

KIC 008096395

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})
008096395-01	OBS	7587.01	366.088591	165.418527	490.0	11.048	21.3	21.1	0.94	5941	2.29	1.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008096395-01	OBS	PC	0.90	0	0	0	0	NO_COMMENT

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.

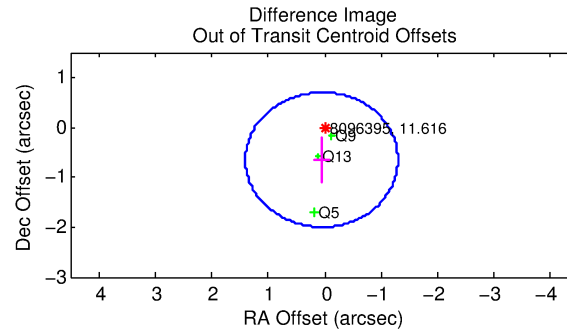
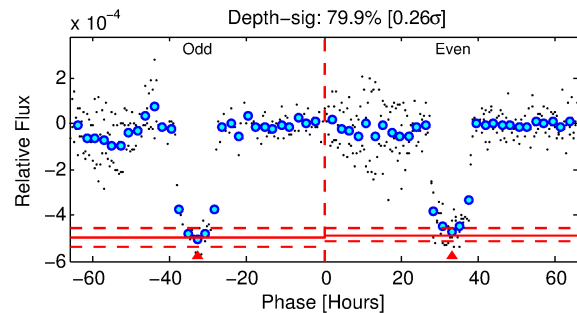
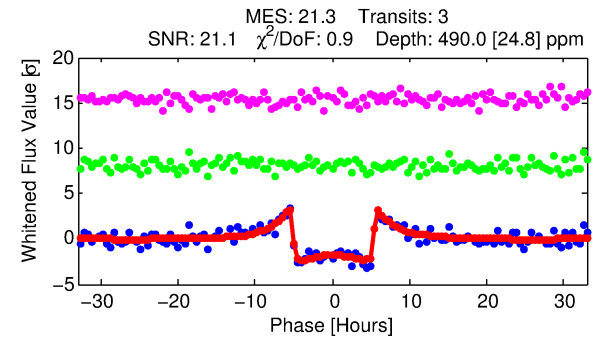
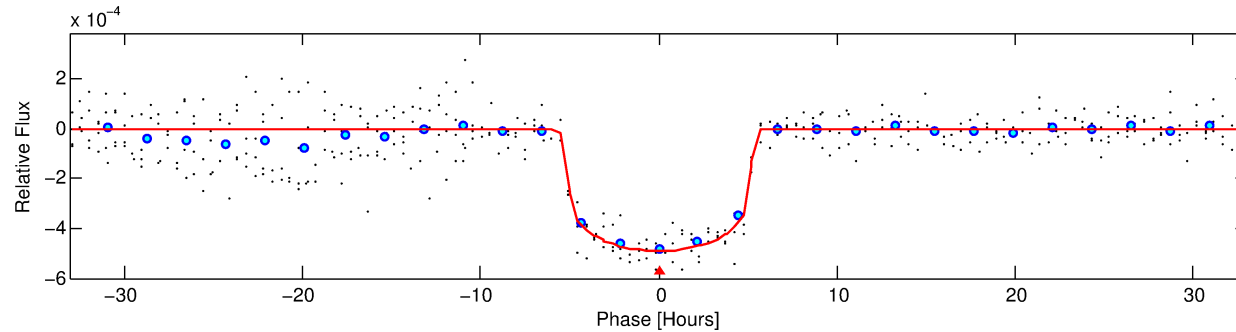
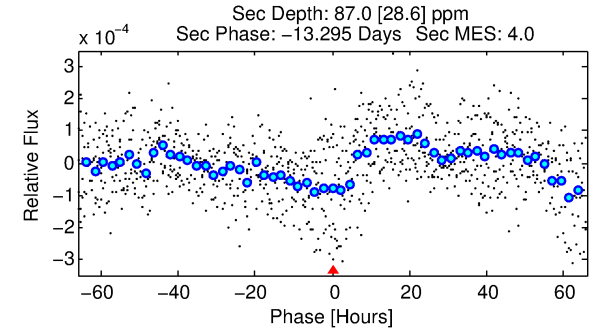
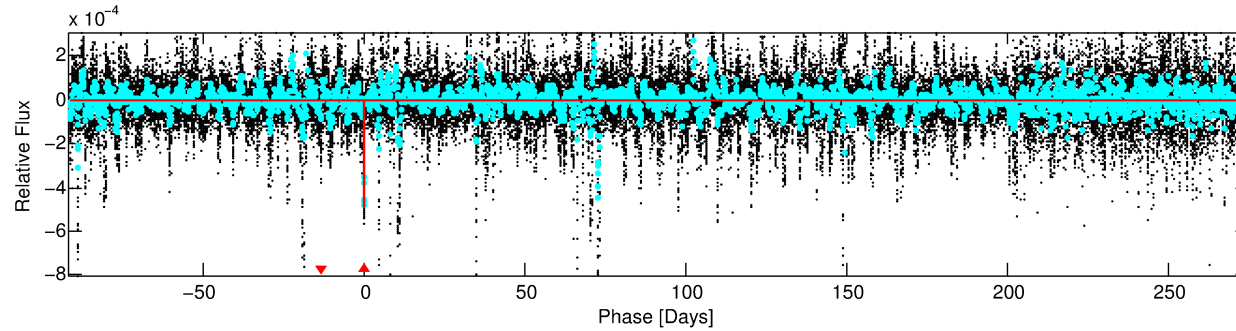
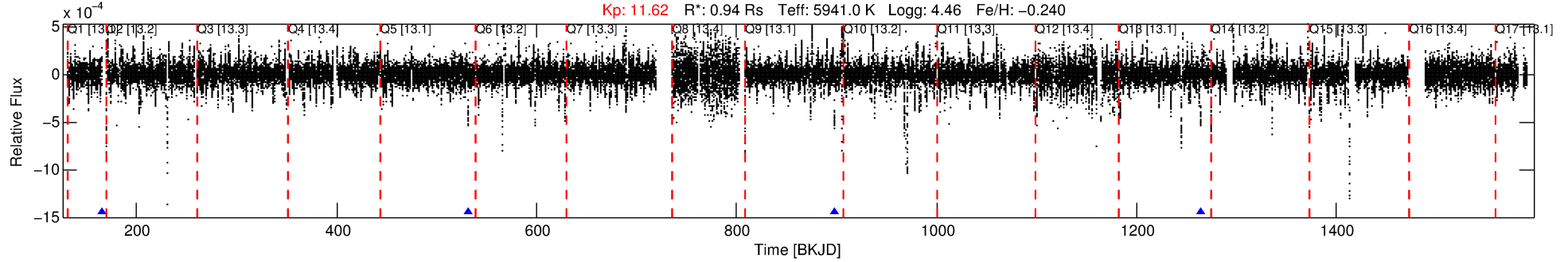
Ephemeris Match Information For 008096395-01

No Significant Match Found

DV One-Page Summary

KIC: 8096395 Candidate: 1 of 1 Period: 366.089 d
KOI: K07587.01 Corr: 0.965

Kp: 11.62 R*: 0.94 Rs Teff: 5941.0 K Logg: 4.46 Fe/H: -0.240



DV Fit Results:

Period = 366.08859 [0.00231] d
Epoch = 165.4185 [0.0051] BKJD
Rp/R* = 0.0222 [0.0017]
a/R* = 168.63 [56.33]
b = 0.78 [0.17]
Seff = 1.03 [0.40]
Teq = 257 [25] K
Rp = 2.29 [0.72] Re
a = 0.9841 [0.2477] AU
Ag = 8820.13 [4522.51] [1.95σ]
Teffp = 3848 [374] K [9.58σ]

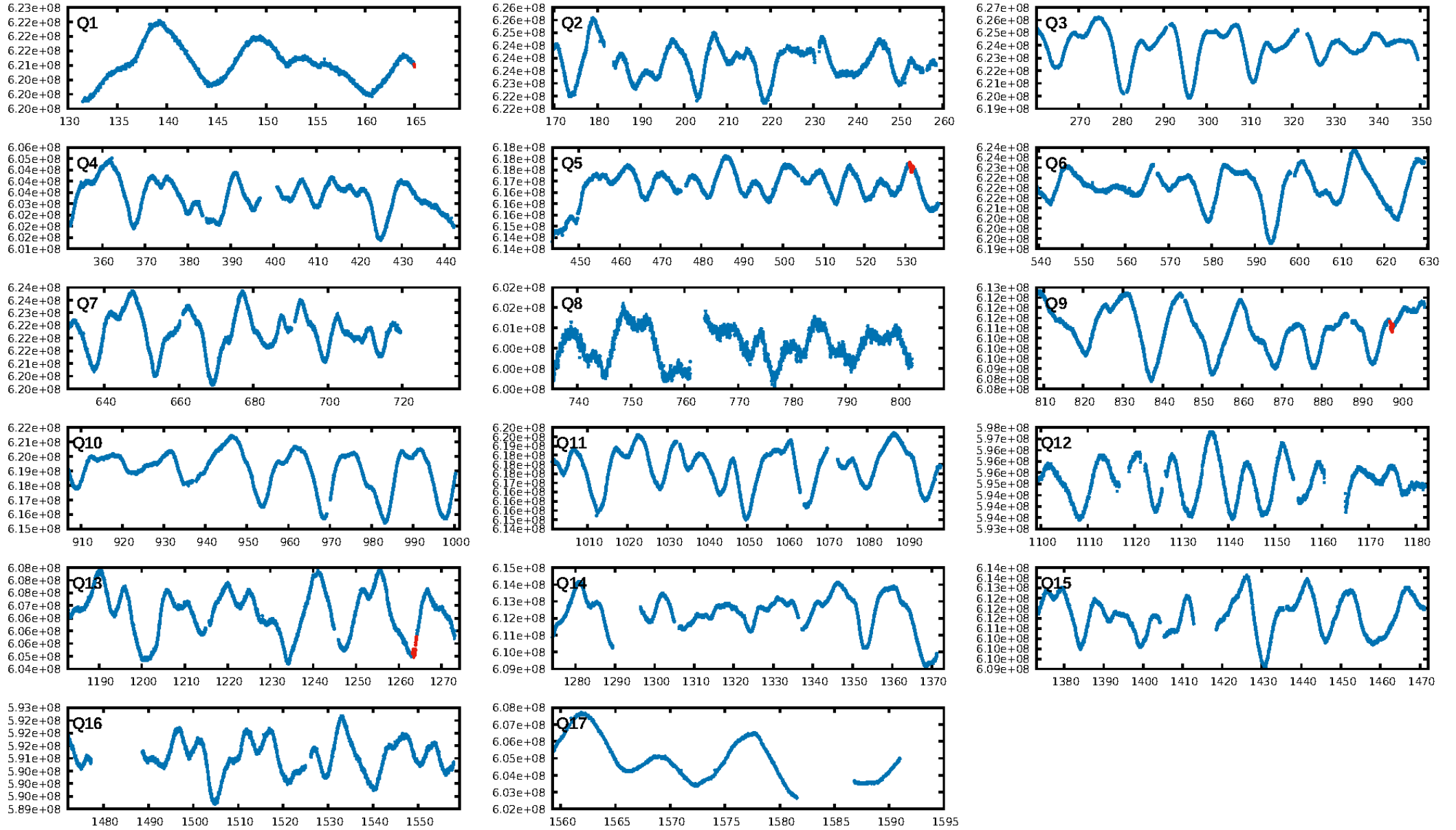
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 49.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.19e-34
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -46.34
Centroid-sig: 15.9%
Centroid-so: 0.407 arcsec [1.32σ]
OotOffset-rm: 0.655 arcsec [1.46σ]
KicOffset-rm: 0.492 arcsec [1.07σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

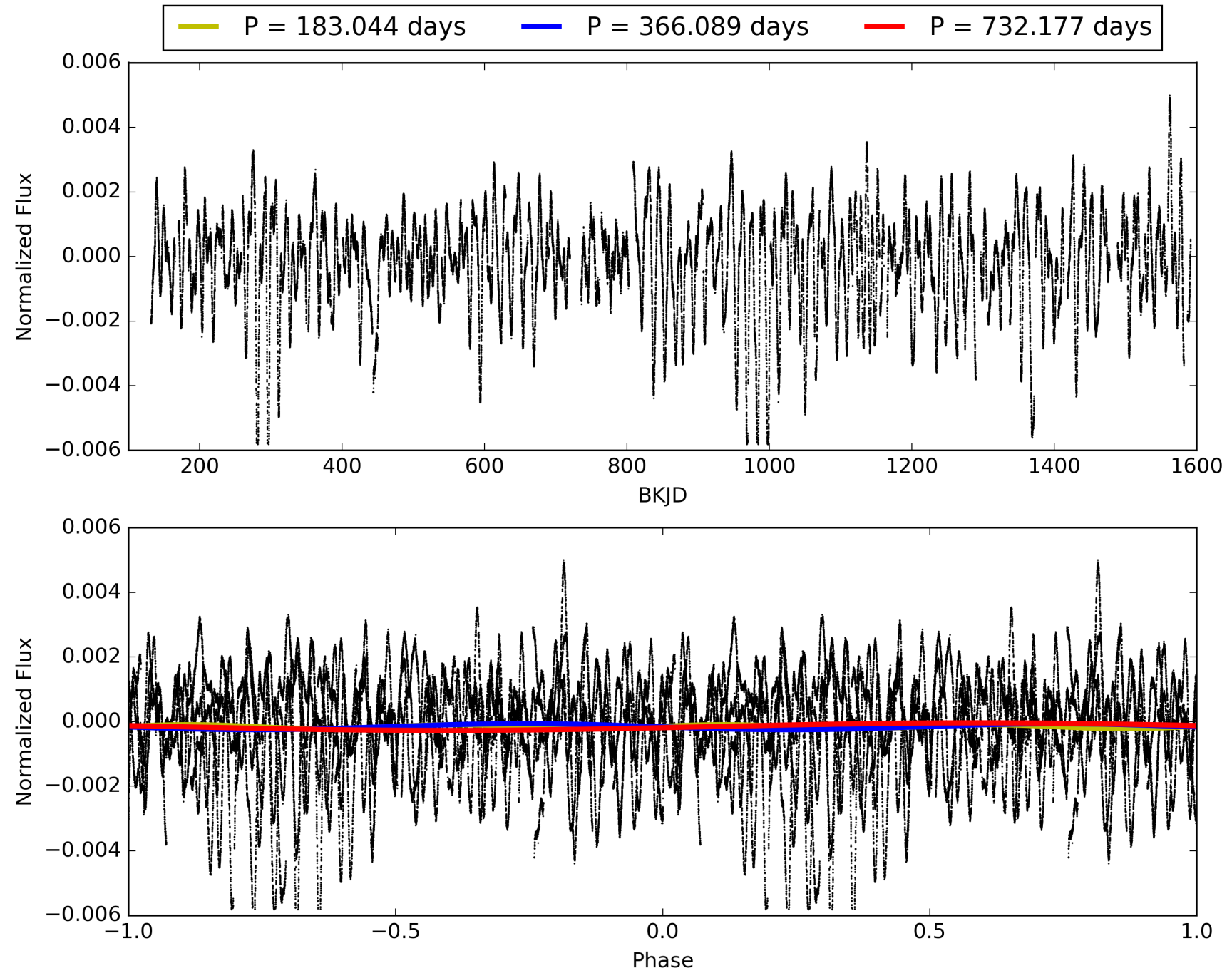
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:35:35 Z

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

TCE 008096395-01, PDC Light Curves

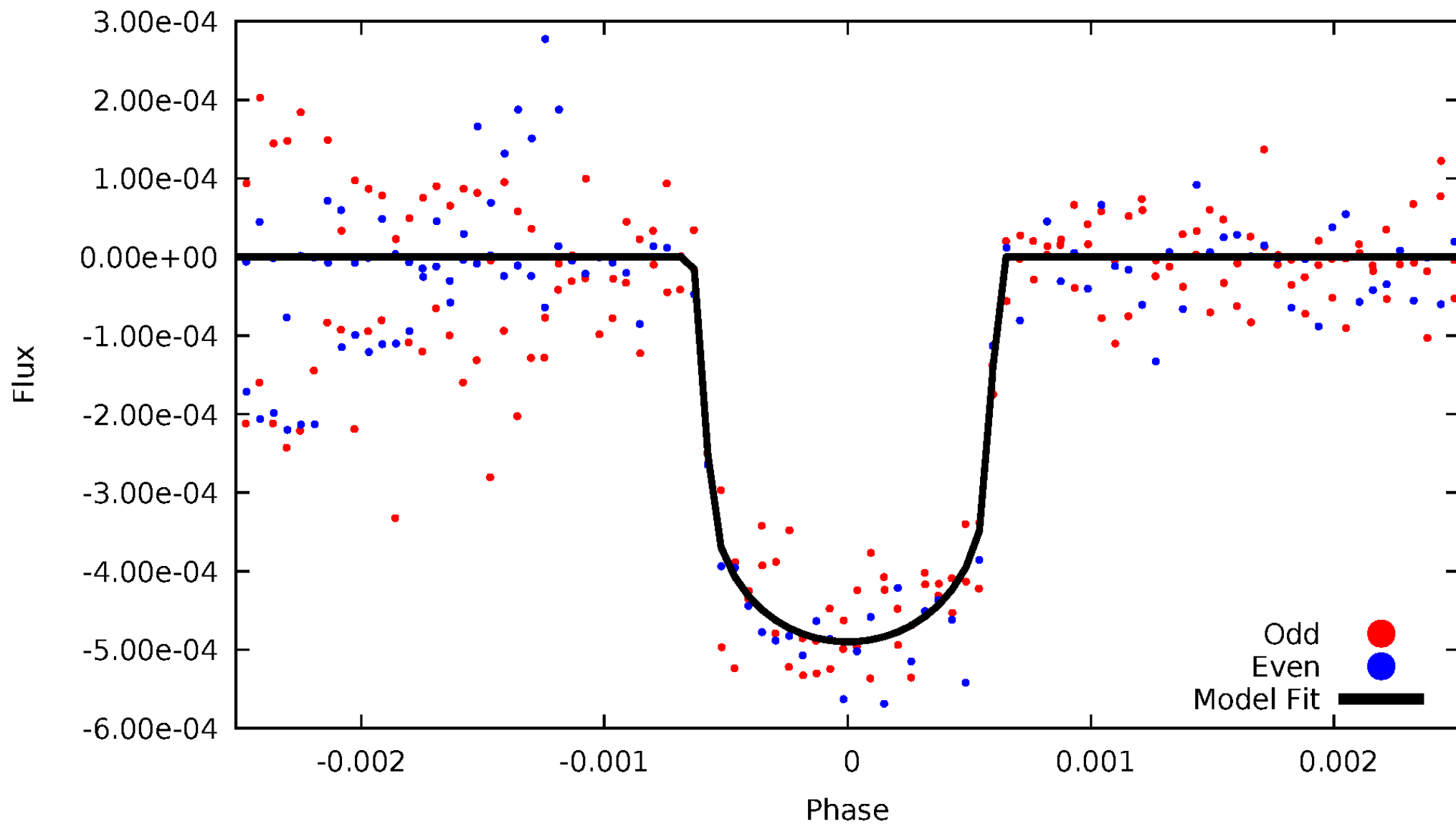


TCE 008096395-01



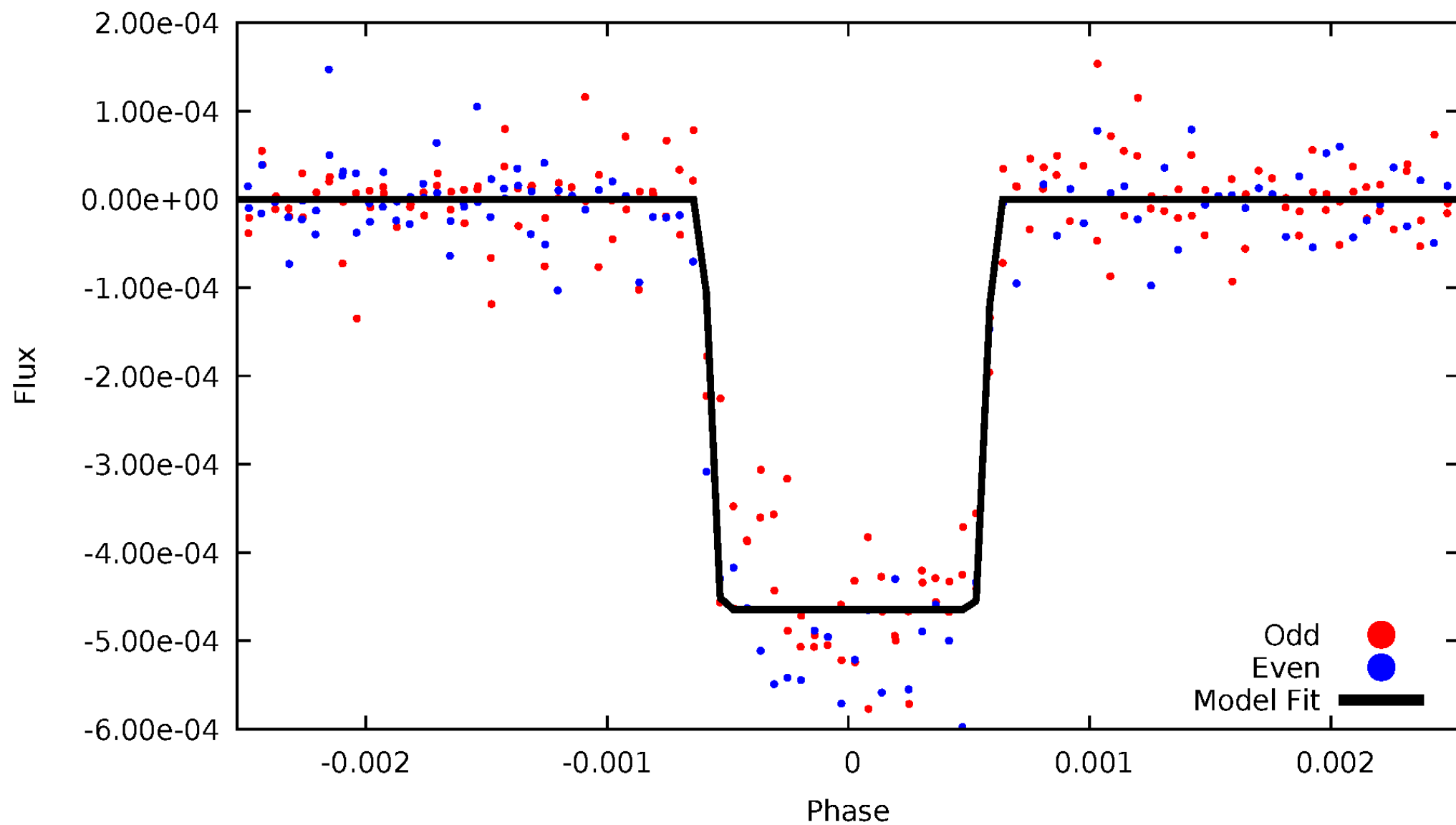
DV Odd/Even

TCE 008096395-01



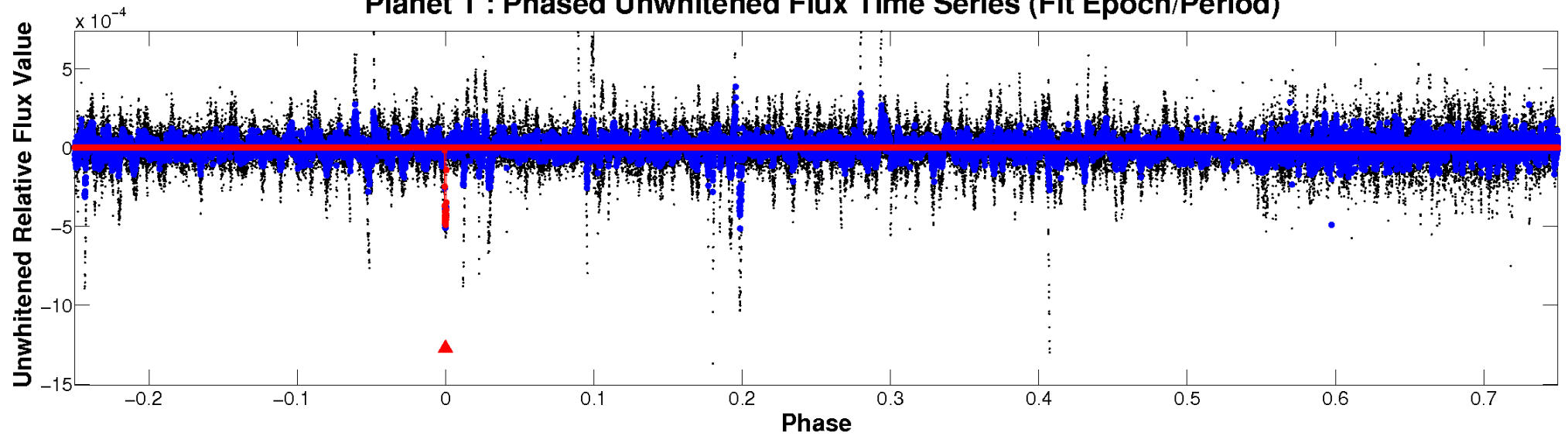
ALT Odd/Even

TCE 008096395-01

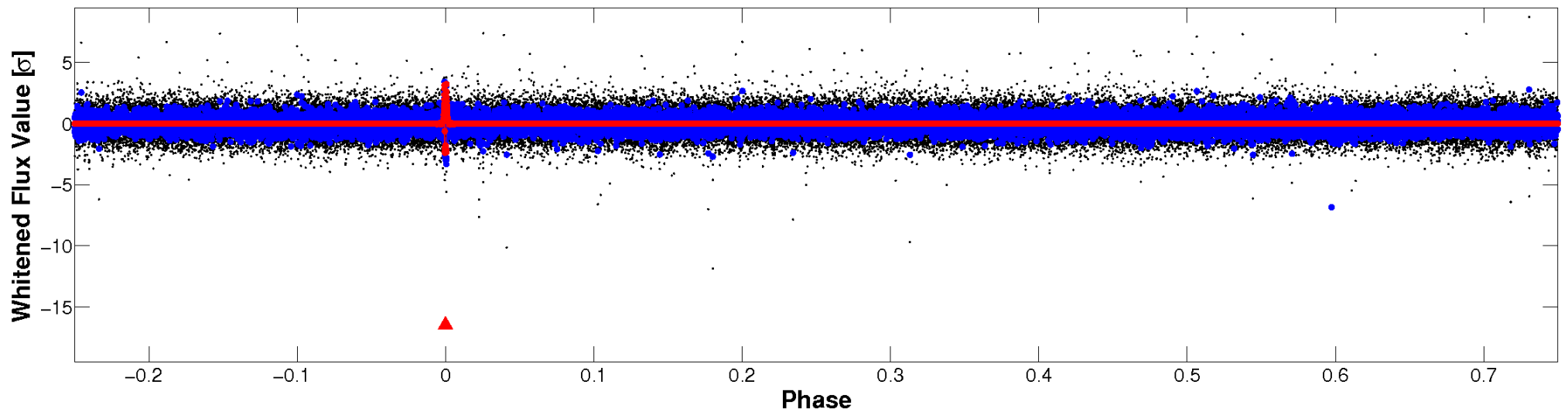


Non-Whitened Vs. Whitened Light Curve

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

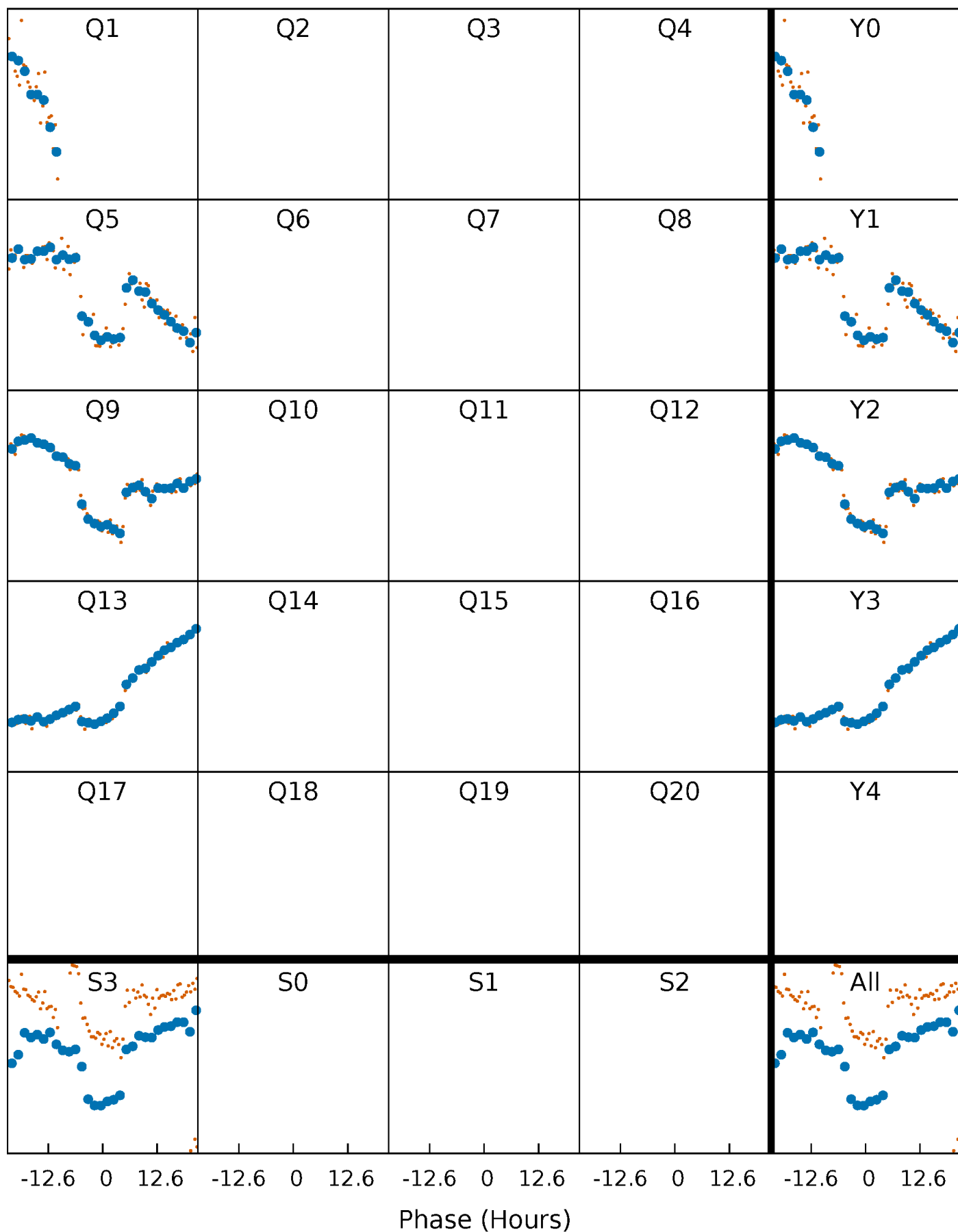


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



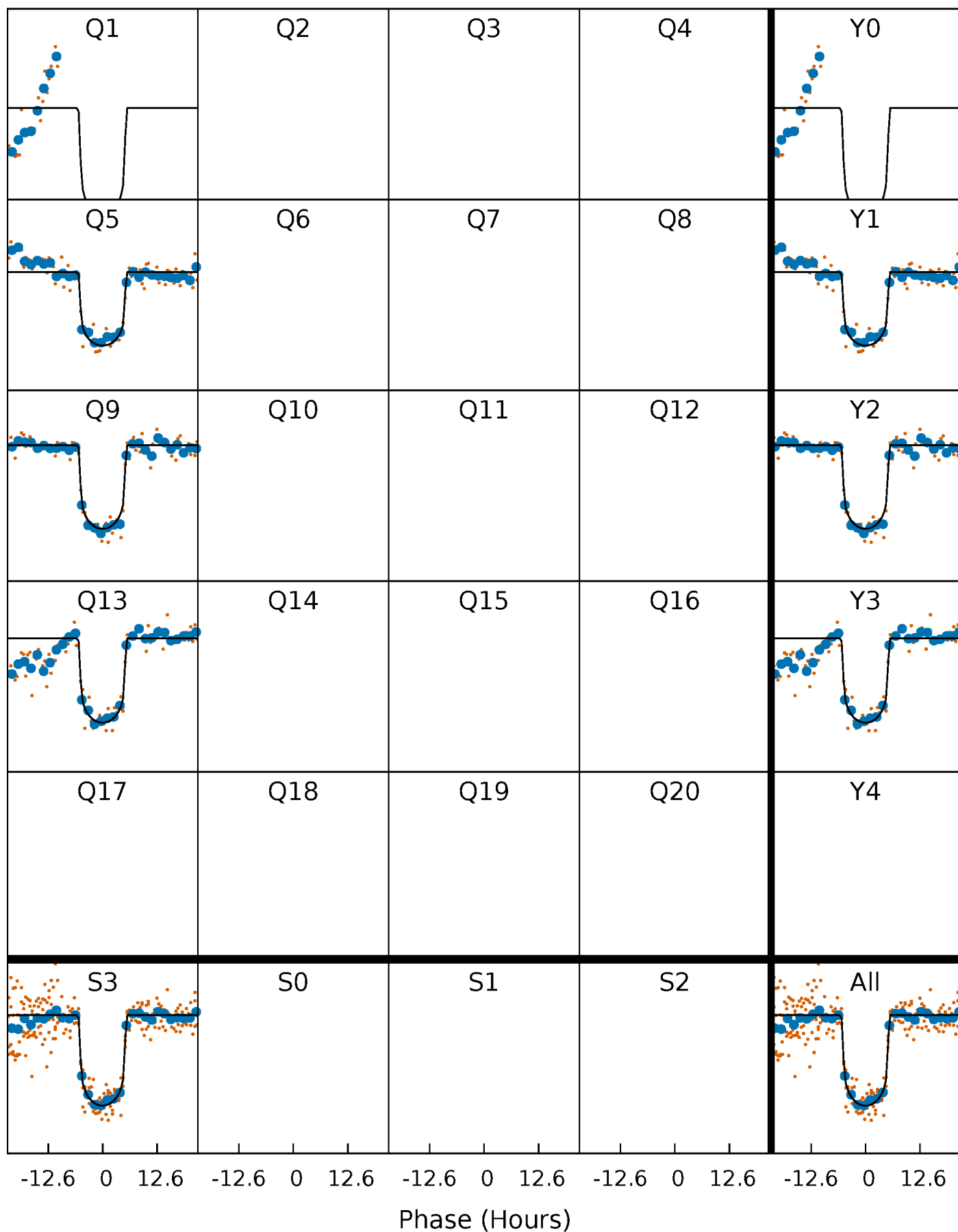
PDC Quarter-Phased Transit Curves

TCE 008096395-01 P=366.088591 Days $T_0=165.418527$ (BKJD)



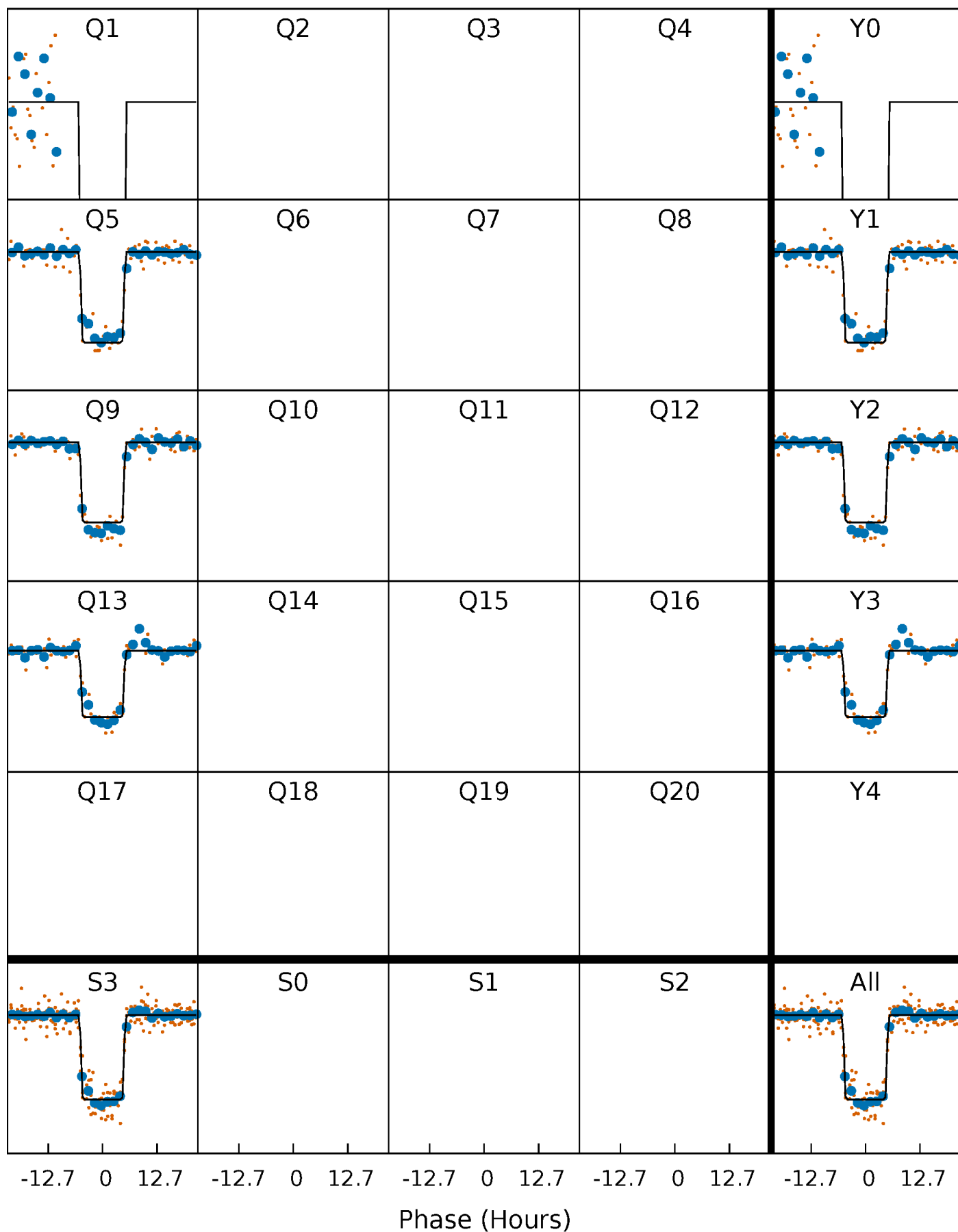
DV Quarter-Phased Transit Curves

TCE 008096395-01 $P=366.088591$ Days $T_0=165.418527$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

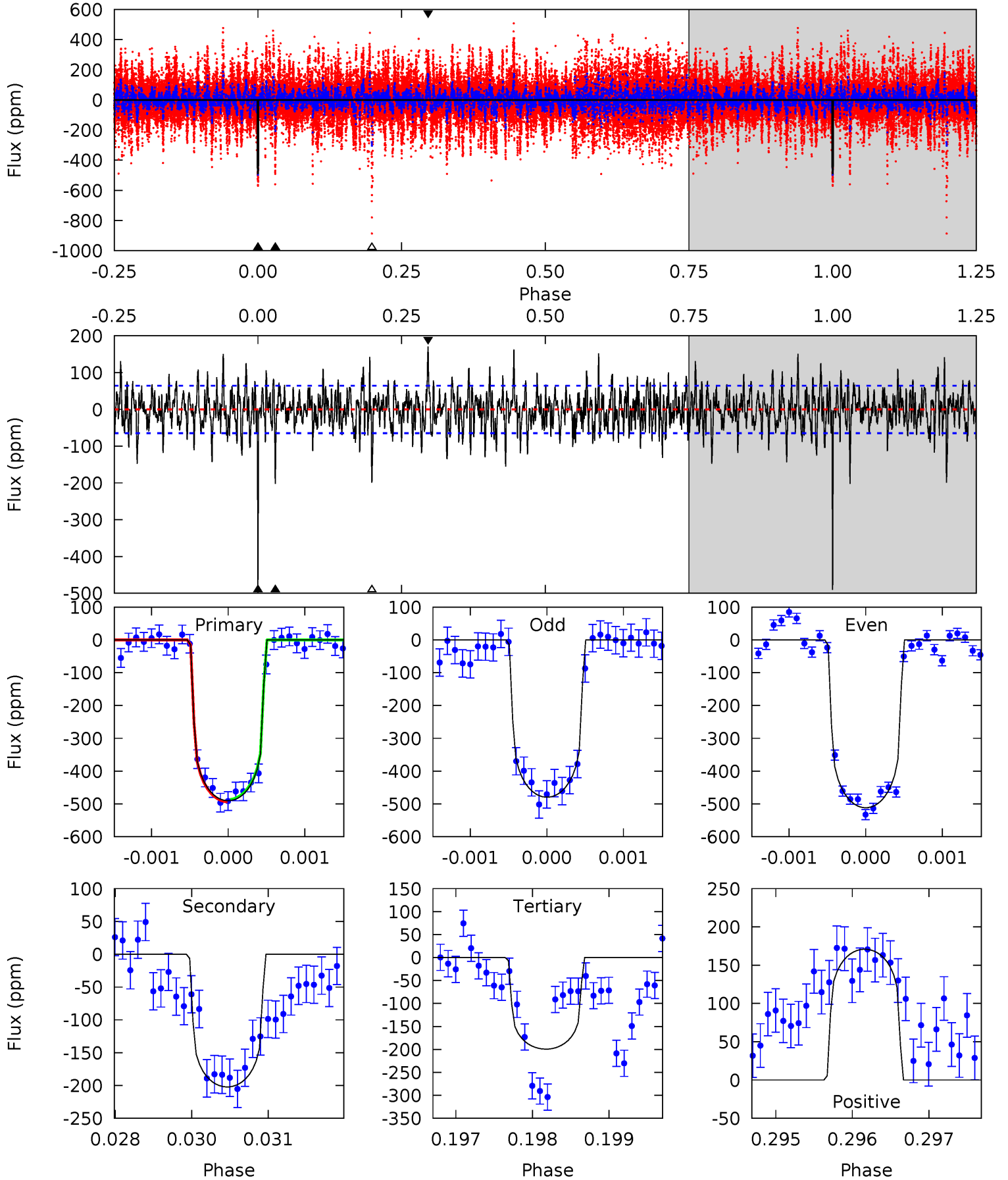
TCE 008096395-01 P=366.087661 Days $T_0=165.424533$ (BKJD)



DV Model-Shift Uniqueness Test

008096395-01, P = 366.088591 Days, E = 165.418527 Days

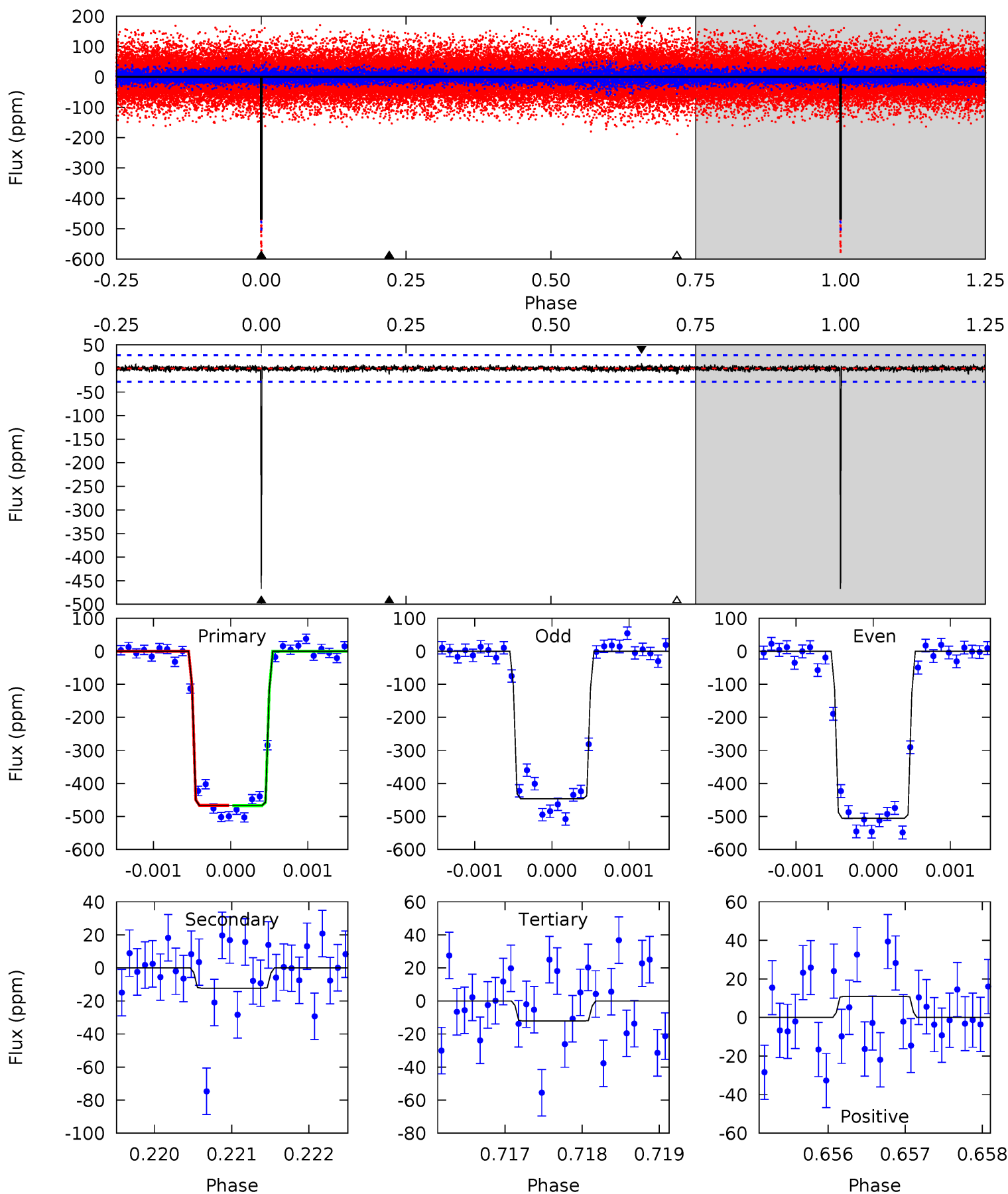
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.1	16.9	16.7	14.3	5.41	3.22	3.69	24.4	26.8	0.23	2.63	1.15	1.01	0.26	0.30



Alt Model-Shift Uniqueness Test

008096395-01, P = 366.087661 Days, E = 165.424533 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
89.4	2.35	2.32	2.10	5.42	3.24	0.45	87.1	87.3	0.03	0.25	5.39	1.02	0.02	0.08



Stellar Parameters For KIC 008096395

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5941^{+187}_{-208}	$4.464^{+0.070}_{-0.196}$	$-0.240^{+0.300}_{-0.300}$	$0.945^{+0.286}_{-0.114}$	$0.948^{+0.131}_{-0.107}$	$1.584^{+0.553}_{-0.792}$
	+3%/-4%	+2%/-4%	+125%/-125%	+30%/-12%	+14%/-11%	+35%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008096395-01 / KOI 7587.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-202 ± 12	$2.37^{+0.42}_{-0.29}$	365^{+28}_{-19}	4856^{+232}_{-211}	18710^{+5629}_{-4880}
Alt.	-12 ± 5	$2.29^{+0.36}_{-0.25}$	365^{+27}_{-19}	3037^{+208}_{-240}	1215^{+661}_{-574}

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

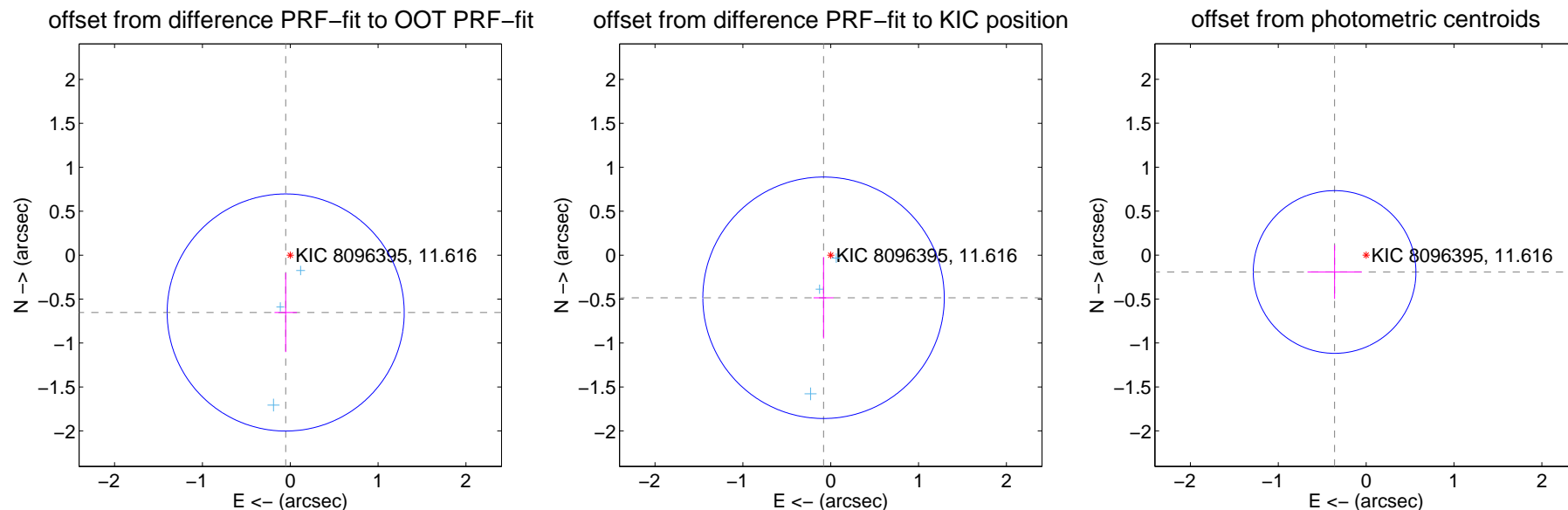
DV Centroid Data

Supplemental centroid analysis for 008096395-01. **Kepler magnitude: 11.62.** Transit SNR 21.07

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.655 ± 0.450	1.46	0.052 ± 0.128	-0.653 ± 0.451
PRF-fit source offset from KIC position	0.492 ± 0.458	1.07	0.081 ± 0.113	-0.485 ± 0.464
photometric centroid source offset	0.41 ± 0.31	1.32	0.36 ± 0.31	-0.19 ± 0.31

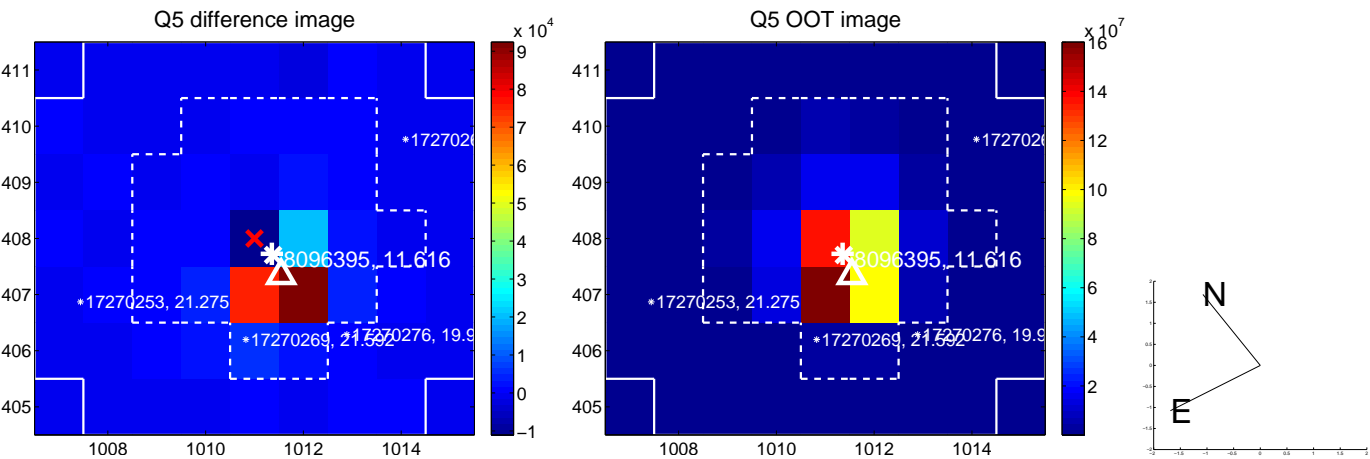


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

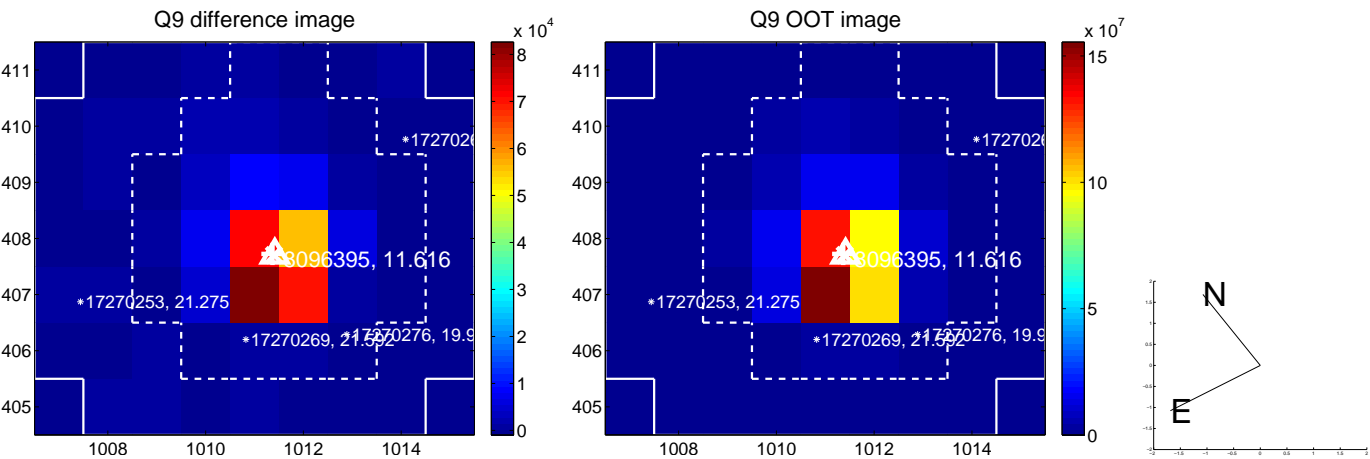
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



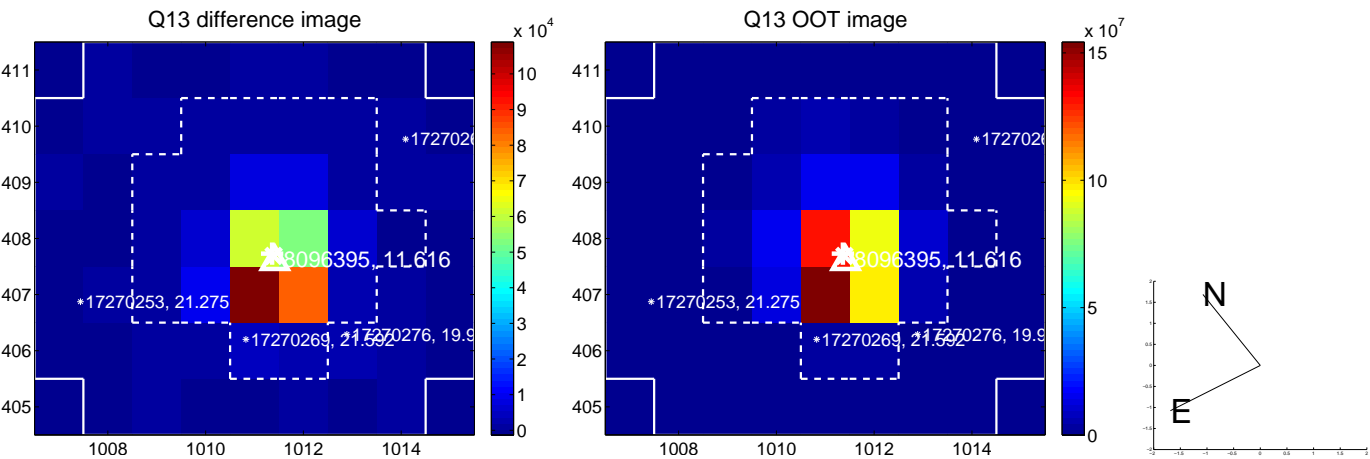
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



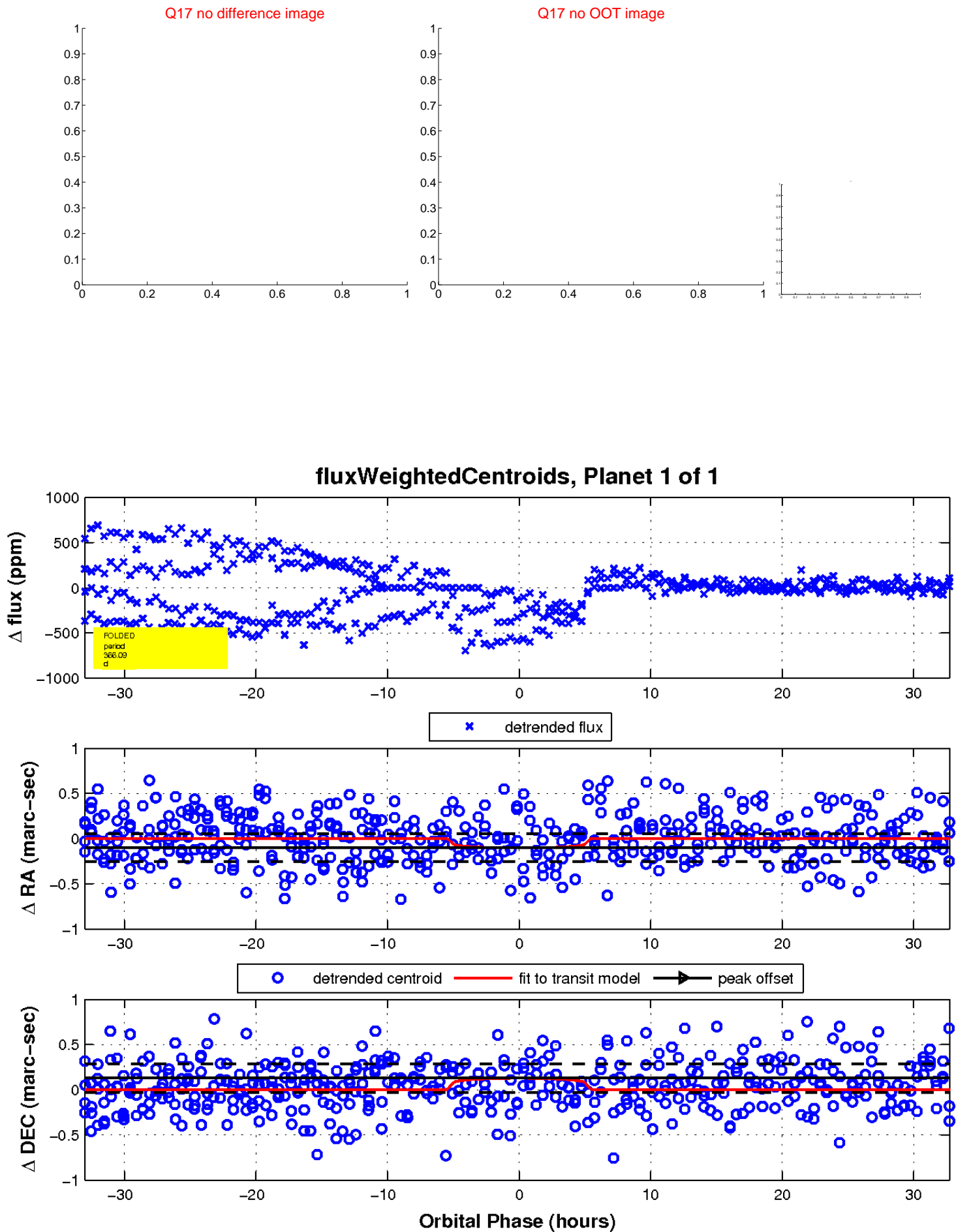
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

