

KIC 003835670

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})
003835670-01	OBS	0149.01	14.557302	145.095163	959.8	7.907	170.1	167.2	1.41	5774	4.63	141.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003835670-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

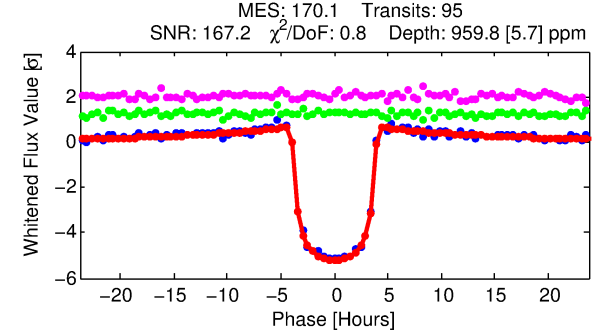
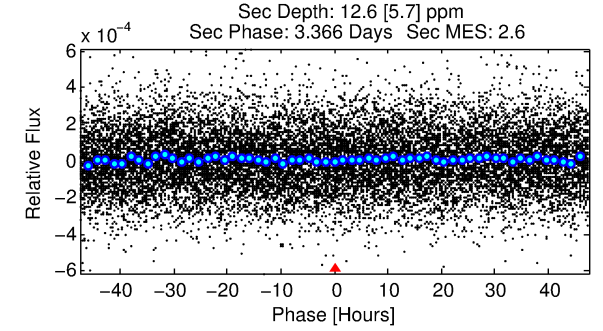
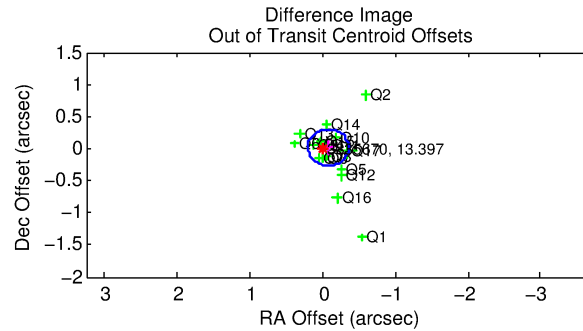
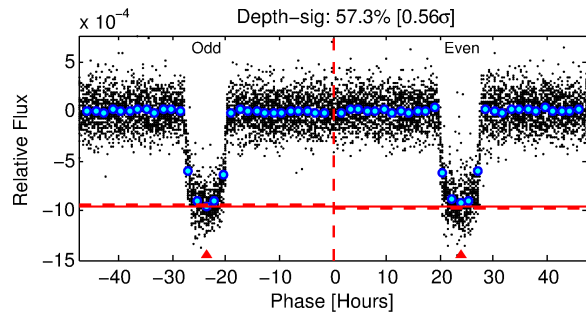
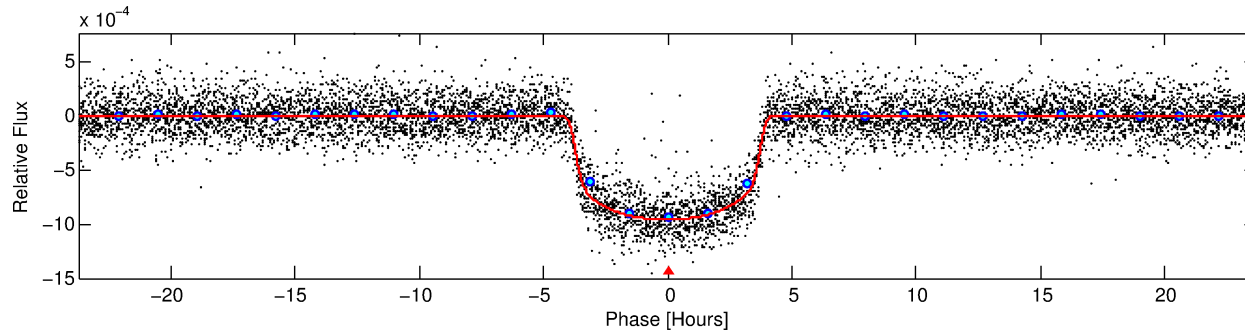
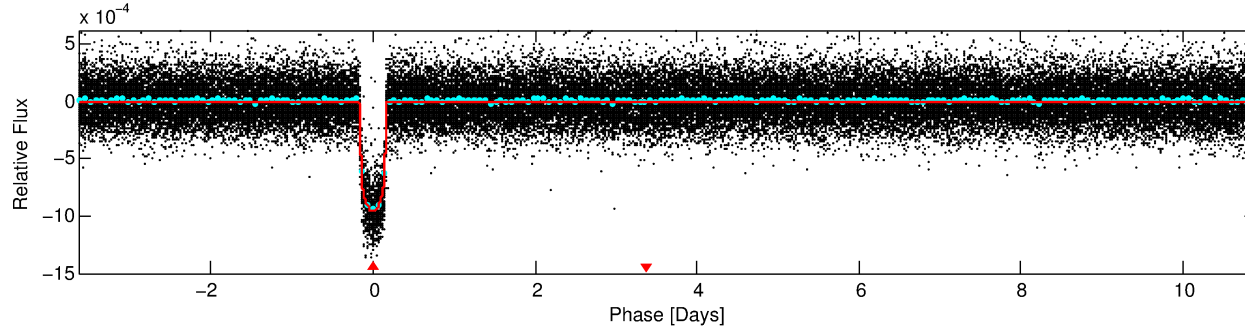
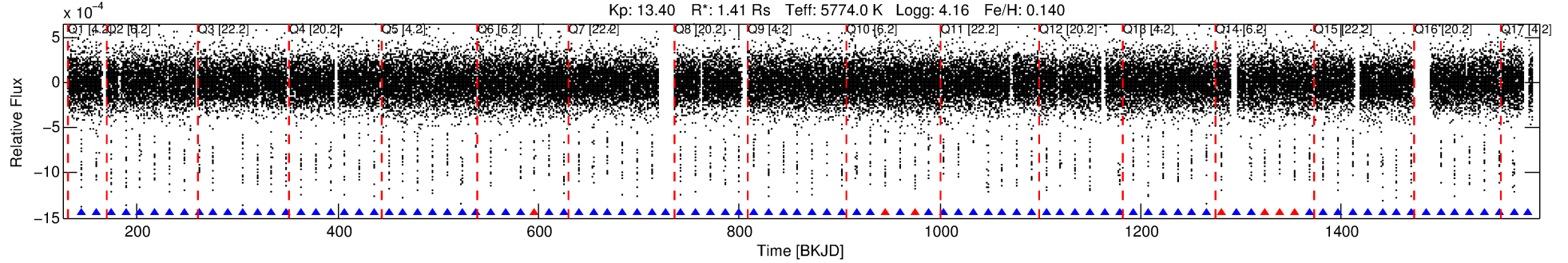
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003835670-01

No Significant Match Found

DV One-Page Summary

KIC: 3835670 Candidate: 1 of 1 Period: 14.557 d
KOI: K00149.01 Corr: 0.992



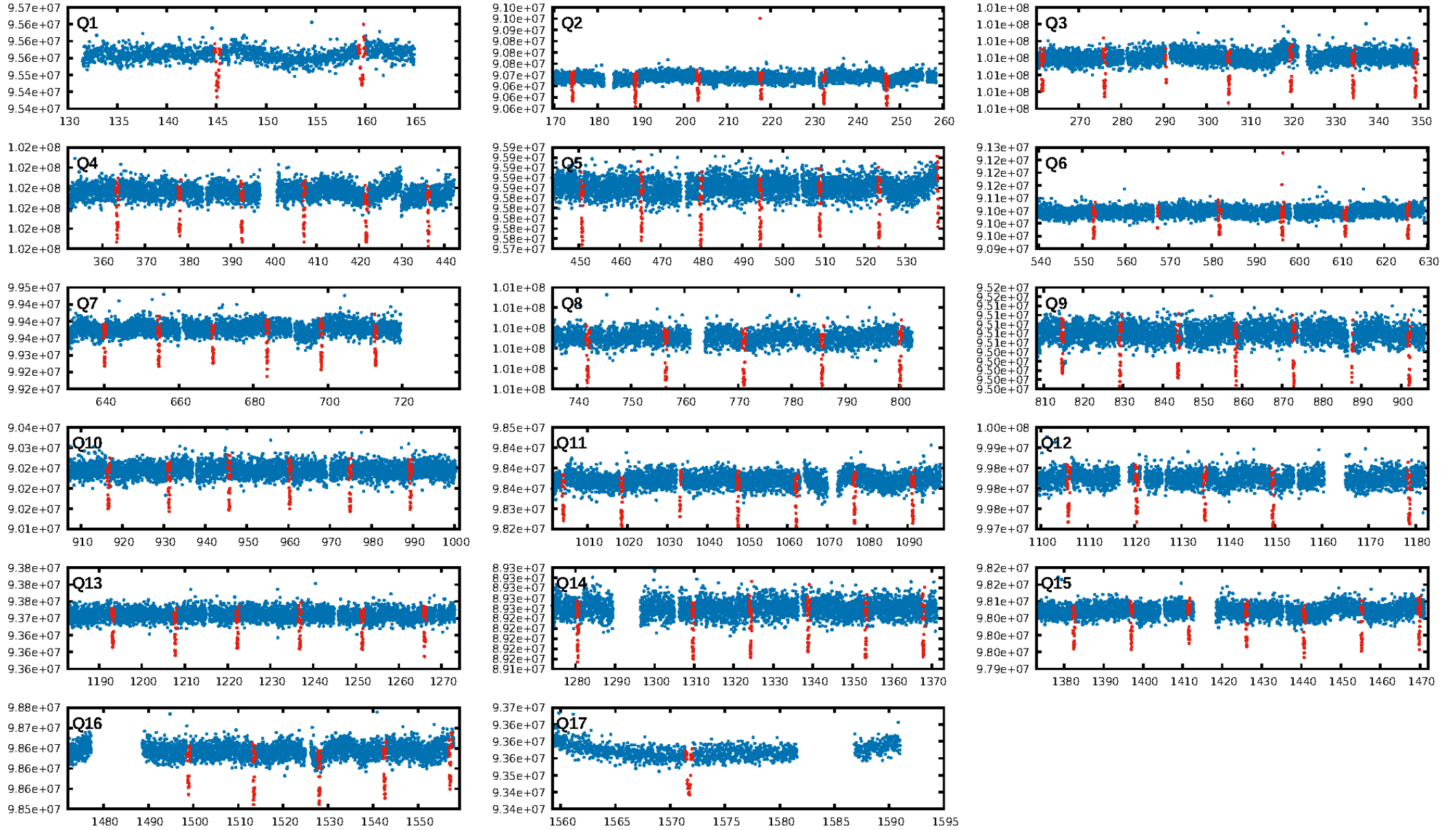
DV Fit Results:

Period = 14.55730 [0.00001] d
Epoch = 145.0952 [0.0008] BKJD
Rp/R* = 0.0300 [0.0009]
a/R* = 11.03 [1.33]
b = 0.67 [0.10]
Seff = 141.23 [42.53]
Teff = 879 [66] K
Rp = 4.63 [0.94] Re
a = 0.1186 [0.0220] AU
Ag = 4.55 [2.47] [1.44 σ]
Teffp = 1985 [231] K [4.60 σ]

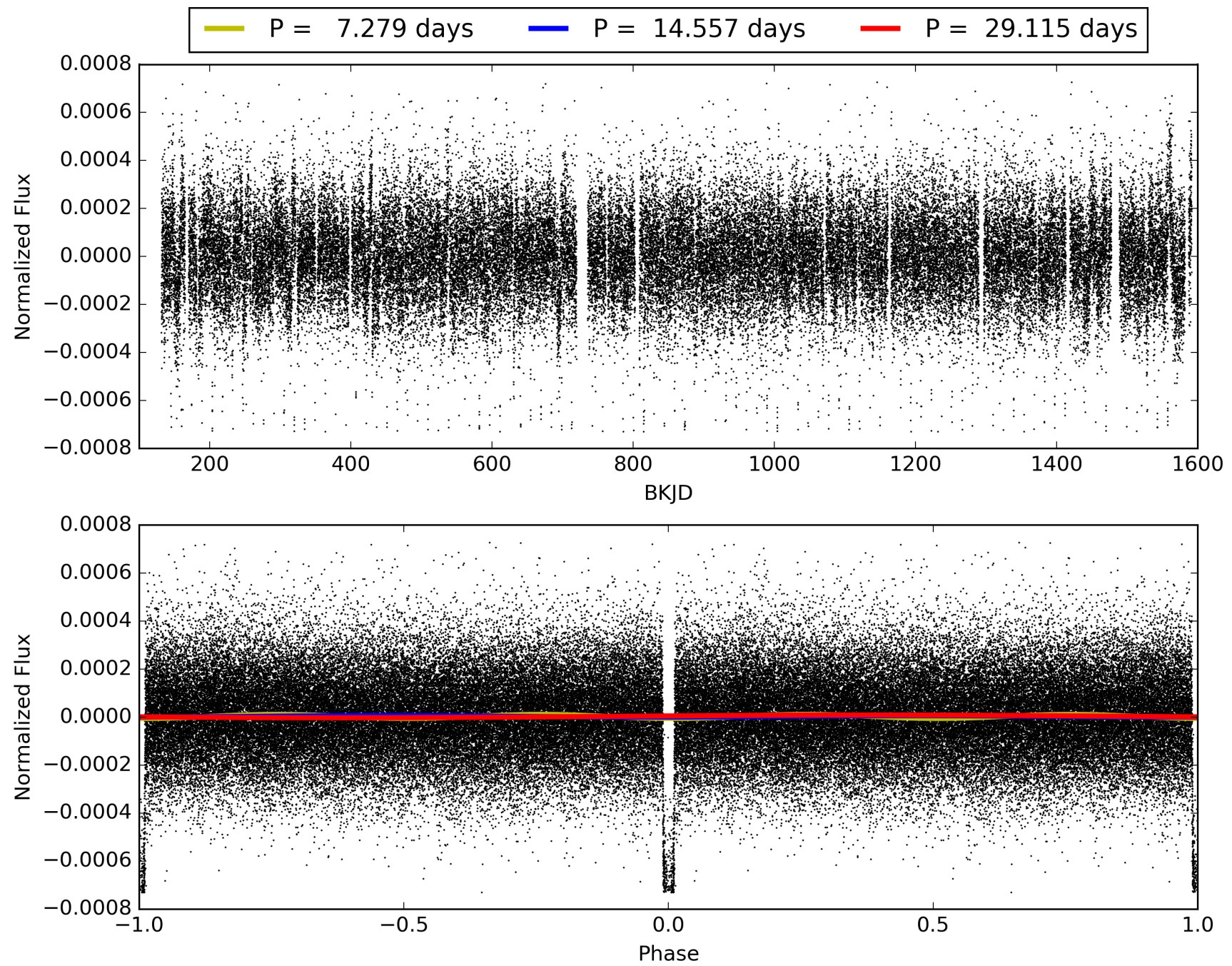
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 64.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.92 [85/92]
GhostDiagnostic-chr: 5.82
Centroid-sig: 85.9%
Centroid-so: 0.079 arcsec [1.02 σ]
OotOffset-rm: 0.081 arcsec [0.86 σ]
KicOffset-rm: 0.244 arcsec [2.33 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 003835670-01, PDC Light Curves

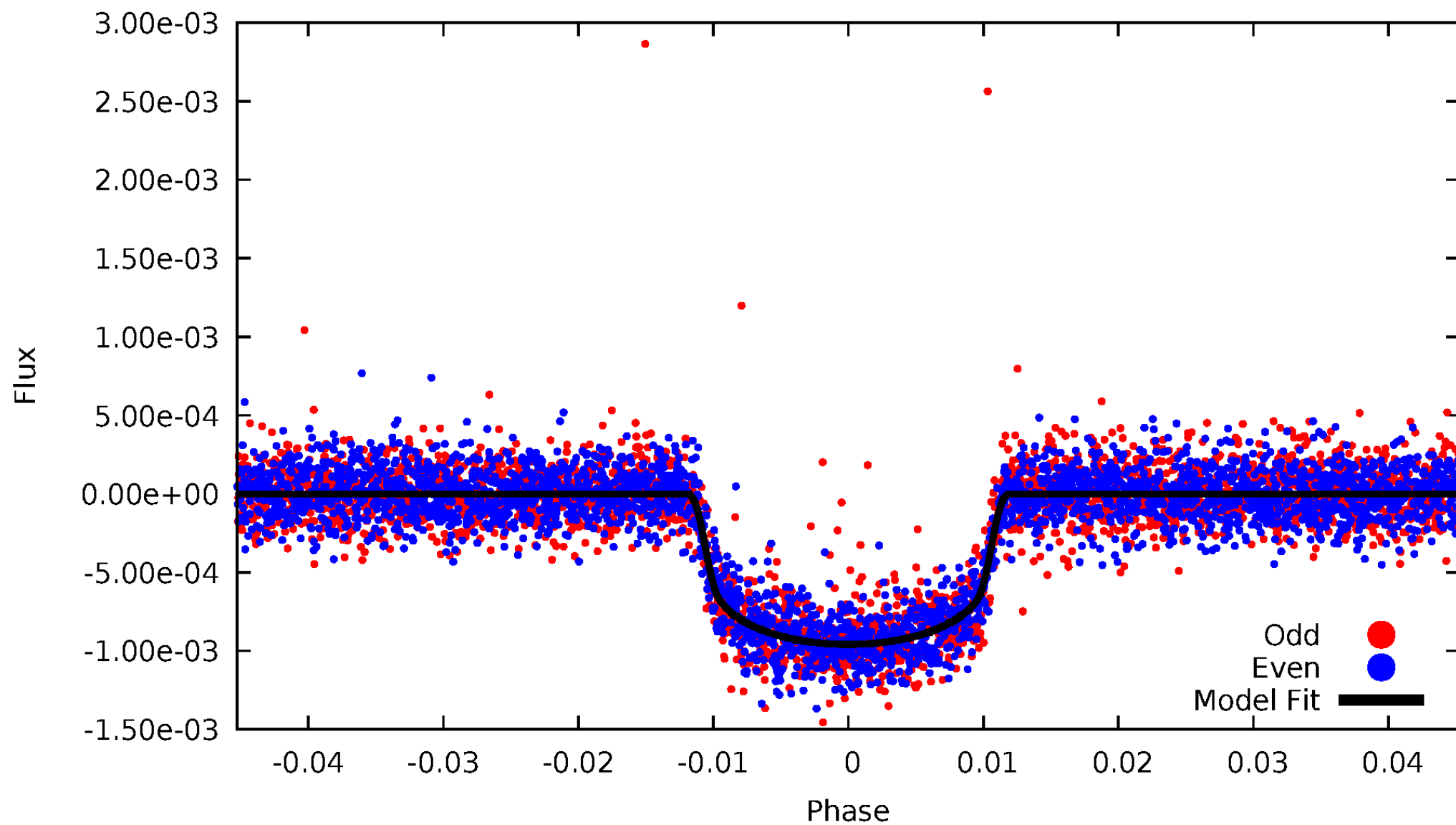


TCE 003835670-01



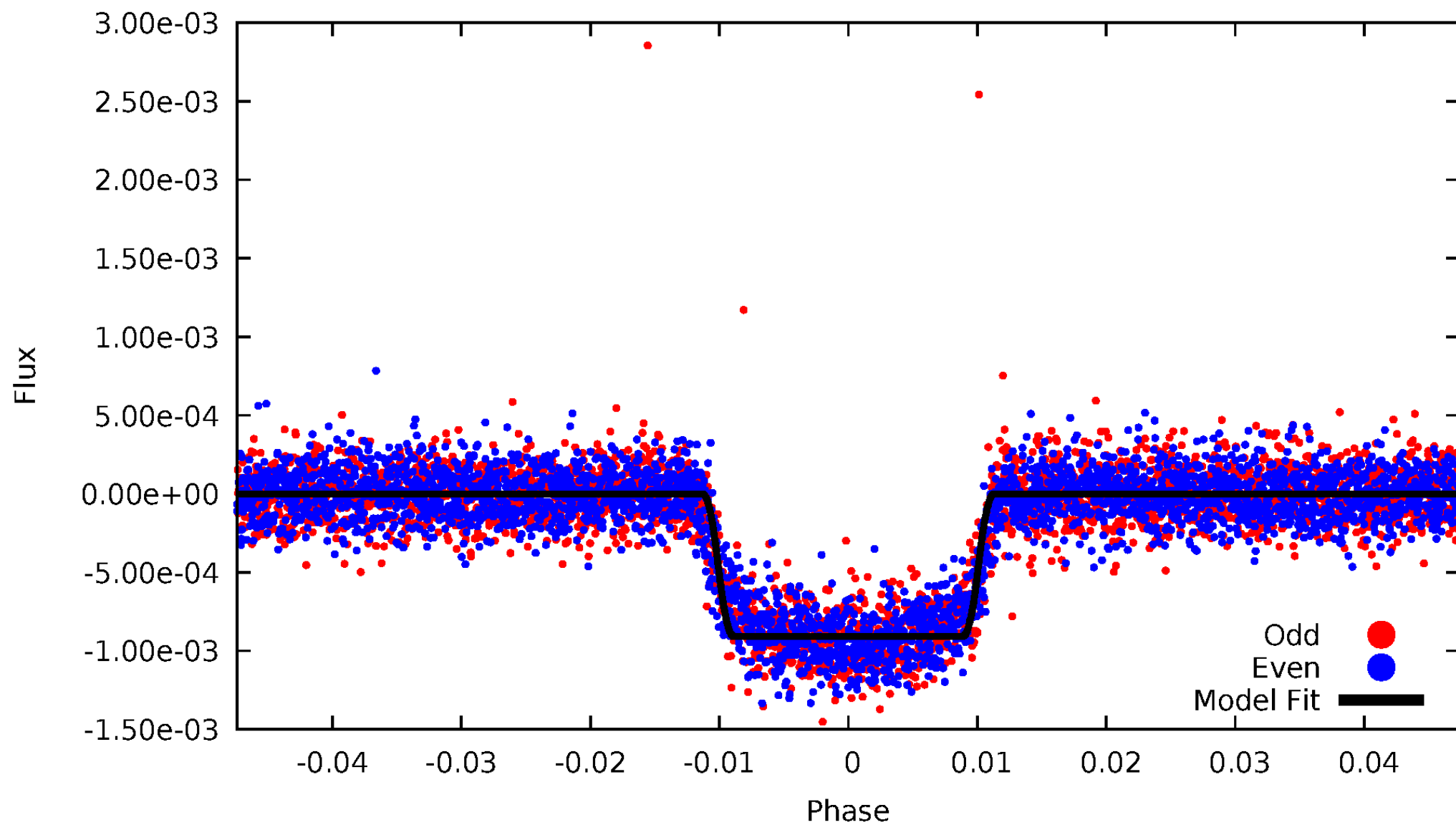
DV Odd/Even

TCE 003835670-01

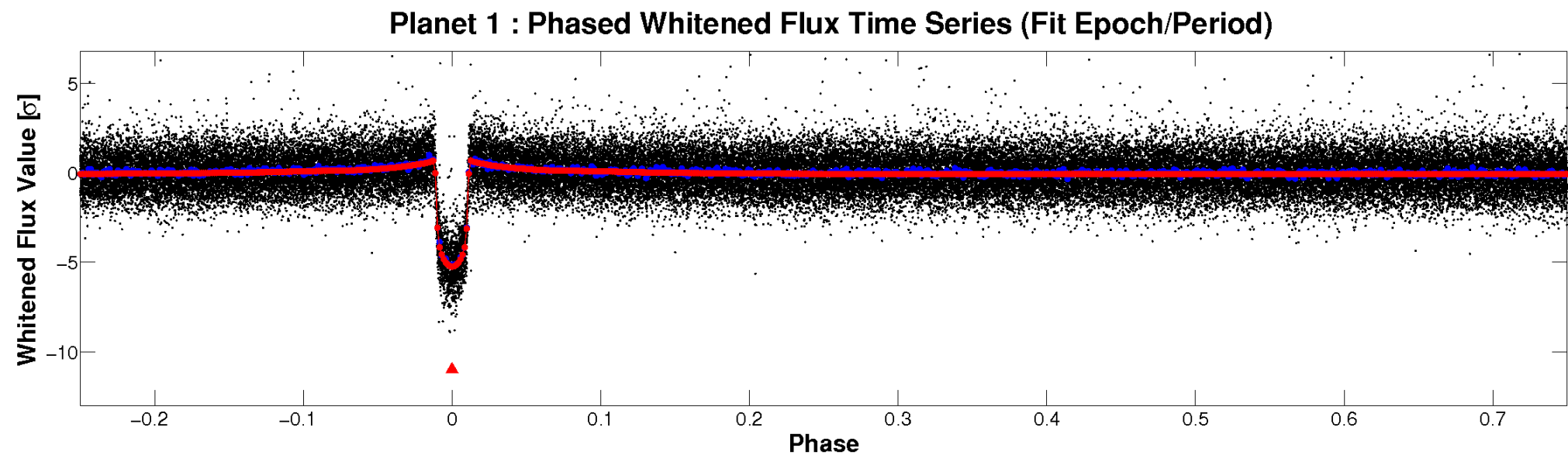
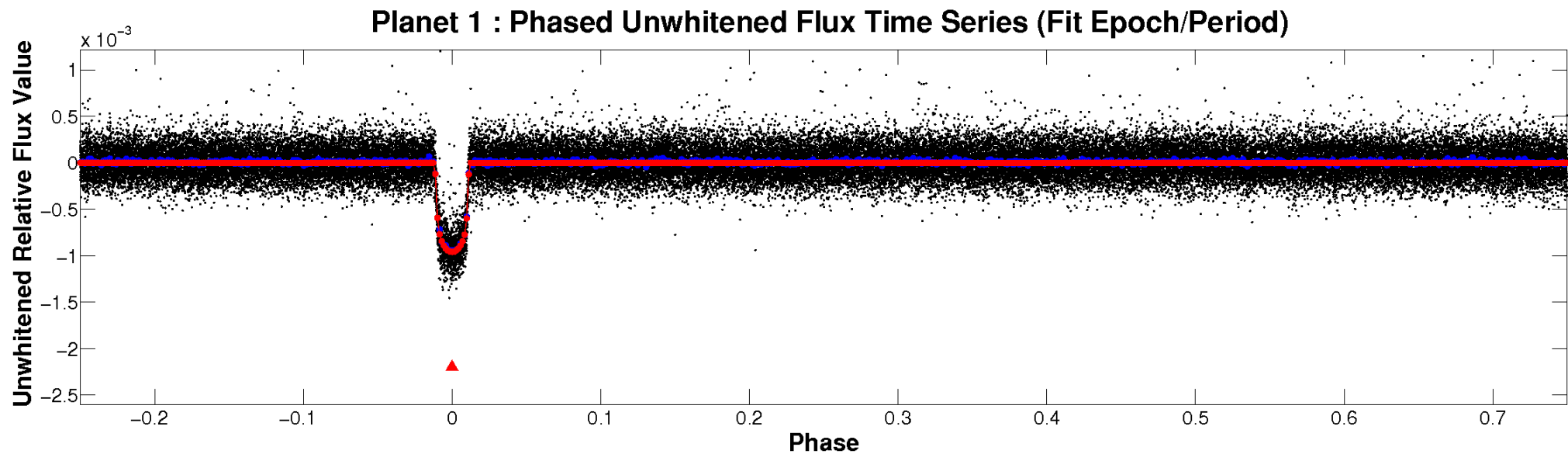


ALT Odd/Even

TCE 003835670-01

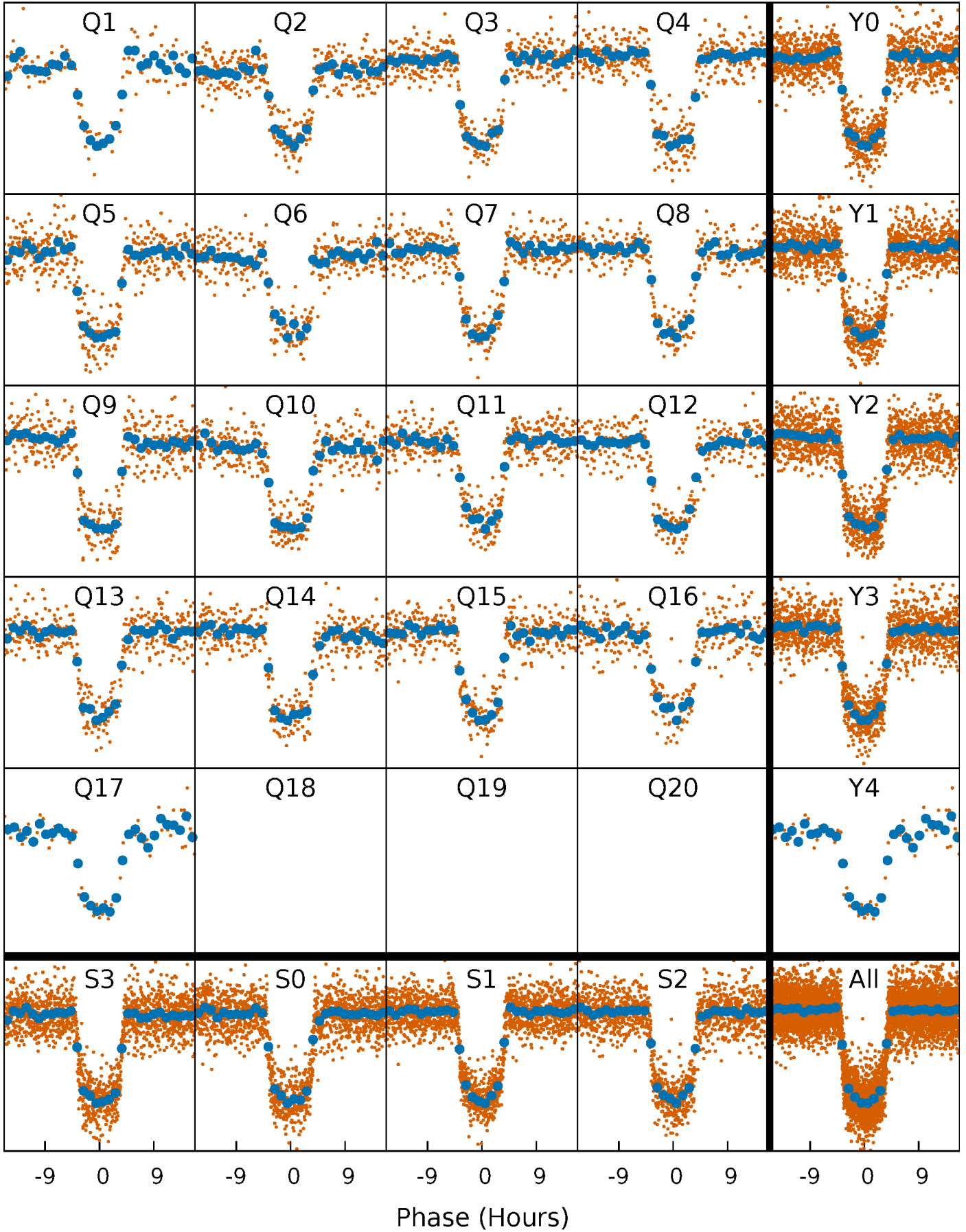


Non-Whitened Vs. Whitened Light Curve



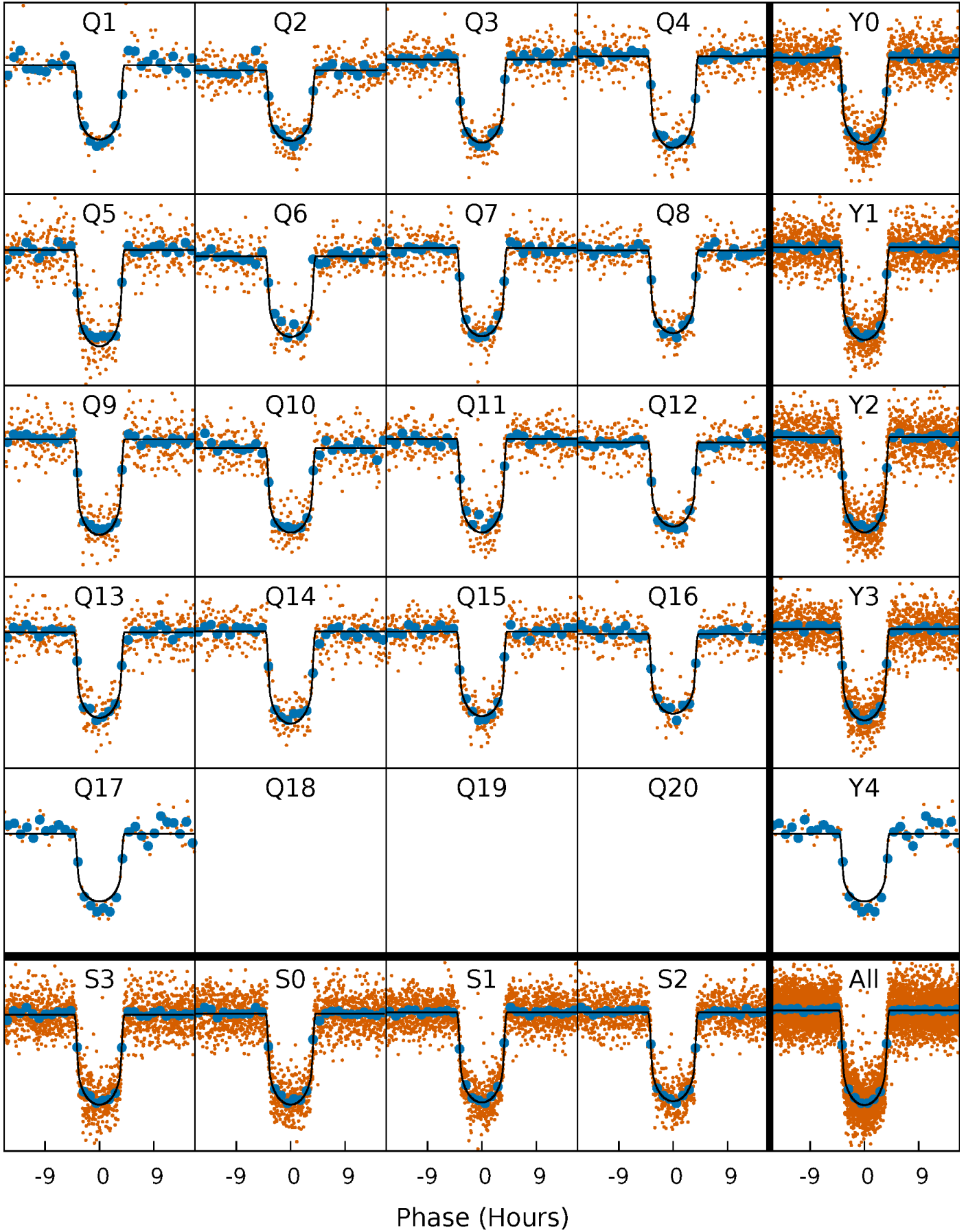
PDC Quarter-Phased Transit Curves

TCE 003835670-01 P= 14.557302 Days $T_0=145.095163$ (BKJD)



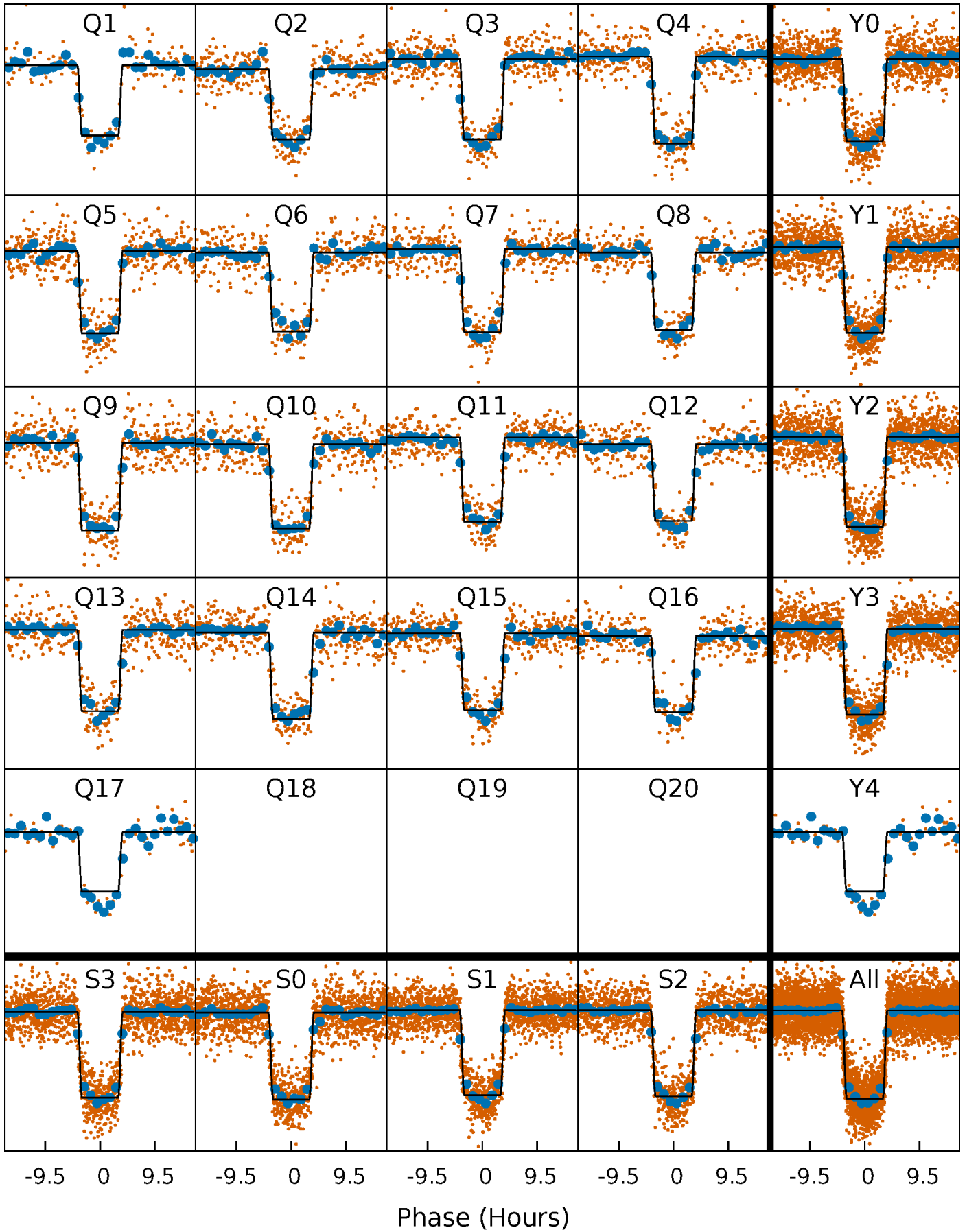
DV Quarter-Phased Transit Curves

TCE 003835670-01 P= 14.557302 Days $T_0=145.095163$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

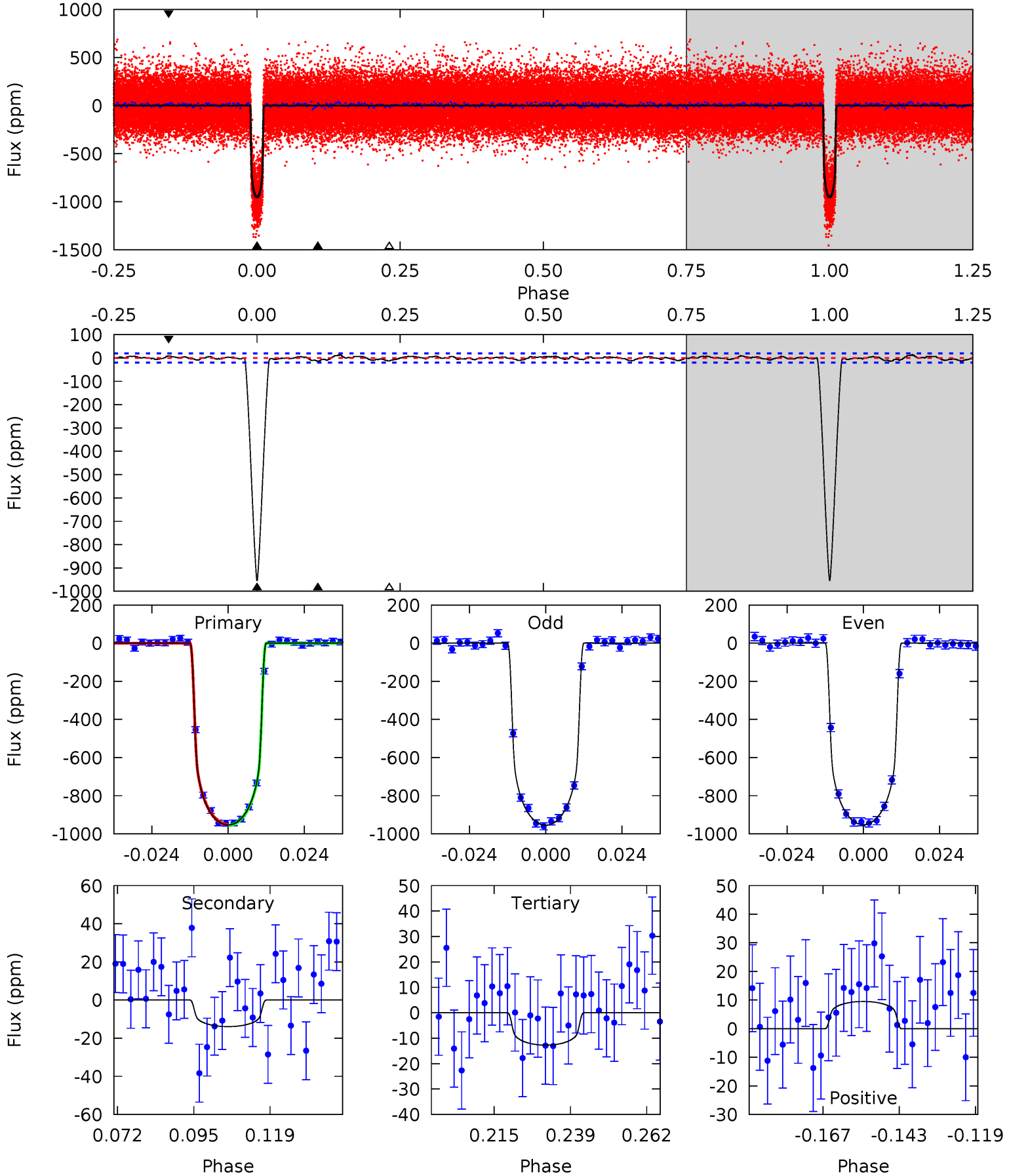
TCE 003835670-01 P= 14.557125 Days $T_0=145.103485$ (BKJD)



DV Model-Shift Uniqueness Test

003835670-01, $P = 14.557302$ Days, $E = 130.537861$ Days

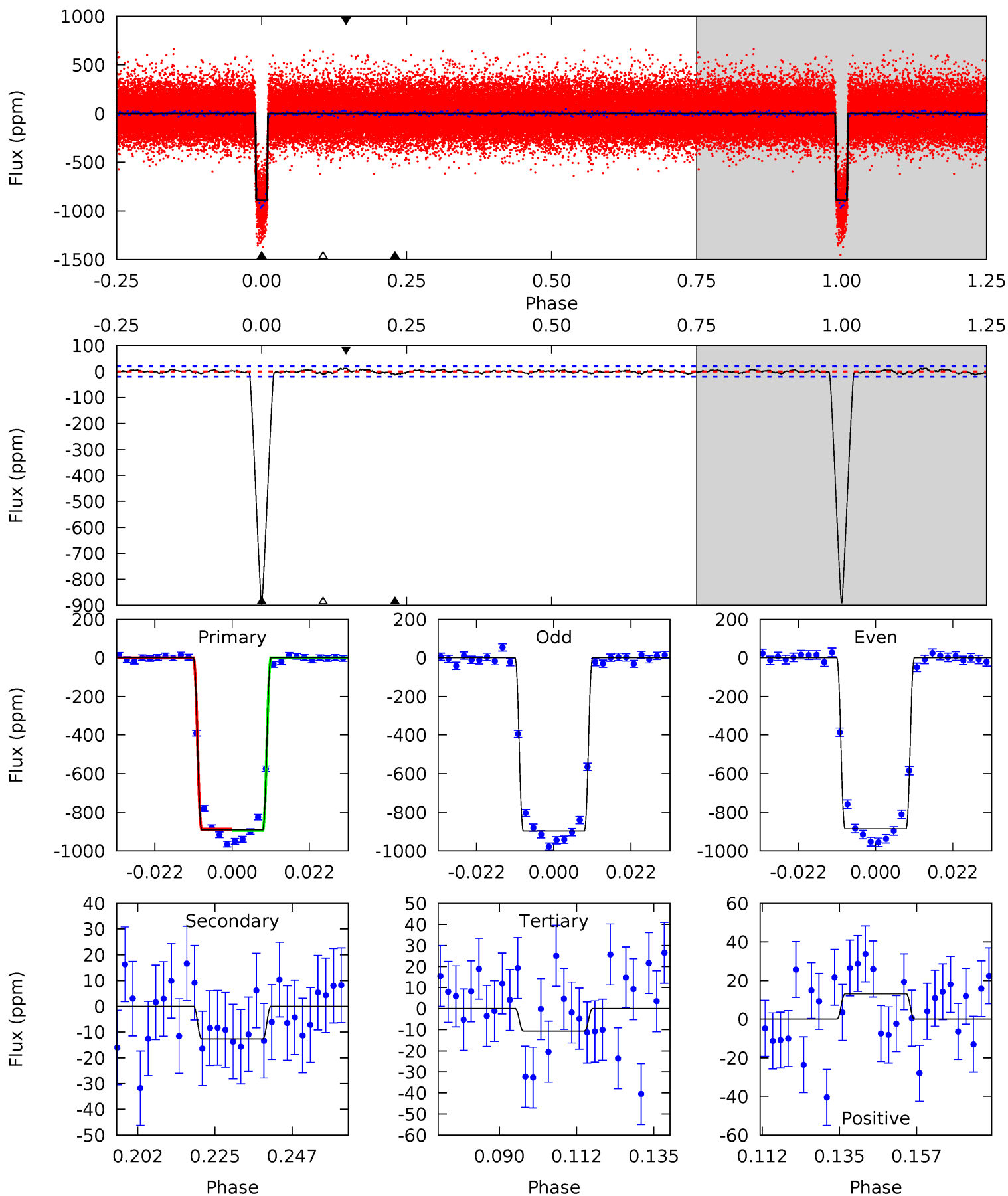
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
237.5	3.47	3.17	2.37	4.86	2.26	1.22	234.3	235.1	0.30	1.10	0.36	0.98	0.01	0.63



Alt Model-Shift Uniqueness Test

003835670-01, $P = 14.557125$ Days, $E = 130.546360$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
218.1	3.10	2.60	3.19	4.87	2.28	0.99	215.5	214.9	0.50	-0.09	1.34	1.00	0.01	0.82



Stellar Parameters For KIC 003835670

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5774^{+115}_{-104}	$4.159^{+0.168}_{-0.098}$	$0.140^{+0.150}_{-0.150}$	$1.412^{+0.232}_{-0.283}$	$1.048^{+0.112}_{-0.074}$	$0.525^{+0.444}_{-0.177}$
	+2%/-2%	+4%/-2%	+107%/-107%	+16%/-20%	+11%/-7%	+85%/-34%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003835670-01 / KOI 0149.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-14 ± 4	$4.60^{+0.44}_{-0.52}$	1222^{+57}_{-67}	2768^{+111}_{-131}	$5.224^{+2.106}_{-1.685}$
Alt.	-13 ± 4	$4.59^{+0.49}_{-0.51}$	1218^{+59}_{-66}	2730^{+114}_{-144}	$4.769^{+1.963}_{-1.601}$

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 $A_{obs} \gg 1.0$

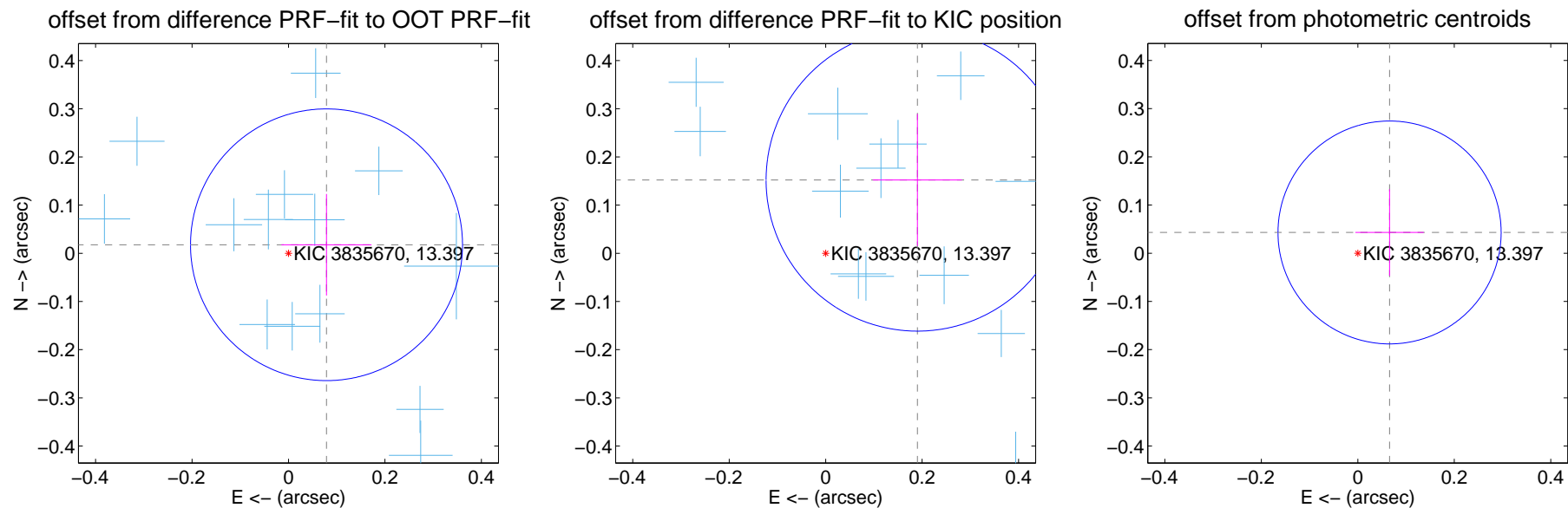
DV Centroid Data

Supplemental centroid analysis for 003835670-01. Kepler magnitude: 13.40. Transit SNR 167.22

There are 17 quarters with good PRF difference image offsets

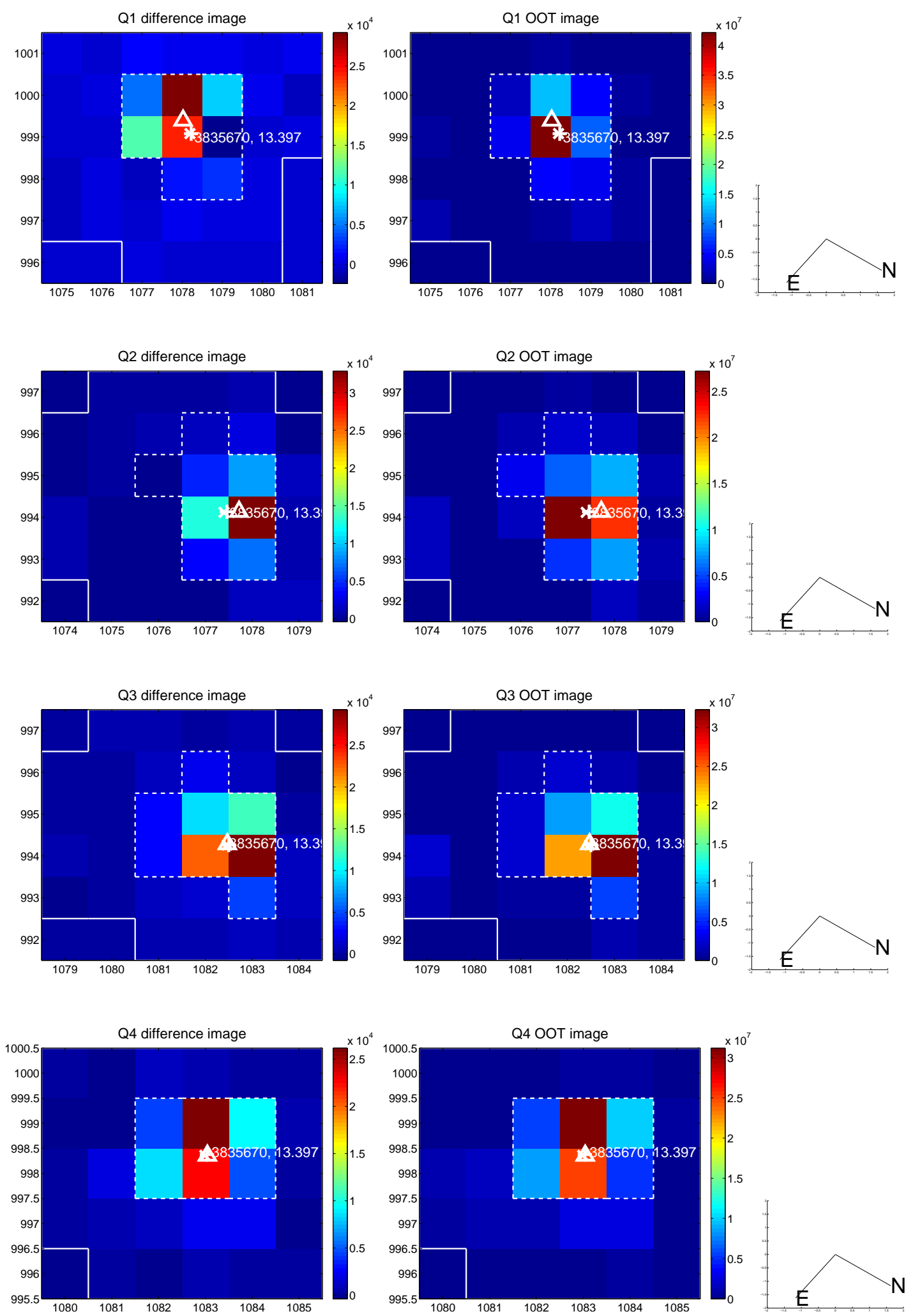
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.081 ± 0.094	0.86	-0.079 ± 0.093	0.018 ± 0.105
PRF-fit source offset from KIC position	0.244 ± 0.105	2.33	-0.190 ± 0.092	0.152 ± 0.137
photometric centroid source offset	0.08 ± 0.08	1.02	-0.07 ± 0.07	0.04 ± 0.09

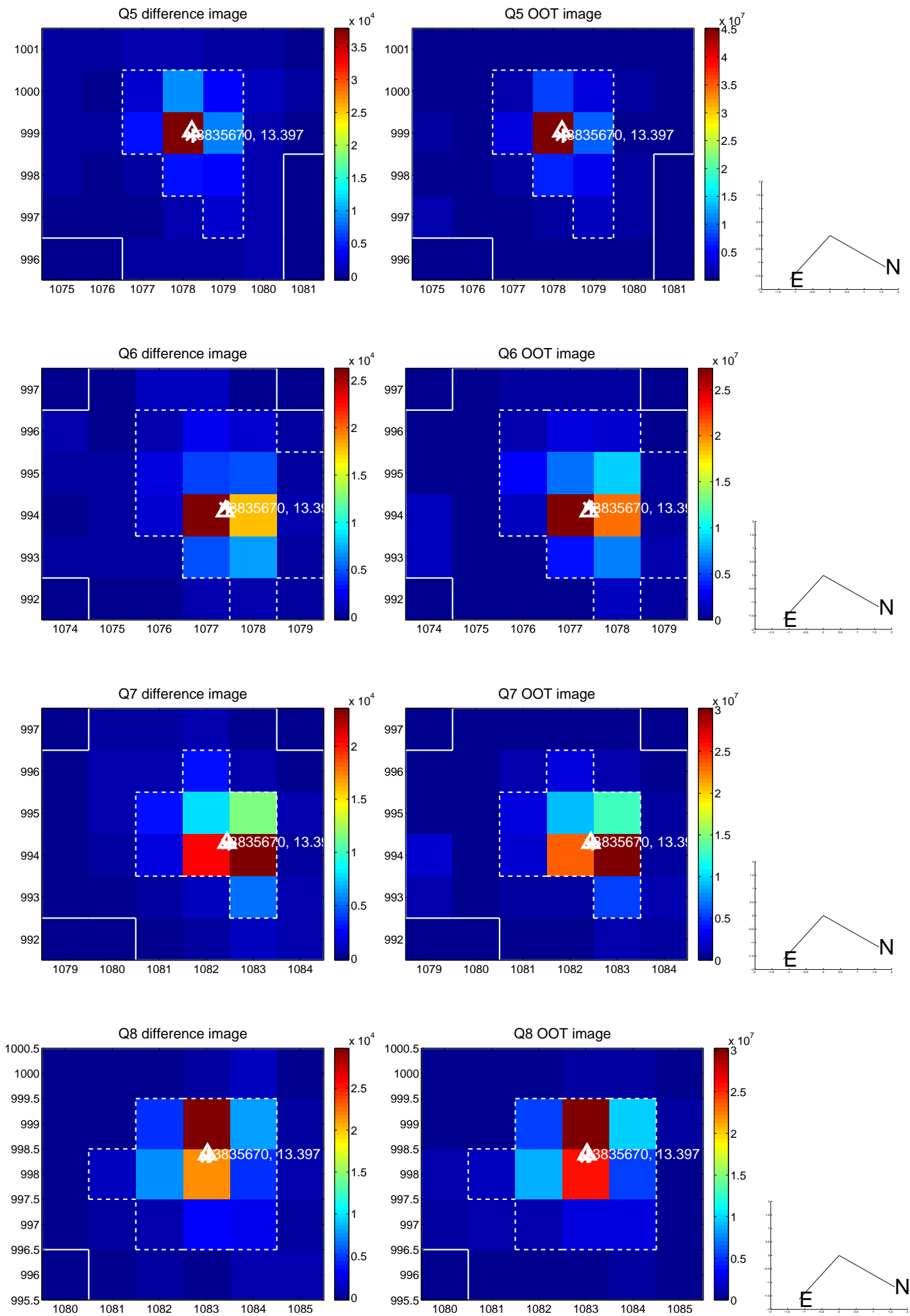


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

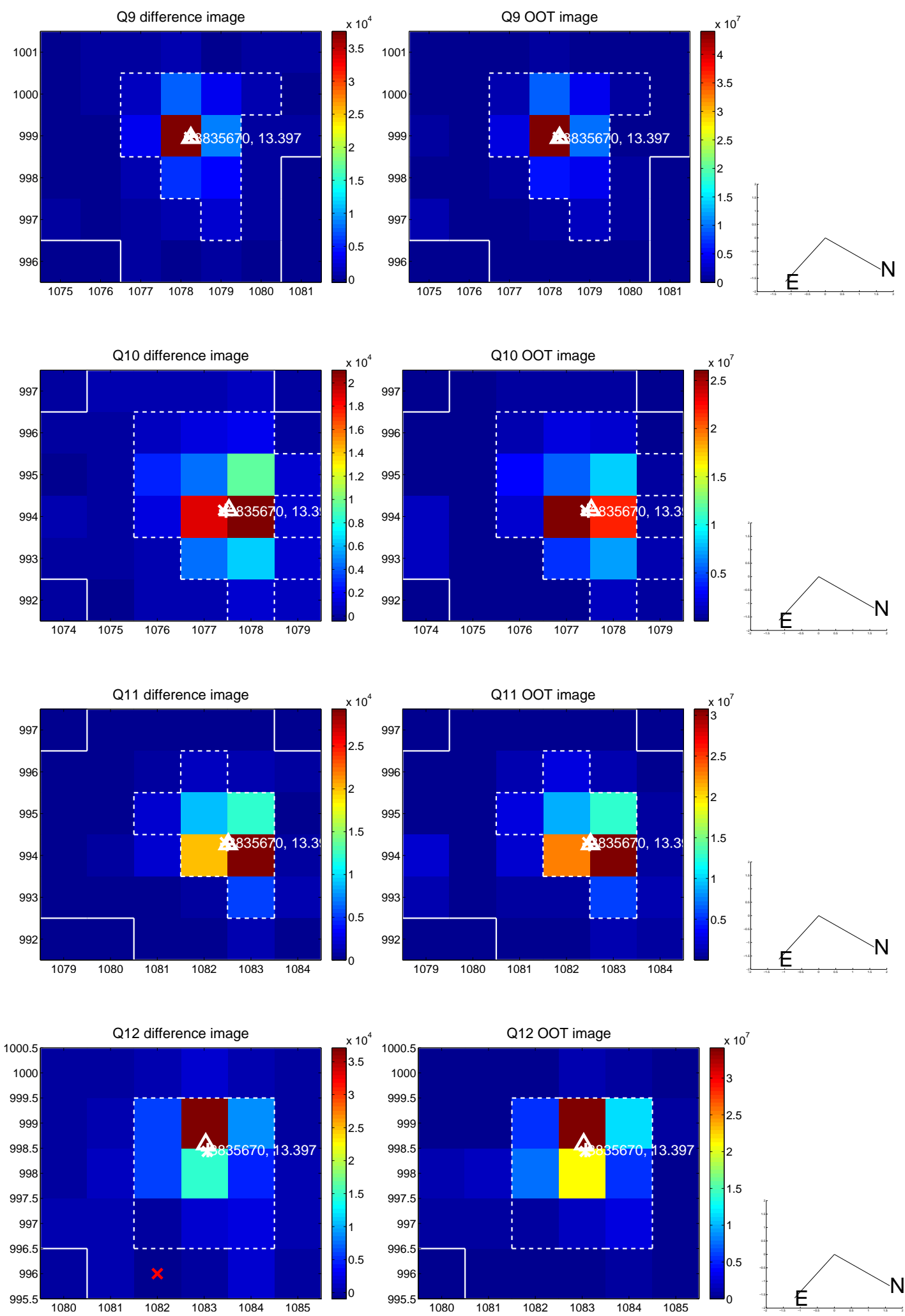
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



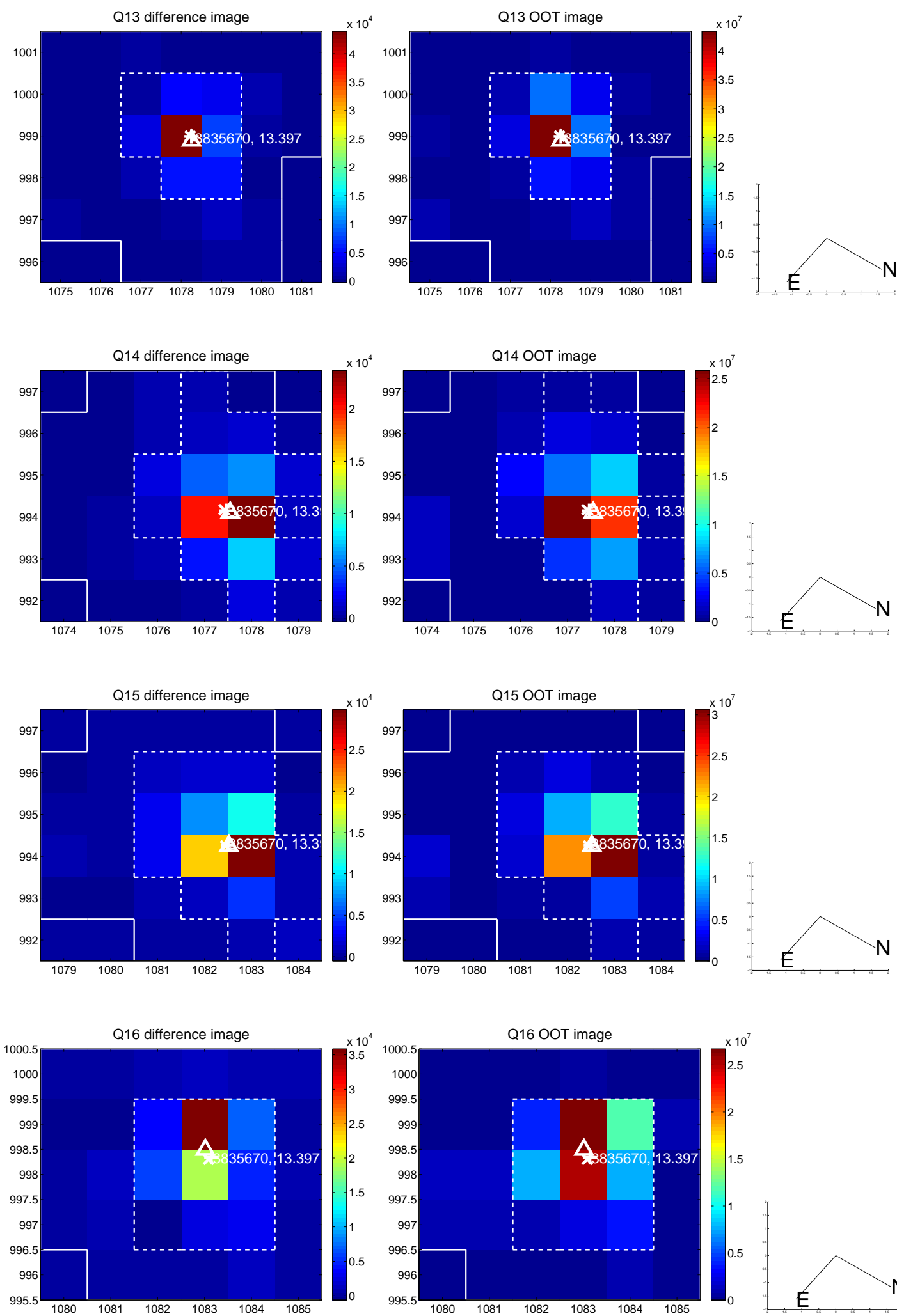
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



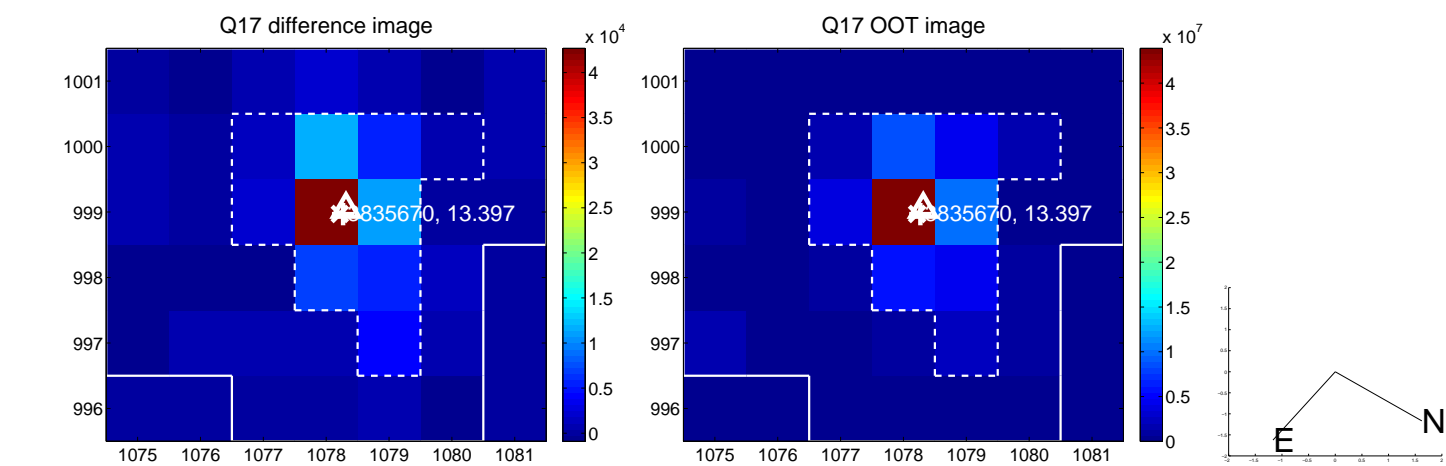
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



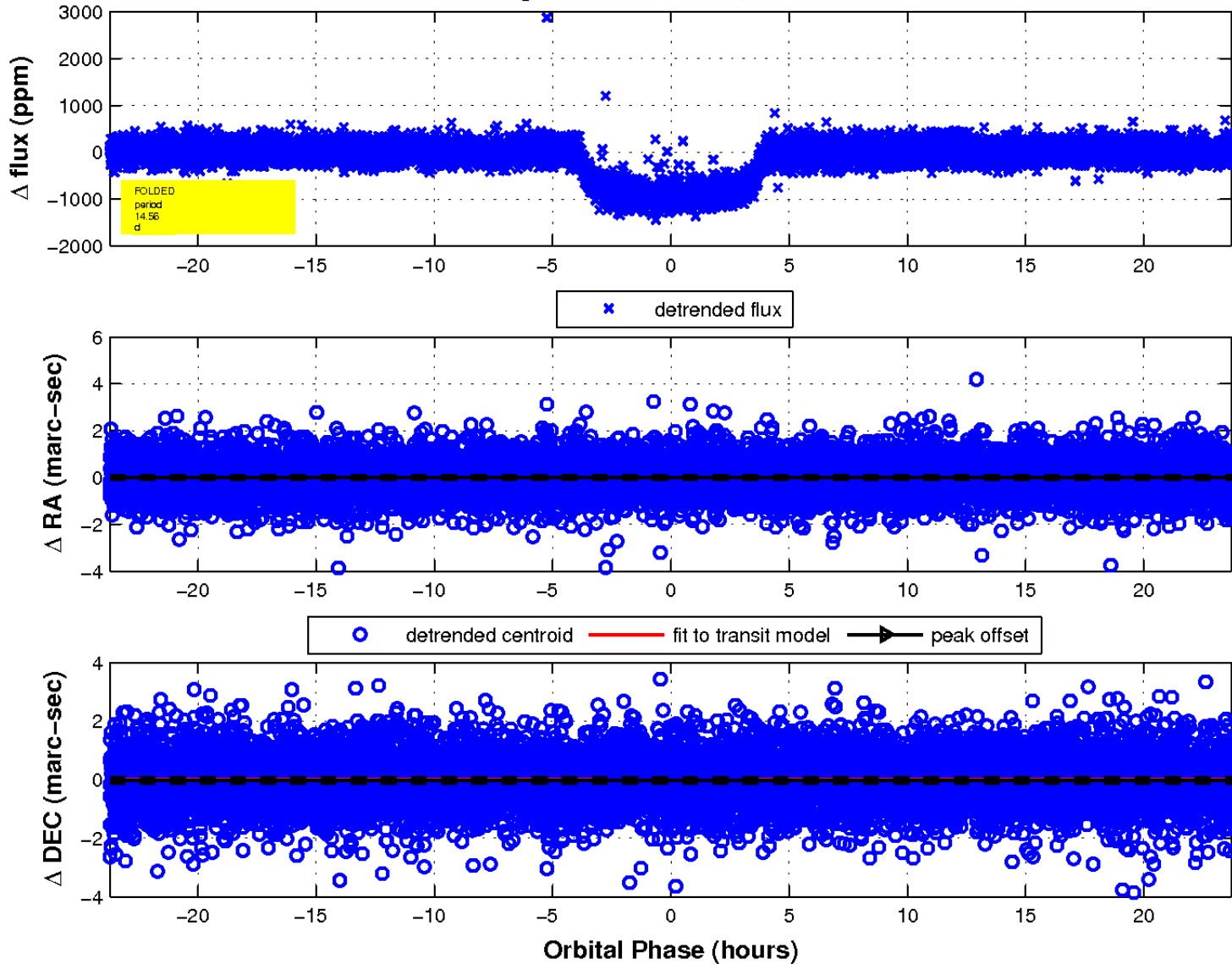
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

