

KIC 005963582

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})
005963582-01	OBS	2479.01	25.543353	140.586909	136.0	8.536	18.6	19.0	1.78	5422	2.18	84.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005963582-01	OBS	PC	0.95	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.

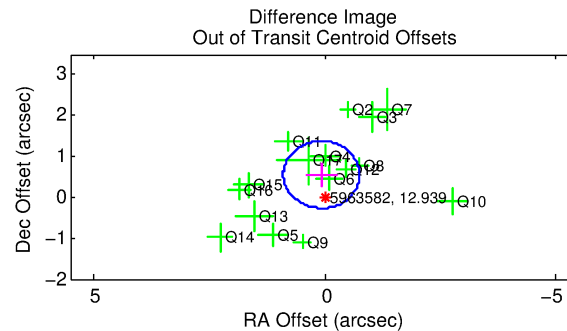
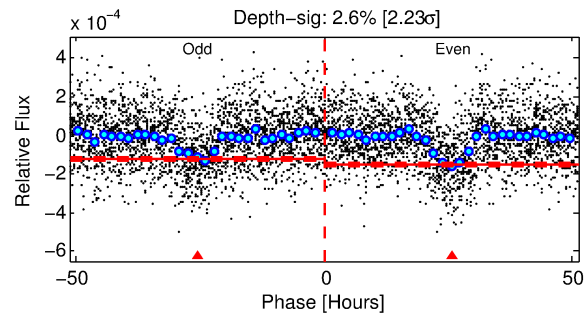
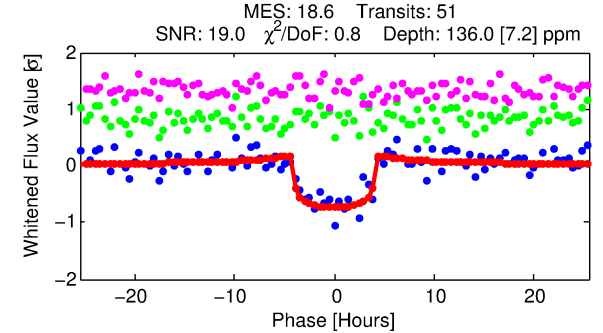
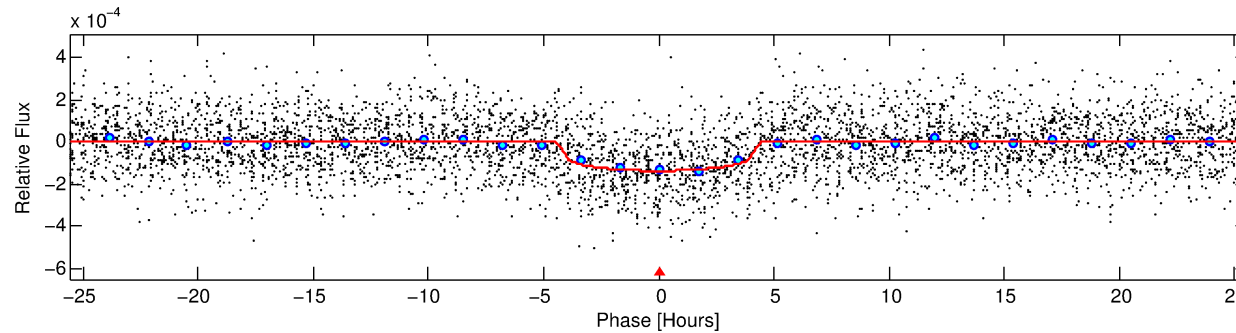
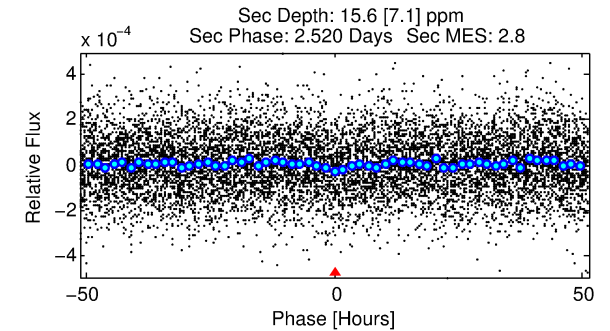
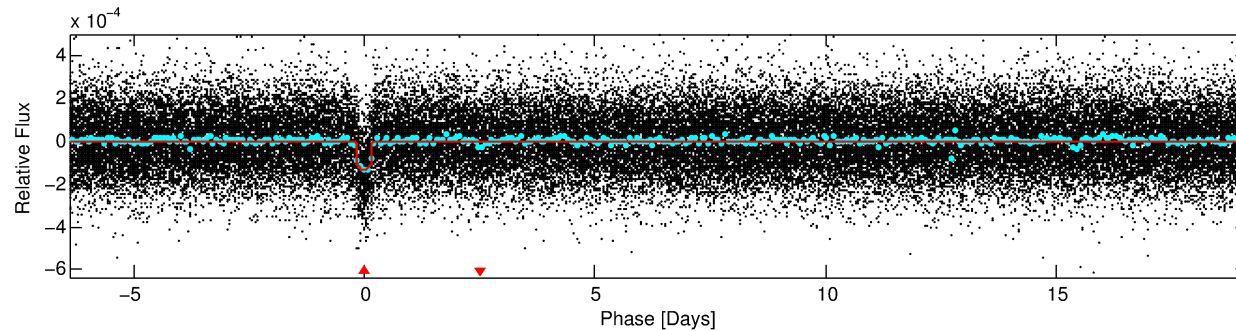
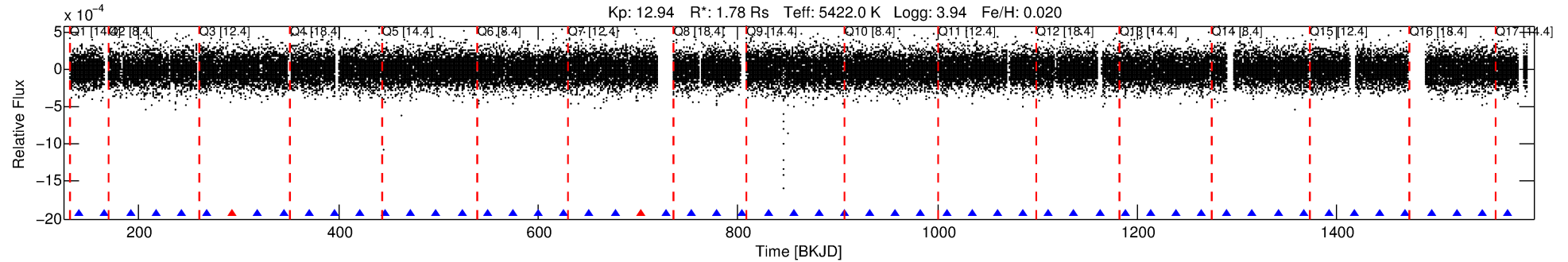
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005963582-01

No Significant Match Found

DV One-Page Summary

KIC: 5963582 Candidate: 1 of 1 Period: 25.543 d
KOI: K02479.01 Corr: 0.990



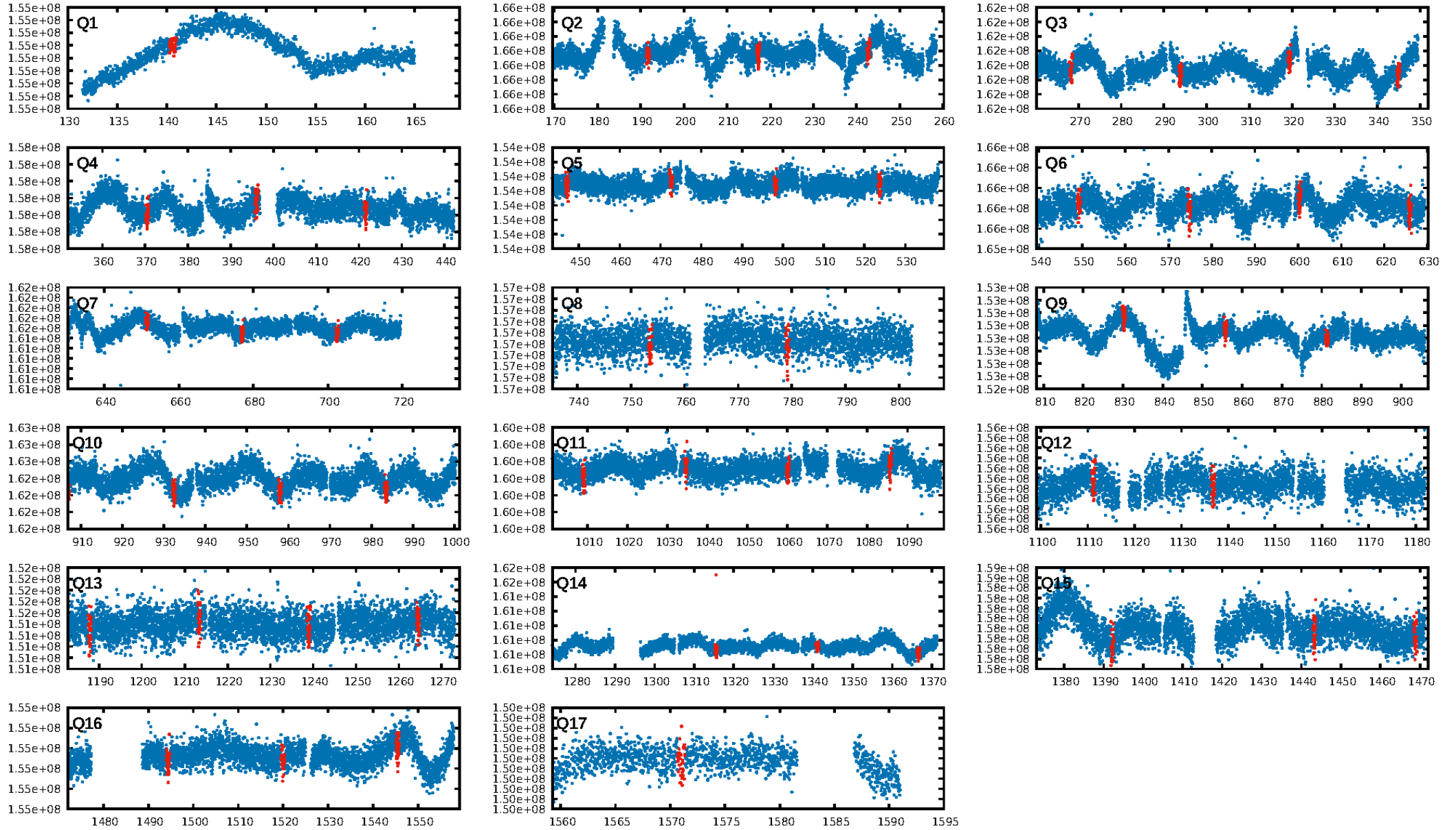
DV Fit Results:

Period = 25.54335 [0.00020] d
Epoch = 140.5869 [0.0064] BKJD
Rp/R* = 0.0112 [0.0038]
a/R* = 17.67 [23.98]
b = 0.65 [1.21]
Seff = 84.16 [24.70]
Teff = 772 [57] K
Rp = 2.18 [0.86] Re
a = 0.1709 [0.0306] AU
Ag = 52.43 [45.51] [1.13σ]
Teffp = 3213 [664] K [3.66σ]

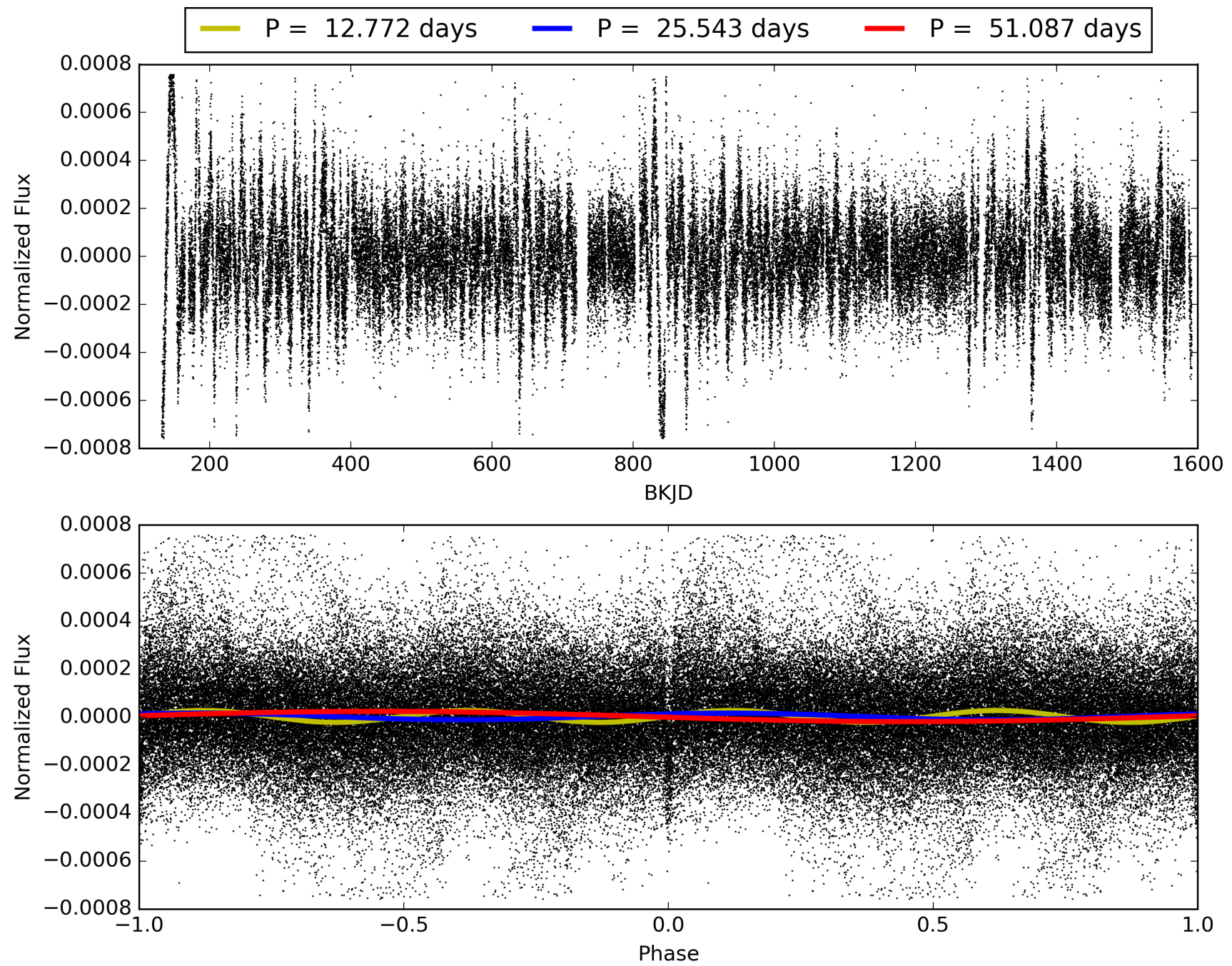
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.06e-70
RollingBand-fgt: 0.96 [47/49]
GhostDiagnostic-chr: 4.583
Centroid-sig: 36.8%
Centroid-so: 0.523 arcsec [1.25σ]
OotOffset-rm: 0.558 arcsec [2.04σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-rm: 0.342 arcsec [1.25σ]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005963582-01, PDC Light Curves

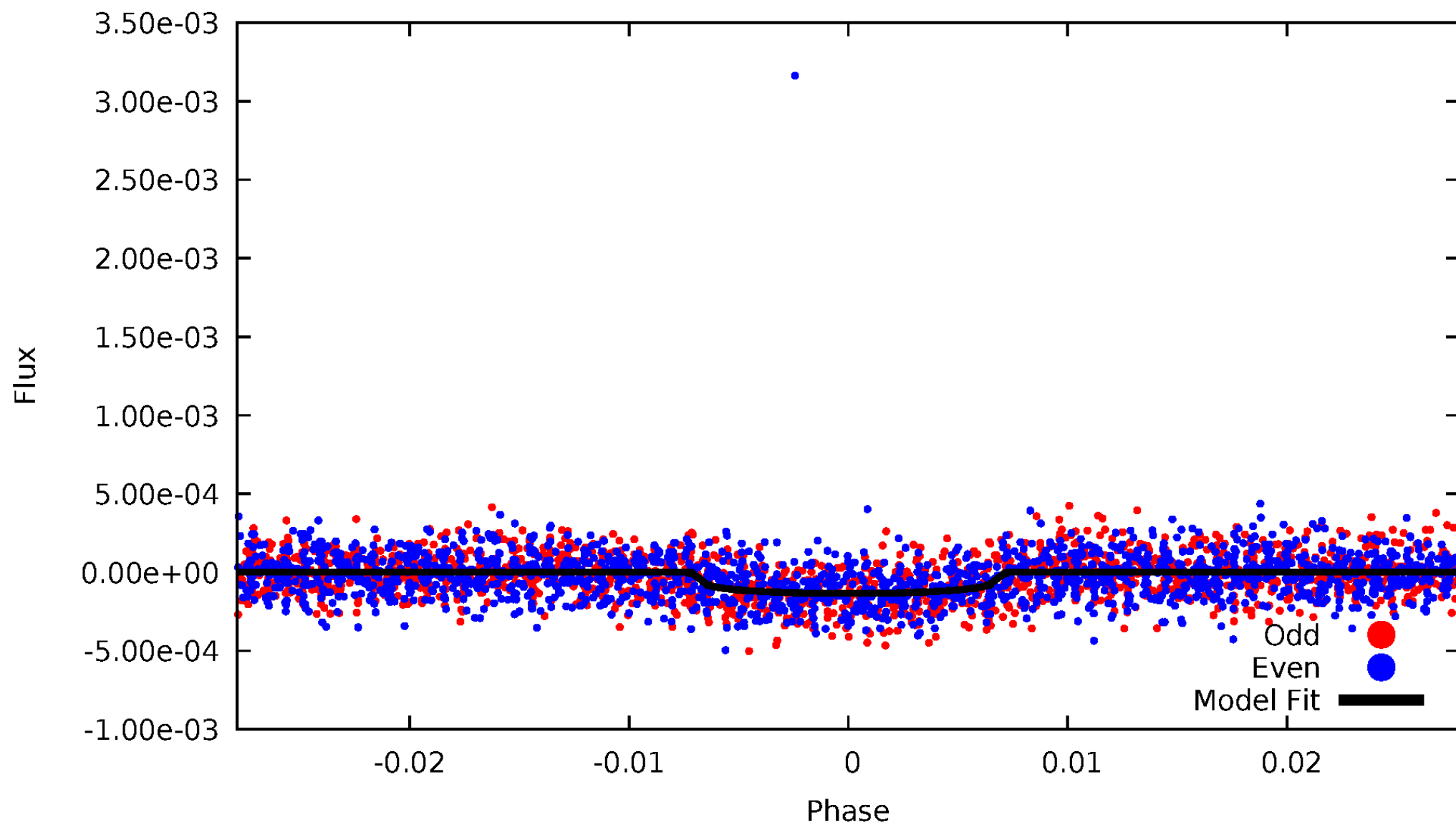


TCE 005963582-01



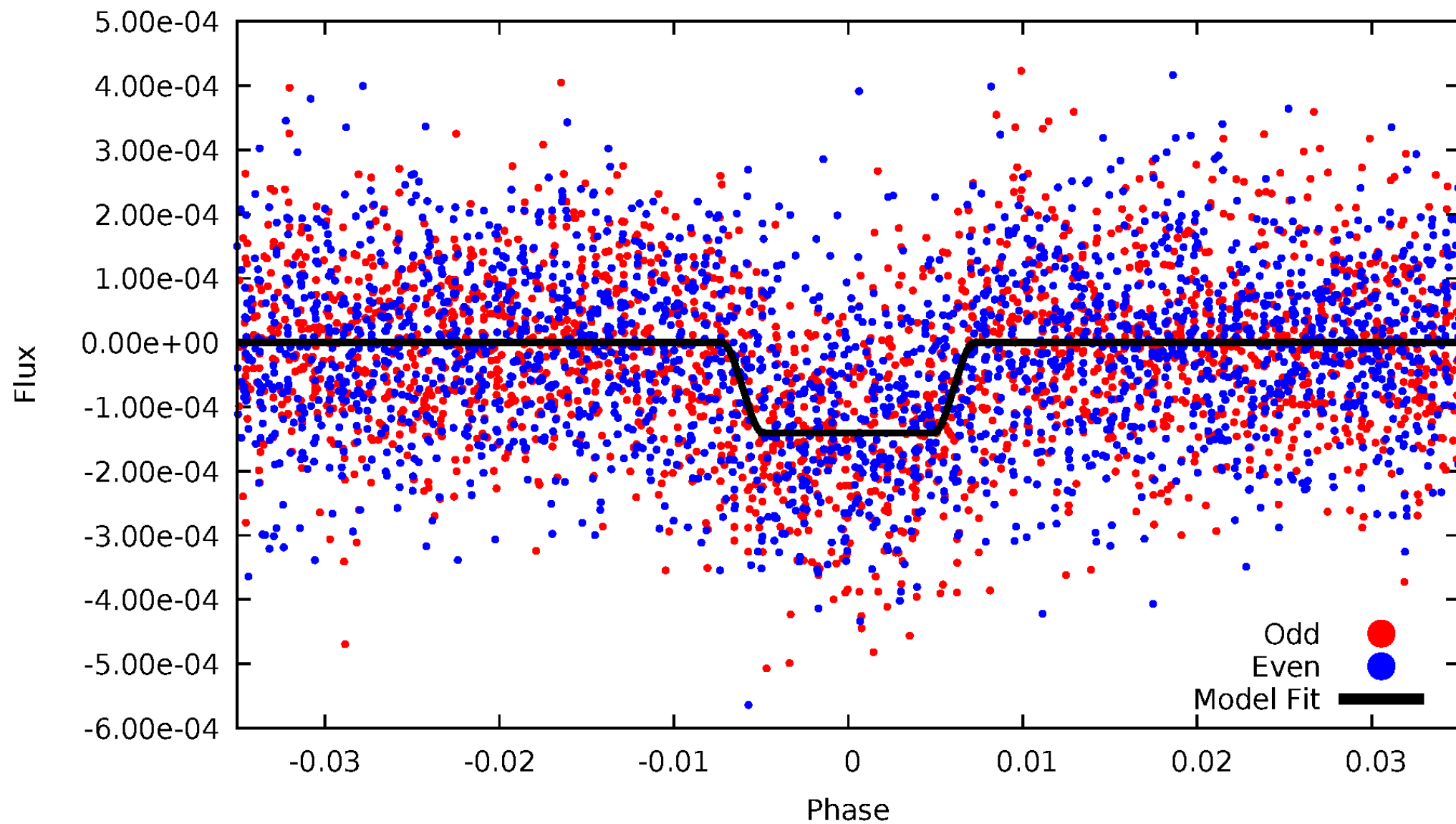
DV Odd/Even

TCE 005963582-01



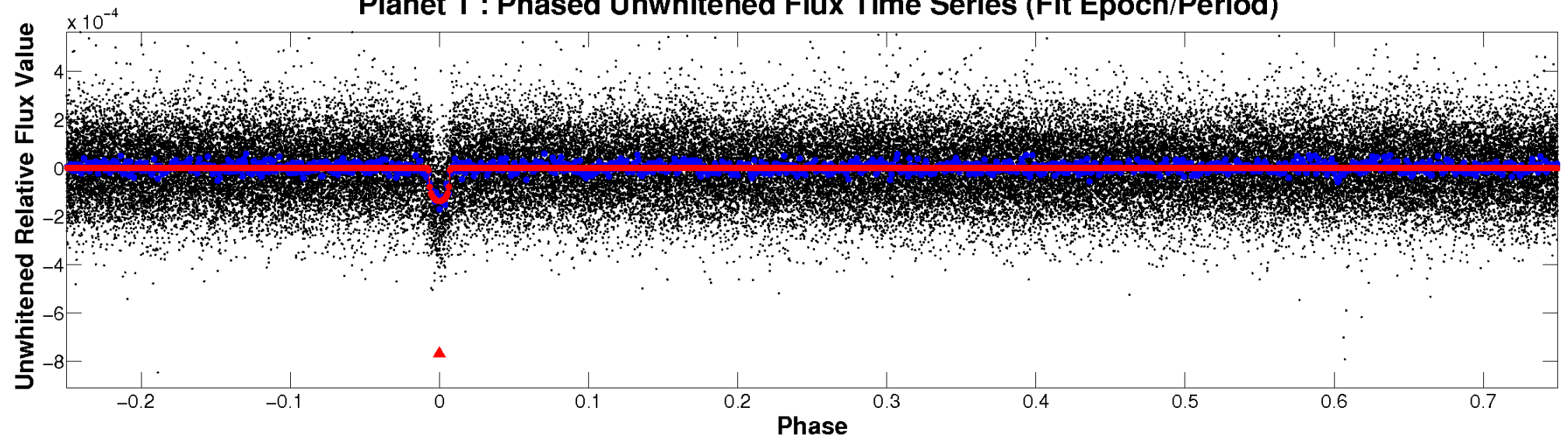
ALT Odd/Even

TCE 005963582-01

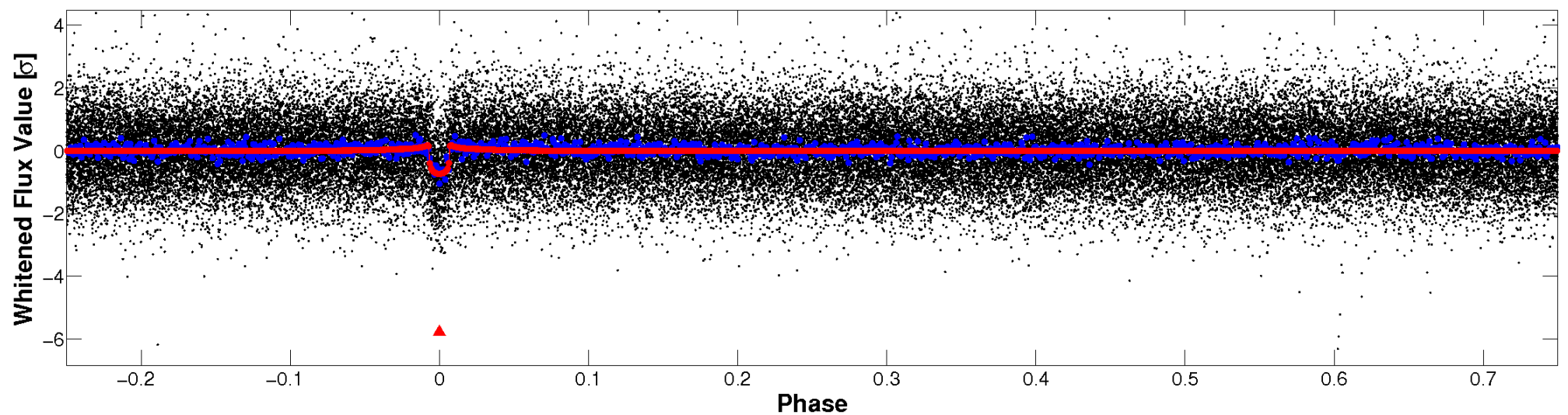


Non-Whitened Vs. Whitened Light Curve

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

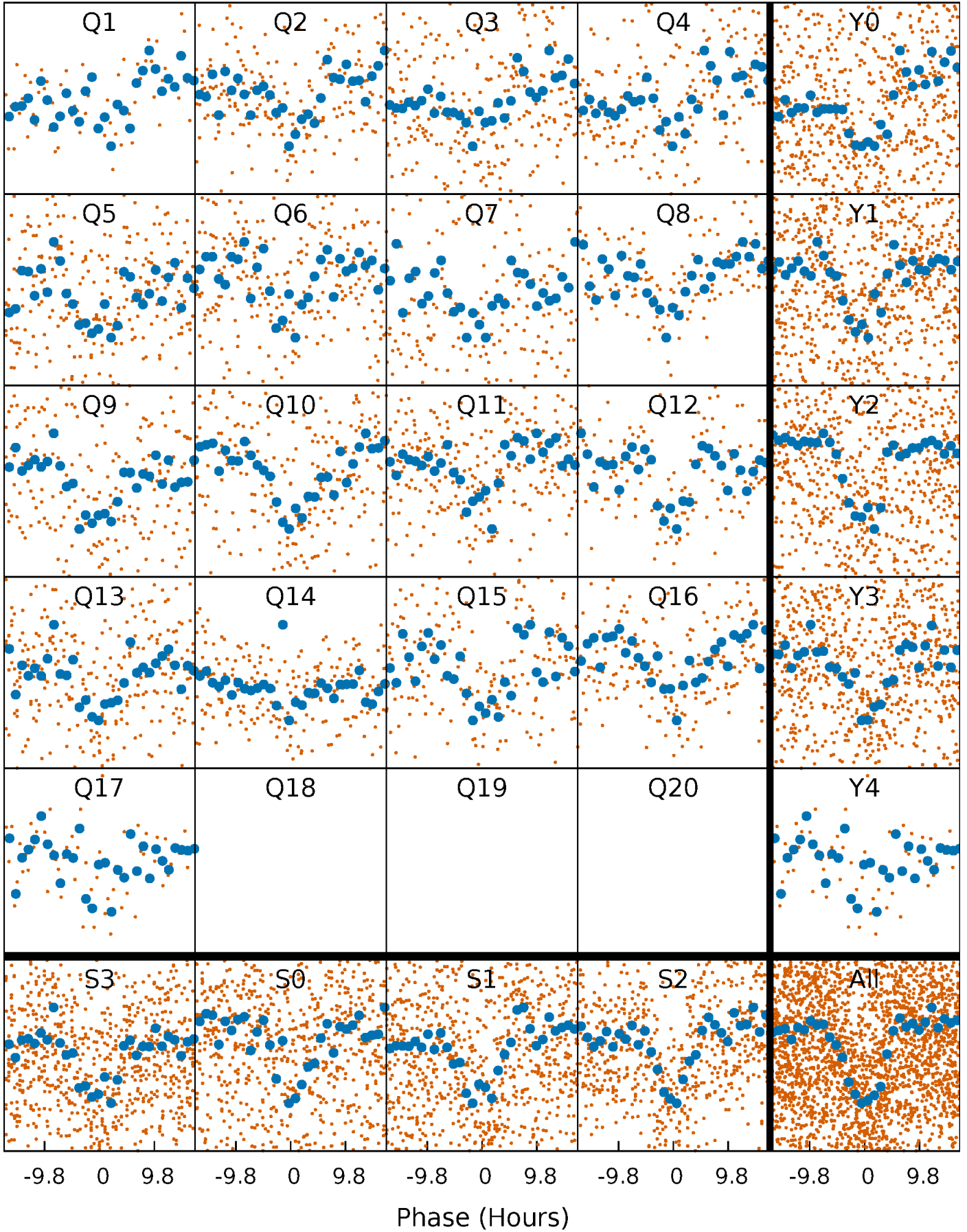


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



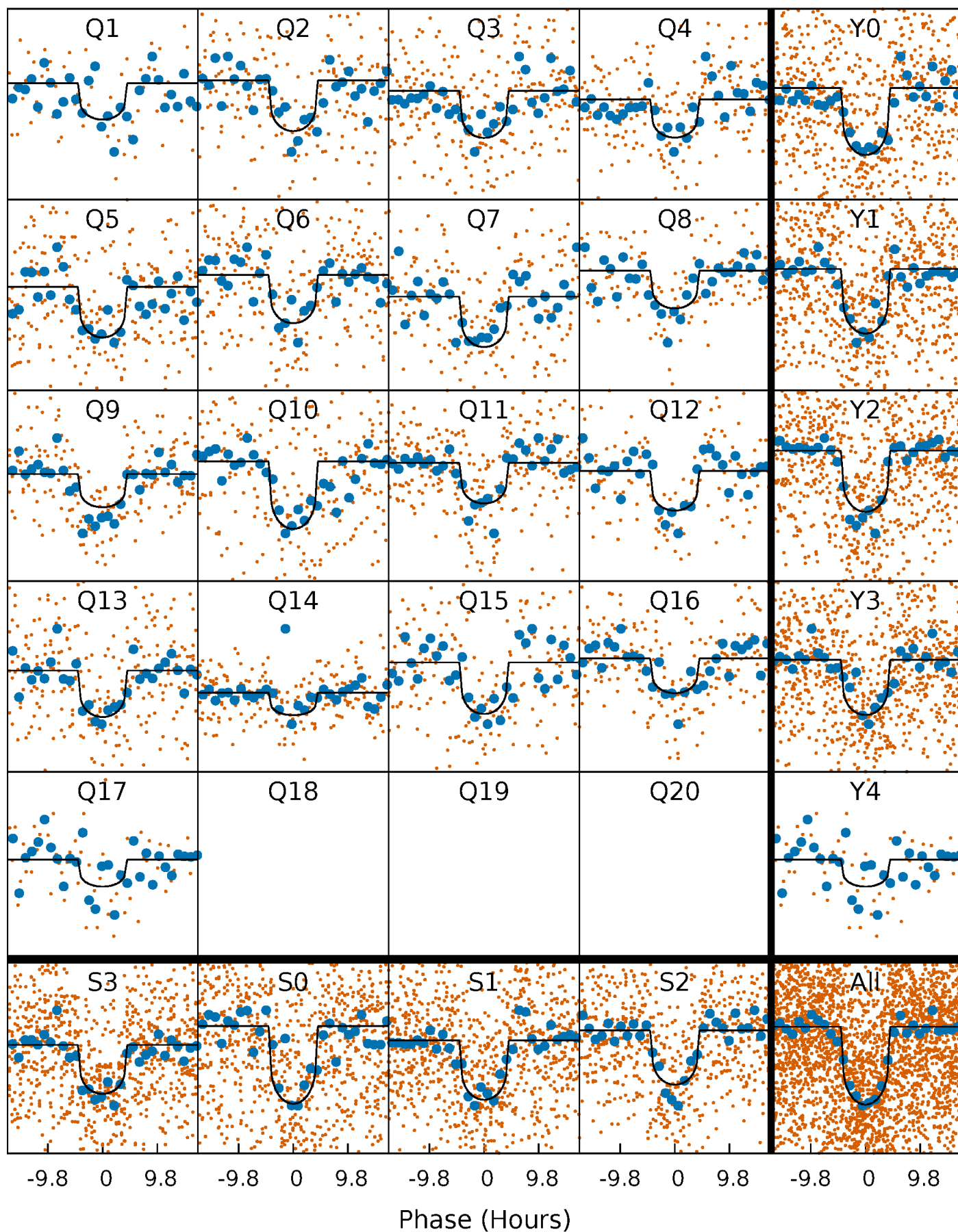
PDC Quarter-Phased Transit Curves

TCE 005963582-01 P= 25.543353 Days $T_0=140.586909$ (BKJD)



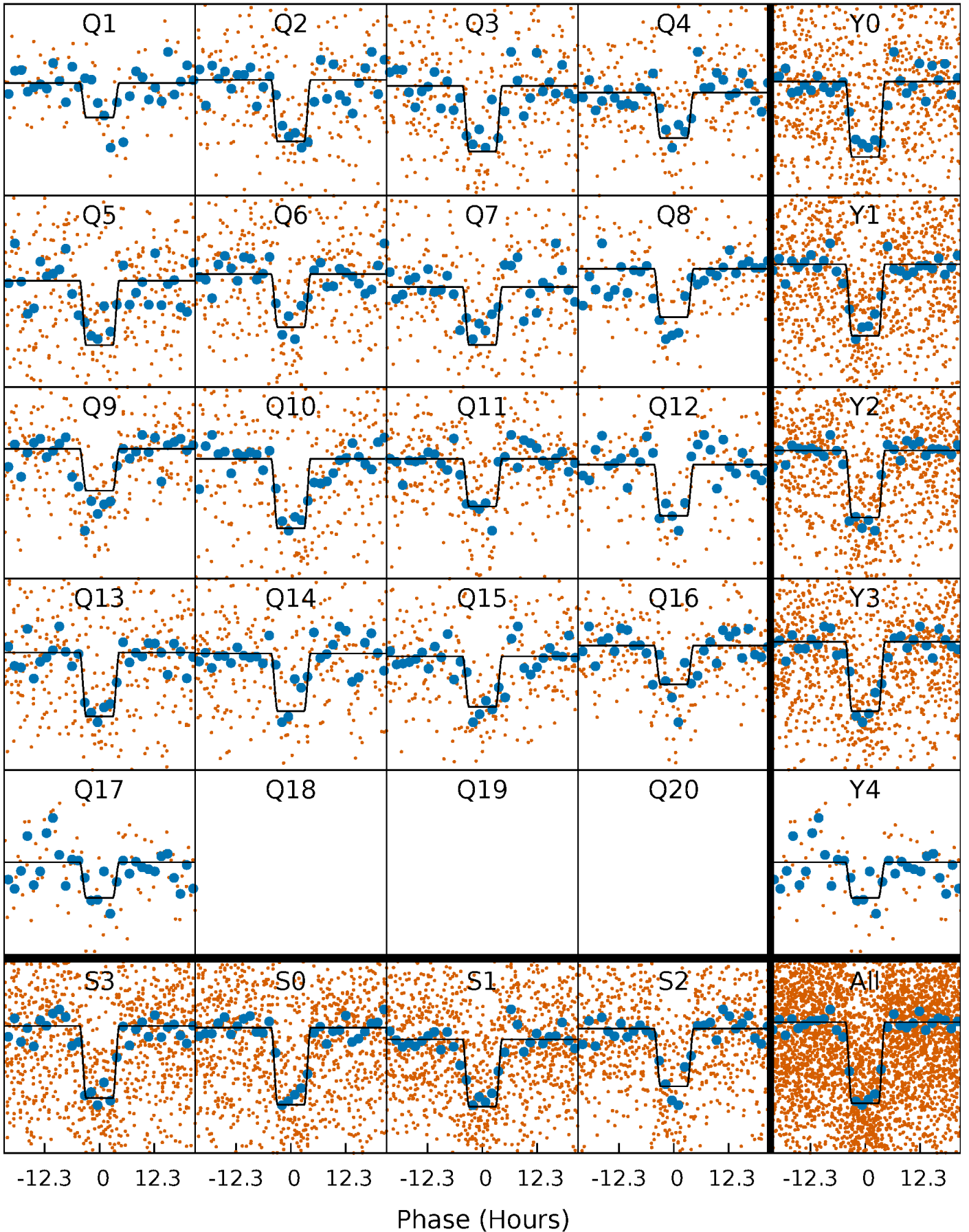
DV Quarter-Phased Transit Curves

TCE 005963582-01 P= 25.543353 Days $T_0=140.586909$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

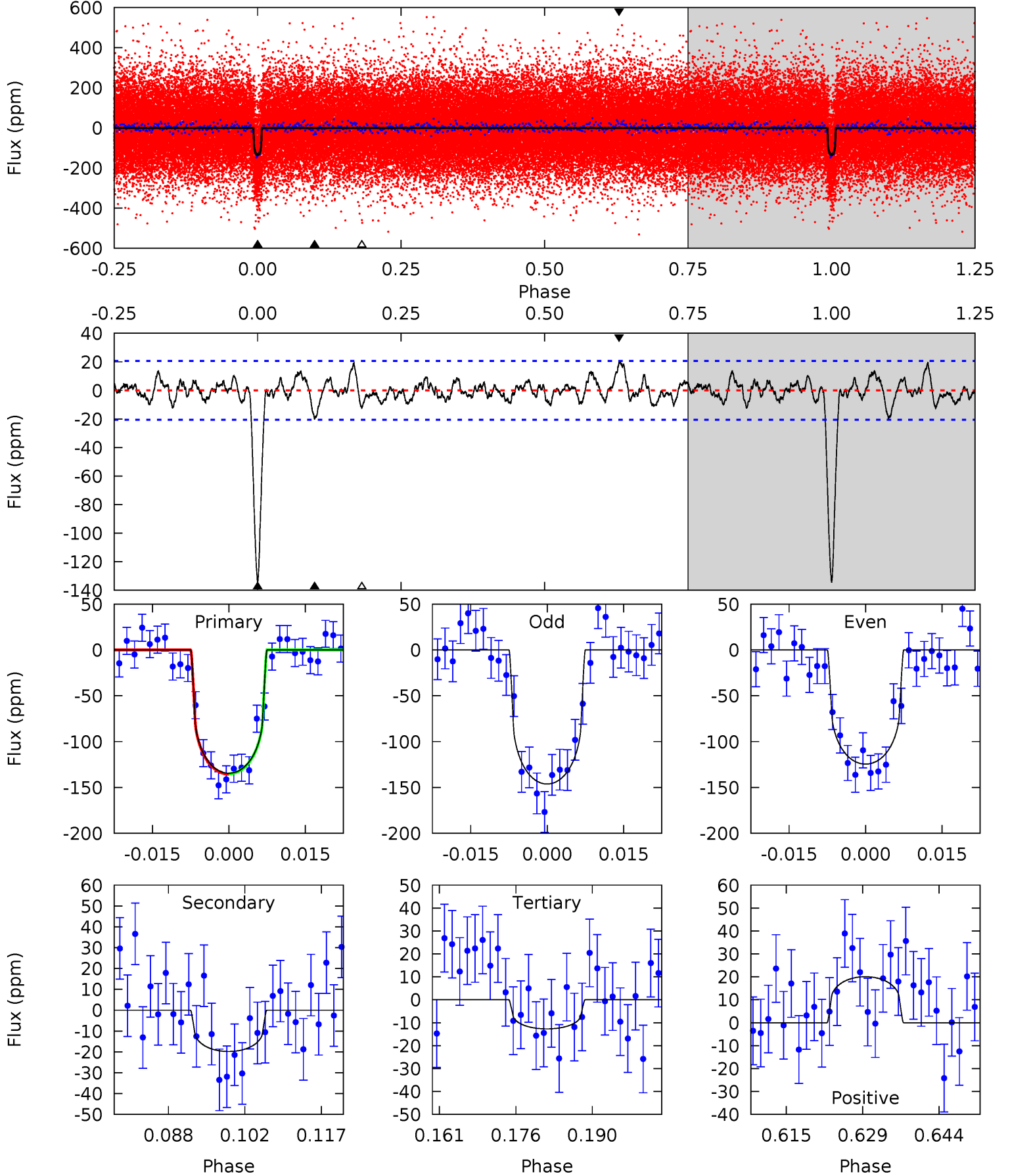
TCE 005963582-01 P= 25.543467 Days $T_0=140.586910$ (BKJD)



DV Model-Shift Uniqueness Test

005963582-01, $P = 25.543353$ Days, $E = 115.043556$ Days

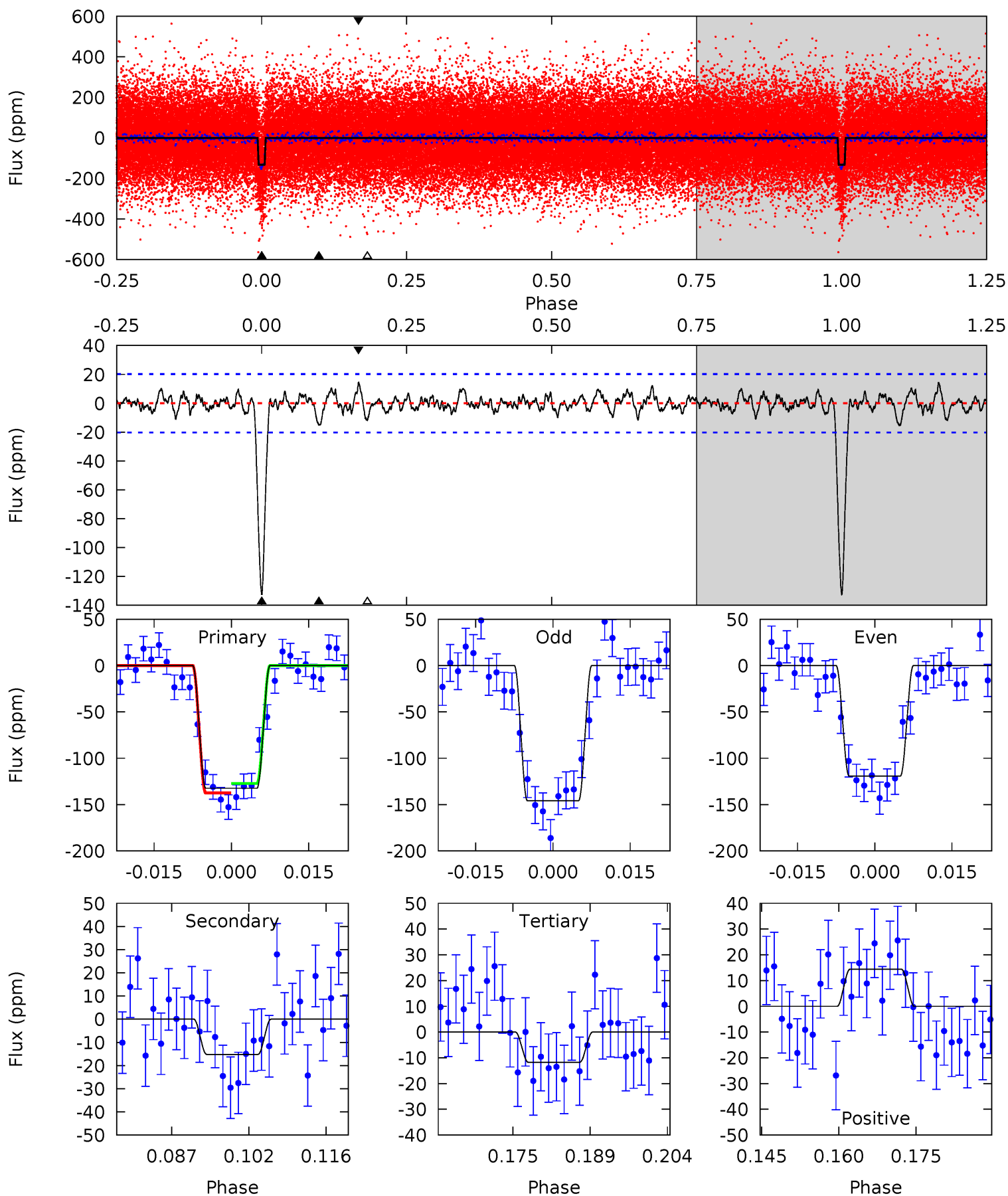
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.3	4.76	3.05	4.81	4.95	2.44	1.38	29.2	27.5	1.71	-0.05	2.61	0.98	0.13	0.04



Alt Model-Shift Uniqueness Test

005963582-01, $P = 25.543467$ Days, $E = 115.043443$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.4	3.72	2.88	3.53	4.95	2.44	1.04	29.5	28.9	0.84	0.19	3.26	0.99	0.10	1.25



Stellar Parameters For KIC 005963582

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5422^{+119}_{-98}	$3.945^{+0.162}_{-0.108}$	$0.020^{+0.150}_{-0.150}$	$1.782^{+0.344}_{-0.344}$	$1.020^{+0.133}_{-0.089}$	$0.254^{+0.196}_{-0.087}$
	+2%/-2%	+4%/-3%	+750%/-750%	+19%/-19%	+13%/-9%	+77%/-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 005963582-01 / KOI 2479.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-20 ± 4	$2.15^{+0.81}_{-0.76}$	1074^{+54}_{-58}	3780^{+628}_{-361}	70^{+95}_{-35}
Alt.	-15 ± 4	$2.28^{+0.82}_{-0.79}$	1077^{+52}_{-60}	3549^{+543}_{-342}	47^{+60}_{-24}

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 $A_{obs} \gg 1.0$

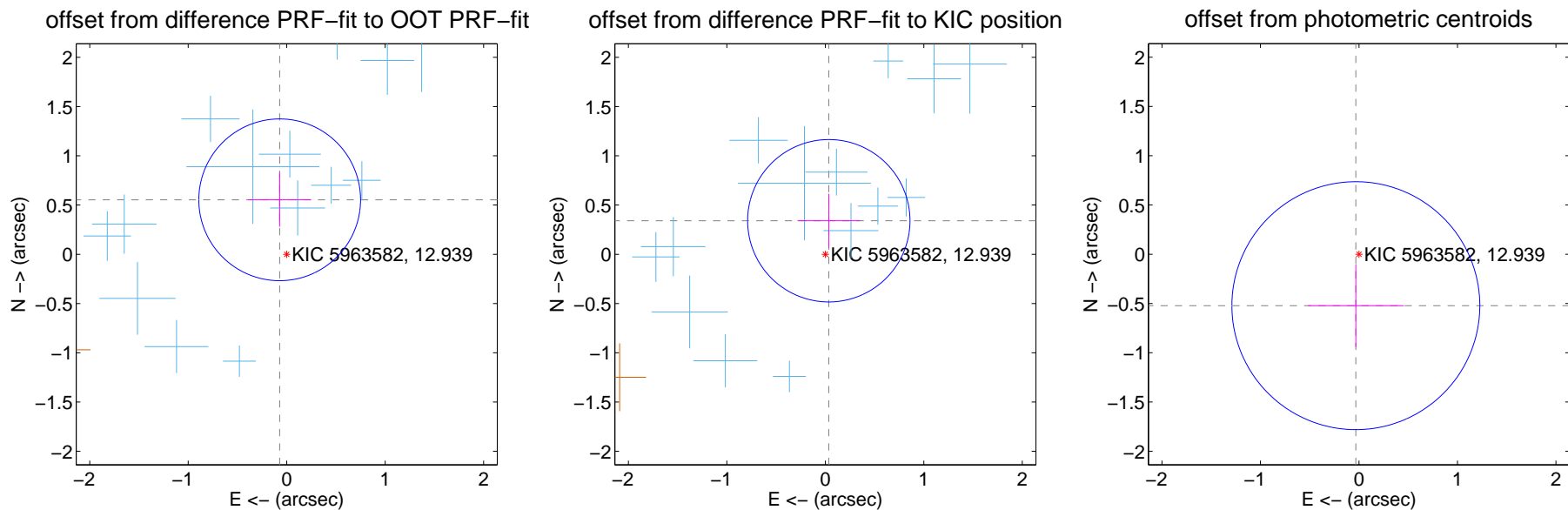
DV Centroid Data

Supplemental centroid analysis for 005963582-01. Kepler magnitude: 12.94. Transit SNR 18.96

There are 15 quarters with good PRF difference image offsets

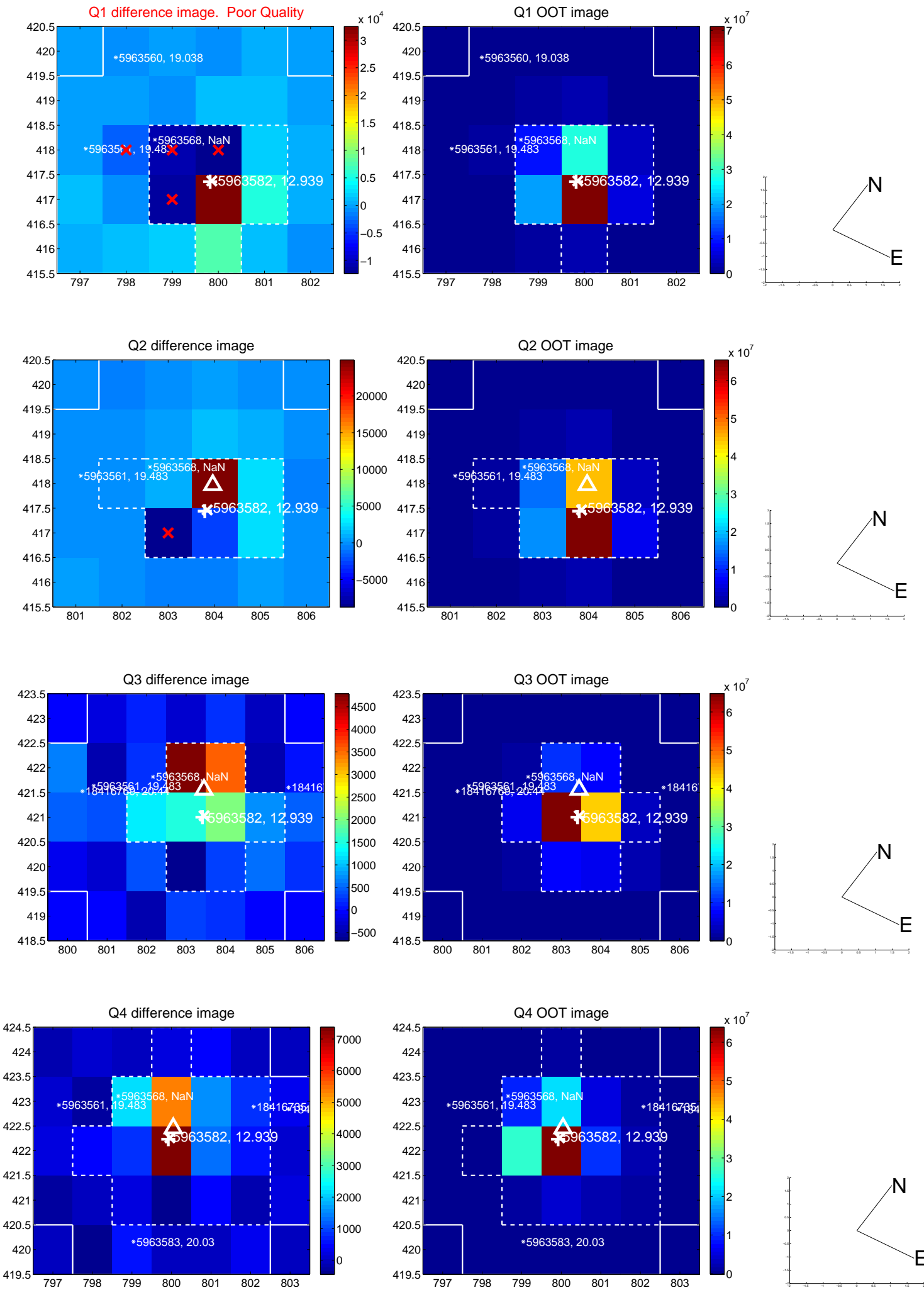
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.558 ± 0.274	2.04	0.071 ± 0.320	0.553 ± 0.273
PRF-fit source offset from KIC position	0.342 ± 0.275	1.25	-0.035 ± 0.318	0.341 ± 0.274
photometric centroid source offset	0.52 ± 0.42	1.25	0.03 ± 0.49	-0.52 ± 0.42

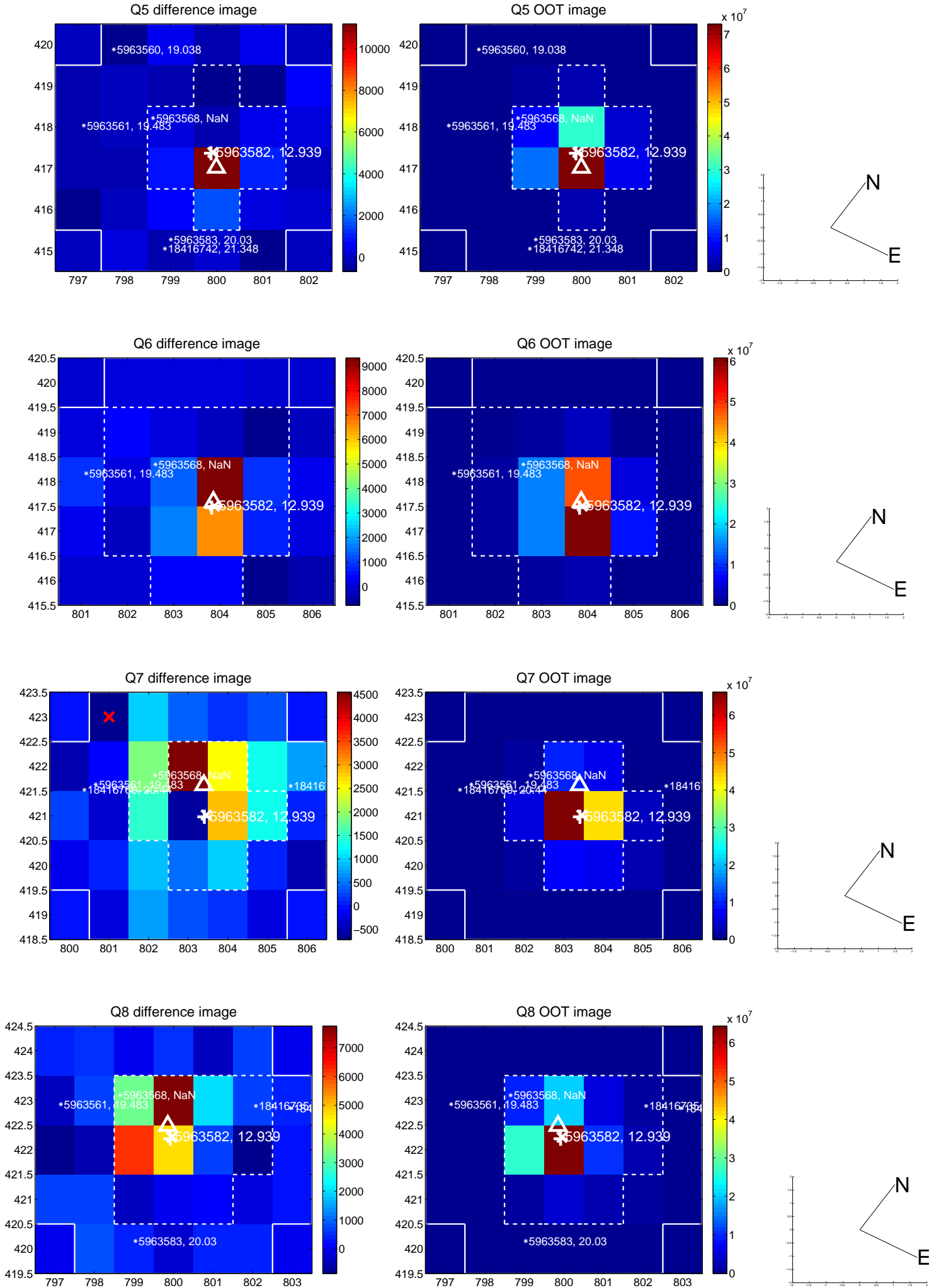


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

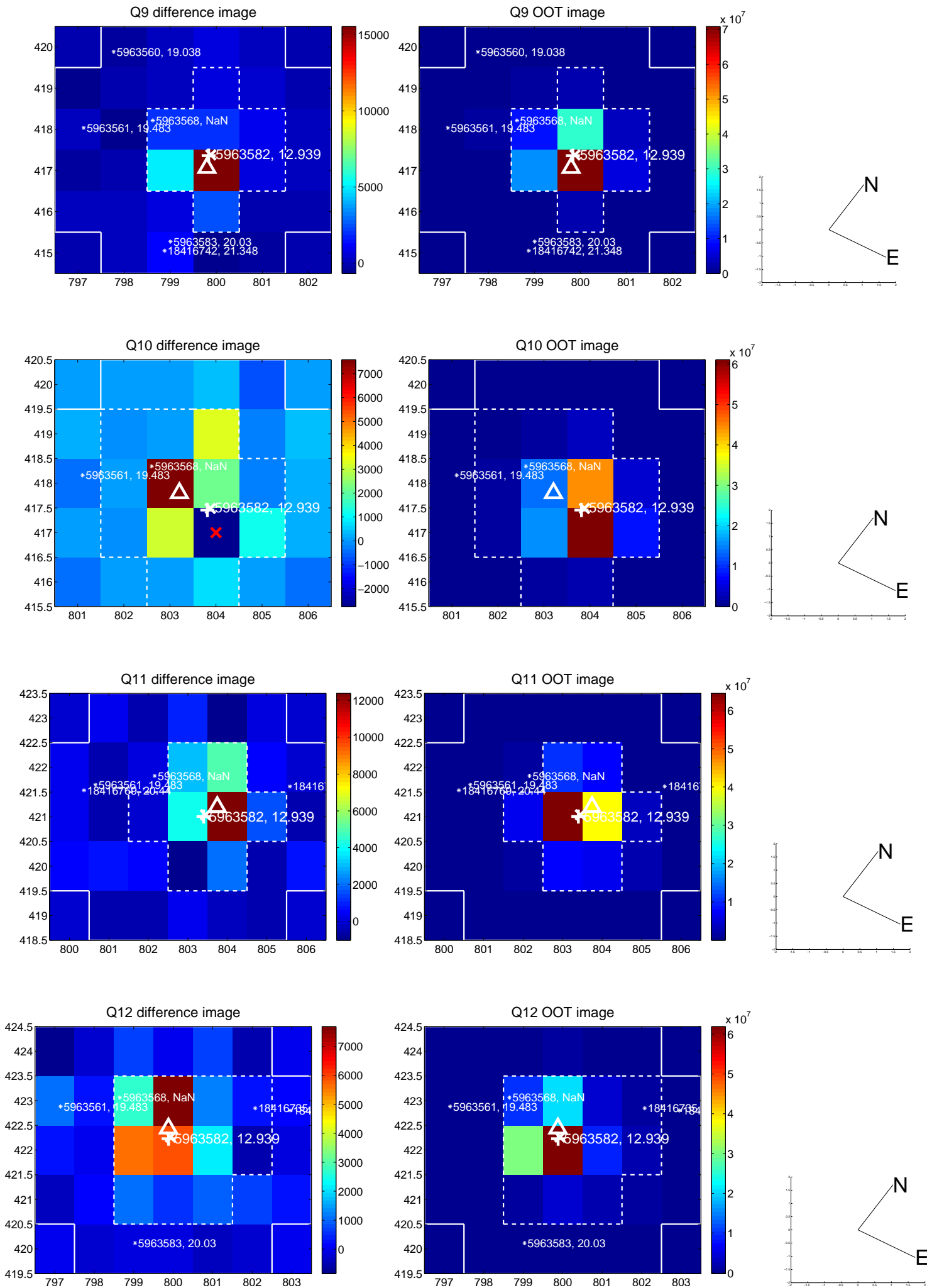
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



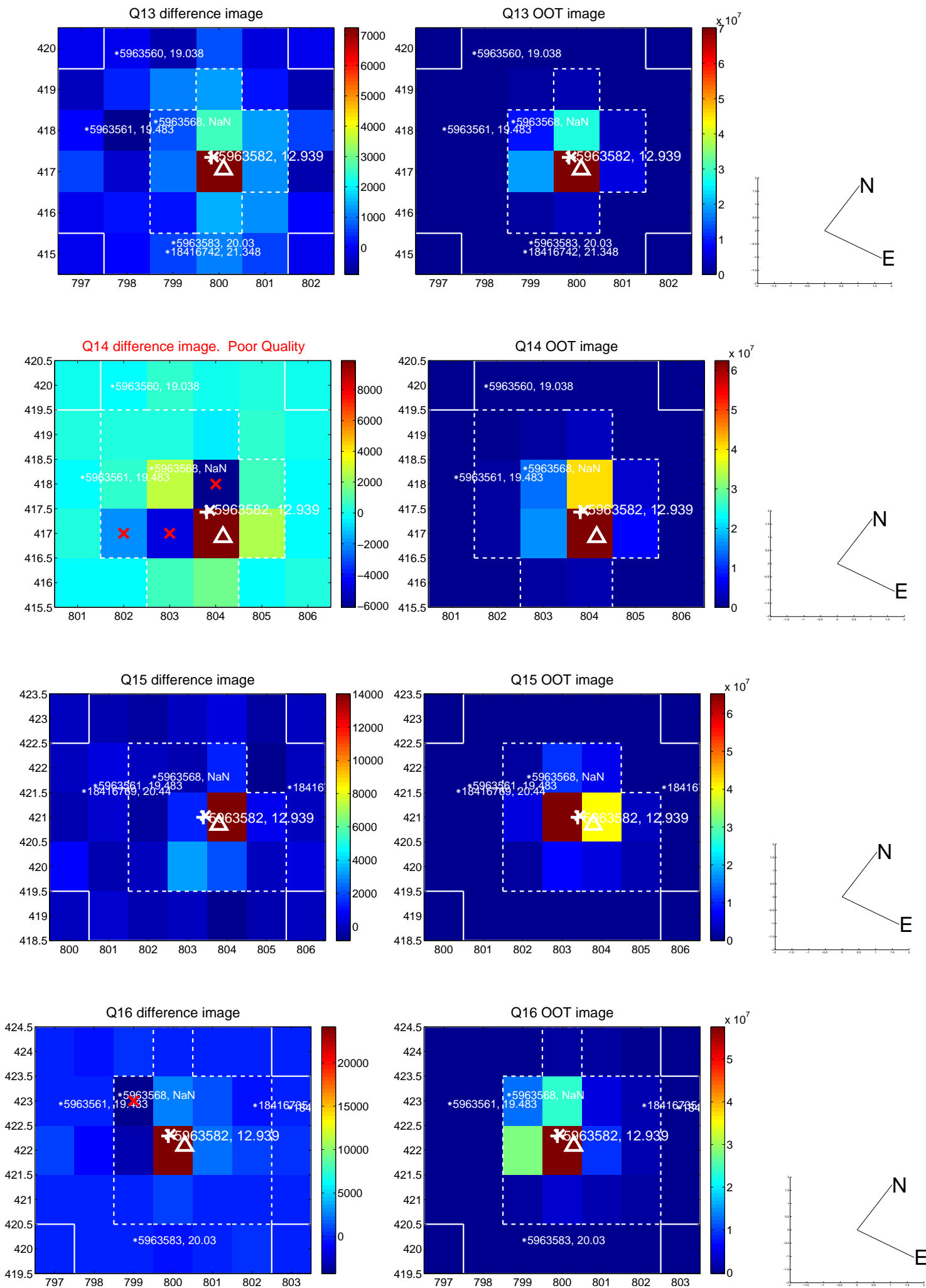
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



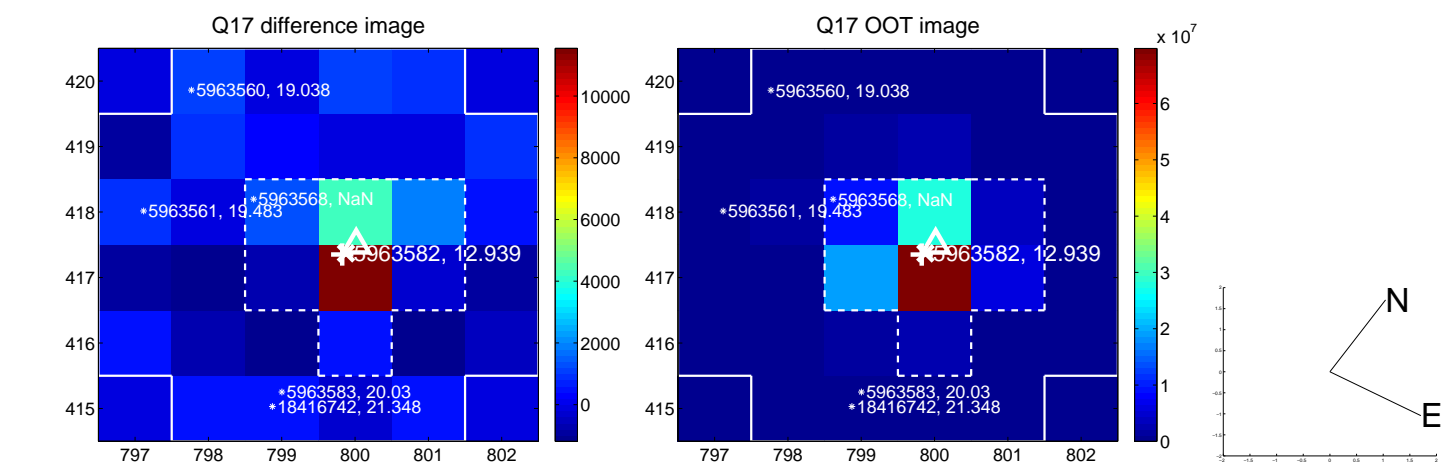
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



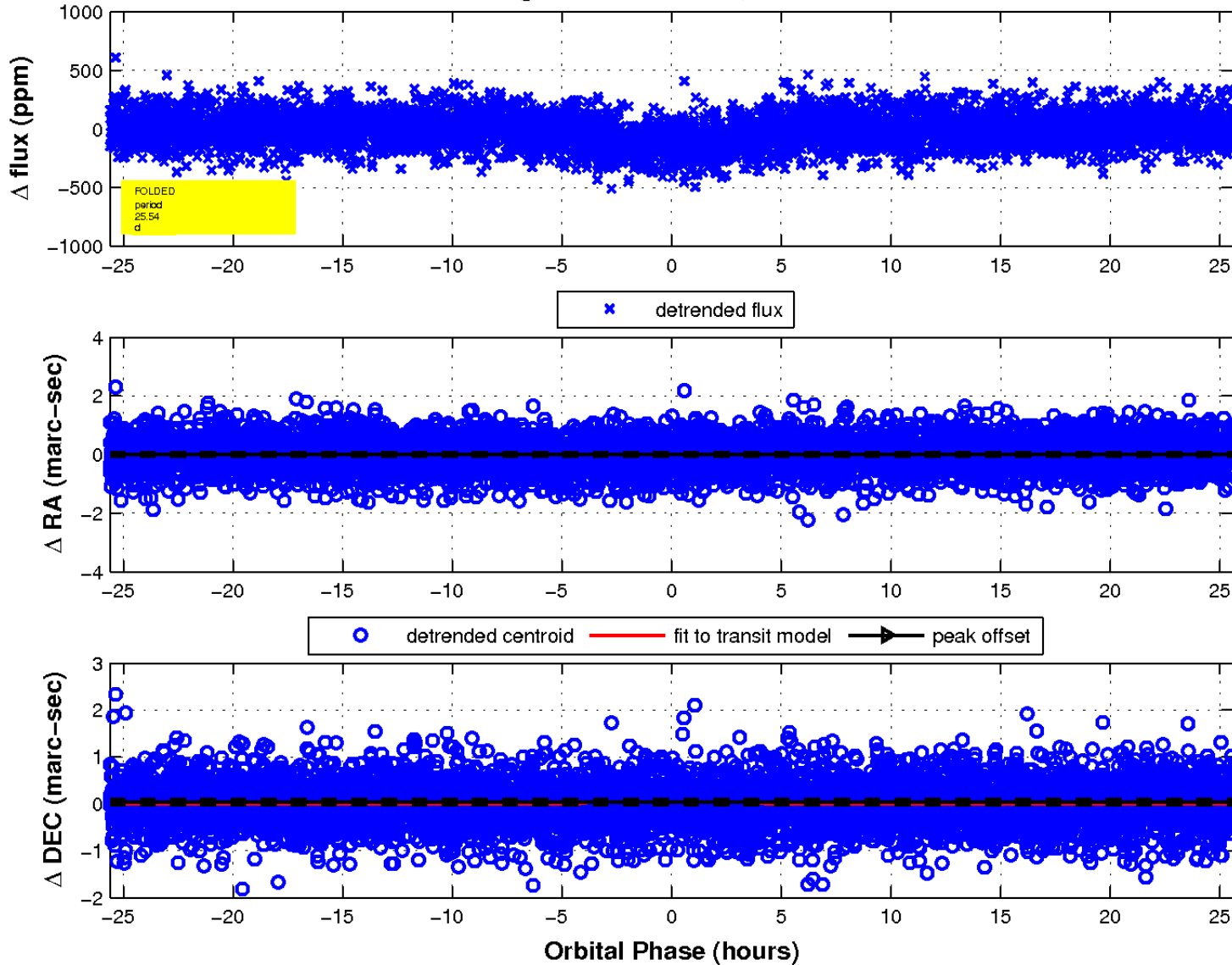
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

