

KIC 009532997

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})
009532997-01	OBS	8284.01	49.761629	135.081036	457.6	3.112	7.1	7.3	1.19	6477	2.91	28.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009532997-01	OBS	FP	0.13	1	0	0	0	MOD_NONUNIQ_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.

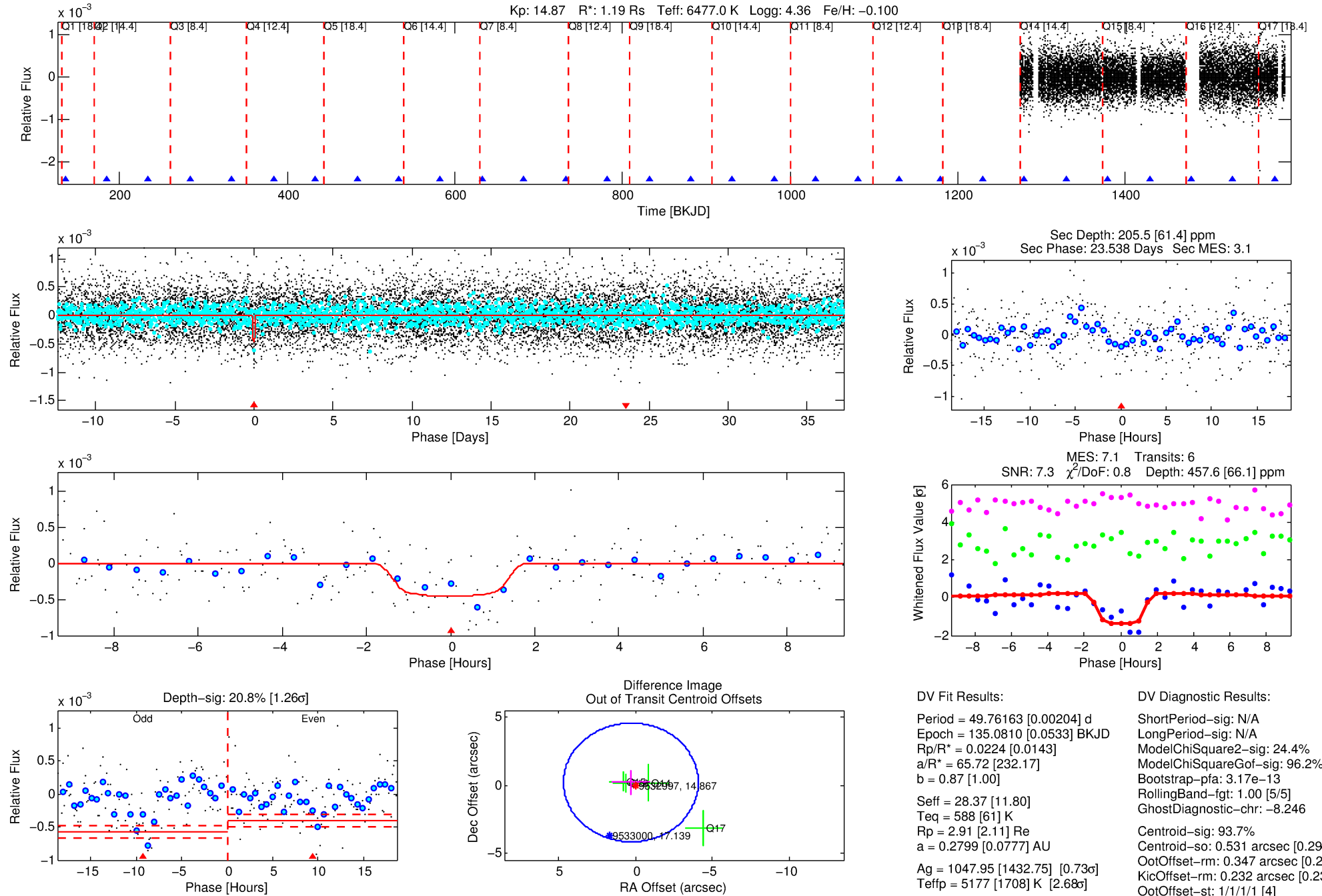
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009532997-01

No Significant Match Found

DV One-Page Summary

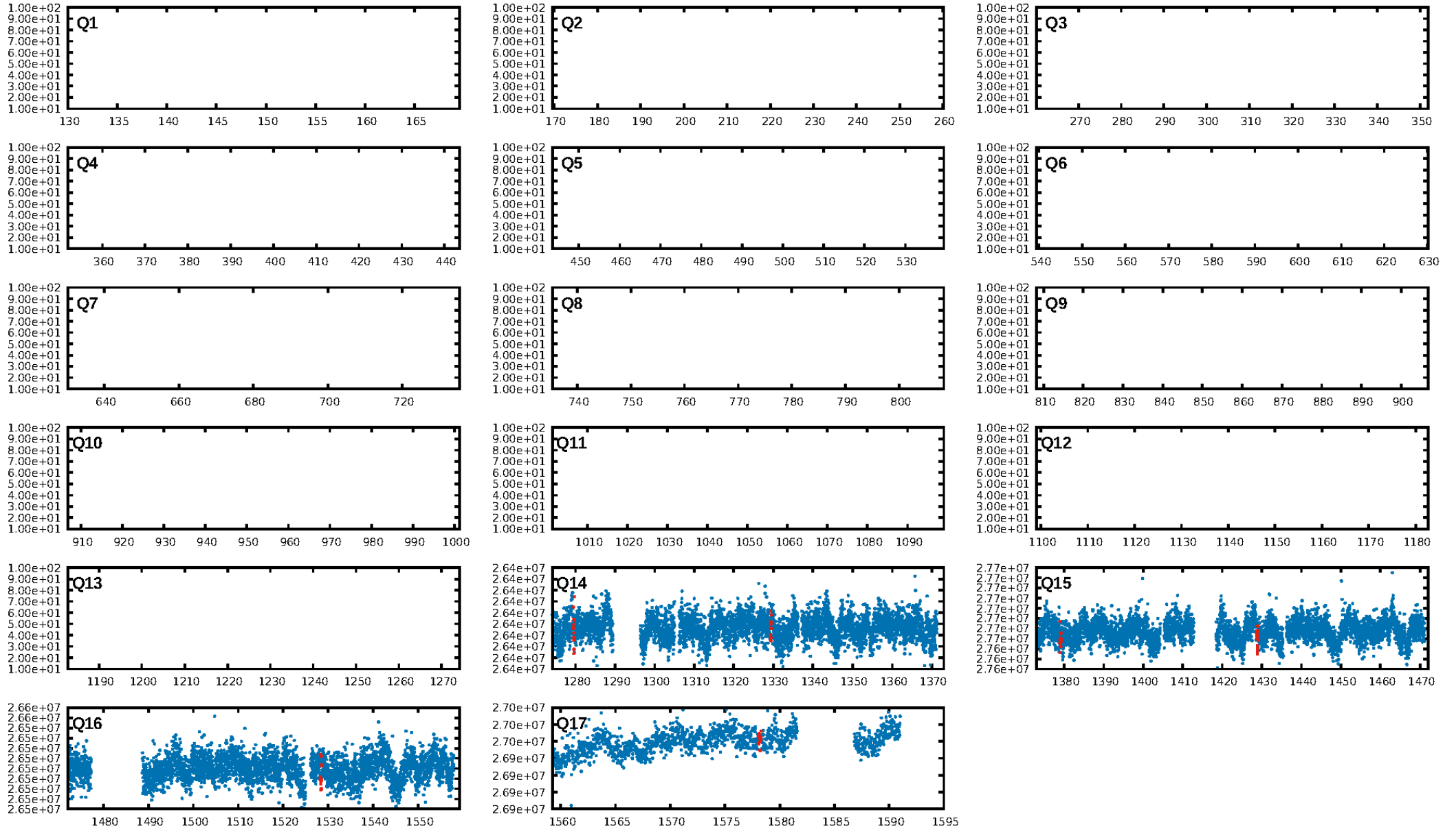
KIC: 9532997 Candidate: 1 of 1 Period: 49.762 d



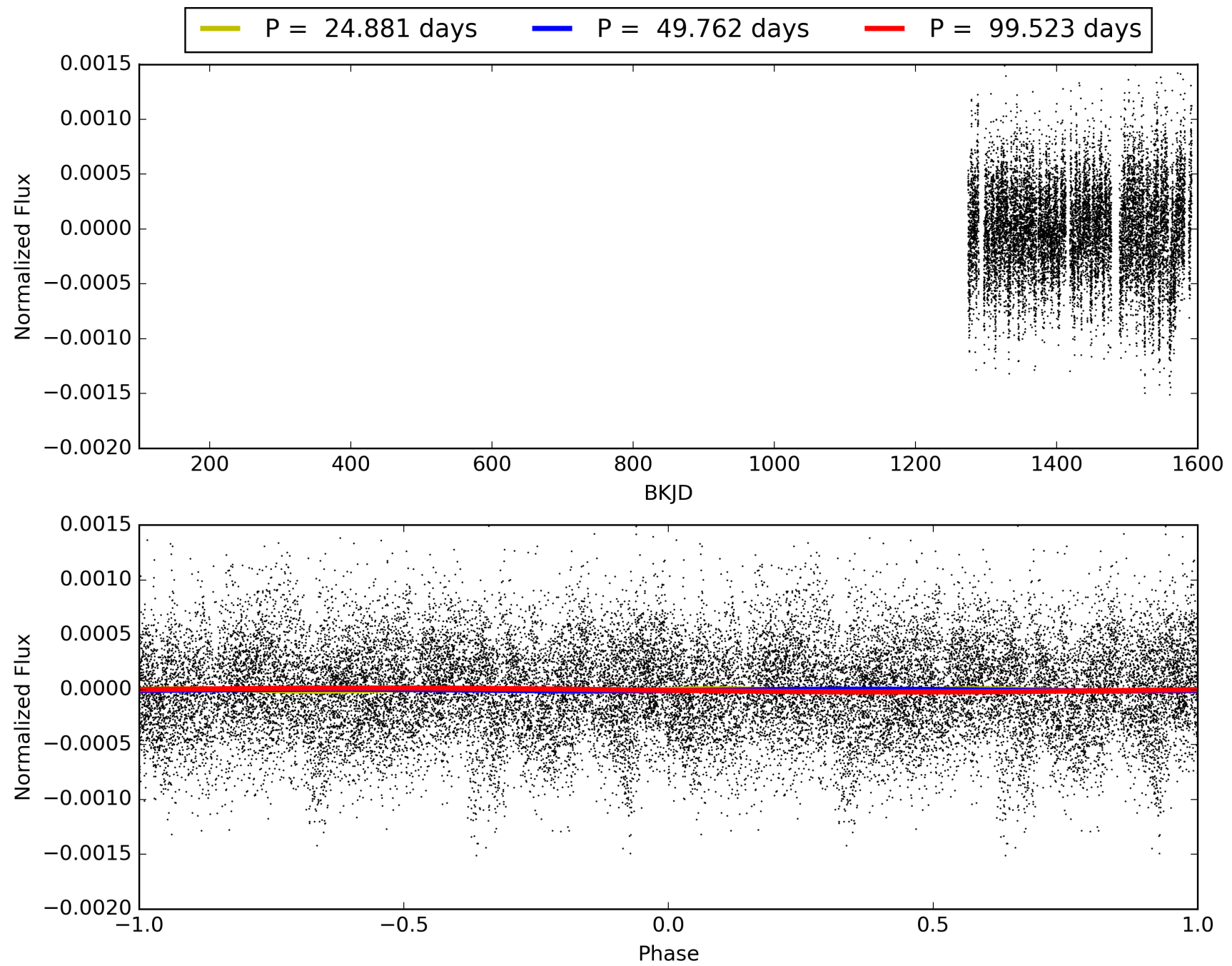
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:23:58 Z

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

TCE 009532997-01, PDC Light Curves

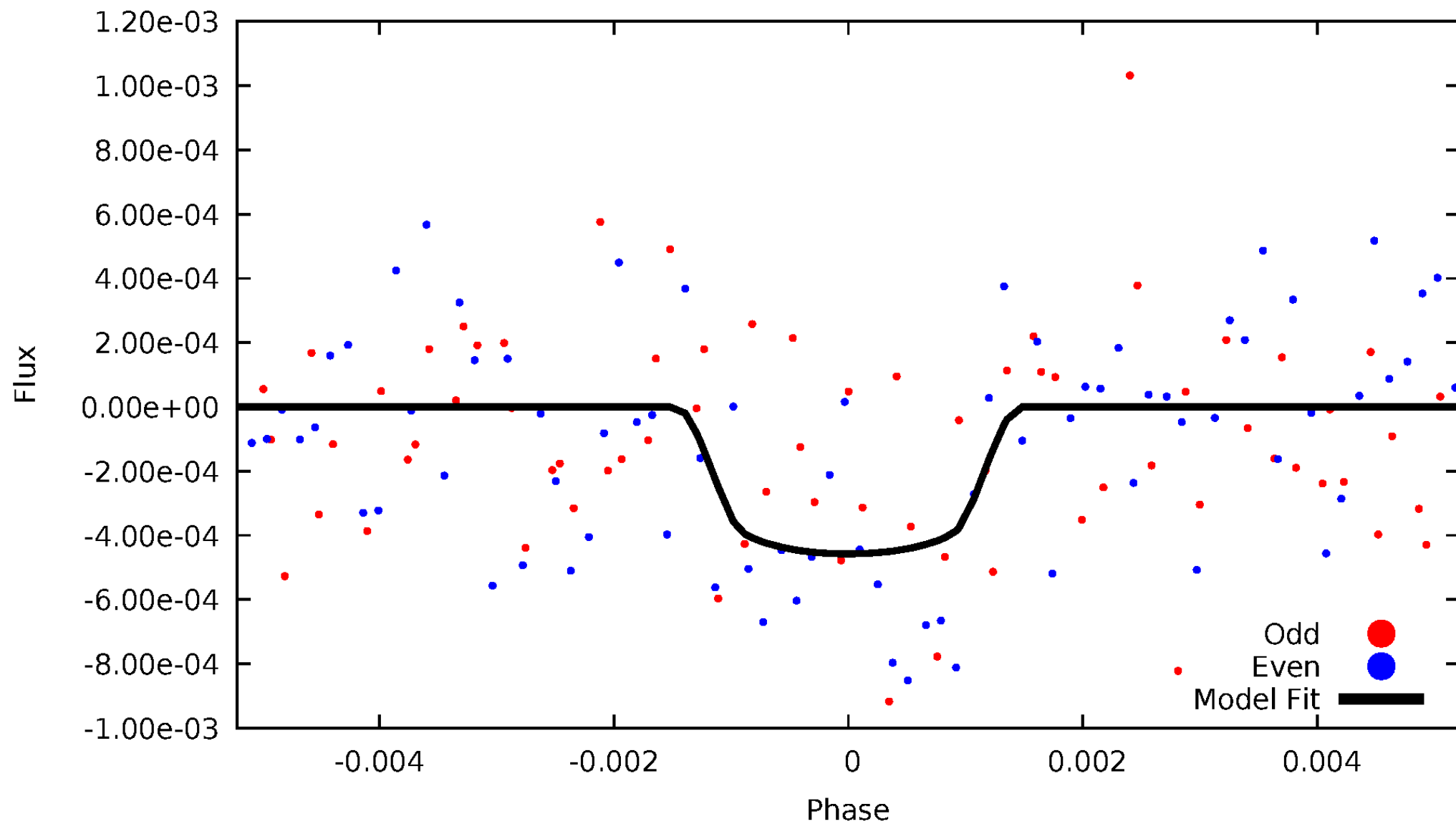


TCE 009532997-01



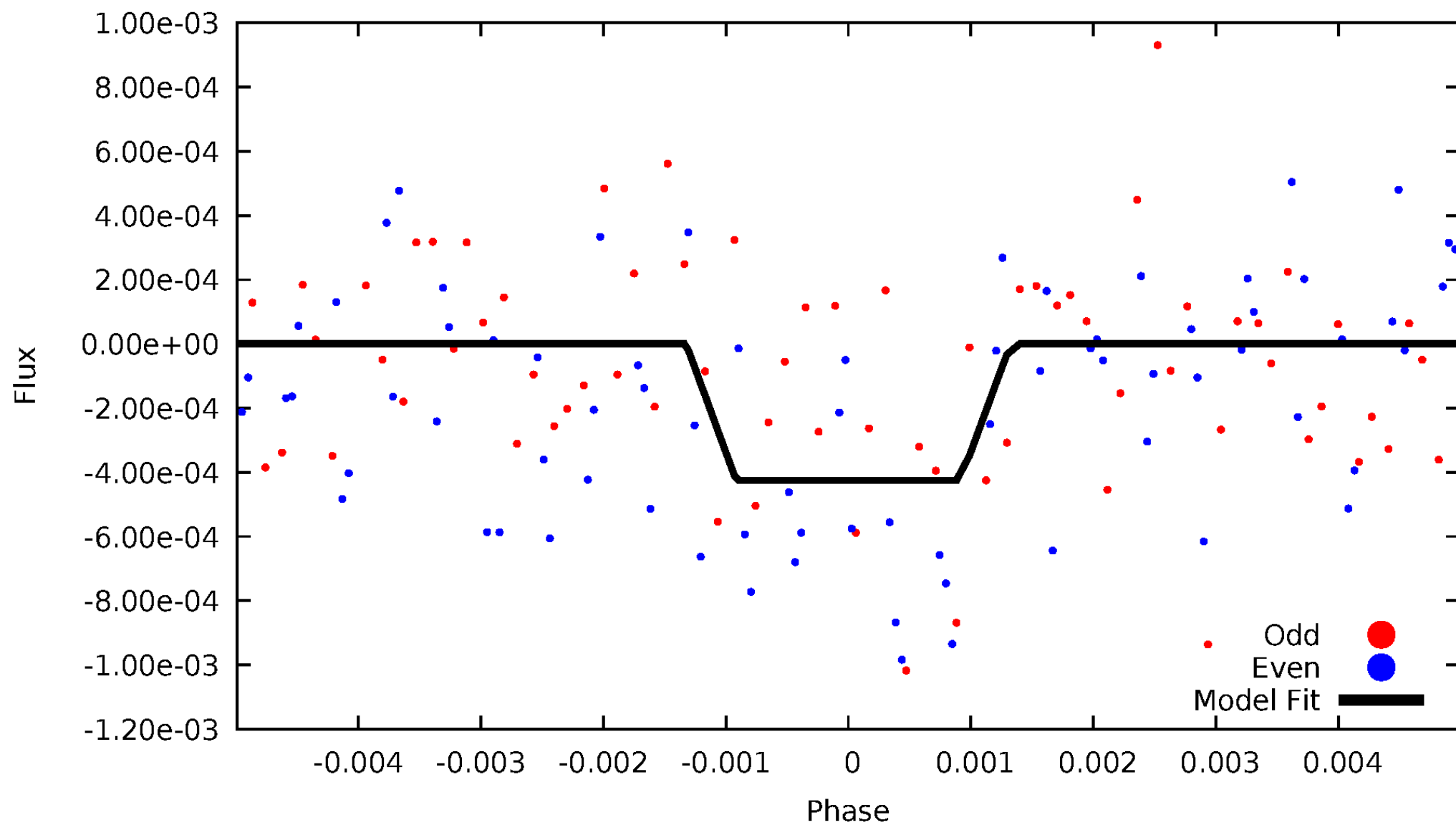
DV Odd/Even

TCE 009532997-01



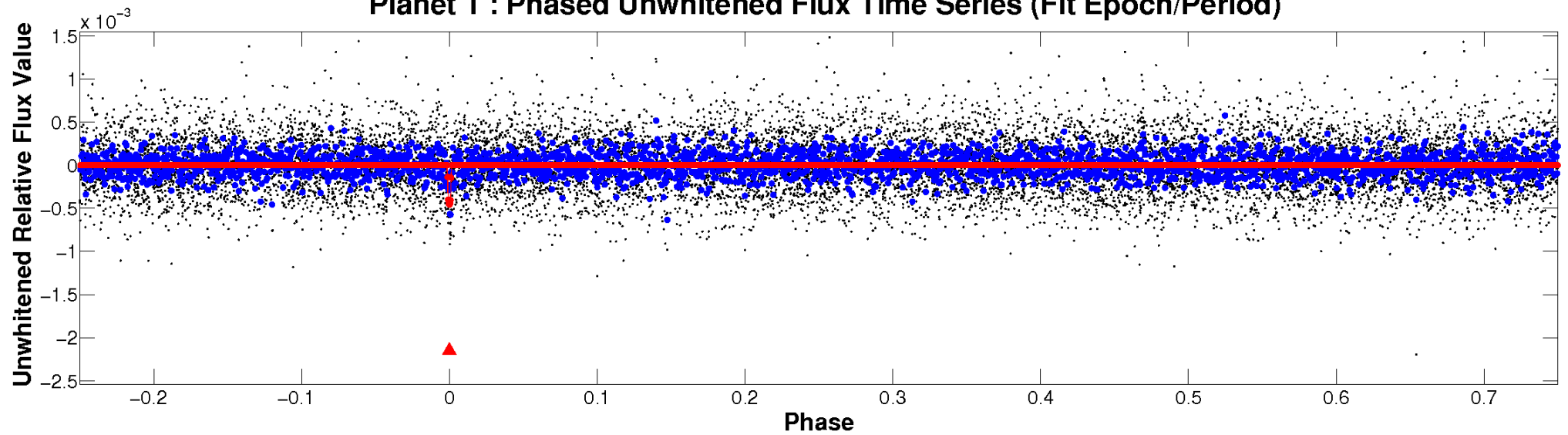
ALT Odd/Even

TCE 009532997-01

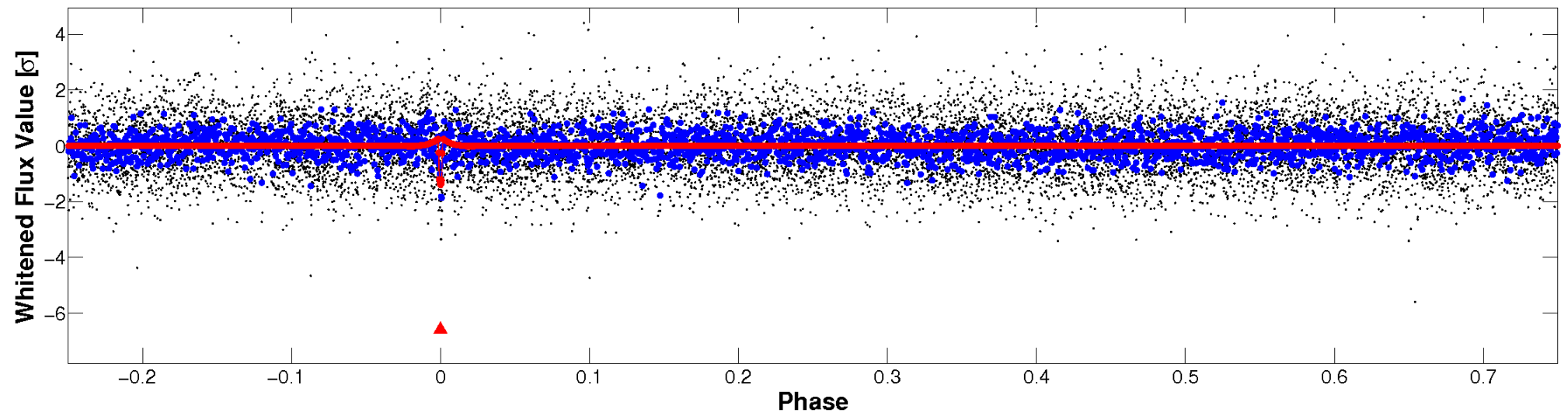


Non-Whitened Vs. Whitened Light Curve

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

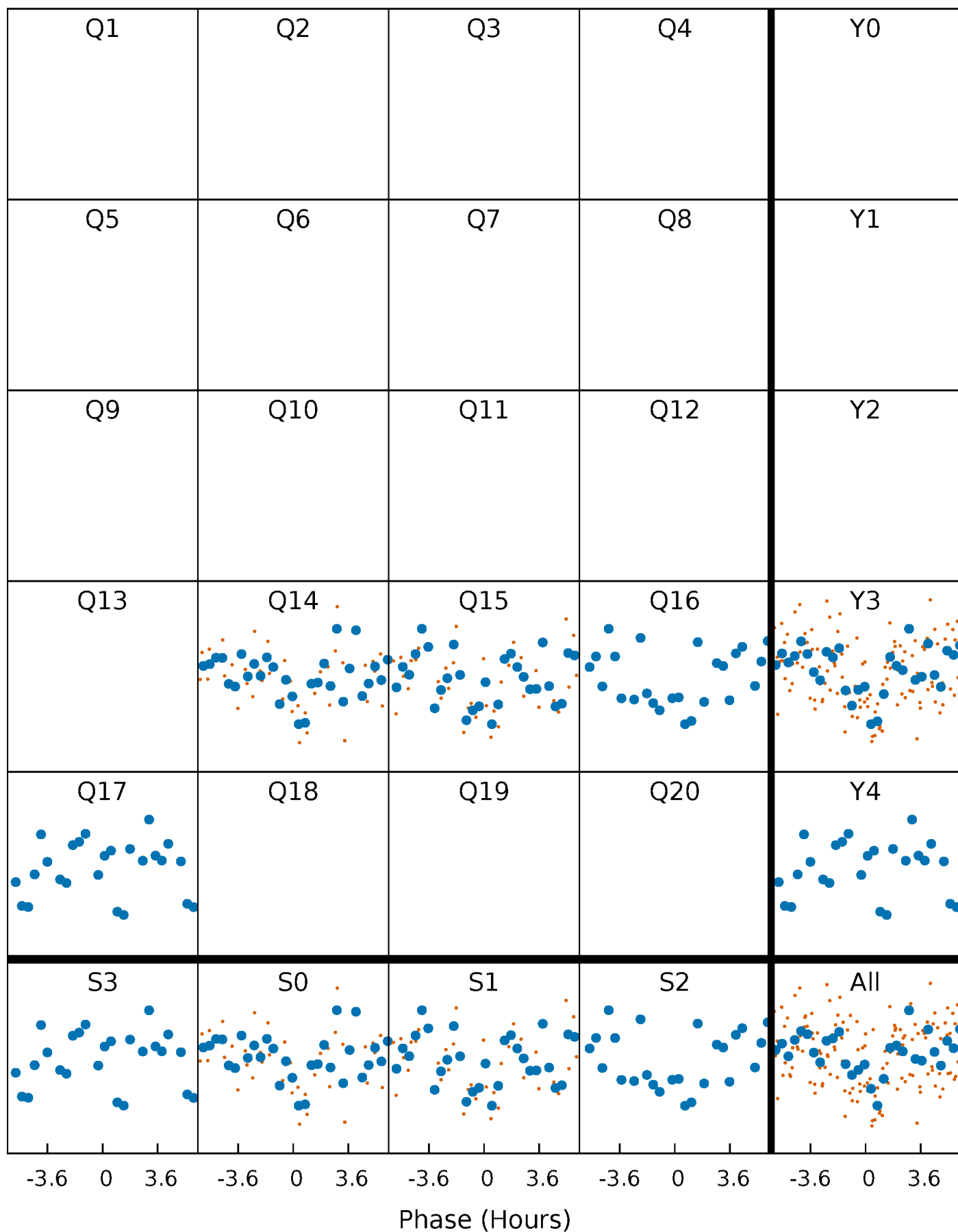


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



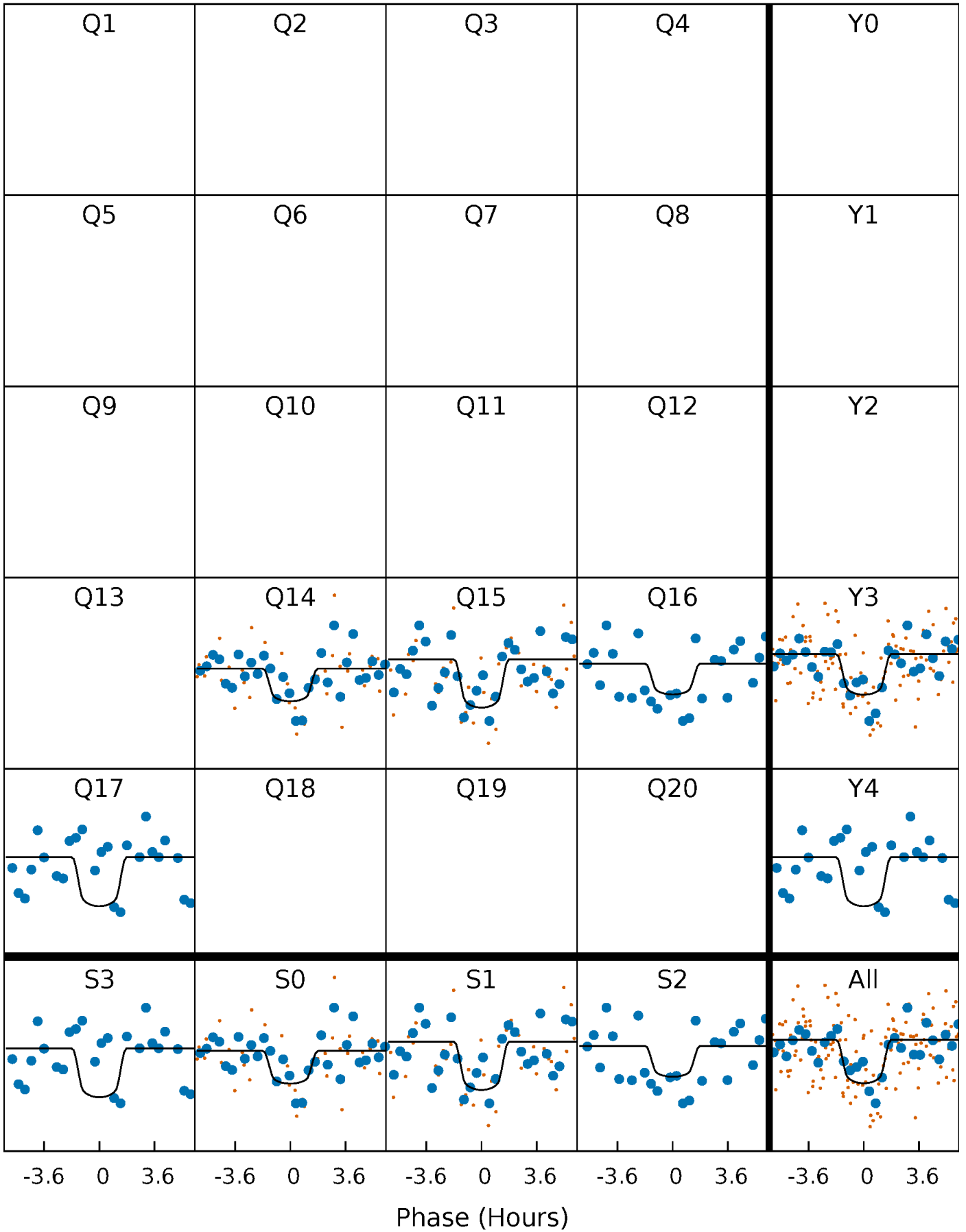
PDC Quarter-Phased Transit Curves

TCE 009532997-01 P= 49.761629 Days $T_0=135.081036$ (BKJD)



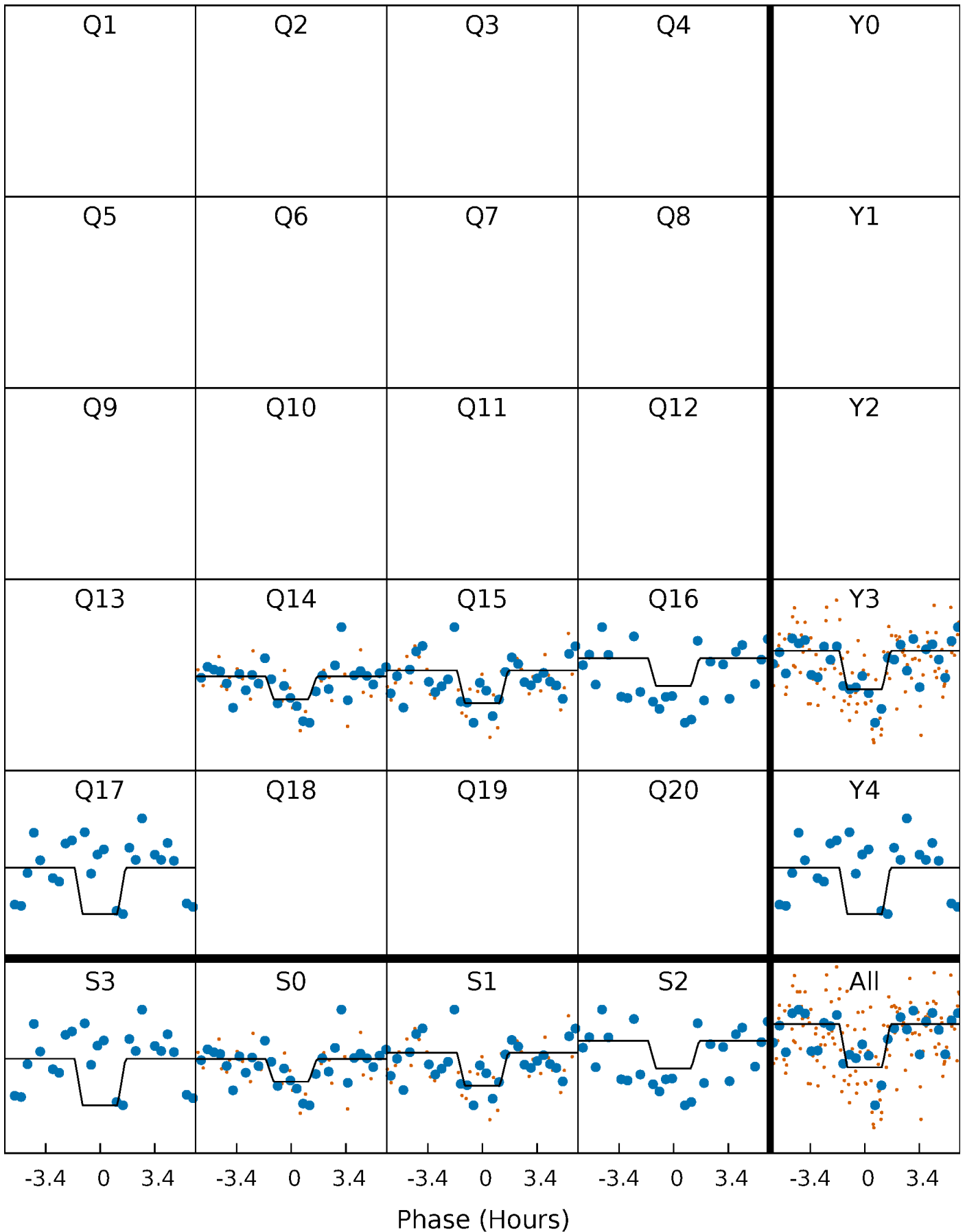
DV Quarter-Phased Transit Curves

TCE 009532997-01 P= 49.761629 Days $T_0=135.081036$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

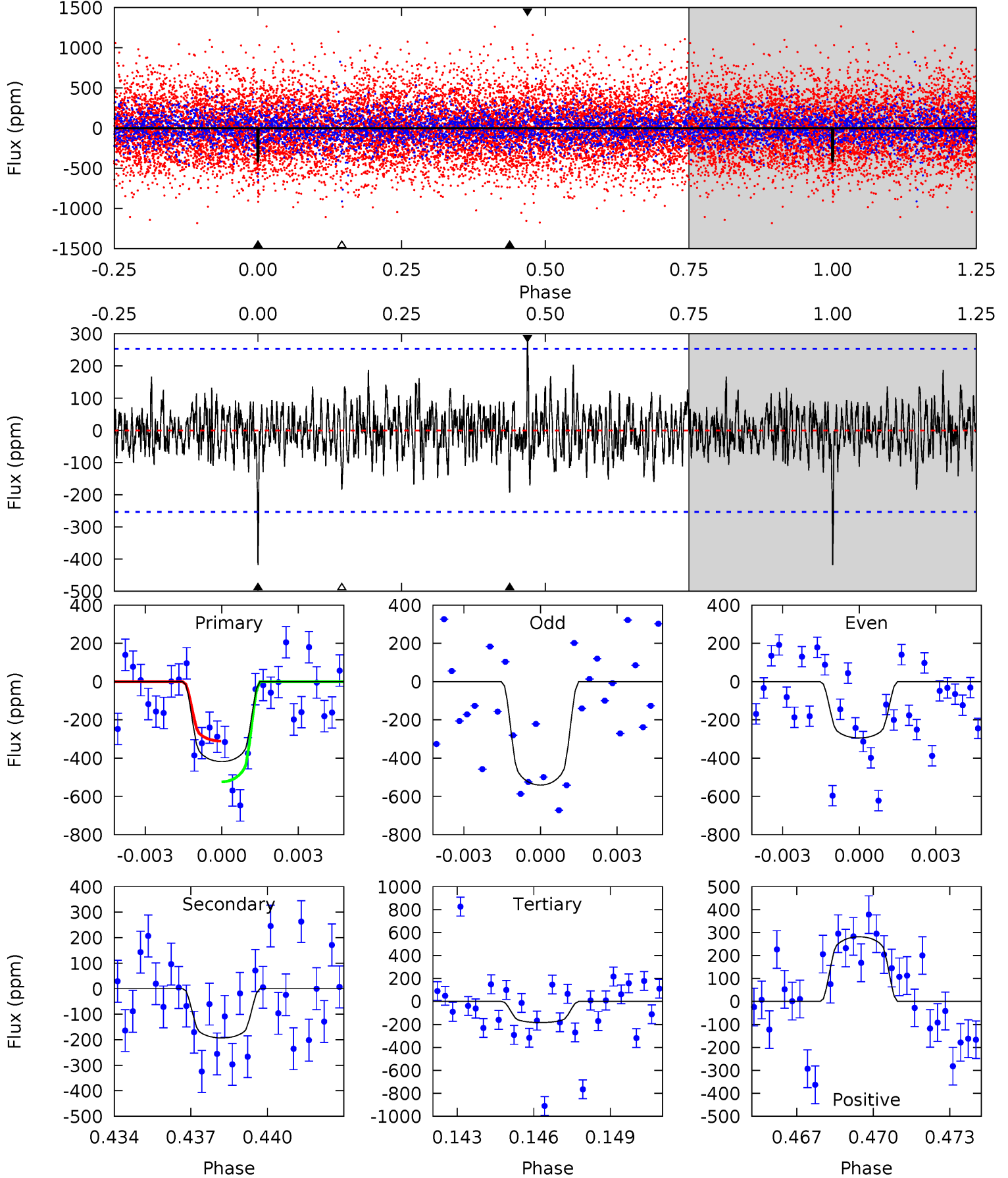
TCE 009532997-01 P= 49.763567 Days $T_0=135.030264$ (BKJD)



DV Model-Shift Uniqueness Test

009532997-01, $P = 49.761629$ Days, $E = 135.081036$ Days

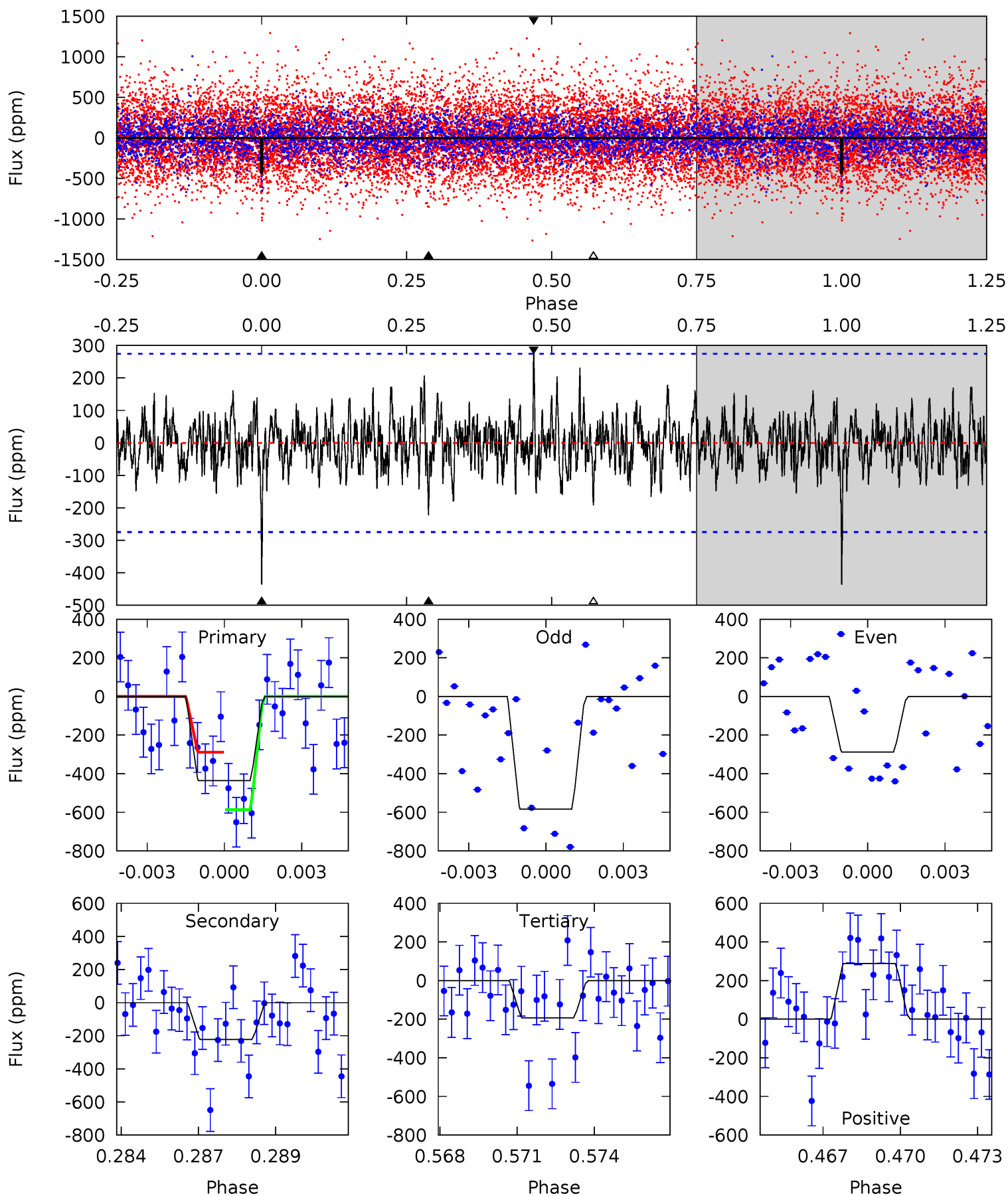
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.68	4.01	3.82	5.85	5.25	2.97	1.20	4.86	2.83	0.19	-1.84	2.56	0.92	0.40	2.21



Alt Model-Shift Uniqueness Test

009532997-01, P = 49.763567 Days, E = 135.030264 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.37	4.28	3.70	5.53	5.27	3.01	1.22	4.68	2.84	0.58	-1.25	2.84	0.92	0.40	2.85



Stellar Parameters For KIC 009532997

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6477^{+179}_{-246}	$4.361^{+0.072}_{-0.203}$	$-0.100^{+0.250}_{-0.300}$	$1.187^{+0.409}_{-0.163}$	$1.182^{+0.181}_{-0.163}$	$0.995^{+0.389}_{-0.538}$
	+3%/-4%	+2%/-5%	+250%/-300%	+34%/-14%	+15%/-14%	+39%/-54%
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 009532997-01 / KOI 8284.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-193 ± 48	$3.08^{+1.88}_{-1.57}$	834^{+68}_{-45}	5092^{+2268}_{-911}	875^{+2933}_{-559}
Alt.	-223 ± 52	$2.98^{+1.77}_{-1.62}$	836^{+69}_{-43}	5370^{+2594}_{-1003}	1043^{+4164}_{-640}

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

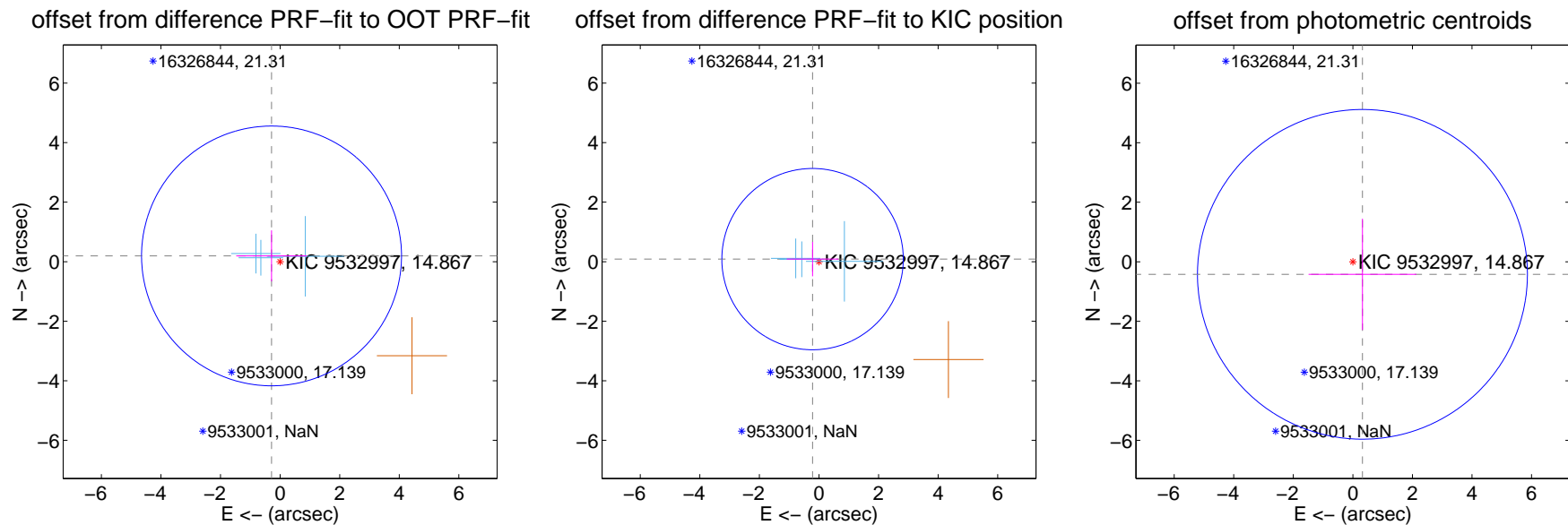
DV Centroid Data

Supplemental centroid analysis for 009532997-01. Kepler magnitude: 14.87. Transit SNR 7.25

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.347 ± 1.455	0.24	0.288 ± 1.185	0.194 ± 0.858
PRF-fit source offset from KIC position	0.232 ± 1.015	0.23	0.215 ± 0.868	0.086 ± 0.578
photometric centroid source offset	0.53 ± 1.85	0.29	-0.32 ± 1.81	-0.42 ± 1.87



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.



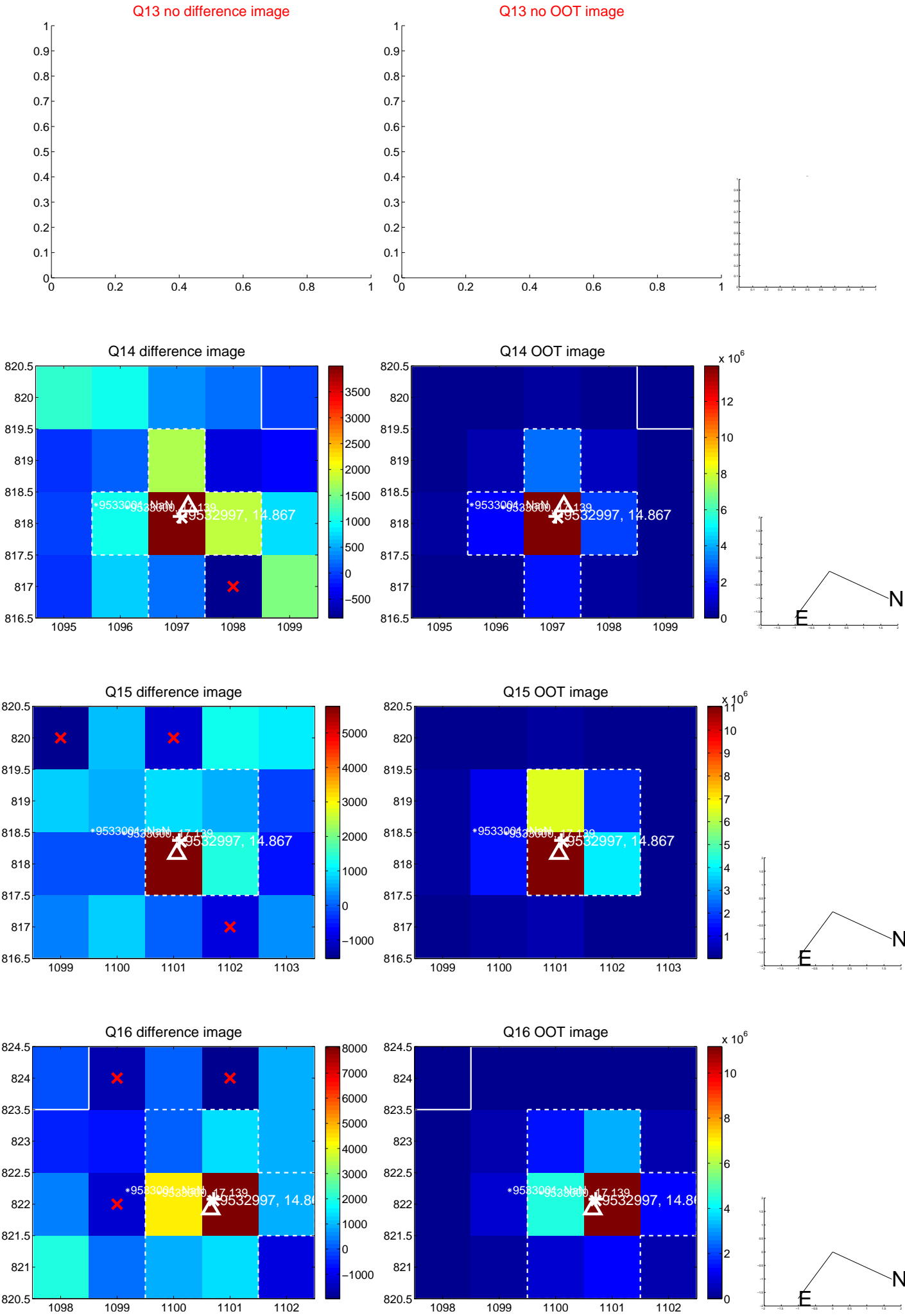
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



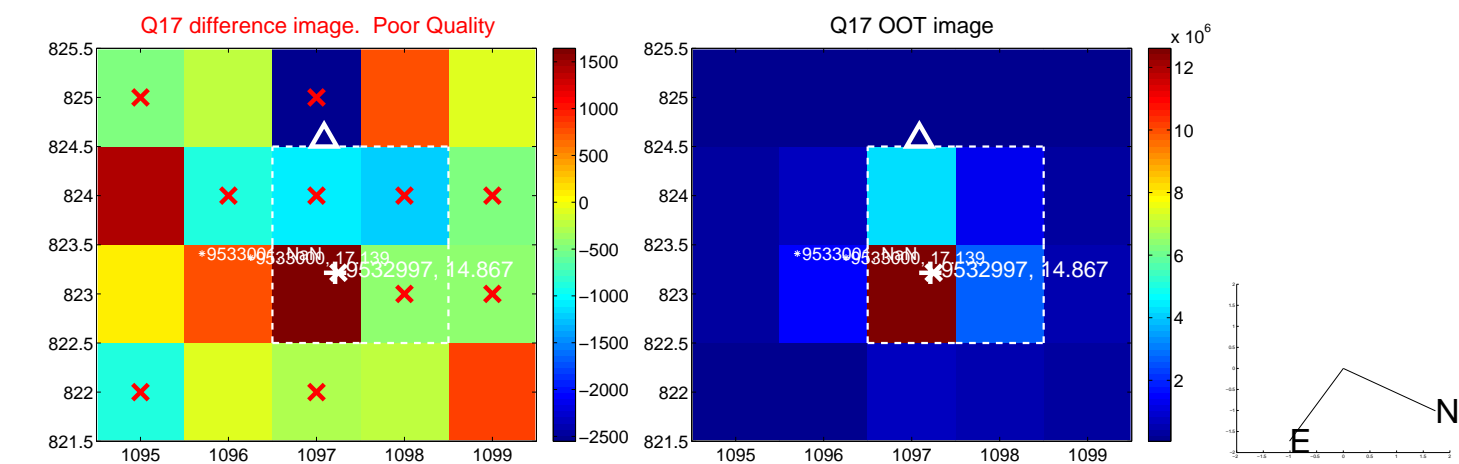
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



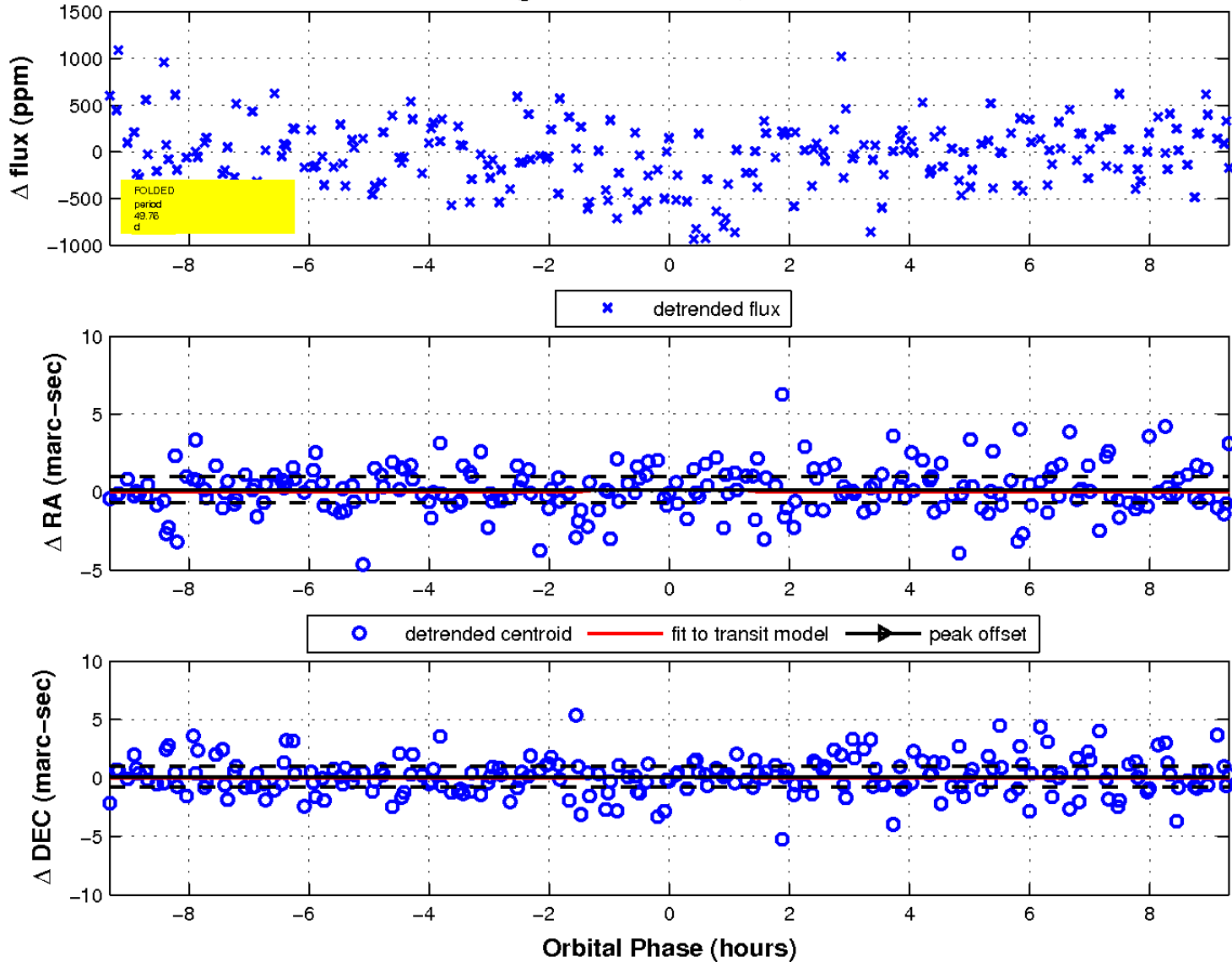
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

