

KIC 007751542

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})
007751542-01	OBS	No	0.611202	131.821796	36.7	1.322	9.3	7.3	1.12	6306	0.79	8092.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007751542-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNRESOLVED_OFFSET

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

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

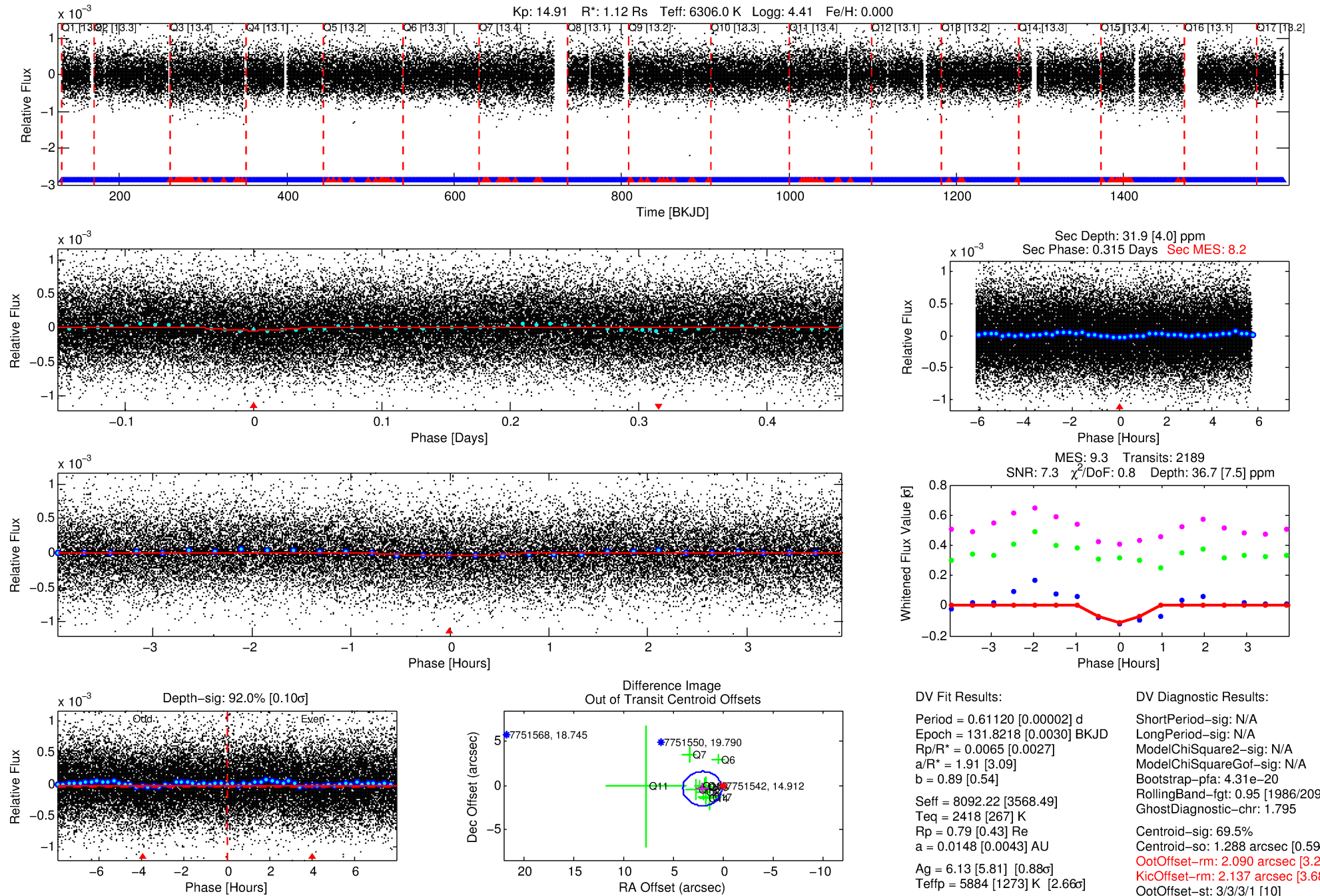
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007751542-01

No Significant Match Found

DV One-Page Summary

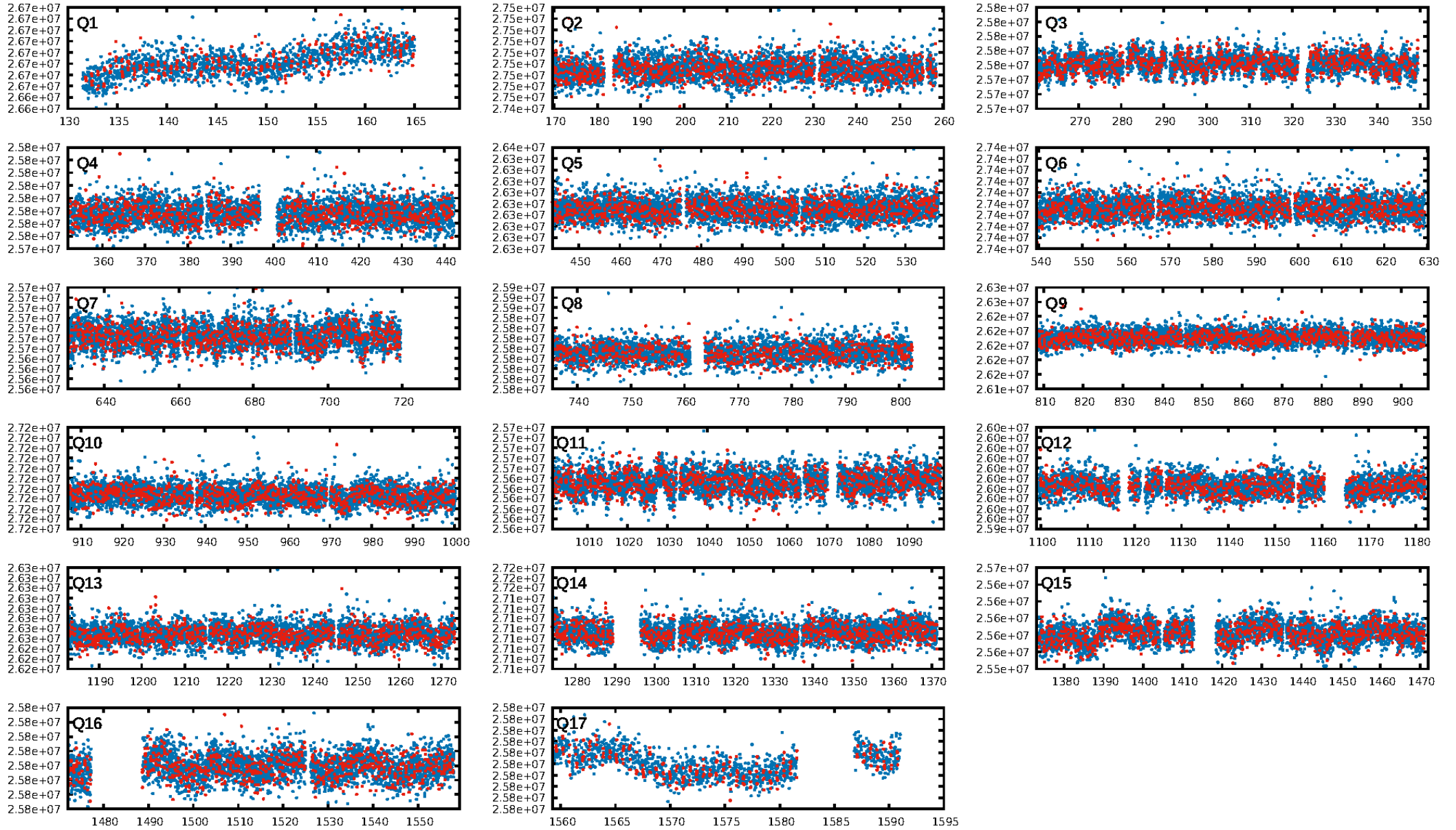
KIC: 7751542 Candidate: 1 of 1 Period: 0.611 d



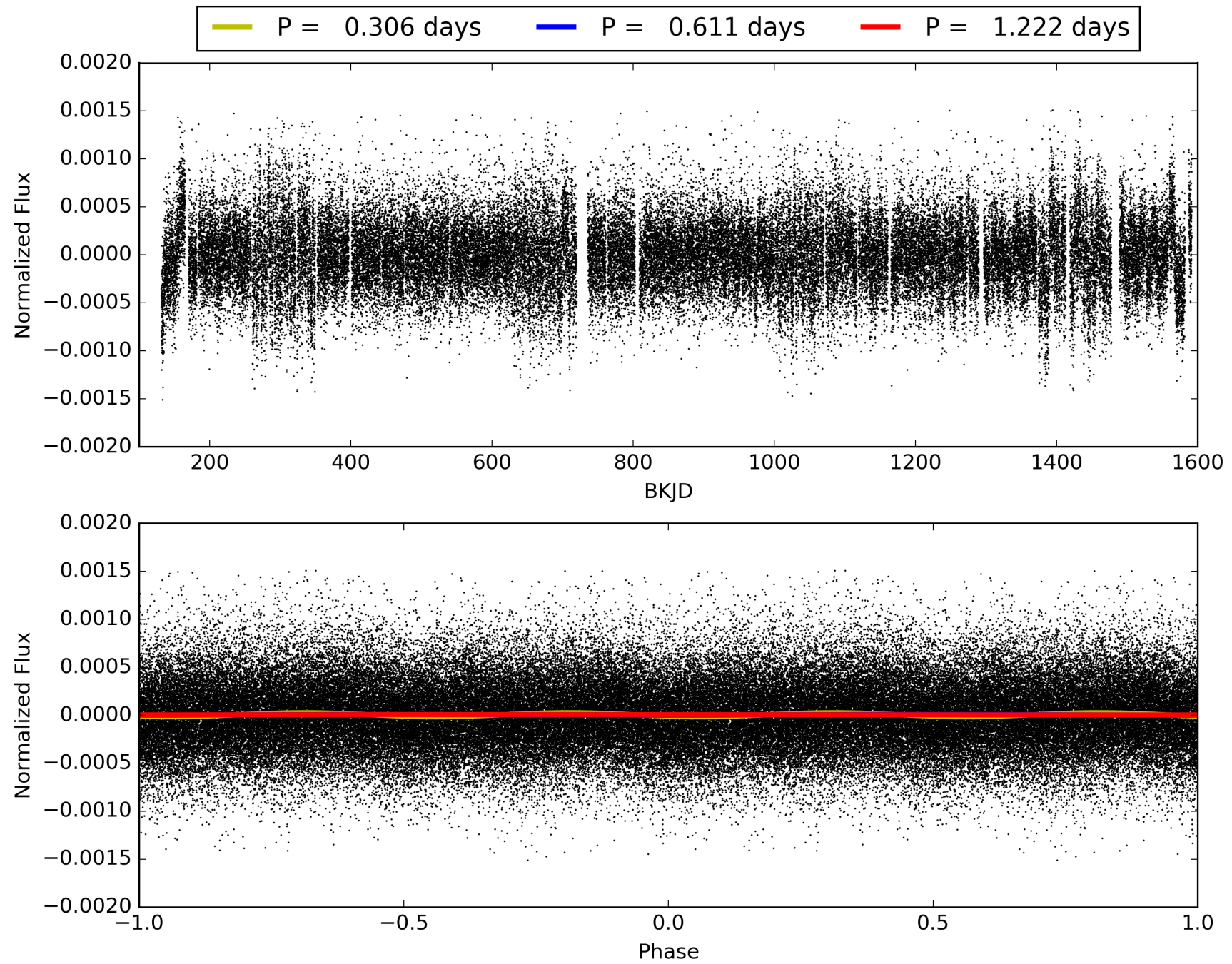
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:12:33 Z

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

TCE 007751542-01, PDC Light Curves

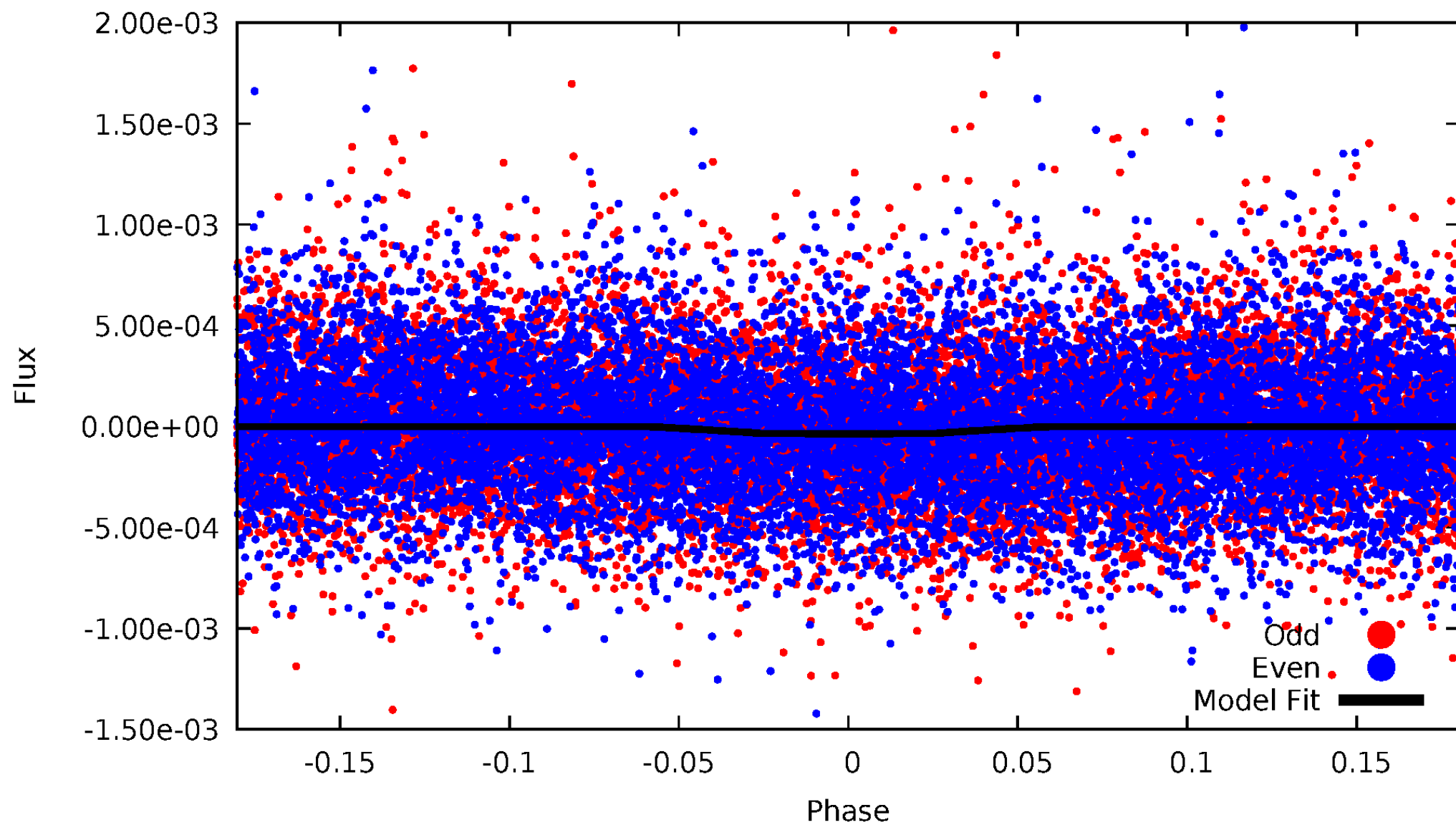


TCE 007751542-01



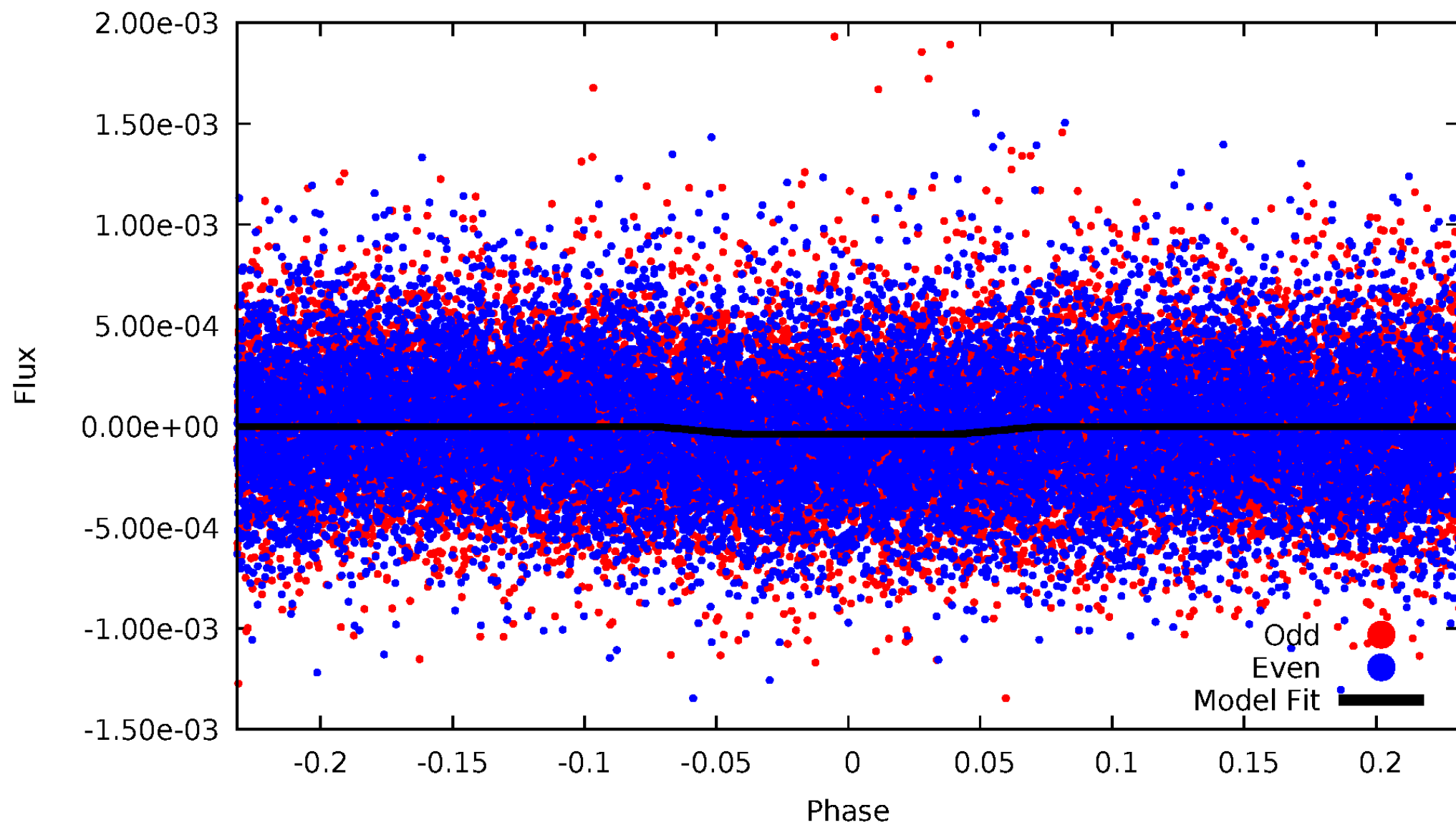
DV Odd/Even

TCE 007751542-01

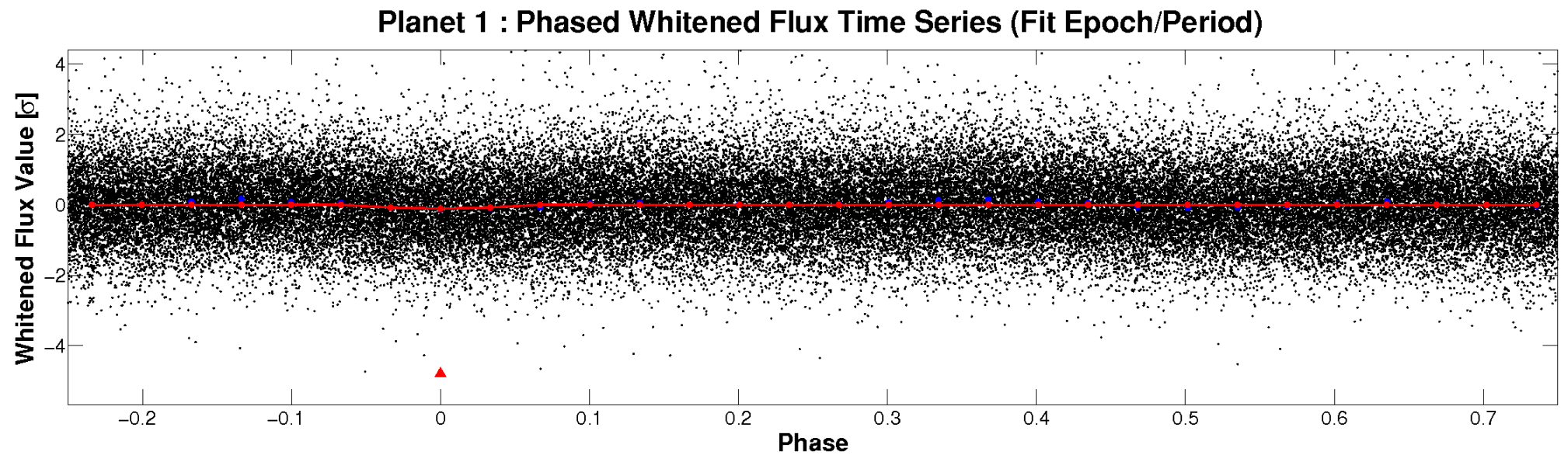
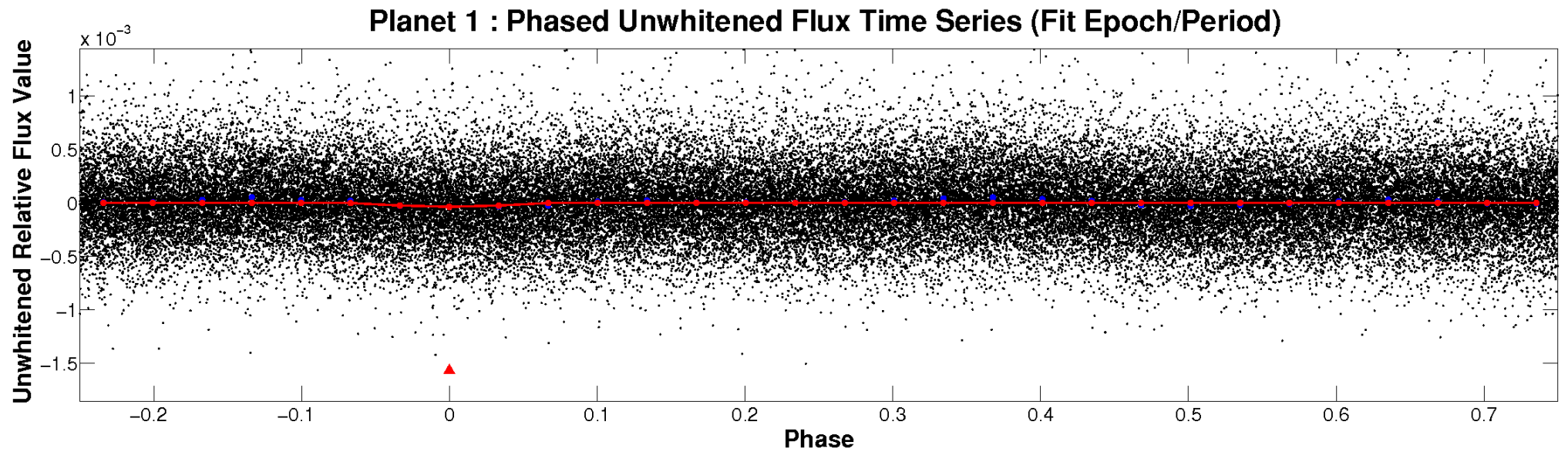


ALT Odd/Even

TCE 007751542-01

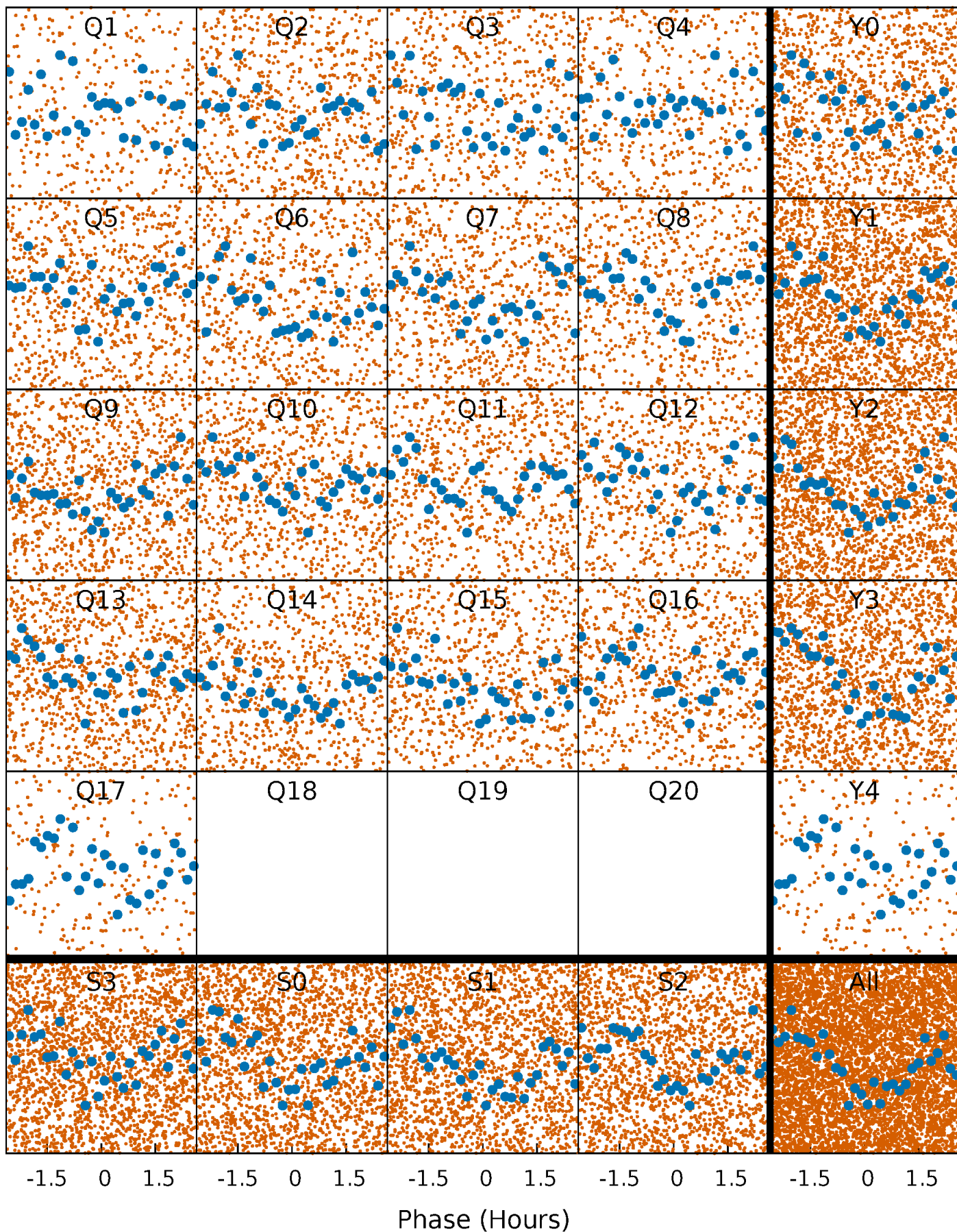


Non-Whitened Vs. Whitened Light Curve



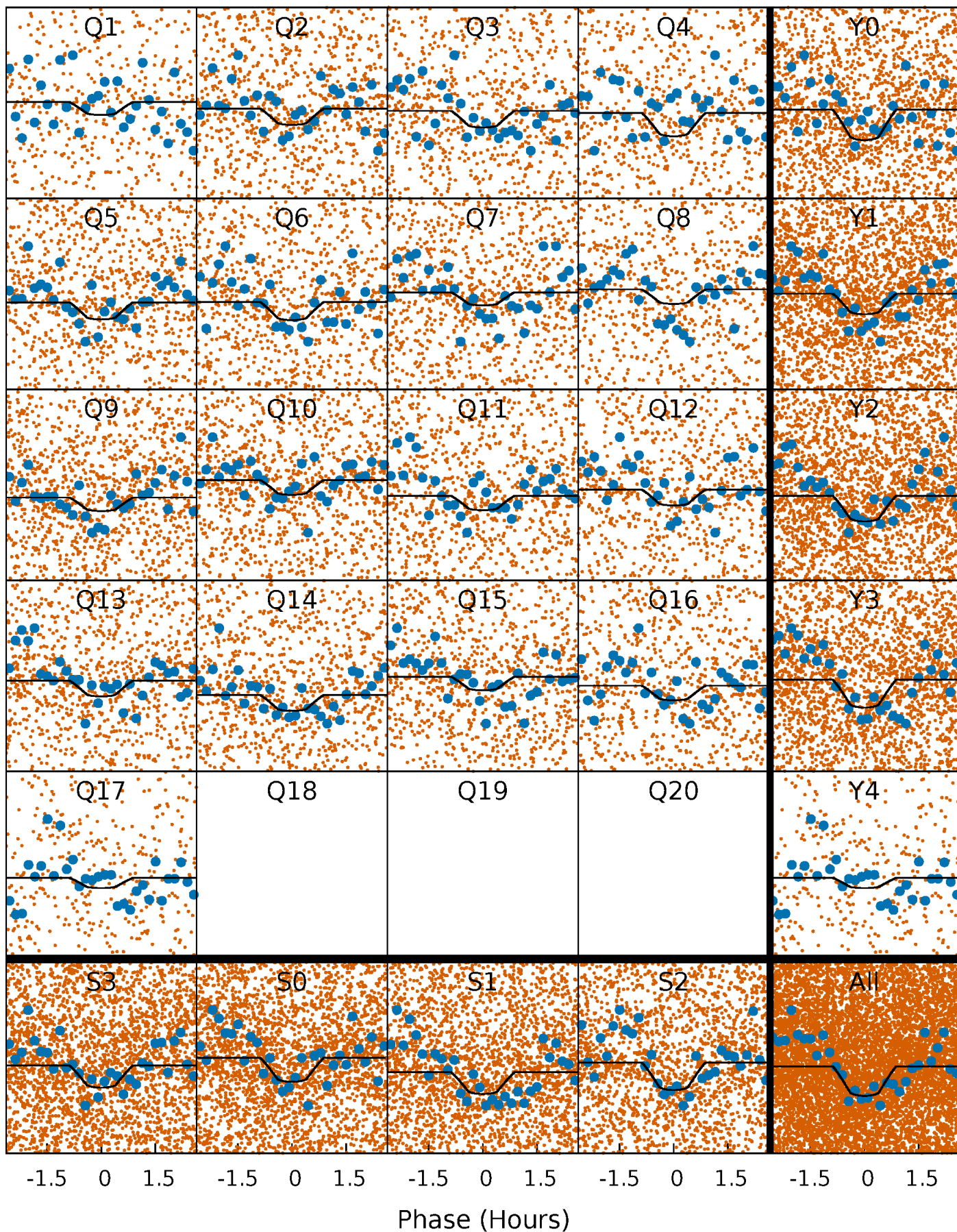
PDC Quarter-Phased Transit Curves

TCE 007751542-01 P= 0.611202 Days $T_0=131.821796$ (BKJD)



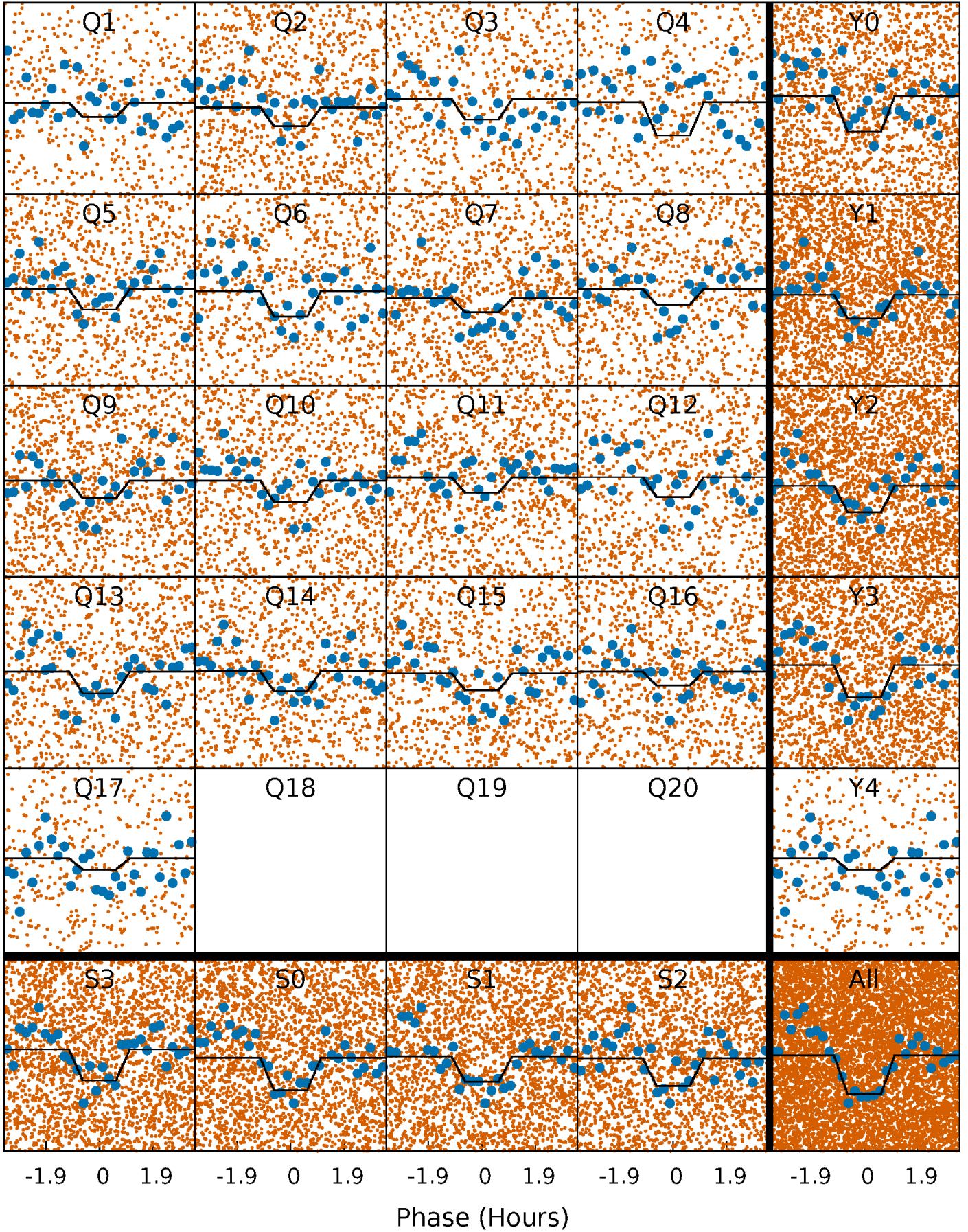
DV Quarter-Phased Transit Curves

TCE 007751542-01 P= 0.611202 Days $T_0=131.821796$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

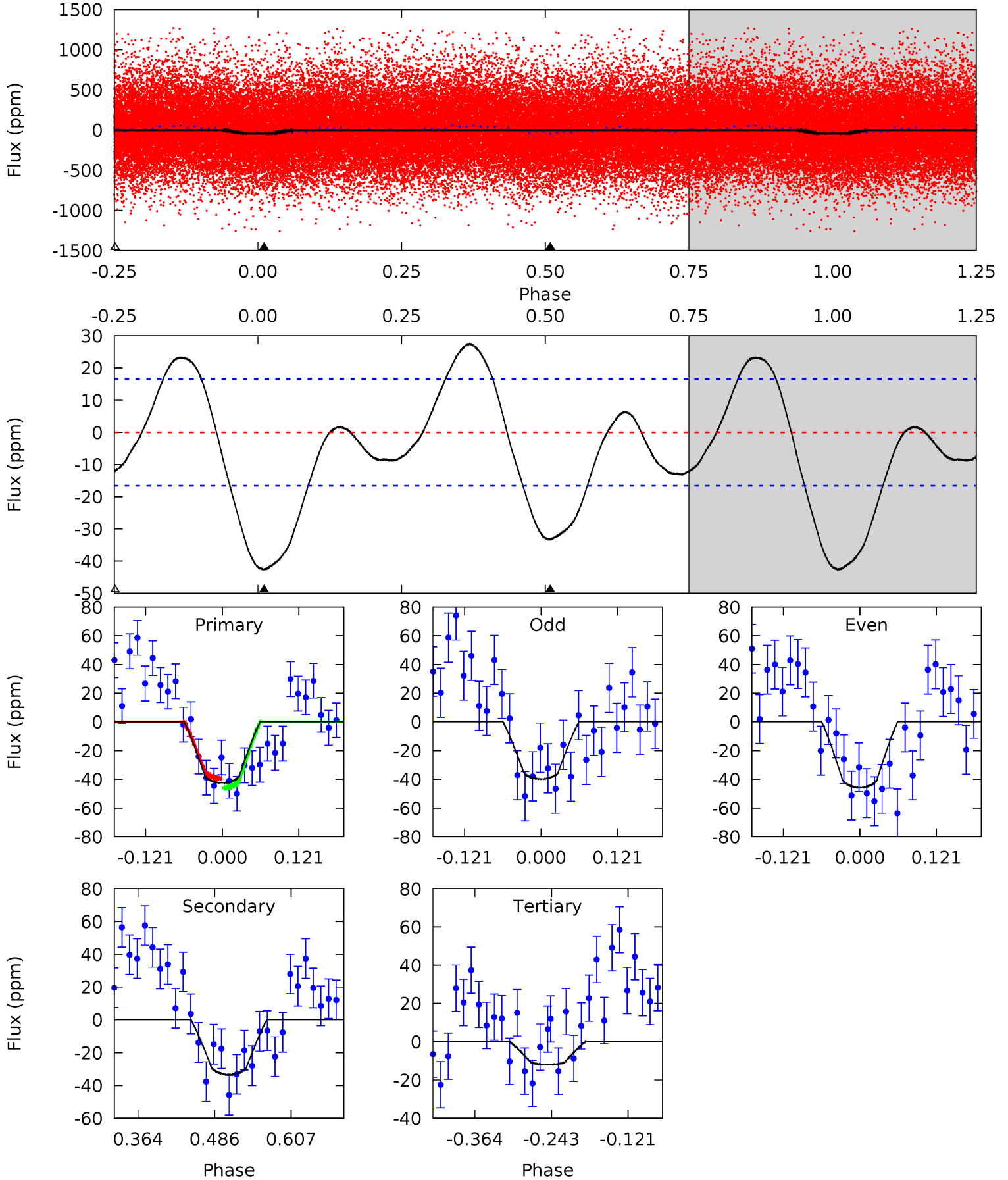
TCE 007751542-01 P= 0.611210 Days $T_0=131.821773$ (BKJD)



DV Model-Shift Uniqueness Test

007751542-01, P = 0.611202 Days, E = 131.210594 Days

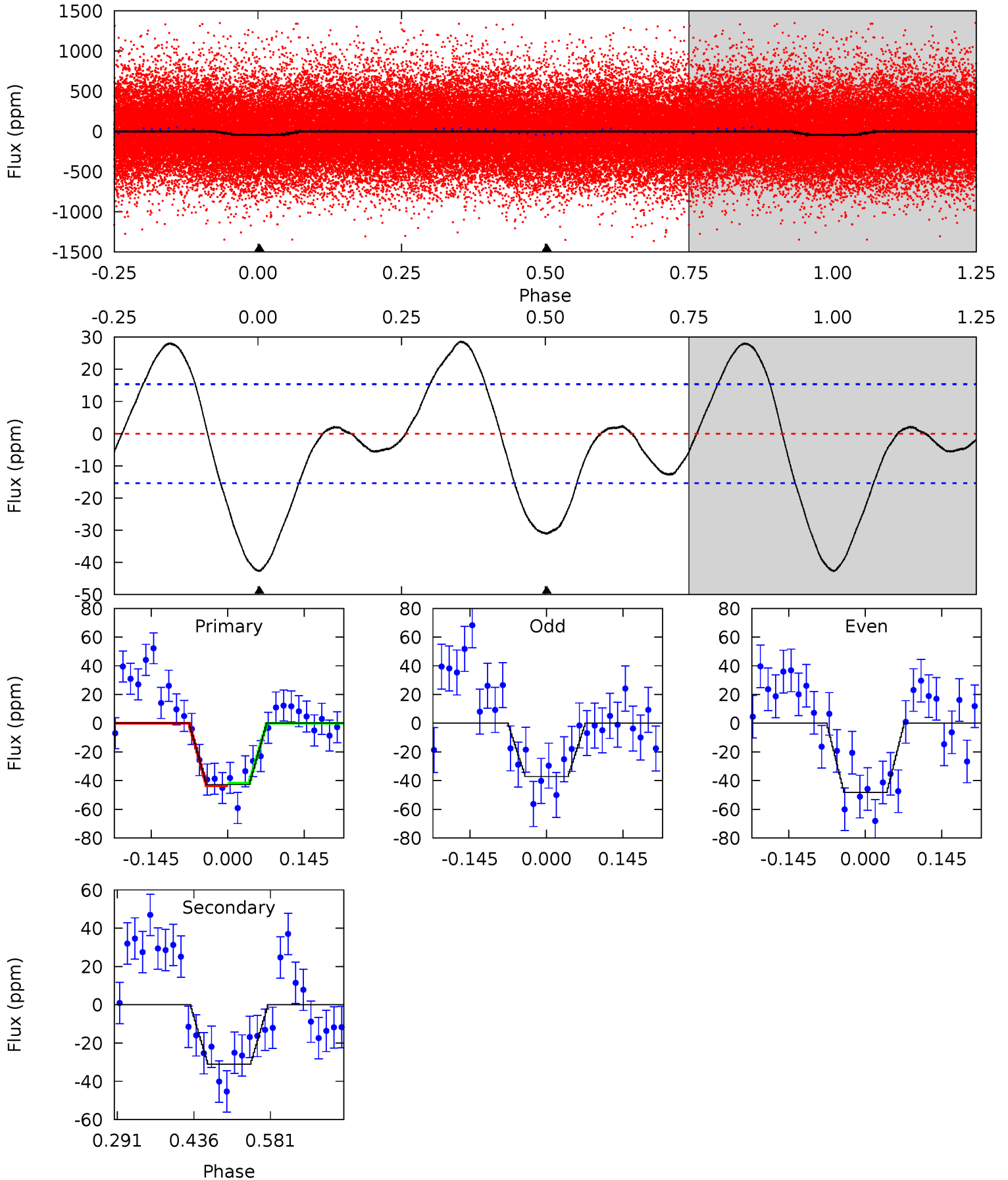
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	9.08	3.27	0	4.52	1.55	3.45	8.35	11.6	5.81	9.08	0.81	0.94	0.39	0.92



Alt Model-Shift Uniqueness Test

007751542-01, P = 0.611210 Days, E = 131.210563 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	9.08	0	0	4.49	1.46	3.81	12.5	12.5	9.08	9.08	1.63	1.00	0.40	0.26



Stellar Parameters For KIC 007751542

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6306^{+152}_{-239}	$4.405^{+0.070}_{-0.224}$	$0.000^{+0.250}_{-0.300}$	$1.121^{+0.388}_{-0.129}$	$1.166^{+0.169}_{-0.169}$	$1.167^{+0.349}_{-0.631}$
	+2%/-4%	+2%/-5%	+inf%/-inf%	+35%/-12%	+14%/-14%	+30%/-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 007751542-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-33 ± 4	$0.82^{+0.37}_{-0.34}$	3425^{+267}_{-175}	5836^{+2106}_{-902}	$5.862^{+11.528}_{-3.065}$
Alt.	-31 ± 3	$0.84^{+0.39}_{-0.36}$	3426^{+310}_{-173}	5667^{+2060}_{-919}	$5.231^{+10.382}_{-2.787}$

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

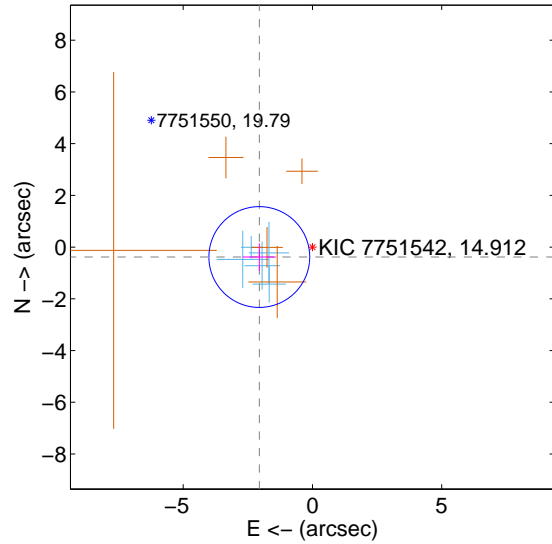
Supplemental centroid analysis for 007751542-01. Kepler magnitude: 14.91. Transit SNR 7.26

There are 5 quarters with good PRF difference image offsets

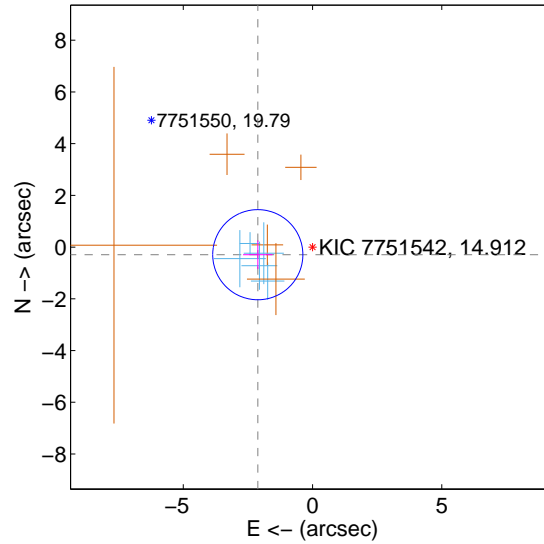
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.090 ± 0.650	3.22	2.055 ± 0.639	-0.384 ± 0.530
PRF-fit source offset from KIC position	2.137 ± 0.581	3.68	2.117 ± 0.569	-0.294 ± 0.552
photometric centroid source offset	1.29 ± 2.17	0.59	1.28 ± 2.17	0.17 ± 2.13

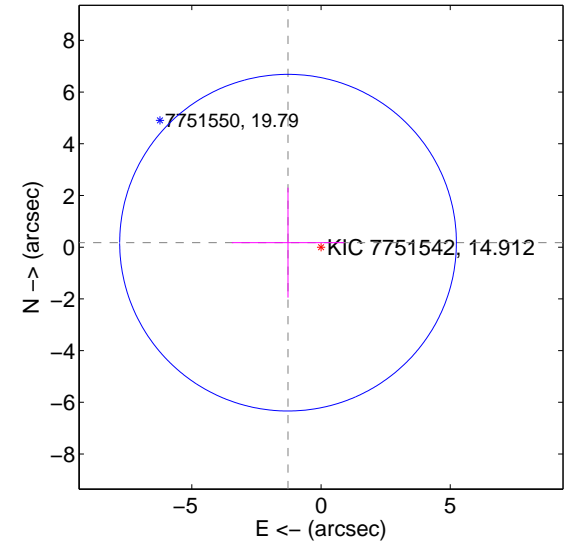
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

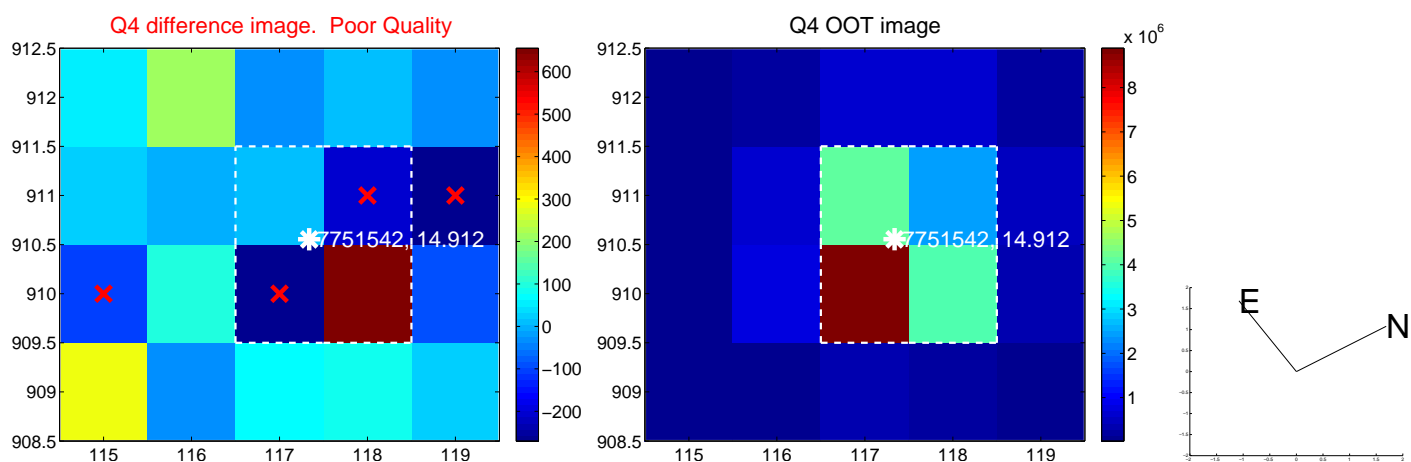
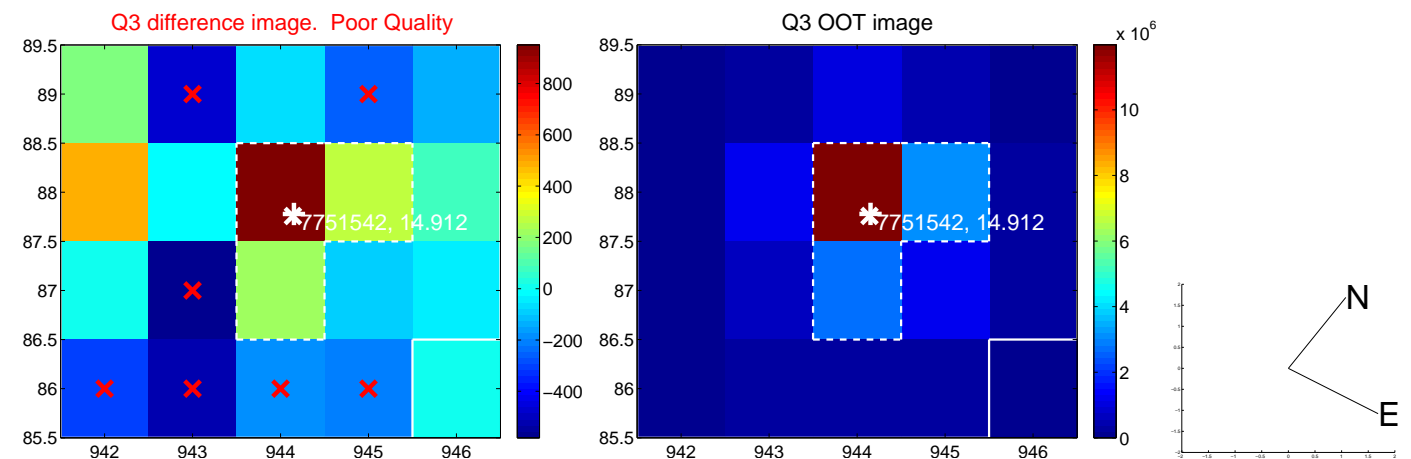
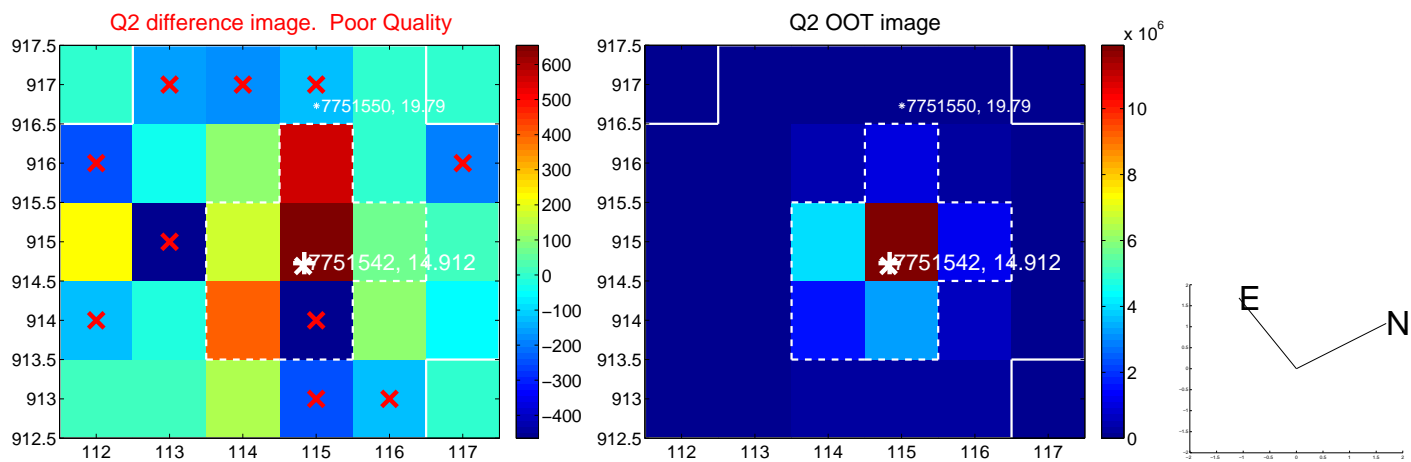
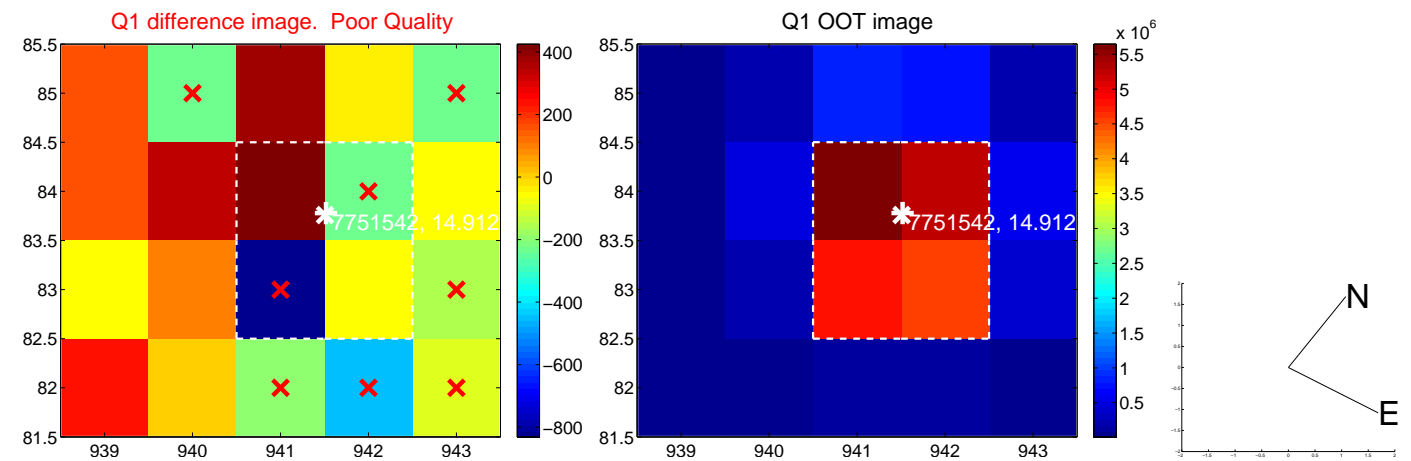


offset from photometric centroids

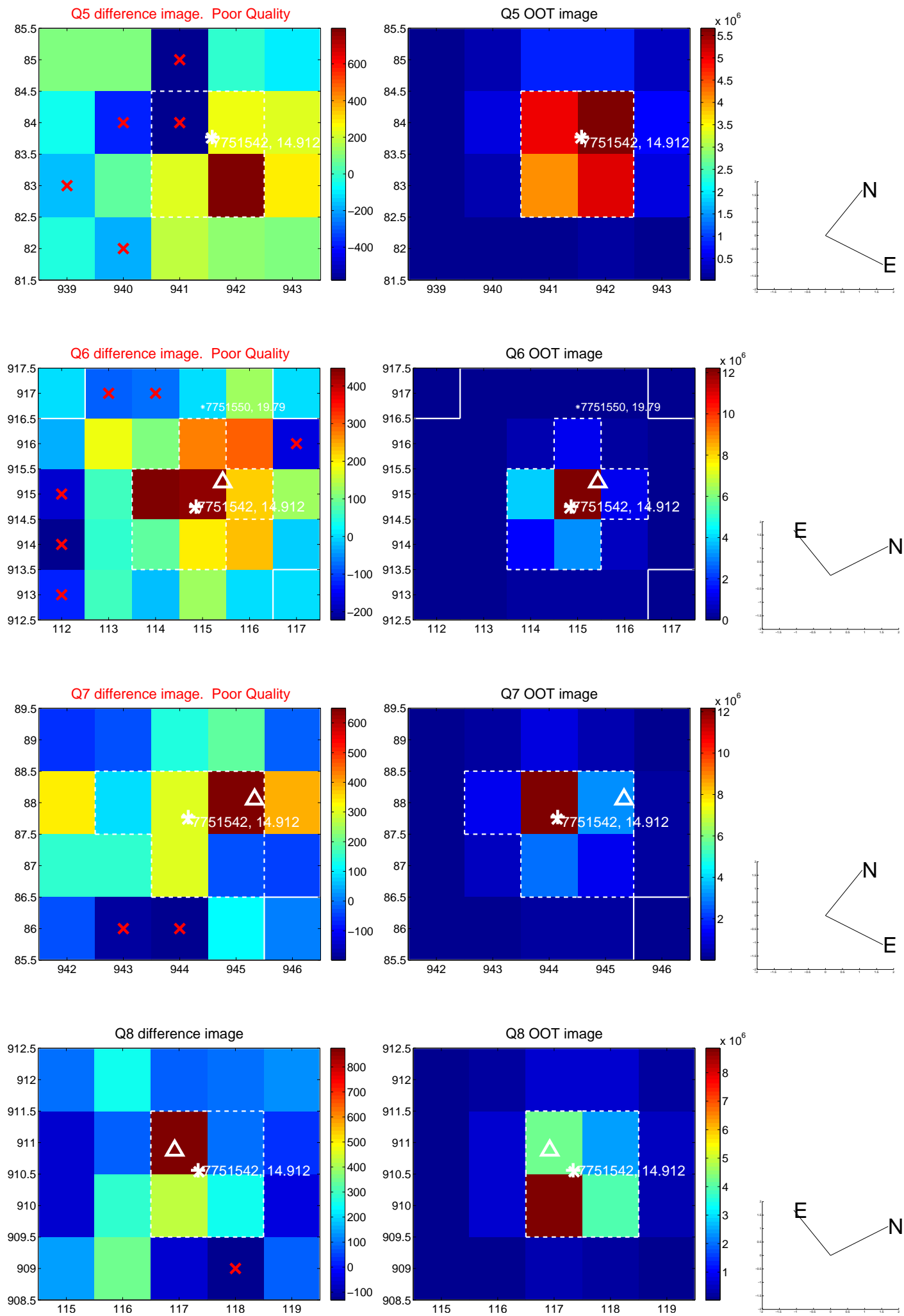


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

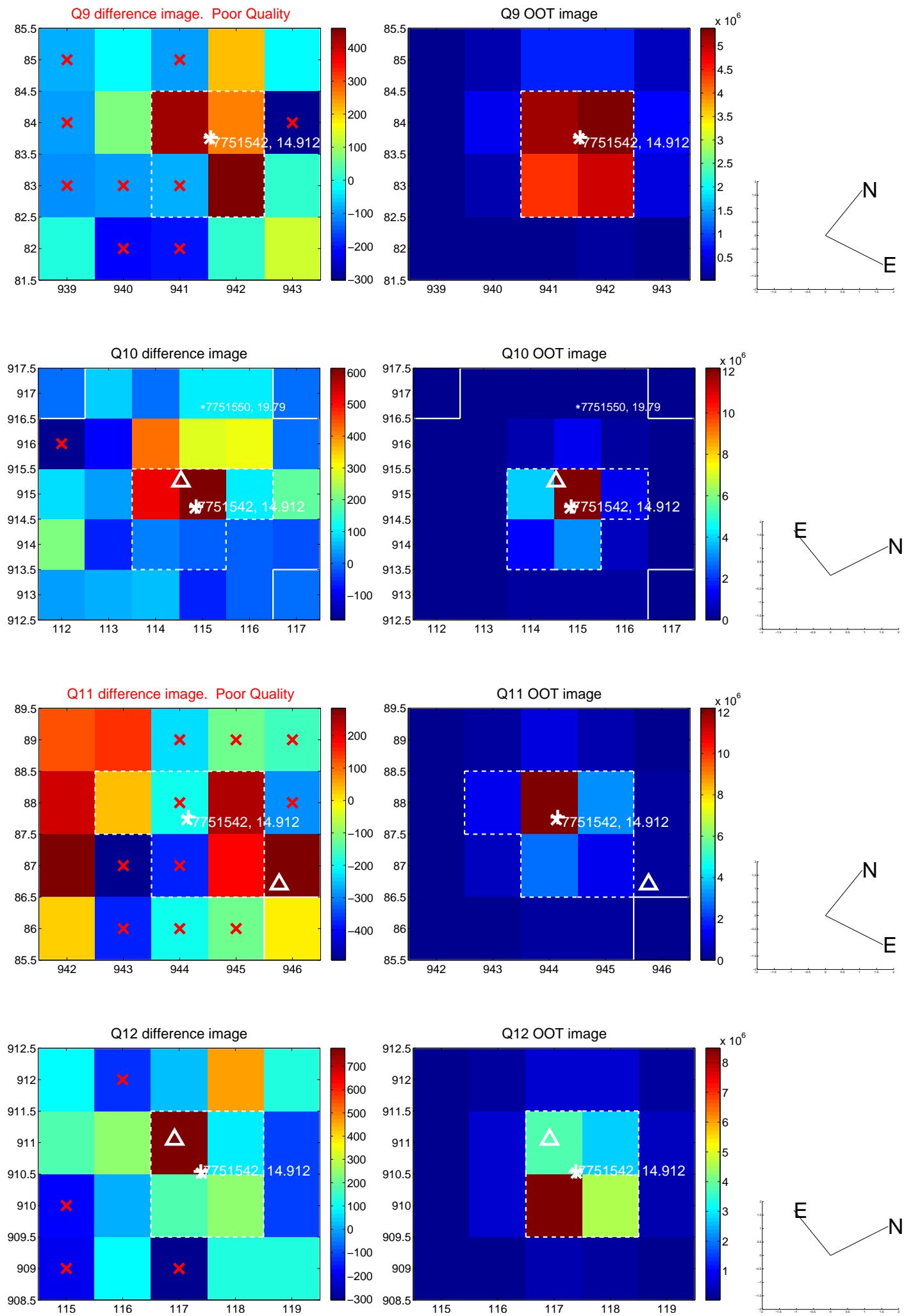
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



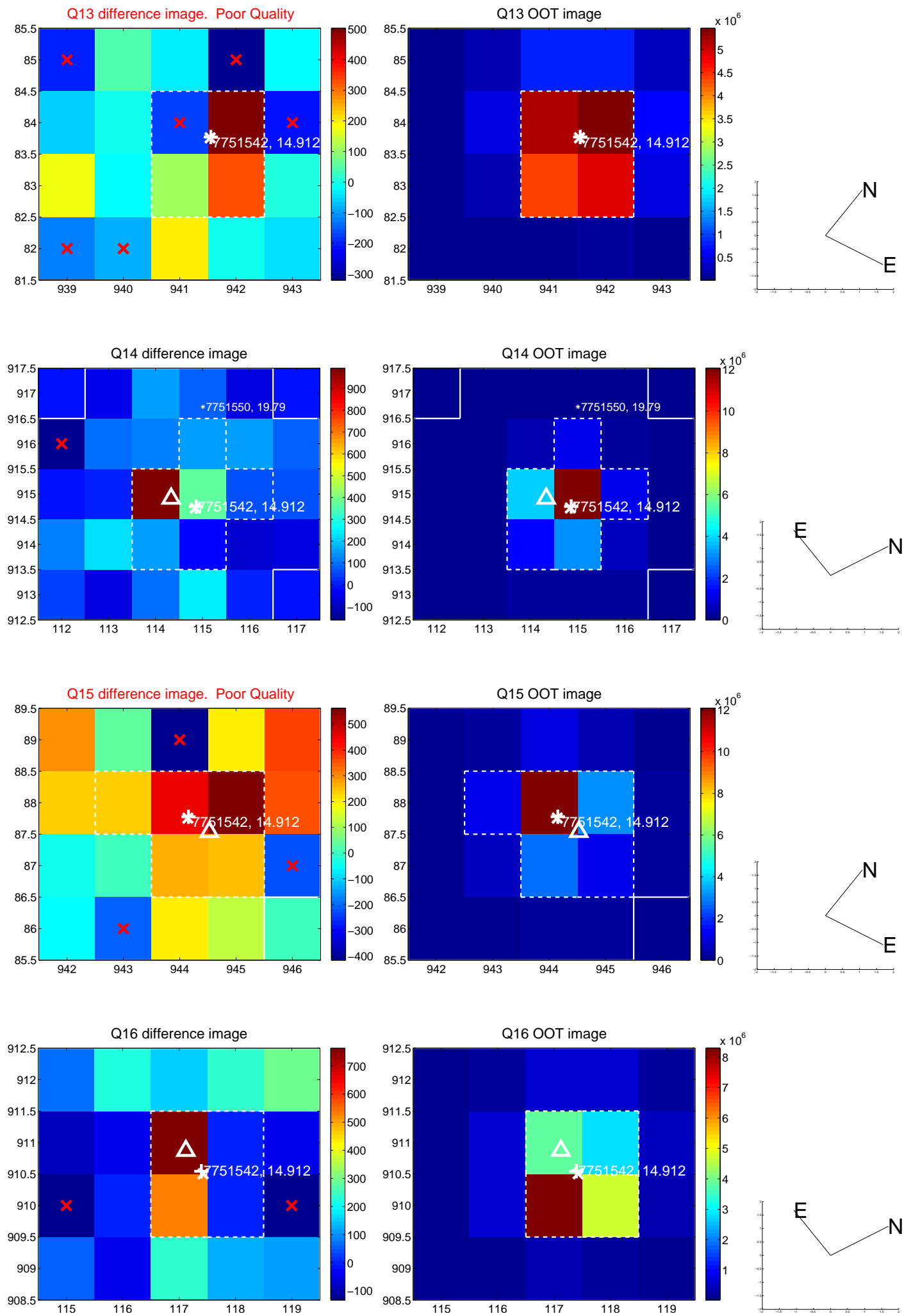
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



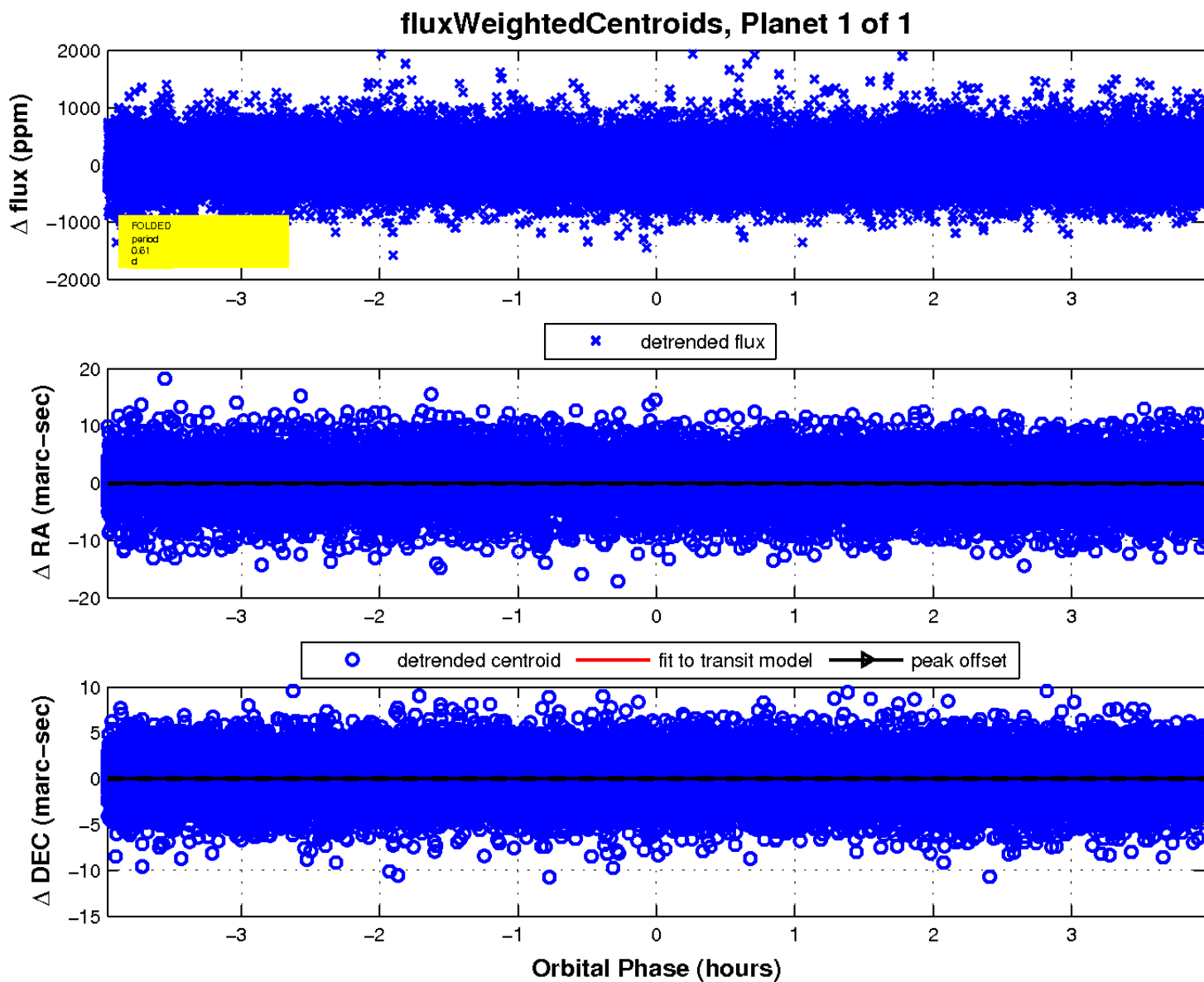
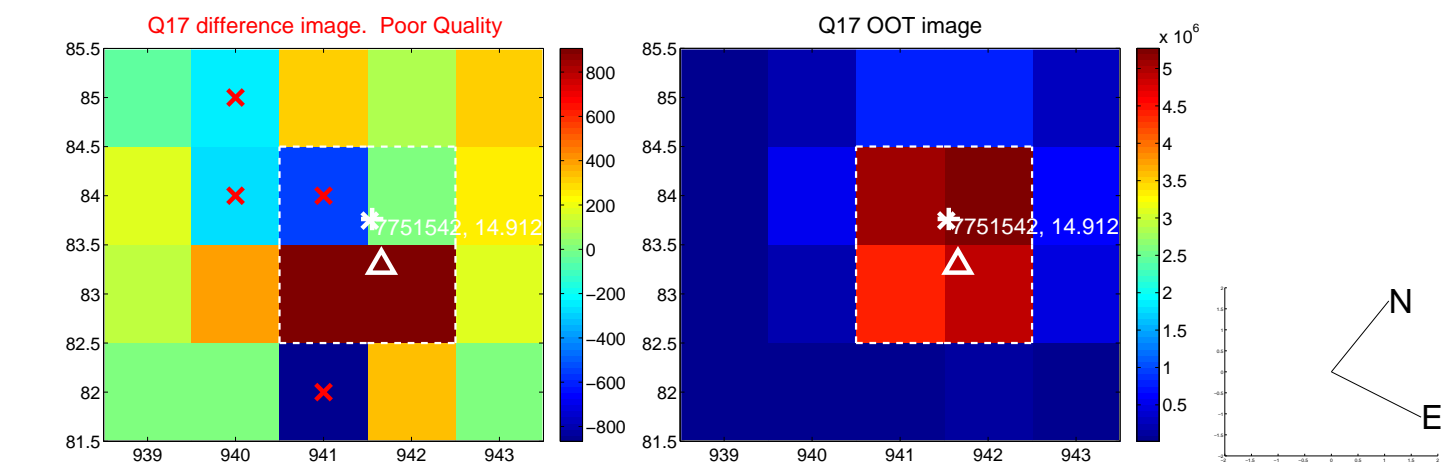
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UKIRT Image

Declination

