

KIC 007732791

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})
007732791-01	OBS	3623.01	1.032074	131.835130	121437.1	2.184	2383.8	1257.7	0.71	4387	28.41	526.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007732791-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED

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.

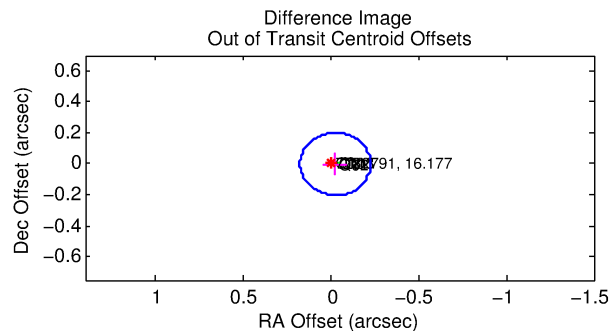
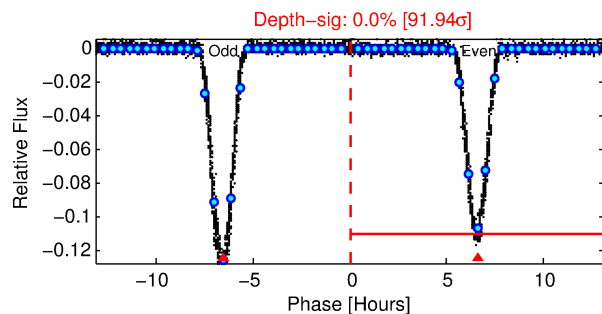
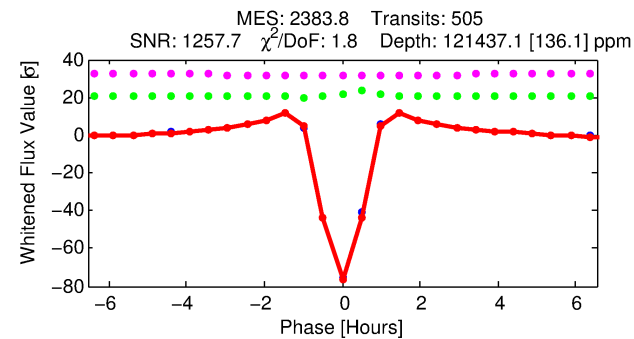
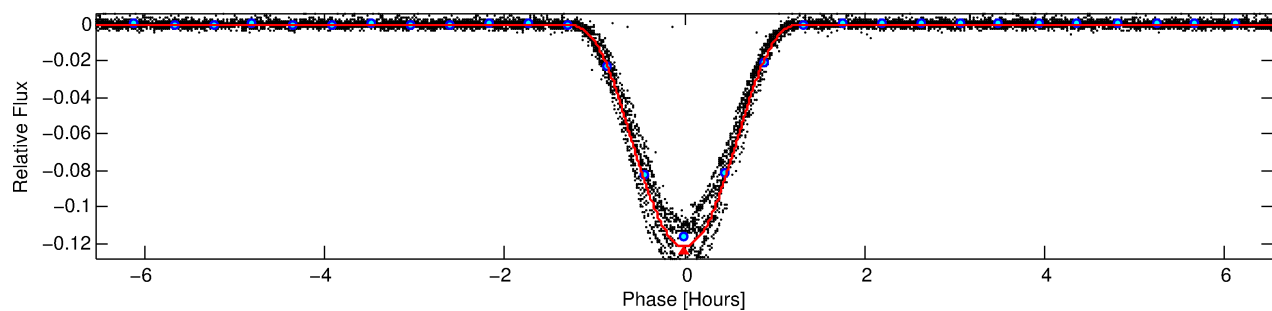
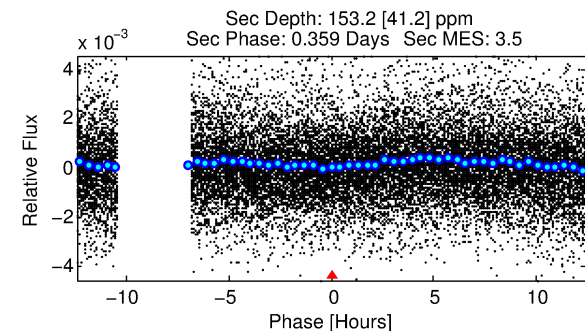
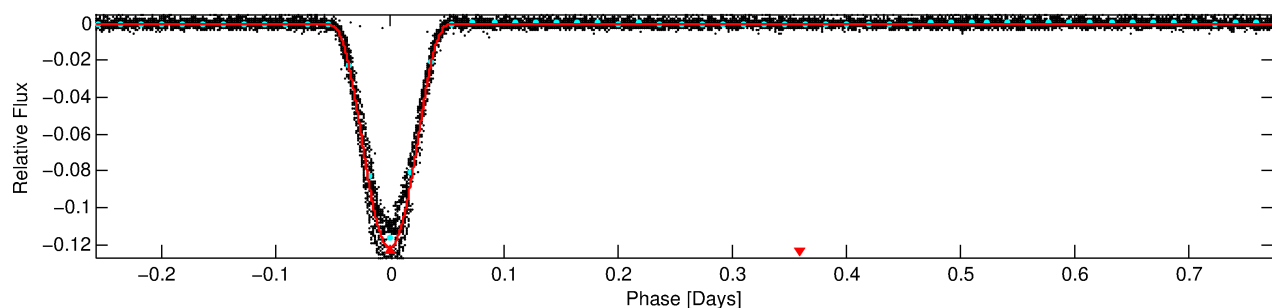
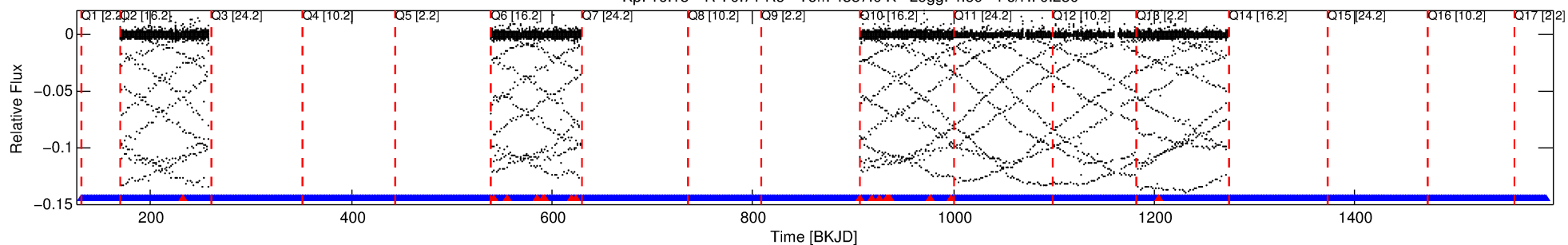
Ephemeris Match Information For 007732791-01

No Significant Match Found

DV One-Page Summary

KIC: 7732791 Candidate: 1 of 1 Period: 1.032 d
KOI: K03623.01 Corr: 0.976

Kp: 16.18 R*: 0.71 Rs Teff: 4387.0 K Logg: 4.59 Fe/H: 0.280



DV Fit Results:

Period = 1.03207 [0.00000] d
Epoch = 131.8351 [0.0000] BKJD
Rp/R* = 0.3662 [0.0030]
a/R* = 4.34 [0.01]
b = 0.70 [0.01]
Seff = 526.26 [85.18]
Teq = 1221 [49] K
Rp = 28.41 [2.37] Re
a = 0.0179 [0.0012] AU
Ag = 0.03 [0.01] [-101.92σ]
Teffp = 807 [60] K [-5.31σ]

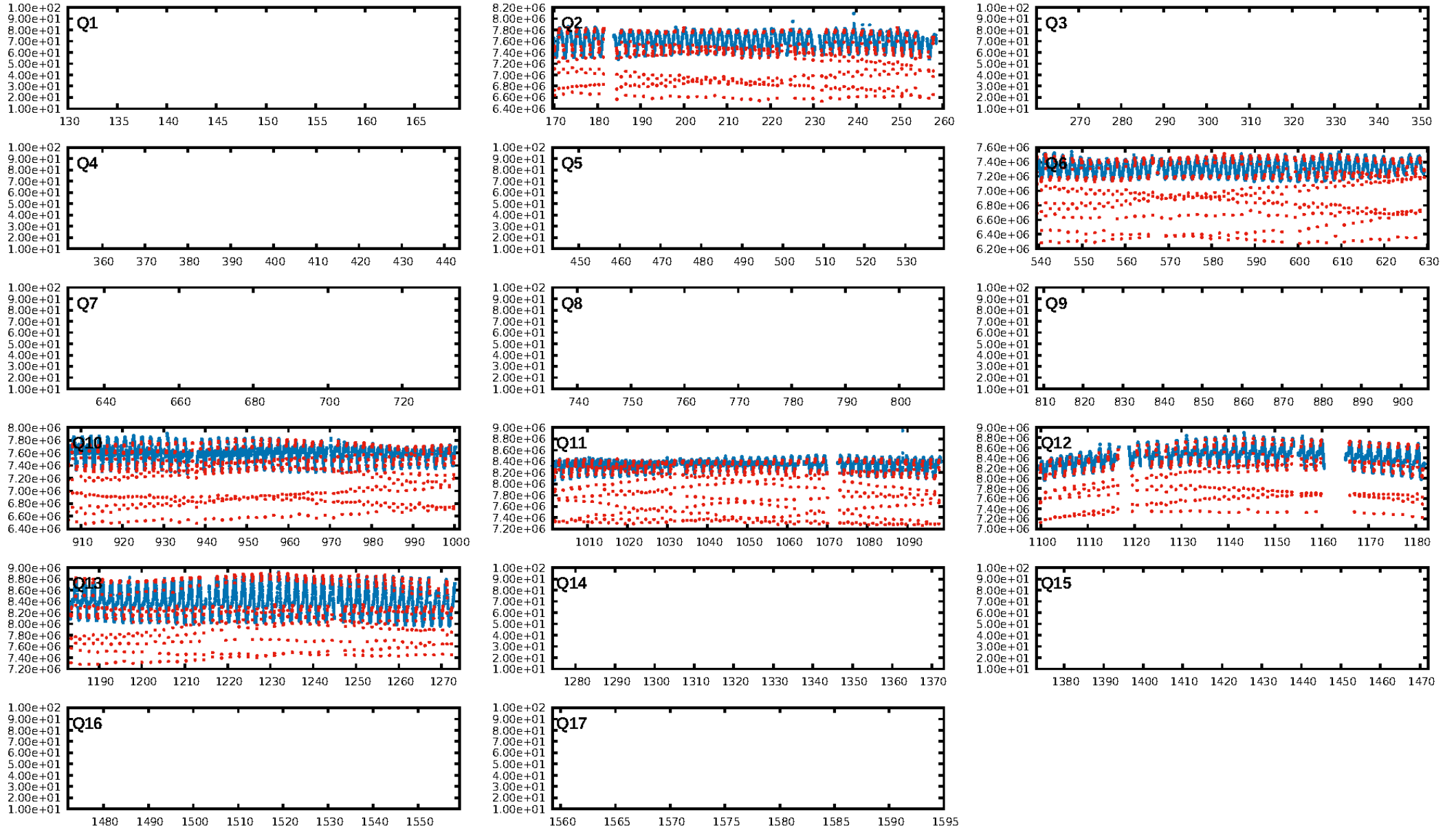
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.97 [488/505]
GhostDiagnostic-chr: 1.494
Centroid-sig: 0.0%
Centroid-so: 0.079 arcsec [18.49σ]
OotOffset-rm: 0.025 arcsec [0.38σ]
OotOffset-st: 3/1/1/1 [6]
KicOffset-rm: 0.038 arcsec [0.48σ]
KicOffset-st: 3/1/1/1 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [6/6]

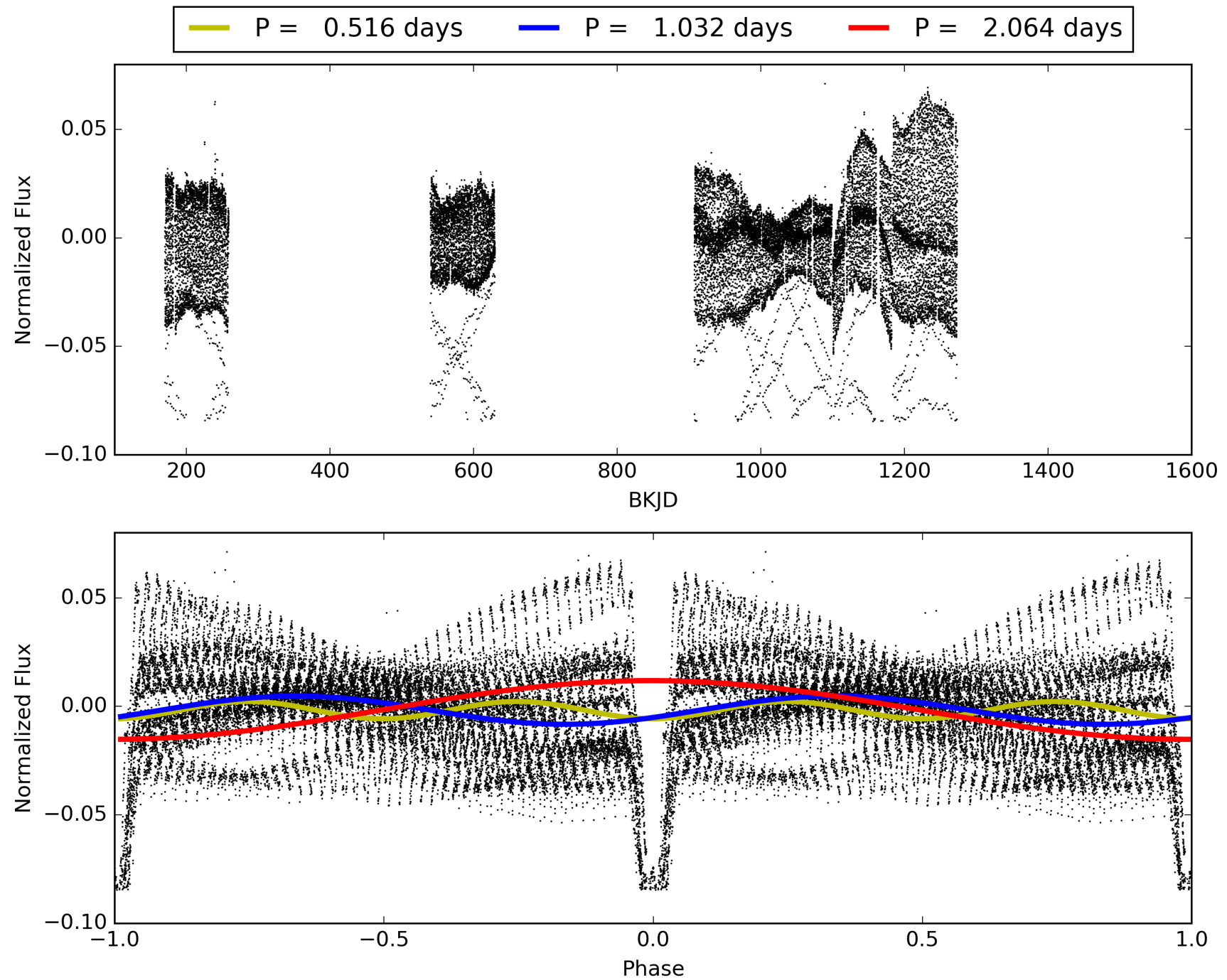
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 23:38:31 Z

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

TCE 007732791-01, PDC Light Curves

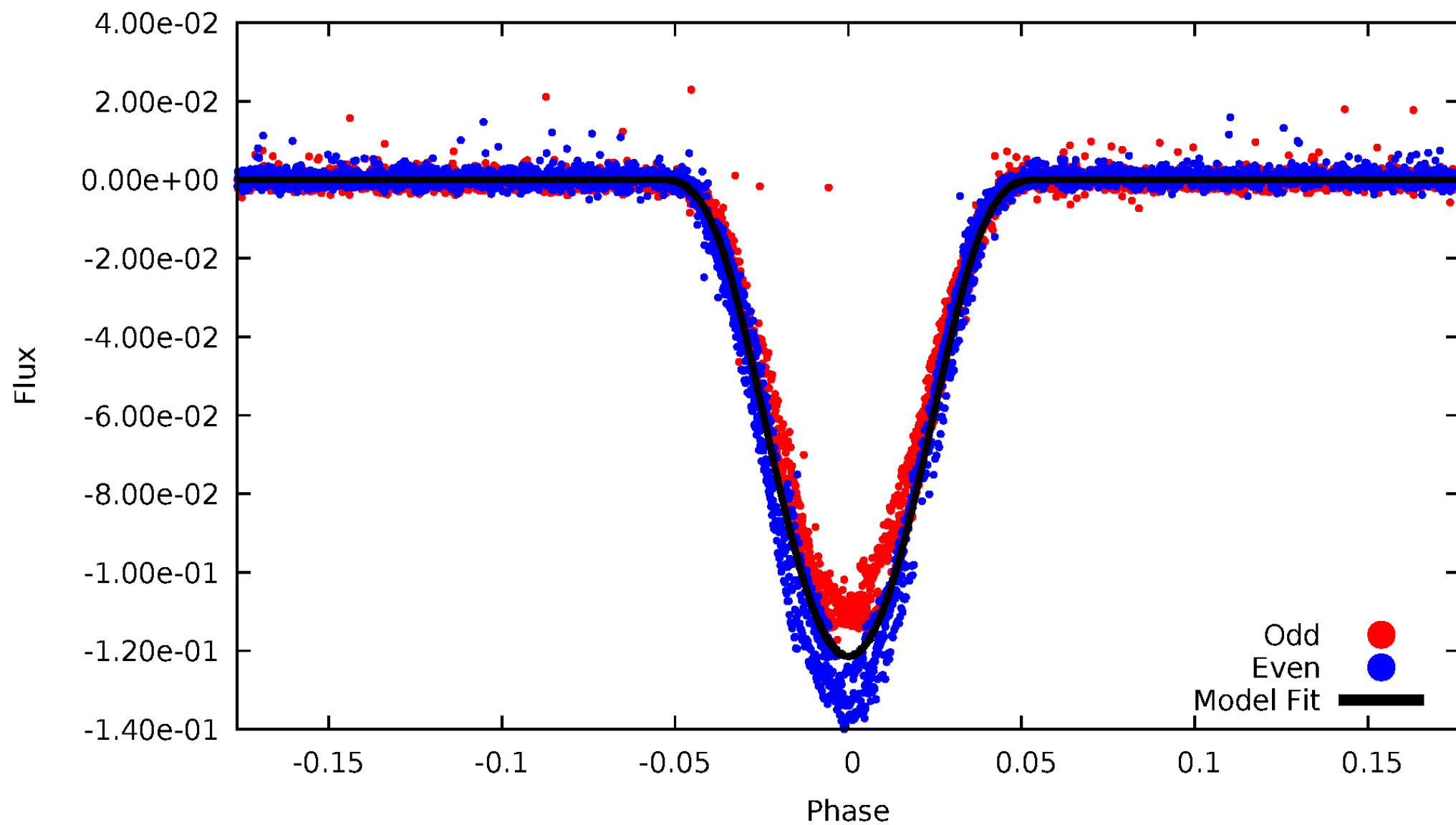


TCE 007732791-01



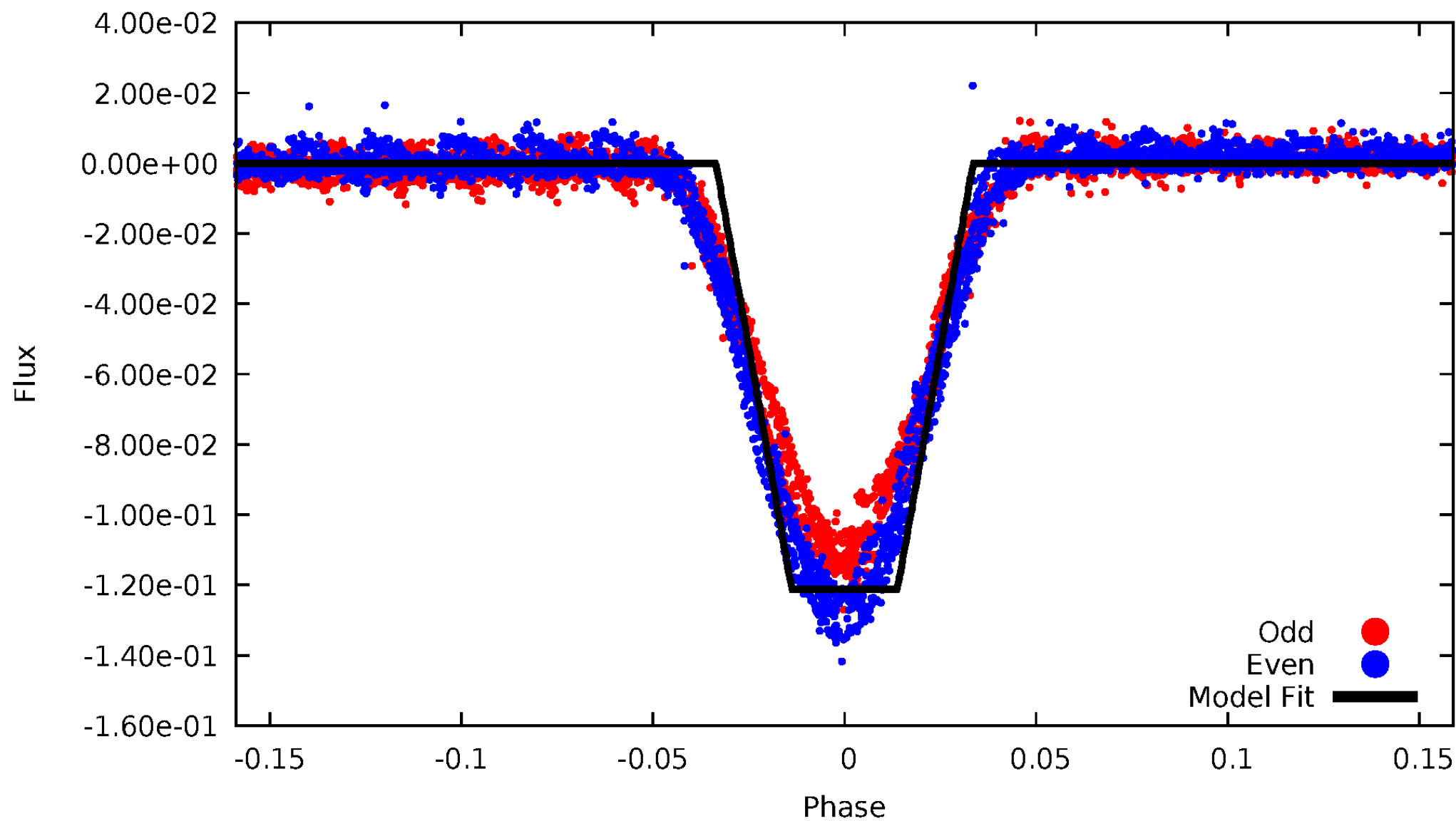
DV Odd/Even

TCE 007732791-01



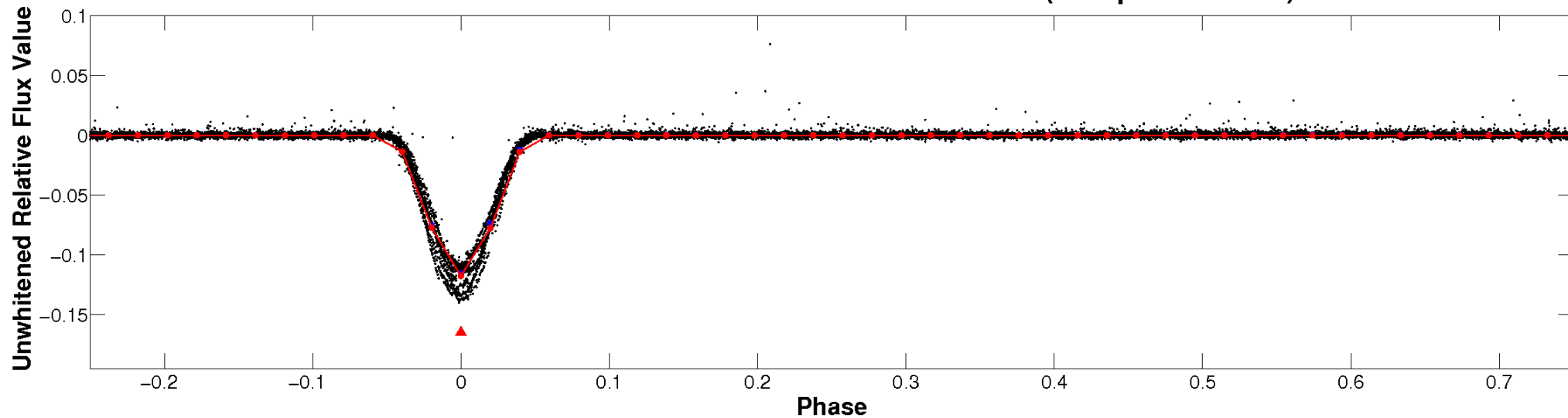
ALT Odd/Even

TCE 007732791-01

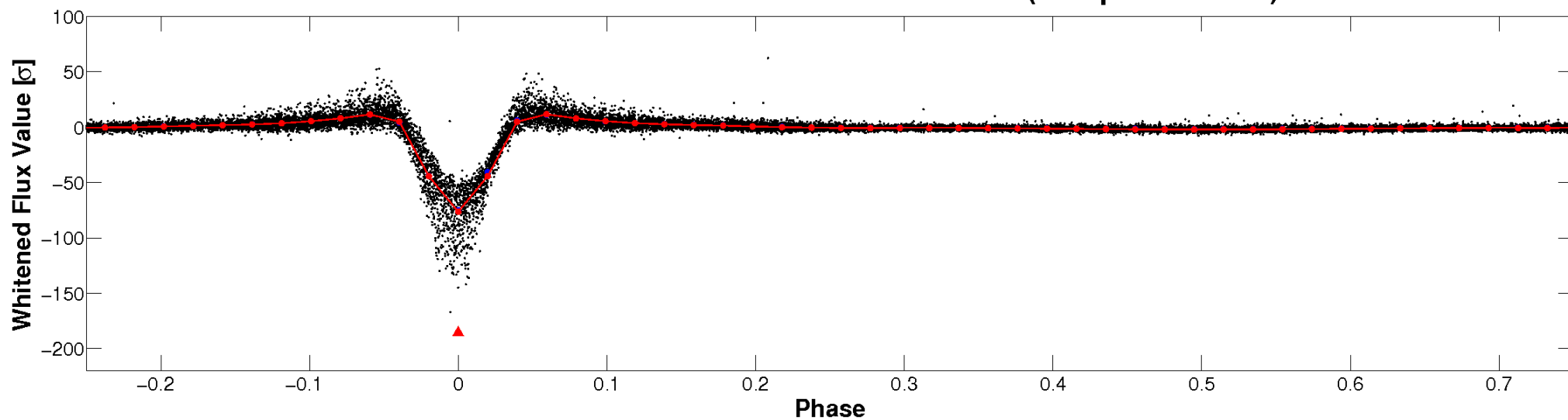


Non-Whitened Vs. Whitened Light Curve

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

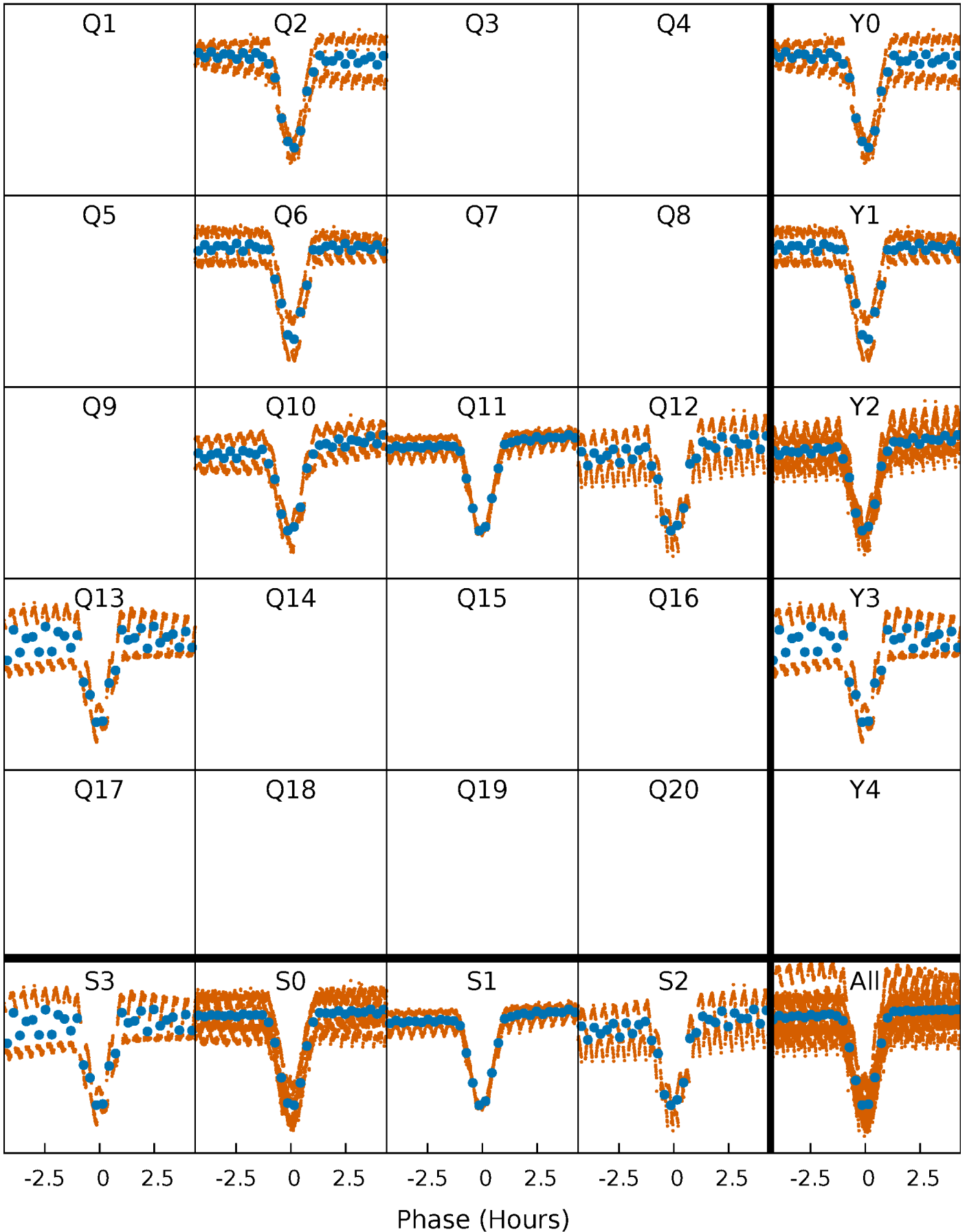


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



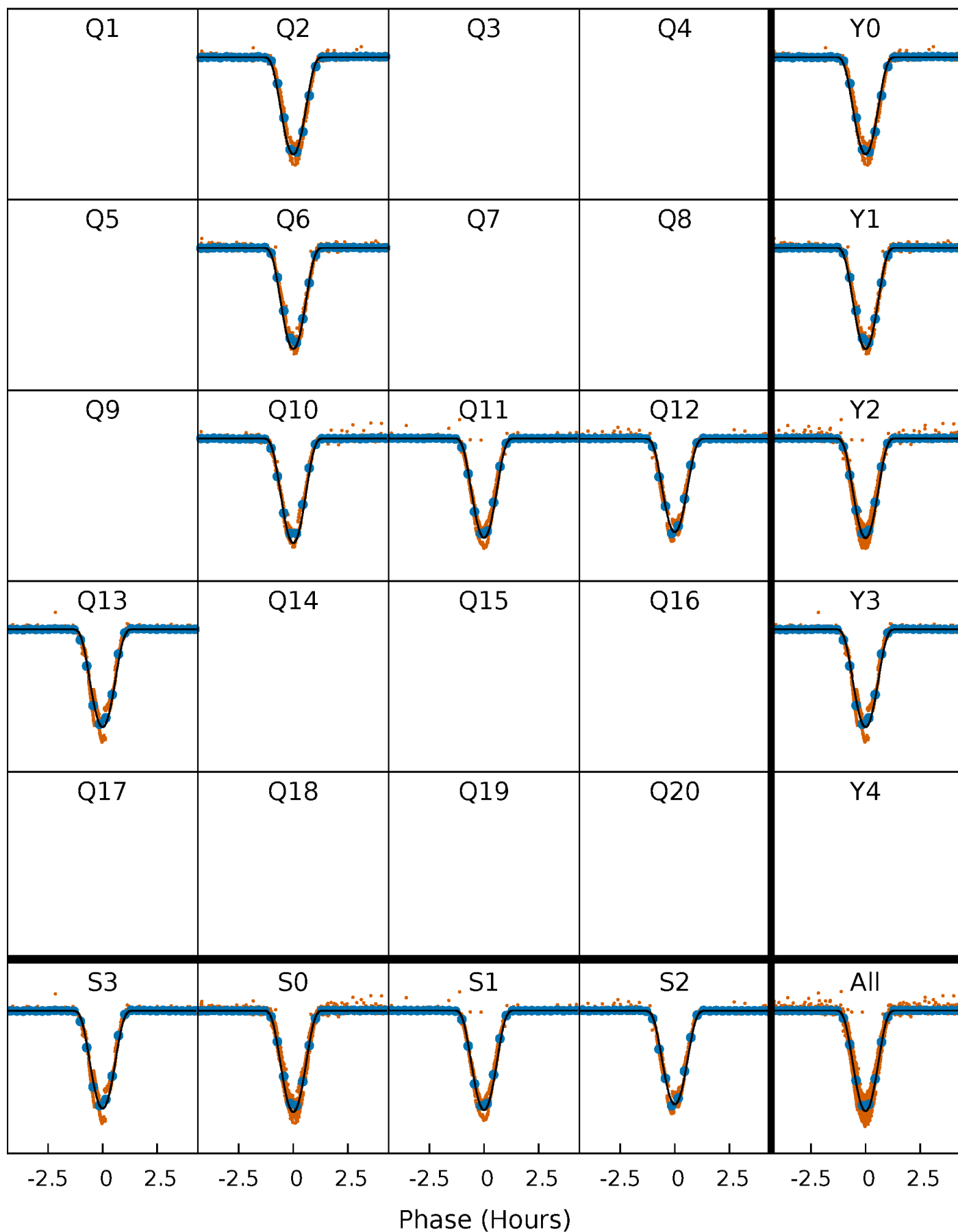
PDC Quarter-Phased Transit Curves

TCE 007732791-01 P= 1.032074 Days $T_0=131.835130$ (BKJD)



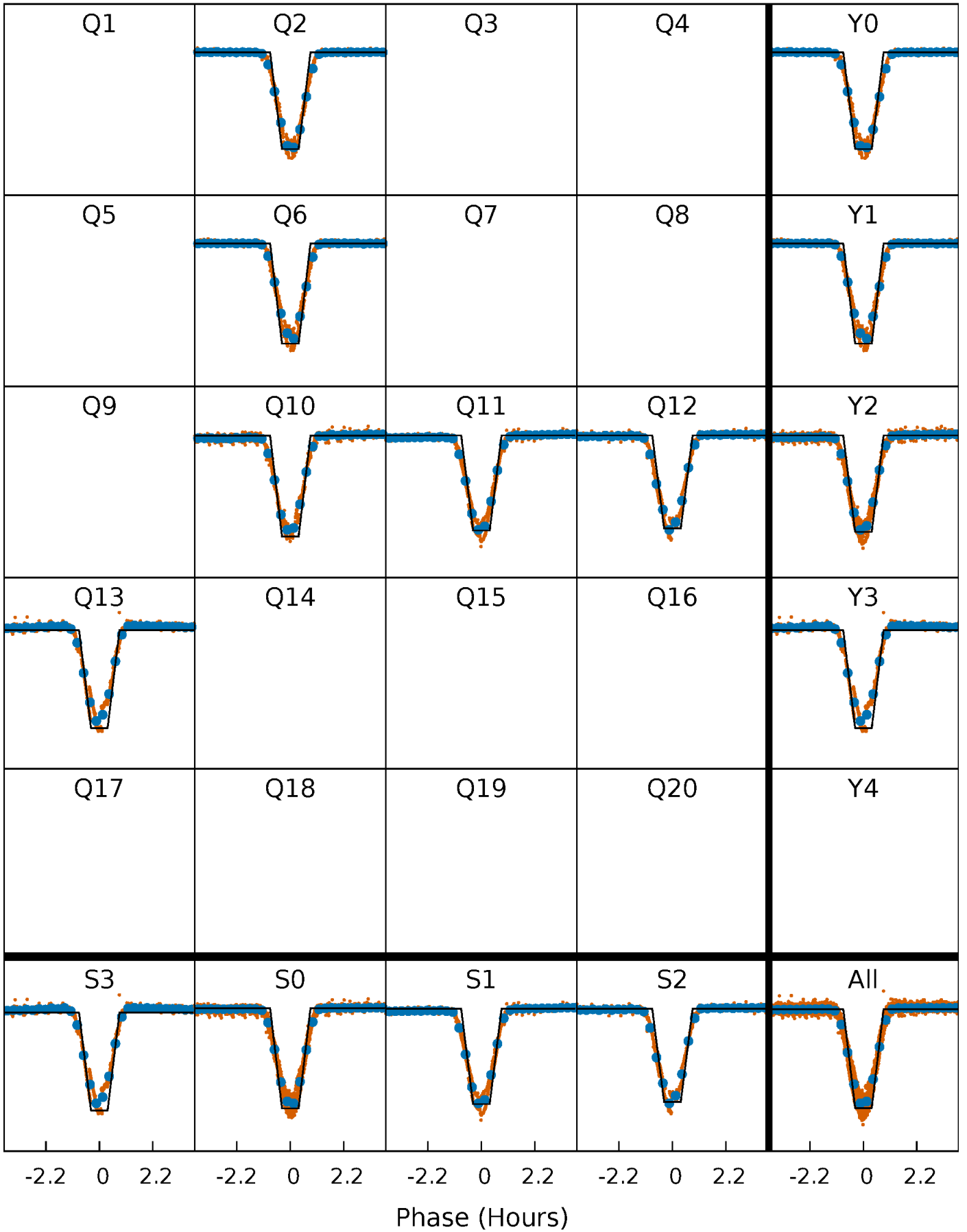
DV Quarter-Phased Transit Curves

TCE 007732791-01 P= 1.032074 Days $T_0=131.835130$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

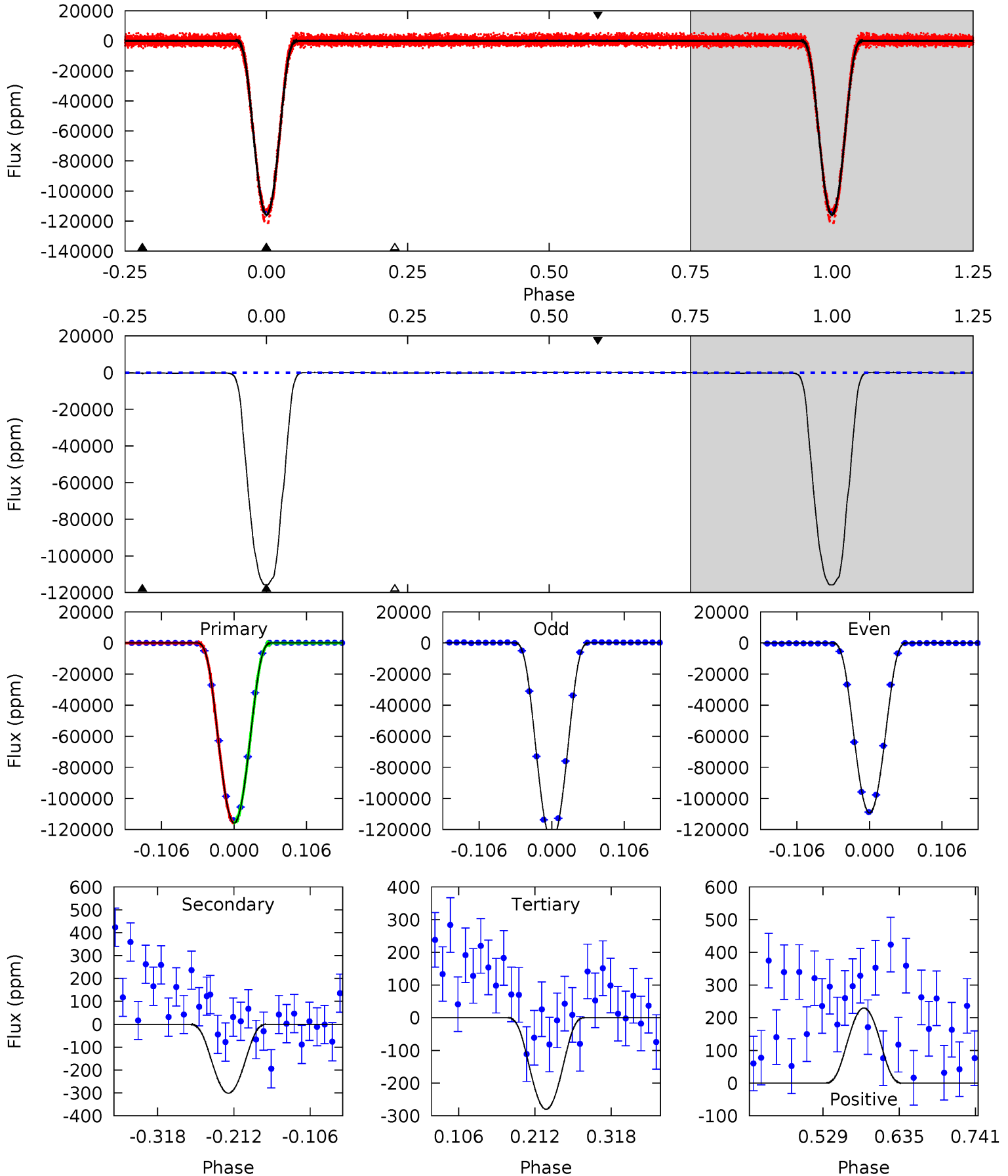
TCE 007732791-01 P= 1.032073 Days $T_0=131.836500$ (BKJD)



DV Model-Shift Uniqueness Test

007732791-01, P = 1.032074 Days, E = 131.835130 Days

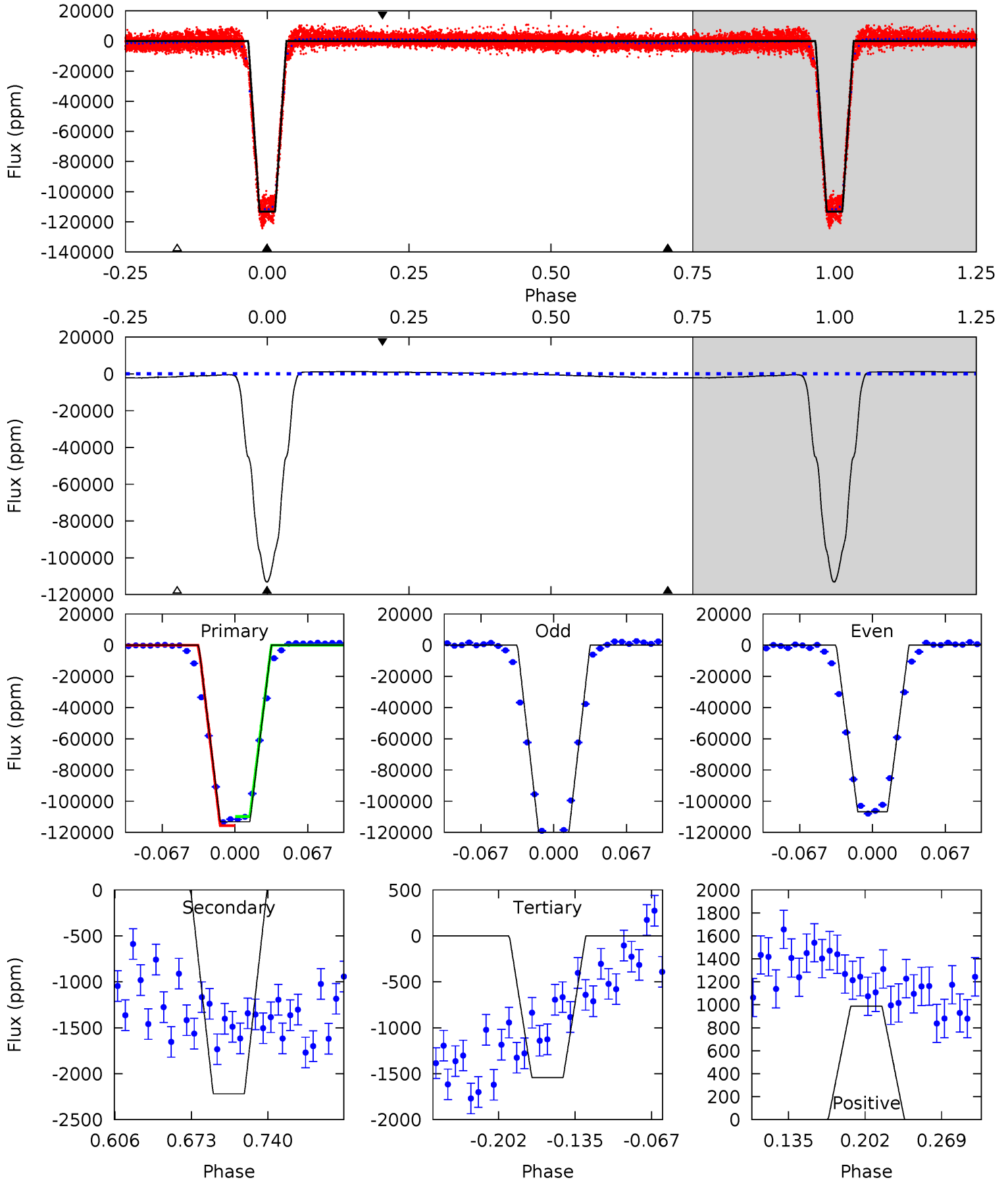
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3410	8.87	8.24	6.76	4.55	1.62	4.37	3402	3403	0.63	2.11	283.2	1.02	0.00	0



Alt Model-Shift Uniqueness Test

007732791-01, P = 1.032073 Days, E = 131.836500 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1353	26.5	18.5	11.8	4.65	1.83	12.6	1335	1342	8.09	14.7	88.8	1.00	0.01	33.1



Stellar Parameters For KIC 007732791

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4387^{+132}_{-145}	$4.587^{+0.049}_{-0.017}$	$0.280^{+0.150}_{-0.300}$	$0.711^{+0.025}_{-0.059}$	$0.712^{+0.043}_{-0.054}$	$2.793^{+0.597}_{-0.187}$
	+3%/-3%	+1%/-0%	+54%/-107%	+4%/-8%	+6%/-8%	+21%/-7%
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 007732791-01 / KOI 3623.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-301 ± 34	$28.35^{+0.79}_{-1.27}$	1697^{+51}_{-62}	-2194^{+48}_{-42}	$0.067^{+0.009}_{-0.008}$
Alt.	-2219 ± 84	$26.97^{+0.72}_{-1.20}$	1695^{+59}_{-58}	2208^{+48}_{-49}	$0.545^{+0.040}_{-0.032}$

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

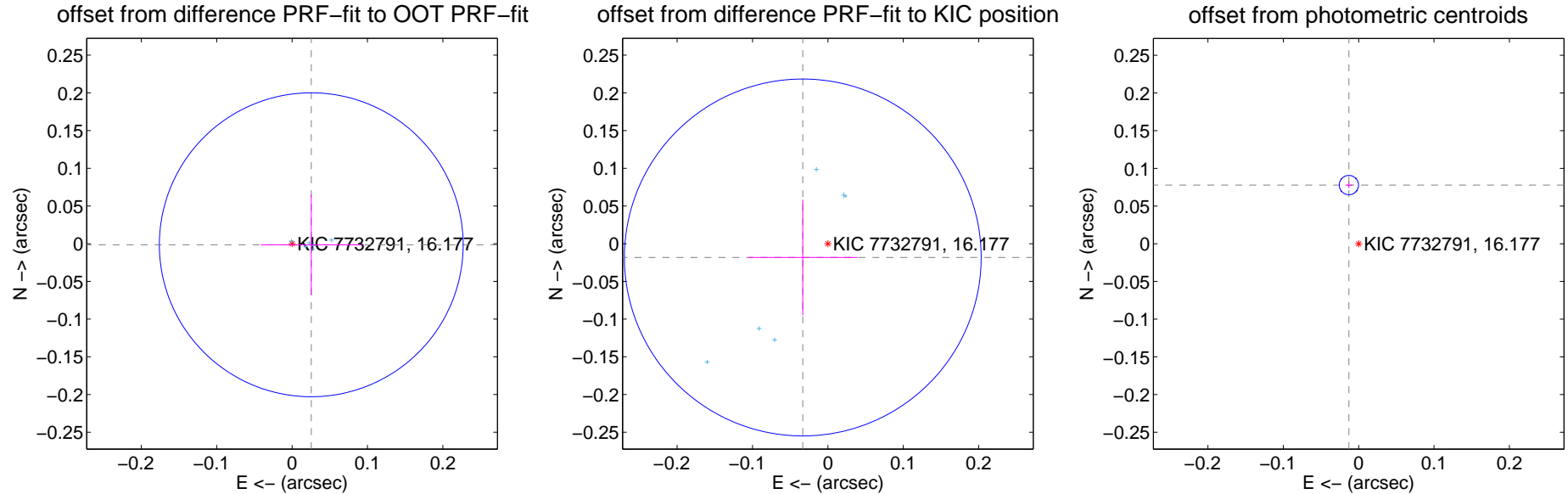
DV Centroid Data

Supplemental centroid analysis for 007732791-01. Kepler magnitude: 16.18. Transit SNR 1257.70

There are 6 quarters with good PRF difference image offsets

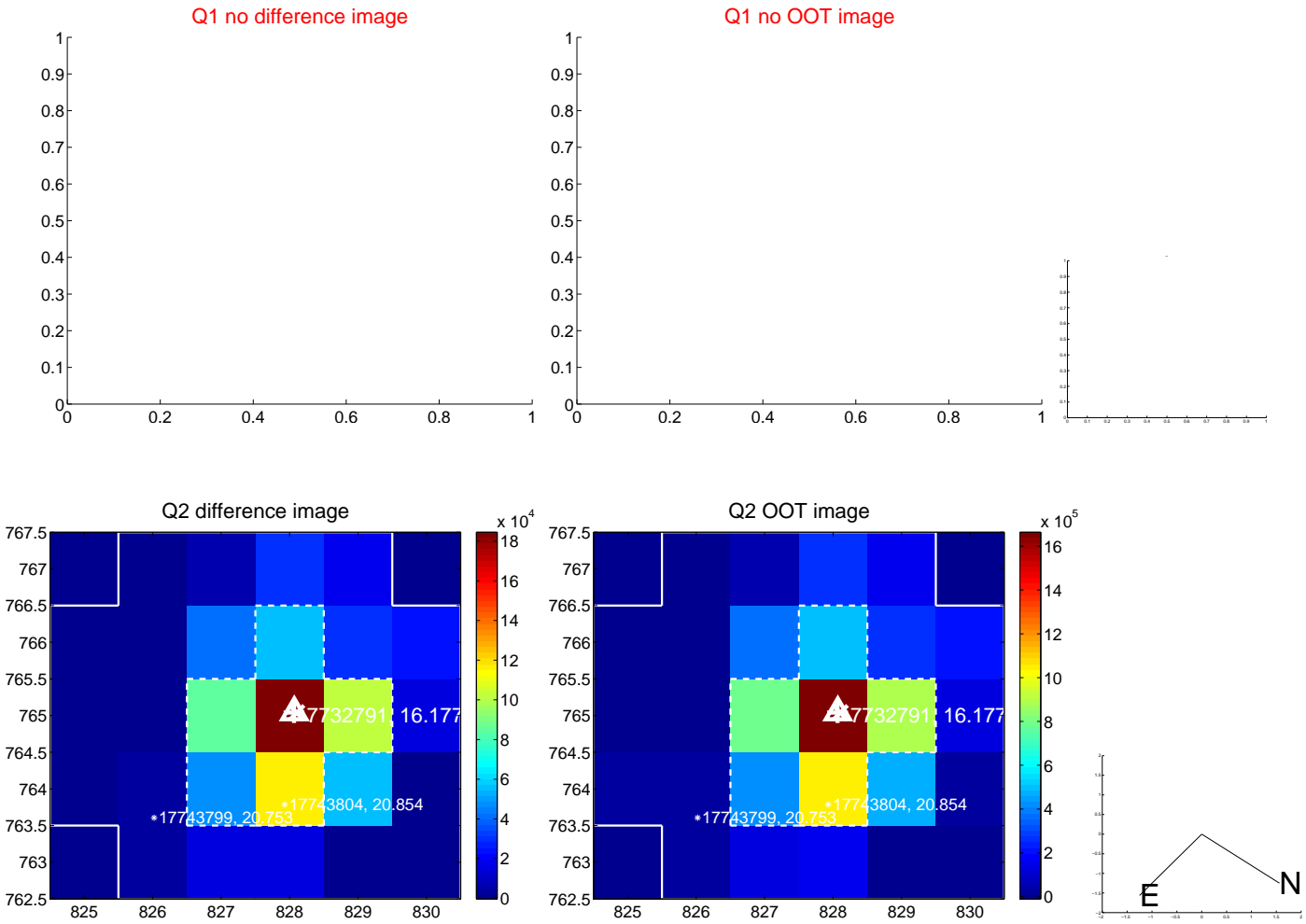
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.067	0.38	-0.025 ± 0.067	-0.001 ± 0.067
PRF-fit source offset from KIC position	0.038 ± 0.079	0.48	0.033 ± 0.073	-0.018 ± 0.077
photometric centroid source offset	0.08 ± 0.00	18.49	0.01 ± 0.00	0.08 ± 0.00



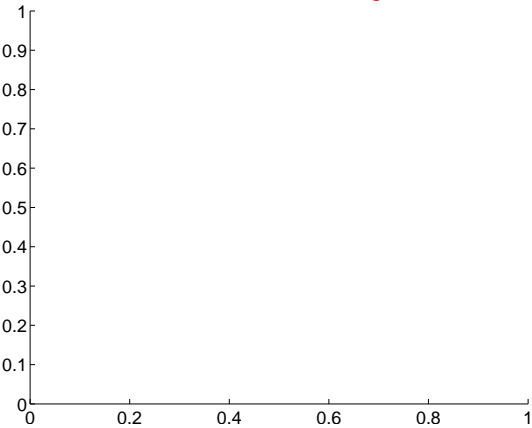
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

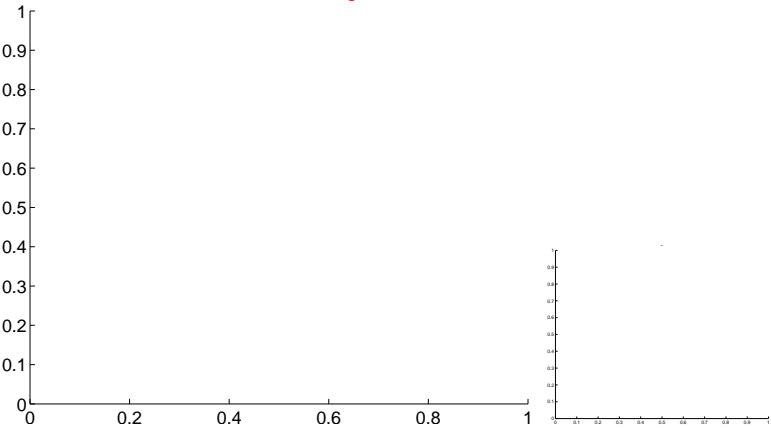


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

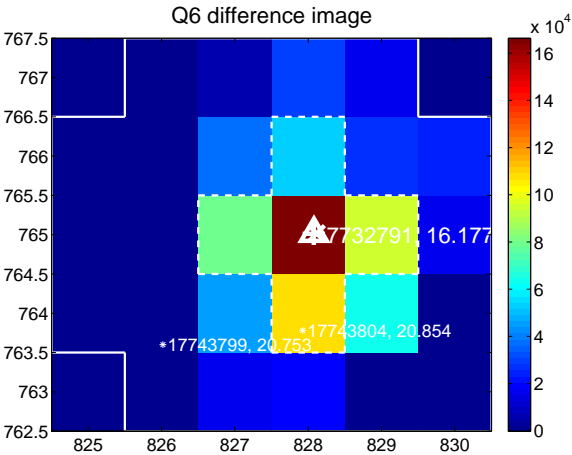
Q5 no difference image



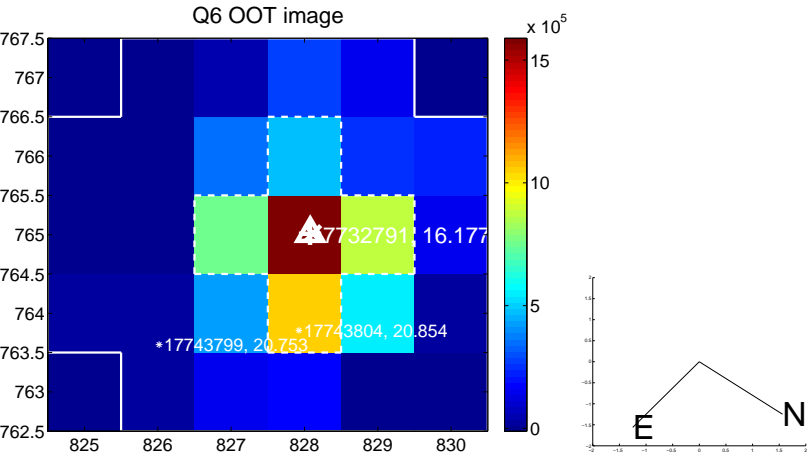
Q5 no OOT image



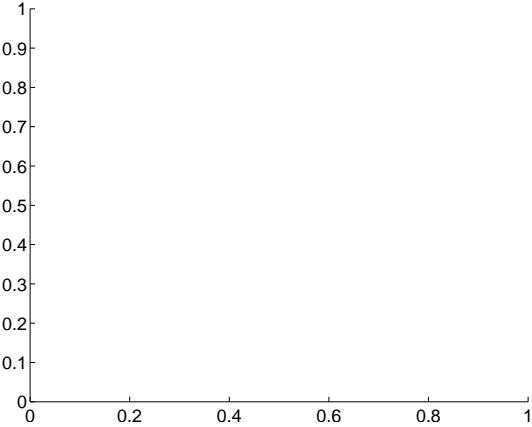
Q6 difference image



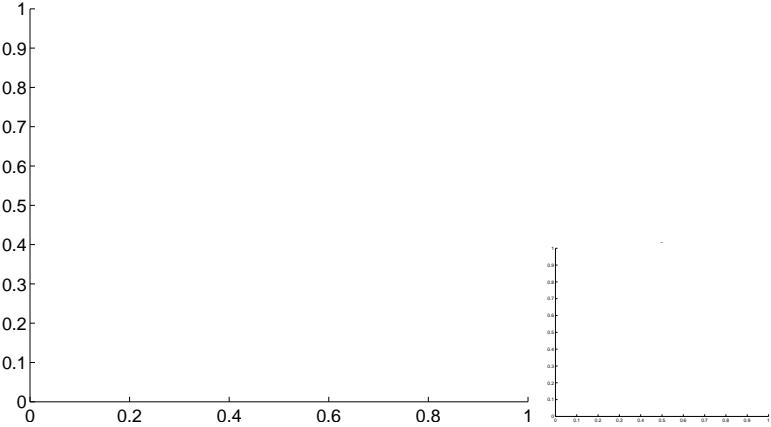
Q6 OOT image



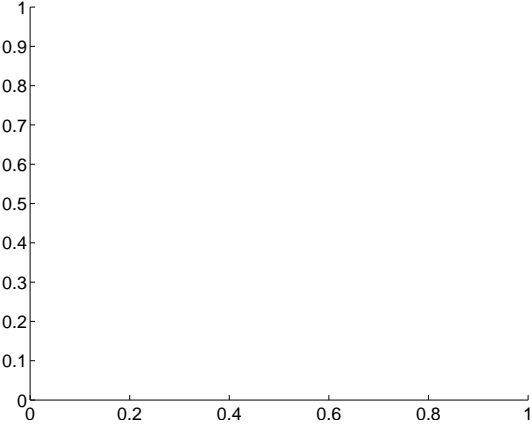
Q7 no difference image



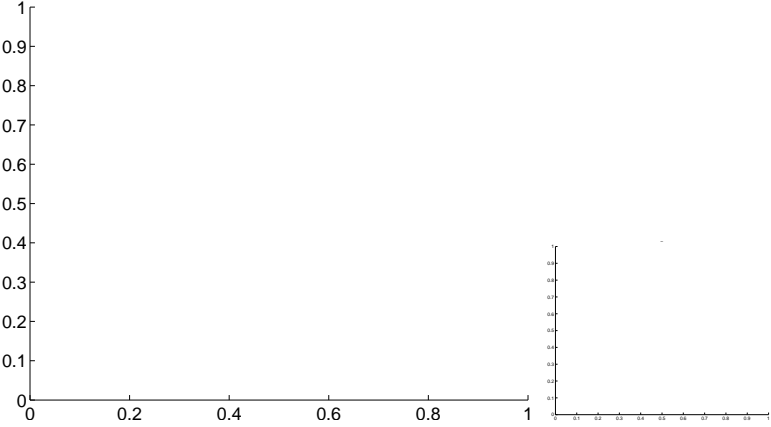
Q7 no OOT image



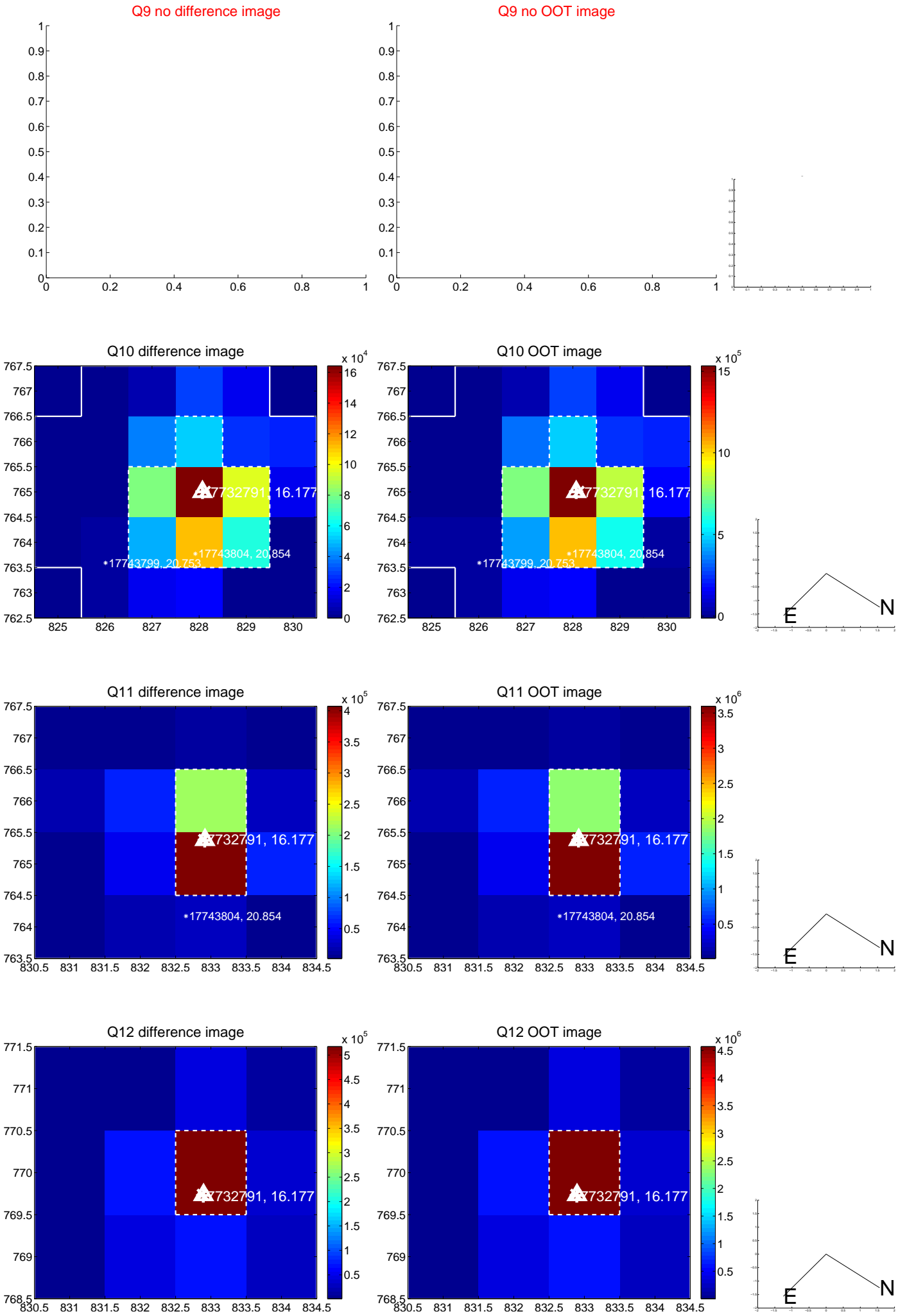
Q8 no difference image



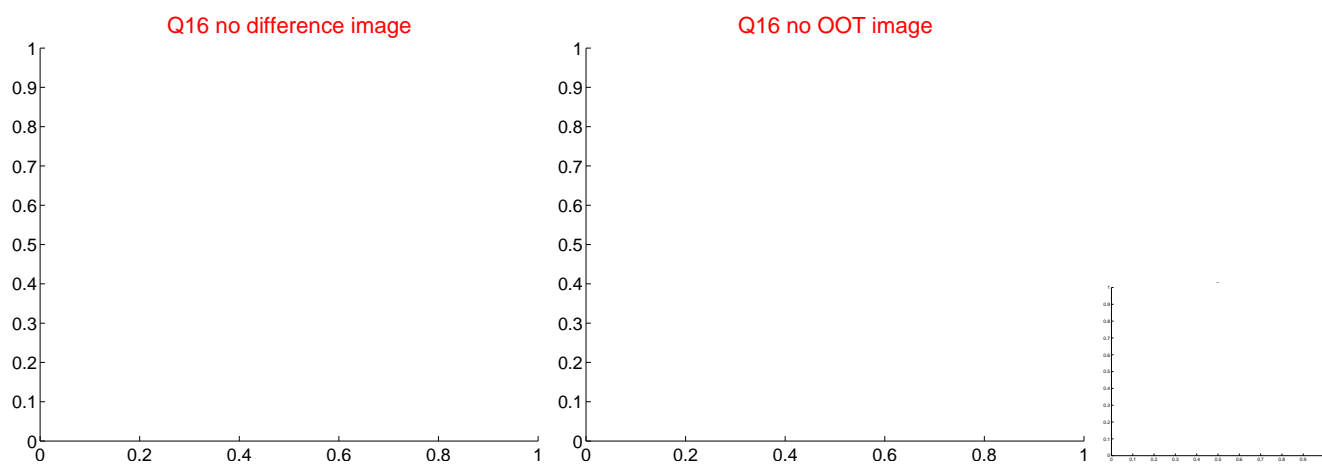
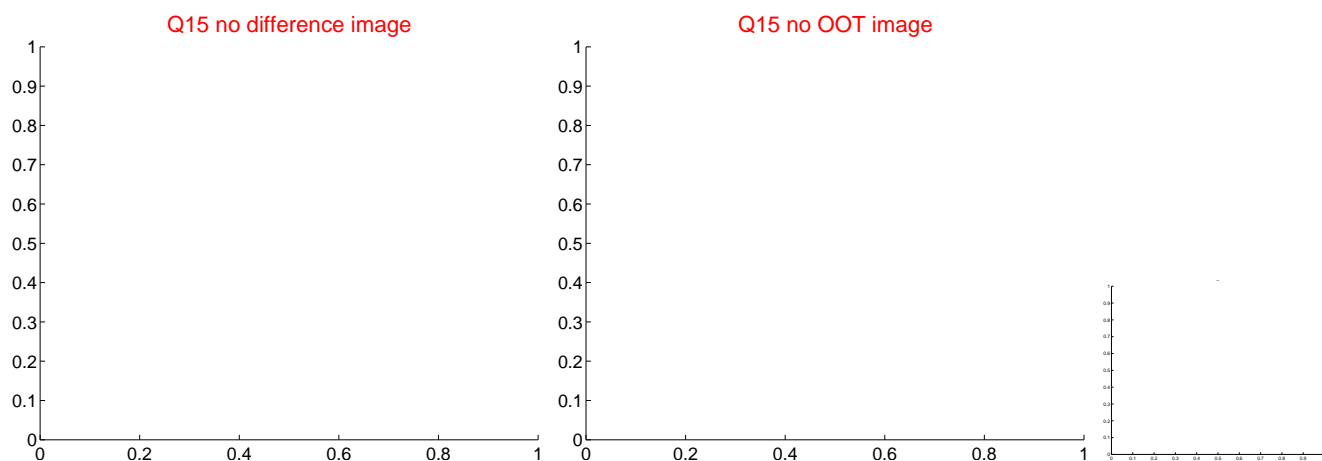
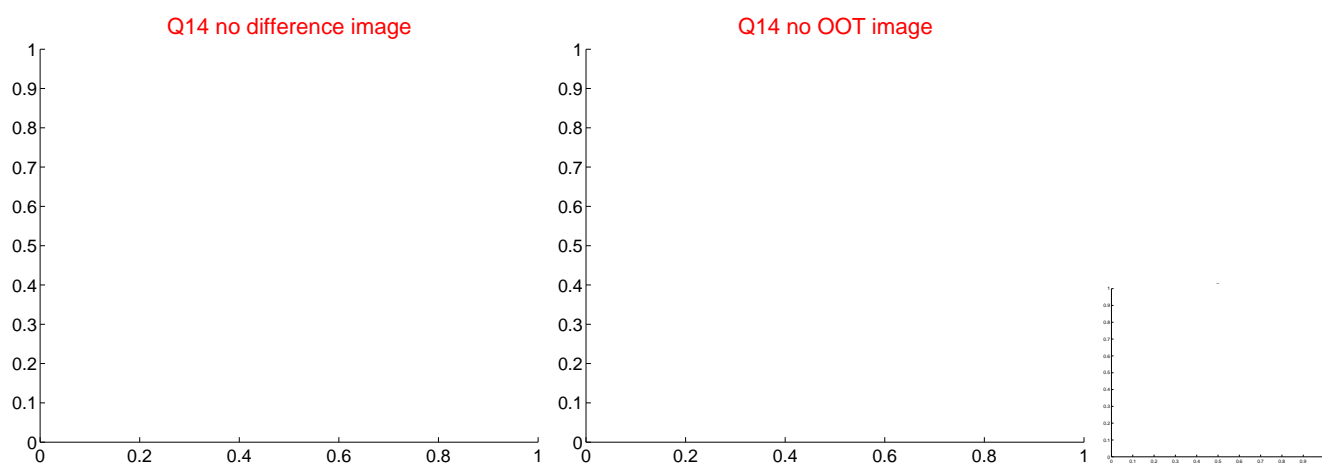
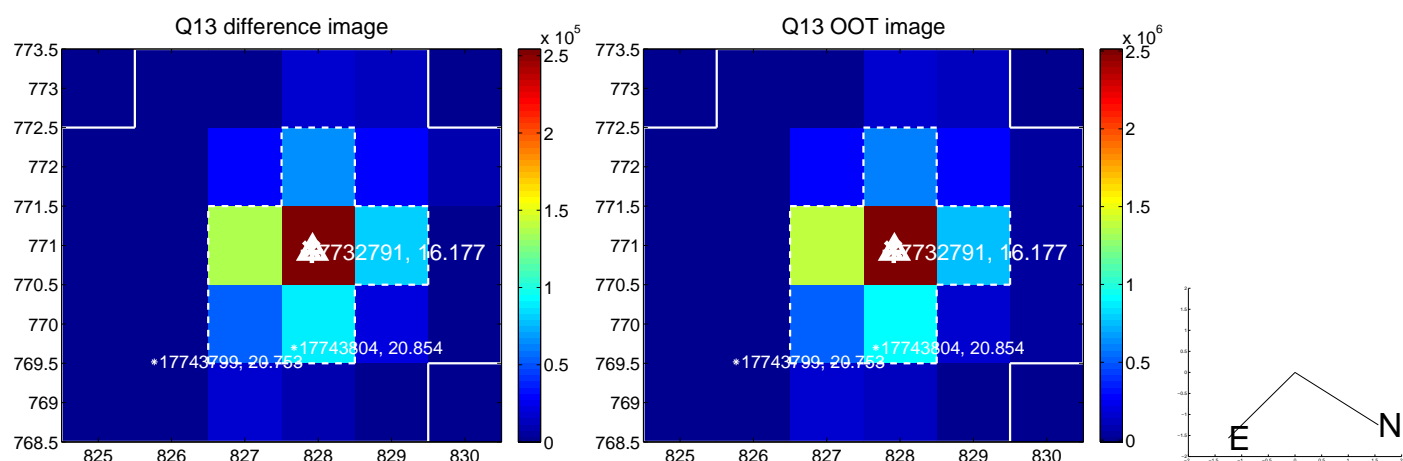
Q8 no OOT image



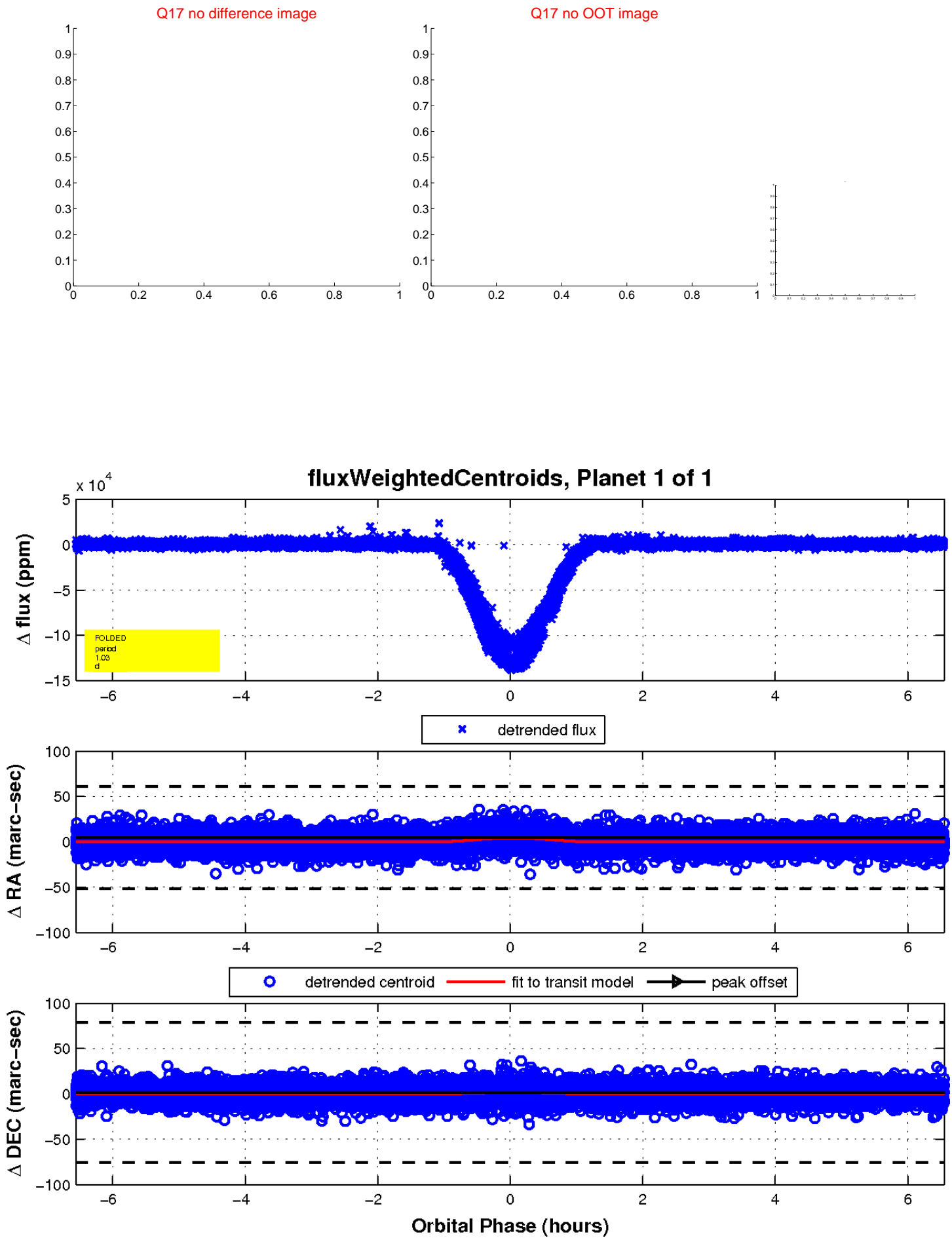
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

