

KIC 012600972

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})
012600972-01	OBS	No	474.989967	282.012734	564.5	15.643	7.9	8.0	0.95	6075	3.03	0.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012600972-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--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.

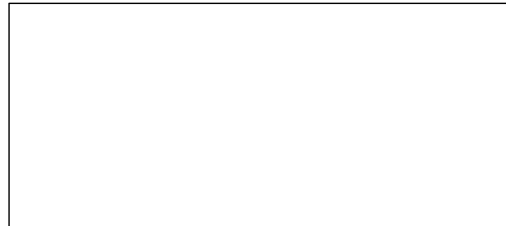
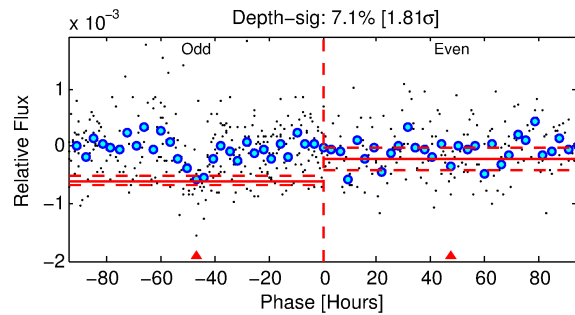
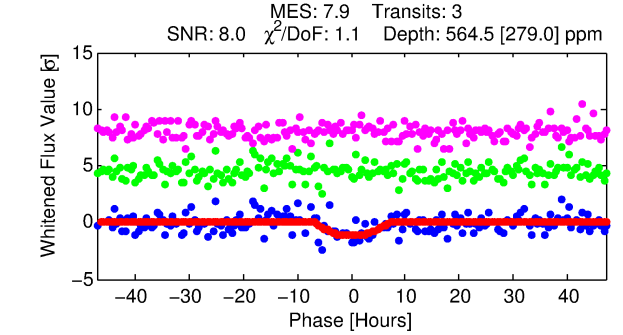
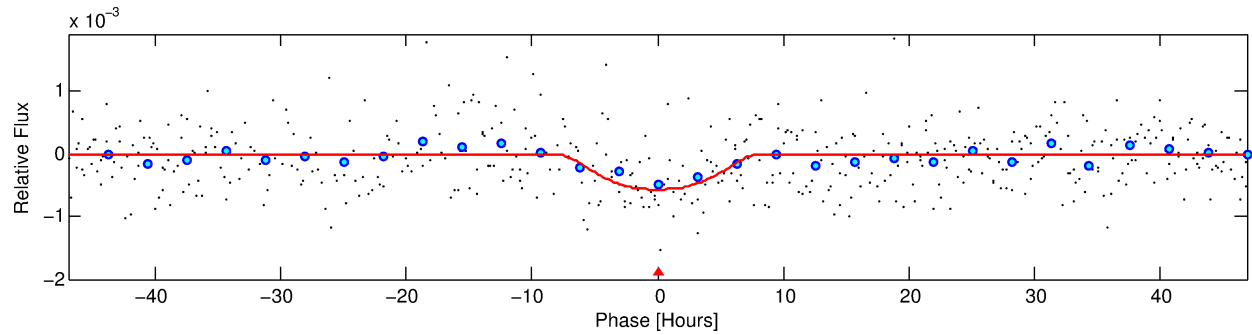
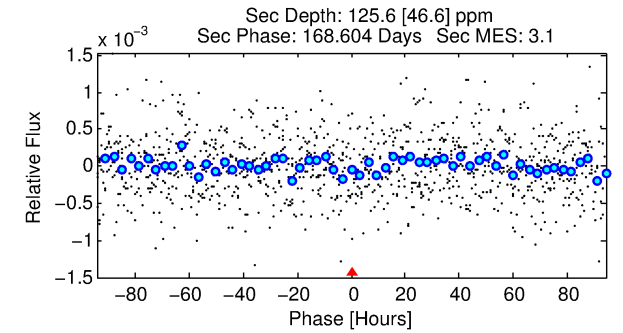
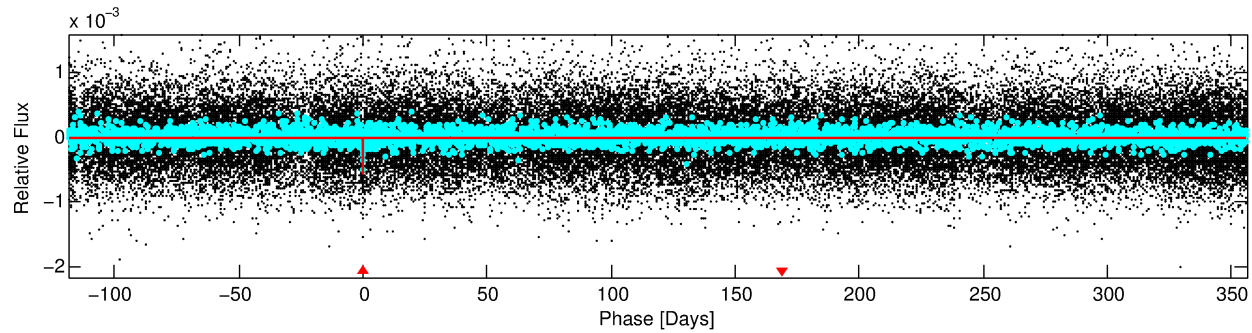
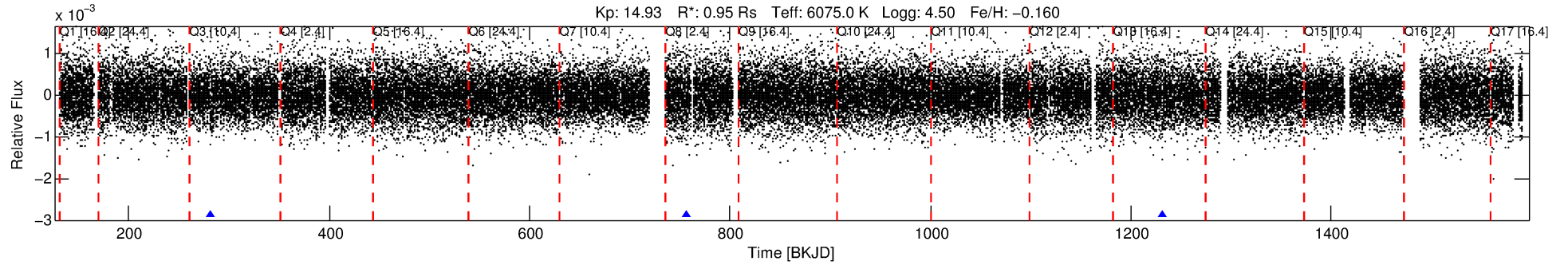
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012600972-01

No Significant Match Found

DV One-Page Summary

KIC: 12600972 Candidate: 1 of 1 Period: 474.990 d



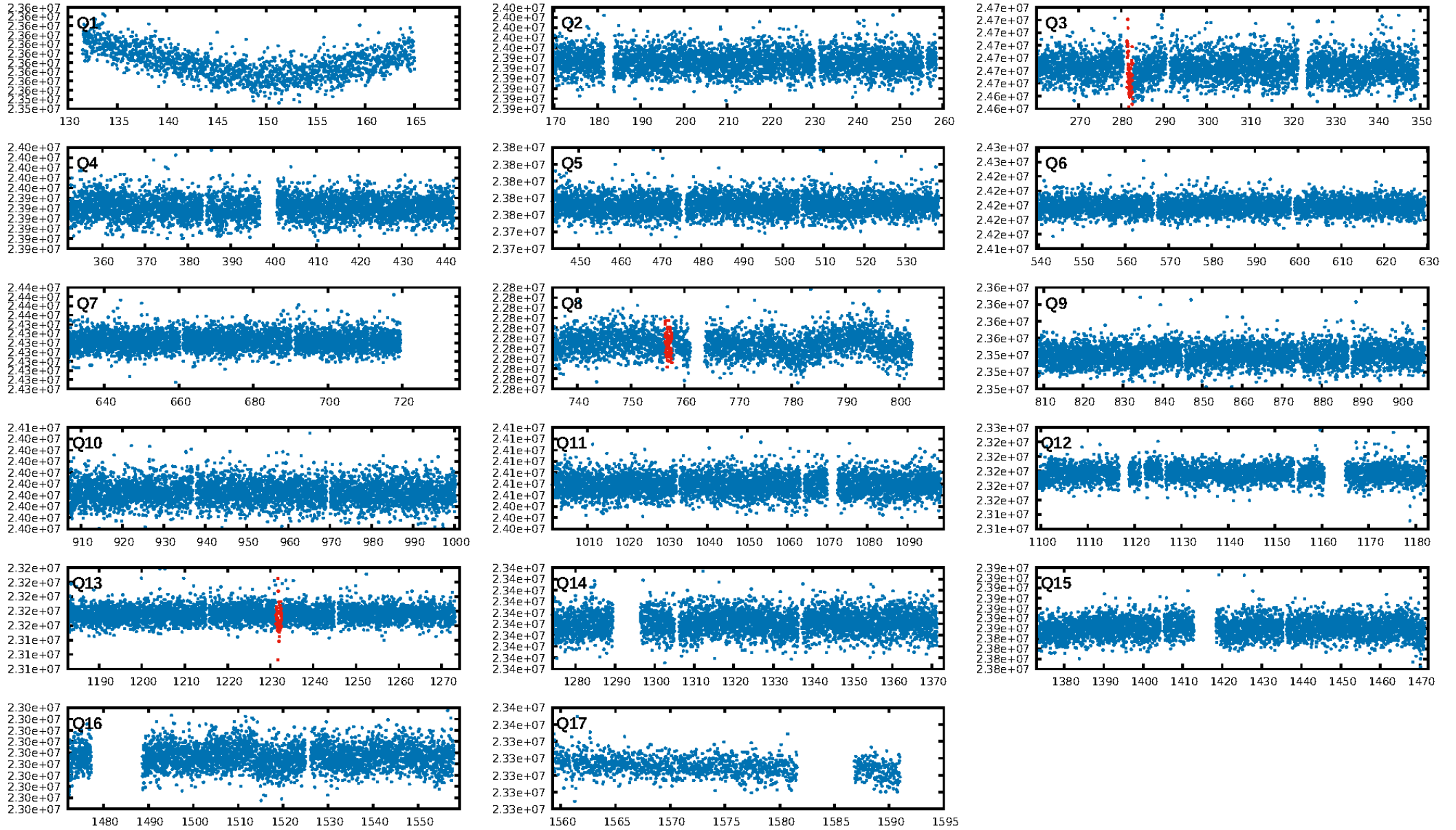
DV Fit Results:

Period = 474.98997 [0.03434] d
Epoch = 282.0127 [0.0401] BKJD
Rp/R* = 0.0292 [0.0140]
a/R* = 77.44 [35.28]
b = 0.97 [0.05]
Seff = 0.76 [0.29]
Teq = 238 [23] K
Rp = 3.03 [1.70] Re
a = 1.2048 [0.2980] AU
Ag = 10925.73 [11912.14] [0.92σ]
Teffp = 3766 [975] K [3.62σ]

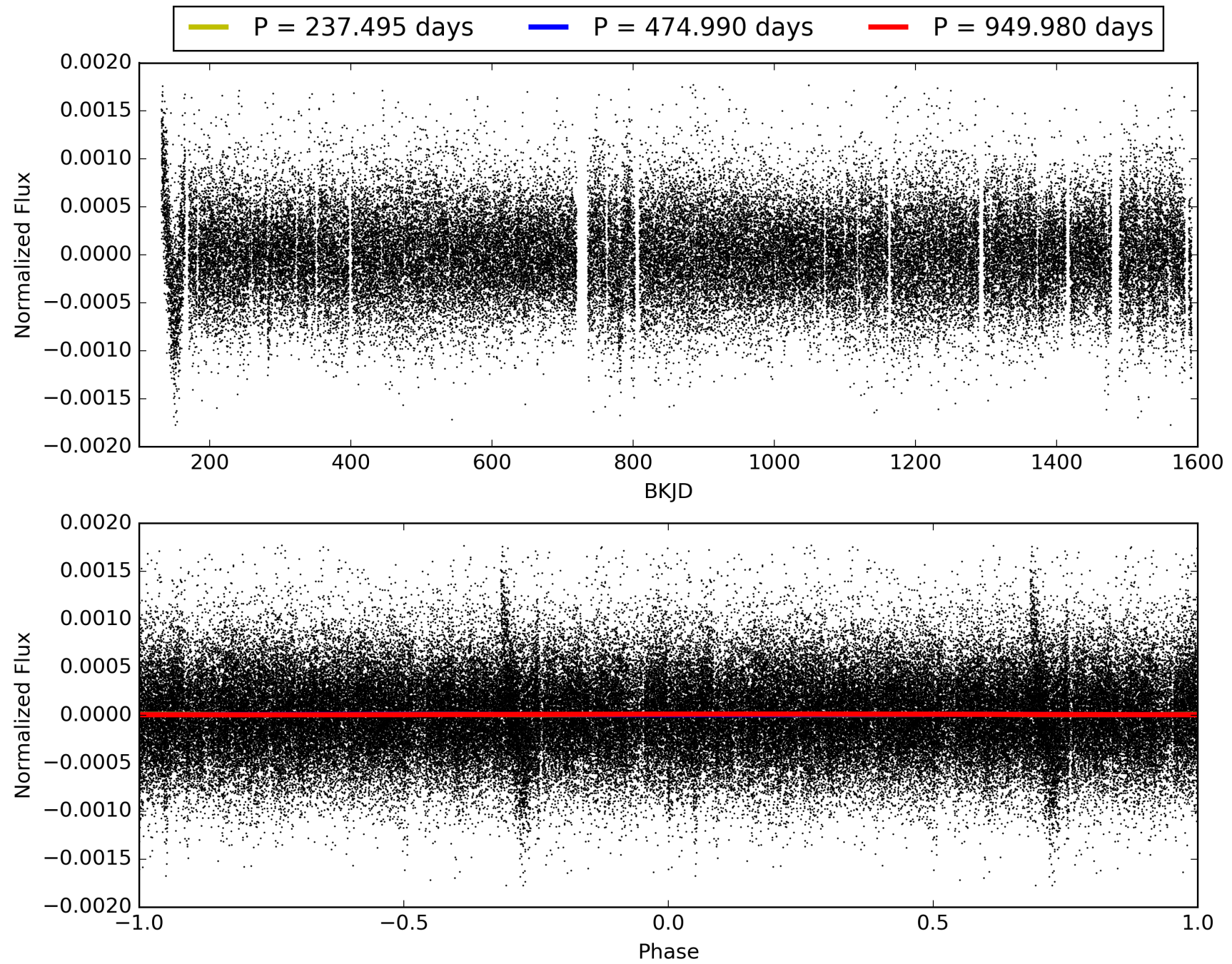
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.72e-17
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.8
Centroid-sig: 1.4%
Centroid-so: 1.731 arcsec [1.06σ]
OotOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-rm: N/A
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [1/1]

TCE 012600972-01, PDC Light Curves

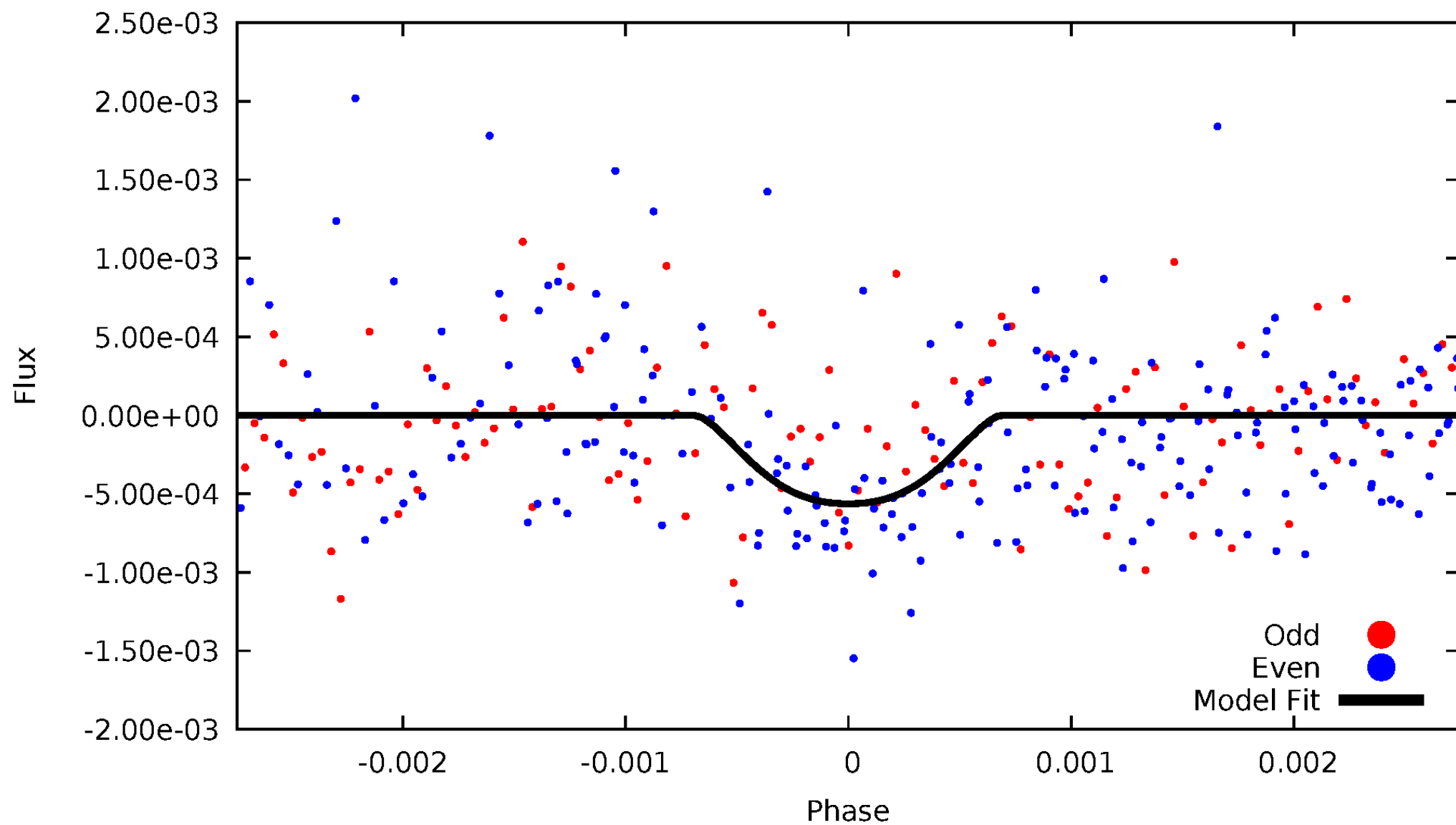


TCE 012600972-01



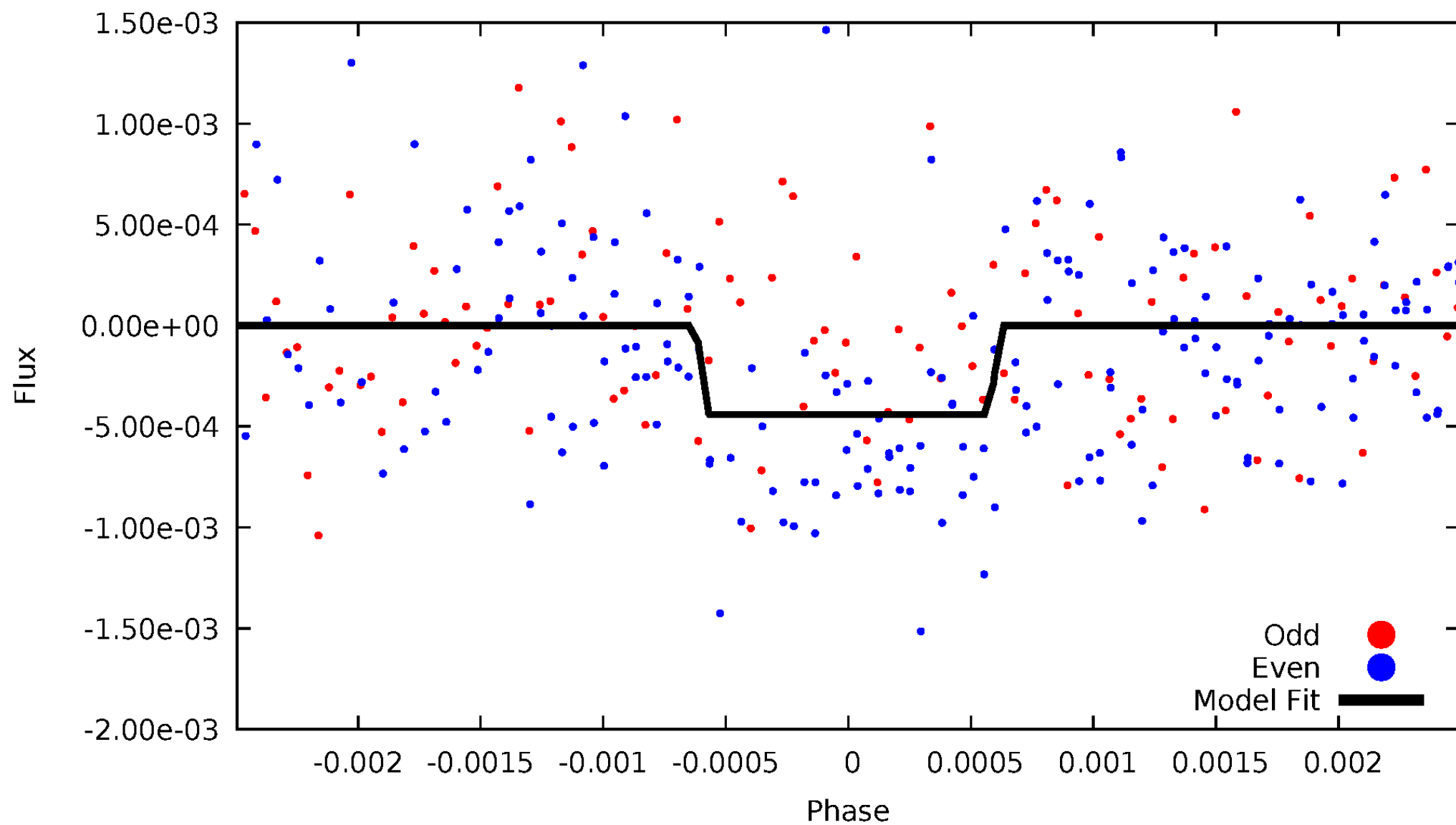
DV Odd/Even

TCE 012600972-01

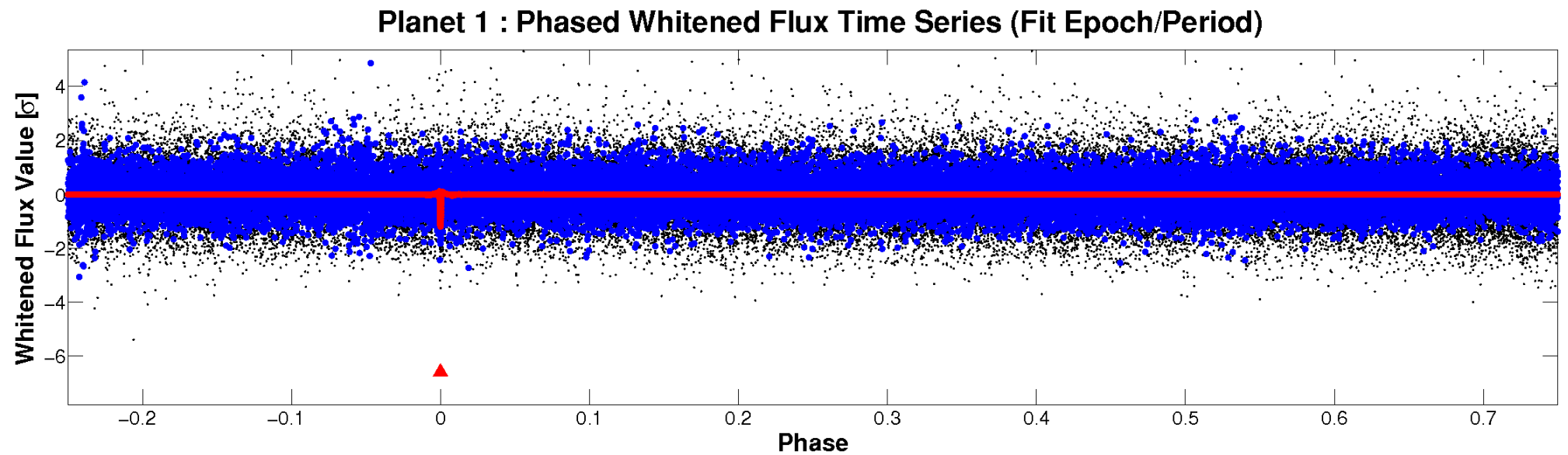
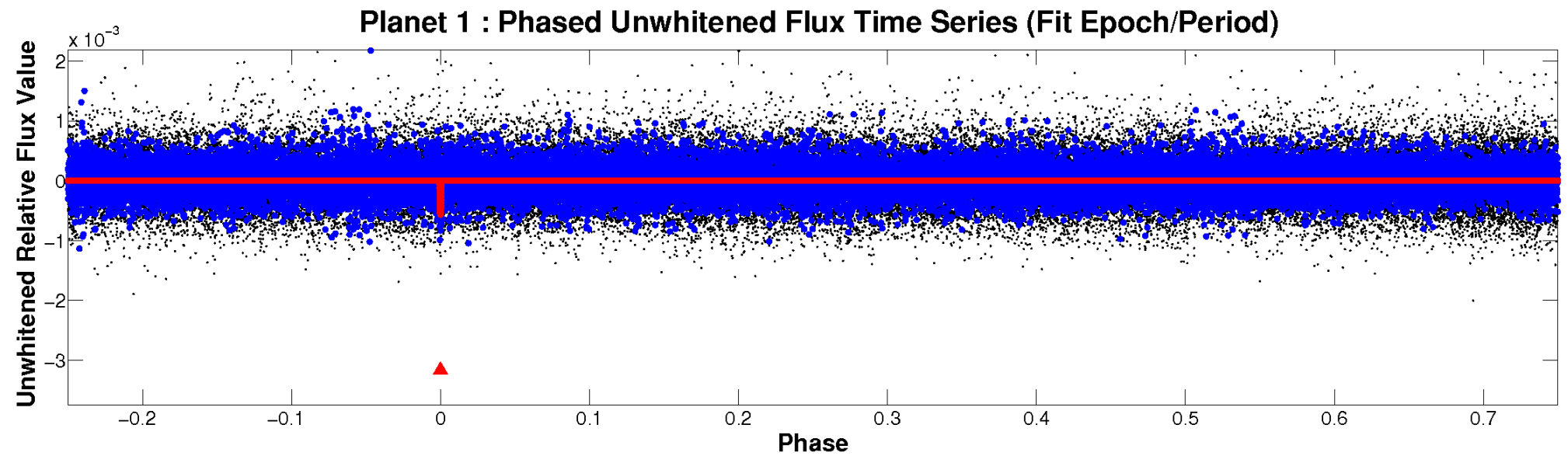


ALT Odd/Even

TCE 012600972-01



Non-Whitened Vs. Whitened Light Curve



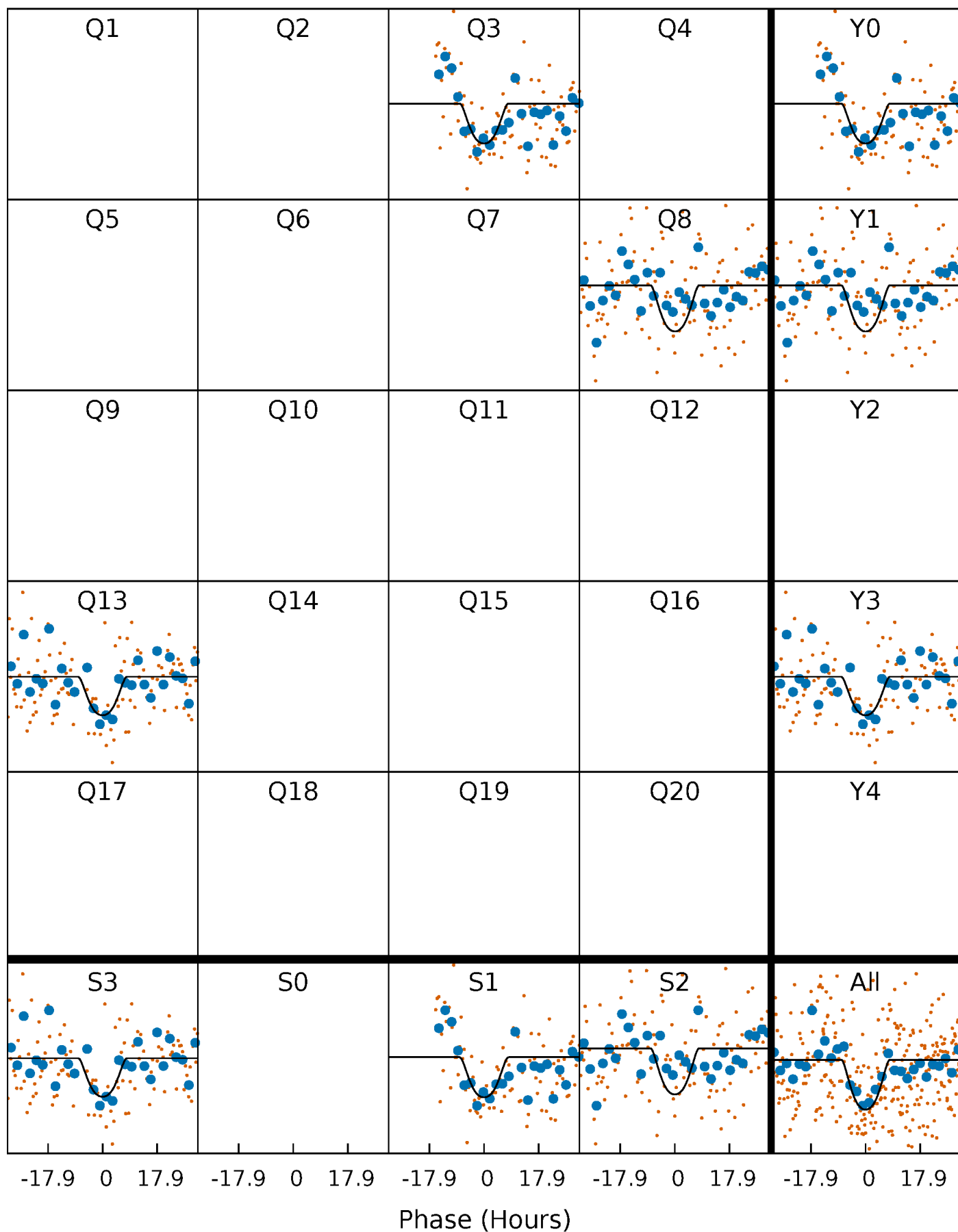
PDC Quarter-Phased Transit Curves

TCE 012600972-01 P=474.989967 Days $T_0=282.012734$ (BKJD)



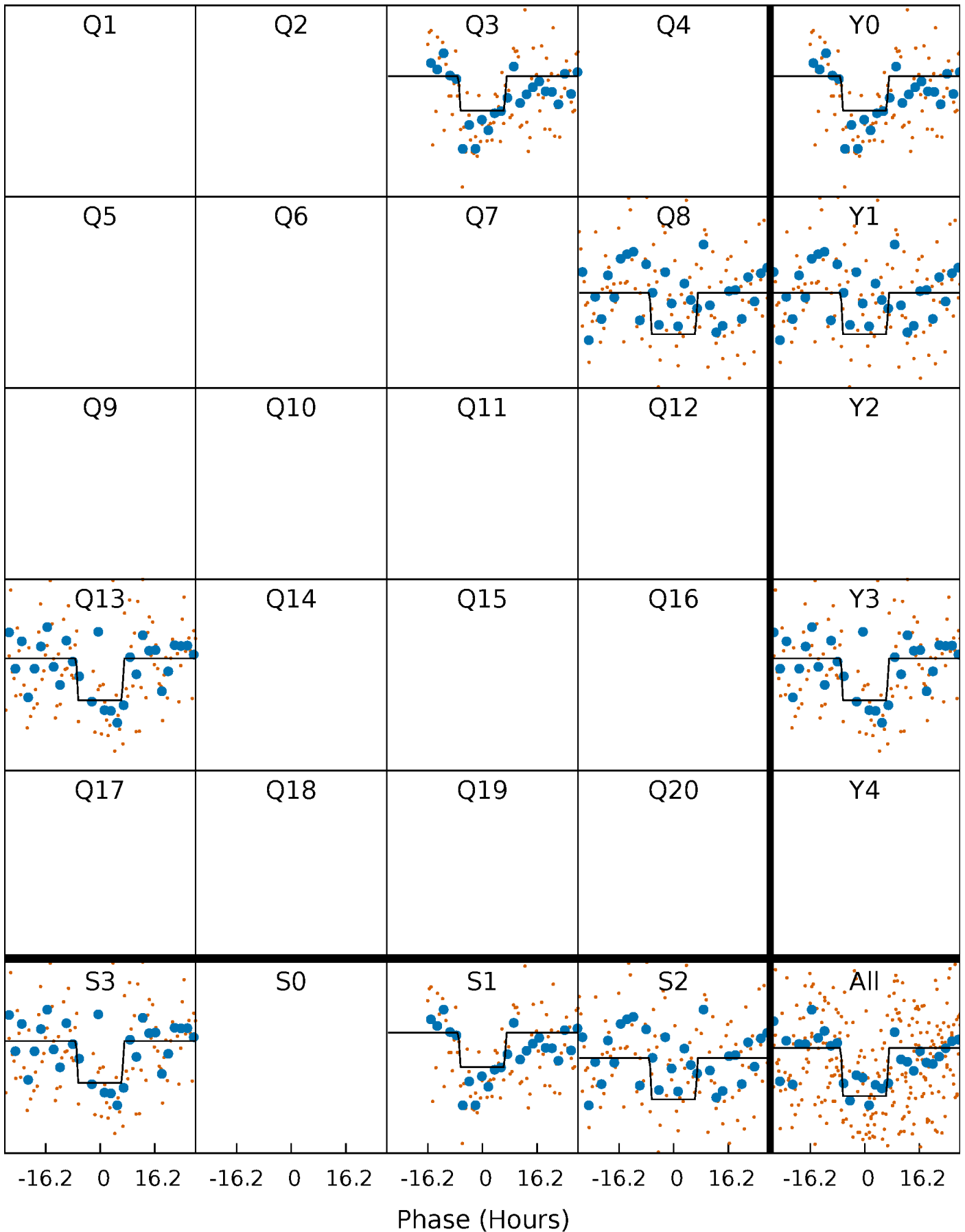
DV Quarter-Phased Transit Curves

TCE 012600972-01 $P=474.989967$ Days $T_0=282.012734$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

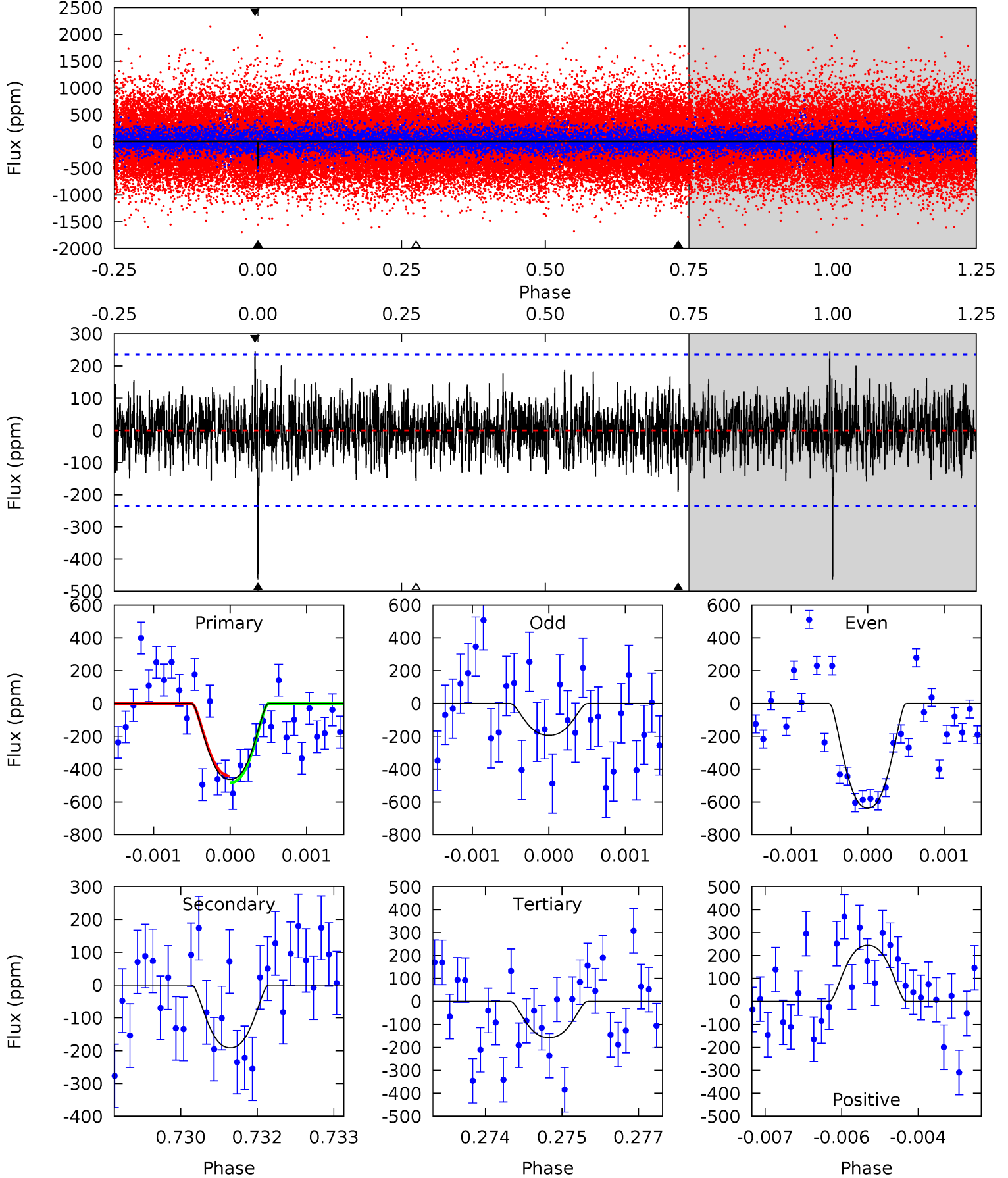
TCE 012600972-01 $P=474.916802$ Days $T_0=282.029722$ (BKJD)



DV Model-Shift Uniqueness Test

012600972-01, P = 474.989967 Days, E = 282.012734 Days

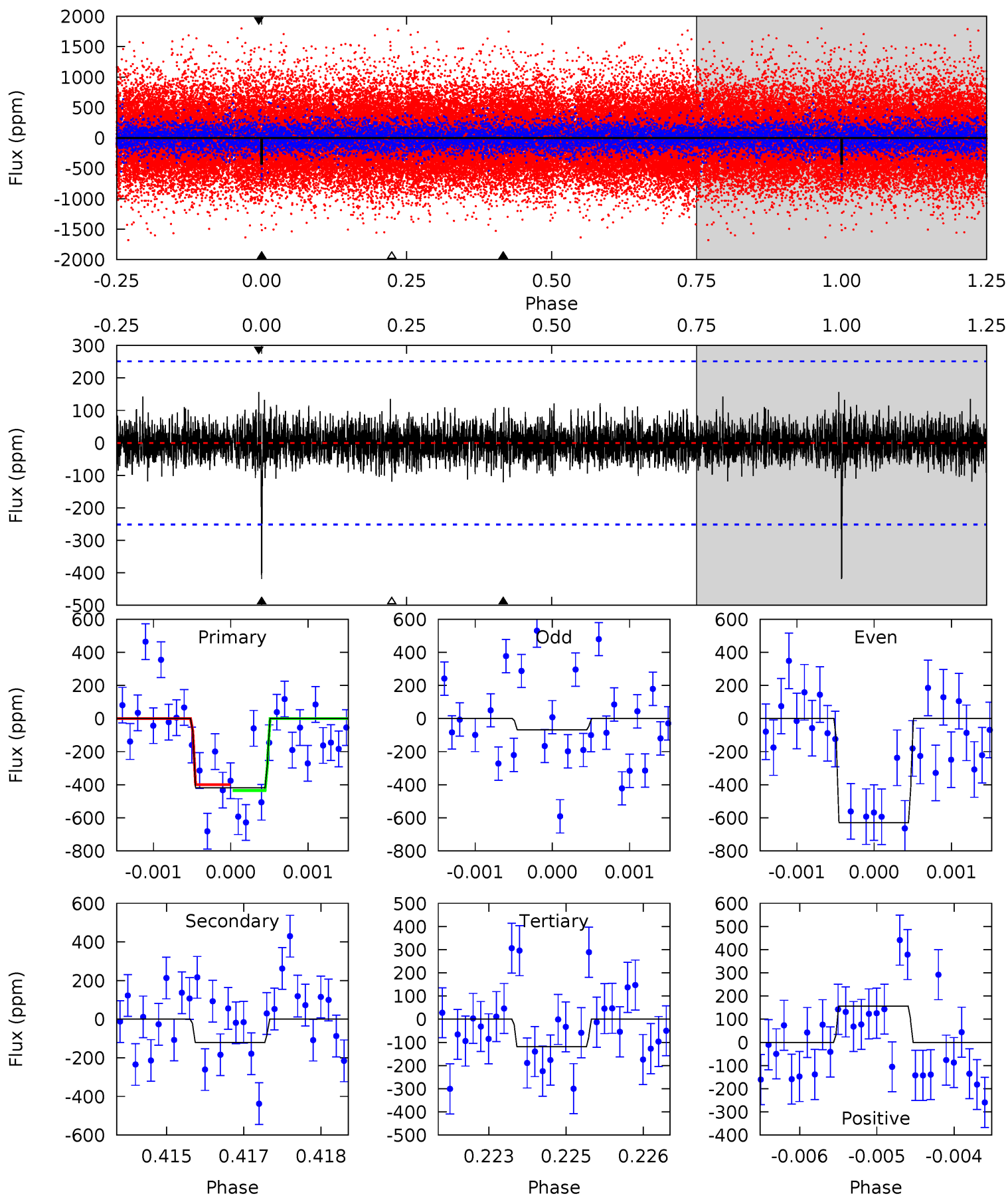
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	4.40	3.61	5.62	5.39	3.20	1.34	7.02	5.01	0.78	-1.22	4.86	0.82	0.35	0.47



Alt Model-Shift Uniqueness Test

012600972-01, P = 474.916802 Days, E = 282.029722 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.02	2.60	2.57	3.37	5.41	3.23	0.78	6.45	5.65	0.04	-0.77	5.78	0.83	0.27	0.38



Stellar Parameters For KIC 012600972

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6075^{+169}_{-190}	$4.495^{+0.050}_{-0.200}$	$-0.160^{+0.250}_{-0.350}$	$0.952^{+0.277}_{-0.092}$	$1.033^{+0.130}_{-0.143}$	$1.689^{+0.453}_{-0.864}$
	+3%/-3%	+1%/-4%	+156%/-219%	+29%/-10%	+13%/-14%	+27%/-51%
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 012600972-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-191 ± 44	$3.24^{+1.48}_{-1.47}$	340^{+23}_{-15}	4372^{+1272}_{-569}	14614^{+31744}_{-8065}
Alt.	-121 ± 46	$2.42^{+1.56}_{-1.42}$	341^{+23}_{-17}	4471^{+2290}_{-845}	15584^{+81774}_{-10684}

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

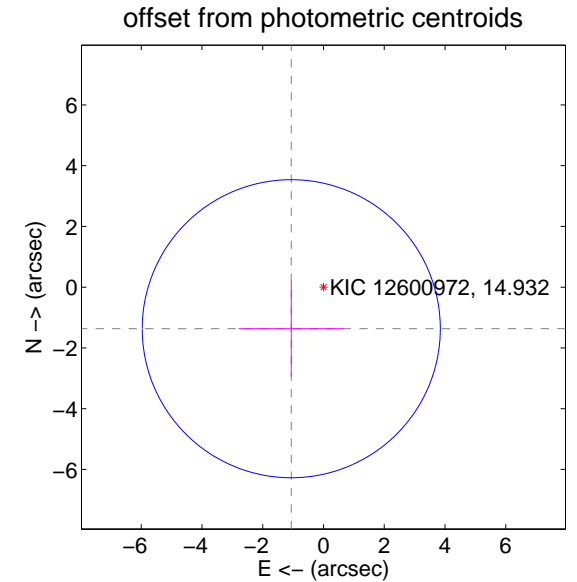
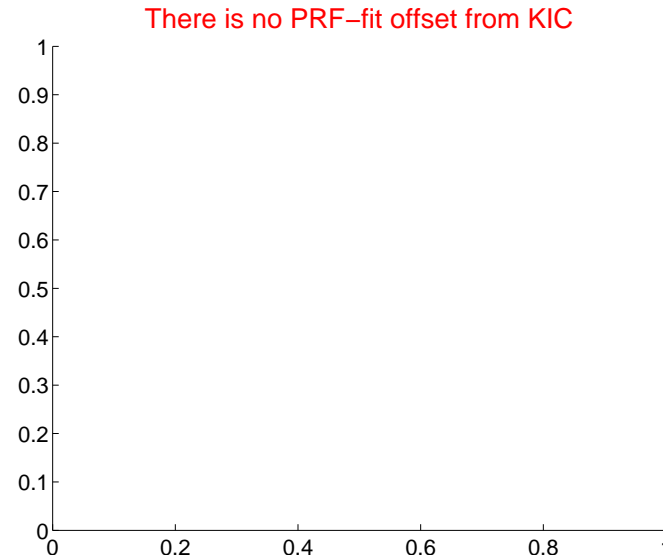
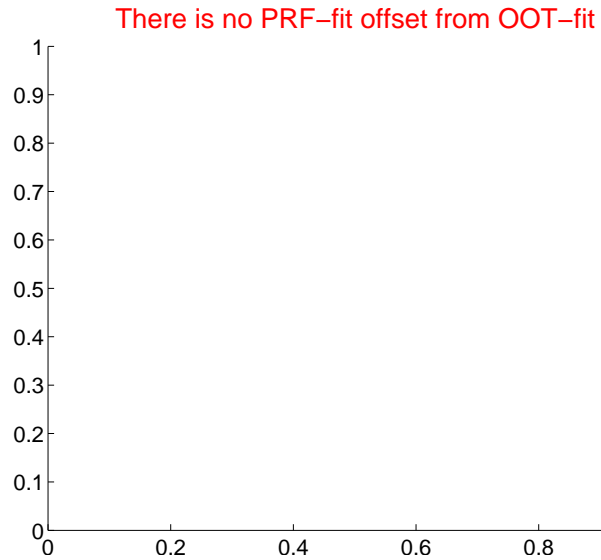
DV Centroid Data

Supplemental centroid analysis for 012600972-01. Kepler magnitude: 14.93. Transit SNR 7.98

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.73 ± 1.64	1.06	1.06 ± 1.73	-1.37 ± 1.58

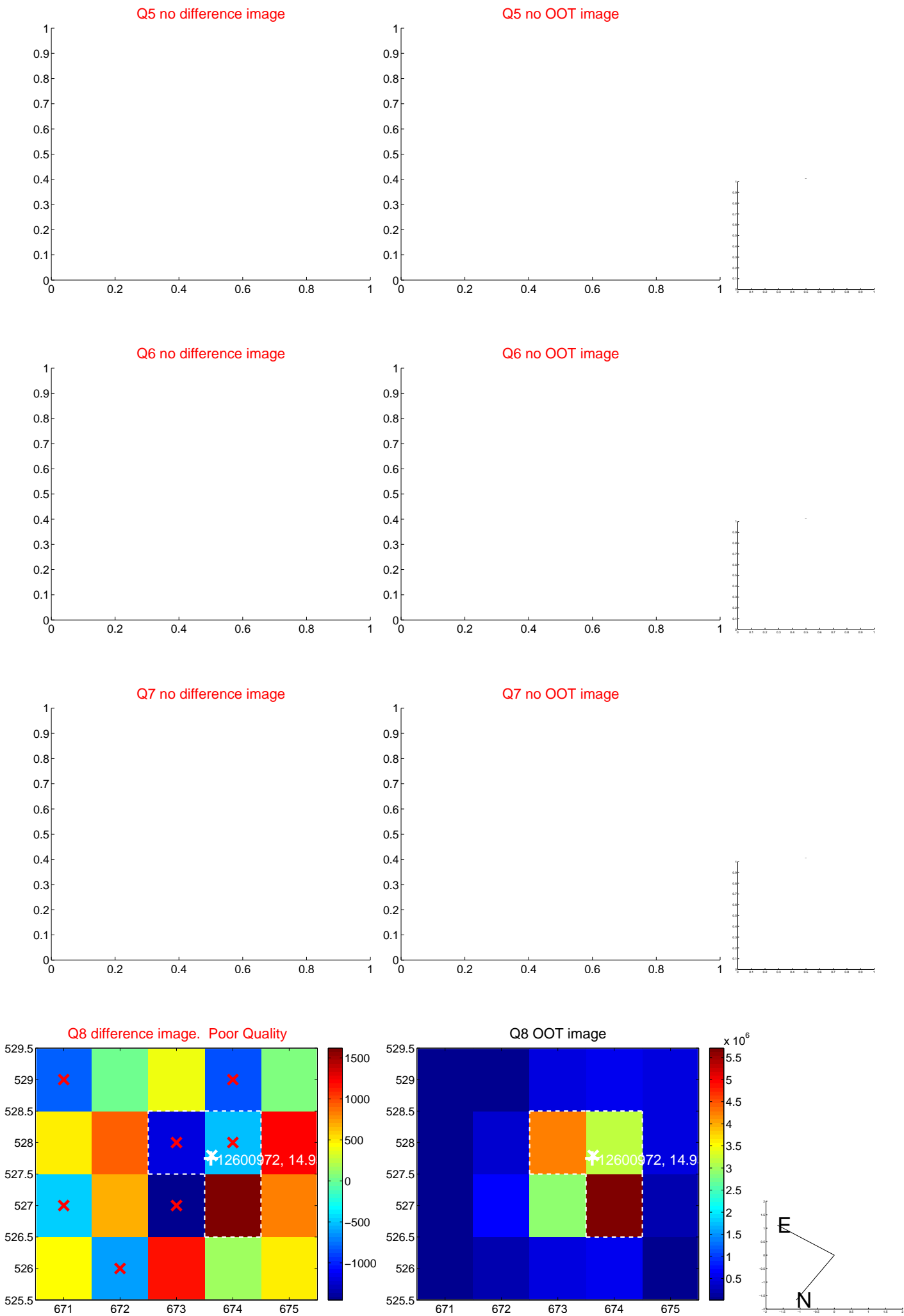


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



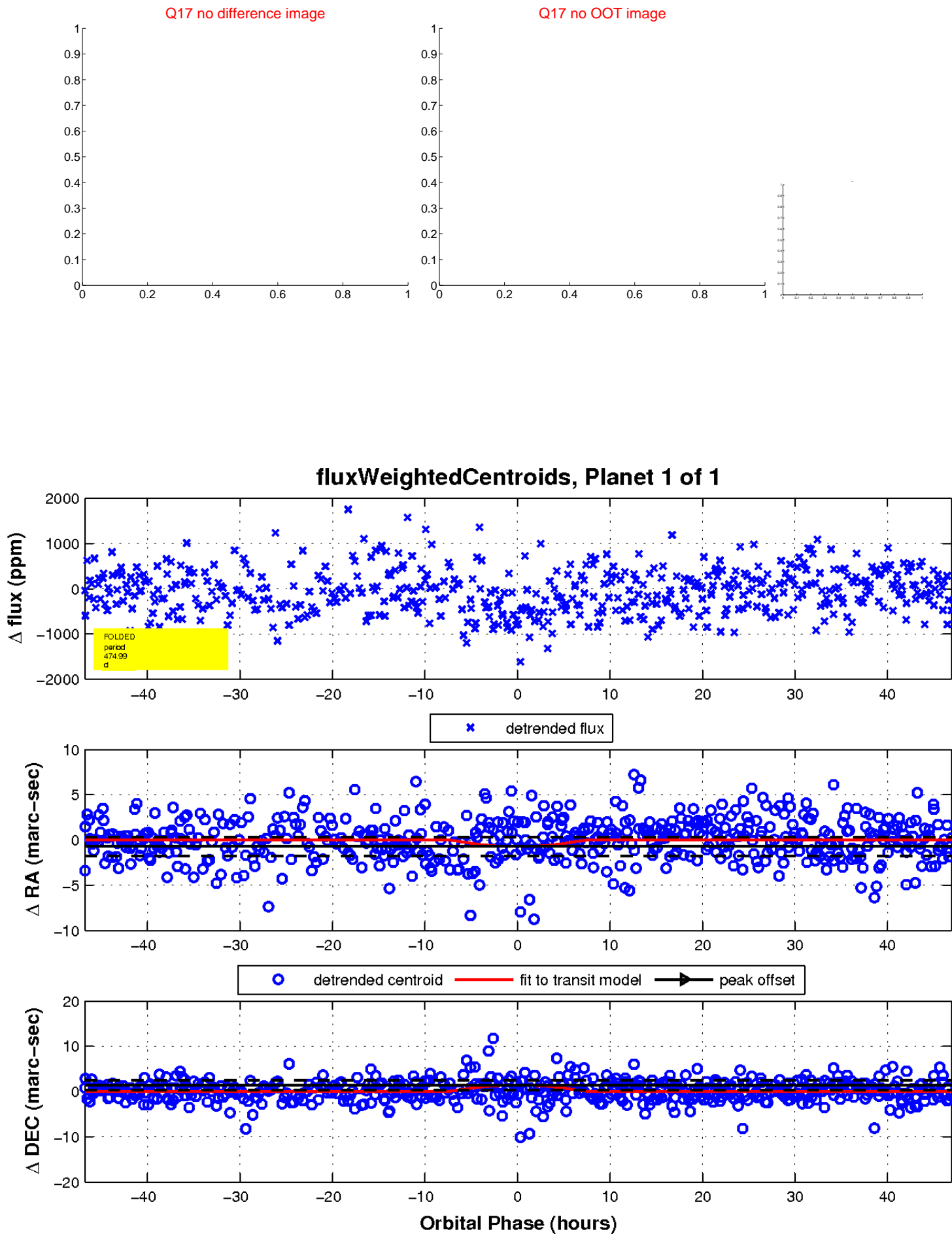
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

