

KIC 008177062

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})
008177062-01	OBS	No	370.673862	230.802379	1212.4	23.205	9.5	9.3	1.09	6128	7.09	1.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008177062-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—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.

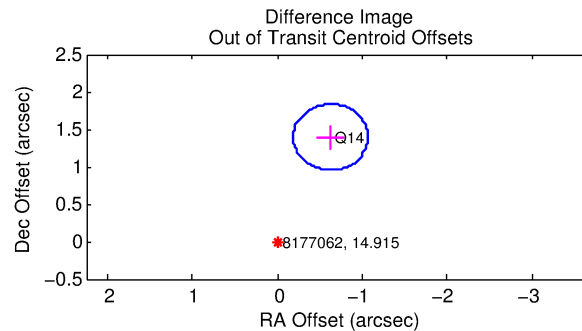
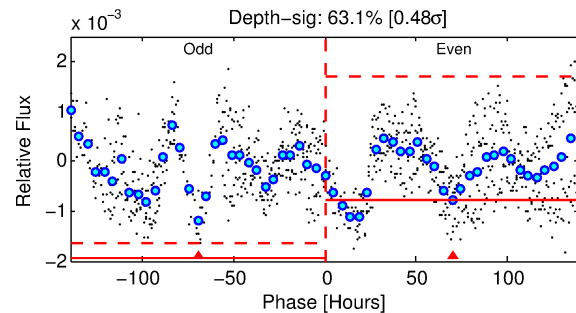
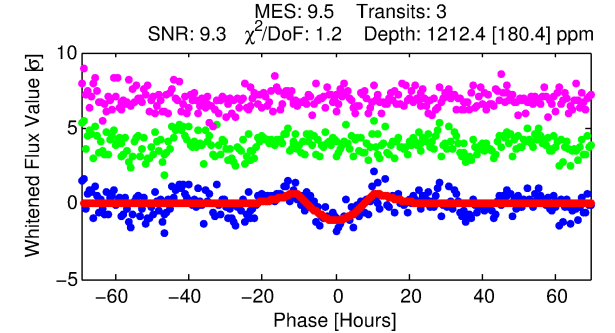
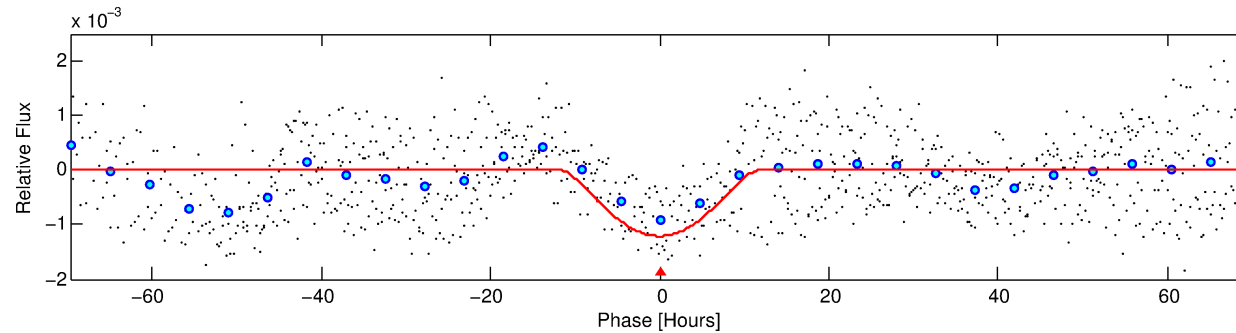
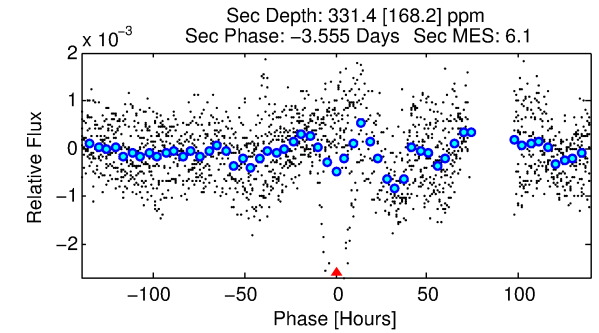
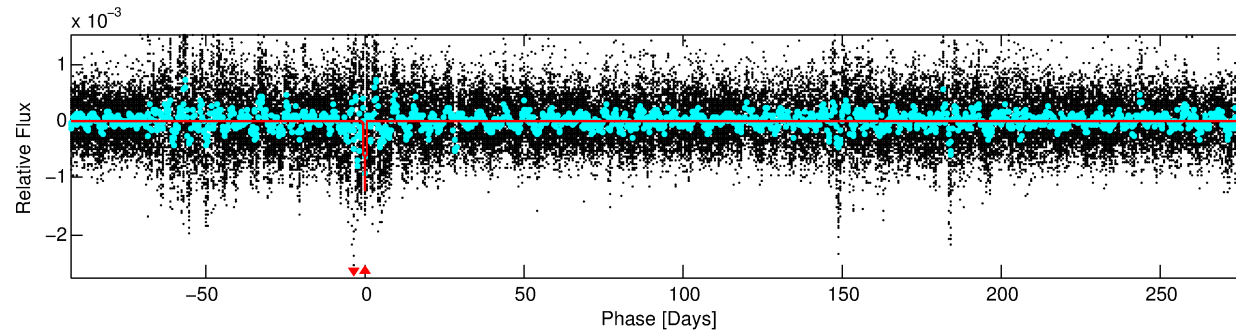
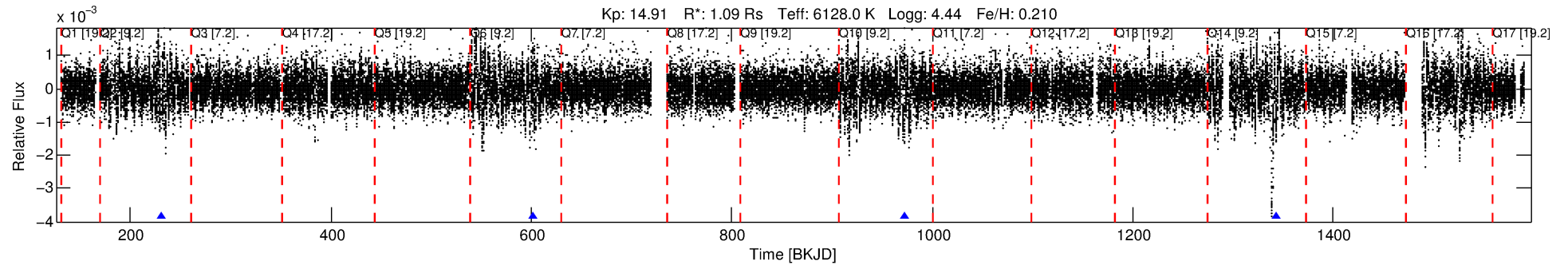
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008177062-01

No Significant Match Found

DV One-Page Summary

KIC: 8177062 Candidate: 1 of 1 Period: 370.674 d



DV Fit Results:

Period = 370.67386 [0.02617] d
Epoch = 230.8024 [0.0518] BKJD
Rp/R* = 0.0596 [0.1181]
a/R* = 43.58 [20.71]
b = 1.00 [0.18]
Seff = 1.32 [0.61]
Teq = 273 [32] K
Rp = 7.09 [14.27] Re
a = 1.0688 [0.3132] AU
Ag = 4143.28 [16659.83] [0.25σ]
Teff = 3388 [3389] K [0.92σ]

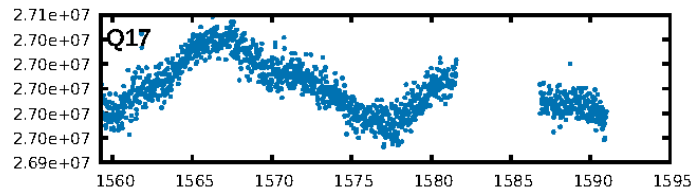
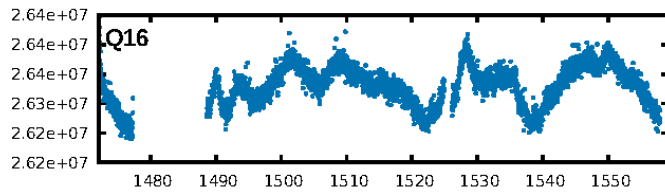
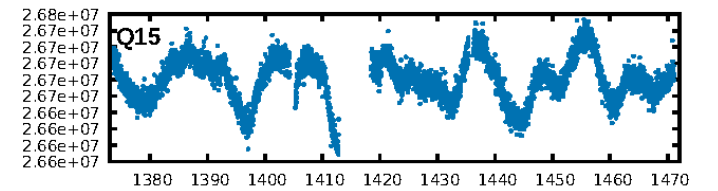
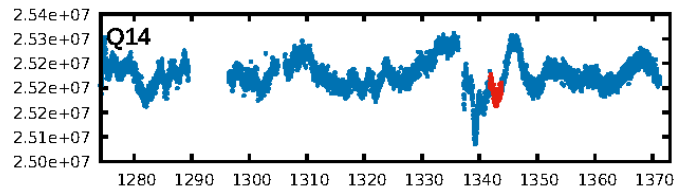
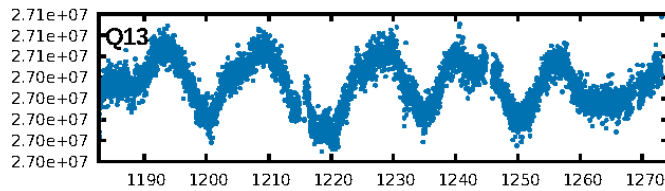
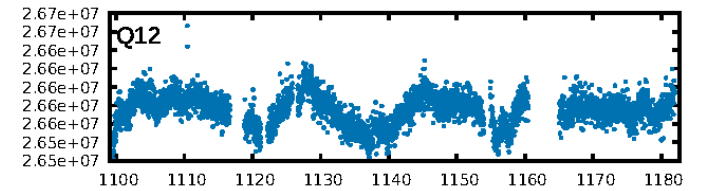
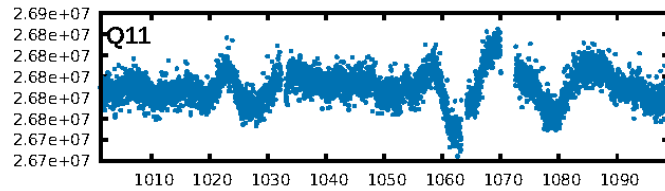
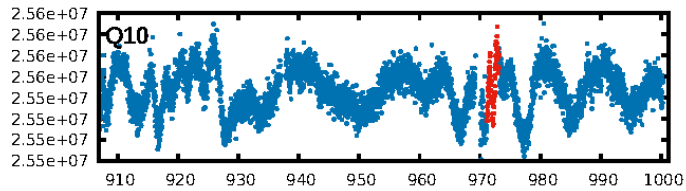
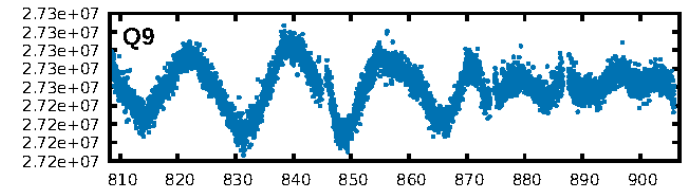
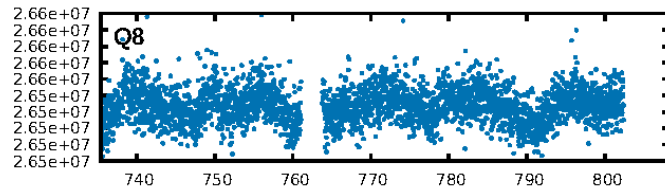
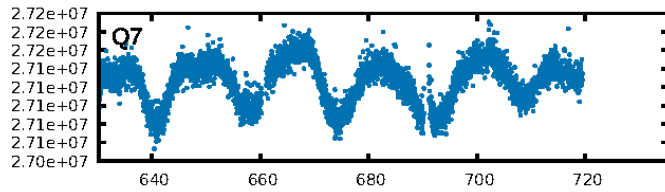
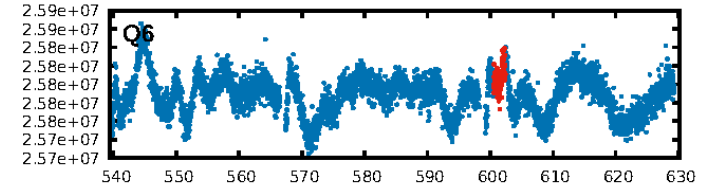
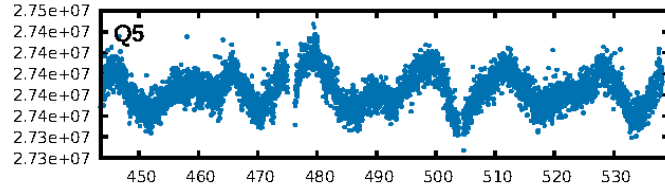
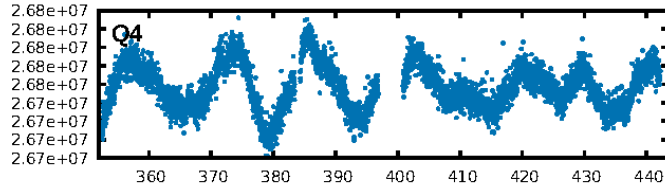
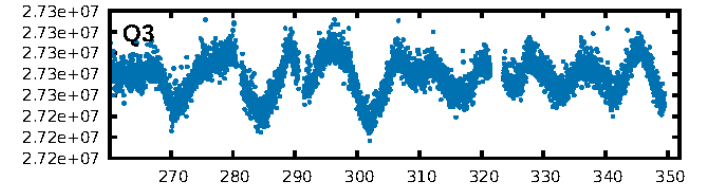
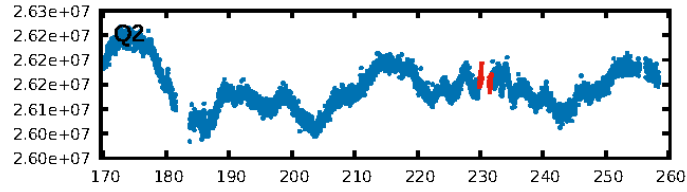
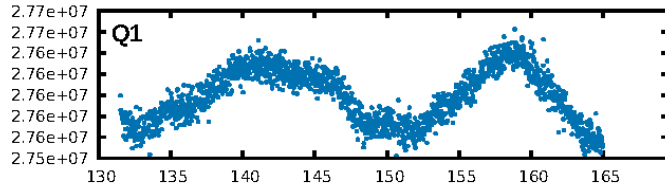
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 99.2%
Bootstrap-pfa: 2.43e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.543
Centroid-sig: 0.0%
Centroid-so: 6.380 arcsec [3.73σ]
OotOffset-rm: 1.528 arcsec [10.40σ]
KicOffset-rm: 1.314 arcsec [8.97σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

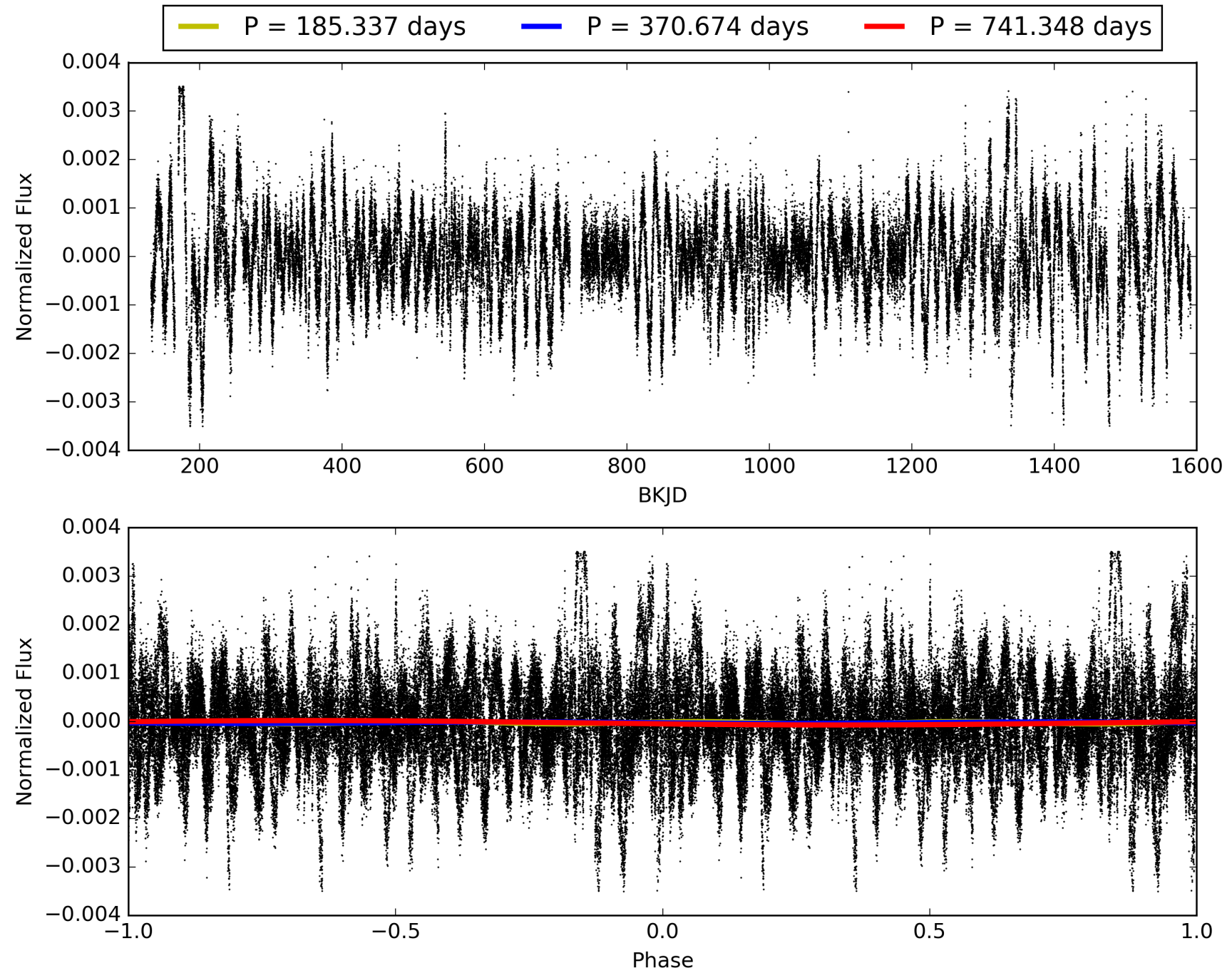
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:26:08 Z

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

TCE 008177062-01, PDC Light Curves

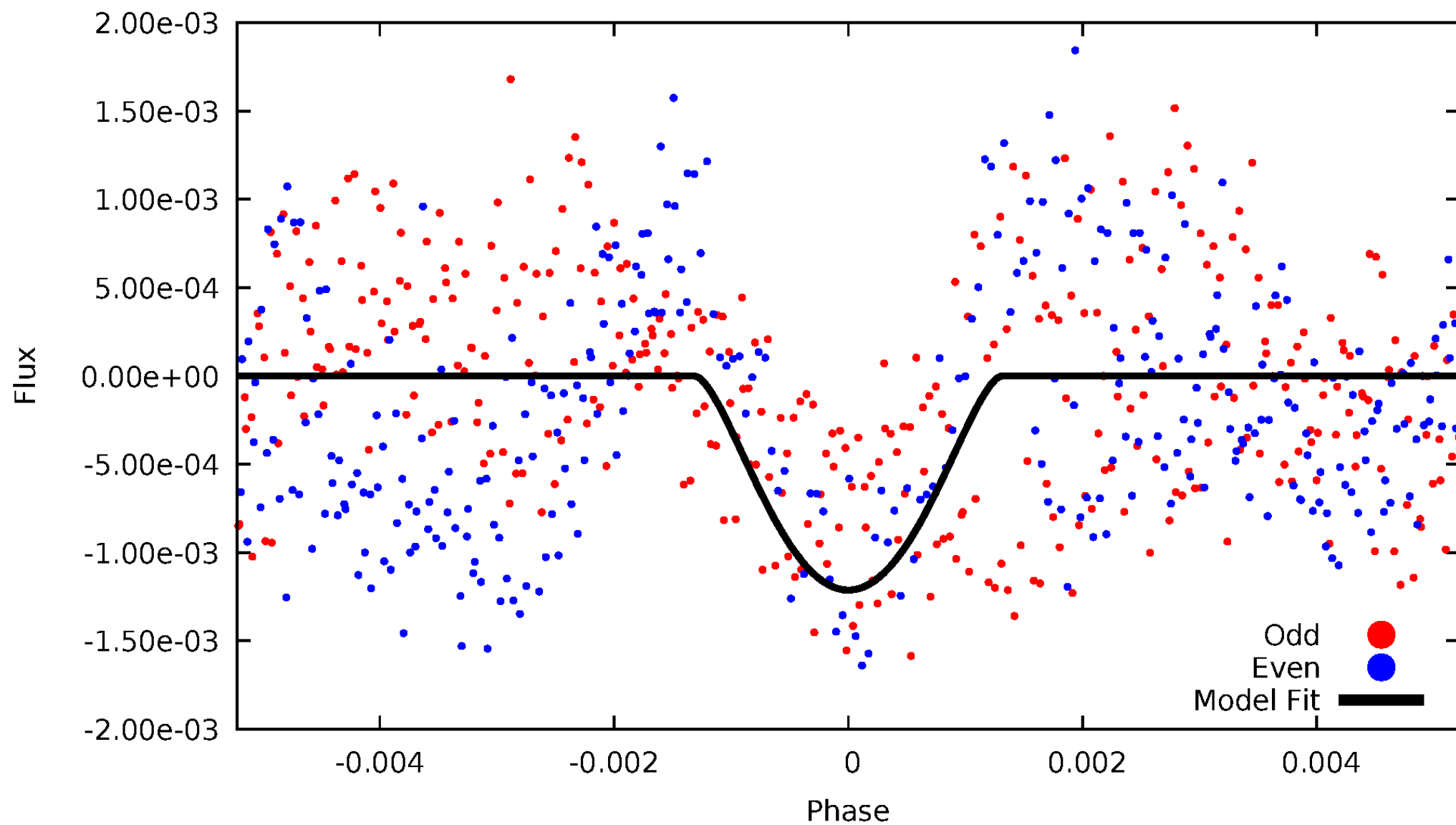


TCE 008177062-01



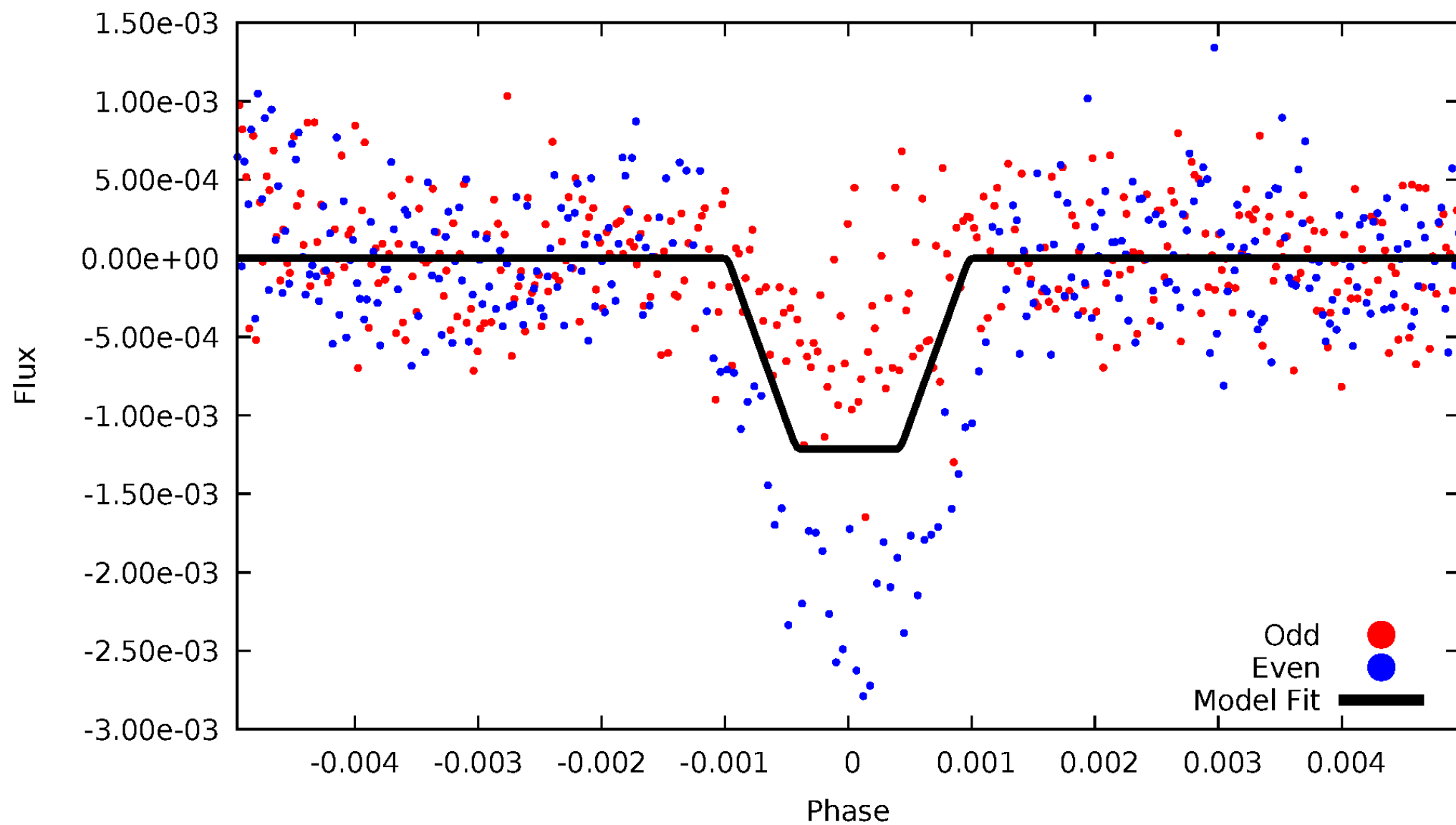
DV Odd/Even

TCE 008177062-01



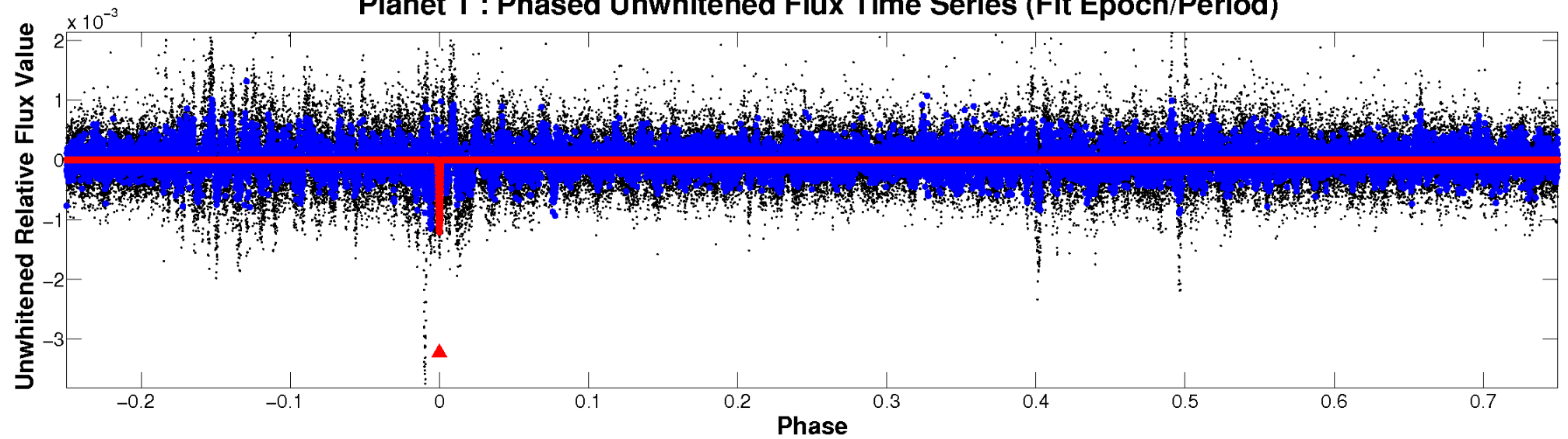
ALT Odd/Even

TCE 008177062-01

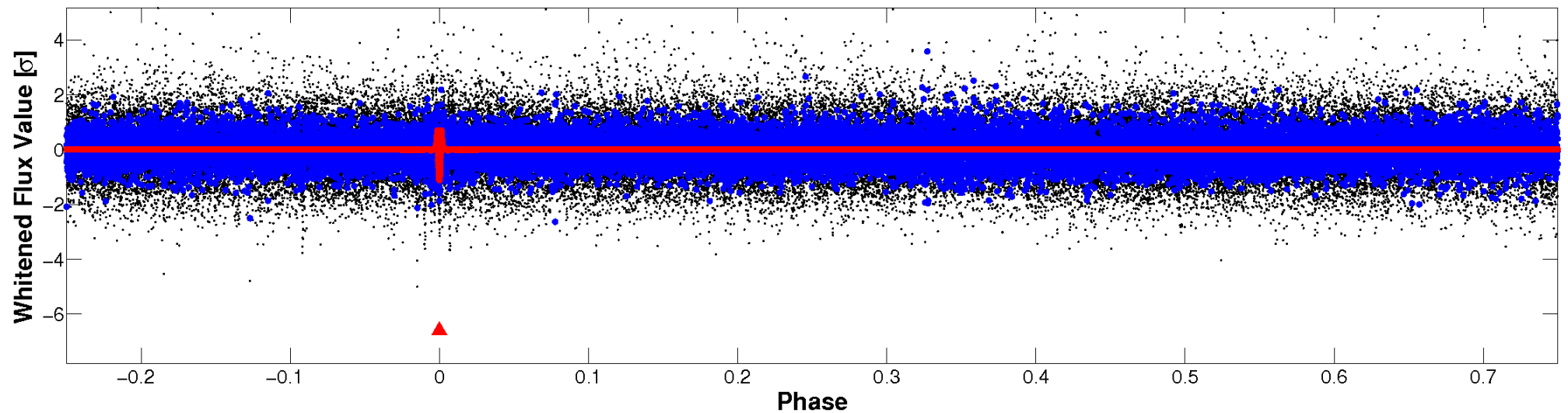


Non-Whitened Vs. Whitened Light Curve

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

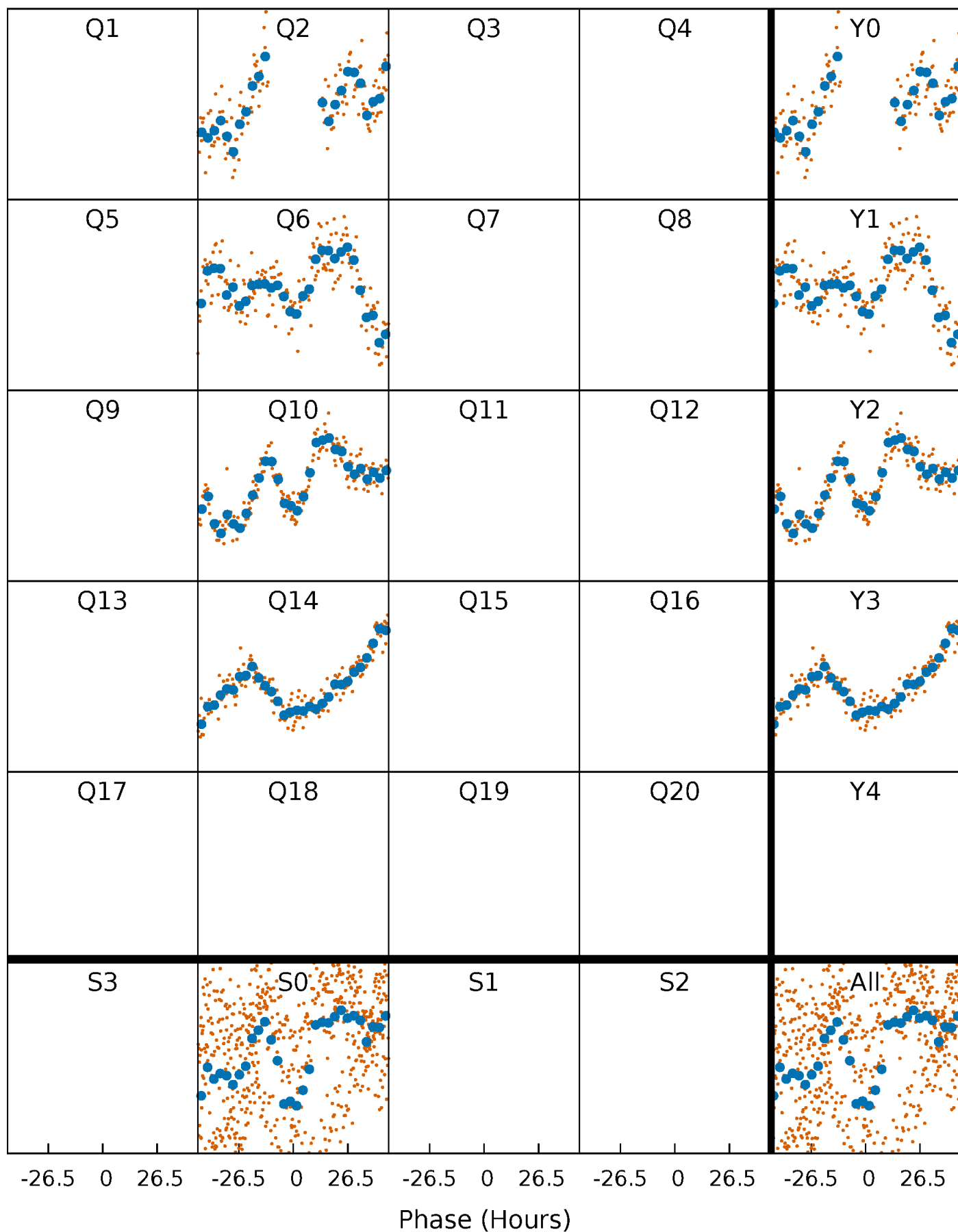


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



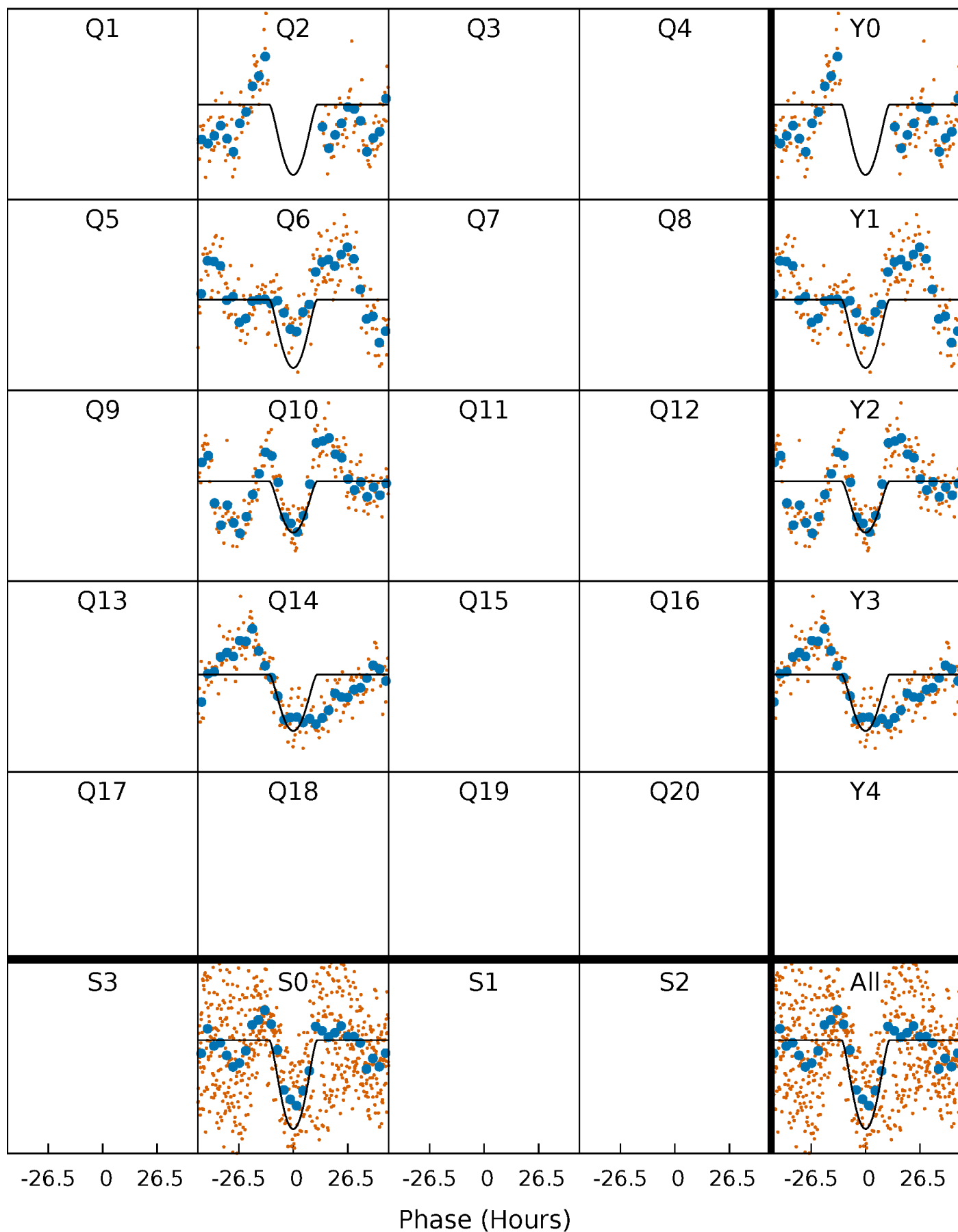
PDC Quarter-Phased Transit Curves

TCE 008177062-01 P=370.673862 Days $T_0=230.802379$ (BKJD)



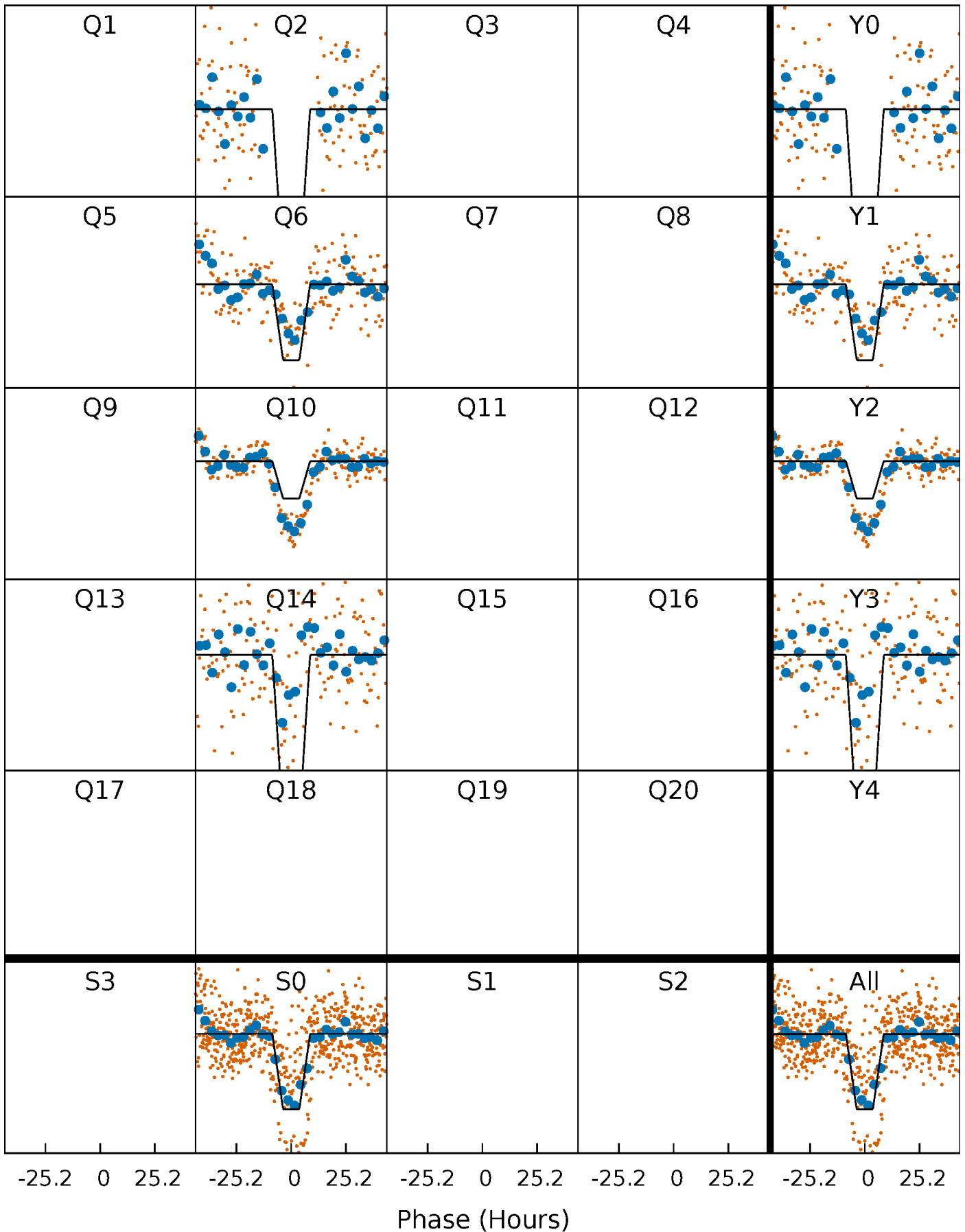
DV Quarter-Phased Transit Curves

TCE 008177062-01 P=370.673862 Days $T_0=230.802379$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

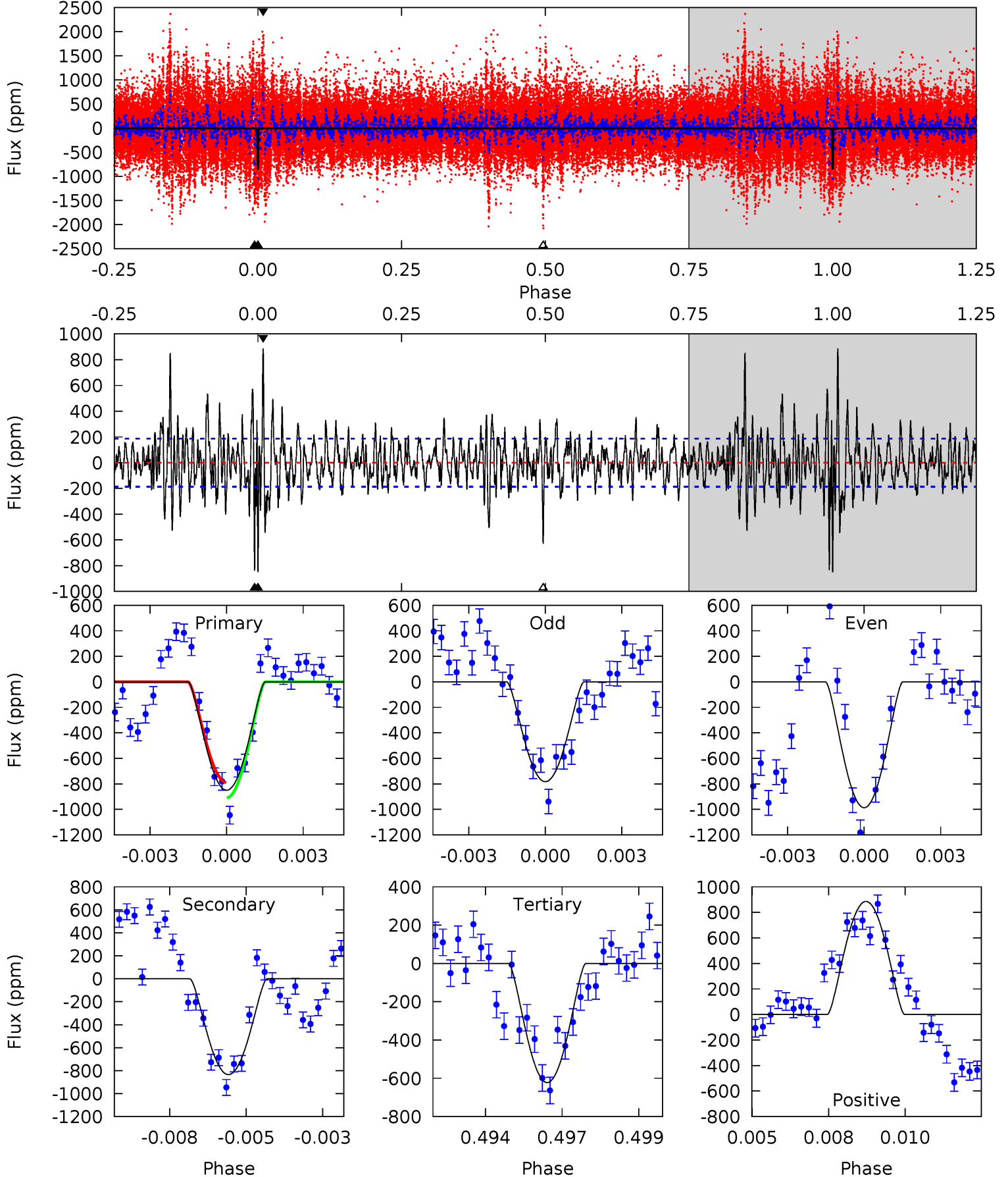
TCE 008177062-01 P=370.630722 Days $T_0=230.887255$ (BKJD)



DV Model-Shift Uniqueness Test

008177062-01, P = 370.673862 Days, E = 230.802379 Days

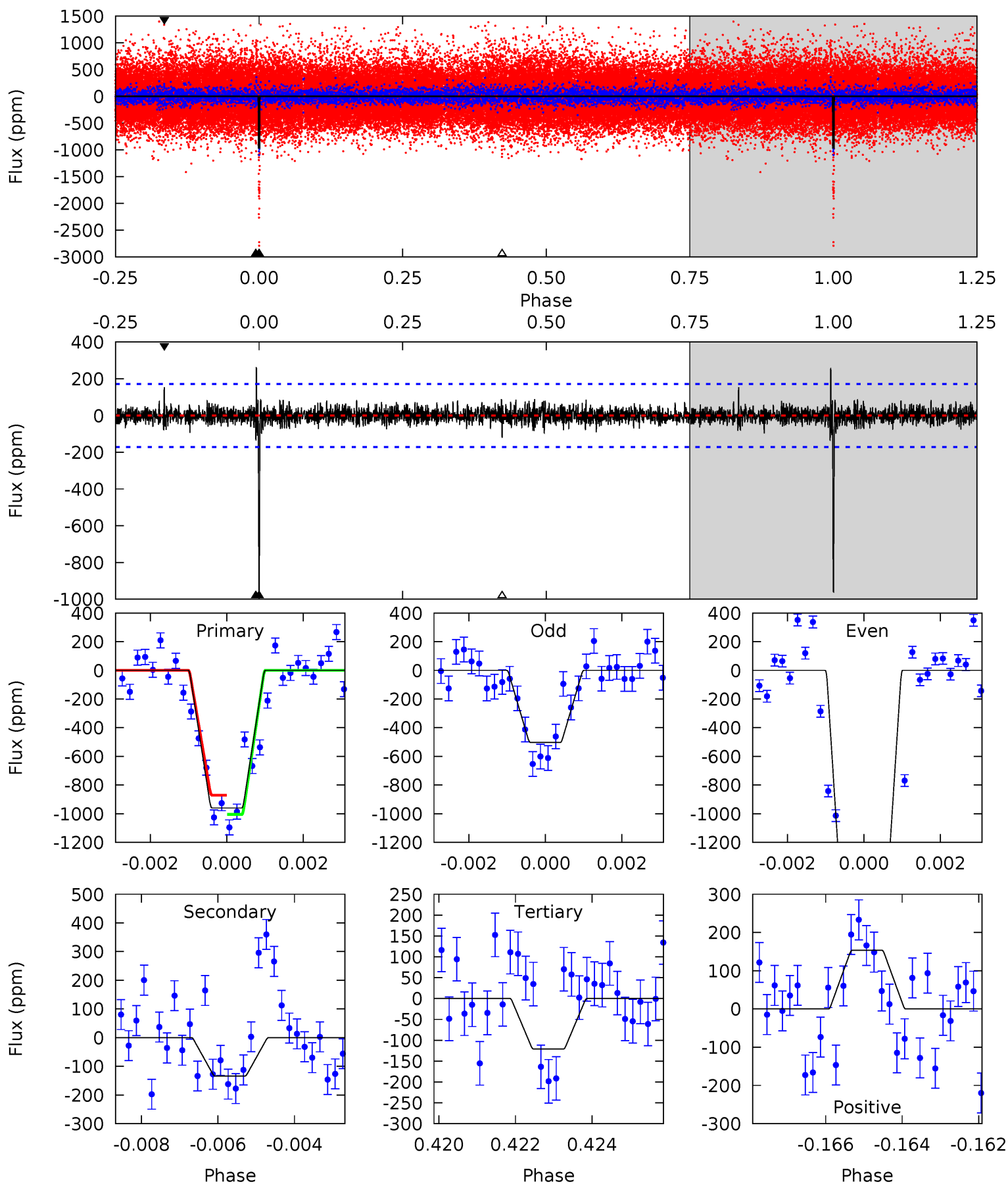
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.0	23.5	17.5	25.0	5.28	3.01	4.54	6.42	-1.01	5.99	-1.44	2.73	0.86	0.51	1.69



Alt Model-Shift Uniqueness Test

008177062-01, P = 370.630722 Days, E = 230.887255 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.9	4.16	3.77	4.77	5.33	3.09	0.86	26.1	25.1	0.39	-0.61	27.5	1.41	0.21	2.07



Stellar Parameters For KIC 008177062

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6128^{+169}_{-253}	$4.436^{+0.056}_{-0.238}$	$0.210^{+0.200}_{-0.300}$	$1.091^{+0.375}_{-0.125}$	$1.185^{+0.147}_{-0.180}$	$1.286^{+0.385}_{-0.695}$
	+3%/-4%	+1%/-5%	+95%/-143%	+34%/-11%	+12%/-15%	+30%/-54%
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 008177062-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-835 ± 35	$13.17^{+12.83}_{-8.43}$	389^{+33}_{-20}	3628^{+1790}_{-664}	2892^{+20129}_{-2131}
Alt.	-134 ± 32	$11.98^{+12.38}_{-8.16}$	390^{+31}_{-22}	2811^{+1240}_{-428}	532^{+5213}_{-398}

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 $A_{obs} \gg 1.0$

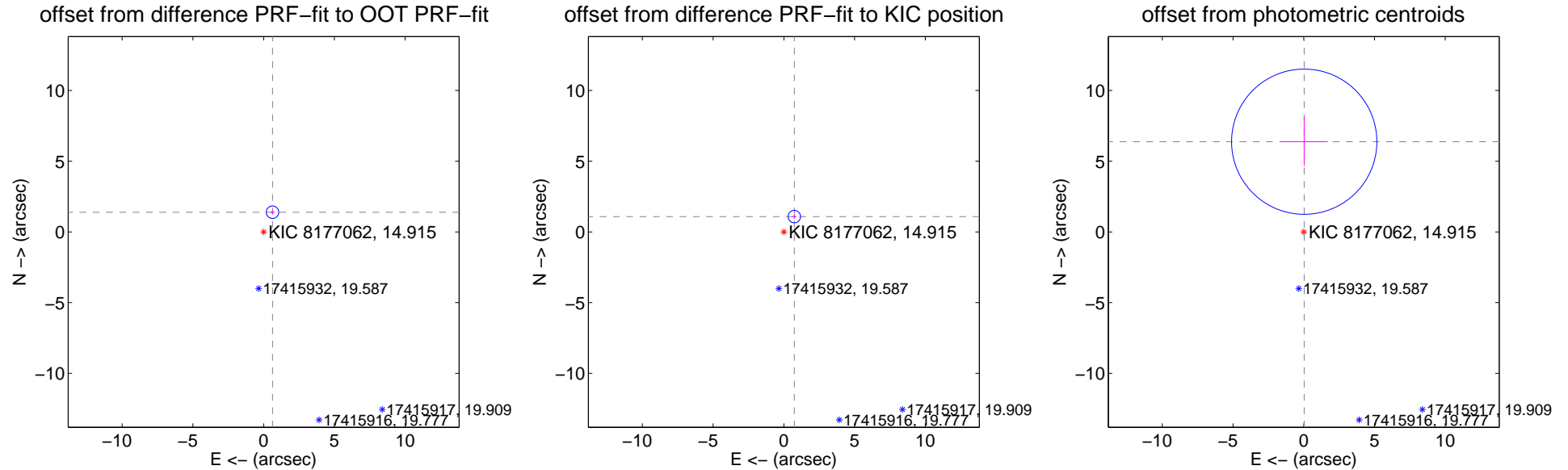
DV Centroid Data

Supplemental centroid analysis for 008177062-01. Kepler magnitude: 14.91. Transit SNR 9.26

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.528 ± 0.147	10.40	-0.628 ± 0.144	1.393 ± 0.147
PRF-fit source offset from KIC position	1.314 ± 0.146	8.97	-0.741 ± 0.144	1.084 ± 0.147
photometric centroid source offset	6.38 ± 1.71	3.73	-0.03 ± 1.67	6.38 ± 1.71



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.



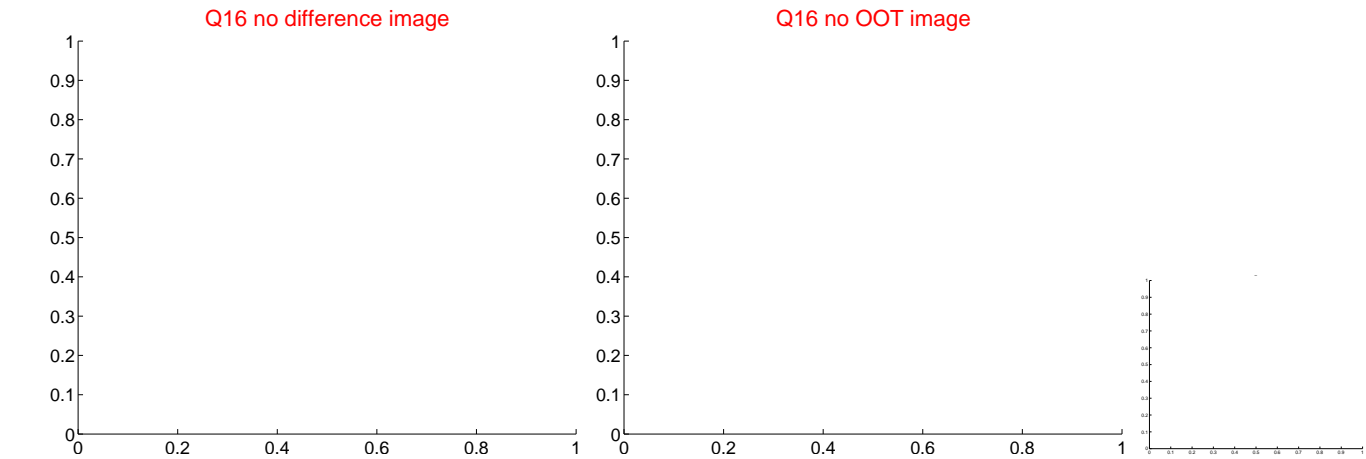
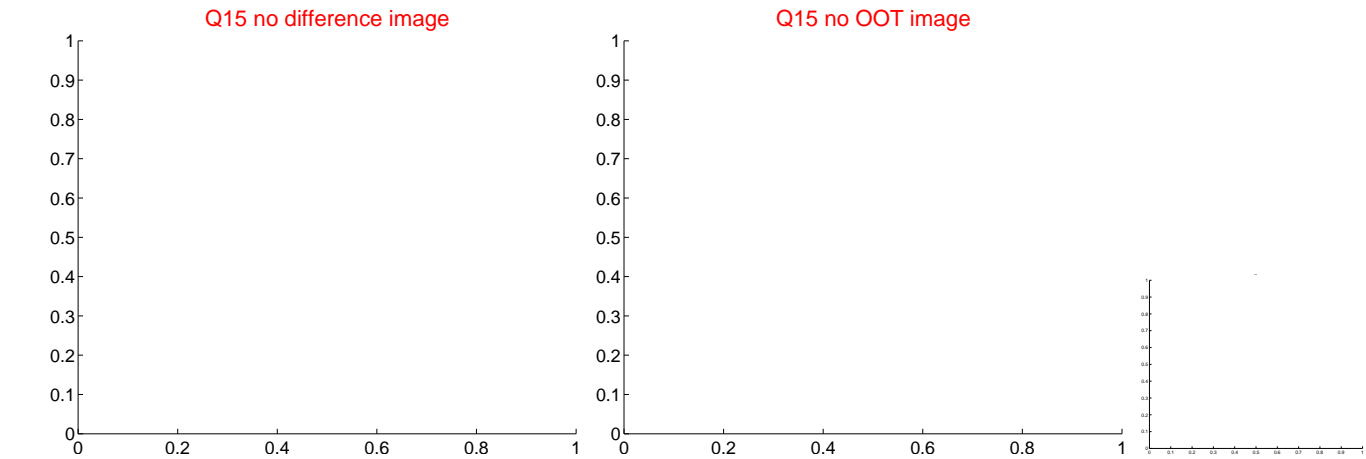
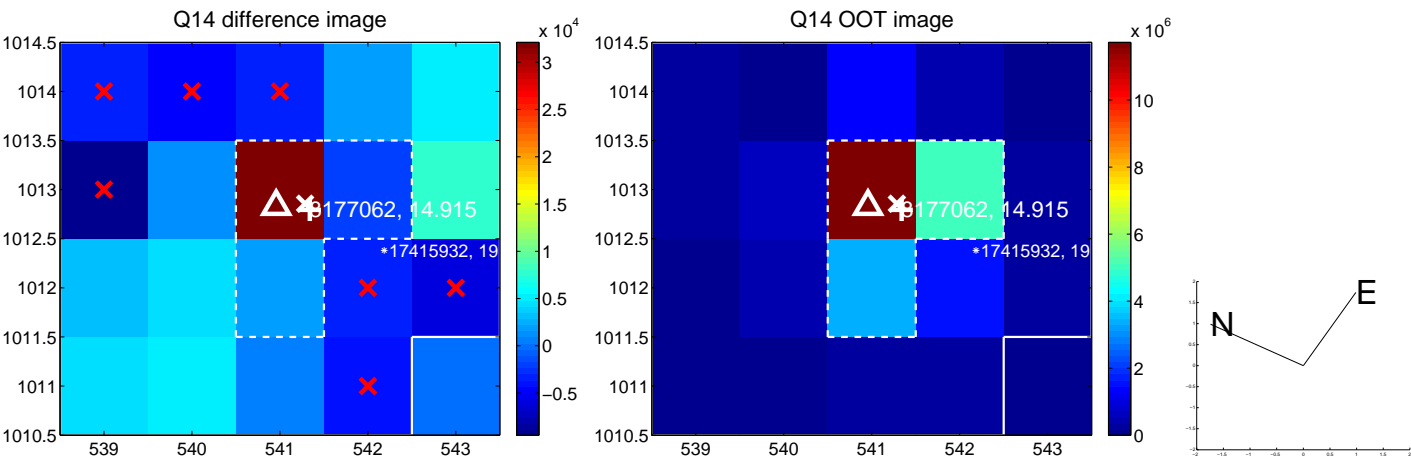
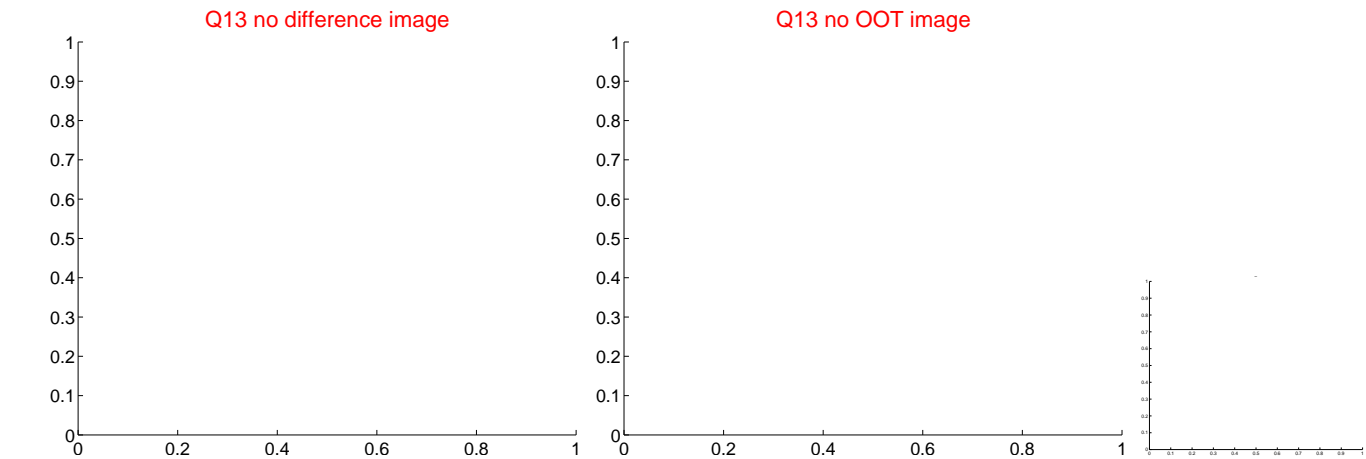
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



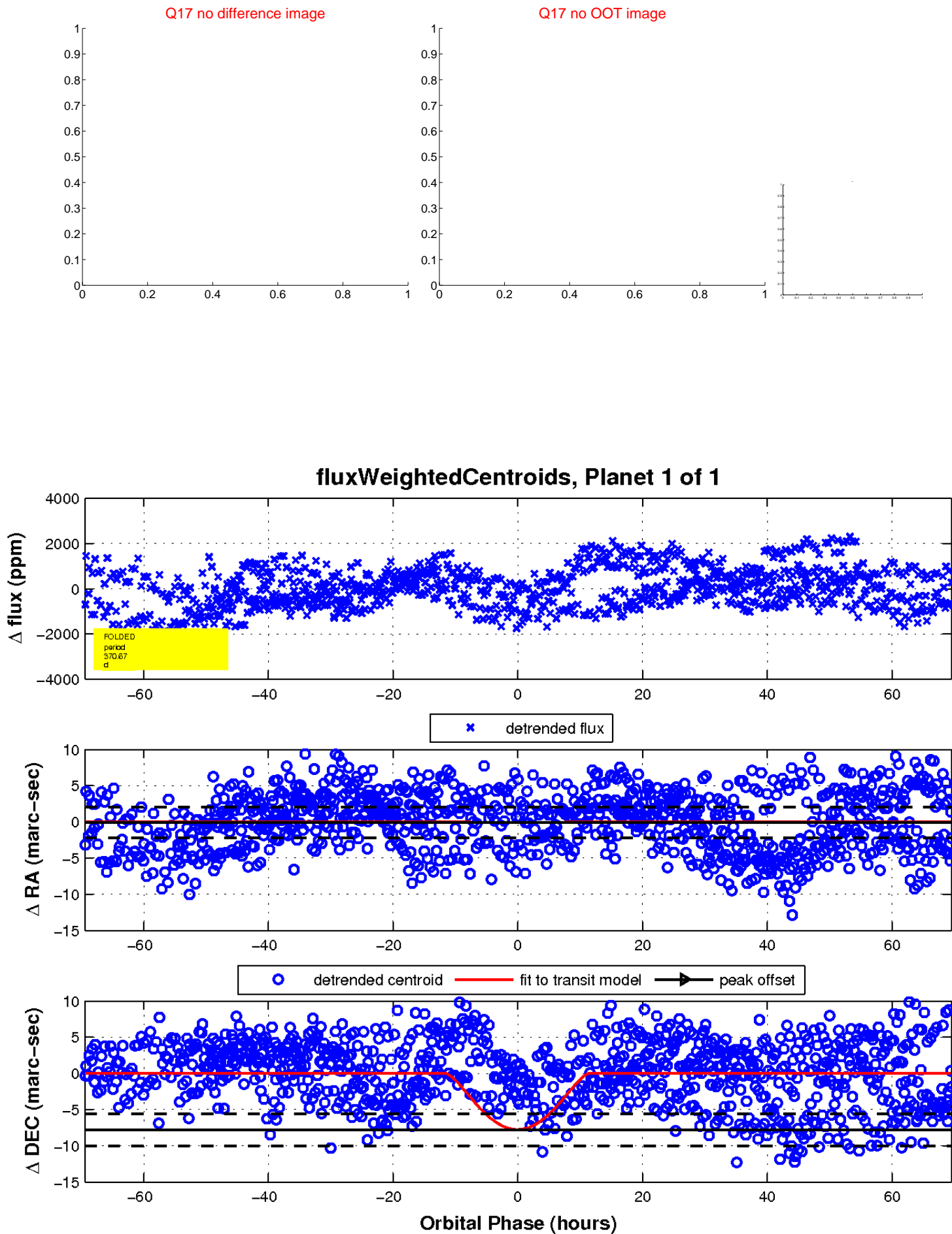
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

