

KIC 007758181

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})
007758181-01	OBS	No	93.043723	159.963182	2219.3	81.446	7.5	16.7	7.27	5081	66.99	120.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007758181-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

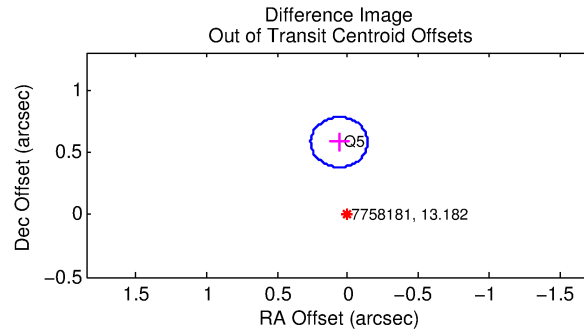
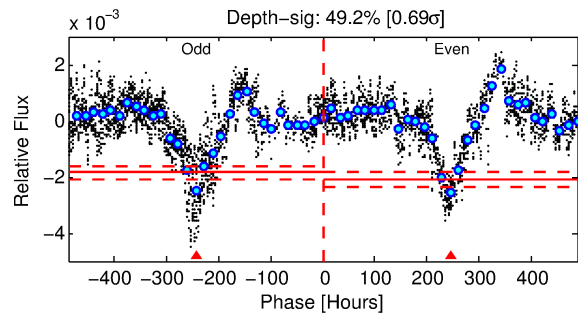
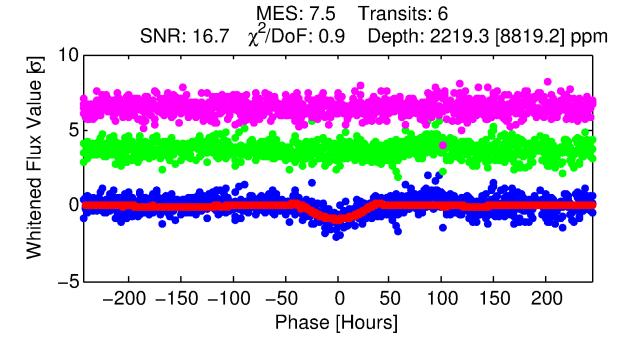
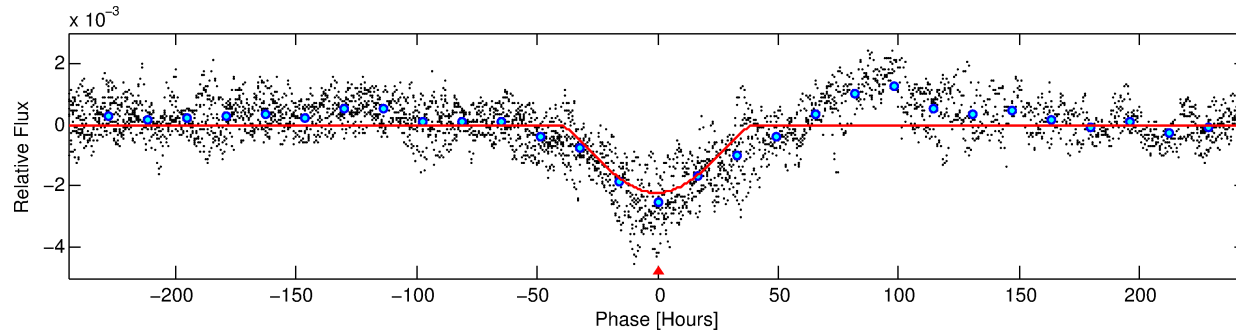
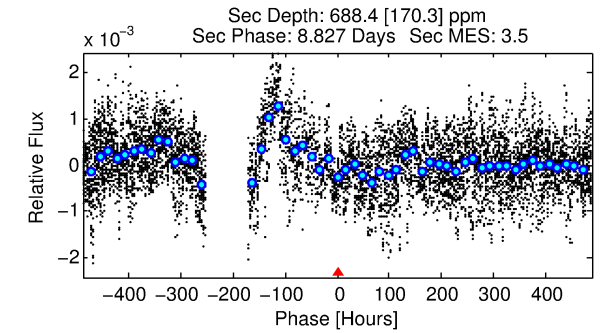
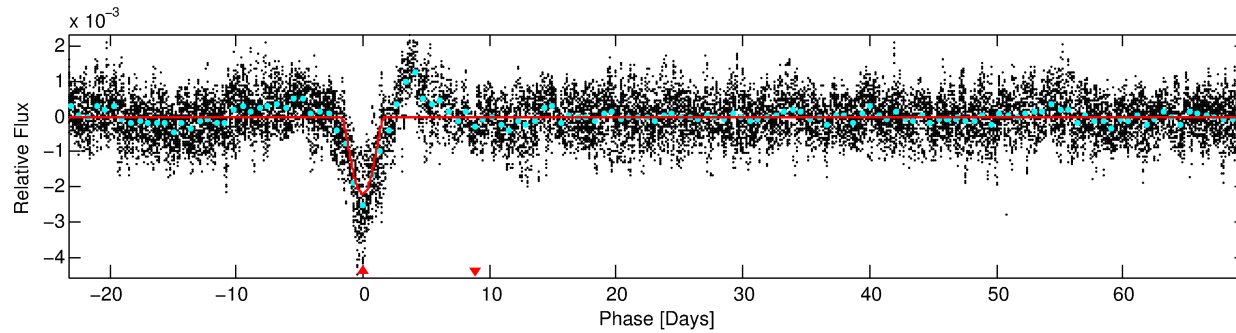
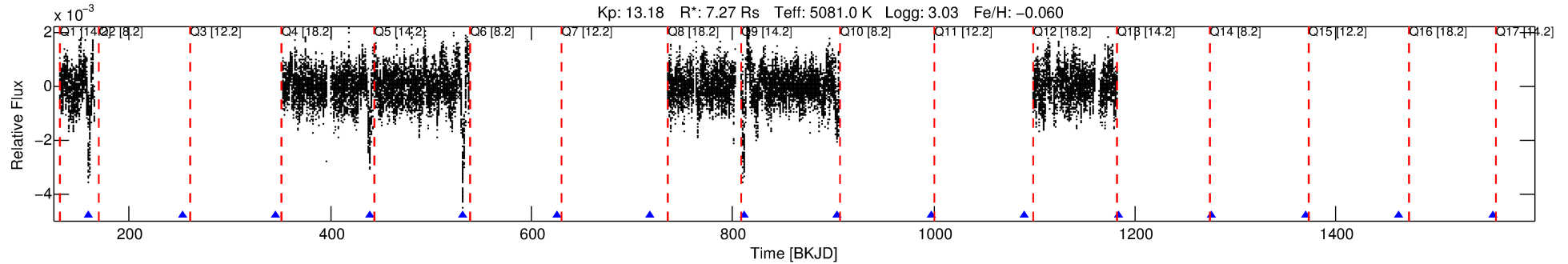
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007758181-01

No Significant Match Found

DV One-Page Summary

KIC: 7758181 Candidate: 1 of 1 Period: 93.044 d



DV Fit Results:

Period = 93.04372 [0.01671] d
Epoch = 159.9632 [0.1033] BKJD
Rp/R* = 0.0845 [0.1392]
a/R* = 3.80 [1.11]
b = 1.00 [0.02]
Seff = 120.22 [98.03]
Teq = 844 [172] K
Rp = 66.99 [116.85] Re
a = 0.5121 [0.2663] AU
Ag = 22.13 [75.29] [0.28σ]
Teffp = 2832 [2342] K [0.85σ]

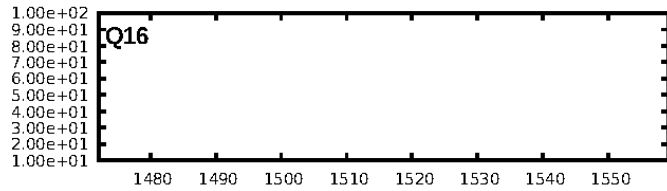
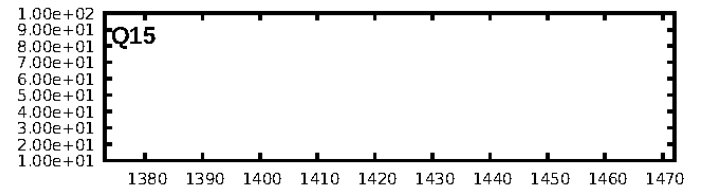
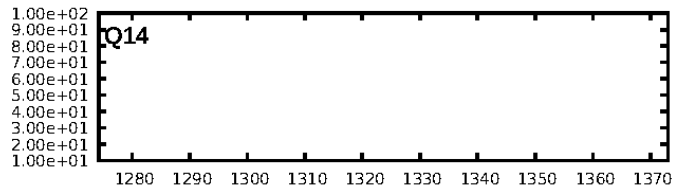
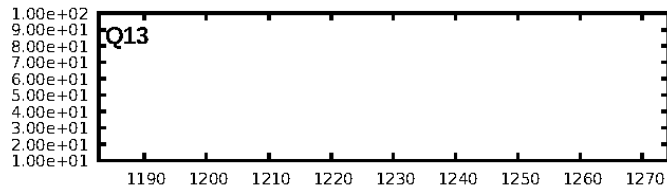
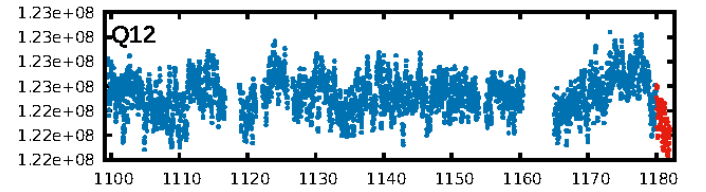
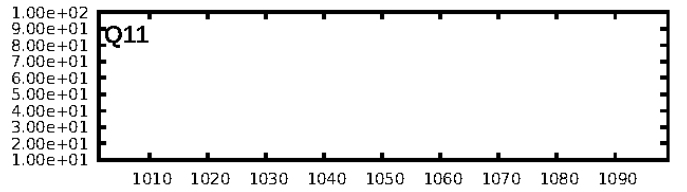
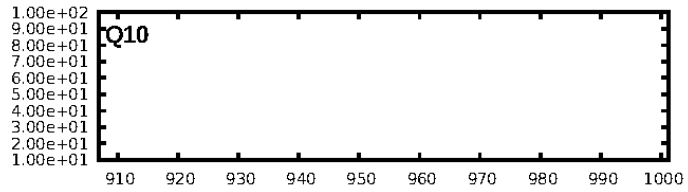
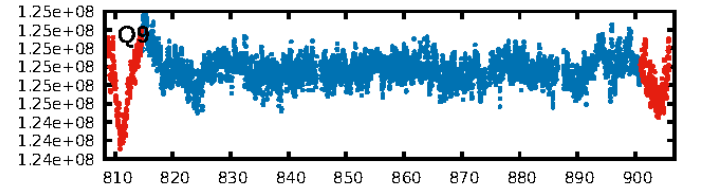
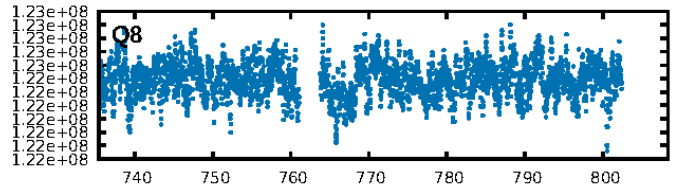
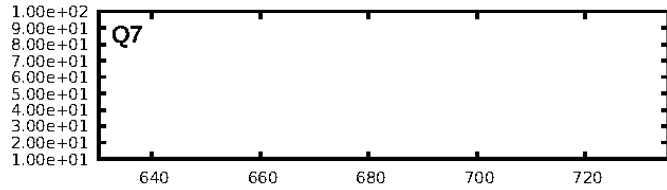
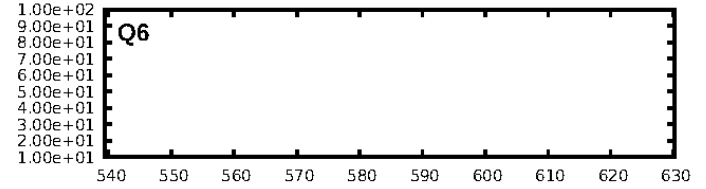
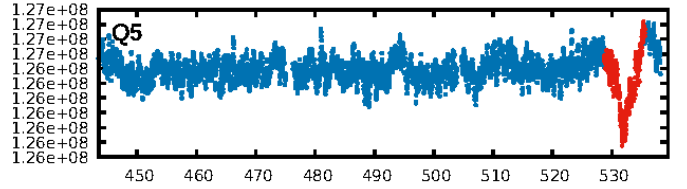
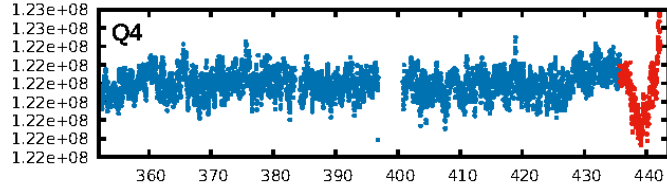
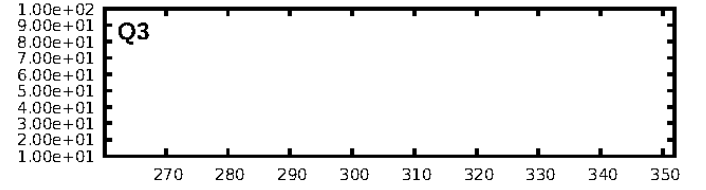
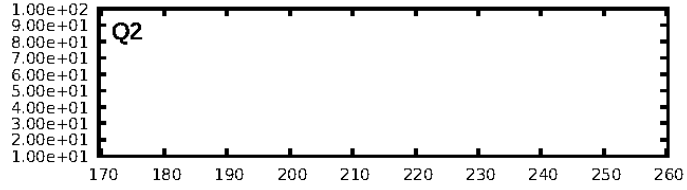
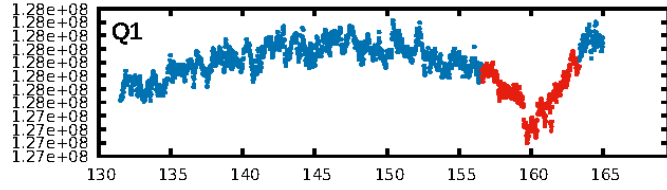
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.13e-12
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -5.525
Centroid-sig: 1.0%
Centroid-so: 2.906 arcsec [31.87σ]
OotOffset-rm: 0.583 arcsec [8.71σ]
KicOffset-rm: 0.556 arcsec [8.30σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

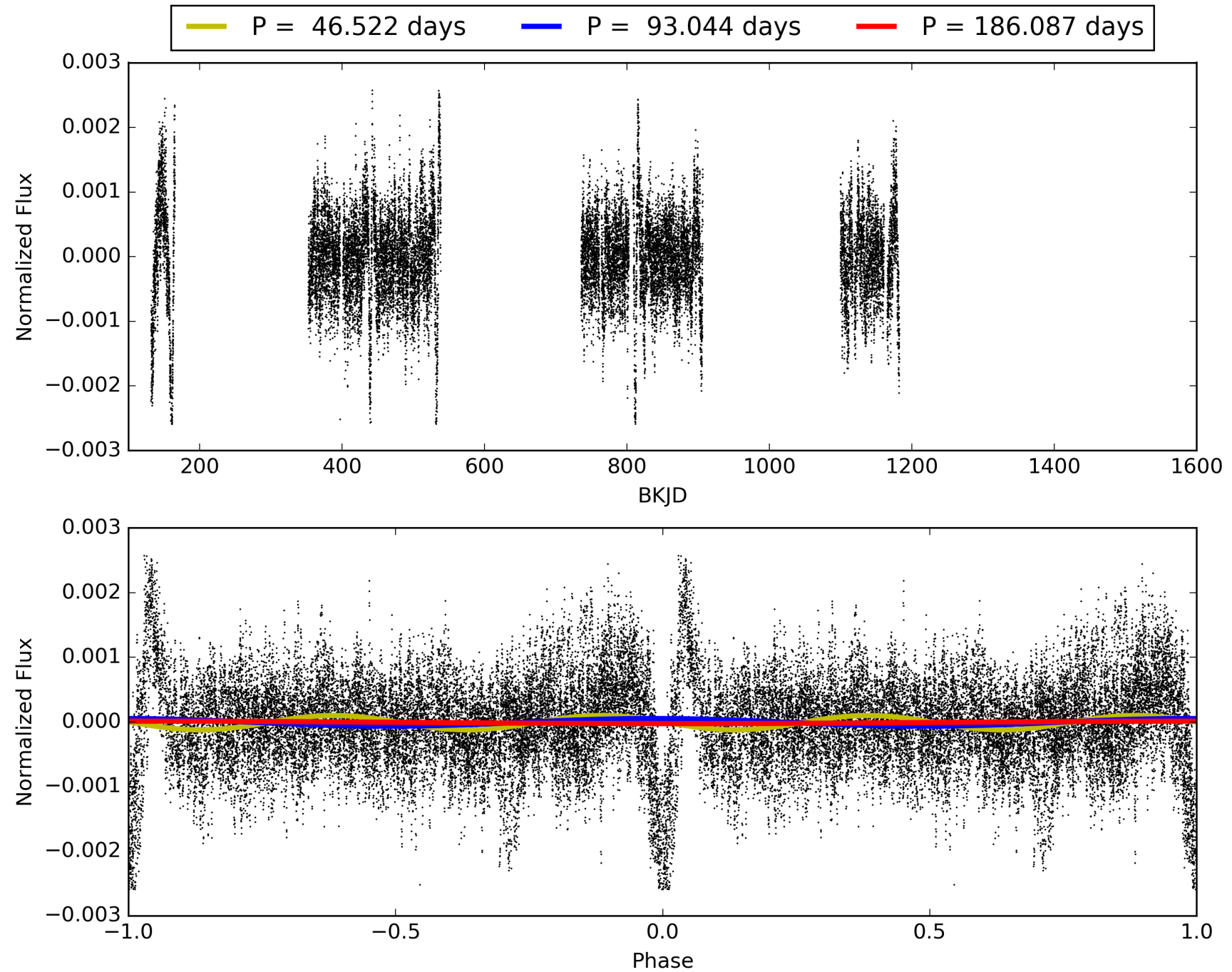
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:29:00 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007758181-01, PDC Light Curves

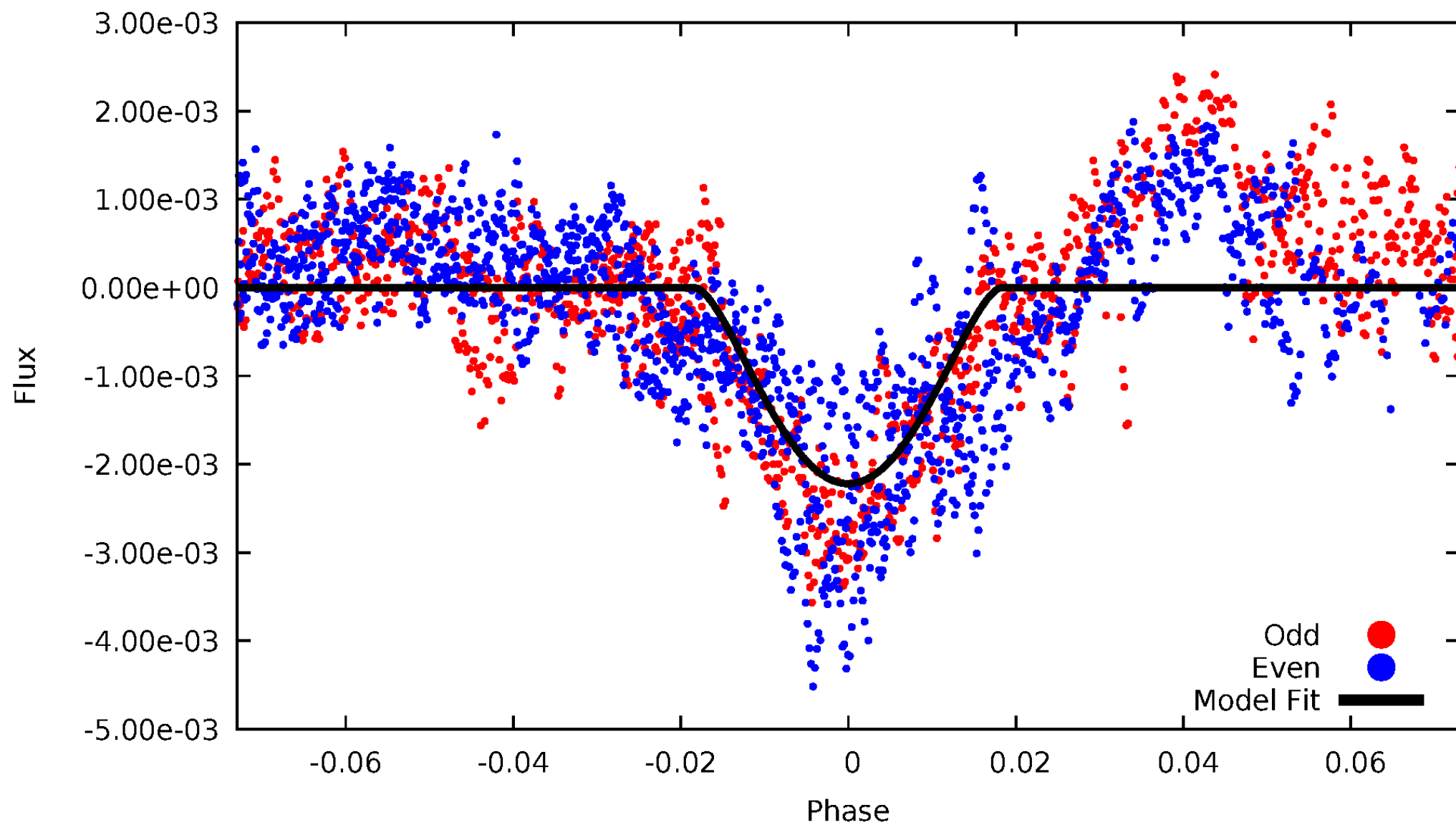


TCE 007758181-01



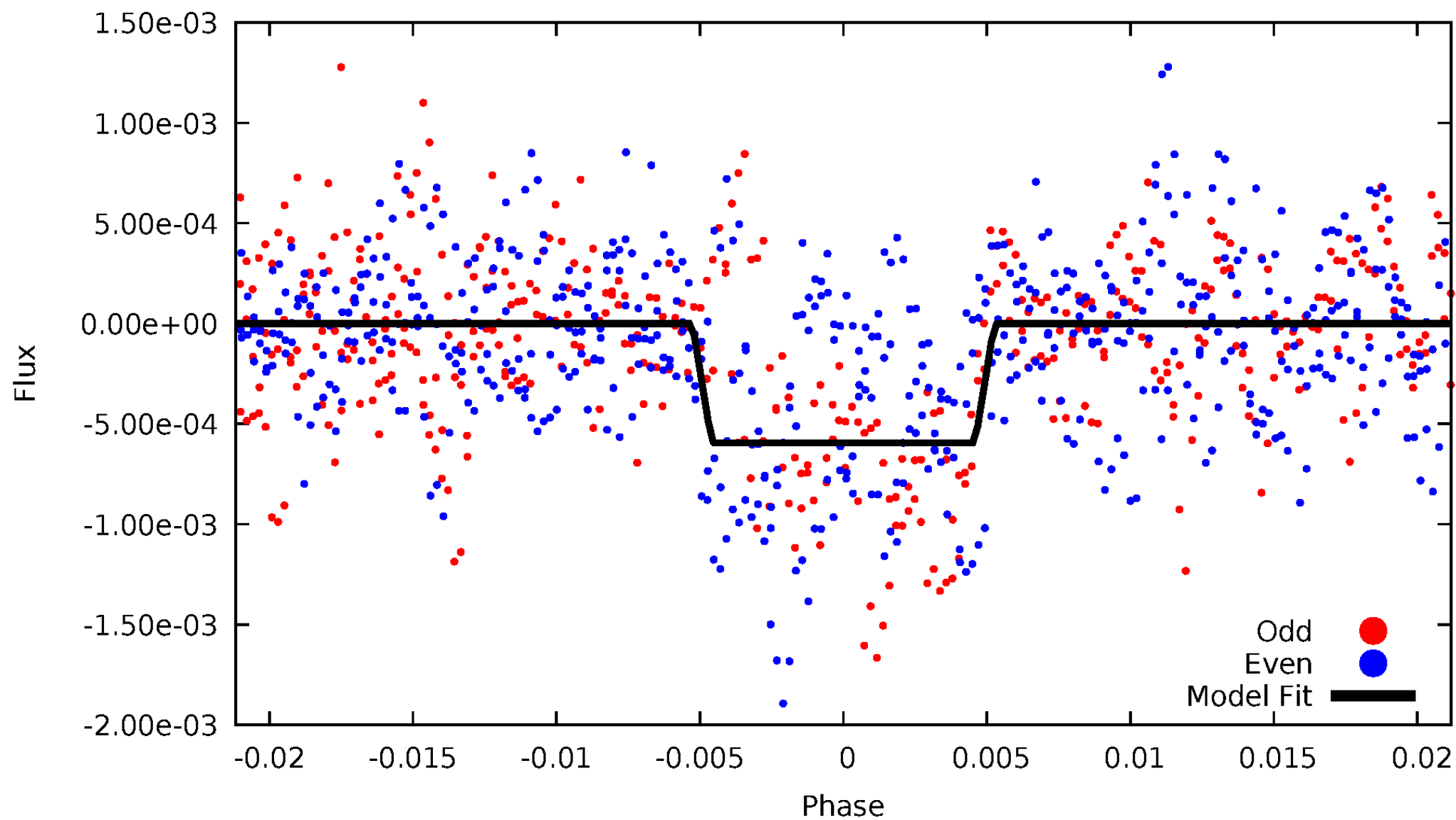
DV Odd/Even

TCE 007758181-01



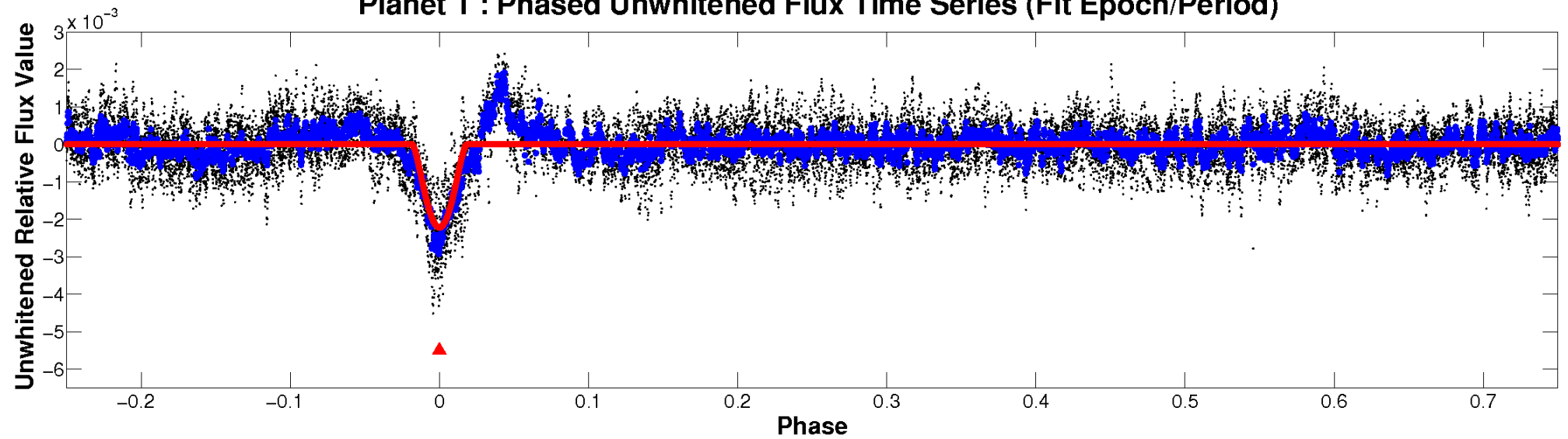
ALT Odd/Even

TCE 007758181-01

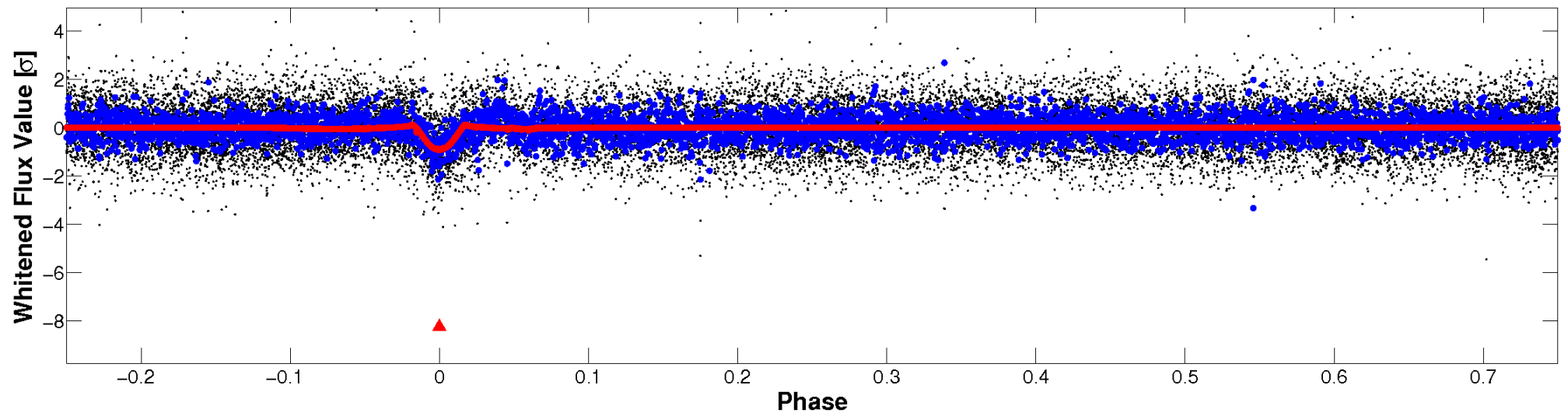


Non-Whitened Vs. Whitened Light Curve

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

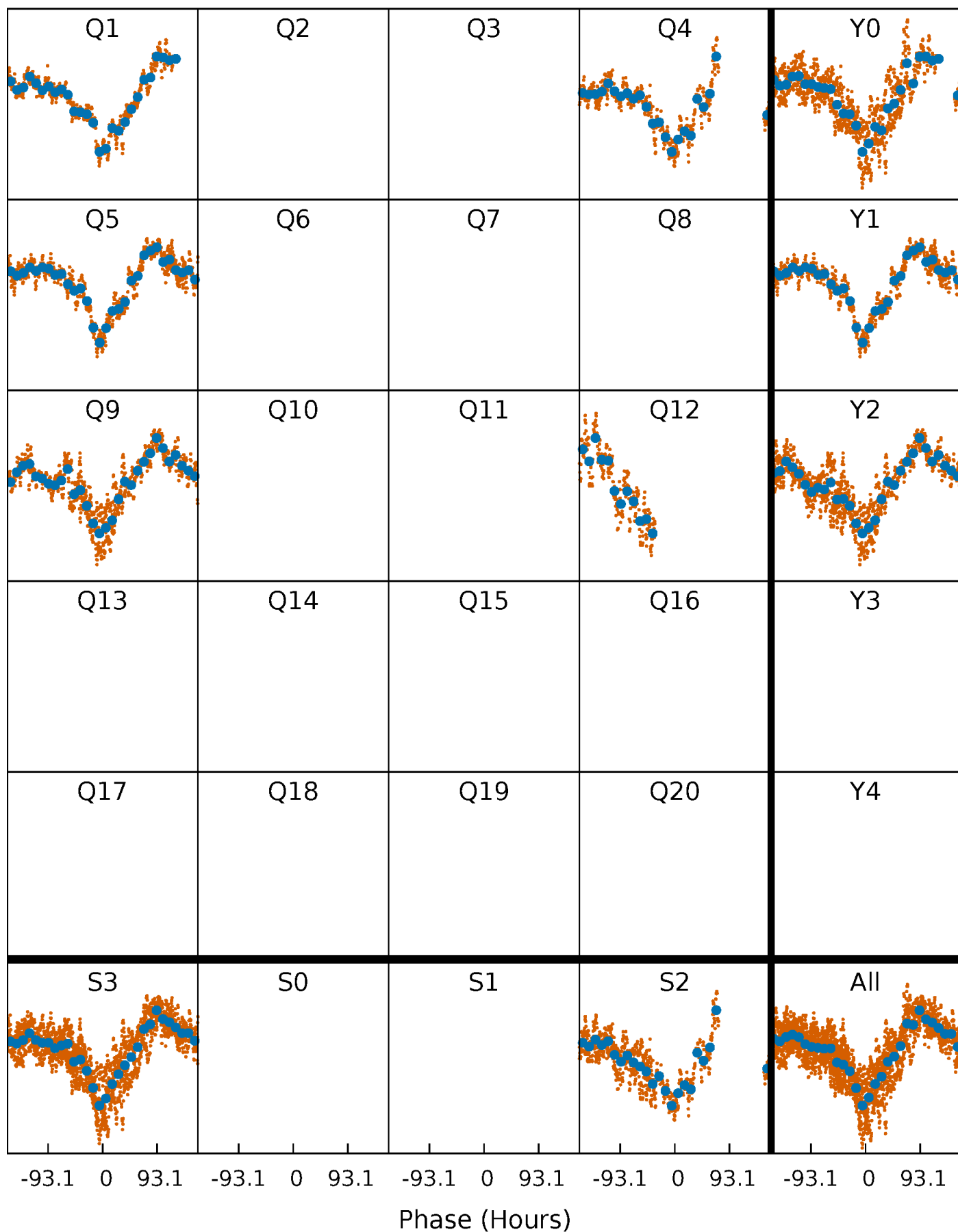


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



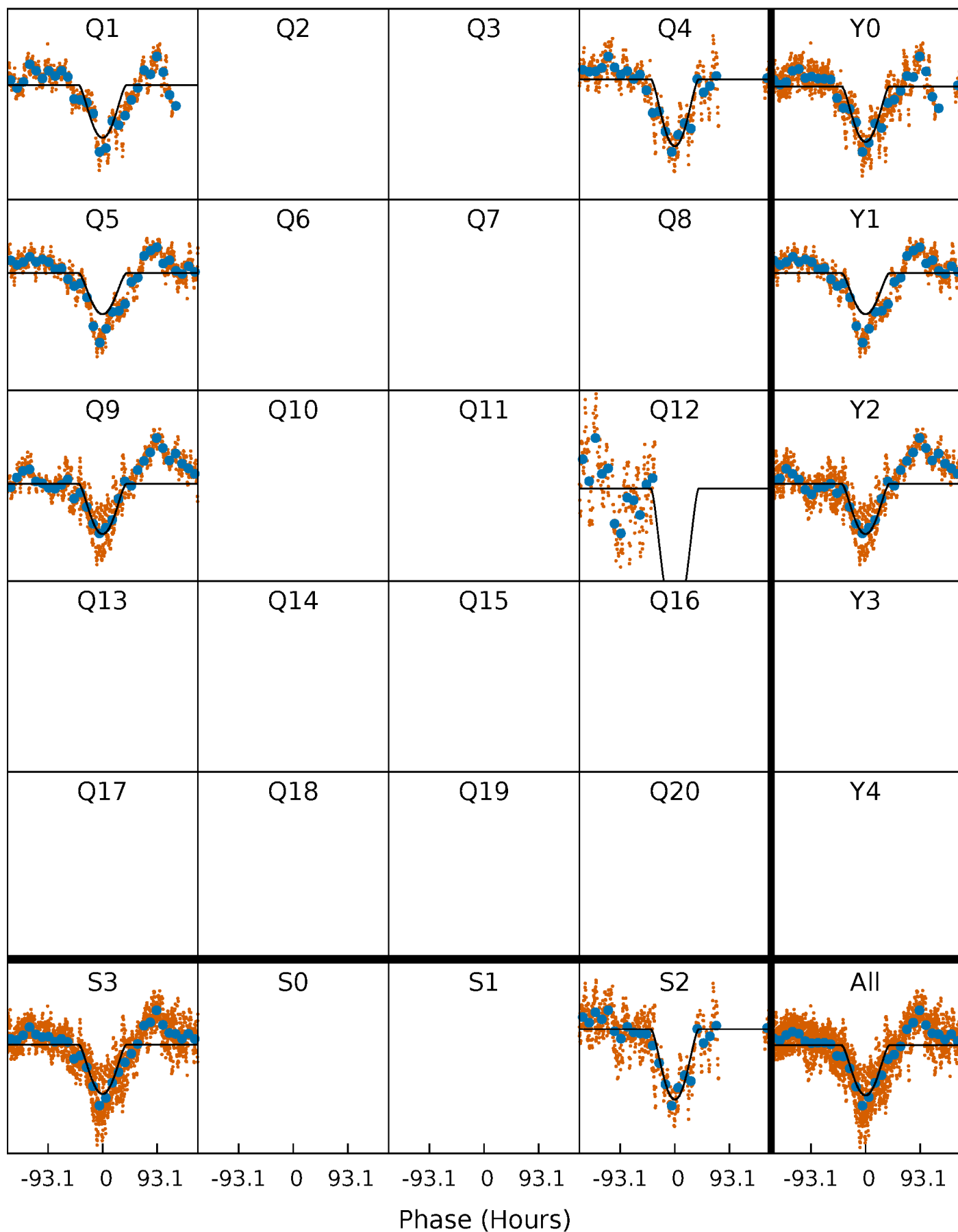
PDC Quarter-Phased Transit Curves

TCE 007758181-01 P= 93.043723 Days $T_0=159.963182$ (BKJD)



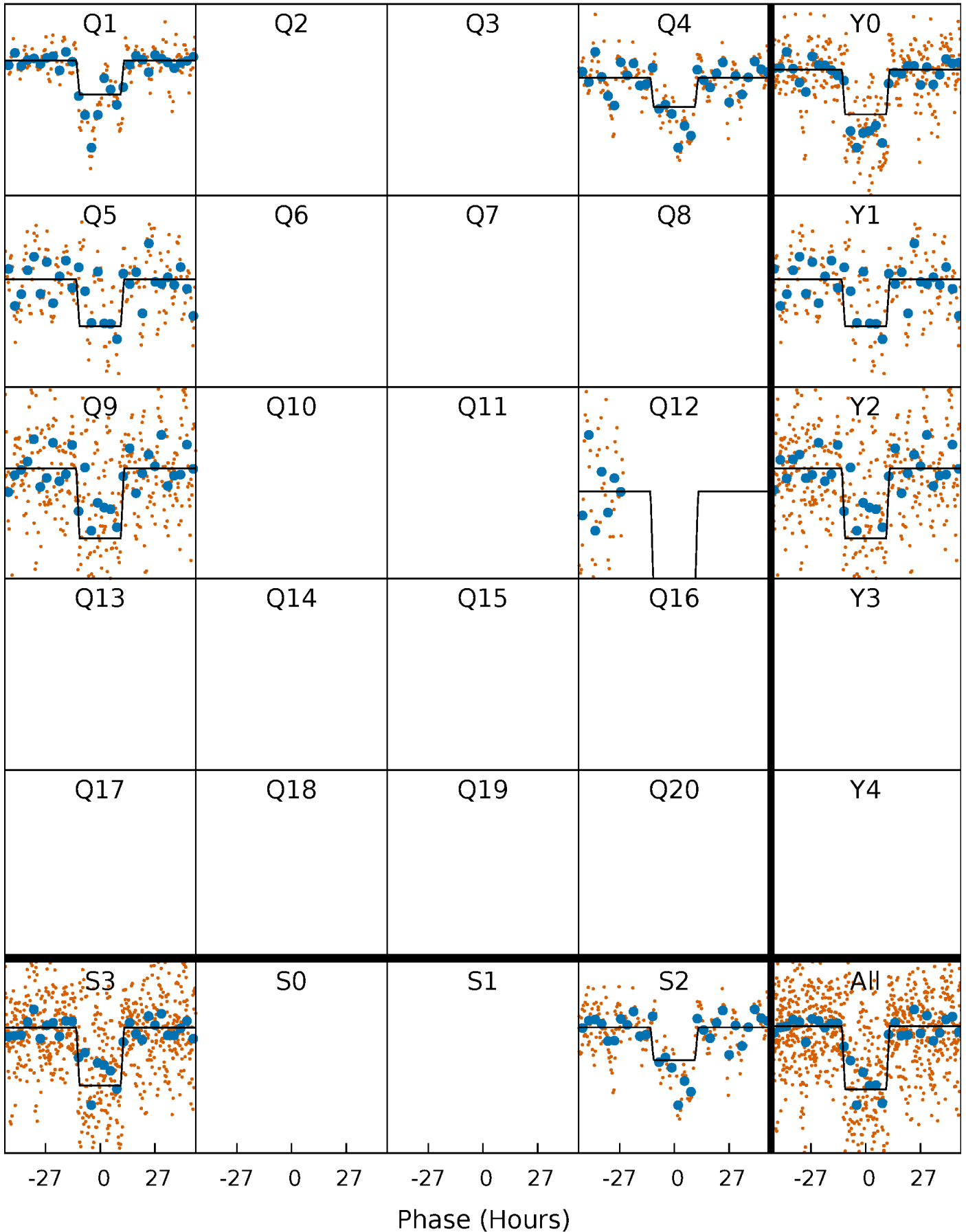
DV Quarter-Phased Transit Curves

TCE 007758181-01 P= 93.043723 Days $T_0=159.963182$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

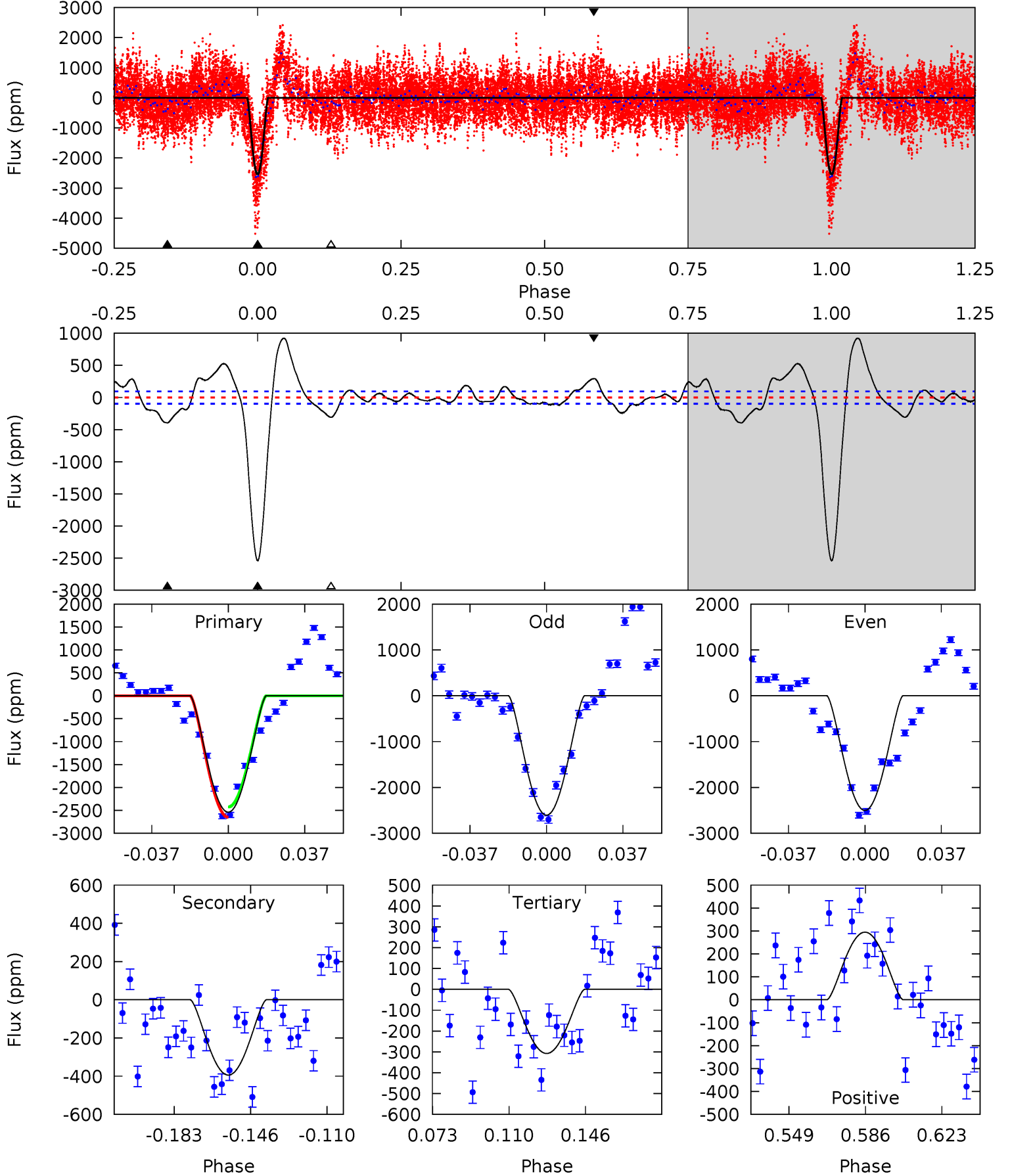
TCE 007758181-01 P= 93.013565 Days $T_0=159.927114$ (BKJD)



DV Model-Shift Uniqueness Test

007758181-01, P = 93.043723 Days, E = 66.919459 Days

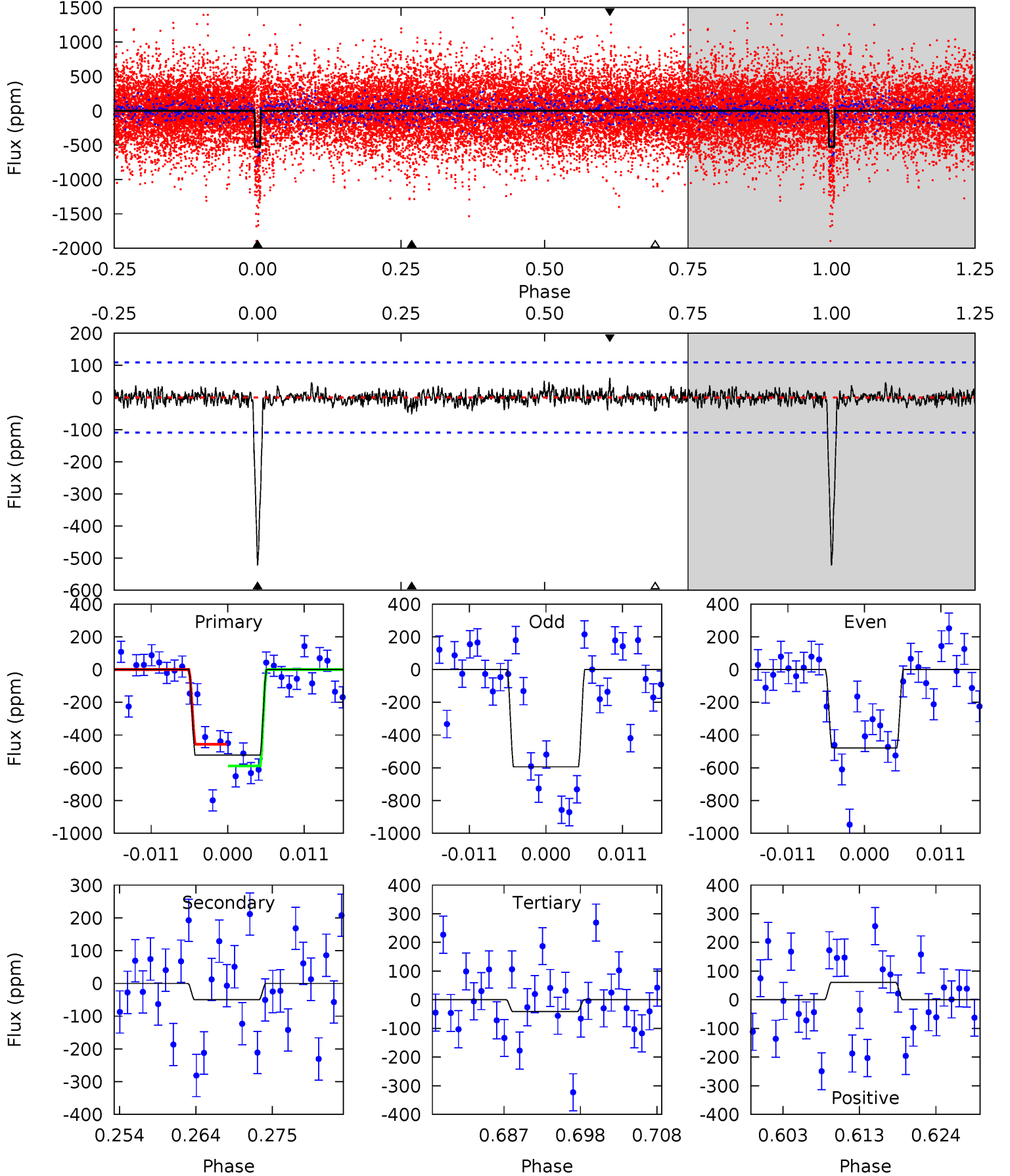
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
127.1	19.7	15.4	14.8	4.77	2.09	9.66	111.7	112.3	4.34	4.98	2.59	1.01	0.27	5.55



Alt Model-Shift Uniqueness Test

007758181-01, P = 93.013565 Days, E = 66.913549 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.0	2.30	1.91	2.80	5.02	2.56	0.64	22.1	21.3	0.39	-0.49	2.58	1.21	0.10	3.05



Stellar Parameters For KIC 007758181

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5081^{+112}_{-175}	$3.031^{+0.461}_{-0.213}$	$-0.060^{+0.200}_{-0.300}$	$7.266^{+2.236}_{-4.152}$	$2.070^{+0.704}_{-1.056}$	$0.008^{+0.048}_{-0.004}$
	+2%/-3%	+15%/-7%	+333%/-500%	+31%/-57%	+34%/-51%	+635%/-54%
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 007758181-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-394 ± 20	$100.03^{+97.84}_{-65.68}$	1160^{+113}_{-145}	2688^{+998}_{-437}	$5.790^{+43.494}_{-4.258}$
Alt.	-50 ± 22	$81.81^{+97.82}_{-59.48}$	1169^{+105}_{-156}	2109^{+867}_{-3868}	$1.029^{+13.041}_{-0.831}$

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 $A_{obs} \gg 1.0$

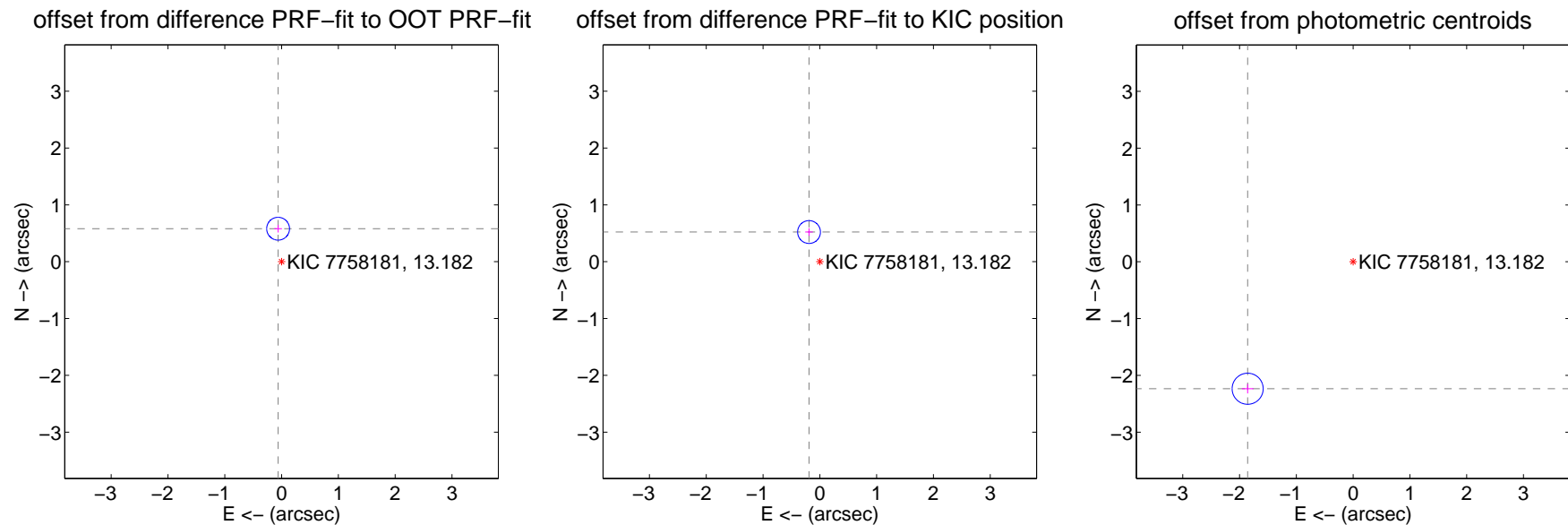
DV Centroid Data

Supplemental centroid analysis for 007758181-01. Kepler magnitude: 13.18. Transit SNR 16.70

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.583 ± 0.067	8.71	0.061 ± 0.067	0.580 ± 0.067
PRF-fit source offset from KIC position	0.556 ± 0.067	8.30	0.190 ± 0.067	0.522 ± 0.067
photometric centroid source offset	2.91 ± 0.09	31.87	1.86 ± 0.10	-2.24 ± 0.08

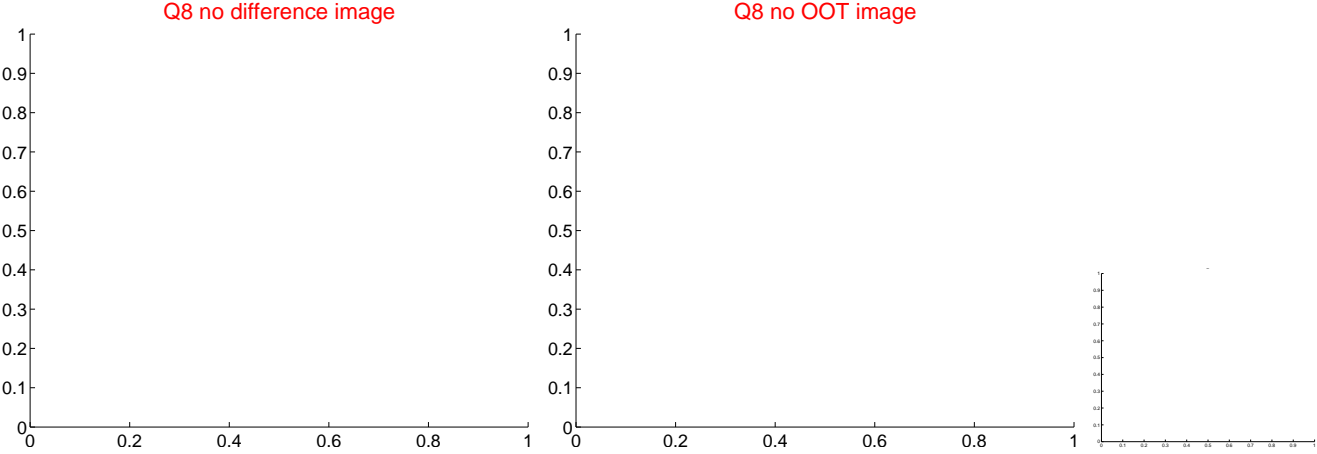
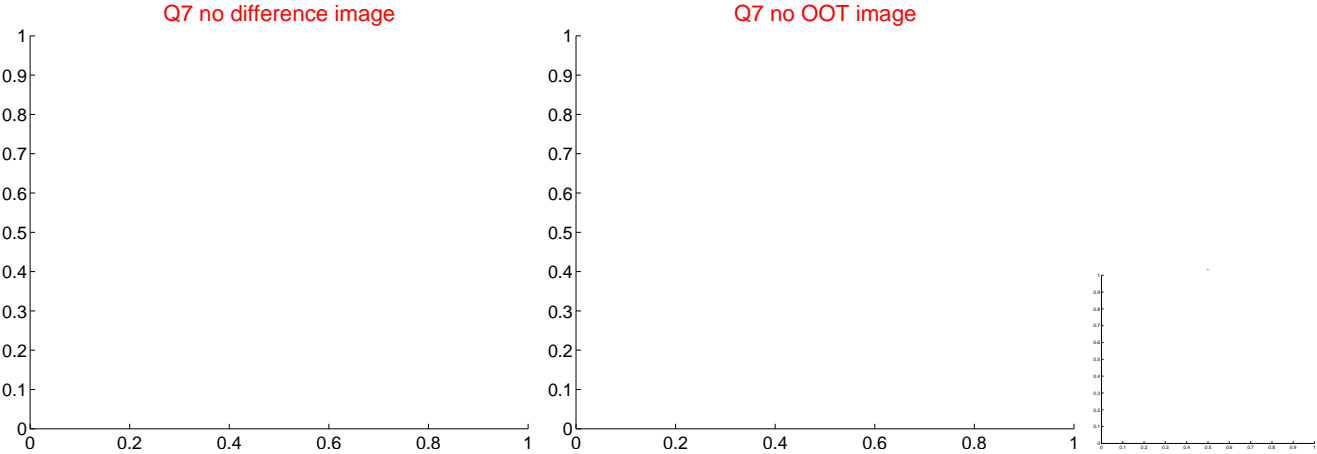
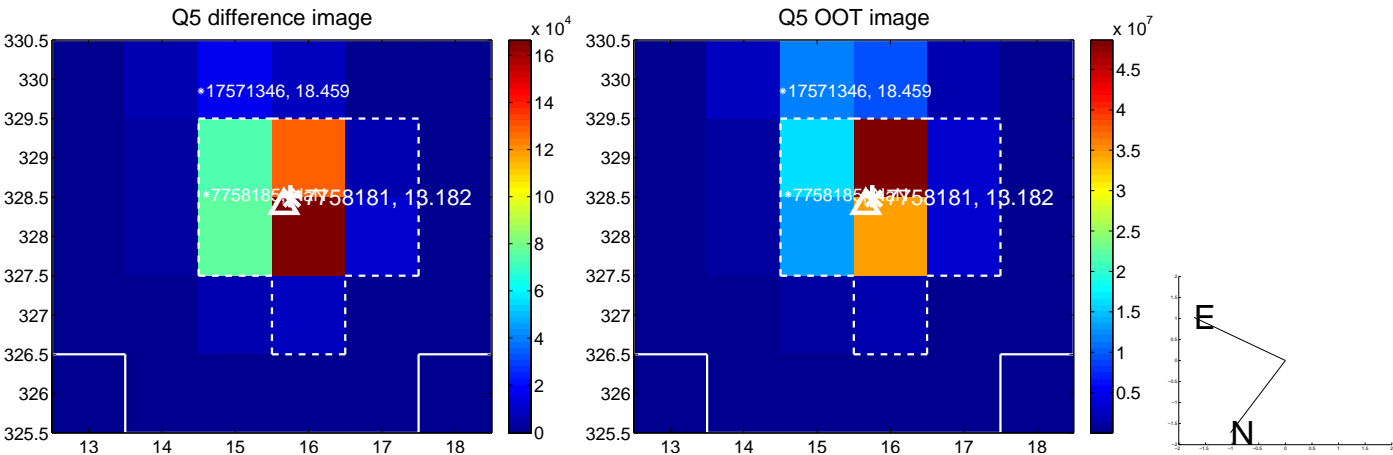


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



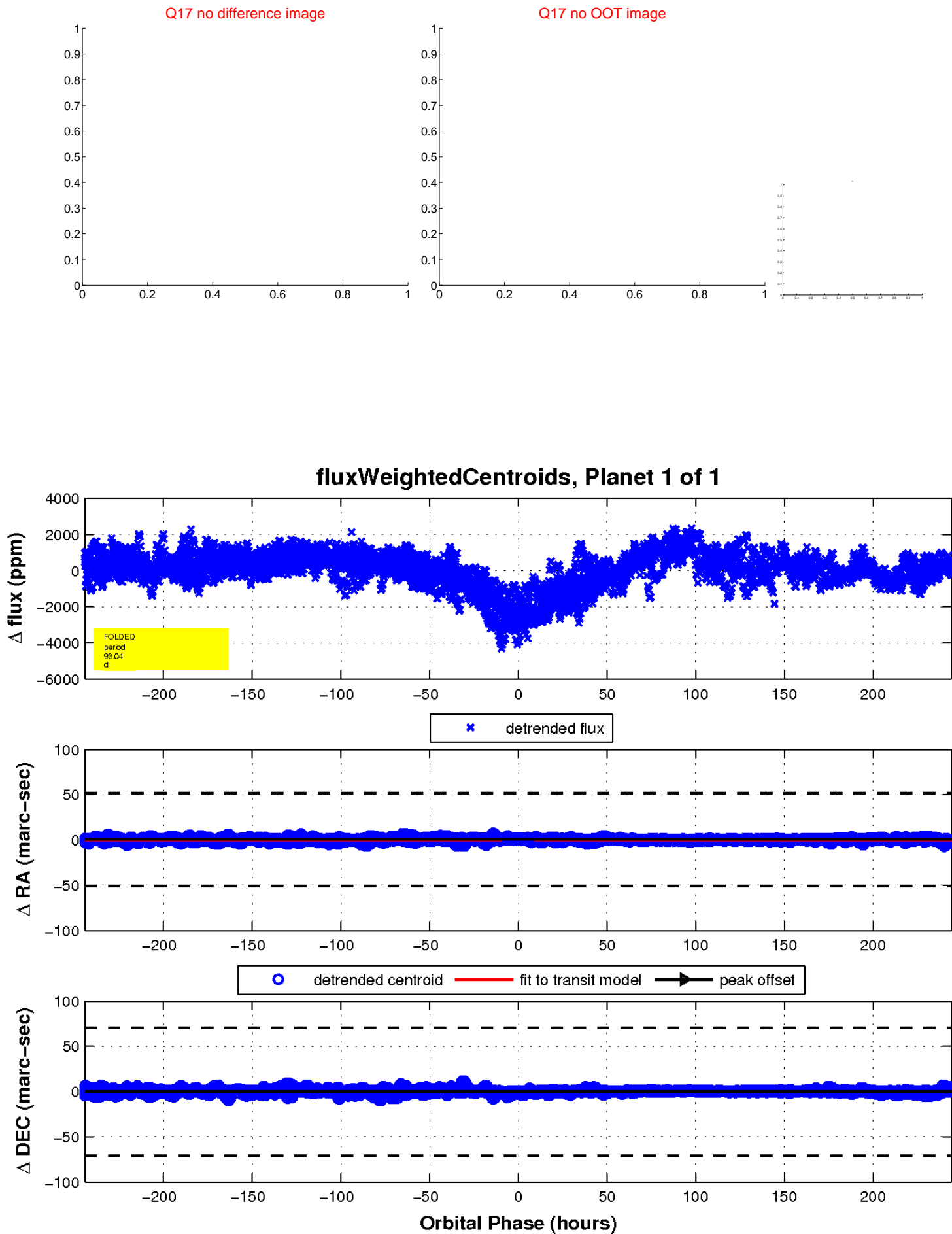
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

