

KIC 007049771

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})
007049771-01	OBS	8132.01	381.838315	458.845939	352.6	17.134	7.2	7.3	4.49	4959	8.82	9.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007049771-01	OBS	FP	0.22	1	0	0	0	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.

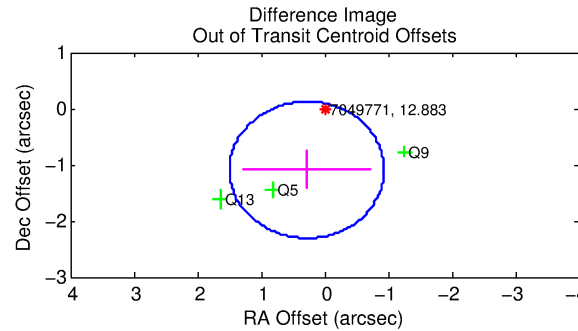
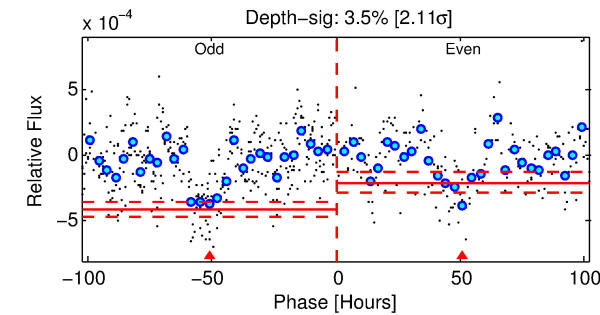
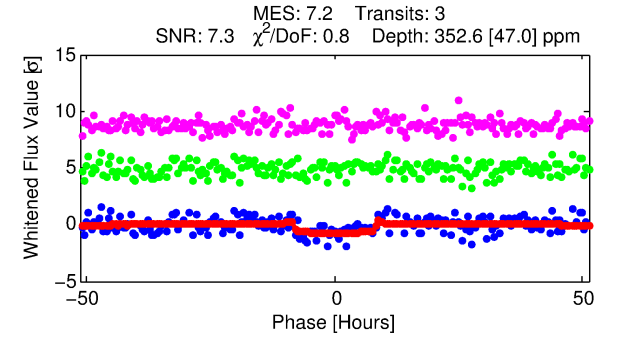
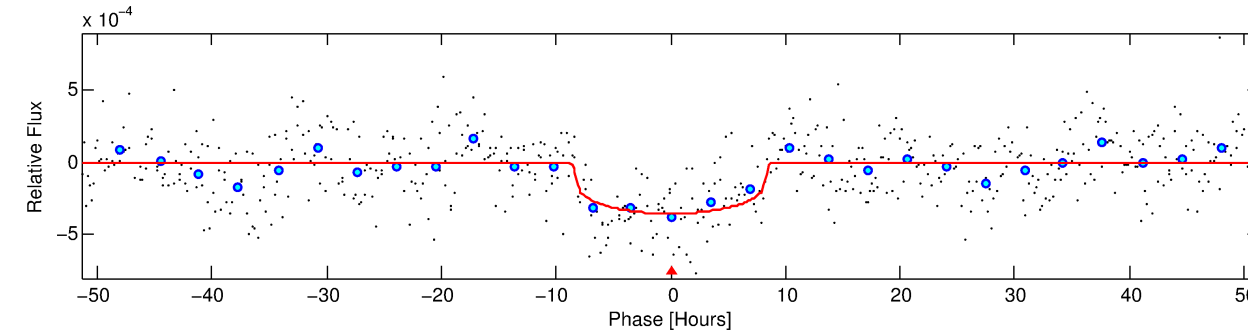
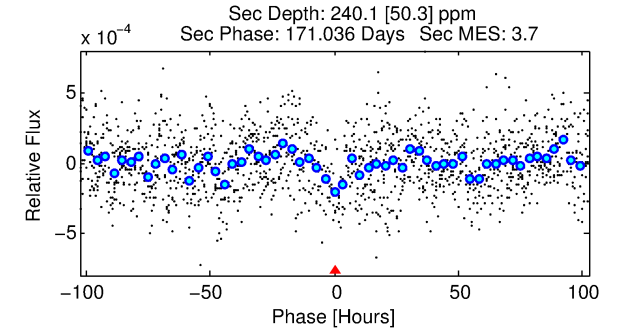
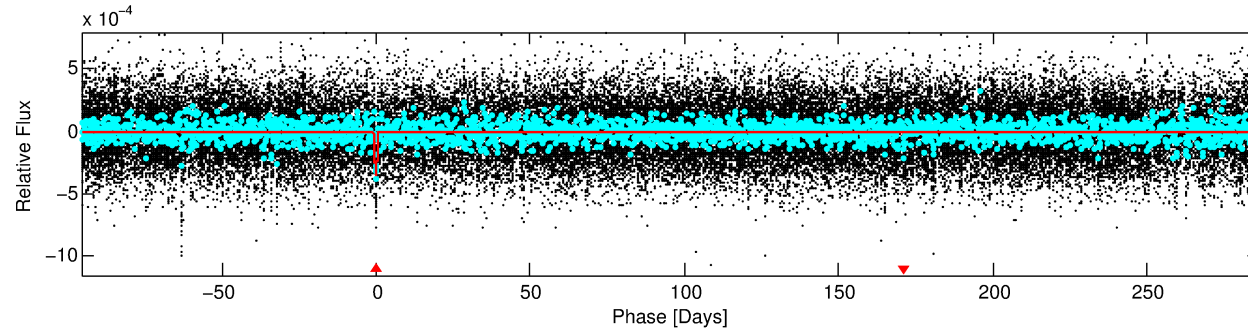
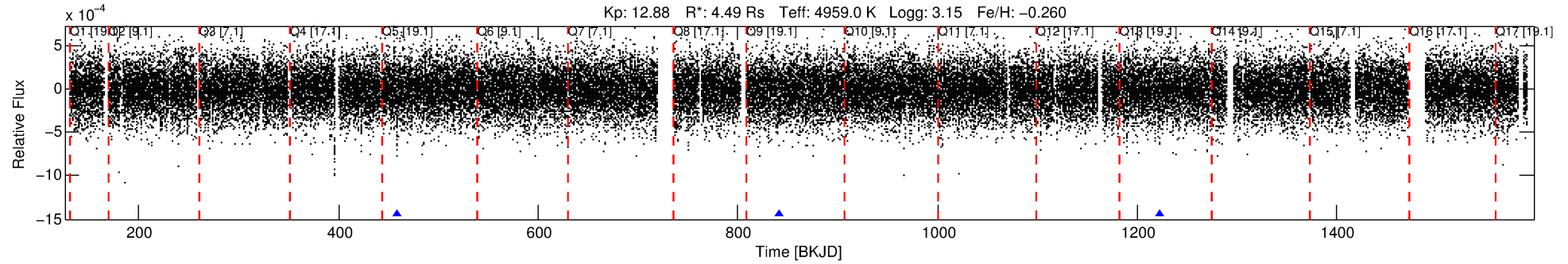
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007049771-01

No Significant Match Found

DV One-Page Summary

KIC: 7049771 Candidate: 1 of 1 Period: 381.838 d



DV Fit Results:

Period = 381.83831 [0.01083] d
Epoch = 458.8459 [0.0165] BKJD
Rp/R* = 0.0180 [0.0062]
a/R* = 133.37 [162.03]
b = 0.65 [1.09]
Seff = 9.95 [1.34]
Teq = 453 [15] K
Rp = 8.83 [3.26] Re
a = 1.0468 [0.0966] AU
Ag = 1858.09 [1350.76] [1.37σ]
Teffp = 4597 [834] K [4.97σ]

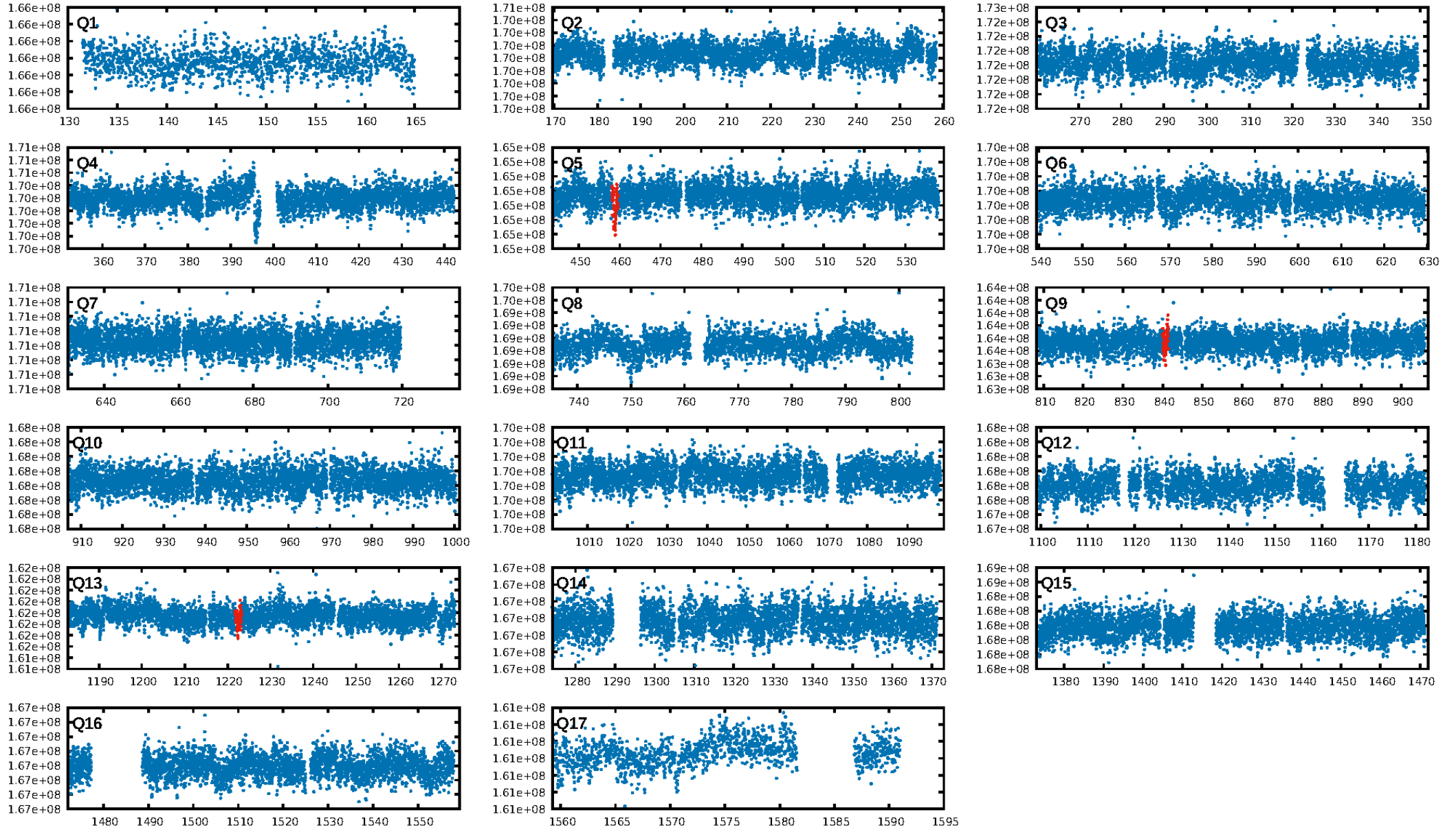
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 16.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.82e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.403
Centroid-sig: 9.2%
Centroid-so: 0.535 arcsec [1.03σ]
OotOffset-rm: 1.129 arcsec [2.78σ]
KicOffset-rm: 1.011 arcsec [2.32σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

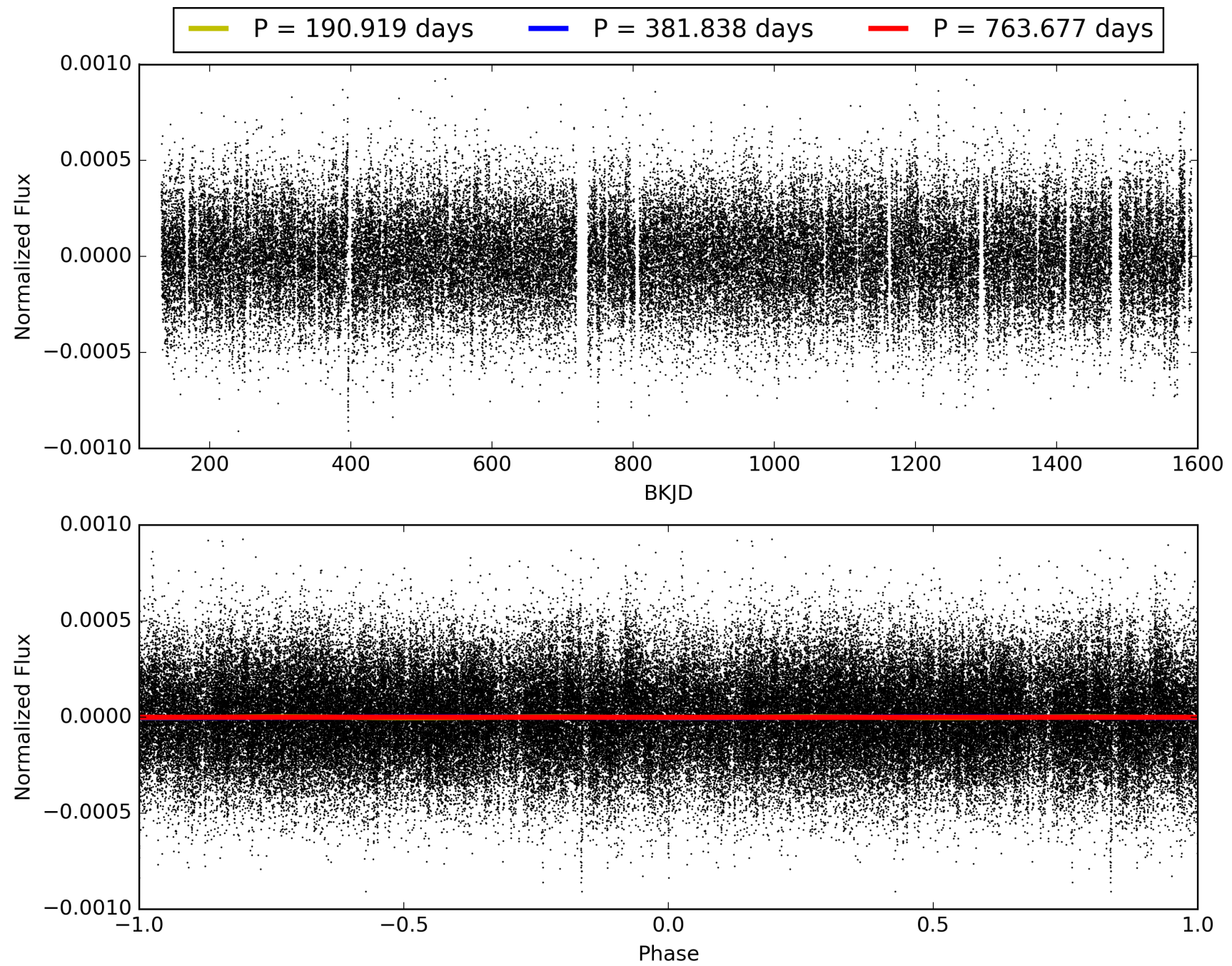
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:34:47 Z

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

TCE 007049771-01, PDC Light Curves

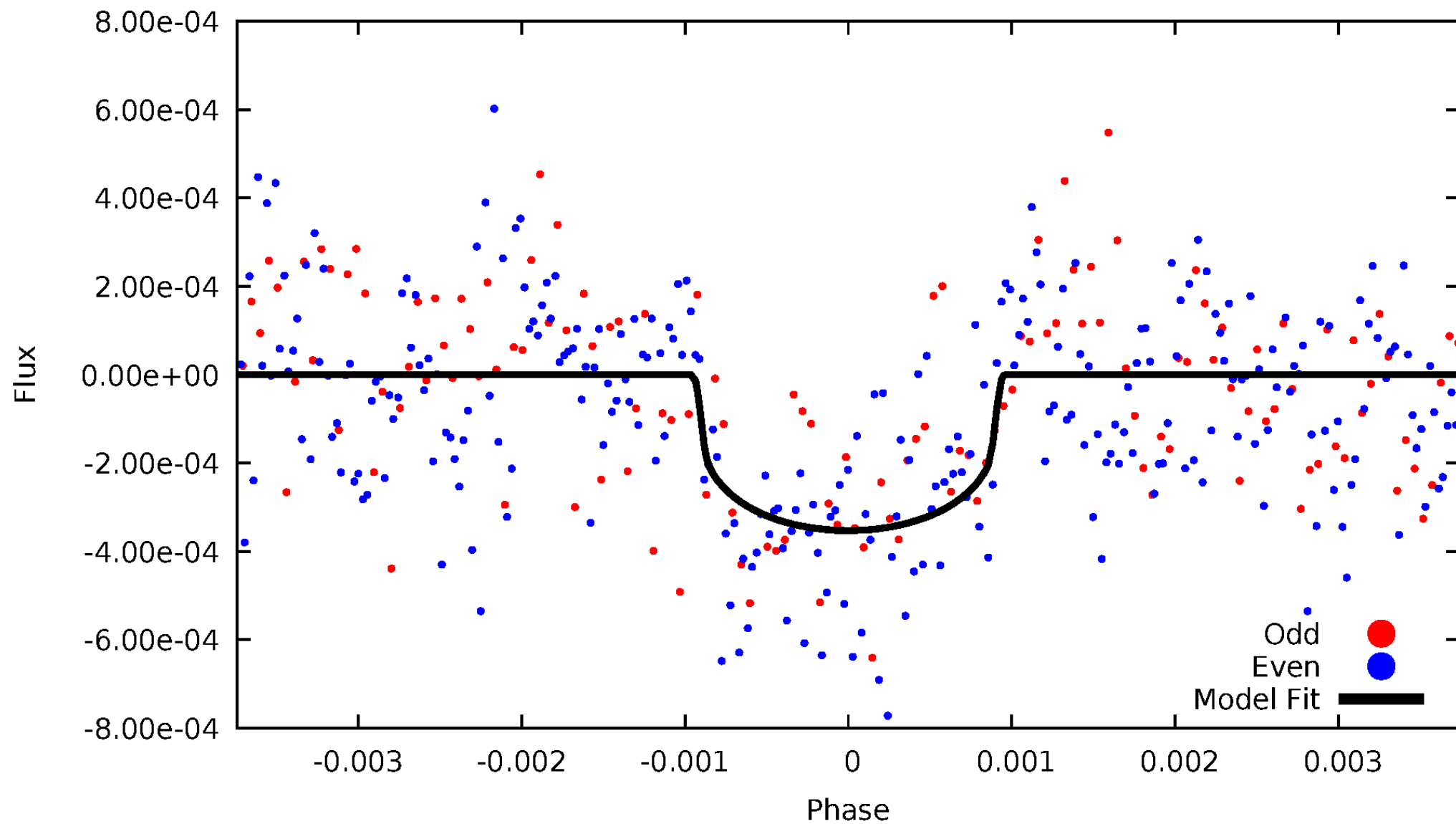


TCE 007049771-01



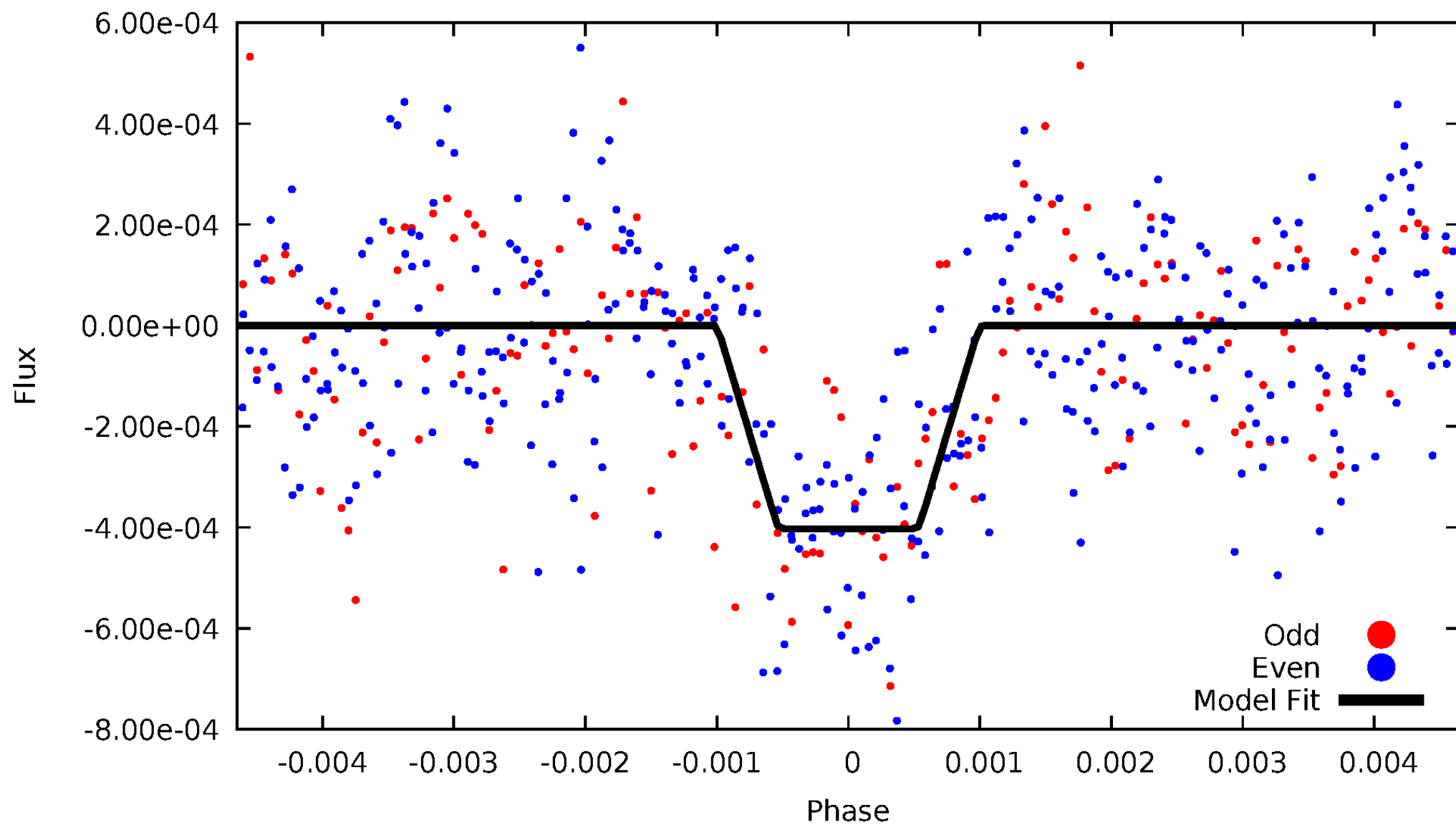
DV Odd/Even

TCE 007049771-01



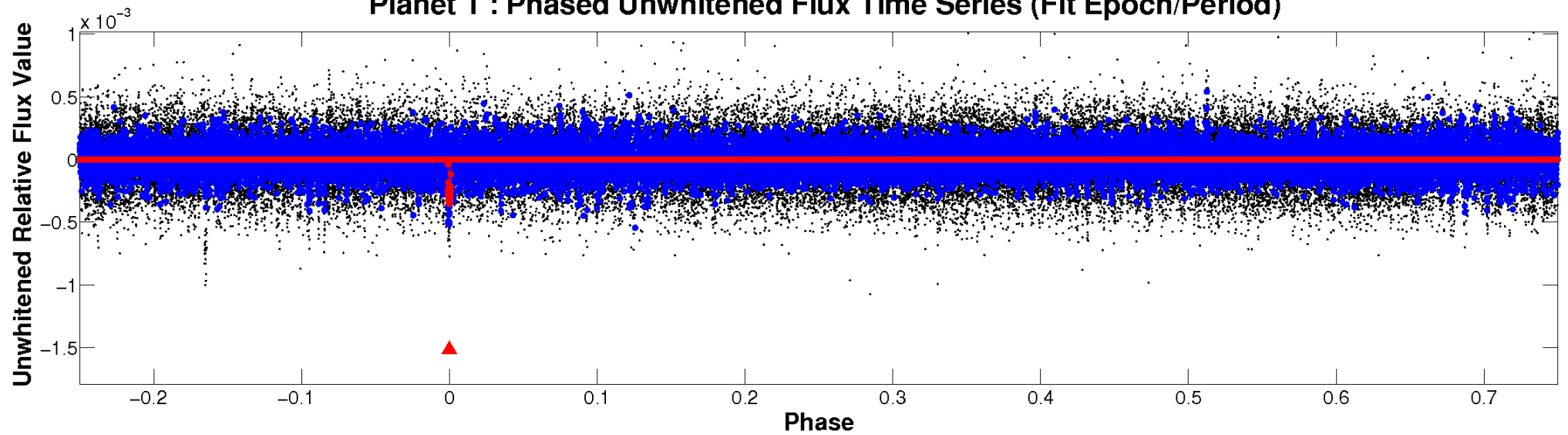
ALT Odd/Even

TCE 007049771-01

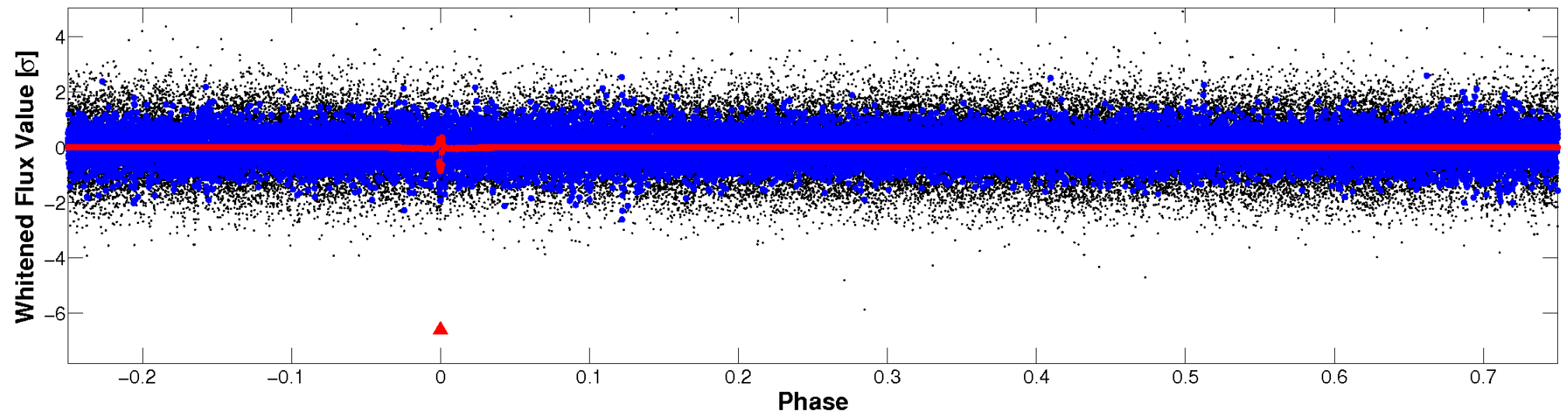


Non-Whitened Vs. Whitened Light Curve

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

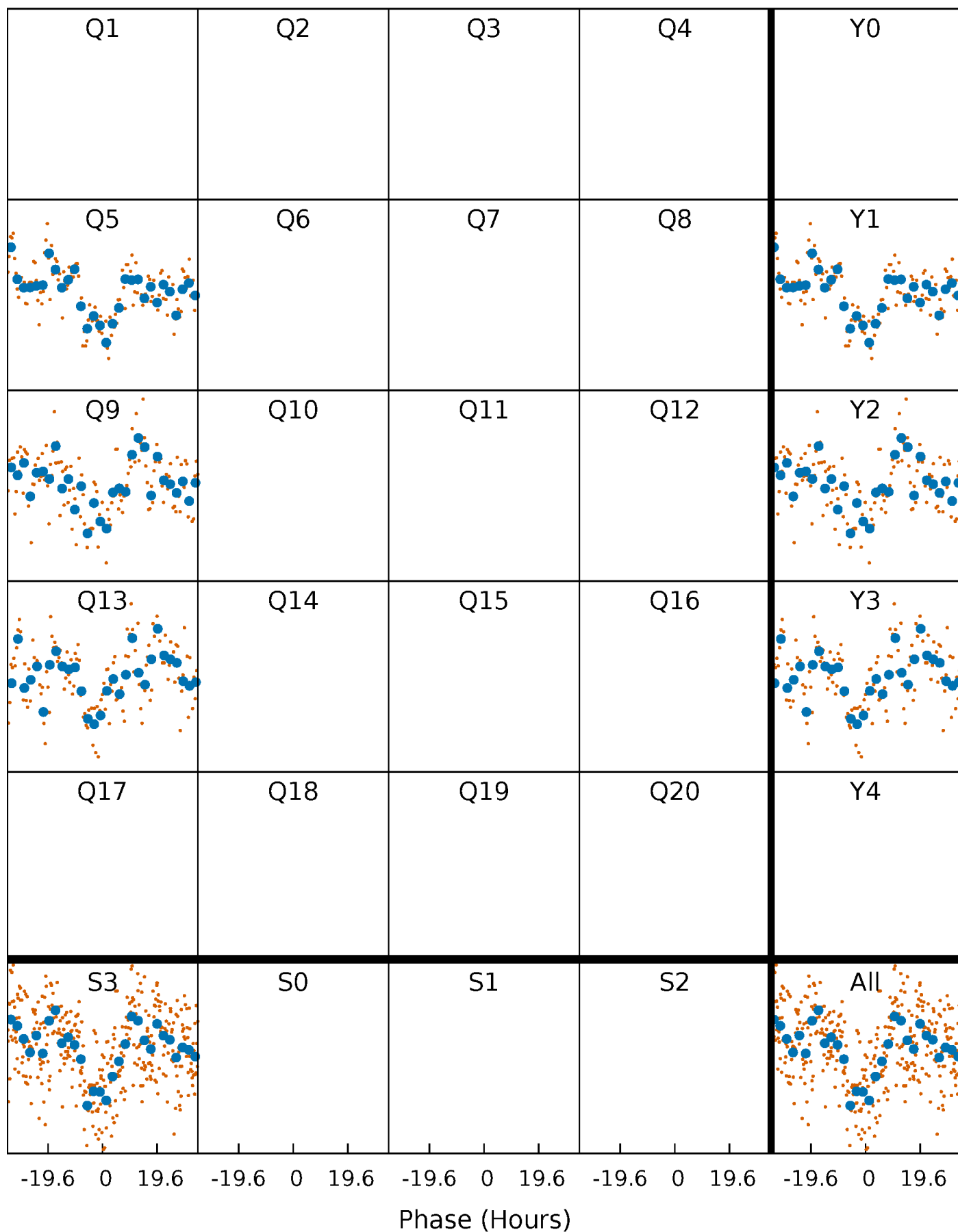


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



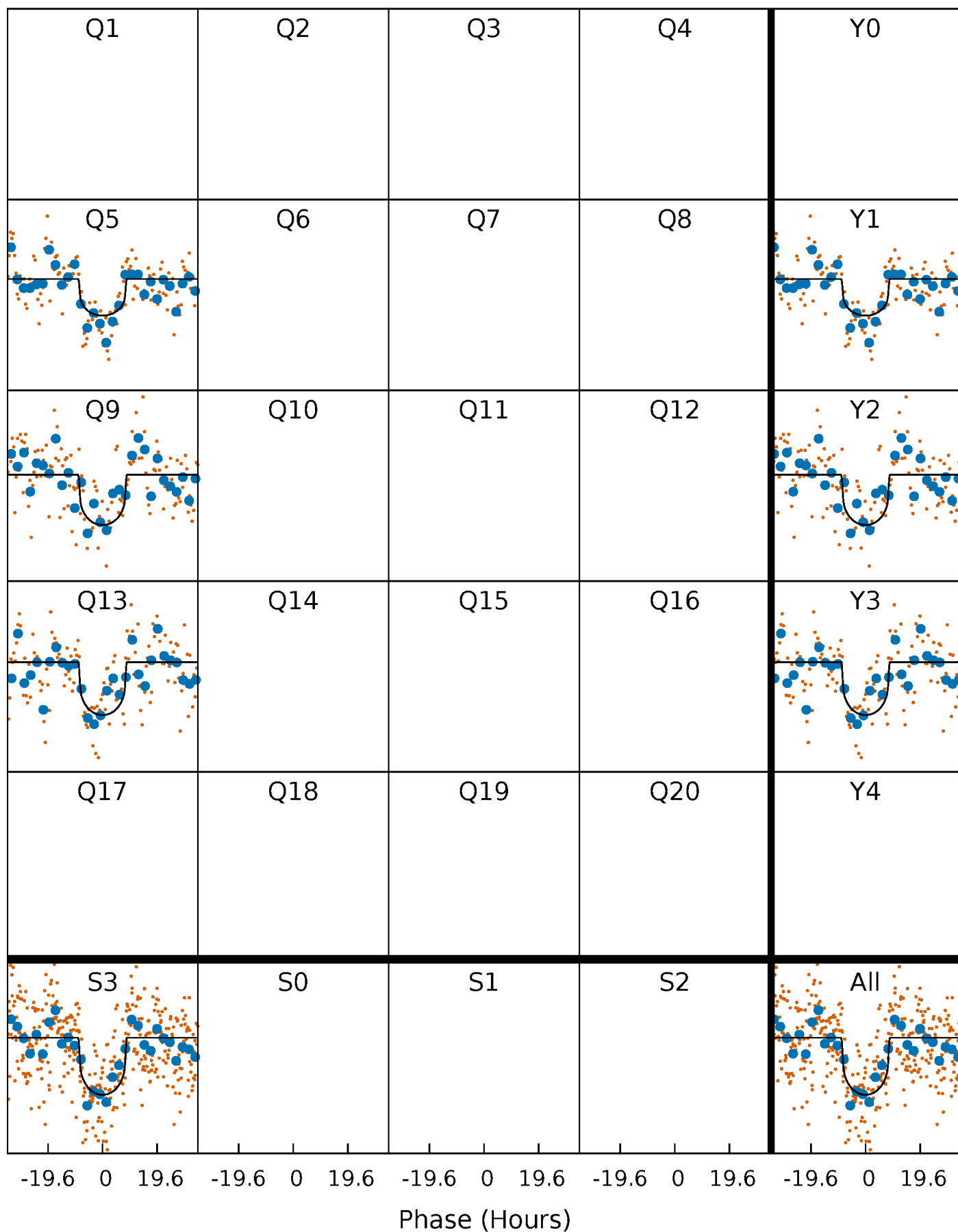
PDC Quarter-Phased Transit Curves

TCE 007049771-01 P=381.838315 Days $T_0=458.845939$ (BKJD)



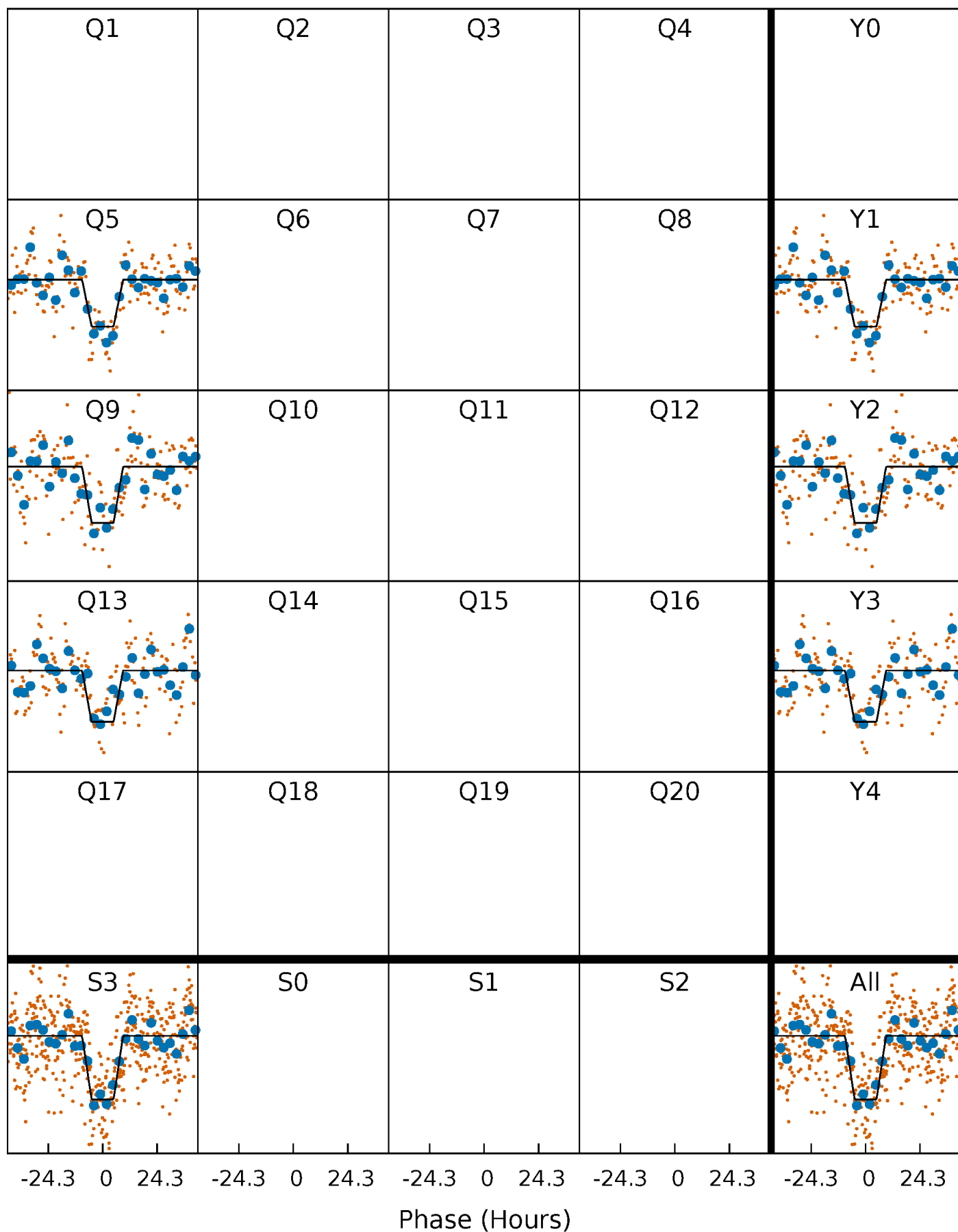
DV Quarter-Phased Transit Curves

TCE 007049771-01 P=381.838315 Days $T_0=458.845939$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

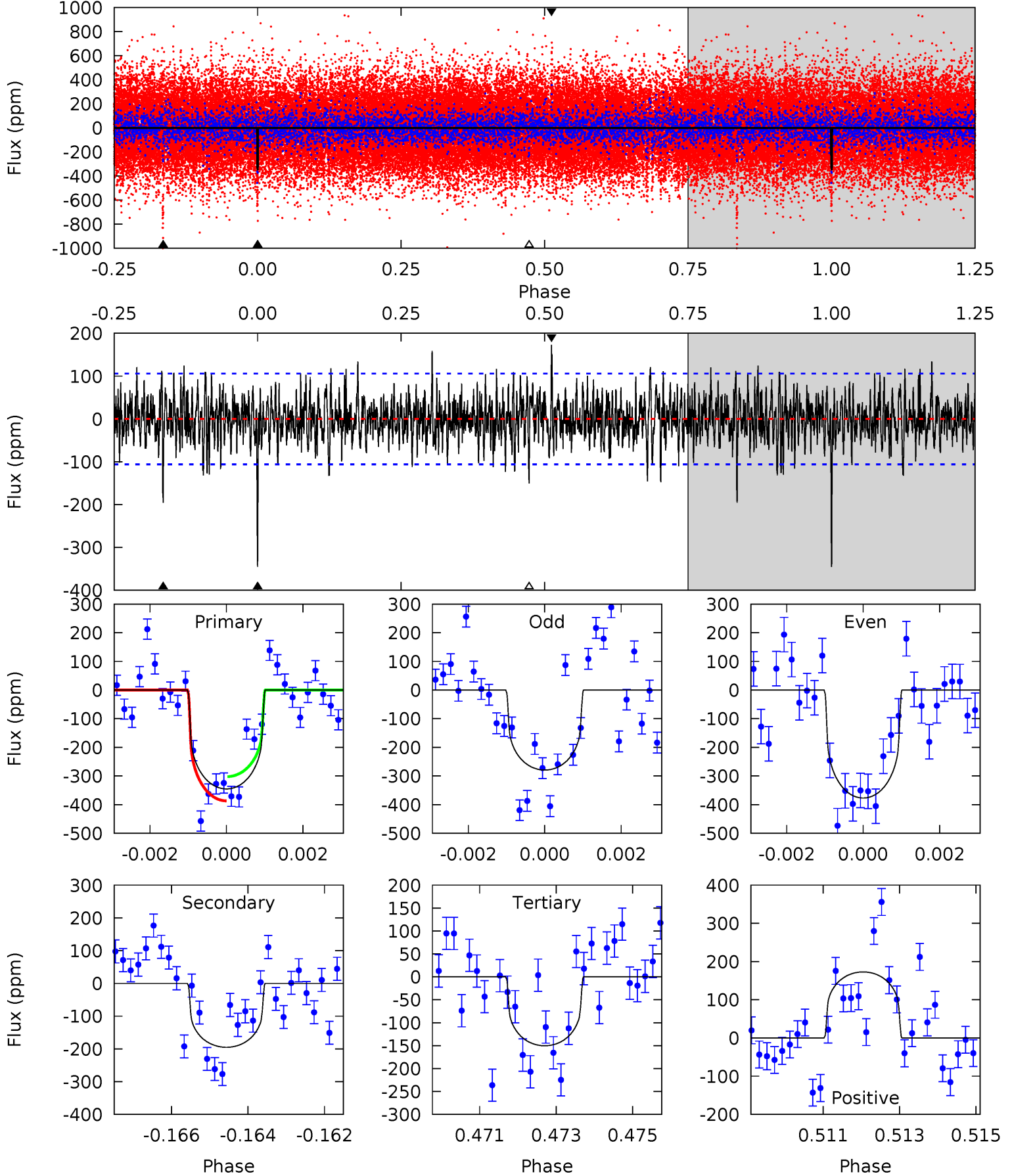
TCE 007049771-01 P=381.821502 Days $T_0=458.796970$ (BKJD)



DV Model-Shift Uniqueness Test

007049771-01, P = 381.838315 Days, E = 77.007624 Days

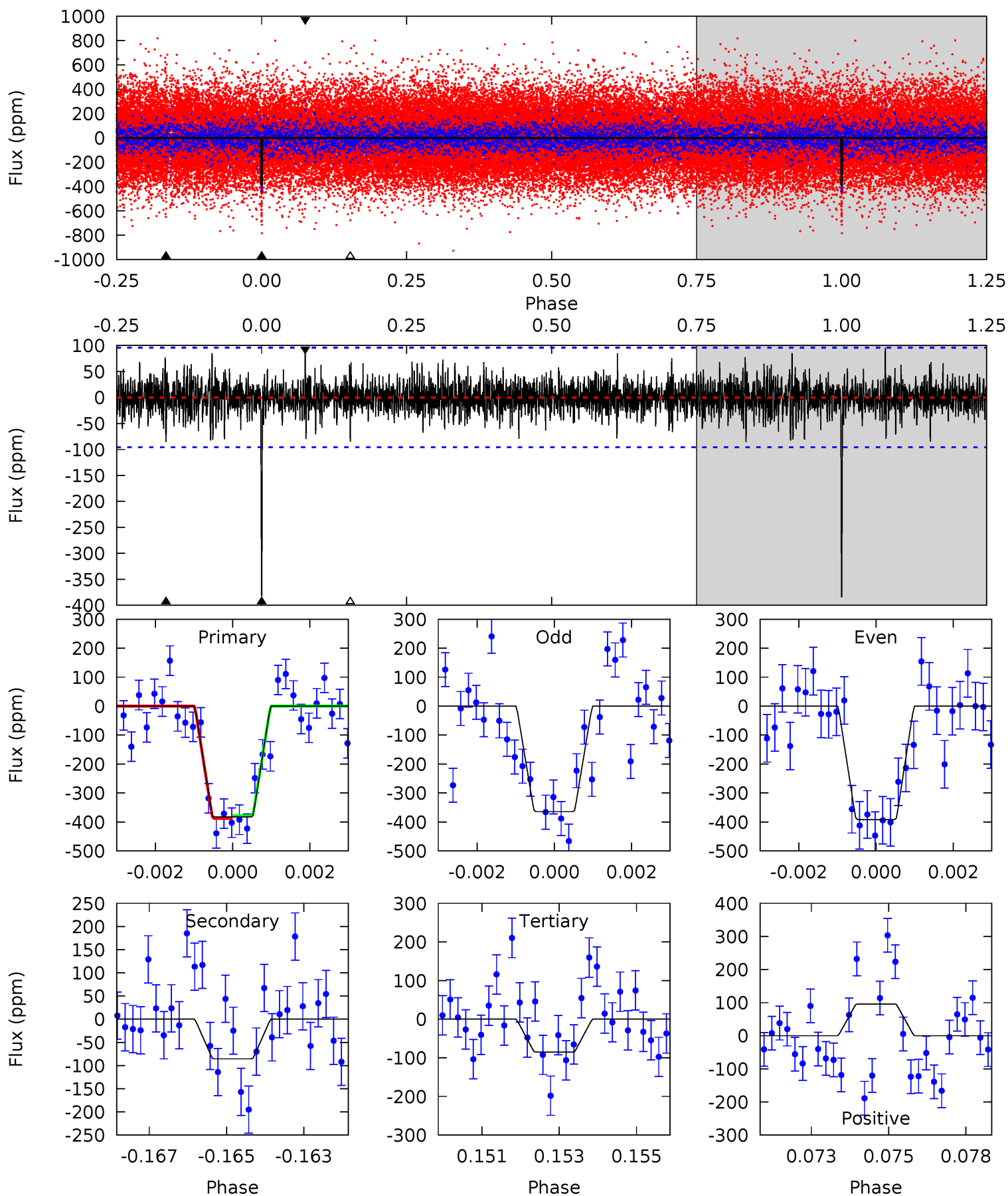
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	9.82	7.57	8.70	5.34	3.11	2.12	9.80	8.67	2.25	1.12	2.31	1.12	0.33	2.12



Alt Model-Shift Uniqueness Test

007049771-01, P = 381.821502 Days, E = 76.975468 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.2	4.75	4.72	5.31	5.32	3.08	1.28	16.5	15.9	0.03	-0.56	0.71	1.05	0.20	0.29



Stellar Parameters For KIC 007049771

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4959^{+111}_{-1}	$3.155^{+0.030}_{-0.030}$	$-0.260^{+0.250}_{-0.250}$	$4.486^{+0.601}_{-0.300}$	$1.049^{+0.307}_{-0.123}$	$0.016^{+0.002}_{-0.002}$
	+2%/-0%	+1%/-1%	+96%/-96%	+13%/-7%	+29%/-12%	+13%/-15%
Source	PHO1	AST9	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 007049771-01 / KOI 8132.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-195 ± 20	$8.83^{+3.04}_{-2.97}$	632^{+18}_{-27}	4473^{+797}_{-499}	1534^{+1863}_{-685}
Alt.	-86 ± 18	$10.02^{+3.21}_{-3.07}$	631^{+21}_{-24}	3666^{+515}_{-336}	519^{+547}_{-237}

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 $A_{obs} \gg 1.0$

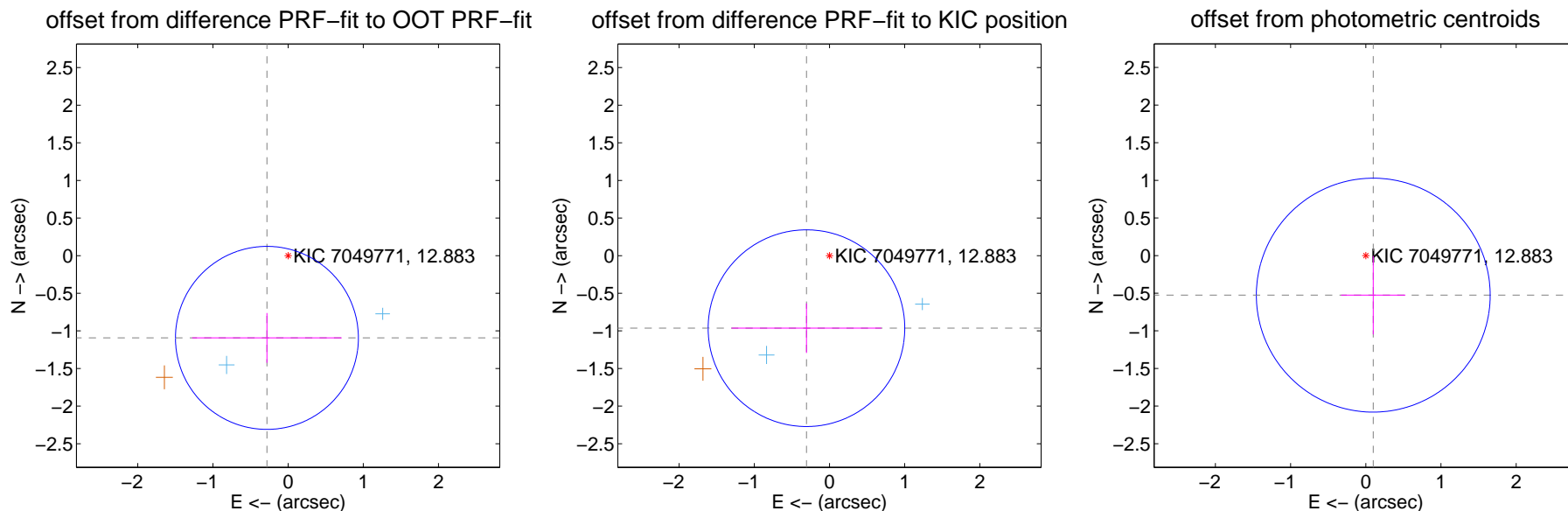
DV Centroid Data

Supplemental centroid analysis for 007049771-01. Kepler magnitude: 12.88. Transit SNR 7.27

There are 2 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	1.129 ± 0.405	2.78	0.282 ± 0.994	-1.093 ± 0.331
PRF-fit source offset from KIC position	1.011 ± 0.436	2.32	0.306 ± 0.996	-0.964 ± 0.330
photometric centroid source offset	0.53 ± 0.52	1.03	-0.10 ± 0.43	-0.53 ± 0.52

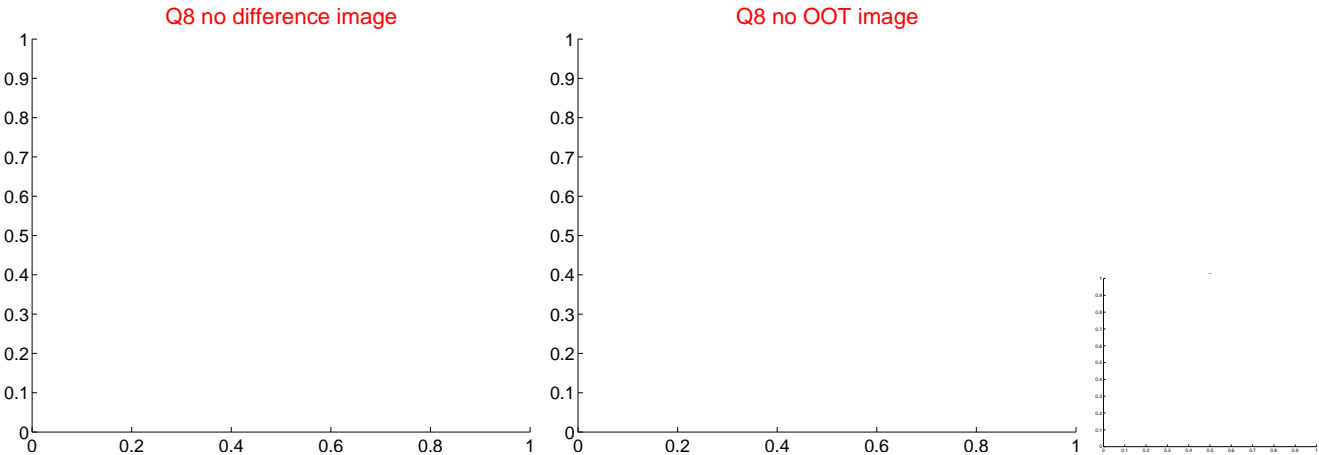
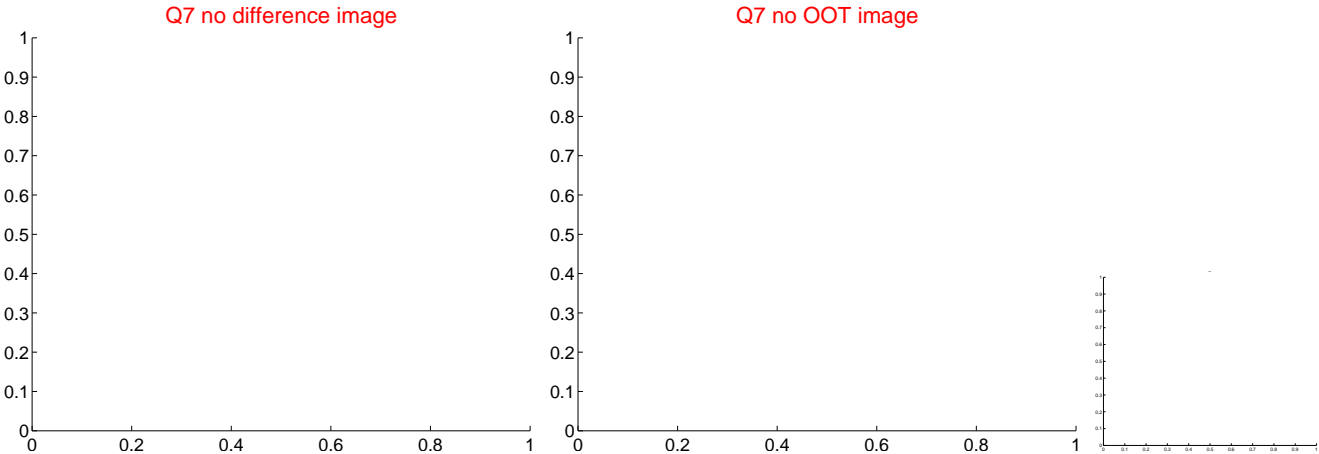
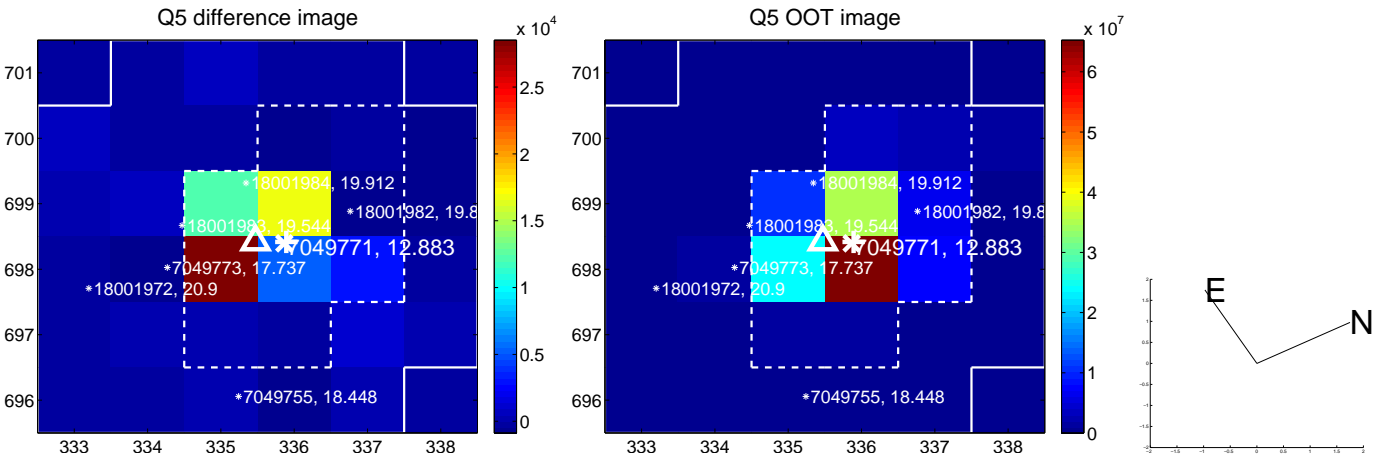


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

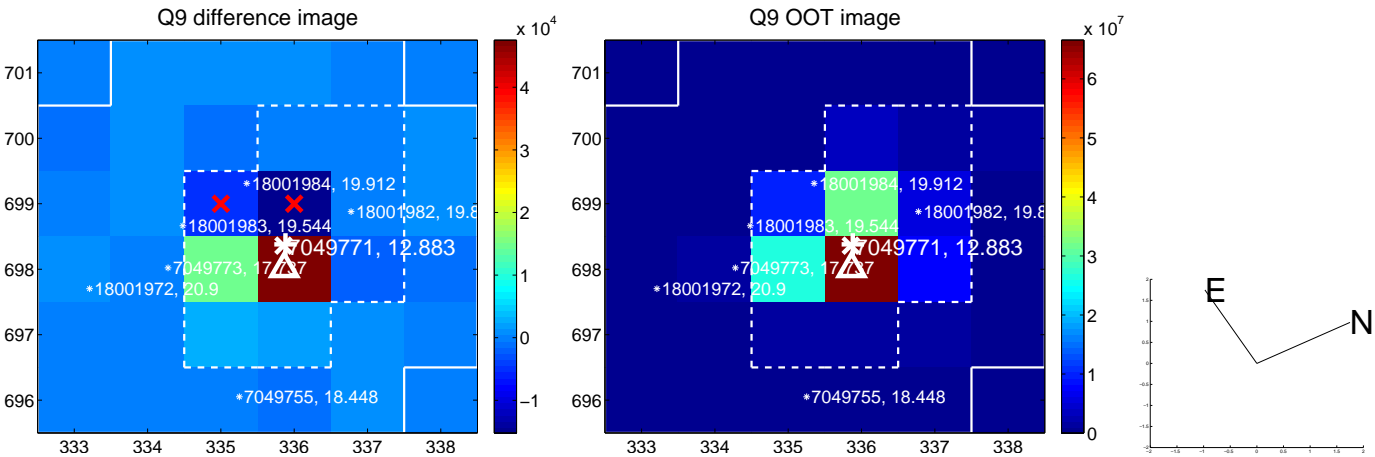
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



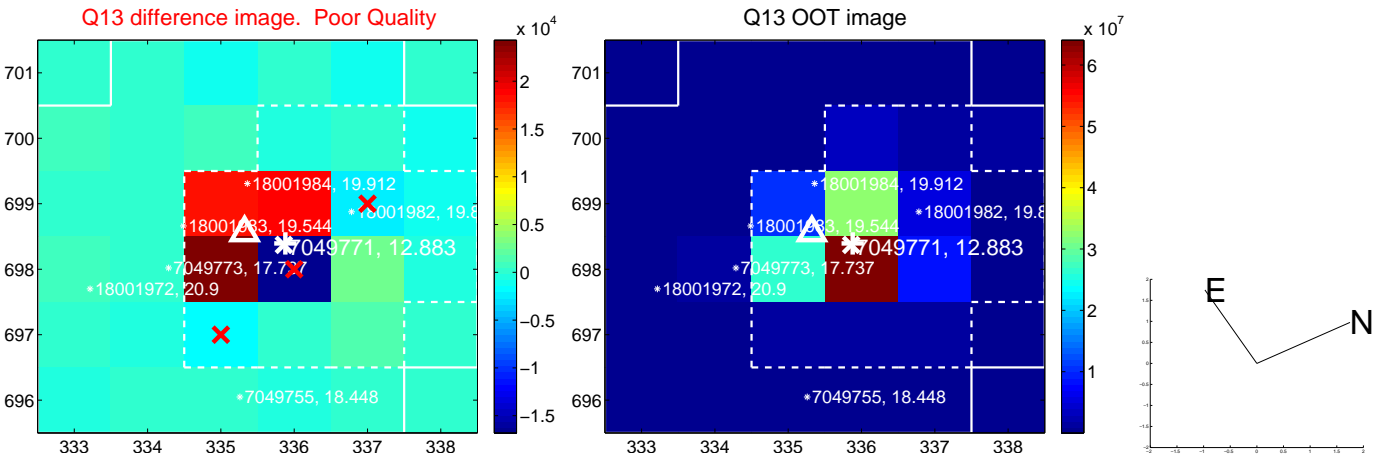
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



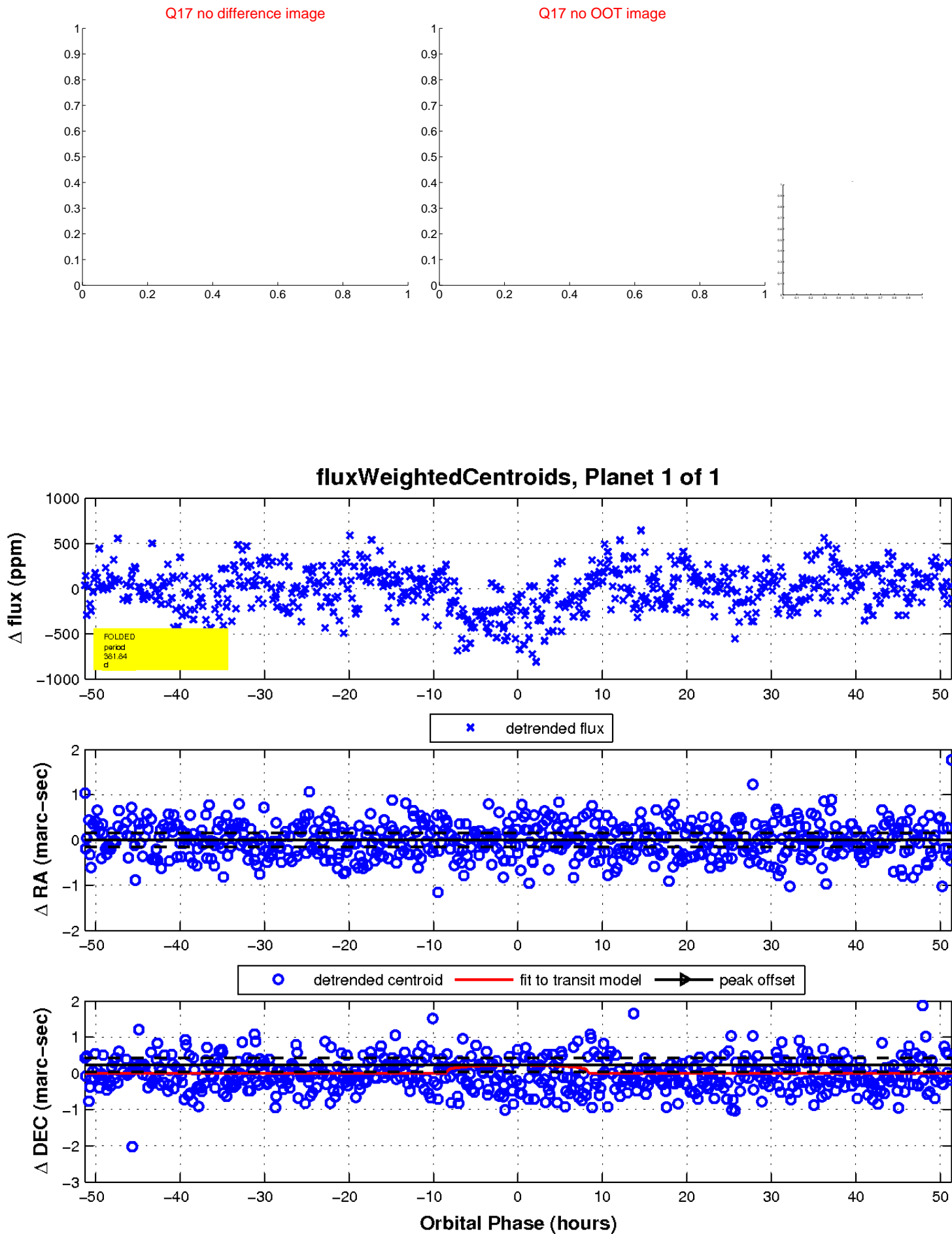
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

