

KIC 008373686

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})
008373686-01	OBS	No	366.467730	239.113805	720.9	15.071	8.7	9.2	0.86	6071	2.73	0.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008373686-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

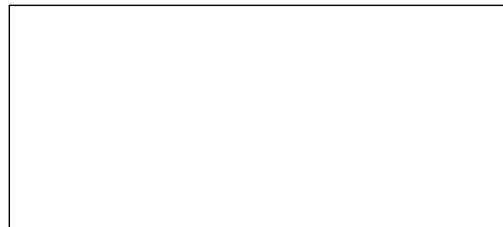
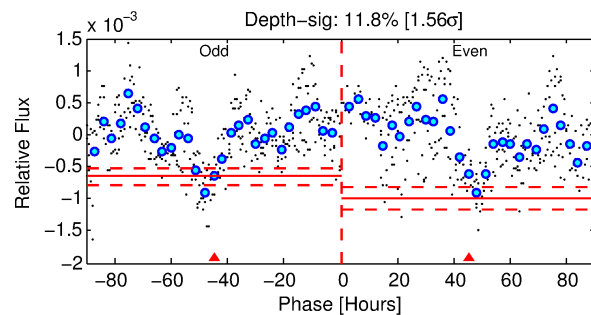
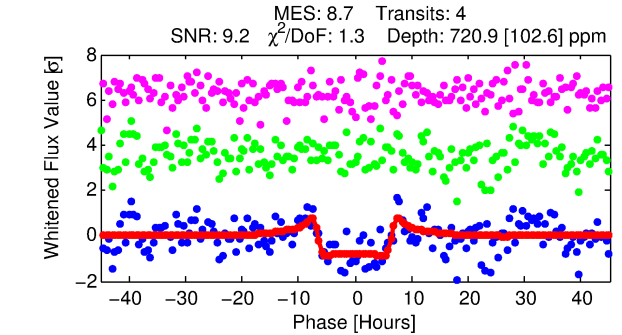
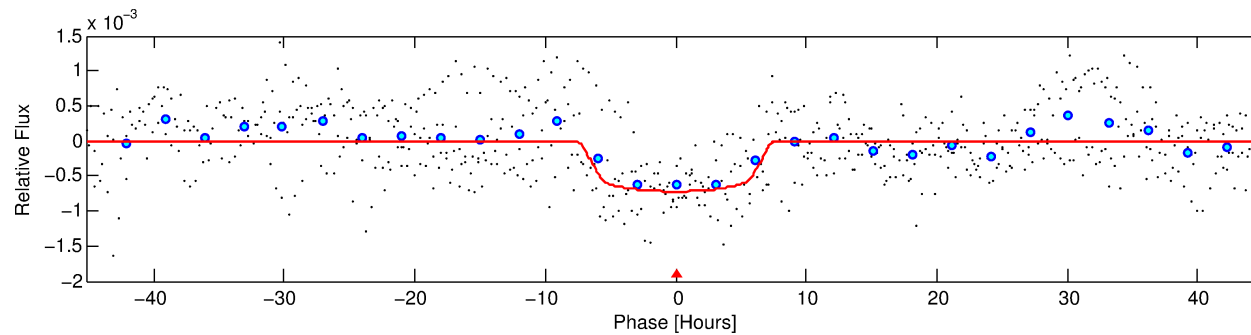
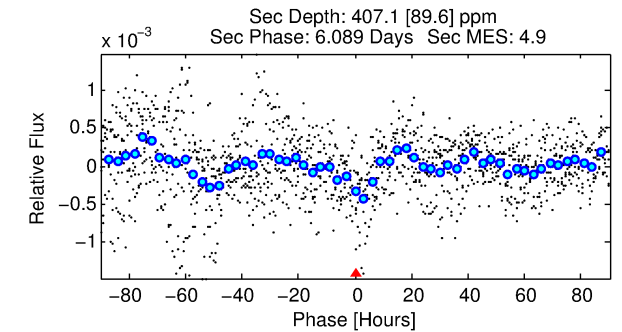
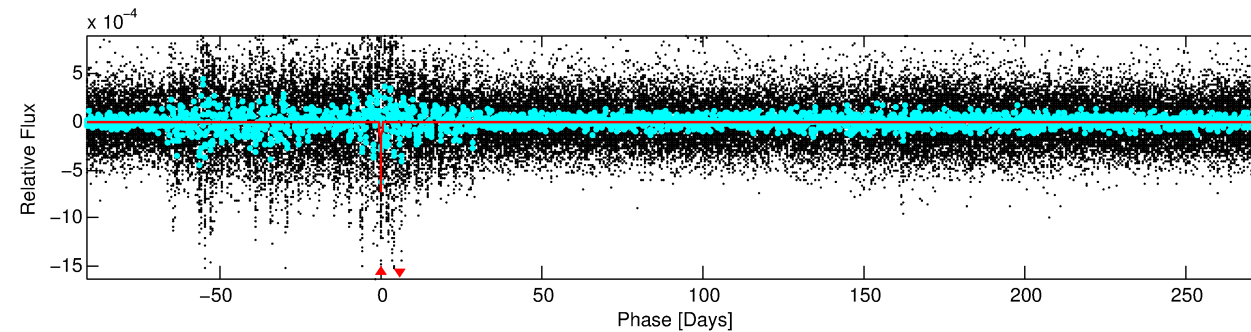
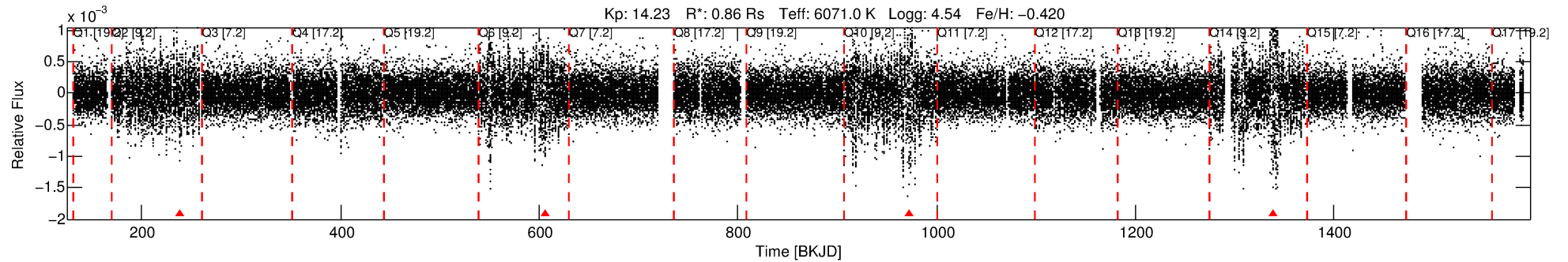
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008373686-01

No Significant Match Found

DV One-Page Summary

KIC: 8373686 Candidate: 1 of 1 Period: 366.468 d



DV Fit Results:

Period = 366.46773 [0.00832] d
Epoch = 239.1138 [0.0144] BKJD
Rp/R* = 0.0289 [0.0025]
a/R* = 92.65 [20.24]
b = 0.90 [0.05]
Seff = 0.94 [0.38]
Teq = 251 [25] K
Rp = 2.73 [0.86] Re
a = 0.9849 [0.2559] AU
Ag = 29226.30 [13928.12] [2.10σ]
Teffp = 5074 [389] K [12.38σ]

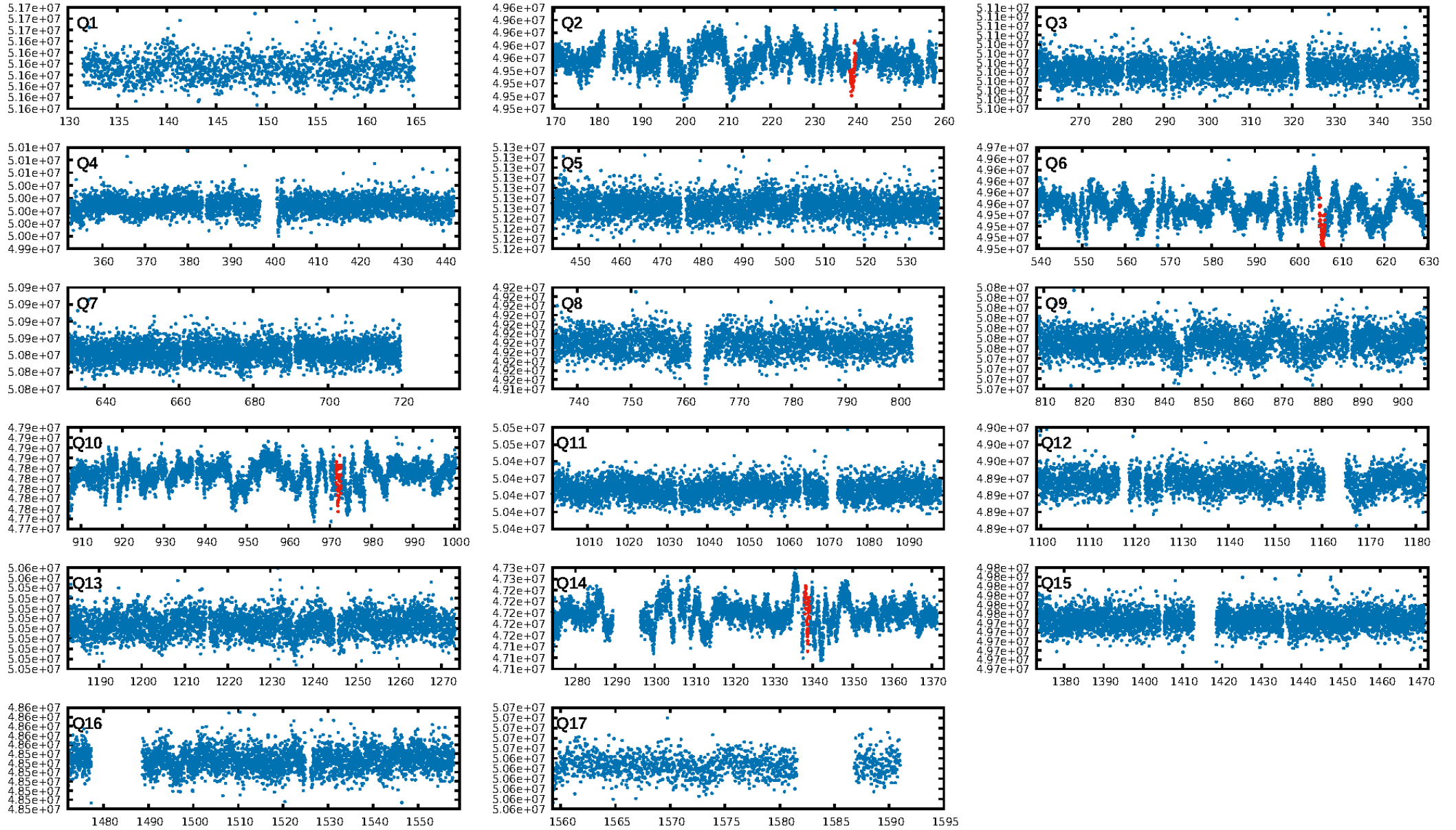
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 19.9%
ModelChiSquareGof-sig: 25.1%
Bootstrap-pfa: 2.20e-11
RollingBand-fgt: 0.00 [0/4]
GhostDiagnostic-chr: 5.224
Centroid-sig: 3.2%
Centroid-so: 3.555 arcsec [2.25σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

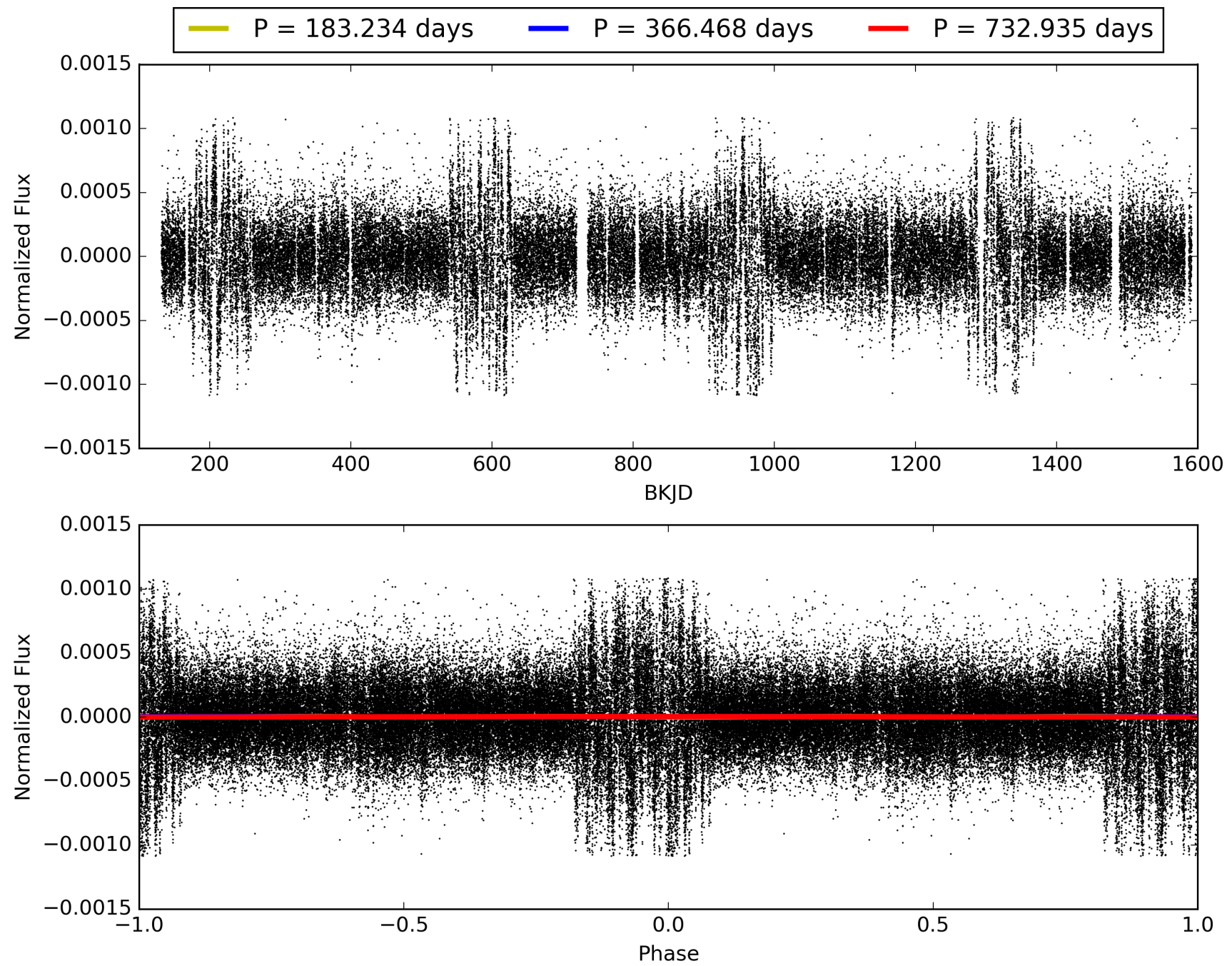
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:13:50 Z

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

TCE 008373686-01, PDC Light Curves

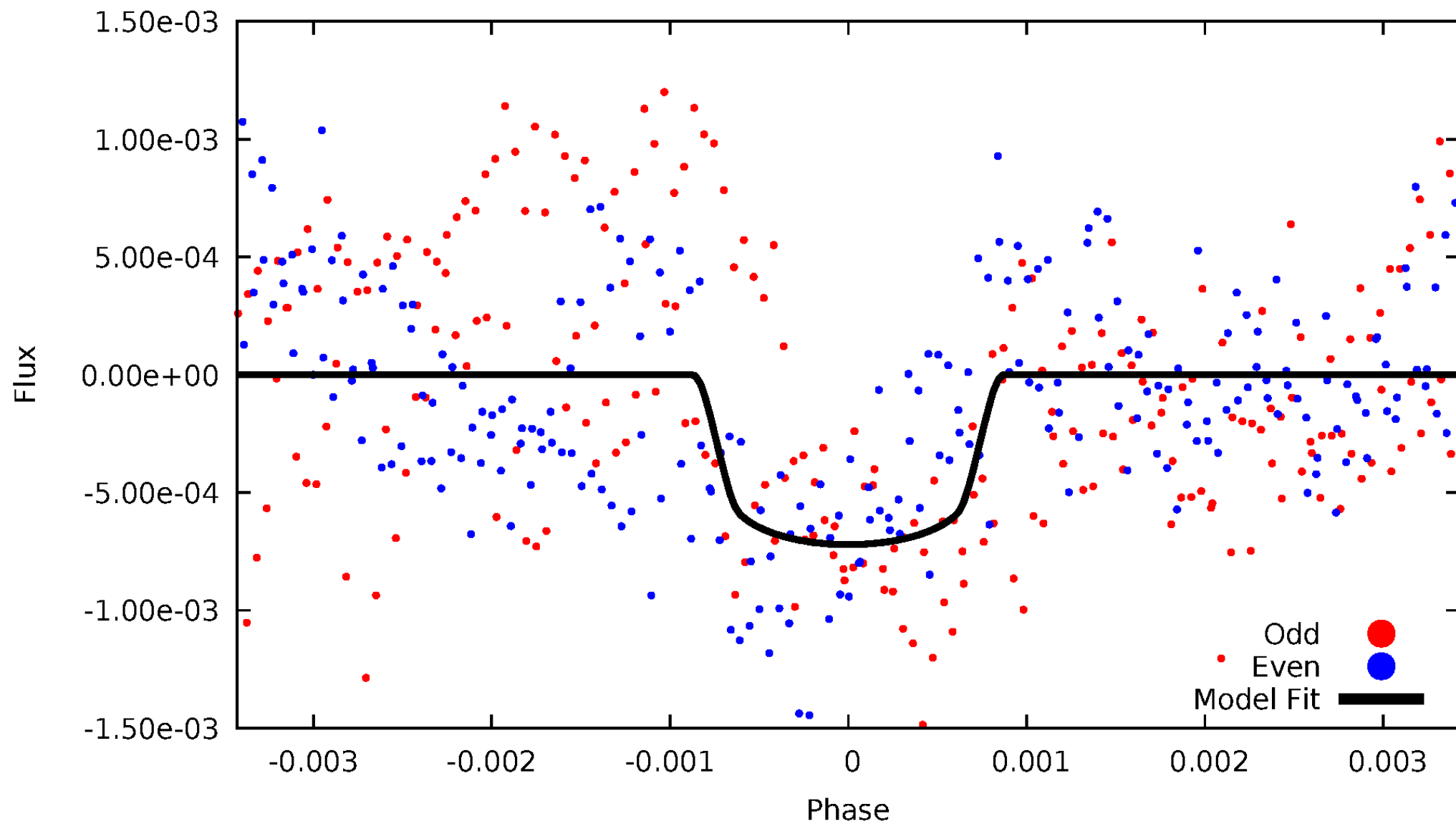


TCE 008373686-01



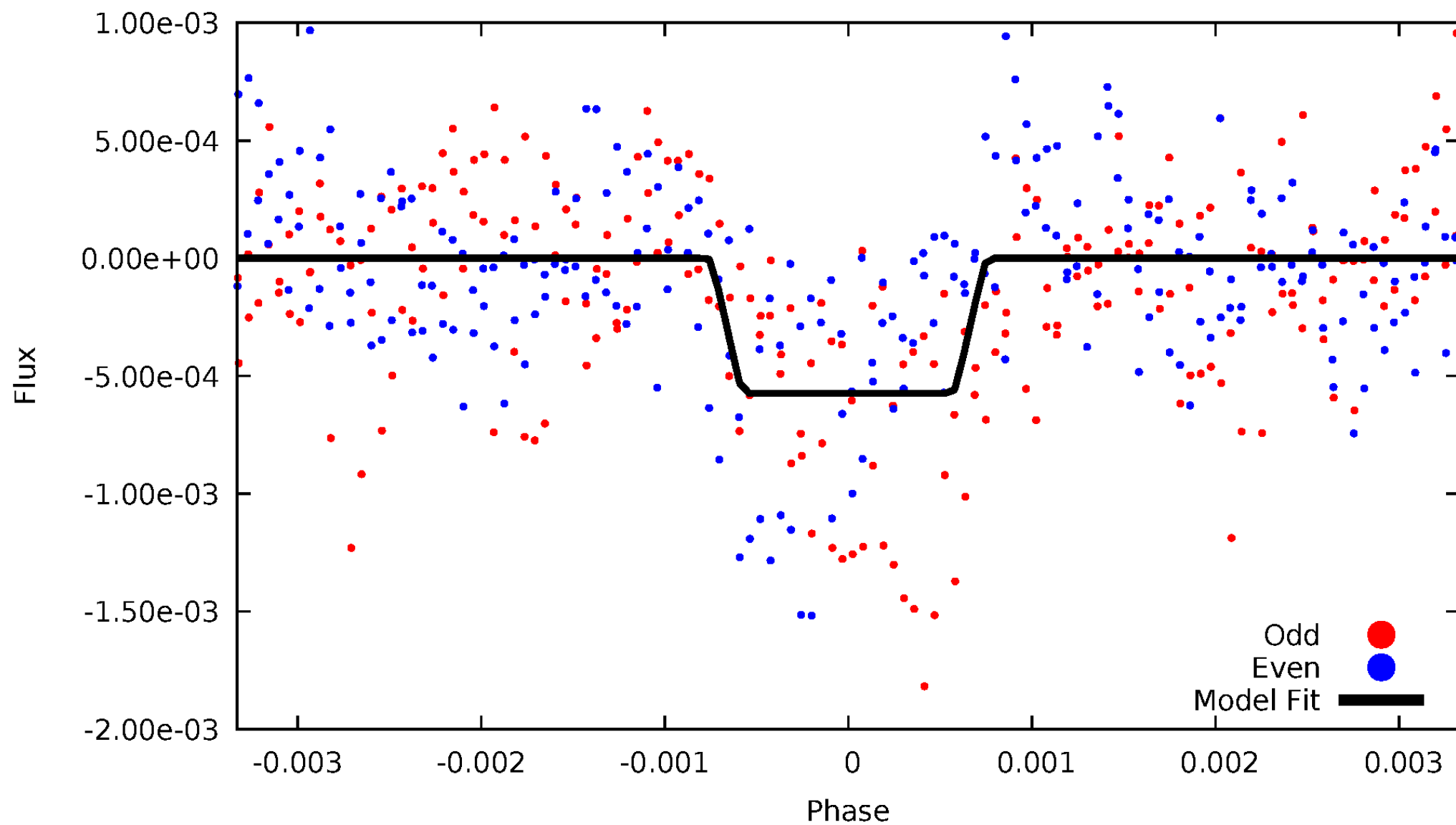
DV Odd/Even

TCE 008373686-01



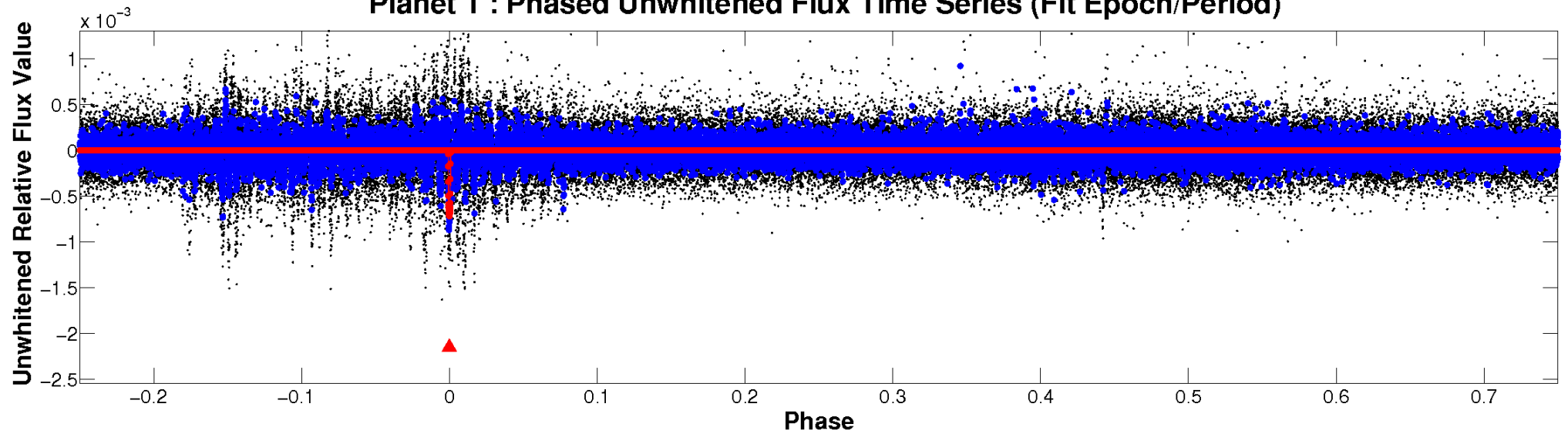
ALT Odd/Even

TCE 008373686-01

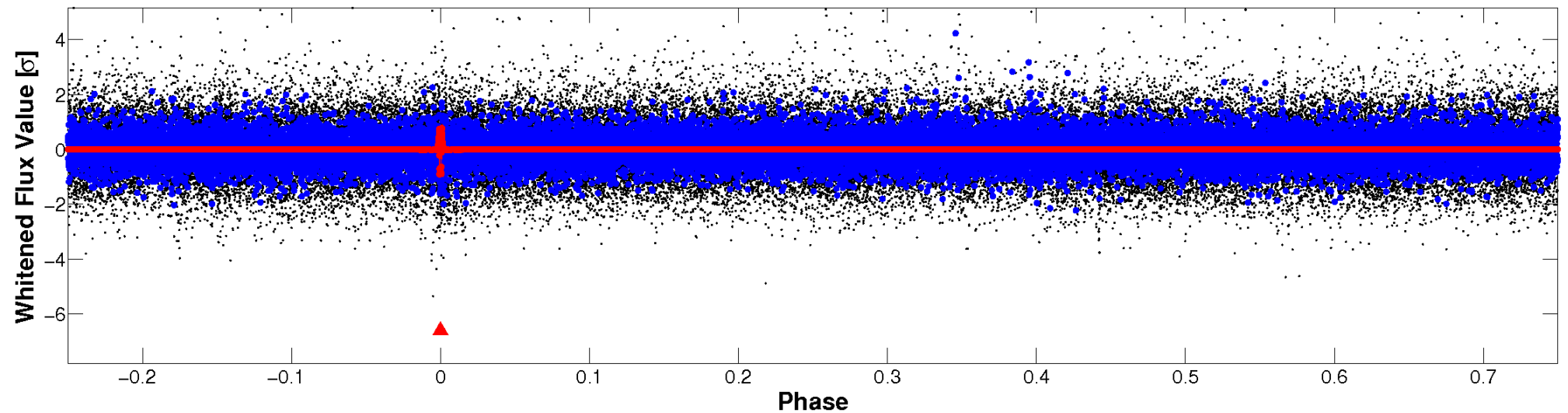


Non-Whitened Vs. Whitened Light Curve

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

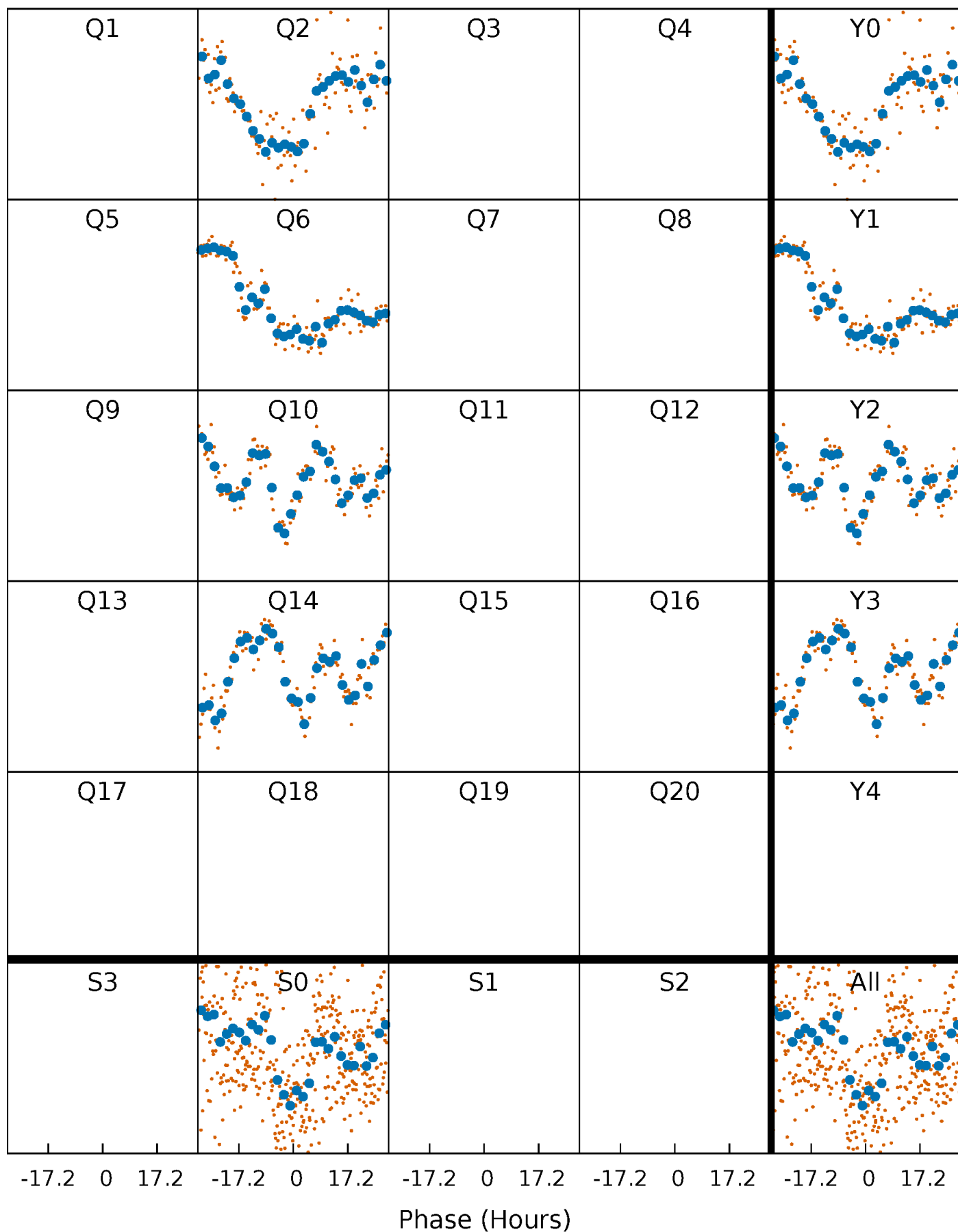


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



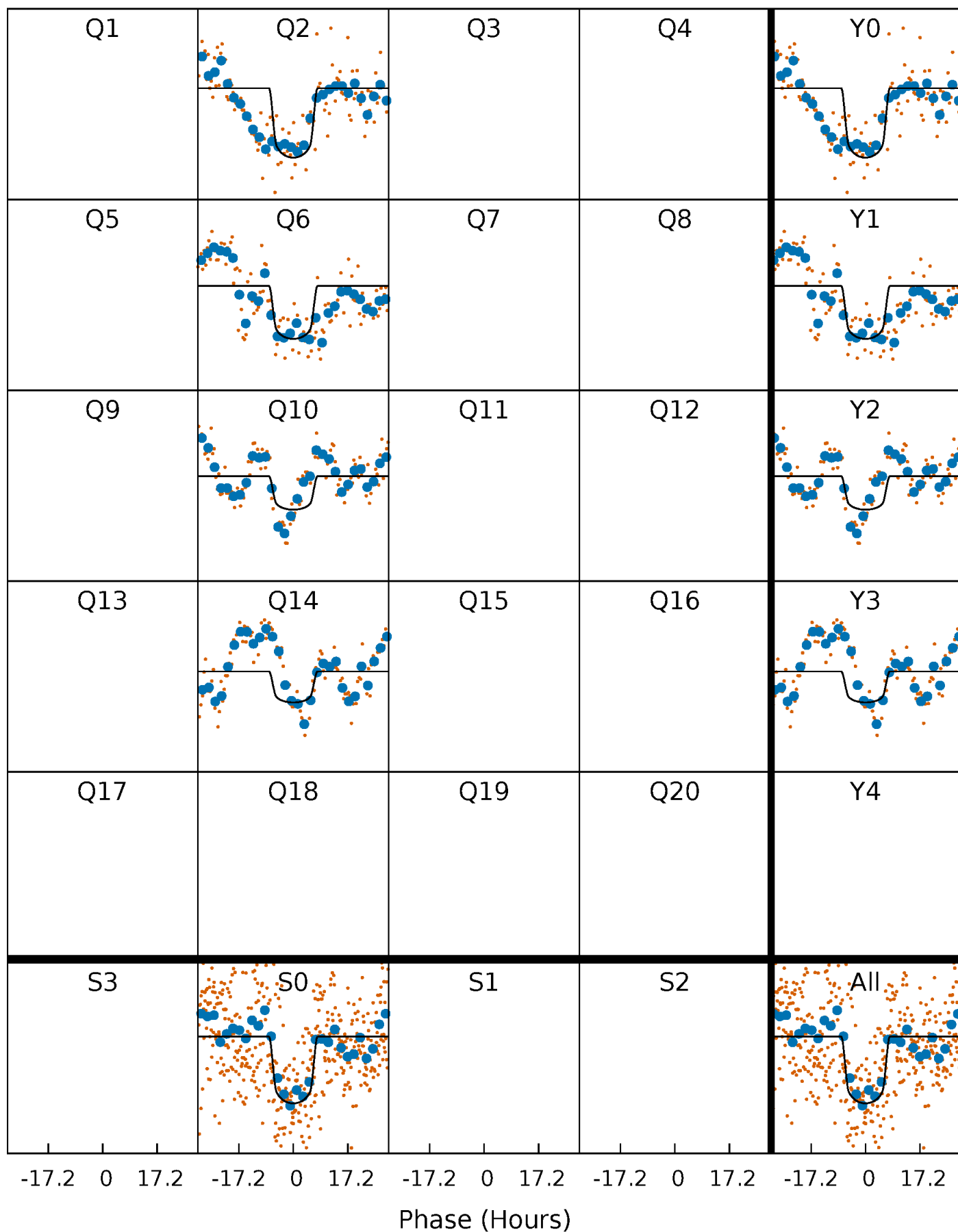
PDC Quarter-Phased Transit Curves

TCE 008373686-01 P=366.467730 Days $T_0=239.113805$ (BKJD)



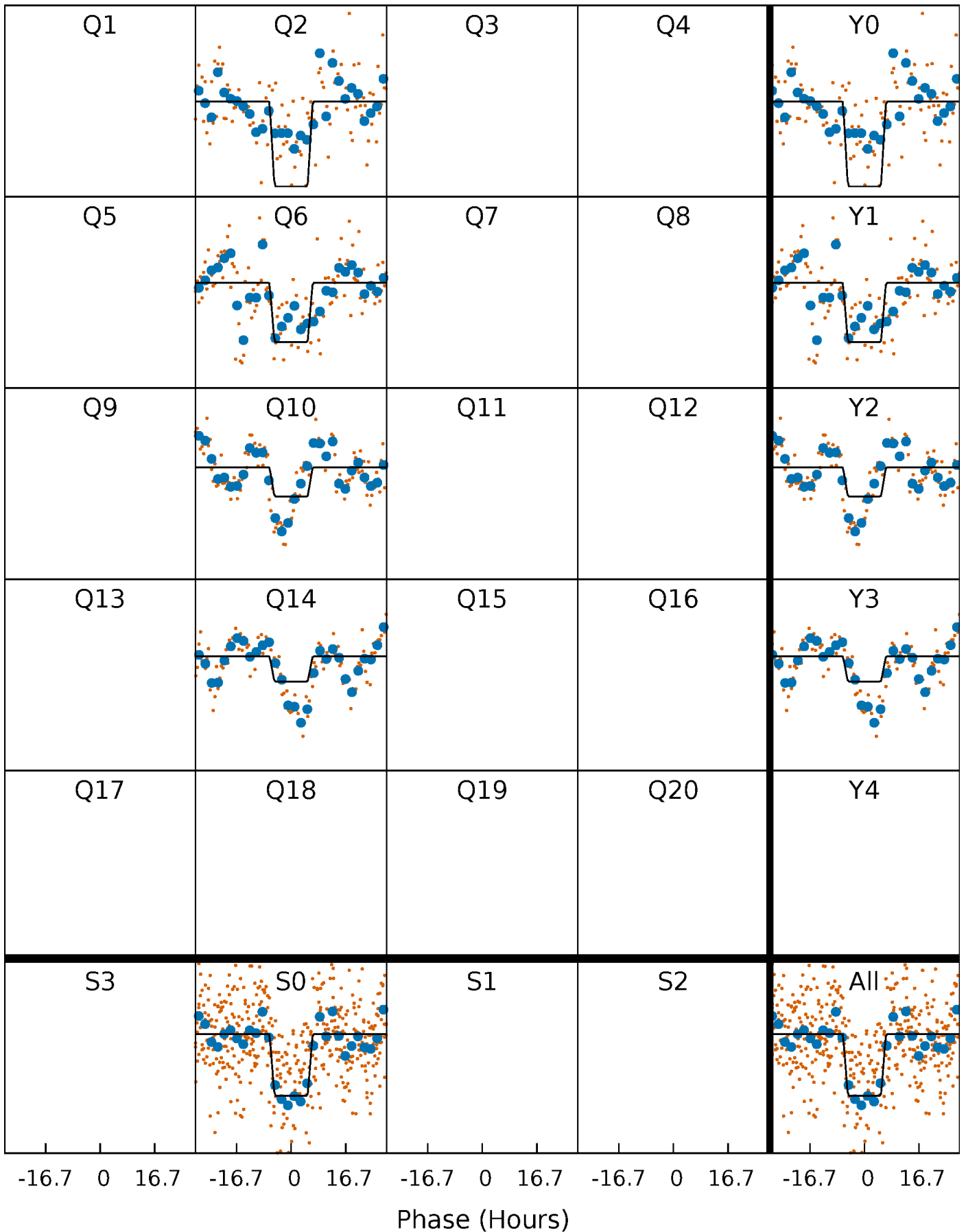
DV Quarter-Phased Transit Curves

TCE 008373686-01 P=366.467730 Days $T_0=239.113805$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

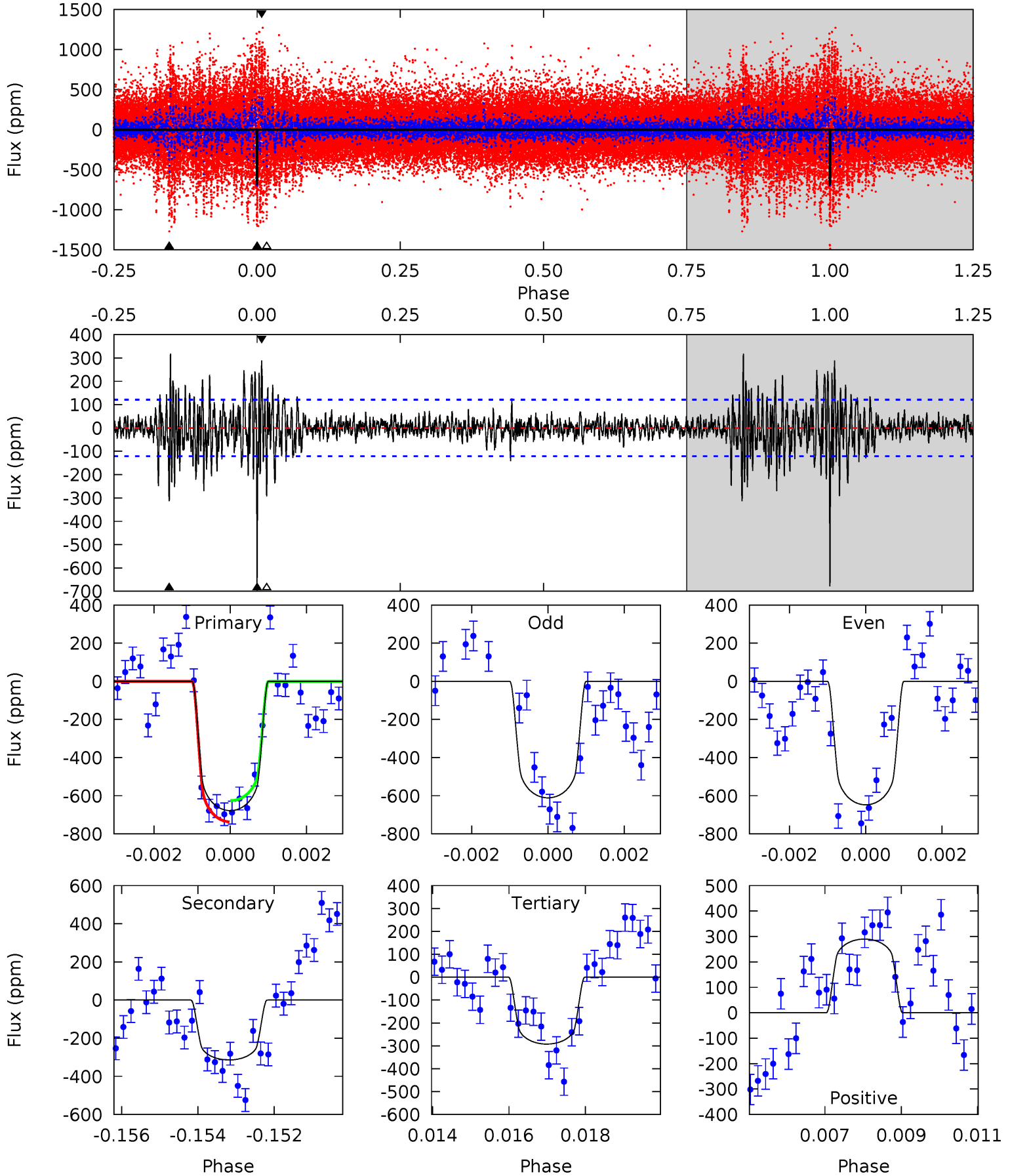
TCE 008373686-01 P=366.475899 Days $T_0=239.090568$ (BKJD)



DV Model-Shift Uniqueness Test

008373686-01, P = 366.467730 Days, E = 239.113805 Days

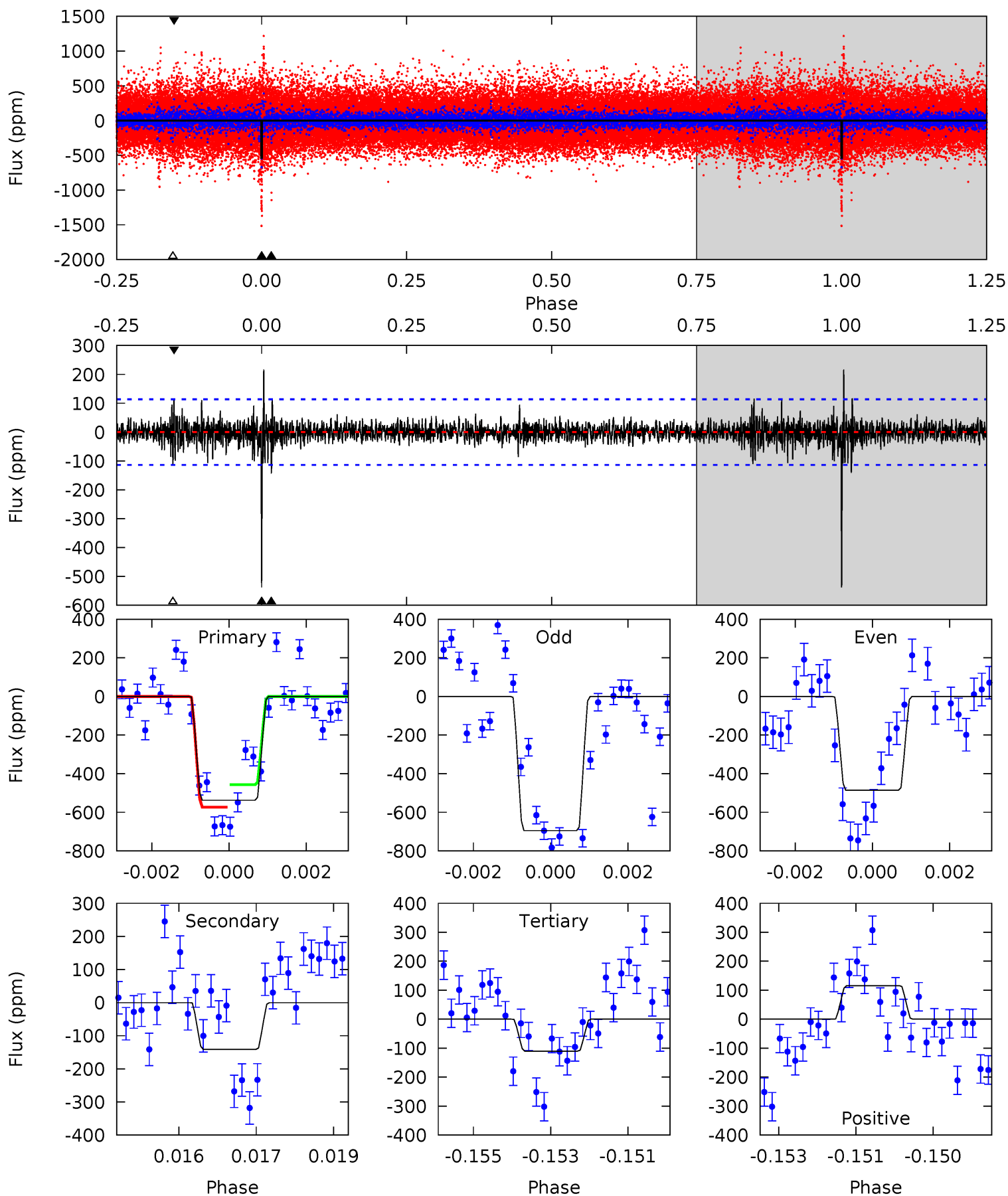
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.0	13.9	12.9	12.8	5.35	3.13	2.56	17.1	17.2	0.96	1.07	0.81	0.97	0.32	2.44



Alt Model-Shift Uniqueness Test

008373686-01, P = 366.475899 Days, E = 239.090568 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.4	6.68	5.21	5.48	5.37	3.16	1.12	20.2	19.9	1.46	1.20	5.09	1.04	0.29	2.72



Stellar Parameters For KIC 008373686

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6071^{+165}_{-183}	$4.541^{+0.037}_{-0.213}$	$-0.420^{+0.300}_{-0.300}$	$0.865^{+0.262}_{-0.082}$	$0.947^{+0.108}_{-0.119}$	$2.062^{+0.408}_{-1.062}$
	+3%/-3%	+1%/-5%	+71%/-71%	+30%/-9%	+11%/-13%	+20%/-52%
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 008373686-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-314 ± 23	$2.87^{+0.50}_{-0.37}$	362^{+25}_{-18}	4861^{+249}_{-203}	19736^{+6210}_{-5110}
Alt.	-141 ± 21	$2.38^{+0.40}_{-0.32}$	361^{+24}_{-17}	4447^{+277}_{-224}	12870^{+4227}_{-3833}

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 $A_{obs} \gg 1.0$

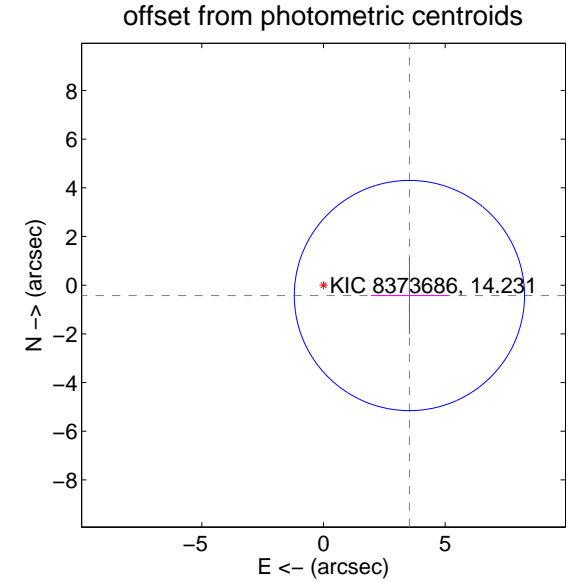
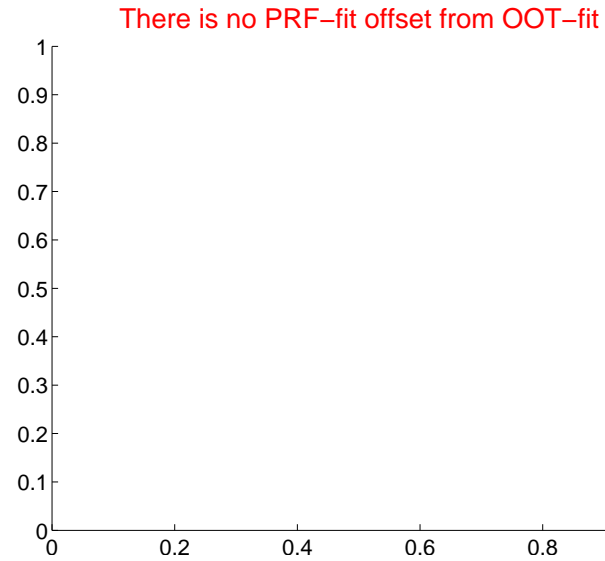
DV Centroid Data

Supplemental centroid analysis for 008373686-01. Kepler magnitude: 14.23. Transit SNR 9.16

There are 0 quarters with good PRF difference image offsets

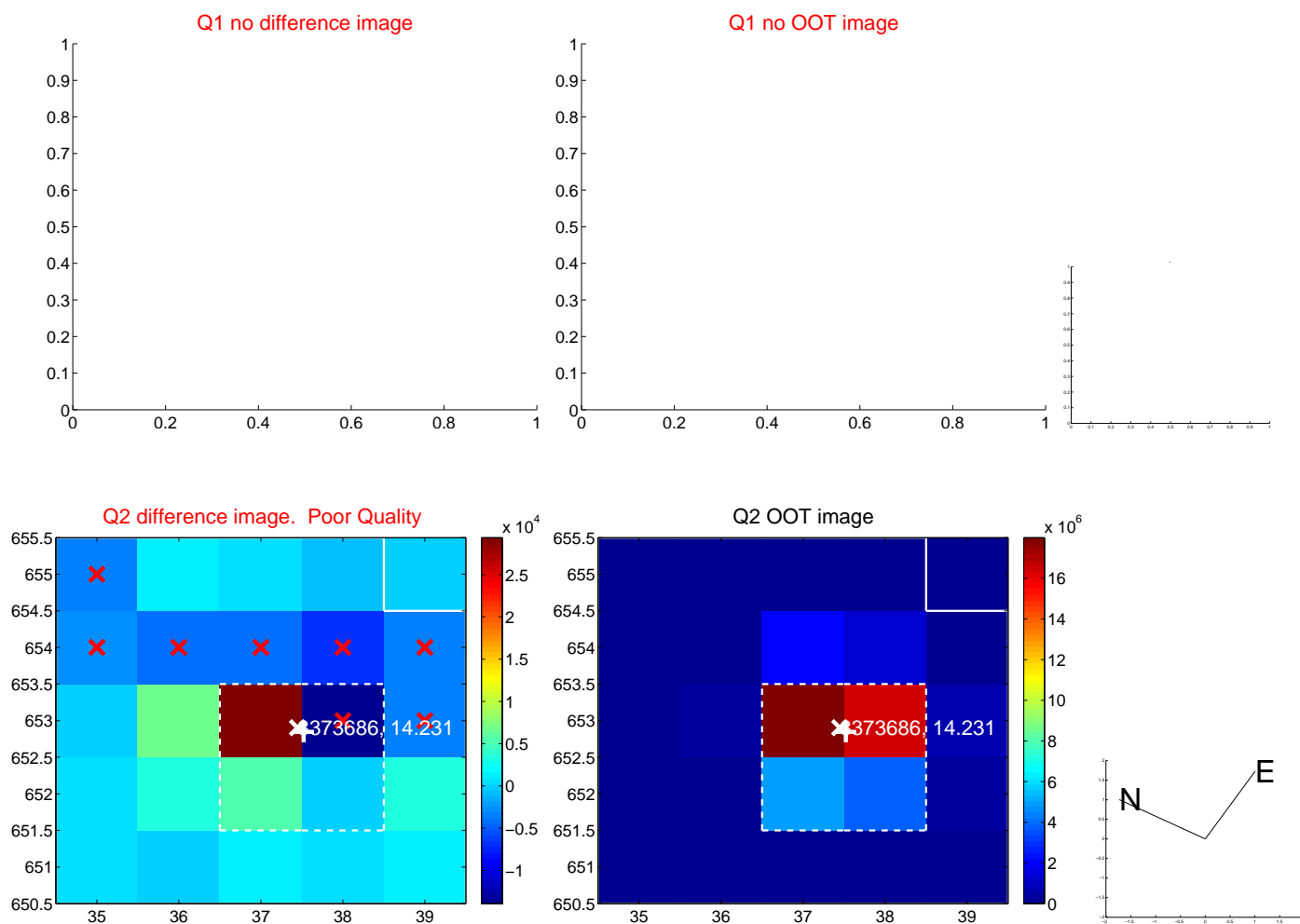
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	3.56 ± 1.58	2.25	-3.53 ± 1.58	-0.43 ± 1.59

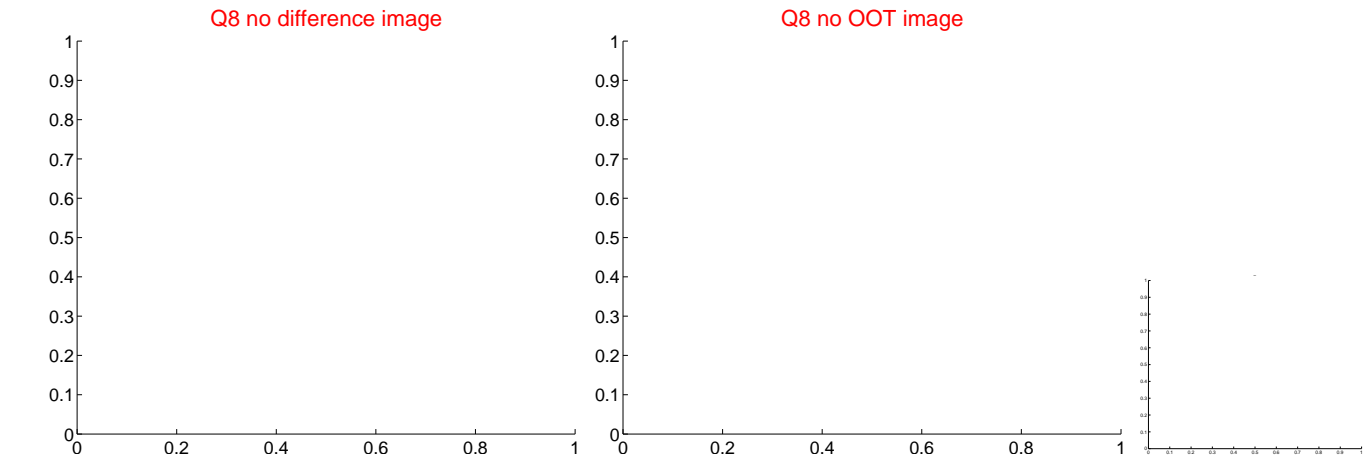
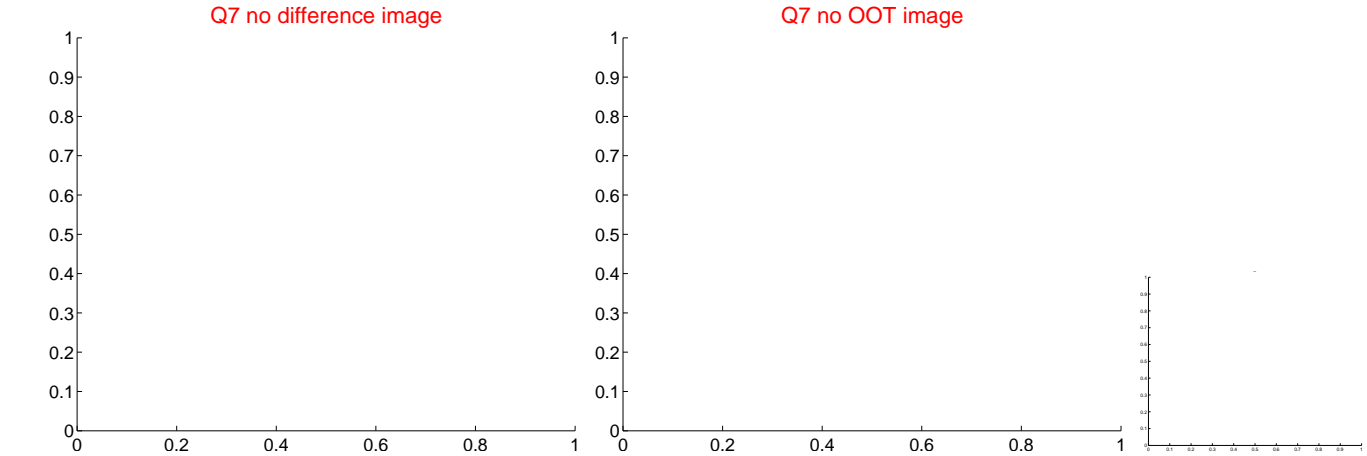
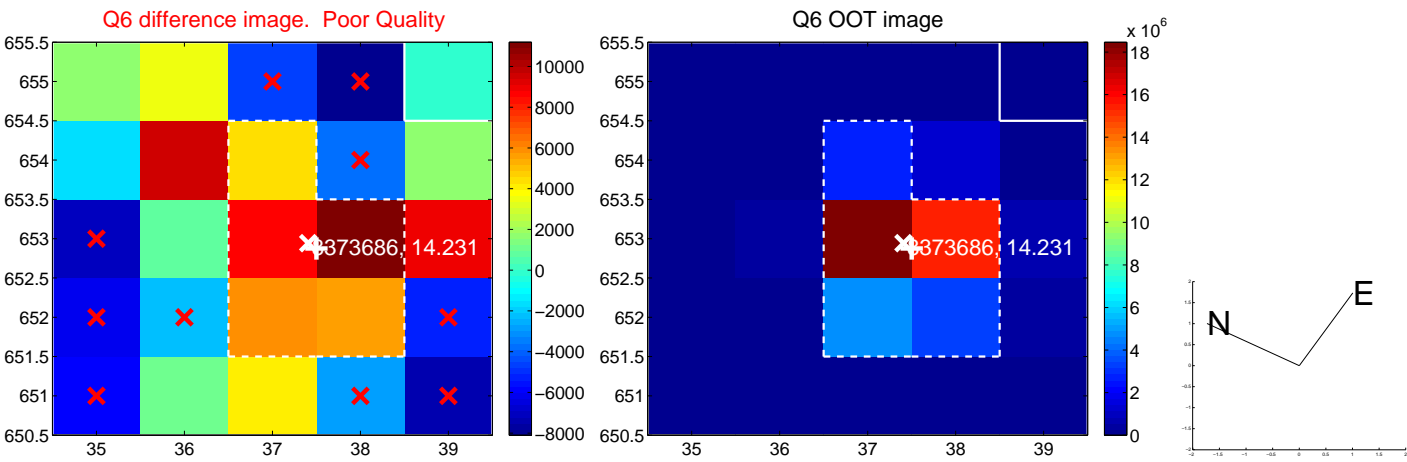
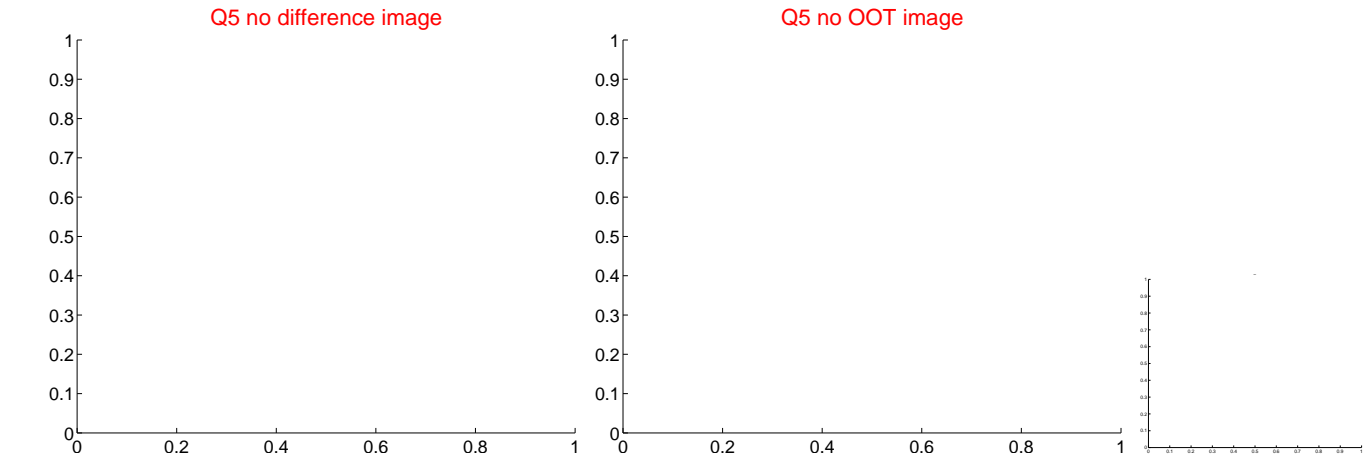


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



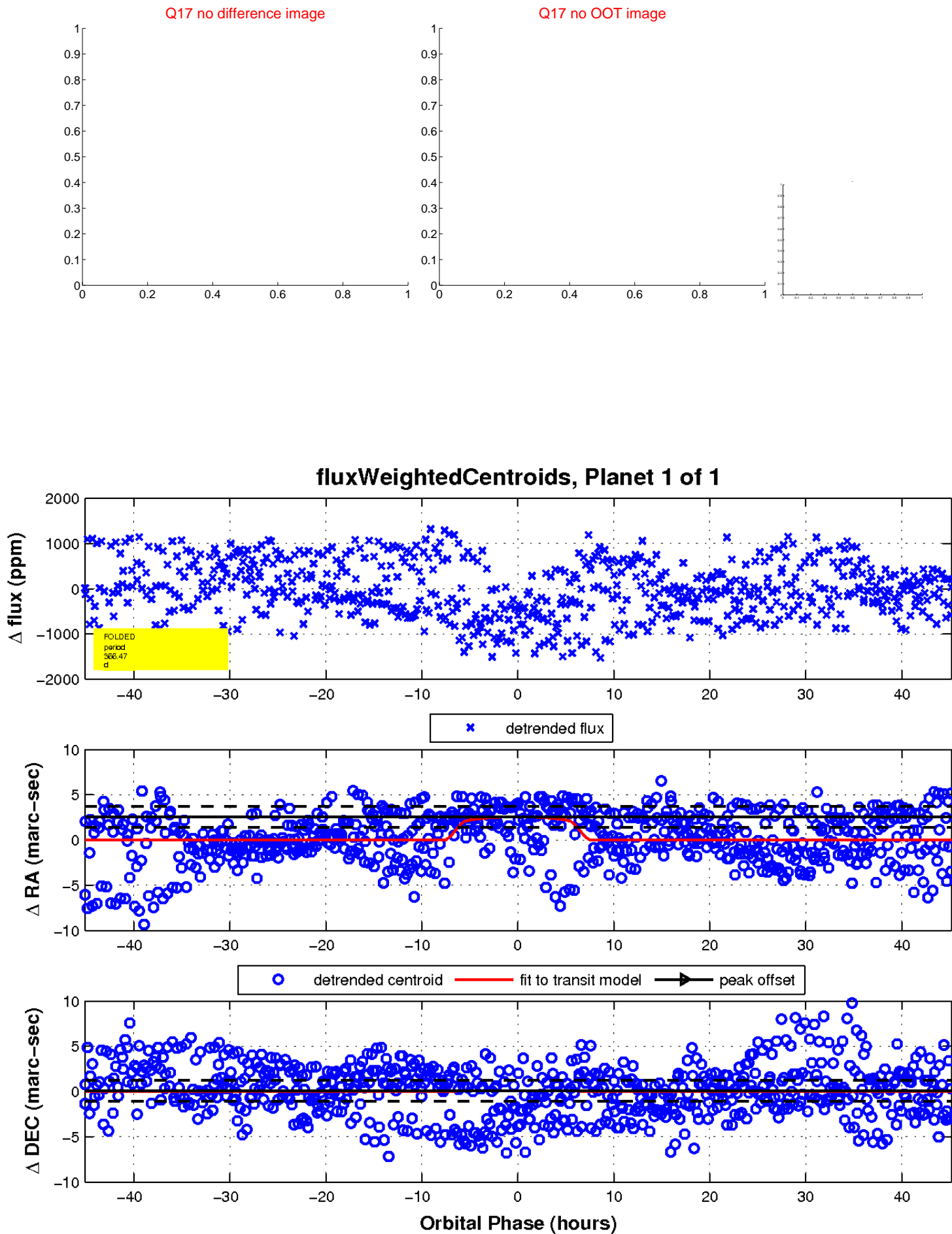
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

