

KIC 010197893

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})
010197893-01	OBS	No	20.711257	148.511716	1059.1	10.500	8.5	-1.0	0.38	3530	1.21	1.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010197893-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

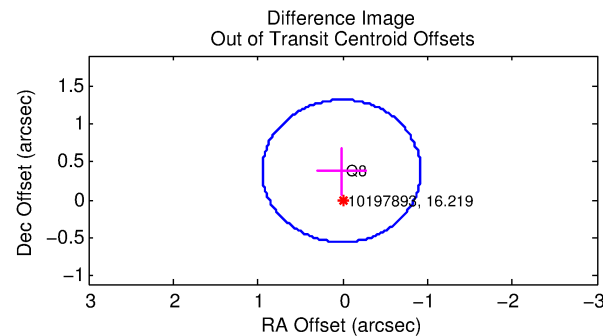
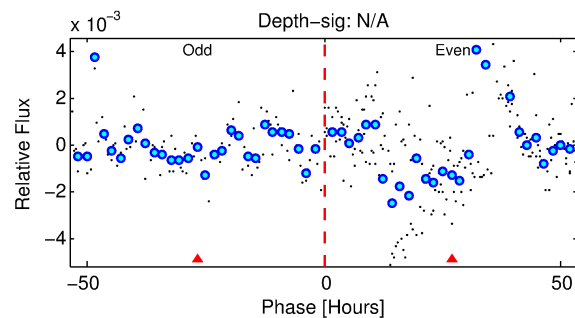
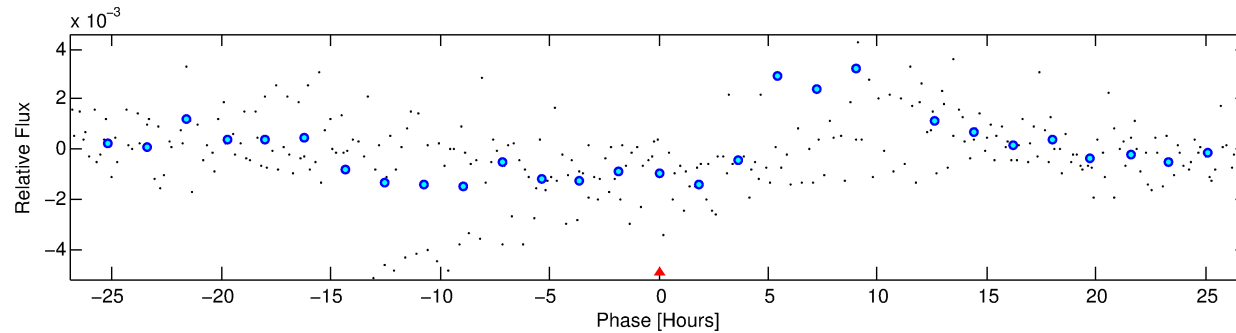
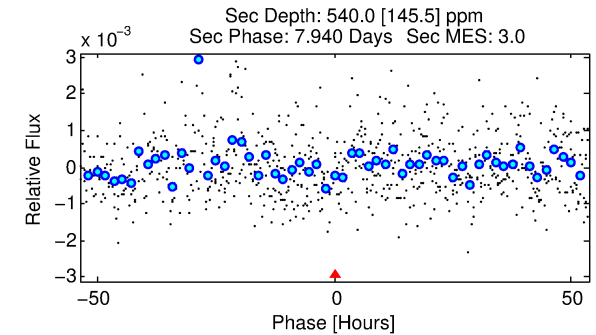
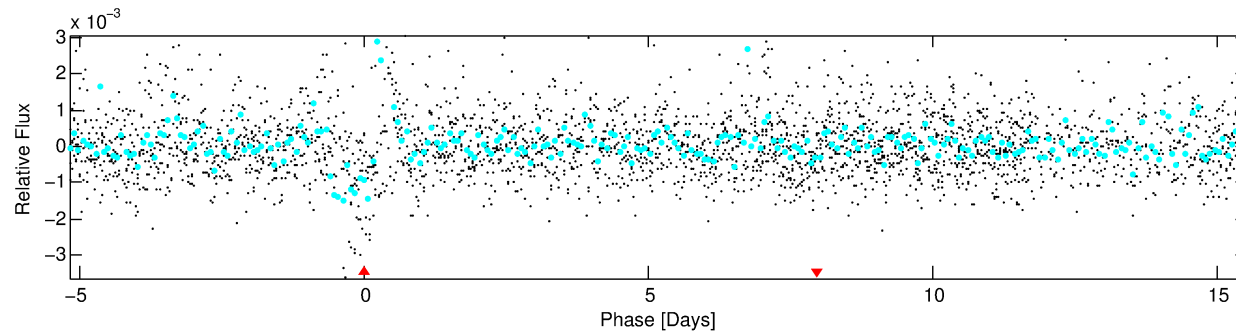
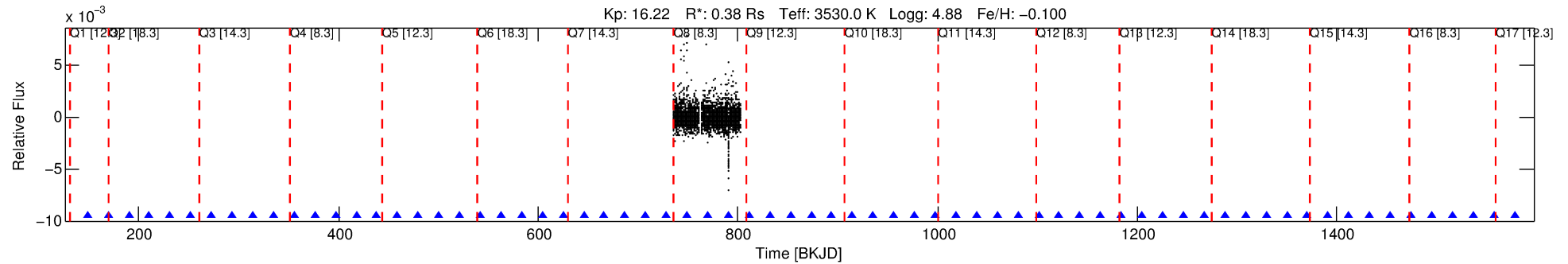
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010197893-01

No Significant Match Found

DV One-Page Summary

KIC: 10197893 Candidate: 1 of 1 Period: 20.711 d



TPS TCE Results:

Period = 20.71126 d
Epoch = 148.5117 BKJD

DV fit results are unavailable

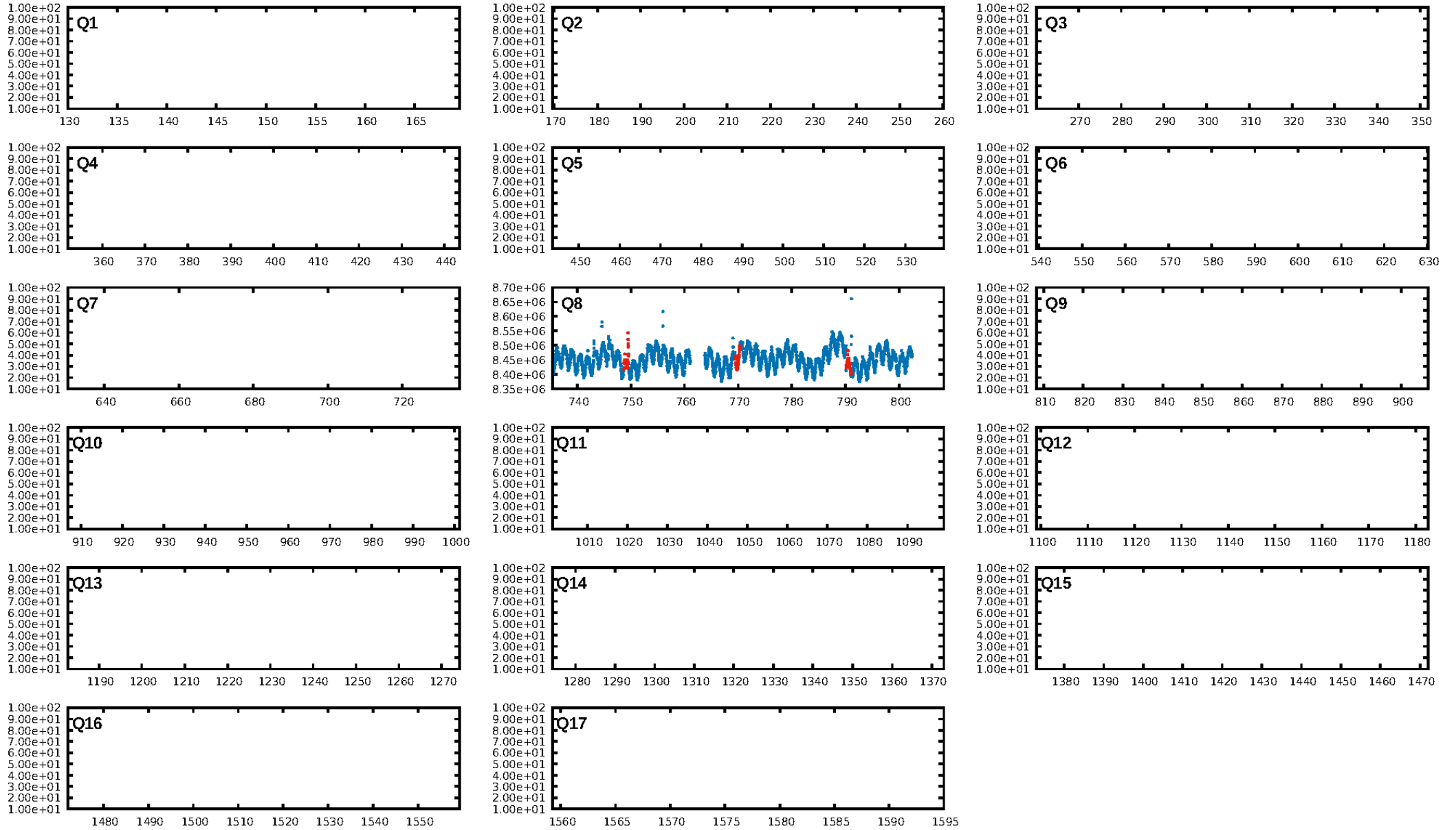
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.33e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.3167
Centroid-sig: 18.4%
Centroid-so: 4.164 arcsec [1.46σ]
OotOffset-rm: 0.383 arcsec [1.23σ]
KicOffset-rm: 0.516 arcsec [1.80σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

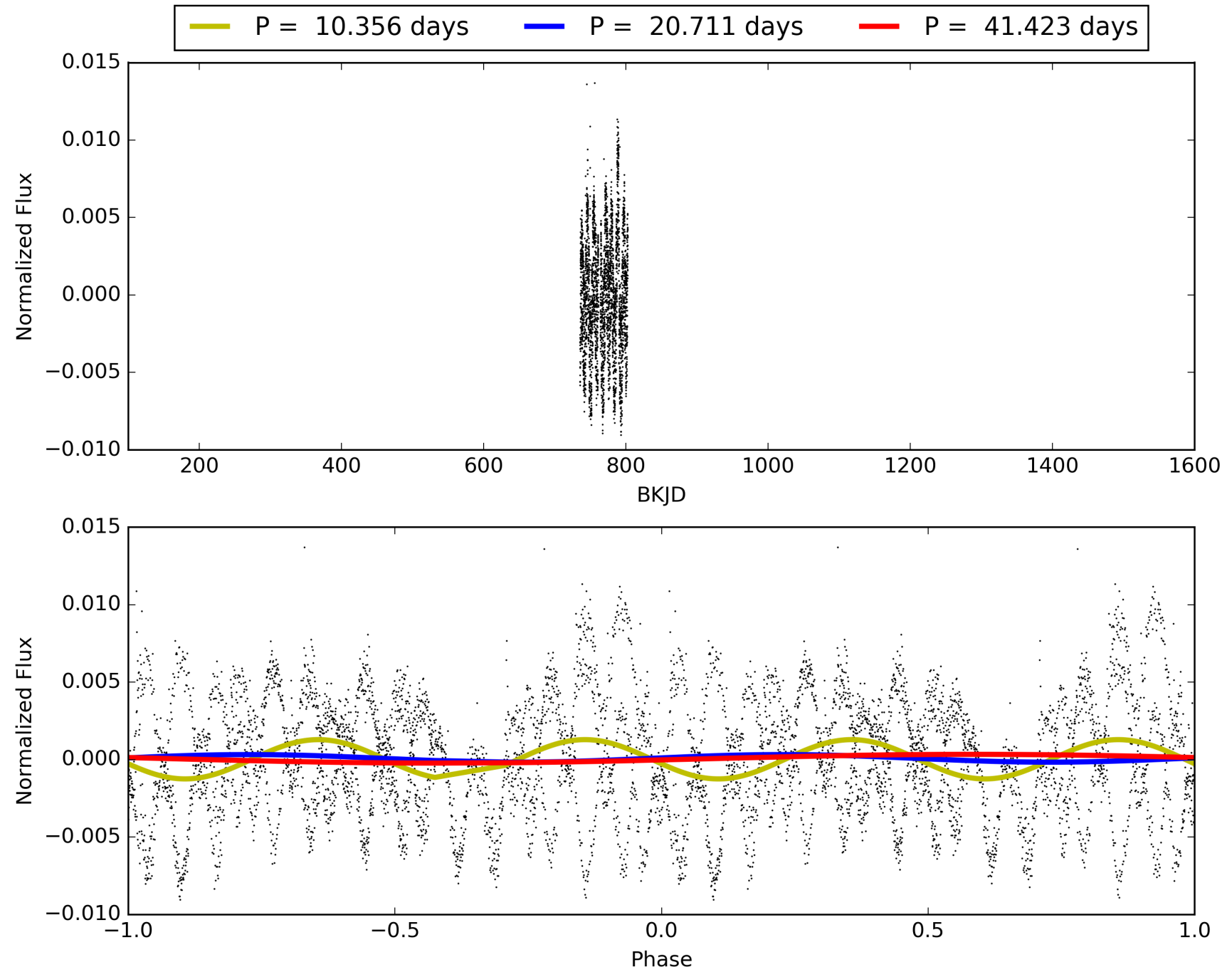
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:35:02 Z

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

TCE 010197893-01, PDC Light Curves

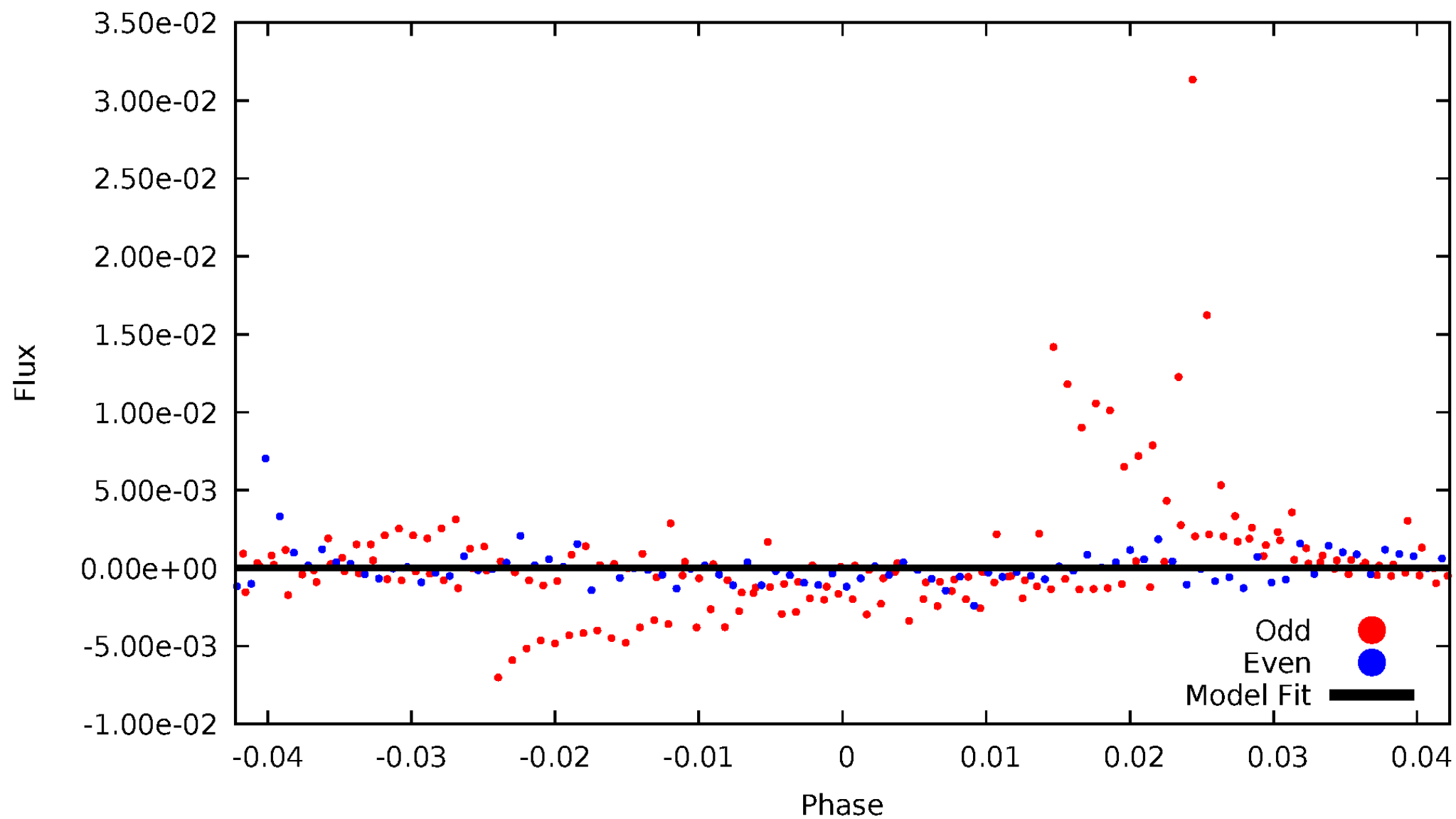


TCE 010197893-01



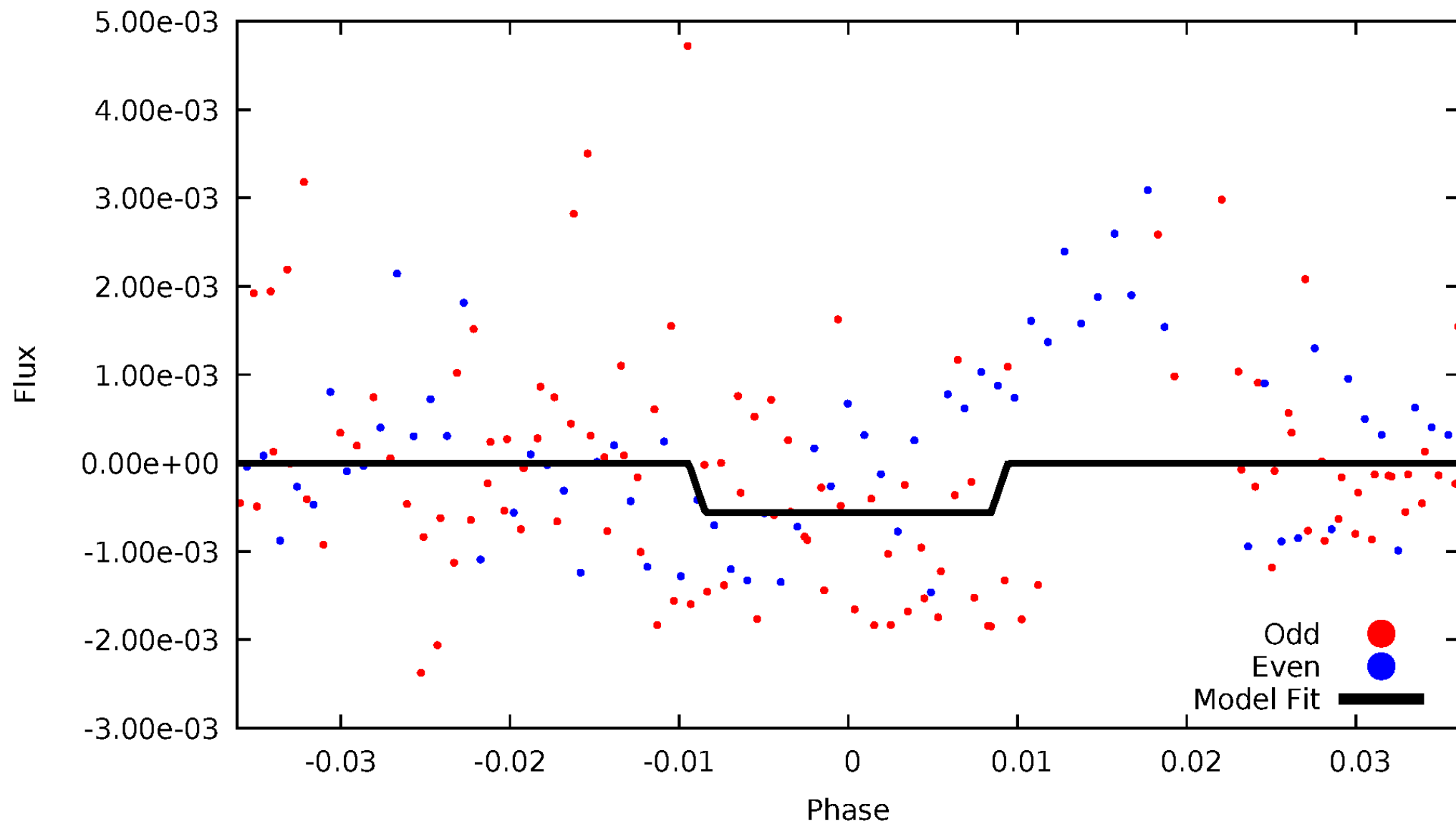
DV Odd/Even

TCE 010197893-01



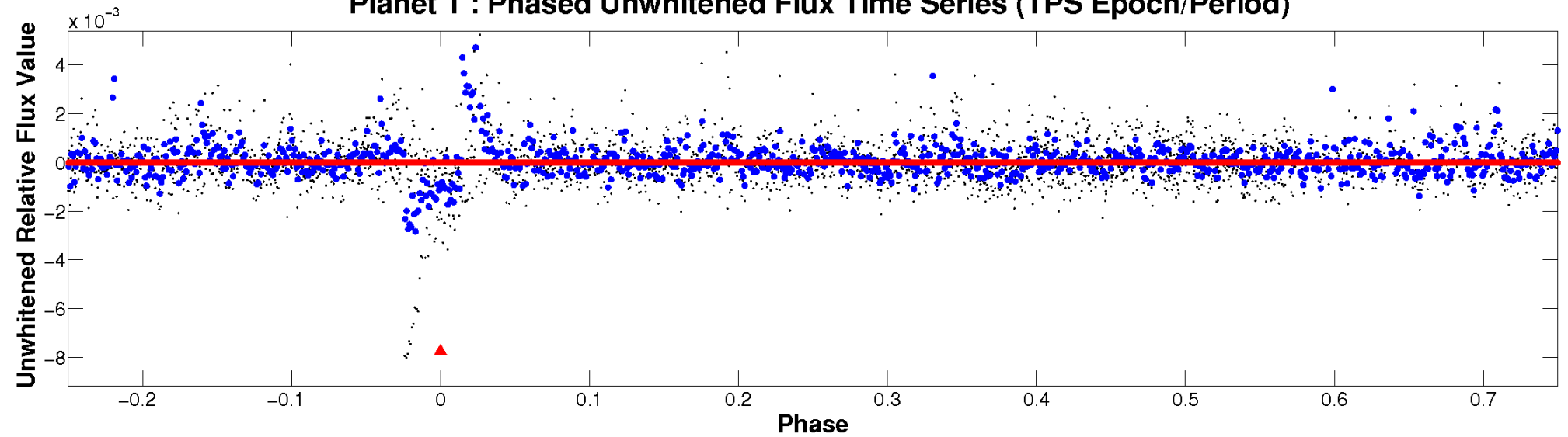
ALT Odd/Even

TCE 010197893-01

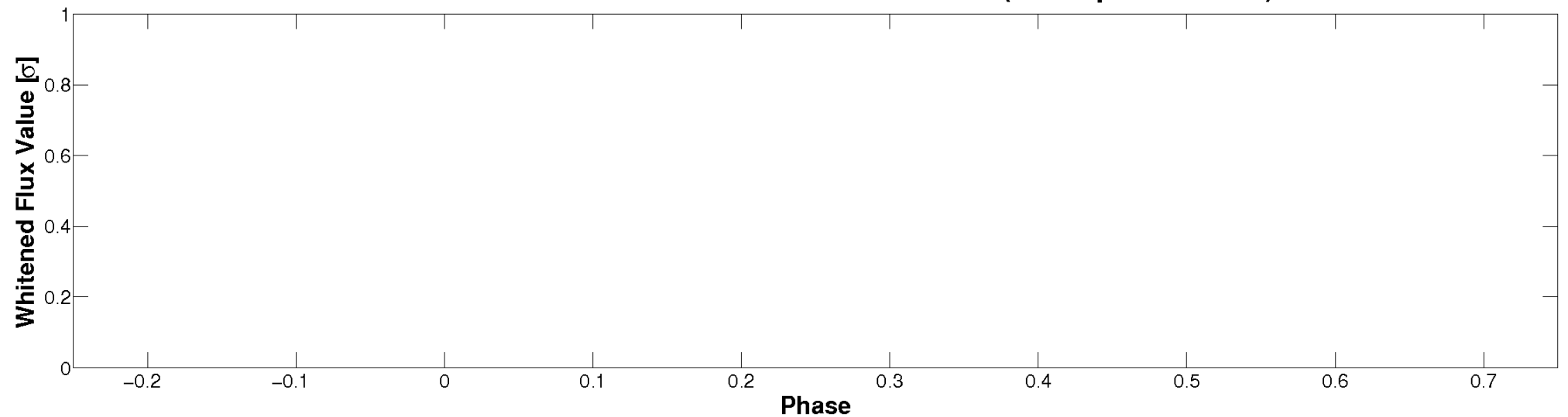


Non-Whitened Vs. Whitened Light Curve

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

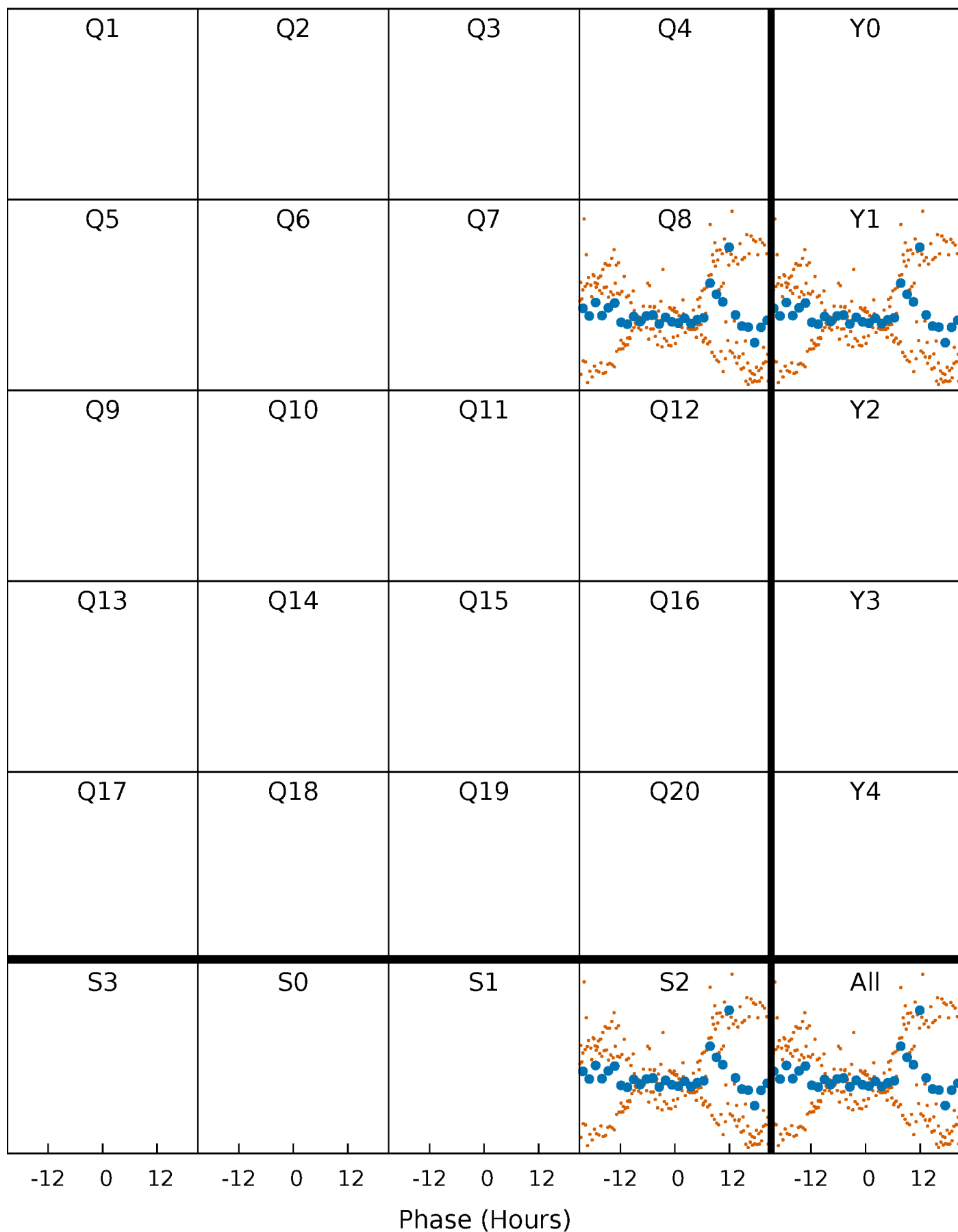


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



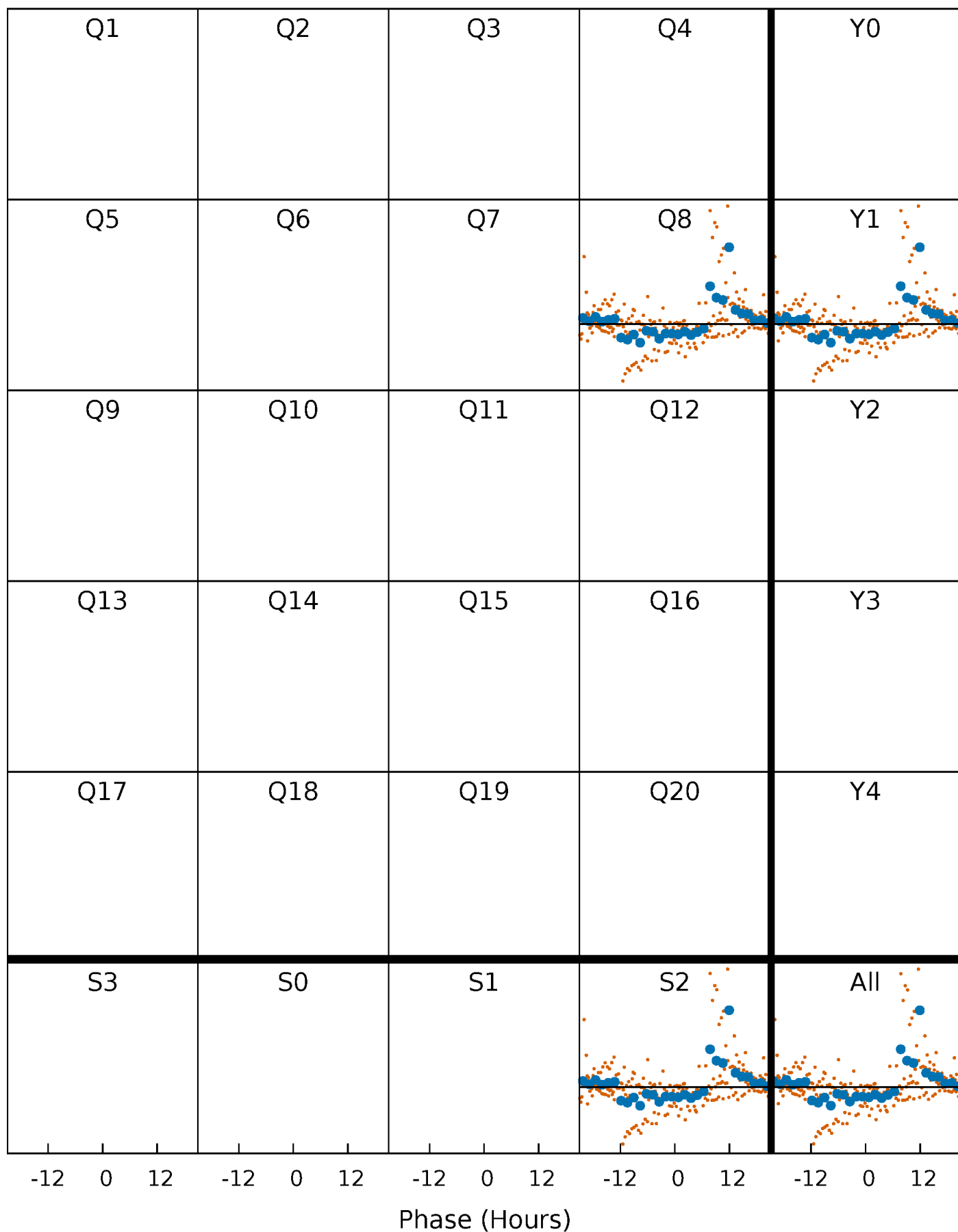
PDC Quarter-Phased Transit Curves

TCE 010197893-01 P= 20.711257 Days $T_0=148.511716$ (BKJD)



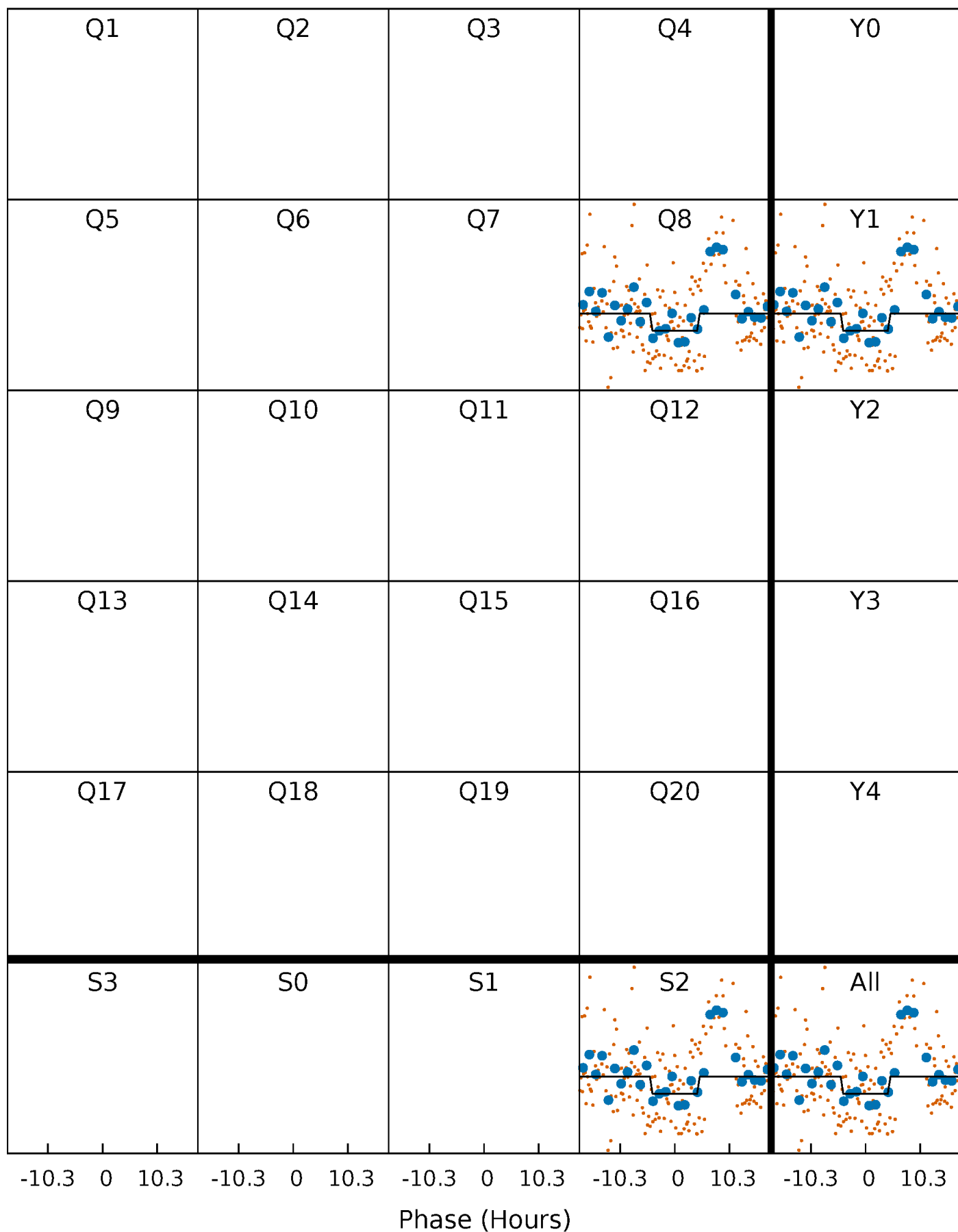
DV Quarter-Phased Transit Curves

TCE 010197893-01 P= 20.711257 Days $T_0=148.511716$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

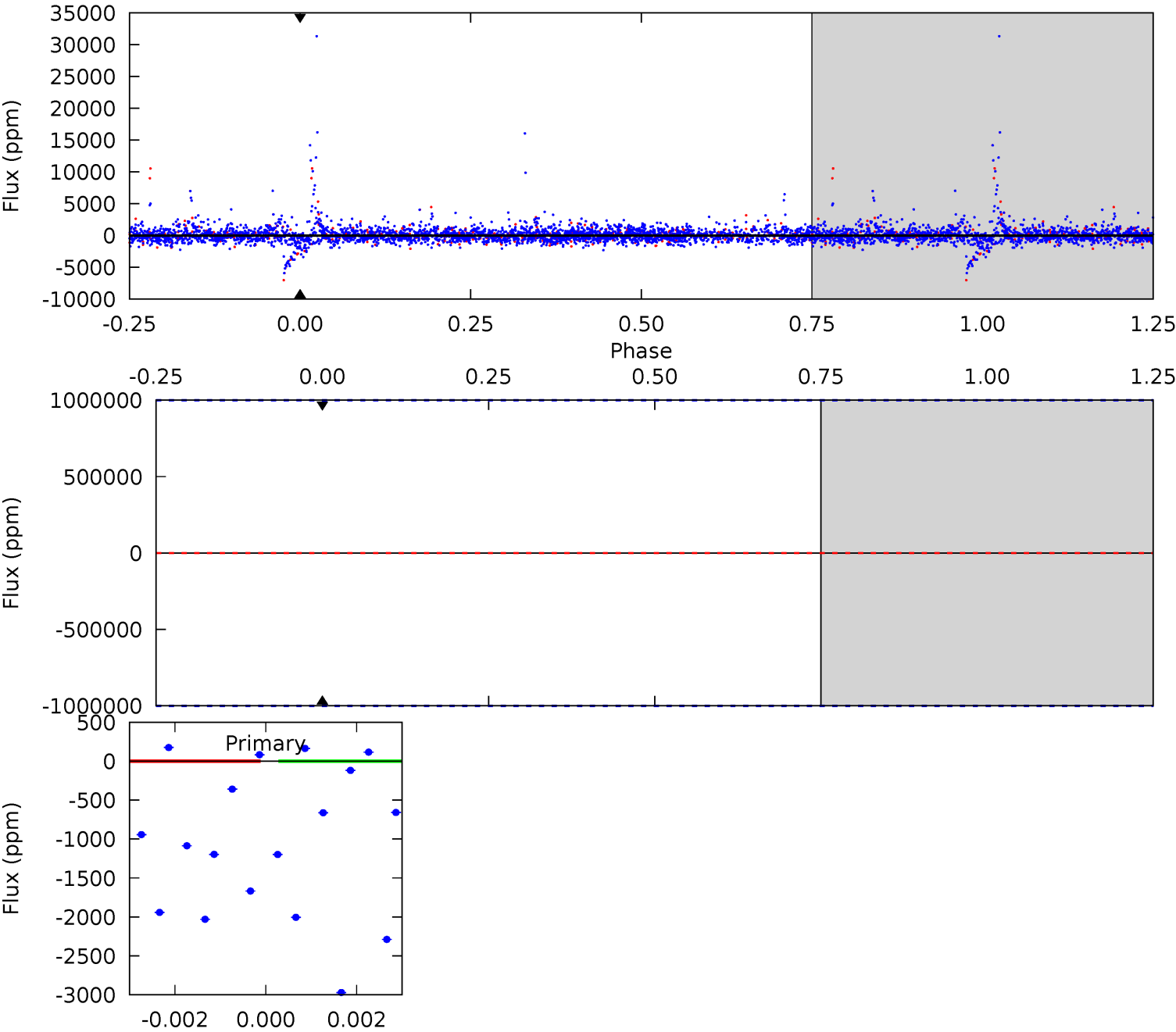
TCE 010197893-01 P= 20.711257 Days $T_0=148.600171$ (BKJD)



DV Model-Shift Uniqueness Test

010197893-01, P = 20.711257 Days, E = 148.511716 Days

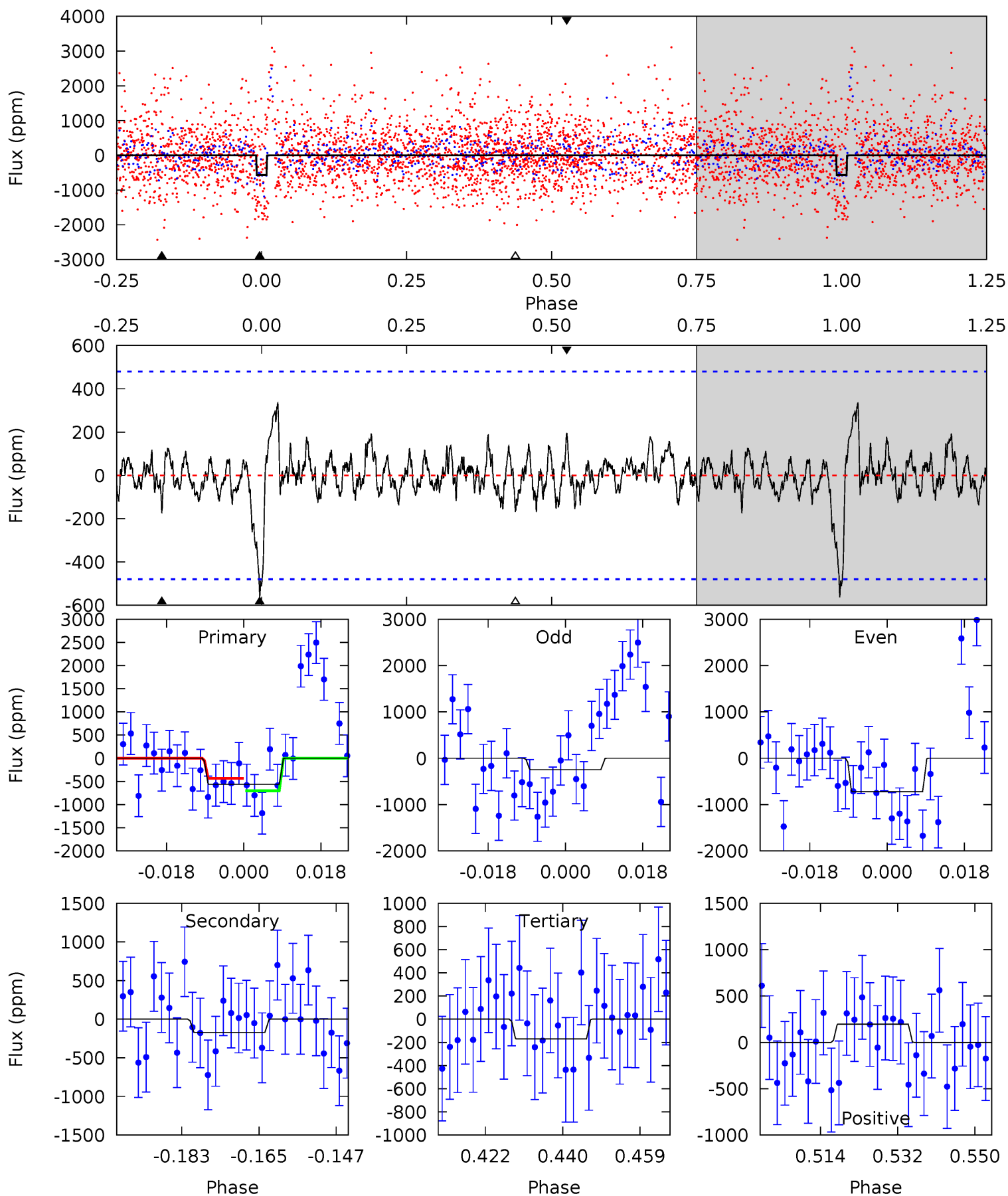
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010197893-01, P = 20.711257 Days, E = 148.600171 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.76	1.76	1.73	2.00	4.91	2.36	0.74	4.03	3.76	0.03	-0.24	2.30	1.72	0.37	1.36



Stellar Parameters For KIC 010197893

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	3530^{+47}_{-52}	$4.876^{+0.038}_{-0.031}$	$-0.100^{+0.100}_{-0.100}$	$0.376^{+0.034}_{-0.034}$	$0.390^{+0.036}_{-0.040}$	$10.350^{+1.935}_{-1.478}$
	+1%/-1%	+1%/-1%	+100%/-100%	+9%/-9%	+9%/-10%	+19%/-14%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010197893-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$3.44^{+3.40}_{-2.32}$	406^{+8}_{-8}	-3054^{+9946}_{-3635}	$-1469.988^{+94850.828}_{-82585.492}$
Alt.	-172 ± 98	$3.08^{+3.27}_{-2.17}$	406^{+9}_{-8}	2202^{+848}_{-362}	106^{+1251}_{-87}

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 $A_{\text{obs}} \gg 1.0$

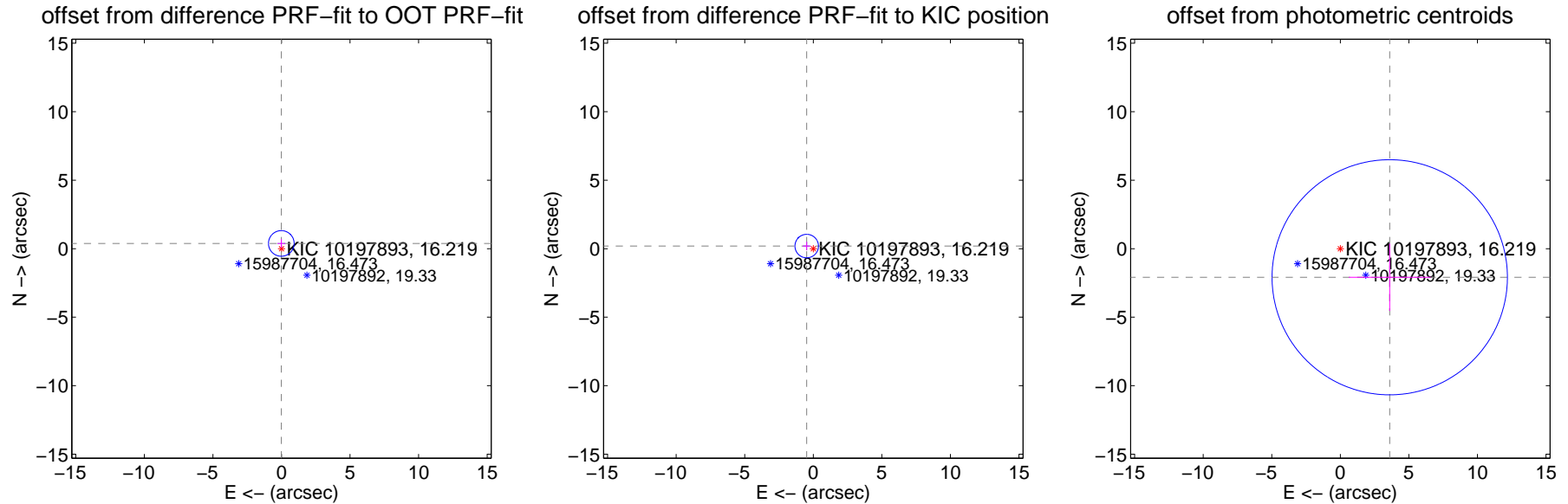
DV Centroid Data

Supplemental centroid analysis for 010197893-01. Kepler magnitude: 16.22. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.50 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.383 ± 0.312	1.23	0.013 ± 0.281	0.383 ± 0.312
PRF-fit source offset from KIC position	0.516 ± 0.286	1.80	0.479 ± 0.281	0.191 ± 0.312
photometric centroid source offset	4.16 ± 2.86	1.46	-3.60 ± 2.98	-2.09 ± 2.46

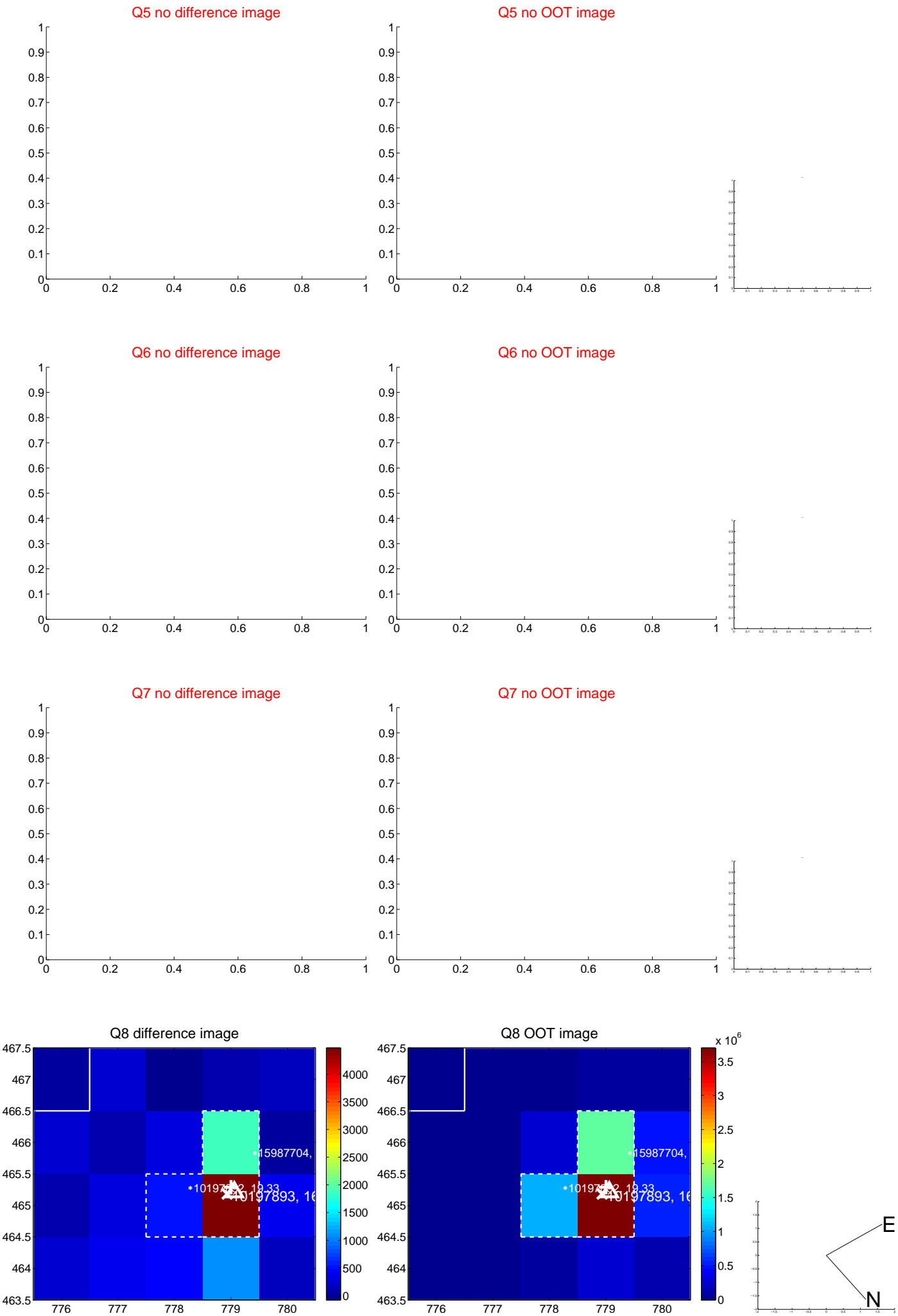


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



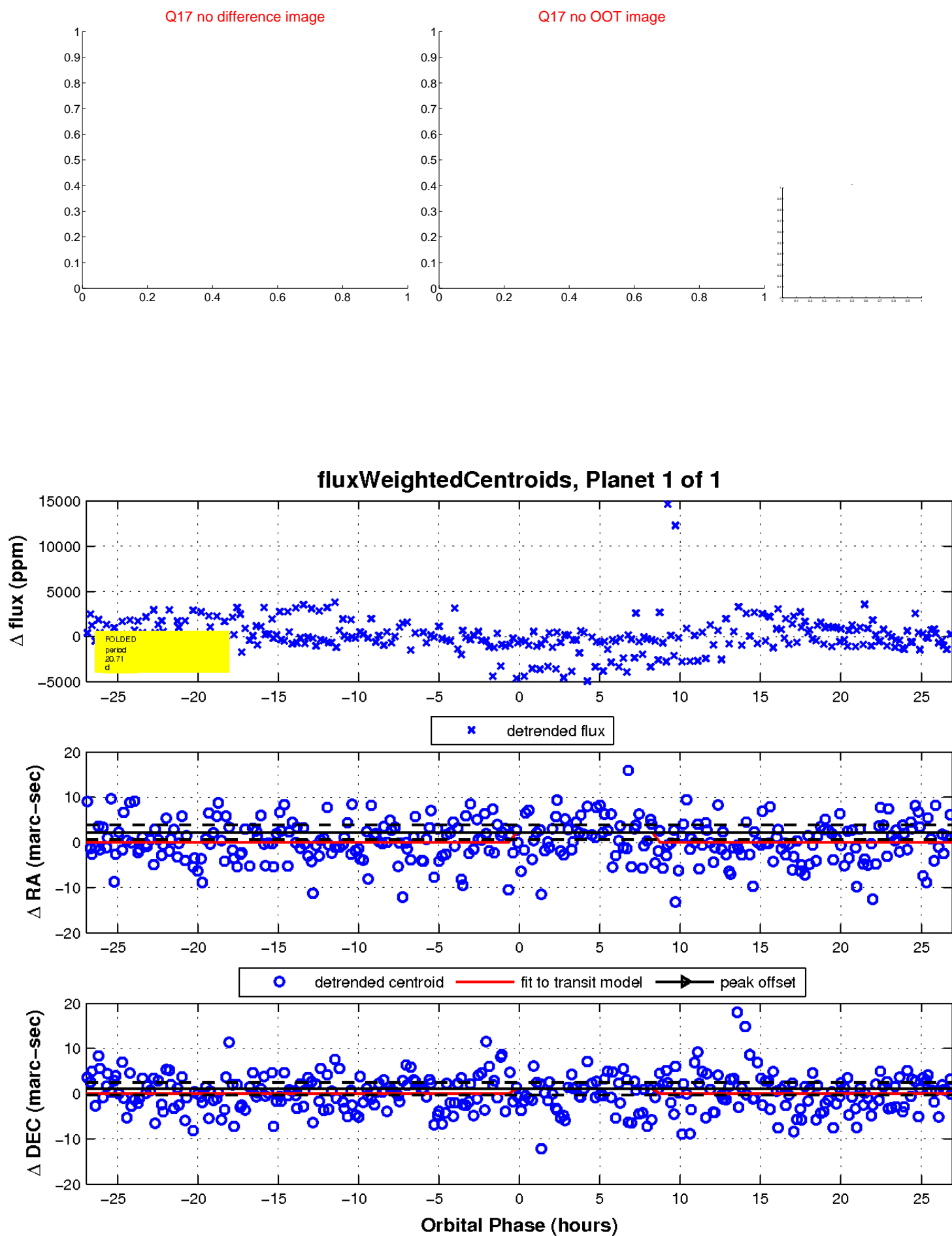
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

