

KIC 008869855

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})
008869855-01	OBS	No	0.937106	131.563812	16.3	9.663	8.7	13.7	0.97	6042	0.39	3220.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008869855-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

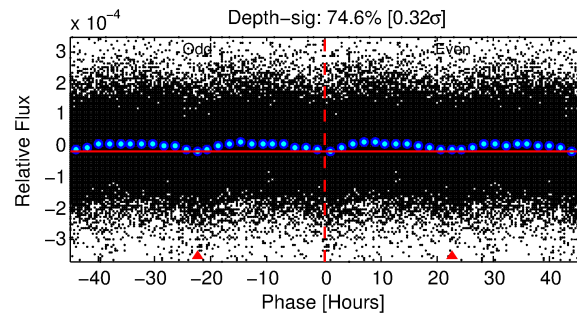
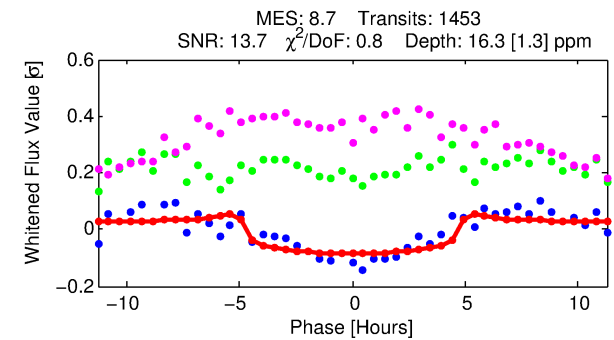
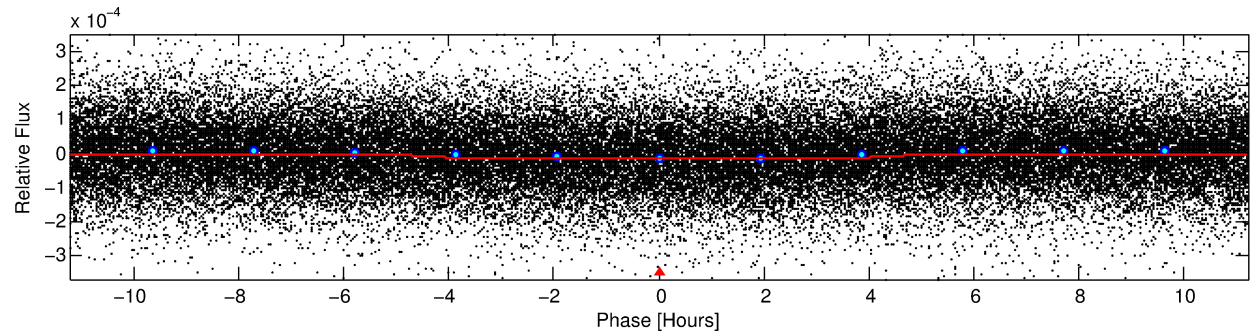
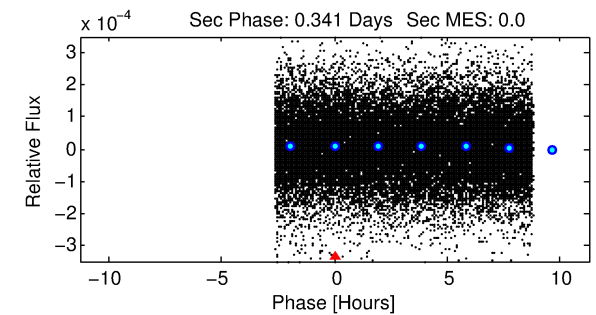
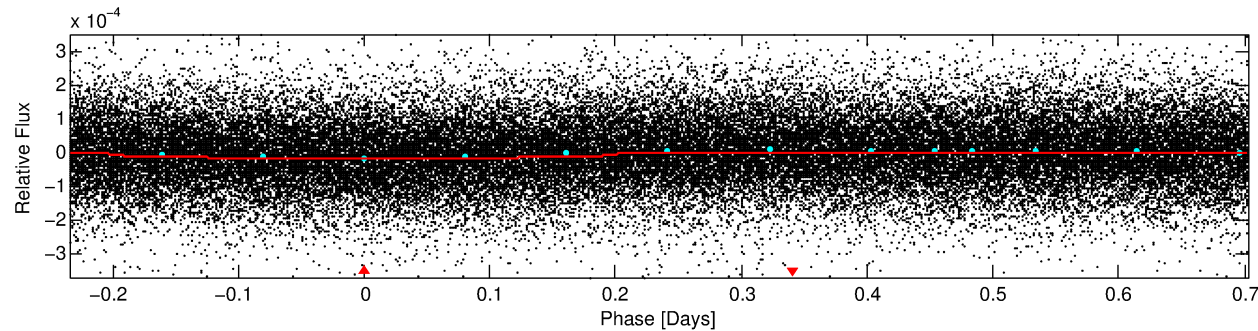
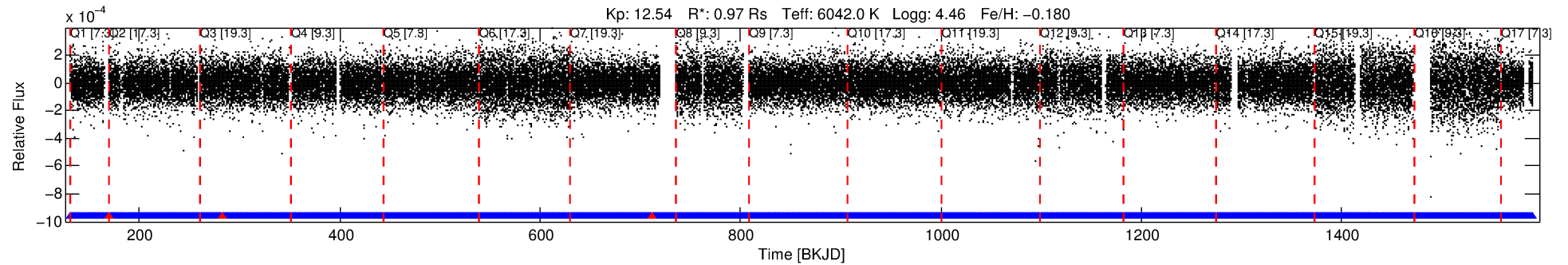
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008869855-01

No Significant Match Found

DV One-Page Summary

KIC: 8869855 Candidate: 1 of 1 Period: 0.937 d



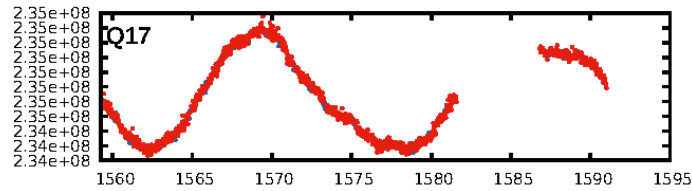
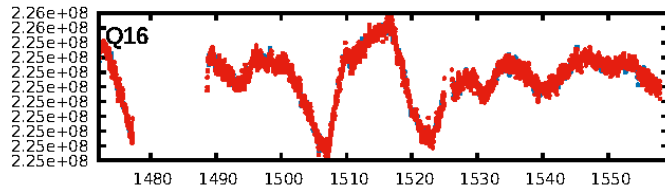
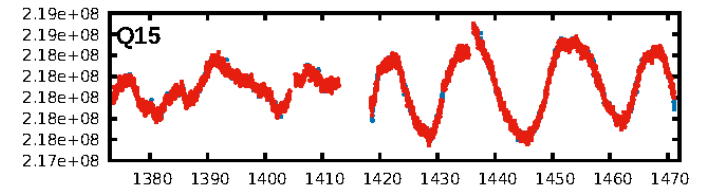
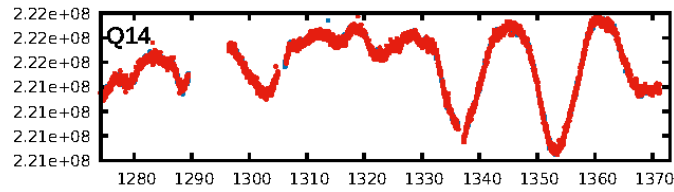
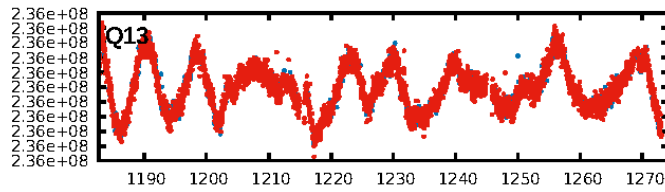
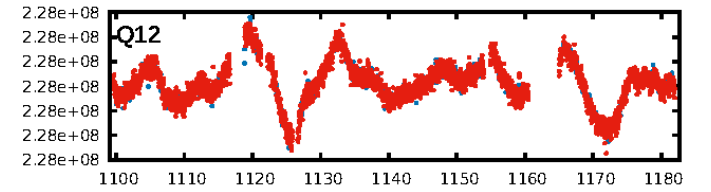
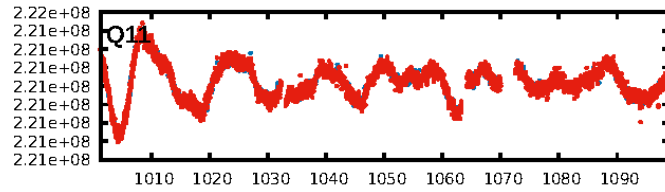
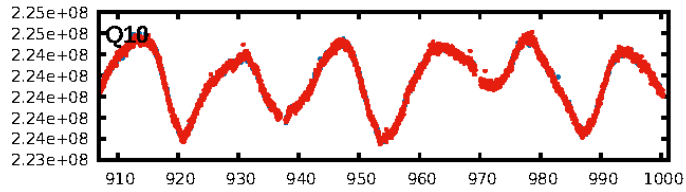
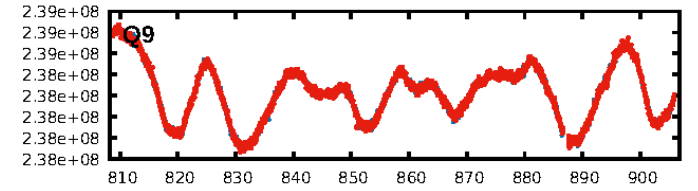
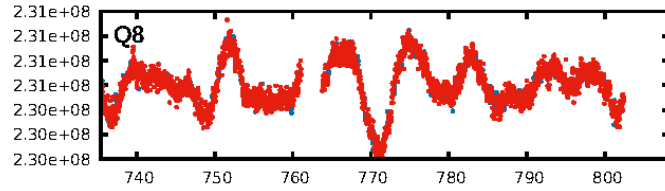
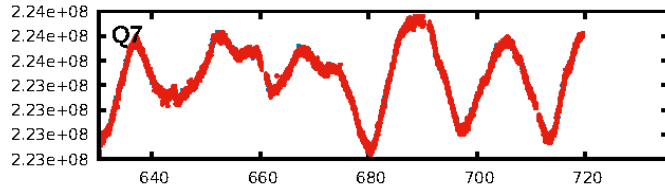
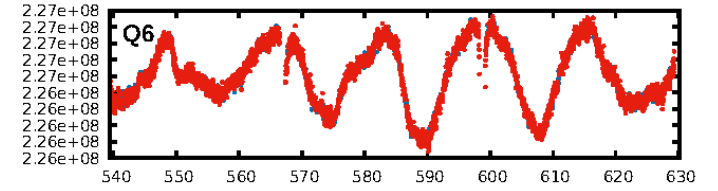
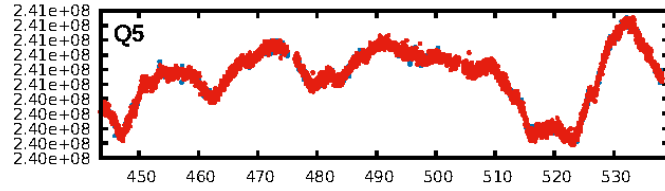
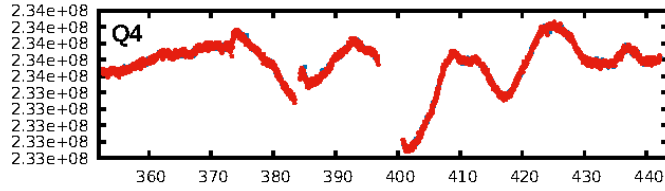
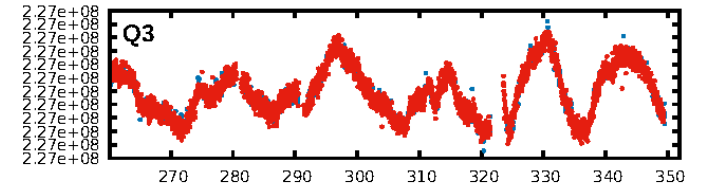
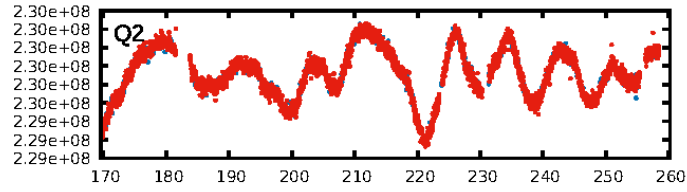
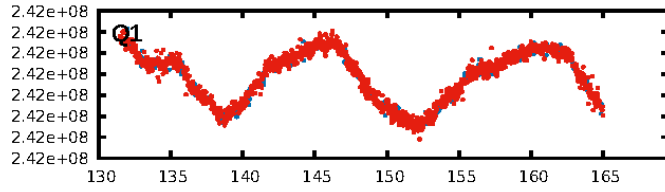
DV Fit Results:

Period = 0.93711 [0.00001] d
Epoch = 131.5638 [0.0042] BKJD
Rp/R* = 0.0037 [0.0018]
a/R* = 1.03 [0.13]
b = 0.04 [68.65]
Seff = 3220.34 [936.54]
Teff = 1921 [140] K
Rp = 0.39 [0.21] Re
a = 0.0188 [0.0034] AU
Ag = N/A
Teffp = N/A

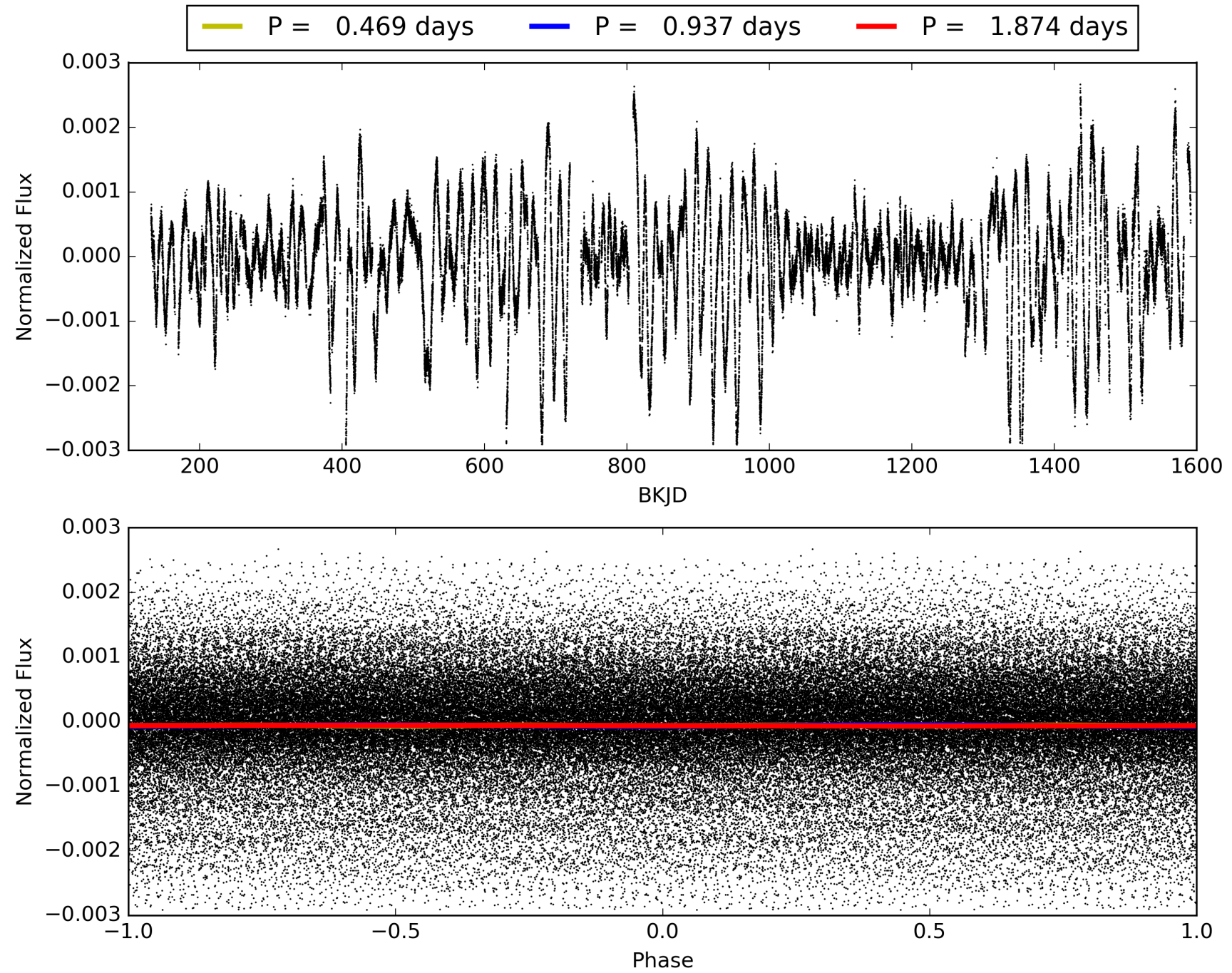
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1385/1388]
GhostDiagnostic-chr: 2.751
Centroid-sig: 0.0%
Centroid-so: 1.487 arcsec [3.50σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008869855-01, PDC Light Curves

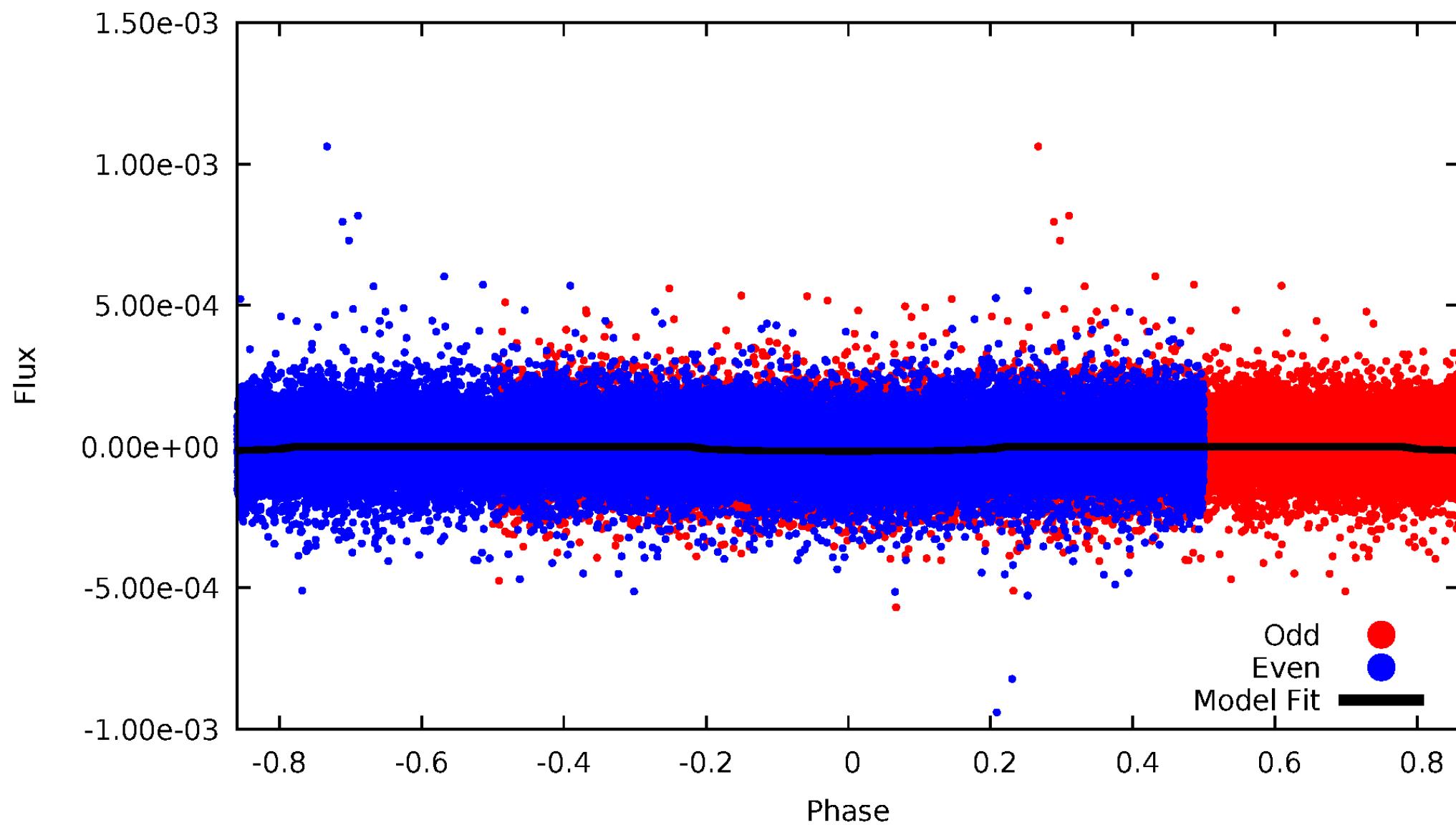


TCE 008869855-01



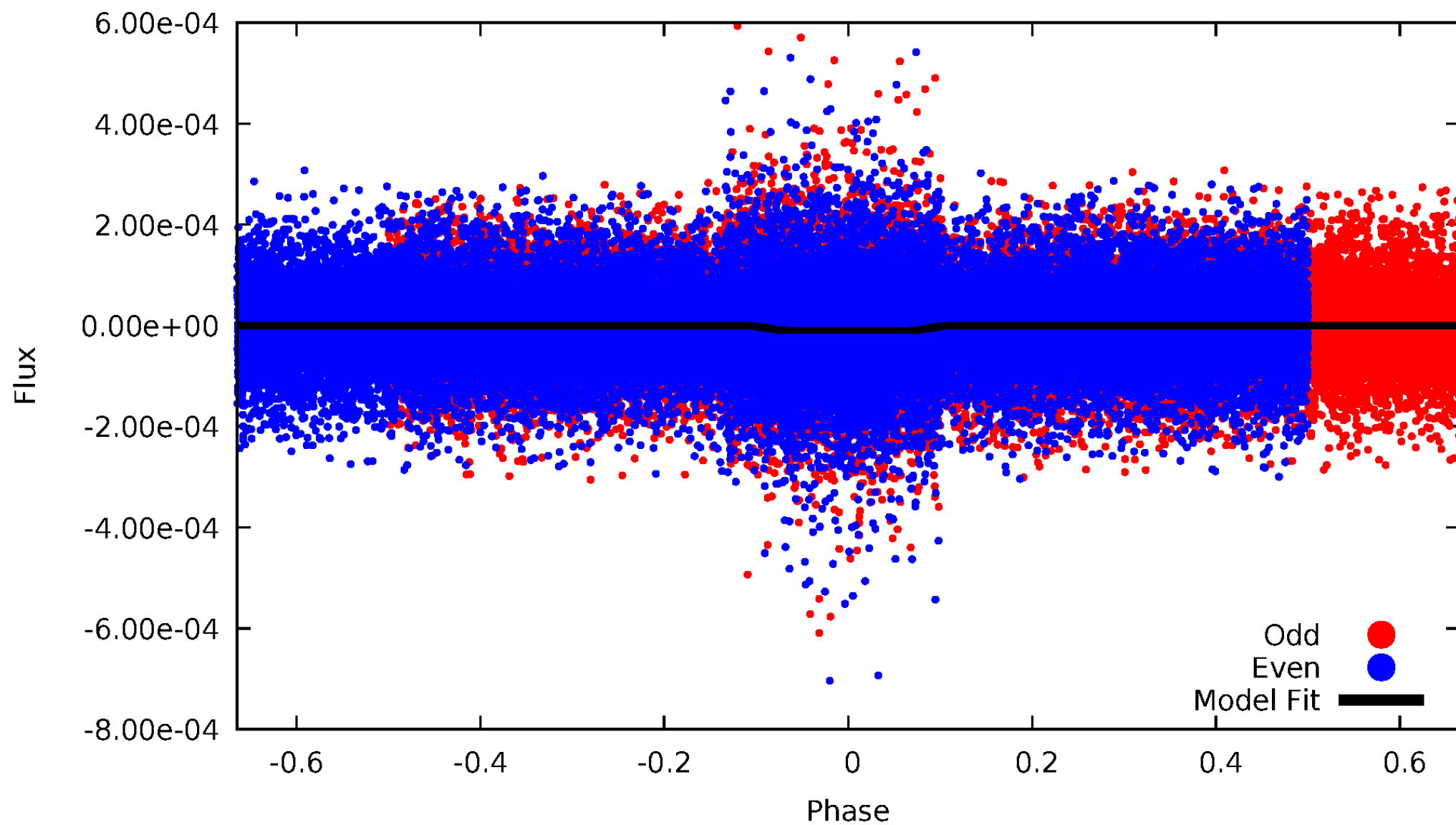
DV Odd/Even

TCE 008869855-01



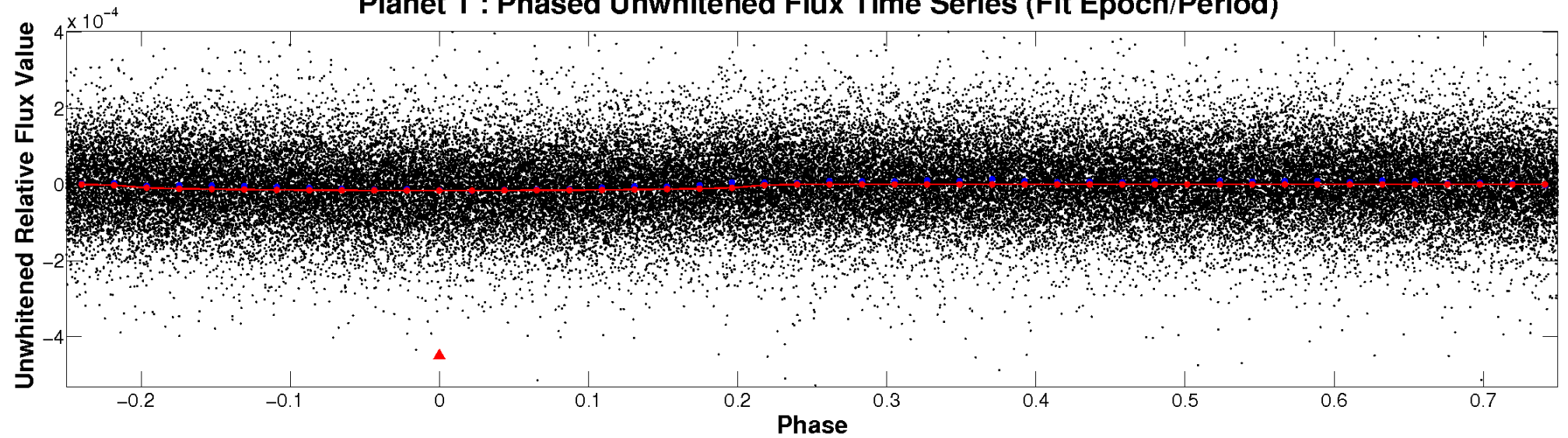
ALT Odd/Even

TCE 008869855-01

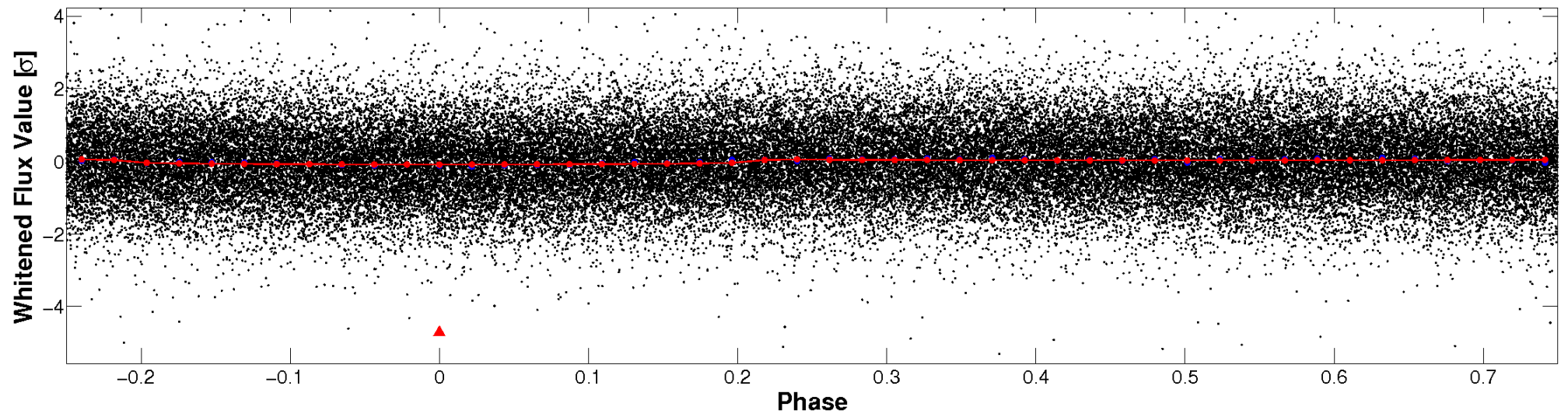


Non-Whitened Vs. Whitened Light Curve

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

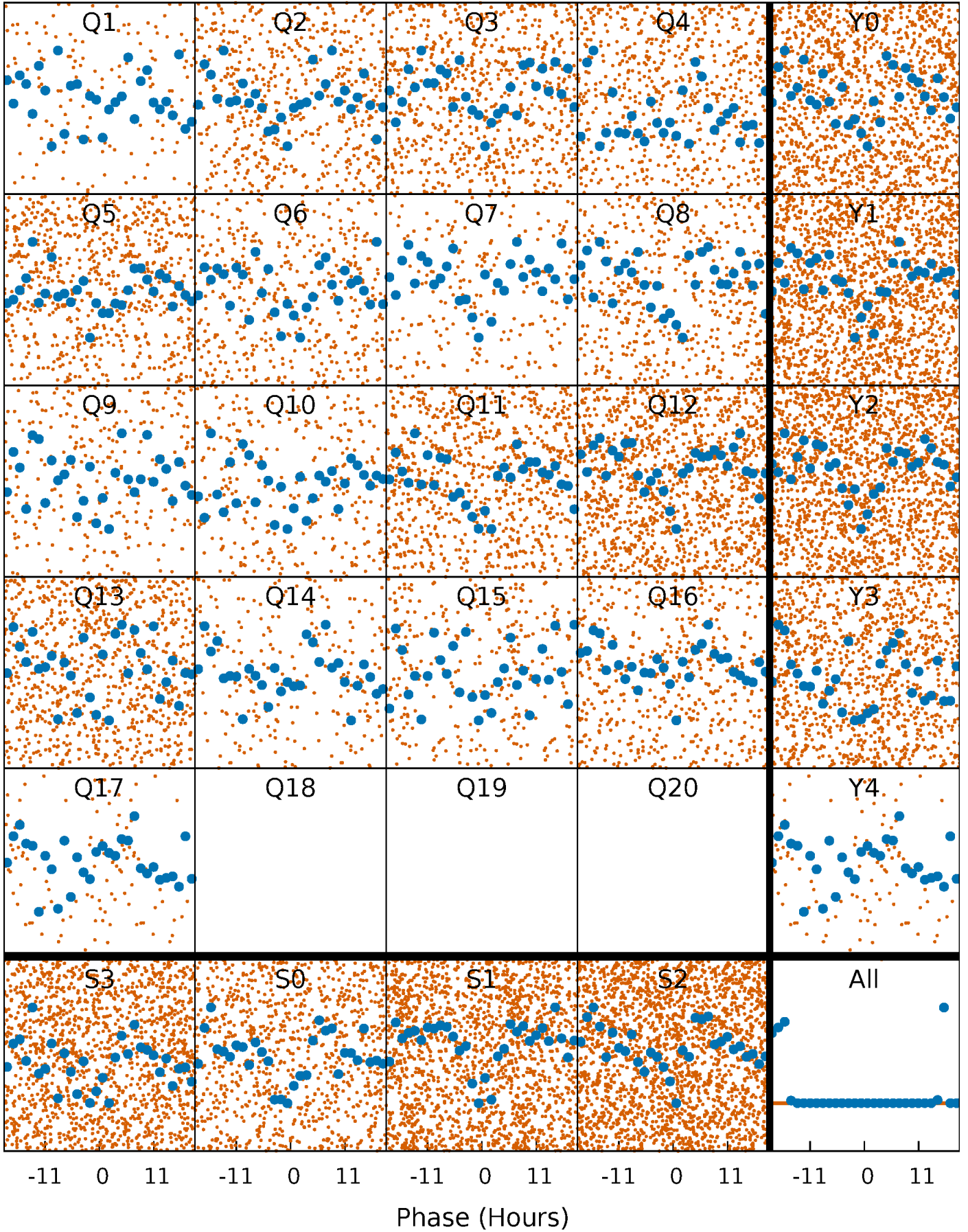


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



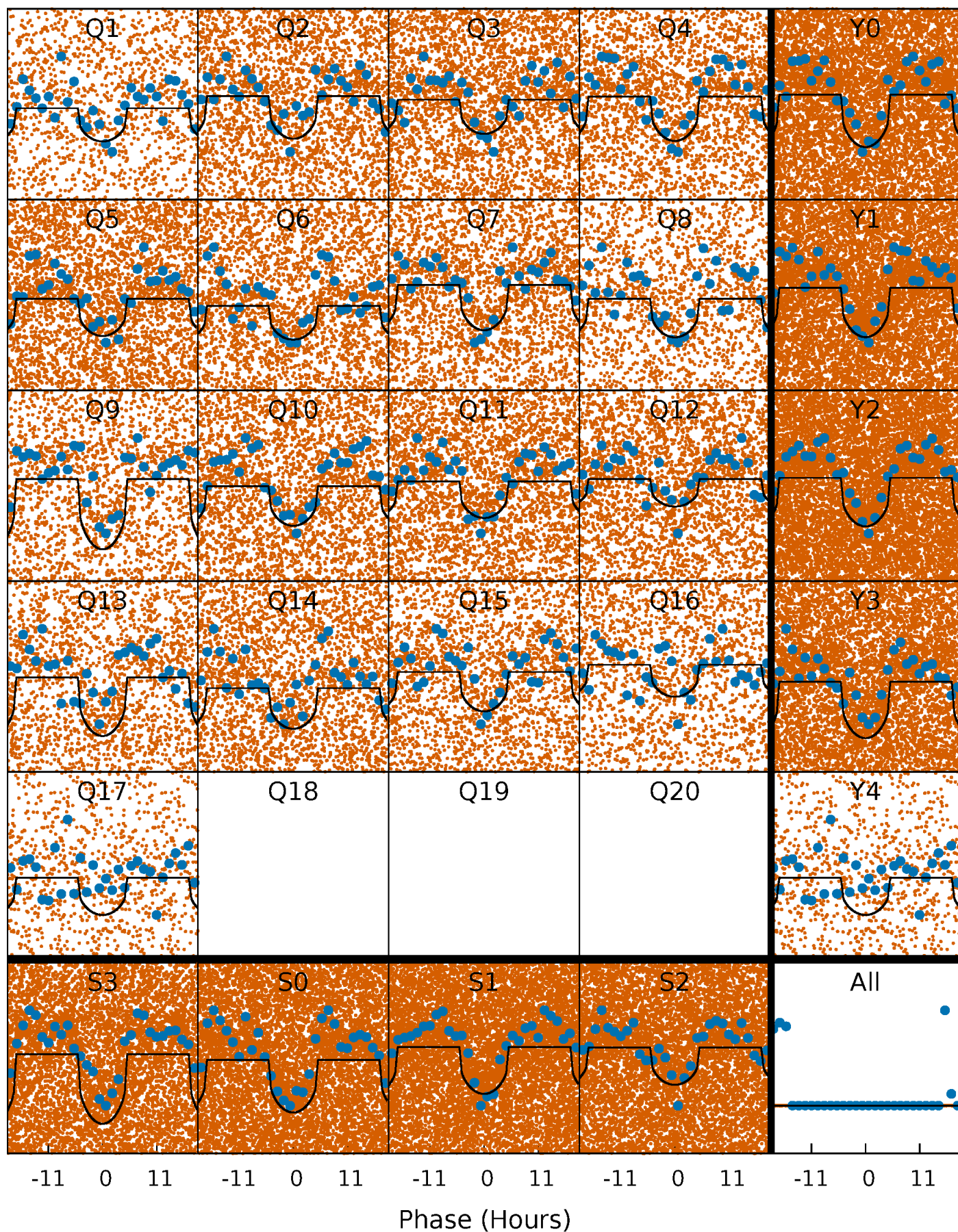
PDC Quarter-Phased Transit Curves

TCE 008869855-01 P= 0.937106 Days $T_0=131.563812$ (BKJD)



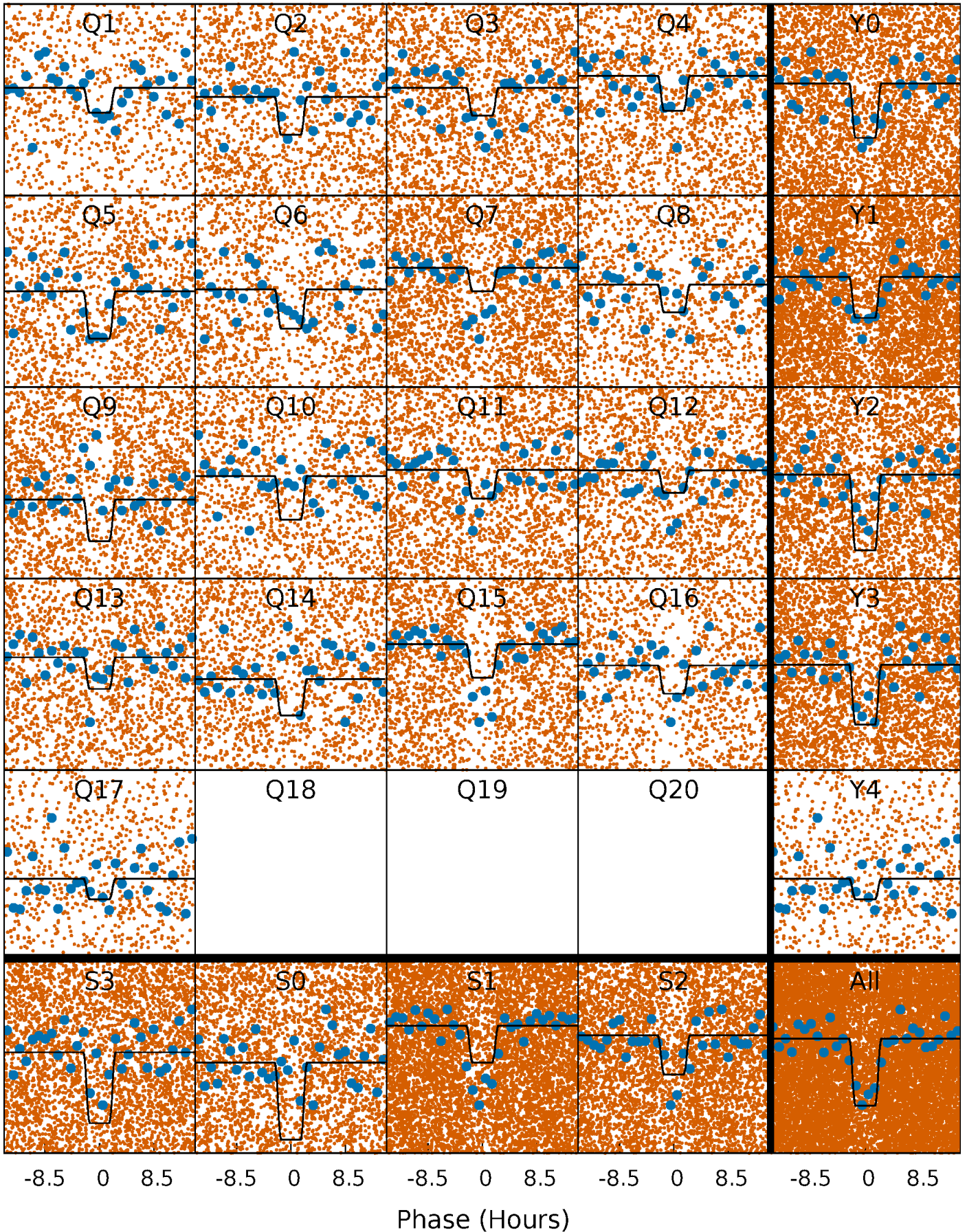
DV Quarter-Phased Transit Curves

TCE 008869855-01 P= 0.937106 Days $T_0=131.563812$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

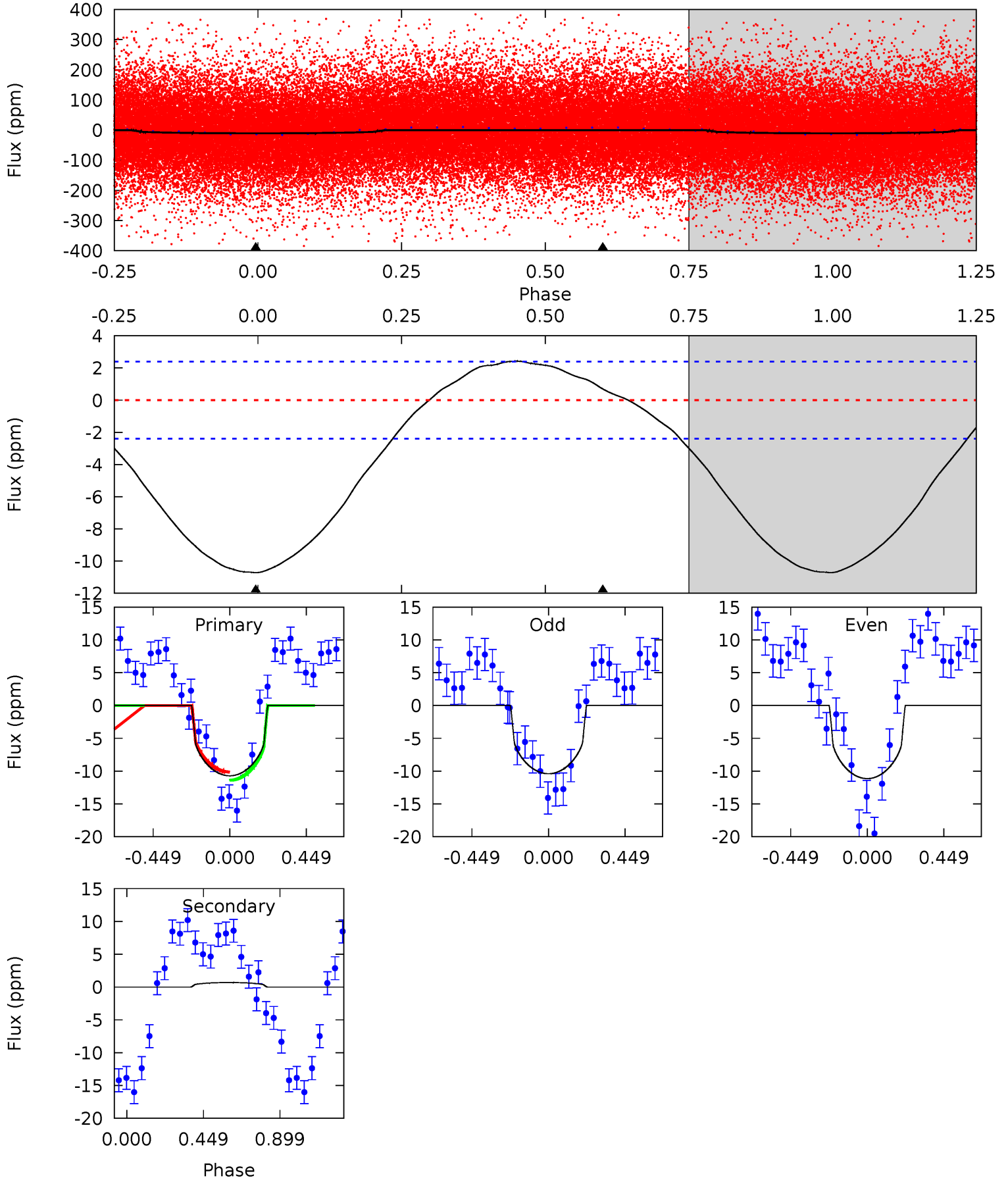
TCE 008869855-01 P= 0.937123 Days $T_0=131.569643$ (BKJD)



DV Model-Shift Uniqueness Test

008869855-01, $P = 0.937106$ Days, $E = 130.626706$ Days

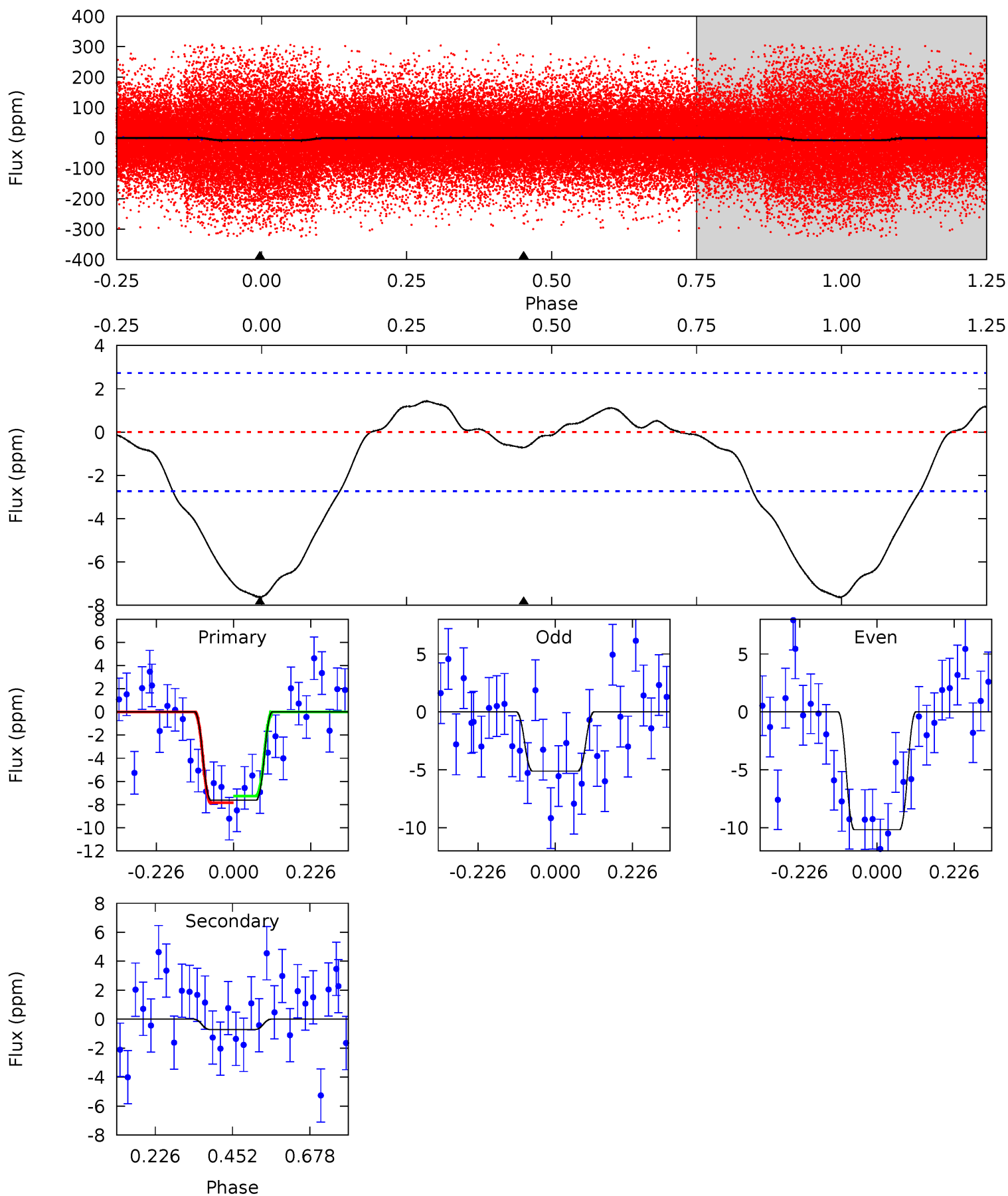
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.0	-1.23	0	0	4.24	0.76	1.55	19.0	19.0	-1.23	-1.23	0.66	1.03	0.18	1.15



Alt Model-Shift Uniqueness Test

008869855-01, P = 0.937123 Days, E = 130.632520 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	1.15	0	0	4.39	1.21	0.46	12.3	12.3	1.15	1.15	4.08	1.91	0.16	0.46



Stellar Parameters For KIC 008869855

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6042^{+162}_{-180}	$4.462^{+0.063}_{-0.147}$	$-0.180^{+0.250}_{-0.350}$	$0.975^{+0.204}_{-0.110}$	$1.003^{+0.120}_{-0.120}$	$1.527^{+0.407}_{-0.613}$
	+3%/-3%	+1%/-3%	+139%/-194%	+21%/-11%	+12%/-12%	+27%/-40%
Source	PHO1	FLK73	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 008869855-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	1 ± 1	$0.41^{+0.20}_{-0.21}$	2719^{+143}_{-120}	-3510^{+417}_{-806}	$-0.744^{+0.597}_{-2.277}$
Alt.	-1 ± 1	$0.34^{+0.21}_{-0.17}$	2713^{+147}_{-116}	3230^{+1269}_{-6079}	$0.900^{+3.679}_{-0.834}$

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 $A_{obs} \gg 1.0$

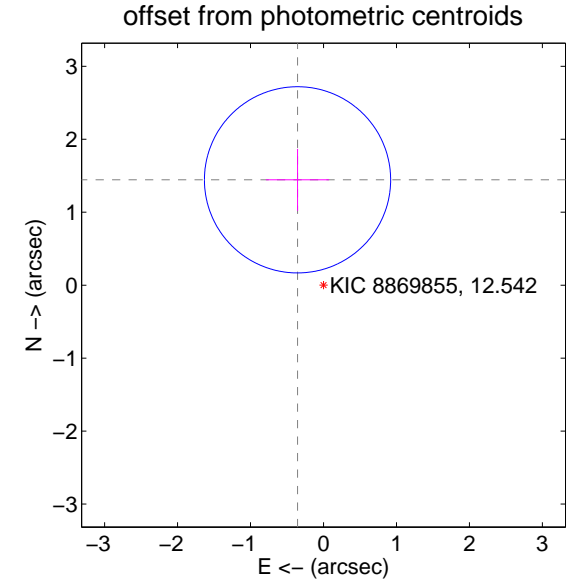
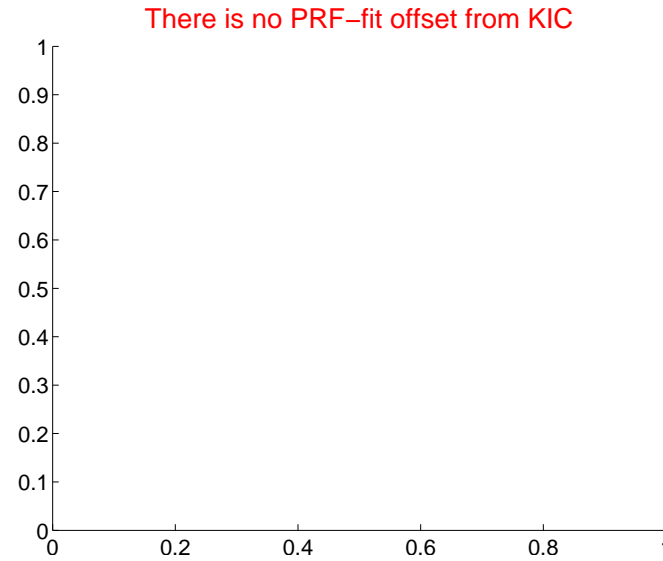
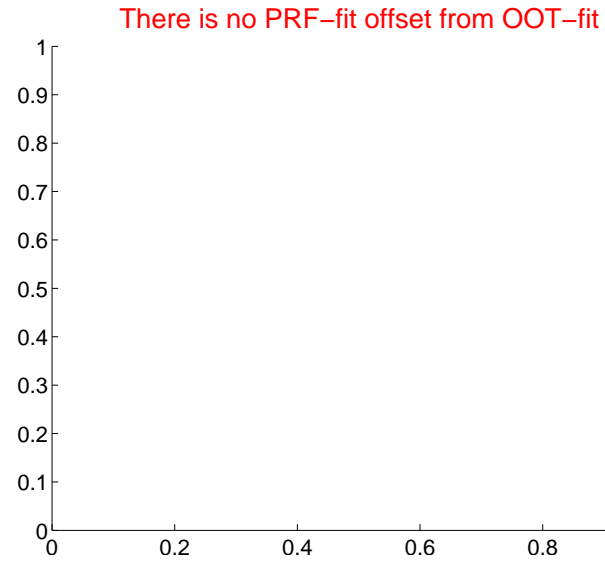
DV Centroid Data

Supplemental centroid analysis for 008869855-01. Kepler magnitude: 12.54. Transit SNR 13.72

There are 0 quarters with good PRF difference image offsets

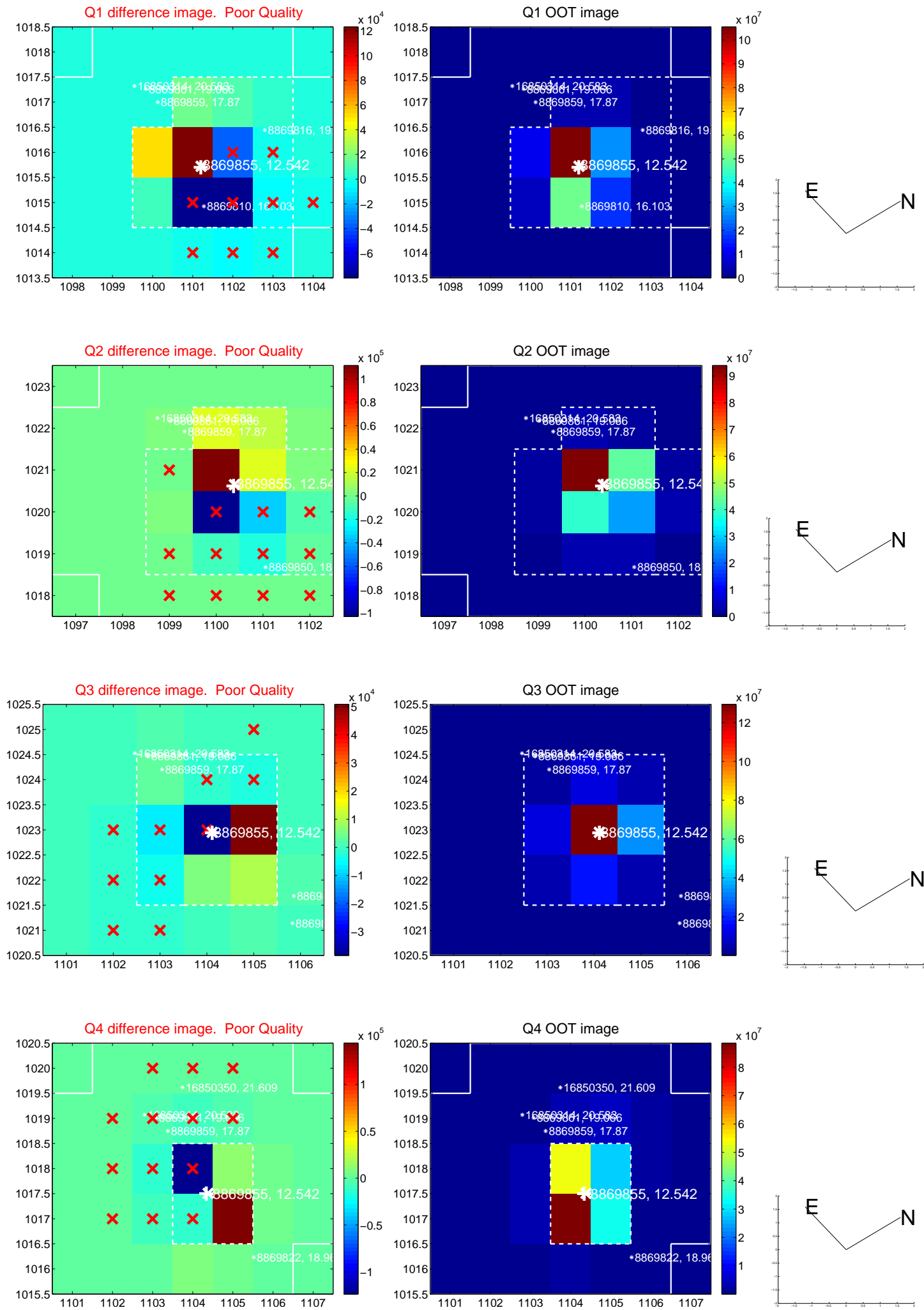
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.49 ± 0.43	3.50	0.36 ± 0.43	1.44 ± 0.42

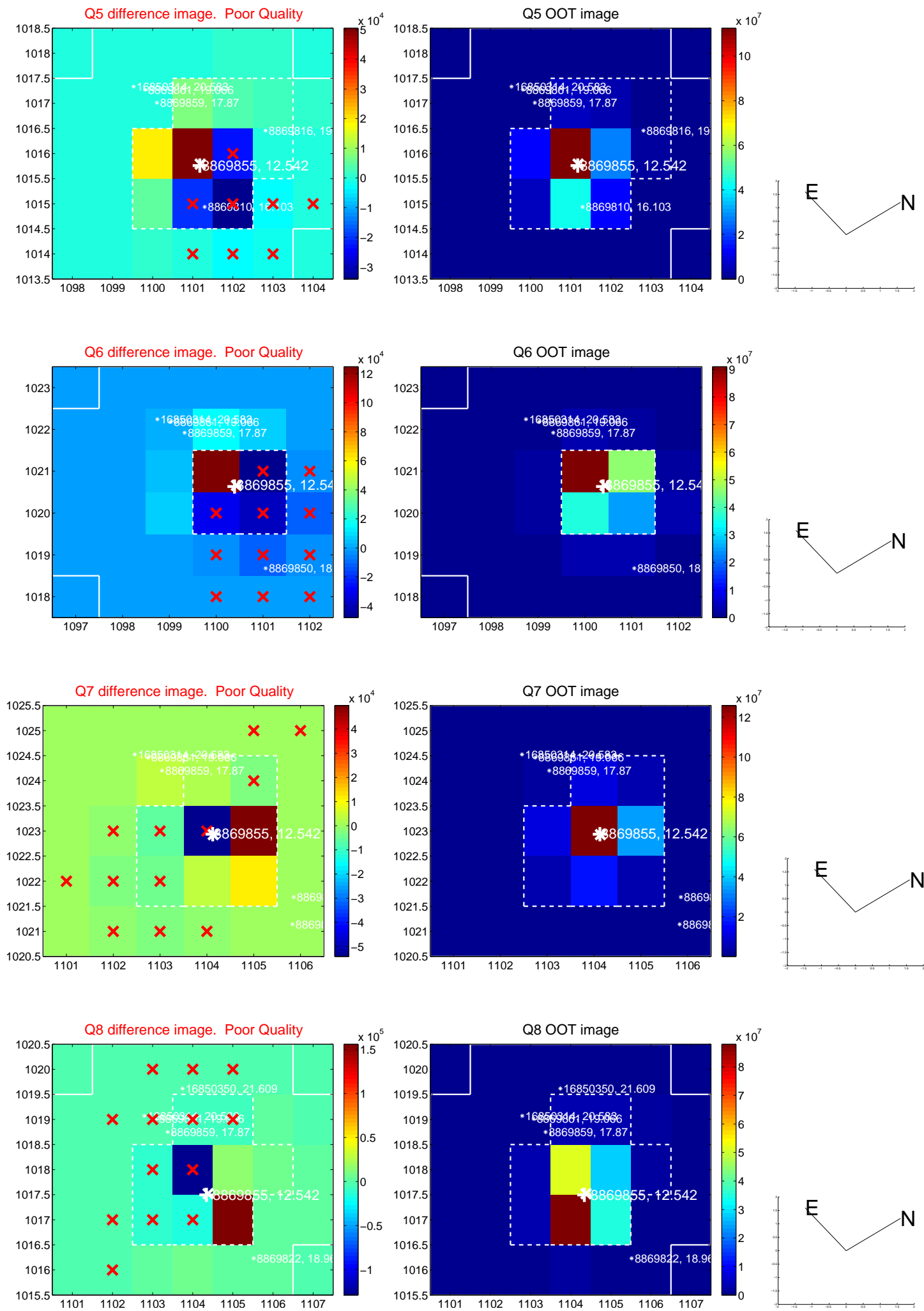


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

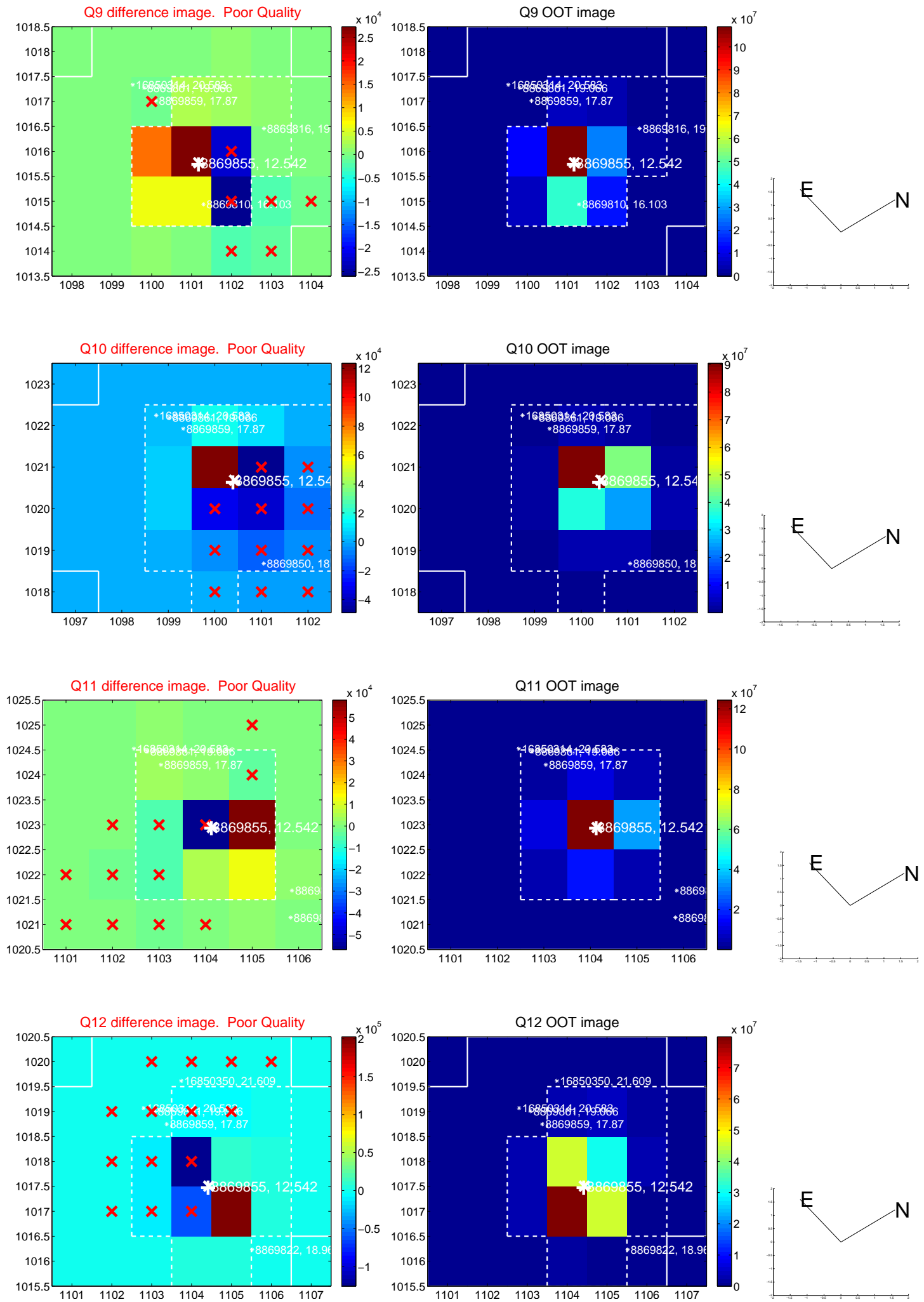
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



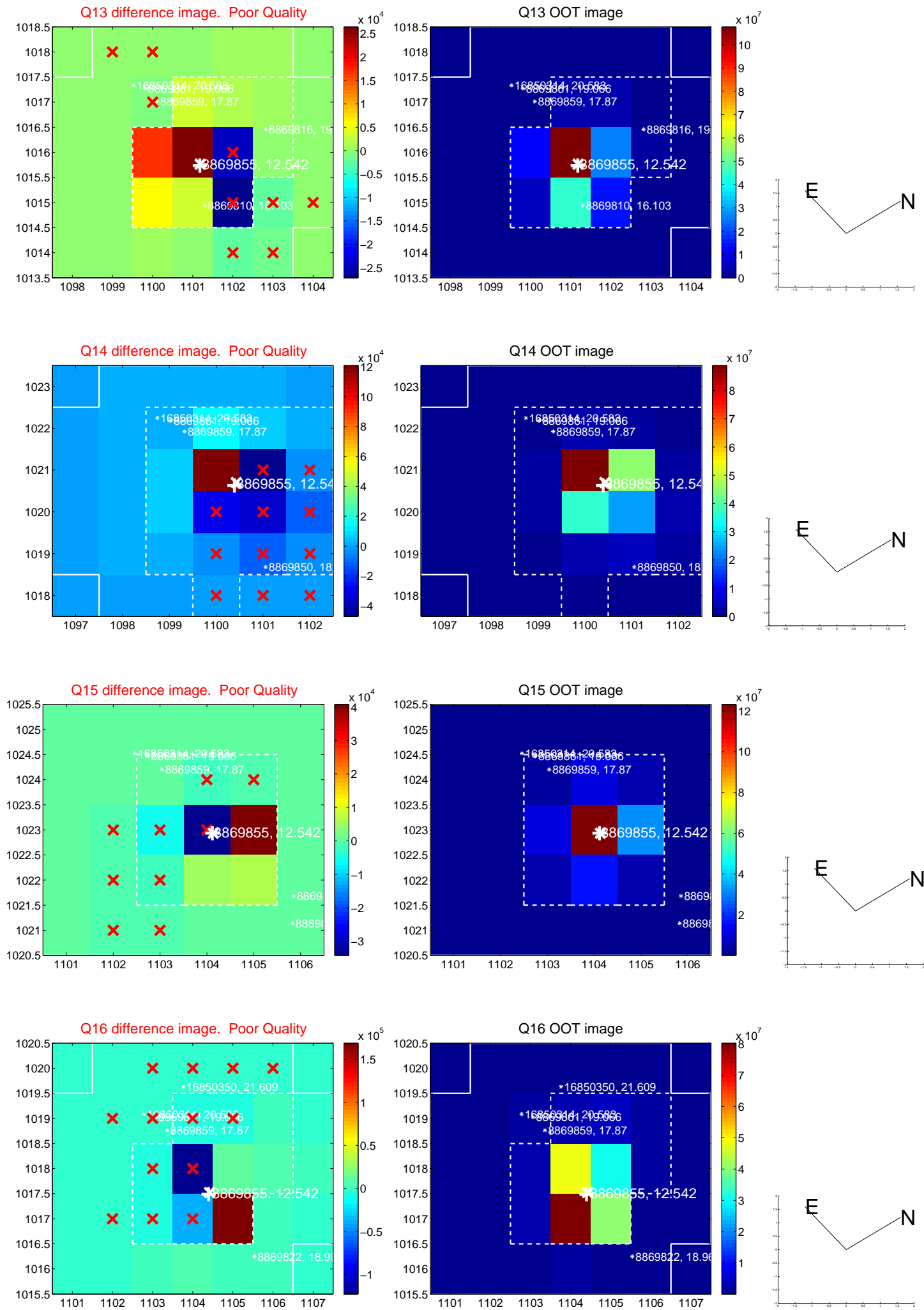
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



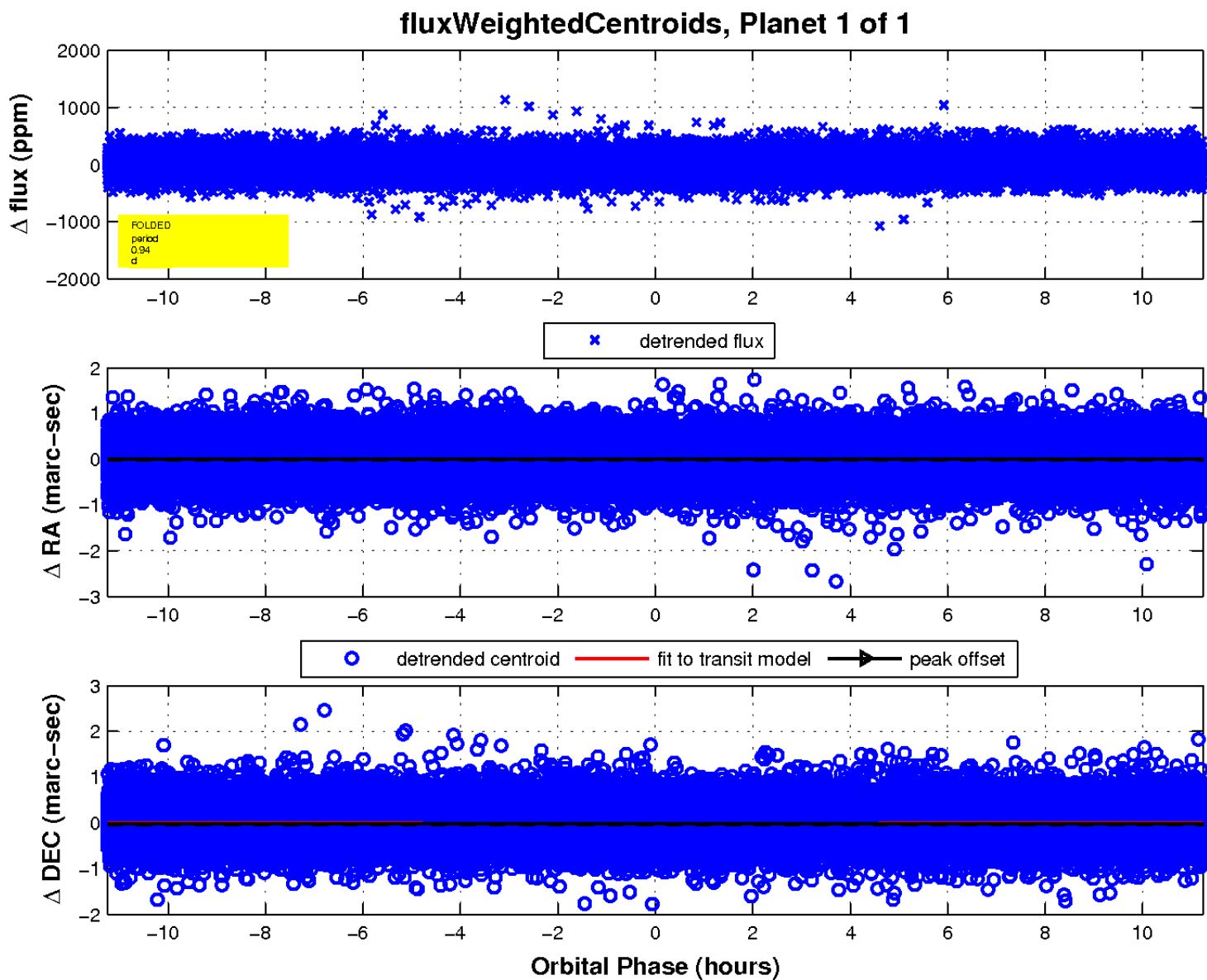
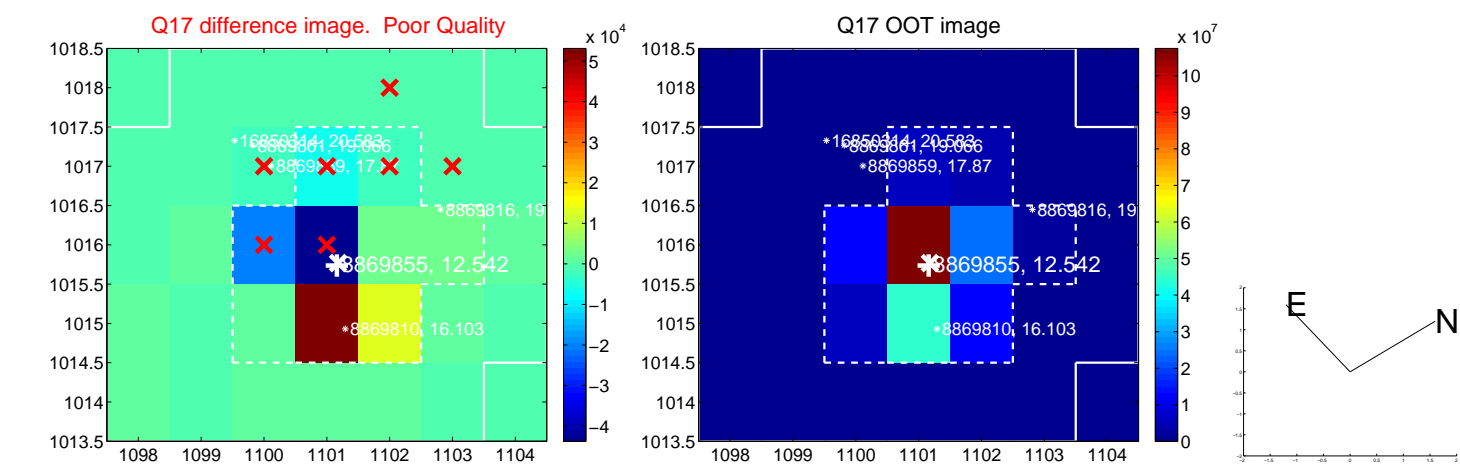
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



UKIRT Image

Declination

