

KIC 006356272

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})
006356272-01	OBS	No	338.589819	331.628951	940.0	15.686	8.0	8.2	0.93	6032	2.88	1.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006356272-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—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.

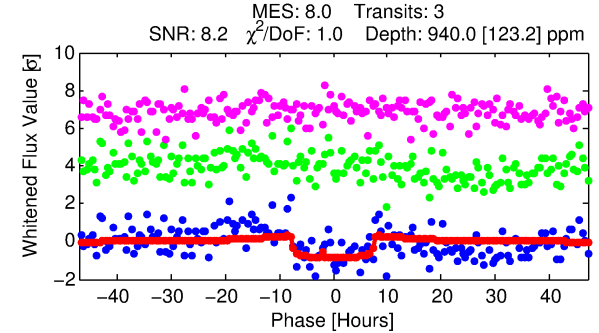
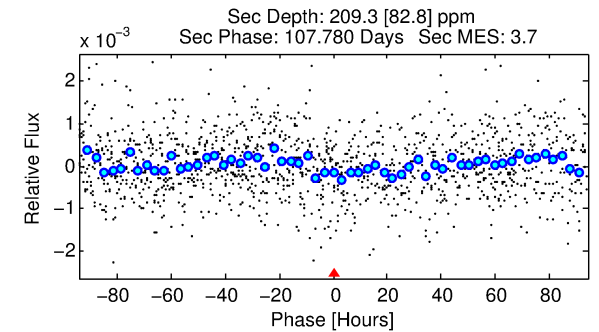
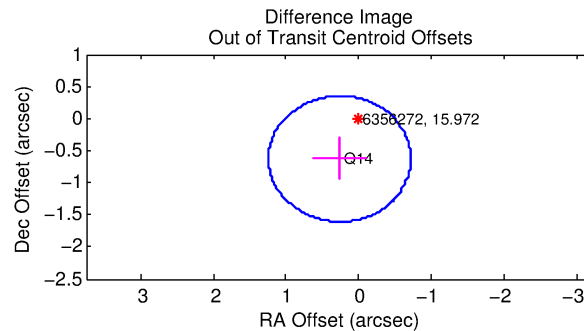
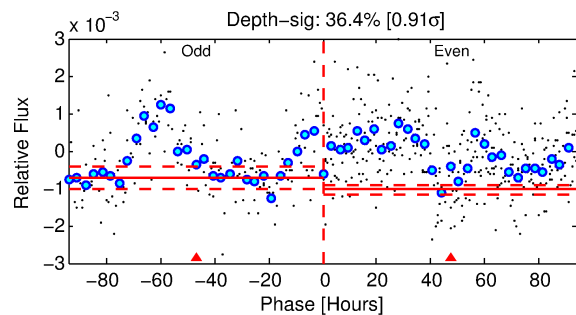
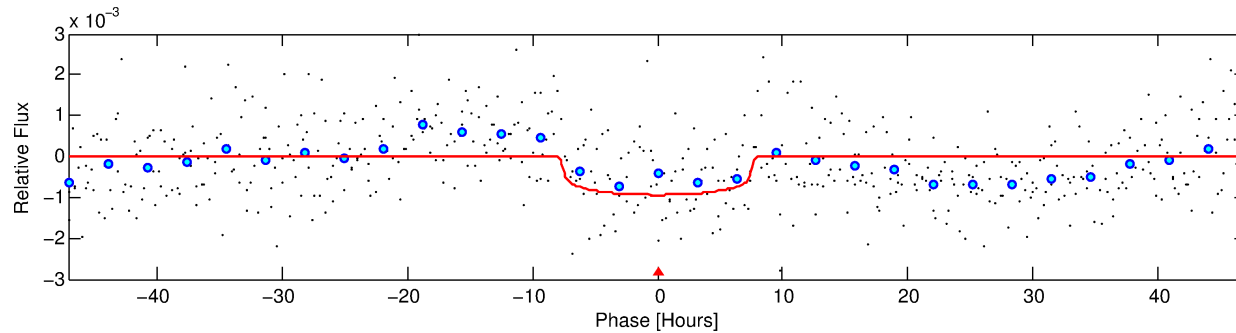
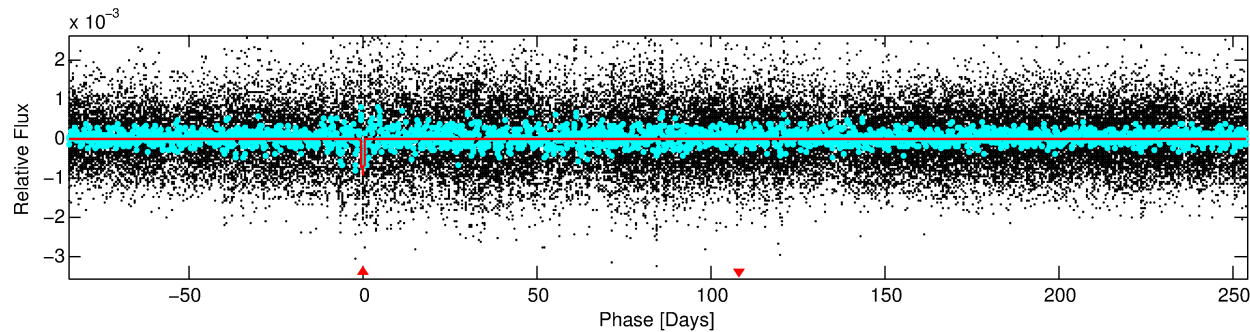
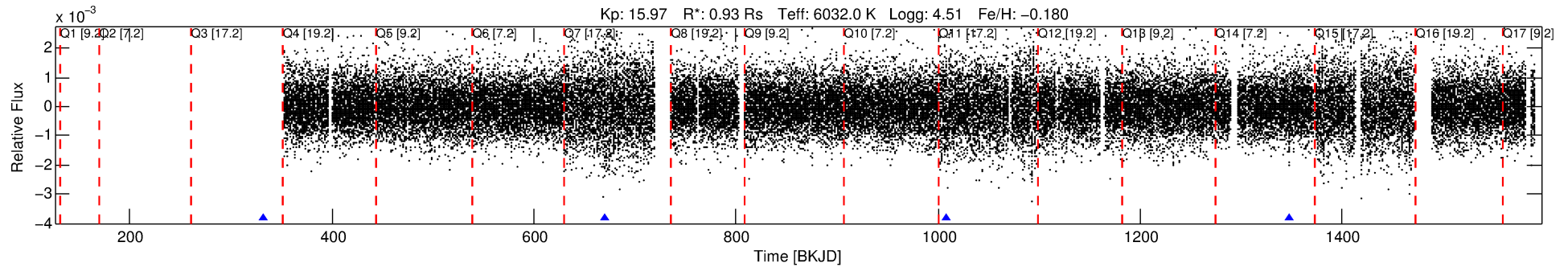
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006356272-01

No Significant Match Found

DV One-Page Summary

KIC: 6356272 Candidate: 1 of 1 Period: 338.590 d



DV Fit Results:

Period = 338.58982 [0.01730] d
Epoch = 331.6290 [0.0427] BKJD
Rp/R* = 0.0284 [0.0151]
a/R* = 158.05 [401.00]
b = 0.37 [5.87]
Seff = 1.12 [0.47]
Teq = 262 [28] K
Rp = 2.88 [1.78] Re
a = 0.9553 [0.2570] AU
Ag = 12638.92 [15174.09] [0.83 σ]
Teffp = 4302 [1227] K [3.29 σ]

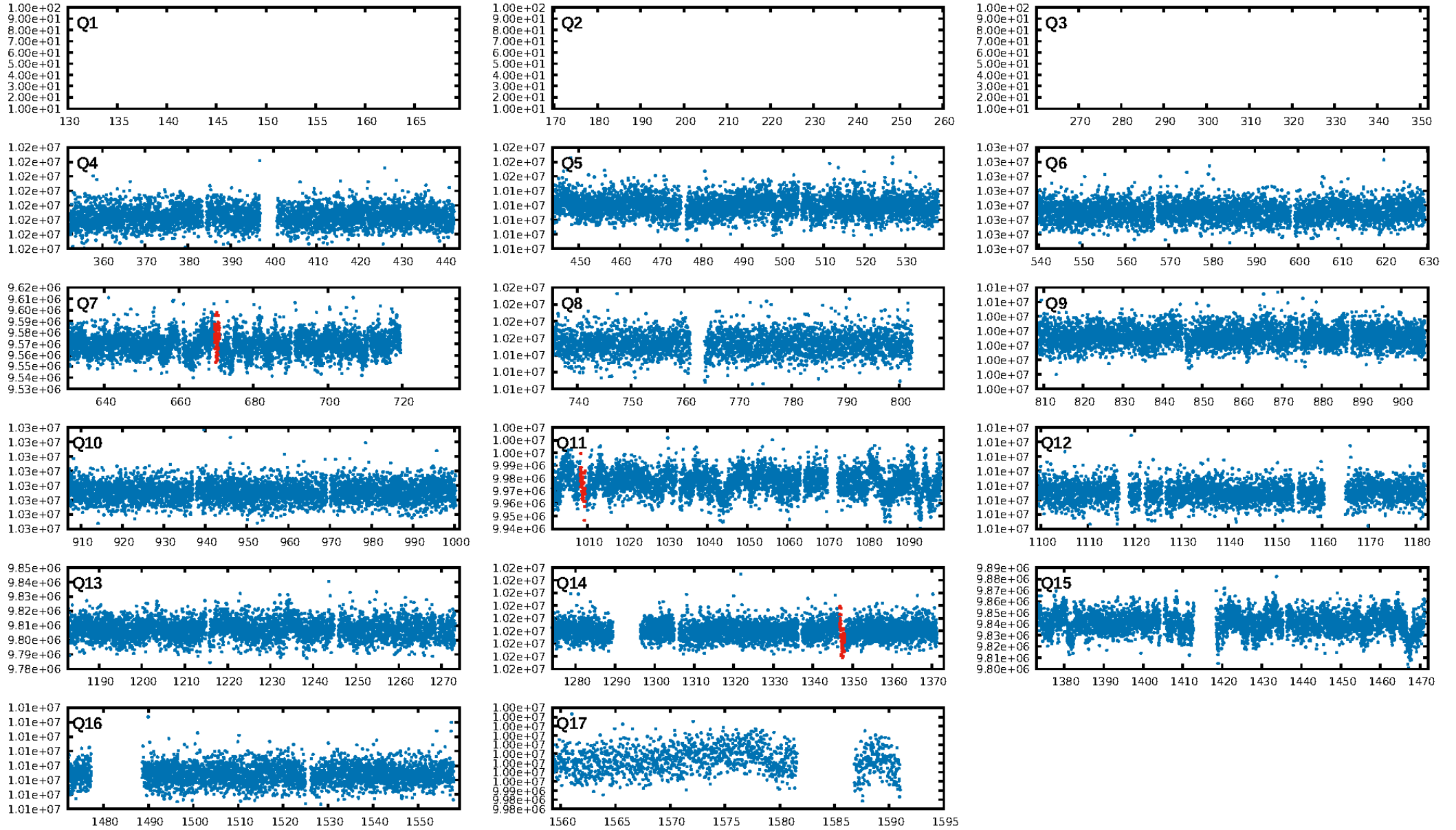
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 54.0%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 3.40e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.998
Centroid-sig: 91.2%
Centroid-so: 1.353 arcsec [0.92 σ]
OotOffset-rm: 0.681 arcsec [2.09 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-rm: **1.722 arcsec [4.69 σ]**
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

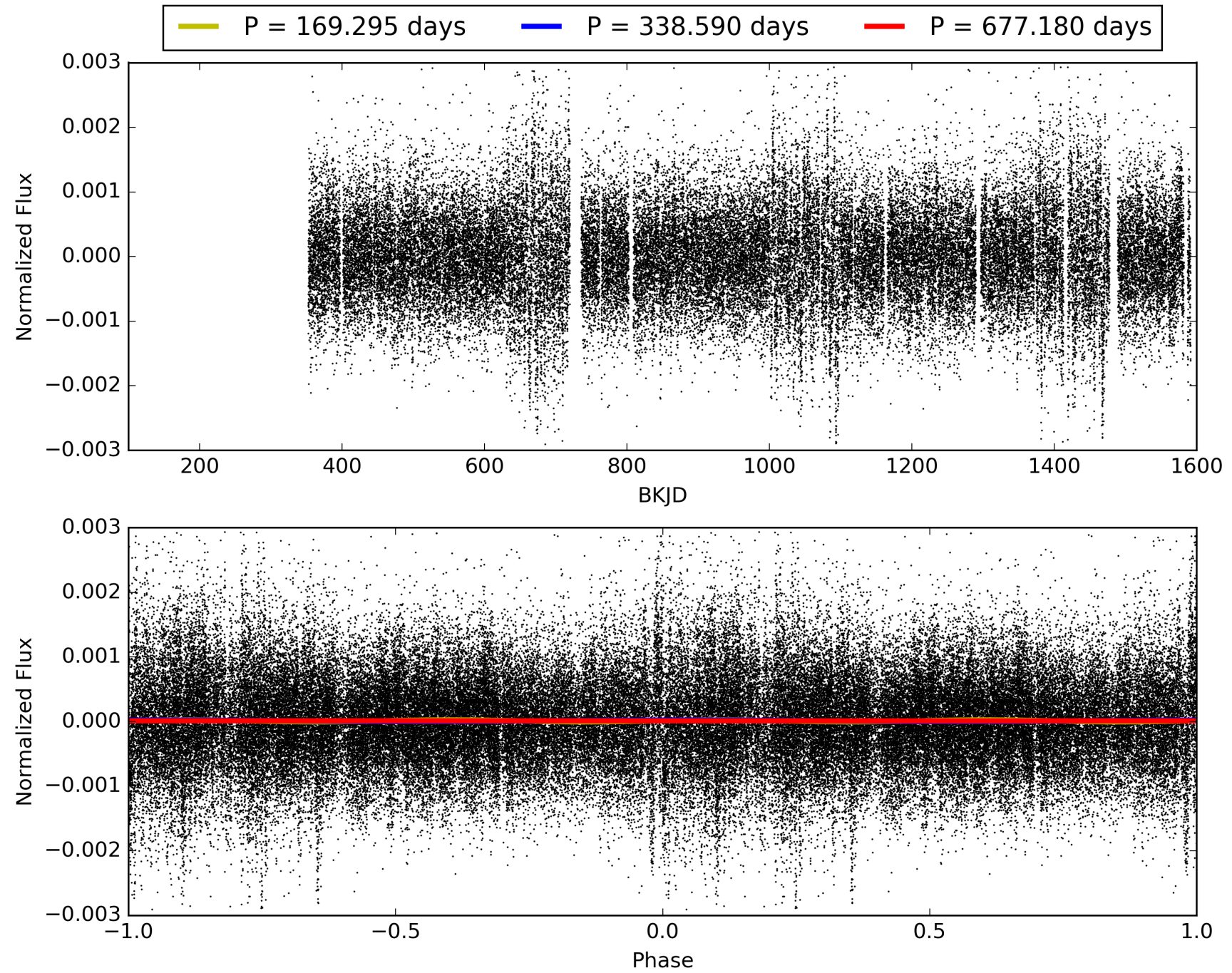
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:16:42 Z

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

TCE 006356272-01, PDC Light Curves

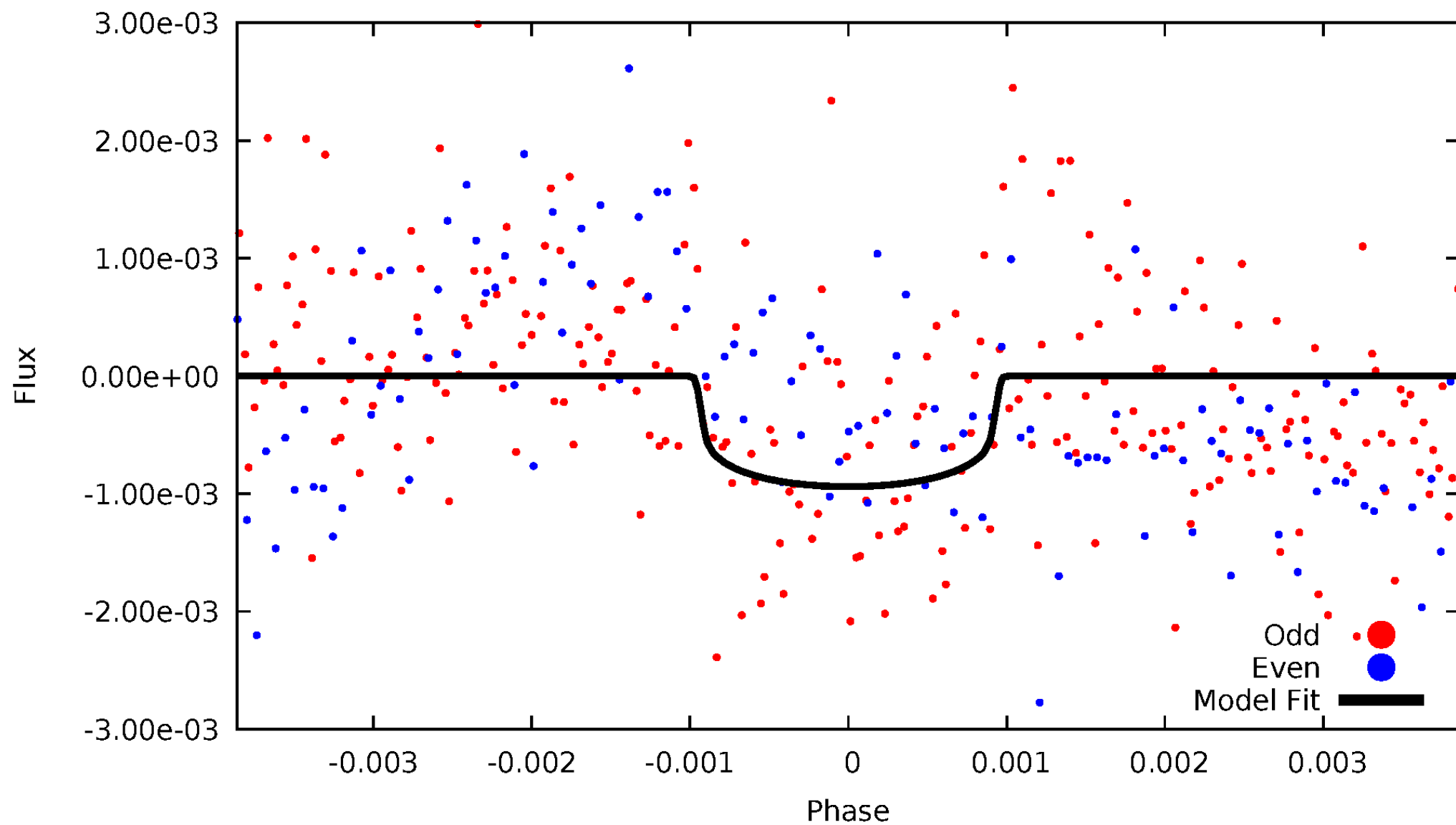


TCE 006356272-01



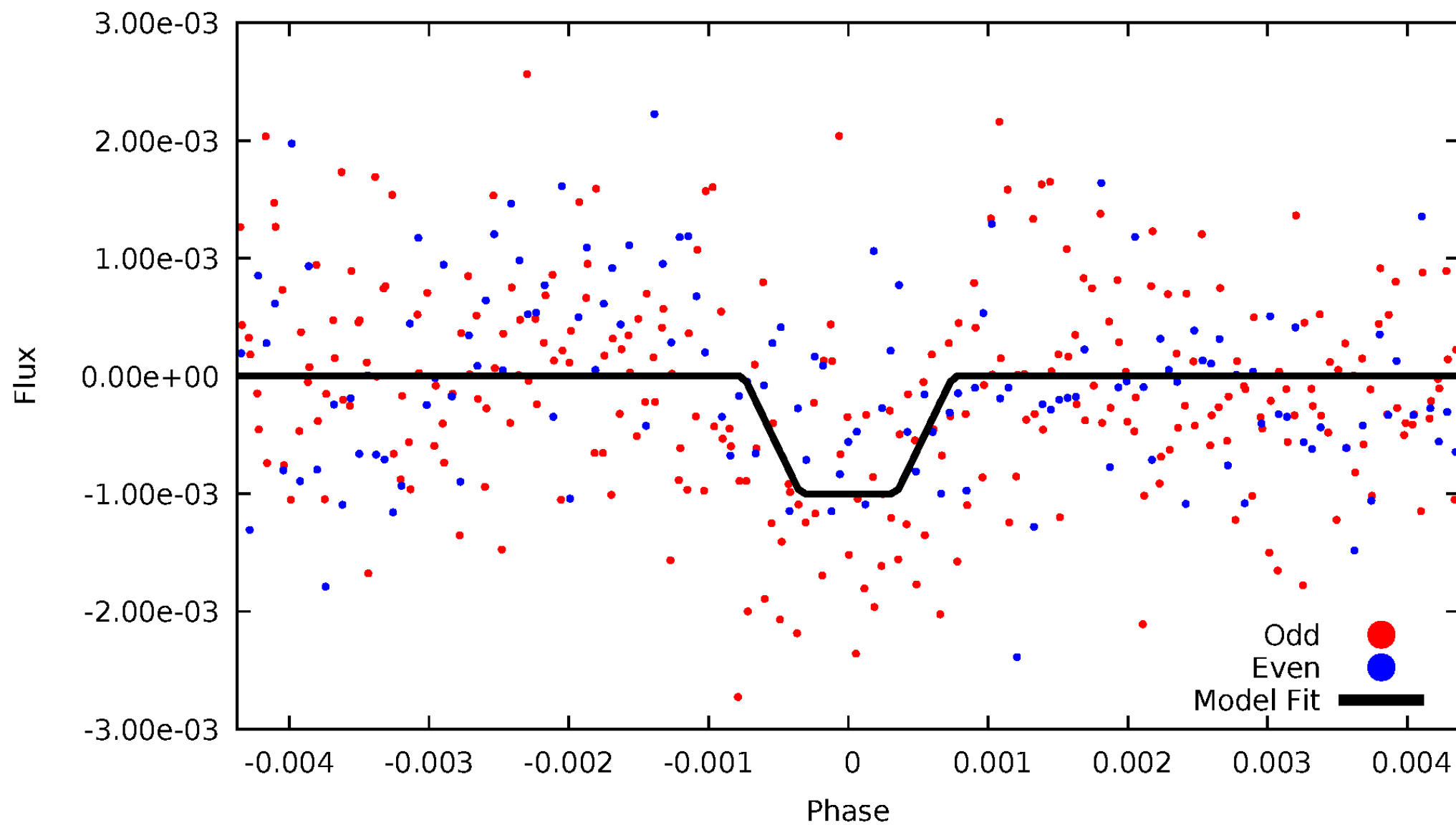
DV Odd/Even

TCE 006356272-01



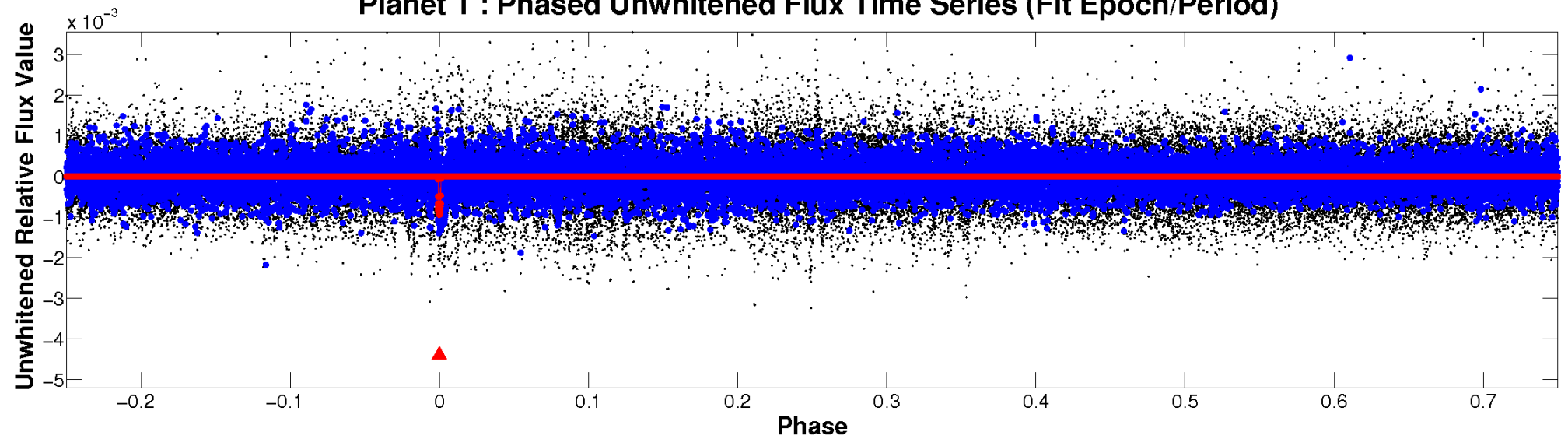
ALT Odd/Even

TCE 006356272-01

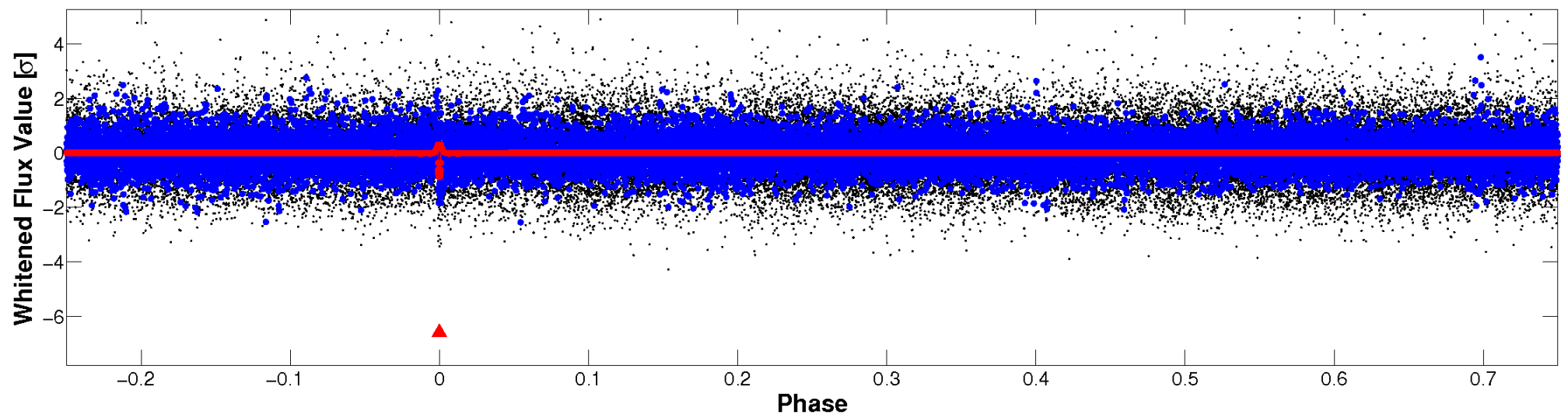


Non-Whitened Vs. Whitened Light Curve

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

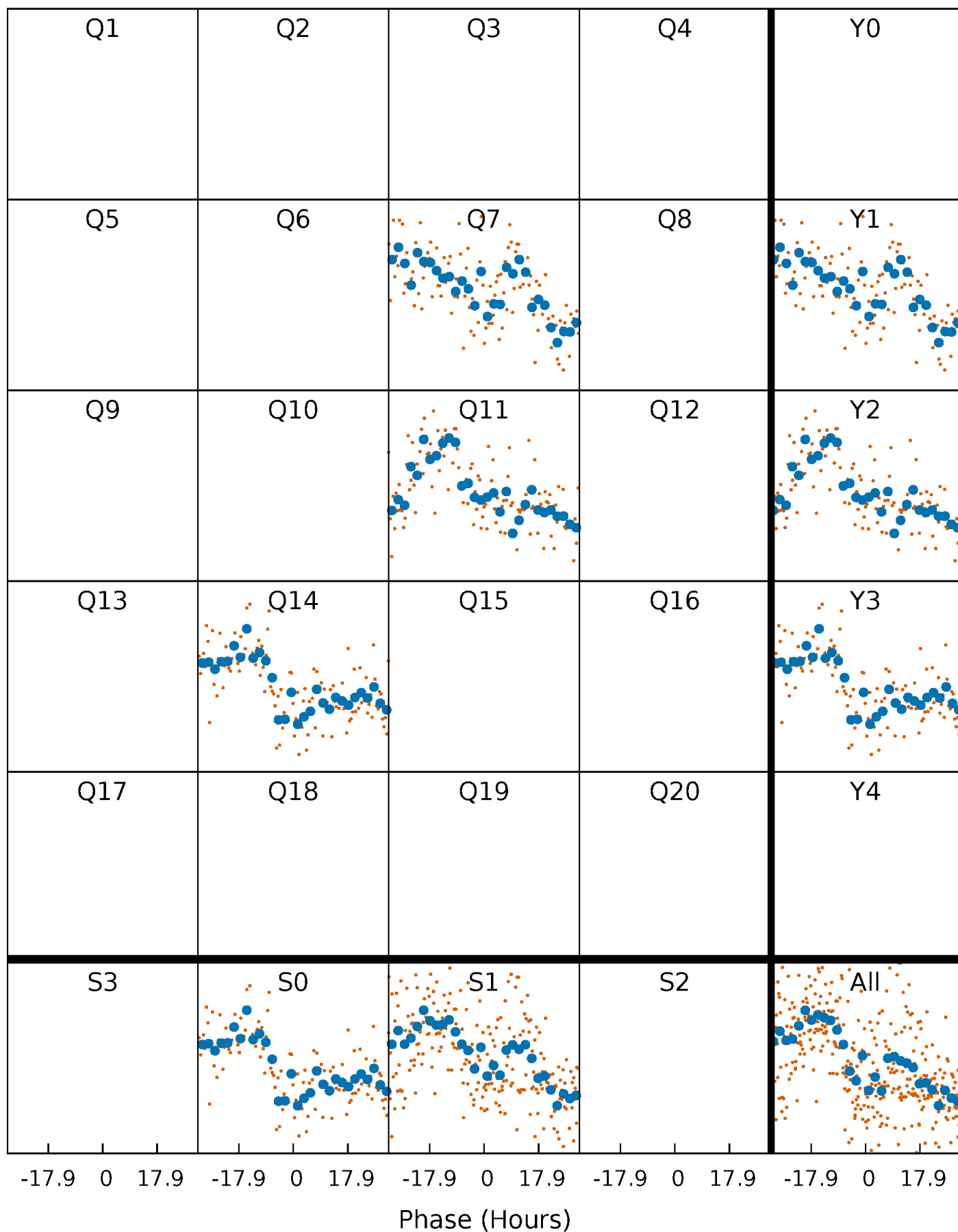


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



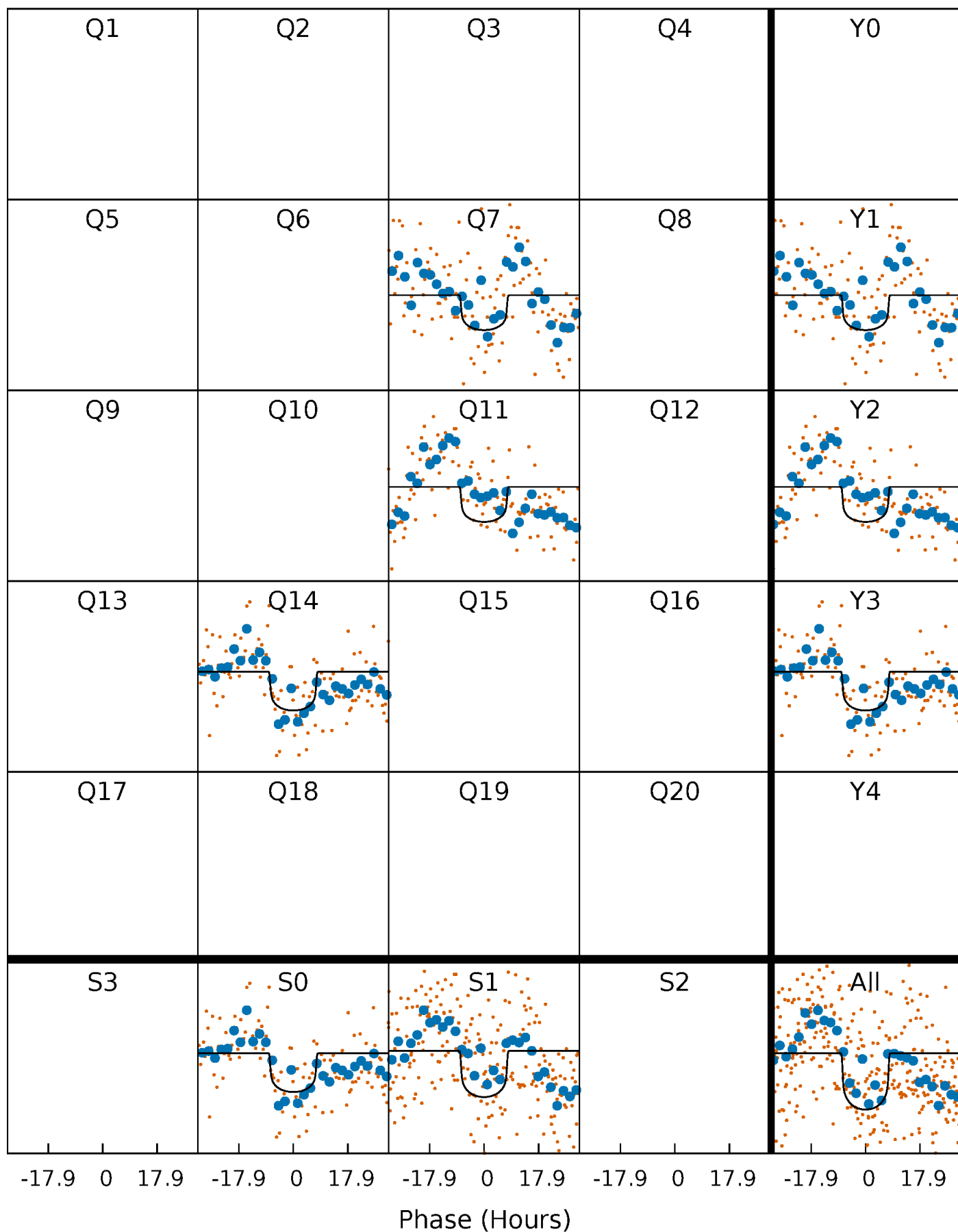
PDC Quarter-Phased Transit Curves

TCE 006356272-01 P=338.589819 Days $T_0=331.628951$ (BKJD)



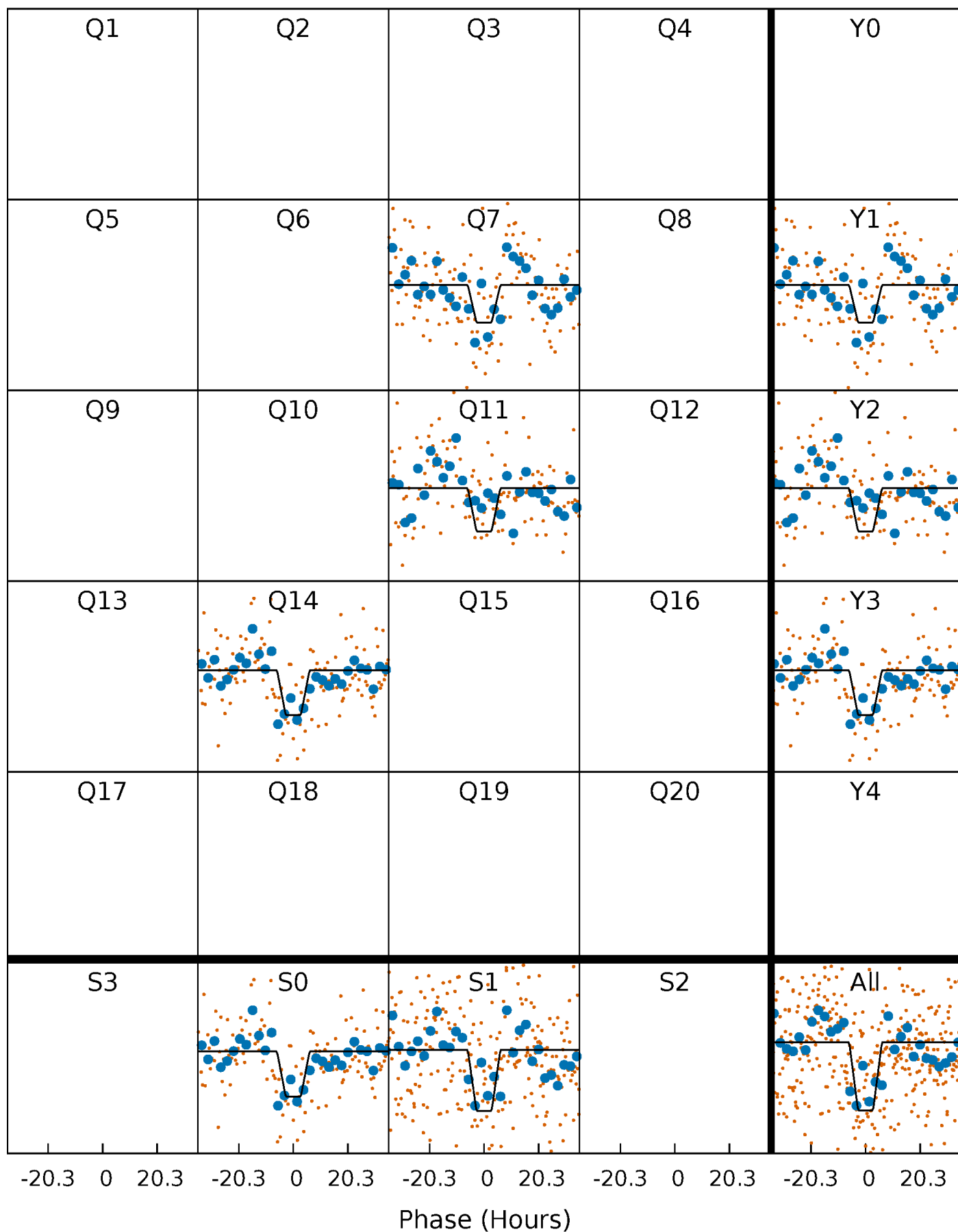
DV Quarter-Phased Transit Curves

TCE 006356272-01 P=338.589819 Days $T_0=331.628951$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

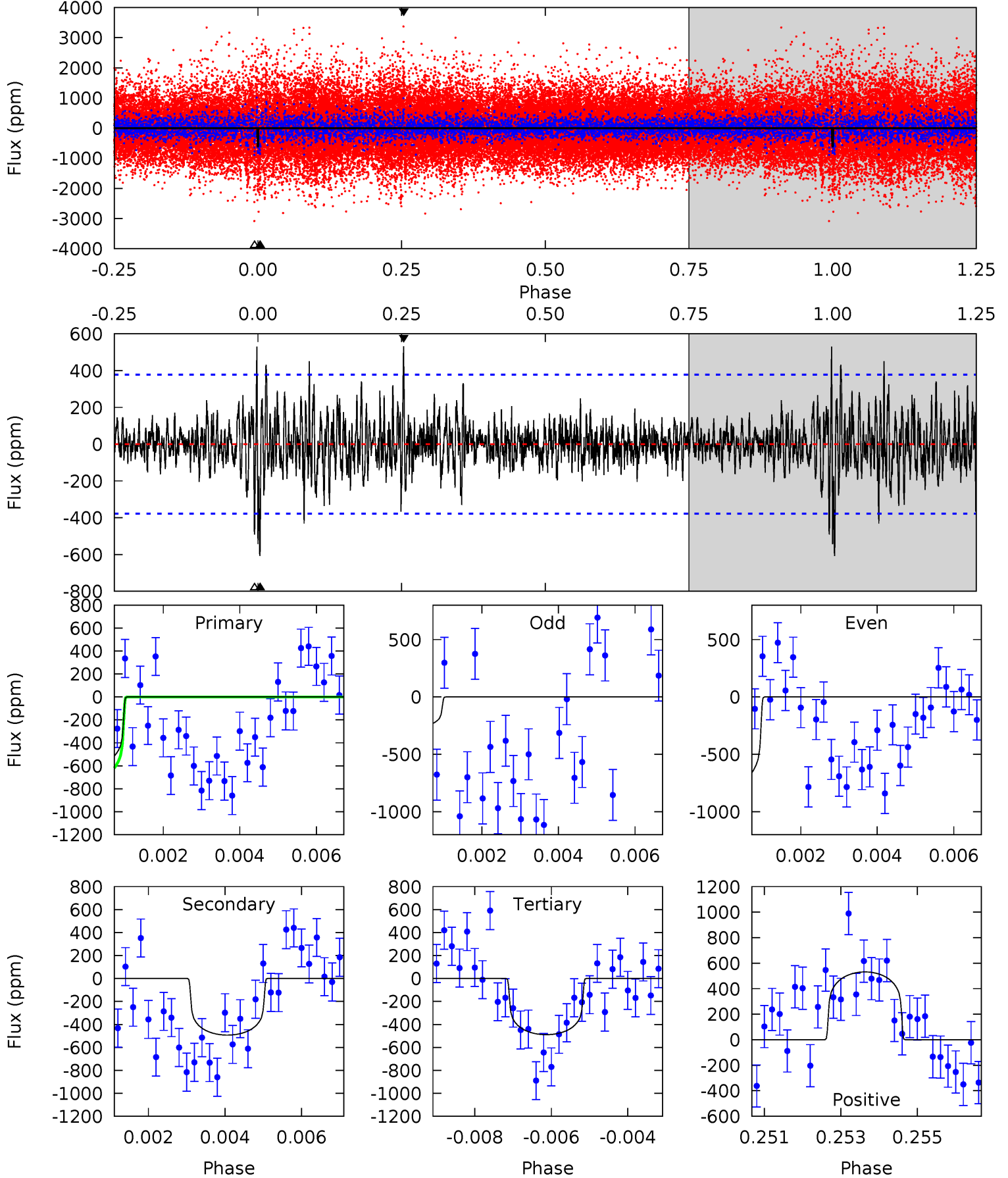
TCE 006356272-01 P=338.604523 Days $T_0=331.600263$ (BKJD)



DV Model-Shift Uniqueness Test

006356272-01, P = 338.589819 Days, E = 331.628951 Days

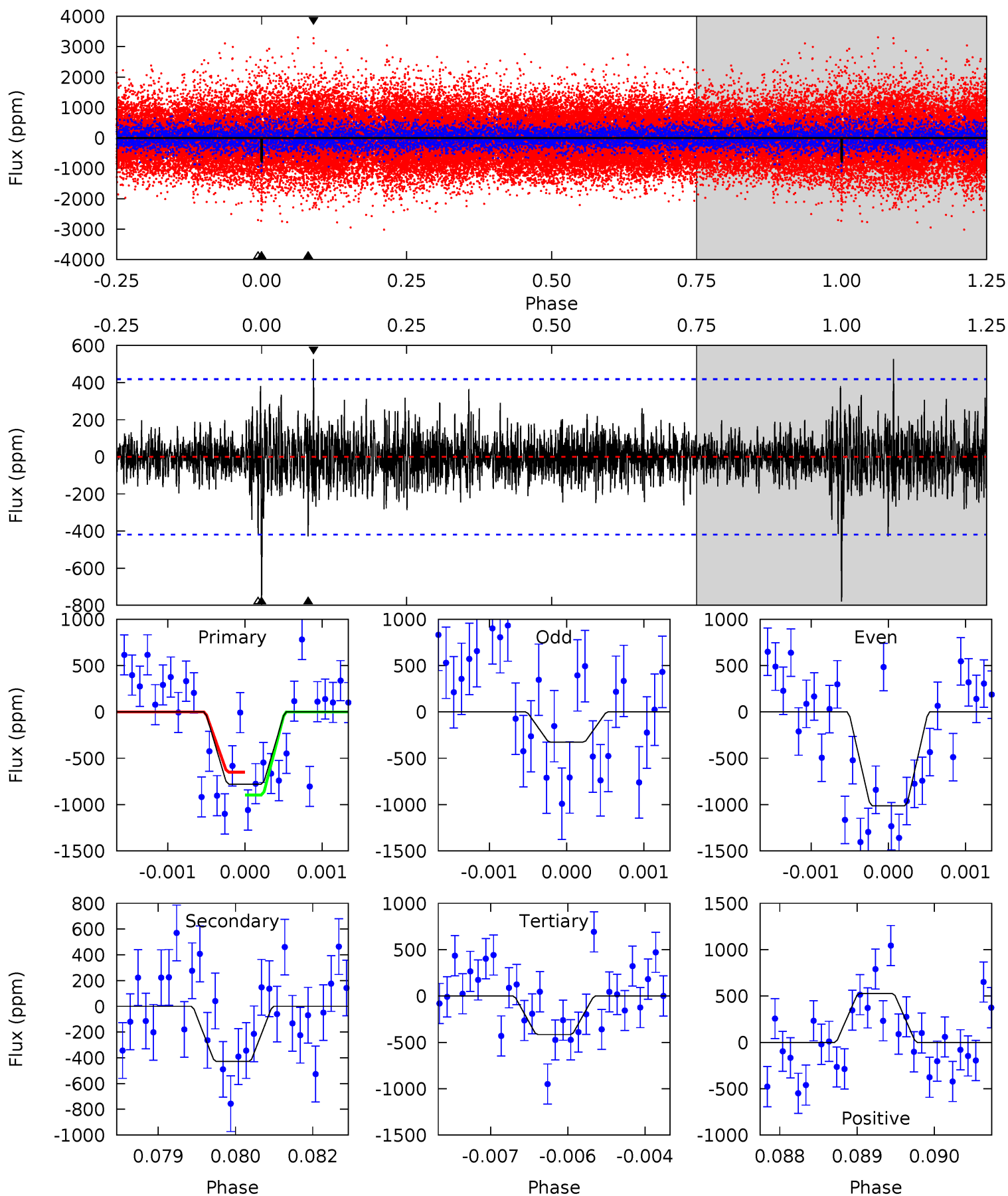
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.57	6.96	6.90	7.50	5.33	3.10	1.49	1.67	1.07	0.06	-0.54	3.45	1.10	0.47	1.80



Alt Model-Shift Uniqueness Test

006356272-01, P = 338.604523 Days, E = 331.600263 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.0	5.50	5.34	6.78	5.38	3.18	1.19	4.67	3.24	0.16	-1.27	4.24	0.79	0.40	1.59



Stellar Parameters For KIC 006356272

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6032^{+210}_{-210}	$4.508^{+0.052}_{-0.221}$	$-0.180^{+0.300}_{-0.300}$	$0.929^{+0.291}_{-0.097}$	$1.014^{+0.126}_{-0.140}$	$1.783^{+0.381}_{-0.961}$
	+3%/-3%	+1%/-5%	+167%/-167%	+31%/-10%	+12%/-14%	+21%/-54%
Source	KIC0	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 006356272-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-493 ± 71	$3.10^{+1.56}_{-1.51}$	376^{+29}_{-19}	5268^{+2242}_{-815}	25218^{+69059}_{-14669}
Alt.	-428 ± 78	$3.46^{+1.85}_{-1.70}$	374^{+28}_{-18}	4901^{+1796}_{-734}	17596^{+45574}_{-10219}

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 $A_{obs} \gg 1.0$

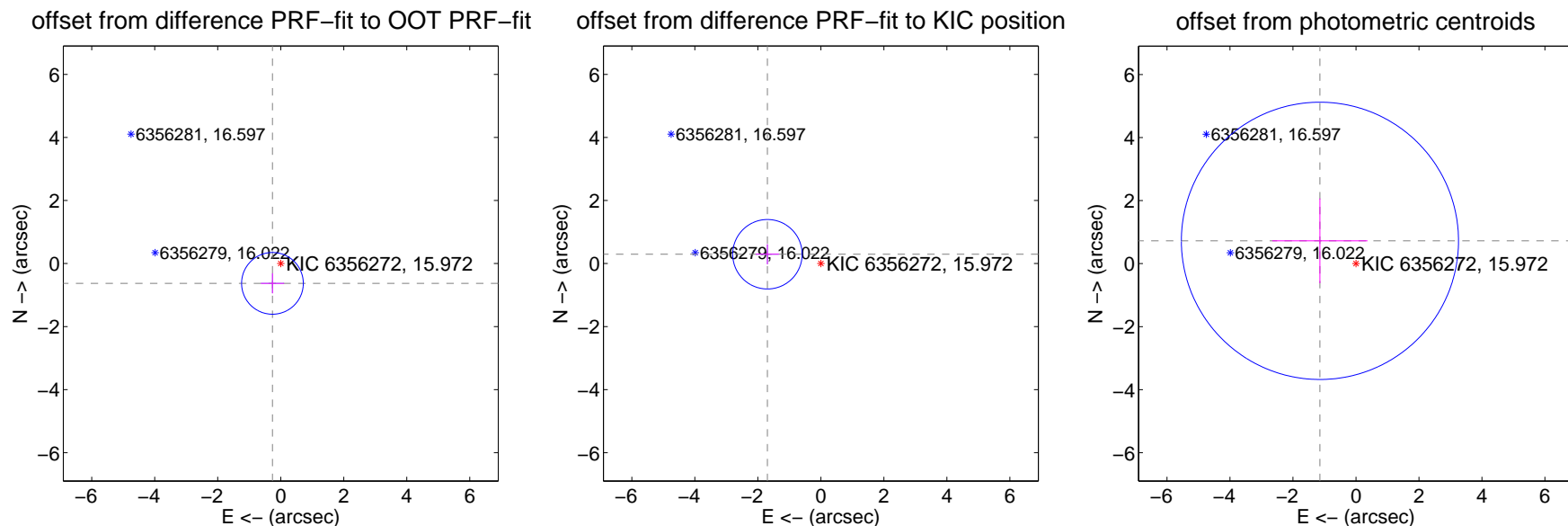
DV Centroid Data

Supplemental centroid analysis for 006356272-01. Kepler magnitude: 15.97. Transit SNR 8.22

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.70 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.681 ± 0.326	2.09	0.263 ± 0.369	-0.629 ± 0.318
PRF-fit source offset from KIC position	1.722 ± 0.367	4.69	1.696 ± 0.369	0.295 ± 0.318
photometric centroid source offset	1.35 ± 1.47	0.92	1.14 ± 1.51	0.72 ± 1.34



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.

Q5 no difference image



Q5 no OOT image



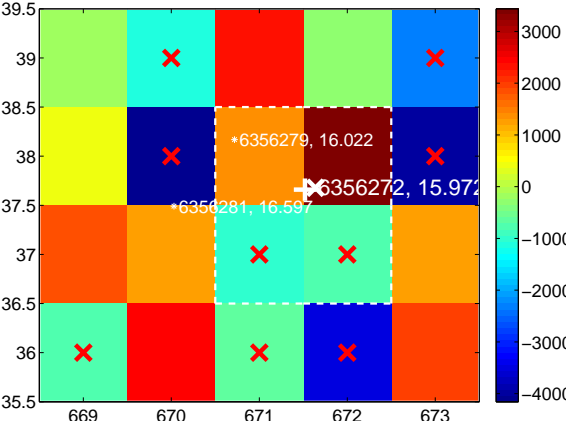
Q6 no difference image



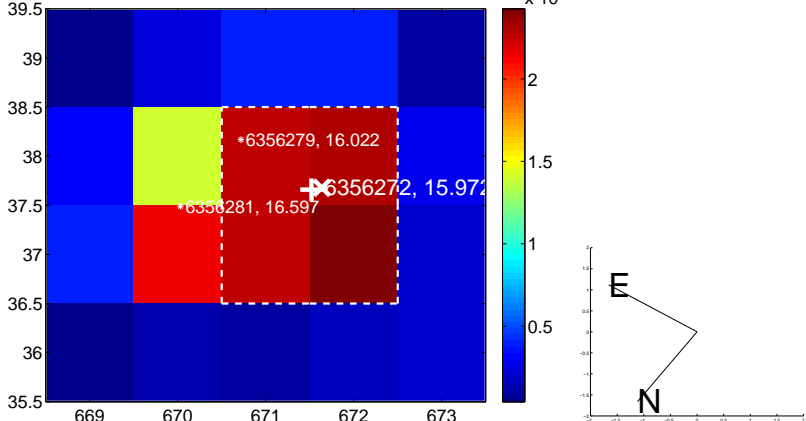
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



Q8 no difference image



Q8 no OOT image



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.

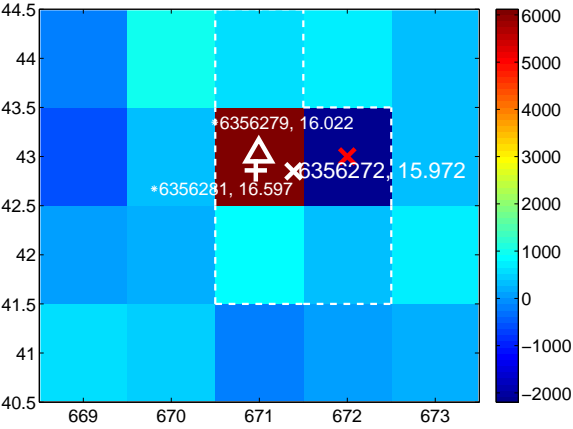
Q13 no difference image



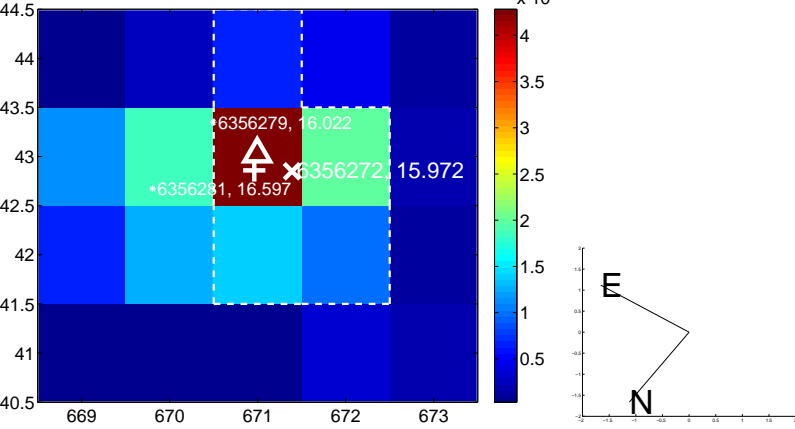
Q13 no OOT image



Q14 difference image



Q14 OOT image



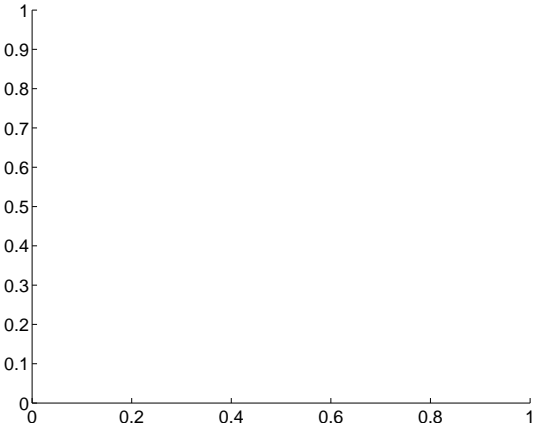
Q15 no difference image



Q15 no OOT image



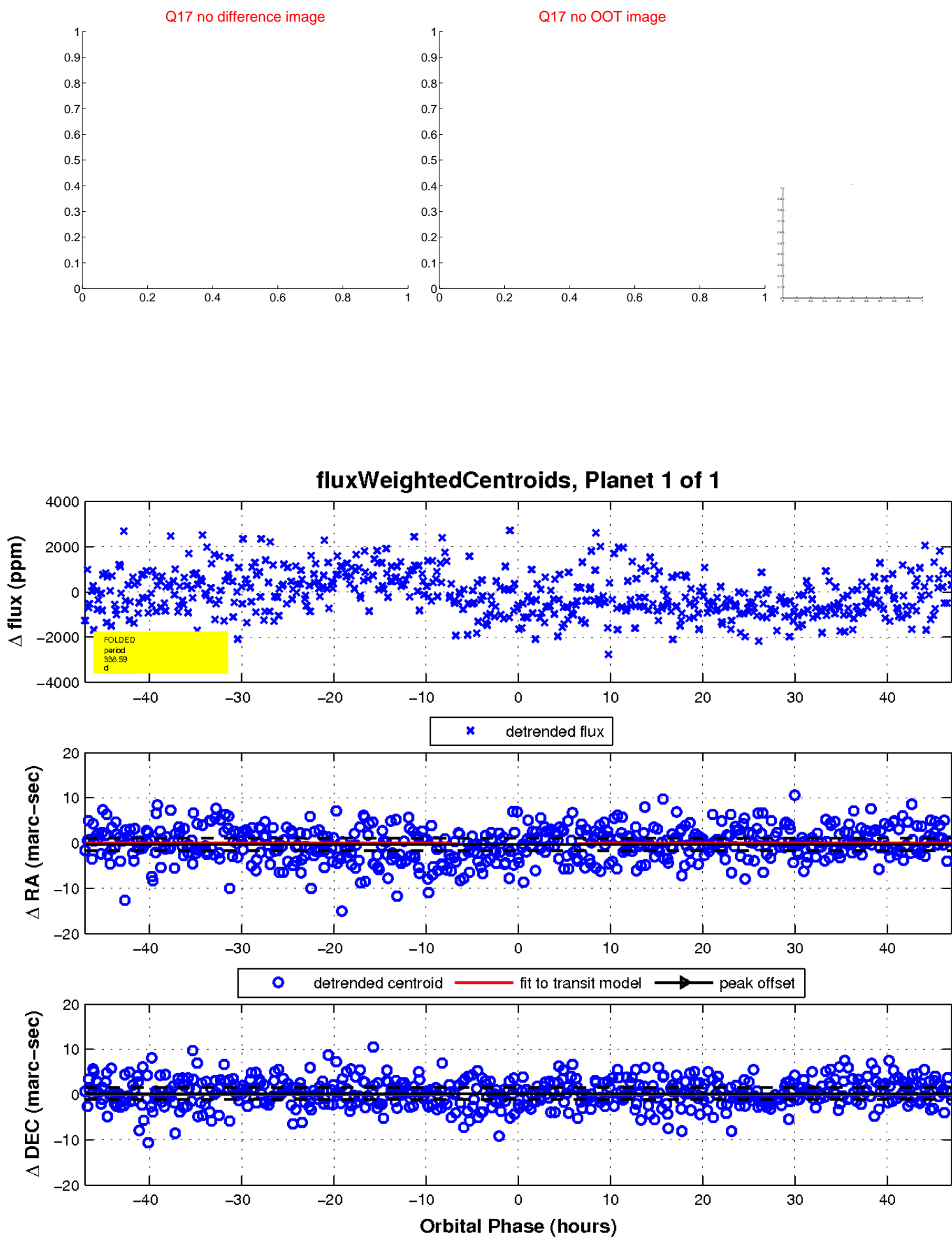
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

