

KIC 006866191

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})
006866191-01	OBS	No	360.925195	455.709928	400.0	14.037	8.2	7.4	0.99	6153	2.13	1.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006866191-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

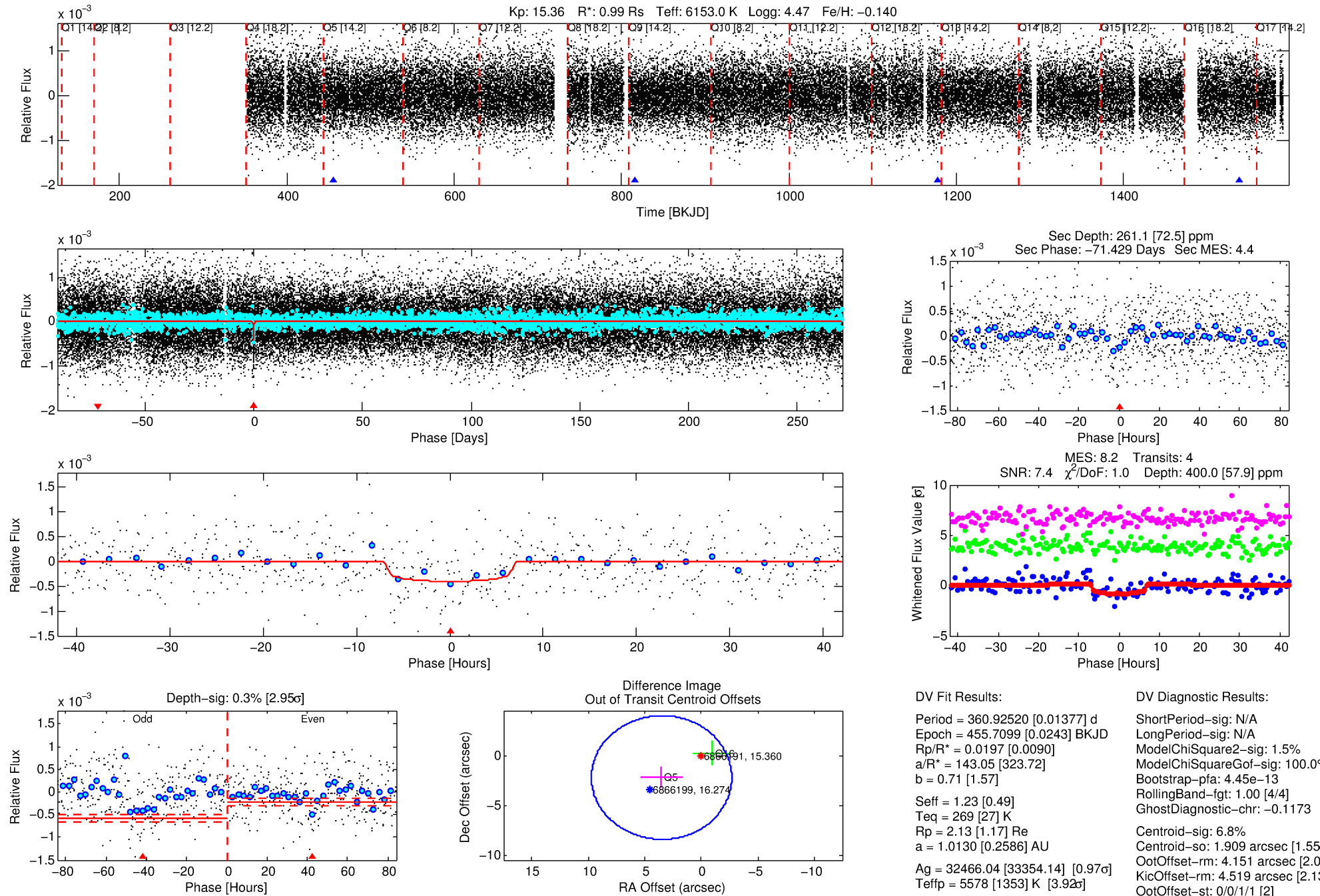
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006866191-01

No Significant Match Found

DV One-Page Summary

KIC: 6866191 Candidate: 1 of 1 Period: 360.925 d



DV Fit Results:

Period = 360.92520 [0.01377] d
Epoch = 455.7099 [0.0243] BKJD
Rp/R* = 0.0197 [0.0090]
a/R* = 143.05 [323.72]
b = 0.71 [1.57]
Seff = 1.23 [0.49]
Teq = 269 [27] K
Rp = 2.13 [1.17] Re
a = 1.0130 [0.2586] AU
Ag = 32466.04 [33354.14] [0.97 σ]
Teff = 5578 [1353] K [3.92 σ]

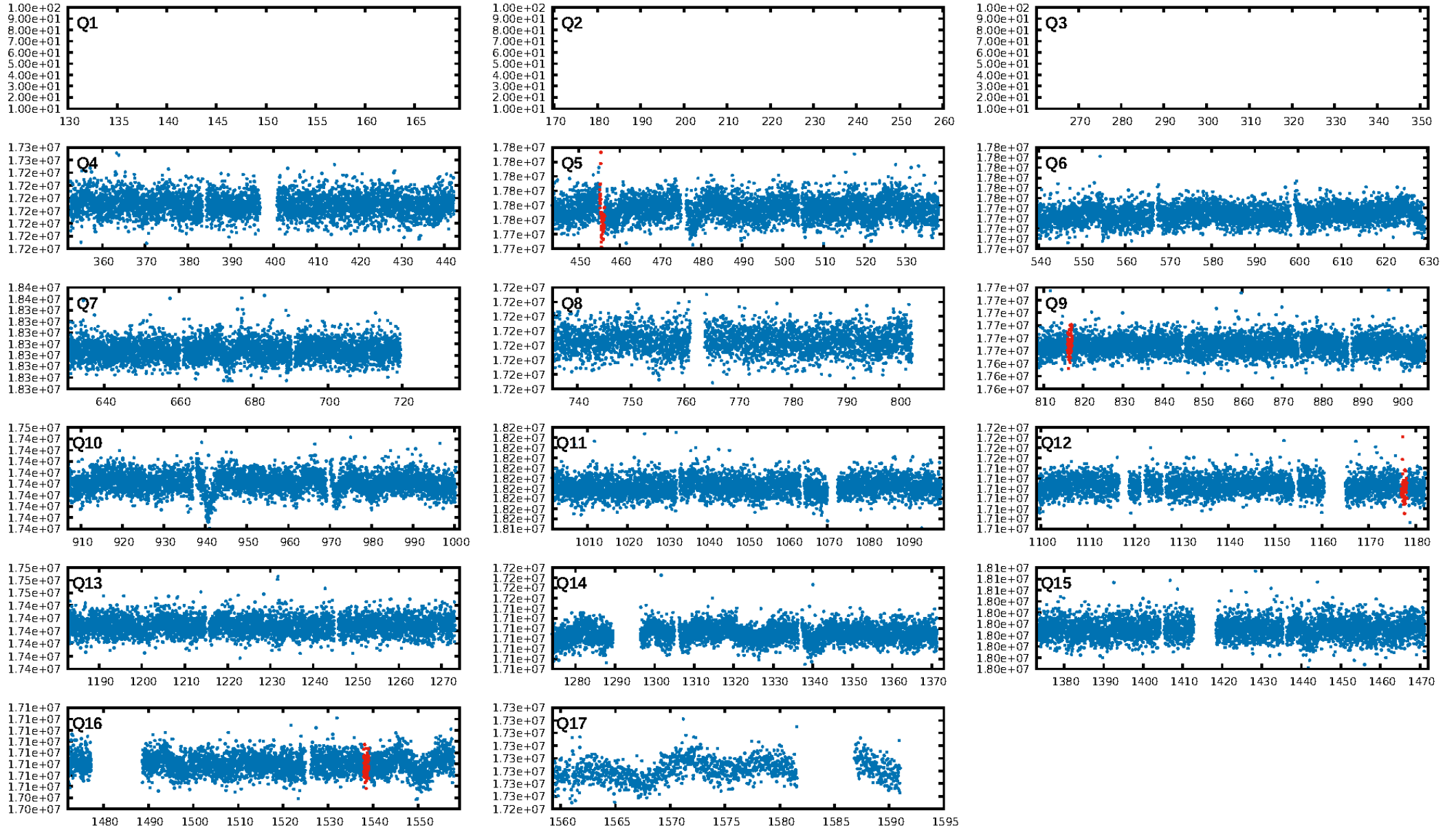
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.45e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.1173
Centroid-sig: 6.8%
Centroid-so: 1.909 arcsec [1.55 σ]
OotOffset-rm: 4.151 arcsec [2.01 σ]
KicOffset-rm: 4.519 arcsec [2.13 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

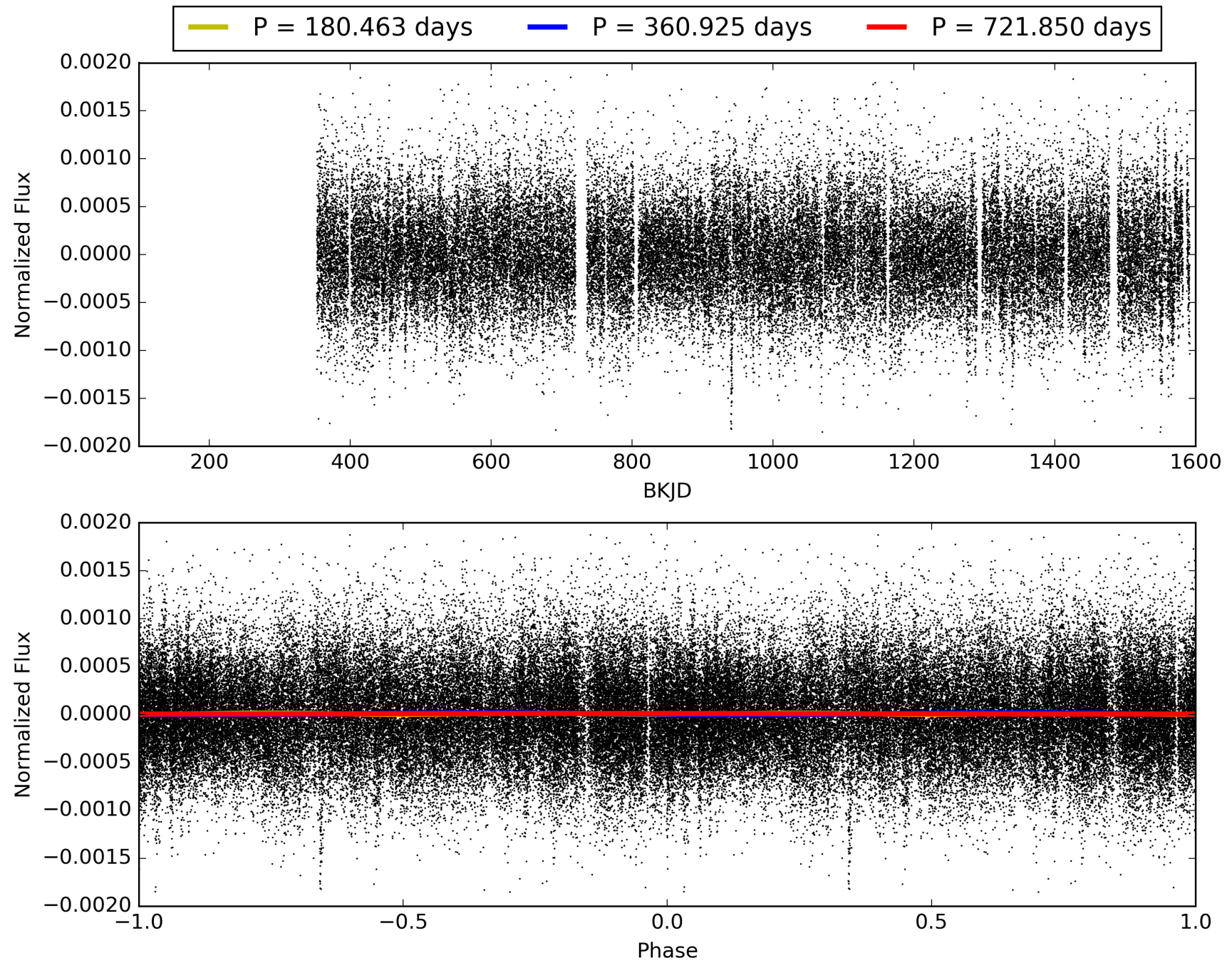
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:50:52 Z

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

TCE 006866191-01, PDC Light Curves

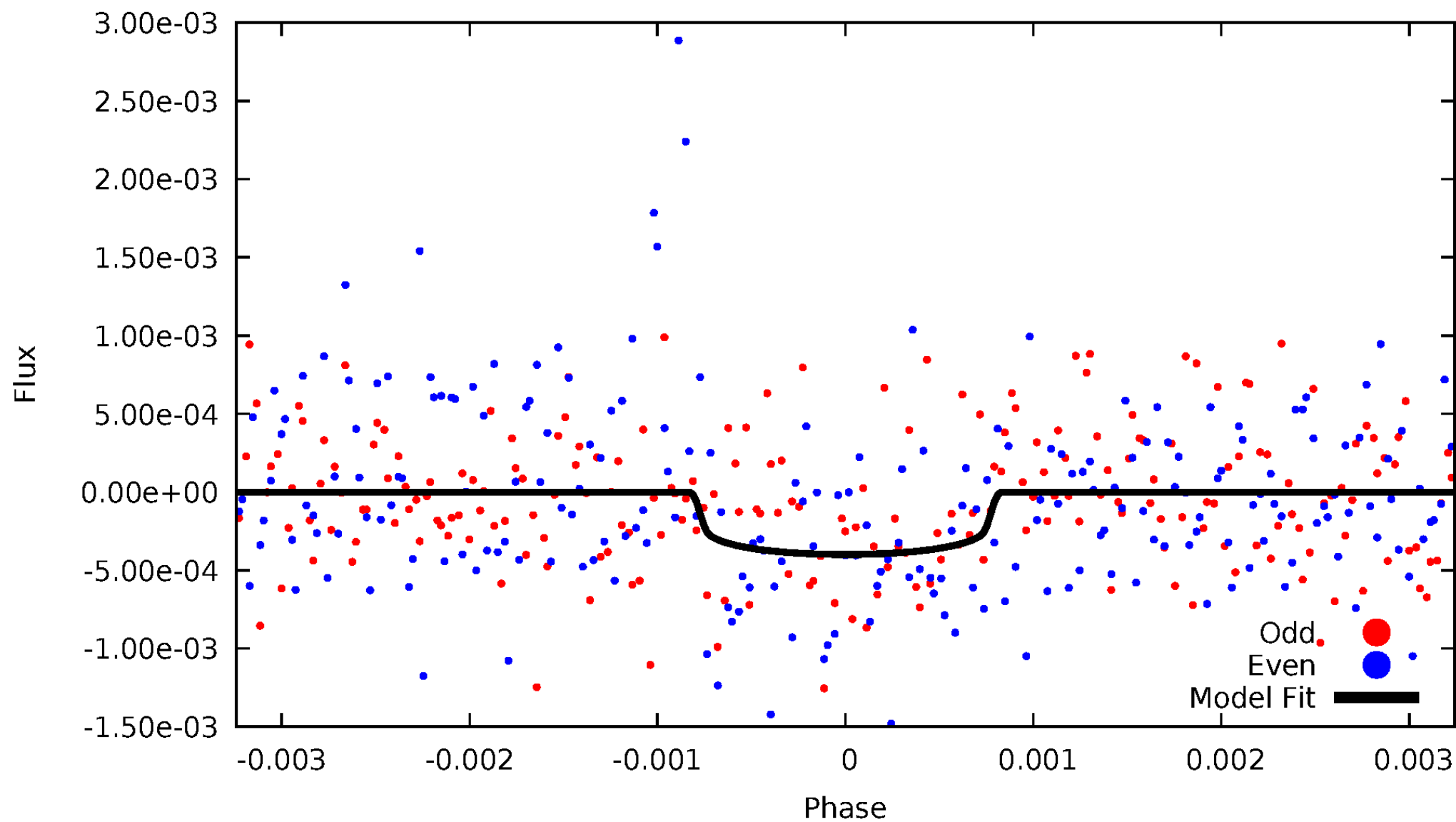


TCE 006866191-01



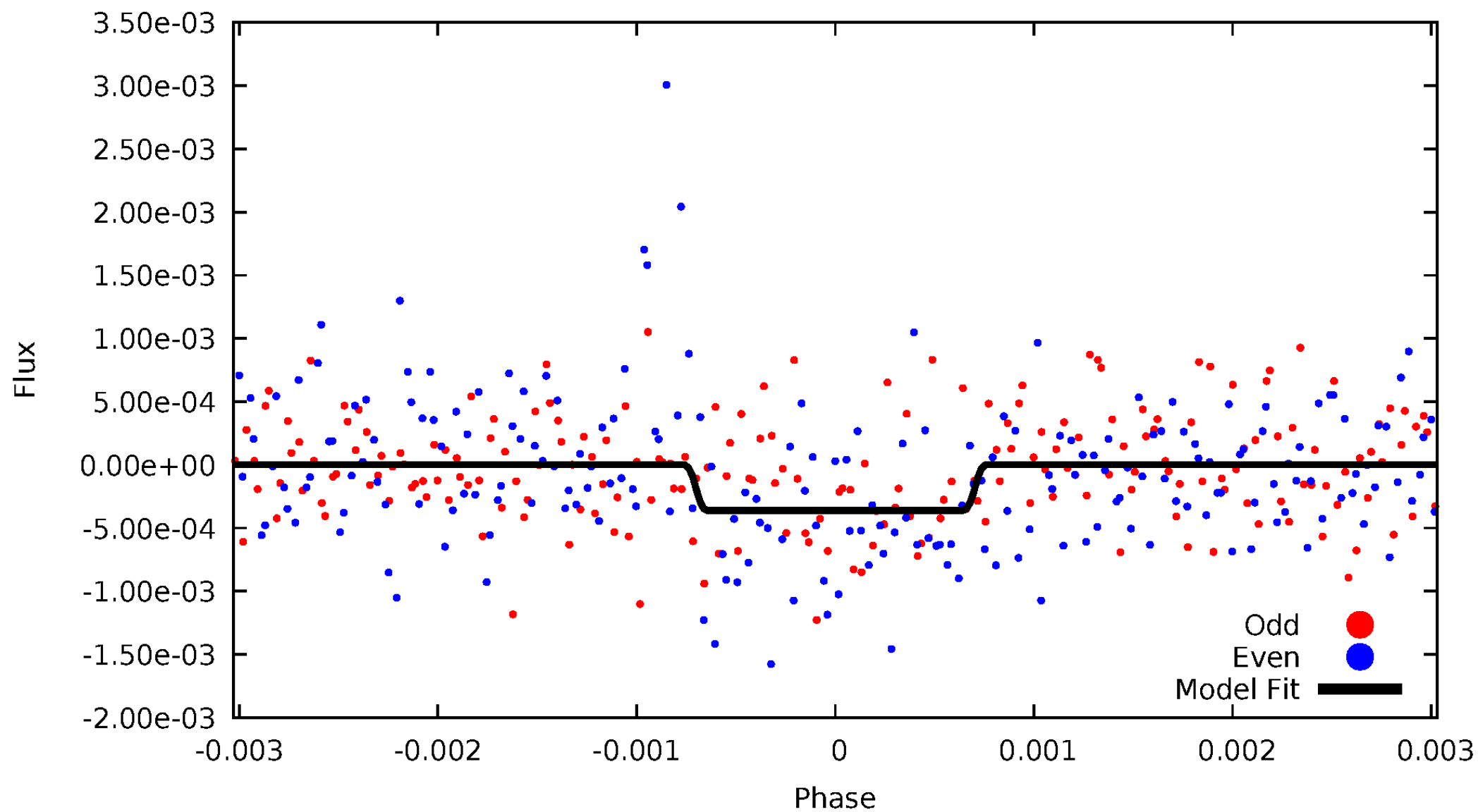
DV Odd/Even

TCE 006866191-01



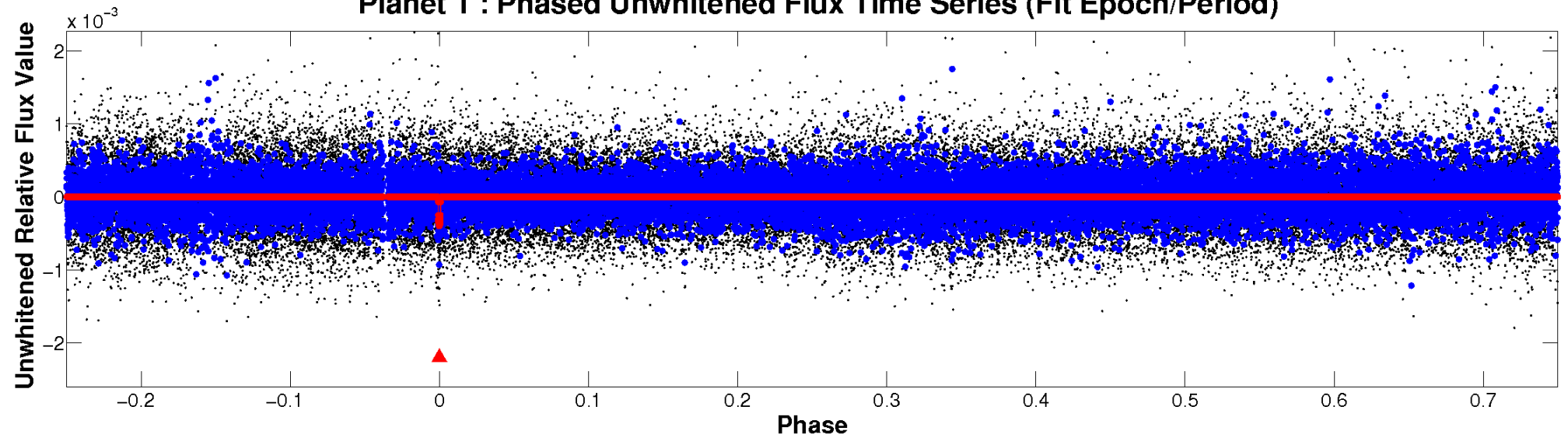
ALT Odd/Even

TCE 006866191-01

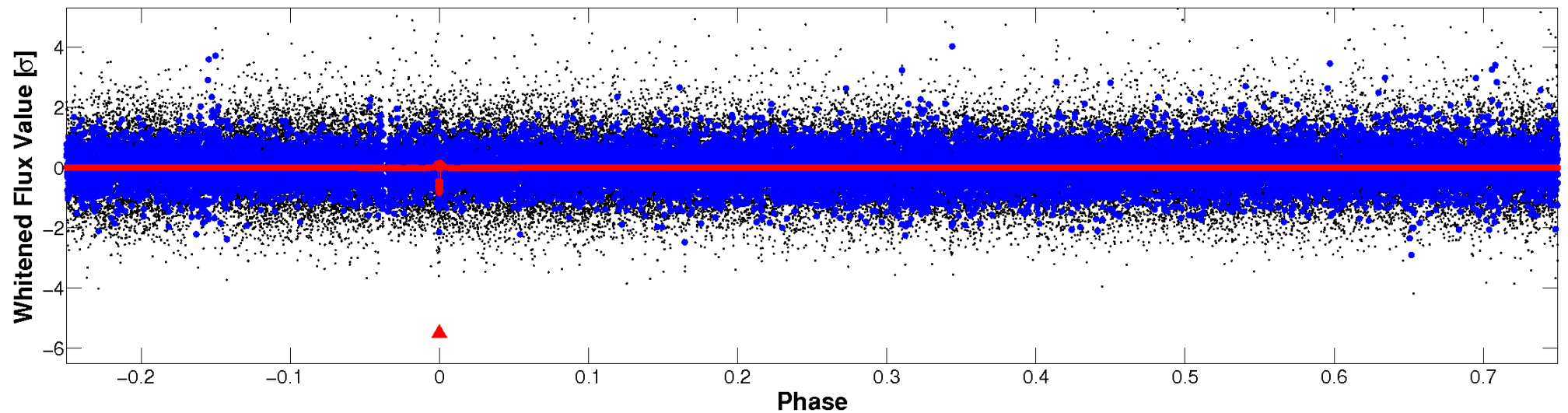


Non-Whitened Vs. Whitened Light Curve

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

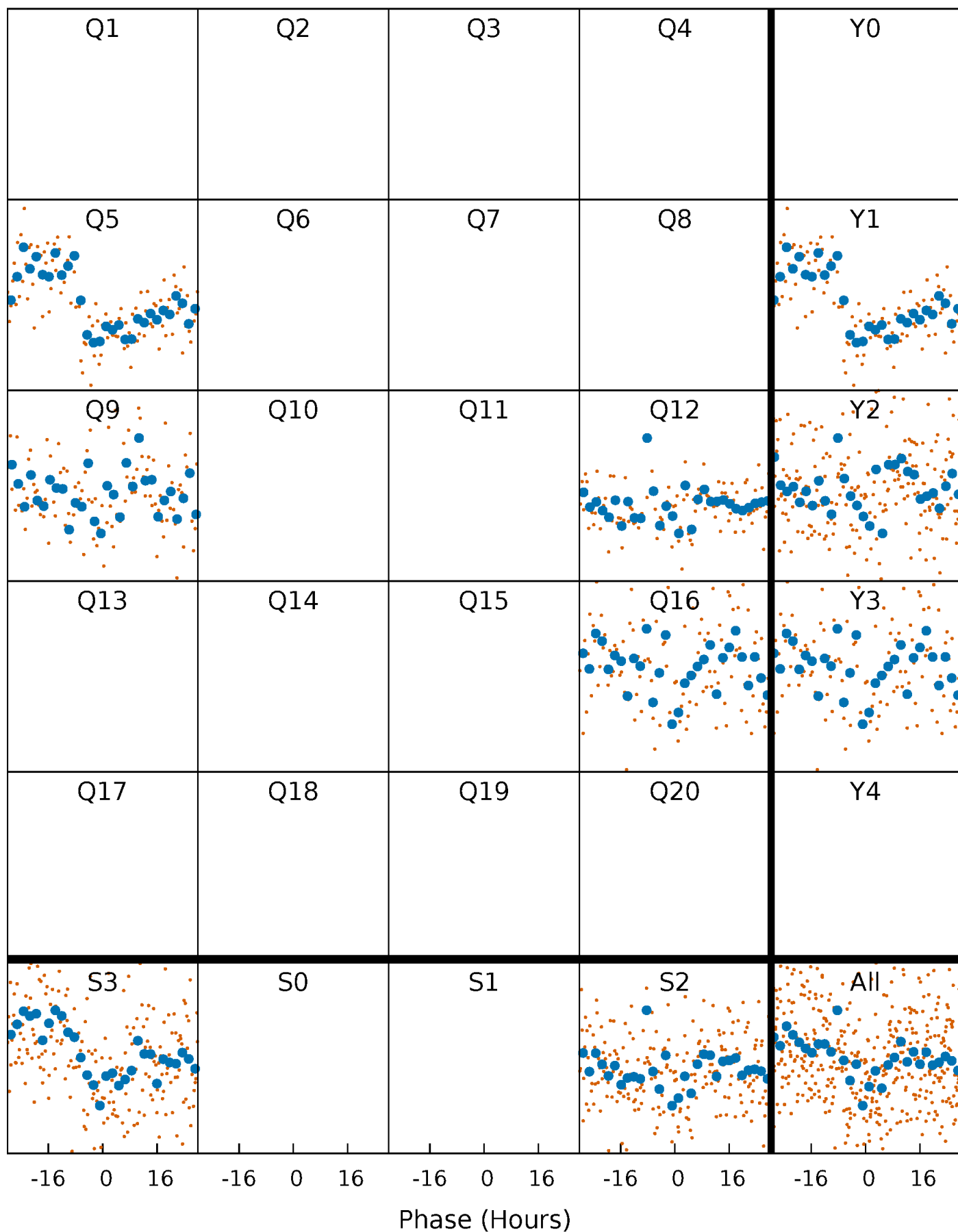


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



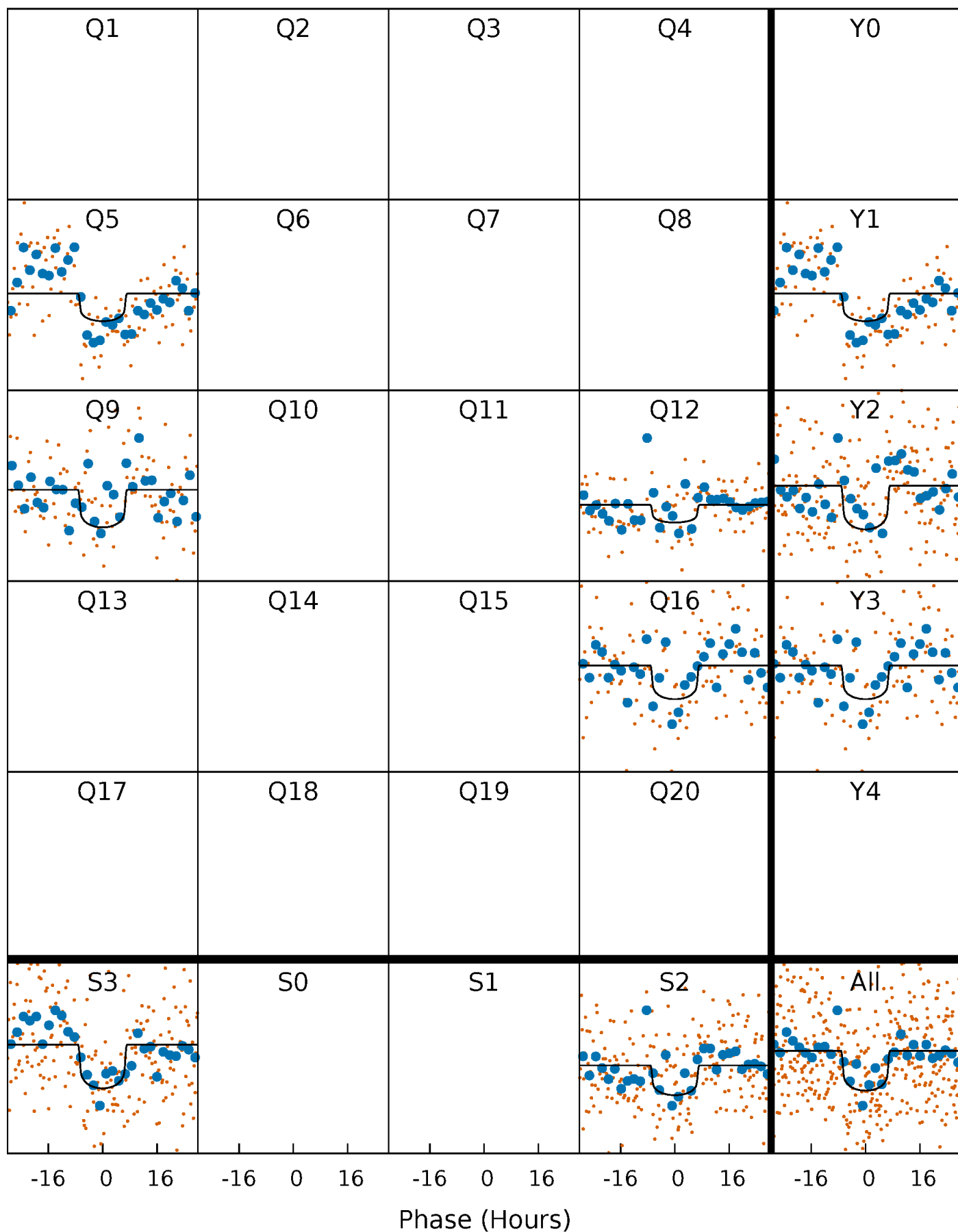
PDC Quarter-Phased Transit Curves

TCE 006866191-01 P=360.925195 Days $T_0=455.709928$ (BKJD)



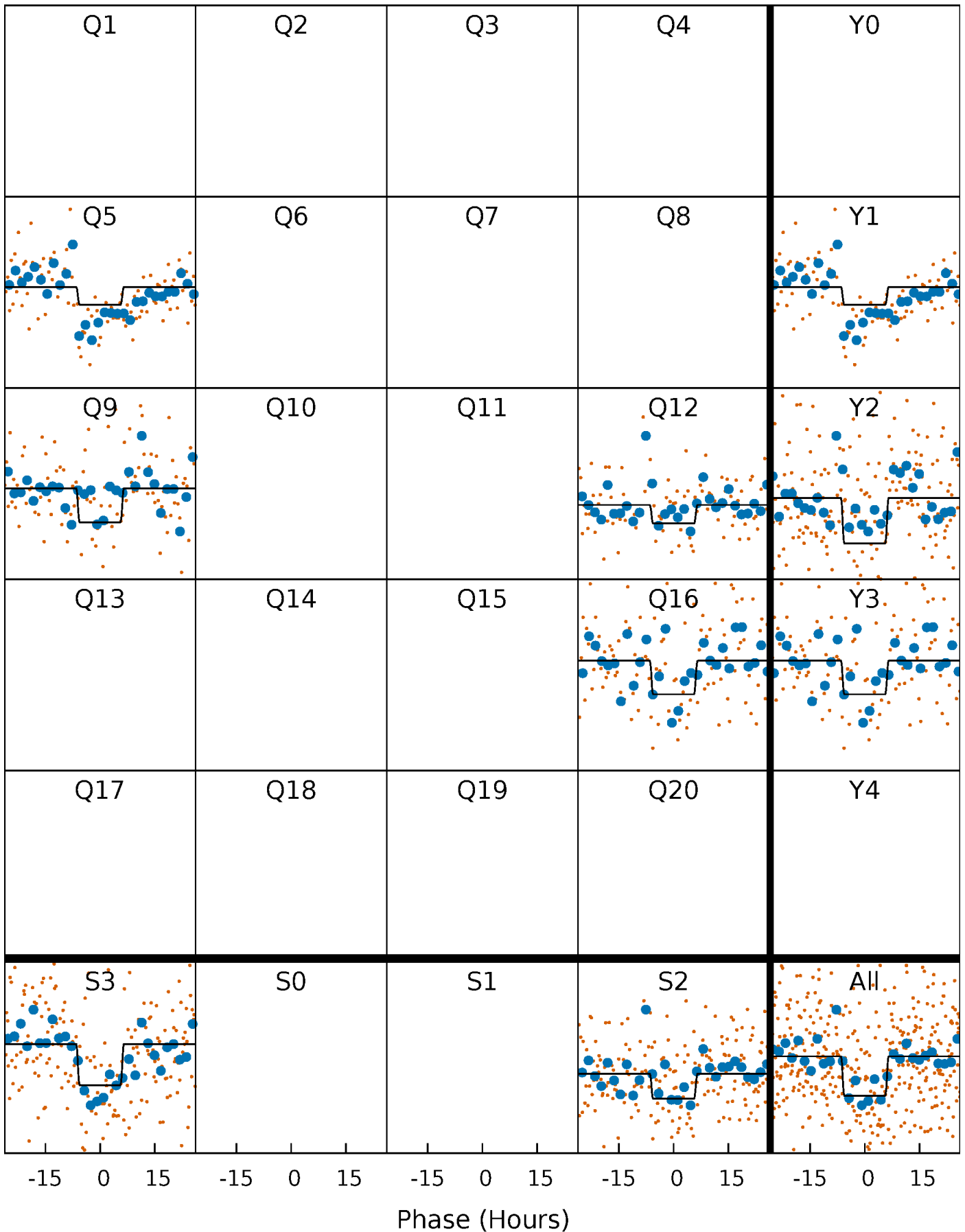
DV Quarter-Phased Transit Curves

TCE 006866191-01 P=360.925195 Days $T_0=455.709928$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

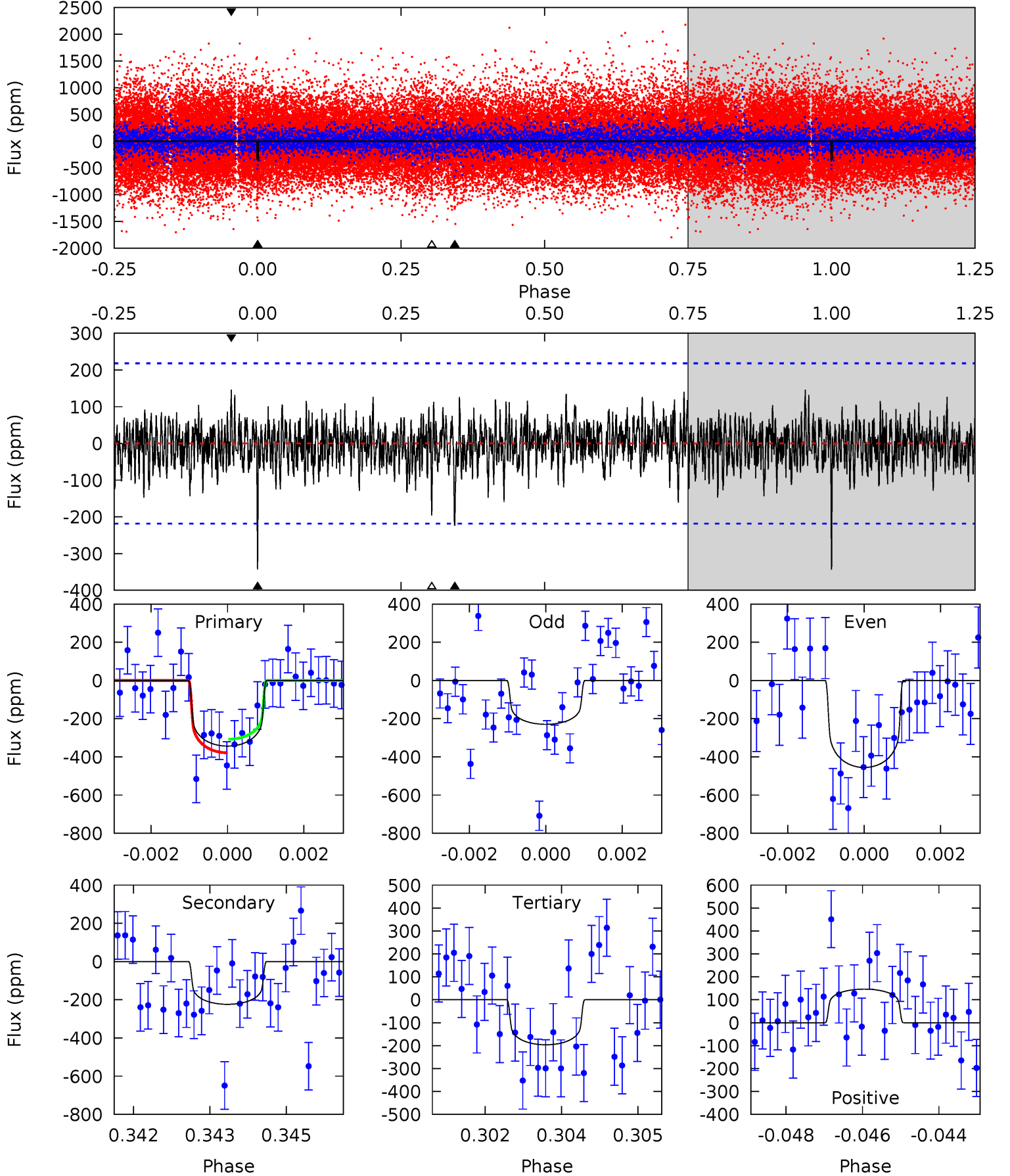
TCE 006866191-01 P=360.931593 Days $T_0=455.683408$ (BKJD)



DV Model-Shift Uniqueness Test

006866191-01, $P = 360.925195$ Days, $E = 94.784733$ Days

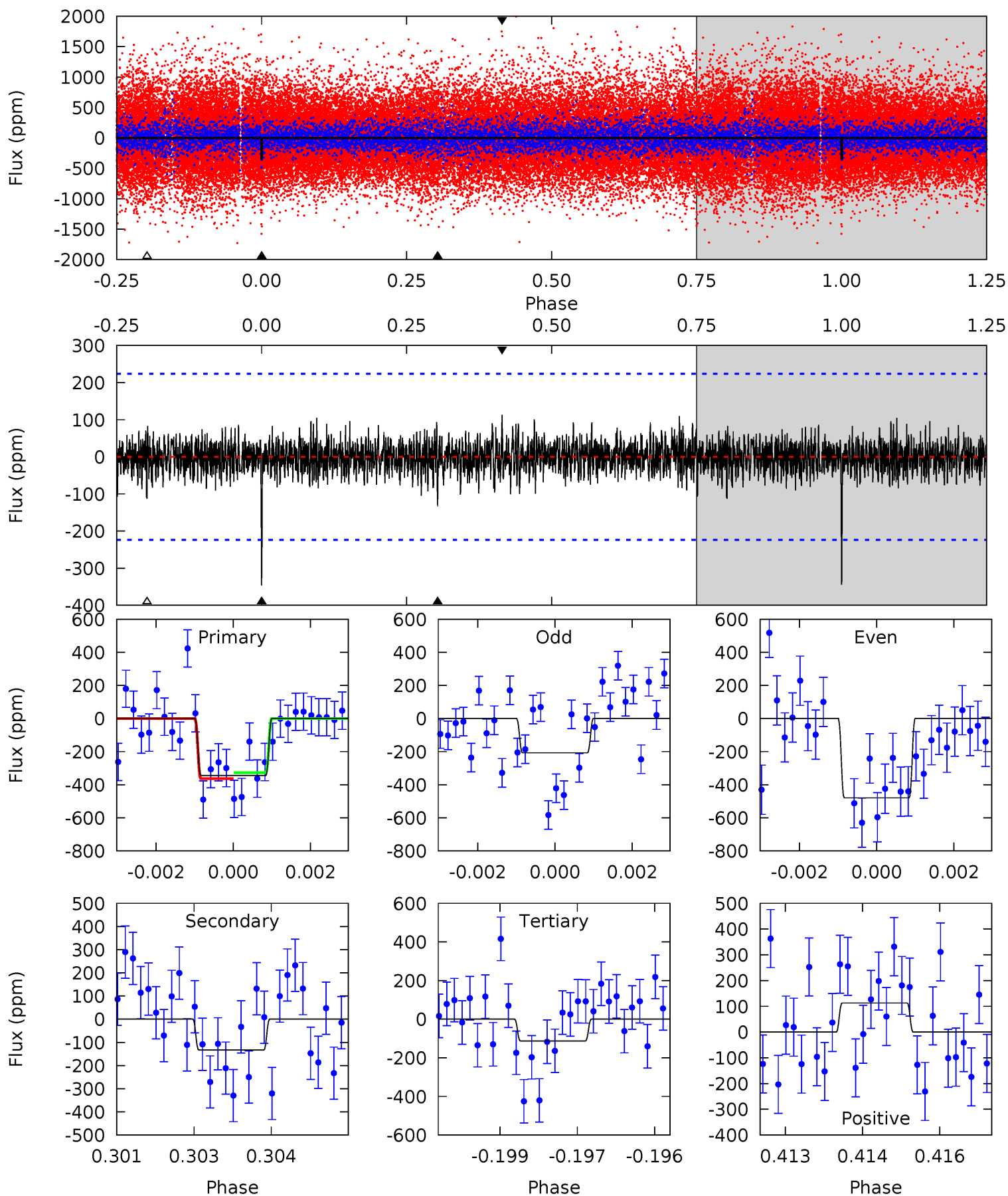
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.44	5.50	4.83	3.59	5.36	3.15	1.15	3.62	4.85	0.68	1.91	2.78	1.16	0.30	0.87



Alt Model-Shift Uniqueness Test

006866191-01, $P = 360.931593$ Days, $E = 94.751815$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.27	3.20	2.71	2.71	5.38	3.17	0.77	5.56	5.57	0.48	0.49	3.28	1.42	0.25	0.44



Stellar Parameters For KIC 006866191

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6153^{+193}_{-236}	$4.471^{+0.054}_{-0.202}$	$-0.140^{+0.250}_{-0.350}$	$0.993^{+0.302}_{-0.108}$	$1.065^{+0.151}_{-0.151}$	$1.531^{+0.434}_{-0.810}$
	+3%/-4%	+1%/-5%	+179%/-250%	+30%/-11%	+14%/-14%	+28%/-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 006866191-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-224±41	$2.36^{+1.10}_{-1.00}$	383^{+30}_{-19}	5255^{+1709}_{-756}	22323^{+46101}_{-12130}
Alt.	-133±42	$2.27^{+1.09}_{-0.99}$	384^{+29}_{-20}	4776^{+1381}_{-738}	13795^{+31142}_{-8161}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

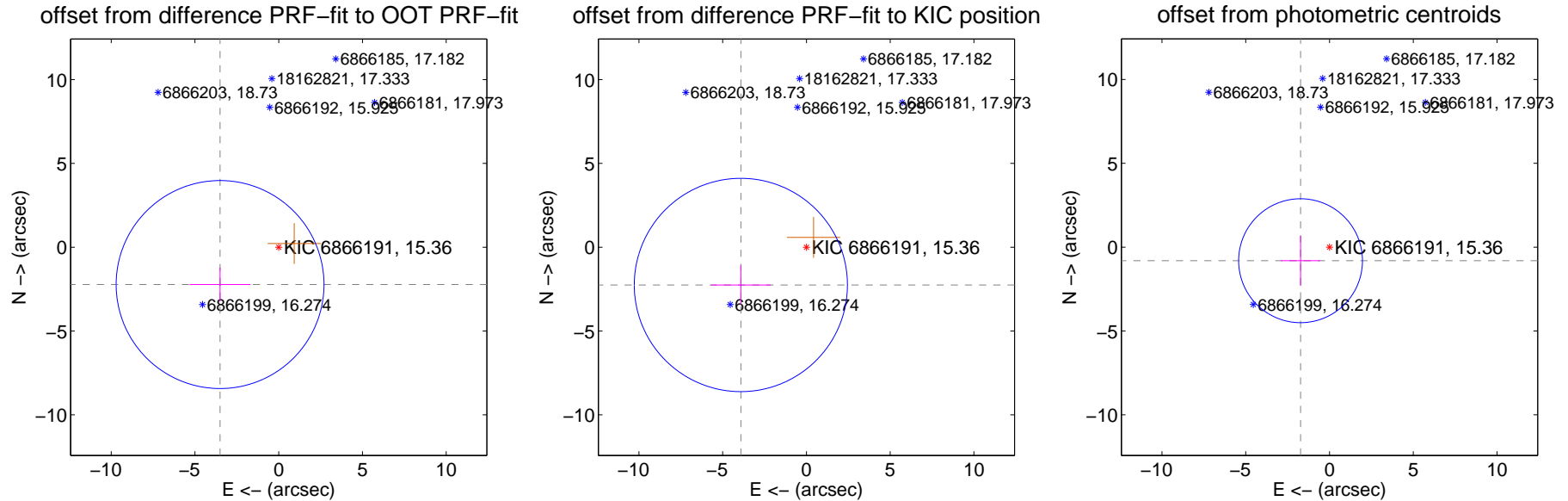
DV Centroid Data

Supplemental centroid analysis for 006866191-01. Kepler magnitude: 15.36. Transit SNR 7.36

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.62 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.151 ± 2.069	2.01	3.503 ± 1.812	-2.228 ± 1.008
PRF-fit source offset from KIC position	4.519 ± 2.121	2.13	3.917 ± 1.777	-2.254 ± 1.167
photometric centroid source offset	1.91 ± 1.23	1.55	1.73 ± 1.17	-0.81 ± 1.49

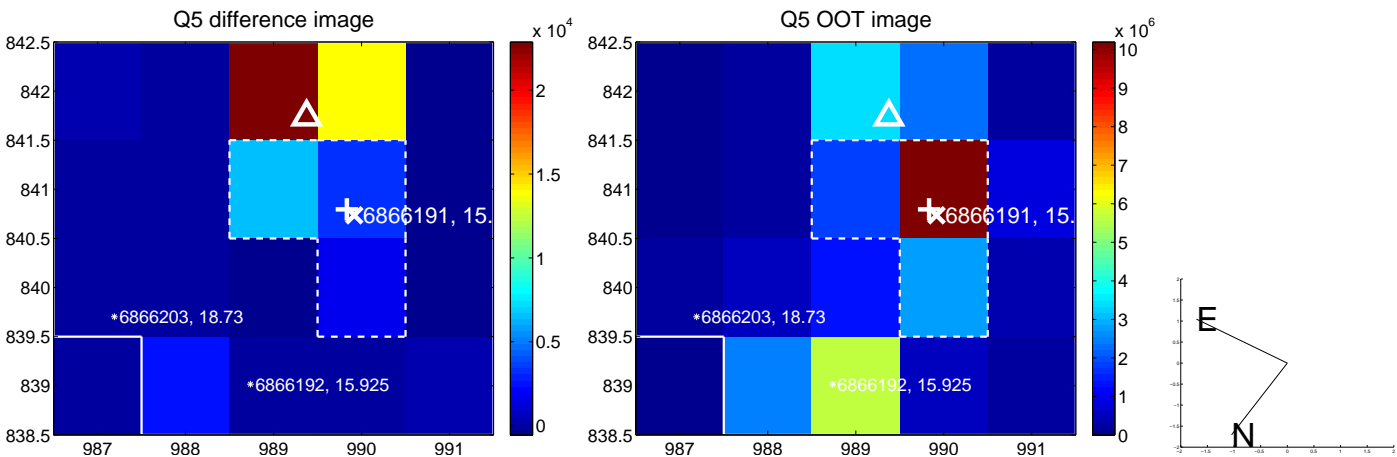


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

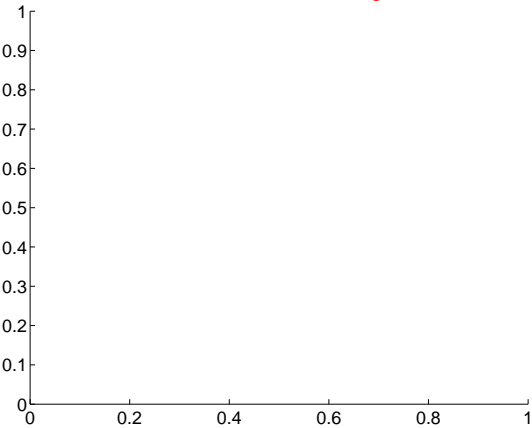
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



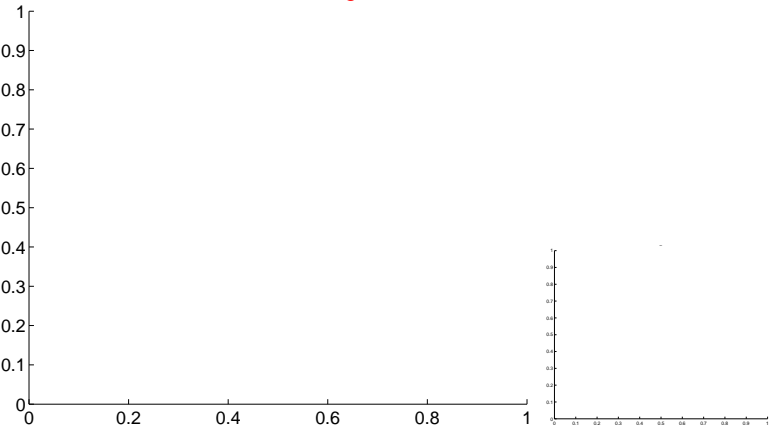
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



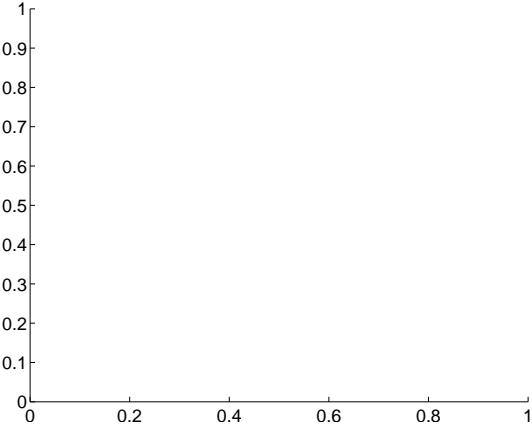
Q6 no difference image



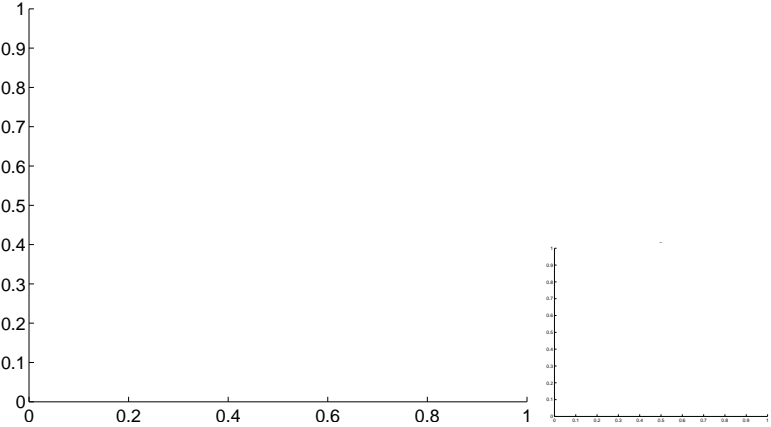
Q6 no OOT image



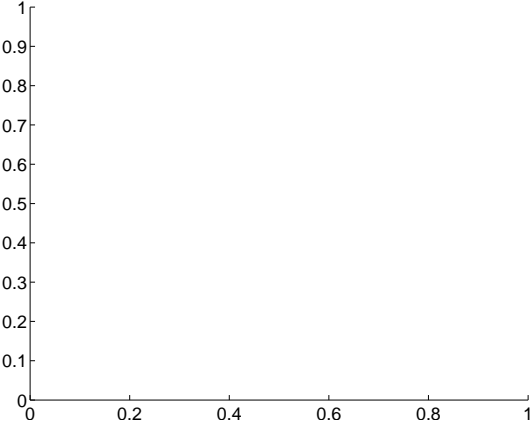
Q7 no difference image



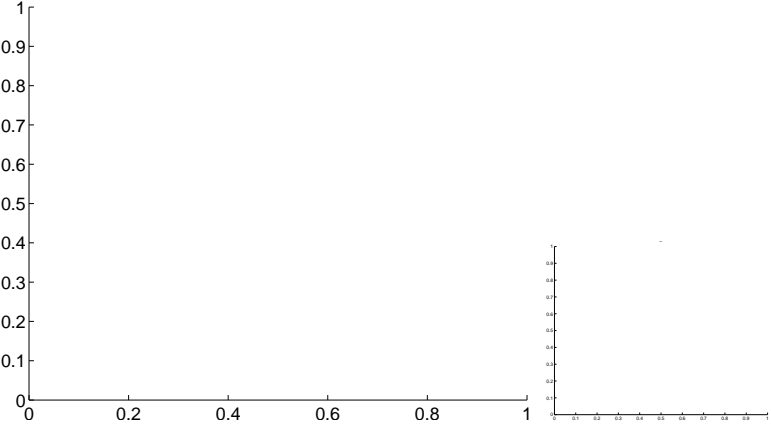
Q7 no OOT image



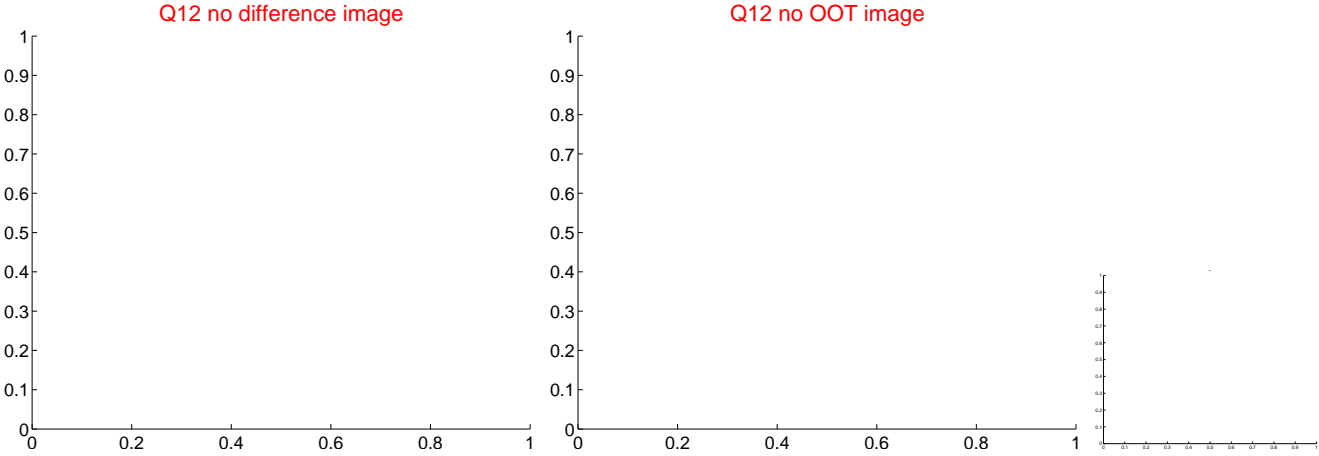
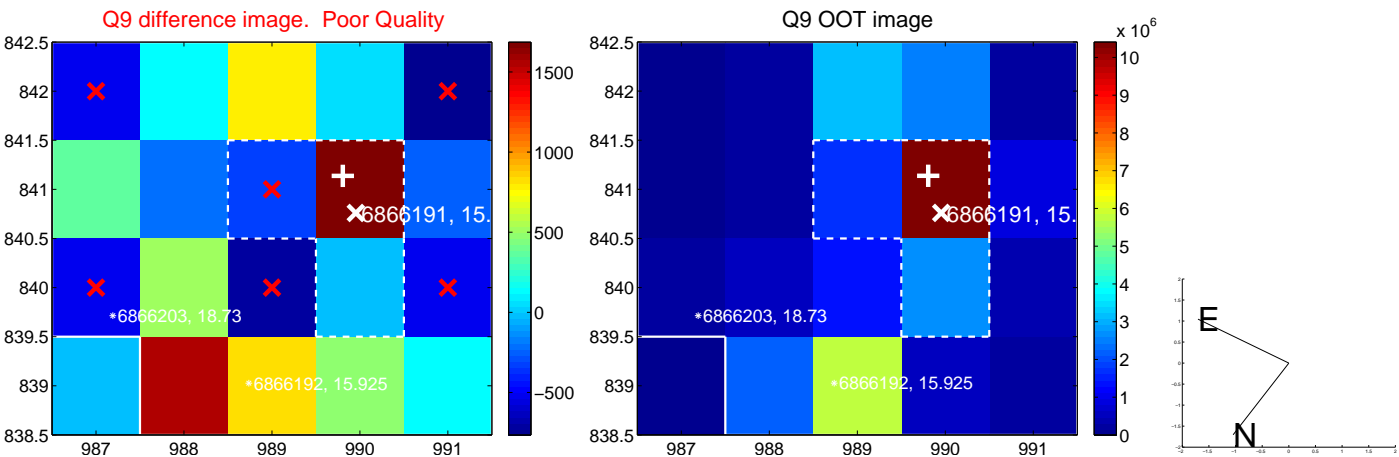
Q8 no difference image



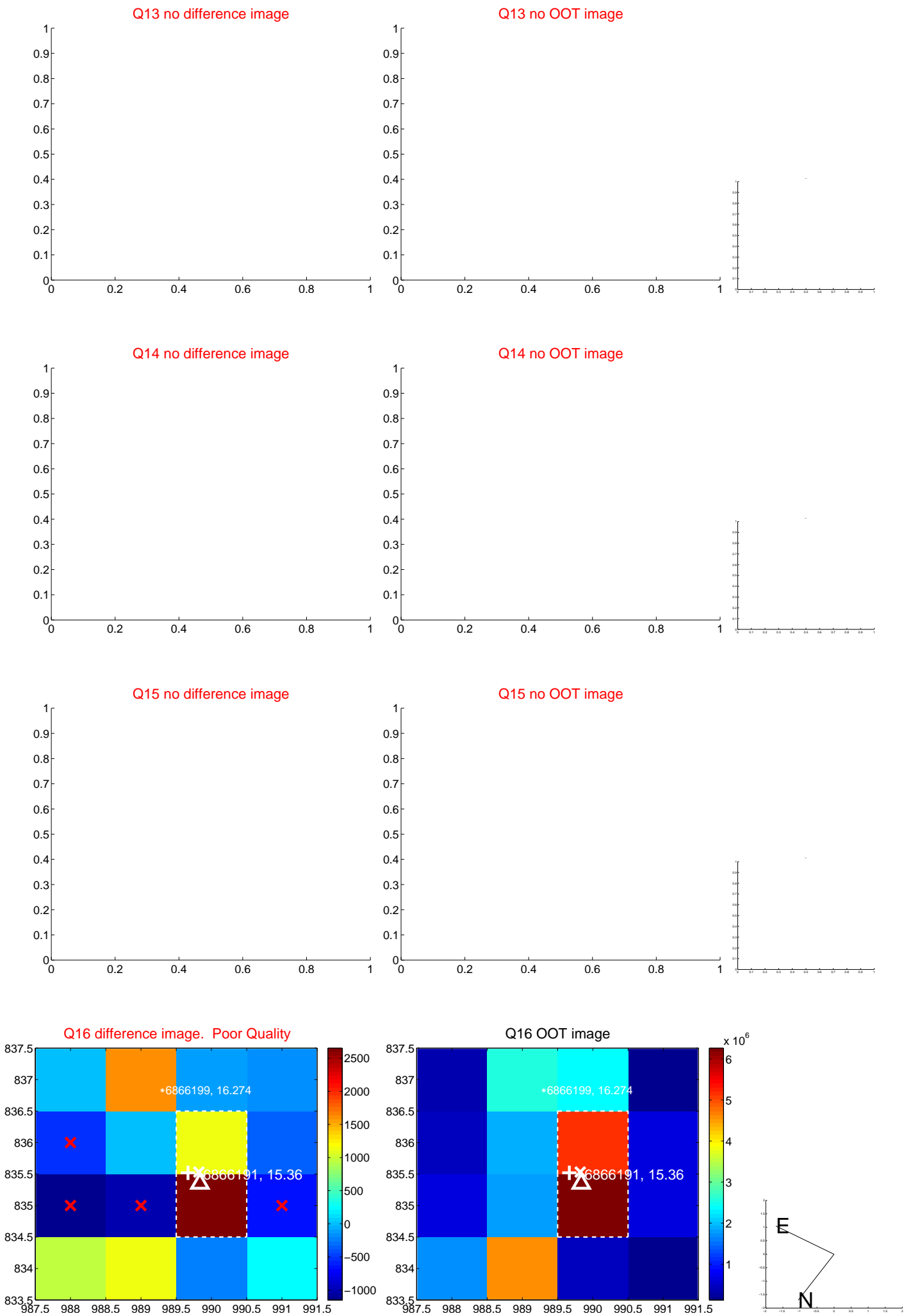
Q8 no OOT image



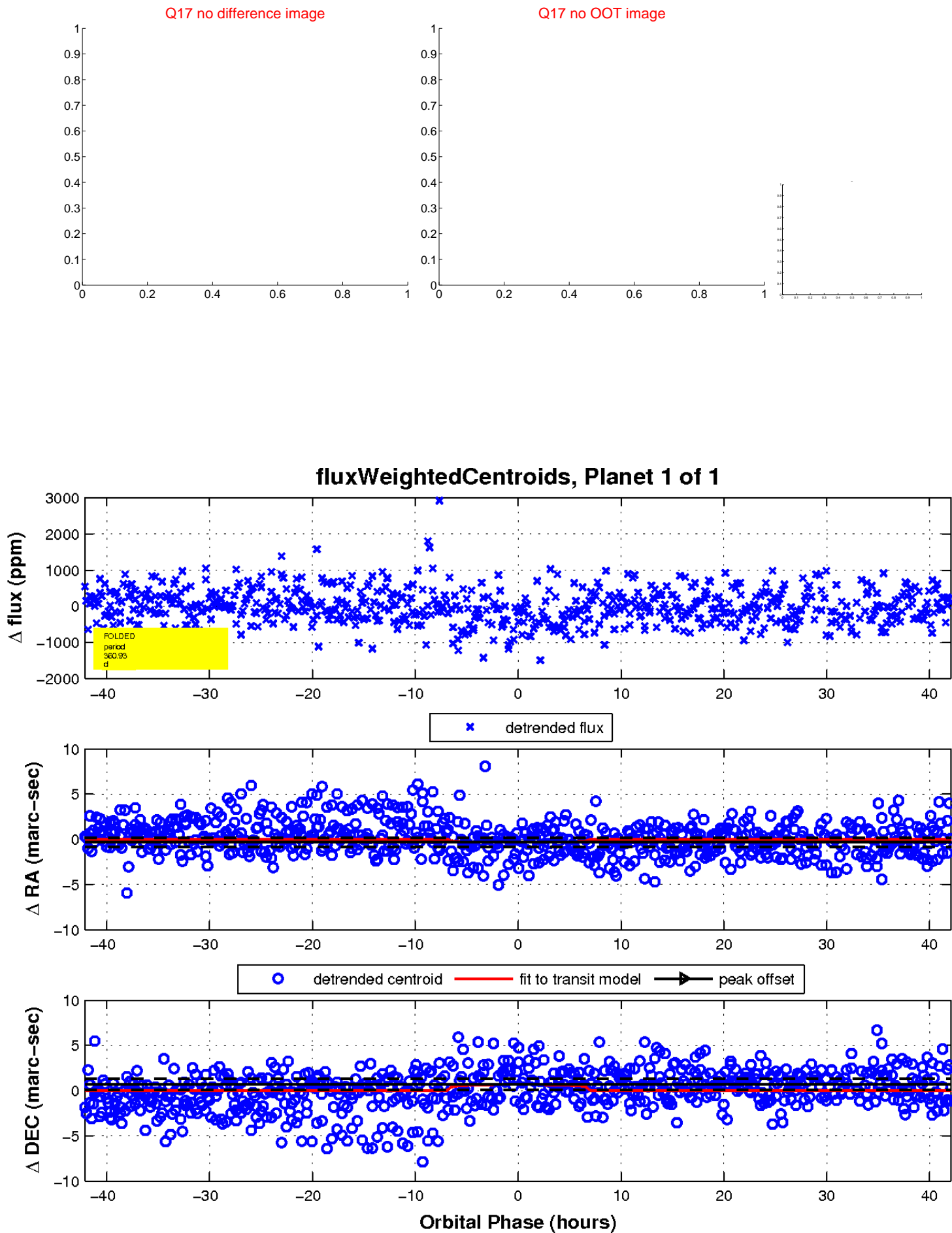
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

