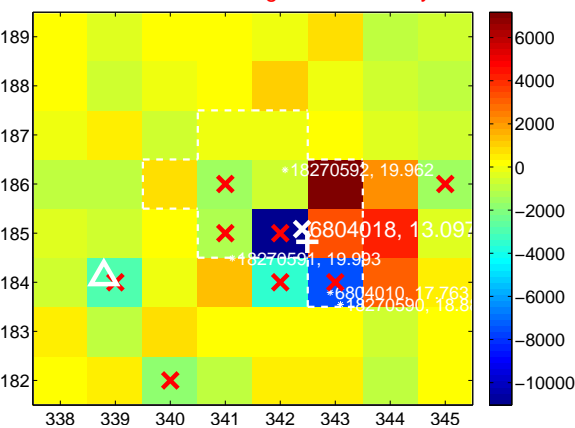
Q11 no difference image



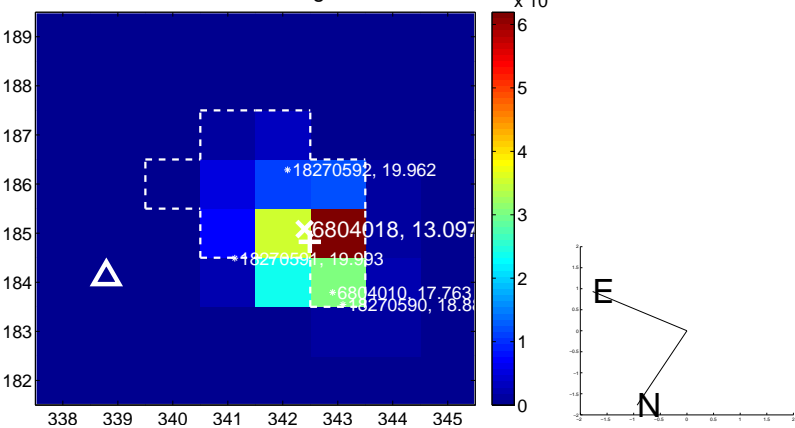
Q11 no OOT image



Q12 difference image. Poor Quality



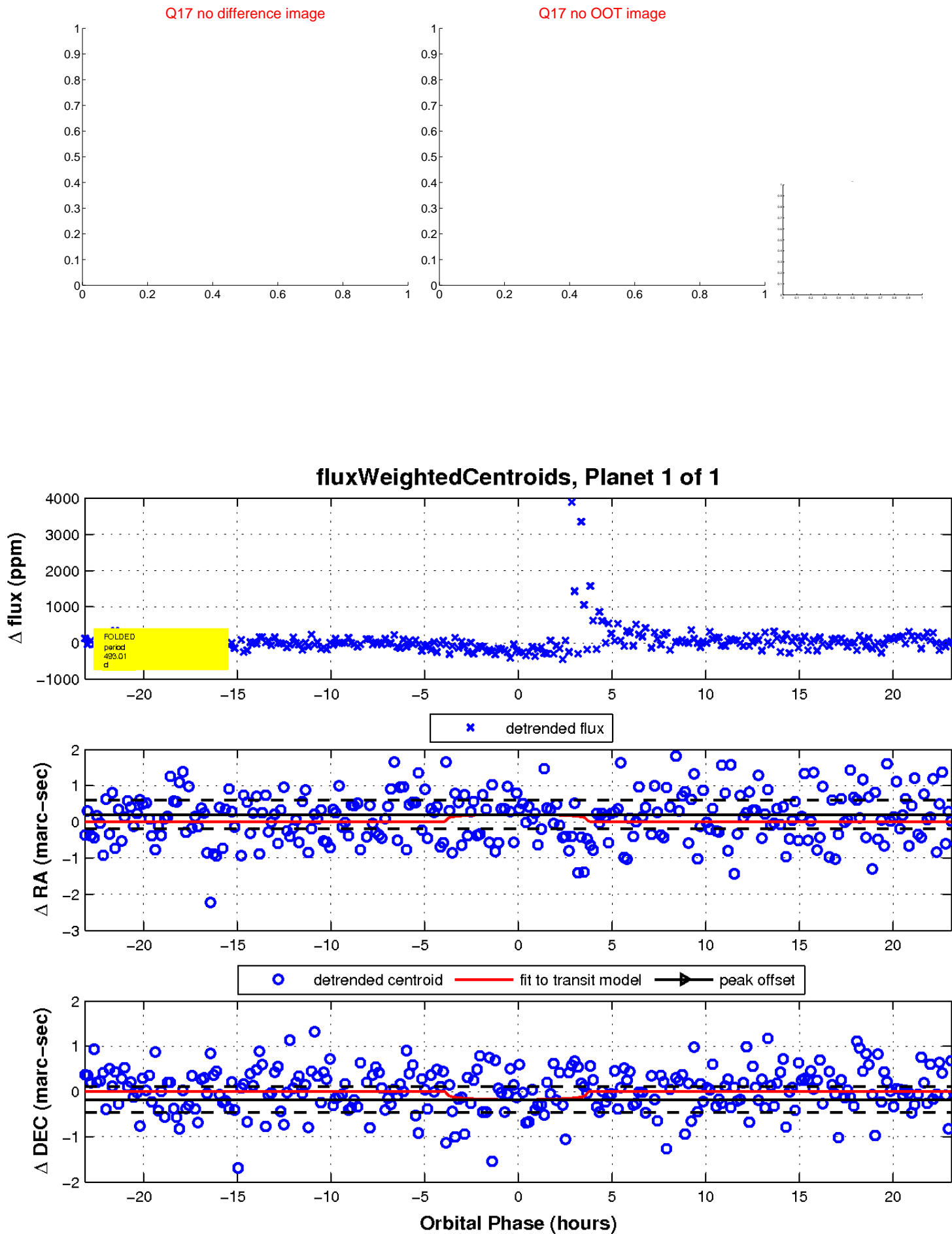
Q12 OOT image



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

