

KIC 010533168

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})
010533168-01	OBS	No	348.961442	184.739641	662.6	15.023	7.8	7.8	0.75	4518	2.47	0.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010533168-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—LPP_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

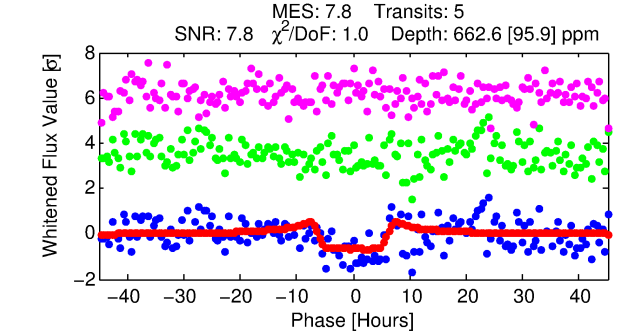
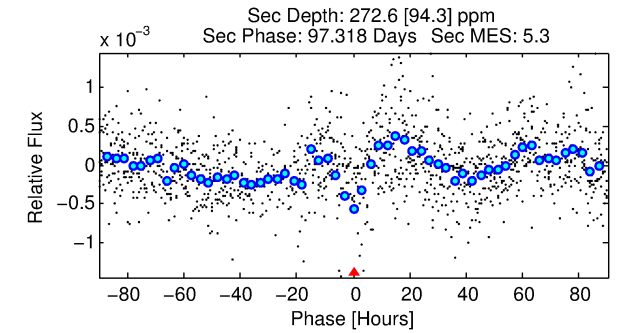
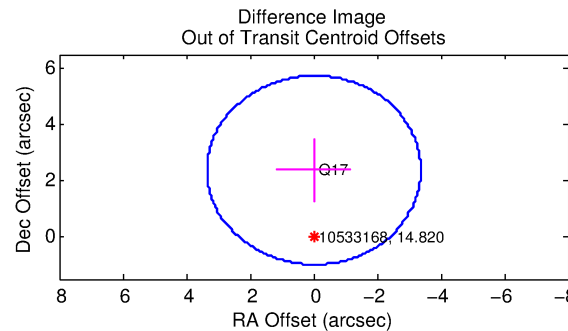
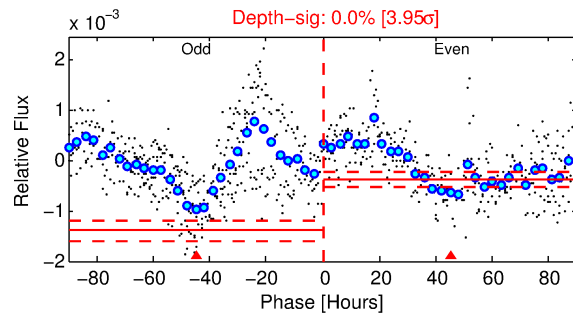
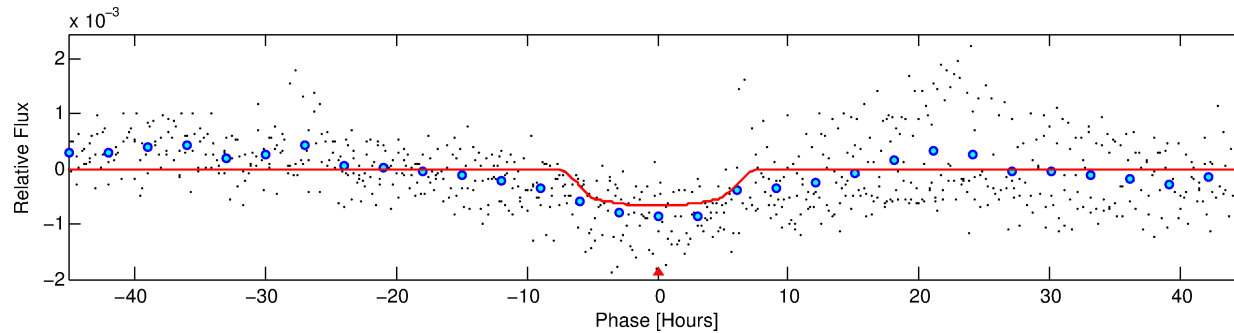
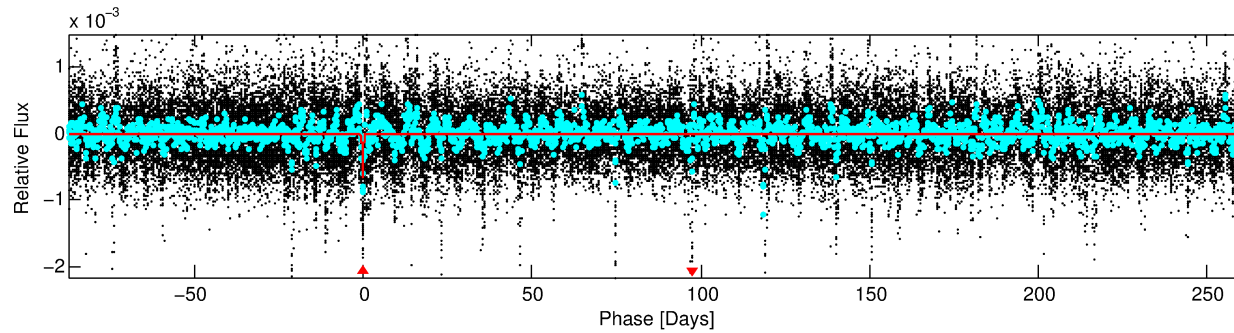
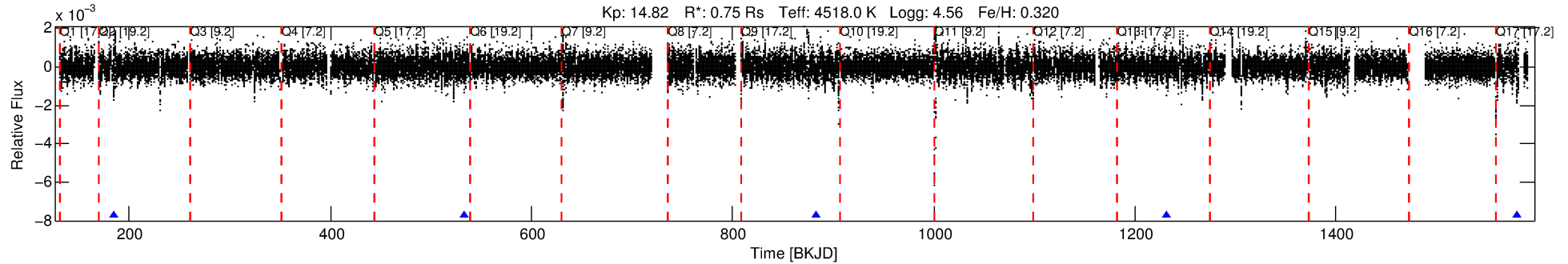
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010533168-01

No Significant Match Found

DV One-Page Summary

KIC: 10533168 Candidate: 1 of 1 Period: 348.961 d



DV Fit Results:

Period = 348.96144 [0.00848] d
Epoch = 184.7396 [0.0214] BKJD
Rp/R* = 0.0302 [0.0032]
a/R* = 80.91 [19.34]
b = 0.92 [0.04]
Seff = 0.27 [0.04]
Teq = 184 [8] K
Rp = 2.47 [0.33] Re
a = 0.8780 [0.0649] AU
Ag = 18964.20 [7955.71] [2.38 σ]
Teffp = 3338 [352] K [8.96 σ]

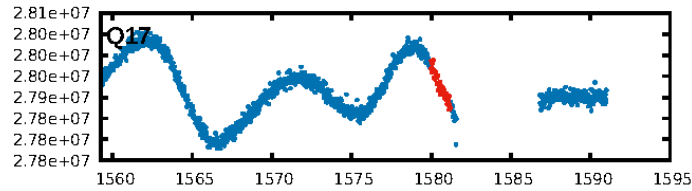
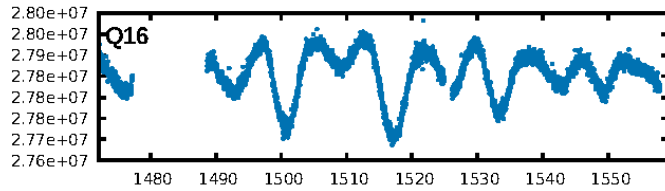
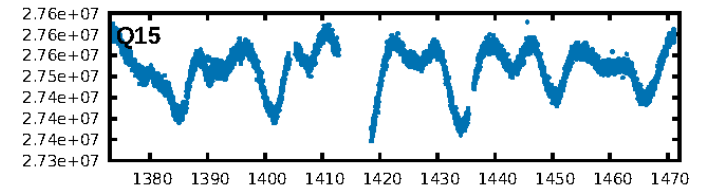
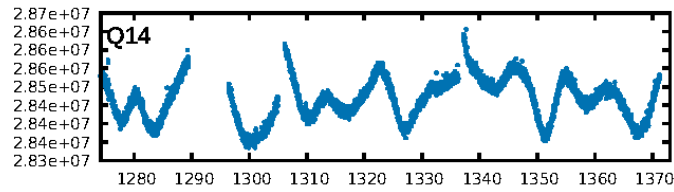
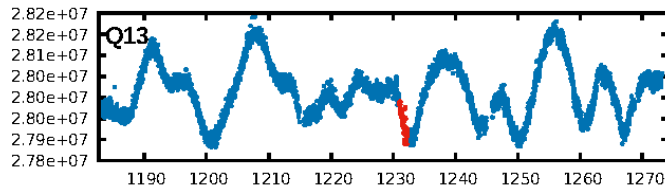
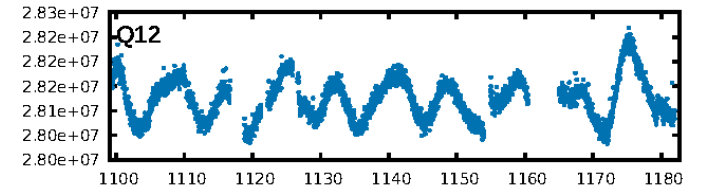
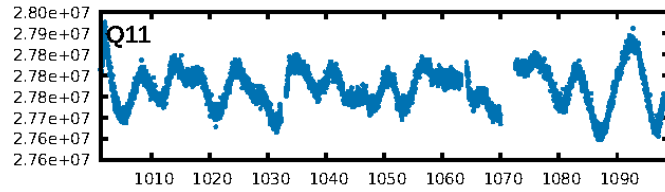
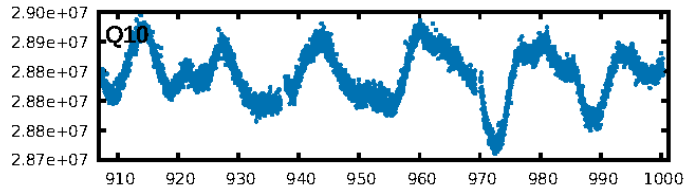
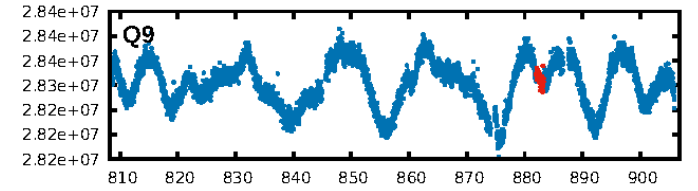
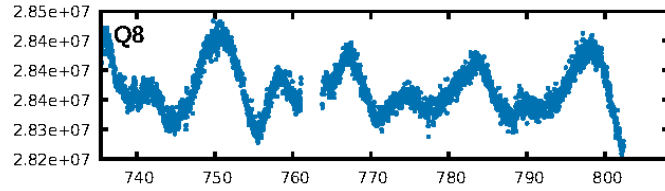
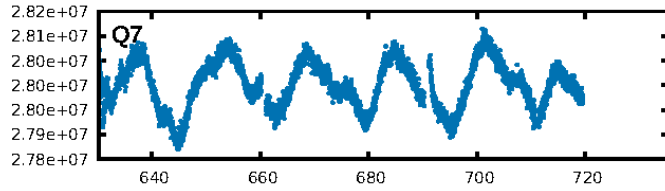
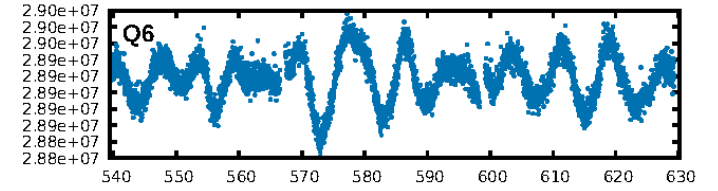
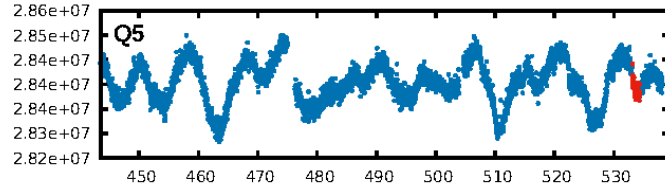
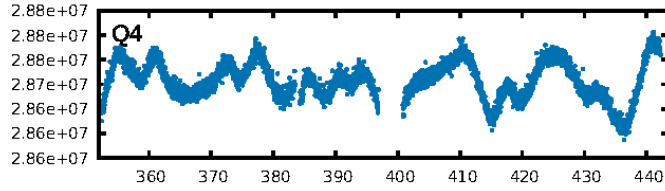
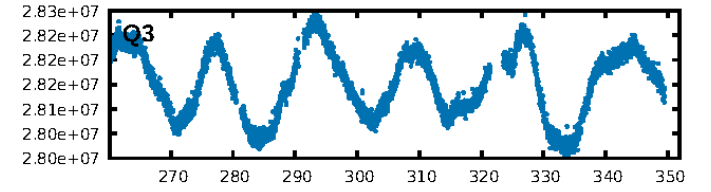
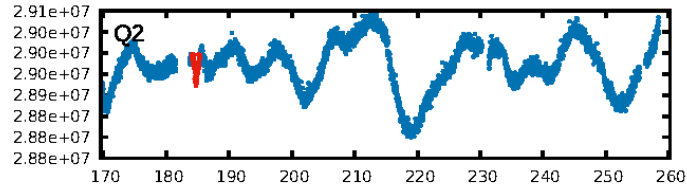
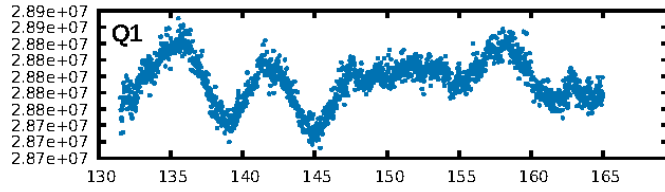
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.69e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.1309
Centroid-sig: 85.2%
Centroid-so: 0.551 arcsec [0.40 σ]
OotOffset-rm: 2.374 arcsec [2.12 σ]
KicOffset-rm: 2.276 arcsec [2.03 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

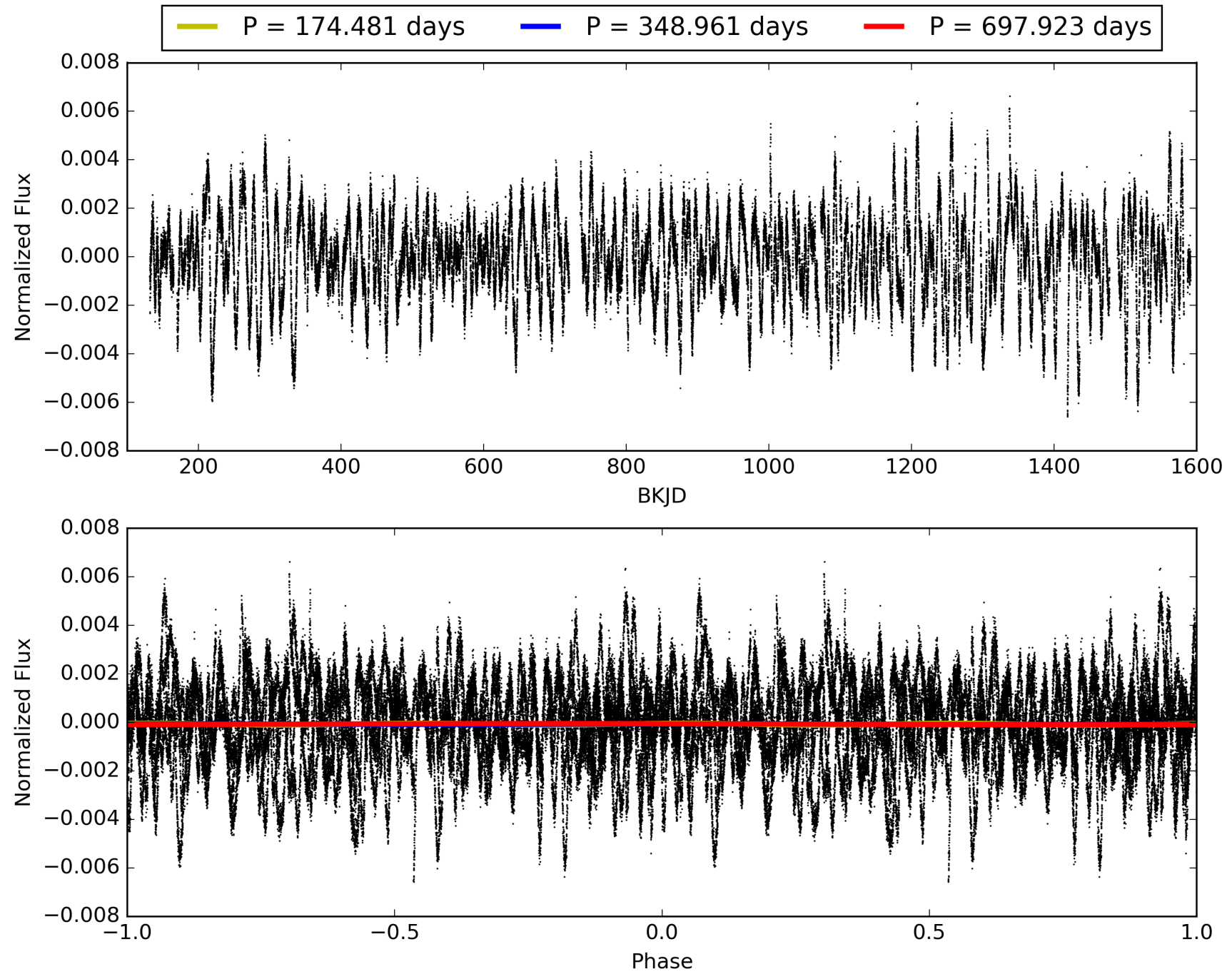
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:31:11 Z

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

TCE 010533168-01, PDC Light Curves

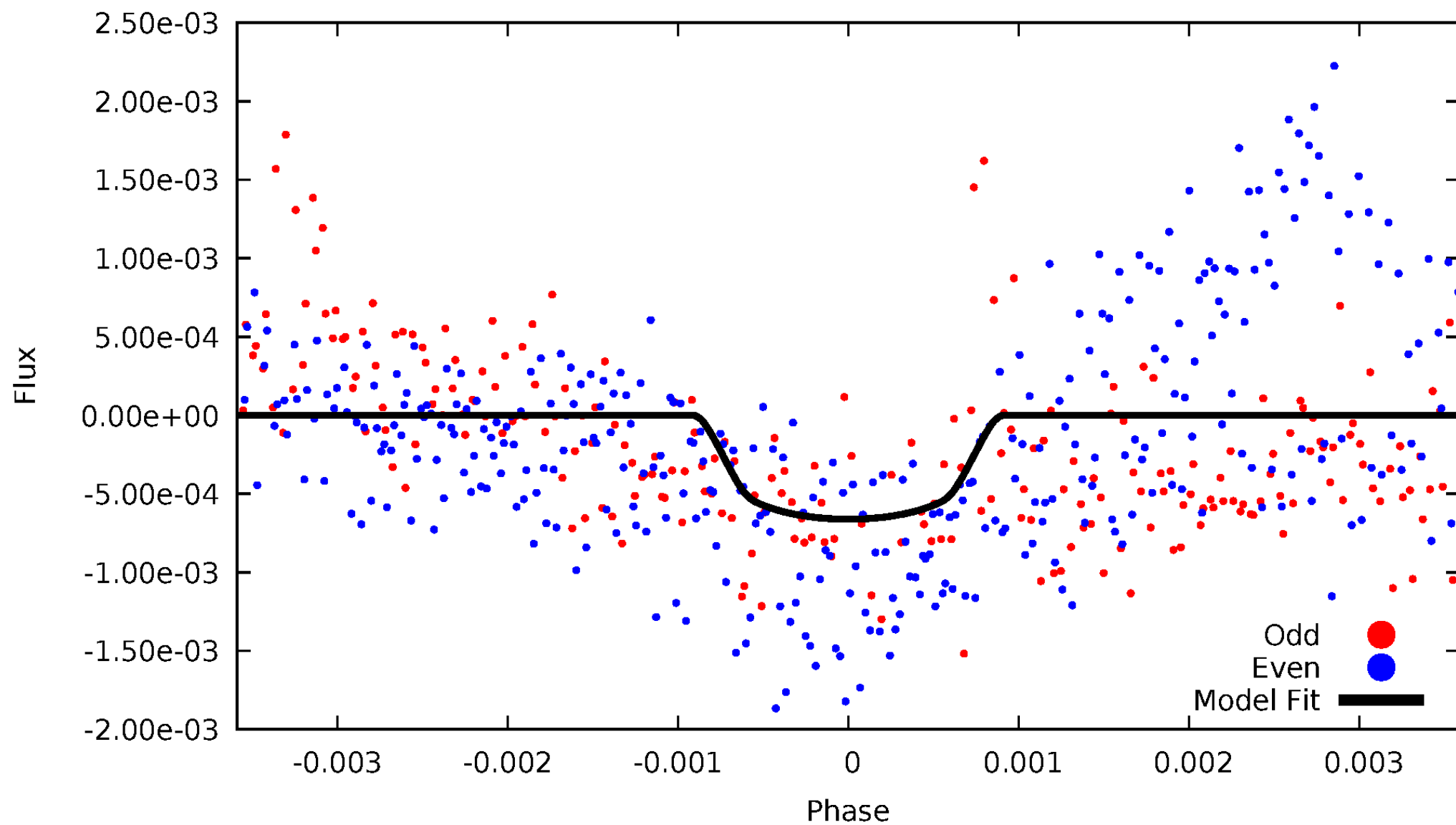


TCE 010533168-01



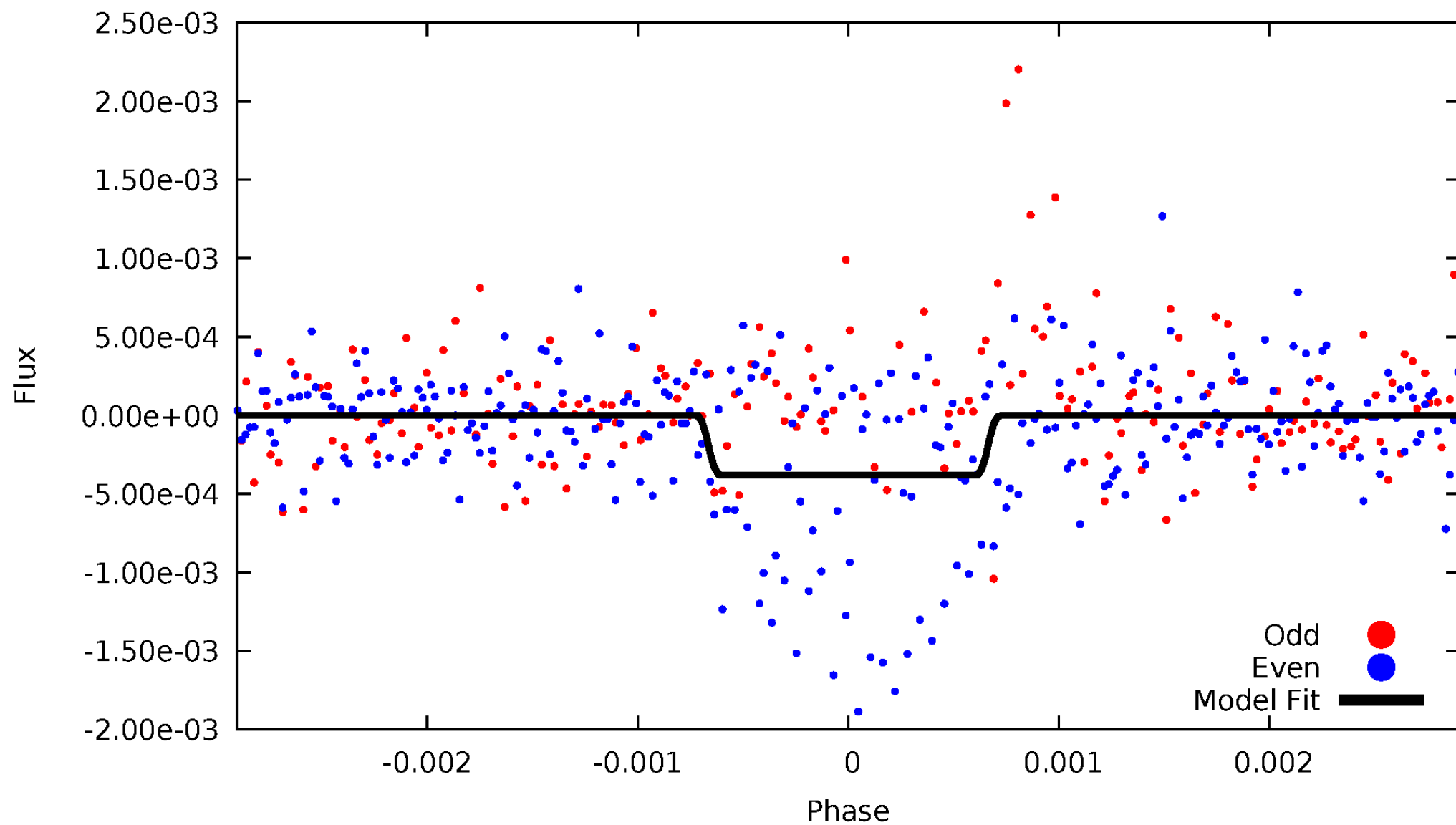
DV Odd/Even

TCE 010533168-01



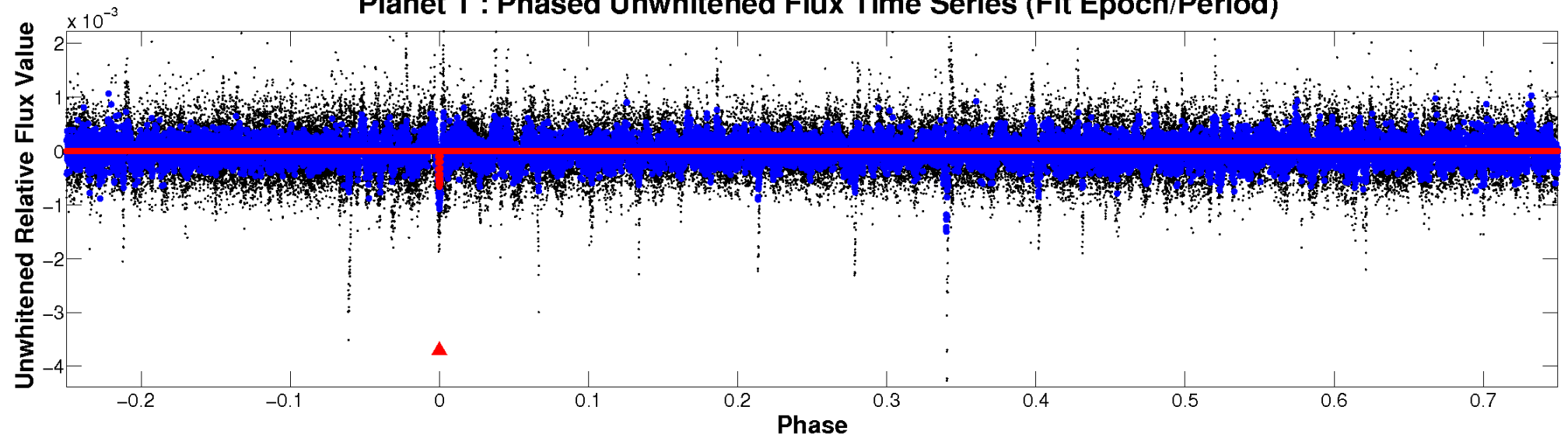
ALT Odd/Even

TCE 010533168-01

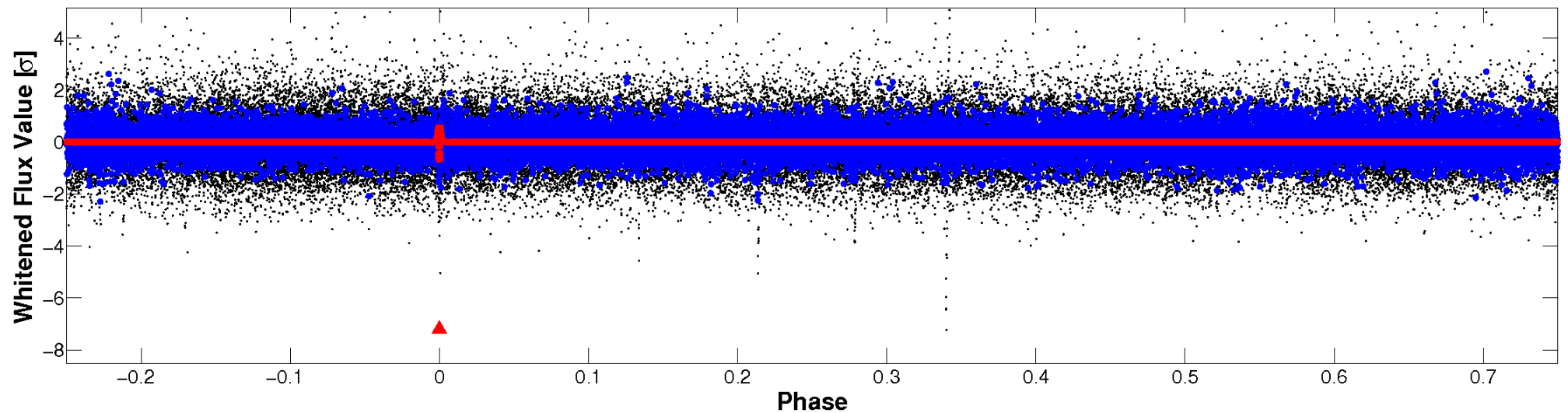


Non-Whitened Vs. Whitened Light Curve

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

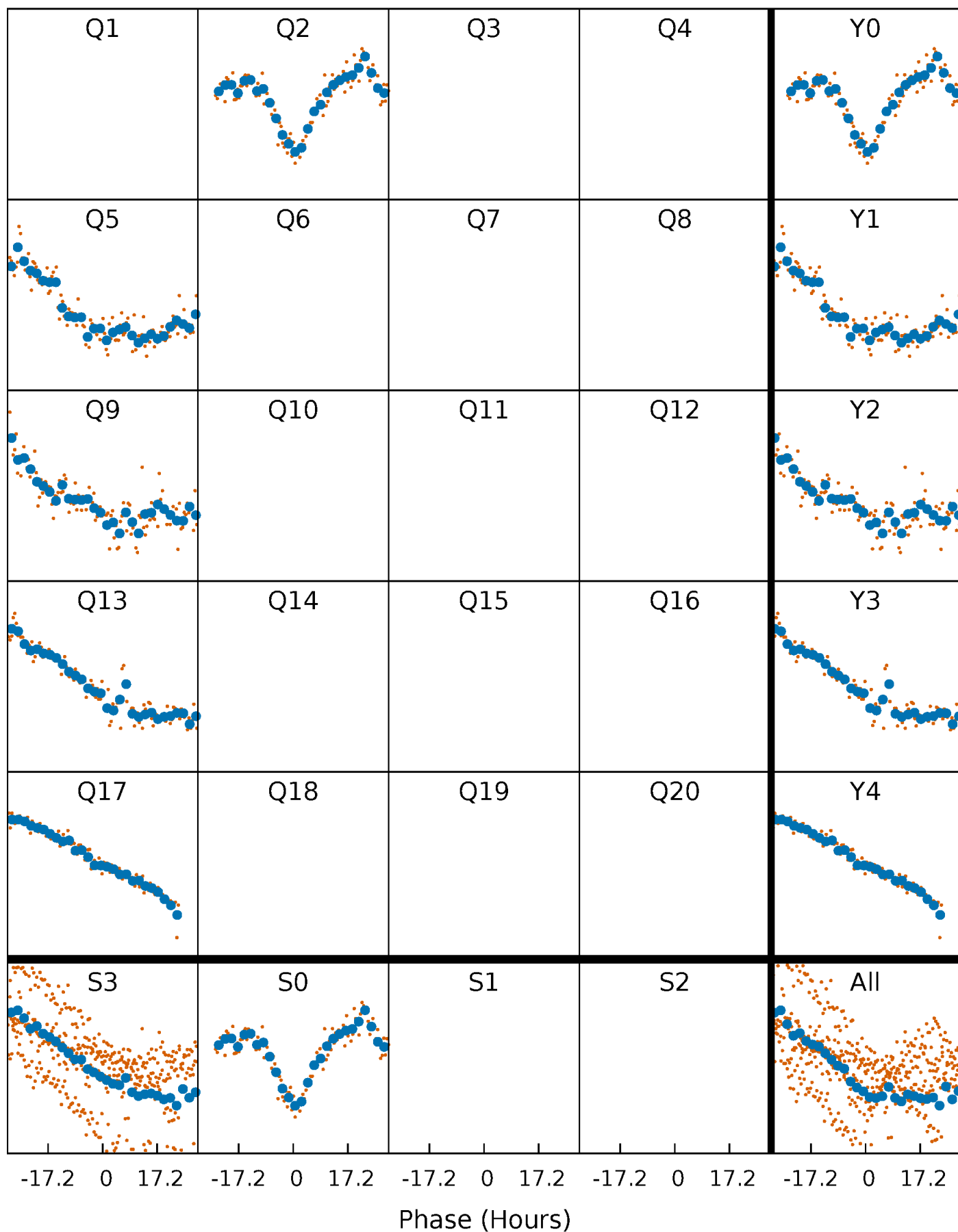


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



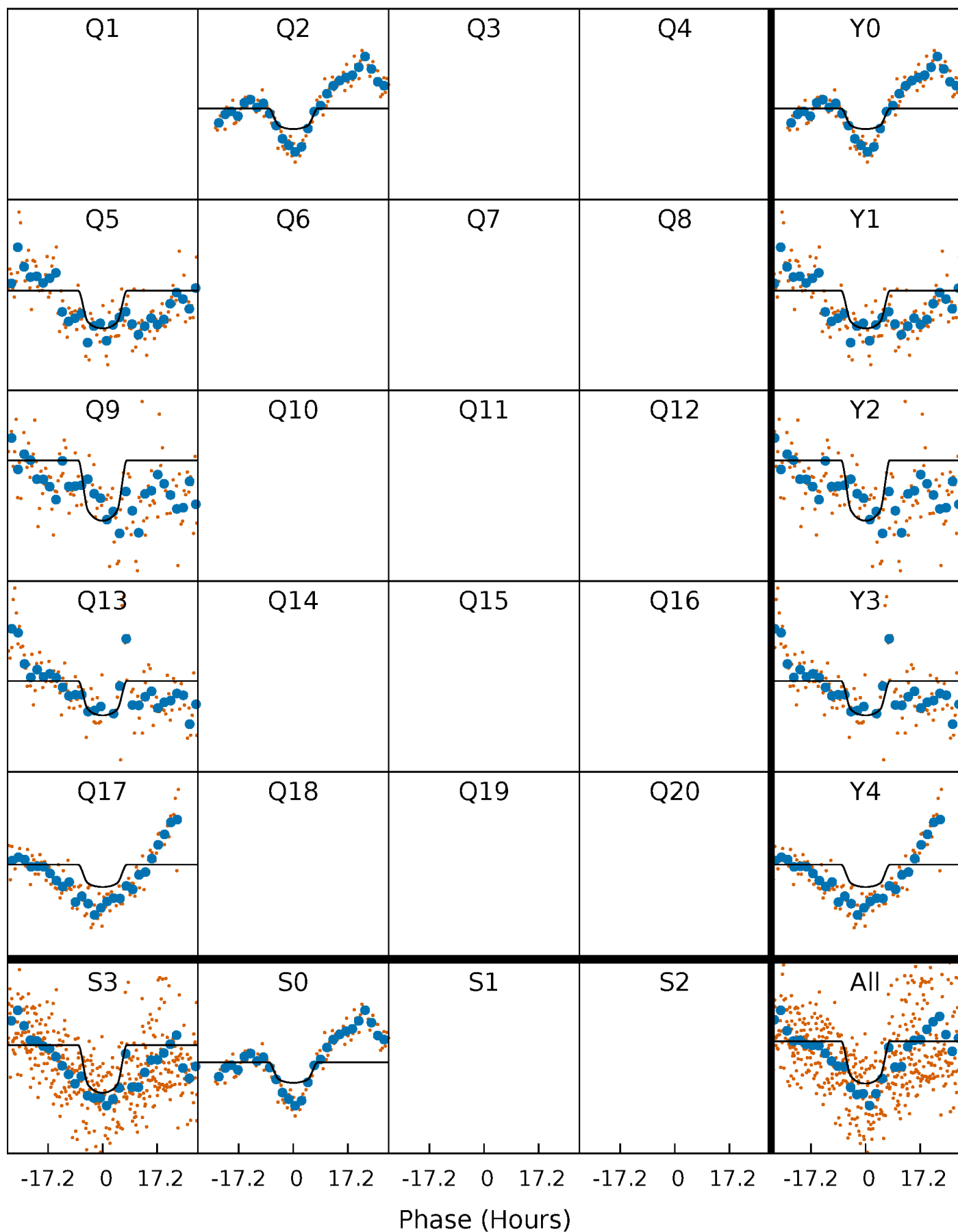
PDC Quarter-Phased Transit Curves

TCE 010533168-01 P=348.961442 Days $T_0=184.739641$ (BKJD)



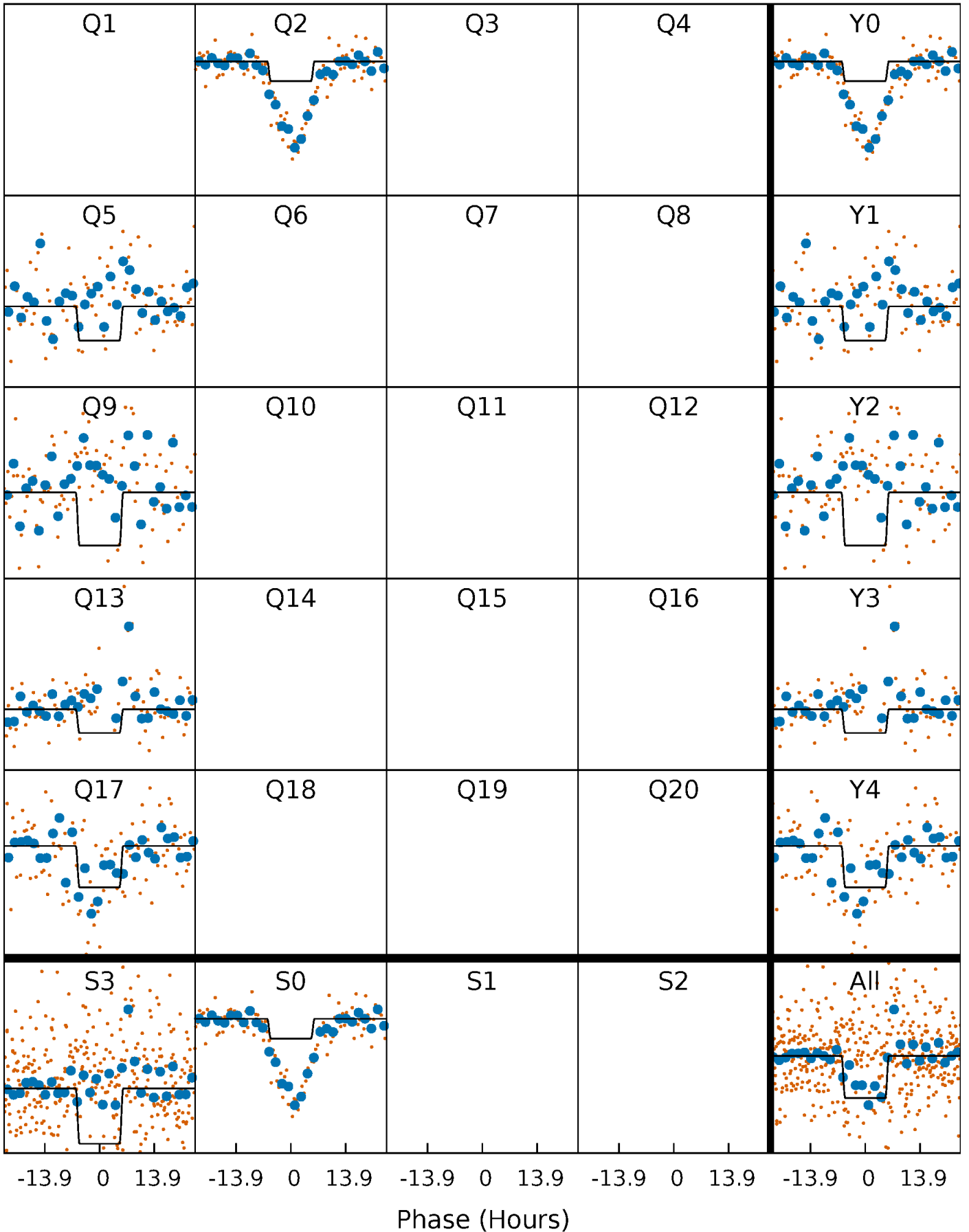
DV Quarter-Phased Transit Curves

TCE 010533168-01 P=348.961442 Days $T_0=184.739641$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

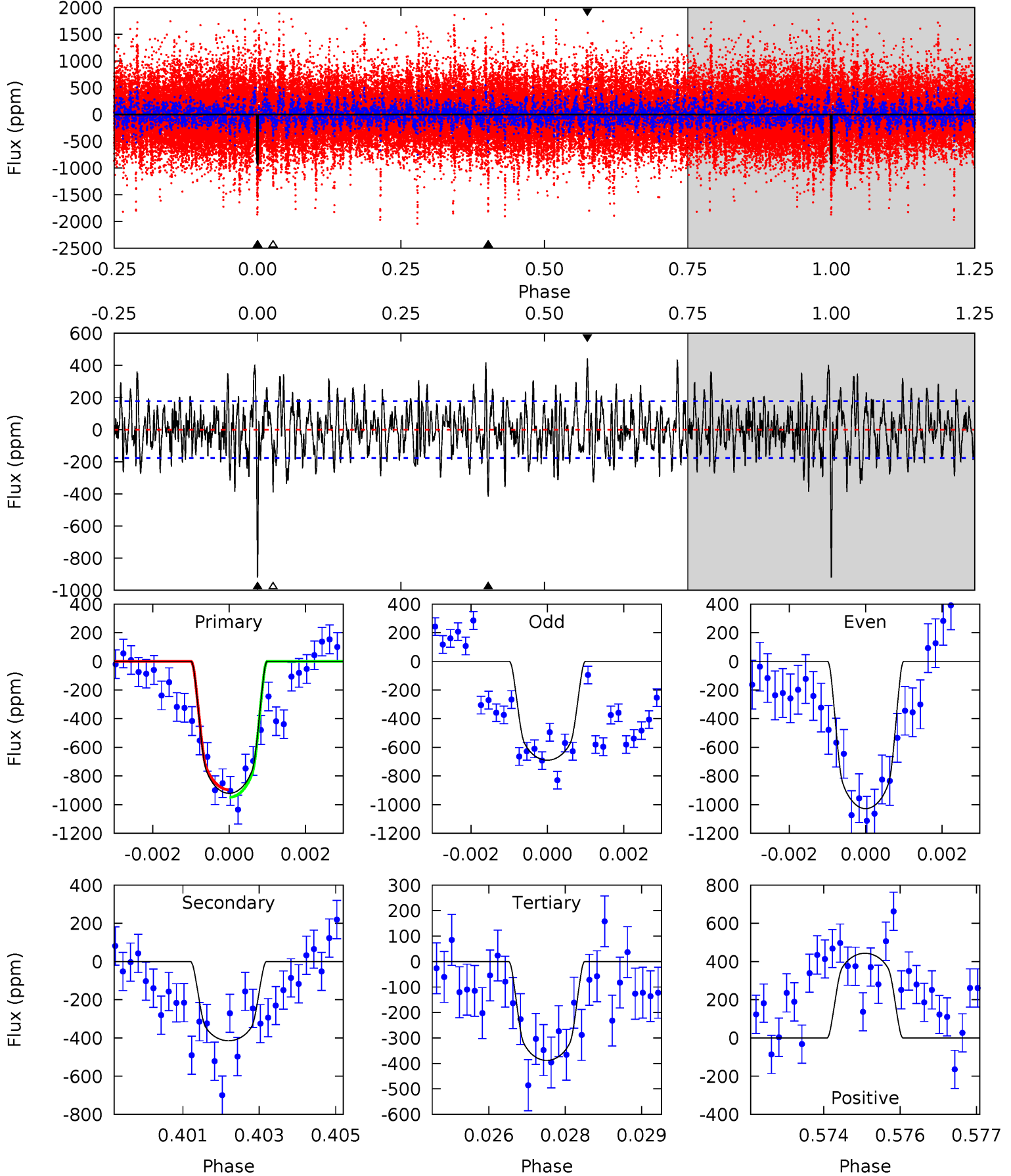
TCE 010533168-01 P=348.957526 Days $T_0=184.747351$ (BKJD)



DV Model-Shift Uniqueness Test

010533168-01, P = 348.961442 Days, E = 184.739641 Days

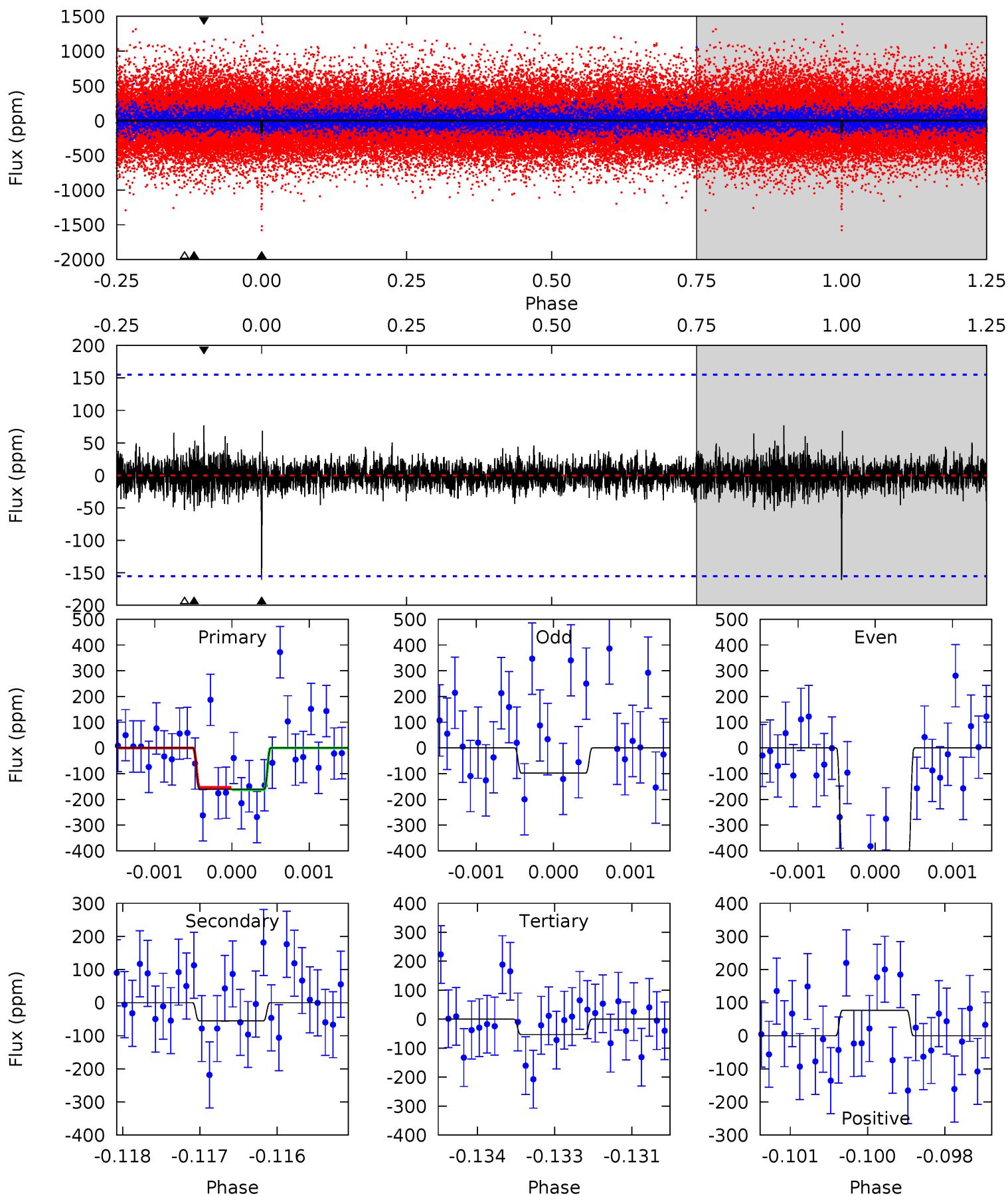
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.9	12.5	11.7	13.4	5.34	3.12	3.87	16.1	14.5	0.80	-0.87	4.93	1.11	0.32	0.80



Alt Model-Shift Uniqueness Test

010533168-01, P = 348.957526 Days, E = 184.747351 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.57	1.91	1.84	2.67	5.39	3.19	0.46	3.73	2.90	0.07	-0.77	6.53	-3.67	0.32	0.15



Stellar Parameters For KIC 010533168

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4518^{+137}_{-137}	$4.560^{+0.064}_{-0.016}$	$0.320^{+0.150}_{-0.300}$	$0.748^{+0.026}_{-0.062}$	$0.740^{+0.043}_{-0.048}$	$2.492^{+0.673}_{-0.179}$
	+3%/-3%	+1%/-0%	+47%/-94%	+3%/-8%	+6%/-6%	+27%/-7%
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 010533168-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-415 ± 33	$2.44^{+0.26}_{-0.28}$	255^{+9}_{-9}	3903^{+200}_{-179}	29951^{+8533}_{-5853}
Alt.	-55 ± 29	$1.58^{+0.26}_{-0.28}$	255^{+8}_{-9}	3244^{+295}_{-334}	9477^{+7223}_{-4850}

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

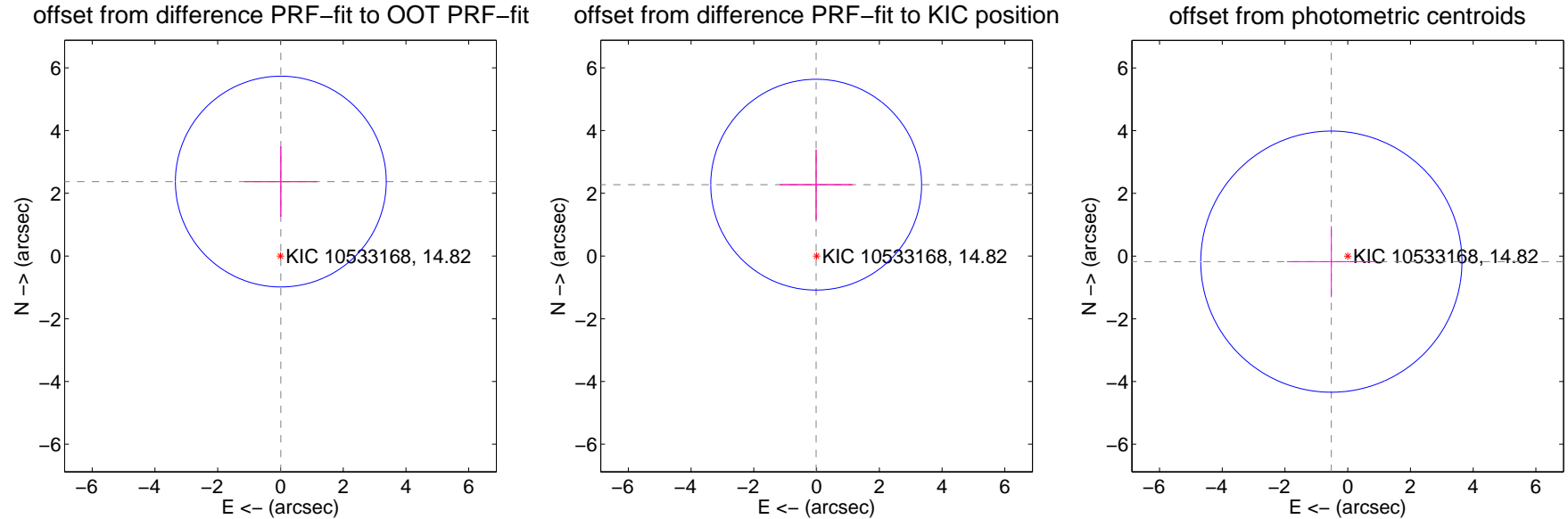
DV Centroid Data

Supplemental centroid analysis for 010533168-01. Kepler magnitude: 14.82. Transit SNR 7.81

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.374 ± 1.120	2.12	-0.012 ± 1.156	2.374 ± 1.120
PRF-fit source offset from KIC position	2.276 ± 1.120	2.03	0.013 ± 1.156	2.276 ± 1.120
photometric centroid source offset	0.55 ± 1.39	0.40	0.52 ± 1.41	-0.18 ± 1.13

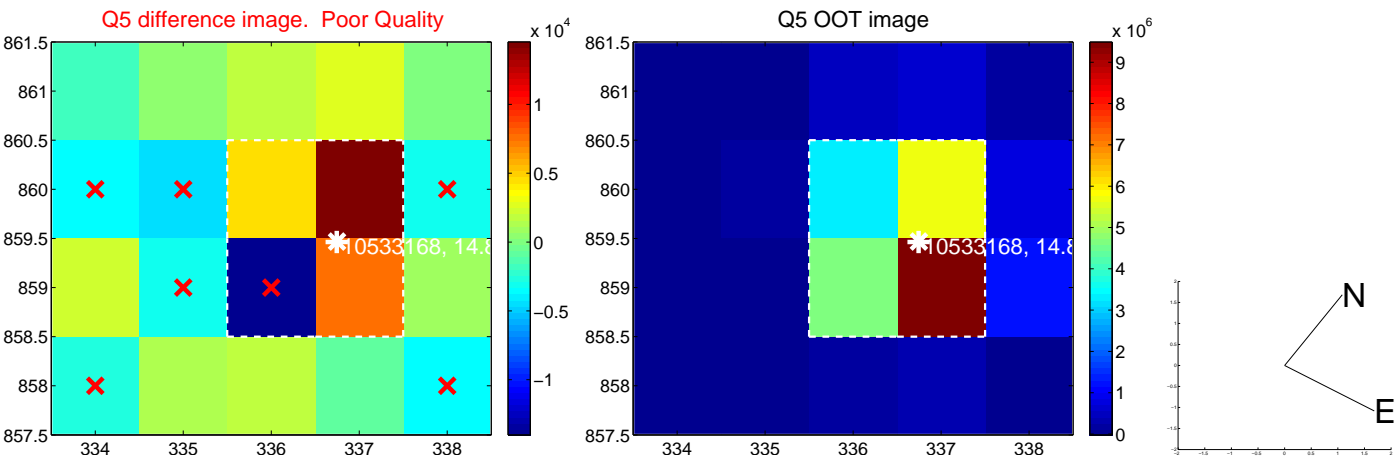


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

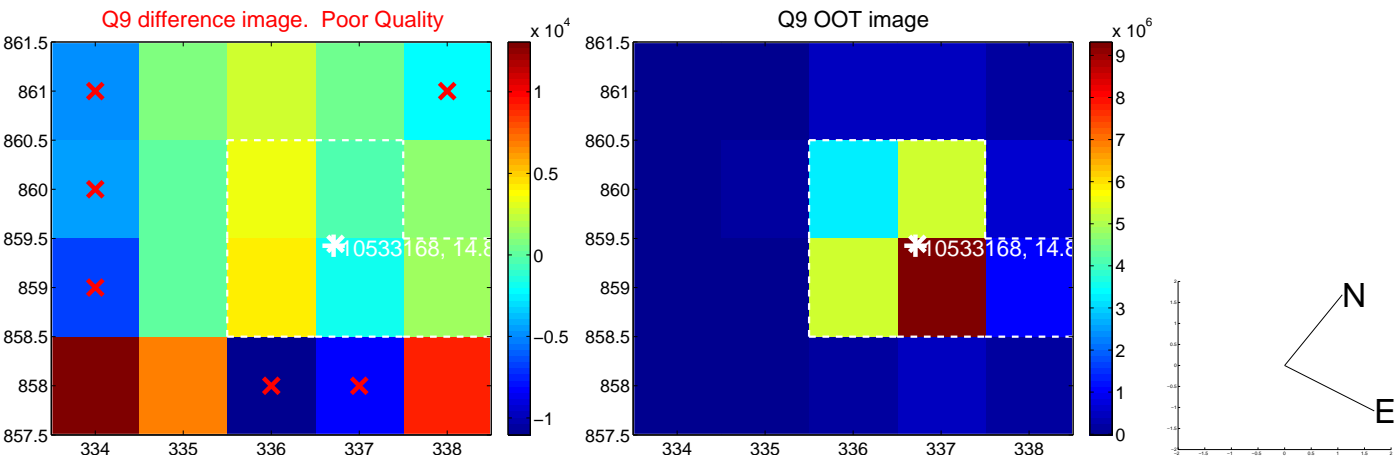
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



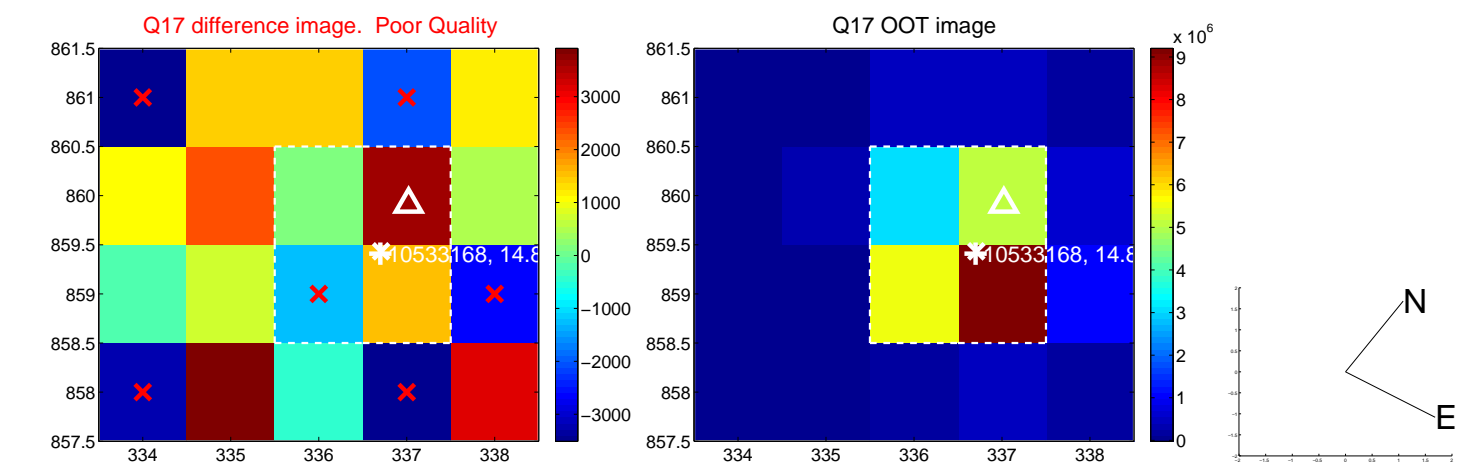
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



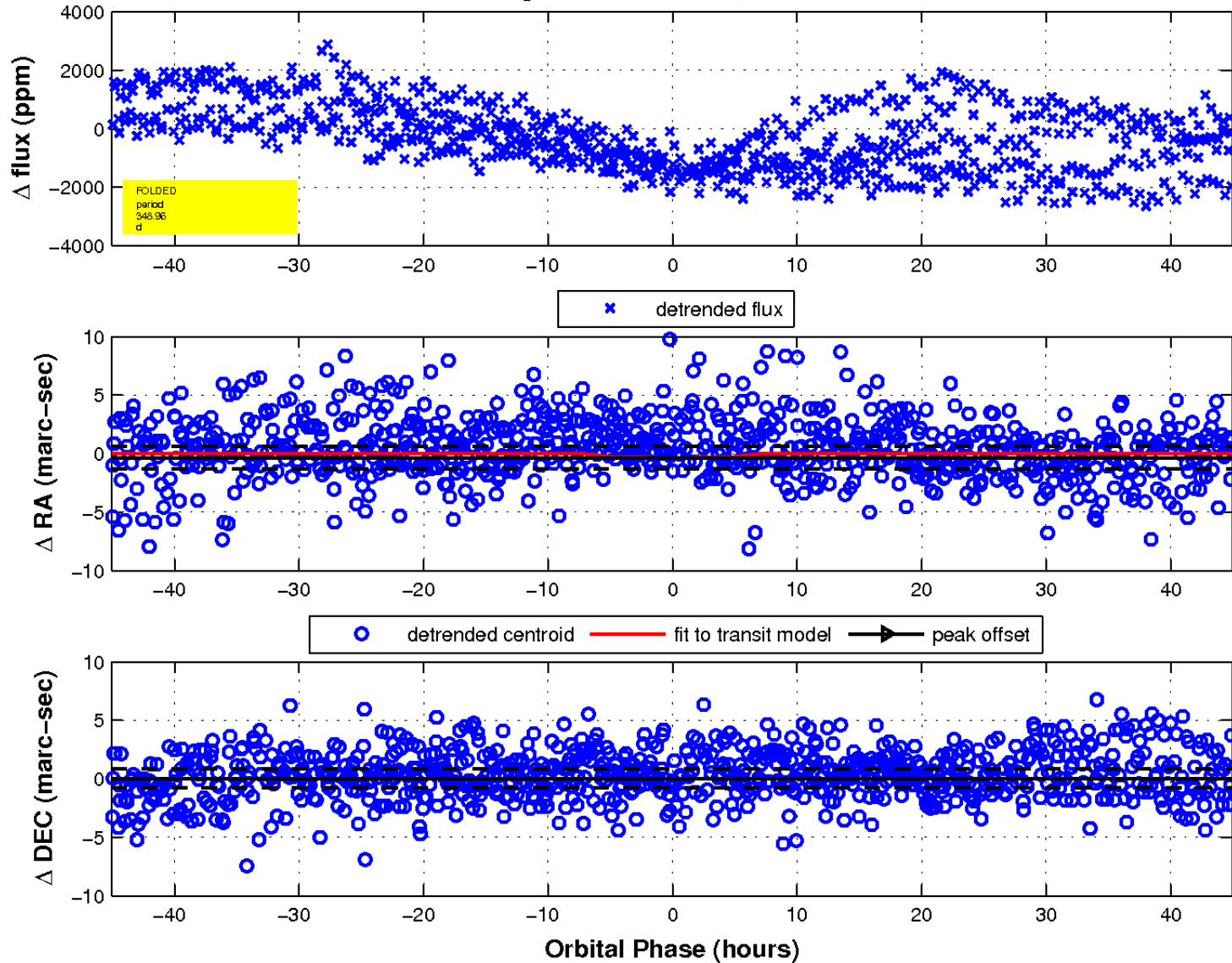
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

