

KIC 011036168

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})
011036168-01	OBS	5855.01	217.792941	210.689388	1521.3	4.725	16.0	16.1	1.28	5600	6.20	2.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011036168-01	OBS	PC	0.86	0	0	0	0	NO_COMMENT

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

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

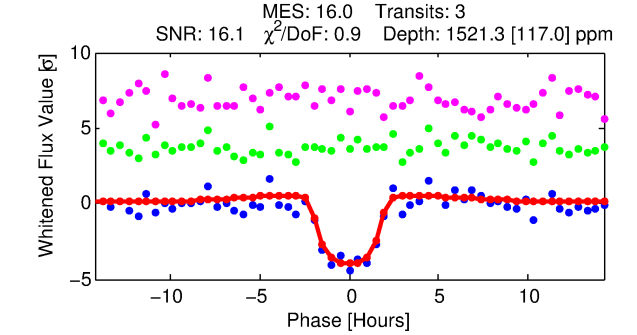
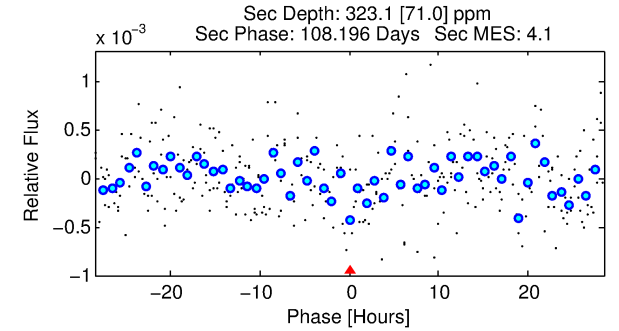
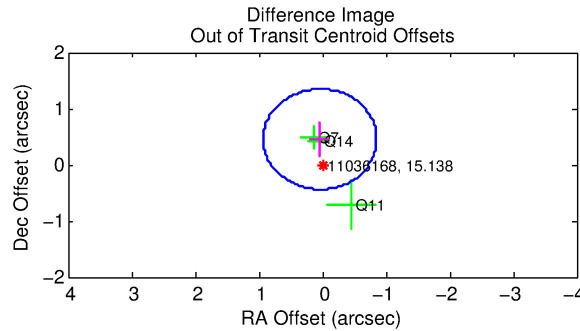
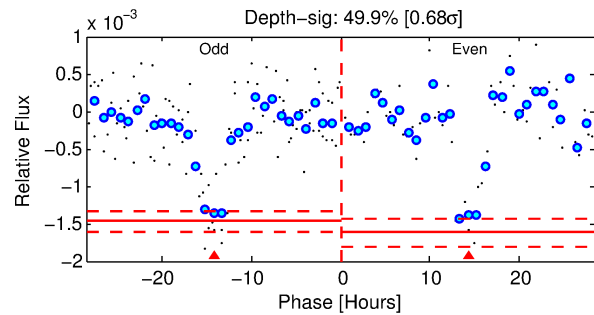
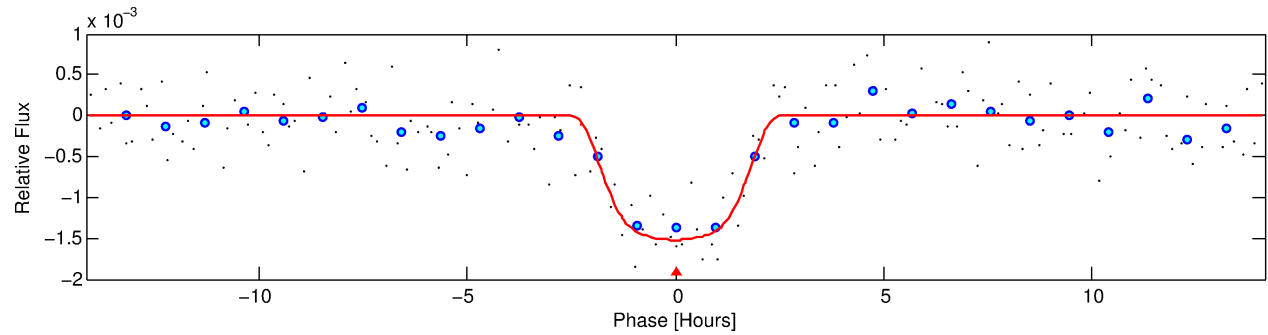
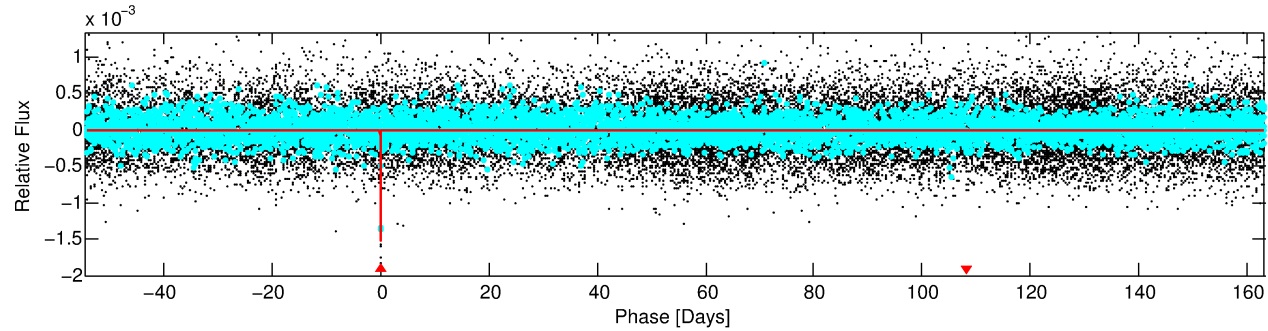
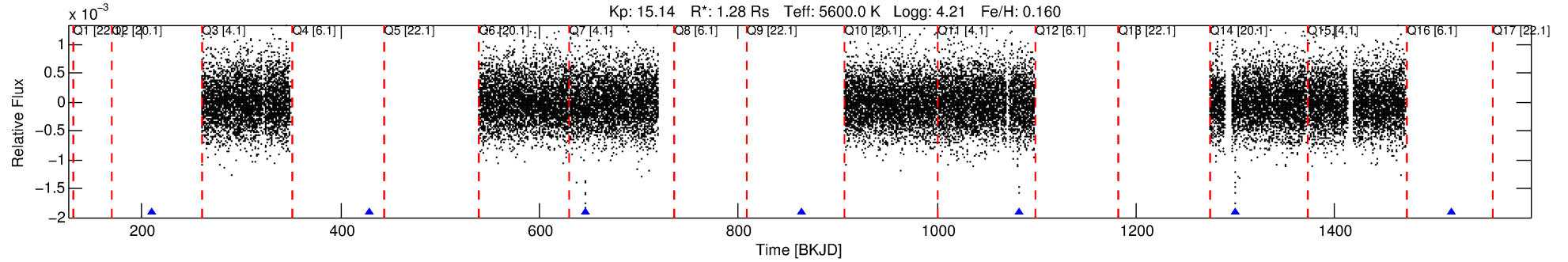
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011036168-01

No Significant Match Found

DV One-Page Summary

KIC: 11036168 Candidate: 1 of 1 Period: 217.793 d
KOI: K05855.01 Corr: 0.868



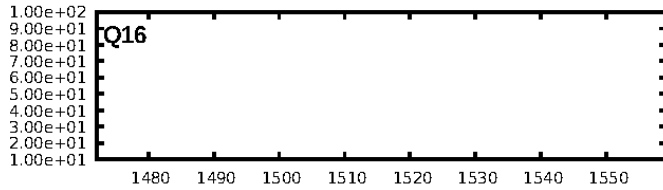
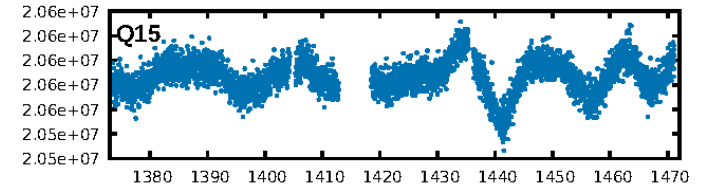
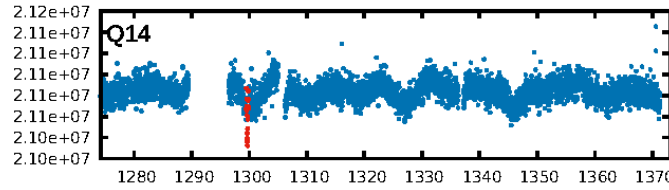
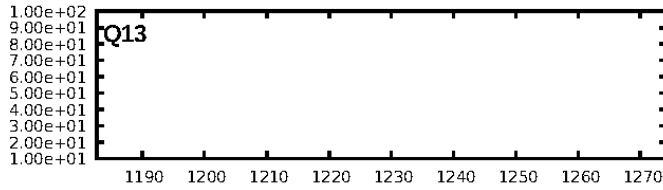
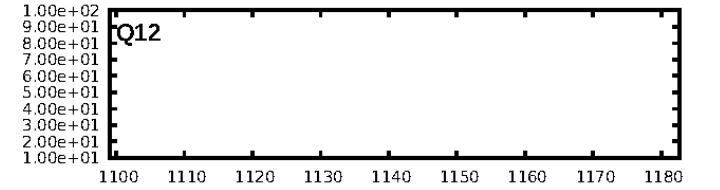
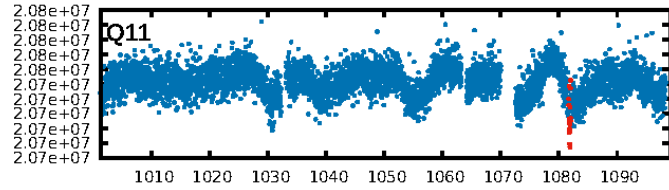
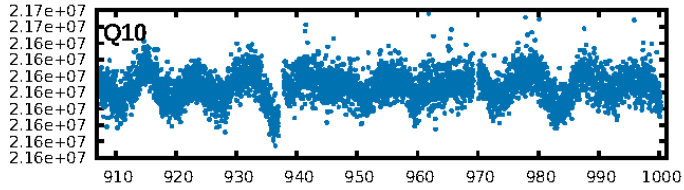
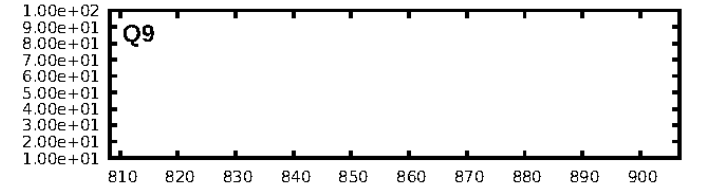
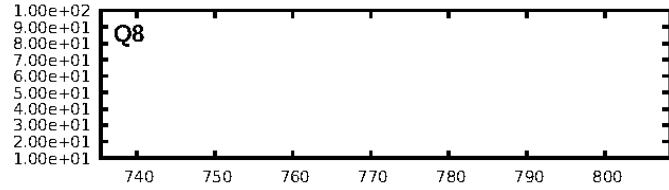
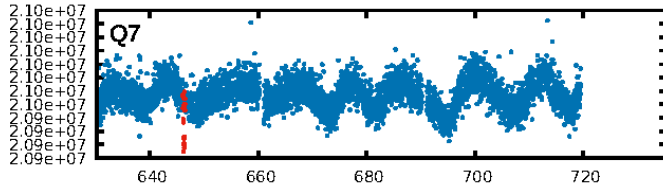
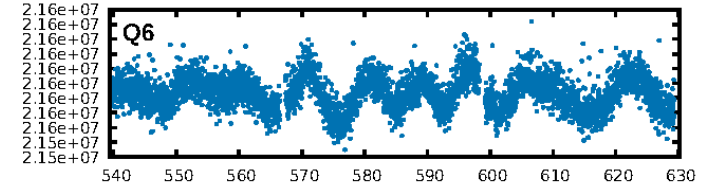
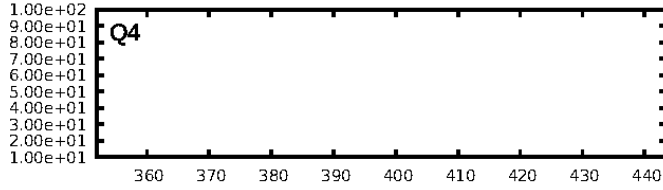
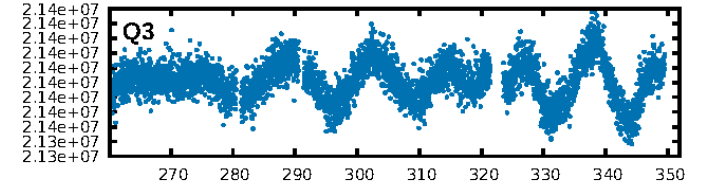
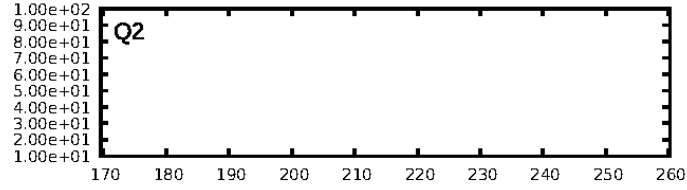
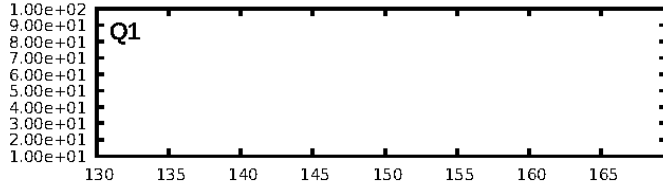
DV Fit Results:

Period = 217.79294 [0.00283] d
Epoch = 210.6894 [0.0104] BKJD
Rp/R* = 0.0443 [0.0034]
a/R* = 169.82 [38.69]
b = 0.93 [0.04]
Seff = 2.94 [0.92]
Teq = 334 [26] K
Rp = 6.20 [1.27] Re
a = 0.7018 [0.1326] AU
Ag = 2277.00 [927.38] [2.45 σ]
Teffp = 3568 [245] K [13.14 σ]

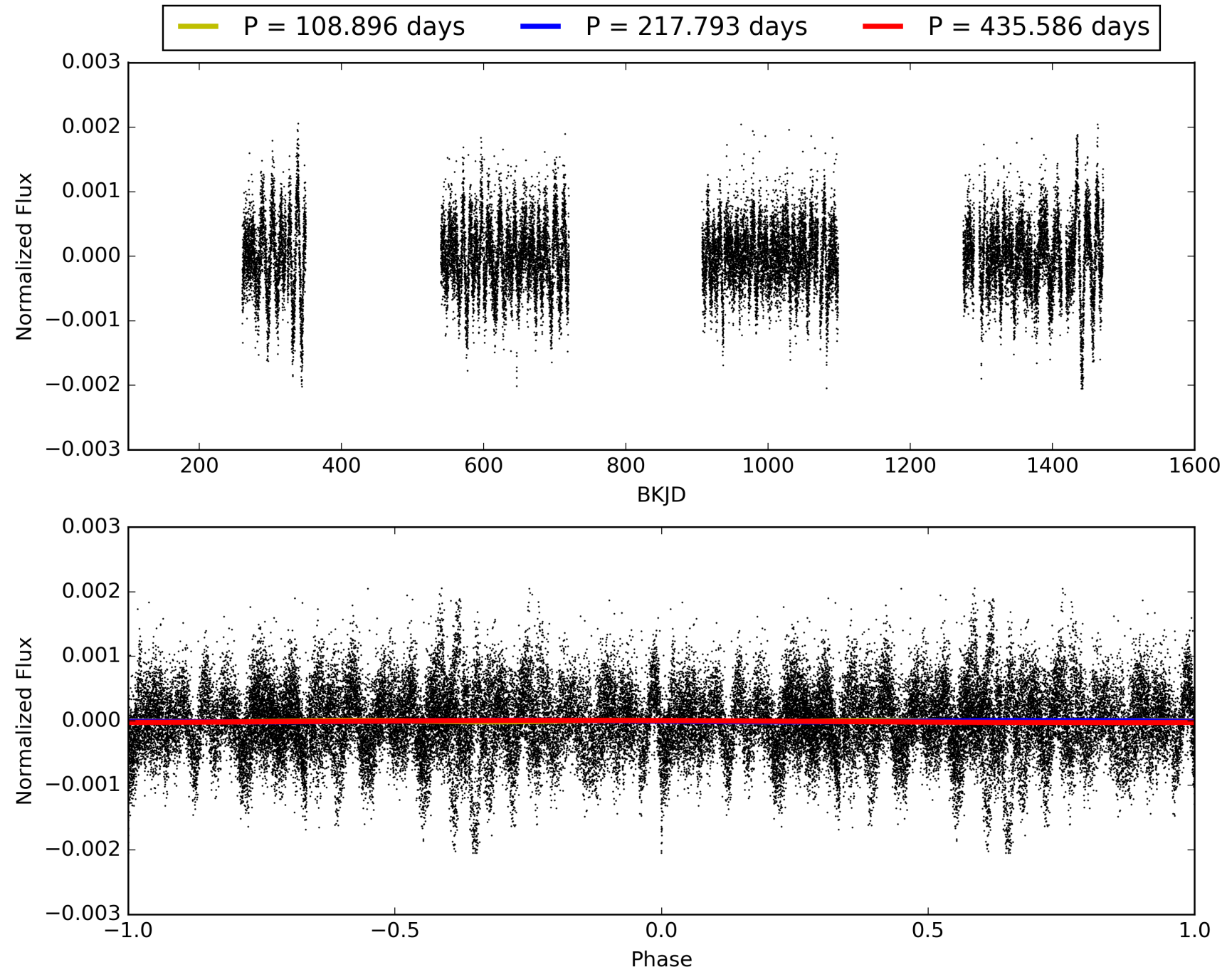
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 14.3%
ModelChiSquareGof-sig: 92.1%
Bootstrap-pfa: 9.07e-56
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 6.381
Centroid-sig: 4.1%
Centroid-so: 0.863 arcsec [1.07 σ]
OotOffset-rm: 0.454 arcsec [1.53 σ]
KicOffset-rm: 0.459 arcsec [1.42 σ]
OotOffset-st: 1/2/0/0 [3]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 011036168-01, PDC Light Curves

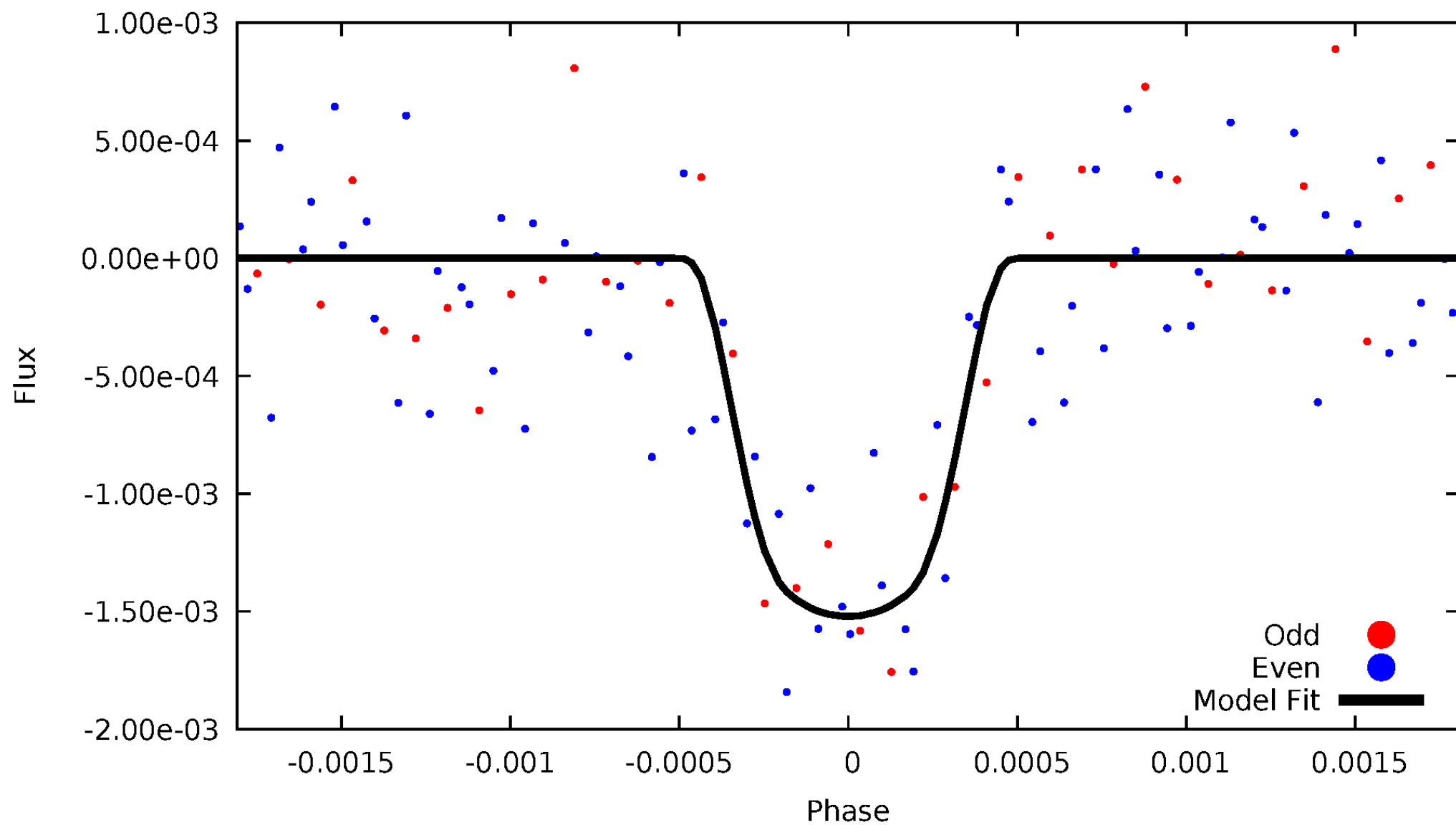


TCE 011036168-01



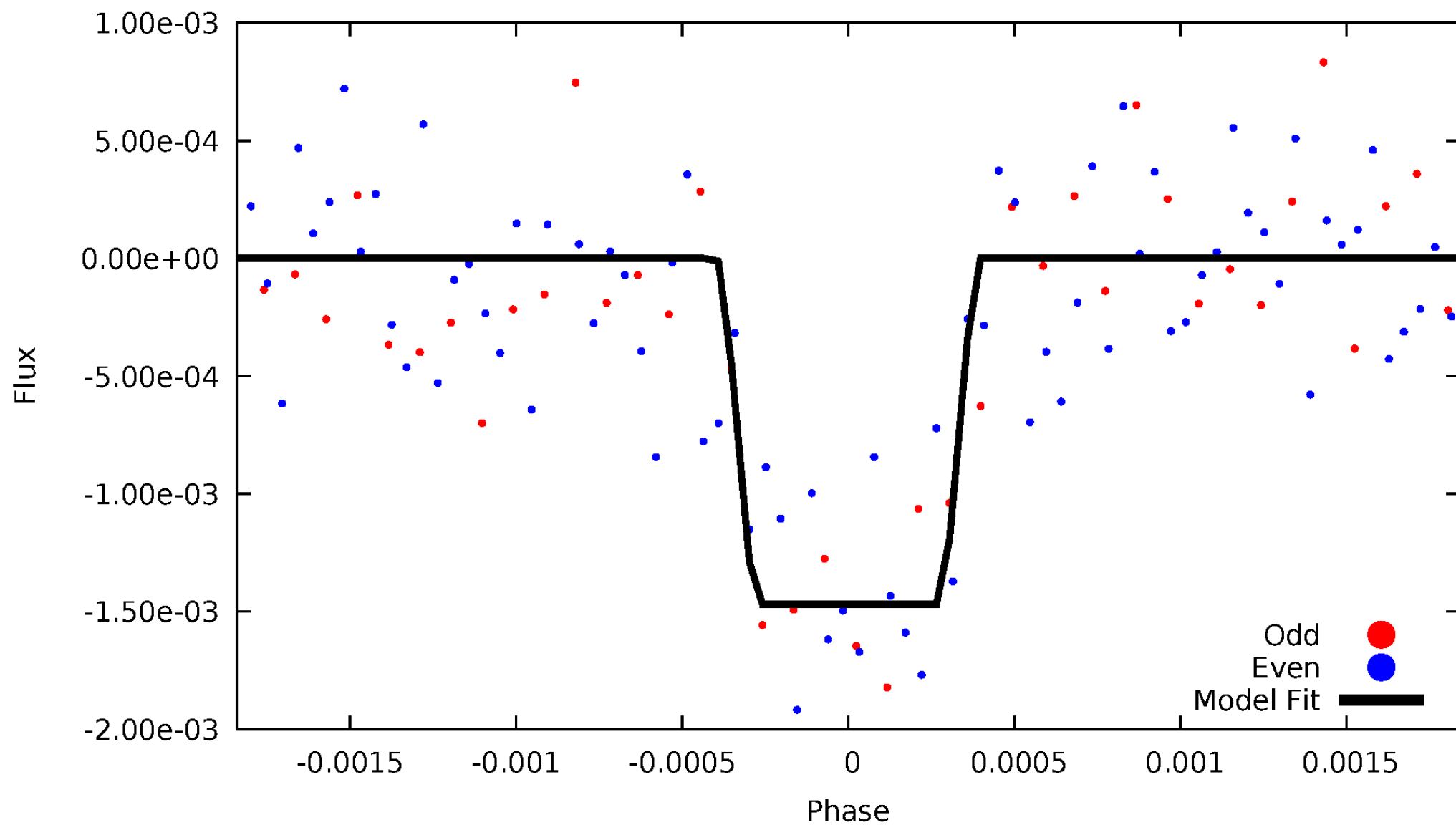
DV Odd/Even

TCE 011036168-01



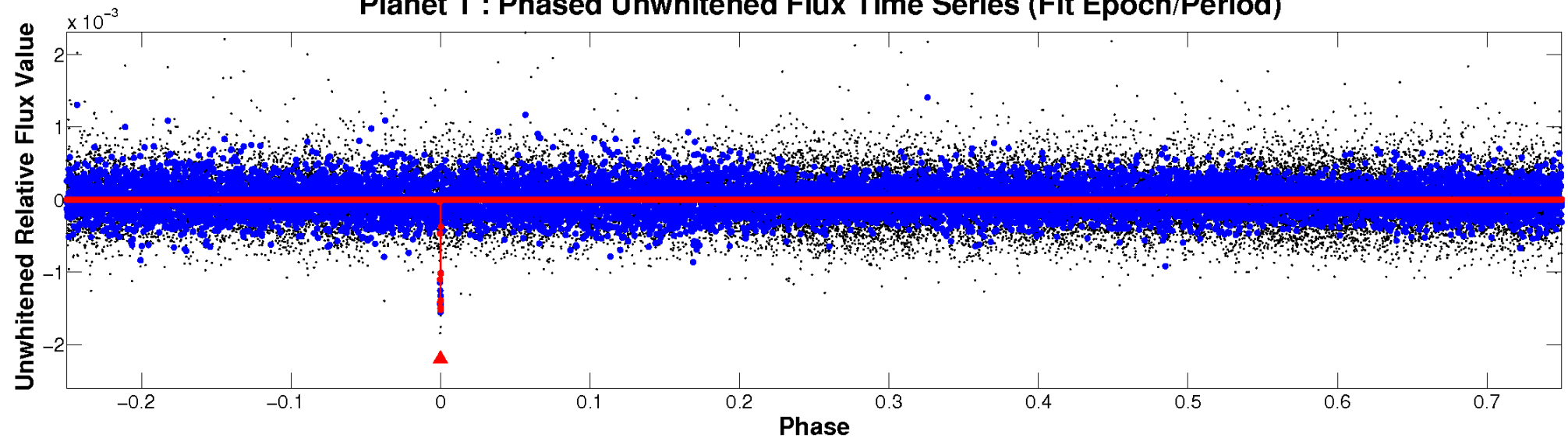
ALT Odd/Even

TCE 011036168-01

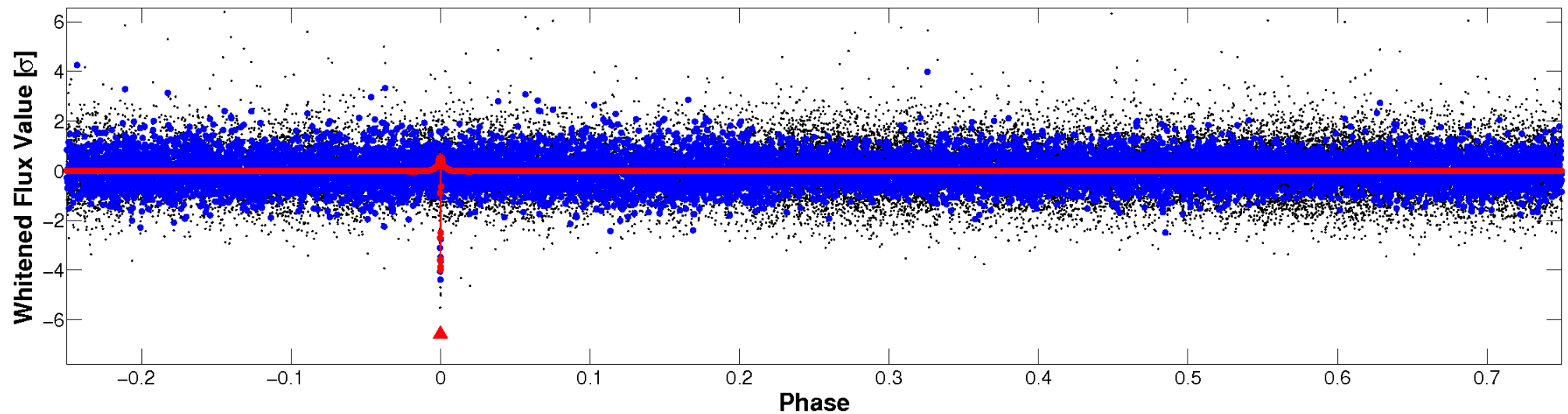


Non-Whitened Vs. Whitened Light Curve

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

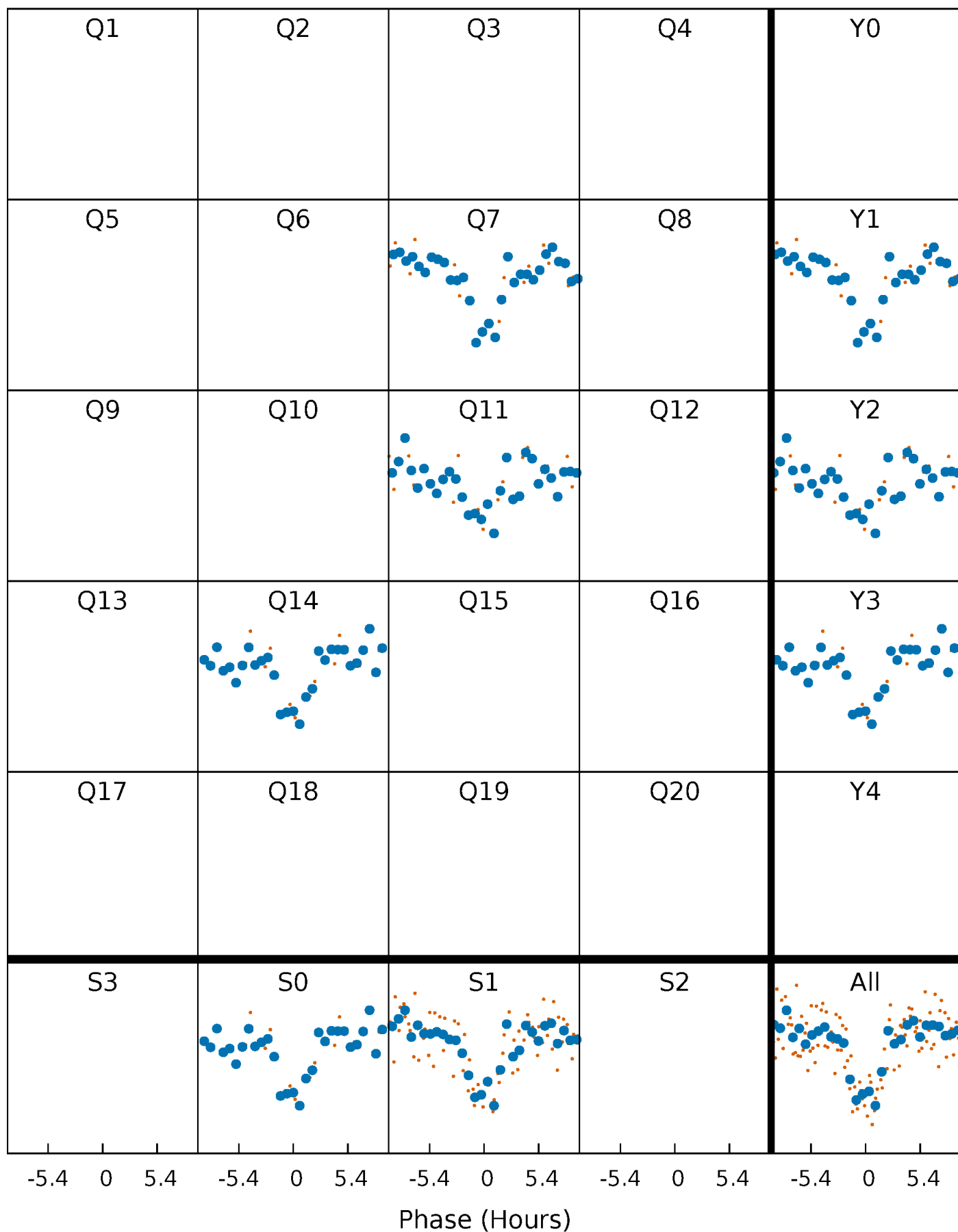


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



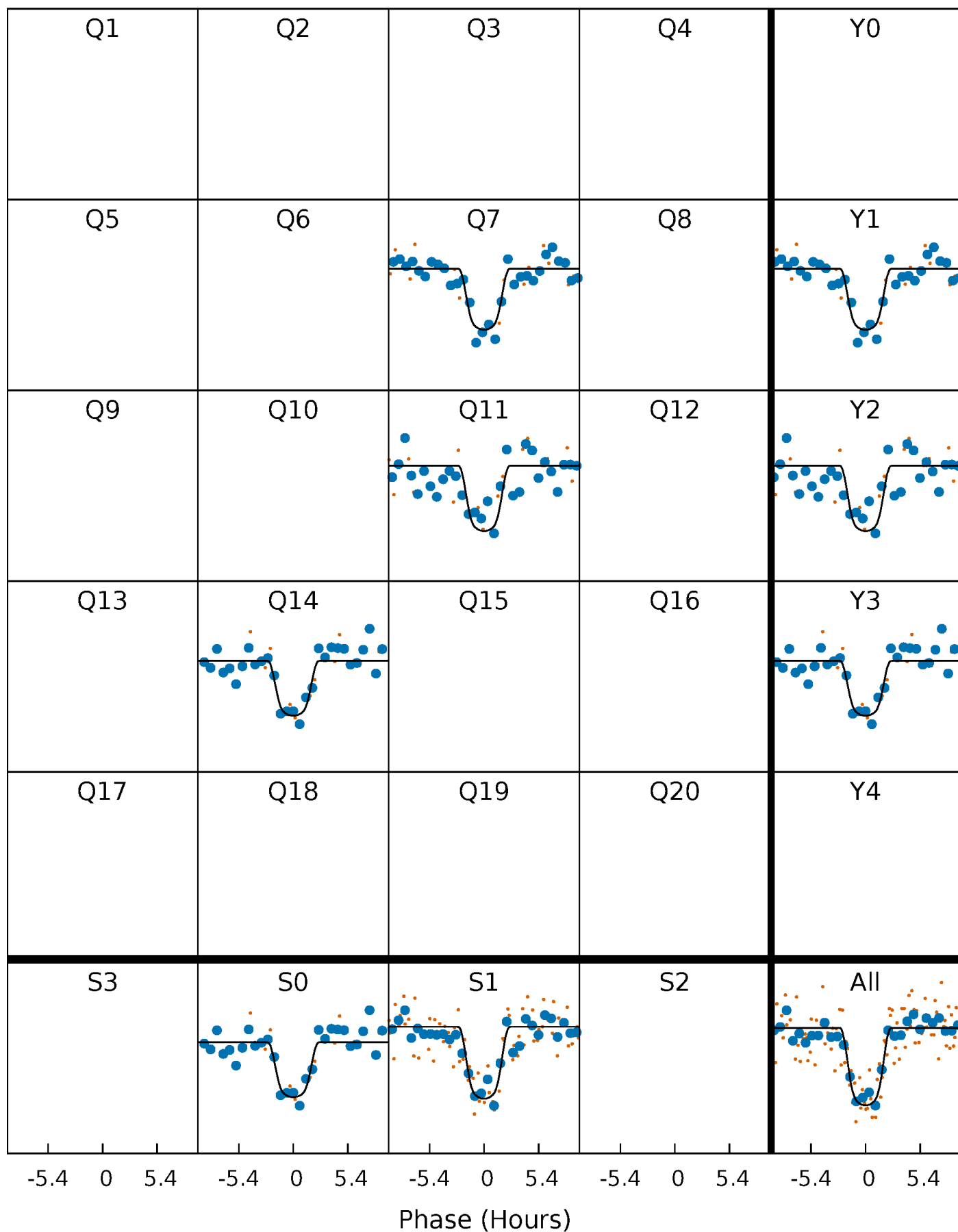
PDC Quarter-Phased Transit Curves

TCE 011036168-01 P=217.792941 Days $T_0=210.689388$ (BKJD)



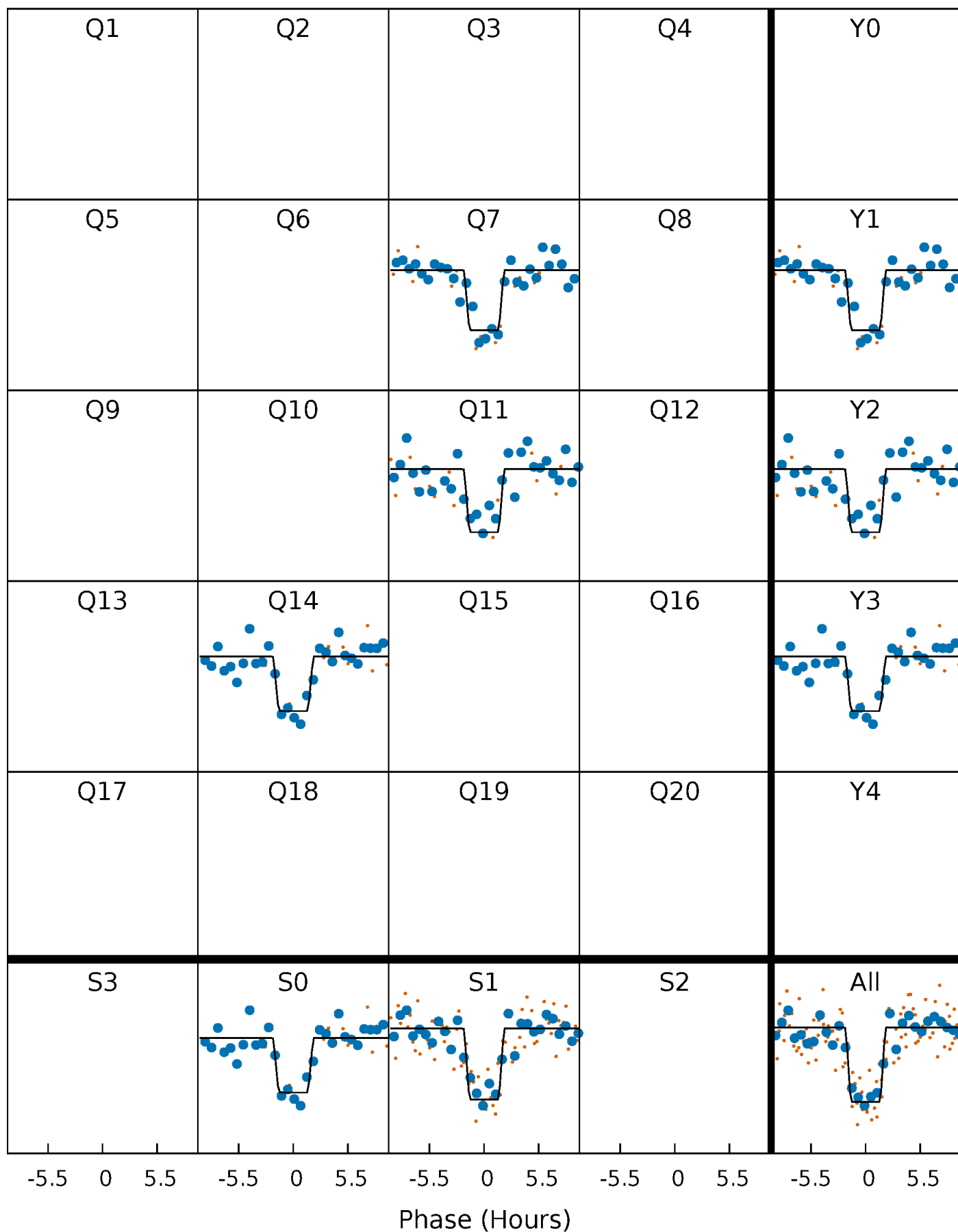
DV Quarter-Phased Transit Curves

TCE 011036168-01 P=217.792941 Days $T_0=210.689388$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

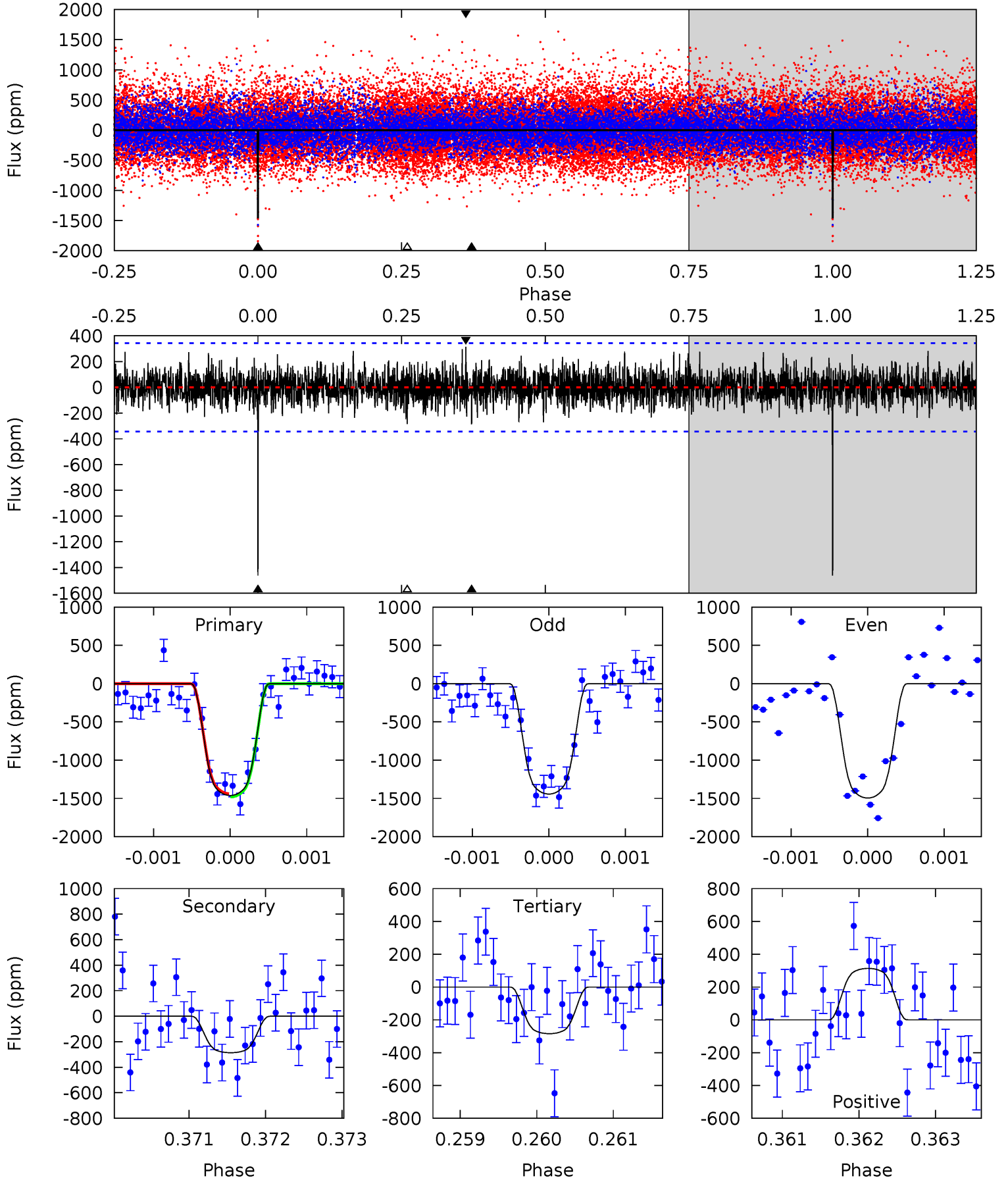
TCE 011036168-01 P=217.795740 Days $T_0=210.677738$ (BKJD)



DV Model-Shift Uniqueness Test

011036168-01, P = 217.792941 Days, E = 210.689388 Days

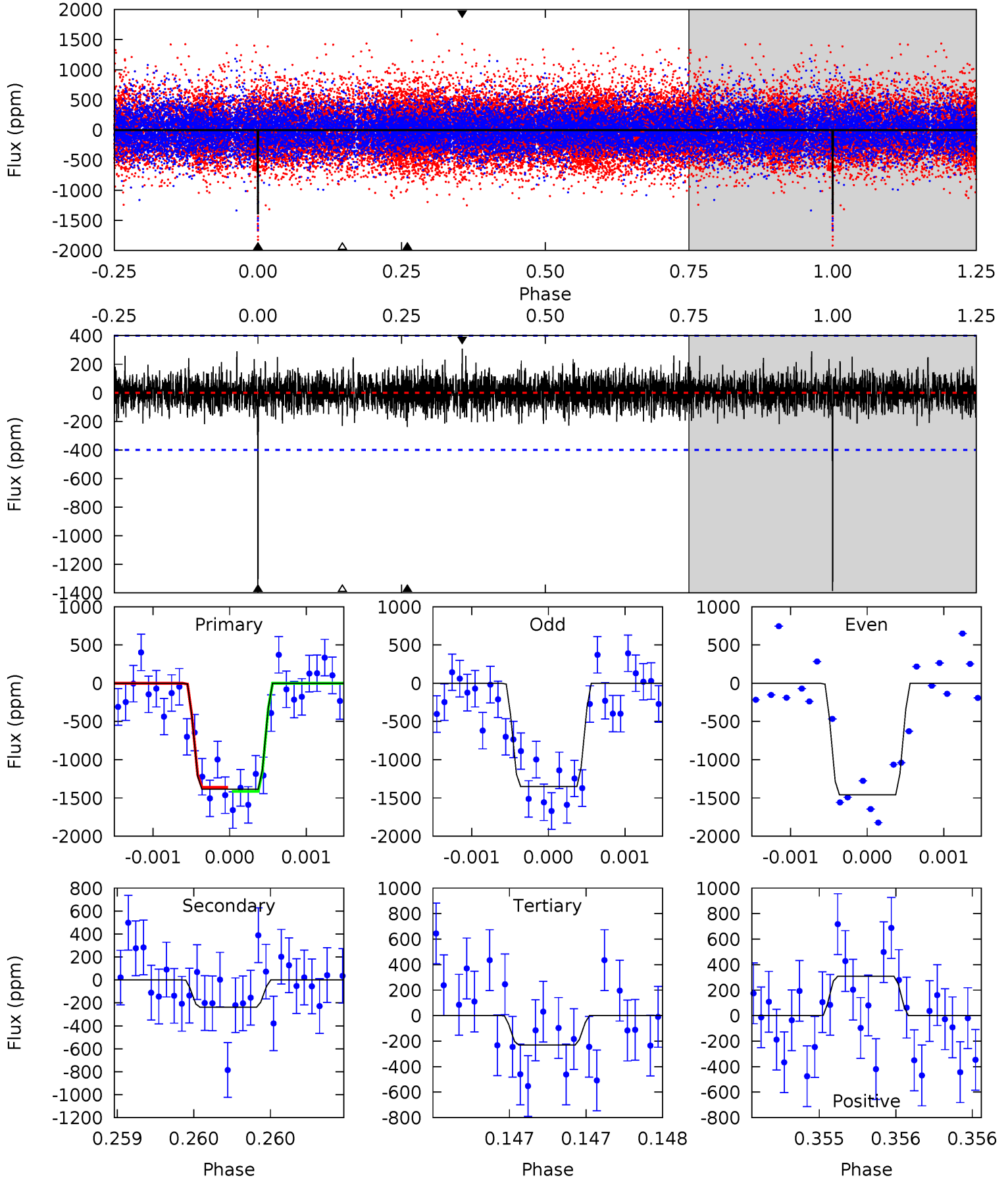
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.2	4.55	4.52	4.98	5.46	3.30	1.33	18.7	18.2	0.03	-0.44	0.39	0.98	0.18	0.34



Alt Model-Shift Uniqueness Test

011036168-01, P = 217.795740 Days, E = 210.677738 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	3.29	3.18	4.24	5.51	3.39	0.98	15.9	14.9	0.11	-0.96	0.69	0.95	0.18	0.37



Stellar Parameters For KIC 011036168

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5600^{+84}_{-67}	$4.209^{+0.182}_{-0.112}$	$0.160^{+0.150}_{-0.150}$	$1.283^{+0.200}_{-0.245}$	$0.970^{+0.074}_{-0.054}$	$0.647^{+0.548}_{-0.218}$
	+2%/-1%	+4%/-3%	+94%/-94%	+16%/-19%	+8%/-6%	+85%/-34%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 011036168-01 / KOI 5855.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-286 ± 63	$6.20^{+0.77}_{-0.84}$	468^{+20}_{-27}	3827^{+173}_{-184}	2011^{+839}_{-582}
Alt.	-239 ± 73	$5.29^{+0.69}_{-0.73}$	464^{+22}_{-26}	3908^{+238}_{-279}	2344^{+1193}_{-887}

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 $A_{obs} \gg 1.0$

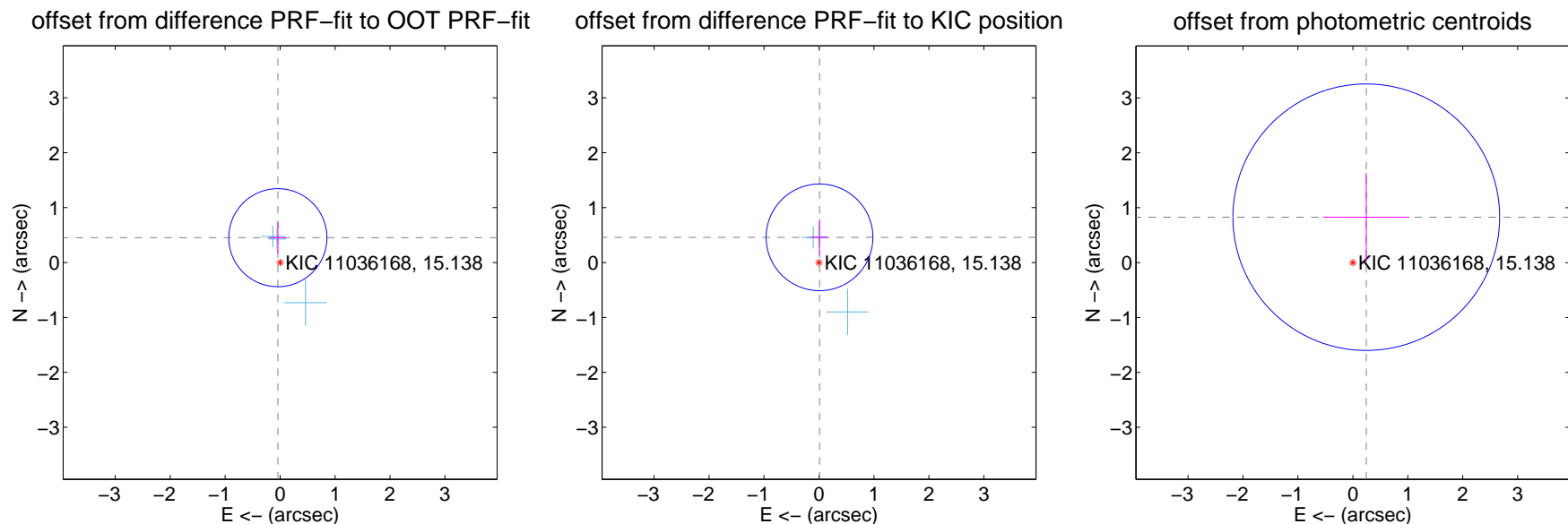
DV Centroid Data

Supplemental centroid analysis for 011036168-01. Kepler magnitude: 15.14. Transit SNR 16.12

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.454 ± 0.298	1.53	0.041 ± 0.148	0.453 ± 0.287
PRF-fit source offset from KIC position	0.459 ± 0.324	1.42	-0.010 ± 0.157	0.459 ± 0.327
photometric centroid source offset	0.86 ± 0.81	1.07	-0.24 ± 0.79	0.83 ± 0.81



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.

Q5 no difference image



Q5 no OOT image



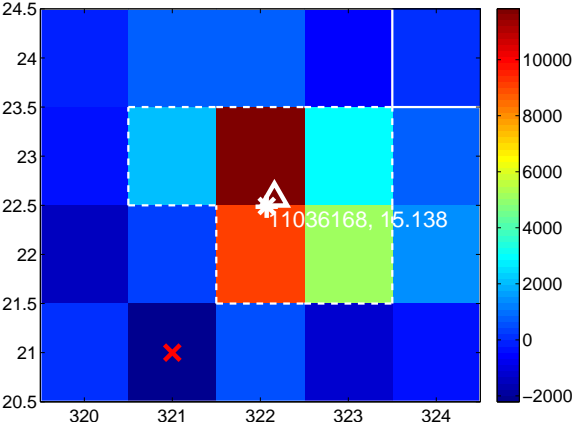
Q6 no difference image



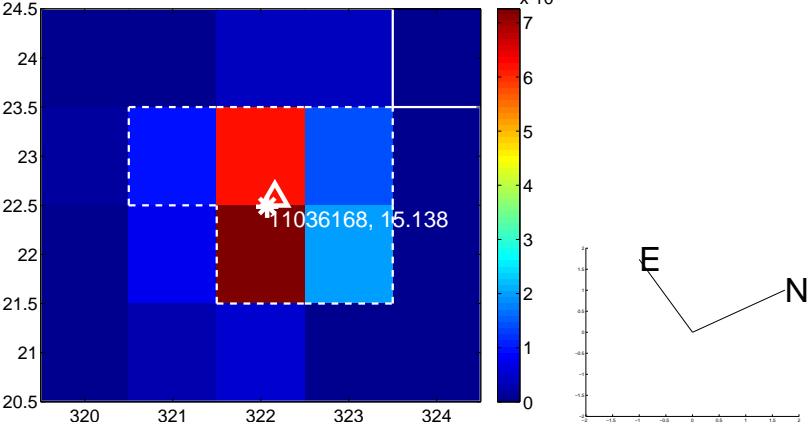
Q6 no OOT image



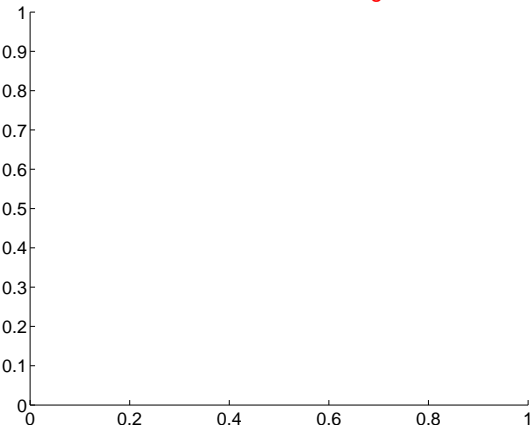
Q7 difference image



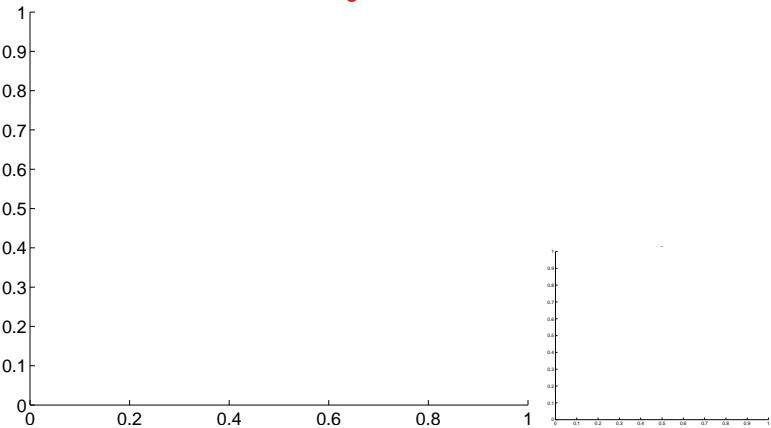
Q7 OOT image



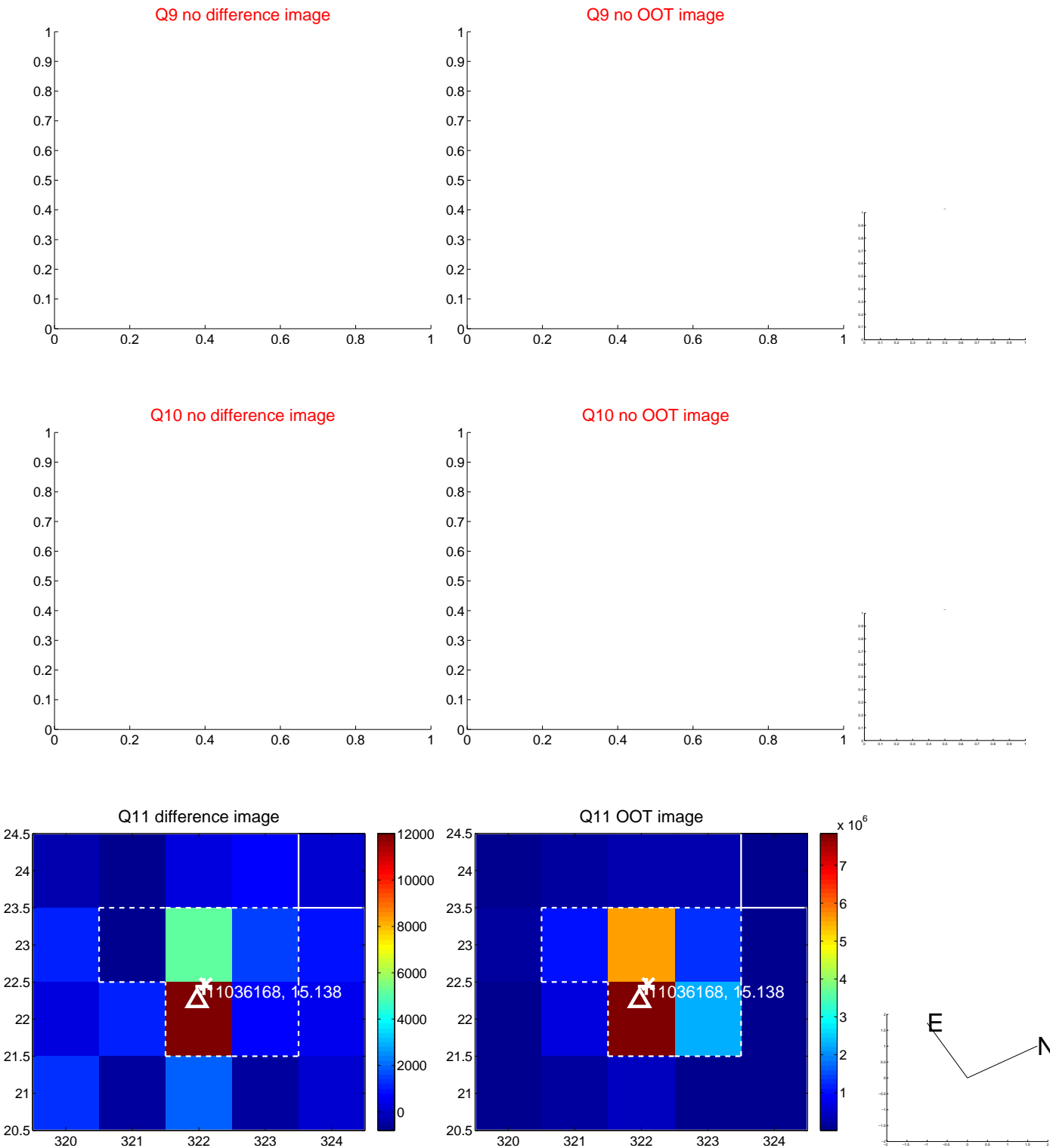
Q8 no difference image



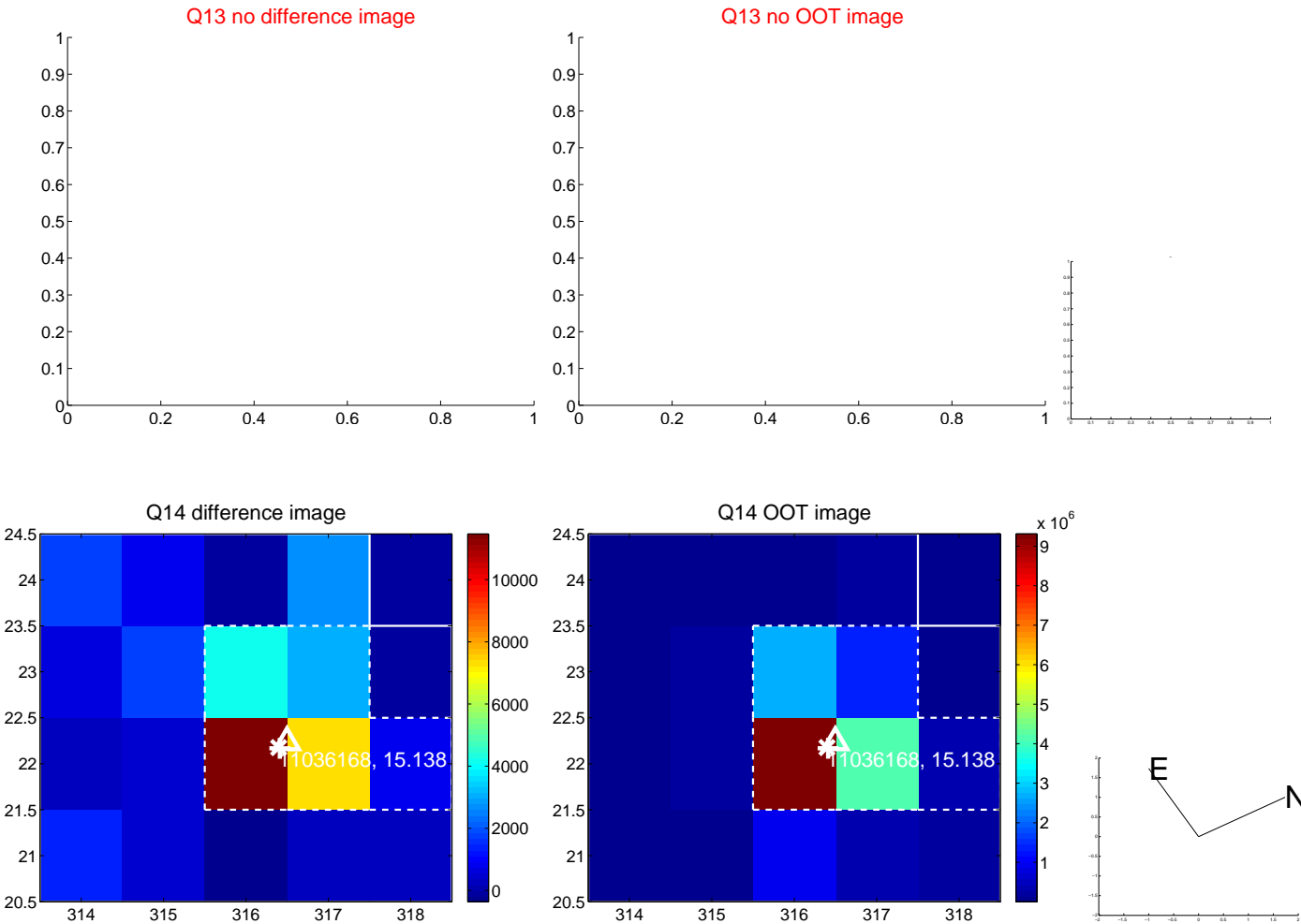
Q8 no OOT image



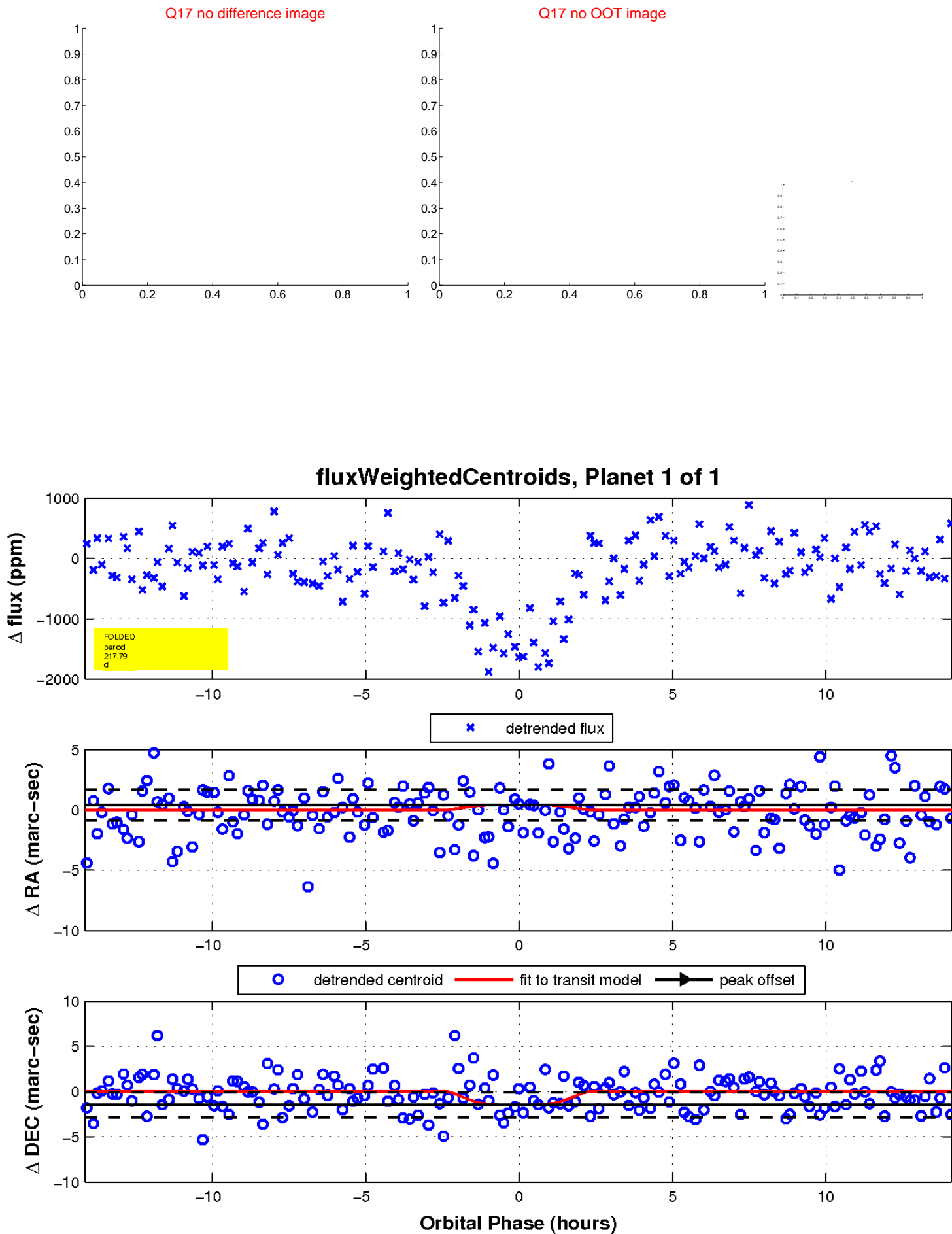
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

