

KIC 007184552

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})
007184552-01	OBS	No	585.410780	381.352568	94.3	18.019	11.4	11.0	2.50	8007	2.80	7.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007184552-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

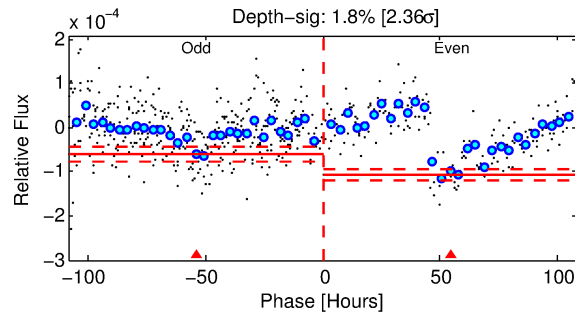
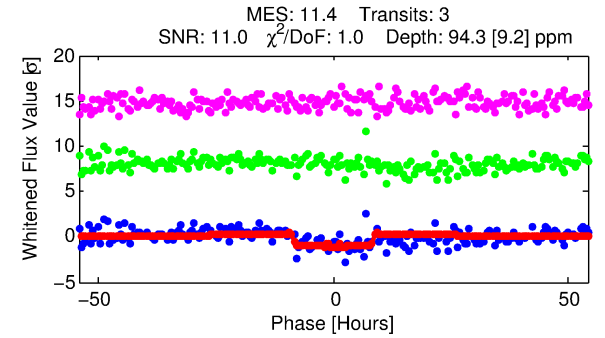
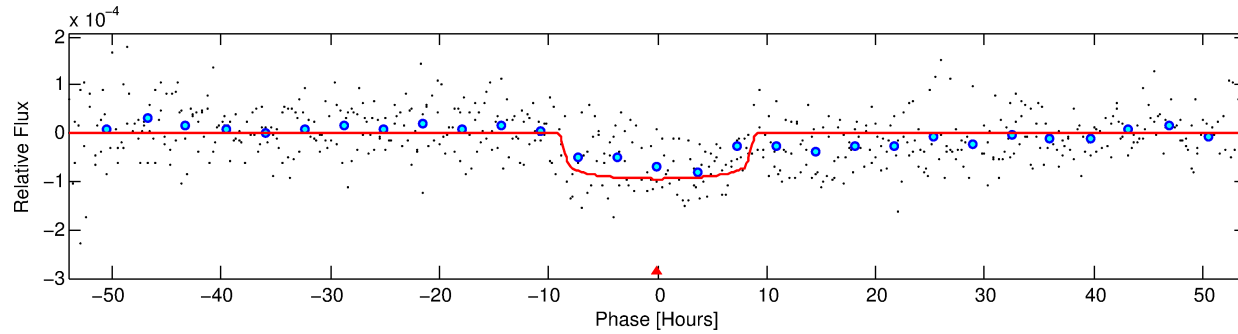
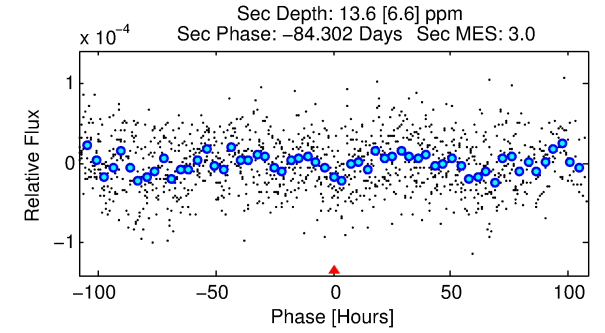
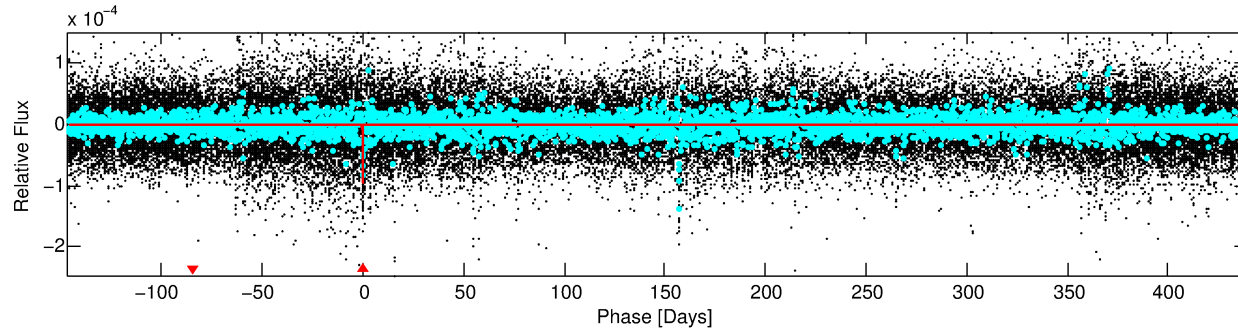
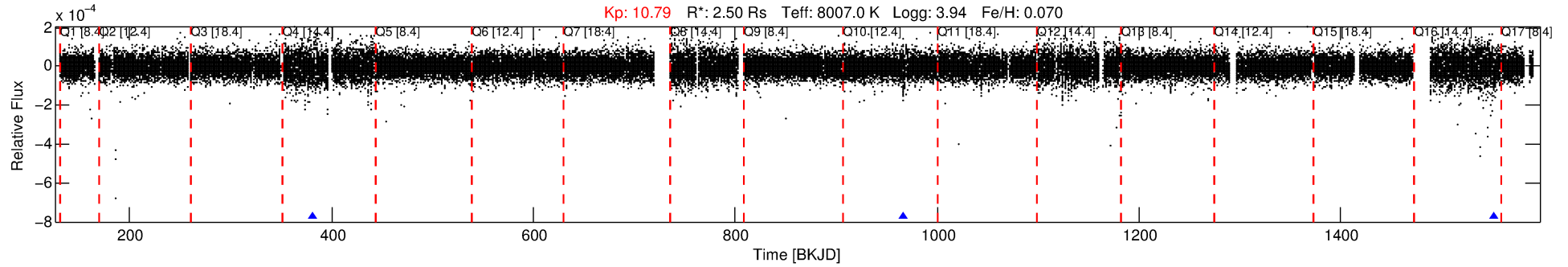
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007184552-01

No Significant Match Found

DV One-Page Summary

KIC: 7184552 Candidate: 1 of 1 Period: 585.411 d



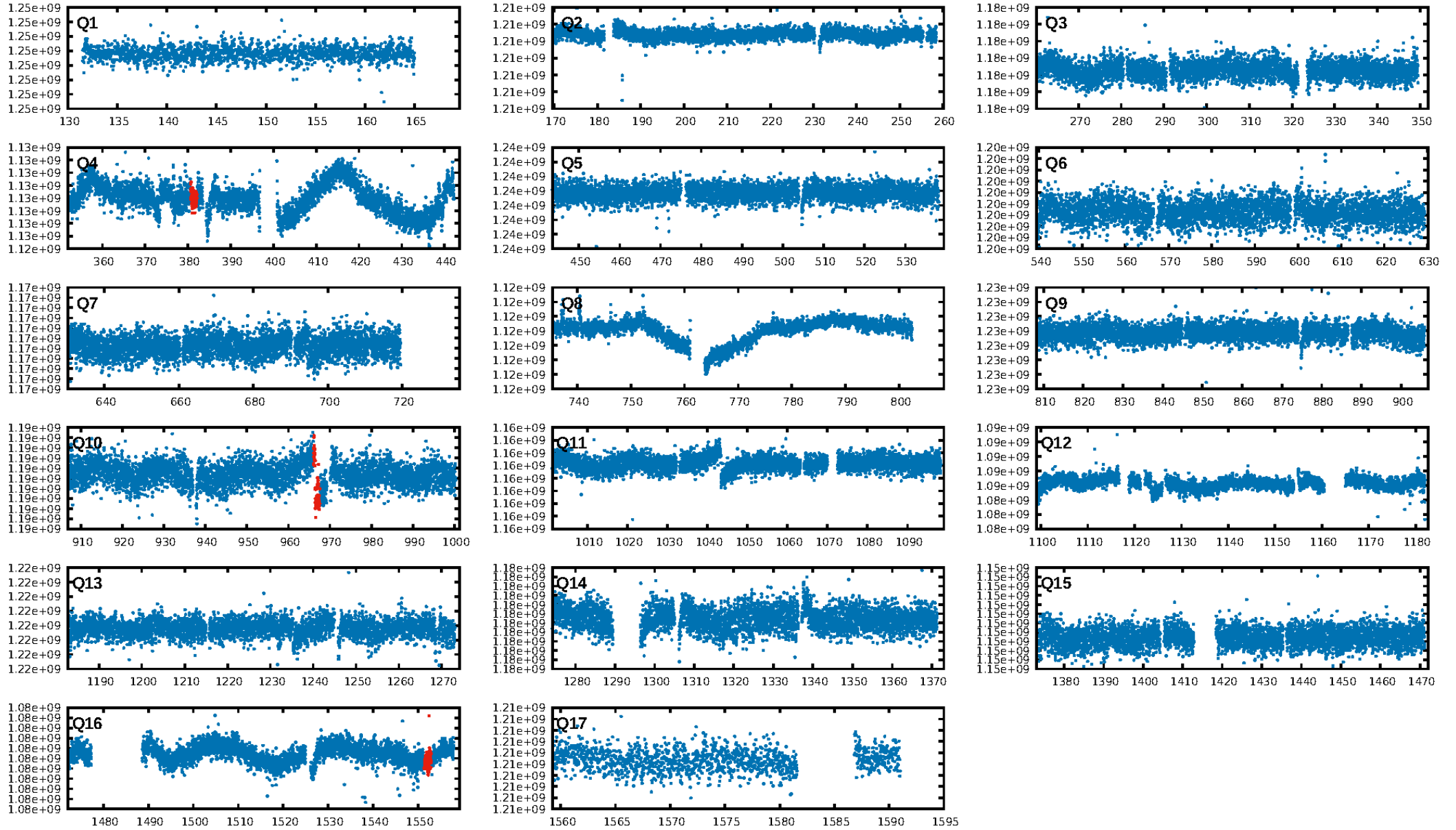
DV Fit Results:

Period = 585.41078 [0.01284] d
Epoch = 381.3526 [0.0151] BKJD
Rp/R* = 0.0103 [0.0008]
a/R* = 118.03 [46.20]
b = 0.89 [0.09]
Seff = 7.72 [3.67]
Teq = 425 [51] K
Rp = 2.80 [0.95] Re
a = 1.7234 [0.5051] AU
Ag = 2838.59 [1920.25] [1.48σ]
Teffp = 4797 [643] K [6.78σ]

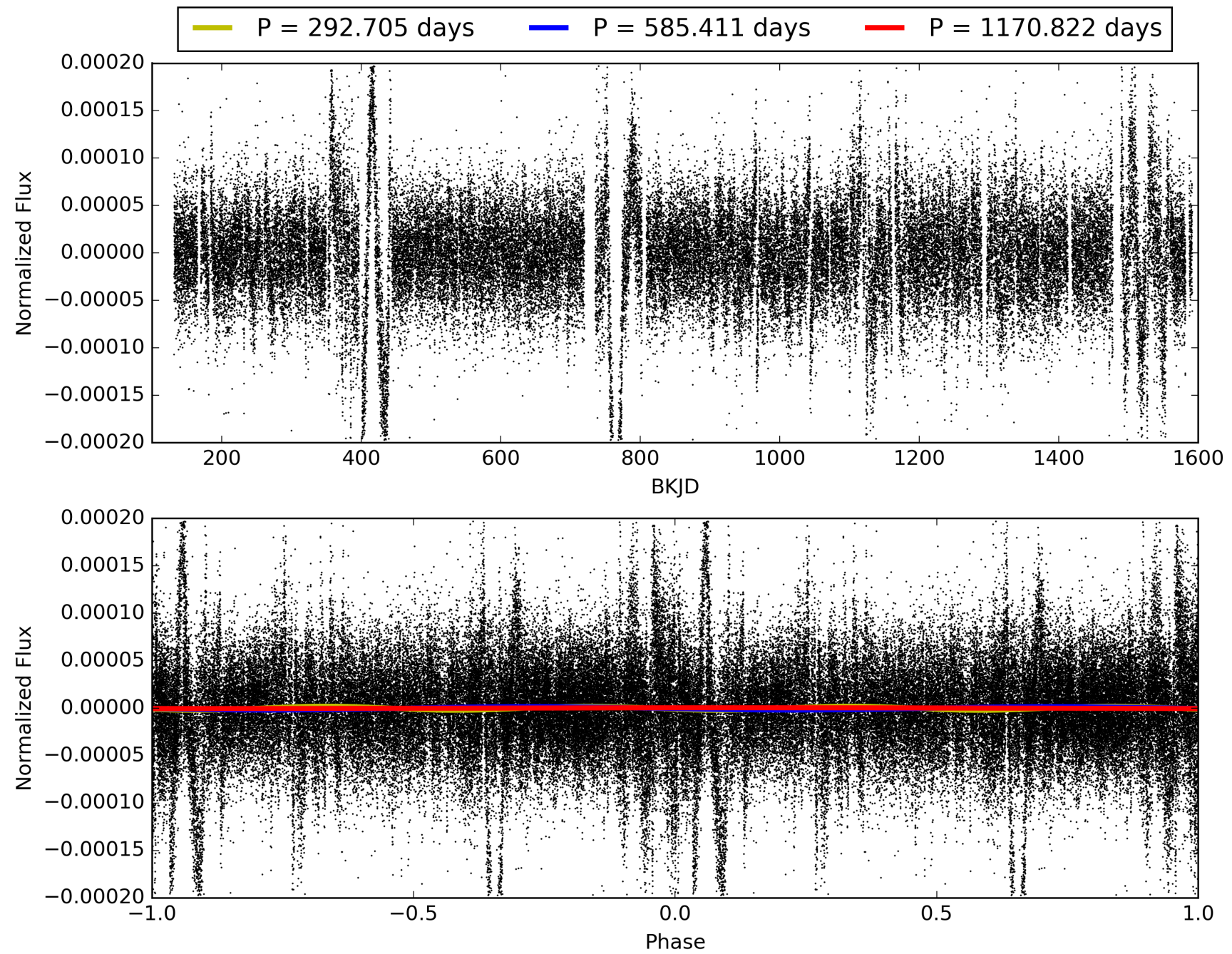
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.6%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 2.73e-18
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.332
Centroid-sig: 21.5%
Centroid-so: 1.023 arcsec [1.00σ]
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 007184552-01, PDC Light Curves

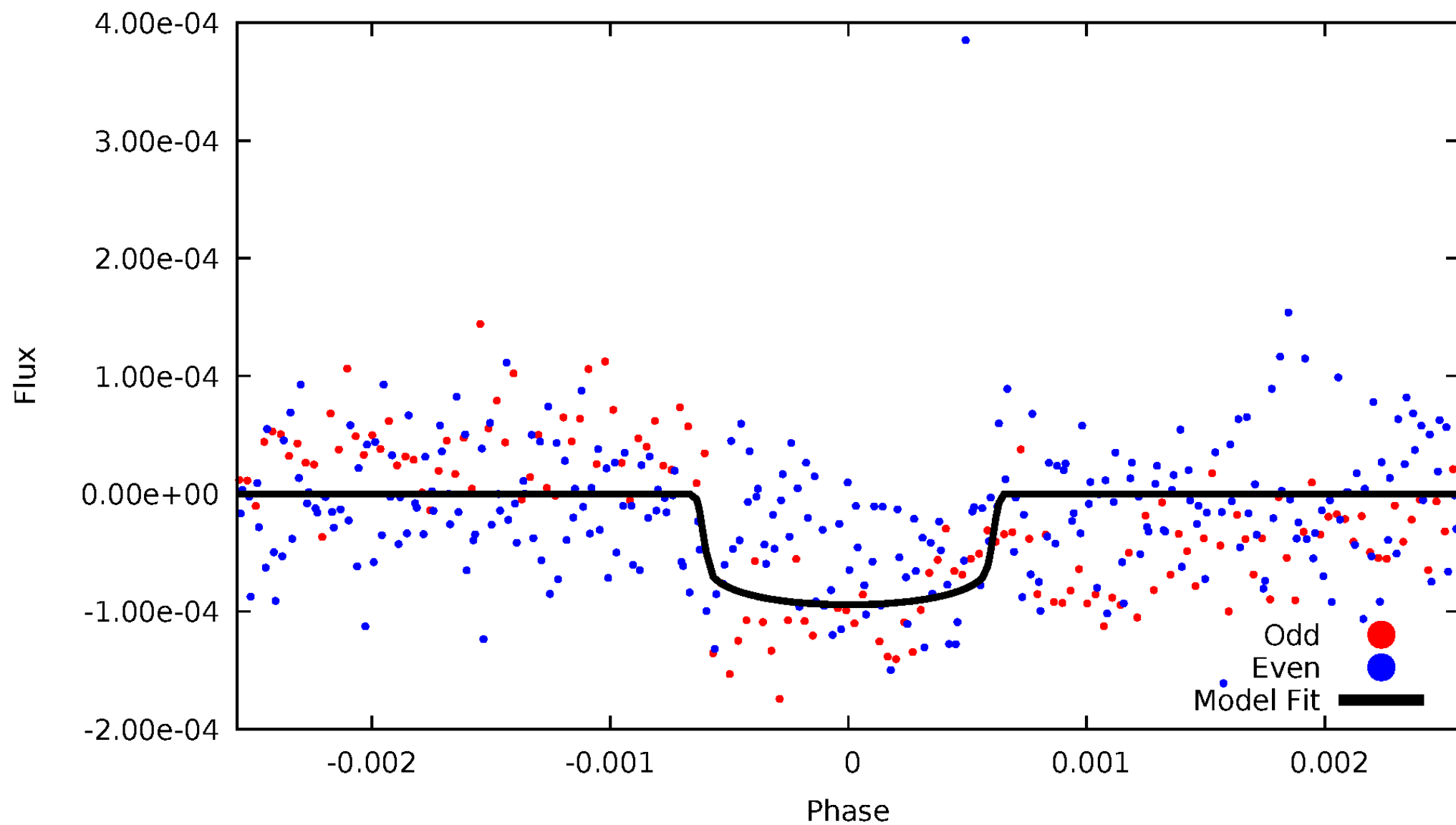


TCE 007184552-01



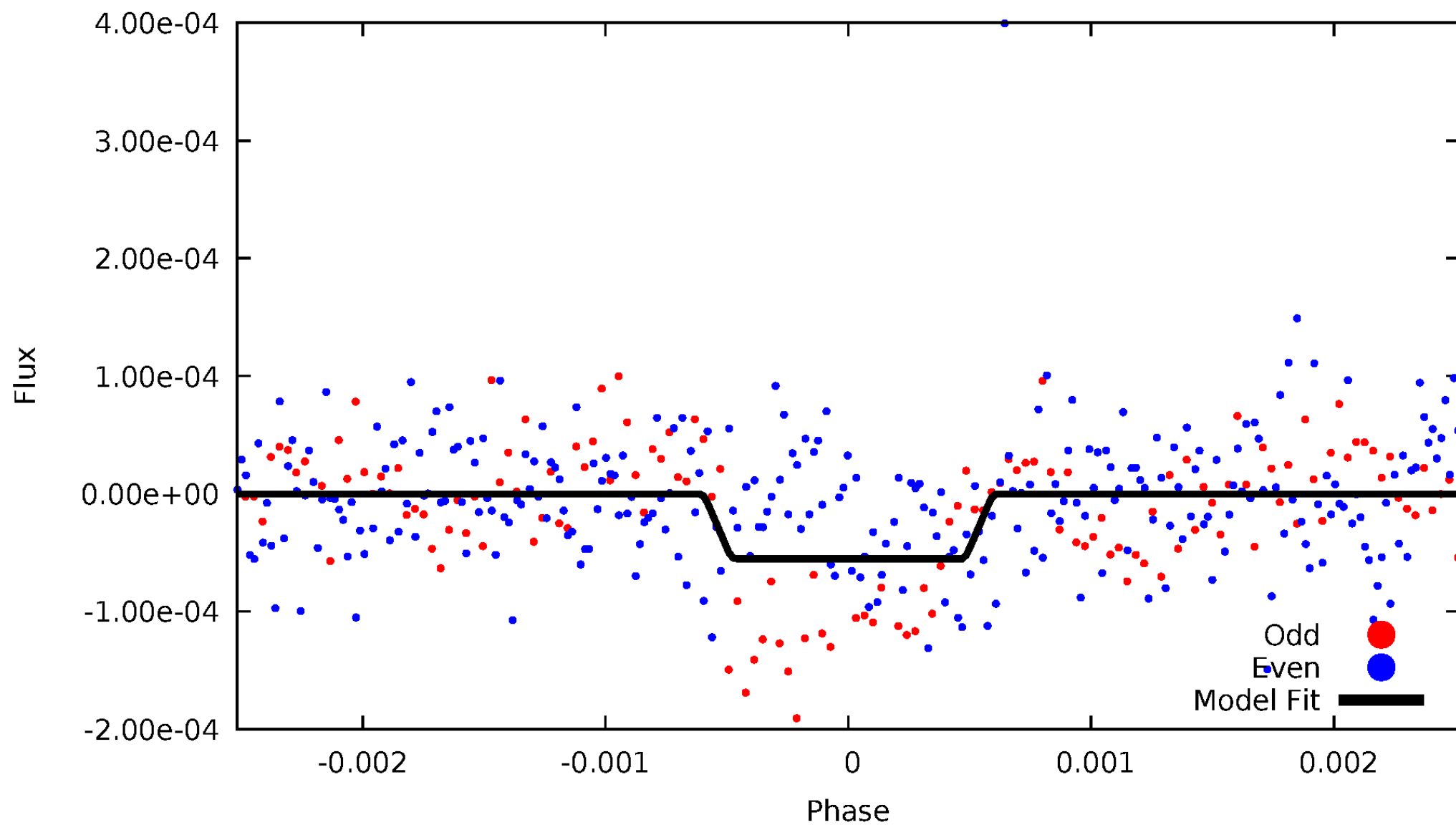
DV Odd/Even

TCE 007184552-01



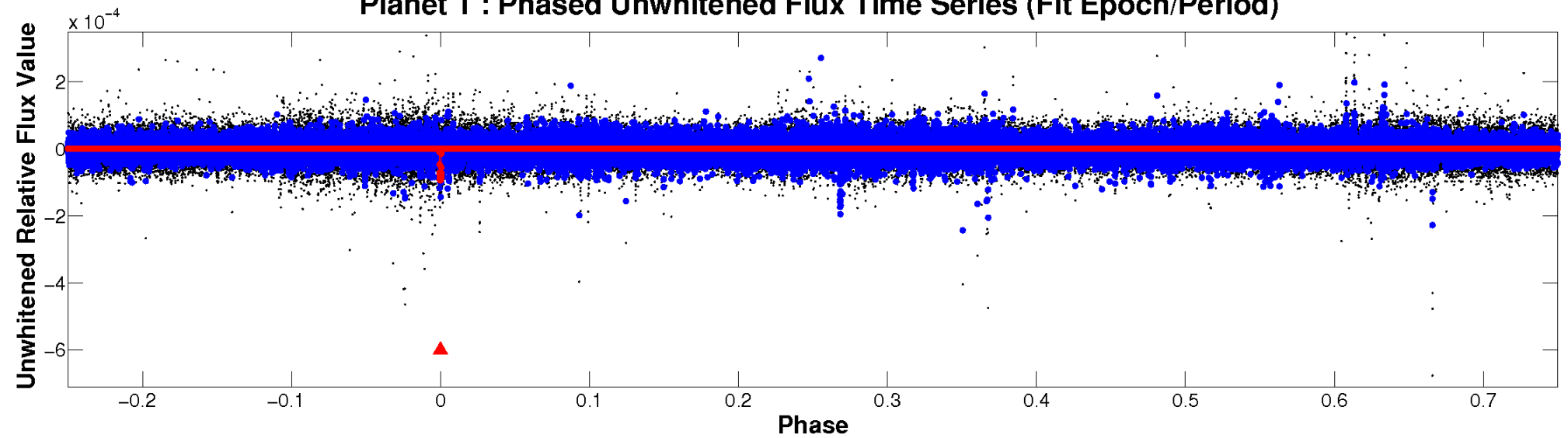
ALT Odd/Even

TCE 007184552-01

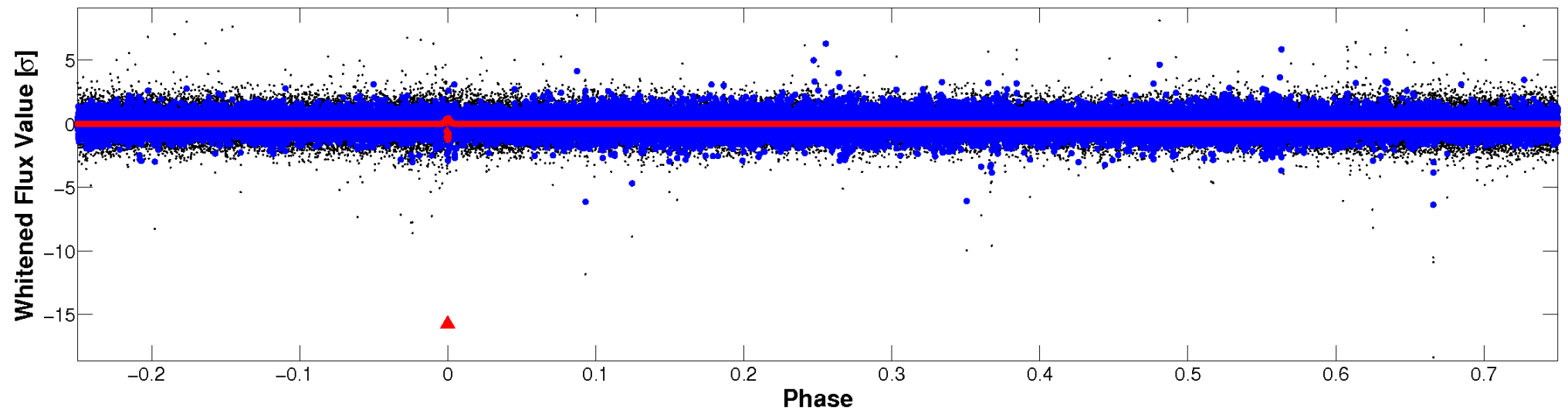


Non-Whitened Vs. Whitened Light Curve

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

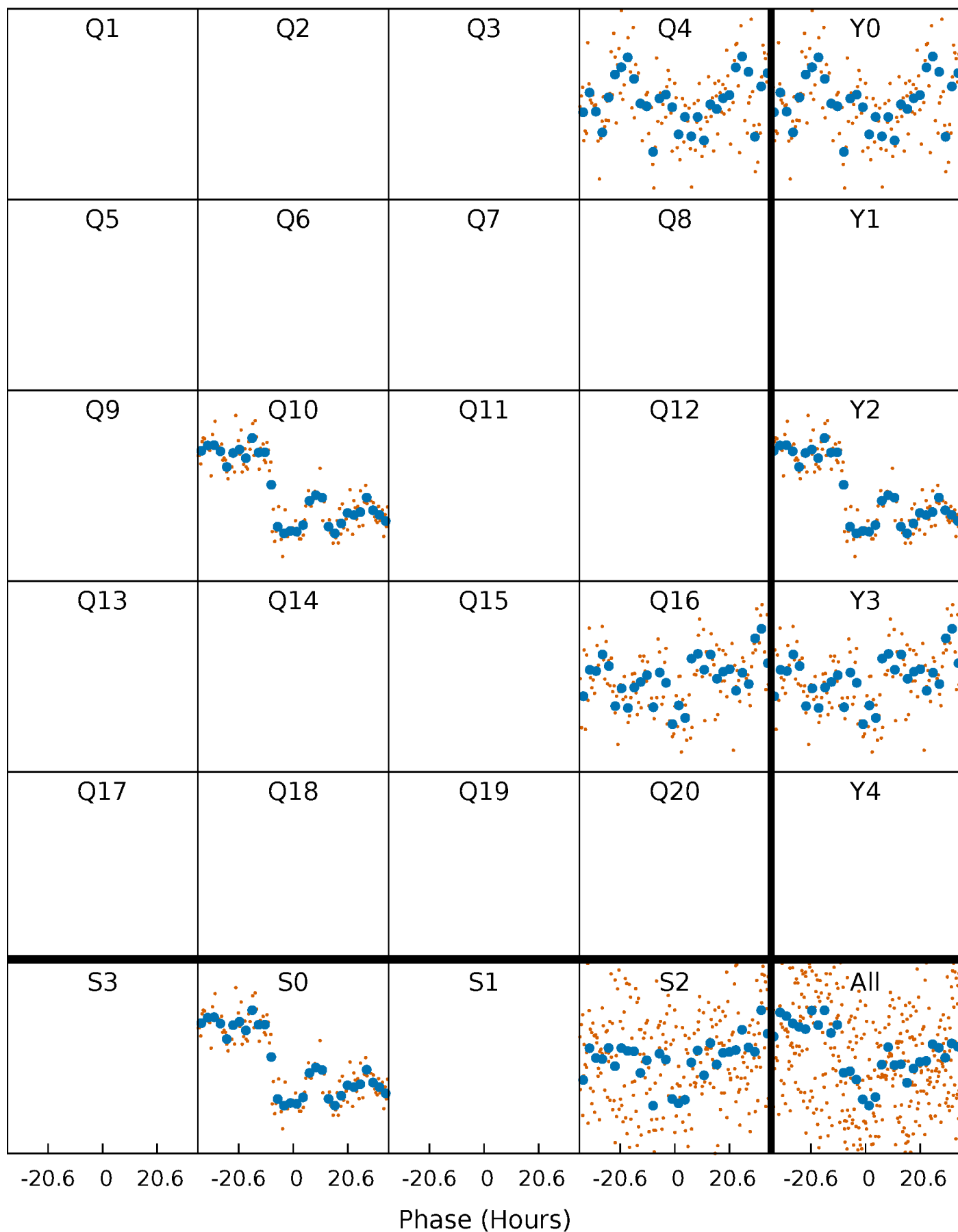


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



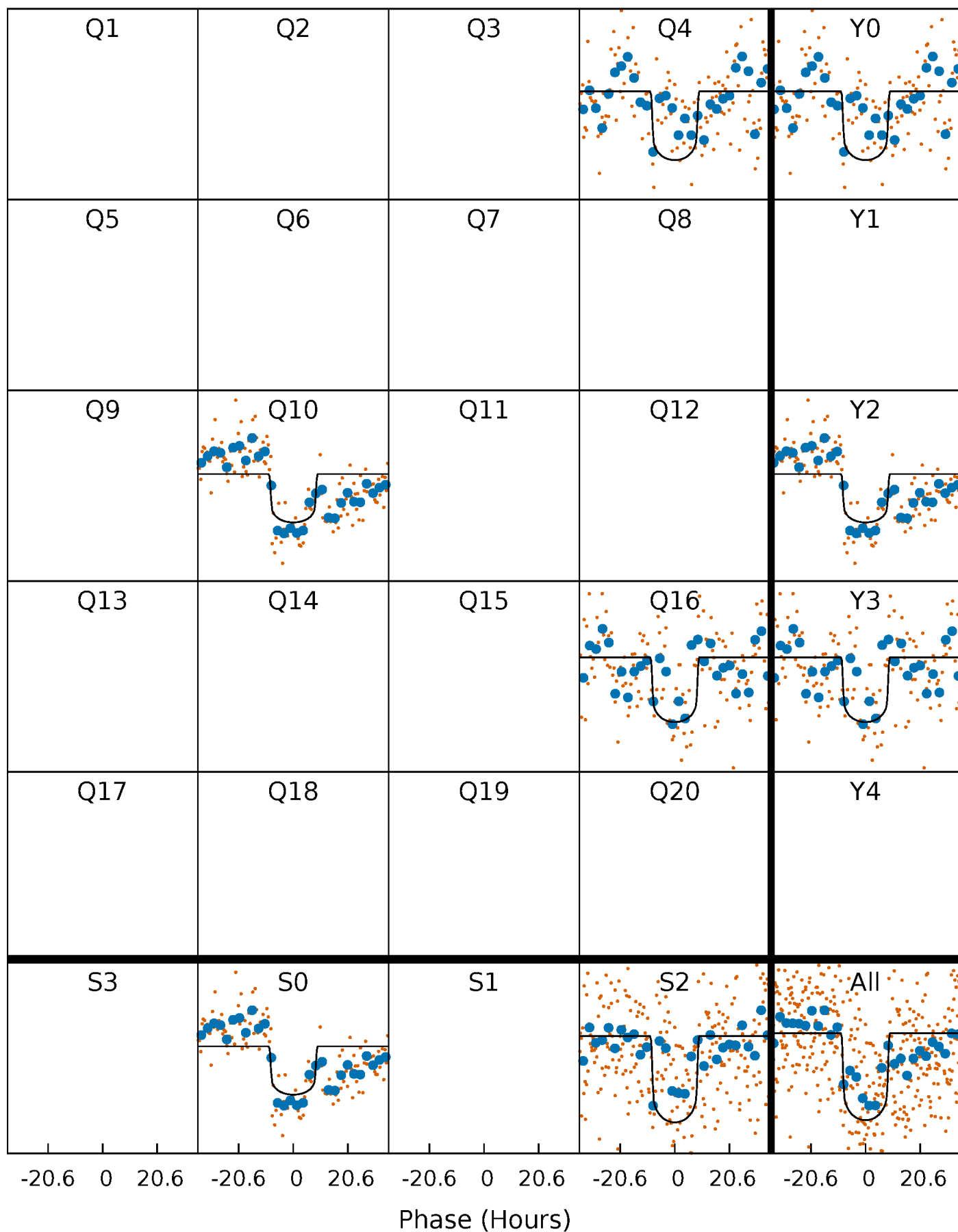
PDC Quarter-Phased Transit Curves

TCE 007184552-01 P=585.410780 Days $T_0=381.352568$ (BKJD)



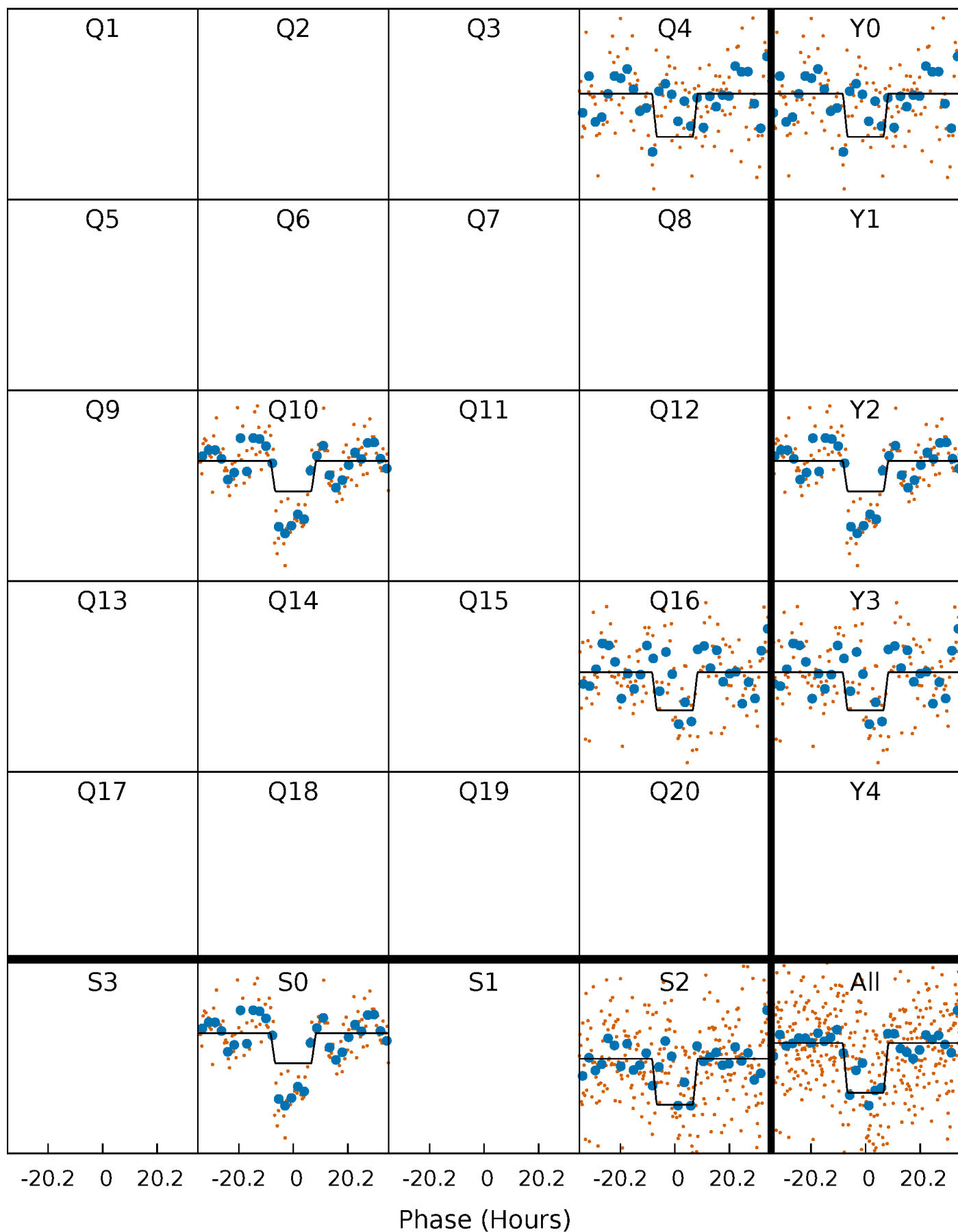
DV Quarter-Phased Transit Curves

TCE 007184552-01 P=585.410780 Days $T_0=381.352568$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

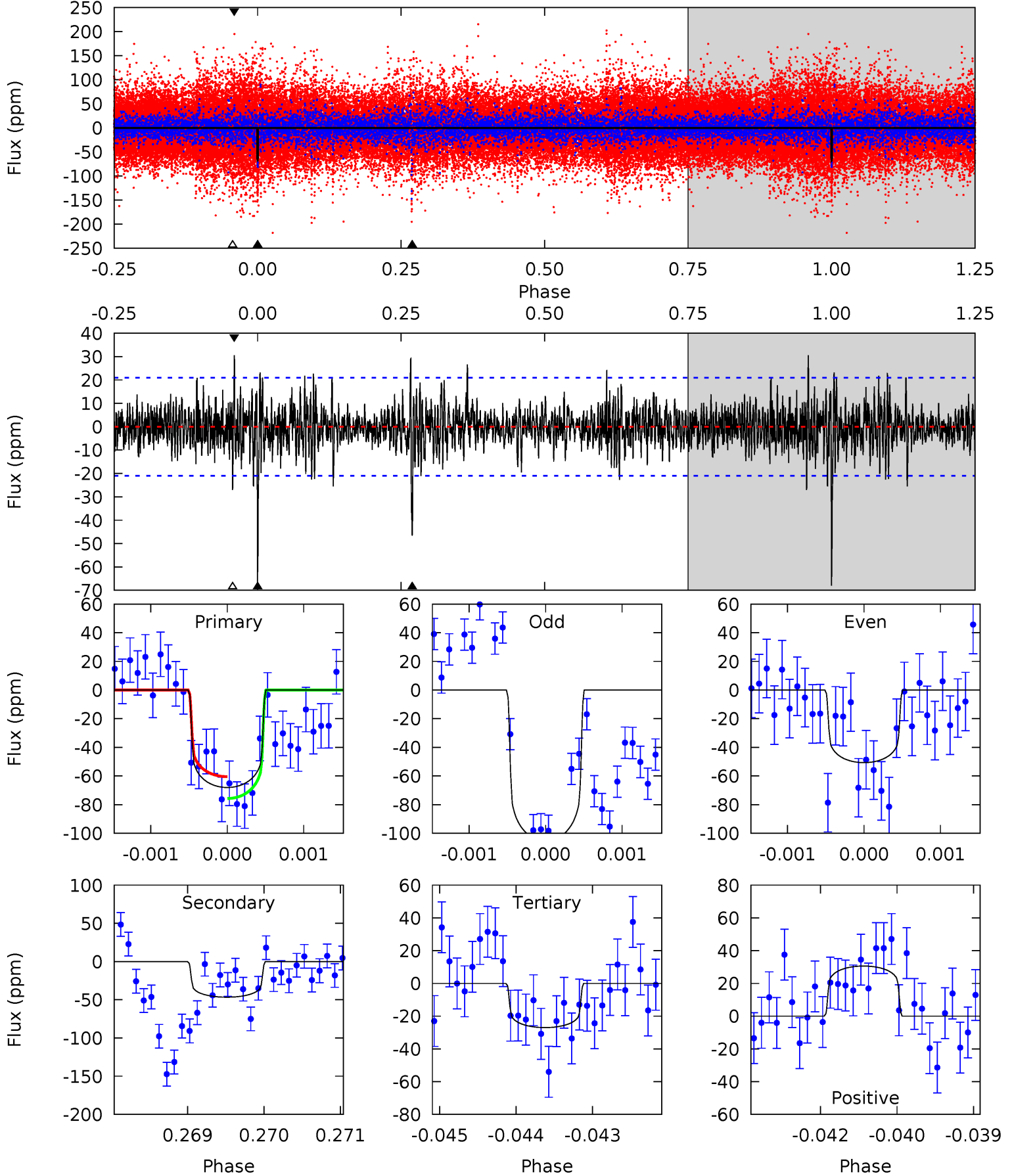
TCE 007184552-01 P=585.367005 Days $T_0=381.352197$ (BKJD)



DV Model-Shift Uniqueness Test

007184552-01, $P = 585.410780$ Days, $E = 381.352568$ Days

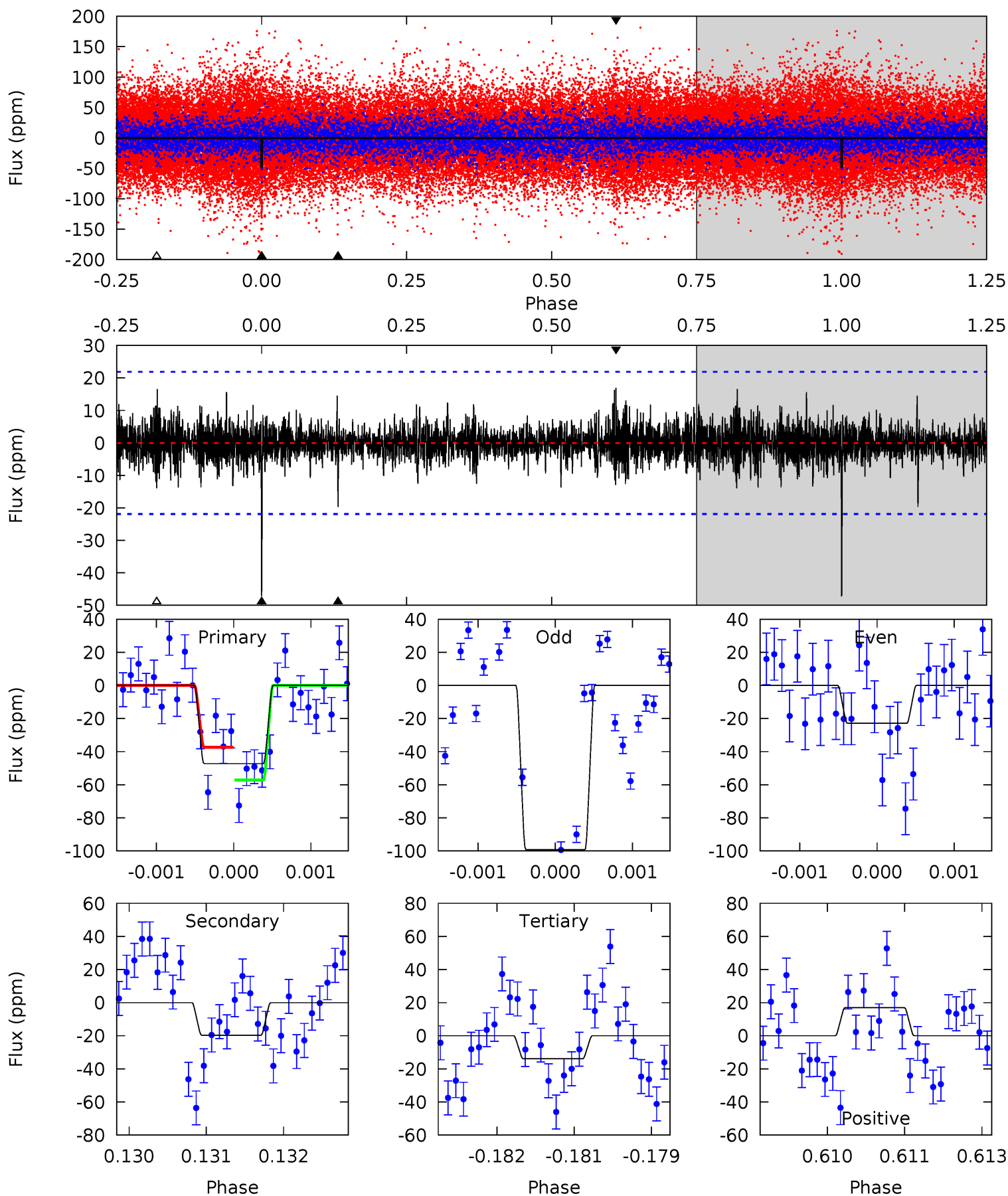
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	12.0	6.95	7.87	5.40	3.22	1.74	10.6	9.64	5.05	4.13	6.44	1.35	0.31	1.96



Alt Model-Shift Uniqueness Test

007184552-01, $P = 585.367005$ Days, $E = 381.352197$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	4.87	3.45	4.19	5.42	3.24	0.95	8.24	7.50	1.42	0.68	8.83	1.53	0.26	2.45



Stellar Parameters For KIC 007184552

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8007^{+223}_{-335}	$3.943^{+0.252}_{-0.126}$	$0.070^{+0.200}_{-0.450}$	$2.495^{+0.444}_{-0.824}$	$1.993^{+0.291}_{-0.436}$	$0.181^{+0.297}_{-0.070}$
	+3%/-4%	+6%/-3%	+286%/-643%	+18%/-33%	+15%/-22%	+165%/-39%
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 007184552-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-47 ± 4	$2.76^{+0.42}_{-0.51}$	588^{+39}_{-52}	6330^{+380}_{-329}	9881^{+5068}_{-2417}
Alt.	-20 ± 4	$1.97^{+0.38}_{-0.37}$	586^{+38}_{-49}	6015^{+493}_{-446}	8206^{+4511}_{-2592}

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

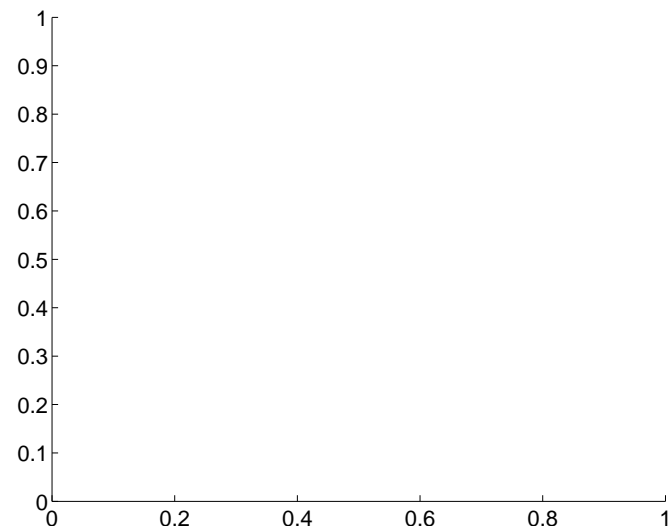
Supplemental centroid analysis for 007184552-01. **Kepler magnitude: 10.79.** Transit SNR 11.01

There are 0 quarters with good PRF difference image offsets

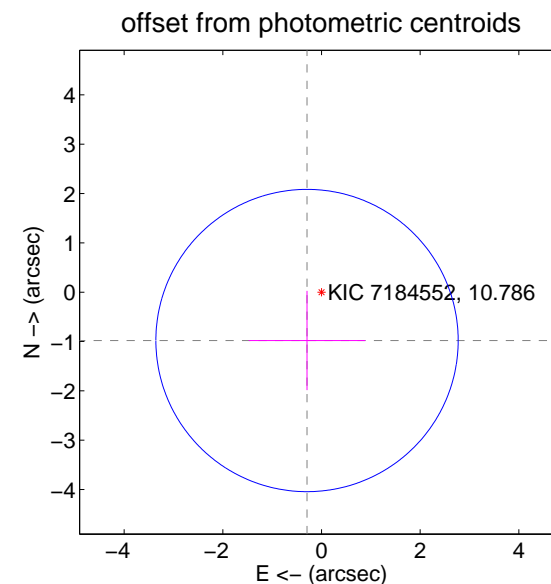
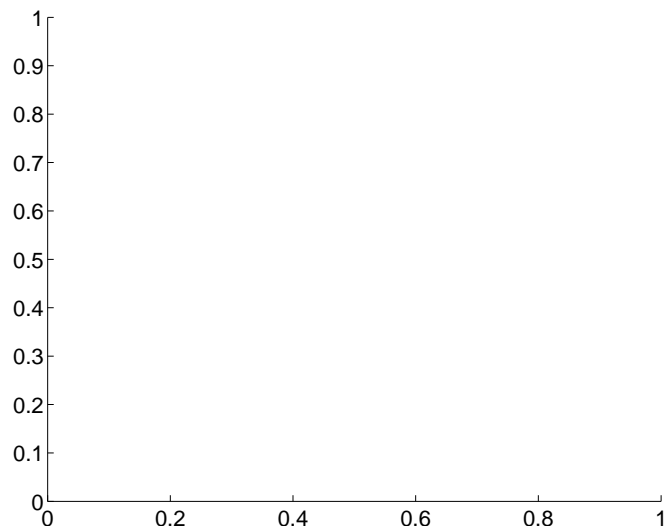
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	1.02 ± 1.02	1.00	0.29 ± 1.18	-0.98 ± 1.01

There is no PRF-fit offset from OOT-fit

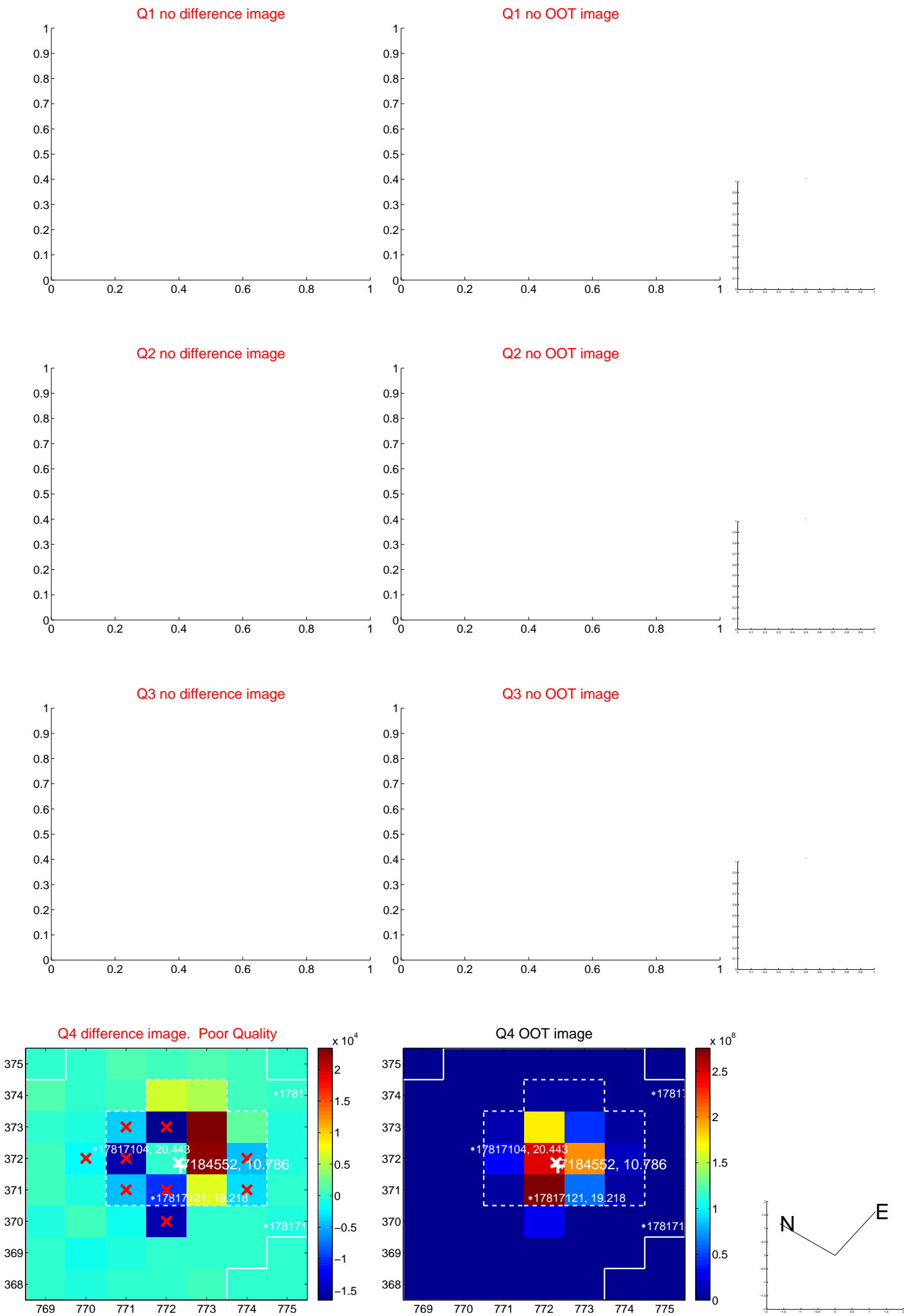


There is no PRF-fit offset from KIC



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.



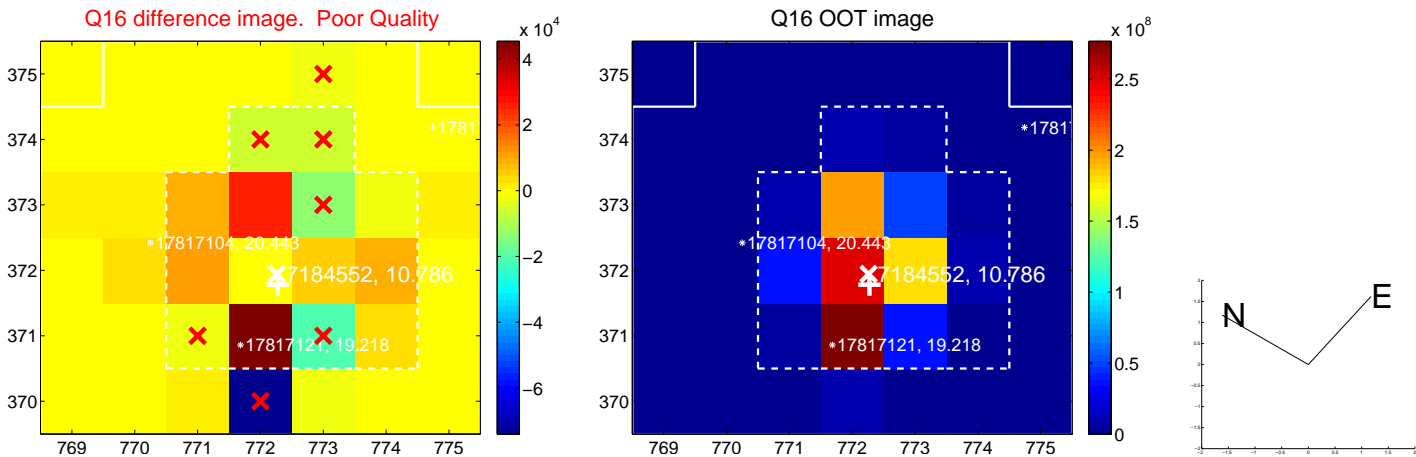
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



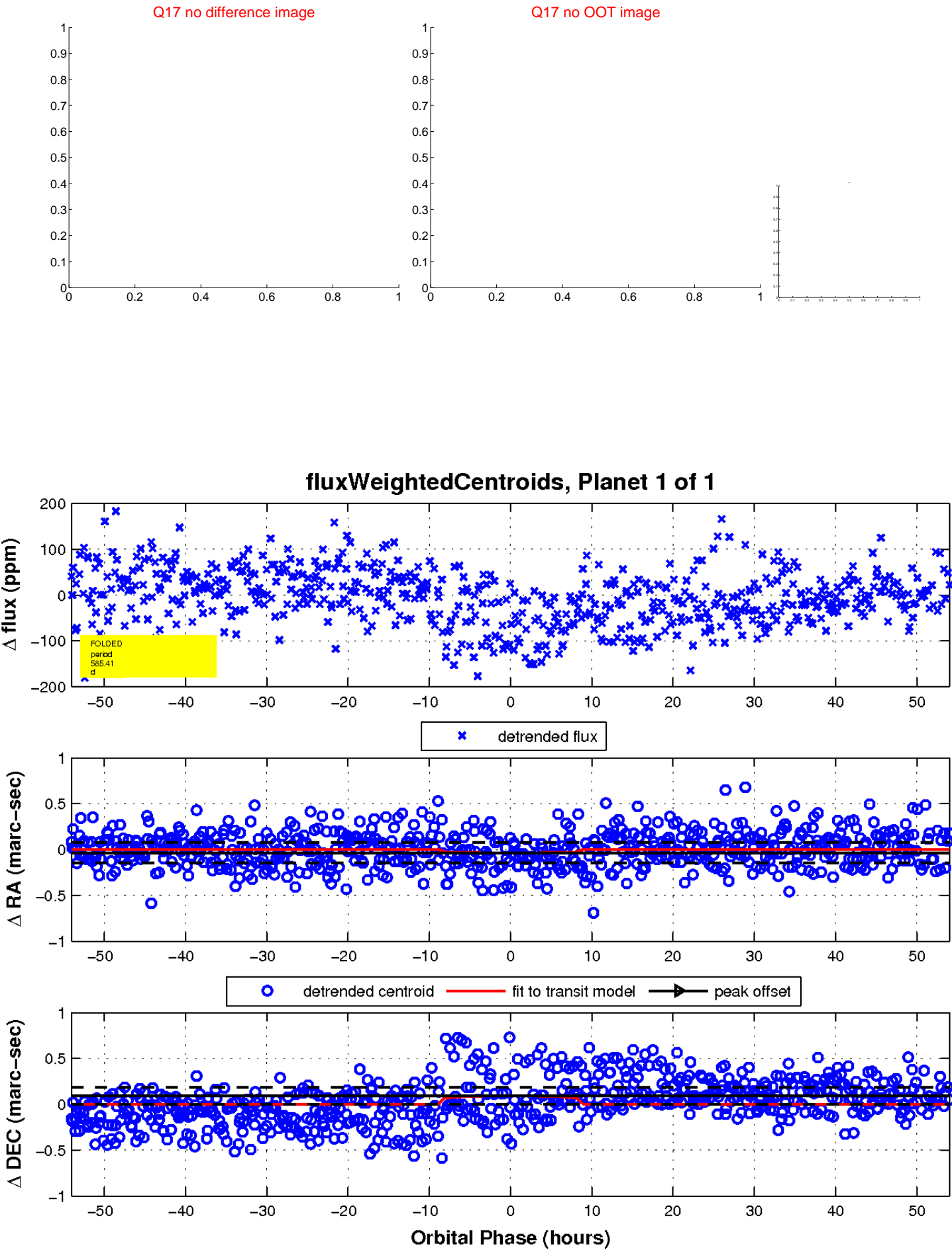
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

