

KIC 008439923

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})
008439923-01	OBS	No	289.007756	371.291000	546.7	9.125	9.4	8.7	1.05	6228	2.66	1.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008439923-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—MOD_NONUNIQ_ALT—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.

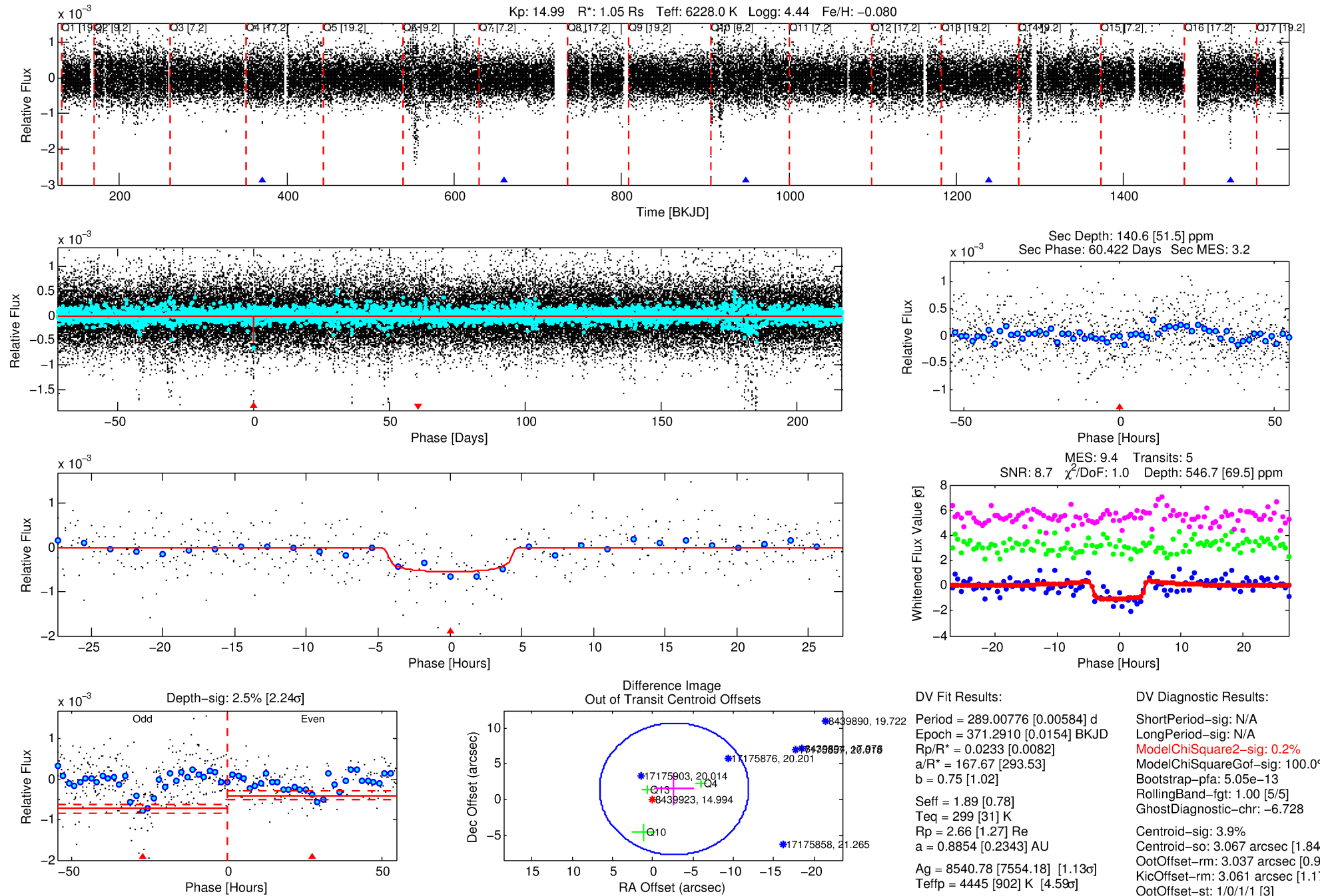
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008439923-01

No Significant Match Found

DV One-Page Summary

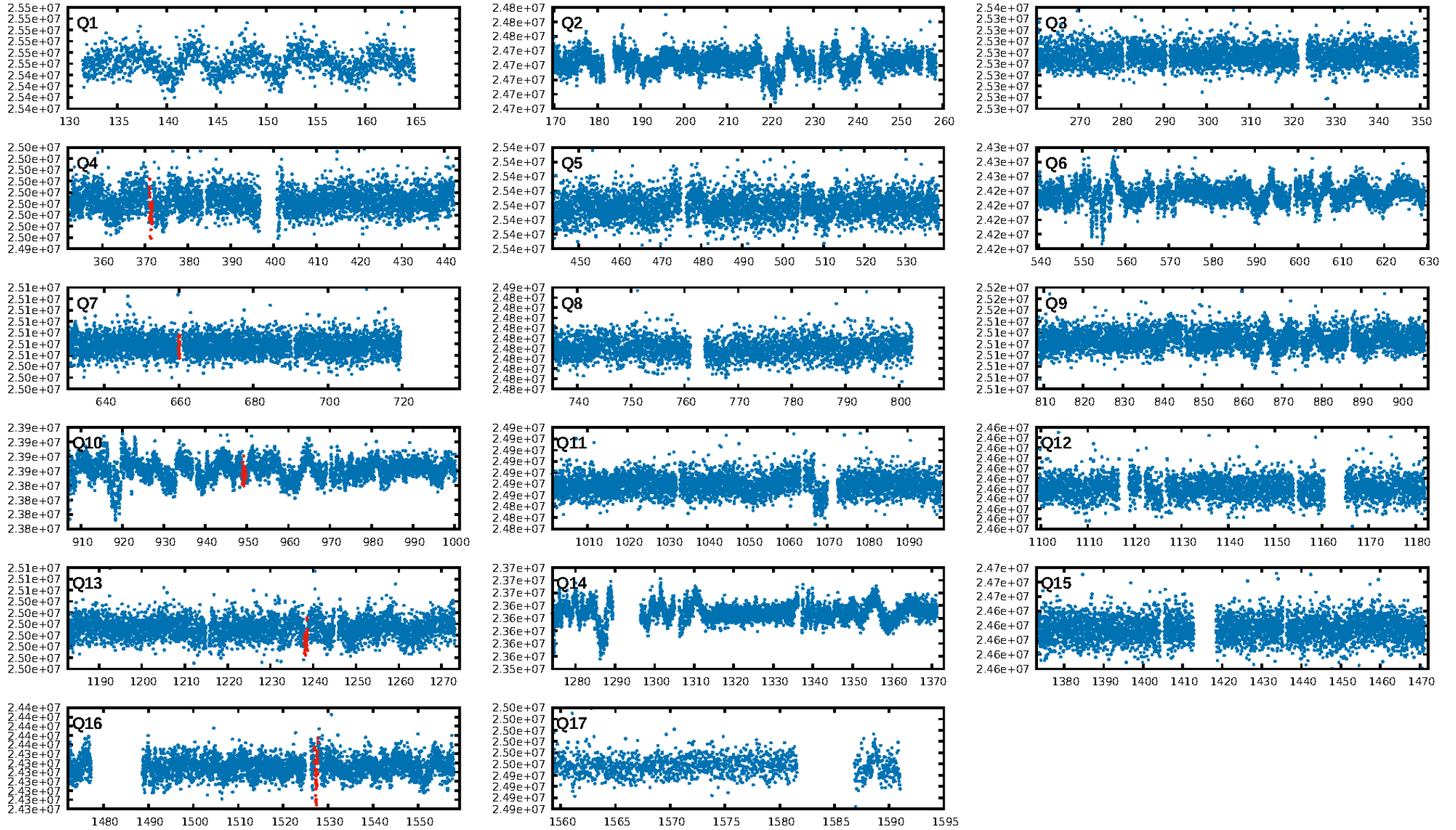
KIC: 8439923 Candidate: 1 of 1 Period: 289.008 d



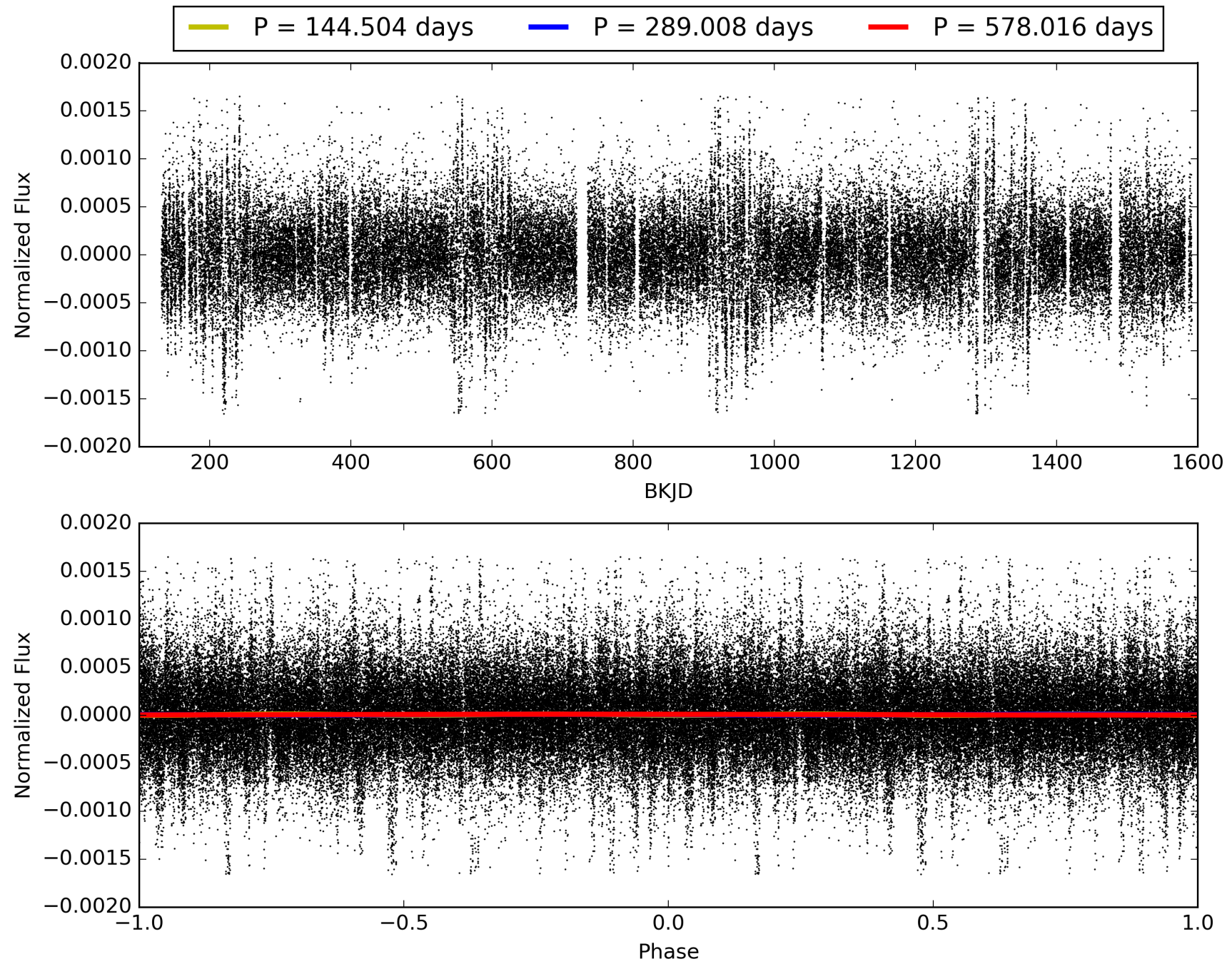
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:47:35 Z

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

TCE 008439923-01, PDC Light Curves

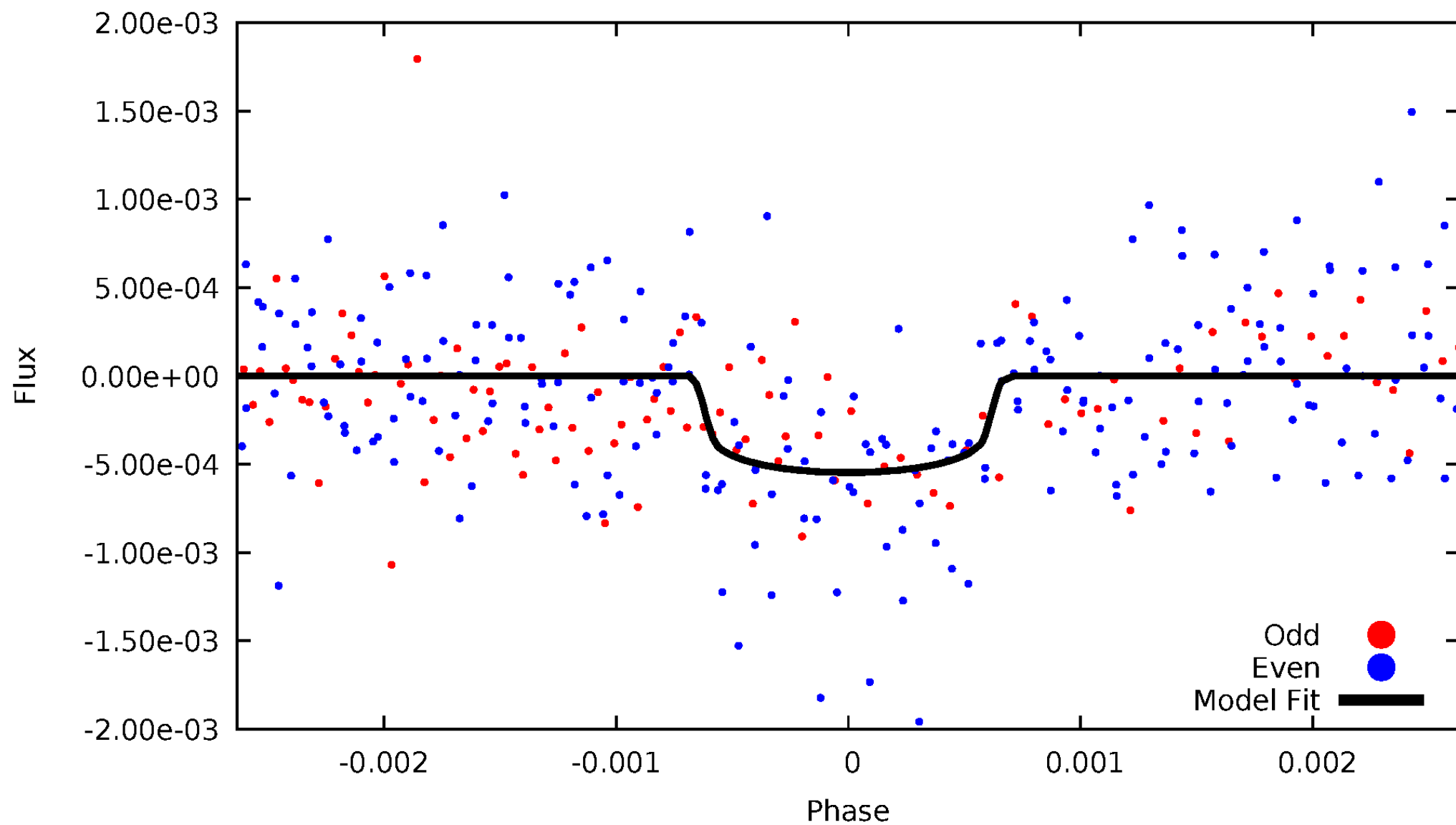


TCE 008439923-01



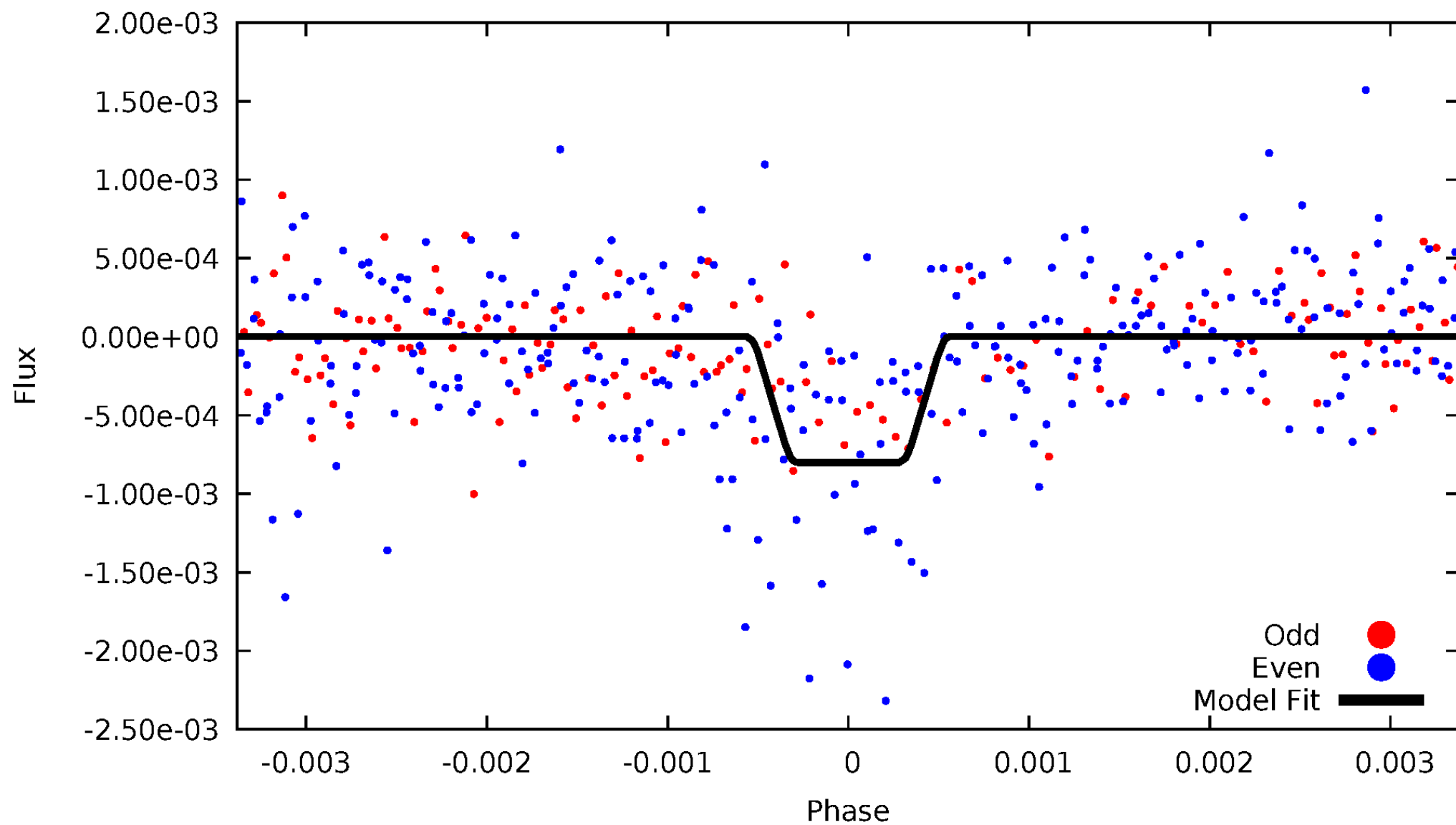
DV Odd/Even

TCE 008439923-01



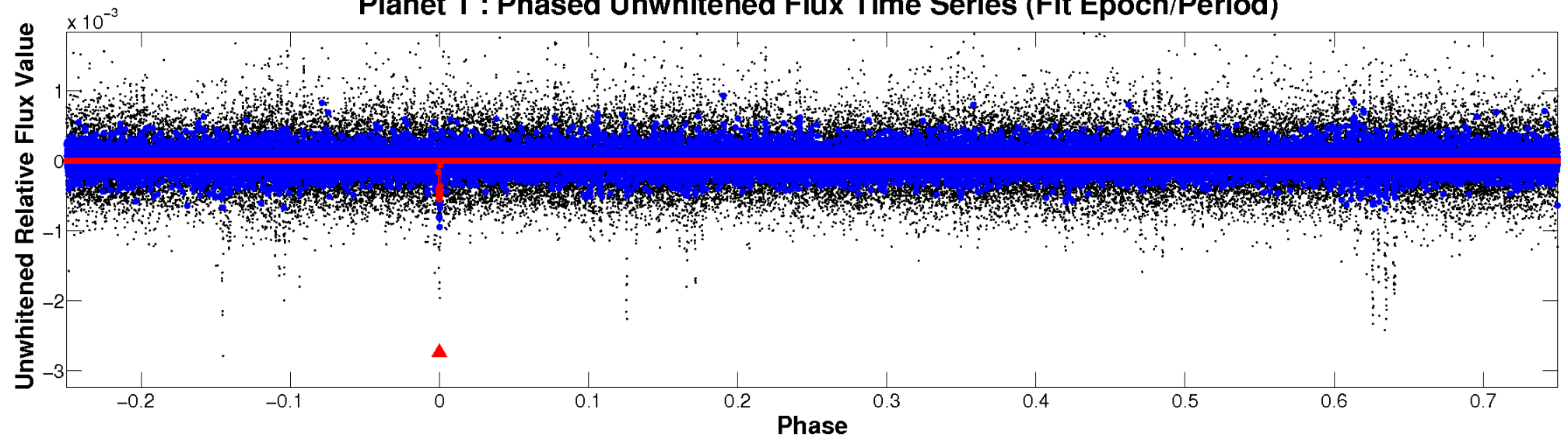
ALT Odd/Even

TCE 008439923-01

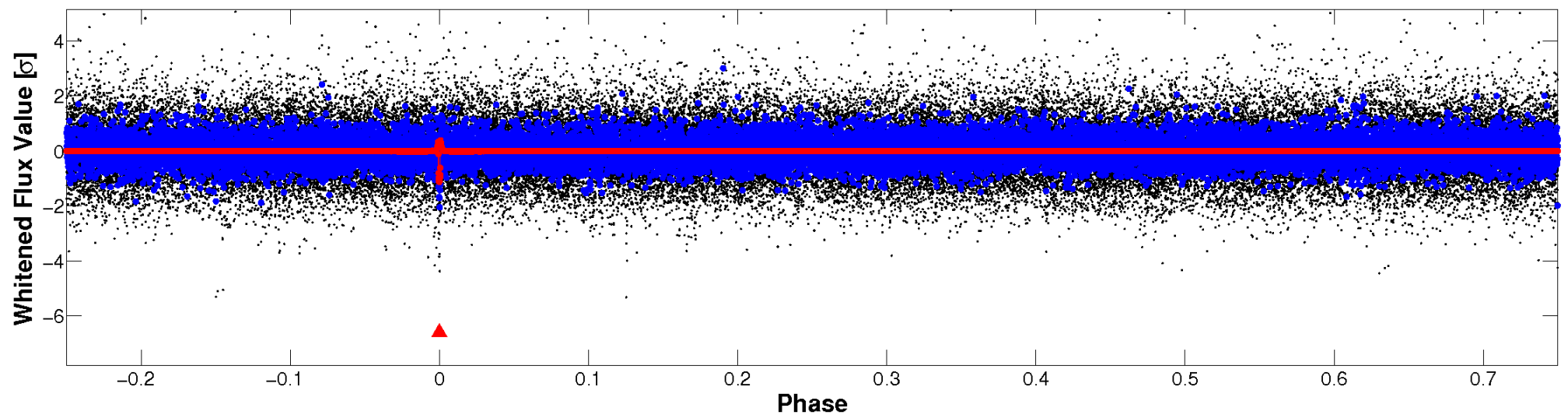


Non-Whitened Vs. Whitened Light Curve

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

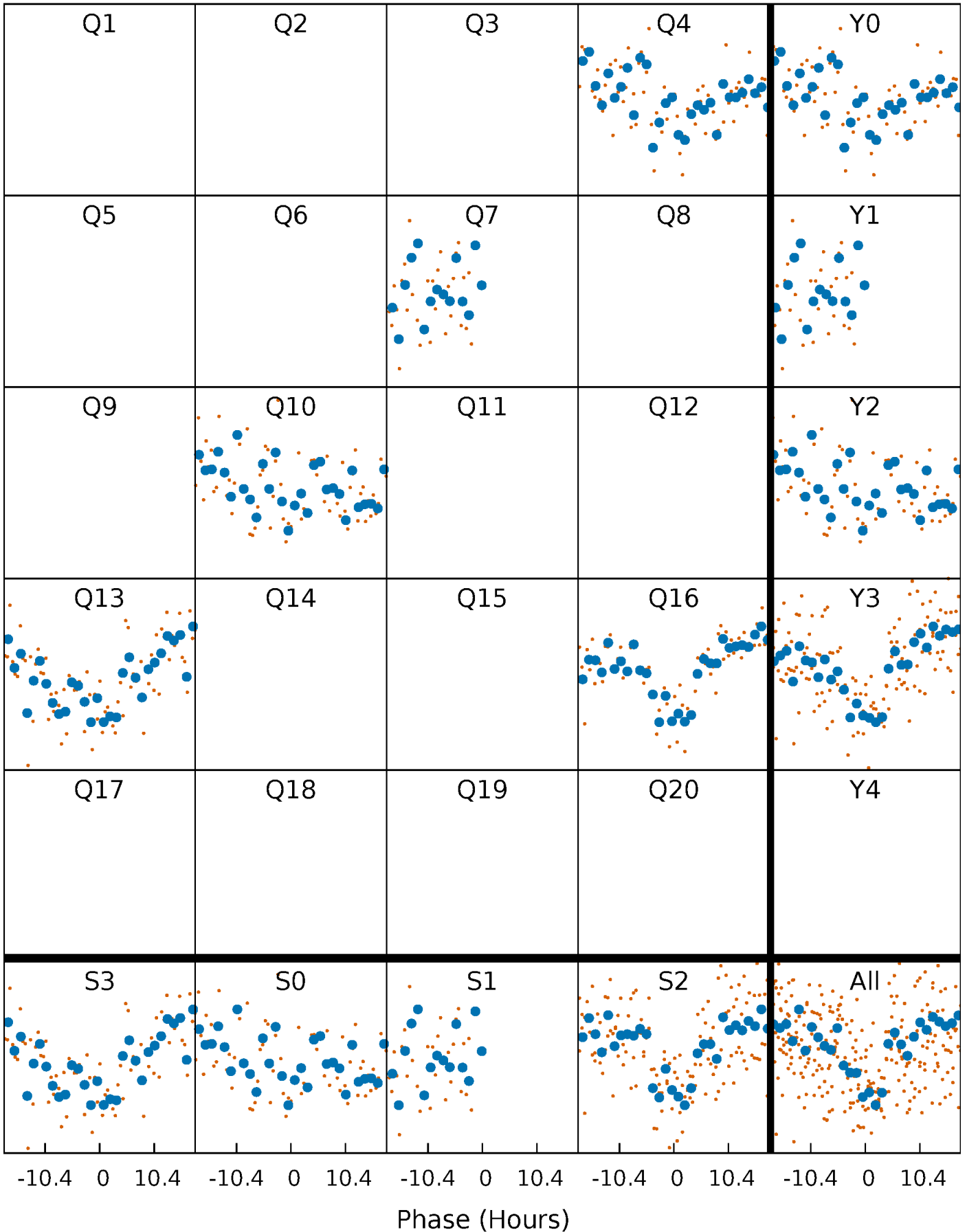


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



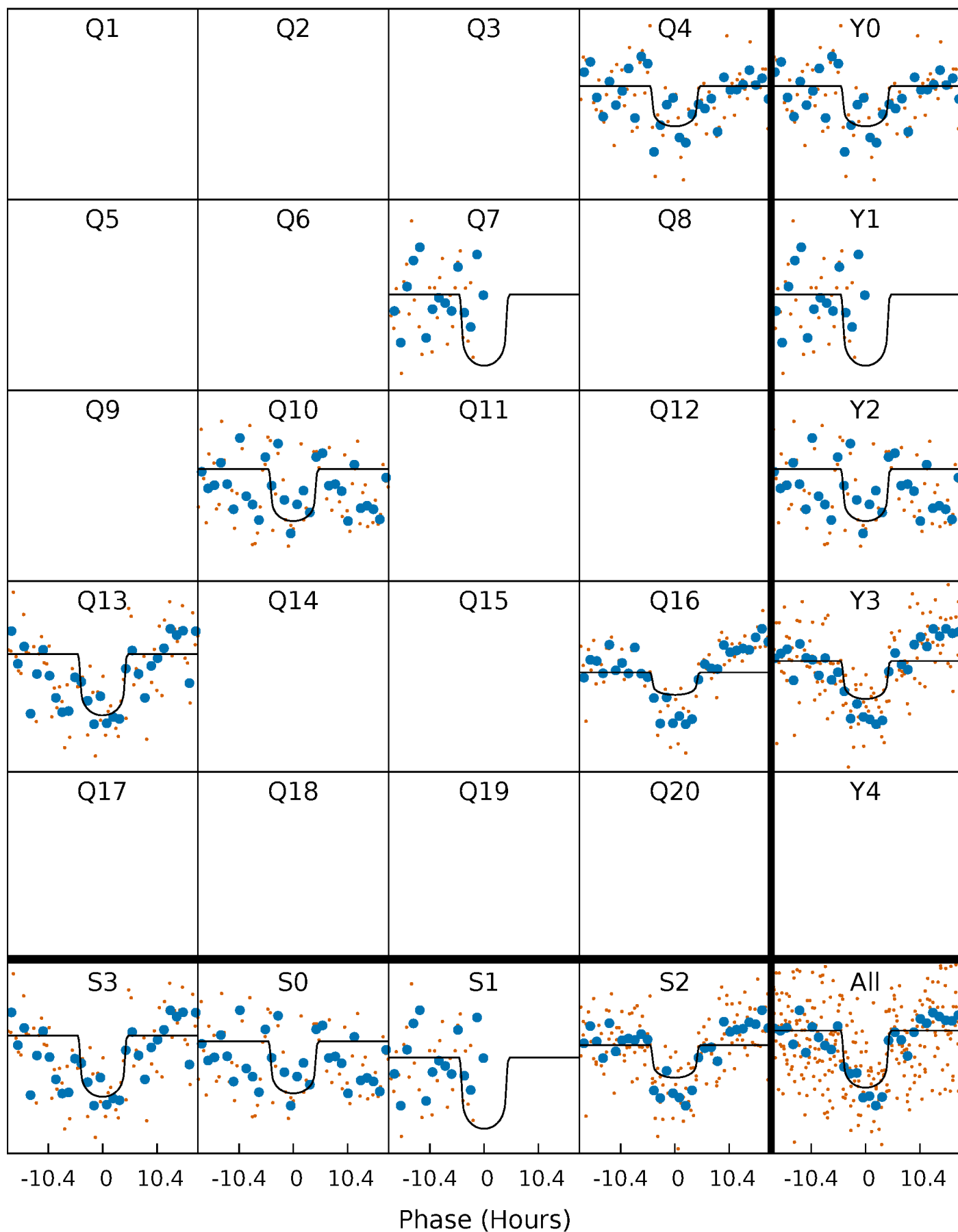
PDC Quarter-Phased Transit Curves

TCE 008439923-01 P=289.007756 Days $T_0=371.291000$ (BKJD)



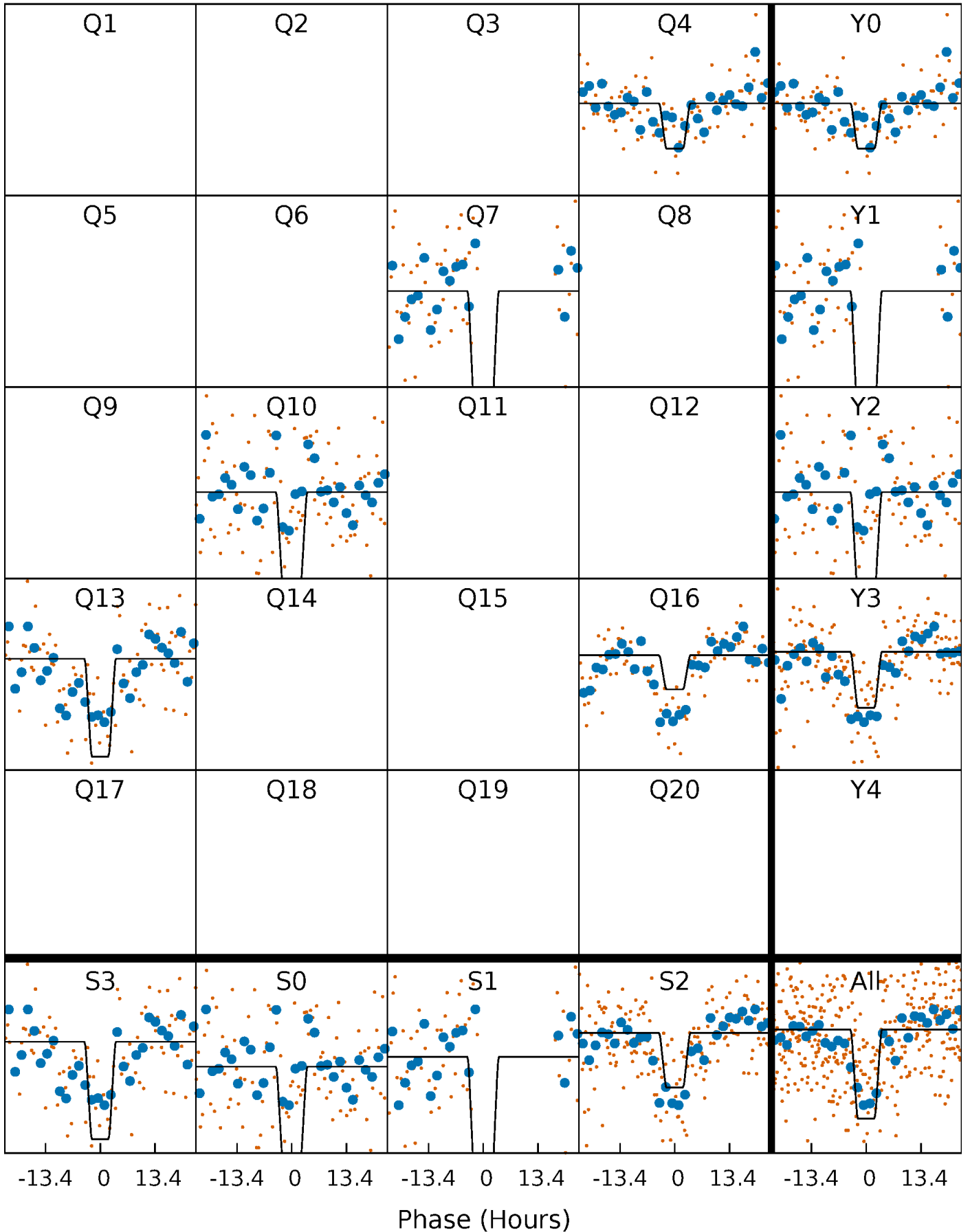
DV Quarter-Phased Transit Curves

TCE 008439923-01 P=289.007756 Days $T_0=371.291000$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

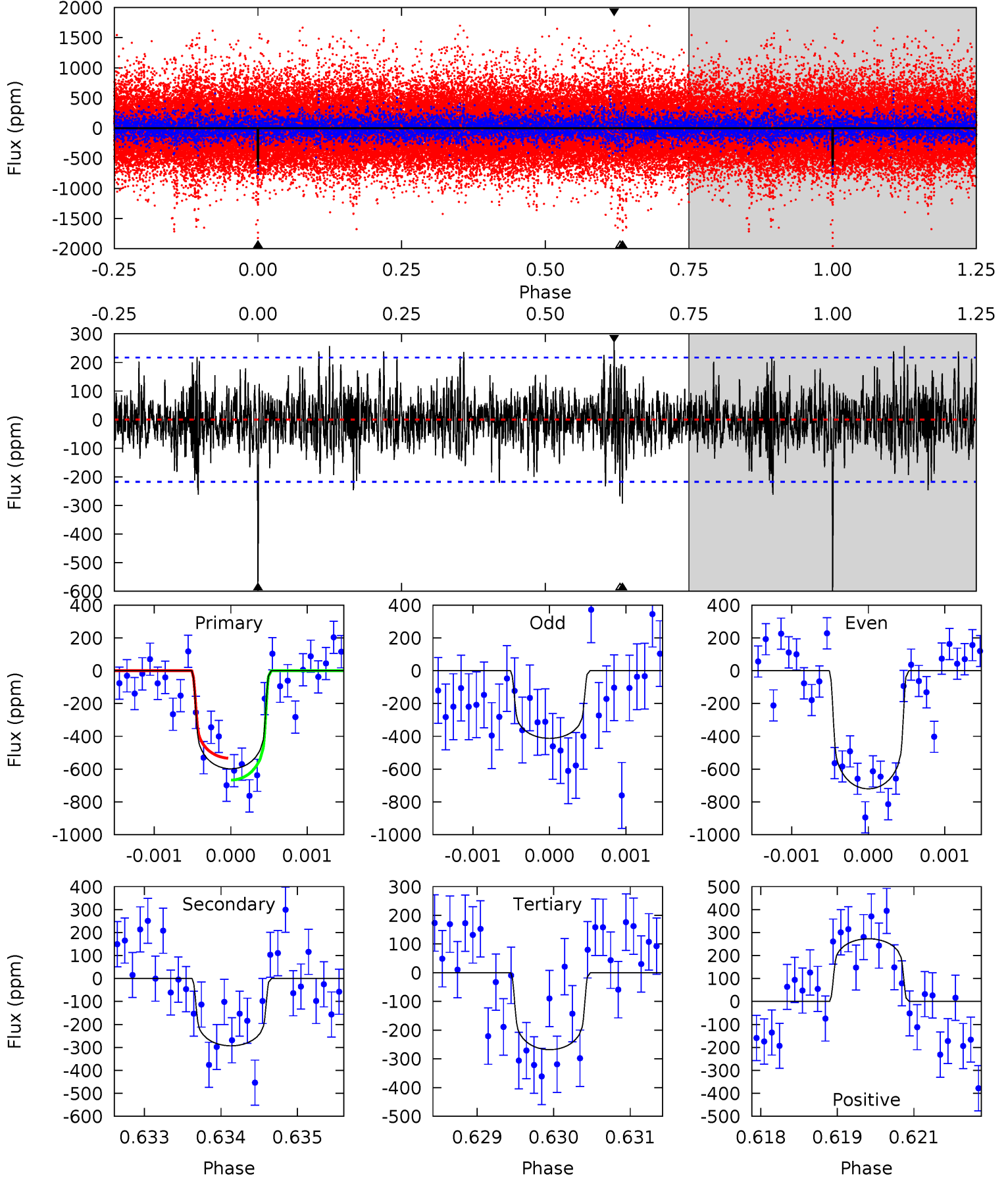
TCE 008439923-01 P=289.005461 Days $T_0=371.328297$ (BKJD)



DV Model-Shift Uniqueness Test

008439923-01, P = 289.007756 Days, E = 82.283244 Days

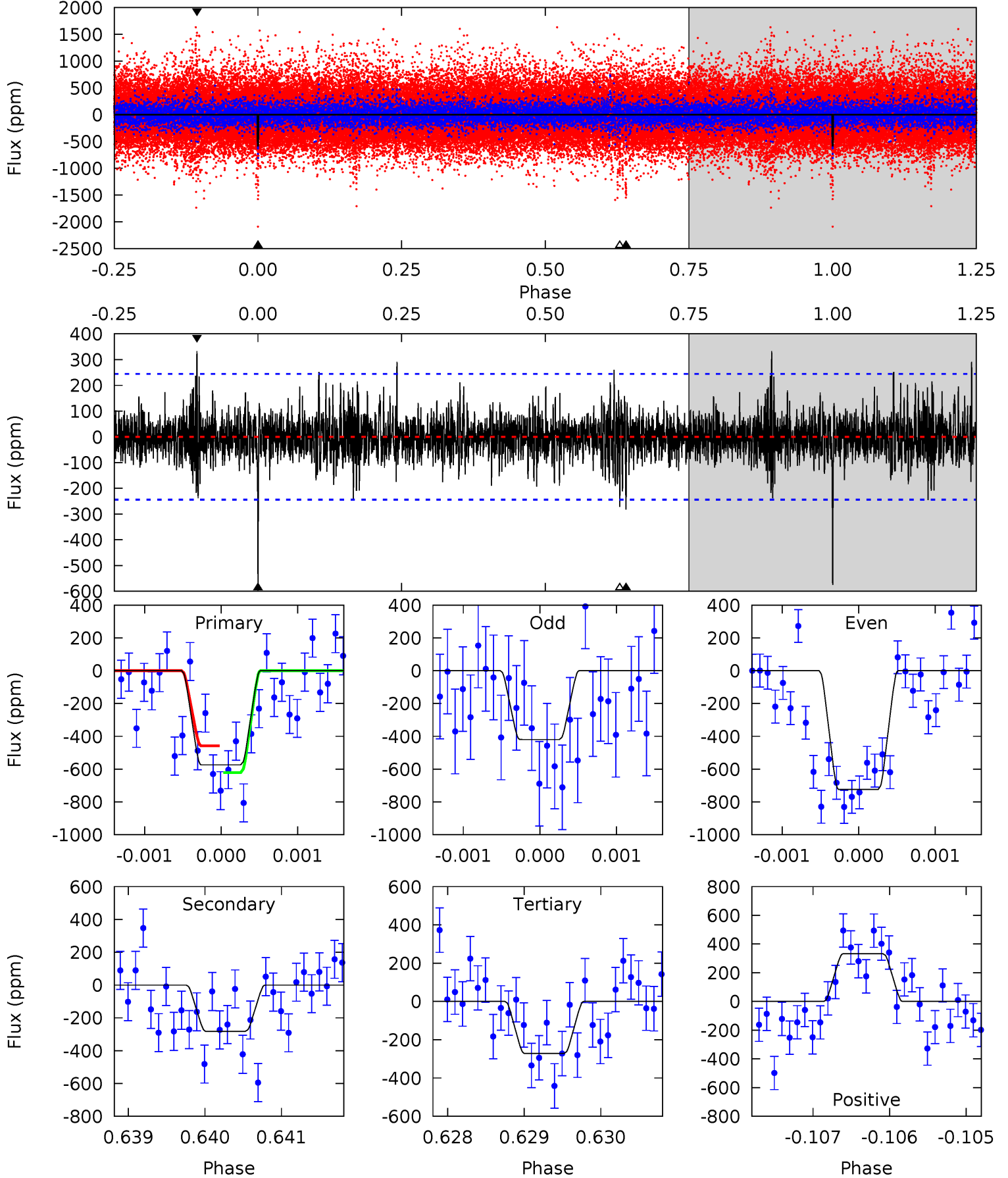
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	7.30	6.67	6.79	5.40	3.21	1.67	8.22	8.10	0.63	0.51	3.51	1.01	0.31	1.66



Alt Model-Shift Uniqueness Test

008439923-01, $P = 289.005461$ Days, $E = 82.322836$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	6.28	6.04	7.41	5.44	3.27	1.40	6.74	5.37	0.24	-1.13	3.15	0.99	0.37	0



Stellar Parameters For KIC 008439923

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6228^{+172}_{-237}	$4.441^{+0.065}_{-0.208}$	$-0.080^{+0.250}_{-0.300}$	$1.049^{+0.332}_{-0.111}$	$1.107^{+0.141}_{-0.155}$	$1.351^{+0.388}_{-0.724}$
	+3%/-4%	+1%/-5%	+312%/-375%	+32%/-11%	+13%/-14%	+29%/-54%
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 008439923-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-293 ± 40	$2.68^{+1.27}_{-0.95}$	425^{+32}_{-23}	5420^{+1269}_{-752}	16868^{+23274}_{-8759}
Alt.	-282 ± 45	$3.32^{+1.16}_{-1.04}$	425^{+30}_{-23}	4906^{+821}_{-507}	10877^{+11705}_{-5084}

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

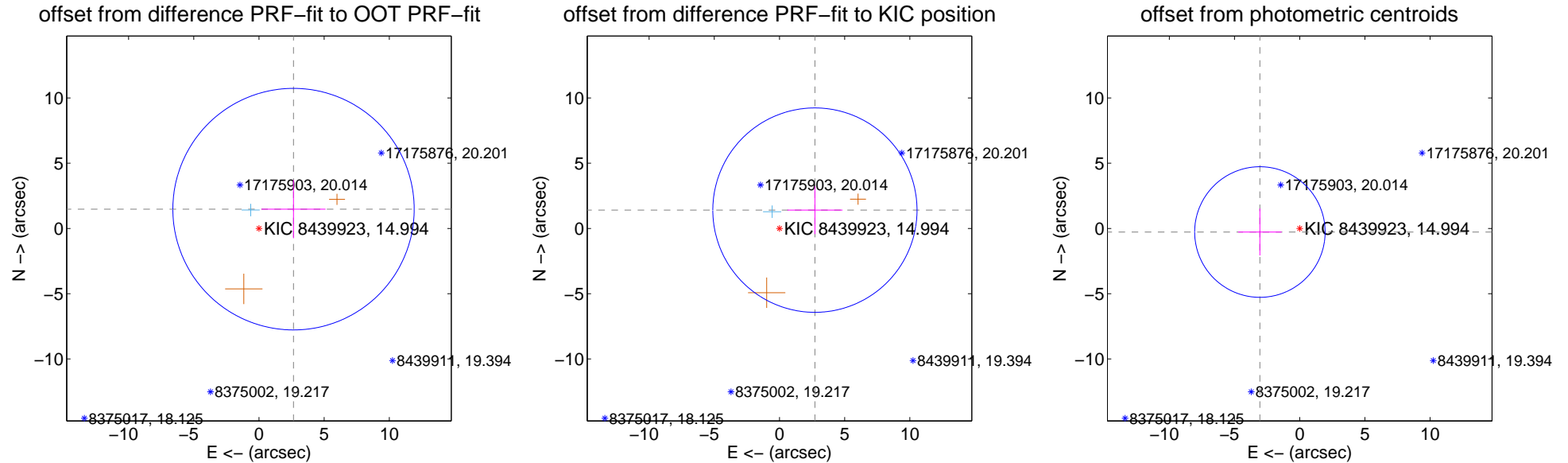
DV Centroid Data

Supplemental centroid analysis for 008439923-01. Kepler magnitude: 14.99. Transit SNR 8.73

There are 1 quarters with good PRF difference image offsets

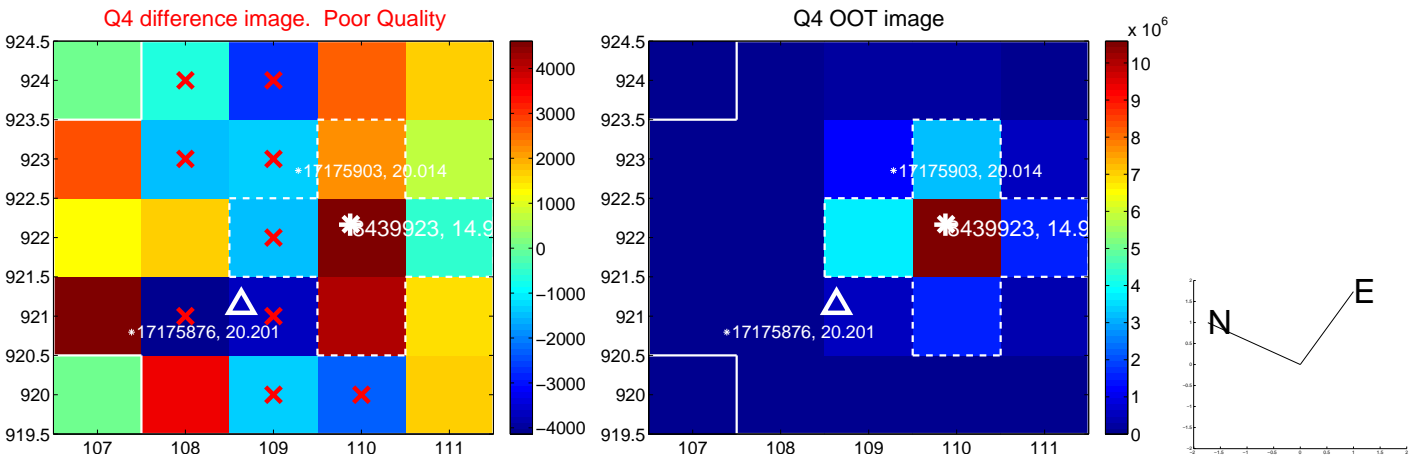
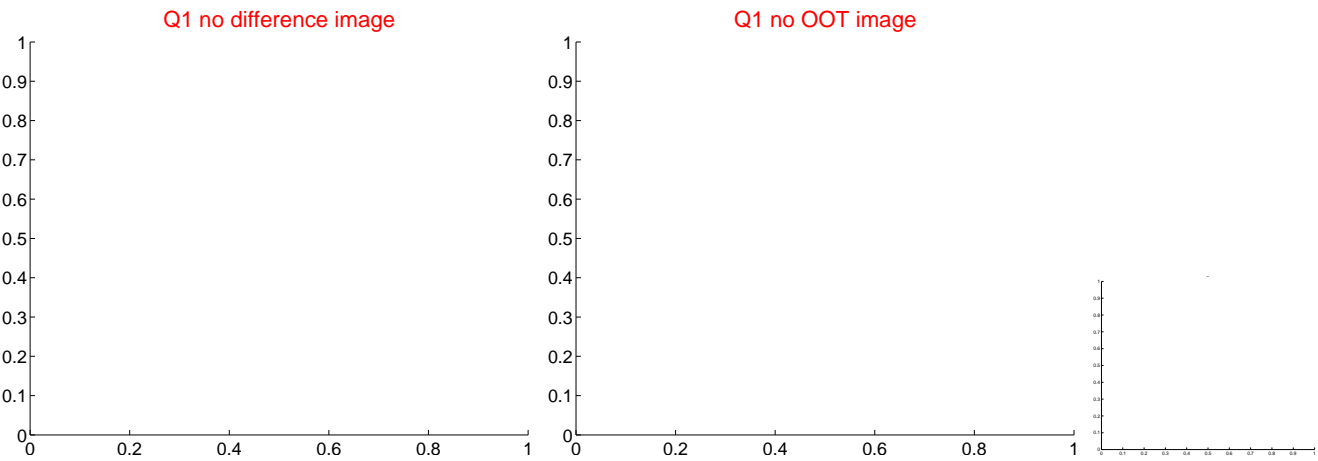
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.037 ± 3.086	0.98	-2.652 ± 2.457	1.480 ± 2.230
PRF-fit source offset from KIC position	3.061 ± 2.612	1.17	-2.720 ± 2.118	1.405 ± 1.842
photometric centroid source offset	3.07 ± 1.67	1.84	3.05 ± 1.67	-0.27 ± 1.80



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.

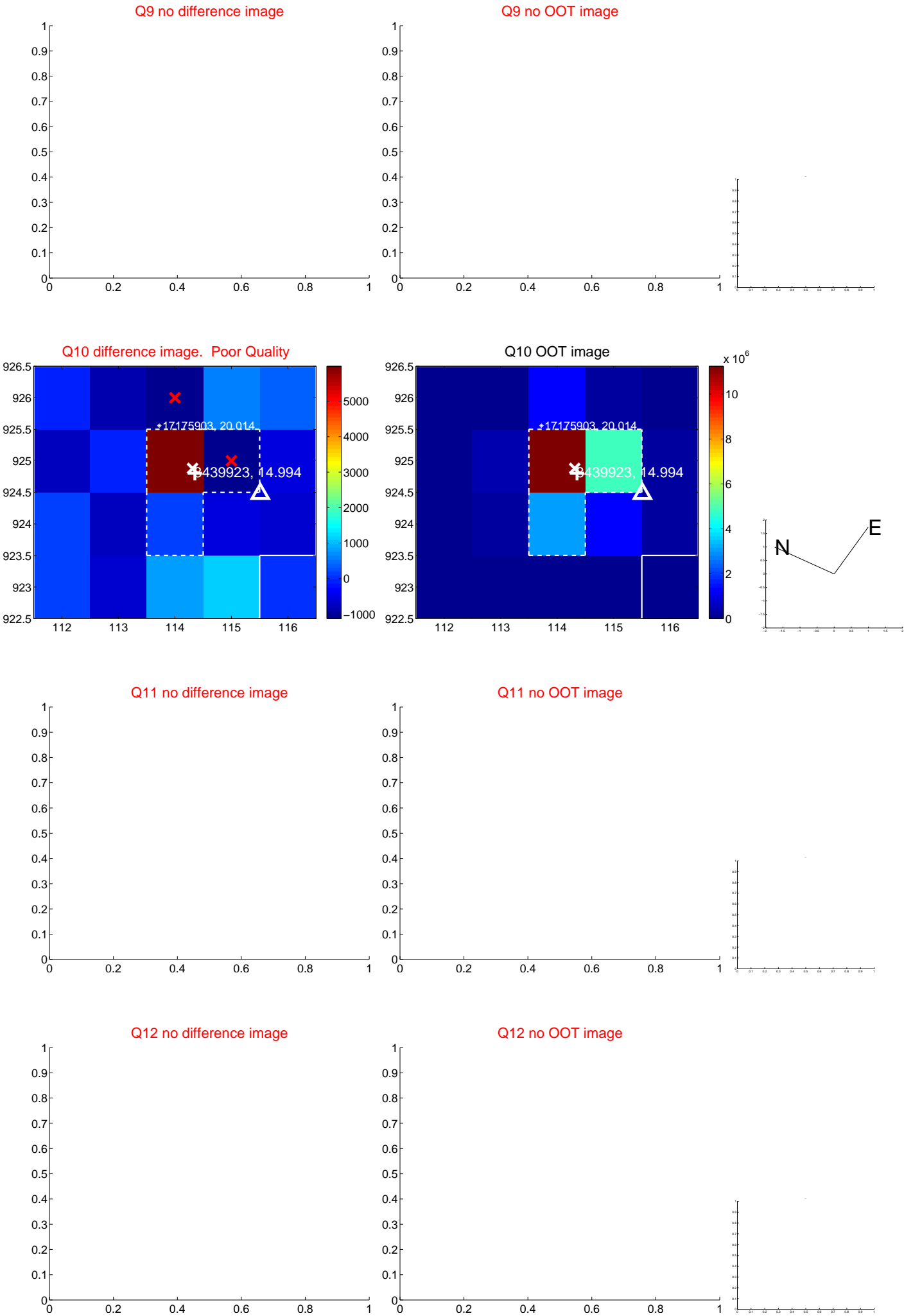
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



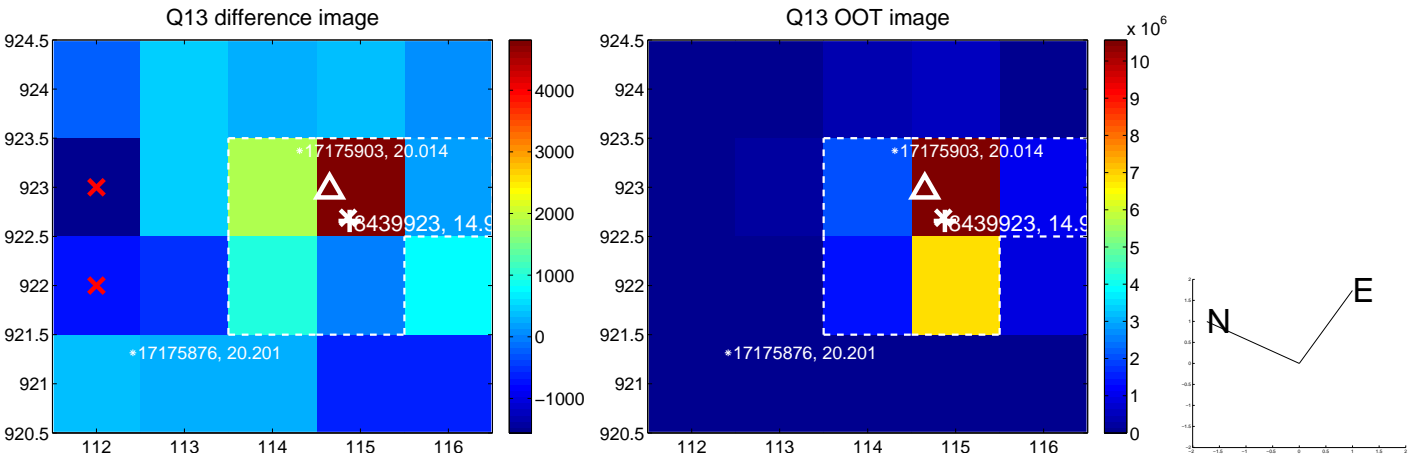
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



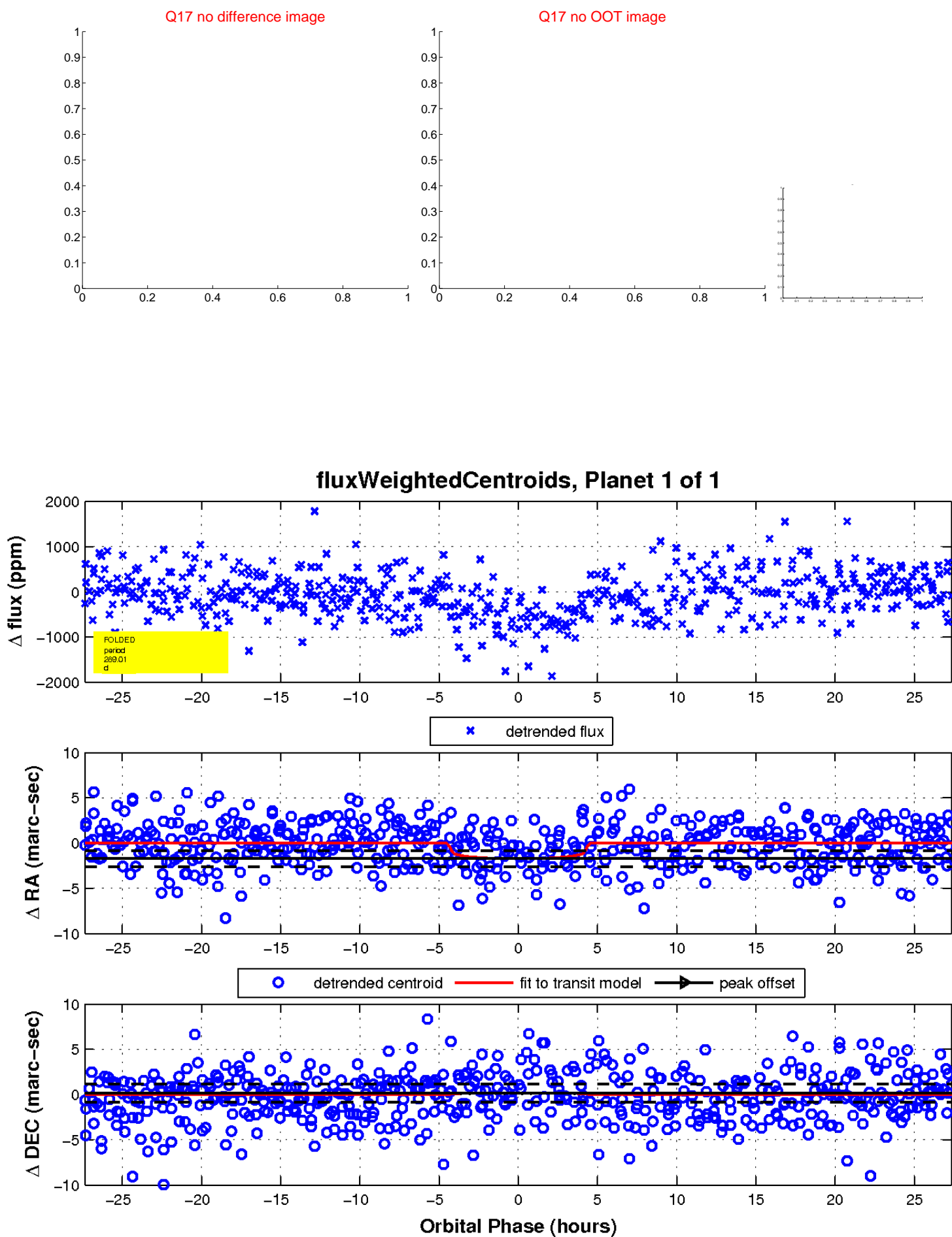
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

