

KIC 007983274

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})
007983274-01	OBS	No	4.086644	134.082272	45.0	23.986	8.7	6.4	0.66	5151	0.43	136.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007983274-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

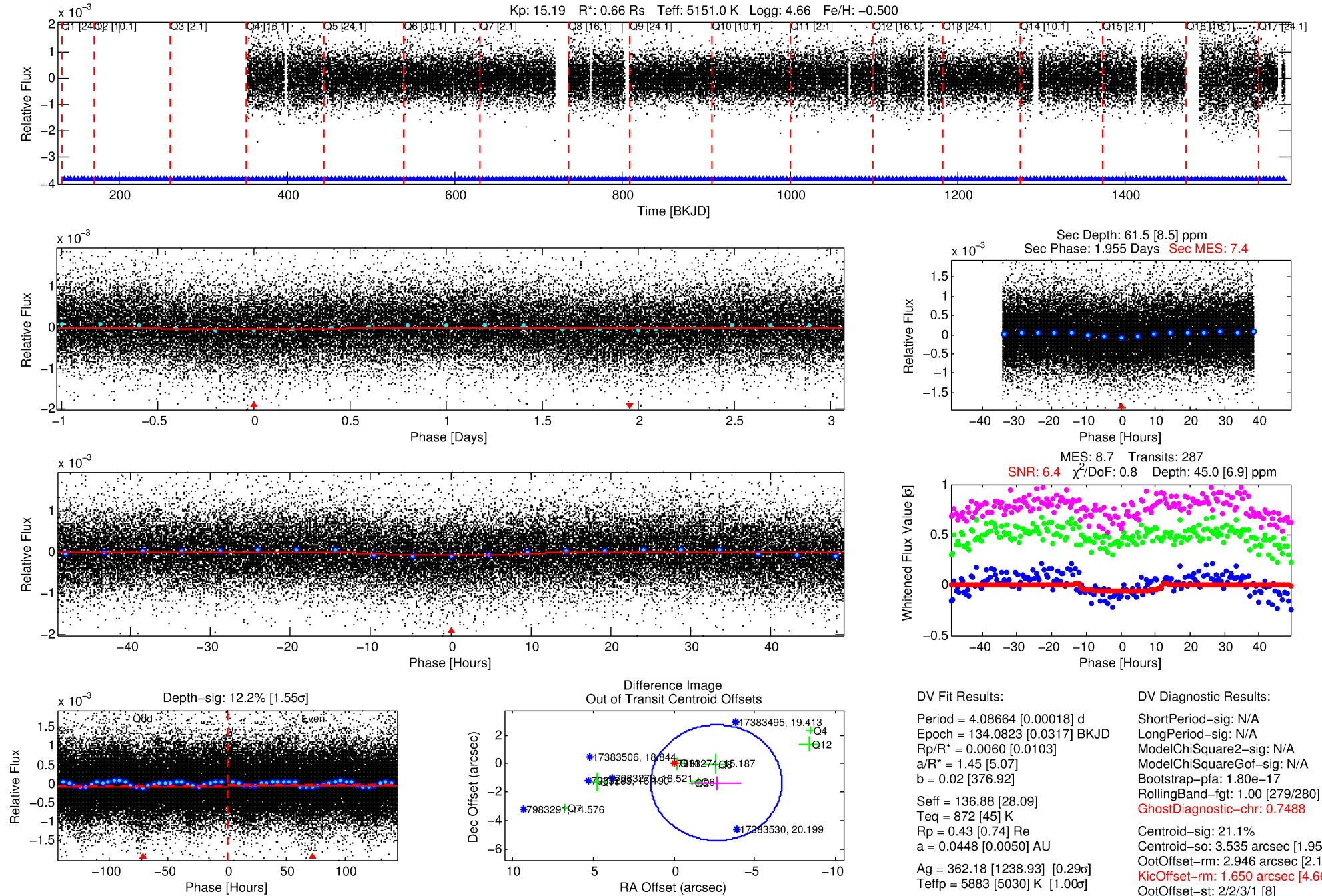
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007983274-01

No Significant Match Found

DV One-Page Summary

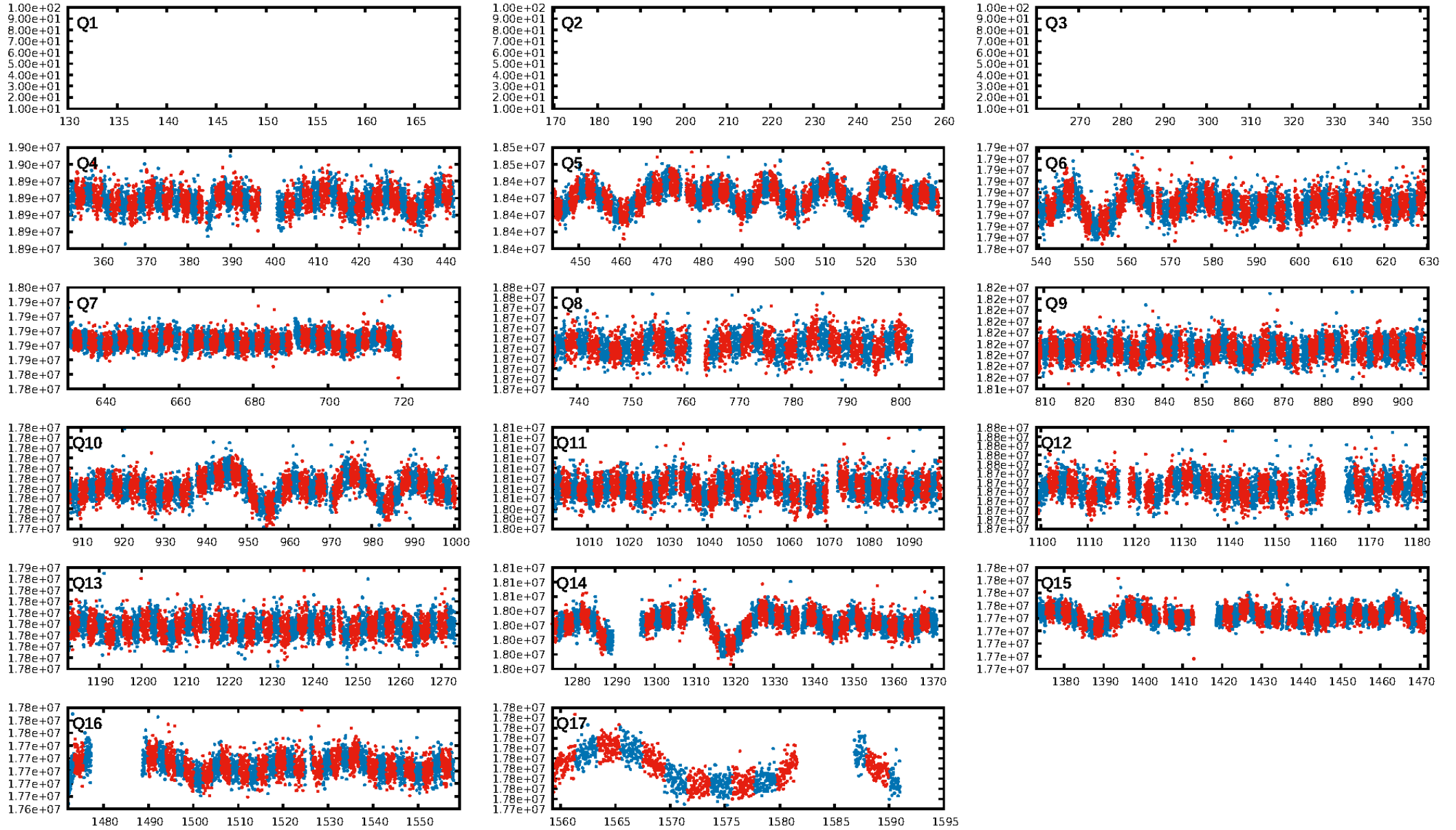
KIC: 7983274 Candidate: 1 of 1 Period: 4.087 d



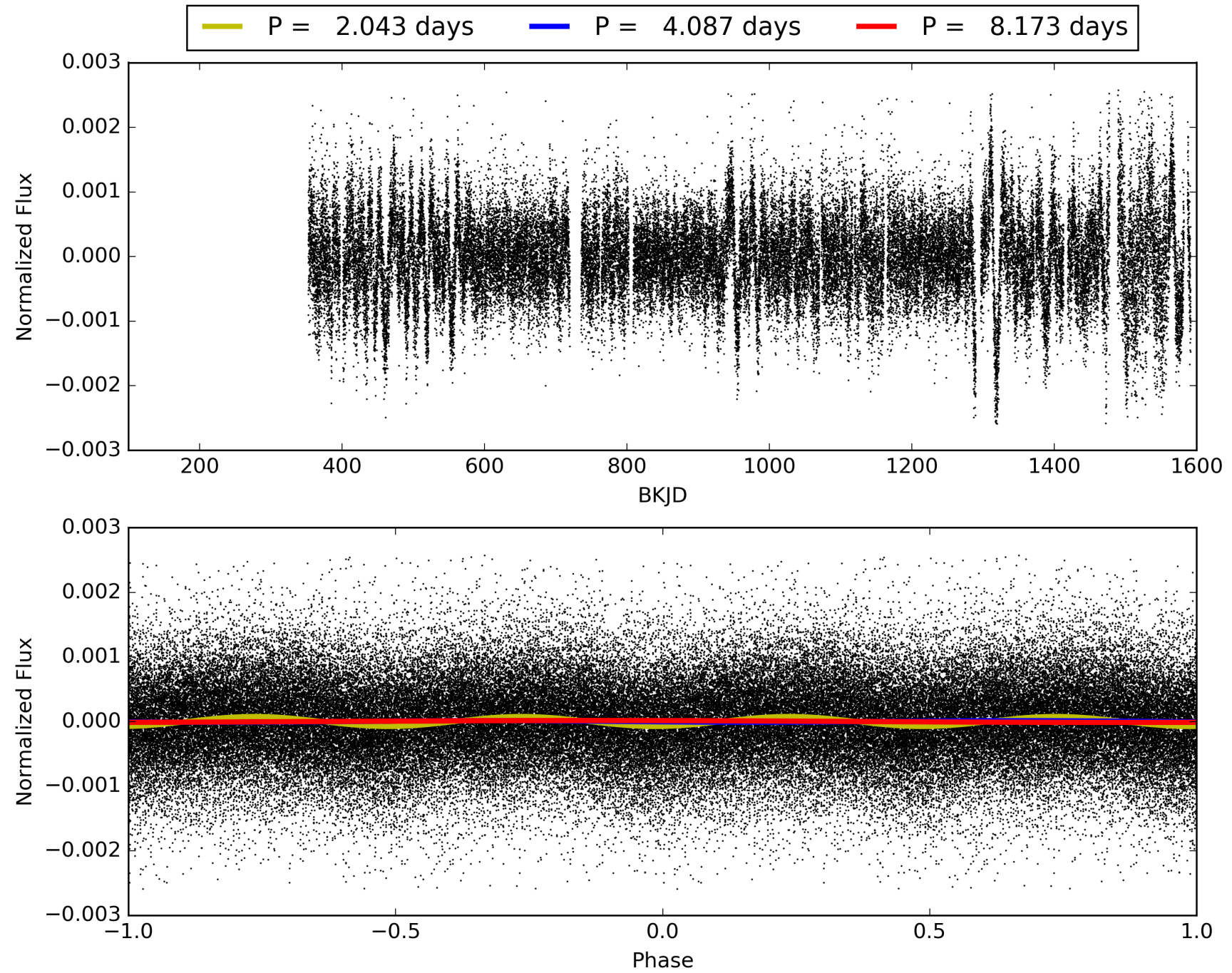
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:57:41 Z

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

TCE 007983274-01, PDC Light Curves

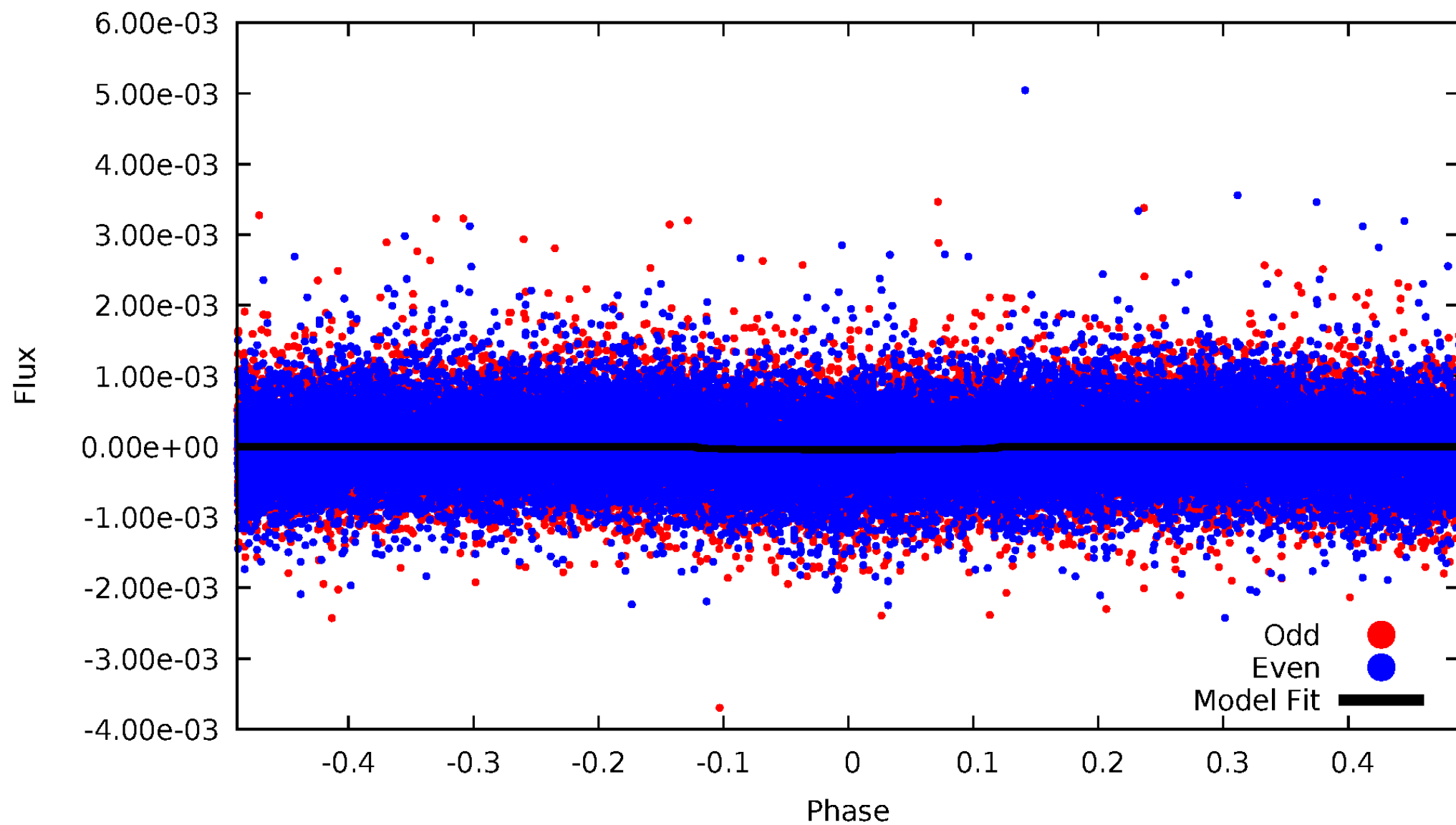


TCE 007983274-01



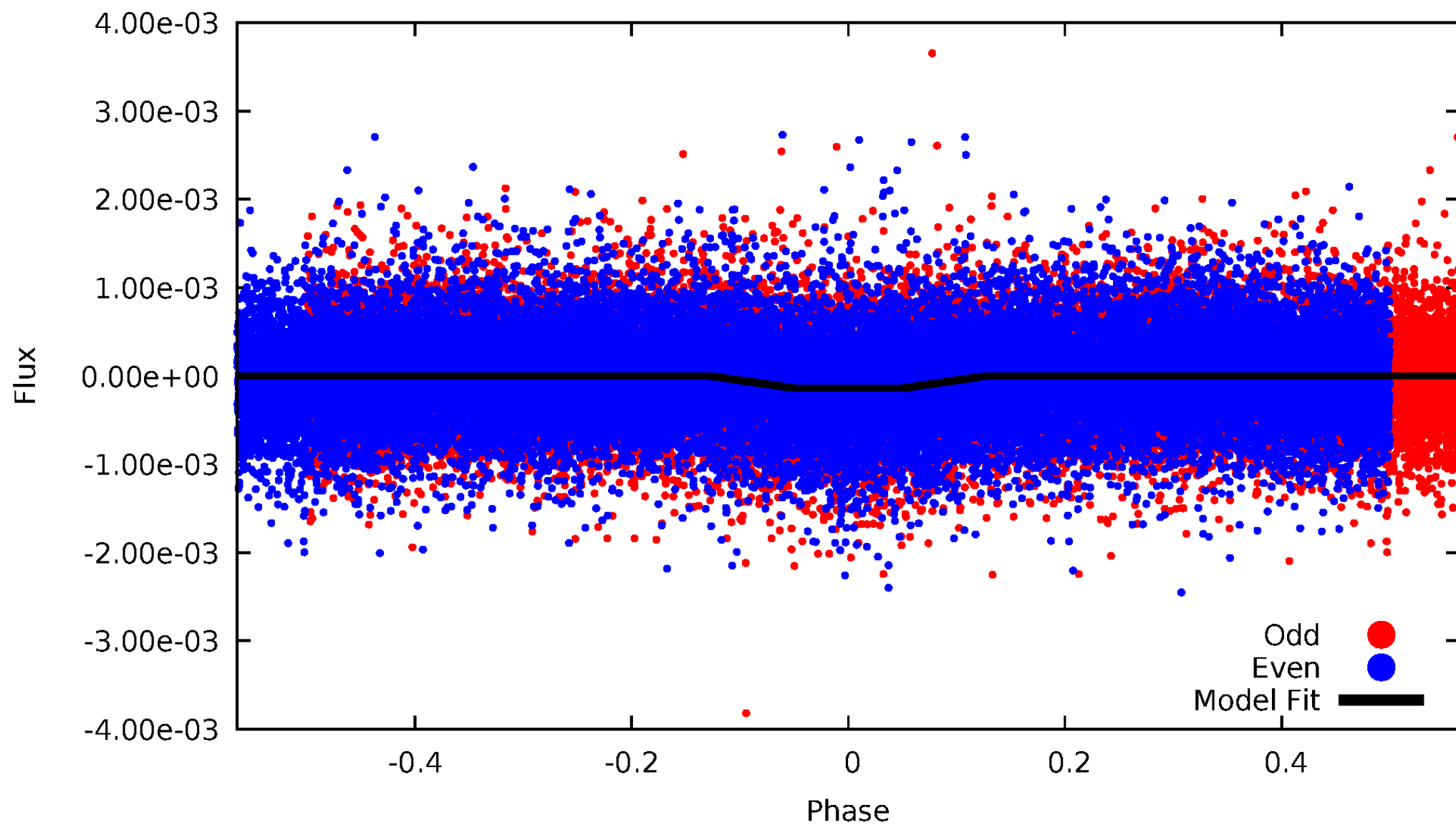
DV Odd/Even

TCE 007983274-01



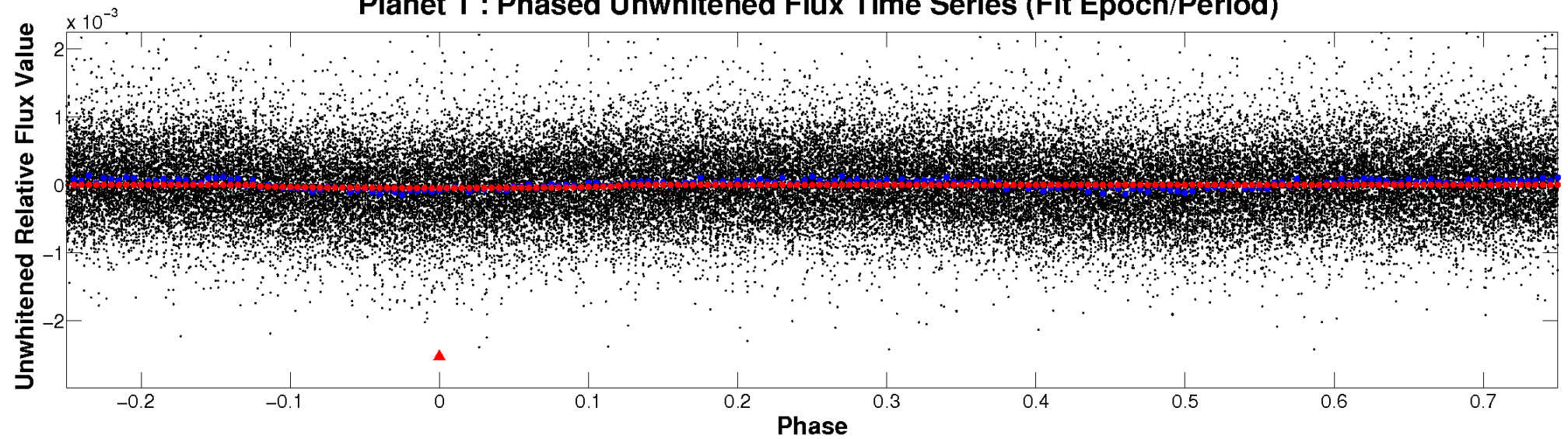
ALT Odd/Even

TCE 007983274-01

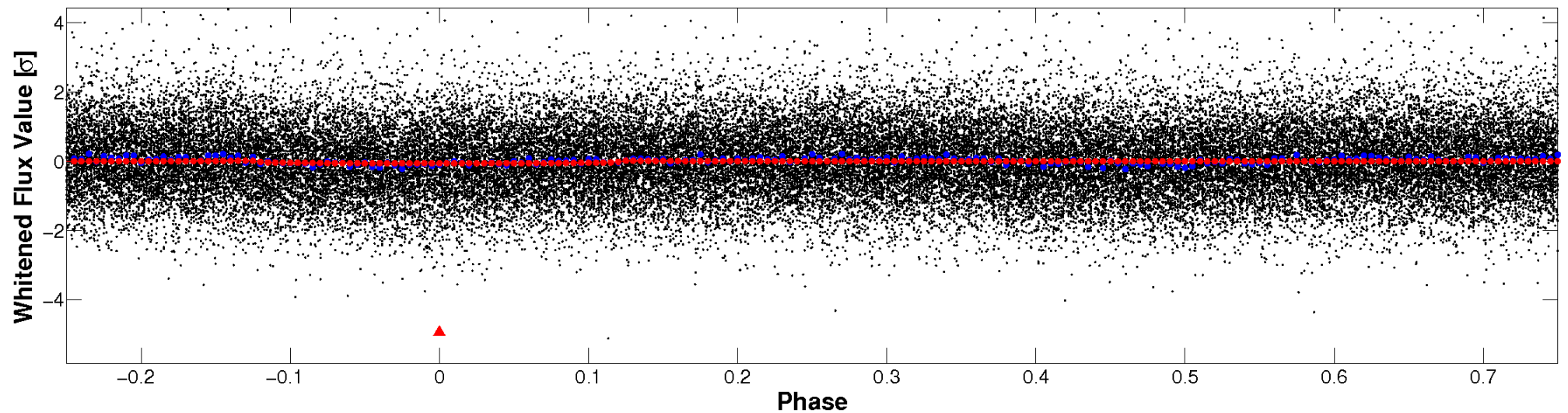


Non-Whitened Vs. Whitened Light Curve

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

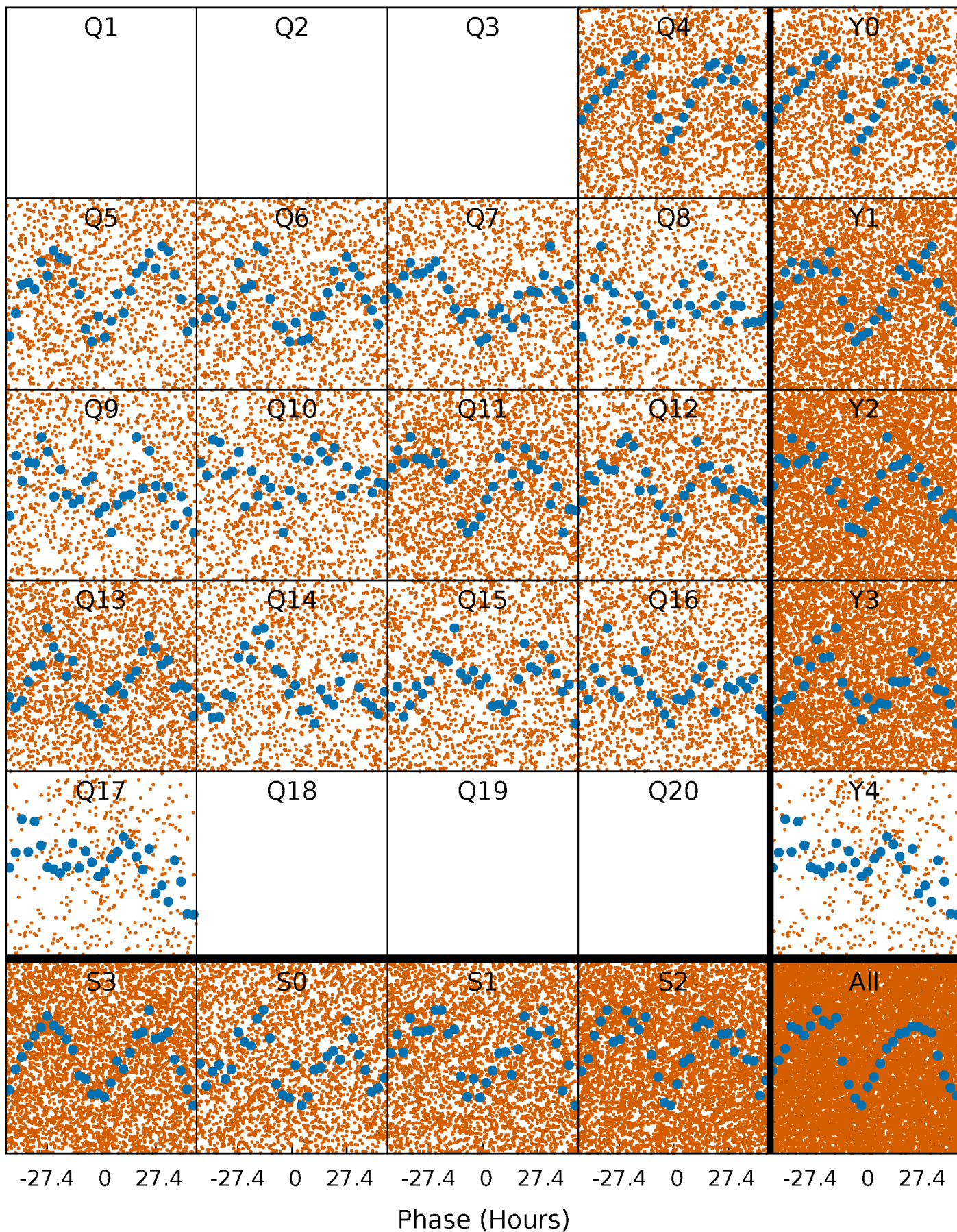


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



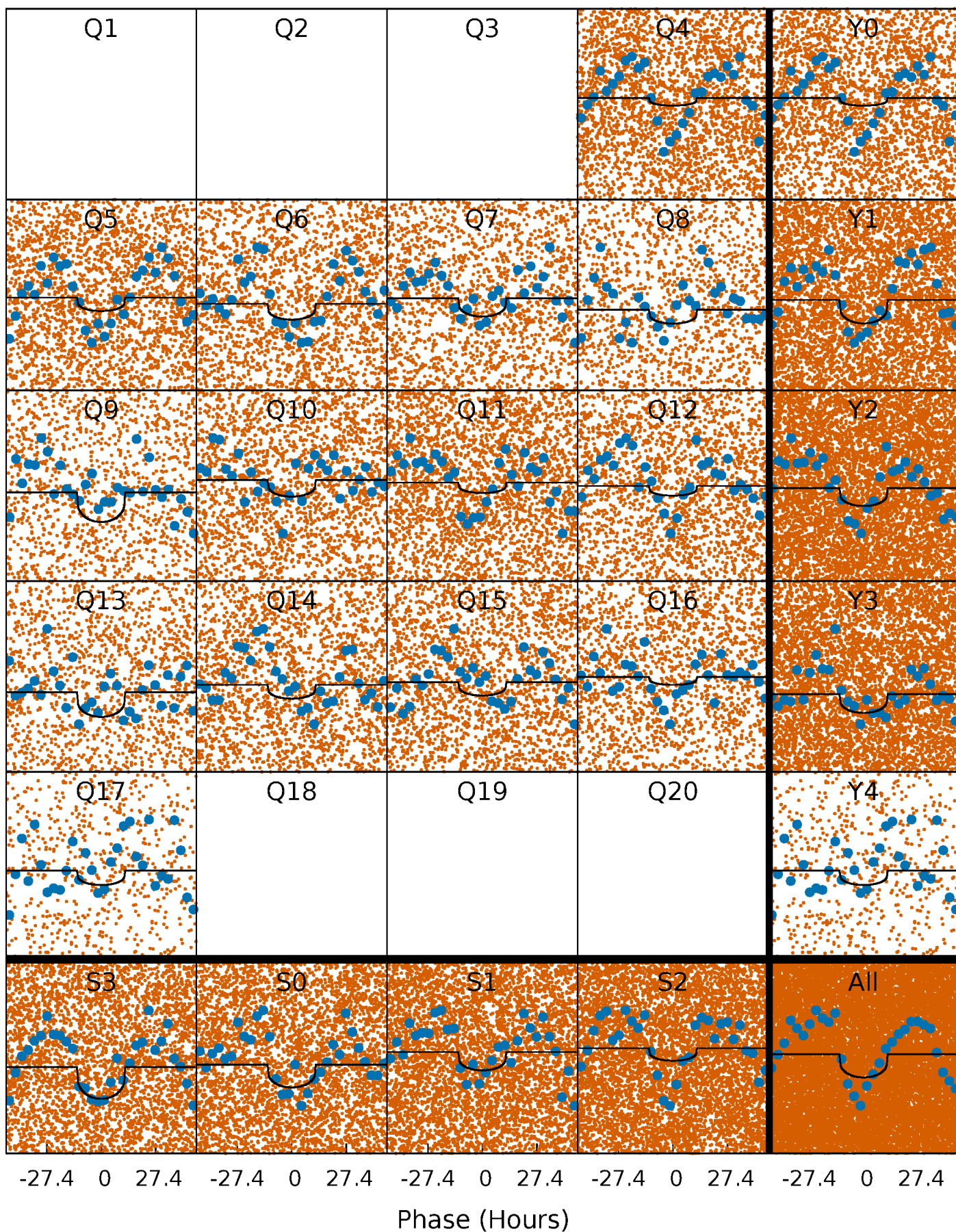
PDC Quarter-Phased Transit Curves

TCE 007983274-01 P= 4.086644 Days $T_0=134.082272$ (BKJD)



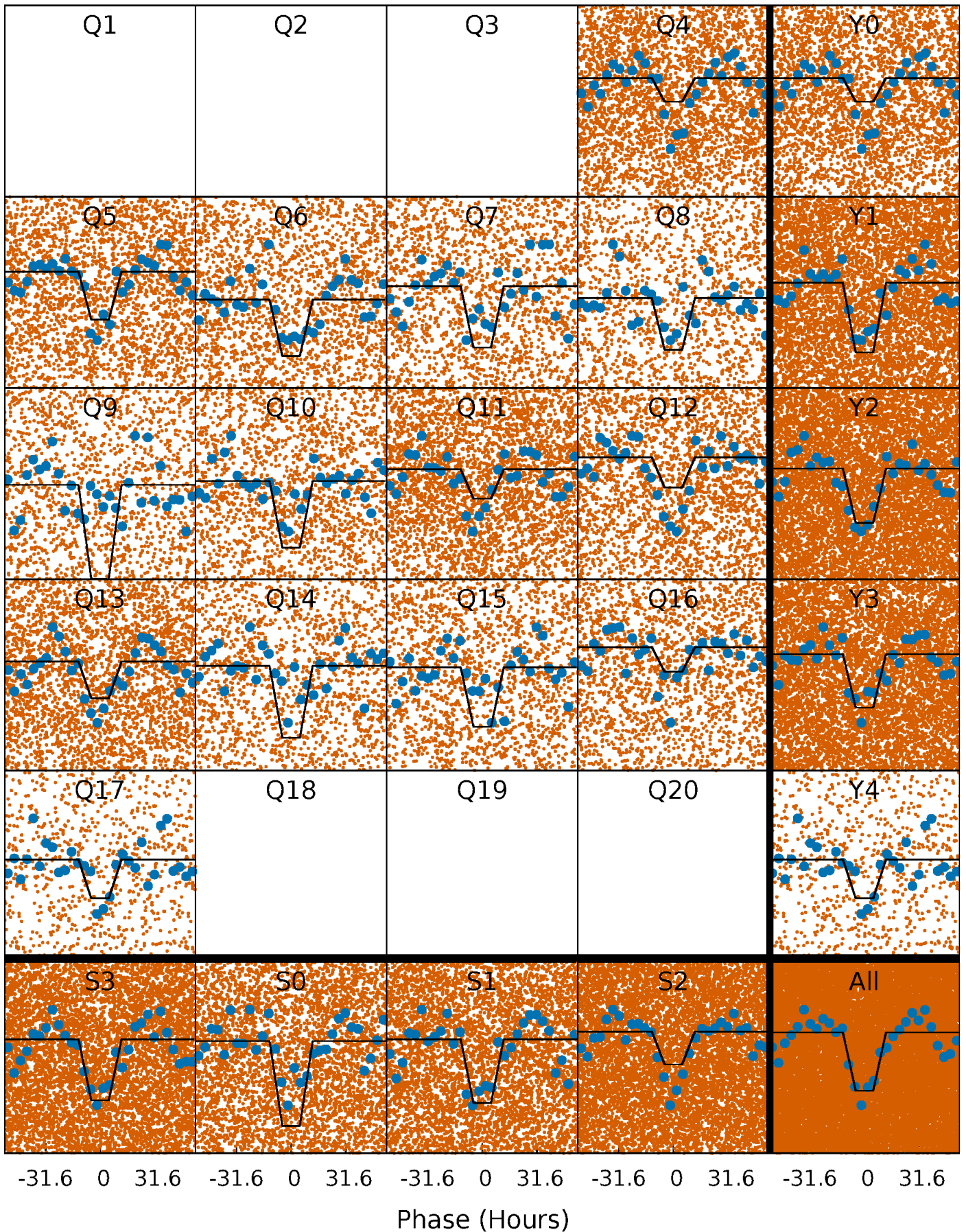
DV Quarter-Phased Transit Curves

TCE 007983274-01 P= 4.086644 Days $T_0=134.082272$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

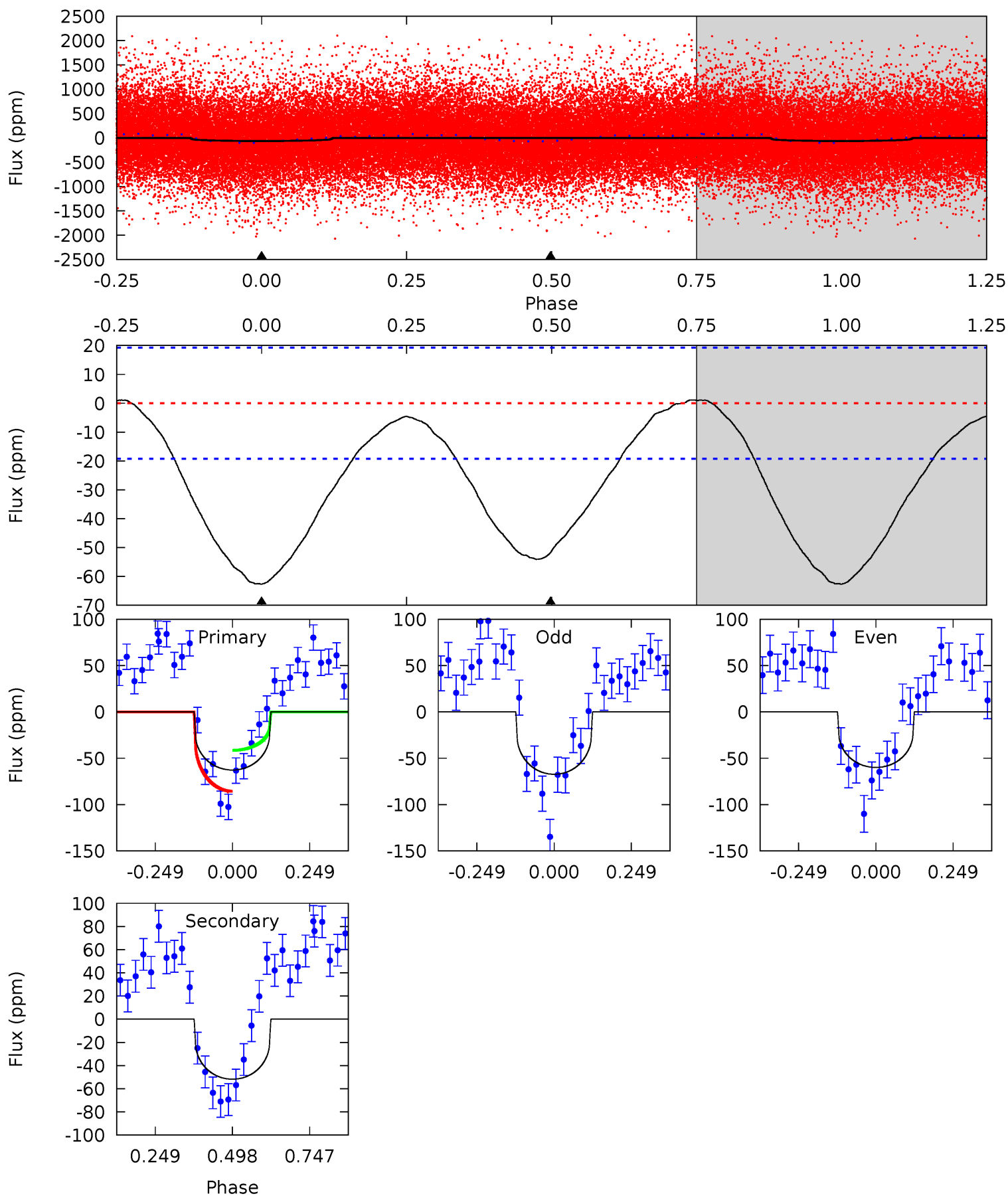
TCE 007983274-01 P= 4.087036 Days $T_0=133.924725$ (BKJD)



DV Model-Shift Uniqueness Test

007983274-01, P = 4.086644 Days, E = 134.082272 Days

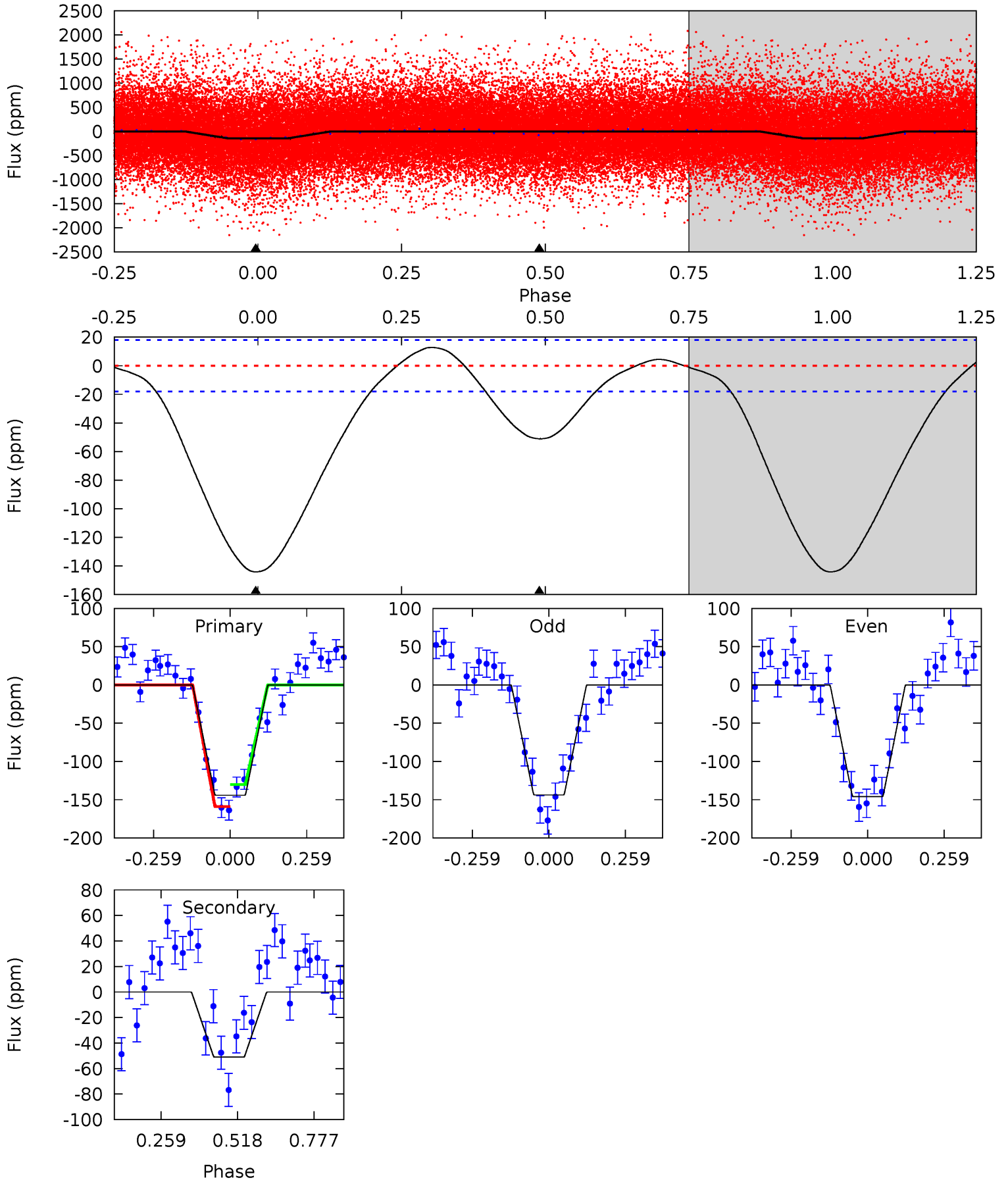
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	11.8	0	0	4.37	1.15	0.71	14.2	14.2	11.8	11.8	0.84	1.16	0.02	5.02



Alt Model-Shift Uniqueness Test

007983274-01, P = 4.087036 Days, E = 133.924725 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.9	12.4	0	0	4.36	1.13	0.80	34.9	34.9	12.4	12.4	0.26	1.05	0.08	3.38



Stellar Parameters For KIC 007983274

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5151^{+179}_{-179}	$4.655^{+0.033}_{-0.077}$	$-0.500^{+0.300}_{-0.300}$	$0.660^{+0.093}_{-0.047}$	$0.734^{+0.069}_{-0.076}$	$3.597^{+0.536}_{-0.997}$
	+3%/-3%	+1%/-2%	+60%/-60%	+14%/-7%	+9%/-10%	+15%/-28%
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 007983274-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-52 ± 4	$0.72^{+0.64}_{-0.47}$	1231^{+52}_{-48}	4533^{+3200}_{-913}	113^{+847}_{-81}
Alt.	-51 ± 4	$1.00^{+0.69}_{-0.62}$	1232^{+60}_{-55}	3981^{+2101}_{-630}	57^{+333}_{-38}

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

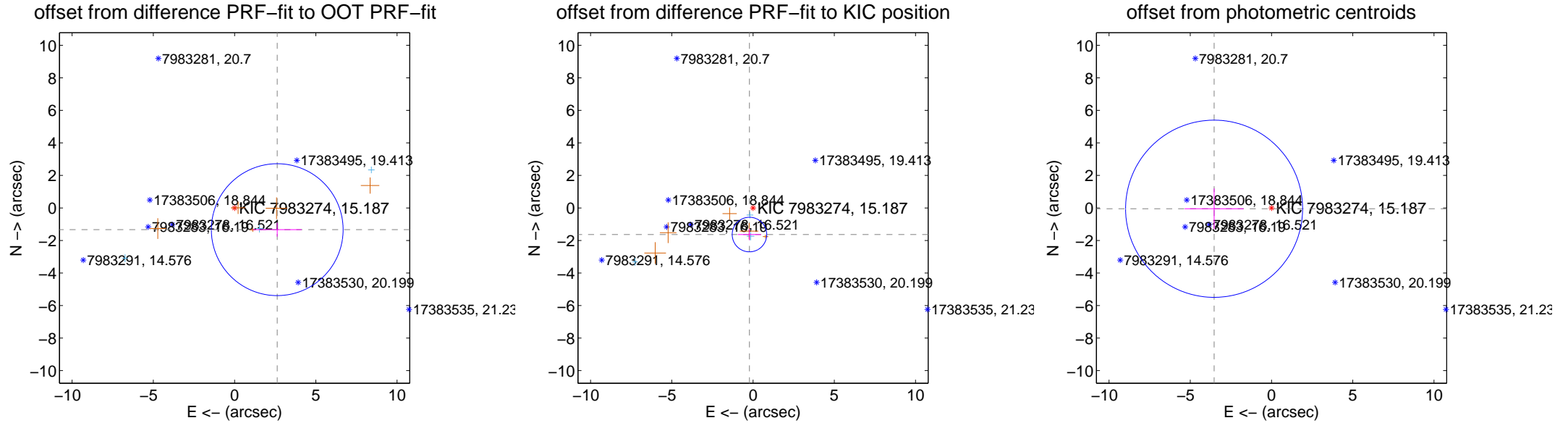
DV Centroid Data

Supplemental centroid analysis for 007983274-01. Kepler magnitude: 15.19. Transit SNR 6.36

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.70 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.946 ± 1.352	2.18	-2.626 ± 1.501	-1.336 ± 0.429
PRF-fit source offset from KIC position	1.650 ± 0.354	4.66	0.221 ± 0.714	-1.636 ± 0.344
photometric centroid source offset	3.53 ± 1.82	1.95	3.53 ± 1.82	-0.05 ± 1.25



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



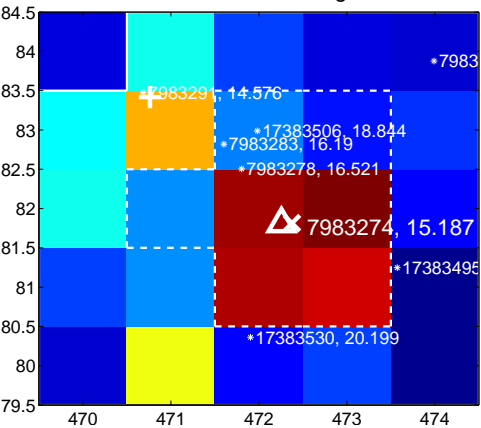
Q3 no difference image



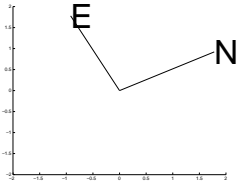
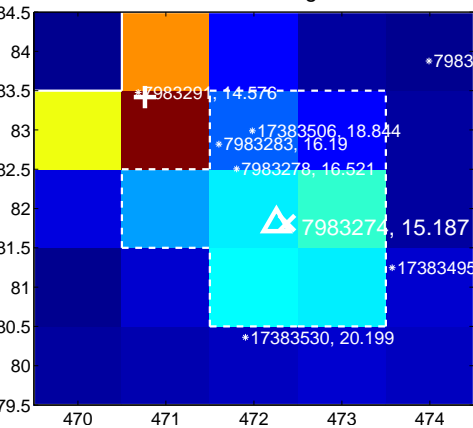
Q3 no OOT image



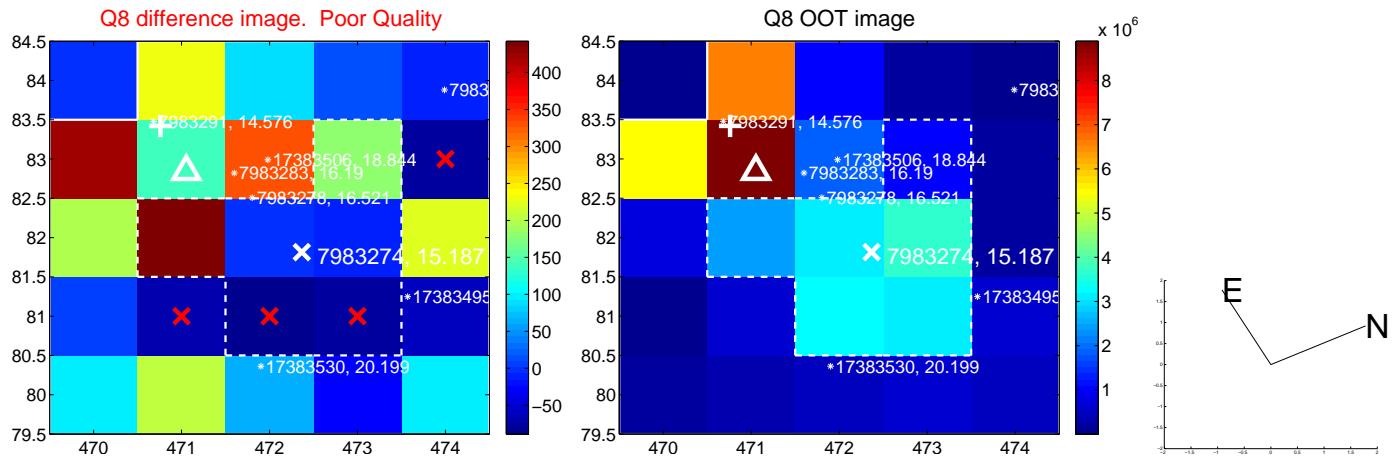
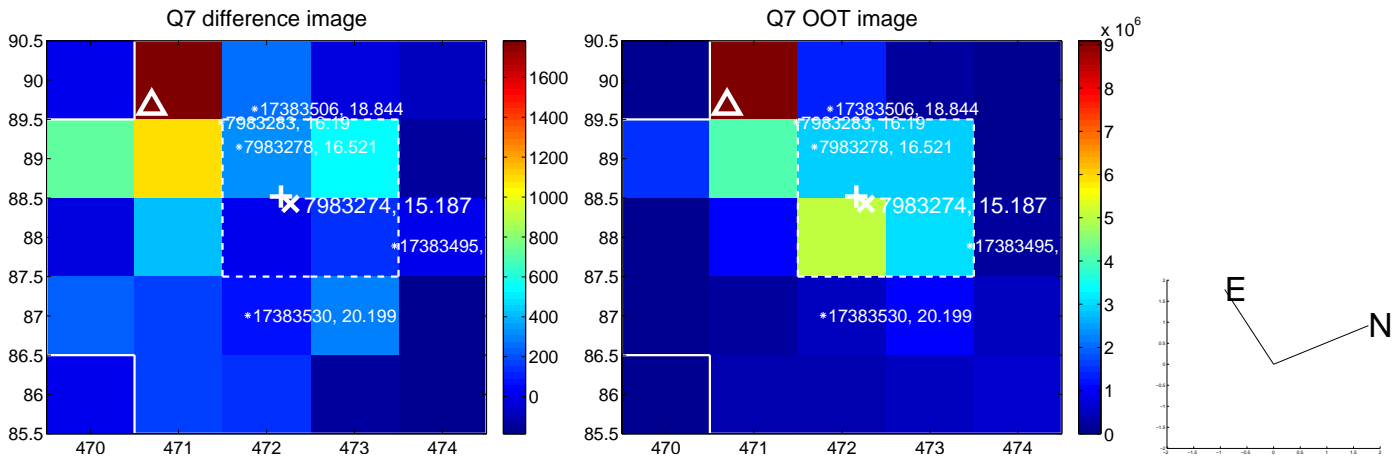
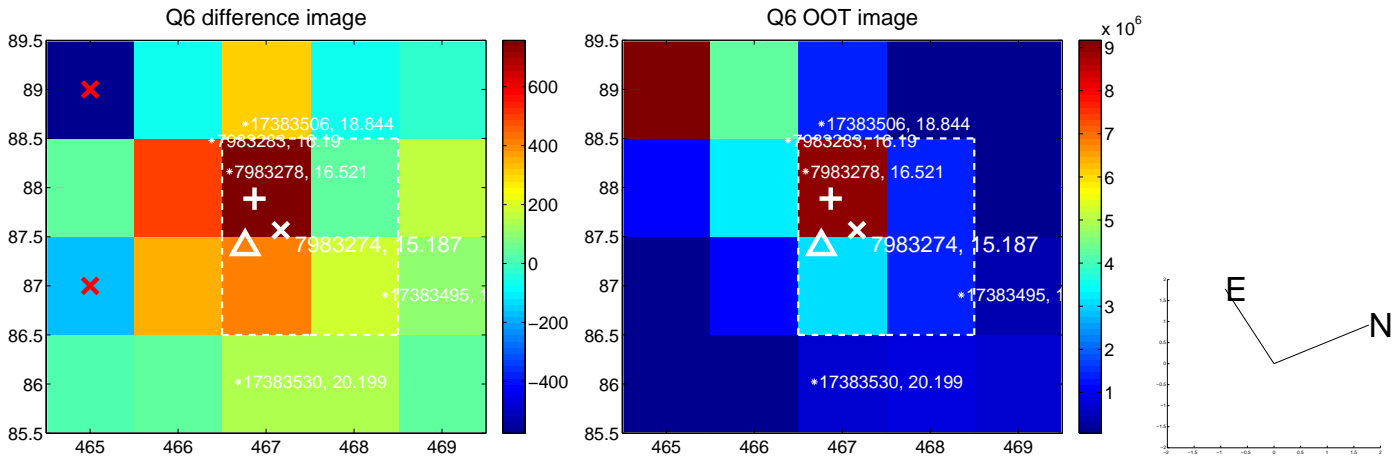
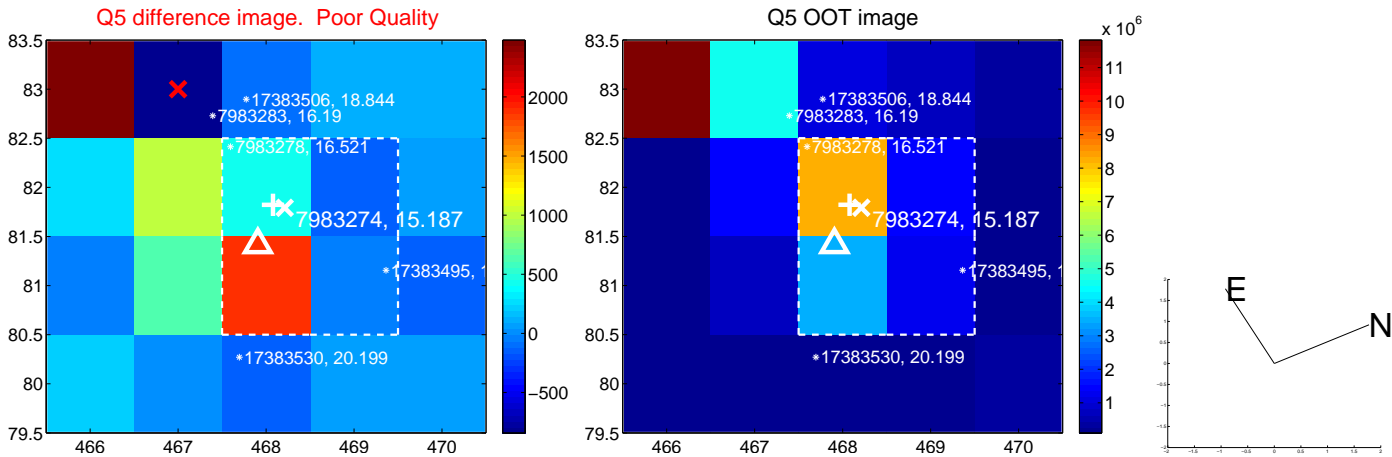
Q4 difference image



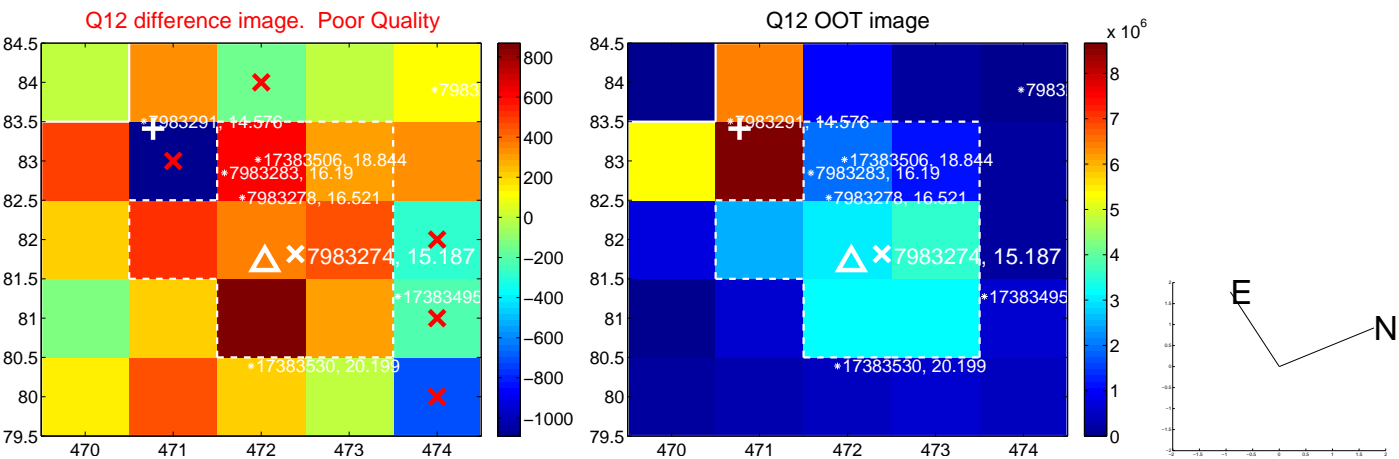
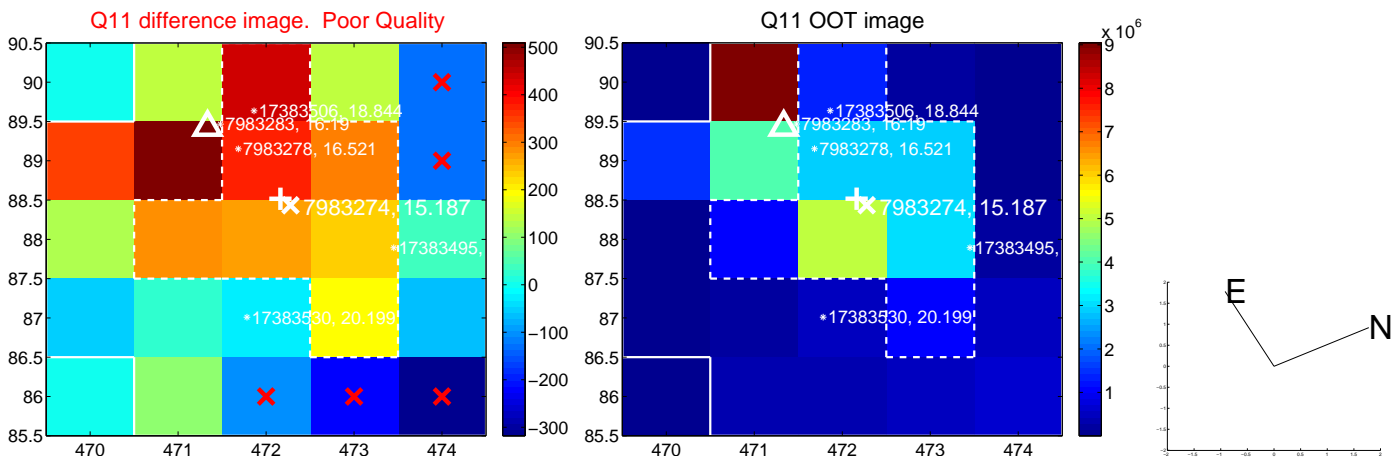
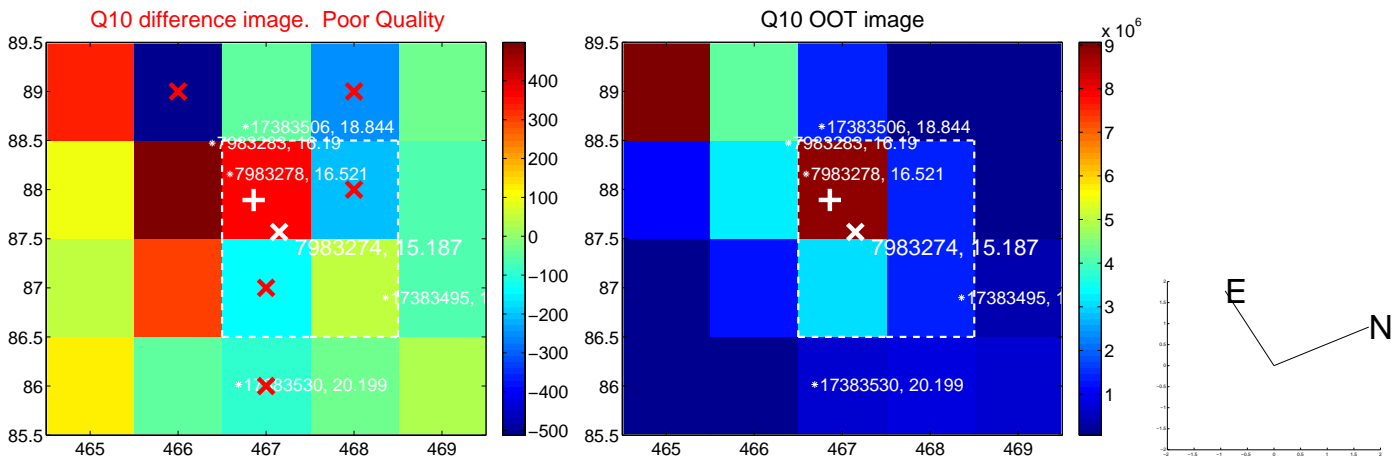
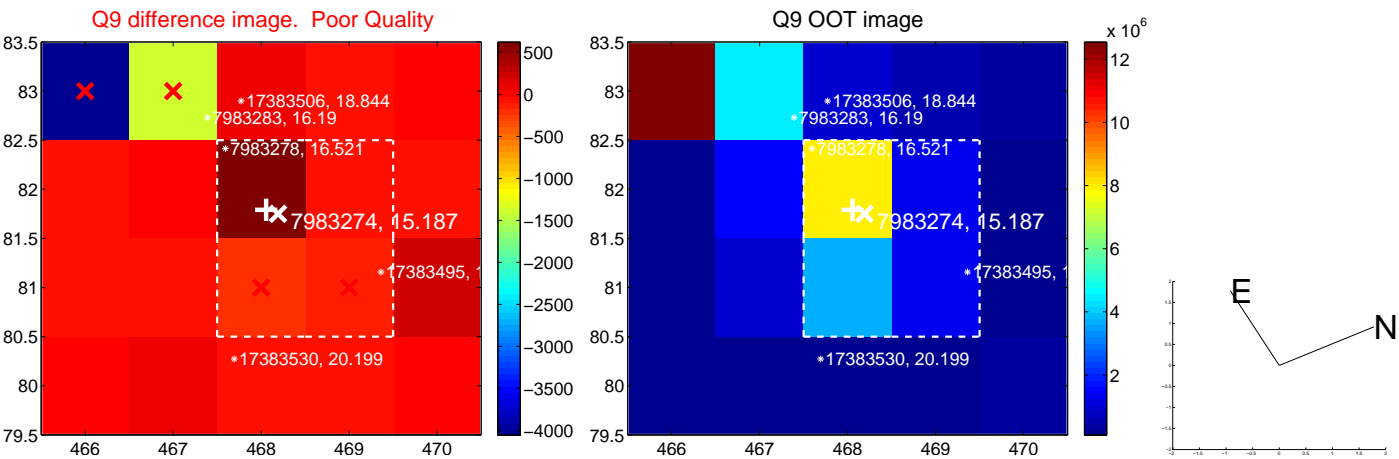
Q4 OOT image



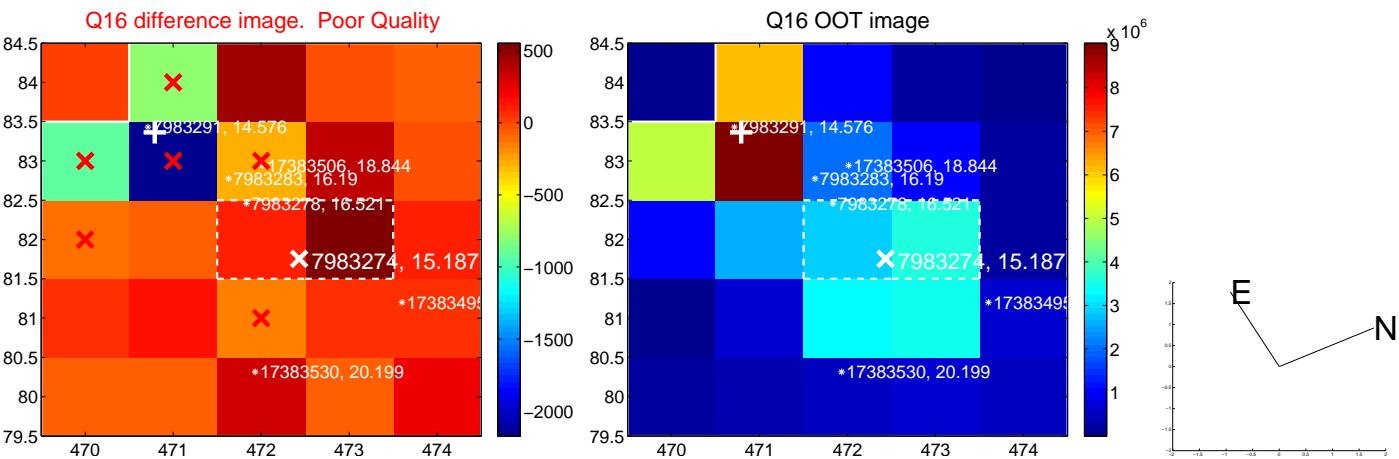
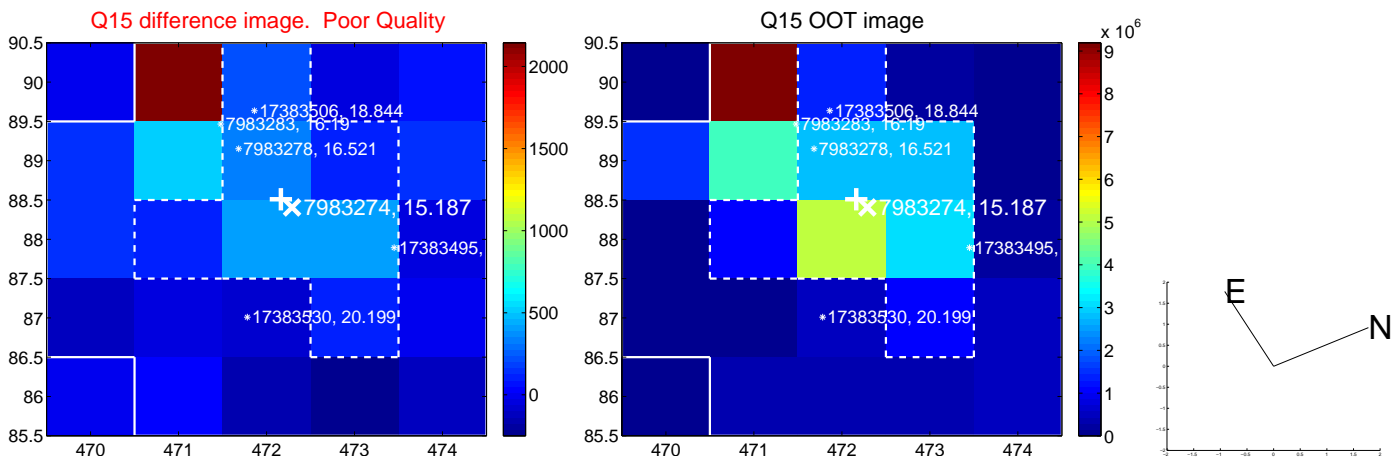
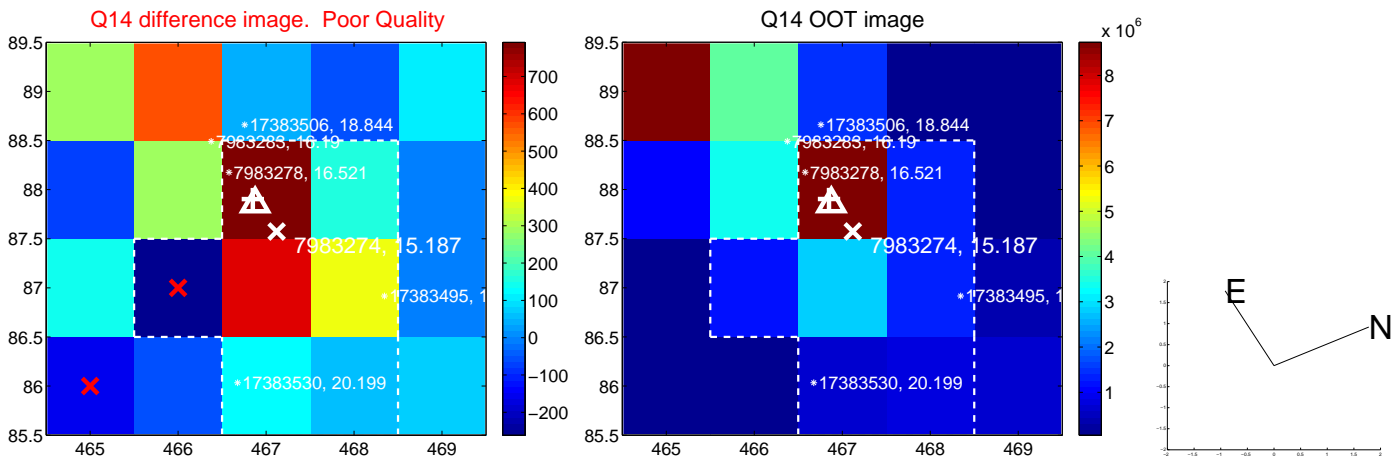
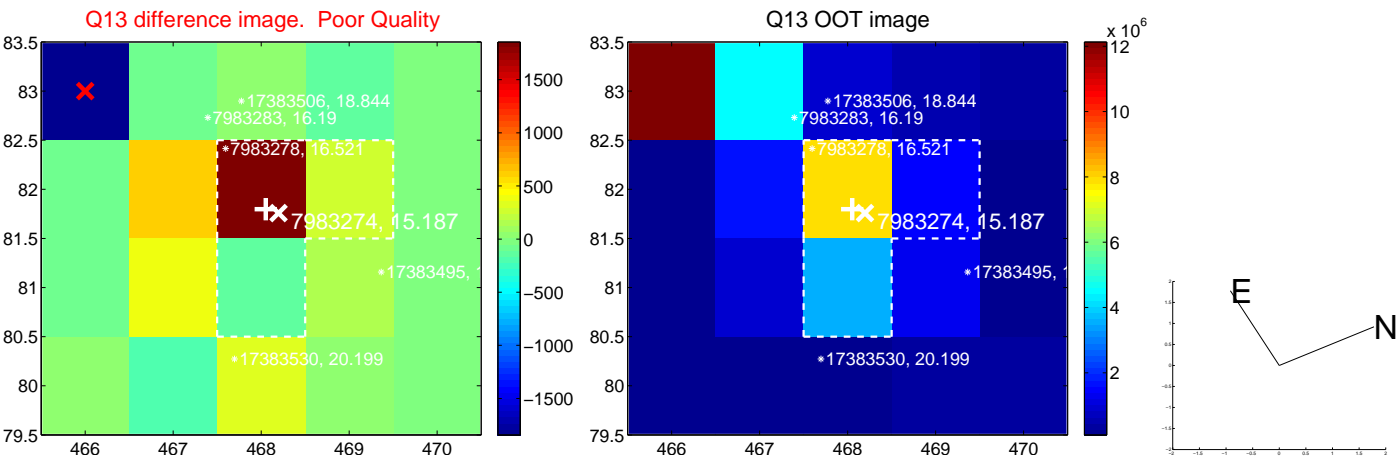
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



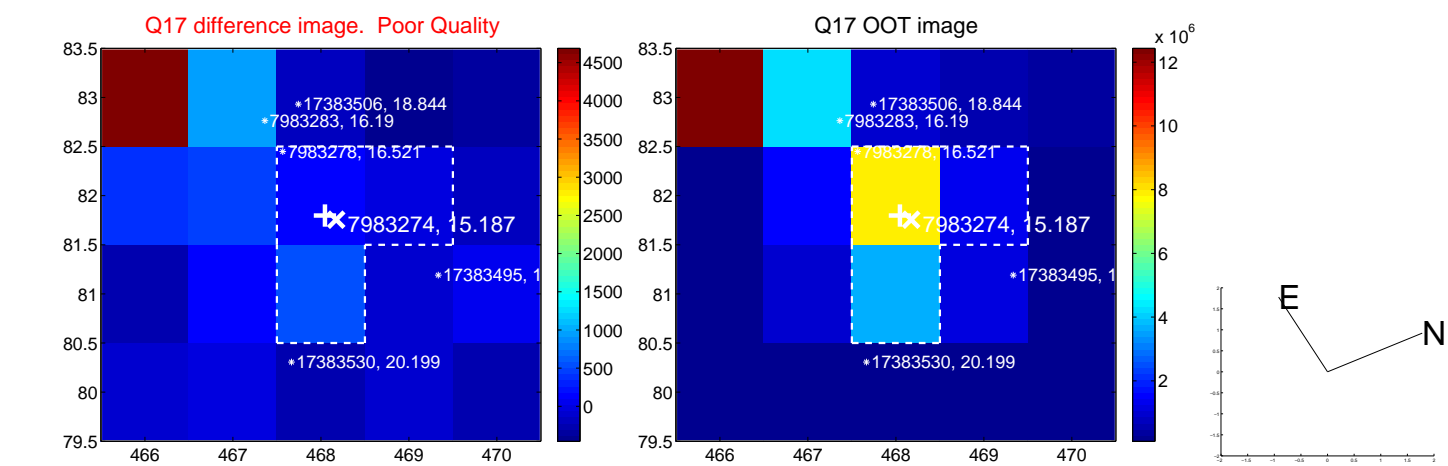
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



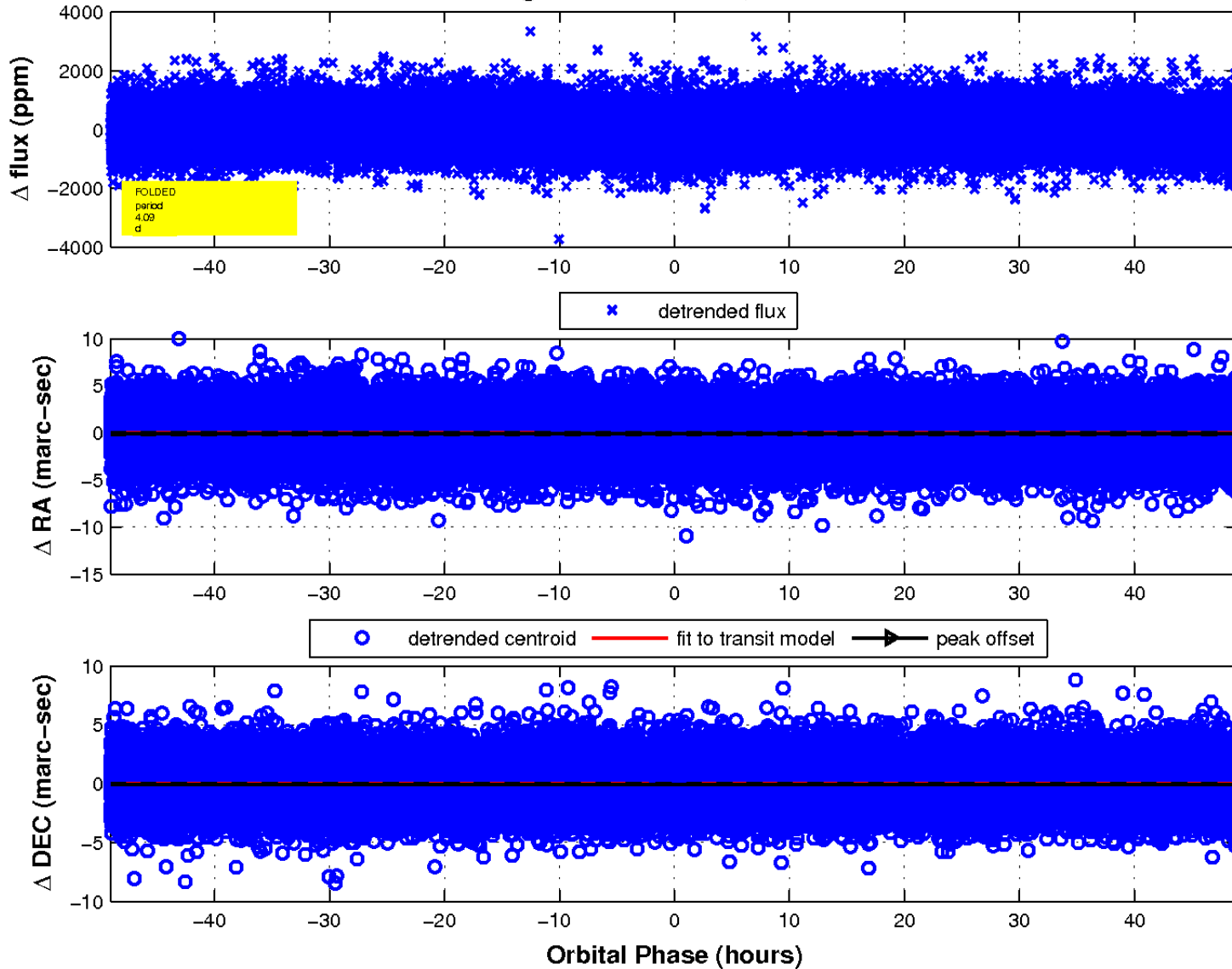
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

