

KIC 004771137

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})
004771137-01	OBS	No	1.095089	132.084348	21.3	3.397	8.7	5.7	3.01	5885	1.63	19963.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004771137-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

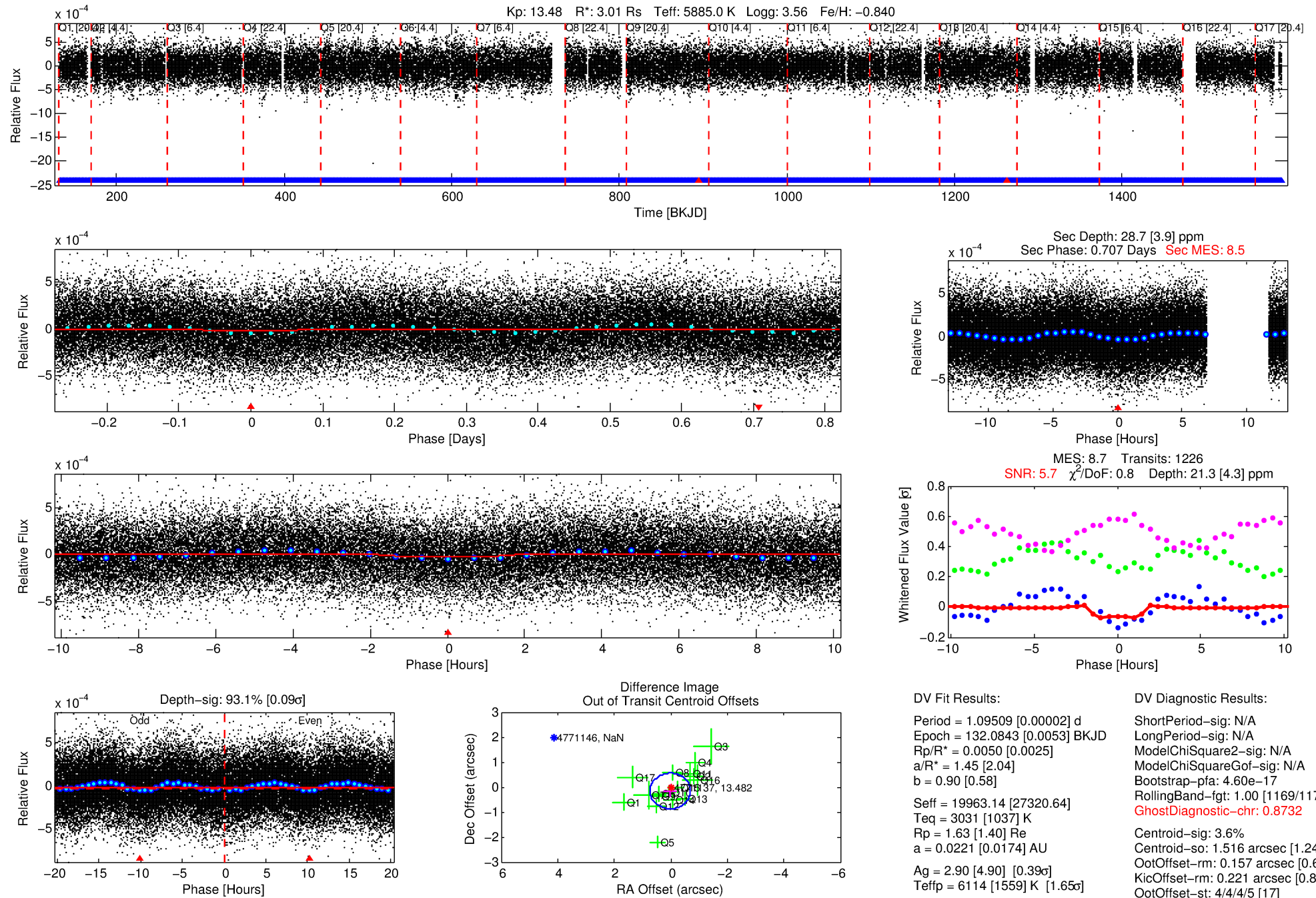
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004771137-01

No Significant Match Found

DV One-Page Summary

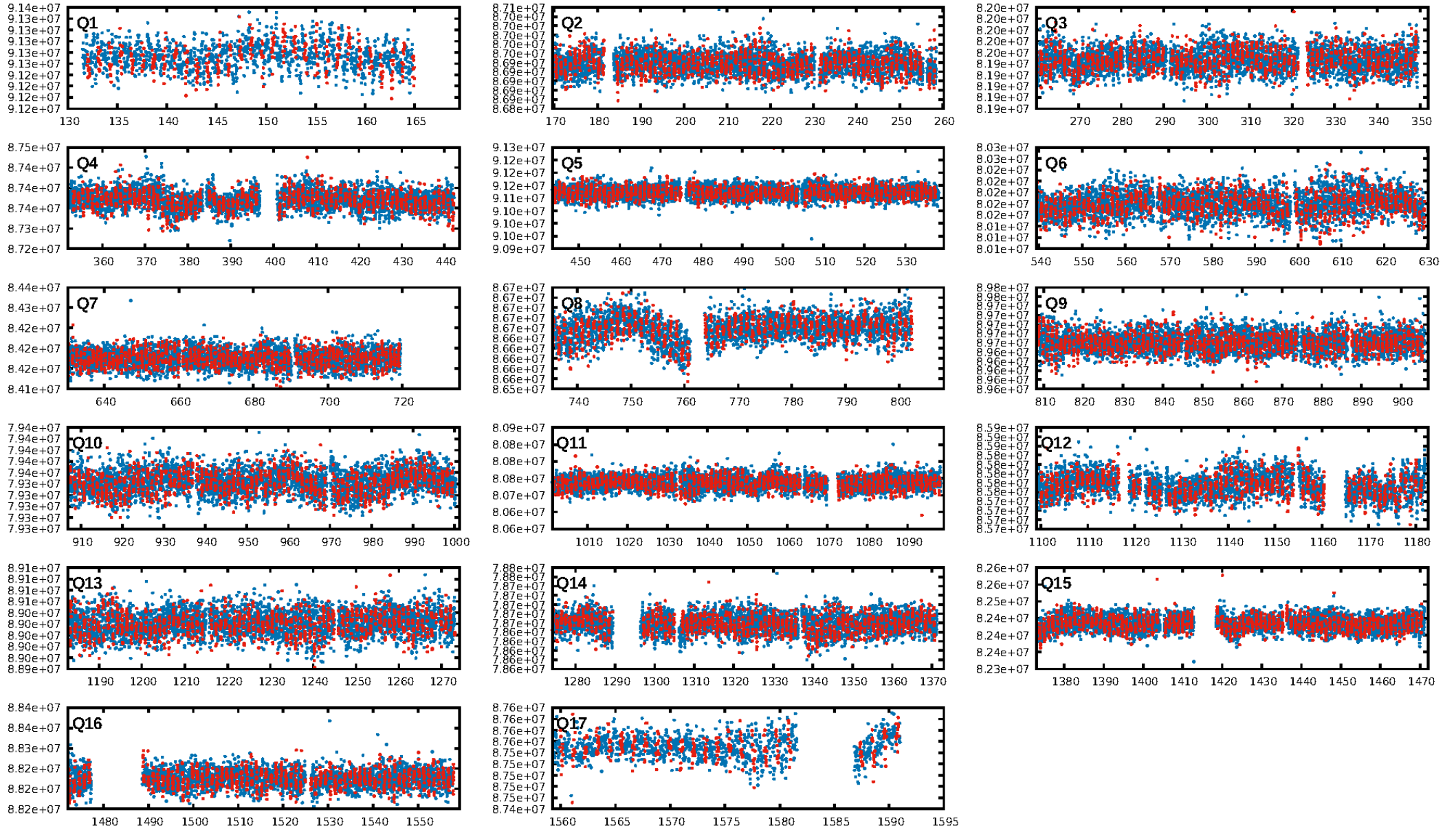
KIC: 4771137 Candidate: 1 of 1 Period: 1.095 d



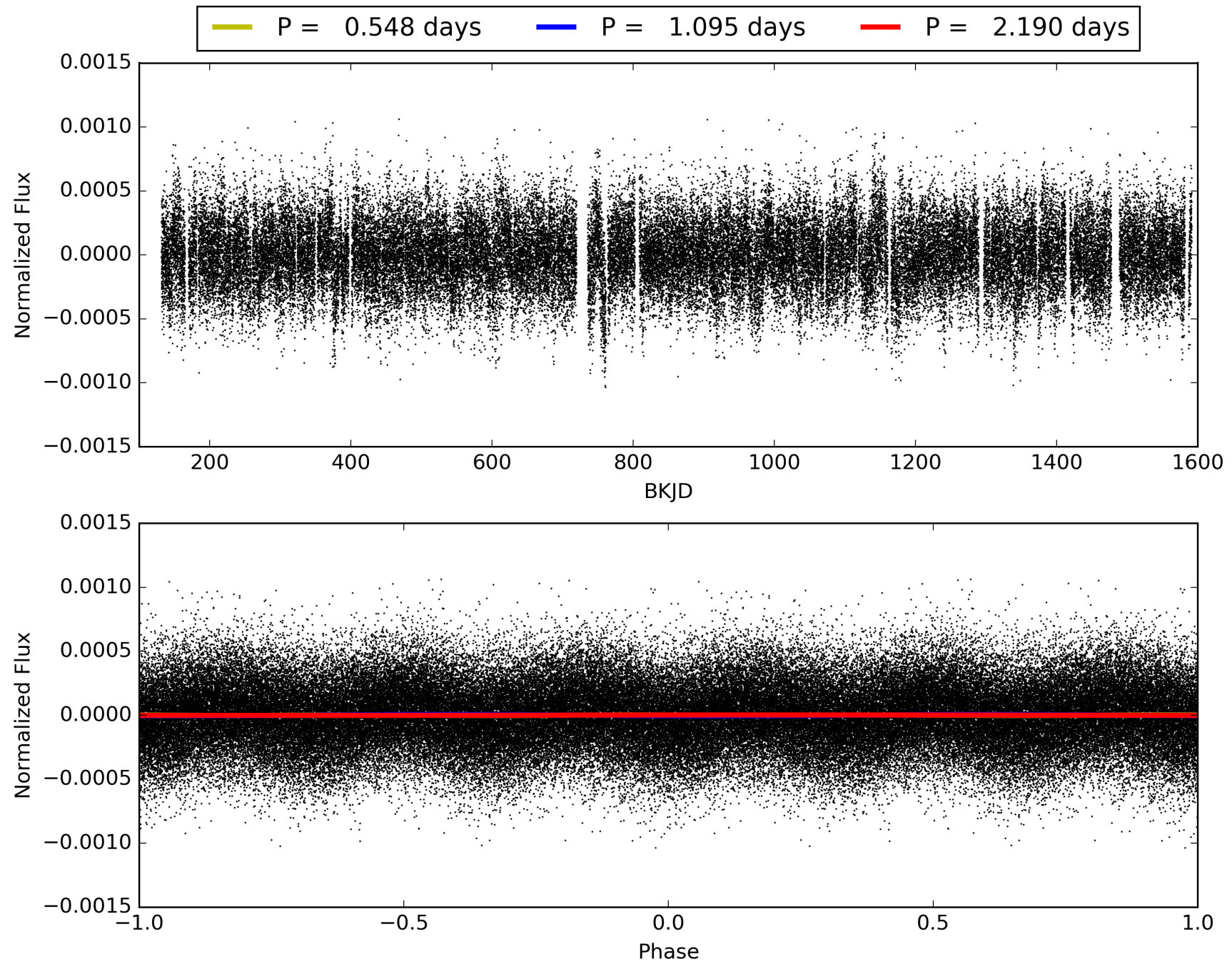
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:59:49 Z

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

TCE 004771137-01, PDC Light Curves

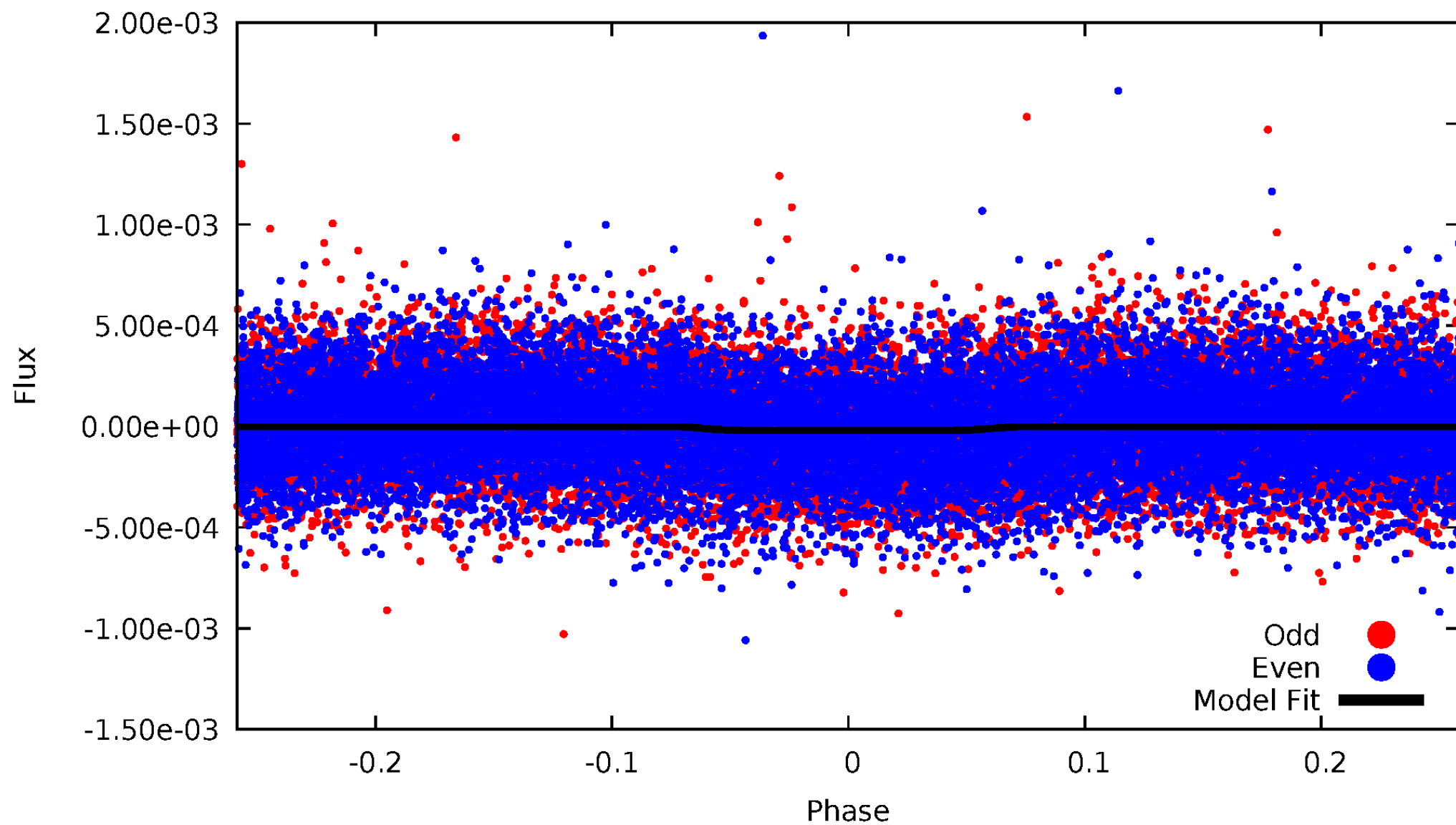


TCE 004771137-01



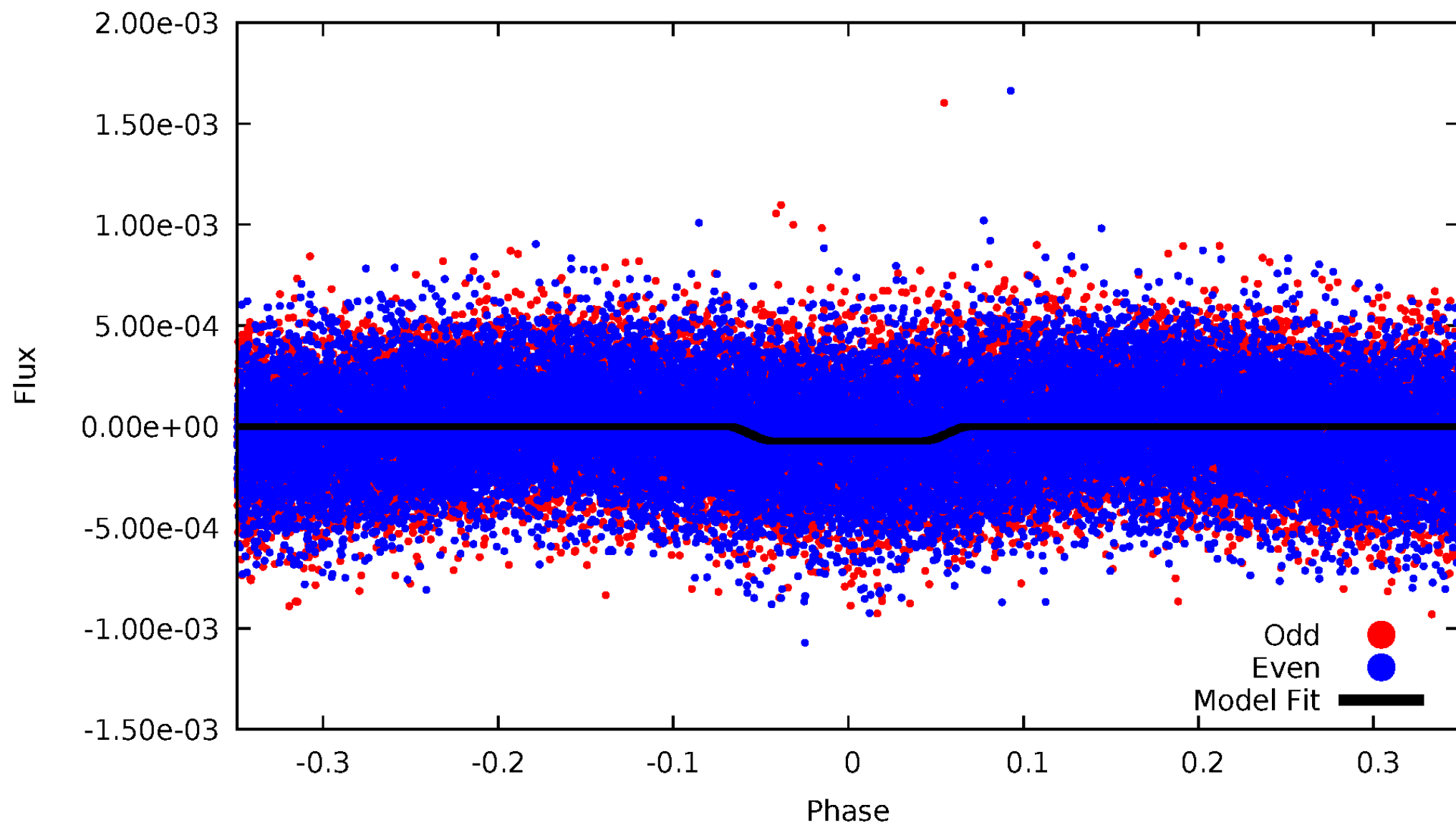
DV Odd/Even

TCE 004771137-01



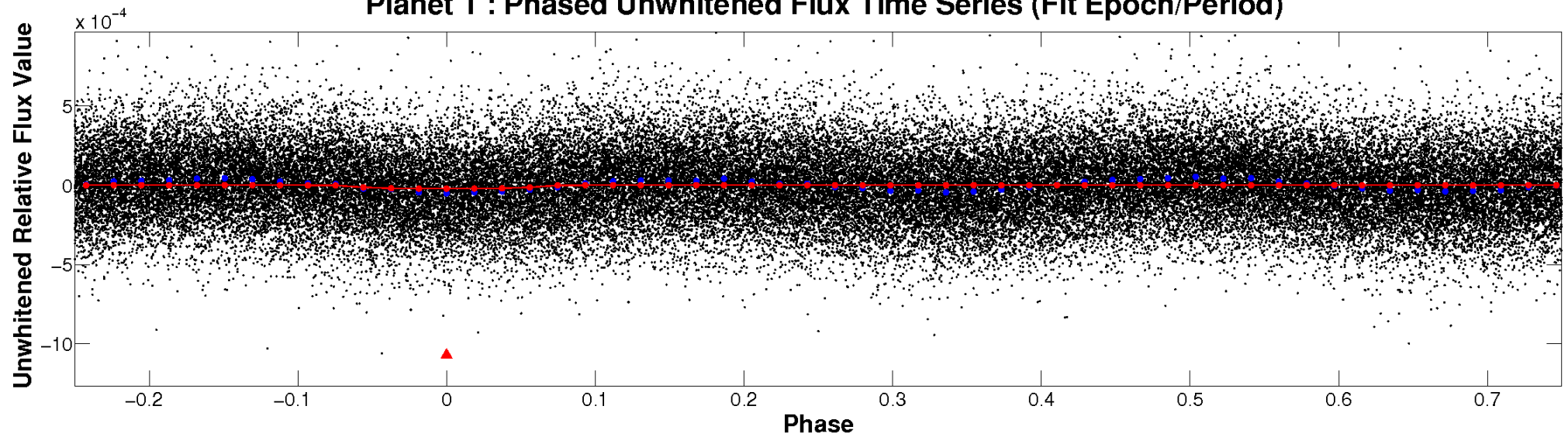
ALT Odd/Even

TCE 004771137-01

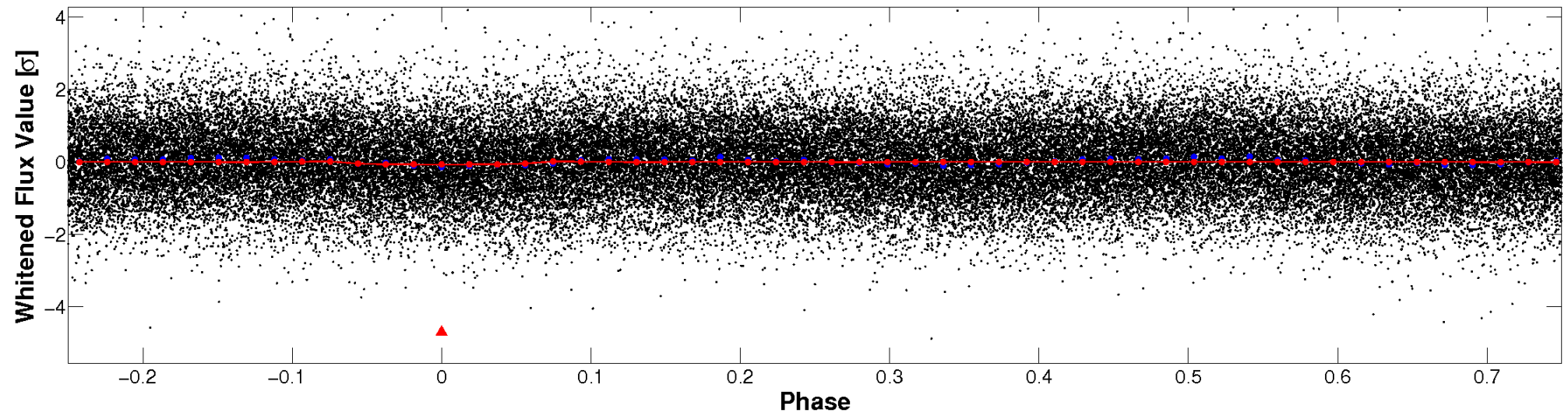


Non-Whitened Vs. Whitened Light Curve

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

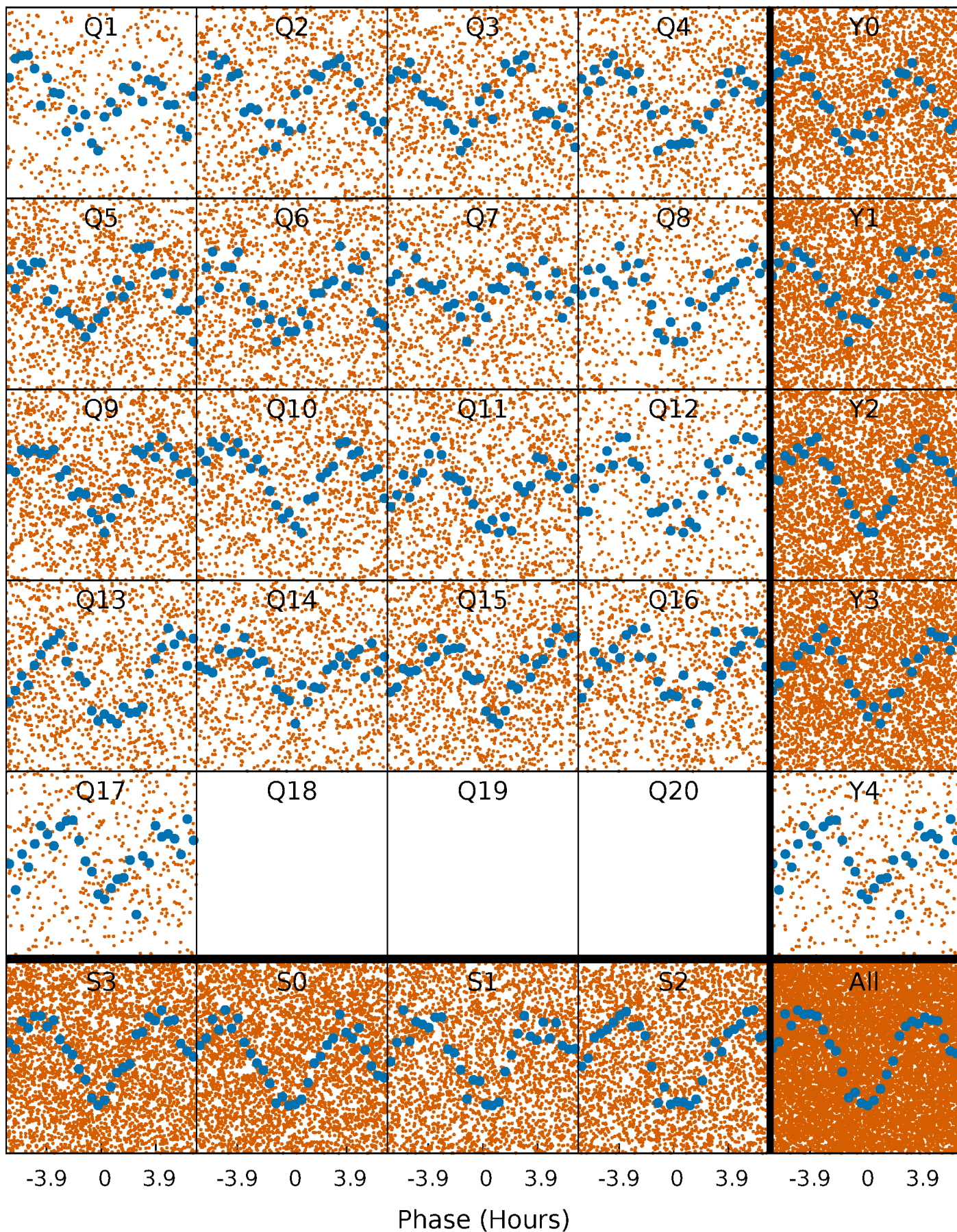


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



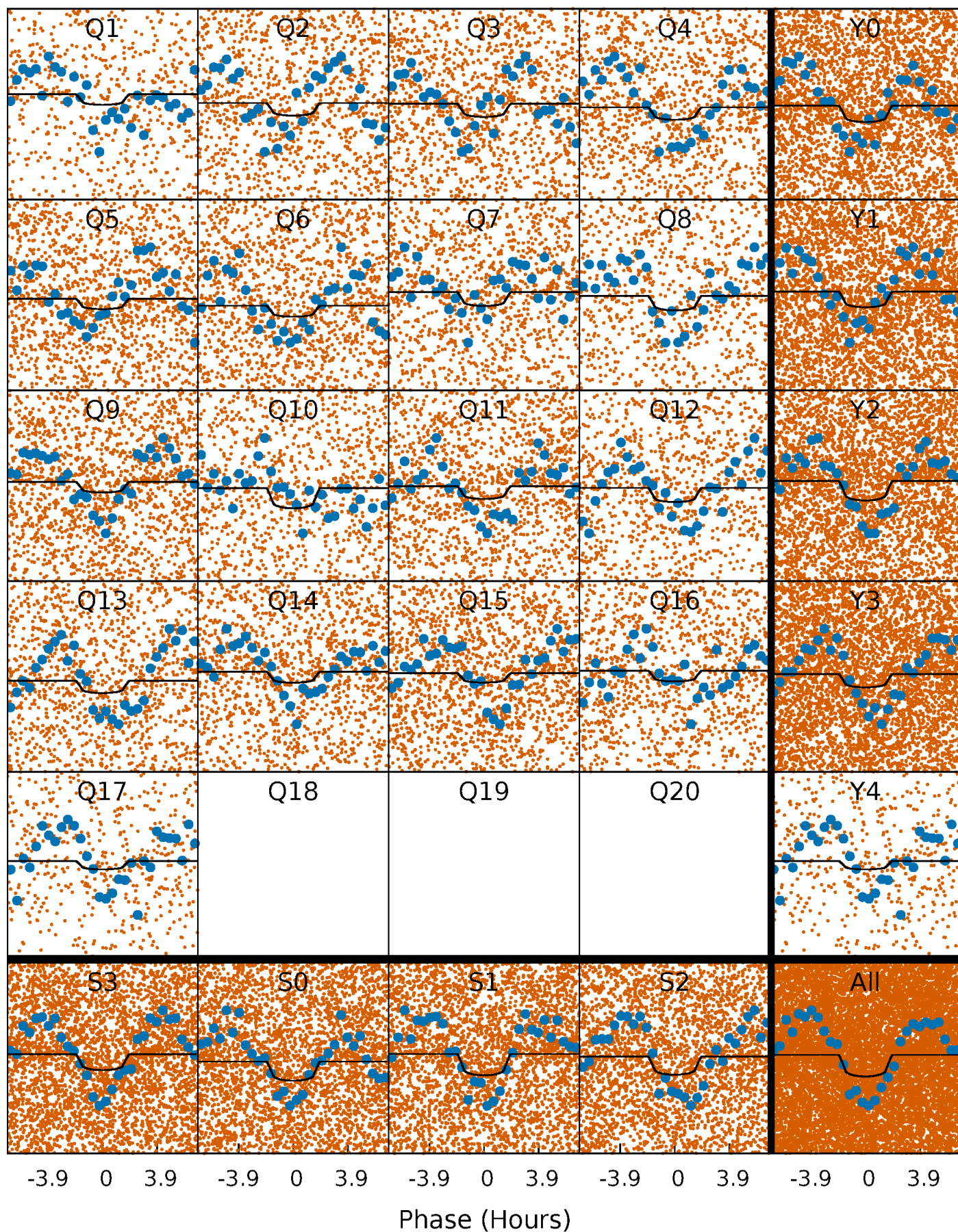
PDC Quarter-Phased Transit Curves

TCE 004771137-01 P= 1.095089 Days $T_0=132.084348$ (BKJD)



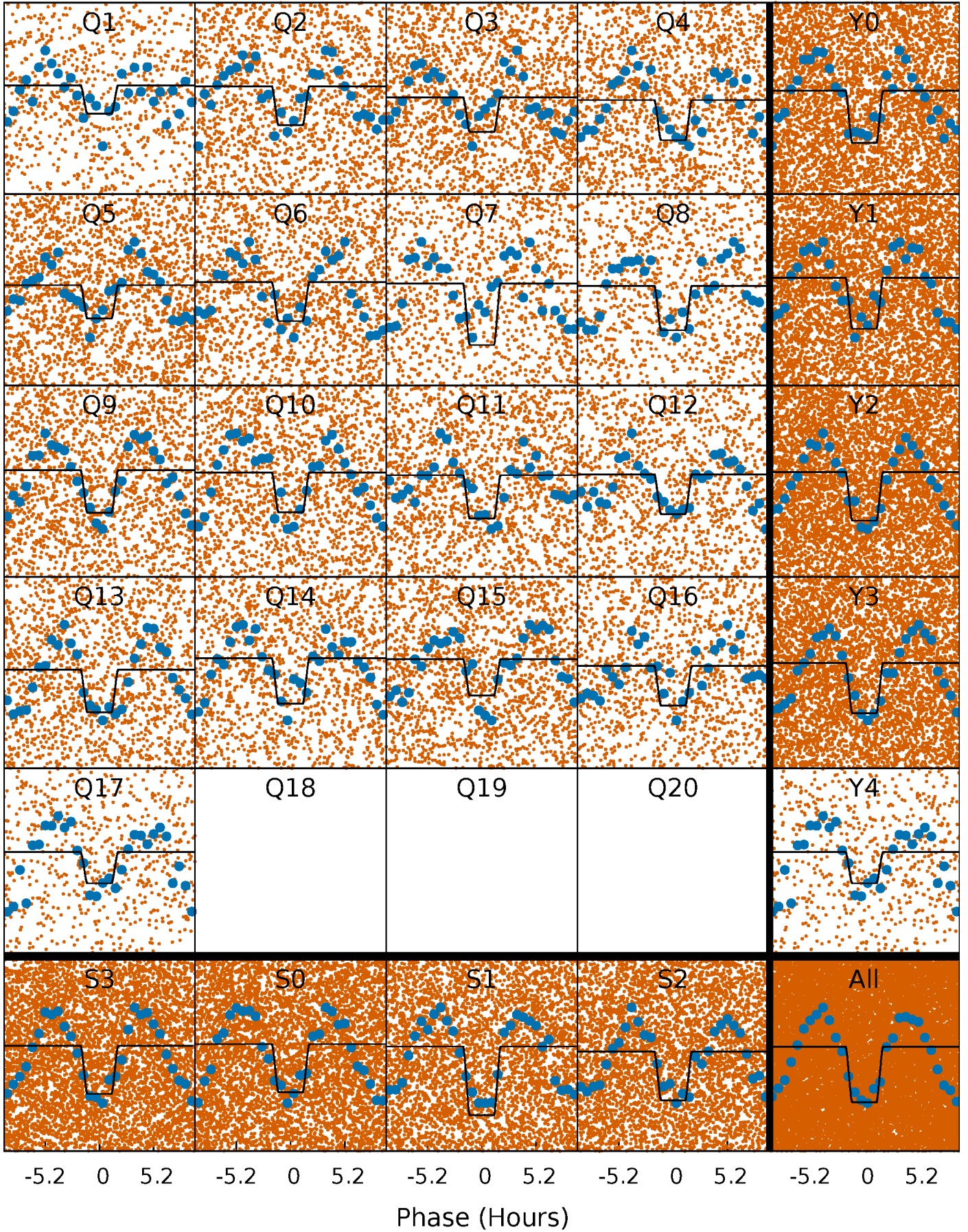
DV Quarter-Phased Transit Curves

TCE 004771137-01 P= 1.095089 Days $T_0=132.084348$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

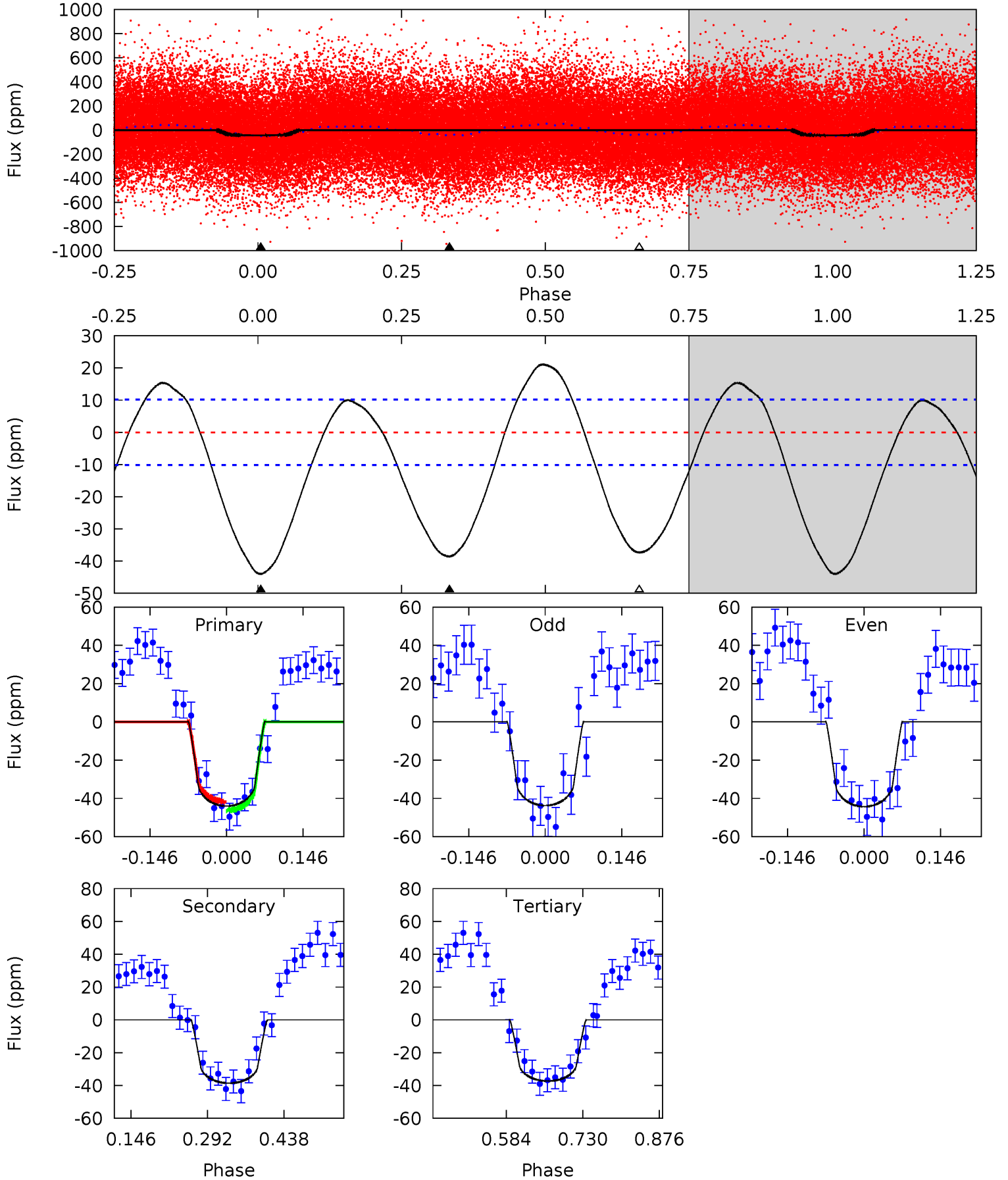
TCE 004771137-01 P= 1.095135 Days $T_0=132.053770$ (BKJD)



DV Model-Shift Uniqueness Test

004771137-01, P = 1.095089 Days, E = 130.989259 Days

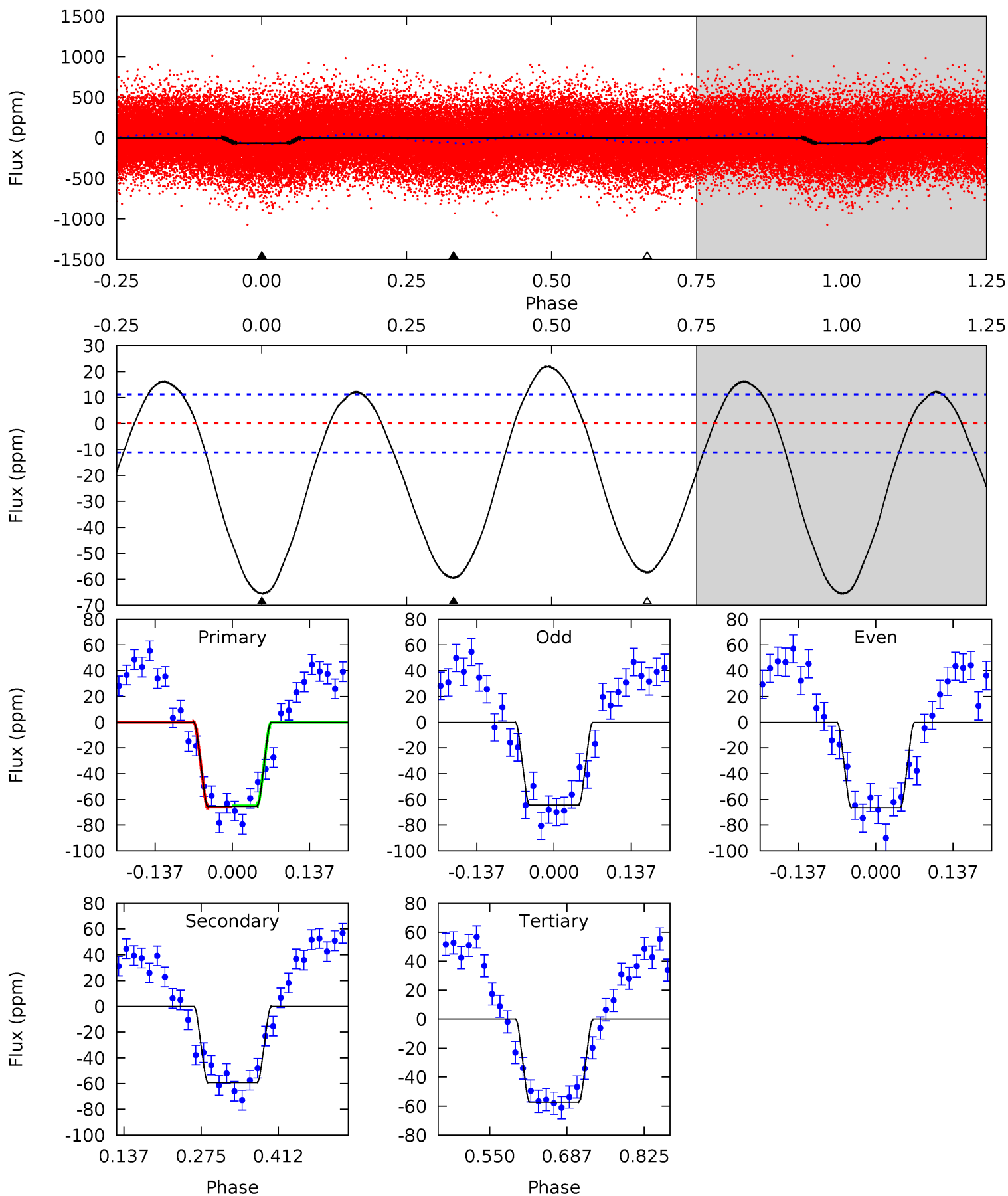
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.4	17.0	16.4	0	4.48	1.45	8.79	2.95	19.4	0.56	17.0	0.13	1.05	0.32	0.97



Alt Model-Shift Uniqueness Test

004771137-01, P = 1.095135 Days, E = 130.958635 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.4	24.0	23.2	0	4.50	1.49	11.0	3.27	26.4	0.84	24.0	0.39	1.09	0.25	0.20



Stellar Parameters For KIC 004771137

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5885^{+235}_{-212}	$3.559^{+0.832}_{-0.208}$	$-0.840^{+0.350}_{-0.250}$	$3.009^{+0.899}_{-2.099}$	$1.196^{+0.202}_{-0.375}$	$0.062^{+1.539}_{-0.033}$
	+4%/-4%	+23%/-6%	+42%/-30%	+30%/-70%	+17%/-31%	+2487%/-53%
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 004771137-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-39 ± 2	$1.40^{+1.01}_{-0.77}$	4134^{+473}_{-721}	6502^{+3460}_{-1273}	$5.171^{+18.814}_{-3.349}$
Alt.	-59 ± 2	$2.54^{+1.14}_{-1.09}$	4160^{+429}_{-718}	5450^{+1146}_{-714}	$2.458^{+4.683}_{-1.262}$

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

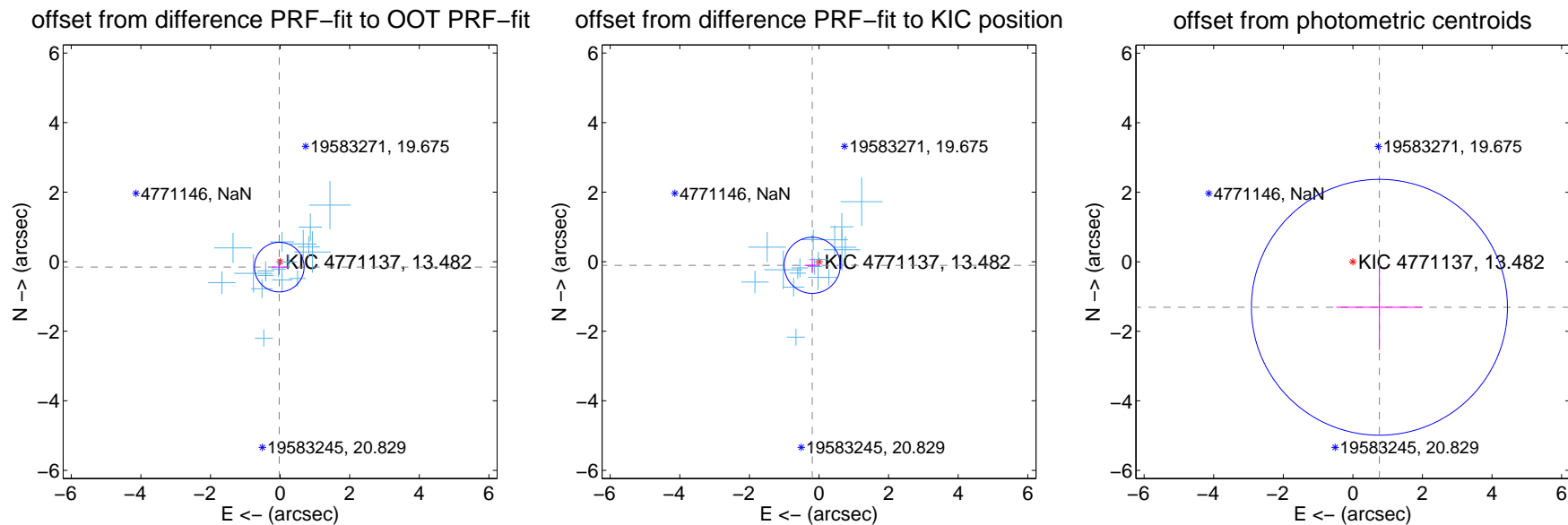
DV Centroid Data

Supplemental centroid analysis for 004771137-01. Kepler magnitude: 13.48. Transit SNR 5.70

There are 17 quarters with good PRF difference image offsets

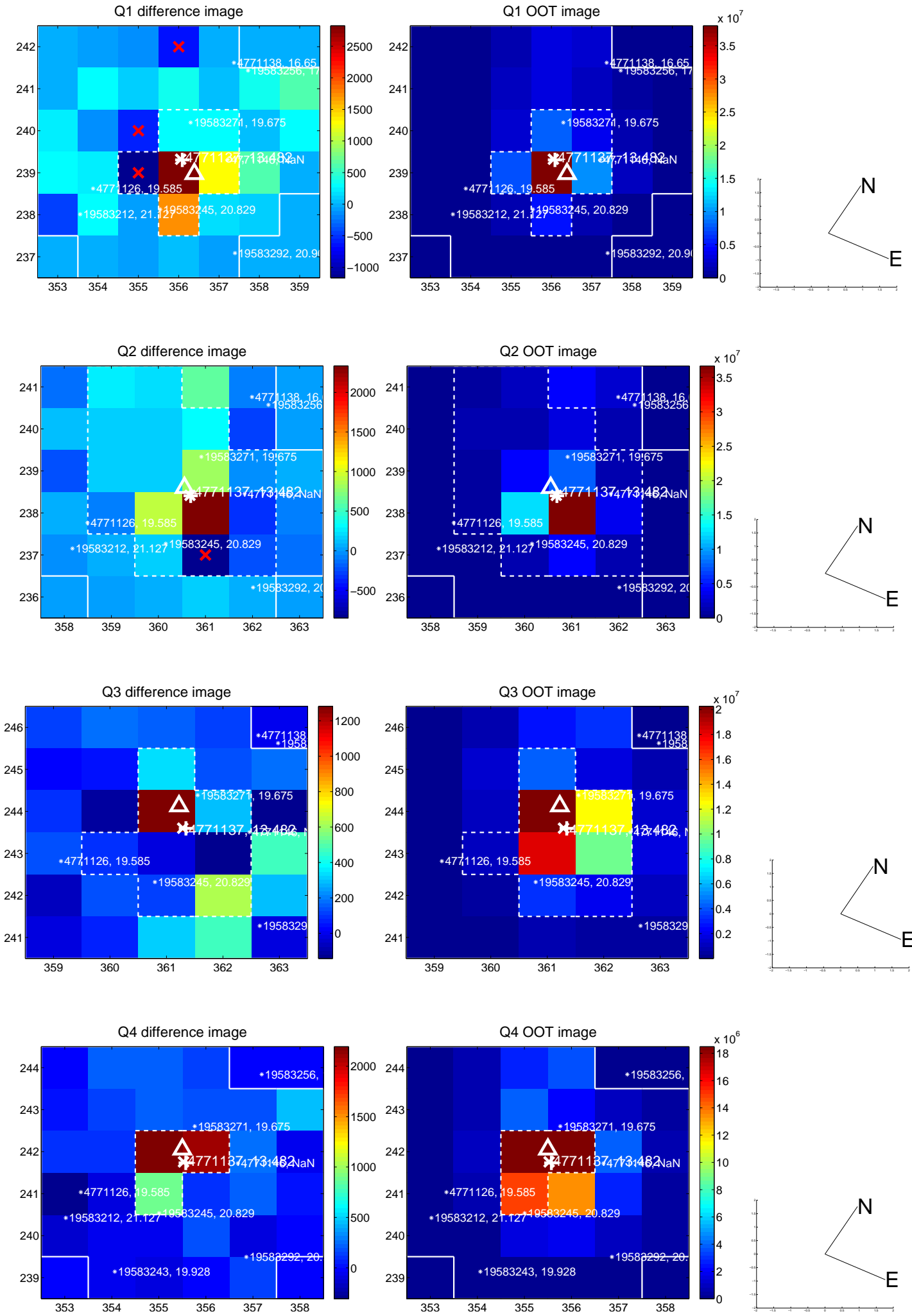
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.157 ± 0.238	0.66	0.024 ± 0.216	-0.155 ± 0.220
PRF-fit source offset from KIC position	0.221 ± 0.269	0.82	0.194 ± 0.223	-0.104 ± 0.224
photometric centroid source offset	1.52 ± 1.23	1.24	-0.76 ± 1.24	-1.31 ± 1.22

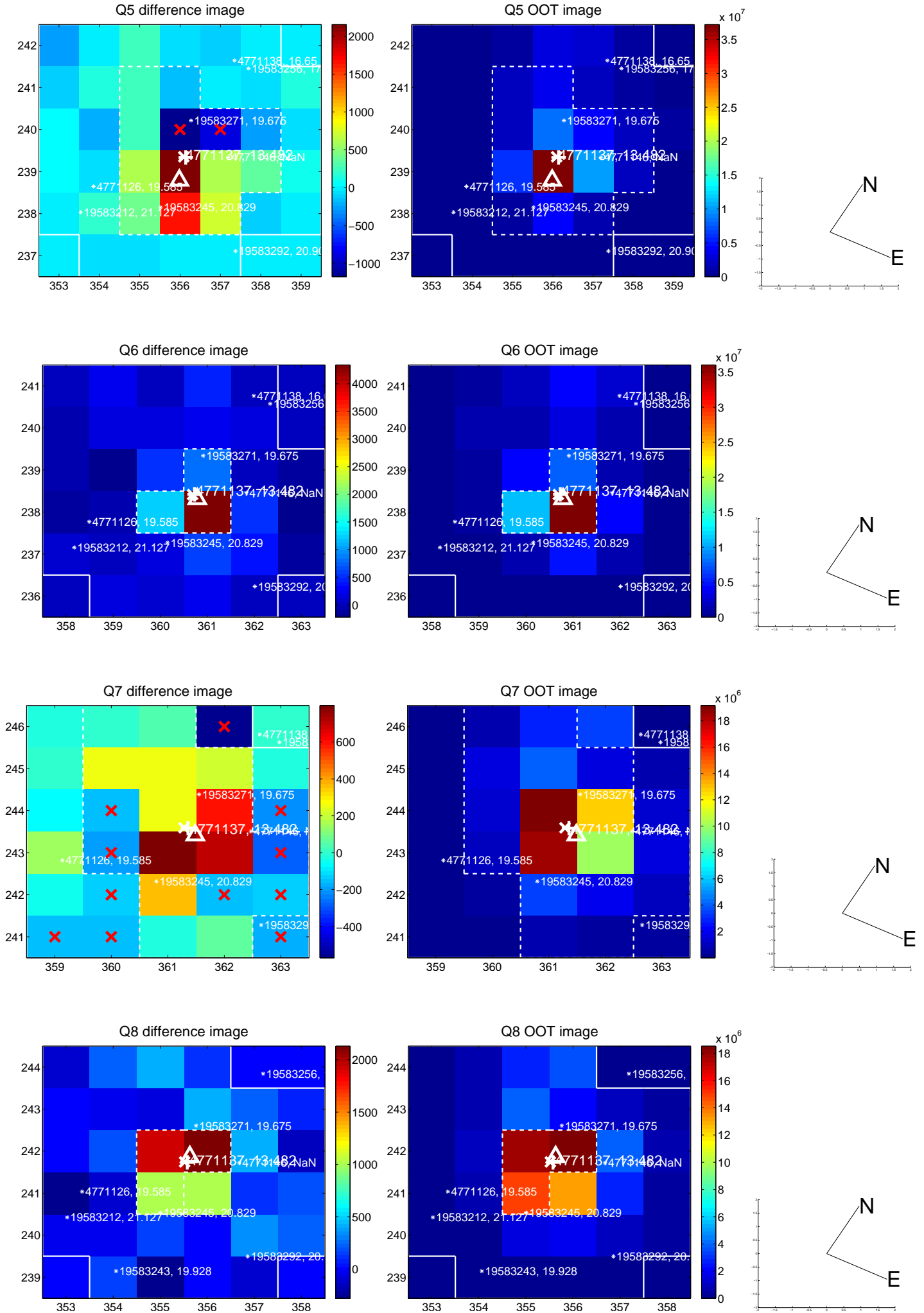


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

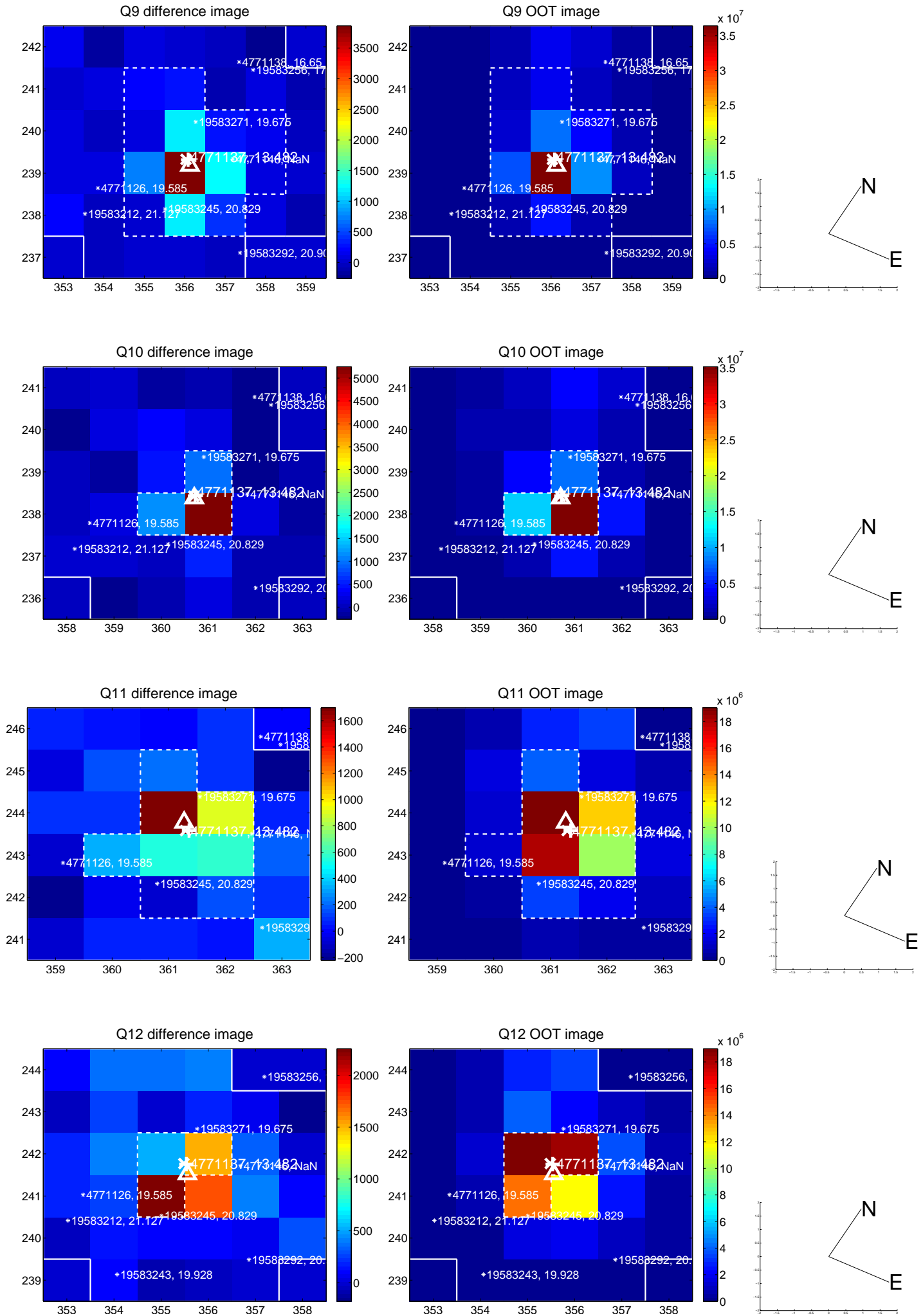
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



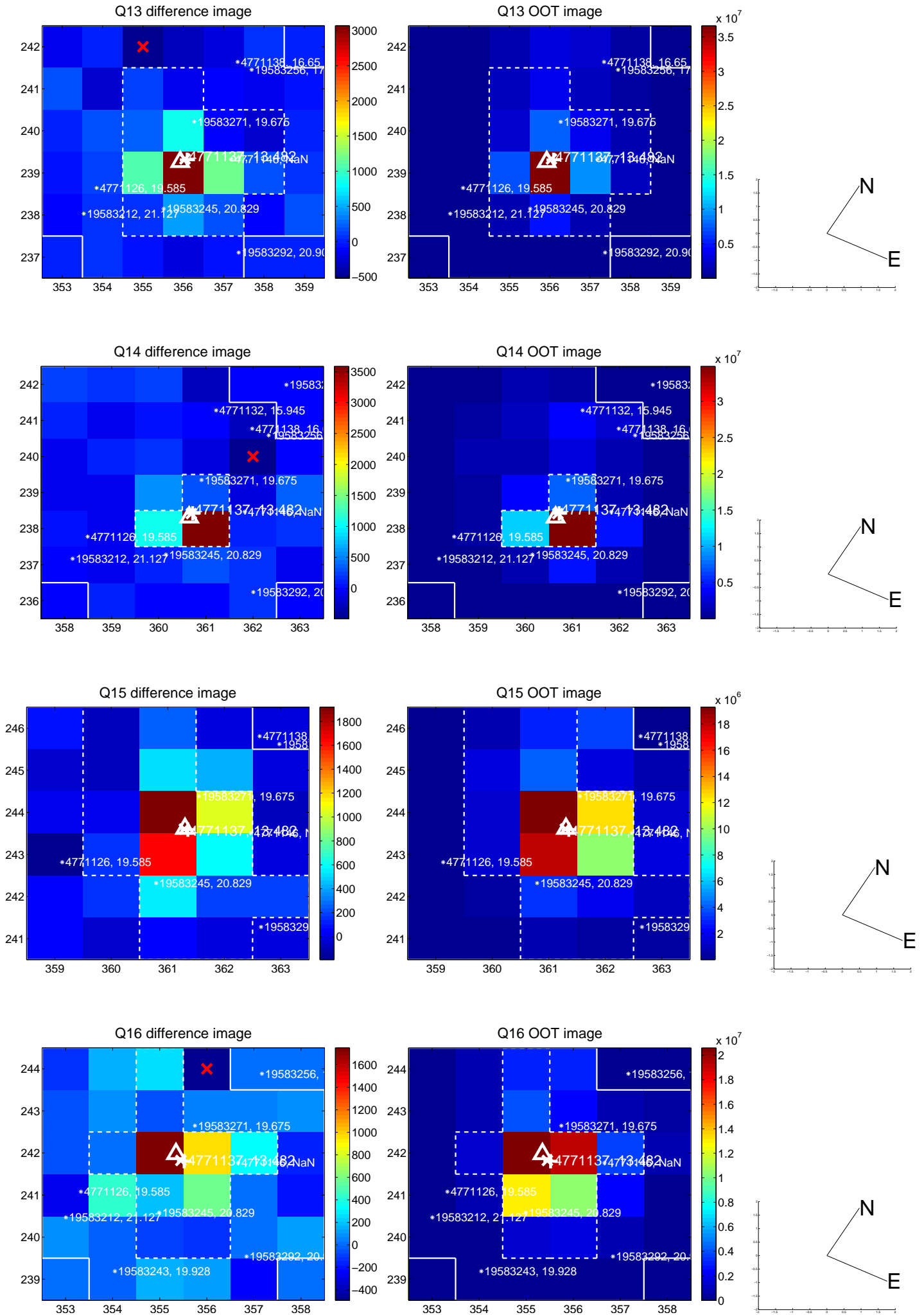
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



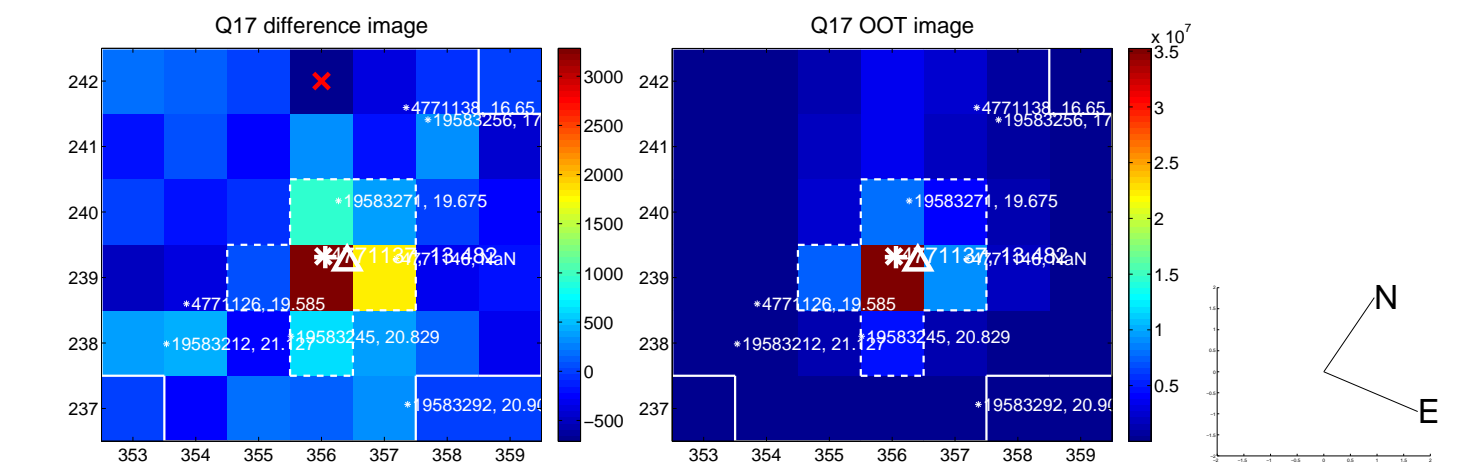
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



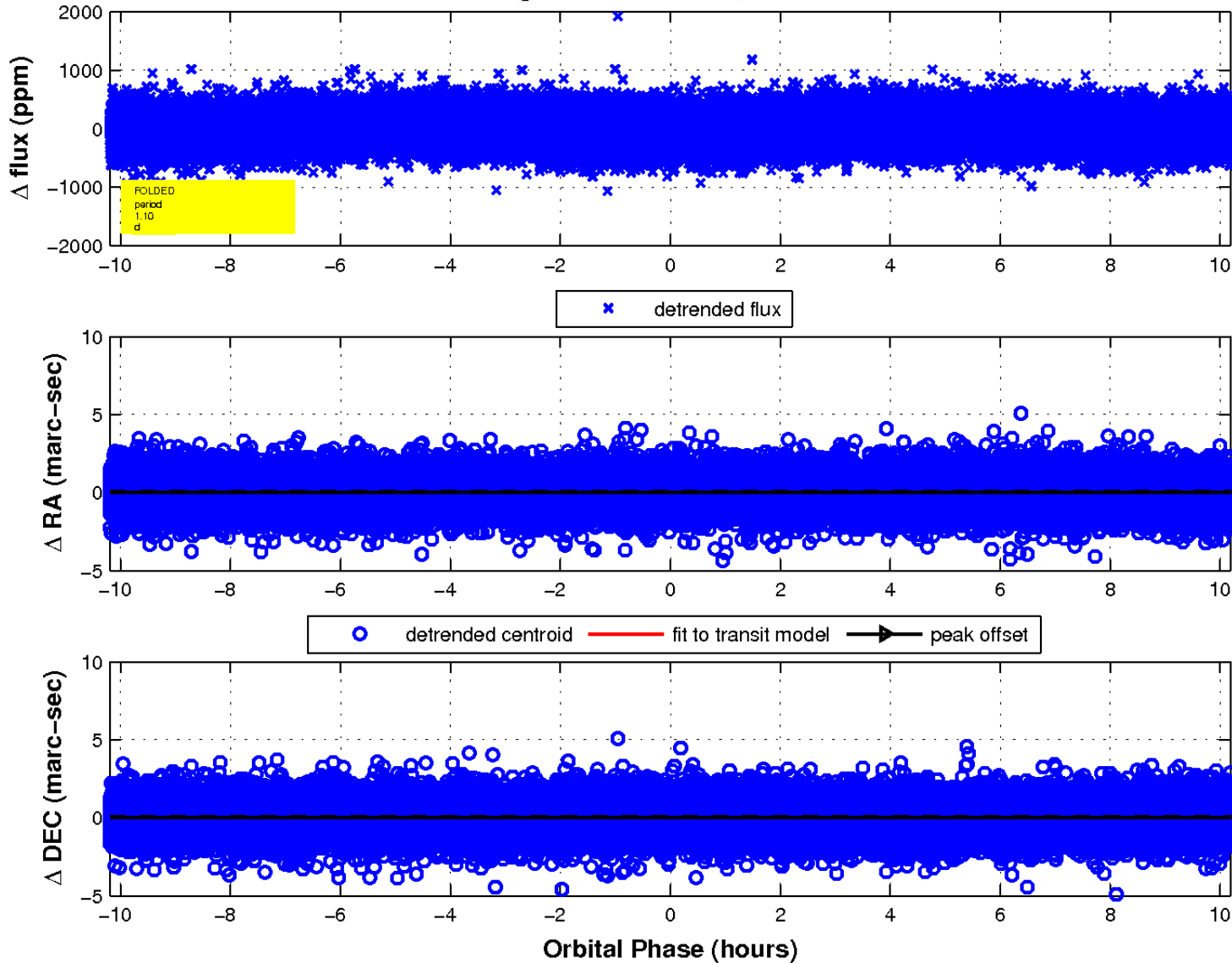
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

