

KIC 006963171

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})
006963171-01	OBS	No	23.330393	140.999142	360.9	29.180	12.3	15.3	2.06	6183	5.24	178.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006963171-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—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.

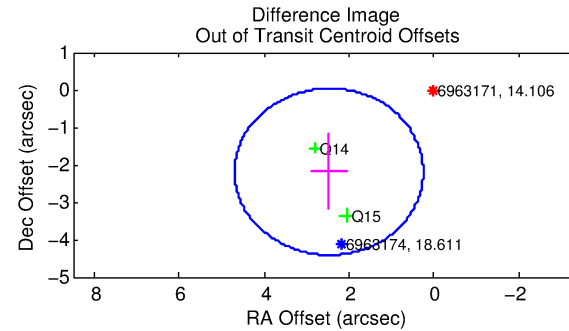
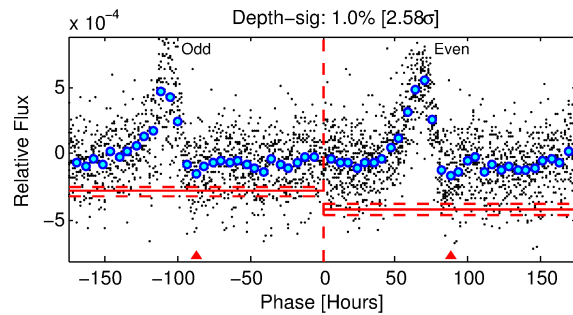
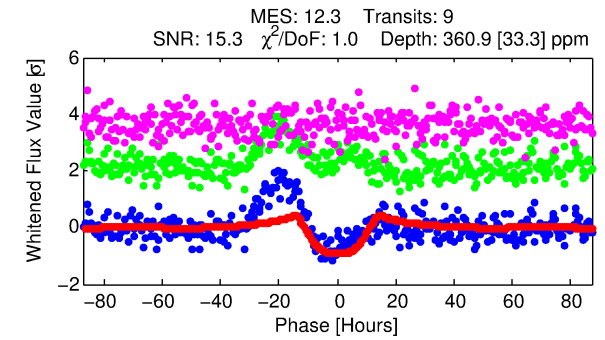
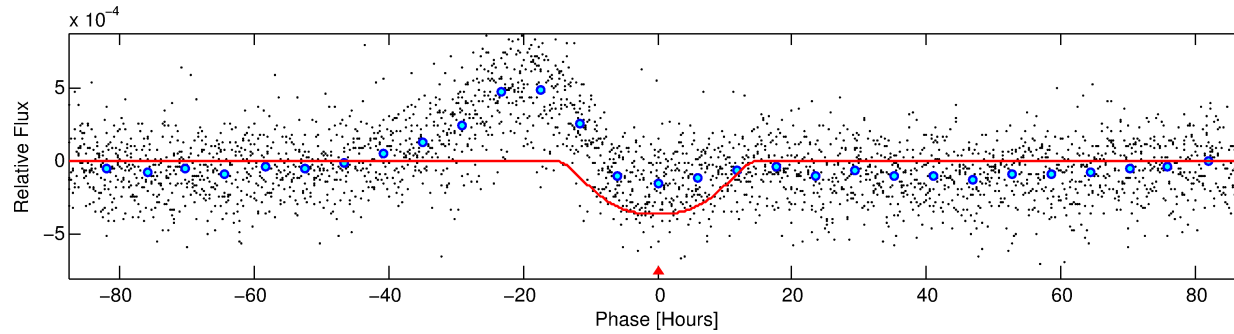
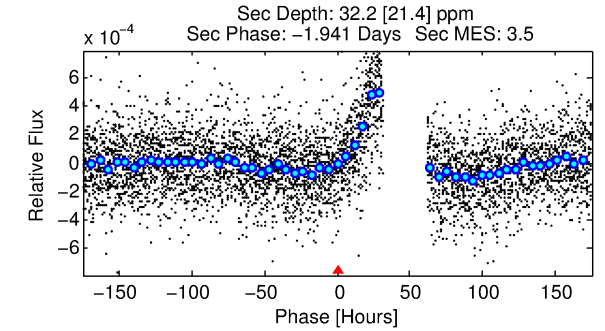
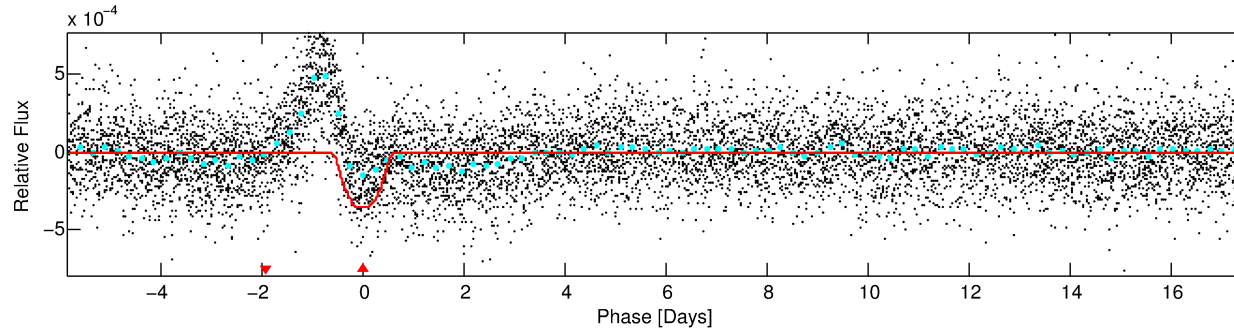
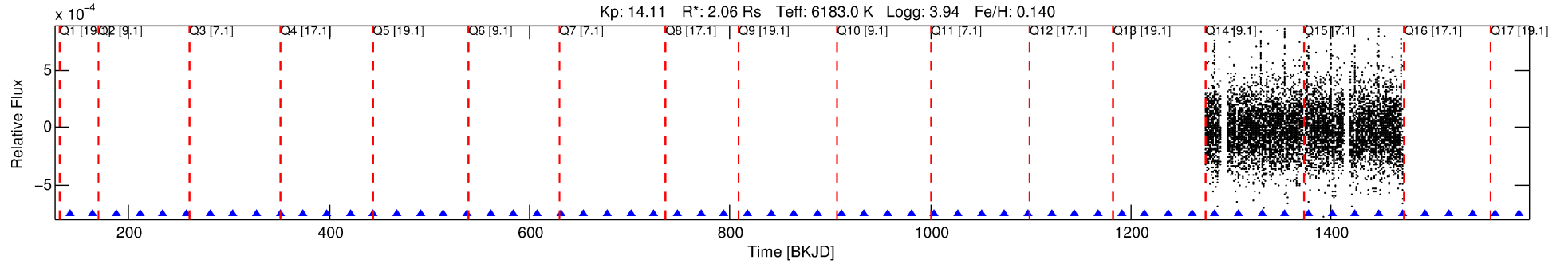
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006963171-01

No Significant Match Found

DV One-Page Summary

KIC: 6963171 Candidate: 1 of 1 Period: 23.330 d



DV Fit Results:

Period = 23.33039 [0.00719] d
Epoch = 140.9991 [0.3818] BKJD
Rp/R* = 0.0233 [0.0014]
a/R* = 2.13 [0.14]
b = 0.98 [0.01]
Seff = 178.70 [118.56]
Teq = 932 [155] K
Rp = 5.24 [2.13] Re
a = 0.1766 [0.0701] AU
Ag = 20.13 [18.82] [1.02σ]
Teffp = 3053 [530] K [3.84σ]

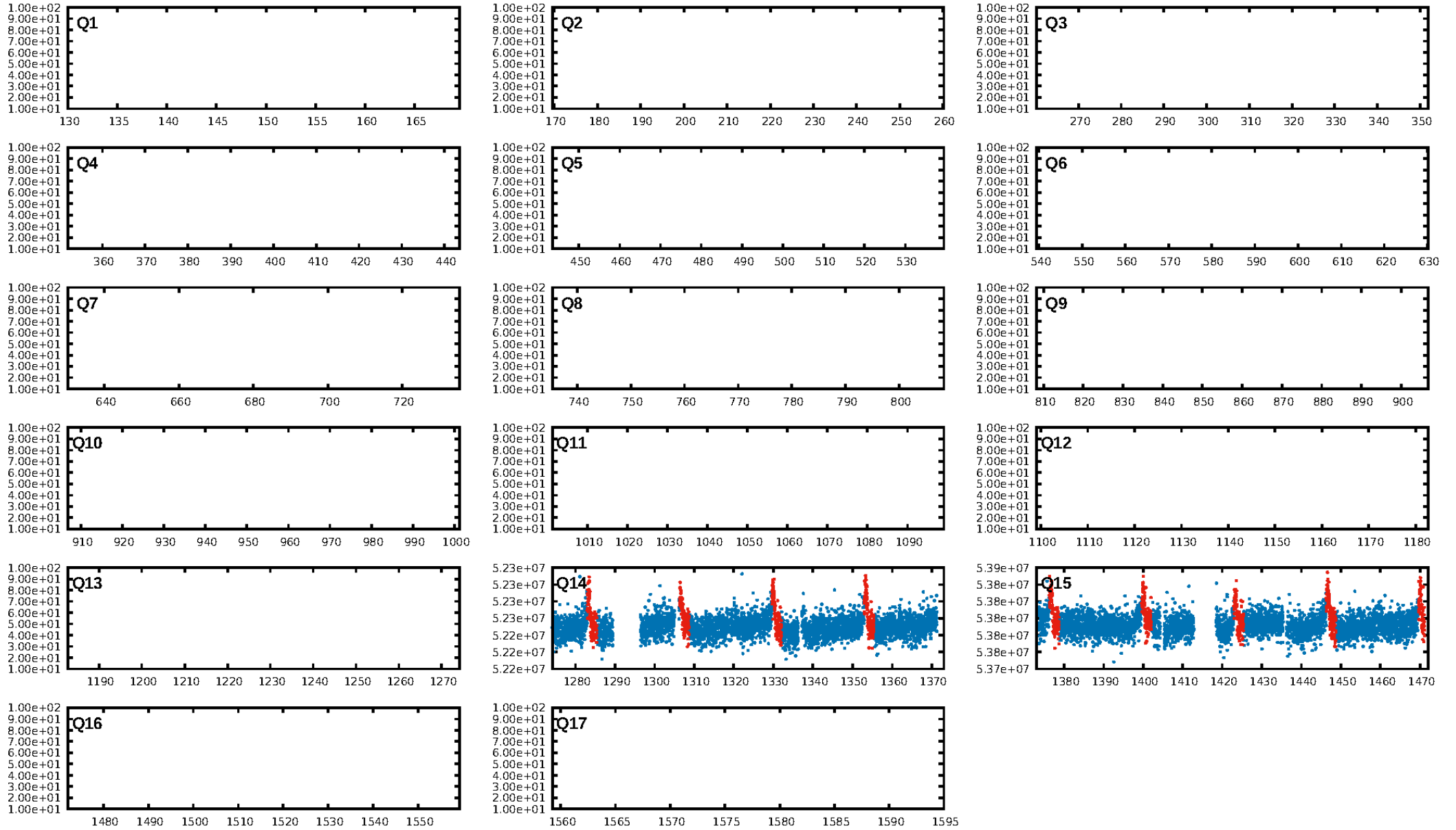
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 93.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.07e-34
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -10.29
Centroid-sig: 39.3%
Centroid-so: 0.466 arcsec [0.86σ]
OotOffset-rm: 3.299 arcsec [4.45σ]
KicOffset-rm: 3.173 arcsec [4.34σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

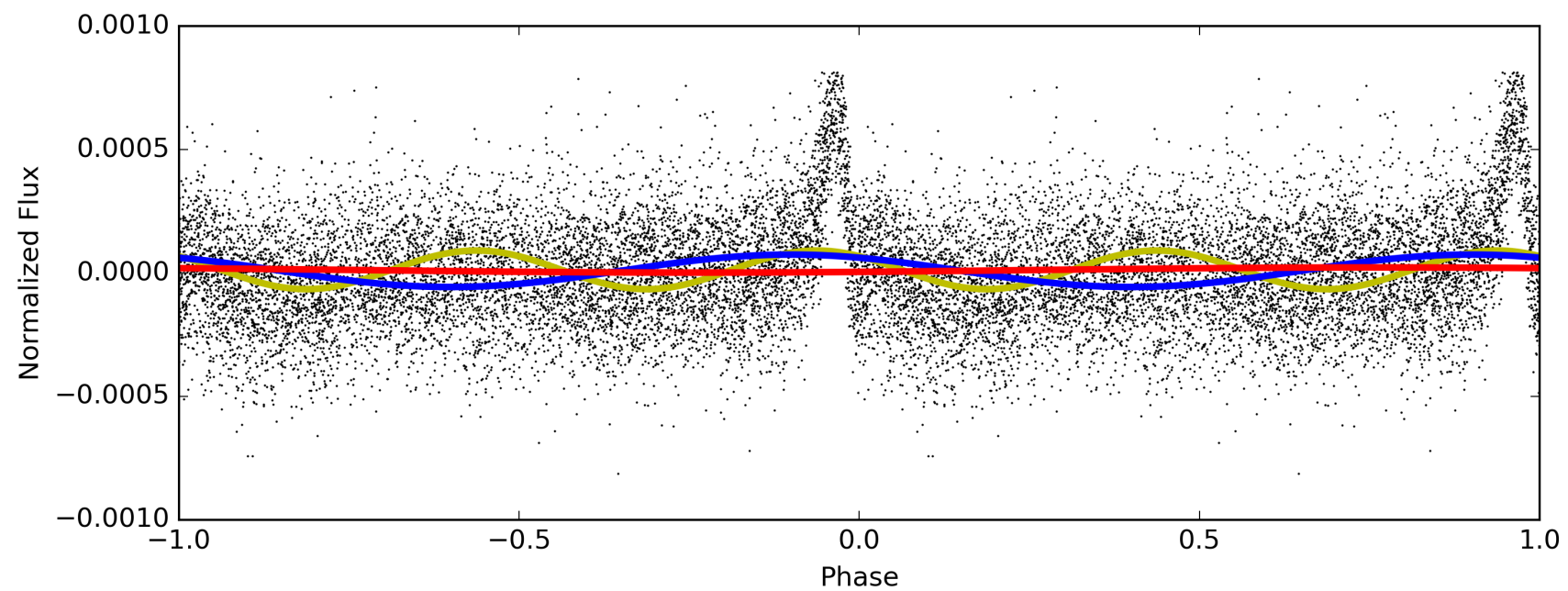
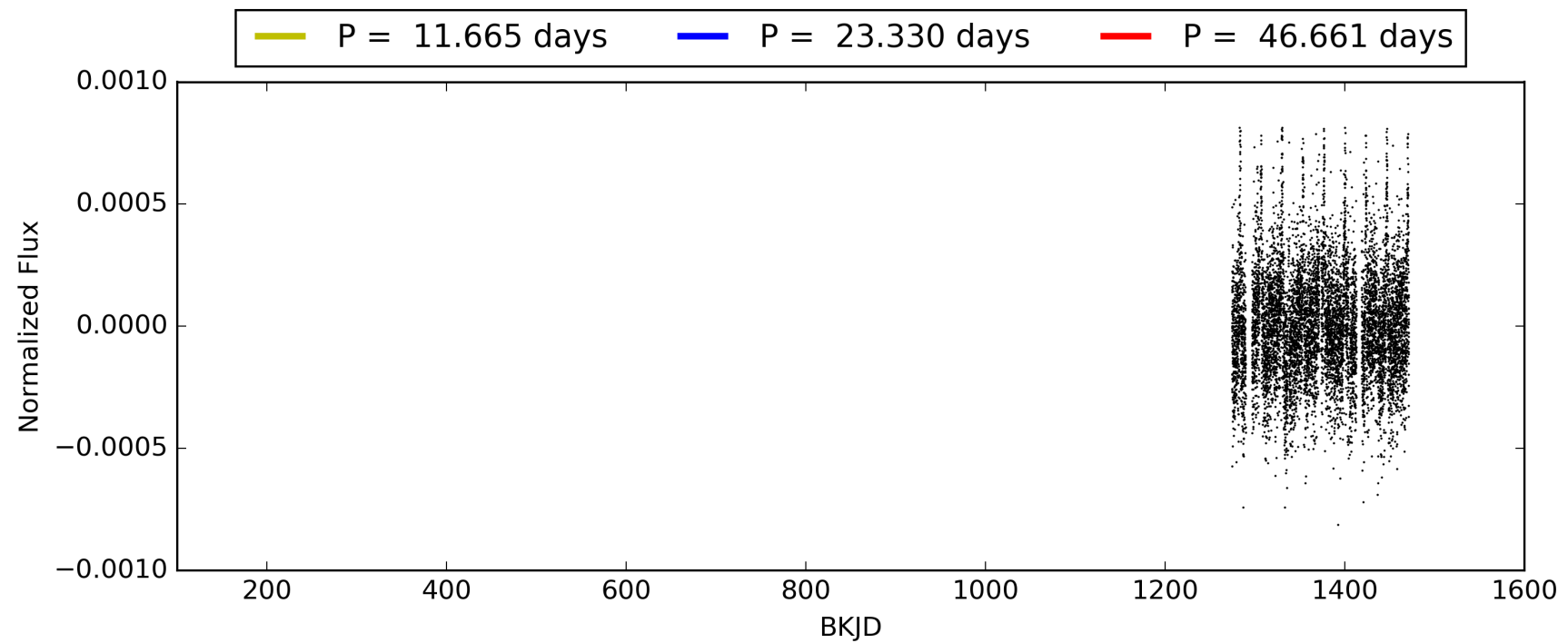
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:50:00 Z

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

TCE 006963171-01, PDC Light Curves

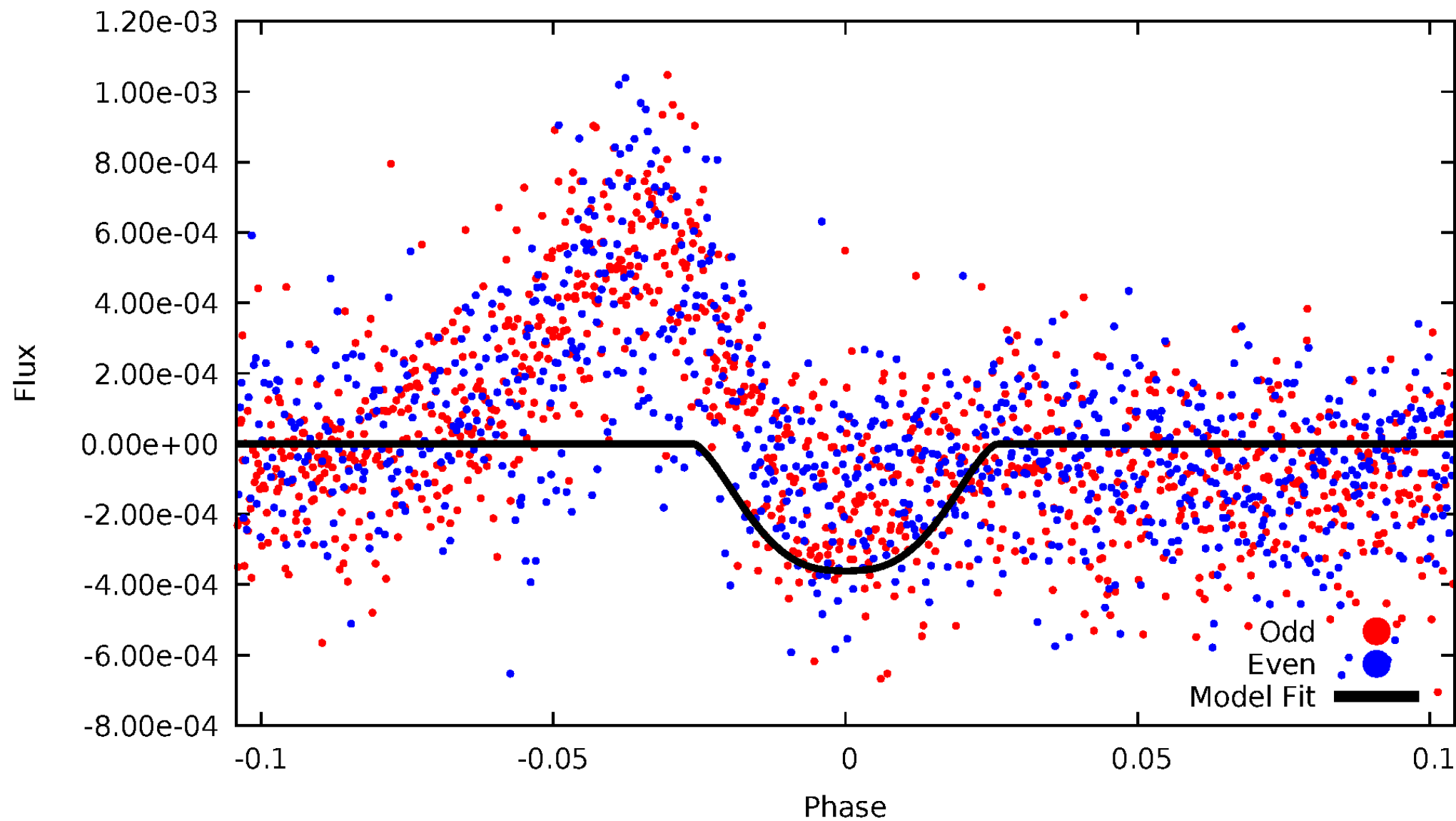


TCE 006963171-01



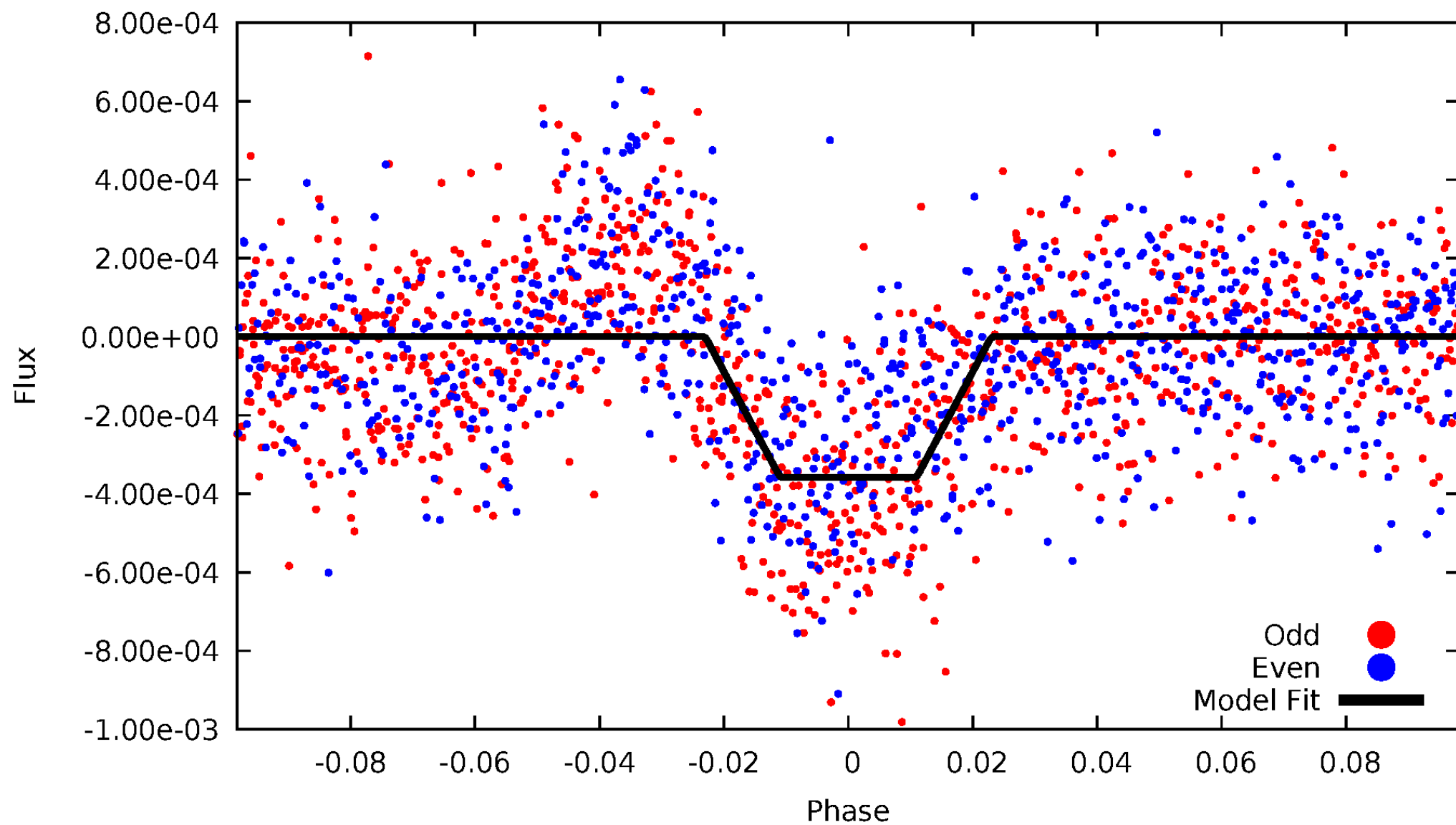
DV Odd/Even

TCE 006963171-01

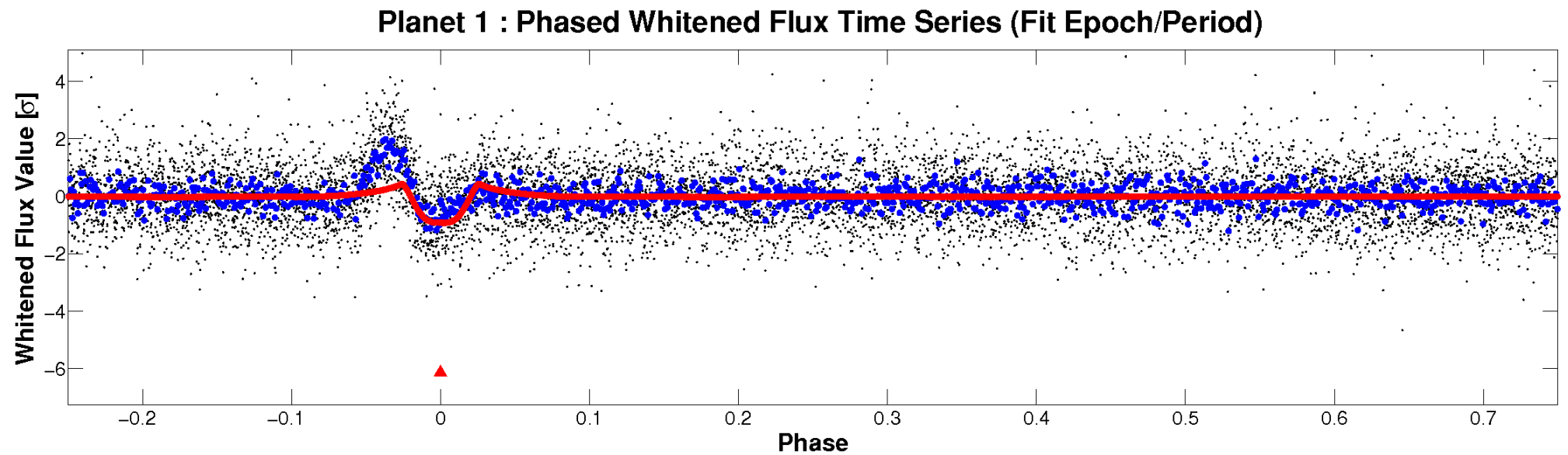
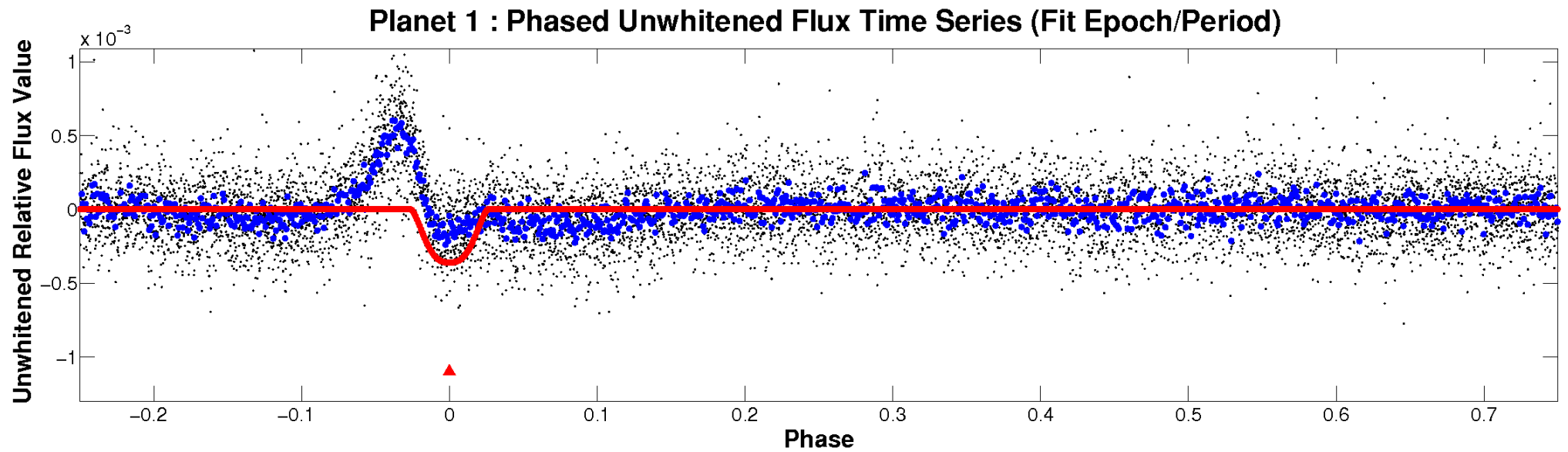


ALT Odd/Even

TCE 006963171-01

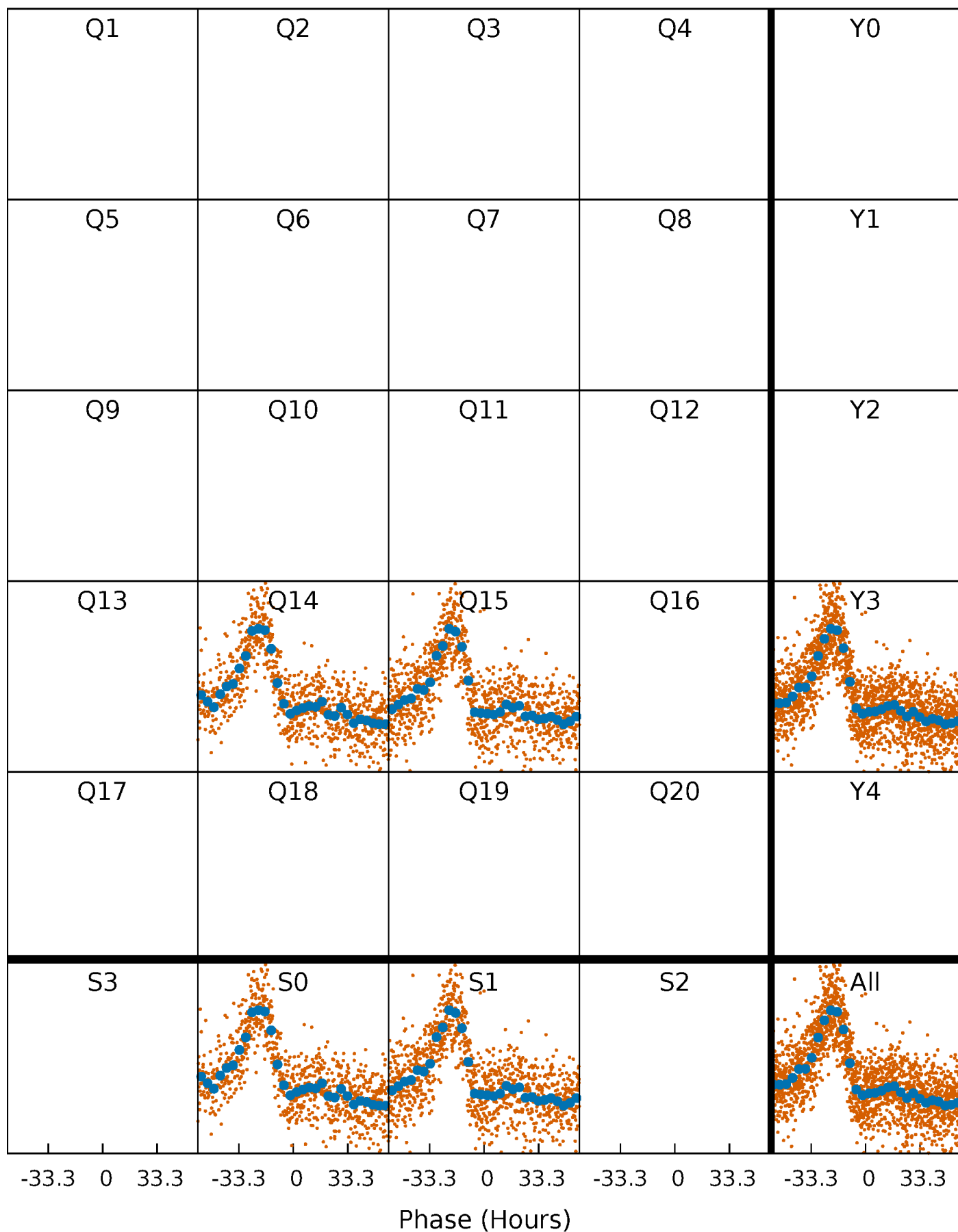


Non-Whitened Vs. Whitened Light Curve



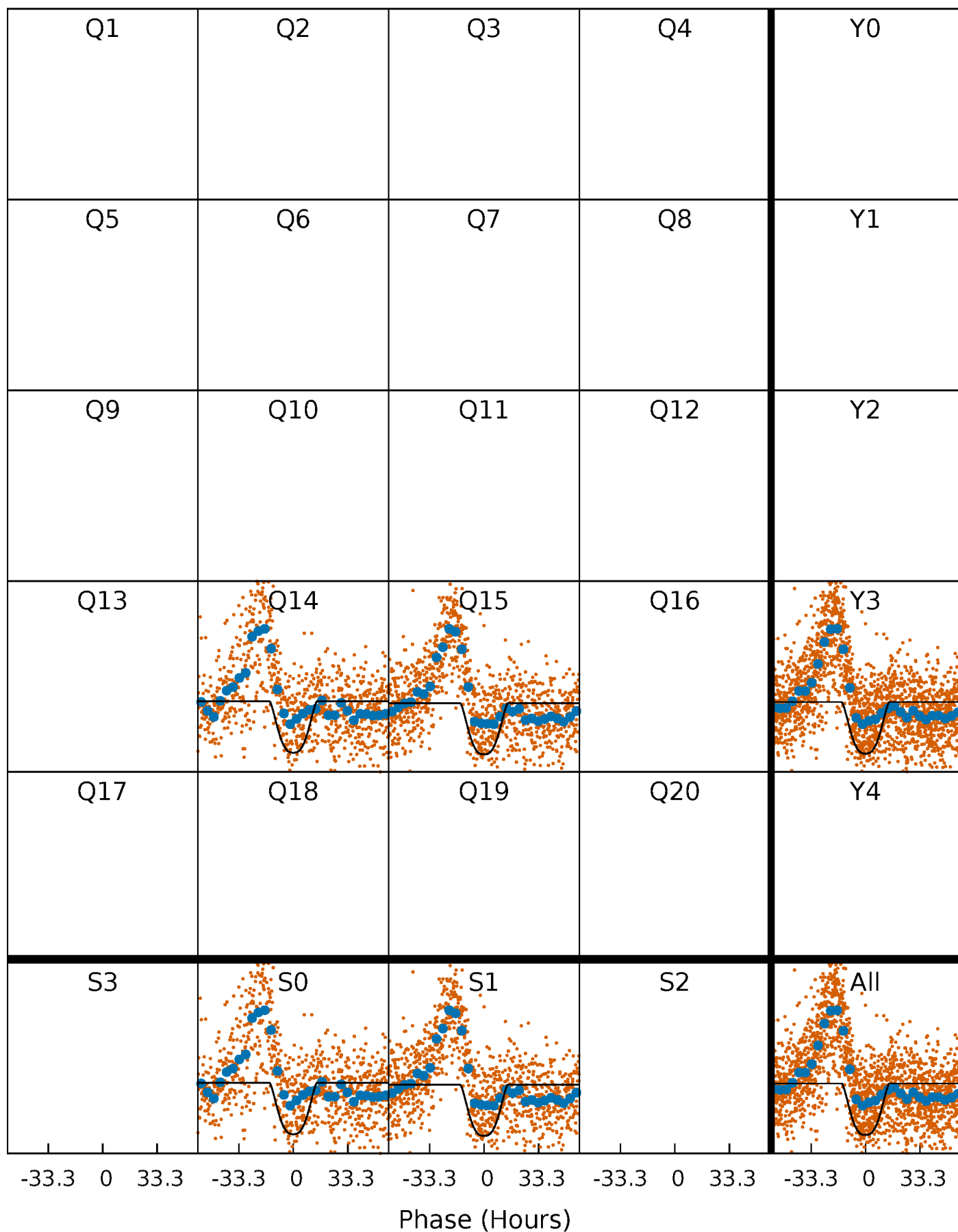
PDC Quarter-Phased Transit Curves

TCE 006963171-01 P= 23.330393 Days $T_0=140.999142$ (BKJD)



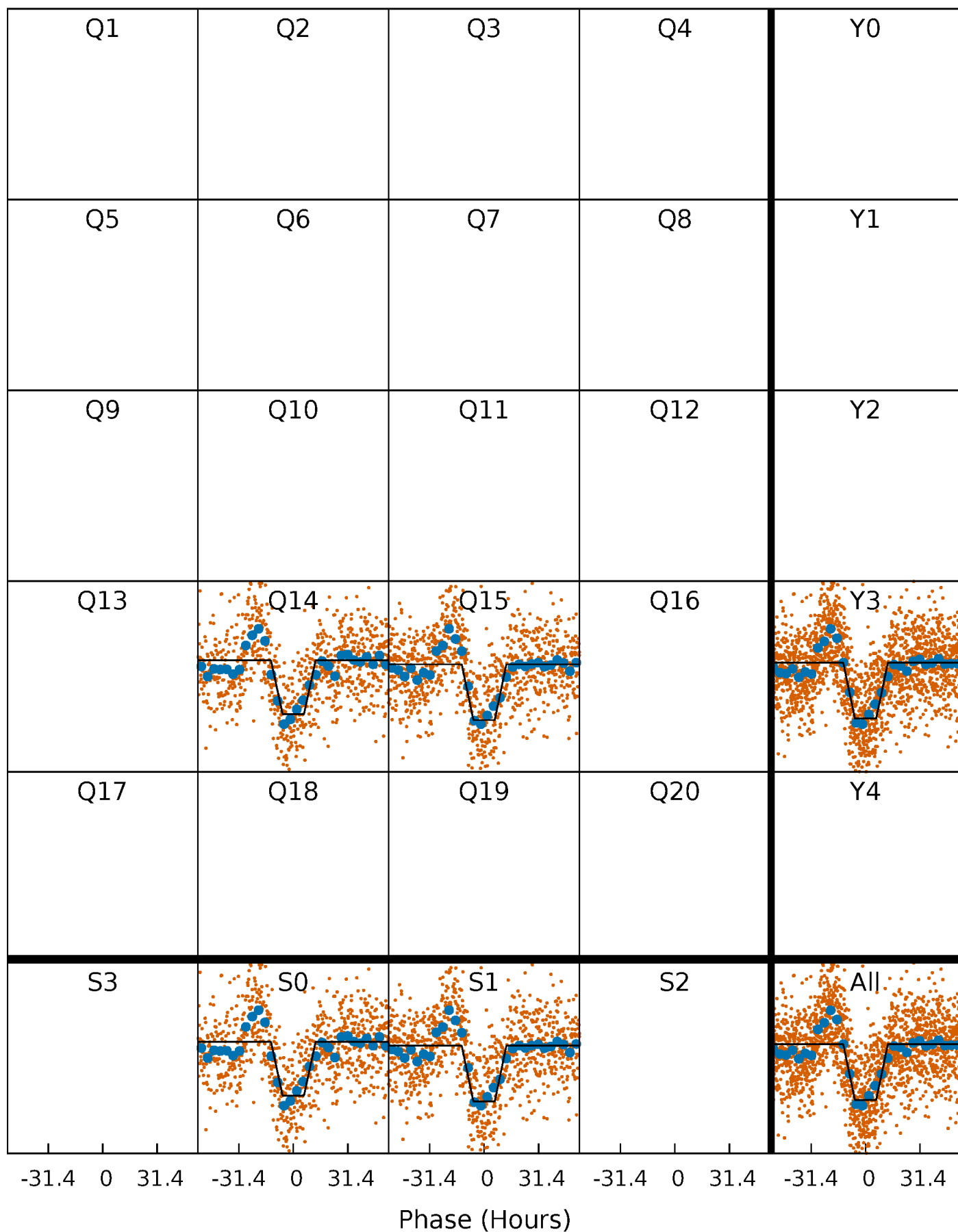
DV Quarter-Phased Transit Curves

TCE 006963171-01 P= 23.330393 Days $T_0=140.999142$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

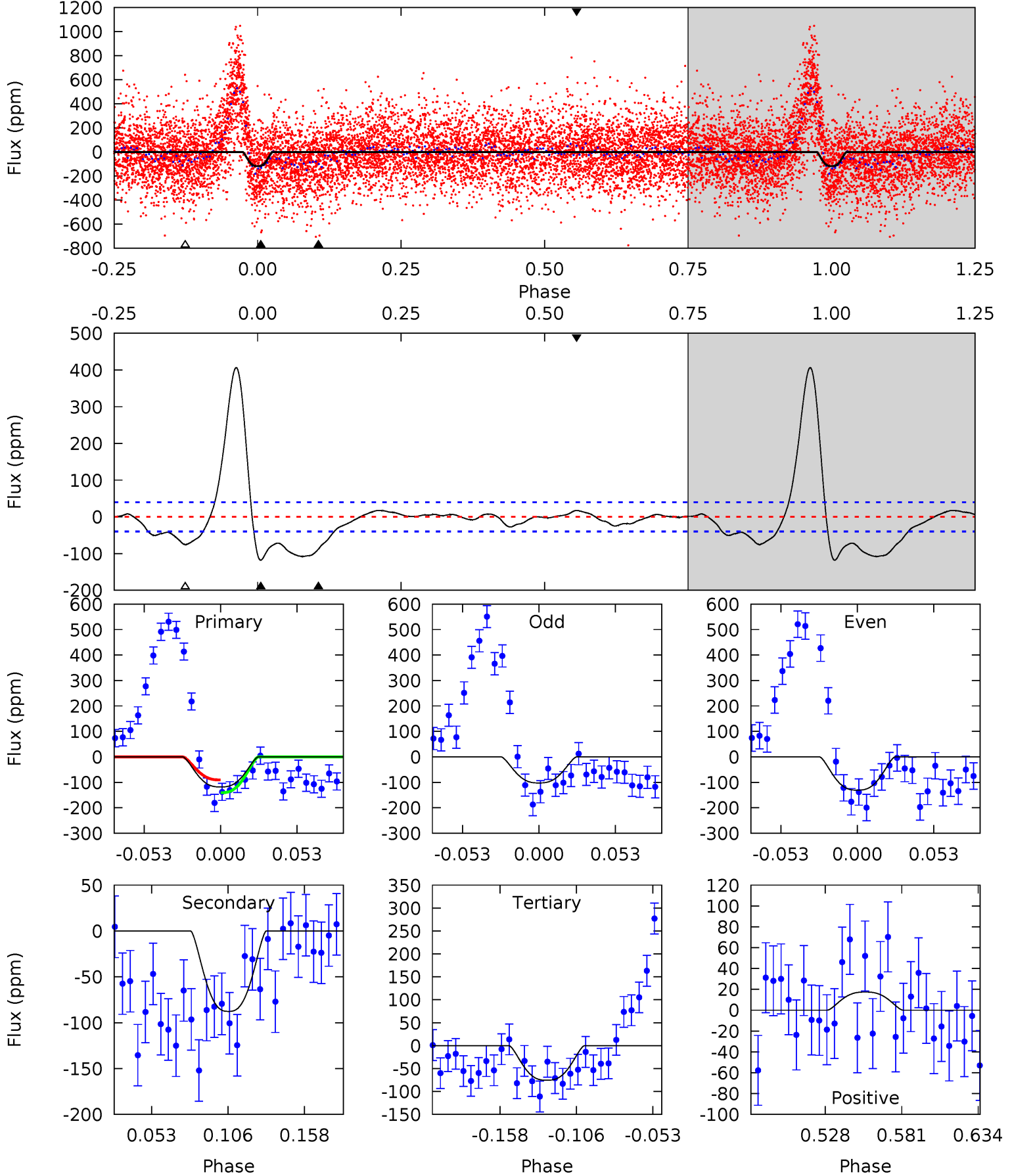
TCE 006963171-01 P= 23.319208 Days $T_0=141.577552$ (BKJD)



DV Model-Shift Uniqueness Test

006963171-01, P = 23.330393 Days, E = 140.999142 Days

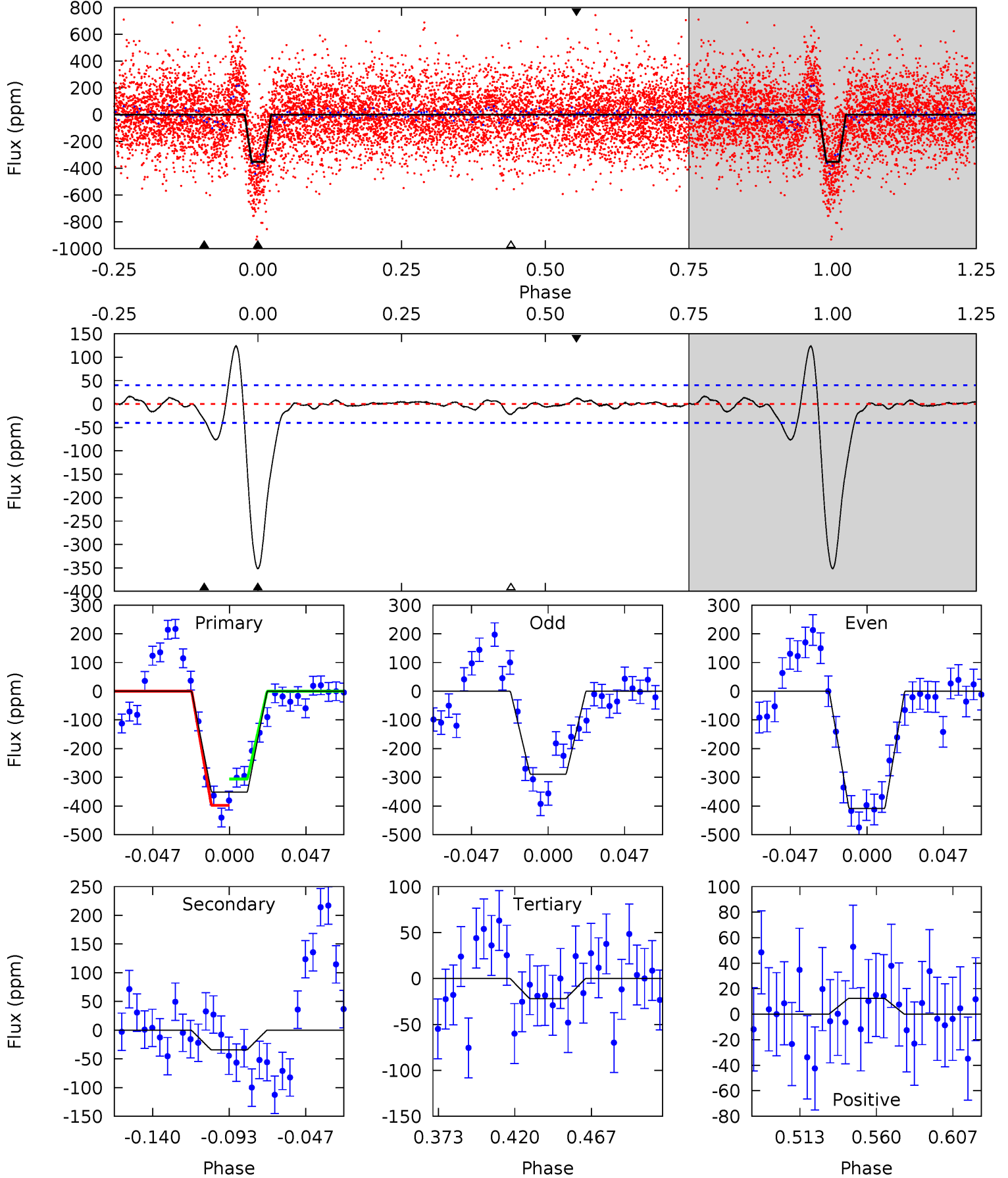
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	10.4	8.91	2.05	4.70	1.94	5.46	5.03	11.9	1.45	8.31	1.67	1.04	0.77	3.00



Alt Model-Shift Uniqueness Test

006963171-01, P = 23.319208 Days, E = 141.577552 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.4	4.03	2.60	1.47	4.72	1.99	0.77	38.8	39.9	1.43	2.57	6.98	0.98	0.26	5.37



Stellar Parameters For KIC 006963171

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6183^{+199}_{-243}	$3.939^{+0.382}_{-0.127}$	$0.140^{+0.200}_{-0.300}$	$2.063^{+0.552}_{-0.828}$	$1.351^{+0.214}_{-0.261}$	$0.217^{+0.633}_{-0.098}$
	+3%/-4%	+10%/-3%	+143%/-214%	+27%/-40%	+16%/-19%	+292%/-45%
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 006963171-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-88 ± 8	$5.03^{+0.90}_{-1.19}$	1264^{+109}_{-137}	4172^{+165}_{-162}	61^{+38}_{-17}
Alt.	-34 ± 9	$4.09^{+0.75}_{-0.90}$	1266^{+107}_{-140}	3789^{+209}_{-207}	35^{+24}_{-12}

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

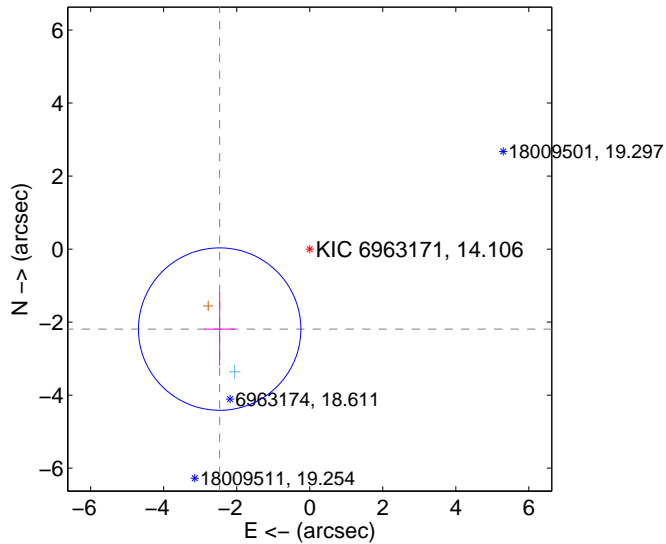
Supplemental centroid analysis for 006963171-01. Kepler magnitude: 14.11. Transit SNR 15.33

There are 1 quarters with good PRF difference image offsets

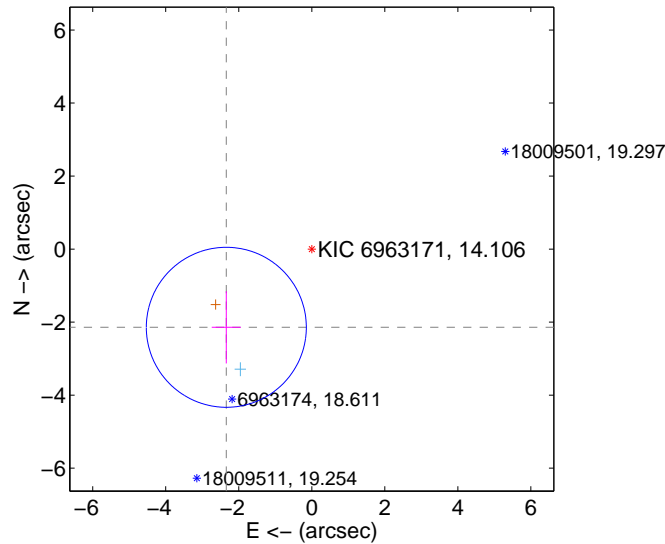
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.299 ± 0.741	4.45	2.467 ± 0.426	-2.191 ± 1.008
PRF-fit source offset from KIC position	3.173 ± 0.730	4.34	2.341 ± 0.398	-2.142 ± 0.991
photometric centroid source offset	0.47 ± 0.54	0.86	0.08 ± 0.46	0.46 ± 0.54

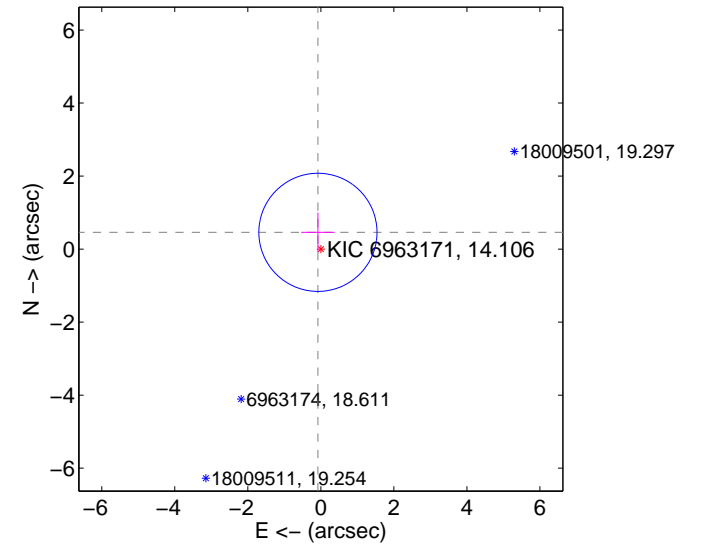
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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.



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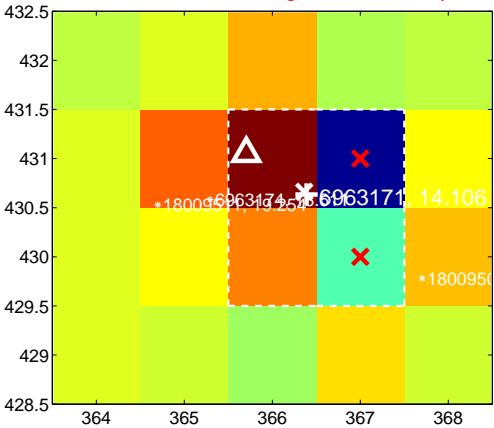
Q13 no difference image



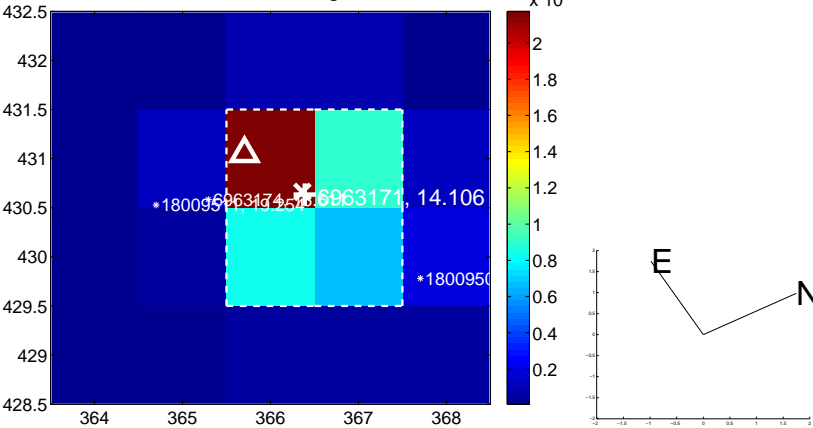
Q13 no OOT image



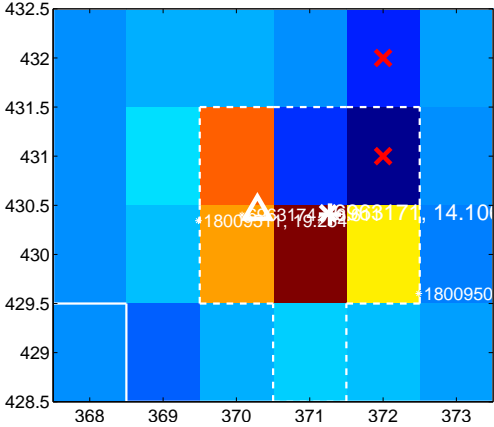
Q14 difference image. Poor Quality



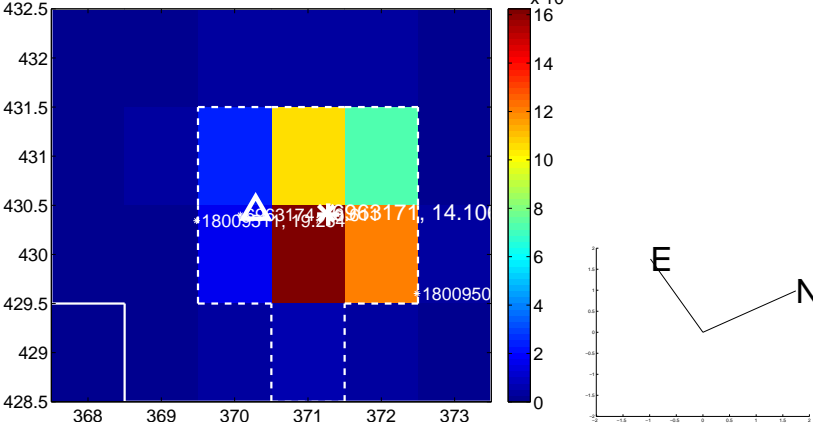
Q14 OOT image



Q15 difference image



Q15 OOT image



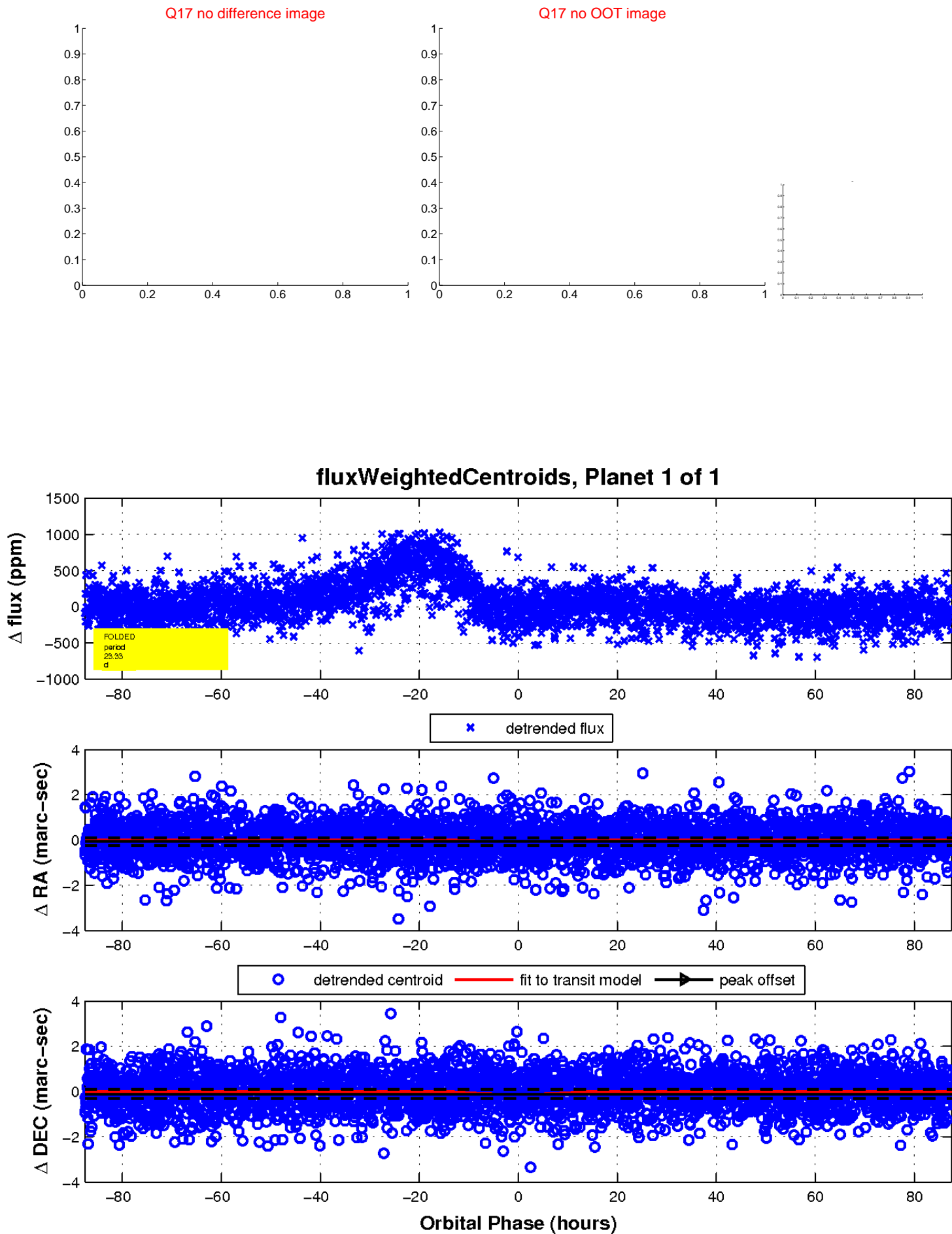
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

