

KIC 004832949

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})
004832949-01	OBS	No	374.119170	327.767259	801.6	4.859	10.1	6.8	0.55	4218	1.52	0.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004832949-01	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.

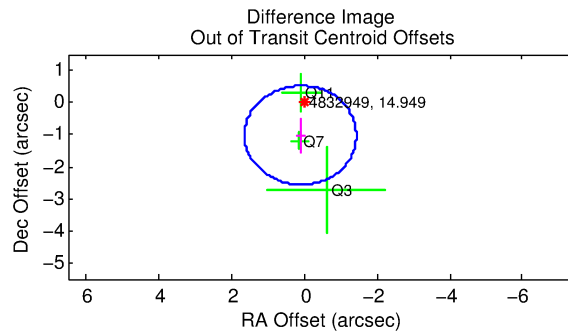
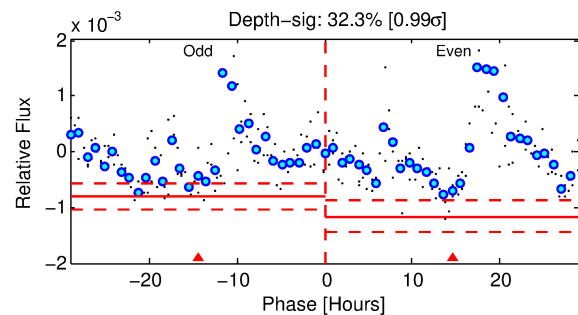
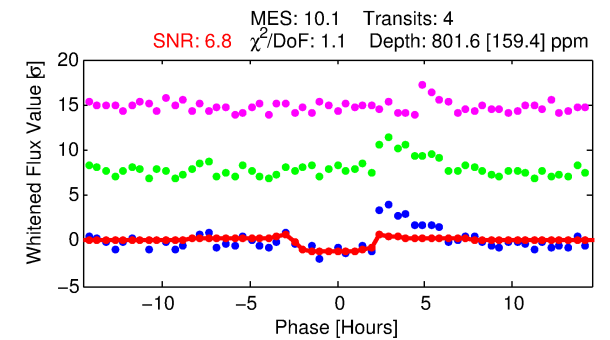
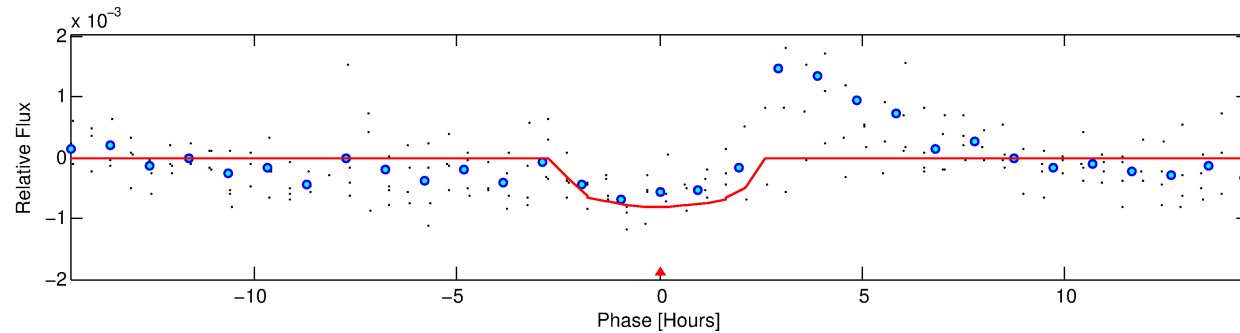
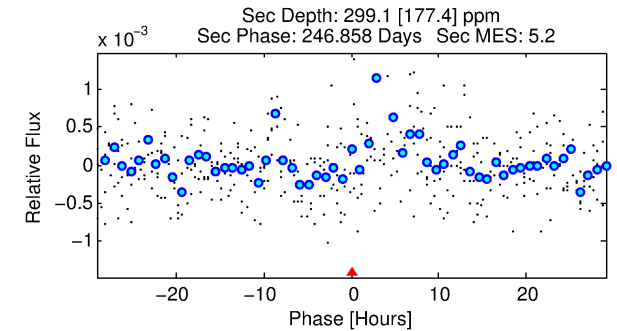
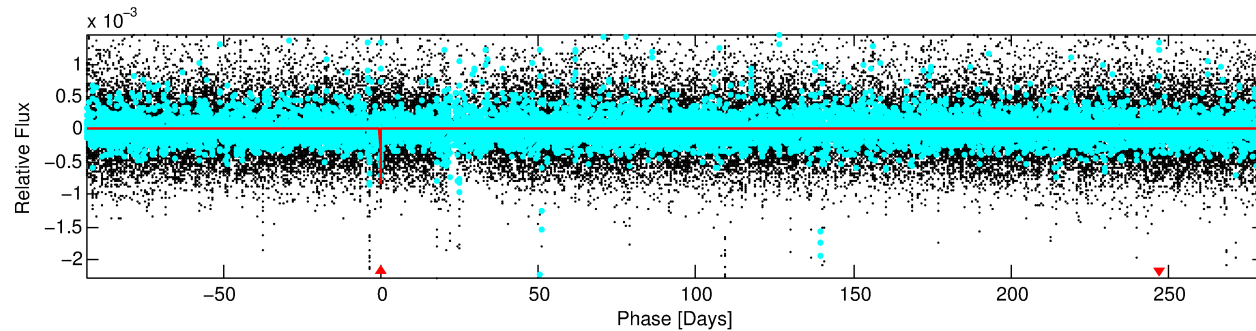
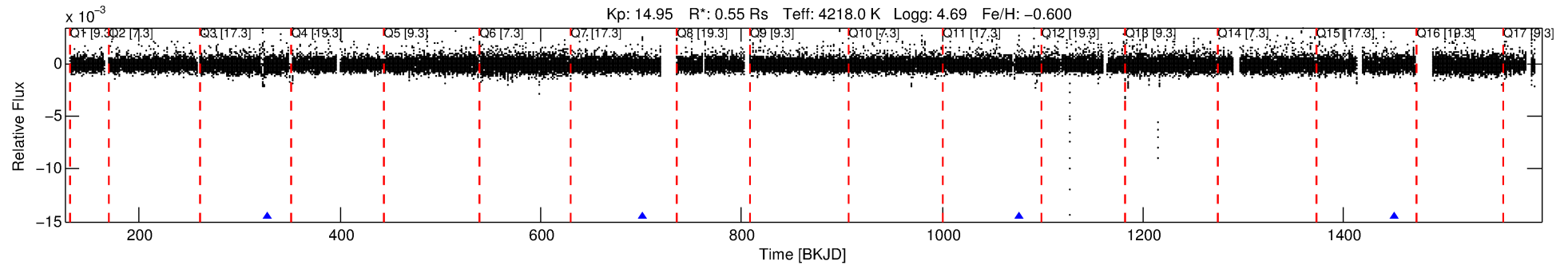
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004832949-01

No Significant Match Found

DV One-Page Summary

KIC: 4832949 Candidate: 1 of 1 Period: 374.119 d



DV Fit Results:

Period = 374.11917 [0.00540] d
Epoch = 327.7673 [0.0111] BKJD
Rp/R* = 0.0254 [0.0408]
a/R* = 603.05 [3597.90]
b = 0.01 [407.84]
Seff = 0.12 [0.02]
Teq = 151 [7] K
Rp = 1.52 [2.44] Re
a = 0.8255 [0.0722] AU
Ag = 48736.76 [159217.40] [0.31σ]
Teffp = 3480 [2842] K [1.17σ]

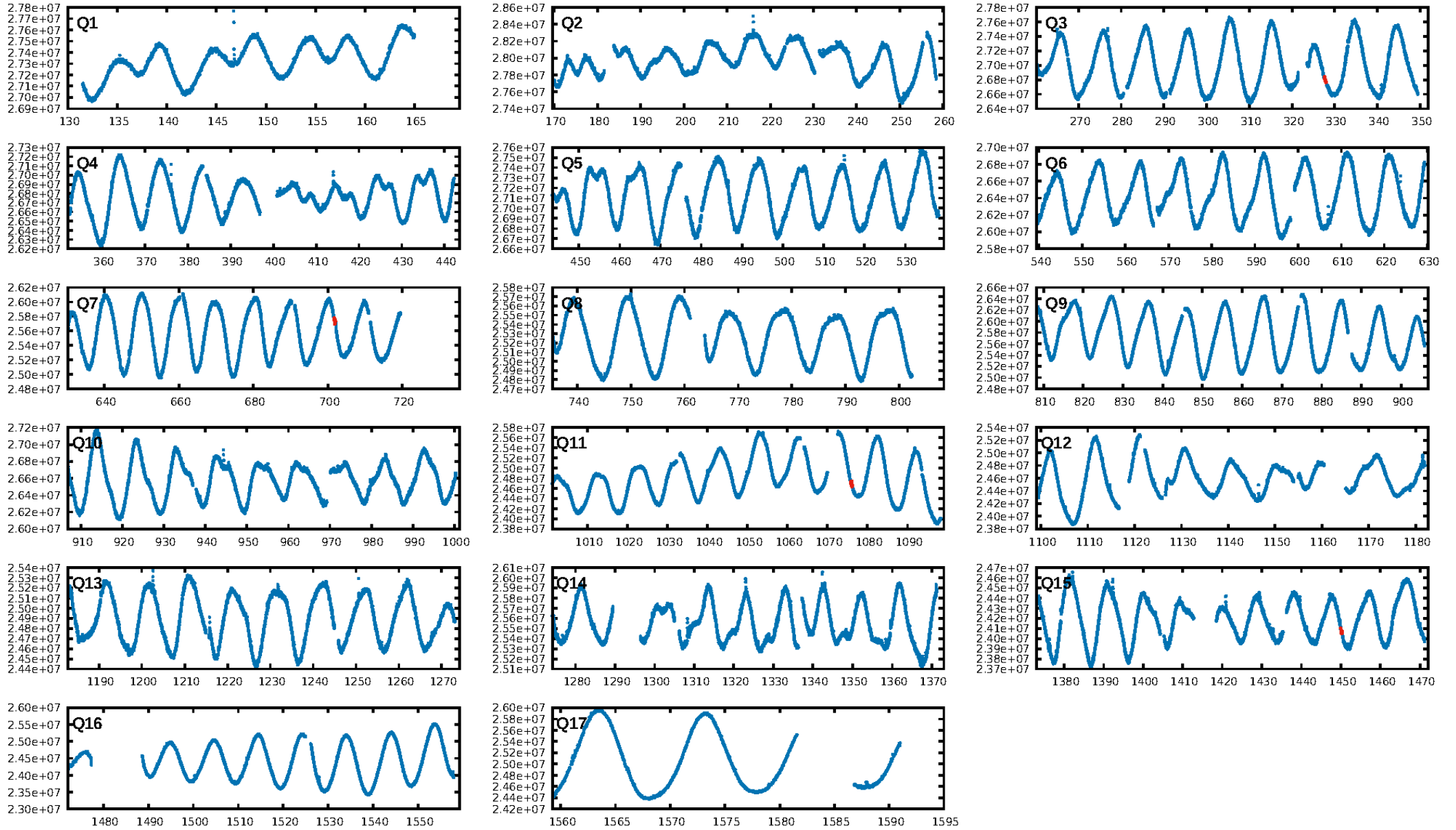
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.8%
ModelChiSquareGof-sig: 97.0%
Bootstrap-pfa: 3.66e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.7417
Centroid-sig: 45.4%
Centroid-so: 0.954 arcsec [0.91σ]
OotOffset-rm: 1.026 arcsec [2.00σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-rm: 1.099 arcsec [1.67σ]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

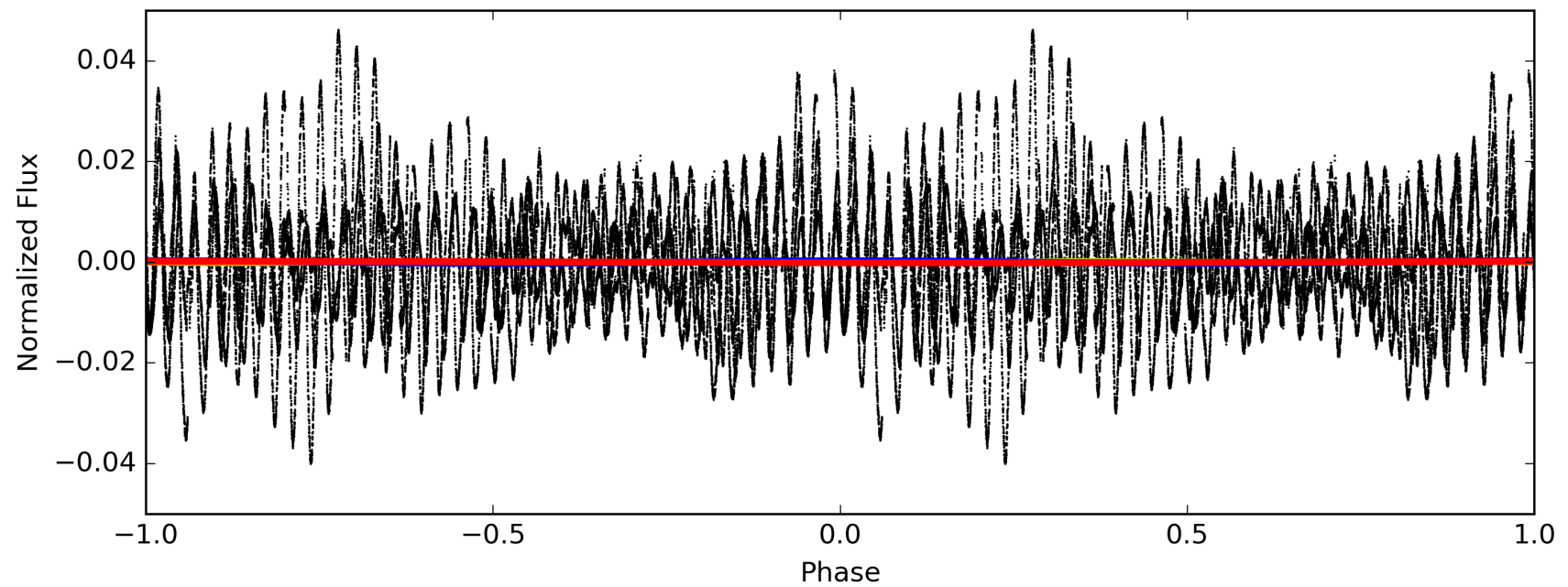
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:12:49 Z

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

TCE 004832949-01, PDC Light Curves

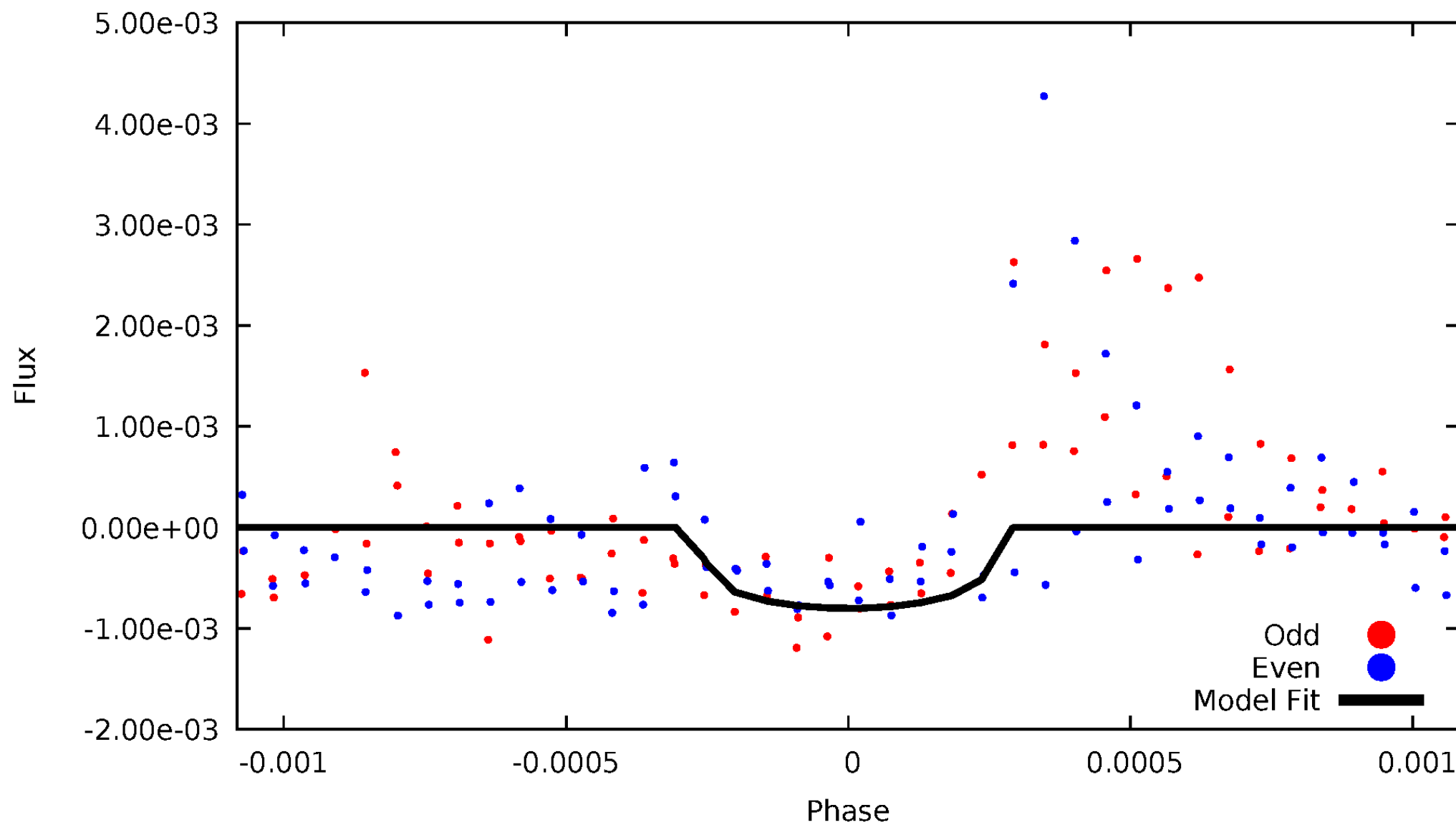


— P = 187.060 days — P = 374.119 days — P = 748.238 days



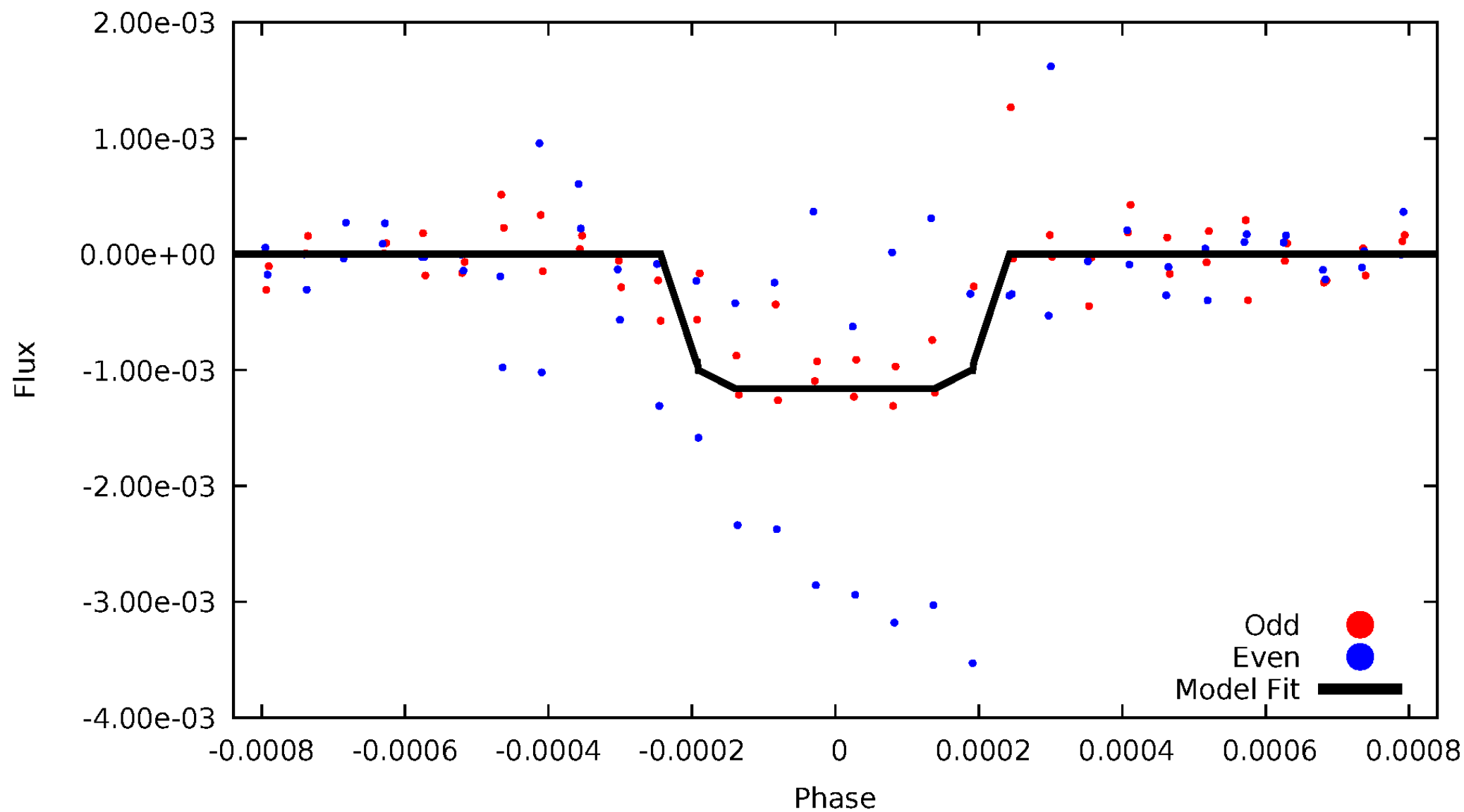
DV Odd/Even

TCE 004832949-01



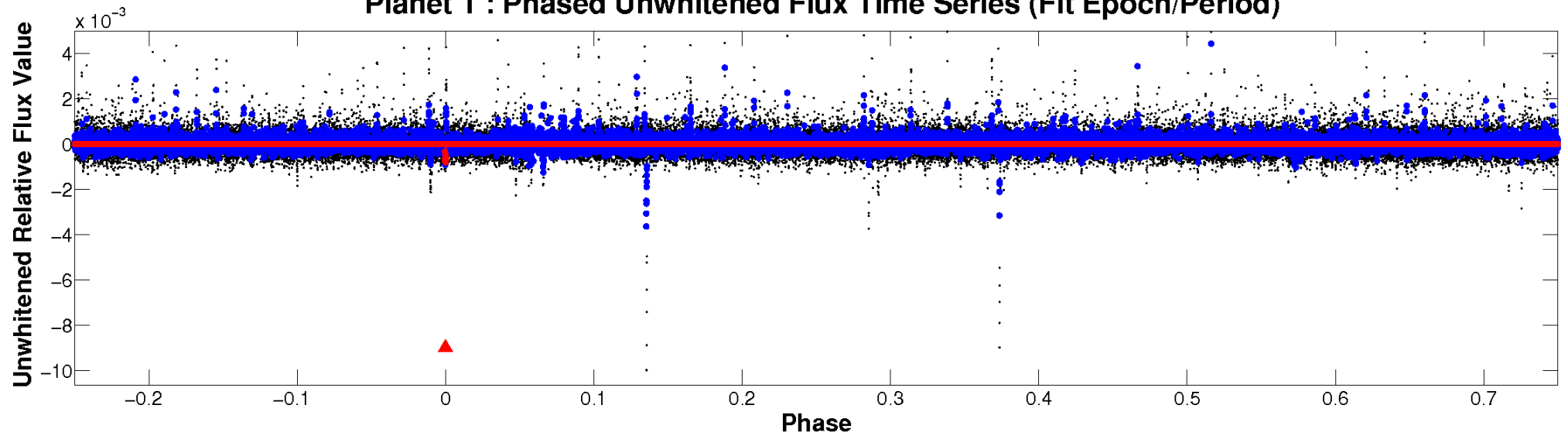
ALT Odd/Even

TCE 004832949-01

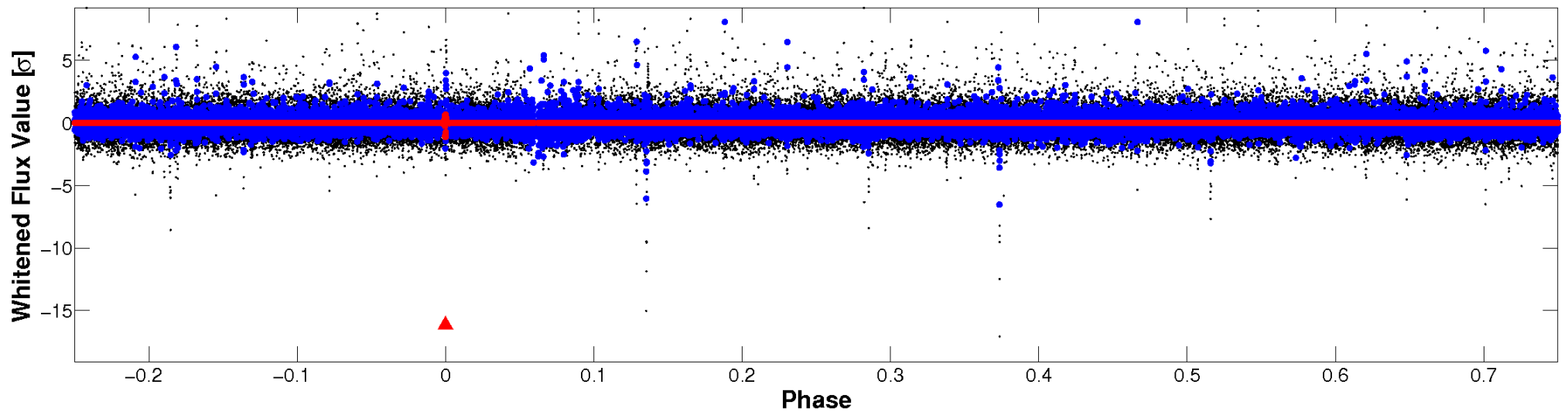


Non-Whitened Vs. Whitened Light Curve

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

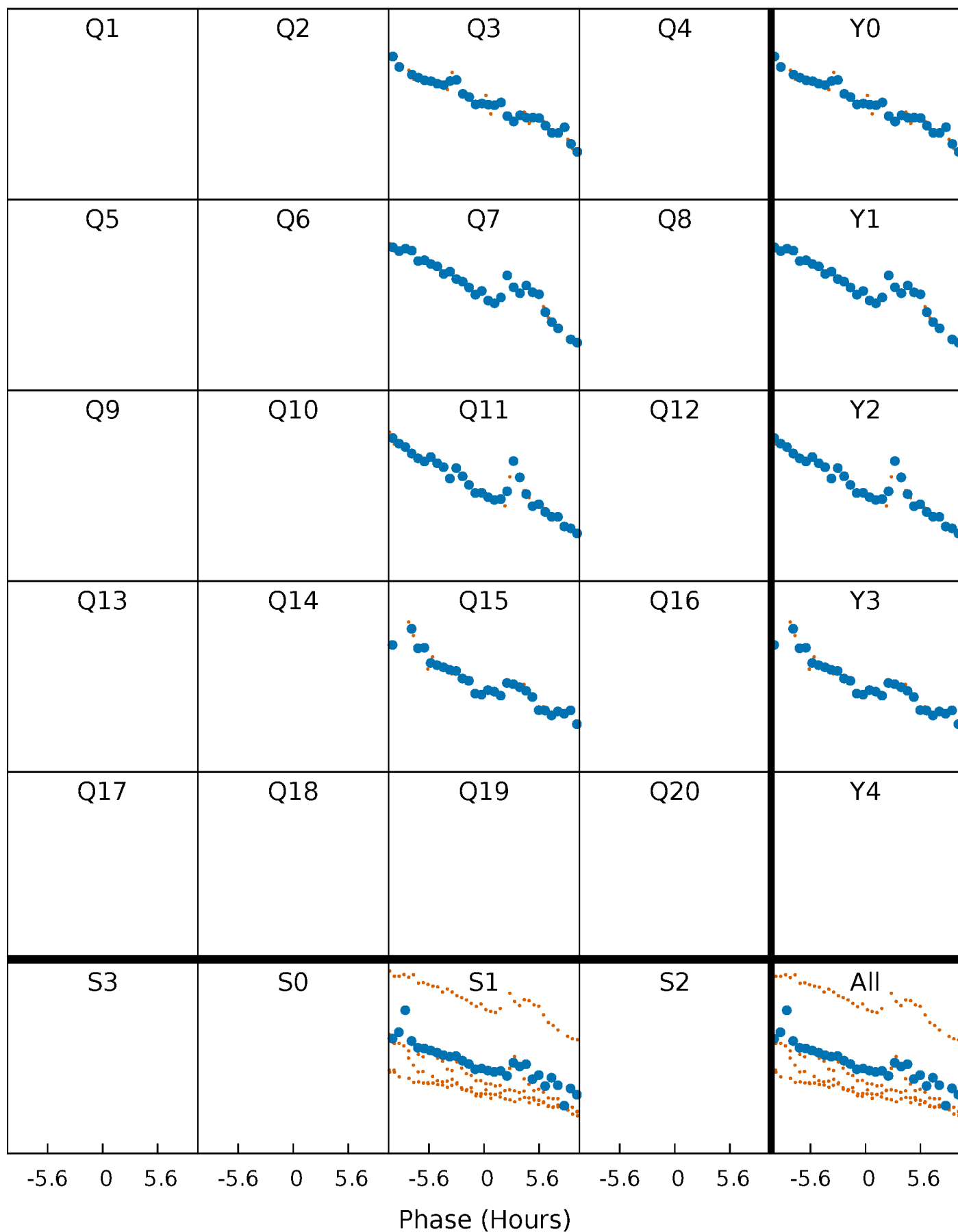


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



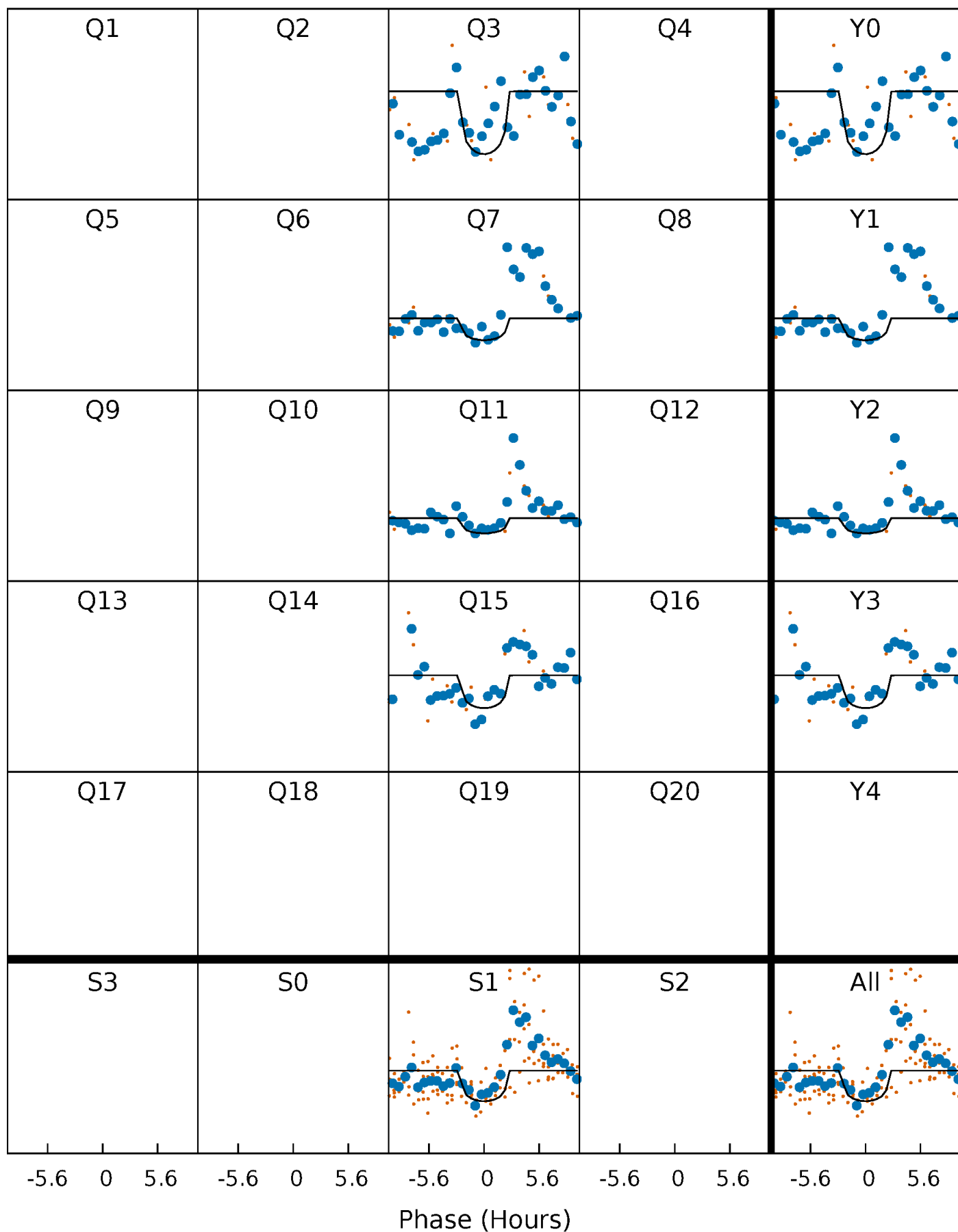
PDC Quarter-Phased Transit Curves

TCE 004832949-01 P=374.119170 Days $T_0=327.767259$ (BKJD)



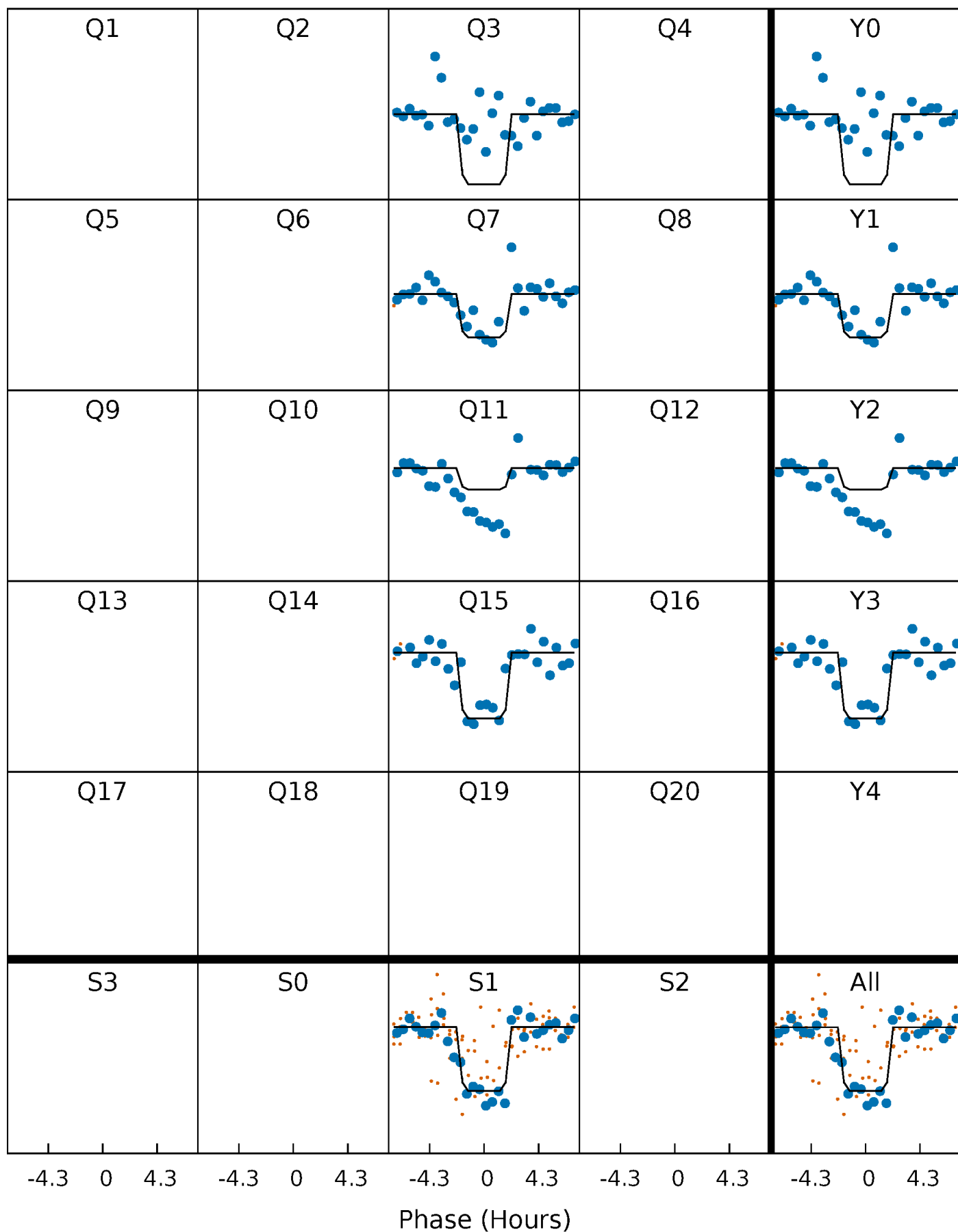
DV Quarter-Phased Transit Curves

TCE 004832949-01 $P=374.119170$ Days $T_0=327.767259$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

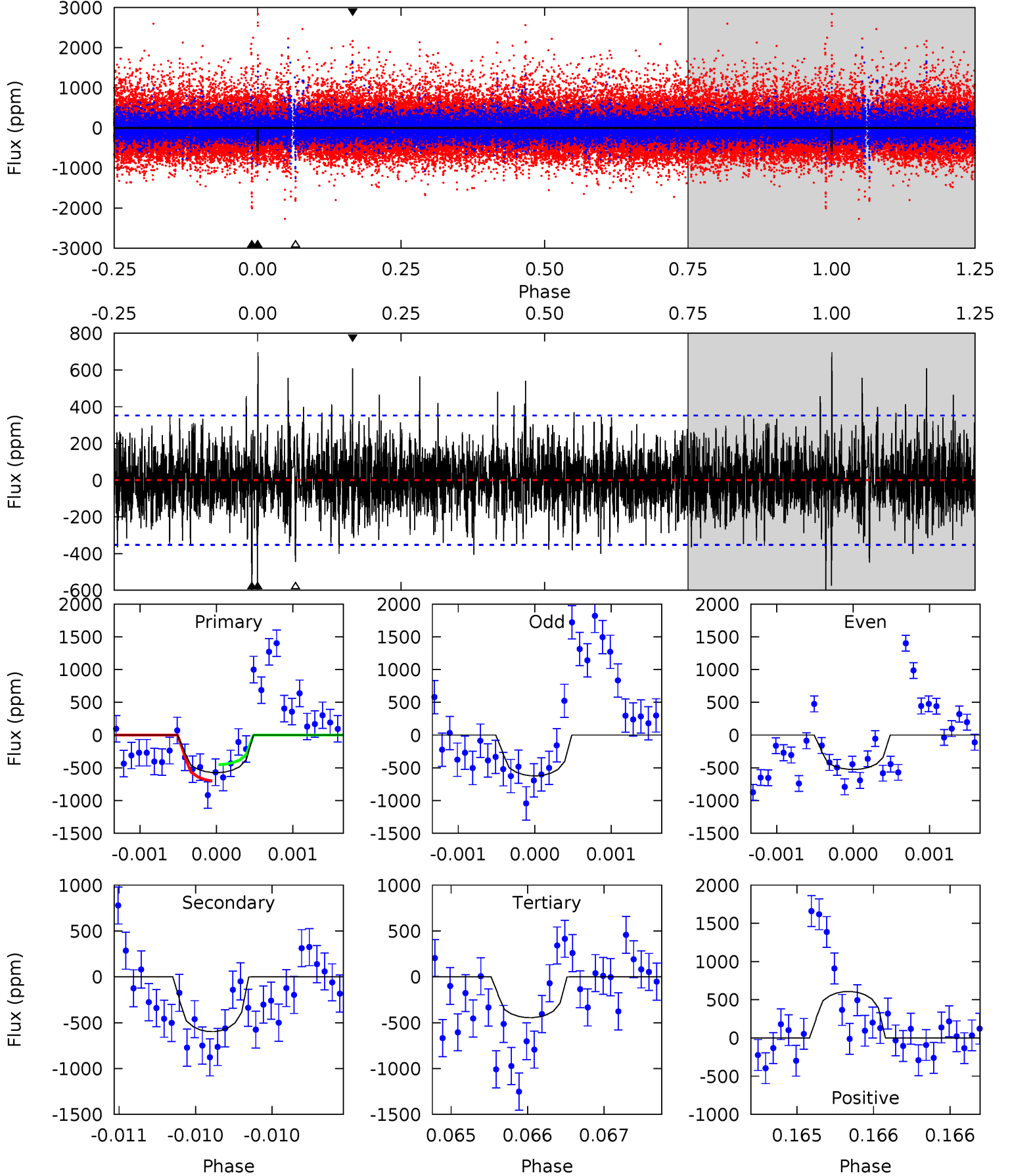
TCE 004832949-01 P=374.118050 Days $T_0=327.786640$ (BKJD)



DV Model-Shift Uniqueness Test

004832949-01, P = 374.119170 Days, E = 327.767259 Days

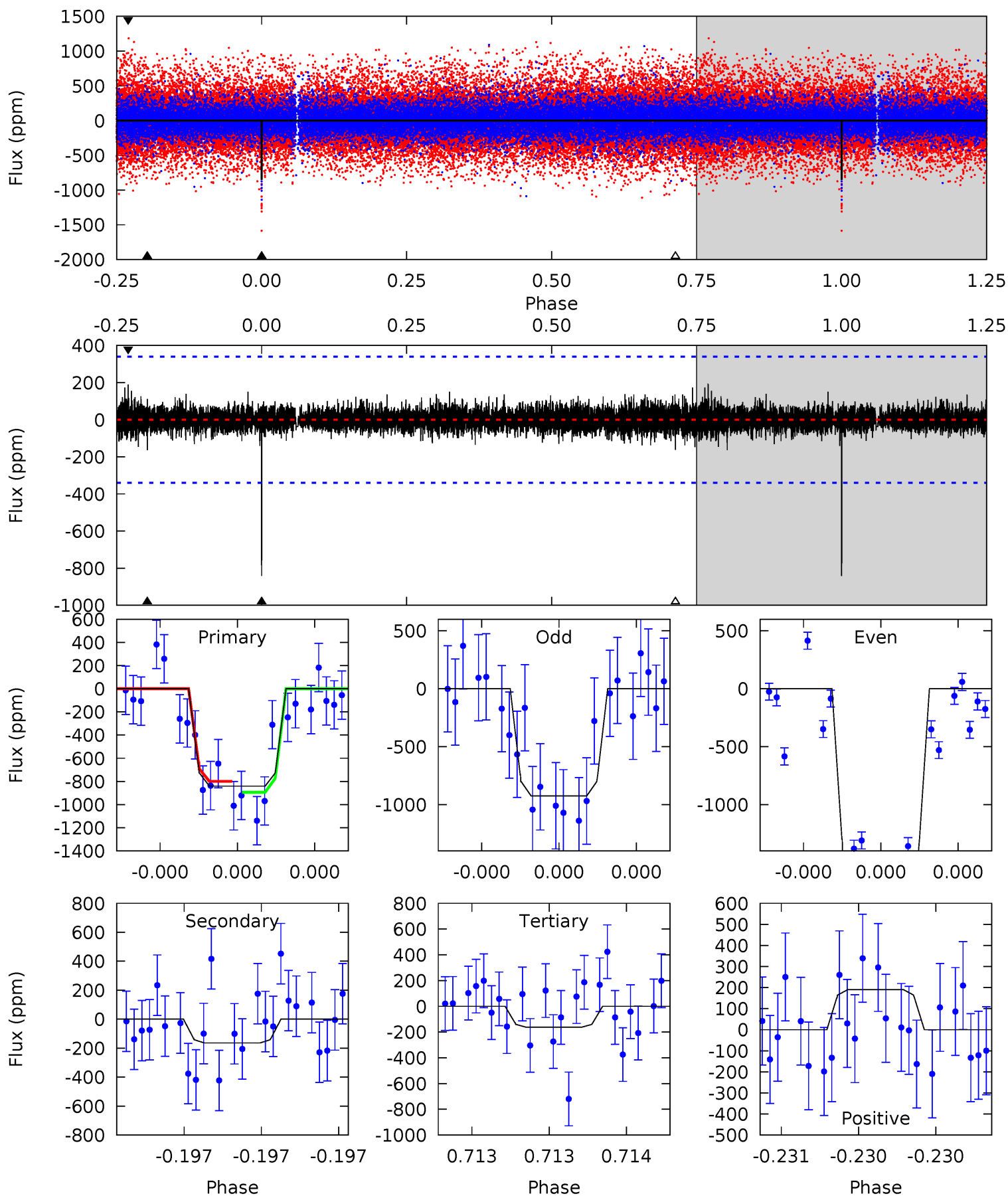
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.03	9.40	7.00	9.57	5.54	3.43	1.82	2.03	-0.54	2.40	-0.17	0.72	0.97	0.54	1.96



Alt Model-Shift Uniqueness Test

004832949-01, P = 374.118050 Days, E = 327.786640 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	2.71	2.68	3.14	5.62	3.55	0.57	11.2	10.8	0.02	-0.43	6.80	1.30	0.18	0.78



Stellar Parameters For KIC 004832949

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4218^{+115}_{-140}	$4.691^{+0.065}_{-0.030}$	$-0.600^{+0.300}_{-0.300}$	$0.547^{+0.049}_{-0.059}$	$0.535^{+0.056}_{-0.046}$	$4.609^{+1.454}_{-0.669}$
	+3%/-3%	+1%/-1%	+50%/-50%	+9%/-11%	+10%/-9%	+32%/-15%
Source	PHO1	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 004832949-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-598 ± 64	$2.36^{+2.08}_{-1.60}$	210^{+8}_{-8}	3514^{+1968}_{-566}	$39620^{+375414}_{-28152}$
Alt.	-164 ± 61	$2.71^{+2.18}_{-1.74}$	209^{+8}_{-8}	2807^{+1009}_{-410}	8100^{+54216}_{-5817}

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 $A_{obs} \gg 1.0$

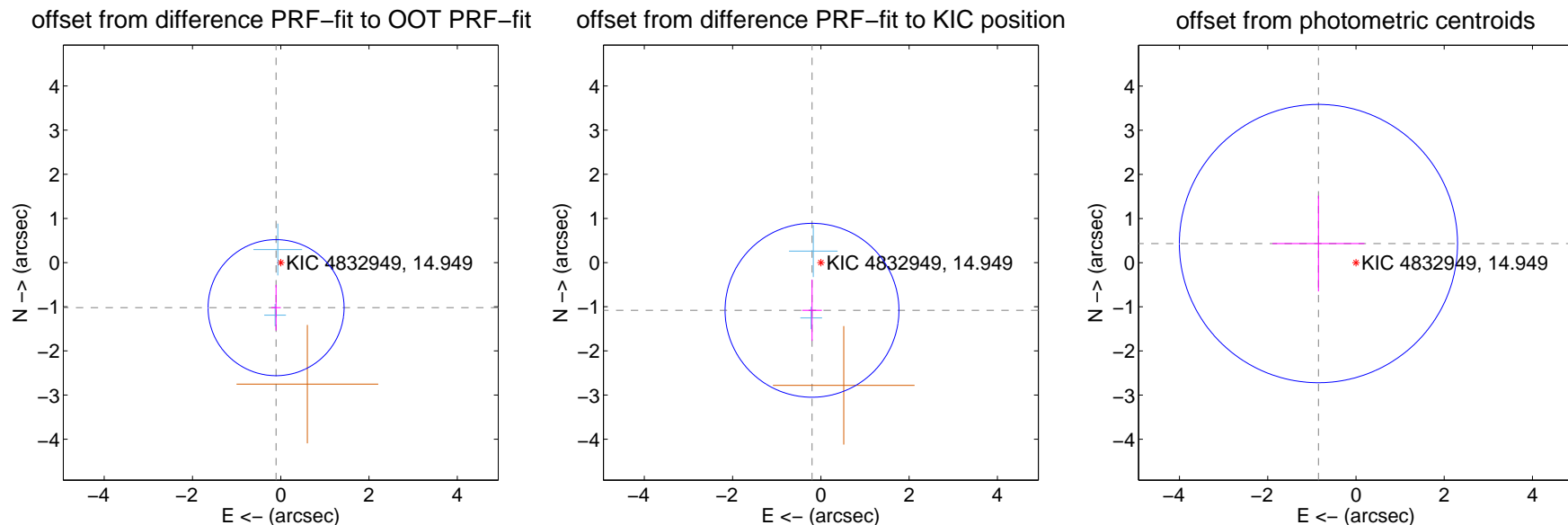
DV Centroid Data

Supplemental centroid analysis for 004832949-01. Kepler magnitude: 14.95. Transit SNR 6.79

There are 2 quarters with good PRF difference image offsets

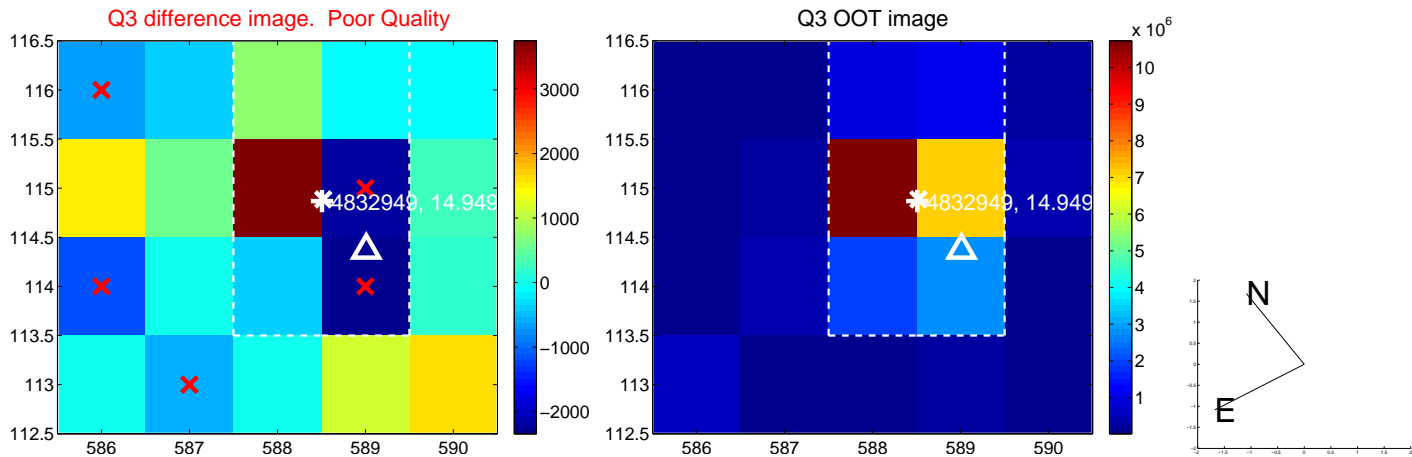
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.026 ± 0.514	2.00	0.106 ± 0.107	-1.021 ± 0.516
PRF-fit source offset from KIC position	1.099 ± 0.656	1.67	0.200 ± 0.222	-1.080 ± 0.694
photometric centroid source offset	0.95 ± 1.05	0.91	0.85 ± 1.04	0.43 ± 1.08



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.

Q5 no difference image



Q5 no OOT image



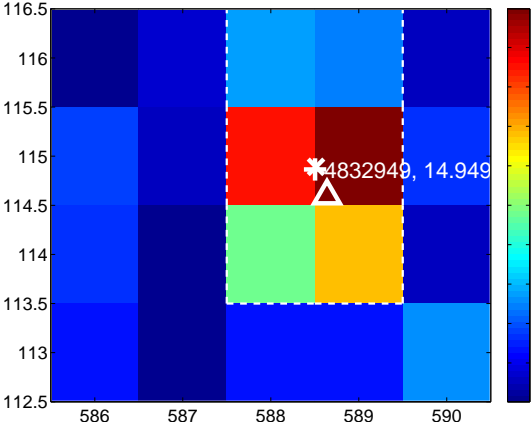
Q6 no difference image



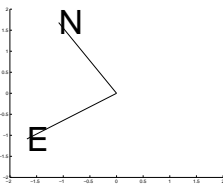
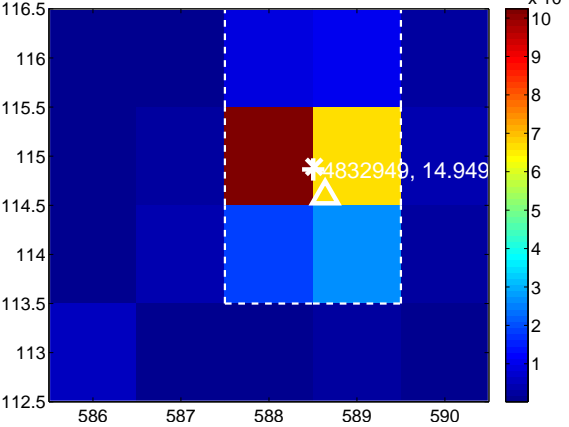
Q6 no OOT image



Q7 difference image



Q7 OOT image



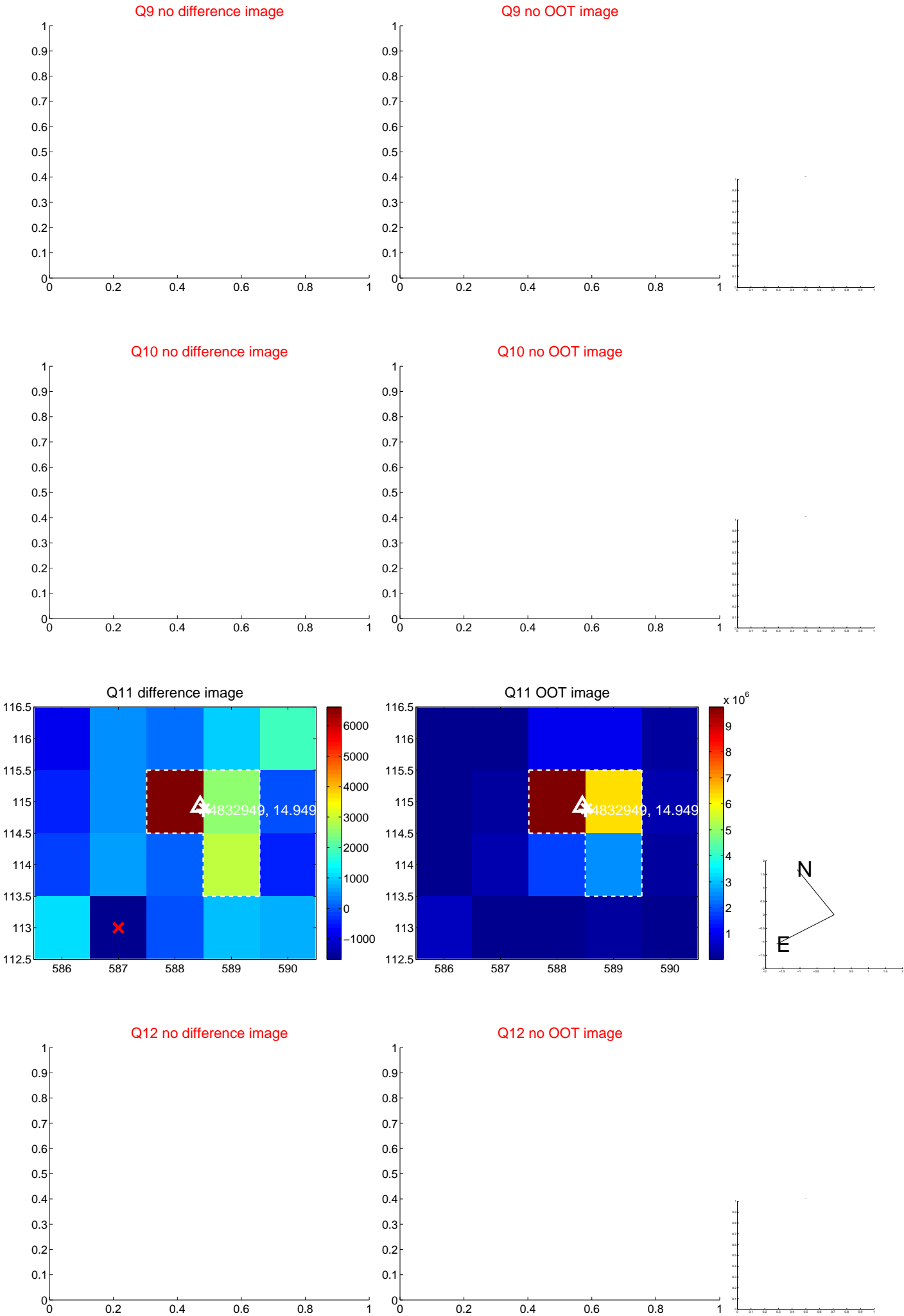
Q8 no difference image



Q8 no OOT image



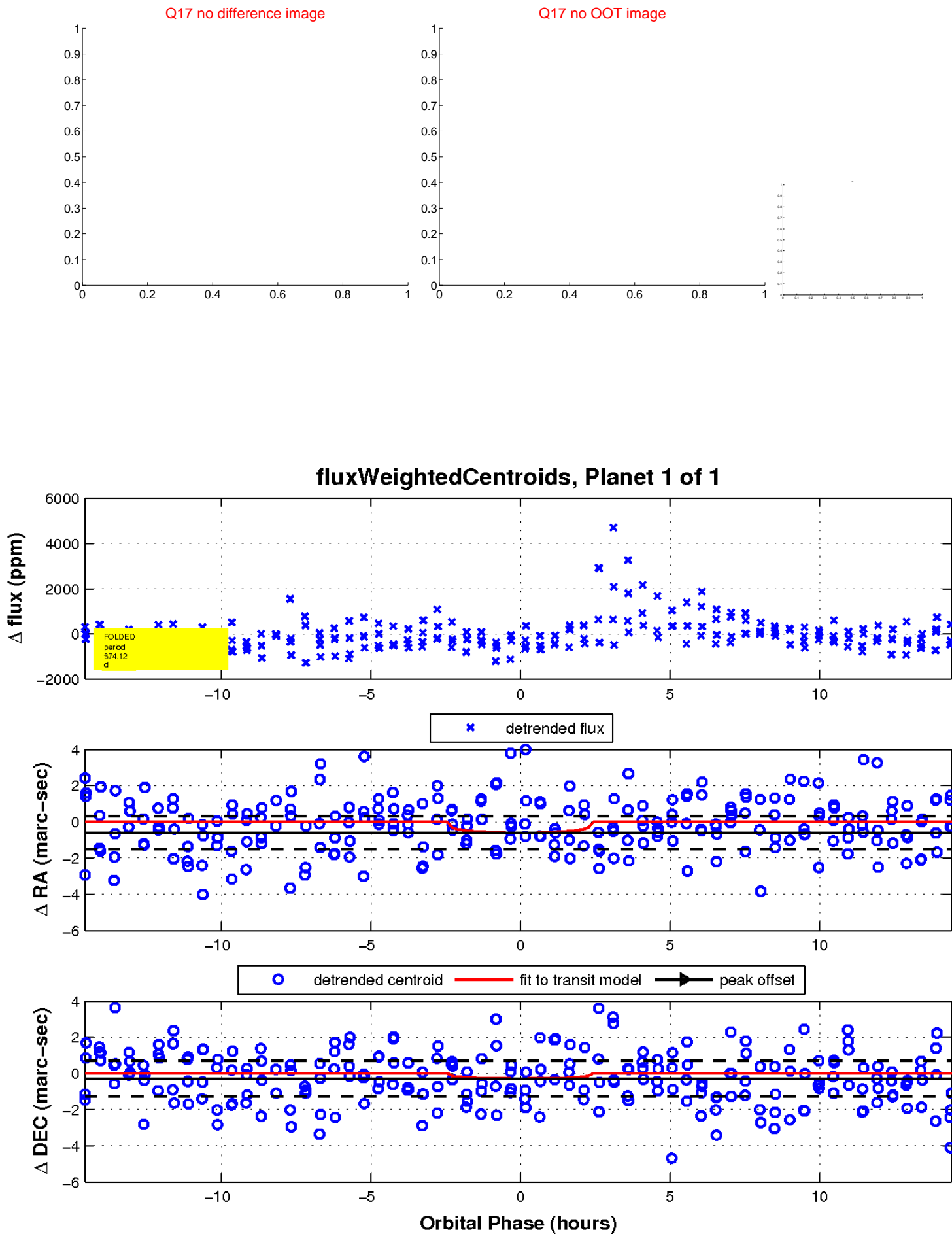
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Declination

