

KIC 008177798

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})
008177798-01	OBS	3624.01	1.450206	131.985437	28455.4	3.382	2581.0	2192.9	1.89	7564	45.06	12117.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008177798-01	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.

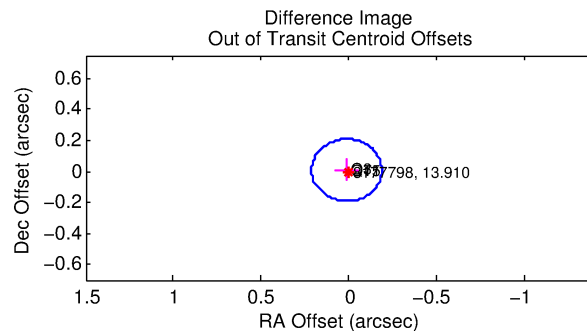
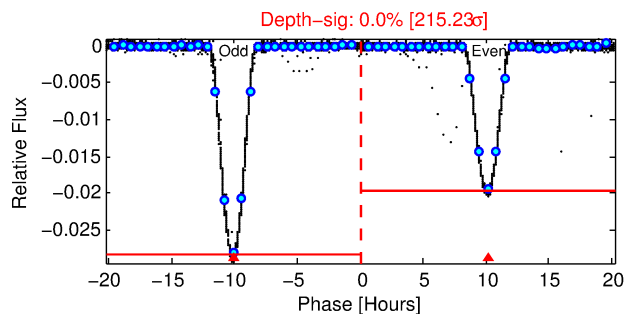
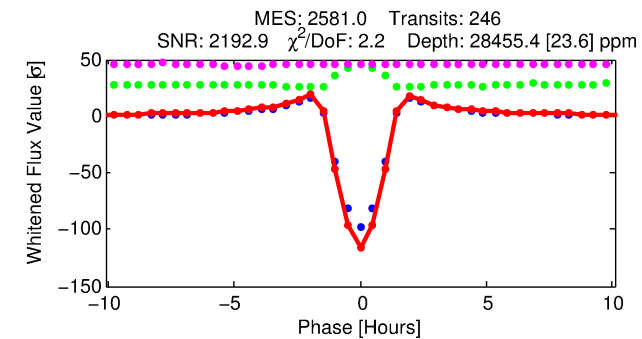
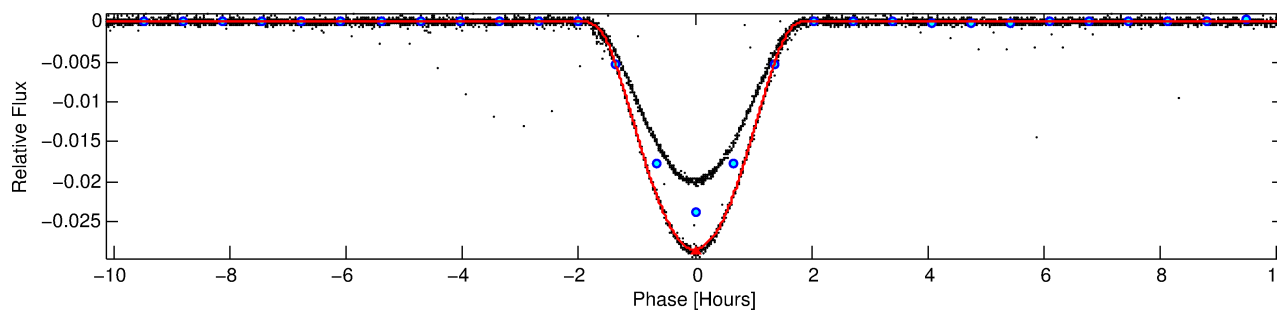
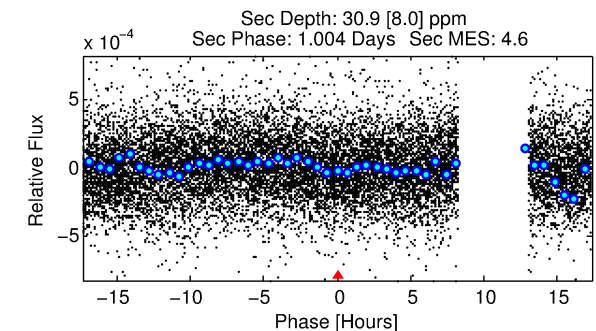
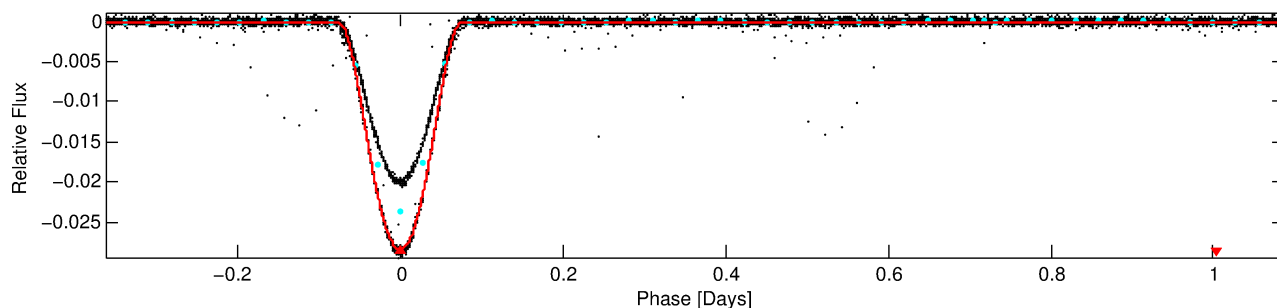
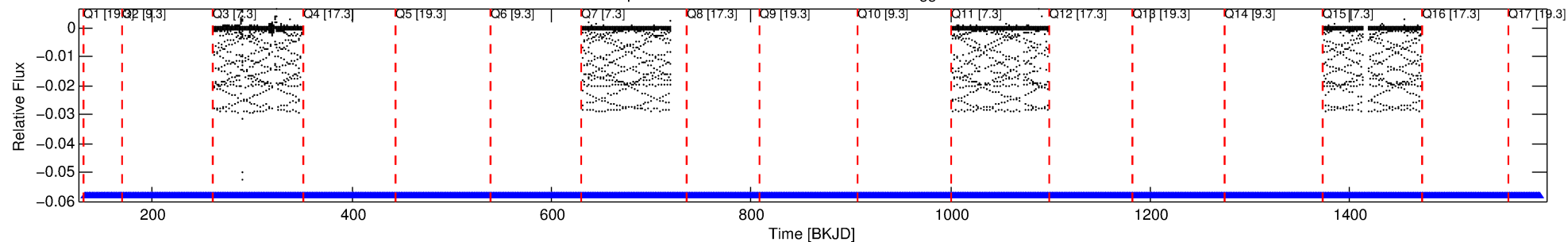
Ephemeris Match Information For 008177798-01

No Significant Match Found

DV One-Page Summary

KIC: 8177798 Candidate: 1 of 1 Period: 1.450 d
KOI: K03624.01 Corr: 0.971

Kp: 13.91 R*: 1.89 Rs Teff: 7564.0 K Logg: 4.09 Fe/H: -0.080



DV Fit Results:

Period = 1.45021 [0.00000] d
Epoch = 131.9854 [0.0000] BKJD
Rp/R* = 0.2181 [0.0033]
a/R* = 2.78 [0.01]
b = 0.93 [0.01]
Seff = 12117.91 [4449.79]
Teq = 2675 [246] K
Rp = 45.06 [12.47] Re
a = 0.0294 [0.0067] AU
Ag = 0.01 [0.00] [-327.09σ]
Teff = 1207 [94] K [-5.59σ]

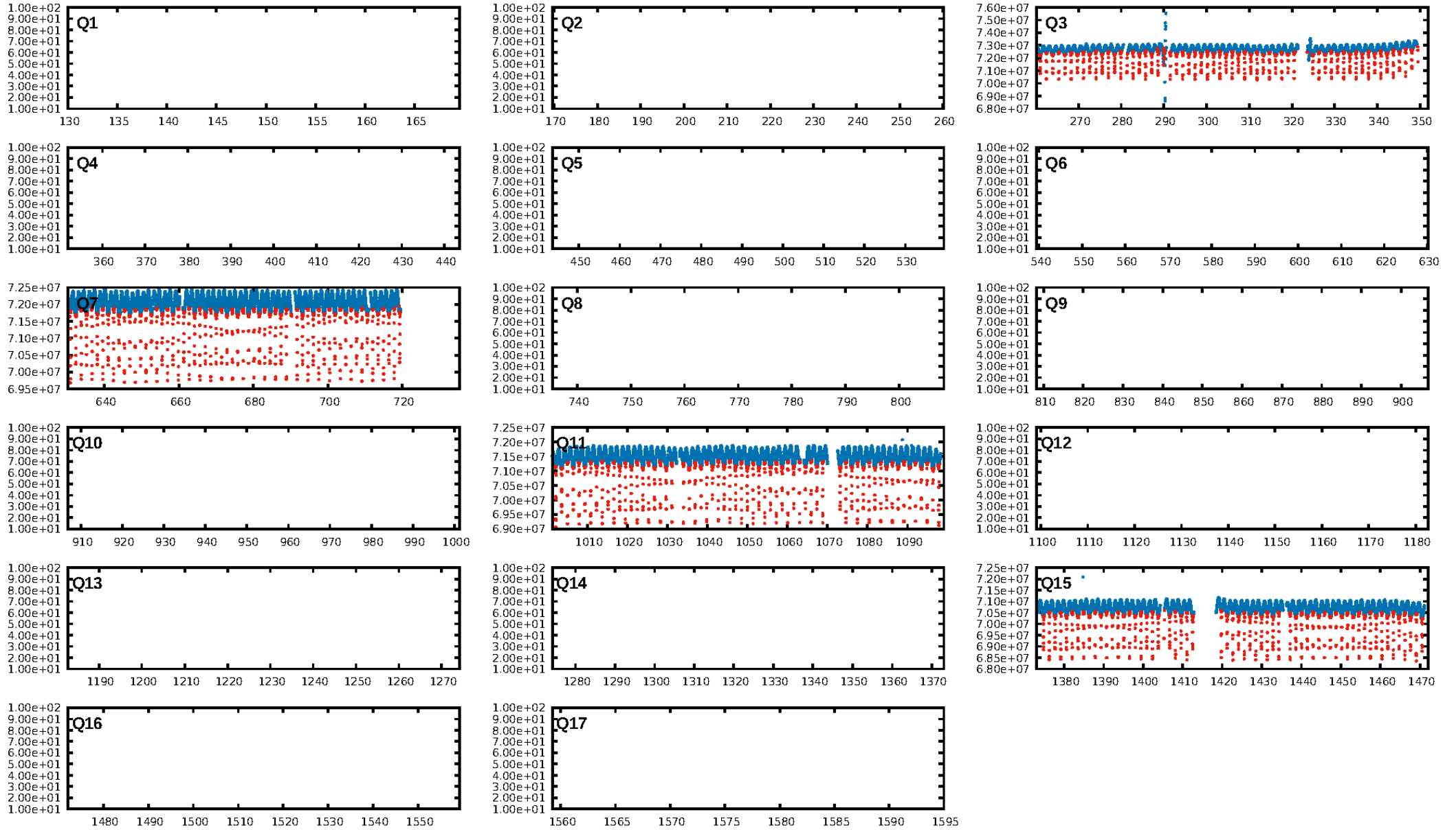
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [246/246]
GhostDiagnostic-chr: 3.142
Centroid-sig: 0.0%
Centroid-so: 0.305 arcsec [86.91σ]
OotOffset-rm: 0.016 arcsec [0.25σ]
KicOffset-rm: 0.092 arcsec [1.37σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [4/4]

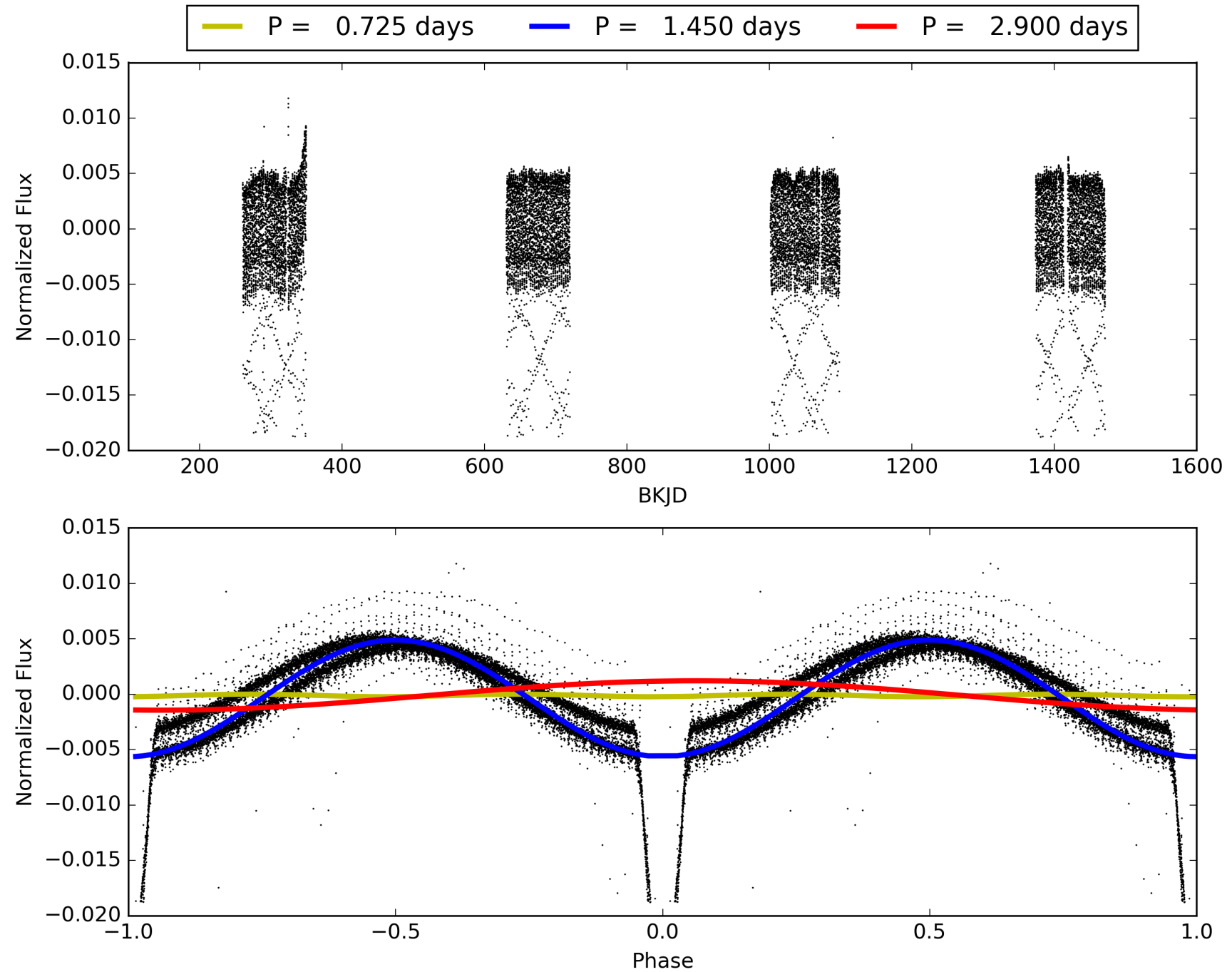
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:29:40 Z

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

TCE 008177798-01, PDC Light Curves

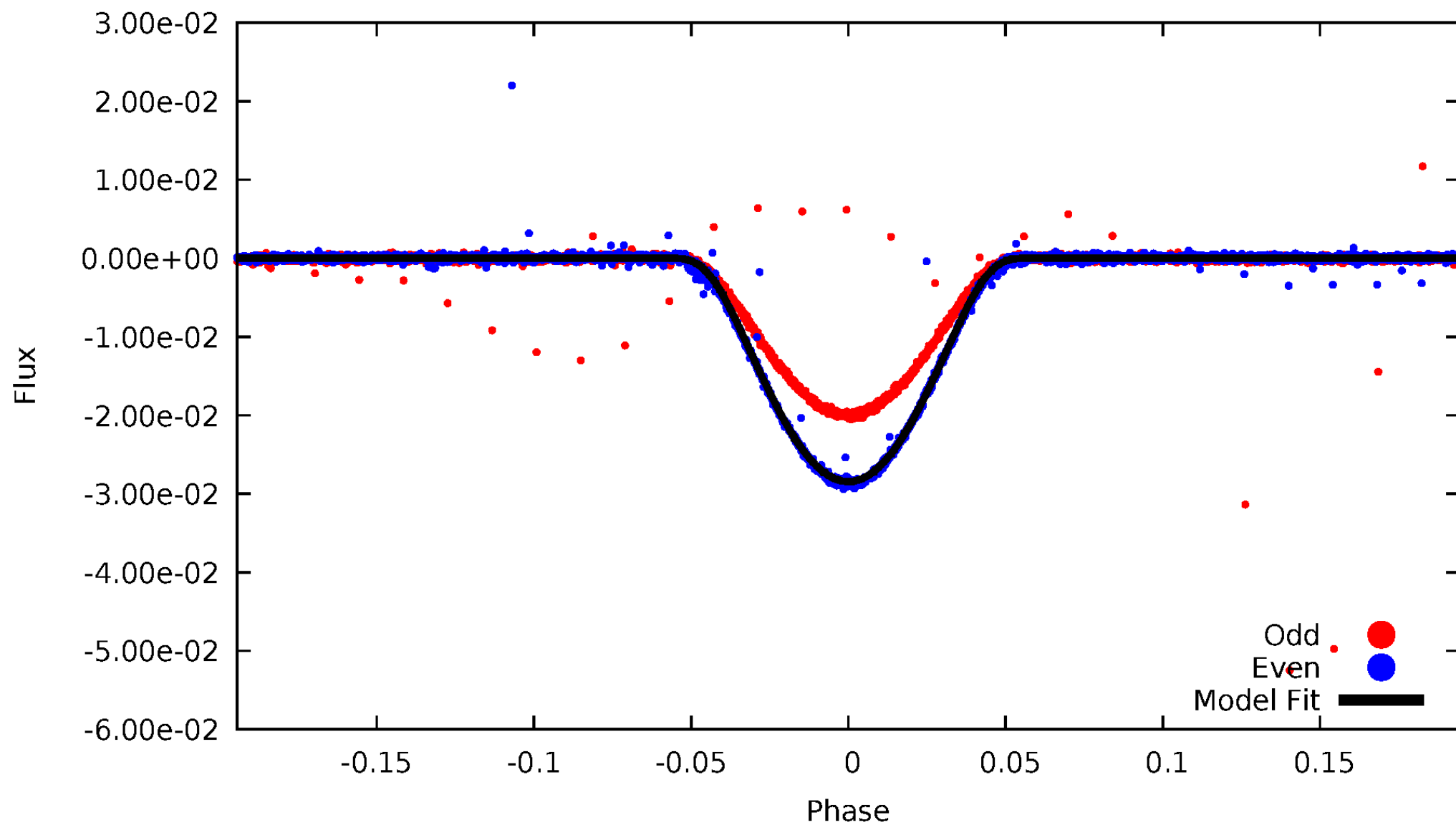


TCE 008177798-01



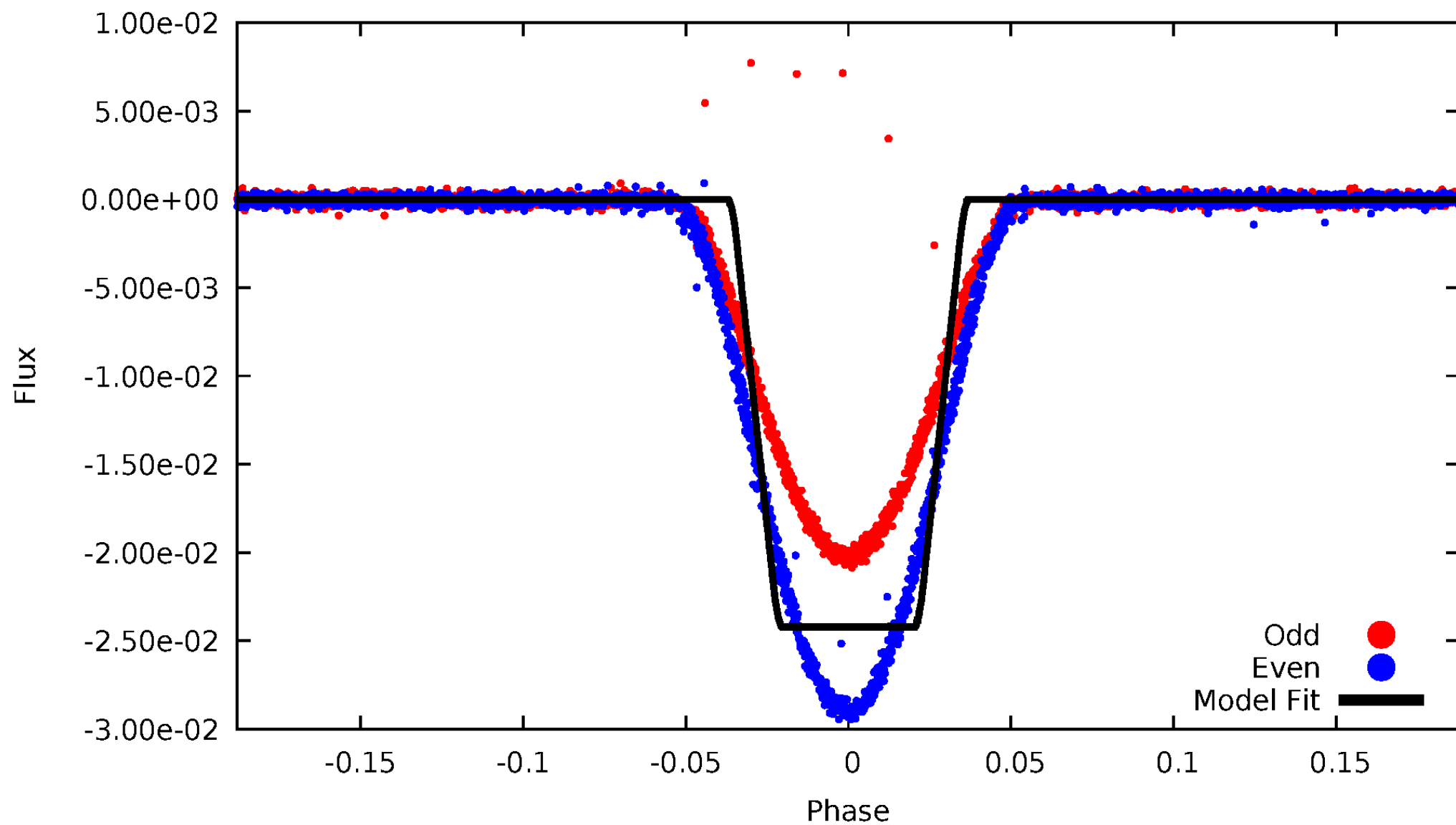
DV Odd/Even

TCE 008177798-01



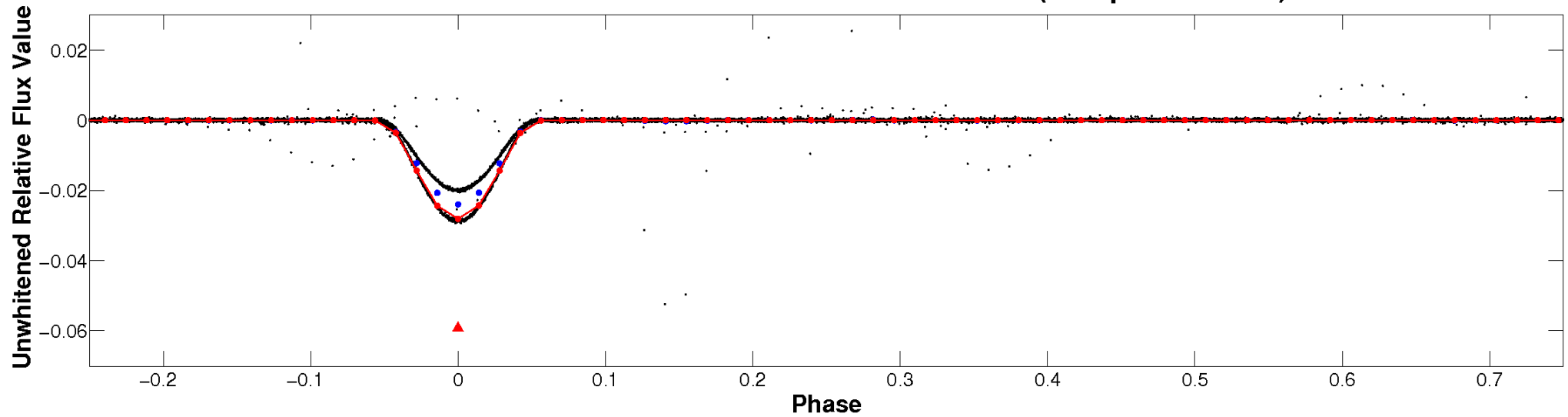
ALT Odd/Even

TCE 008177798-01

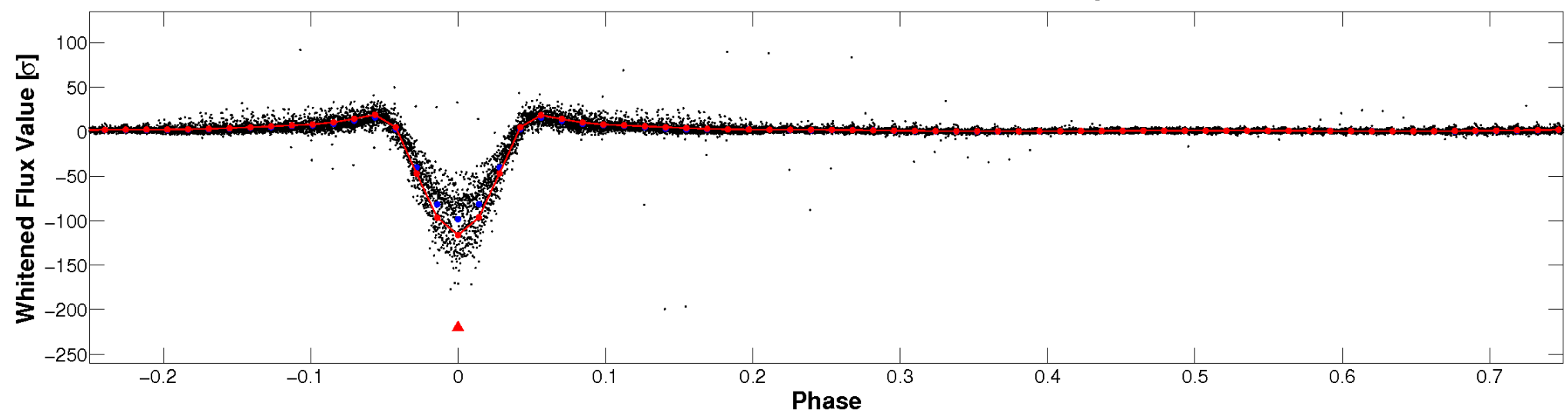


Non-Whitened Vs. Whitened Light Curve

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

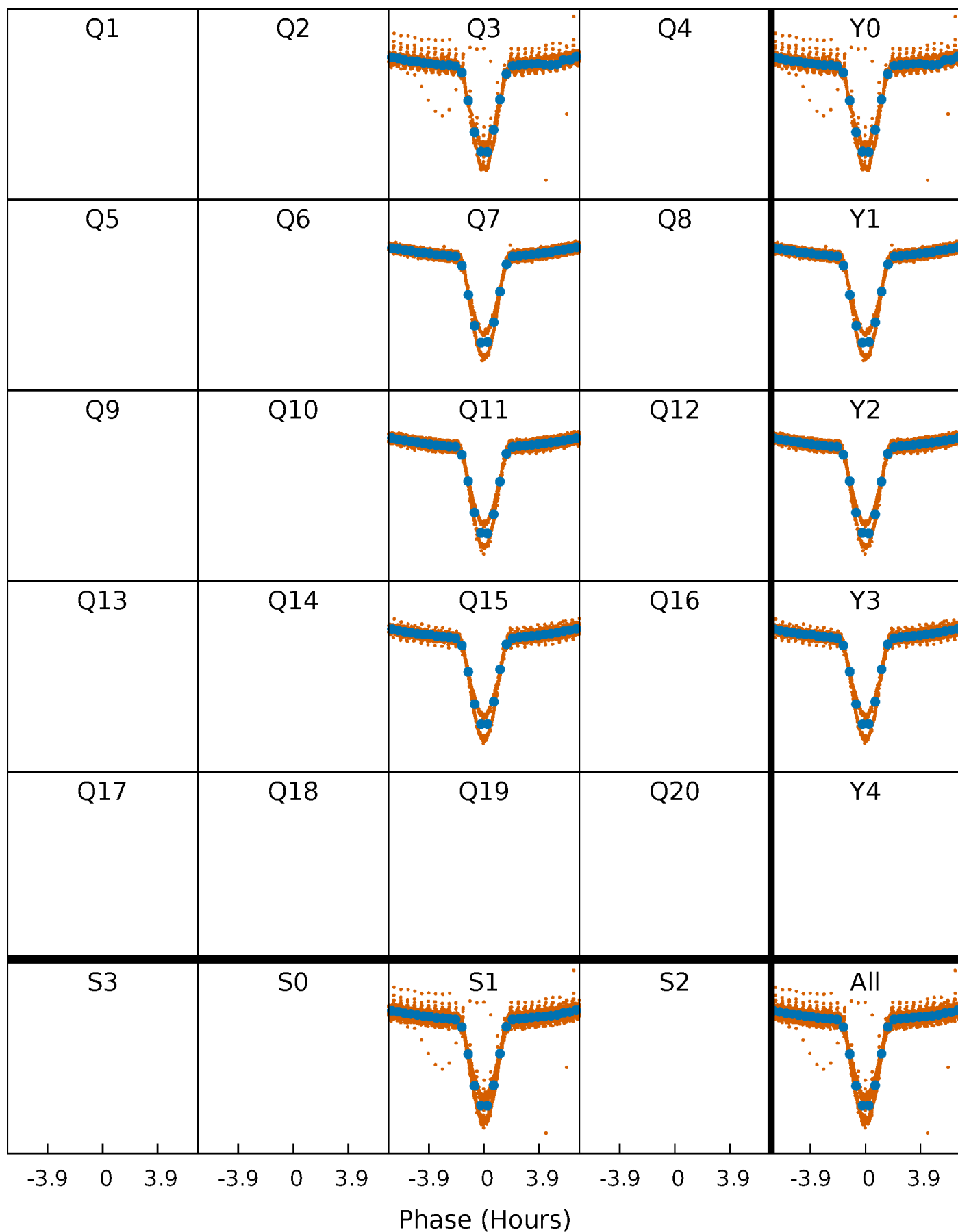


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



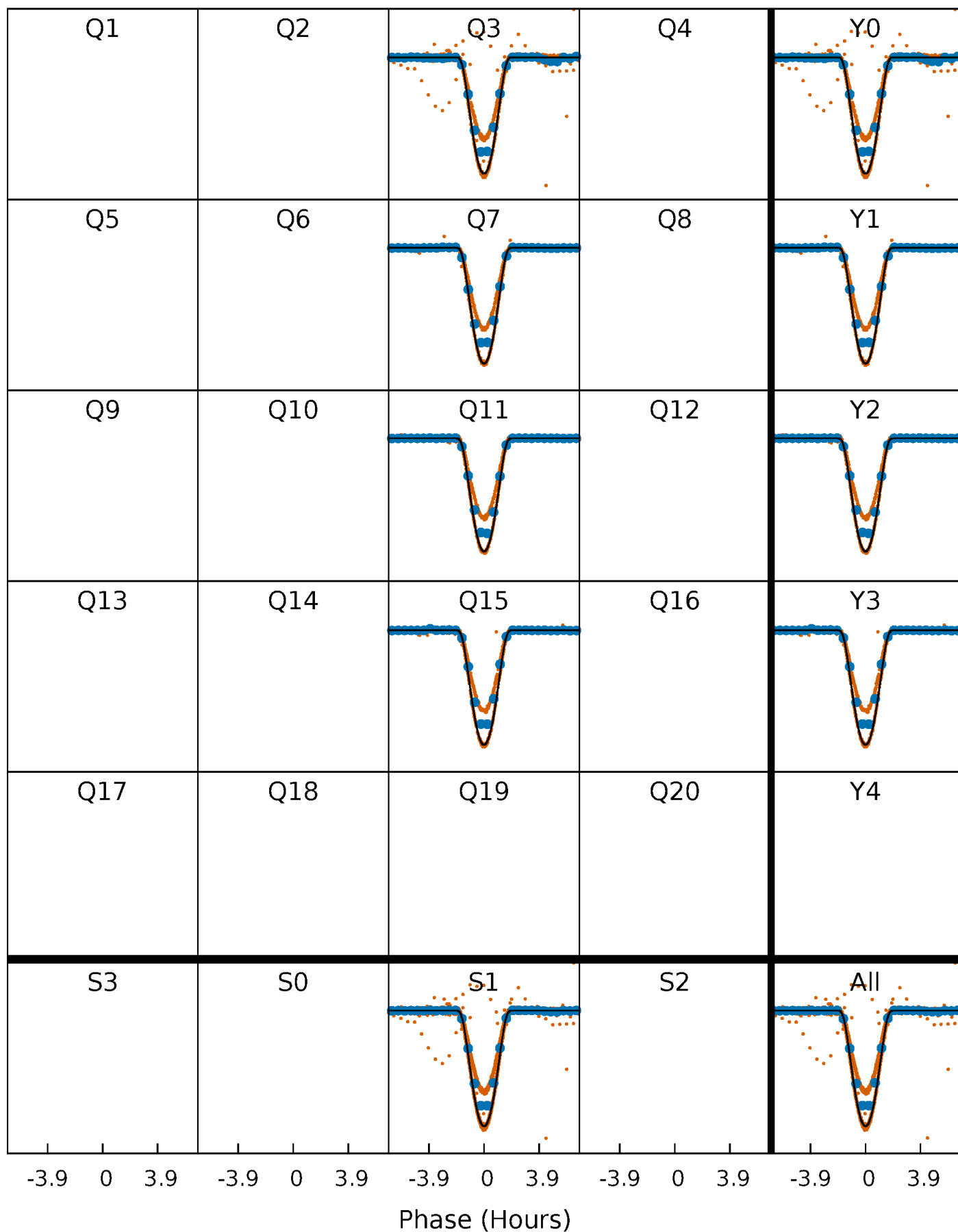
PDC Quarter-Phased Transit Curves

TCE 008177798-01 P= 1.450206 Days $T_0=131.985437$ (BKJD)



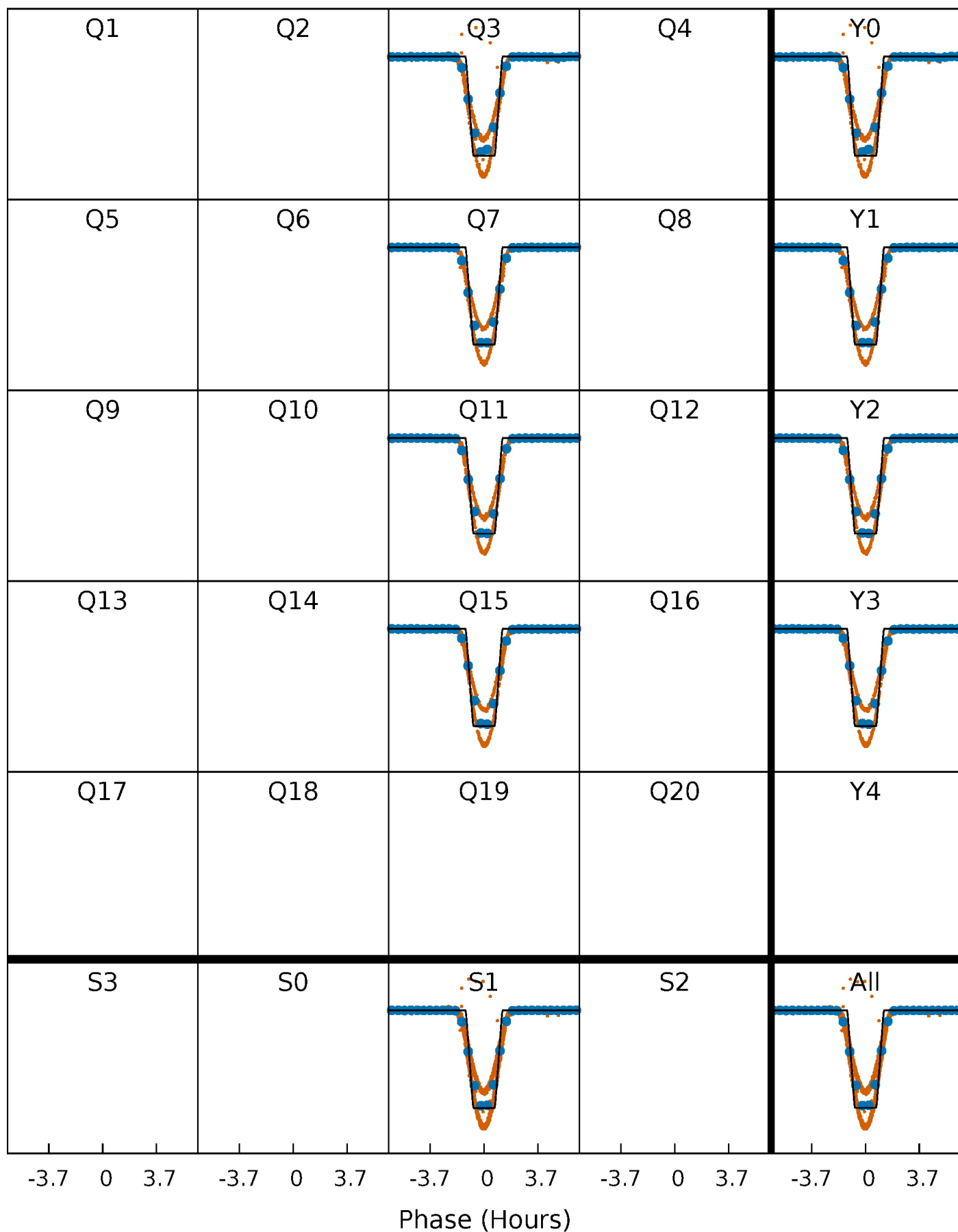
DV Quarter-Phased Transit Curves

TCE 008177798-01 P= 1.450206 Days $T_0=131.985437$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

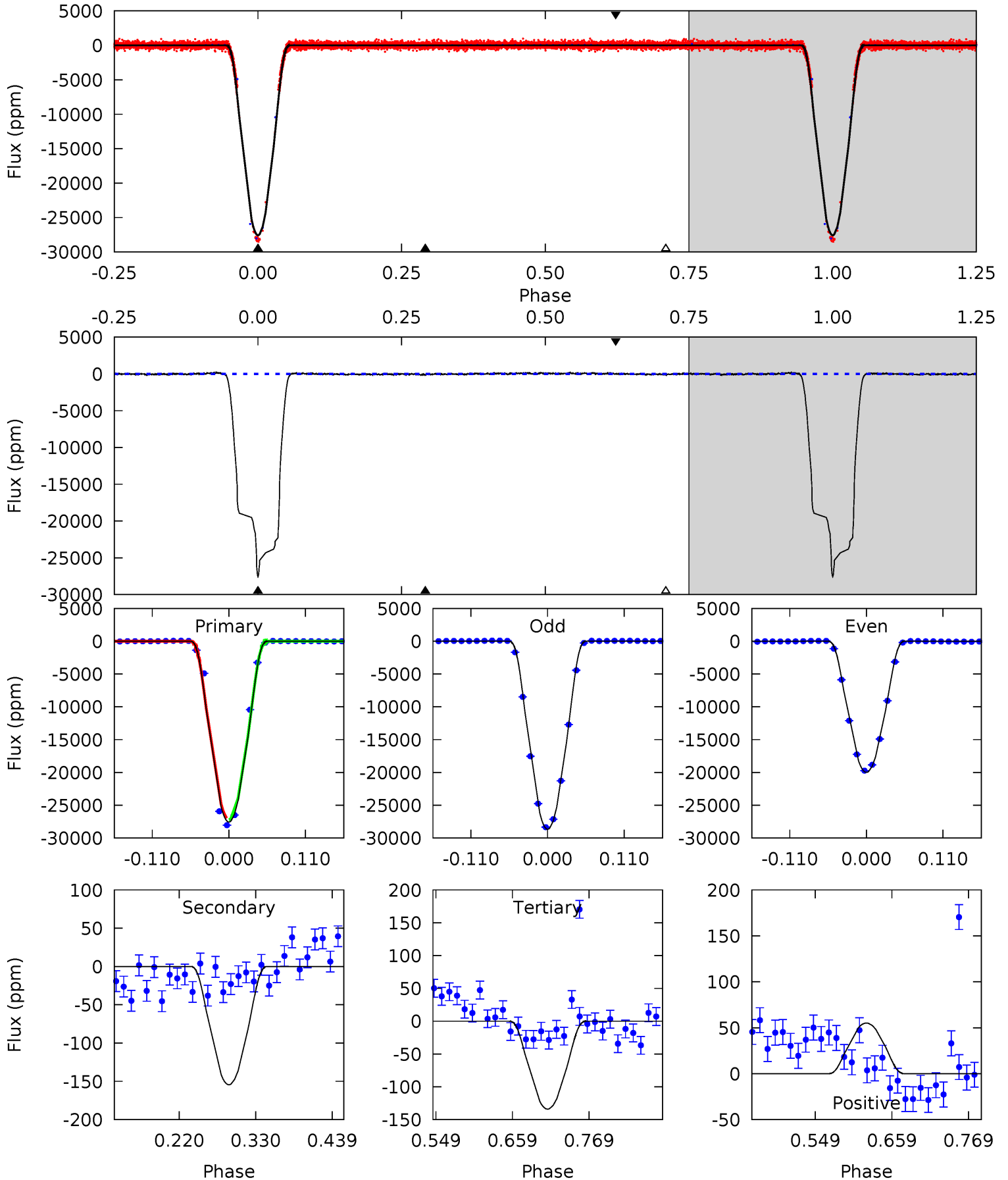
TCE 008177798-01 P= 1.450202 Days $T_0=131.987622$ (BKJD)



DV Model-Shift Uniqueness Test

008177798-01, P = 1.450206 Days, E = 131.985437 Days

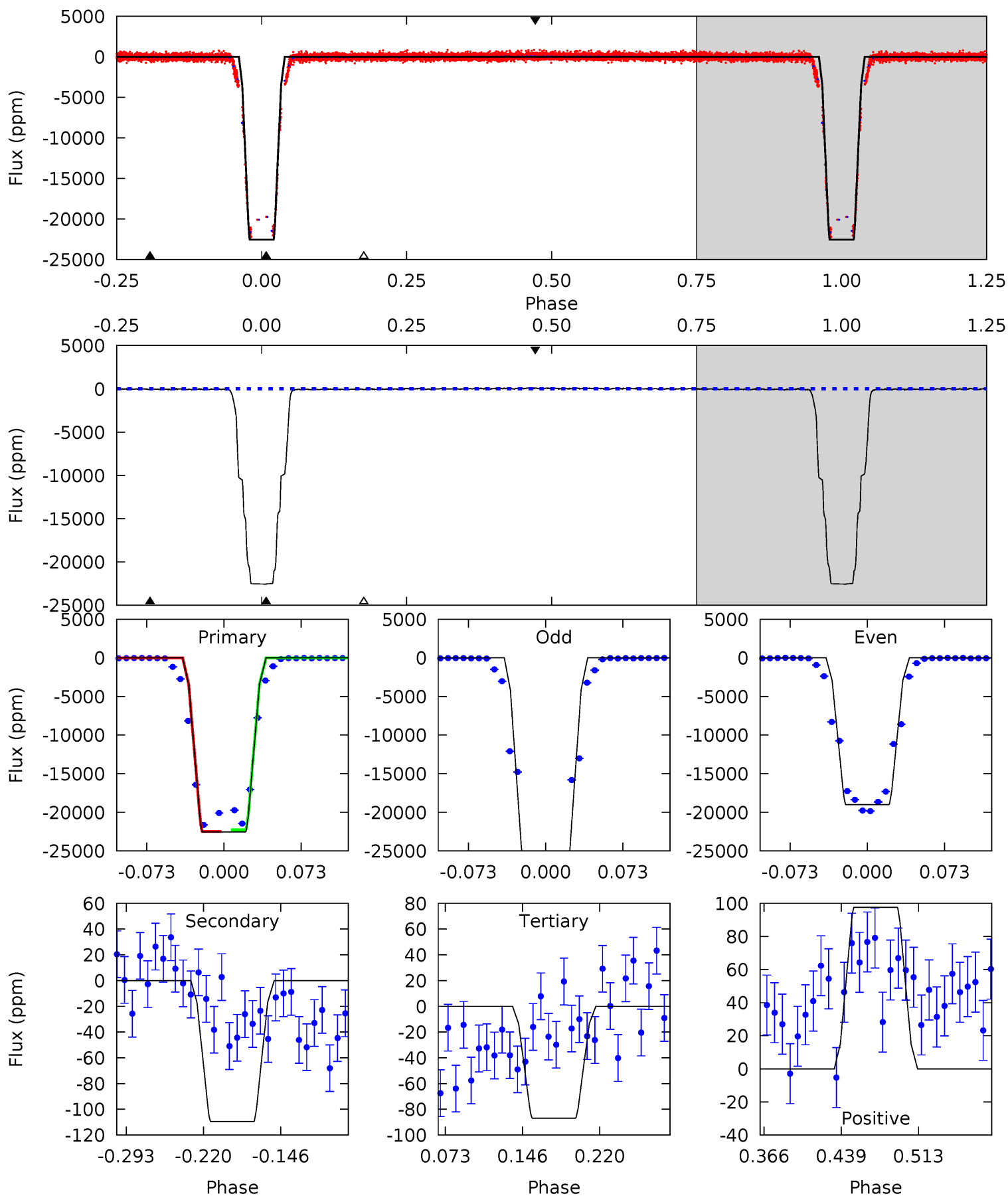
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3052	17.1	14.8	6.10	4.55	1.60	6.65	3038	3046	2.27	11.0	849.1	1.17	0.01	0



Alt Model-Shift Uniqueness Test

008177798-01, P = 1.450202 Days, E = 131.987622 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1226	5.95	4.72	5.30	4.63	1.79	2.37	1221	1220	1.23	0.65	470.7	0.96	0.00	0



Stellar Parameters For KIC 008177798

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7564^{+211}_{-316}	$4.093^{+0.144}_{-0.176}$	$-0.080^{+0.200}_{-0.350}$	$1.893^{+0.523}_{-0.428}$	$1.621^{+0.187}_{-0.280}$	$0.336^{+0.264}_{-0.161}$
	+3%/-4%	+4%/-4%	+250%/-438%	+28%/-23%	+12%/-17%	+79%/-48%
Source	KIC0	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 008177798-01 / KOI 3624.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-154 ± 9	$45.28^{+6.49}_{-5.23}$	3740^{+267}_{-247}	-3430^{+142}_{-165}	$0.035^{+0.009}_{-0.007}$
Alt.	-109 ± 18	$32.25^{+4.68}_{-4.17}$	3745^{+271}_{-244}	-3402^{+158}_{-175}	$0.049^{+0.017}_{-0.014}$

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

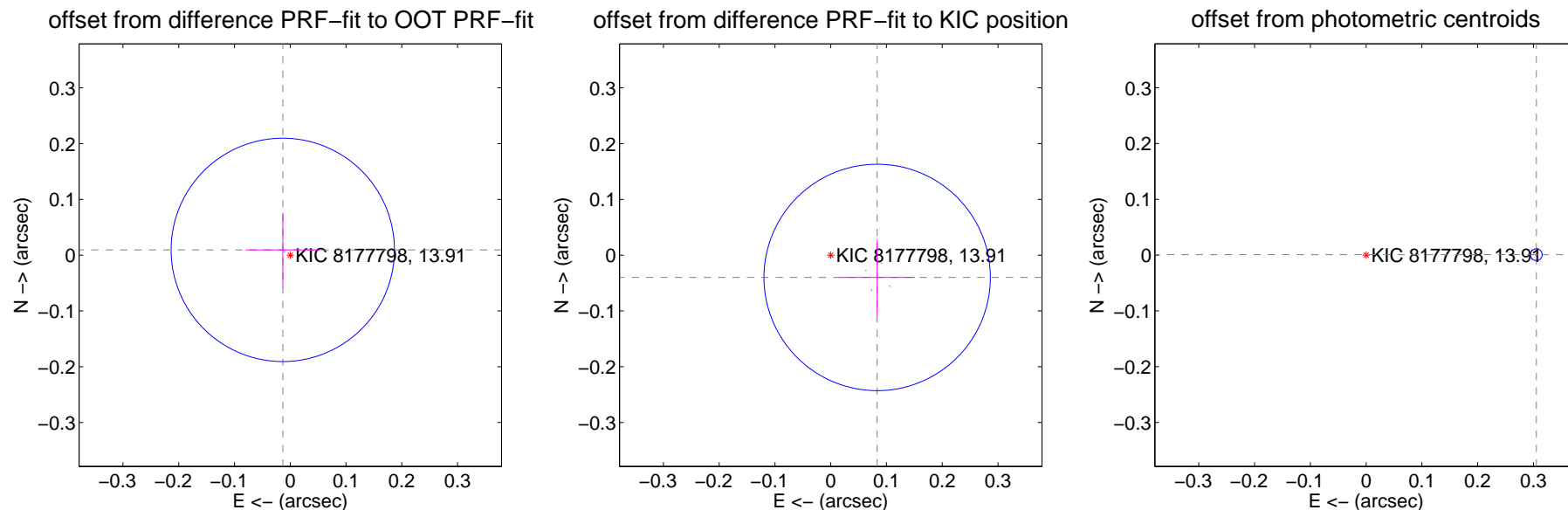
DV Centroid Data

Supplemental centroid analysis for 008177798-01. Kepler magnitude: 13.91. Transit SNR 2192.86

There are 4 quarters with good PRF difference image offsets

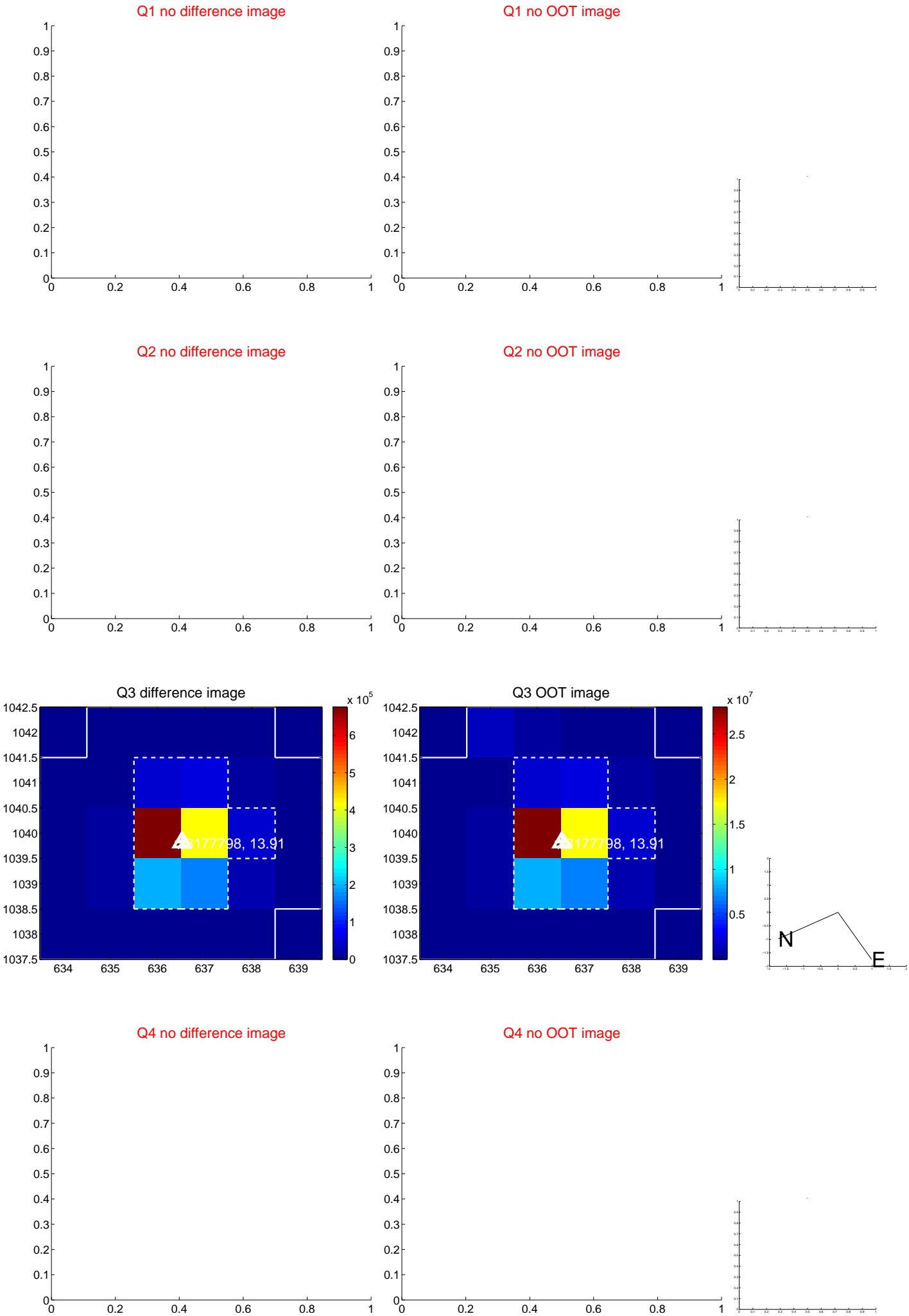
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.016 ± 0.067	0.25	0.013 ± 0.067	0.009 ± 0.067
PRF-fit source offset from KIC position	0.092 ± 0.068	1.37	-0.083 ± 0.068	-0.040 ± 0.068
photometric centroid source offset	0.31 ± 0.00	86.91	-0.31 ± 0.00	0.00 ± 0.00

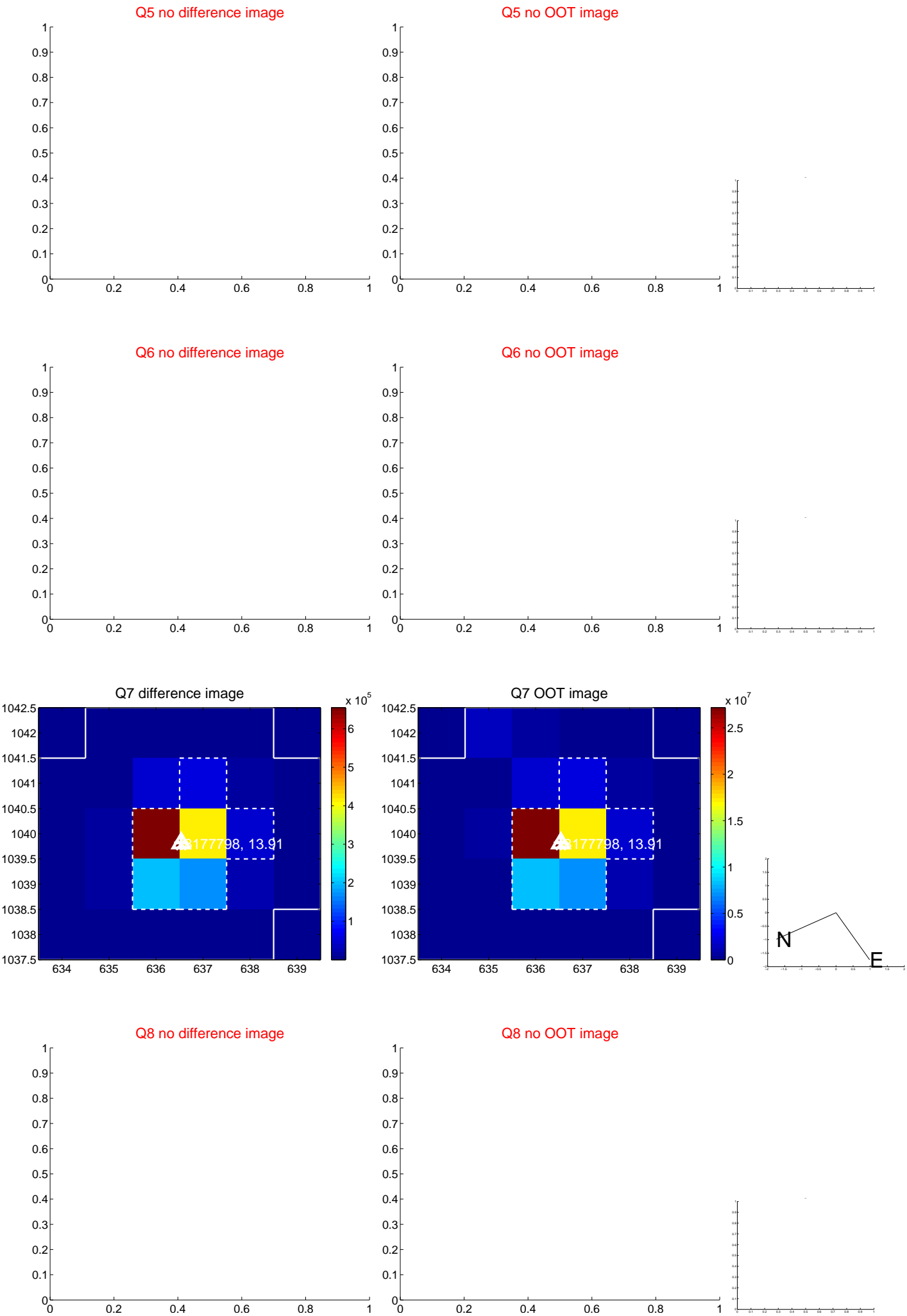


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



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Q9 no difference image



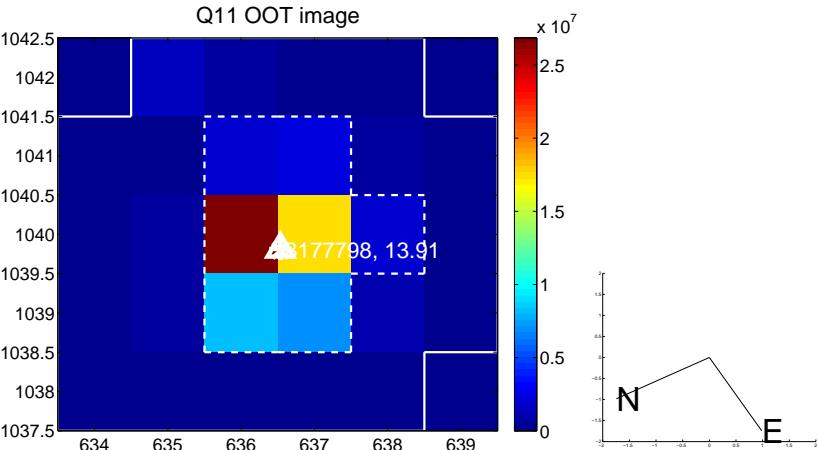
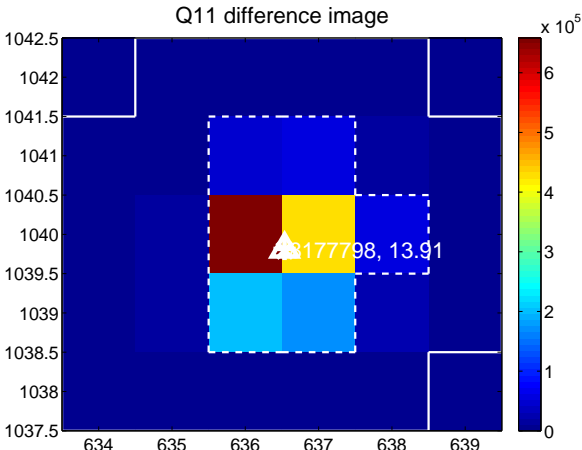
Q9 no OOT image



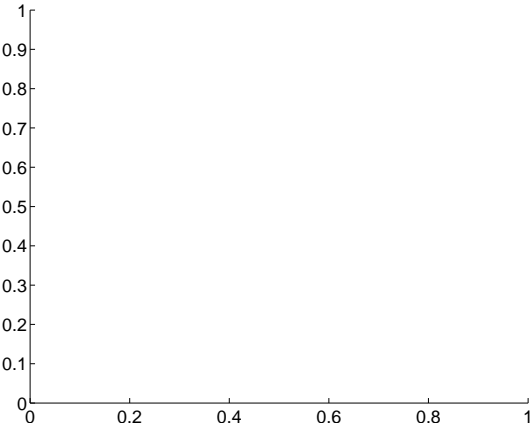
Q10 no difference image



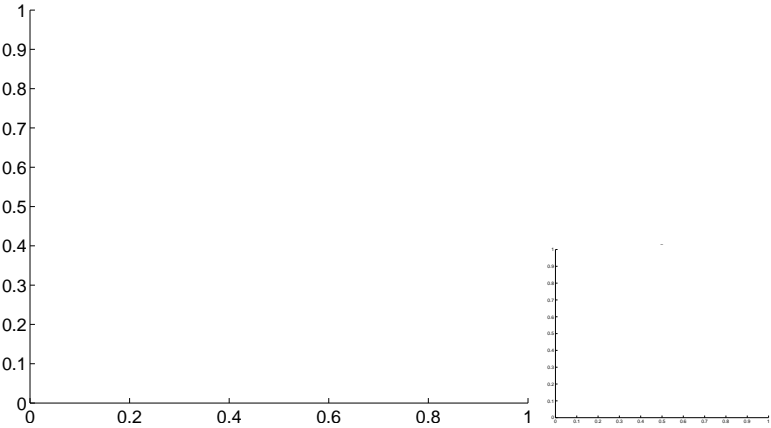
Q10 no OOT image



Q12 no difference image



Q12 no OOT image



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

Q13 no difference image



Q13 no OOT image



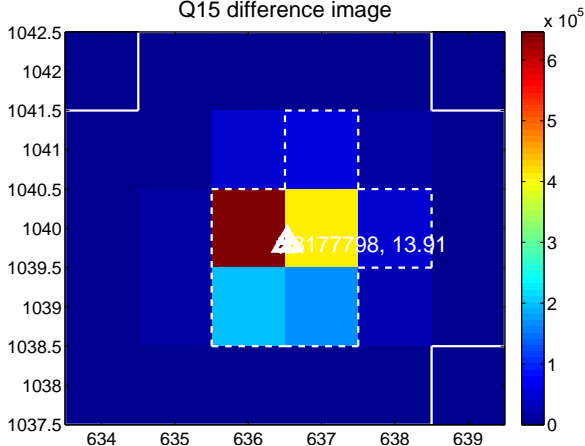
Q14 no difference image



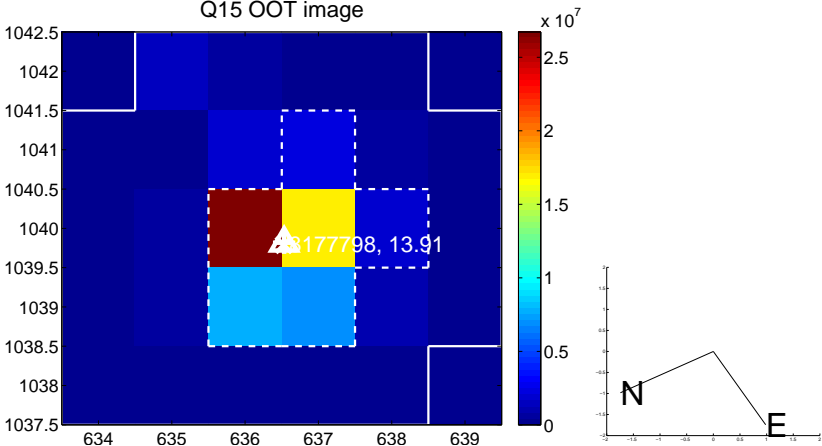
Q14 no OOT image



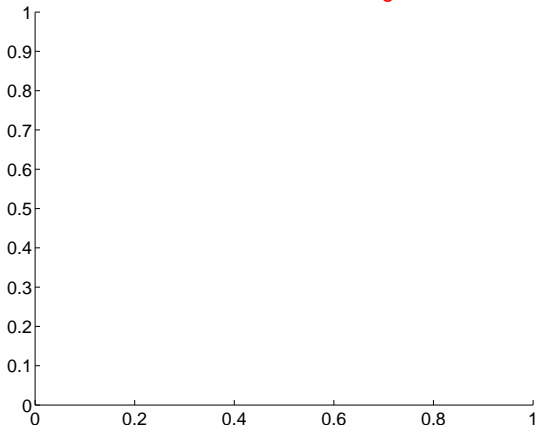
Q15 difference image



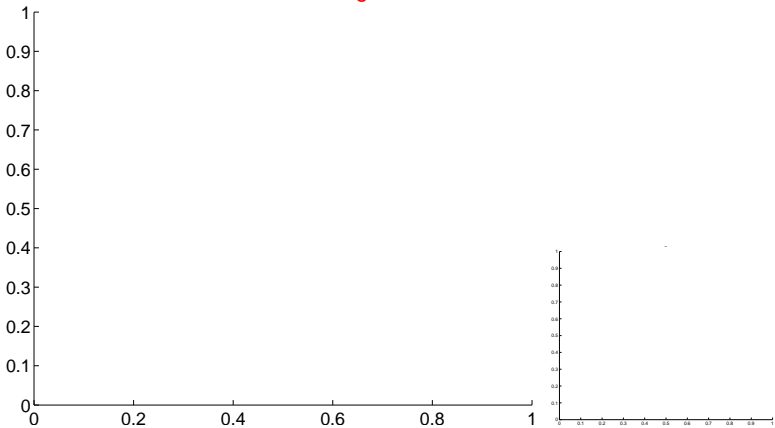
Q15 OOT image



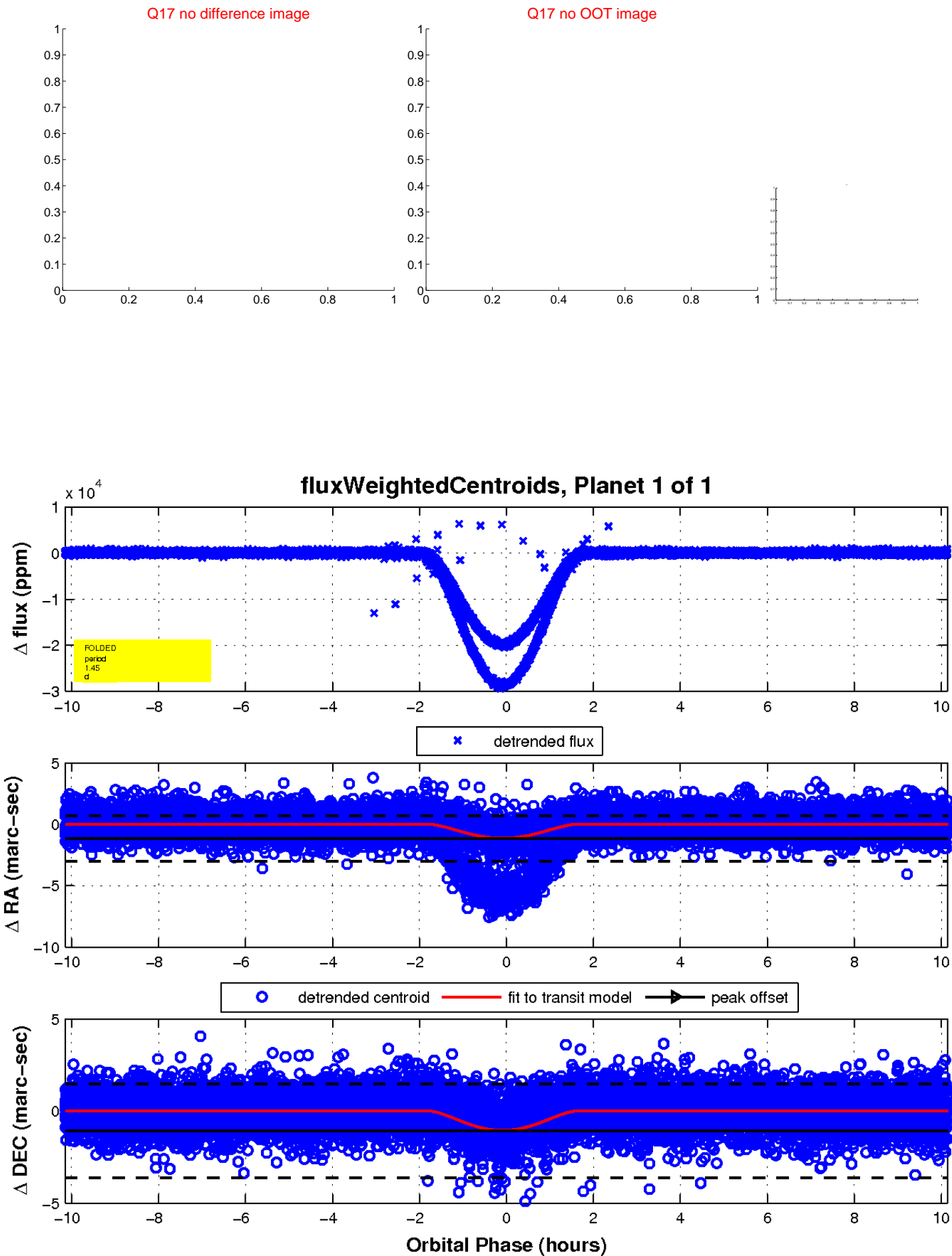
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

