

KIC 008111919

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})
008111919-01	OBS	2030.01	1.664956	131.693849	168.0	1.470	25.2	37.8	1.57	5792	2.42	3223.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008111919-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_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.

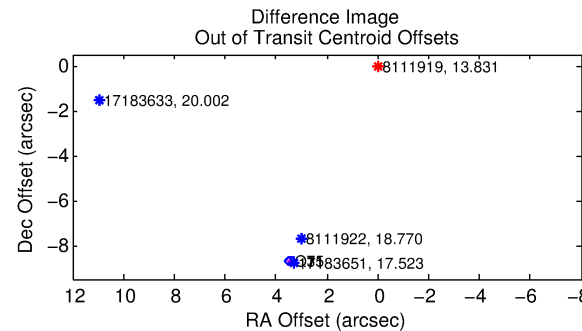
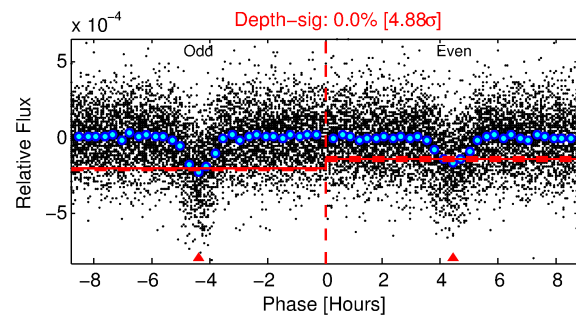
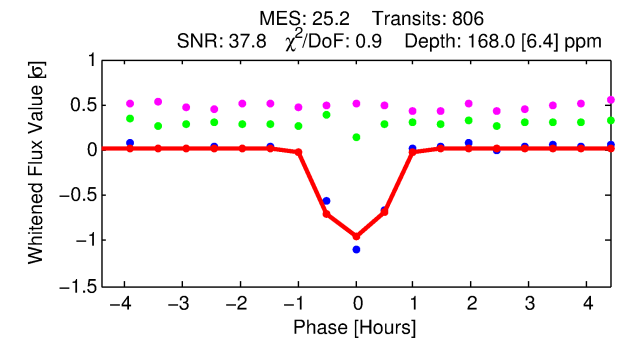
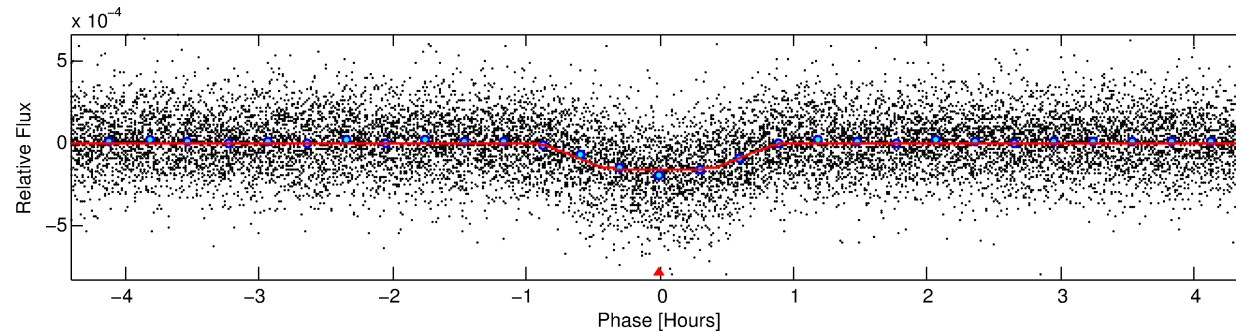
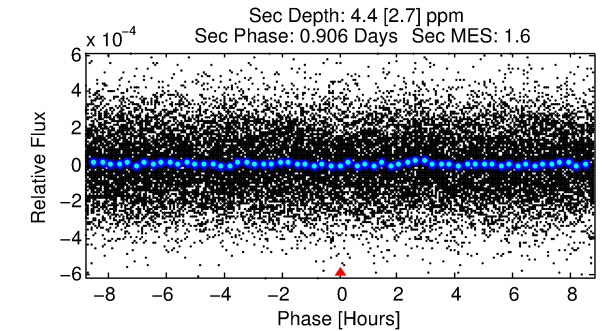
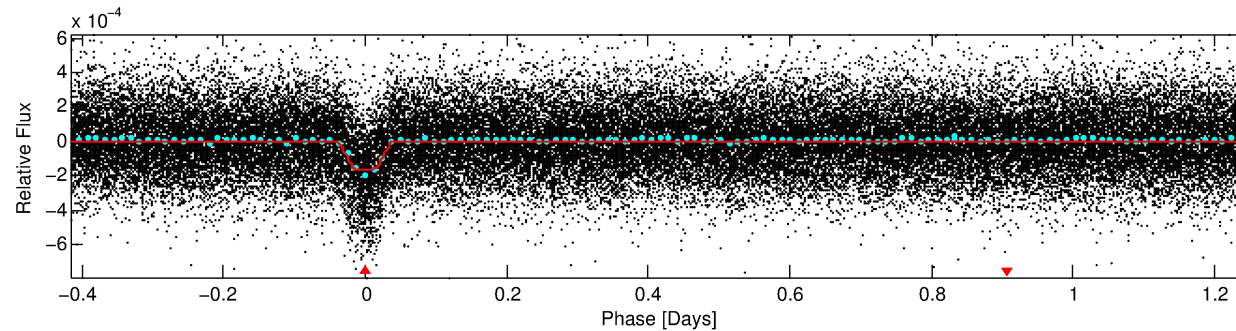
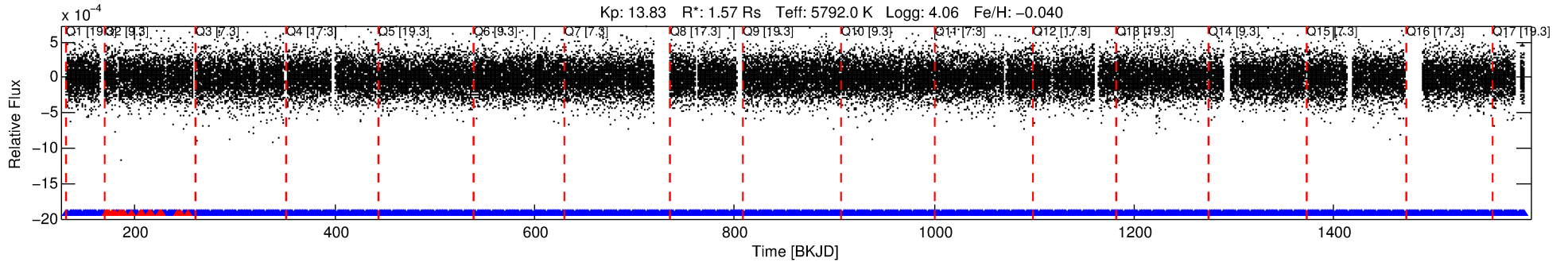
Ephemeris Match Information For 008111919-01

No Significant Match Found

DV One-Page Summary

KIC: 8111919 Candidate: 1 of 1 Period: 1.665 d

KOI: K02030.01 Corr: 0.894



DV Fit Results:

Period = 1.66496 [0.00000] d
Epoch = 131.6938 [0.0006] BKJD
Rp/R* = 0.0142 [0.0033]
a/R* = 4.14 [4.43]
b = 0.90 [0.24]
Seff = 3223.92 [1978.48]
Teq = 1921 [295] K
Rp = 2.42 [1.07] Re
a = 0.0277 [0.0102] AU
Ag = 0.32 [0.31] [-2.19σ]
Teff = 2230 [437] K [0.58σ]

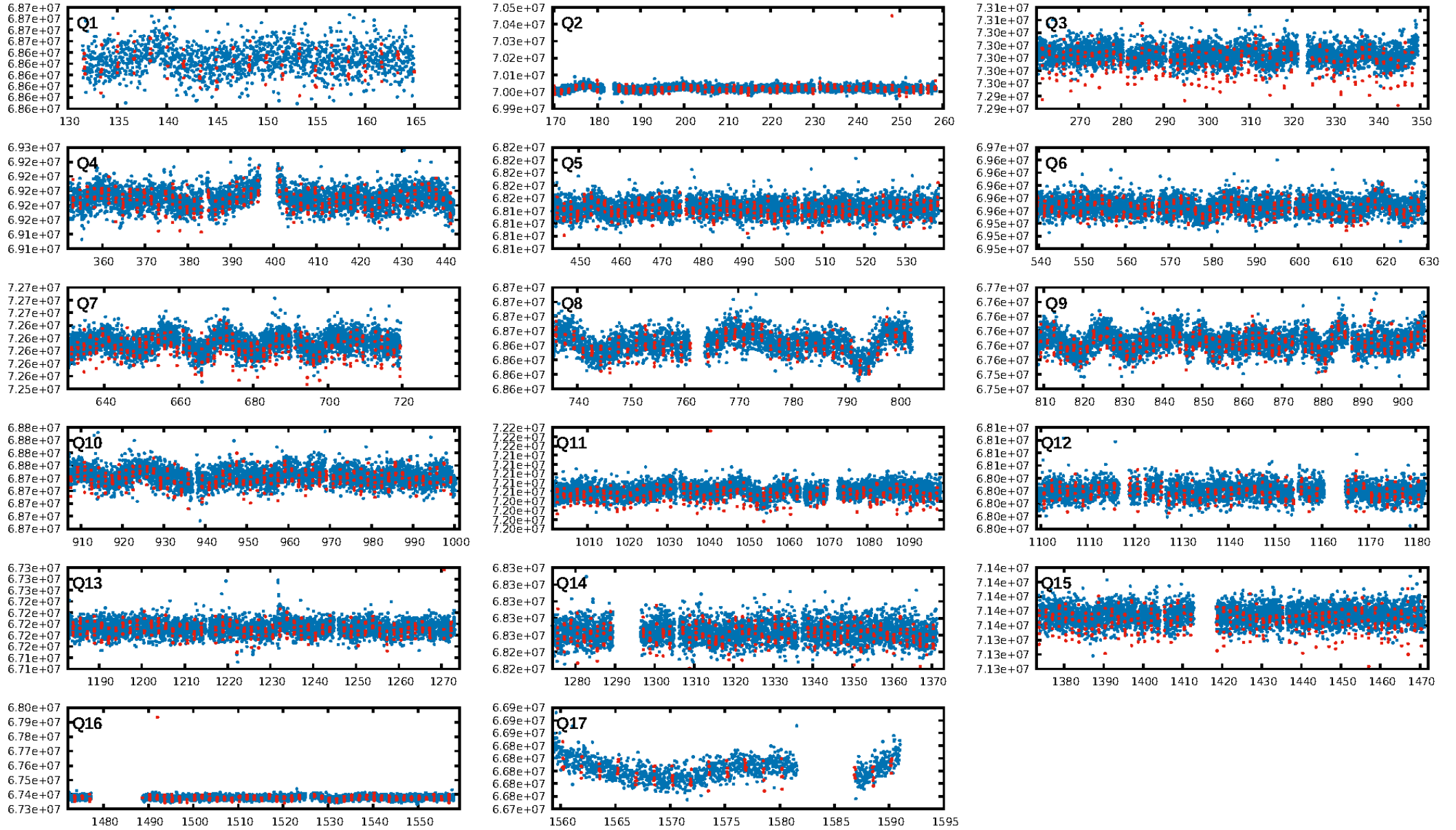
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 6.29e-136
RollingBand-fgt: 0.98 [751/769]
GhostDiagnostic-chr: -0.3586
Centroid-sig: 0.0%
Centroid-so: 74.649 arcsec [220.62σ]
OotOffset-rm: 9.362 arcsec [139.72σ]
KicOffset-rm: 9.447 arcsec [139.15σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [17/17]

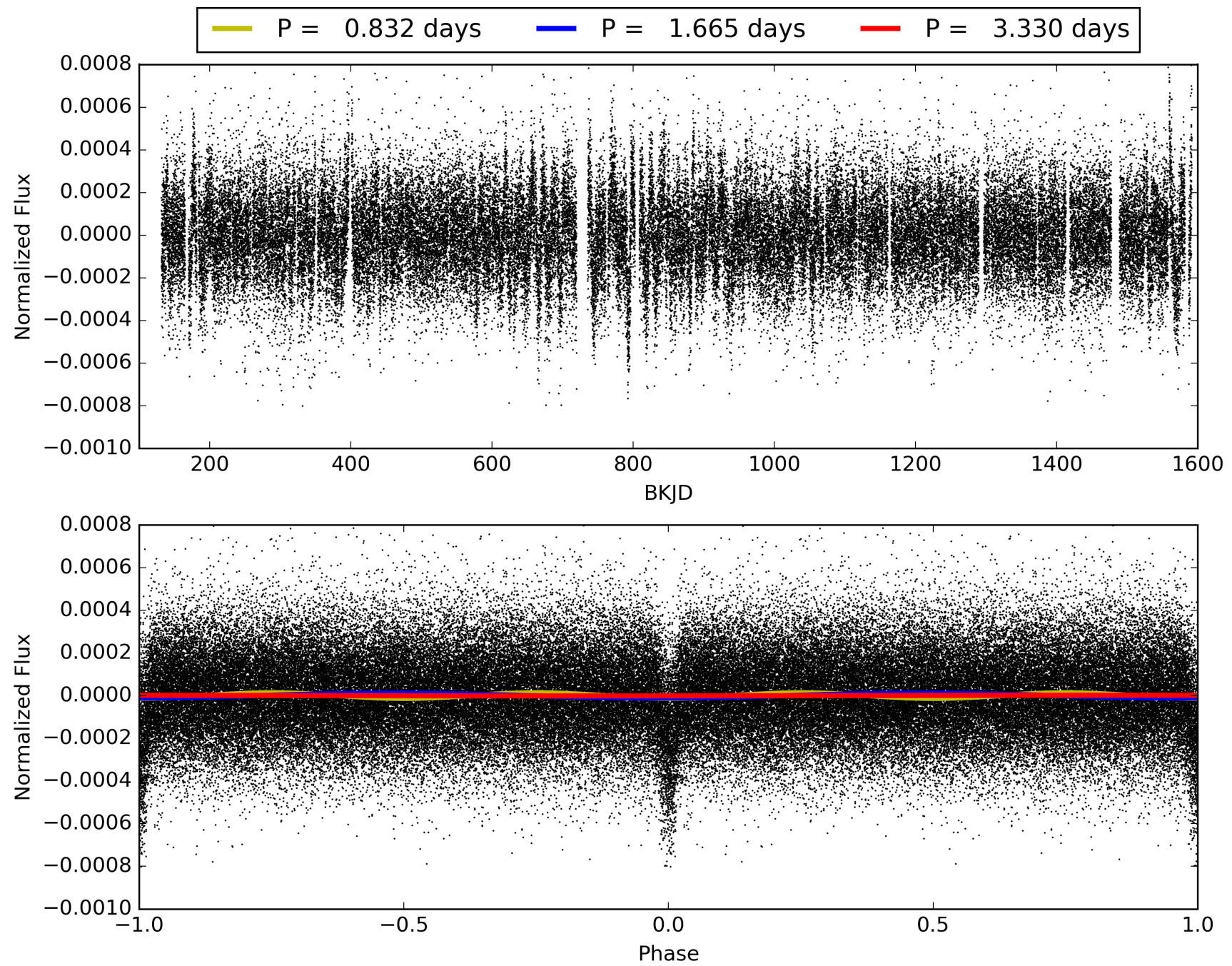
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:28:42 Z

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

TCE 008111919-01, PDC Light Curves

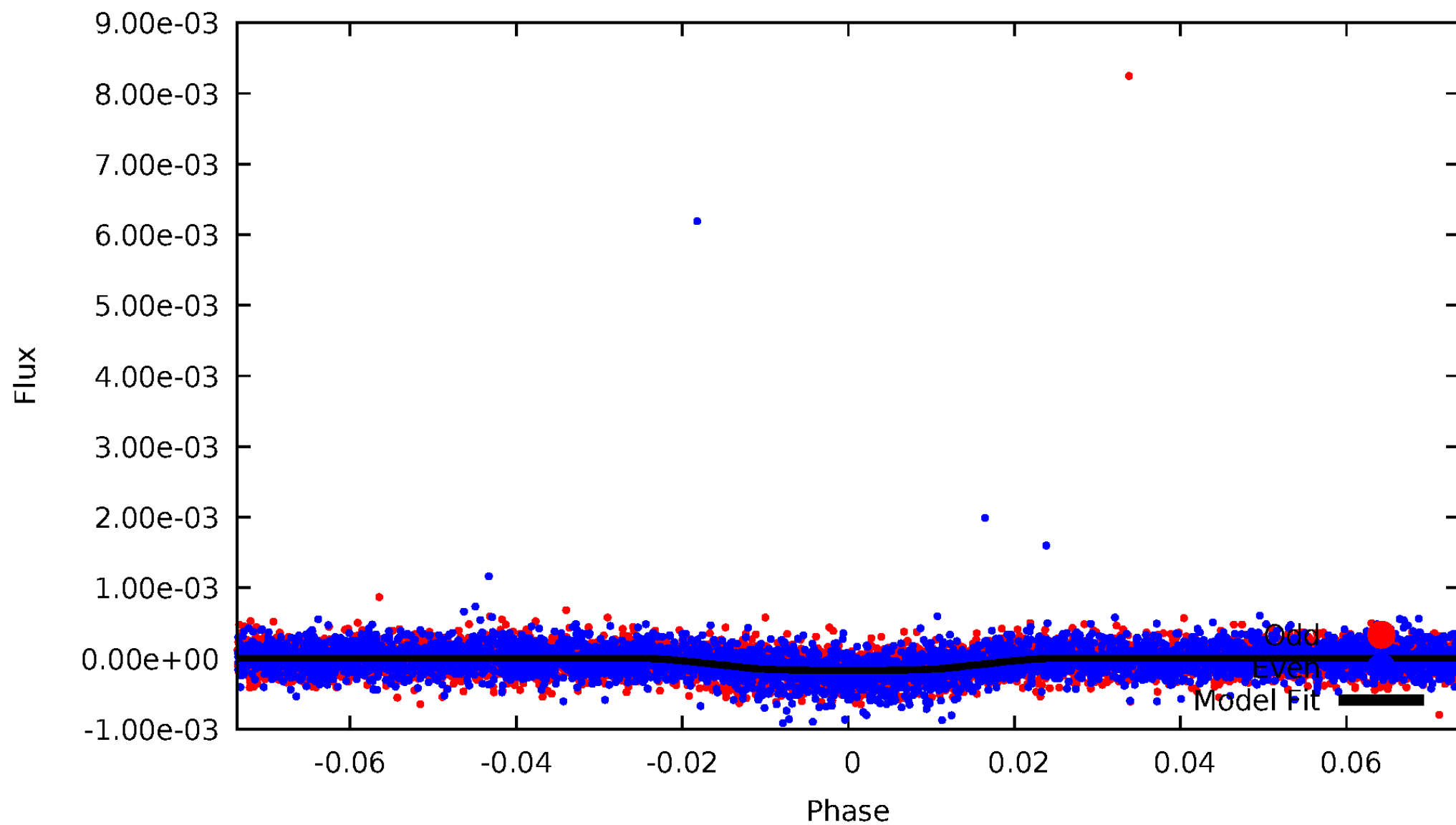


TCE 008111919-01



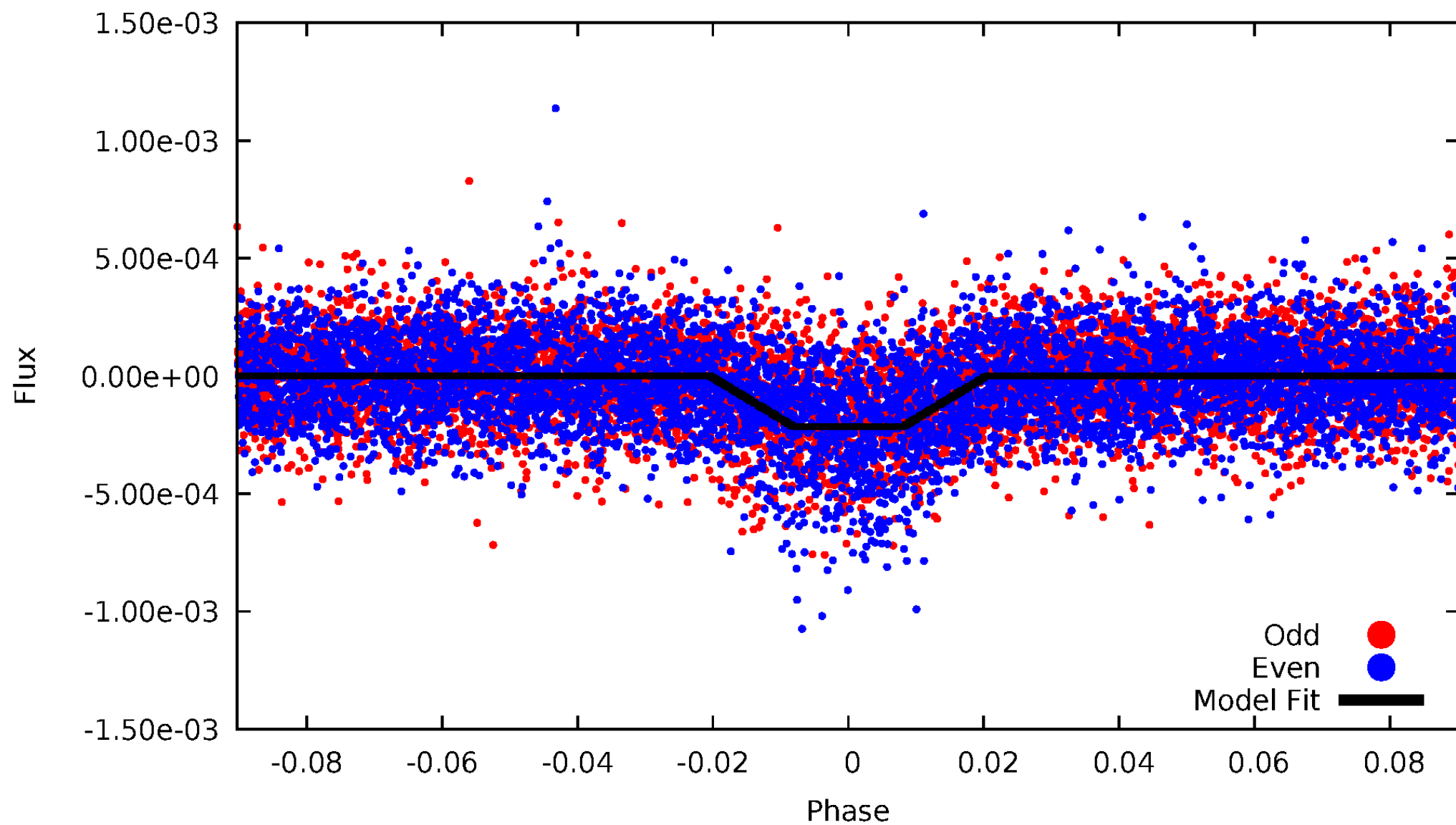
DV Odd/Even

TCE 008111919-01



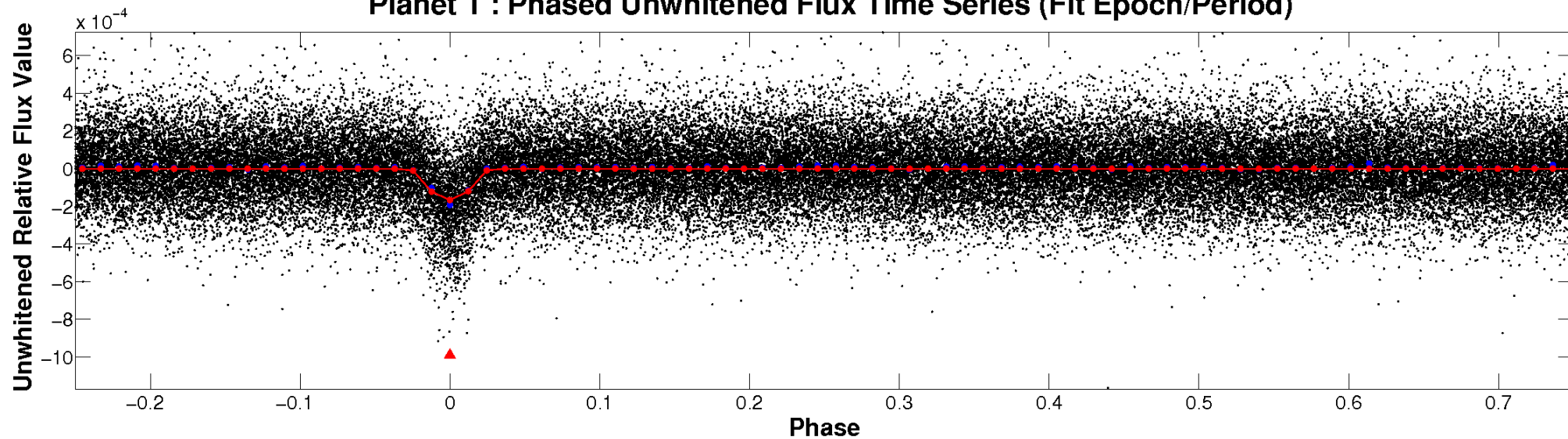
ALT Odd/Even

TCE 008111919-01

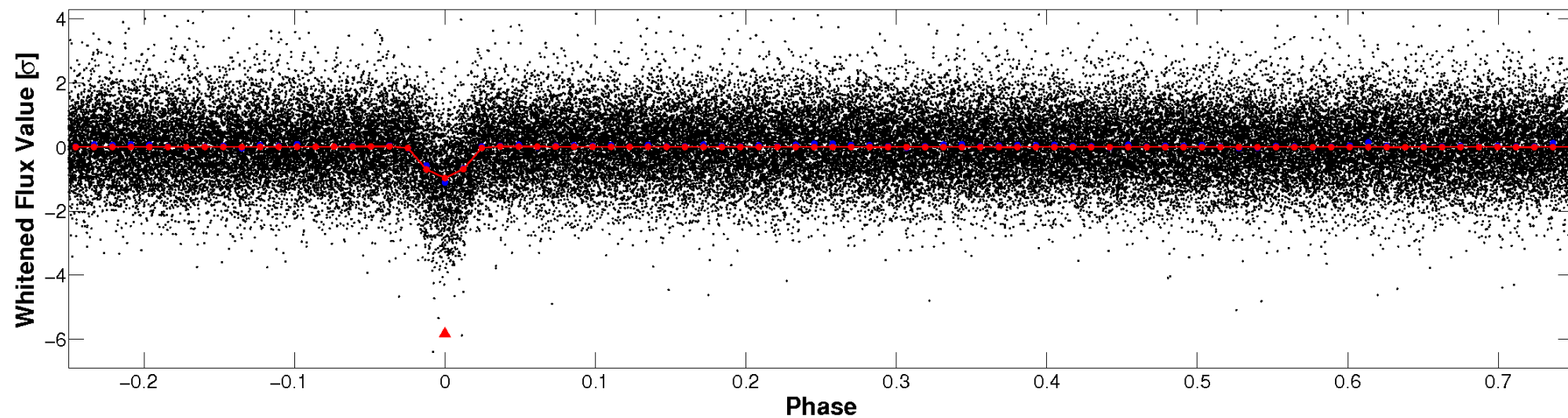


Non-Whitened Vs. Whitened Light Curve

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

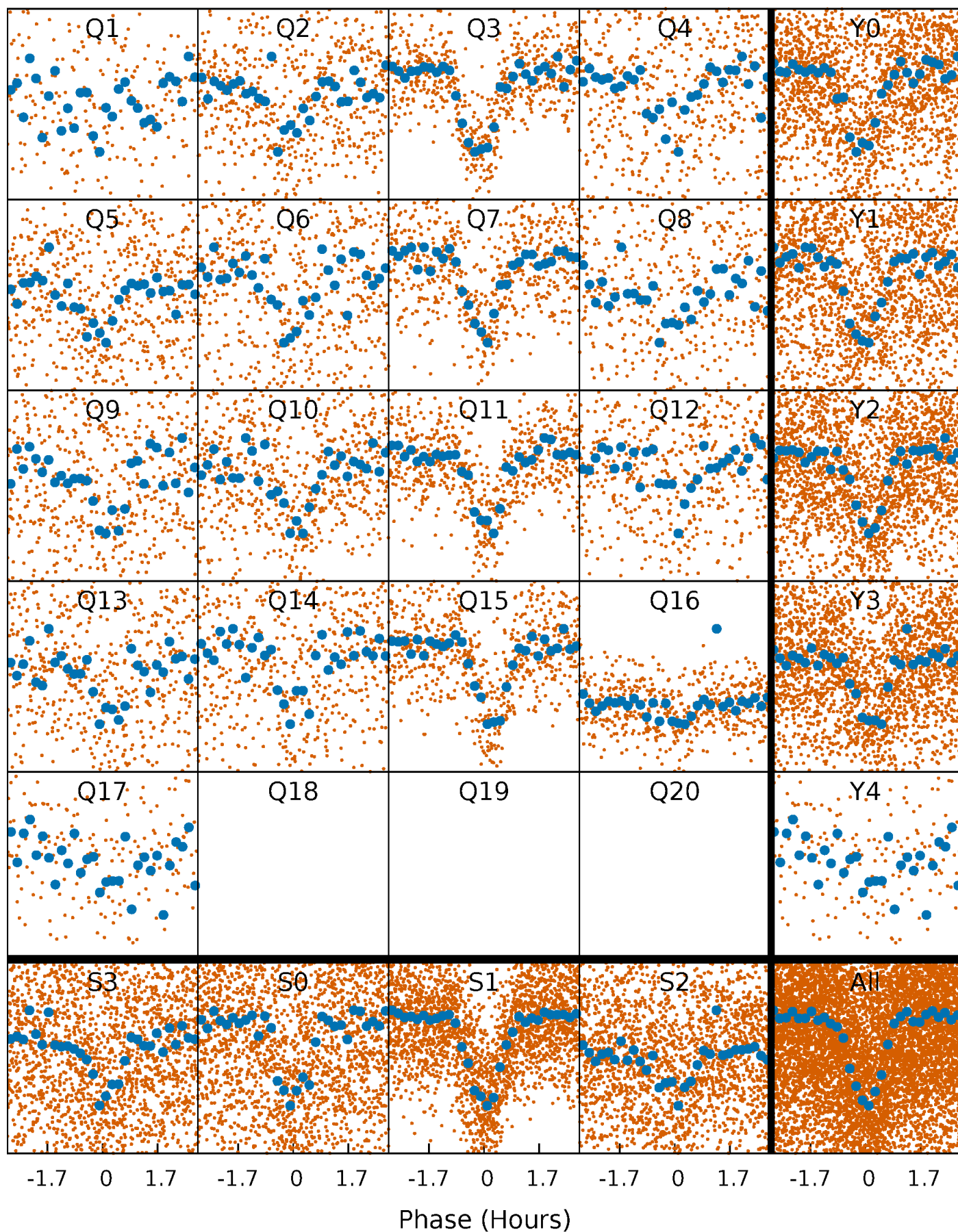


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



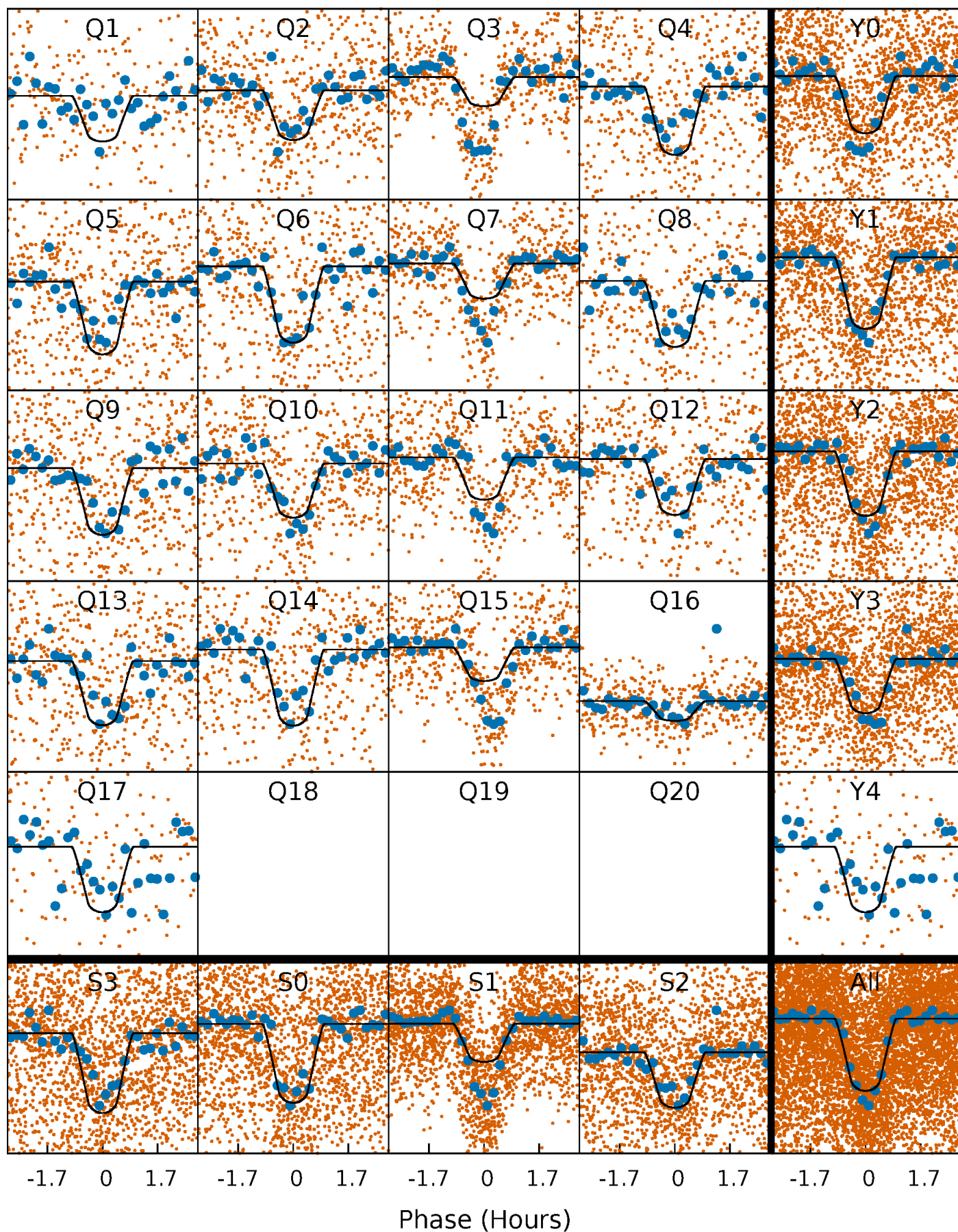
PDC Quarter-Phased Transit Curves

TCE 008111919-01 P= 1.664956 Days $T_0=131.693849$ (BKJD)



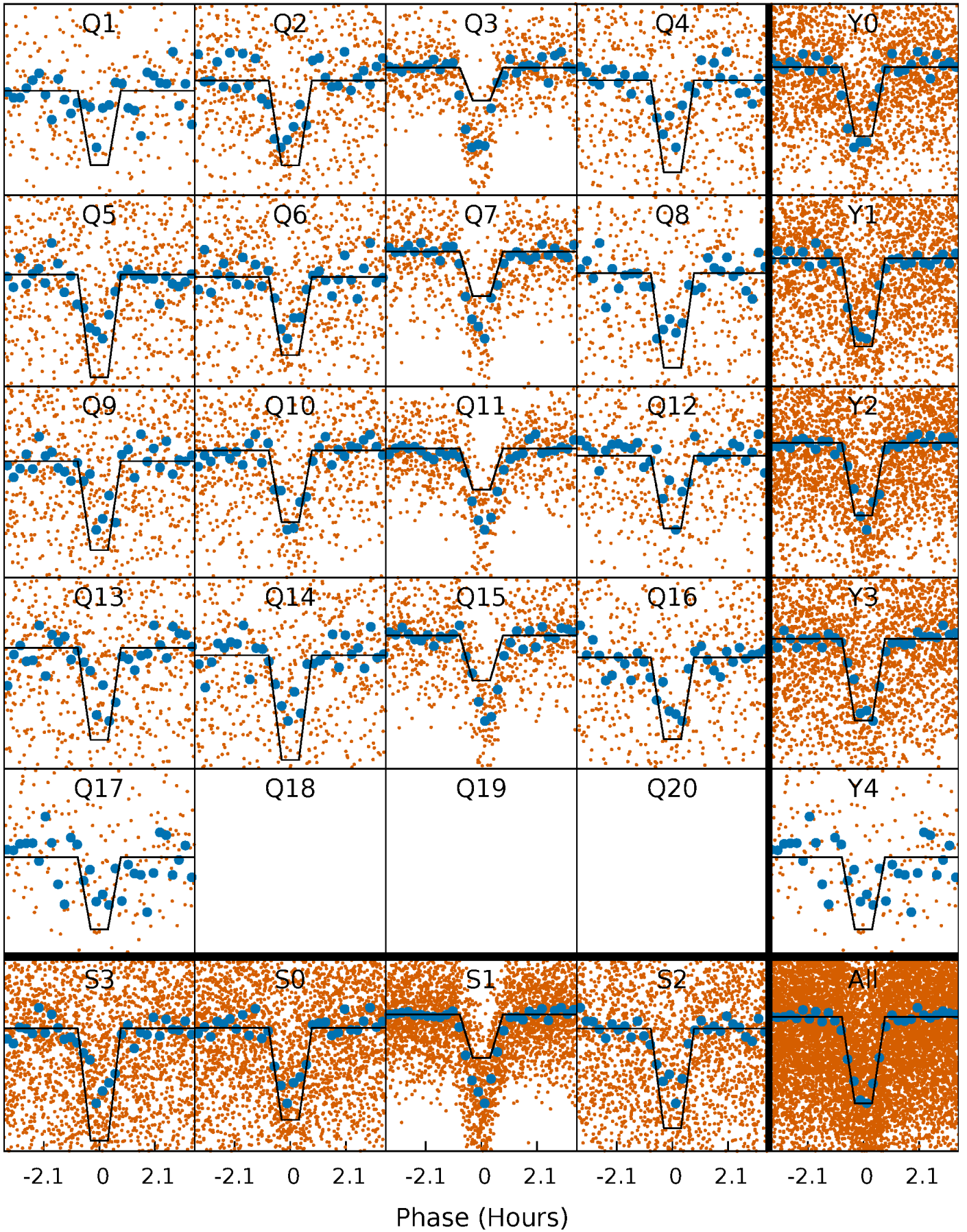
DV Quarter-Phased Transit Curves

TCE 008111919-01 P= 1.664956 Days $T_0=131.693849$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

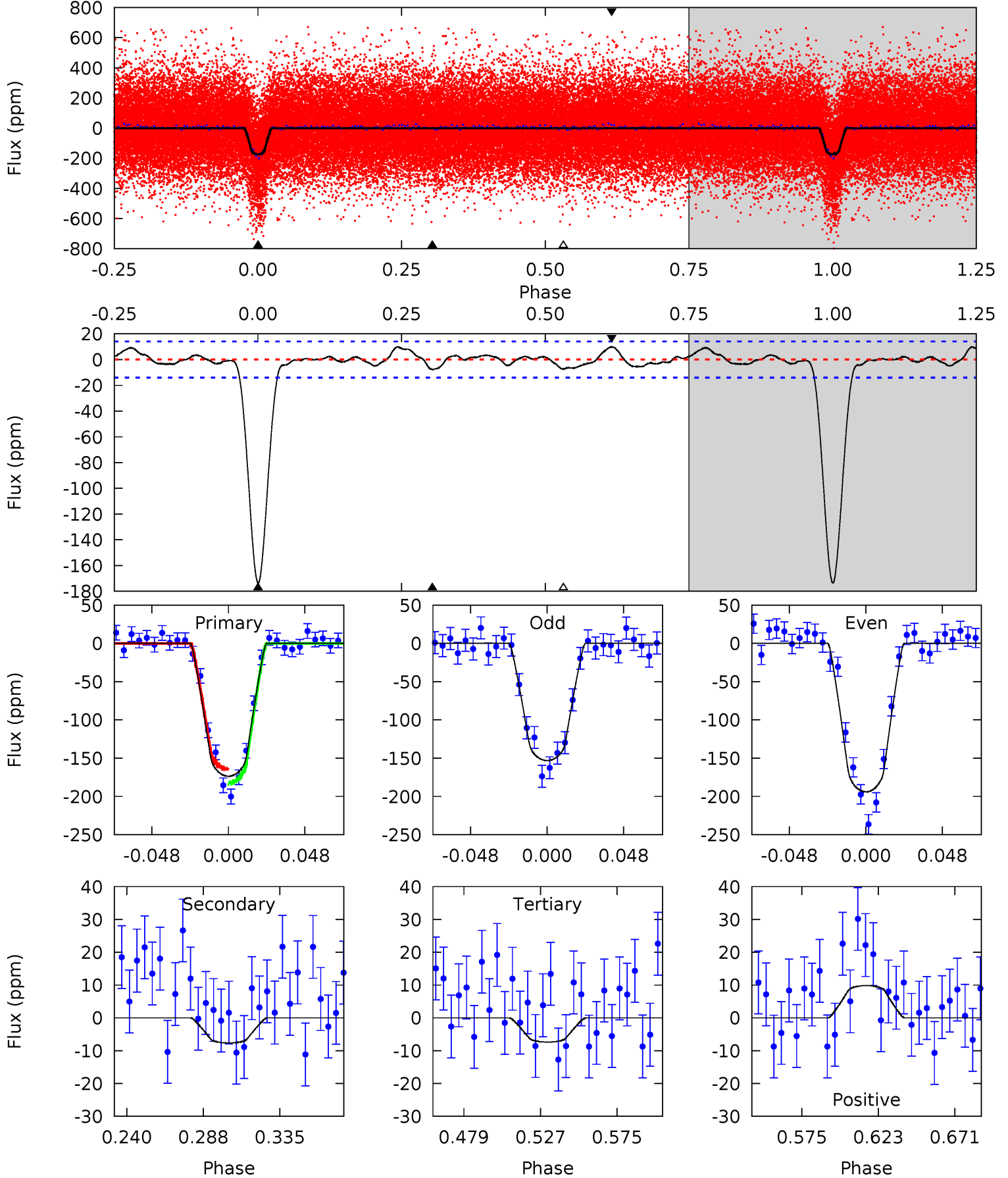
TCE 008111919-01 P= 1.664960 Days $T_0=131.692881$ (BKJD)



DV Model-Shift Uniqueness Test

008111919-01, P = 1.664956 Days, E = 130.028893 Days

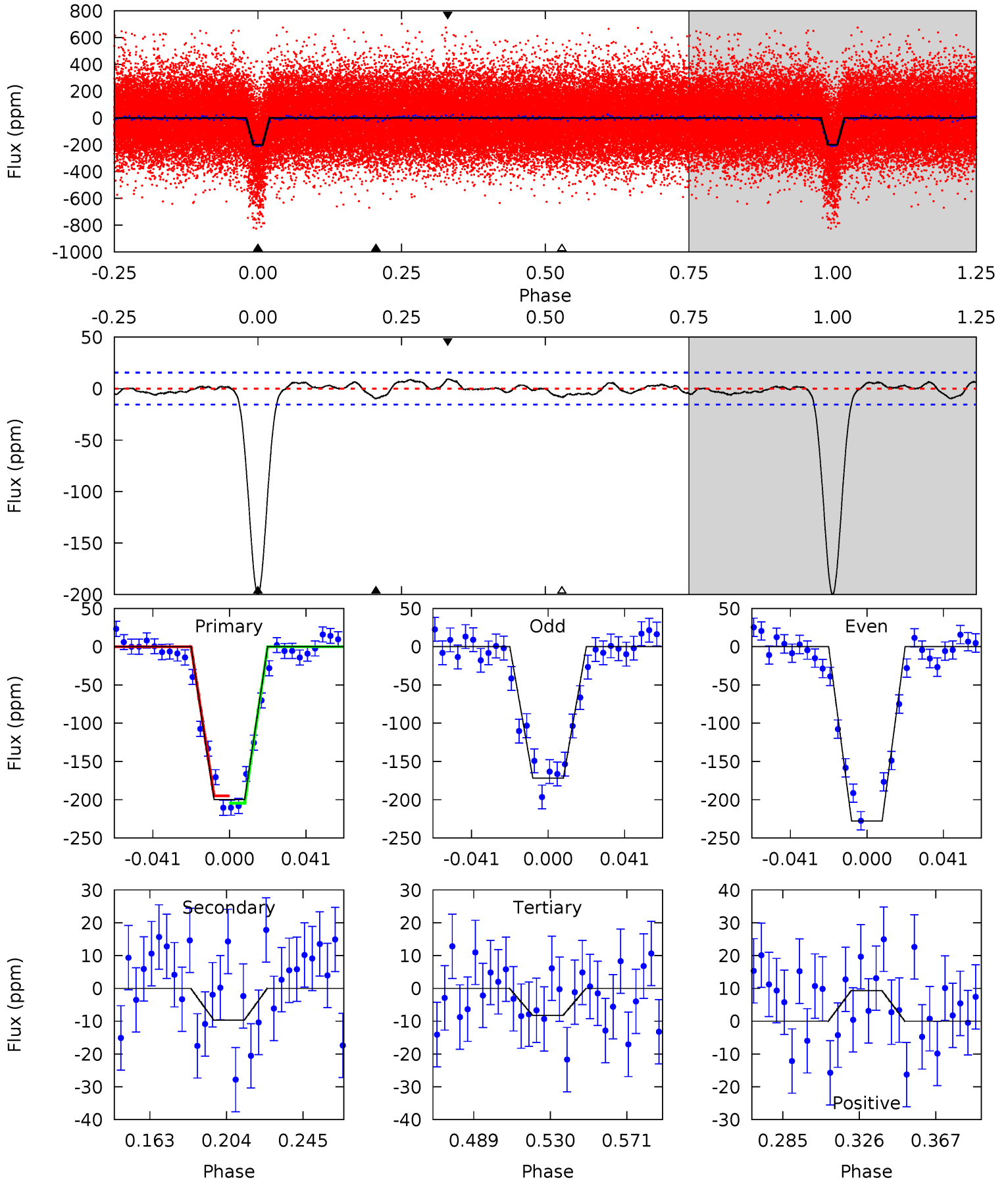
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.2	2.57	2.47	3.30	4.72	1.98	1.26	55.8	54.9	0.10	-0.73	6.87	1.04	0.05	3.00



Alt Model-Shift Uniqueness Test

008111919-01, P = 1.664960 Days, E = 130.027921 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
61.0	2.96	2.51	2.85	4.75	2.05	1.15	58.5	58.2	0.45	0.10	8.54	1.09	0.04	1.44



Stellar Parameters For KIC 008111919

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5792^{+158}_{-176}	$4.058^{+0.357}_{-0.153}$	$-0.040^{+0.300}_{-0.300}$	$1.567^{+0.388}_{-0.583}$	$1.024^{+0.138}_{-0.138}$	$0.375^{+0.986}_{-0.157}$
	+3%/-3%	+9%/-4%	+750%/-750%	+25%/-37%	+13%/-13%	+263%/-42%
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 008111919-01 / KOI 2030.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 3	$2.26^{+0.76}_{-0.66}$	2640^{+199}_{-283}	2864^{+468}_{-4610}	$0.606^{+0.695}_{-0.310}$
Alt.	-10 ± 3	$2.39^{+0.71}_{-0.69}$	2644^{+218}_{-284}	2992^{+412}_{-609}	$0.712^{+0.777}_{-0.348}$

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

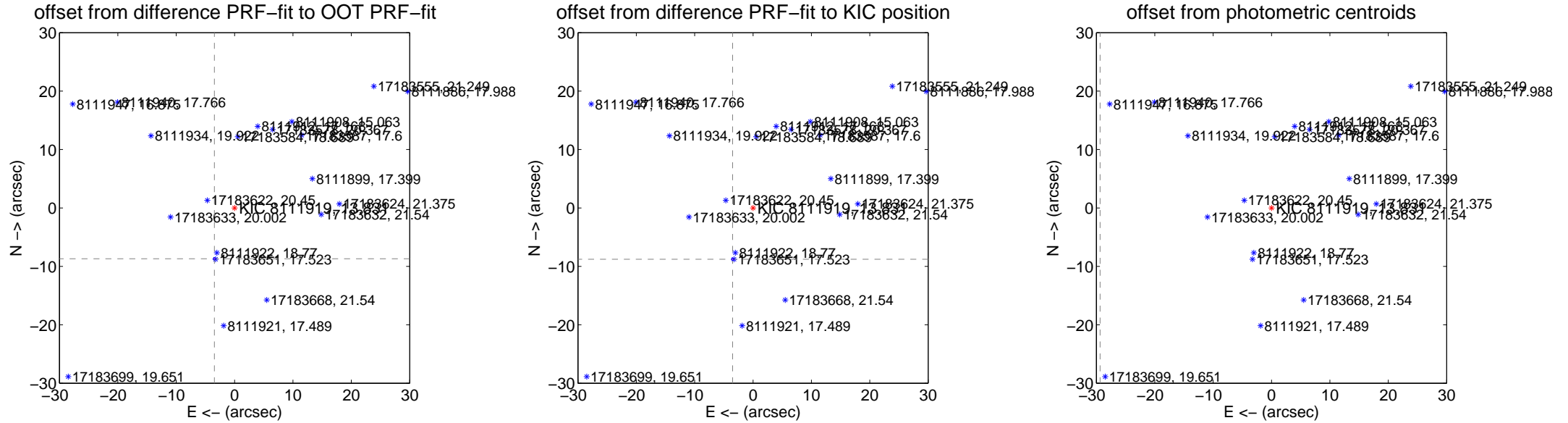
DV Centroid Data

Supplemental centroid analysis for 008111919-01. Kepler magnitude: 13.83. Transit SNR 37.77

There are 4 quarters with good PRF difference image offsets

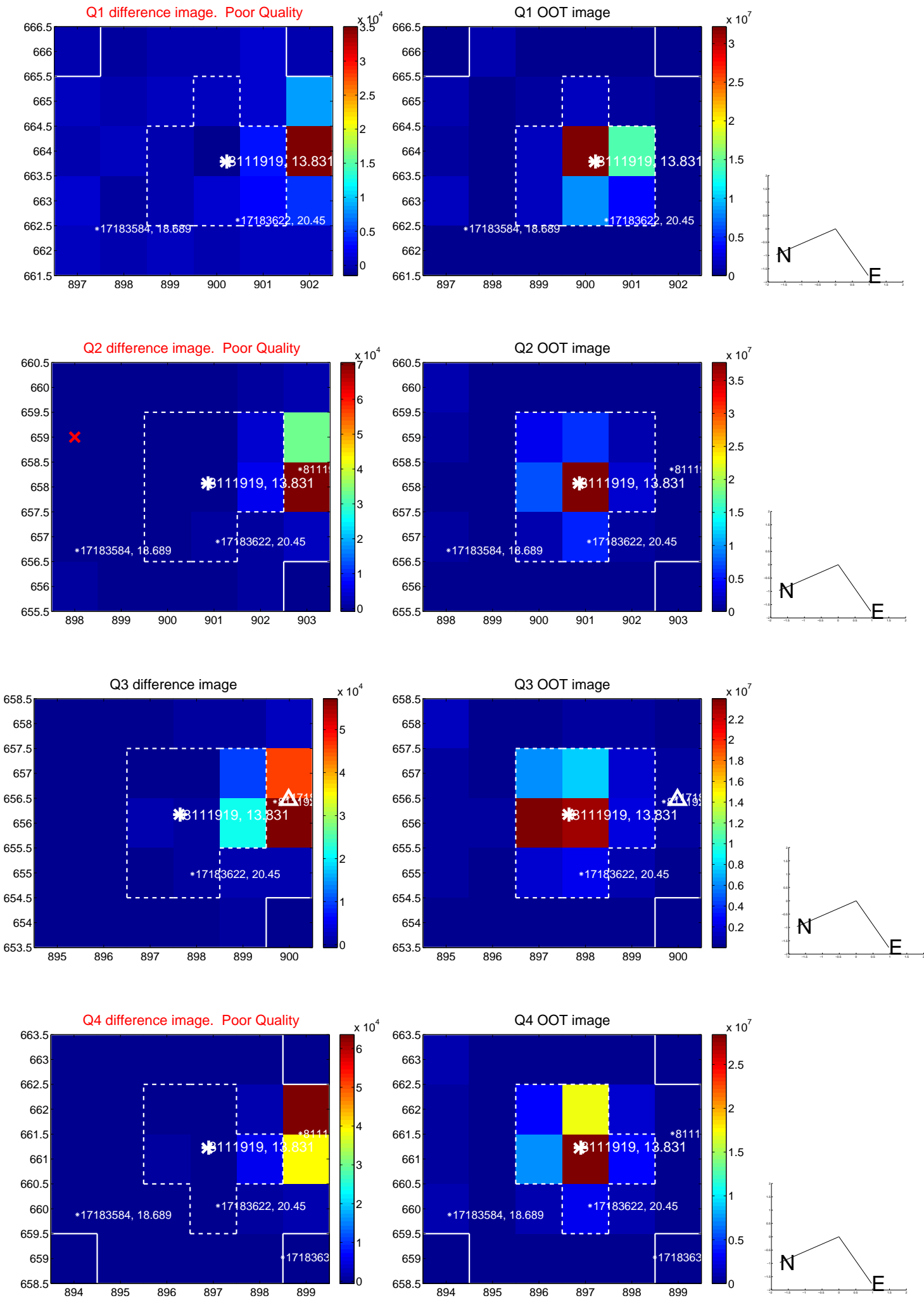
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.362 \pm 0.067	139.72	3.450 \pm 0.067	-8.703 \pm 0.067
PRF-fit source offset from KIC position	9.447 \pm 0.068	139.15	3.494 \pm 0.067	-8.777 \pm 0.068
photometric centroid source offset	74.65 \pm 0.34	220.62	29.37 \pm 0.34	-68.63 \pm 0.34

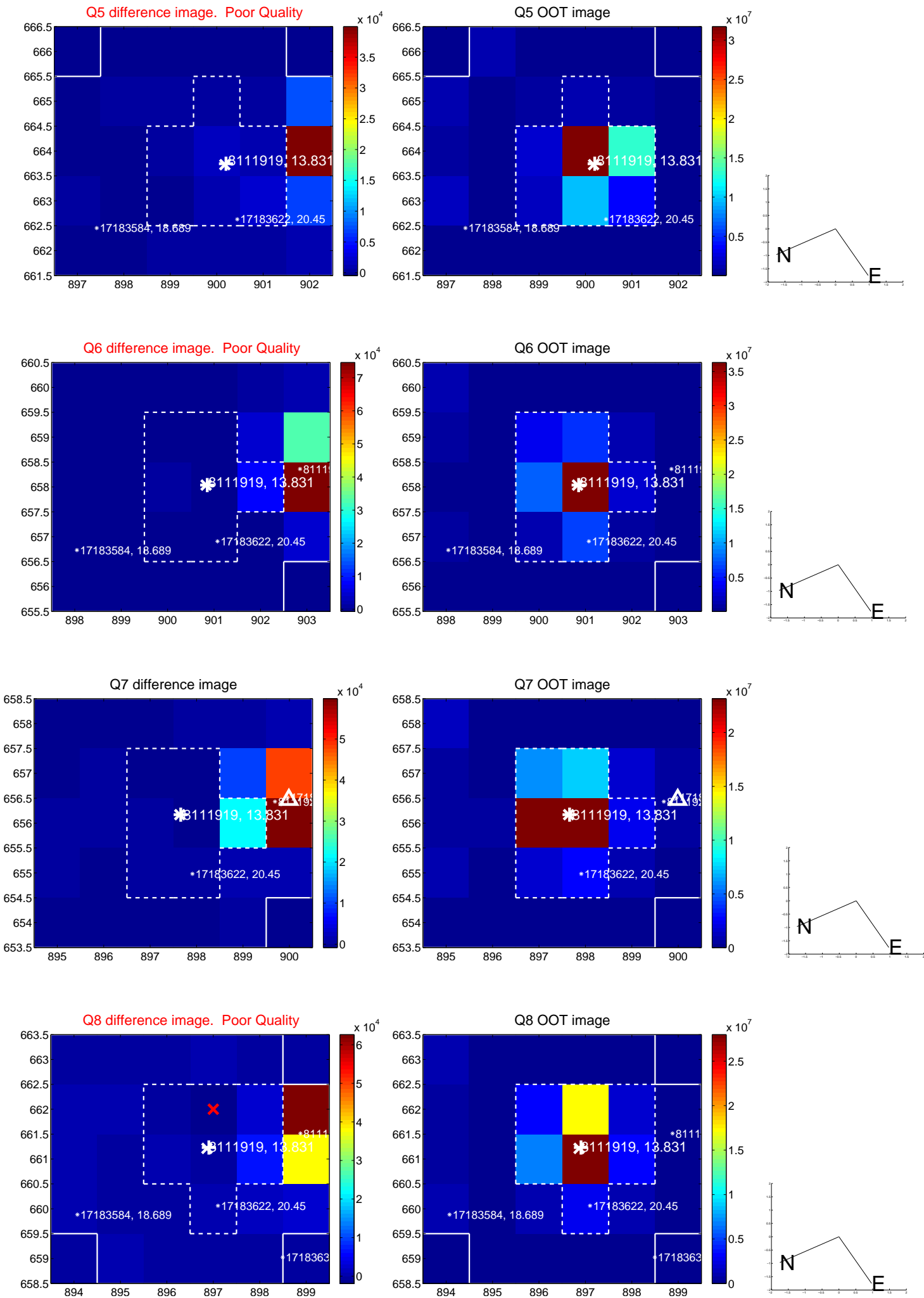


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

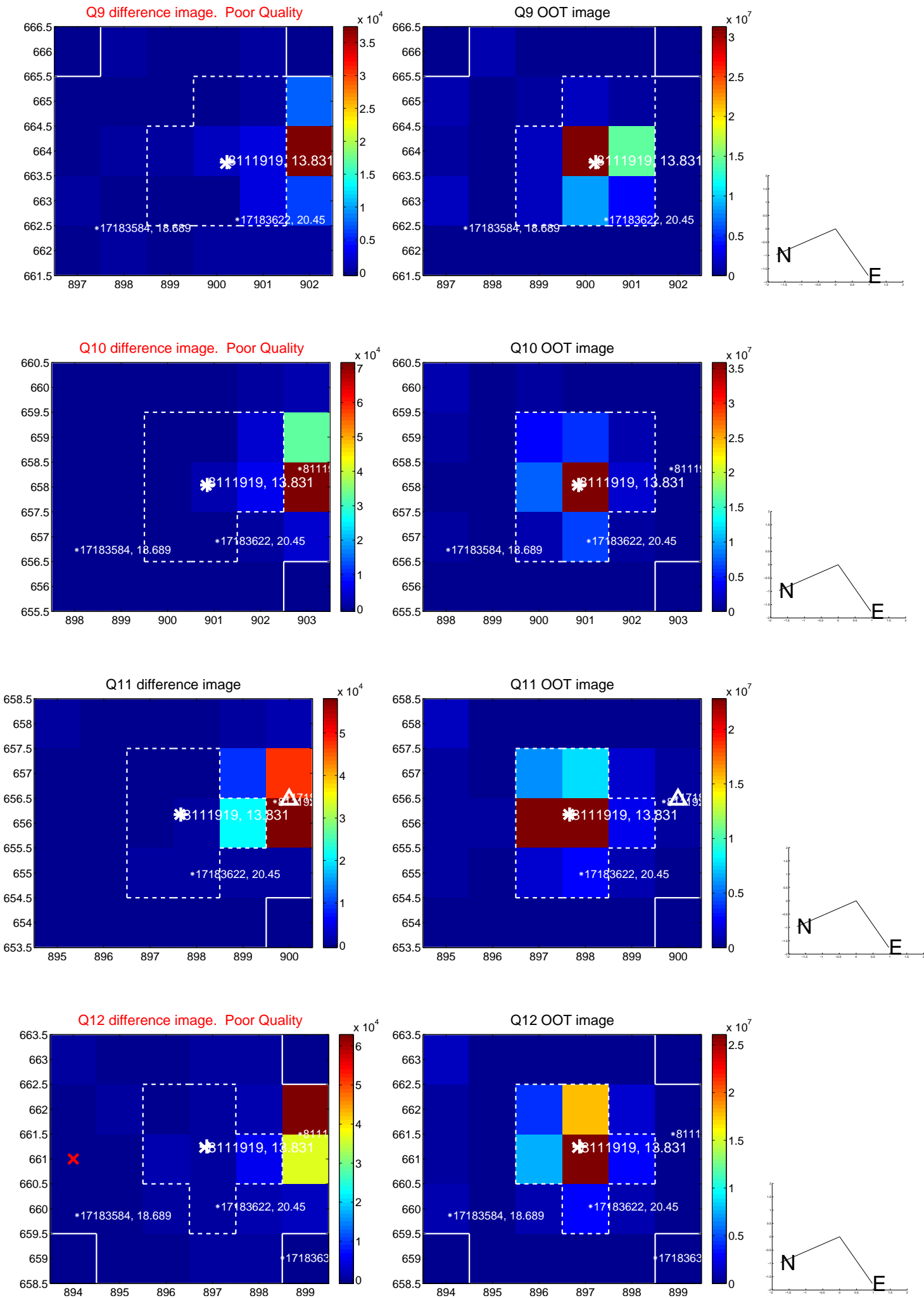
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



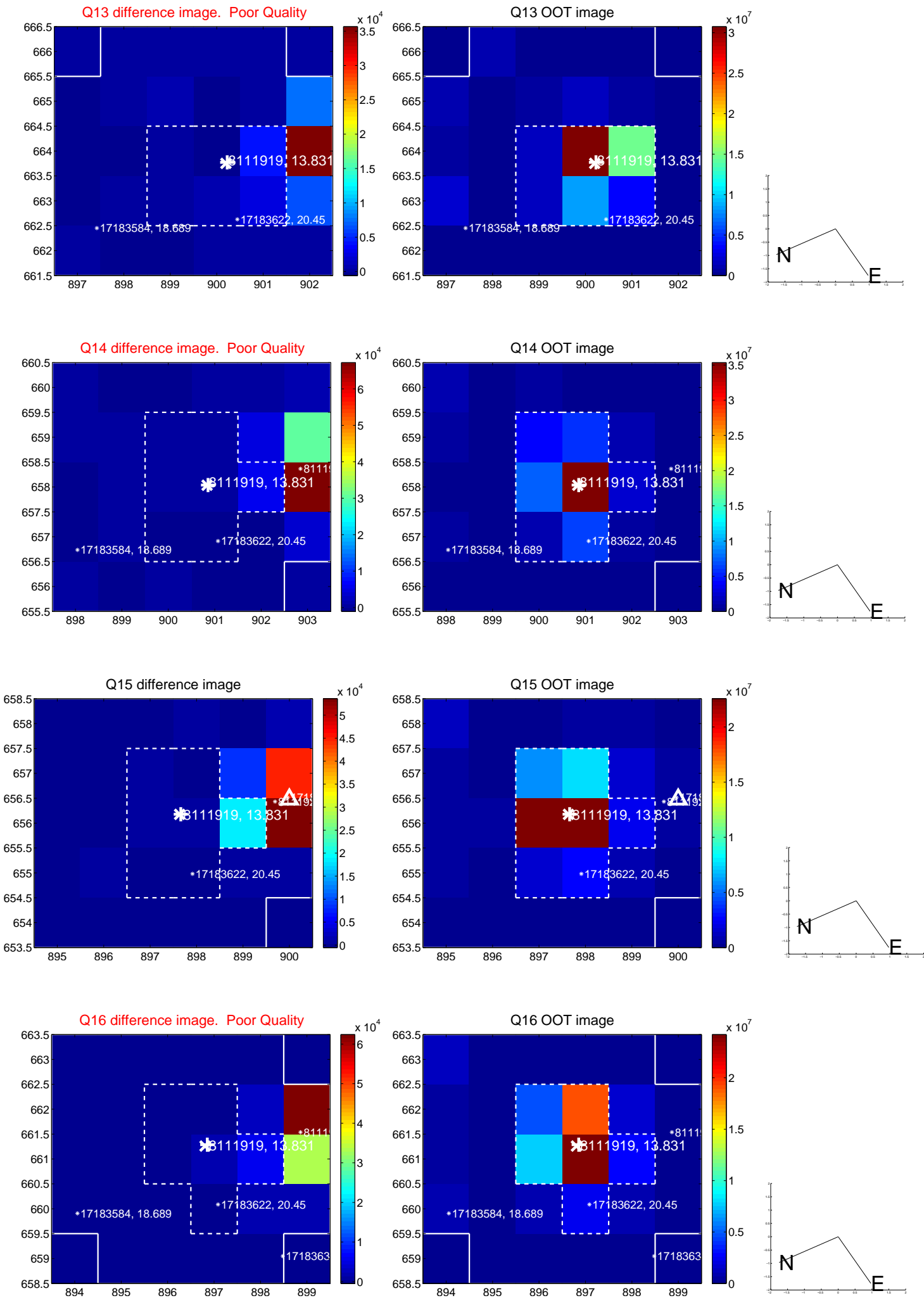
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



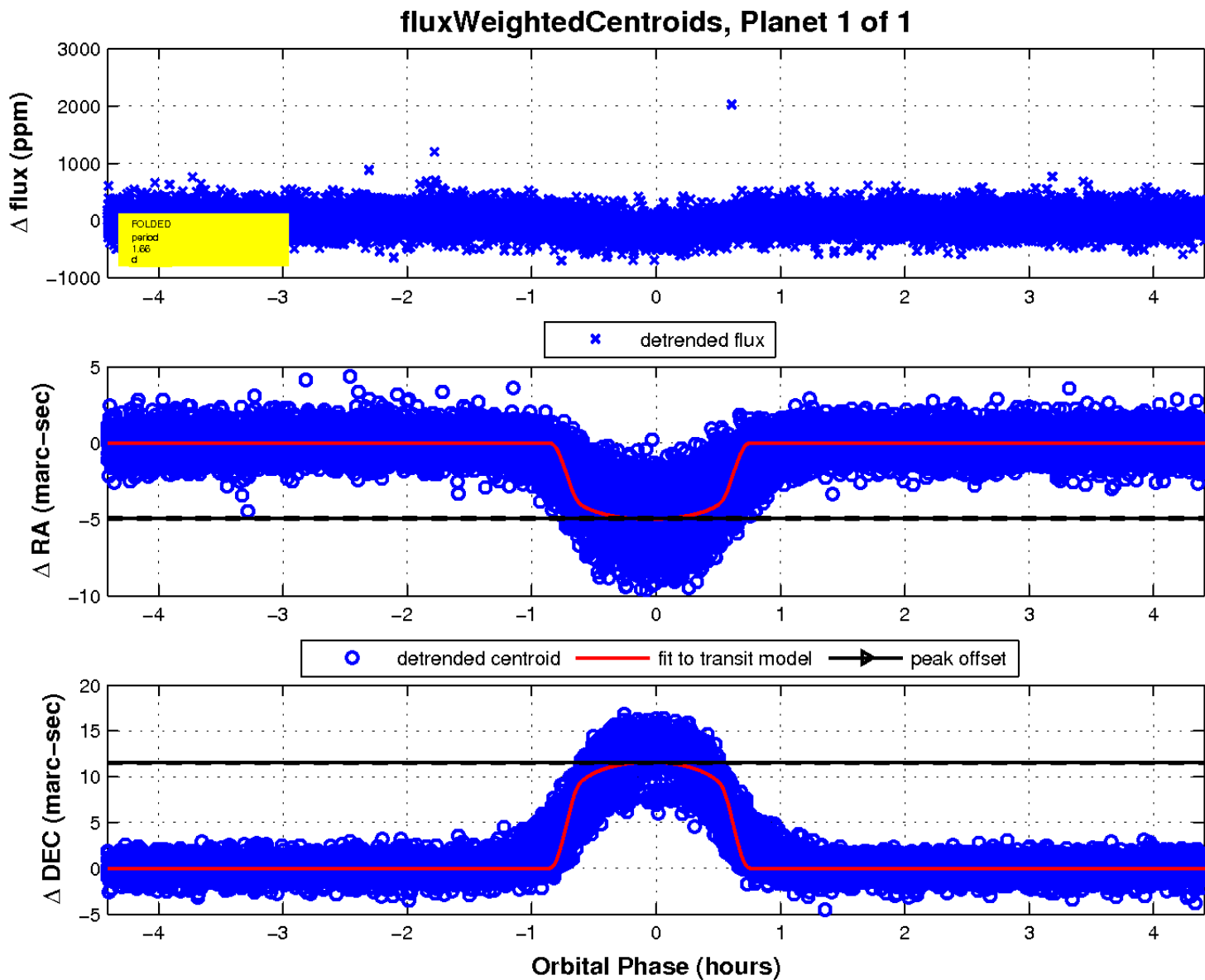
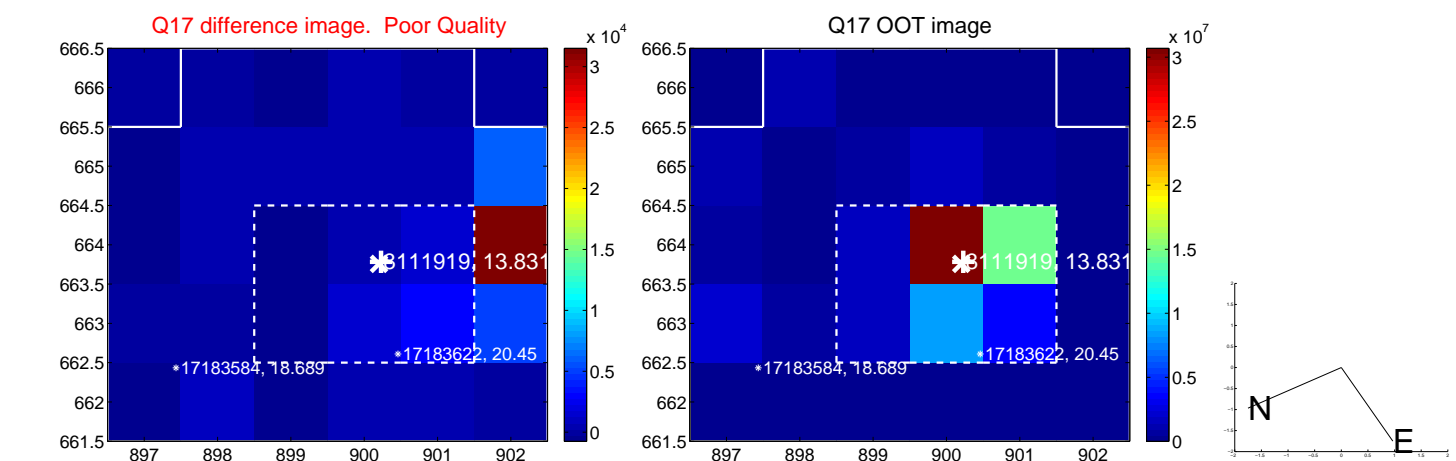
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

