

KIC 006548934

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})
006548934-01	OBS	No	586.032579	373.698079	1763.1	17.568	12.6	9.2	0.69	4564	3.54	0.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006548934-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—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.

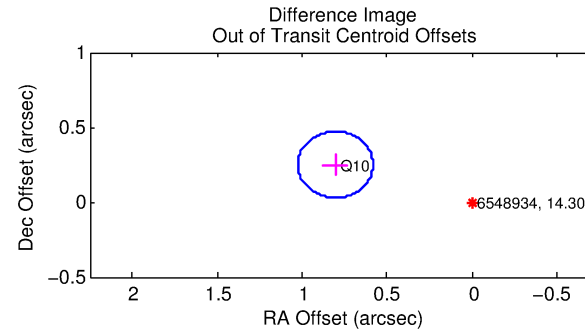
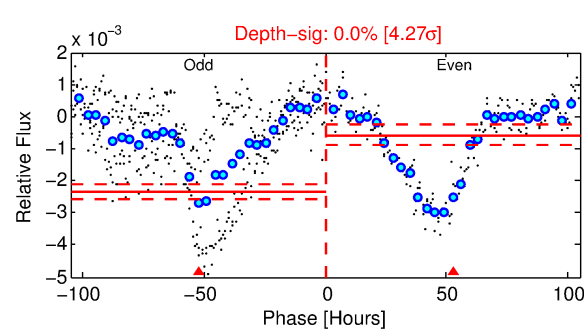
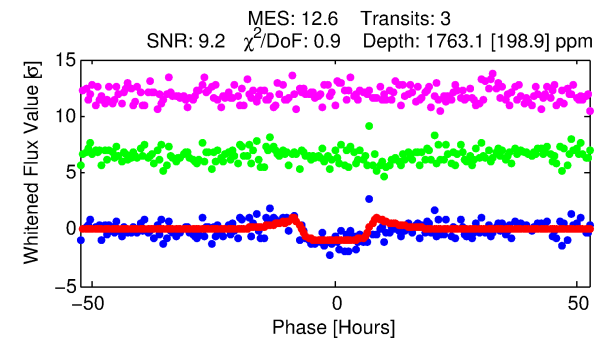
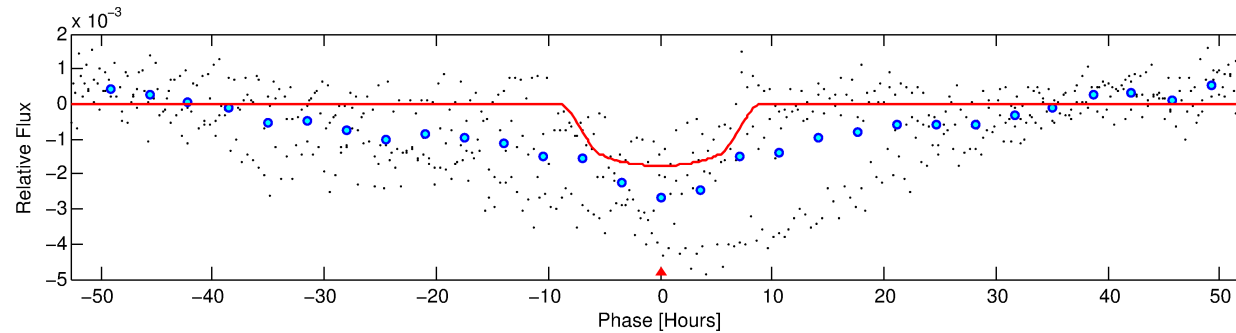
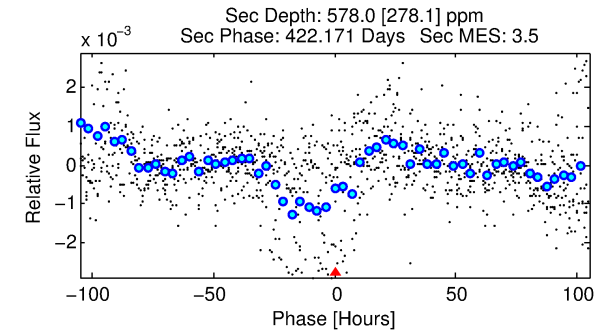
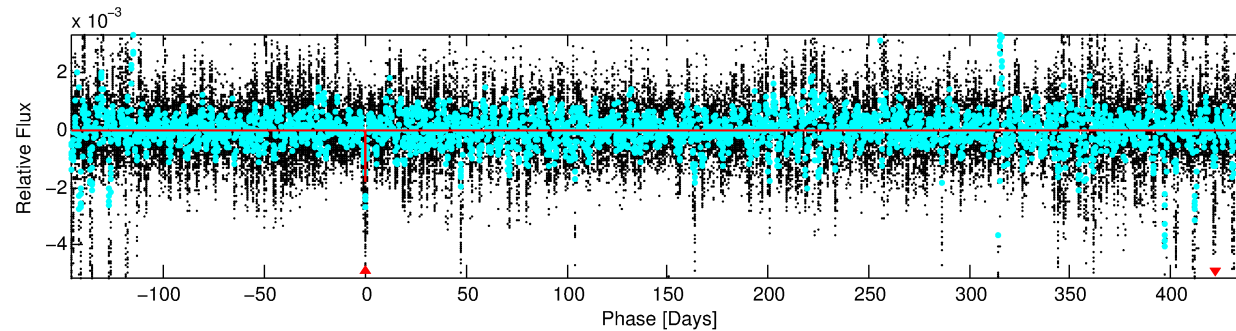
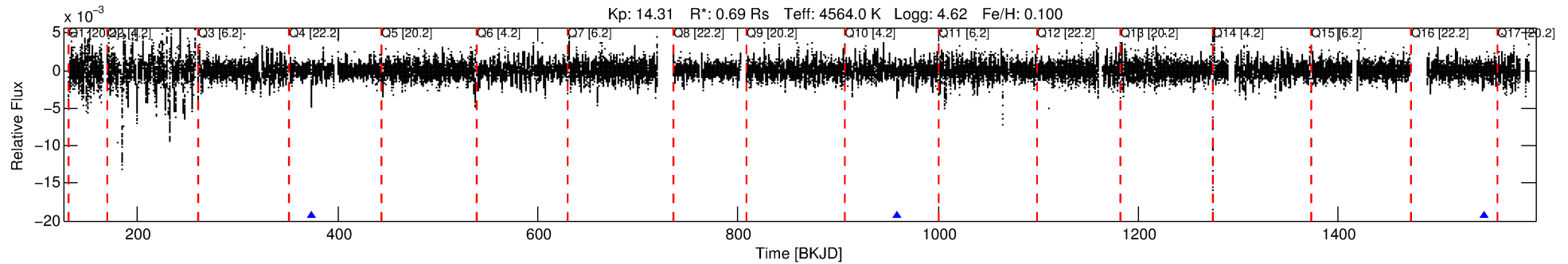
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006548934-01

No Significant Match Found

DV One-Page Summary

KIC: 6548934 Candidate: 1 of 1 Period: 586.033 d



DV Fit Results:

Period = 586.03258 [0.01392] d
Epoch = 373.6981 [0.0143] BKJD
Rp/R* = 0.0466 [0.0036]
a/R* = 143.16 [22.37]
b = 0.88 [0.04]
Seff = 0.12 [0.02]
Teq = 151 [5] K
Rp = 3.54 [0.36] Re
a = 1.2378 [0.0660] AU
Ag = 38959.63 [19910.10] [1.96σ]
Teffp = 3277 [424] K [7.38σ]

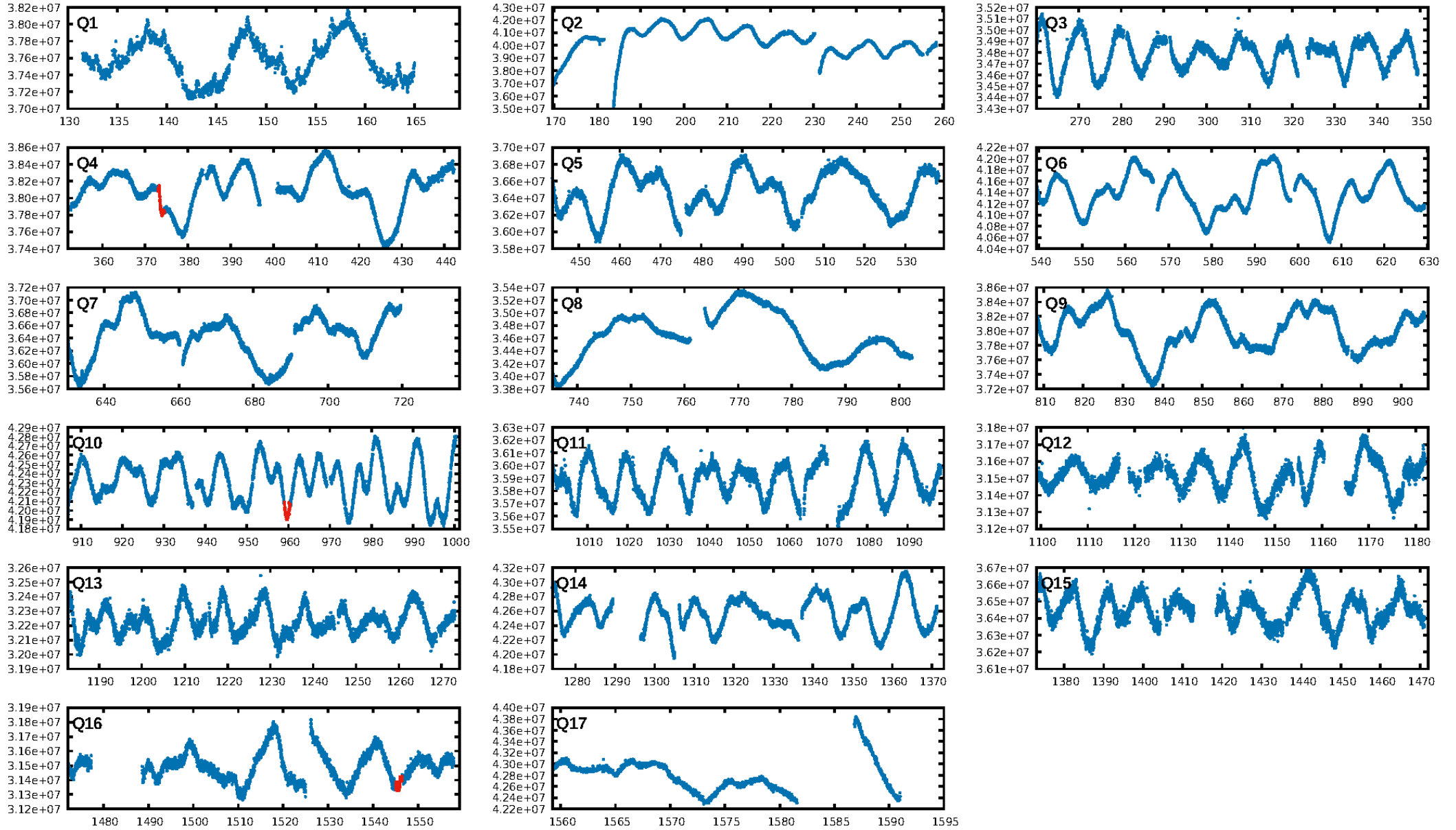
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.67e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.2788
Centroid-sig: 0.4%
Centroid-so: 2.422 arcsec [7.13σ]
OotOffset-rm: 0.841 arcsec [11.39σ]
KicOffset-rm: 4.423 arcsec [60.61σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

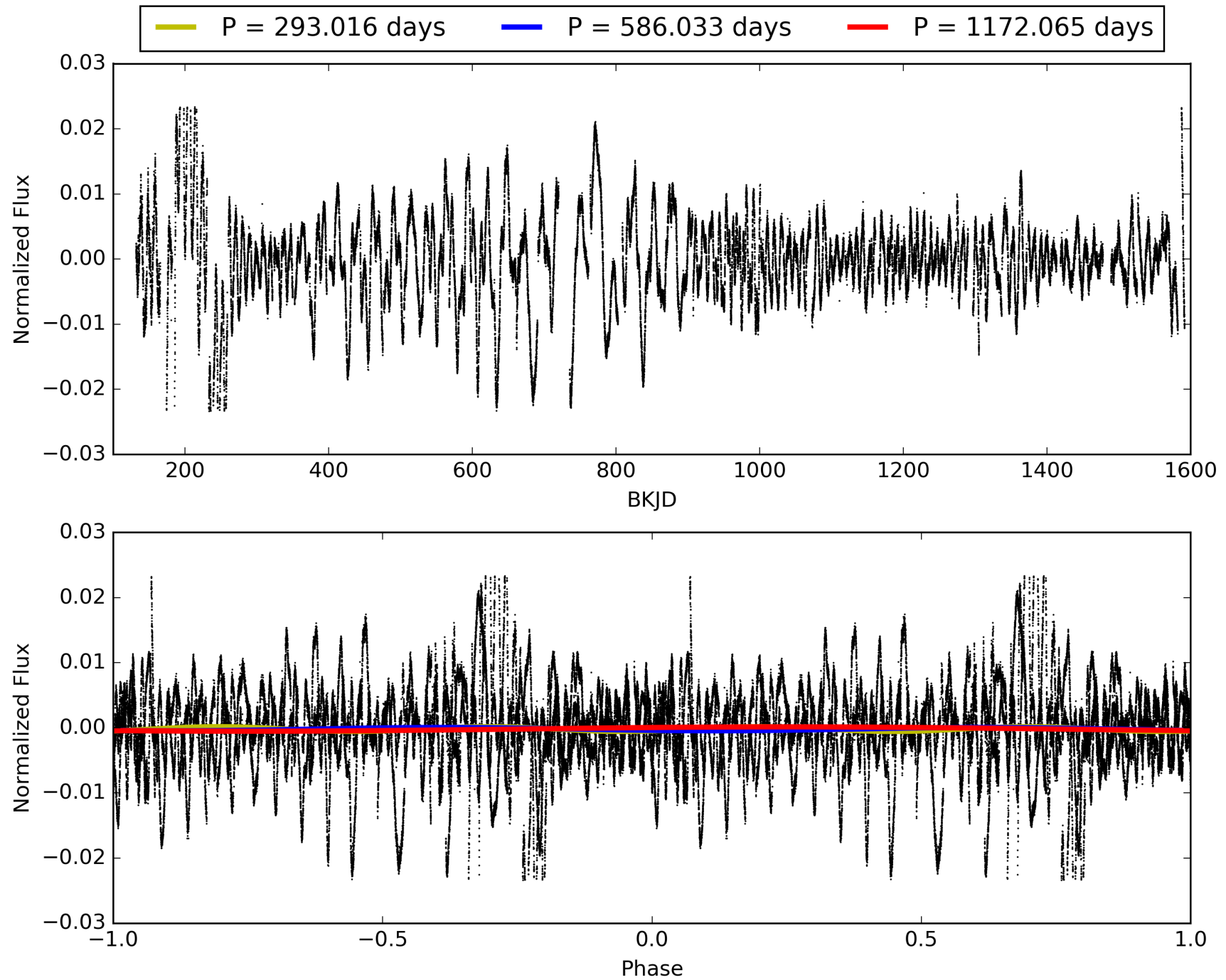
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:25:12 Z

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

TCE 006548934-01, PDC Light Curves

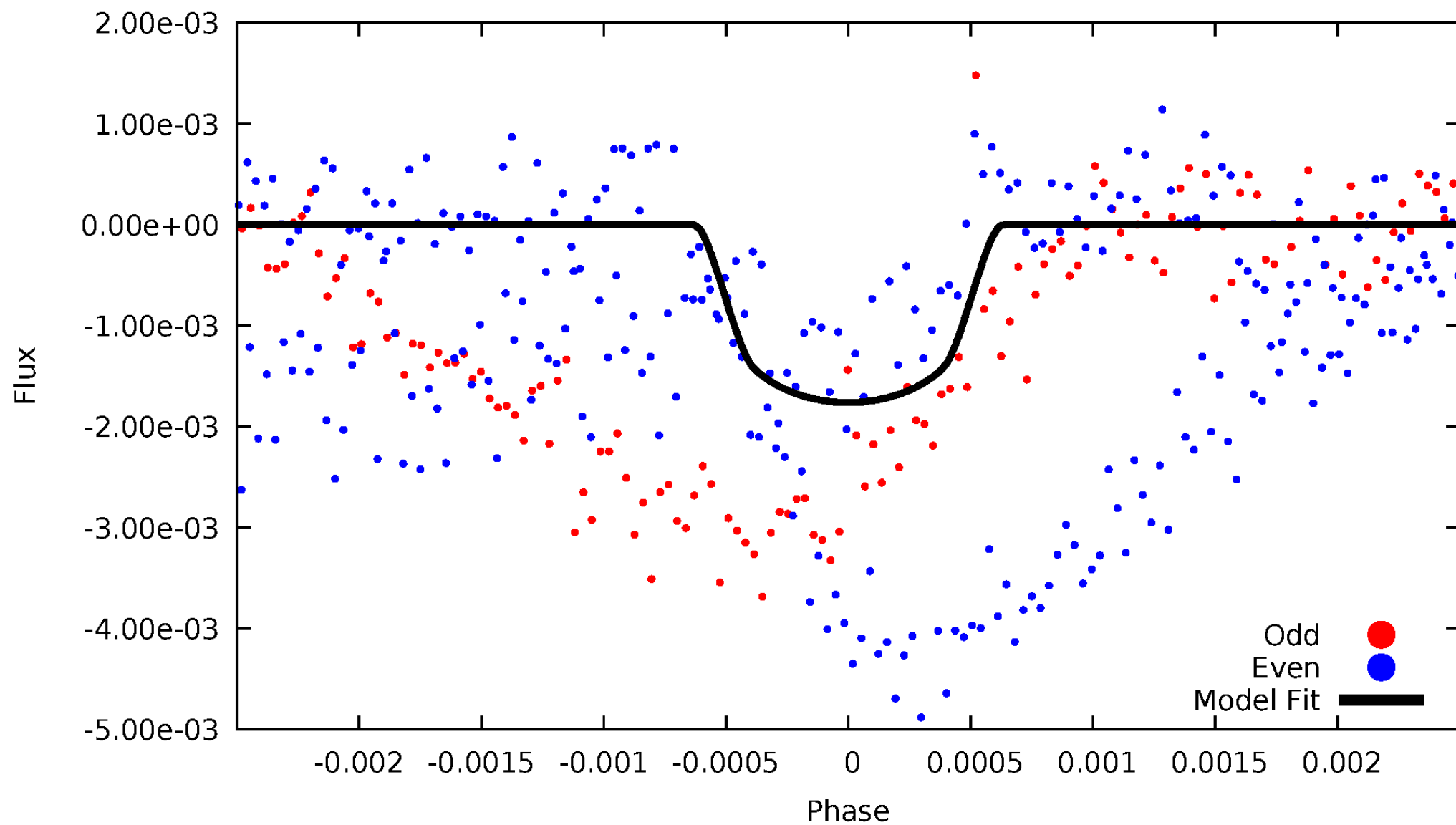


TCE 006548934-01



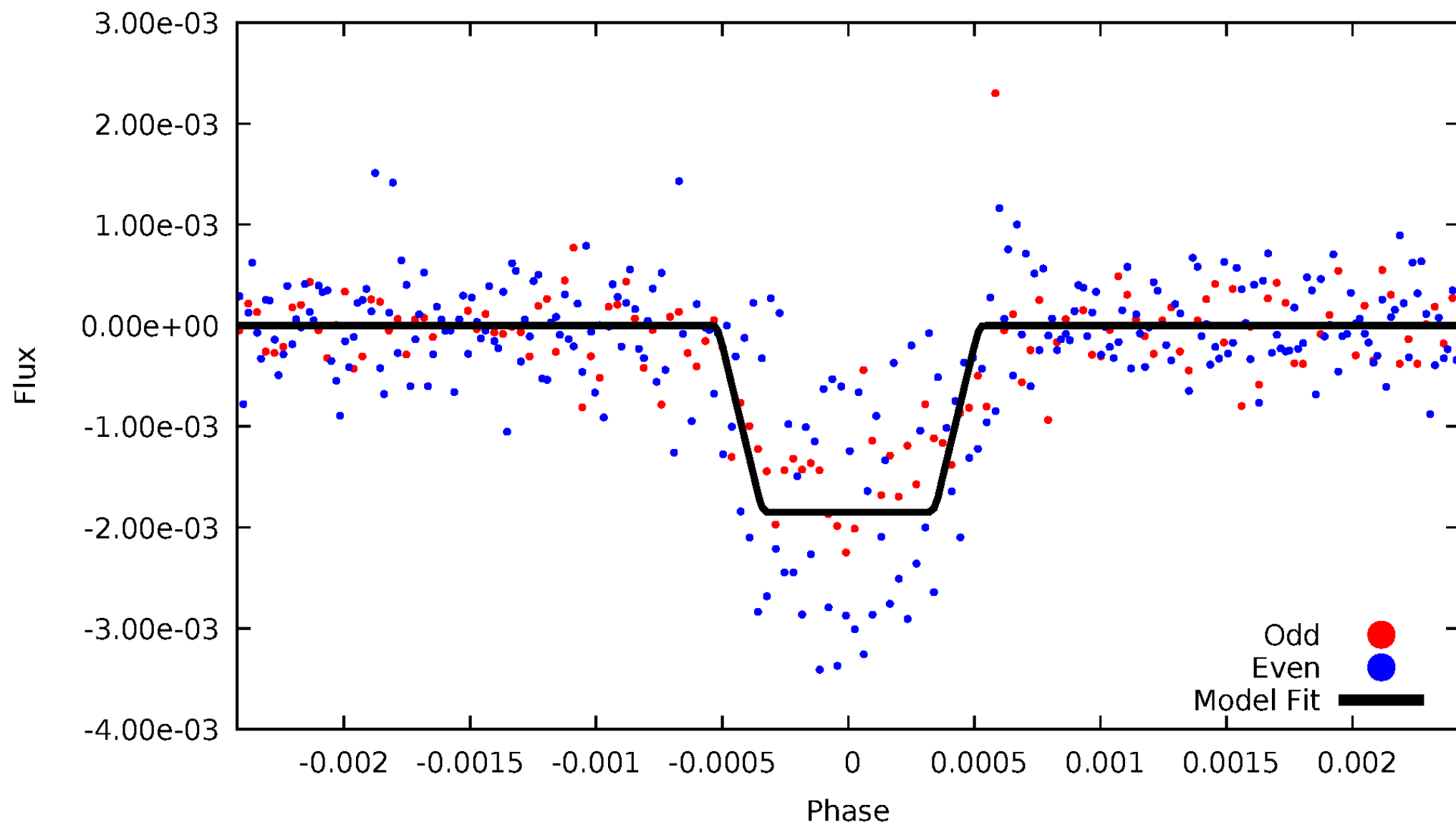
DV Odd/Even

TCE 006548934-01



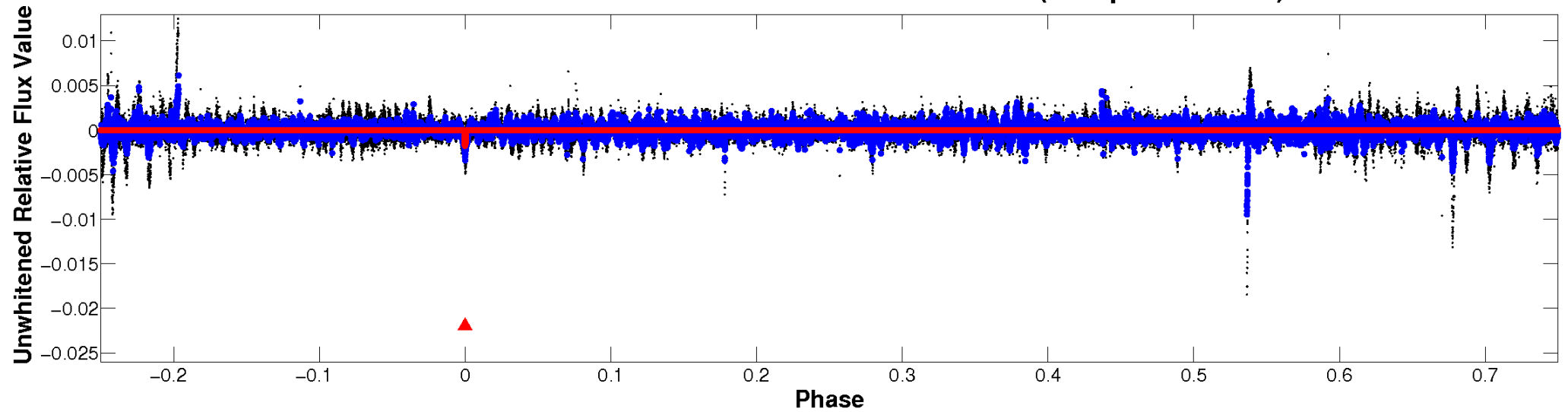
ALT Odd/Even

TCE 006548934-01

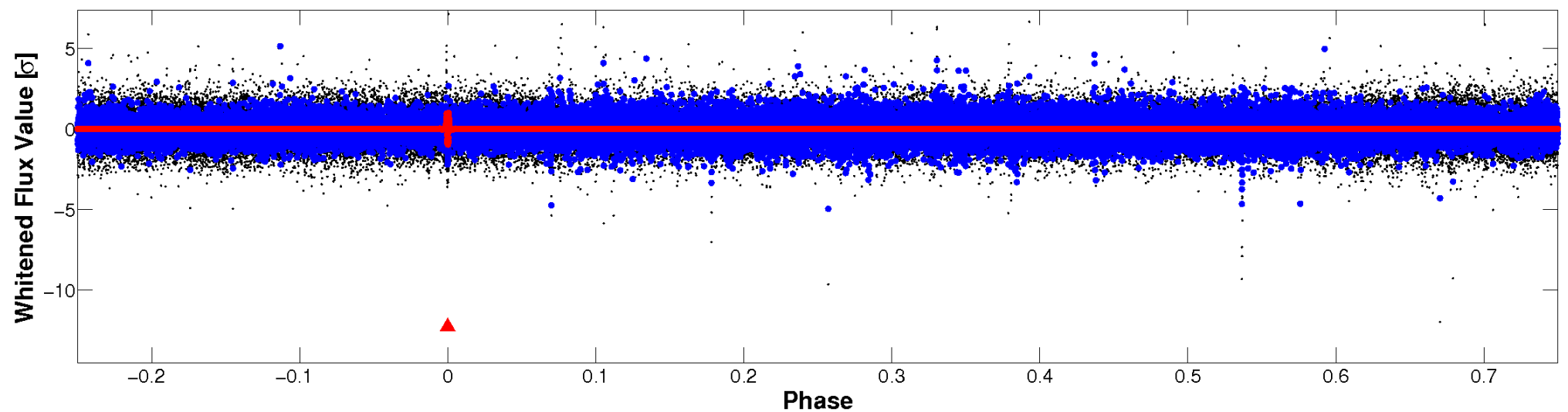


Non-Whitened Vs. Whitened Light Curve

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

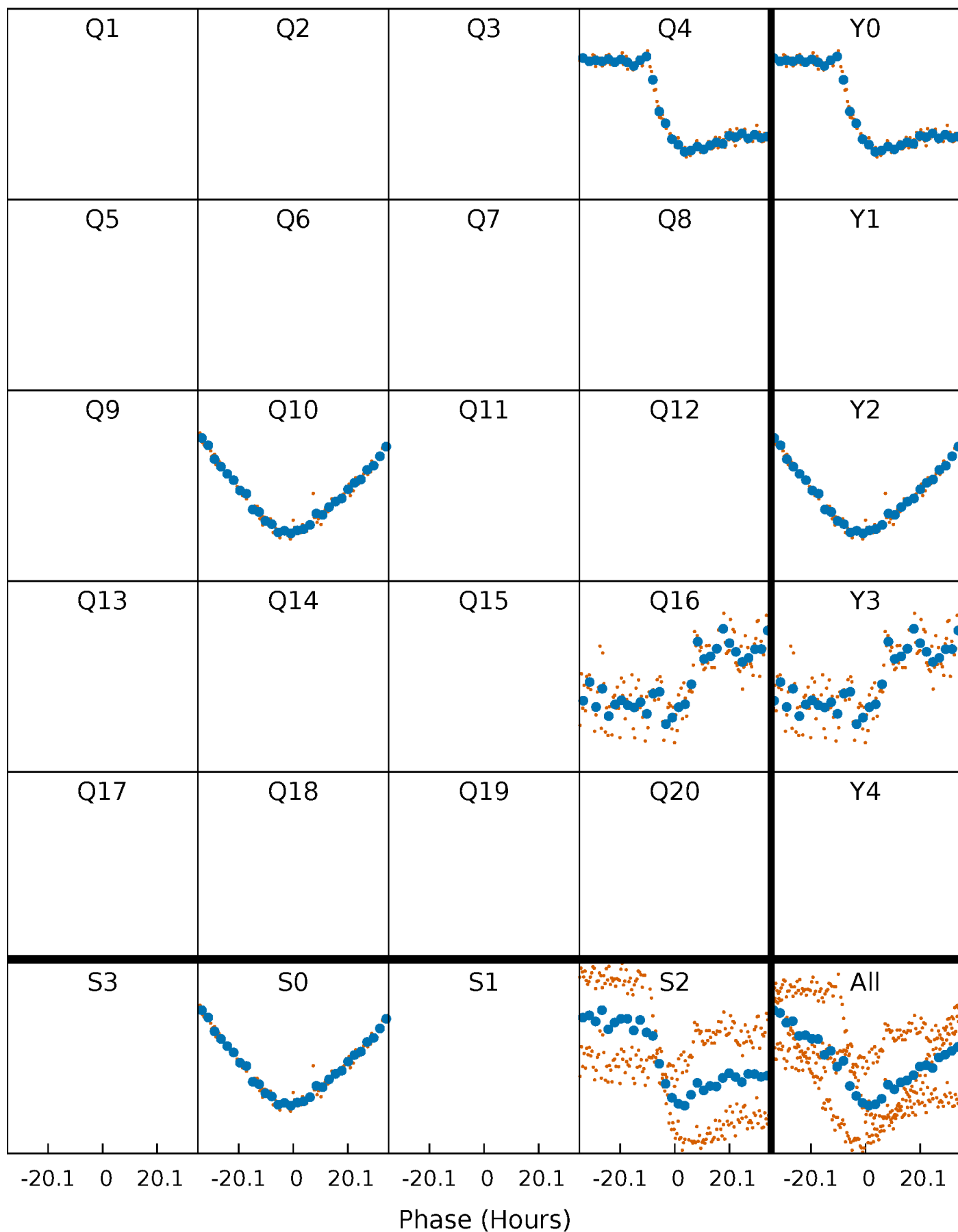


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



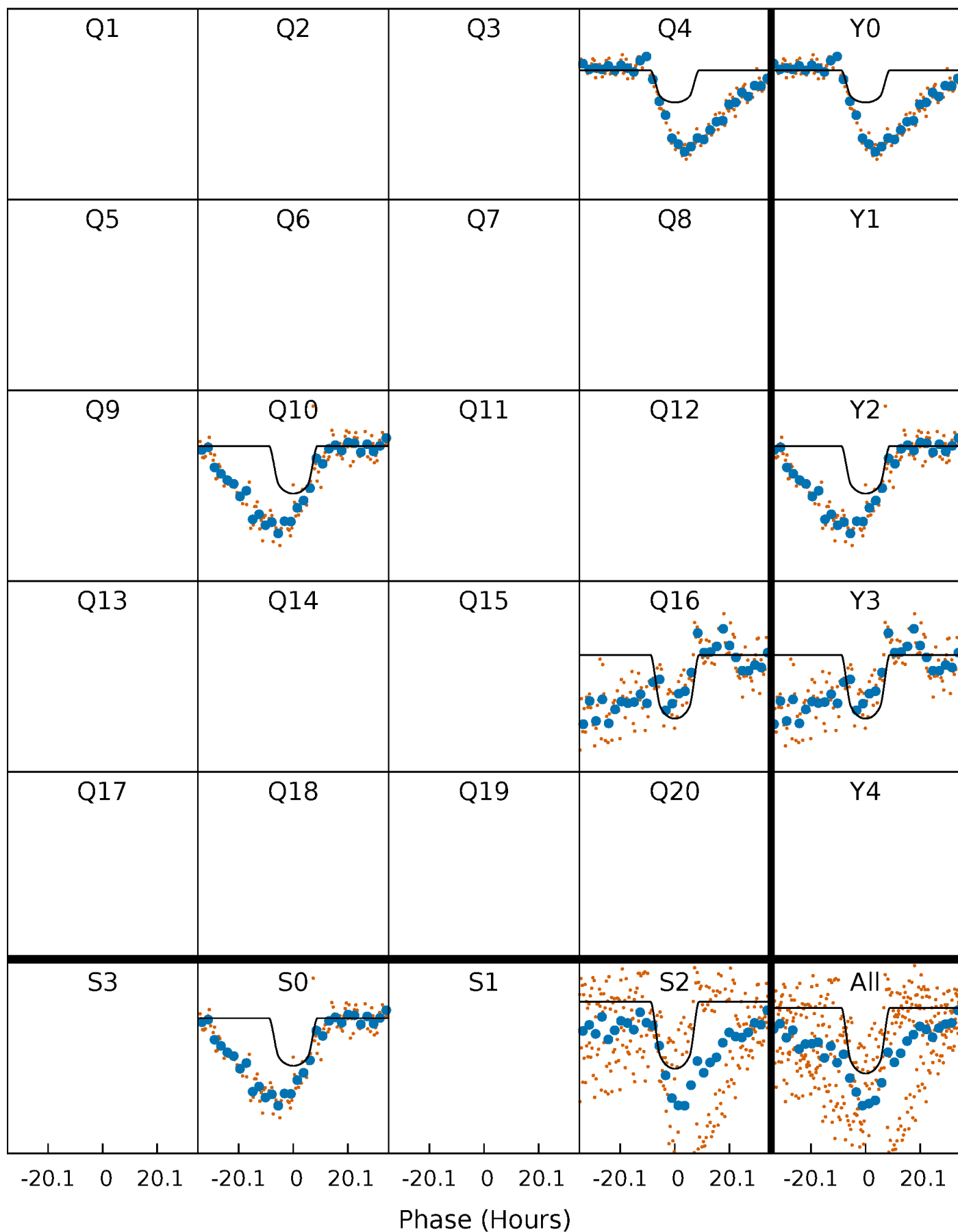
PDC Quarter-Phased Transit Curves

TCE 006548934-01 P=586.032579 Days $T_0=373.698079$ (BKJD)



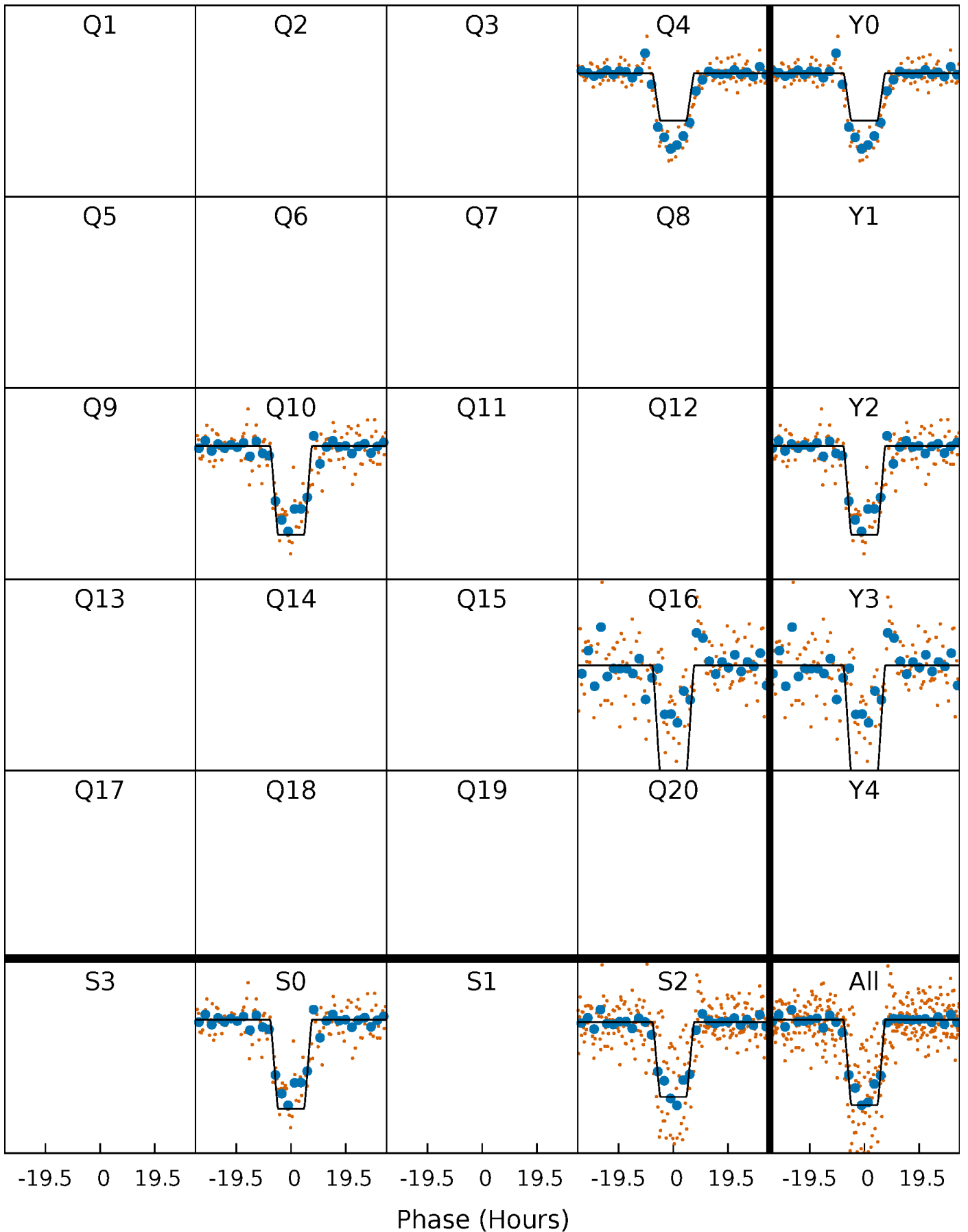
DV Quarter-Phased Transit Curves

TCE 006548934-01 P=586.032579 Days $T_0=373.698079$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

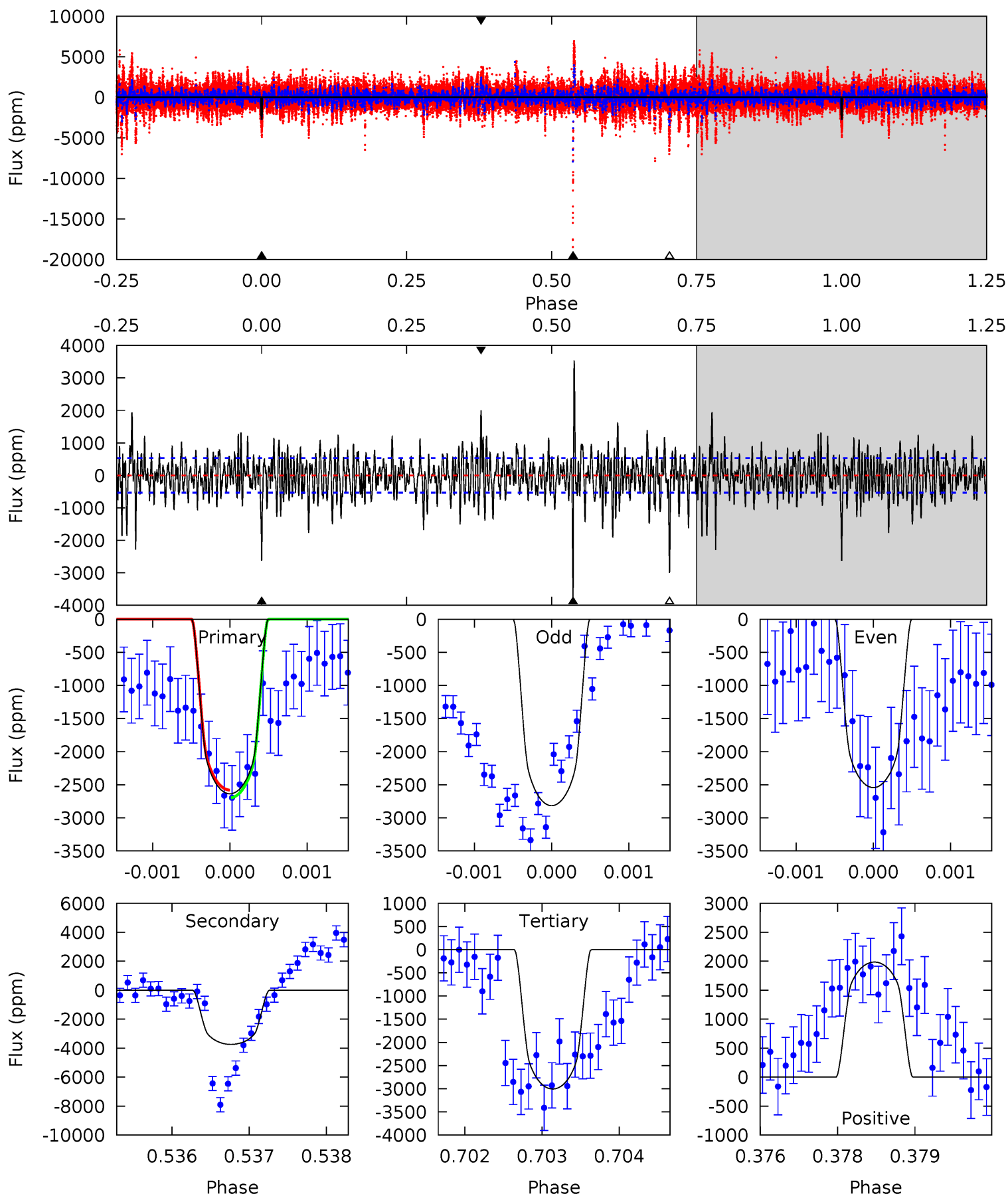
TCE 006548934-01 P=586.020878 Days $T_0=373.673113$ (BKJD)



DV Model-Shift Uniqueness Test

006548934-01, P = 586.032579 Days, E = 373.698079 Days

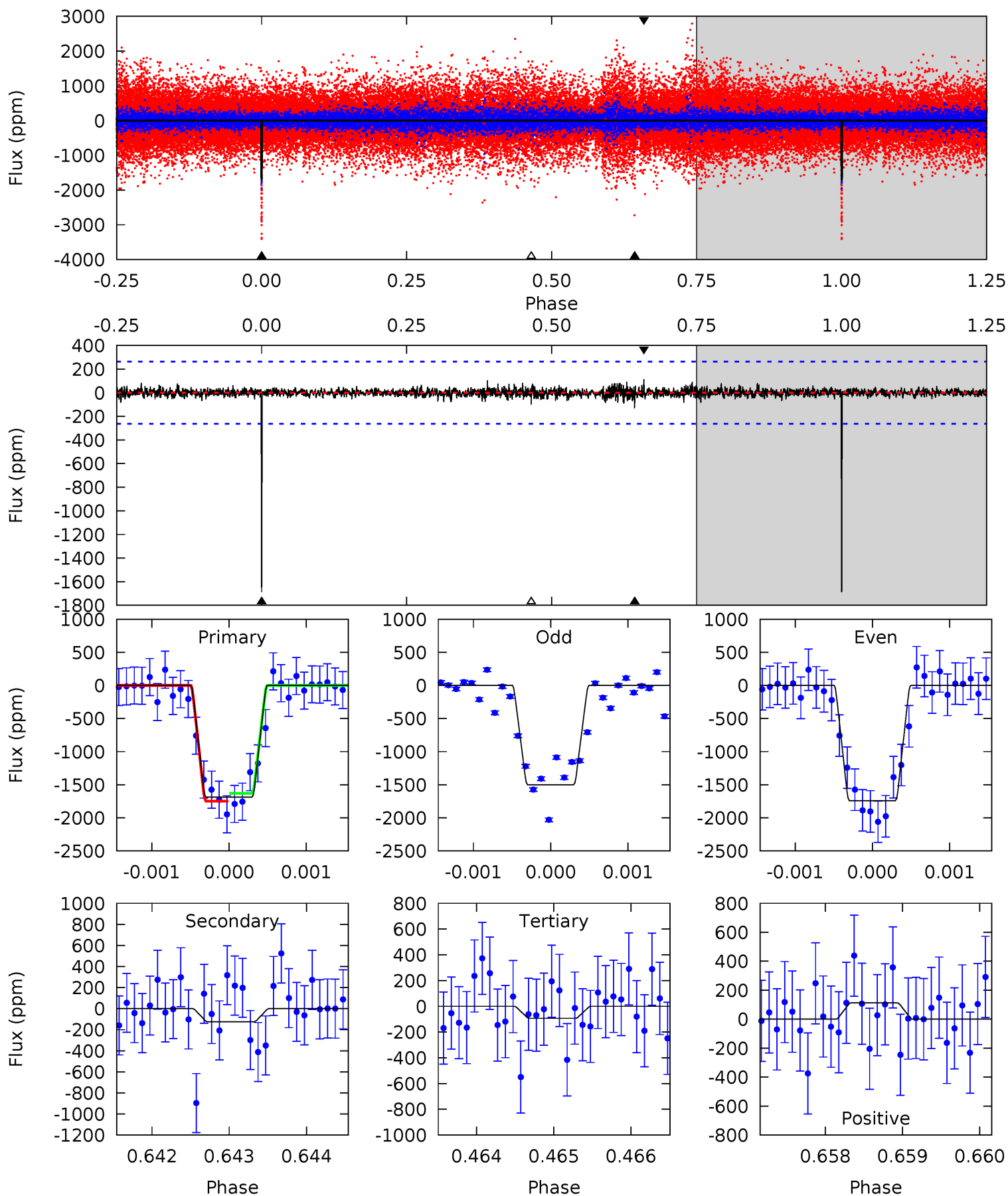
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.7	37.9	30.4	20.1	5.41	3.22	5.50	-3.74	6.59	7.45	17.8	1.30	0.93	0.48	0.60



Alt Model-Shift Uniqueness Test

006548934-01, P = 586.020878 Days, E = 373.673113 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.9	2.58	1.93	2.33	5.44	3.27	0.44	32.9	32.5	0.66	0.26	2.39	1.10	0.06	1.23



Stellar Parameters For KIC 006548934

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4564^{+123}_{-123}	$4.621^{+0.028}_{-0.039}$	$0.100^{+0.250}_{-0.300}$	$0.695^{+0.046}_{-0.046}$	$0.739^{+0.044}_{-0.067}$	$3.097^{+0.445}_{-0.429}$
	+3%/-3%	+1%/-1%	+250%/-300%	+7%/-7%	+6%/-9%	+14%/-14%
Source	PHO1	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 006548934-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3742 ± 99	$3.56^{+0.32}_{-0.30}$	212^{+7}_{-7}	5092^{+244}_{-209}	248035^{+46338}_{-36846}
Alt.	-125 ± 48	$3.25^{+0.31}_{-0.29}$	211^{+7}_{-6}	2926^{+176}_{-192}	9553^{+4703}_{-3737}

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

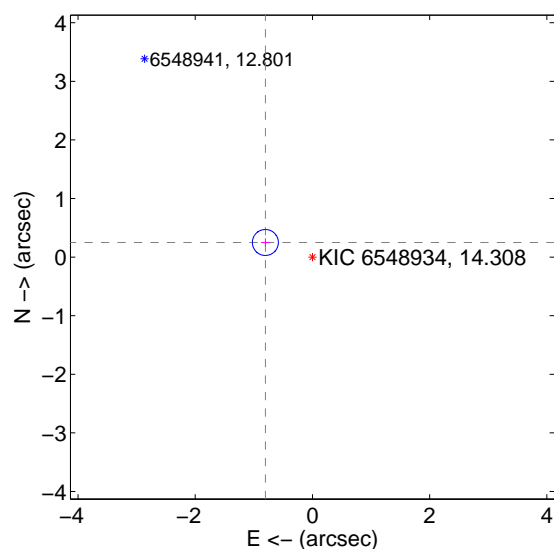
Supplemental centroid analysis for 006548934-01. Kepler magnitude: 14.31. Transit SNR 9.17

There are 1 quarters with good PRF difference image offsets

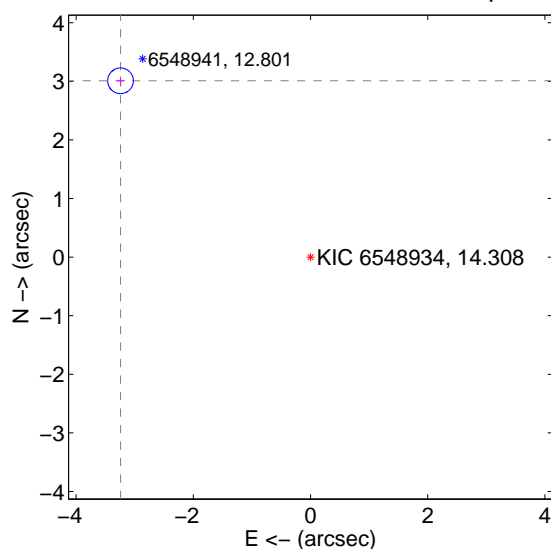
The OOT PRF centroid is offset from the target star catalog position by about 3.68 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.841 ± 0.074	11.39	0.803 ± 0.074	0.250 ± 0.072
PRF-fit source offset from KIC position	4.423 ± 0.073	60.61	3.242 ± 0.074	3.009 ± 0.072
photometric centroid source offset	2.42 ± 0.34	7.13	1.87 ± 0.31	1.53 ± 0.38

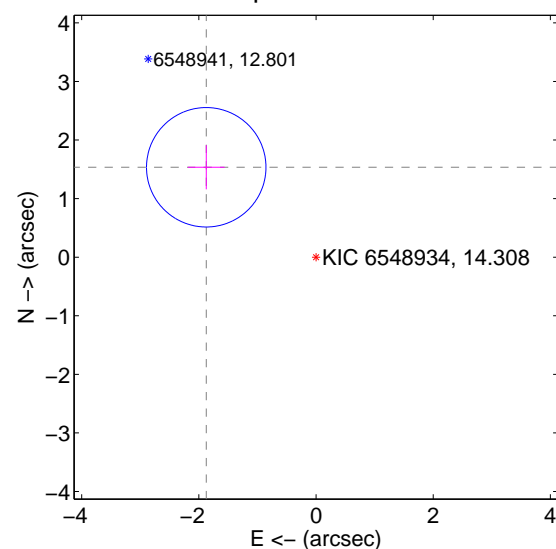
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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.

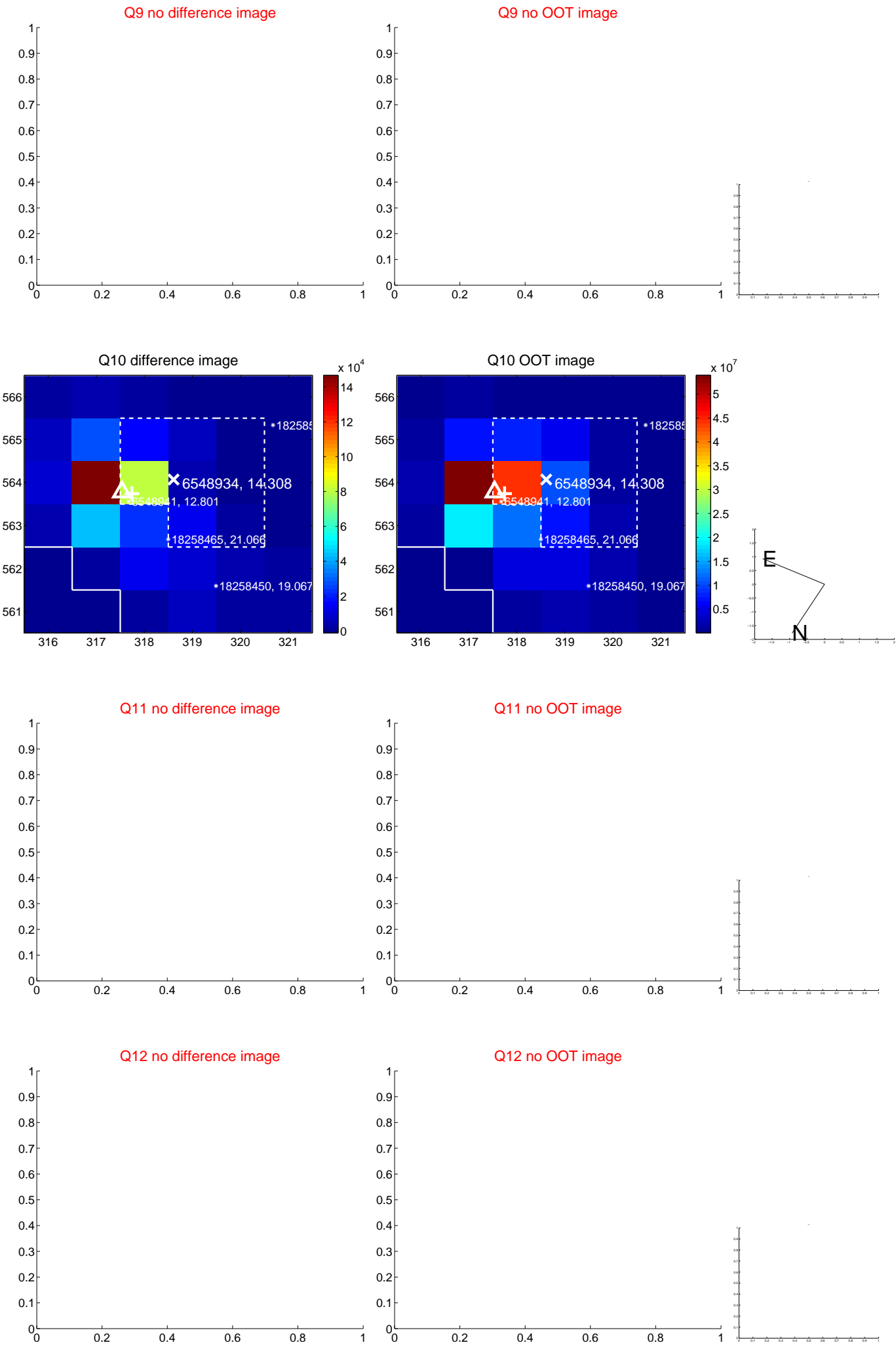
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



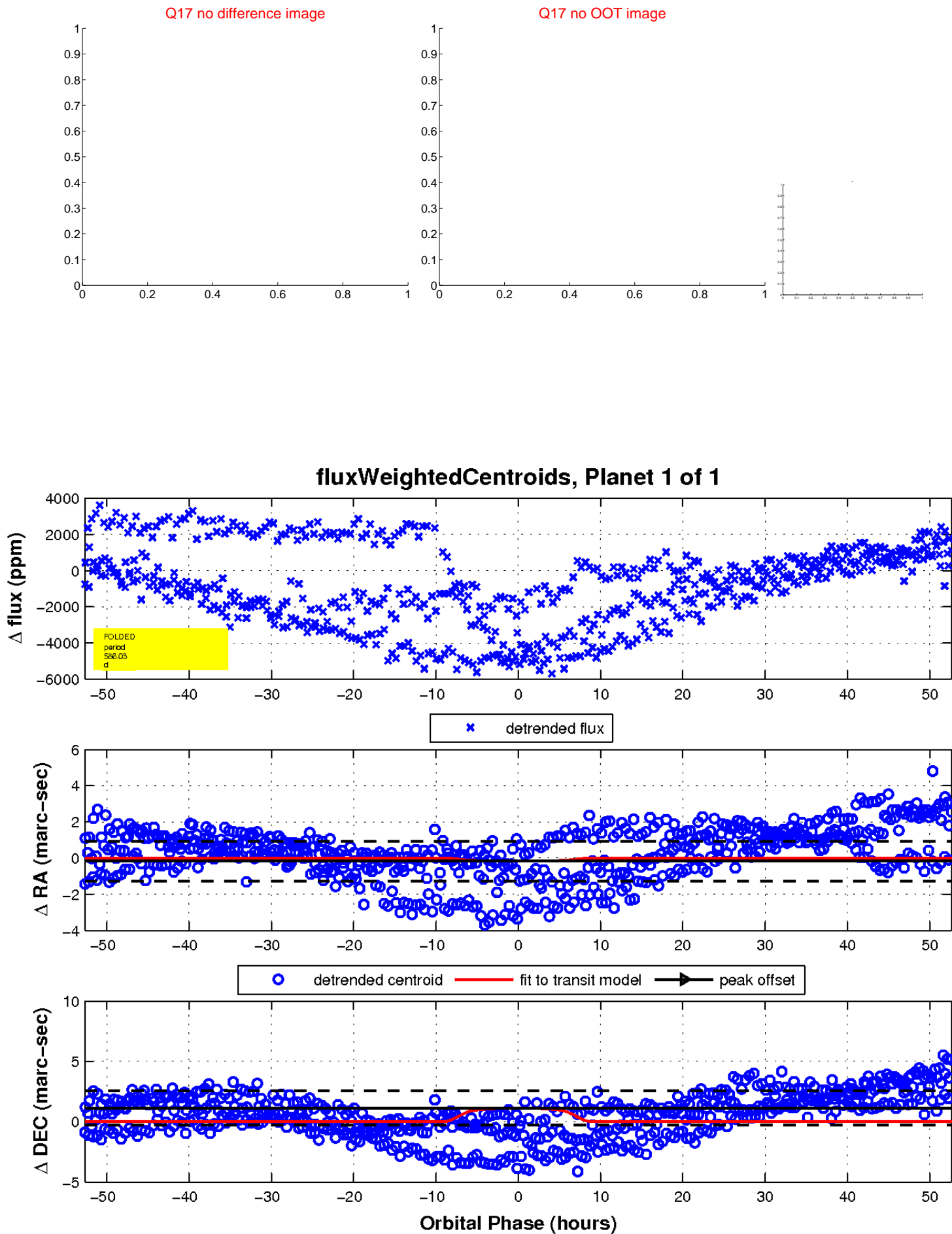
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



UKIRT Image

Declination

