

KIC 007106245

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})
007106245-01	OBS	No	602.111545	225.981077	124.3	12.409	11.6	11.3	1.07	6082	1.34	0.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007106245-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_ZUMA—MOD_POS_DV—CENT_SATURATED

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

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

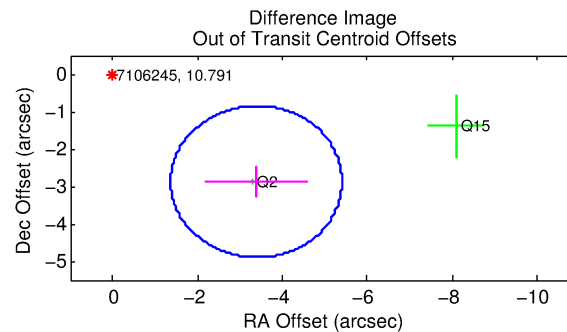
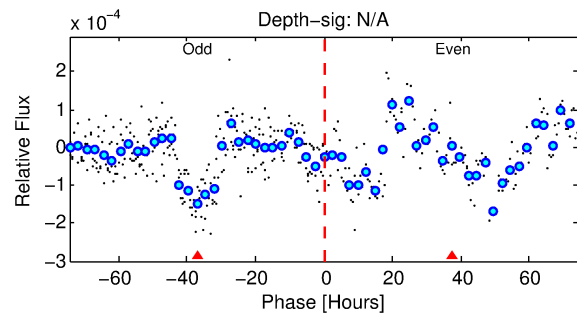
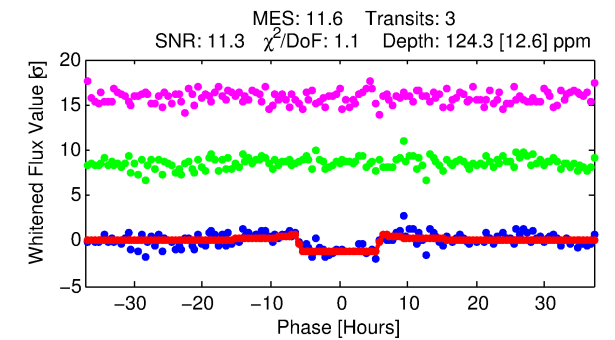
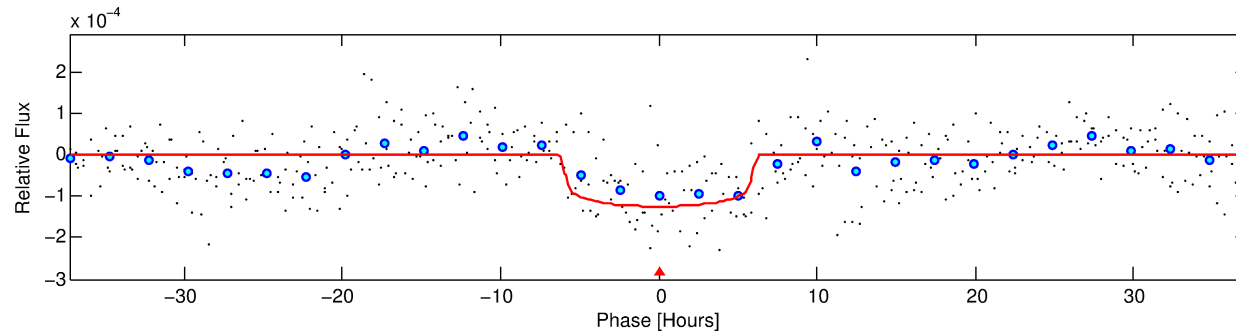
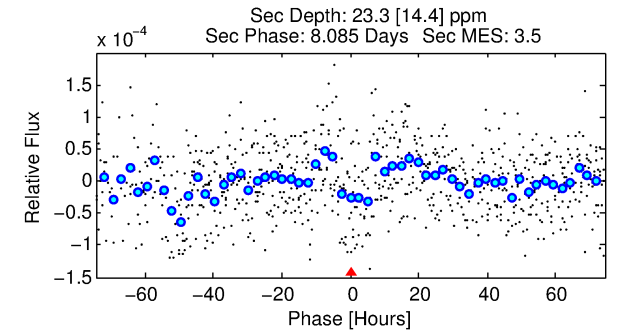
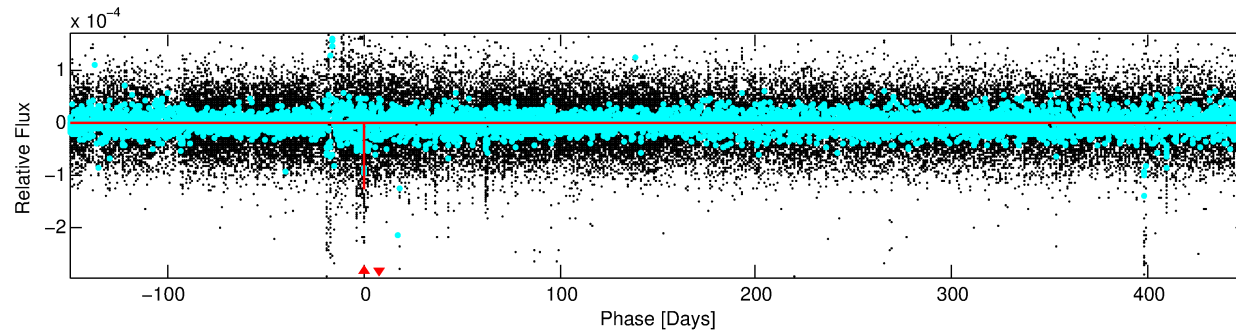
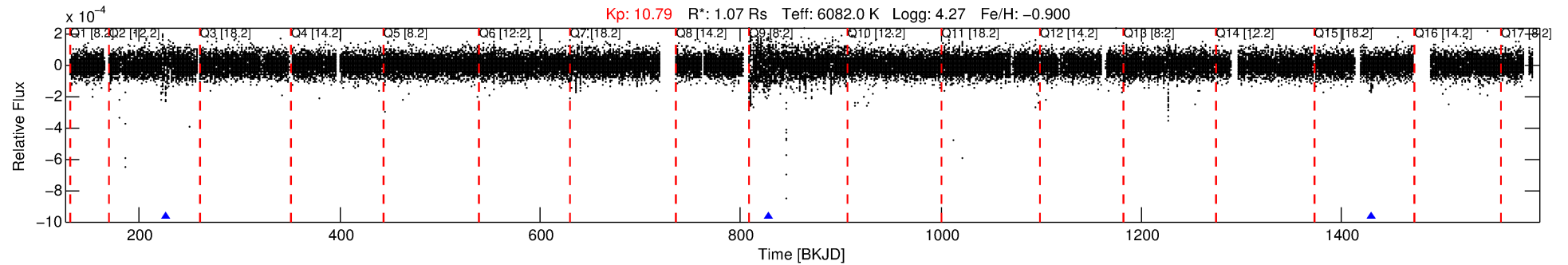
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007106245-01

No Significant Match Found

DV One-Page Summary

KIC: 7106245 Candidate: 1 of 1 Period: 602.112 d



DV Fit Results:

Period = 602.11155 [0.00740] d
Epoch = 225.9811 [0.0097] BKJD
Rp/R* = 0.0115 [0.0021]
a/R* = 205.20 [203.51]
b = 0.85 [0.33]
Seff = 0.86 [0.09]
Teq = 245 [6] K
Rp = 1.34 [0.27] Re
a = 1.2764 [0.0694] AU
Ag = 11628.58 [8423.47] [1.38σ]
Teffp = 3937 [713] K [5.18σ]

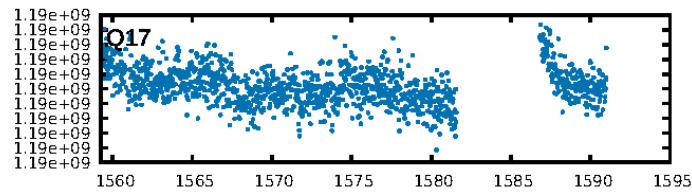
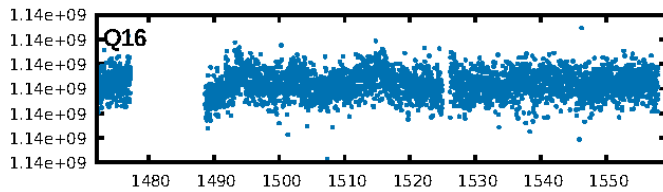
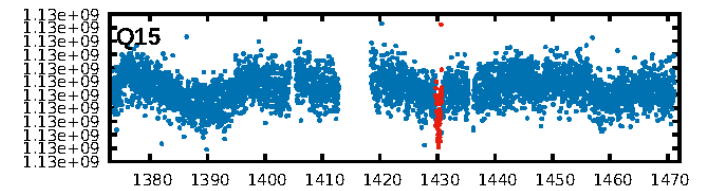
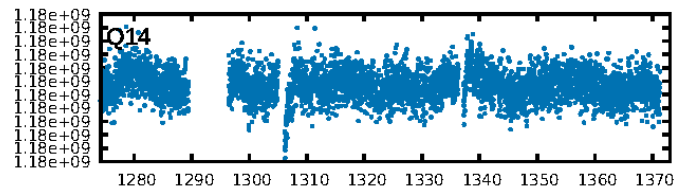
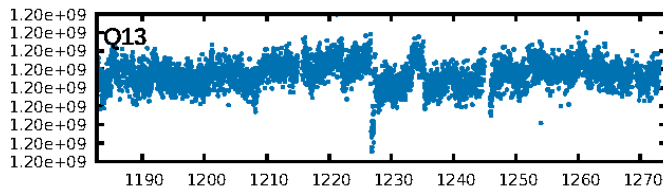
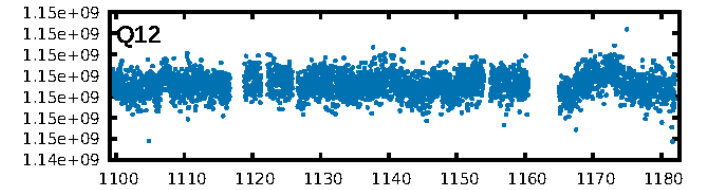
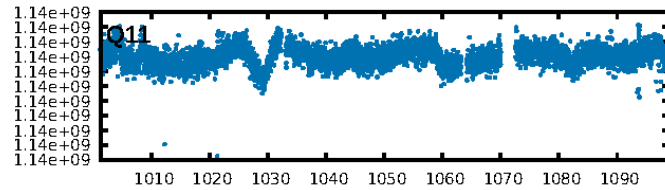
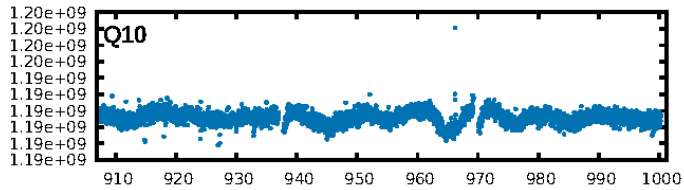
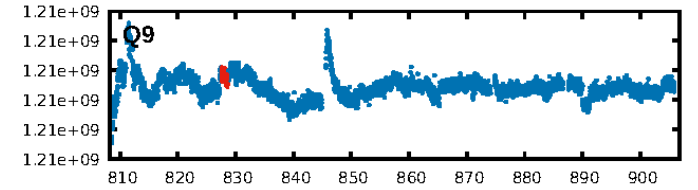
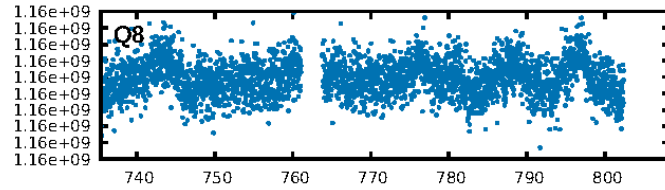
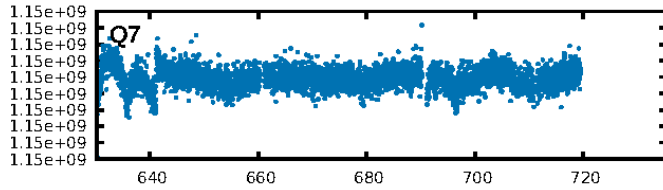
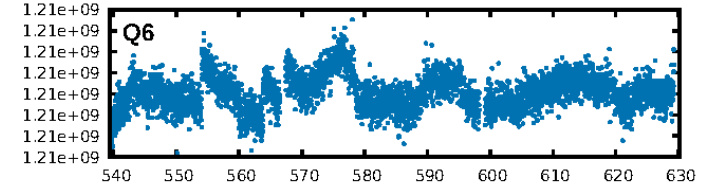
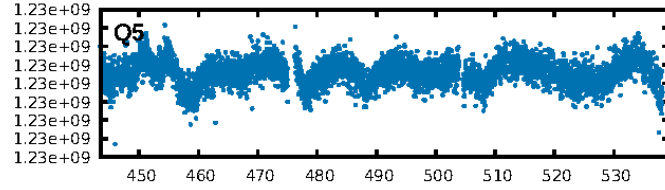
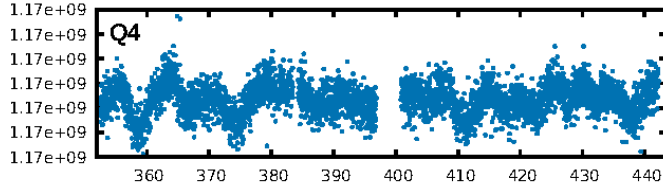
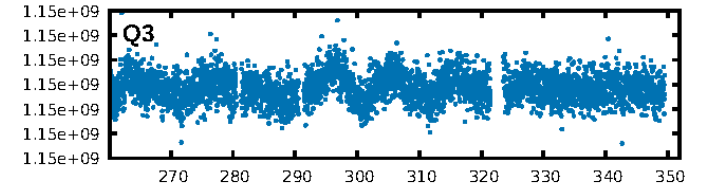
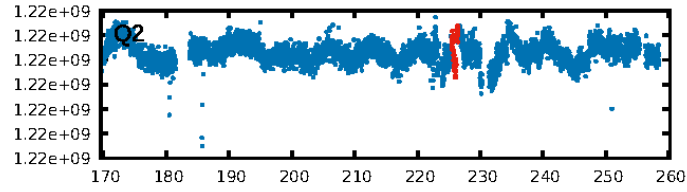
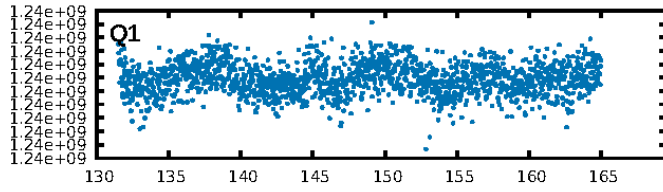
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 94.4%
Bootstrap-pfa: 3.41e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.5019
Centroid-sig: 94.1%
Centroid-so: 0.862 arcsec [0.55σ]
OotOffset-rm: 4.446 arcsec [6.60σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-rm: 2.676 arcsec [2.33σ]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

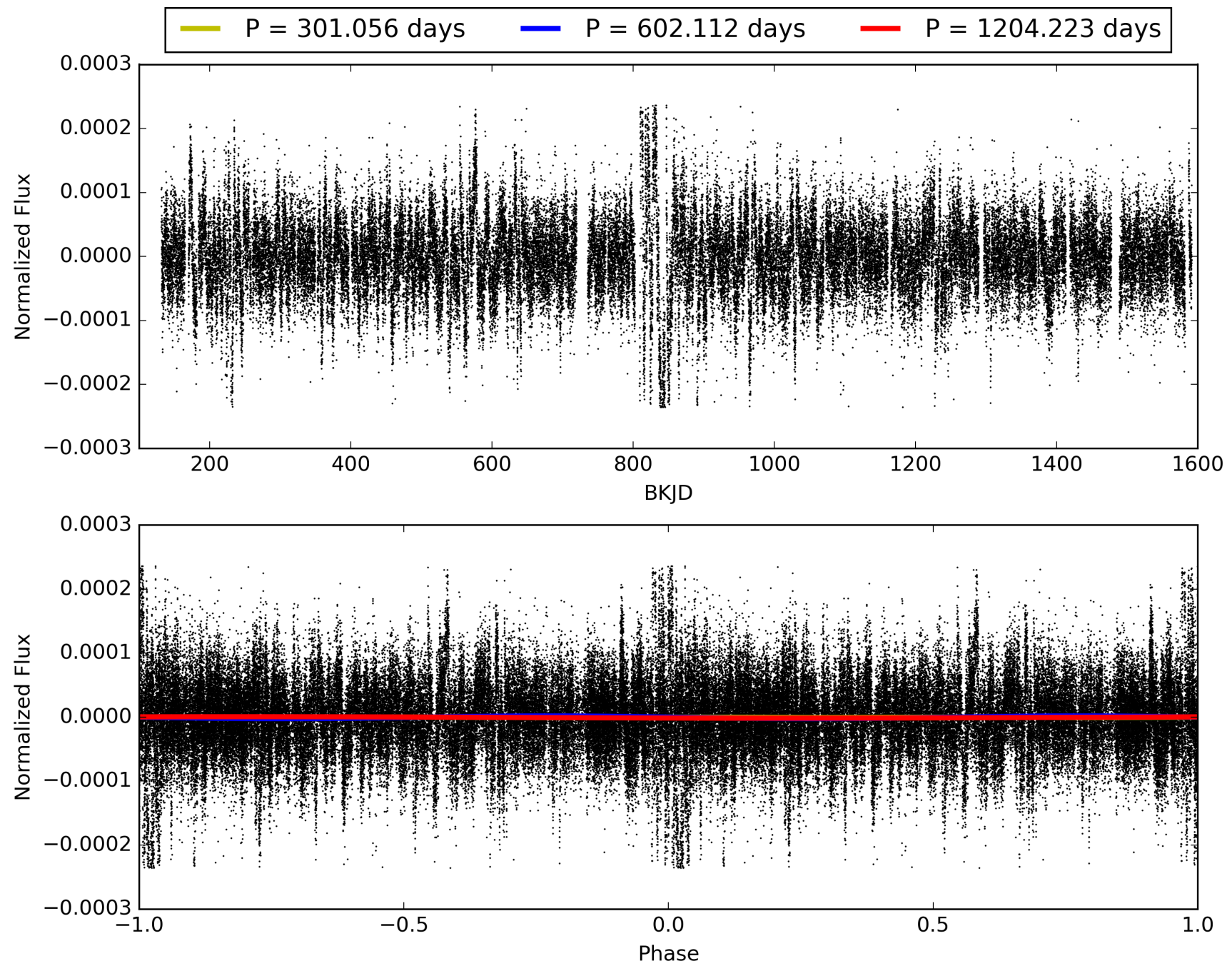
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:45:57 Z

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

TCE 007106245-01, PDC Light Curves

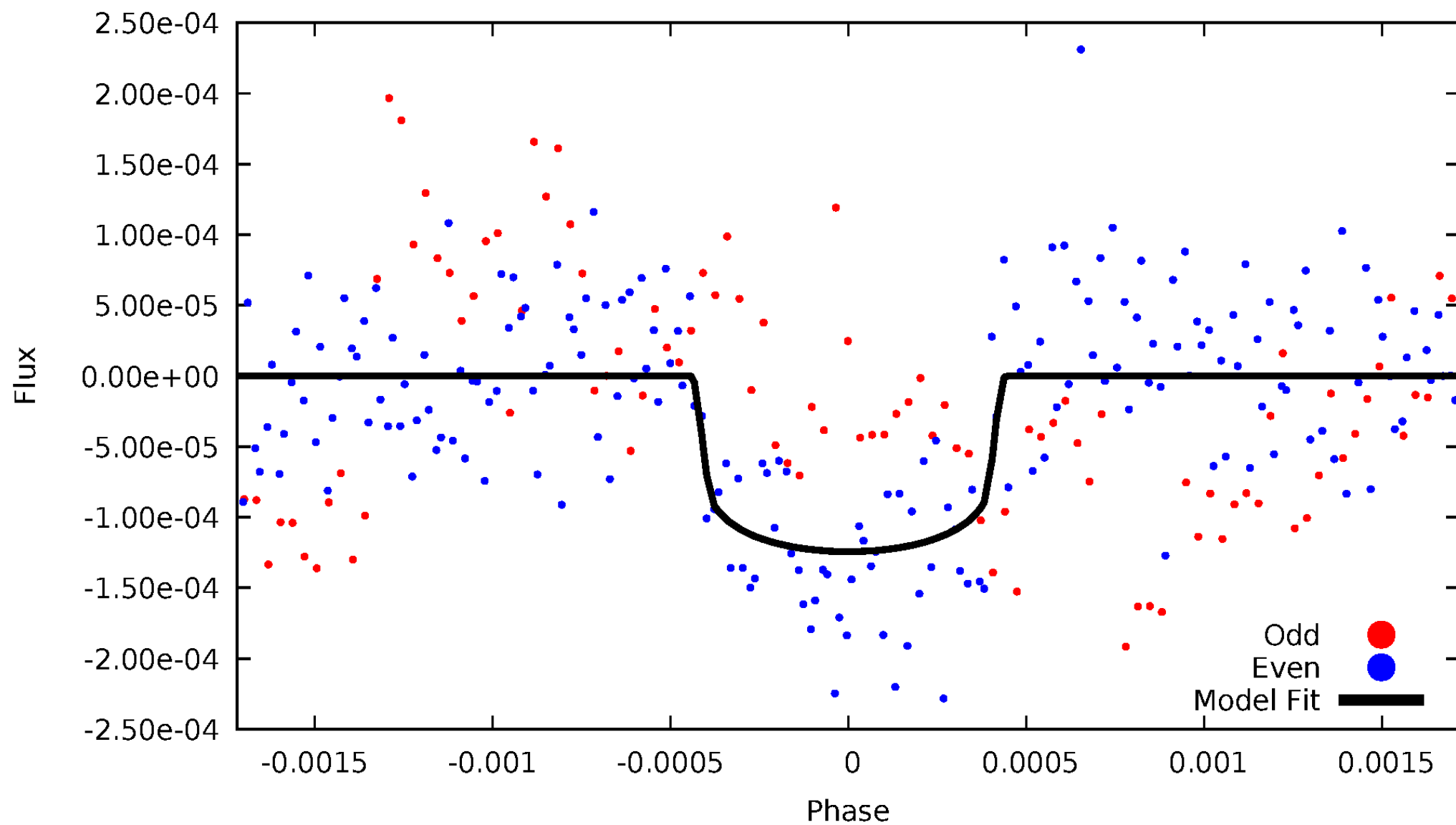


TCE 007106245-01



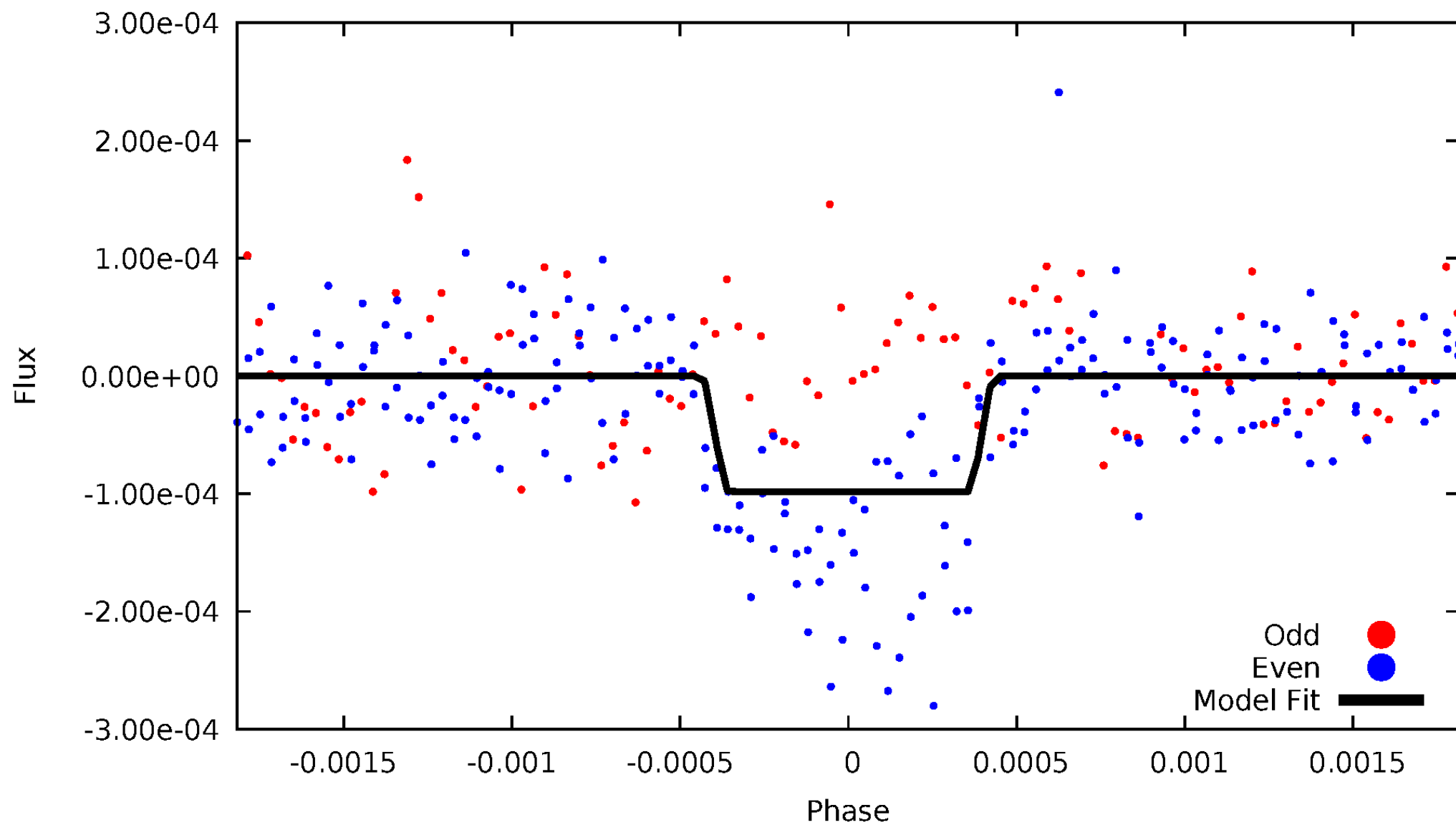
DV Odd/Even

TCE 007106245-01



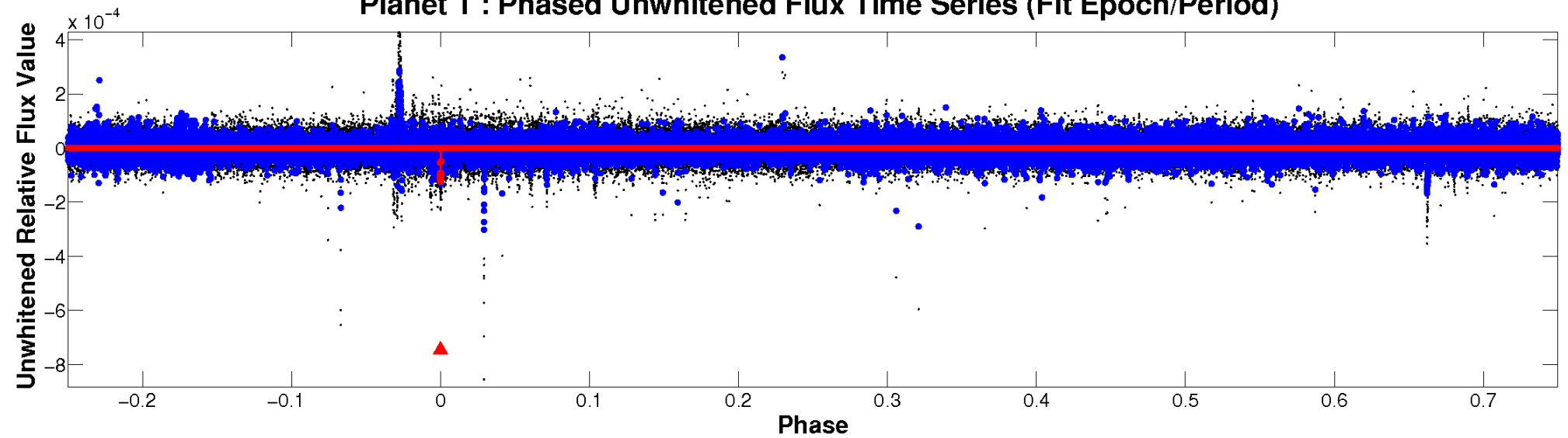
ALT Odd/Even

TCE 007106245-01

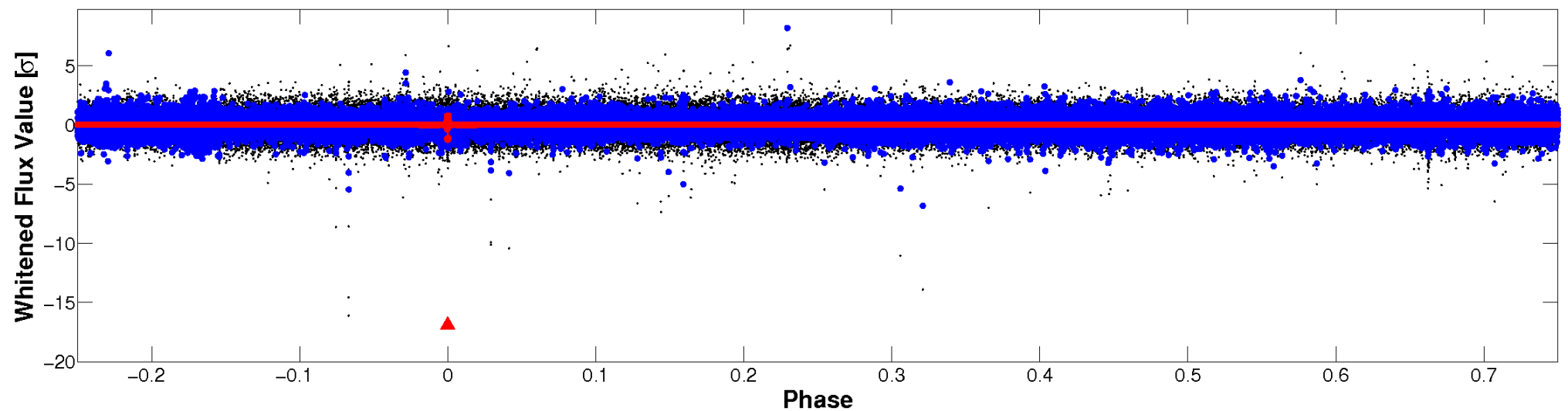


Non-Whitened Vs. Whitened Light Curve

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

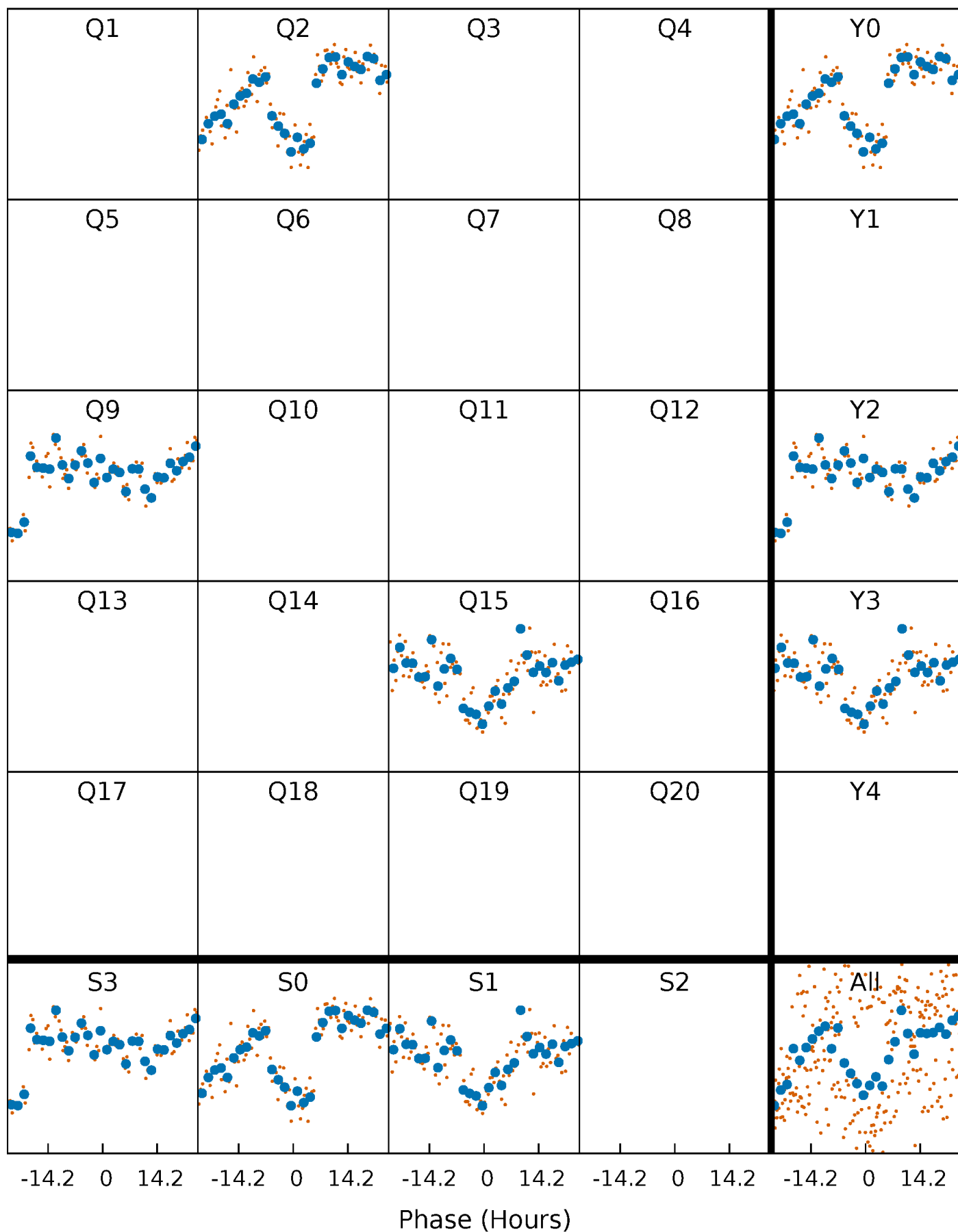


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



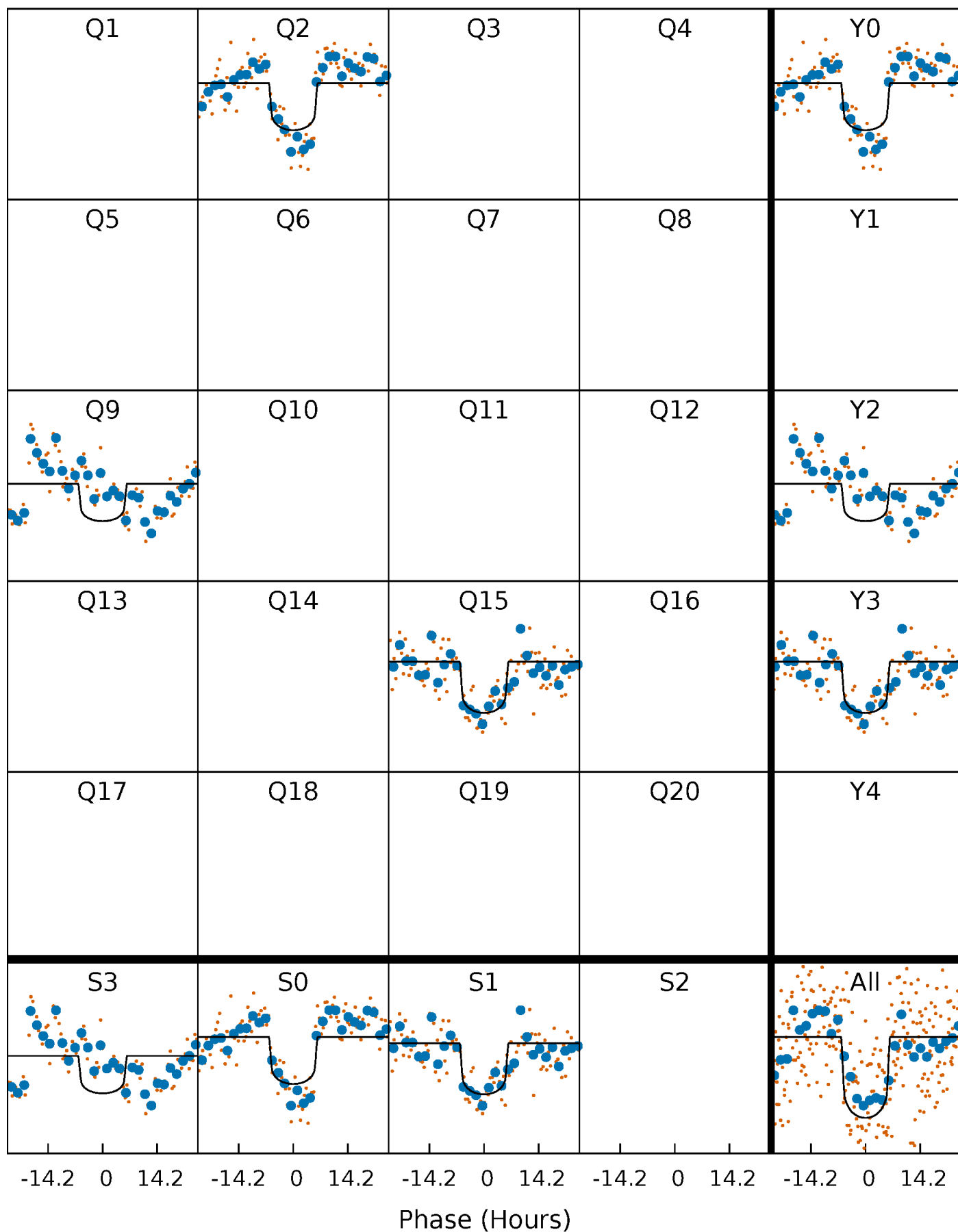
PDC Quarter-Phased Transit Curves

TCE 007106245-01 P=602.111546 Days $T_0=225.981077$ (BKJD)



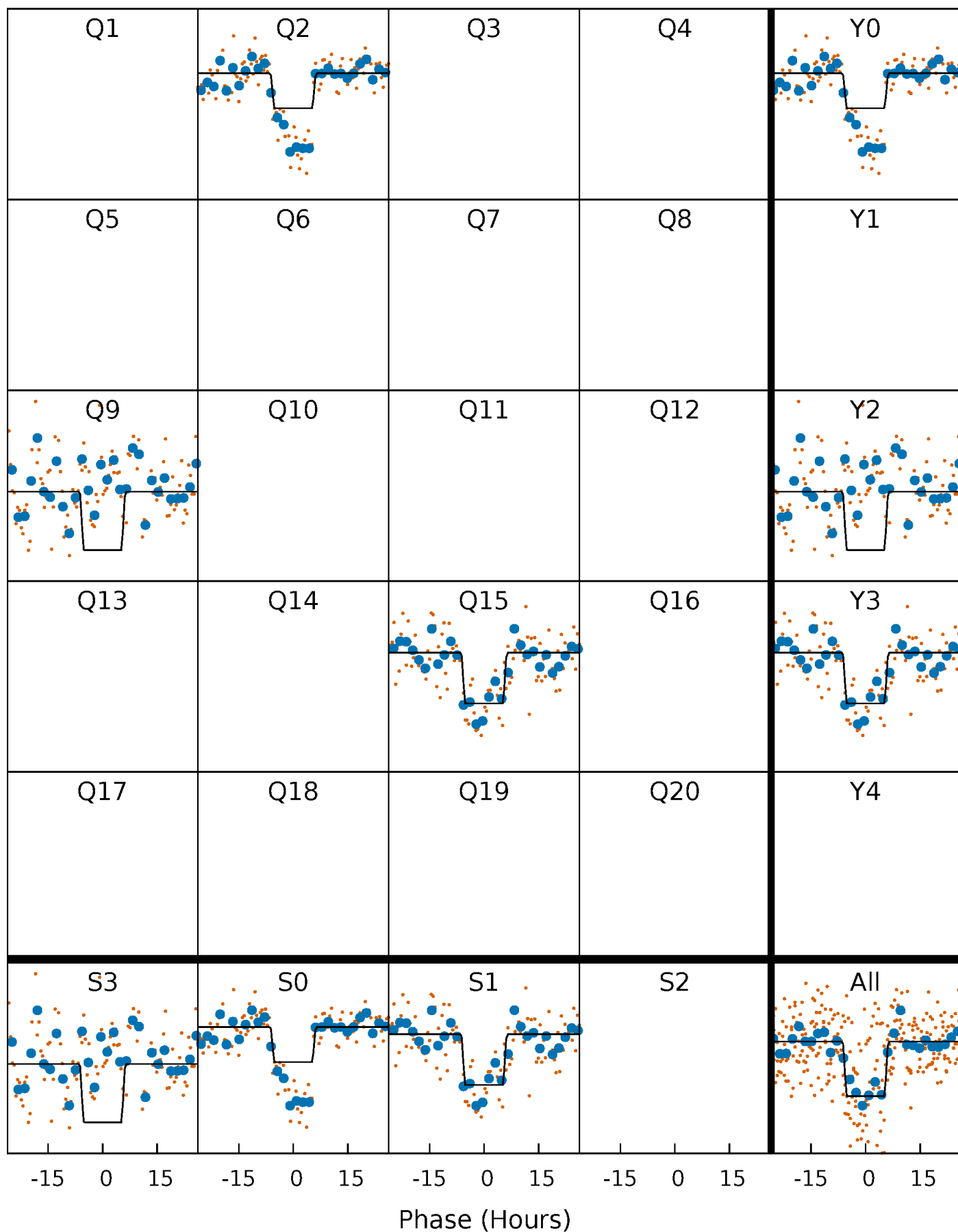
DV Quarter-Phased Transit Curves

TCE 007106245-01 P=602.111546 Days $T_0=225.981077$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

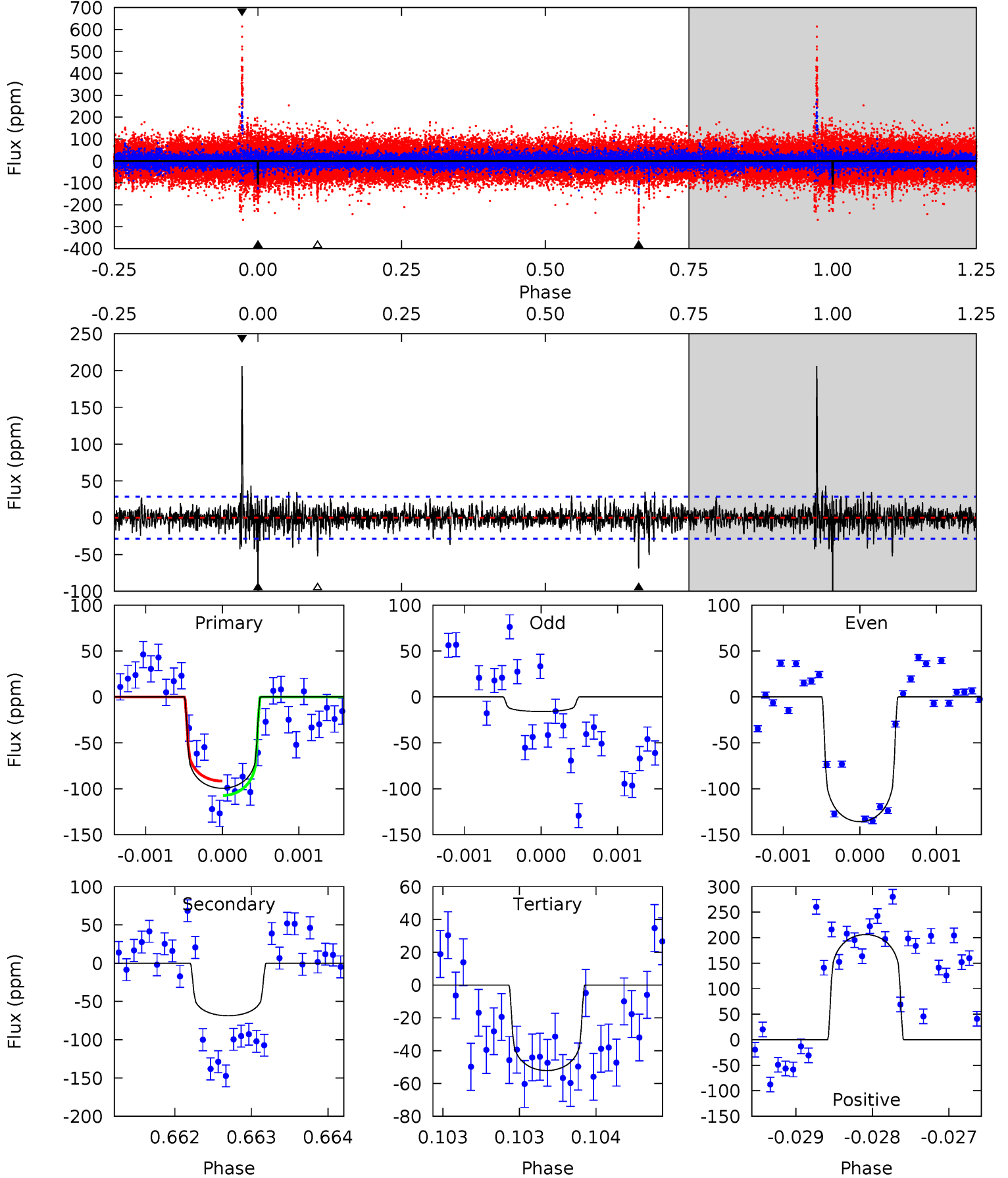
TCE 007106245-01 $P=602.115712$ Days $T_0=225.989380$ (BKJD)



DV Model-Shift Uniqueness Test

007106245-01, P = 602.111546 Days, E = 225.981077 Days

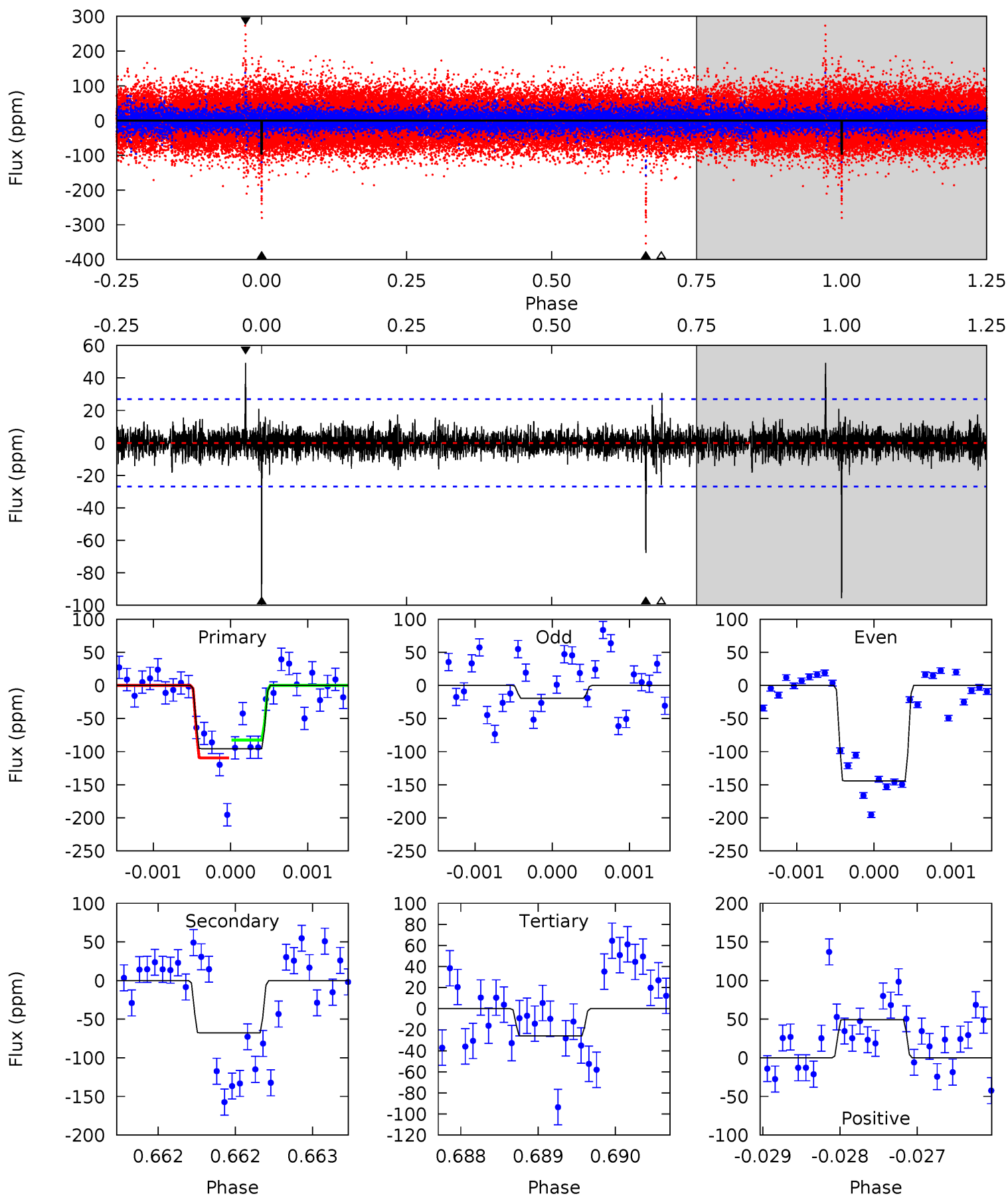
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.1	13.2	9.99	39.5	5.47	3.32	2.30	9.06	-20.4	3.17	-26.3	10.4	0.78	0.67	1.51



Alt Model-Shift Uniqueness Test

007106245-01, P = 602.115712 Days, E = 225.989380 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.4	13.8	5.25	10.0	5.47	3.33	1.01	14.2	9.41	8.52	3.74	12.1	0.86	0.34	2.75



Stellar Parameters For KIC 007106245

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6082^{+109}_{-85}	$4.266^{+0.033}_{-0.027}$	$-0.900^{+0.300}_{-0.150}$	$1.066^{+0.077}_{-0.038}$	$0.764^{+0.083}_{-0.015}$	$0.889^{+0.097}_{-0.106}$
	+2%/-1%	+1%/-1%	+33%/-17%	+7%/-4%	+11%/-2%	+11%/-12%
Source	PHO56	AST56	PHO56	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007106245-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-69 ± 5	$1.36^{+0.25}_{-0.24}$	343^{+7}_{-6}	5229^{+467}_{-379}	34036^{+15913}_{-9927}
Alt.	-68 ± 5	$1.16^{+0.25}_{-0.26}$	342^{+7}_{-6}	5560^{+715}_{-470}	45262^{+31506}_{-14572}

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

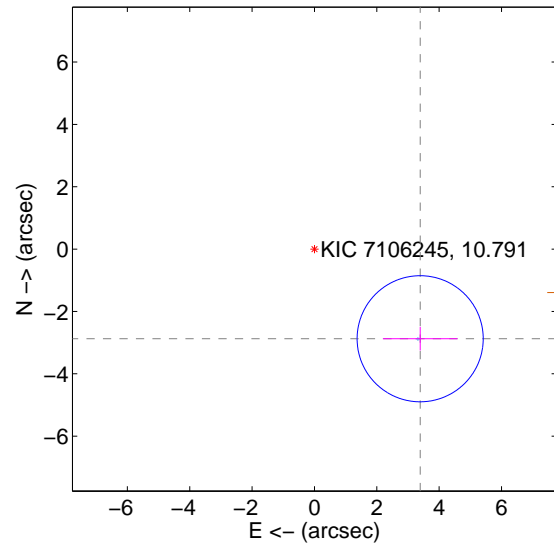
Supplemental centroid analysis for 007106245-01. **Kepler magnitude: 10.79.** Transit SNR 11.33

There are 1 quarters with good PRF difference image offsets

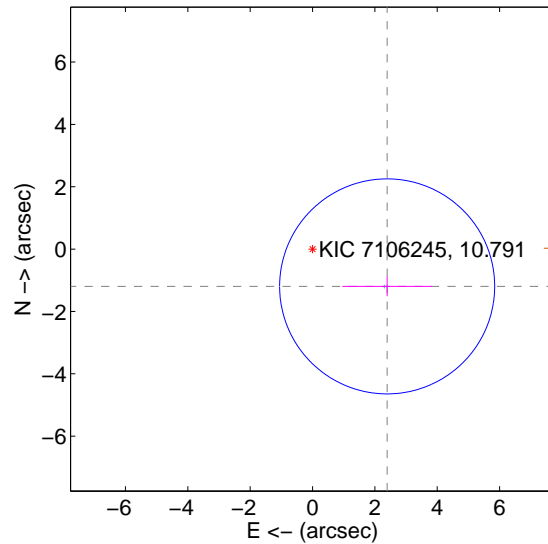
The direct PRF centroid is offset from the target star catalog position by about 1.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.446 ± 0.674	6.60	-3.391 ± 1.197	-2.876 ± 0.379
PRF-fit source offset from KIC position	2.676 ± 1.149	2.33	-2.393 ± 1.438	-1.196 ± 0.315
photometric centroid source offset	0.86 ± 1.57	0.55	-0.05 ± 1.46	0.86 ± 1.57

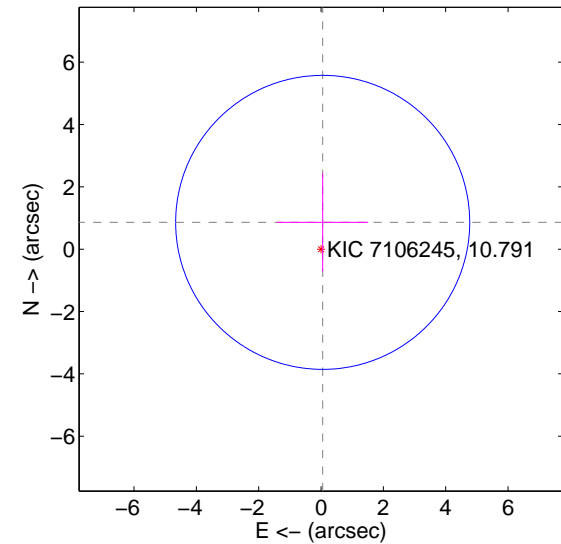
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

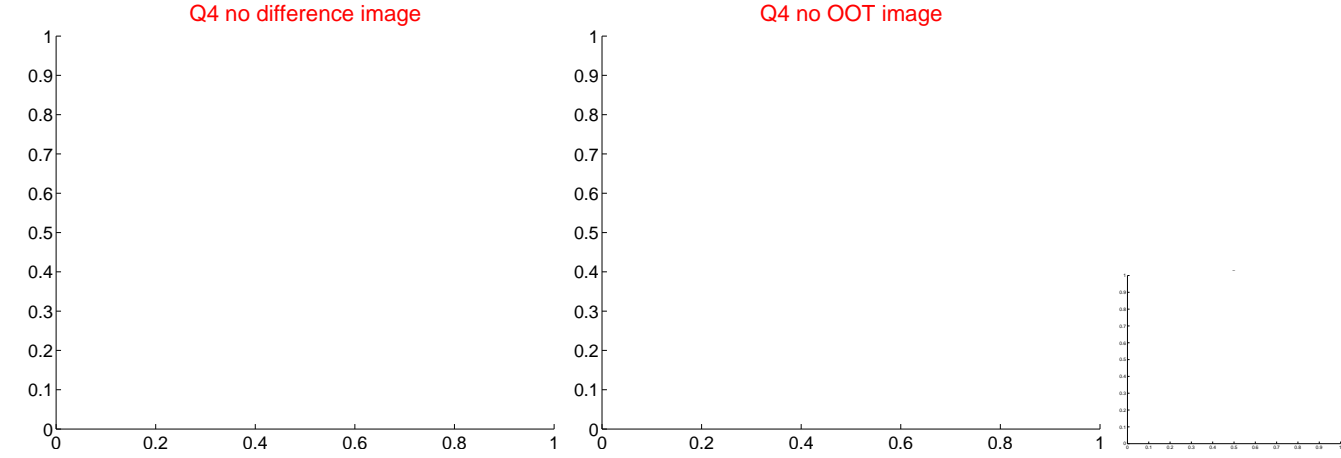
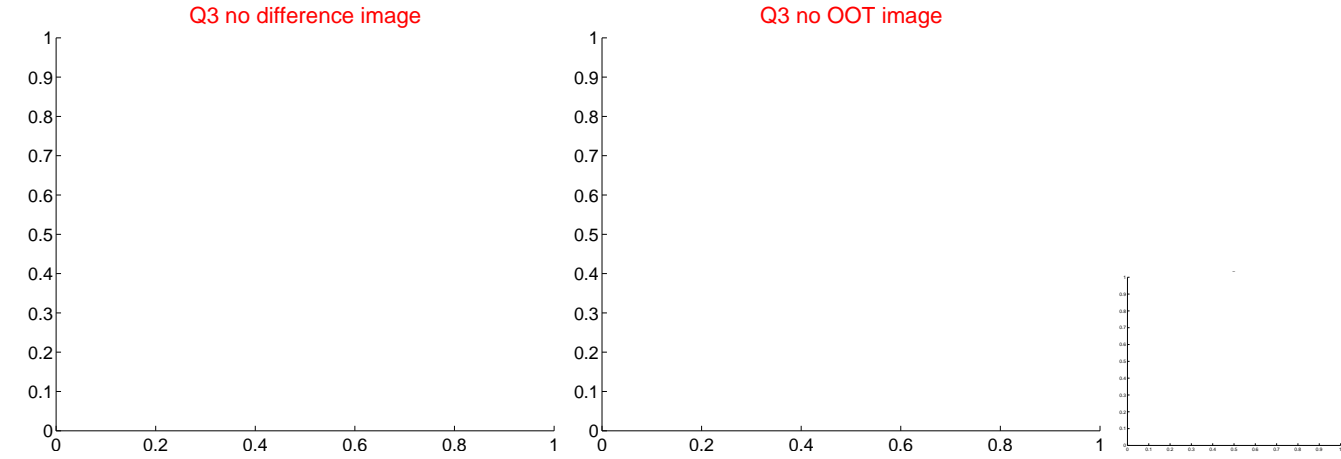
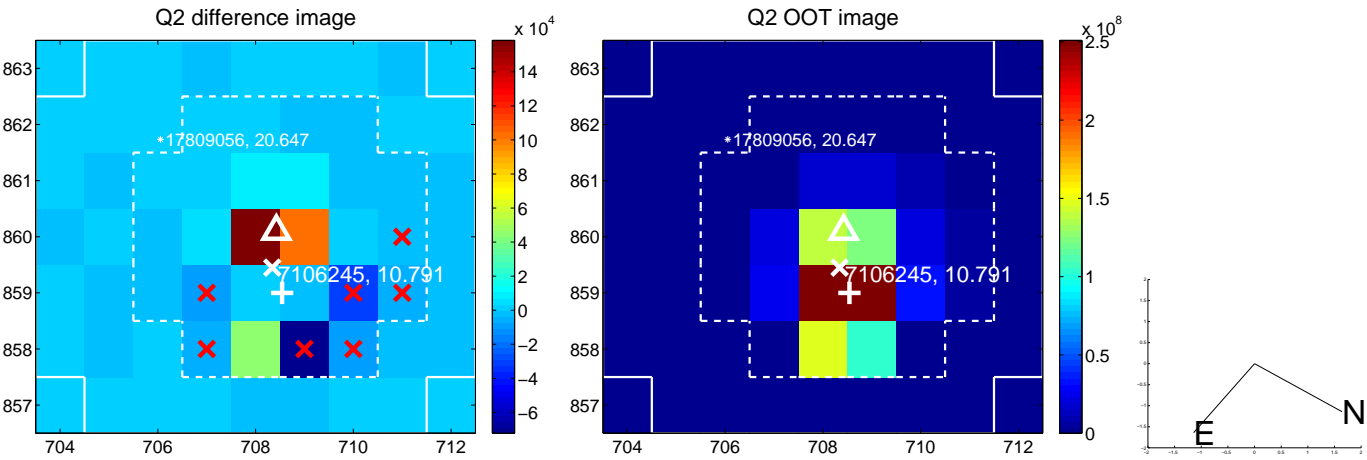


offset from photometric centroids



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.

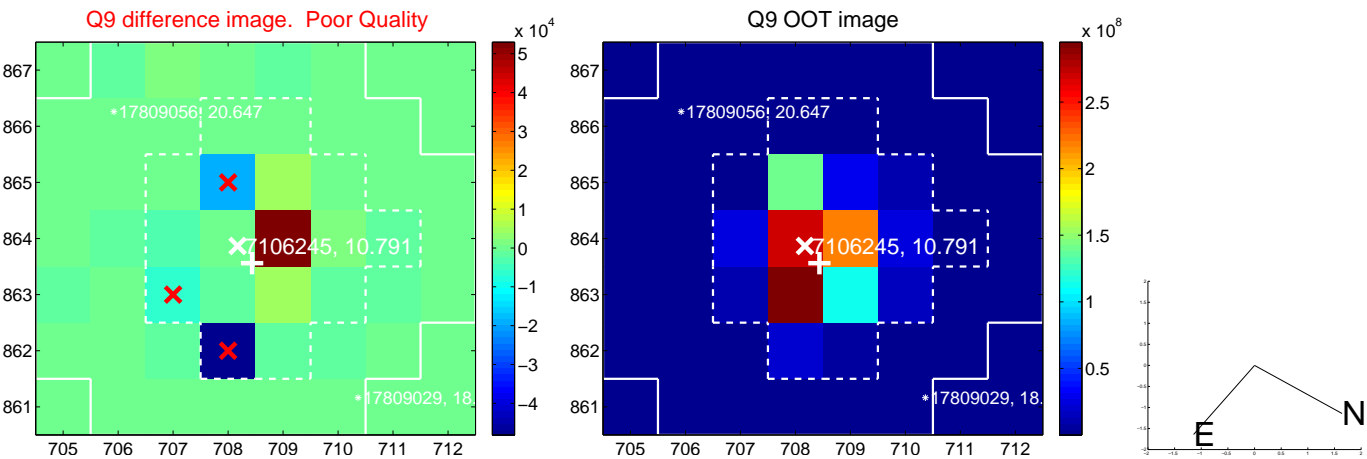
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



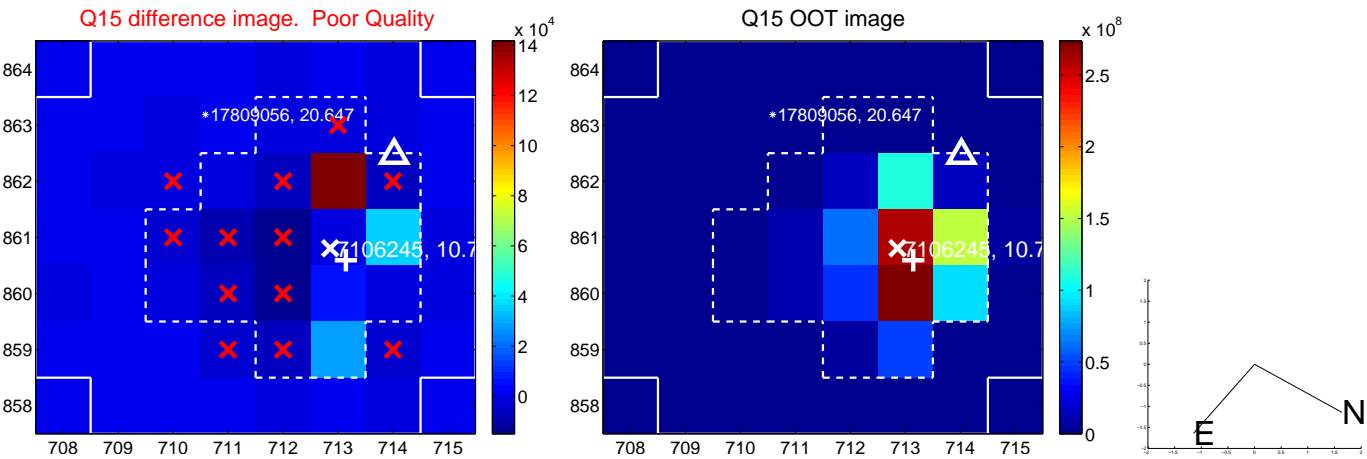
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



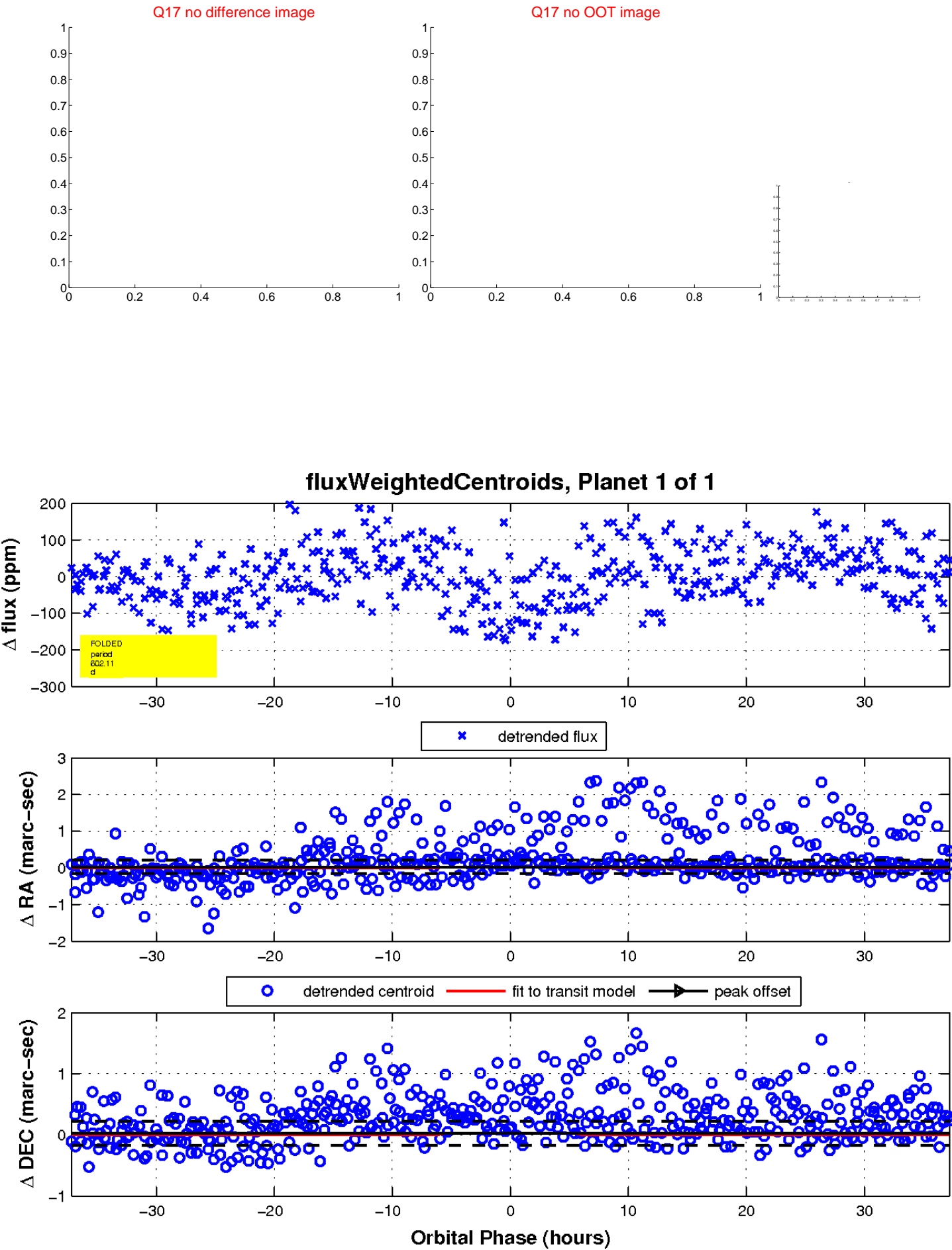
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

