

KIC 003663215

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})
003663215-01	OBS	No	668.632306	191.906218	1464.7	15.591	9.5	9.3	0.94	5636	3.55	0.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003663215-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—INCONSISTENT_TRANS—HALO_GHOST

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

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

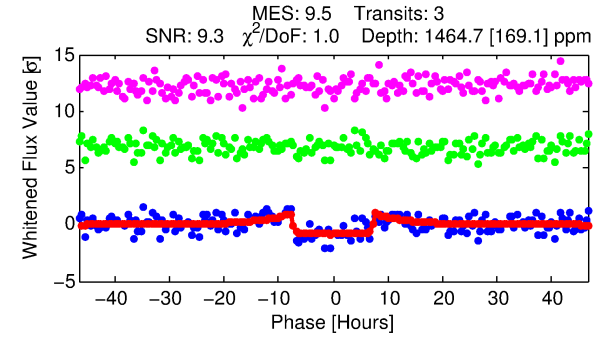
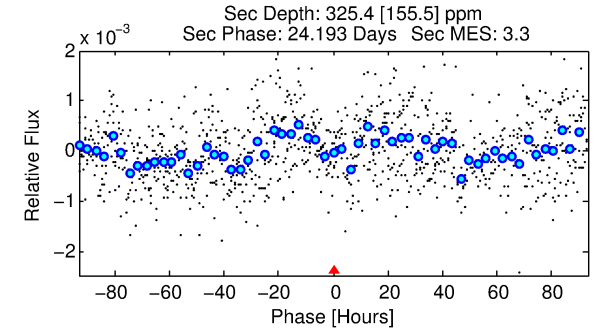
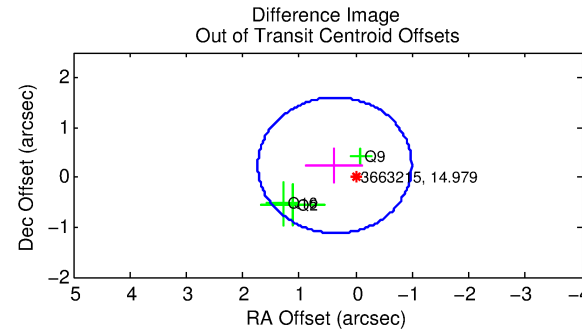
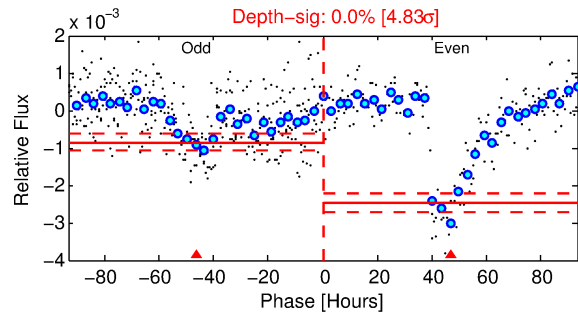
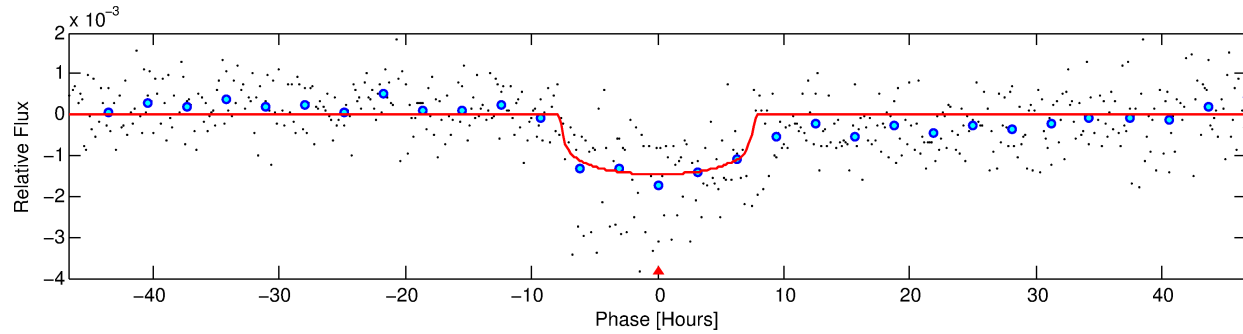
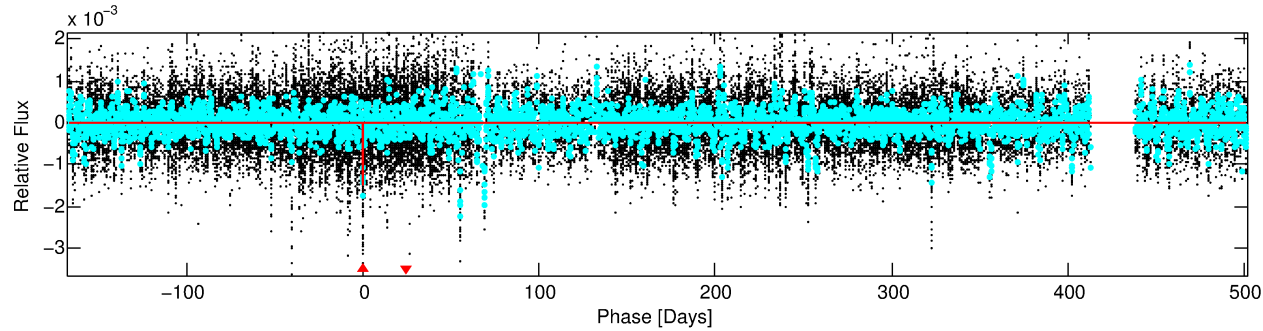
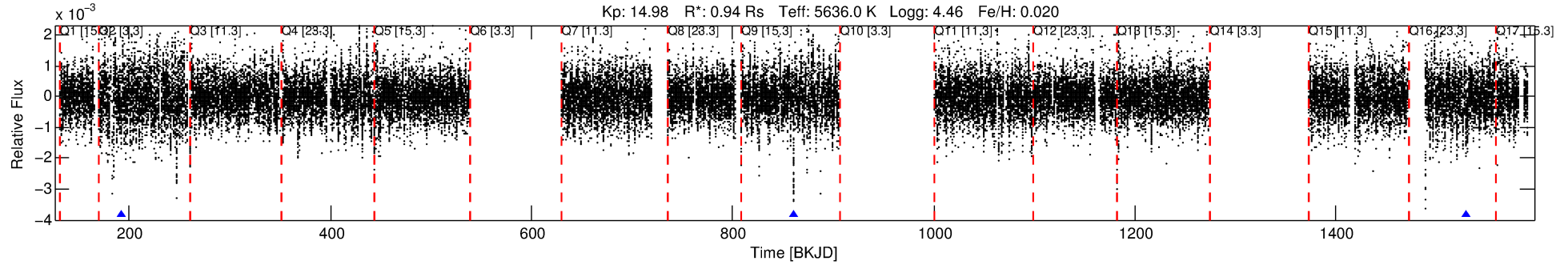
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003663215-01

No Significant Match Found

DV One-Page Summary

KIC: 3663215 Candidate: 1 of 1 Period: 668.632 d



DV Fit Results:

Period = 668.63231 [0.00878] d
Epoch = 191.9062 [0.0118] BKJD
Rp/R* = 0.0347 [0.0109]
a/R* = 333.04 [419.60]
b = 0.19 [6.31]
Seff = 0.37 [0.13]
Teq = 199 [18] K
Rp = 3.55 [1.47] Re
a = 1.4643 [0.3384] AU
Ag = 30430.24 [26140.82] [1.16 σ]
Teff = 4064 [811] K [4.77 σ]

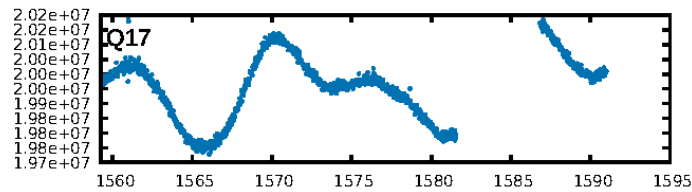
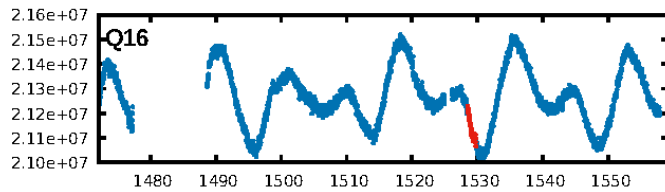
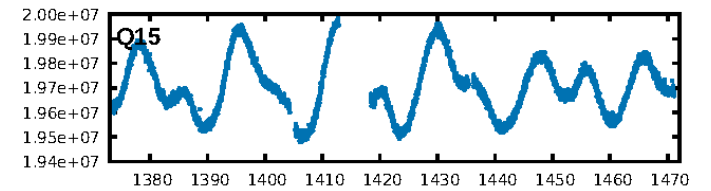
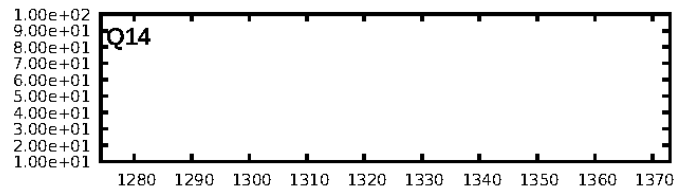
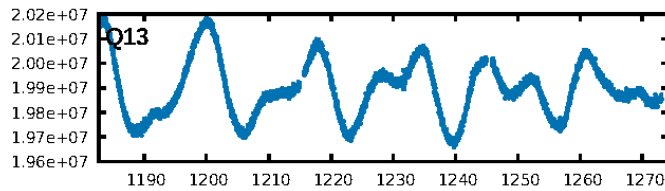
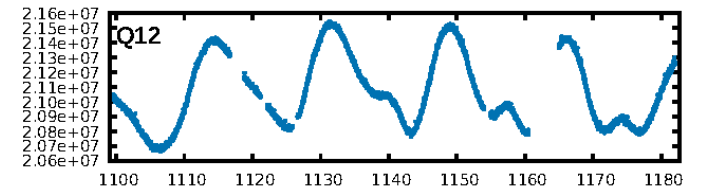
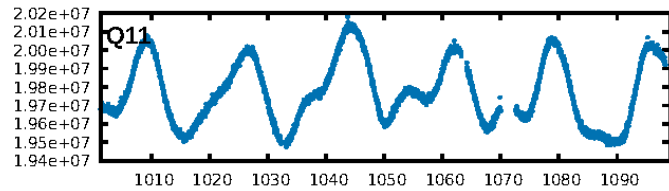
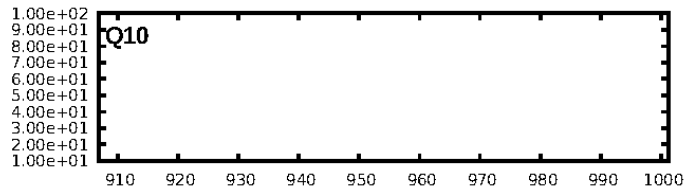
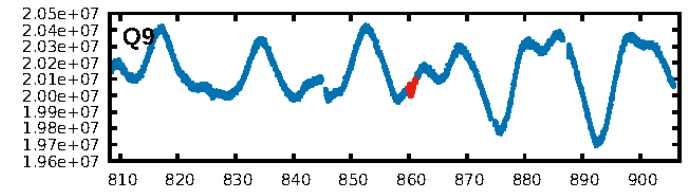
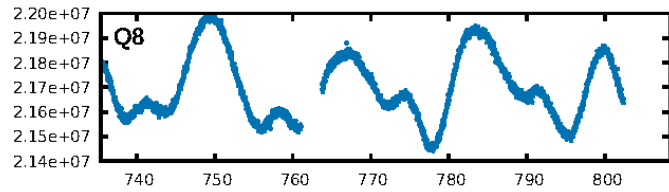
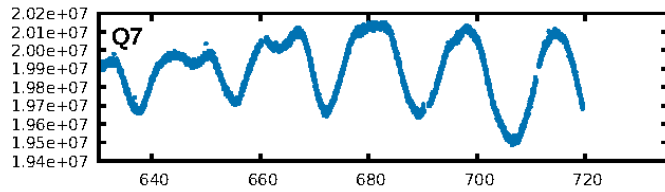
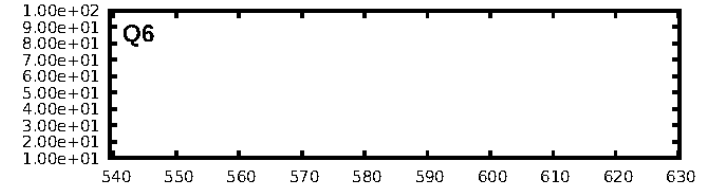
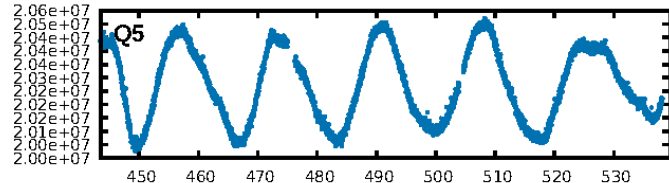
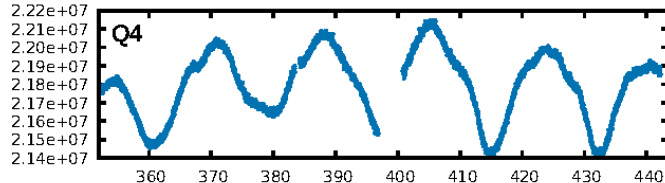
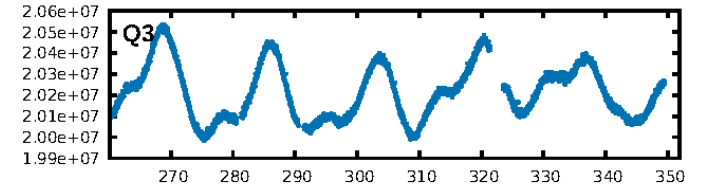
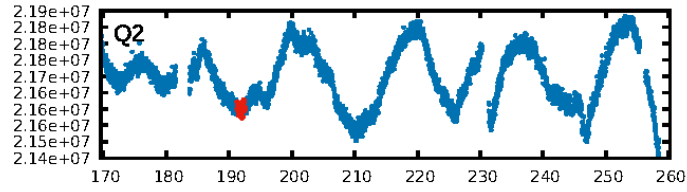
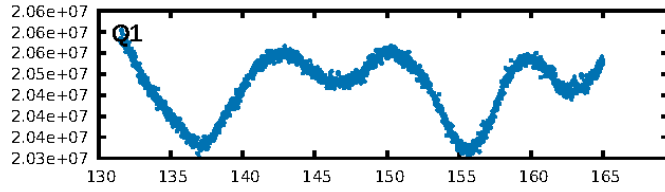
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 4.3%
ModelChiSquareGof-sig: 97.3%
Bootstrap-pfa: 1.73e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.1518
Centroid-sig: 6.0%
Centroid-so: 1.505 arcsec [1.53 σ]
OotOffset-rm: 0.438 arcsec [0.97 σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-rm: 0.449 arcsec [1.05 σ]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

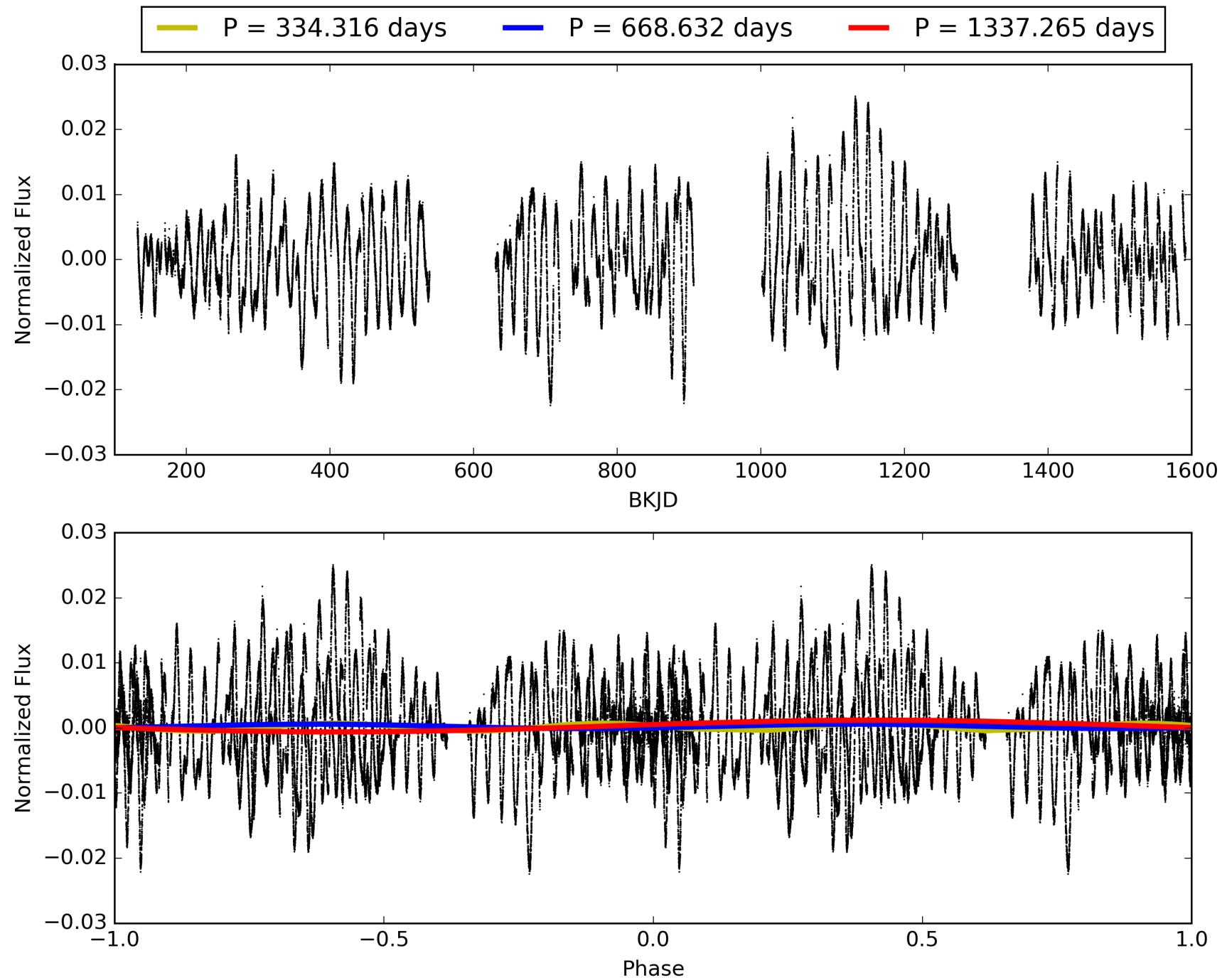
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:56:01 Z

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

TCE 003663215-01, PDC Light Curves

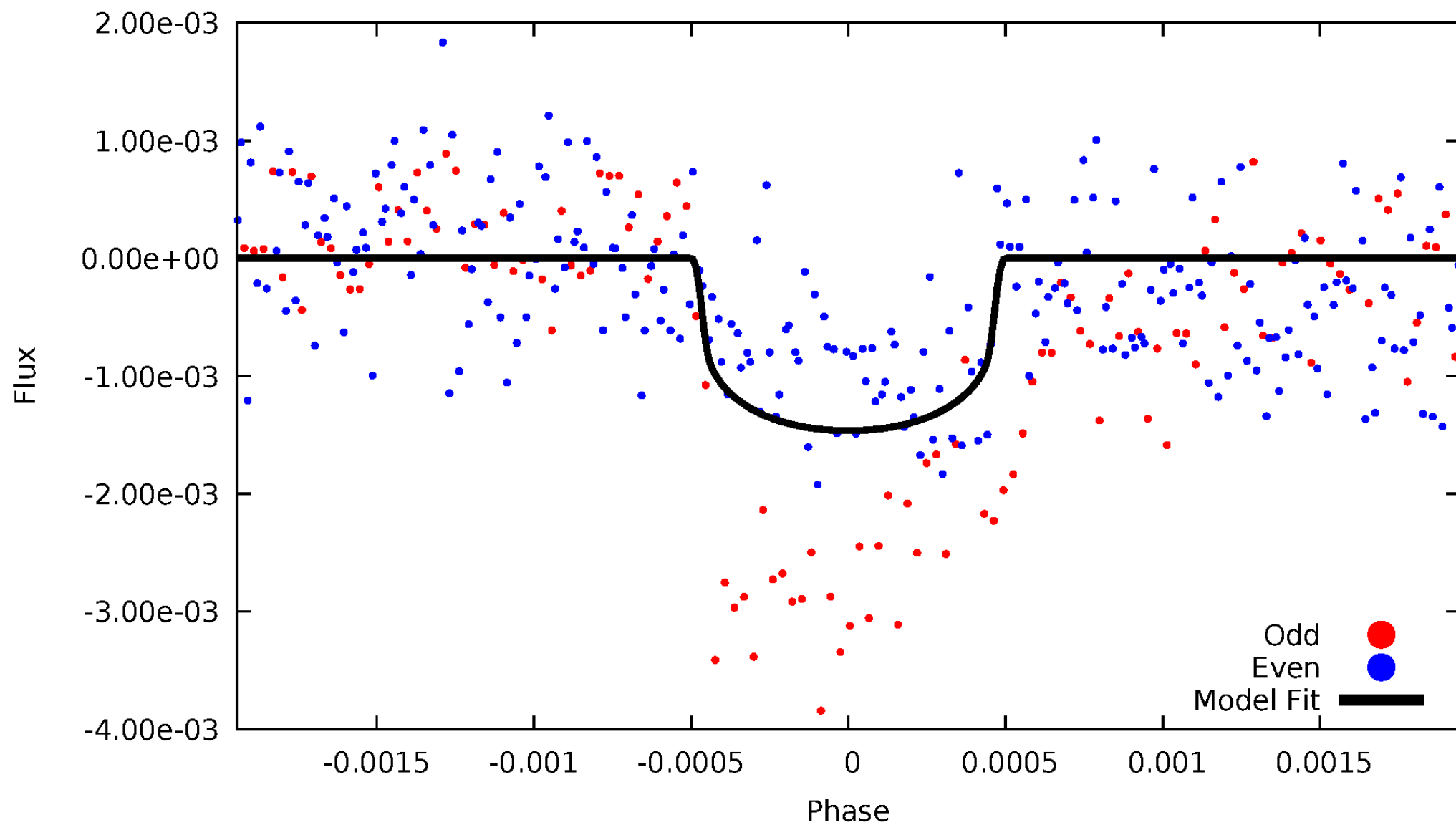


TCE 003663215-01



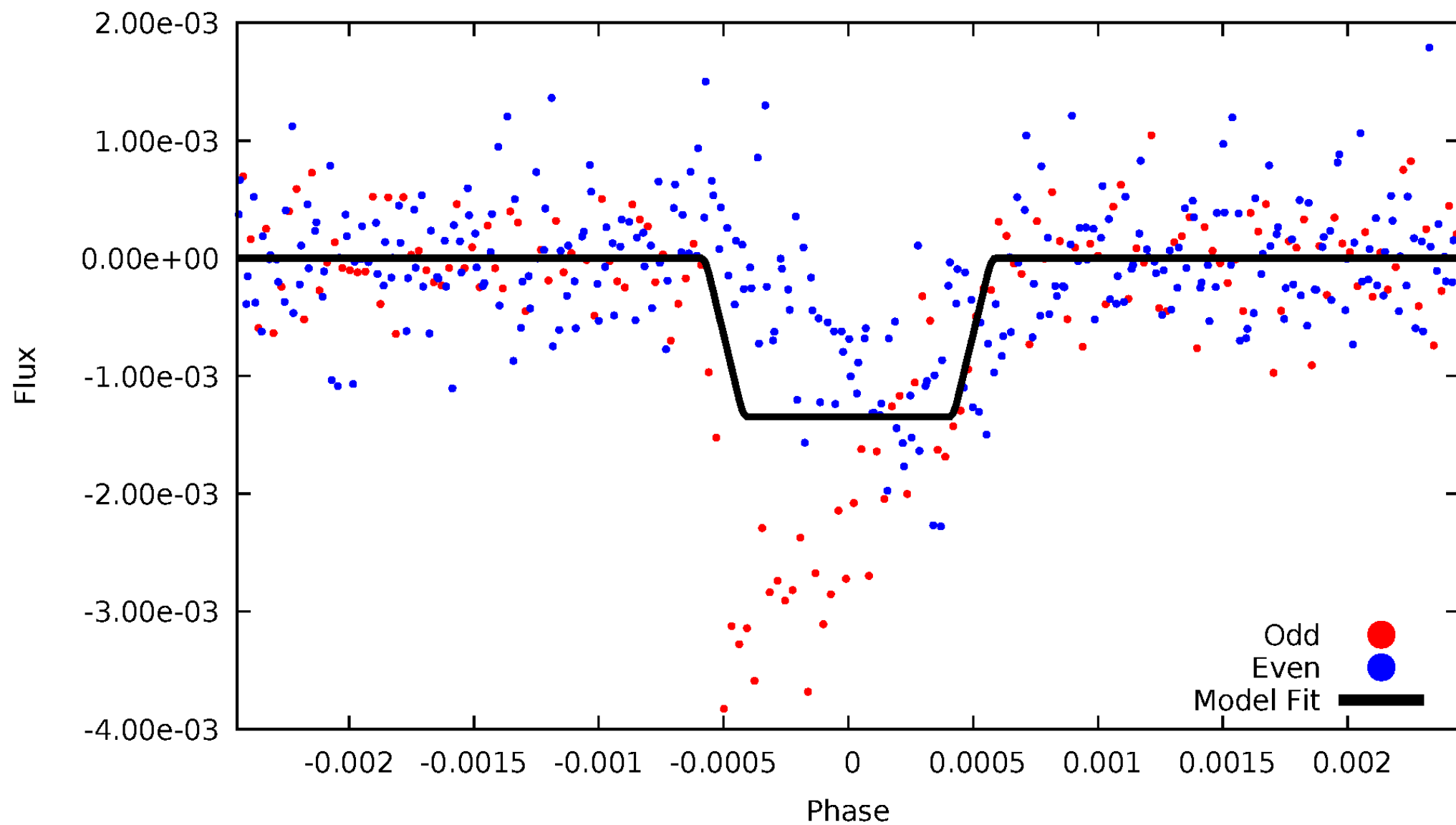
DV Odd/Even

TCE 003663215-01



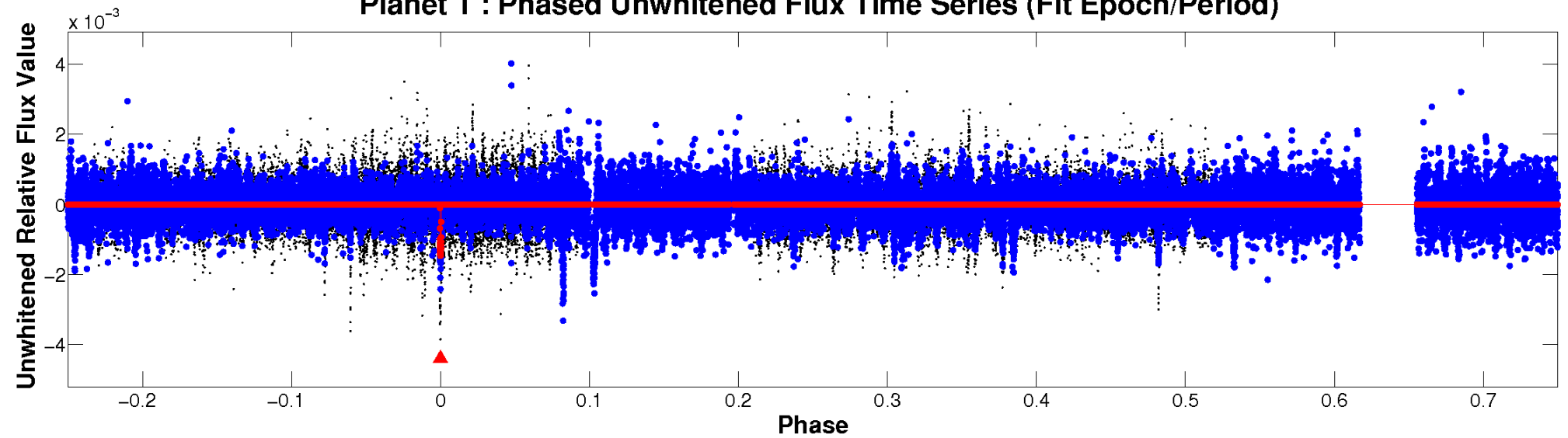
ALT Odd/Even

TCE 003663215-01

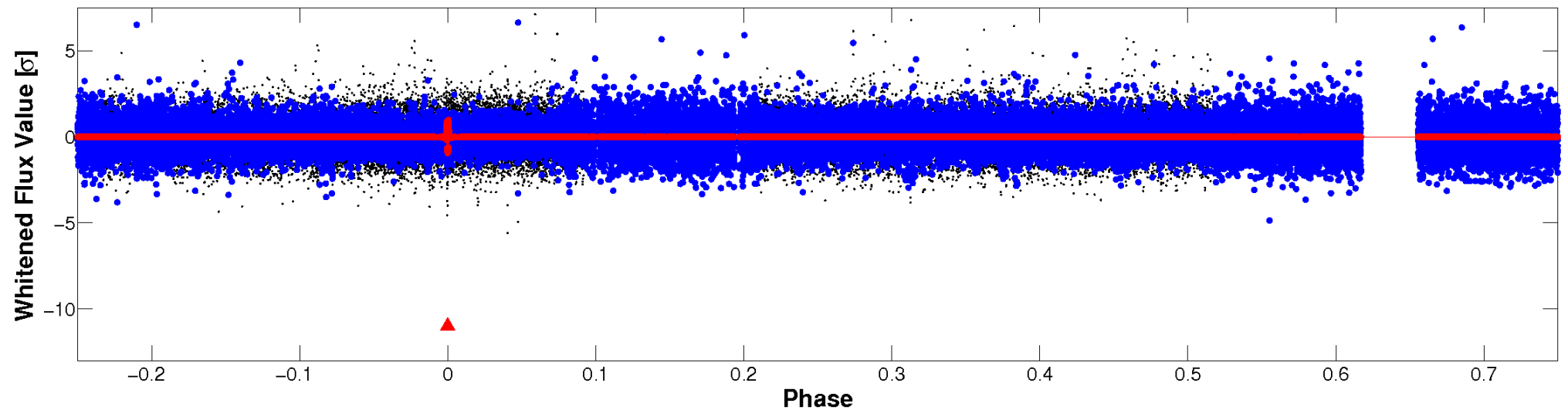


Non-Whitened Vs. Whitened Light Curve

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

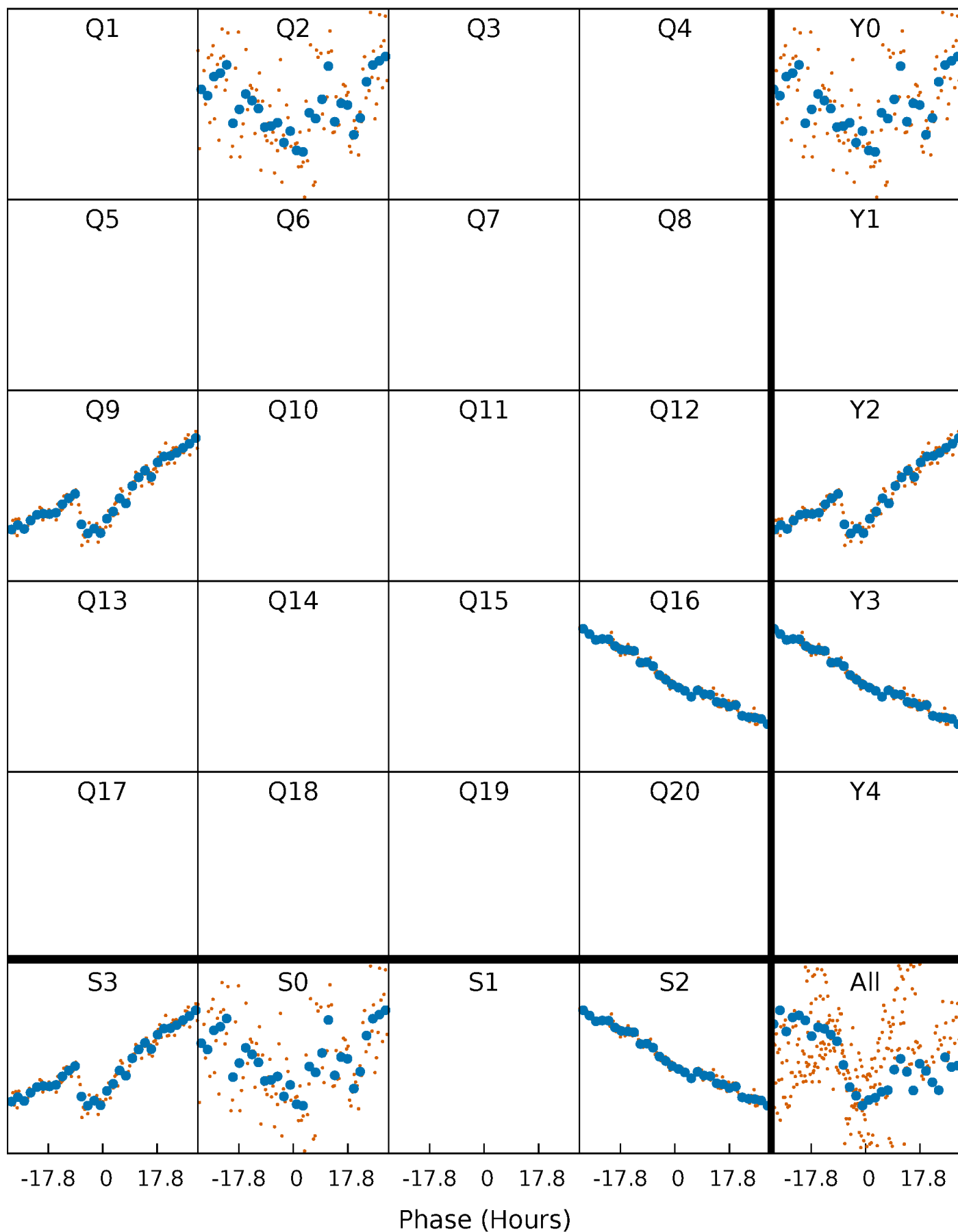


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



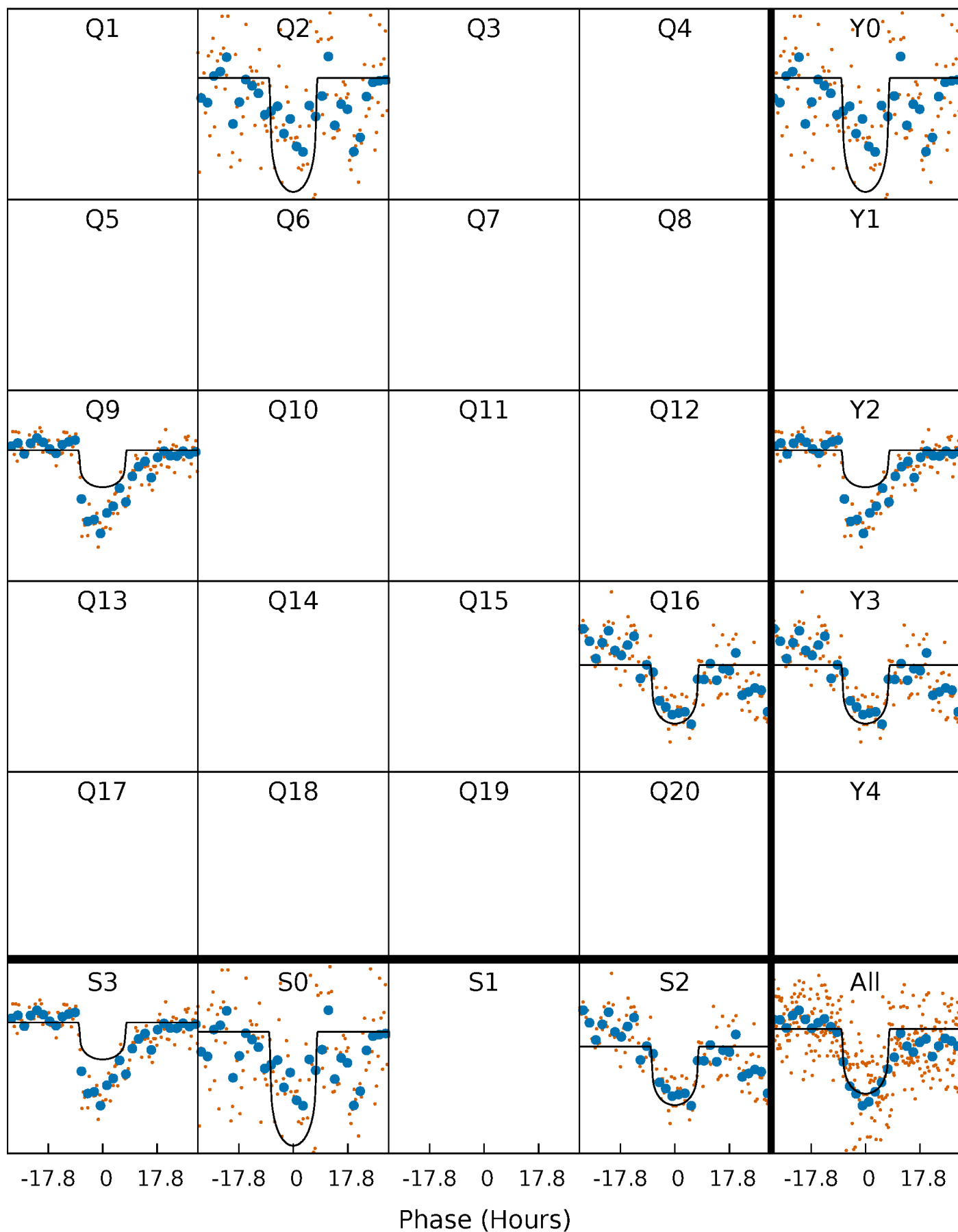
PDC Quarter-Phased Transit Curves

TCE 003663215-01 P=668.632306 Days $T_0=191.906218$ (BKJD)



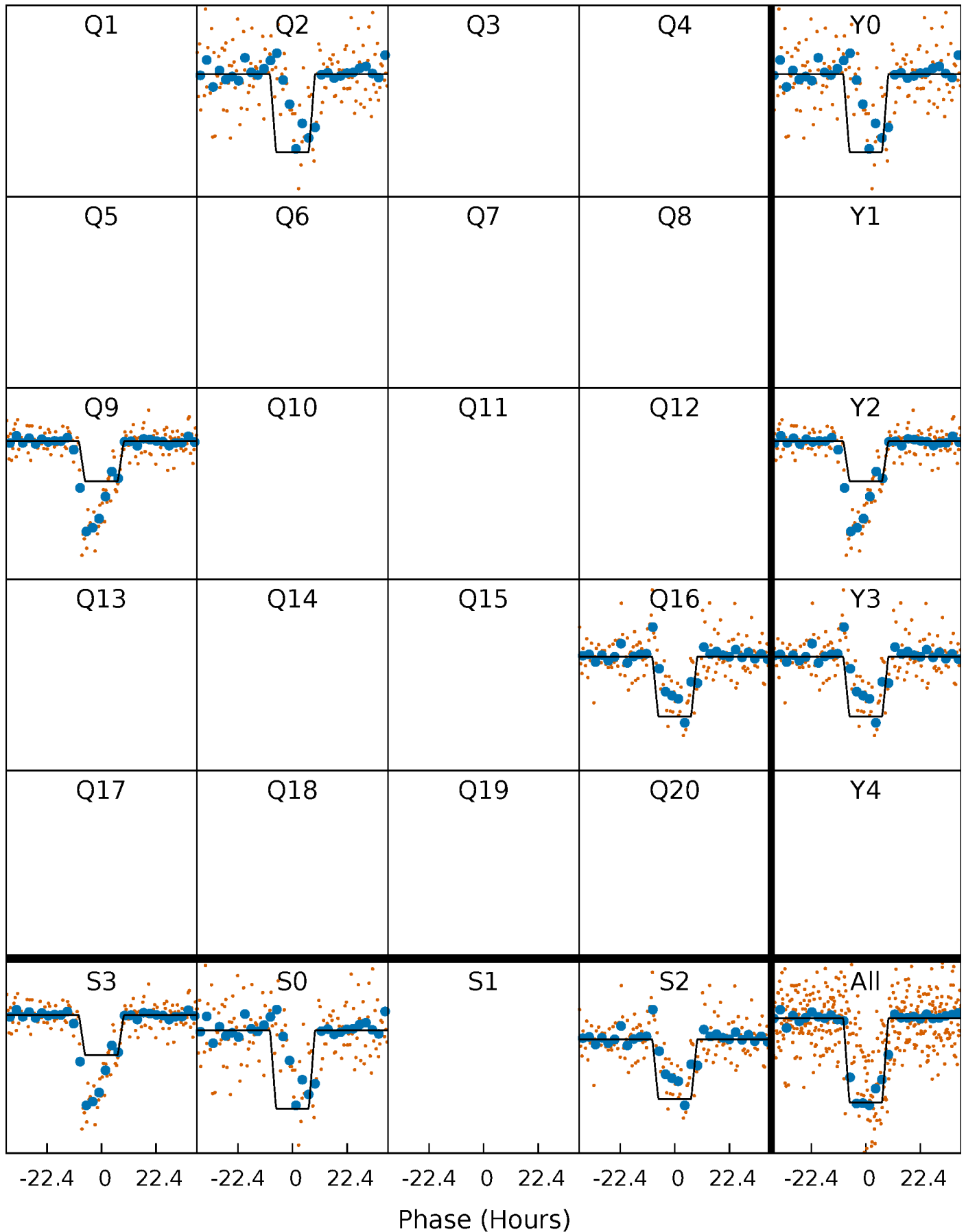
DV Quarter-Phased Transit Curves

TCE 003663215-01 P=668.632306 Days $T_0=191.906218$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

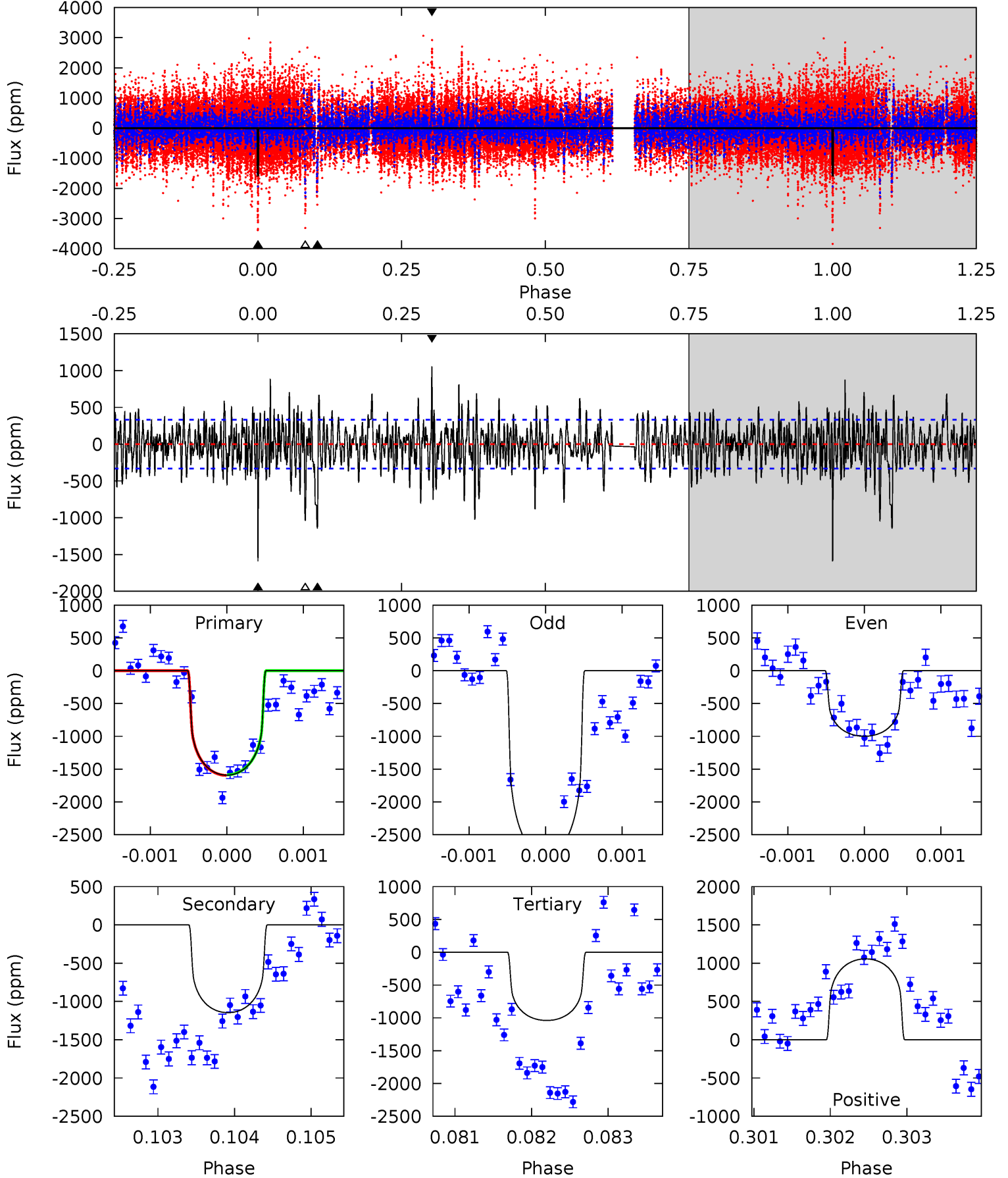
TCE 003663215-01 P=668.633761 Days $T_0=191.954621$ (BKJD)



DV Model-Shift Uniqueness Test

003663215-01, P = 668.632306 Days, E = 191.906218 Days

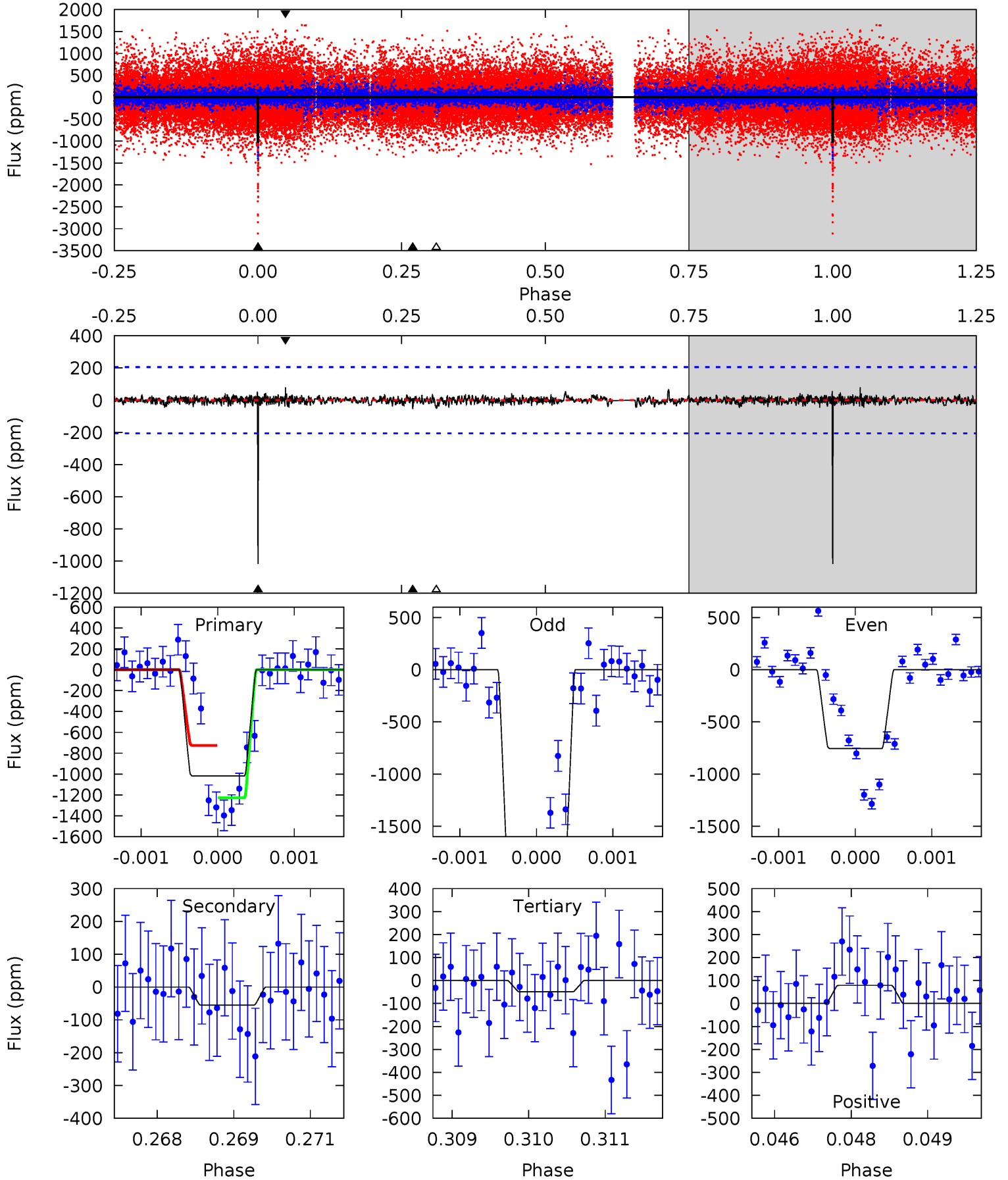
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.3	18.9	17.2	17.4	5.46	3.30	4.08	9.11	8.84	1.76	1.49	14.3	1.30	0.40	0.07



Alt Model-Shift Uniqueness Test

003663215-01, P = 668.633761 Days, E = 191.954621 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.8	1.46	1.30	2.08	5.42	3.25	0.37	25.5	24.8	0.16	-0.62	21.0	1.51	0.07	6.52



Stellar Parameters For KIC 003663215

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5636^{+169}_{-169}	$4.465^{+0.075}_{-0.188}$	$0.020^{+0.250}_{-0.300}$	$0.938^{+0.254}_{-0.109}$	$0.937^{+0.104}_{-0.094}$	$1.598^{+0.526}_{-0.768}$
	+3%/-3%	+2%/-4%	+1250%/-1500%	+27%/-12%	+11%/-10%	+33%/-48%
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 003663215-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1147 ± 61	$3.66^{+1.15}_{-1.25}$	282^{+18}_{-14}	5604^{+1177}_{-678}	$98510^{+130557}_{-42190}$
Alt.	-55 ± 38	$3.87^{+1.26}_{-1.14}$	282^{+19}_{-15}	3138^{+405}_{-525}	4104^{+5616}_{-2988}

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 $A_{obs} \gg 1.0$

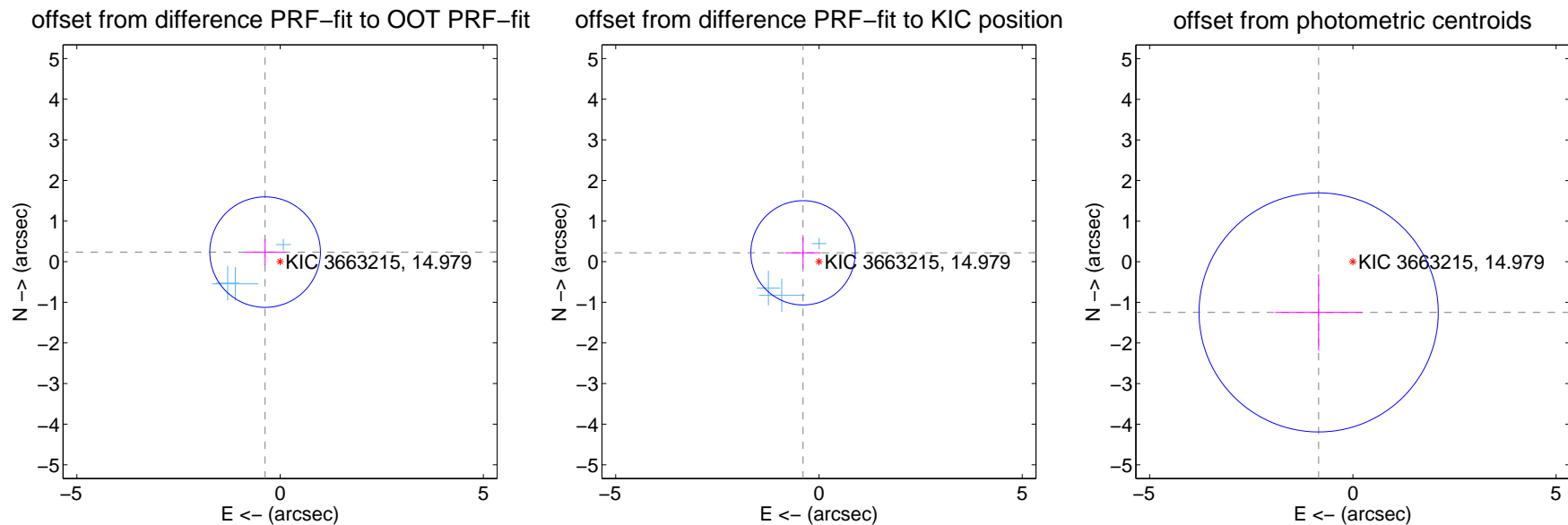
DV Centroid Data

Supplemental centroid analysis for 003663215-01. Kepler magnitude: 14.98. Transit SNR 9.26

There are 3 quarters with good PRF difference image offsets

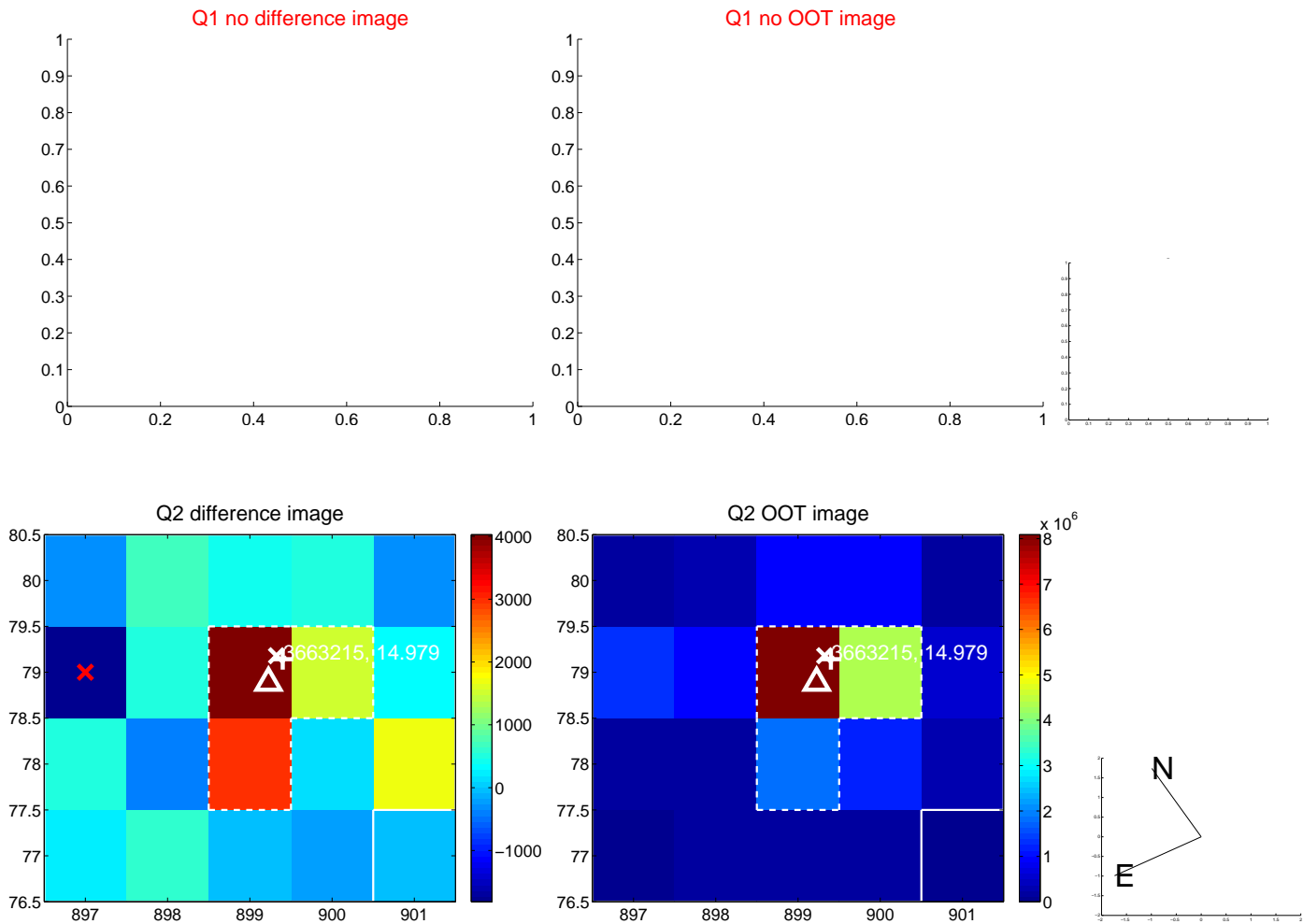
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.438 ± 0.454	0.97	0.369 ± 0.496	0.236 ± 0.328
PRF-fit source offset from KIC position	0.449 ± 0.428	1.05	0.393 ± 0.438	0.219 ± 0.393
photometric centroid source offset	1.51 ± 0.98	1.53	0.84 ± 1.07	-1.25 ± 0.94

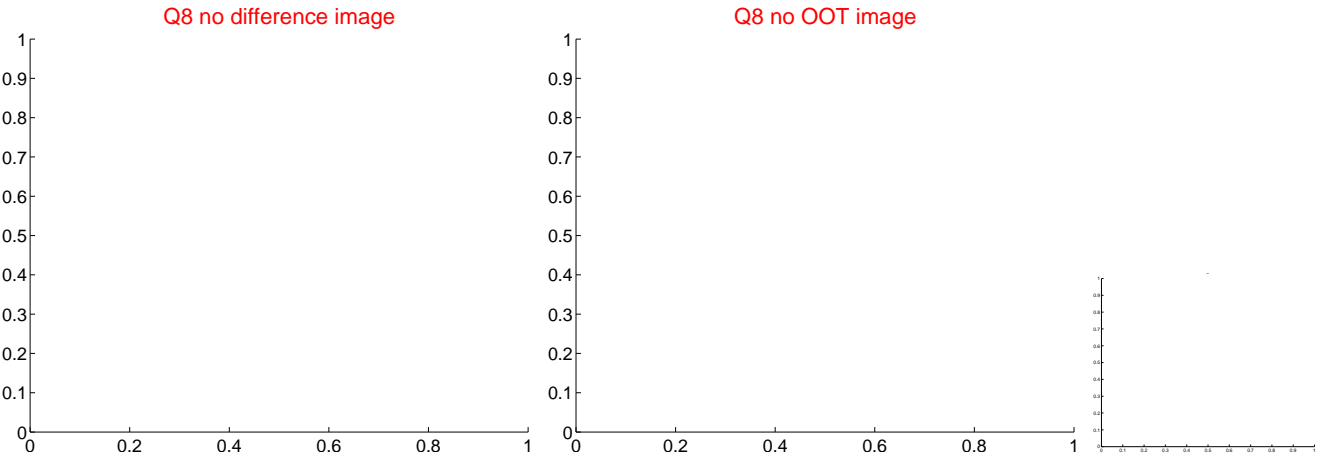
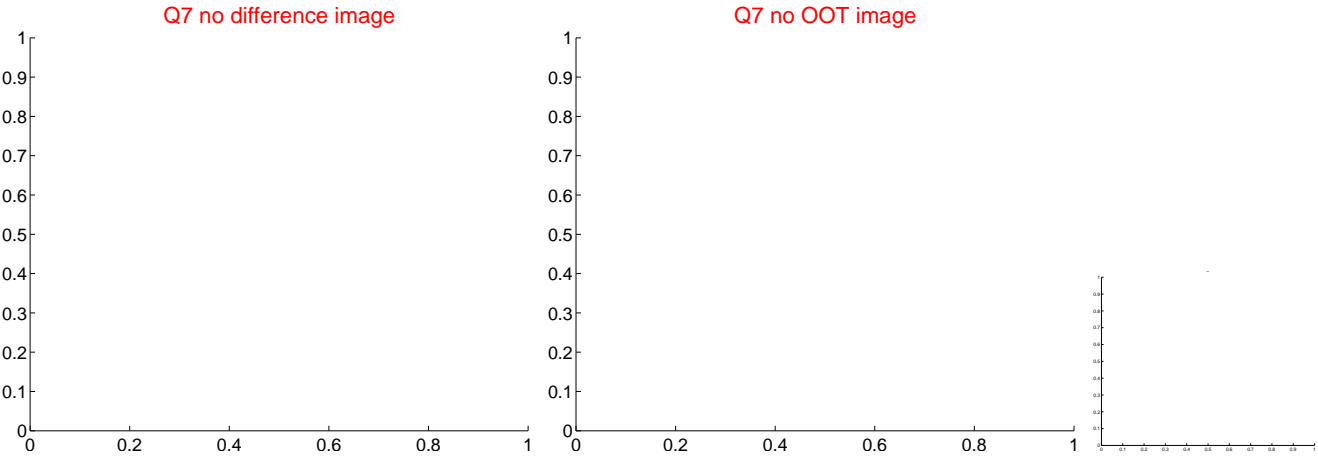
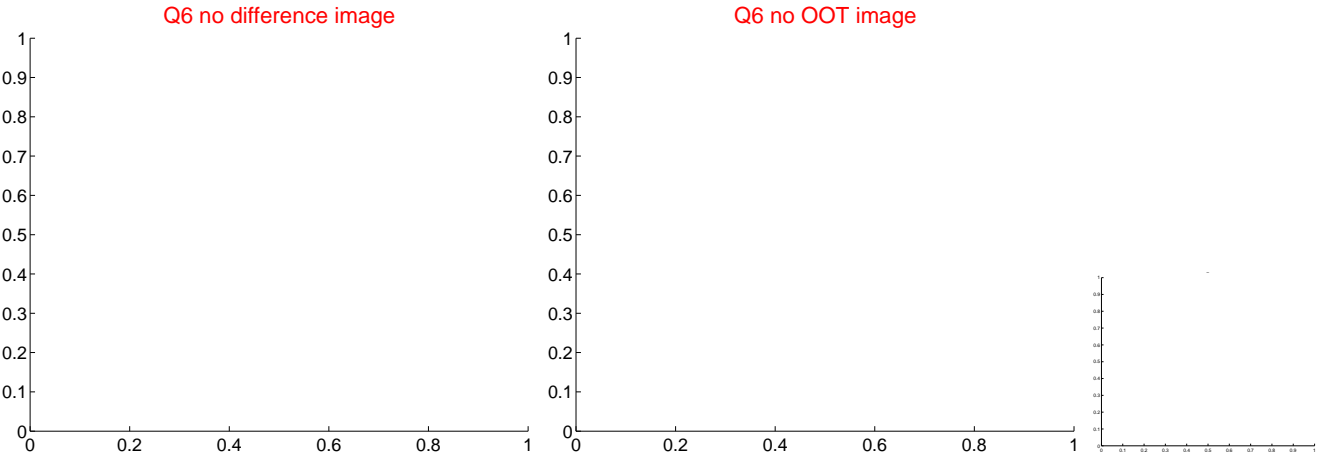
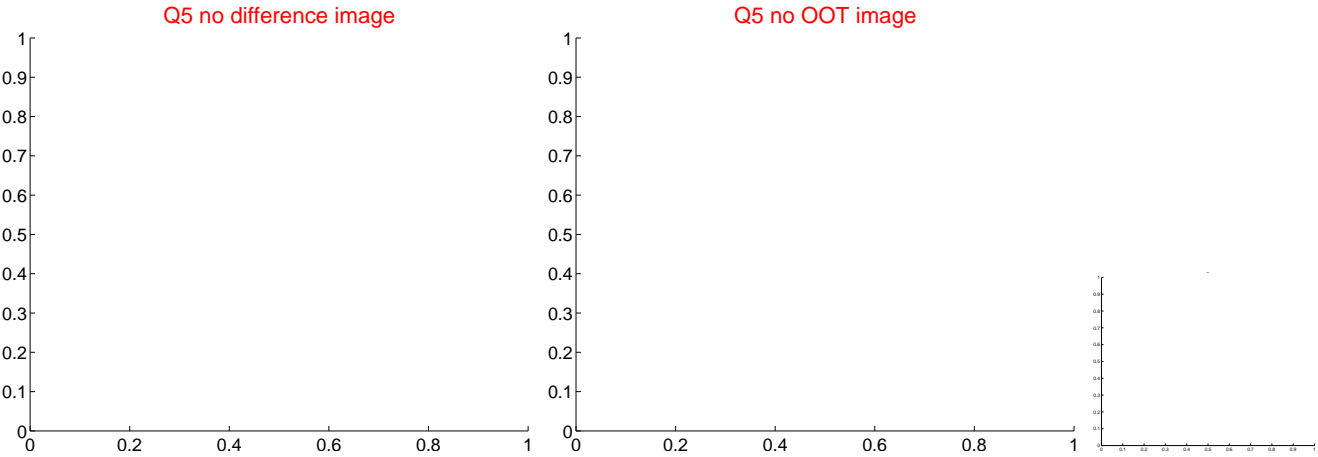


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

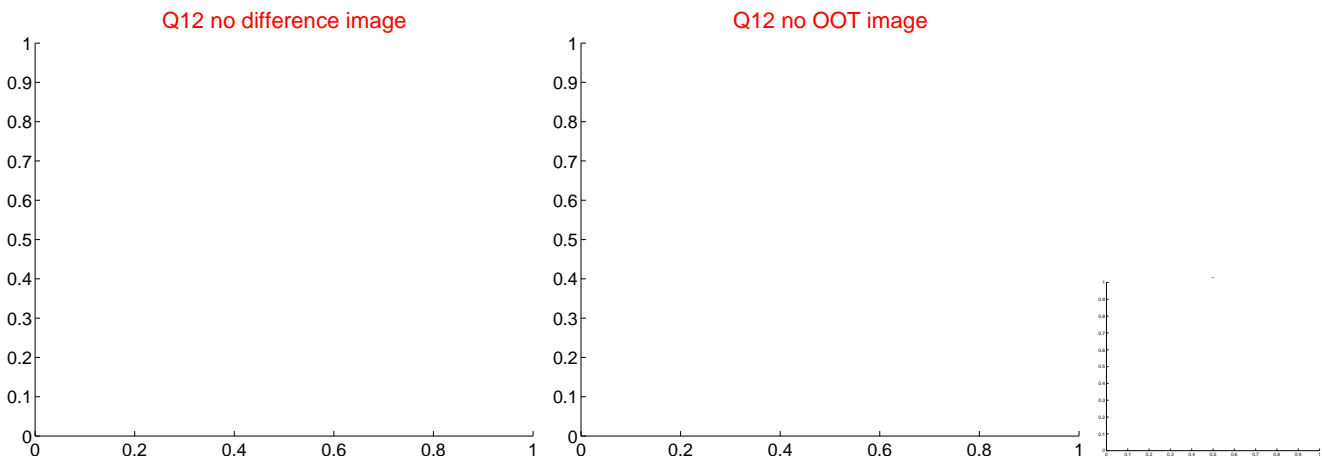
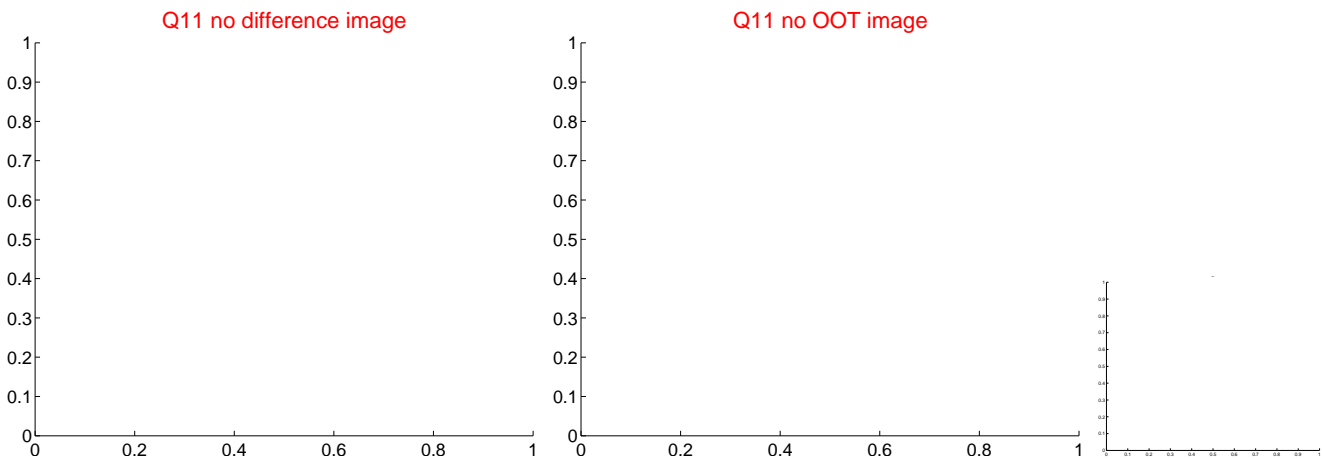
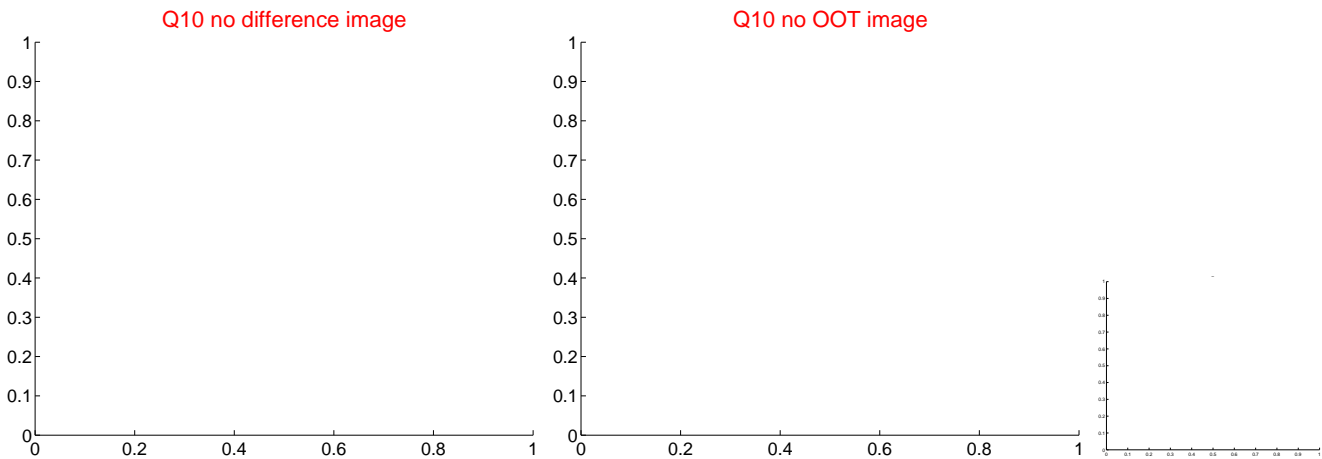
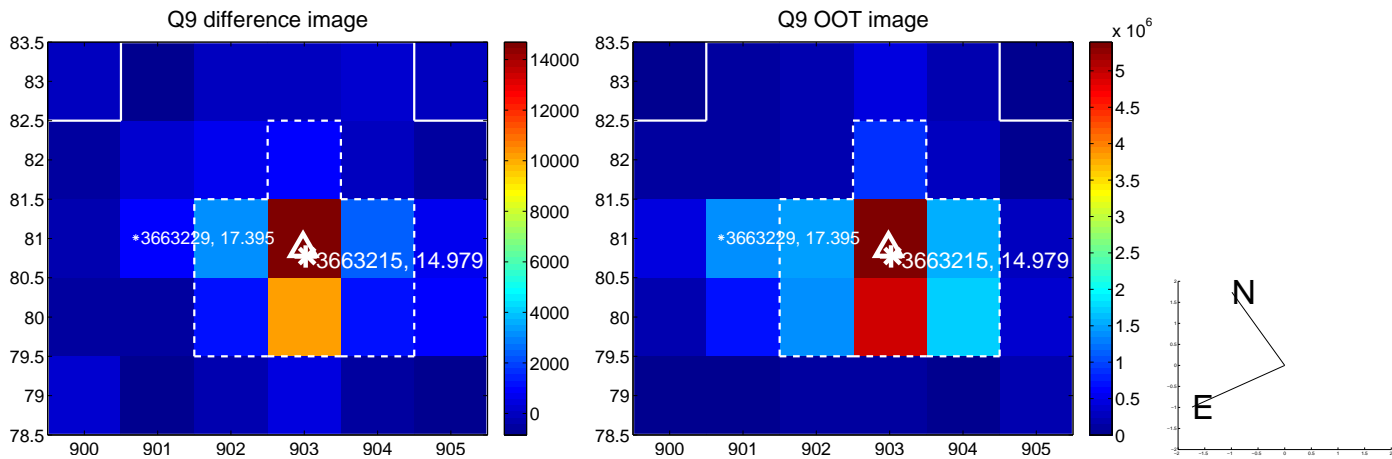
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



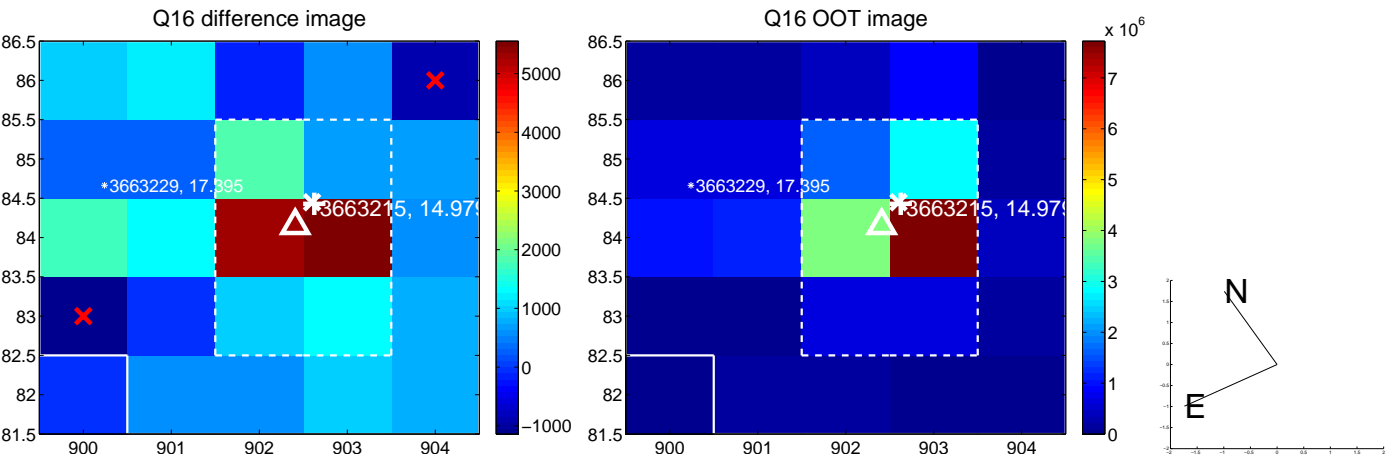
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



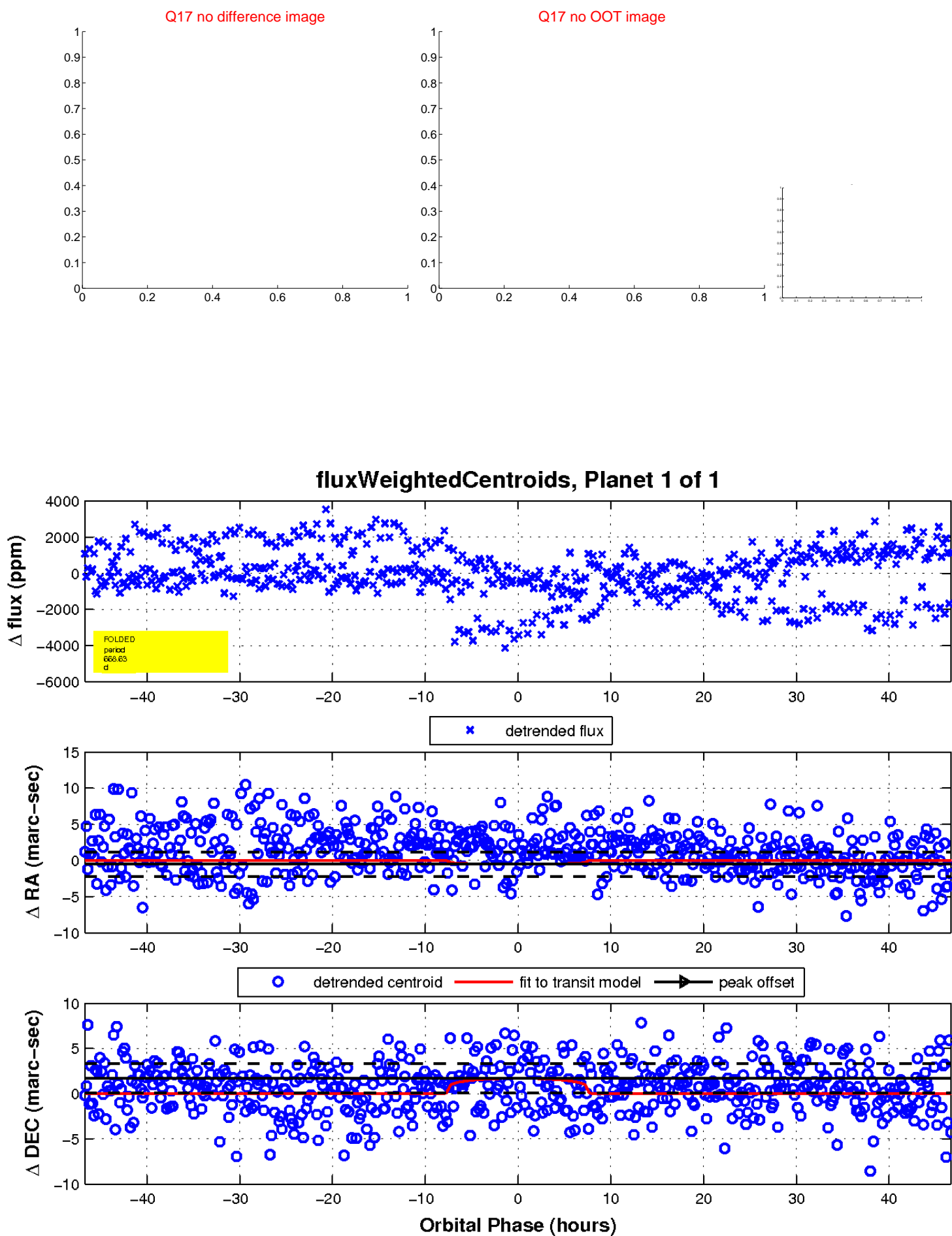
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

