

KIC 007090867

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})
007090867-01	OBS	7810.01	308.233060	282.493633	587.7	11.784	7.7	5.9	7.80	4852	22.10	26.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007090867-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE

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

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

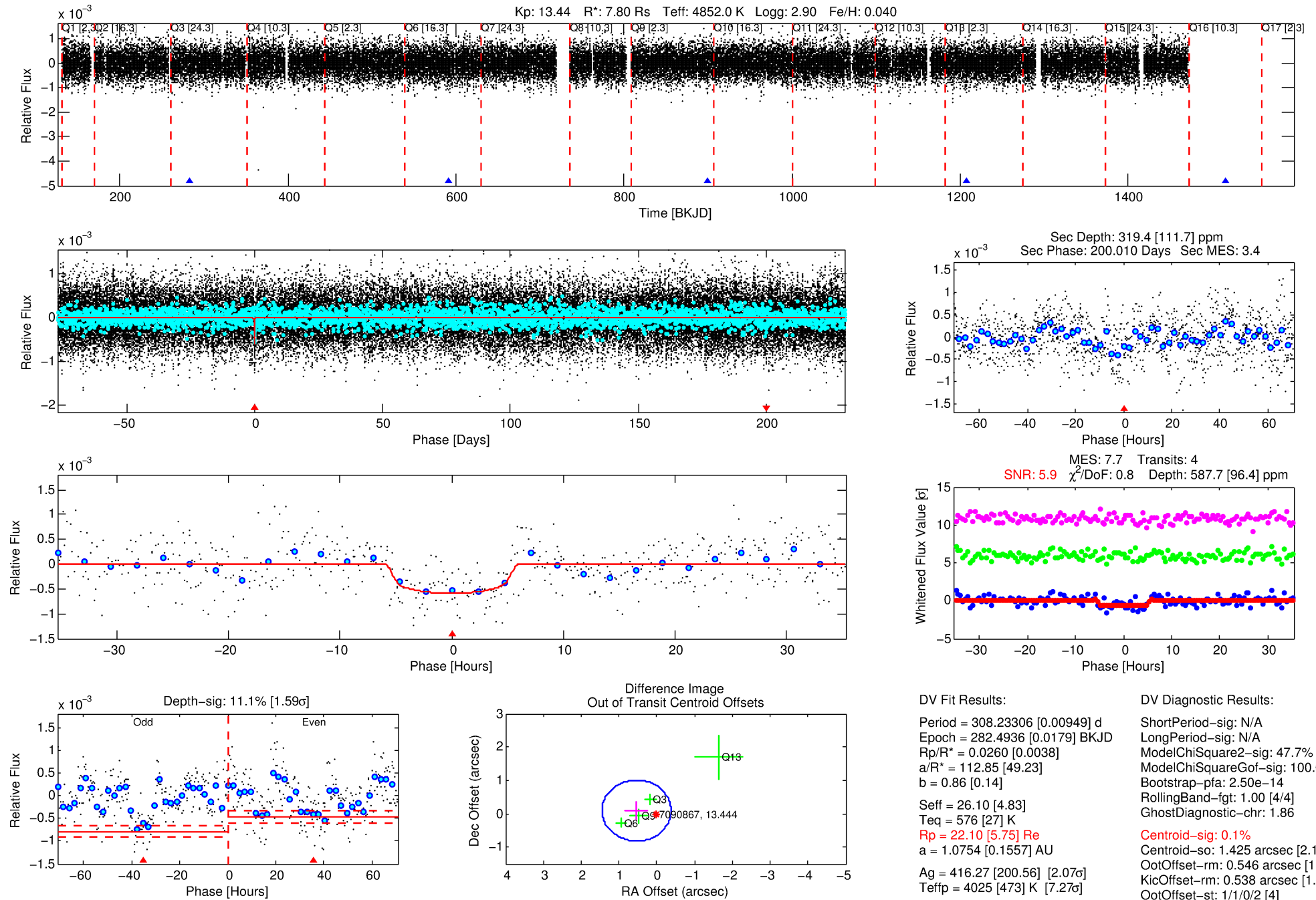
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007090867-01

No Significant Match Found

DV One-Page Summary

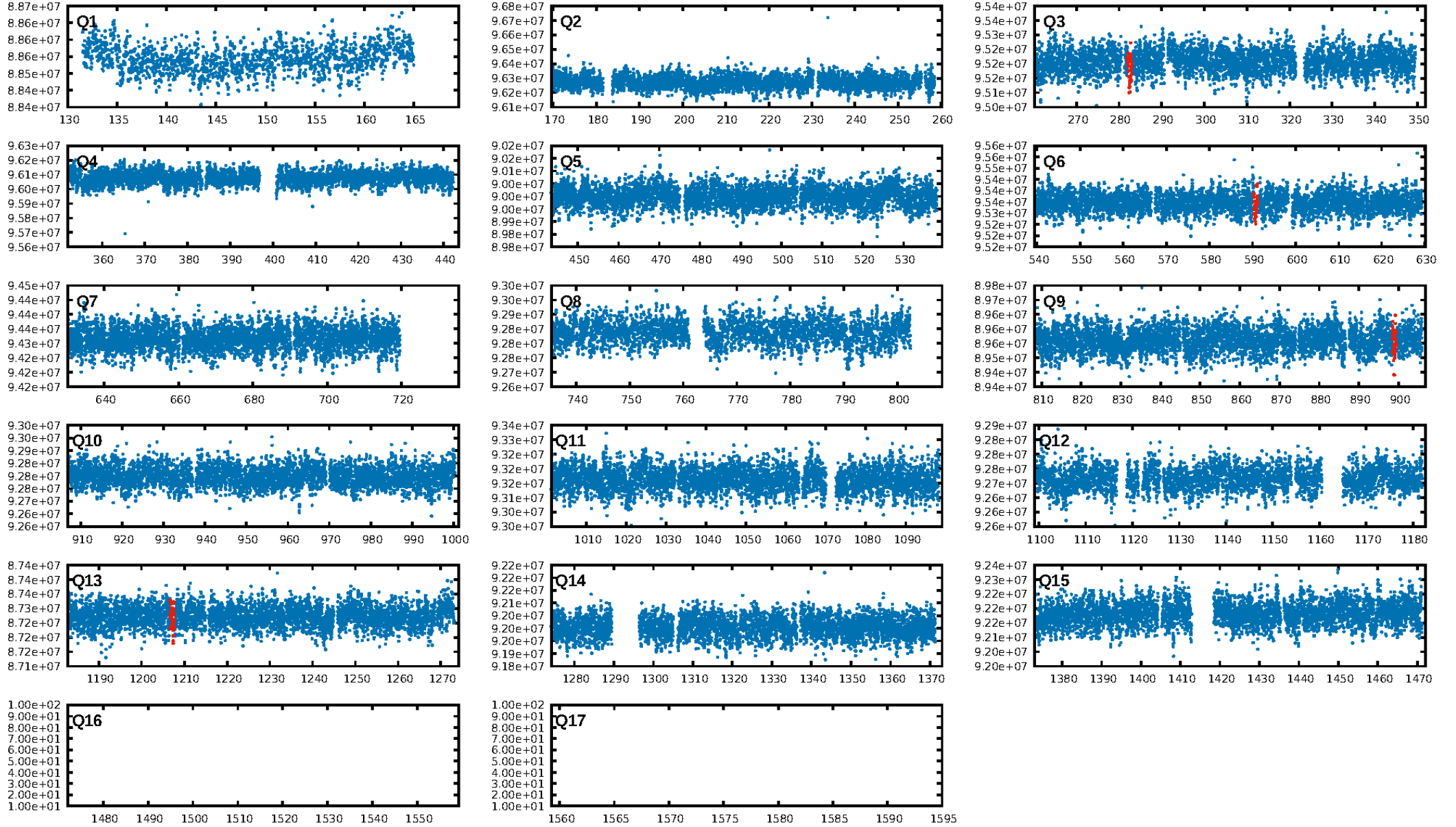
KIC: 7090867 Candidate: 1 of 1 Period: 308.233 d



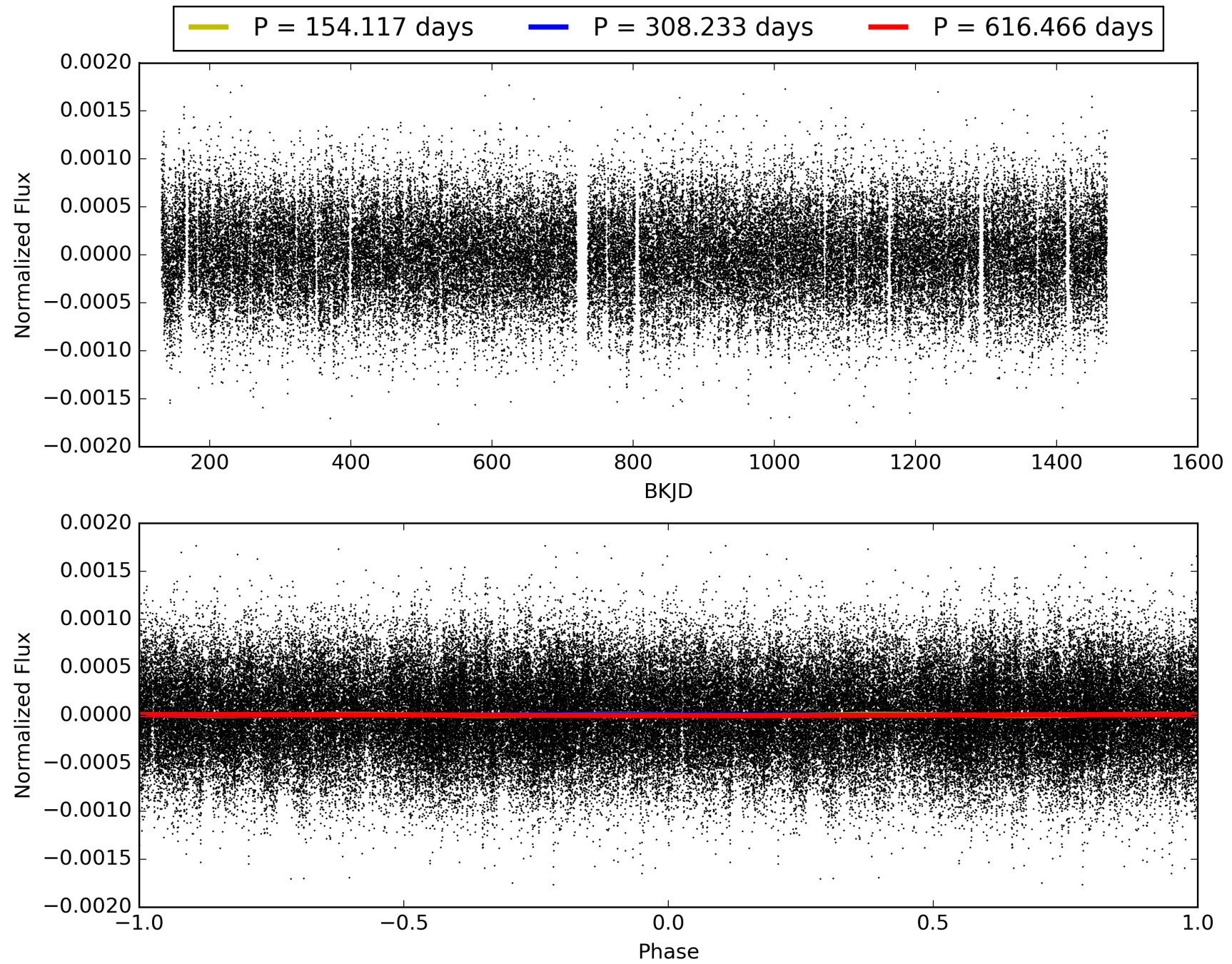
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:43:01 Z

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

TCE 007090867-01, PDC Light Curves

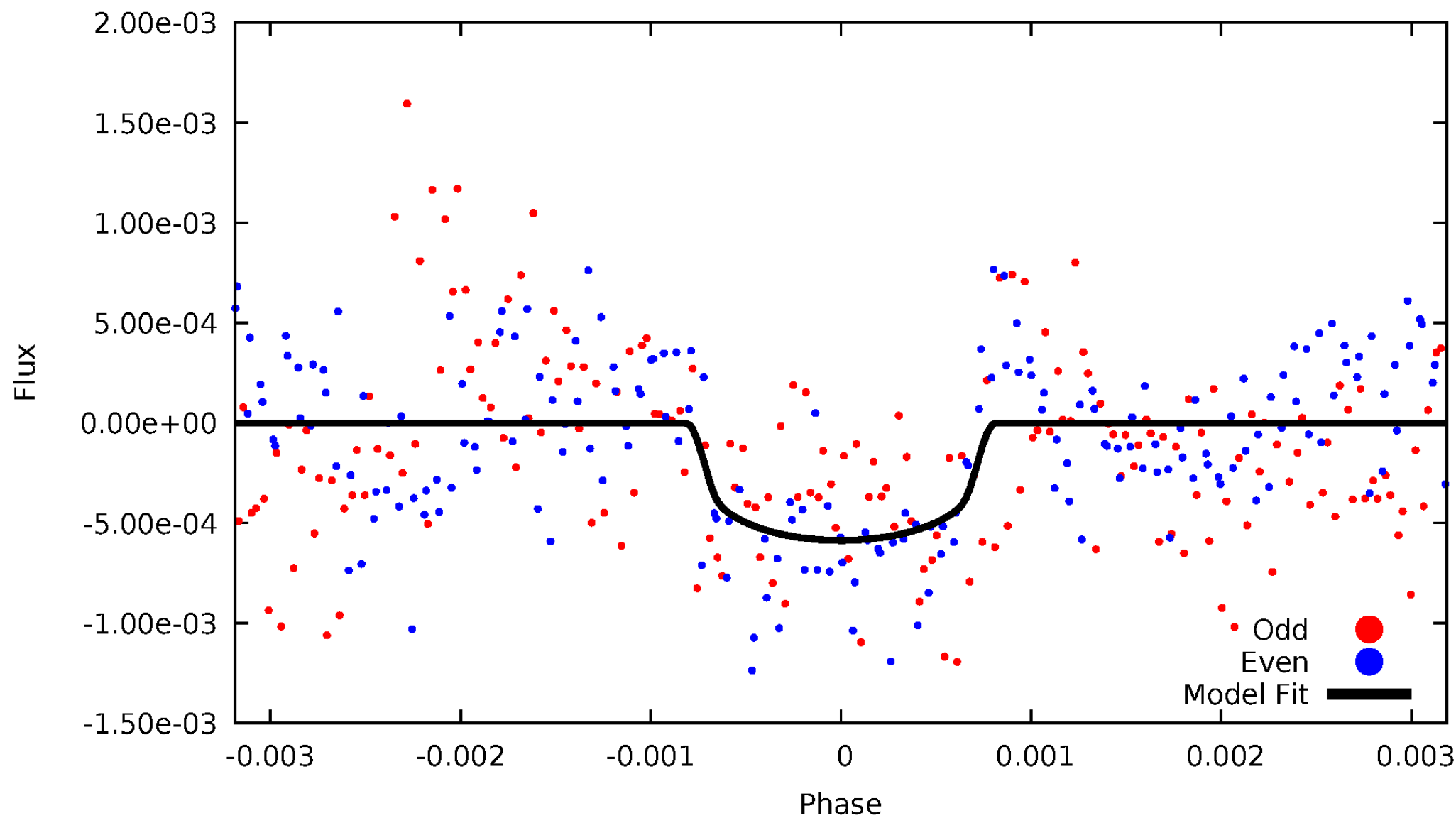


TCE 007090867-01



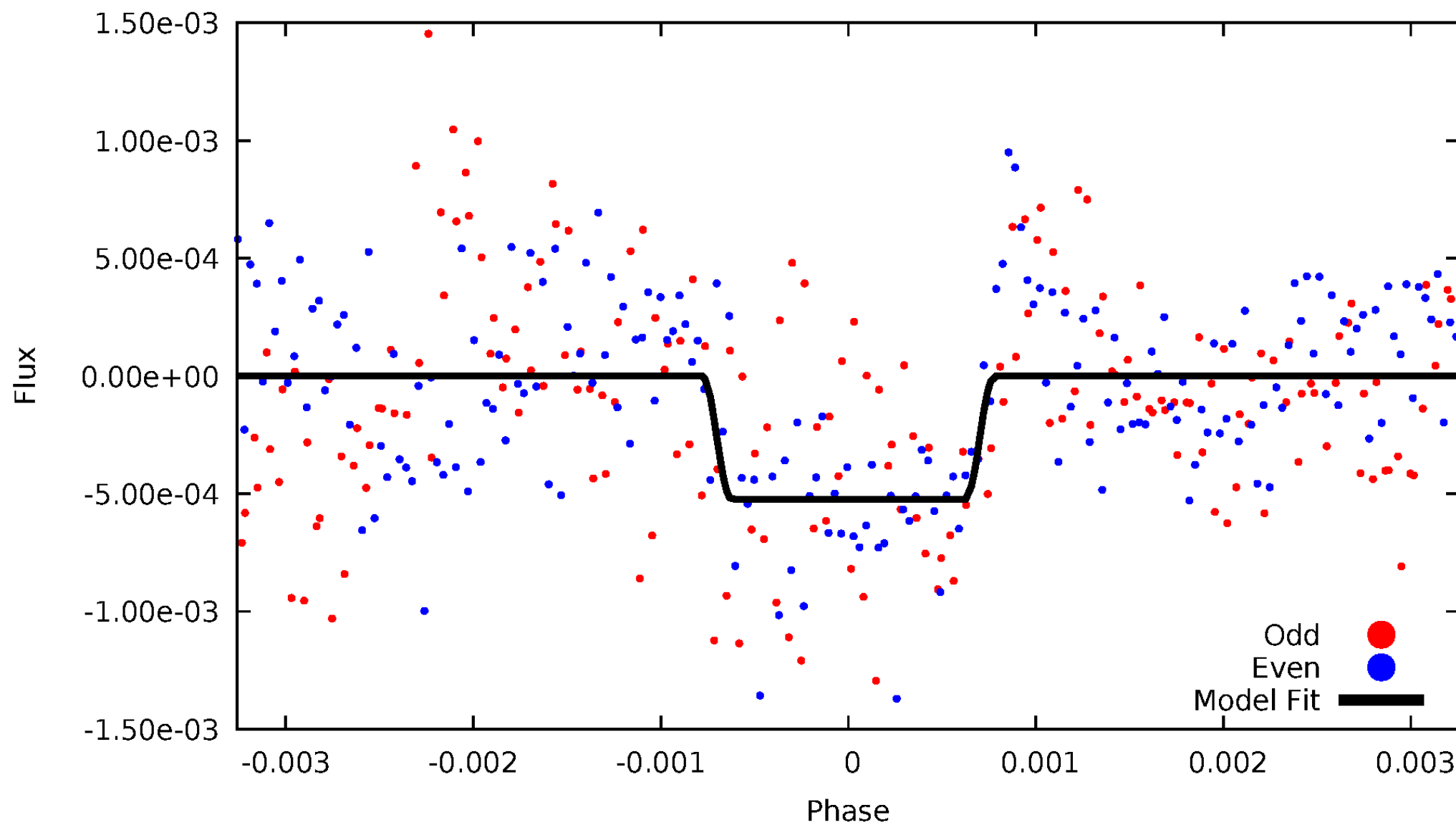
DV Odd/Even

TCE 007090867-01



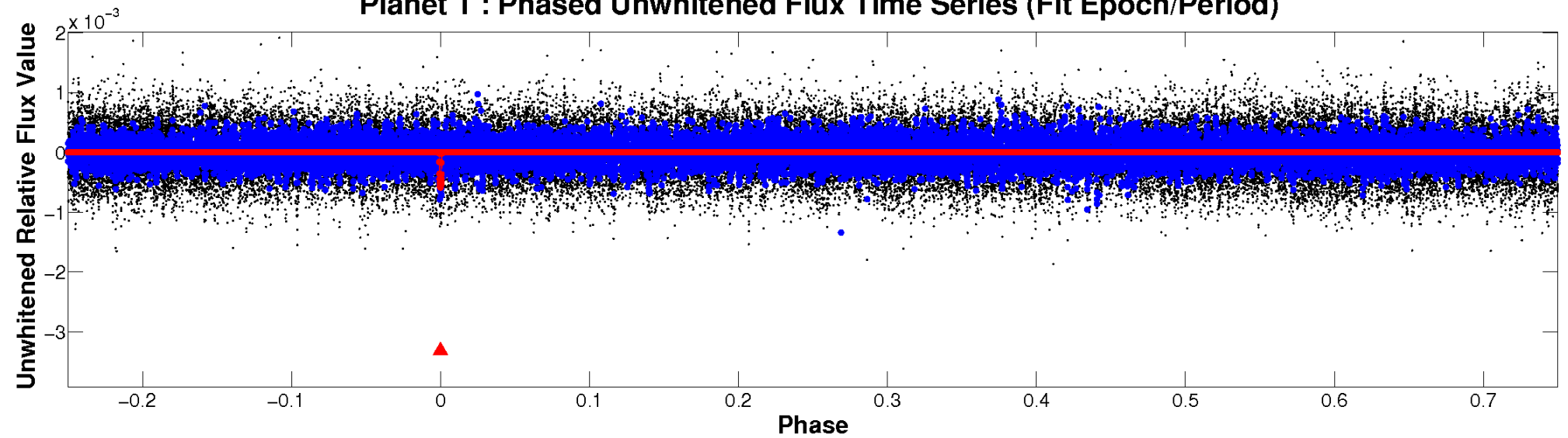
ALT Odd/Even

TCE 007090867-01

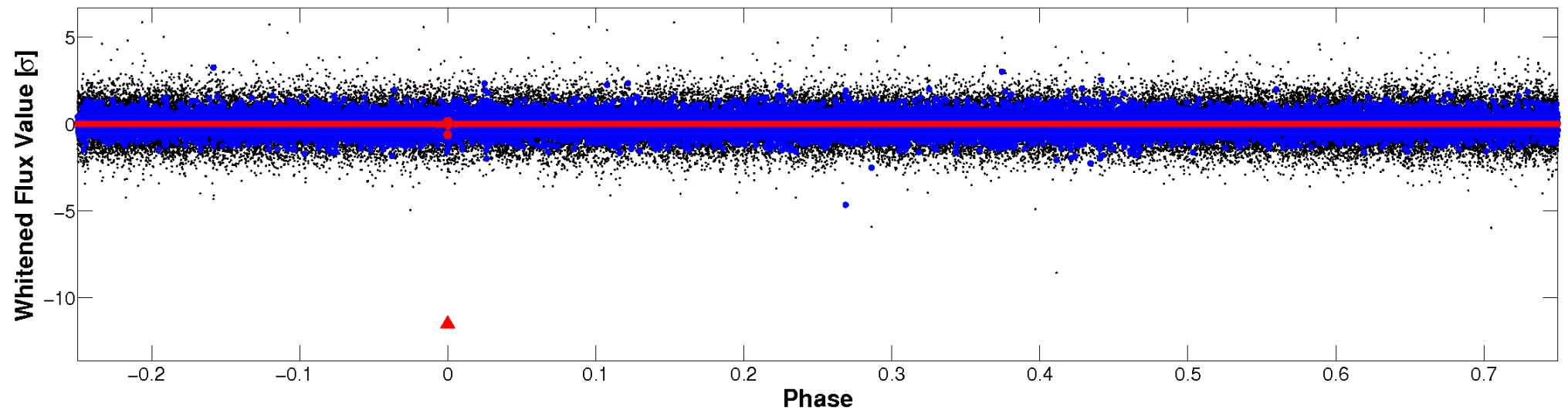


Non-Whitened Vs. Whitened Light Curve

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 007090867-01 P=308.233060 Days $T_0=282.493632$ (BKJD)



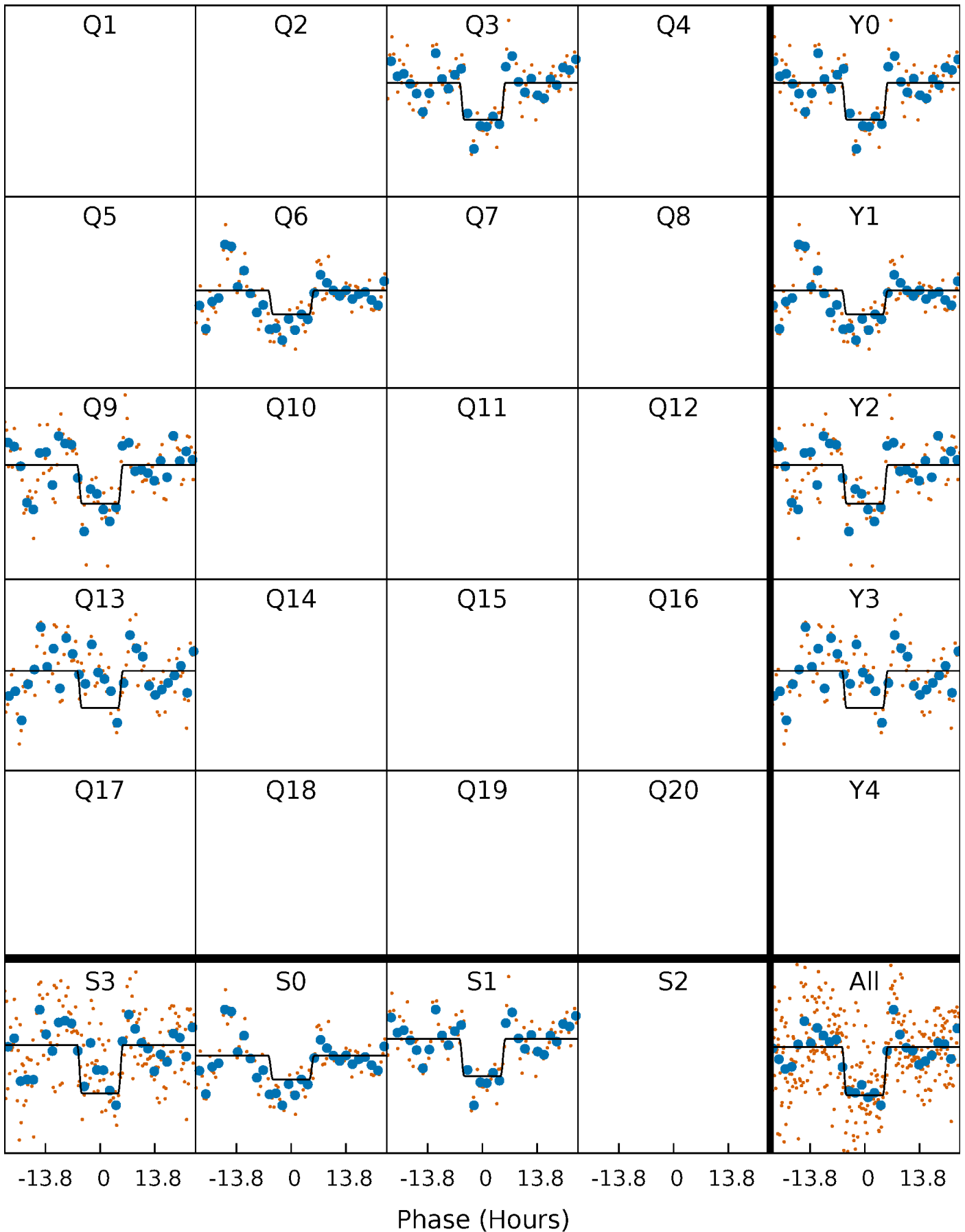
DV Quarter-Phased Transit Curves

TCE 007090867-01 P=308.233060 Days $T_0=282.493632$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

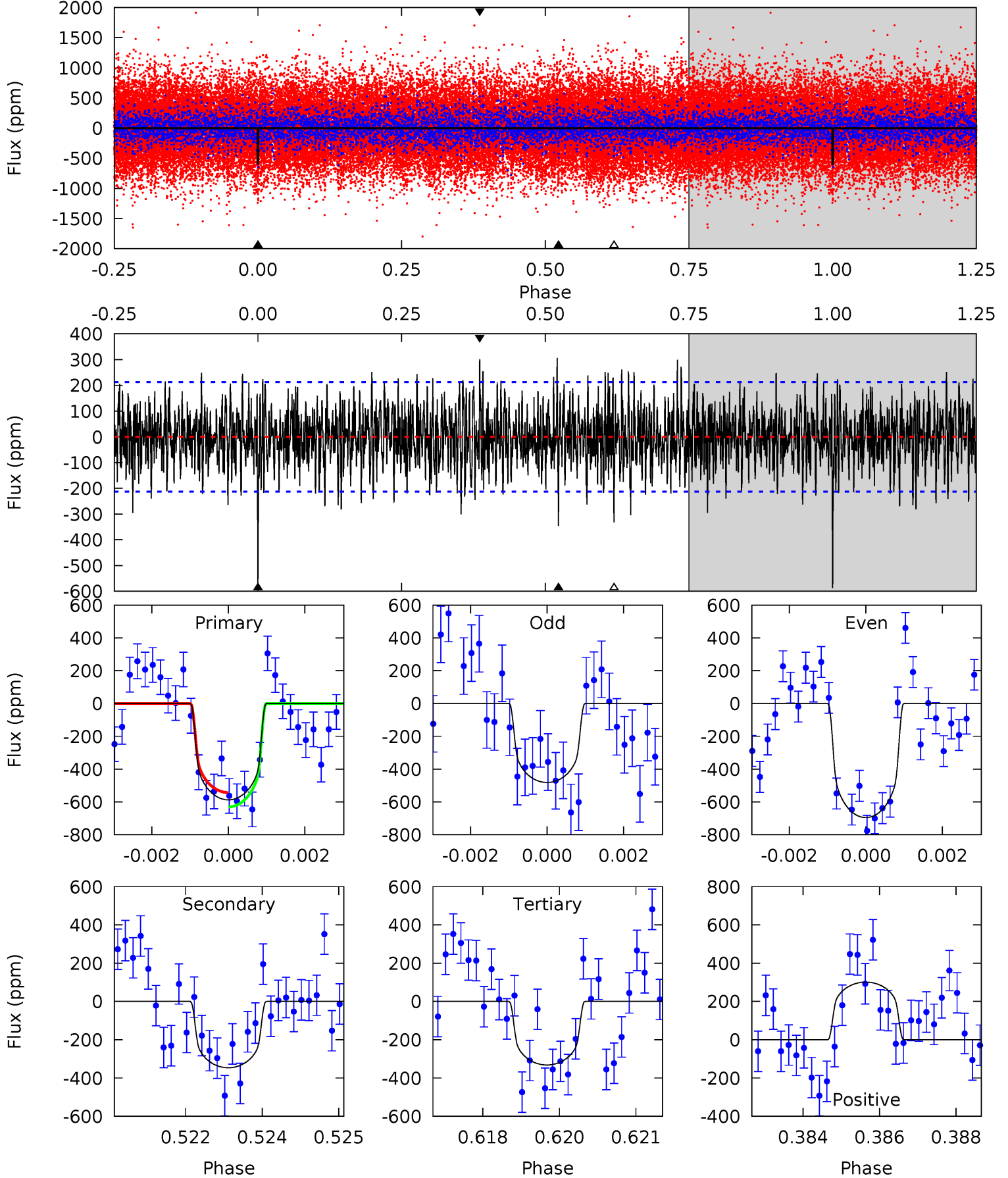
TCE 007090867-01 P=308.247064 Days $T_0=282.466937$ (BKJD)



DV Model-Shift Uniqueness Test

007090867-01, P = 308.233060 Days, E = 282.493632 Days

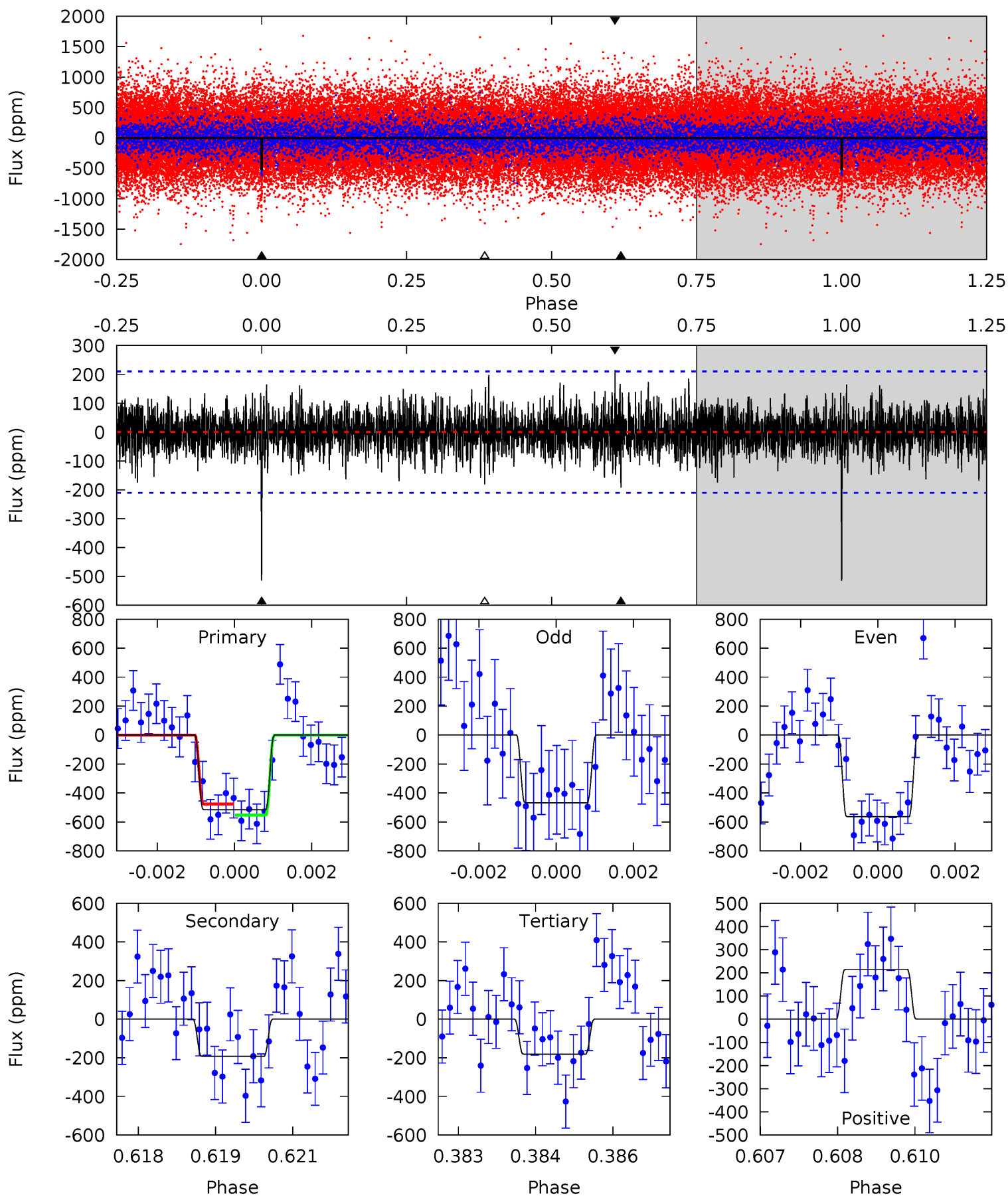
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	8.73	8.37	7.59	5.36	3.15	2.37	6.45	7.23	0.36	1.14	2.70	0.97	0.34	1.11



Alt Model-Shift Uniqueness Test

007090867-01, P = 308.247064 Days, E = 282.466937 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	4.92	4.63	5.49	5.38	3.17	1.39	8.54	7.68	0.29	-0.57	1.24	0.91	0.29	0.98



Stellar Parameters For KIC 007090867

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4852^{+83}_{-131}	$2.896^{+0.030}_{-0.030}$	$0.040^{+0.200}_{-0.250}$	$7.797^{+0.523}_{-1.672}$	$1.742^{+0.217}_{-0.652}$	$0.005^{+0.002}_{-0.000}$
	+2%/-3%	+1%/-1%	+500%/-625%	+7%/-21%	+12%/-37%	+29%/-8%
Source	PHO1	AST9	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 007090867-01 / KOI 7810.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-346 ± 40	$22.37^{+3.49}_{-3.90}$	804^{+19}_{-24}	4235^{+297}_{-232}	452^{+182}_{-121}
Alt.	-193 ± 39	$19.48^{+3.90}_{-3.48}$	805^{+19}_{-25}	3994^{+304}_{-269}	321^{+159}_{-103}

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

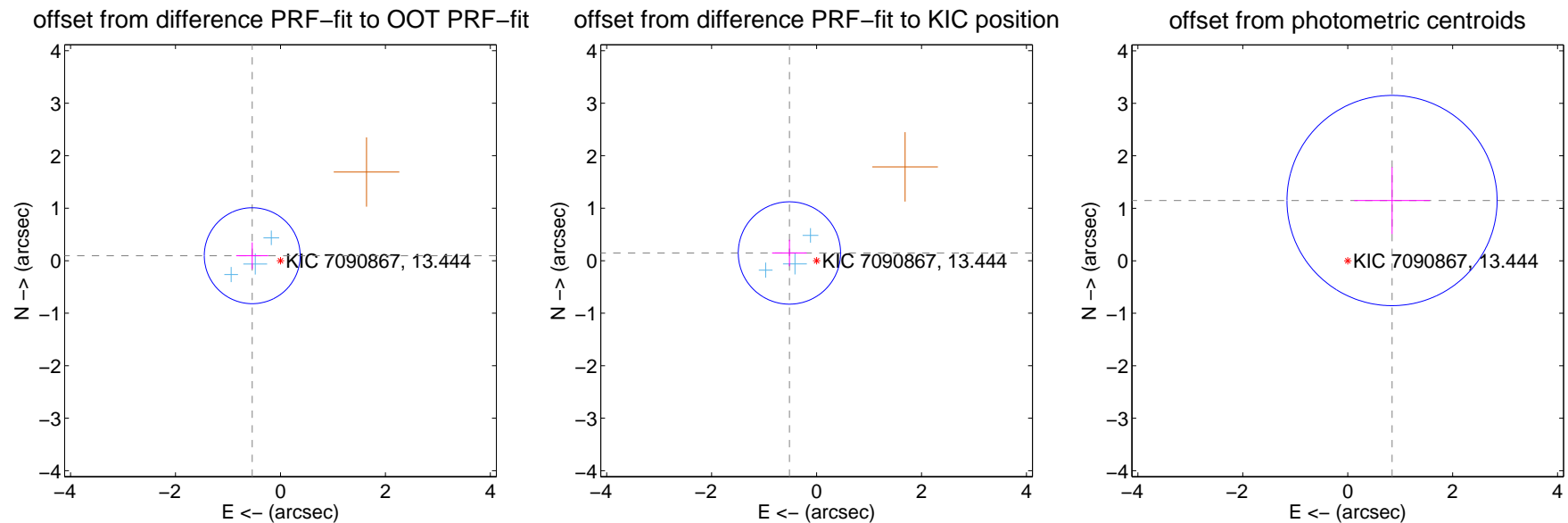
DV Centroid Data

Supplemental centroid analysis for 007090867-01. Kepler magnitude: 13.44. Transit SNR 5.92

There are 3 quarters with good PRF difference image offsets

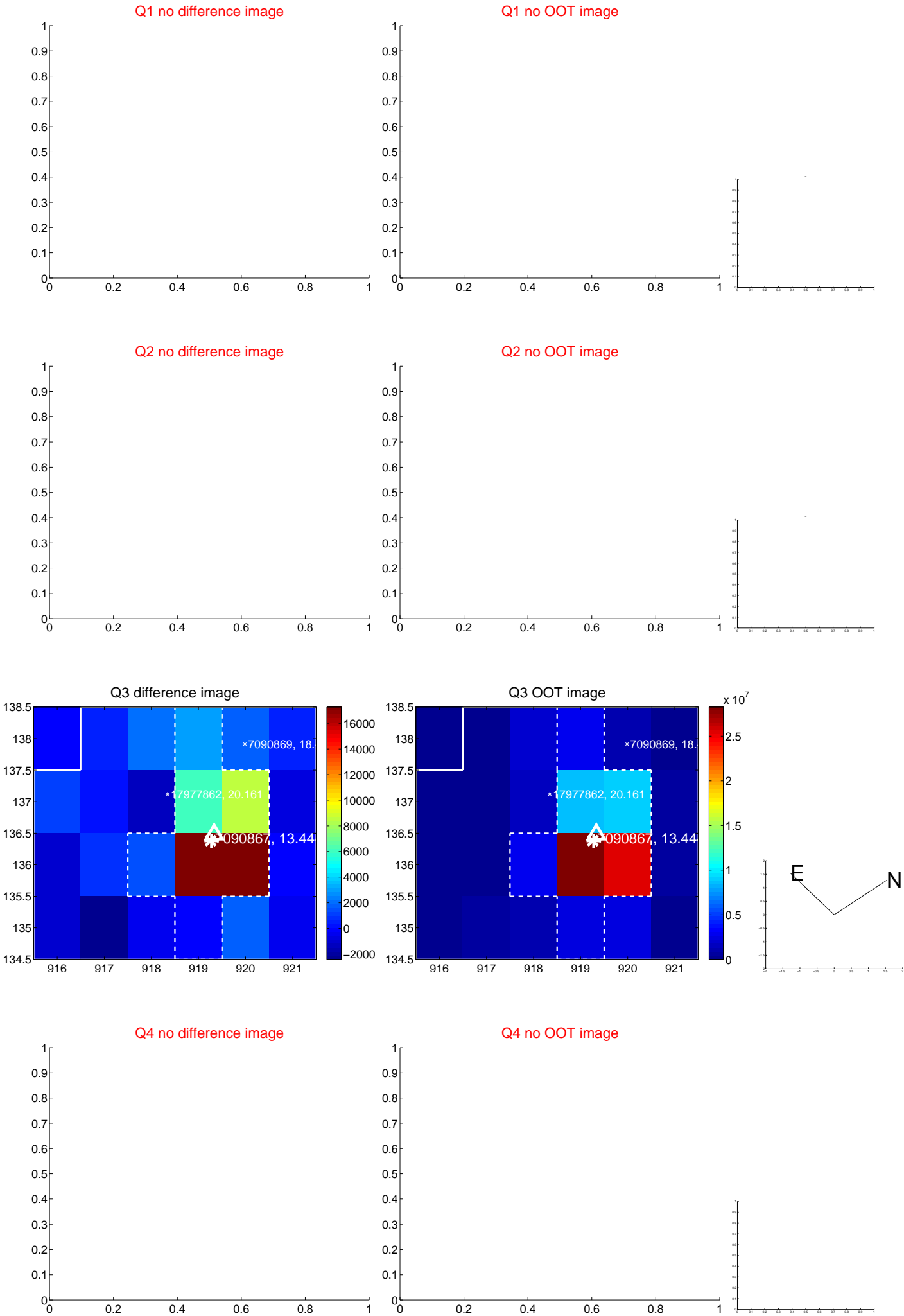
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.546 ± 0.305	1.79	0.538 ± 0.306	0.095 ± 0.252
PRF-fit source offset from KIC position	0.538 ± 0.325	1.66	0.517 ± 0.330	0.147 ± 0.251
photometric centroid source offset	1.43 ± 0.67	2.13	-0.85 ± 0.72	1.15 ± 0.64

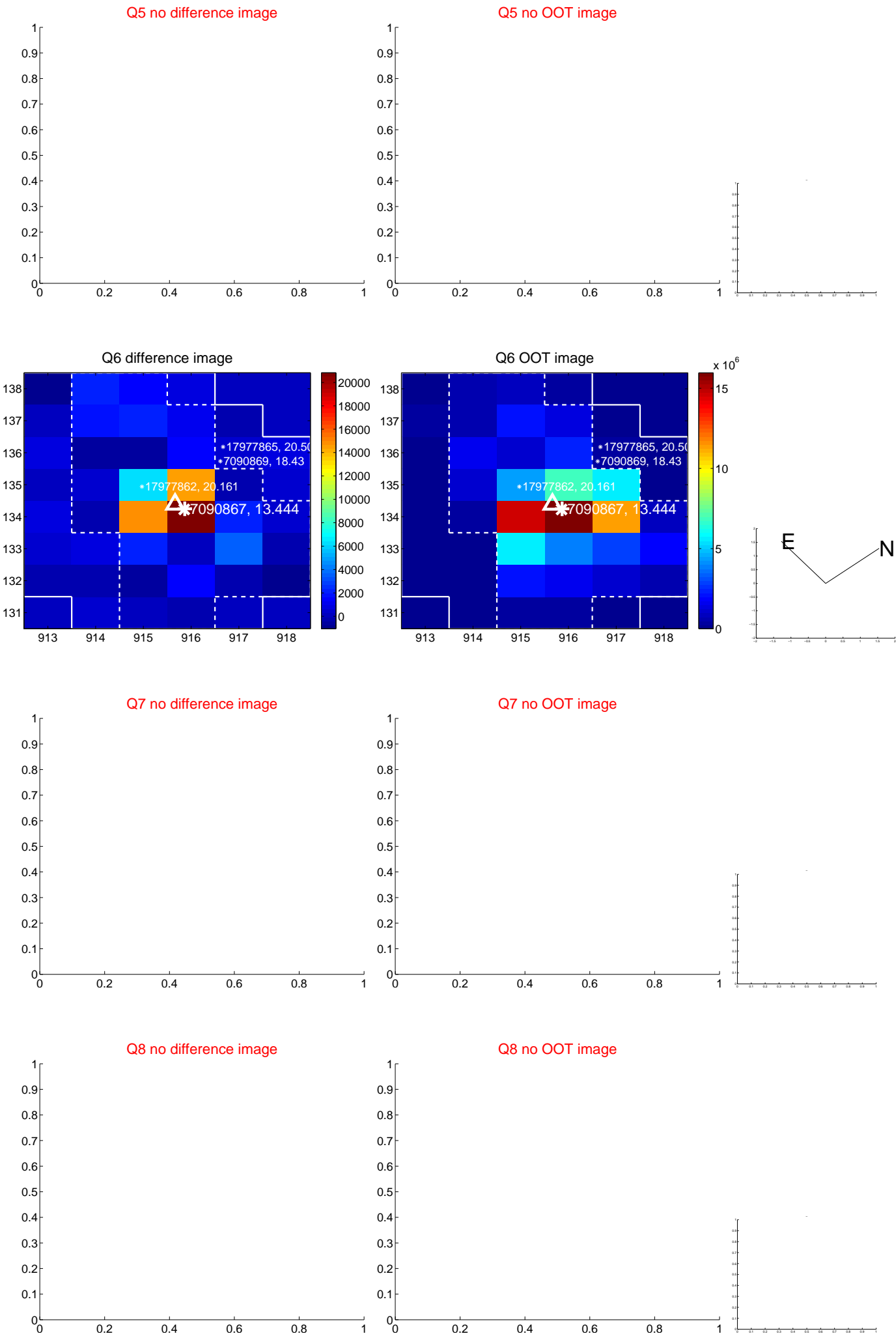


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

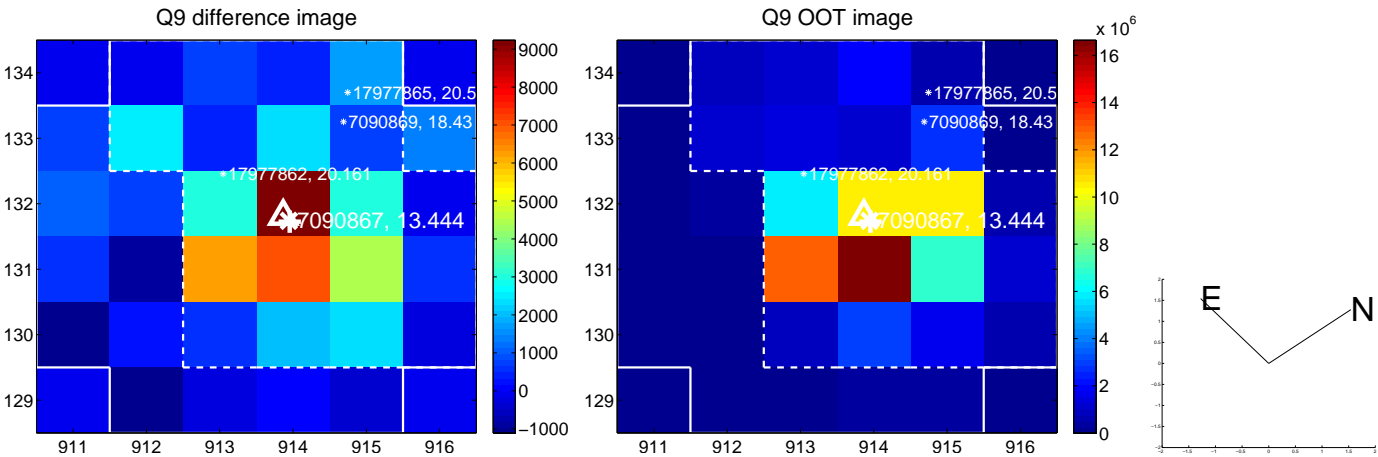
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



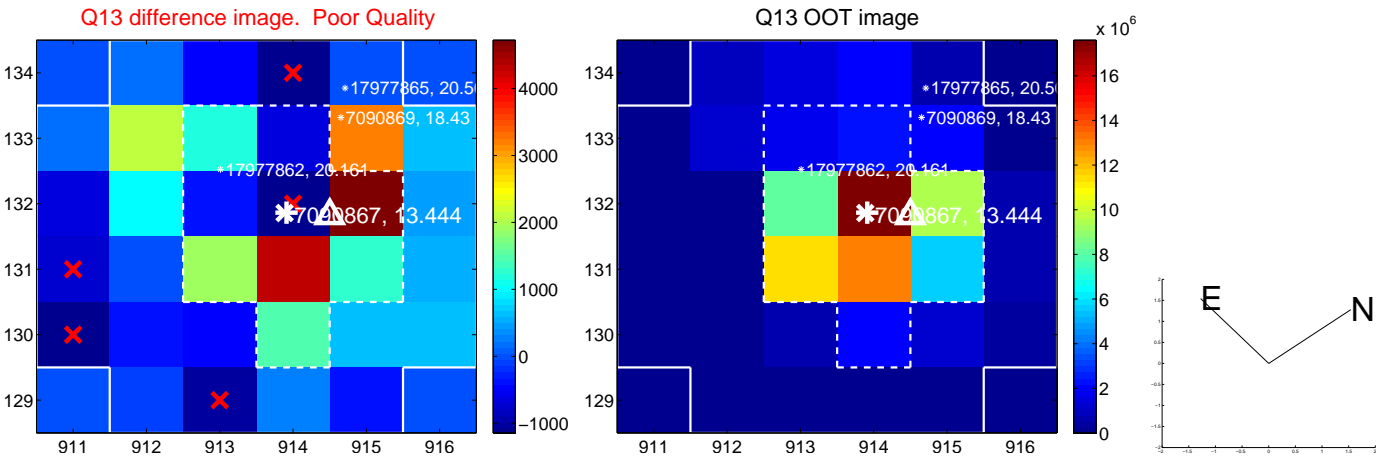
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



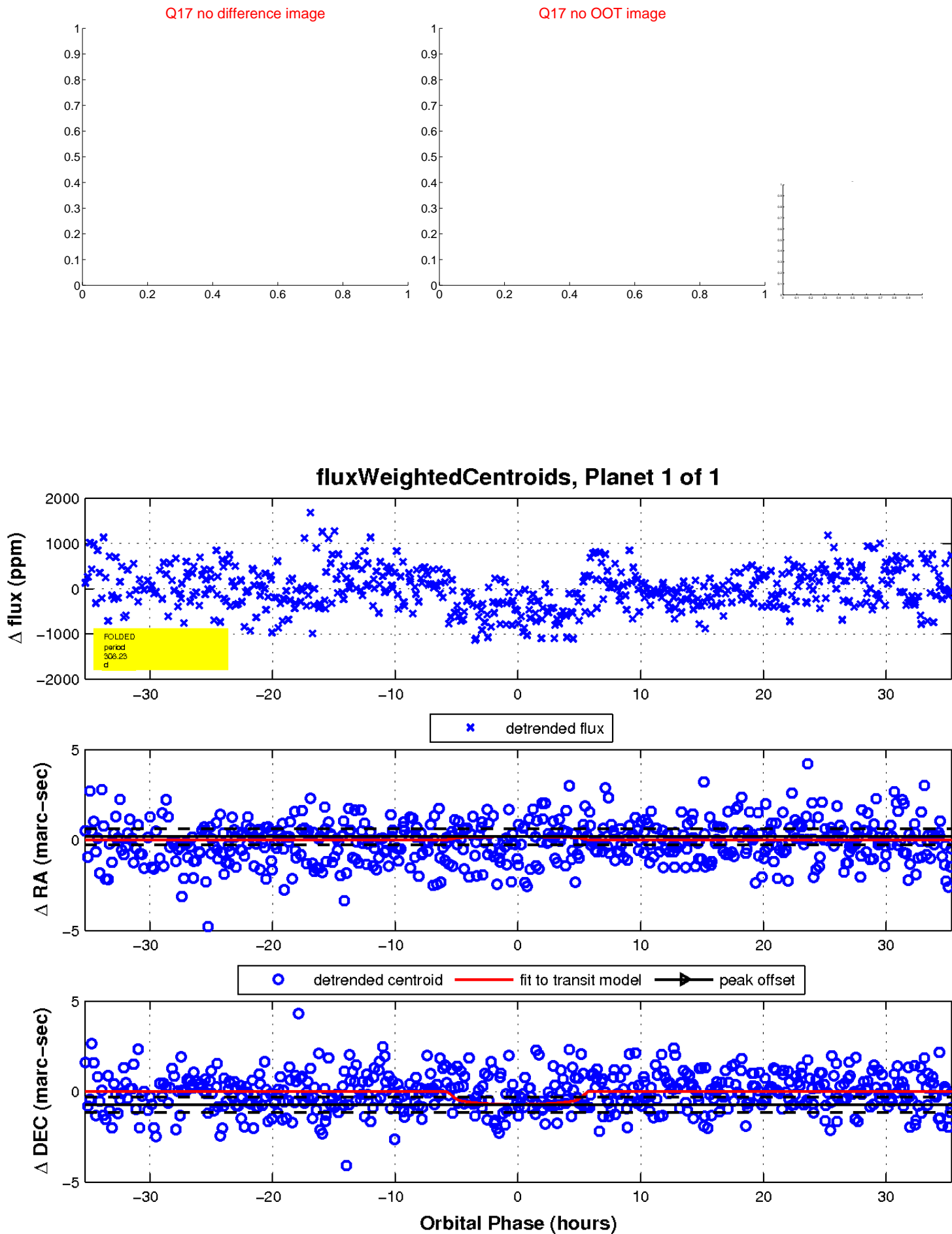
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

