

KIC 005894182

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})
005894182-01	OBS	7750.01	494.487622	527.702650	330.4	3.679	7.4	7.7	2.55	6303	5.08	4.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005894182-01	OBS	PC	0.32	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.

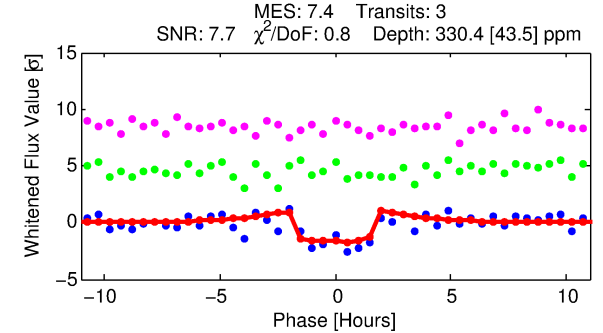
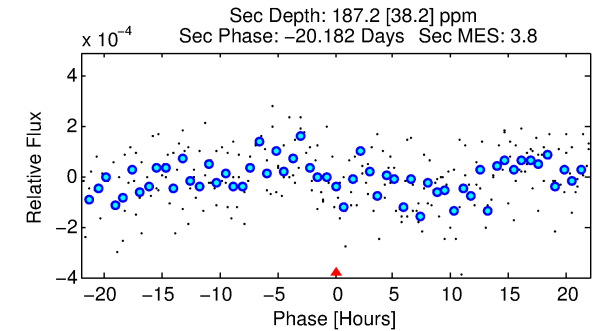
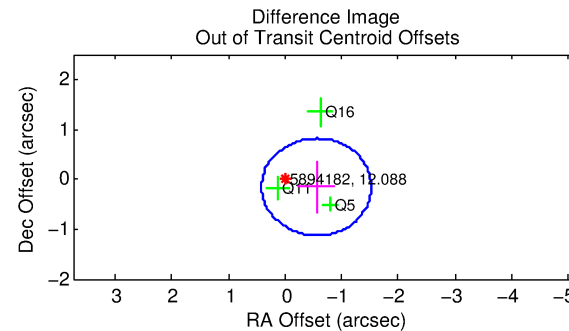
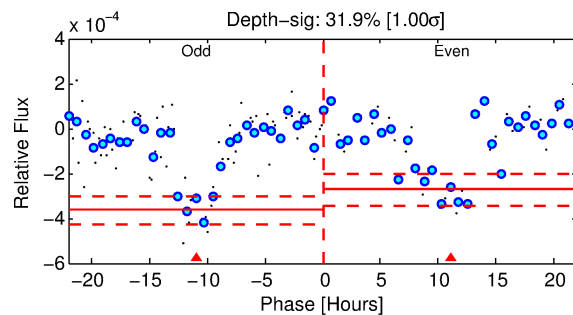
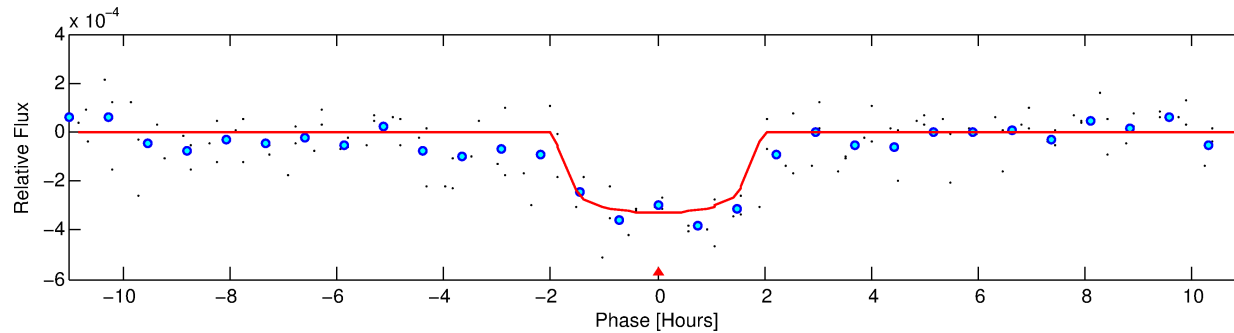
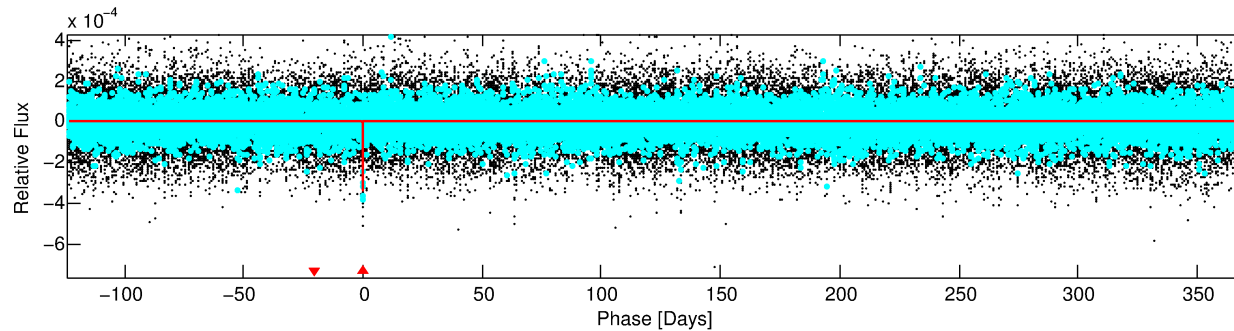
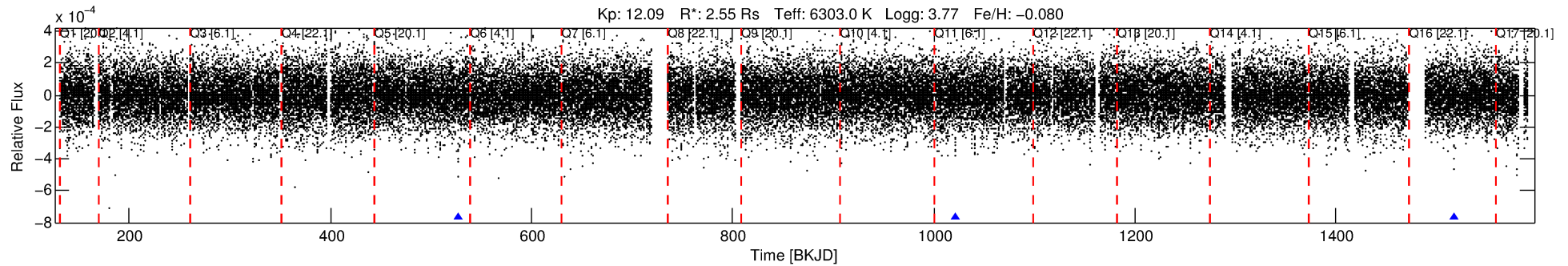
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005894182-01

No Significant Match Found

DV One-Page Summary

KIC: 5894182 Candidate: 1 of 1 Period: 494.488 d



DV Fit Results:

Period = 494.48762 [0.00365] d
Epoch = 527.7026 [0.0052] BKJD
Rp/R* = 0.0182 [0.0103]
a/R* = 677.46 [2009.57]
b = 0.78 [1.53]
Seff = 4.89 [2.55]
Teq = 379 [49] K
Rp = 5.08 [3.39] Re
a = 1.3735 [0.4452] AU
Ag = 7516.55 [9462.32] [0.79 σ]
Teffp = 5458 [1581] K [3.21 σ]

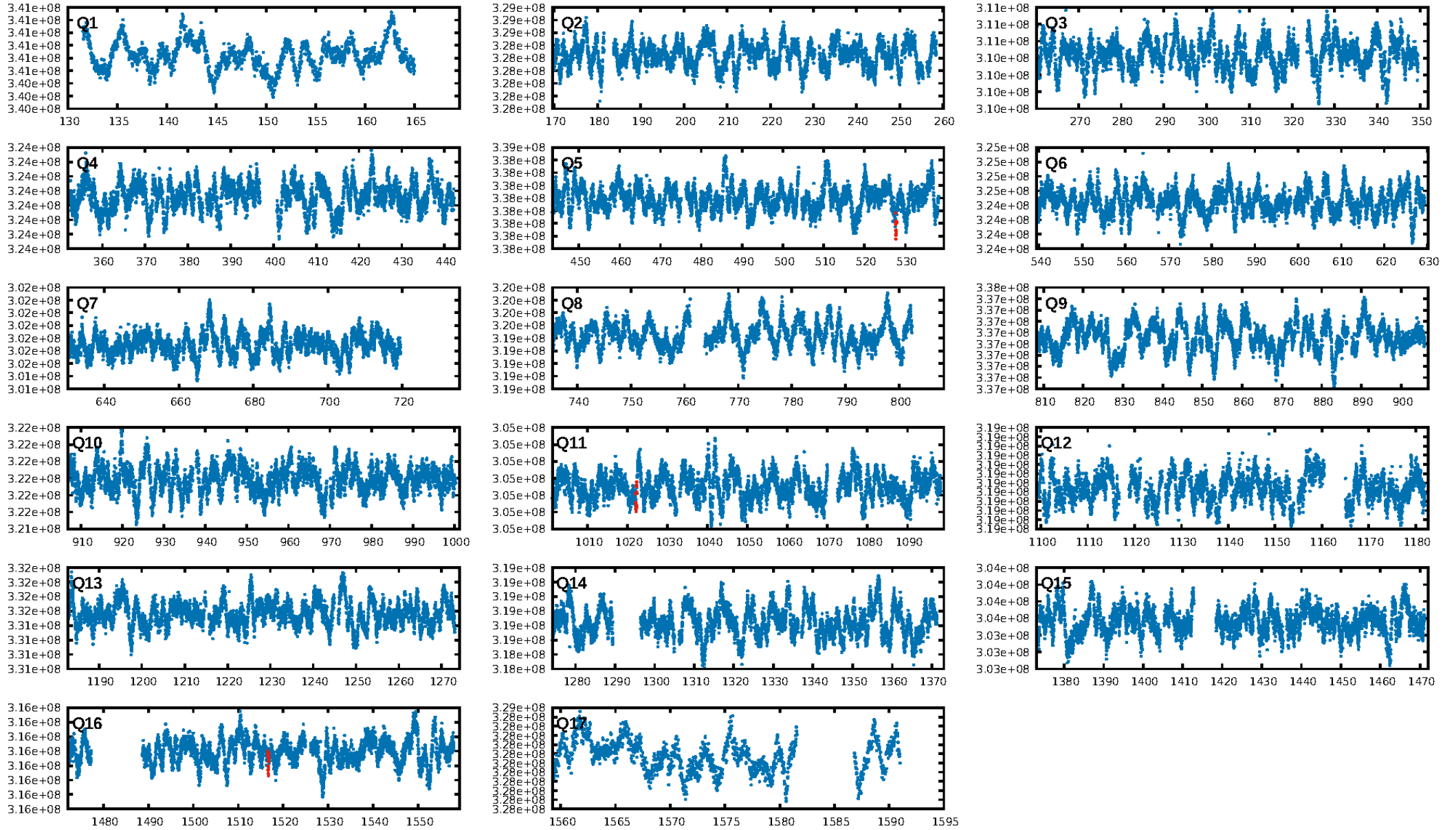
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 48.1%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 1.08e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -28.98
Centroid-sig: 4.2%
Centroid-so: 1.040 arcsec [1.18 σ]
OotOffset-rm: 0.575 arcsec [1.78 σ]
KicOffset-rm: 0.431 arcsec [1.29 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

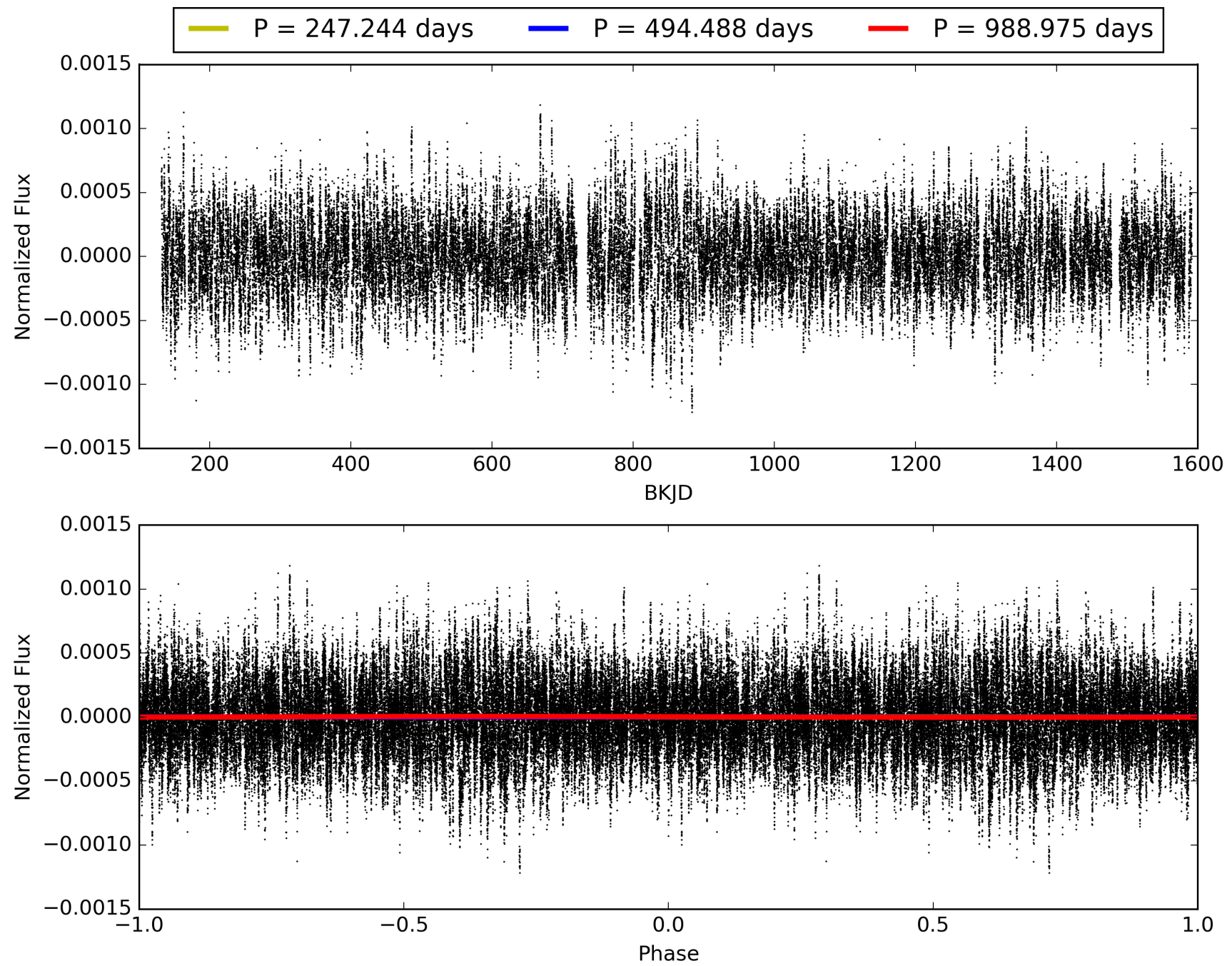
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:09:43 Z

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

TCE 005894182-01, PDC Light Curves

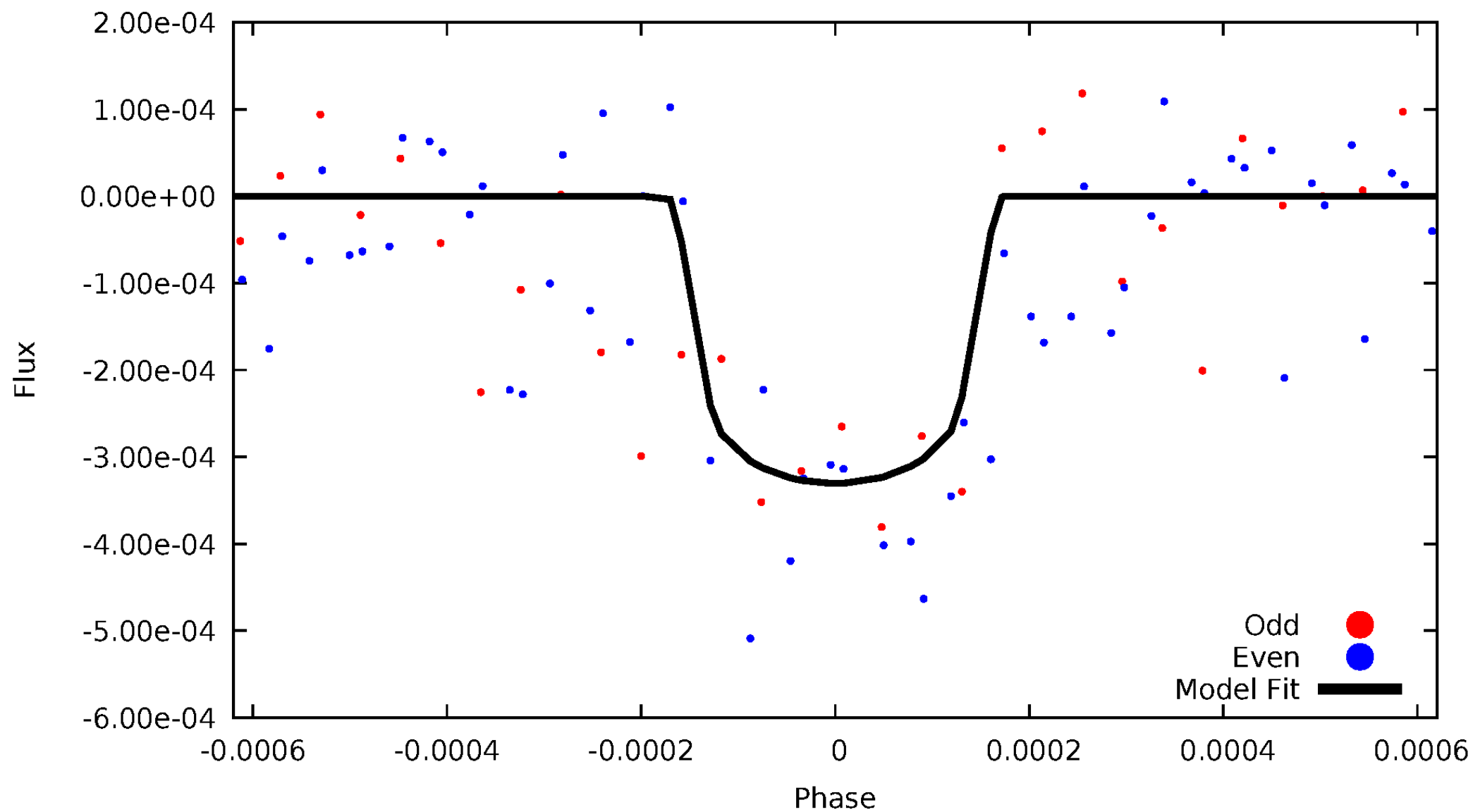


TCE 005894182-01



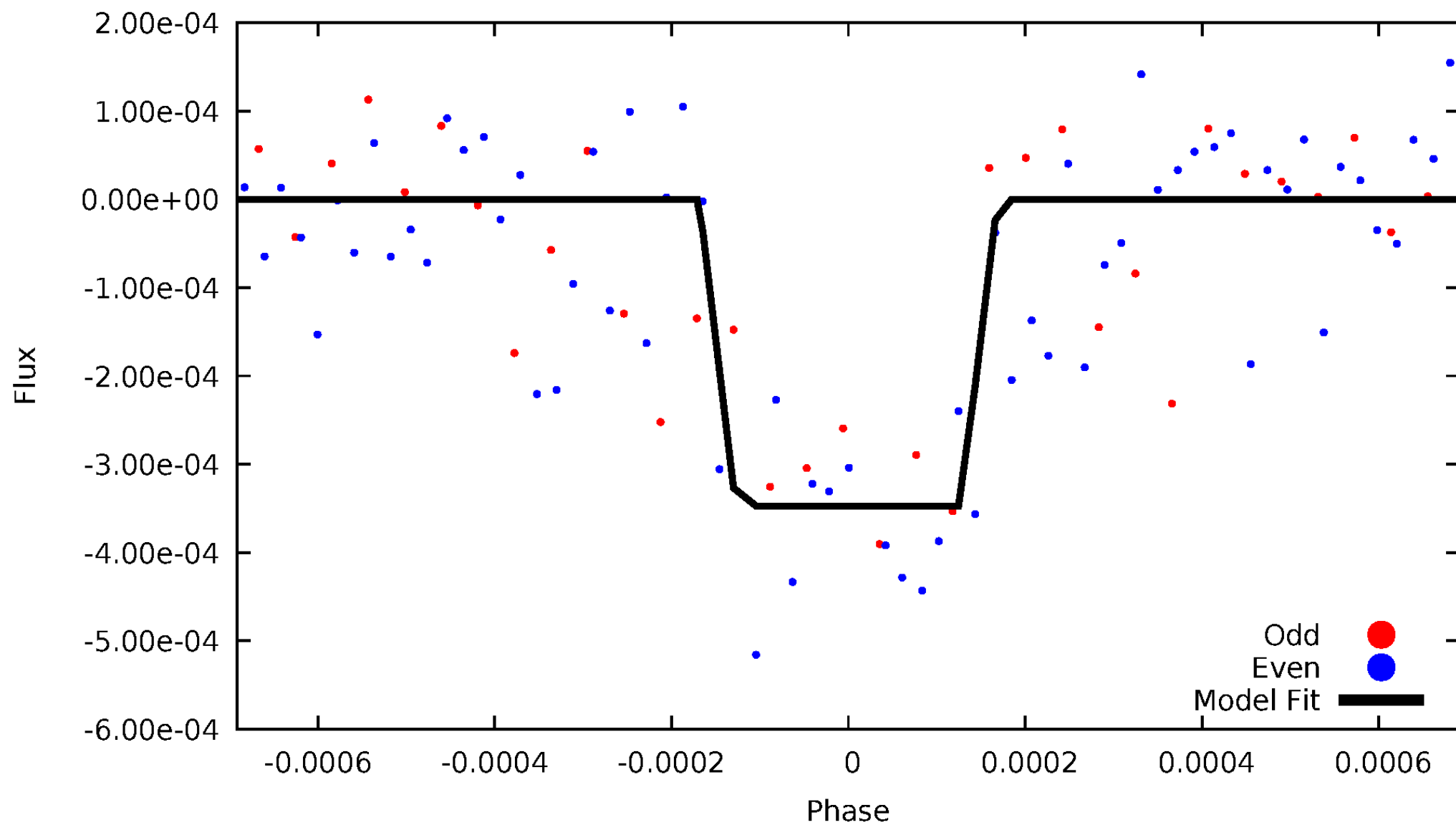
DV Odd/Even

TCE 005894182-01



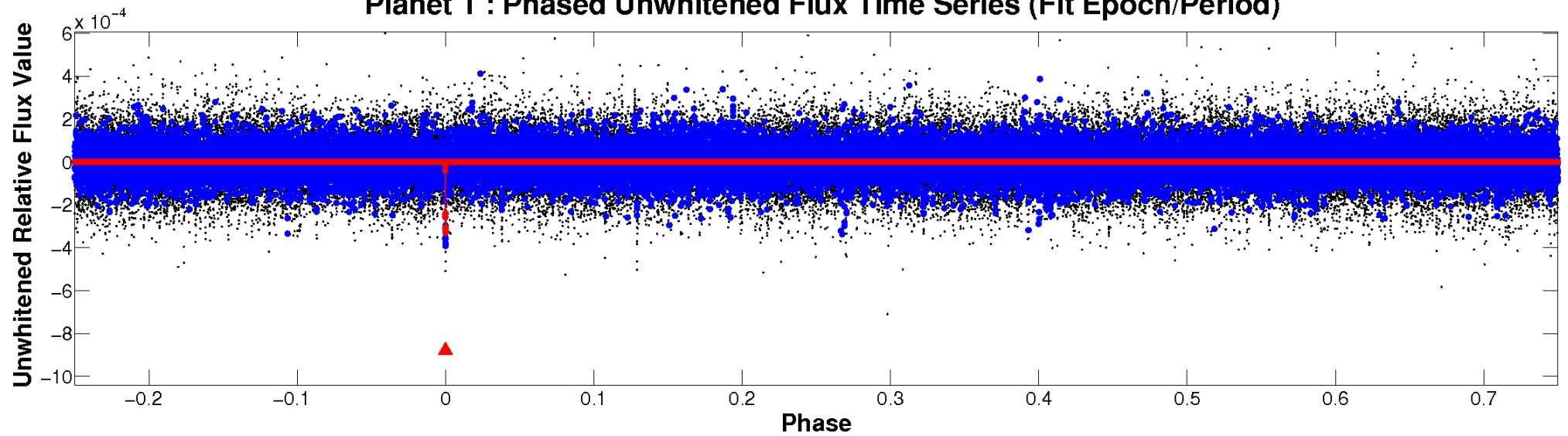
ALT Odd/Even

TCE 005894182-01

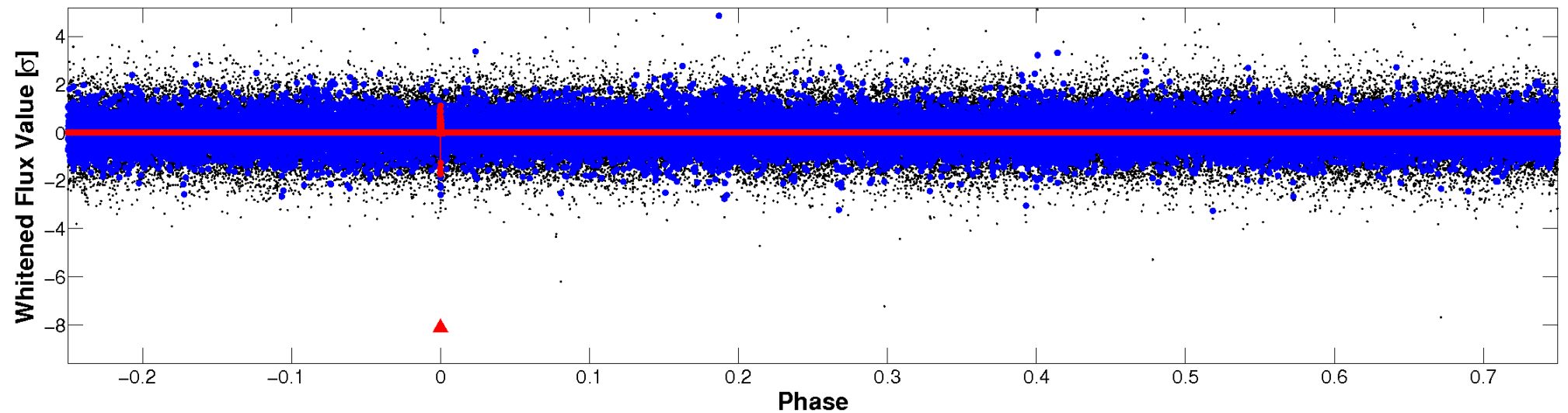


Non-Whitened Vs. Whitened Light Curve

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

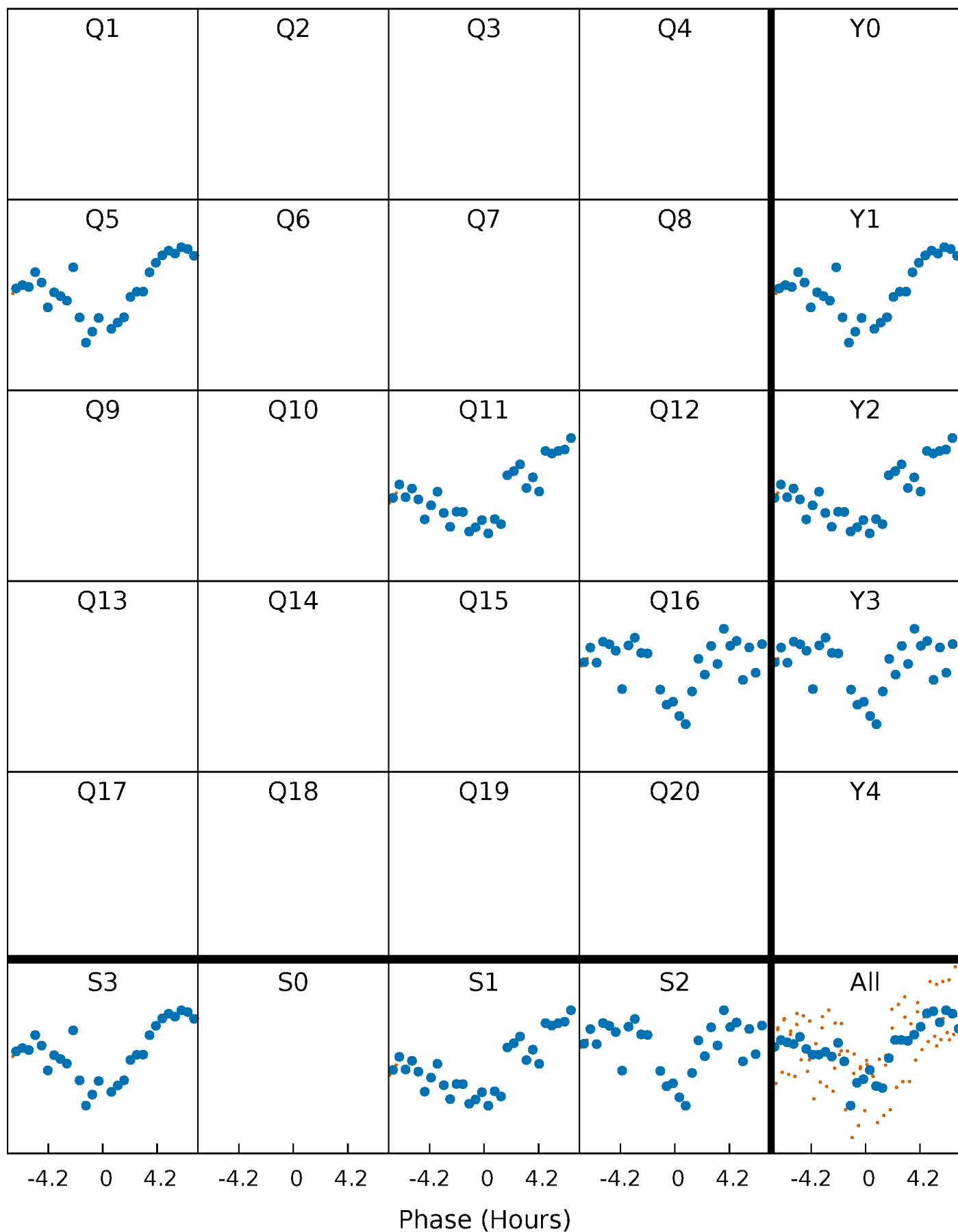


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



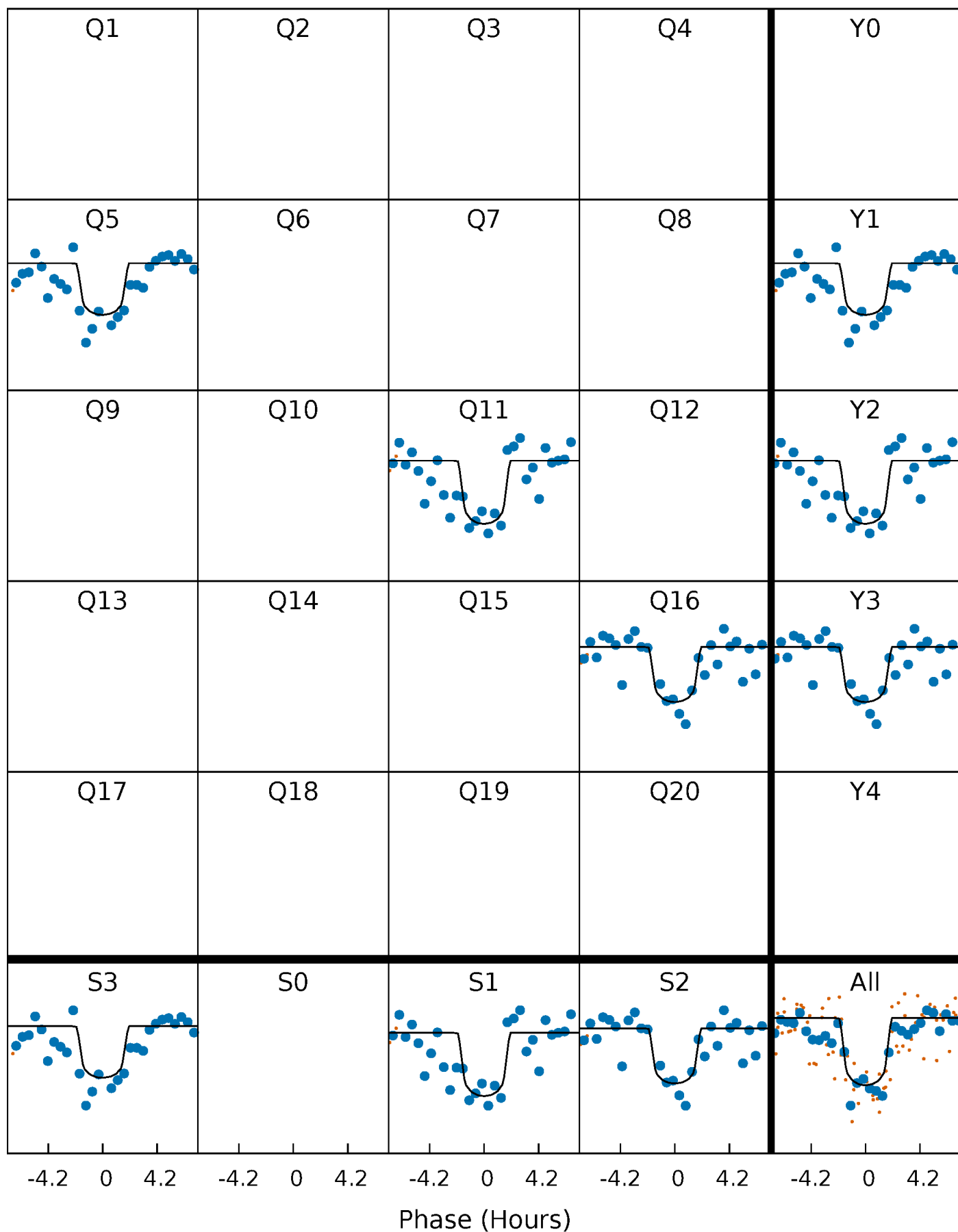
PDC Quarter-Phased Transit Curves

TCE 005894182-01 P=494.487622 Days $T_0=527.702650$ (BKJD)



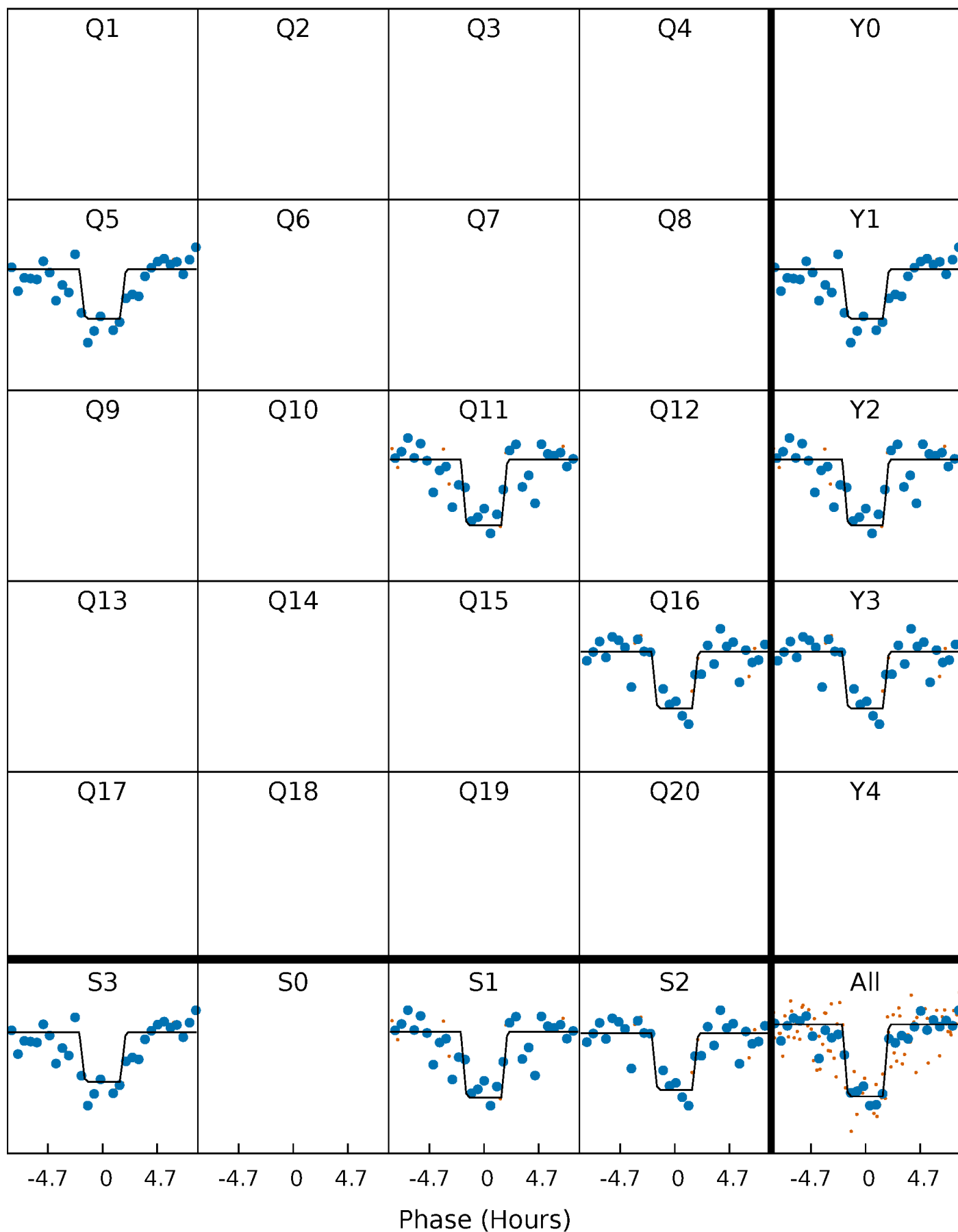
DV Quarter-Phased Transit Curves

TCE 005894182-01 P=494.487622 Days $T_0=527.702650$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

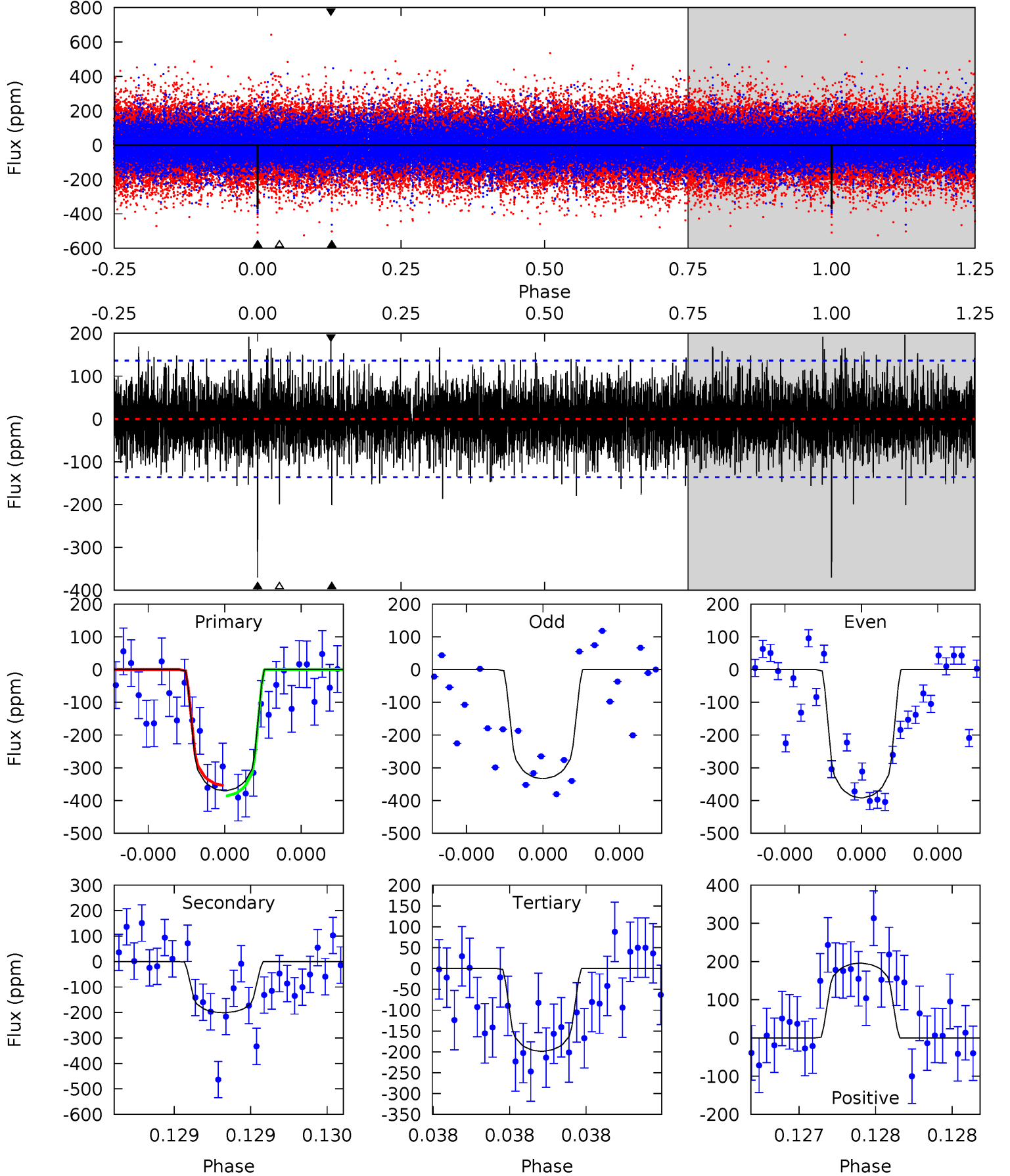
TCE 005894182-01 P=494.485341 Days $T_0=527.711072$ (BKJD)



DV Model-Shift Uniqueness Test

005894182-01, P = 494.487622 Days, E = 33.215028 Days

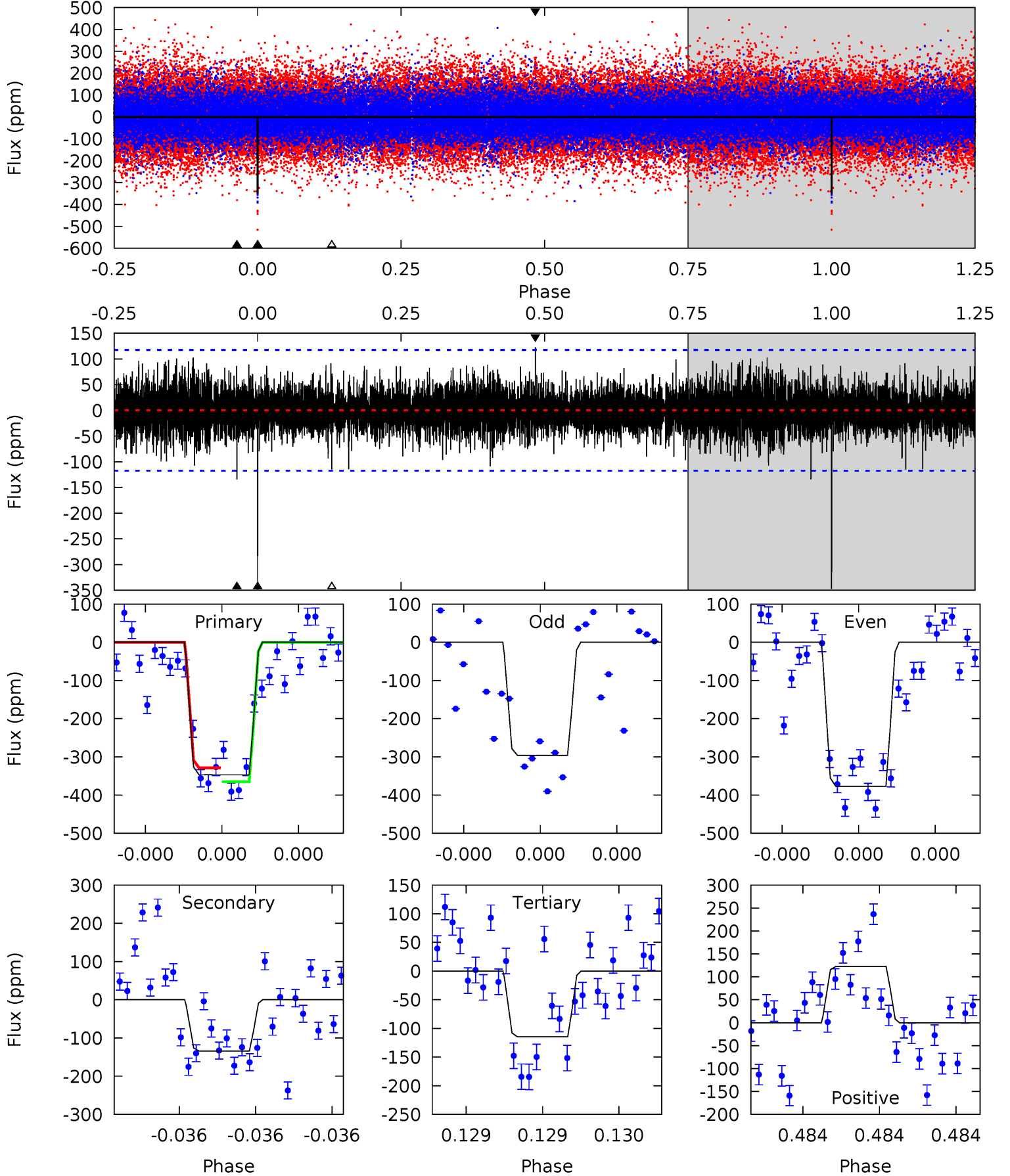
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	8.31	8.23	8.11	5.64	3.59	1.95	7.11	7.23	0.08	0.20	1.17	1.04	0.35	0.67



Alt Model-Shift Uniqueness Test

005894182-01, $P = 494.485341$ Days, $E = 33.225731$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.6	6.44	5.51	5.89	5.64	3.58	1.33	11.1	10.8	0.93	0.55	1.91	1.09	0.26	0.86



Stellar Parameters For KIC 005894182

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6303^{+172}_{-191}	$3.774^{+0.293}_{-0.098}$	$-0.080^{+0.300}_{-0.250}$	$2.553^{+0.481}_{-0.894}$	$1.414^{+0.229}_{-0.280}$	$0.120^{+0.250}_{-0.038}$
	+3%/-3%	+8%/-3%	+375%/-312%	+19%/-35%	+16%/-20%	+209%/-31%
Source	PHO1	FLK73	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 005894182-01 / KOI 7750.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-201 ± 24	$4.75^{+2.88}_{-2.22}$	517^{+33}_{-45}	5526^{+2204}_{-965}	8967^{+23279}_{-5326}
Alt.	-134 ± 21	$4.88^{+3.17}_{-2.65}$	523^{+29}_{-46}	5025^{+2309}_{-799}	6034^{+21038}_{-3818}

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 $A_{obs} \gg 1.0$

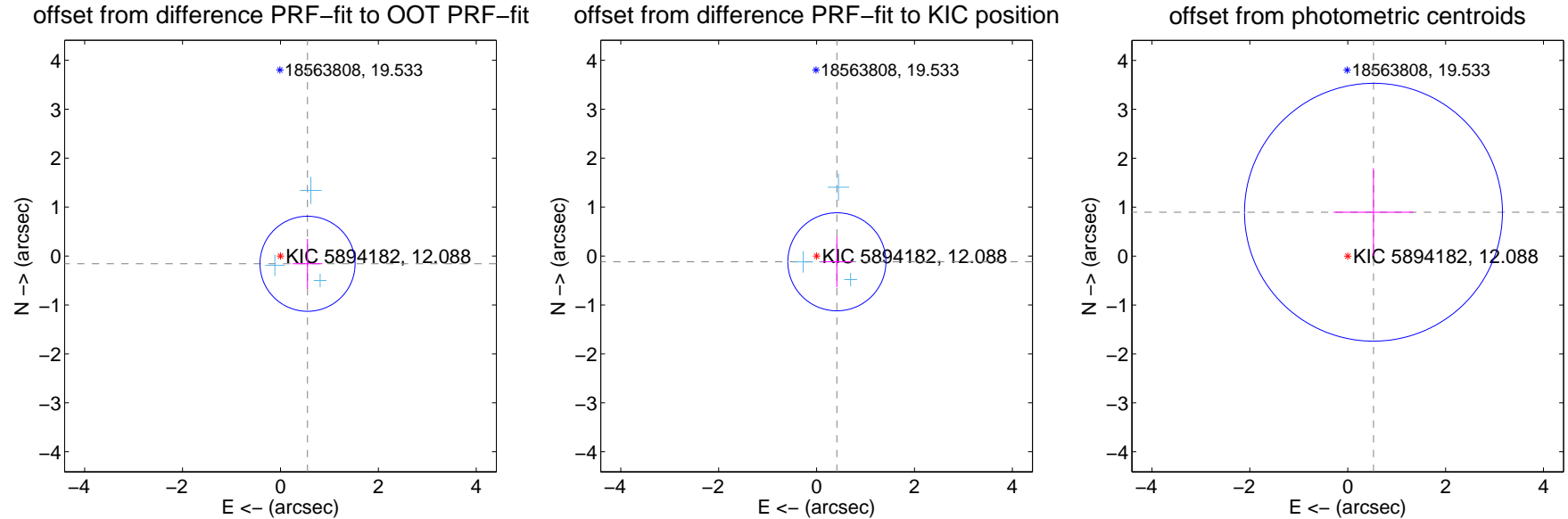
DV Centroid Data

Supplemental centroid analysis for 005894182-01. Kepler magnitude: 12.09. Transit SNR 7.73

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.575 ± 0.324	1.78	-0.553 ± 0.304	-0.158 ± 0.508
PRF-fit source offset from KIC position	0.431 ± 0.334	1.29	-0.415 ± 0.315	-0.118 ± 0.518
photometric centroid source offset	1.04 ± 0.88	1.18	-0.53 ± 0.82	0.90 ± 0.90

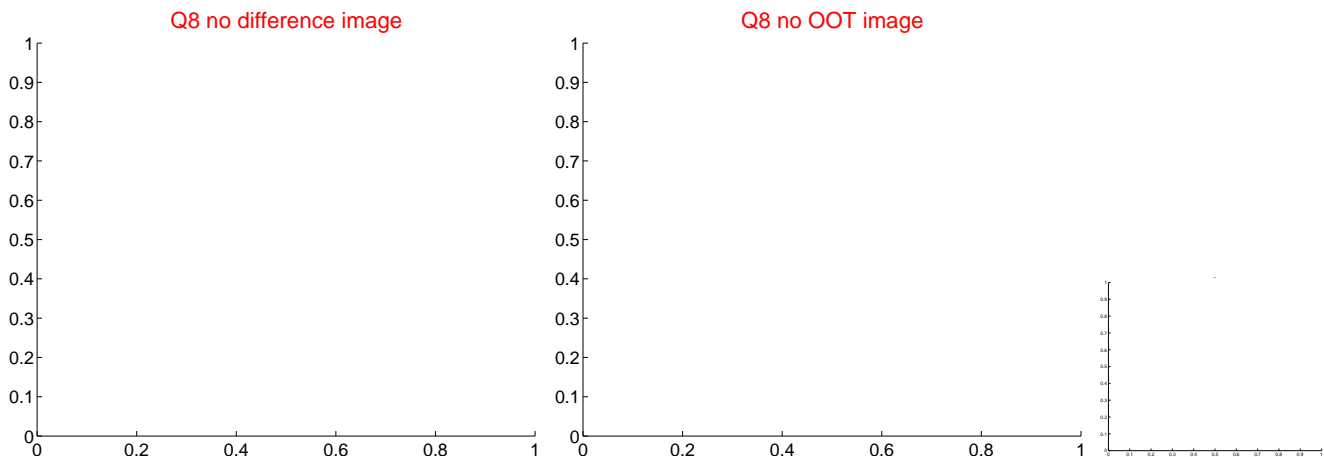
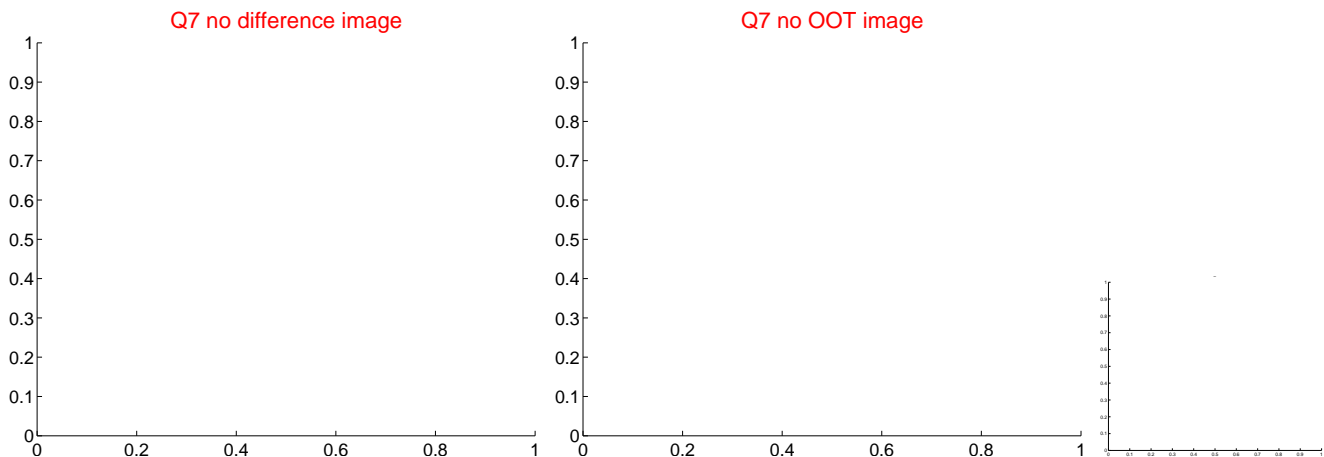
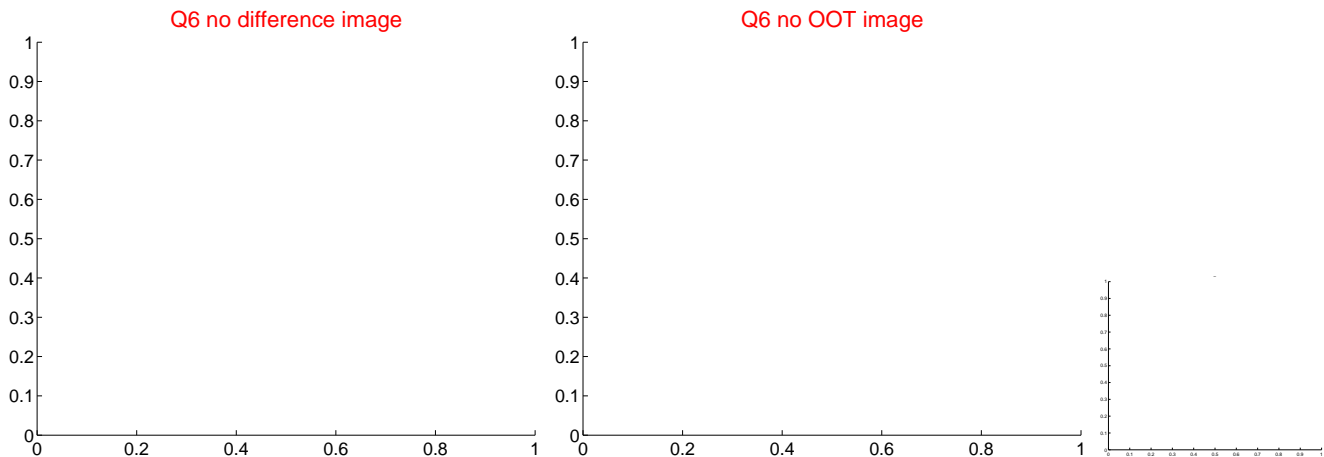
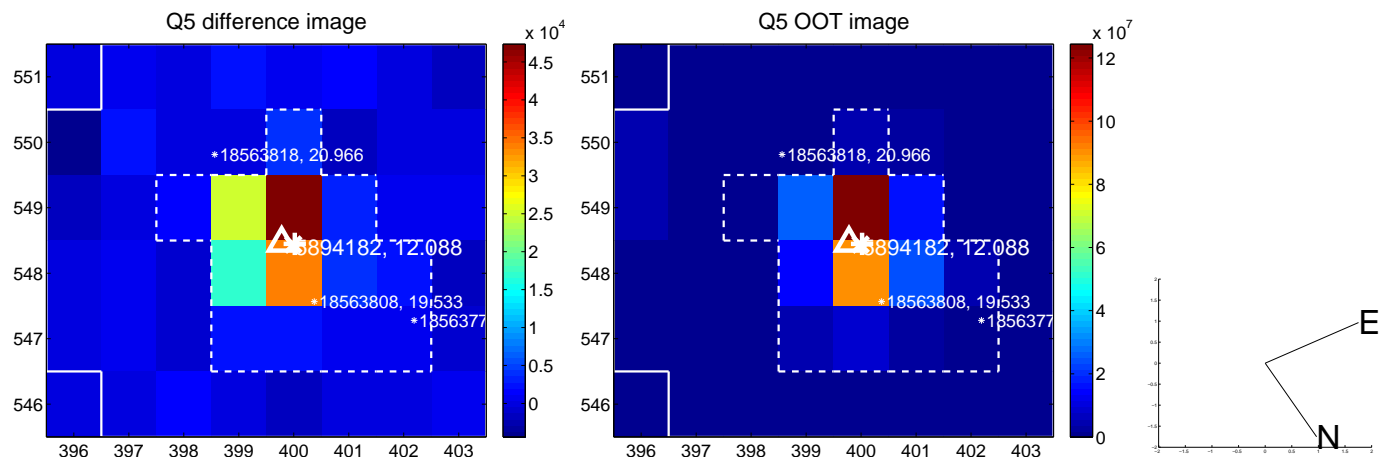


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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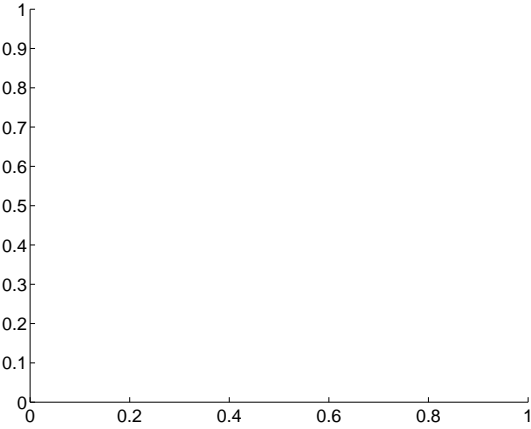
Q9 no difference image



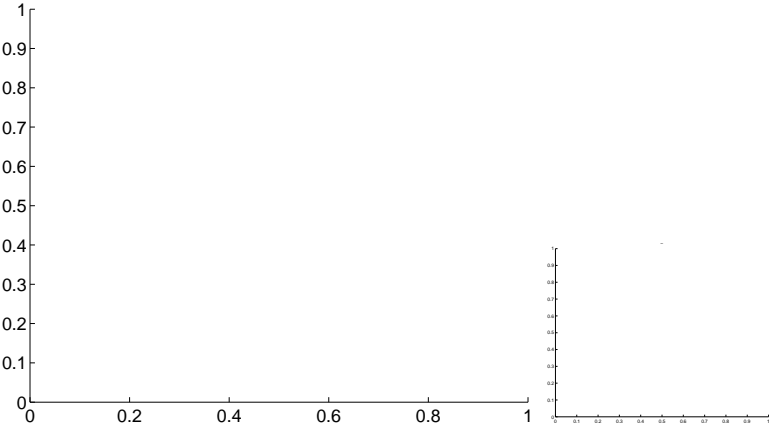
Q9 no OOT image



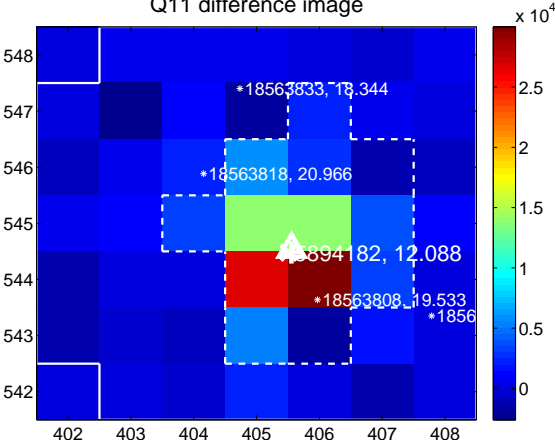
Q10 no difference image



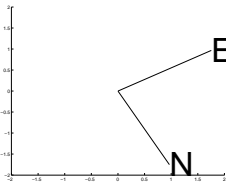
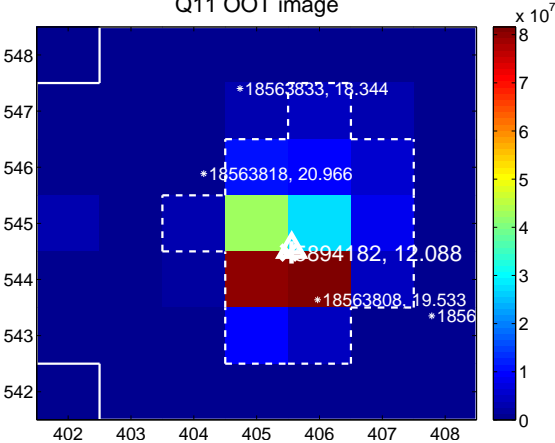
Q10 no OOT image



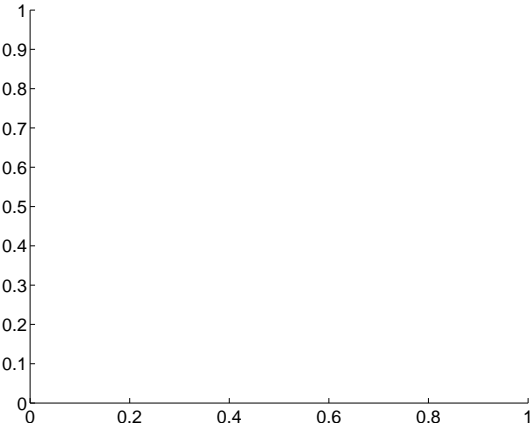
Q11 difference image



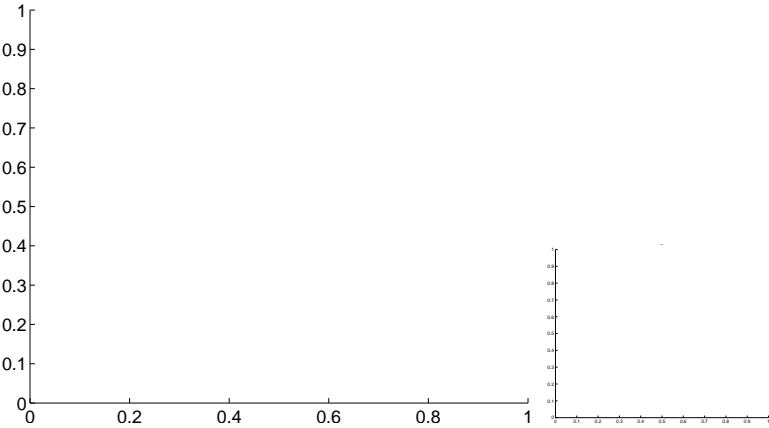
Q11 OOT image



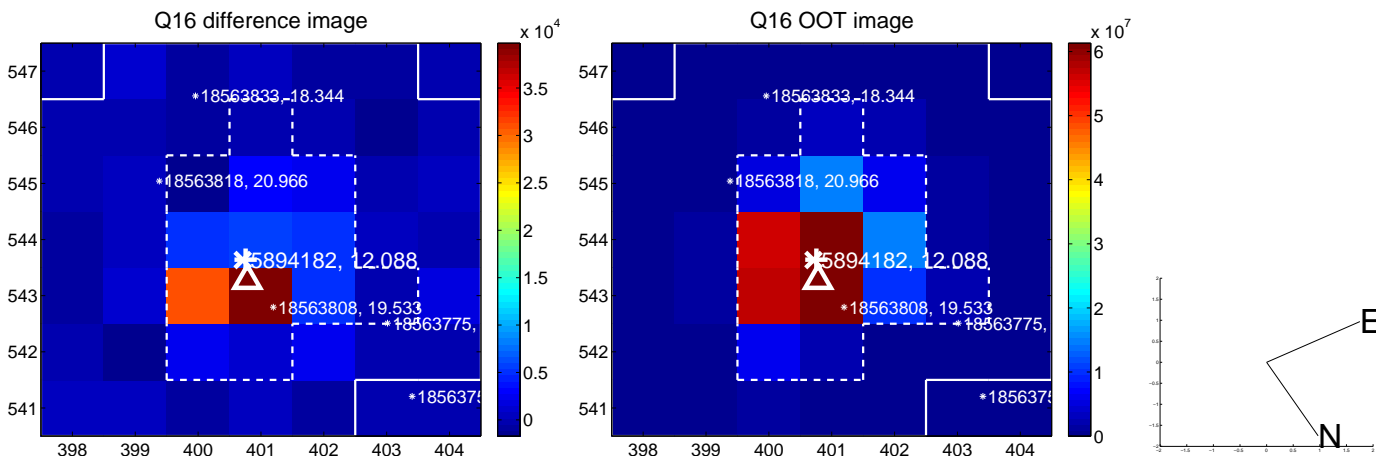
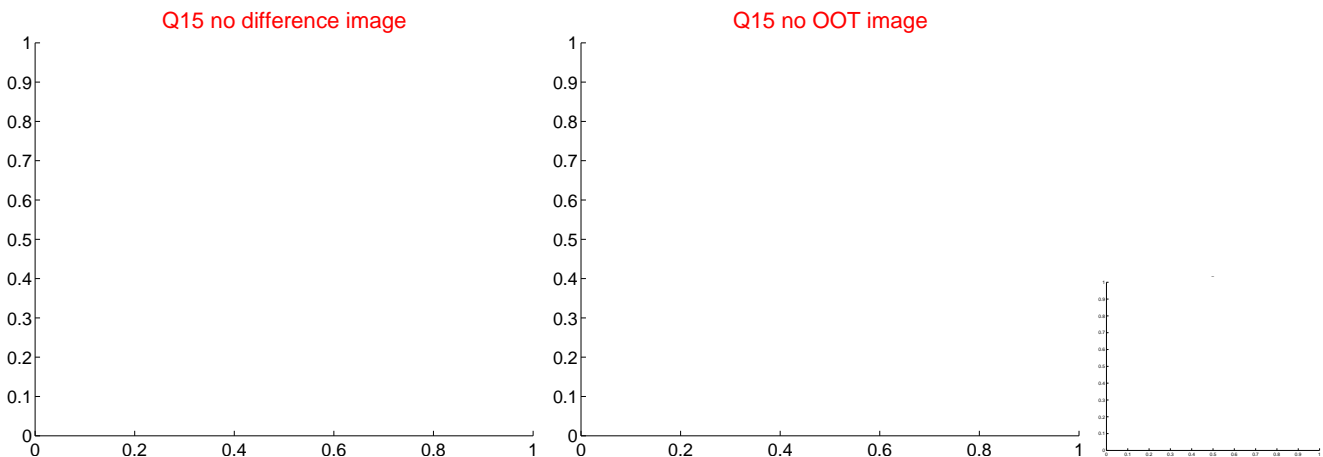
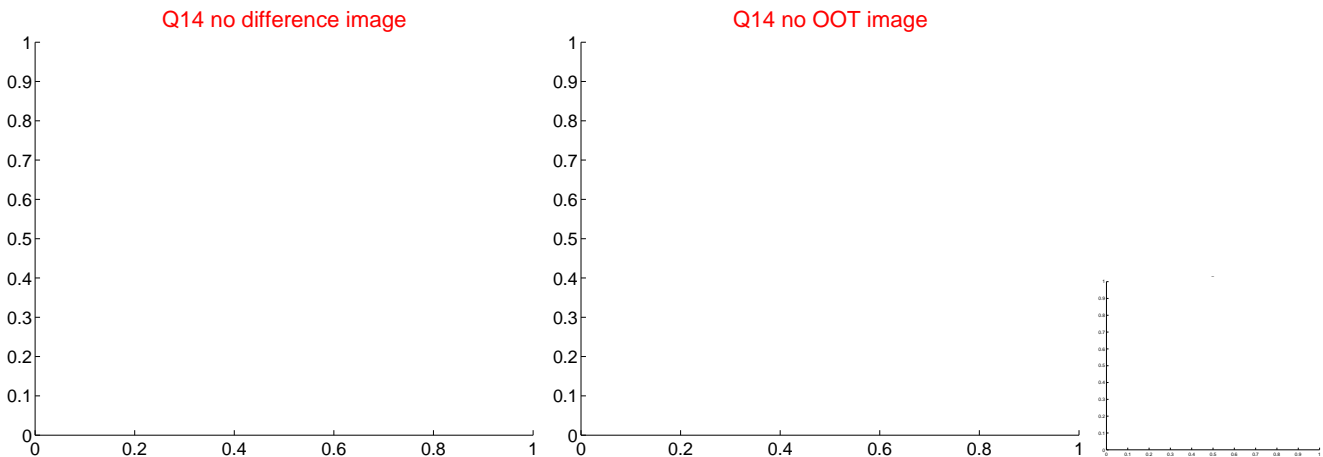
Q12 no difference image



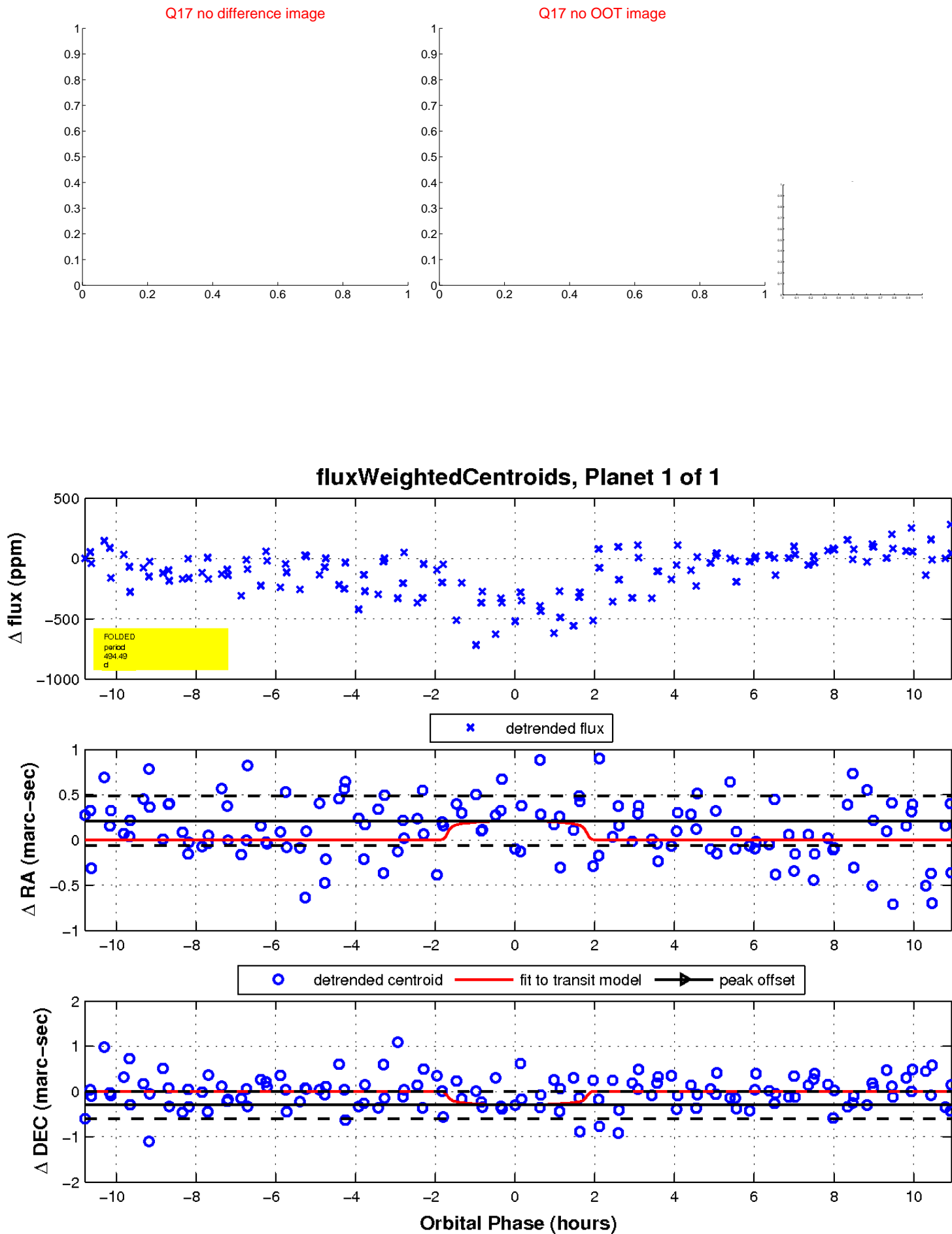
Q12 no OOT image



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

