

KIC 007672097

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})
007672097-01	OBS	2255.01	7.970325	136.560593	487.7	2.855	20.2	21.9	0.82	5774	2.11	117.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007672097-01	OBS	PC	1.00	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 007672097-01

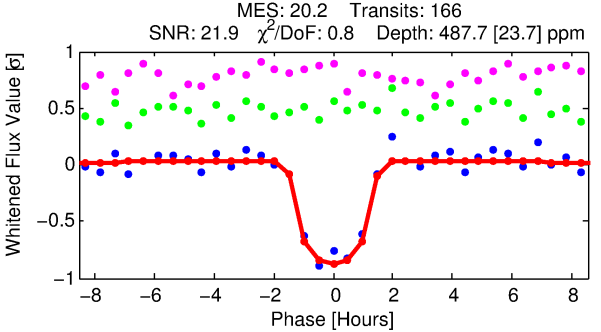
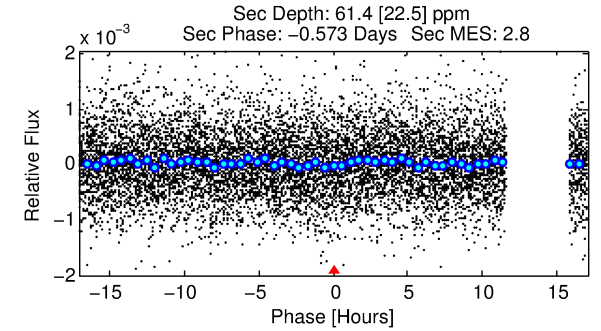
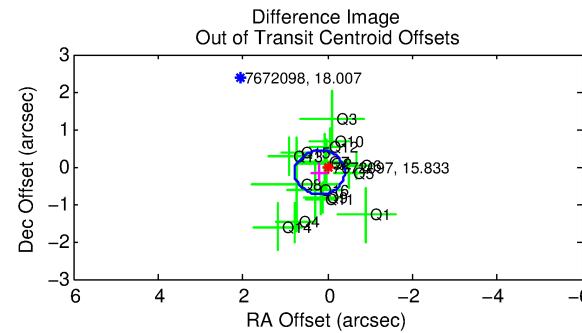
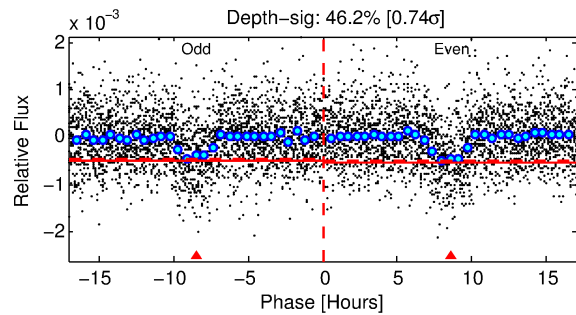
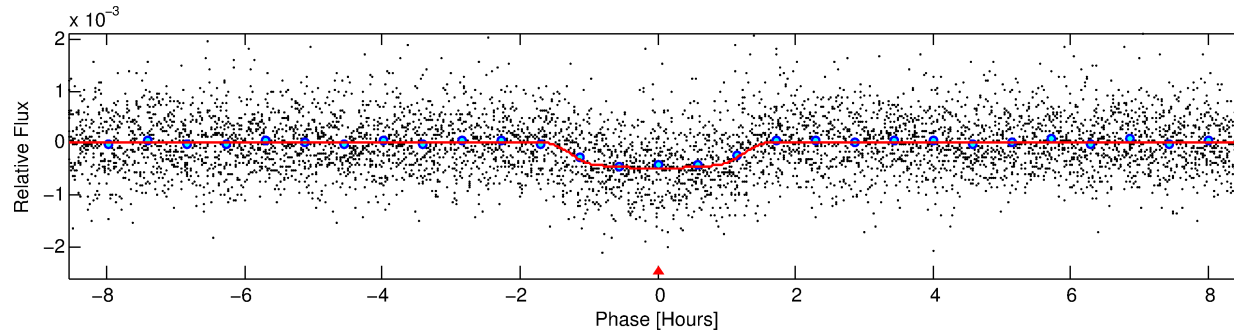
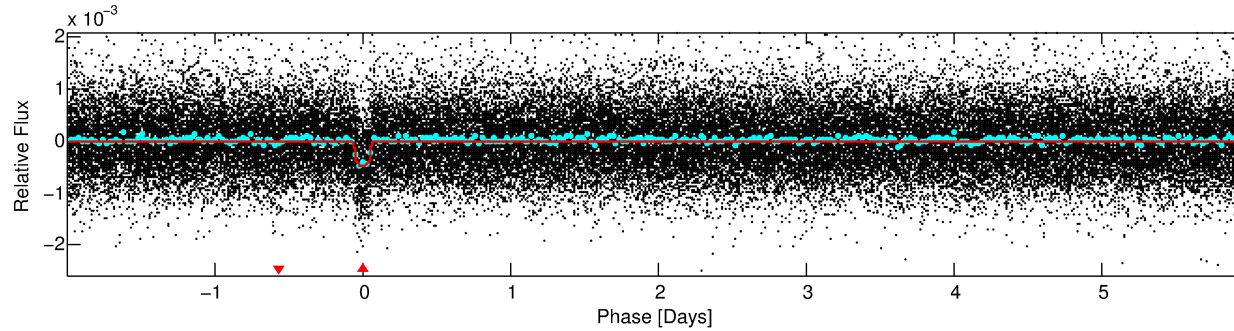
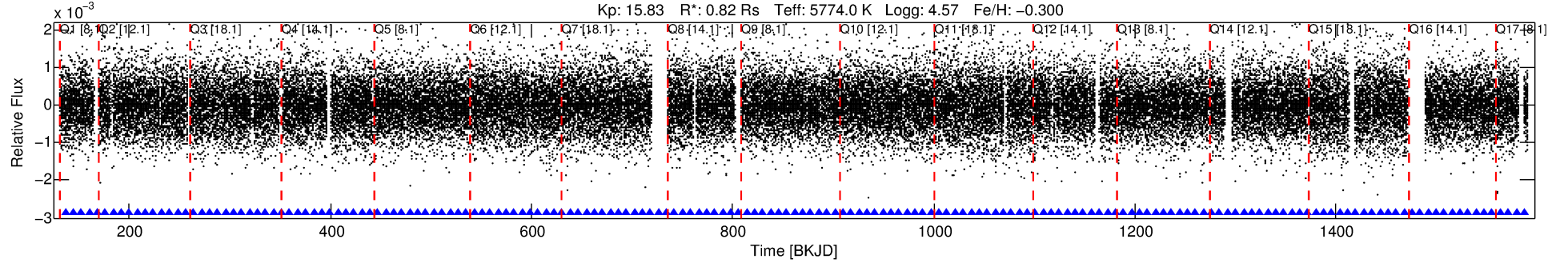
No Significant Match Found

DV One-Page Summary

KIC: 7672097 Candidate: 1 of 1 Period: 7.970 d

KOI: K02255.01 Corr: 0.983

Kp: 15.83 R*: 0.82 Rs Teff: 5774.0 K Logg: 4.57 Fe/H: -0.300



DV Fit Results:

Period = 7.97033 [0.00003] d
Epoch = 136.5606 [0.0027] BKJD
Rp/R* = 0.0236 [0.0047]
a/R* = 11.11 [10.46]
b = 0.88 [0.24]
Seff = 117.13 [36.91]
Teq = 839 [66] K
Rp = 2.11 [0.66] Re
a = 0.0754 [0.0153] AU
Ag = 43.30 [26.66] [1.59σ]
Teffp = 3327 [462] K [5.33σ]

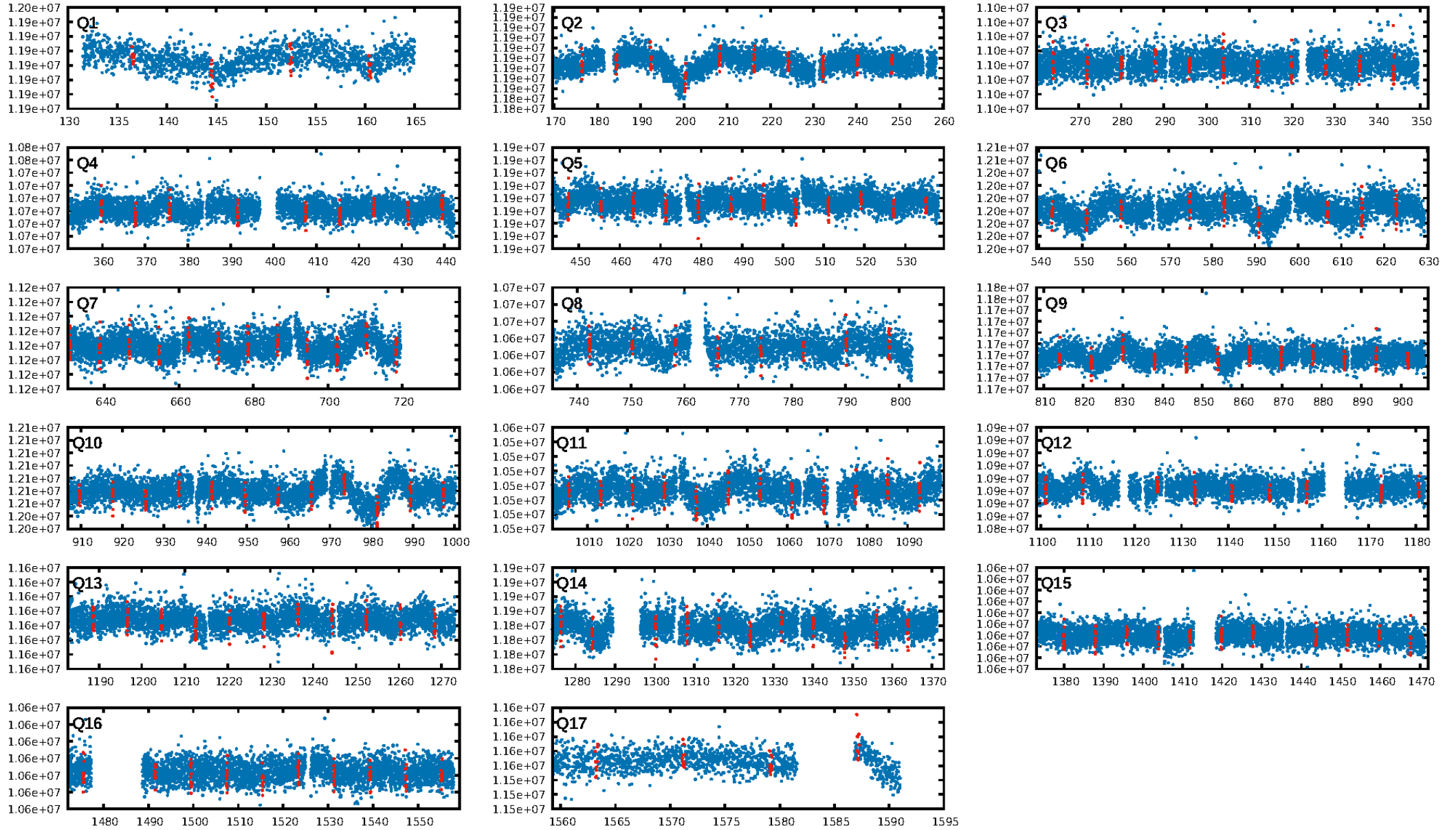
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.01e-87
RollingBand-fgt: 1.00 [158/158]
GhostDiagnostic-chr: 4.979
Centroid-sig: 0.6%
Centroid-so: 1.245 arcsec [2.01σ]
OotOffset-rm: 0.238 arcsec [1.21σ]
KicOffset-rm: 0.246 arcsec [1.32σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

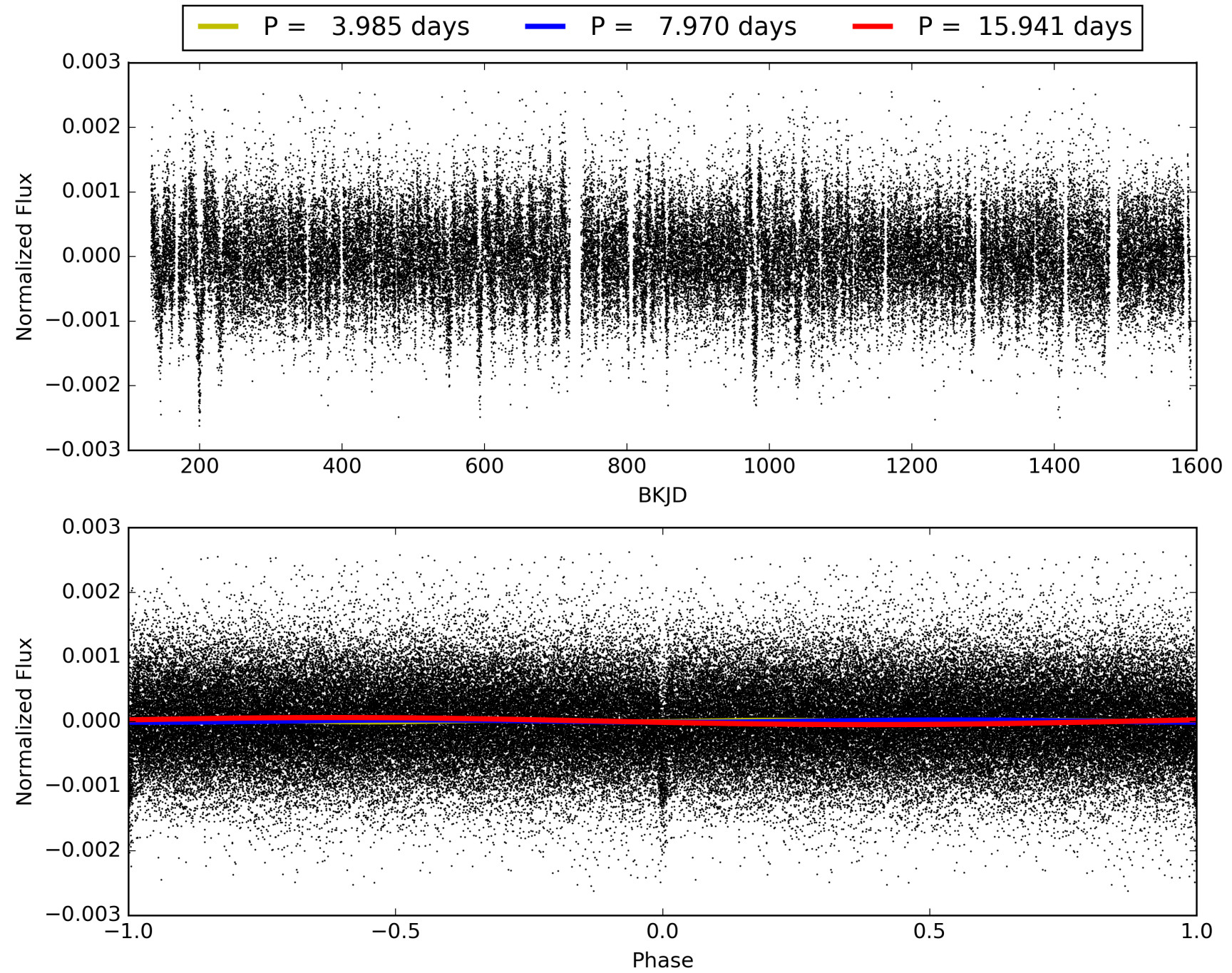
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:58:18 Z

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

TCE 007672097-01, PDC Light Curves

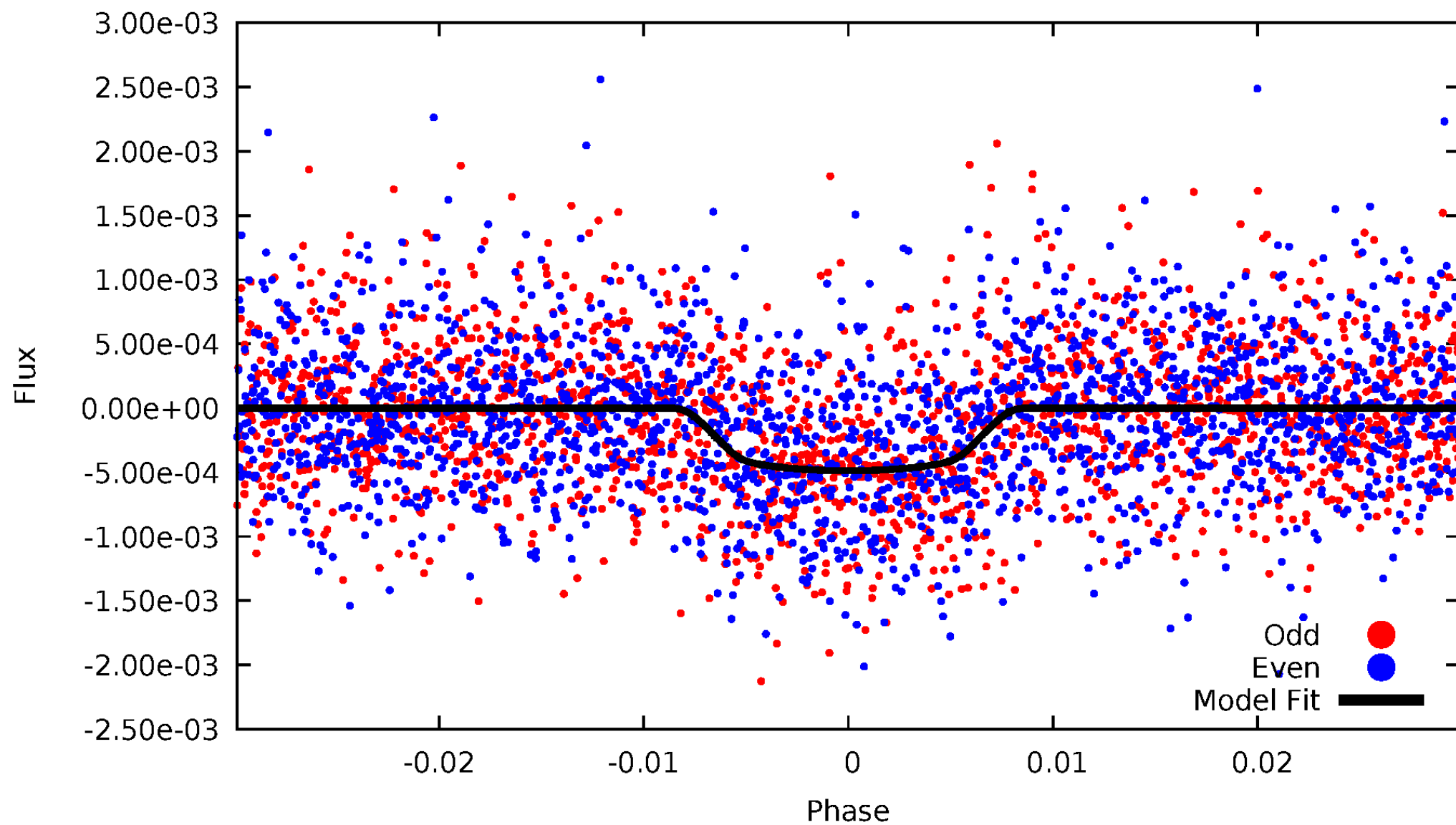


TCE 007672097-01



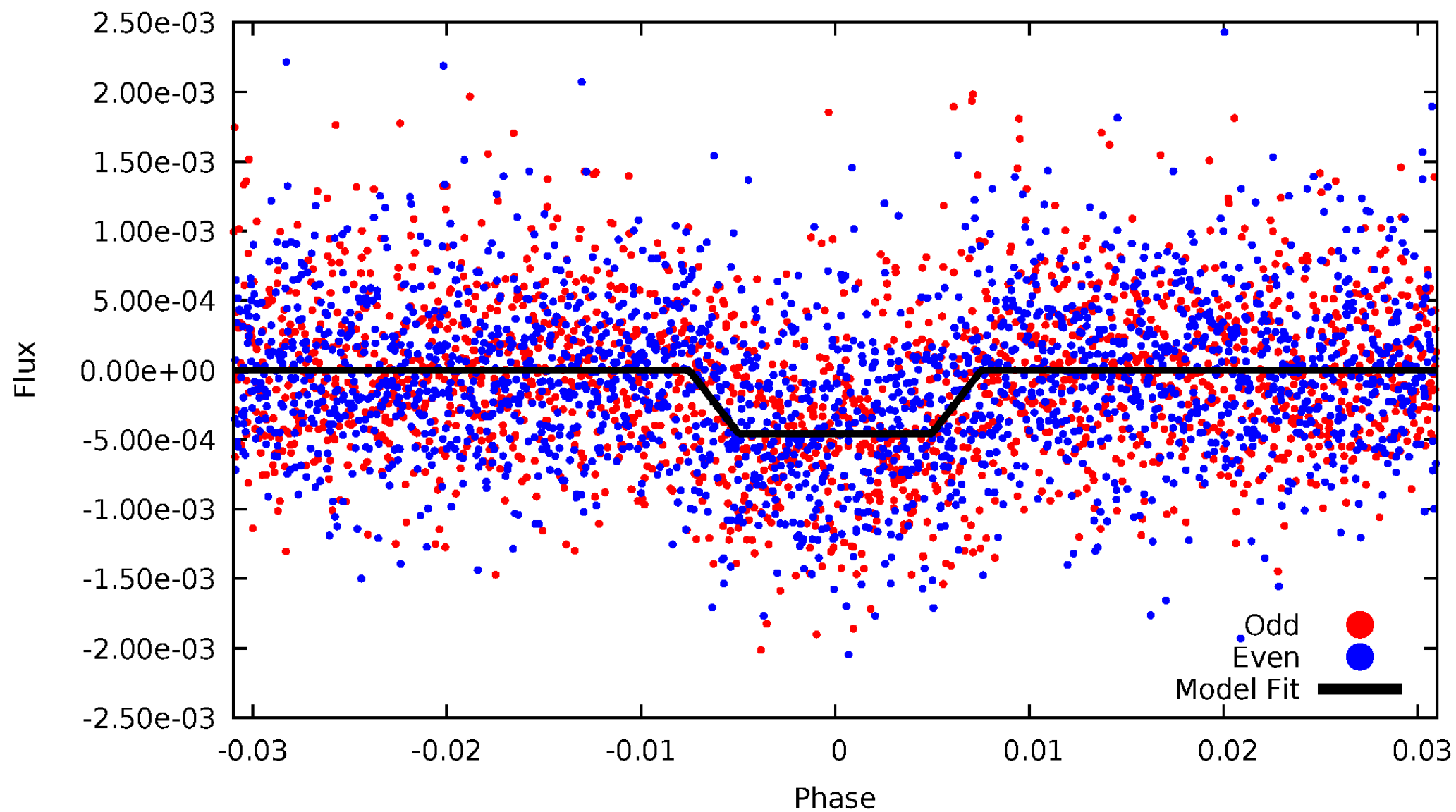
DV Odd/Even

TCE 007672097-01

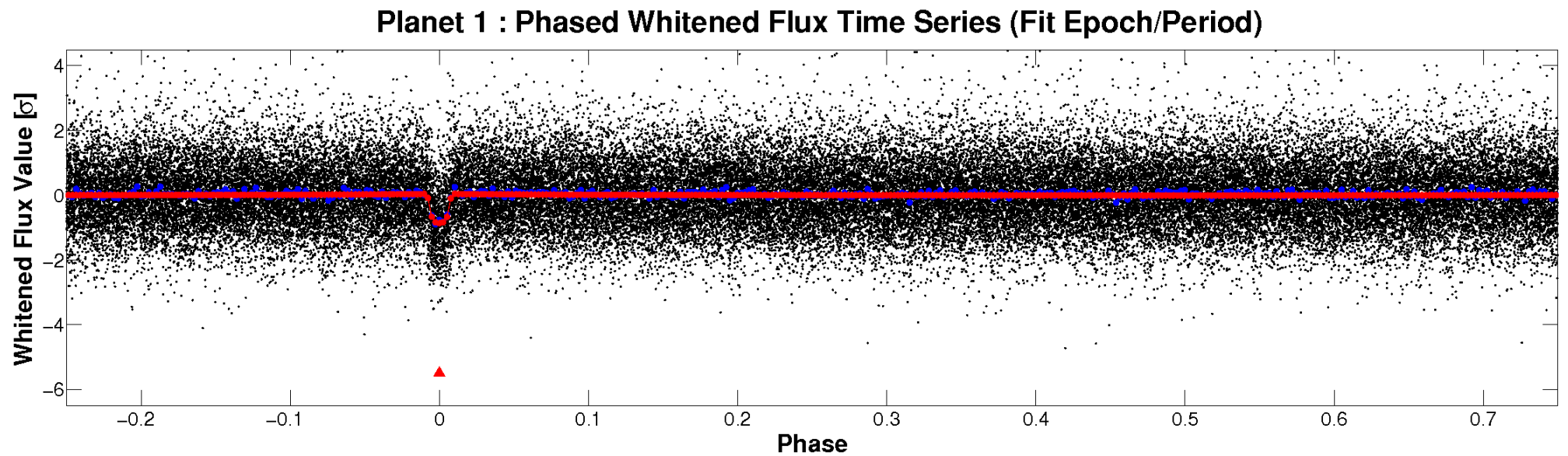
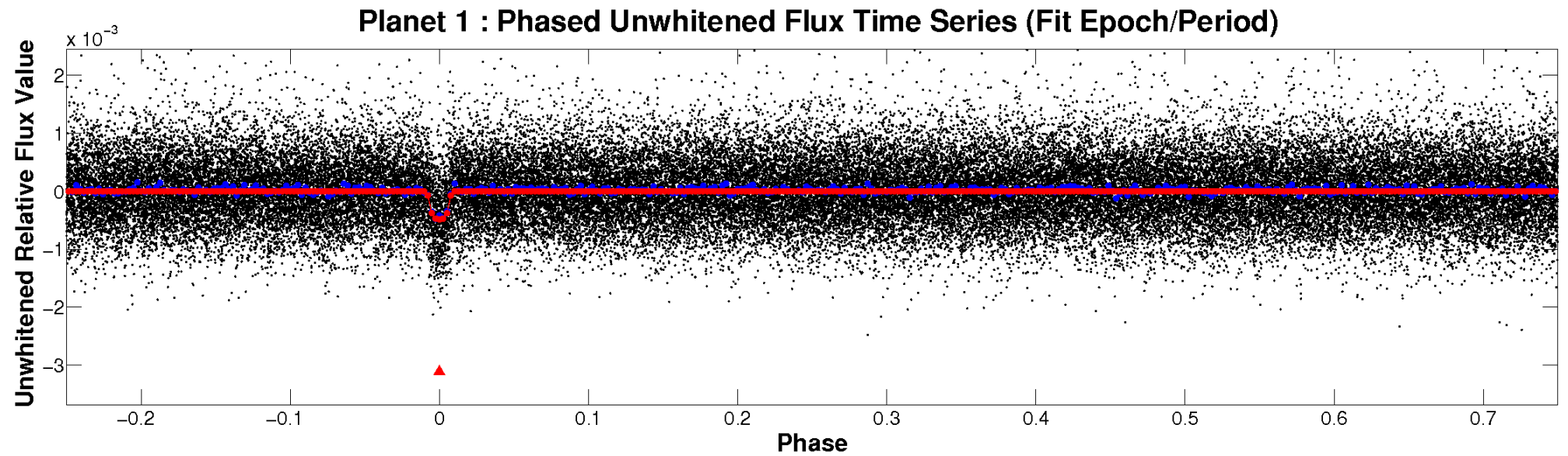


ALT Odd/Even

TCE 007672097-01

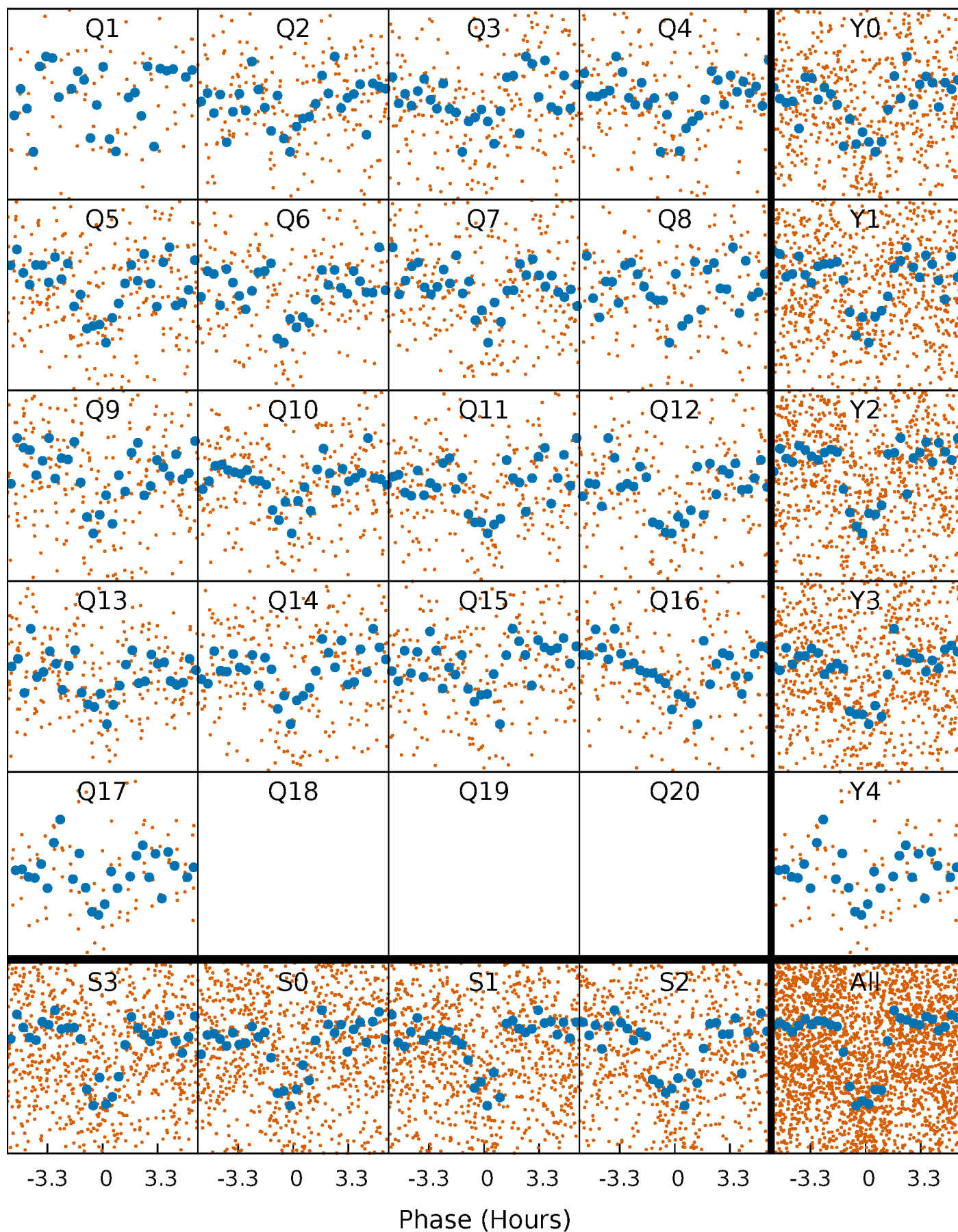


Non-Whitened Vs. Whitened Light Curve



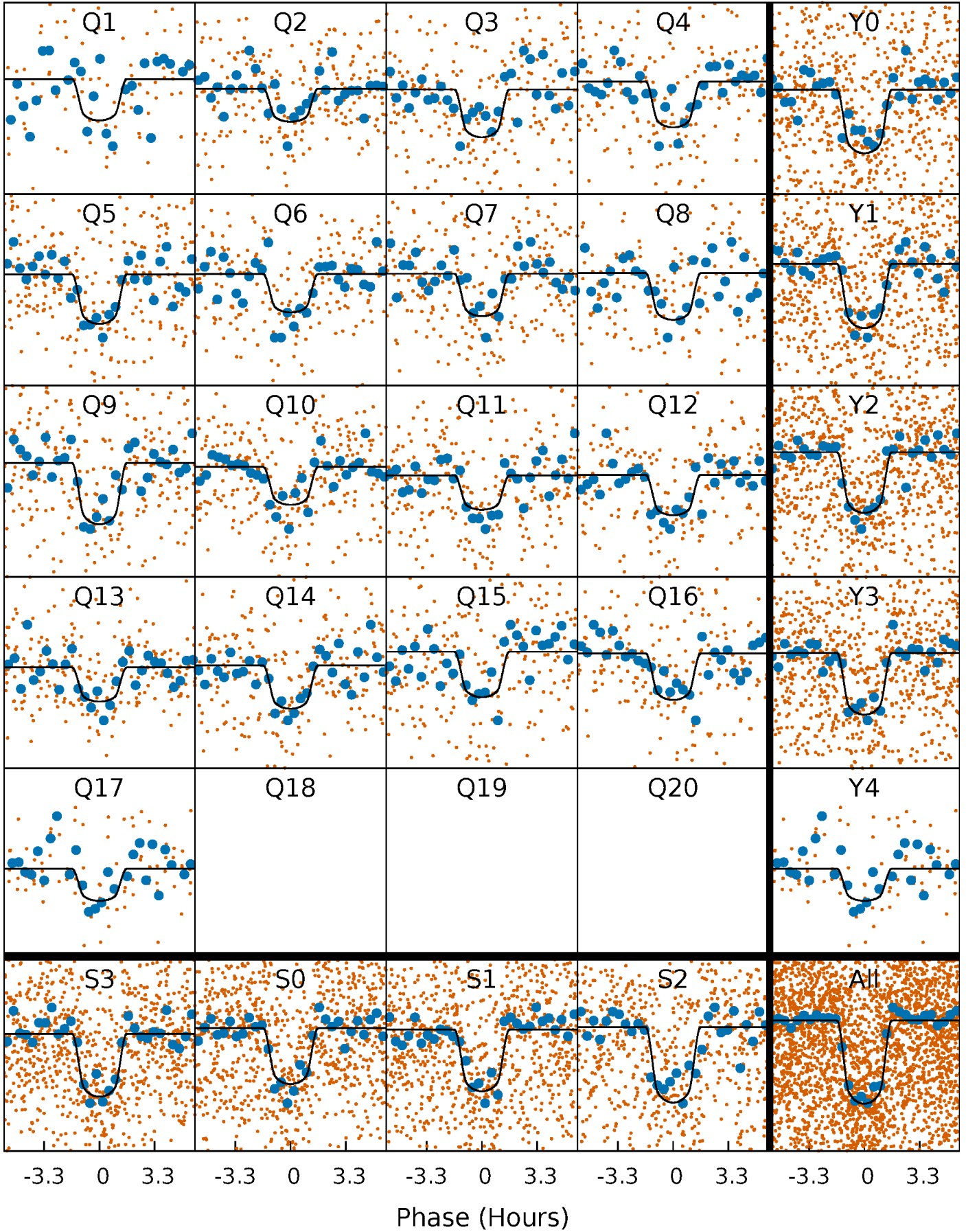
PDC Quarter-Phased Transit Curves

TCE 007672097-01 P= 7.970325 Days $T_0=136.560593$ (BKJD)



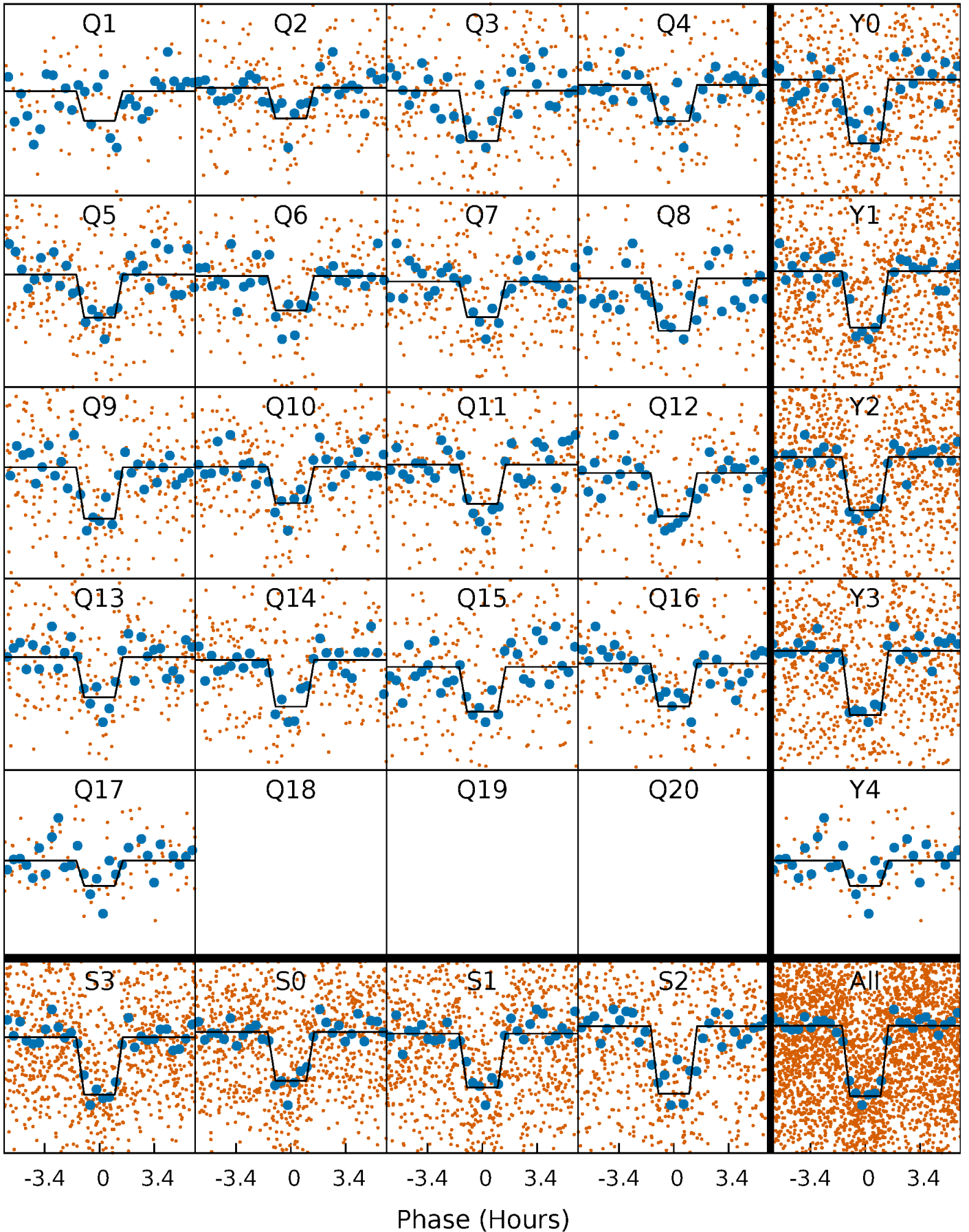
DV Quarter-Phased Transit Curves

TCE 007672097-01 P= 7.970325 Days $T_0=136.560593$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

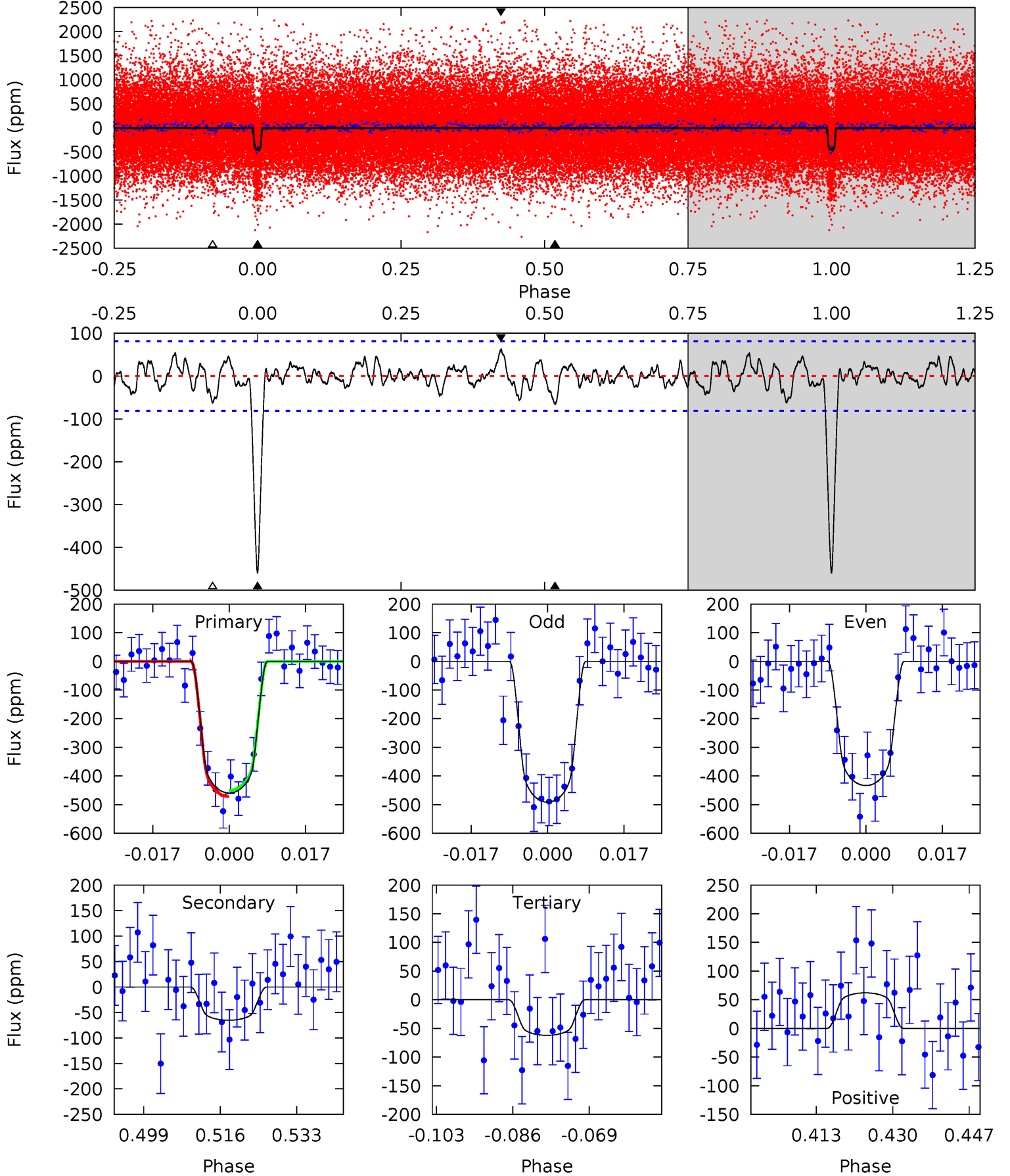
TCE 007672097-01 P= 7.970365 Days $T_0=136.555411$ (BKJD)



DV Model-Shift Uniqueness Test

007672097-01, P = 7.970325 Days, E = 128.590268 Days

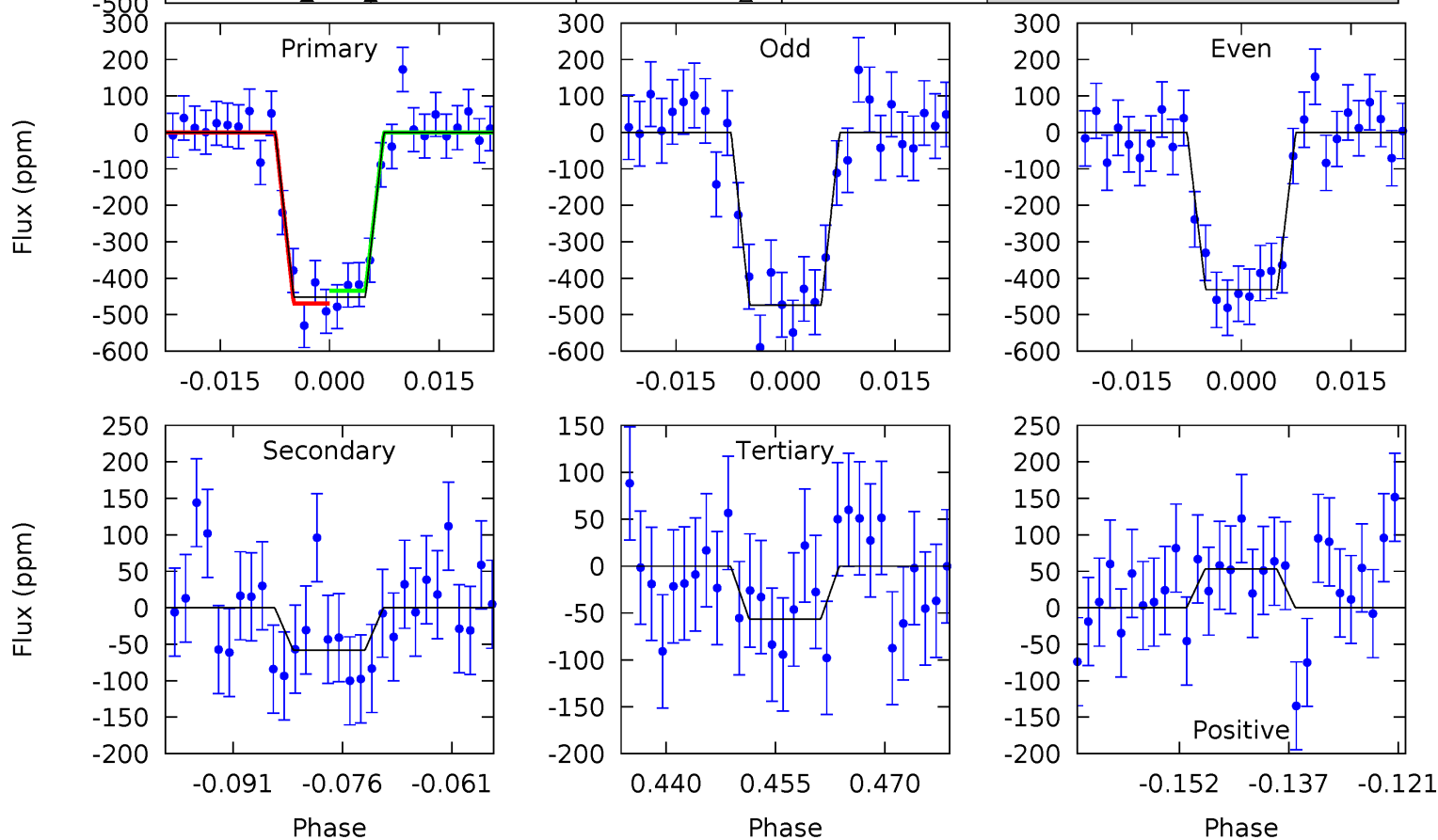
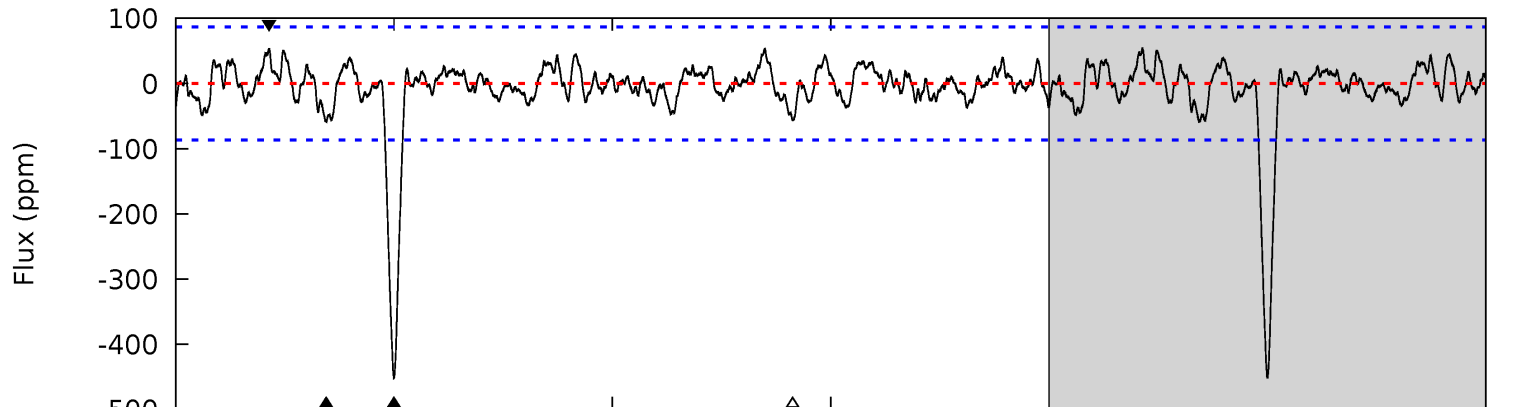
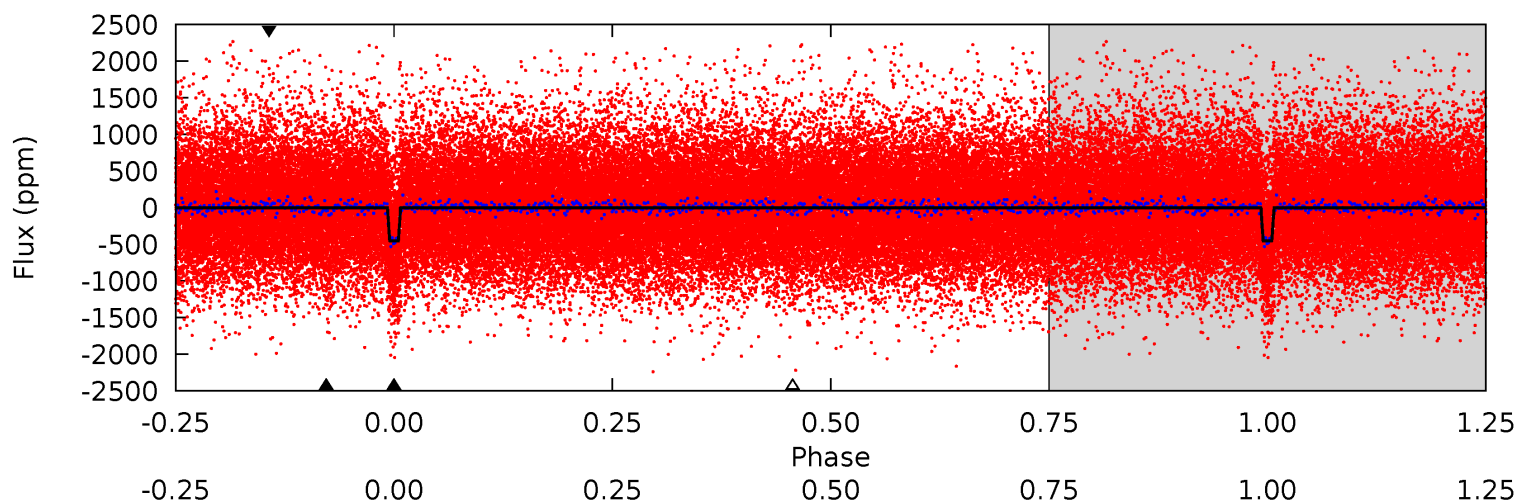
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.9	3.95	3.76	3.76	4.92	2.38	1.28	24.1	24.1	0.19	0.19	1.77	1.00	0.12	0.64



Alt Model-Shift Uniqueness Test

007672097-01, P = 7.970365 Days, E = 128.585046 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.8	3.33	3.22	3.05	4.95	2.43	1.15	22.6	22.7	0.10	0.28	1.21	0.99	0.11	1.00



Stellar Parameters For KIC 007672097

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5774^{+155}_{-172}	$4.567^{+0.042}_{-0.158}$	$-0.300^{+0.300}_{-0.300}$	$0.818^{+0.199}_{-0.066}$	$0.907^{+0.090}_{-0.110}$	$2.332^{+0.498}_{-1.022}$
	+3%/-3%	+1%/-3%	+100%/-100%	+24%/-8%	+10%/-12%	+21%/-44%
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 007672097-01 / KOI 2255.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-65 ± 16	$2.19^{+0.53}_{-0.46}$	1192^{+65}_{-46}	3746^{+347}_{-298}	40^{+30}_{-16}
Alt.	-58 ± 18	$1.95^{+0.53}_{-0.45}$	1193^{+74}_{-49}	3816^{+431}_{-319}	45^{+38}_{-19}

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

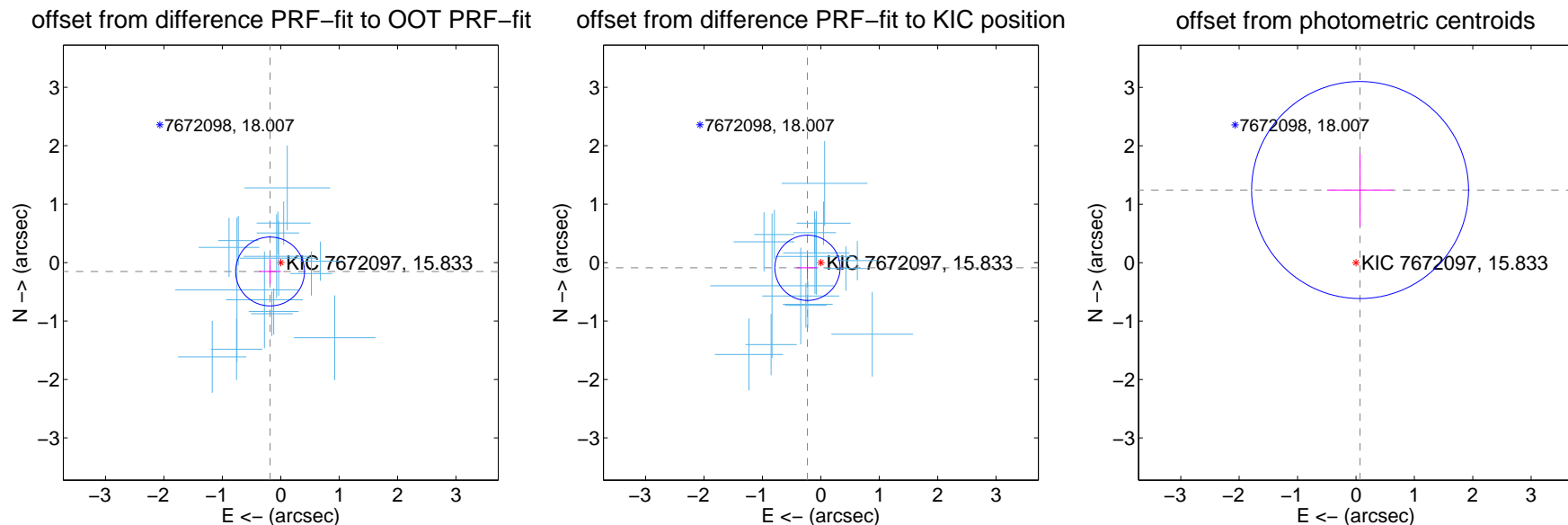
DV Centroid Data

Supplemental centroid analysis for 007672097-01. Kepler magnitude: 15.83. Transit SNR 21.94

There are 16 quarters with good PRF difference image offsets

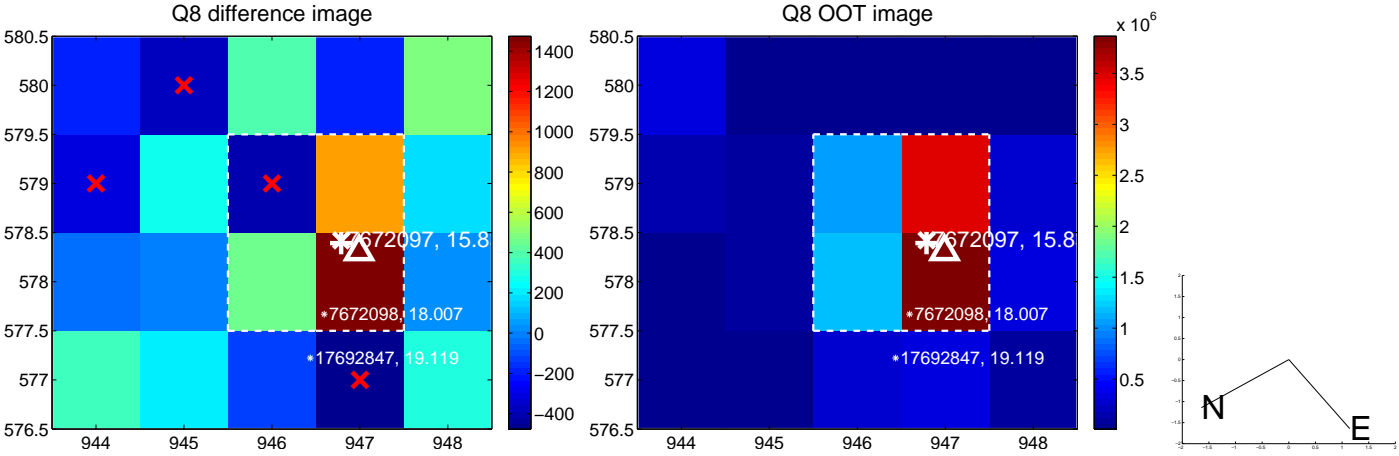
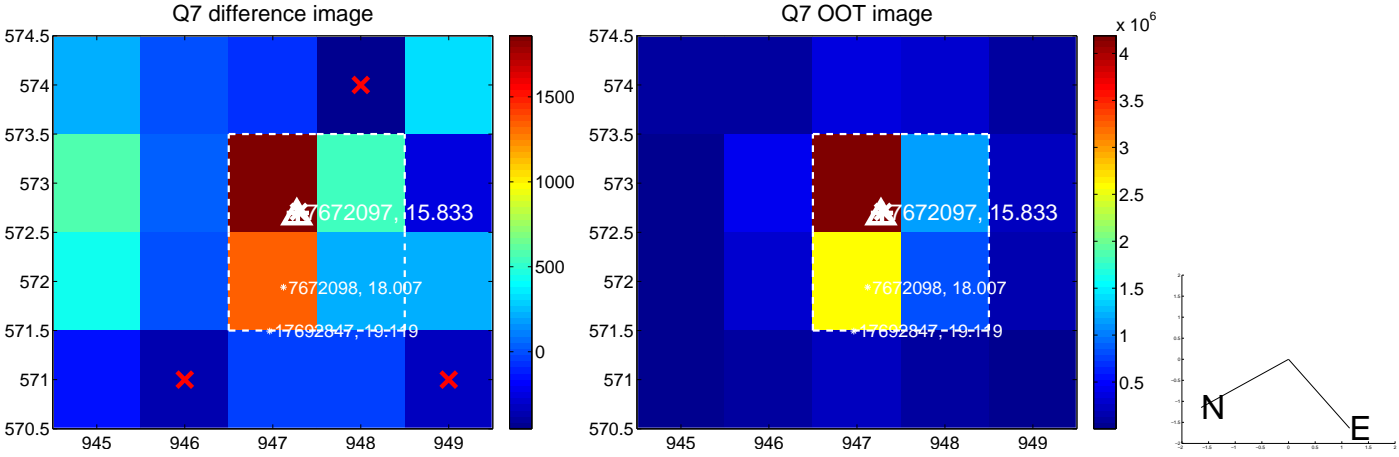
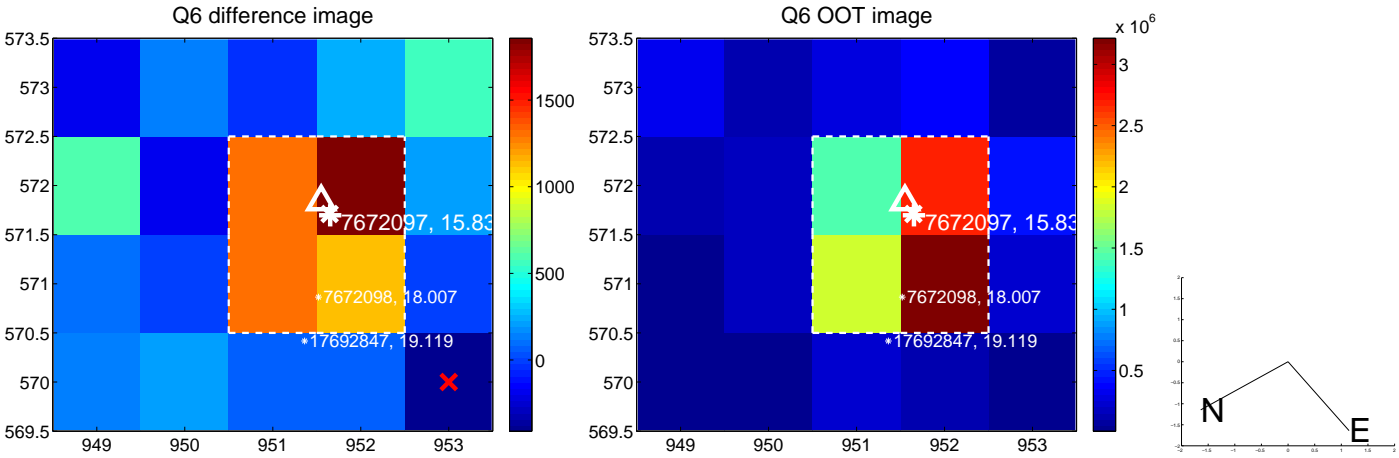
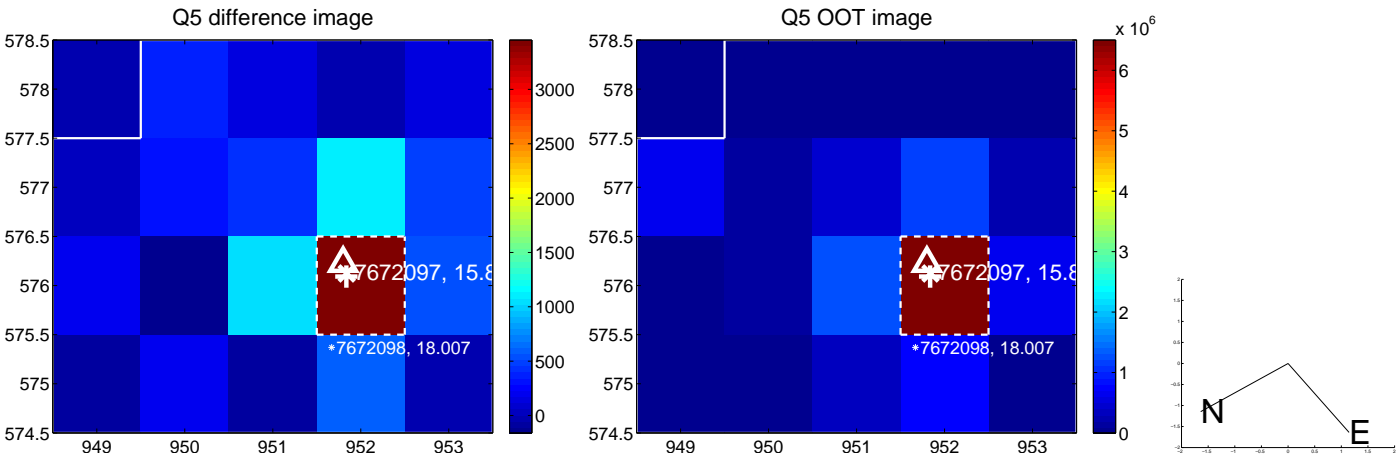
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.238 ± 0.196	1.21	0.183 ± 0.186	-0.152 ± 0.210
PRF-fit source offset from KIC position	0.246 ± 0.186	1.32	0.230 ± 0.184	-0.089 ± 0.202
photometric centroid source offset	1.25 ± 0.62	2.01	-0.07 ± 0.57	1.24 ± 0.62

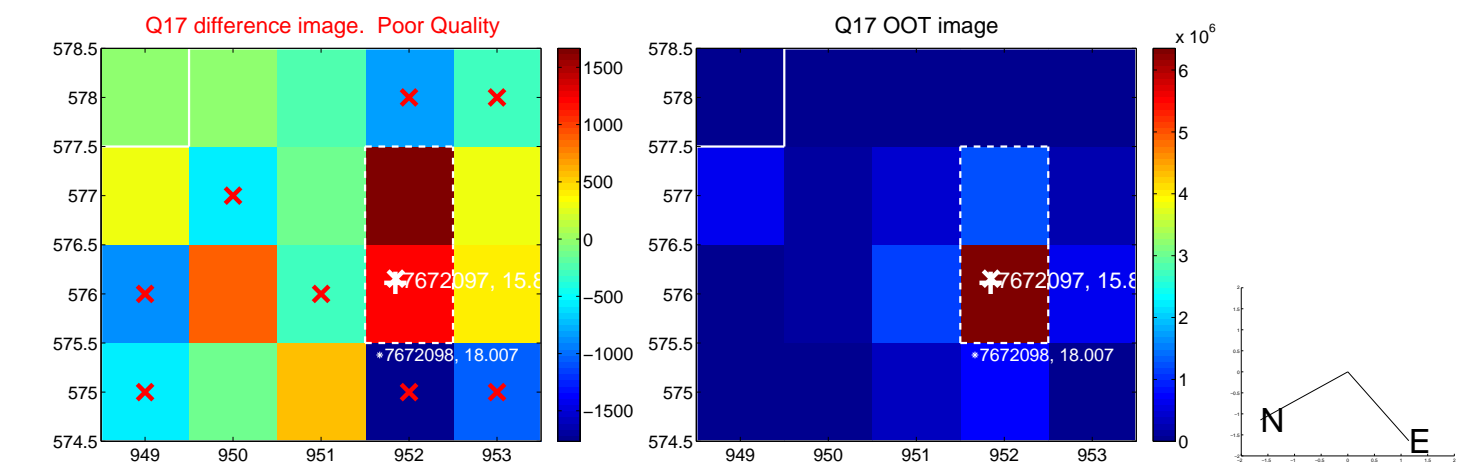


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

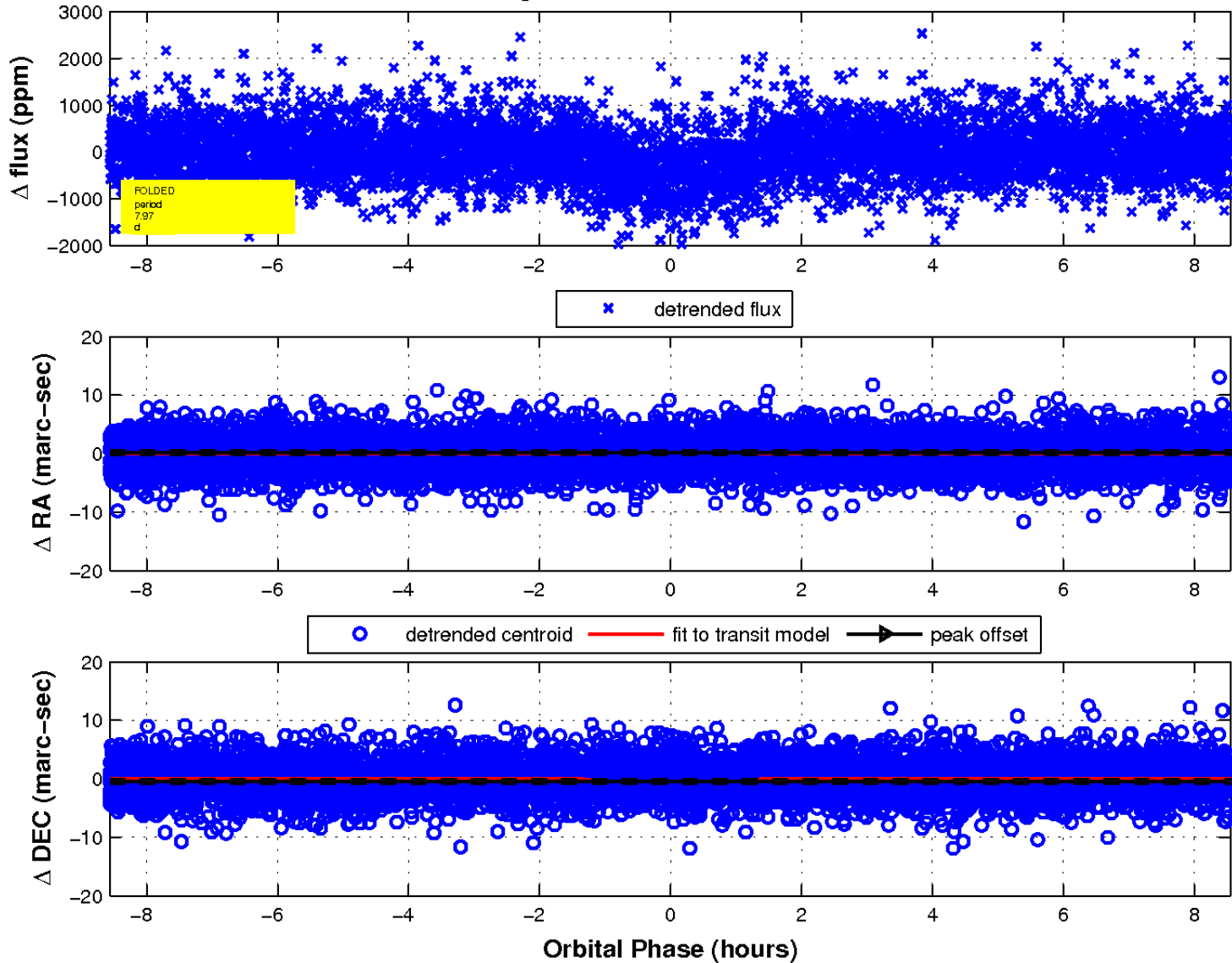
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

