

KIC 009711854

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})
009711854-01	OBS	No	395.479868	166.880029	358.8	8.202	7.4	8.3	1.08	6181	2.23	1.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009711854-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

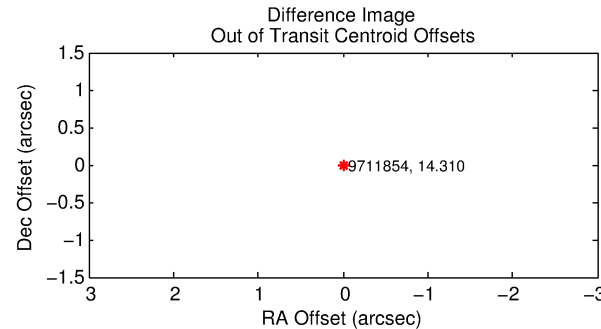
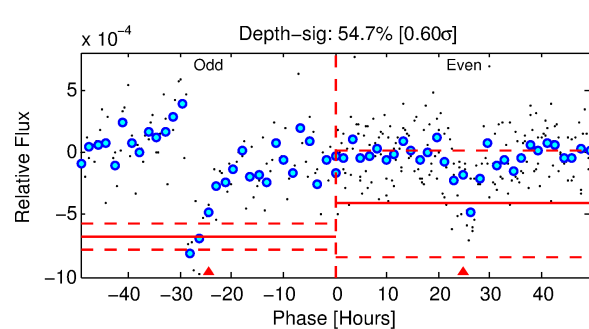
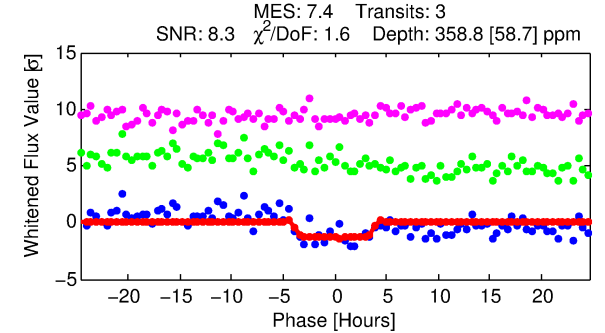
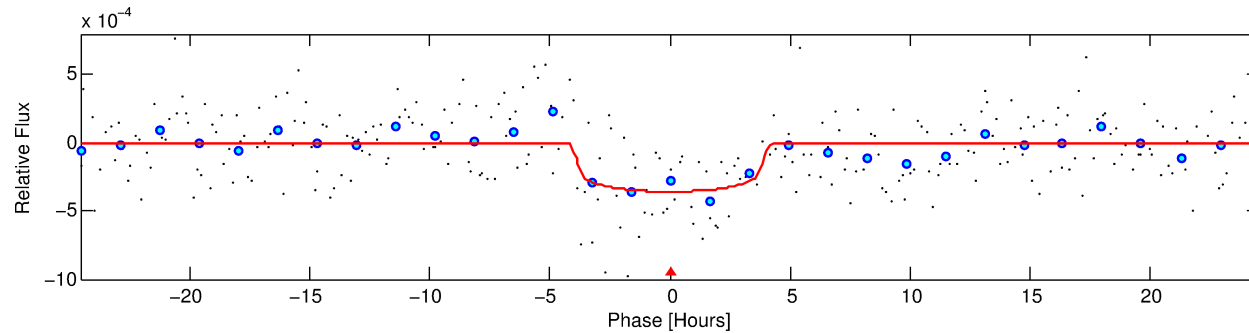
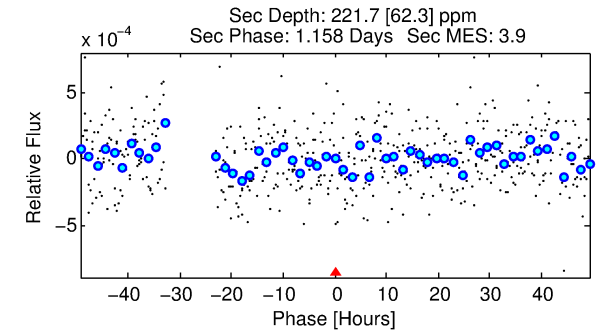
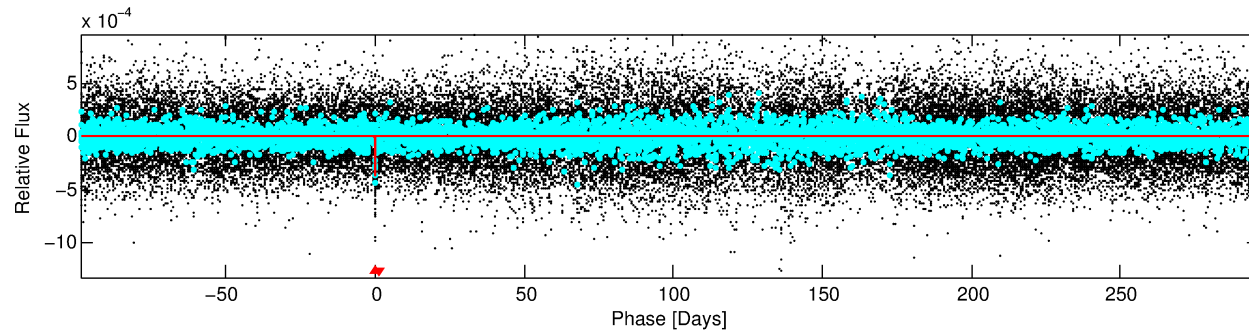
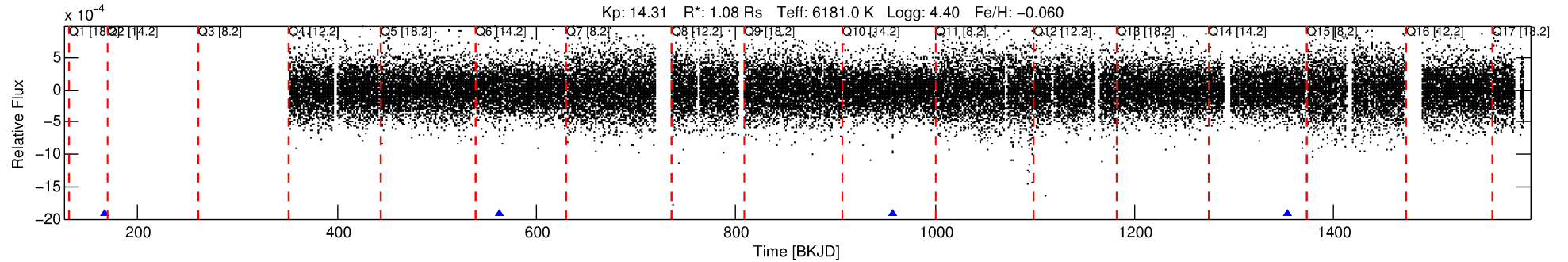
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009711854-01

No Significant Match Found

DV One-Page Summary

KIC: 9711854 Candidate: 1 of 1 Period: 395.480 d



DV Fit Results:

Period = 395.47987 [0.01261] d
Epoch = 166.8800 [0.0282] BKJD
Rp/R* = 0.0190 [0.0127]
a/R* = 245.48 [824.31]
b = 0.77 [1.79]
Seff = 1.30 [0.56]
Teq = 272 [30] K
Rp = 2.23 [1.67] Re
a = 1.0809 [0.2993] AU
Ag = 28533.47 [40653.78] [0.70σ]
Teffp = 5475 [1886] K [2.76σ]

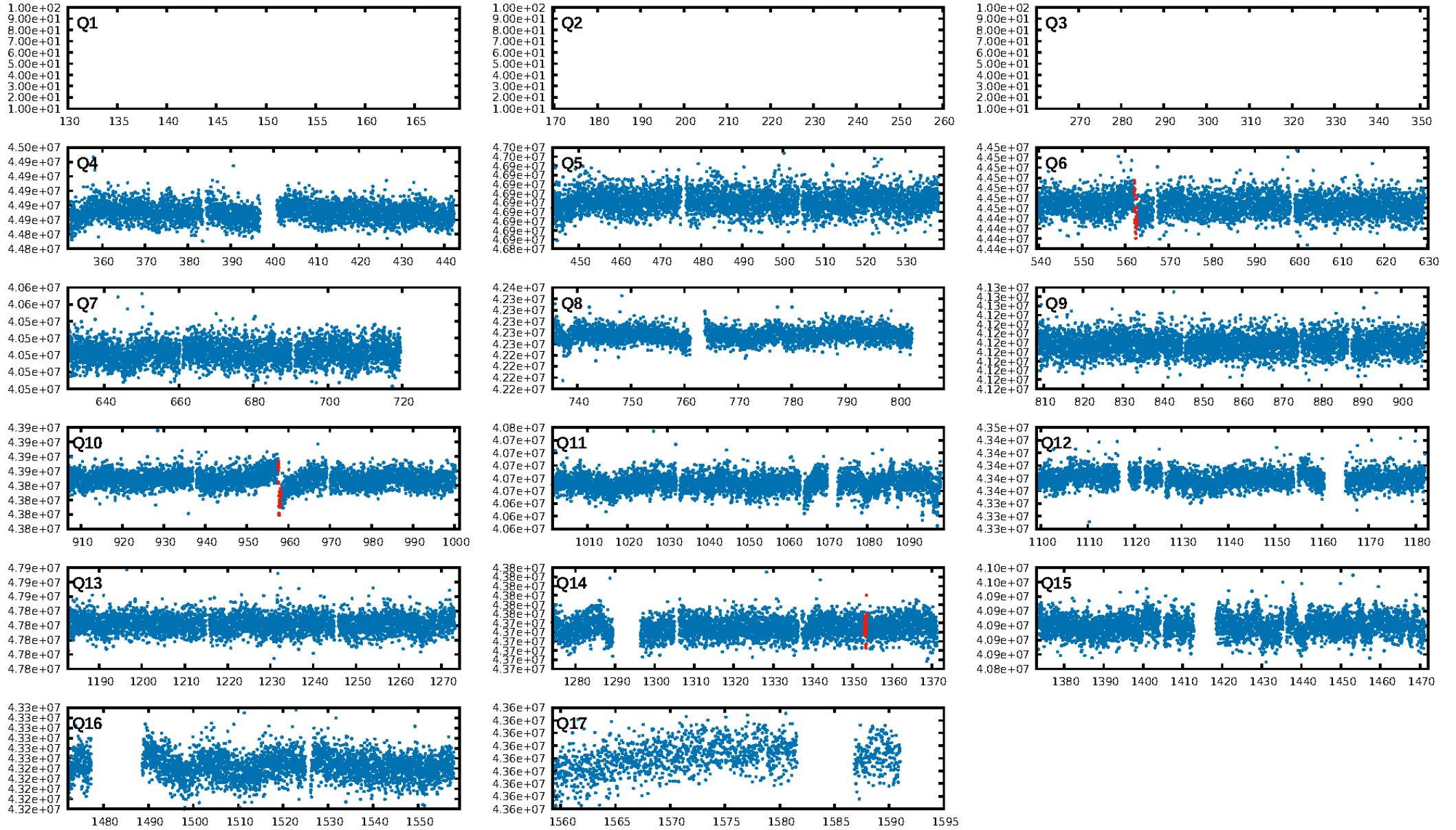
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 10.1%
Bootstrap-pfa: 7.26e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.8321
Centroid-sig: 34.6%
Centroid-so: 1.053 arcsec [0.87σ]
OotOffset-rm: N/A
KicOffset-rm: 1.143 arcsec [2.22σ]
OotOffset-st: 0/0/0 [0]
KicOffset-st: 1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

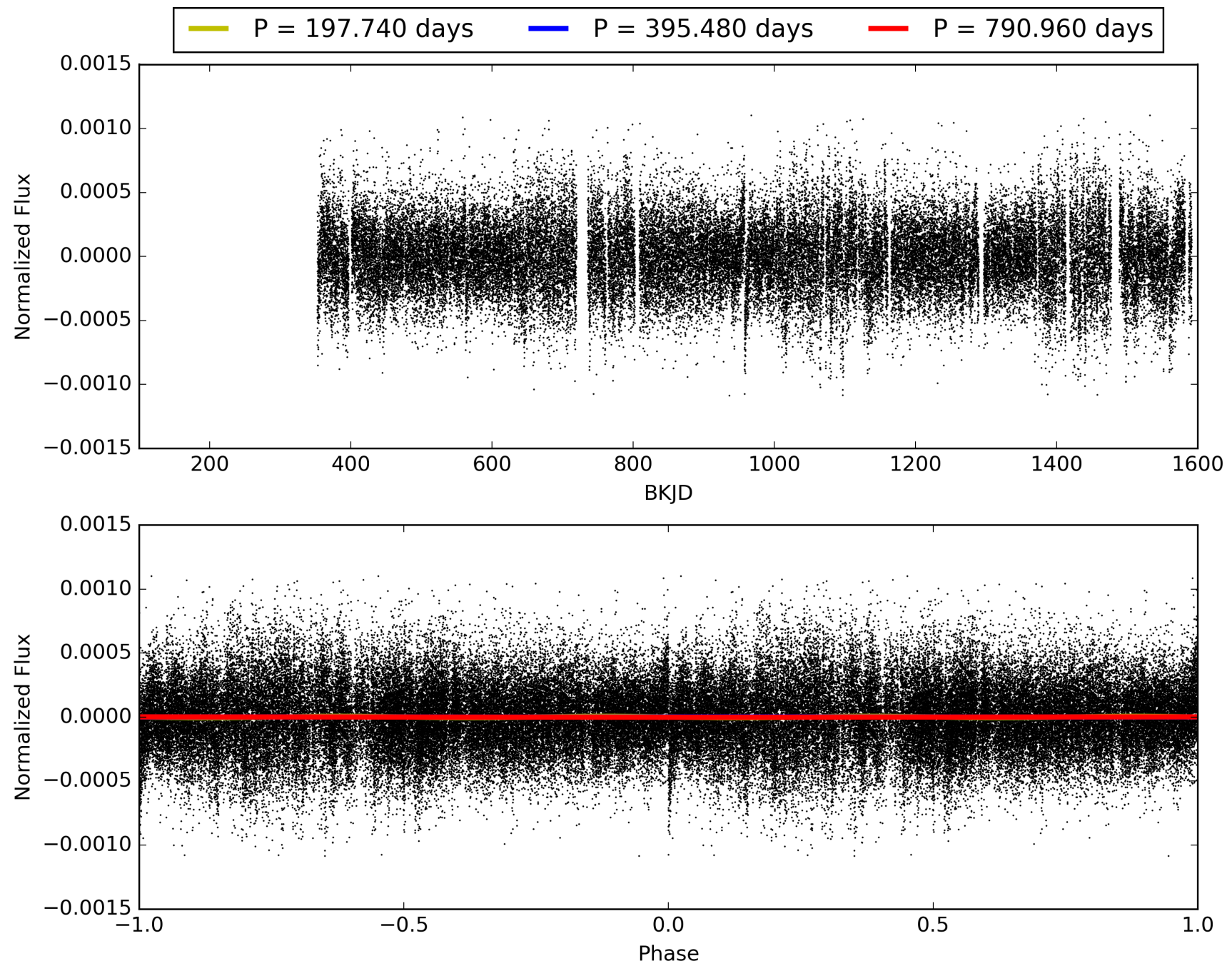
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:28:56 Z

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

TCE 009711854-01, PDC Light Curves

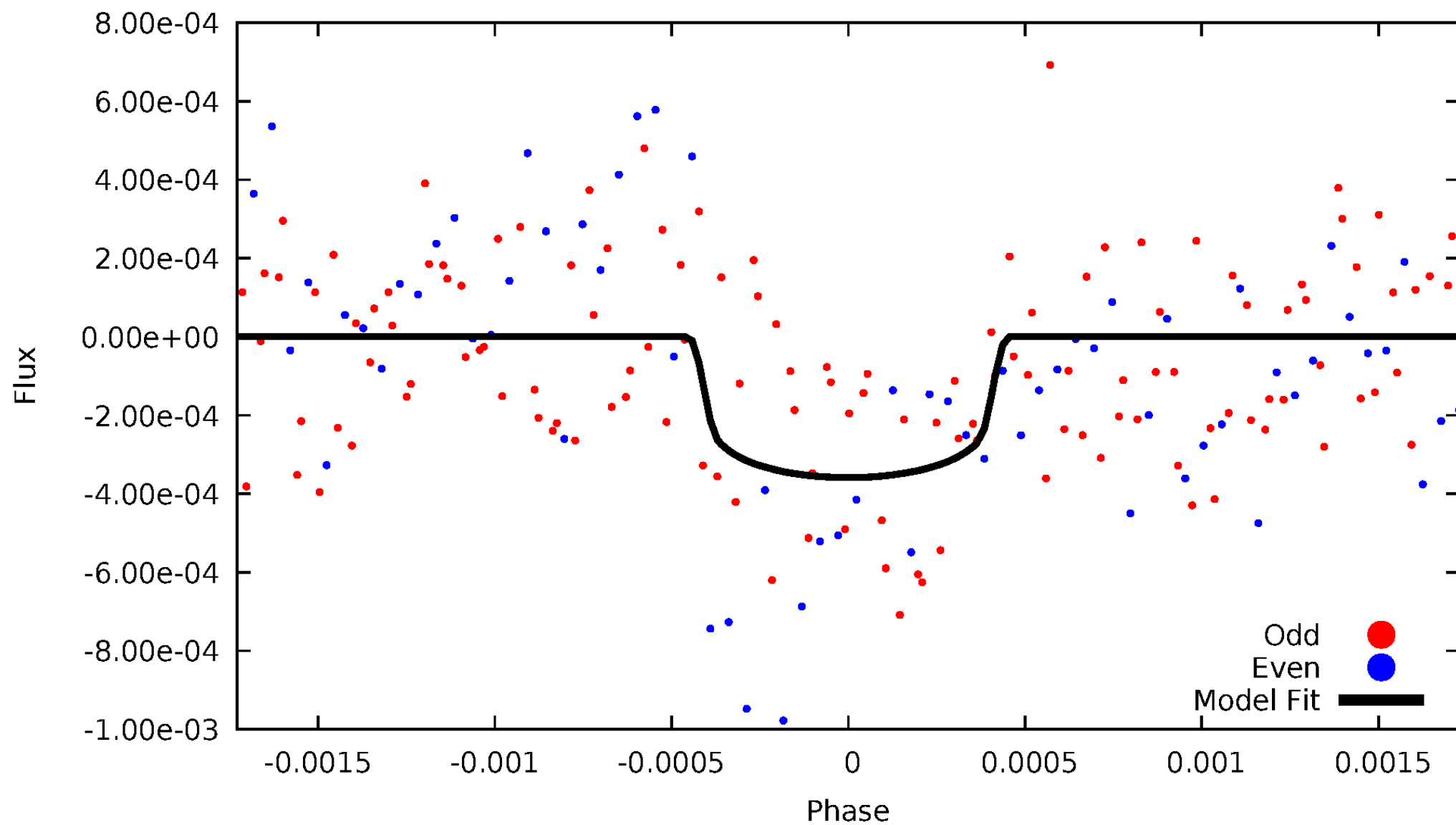


TCE 009711854-01



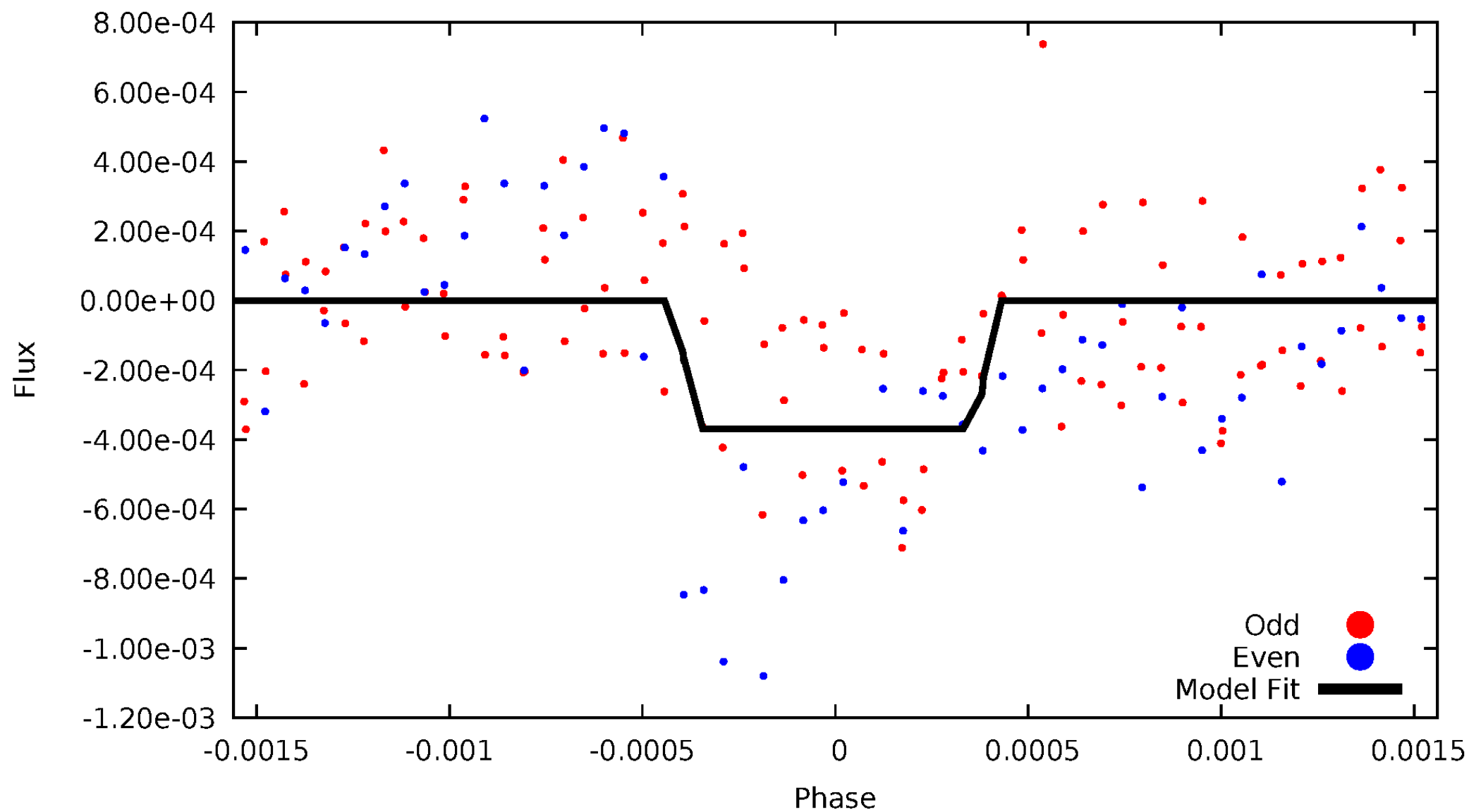
DV Odd/Even

TCE 009711854-01

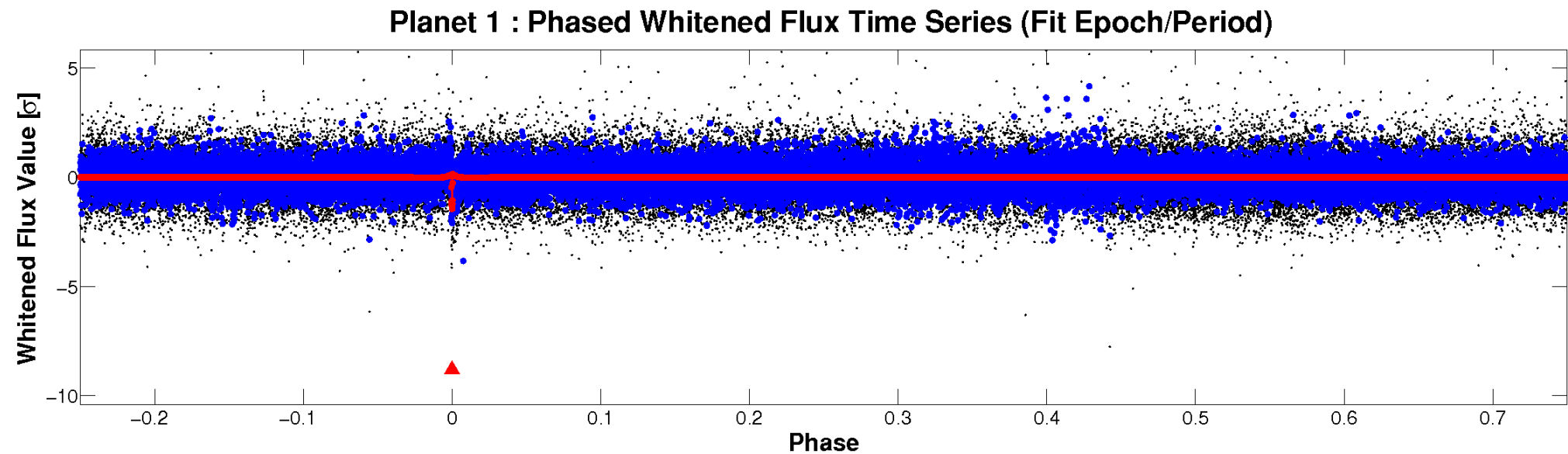
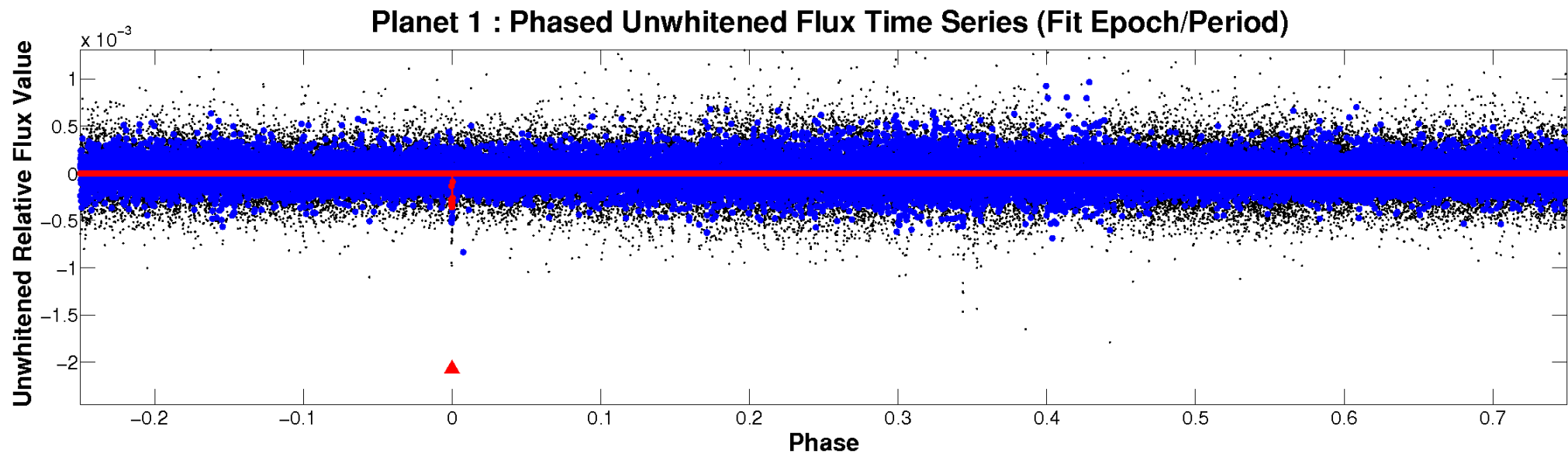


ALT Odd/Even

TCE 009711854-01

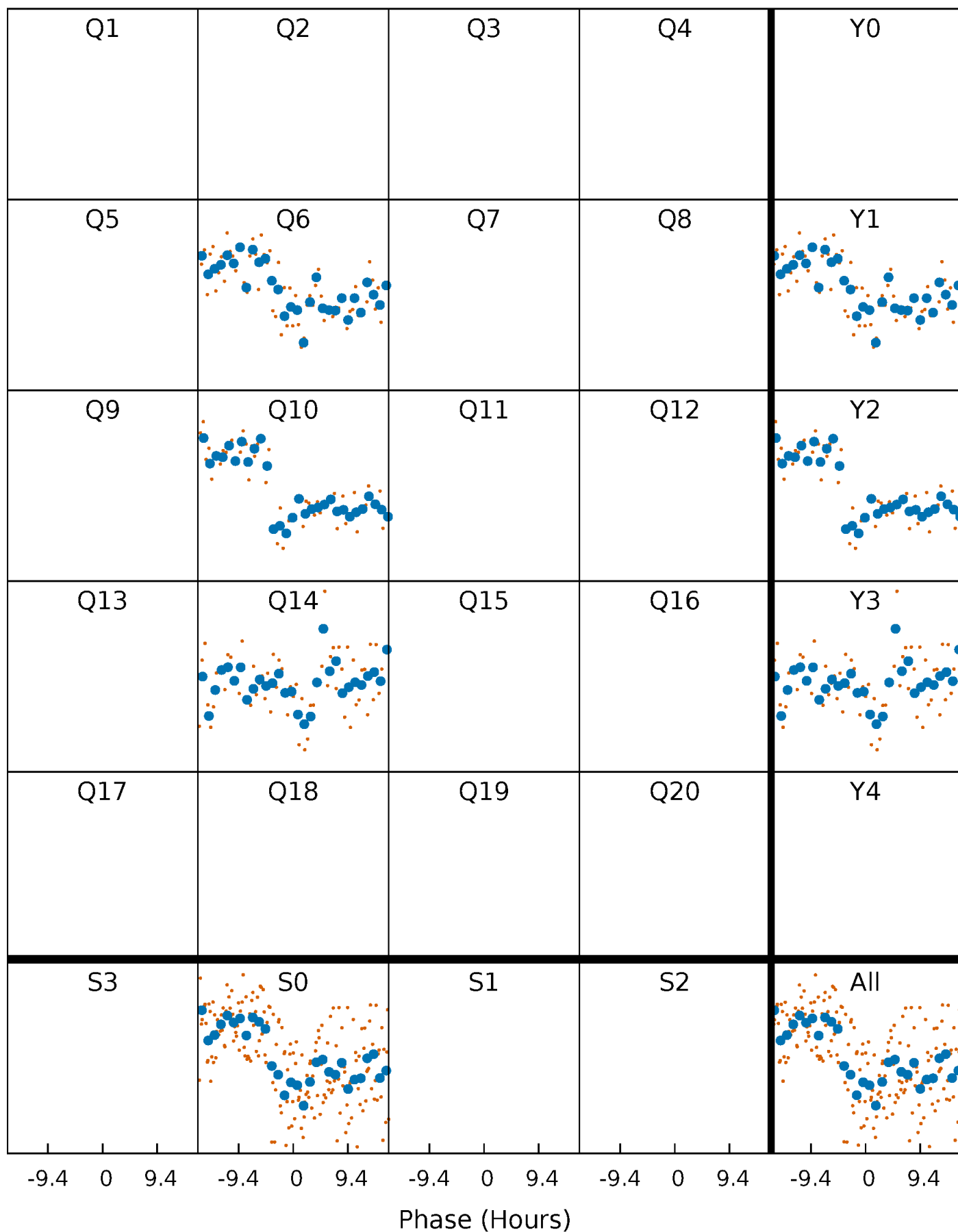


Non-Whitened Vs. Whitened Light Curve



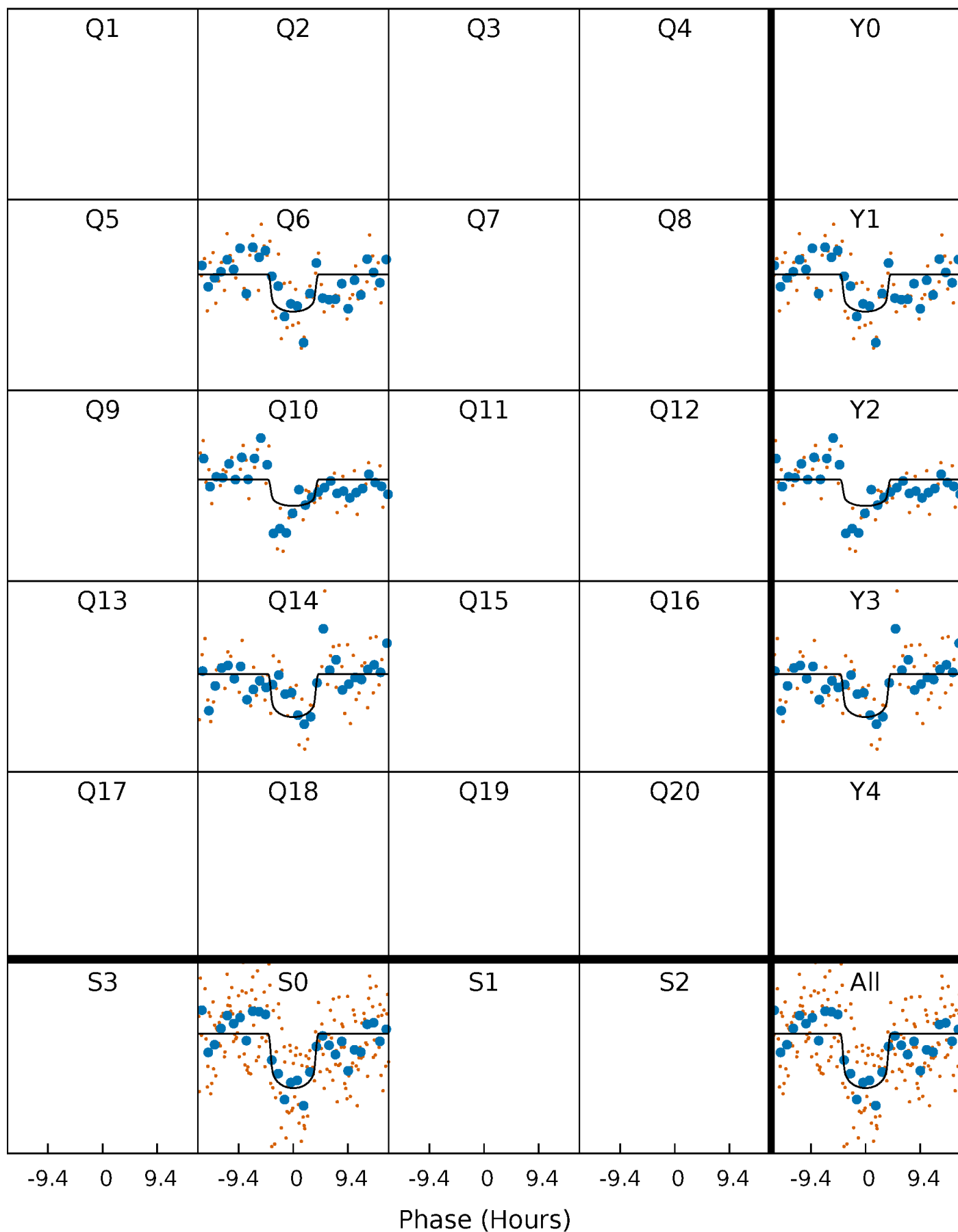
PDC Quarter-Phased Transit Curves

TCE 009711854-01 P=395.479868 Days $T_0=166.880029$ (BKJD)



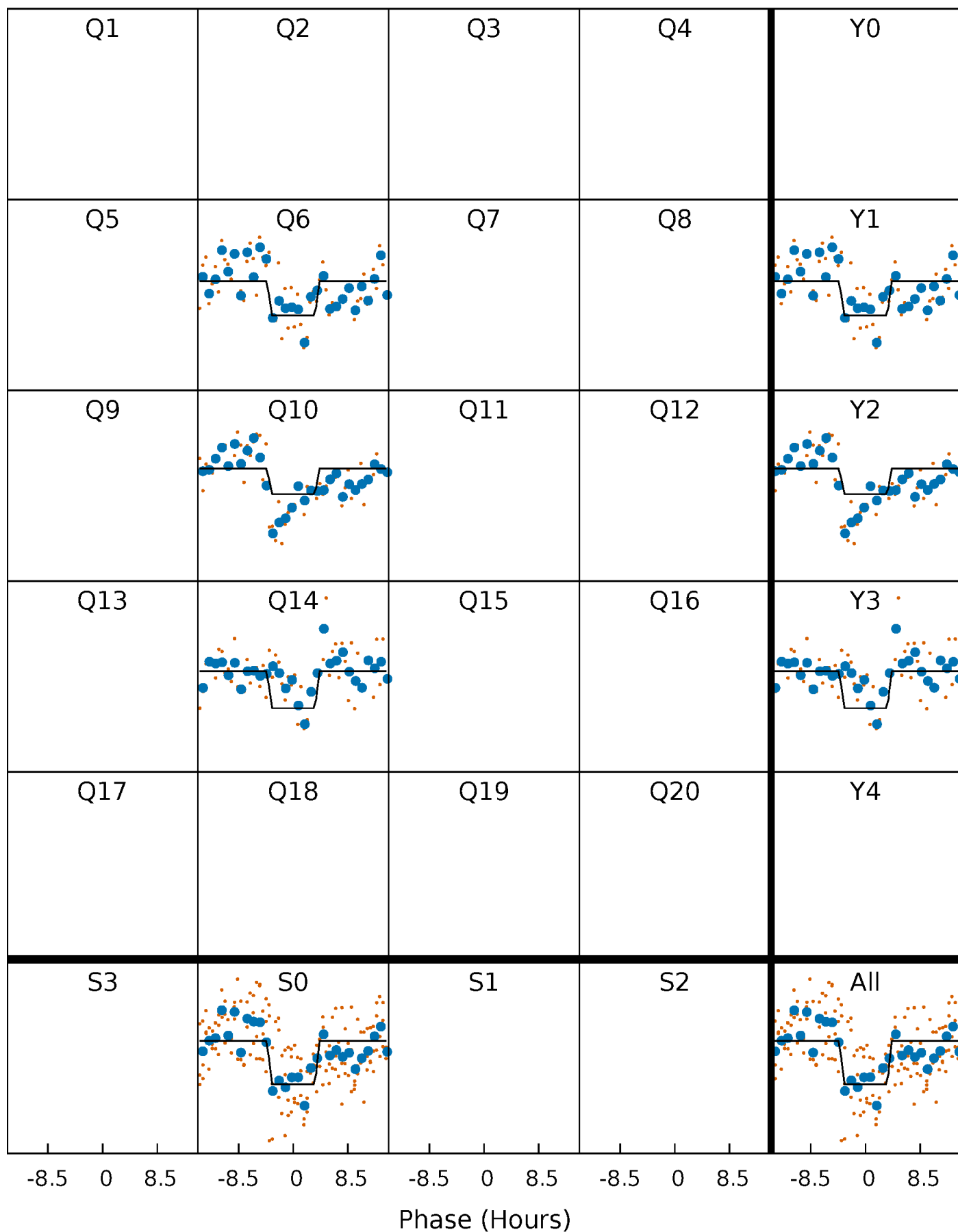
DV Quarter-Phased Transit Curves

TCE 009711854-01 P=395.479868 Days $T_0=166.880029$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

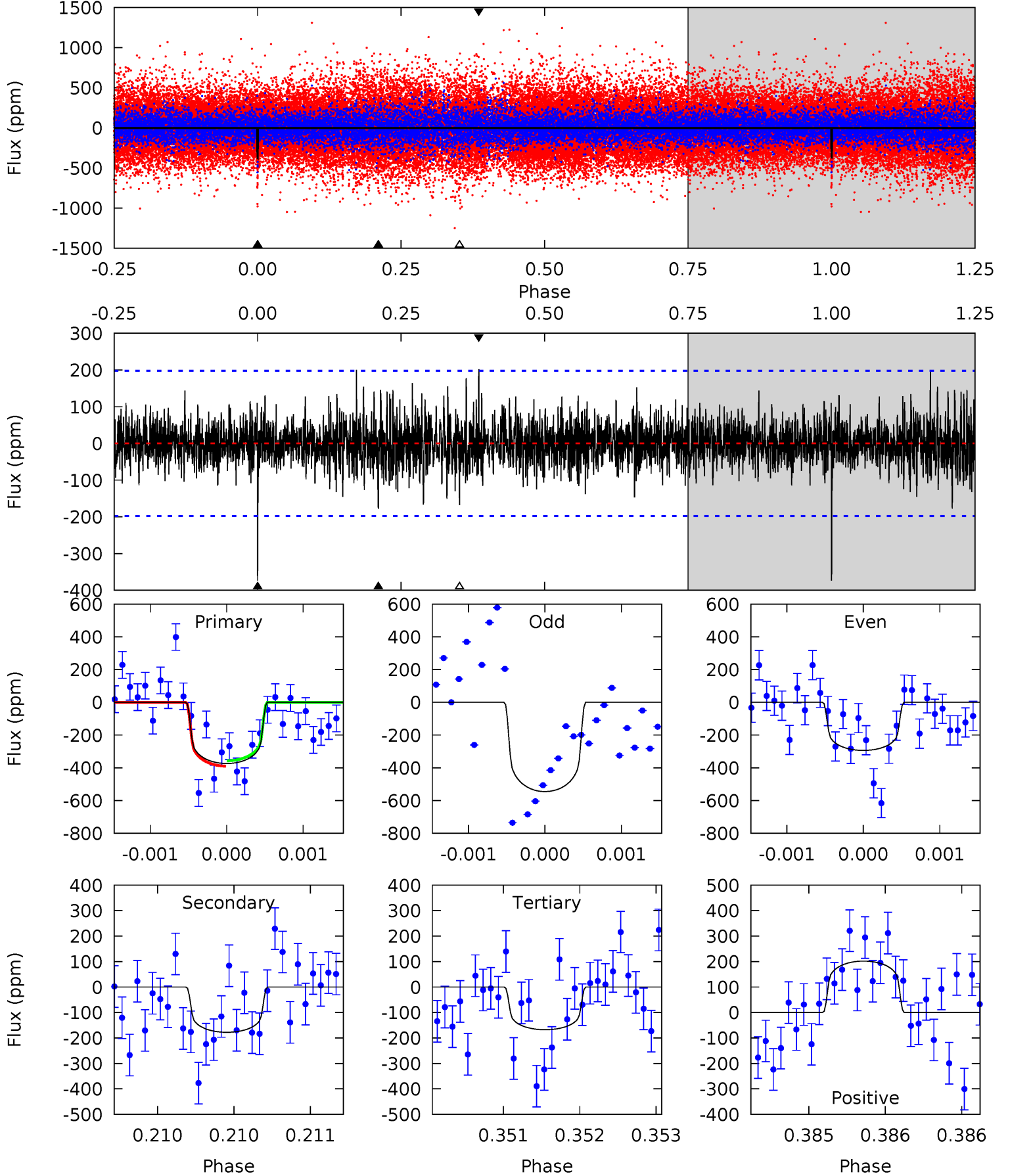
TCE 009711854-01 P=395.491554 Days $T_0=166.857741$ (BKJD)



DV Model-Shift Uniqueness Test

009711854-01, $P = 395.479868$ Days, $E = 166.880029$ Days

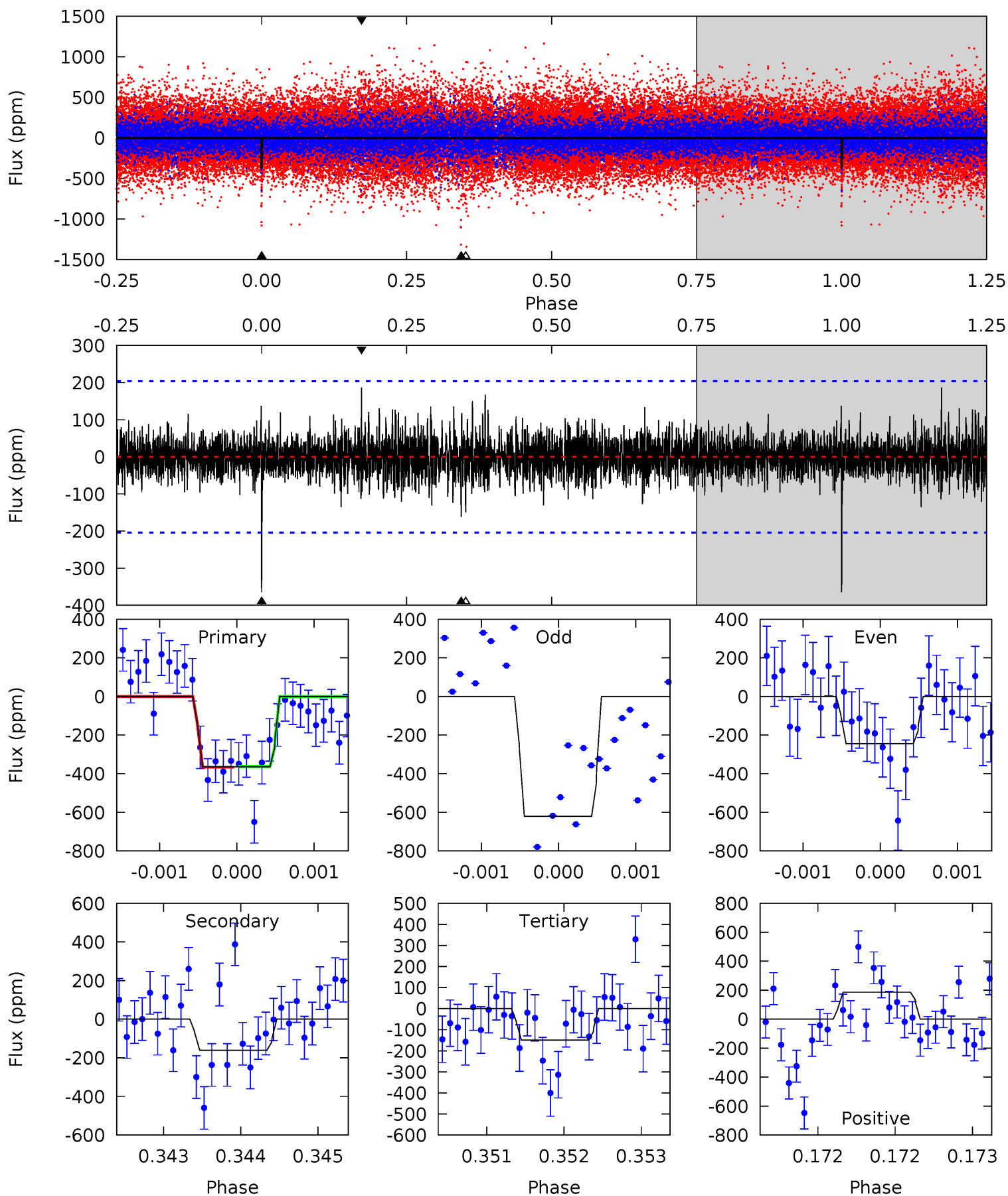
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	4.92	4.64	5.59	5.48	3.33	1.24	5.72	4.77	0.28	-0.67	3.23	1.11	0.35	0.46



Alt Model-Shift Uniqueness Test

009711854-01, P = 395.491554 Days, E = 166.857741 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.81	4.34	4.02	5.03	5.50	3.36	1.01	5.79	4.78	0.32	-0.69	4.69	1.17	0.34	0.05



Stellar Parameters For KIC 009711854

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6181^{+194}_{-259}	$4.404^{+0.087}_{-0.217}$	$-0.060^{+0.250}_{-0.300}$	$1.079^{+0.358}_{-0.154}$	$1.074^{+0.168}_{-0.137}$	$1.202^{+0.467}_{-0.639}$
	+3%/-4%	+2%/-5%	+417%/-500%	+33%/-14%	+16%/-13%	+39%/-53%
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 009711854-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-178 ± 36	$2.47^{+1.64}_{-1.41}$	386^{+30}_{-24}	5074^{+2592}_{-898}	18436^{+81310}_{-11842}
Alt.	-161 ± 37	$2.47^{+1.69}_{-1.36}$	385^{+32}_{-22}	4977^{+2378}_{-926}	16575^{+65125}_{-10755}

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

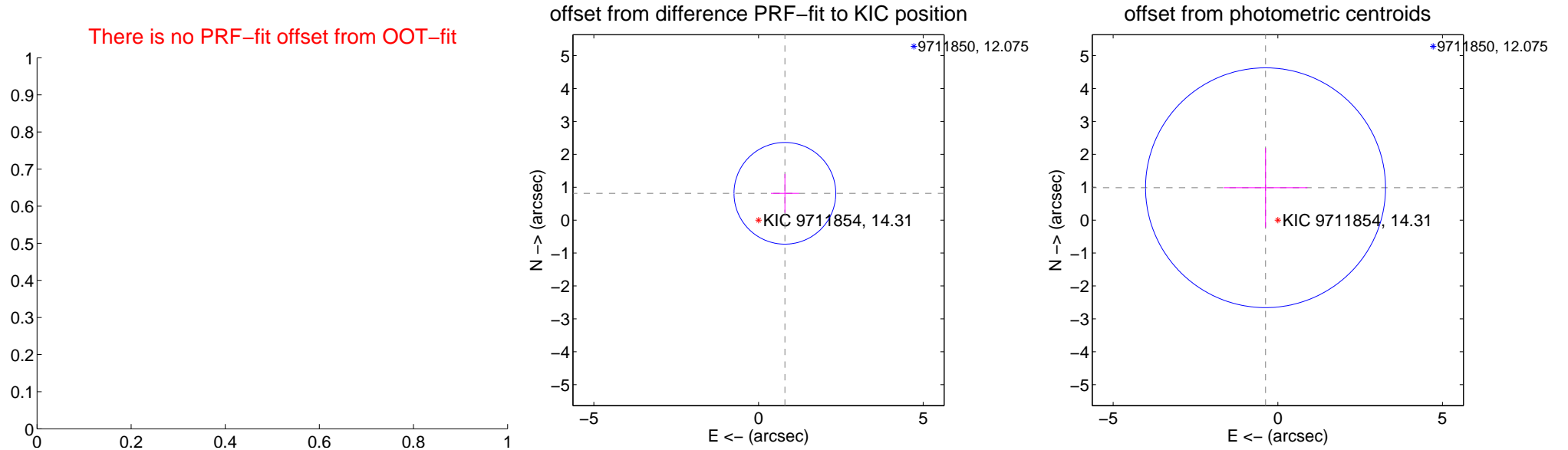
DV Centroid Data

Supplemental centroid analysis for 009711854-01. Kepler magnitude: 14.31. Transit SNR 8.32

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	1.143 ± 0.515	2.22	-0.801 ± 0.424	0.816 ± 0.590
photometric centroid source offset	1.05 ± 1.21	0.87	0.37 ± 1.27	0.98 ± 1.21

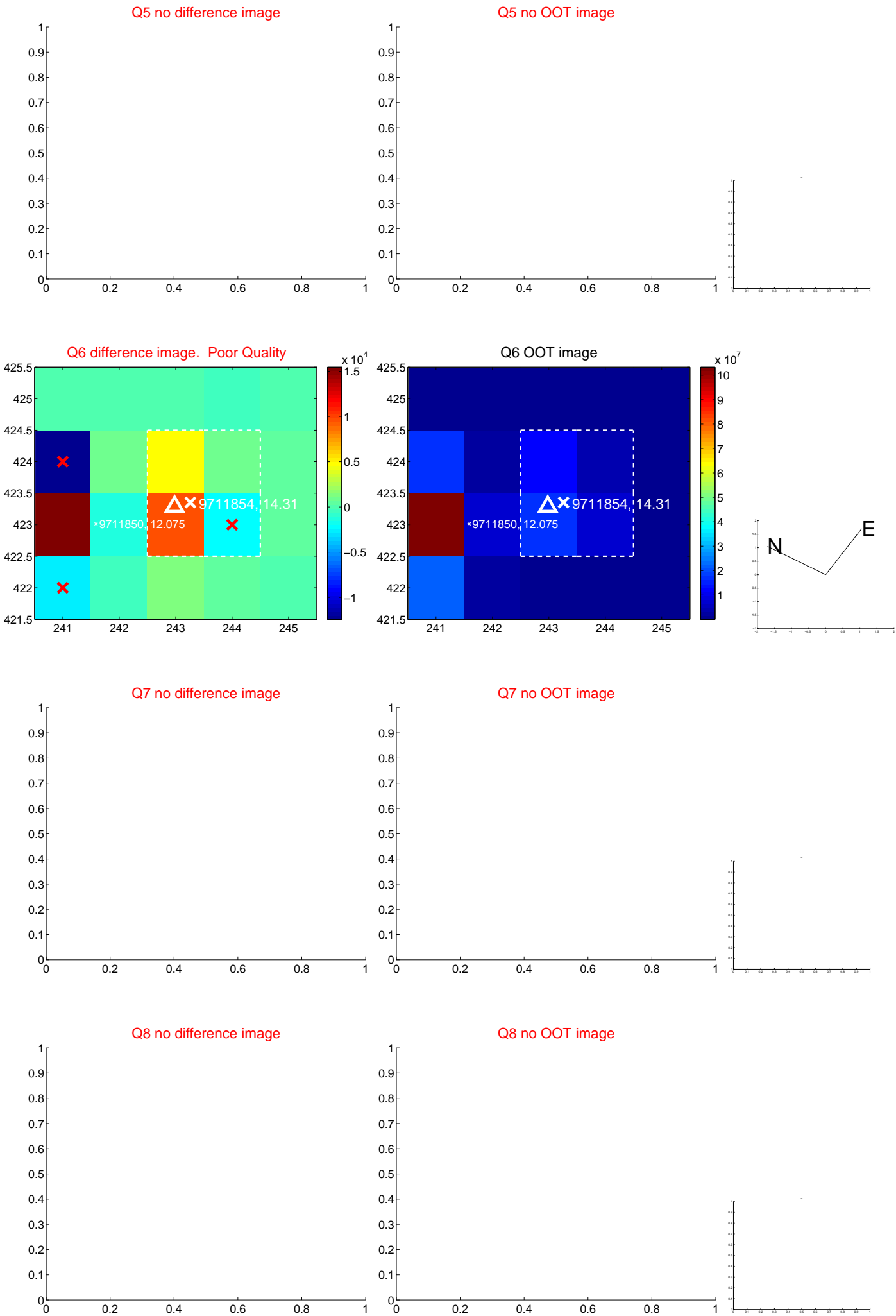


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

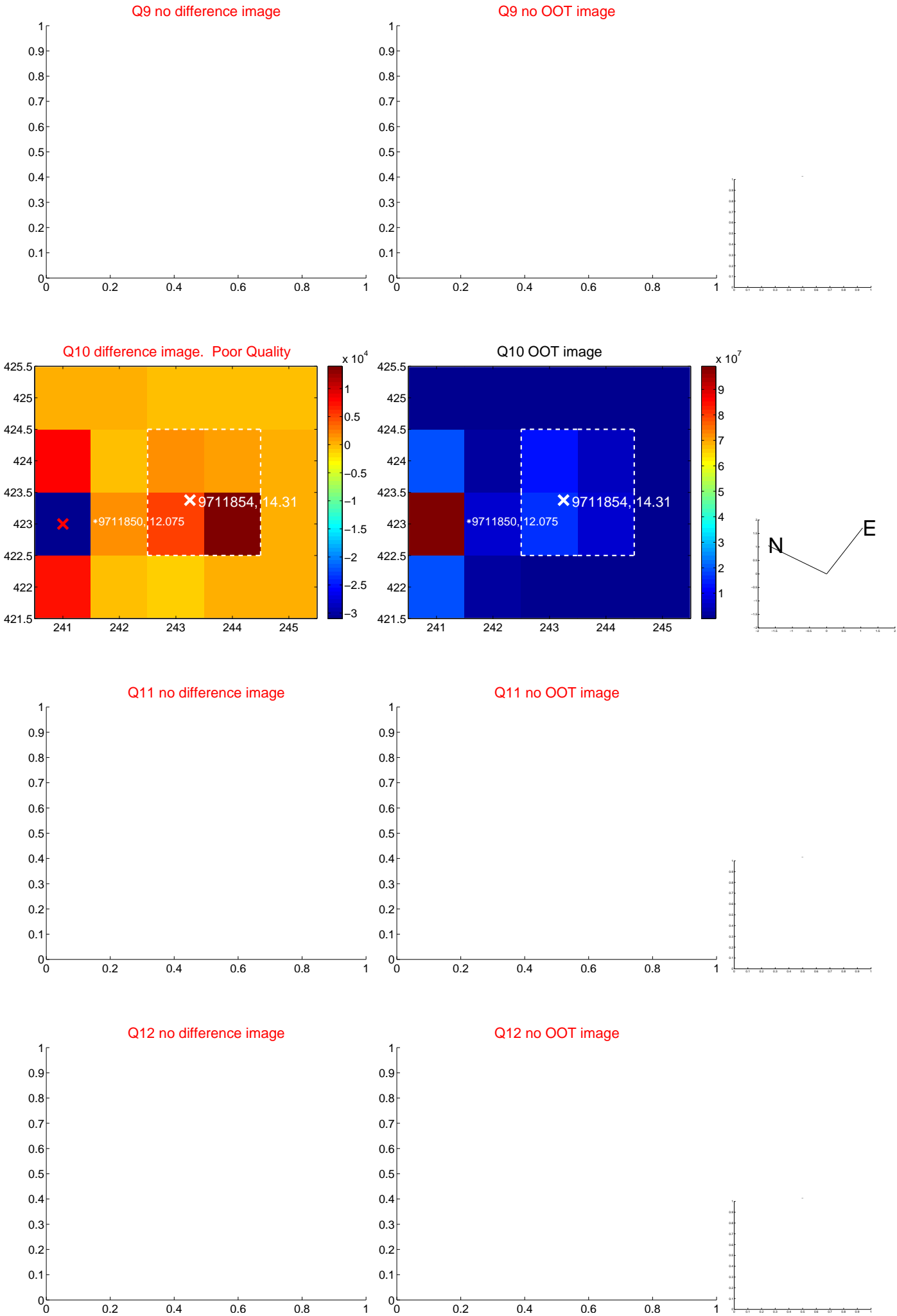
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



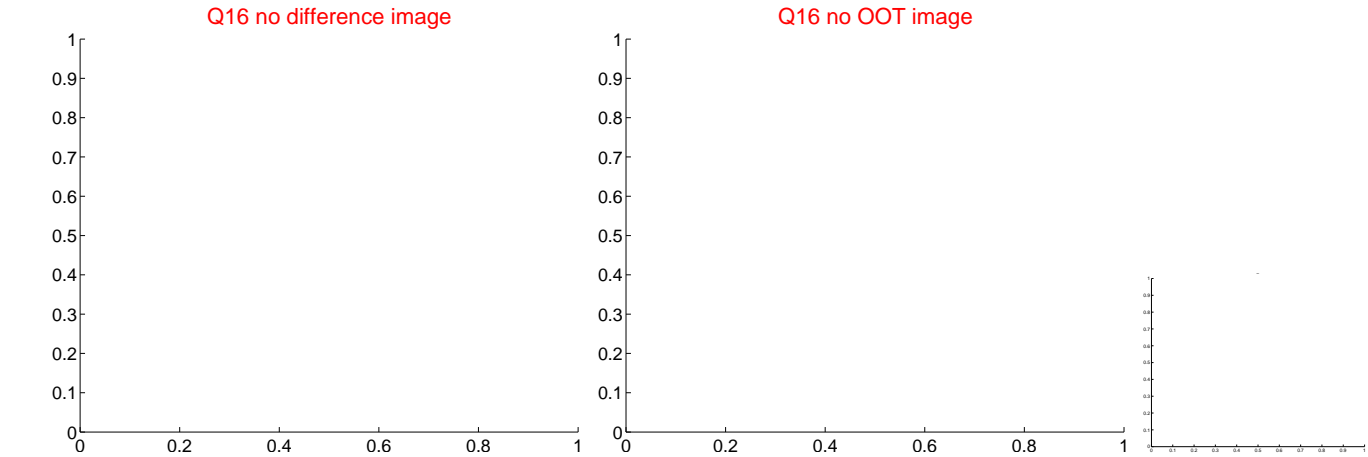
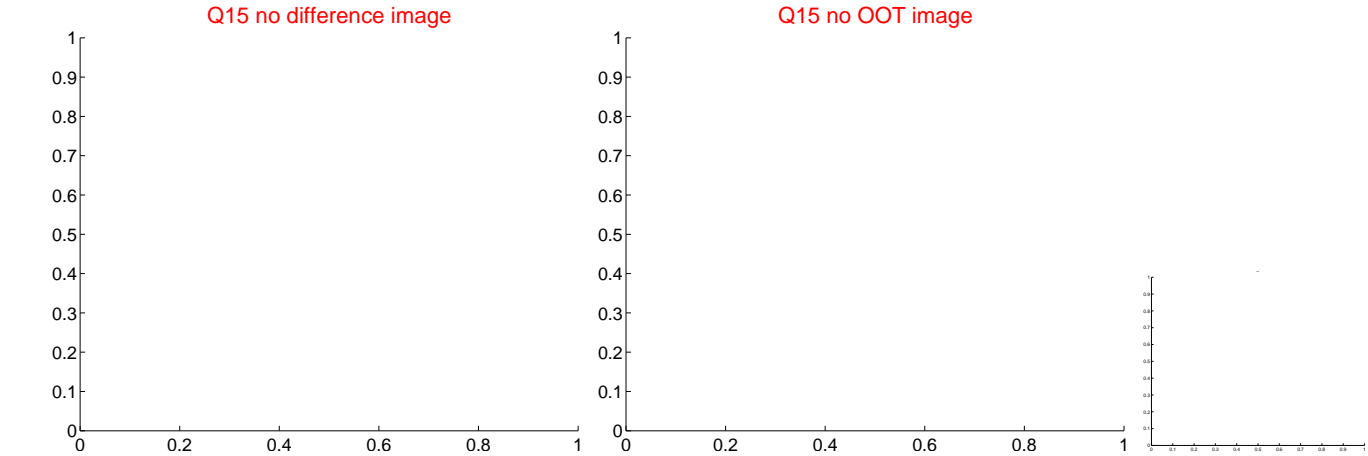
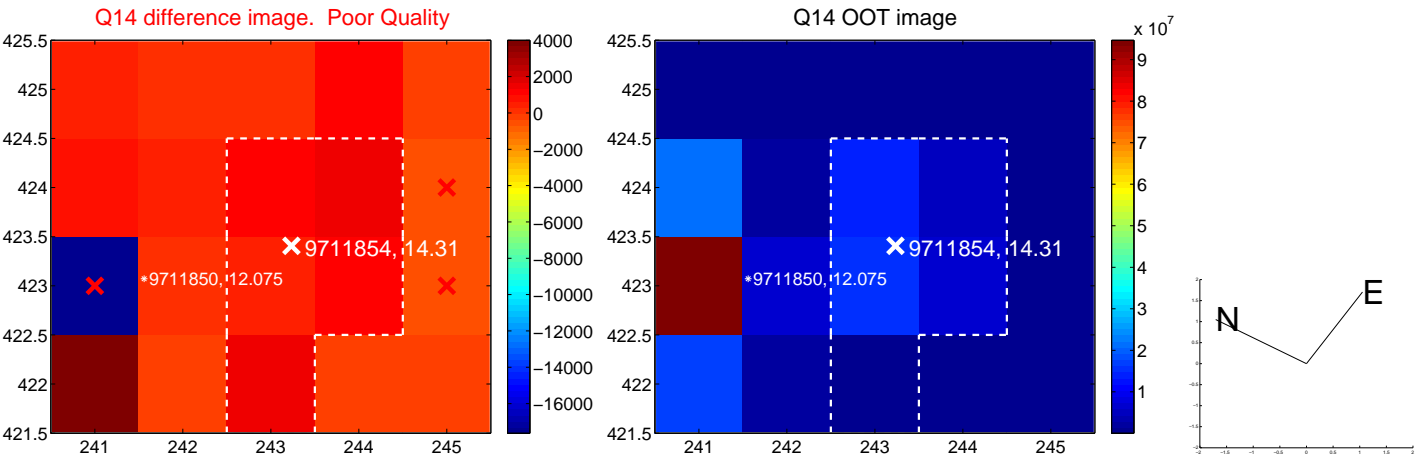
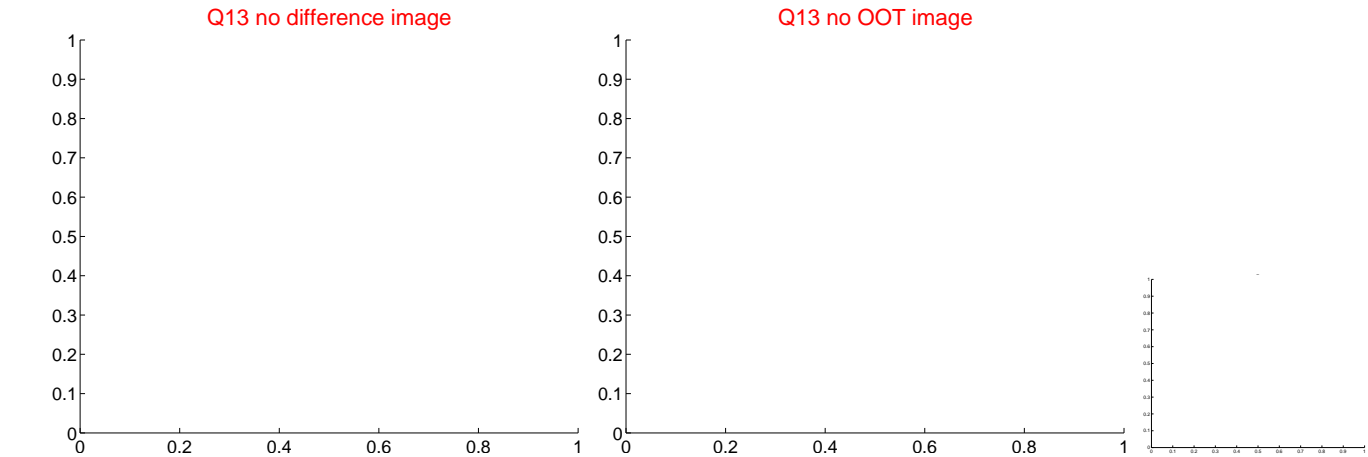
white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



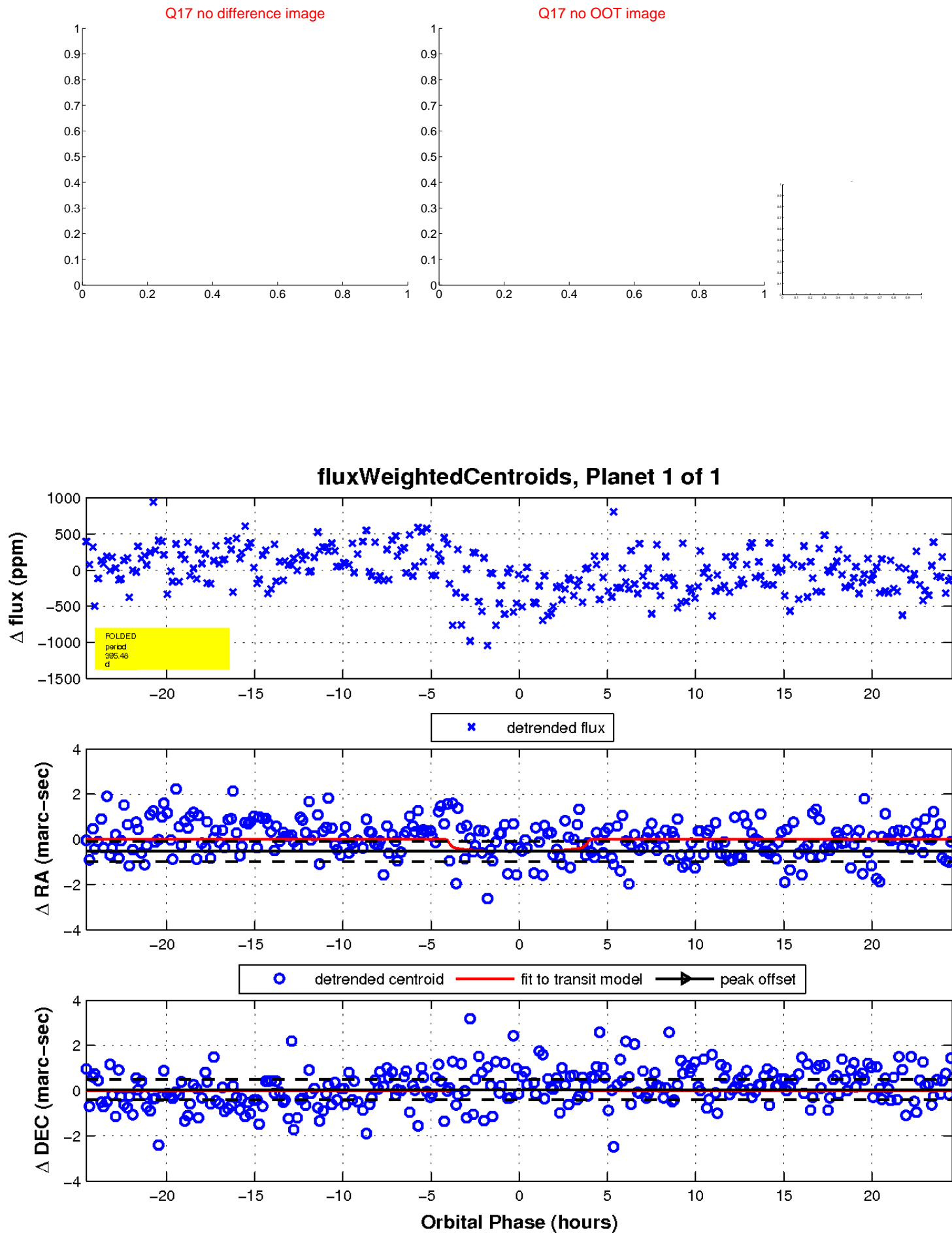
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

