

KIC 007751294

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})
007751294-01	OBS	8269.01	371.477374	309.784784	402.7	9.418	7.3	7.3	1.03	6388	2.26	1.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007751294-01	OBS	FP	0.11	1	0	0	0	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.

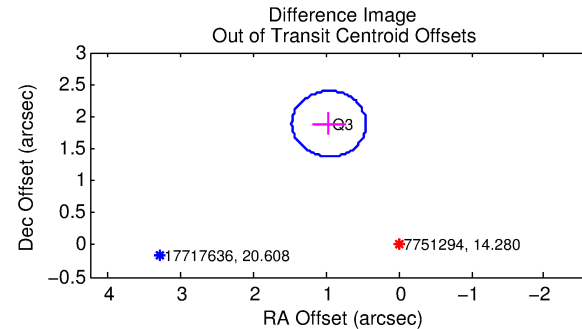
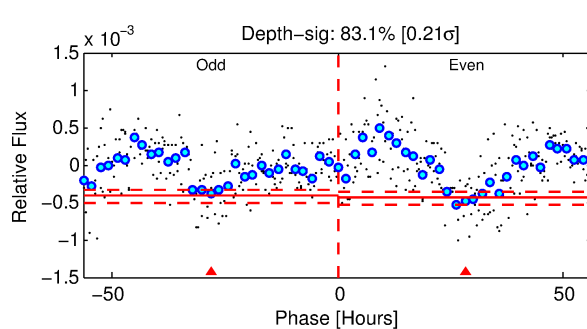
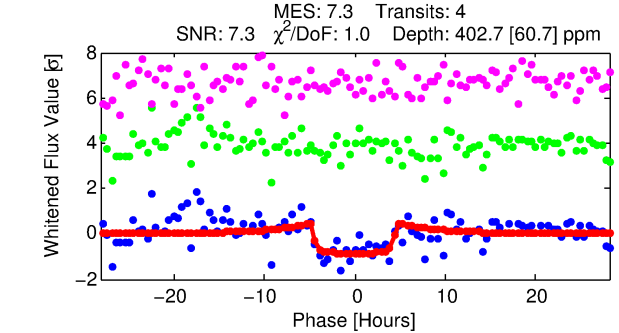
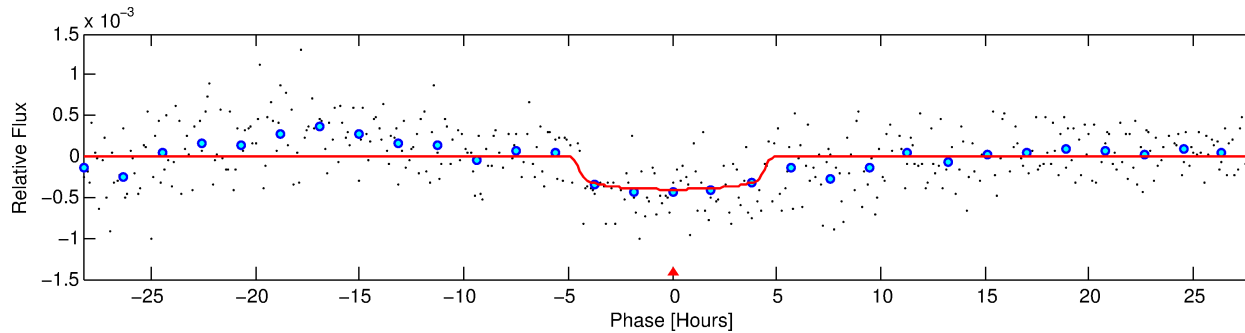
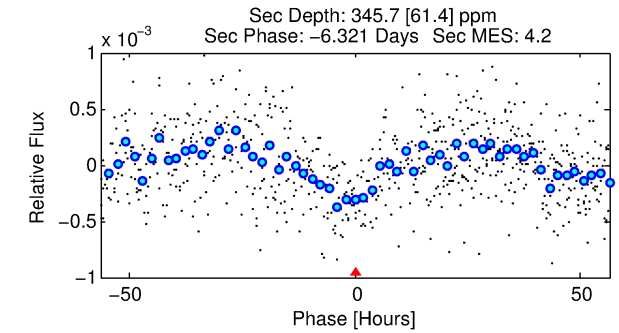
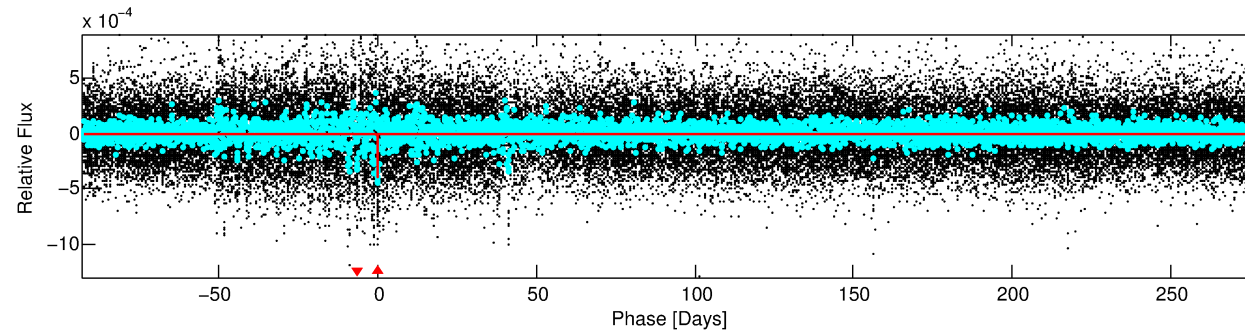
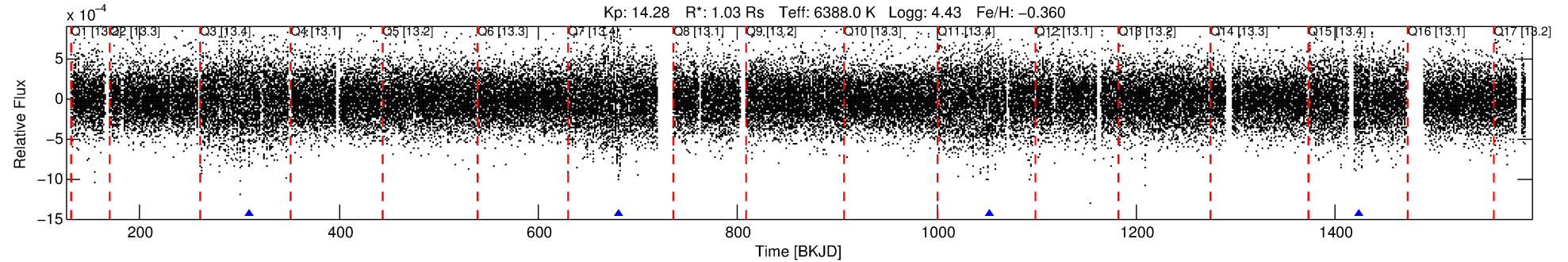
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007751294-01

No Significant Match Found

DV One-Page Summary

KIC: 7751294 Candidate: 1 of 1 Period: 371.477 d



DV Fit Results:

Period = 371.47737 [0.00786] d
Epoch = 309.7848 [0.0154] BKJD
Rp/R* = 0.0201 [0.0064]
a/R* = 202.47 [333.23]
b = 0.77 [0.89]
Seff = 1.52 [0.59]
Teq = 283 [28] K
Rp = 2.26 [0.99] Re
a = 1.0250 [0.2594] AU
Ag = 39048.38 [29529.86] [1.32σ]
Teffp = 6149 [1034] K [5.67σ]

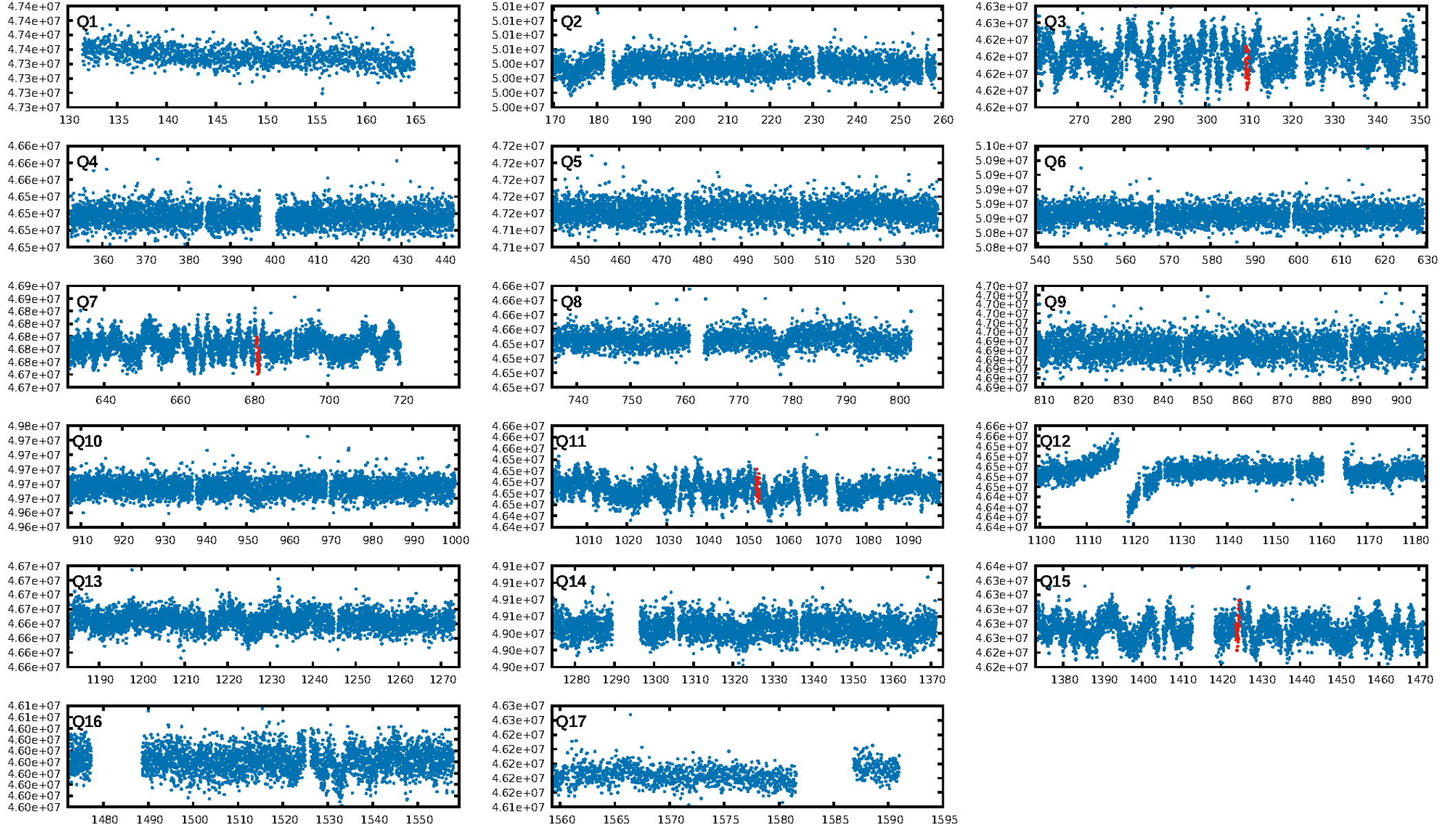
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 38.0%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 6.35e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -18.33
Centroid-sig: 10.2%
Centroid-so: 5.758 arcsec [1.57σ]
OotOffset-rm: 2.117 arcsec [12.43σ]
KicOffset-rm: 2.103 arcsec [12.32σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [4/4]

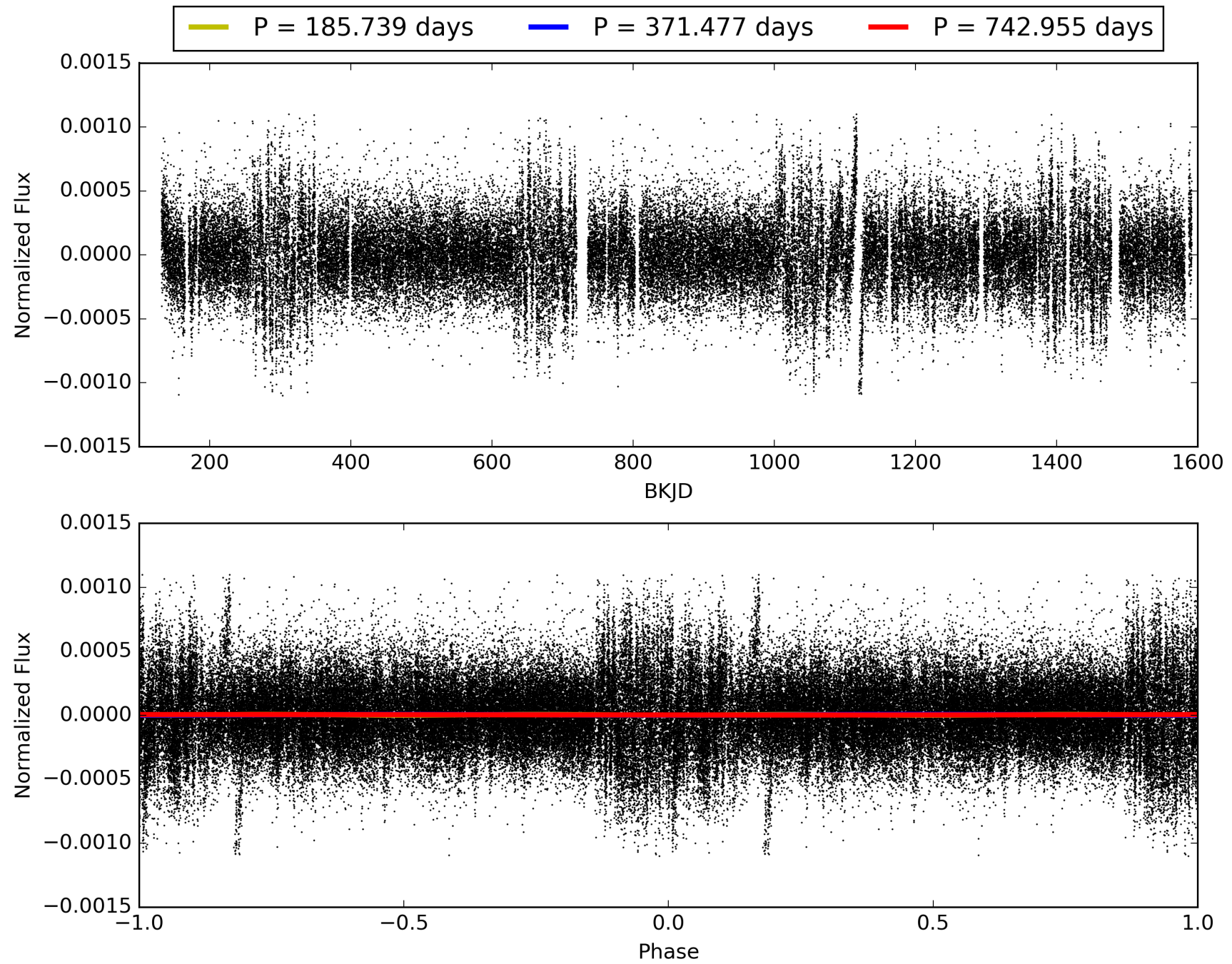
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:29:41 Z

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

TCE 007751294-01, PDC Light Curves

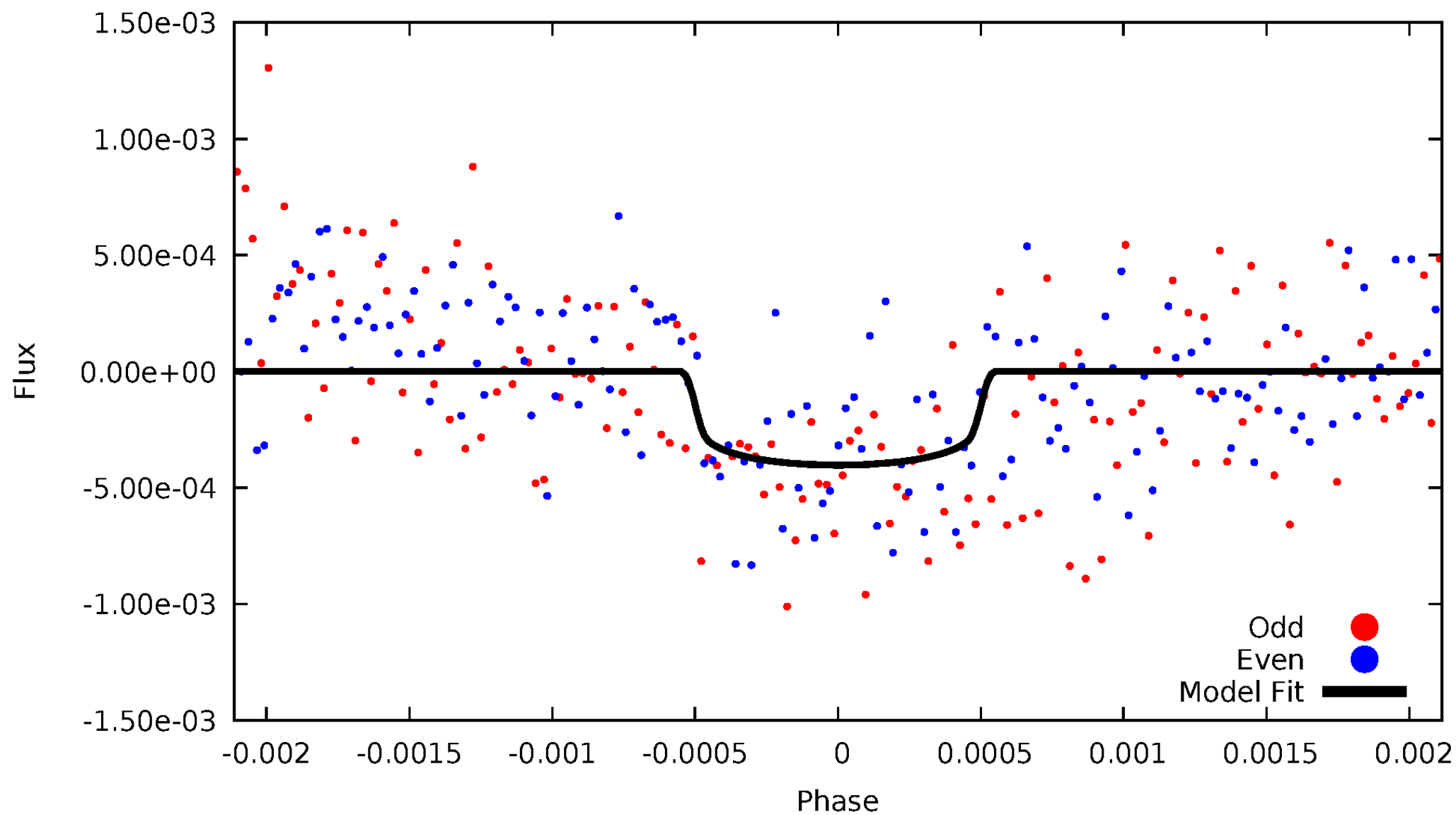


TCE 007751294-01



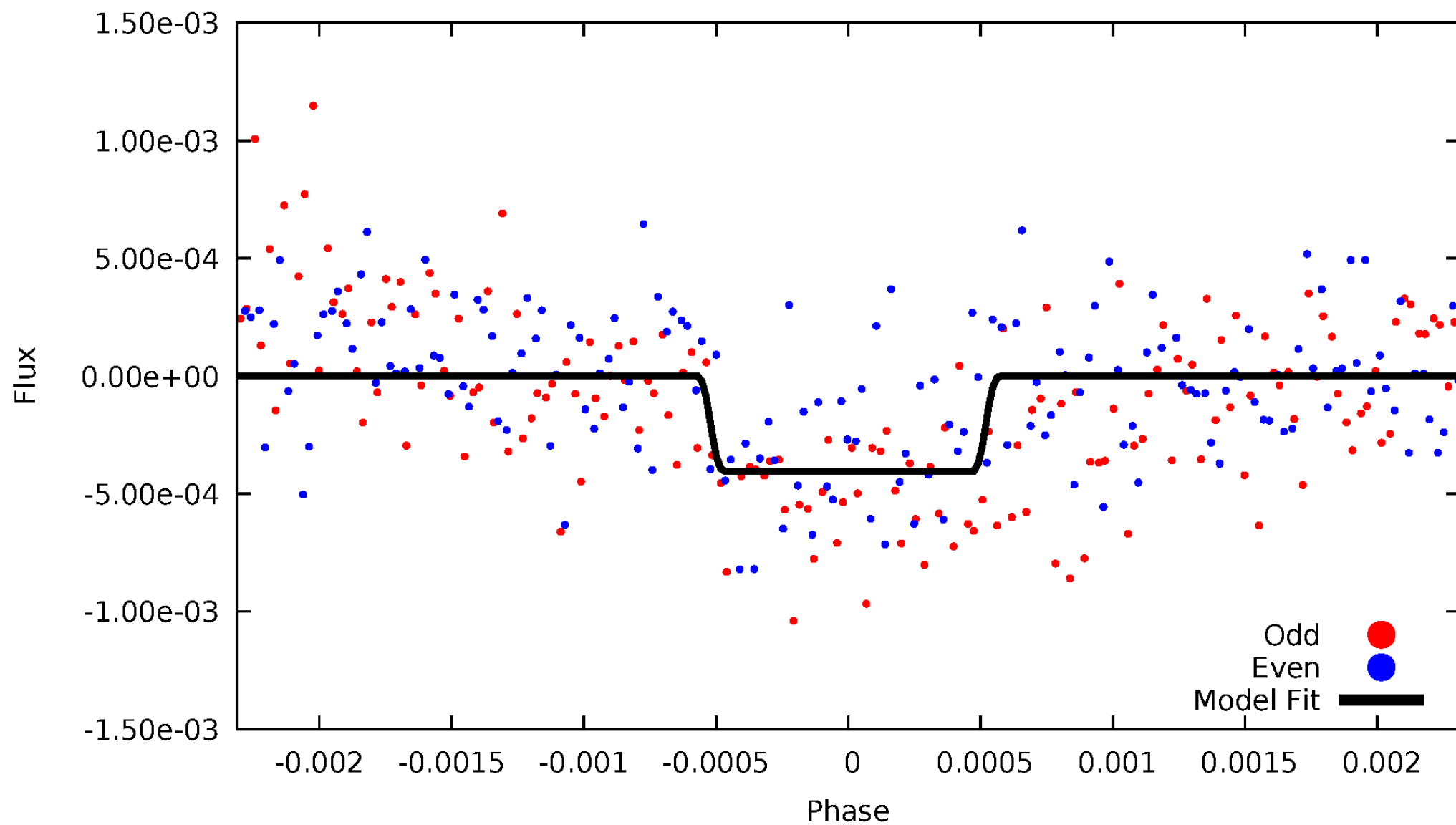
DV Odd/Even

TCE 007751294-01



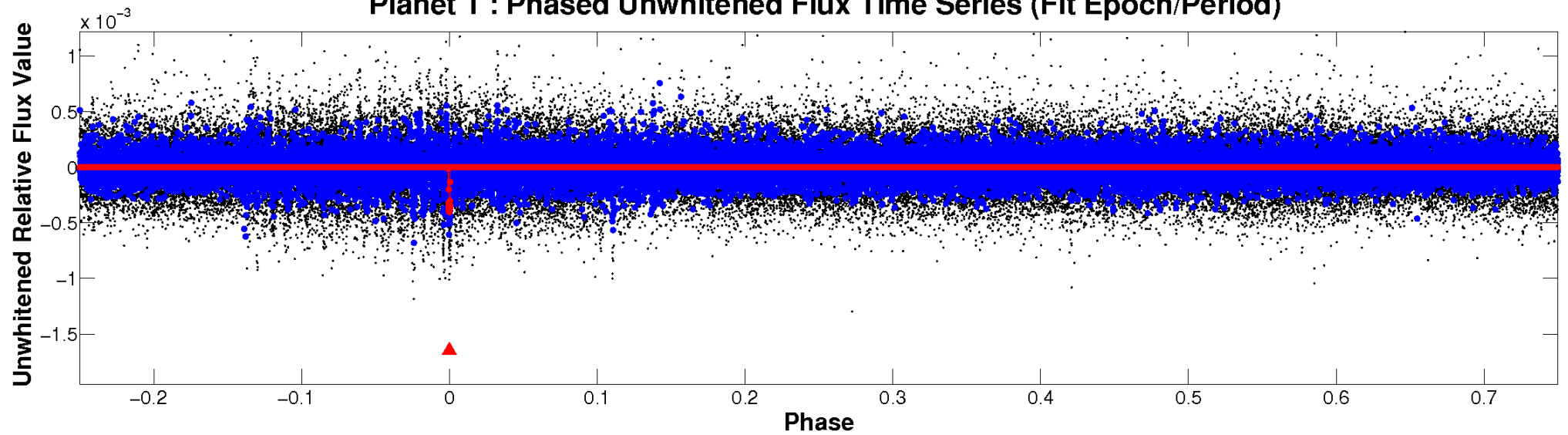
ALT Odd/Even

TCE 007751294-01

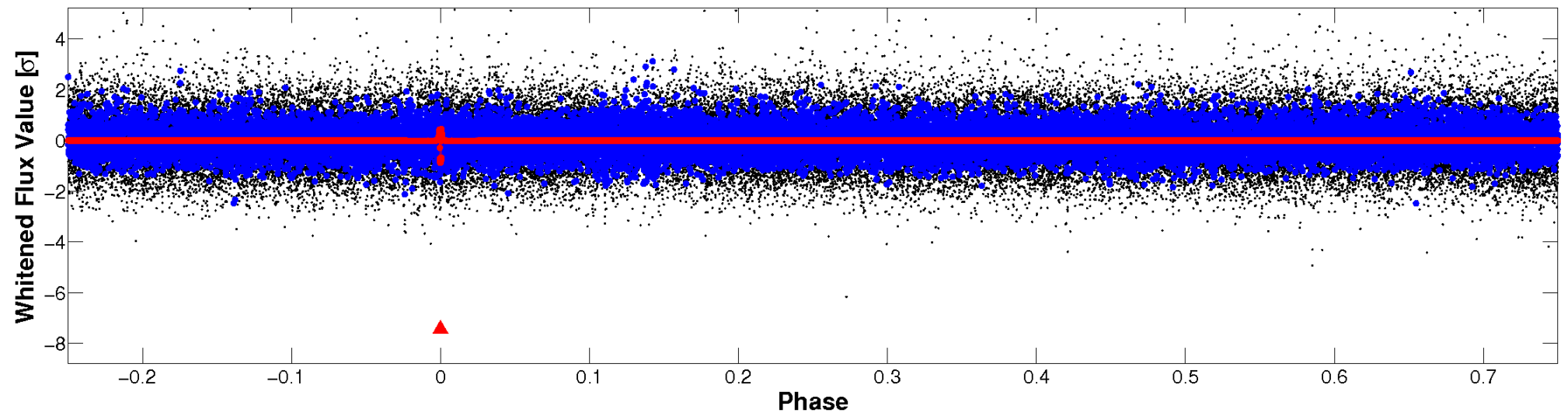


Non-Whitened Vs. Whitened Light Curve

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

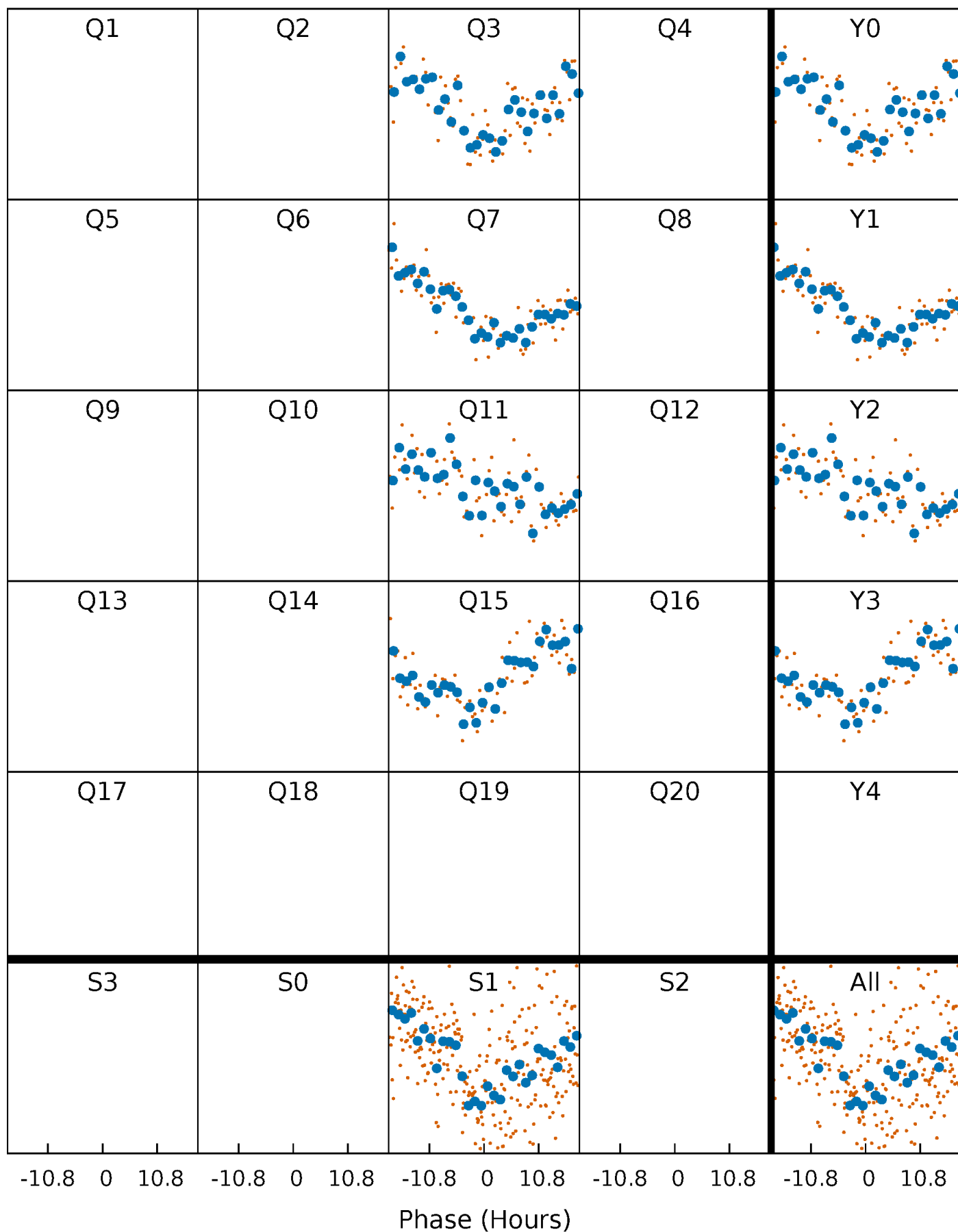


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



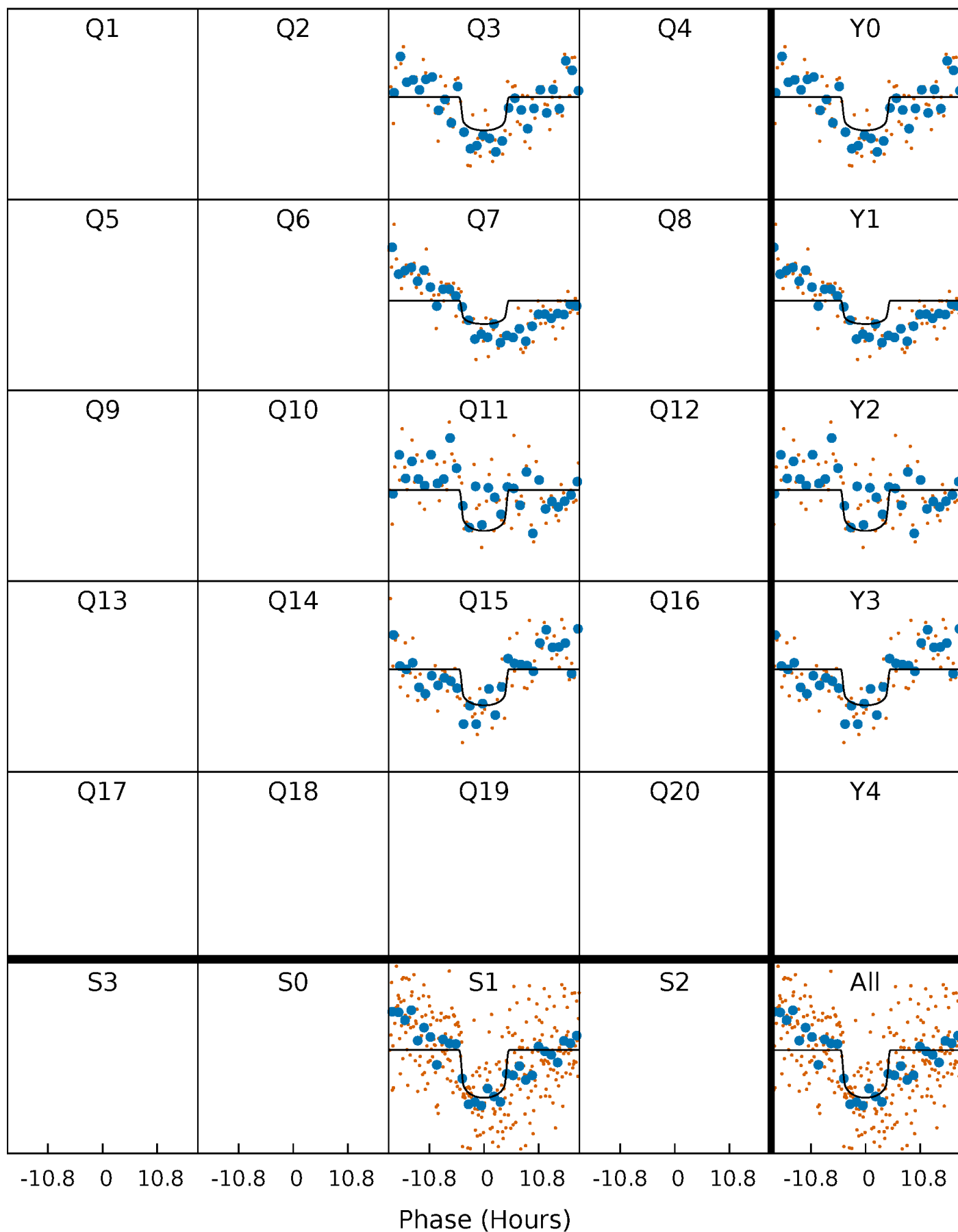
PDC Quarter-Phased Transit Curves

TCE 007751294-01 P=371.477374 Days $T_0=309.784784$ (BKJD)



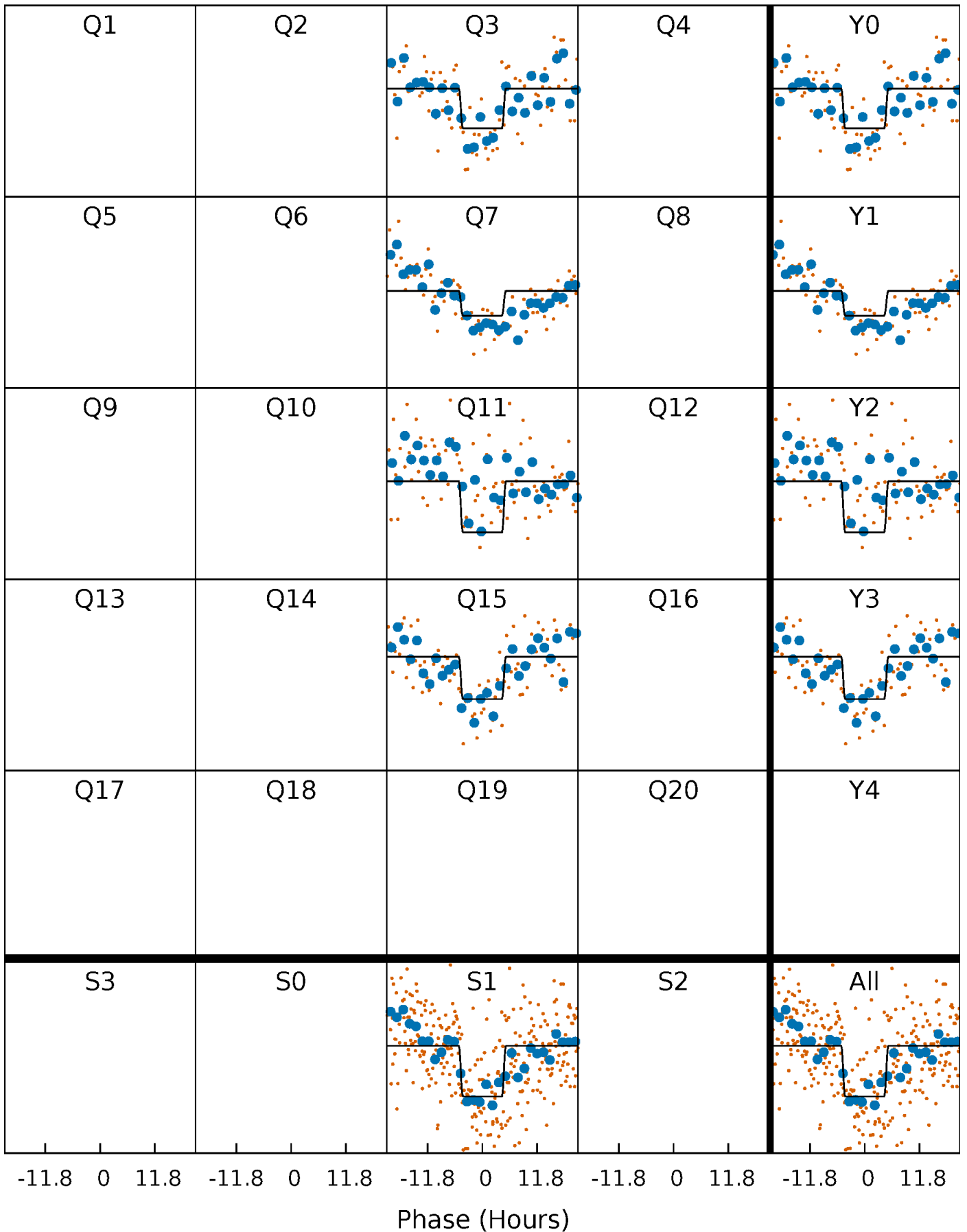
DV Quarter-Phased Transit Curves

TCE 007751294-01 $P=371.477374$ Days $T_0=309.784784$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

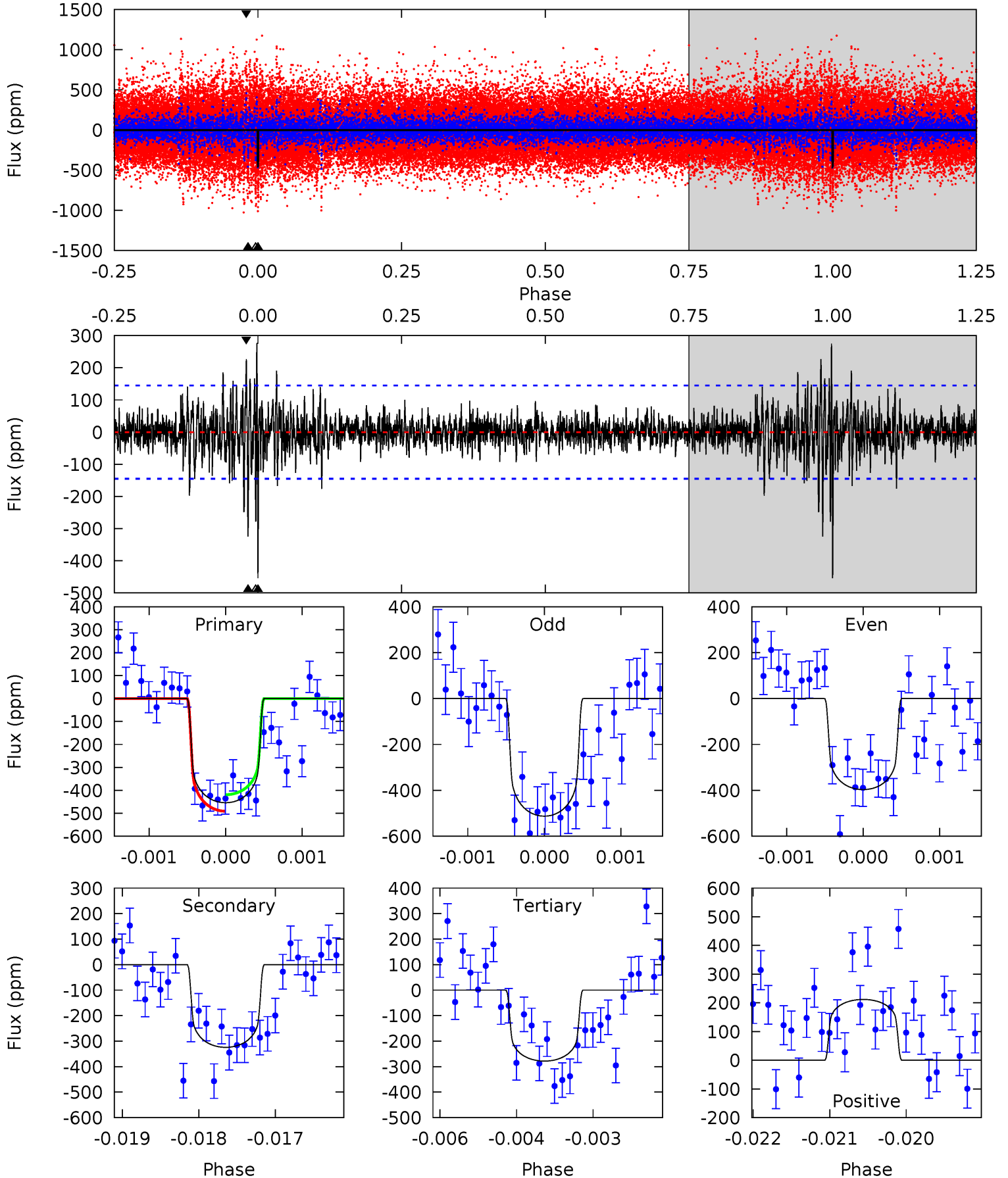
TCE 007751294-01 $P=371.468498$ Days $T_0=309.804467$ (BKJD)



DV Model-Shift Uniqueness Test

007751294-01, P = 371.477374 Days, E = 309.784784 Days

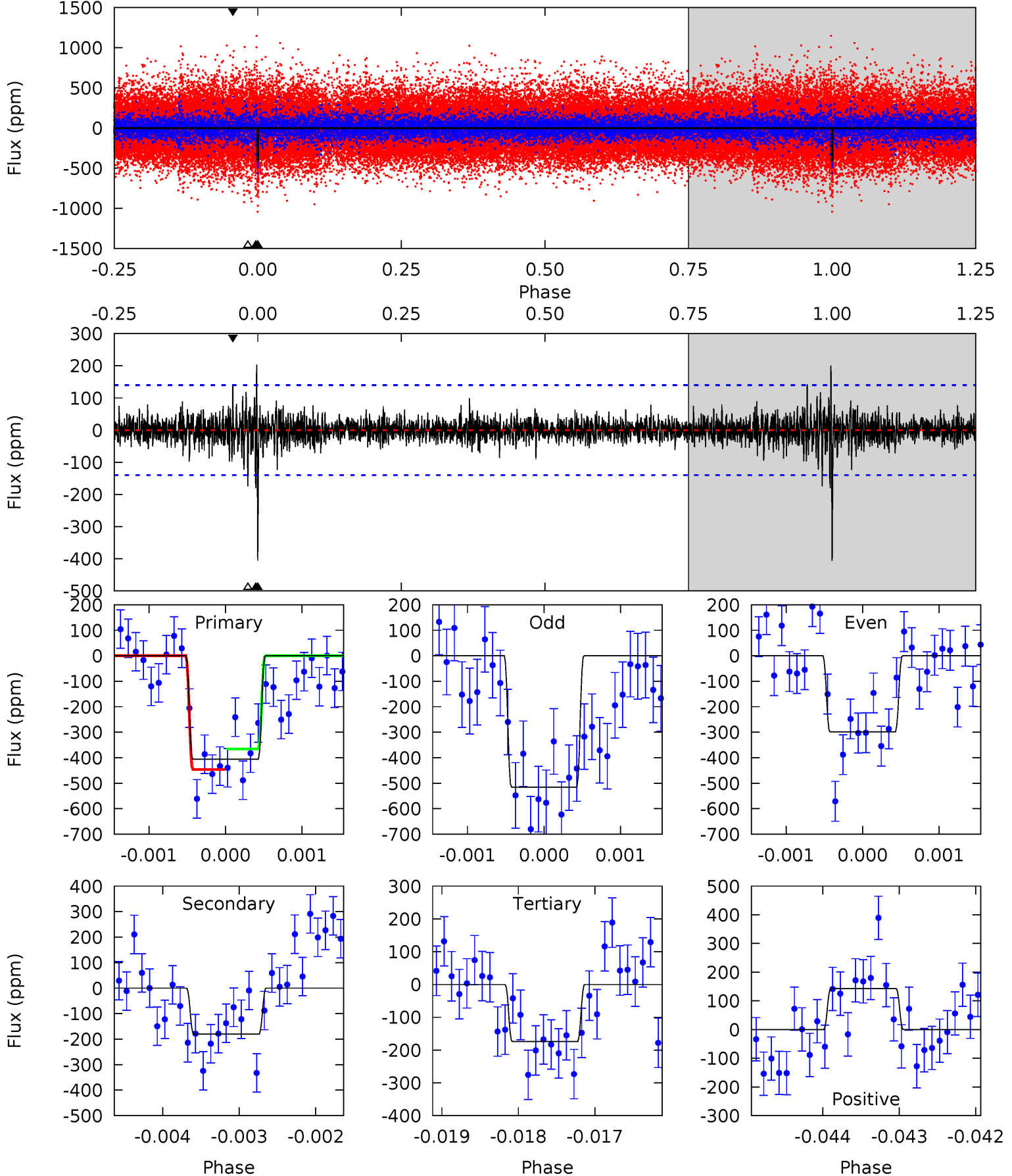
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.0	12.2	10.4	7.95	5.43	3.26	1.62	6.60	9.08	1.73	4.21	2.17	0.89	0.38	1.35



Alt Model-Shift Uniqueness Test

007751294-01, P = 371.468498 Days, E = 309.804467 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.8	7.01	6.77	5.55	5.43	3.26	1.01	8.99	10.2	0.24	1.47	4.21	0.87	0.33	1.55



Stellar Parameters For KIC 007751294

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6388^{+171}_{-209}	$4.427^{+0.067}_{-0.202}$	$-0.360^{+0.250}_{-0.300}$	$1.033^{+0.310}_{-0.133}$	$1.035^{+0.145}_{-0.119}$	$1.323^{+0.474}_{-0.710}$
	+3%/-3%	+2%/-5%	+69%/-83%	+30%/-13%	+14%/-11%	+36%/-54%
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 007751294-01 / KOI 8269.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-324 ± 27	$2.37^{+0.75}_{-0.76}$	402^{+30}_{-19}	6016^{+1370}_{-703}	32628^{+36154}_{-13969}
Alt.	-180 ± 26	$2.32^{+0.92}_{-0.78}$	401^{+30}_{-21}	5277^{+1108}_{-669}	18973^{+24467}_{-9164}

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

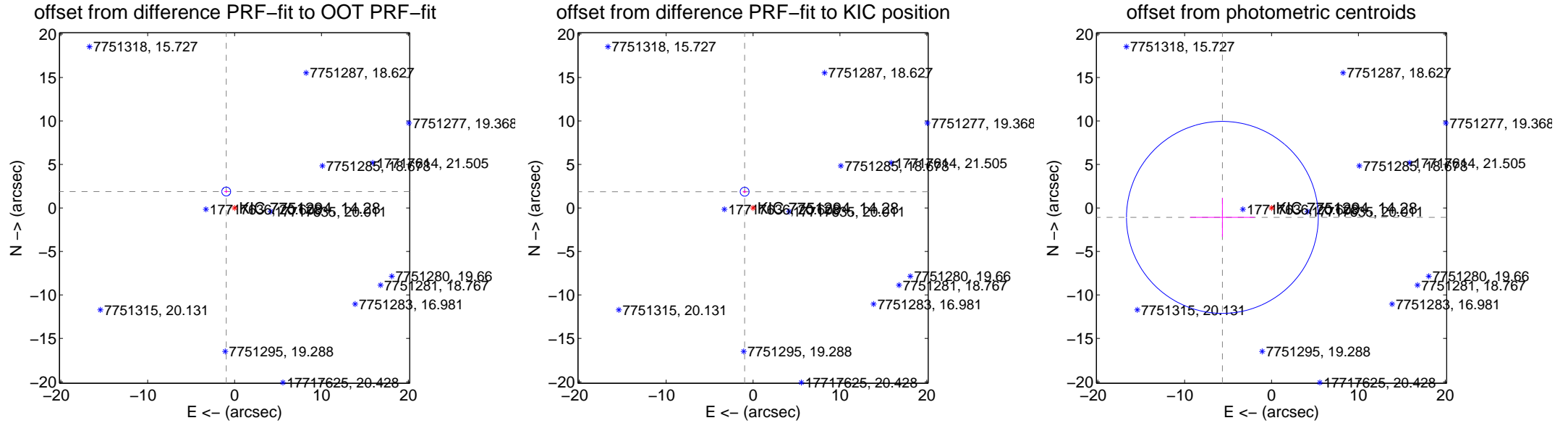
DV Centroid Data

Supplemental centroid analysis for 007751294-01. Kepler magnitude: 14.28. Transit SNR 7.26

There are 0 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	2.117 ± 0.170	12.43	0.960 ± 0.214	1.886 ± 0.157
PRF-fit source offset from KIC position	2.103 ± 0.171	12.32	0.967 ± 0.214	1.867 ± 0.157
photometric centroid source offset	5.76 ± 3.68	1.57	5.66 ± 3.72	-1.09 ± 2.24



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.

Q1 no difference image



Q1 no OOT image



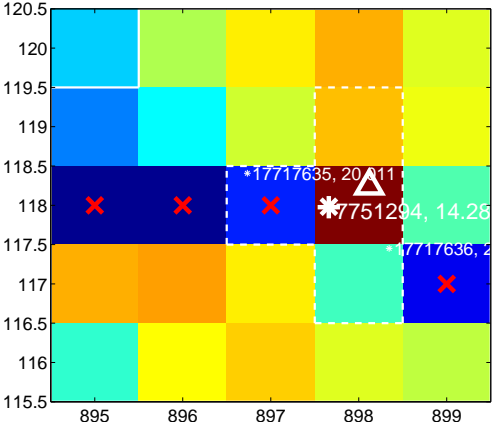
Q2 no difference image



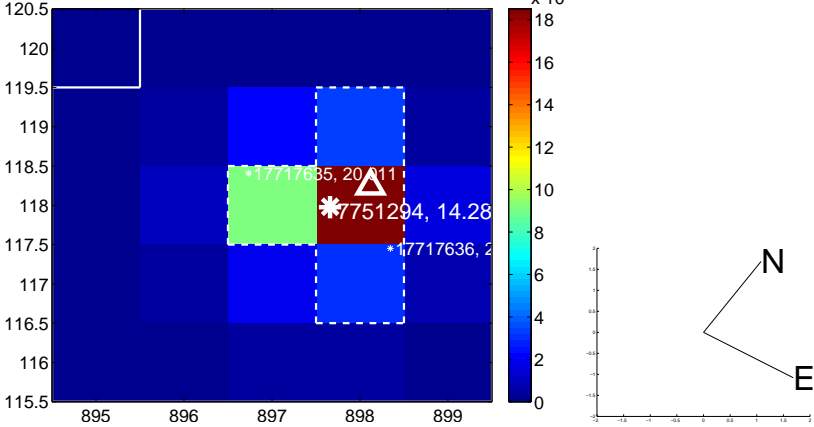
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



Q4 no OOT image



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

Q5 no difference image



Q5 no OOT image



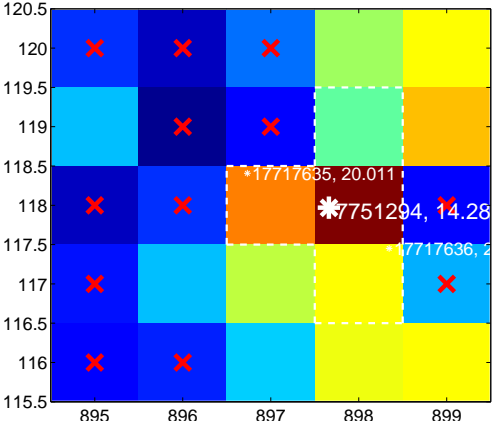
Q6 no difference image



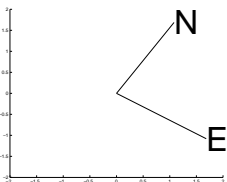
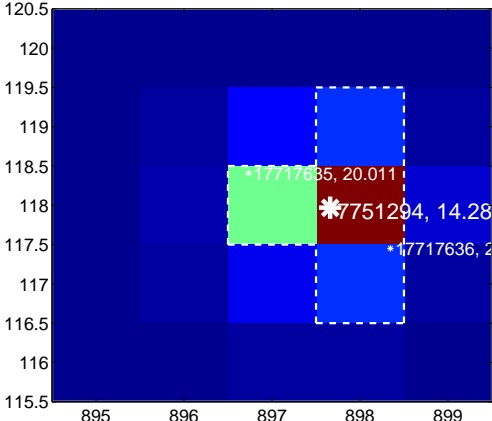
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



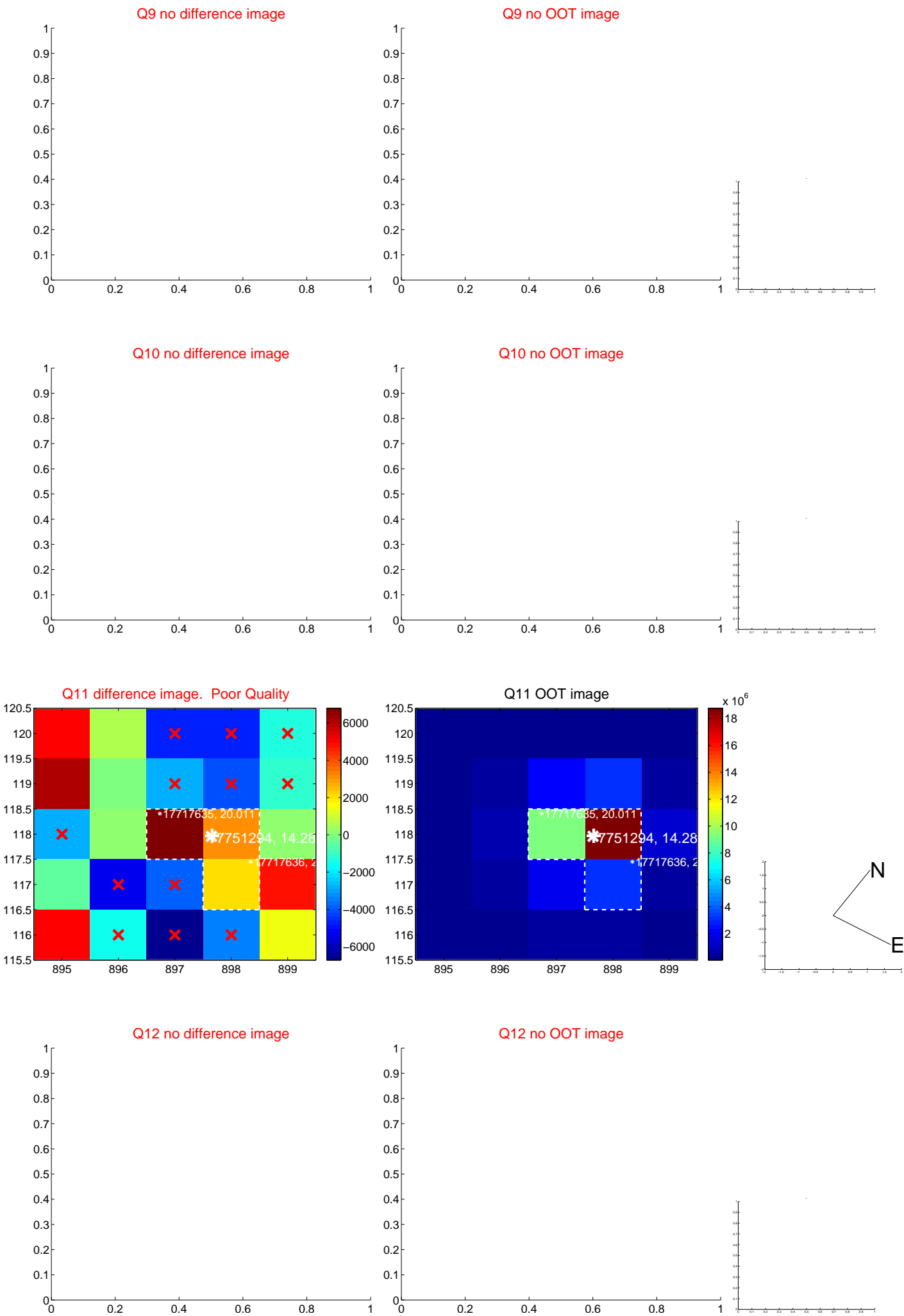
Q8 no difference image



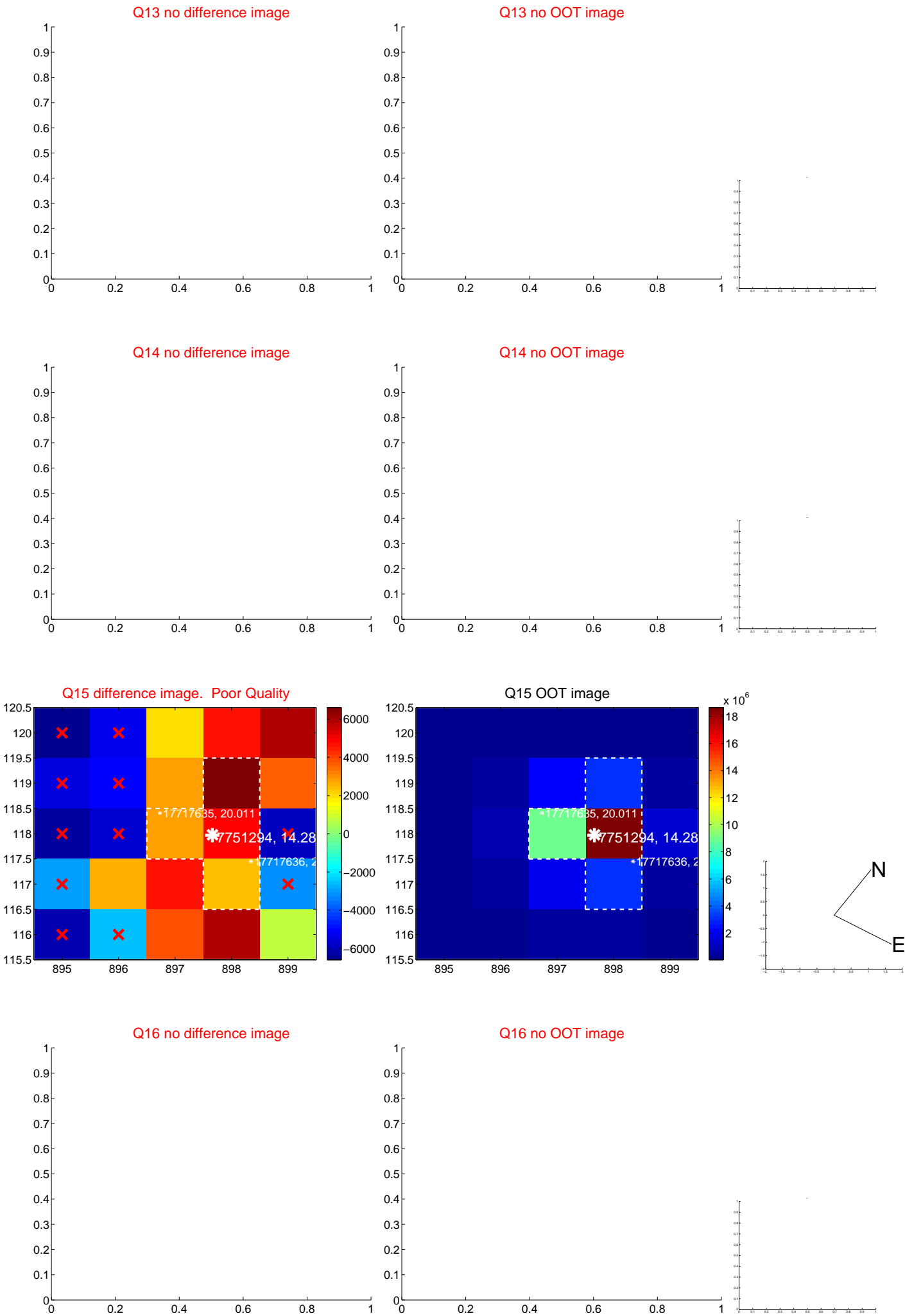
Q8 no OOT image



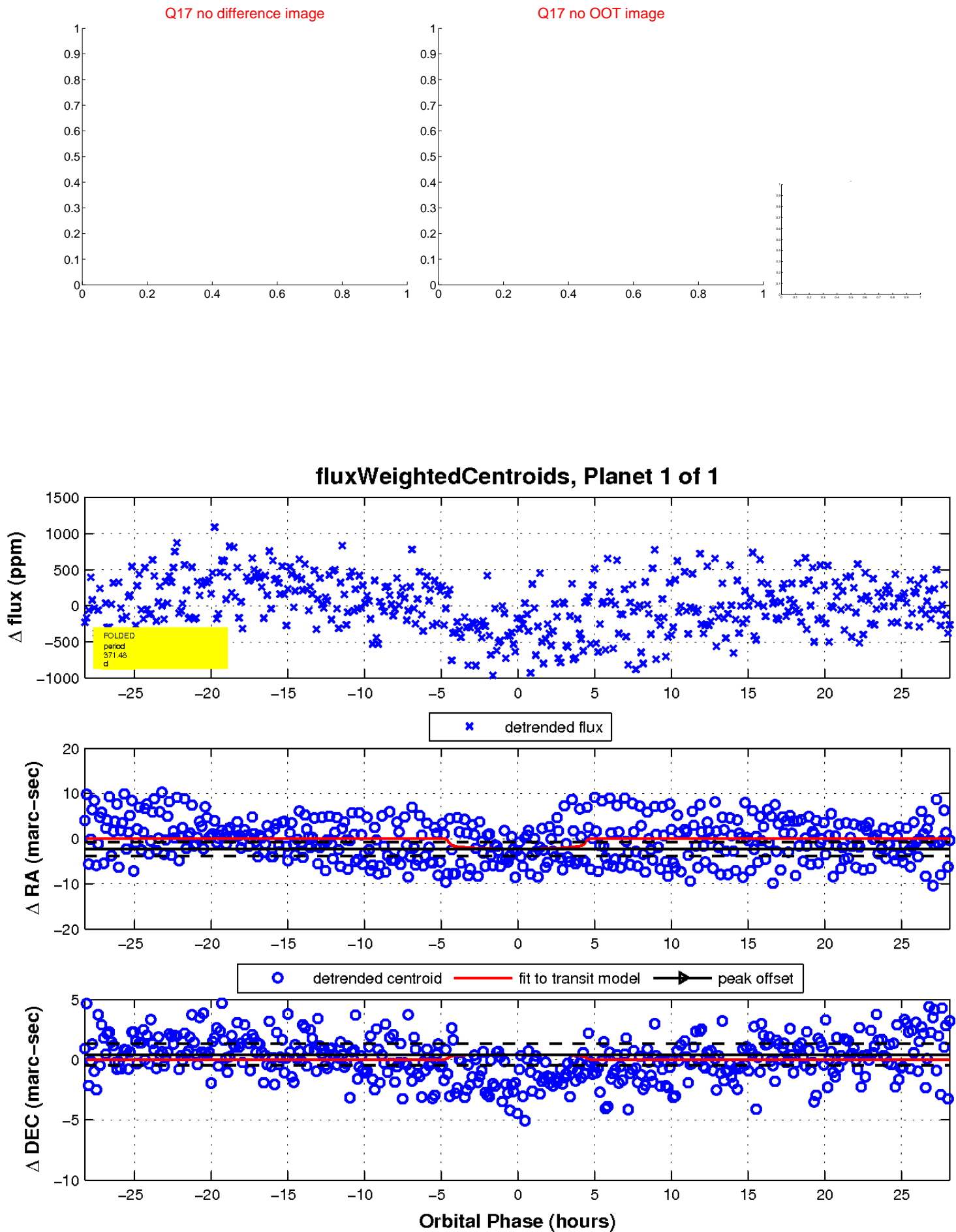
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

