

KIC 009347095

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})
009347095-01	OBS	No	2.813685	133.631354	273.2	22.594	9.9	10.5	2.97	7187	8.58	10637.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009347095-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

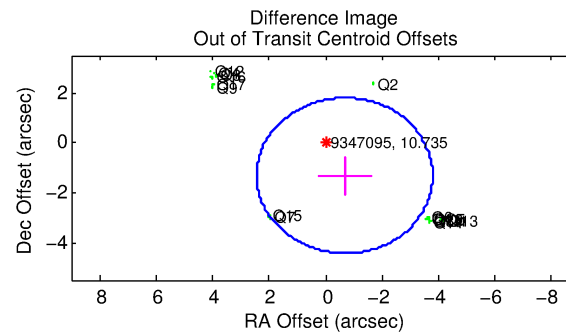
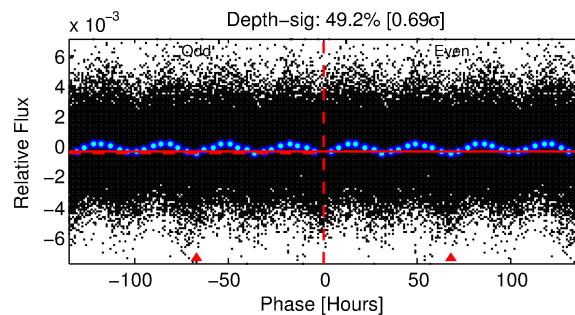
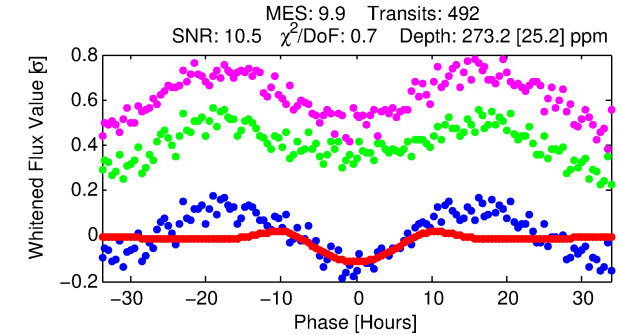
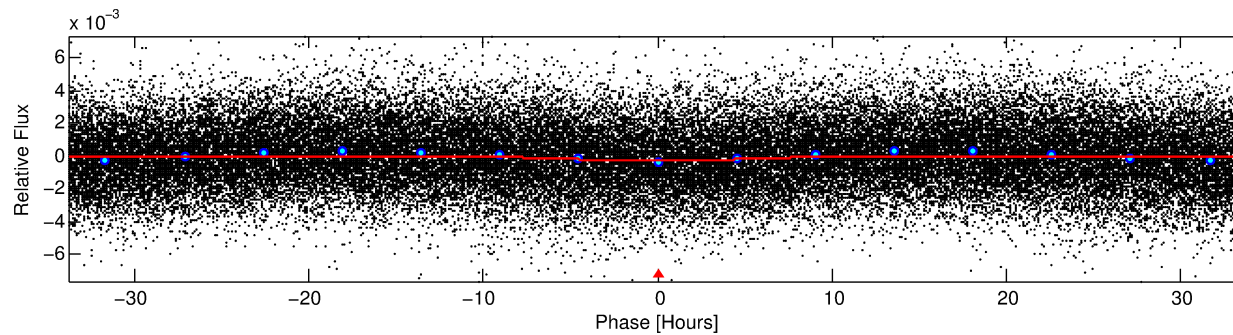
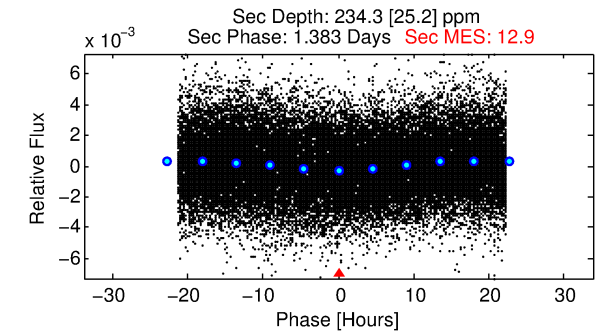
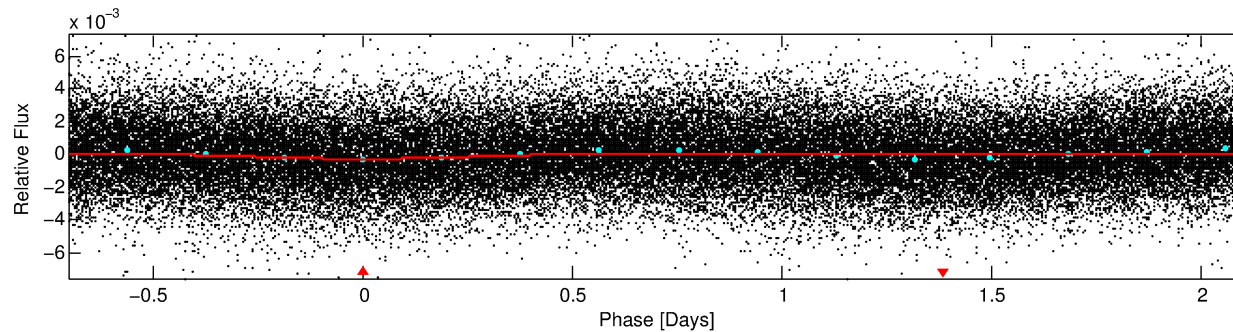
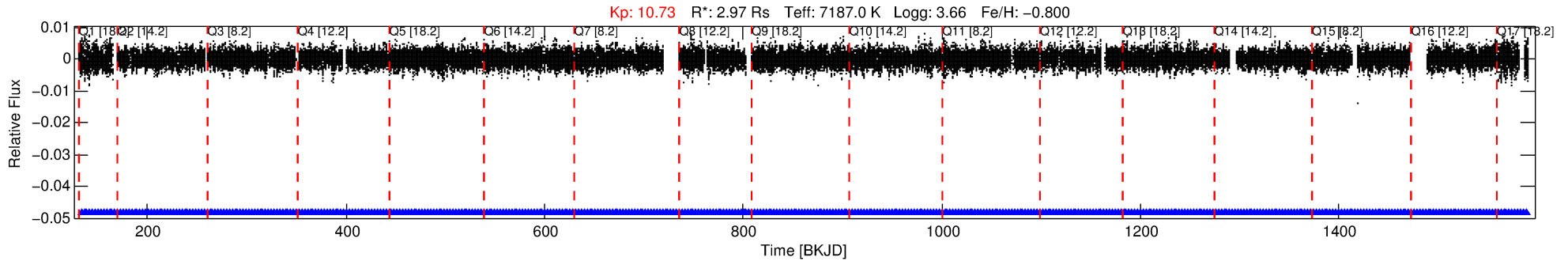
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009347095-01

No Significant Match Found

DV One-Page Summary

KIC: 9347095 Candidate: 1 of 1 Period: 2.814 d



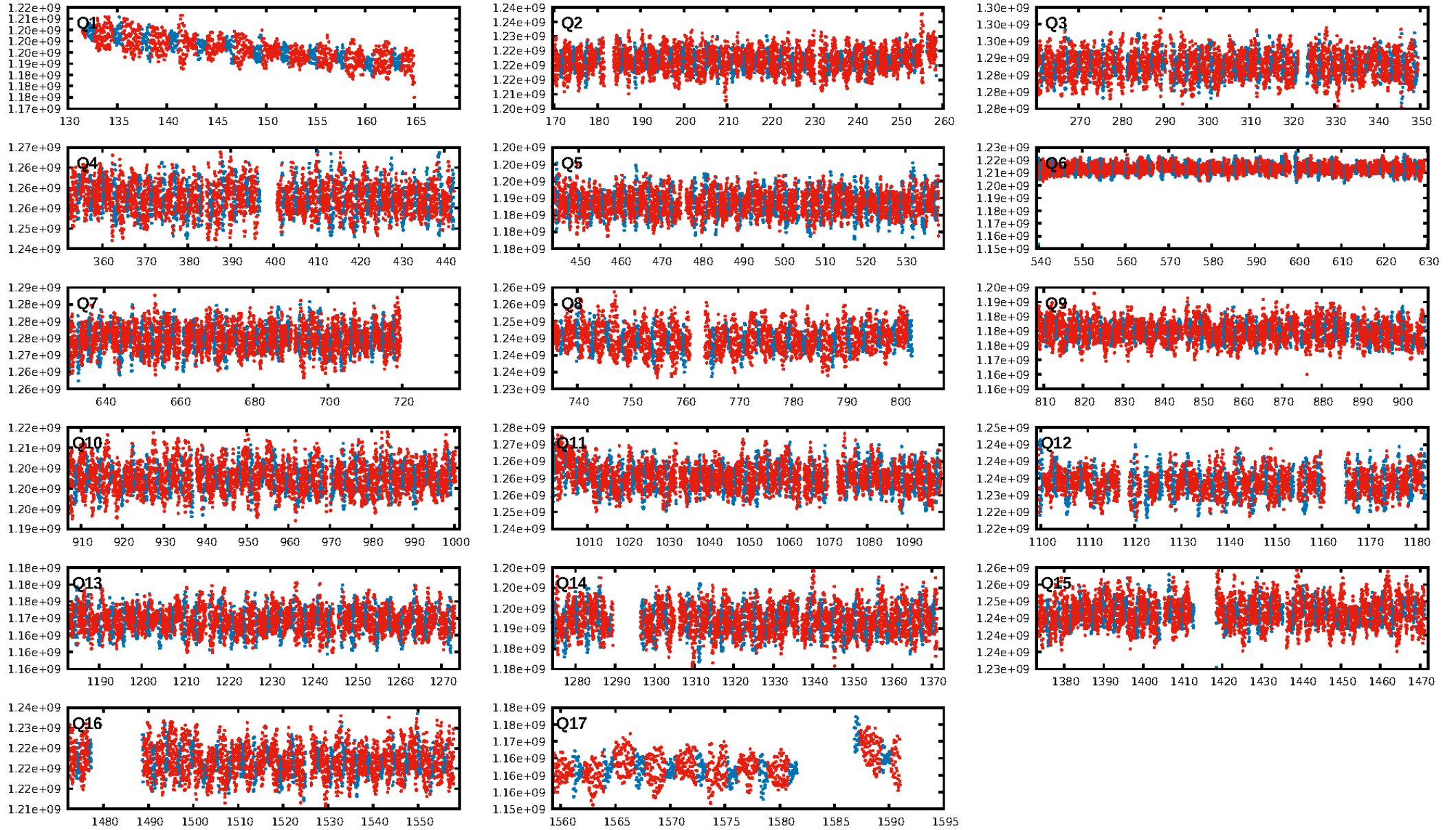
DV Fit Results:

Period = 2.81368 [0.00012] d
Epoch = 133.6314 [0.0332] BKJD
Rp/R* = 0.0265 [0.0230]
a/R* = 1.04 [0.01]
b = 1.00 [0.04]
Seff = 10637.31 [10850.86]
Teff = 2590 [660] K
Rp = 8.58 [8.80] Re
a = 0.0445 [0.0265] AU
Ag = 3.46 [6.95] [0.35σ]
Teffp = 5462 [2379] K [1.16σ]

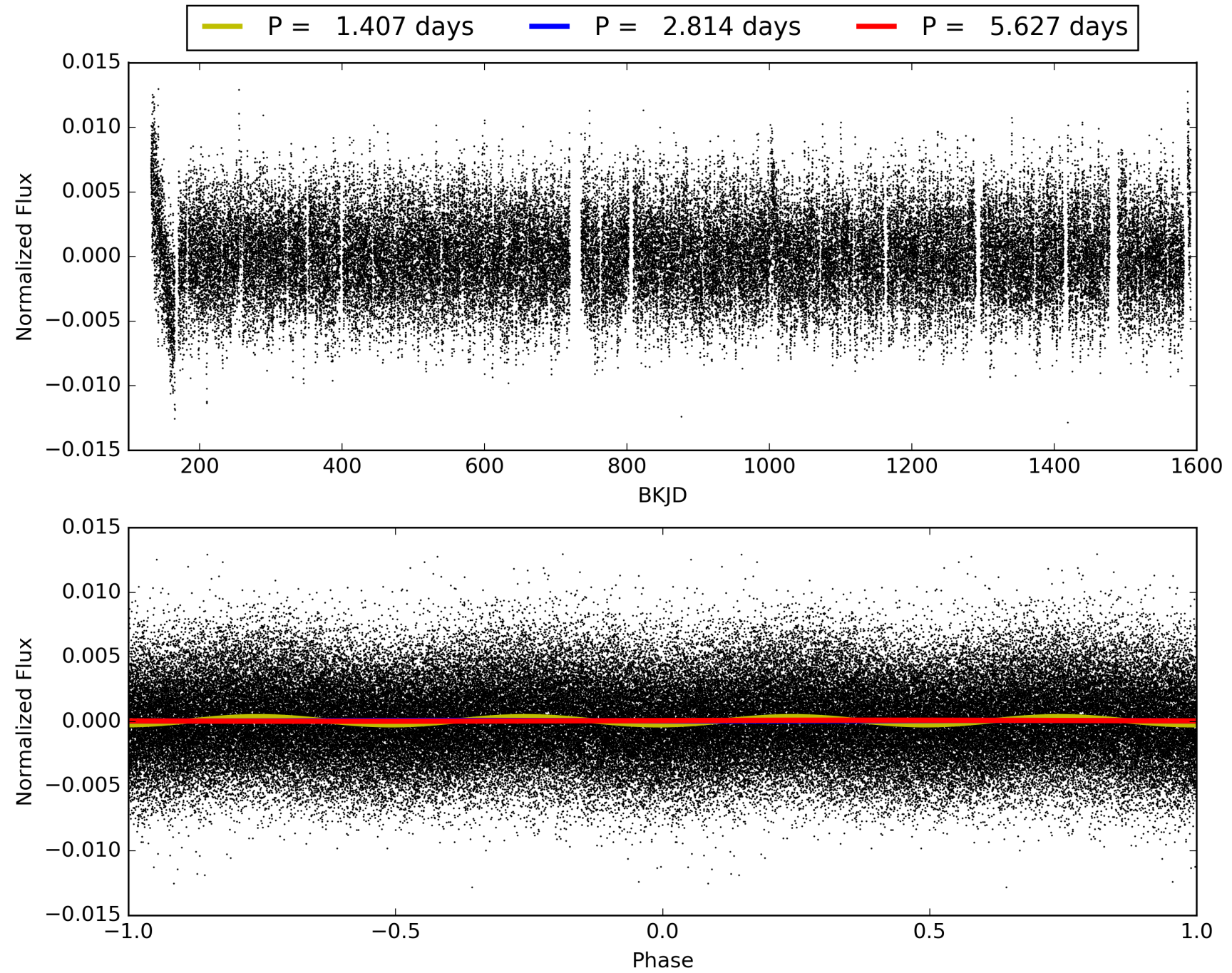
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [470/470]
GhostDiagnostic-chr: 1.566
Centroid-sig: 0.4%
Centroid-so: 0.400 arcsec [4.86σ]
OotOffset-rm: 1.482 arcsec [1.43σ]
KicOffset-rm: 1.641 arcsec [1.75σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 009347095-01, PDC Light Curves

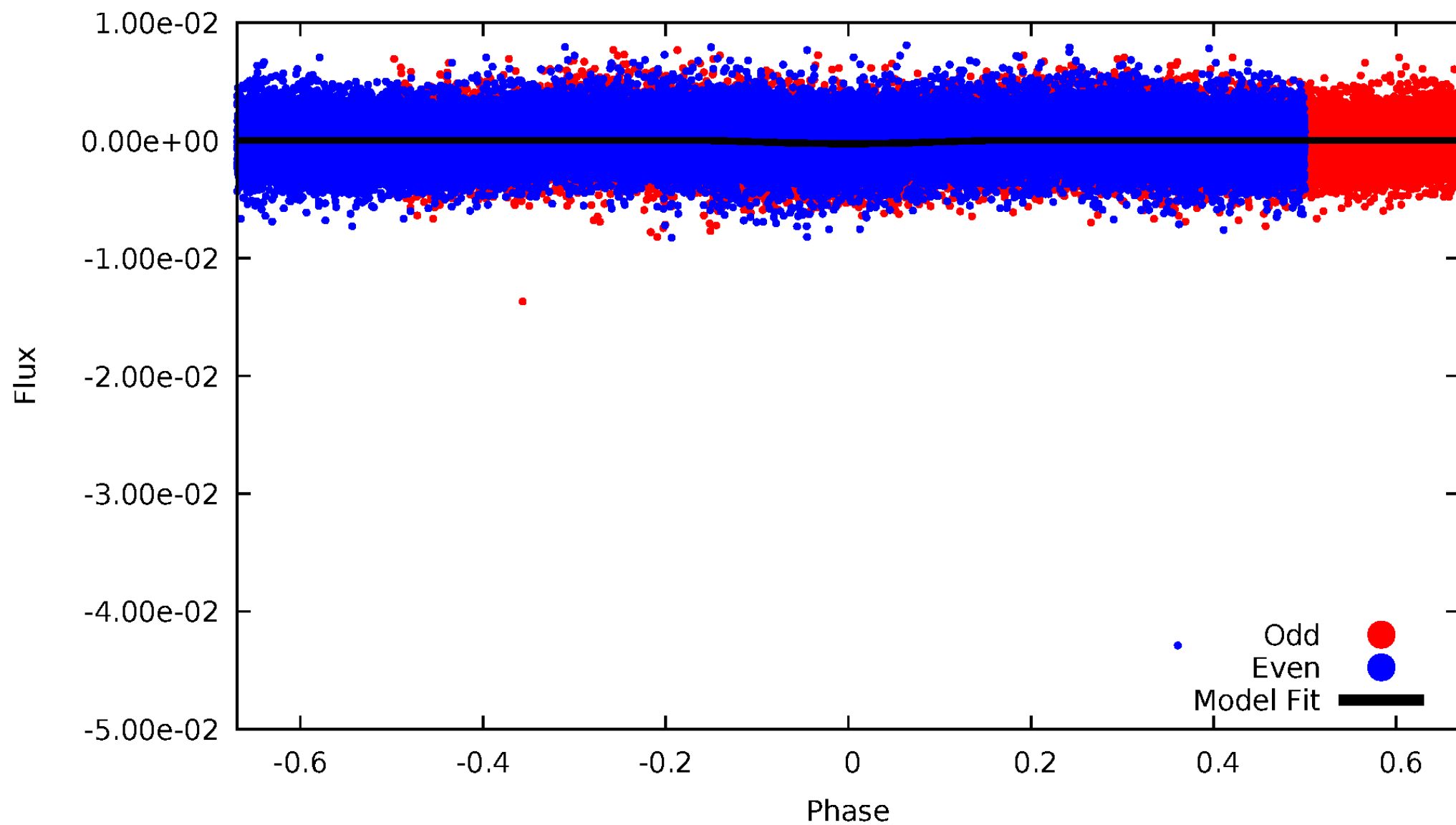


TCE 009347095-01



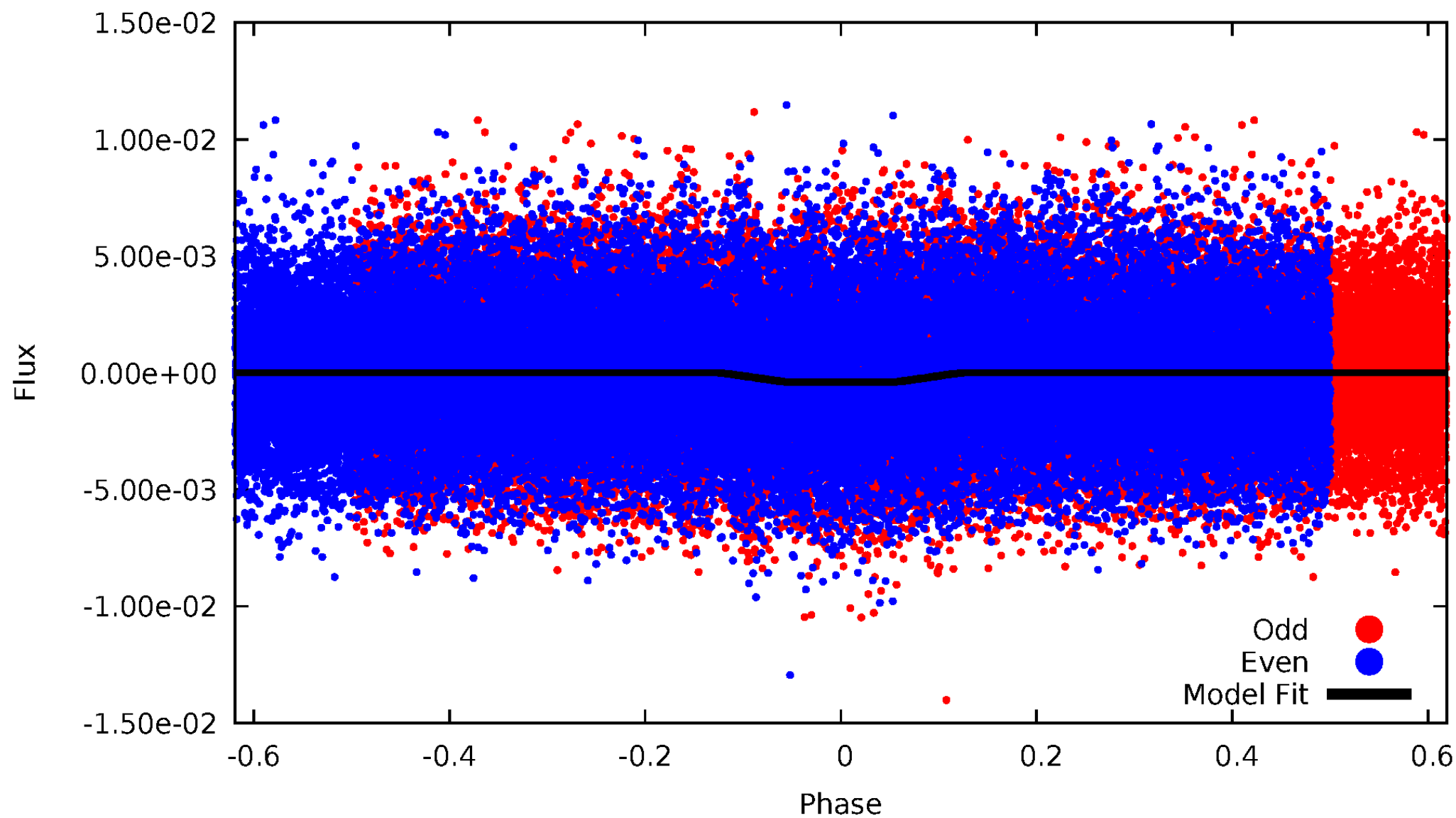
DV Odd/Even

TCE 009347095-01

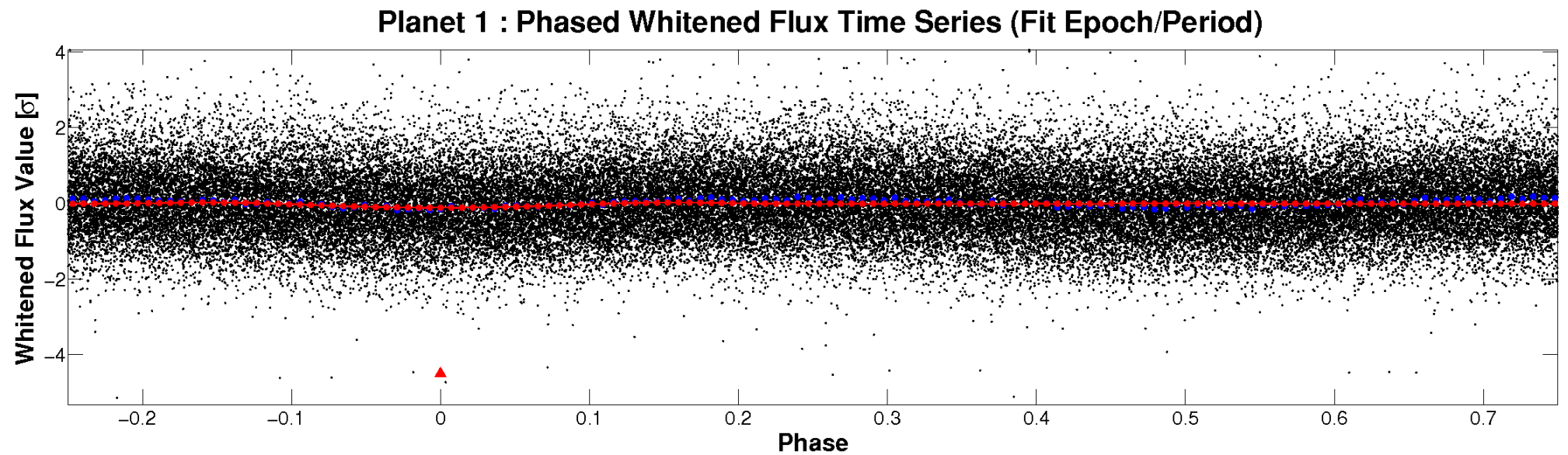
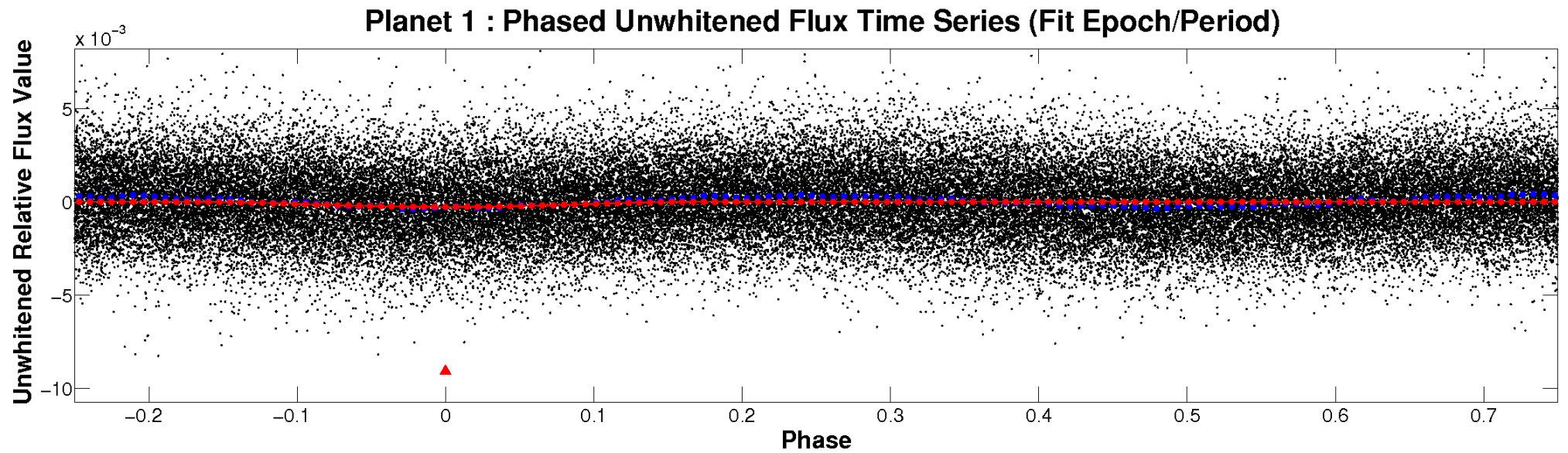


ALT Odd/Even

TCE 009347095-01

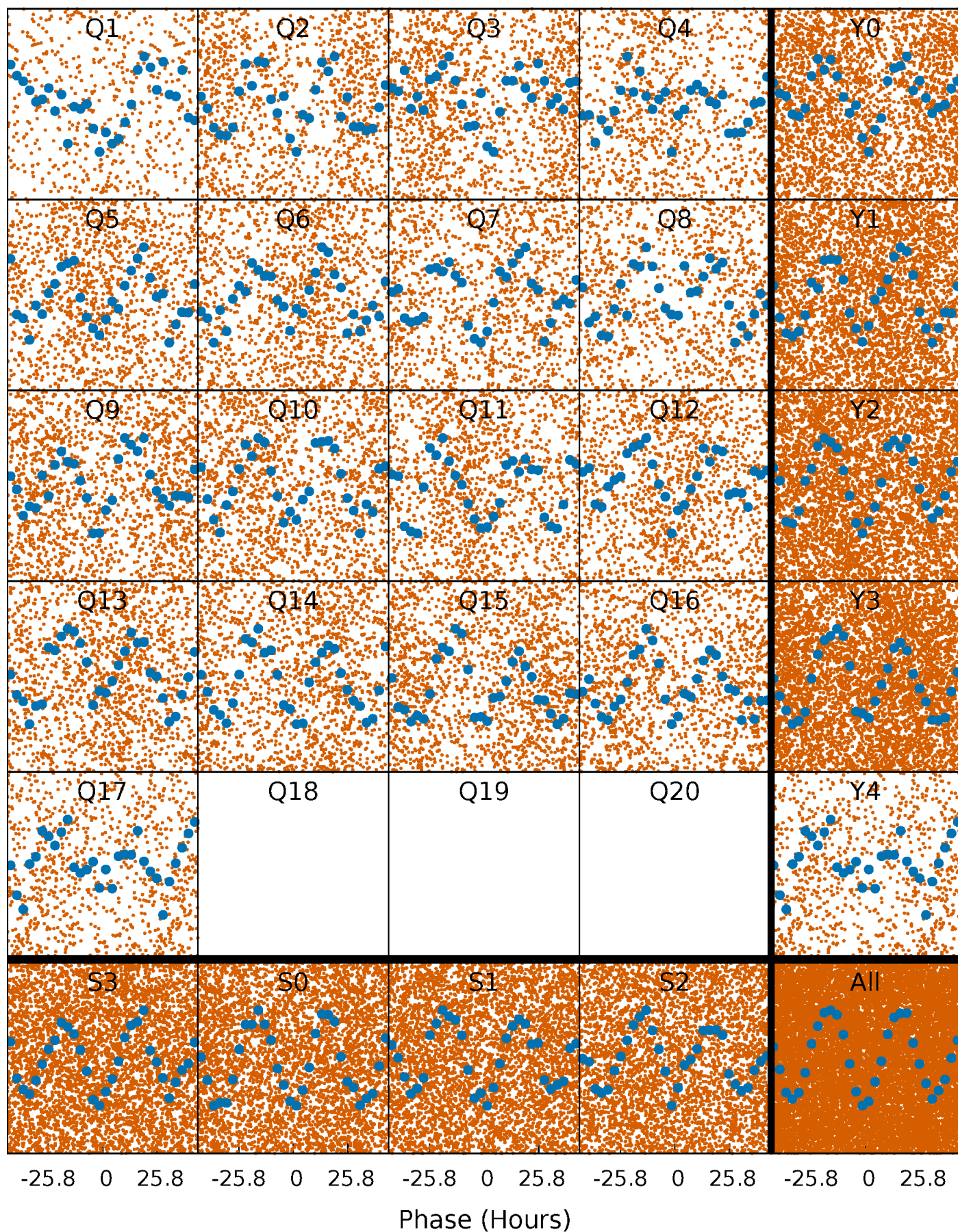


Non-Whitened Vs. Whitened Light Curve



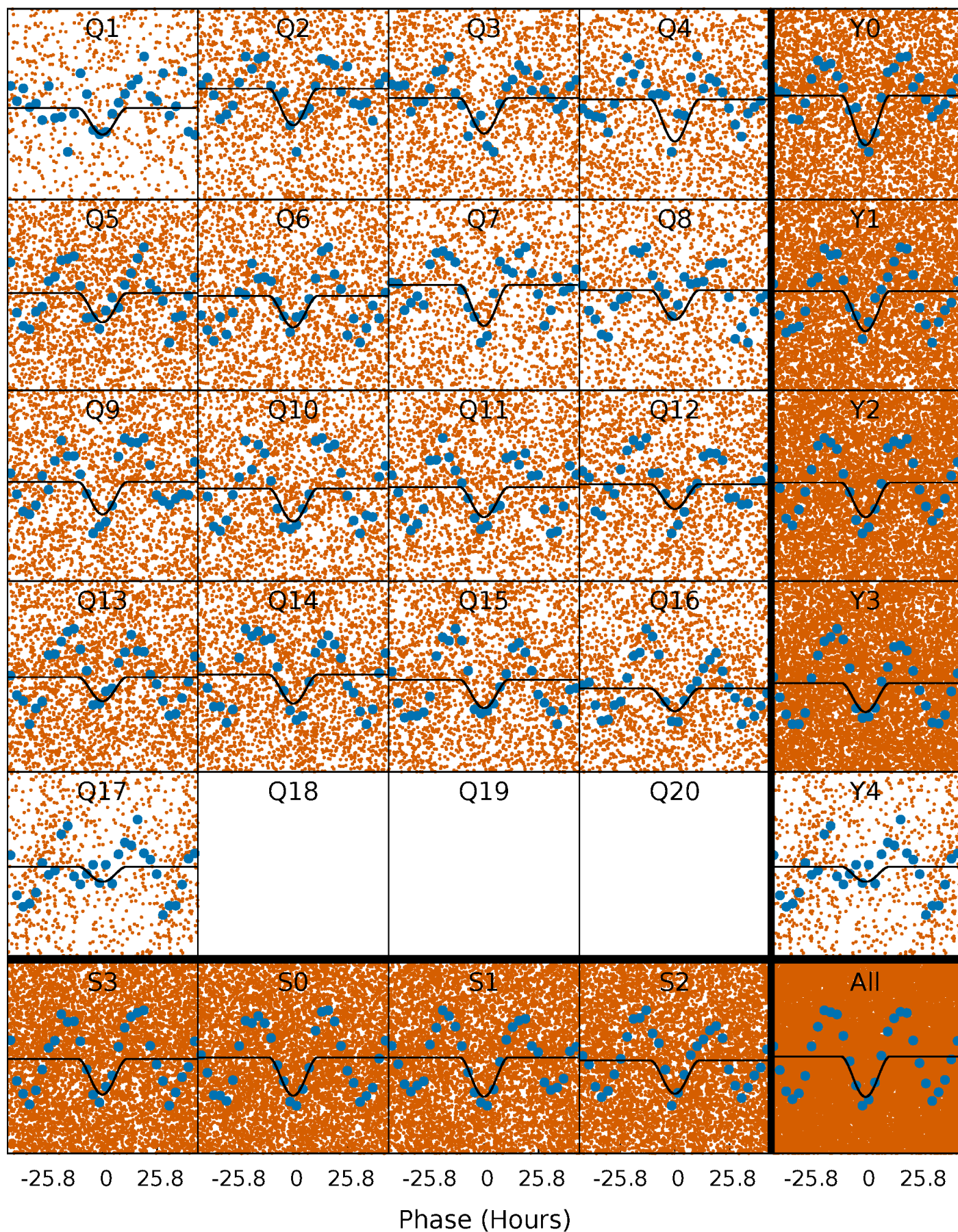
PDC Quarter-Phased Transit Curves

TCE 009347095-01 P= 2.813685 Days $T_0=133.631354$ (BKJD)



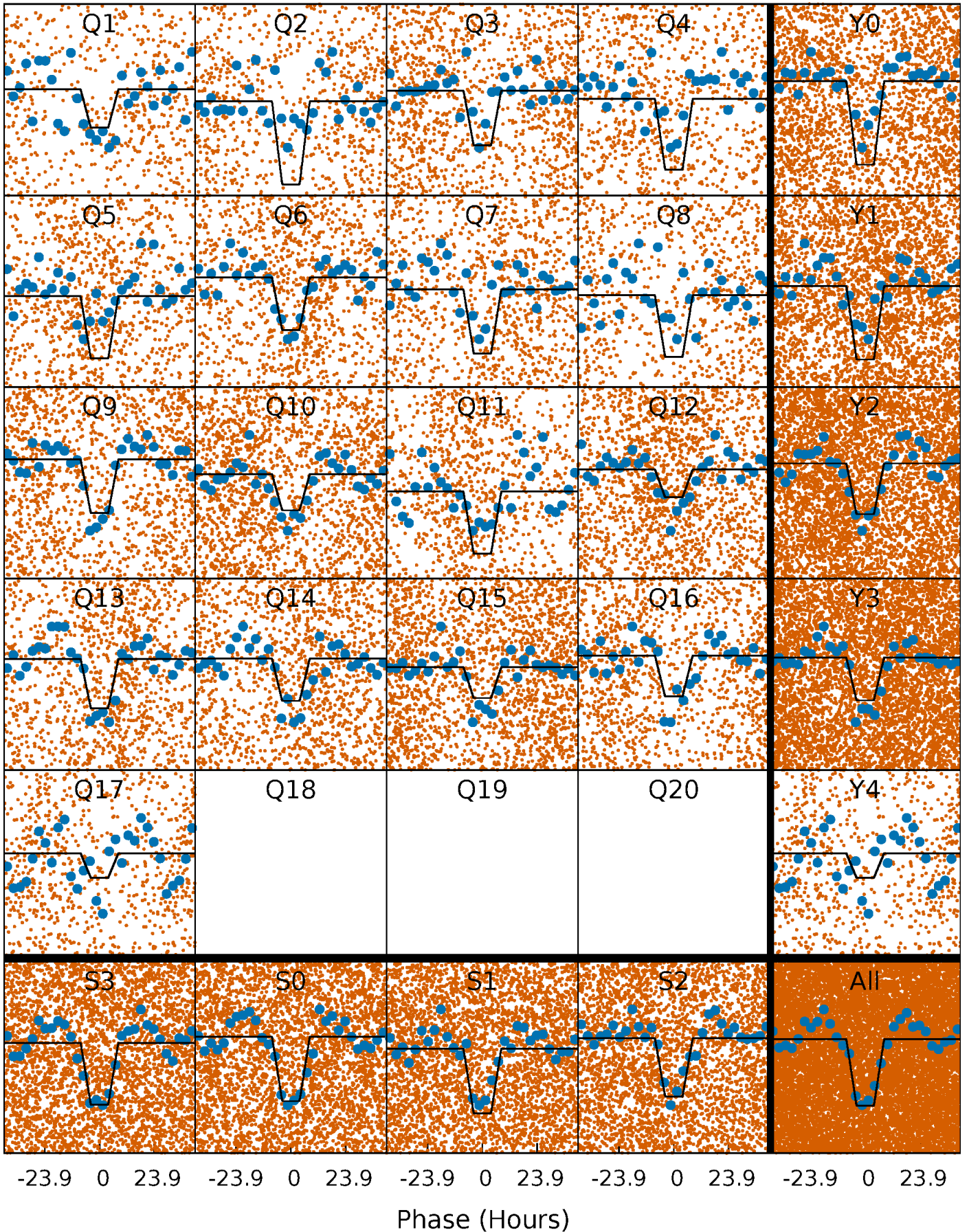
DV Quarter-Phased Transit Curves

TCE 009347095-01 $P = 2.813685$ Days $T_0 = 133.631354$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

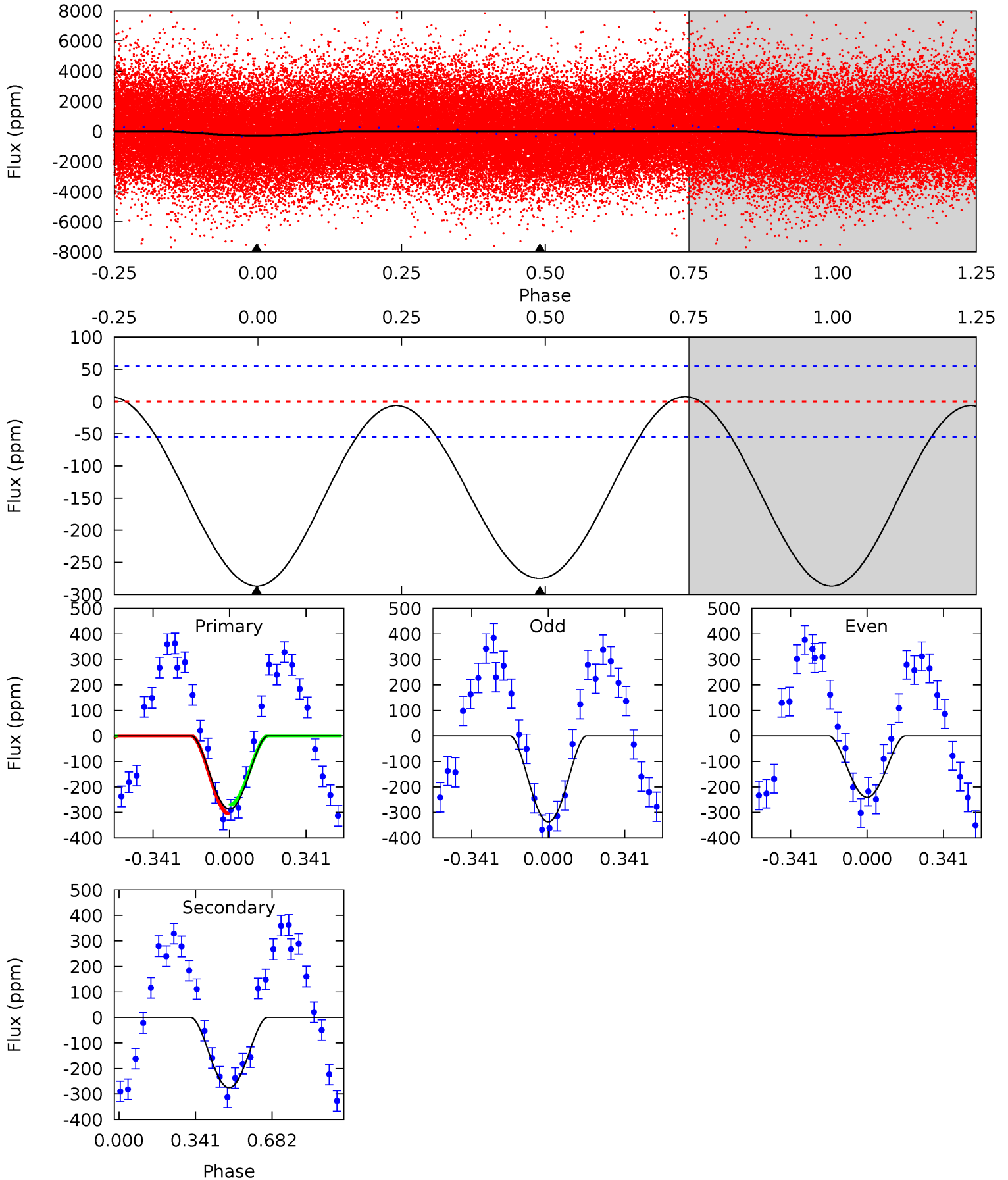
TCE 009347095-01 P= 2.813451 Days $T_0=133.712053$ (BKJD)



DV Model-Shift Uniqueness Test

009347095-01, P = 2.813685 Days, E = 130.817669 Days

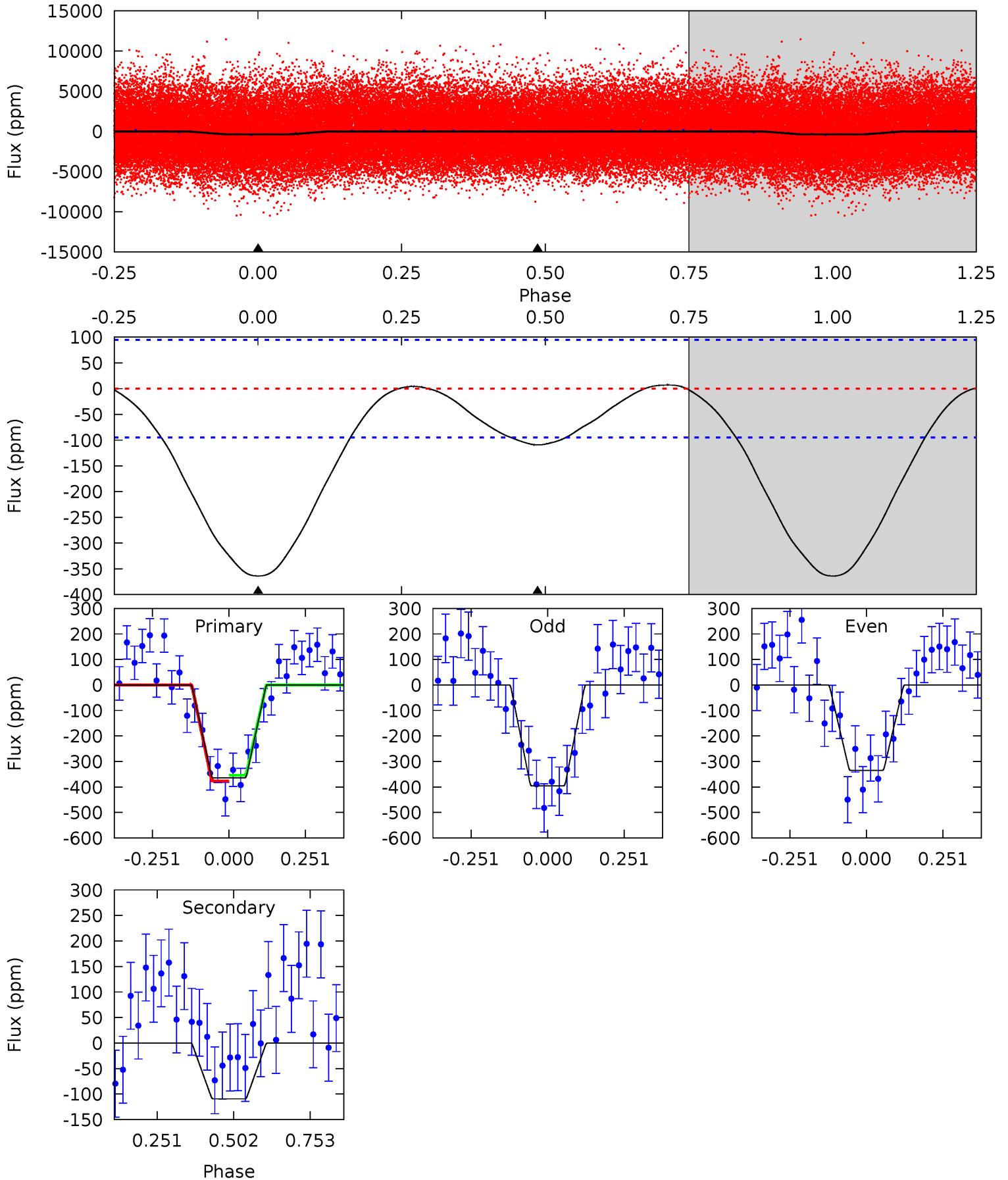
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.5	21.6	0	0	4.30	0.95	0.53	22.5	22.5	21.6	21.6	3.74	1.15	0.03	1.40



Alt Model-Shift Uniqueness Test

009347095-01, P = 2.813451 Days, E = 130.898602 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.7	5.03	0	0	4.37	1.15	0.35	16.7	16.7	5.03	5.03	1.39	1.00	0.02	0.49



Stellar Parameters For KIC 009347095

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7187^{+224}_{-274}	$3.664^{+0.612}_{-0.108}$	$-0.800^{+0.300}_{-0.300}$	$2.966^{+0.436}_{-1.633}$	$1.482^{+0.184}_{-0.429}$	$0.080^{+0.713}_{-0.027}$
	+3%/-4%	+17%/-3%	+37%/-37%	+15%/-55%	+12%/-29%	+891%/-33%
Source	KIC0	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 009347095-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-275 ± 13	$8.29^{+6.44}_{-5.12}$	3497^{+262}_{-482}	5325^{+3573}_{-1215}	$4.237^{+23.726}_{-2.861}$
Alt.	-109 ± 22	$7.14^{+7.39}_{-4.56}$	3504^{+269}_{-485}	4525^{+3086}_{-1242}	$2.296^{+16.917}_{-1.738}$

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 $A_{obs} \gg 1.0$

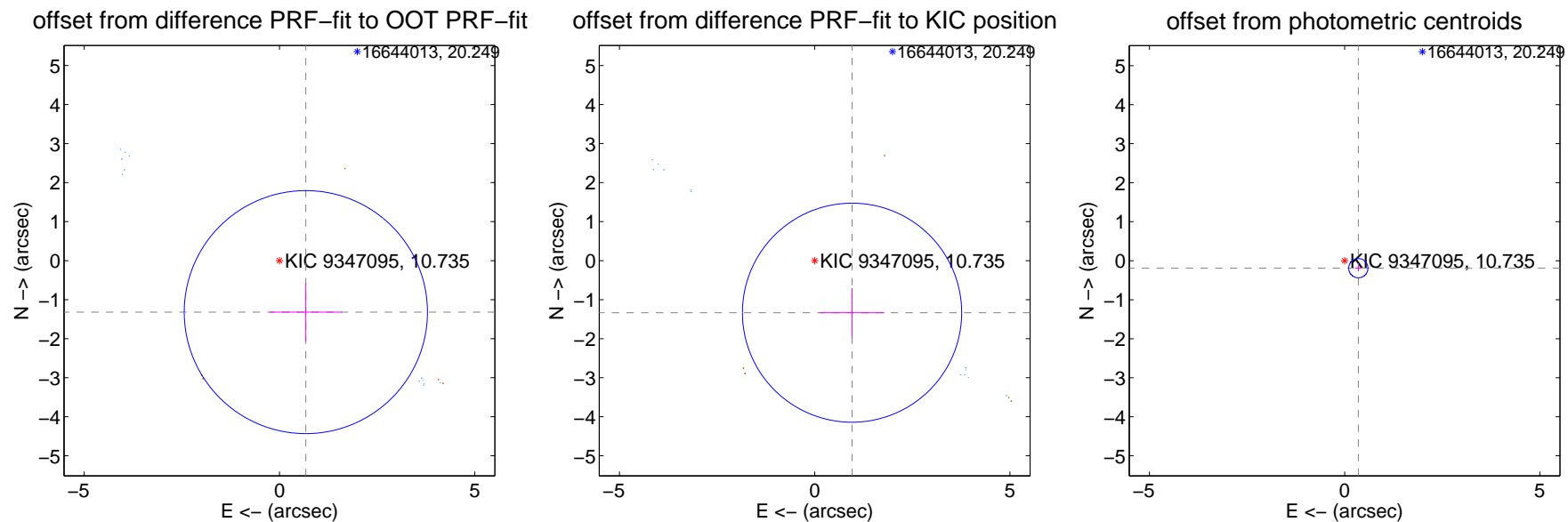
DV Centroid Data

Supplemental centroid analysis for 009347095-01. **Kepler magnitude: 10.73.** Transit SNR 10.52

There are 12 quarters with good PRF difference image offsets

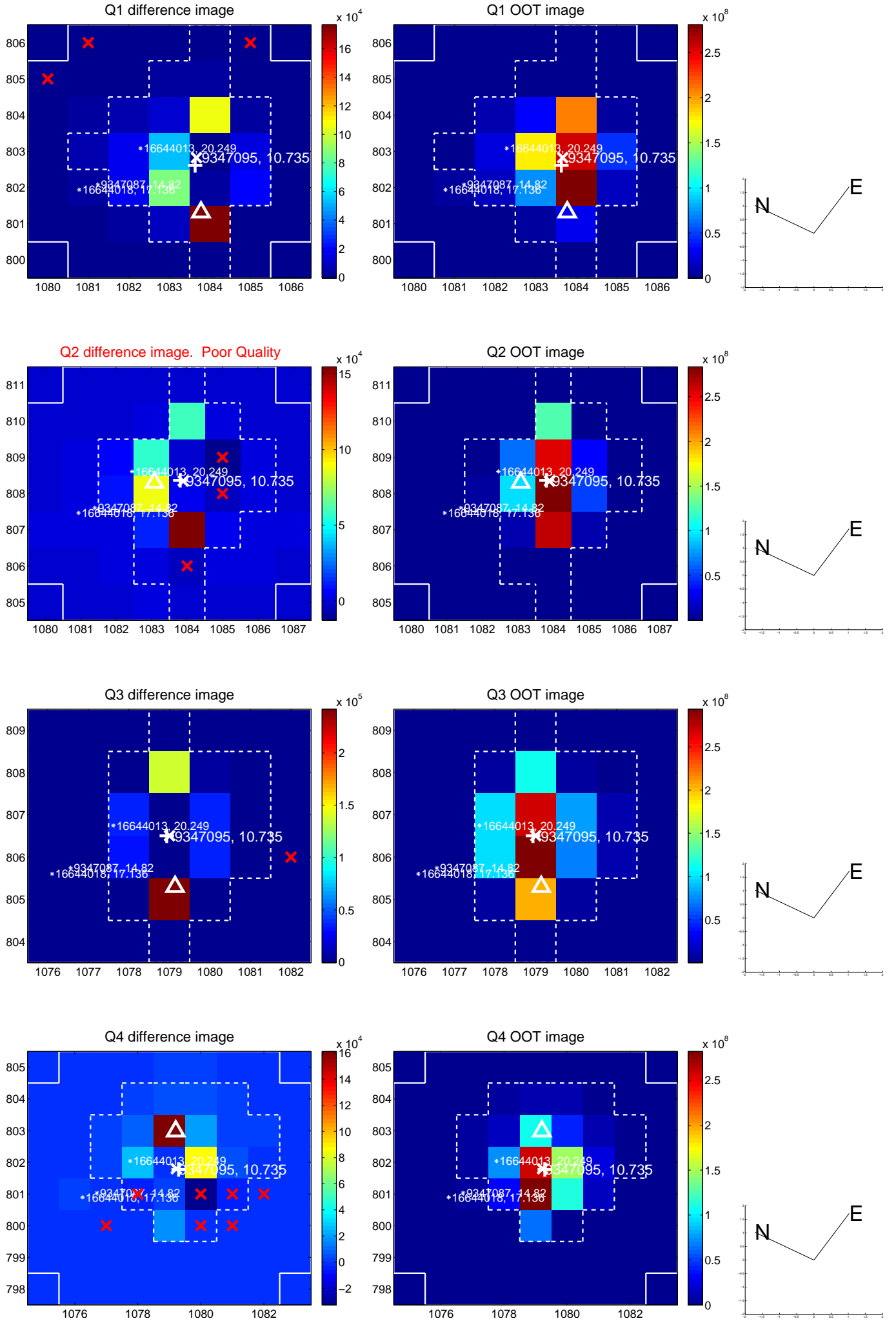
The direct PRF centroid is offset from the target star catalog position by about 0.95 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.482 ± 1.038	1.43	-0.676 ± 0.928	-1.319 ± 0.741
PRF-fit source offset from KIC position	1.641 ± 0.936	1.75	-0.957 ± 0.827	-1.334 ± 0.631
photometric centroid source offset	0.40 ± 0.08	4.86	-0.35 ± 0.08	-0.19 ± 0.08

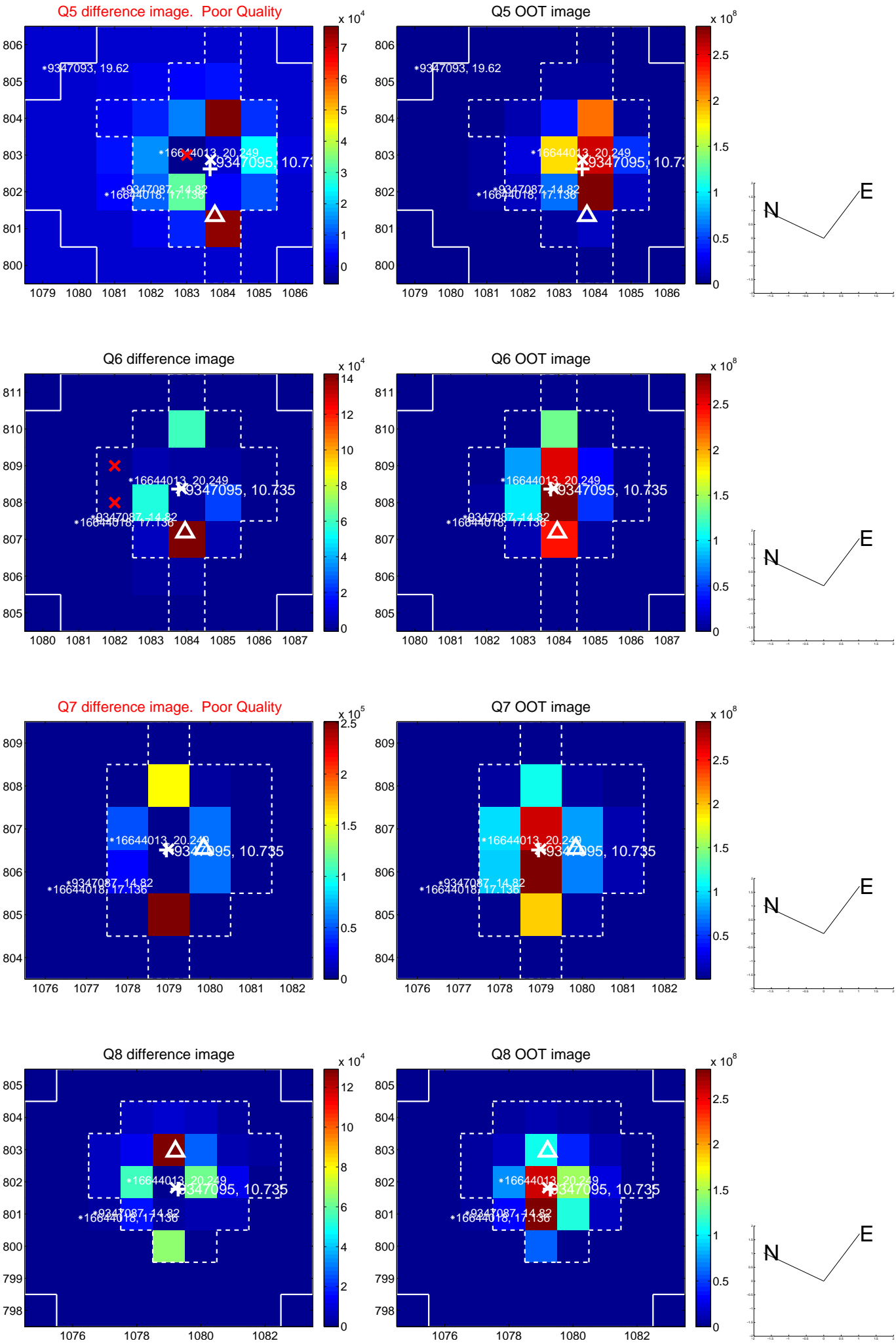


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

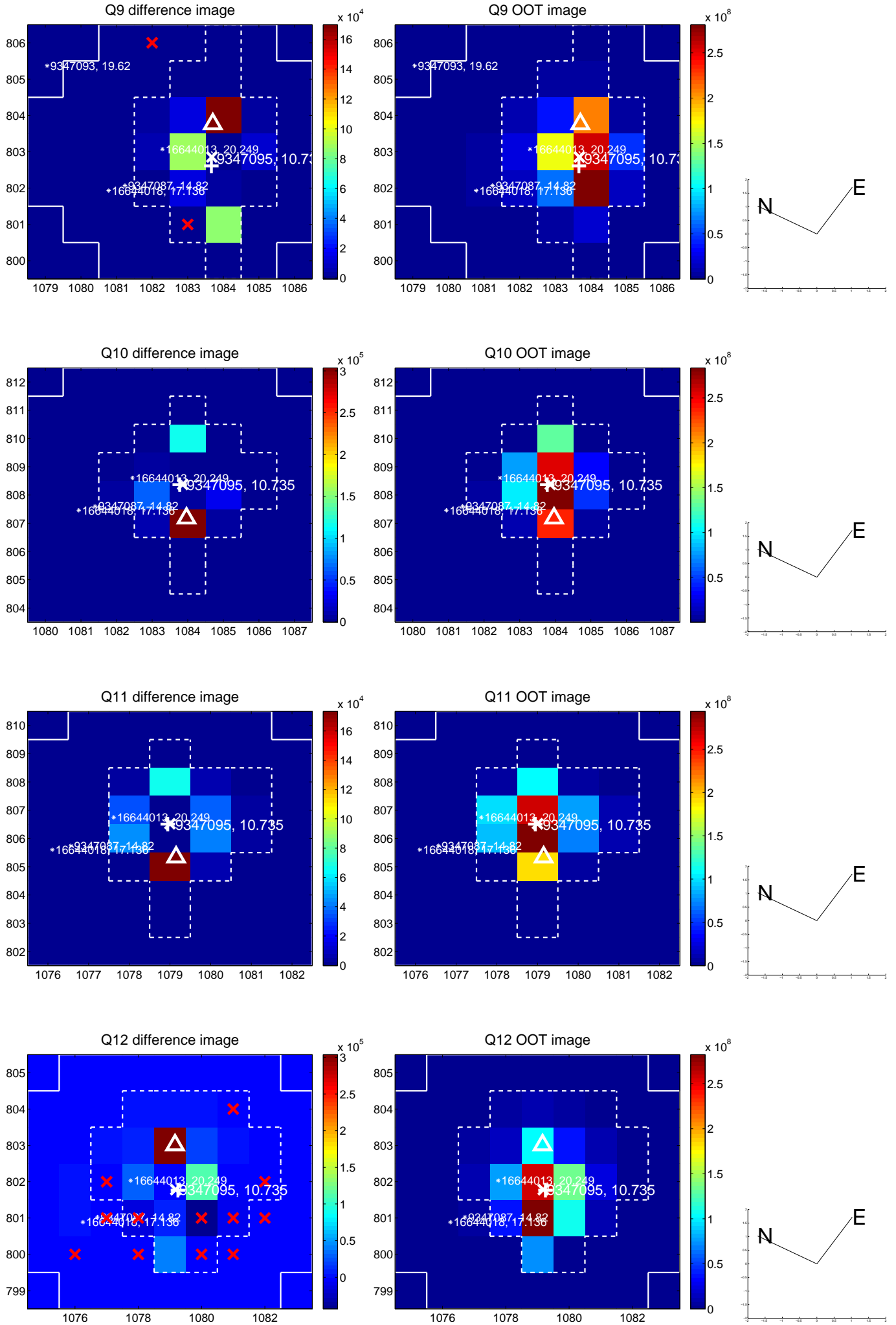
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



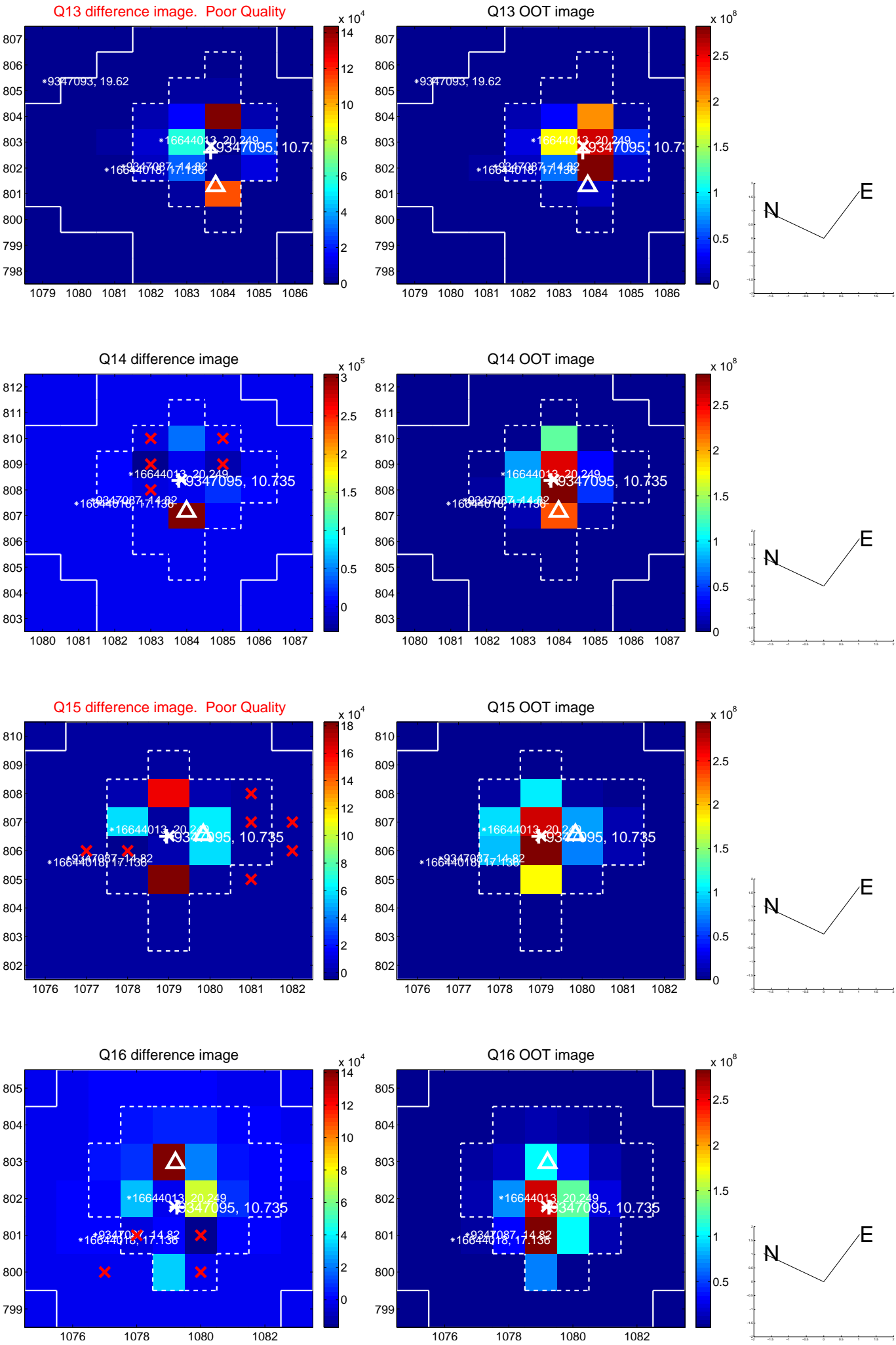
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



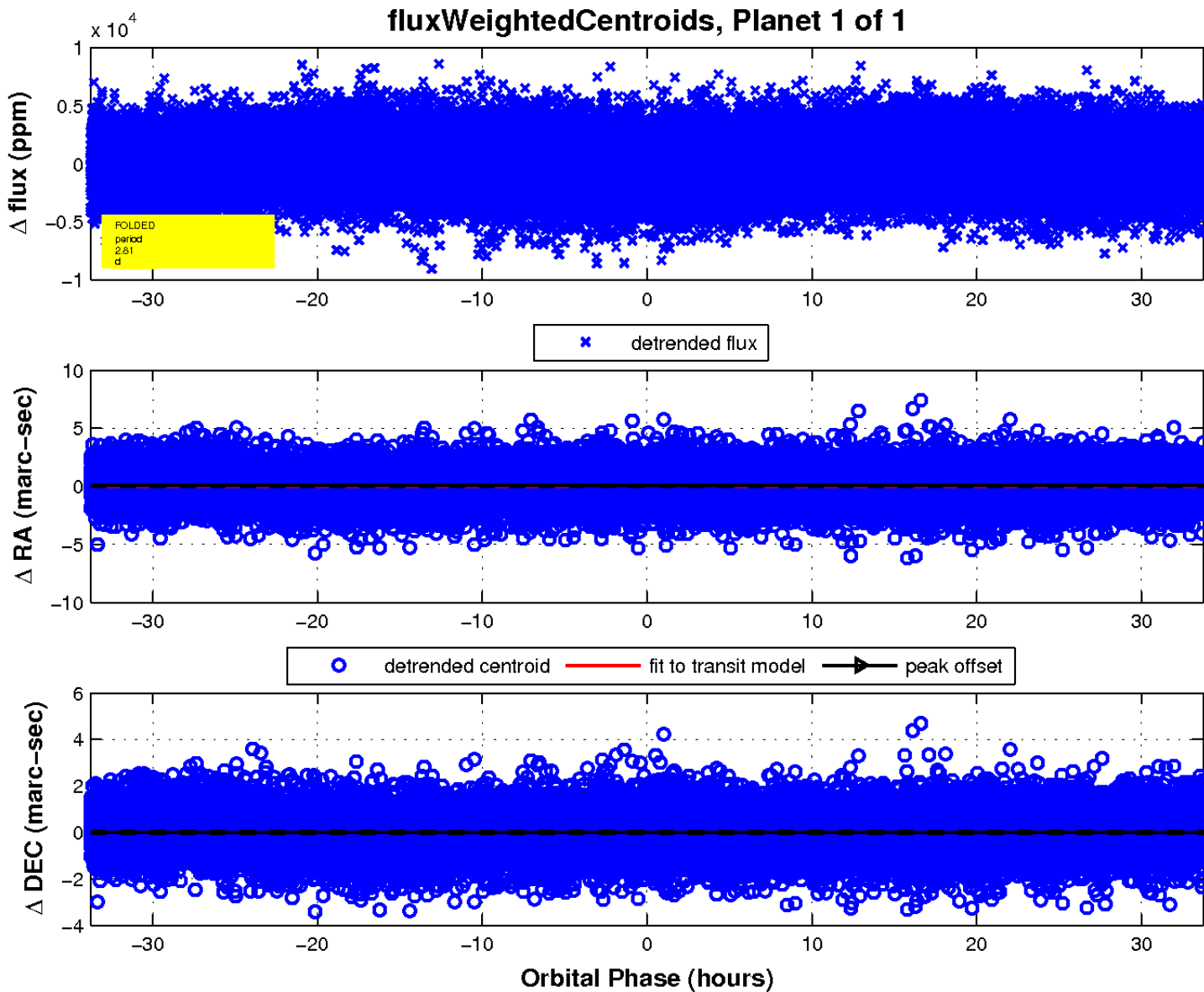
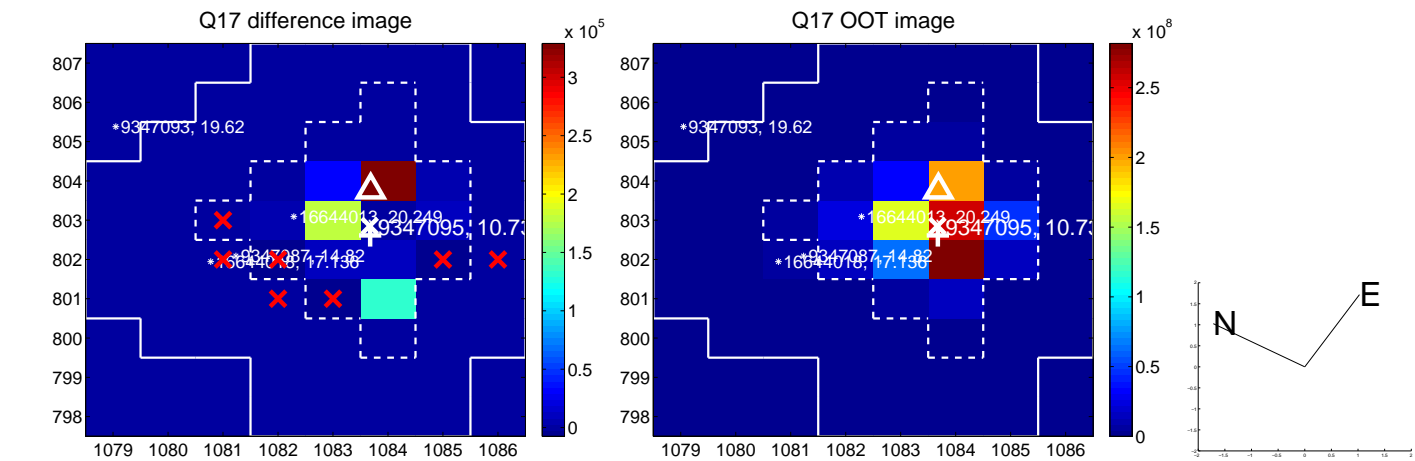
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

