

KIC 009345771

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})
009345771-01	OBS	No	1.045811	132.035287	64.3	5.247	10.8	11.3	0.59	5060	0.50	667.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009345771-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_KIC_POS—HALO_GHOST

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

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

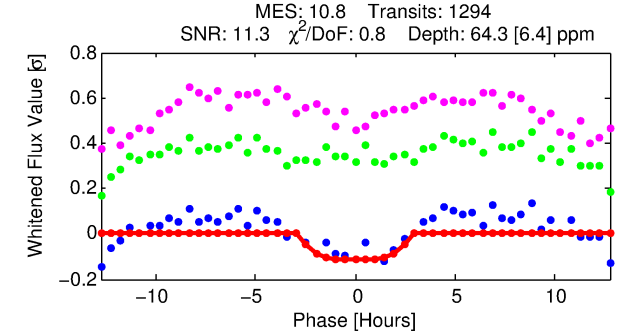
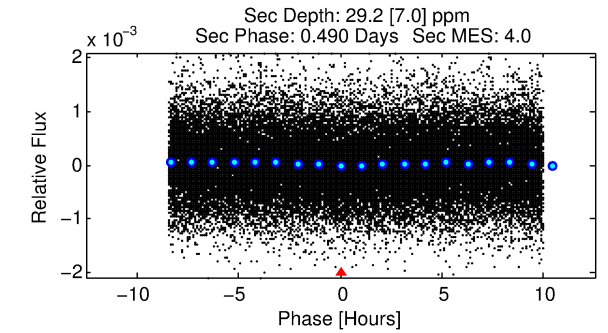
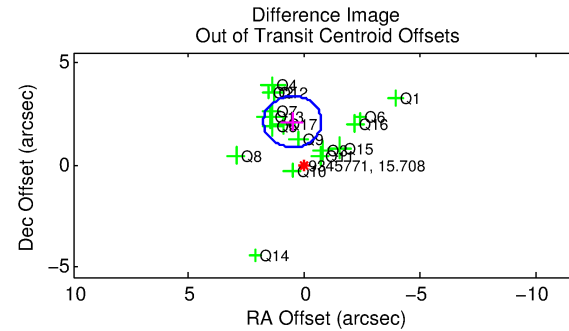
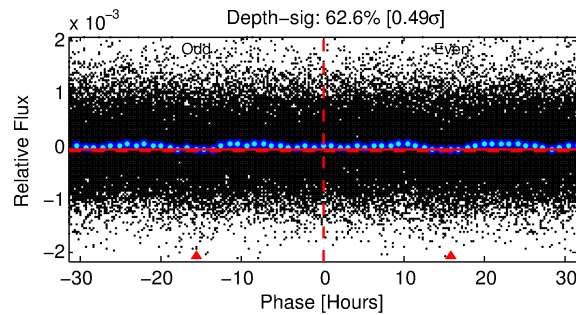
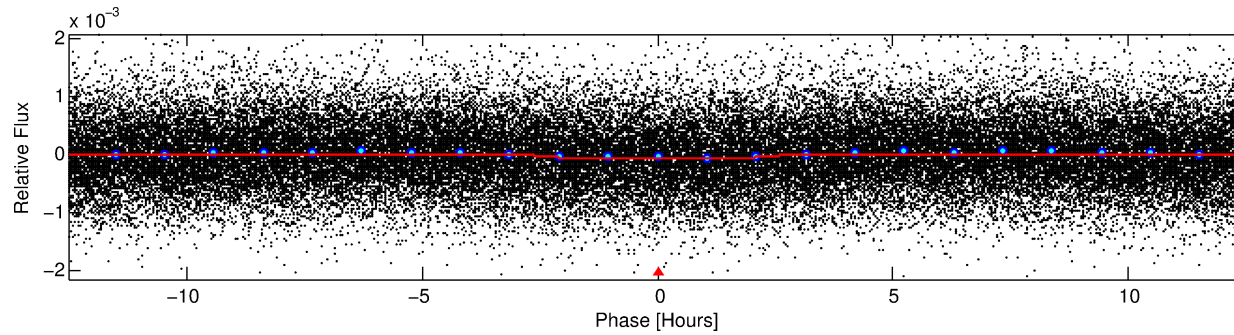
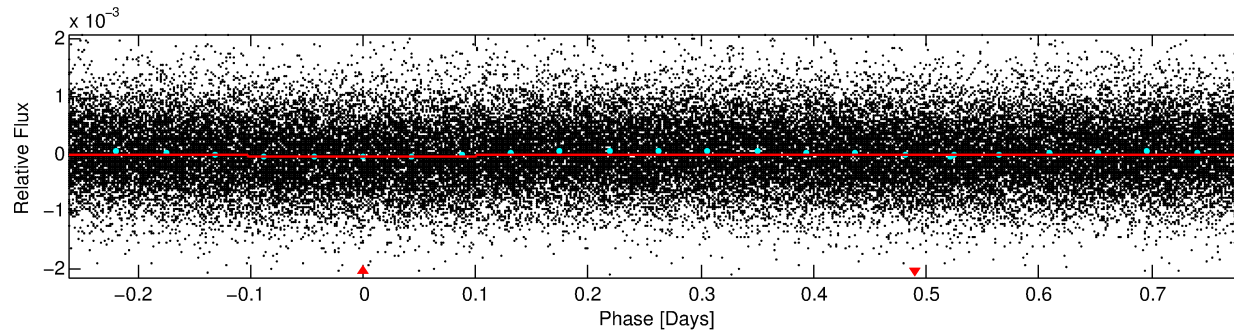
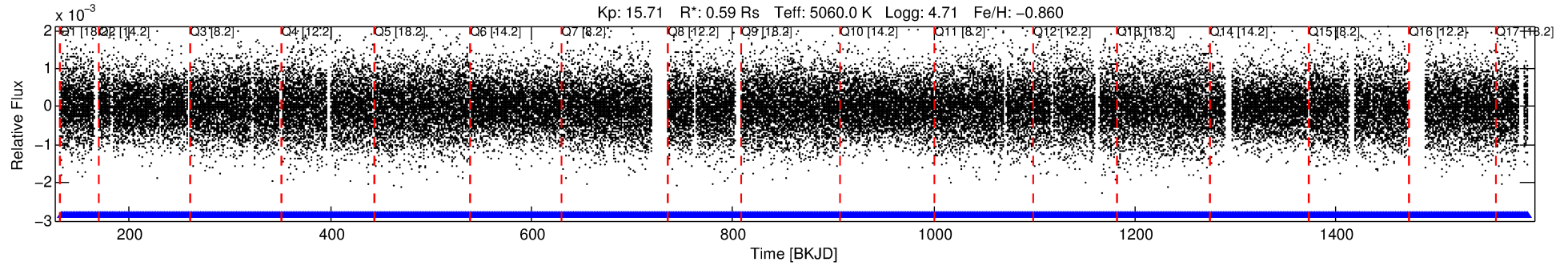
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009345771-01

No Significant Match Found

DV One-Page Summary

KIC: 9345771 Candidate: 1 of 1 Period: 1.046 d



DV Fit Results:

Period = 1.04581 [0.00001] d
Epoch = 132.0353 [0.0057] BKJD
Rp/R* = 0.0077 [0.0075]
a/R* = 1.42 [2.81]
b = 0.65 [3.56]
Seff = 667.00 [116.00]
Teff = 1296 [56] K
Rp = 0.50 [0.49] Re
a = 0.0175 [0.0016] AU
Ag = 20.00 [39.46] [0.48 σ]
Teffp = 4237 [2090] K [1.41 σ]

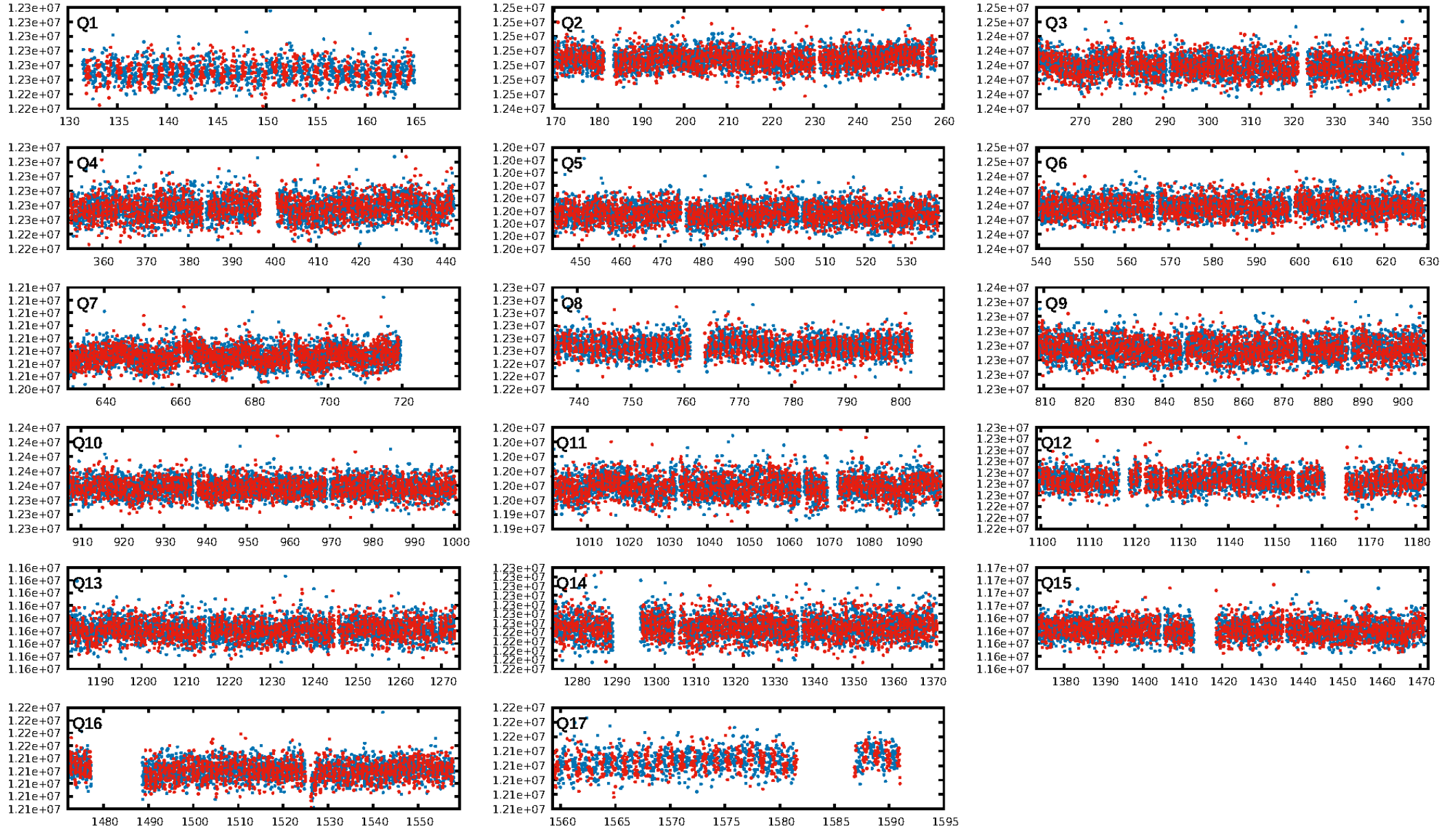
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.62e-22
RollingBand-fgt: 1.00 [1235/1235]
GhostDiagnostic-chr: 0.06432
Centroid-sig: 65.5%
Centroid-so: 1.163 arcsec [0.85 σ]
OotOffset-rm: 2.166 arcsec [5.18 σ]
KicOffset-rm: 2.444 arcsec [5.65 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

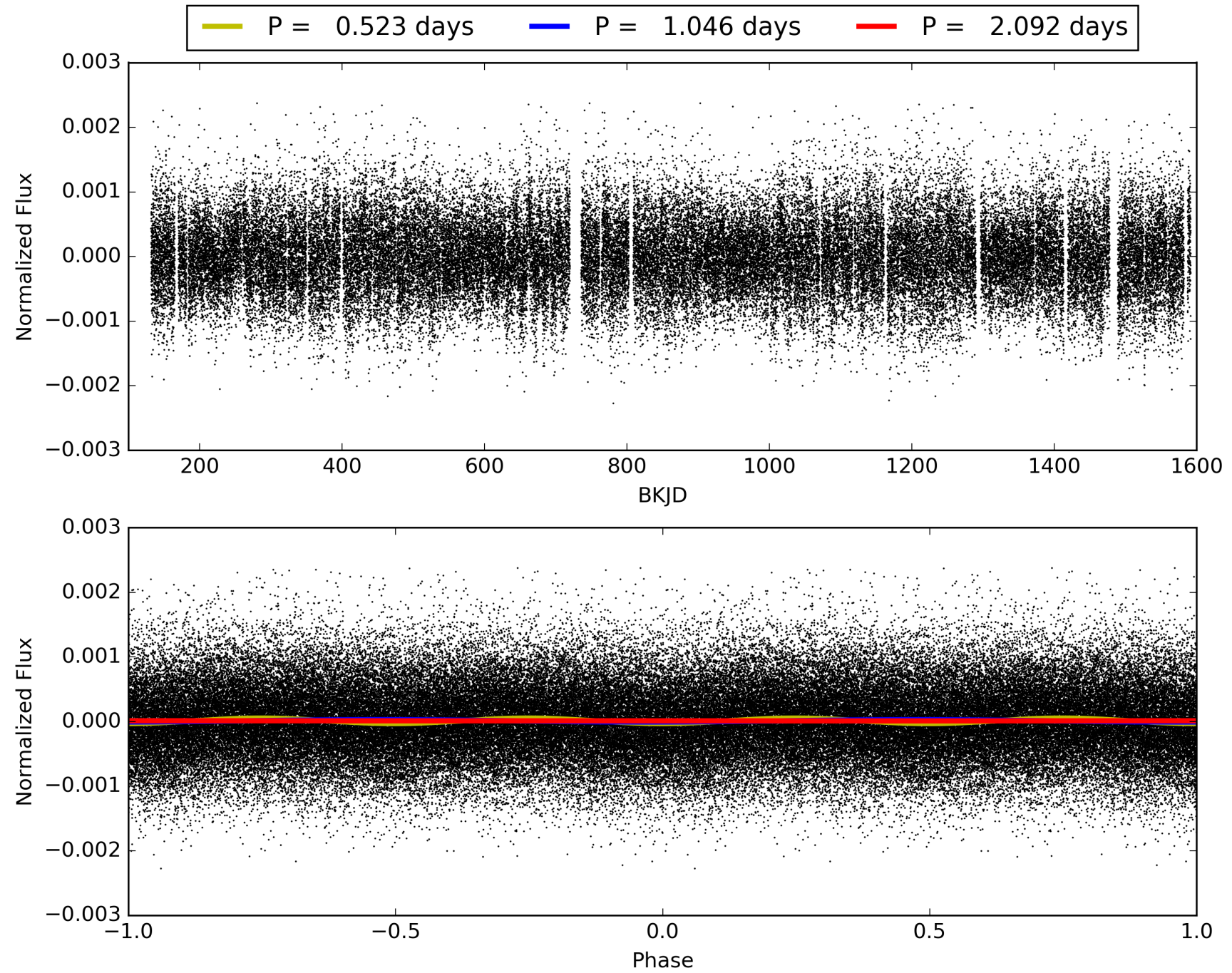
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:29:46 Z

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

TCE 009345771-01, PDC Light Curves

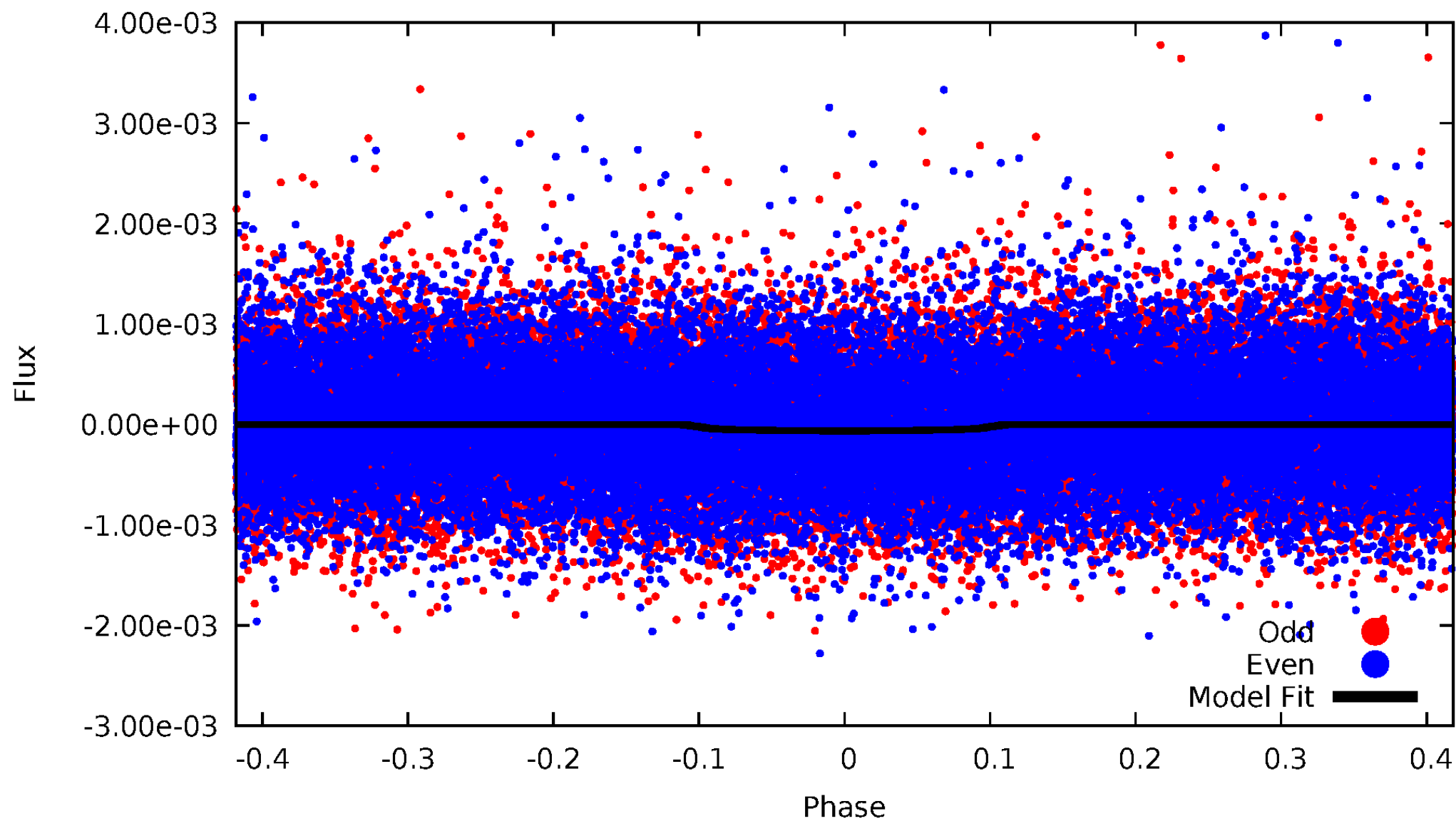


TCE 009345771-01



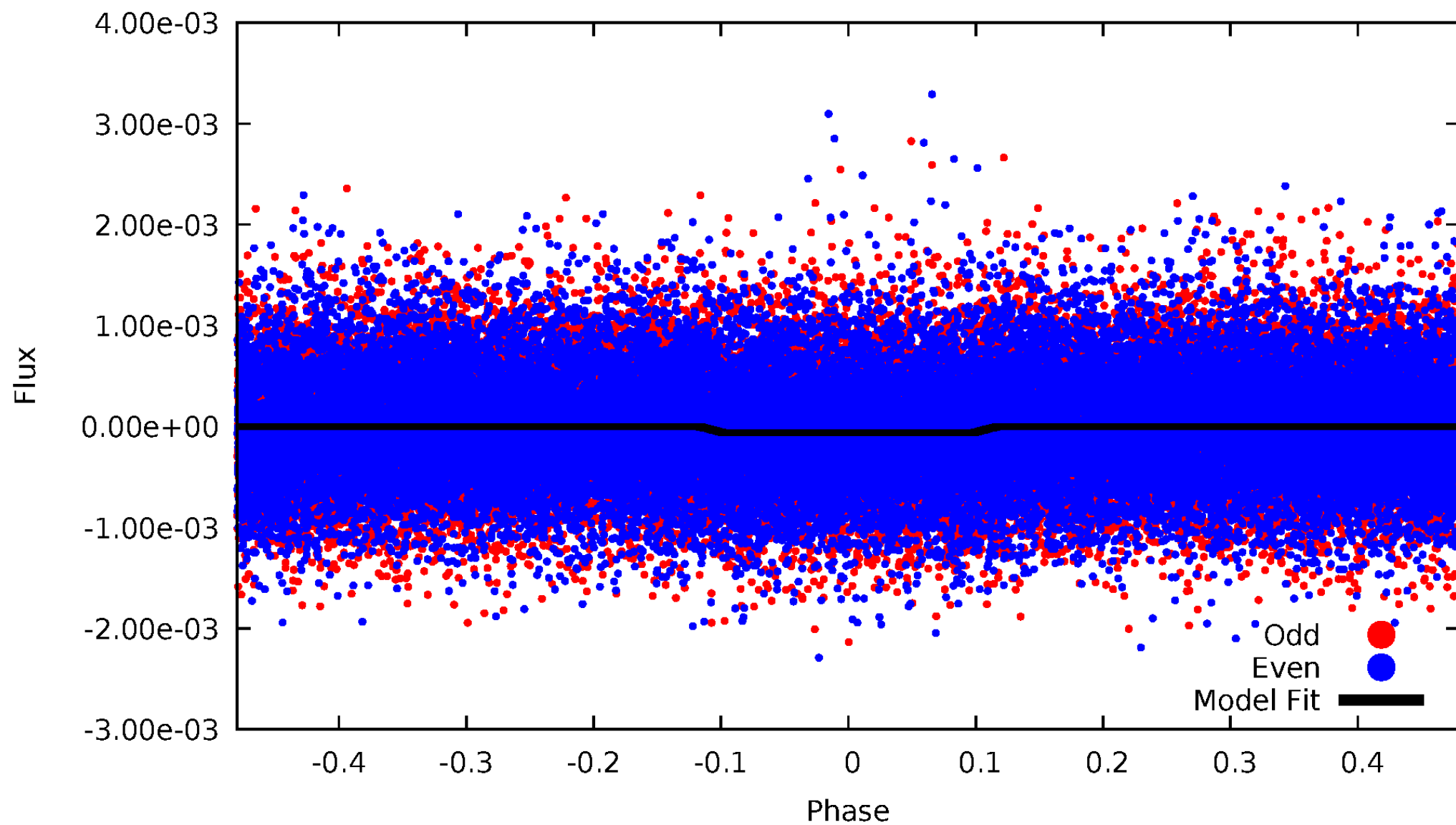
DV Odd/Even

TCE 009345771-01



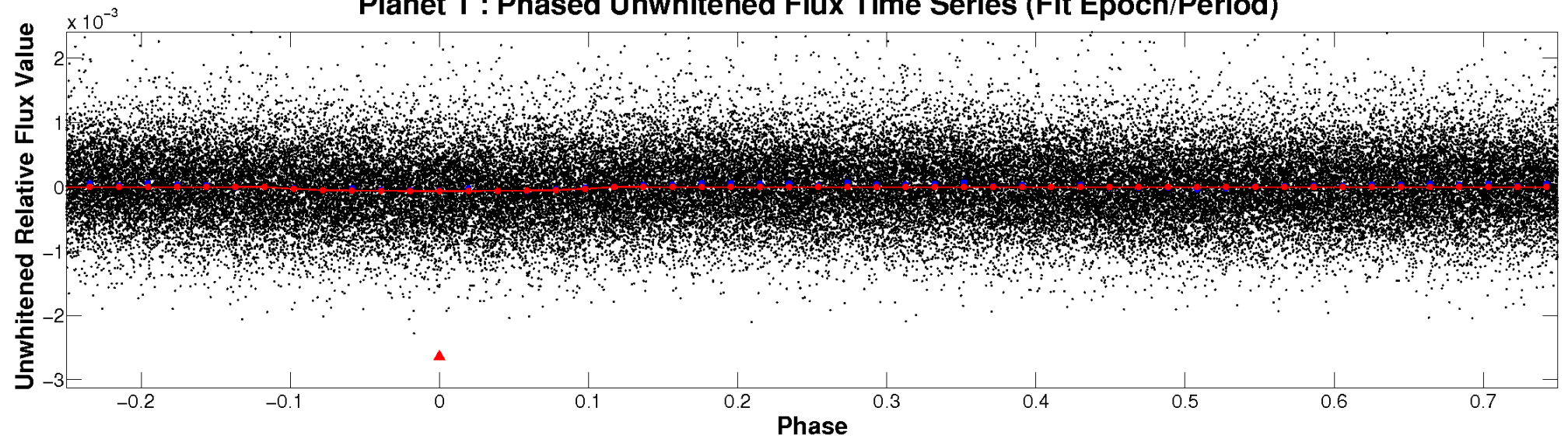
ALT Odd/Even

TCE 009345771-01

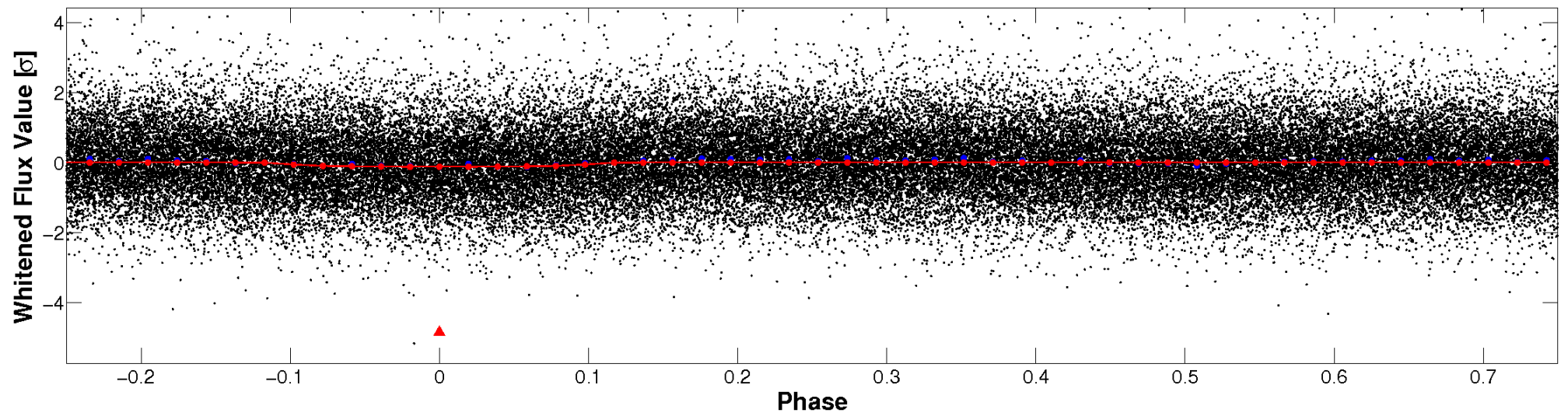


Non-Whitened Vs. Whitened Light Curve

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

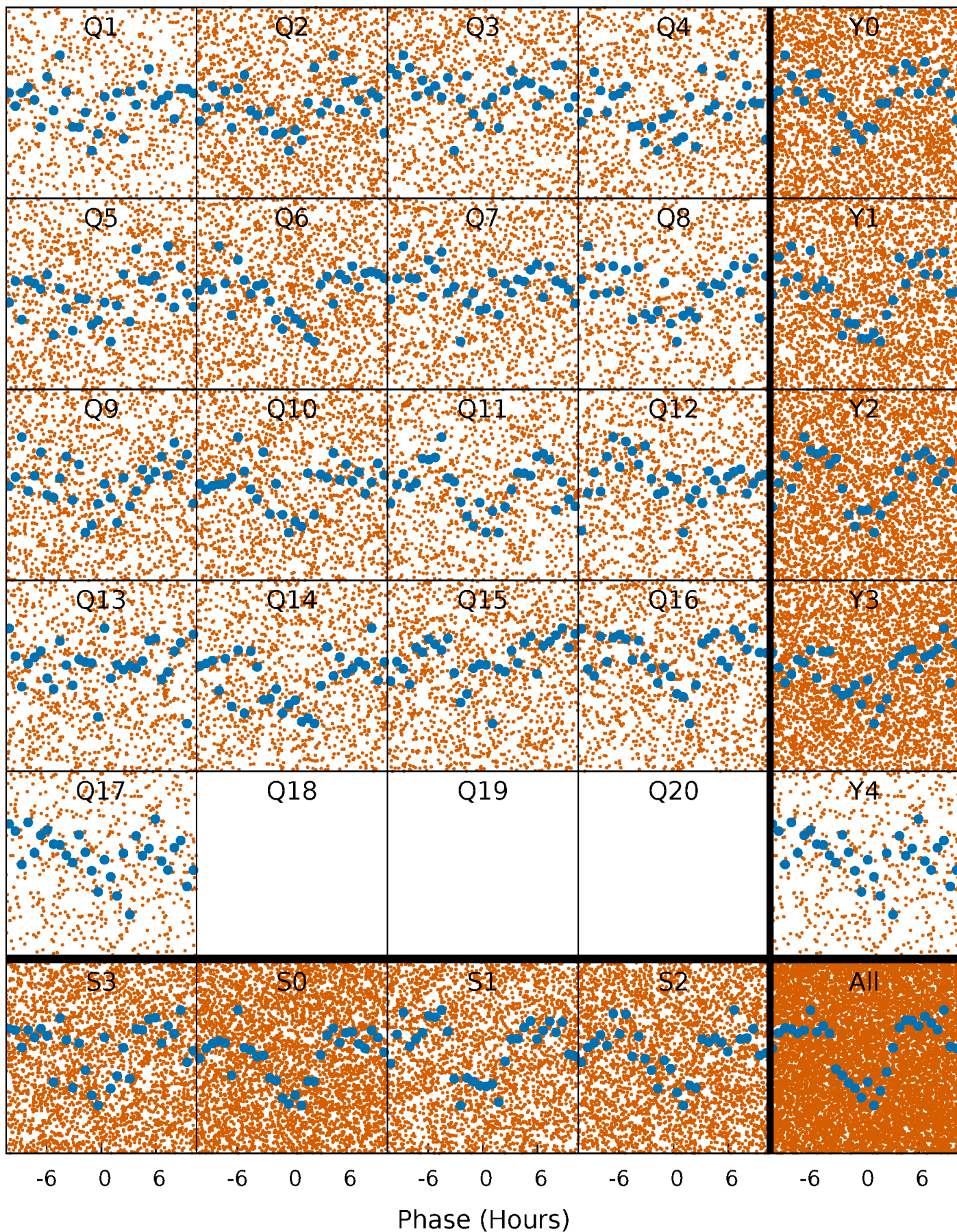


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



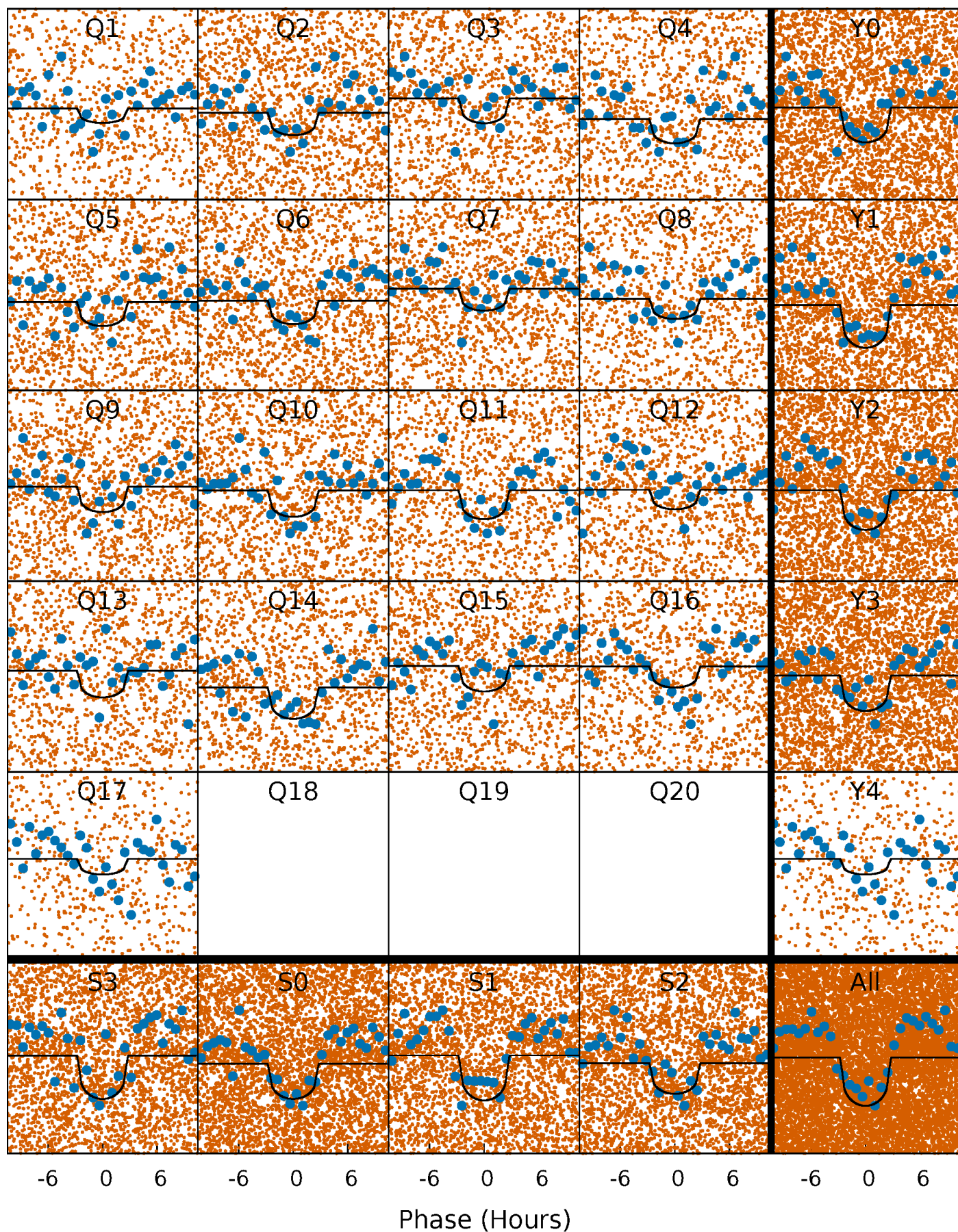
PDC Quarter-Phased Transit Curves

TCE 009345771-01 P= 1.045811 Days $T_0=132.035287$ (BKJD)



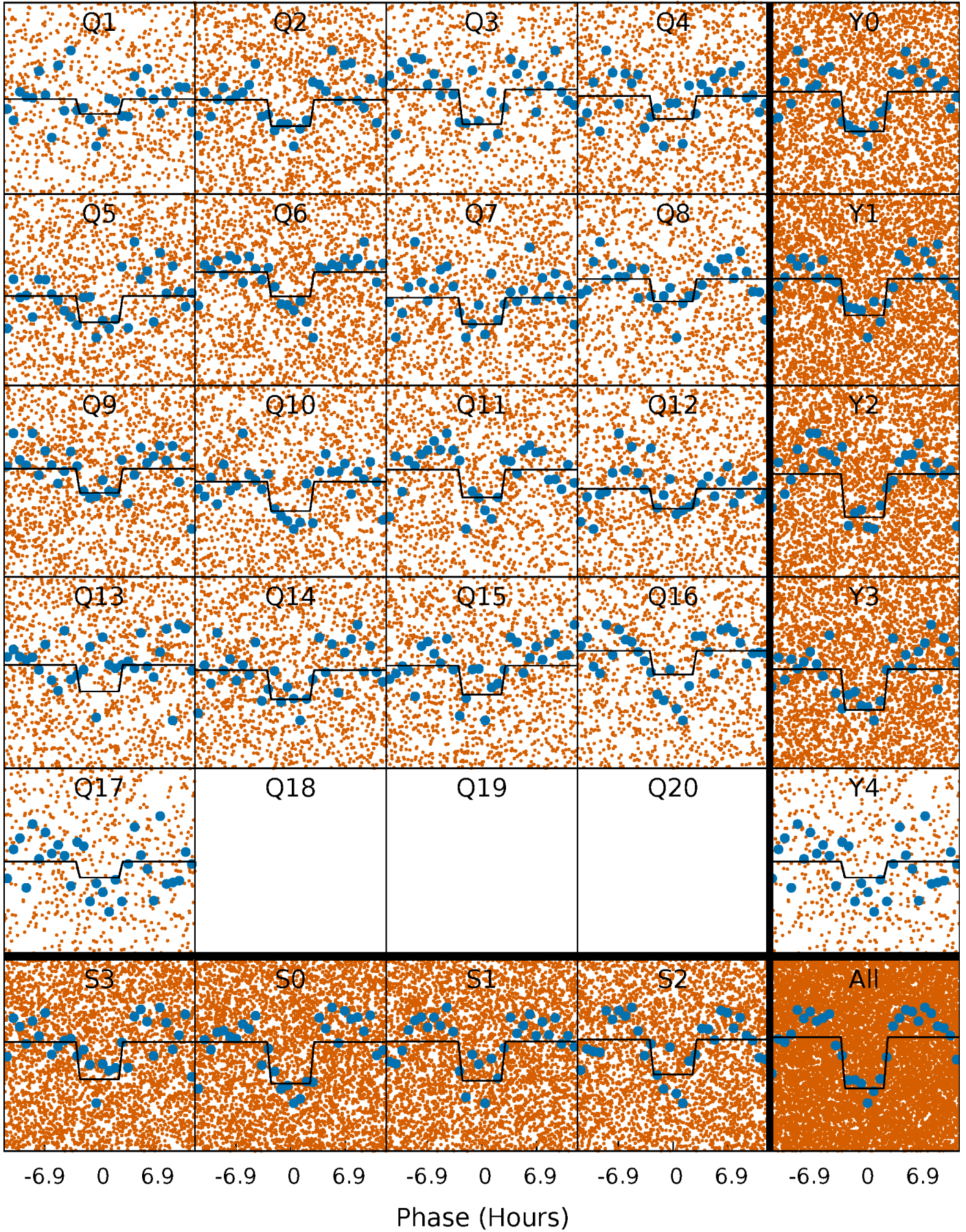
DV Quarter-Phased Transit Curves

TCE 009345771-01 P= 1.045811 Days $T_0=132.035287$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

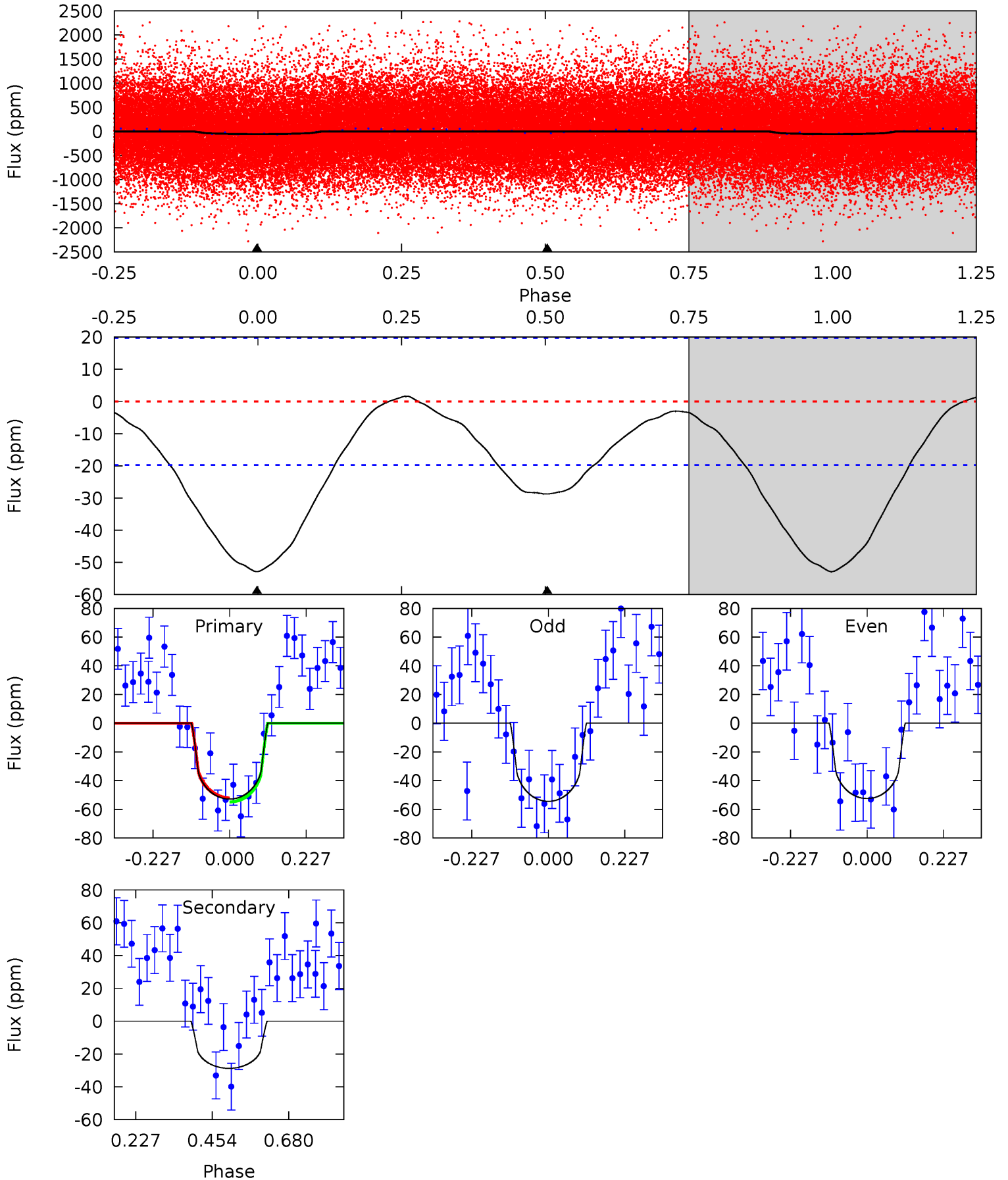
TCE 009345771-01 P= 1.045853 Days $T_0=132.000454$ (BKJD)



DV Model-Shift Uniqueness Test

009345771-01, P = 1.045811 Days, E = 130.989476 Days

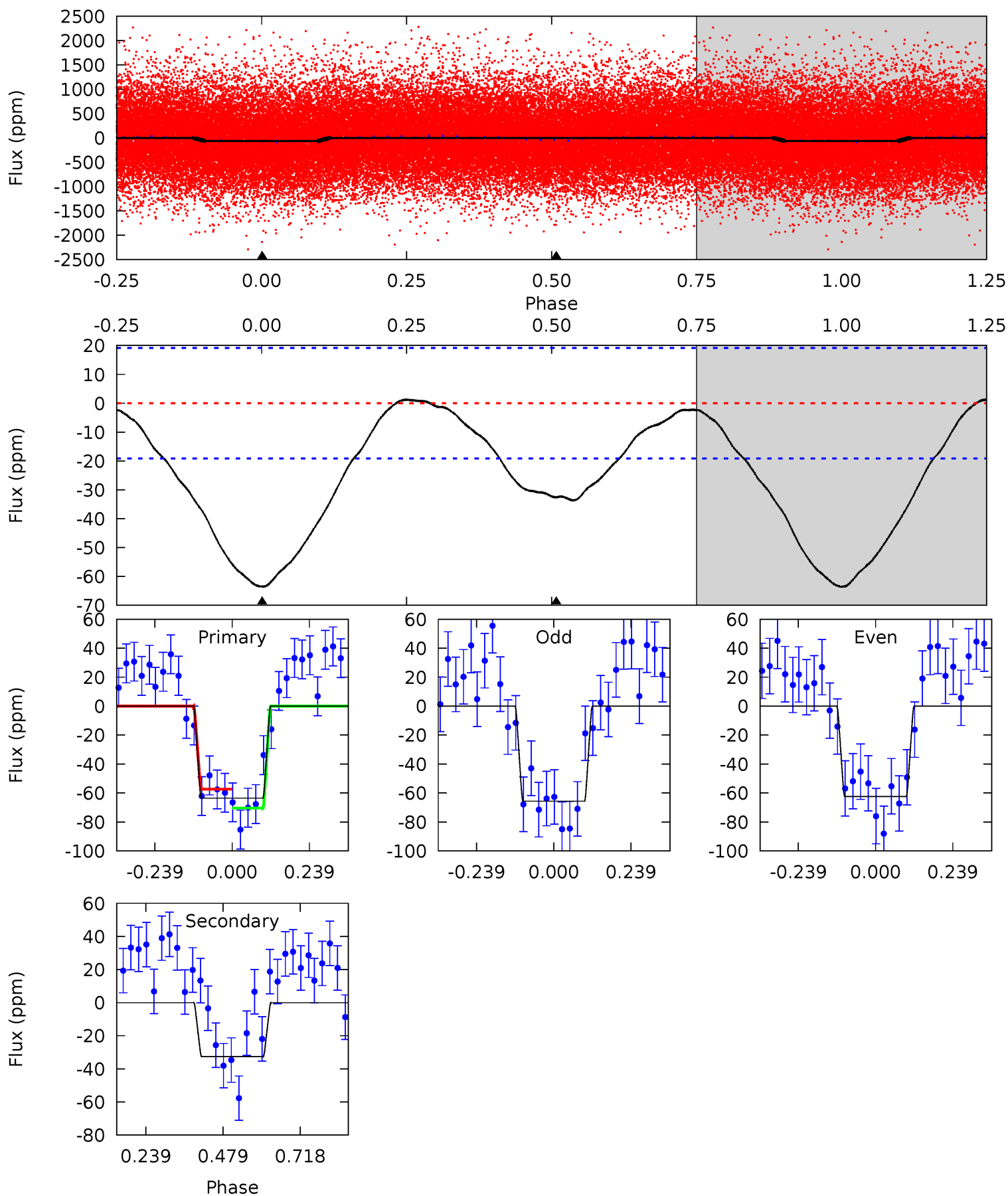
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	6.39	0	0	4.39	1.21	0.57	11.8	11.8	6.39	6.39	0.22	0.93	0.03	0.31



Alt Model-Shift Uniqueness Test

009345771-01, P = 1.045853 Days, E = 130.954601 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	7.47	0	0	4.38	1.18	0.48	14.6	14.6	7.47	7.47	0.37	0.95	0.02	1.52



Stellar Parameters For KIC 009345771

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5060^{+152}_{-152}	$4.712^{+0.022}_{-0.067}$	$-0.860^{+0.350}_{-0.300}$	$0.590^{+0.064}_{-0.030}$	$0.653^{+0.049}_{-0.045}$	$4.484^{+0.406}_{-1.027}$
	+3%/-3%	+0%/-1%	+41%/-35%	+11%/-5%	+8%/-7%	+9%/-23%
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 009345771-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-29 ± 4	$0.61^{+0.42}_{-0.37}$	1828^{+68}_{-64}	4062^{+1984}_{-696}	13^{+73}_{-9}
Alt.	-33 ± 4	$0.62^{+0.46}_{-0.40}$	1828^{+60}_{-64}	4102^{+2364}_{-707}	14^{+100}_{-9}

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

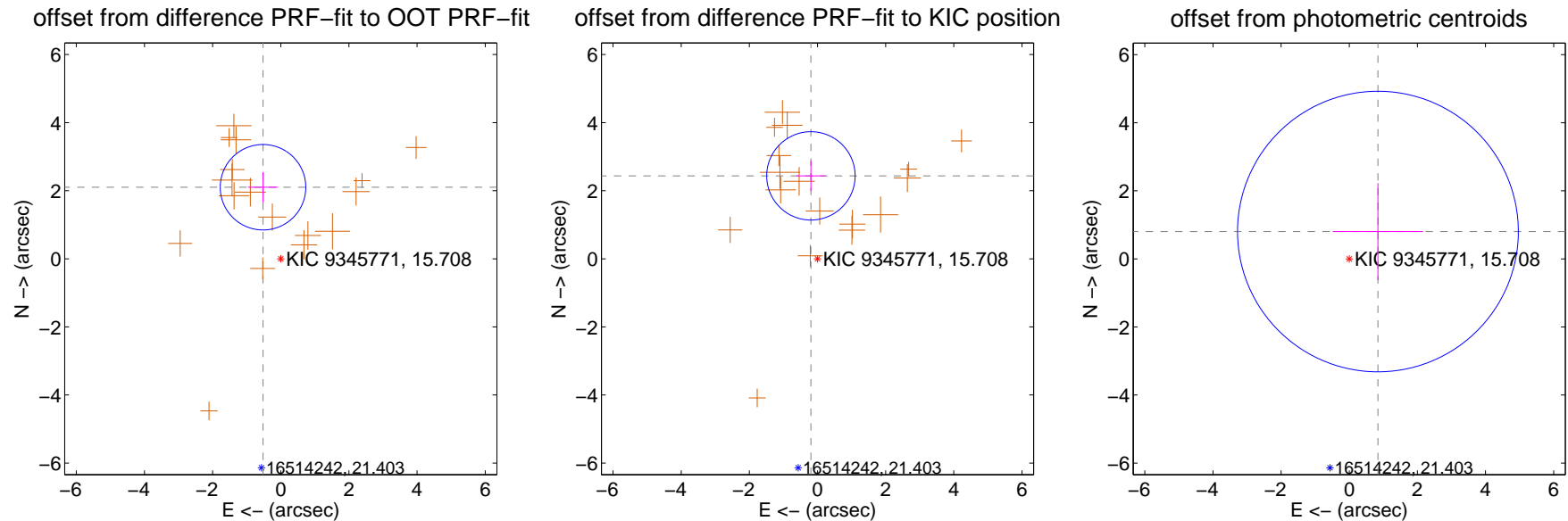
DV Centroid Data

Supplemental centroid analysis for 009345771-01. Kepler magnitude: 15.71. Transit SNR 11.28

There are 0 quarters with good PRF difference image offsets

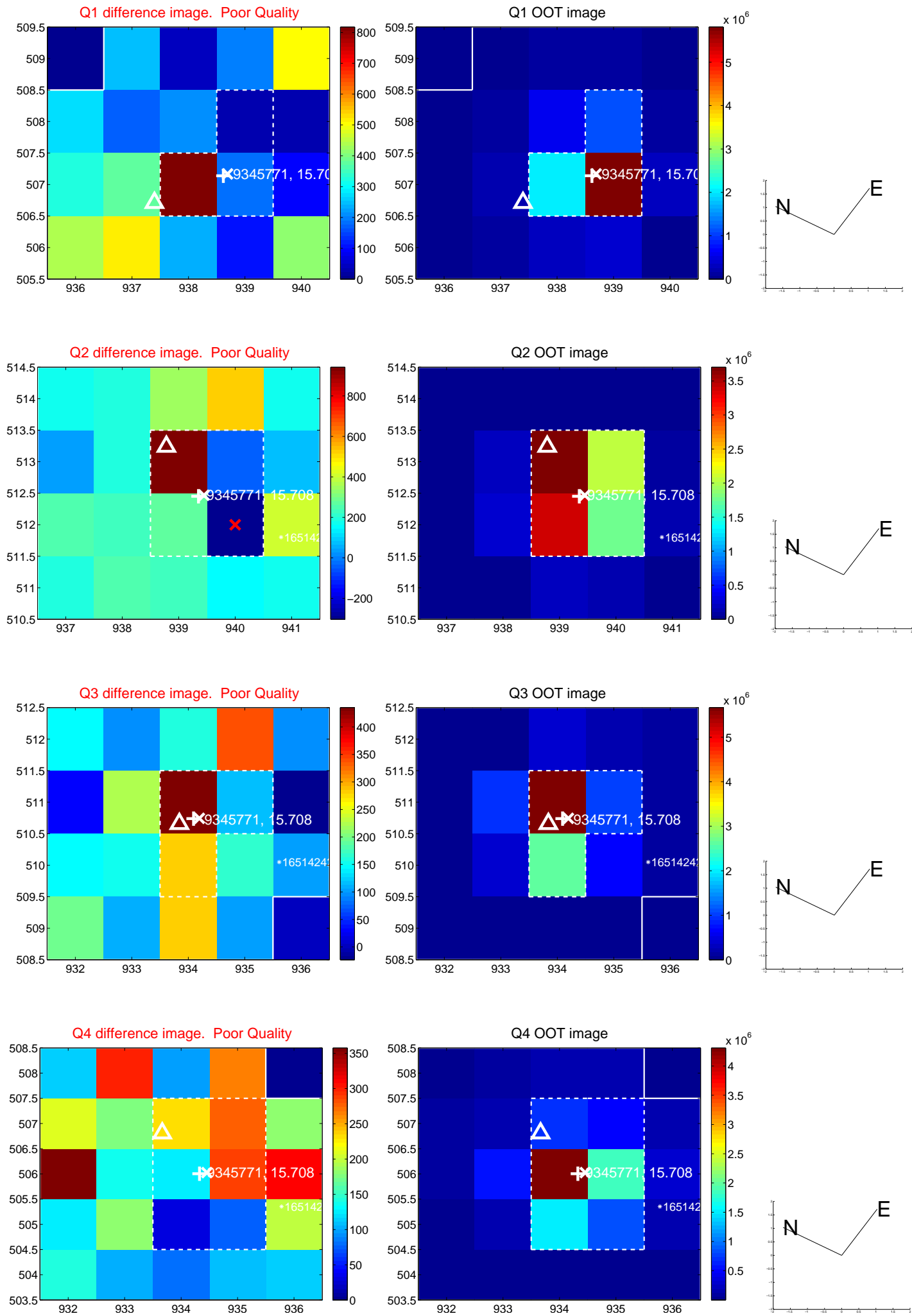
The direct PRF centroid is offset from the target star catalog position by about 0.47 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.166 ± 0.418	5.18	0.521 ± 0.442	2.102 ± 0.444
PRF-fit source offset from KIC position	2.444 ± 0.432	5.65	0.194 ± 0.427	2.436 ± 0.438
photometric centroid source offset	1.16 ± 1.37	0.85	-0.84 ± 1.33	0.80 ± 1.42

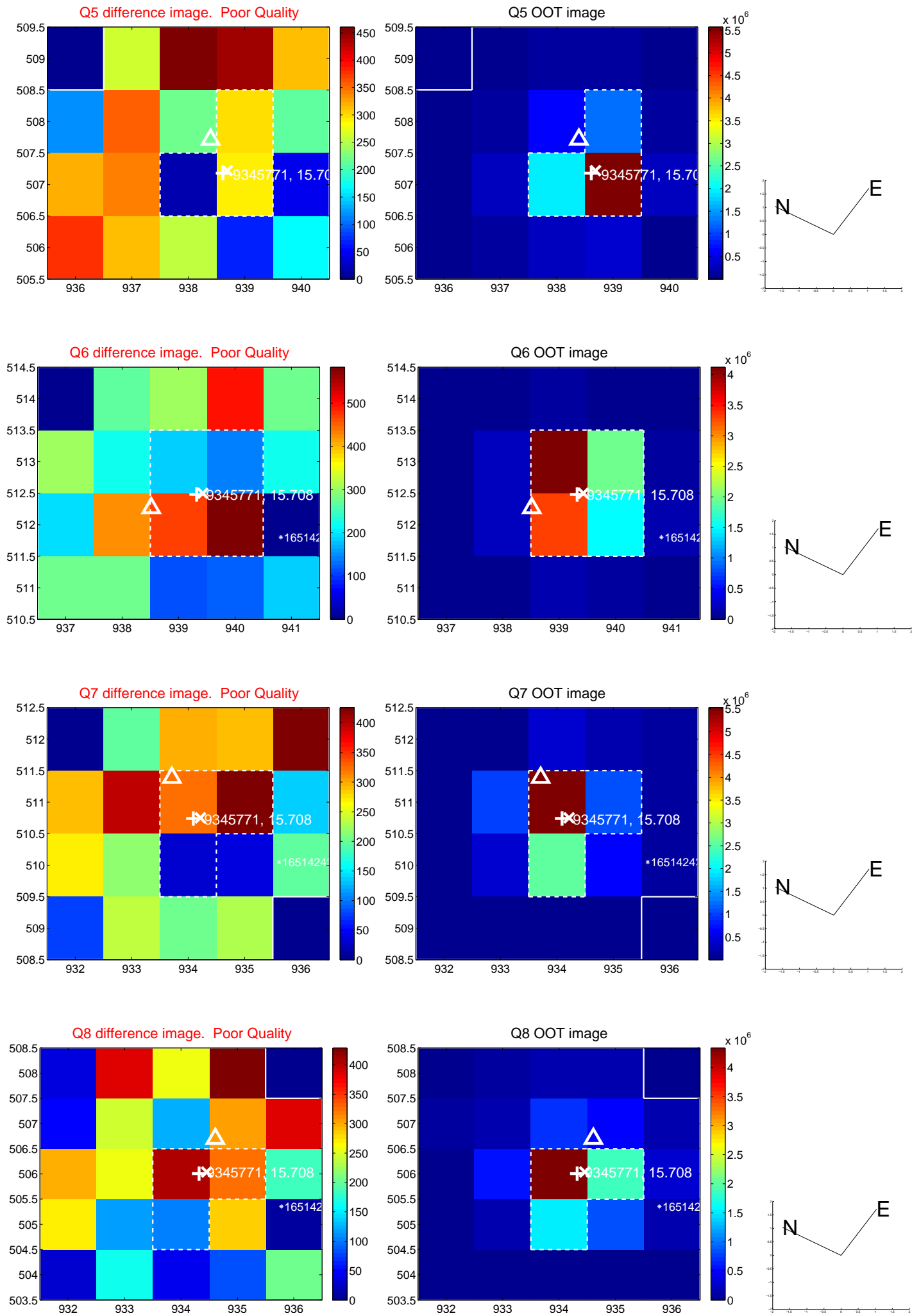


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

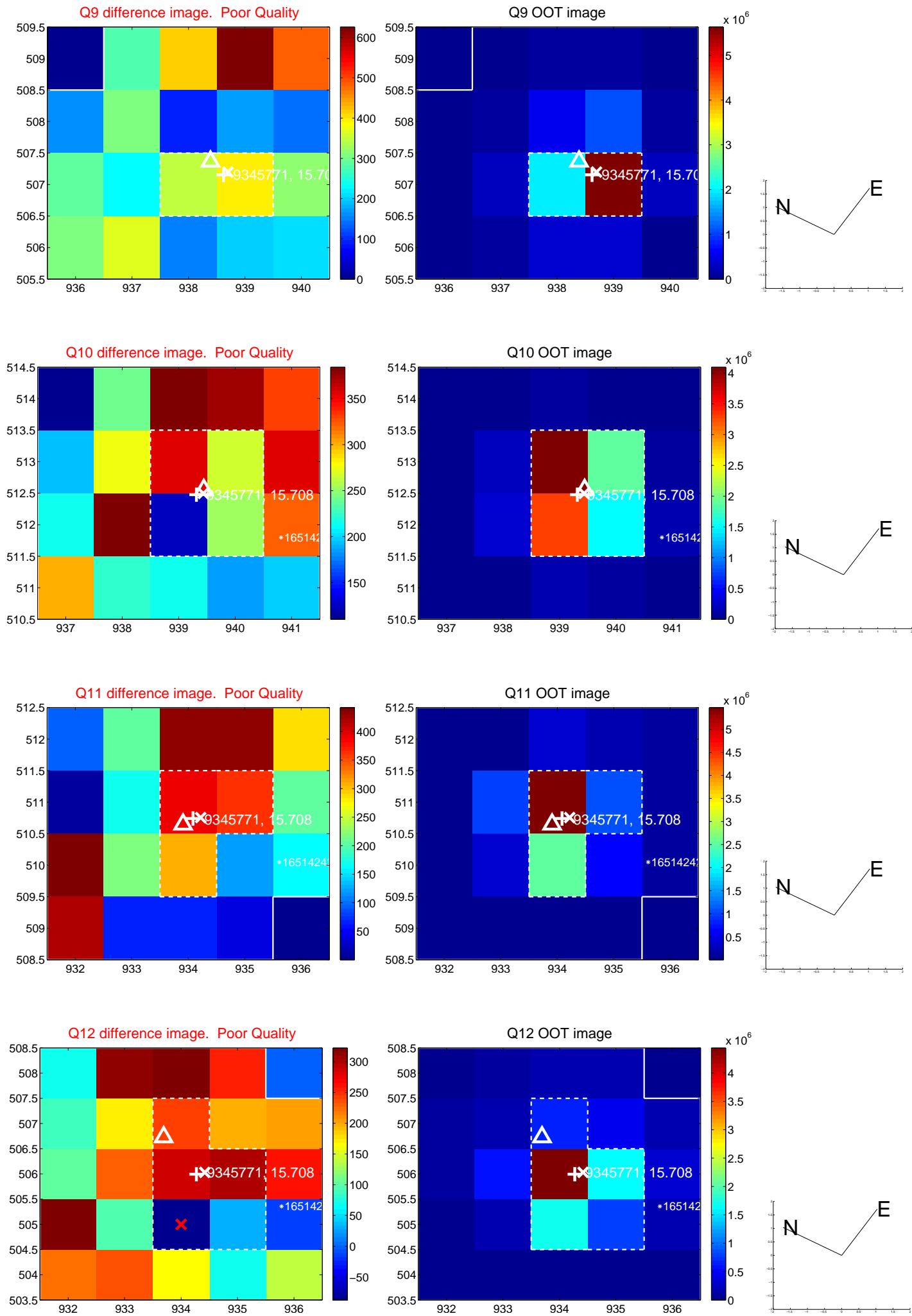
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



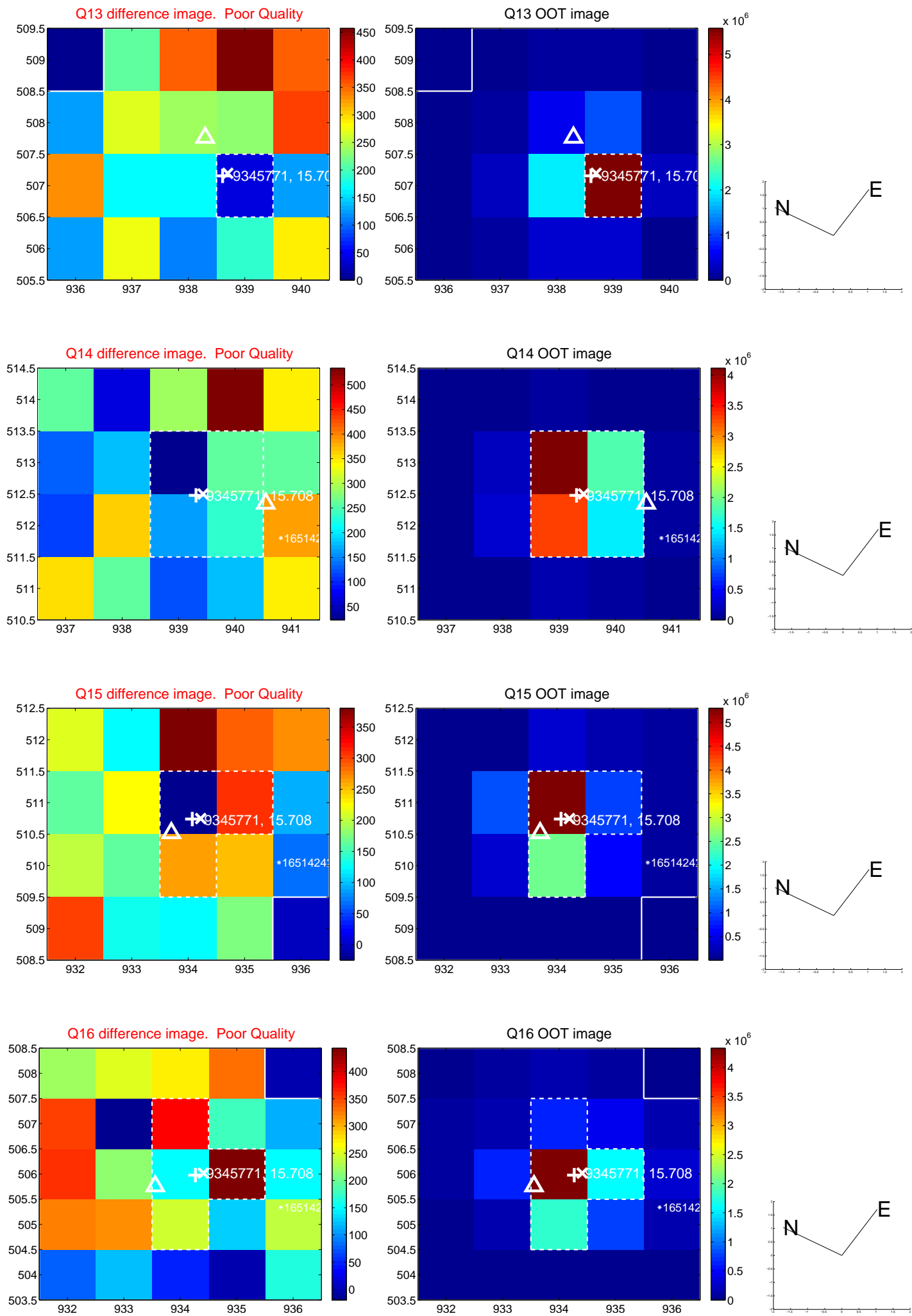
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



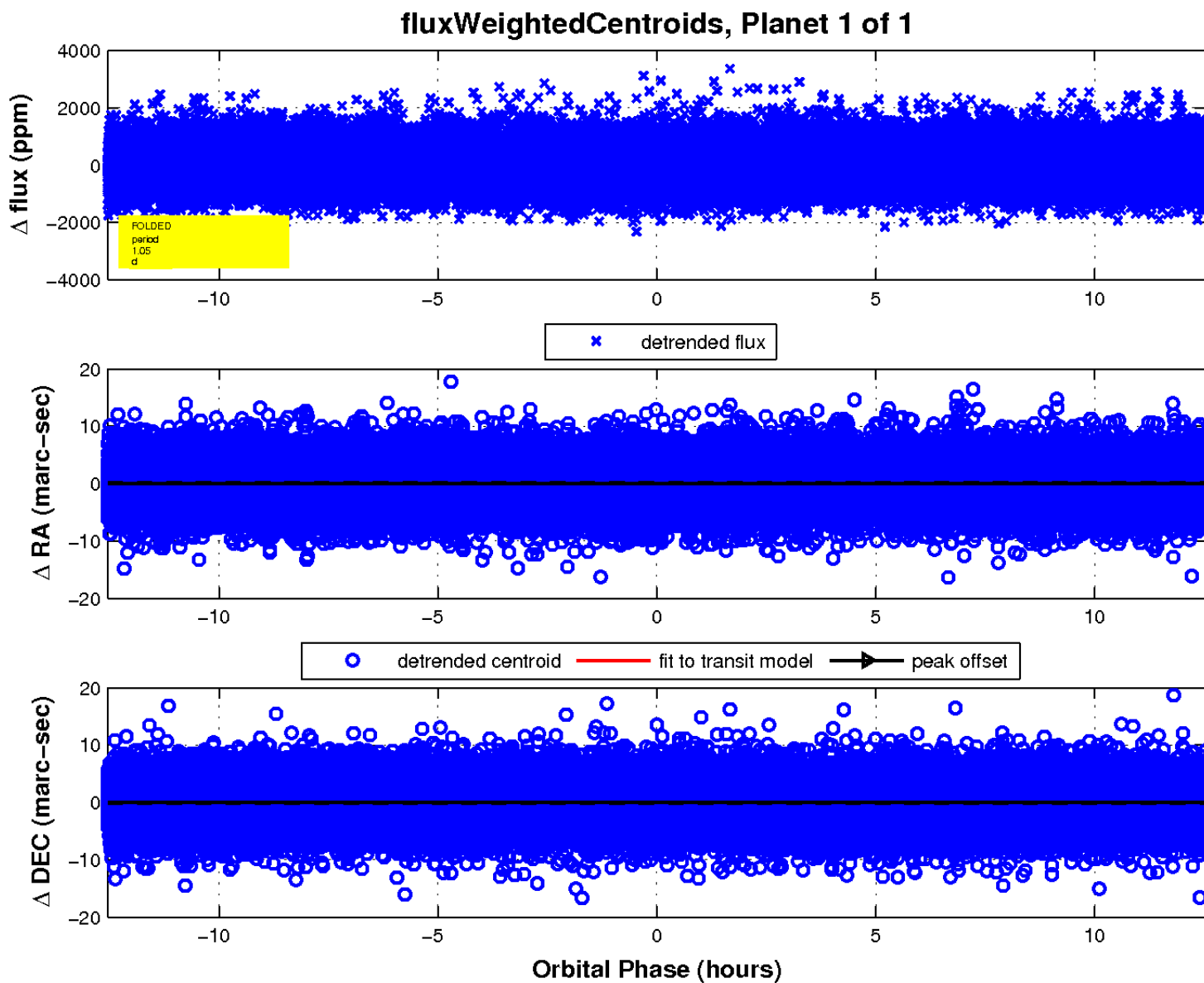
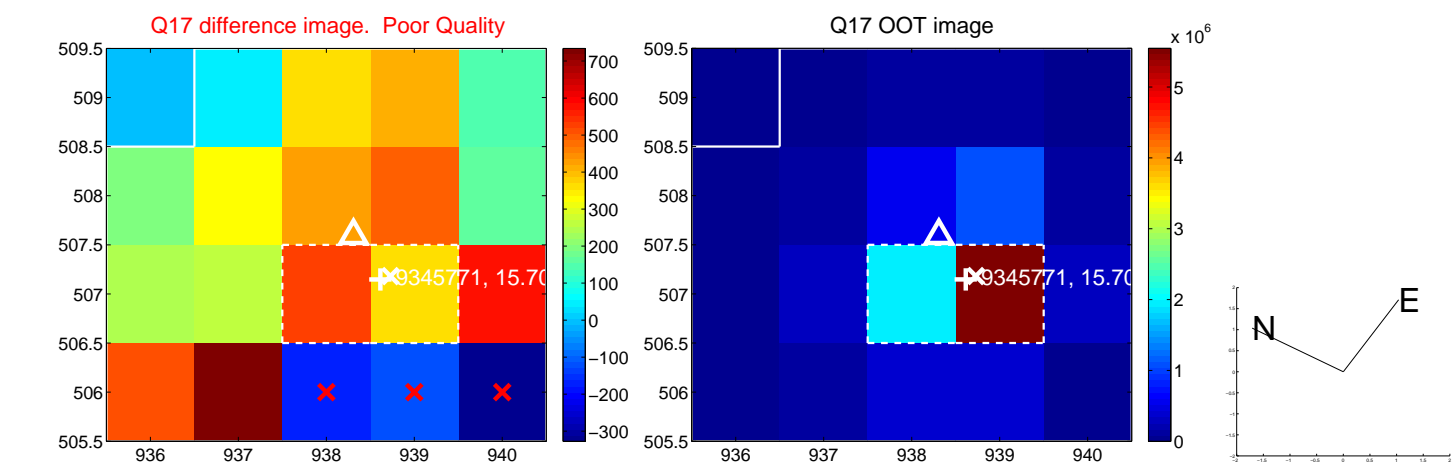
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

