

KIC 010461795

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})
010461795-01	OBS	No	616.778164	269.528745	304.0	7.818	7.1	7.0	1.07	6129	2.05	0.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010461795-01	OBS	FP	0.06	1	0	0	0	MOD_NONUNIQ_ALT—MOD_POS_ALT—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.

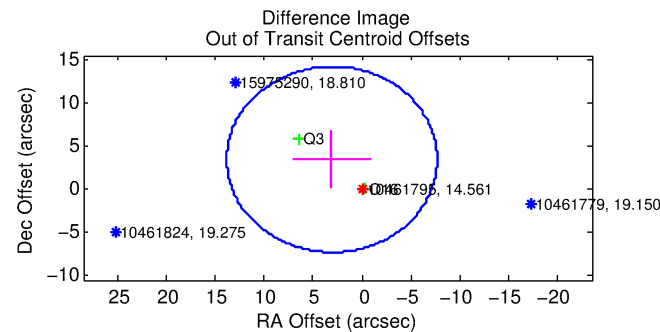
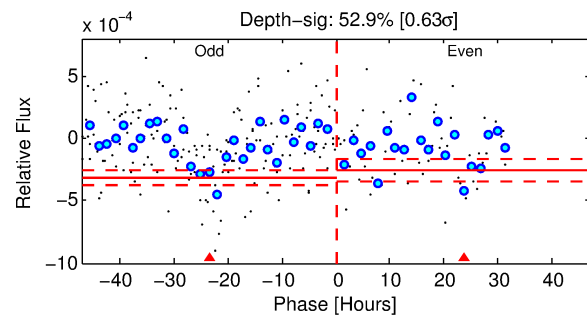
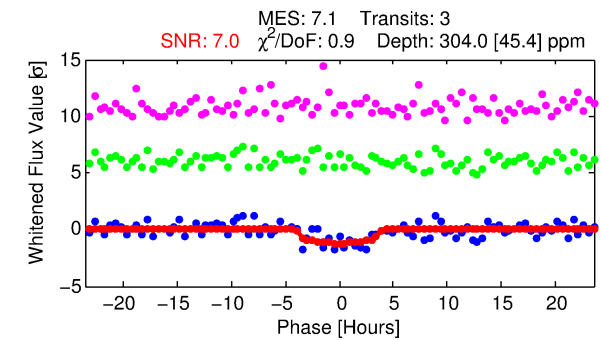
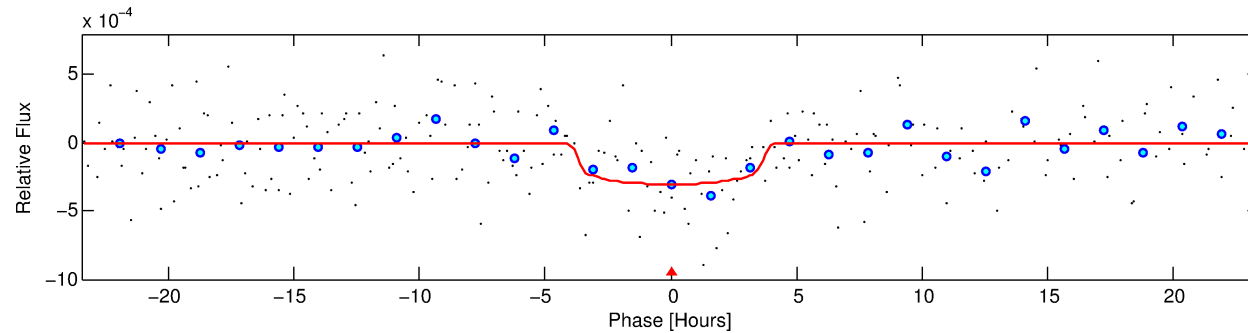
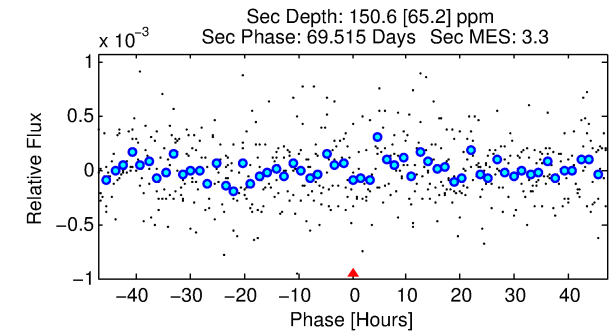
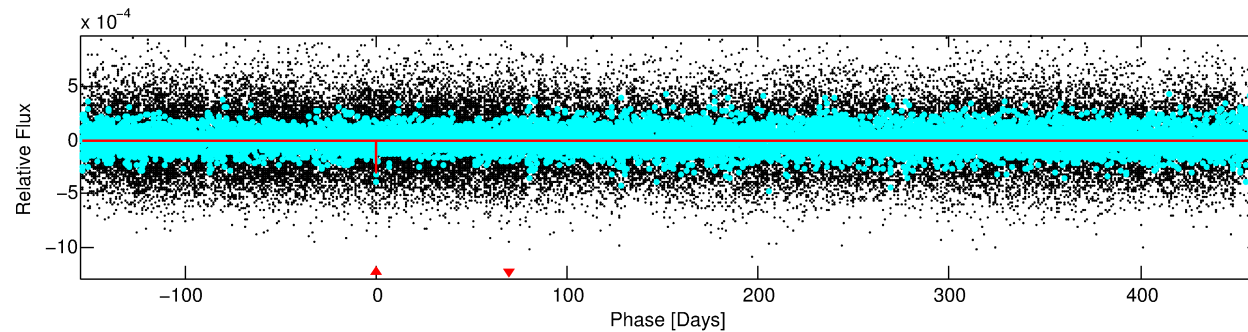
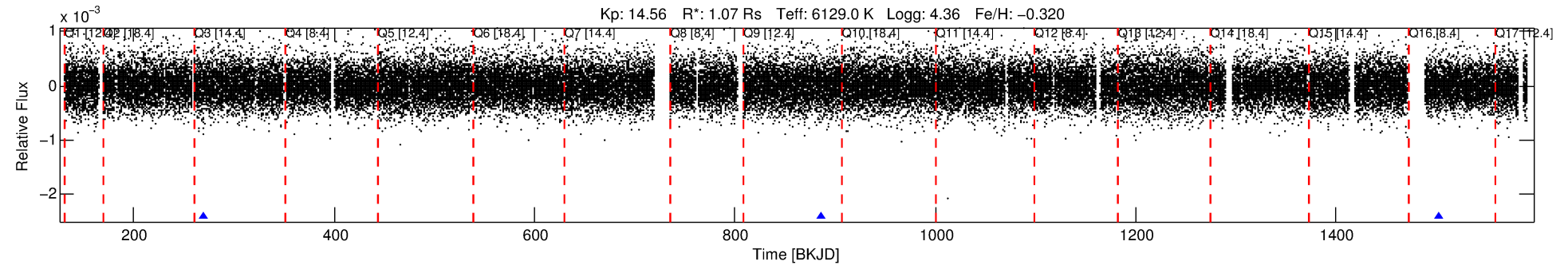
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010461795-01

No Significant Match Found

DV One-Page Summary

KIC: 10461795 Candidate: 1 of 1 Period: 616.778 d



DV Fit Results:

Period = 616.77816 [0.01237] d
 Epoch = 269.5287 [0.0175] BKJD
 Rp/R* = 0.0175 [0.0113]
 a/R* = 391.75 [1302.33]
 b = 0.78 [1.66]
 Seff = 0.74 [0.28]
 Teq = 237 [22] K
 Rp = 2.05 [1.44] Re
 a = 1.3984 [0.3375] AU
 Ag = 38528.46 [53982.38] [0.71σ]
 Teffp = 5126 [1746] K [2.80σ]

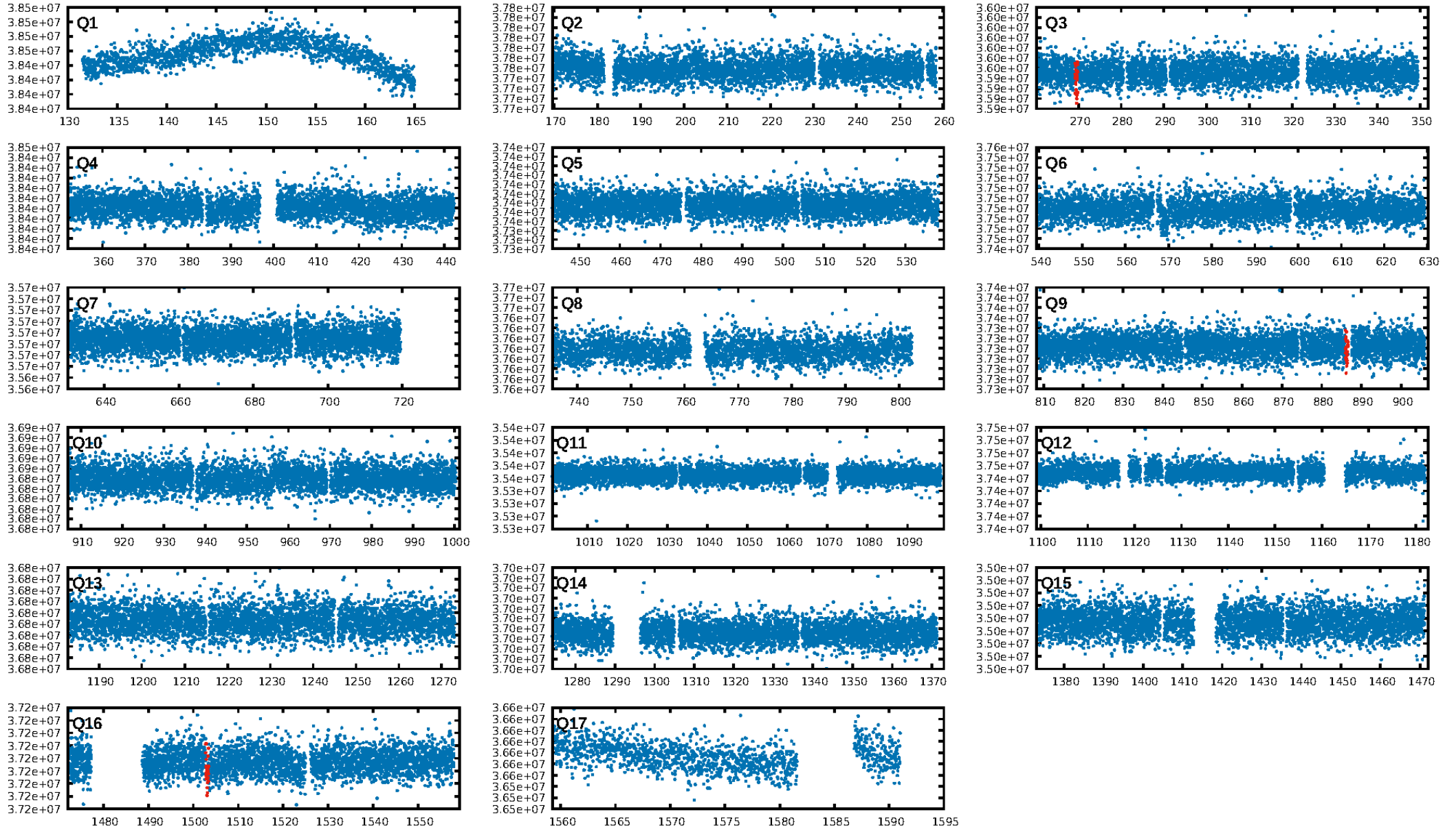
DV Diagnostic Results:

ShortPeriod-sig: N/A
 LongPeriod-sig: N/A
 ModelChiSquare2-sig: 90.3%
 ModelChiSquareGof-sig: 99.4%
 Bootstrap-pfa: 2.19e-15
 RollingBand-fgt: 1.00 [3/3]
 GhostDiagnostic-chr: 20.1
 Centroid-sig: 1.4%
 Centroid-so: 3.455 arcsec [1.56σ]
 OotOffset-rm: 4.628 arcsec [1.29σ]
 OotOffset-st: 0/1/1/0 [2]
 KicOffset-rm: 4.494 arcsec [1.25σ]
 KicOffset-st: 0/1/1/0 [2]
 DiffImageQuality-fgm: 0.50 [1/2]
 DiffImageOverlap-fno: 1.00 [2/2]

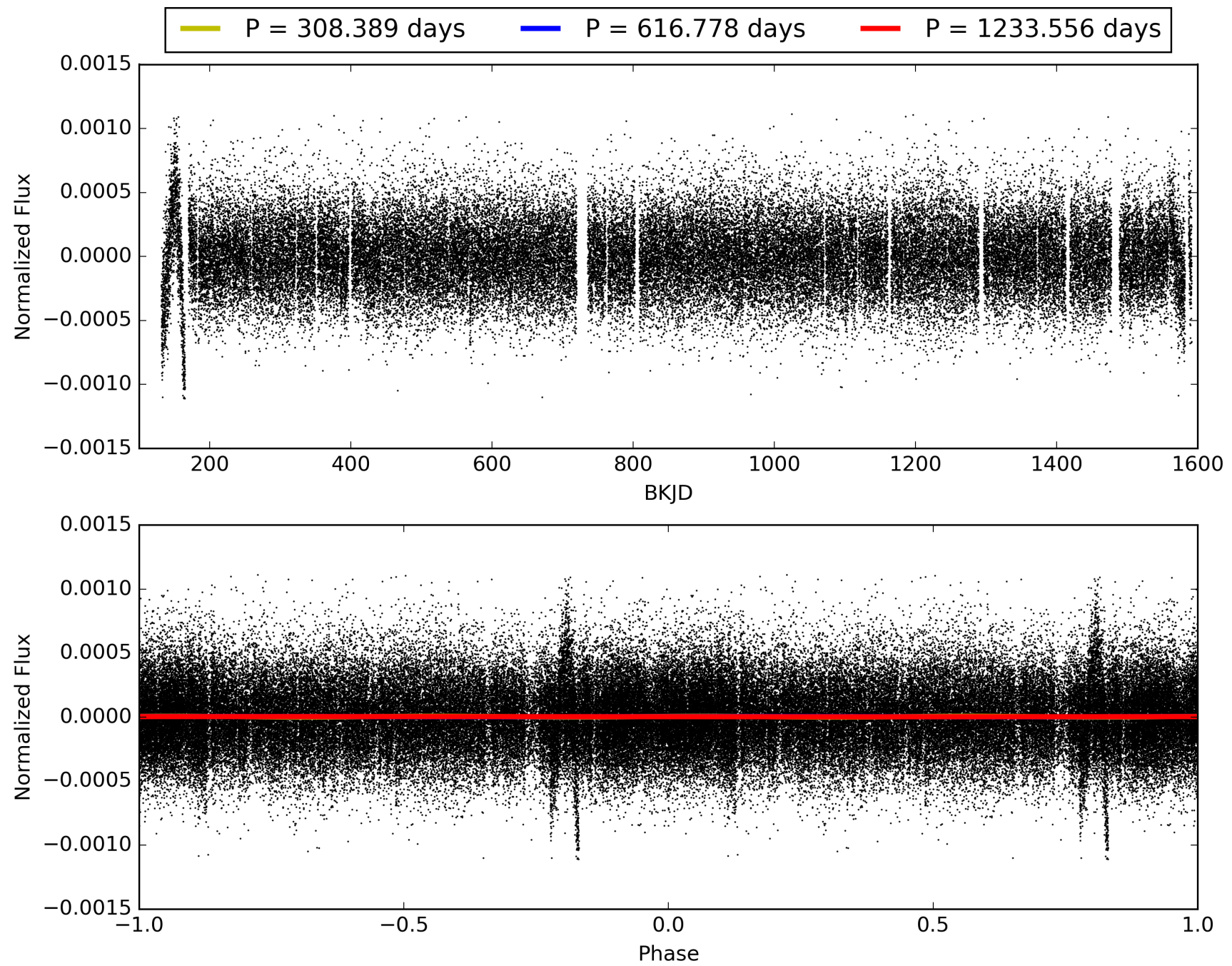
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:25:22 Z

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

TCE 010461795-01, PDC Light Curves

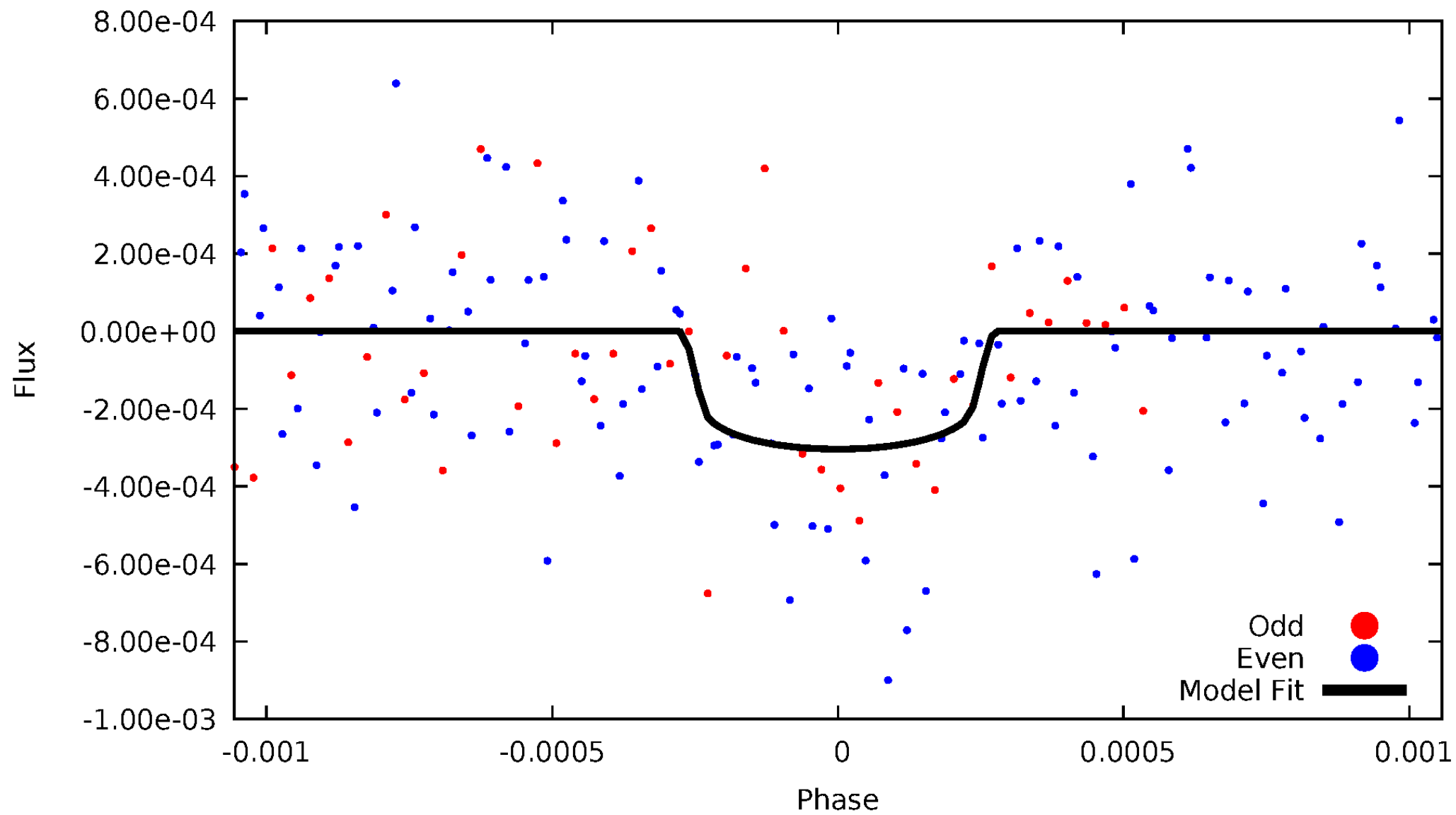


TCE 010461795-01



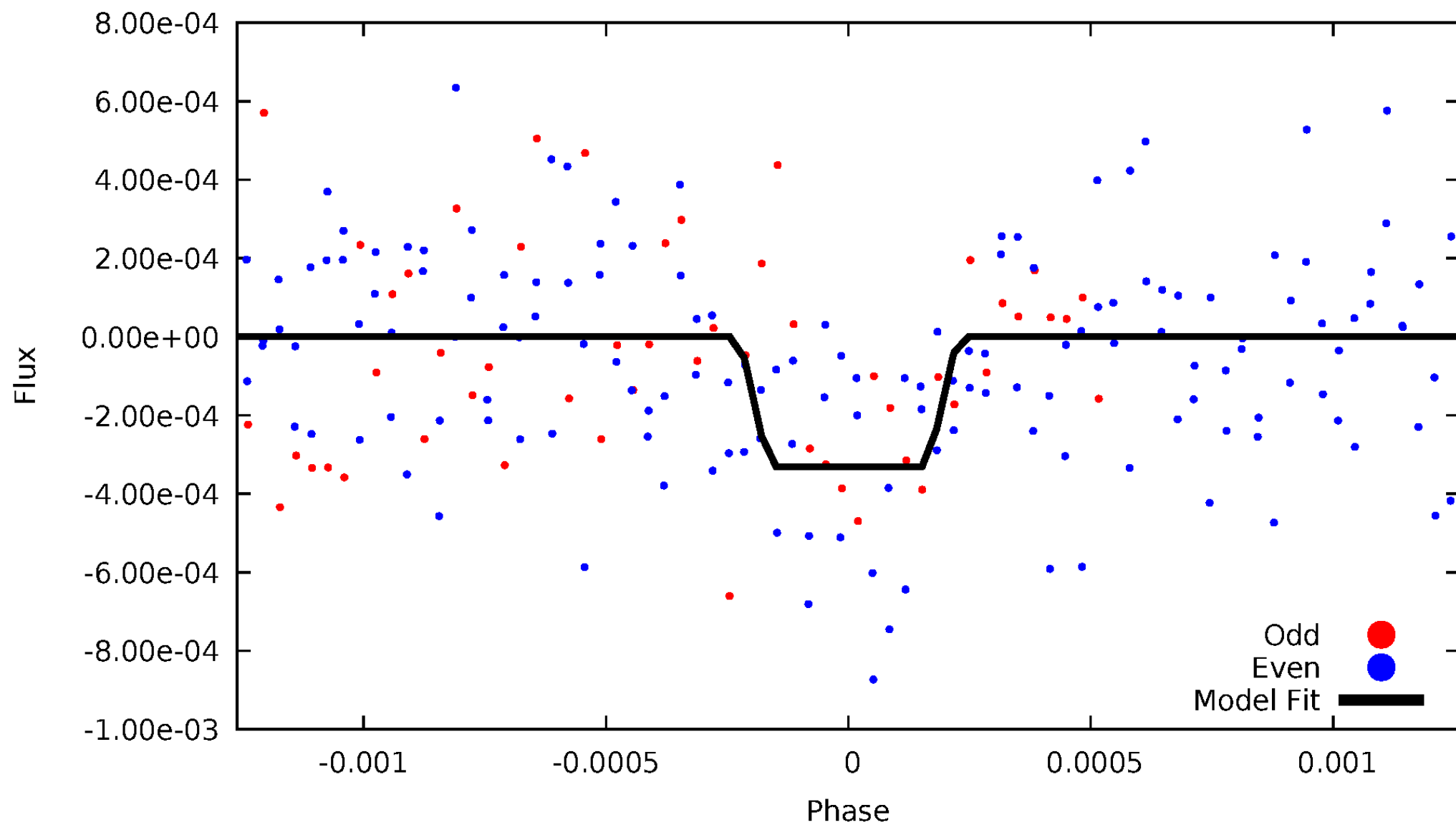
DV Odd/Even

TCE 010461795-01



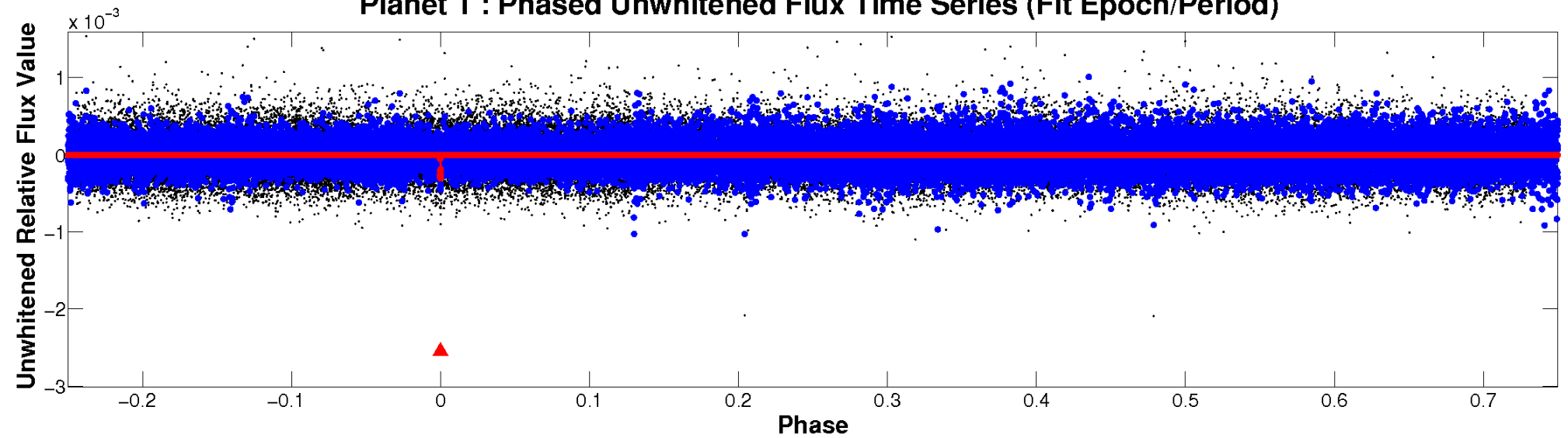
ALT Odd/Even

TCE 010461795-01

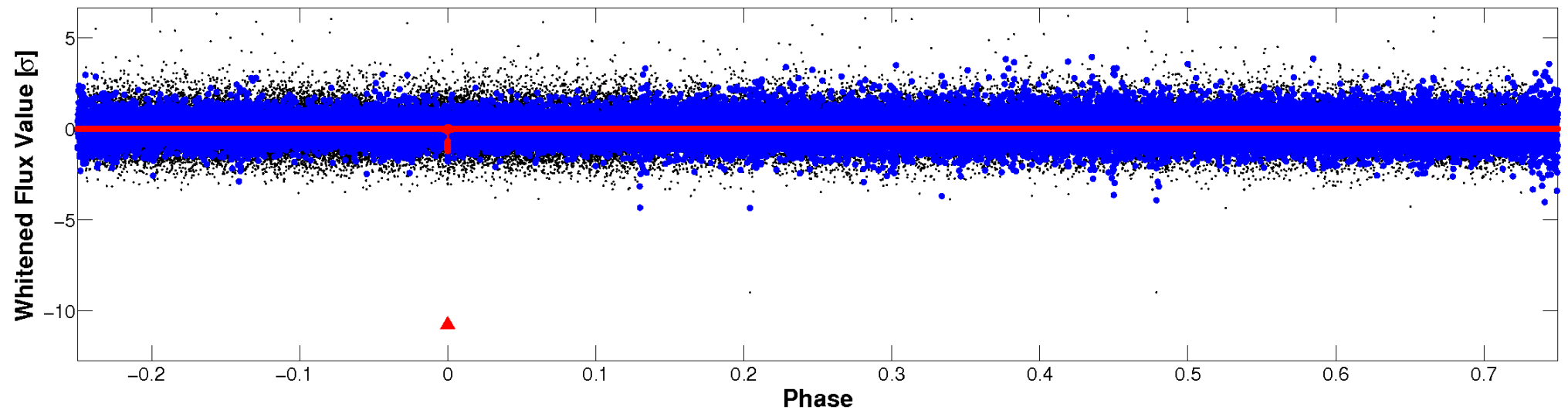


Non-Whitened Vs. Whitened Light Curve

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

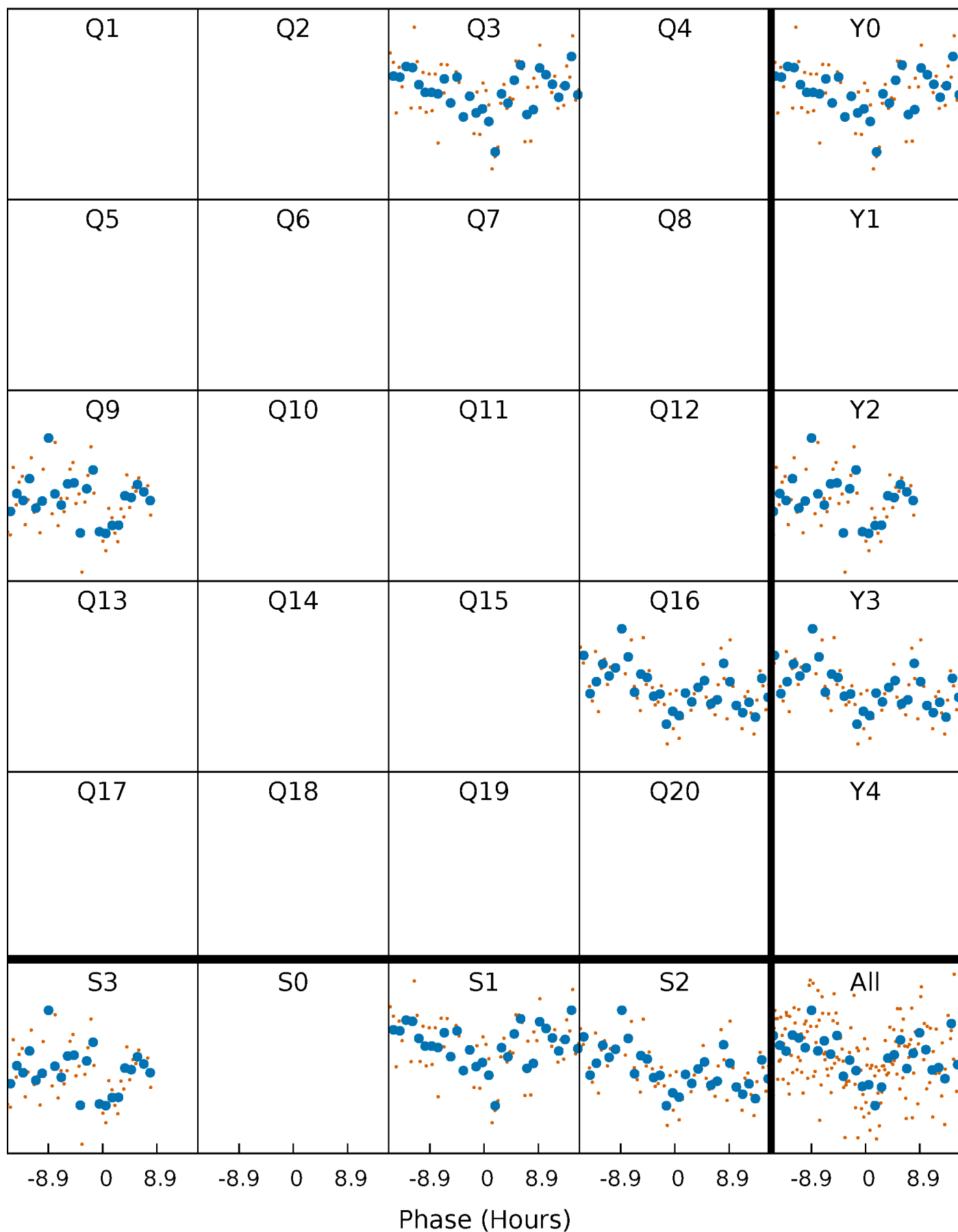


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



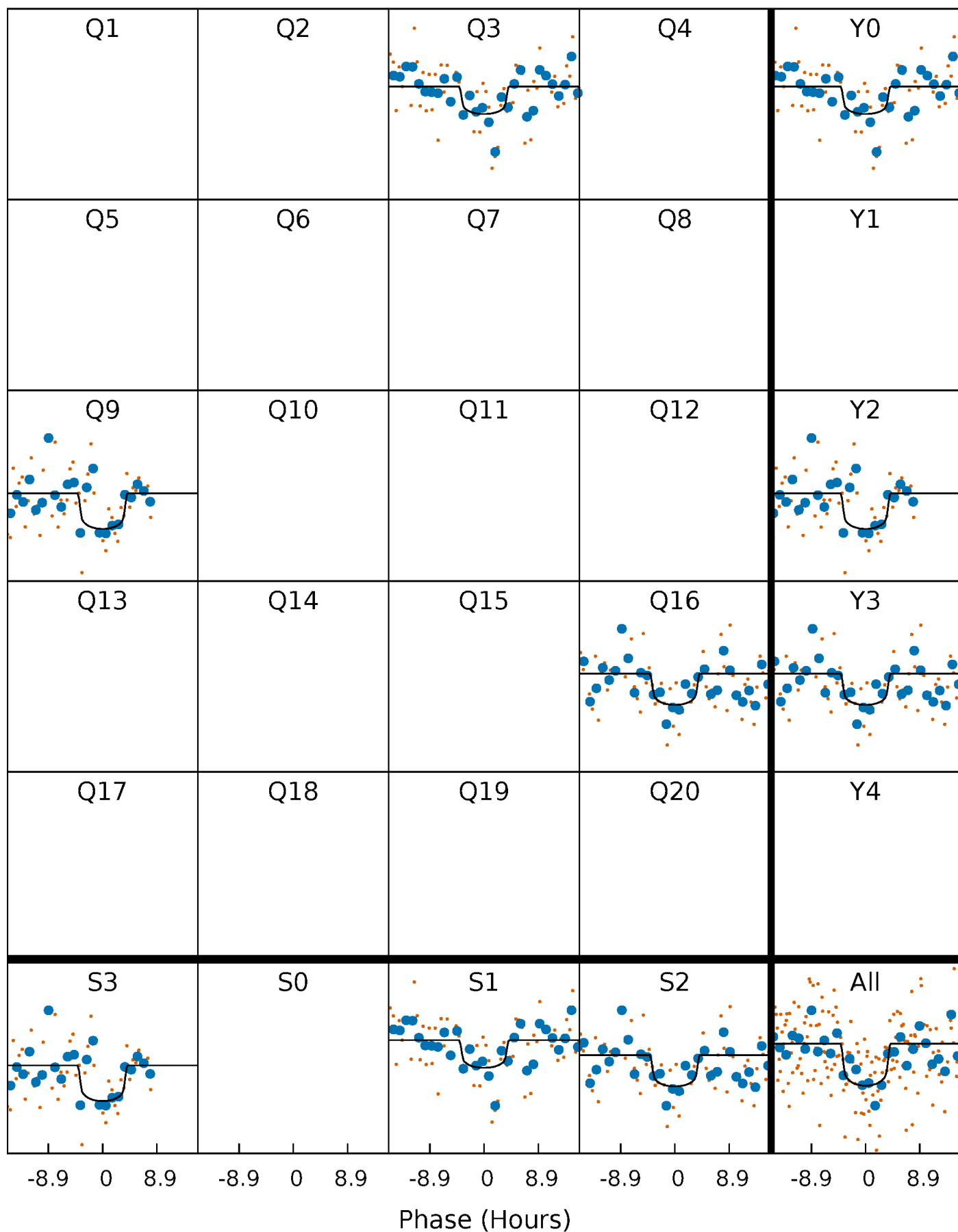
PDC Quarter-Phased Transit Curves

TCE 010461795-01 P=616.778164 Days $T_0=269.528745$ (BKJD)



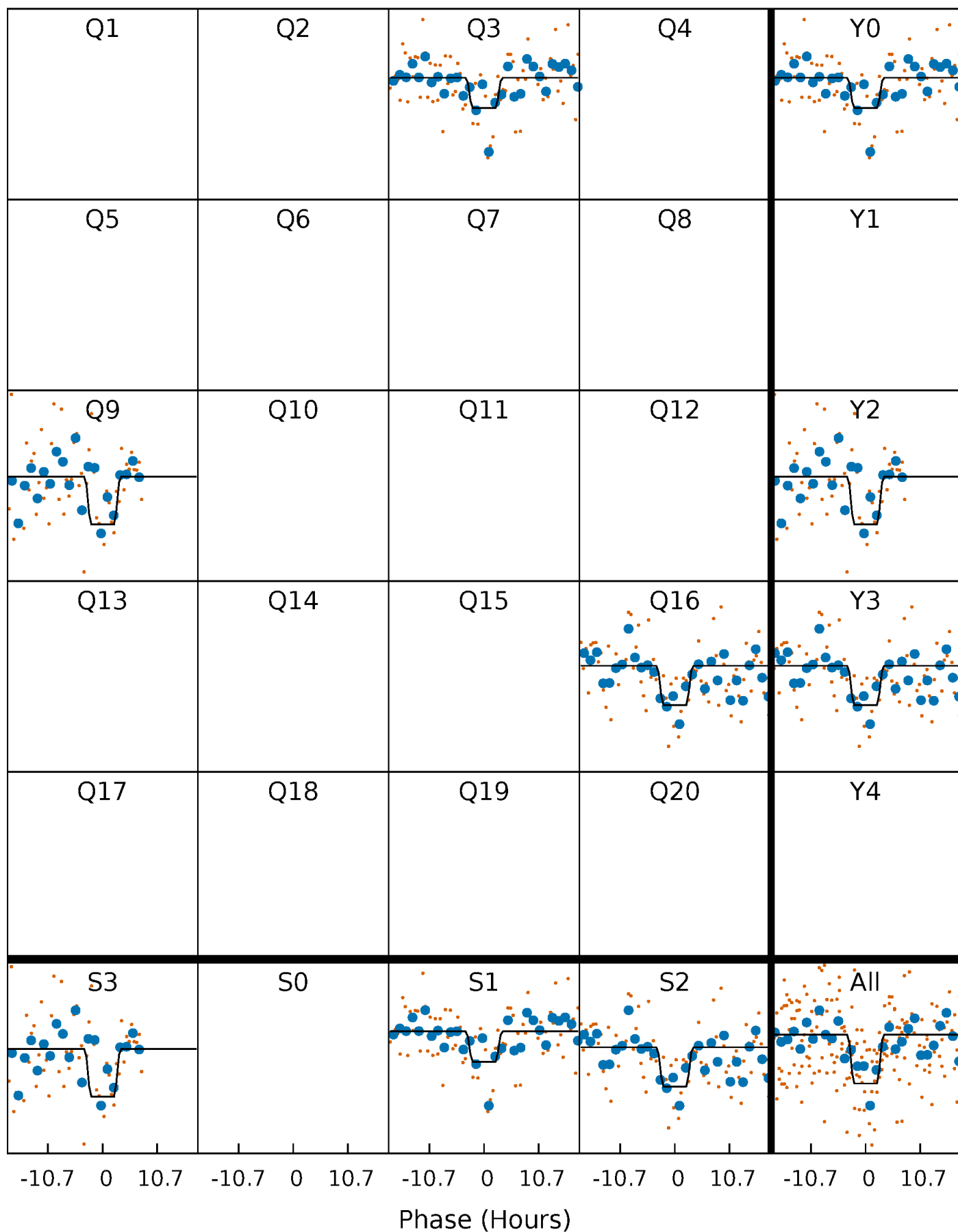
DV Quarter-Phased Transit Curves

TCE 010461795-01 P=616.778164 Days $T_0=269.528745$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

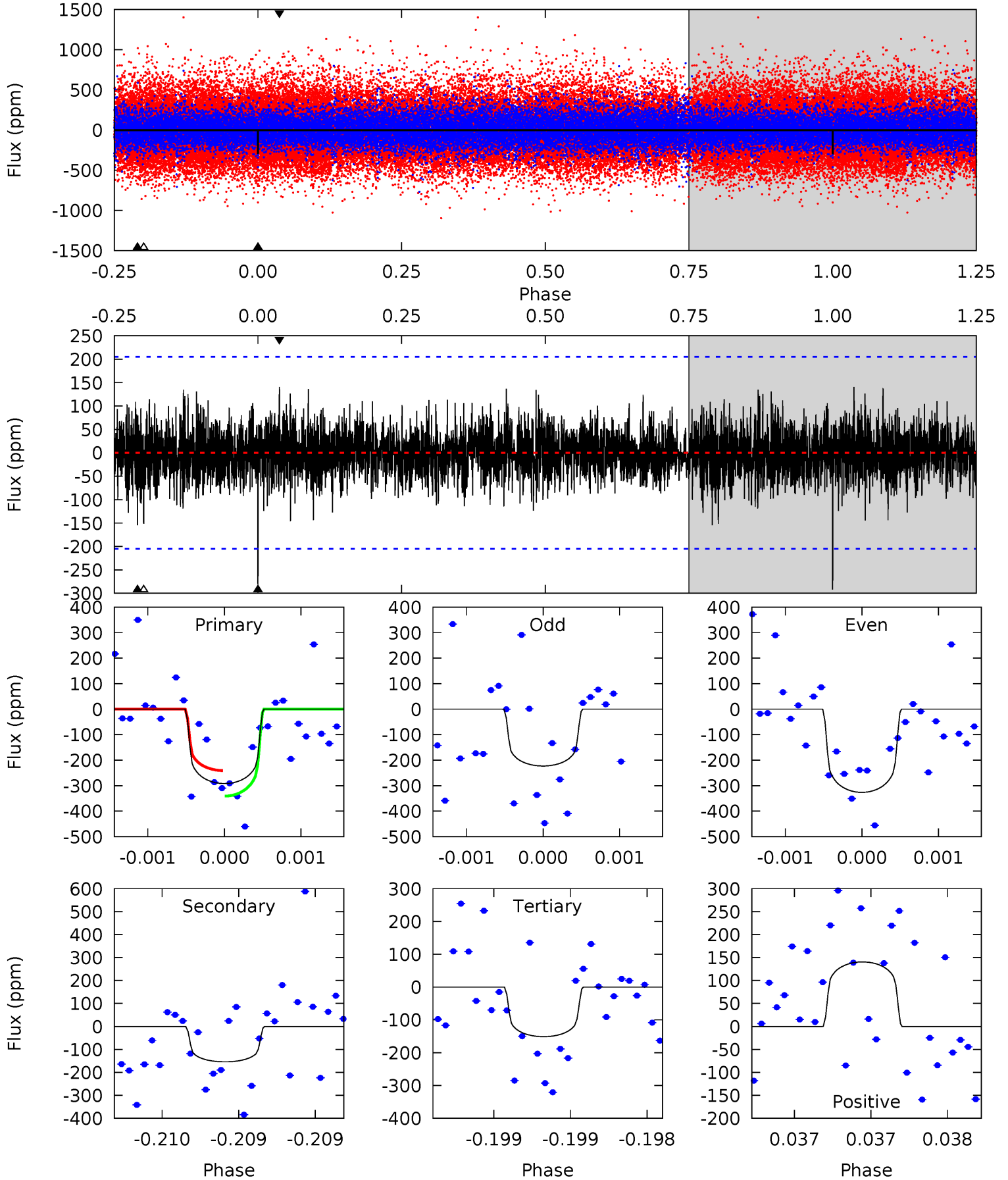
TCE 010461795-01 P=616.766575 Days $T_0=269.551001$ (BKJD)



DV Model-Shift Uniqueness Test

010461795-01, P = 616.778164 Days, E = 269.528745 Days

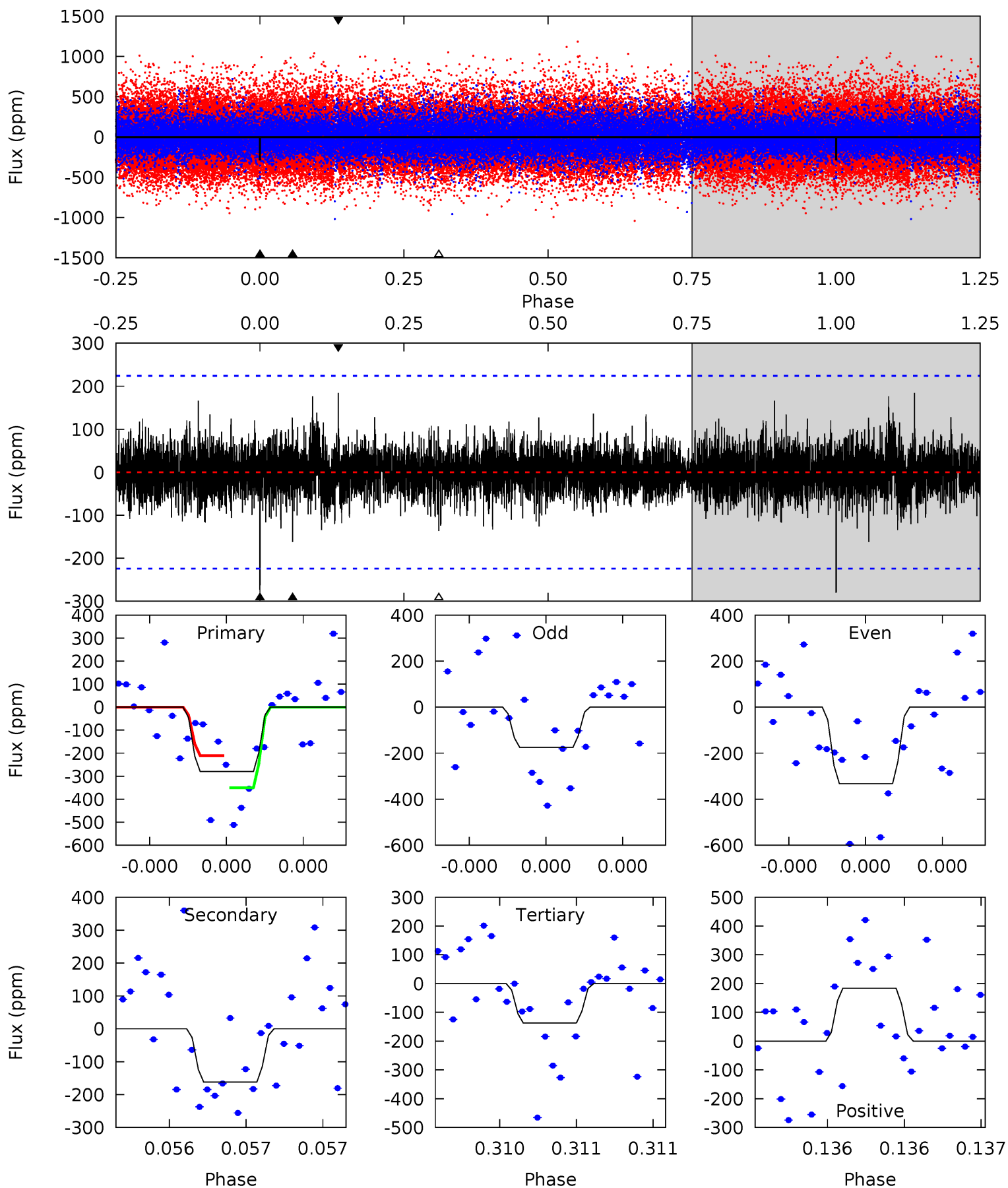
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.91	4.19	4.10	3.81	5.56	3.46	1.06	3.81	4.10	0.08	0.38	1.32	0.96	0.32	1.36



Alt Model-Shift Uniqueness Test

010461795-01, P = 616.766575 Days, E = 269.551001 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.99	4.05	3.42	4.59	5.60	3.52	0.95	3.58	2.40	0.63	-0.55	1.84	0.89	0.40	1.75



Stellar Parameters For KIC 010461795

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6129^{+183}_{-201}	$4.360^{+0.128}_{-0.192}$	$-0.320^{+0.300}_{-0.300}$	$1.071^{+0.307}_{-0.165}$	$0.959^{+0.140}_{-0.102}$	$1.100^{+0.626}_{-0.534}$
	+3%/-3%	+3%/-4%	+94%/-94%	+29%/-15%	+15%/-11%	+57%/-49%
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 010461795-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-154 ± 37	$2.26^{+1.27}_{-1.23}$	334^{+24}_{-19}	5085^{+2229}_{-898}	$33082^{+120518}_{-20708}$
Alt.	-162 ± 40	$2.26^{+1.36}_{-1.14}$	333^{+23}_{-20}	5052^{+2212}_{-853}	$33210^{+105925}_{-20295}$

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

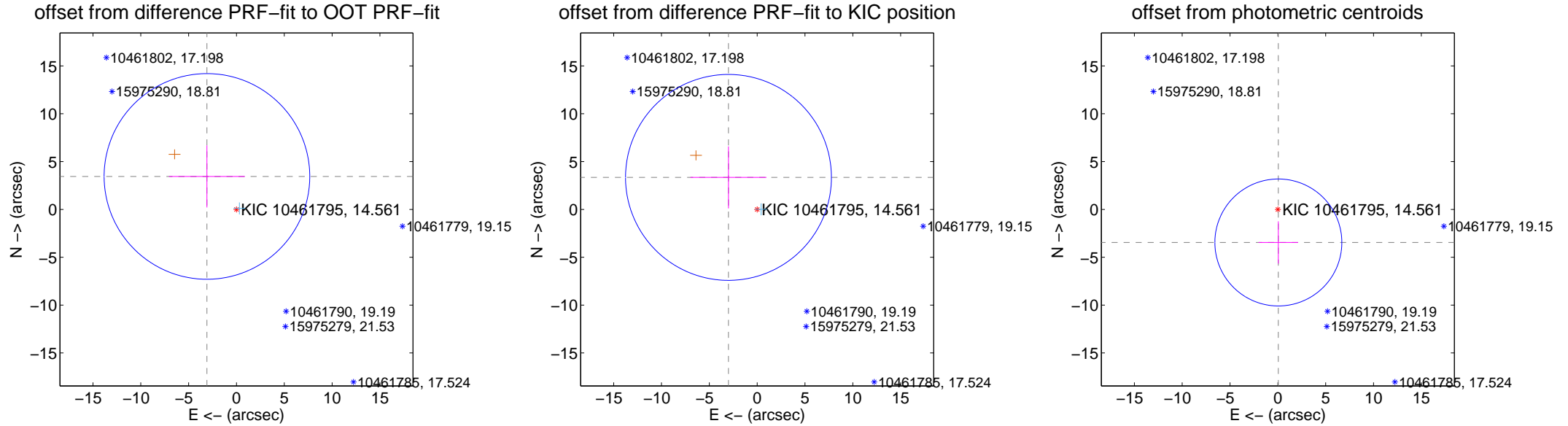
DV Centroid Data

Supplemental centroid analysis for 010461795-01. Kepler magnitude: 14.56. Transit SNR 6.97

There are 1 quarters with good PRF difference image offsets

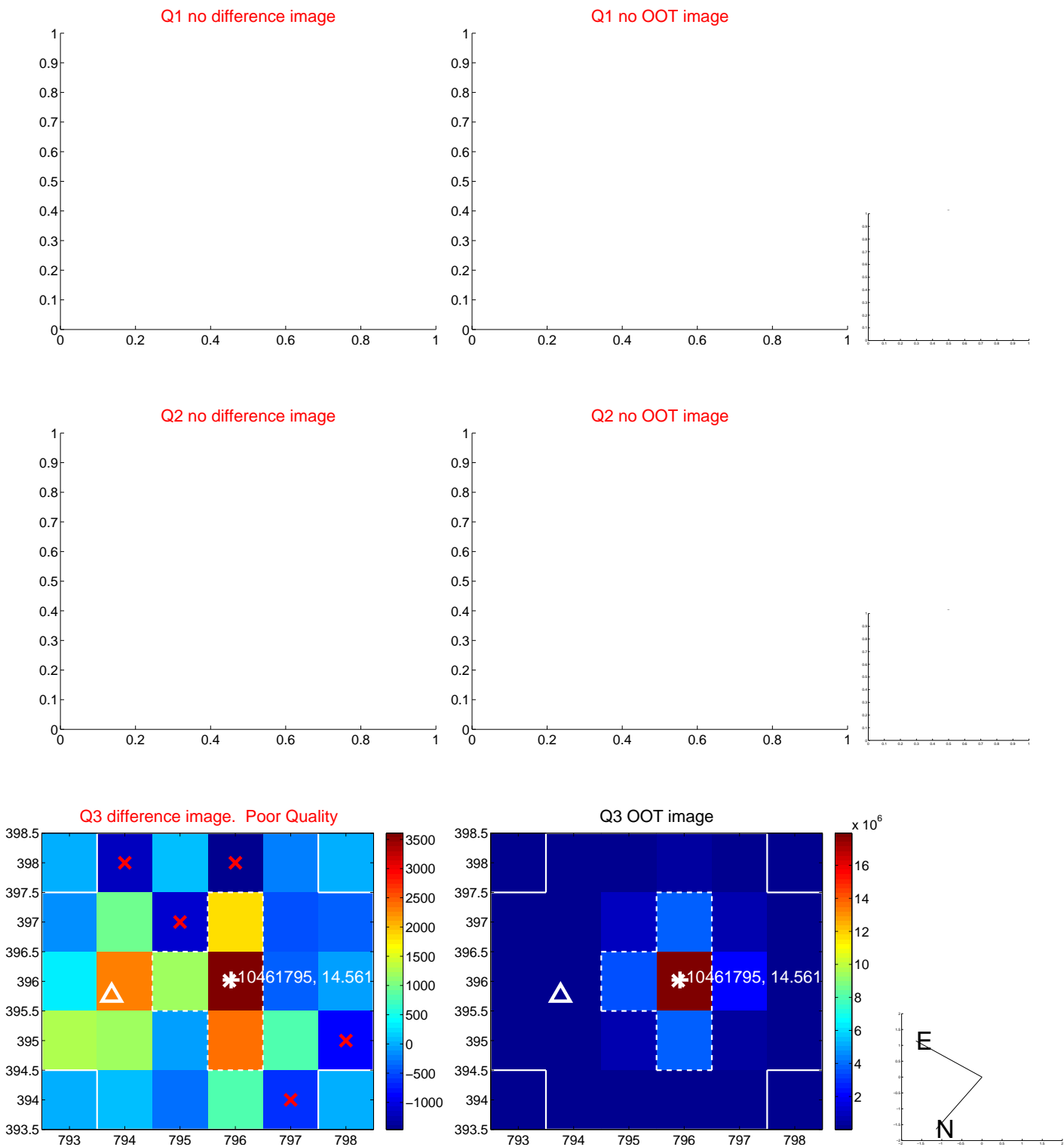
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.628 ± 3.583	1.29	3.086 ± 3.963	3.449 ± 3.247
PRF-fit source offset from KIC position	4.494 ± 3.587	1.25	2.999 ± 3.977	3.347 ± 3.240
photometric centroid source offset	3.45 ± 2.21	1.56	-0.05 ± 2.07	-3.45 ± 2.21



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.



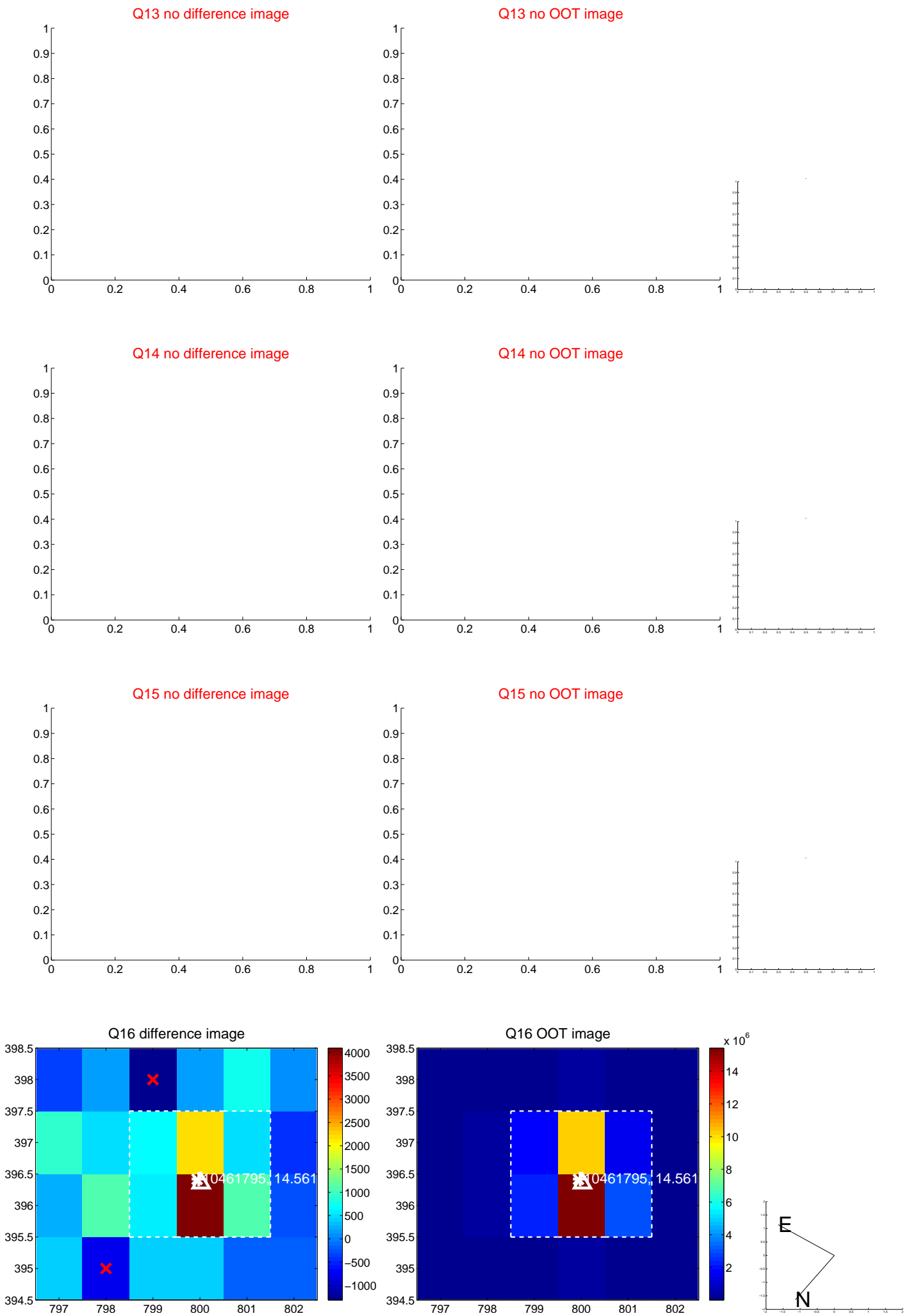
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



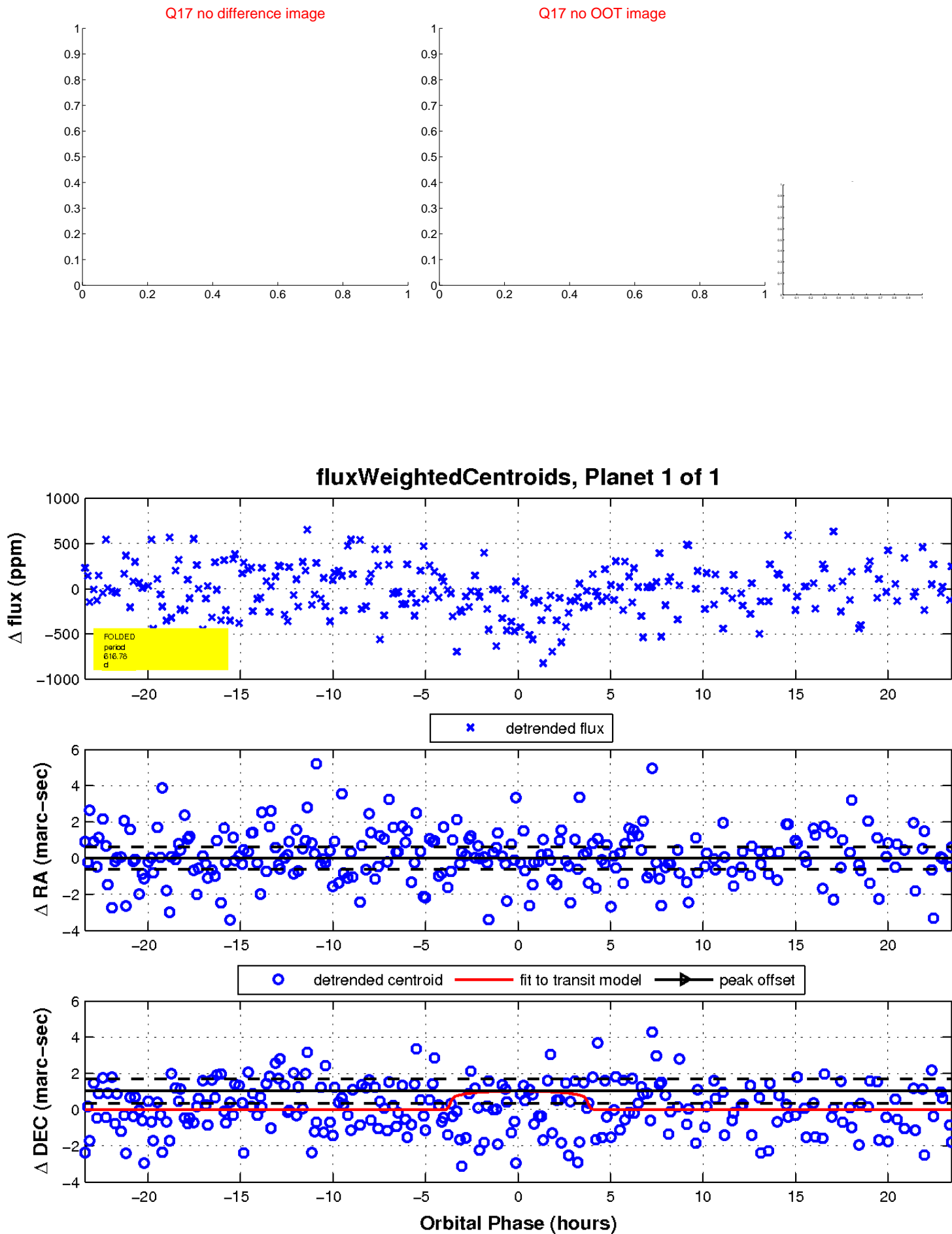
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

