

KIC 007741615

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})
007741615-01	OBS	No	209.719490	178.544653	1225.9	4.889	7.3	6.6	10.88	4841	73.99	87.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007741615-01	OBS	FP	0.00	1	0	0	0	MOD_NONUNIQ_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

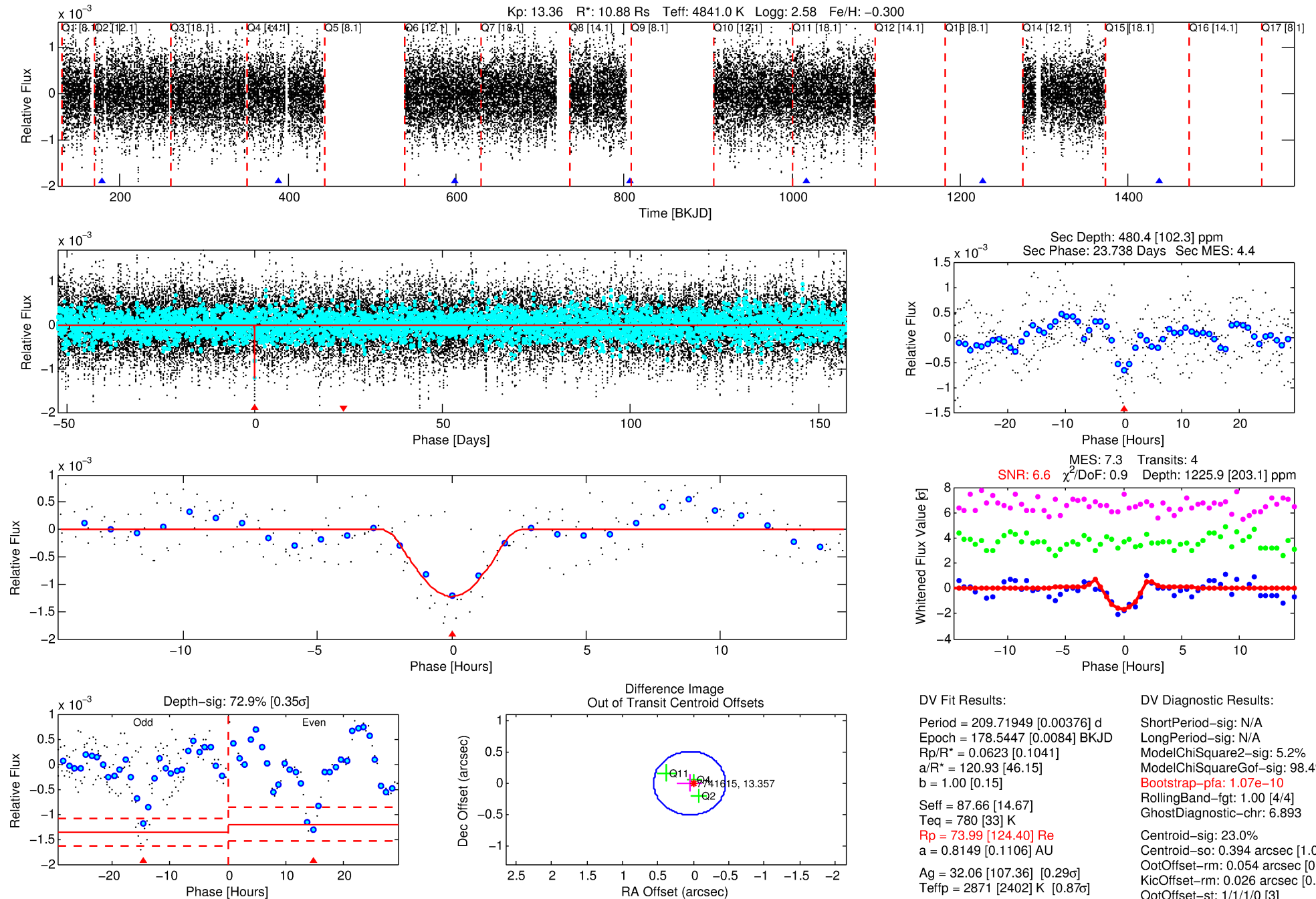
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007741615-01

No Significant Match Found

DV One-Page Summary

KIC: 7741615 Candidate: 1 of 1 Period: 209.719 d



DV Fit Results:

Period = 209.71949 [0.00376] d
Epoch = 178.5447 [0.0084] BKJD
Rp/R* = 0.0623 [0.1041]
a/R* = 120.93 [46.15]
b = 1.00 [0.15]
Seff = 87.66 [14.67]
Teff = 780 [33] K
Rp = 73.99 [124.40] Re
a = 0.8149 [0.1106] AU
Ag = 32.06 [107.36] [0.29 σ]
Teffp = 2871 [2402] K [0.87 σ]

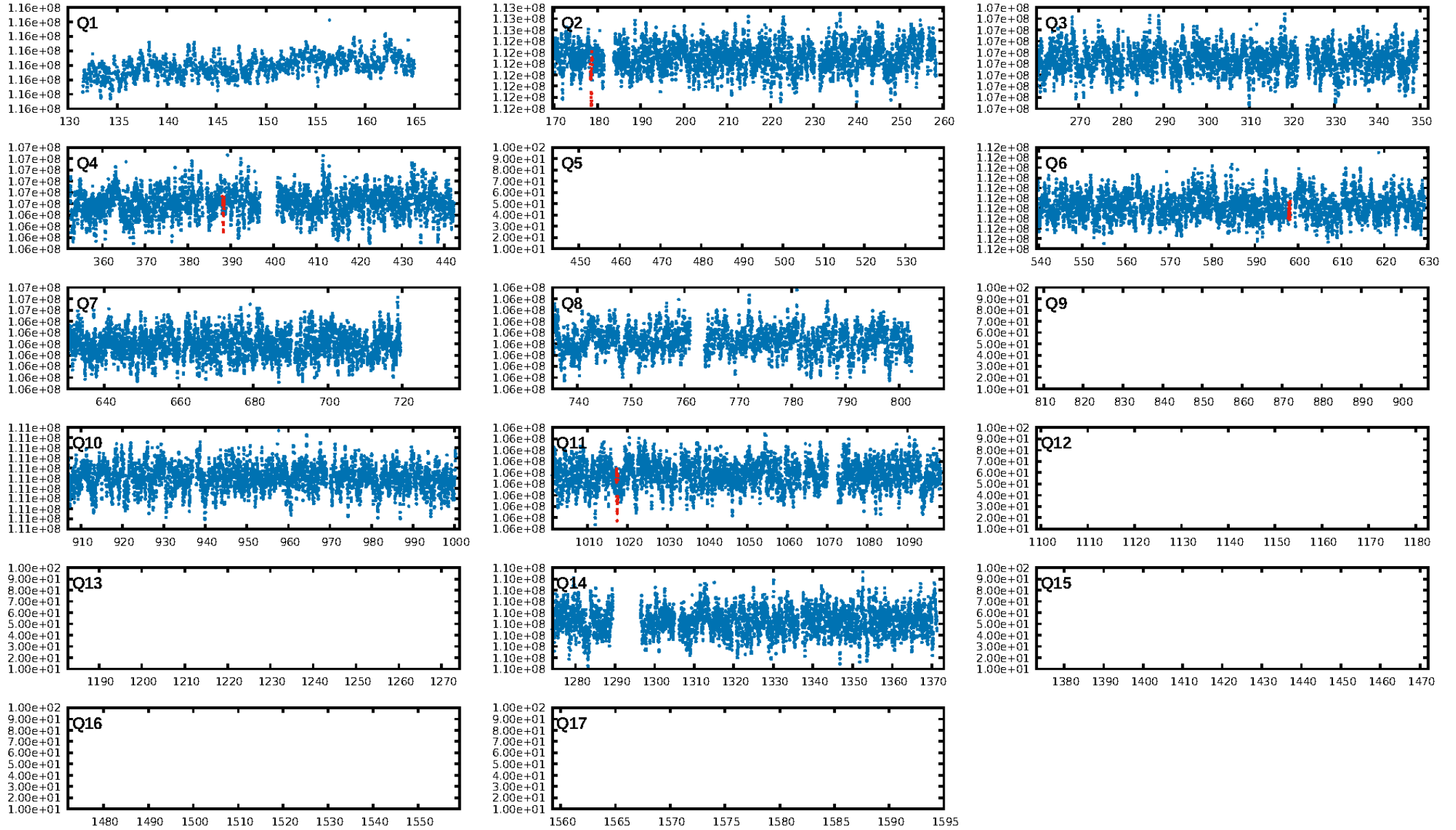
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.2%
ModelChiSquareGof-sig: 98.4%
Bootstrap-pfa: 1.07e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 6.893
Centroid-sig: 23.0%
Centroid-so: 0.394 arcsec [1.01 σ]
OotOffset-rm: 0.054 arcsec [0.32 σ]
KicOffset-rm: 0.026 arcsec [0.20 σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

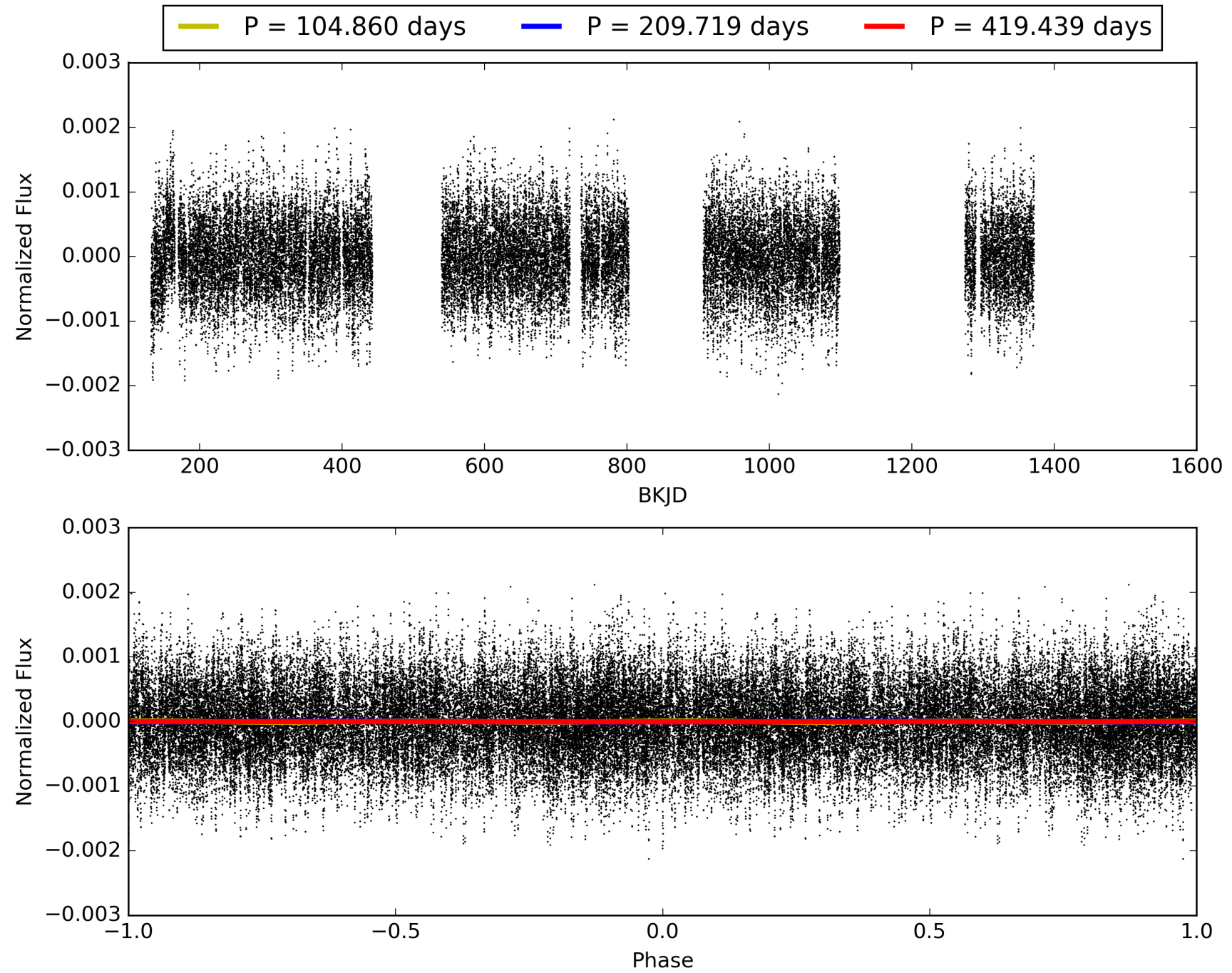
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:48:42 Z

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

TCE 007741615-01, PDC Light Curves

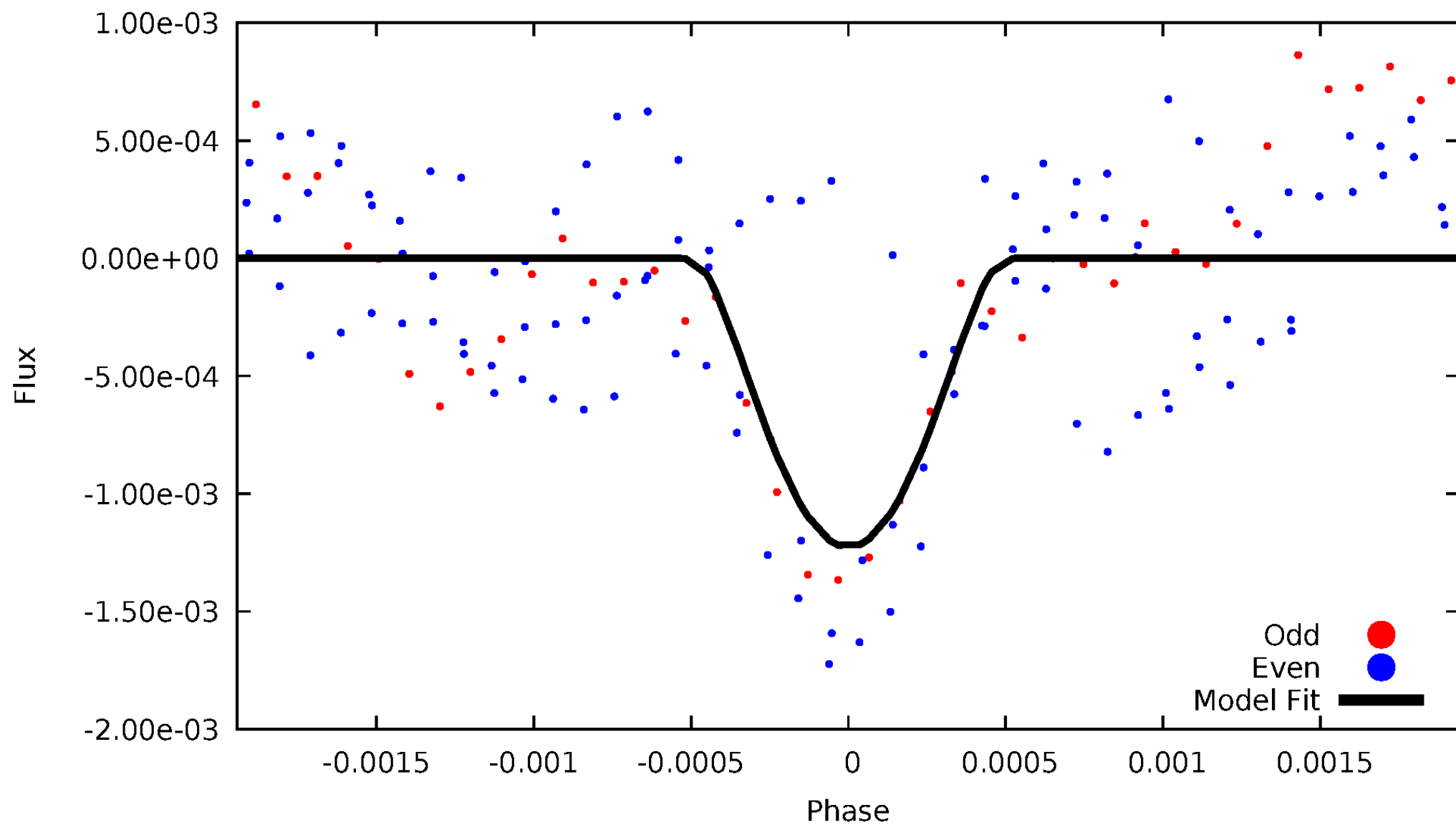


TCE 007741615-01



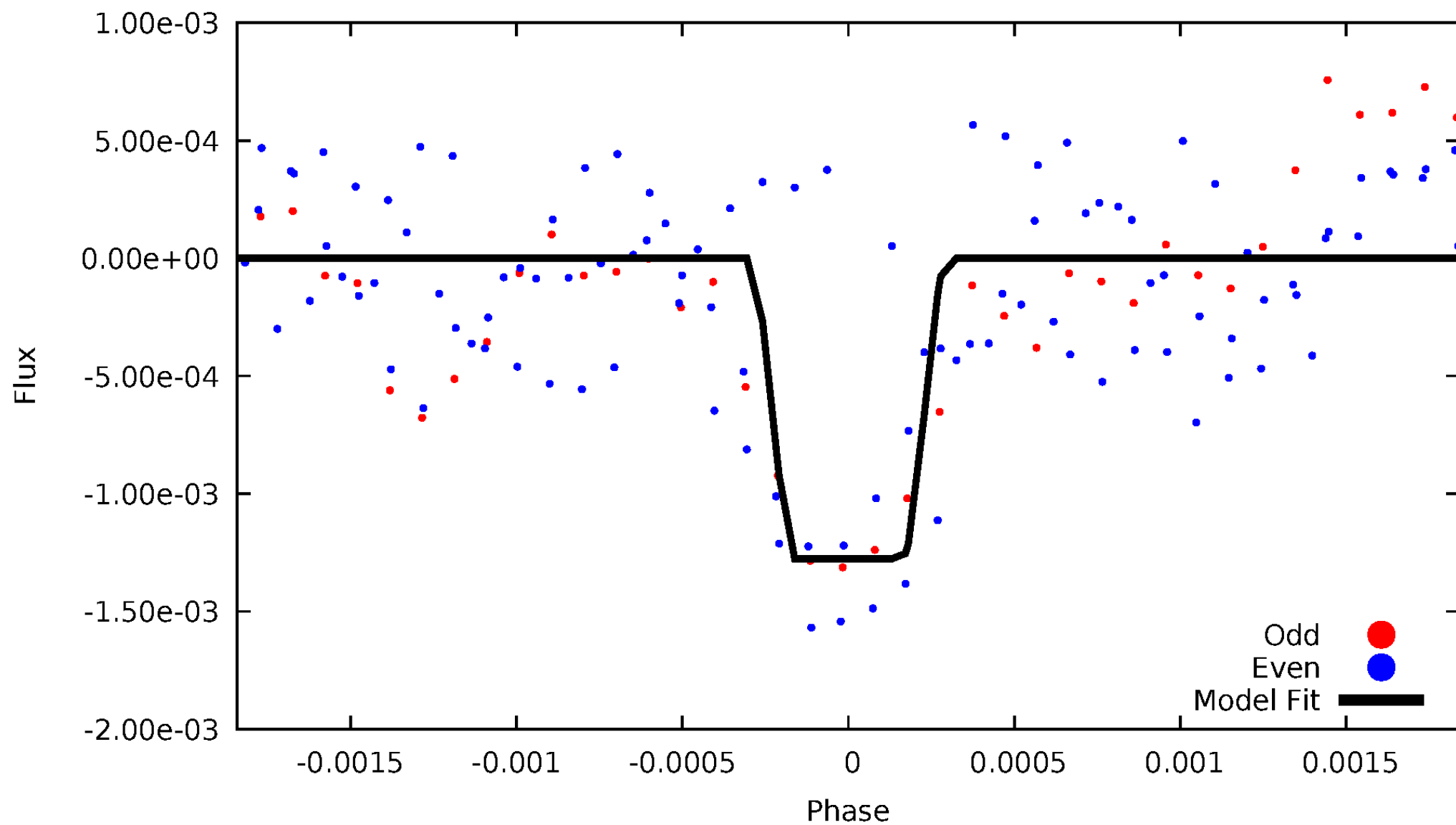
DV Odd/Even

TCE 007741615-01



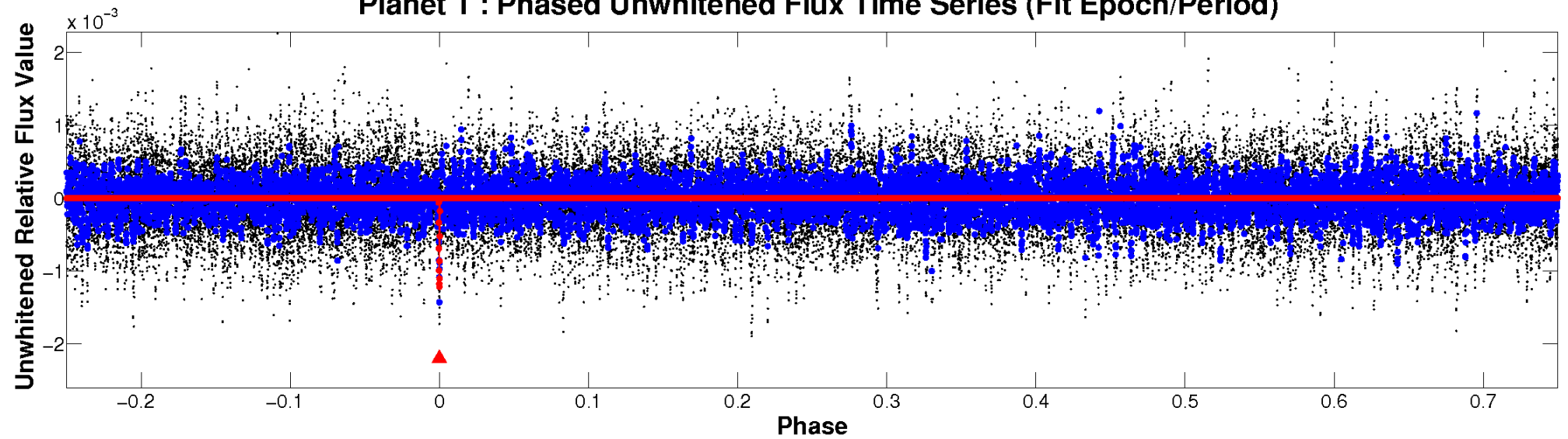
ALT Odd/Even

TCE 007741615-01

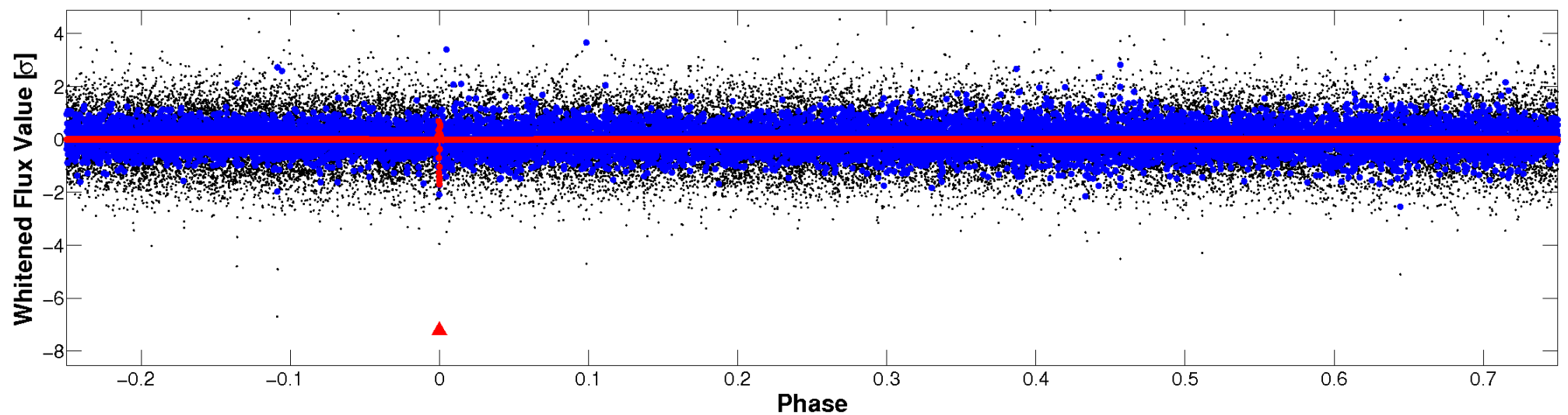


Non-Whitened Vs. Whitened Light Curve

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

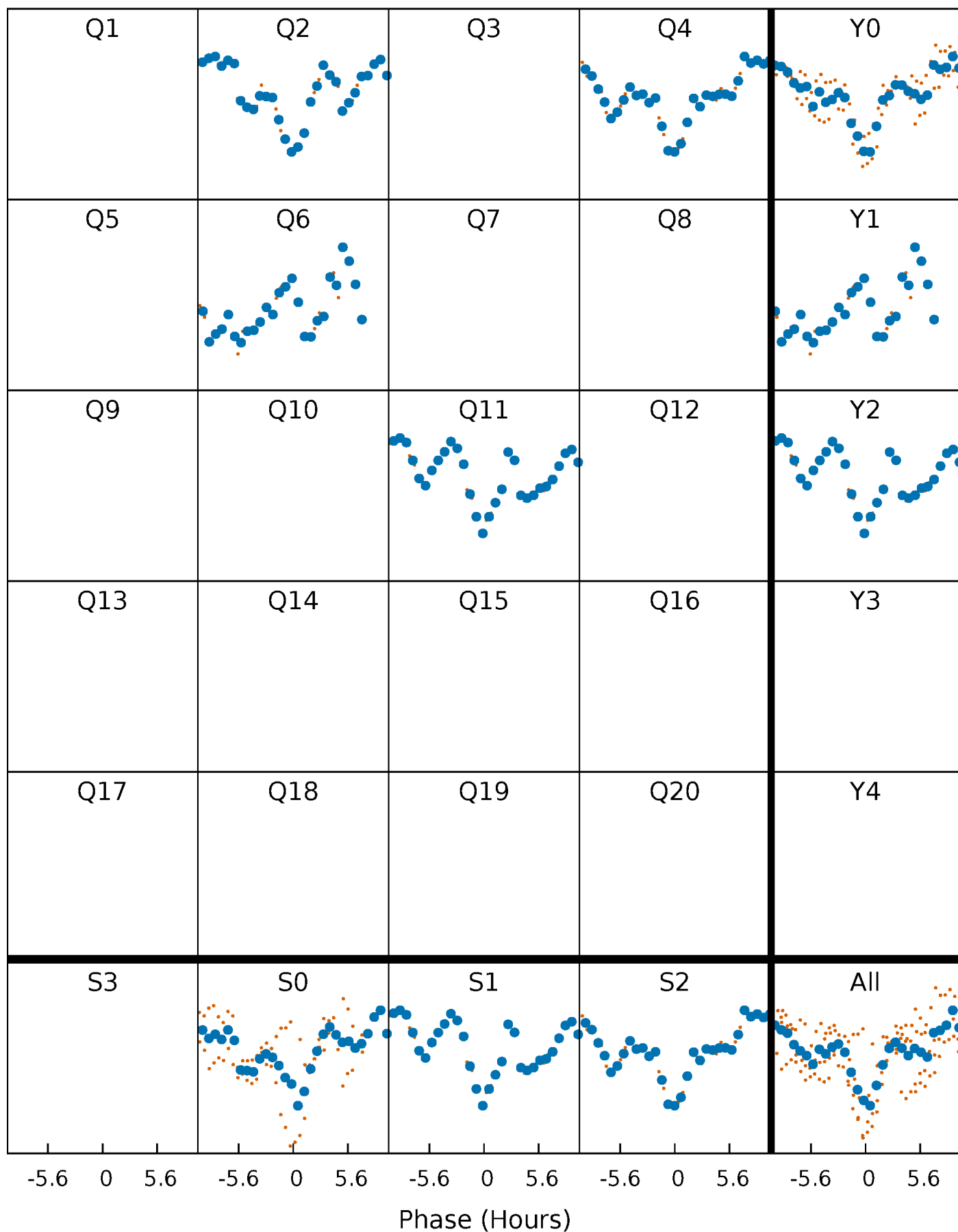


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



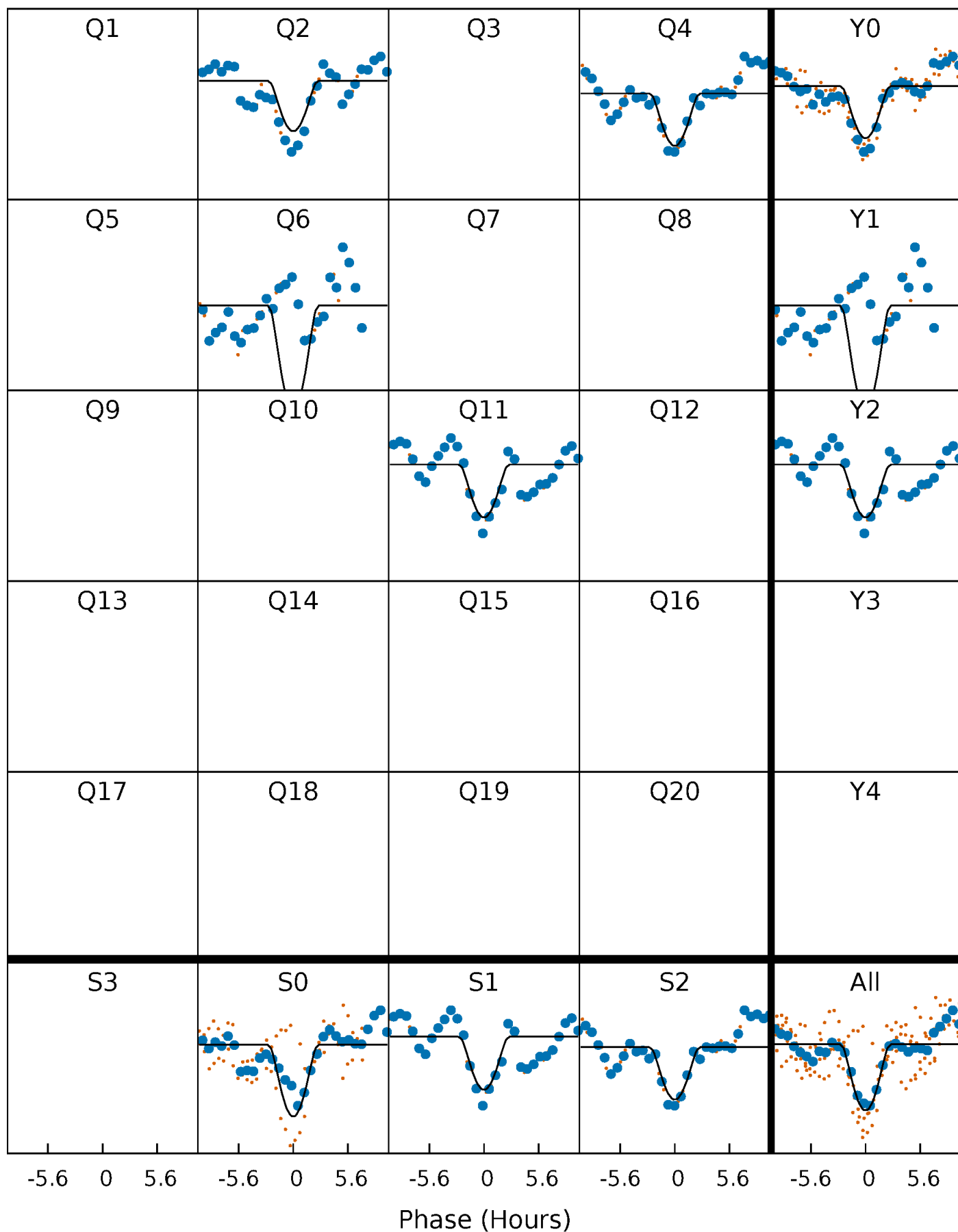
PDC Quarter-Phased Transit Curves

TCE 007741615-01 P=209.719491 Days $T_0=178.544653$ (BKJD)



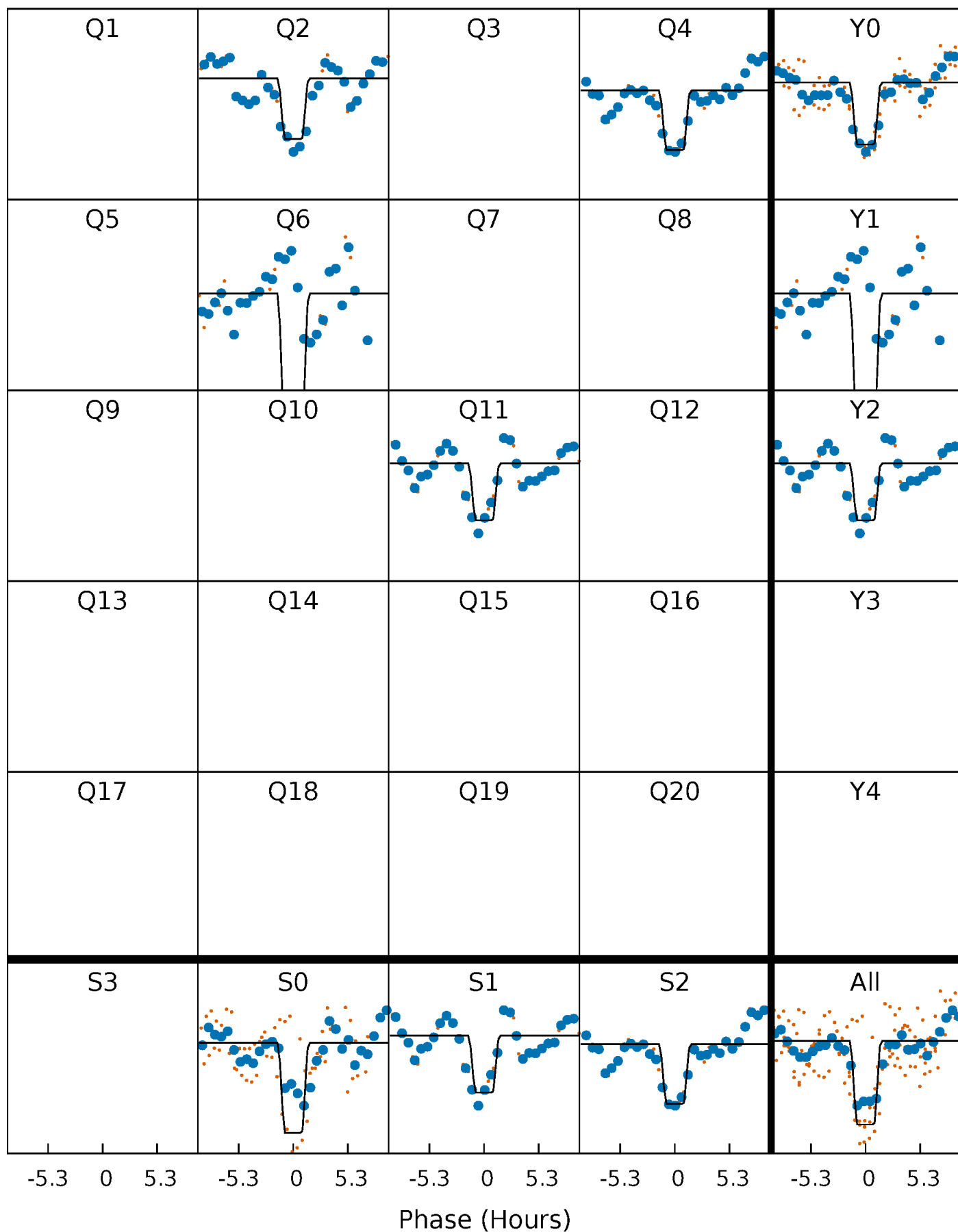
DV Quarter-Phased Transit Curves

TCE 007741615-01 P=209.719491 Days $T_0=178.544653$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

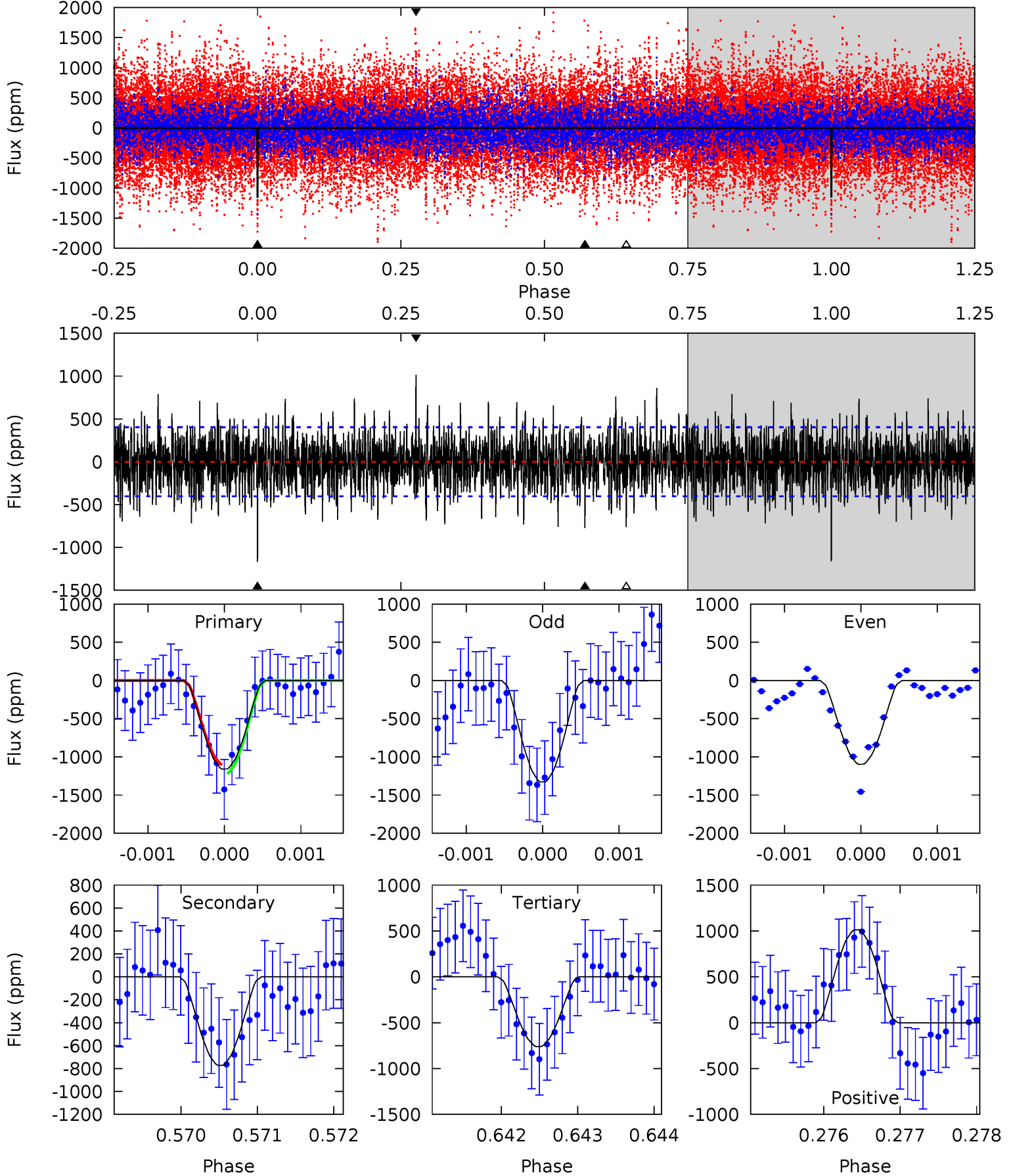
TCE 007741615-01 P=209.724578 Days $T_0=178.536551$ (BKJD)



DV Model-Shift Uniqueness Test

007741615-01, P = 209.719491 Days, E = 178.544653 Days

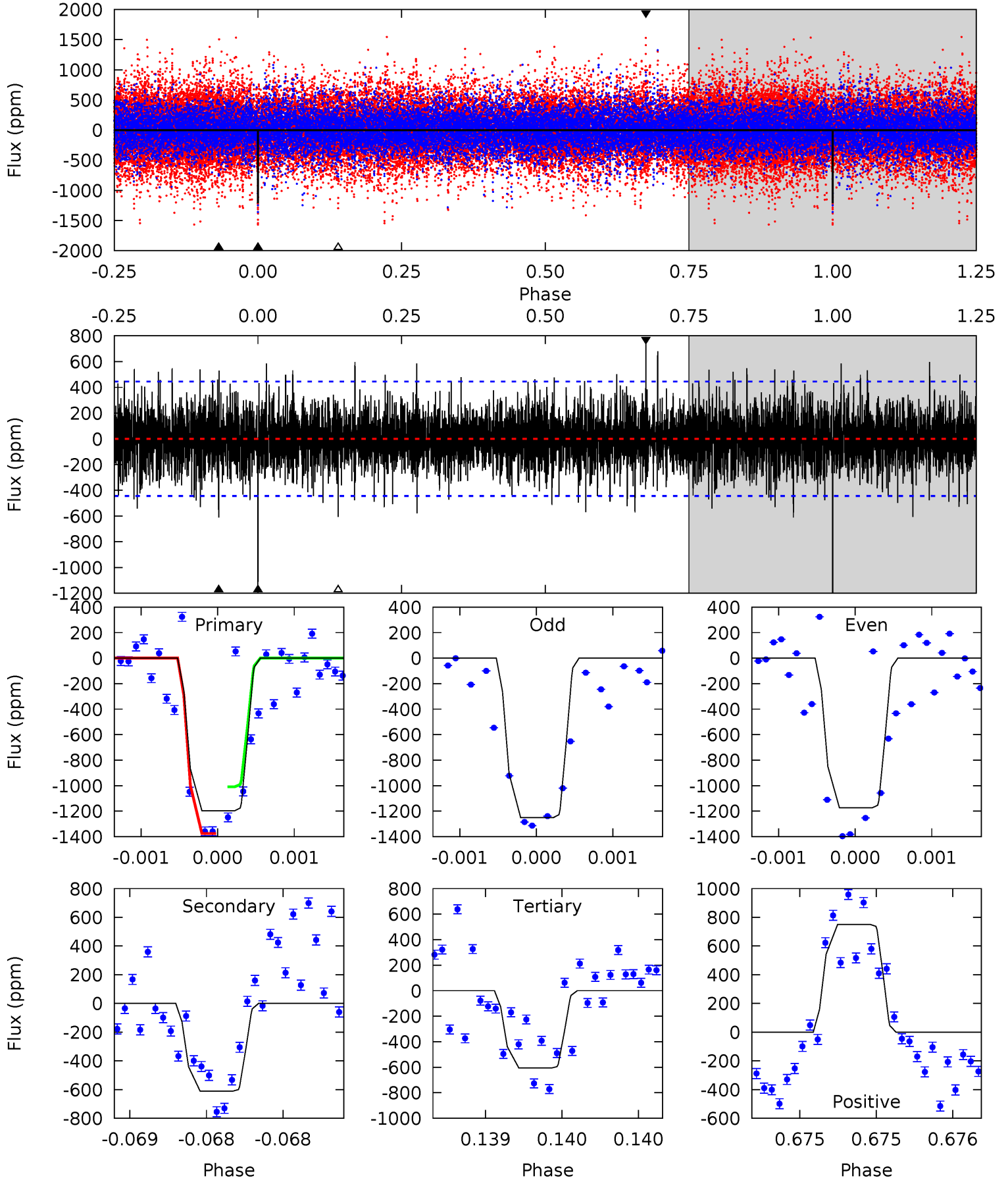
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	10.4	10.3	13.7	5.46	3.30	3.07	5.40	1.98	0.16	-3.26	1.41	0.80	0.47	0.79



Alt Model-Shift Uniqueness Test

007741615-01, P = 209.724578 Days, E = 178.536551 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	7.62	7.56	9.37	5.55	3.44	1.99	7.38	5.57	0.06	-1.75	0.44	0.76	0.39	2.28



Stellar Parameters For KIC 007741615

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4841^{+77}_{-106}	$2.580^{+0.033}_{-0.030}$	$-0.300^{+0.200}_{-0.250}$	$10.877^{+0.870}_{-2.175}$	$1.642^{+0.262}_{-0.612}$	$0.002^{+0.000}_{-0.000}$
	+2%/-2%	+1%/-1%	+67%/-83%	+8%/-20%	+16%/-37%	+27%/-11%
Source	PHO56	AST56	PHO56	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007741615-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-772 ± 74	$115.94^{+103.99}_{-77.15}$	1089^{+25}_{-30}	3131^{+1396}_{-529}	21^{+162}_{-15}
Alt.	-610 ± 80	$97.73^{+104.97}_{-69.90}$	1090^{+27}_{-29}	3166^{+1799}_{-559}	23^{+273}_{-17}

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 $A_{\text{obs}} \gg 1.0$

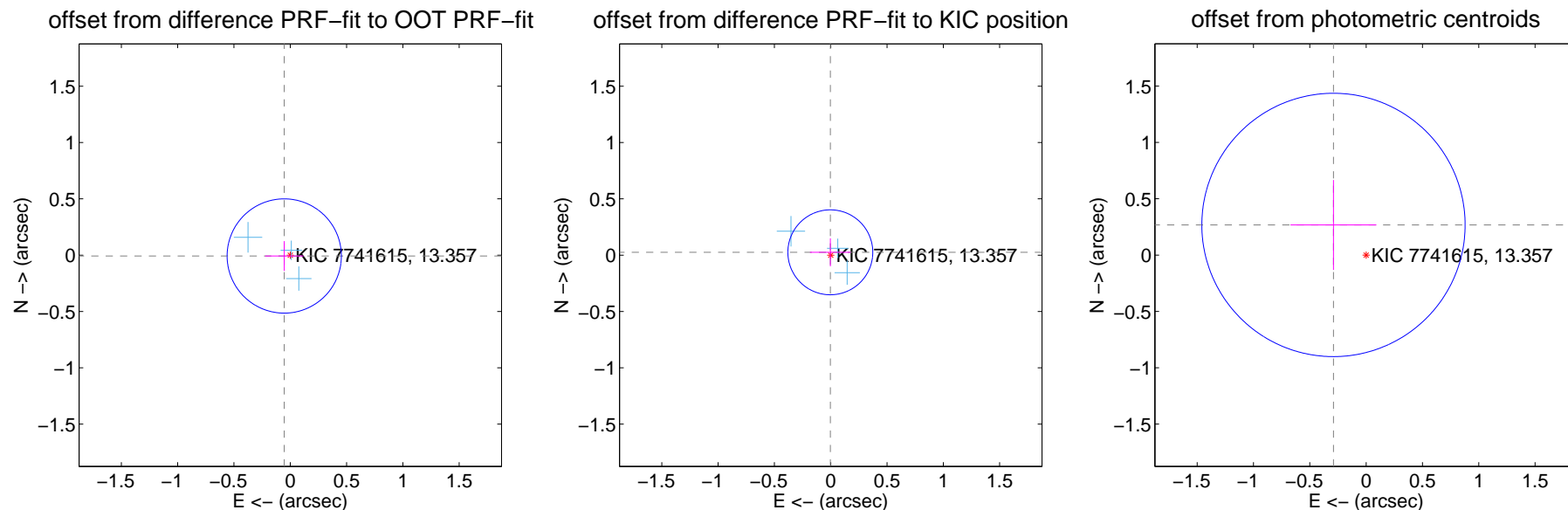
DV Centroid Data

Supplemental centroid analysis for 007741615-01. Kepler magnitude: 13.36. Transit SNR 6.64

There are 3 quarters with good PRF difference image offsets

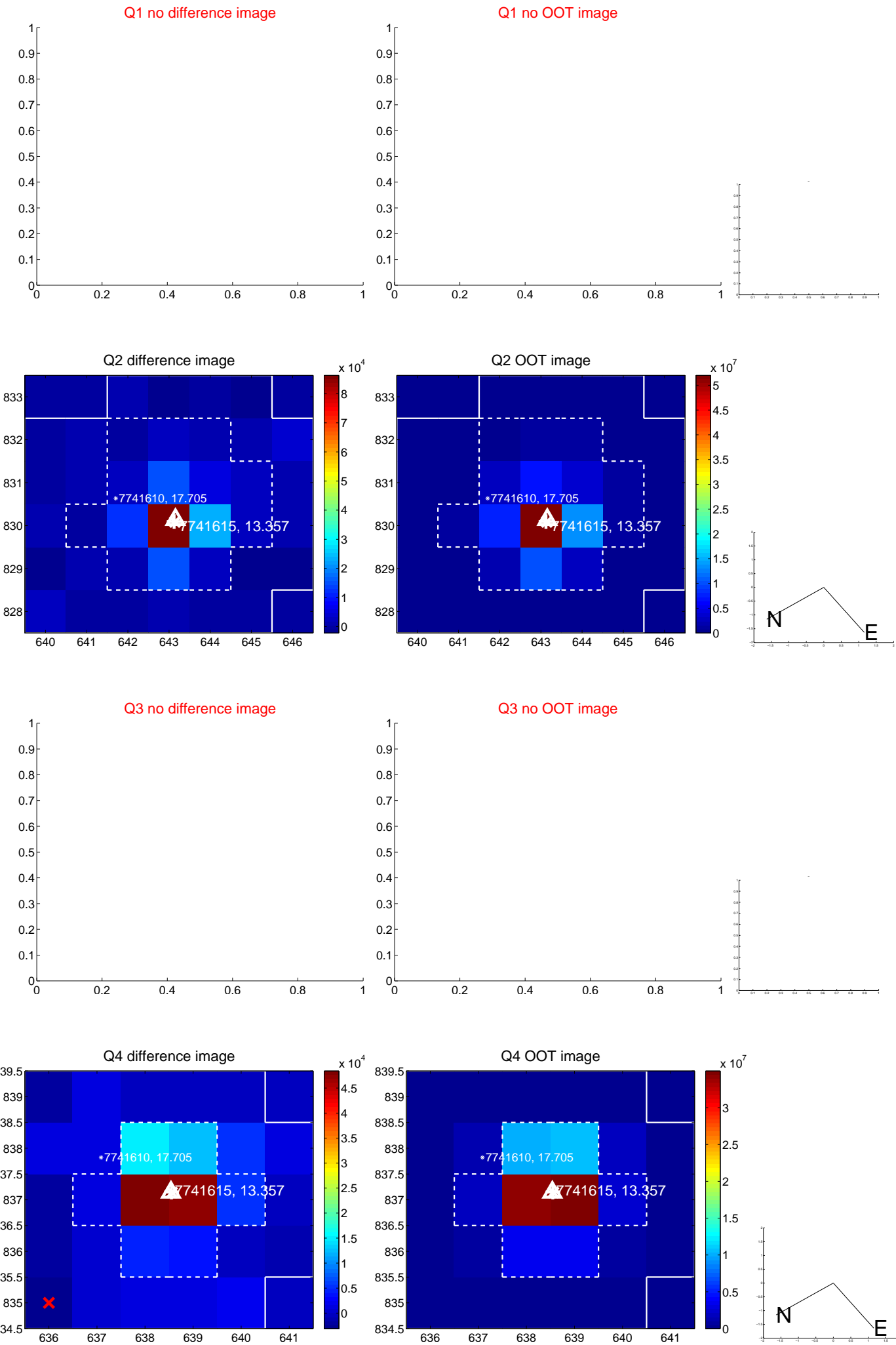
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.054 ± 0.169	0.32	0.053 ± 0.170	-0.007 ± 0.132
PRF-fit source offset from KIC position	0.026 ± 0.126	0.20	0.004 ± 0.181	0.025 ± 0.124
photometric centroid source offset	0.39 ± 0.39	1.01	0.29 ± 0.38	0.27 ± 0.40



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

Q9 no difference image



Q9 no OOT image



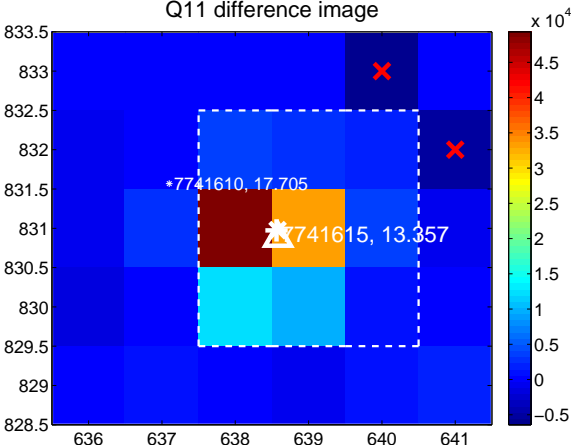
Q10 no difference image



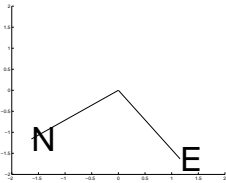
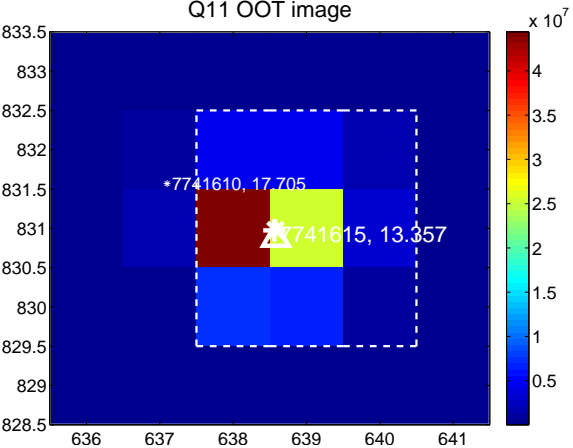
Q10 no OOT image



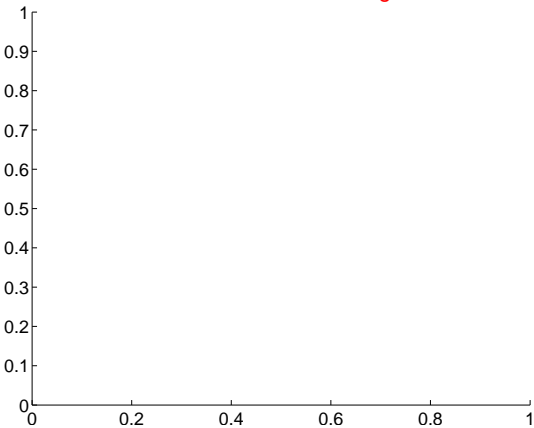
Q11 difference image



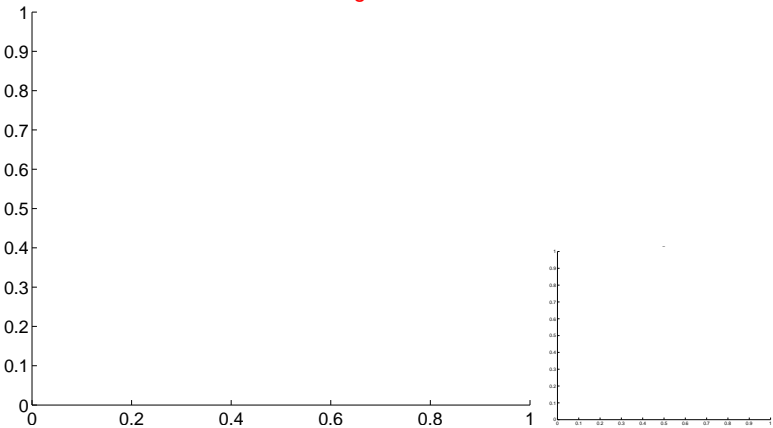
Q11 OOT image



Q12 no difference image



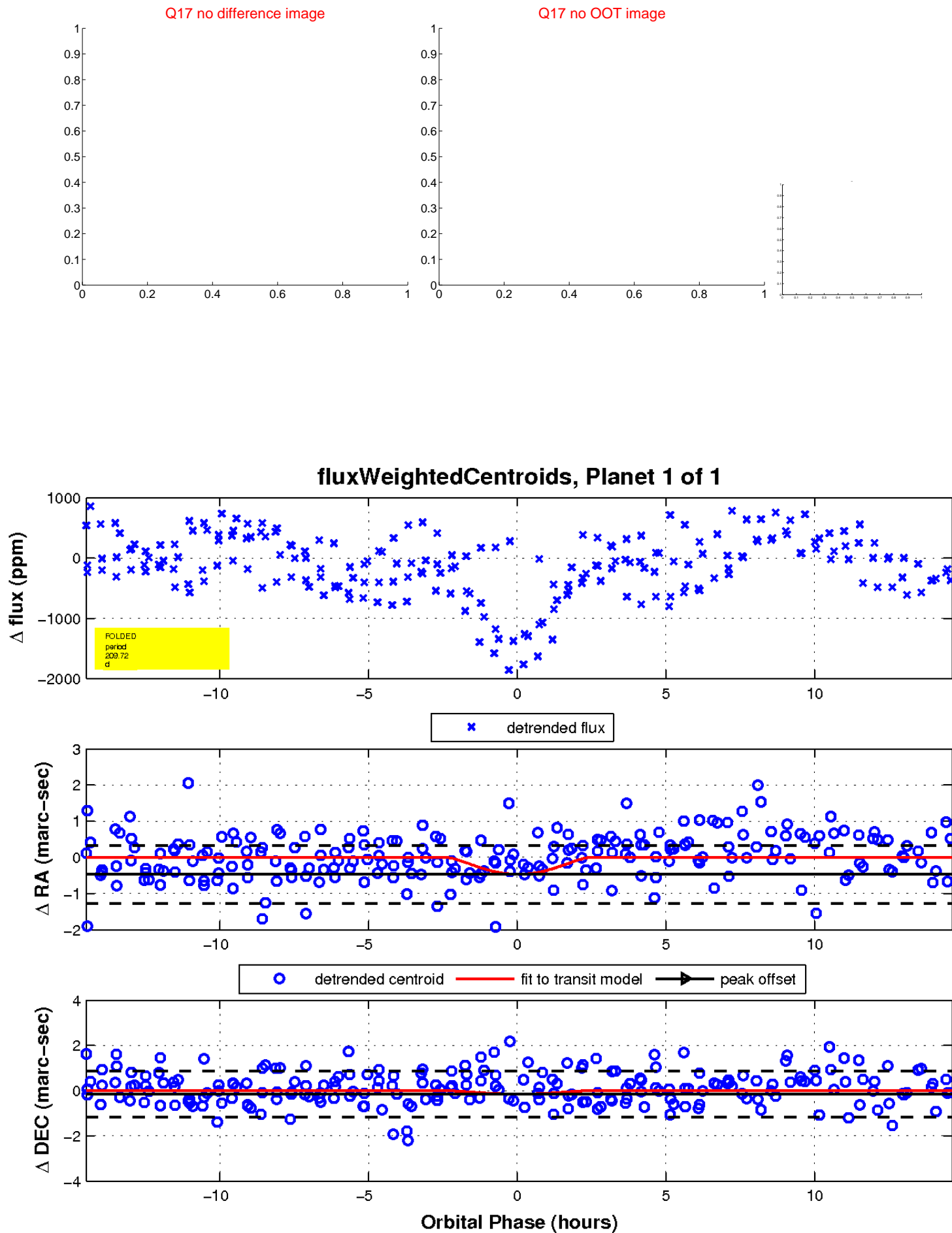
Q12 no OOT image



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.



UKIRT Image

Declination

