

KIC 002715251

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})
002715251-01	OBS	No	0.982753	132.081778	35.8	7.851	7.3	9.0	1.22	6151	0.73	5126.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002715251-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

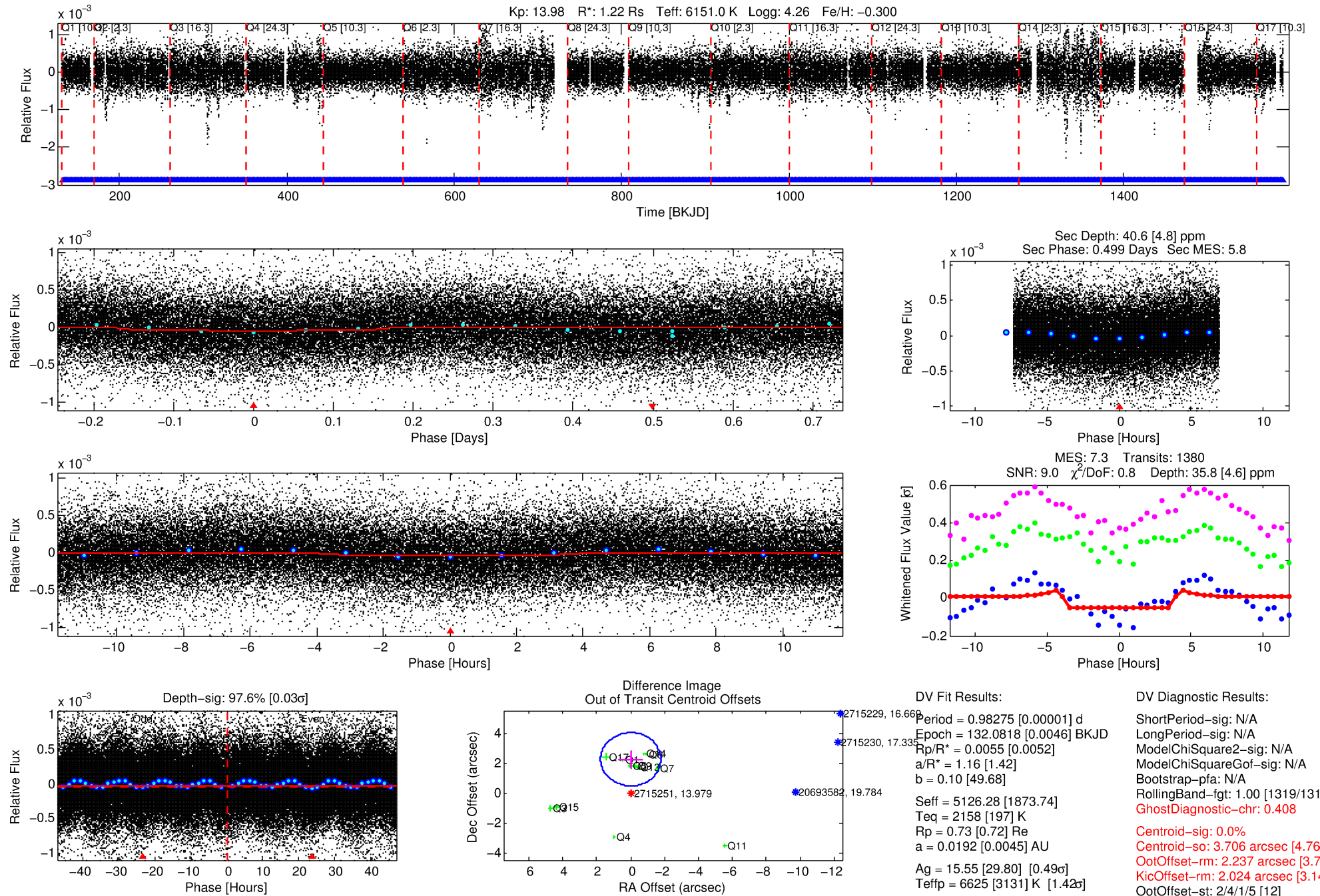
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002715251-01

No Significant Match Found

DV One-Page Summary

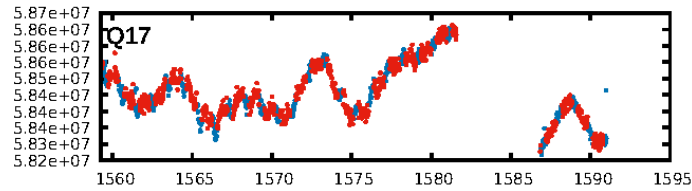
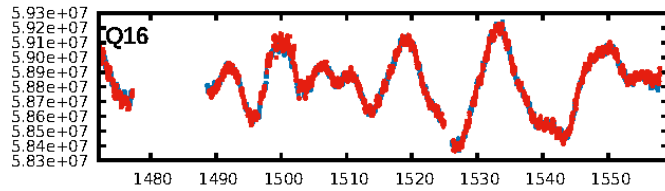
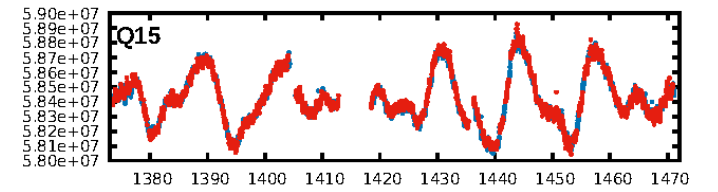
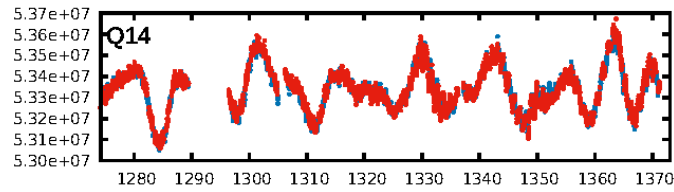
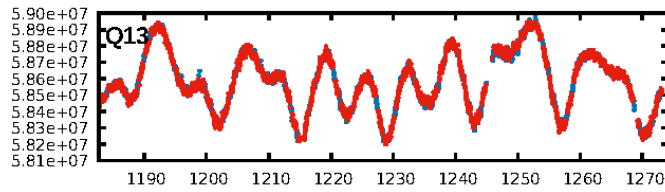
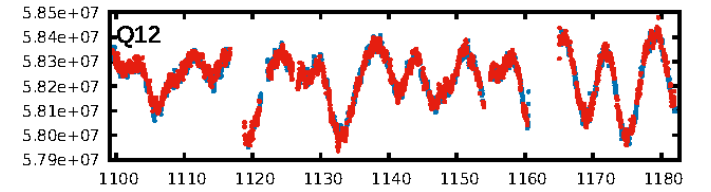
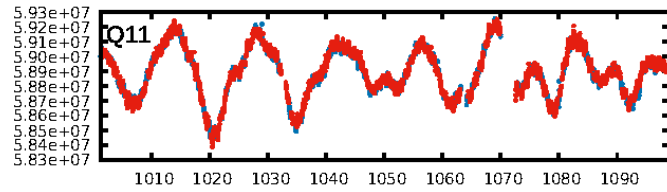
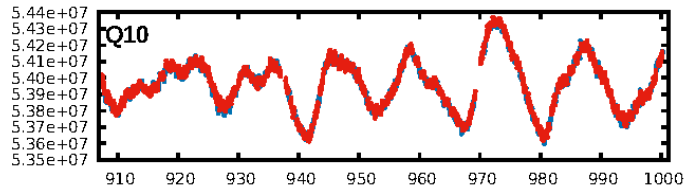
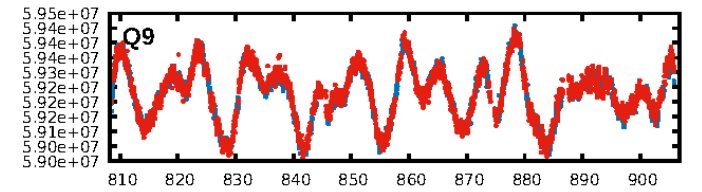
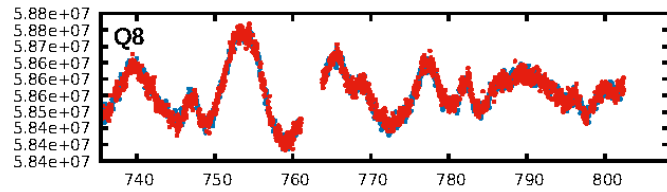
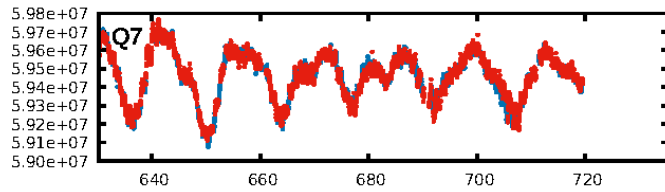
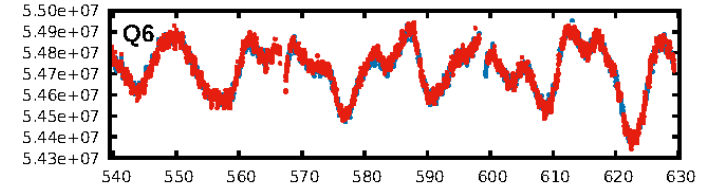
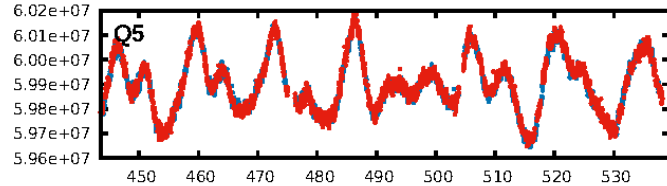
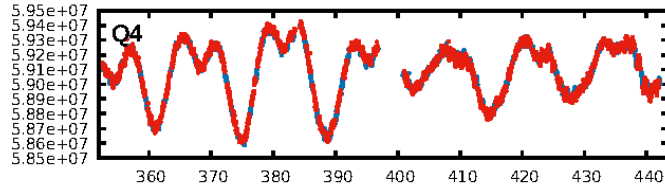
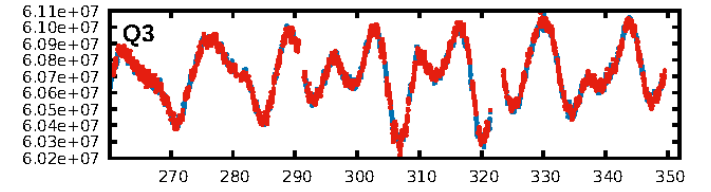
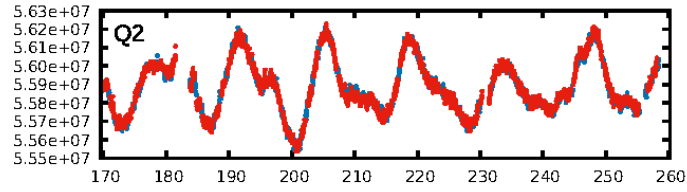
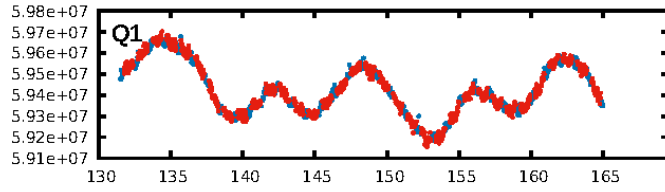
KIC: 2715251 Candidate: 1 of 1 Period: 0.983 d



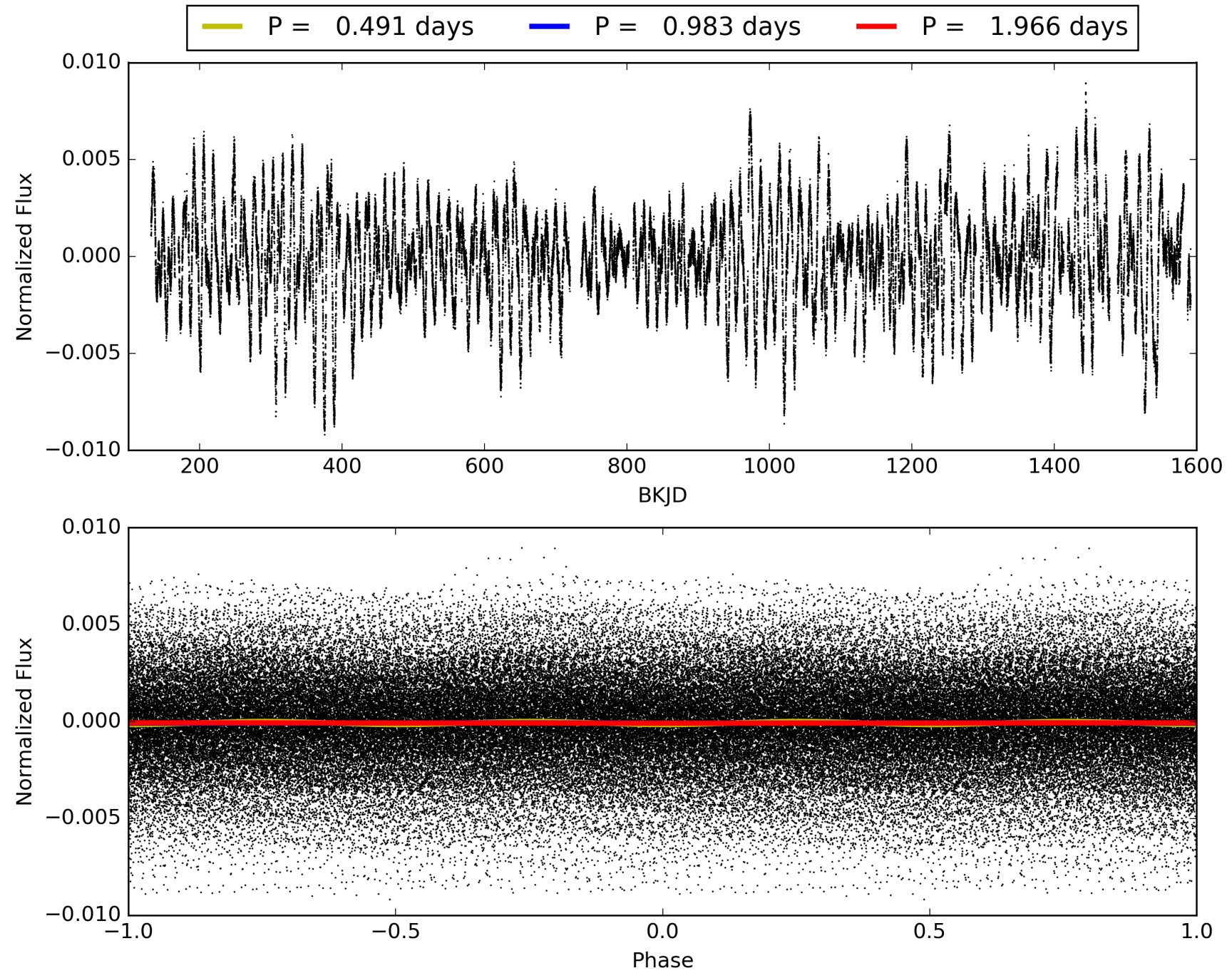
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:50:31 Z

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

TCE 002715251-01, PDC Light Curves

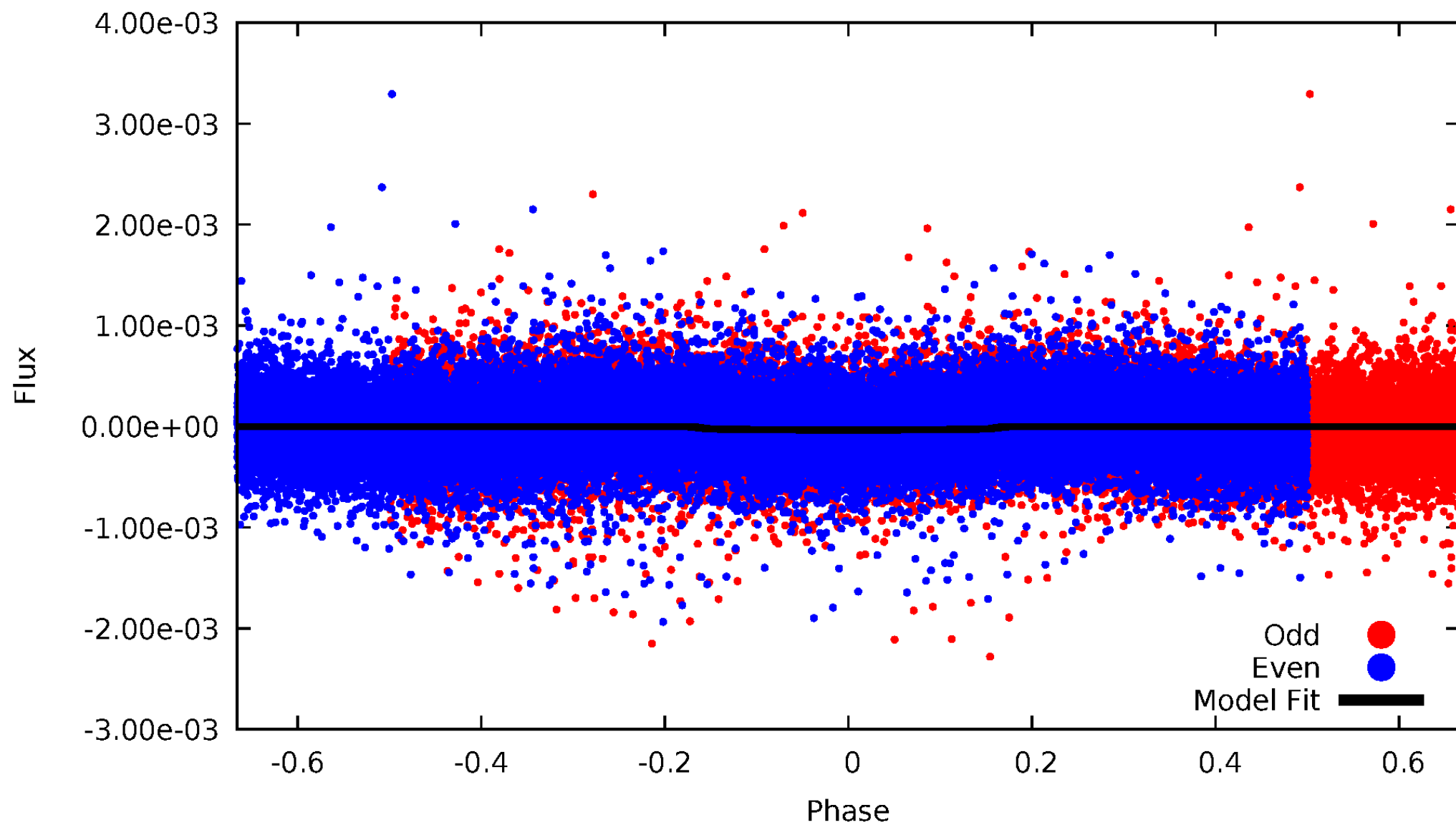


TCE 002715251-01



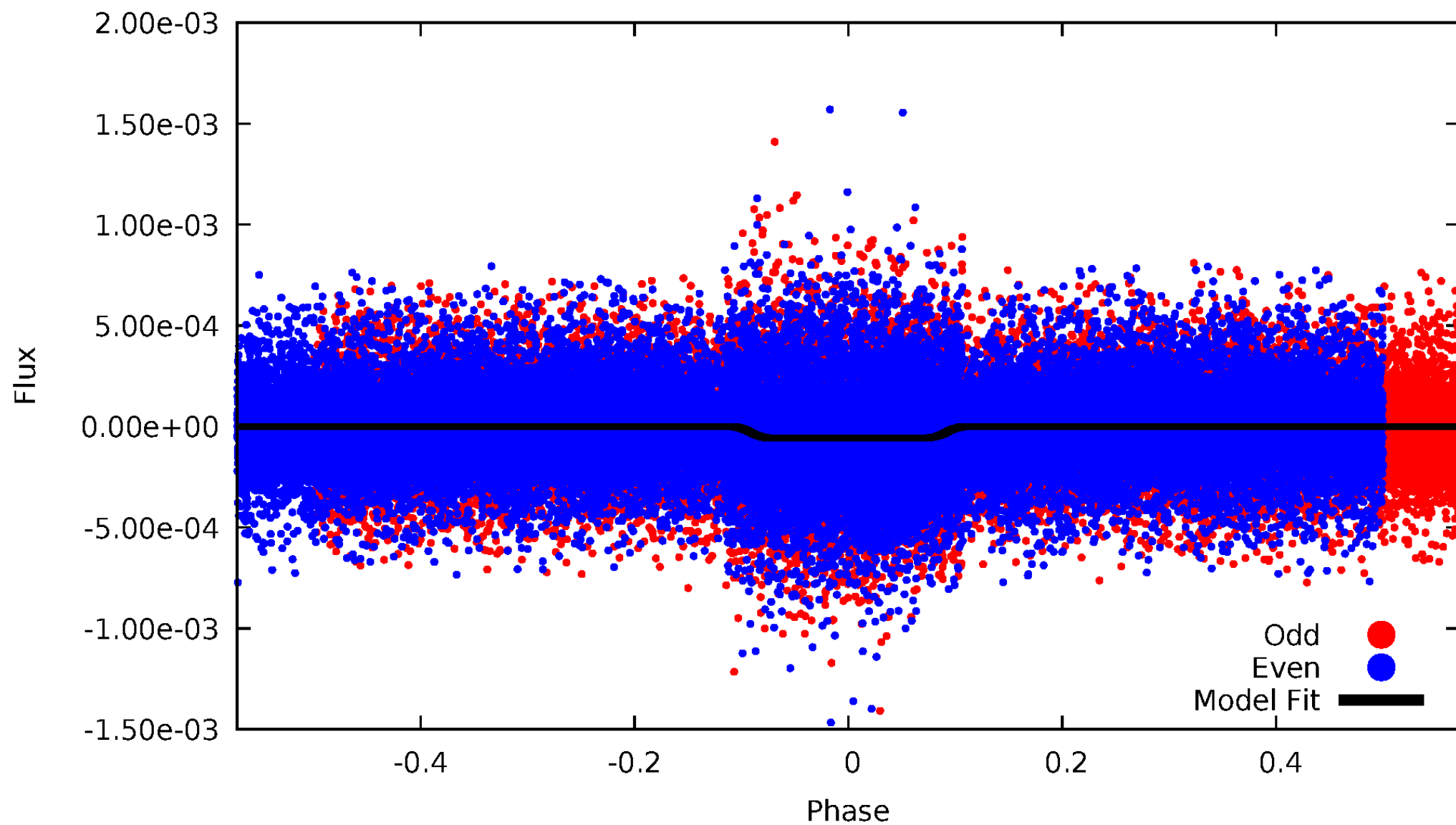
DV Odd/Even

TCE 002715251-01



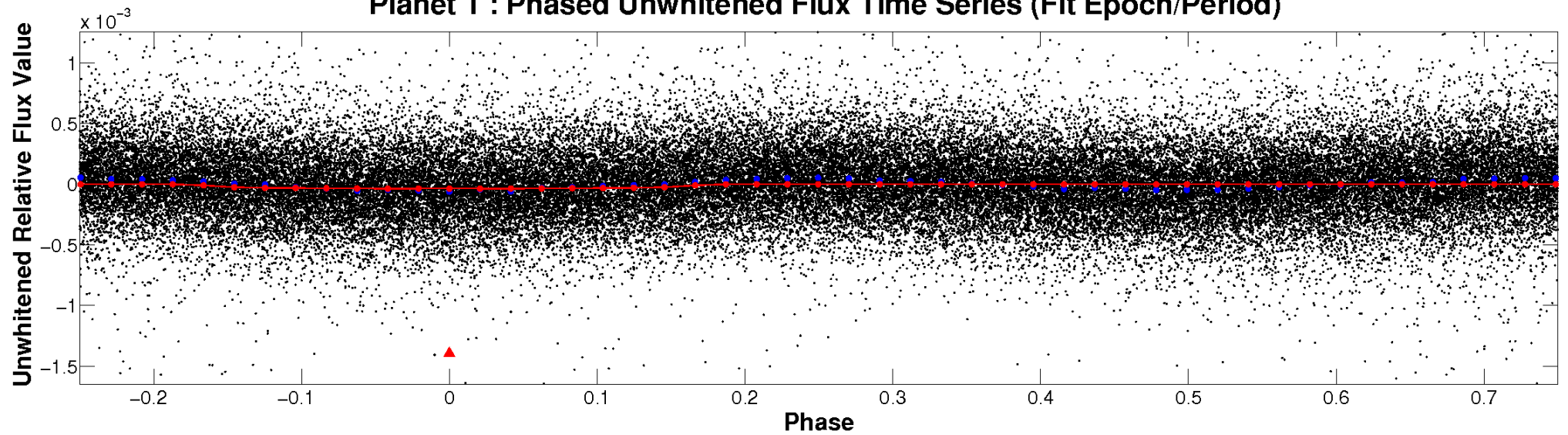
ALT Odd/Even

TCE 002715251-01

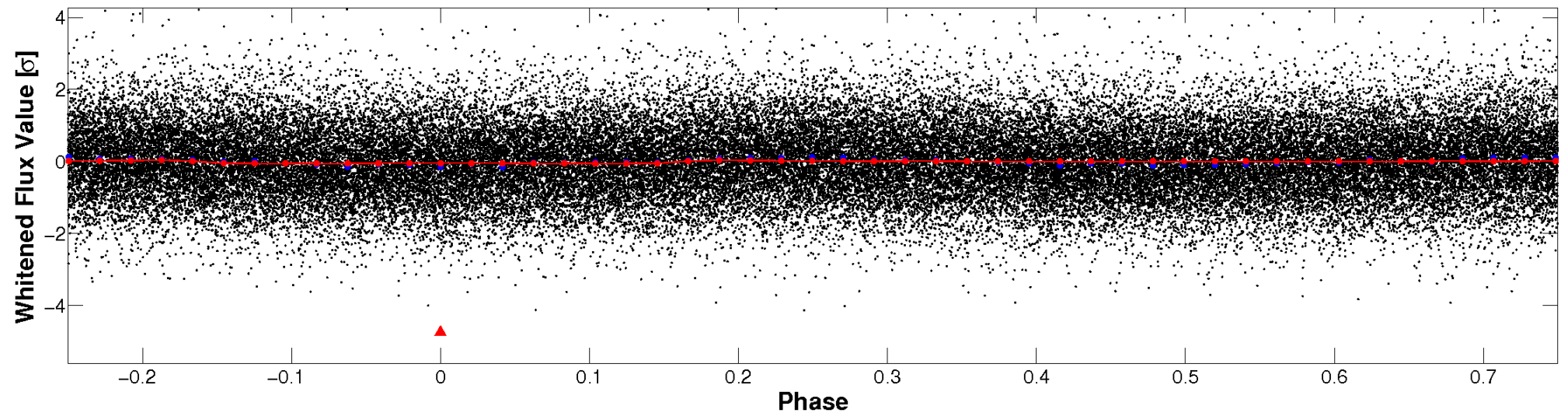


Non-Whitened Vs. Whitened Light Curve

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

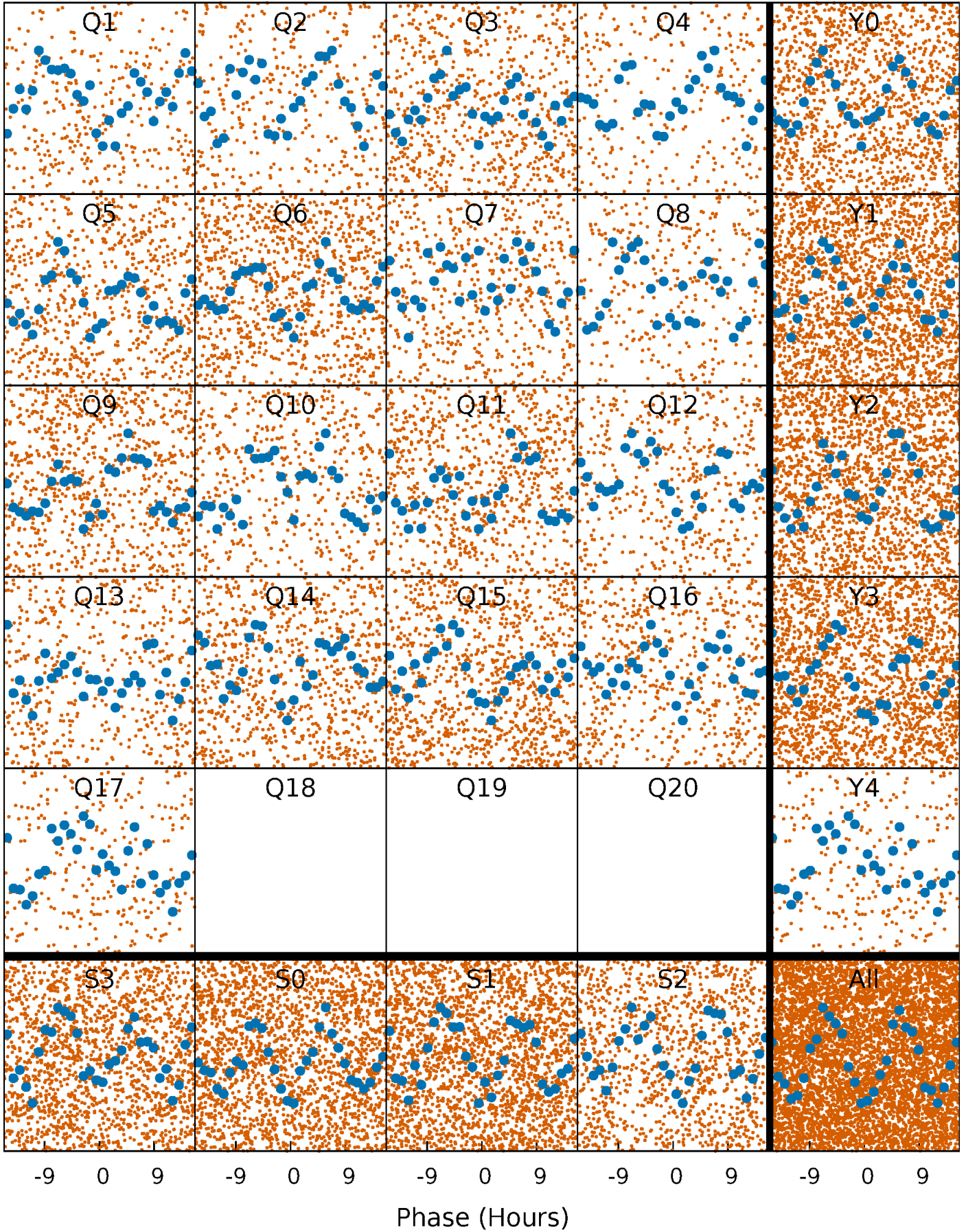


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



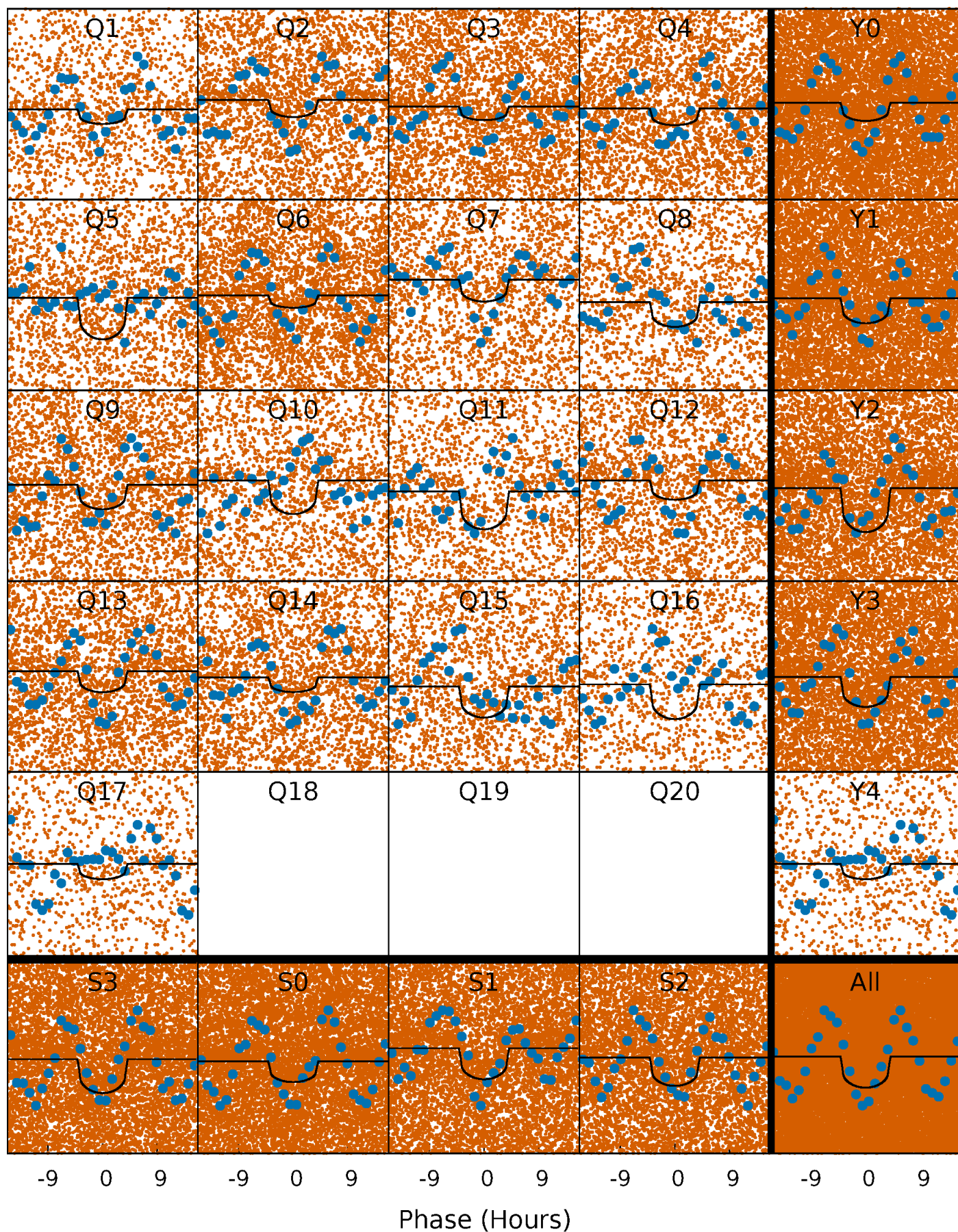
PDC Quarter-Phased Transit Curves

TCE 002715251-01 P= 0.982753 Days $T_0=132.081778$ (BKJD)



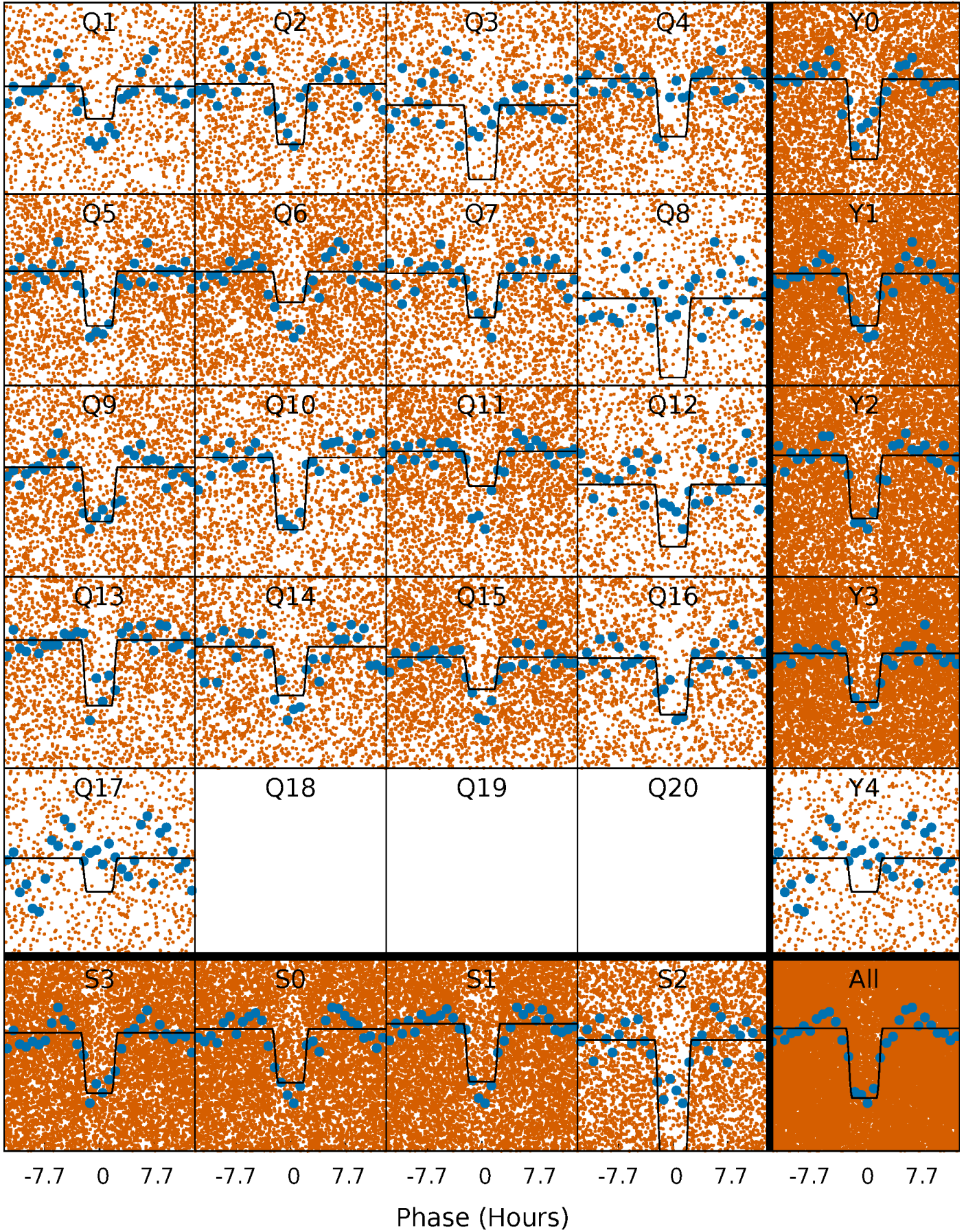
DV Quarter-Phased Transit Curves

TCE 002715251-01 P= 0.982753 Days $T_0=132.081778$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

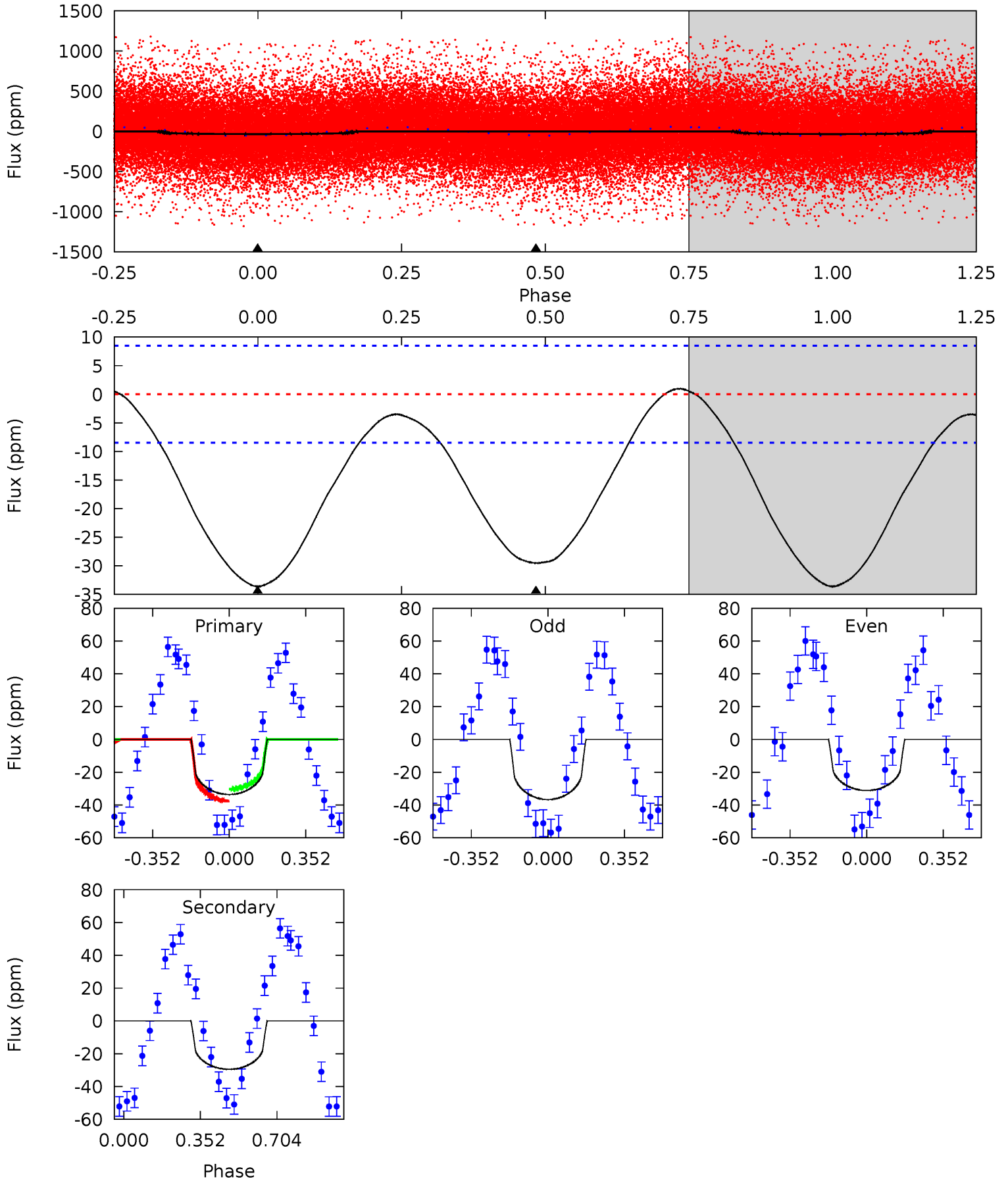
TCE 002715251-01 P= 0.982736 Days $T_0=132.068408$ (BKJD)



DV Model-Shift Uniqueness Test

002715251-01, P = 0.982753 Days, E = 131.099025 Days

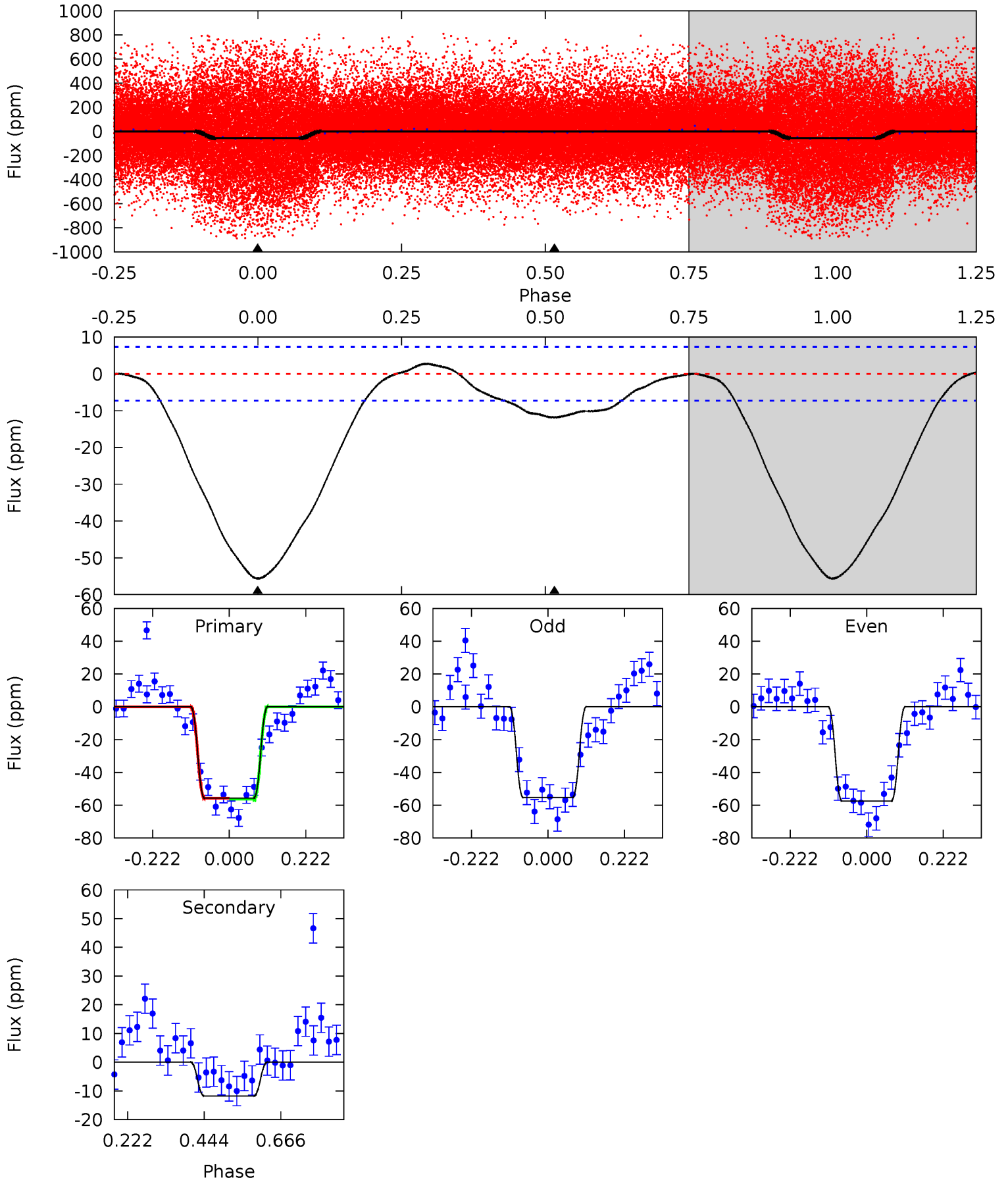
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.0	14.9	0	0	4.29	0.93	1.00	17.0	17.0	14.9	14.9	1.40	0.98	0.03	1.89



Alt Model-Shift Uniqueness Test

002715251-01, P = 0.982736 Days, E = 131.085672 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.5	7.11	0	0	4.39	1.22	0.66	33.5	33.5	7.11	7.11	0.66	1.02	0.05	0.15



Stellar Parameters For KIC 002715251

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6151^{+188}_{-206}	$4.260^{+0.185}_{-0.185}$	$-0.300^{+0.300}_{-0.300}$	$1.215^{+0.341}_{-0.279}$	$0.980^{+0.158}_{-0.115}$	$0.770^{+0.770}_{-0.391}$
	+3%/-3%	+4%/-4%	+100%/-100%	+28%/-23%	+16%/-12%	+100%/-51%
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 002715251-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-30 ± 2	$0.86^{+0.69}_{-0.53}$	3031^{+223}_{-230}	5639^{+4280}_{-1288}	$8.324^{+46.844}_{-5.778}$
Alt.	-12 ± 2	$1.06^{+0.73}_{-0.57}$	3011^{+247}_{-211}	4156^{+1712}_{-855}	$2.117^{+7.982}_{-1.385}$

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

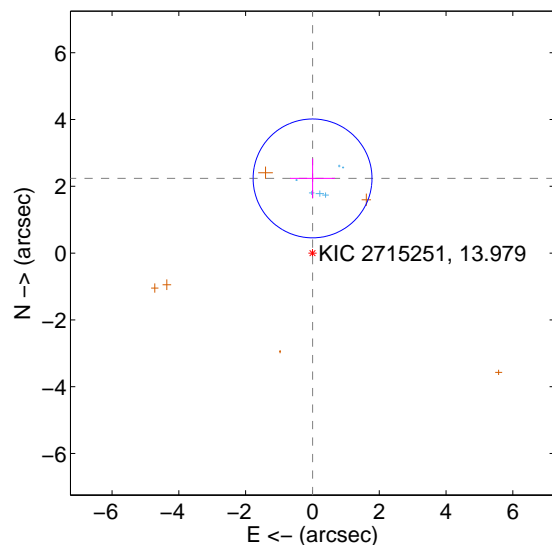
Supplemental centroid analysis for 002715251-01. Kepler magnitude: 13.98. Transit SNR 9.01

There are 6 quarters with good PRF difference image offsets

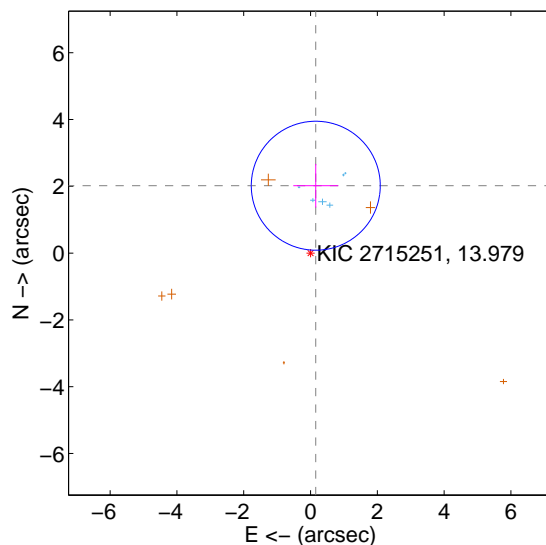
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.237 ± 0.593	3.77	-0.004 ± 0.675	2.237 ± 0.593
PRF-fit source offset from KIC position	2.024 ± 0.644	3.14	-0.157 ± 0.674	2.018 ± 0.653
photometric centroid source offset	3.71 ± 0.78	4.76	-1.01 ± 0.72	-3.57 ± 0.78

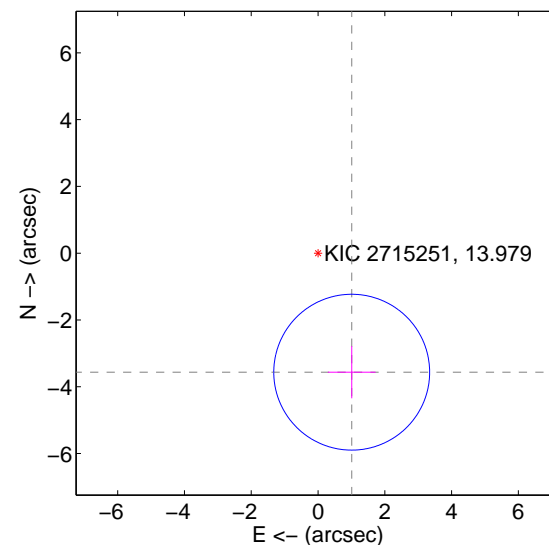
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

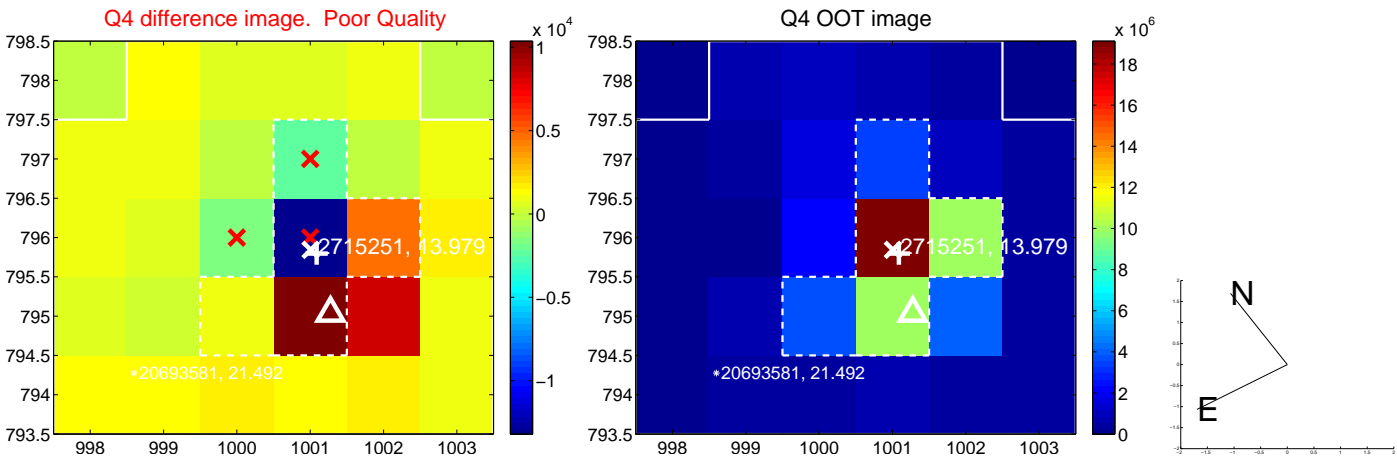
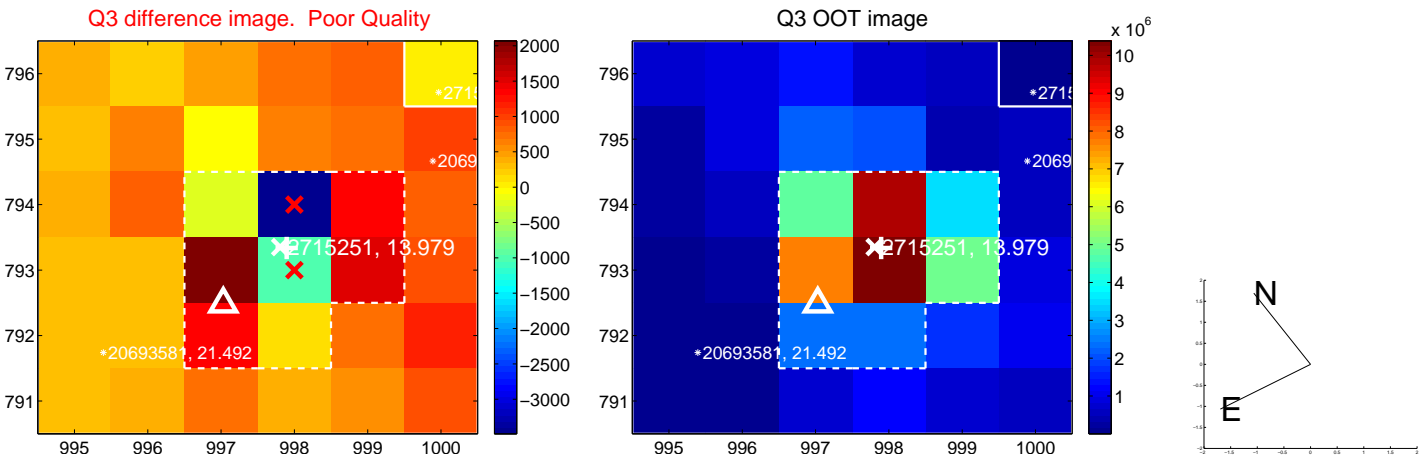
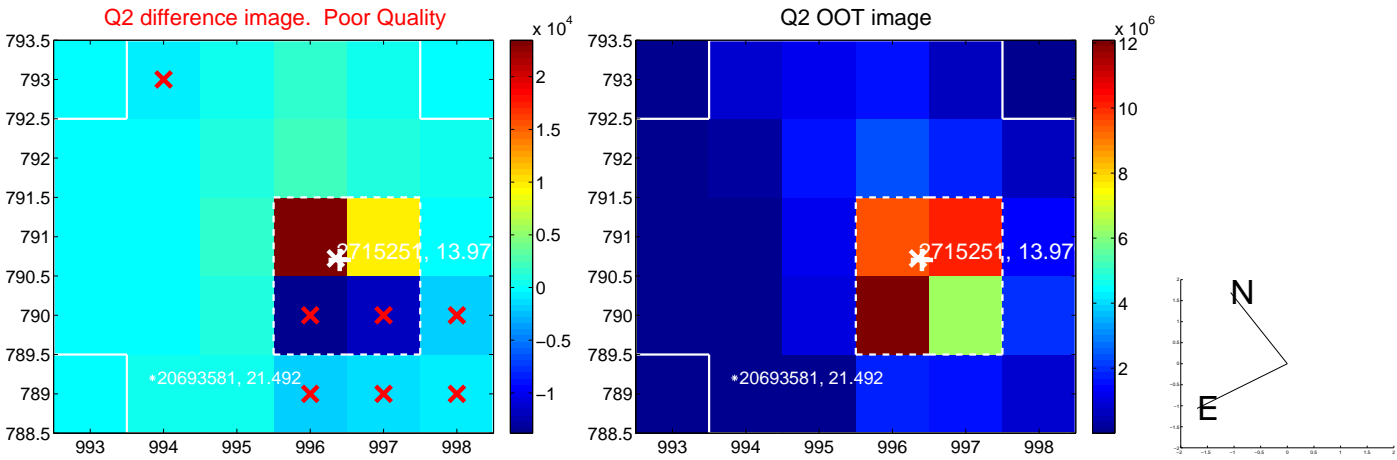
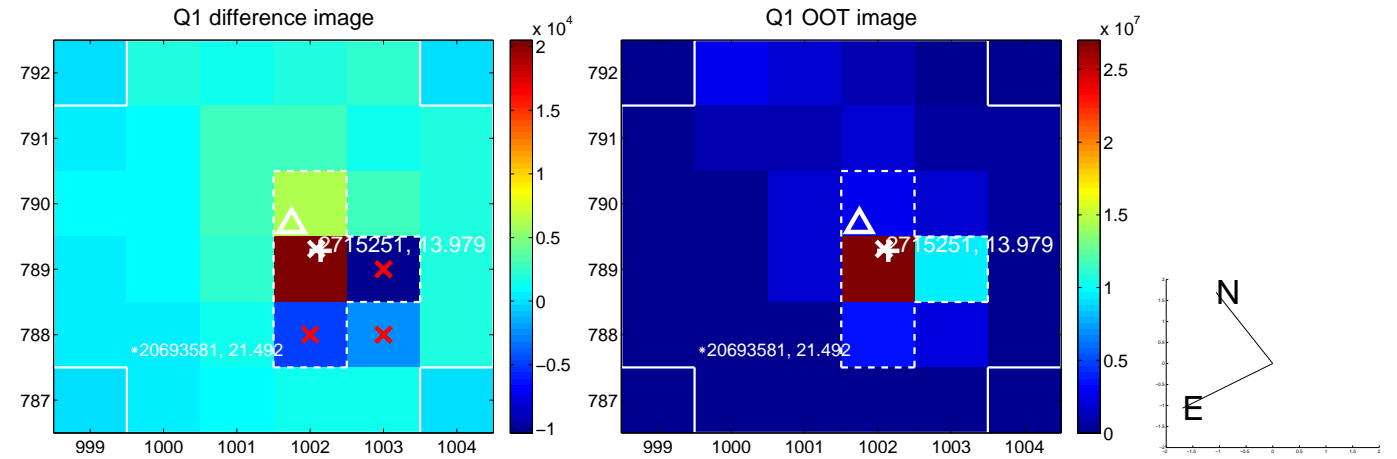


offset from photometric centroids

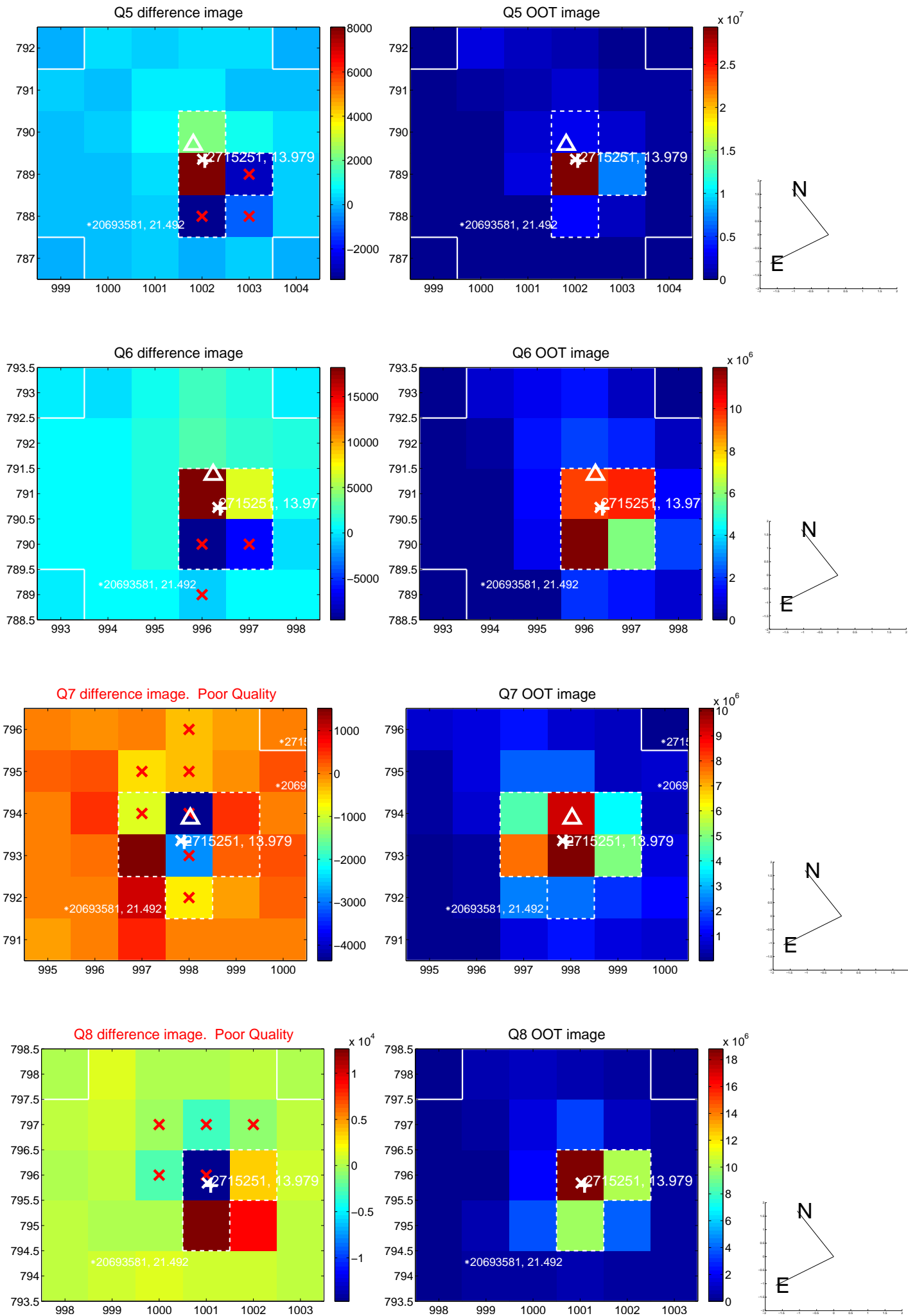


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

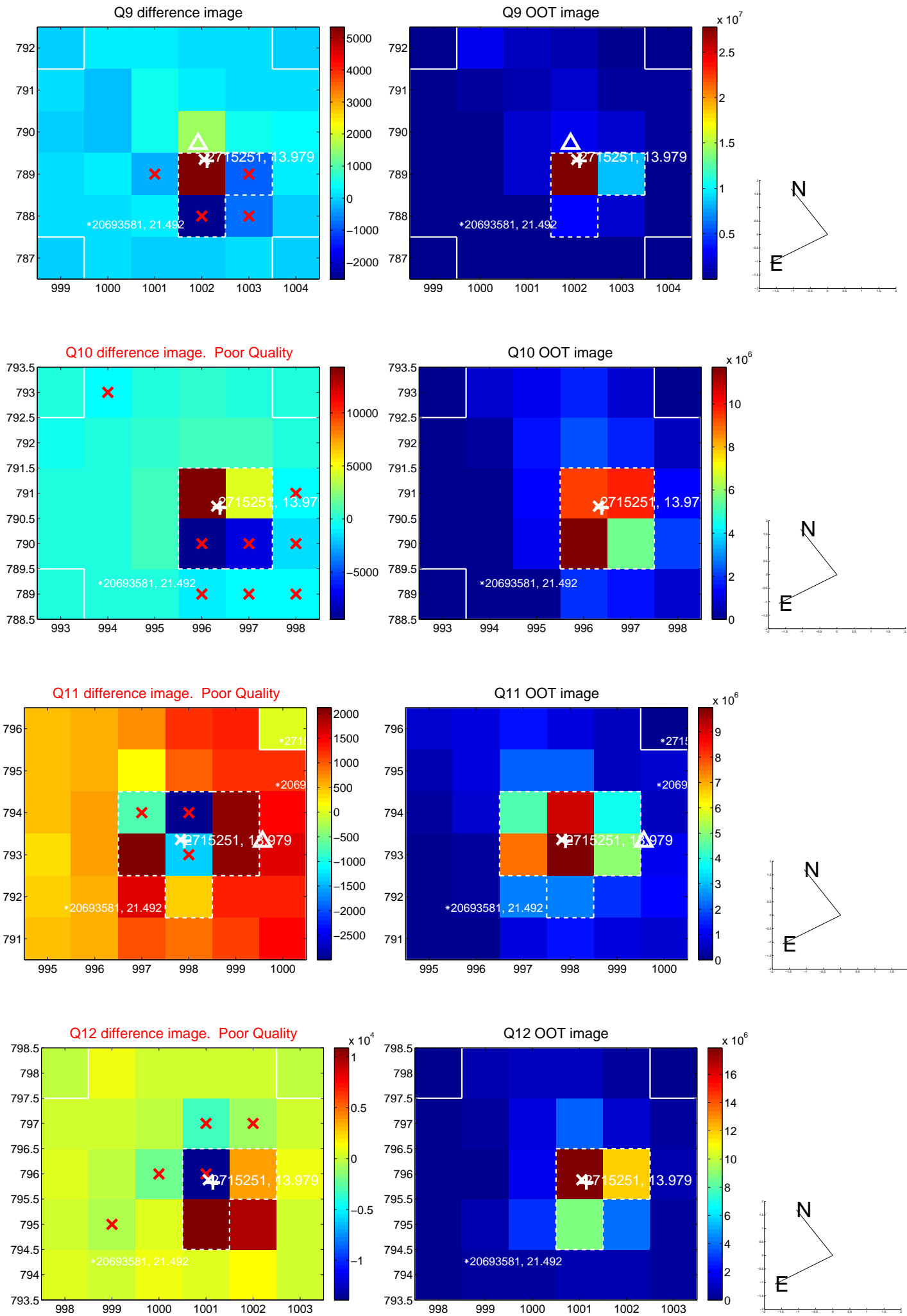
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



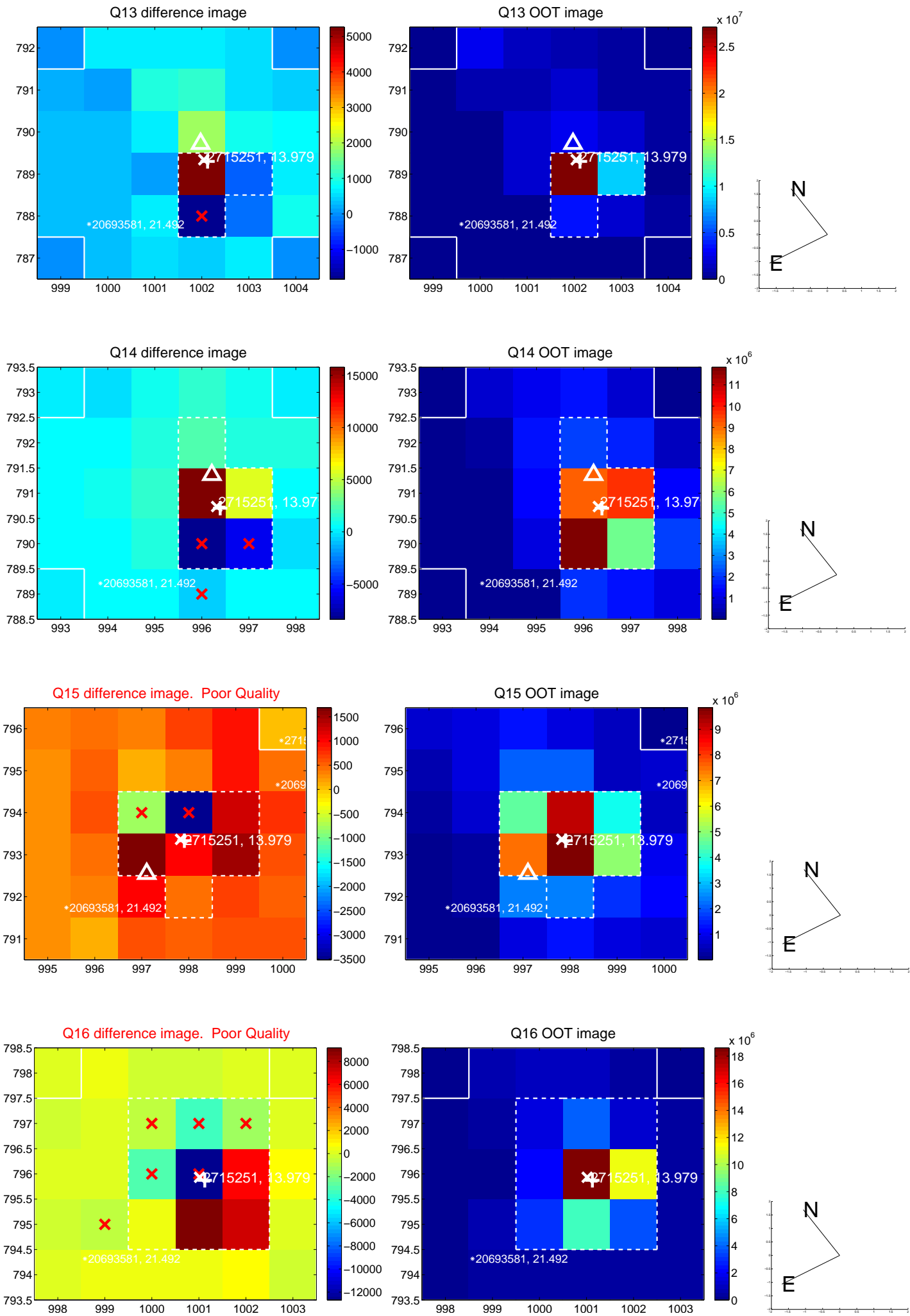
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



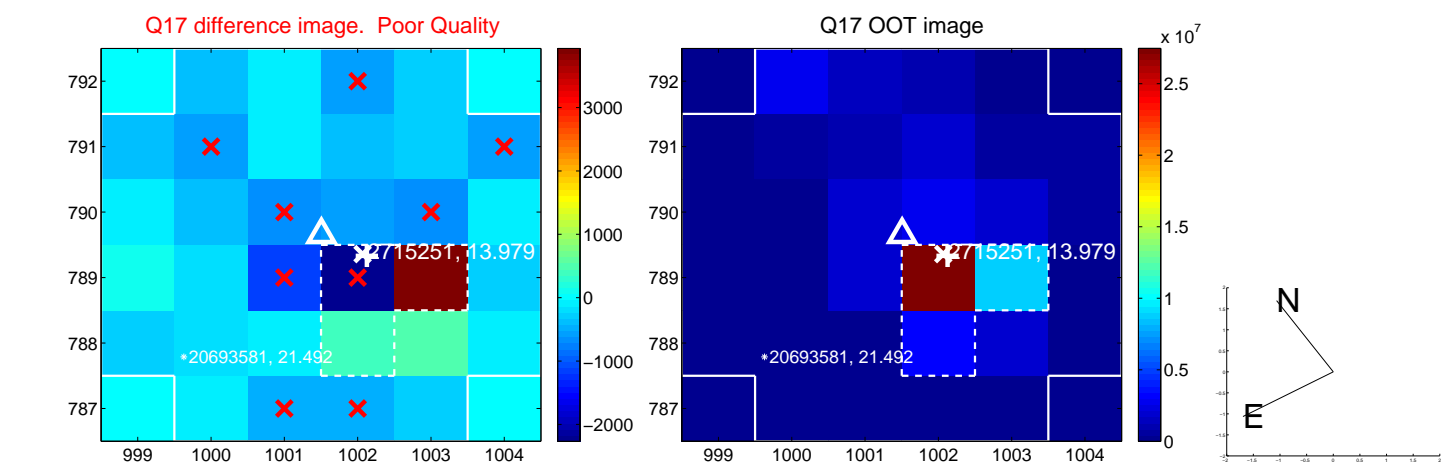
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



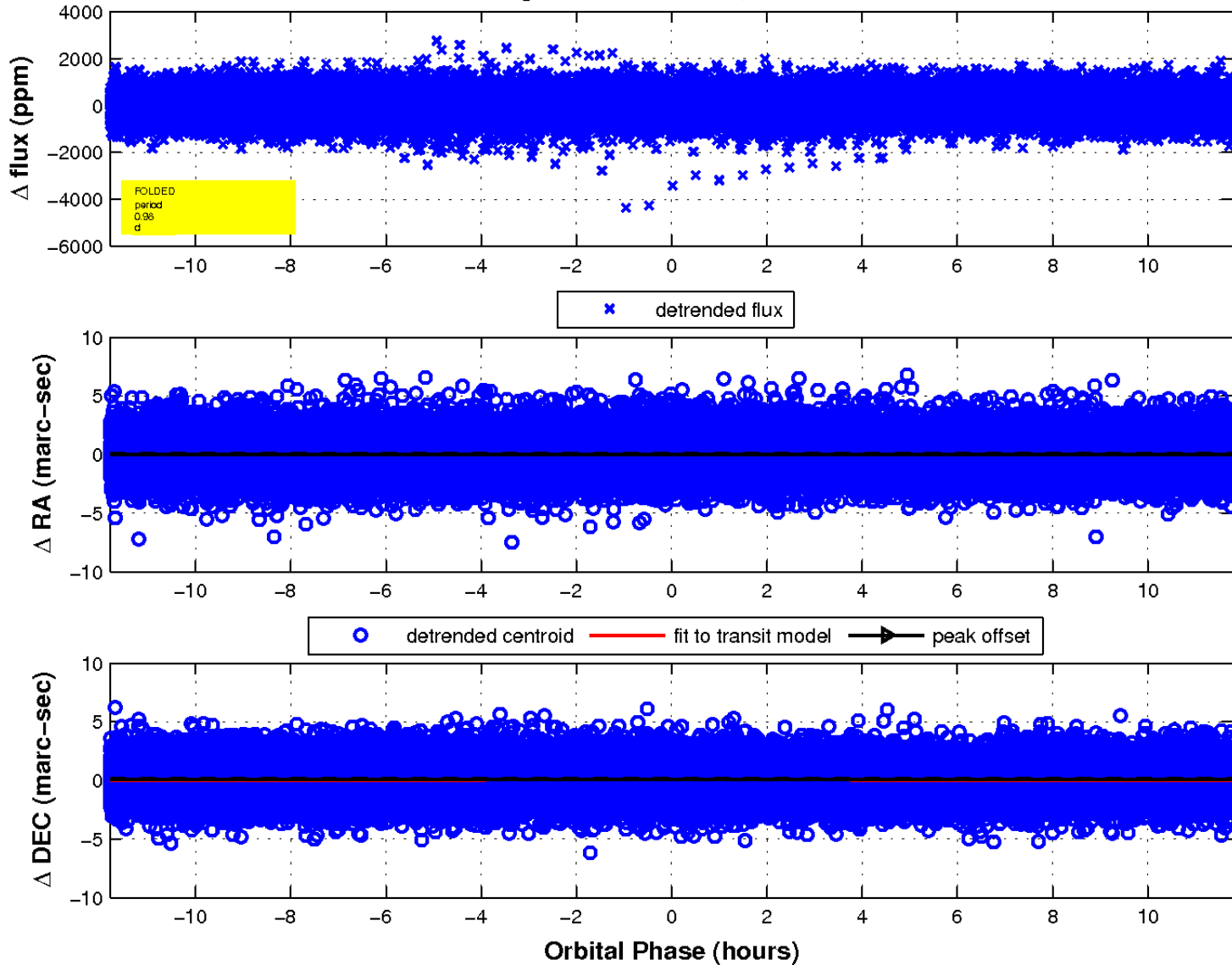
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

