

KIC 003837702

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})
003837702-01	OBS	No	1.557874	131.735358	24.5	13.505	9.3	5.3	1.54	6663	0.77	5060.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003837702-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST

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

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

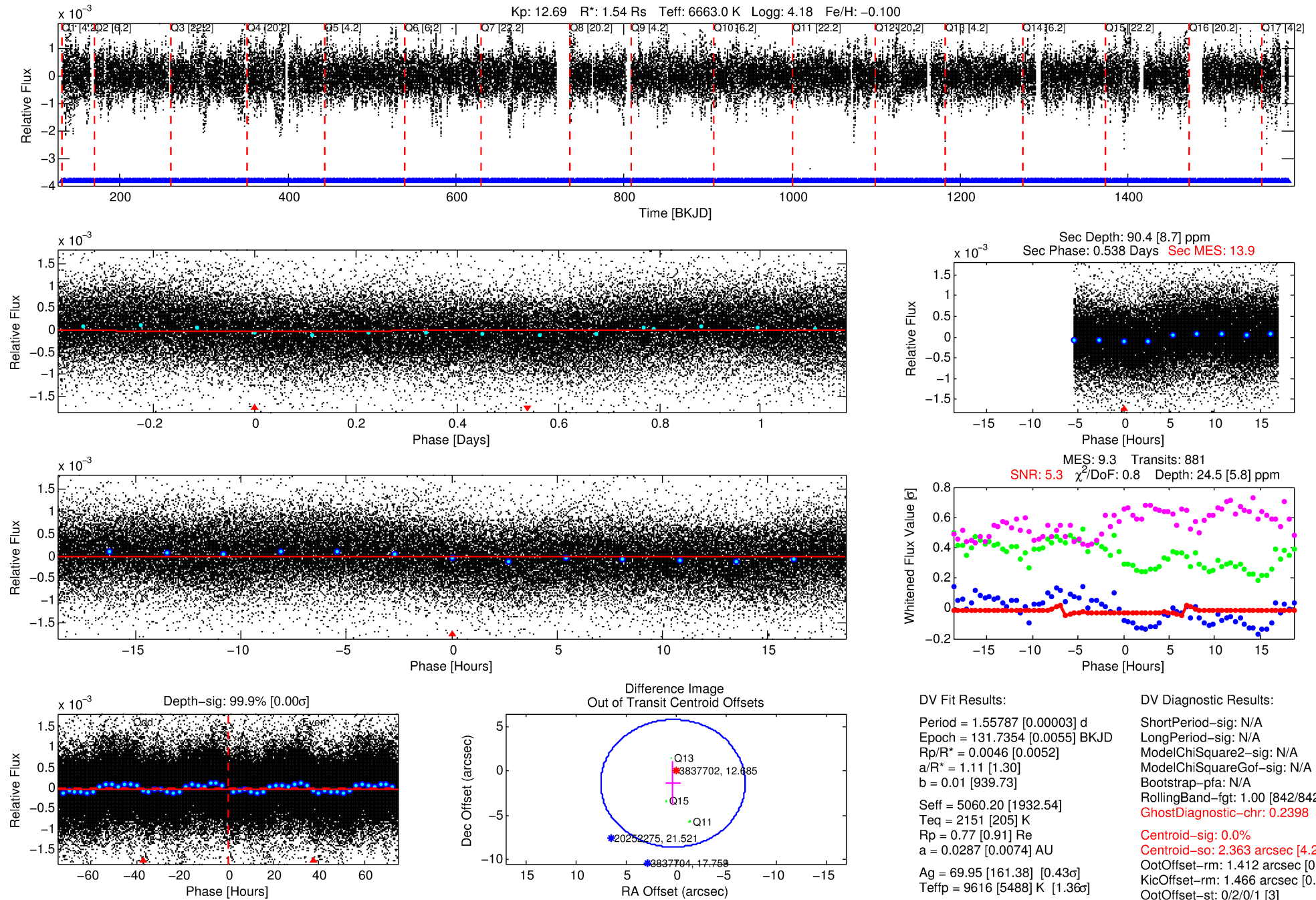
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003837702-01

No Significant Match Found

DV One-Page Summary

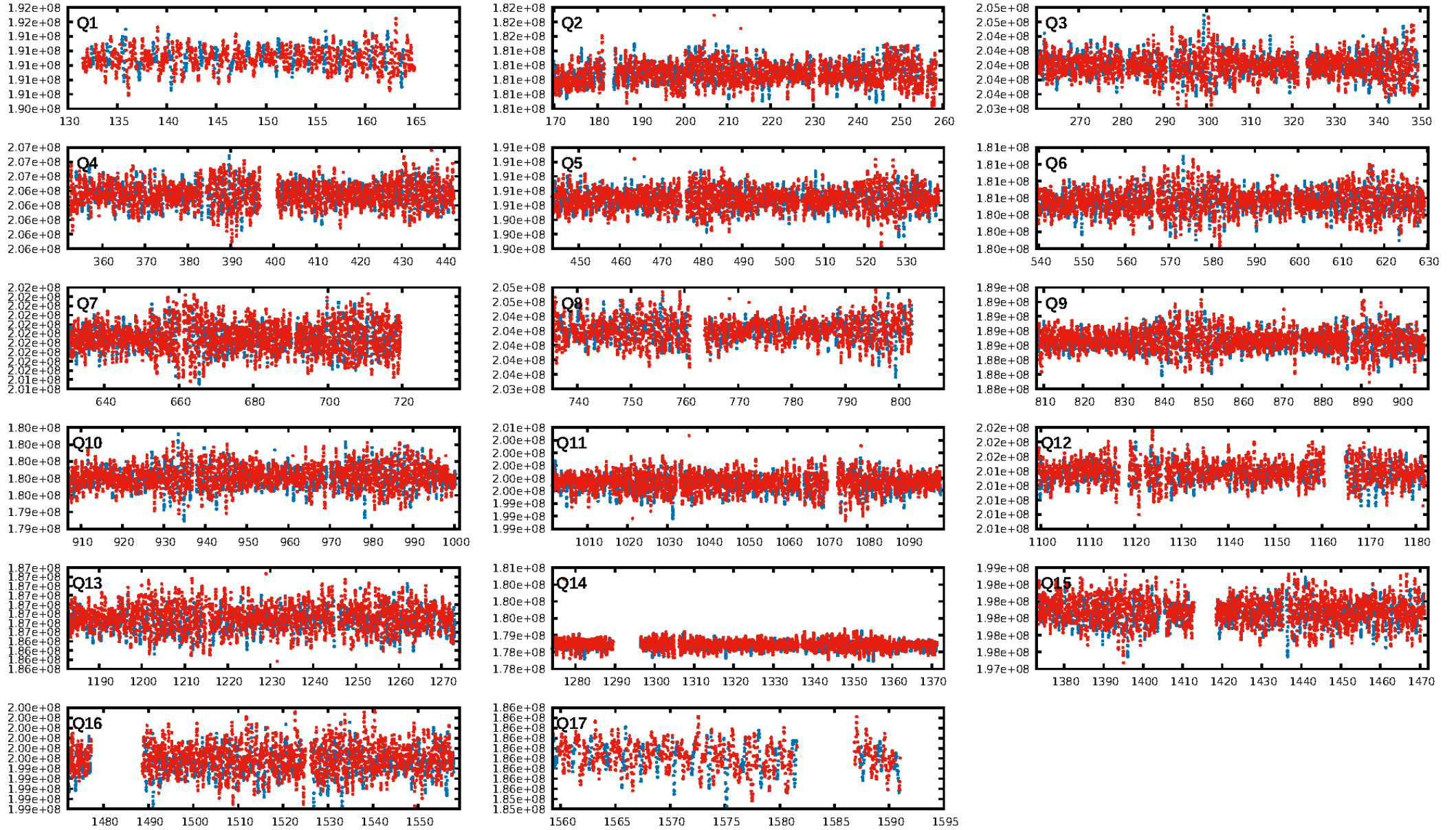
KIC: 3837702 Candidate: 1 of 1 Period: 1.558 d



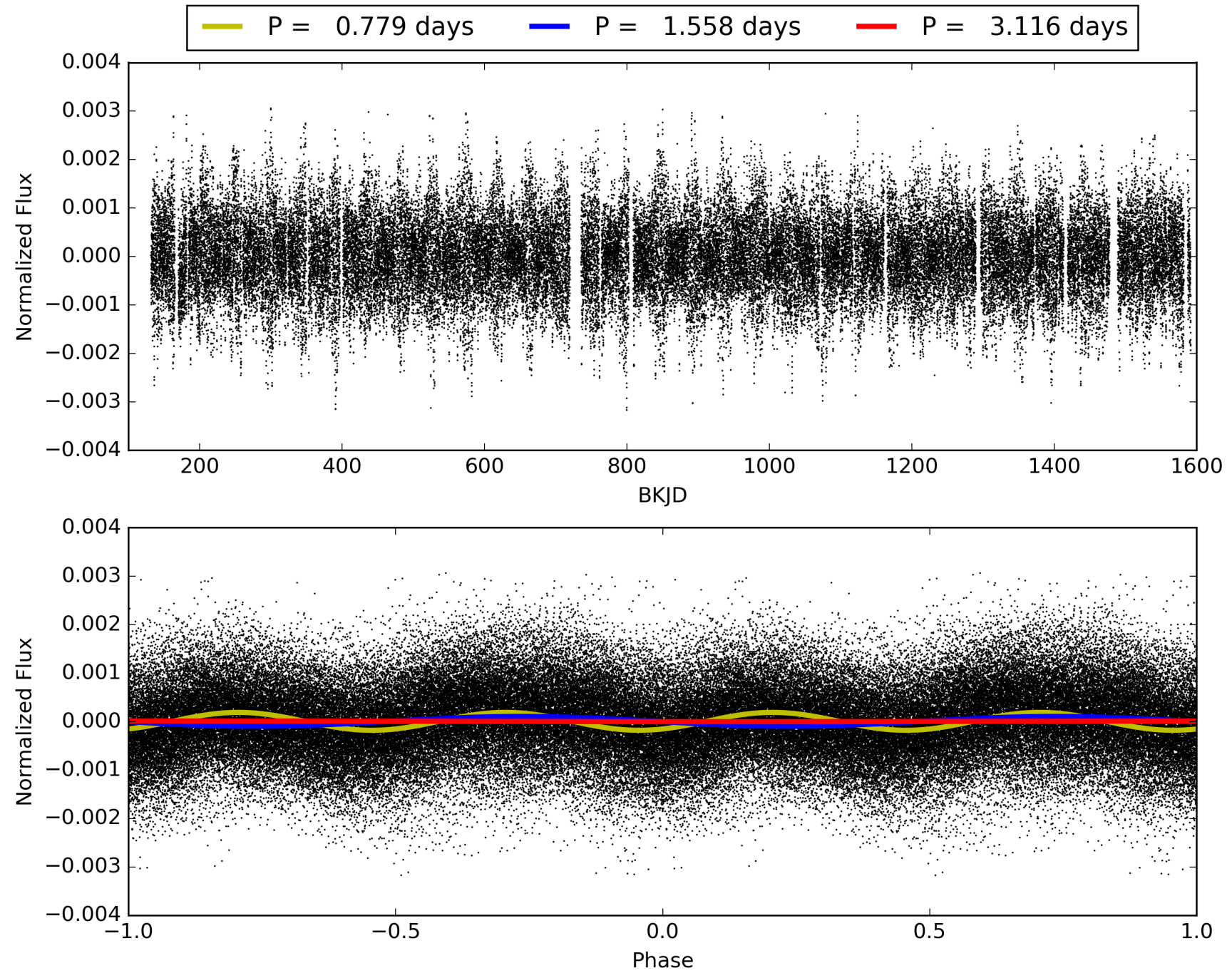
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:57:04 Z

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

TCE 003837702-01, PDC Light Curves

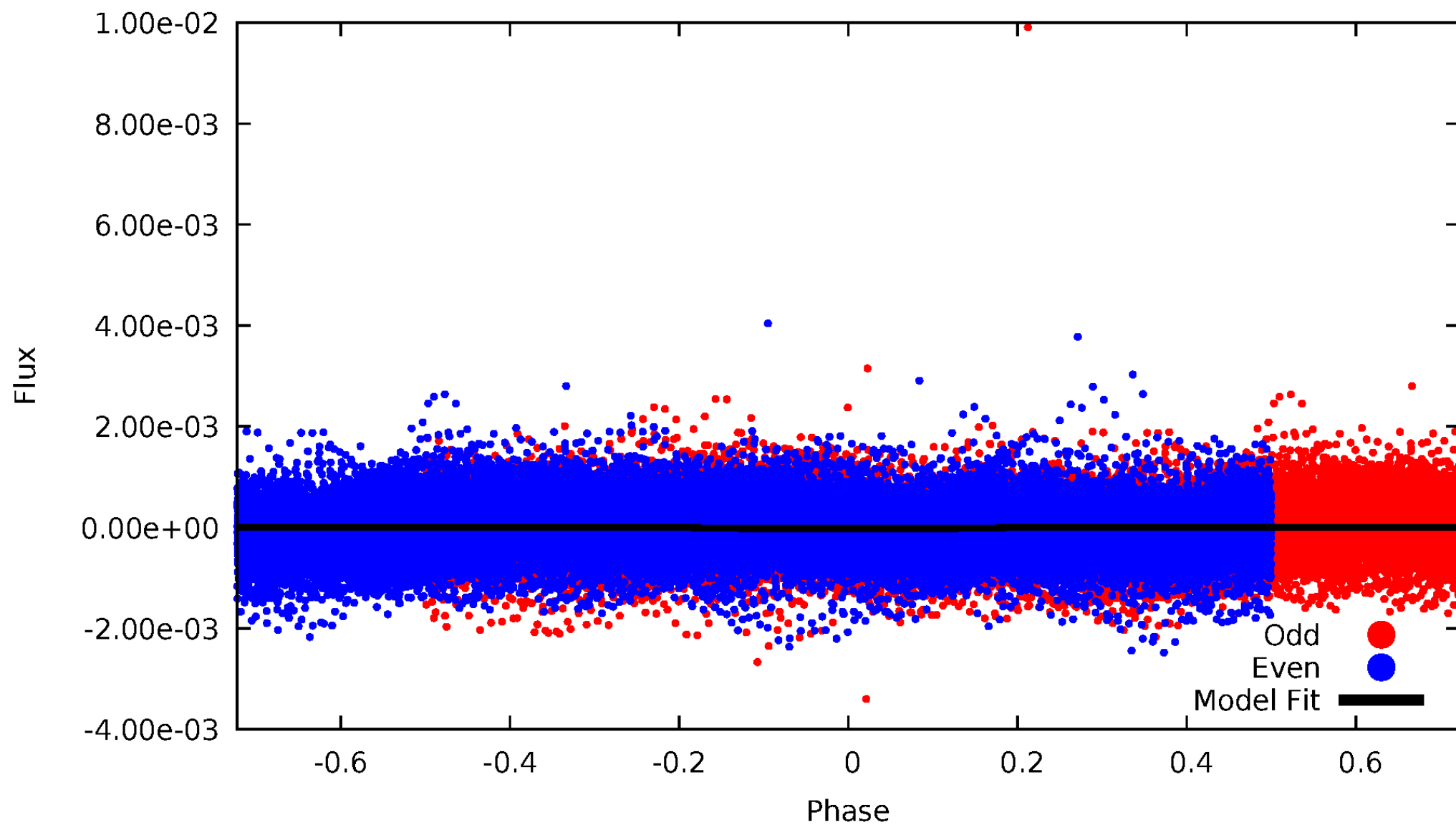


TCE 003837702-01



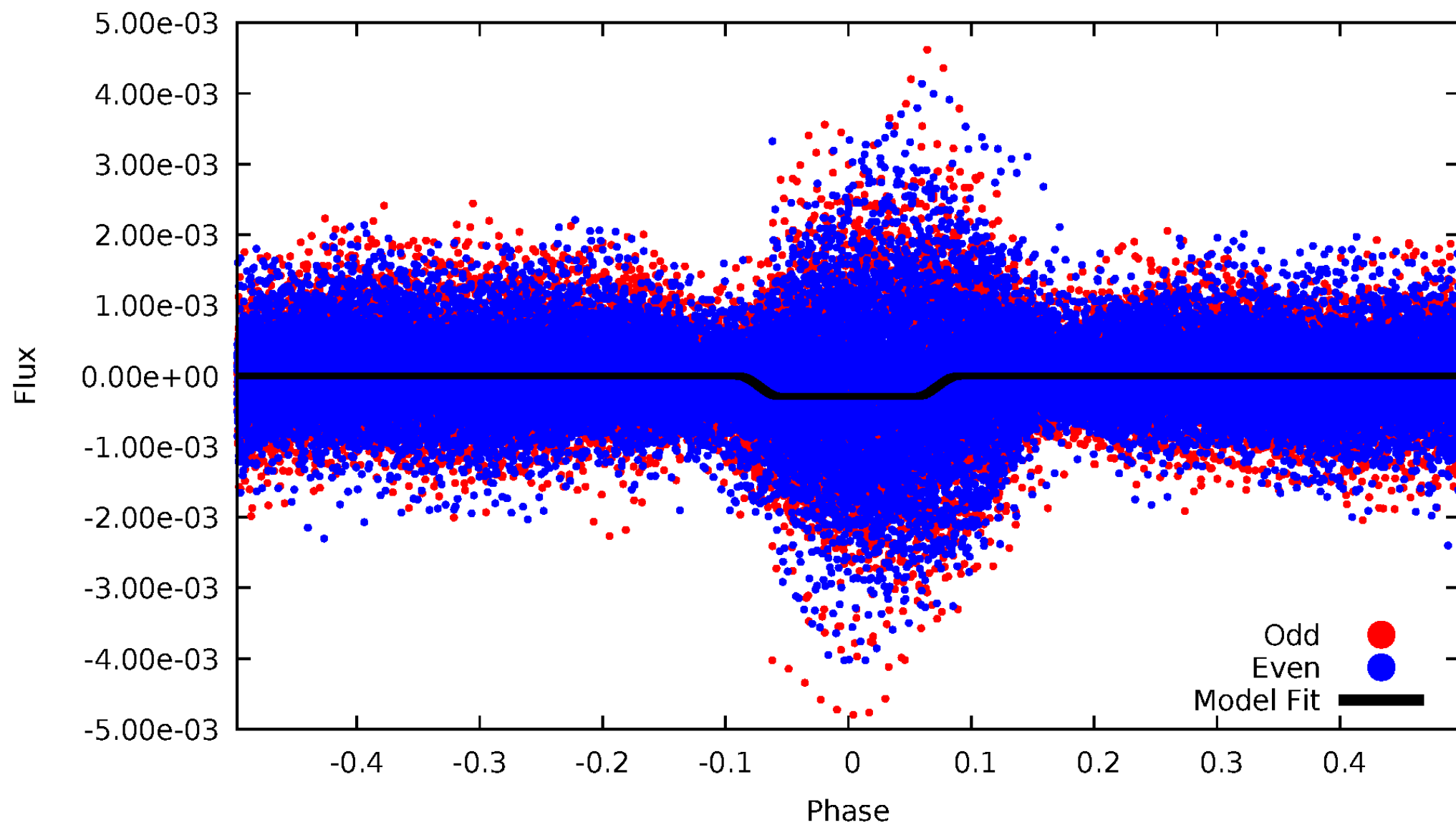
DV Odd/Even

TCE 003837702-01



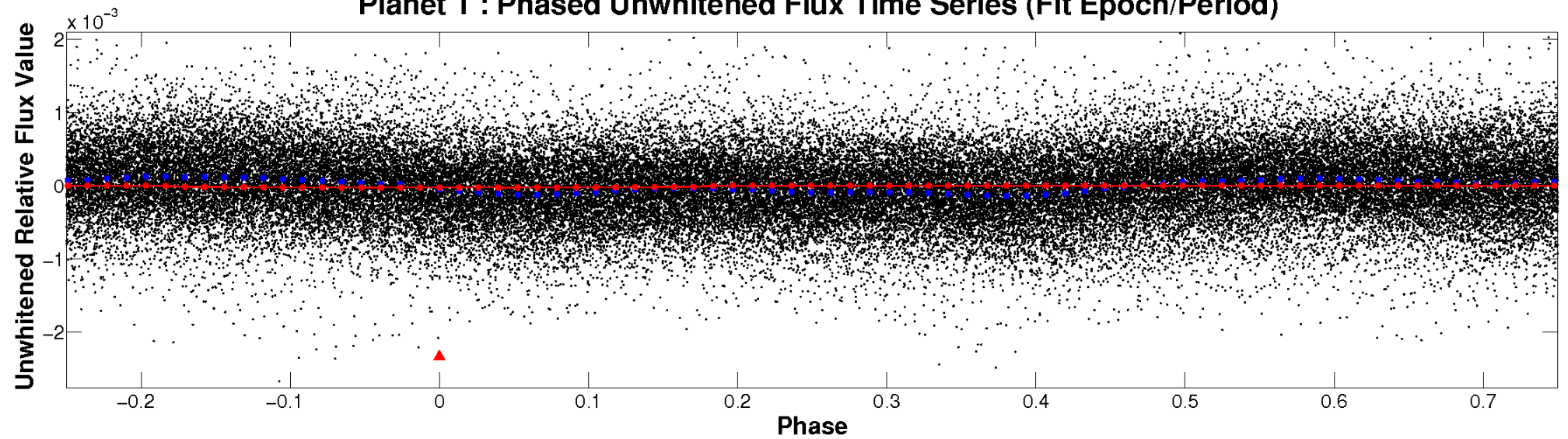
ALT Odd/Even

TCE 003837702-01

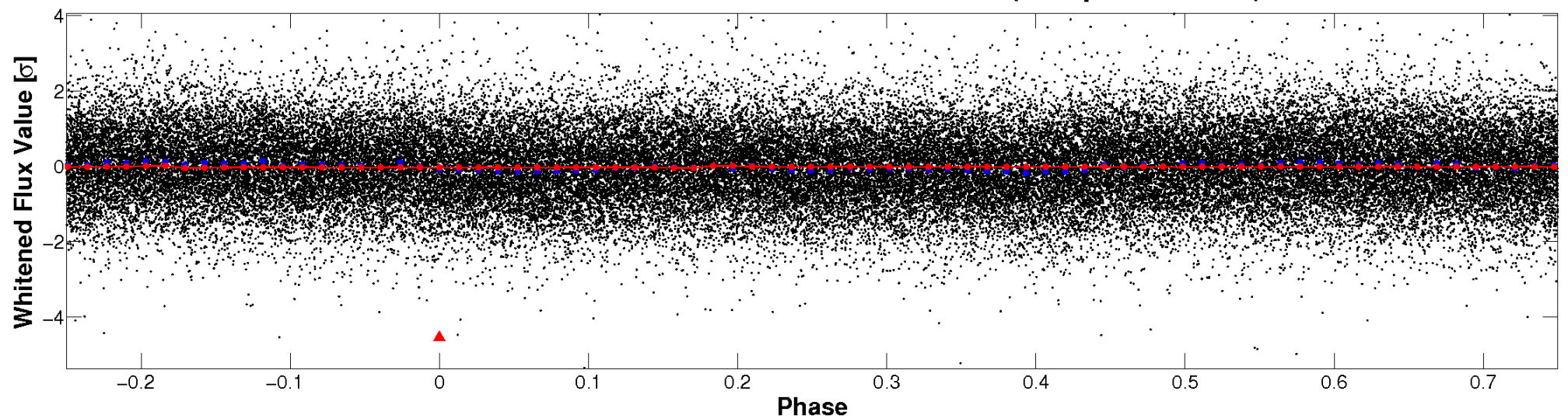


Non-Whitened Vs. Whitened Light Curve

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

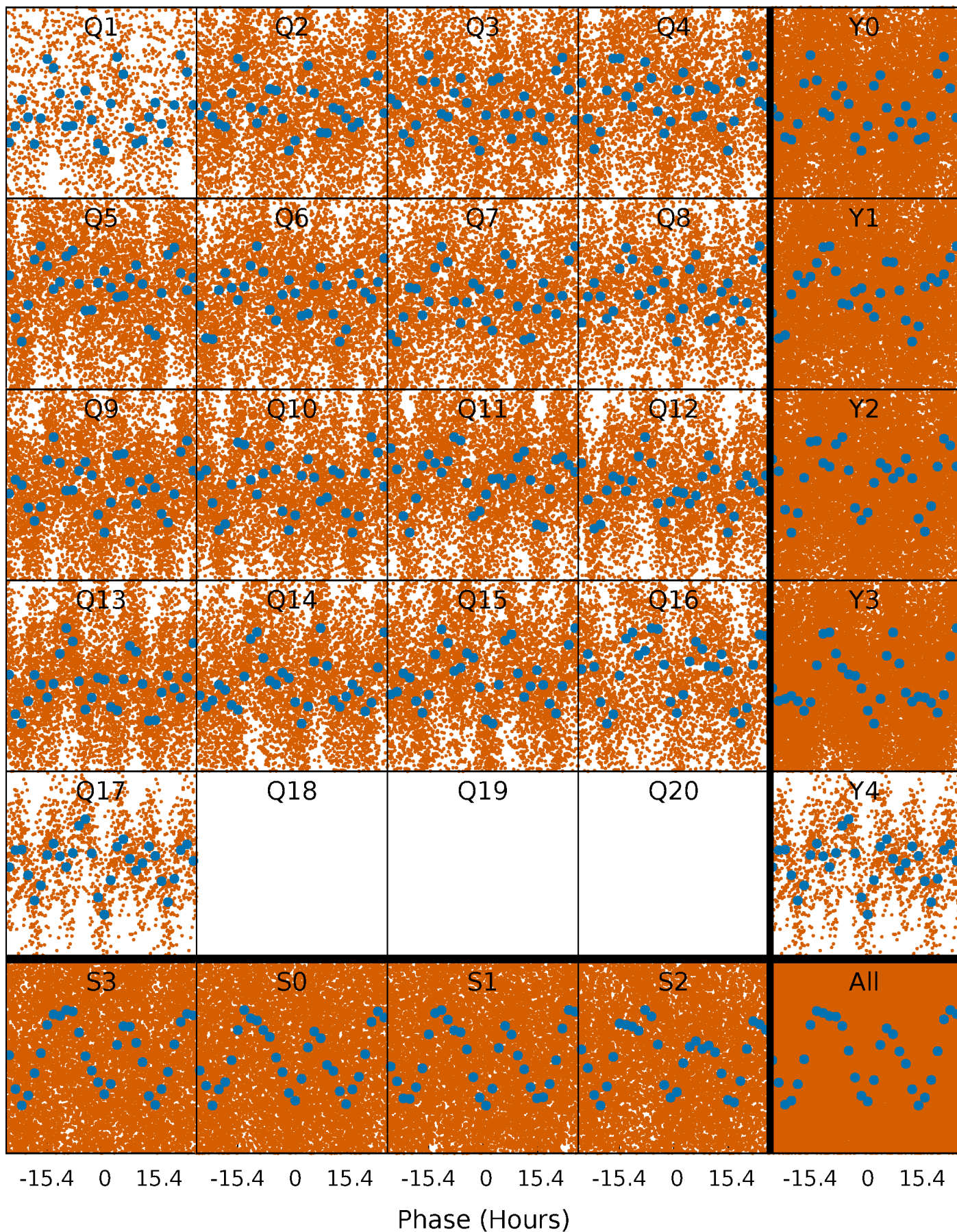


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



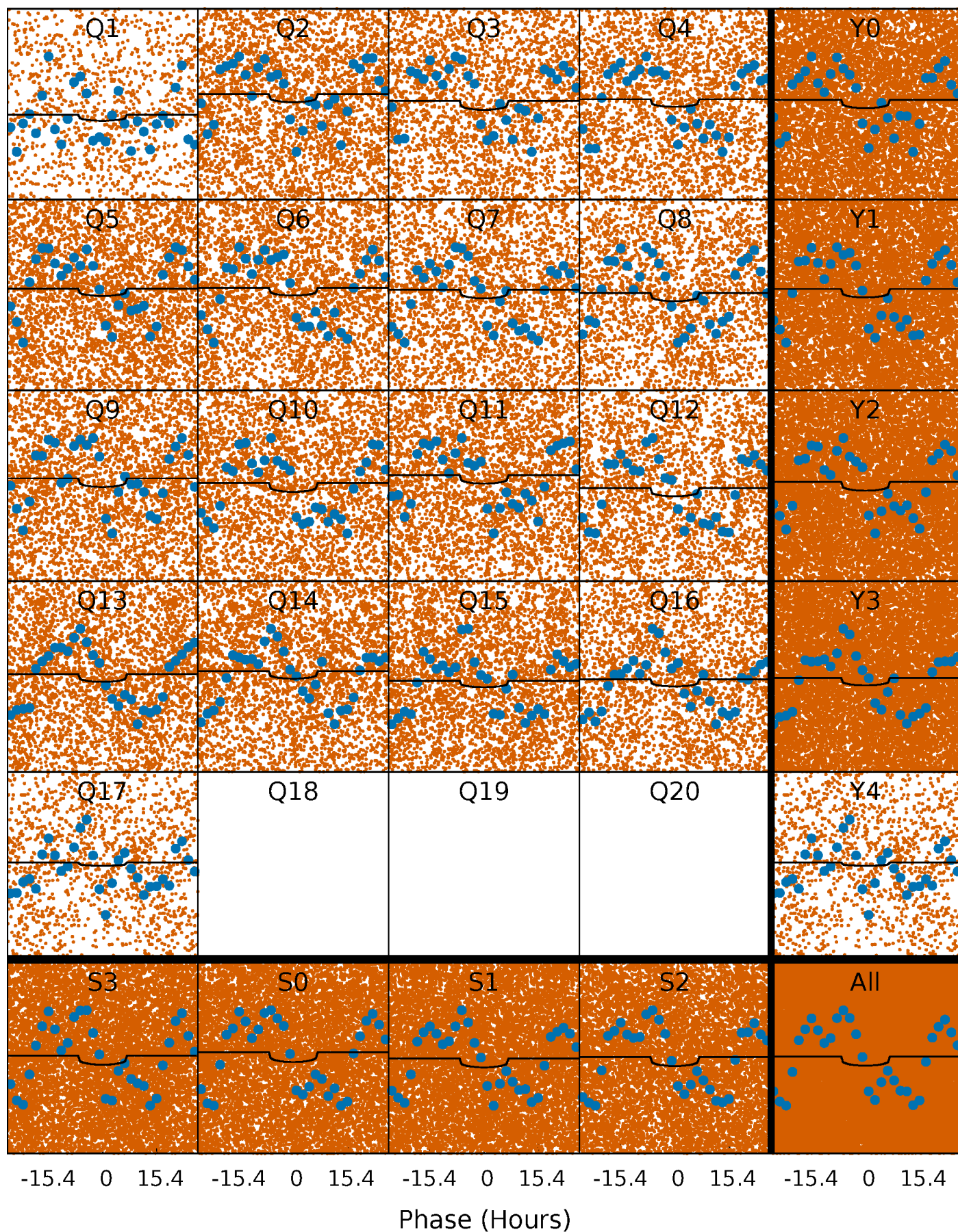
PDC Quarter-Phased Transit Curves

TCE 003837702-01 P= 1.557874 Days $T_0=131.735358$ (BKJD)



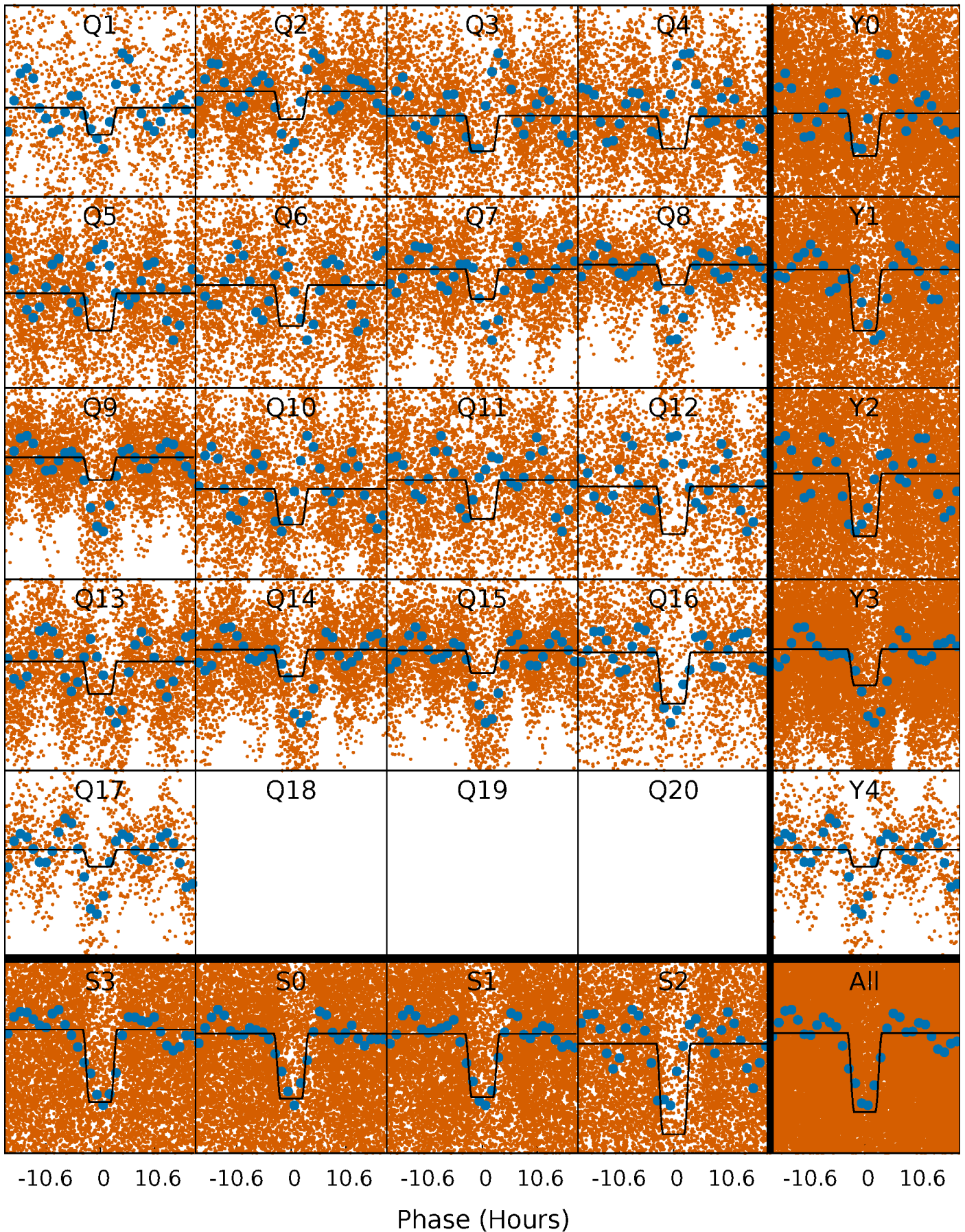
DV Quarter-Phased Transit Curves

TCE 003837702-01 P= 1.557874 Days $T_0=131.735358$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

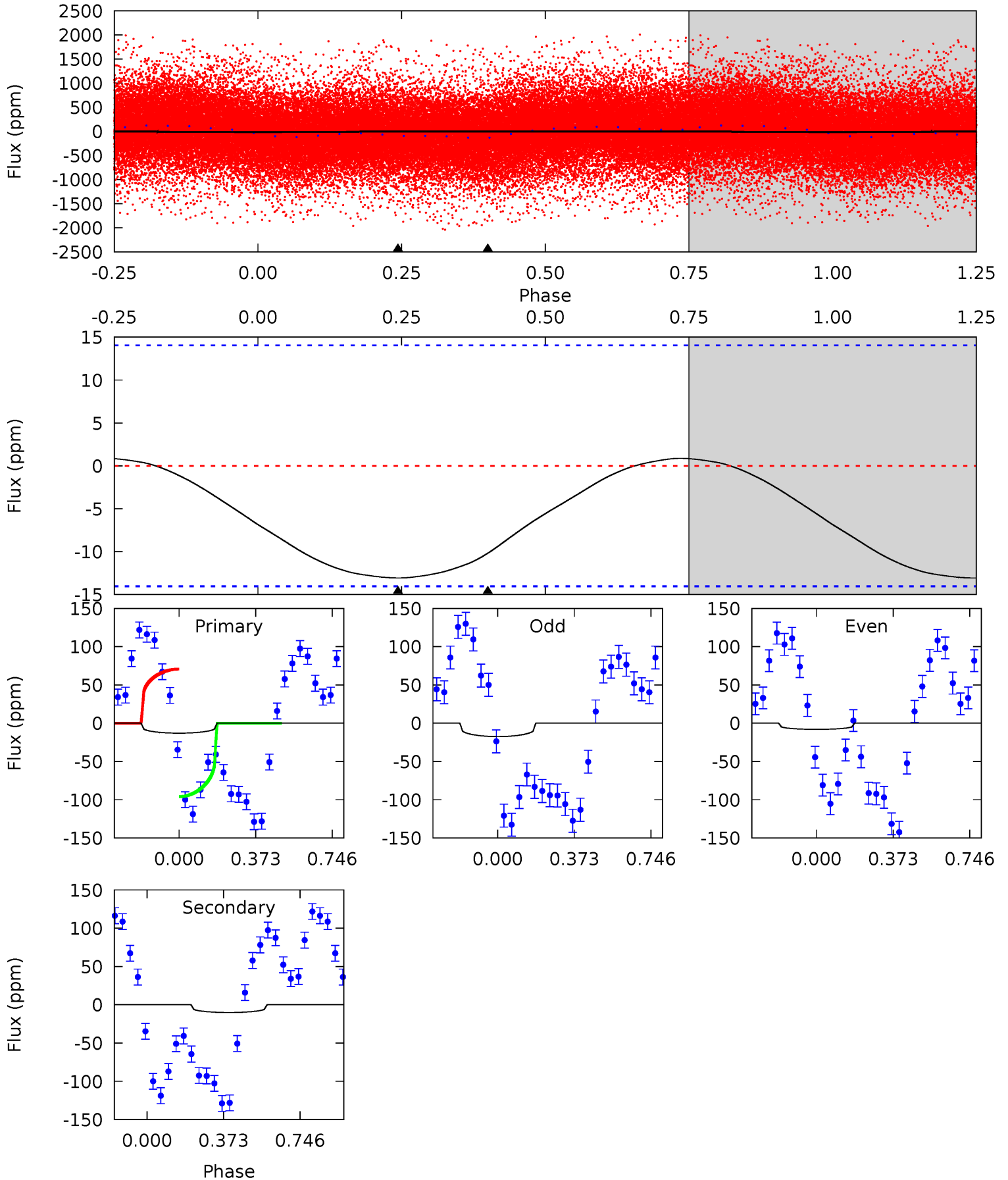
TCE 003837702-01 P= 1.557932 Days $T_0=131.739294$ (BKJD)



DV Model-Shift Uniqueness Test

003837702-01, P = 1.557874 Days, E = 130.177484 Days

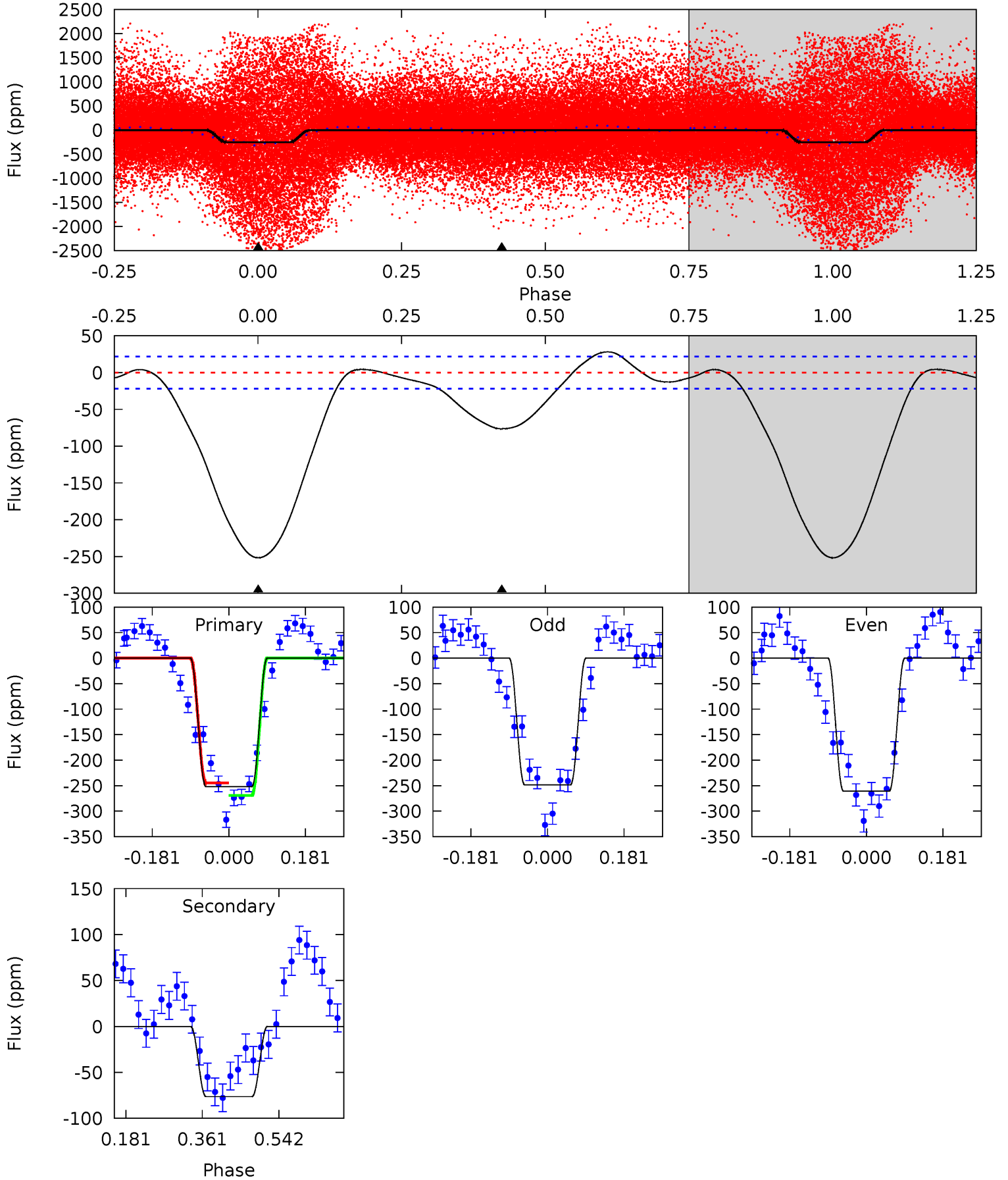
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.98	3.10	0	0	4.28	0.89	0.19	3.98	3.98	3.10	3.10	1.44	0.64	0.06	3.95



Alt Model-Shift Uniqueness Test

003837702-01, P = 1.557932 Days, E = 130.181362 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.2	15.5	0	0	4.44	1.34	2.25	51.2	51.2	15.5	15.5	1.25	0.99	0.10	2.61



Stellar Parameters For KIC 003837702

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6663^{+161}_{-221}	$4.179^{+0.153}_{-0.187}$	$-0.100^{+0.250}_{-0.300}$	$1.538^{+0.494}_{-0.329}$	$1.309^{+0.200}_{-0.220}$	$0.507^{+0.407}_{-0.260}$
	+2%/-3%	+4%/-4%	+250%/-300%	+32%/-21%	+15%/-17%	+80%/-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 003837702-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-10 ± 3	$1.01^{+0.82}_{-0.66}$	3020^{+229}_{-209}	4827^{+3555}_{-1095}	$4.151^{+31.374}_{-2.911}$
Alt.	-76 ± 5	$2.92^{+0.93}_{-0.90}$	3013^{+209}_{-204}	4722^{+870}_{-470}	$4.034^{+4.411}_{-1.720}$

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 $A_{obs} \gg 1.0$

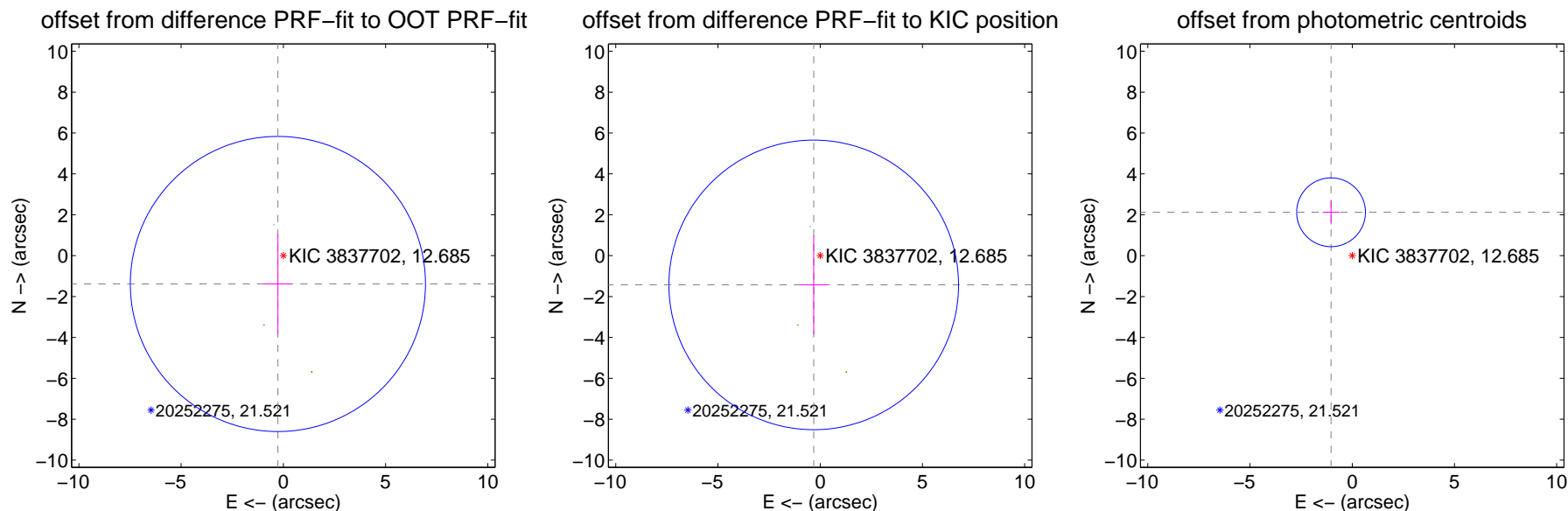
DV Centroid Data

Supplemental centroid analysis for 003837702-01. Kepler magnitude: 12.69. Transit SNR 5.26

There are 1 quarters with good PRF difference image offsets

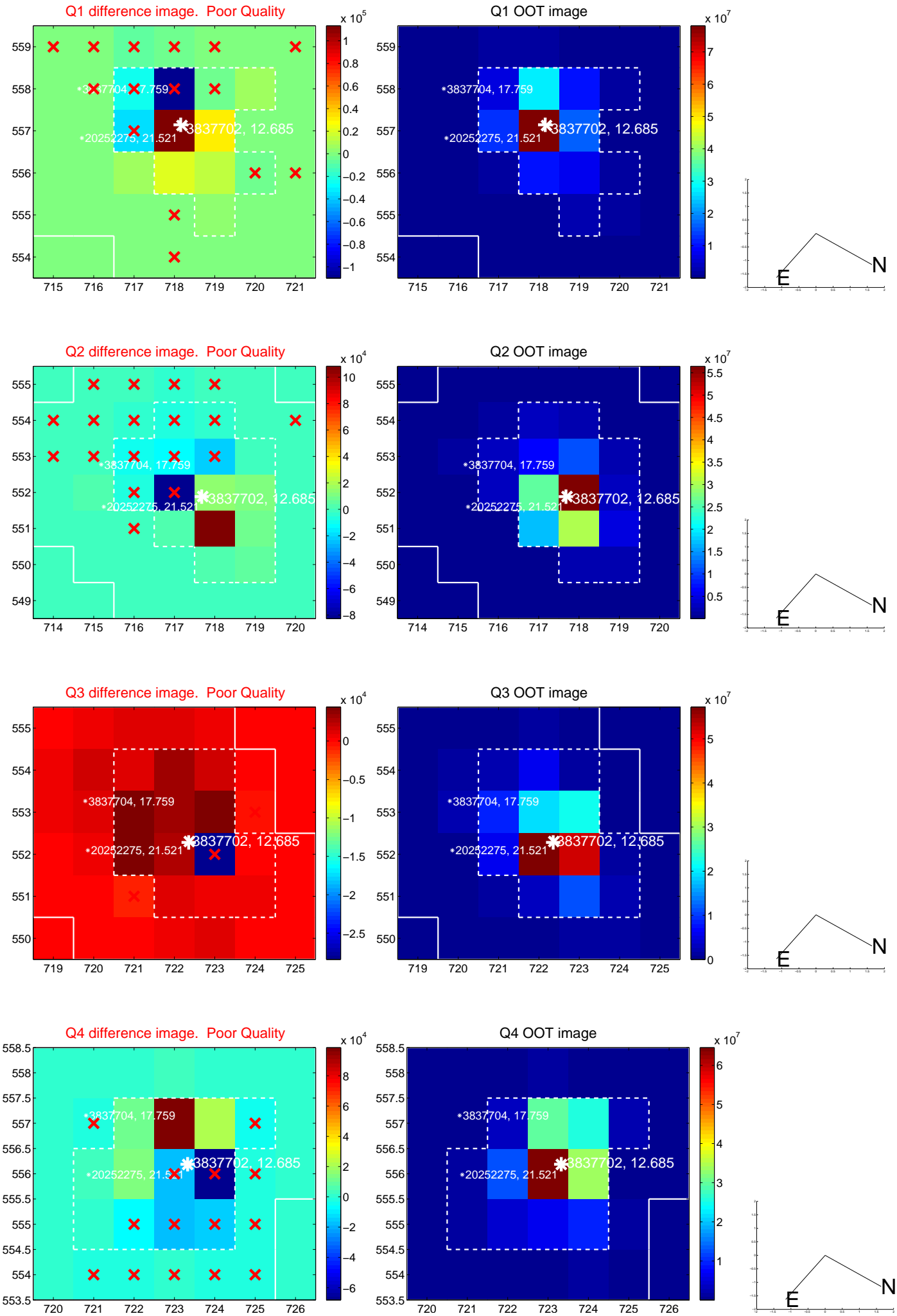
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.412 ± 2.407	0.59	0.267 ± 0.701	-1.386 ± 2.447
PRF-fit source offset from KIC position	1.466 ± 2.362	0.62	0.317 ± 0.667	-1.431 ± 2.414
photometric centroid source offset	2.36 ± 0.56	4.21	1.04 ± 0.41	2.12 ± 0.59

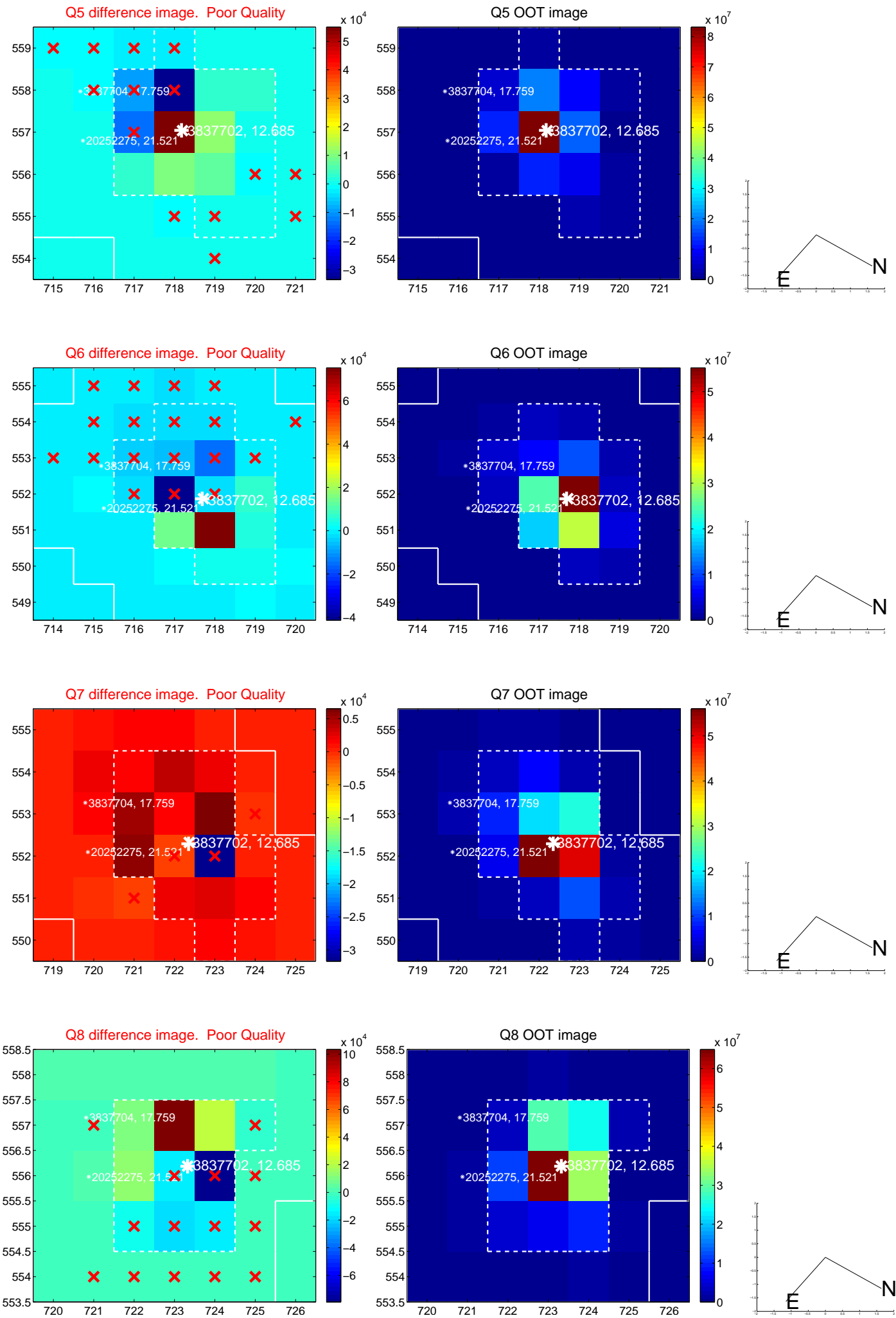


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

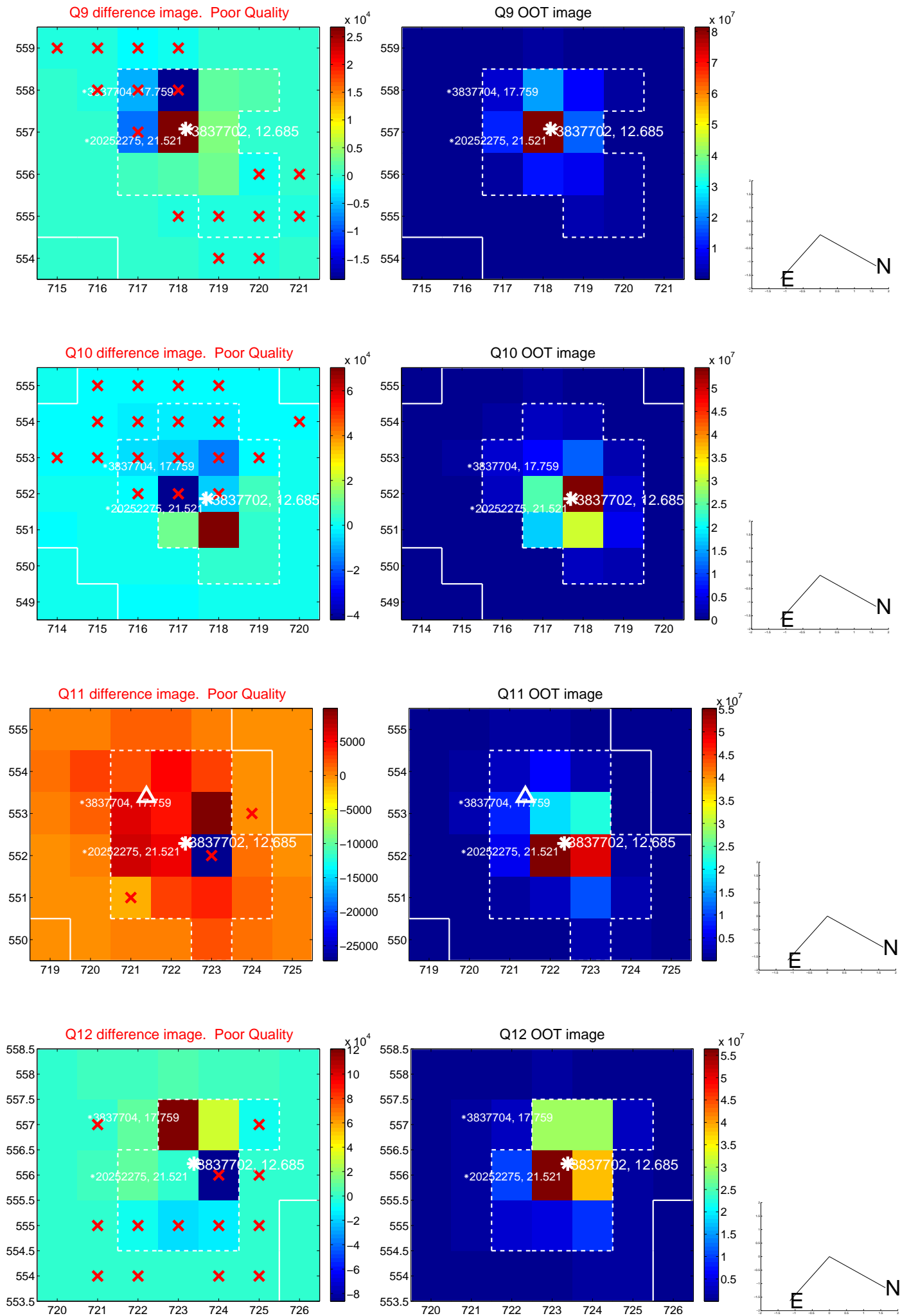
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



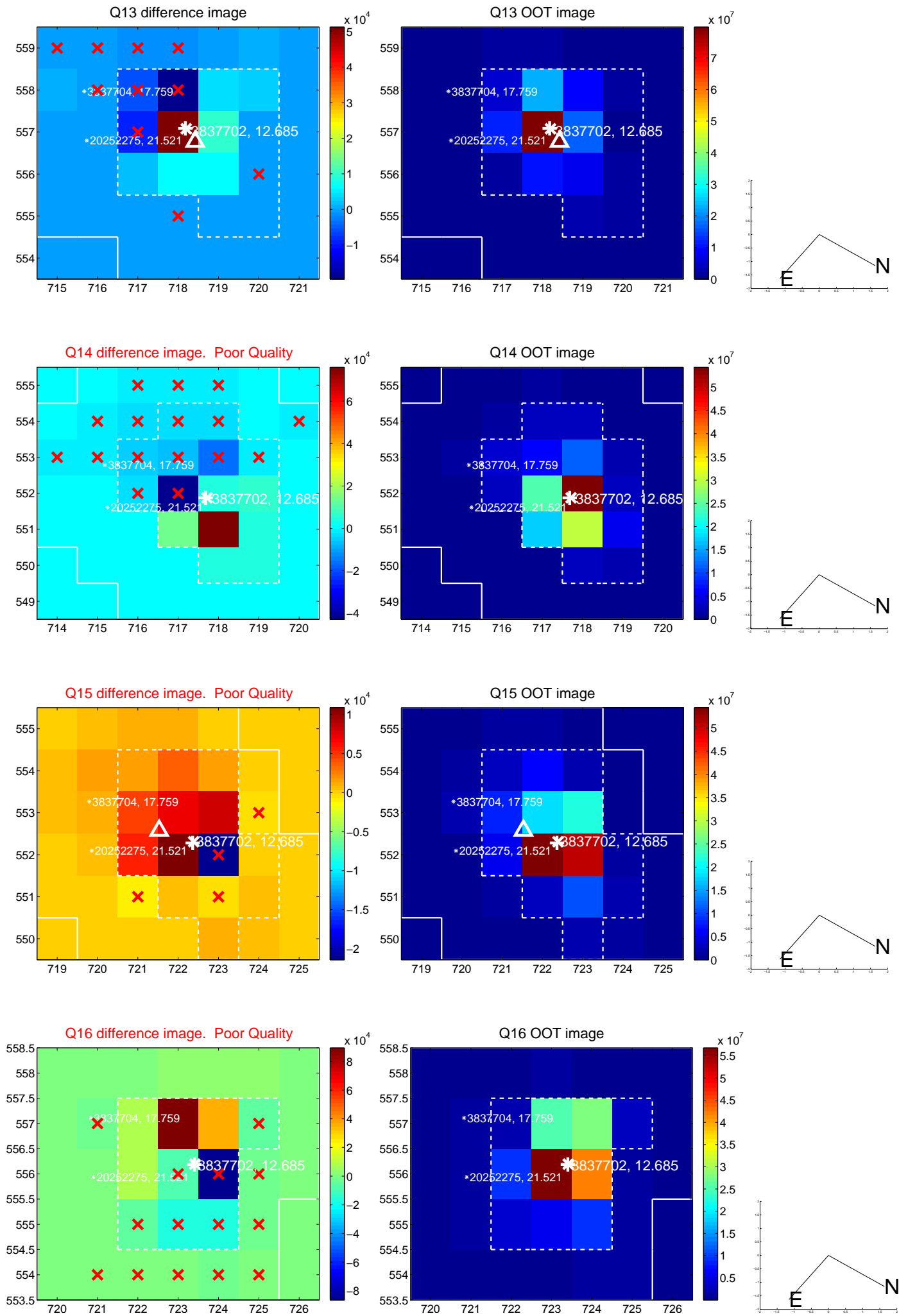
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



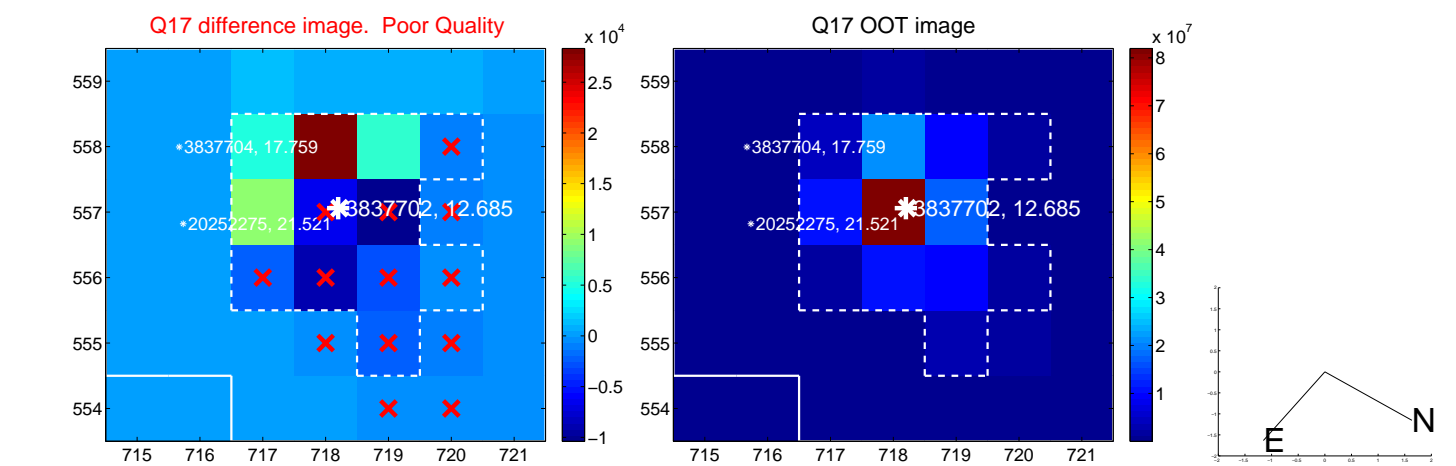
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



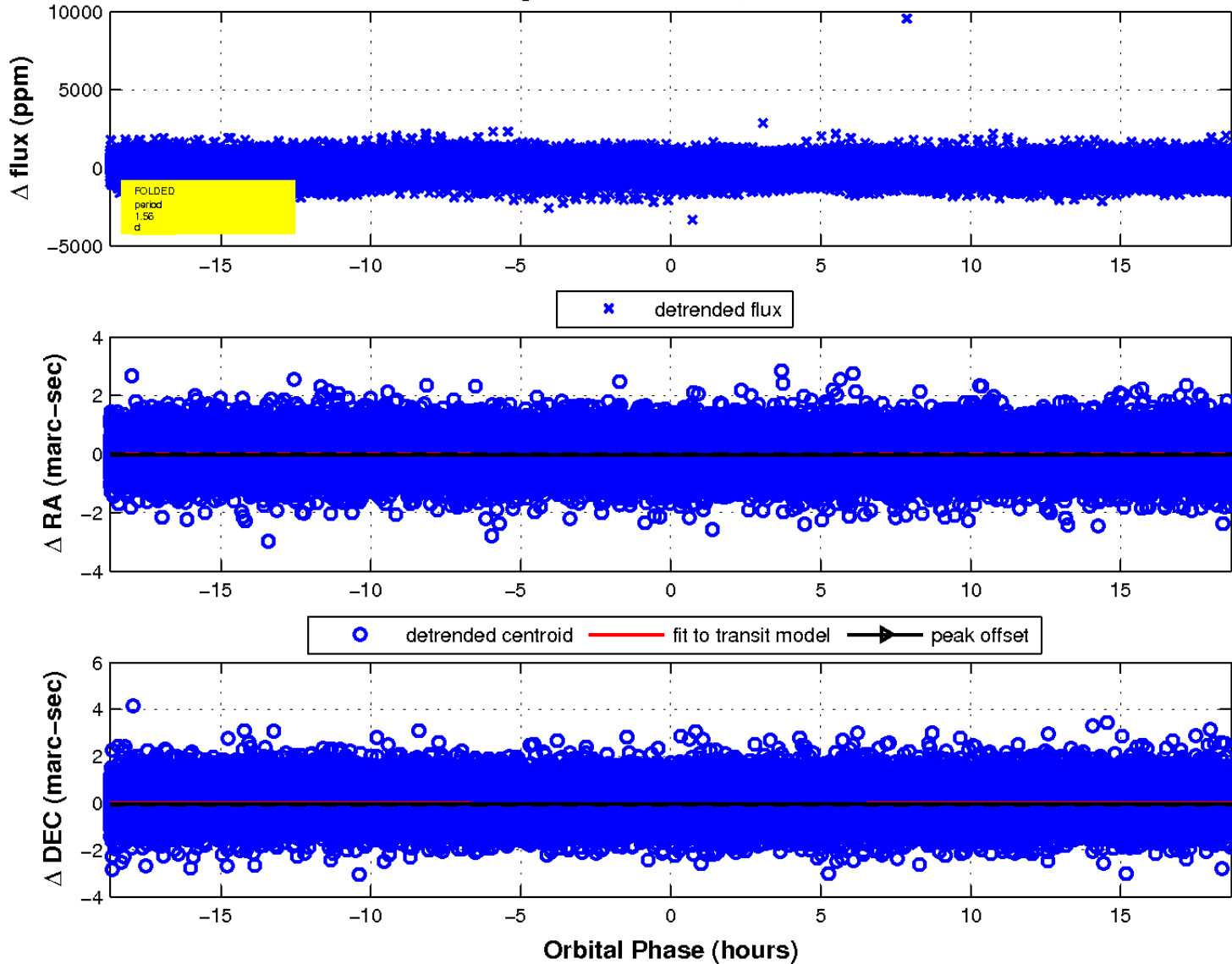
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

