

KIC 004484336

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})
004484336-01	OBS	2547.01	8.943410	137.301332	213.3	2.629	15.5	17.6	1.00	6074	1.71	189.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004484336-01	OBS	PC	0.92	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.

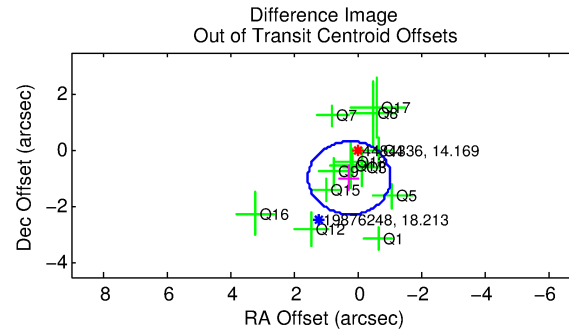
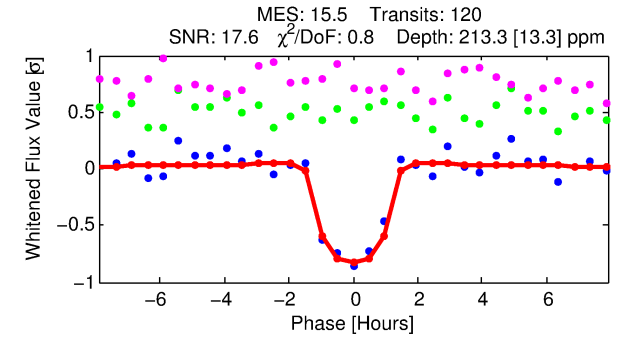
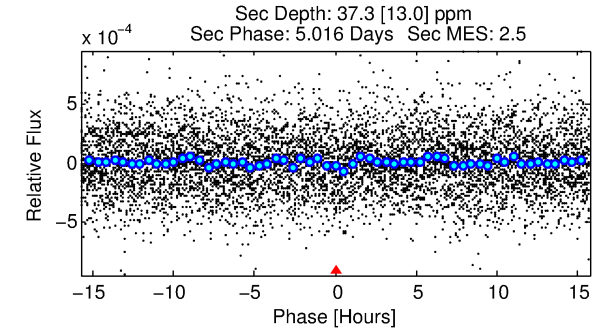
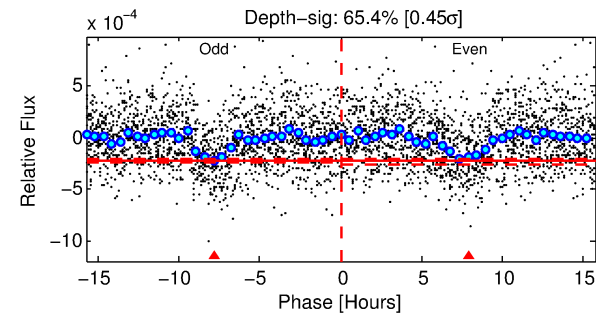
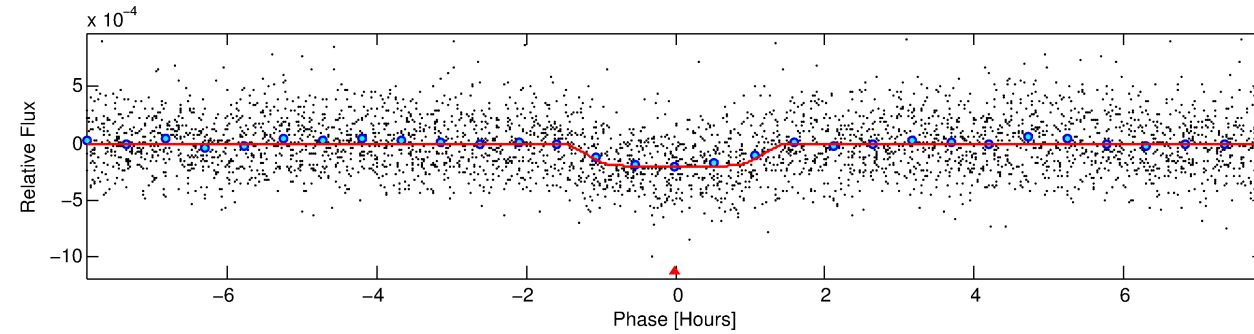
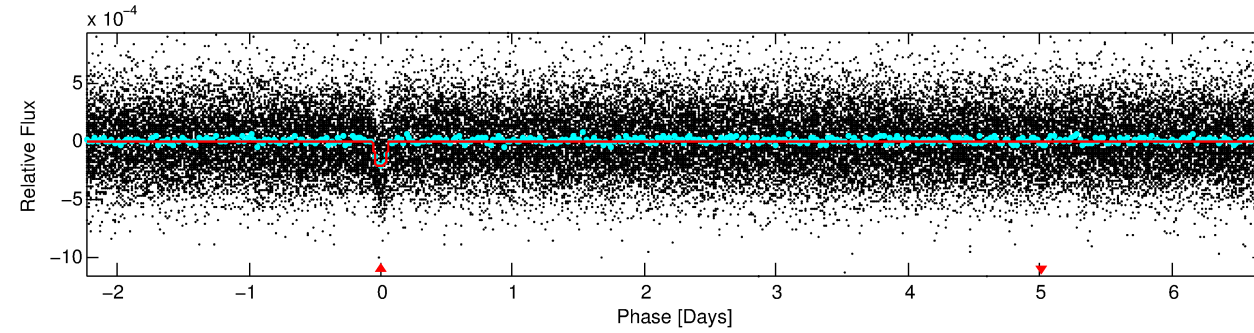
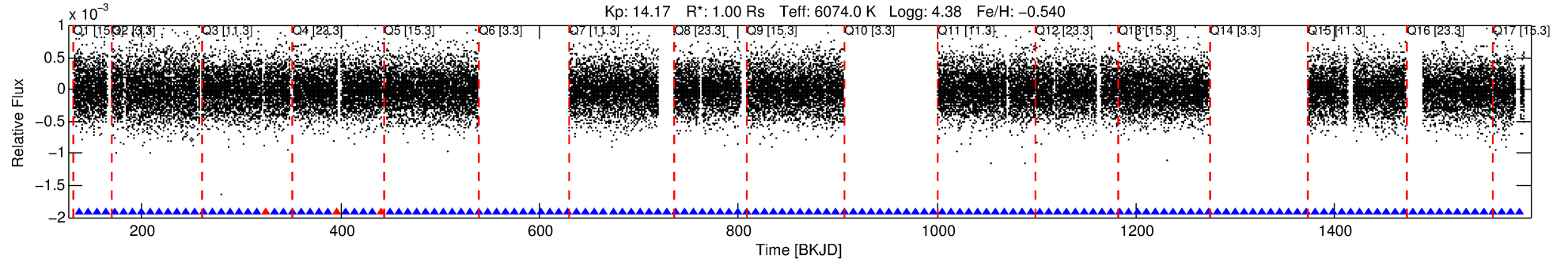
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004484336-01

No Significant Match Found

DV One-Page Summary

KIC: 4484336 Candidate: 1 of 1 Period: 8.943 d
KOI: K02547.01 Corr: 0.985



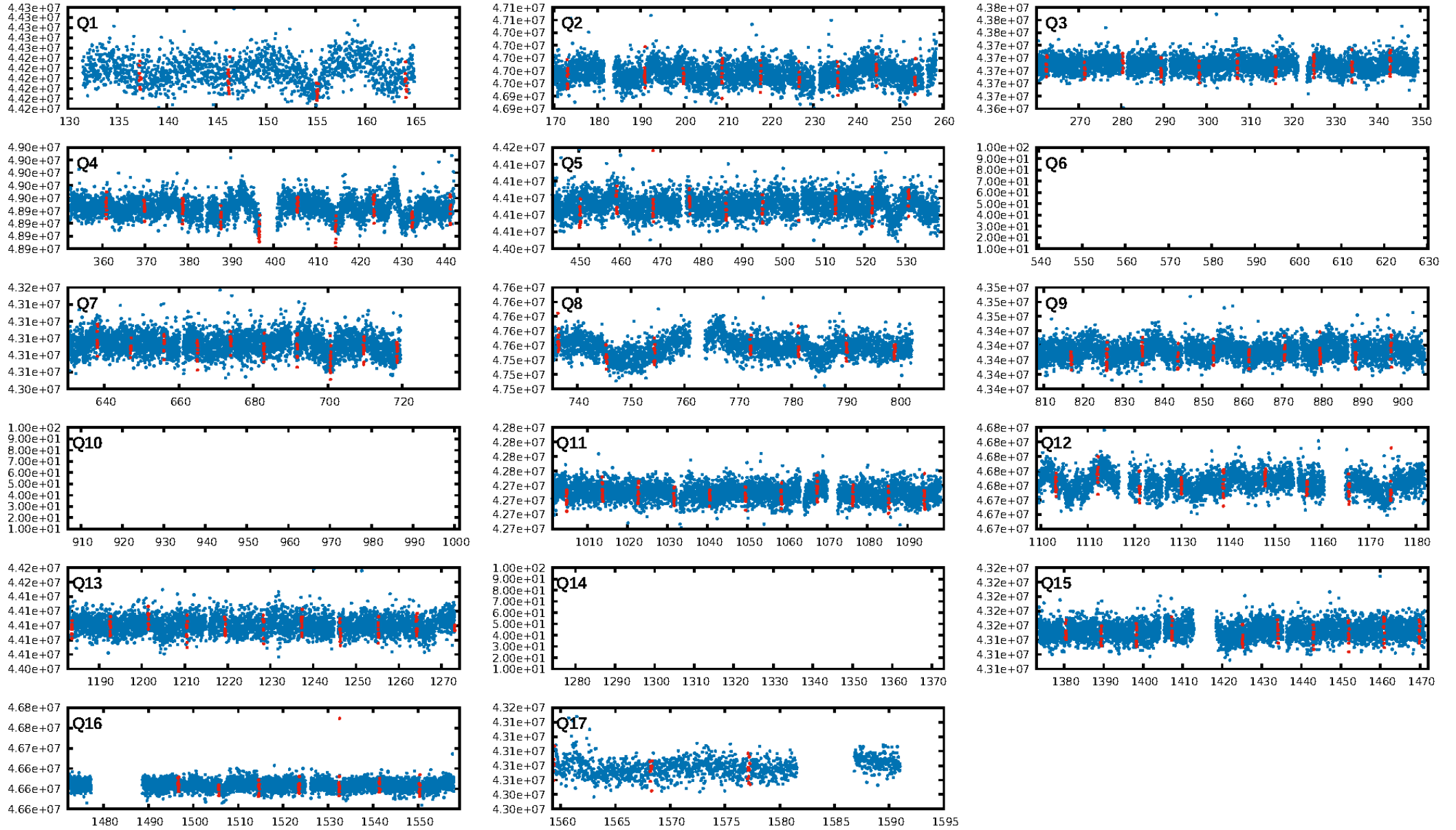
DV Fit Results:

Period = 8.94341 [0.00004] d
Epoch = 137.3013 [0.0032] BKJD
Rp/R* = 0.0156 [0.0047]
a/R* = 12.66 [20.47]
b = 0.89 [0.38]
Seff = 189.48 [66.81]
Teq = 946 [83] K
Rp = 1.71 [0.69] Re
a = 0.0806 [0.0183] AU
Ag = 45.59 [35.14] [1.27 σ]
Teffp = 3801 [671] K [4.22 σ]

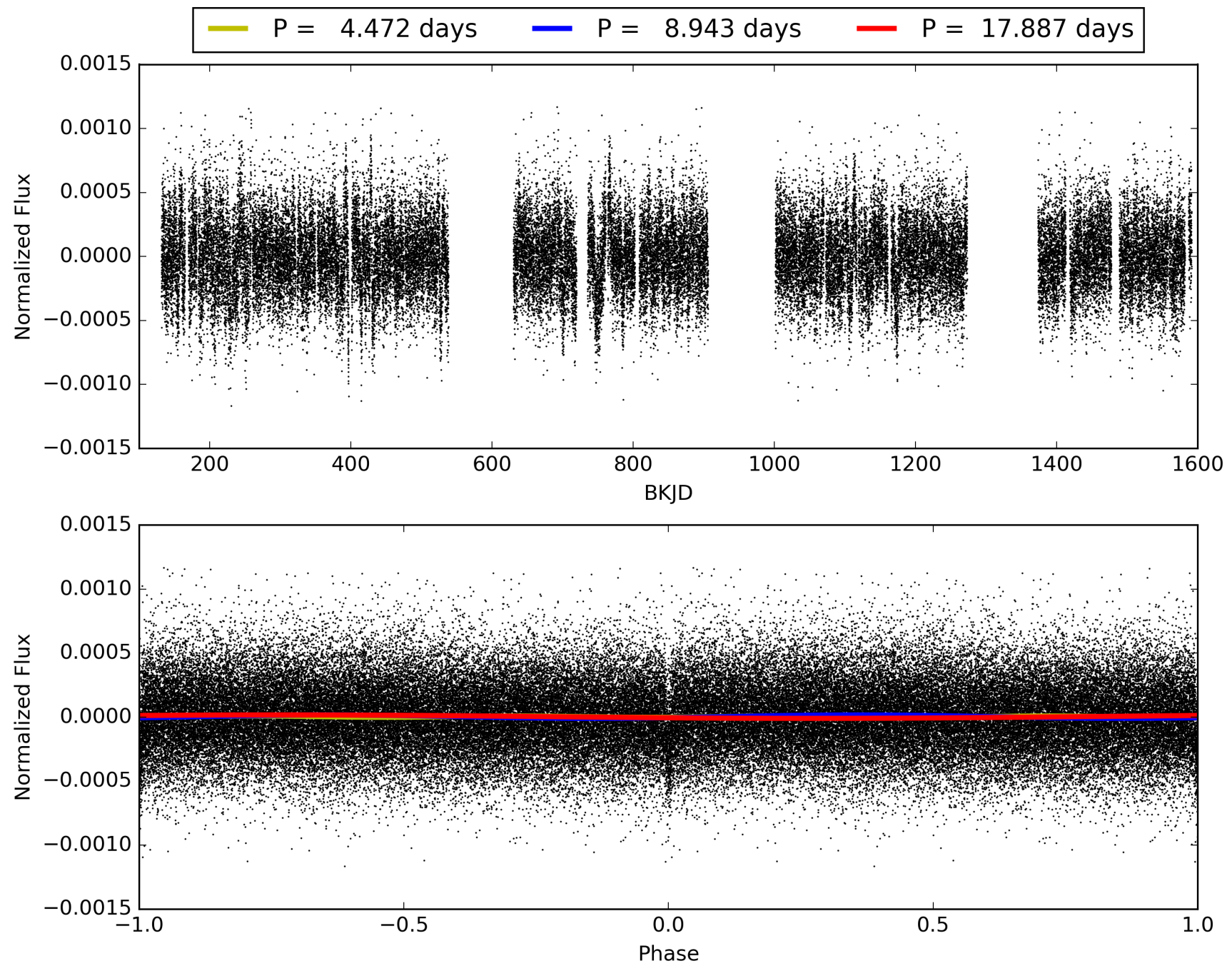
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.97e-52
RollingBand-fgt: 0.97 [110/113]
GhostDiagnostic-chr: 24.87
Centroid-sig: 18.5%
Centroid-so: 0.094 arcsec [0.12 σ]
OotOffset-rm: 1.002 arcsec [2.31 σ]
KicOffset-rm: 1.113 arcsec [2.56 σ]
OotOffset-st: 0/4/4/5 [13]
KicOffset-st: 0/4/4/5 [13]
DiffImageQuality-fgm: 0.85 [11/13]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 004484336-01, PDC Light Curves

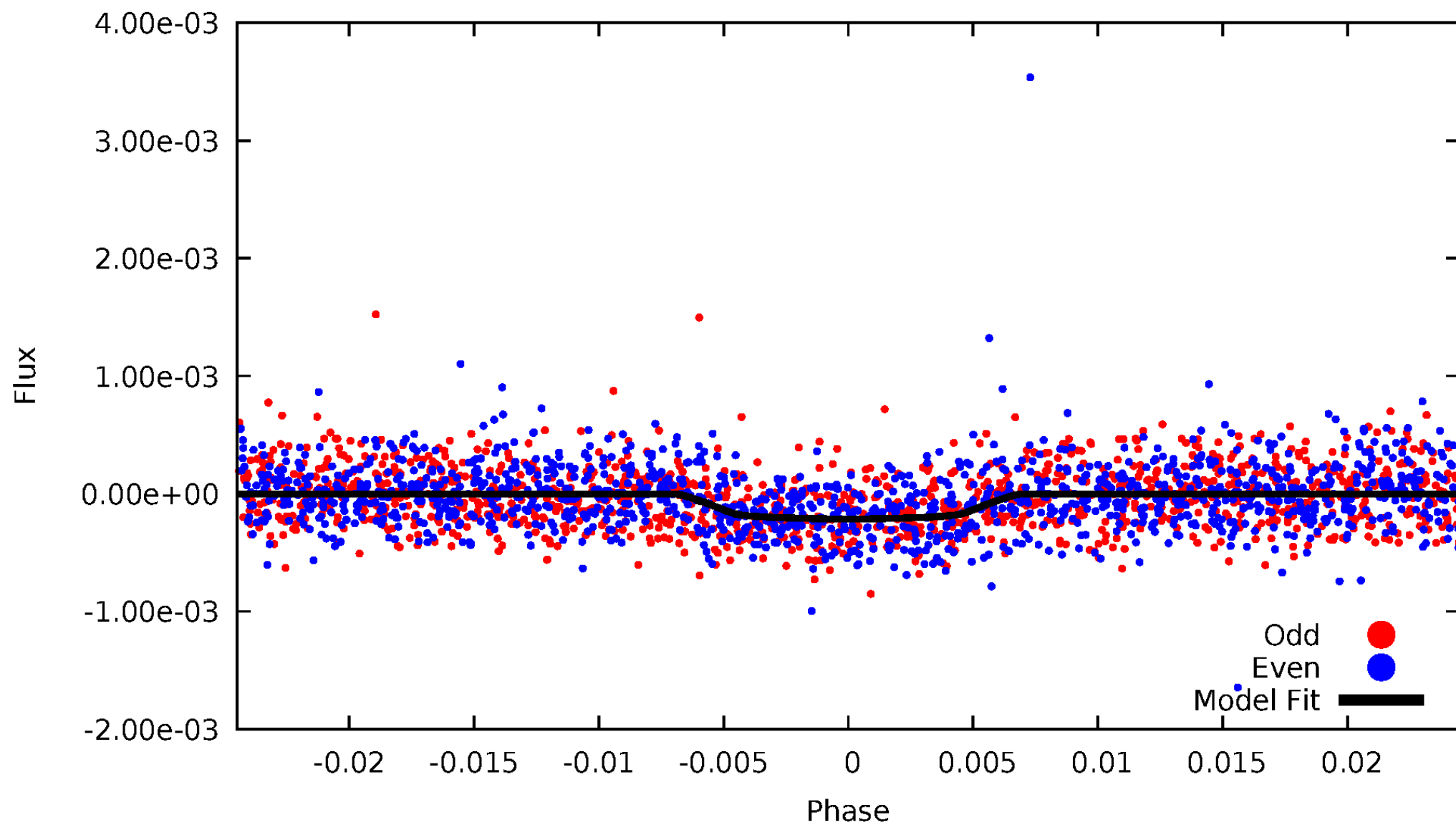


TCE 004484336-01



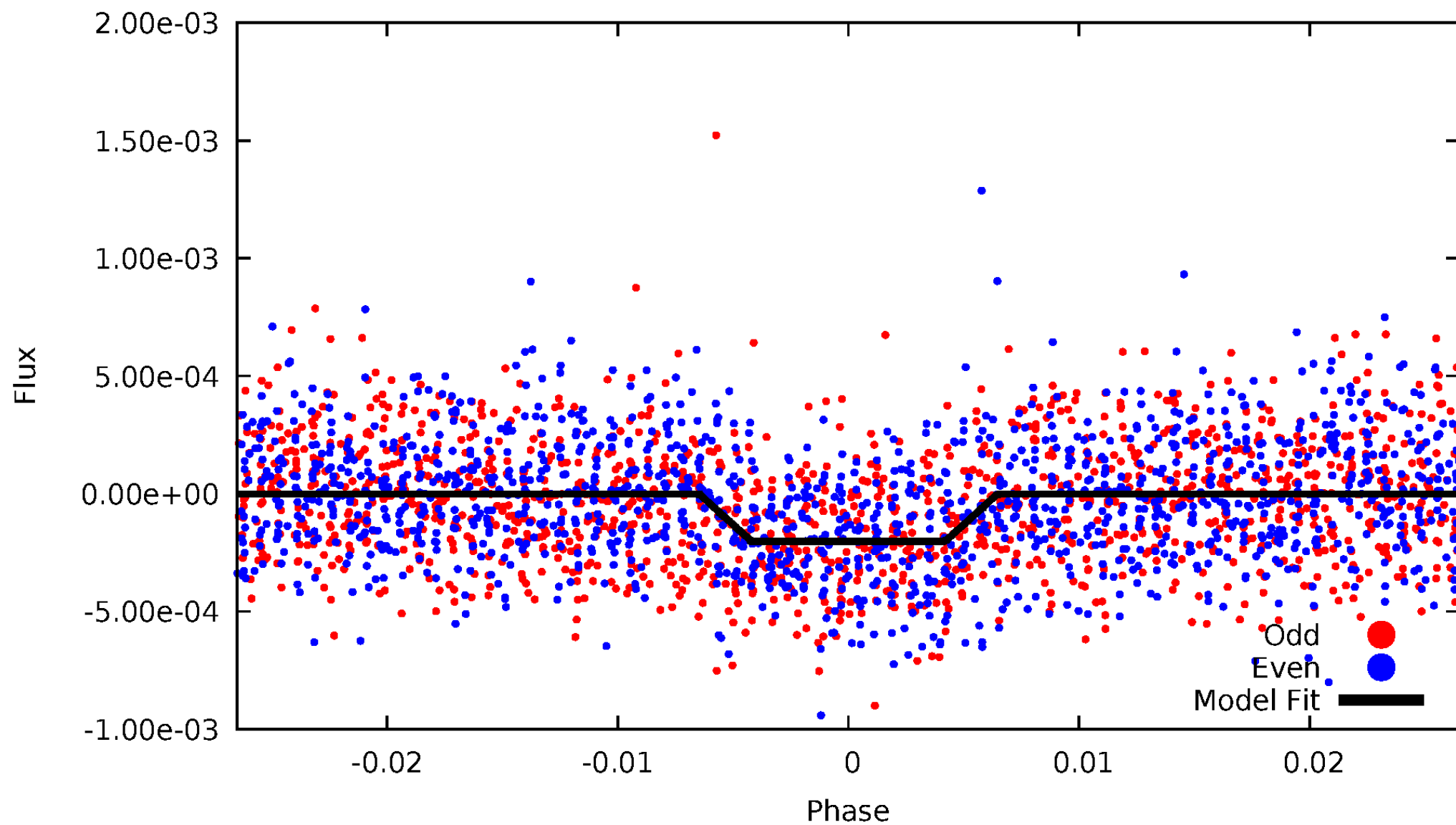
DV Odd/Even

TCE 004484336-01



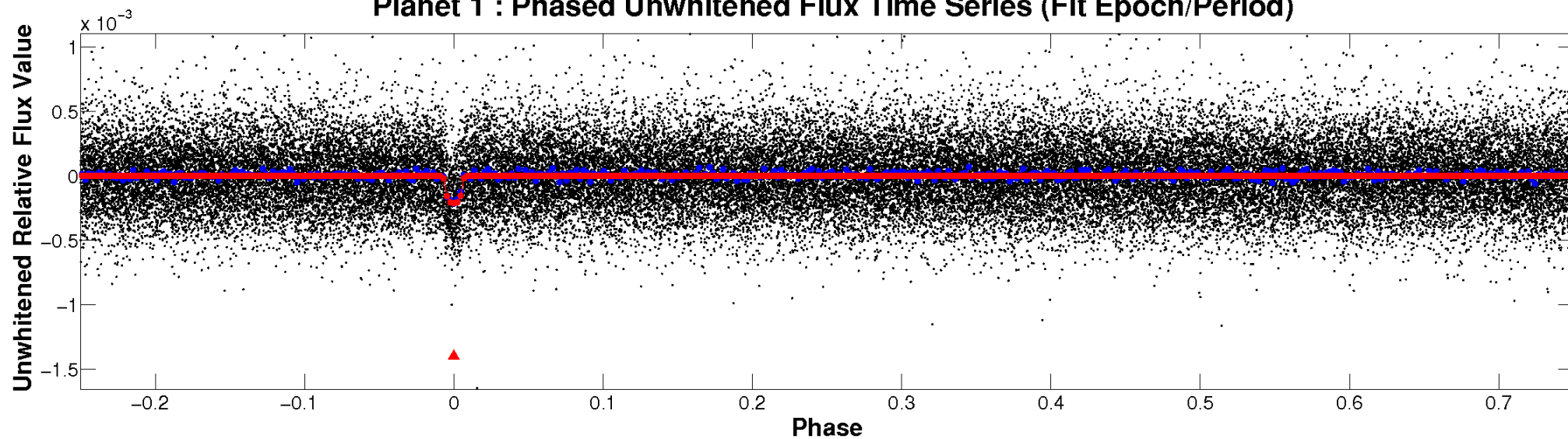
ALT Odd/Even

TCE 004484336-01

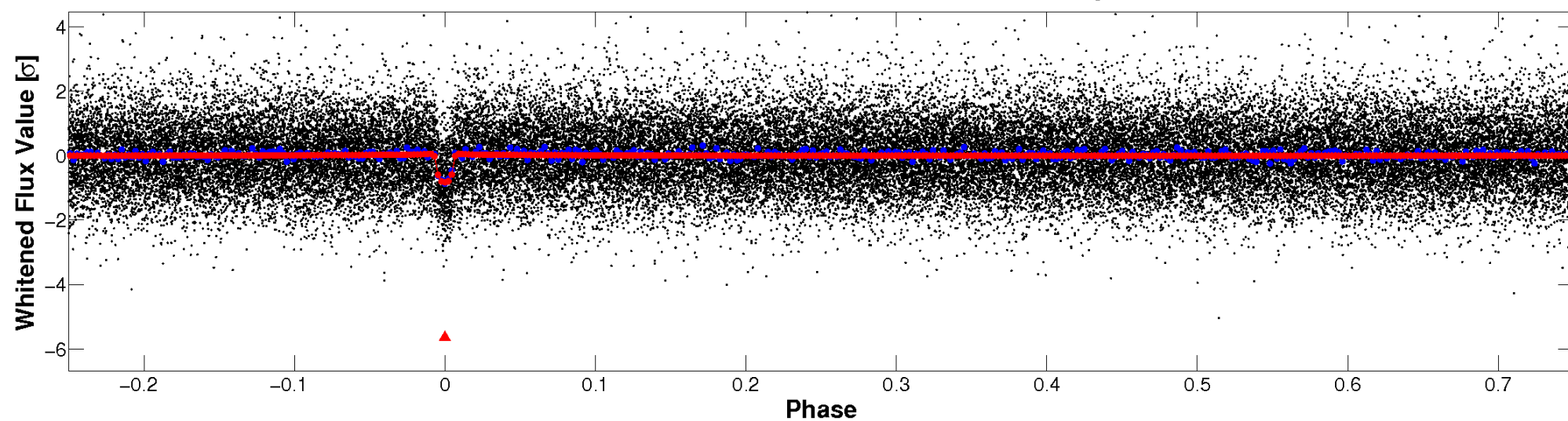


Non-Whitened Vs. Whitened Light Curve

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

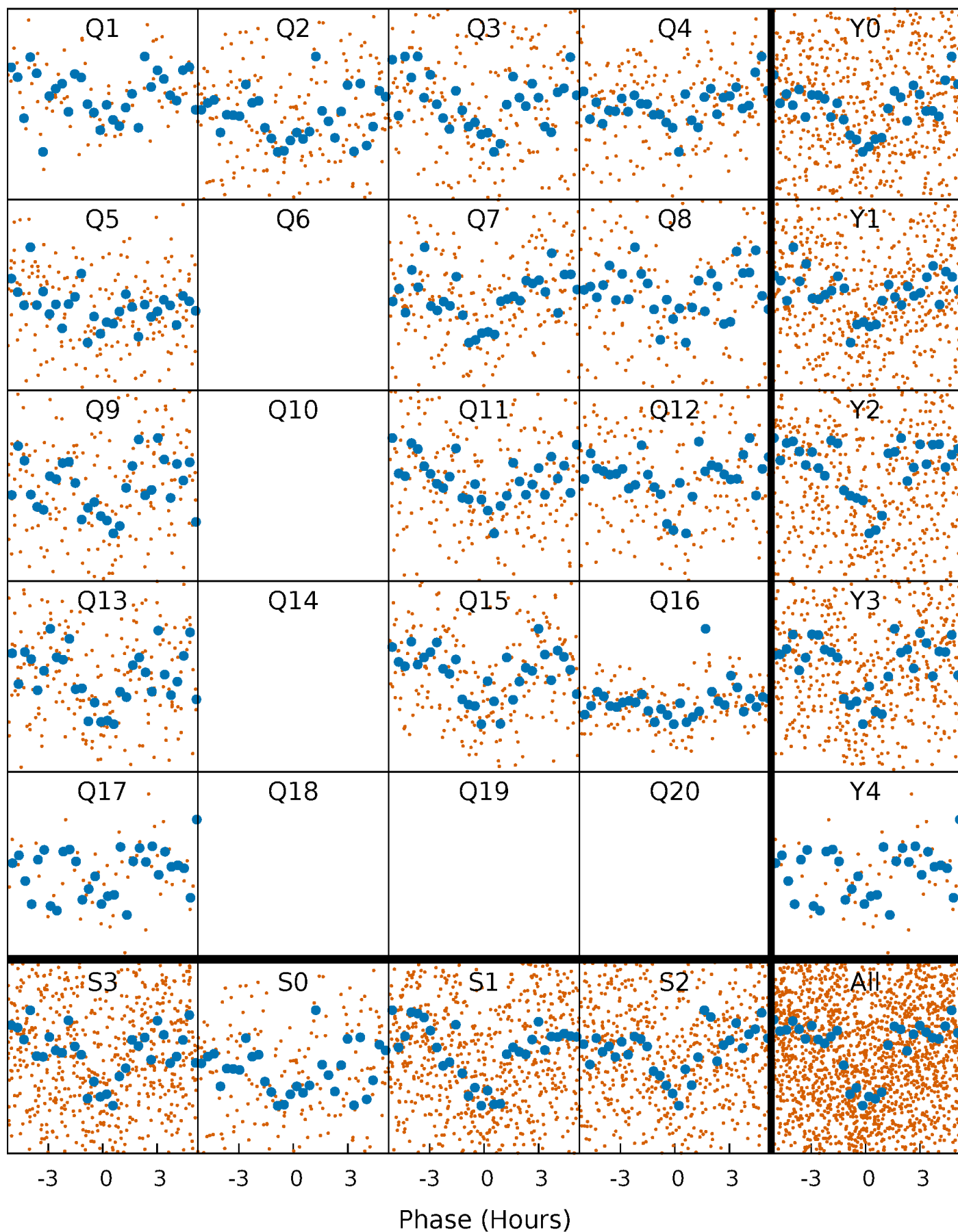


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



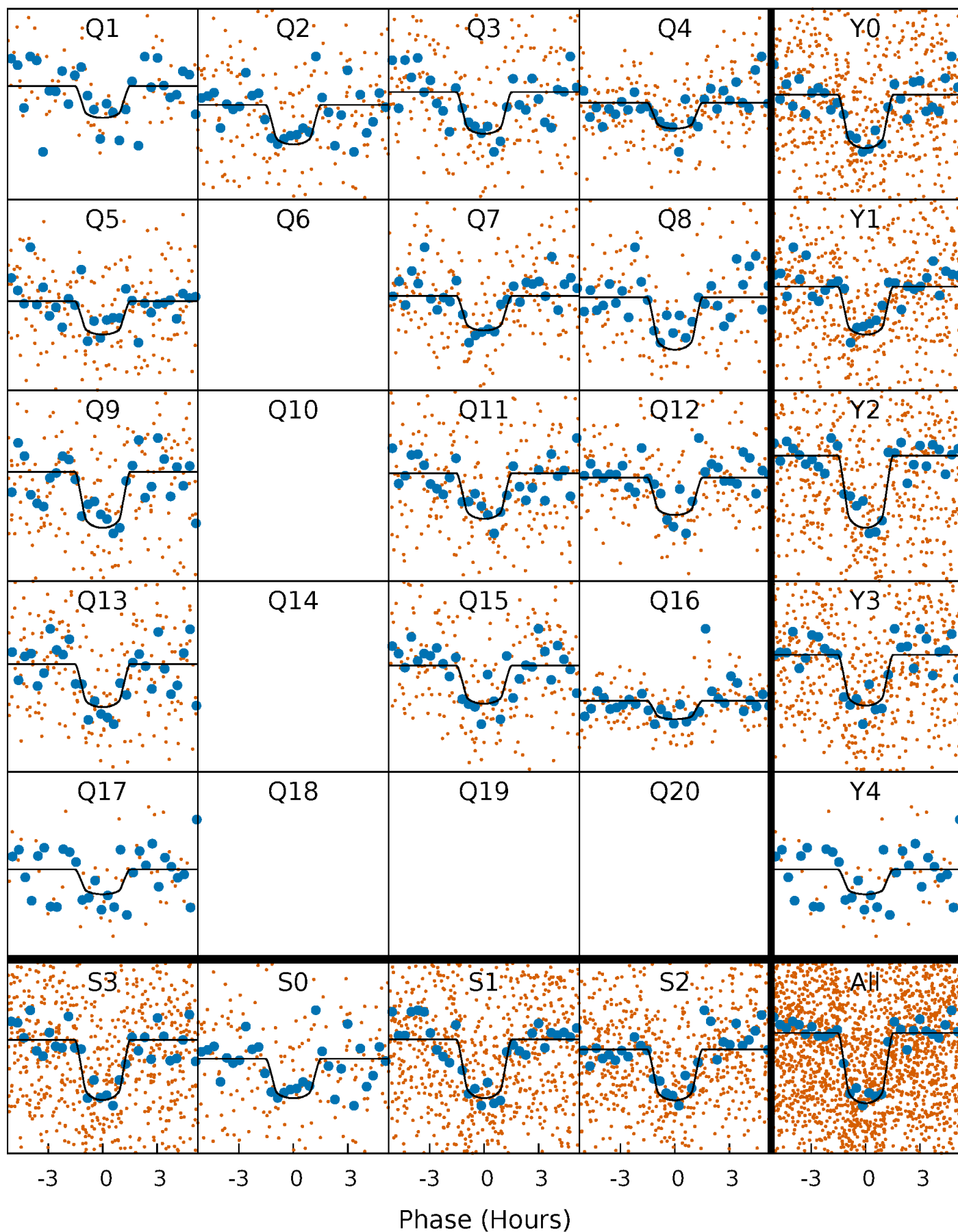
PDC Quarter-Phased Transit Curves

TCE 004484336-01 P= 8.943410 Days $T_0=137.301332$ (BKJD)



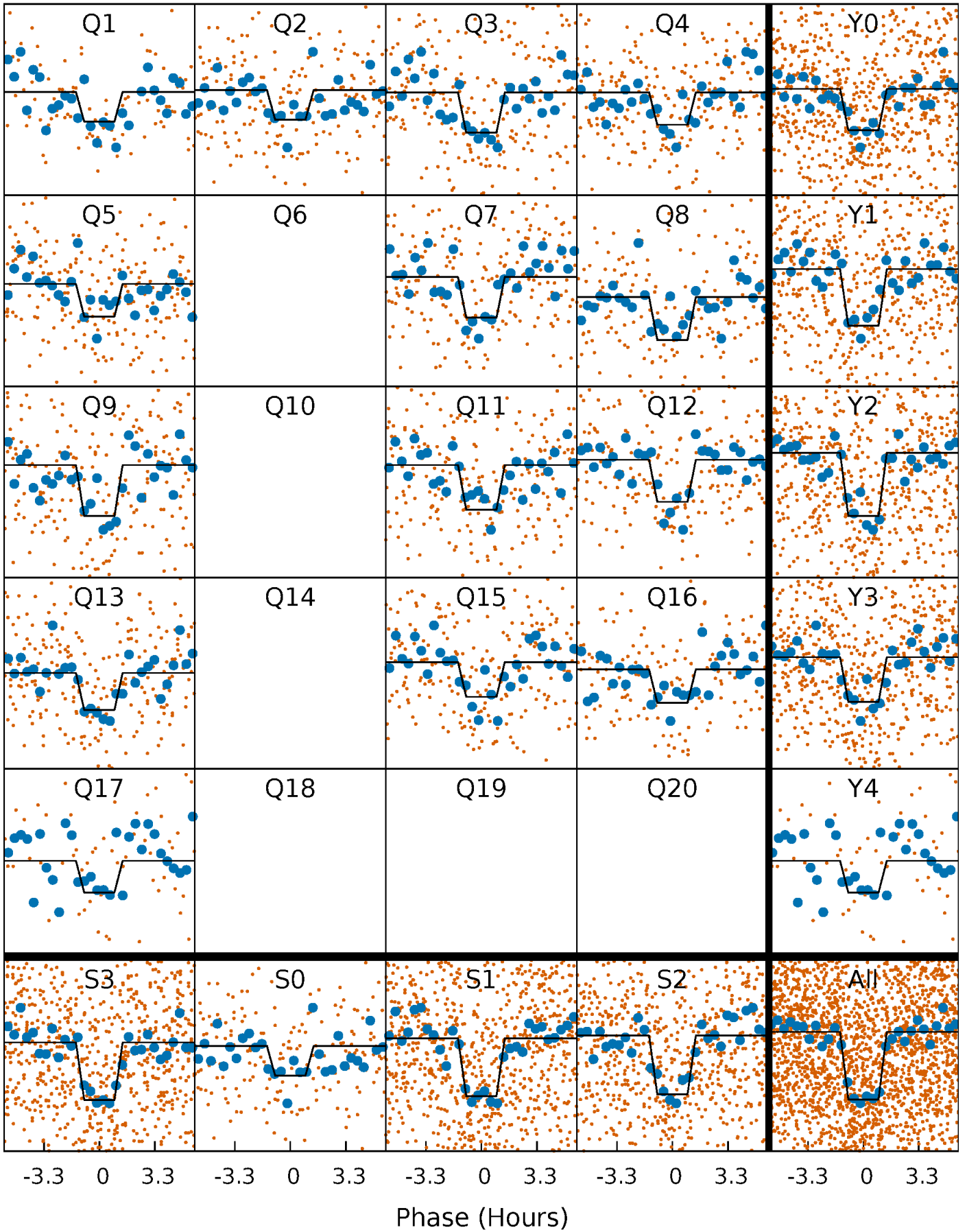
DV Quarter-Phased Transit Curves

TCE 004484336-01 P= 8.943410 Days $T_0=137.301332$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

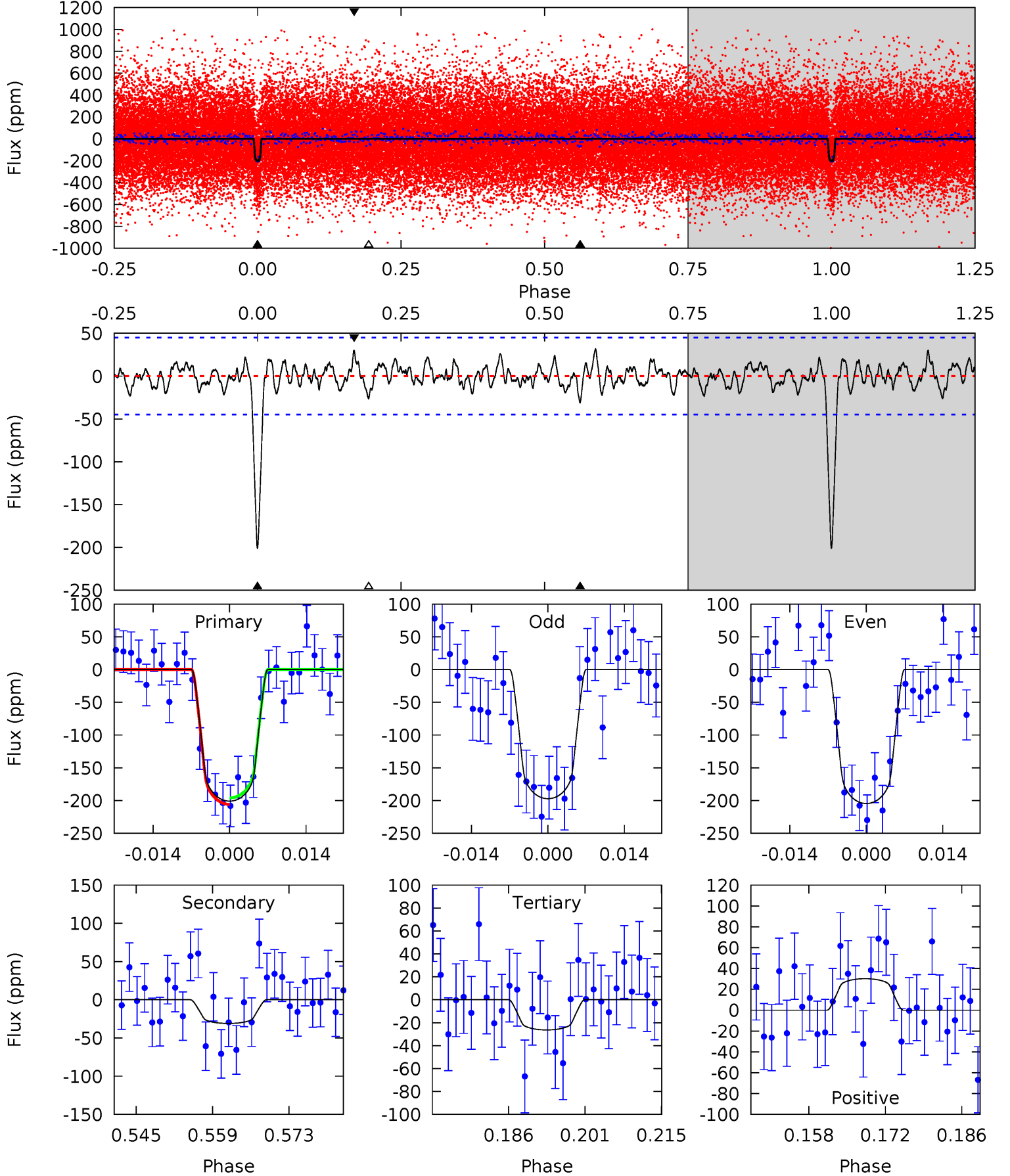
TCE 004484336-01 P= 8.943423 Days $T_0=137.298704$ (BKJD)



DV Model-Shift Uniqueness Test

004484336-01, P = 8.943410 Days, E = 128.357922 Days

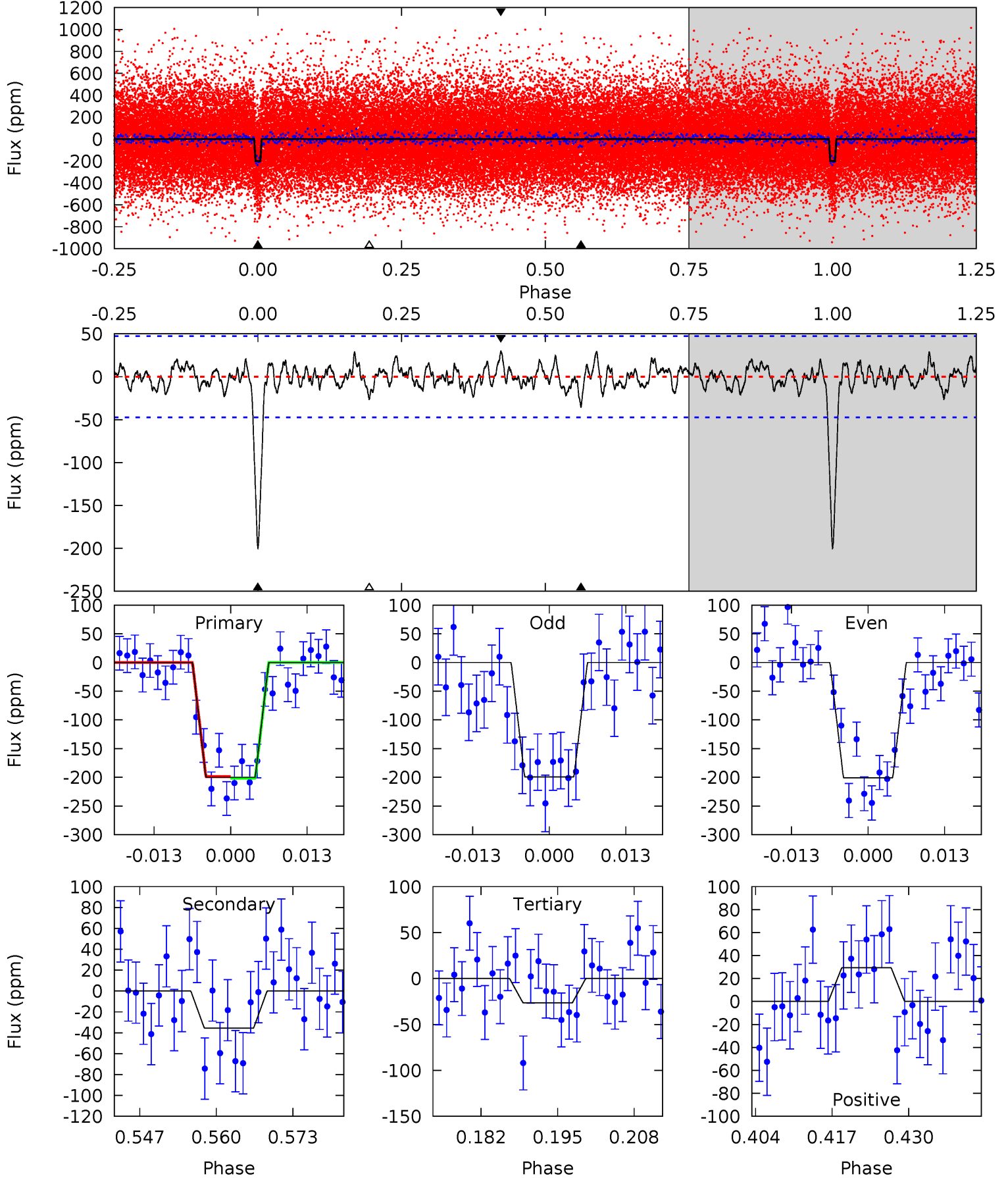
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.2	3.42	2.91	3.34	4.96	2.45	1.14	19.3	18.9	0.51	0.08	0.41	1.00	0.14	0.55



Alt Model-Shift Uniqueness Test

004484336-01, P = 8.943423 Days, E = 128.355281 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.0	3.73	2.79	3.09	4.98	2.48	1.07	18.2	17.9	0.94	0.64	0.08	0.99	0.13	0.12



Stellar Parameters For KIC 004484336

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6074^{+181}_{-181}	$4.375^{+0.149}_{-0.182}$	$-0.540^{+0.300}_{-0.300}$	$1.005^{+0.270}_{-0.180}$	$0.873^{+0.108}_{-0.081}$	$1.212^{+0.875}_{-0.592}$
	+3%/-3%	+3%/-4%	+56%/-56%	+27%/-18%	+12%/-9%	+72%/-49%
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 004484336-01 / KOI 2547.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-31 ± 9	$1.71^{+0.57}_{-0.54}$	1323^{+105}_{-81}	3952^{+614}_{-383}	37^{+45}_{-17}
Alt.	-35 ± 10	$1.55^{+0.59}_{-0.50}$	1323^{+97}_{-77}	4166^{+790}_{-417}	51^{+68}_{-25}

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 $A_{obs} \gg 1.0$

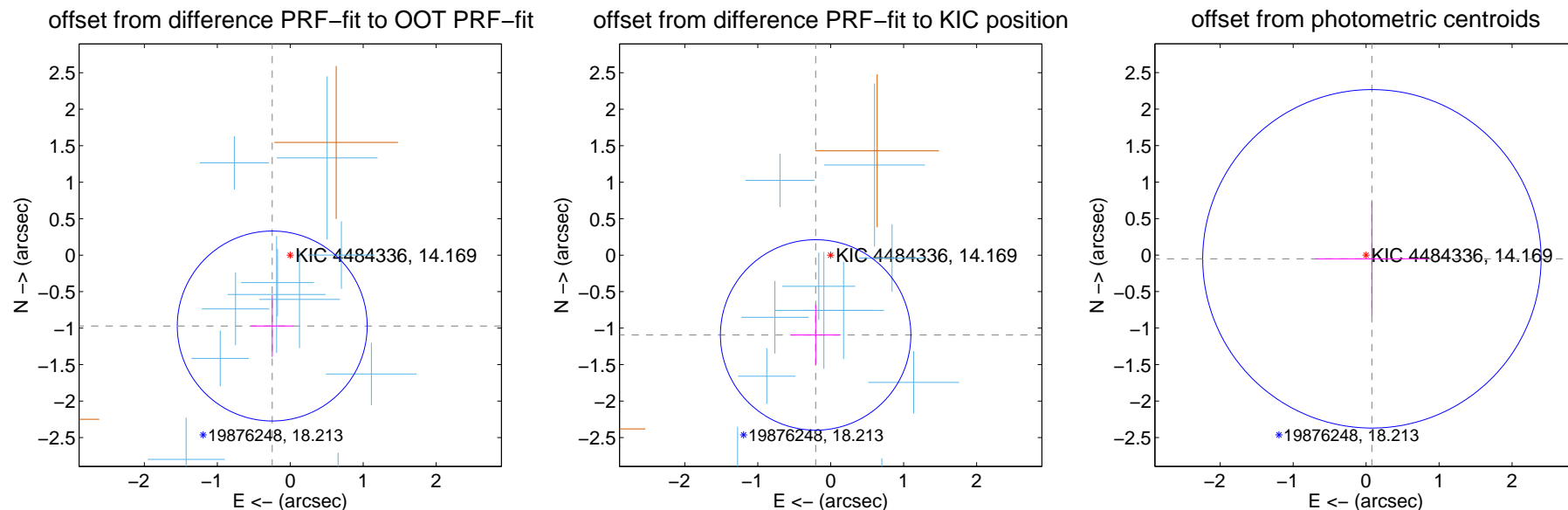
DV Centroid Data

Supplemental centroid analysis for 004484336-01. Kepler magnitude: 14.17. Transit SNR 17.55

There are 11 quarters with good PRF difference image offsets

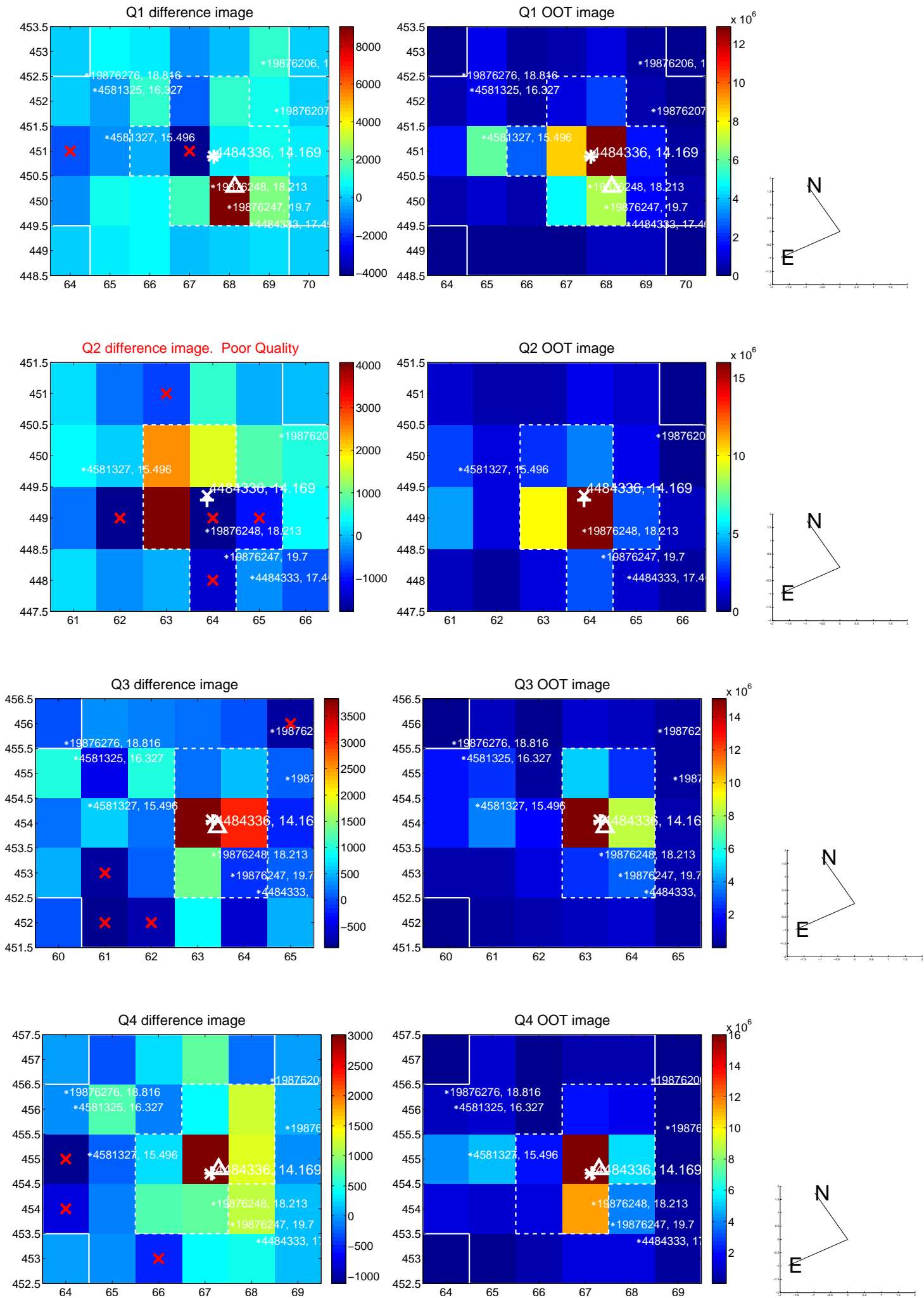
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.002 ± 0.434	2.31	0.247 ± 0.294	-0.971 ± 0.423
PRF-fit source offset from KIC position	1.113 ± 0.435	2.56	0.207 ± 0.337	-1.093 ± 0.408
photometric centroid source offset	0.09 ± 0.77	0.12	-0.08 ± 0.77	-0.05 ± 0.78

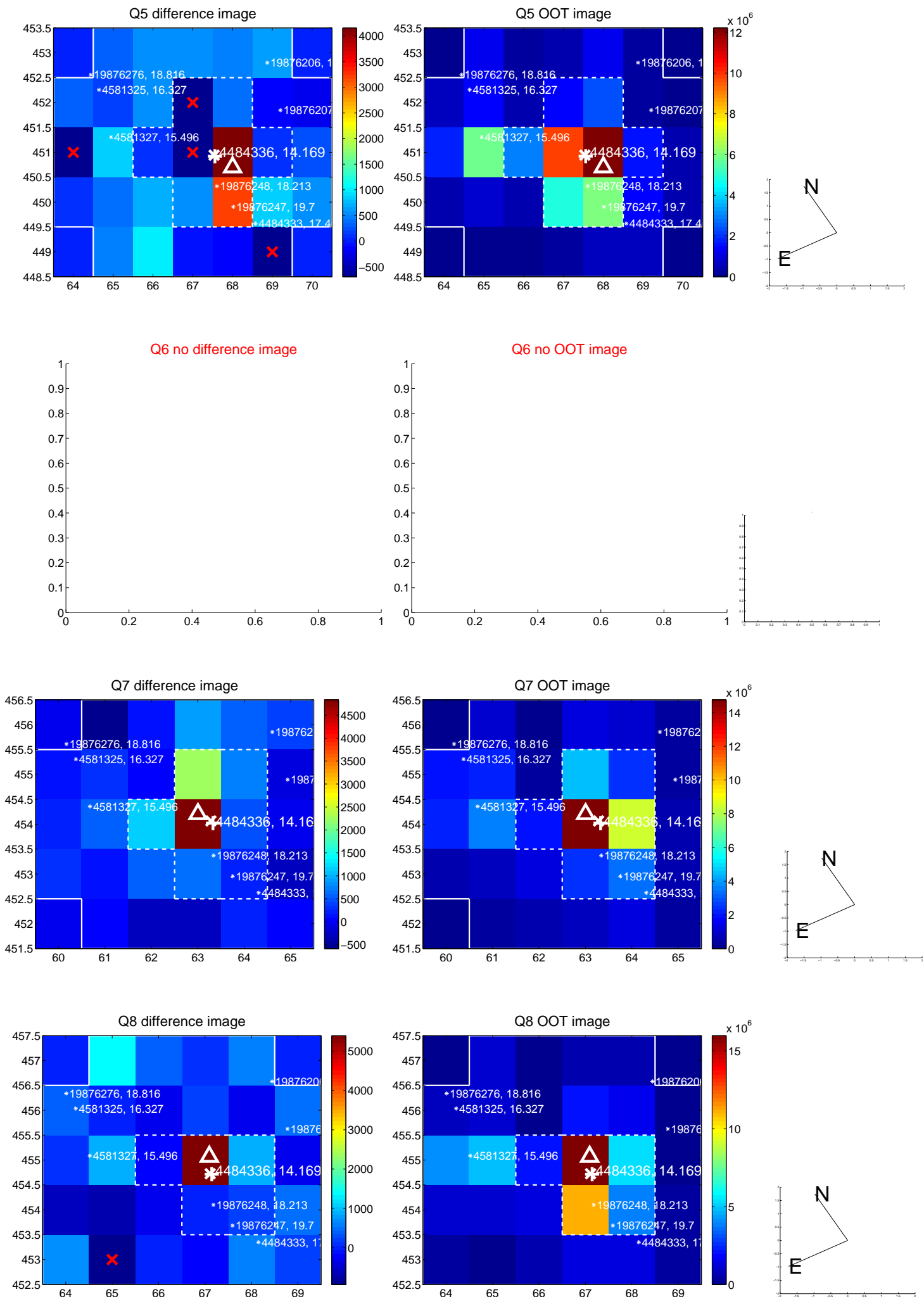


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

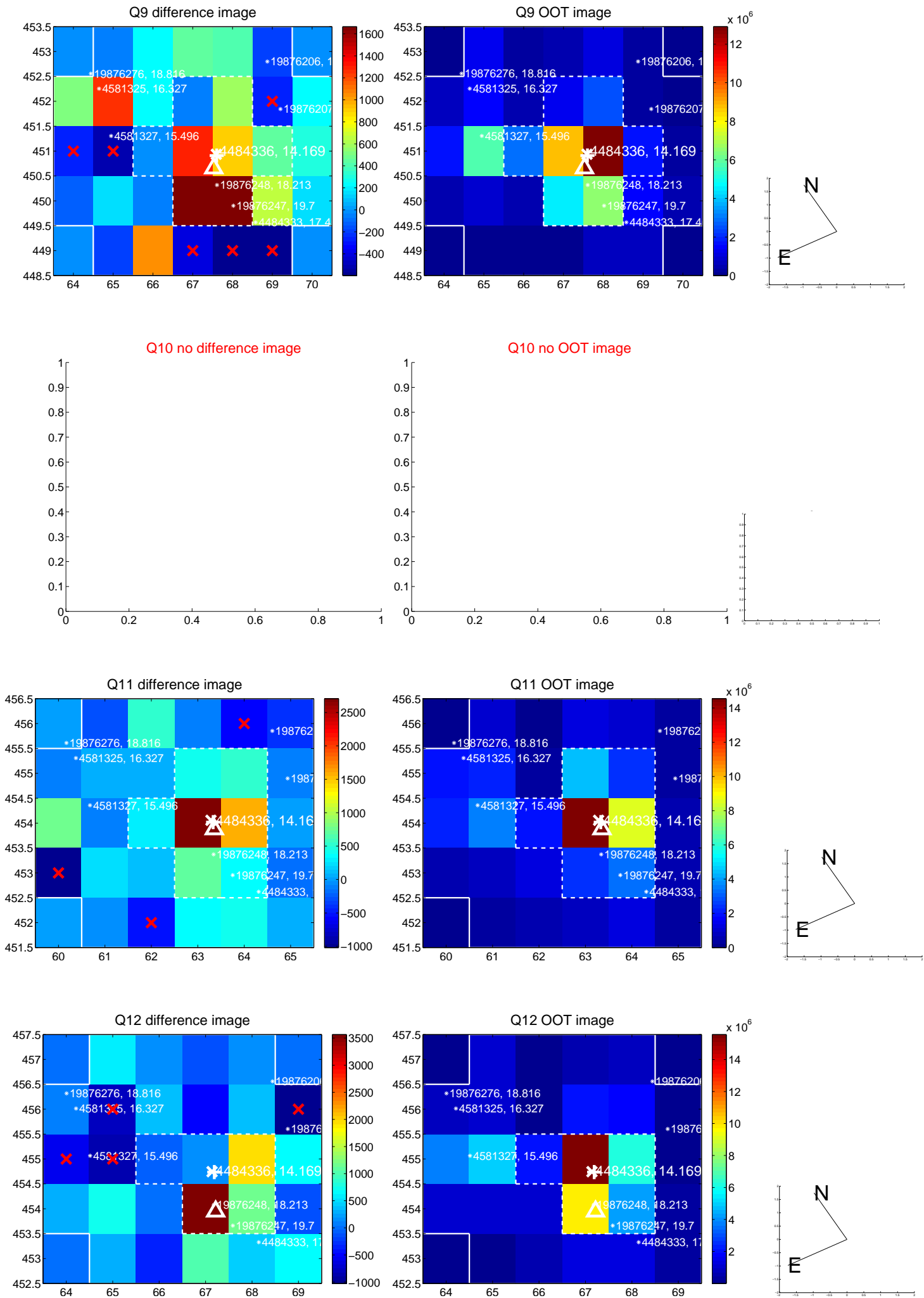
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



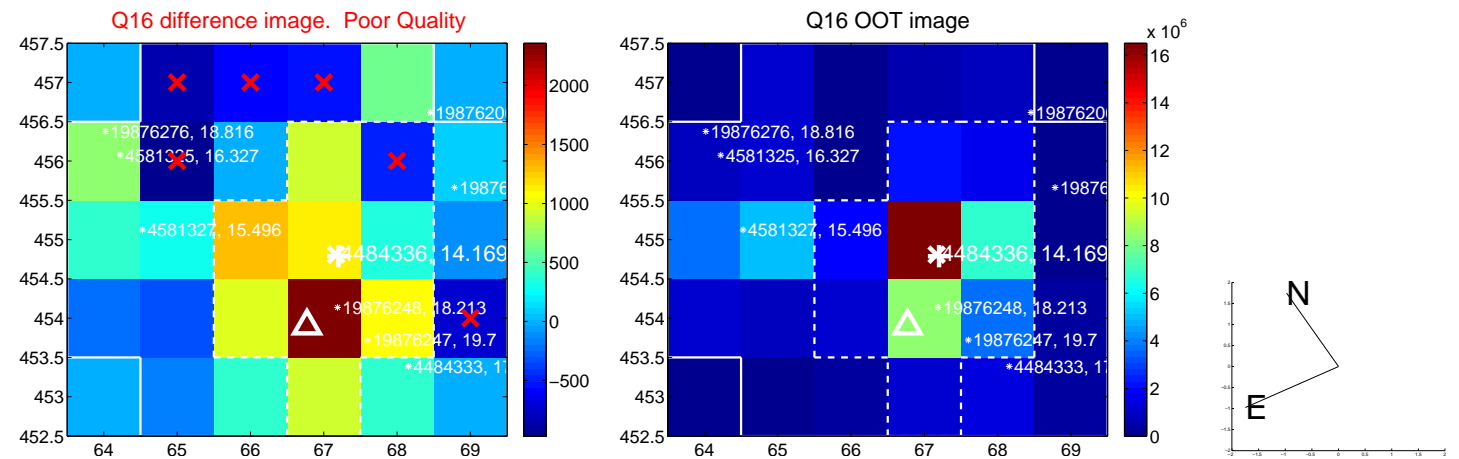
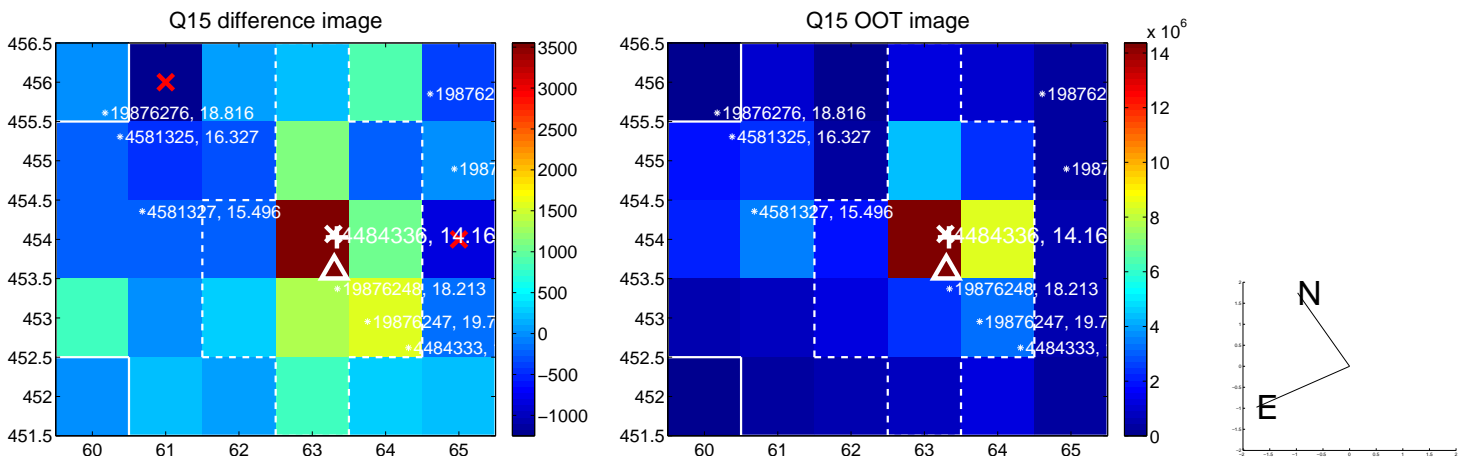
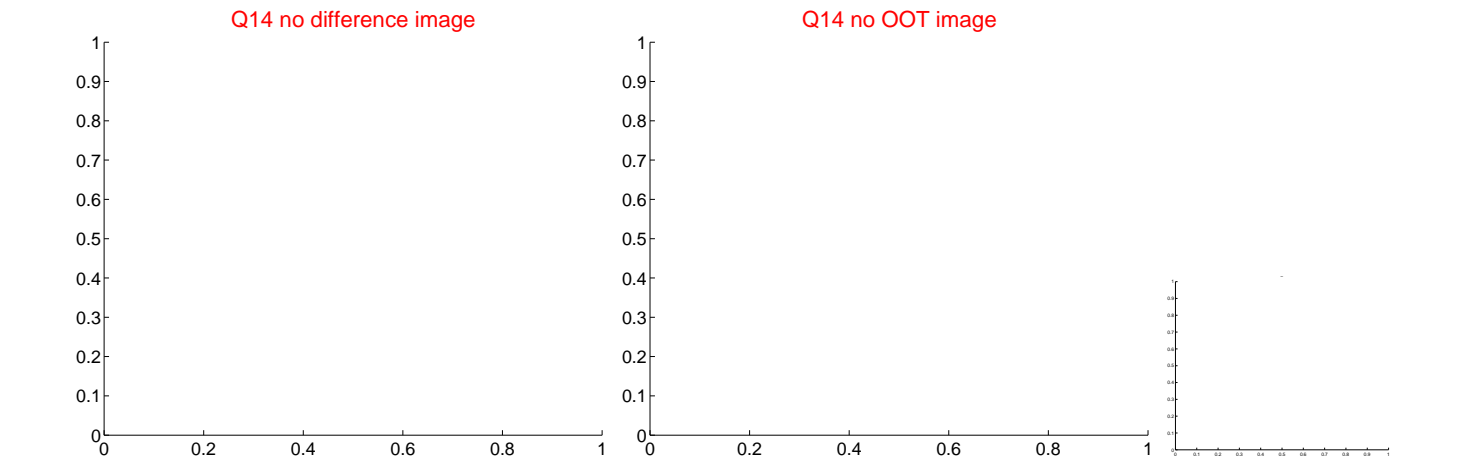
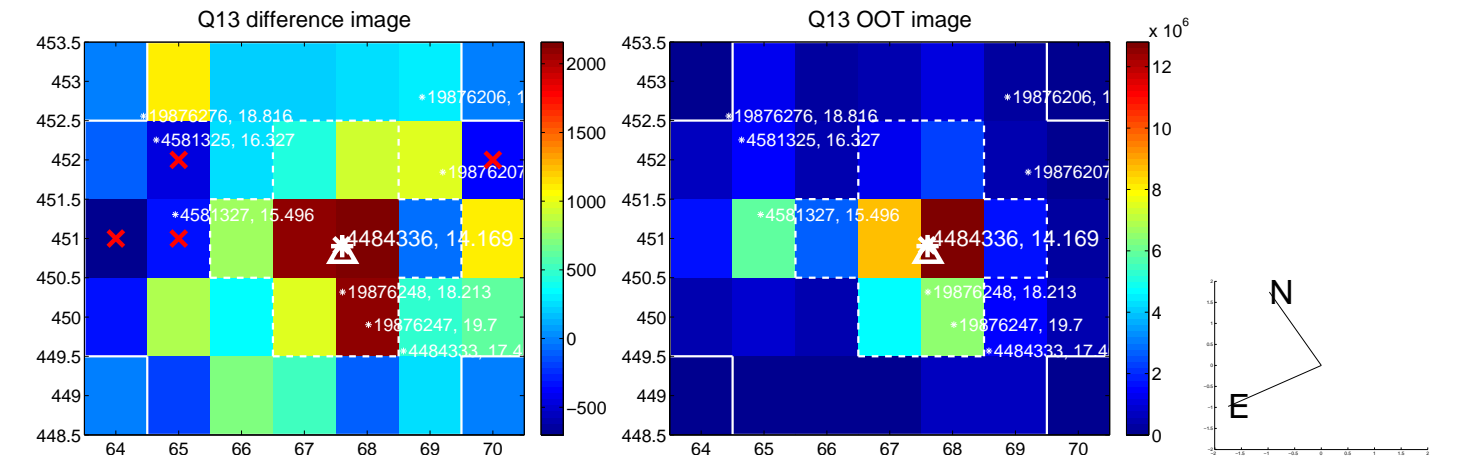
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



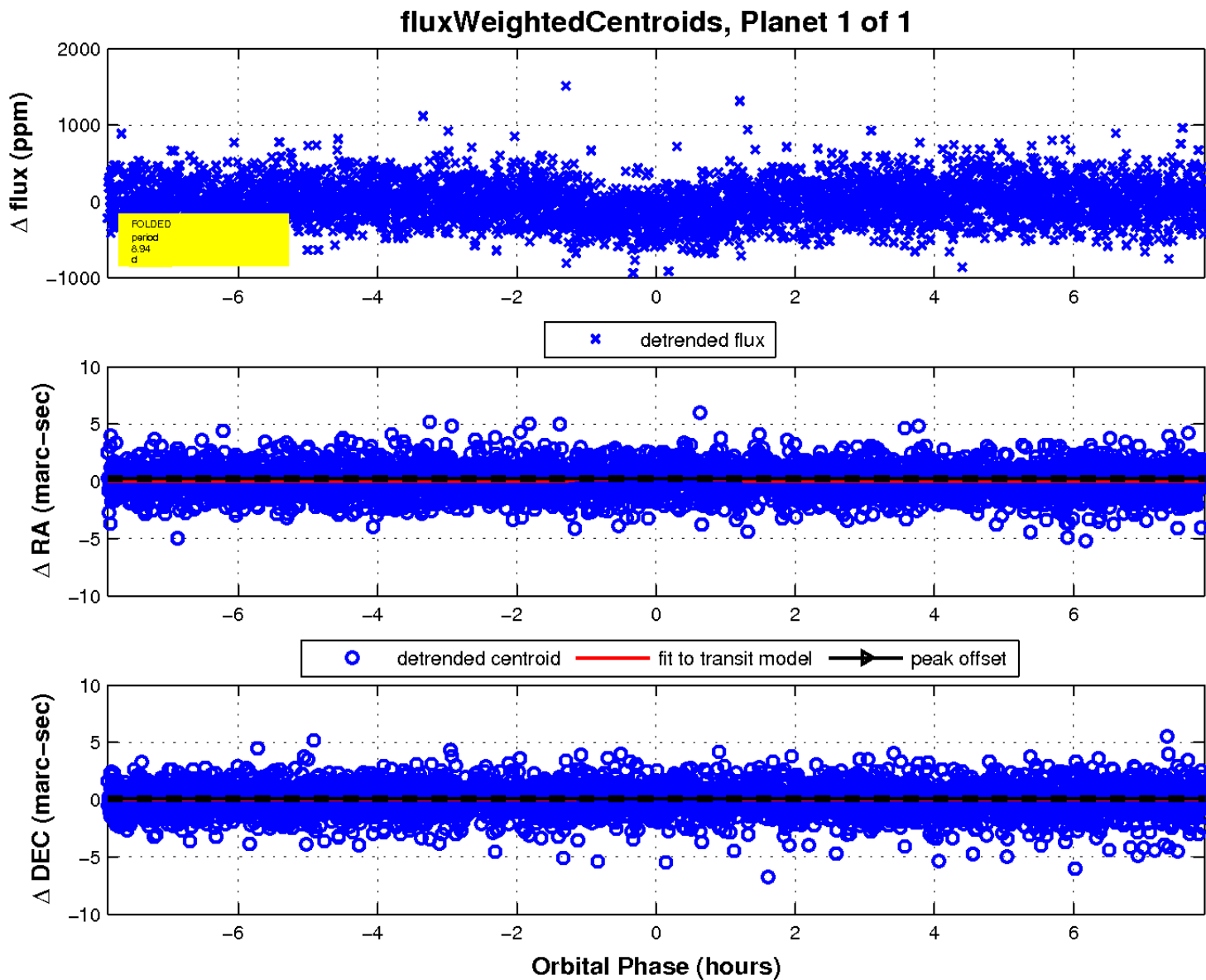
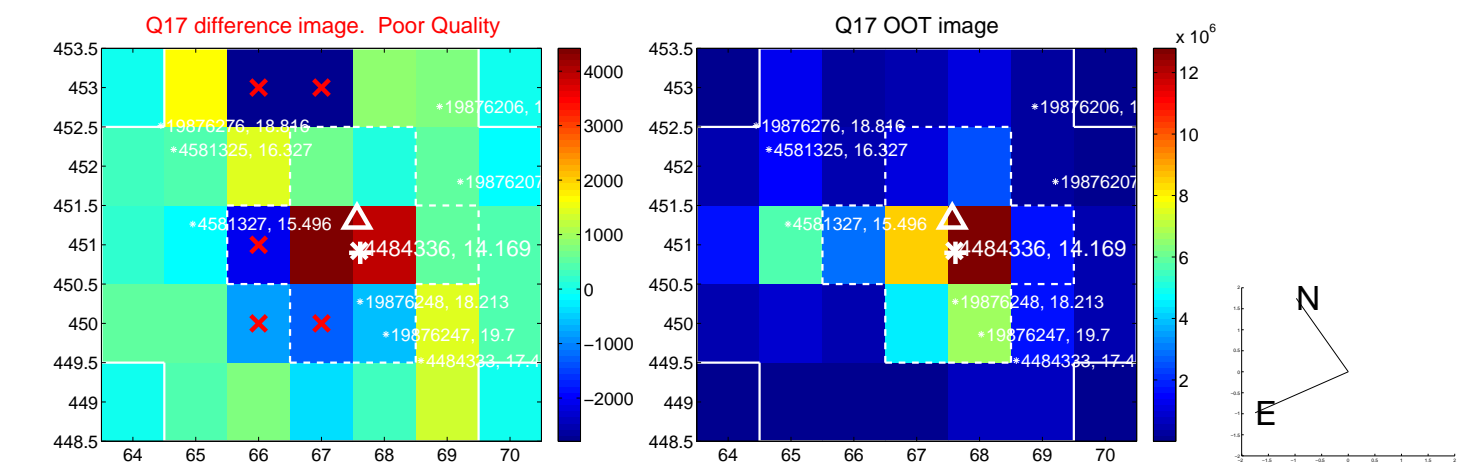
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

