

KIC 009717148

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})
009717148-01	OBS	No	0.990402	132.229811	284.6	2.222	7.3	8.5	0.78	5459	1.53	1410.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009717148-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

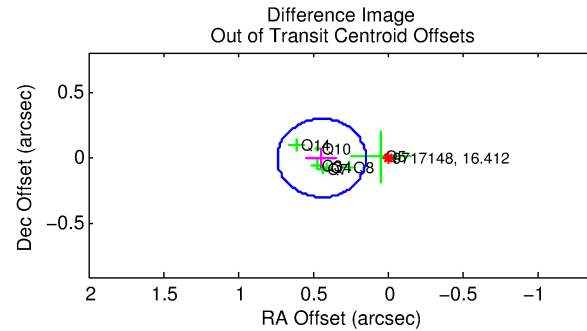
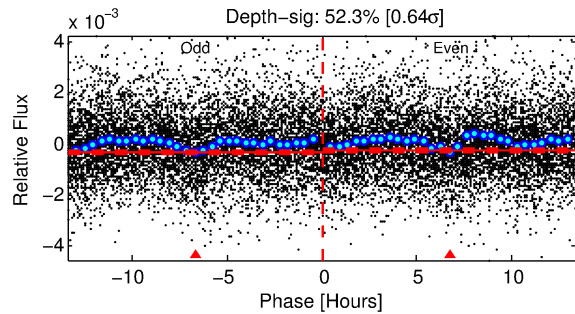
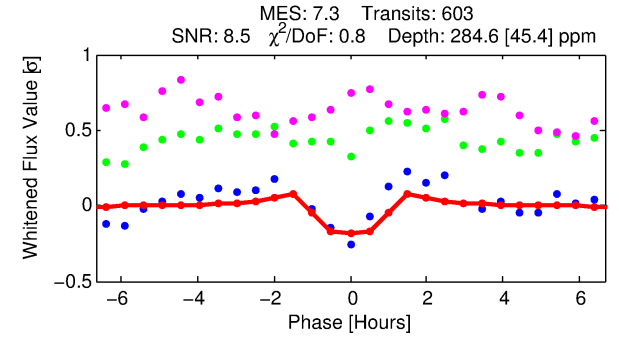
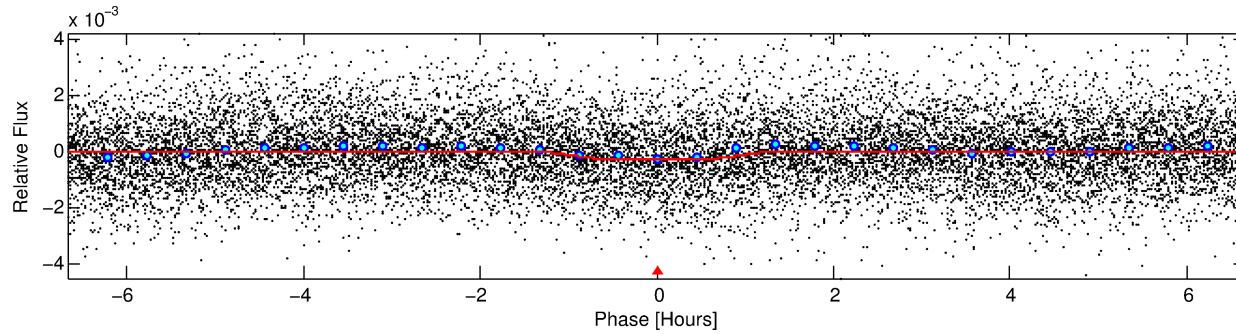
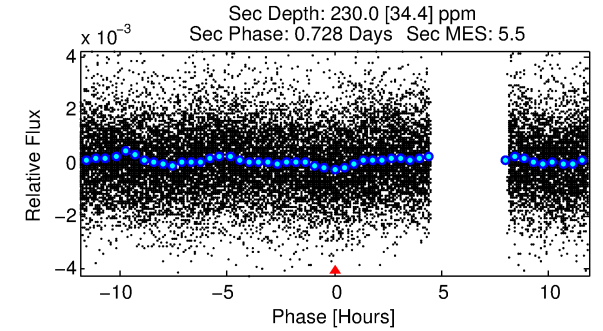
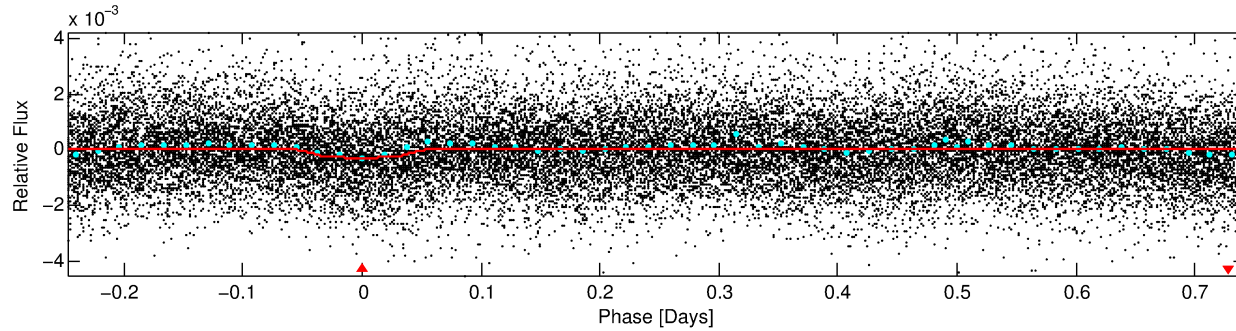
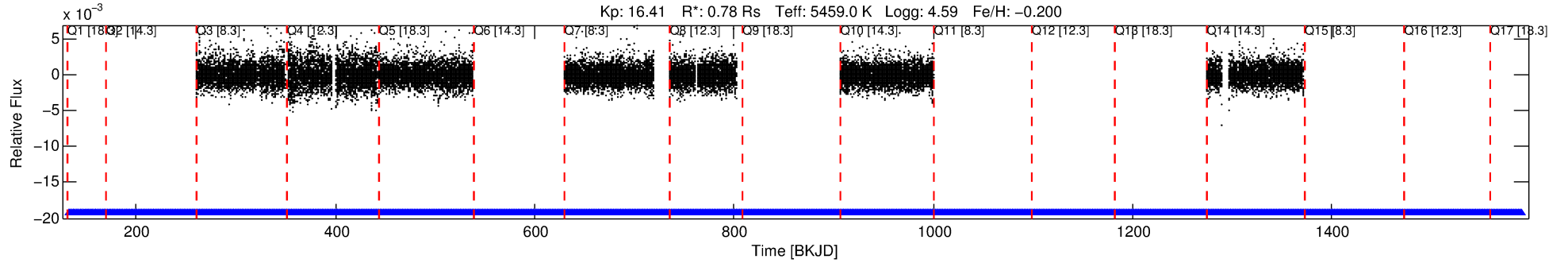
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009717148-01

No Significant Match Found

DV One-Page Summary

KIC: 9717148 Candidate: 1 of 1 Period: 0.990 d



DV Fit Results:

Period = 0.99040 [0.00001] d
Epoch = 132.2298 [0.0025] BKJD
Rp/R* = 0.0180 [0.0134]
a/R* = 2.03 [4.91]
b = 0.87 [0.93]
Seff = 1410.23 [420.61]
Teff = 1563 [117] K
Rp = 1.53 [1.19] Re
a = 0.0185 [0.0034] AU
Ag = 18.48 [28.04] [0.62σ]
Teffp = 5009 [1879] K [1.83σ]

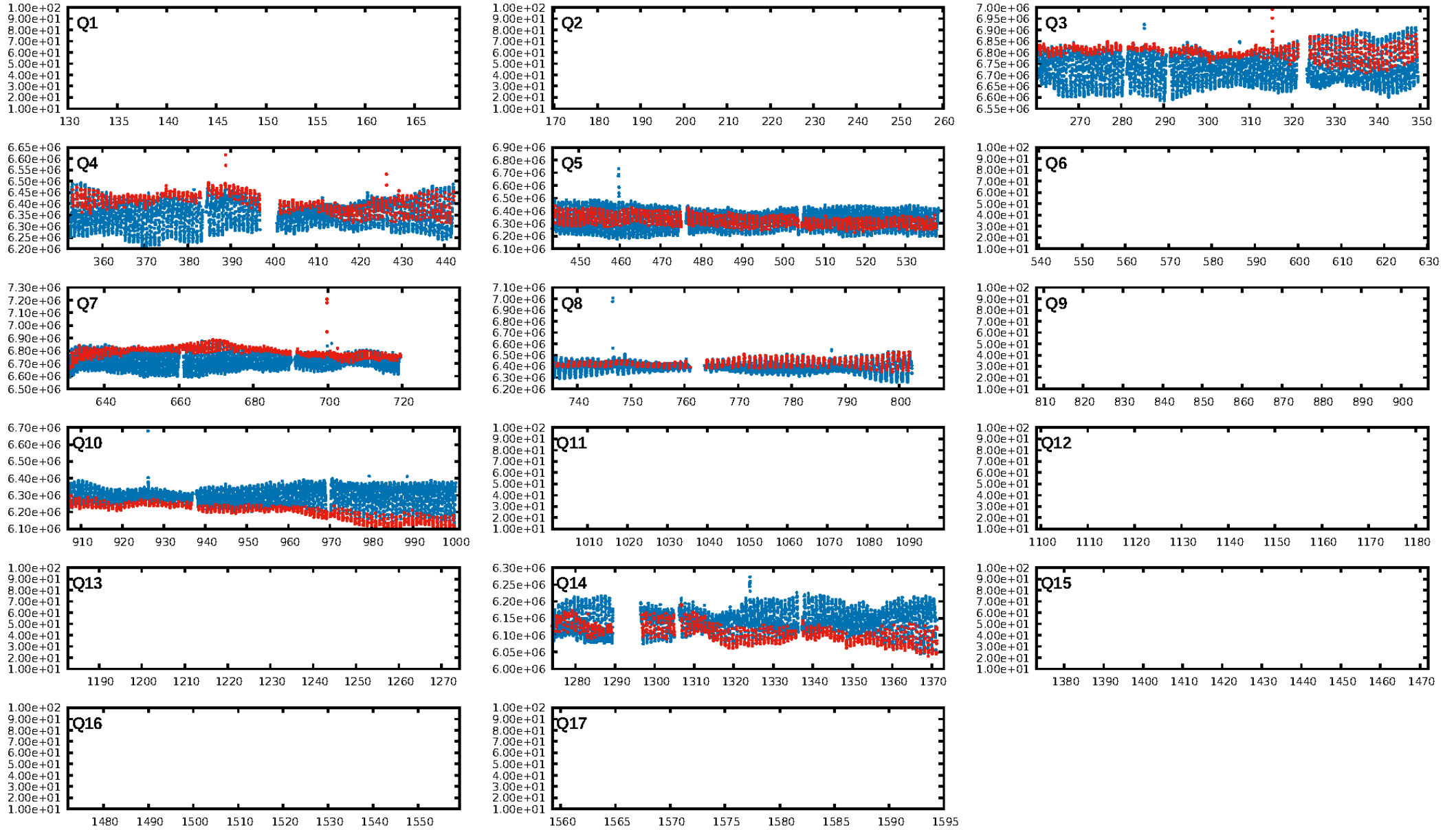
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.95e-12
RollingBand-fgt: 1.00 [603/603]
GhostDiagnostic-chr: 0.4703
Centroid-sig: 0.5%
Centroid-so: 2.079 arcsec [1.84σ]
OotOffset-rm: 0.441 arcsec [4.45σ]
KicOffset-rm: 0.502 arcsec [5.43σ]
OotOffset-st: 2/2/2/1 [7]
KicOffset-st: 2/2/2/1 [7]
DiffImageQuality-fgm: 0.29 [2/7]
DiffImageOverlap-fno: 1.00 [7/7]

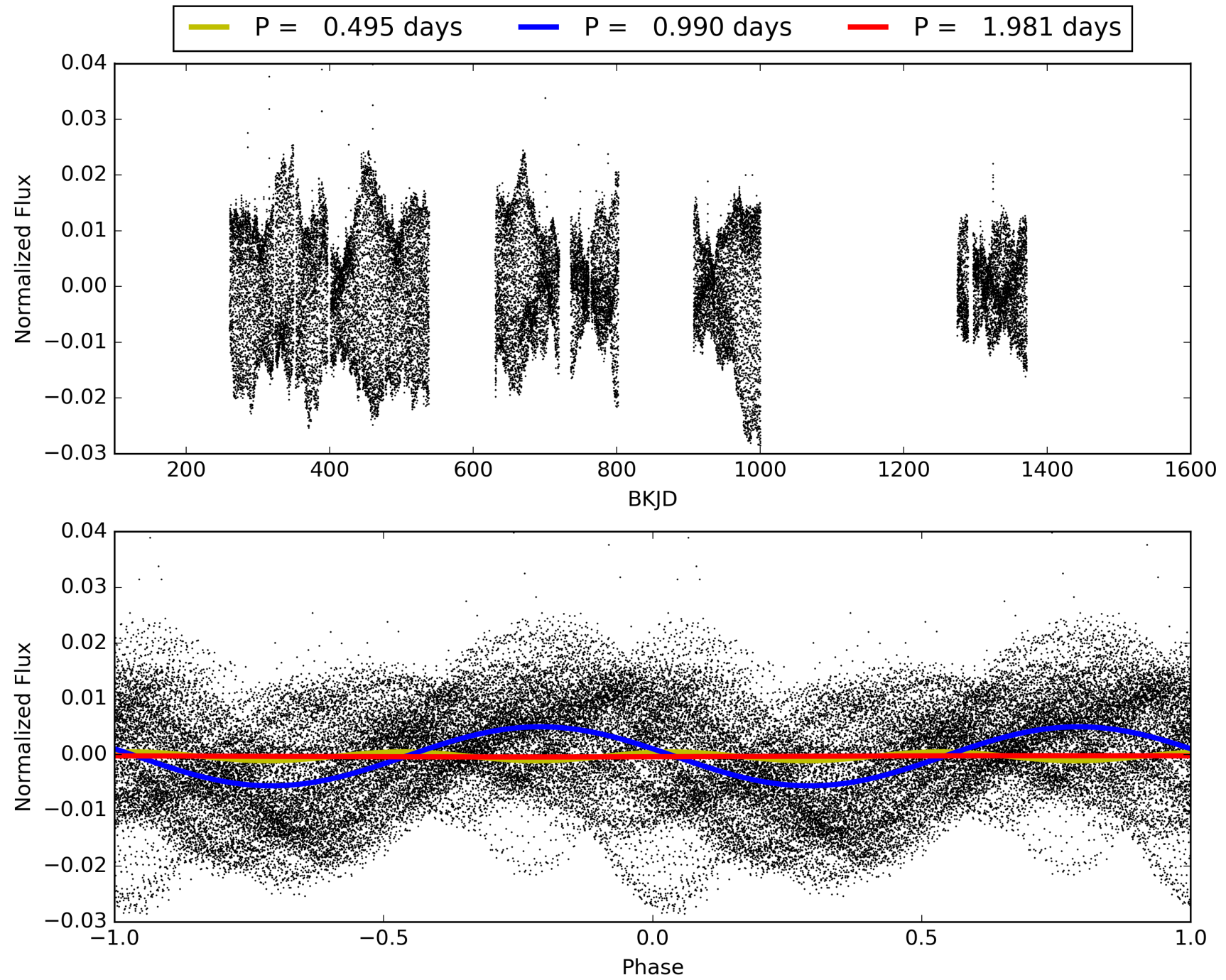
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:53:48 Z

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

TCE 009717148-01, PDC Light Curves

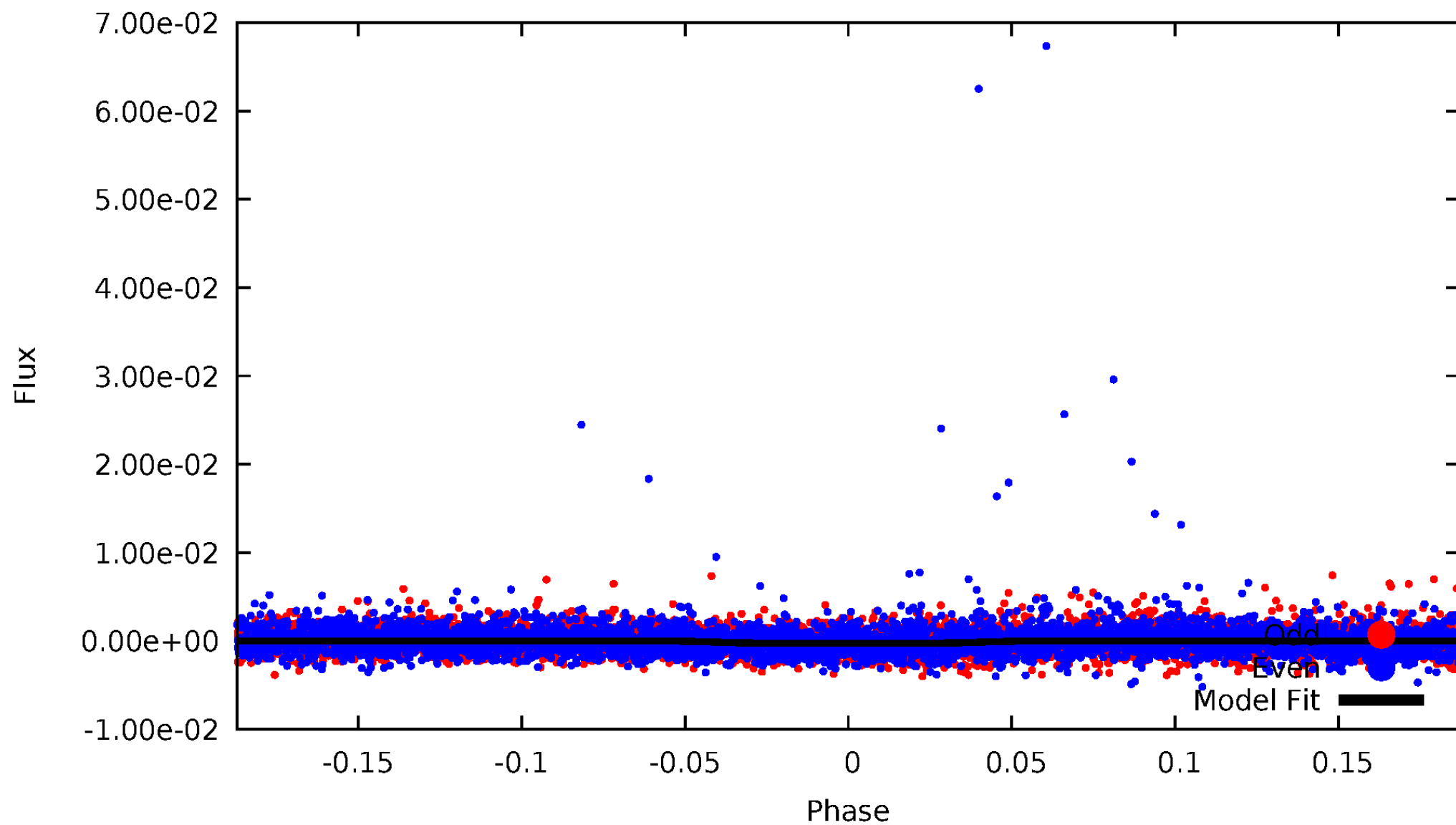


TCE 009717148-01



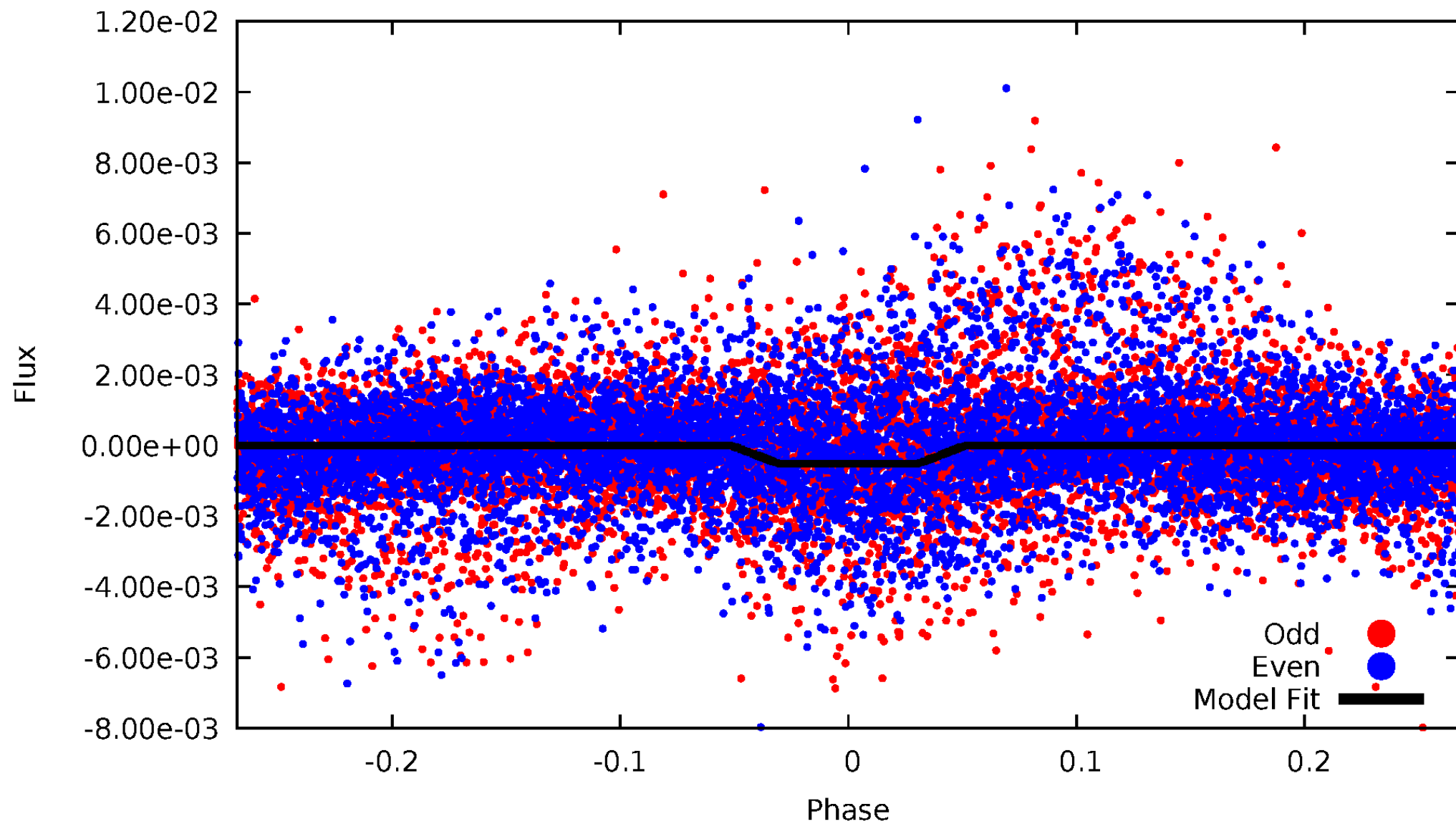
DV Odd/Even

TCE 009717148-01



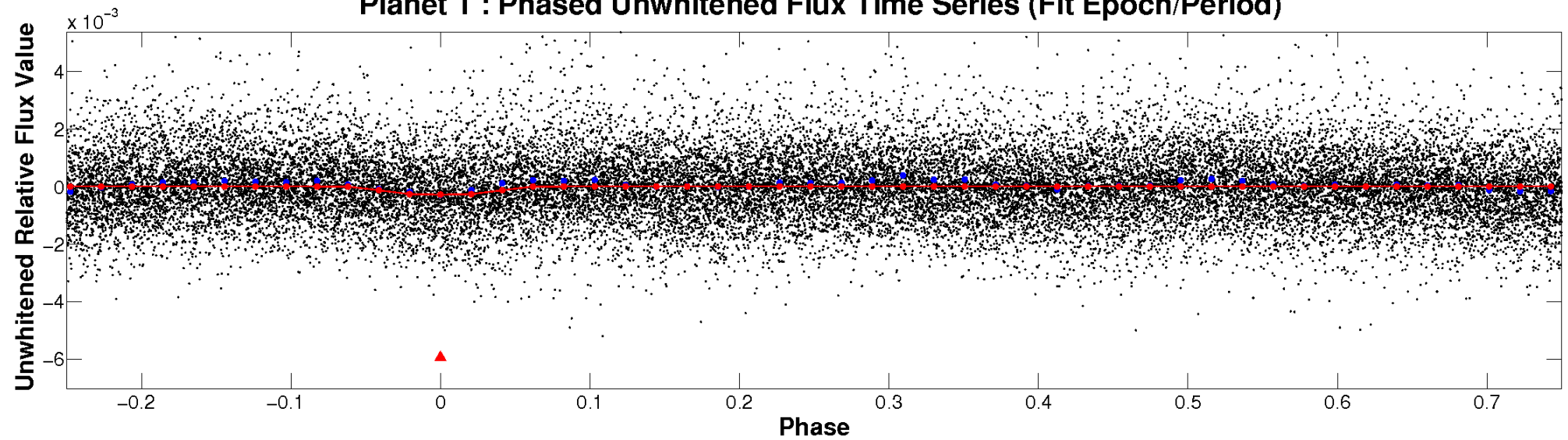
ALT Odd/Even

TCE 009717148-01

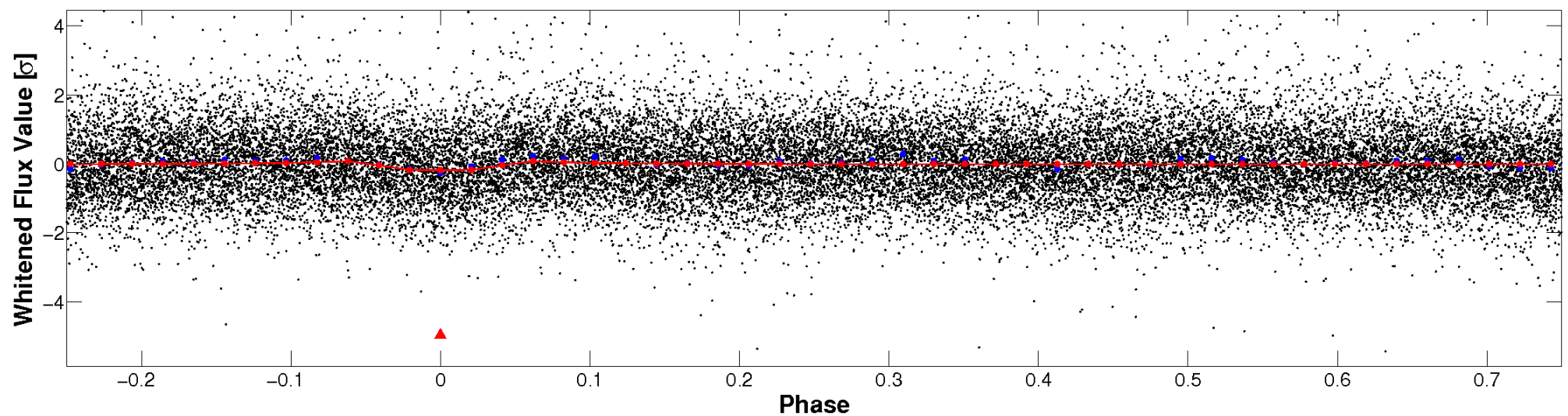


Non-Whitened Vs. Whitened Light Curve

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

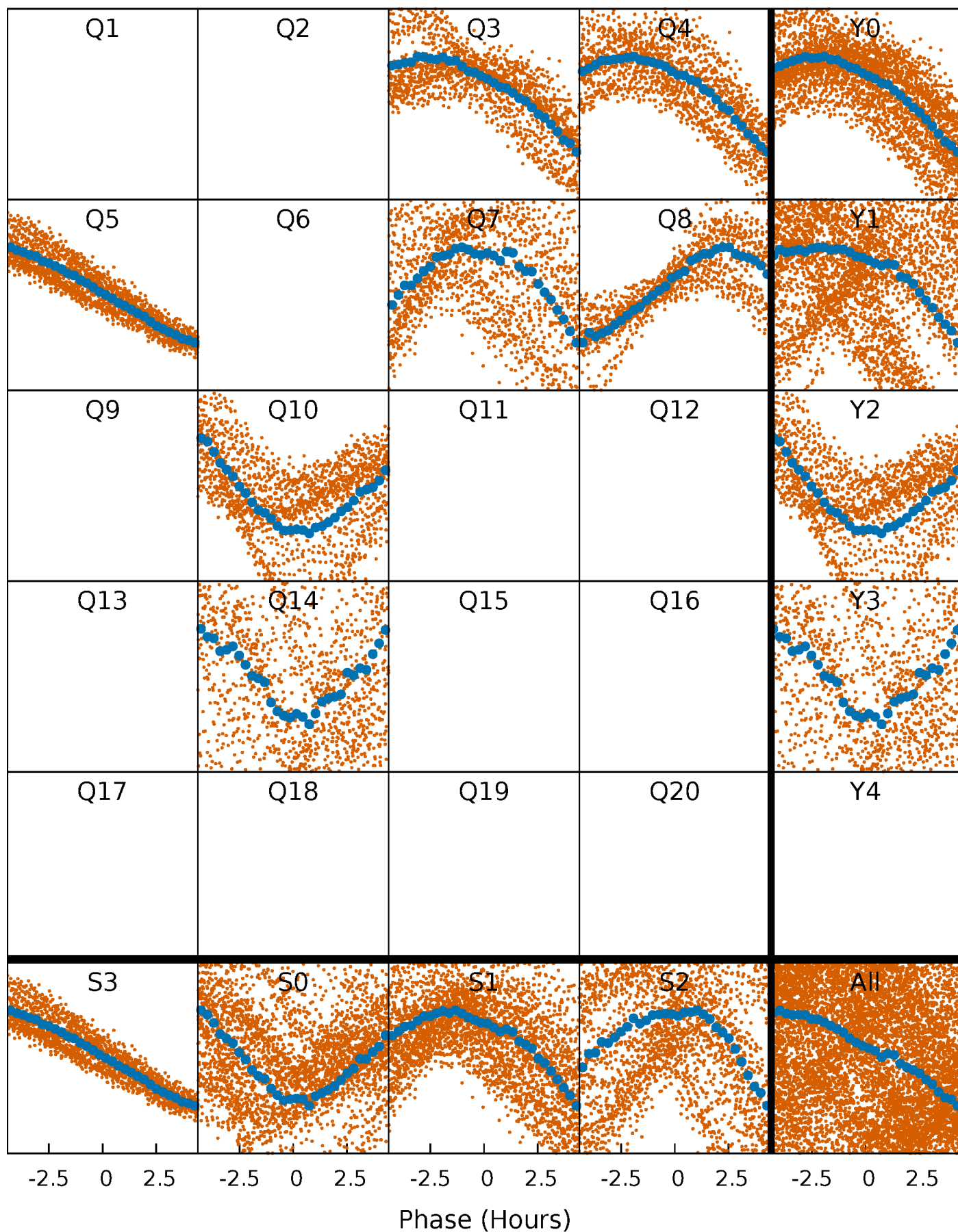


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



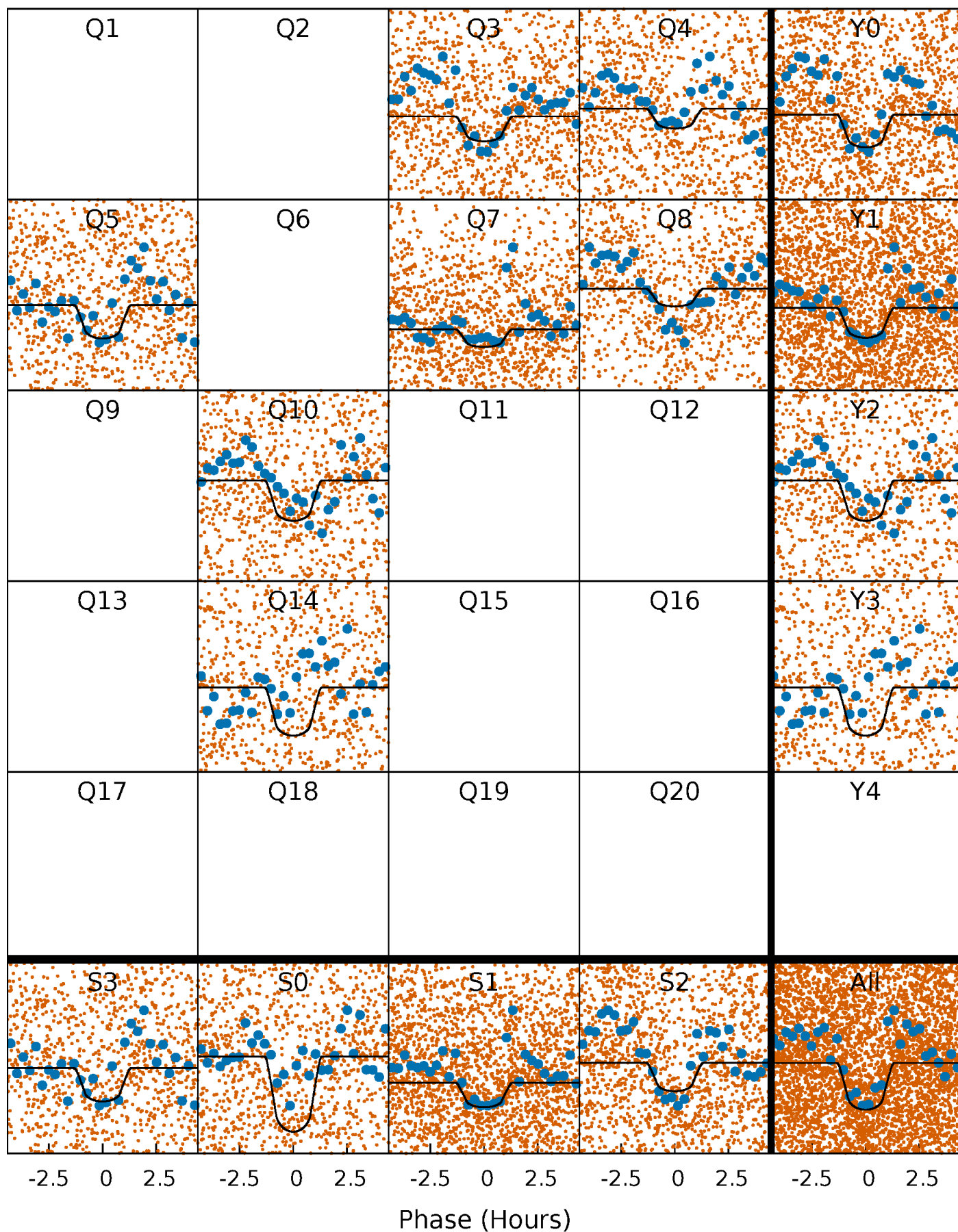
PDC Quarter-Phased Transit Curves

TCE 009717148-01 P= 0.990402 Days $T_0=132.229812$ (BKJD)



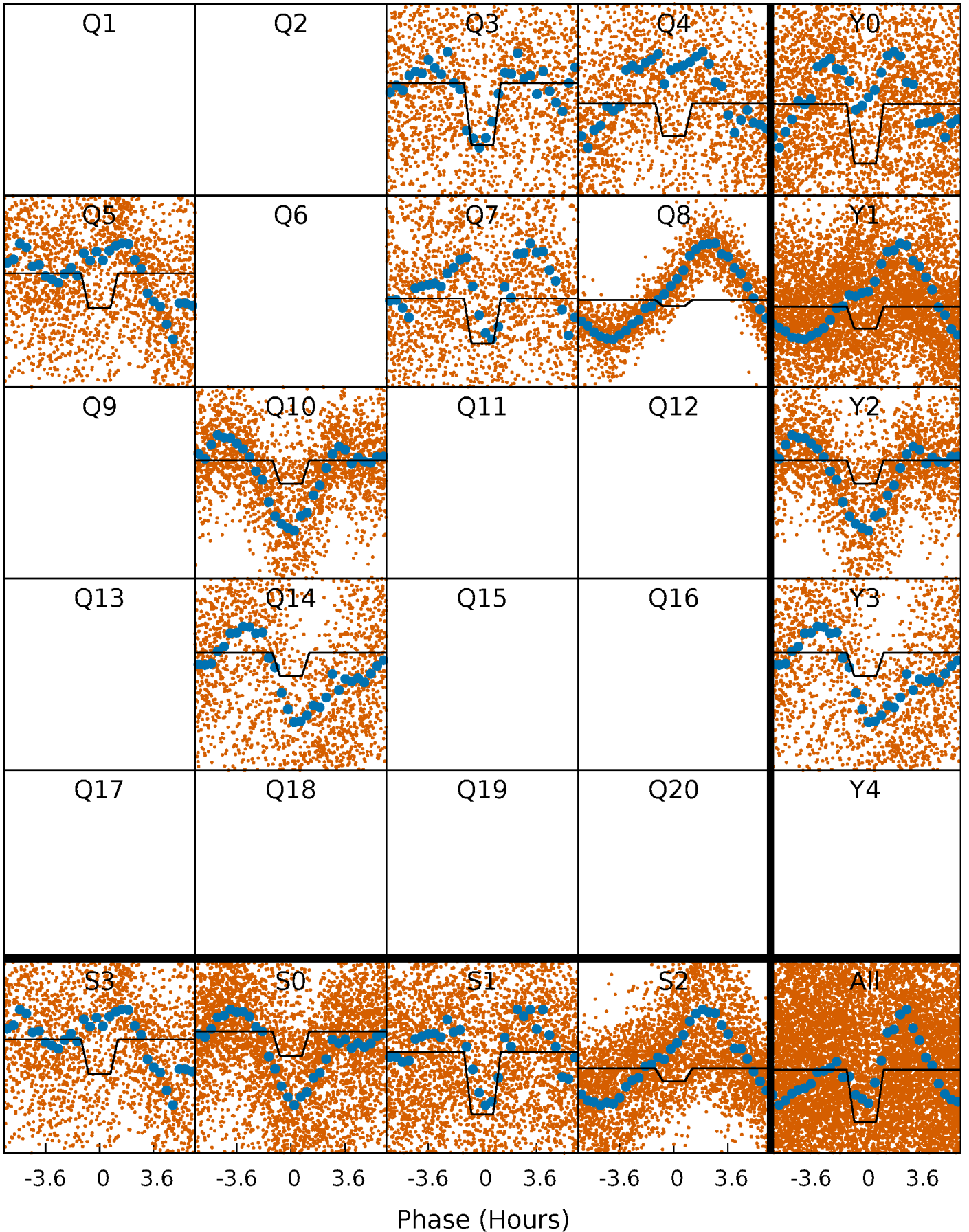
DV Quarter-Phased Transit Curves

TCE 009717148-01 P= 0.990402 Days $T_0=132.229812$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

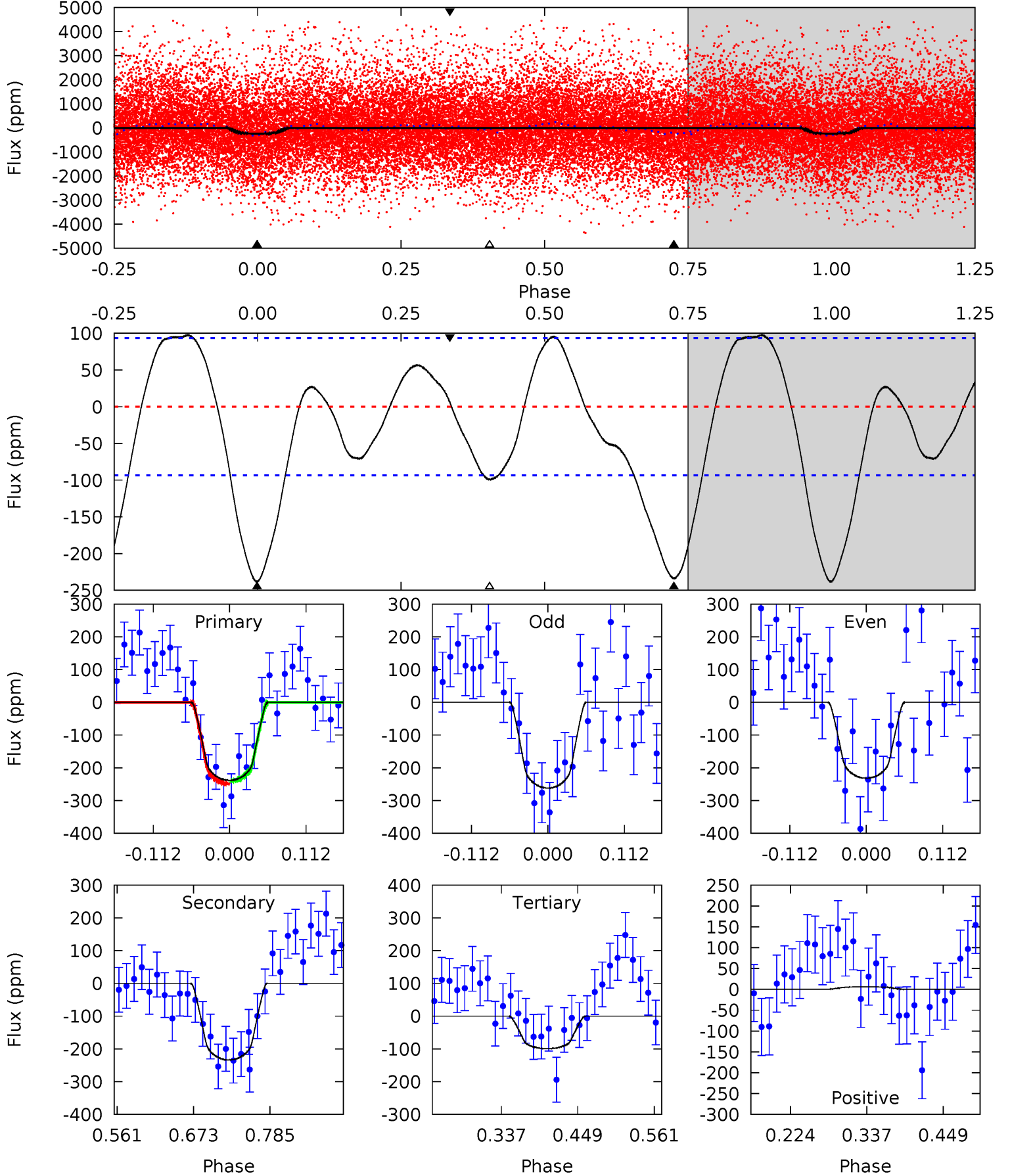
TCE 009717148-01 P= 0.990392 Days $T_0=132.227565$ (BKJD)



DV Model-Shift Uniqueness Test

009717148-01, P = 0.990402 Days, E = 132.229812 Days

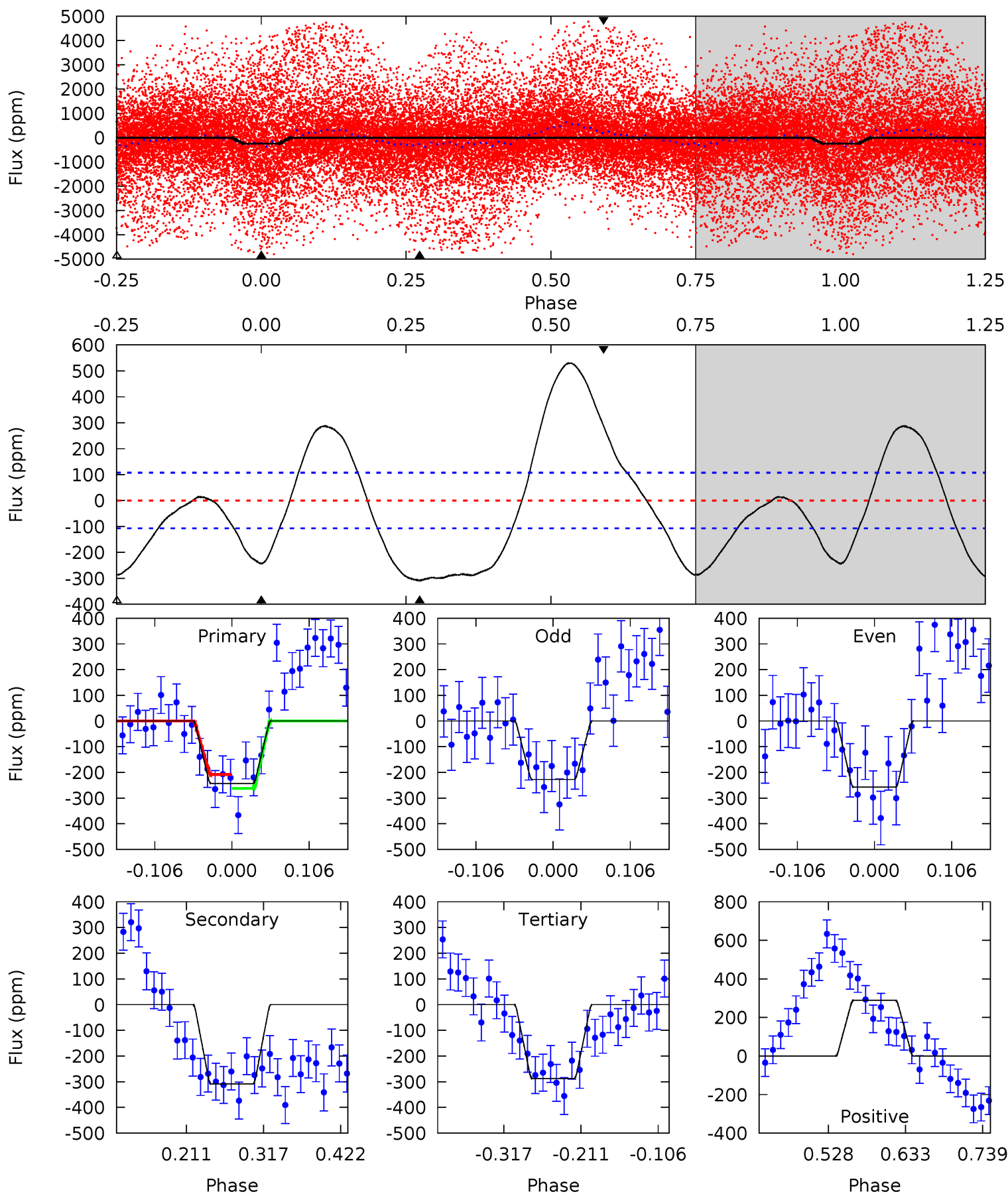
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	11.4	4.83	0.29	4.54	1.59	2.91	6.74	11.3	6.53	11.1	0.74	0.78	0.29	0.20



Alt Model-Shift Uniqueness Test

009717148-01, P = 0.990392 Days, E = 132.227565 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	13.1	12.2	12.3	4.55	1.62	10.5	-1.87	-1.95	0.90	0.83	0.64	1.02	0.63	1.06



Stellar Parameters For KIC 009717148

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5459^{+189}_{-189}	$4.590^{+0.036}_{-0.144}$	$-0.200^{+0.300}_{-0.300}$	$0.779^{+0.169}_{-0.068}$	$0.866^{+0.089}_{-0.098}$	$2.582^{+0.463}_{-1.003}$
	+3%/-3%	+1%/-3%	+150%/-150%	+22%/-9%	+10%/-11%	+18%/-39%
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 009717148-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-234 ± 21	$1.76^{+1.12}_{-1.02}$	2219^{+129}_{-98}	4832^{+2621}_{-874}	14^{+64}_{-9}
Alt.	-308 ± 24	$2.10^{+1.23}_{-1.12}$	2228^{+127}_{-99}	4774^{+2027}_{-810}	13^{+48}_{-8}

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 $A_{obs} \gg 1.0$

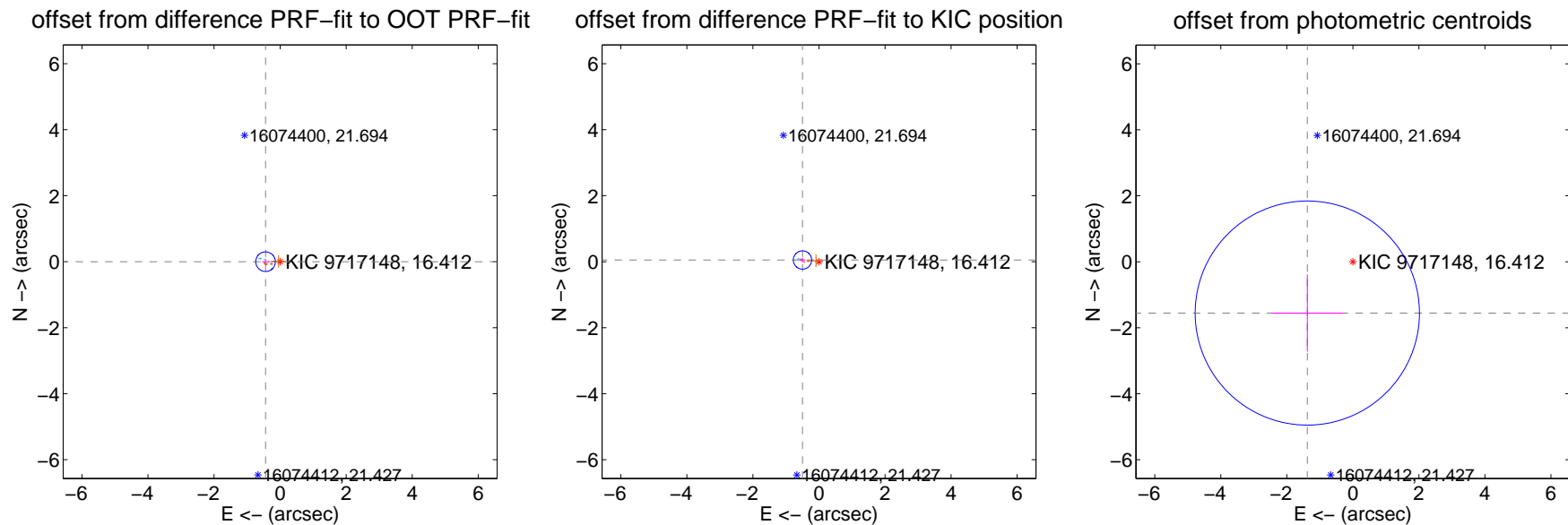
DV Centroid Data

Supplemental centroid analysis for 009717148-01. Kepler magnitude: 16.41. Transit SNR 8.49

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.441 ± 0.099	4.45	0.441 ± 0.099	-0.000 ± 0.072
PRF-fit source offset from KIC position	0.502 ± 0.092	5.43	0.500 ± 0.092	0.051 ± 0.067
photometric centroid source offset	2.08 ± 1.13	1.84	1.38 ± 1.08	-1.56 ± 1.17



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.

Q1 no difference image



Q1 no OOT image



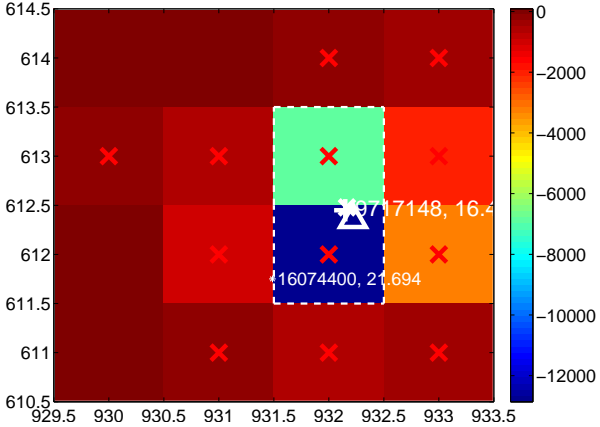
Q2 no difference image



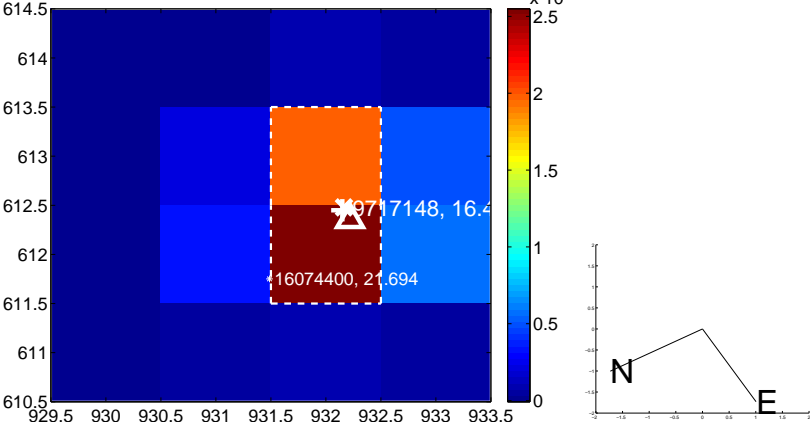
Q2 no OOT image



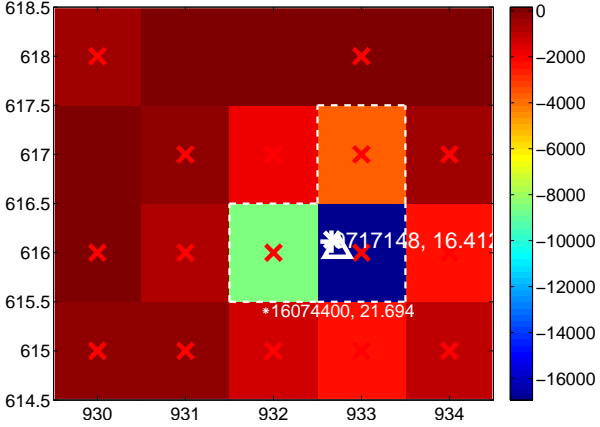
Q3 difference image. Poor Quality



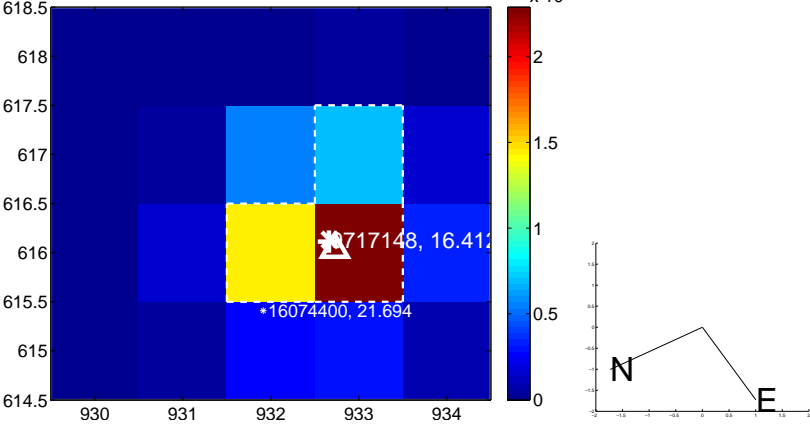
Q3 OOT image



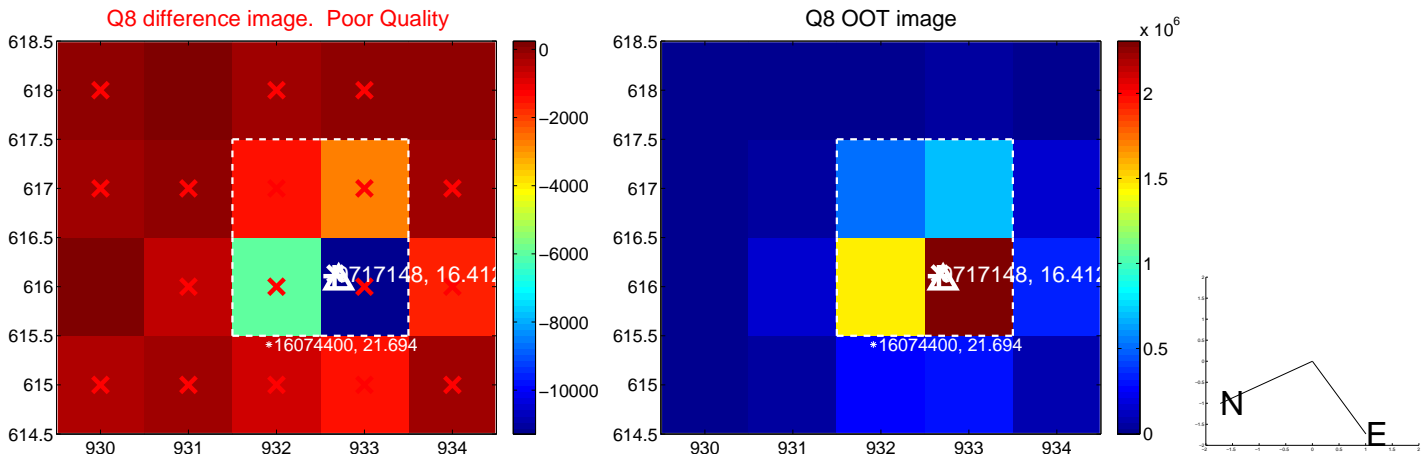
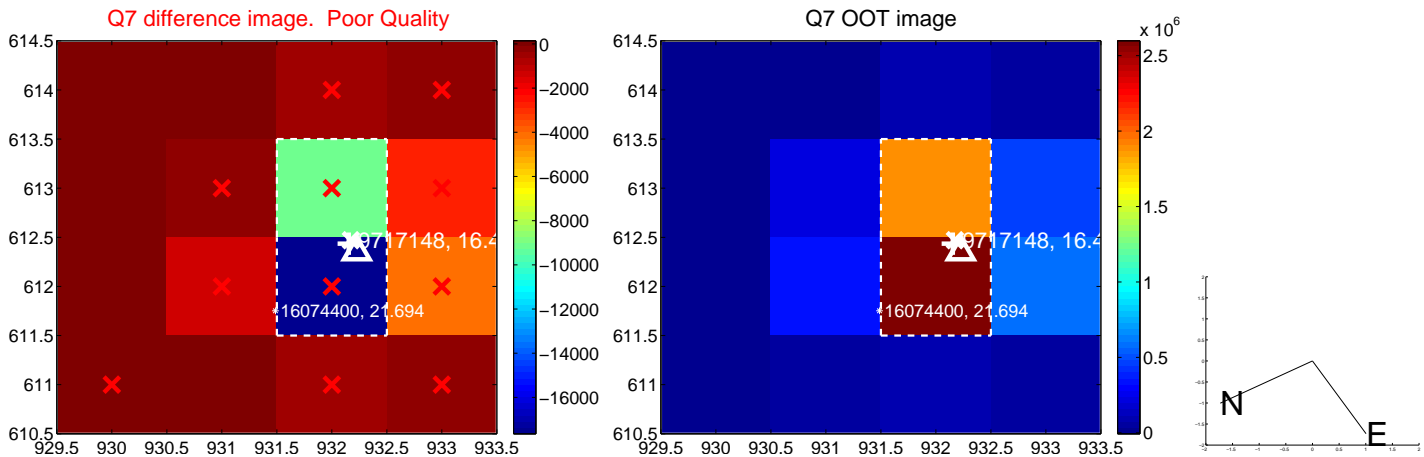
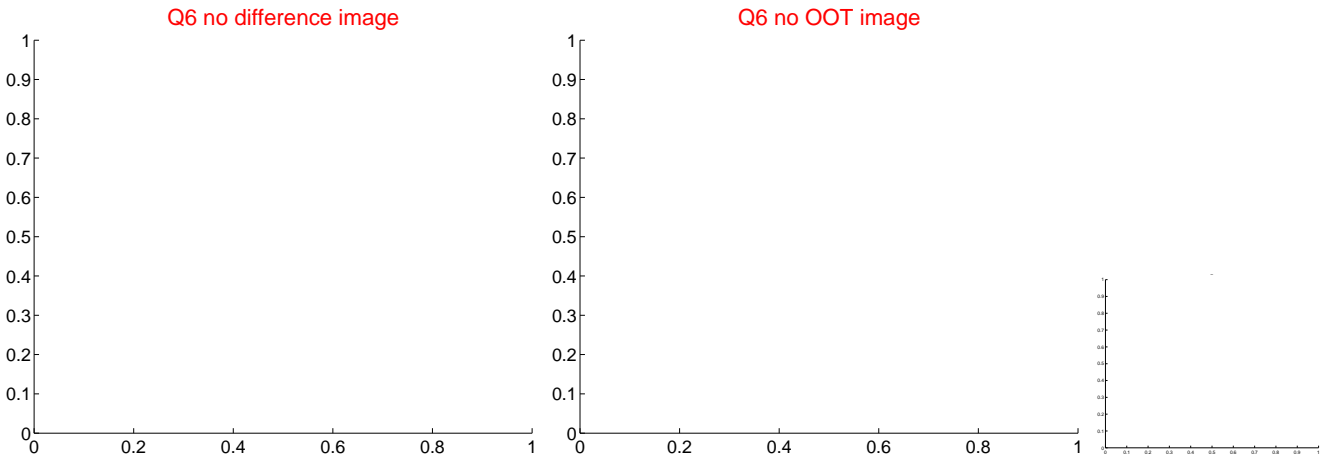
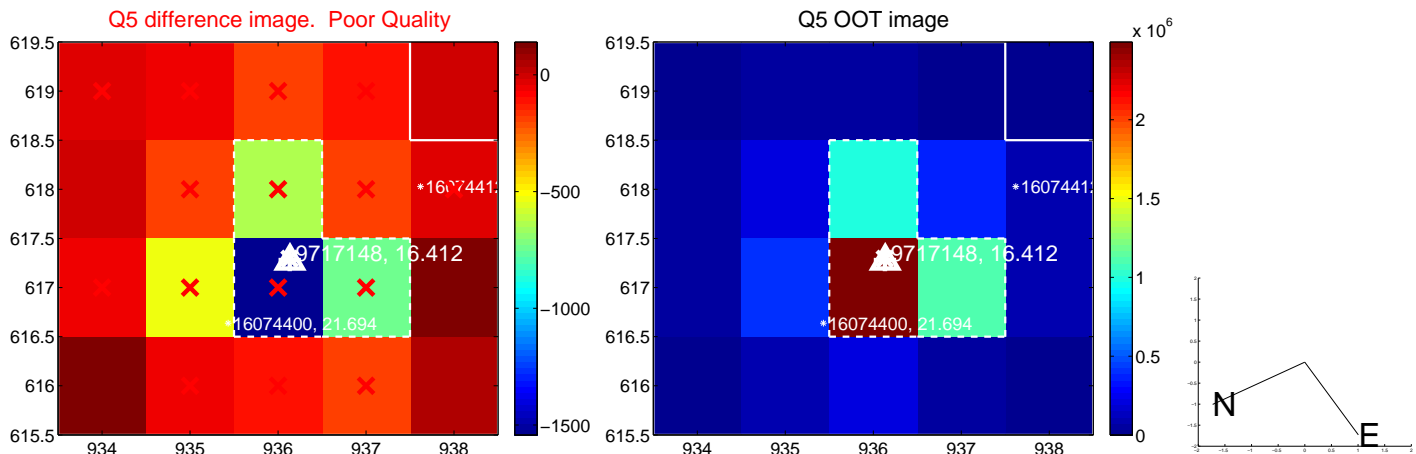
Q4 difference image. Poor Quality



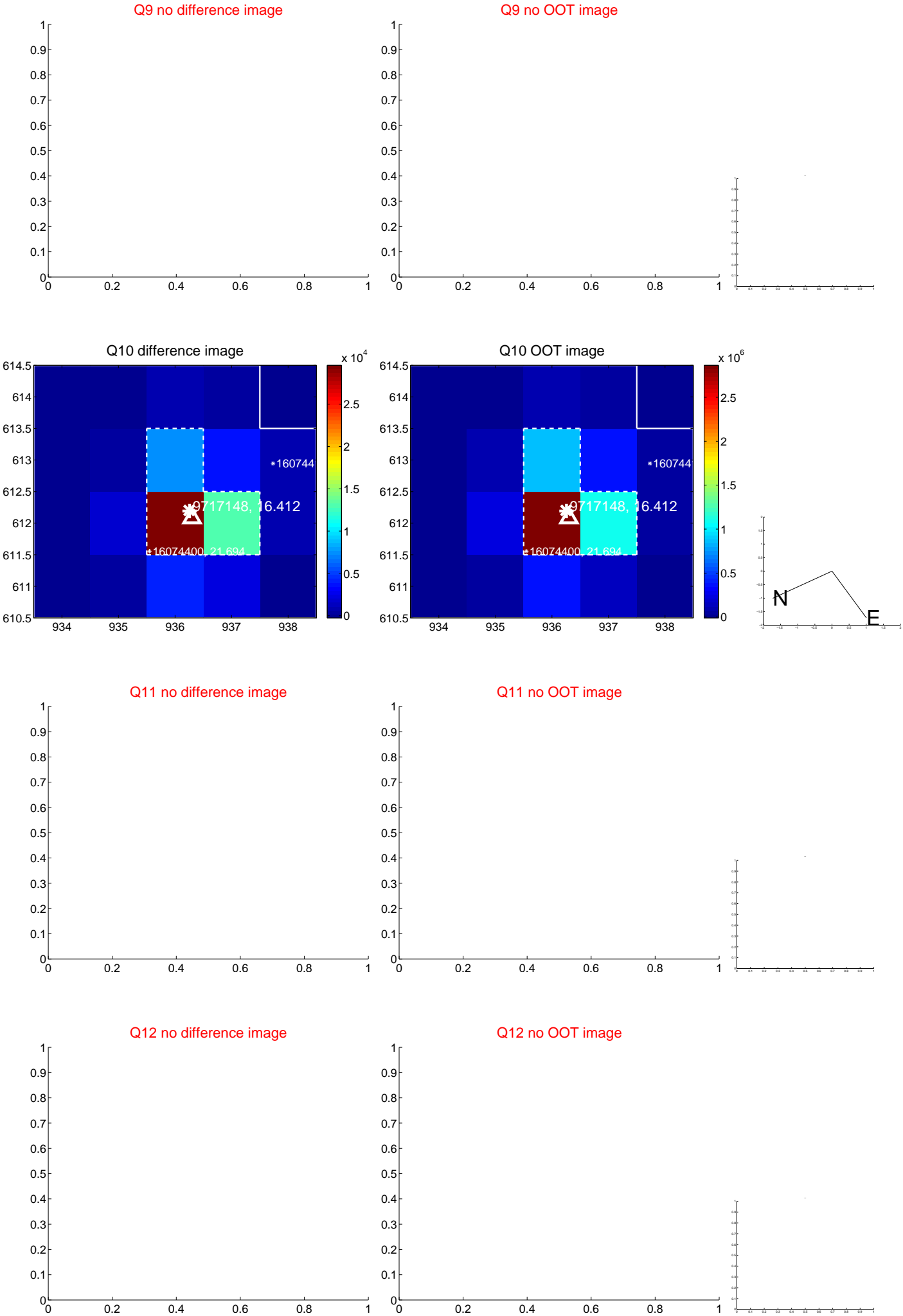
Q4 OOT image



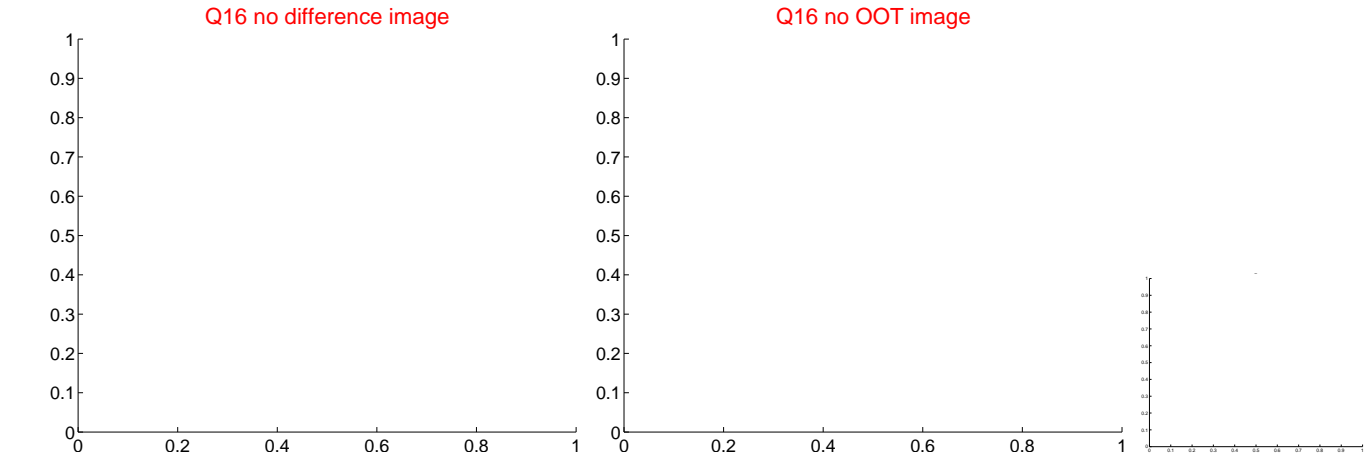
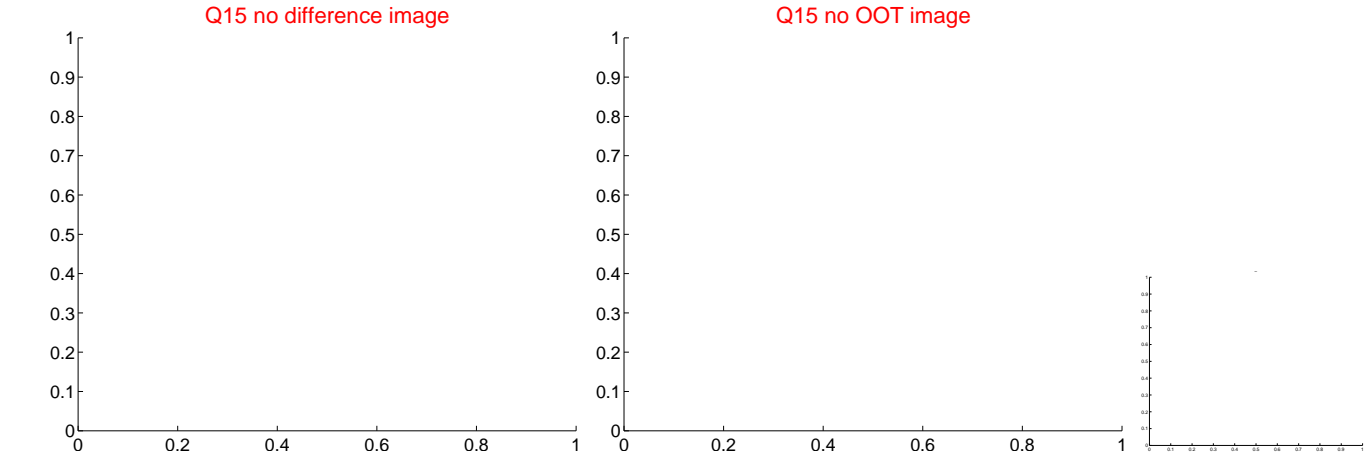
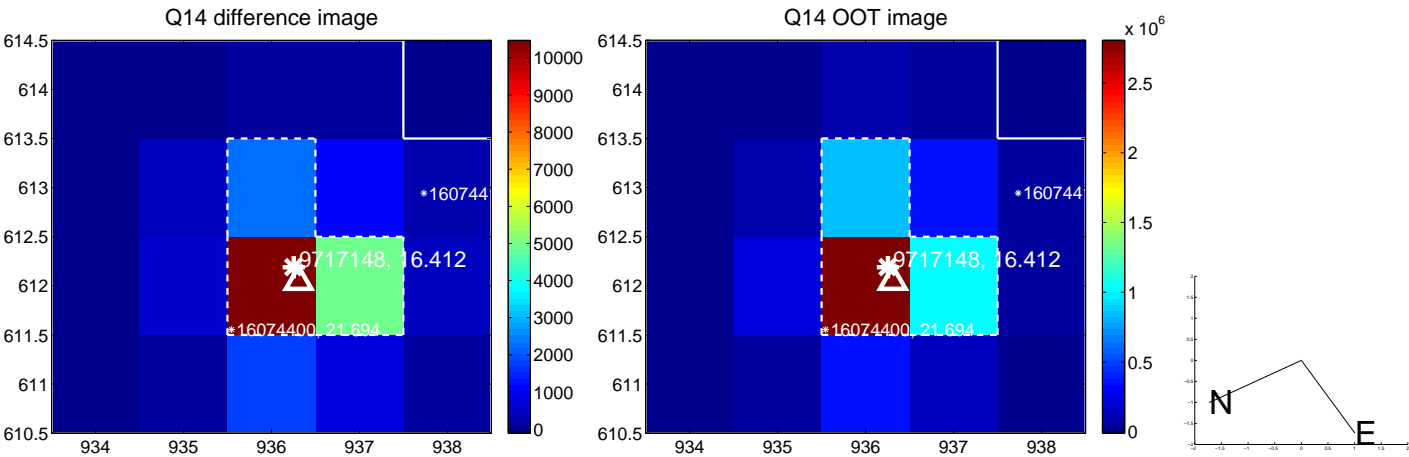
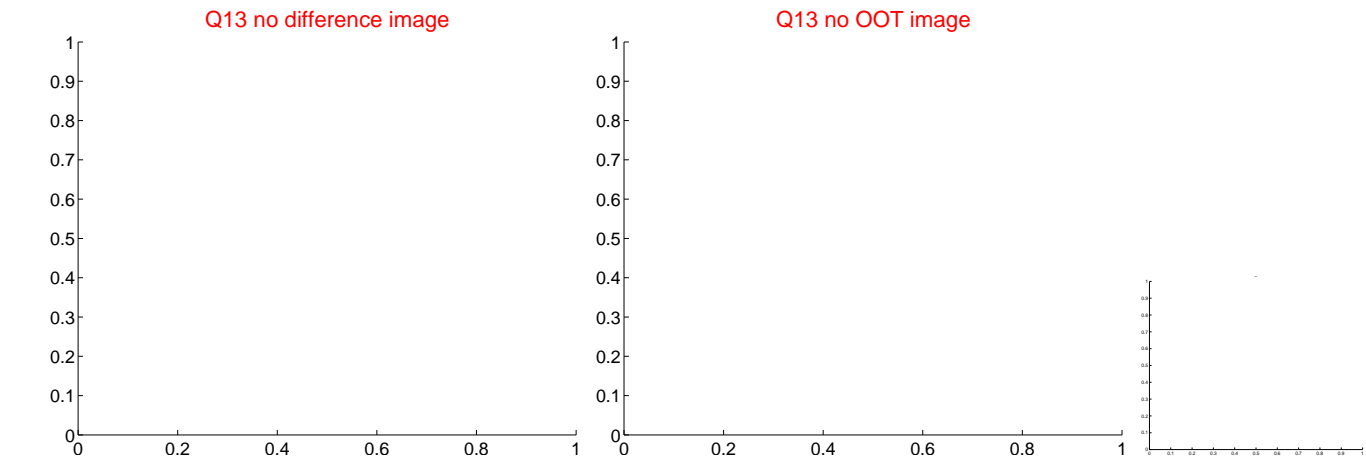
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



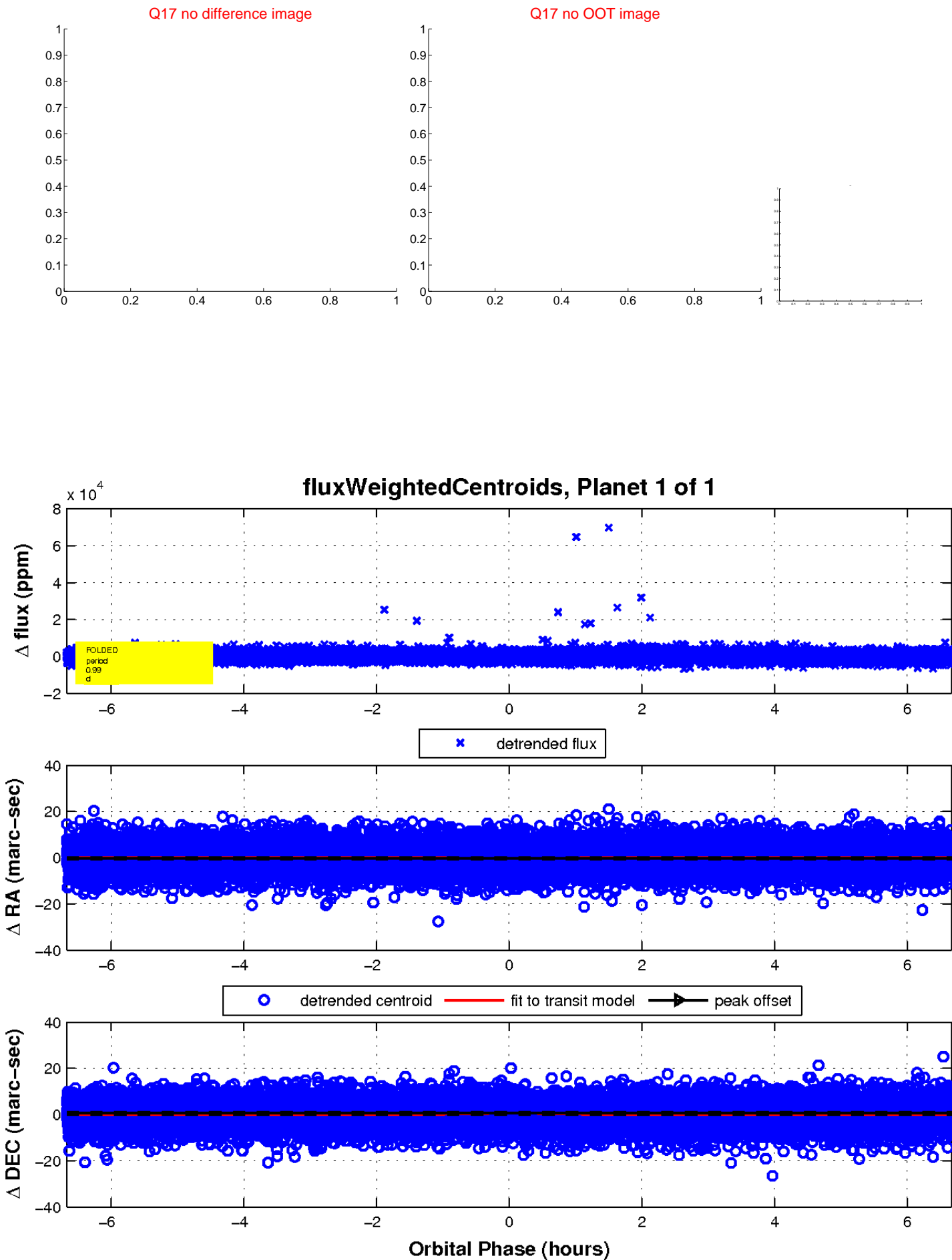
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

