

KIC 005955197

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})
005955197-01	OBS	8111.01	359.324735	152.524205	853.9	18.871	7.9	7.7	0.75	5316	2.48	0.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005955197-01	OBS	PC	0.22	0	0	0	0	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.

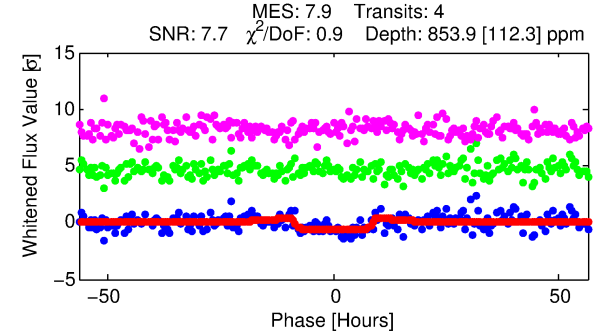
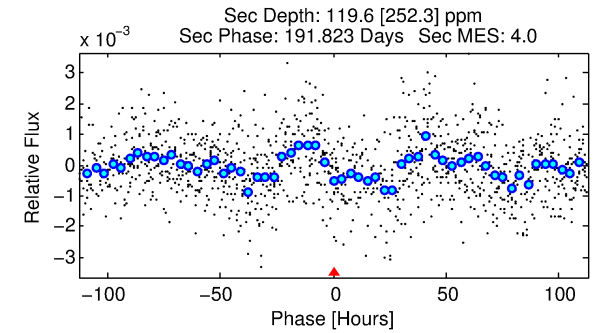
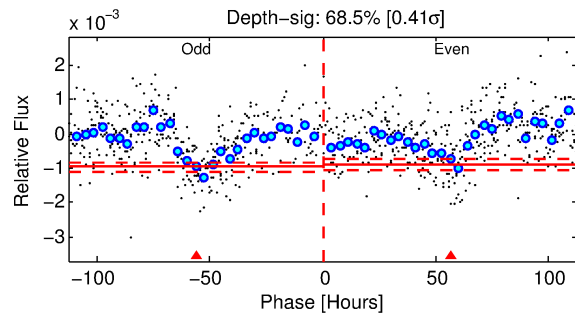
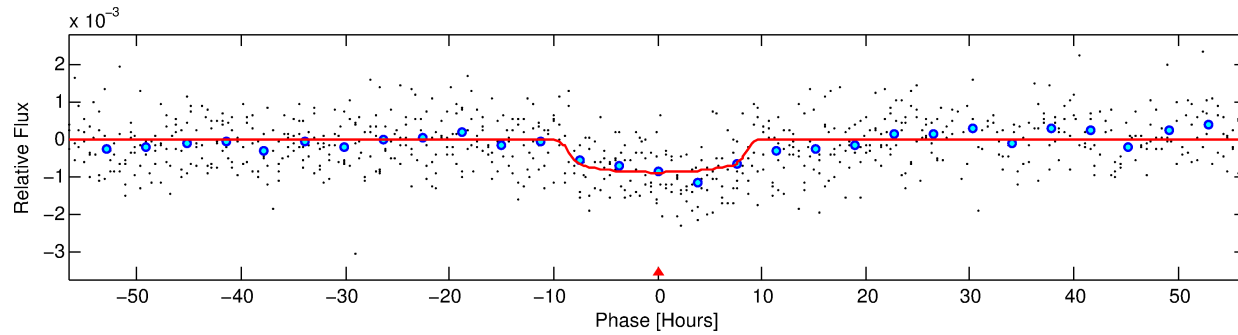
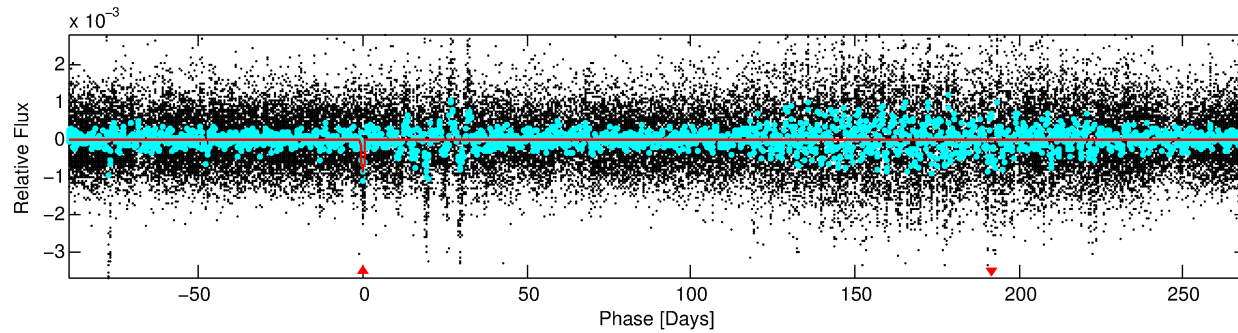
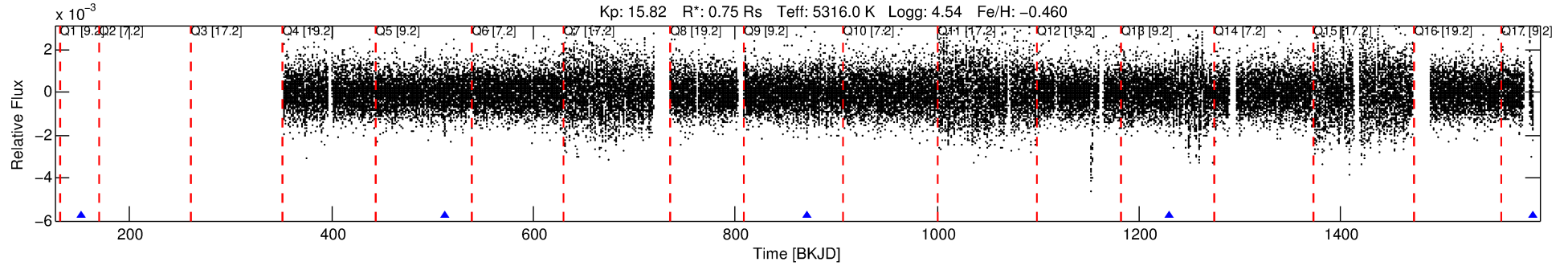
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005955197-01

No Significant Match Found

DV One-Page Summary

KIC: 5955197 Candidate: 1 of 1 Period: 359.325 d



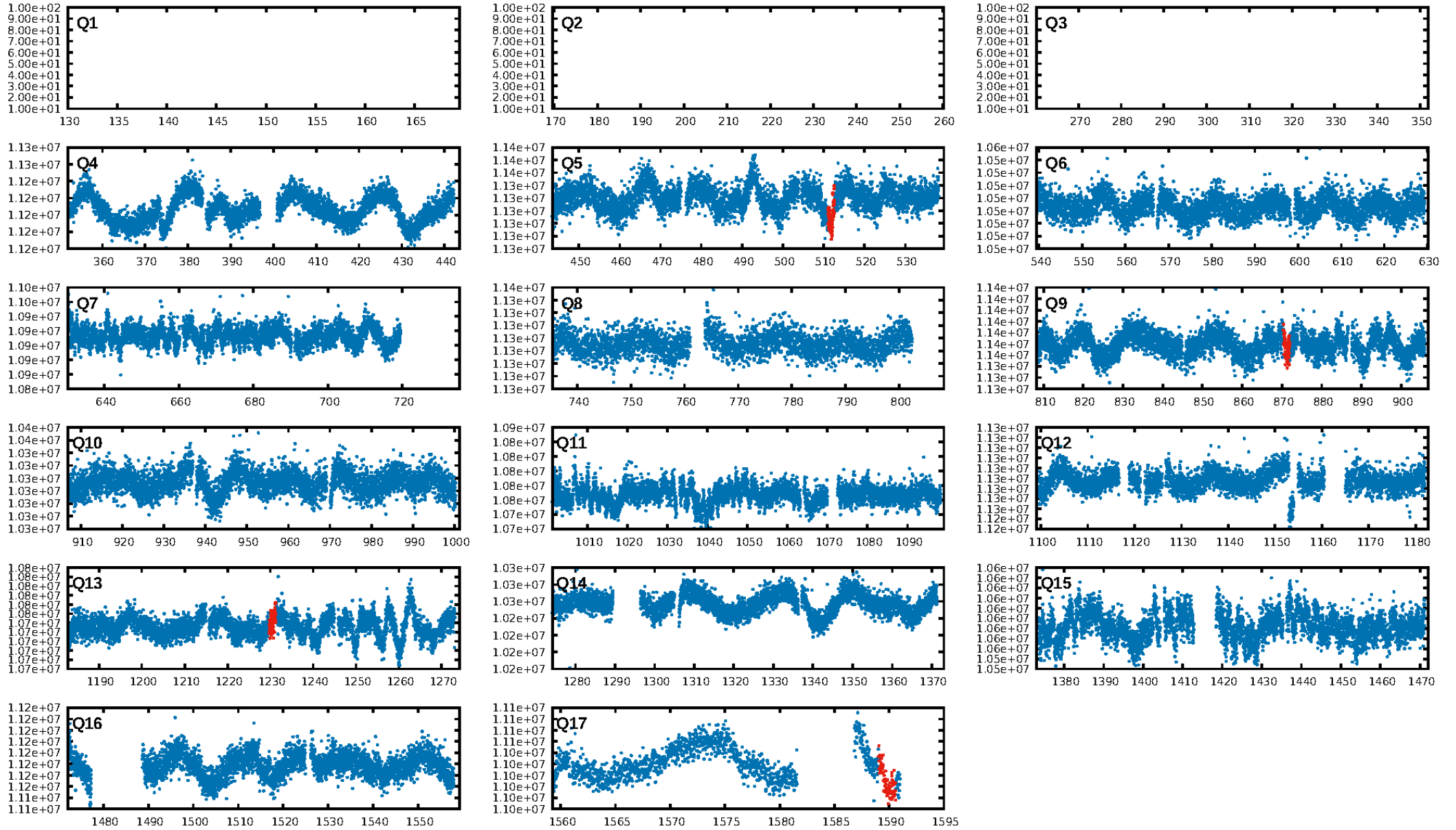
DV Fit Results:

Period = 359.32473 [0.01233] d
Epoch = 152.5242 [0.0323] BKJD
Rp/R* = 0.0301 [0.0044]
a/R* = 90.45 [47.09]
b = 0.82 [0.21]
Seff = 0.52 [0.11]
Teq = 216 [12] K
Rp = 2.48 [0.49] Re
a = 0.8849 [0.0986] AU
Ag = 8395.58 [17939.78] [0.47 σ]
Teffp = 3202 [1710] K [1.75 σ]

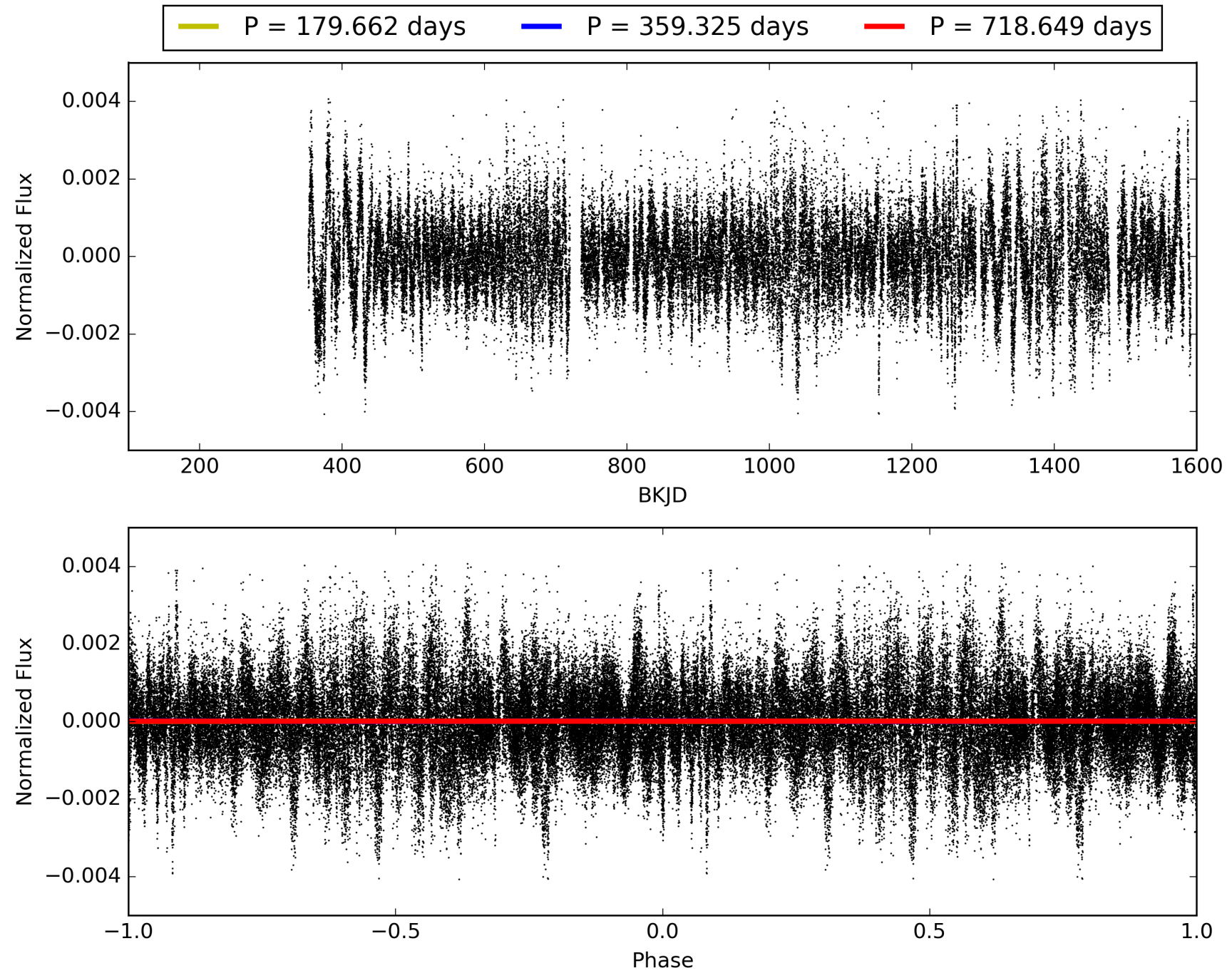
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 22.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.35e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.087
Centroid-sig: 75.5%
Centroid-so: 3.371 arcsec [4.58 σ]
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 005955197-01, PDC Light Curves

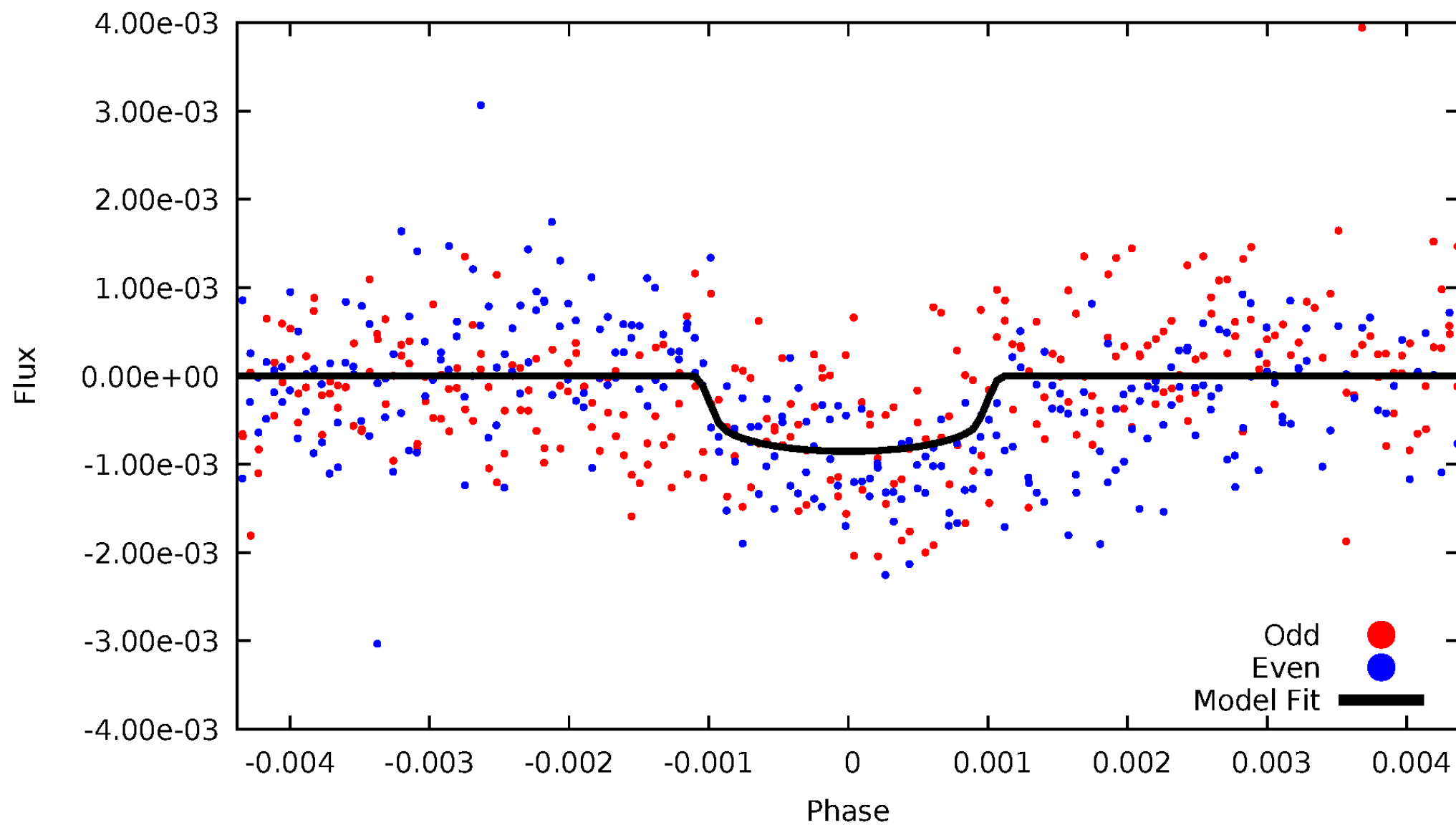


TCE 005955197-01



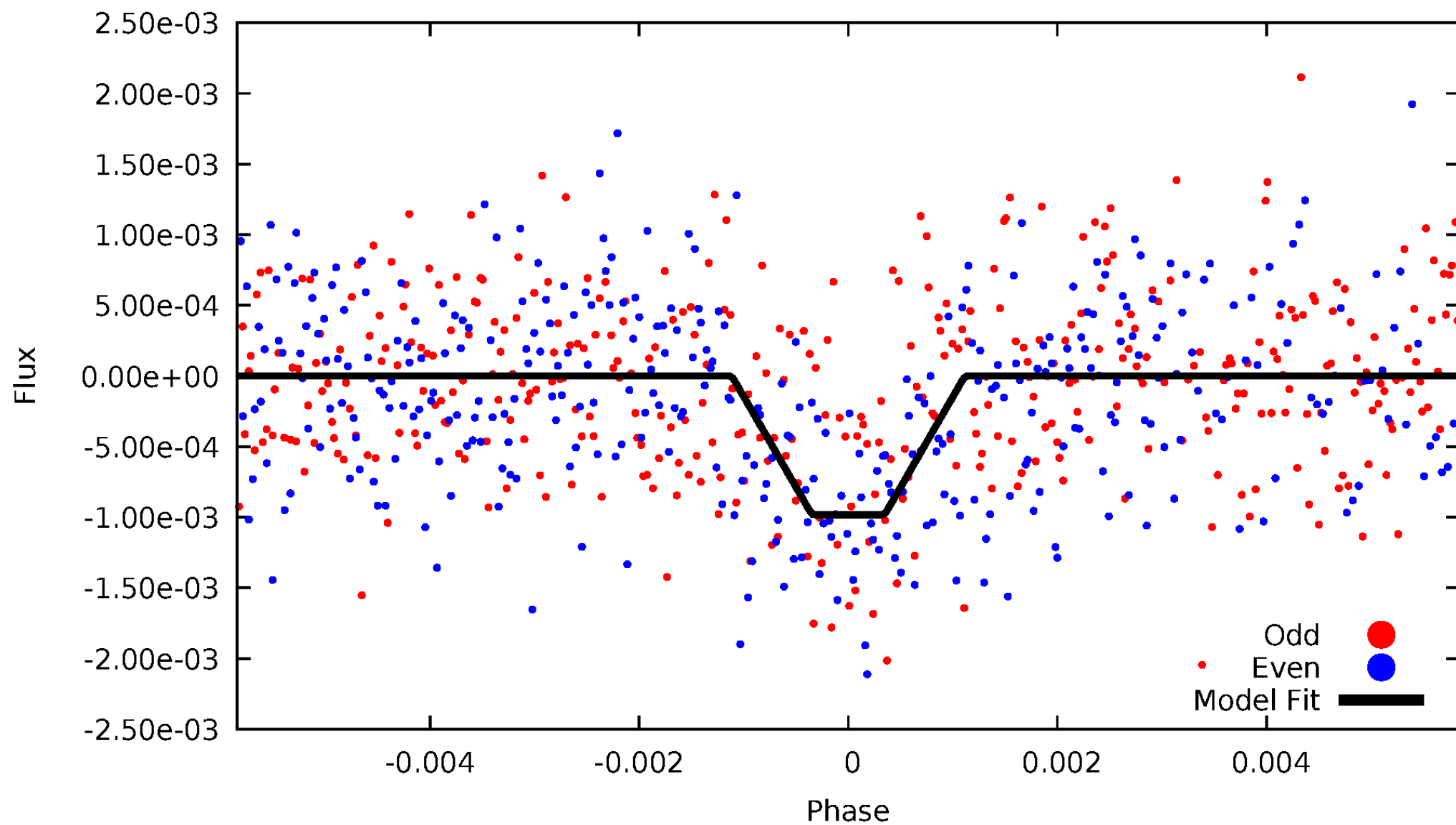
DV Odd/Even

TCE 005955197-01



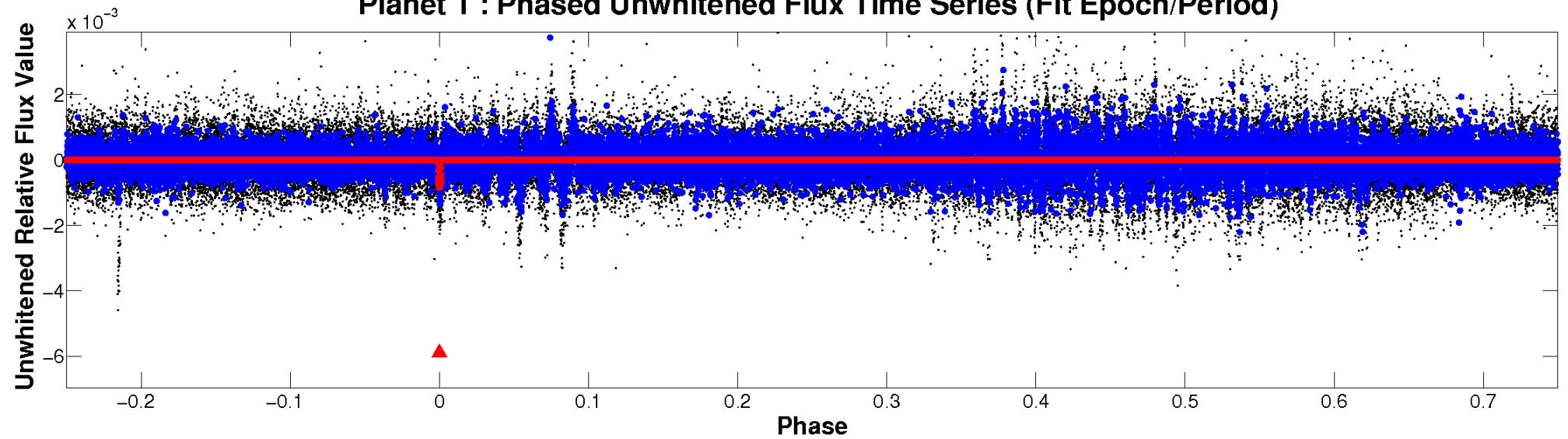
ALT Odd/Even

TCE 005955197-01

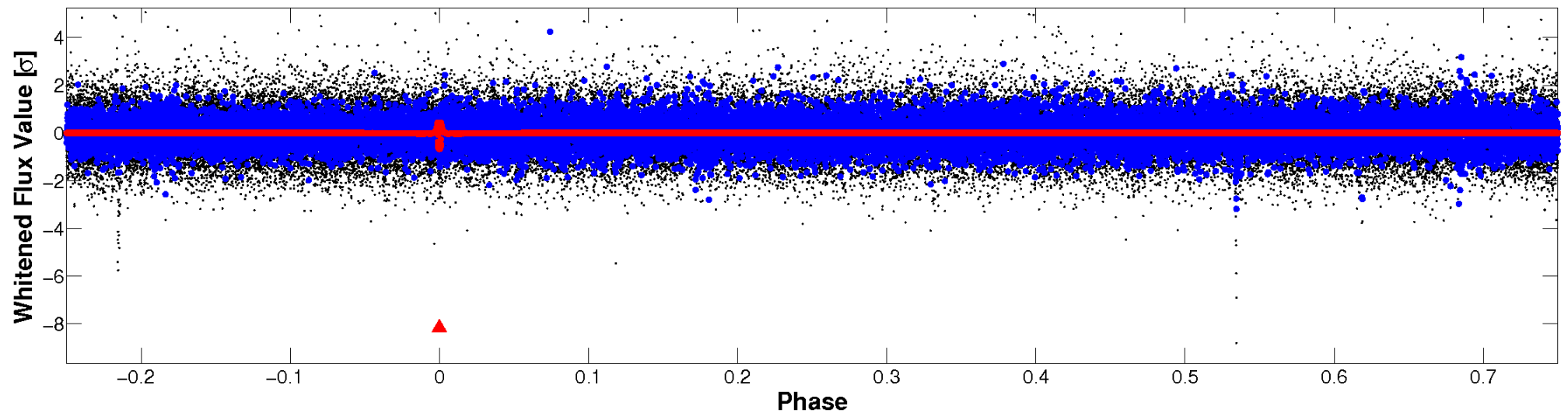


Non-Whitened Vs. Whitened Light Curve

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

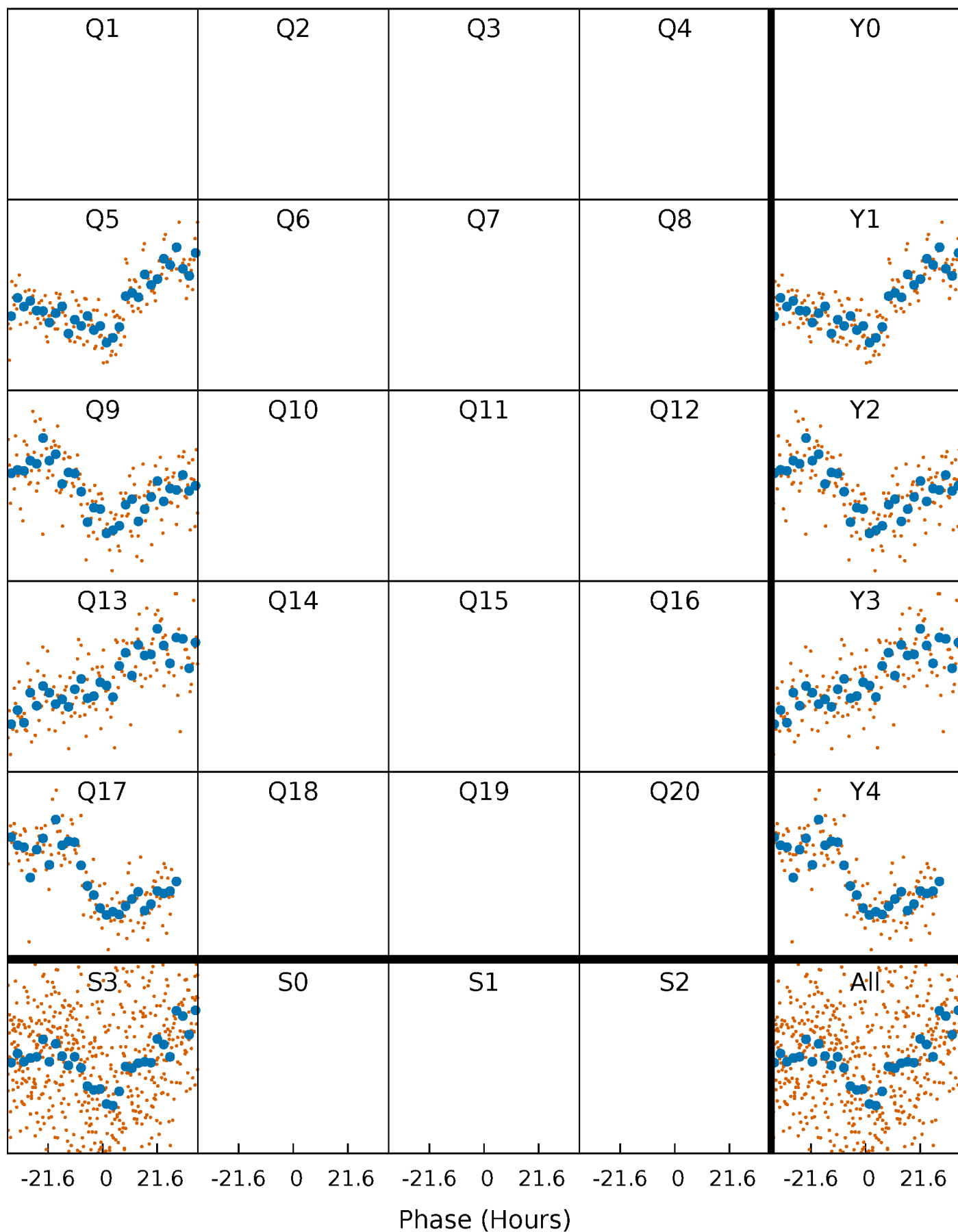


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



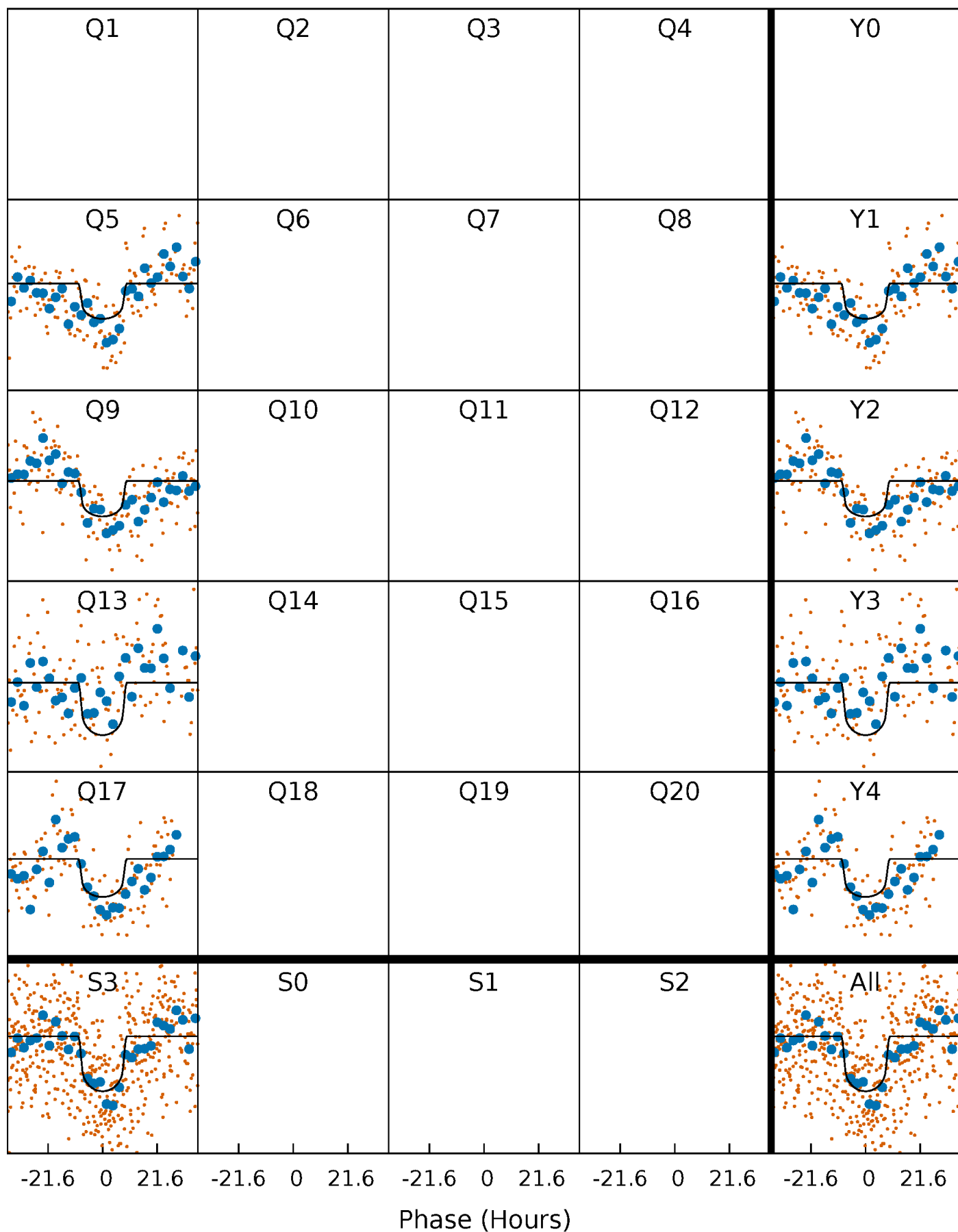
PDC Quarter-Phased Transit Curves

TCE 005955197-01 $P=359.324735$ Days $T_0=152.524205$ (BKJD)



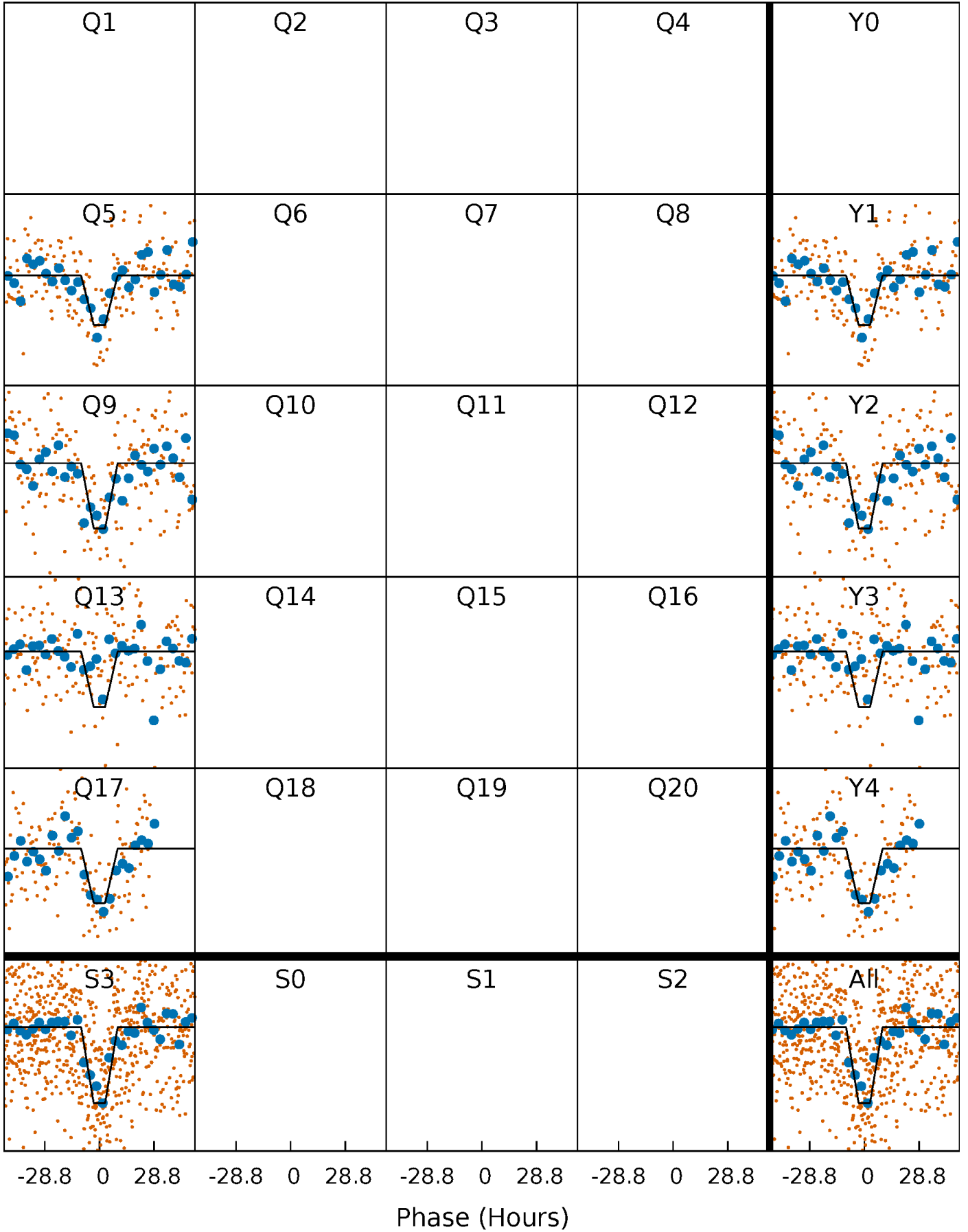
DV Quarter-Phased Transit Curves

TCE 005955197-01 $P=359.324735$ Days $T_0=152.524205$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

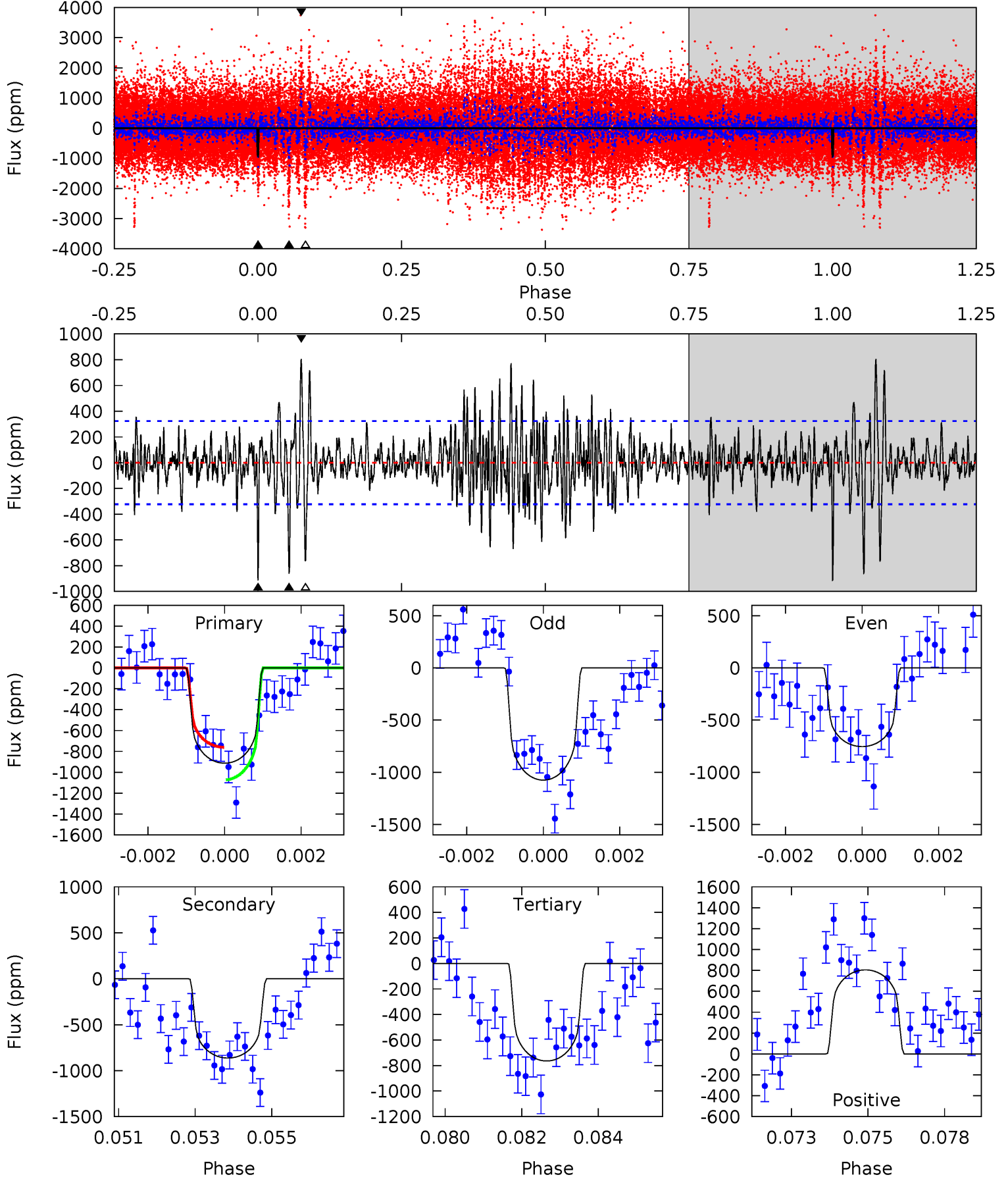
TCE 005955197-01 $P=359.290097$ Days $T_0=152.693292$ (BKJD)



DV Model-Shift Uniqueness Test

005955197-01, P = 359.324735 Days, E = 152.524205 Days

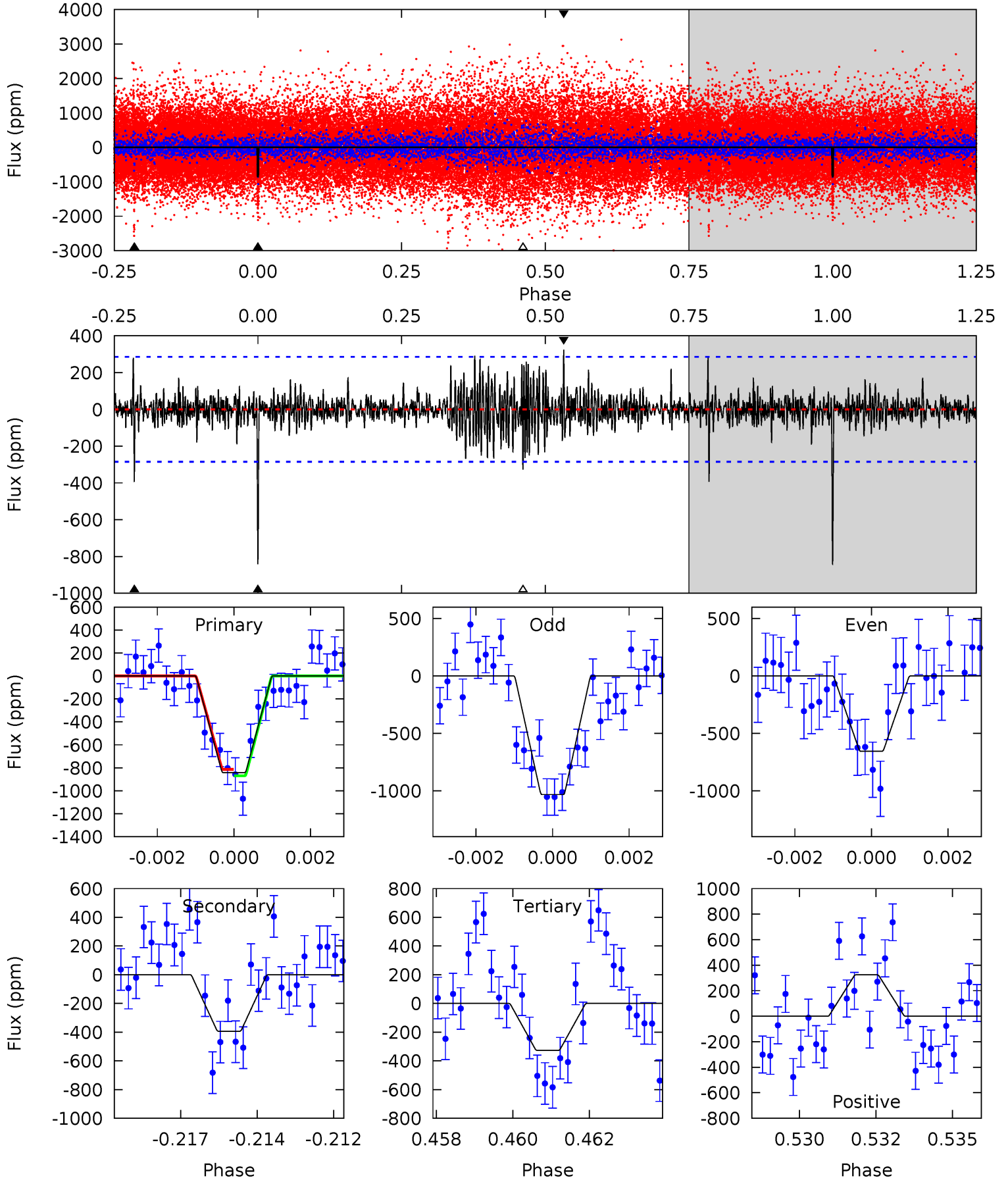
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	14.2	12.5	13.2	5.31	3.06	2.95	2.44	1.78	1.62	0.95	2.64	0.85	0.47	2.55



Alt Model-Shift Uniqueness Test

005955197-01, P = 359.290097 Days, E = 152.693292 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	7.32	6.08	6.03	5.30	3.05	1.28	9.59	9.64	1.24	1.29	3.50	0.88	0.28	0.51



Stellar Parameters For KIC 005955197

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5316^{+204}_{-186}	$4.539^{+0.085}_{-0.076}$	$-0.460^{+0.350}_{-0.300}$	$0.753^{+0.102}_{-0.092}$	$0.715^{+0.104}_{-0.045}$	$2.361^{+0.868}_{-0.636}$
	+4%/-3%	+2%/-2%	+76%/-65%	+14%/-12%	+15%/-6%	+37%/-27%
Source	KIC0	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 005955197-01 / KOI 8111.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-863 ± 61	$2.52^{+0.41}_{-0.40}$	302^{+15}_{-15}	5254^{+434}_{-353}	60362^{+23757}_{-15926}
Alt.	-393 ± 54	$2.57^{+0.46}_{-0.41}$	302^{+14}_{-14}	4404^{+349}_{-288}	26209^{+10617}_{-7781}

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

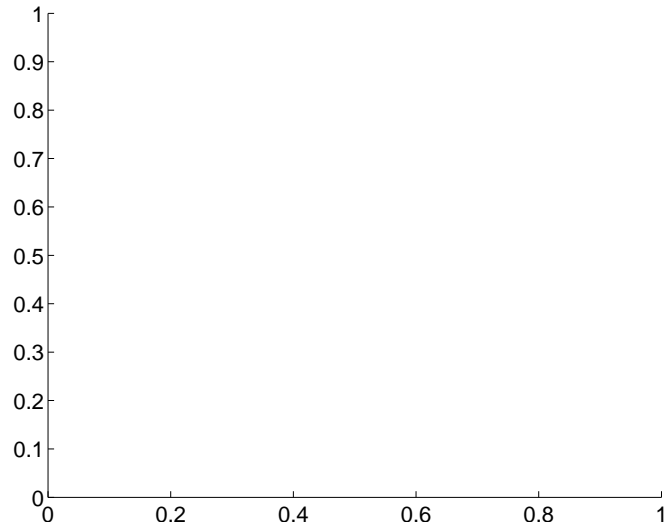
Supplemental centroid analysis for 005955197-01. Kepler magnitude: 15.82. Transit SNR 7.69

There are 0 quarters with good PRF difference image offsets

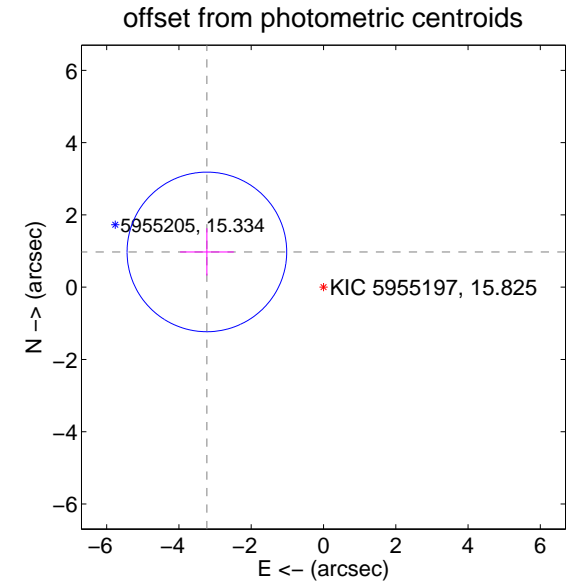
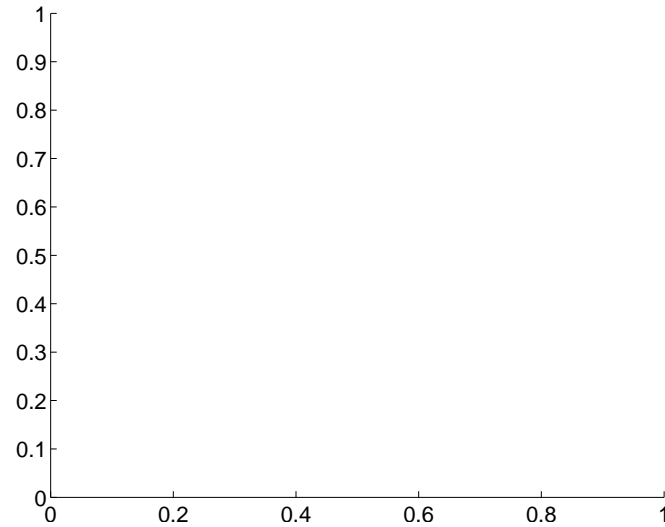
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	3.37 ± 0.74	4.58	3.23 ± 0.74	0.98 ± 0.65

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

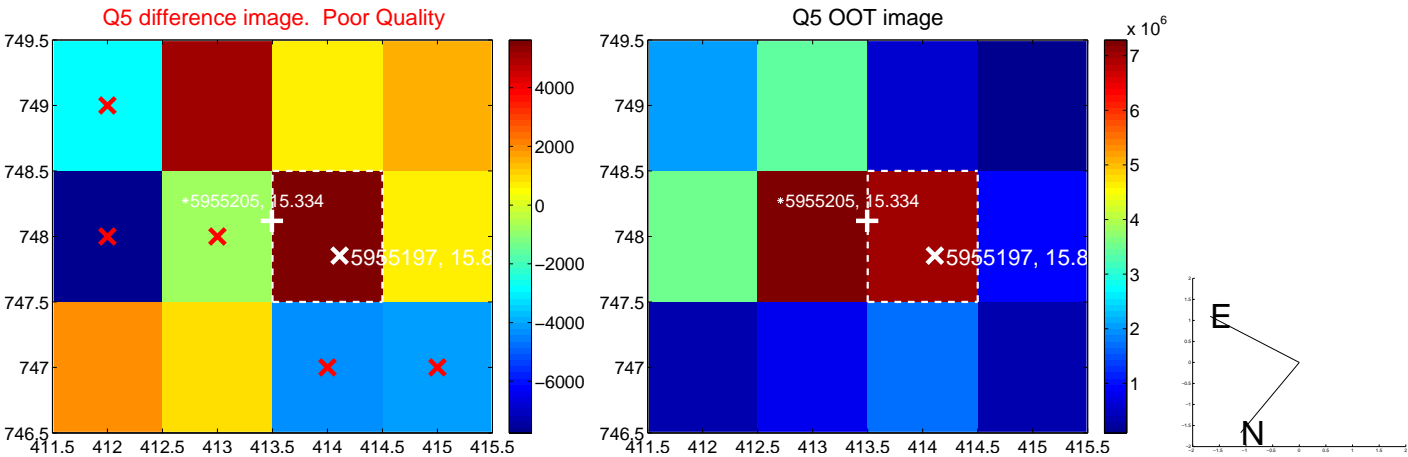


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

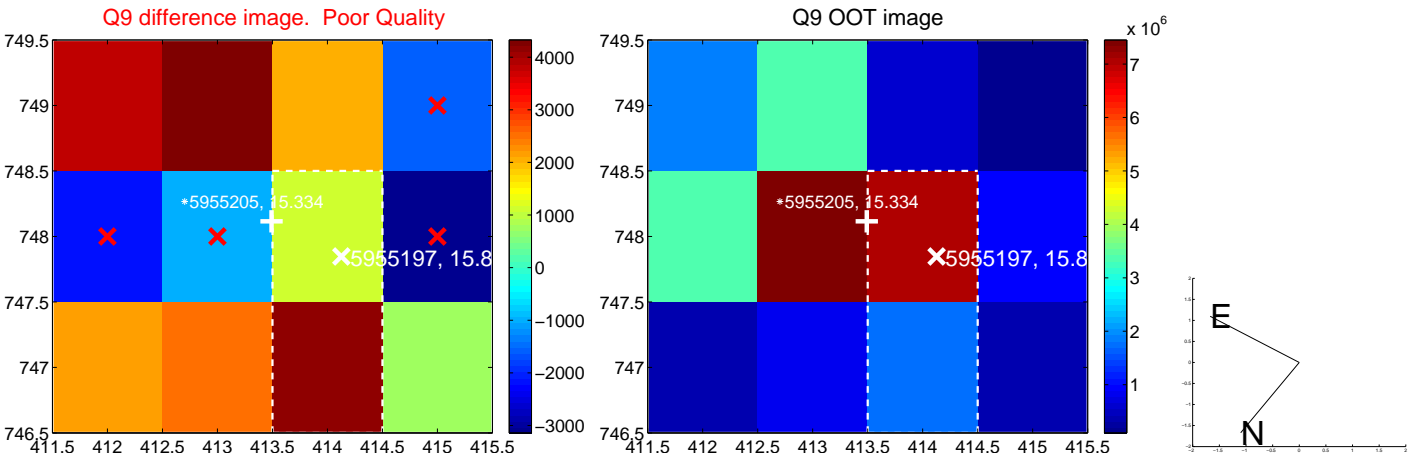
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



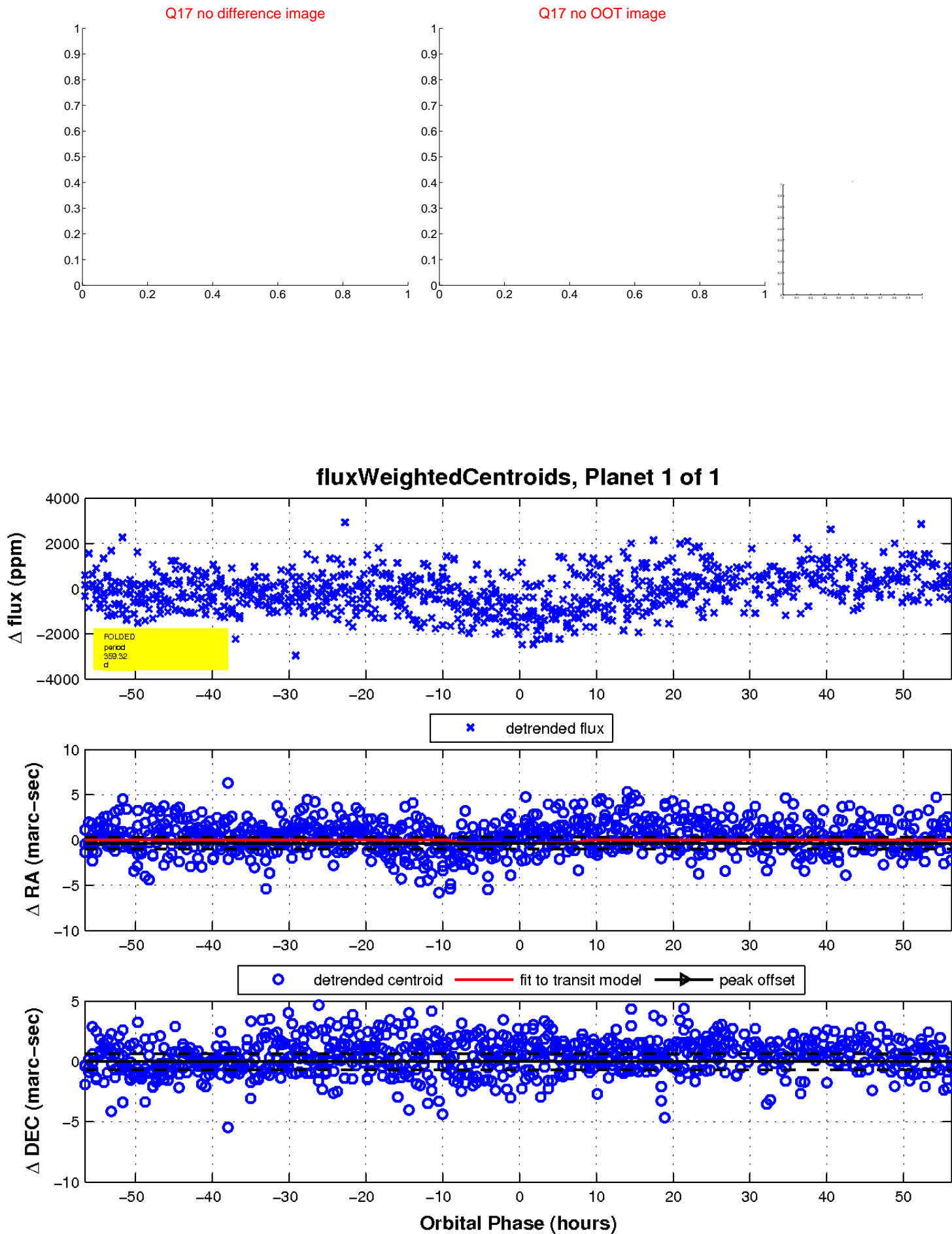
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



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



UKIRT Image

Declination

