

KIC 009466647

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})
009466647-01	OBS	No	415.801447	215.872097	438.9	18.628	9.2	9.1	1.00	6089	2.40	1.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009466647-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—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.

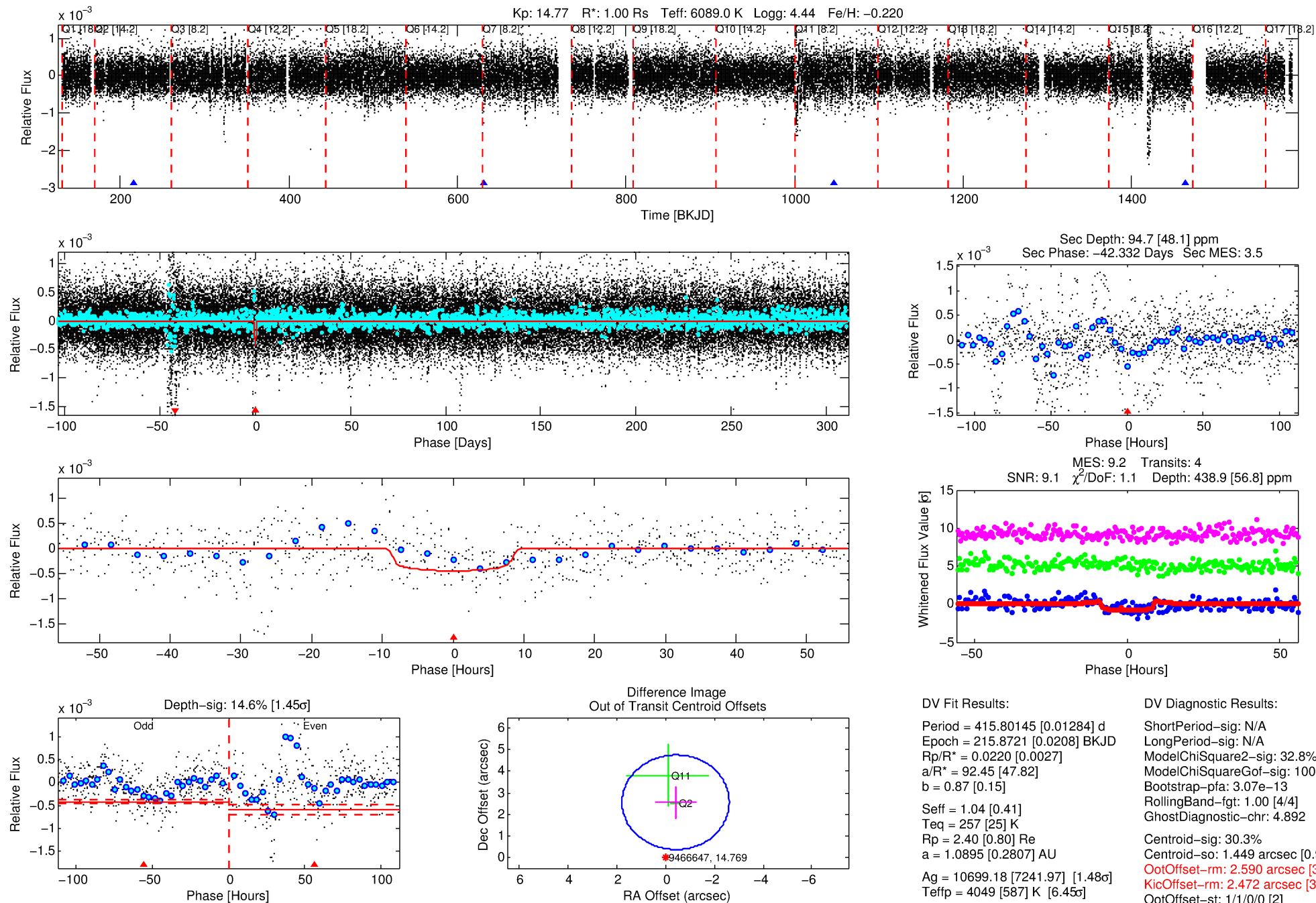
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009466647-01

No Significant Match Found

DV One-Page Summary

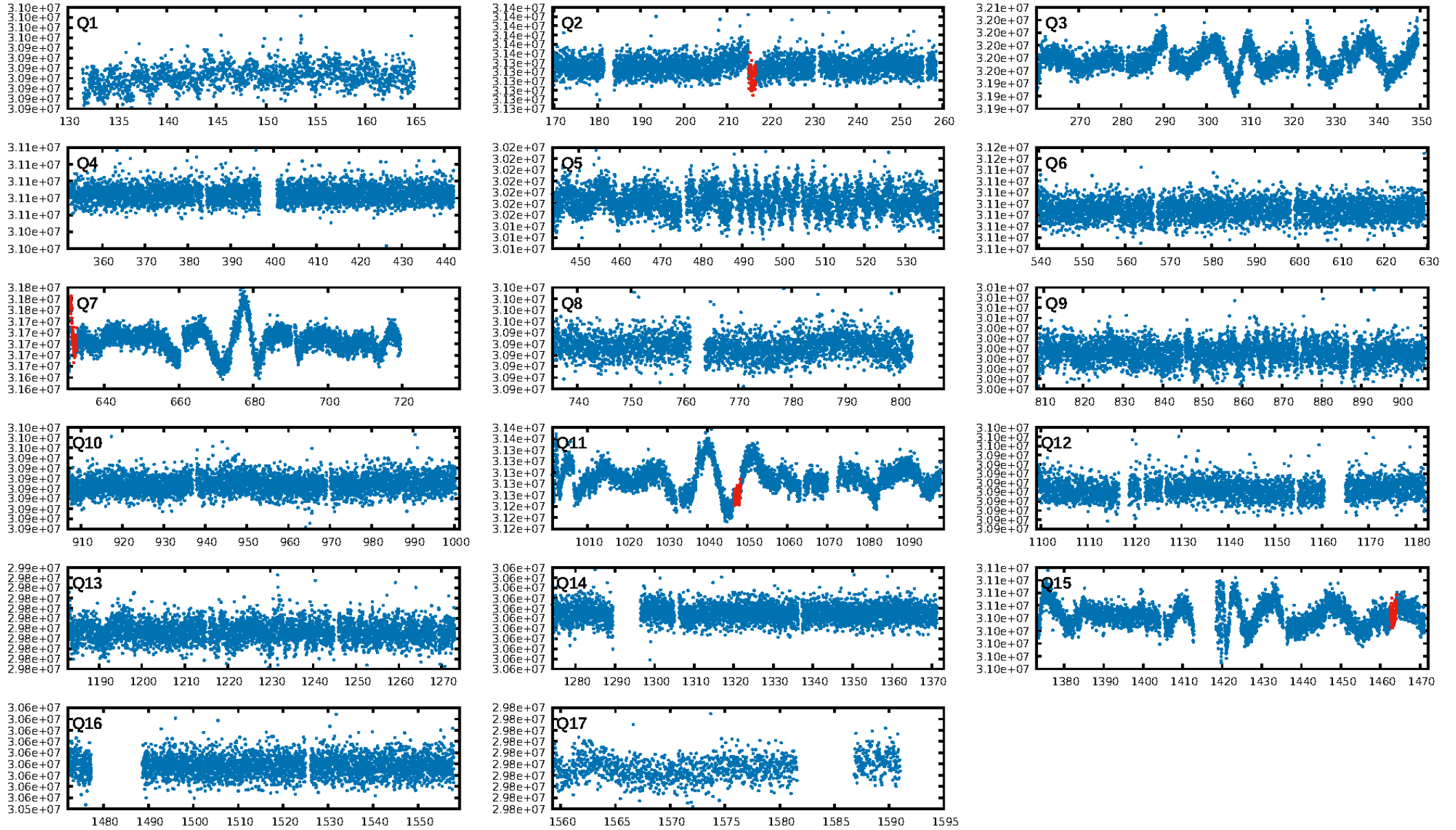
KIC: 9466647 Candidate: 1 of 1 Period: 415.801 d



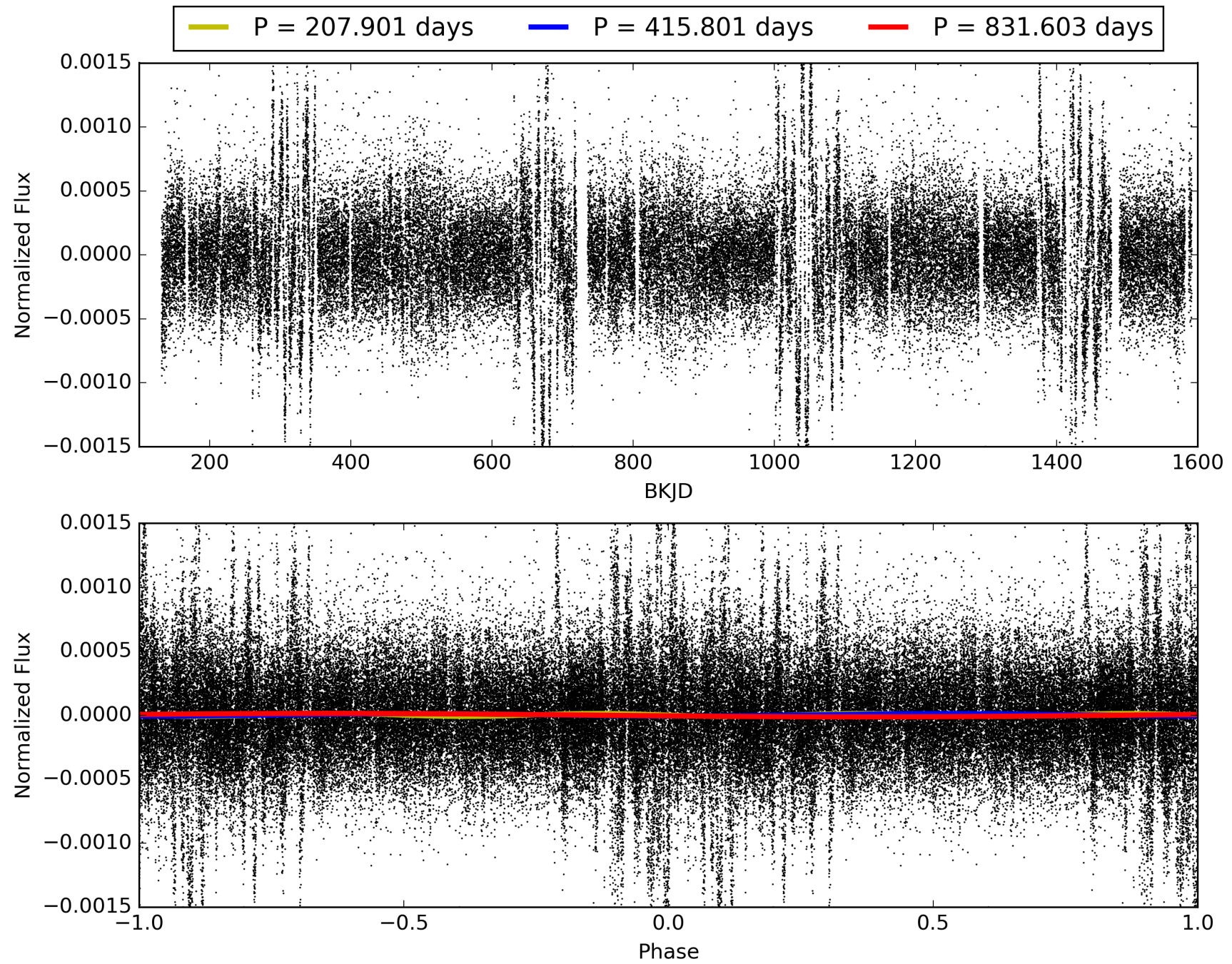
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:32:40 Z

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

TCE 009466647-01, PDC Light Curves

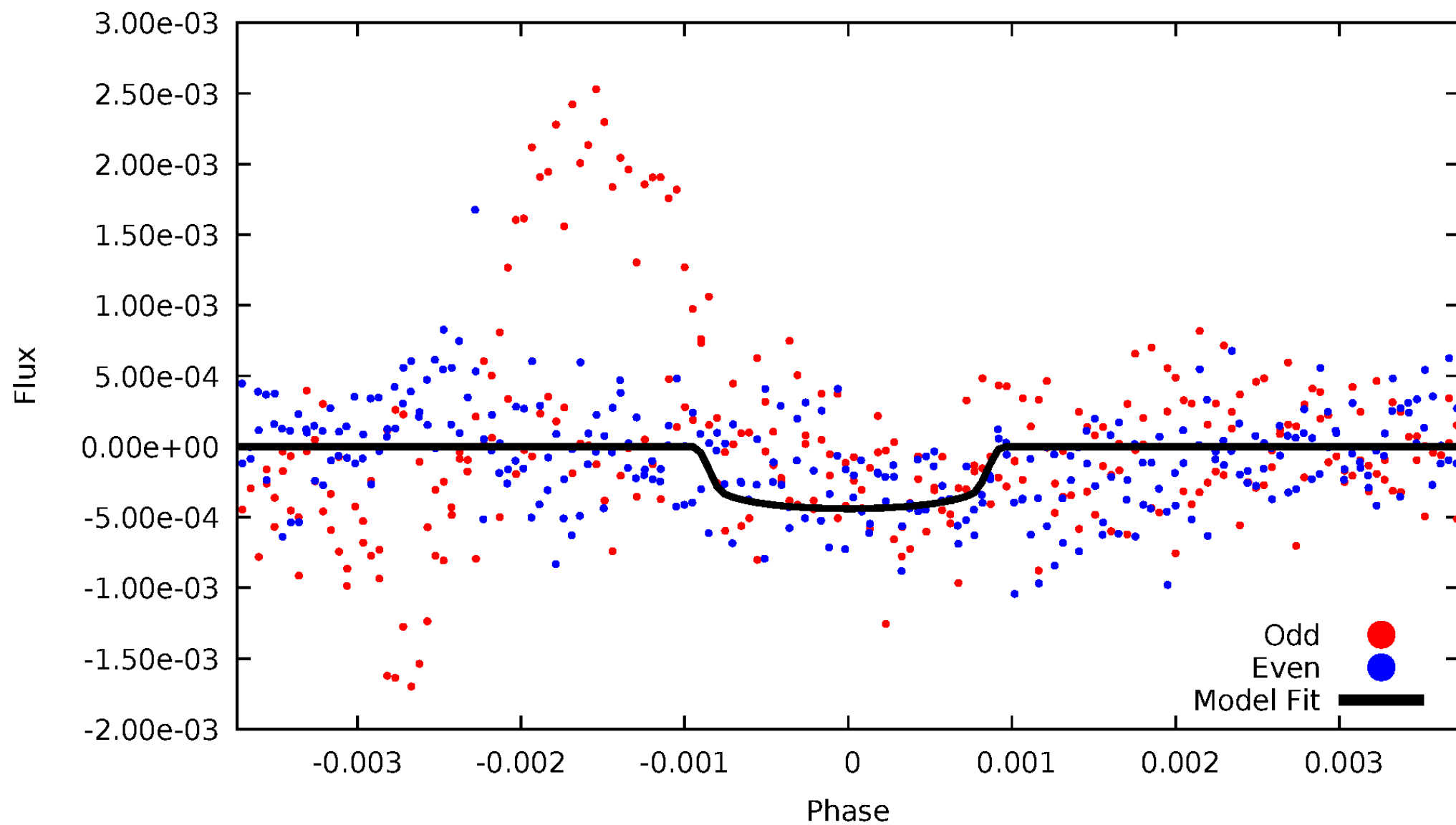


TCE 009466647-01



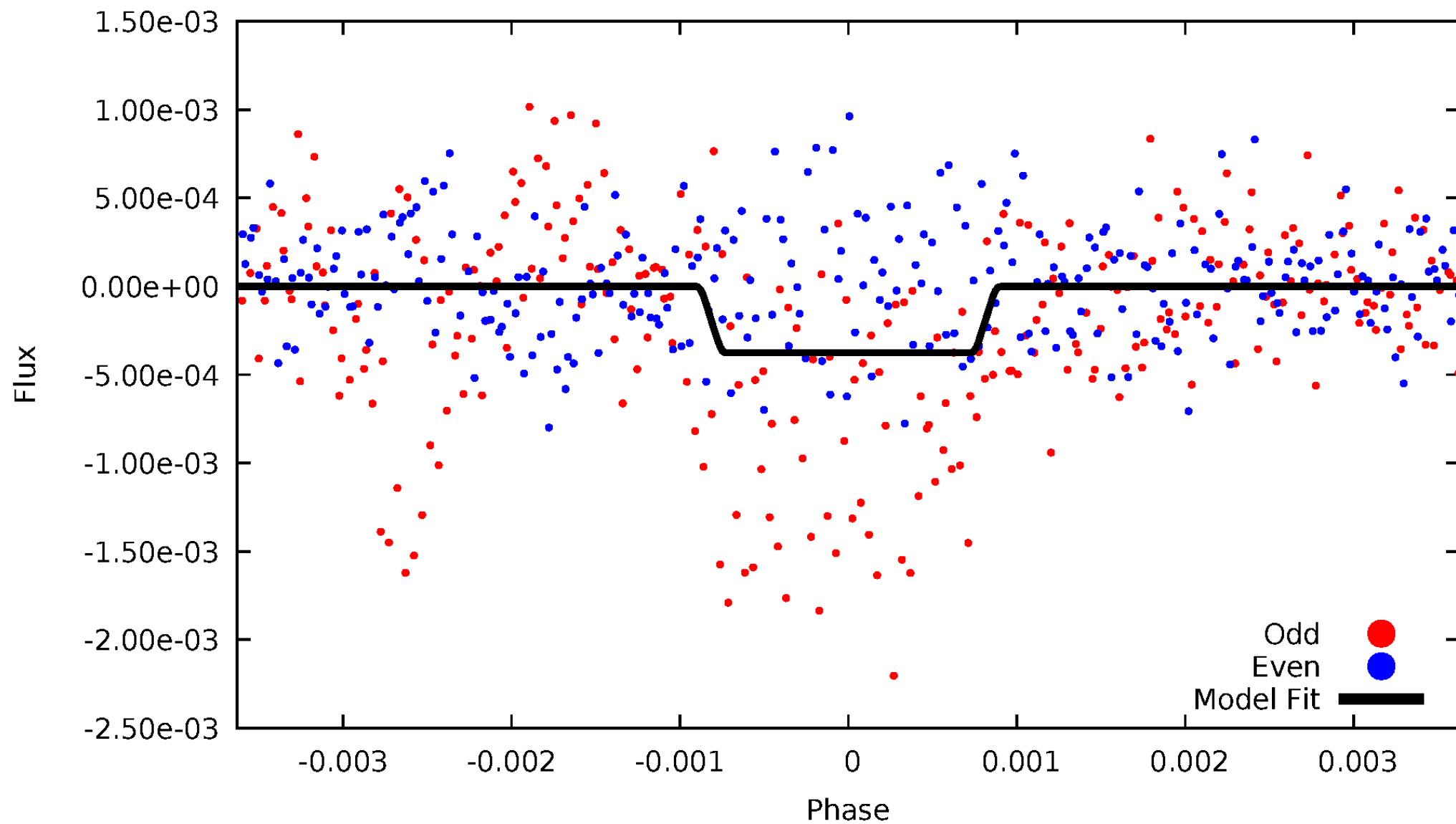
DV Odd/Even

TCE 009466647-01



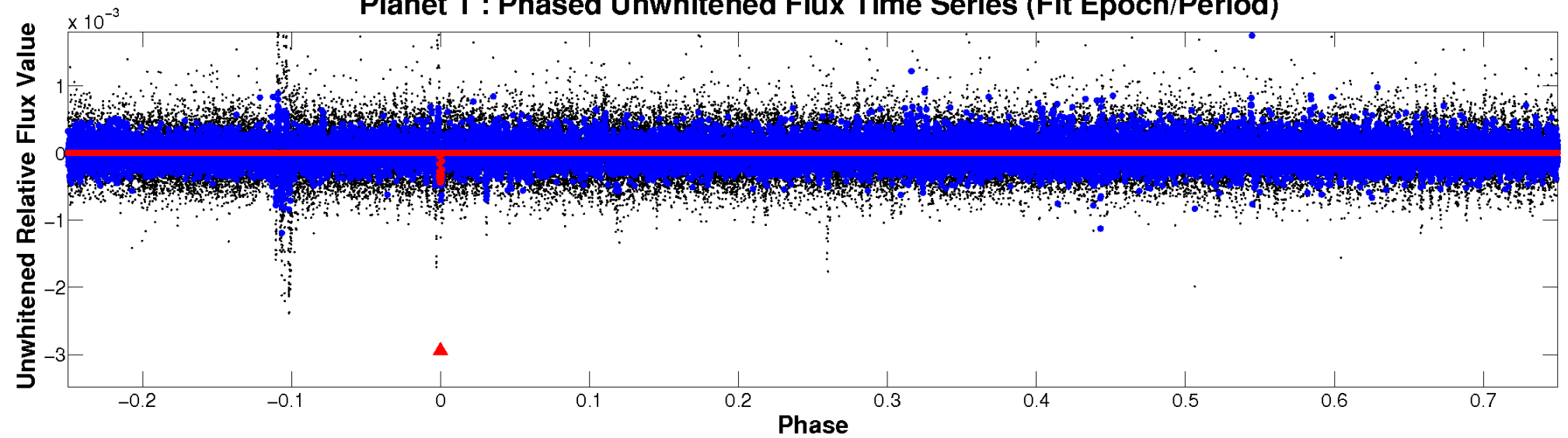
ALT Odd/Even

TCE 009466647-01

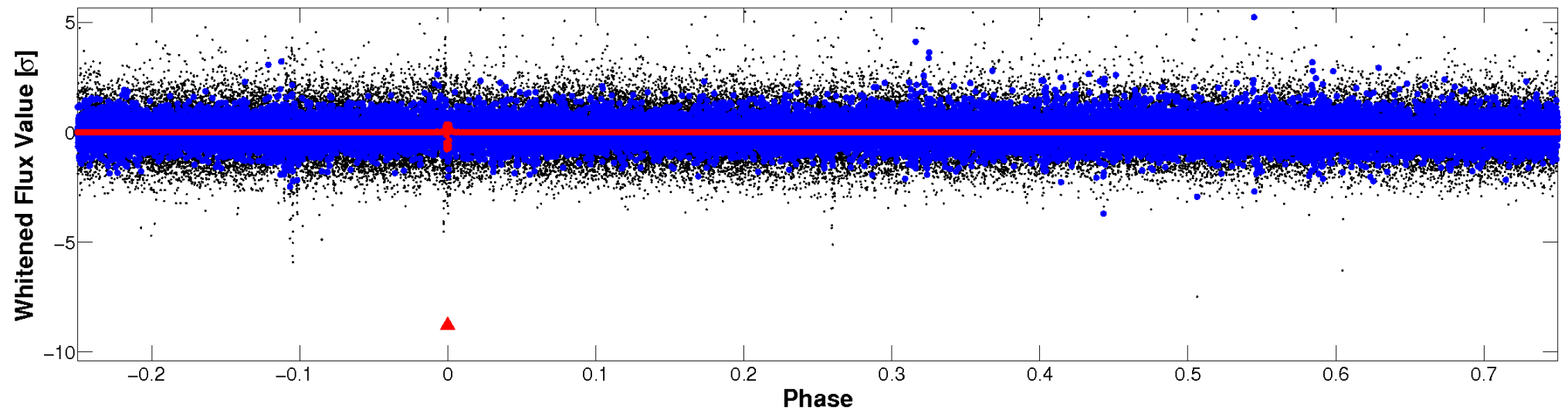


Non-Whitened Vs. Whitened Light Curve

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 009466647-01 P=415.801447 Days $T_0=215.872097$ (BKJD)



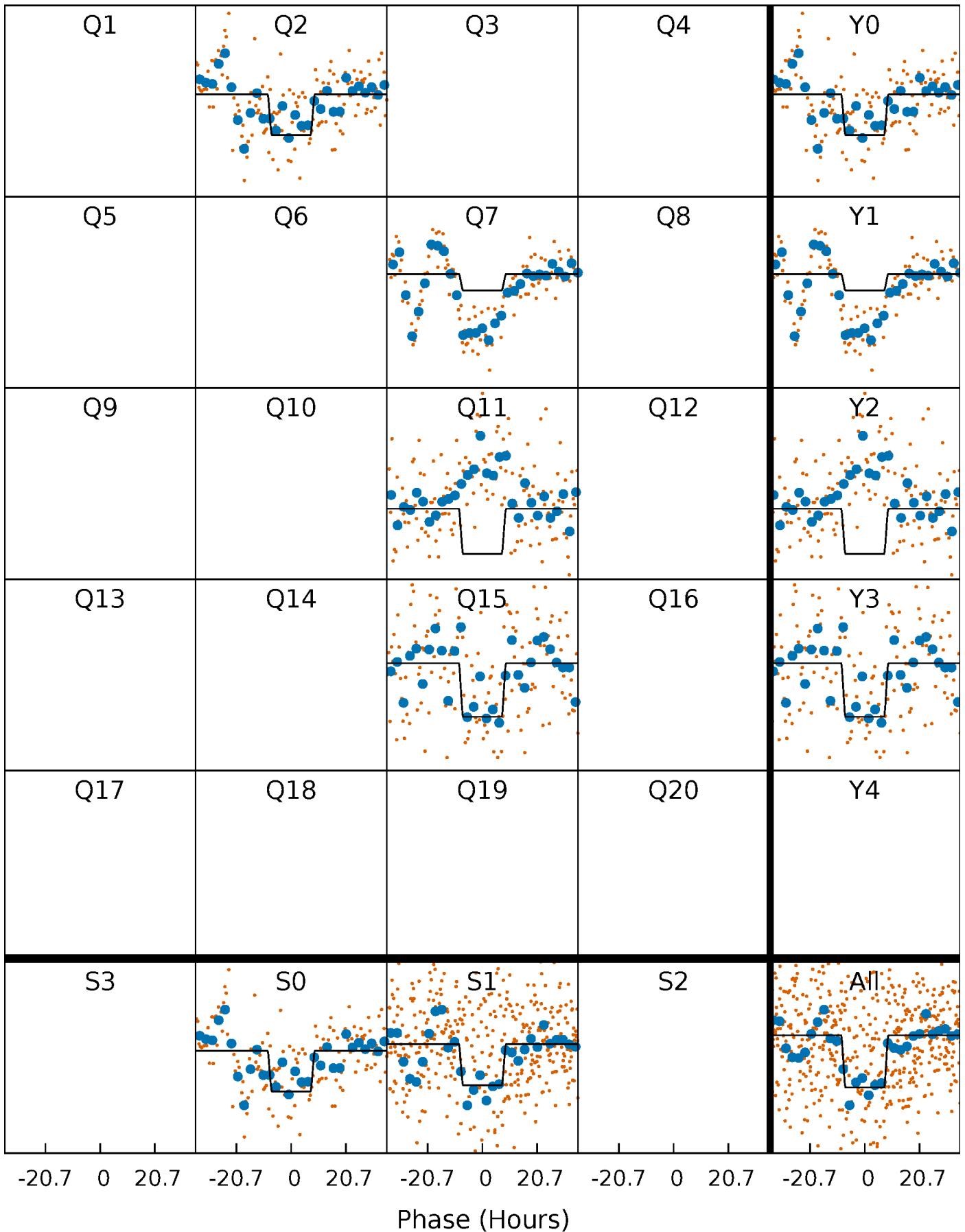
DV Quarter-Phased Transit Curves

TCE 009466647-01 P=415.801447 Days $T_0=215.872097$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

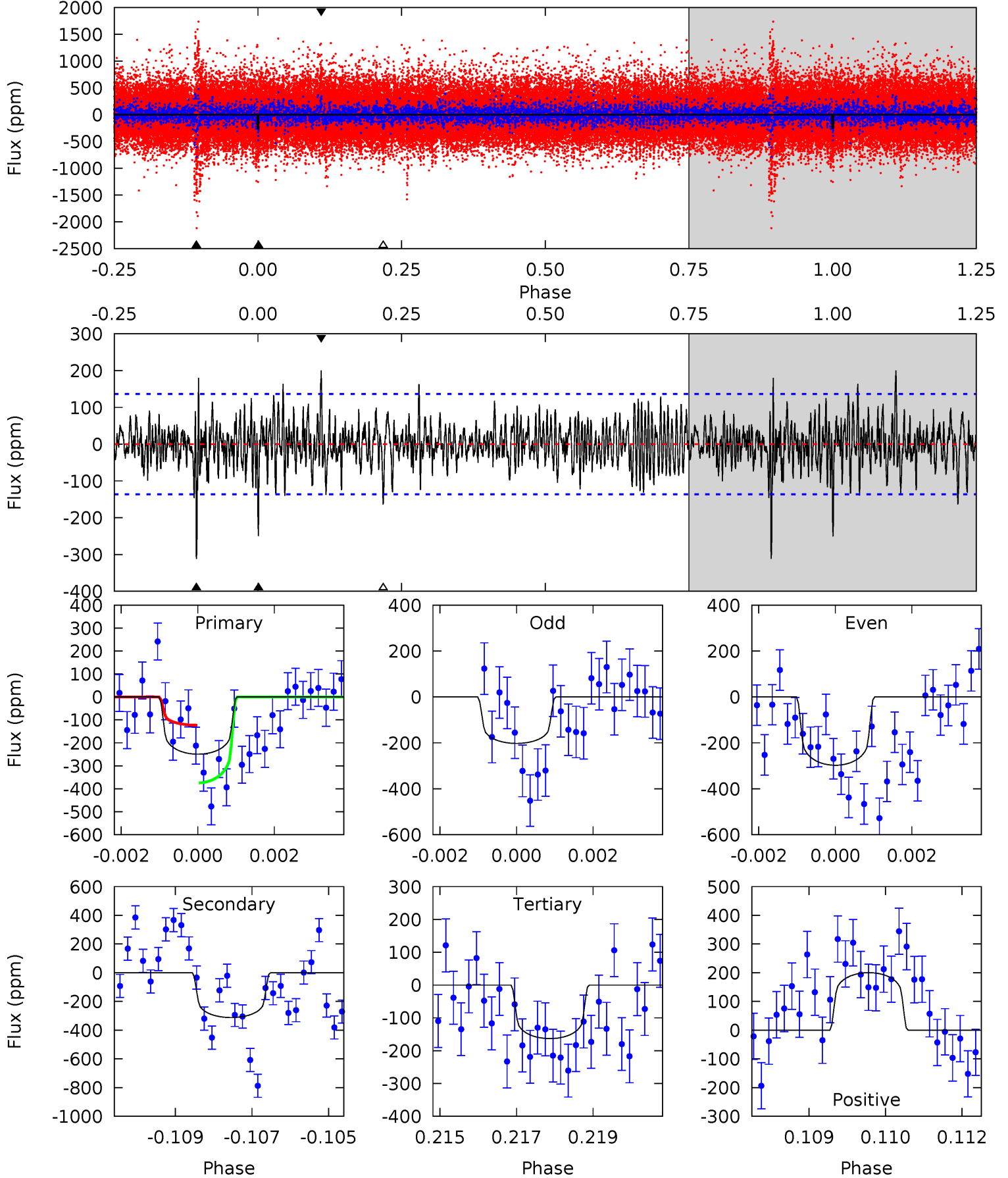
TCE 009466647-01 P=415.788890 Days $T_0=215.867840$ (BKJD)



DV Model-Shift Uniqueness Test

009466647-01, P = 415.801447 Days, E = 215.872097 Days

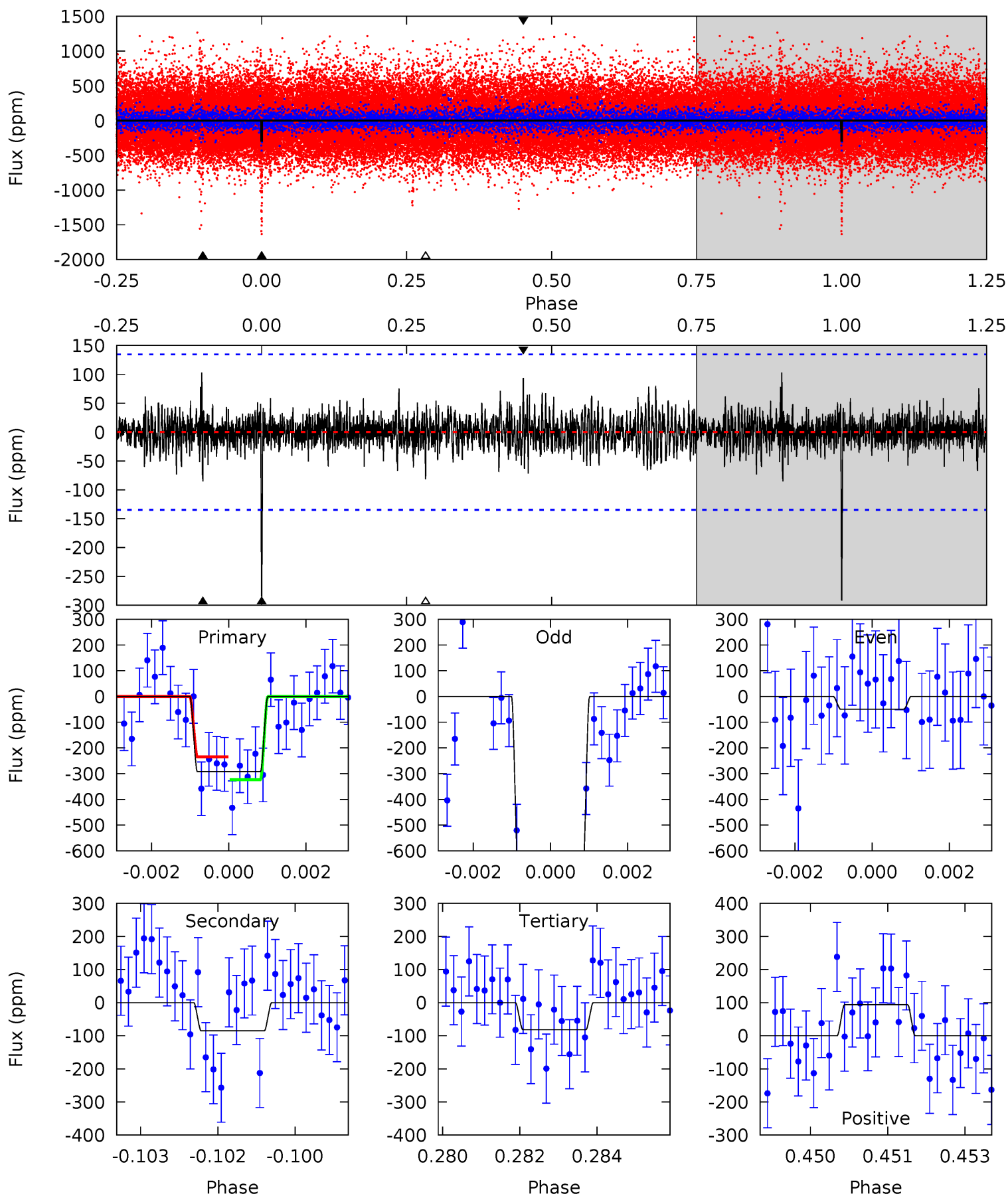
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.77	12.2	6.39	7.85	5.34	3.11	1.88	3.37	1.92	5.84	4.38	1.85	1.07	0.39	4.94



Alt Model-Shift Uniqueness Test

009466647-01, P = 415.788890 Days, E = 215.867840 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	3.39	3.24	3.72	5.35	3.12	0.84	8.35	7.88	0.15	-0.33	15.0	1.37	0.26	1.76



Stellar Parameters For KIC 009466647

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6089^{+181}_{-200}	$4.436^{+0.072}_{-0.203}$	$-0.220^{+0.300}_{-0.300}$	$1.001^{+0.308}_{-0.132}$	$0.998^{+0.142}_{-0.129}$	$1.399^{+0.532}_{-0.745}$
	+3%/-3%	+2%/-5%	+136%/-136%	+31%/-13%	+14%/-13%	+38%/-53%
Source	PHO1	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 009466647-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-312 ± 26	$2.51^{+0.47}_{-0.42}$	366^{+27}_{-21}	5473^{+377}_{-354}	32249^{+13176}_{-9395}
Alt.	-85 ± 25	$2.20^{+0.50}_{-0.38}$	367^{+27}_{-19}	4394^{+382}_{-357}	10872^{+6705}_{-4213}

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 $A_{obs} \gg 1.0$

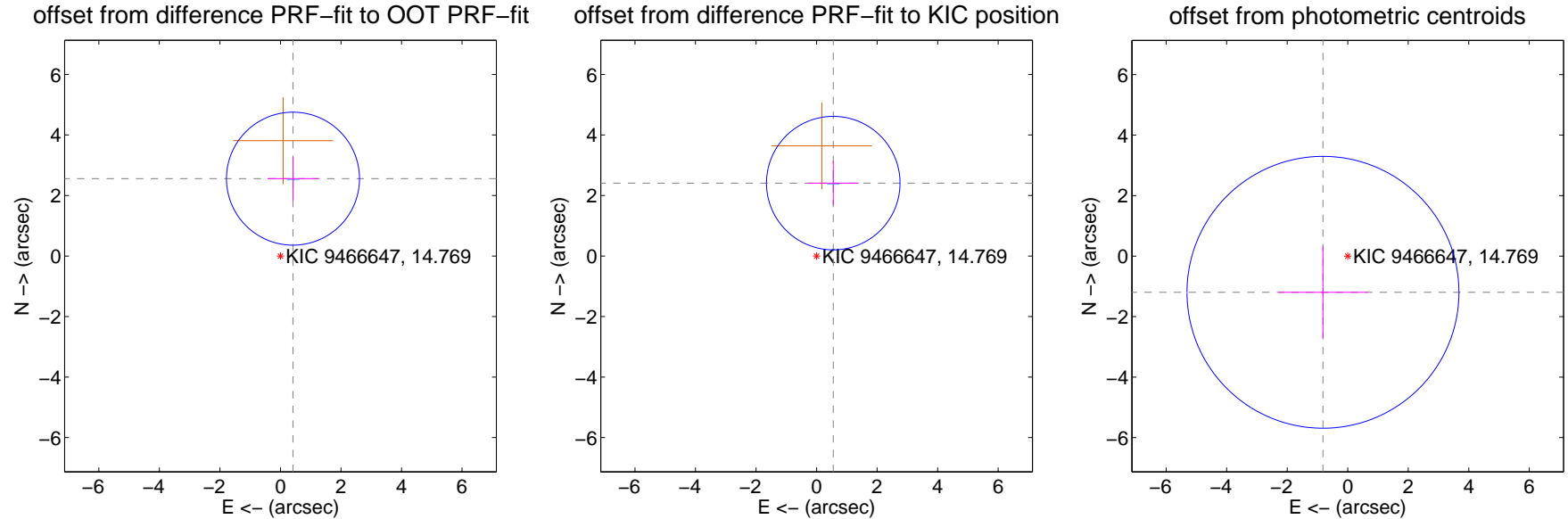
DV Centroid Data

Supplemental centroid analysis for 009466647-01. Kepler magnitude: 14.77. Transit SNR 9.07

There are 1 quarters with good PRF difference image offsets

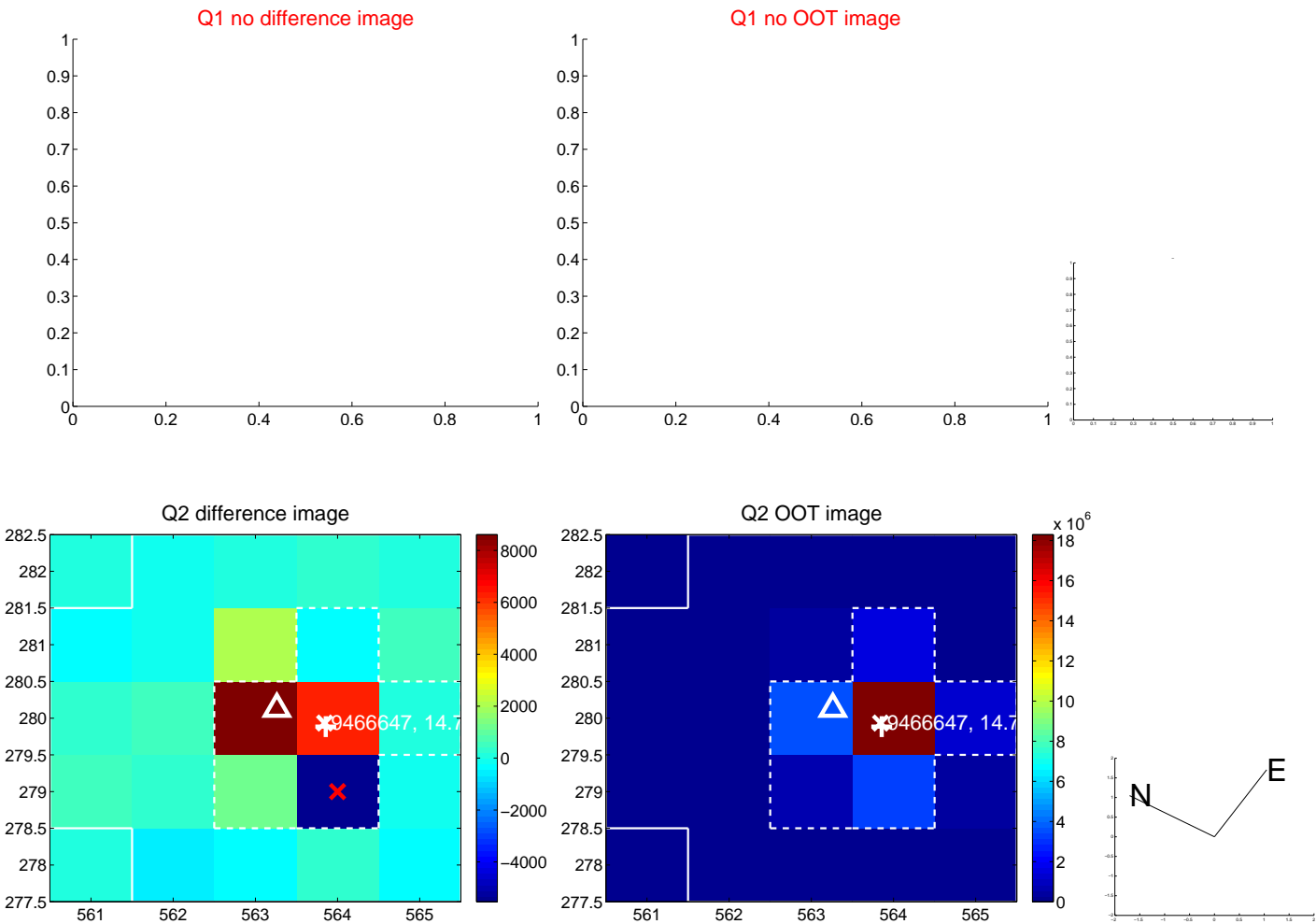
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.590 ± 0.732	3.54	-0.414 ± 0.838	2.556 ± 0.729
PRF-fit source offset from KIC position	2.472 ± 0.735	3.36	-0.551 ± 0.838	2.410 ± 0.729
photometric centroid source offset	1.45 ± 1.50	0.97	0.82 ± 1.48	-1.20 ± 1.51



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.

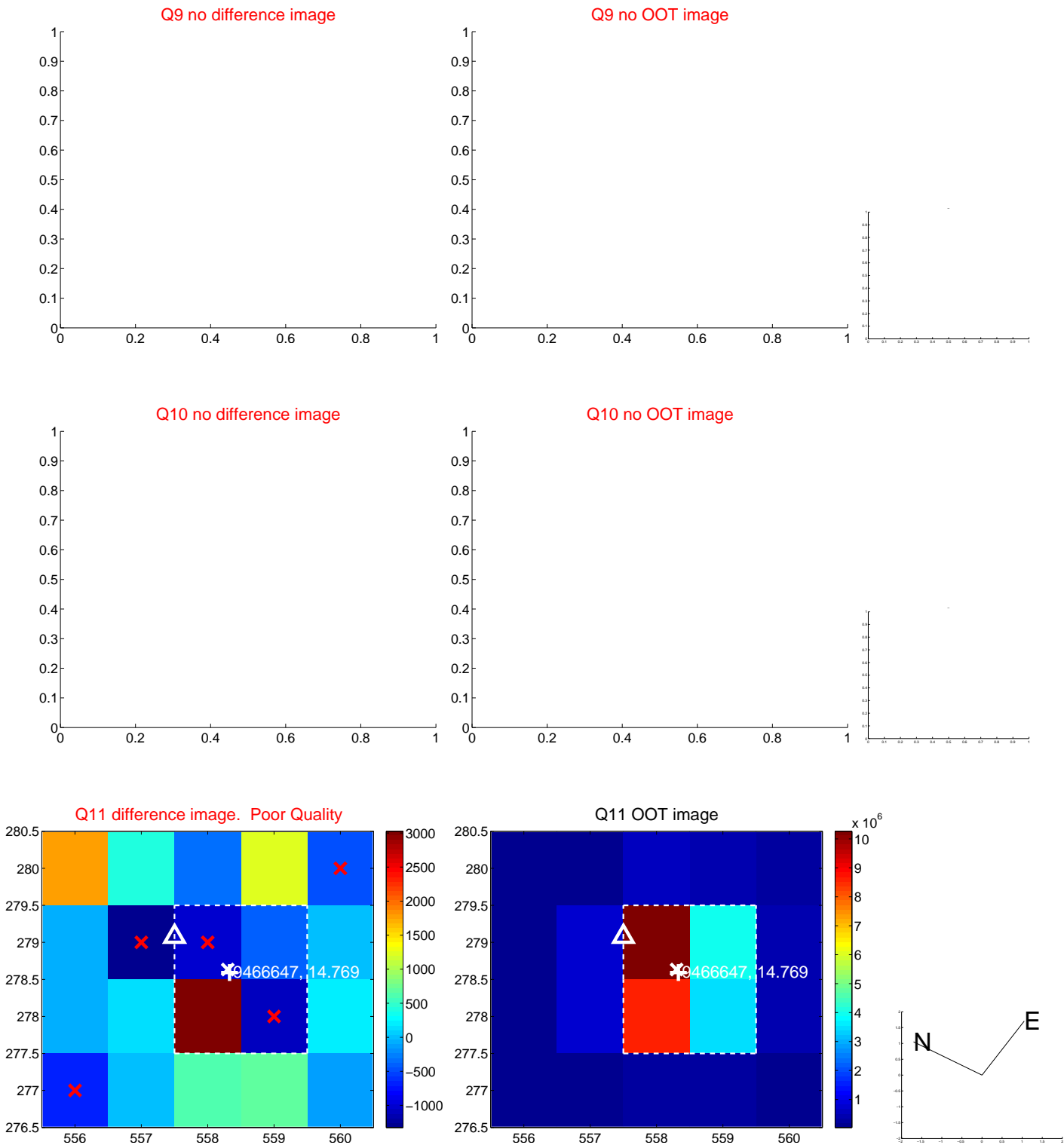
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



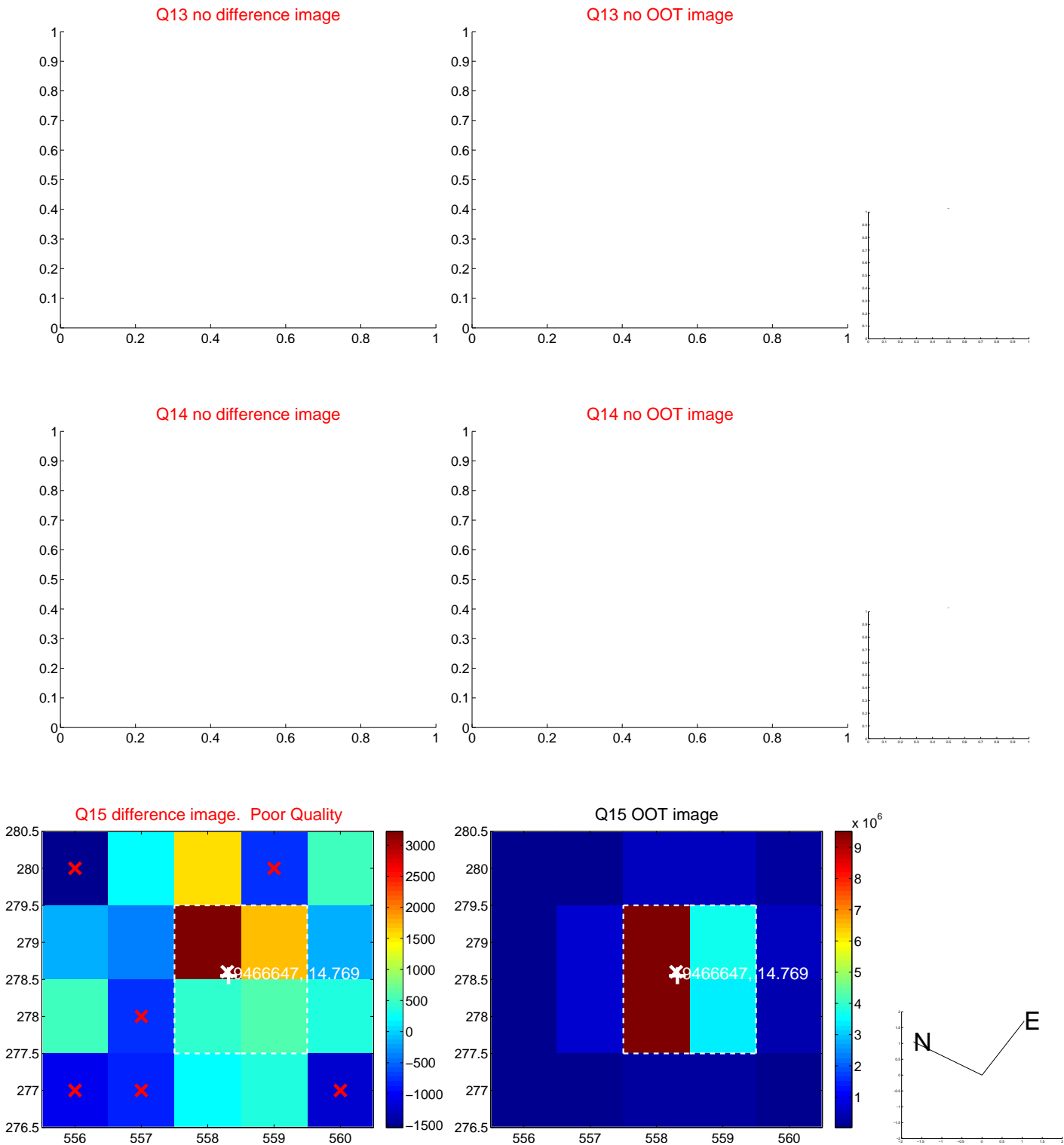
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



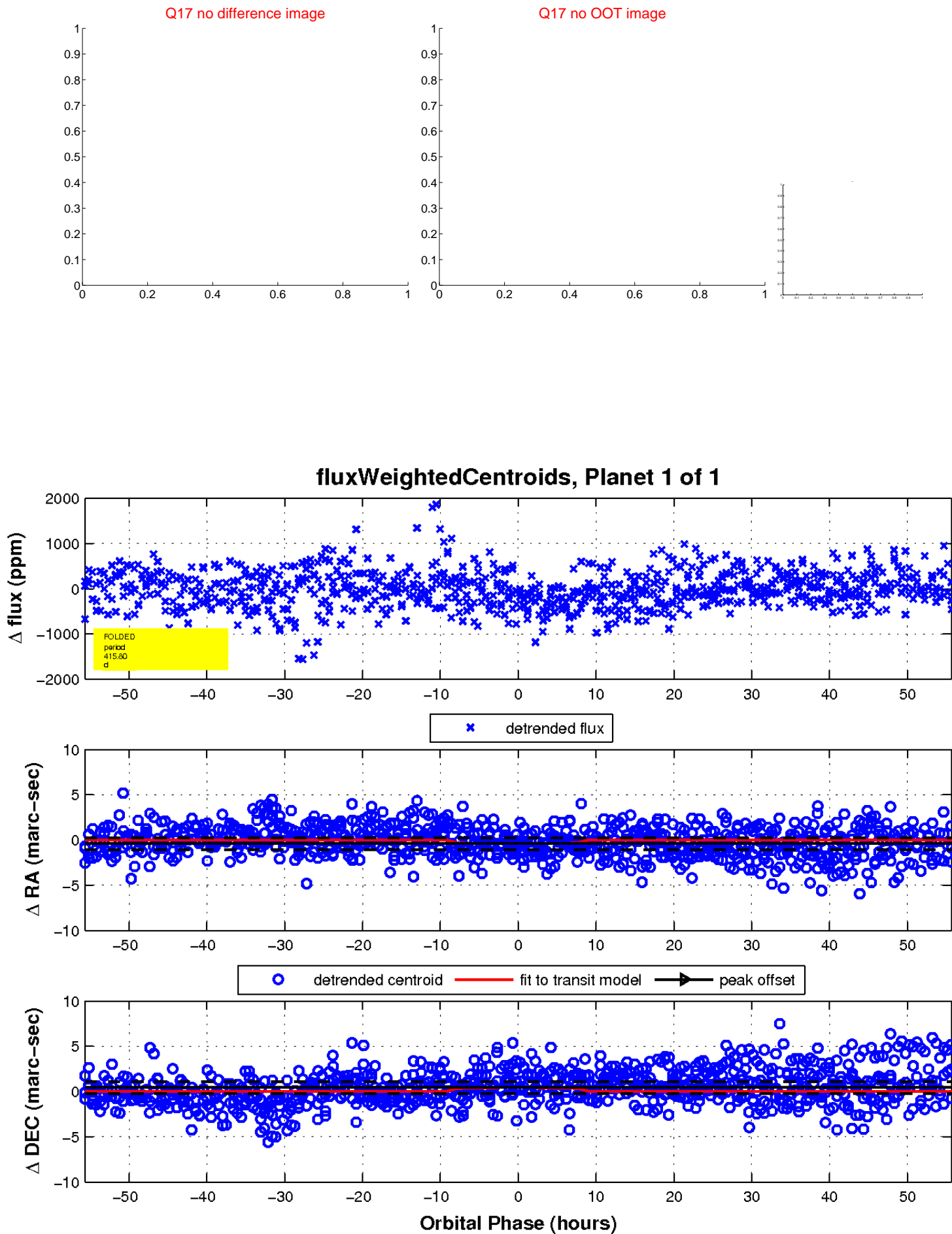
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

