

KIC 005769943

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})
005769943-01	OBS	3810.01	1.013798	131.948325	33196.3	1.284	157.8	166.6	0.39	3644	9.97	110.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005769943-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED—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.

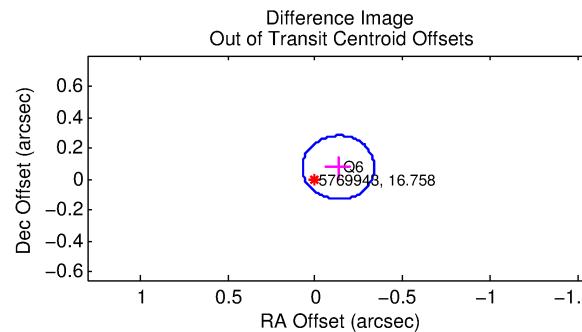
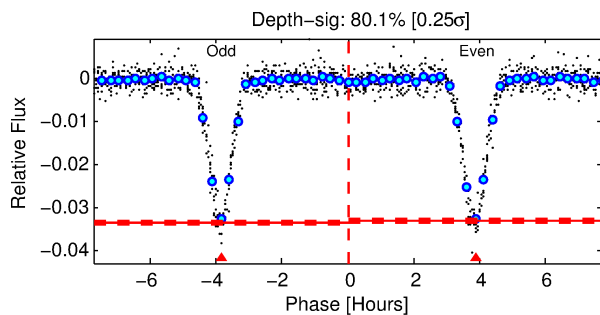
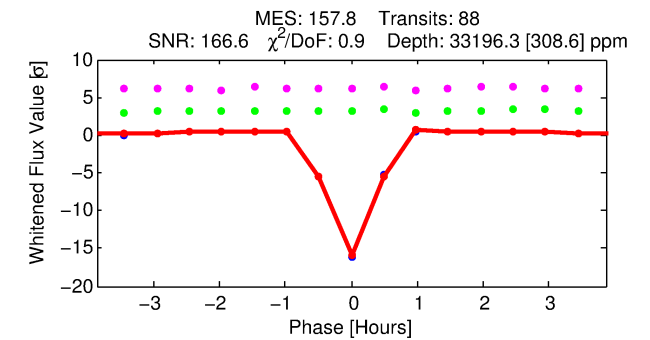
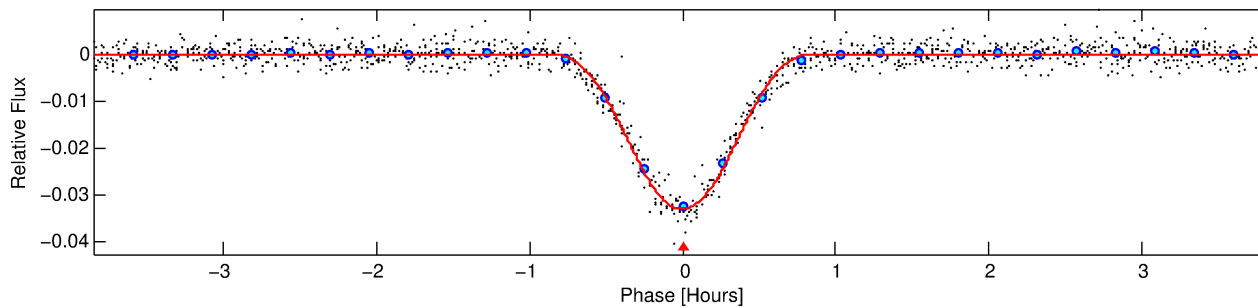
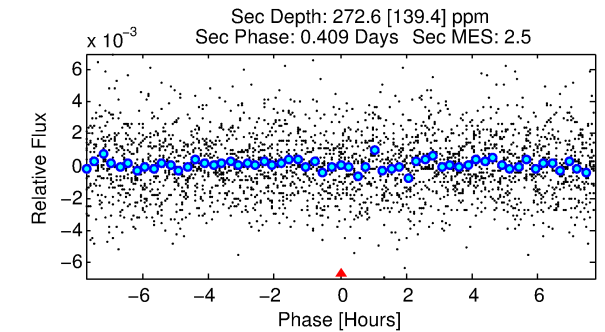
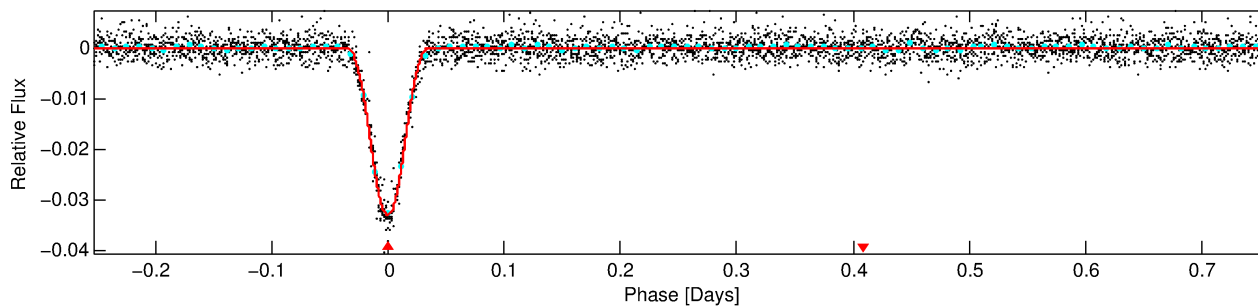
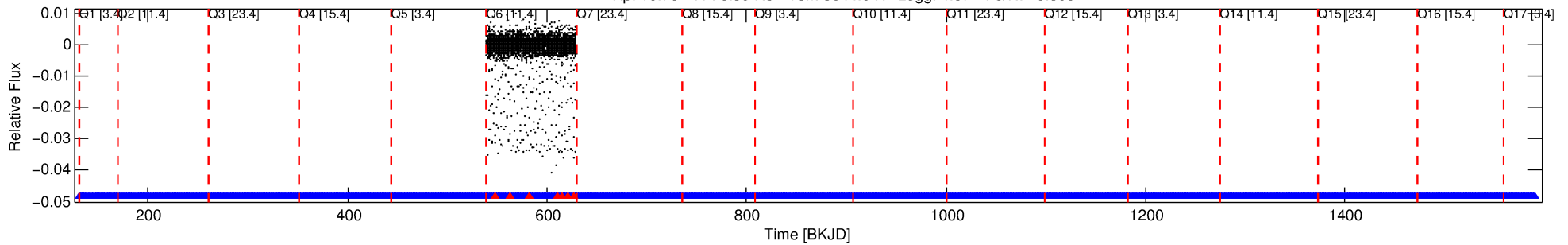
Ephemeris Match Information For 005769943-01

No Significant Match Found

DV One-Page Summary

KIC: 5769943 Candidate: 1 of 1 Period: 1.014 d
KOI: K03810.01 Corr: 0.837

Kp: 16.76 R*: 0.39 Rs Teff: 3644.0 K Logg: 4.87 Fe/H: -0.300



DV Fit Results:

Period = 1.01380 [0.00000] d
Epoch = 131.9483 [0.0001] BKJD
Rp/R* = 0.2349 [0.1091]
a/R* = 5.20 [0.38]
b = 0.90 [0.19]
Seff = 110.98 [10.25]
Teq = 828 [19] K
Rp = 9.97 [4.70] Re
a = 0.0147 [0.0009] AU
Ag = 0.32 [0.35] [-1.96σ]
Teffp = 966 [256] K [0.54σ]

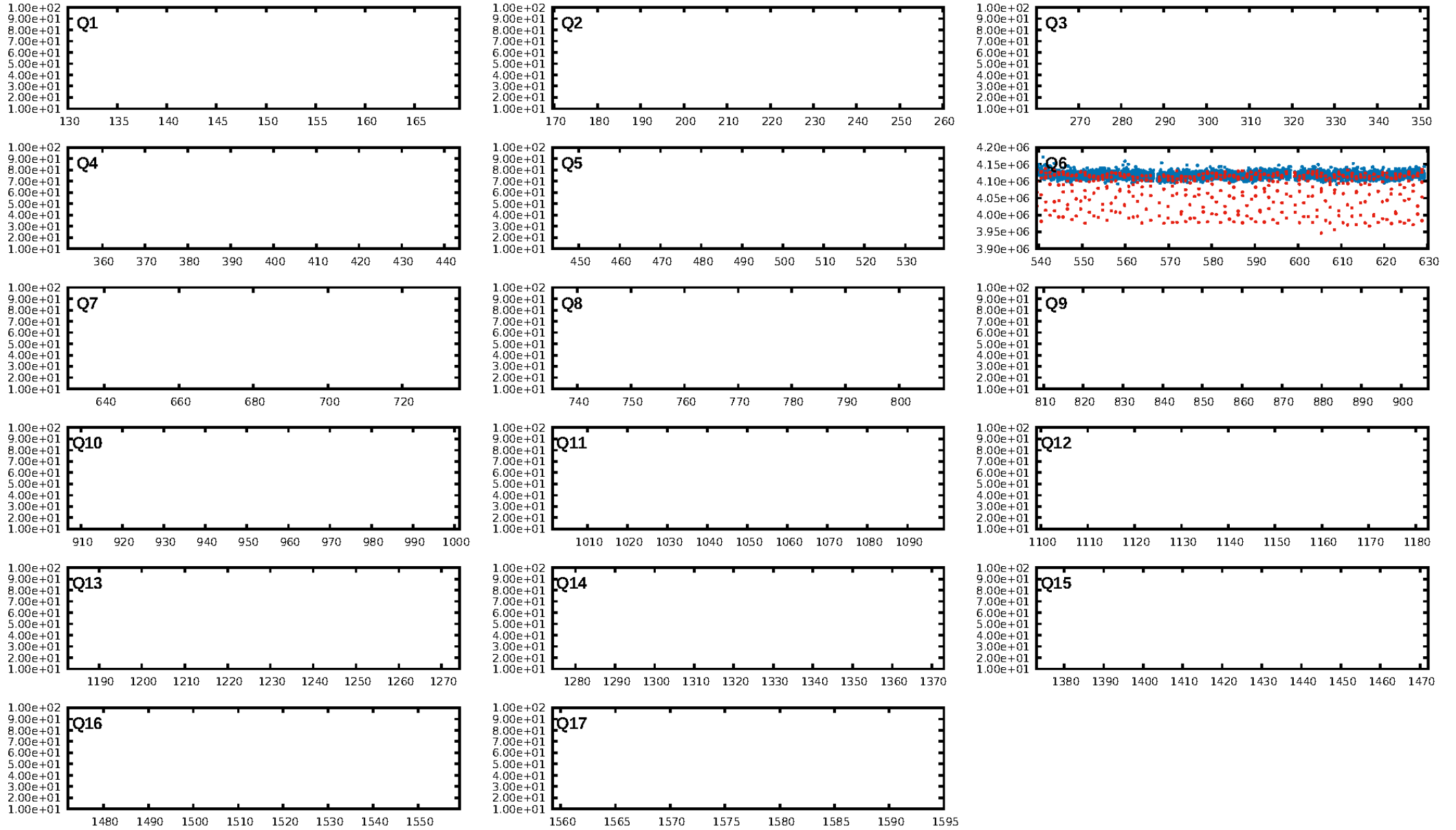
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 48.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.92 [81/88]
GhostDiagnostic-chr: 2.505
Centroid-sig: 0.0%
Centroid-so: 0.169 arcsec [2.21σ]
OotOffset-rm: 0.152 arcsec [2.22σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-rm: 0.361 arcsec [5.28σ]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

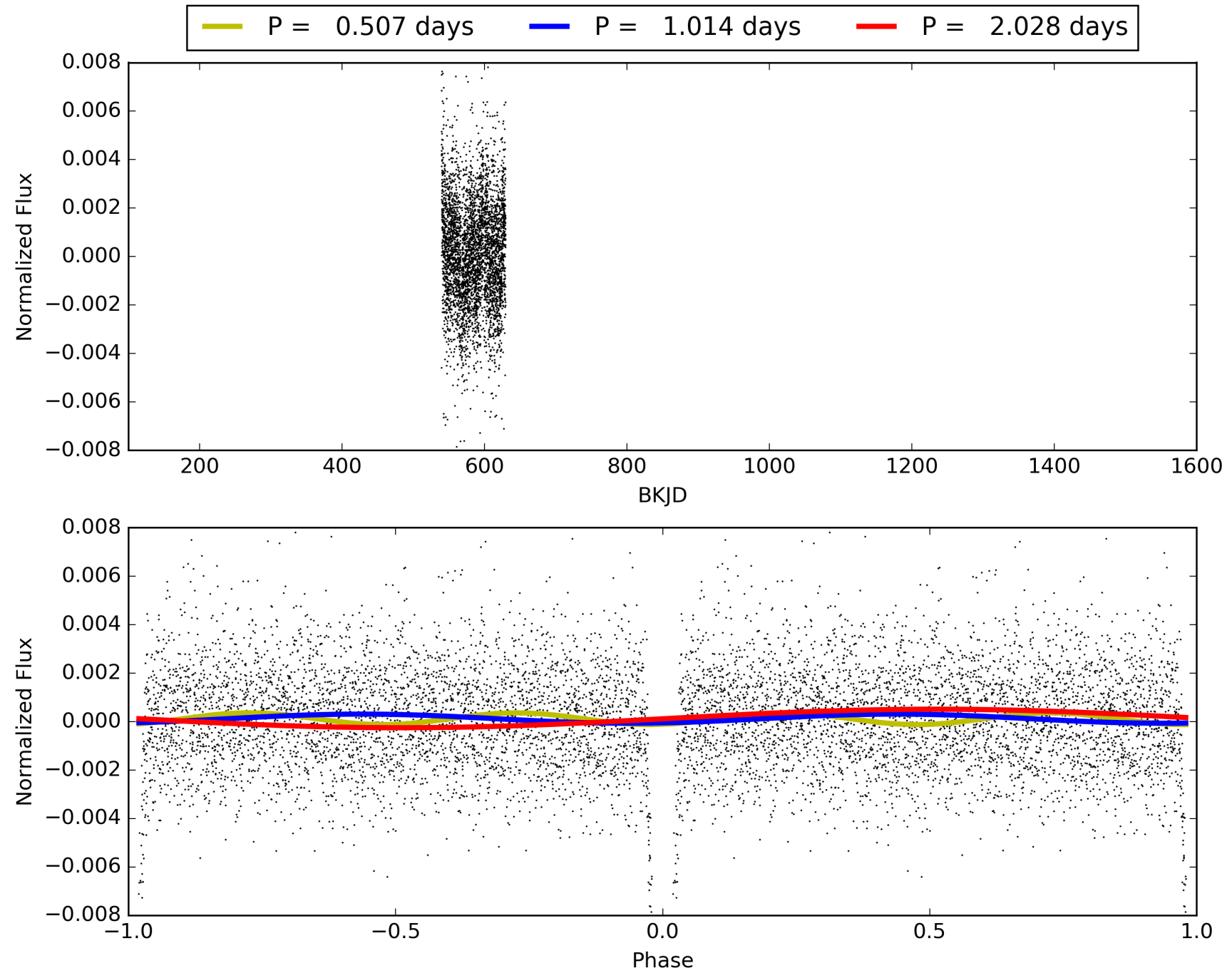
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 20:35:06 Z

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

TCE 005769943-01, PDC Light Curves

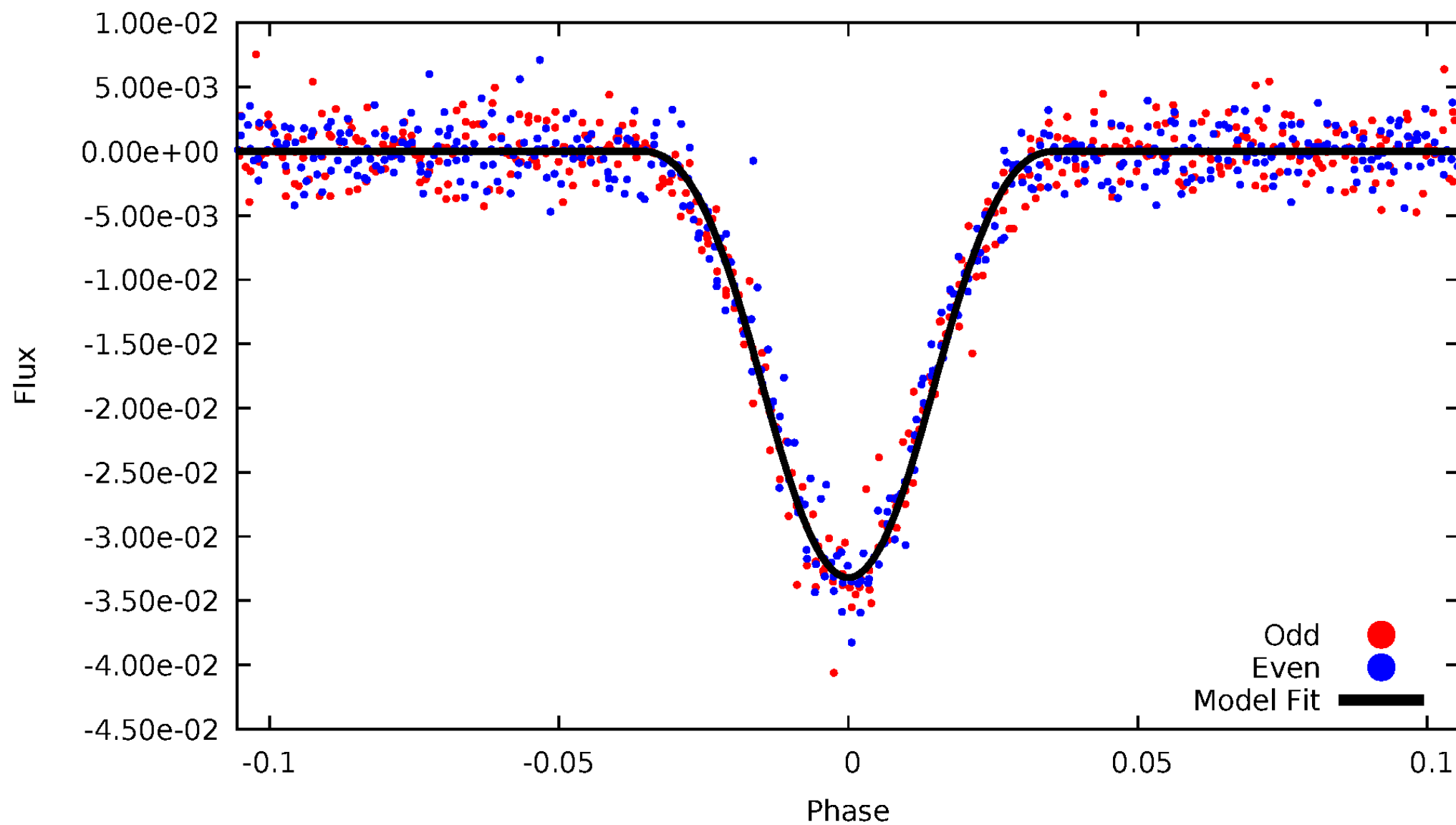


TCE 005769943-01



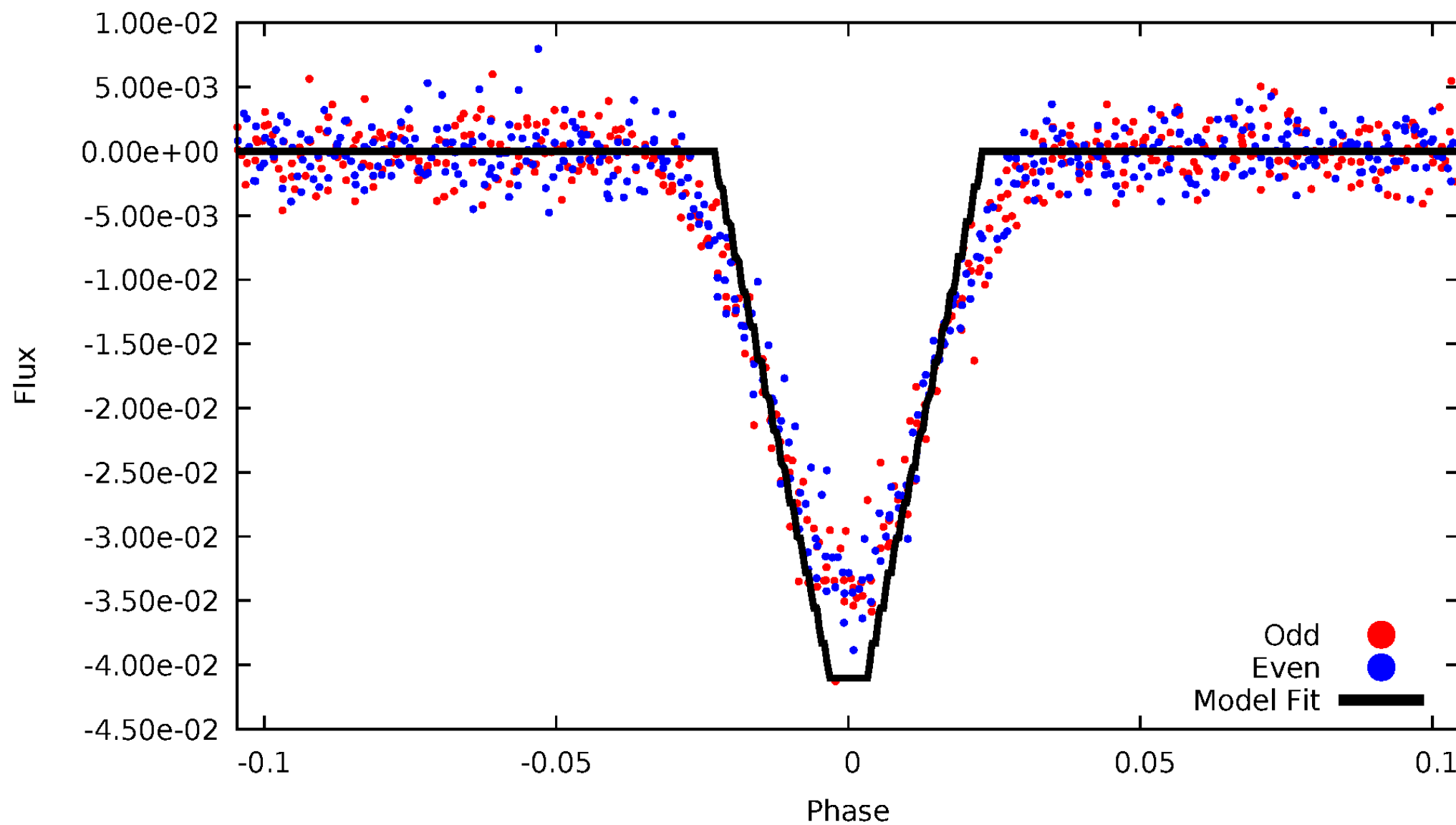
DV Odd/Even

TCE 005769943-01



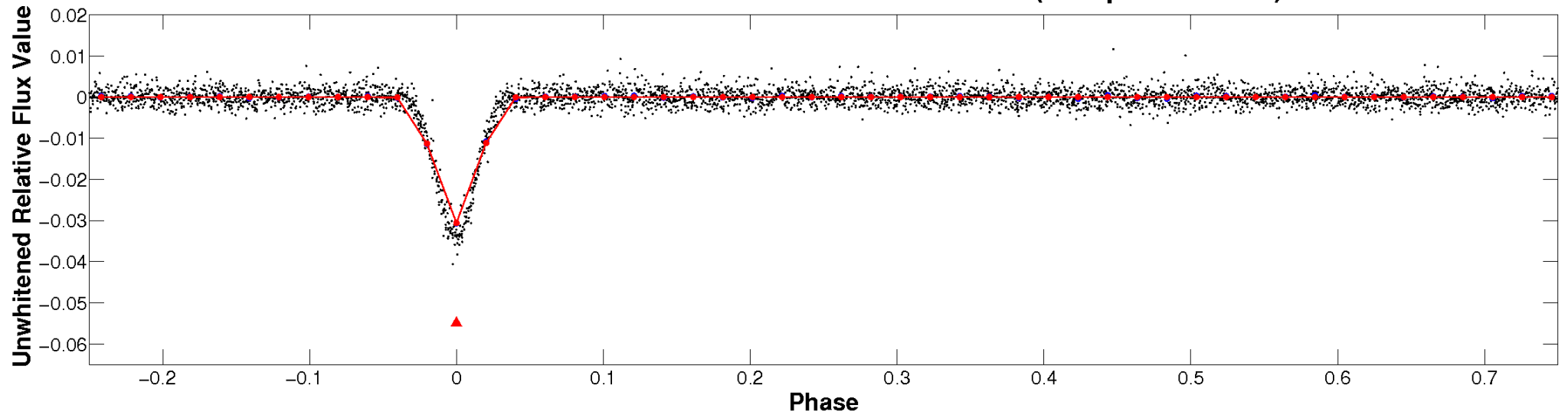
ALT Odd/Even

TCE 005769943-01

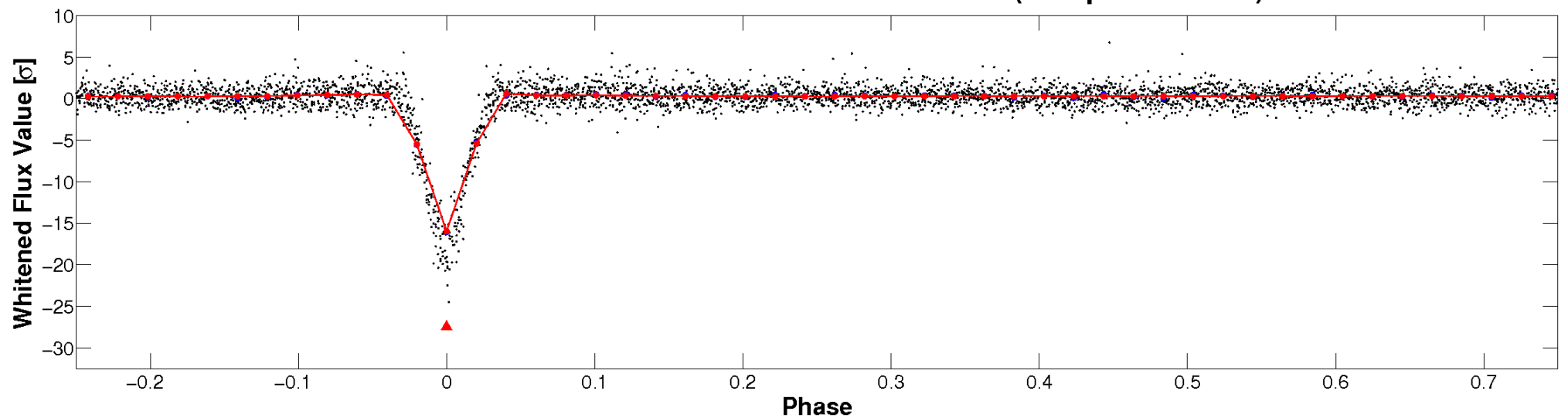


Non-Whitened Vs. Whitened Light Curve

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

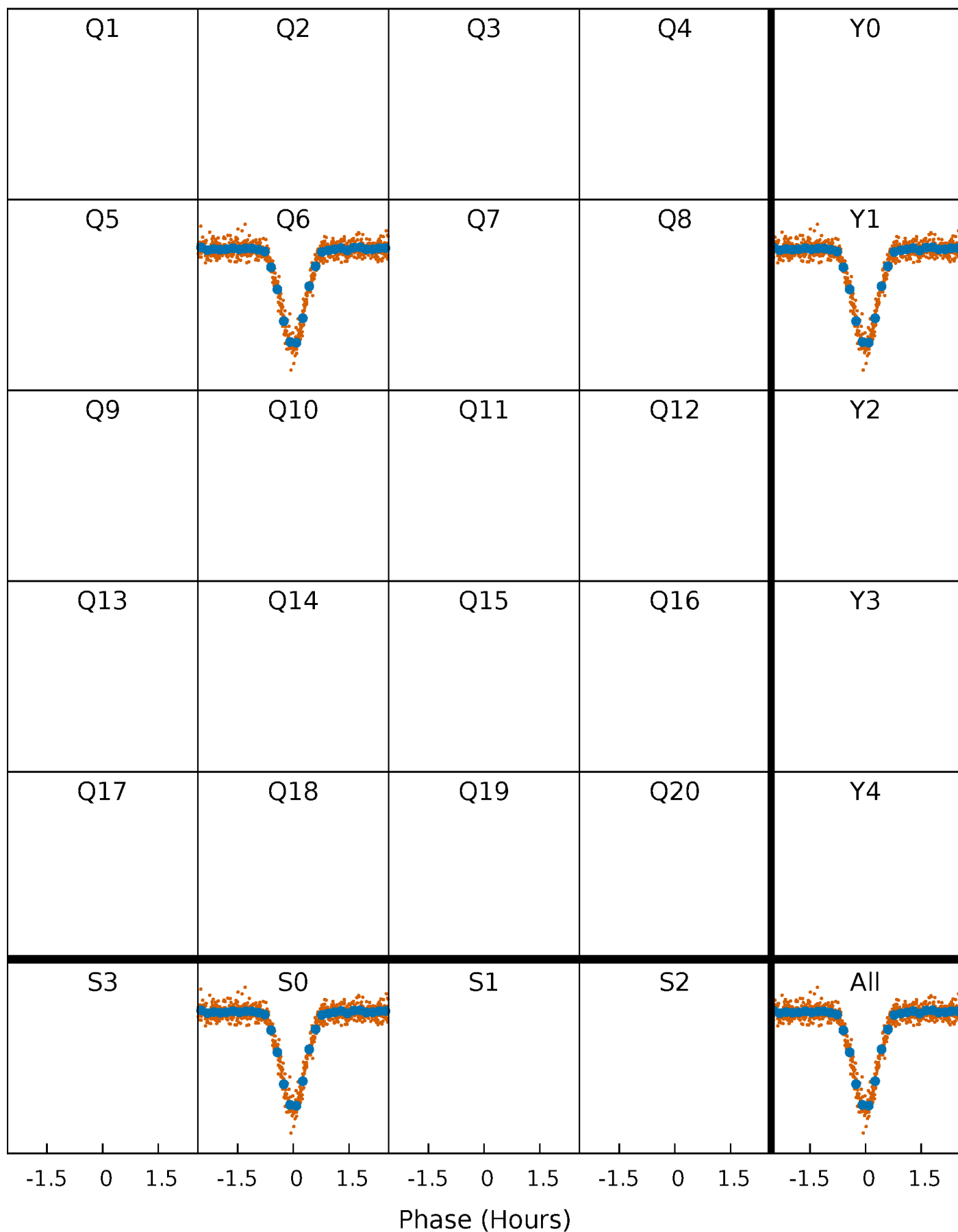


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



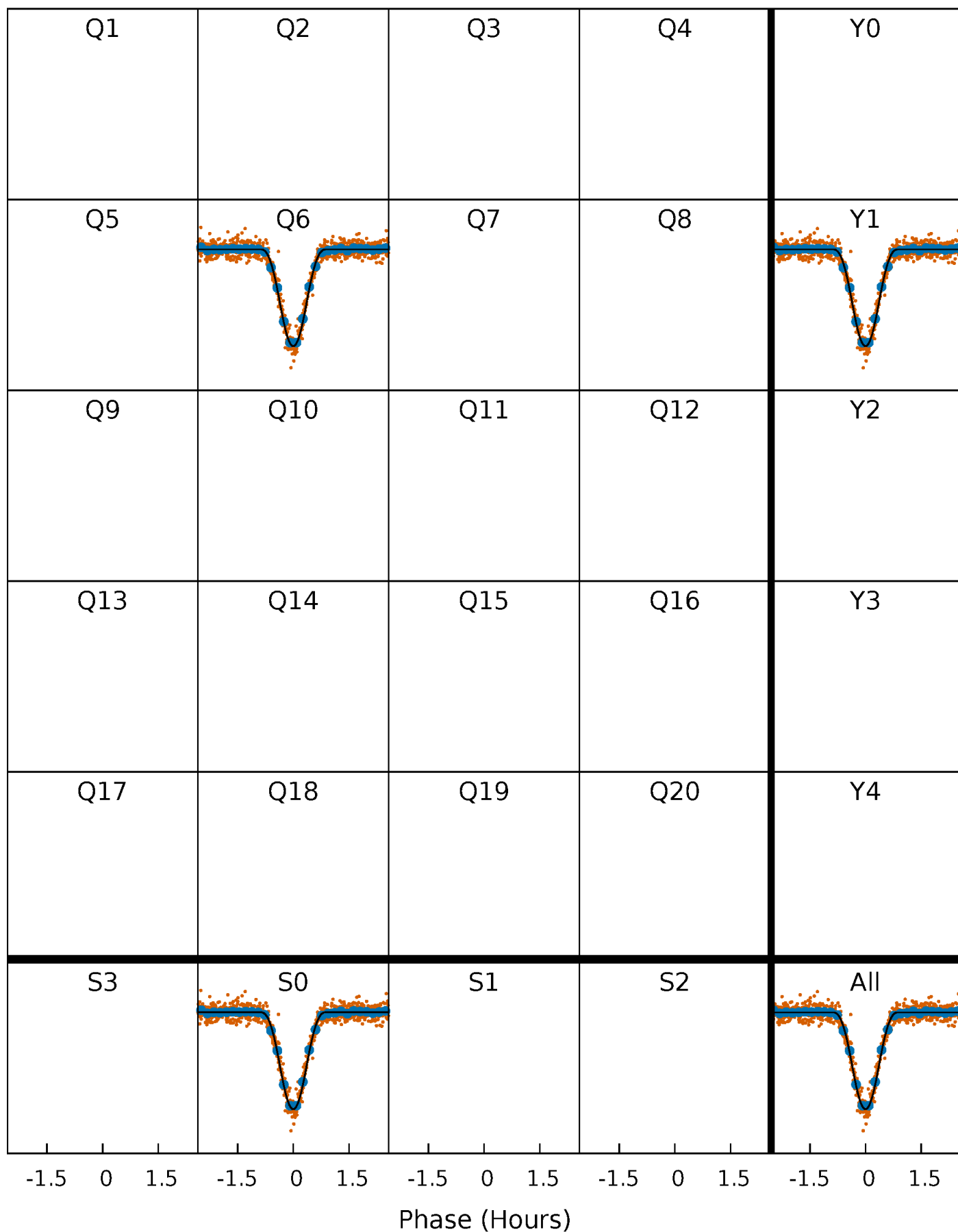
PDC Quarter-Phased Transit Curves

TCE 005769943-01 P= 1.013798 Days $T_0=131.948325$ (BKJD)



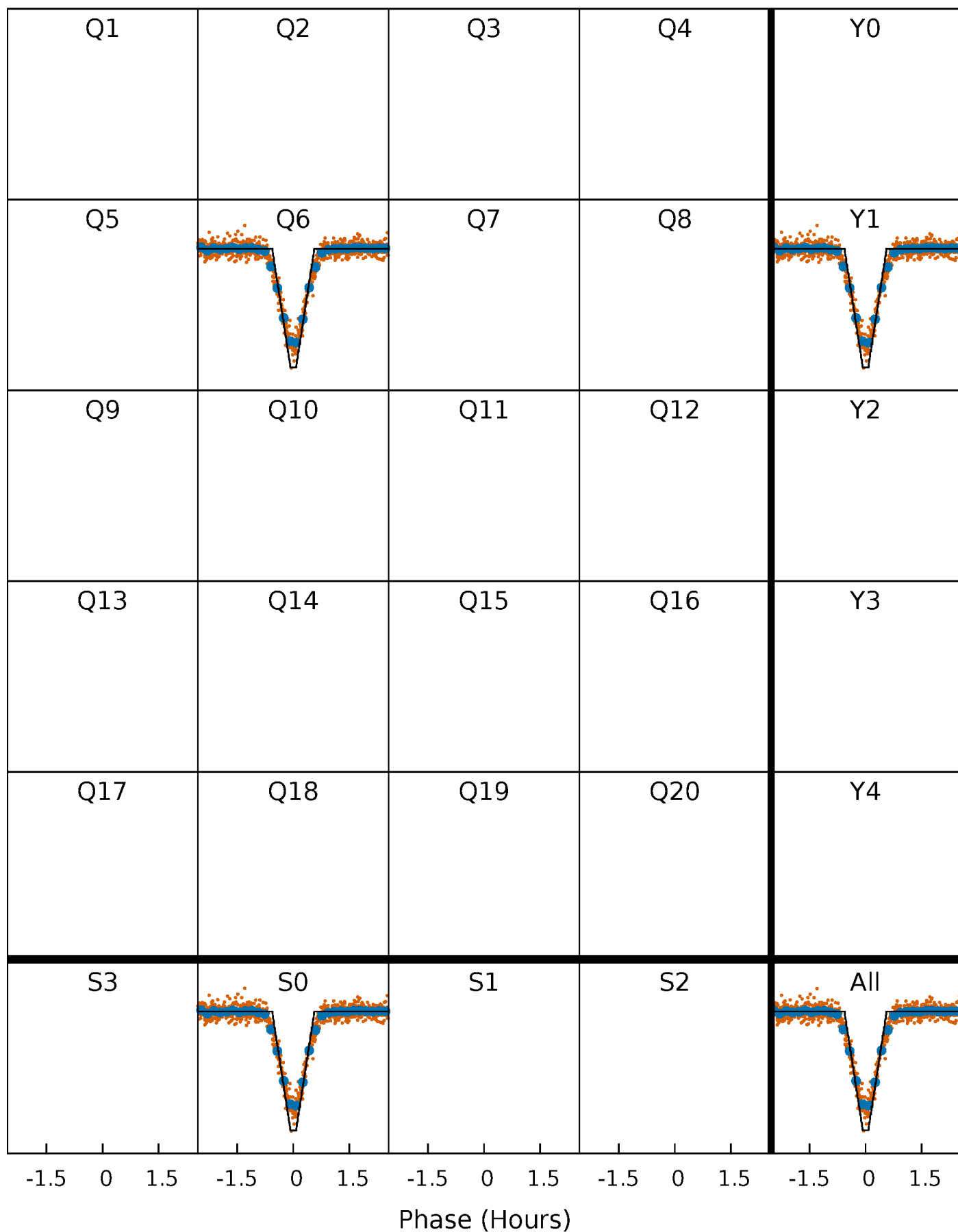
DV Quarter-Phased Transit Curves

TCE 005769943-01 P= 1.013798 Days $T_0=131.948325$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

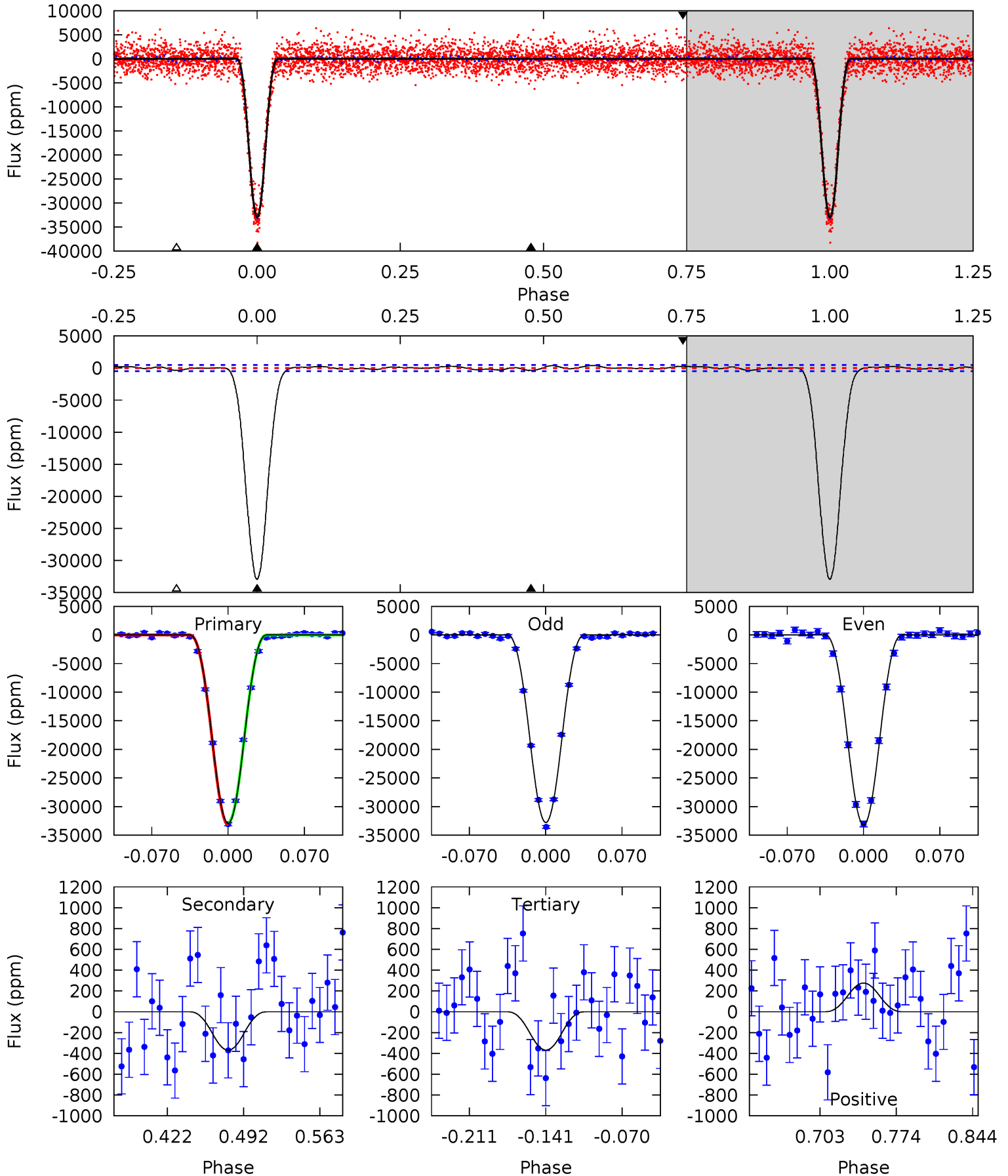
TCE 005769943-01 P= 1.013796 Days $T_0=131.949117$ (BKJD)



DV Model-Shift Uniqueness Test

005769943-01, P = 1.013798 Days, E = 131.948325 Days

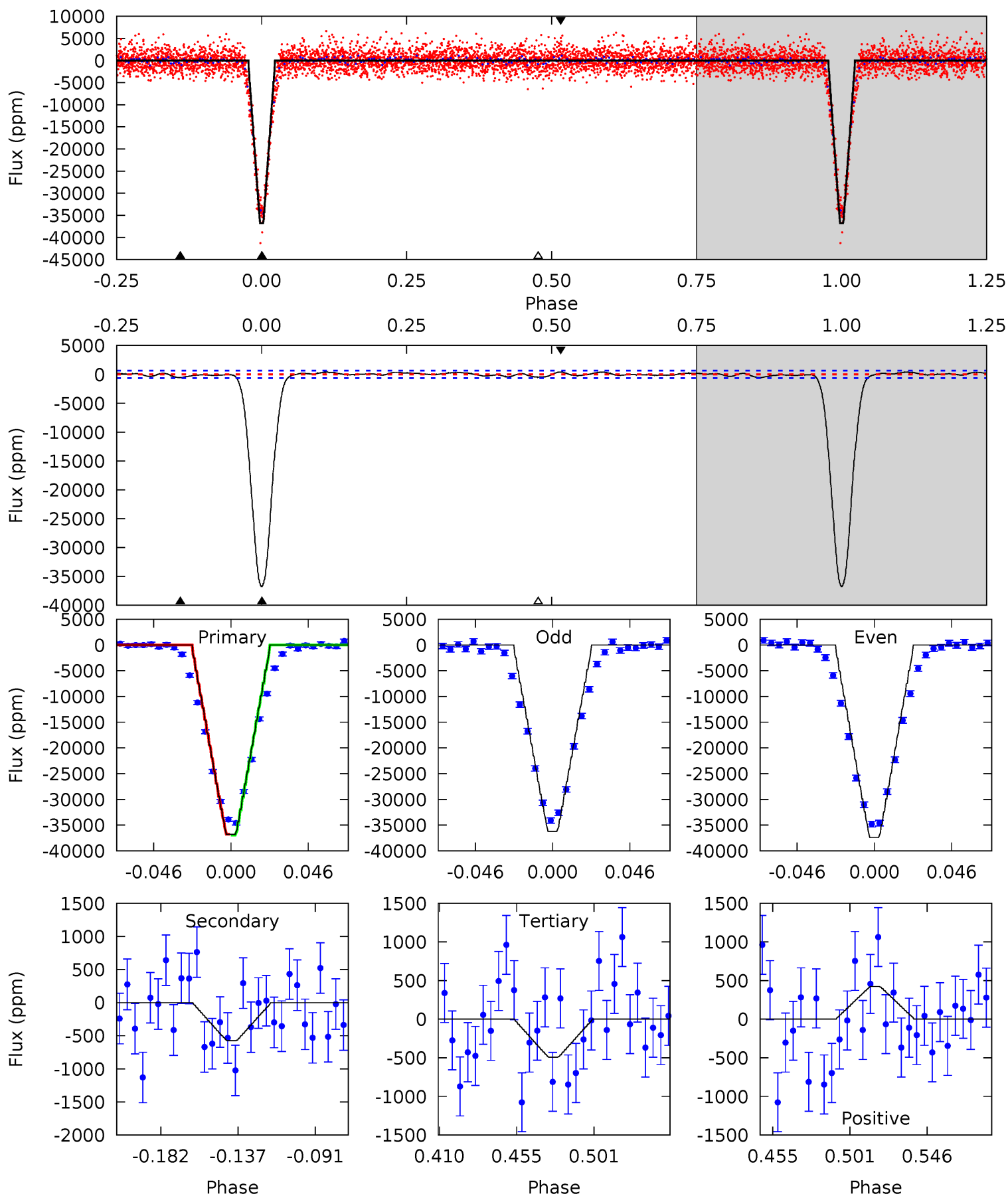
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
312.0	3.50	3.49	2.61	4.64	1.81	1.51	308.5	309.3	0.01	0.88	1.98	0.99	0.01	1.77



Alt Model-Shift Uniqueness Test

005769943-01, P = 1.013796 Days, E = 131.949117 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
265.1	4.15	3.55	3.05	4.73	2.00	1.47	261.5	262.0	0.60	1.10	4.32	1.00	0.01	0



Stellar Parameters For KIC 005769943

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	3644^{+40}_{-51}	$4.871^{+0.033}_{-0.033}$	$-0.300^{+0.100}_{-0.100}$	$0.389^{+0.028}_{-0.031}$	$0.412^{+0.029}_{-0.035}$	$9.842^{+1.715}_{-1.324}$
	+1%/-1%	+1%/-1%	+33%/-33%	+7%/-8%	+7%/-8%	+17%/-13%
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 005769943-01 / KOI 3810.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-369 ± 106	$10.34^{+4.43}_{-4.60}$	1154^{+23}_{-21}	1699^{+411}_{-3412}	$0.410^{+0.932}_{-0.230}$
Alt.	-576 ± 139	$8.71^{+4.88}_{-4.39}$	1157^{+20}_{-23}	1989^{+435}_{-391}	$0.891^{+2.785}_{-0.537}$

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

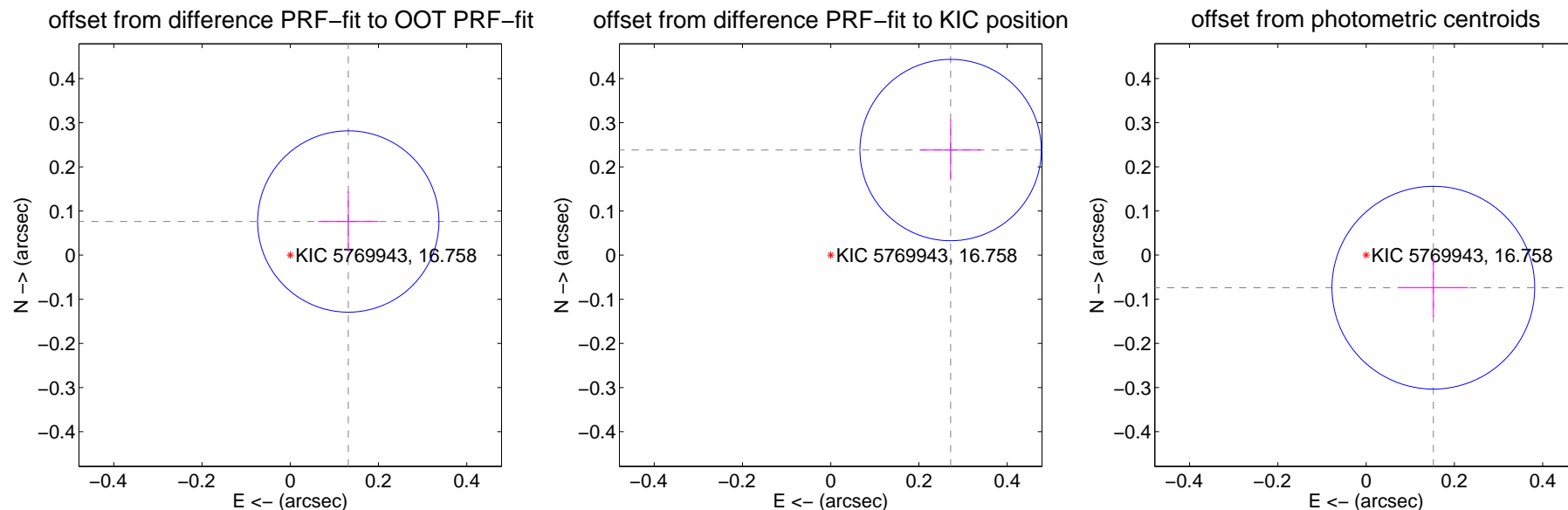
DV Centroid Data

Supplemental centroid analysis for 005769943-01. Kepler magnitude: 16.76. Transit SNR 166.59

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.152 ± 0.068	2.22	-0.132 ± 0.068	0.076 ± 0.069
PRF-fit source offset from KIC position	0.361 ± 0.068	5.28	-0.272 ± 0.068	0.238 ± 0.069
photometric centroid source offset	0.17 ± 0.08	2.21	-0.15 ± 0.08	-0.07 ± 0.07



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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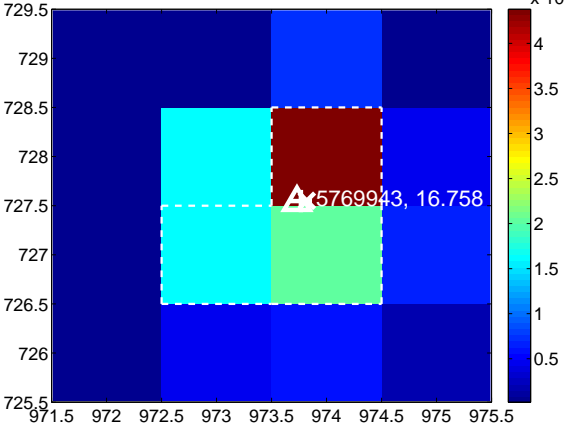
Q5 no difference image



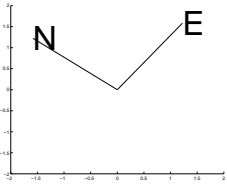
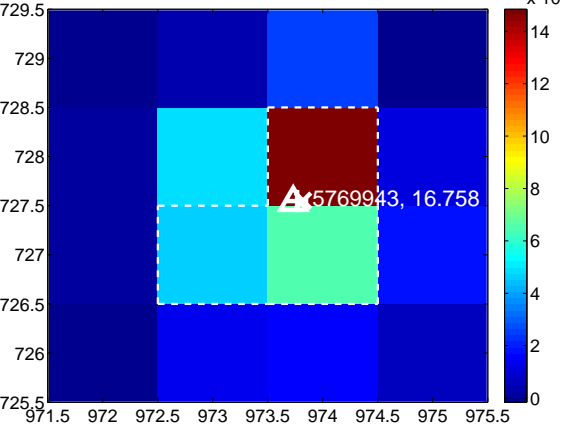
Q5 no OOT image



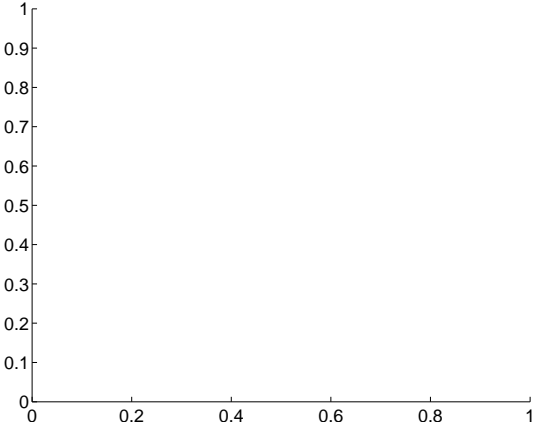
Q6 difference image



Q6 OOT image



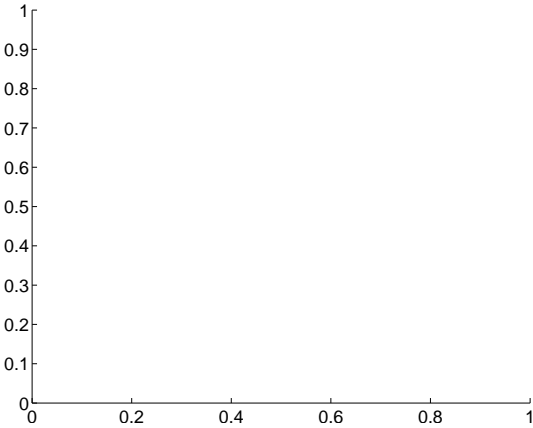
Q7 no difference image



Q7 no OOT image



Q8 no difference image



Q8 no OOT image



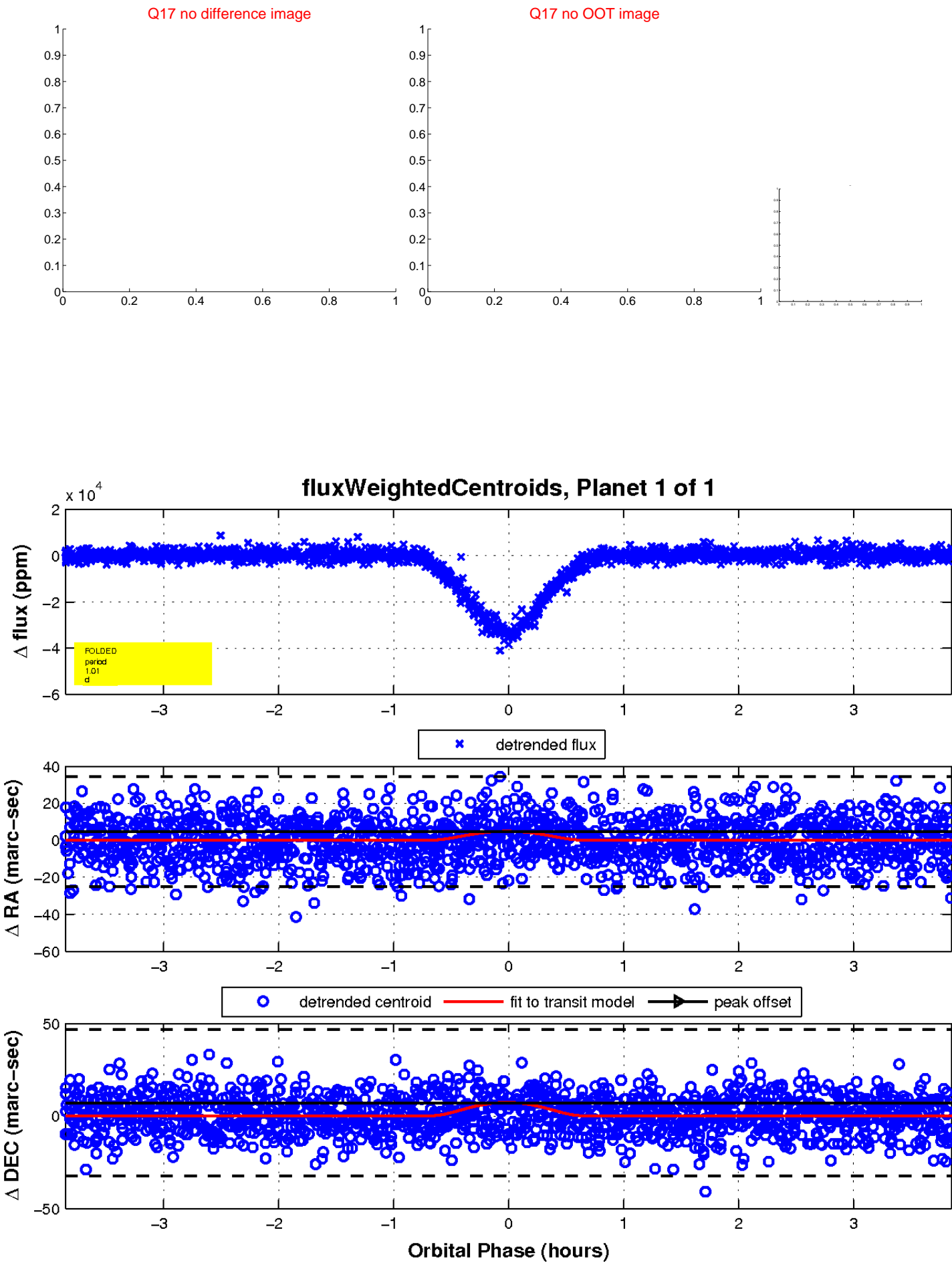
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

