

KIC 007960295

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})
007960295-01	OBS	6939.01	2.104089	132.652928	359270.5	4.194	173.6	146.4	1.00	5780	60.53	967.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007960295-01	OBS	FP	0.00	0	1	1	0	DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—CENT_FEW_DIFFS—HALO_GHOST

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 007960295-01

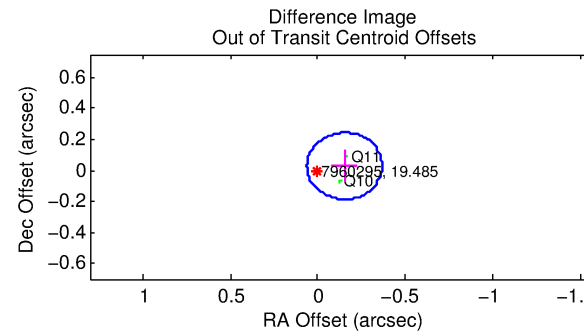
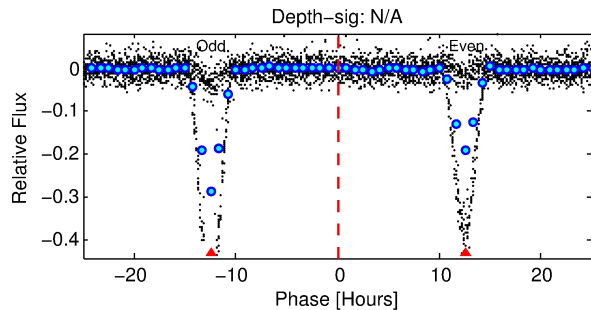
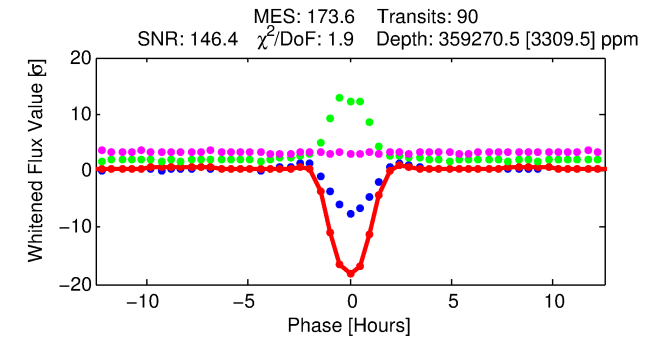
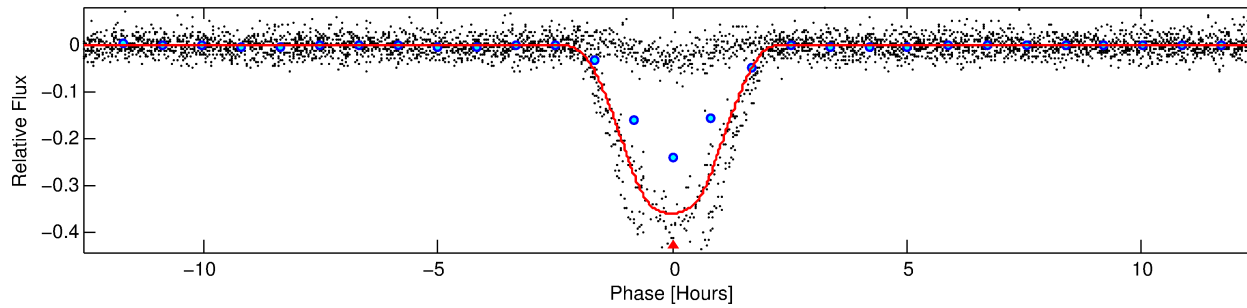
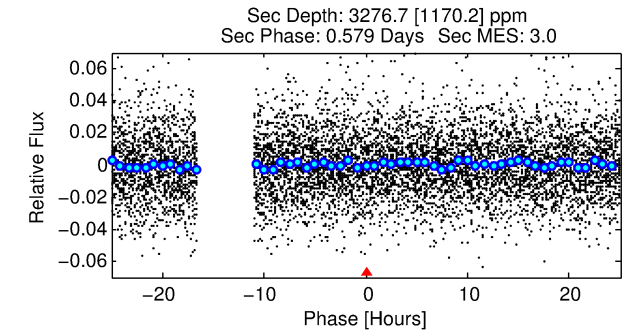
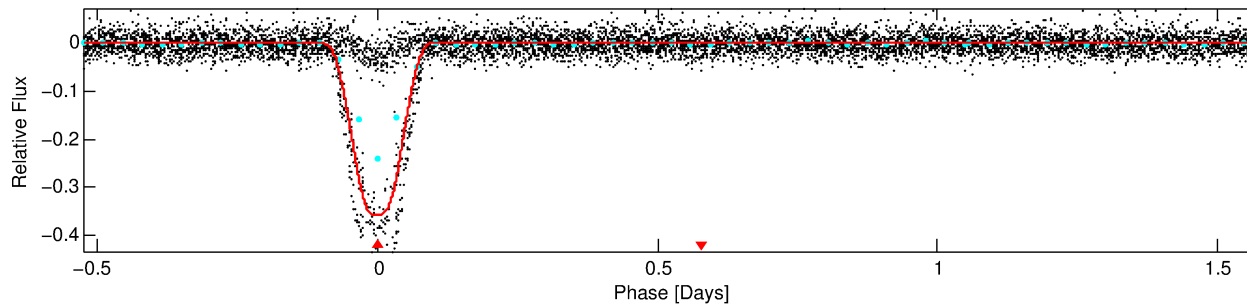
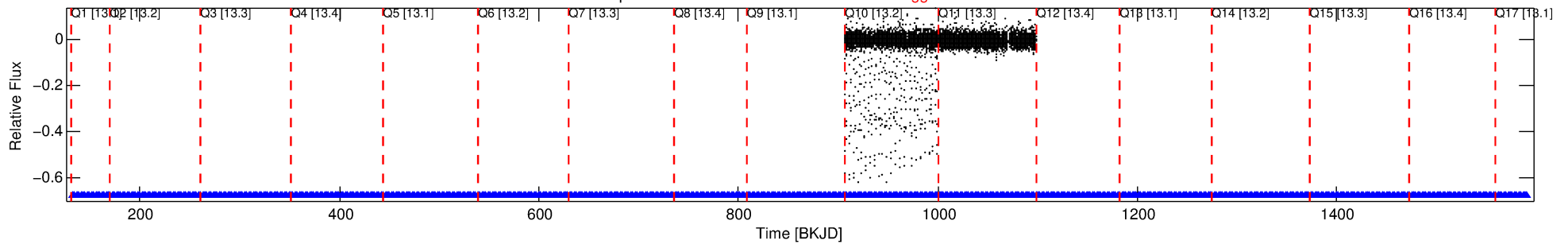
No Significant Match Found

DV One-Page Summary

KIC: 7960295 Candidate: 1 of 1 Period: 2.104 d

KOI: K06939.01 Corr: 0.945

Kp: 19.49 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



DV Fit Results:

Period = 2.10409 [0.00000] d
Epoch = 132.6529 [0.0006] BKJD
Rp/R* = 0.5547 [0.0034]
a/R* = 6.03 [0.08]
b = 0.00 [18.33]
Seff = 967.95 [0.00]
Teq = 1422 [0] K
Rp = 60.54 [0.37] Re
a = 0.0321 [0.0000] AU
Ag = 0.51 [0.18] [-2.71σ]
Teffp = 1857 [166] K [2.62σ]

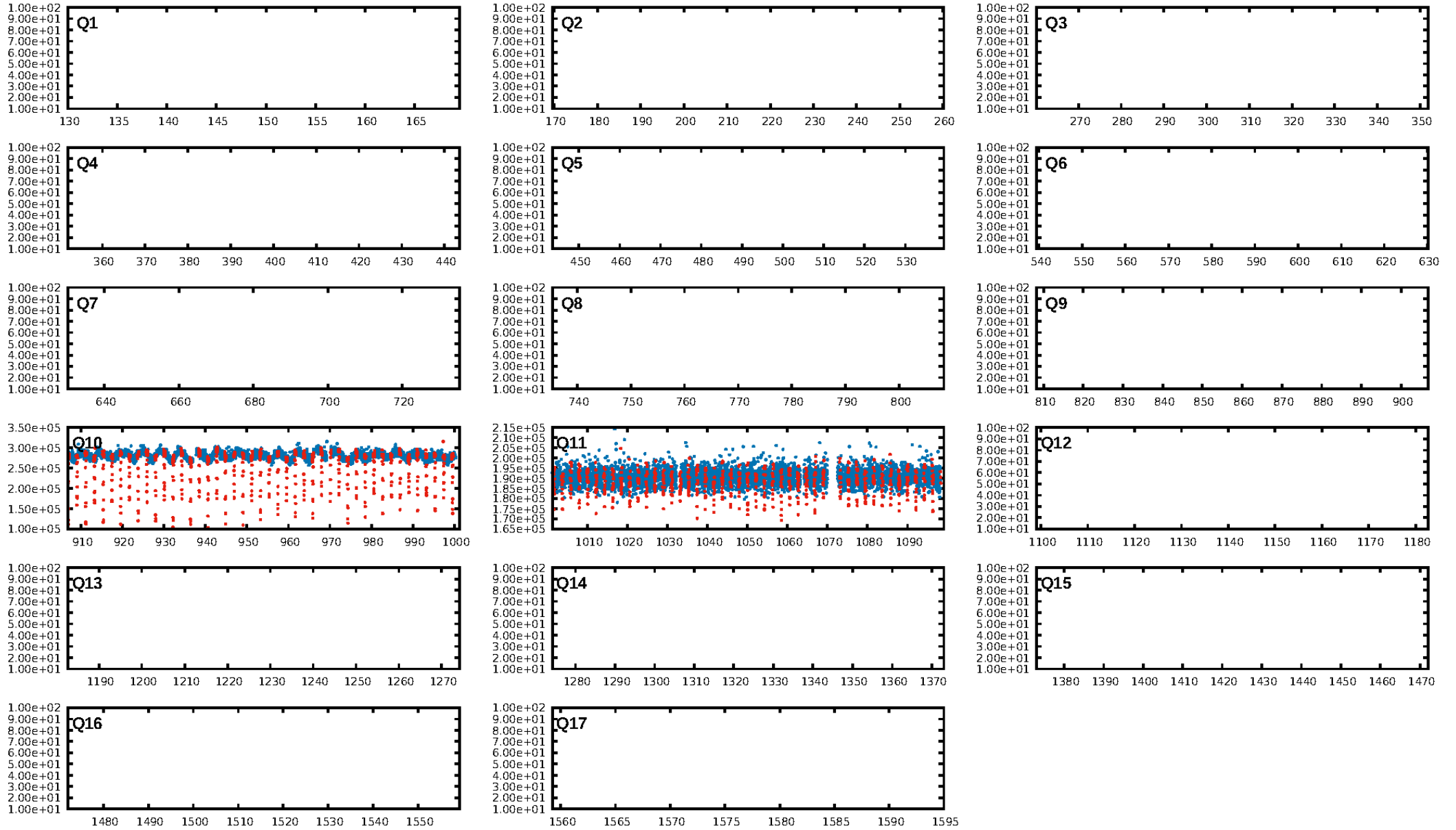
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 98.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [90/90]
GhostDiagnostic-chr: 0.2212
Centroid-sig: 0.0%
Centroid-so: 3.752 arcsec [509.61σ]
OotOffset-rm: 0.154 arcsec [2.15σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-rm: 5.275 arcsec [64.59σ]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

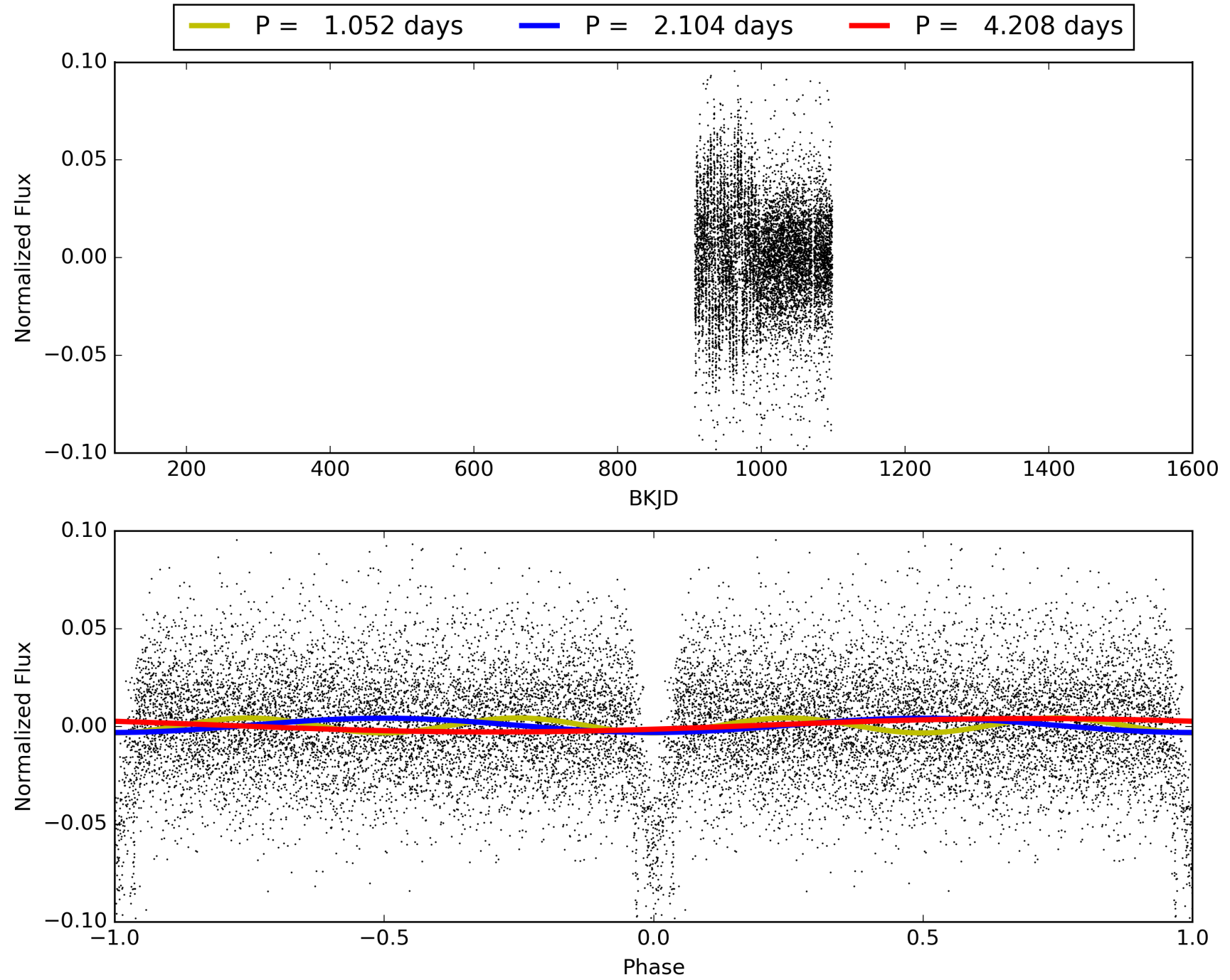
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 17:35:28 Z

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

TCE 007960295-01, PDC Light Curves

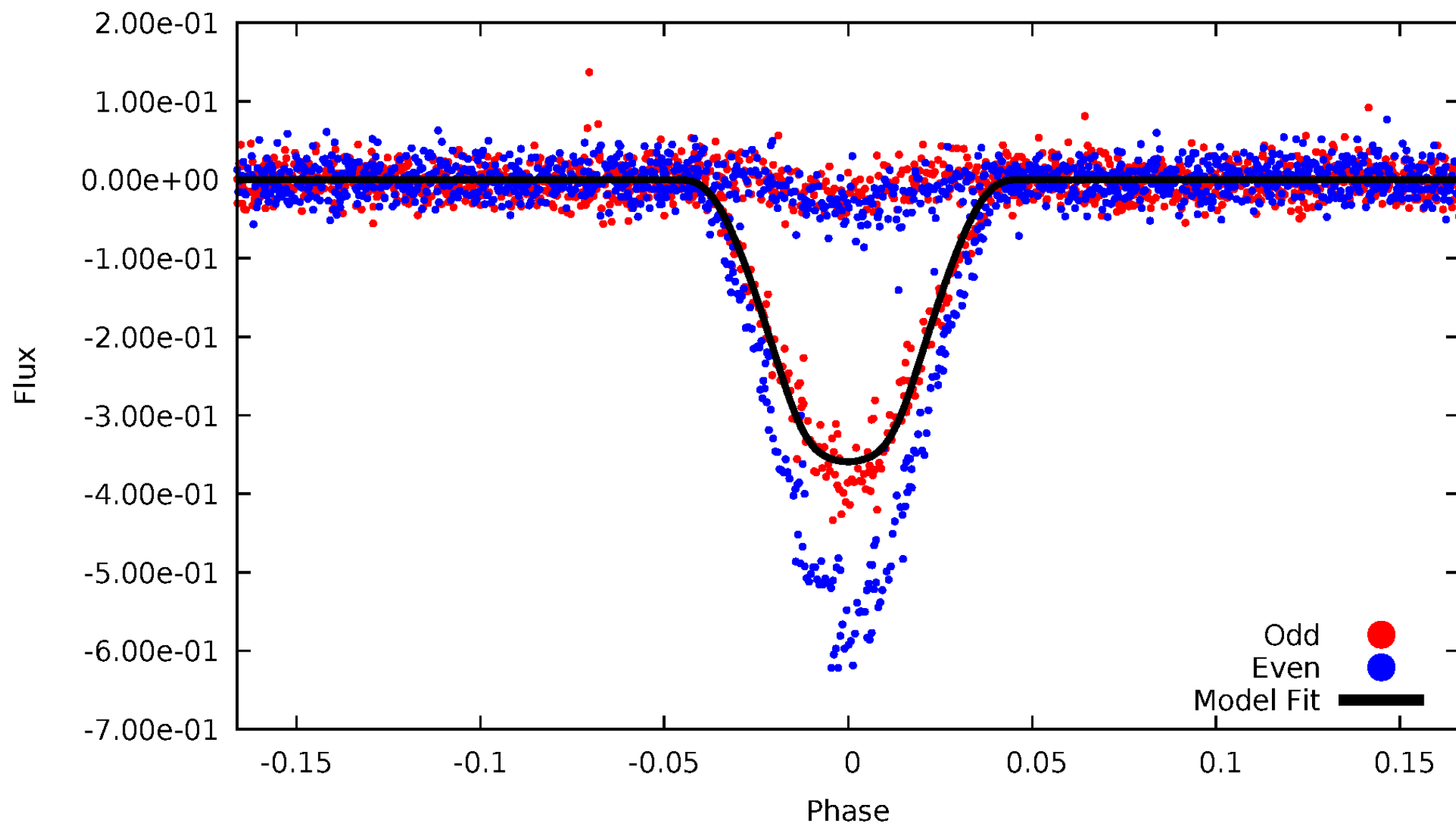


TCE 007960295-01



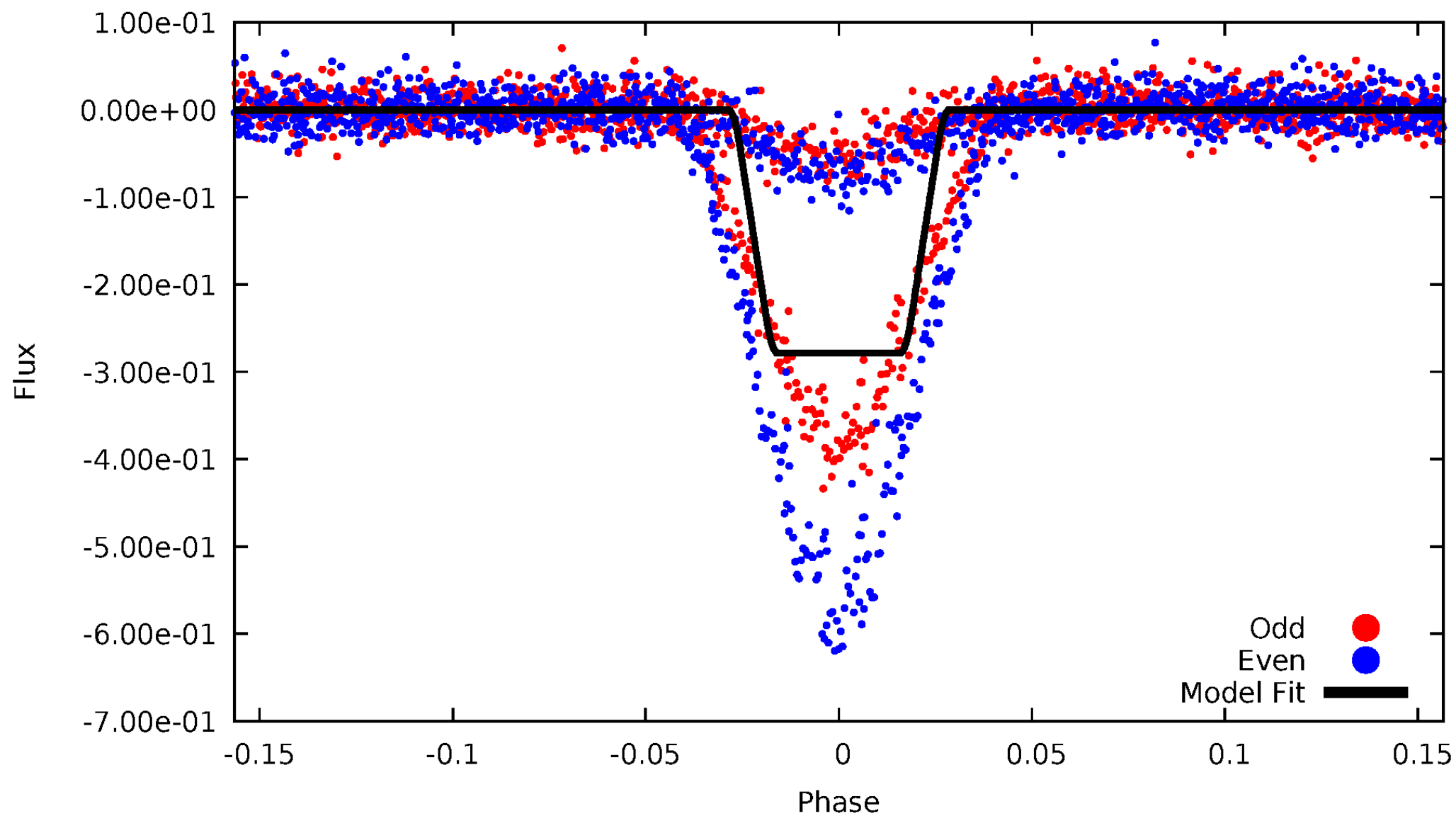
DV Odd/Even

TCE 007960295-01



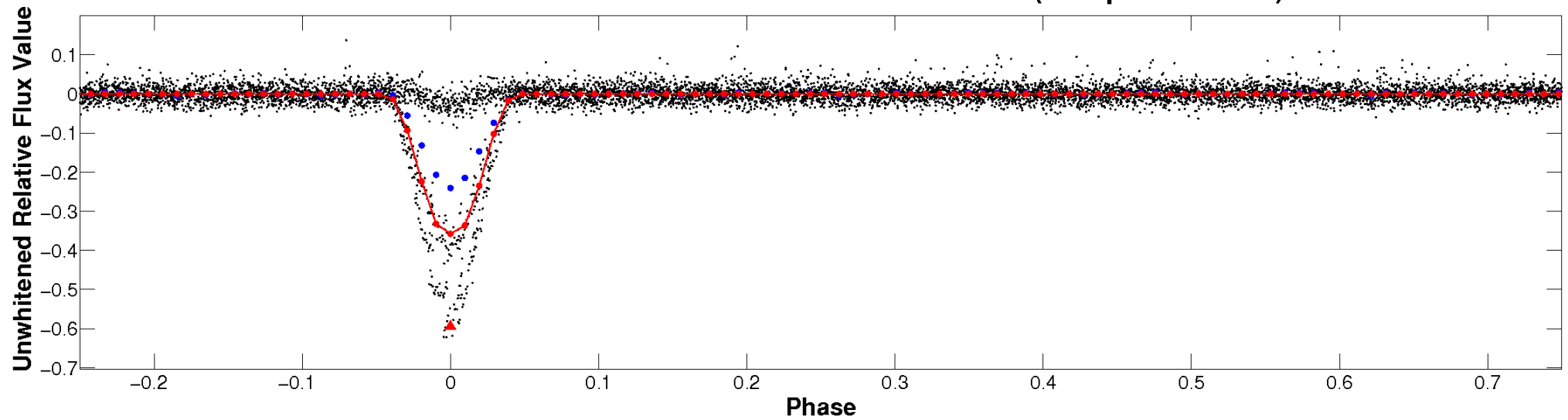
ALT Odd/Even

TCE 007960295-01

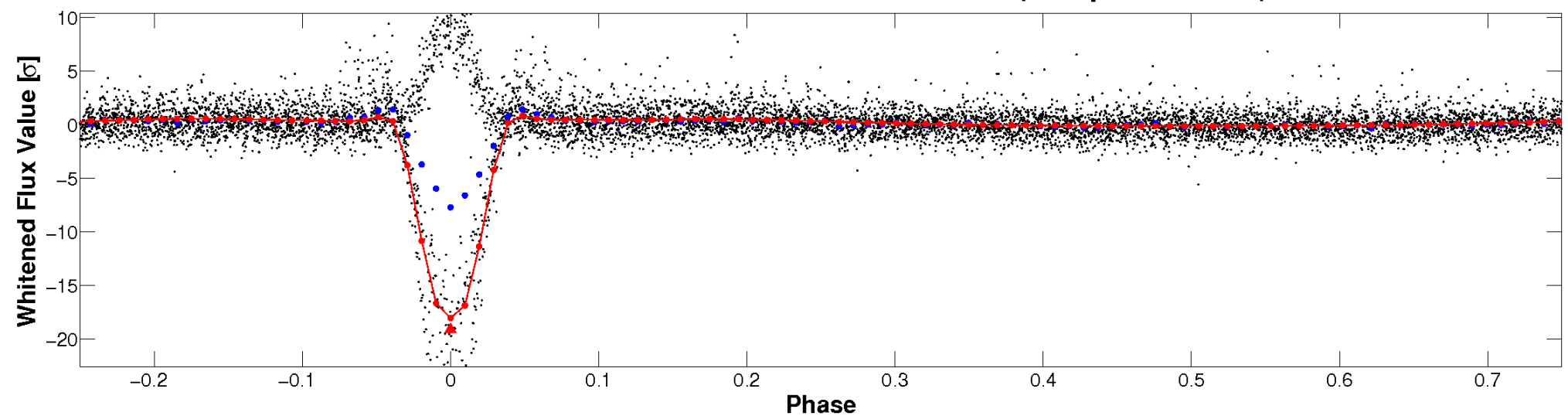


Non-Whitened Vs. Whitened Light Curve

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

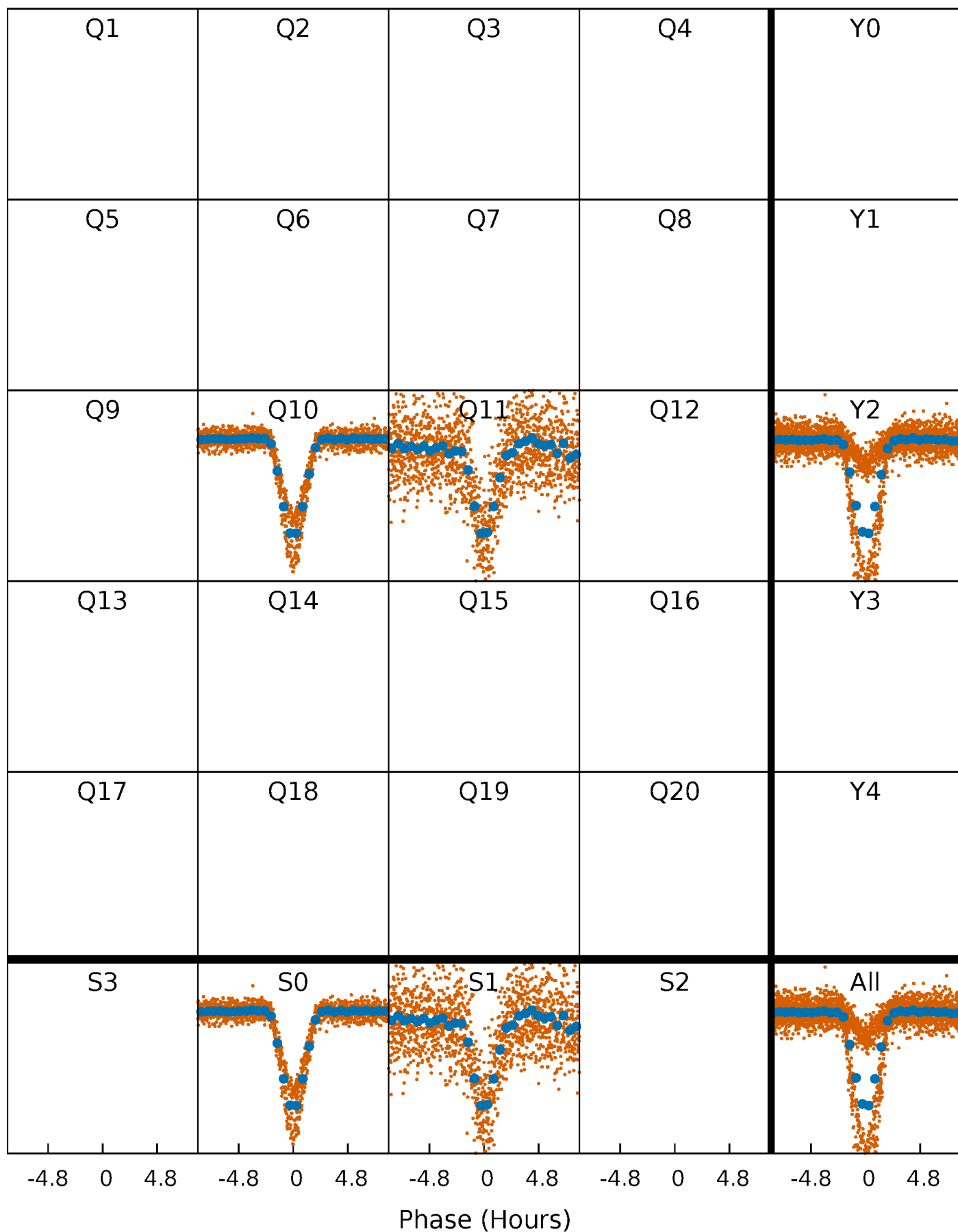


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



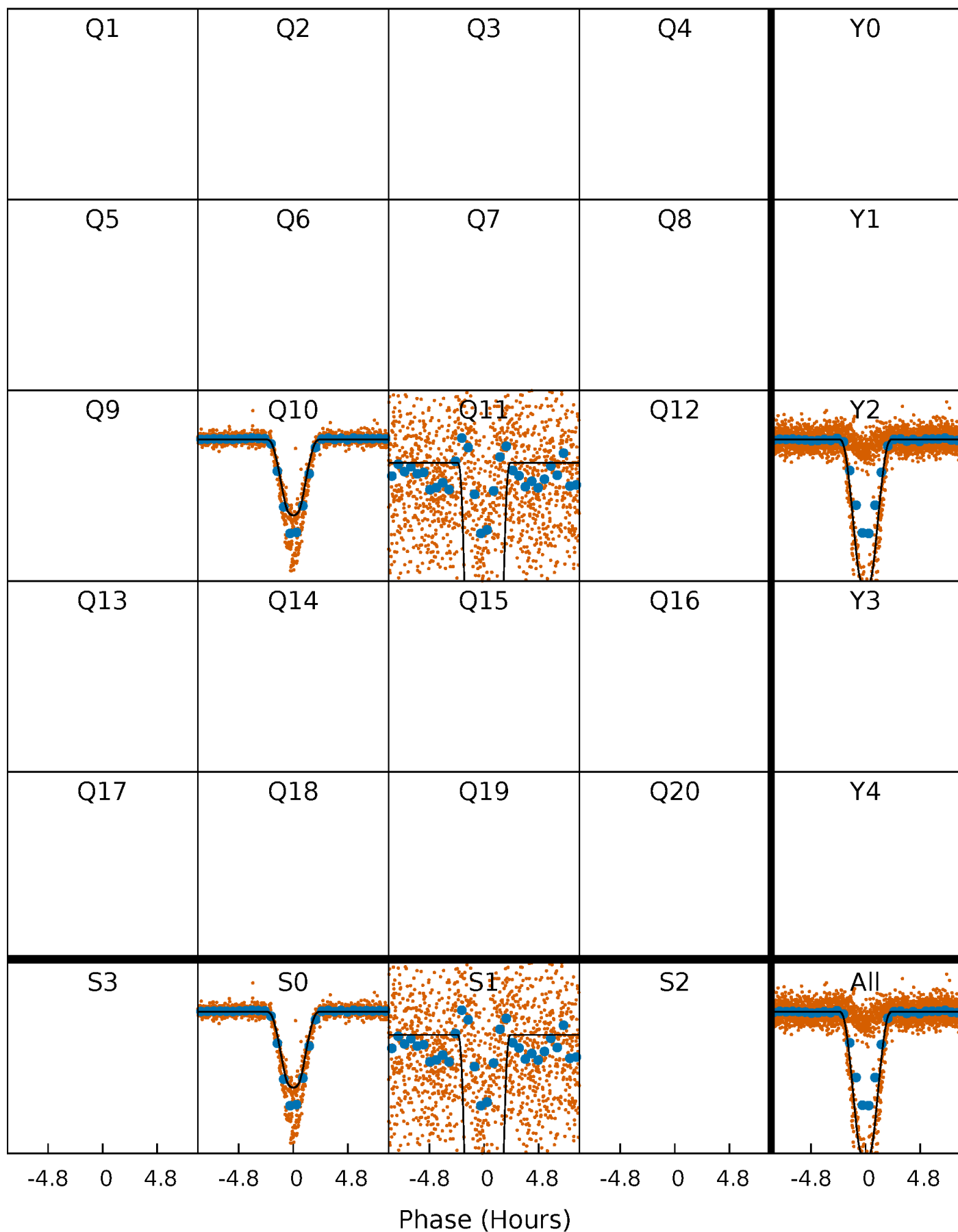
PDC Quarter-Phased Transit Curves

TCE 007960295-01 P= 2.104089 Days $T_0=132.652928$ (BKJD)



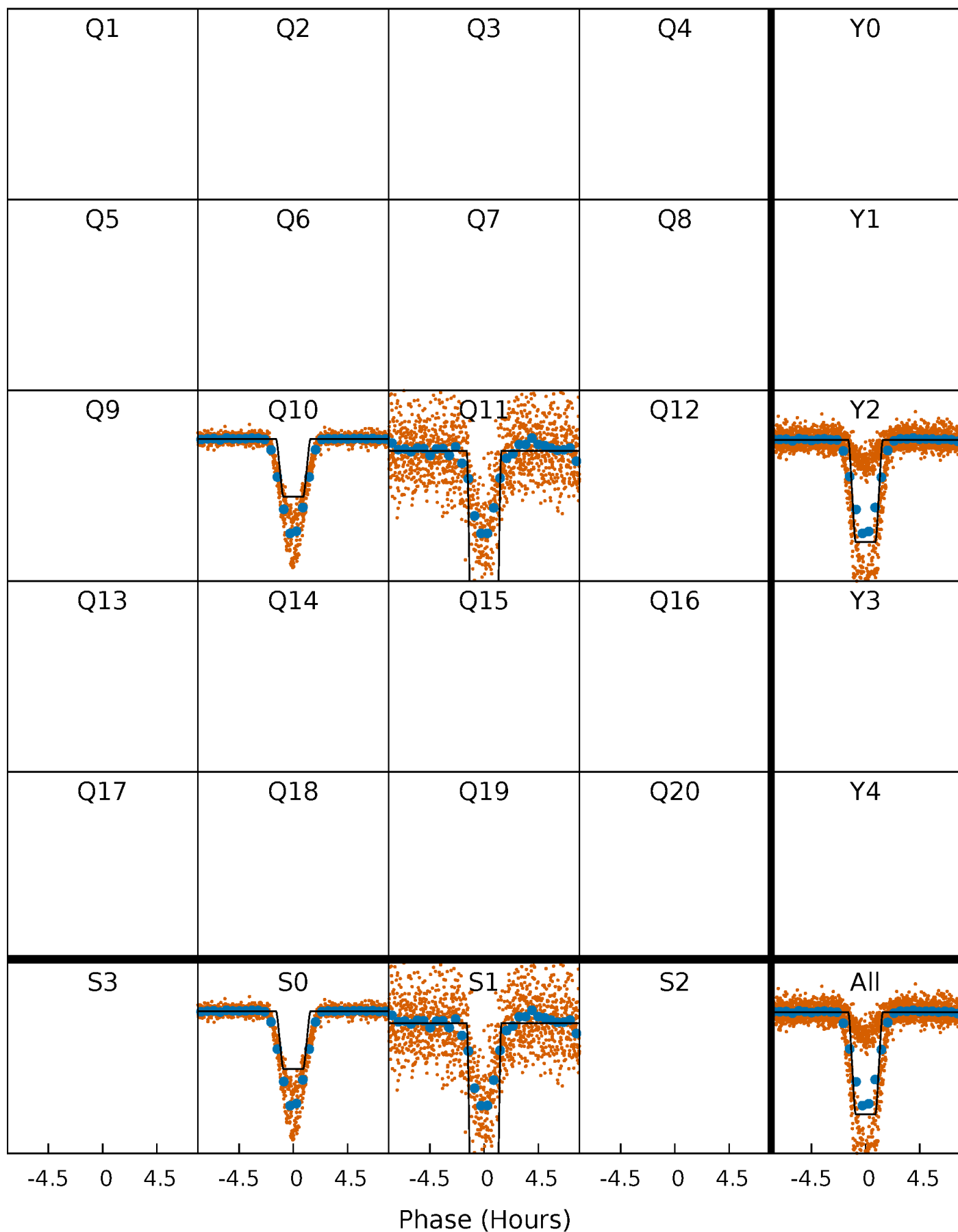
DV Quarter-Phased Transit Curves

TCE 007960295-01 P= 2.104089 Days $T_0=132.652928$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

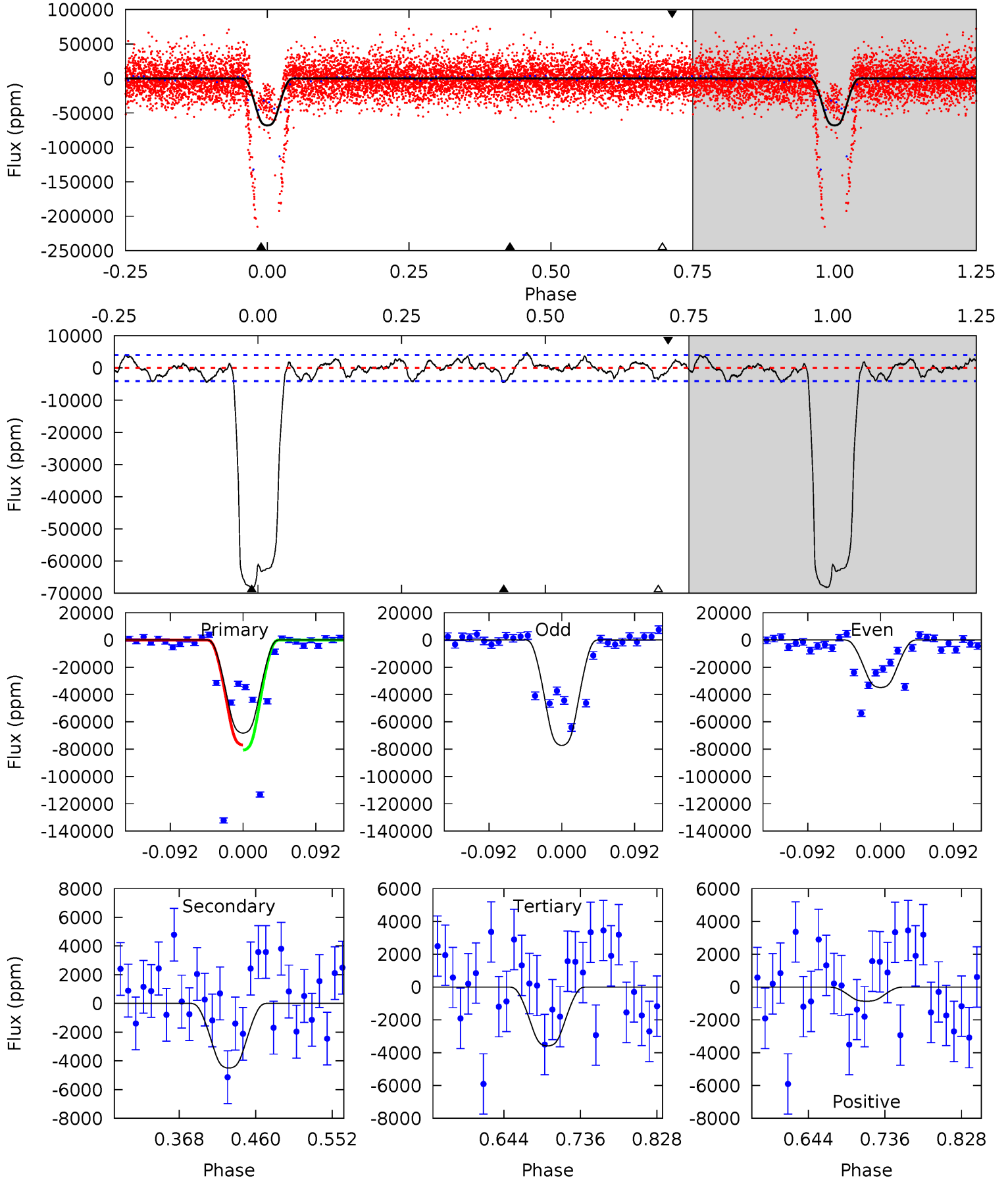
TCE 007960295-01 P= 2.104144 Days $T_0=132.632426$ (BKJD)



DV Model-Shift Uniqueness Test

007960295-01, P = 2.104089 Days, E = 132.652928 Days

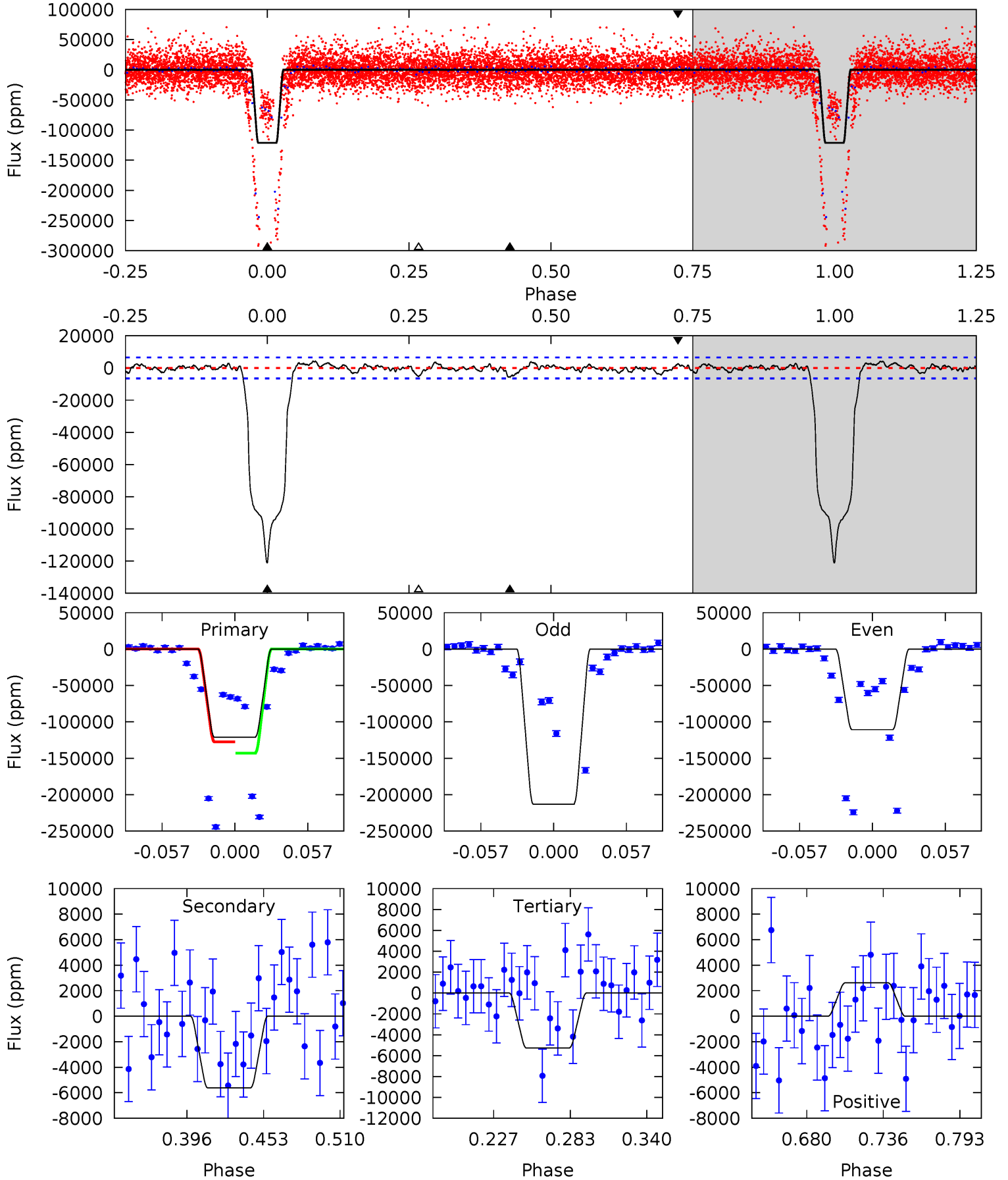
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
77.2	5.09	4.06	-0.98	4.58	1.68	1.93	73.1	78.1	1.03	6.07	23.4	2.54	0.06	0



Alt Model-Shift Uniqueness Test

007960295-01, P = 2.104144 Days, E = 132.632426 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
86.8	4.03	3.78	1.88	4.68	1.91	1.15	83.0	84.9	0.25	2.15	36.7	1.24	0.03	5.06



Stellar Parameters For KIC 007960295

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 007960295-01 / KOI 6939.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4501 ± 884	$60.52^{+4.48}_{-4.20}$	1981^{+107}_{-93}	2570^{+118}_{-141}	$0.696^{+0.182}_{-0.149}$
Alt.	-5615 ± 1395	$57.80^{+4.21}_{-3.88}$	1989^{+95}_{-93}	2750^{+125}_{-174}	$0.967^{+0.268}_{-0.266}$

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 $A_{obs} \gg 1.0$

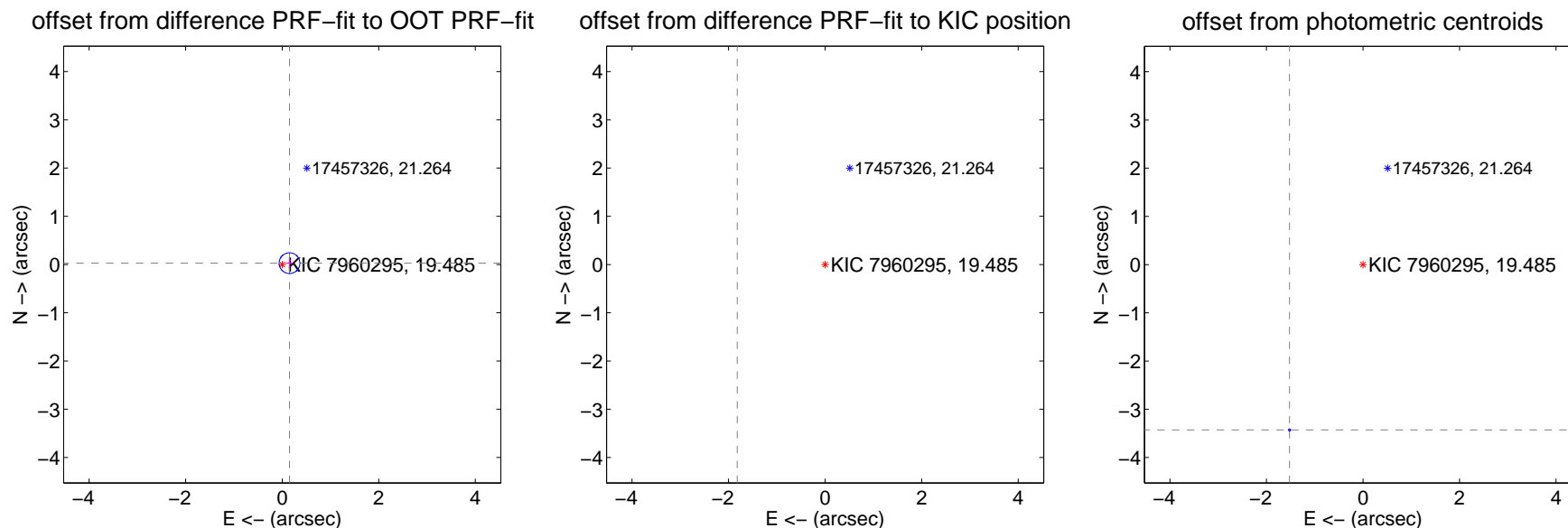
DV Centroid Data

Supplemental centroid analysis for 007960295-01. Kepler magnitude: 19.48. Transit SNR 146.42

There are 2 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 5.39 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	0.154 ± 0.072	2.15	-0.151 ± 0.068	0.029 ± 0.094
PRF-fit source offset from KIC position	5.275 ± 0.082	64.59	1.821 ± 0.067	-4.951 ± 0.083
photometric centroid source offset	3.75 ± 0.01	509.62	1.52 ± 0.01	-3.43 ± 0.01



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.

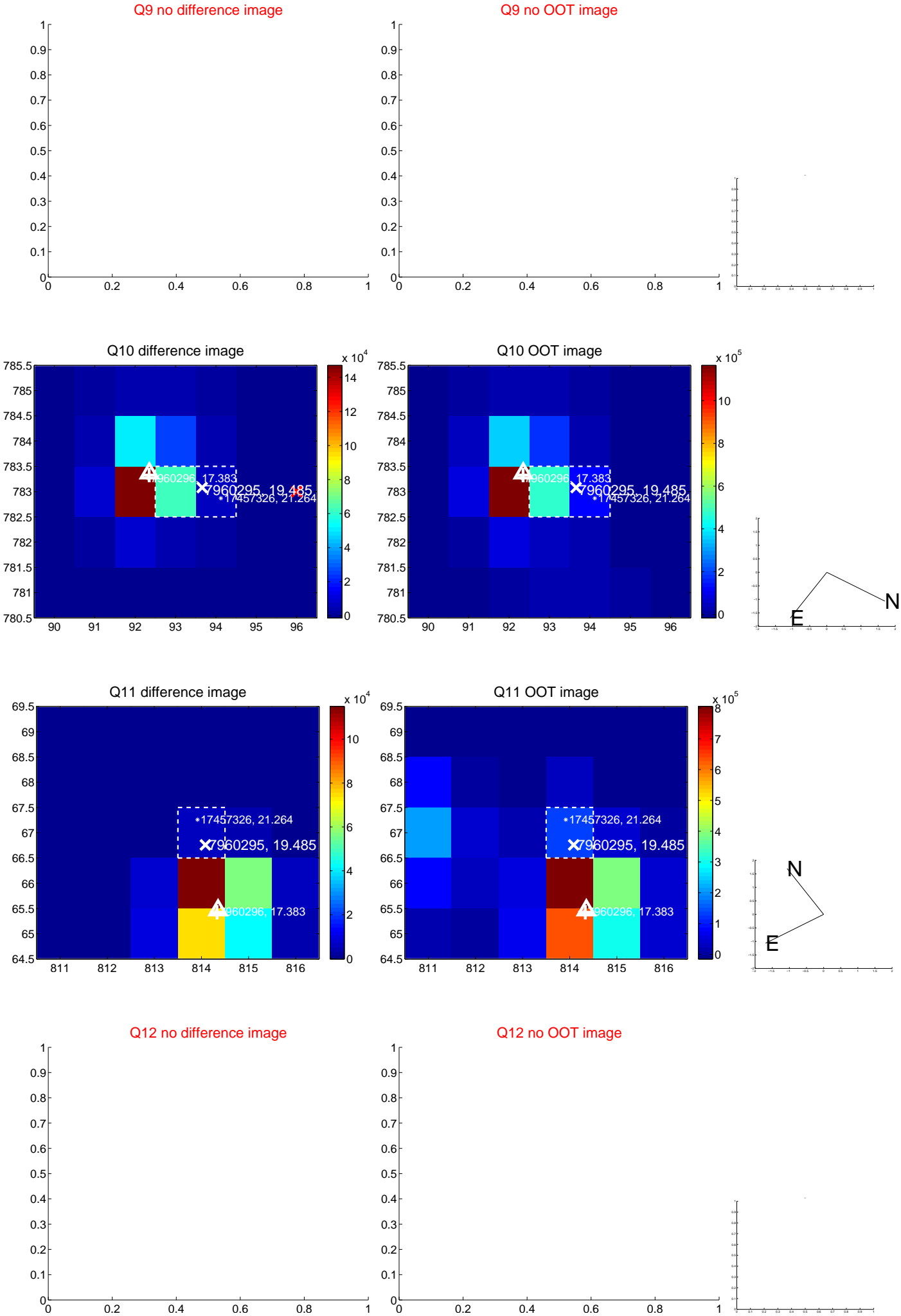
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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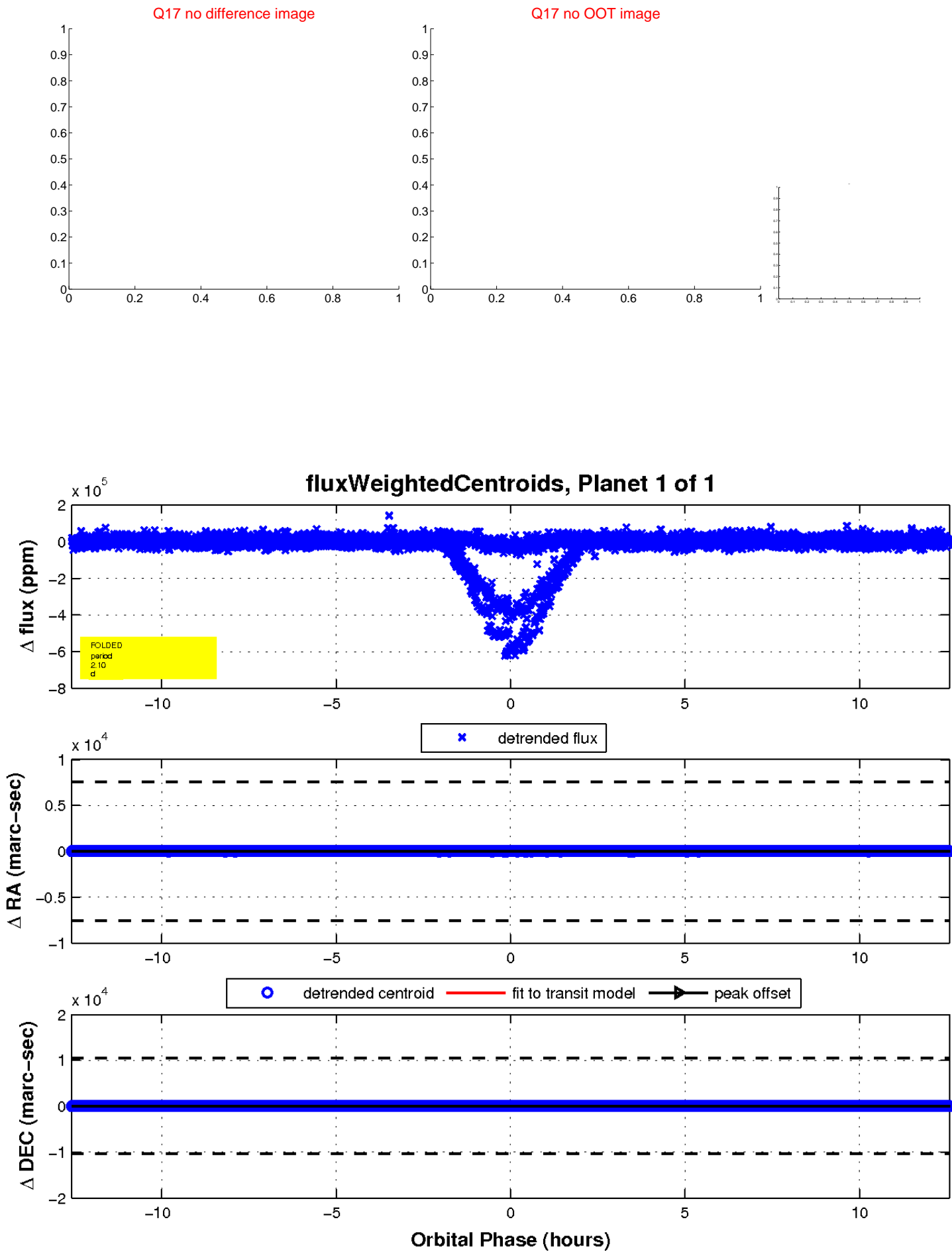
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

