

KIC 008482059

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})
008482059-01	OBS	No	250.591571	224.833192	700.3	11.501	8.6	8.2	0.94	5878	2.53	1.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008482059-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_NONUNIQ_ALT—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.

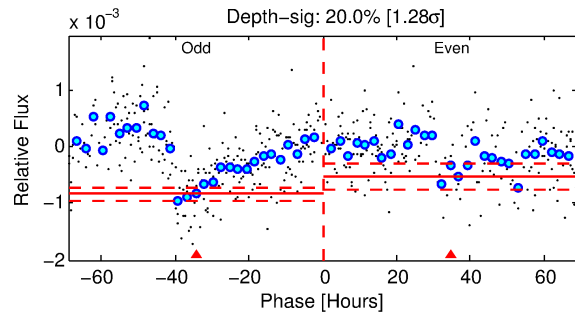
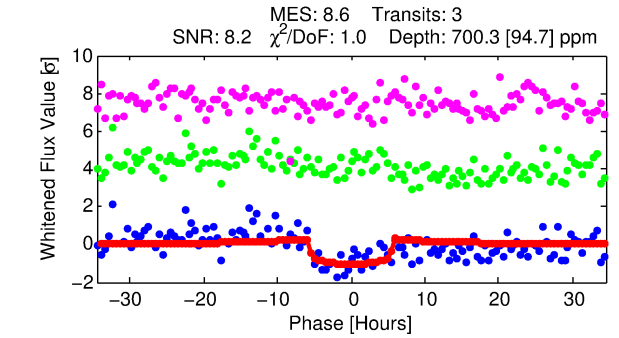
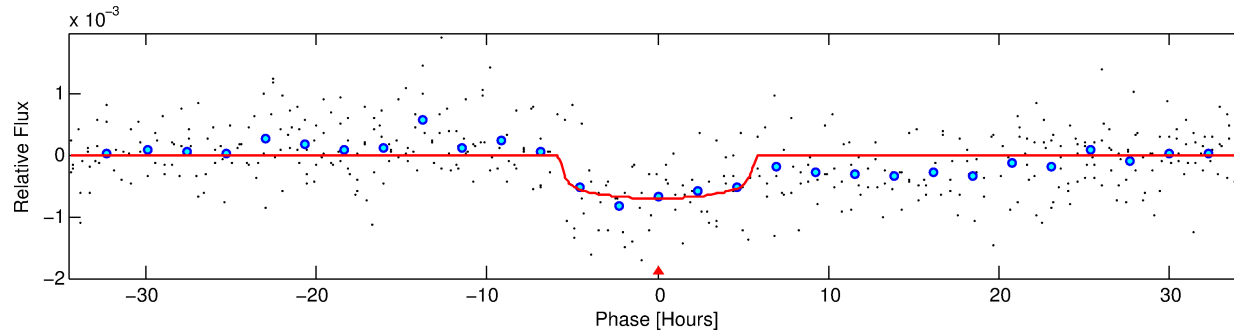
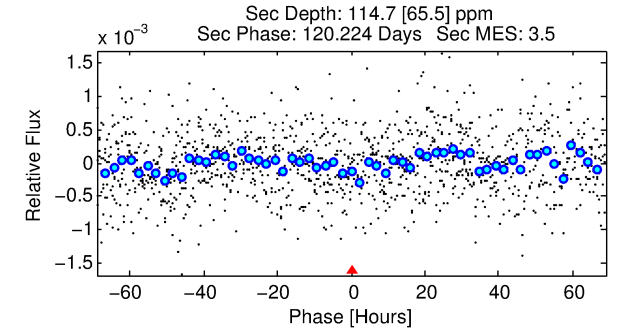
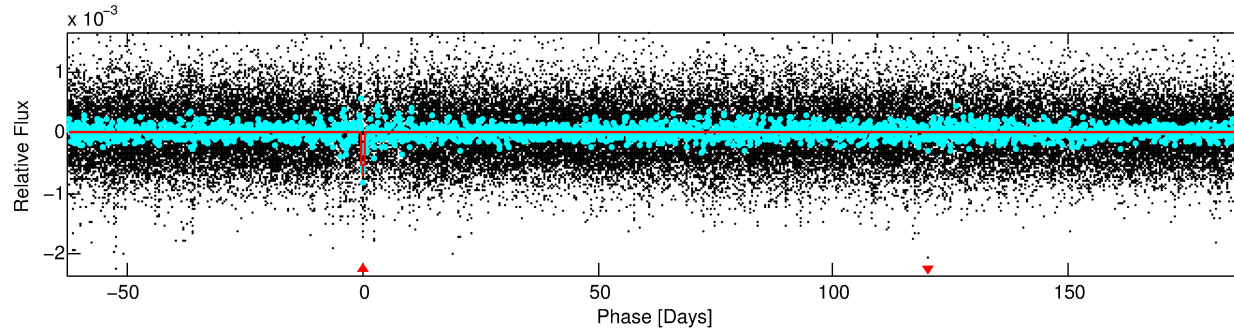
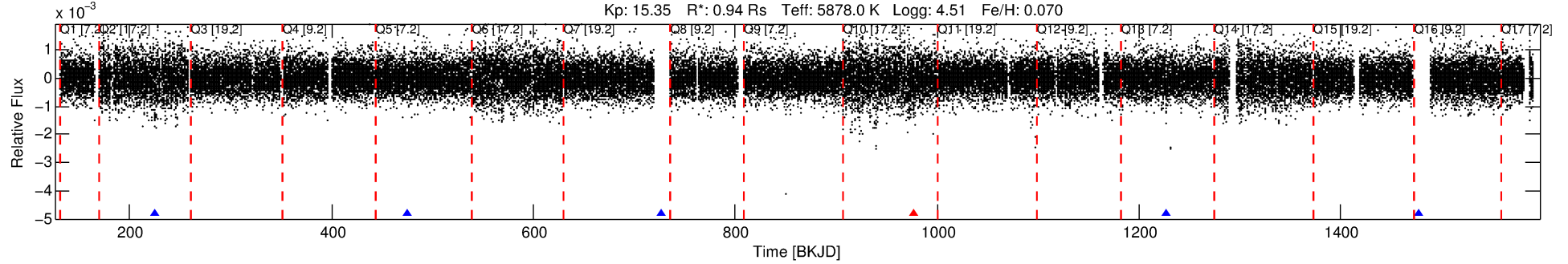
Ephemeris Match Information For 008482059-01

No Significant Match Found

DV One-Page Summary

KIC: 8482059 Candidate: 1 of 1 Period: 250.592 d
KOI: K04247 Corr: No Ephemeris Match

Kp: 15.35 R*: 0.94 Rs Teff: 5878.0 K Logg: 4.51 Fe/H: 0.070



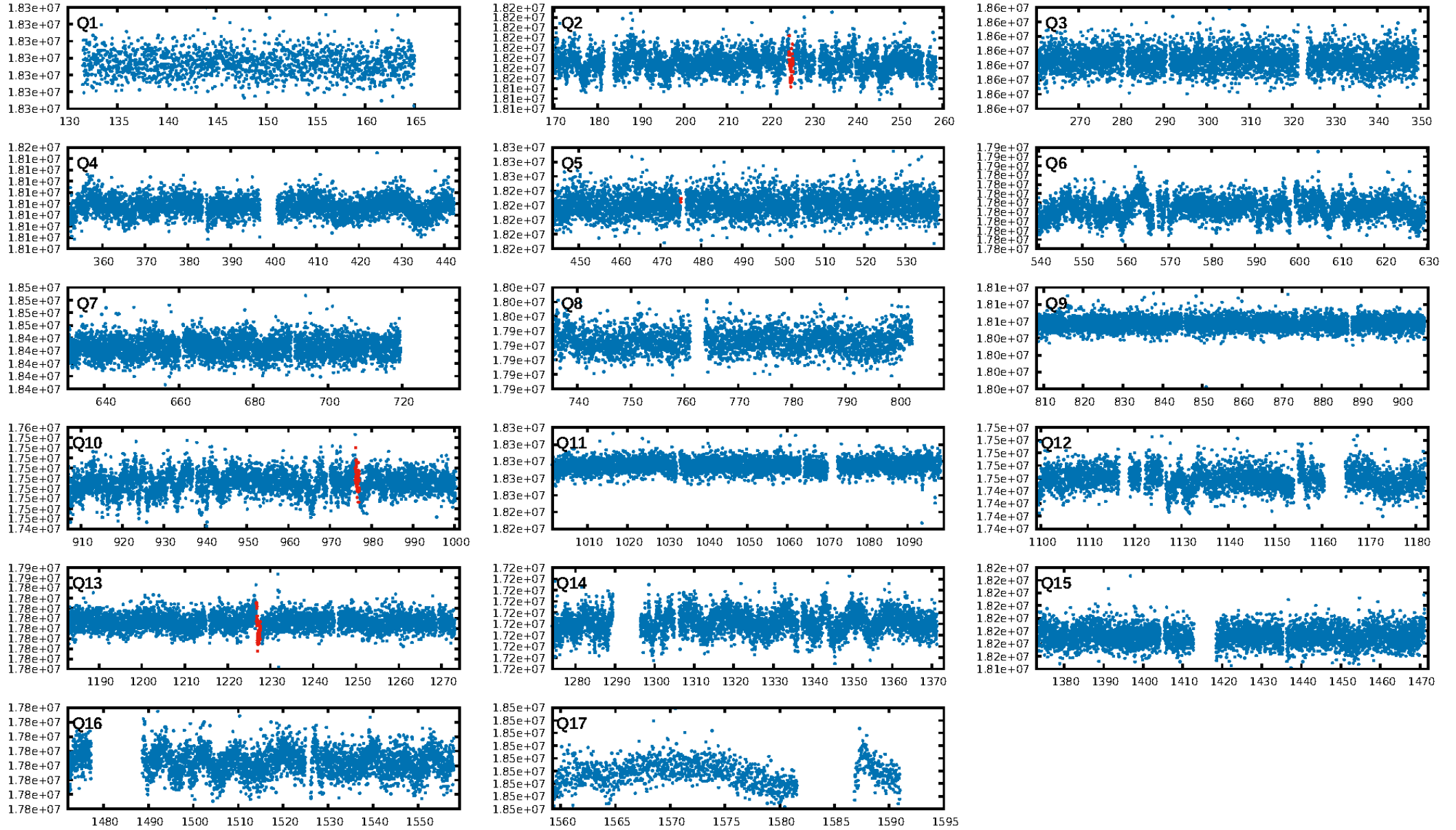
DV Fit Results:

Period = 250.59157 [0.00677] d
Epoch = 224.8332 [0.0224] BKJD
Rp/R* = 0.0246 [0.0199]
a/R* = 154.69 [557.61]
b = 0.43 [6.81]
Seff = 1.52 [0.52]
Teq = 283 [24] K
Rp = 2.53 [2.14] Re
a = 0.7930 [0.1670] AU
Ag = 6180.43 [10784.12] [0.57σ]
Teffp = 3881 [1670] K [2.15σ]

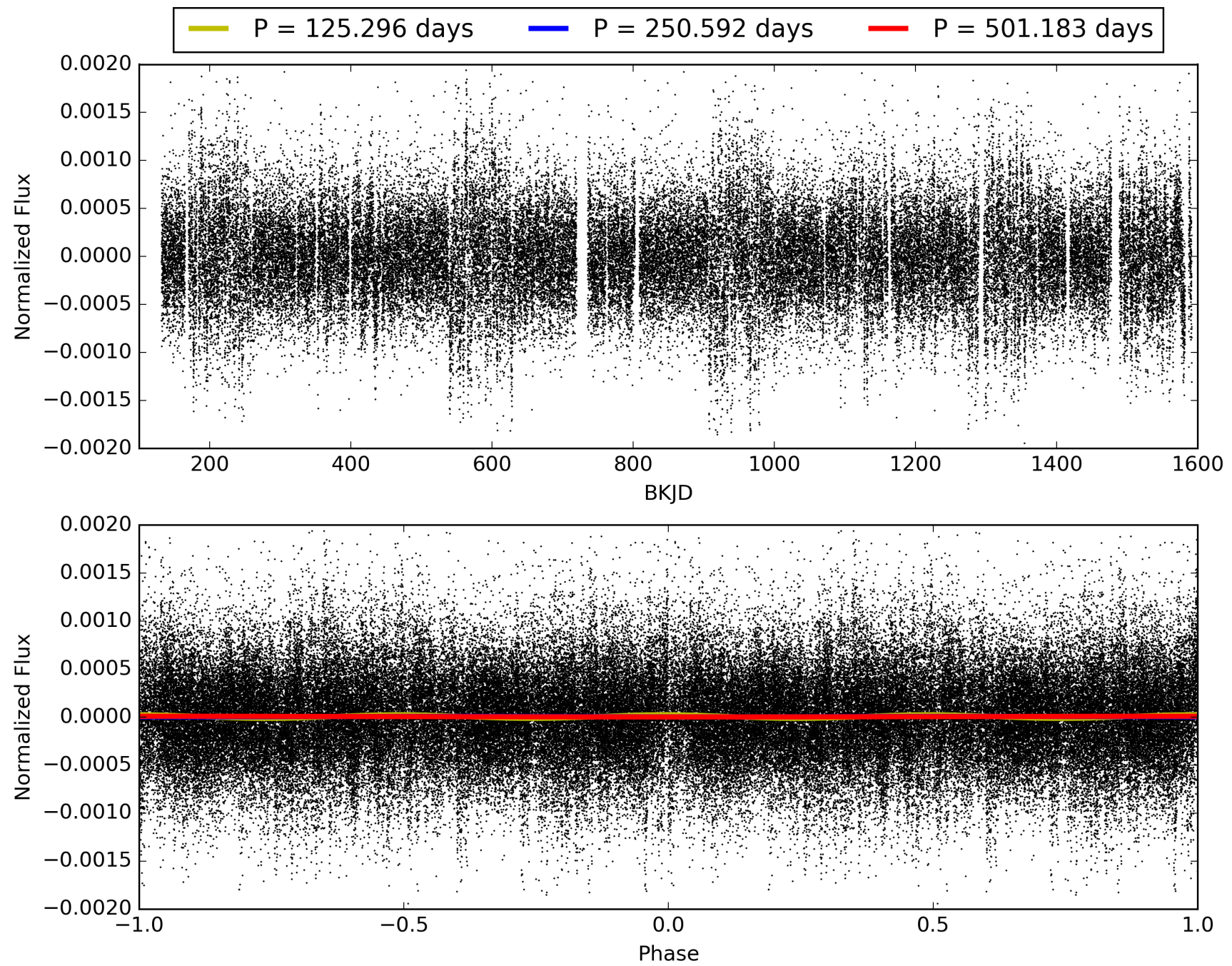
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.0%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 3.47e-10
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 6.817
Centroid-sig: 87.1%
Centroid-so: 0.759 arcsec [0.38σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

TCE 008482059-01, PDC Light Curves

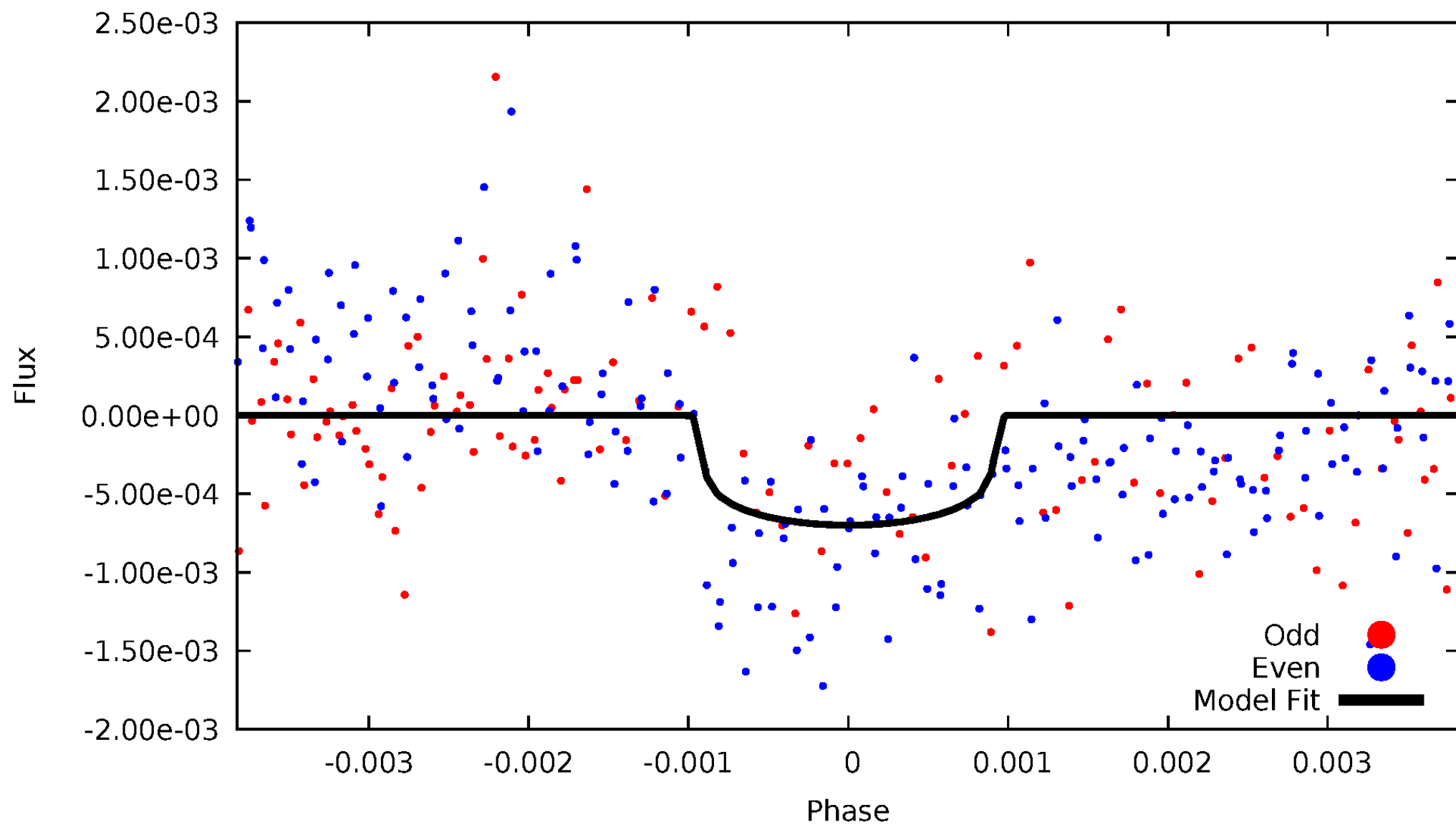


TCE 008482059-01



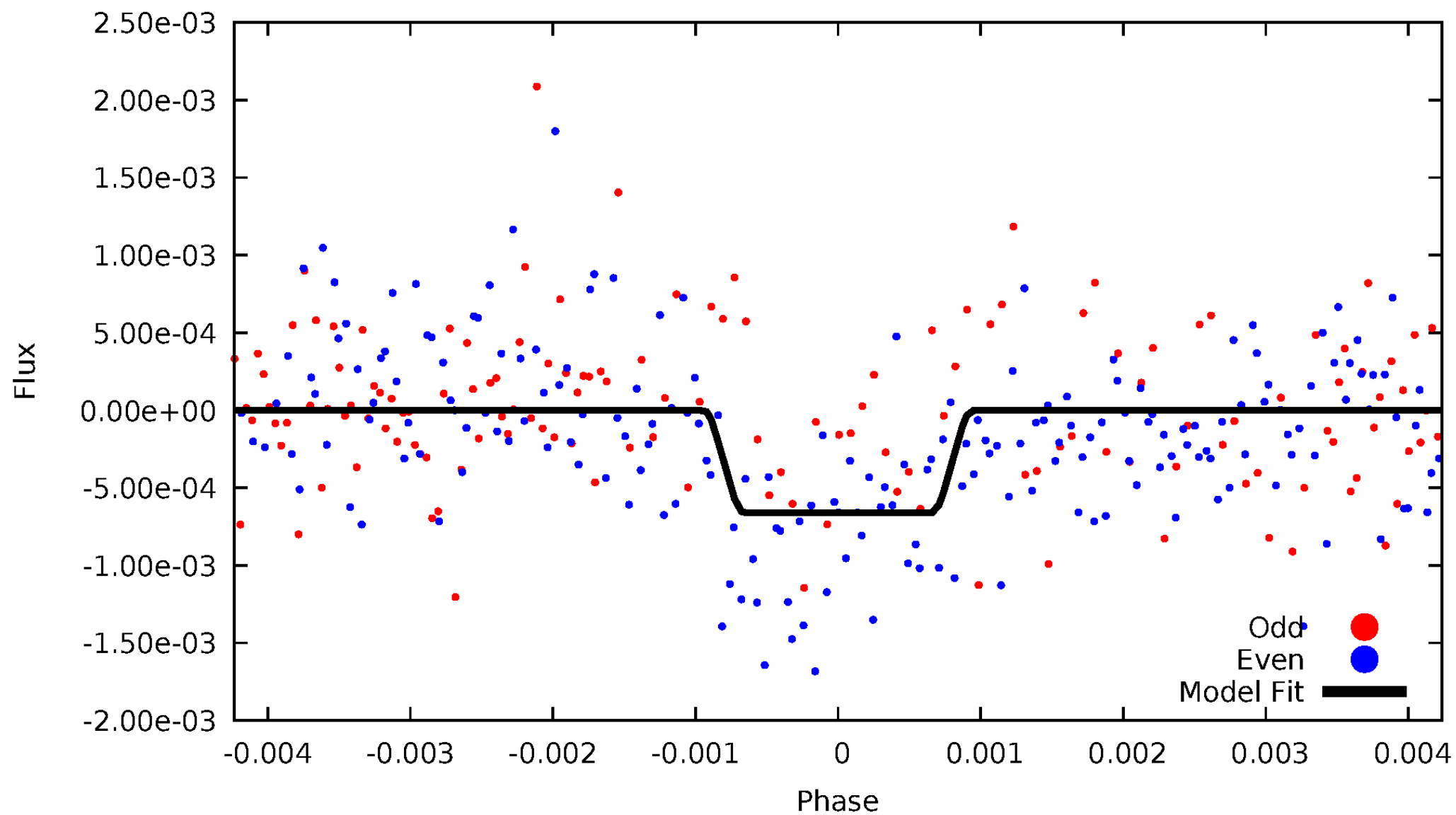
DV Odd/Even

TCE 008482059-01



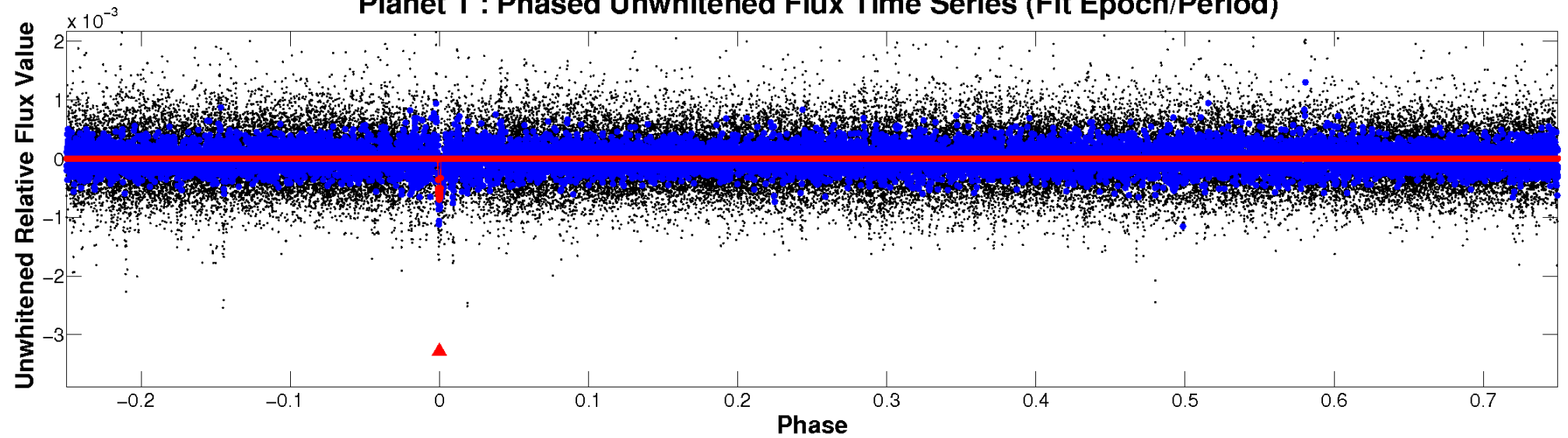
ALT Odd/Even

TCE 008482059-01

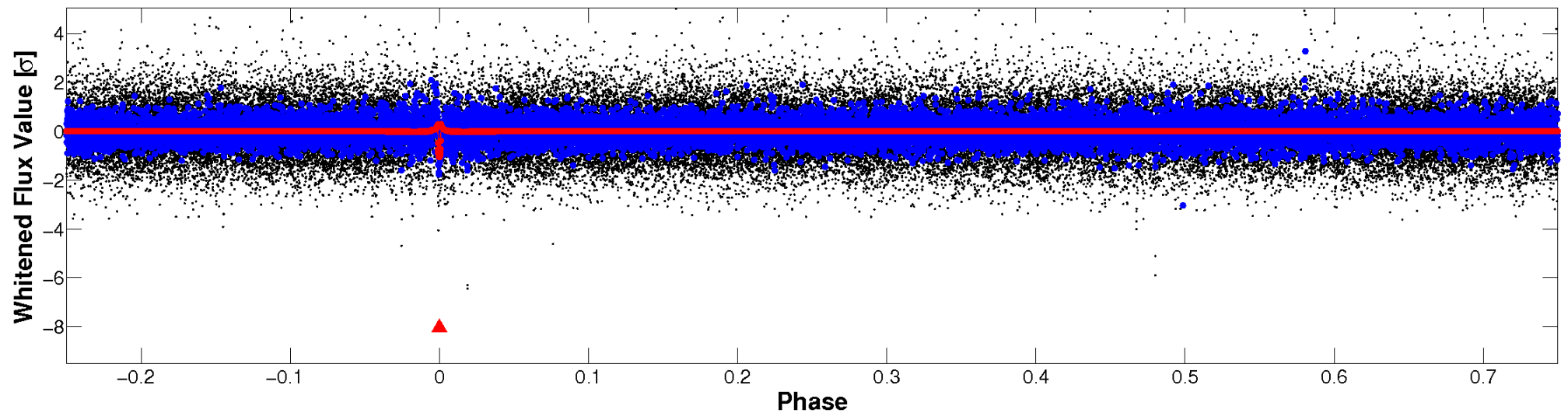


Non-Whitened Vs. Whitened Light Curve

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

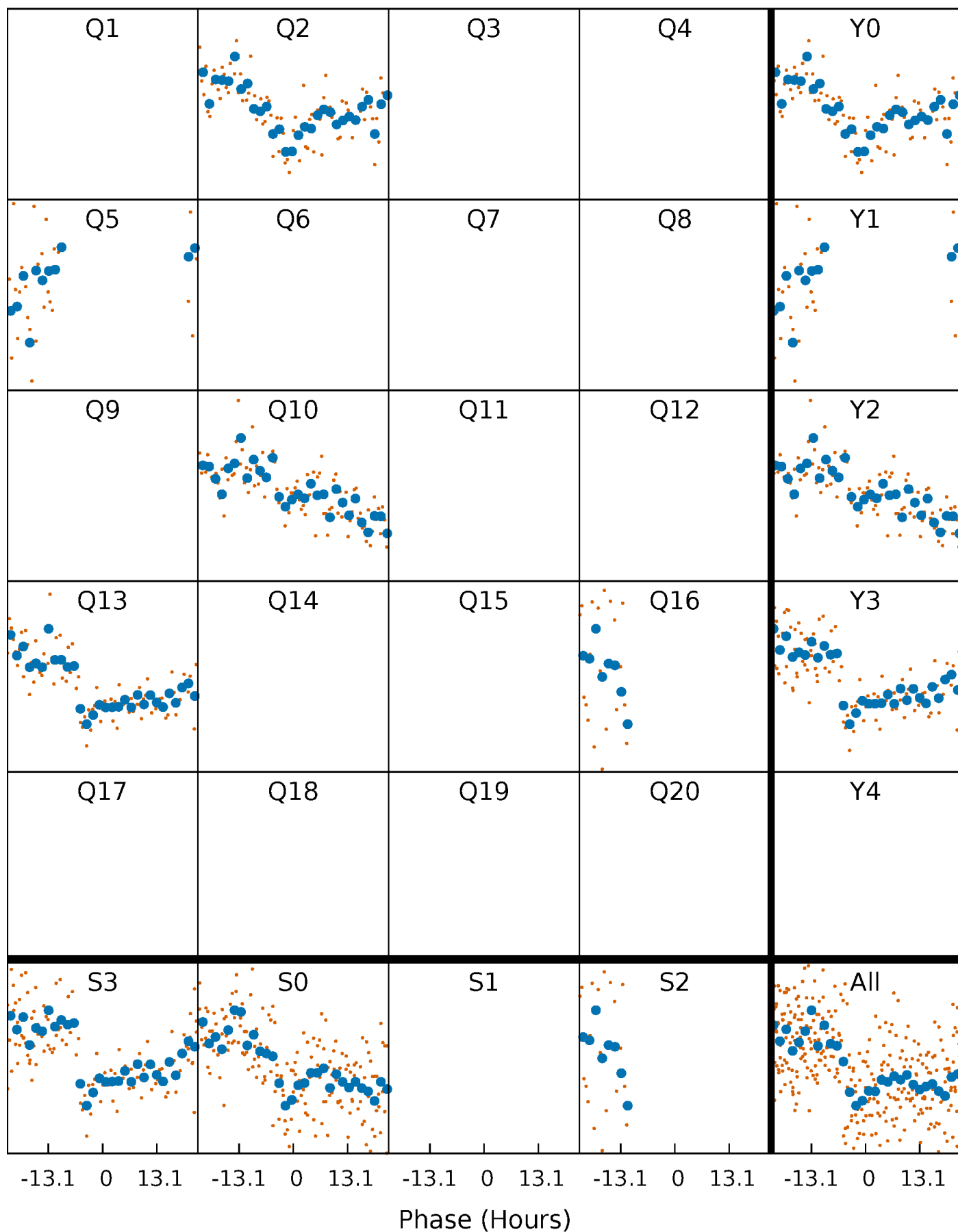


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



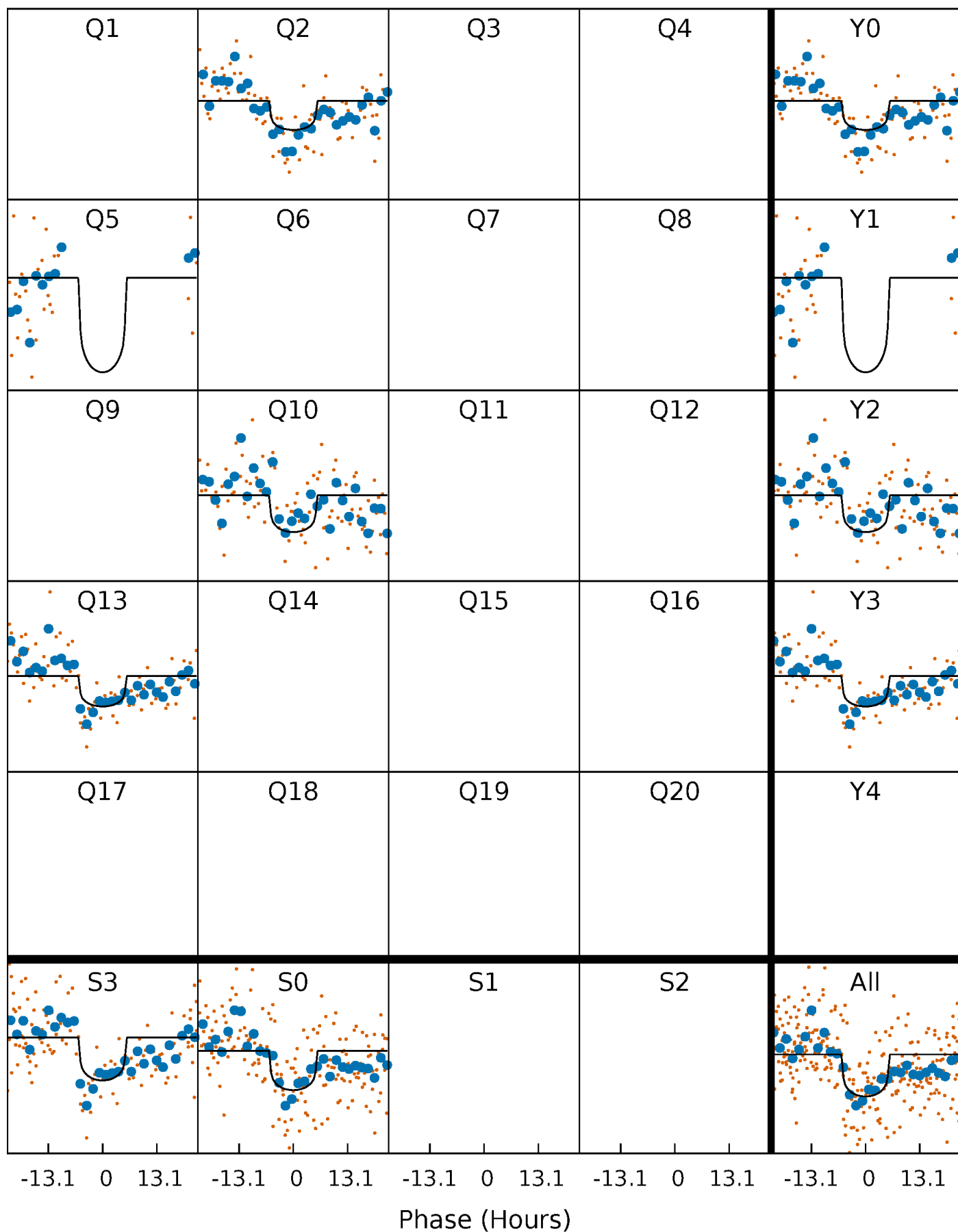
PDC Quarter-Phased Transit Curves

TCE 008482059-01 P=250.591571 Days $T_0=224.833192$ (BKJD)



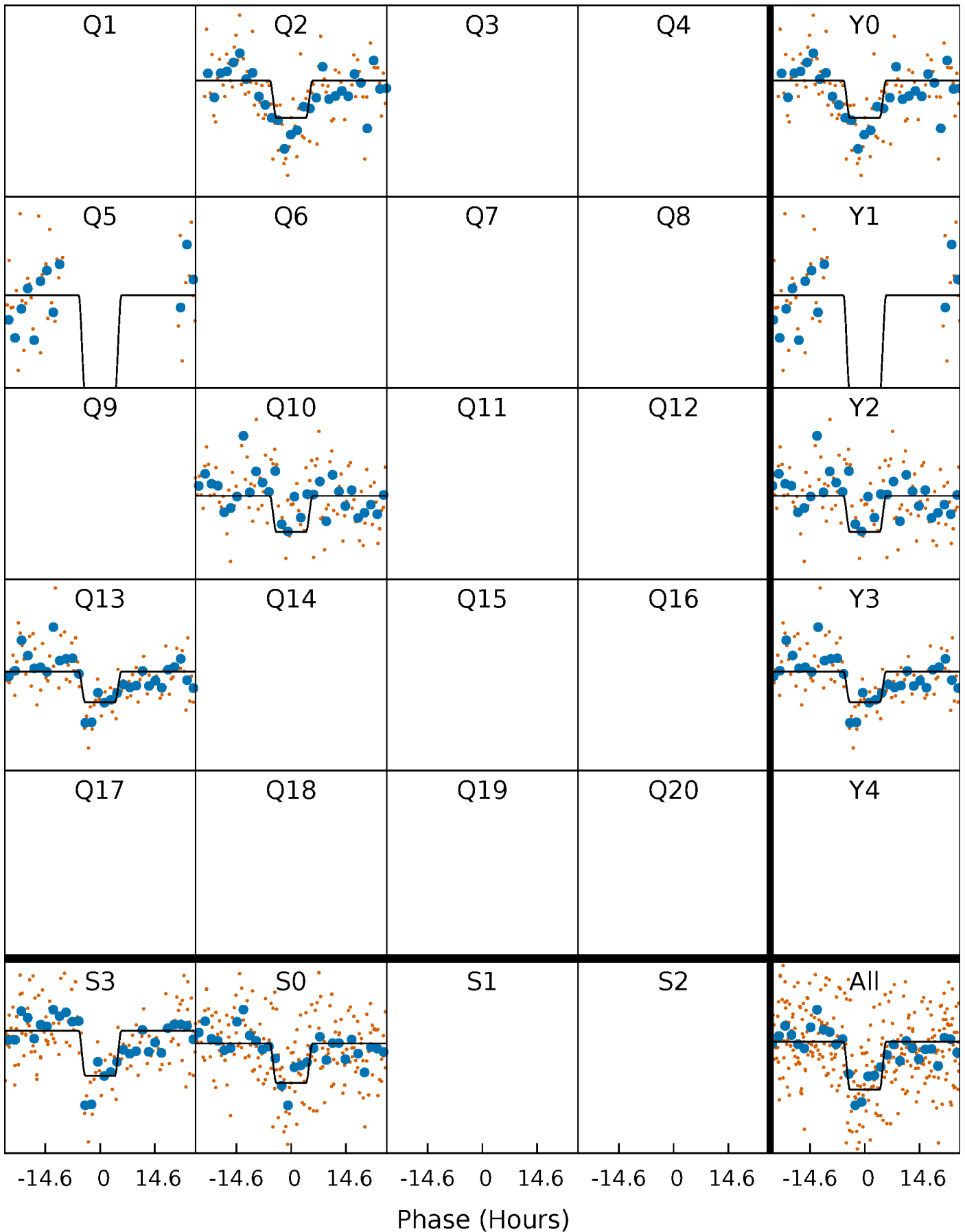
DV Quarter-Phased Transit Curves

TCE 008482059-01 P=250.591571 Days $T_0=224.833192$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

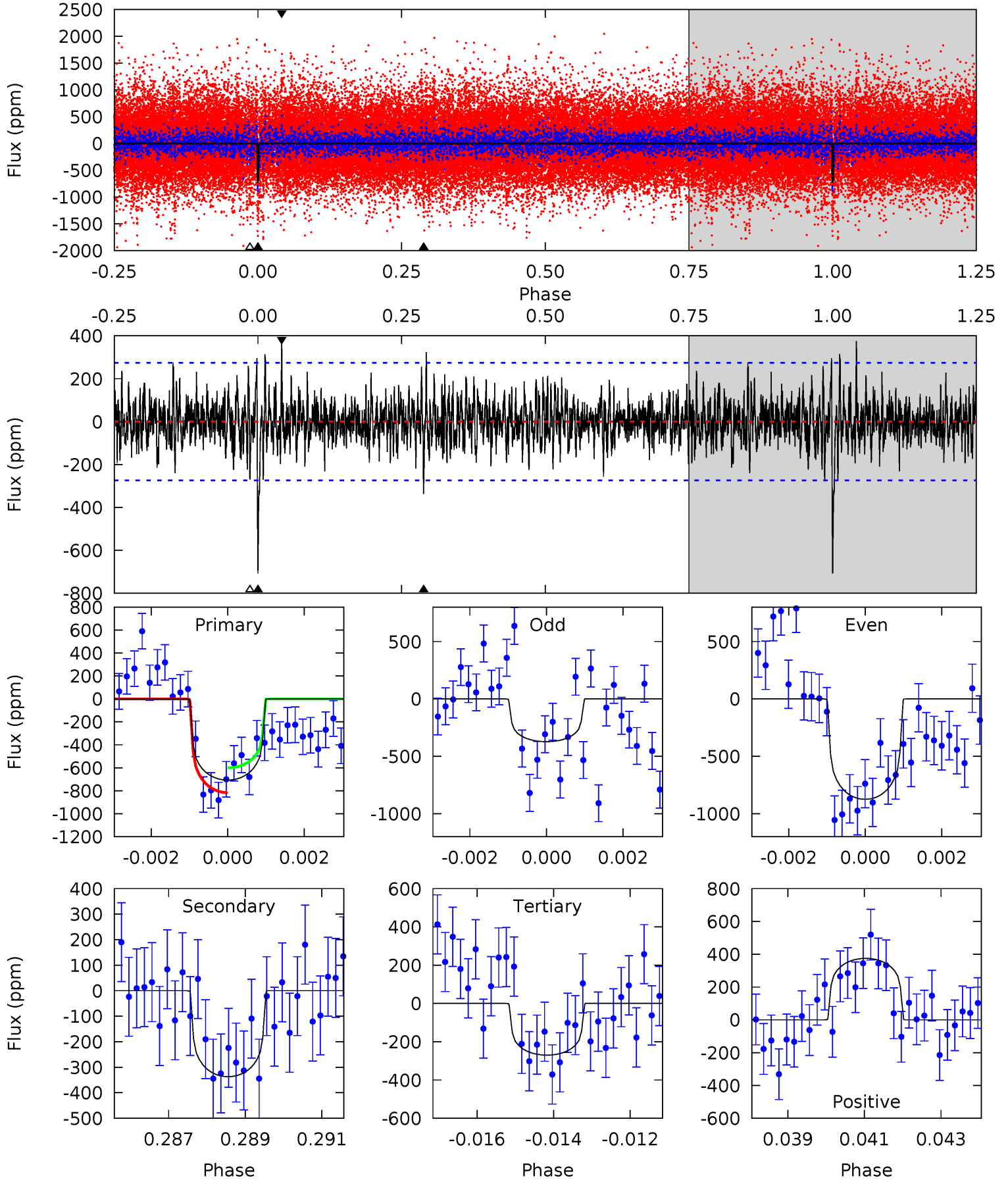
TCE 008482059-01 P=250.583558 Days $T_0=224.833667$ (BKJD)



DV Model-Shift Uniqueness Test

008482059-01, P = 250.591571 Days, E = 224.833192 Days

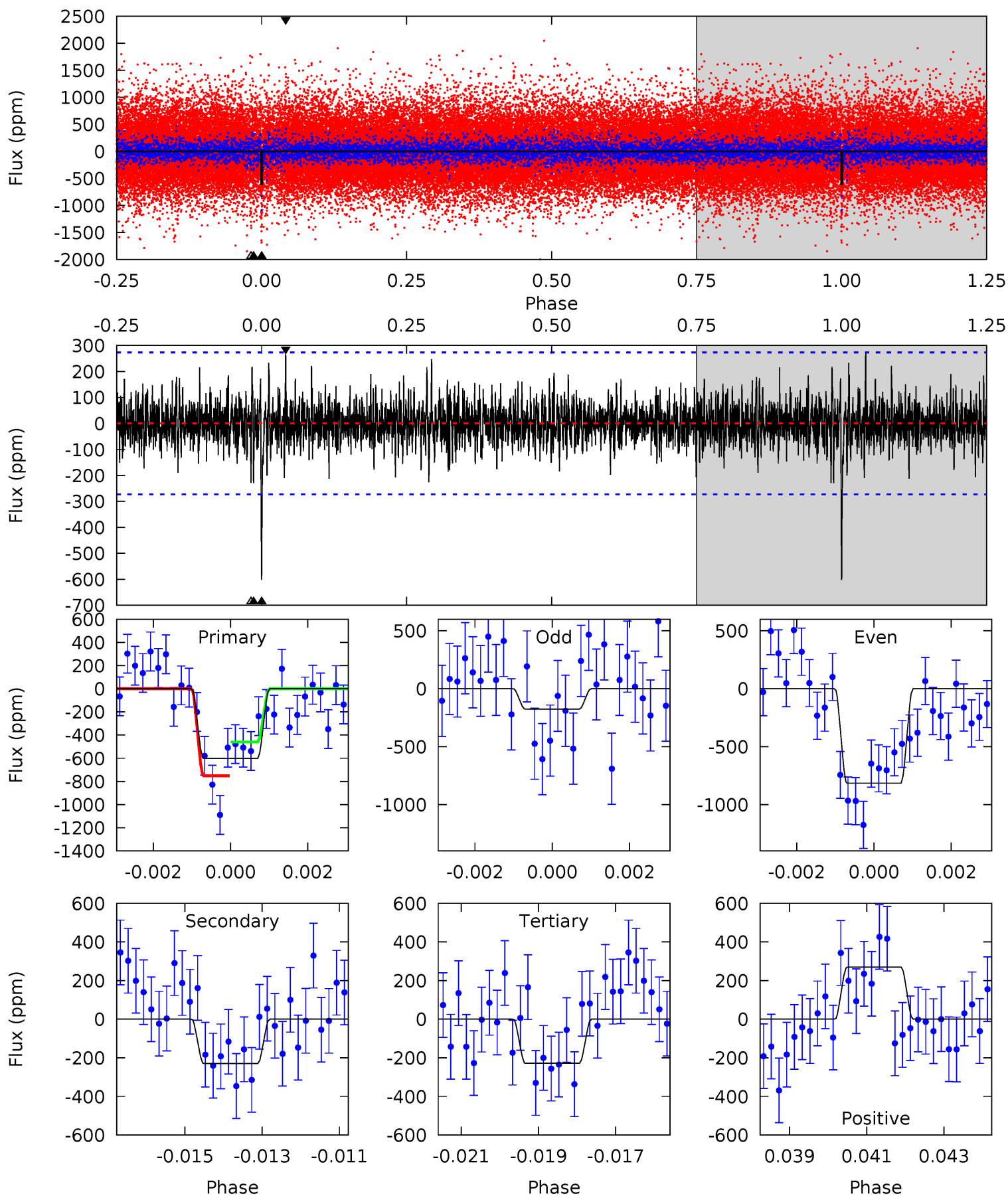
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	6.55	5.25	7.28	5.33	3.10	1.53	8.50	6.46	1.30	-0.73	4.62	0.89	0.35	2.11



Alt Model-Shift Uniqueness Test

008482059-01, P = 250.583558 Days, E = 224.833667 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	4.48	4.46	5.26	5.34	3.11	1.18	7.30	6.51	0.02	-0.78	5.95	0.78	0.31	2.86



Stellar Parameters For KIC 008482059

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5878^{+140}_{-192}	$4.512^{+0.044}_{-0.176}$	$0.070^{+0.250}_{-0.300}$	$0.945^{+0.229}_{-0.082}$	$1.058^{+0.092}_{-0.139}$	$1.768^{+0.391}_{-0.794}$
	+2%/-3%	+1%/-4%	+357%/-429%	+24%/-9%	+9%/-13%	+22%/-45%
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 008482059-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-337 ± 51	$3.05^{+1.94}_{-1.73}$	404^{+25}_{-19}	4809^{+2445}_{-828}	12085^{+55853}_{-7590}
Alt.	-229 ± 51	$2.98^{+2.06}_{-1.62}$	403^{+26}_{-18}	4482^{+1897}_{-778}	8621^{+32082}_{-5719}

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

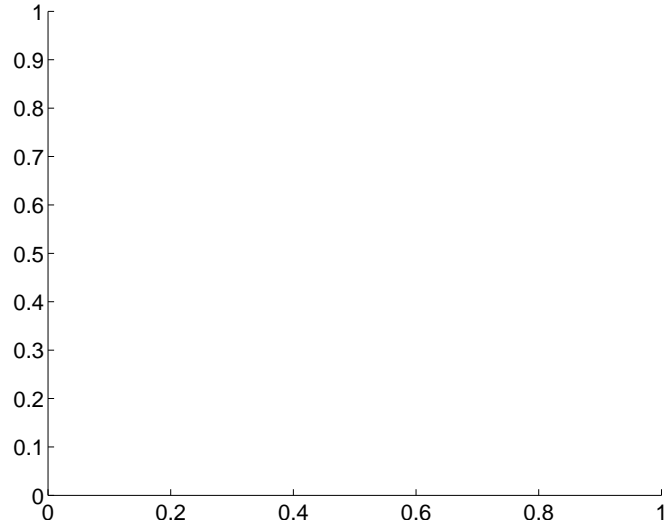
Supplemental centroid analysis for 008482059-01. Kepler magnitude: 15.35. Transit SNR 8.17

There are 0 quarters with good PRF difference image offsets

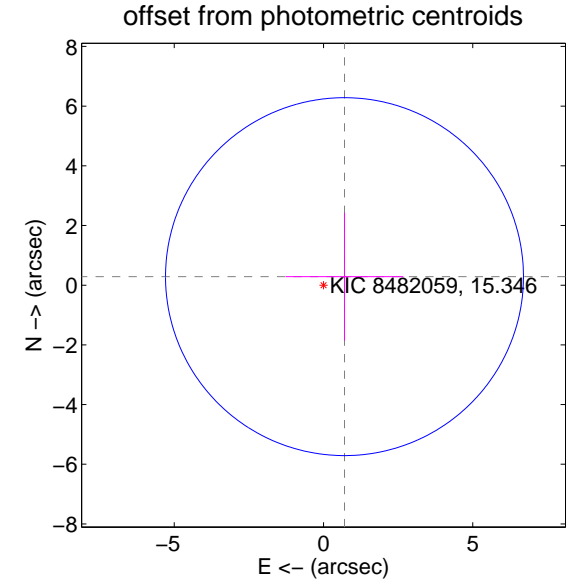
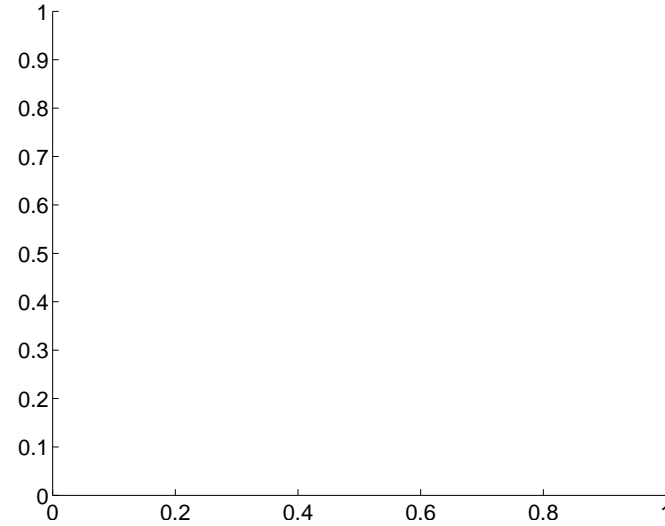
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.76 ± 2.00	0.38	-0.70 ± 1.97	0.29 ± 2.14

There is no PRF-fit offset from OOT-fit

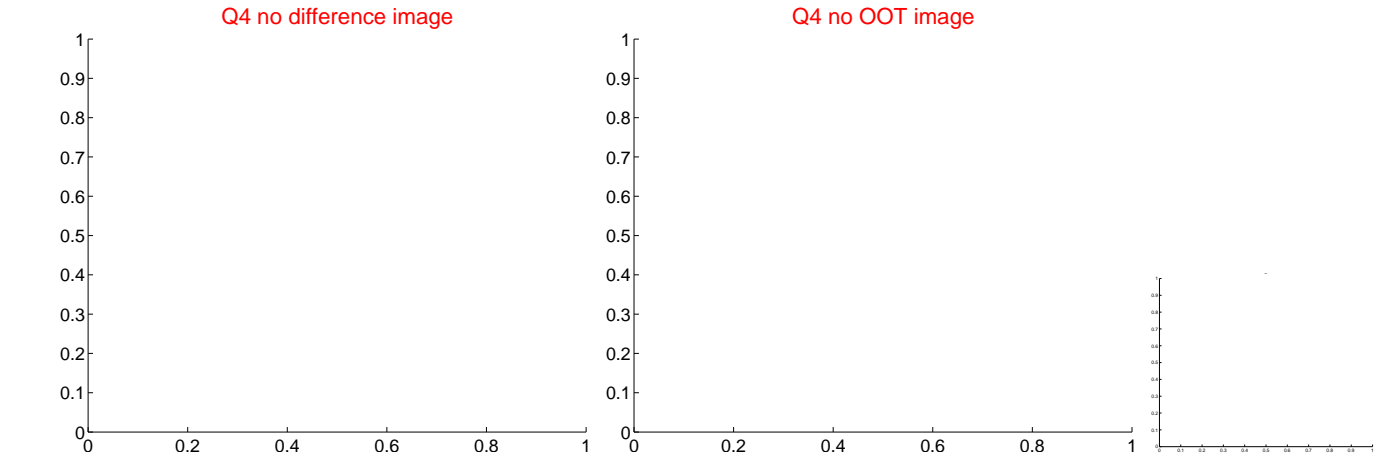
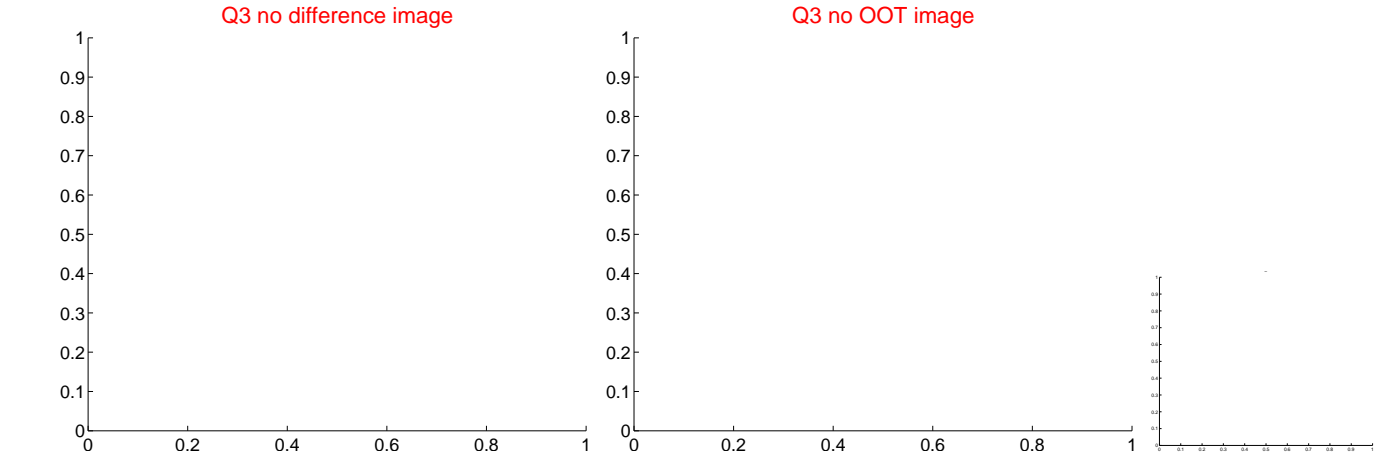
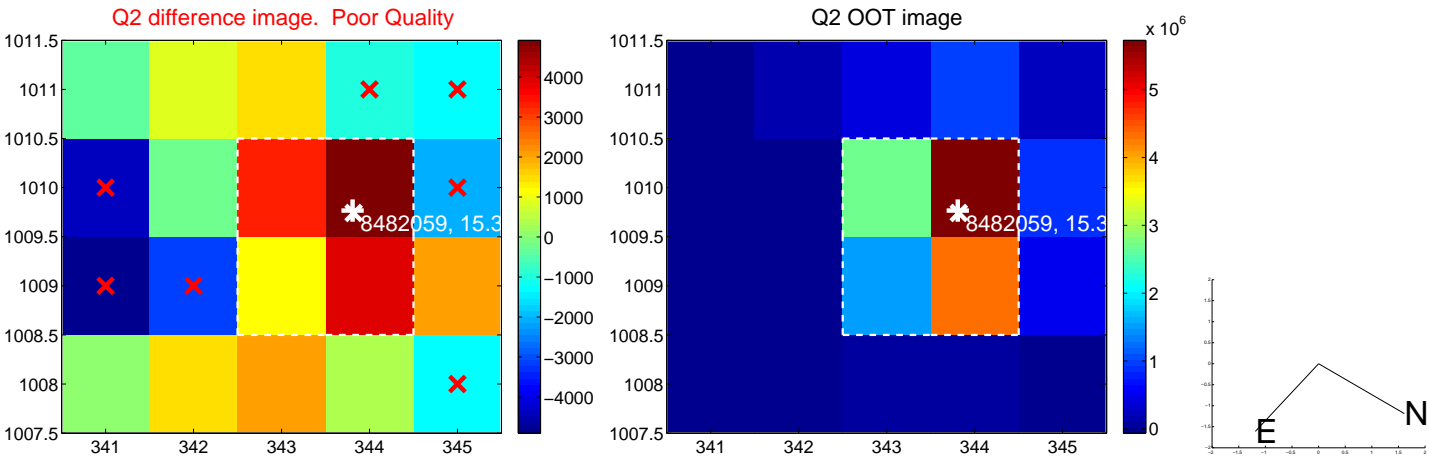
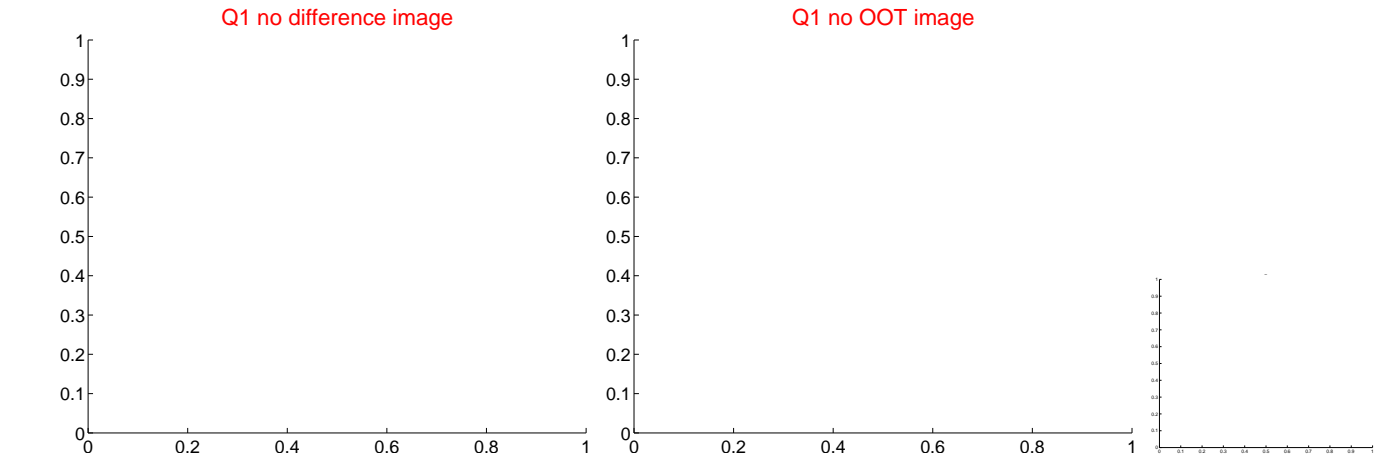


There is no PRF-fit offset from KIC

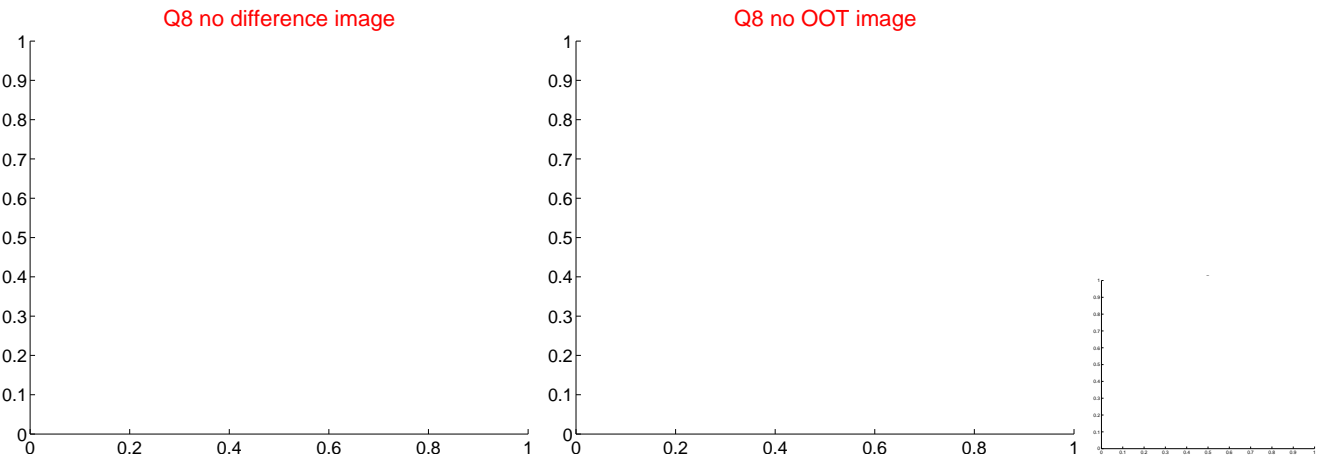


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

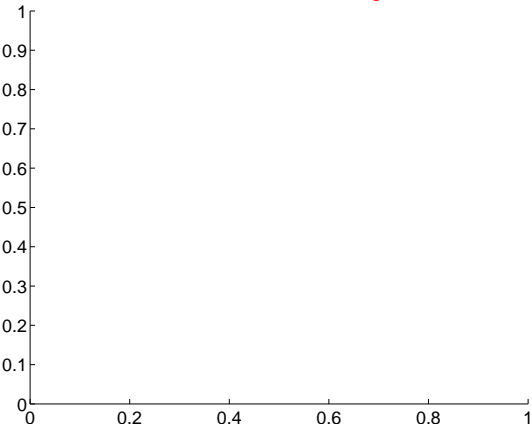


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

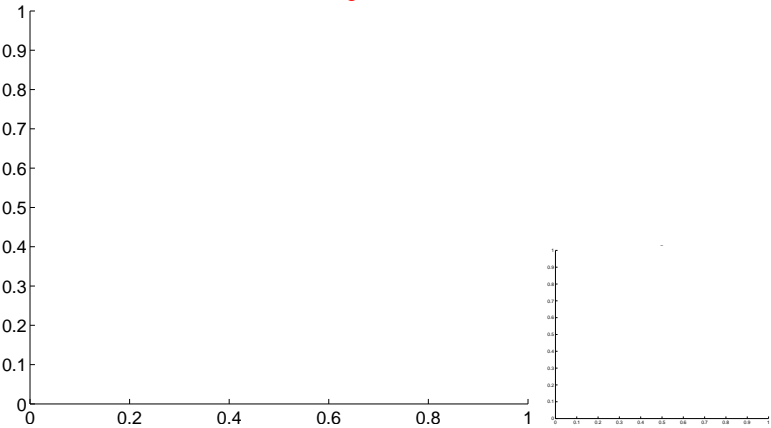


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

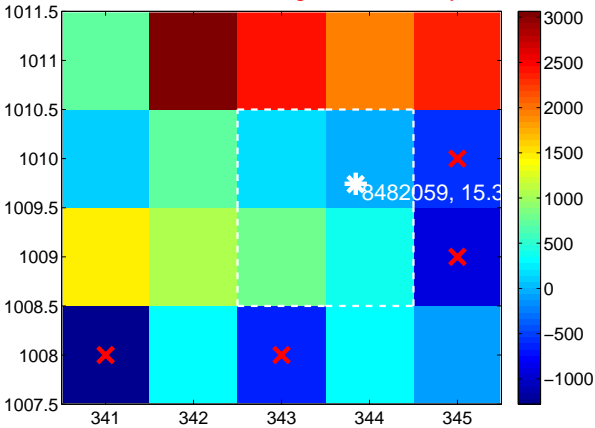
Q9 no difference image



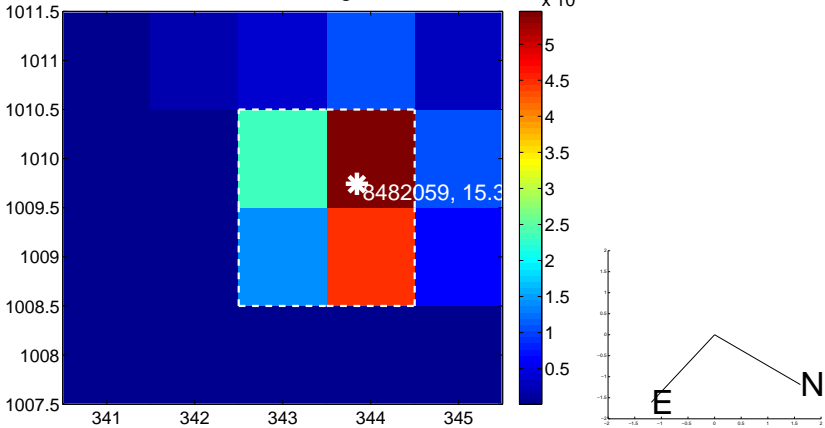
Q9 no OOT image



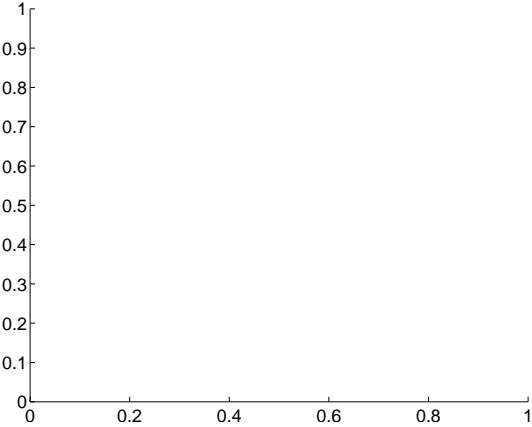
Q10 difference image. Poor Quality



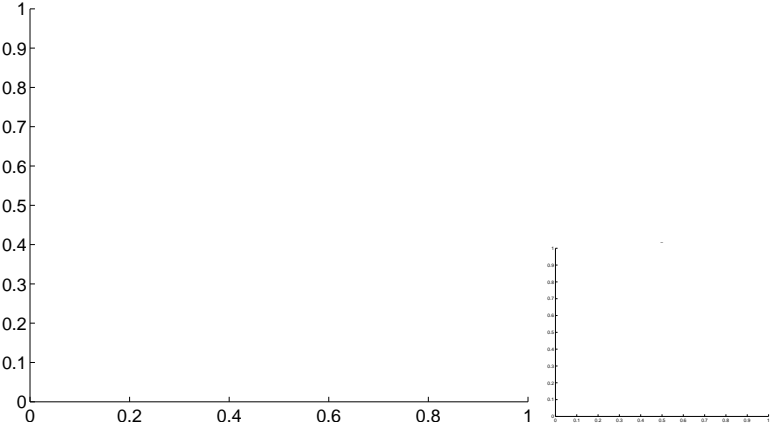
Q10 OOT image



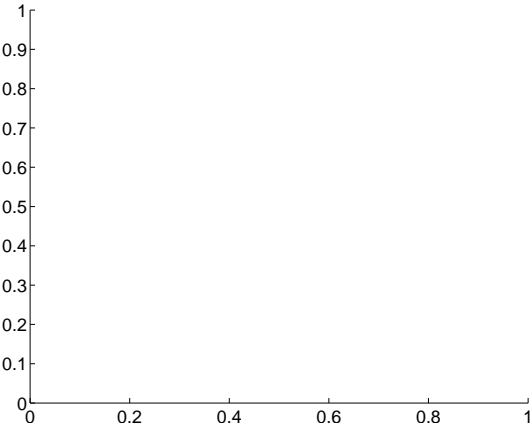
Q11 no difference image



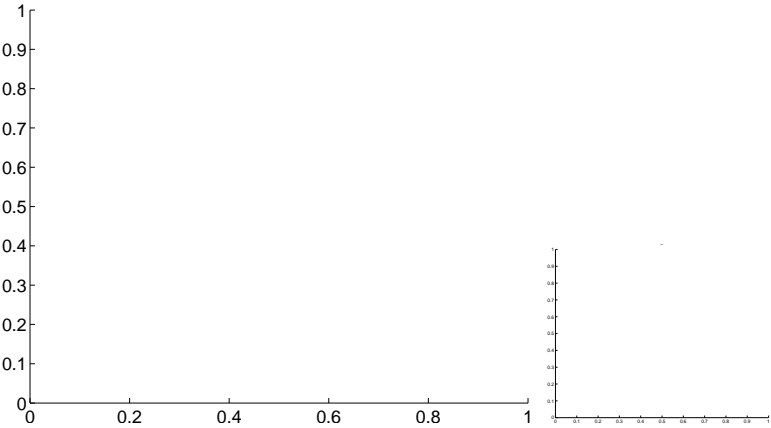
Q11 no OOT image



Q12 no difference image



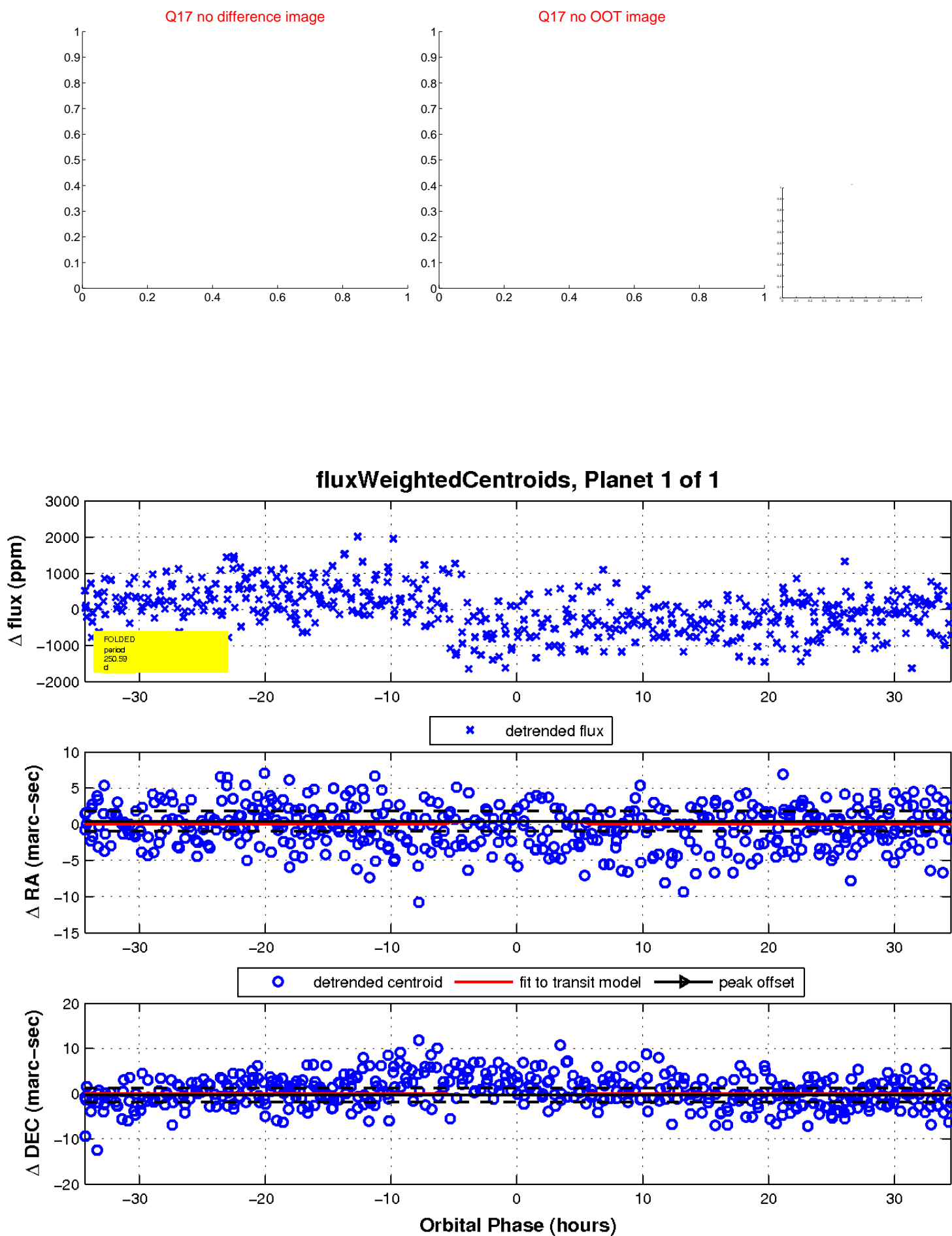
Q12 no OOT image



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.



UKIRT Image

Declination

