

KIC 003858704

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})
003858704-01	OBS	1211.01	3.003586	132.649308	111.4	5.073	30.4	35.6	1.32	6309	2.81	1444.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003858704-01	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.

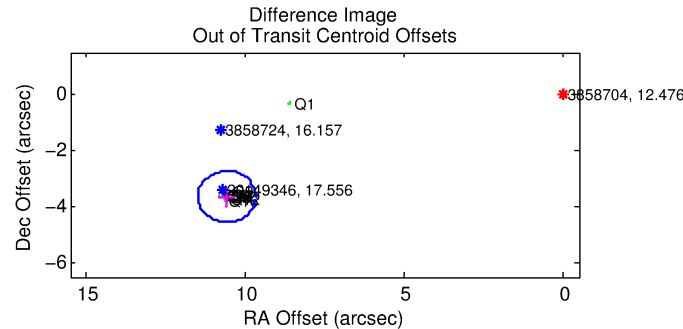
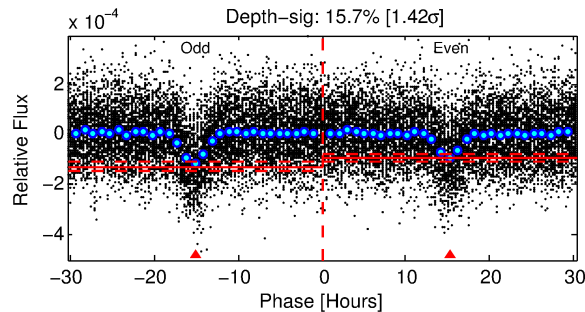
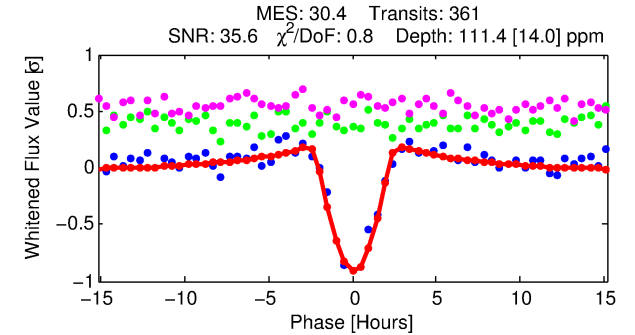
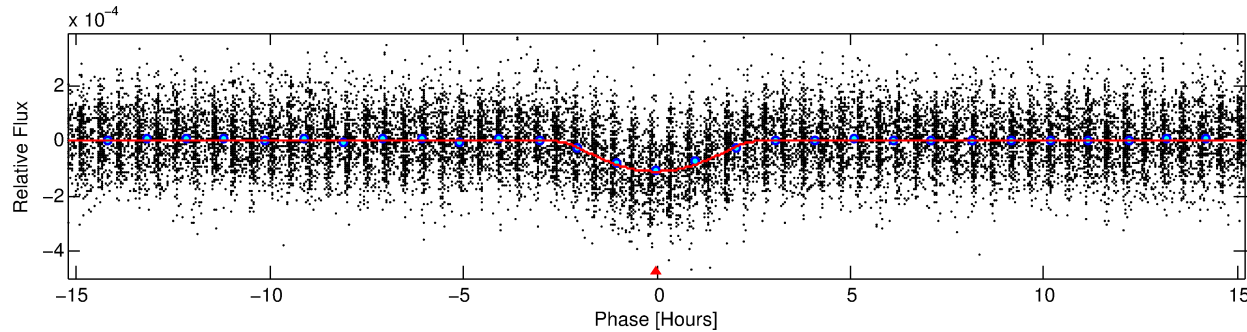
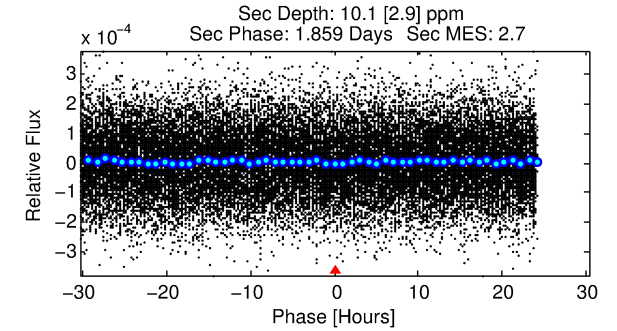
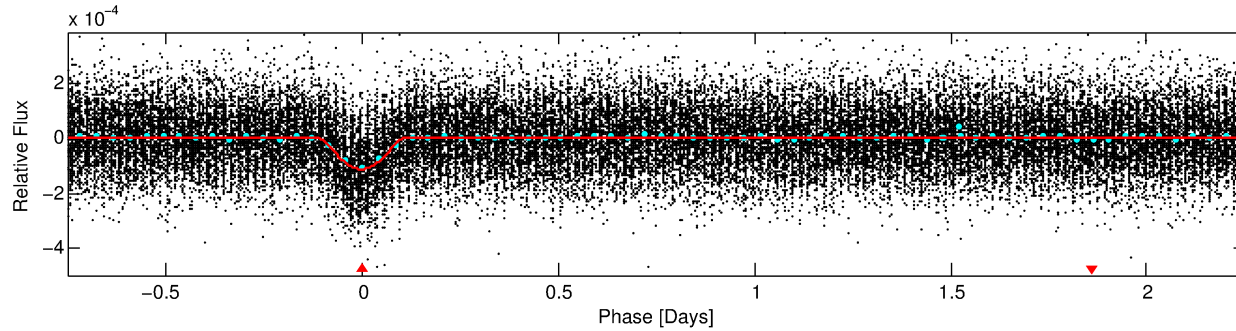
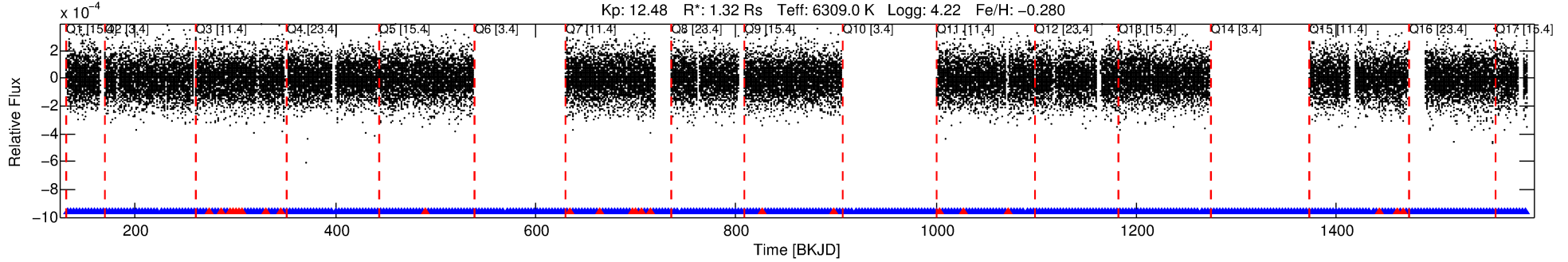
Ephemeris Match Information For 003858704-01

No Significant Match Found

DV One-Page Summary

KIC: 3858704 Candidate: 1 of 1 Period: 3.004 d
KOI: K01211.01 Corr: 0.969

Kp: 12.48 R*: 1.32 Rs Teff: 6309.0 K Logg: 4.22 Fe/H: -0.280



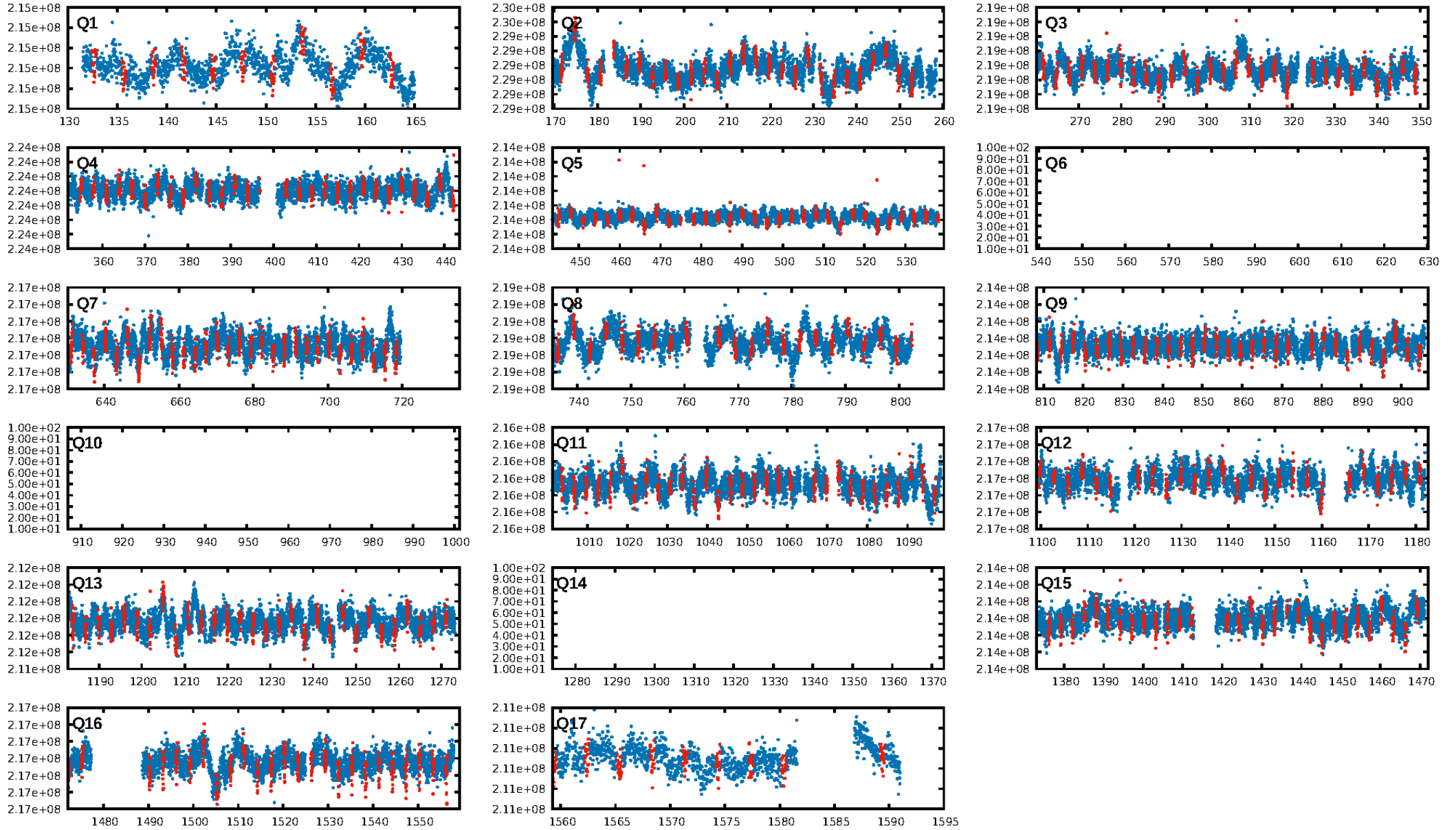
DV Fit Results:

Period = 3.00359 [0.00001] d
Epoch = 132.6493 [0.0024] BKJD
Rp/R* = 0.0195 [0.0167]
a/R* = 1.35 [0.13]
b = 1.00 [0.03]
Seff = 1444.11 [377.20]
Teq = 1572 [103] K
Rp = 2.81 [2.46] Re
a = 0.0414 [0.0067] AU
Ag = 1.20 [2.11] [0.10σ]
Teff = 2545 [1108] K [0.87σ]

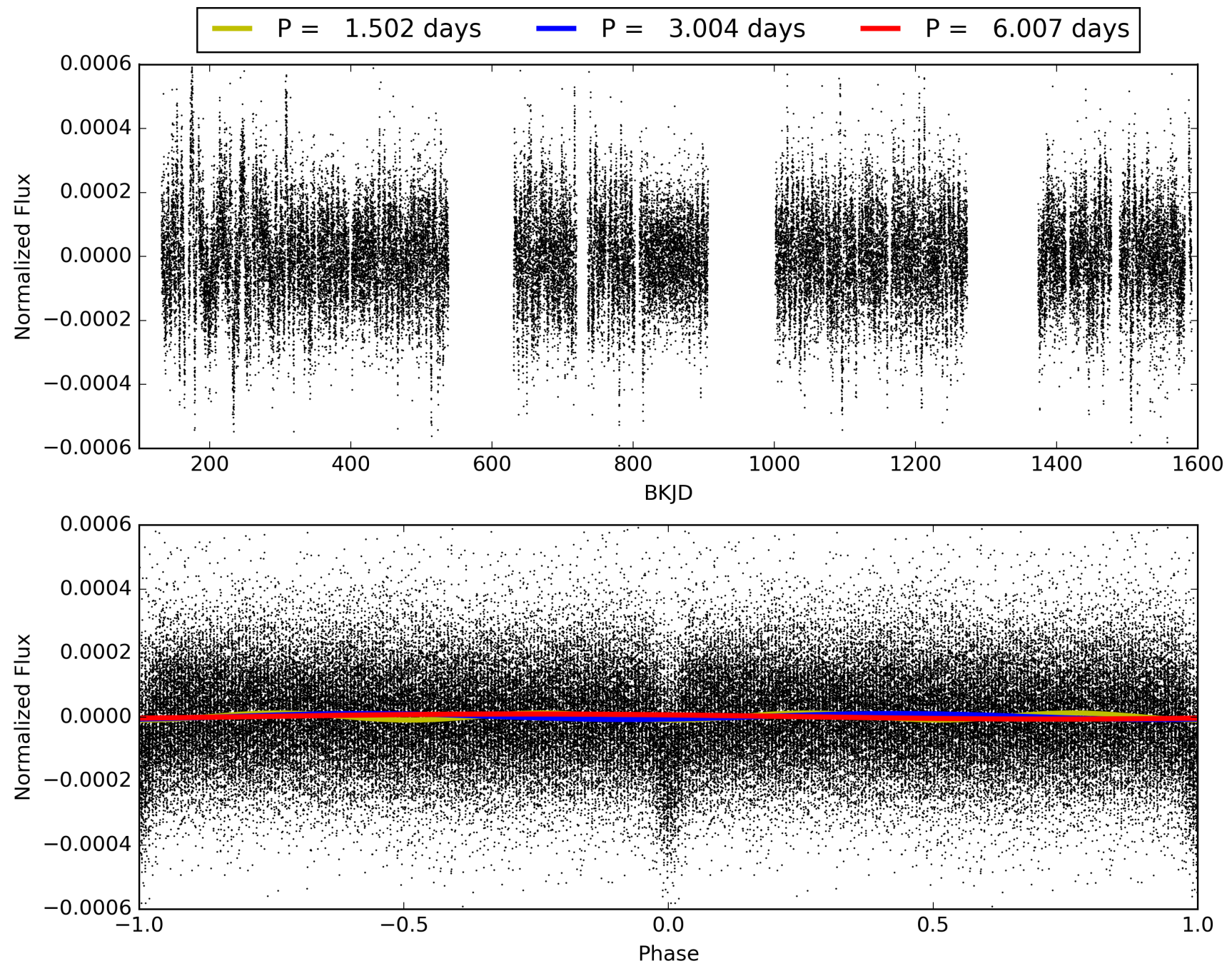
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.19e-191
RollingBand-fgt: 0.93 [317/341]
GhostDiagnostic-chr: -0.5085
Centroid-sig: 0.0%
Centroid-so: 103.597 arcsec [320.02σ]
OotOffset-rm: 11.192 arcsec [36.77σ]
KicOffset-rm: 11.288 arcsec [36.05σ]
OotOffset-st: 1/0/4/5 [10]
KicOffset-st: 1/0/4/5 [10]
DiffImageQuality-fgm: 1.00 [10/10]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 003858704-01, PDC Light Curves

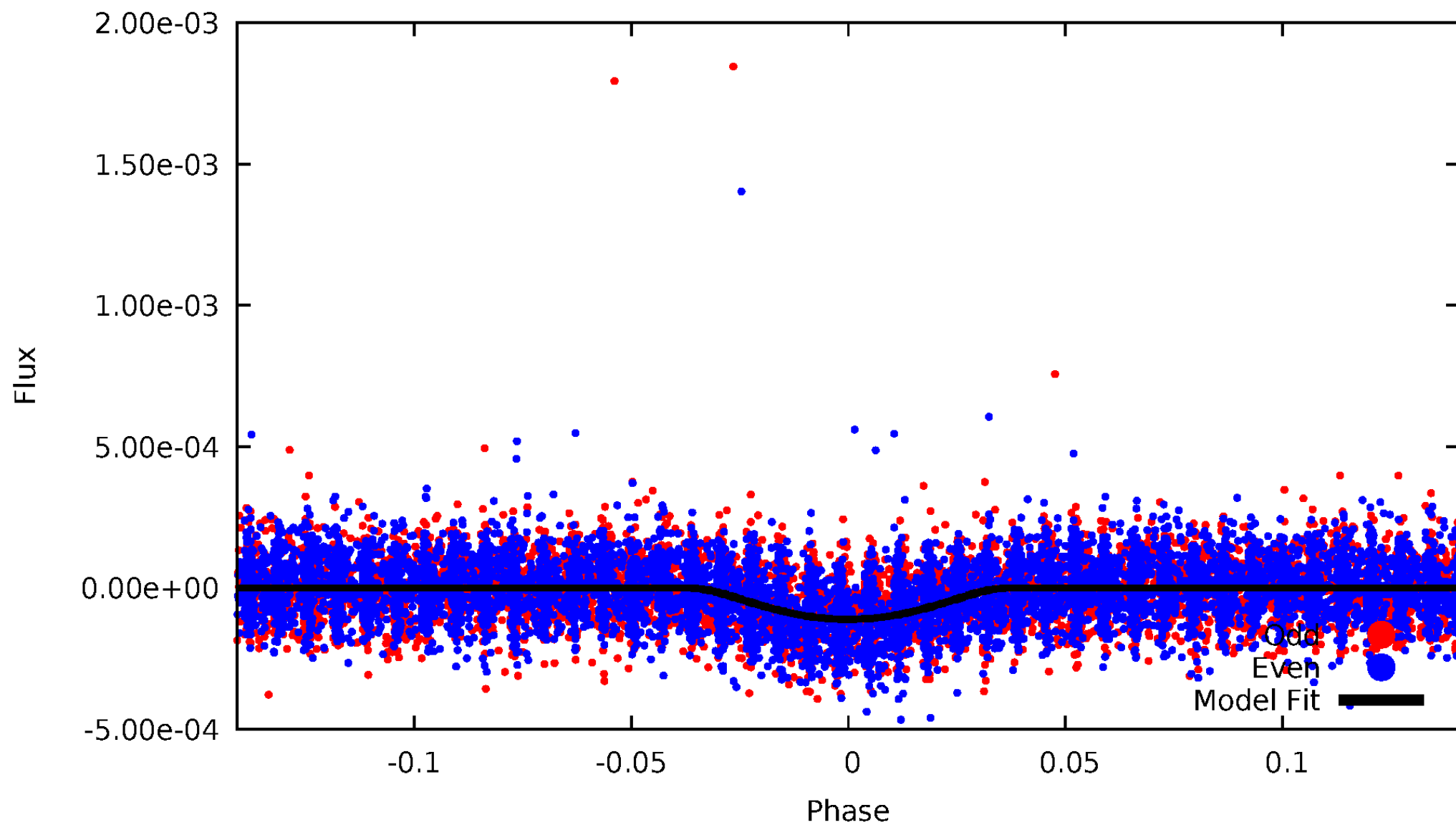


TCE 003858704-01



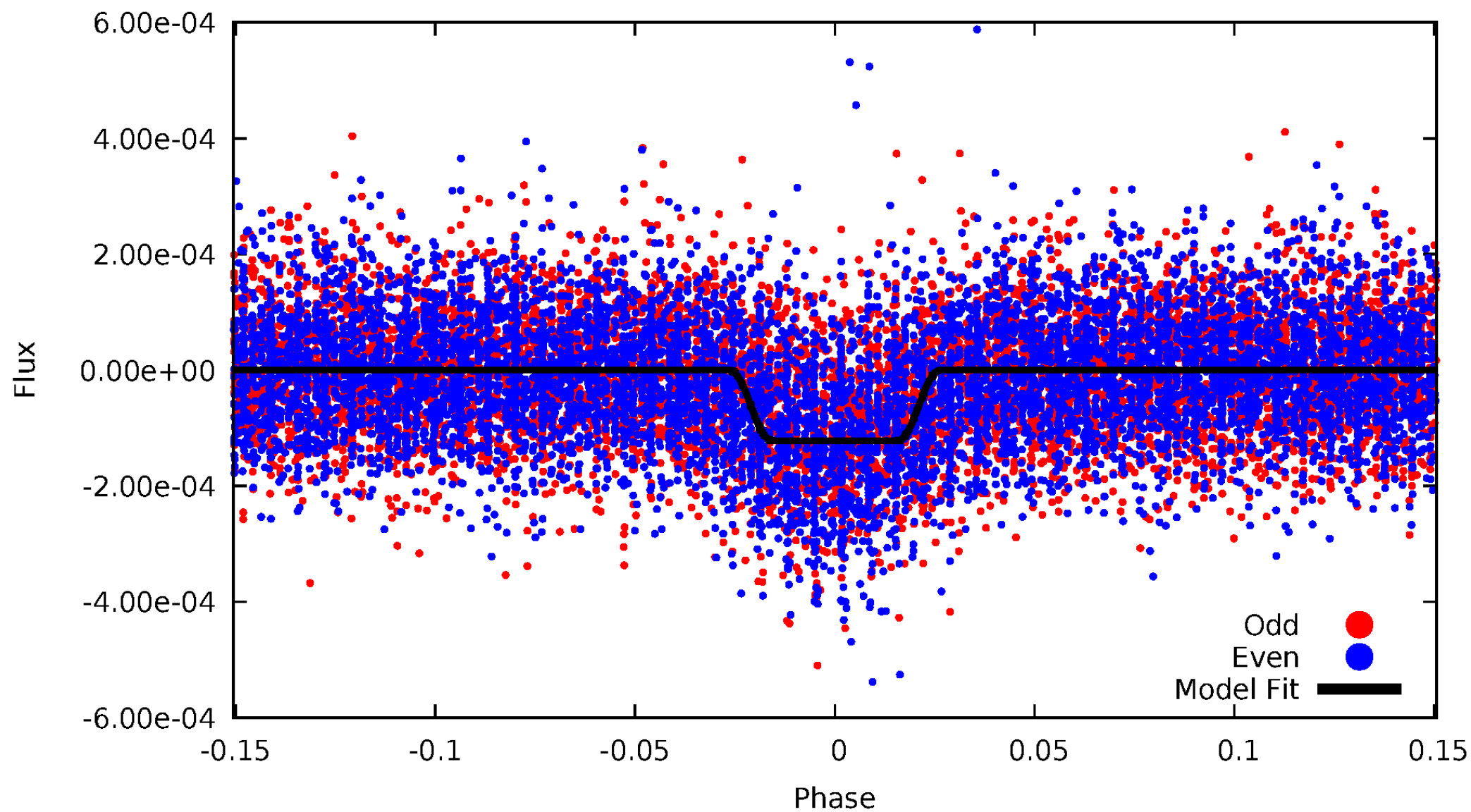
DV Odd/Even

TCE 003858704-01



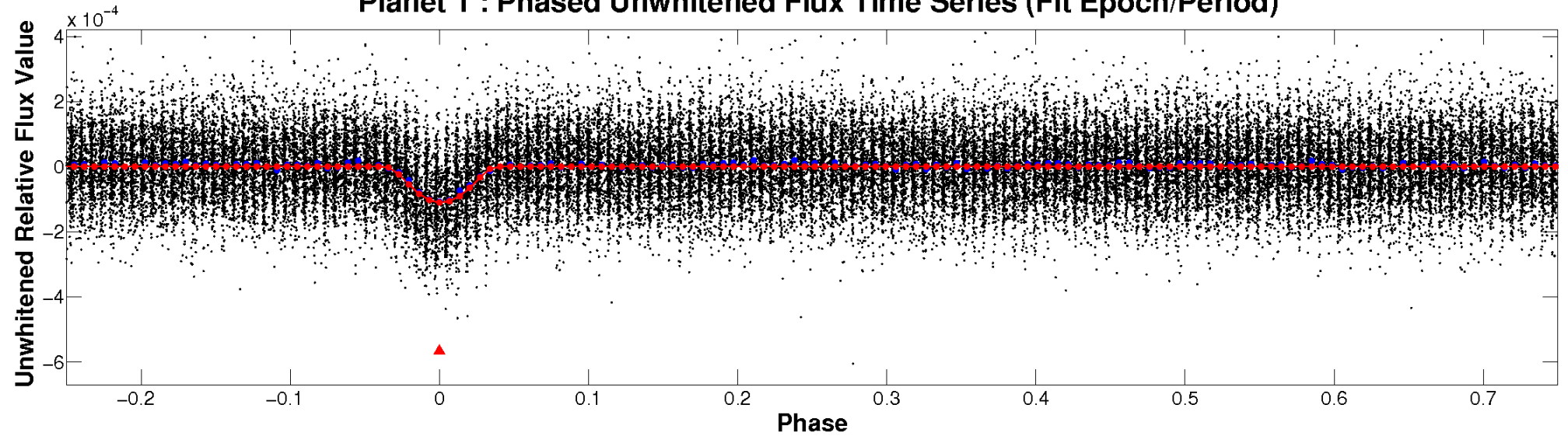
ALT Odd/Even

TCE 003858704-01

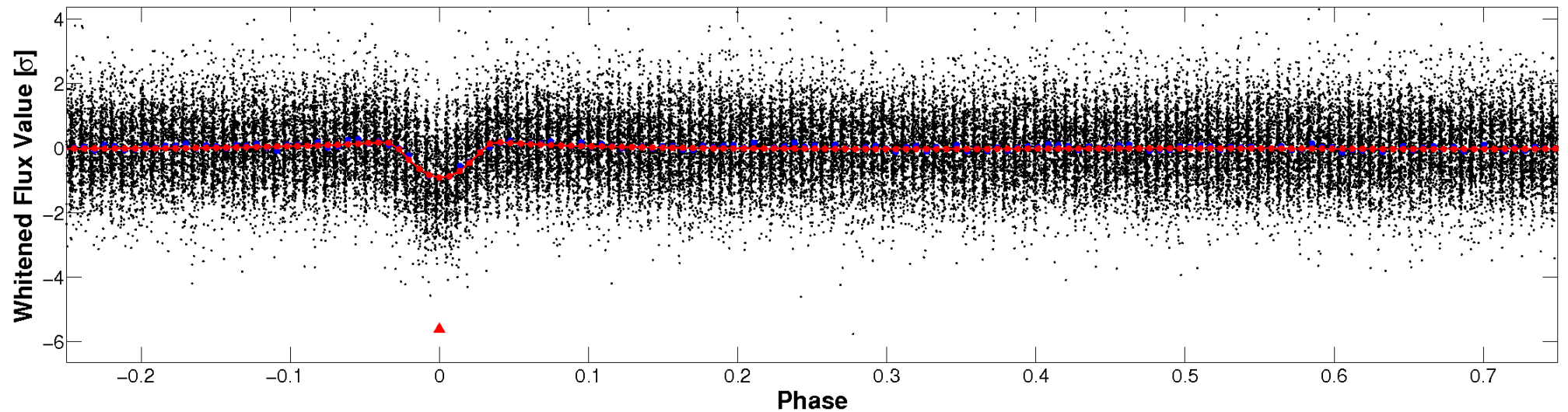


Non-Whitened Vs. Whitened Light Curve

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

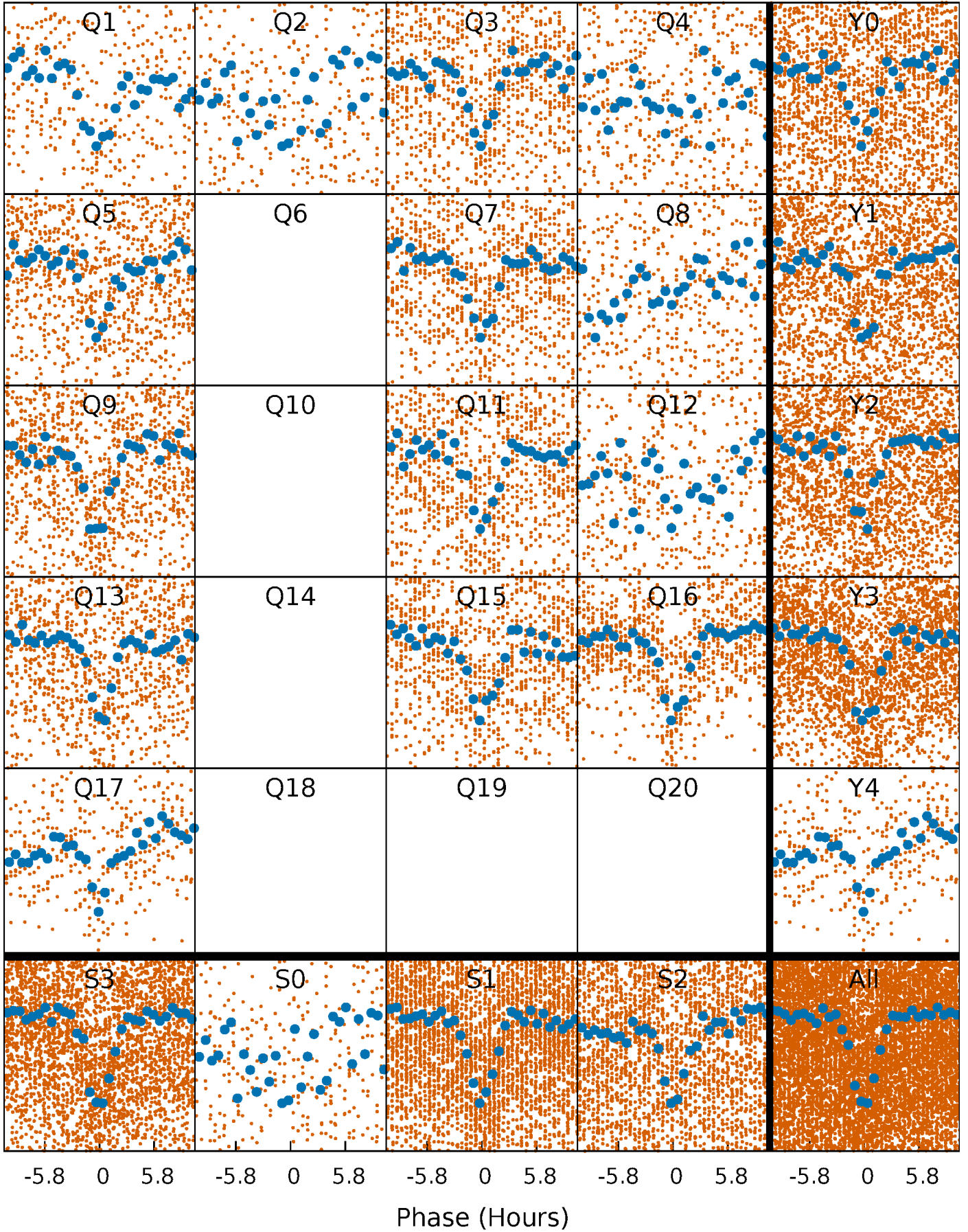


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



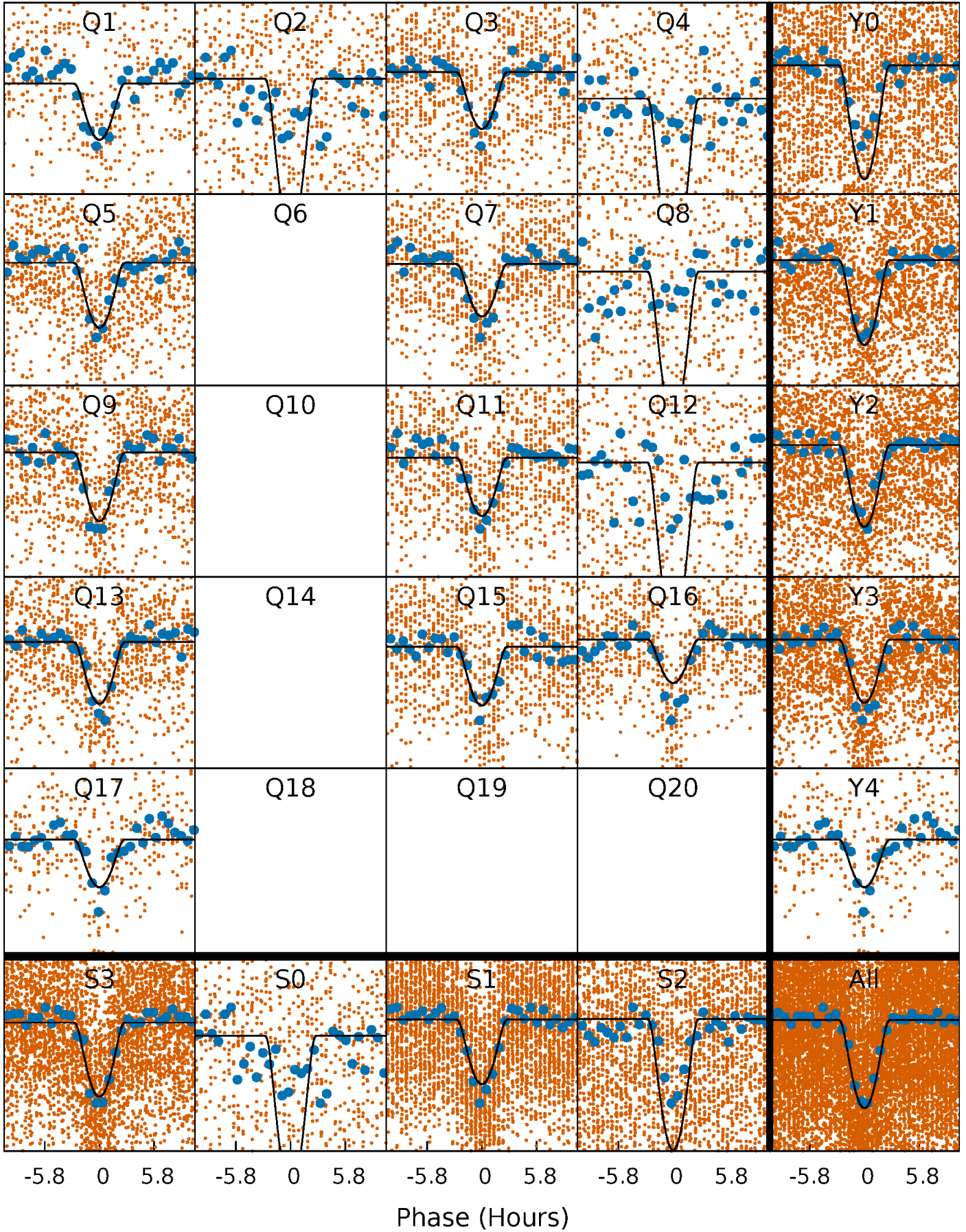
PDC Quarter-Phased Transit Curves

TCE 003858704-01 P= 3.003586 Days $T_0=132.649308$ (BKJD)



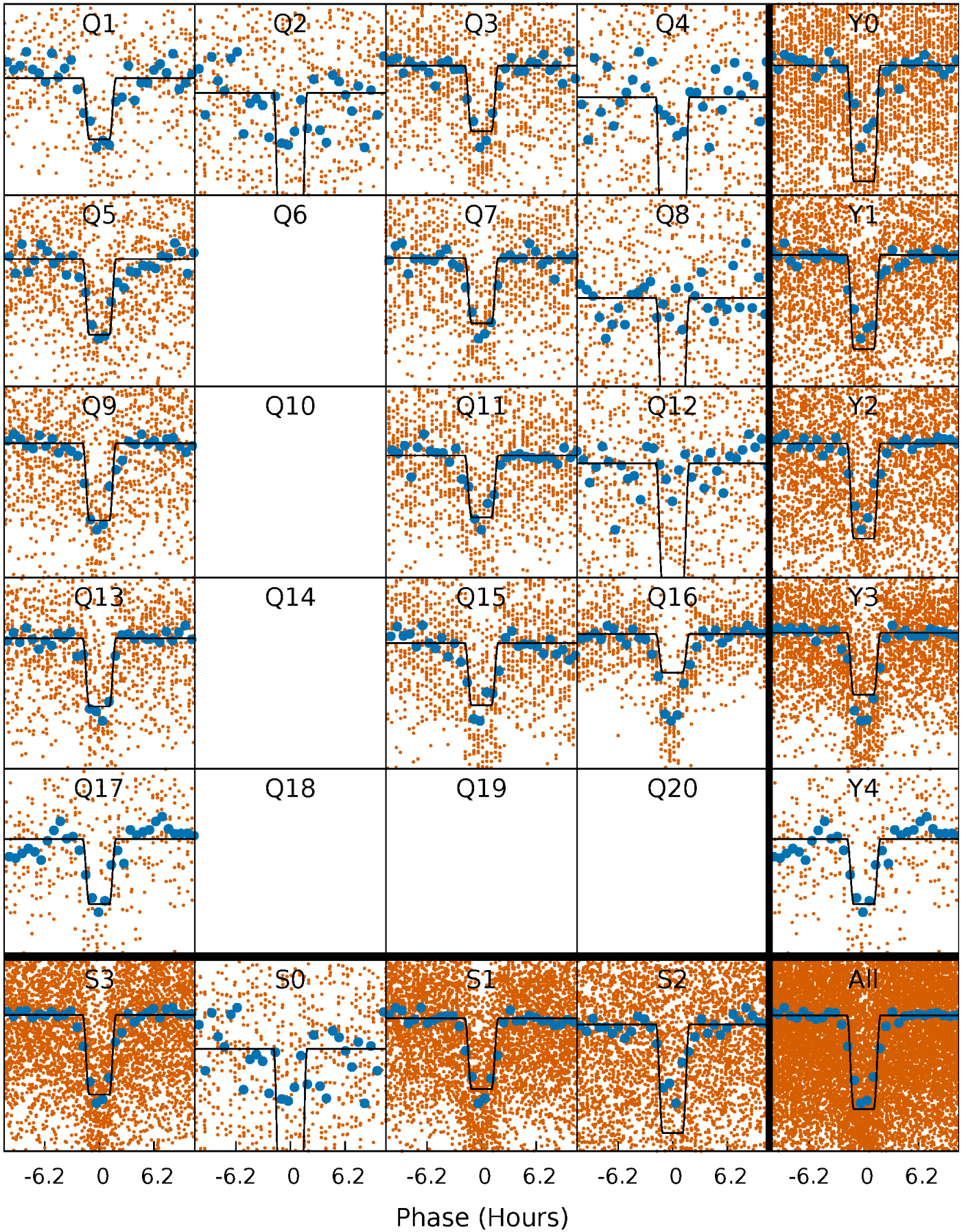
DV Quarter-Phased Transit Curves

TCE 003858704-01 P= 3.003586 Days $T_0=132.649308$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

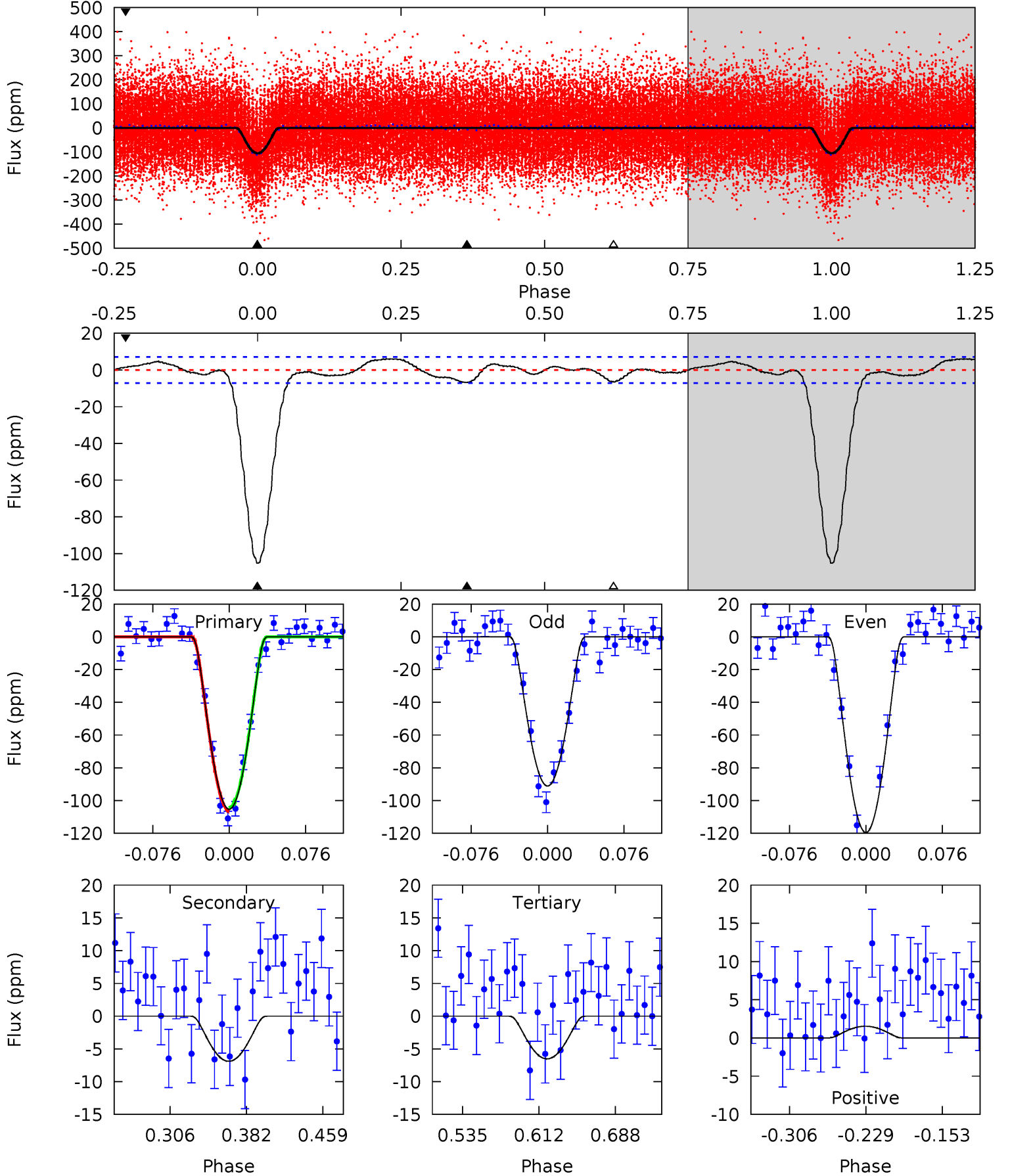
TCE 003858704-01 P= 3.003628 Days $T_0=132.637369$ (BKJD)



DV Model-Shift Uniqueness Test

003858704-01, P = 3.003586 Days, E = 129.645722 Days

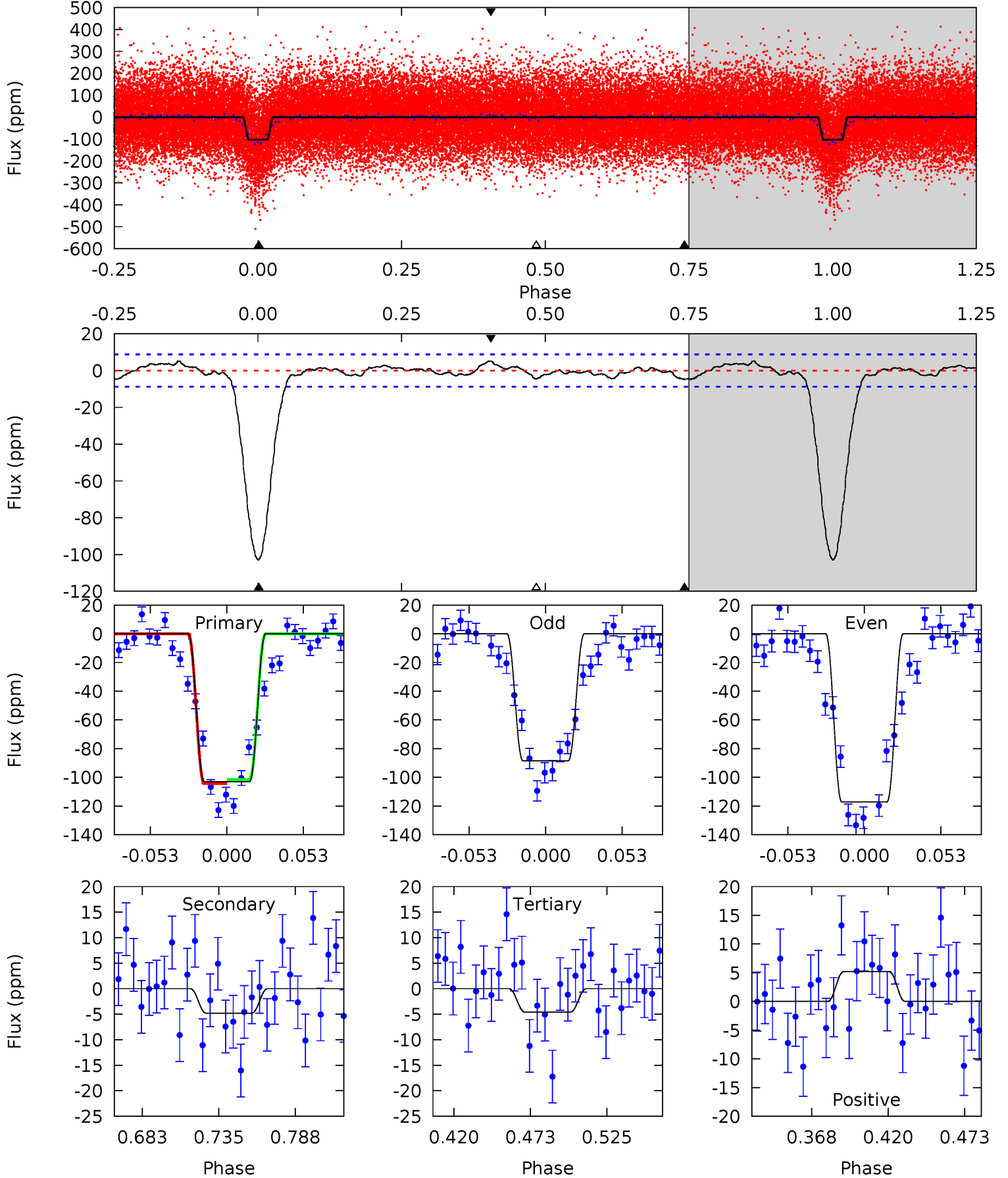
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.2	4.46	4.22	0.99	4.62	1.77	1.82	64.0	67.2	0.24	3.47	9.24	0.98	0.05	0.61



Alt Model-Shift Uniqueness Test

003858704-01, P = 3.003628 Days, E = 129.633741 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.2	2.57	2.45	2.78	4.70	1.94	1.15	52.7	52.4	0.12	-0.21	7.66	0.99	0.05	0.74



Stellar Parameters For KIC 003858704

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6309^{+88}_{-75}	$4.217^{+0.149}_{-0.108}$	$-0.280^{+0.200}_{-0.150}$	$1.320^{+0.224}_{-0.224}$	$1.046^{+0.105}_{-0.062}$	$0.640^{+0.458}_{-0.230}$
	+1%/-1%	+4%/-3%	+71%/-54%	+17%/-17%	+10%/-6%	+71%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003858704-01 / KOI 1211.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-7 ± 2	$3.12^{+2.29}_{-1.79}$	2187^{+101}_{-106}	2629^{+1084}_{-4871}	$0.631^{+3.202}_{-0.414}$
Alt.	-5 ± 2	$2.37^{+2.06}_{-1.57}$	2189^{+103}_{-110}	2752^{+1398}_{-5048}	$0.769^{+6.729}_{-0.567}$

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 $A_{obs} \gg 1.0$

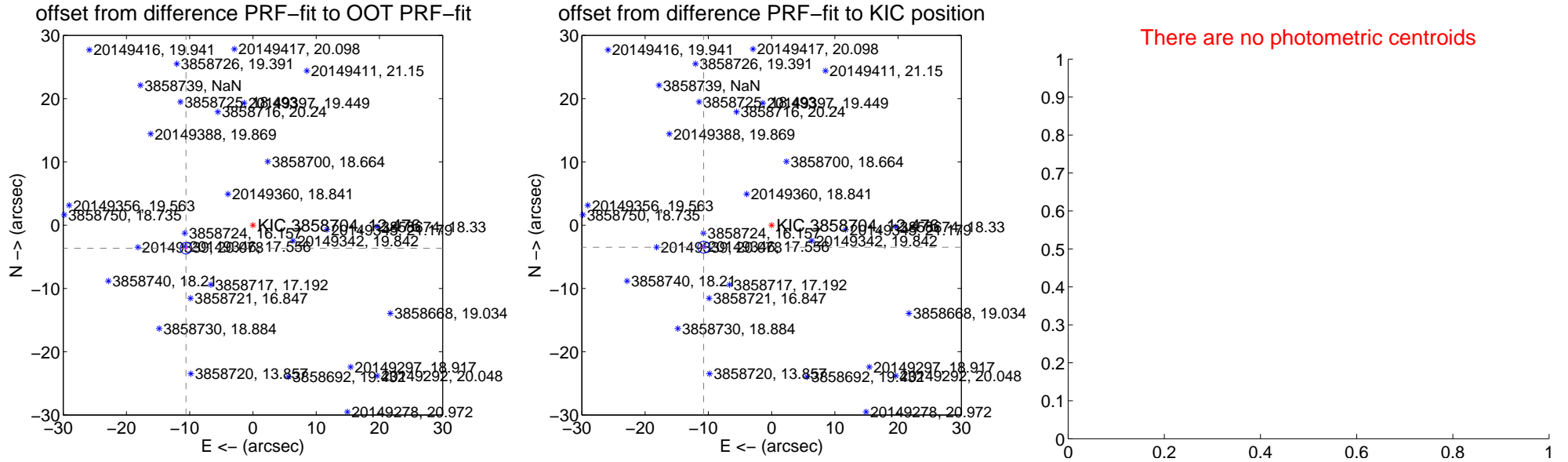
DV Centroid Data

Supplemental centroid analysis for 003858704-01. Kepler magnitude: 12.48. Transit SNR 35.57

There are 10 quarters with good PRF difference image offsets

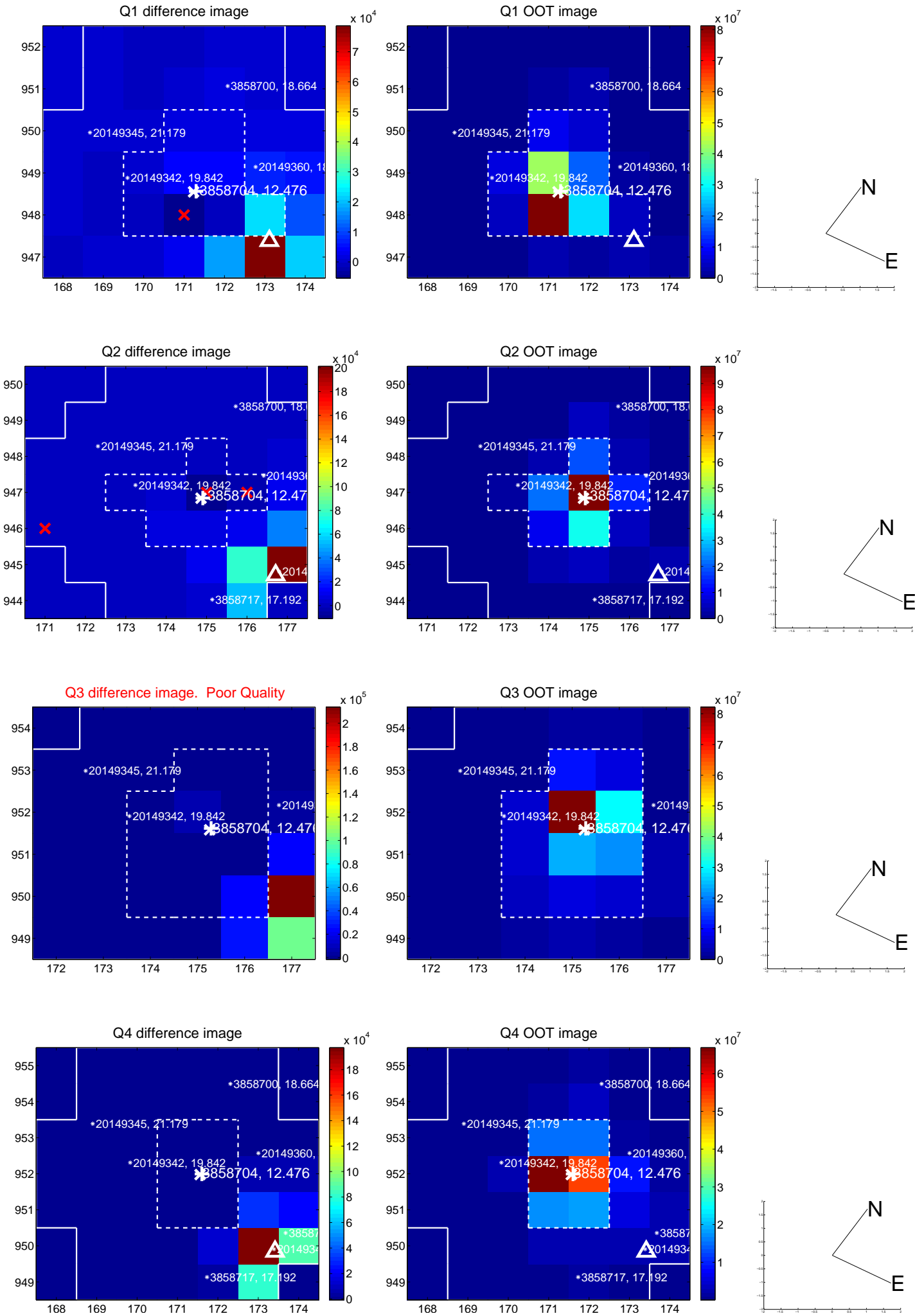
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.192 \pm 0.304	36.77	10.584 \pm 0.213	-3.641 \pm 0.335
PRF-fit source offset from KIC position	11.288 \pm 0.313	36.05	10.738 \pm 0.223	-3.479 \pm 0.347
photometric centroid source offset	—	—	—	—

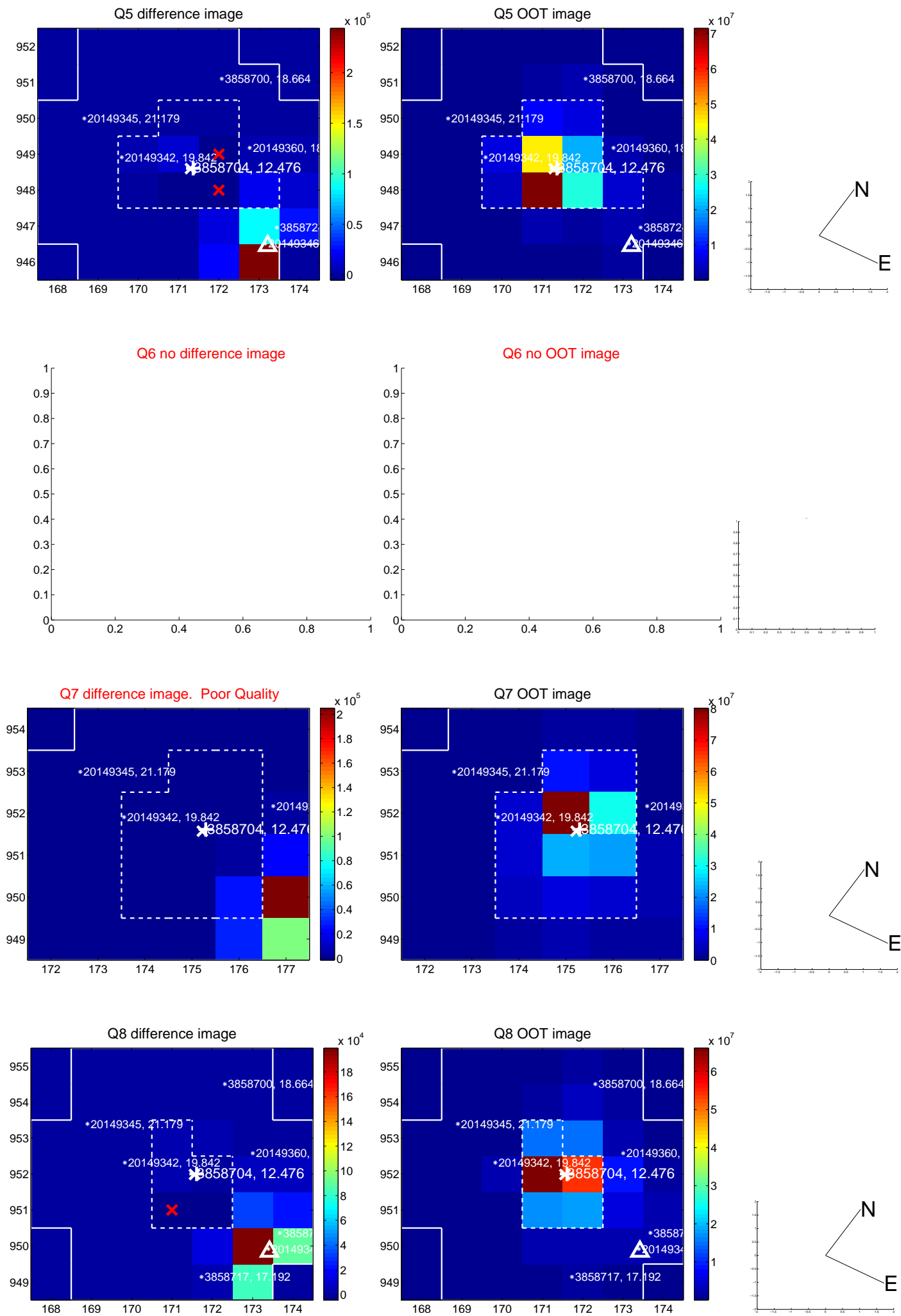


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

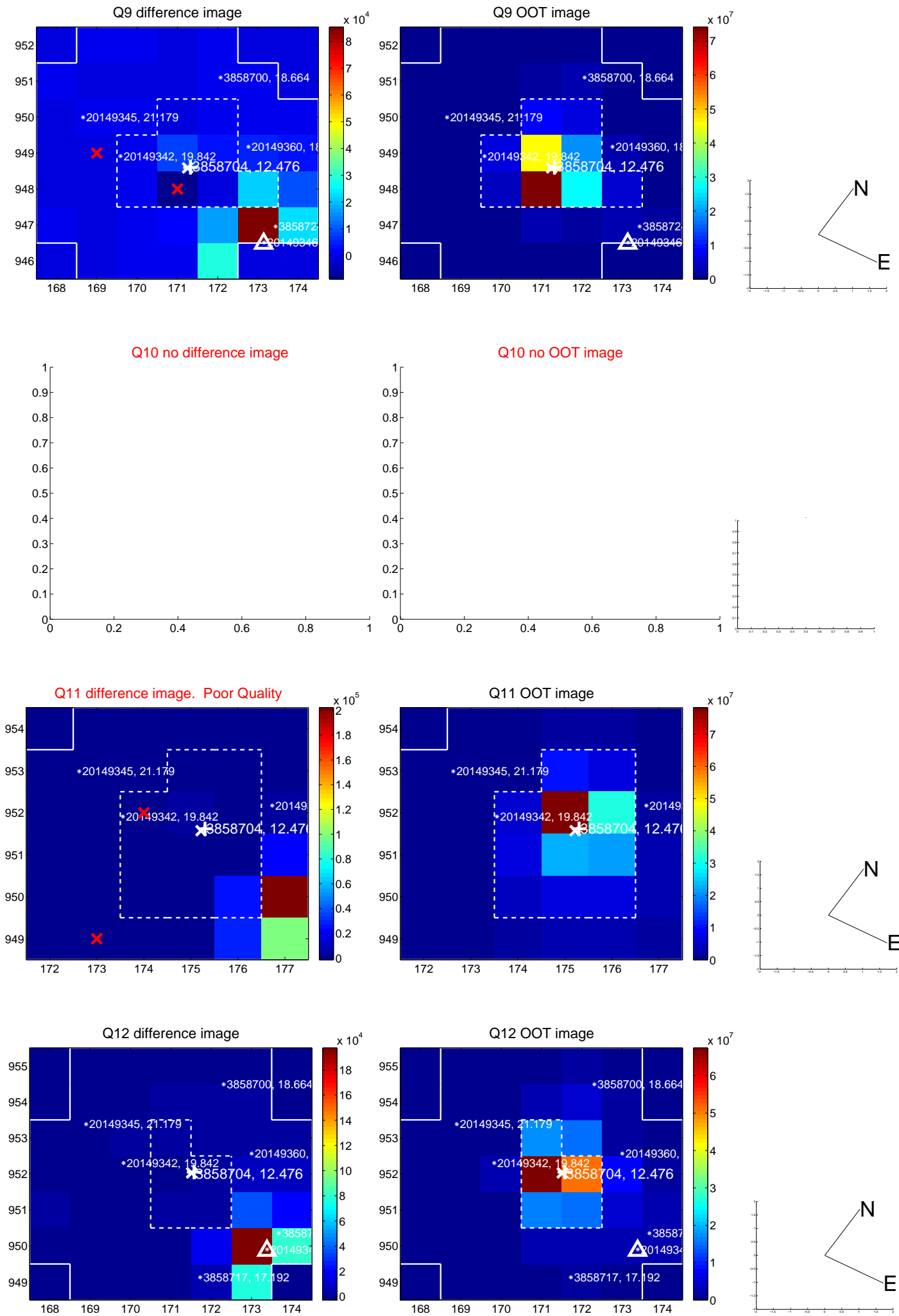
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



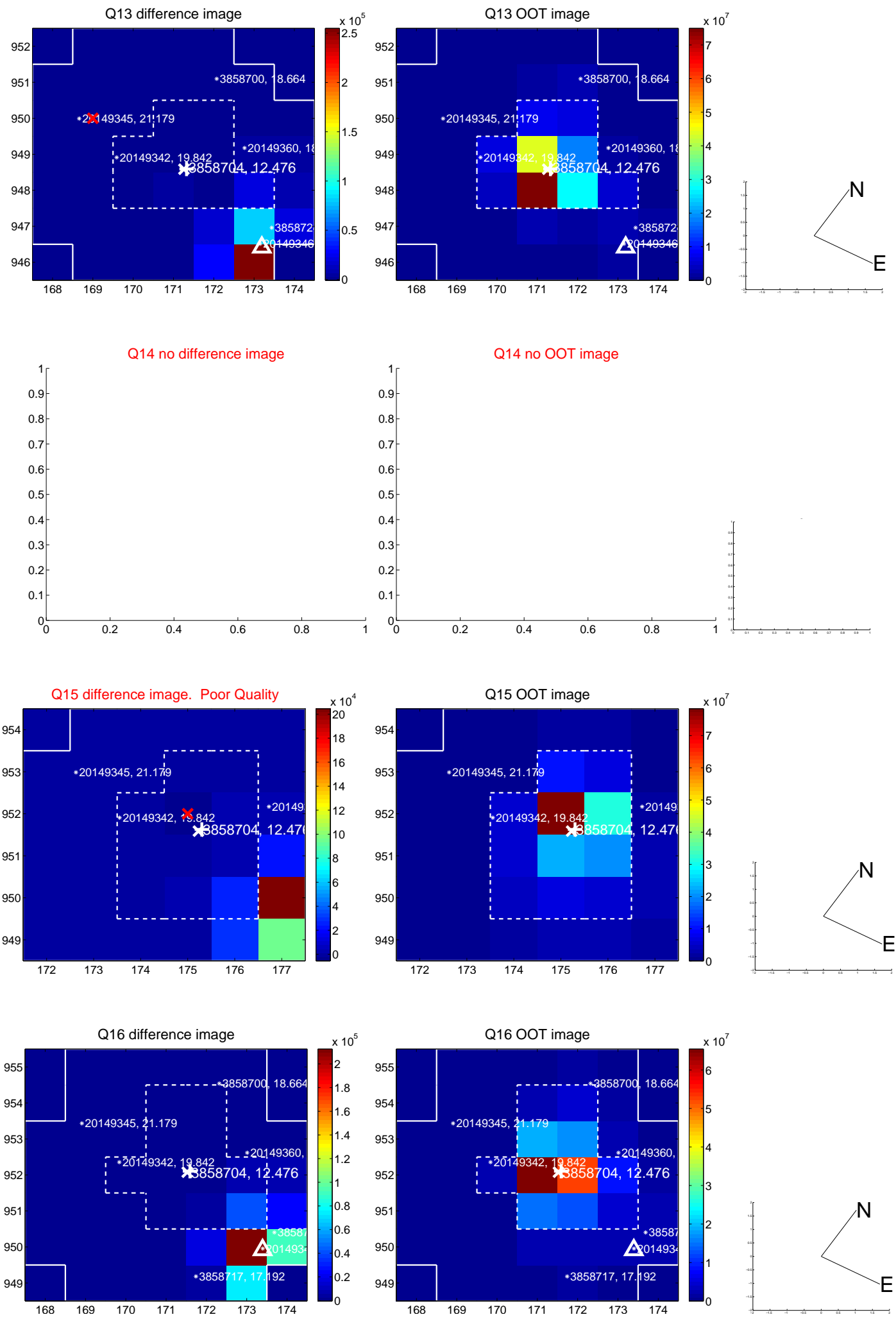
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



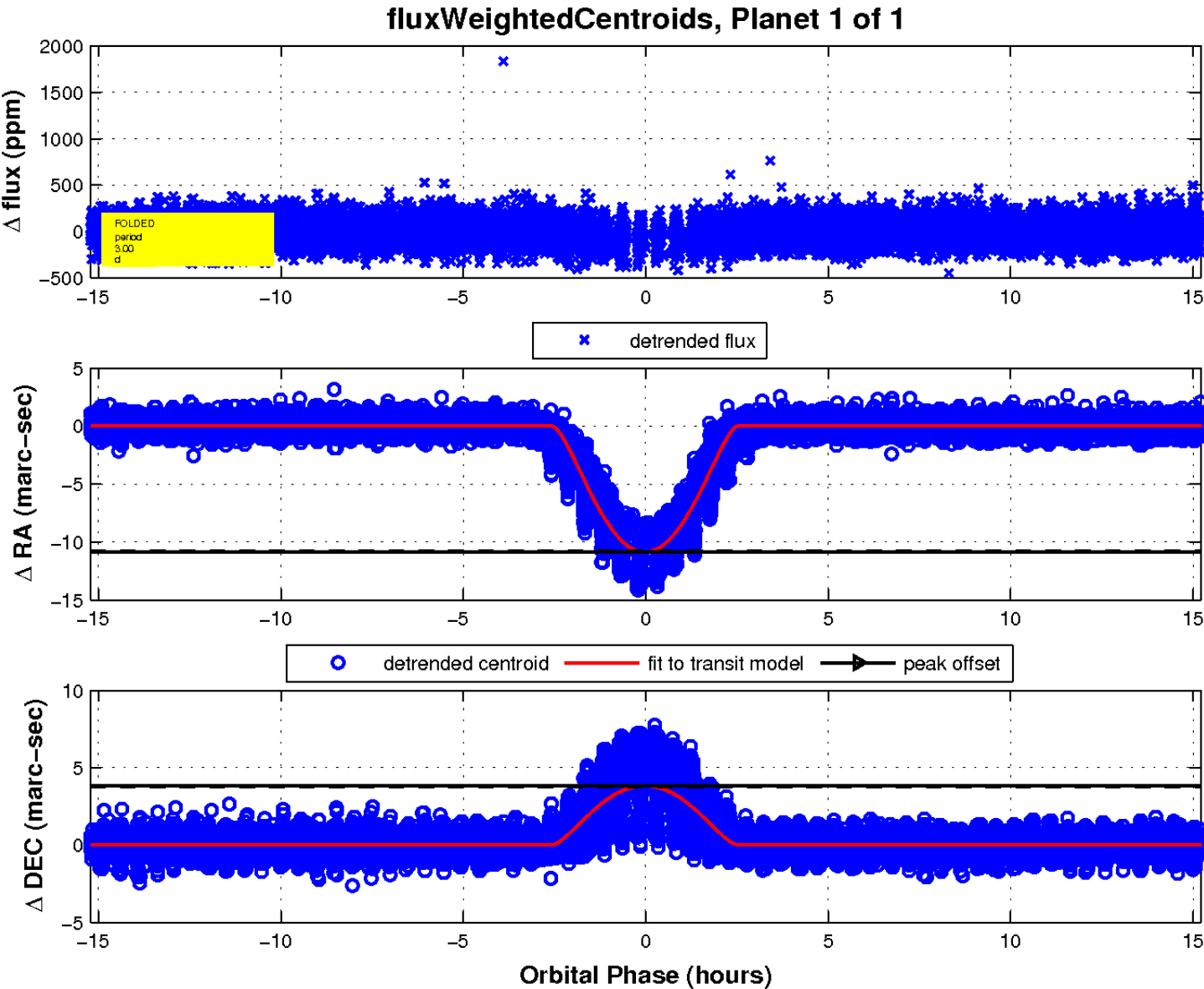
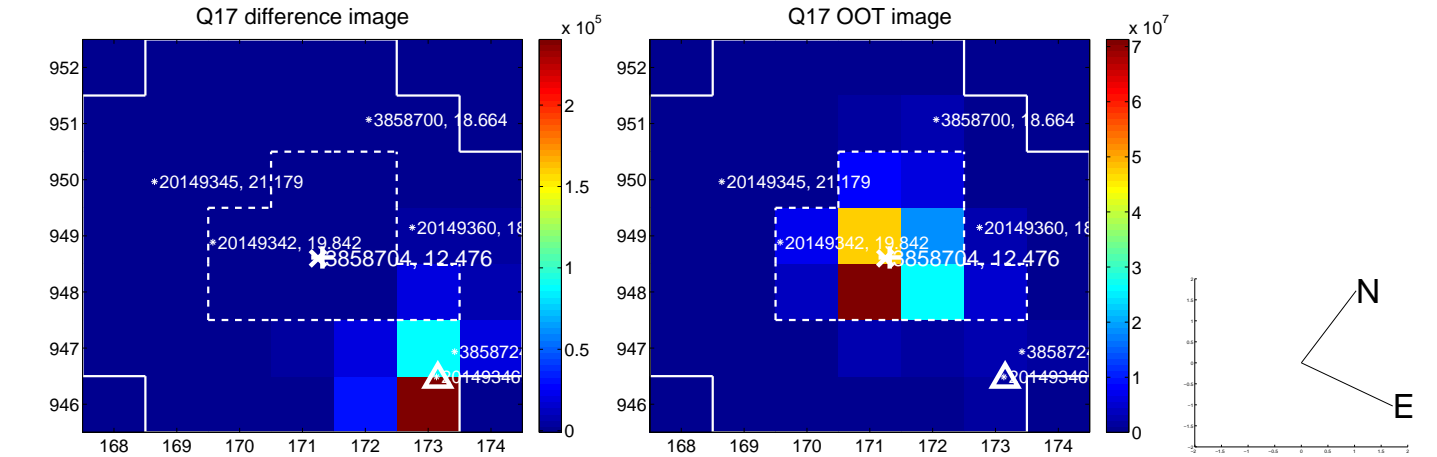
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

