

KIC 005219798

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})
005219798-01	OBS	No	389.169229	342.054541	165.2	8.294	8.8	8.3	2.22	8266	3.14	12.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005219798-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

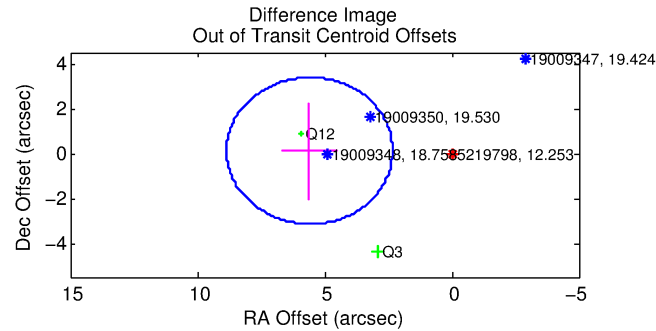
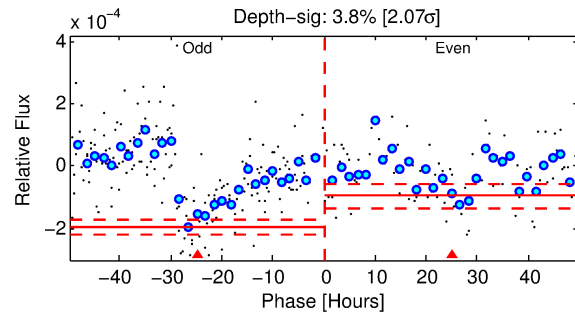
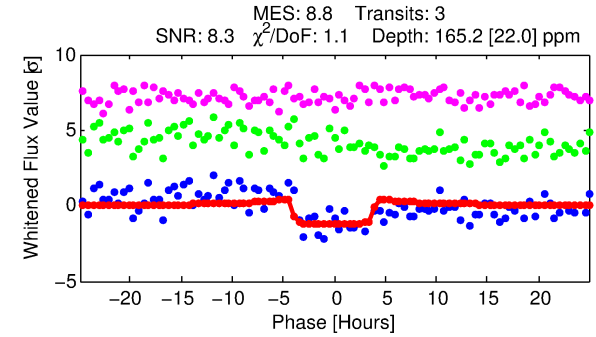
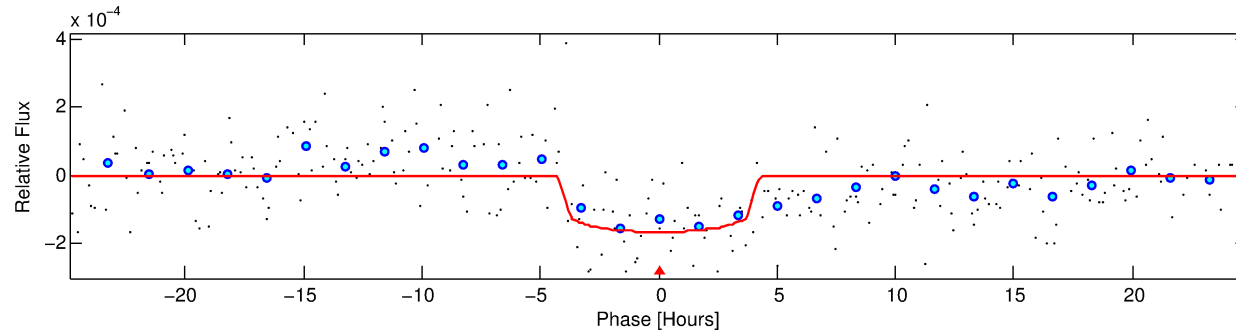
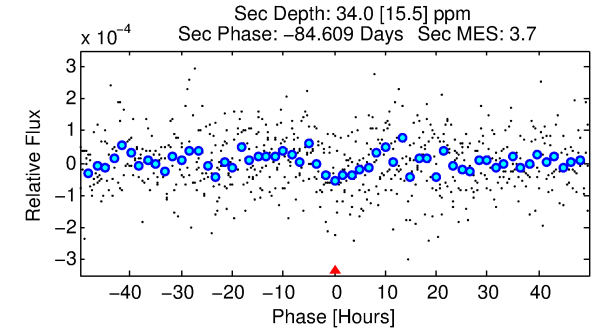
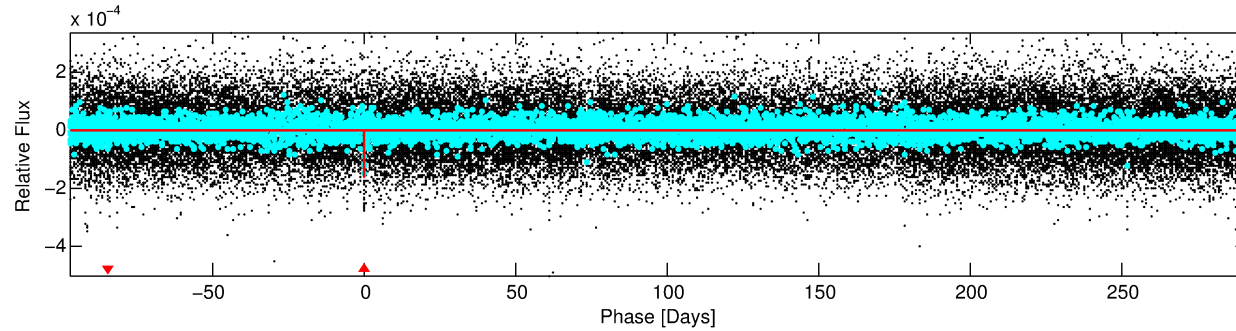
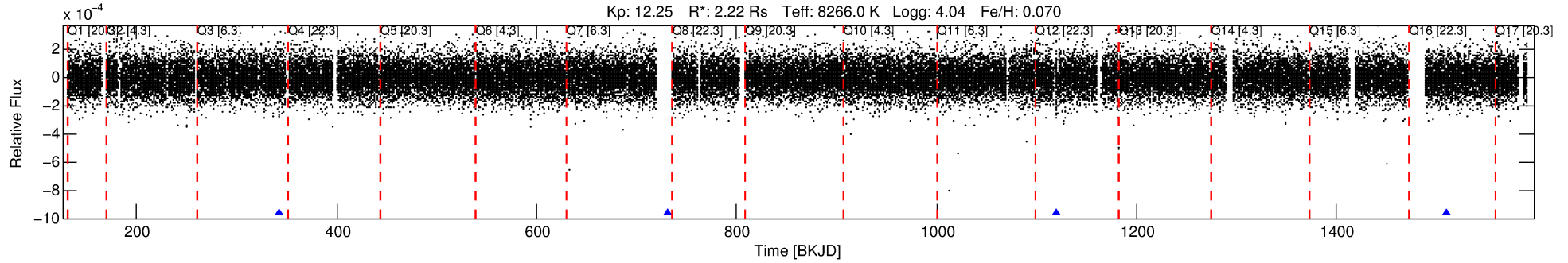
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005219798-01

No Significant Match Found

DV One-Page Summary

KIC: 5219798 Candidate: 1 of 1 Period: 389.169 d



DV Fit Results:

Period = 389.16923 [0.00595] d
Epoch = 342.0545 [0.0120] BKJD
Rp/R* = 0.0129 [0.0057]
a/R* = 229.77 [599.31]
b = 0.78 [1.29]
Seff = 12.10 [4.42]
Teq = 476 [43] K
Rp = 3.14 [1.63] Re
a = 1.3078 [0.2951] AU
Ag = 3250.53 [3384.24] [0.96σ]
Teffp = 5552 [1397] K [3.63σ]

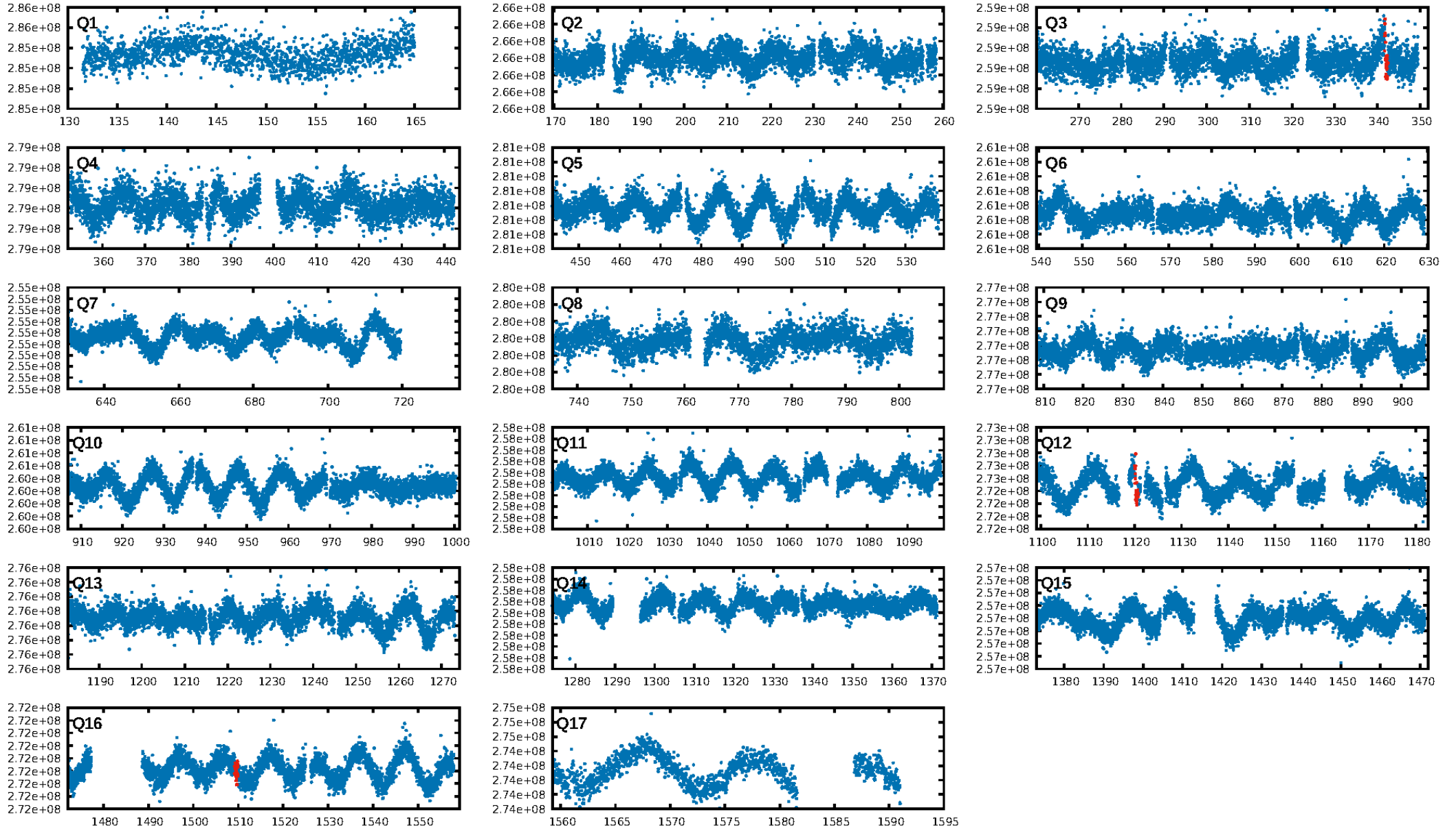
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.5%
ModelChiSquareGof-sig: 97.6%
Bootstrap-pfa: 1.63e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.5
Centroid-sig: 23.5%
Centroid-so: 1.273 arcsec [0.76σ]
OotOffset-rm: 5.592 arcsec [5.14σ]
KicOffset-rm: 5.442 arcsec [3.52σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

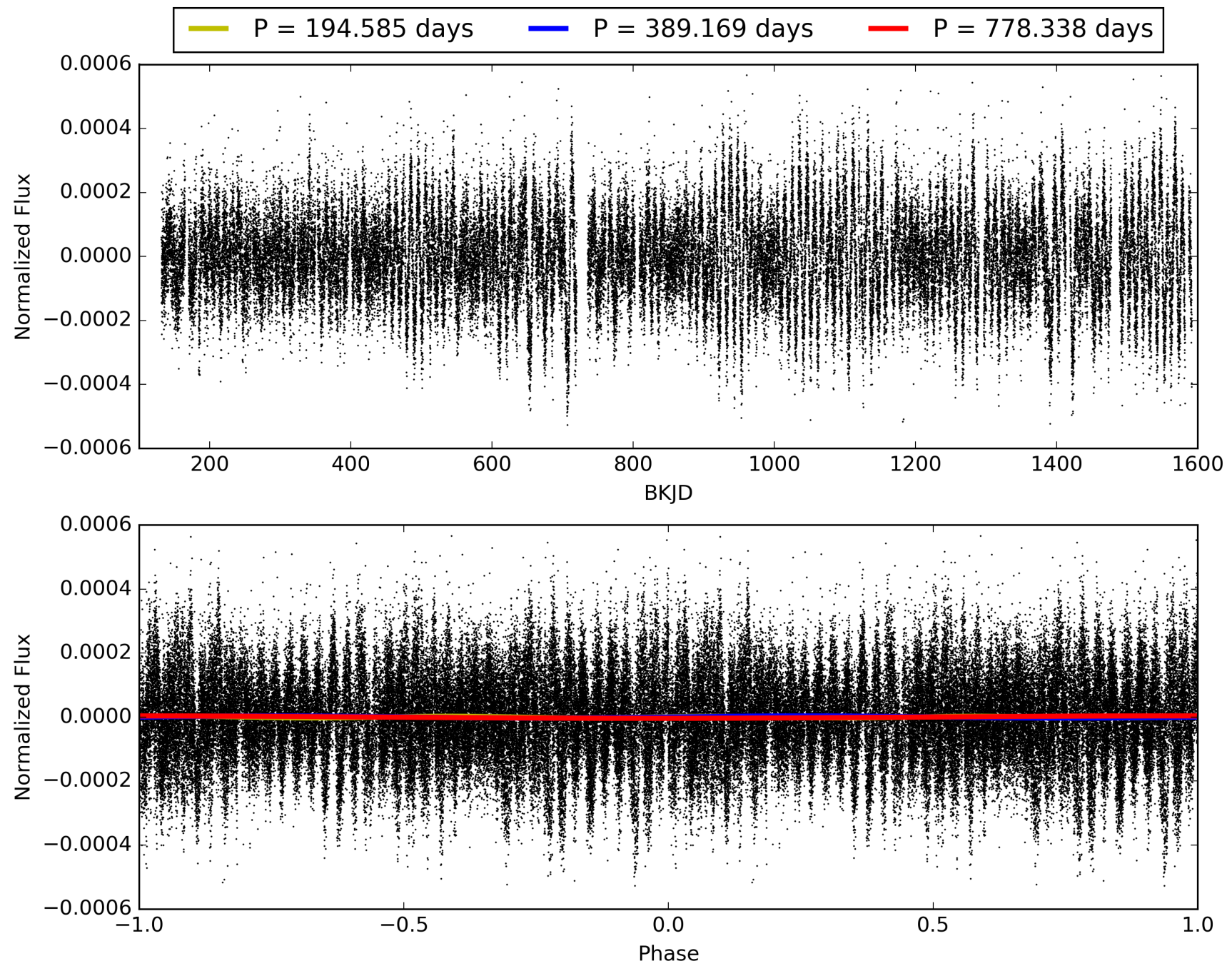
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:58:31 Z

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

TCE 005219798-01, PDC Light Curves

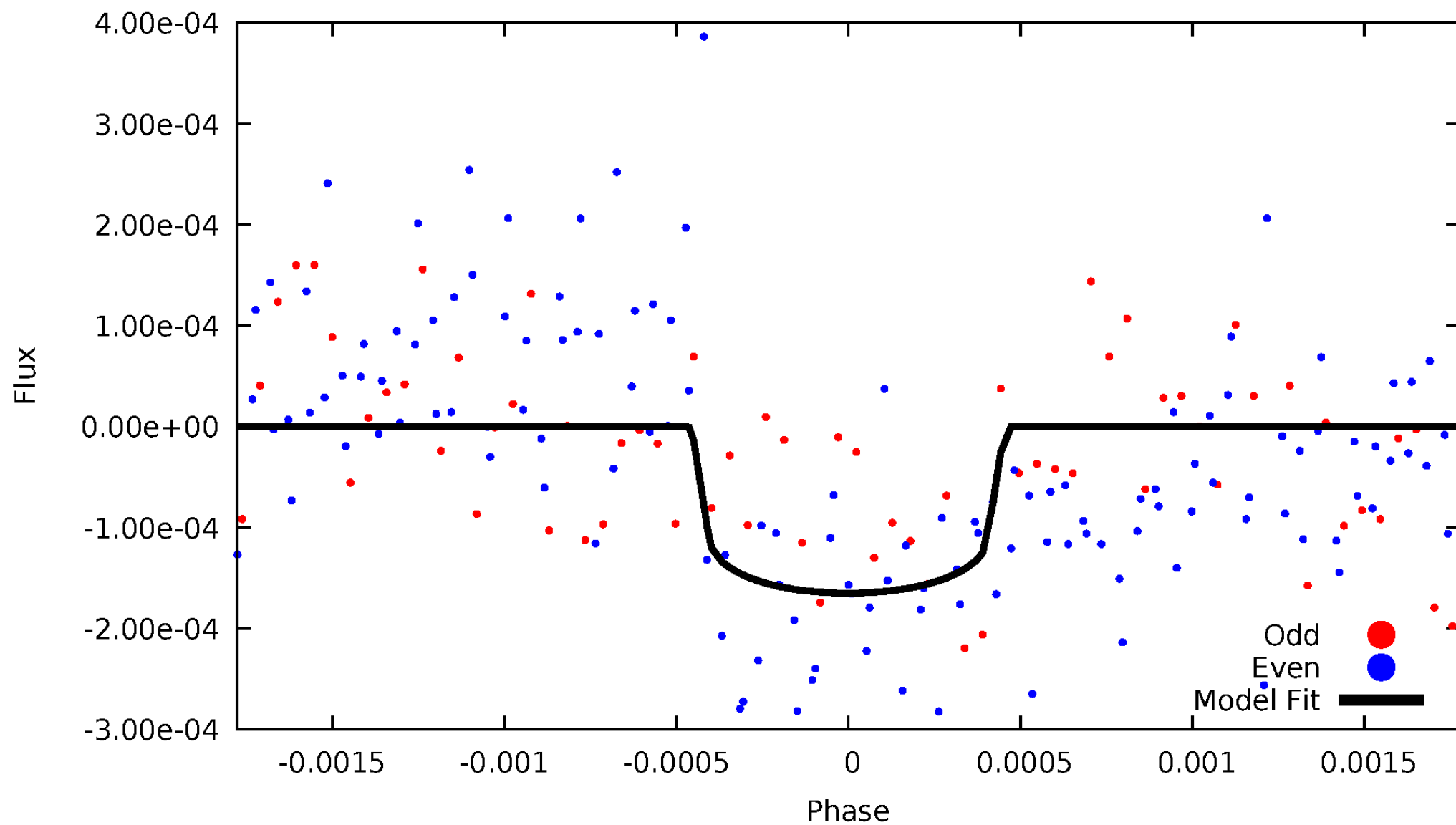


TCE 005219798-01



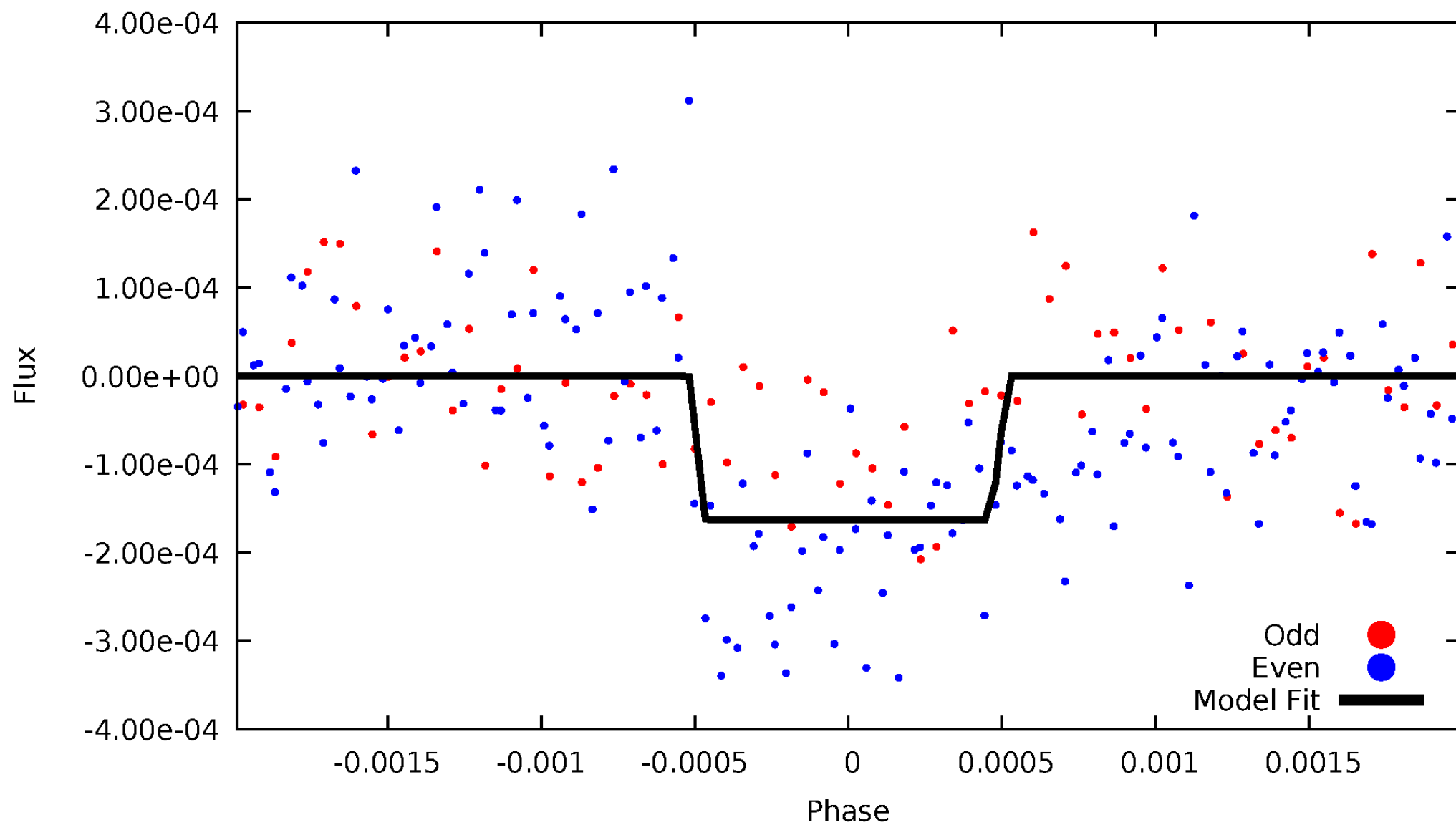
DV Odd/Even

TCE 005219798-01



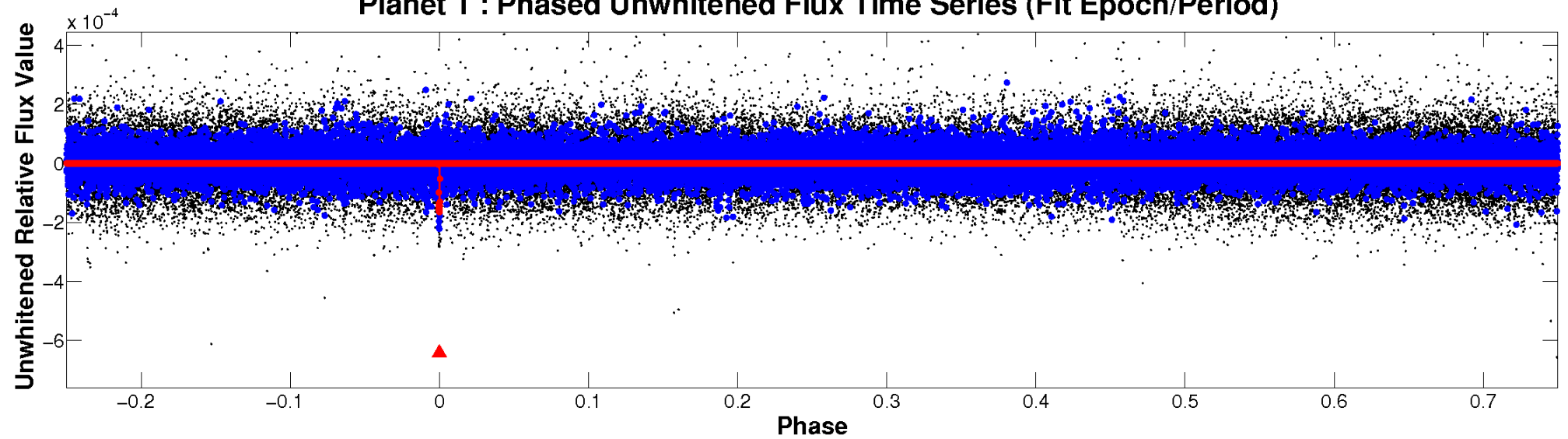
ALT Odd/Even

TCE 005219798-01

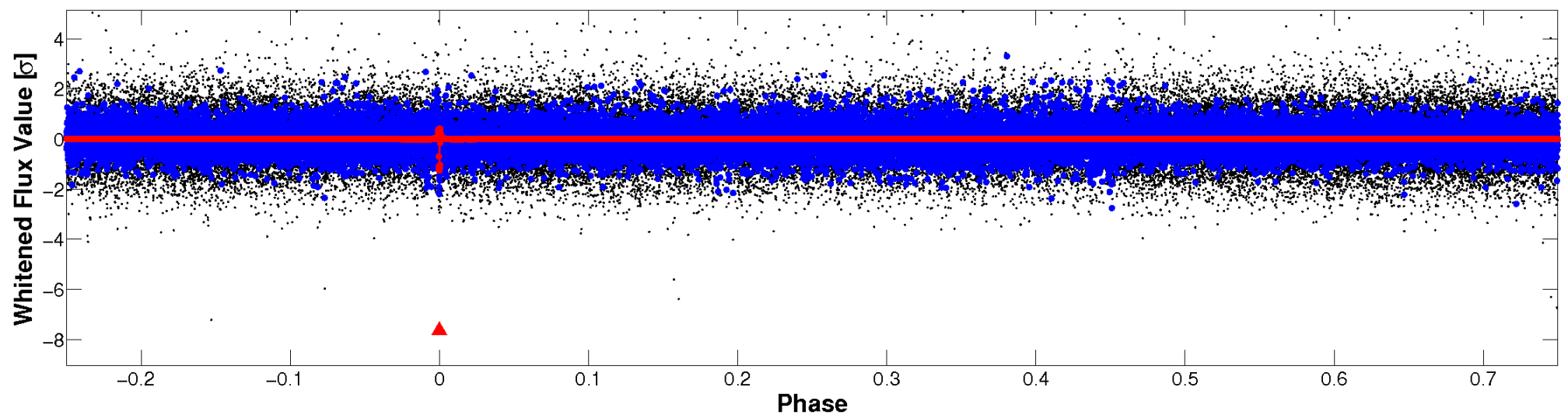


Non-Whitened Vs. Whitened Light Curve

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

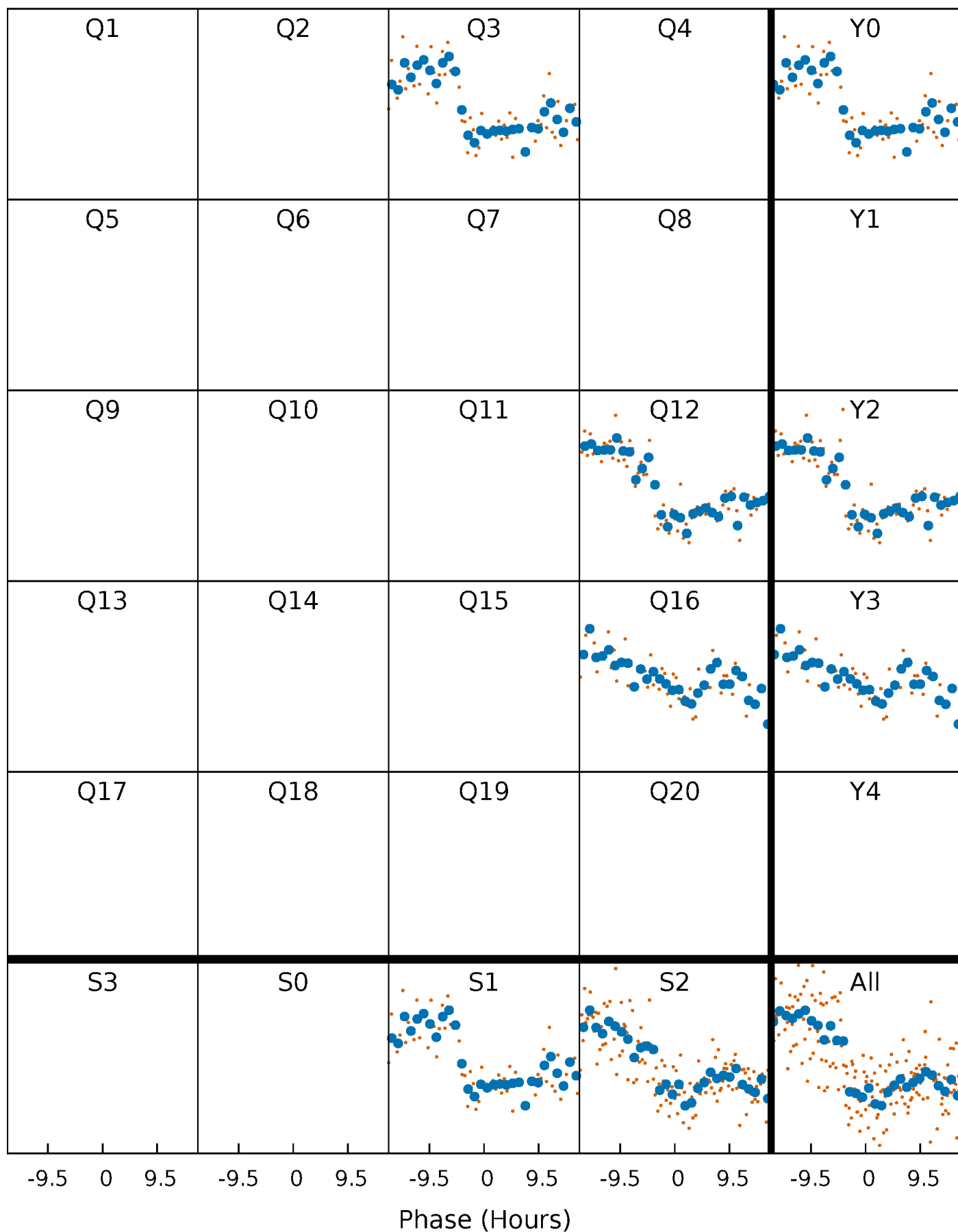


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



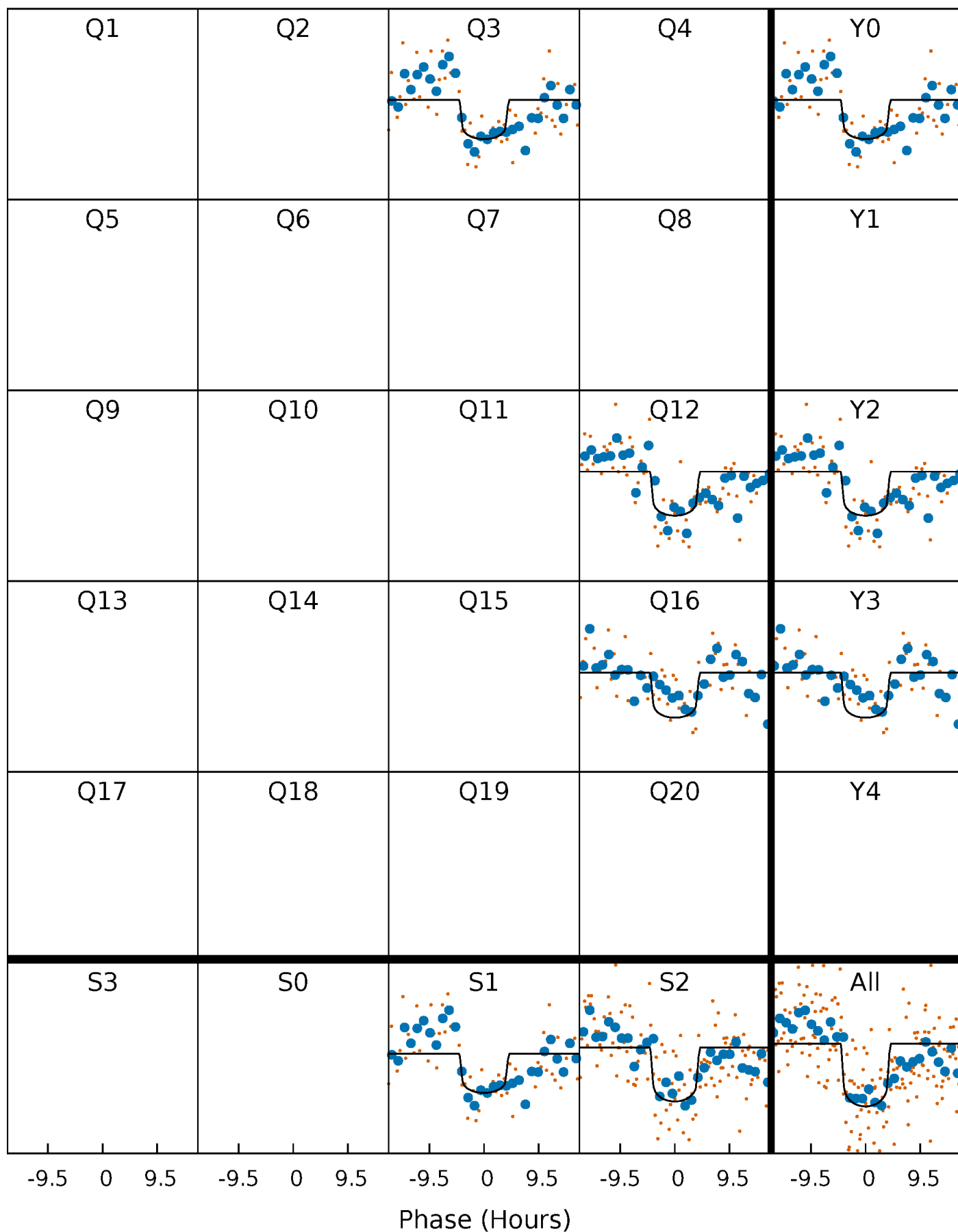
PDC Quarter-Phased Transit Curves

TCE 005219798-01 P=389.169229 Days $T_0=342.054541$ (BKJD)



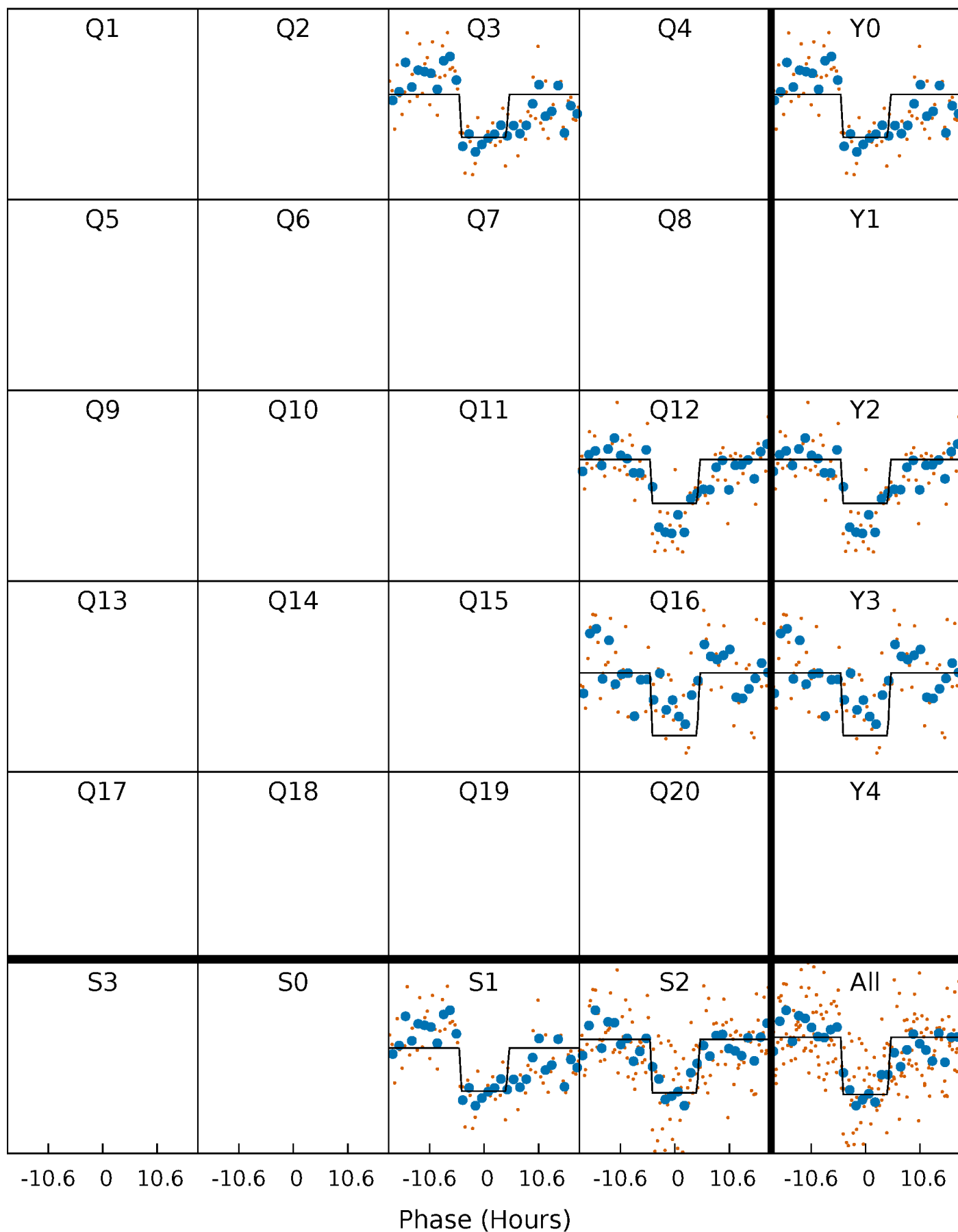
DV Quarter-Phased Transit Curves

TCE 005219798-01 P=389.169229 Days $T_0=342.054541$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

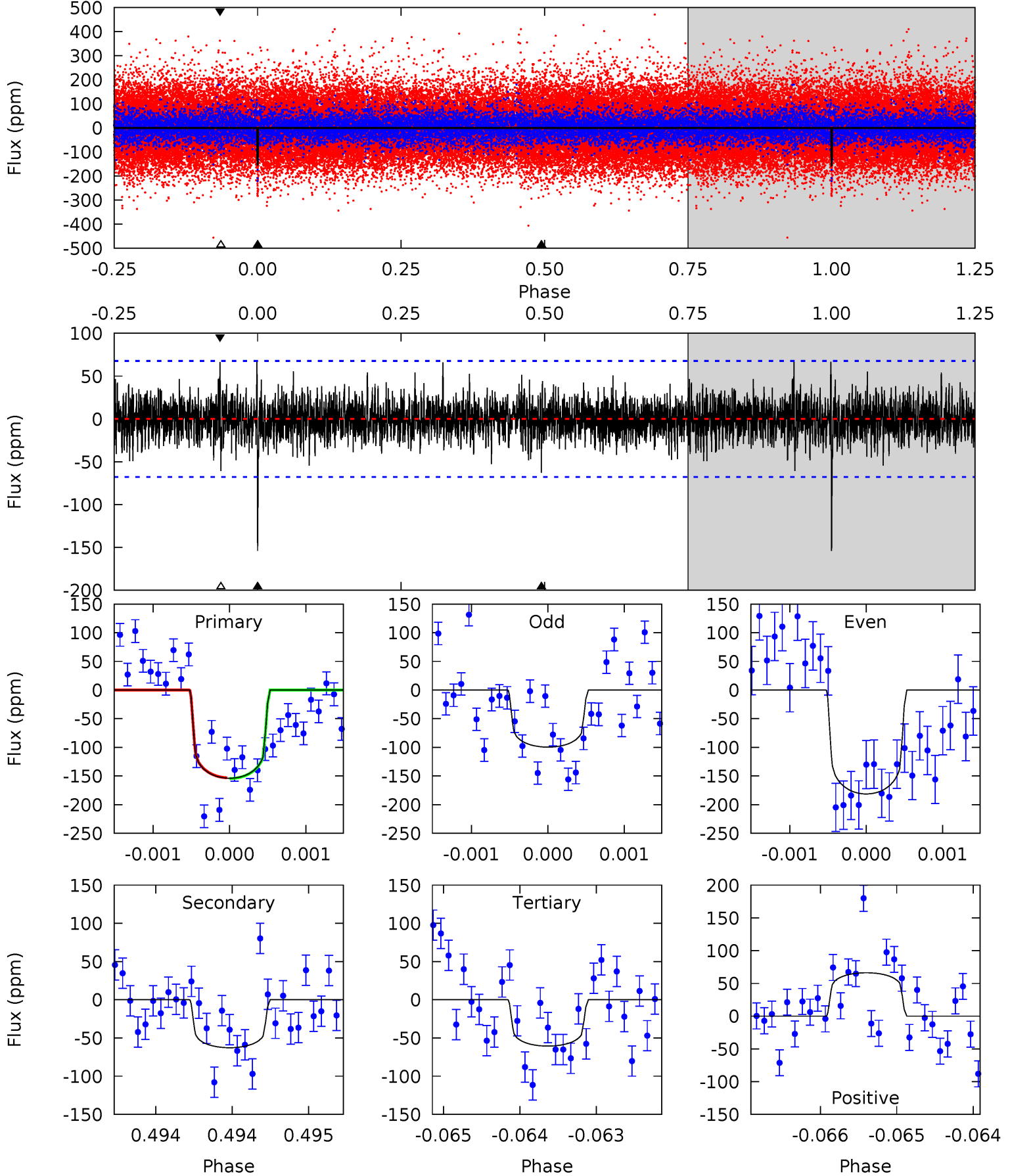
TCE 005219798-01 P=389.170773 Days $T_0=342.089894$ (BKJD)



DV Model-Shift Uniqueness Test

005219798-01, P = 389.169229 Days, E = 342.054541 Days

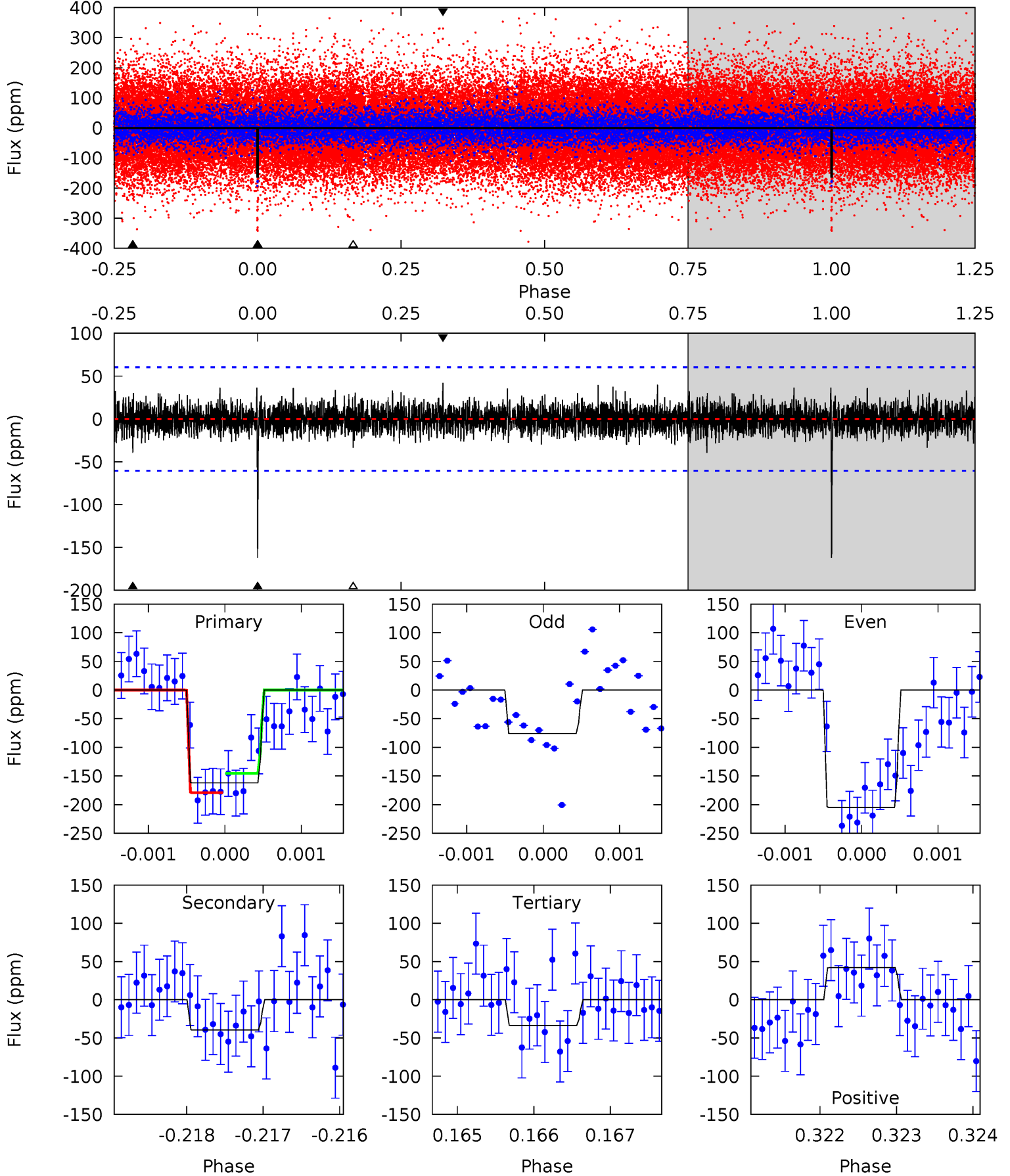
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	5.07	4.89	5.35	5.47	3.32	1.27	7.53	7.08	0.17	-0.28	3.10	0.86	0.30	0.05



Alt Model-Shift Uniqueness Test

005219798-01, P = 389.170773 Days, E = 342.089894 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	3.56	3.03	3.79	5.45	3.28	0.90	11.6	10.8	0.53	-0.23	5.55	0.90	0.21	1.52



Stellar Parameters For KIC 005219798

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8266^{+198}_{-368}	$4.038^{+0.170}_{-0.139}$	$0.070^{+0.150}_{-0.500}$	$2.224^{+0.410}_{-0.614}$	$1.971^{+0.295}_{-0.442}$	$0.252^{+0.265}_{-0.095}$
	+2%/-4%	+4%/-3%	+214%/-714%	+18%/-28%	+15%/-22%	+105%/-38%
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 005219798-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-63 ± 12	$3.13^{+1.38}_{-1.37}$	660^{+41}_{-48}	6145^{+2332}_{-965}	5901^{+12370}_{-3172}
Alt.	-40 ± 11	$3.10^{+1.39}_{-1.27}$	660^{+39}_{-47}	5550^{+1601}_{-882}	3715^{+6802}_{-2053}

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 $A_{obs} \gg 1.0$

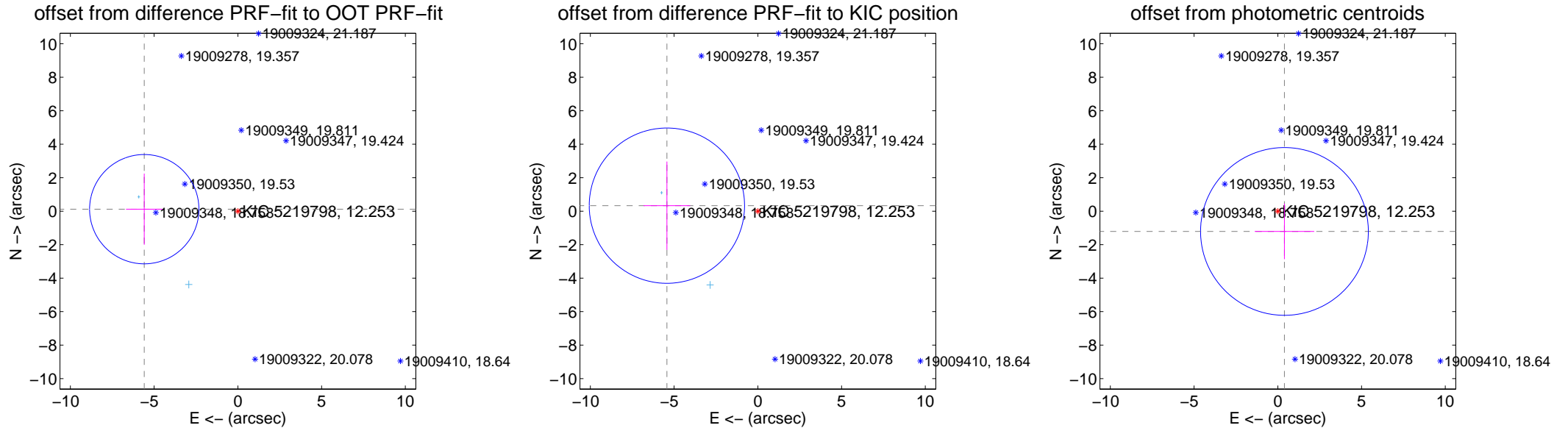
DV Centroid Data

Supplemental centroid analysis for 005219798-01. Kepler magnitude: 12.25. Transit SNR 8.35

There are 2 quarters with good PRF difference image offsets

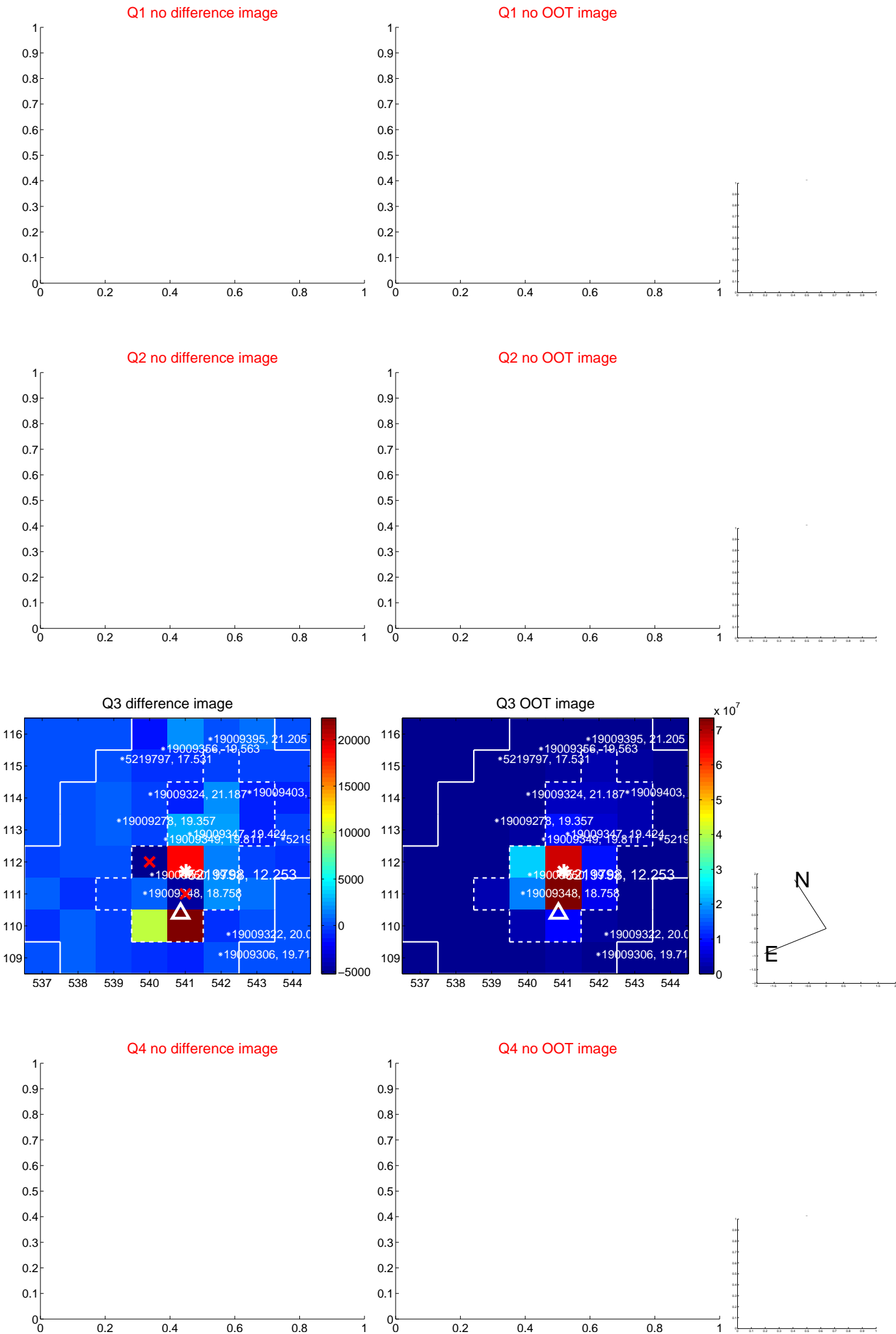
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.592 ± 1.088	5.14	5.590 ± 1.087	0.120 ± 2.126
PRF-fit source offset from KIC position	5.442 ± 1.546	3.52	5.432 ± 1.389	0.329 ± 2.638
photometric centroid source offset	1.27 ± 1.67	0.76	-0.40 ± 1.78	-1.21 ± 1.66



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

Q9 no difference image



Q9 no OOT image



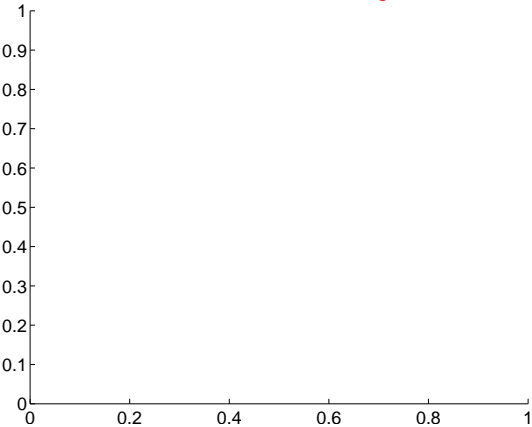
Q10 no difference image



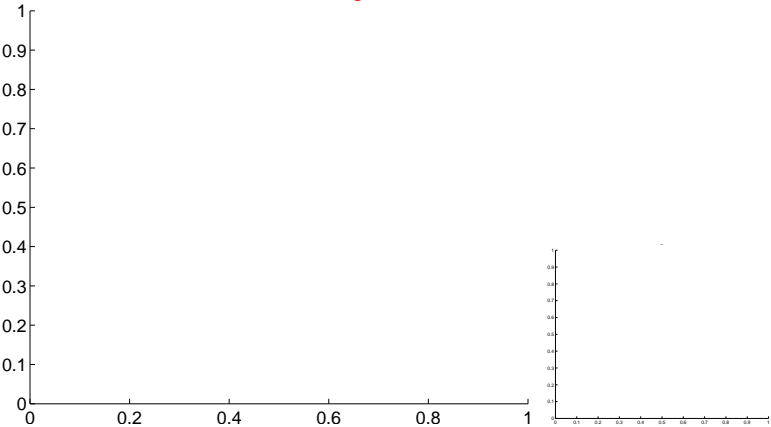
Q10 no OOT image



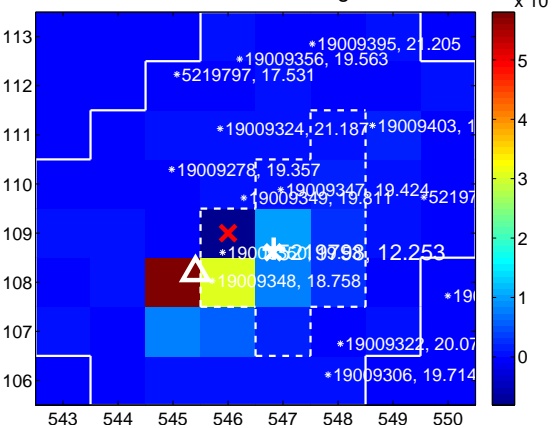
Q11 no difference image



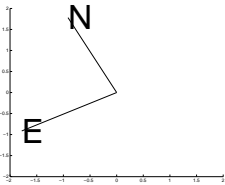
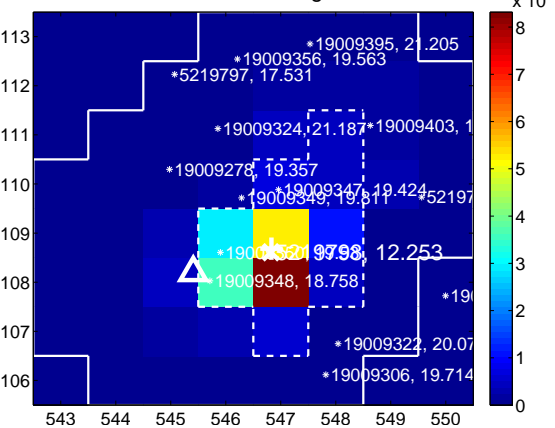
Q11 no OOT image



Q12 difference image



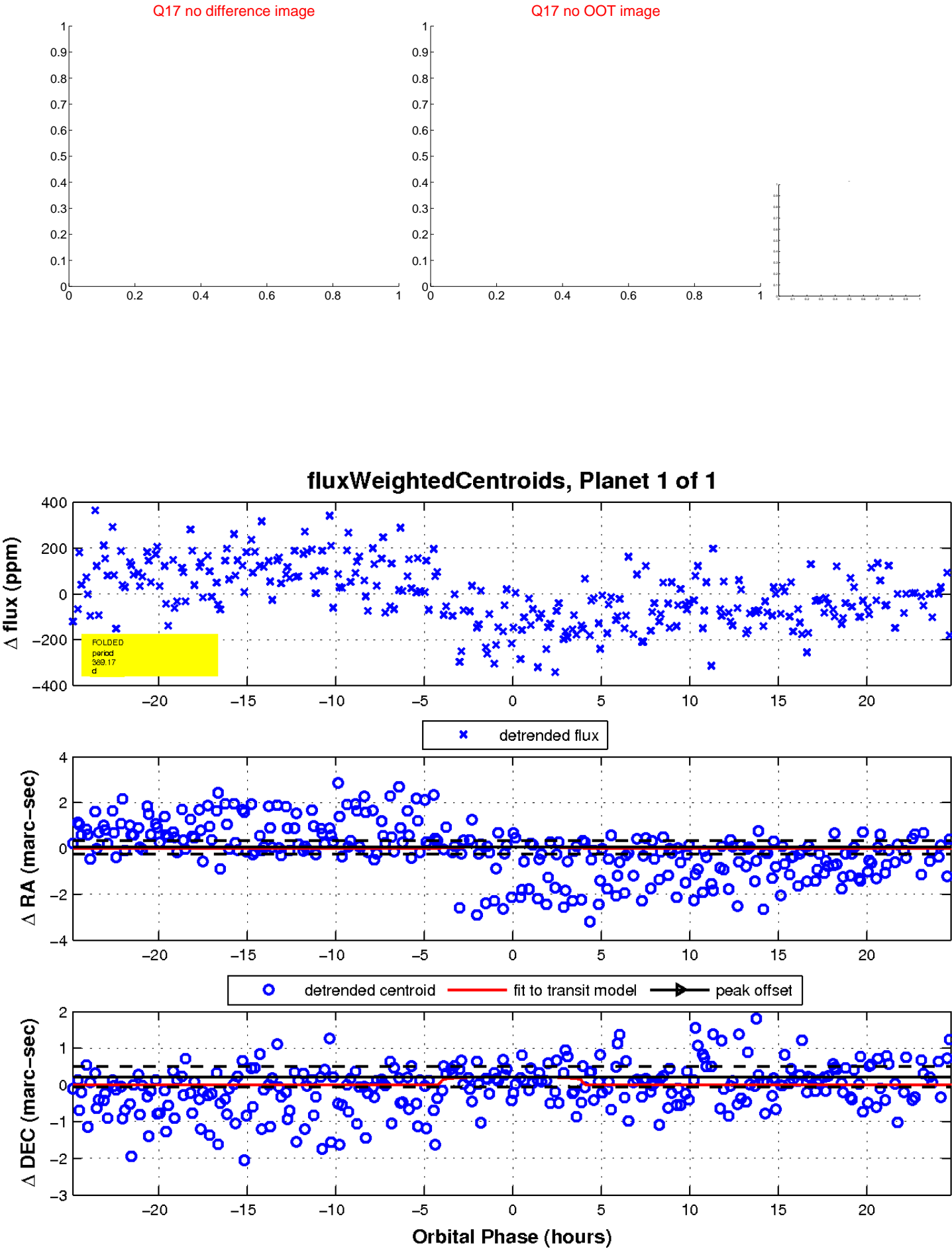
Q12 OOT image



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

