

KIC 006198068

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})
006198068-01	OBS	No	373.475862	304.530996	2166.5	27.375	7.9	8.7	0.91	5778	8.07	0.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006198068-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—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.

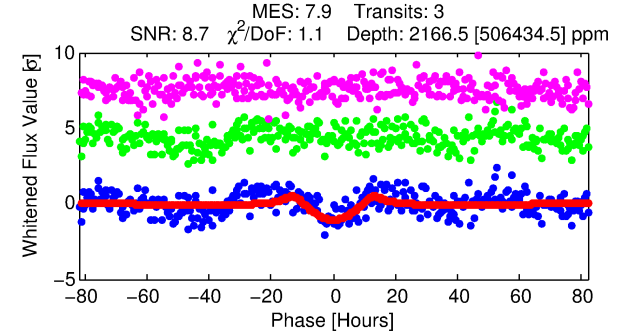
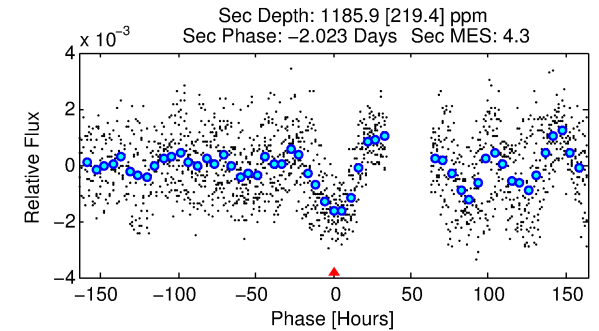
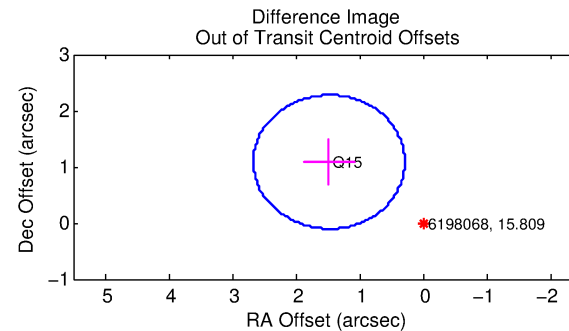
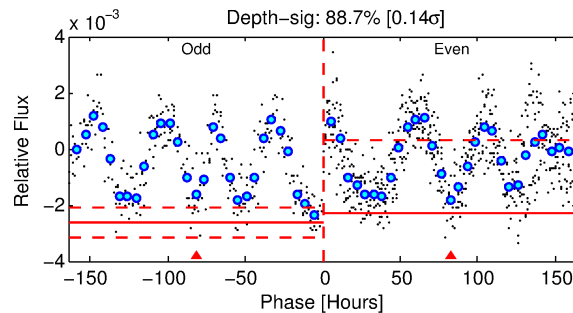
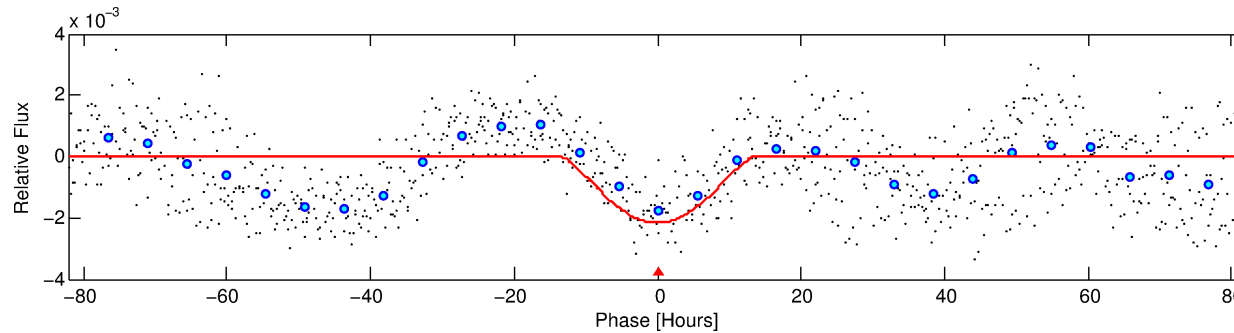
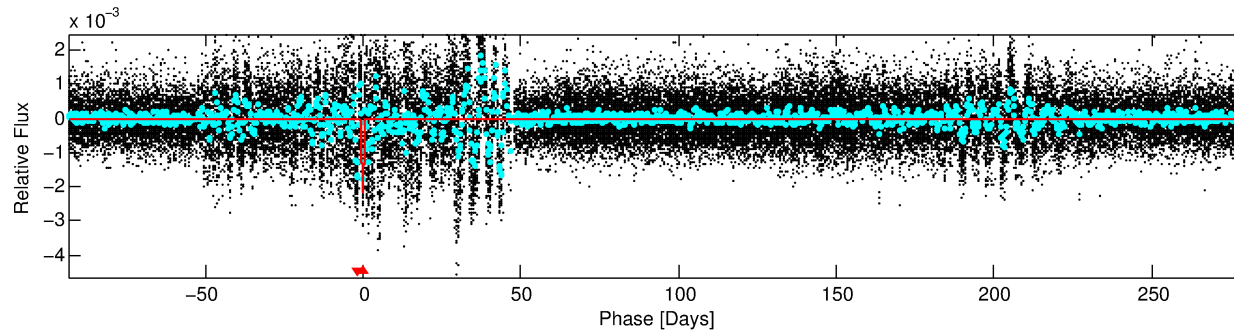
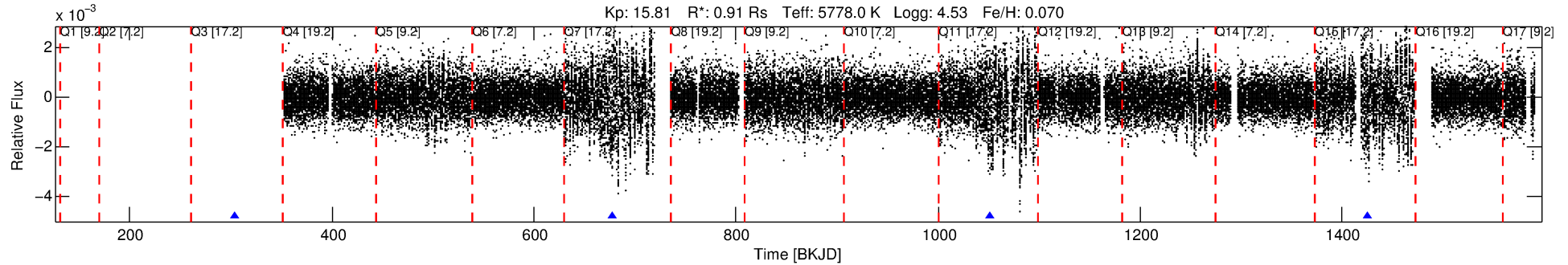
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006198068-01

No Significant Match Found

DV One-Page Summary

KIC: 6198068 Candidate: 1 of 1 Period: 373.476 d



DV Fit Results:

Period = 373.47586 [0.03346] d
Epoch = 304.5310 [0.0714] BKJD
Rp/R* = 0.0812 [0.1852]
a/R* = 42.86 [20.60]
b = 1.00 [12.38]
Seff = 0.79 [0.32]
Teq = 240 [24] K
Rp = 8.07 [18.57] Re
a = 1.0246 [0.2640] AU
Ag = 10505.11 [48111.45] [0.22 σ]
Teffp = 3762 [4295] K [0.82 σ]

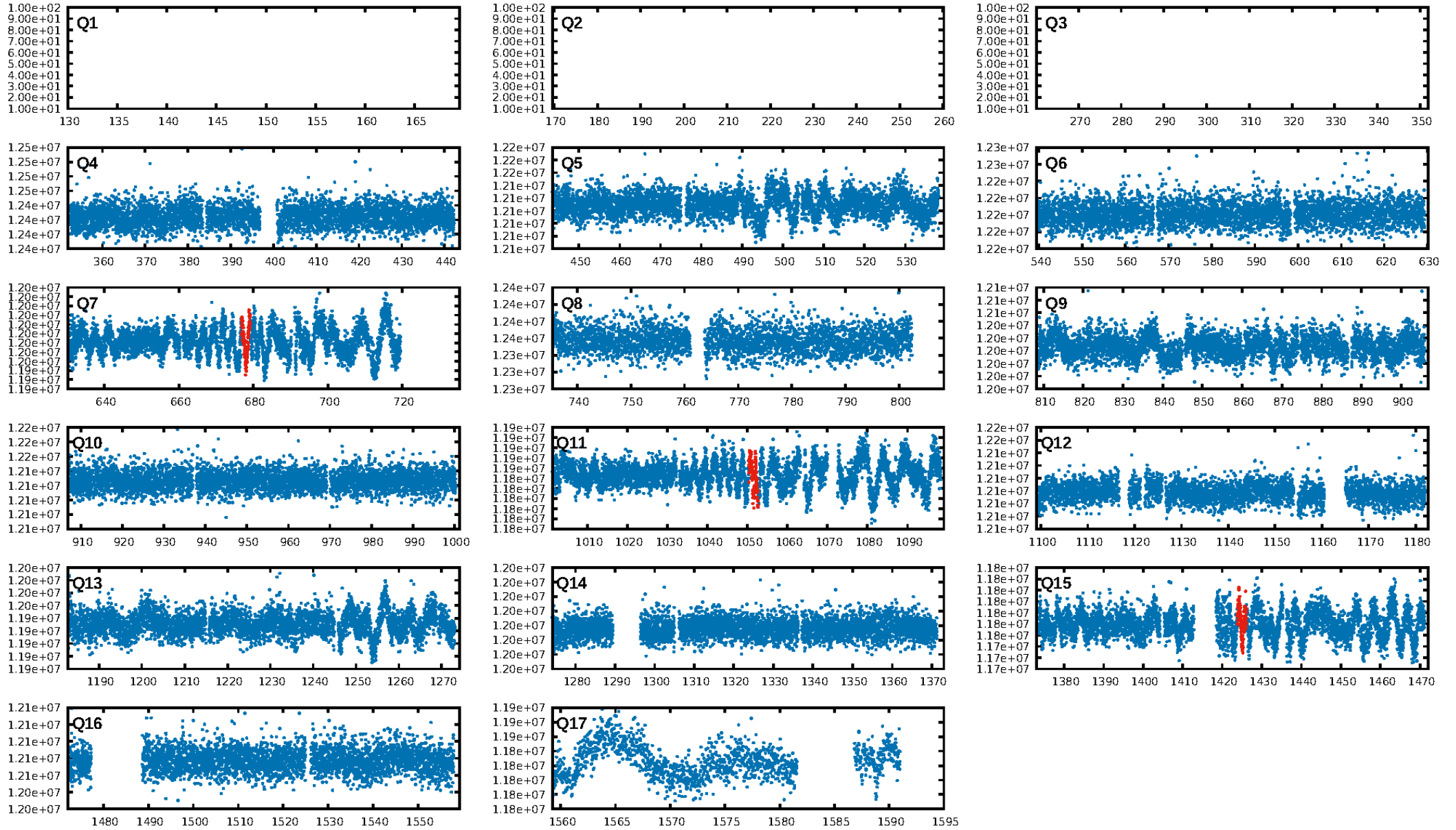
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 49.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.50e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.027
Centroid-sig: 0.0%
Centroid-so: 3.607 arcsec [3.18 σ]
OotOffset-rm: 1.830 arcsec [4.61 σ]
KicOffset-rm: 1.840 arcsec [4.64 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

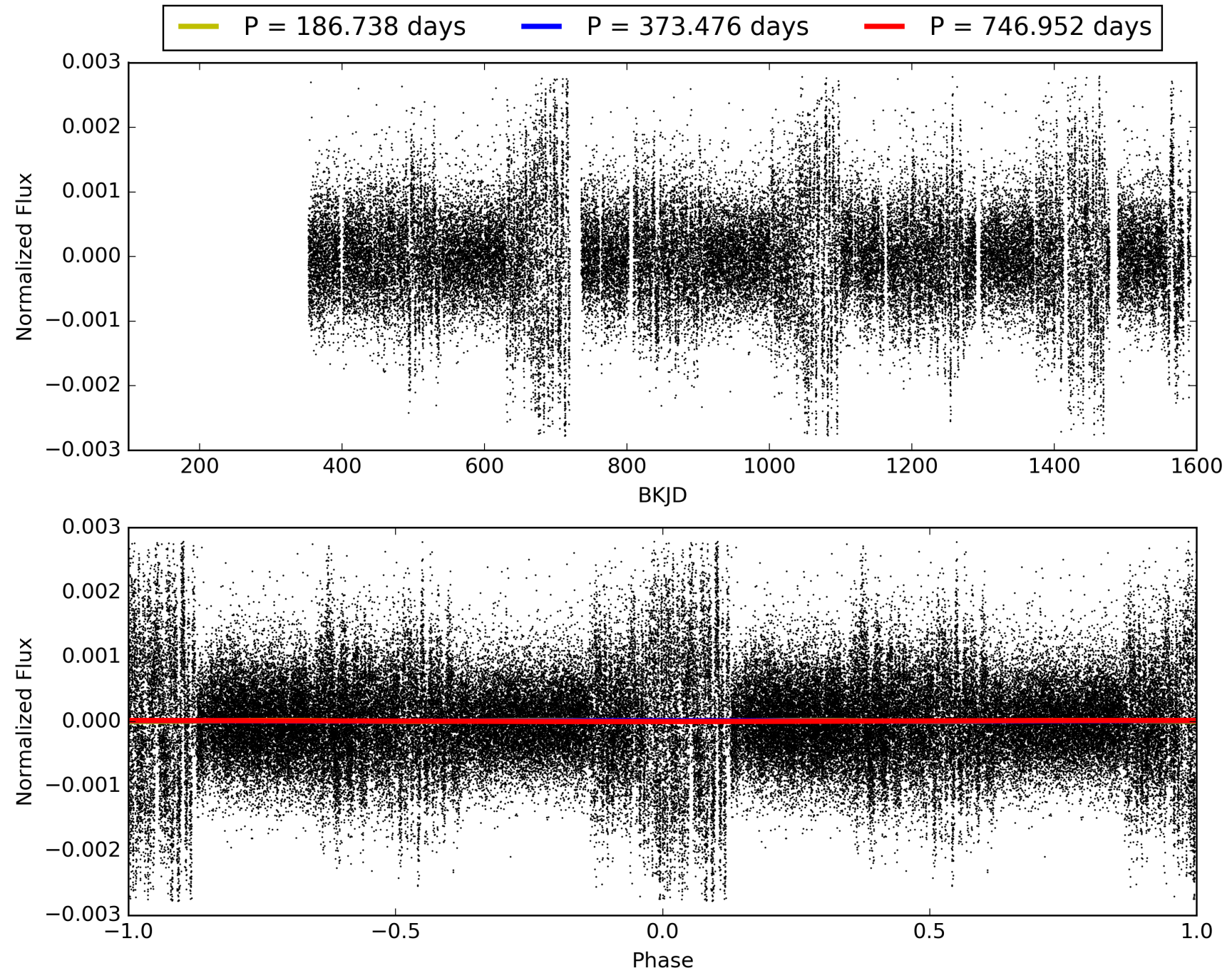
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:57:08 Z

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

TCE 006198068-01, PDC Light Curves

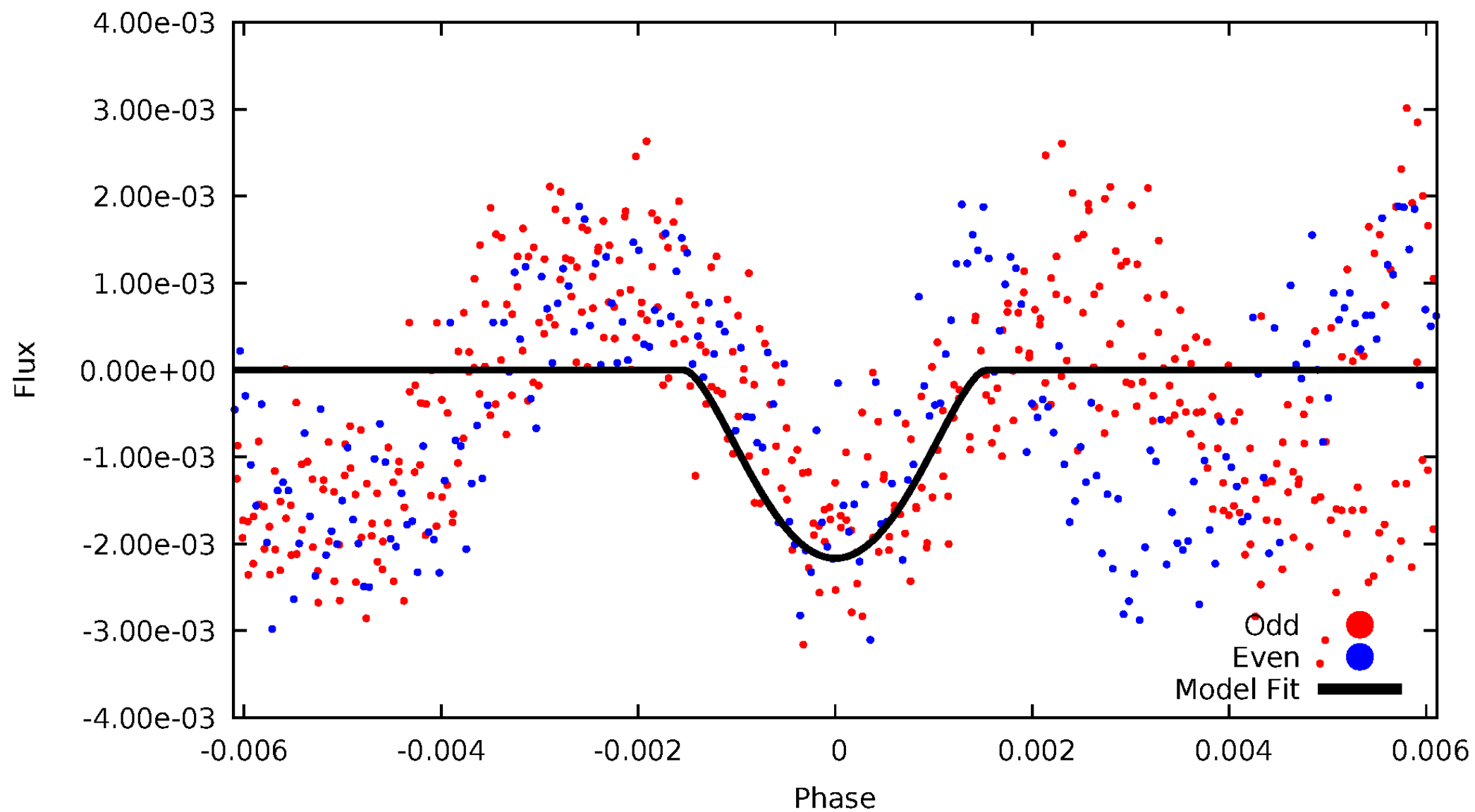


TCE 006198068-01



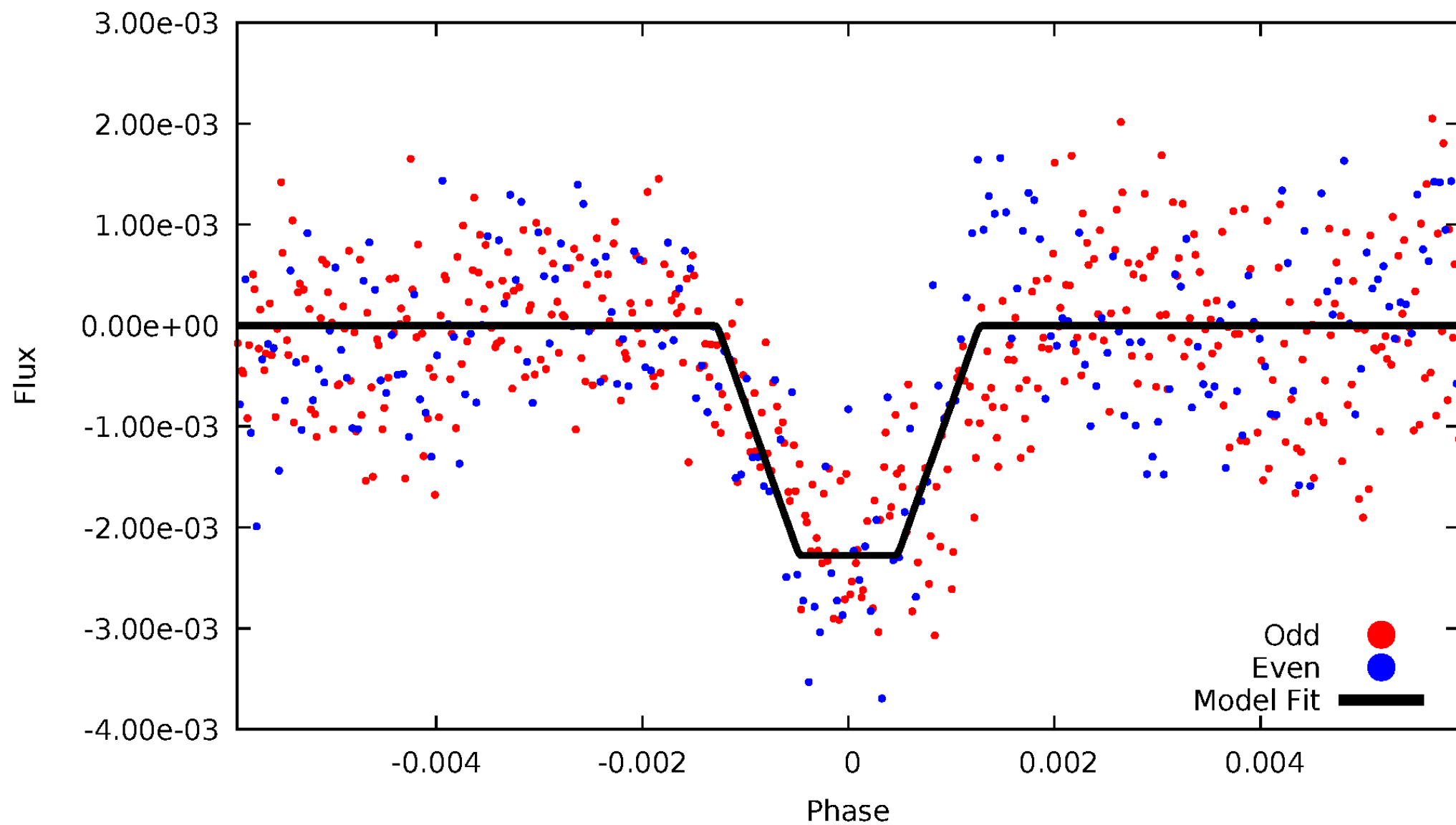
DV Odd/Even

TCE 006198068-01



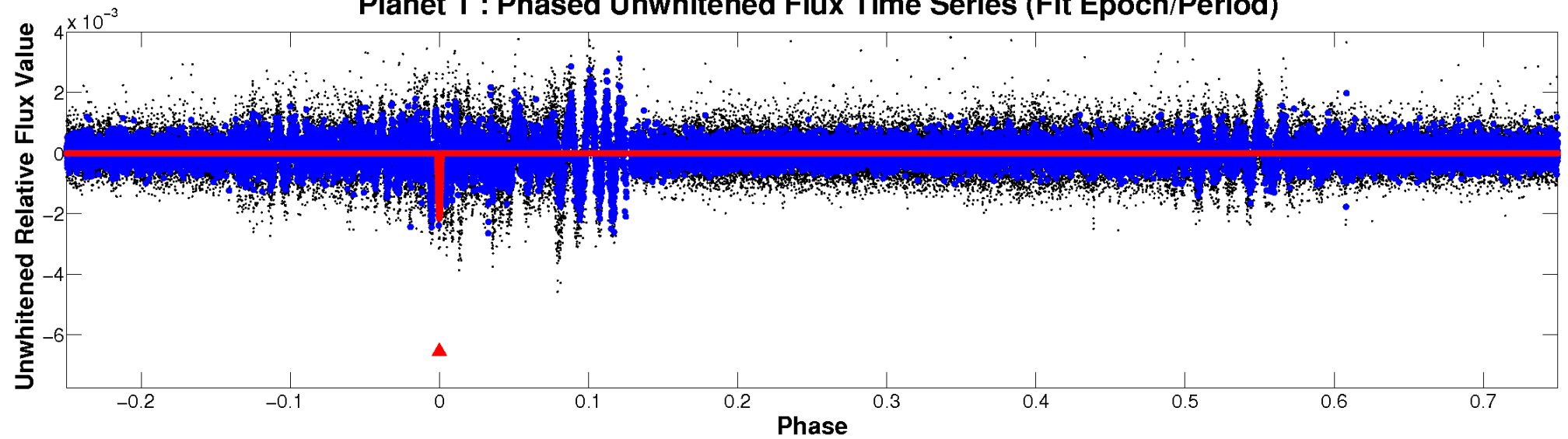
ALT Odd/Even

TCE 006198068-01

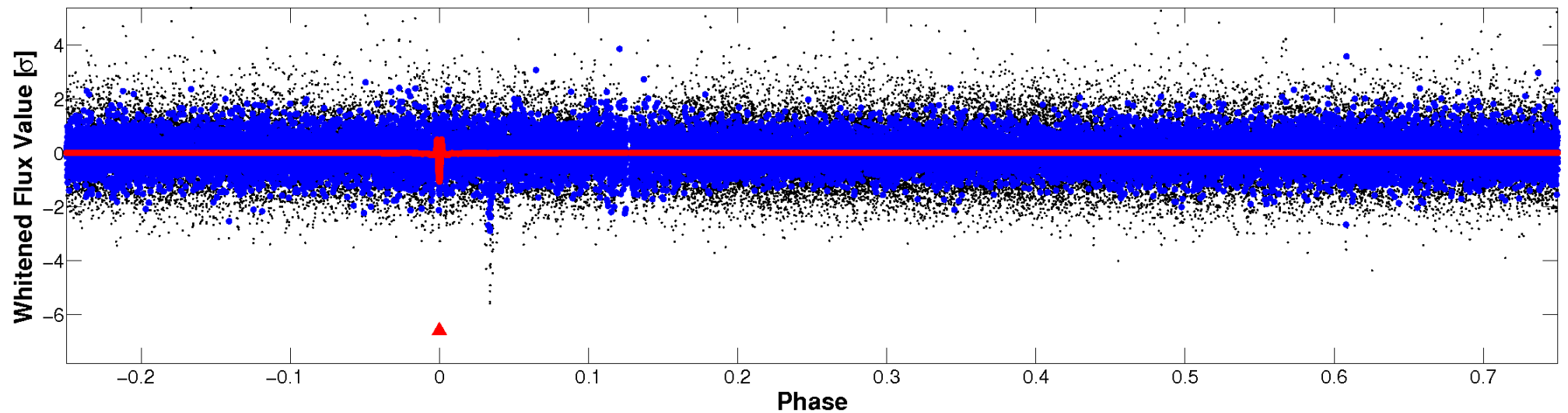


Non-Whitened Vs. Whitened Light Curve

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

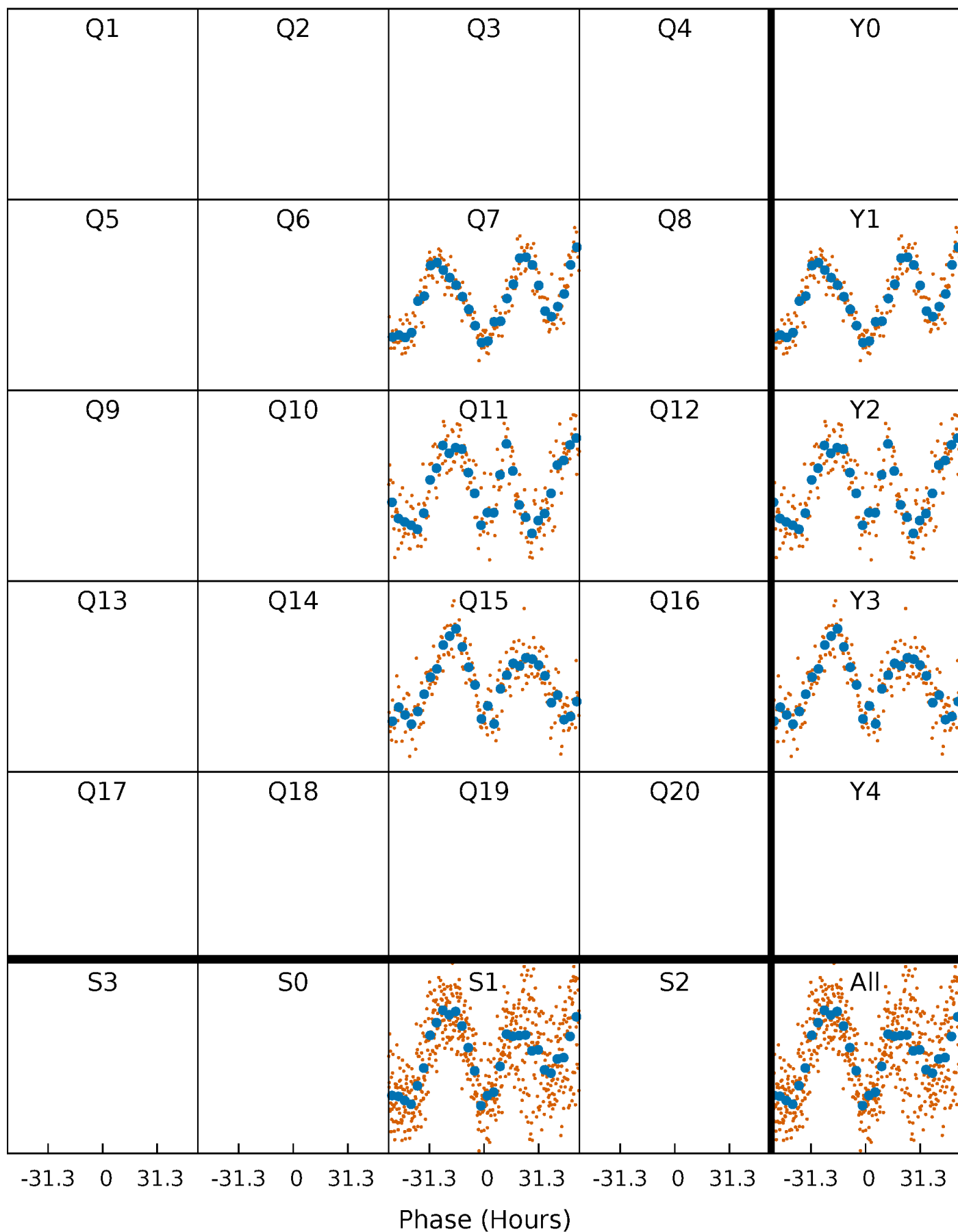


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



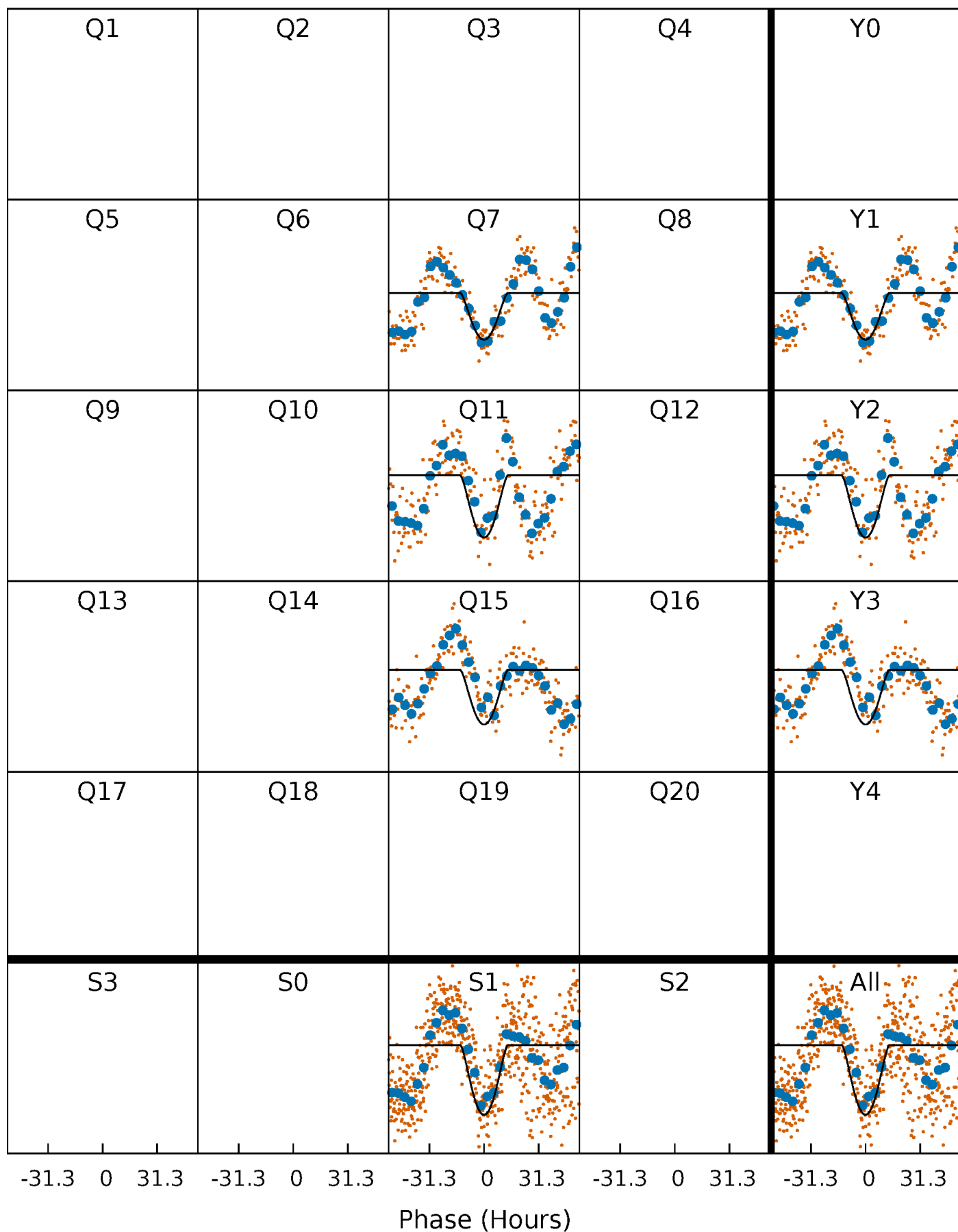
PDC Quarter-Phased Transit Curves

TCE 006198068-01 P=373.475862 Days $T_0=304.530996$ (BKJD)



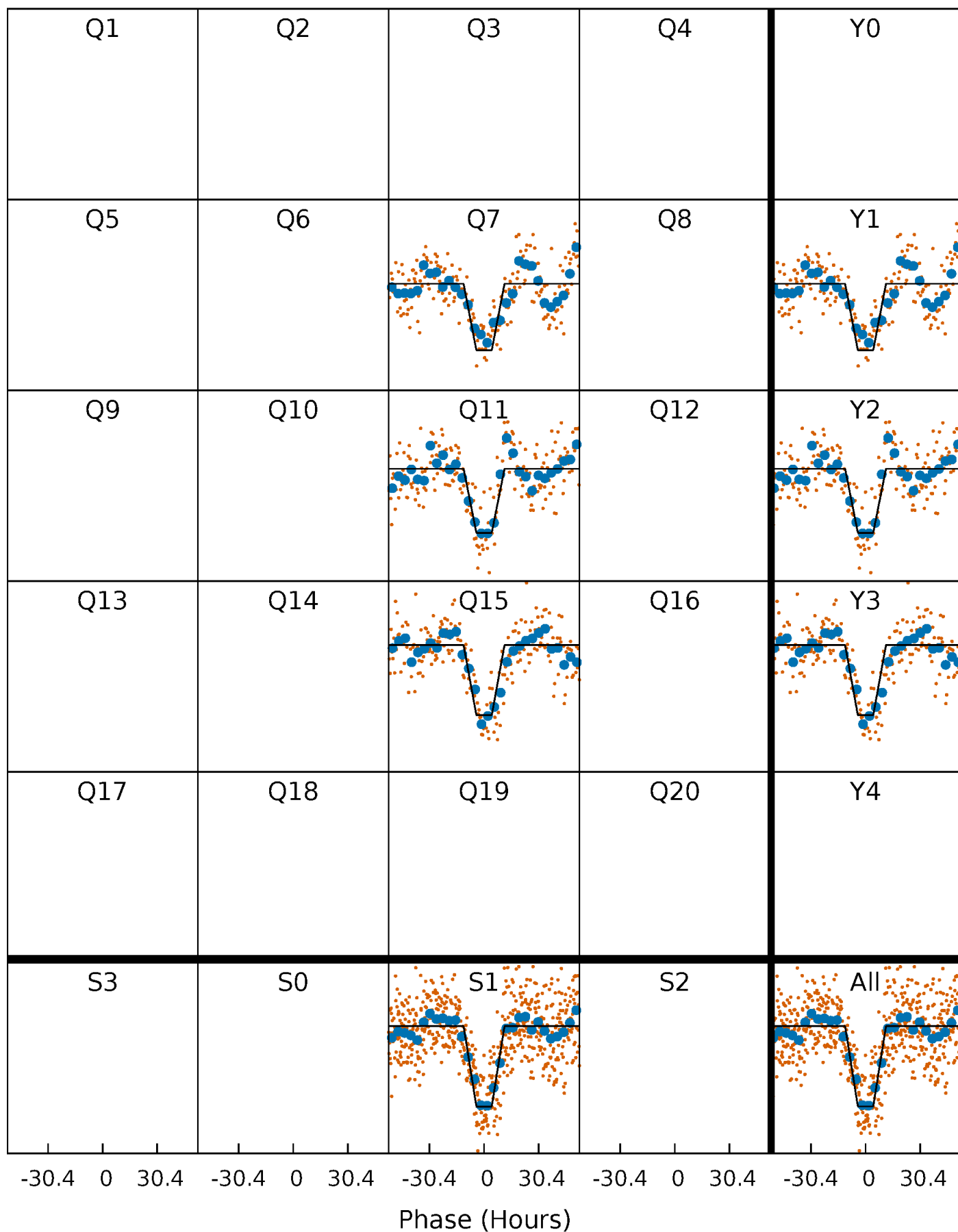
DV Quarter-Phased Transit Curves

TCE 006198068-01 P=373.475862 Days $T_0=304.530996$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

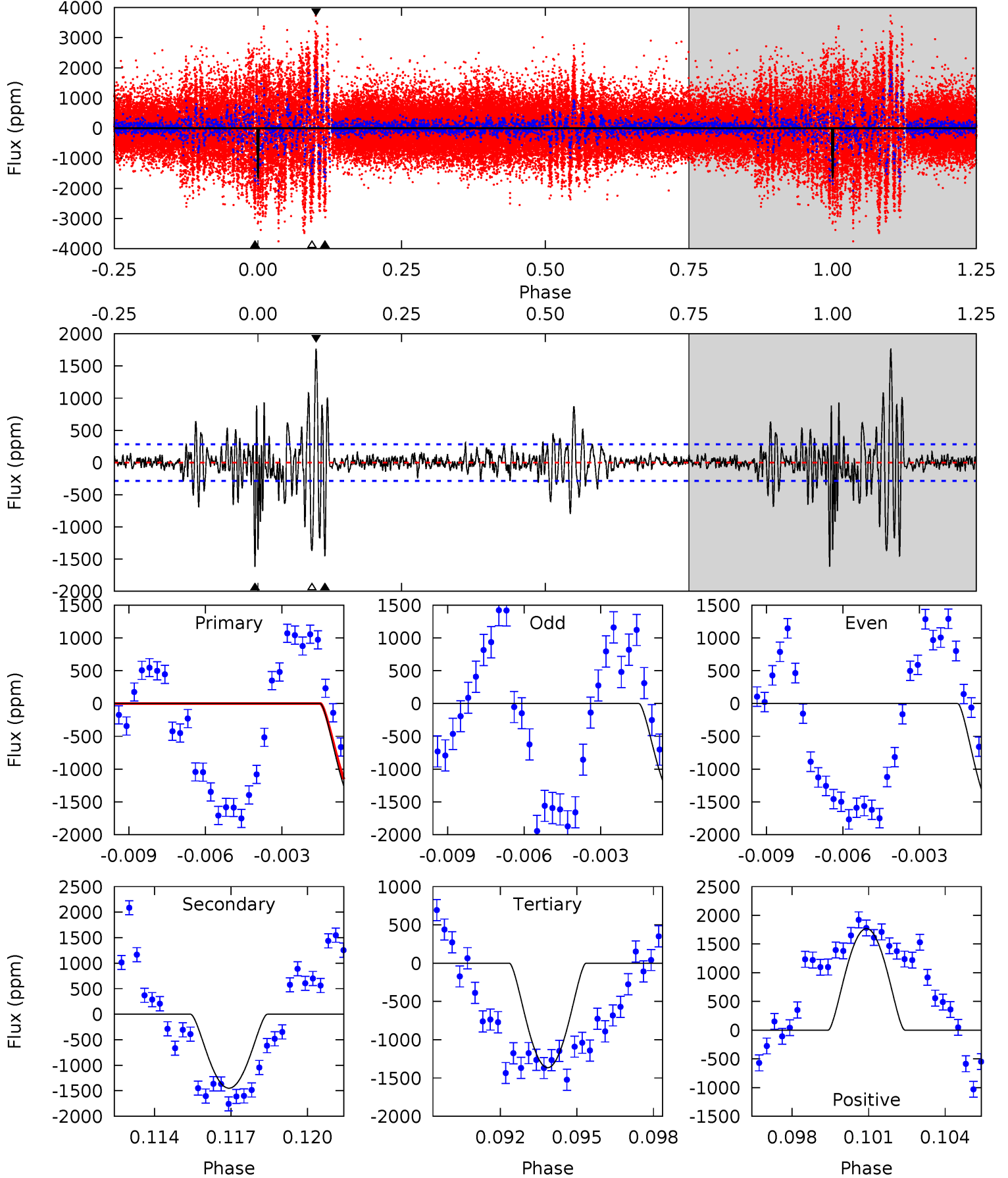
TCE 006198068-01 P=373.436931 Days $T_0=304.619887$ (BKJD)



DV Model-Shift Uniqueness Test

006198068-01, P = 373.475862 Days, E = 304.530996 Days

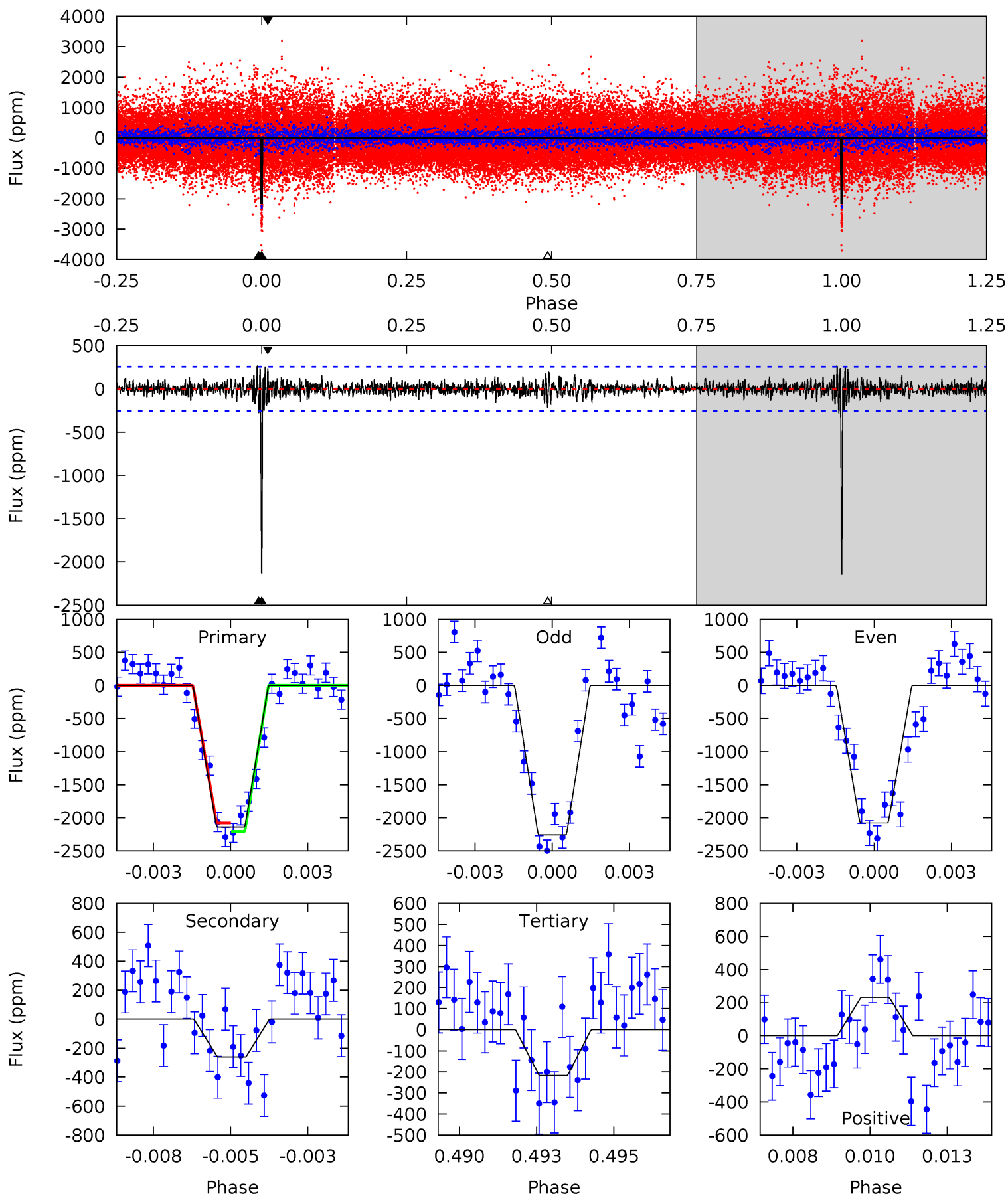
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.0	26.8	25.3	32.8	5.25	2.96	4.65	4.71	-2.78	1.57	-5.91	1.53	1.08	0.52	2.65



Alt Model-Shift Uniqueness Test

006198068-01, P = 373.436931 Days, E = 304.619887 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.3	5.41	4.51	4.80	5.28	3.01	1.09	39.8	39.5	0.90	0.61	1.75	0.95	0.11	1.31



Stellar Parameters For KIC 006198068

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5778^{+161}_{-202}	$4.531^{+0.038}_{-0.212}$	$0.070^{+0.250}_{-0.300}$	$0.911^{+0.273}_{-0.091}$	$1.028^{+0.102}_{-0.136}$	$1.914^{+0.389}_{-1.002}$
	+3%/-3%	+1%/-5%	+357%/-429%	+30%/-10%	+10%/-13%	+20%/-52%
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 006198068-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1450 ± 54	$16.37^{+16.57}_{-11.29}$	344^{+25}_{-16}	3388^{+1879}_{-609}	3069^{+29367}_{-2291}
Alt.	-261 ± 48	$15.53^{+16.82}_{-10.32}$	342^{+26}_{-15}	2665^{+1008}_{-412}	585^{+4771}_{-445}

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 $A_{obs} \gg 1.0$

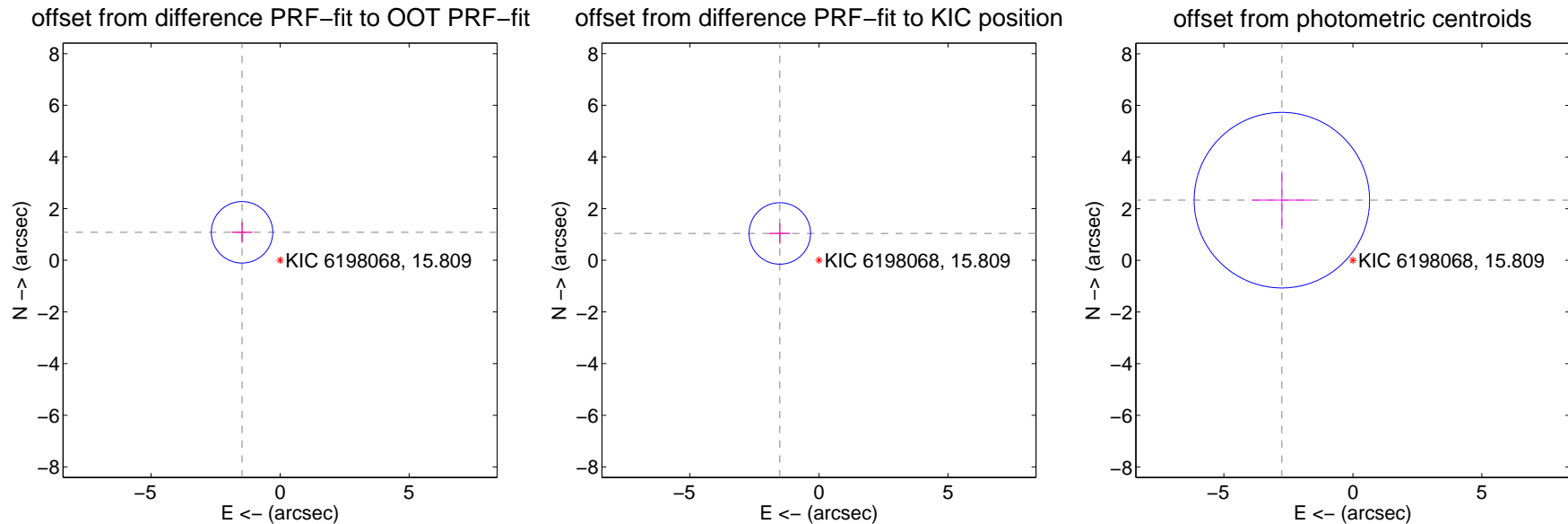
DV Centroid Data

Supplemental centroid analysis for 006198068-01. Kepler magnitude: 15.81. Transit SNR 8.74

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.830 ± 0.397	4.61	1.475 ± 0.396	1.084 ± 0.397
PRF-fit source offset from KIC position	1.840 ± 0.397	4.64	1.518 ± 0.396	1.040 ± 0.397
photometric centroid source offset	3.61 ± 1.13	3.18	2.75 ± 1.15	2.33 ± 1.11



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.

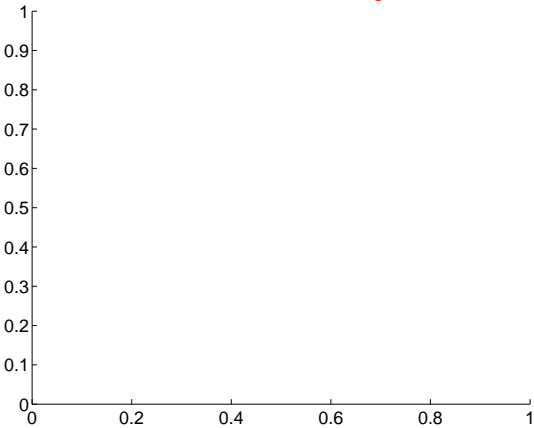
Q5 no difference image



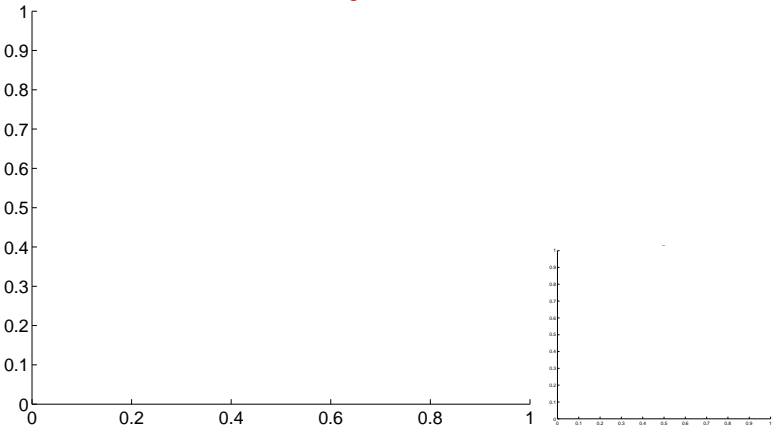
Q5 no OOT image



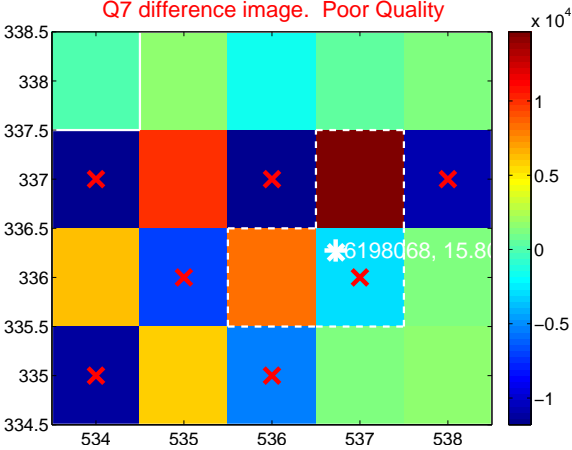
Q6 no difference image



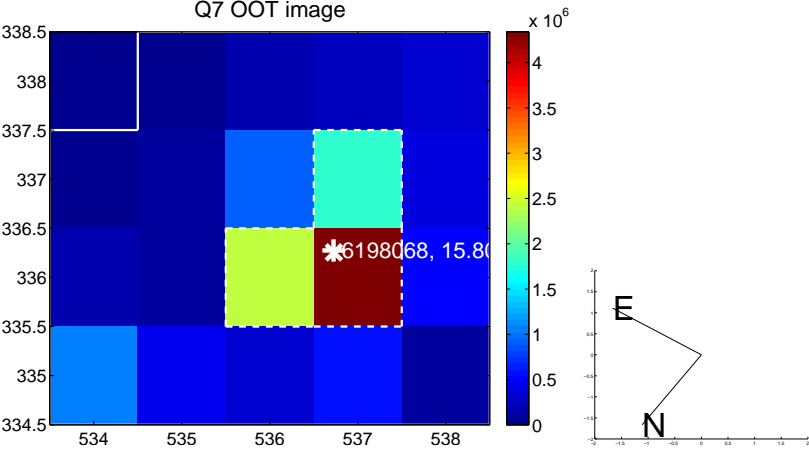
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



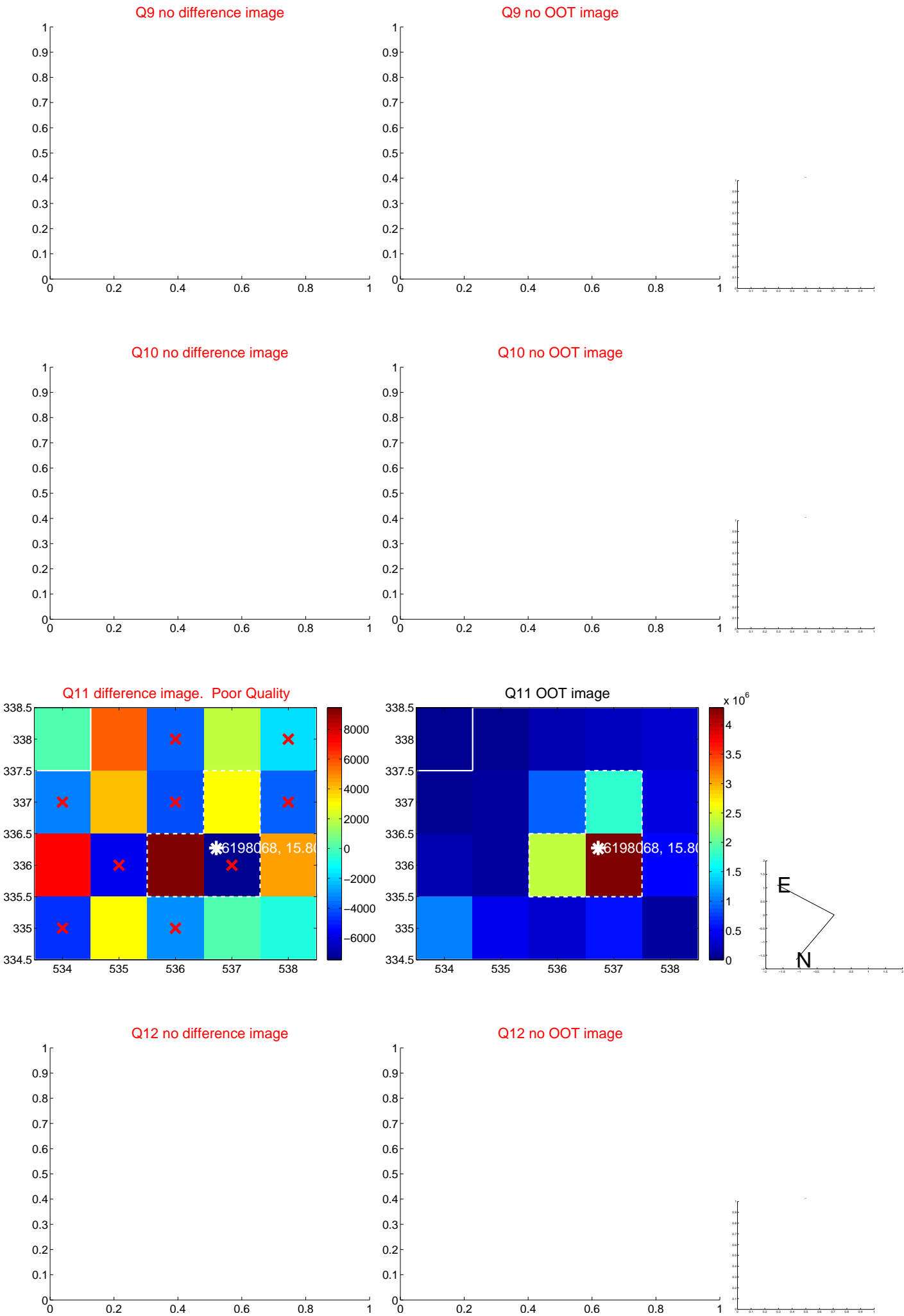
Q8 no difference image



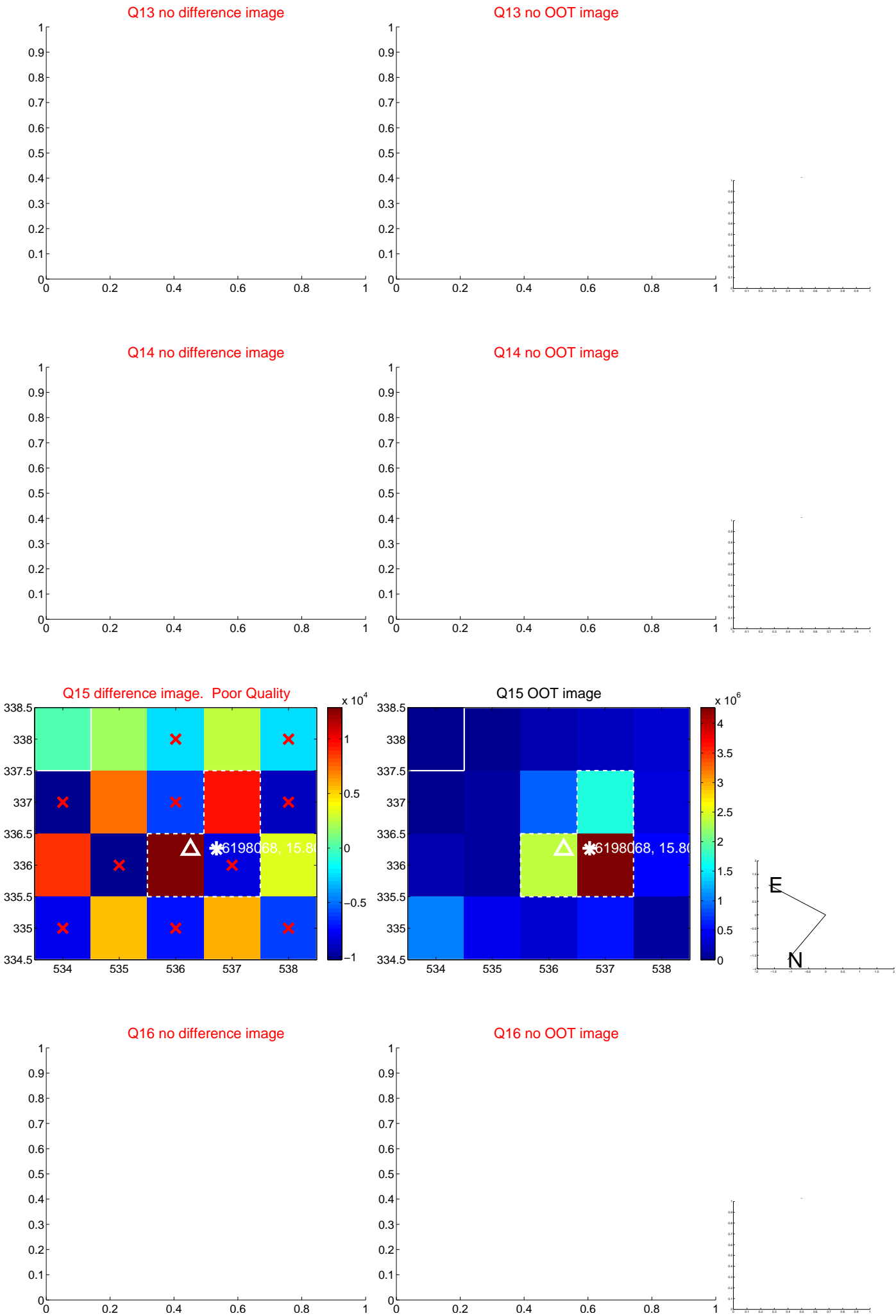
Q8 no OOT image



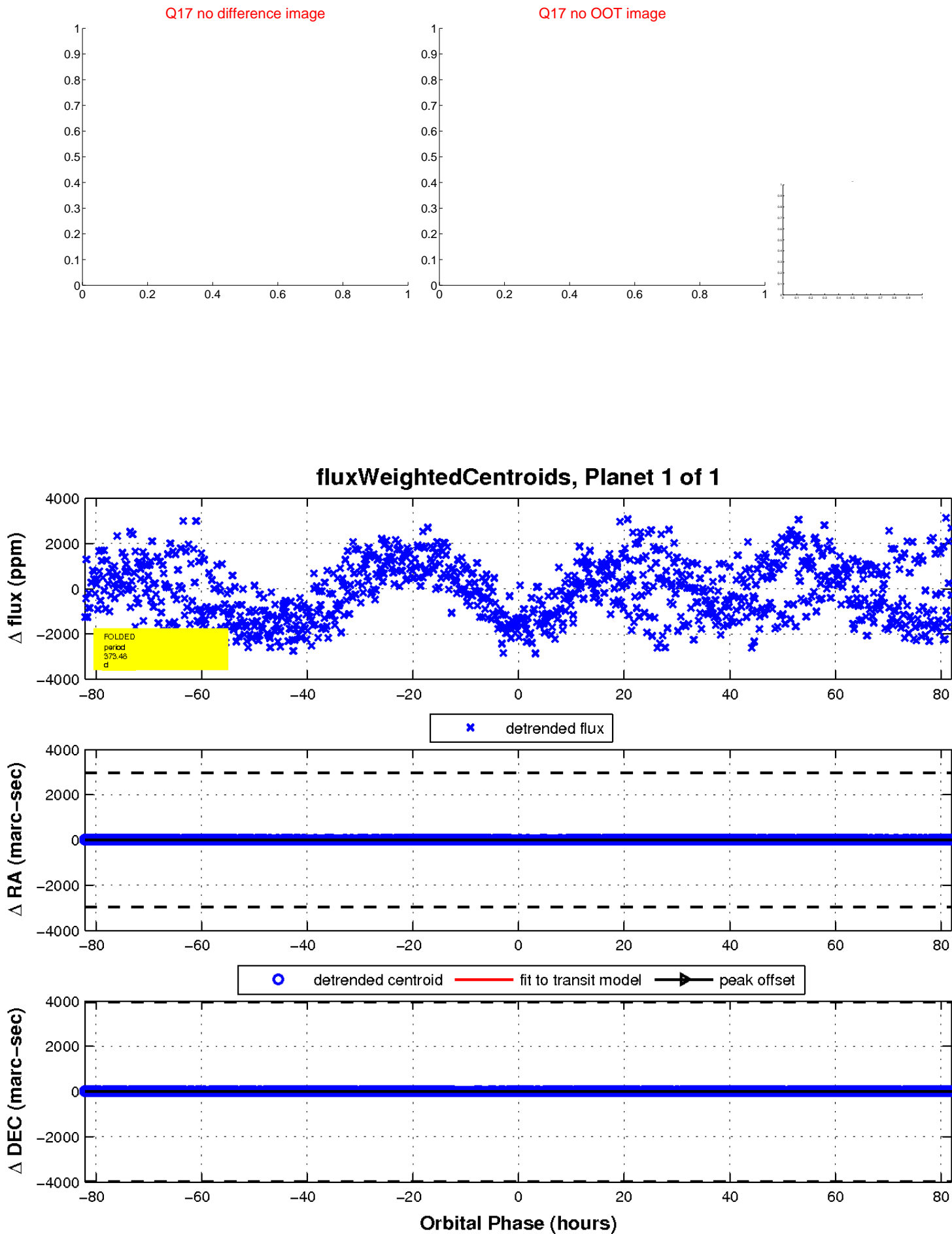
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

