

KIC 007213311

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})
007213311-01	OBS	5375.01	285.371700	311.303426	491.9	5.031	7.2	8.1	2.76	5142	7.06	7.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007213311-01	OBS	PC	0.18	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.

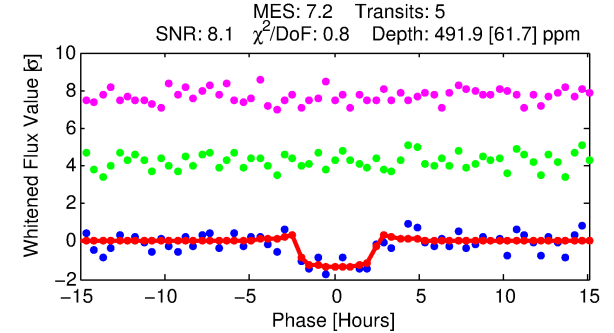
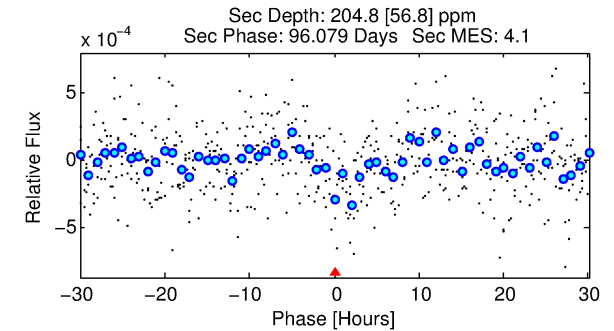
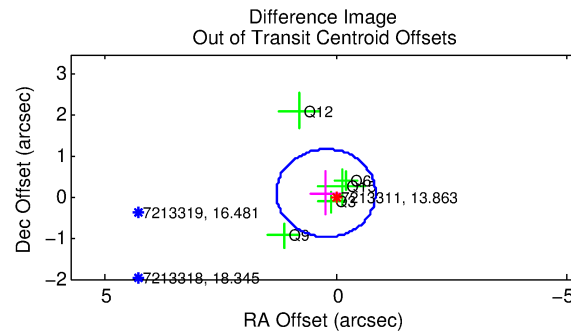
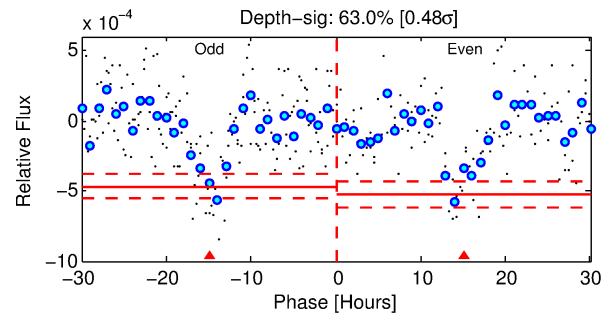
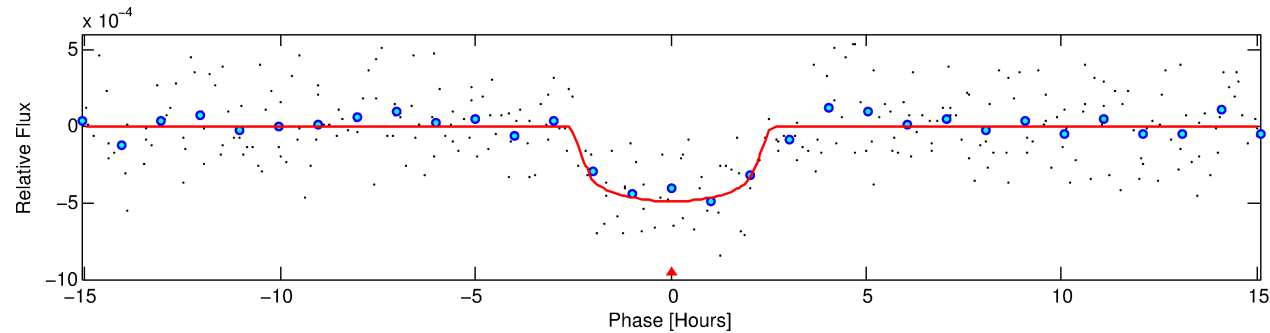
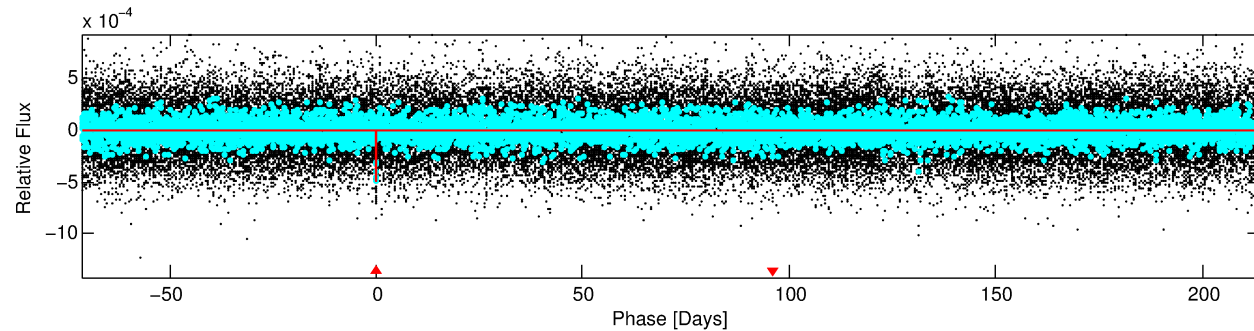
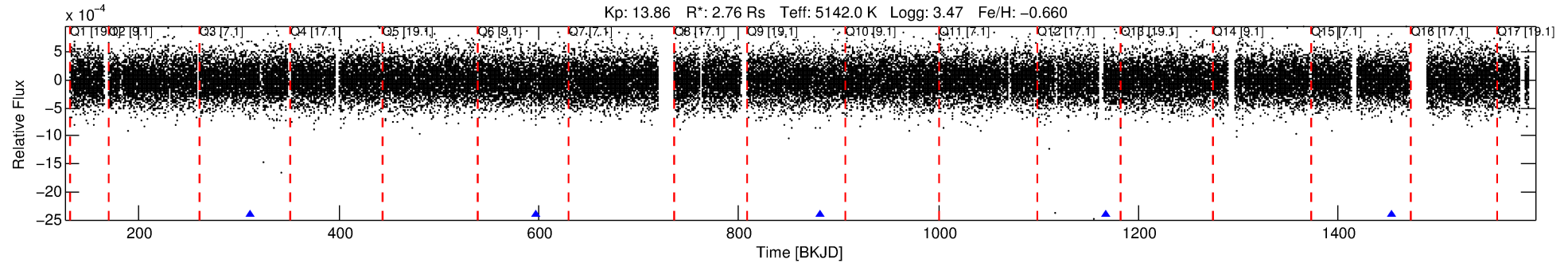
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007213311-01

No Significant Match Found

DV One-Page Summary

KIC: 7213311 Candidate: 1 of 1 Period: 285.372 d
KOI: K05375.01 Corr: 0.957



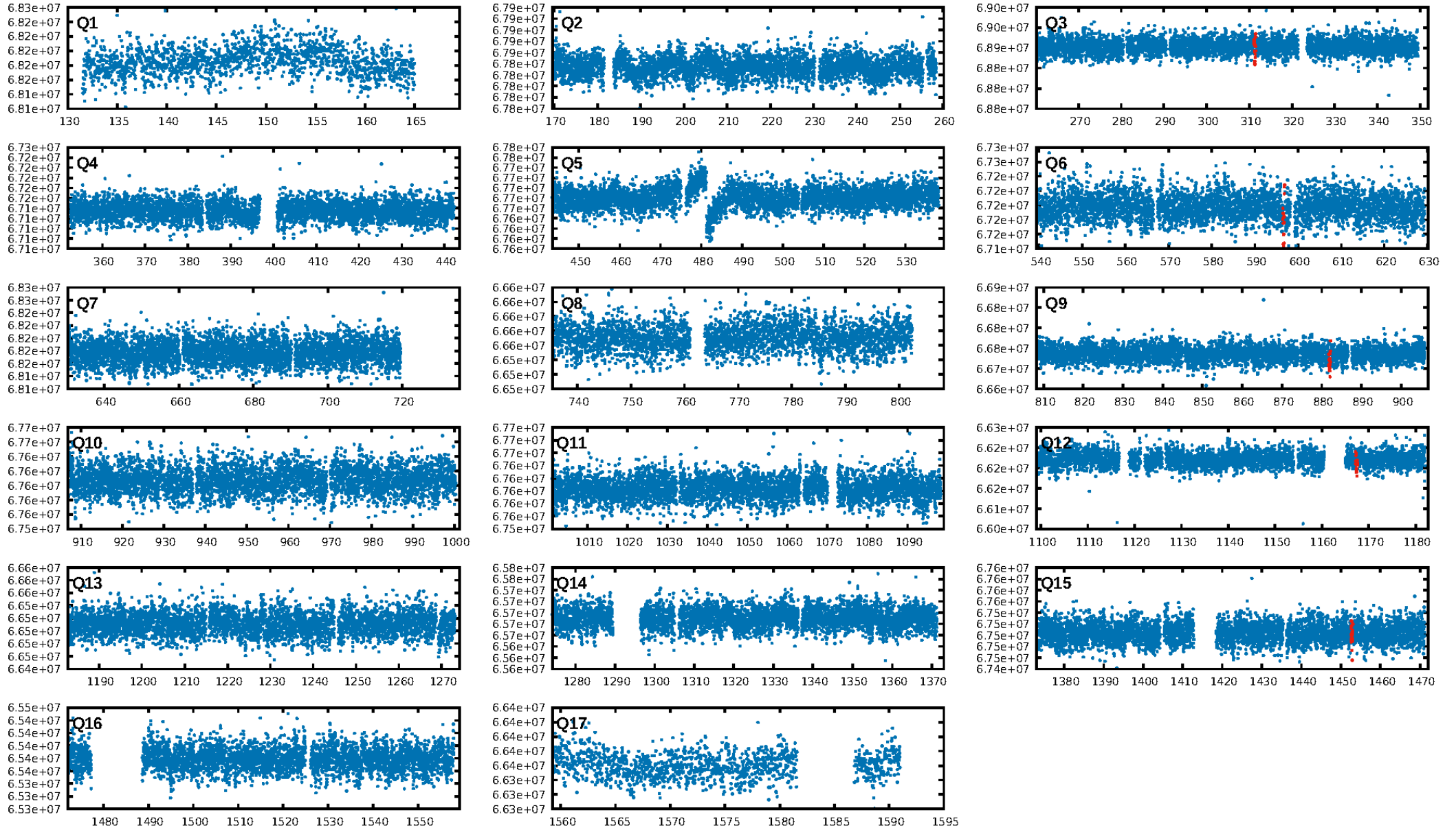
DV Fit Results:

Period = 285.37170 [0.00361] d
Epoch = 311.3034 [0.0086] BKJD
Rp/R* = 0.0235 [0.0079]
a/R* = 241.70 [333.00]
b = 0.86 [0.43]
Seff = 7.56 [14.82]
Teq = 423 [207] K
Rp = 7.06 [5.80] Re
a = 0.7934 [0.8487] AU
Ag = 1422.49 [2967.52] [0.48 σ]
Teffp = 4014 [741] K [4.67 σ]

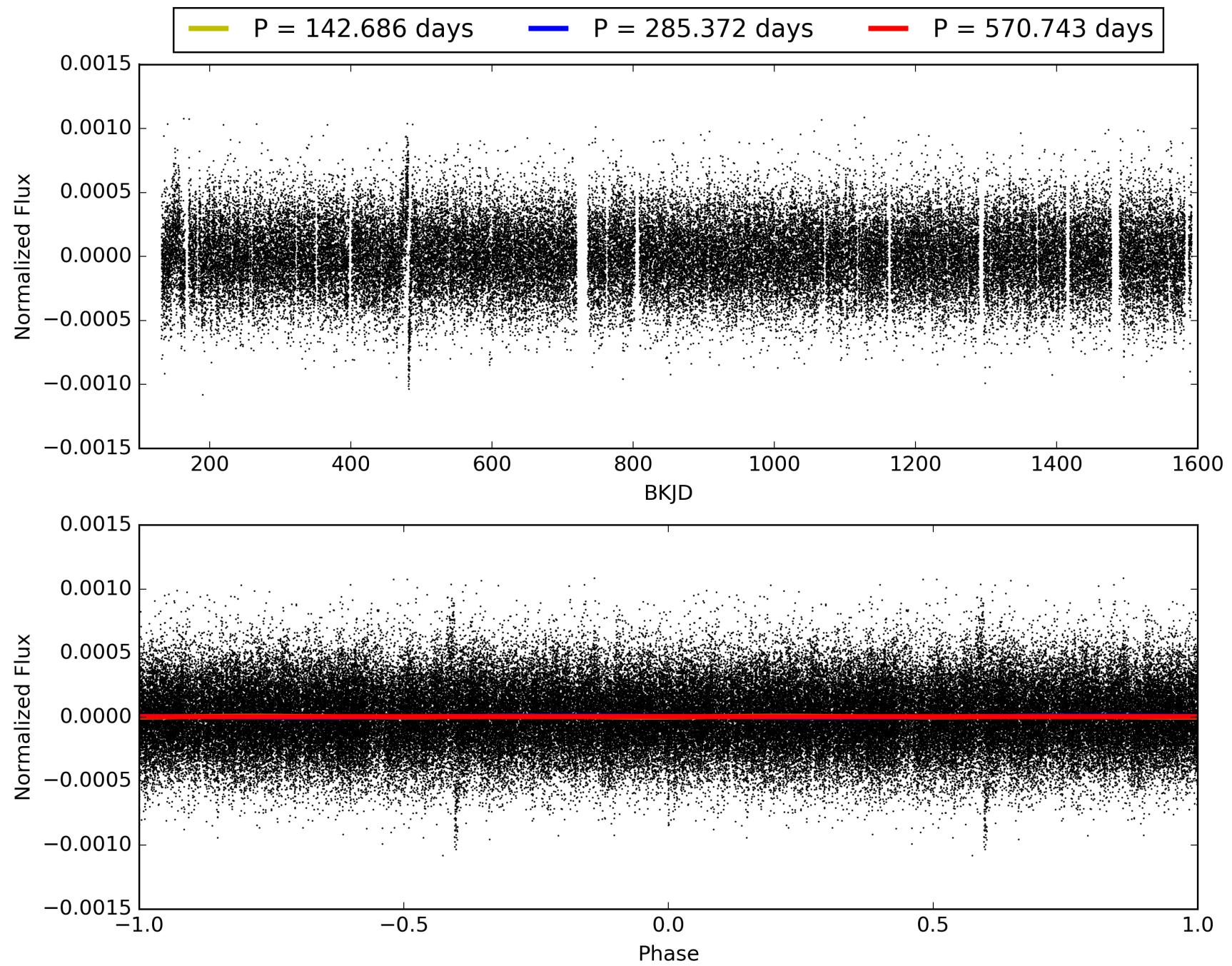
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 59.5%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 6.86e-13
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 7.366
Centroid-sig: 51.4%
Centroid-so: 0.564 arcsec [0.76 σ]
OotOffset-rm: 0.245 arcsec [0.69 σ]
OotOffset-st: 1/2/1/1 [5]
KicOffset-rm: 0.186 arcsec [0.59 σ]
KicOffset-st: 1/2/1/1 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [5/5]

TCE 007213311-01, PDC Light Curves

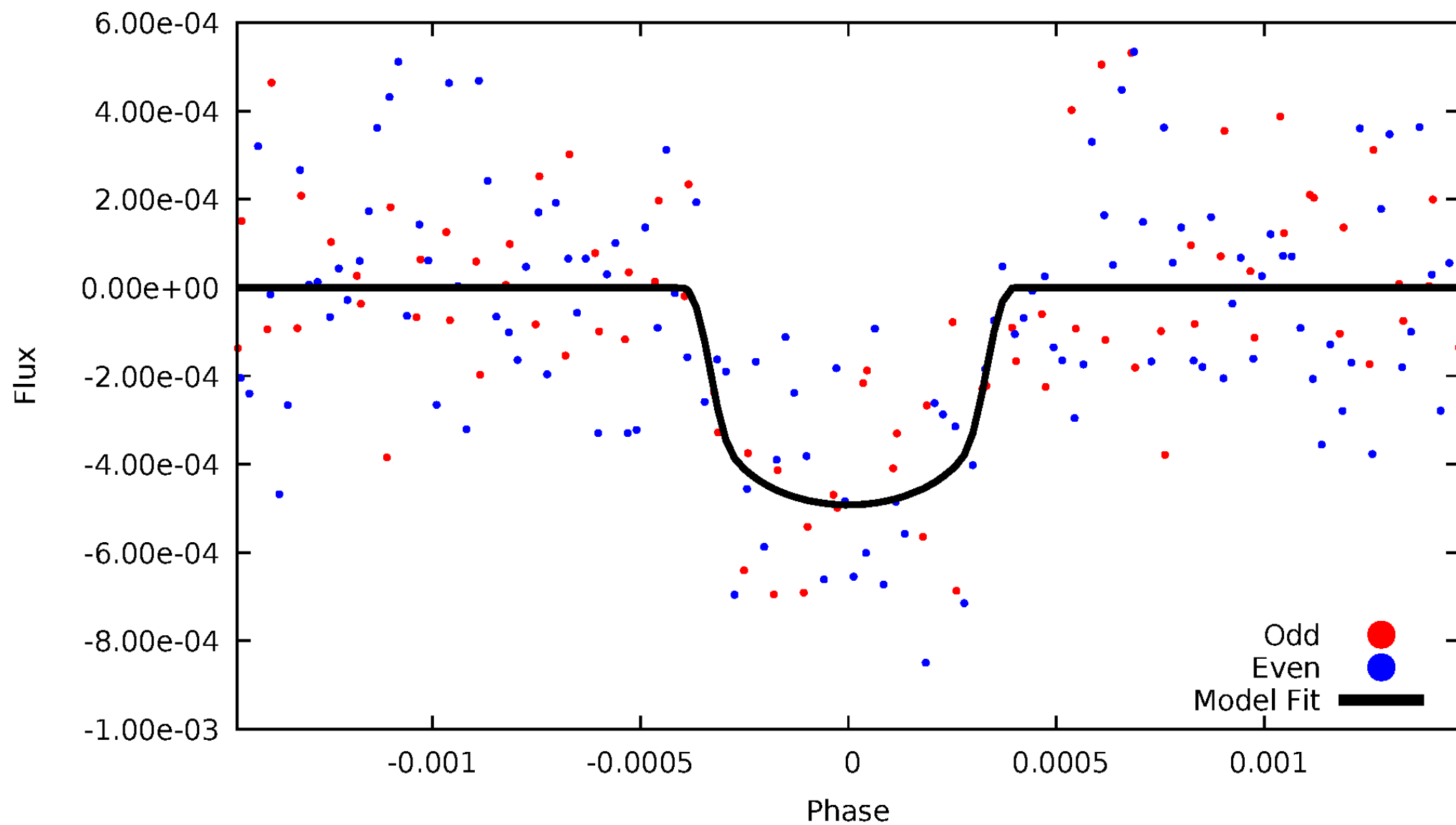


TCE 007213311-01



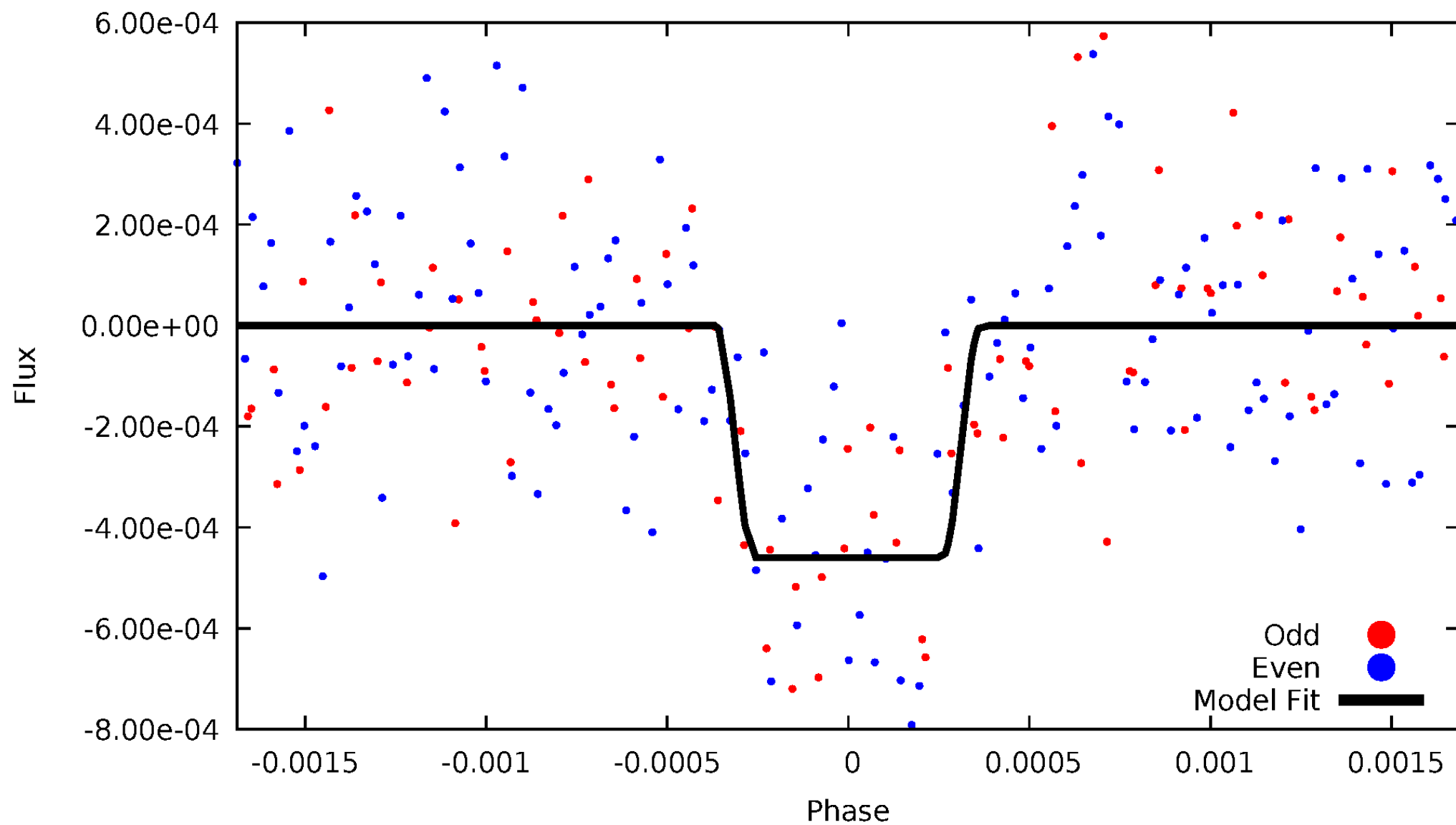
DV Odd/Even

TCE 007213311-01



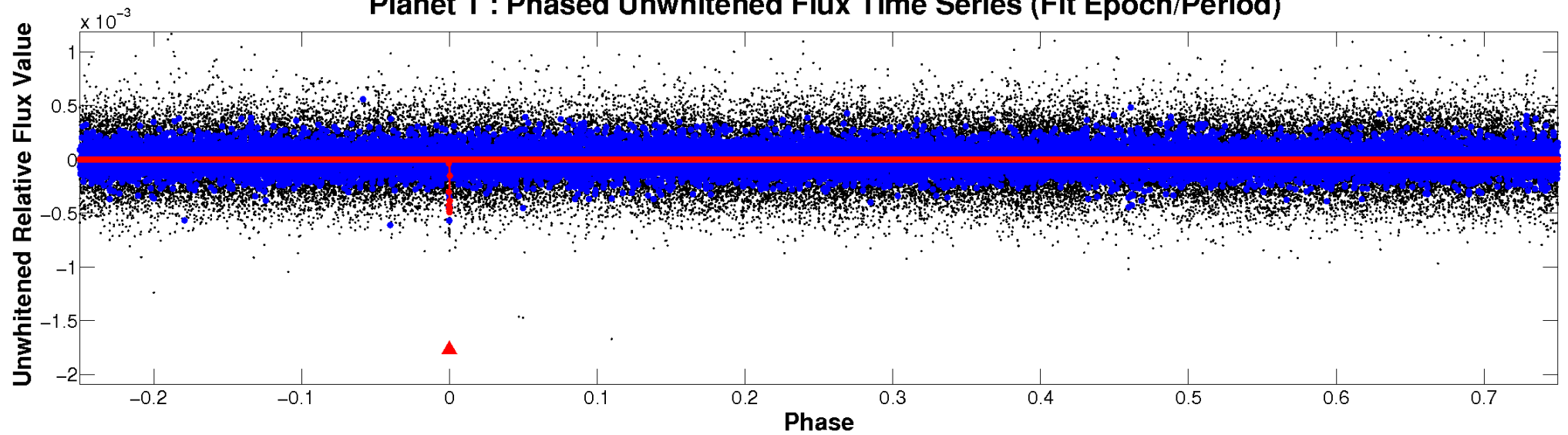
ALT Odd/Even

TCE 007213311-01

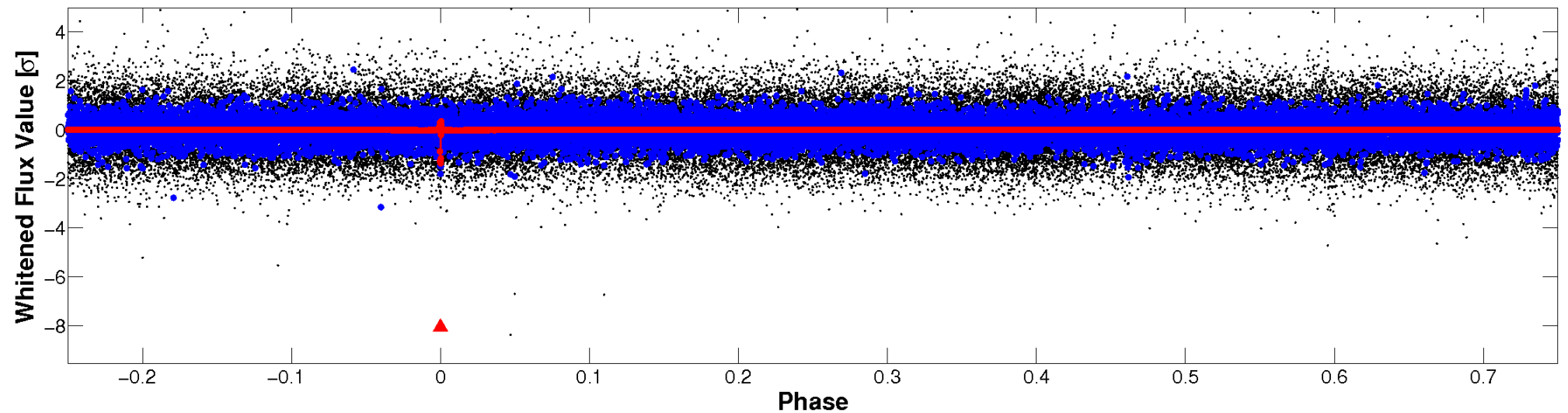


Non-Whitened Vs. Whitened Light Curve

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

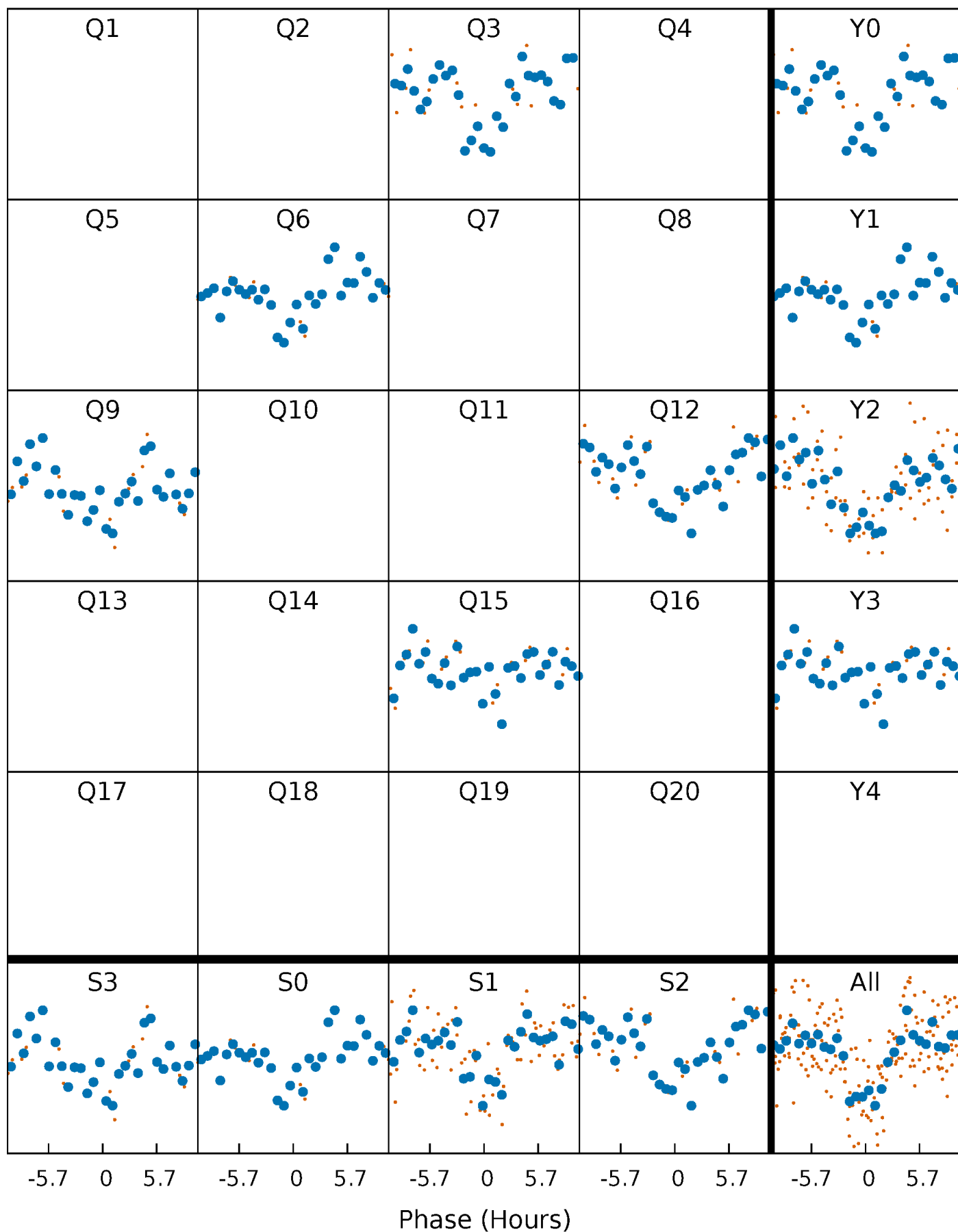


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



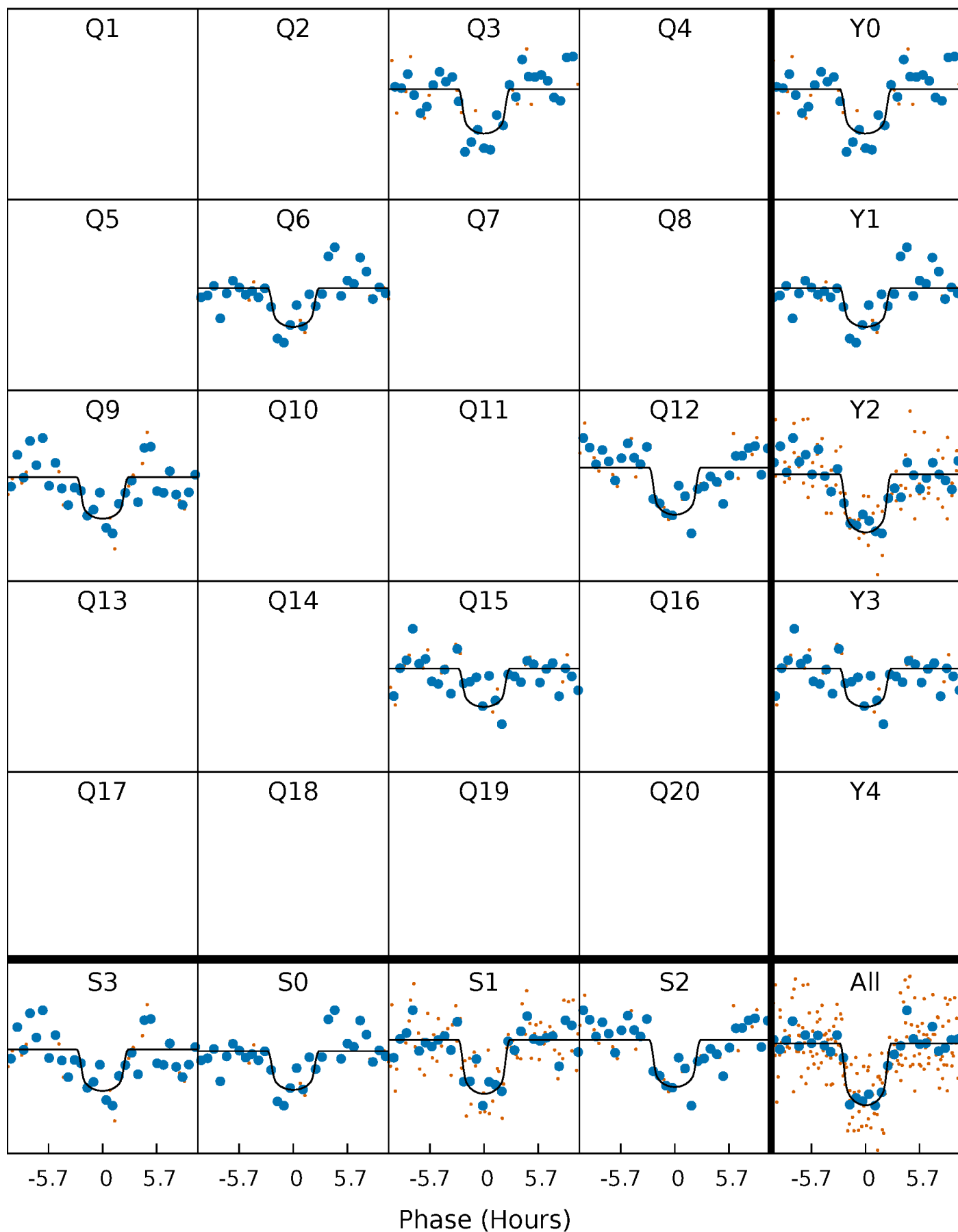
PDC Quarter-Phased Transit Curves

TCE 007213311-01 P=285.371700 Days $T_0=311.303426$ (BKJD)



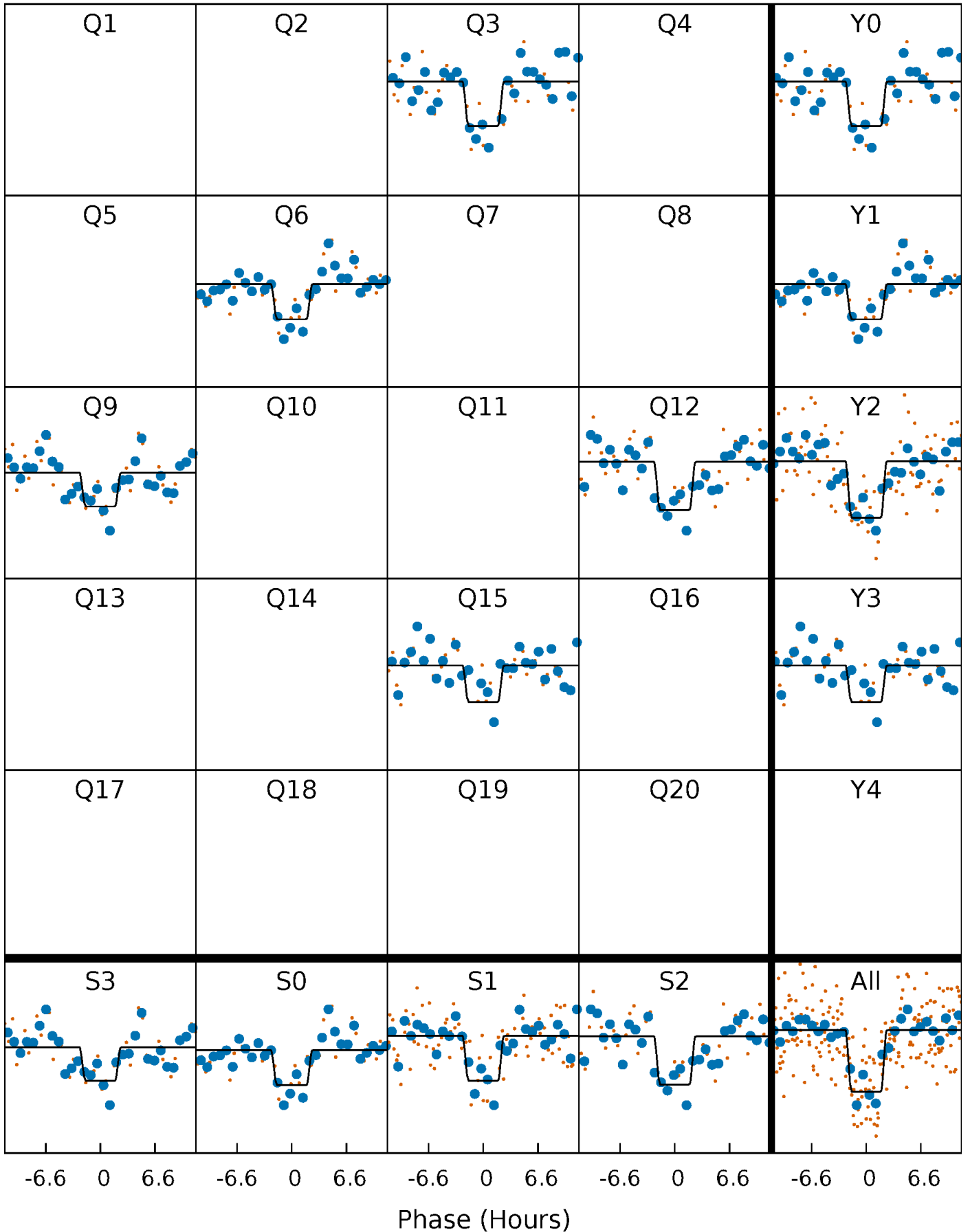
DV Quarter-Phased Transit Curves

TCE 007213311-01 P=285.371700 Days $T_0=311.303426$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

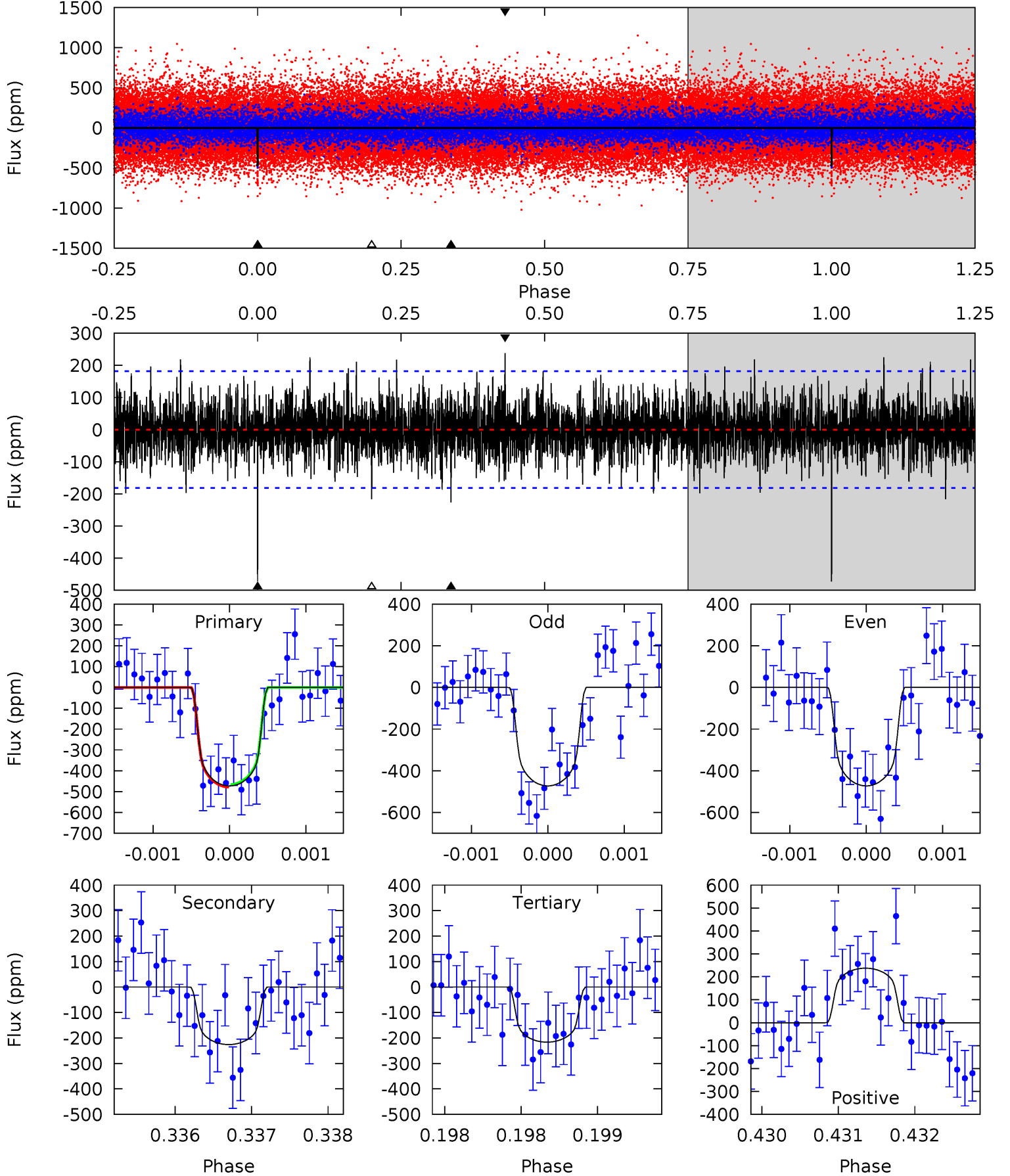
TCE 007213311-01 P=285.381910 Days $T_0=311.286168$ (BKJD)



DV Model-Shift Uniqueness Test

007213311-01, $P = 285.371700$ Days, $E = 25.931726$ Days

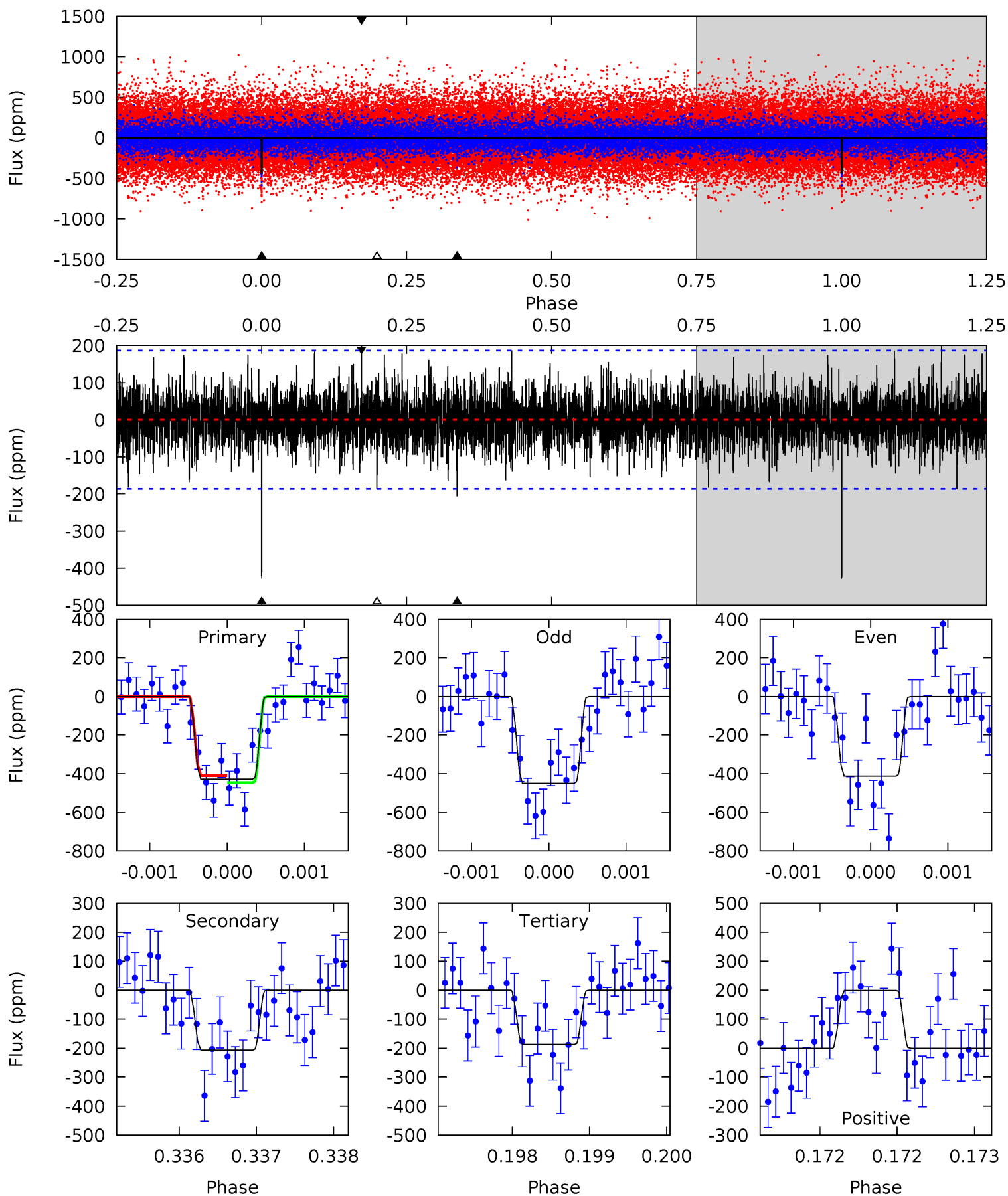
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	6.83	6.54	7.18	5.49	3.36	1.78	7.75	7.11	0.28	-0.36	0.00	0.98	0.33	0.18



Alt Model-Shift Uniqueness Test

007213311-01, P = 285.381910 Days, E = 25.904258 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	6.09	5.51	5.87	5.50	3.37	1.51	7.11	6.75	0.58	0.22	0.54	1.00	0.32	0.53



Stellar Parameters For KIC 007213311

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5142^{+120}_{-180}	$3.470^{+1.232}_{-0.308}$	$-0.660^{+0.250}_{-0.350}$	$2.756^{+1.691}_{-2.067}$	$0.817^{+0.234}_{-0.191}$	$0.055^{+4.796}_{-0.039}$
	+2%/-4%	+36%/-9%	+38%/-53%	+61%/-75%	+29%/-23%	+8731%/-71%
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 007213311-01 / KOI 5375.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-226 ± 33	$5.99^{+4.15}_{-2.85}$	568^{+94}_{-131}	4265^{+802}_{-471}	2131^{+5793}_{-1383}
Alt.	-207 ± 34	$5.72^{+3.68}_{-3.01}$	570^{+92}_{-135}	4299^{+922}_{-435}	2147^{+7921}_{-1323}

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 $A_{obs} \gg 1.0$

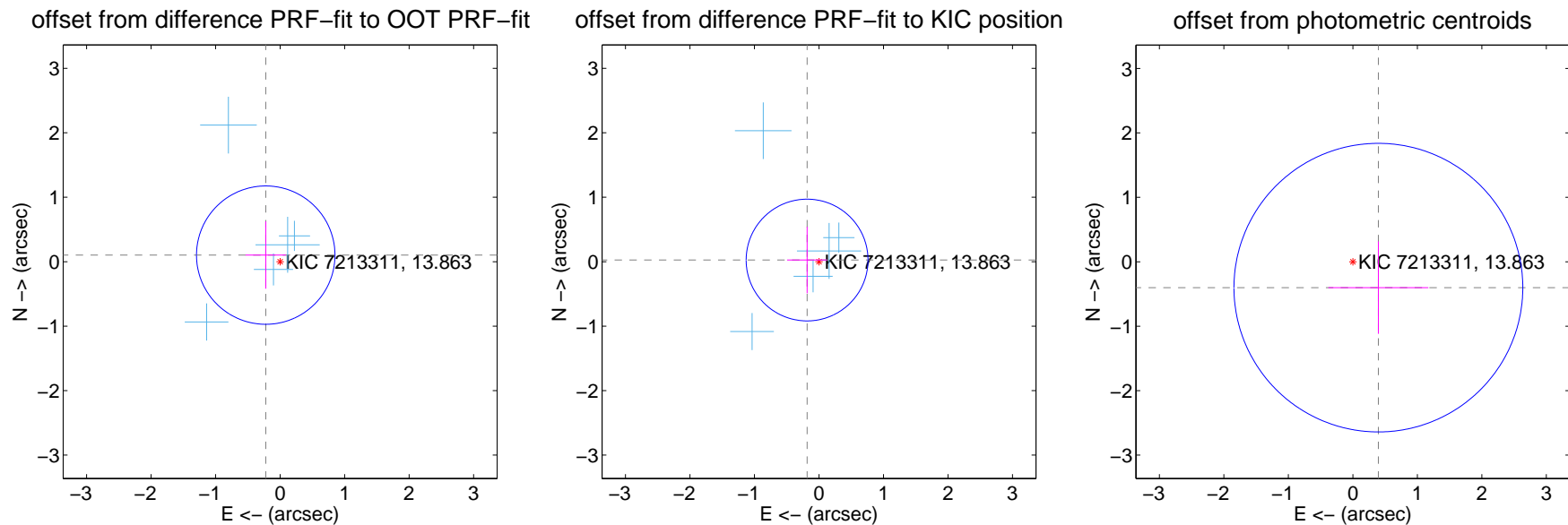
DV Centroid Data

Supplemental centroid analysis for 007213311-01. Kepler magnitude: 13.86. Transit SNR 8.13

There are 5 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.245 ± 0.358	0.69	0.223 ± 0.313	0.102 ± 0.522
PRF-fit source offset from KIC position	0.186 ± 0.315	0.59	0.185 ± 0.310	0.026 ± 0.516
photometric centroid source offset	0.56 ± 0.75	0.76	-0.40 ± 0.78	-0.40 ± 0.72



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.

Q1 no difference image



Q1 no OOT image



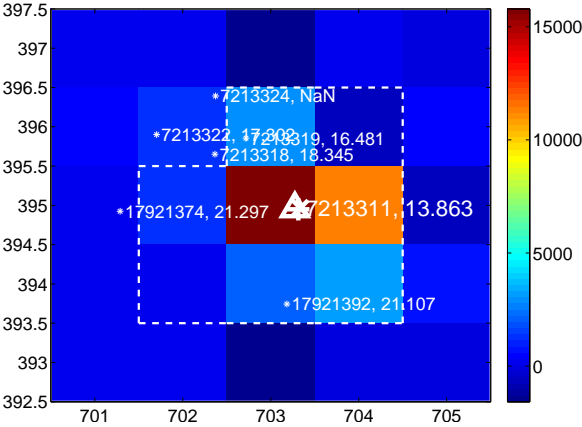
Q2 no difference image



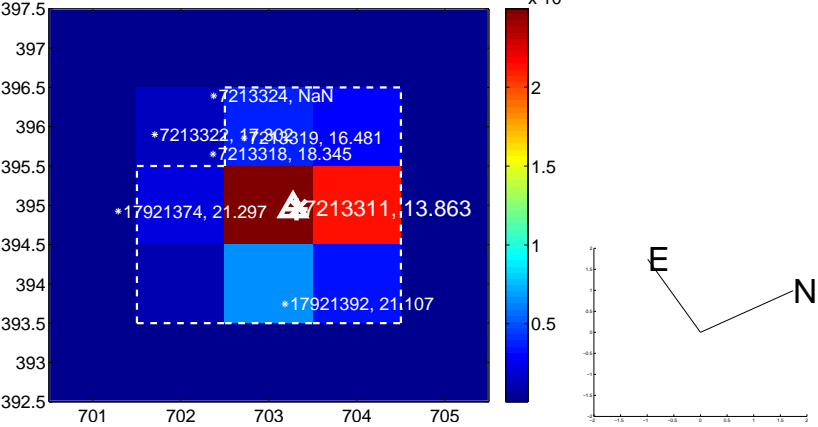
Q2 no OOT image



Q3 difference image



Q3 OOT image



Q4 no difference image



Q4 no OOT image

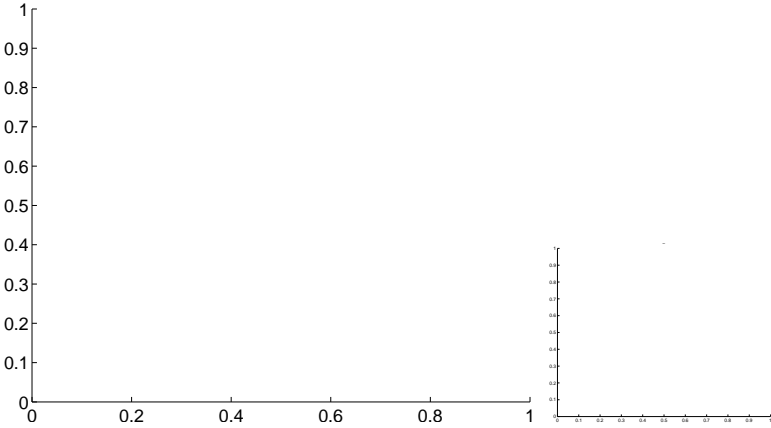


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

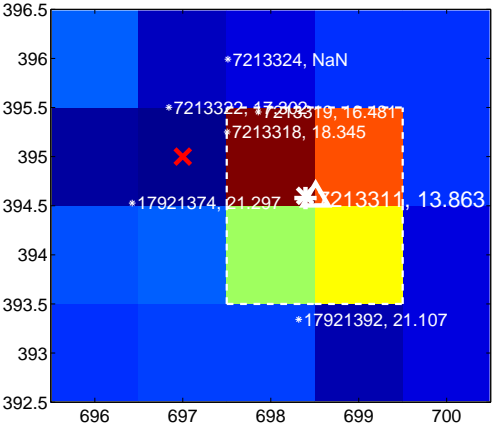
Q5 no difference image



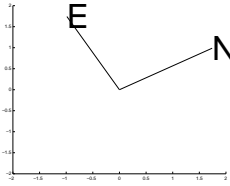
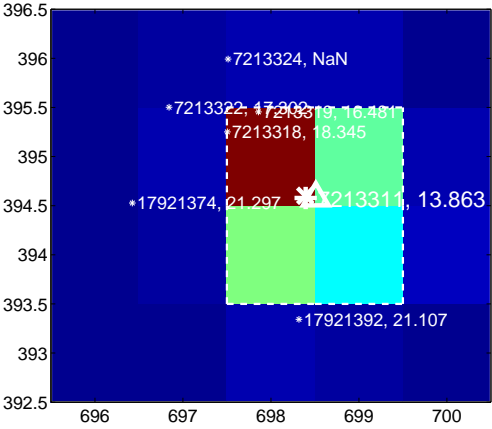
Q5 no OOT image



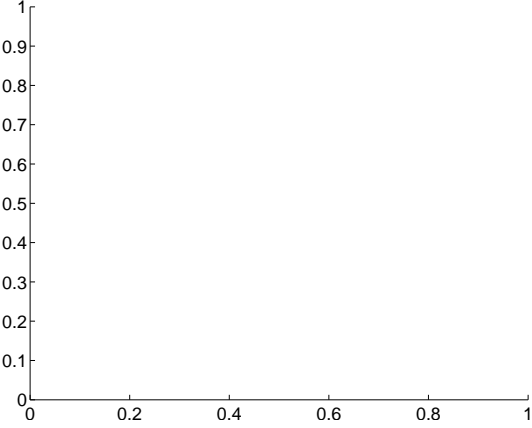
Q6 difference image



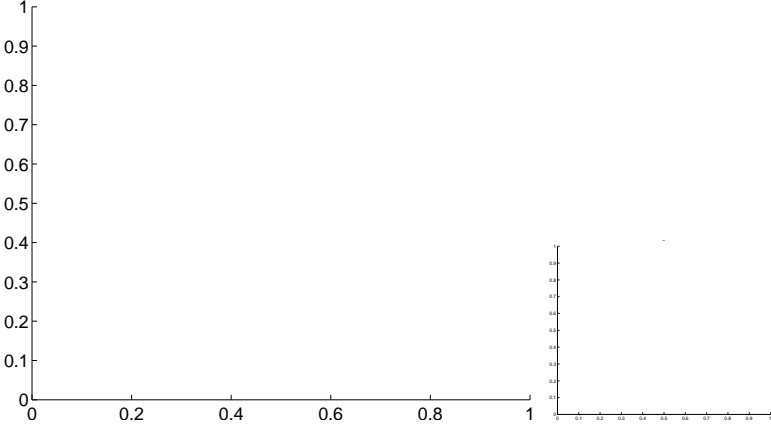
Q6 OOT image



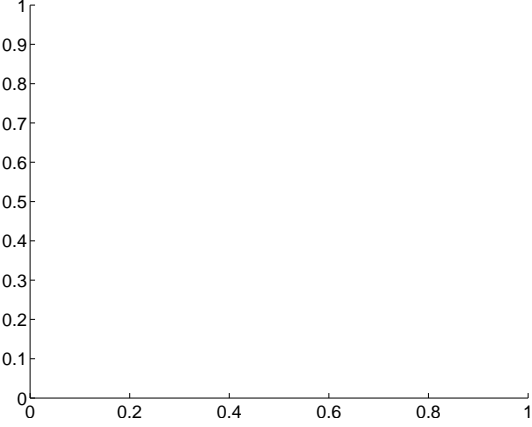
Q7 no difference image



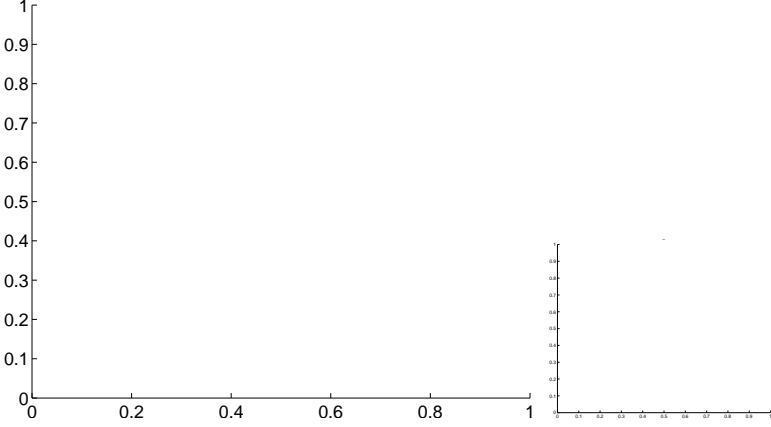
Q7 no OOT image



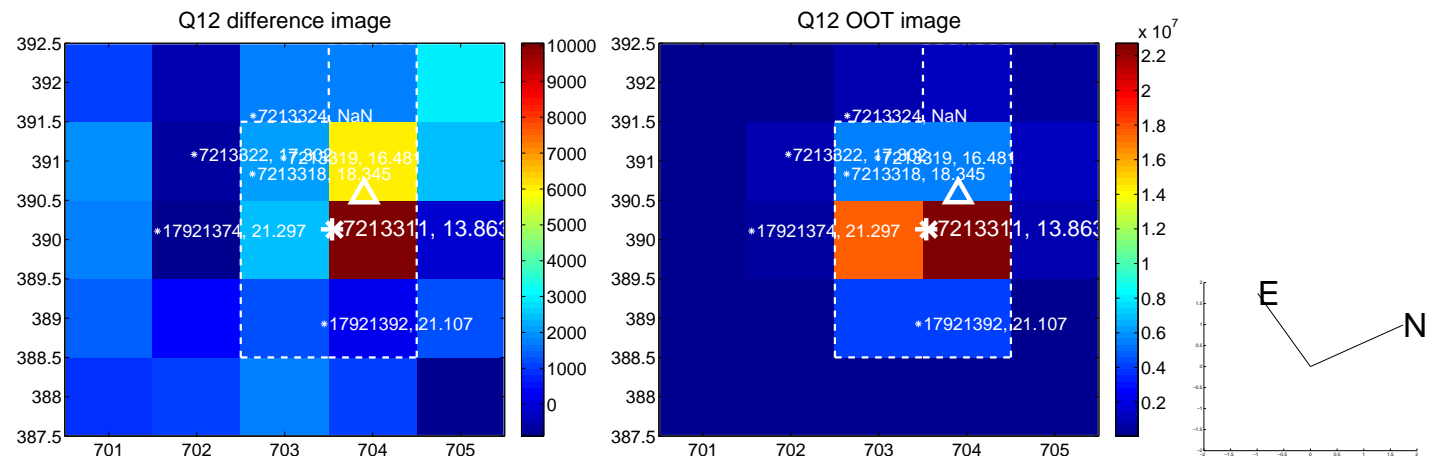
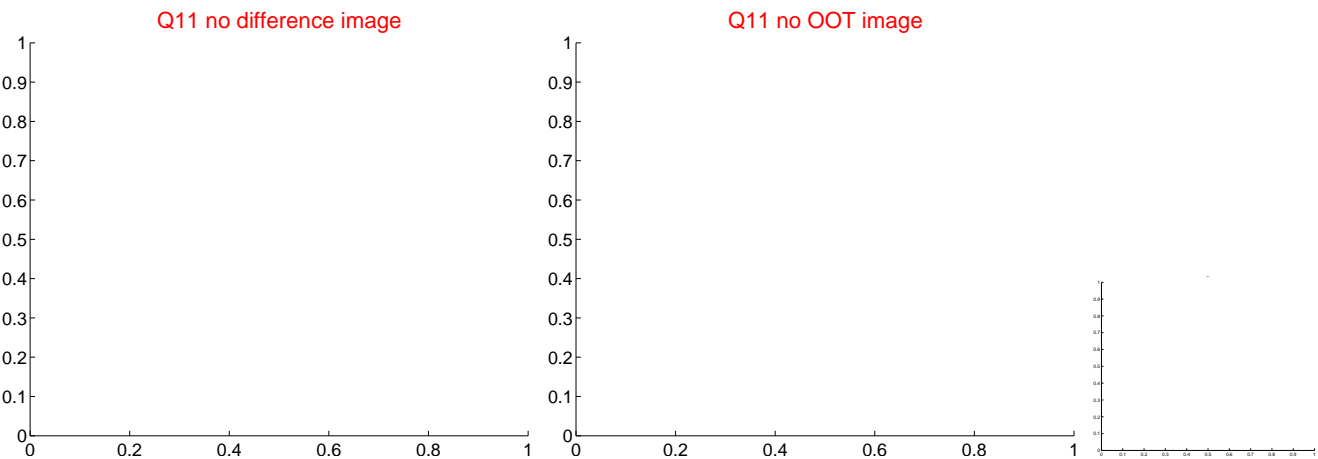
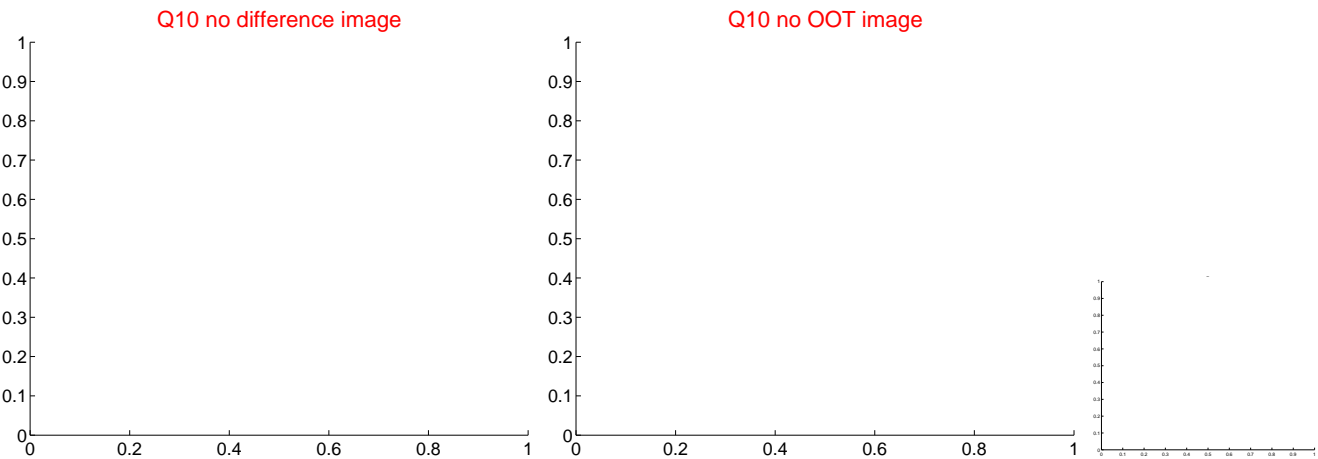
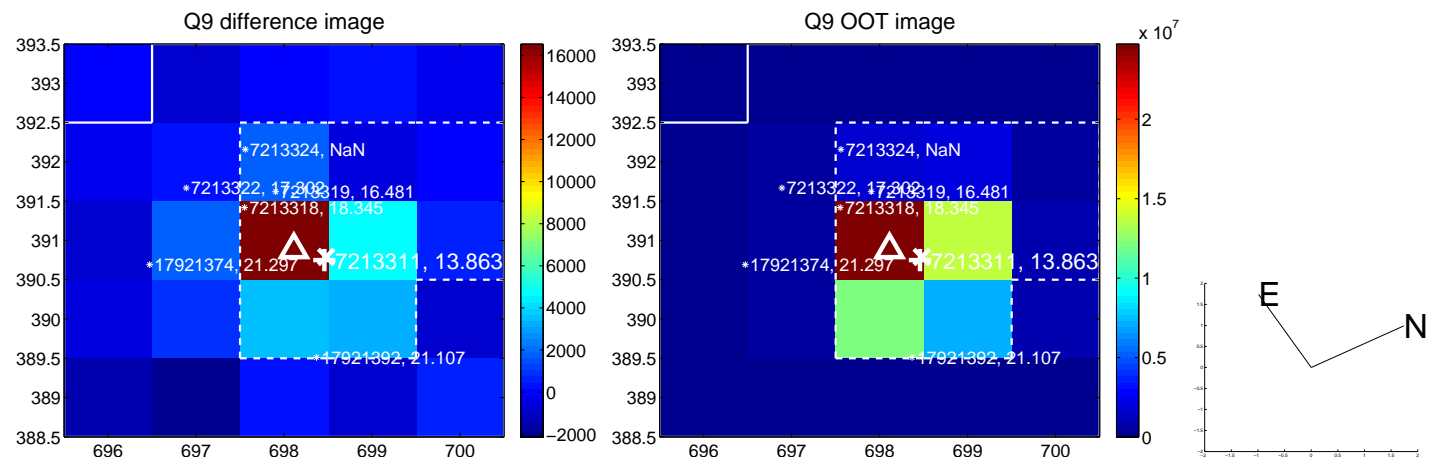
Q8 no difference image



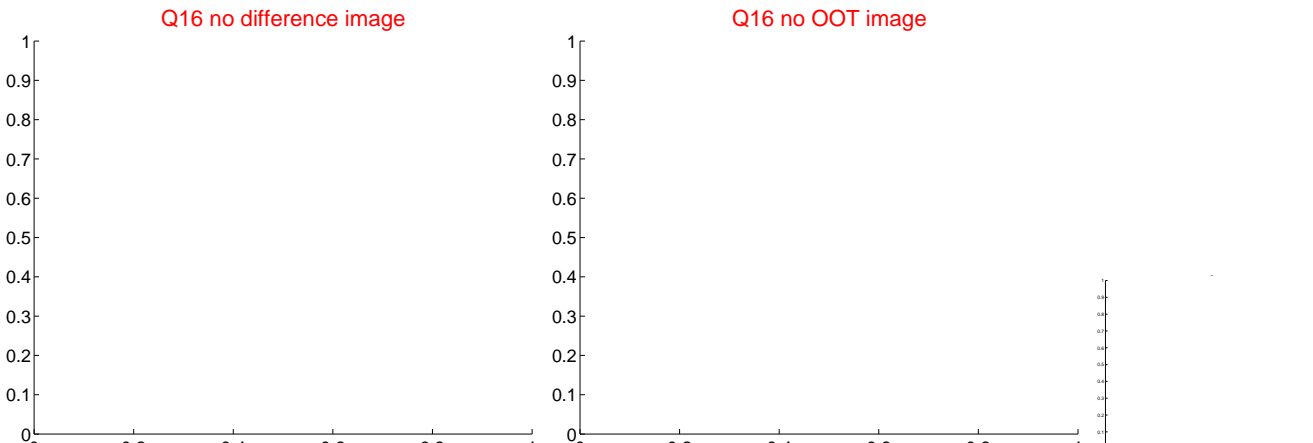
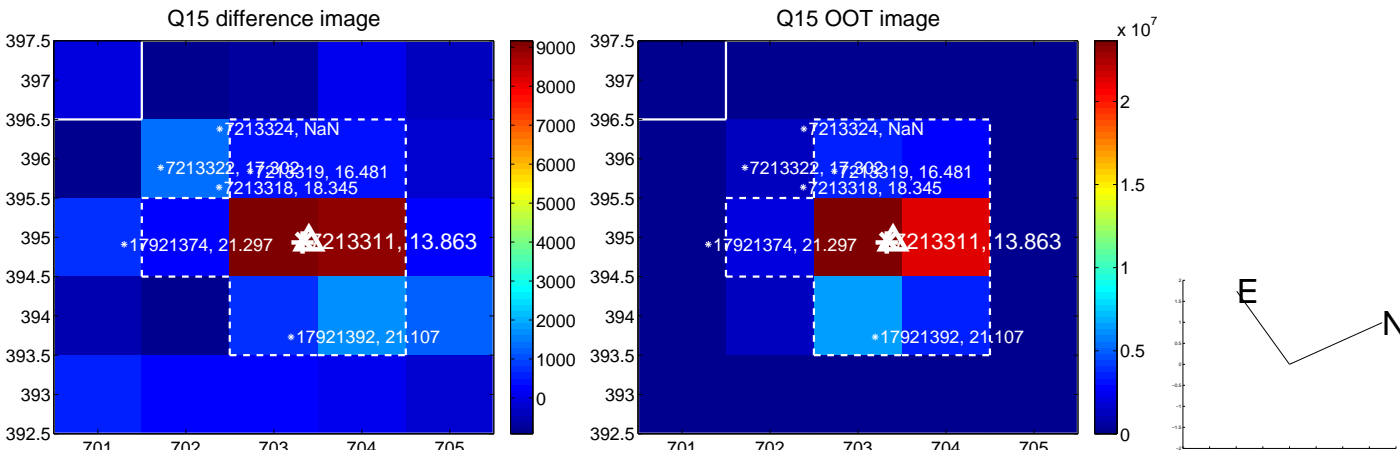
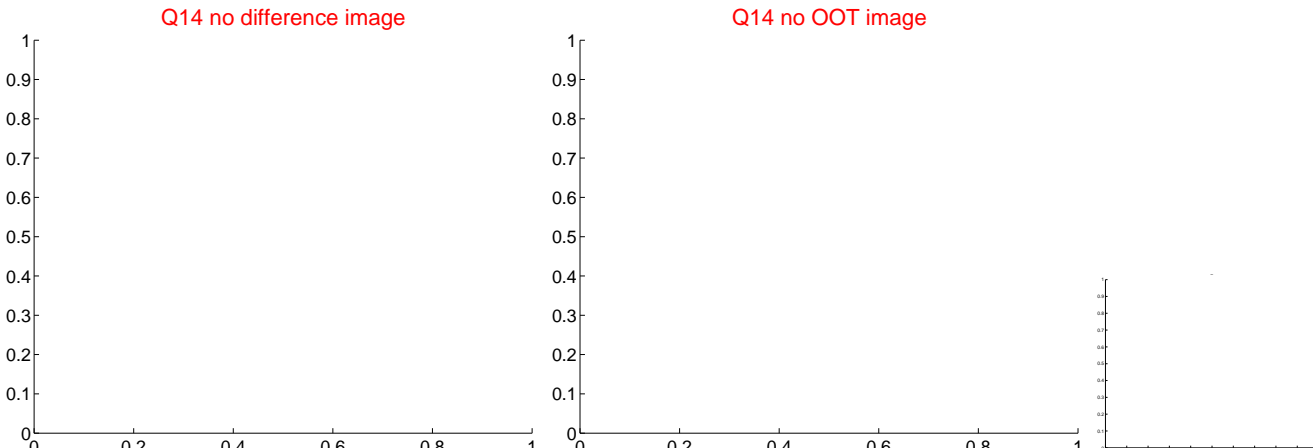
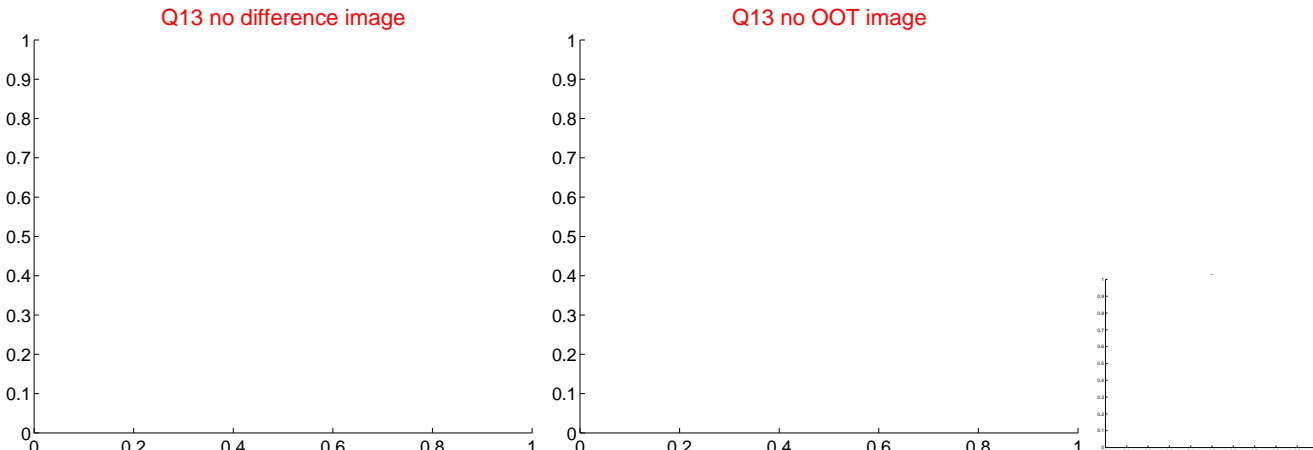
Q8 no OOT image



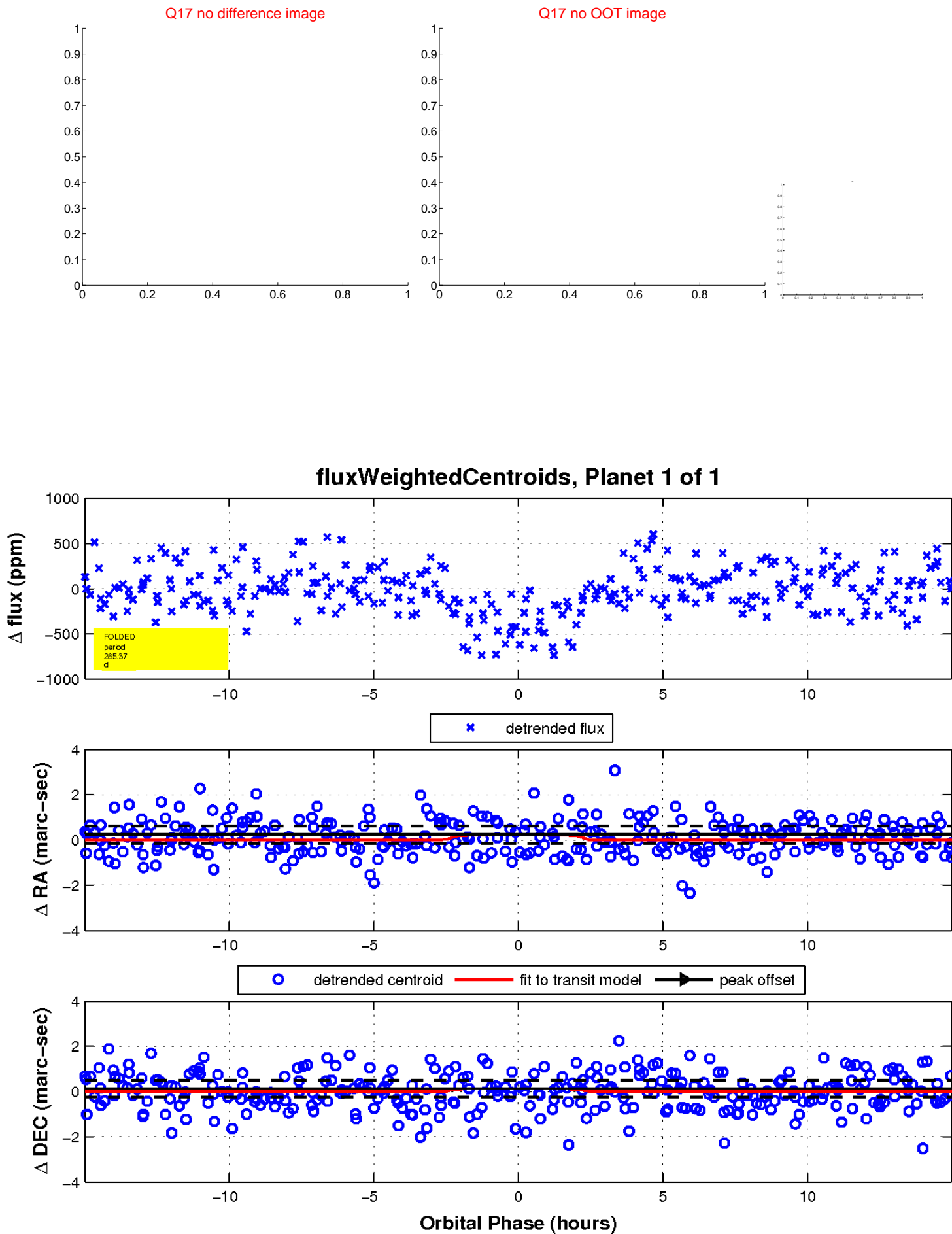
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

Declination

