

KIC 006952971

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})
006952971-01	OBS	7798.01	309.866477	259.106466	269.7	17.785	7.2	6.7	1.16	6450	2.01	2.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006952971-01	OBS	PC	0.47	0	0	0	0	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.

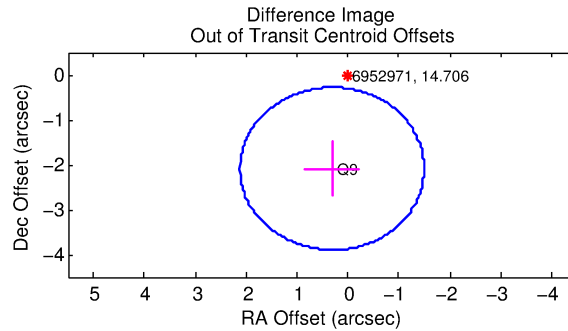
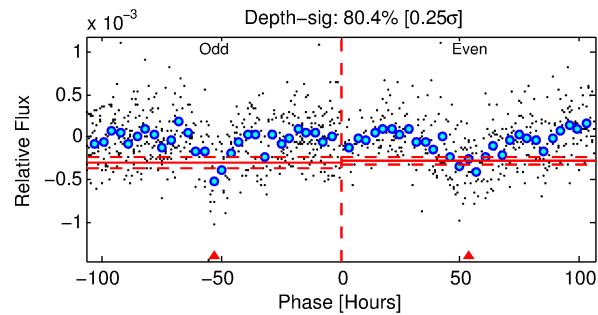
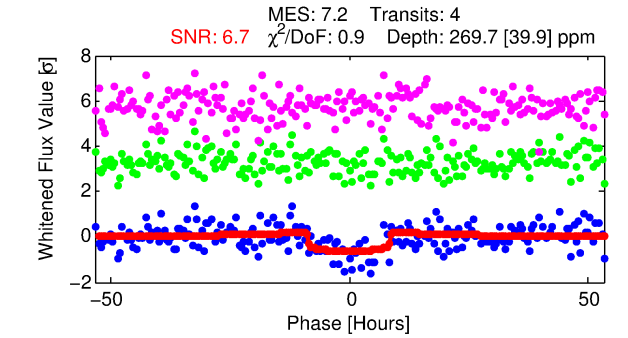
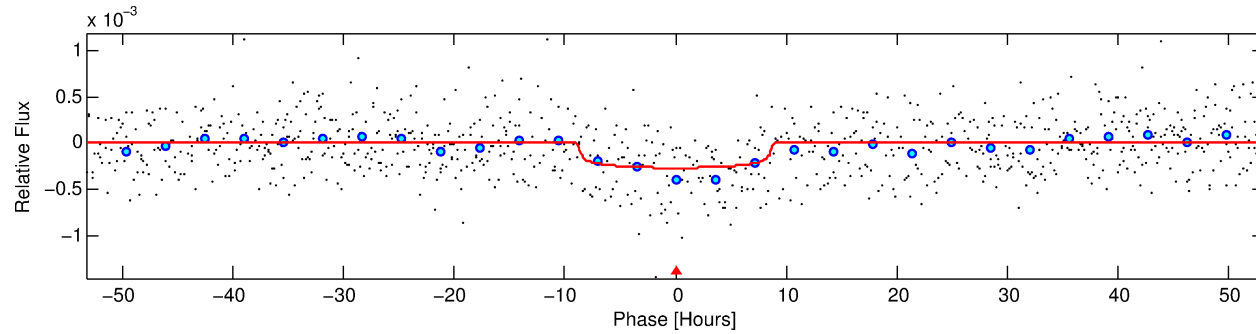
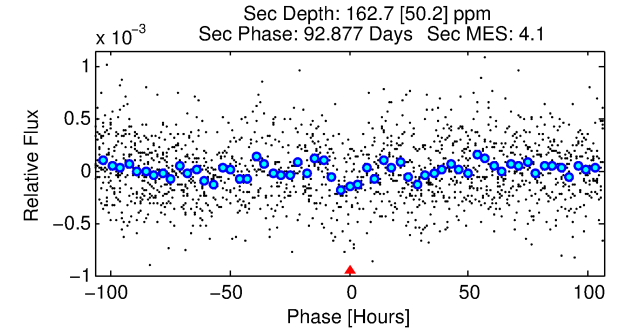
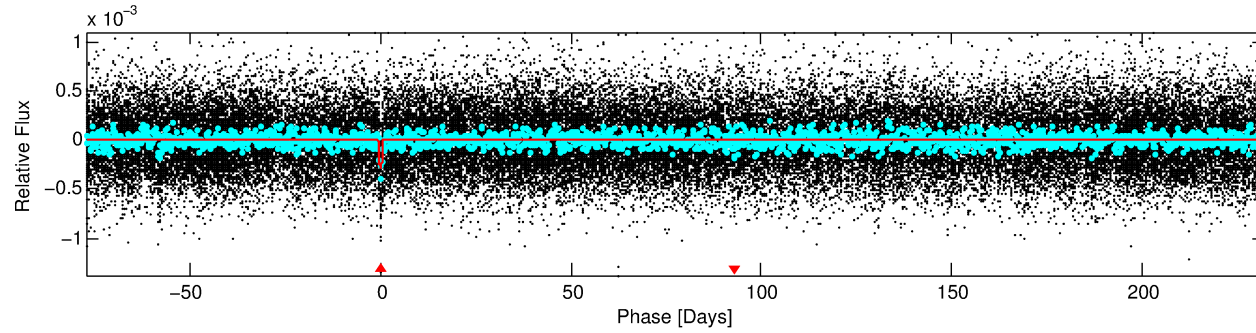
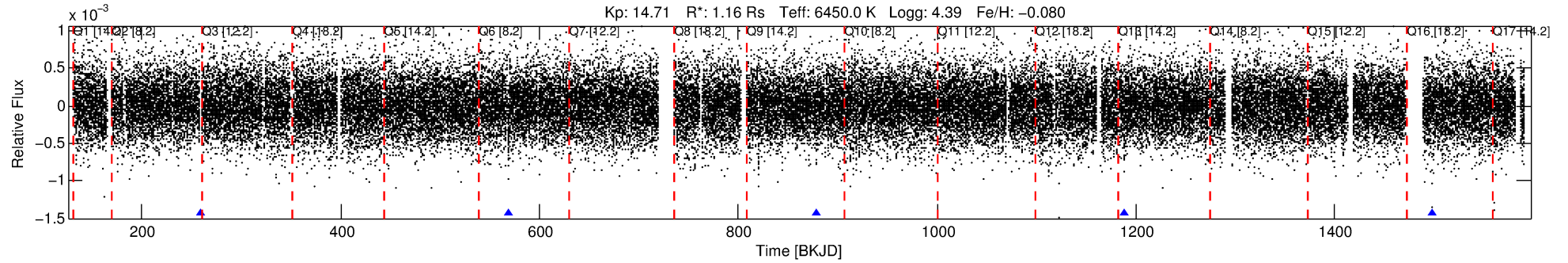
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006952971-01

No Significant Match Found

DV One-Page Summary

KIC: 6952971 Candidate: 1 of 1 Period: 309.866 d



DV Fit Results:

Period = 309.86648 [0.01283] d
Epoch = 259.1065 [0.0361] BKJD
Rp/R* = 0.0159 [0.0066]
a/R* = 103.29 [224.54]
b = 0.66 [1.90]
Seff = 2.30 [0.95]
Teff = 314 [32] K
Rp = 2.01 [1.07] Re
a = 0.9481 [0.2612] AU
Ag = 19963.90 [19341.60] [1.03 σ]
Teffp = 5772 [1293] K [4.22 σ]

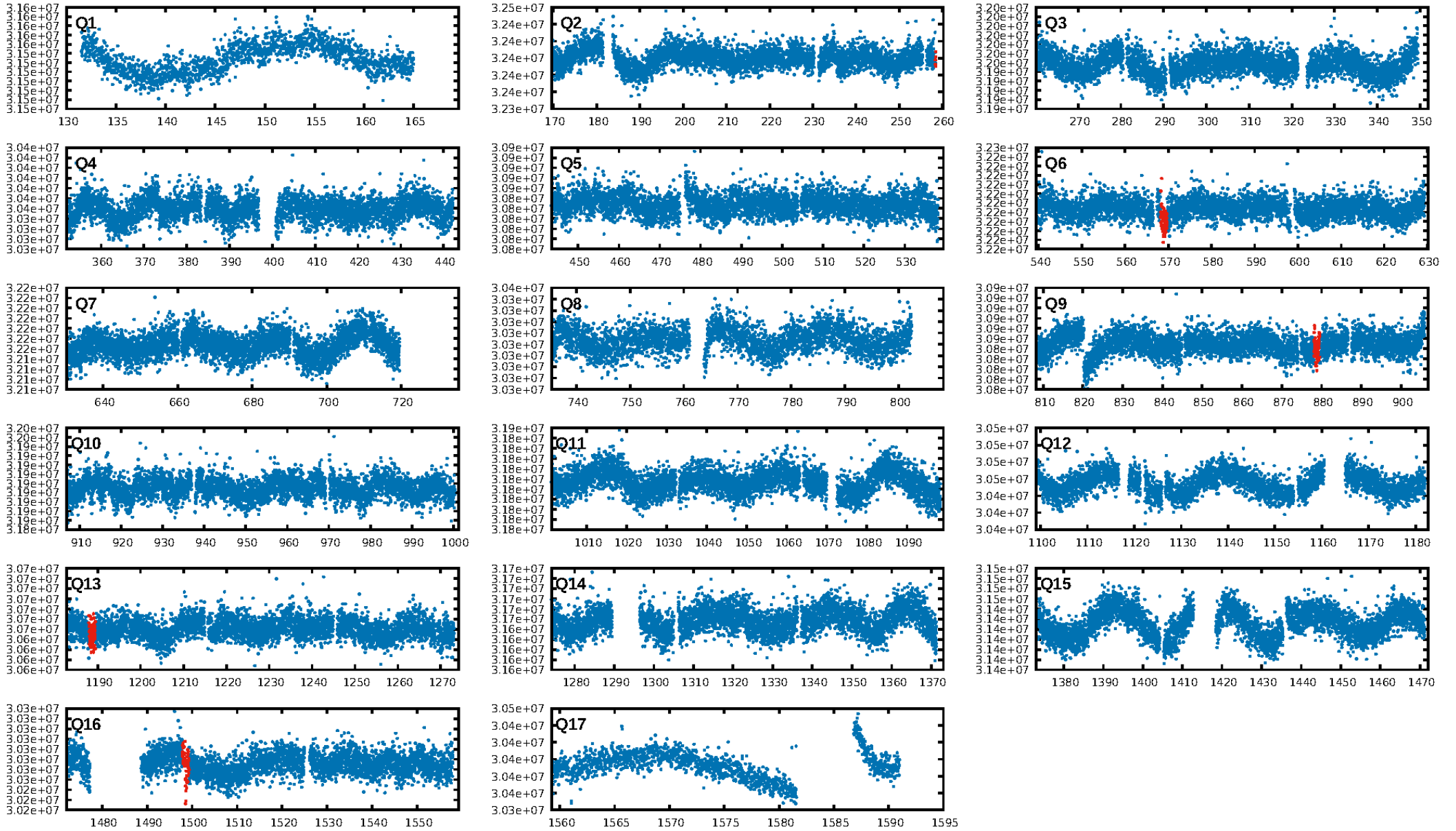
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 47.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.10e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.7144
Centroid-sig: 1.1%
Centroid-so: 3.568 arcsec [1.98 σ]
OotOffset-rm: 2.112 arcsec [3.50 σ]
KicOffset-rm: 2.131 arcsec [3.53 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

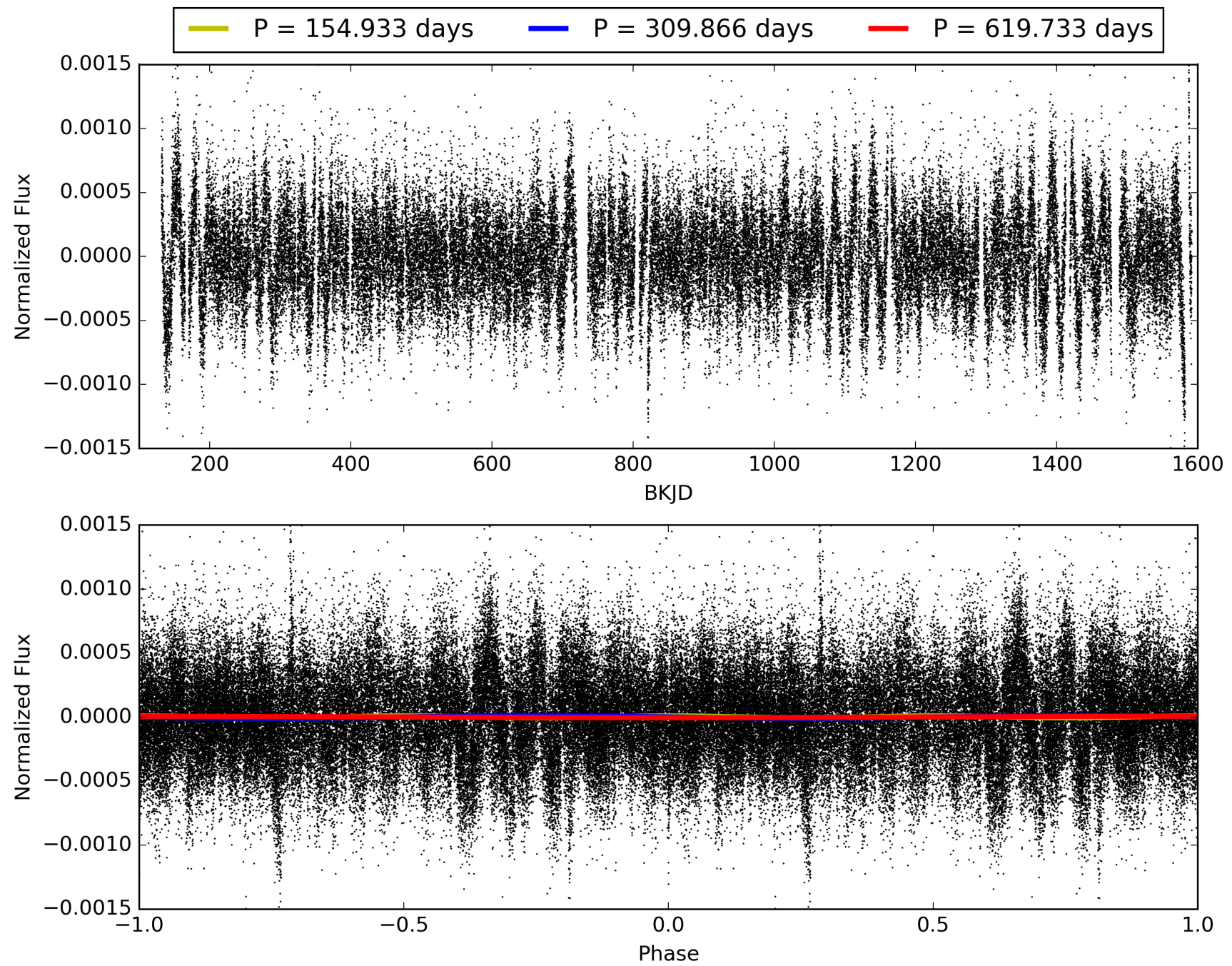
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:50:41 Z

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

TCE 006952971-01, PDC Light Curves

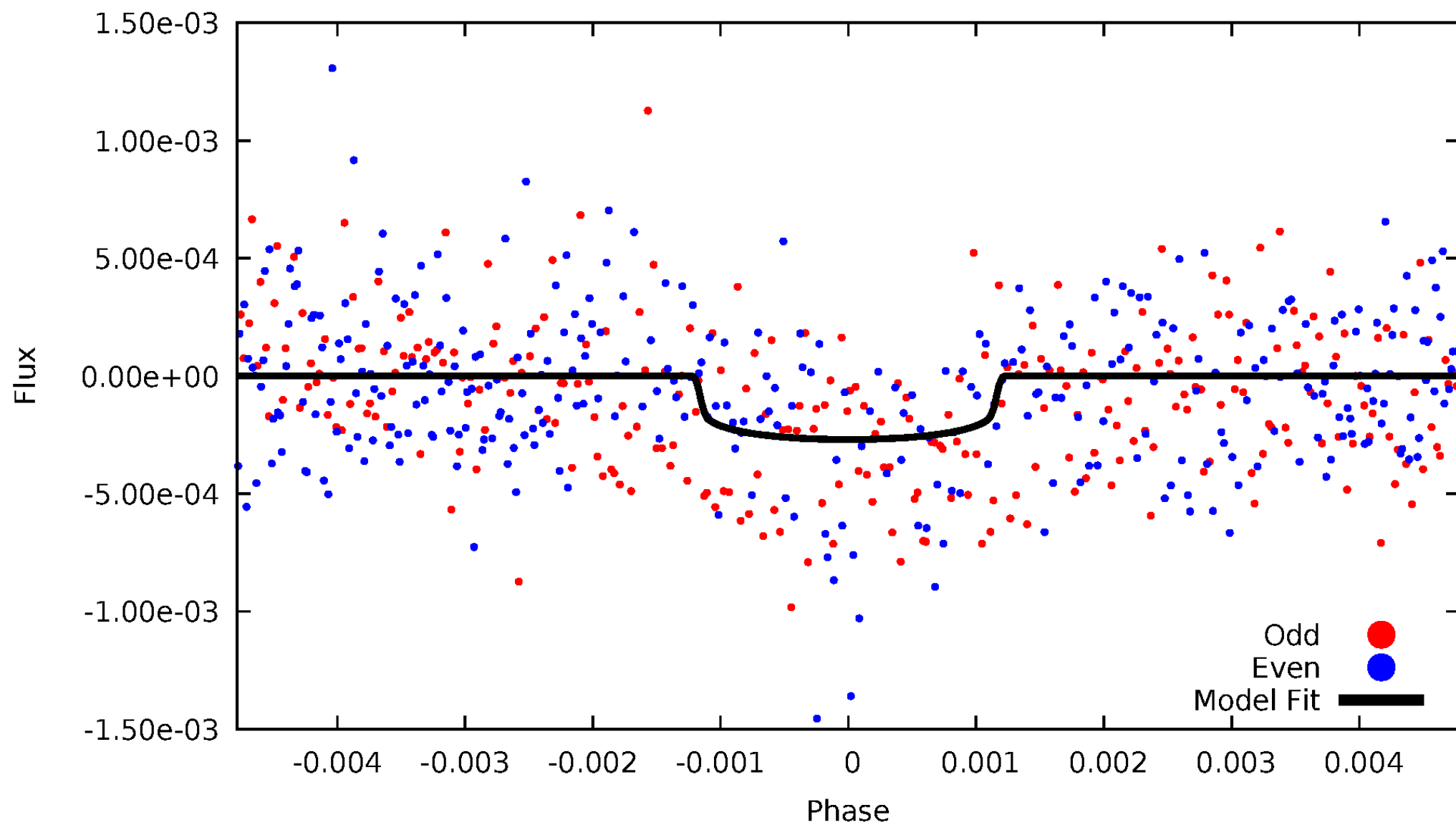


TCE 006952971-01



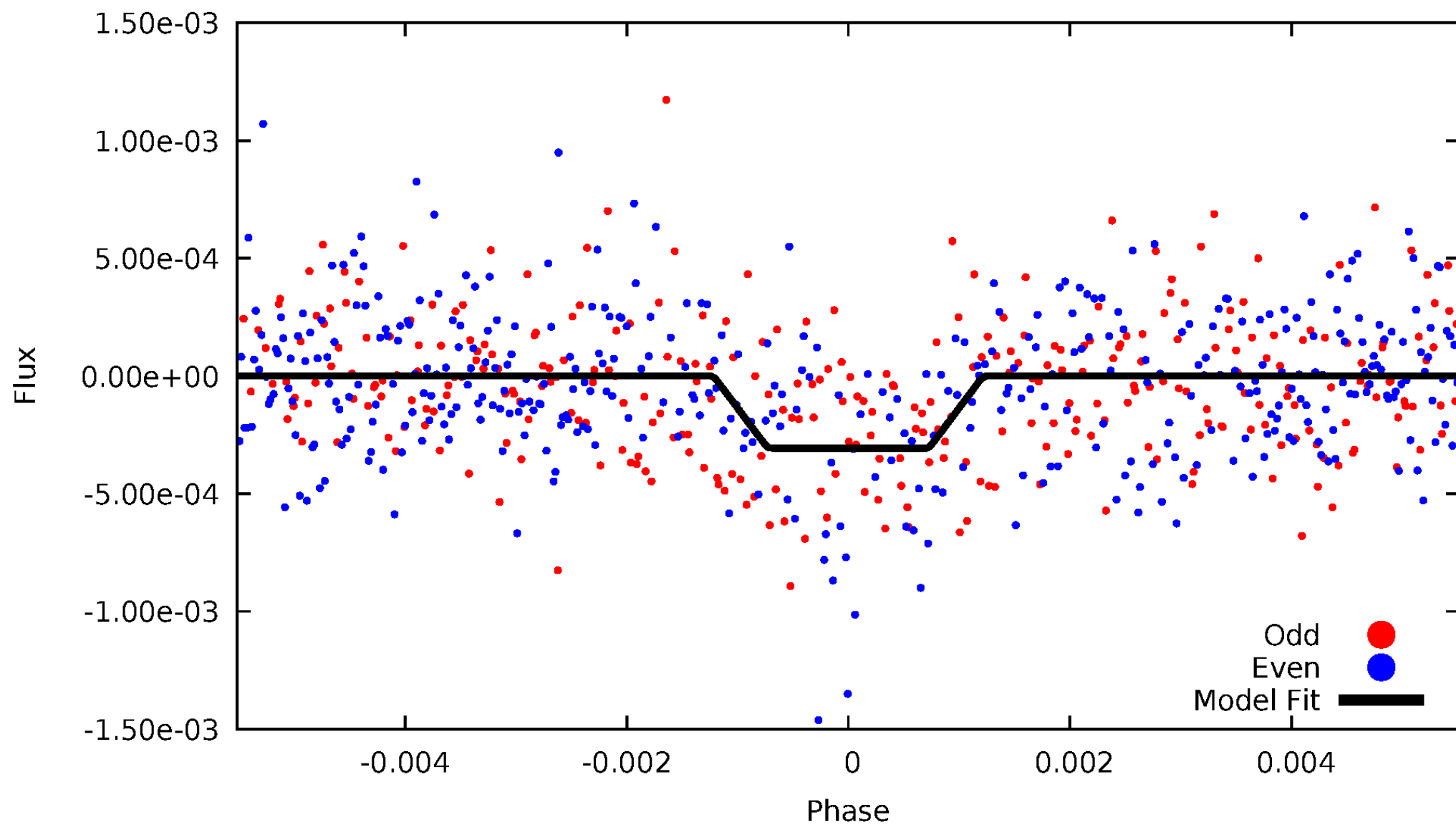
DV Odd/Even

TCE 006952971-01



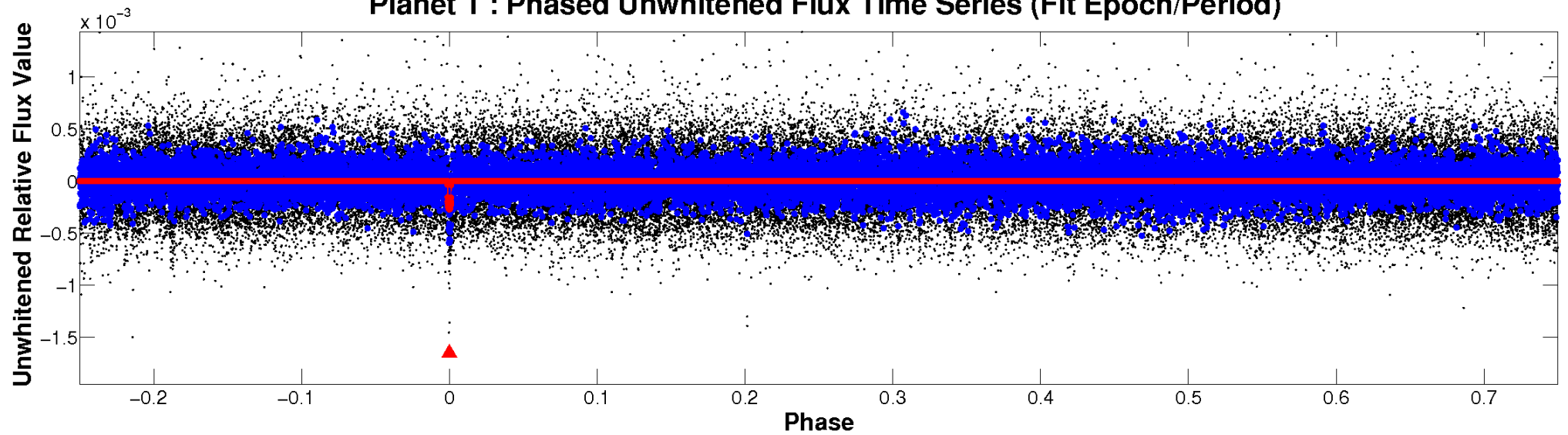
ALT Odd/Even

TCE 006952971-01

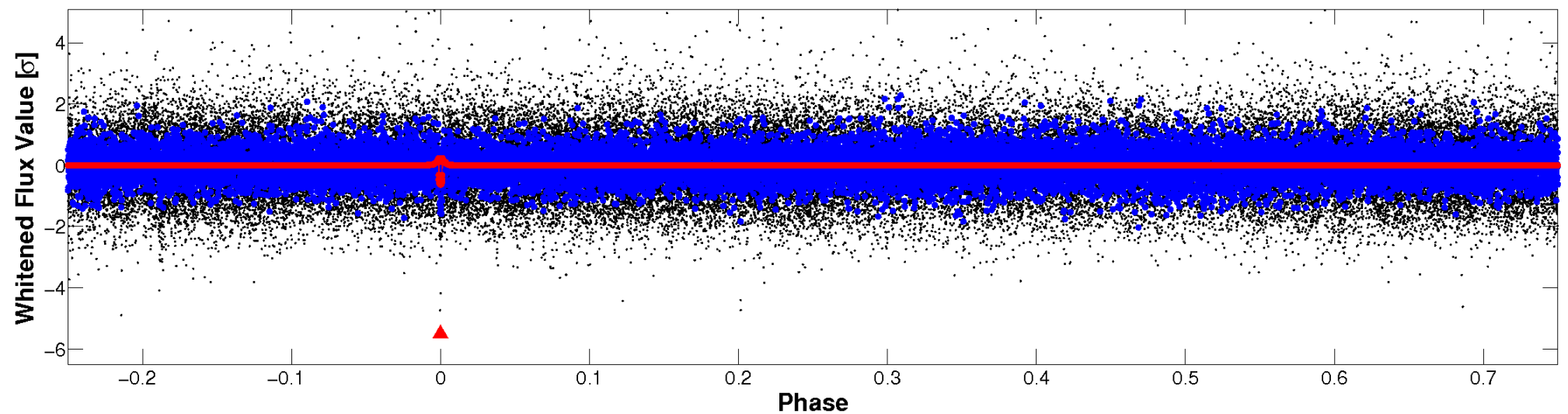


Non-Whitened Vs. Whitened Light Curve

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

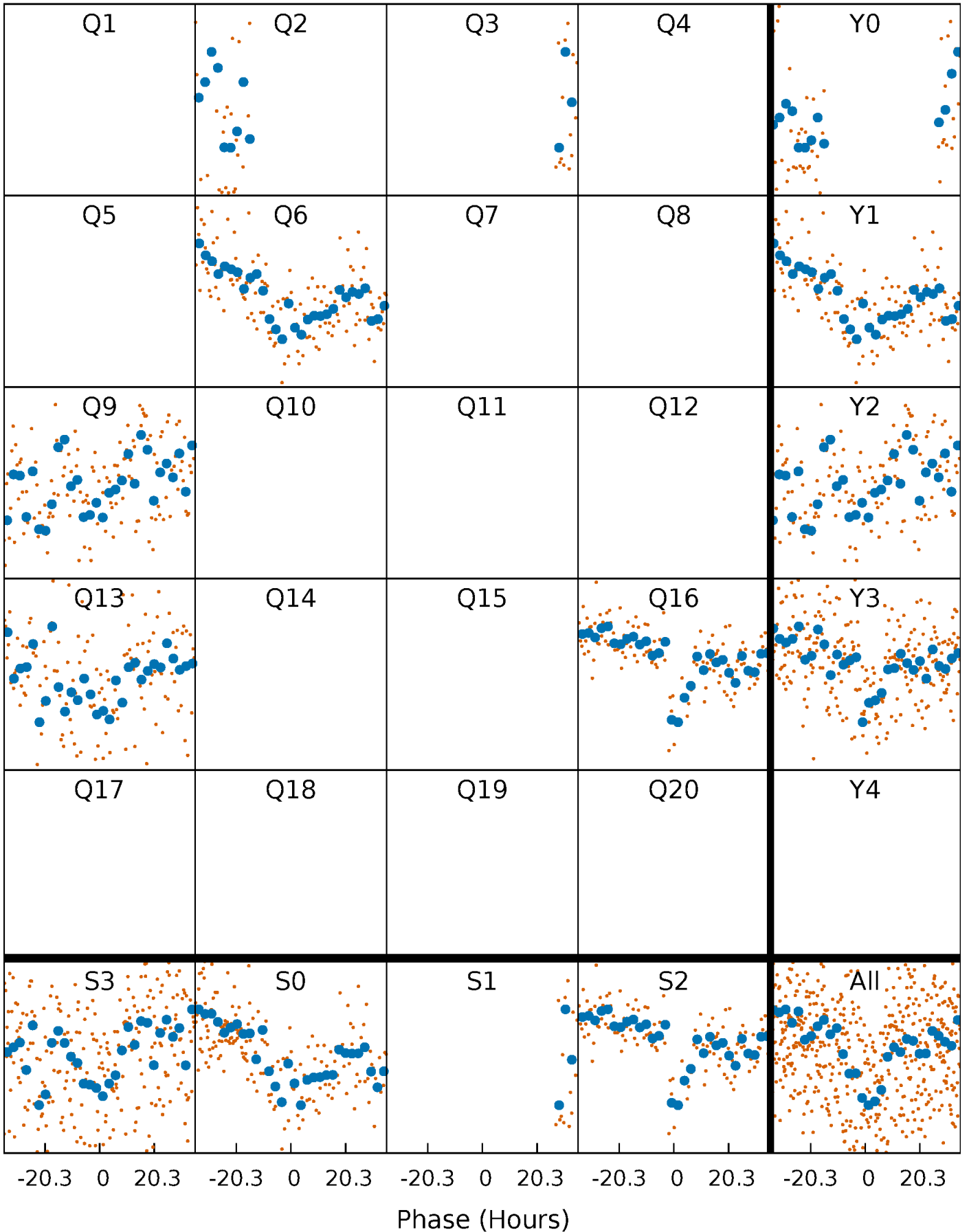


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



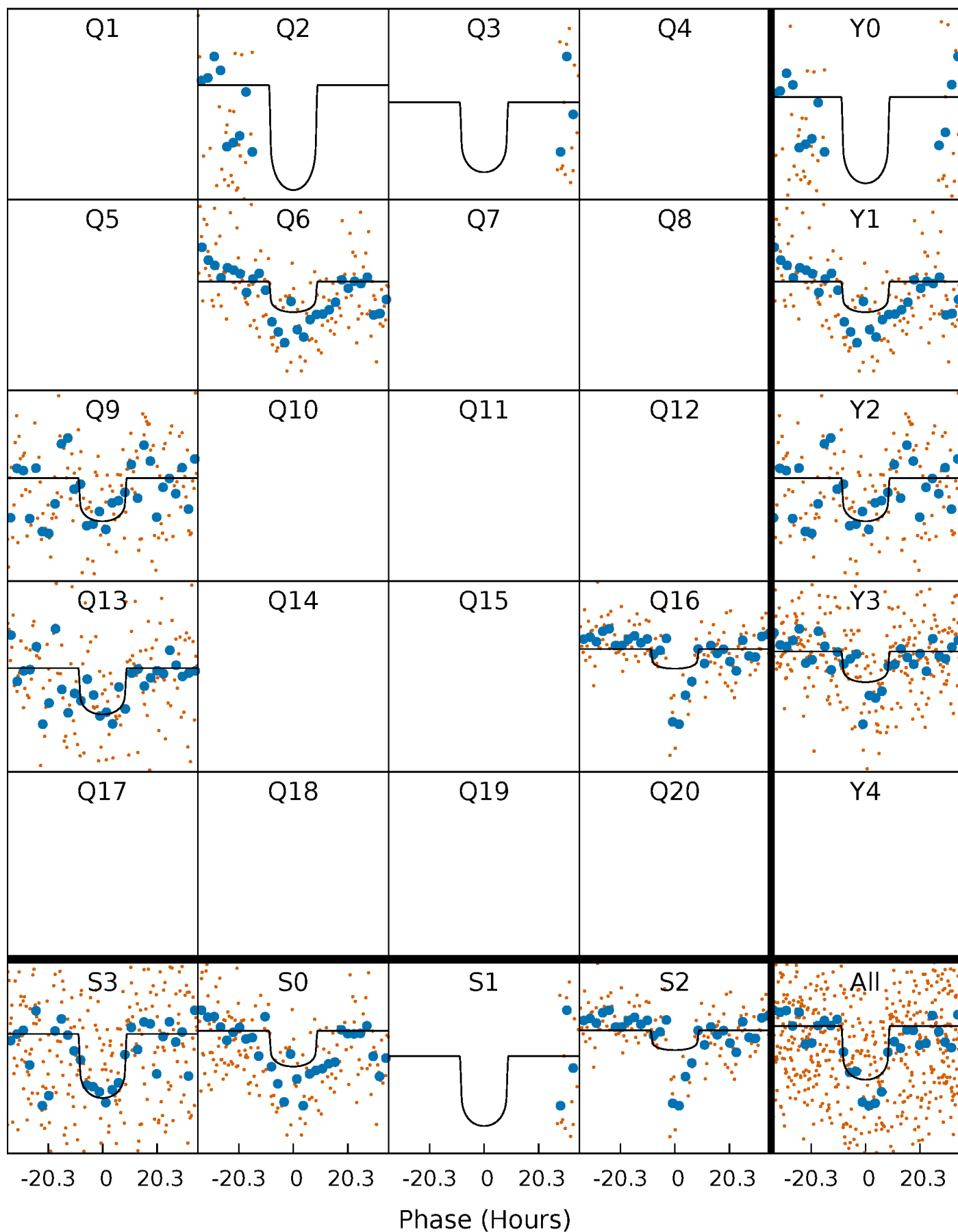
PDC Quarter-Phased Transit Curves

TCE 006952971-01 P=309.866477 Days $T_0=259.106466$ (BKJD)



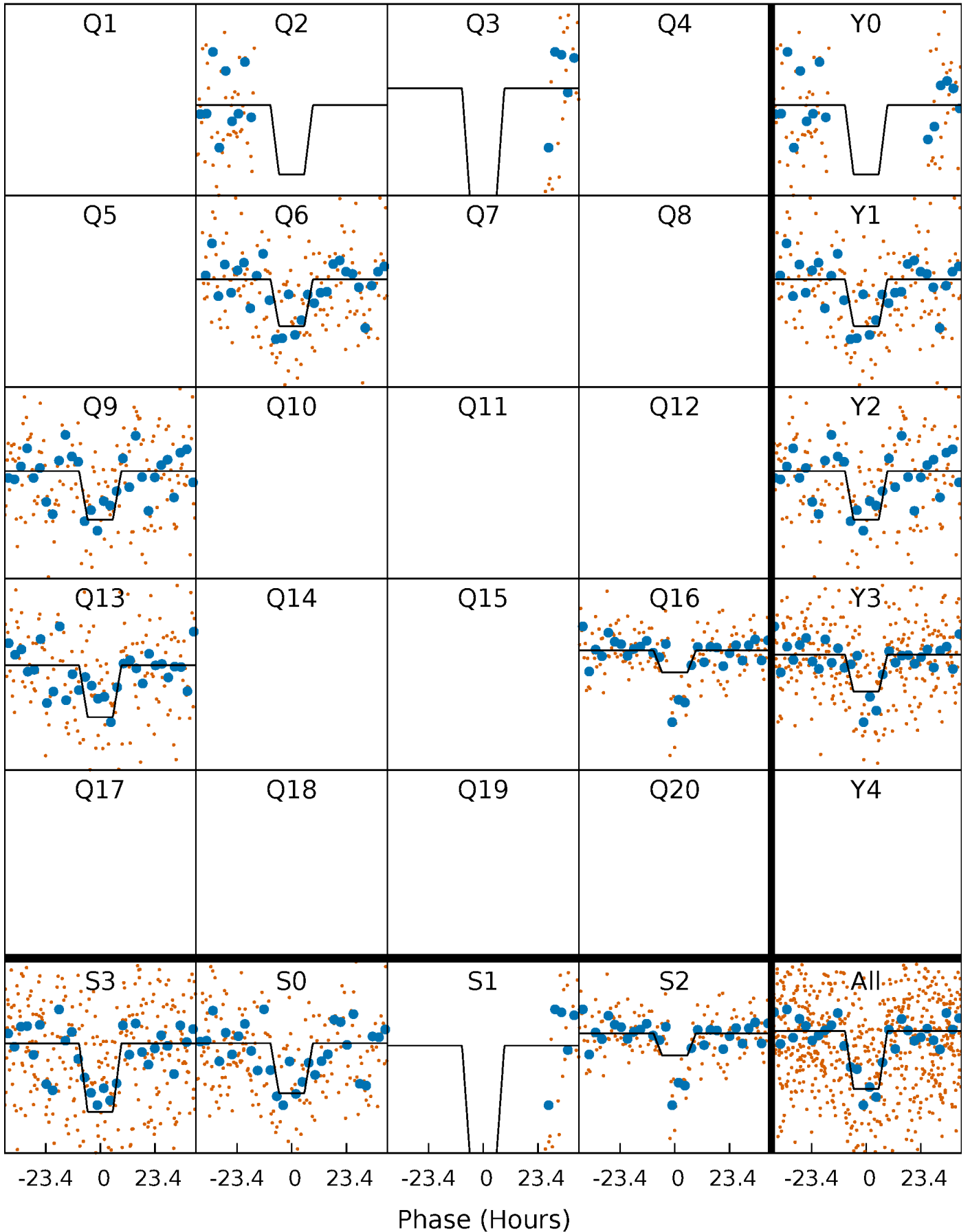
DV Quarter-Phased Transit Curves

TCE 006952971-01 P=309.866477 Days $T_0=259.106466$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

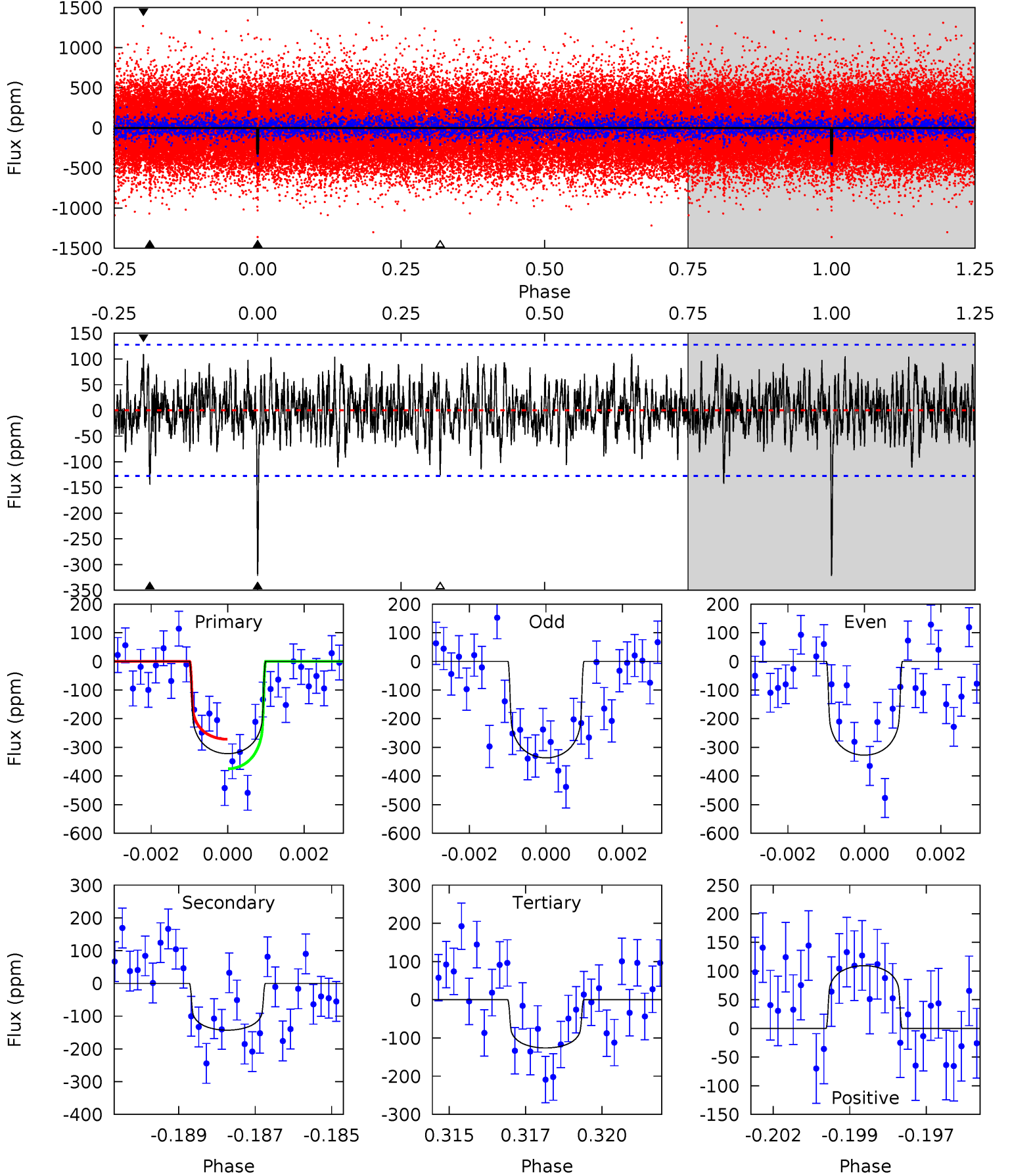
TCE 006952971-01 P=309.861315 Days $T_0=259.134867$ (BKJD)



DV Model-Shift Uniqueness Test

006952971-01, P = 309.866477 Days, E = 259.106466 Days

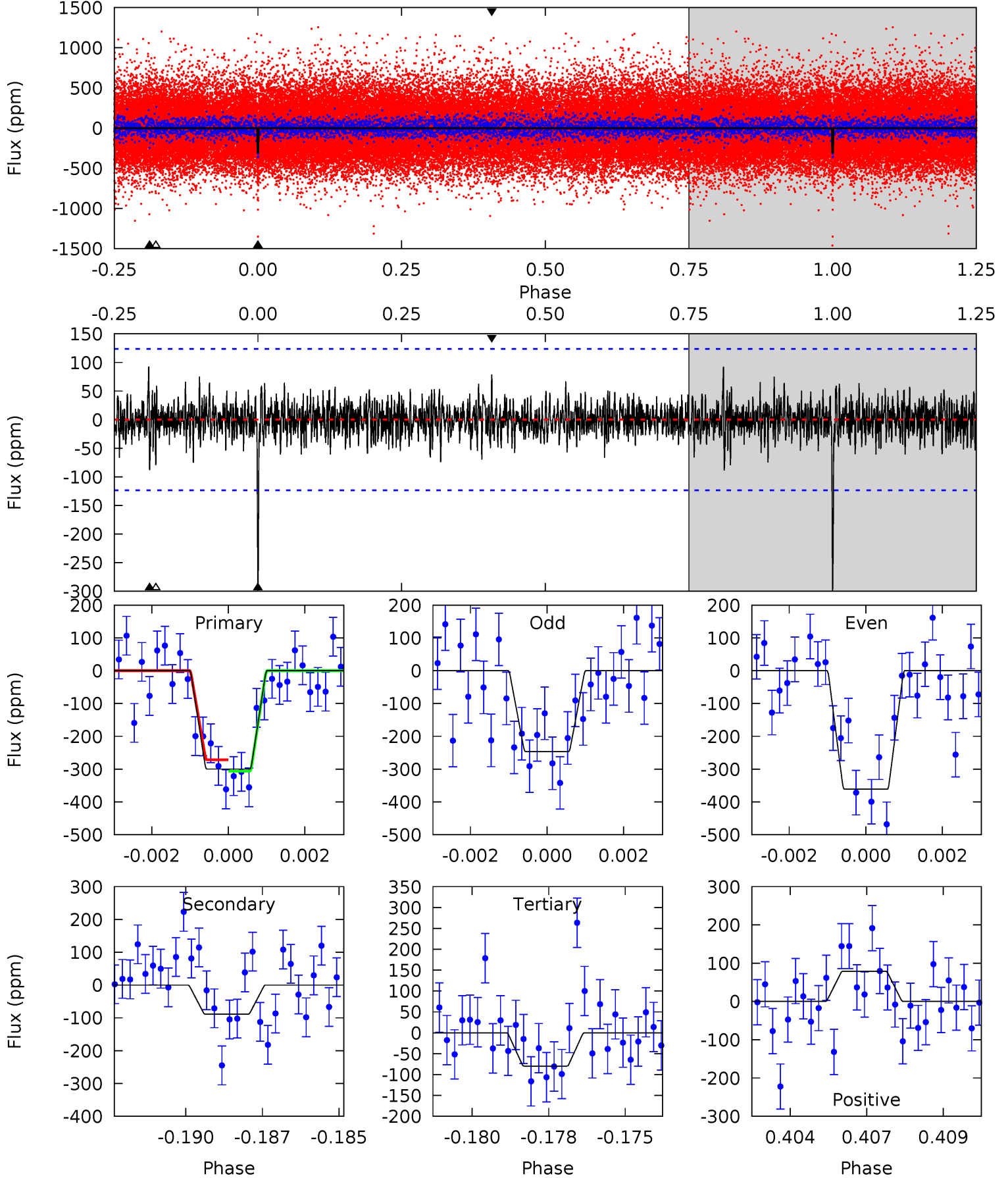
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	5.93	5.23	4.54	5.29	3.03	1.52	8.13	8.82	0.69	1.39	0.19	1.01	0.25	2.13



Alt Model-Shift Uniqueness Test

006952971-01, P = 309.861315 Days, E = 259.134867 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	3.79	3.41	3.38	5.29	3.03	0.93	9.42	9.46	0.38	0.41	2.46	1.13	0.24	0.73



Stellar Parameters For KIC 006952971

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6450^{+153}_{-211}	$4.386^{+0.065}_{-0.208}$	$-0.080^{+0.250}_{-0.300}$	$1.155^{+0.389}_{-0.130}$	$1.183^{+0.169}_{-0.152}$	$1.081^{+0.307}_{-0.568}$
	+2%/-3%	+1%/-5%	+312%/-375%	+34%/-11%	+14%/-13%	+28%/-53%
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 006952971-01 / KOI 7798.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-143 ± 24	$2.03^{+1.00}_{-0.83}$	446^{+33}_{-22}	5663^{+1753}_{-885}	16565^{+33342}_{-9138}
Alt.	-89 ± 23	$2.29^{+0.99}_{-0.85}$	448^{+33}_{-22}	4841^{+1146}_{-647}	7991^{+13713}_{-4089}

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 $A_{obs} \gg 1.0$

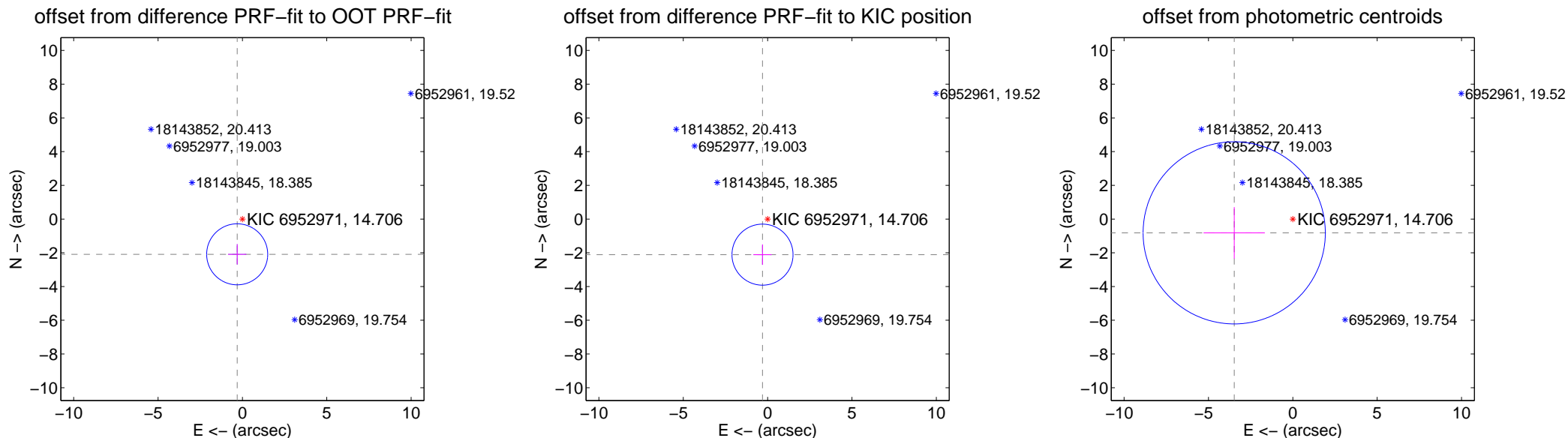
DV Centroid Data

Supplemental centroid analysis for 006952971-01. Kepler magnitude: 14.71. Transit SNR 6.67

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.112 ± 0.603	3.50	0.310 ± 0.542	-2.089 ± 0.604
PRF-fit source offset from KIC position	2.131 ± 0.603	3.53	0.303 ± 0.542	-2.109 ± 0.604
photometric centroid source offset	3.57 ± 1.80	1.98	3.47 ± 1.81	-0.82 ± 1.53



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.

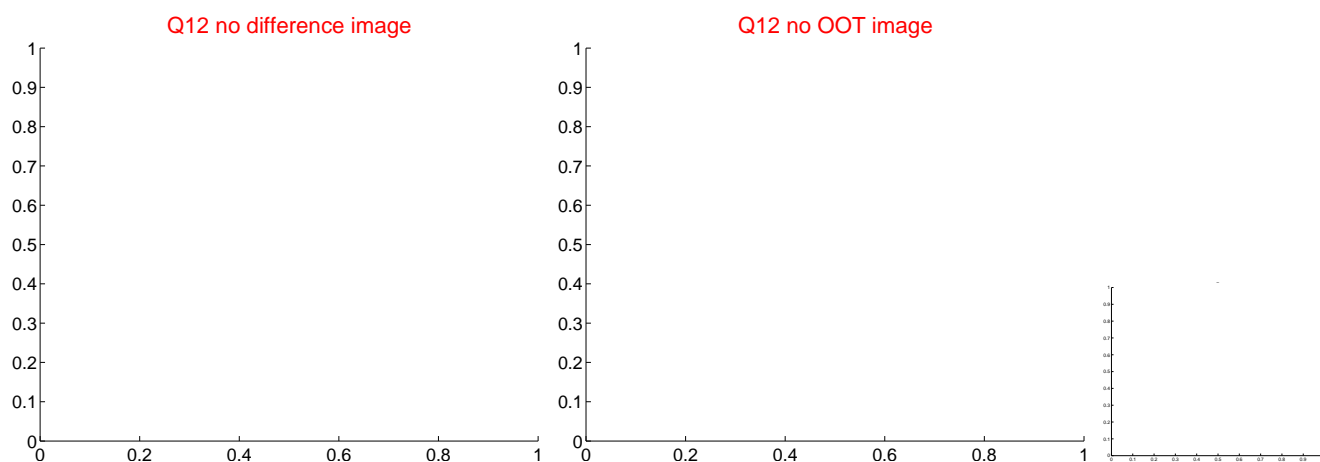
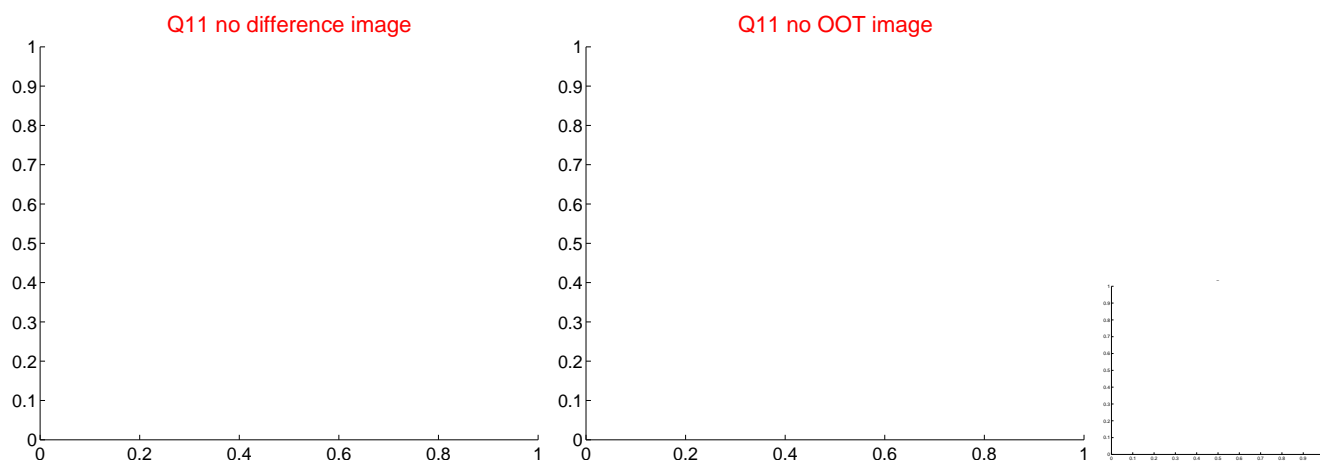
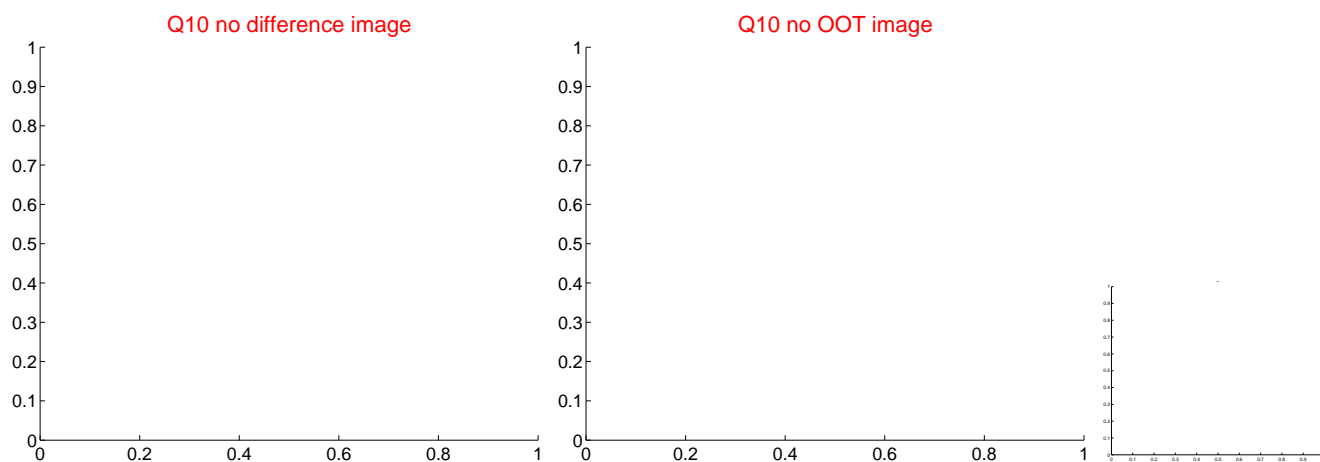
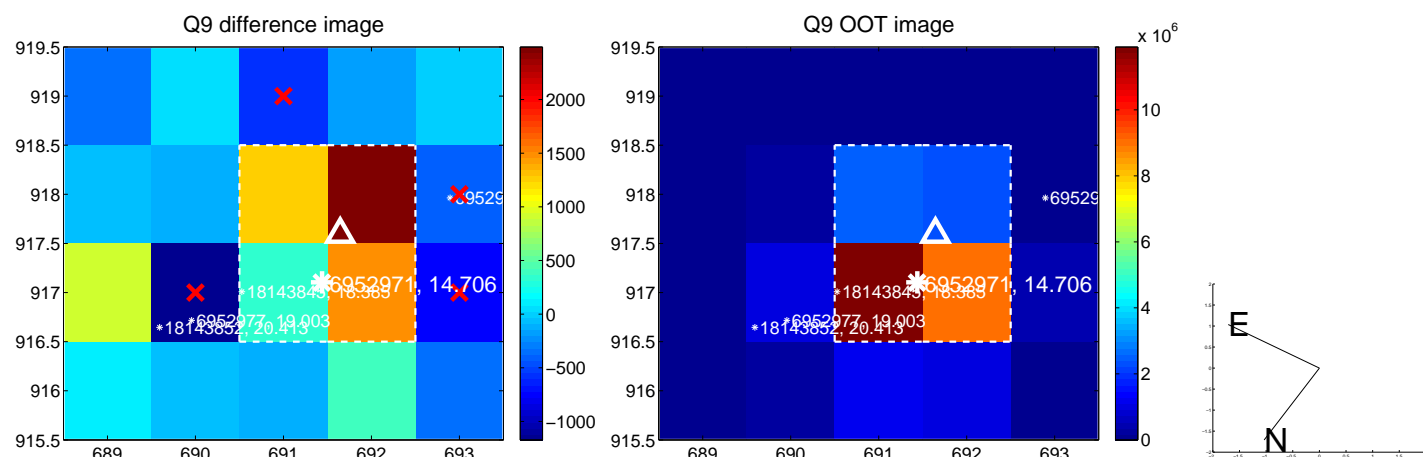
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



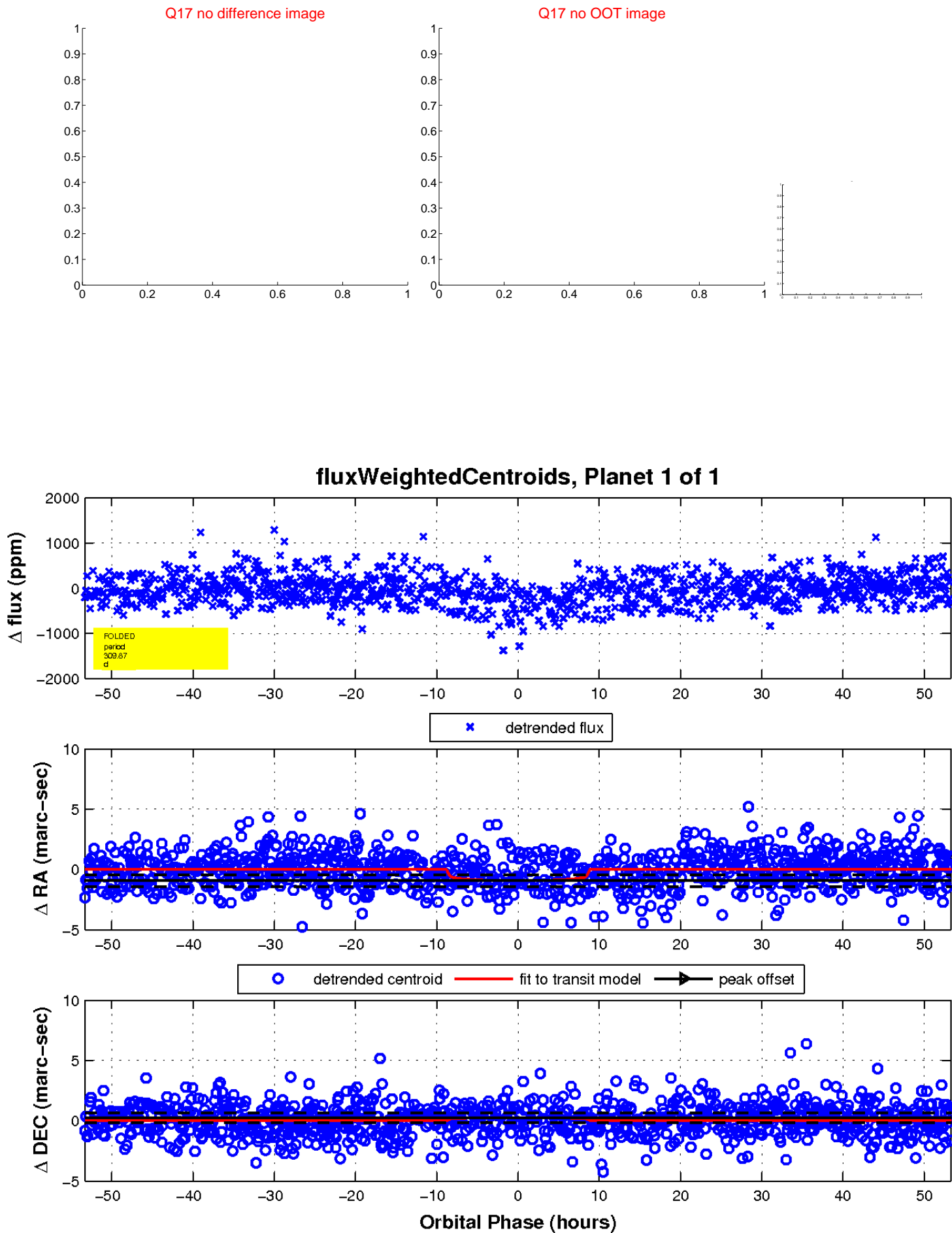
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

