

KIC 011572193

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})
011572193-01	OBS	3109.01	10.676125	140.590515	138.5	4.750	13.9	14.5	1.43	6460	1.97	286.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011572193-01	OBS	PC	0.99	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.

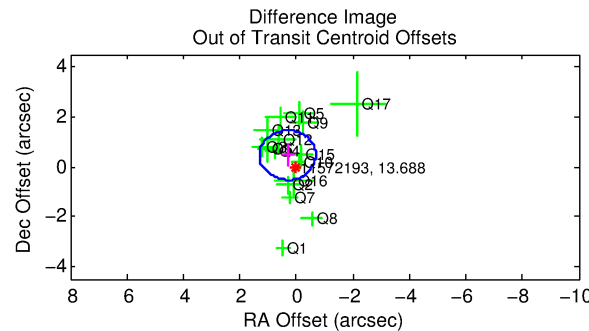
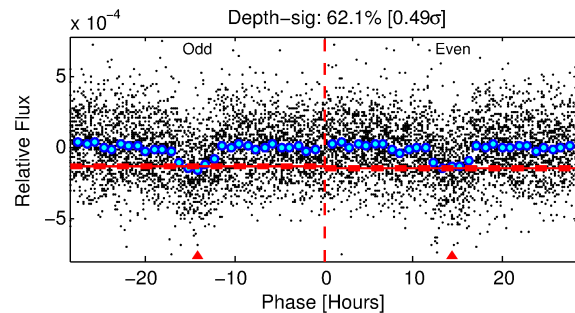
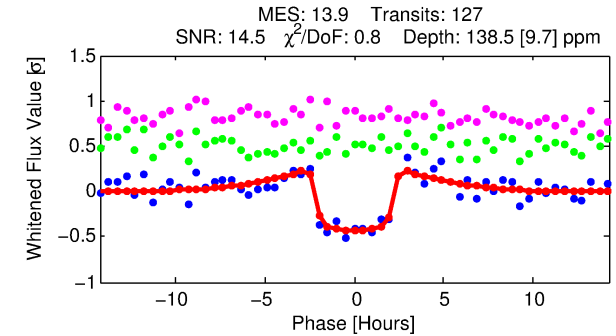
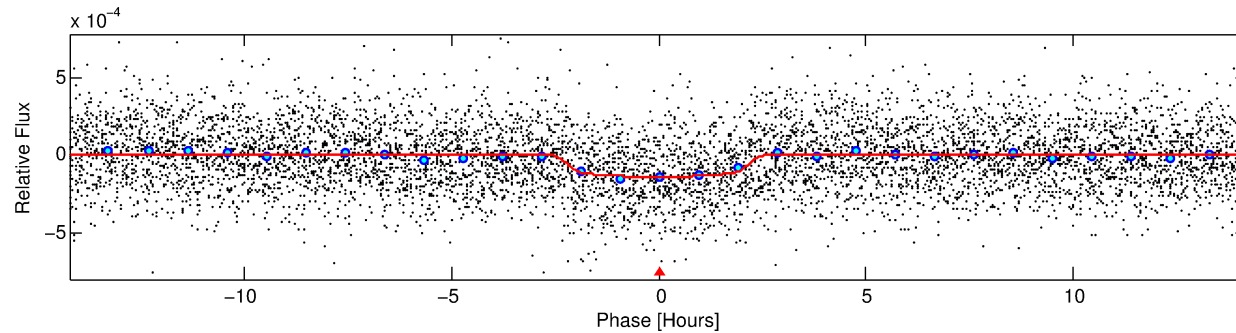
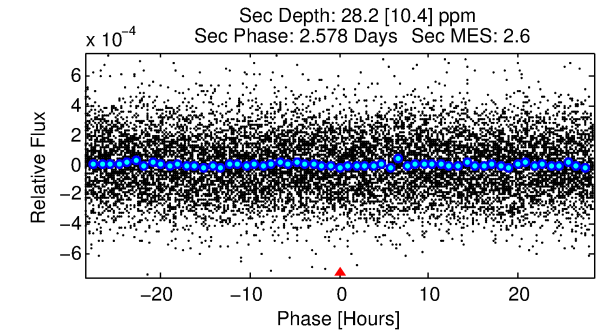
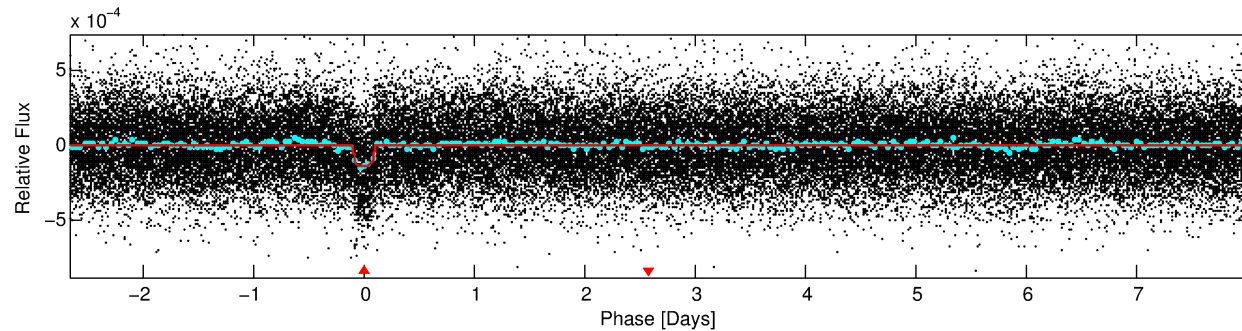
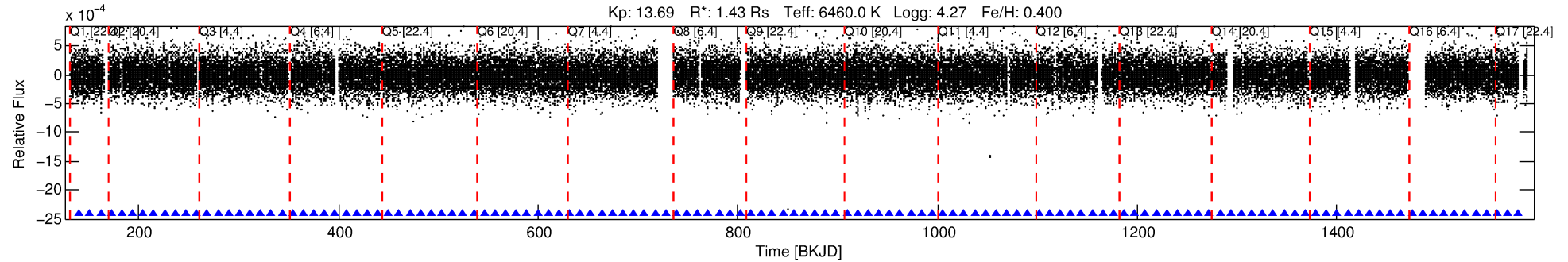
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011572193-01

No Significant Match Found

DV One-Page Summary

KIC: 11572193 Candidate: 1 of 1 Period: 10.676 d
KOI: K03109.01 Corr: 0.978



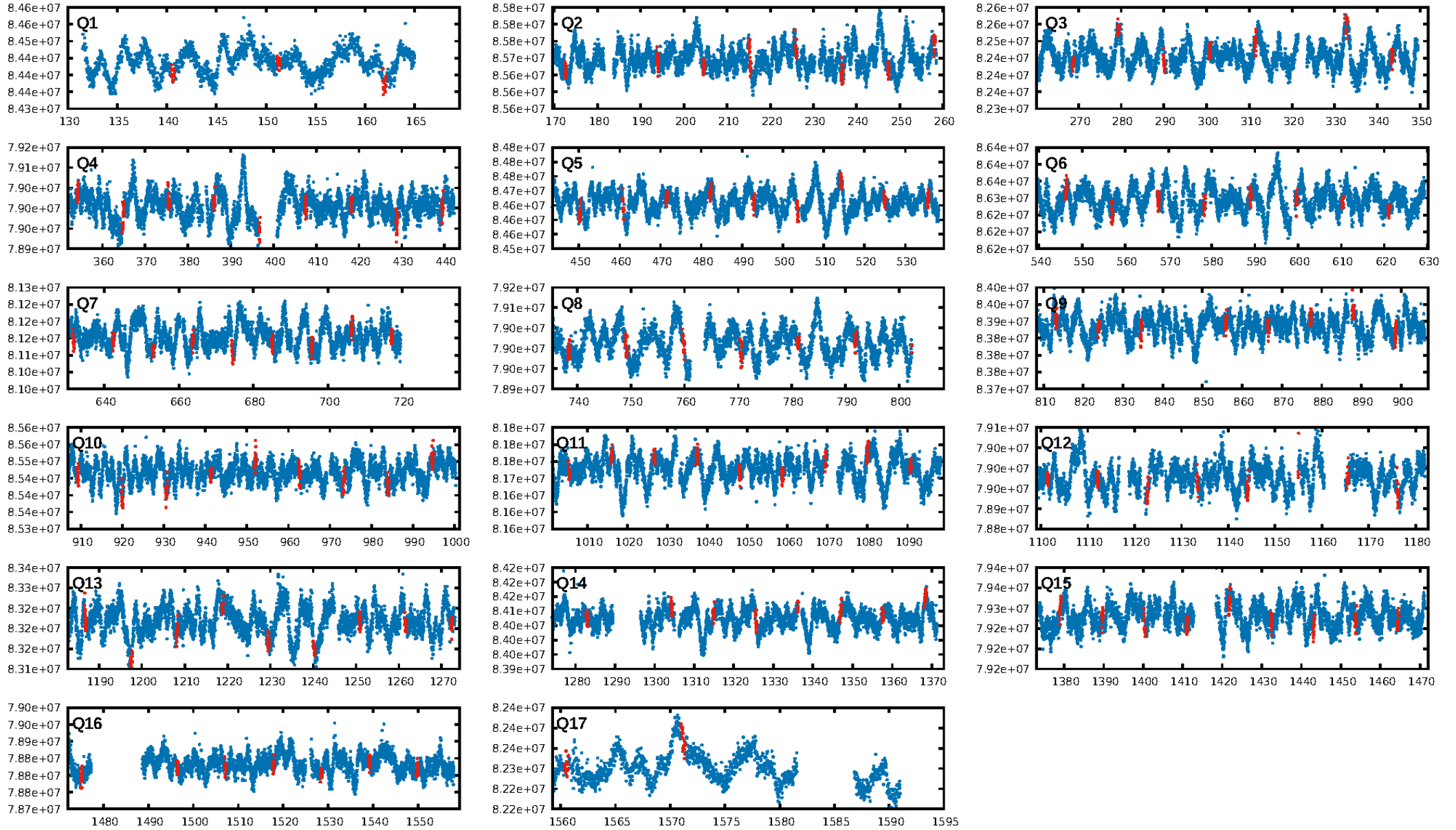
DV Fit Results:

Period = 10.67612 [0.00006] d
Epoch = 140.5905 [0.0044] BKJD
Rp/R* = 0.0126 [0.0025]
a/R* = 8.30 [8.52]
b = 0.89 [0.24]
Seff = 286.40 [70.58]
Teq = 1049 [65] K
Rp = 1.97 [0.53] Re
a = 0.1058 [0.0164] AU
Ag = 44.86 [26.52] [1.65σ]
Teffp = 4197 [579] K [5.41σ]

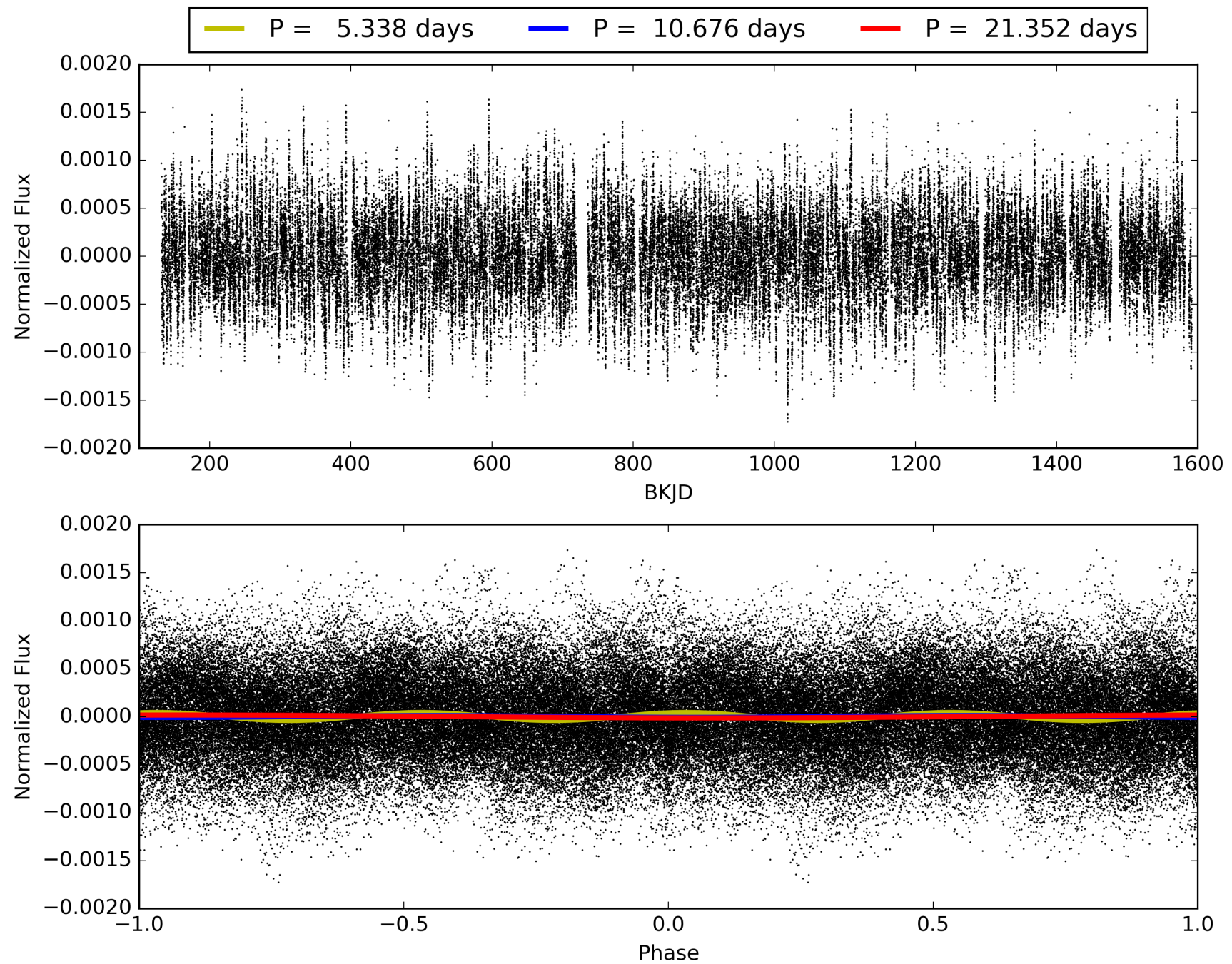
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.11e-44
RollingBand-fgt: 1.00 [122/122]
GhostDiagnostic-chr: 1.615
Centroid-sig: 86.2%
Centroid-so: 0.681 arcsec [1.21σ]
OotOffset-rm: 0.558 arcsec [1.68σ]
KicOffset-rm: 0.568 arcsec [1.87σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011572193-01, PDC Light Curves

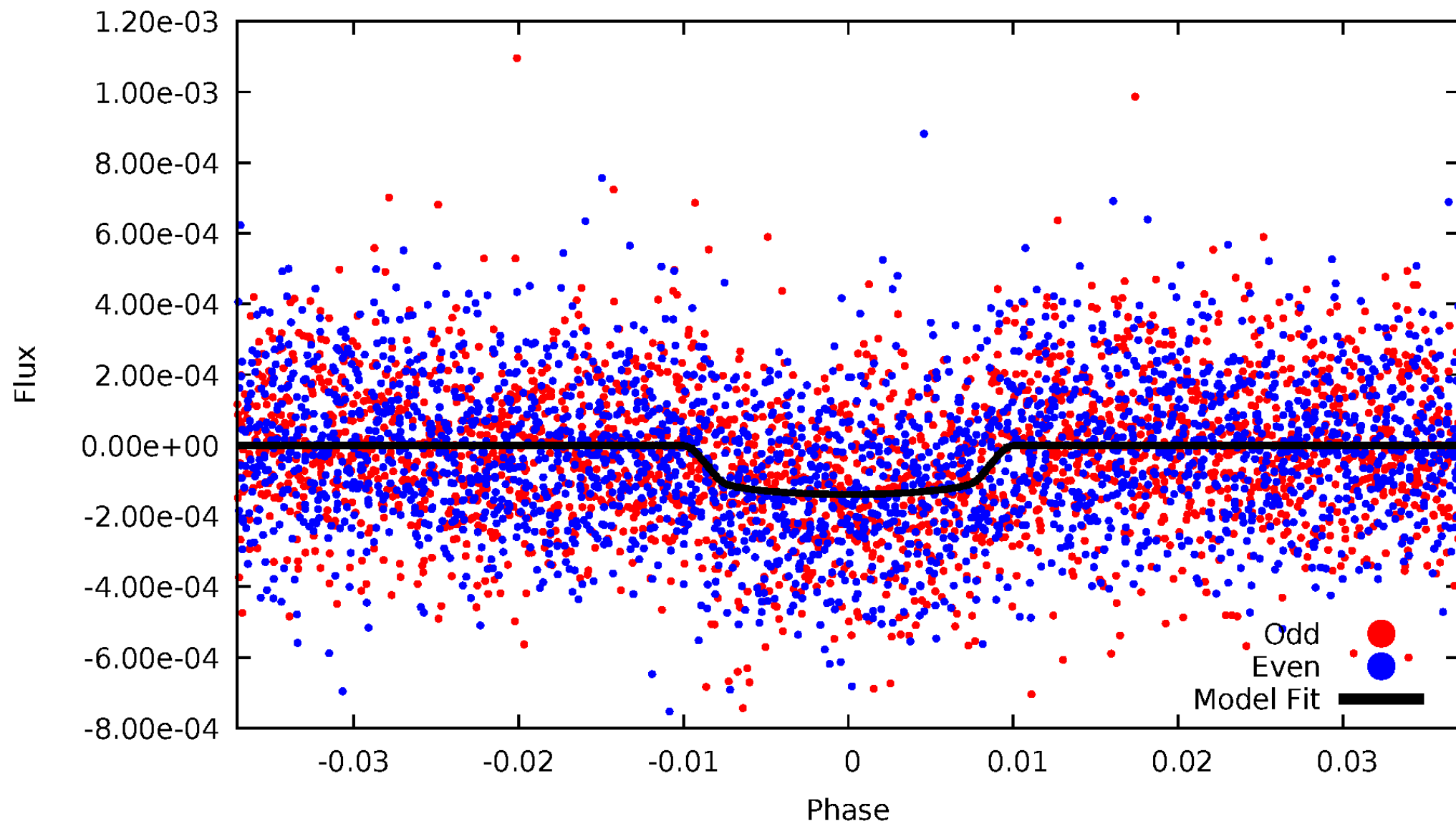


TCE 011572193-01



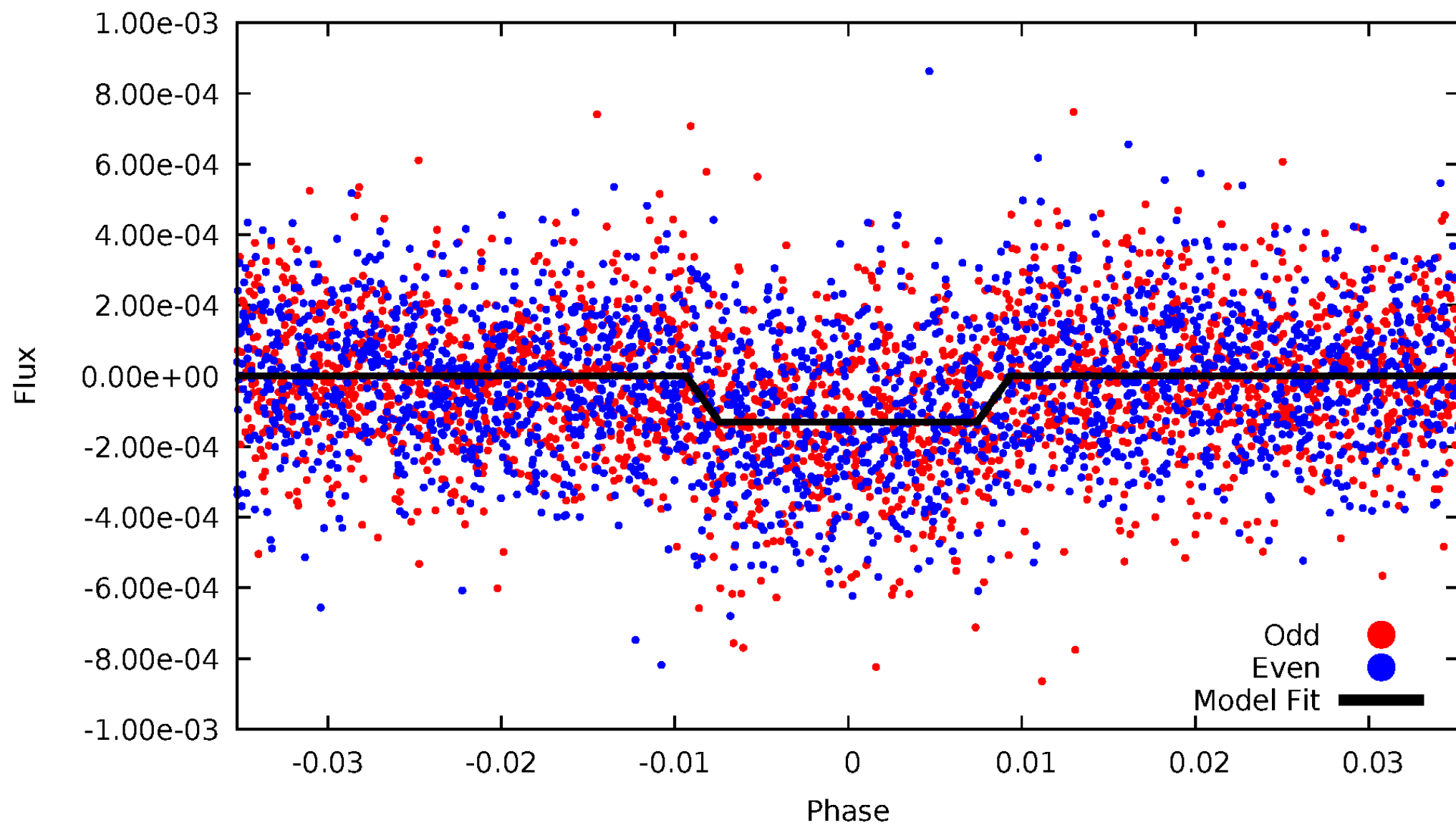
DV Odd/Even

TCE 011572193-01

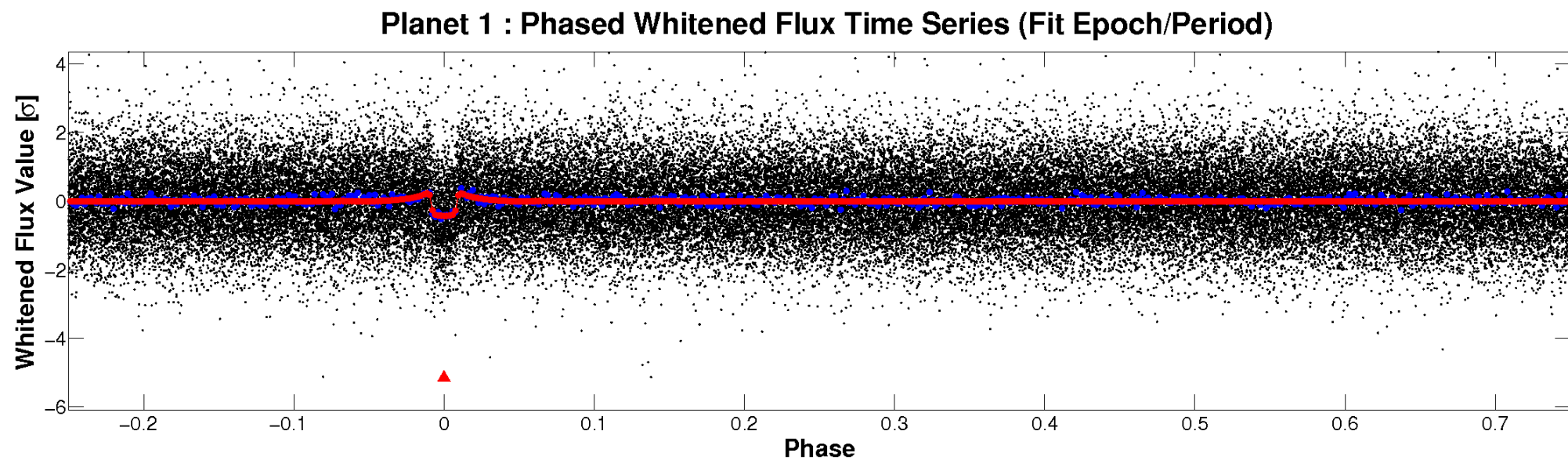
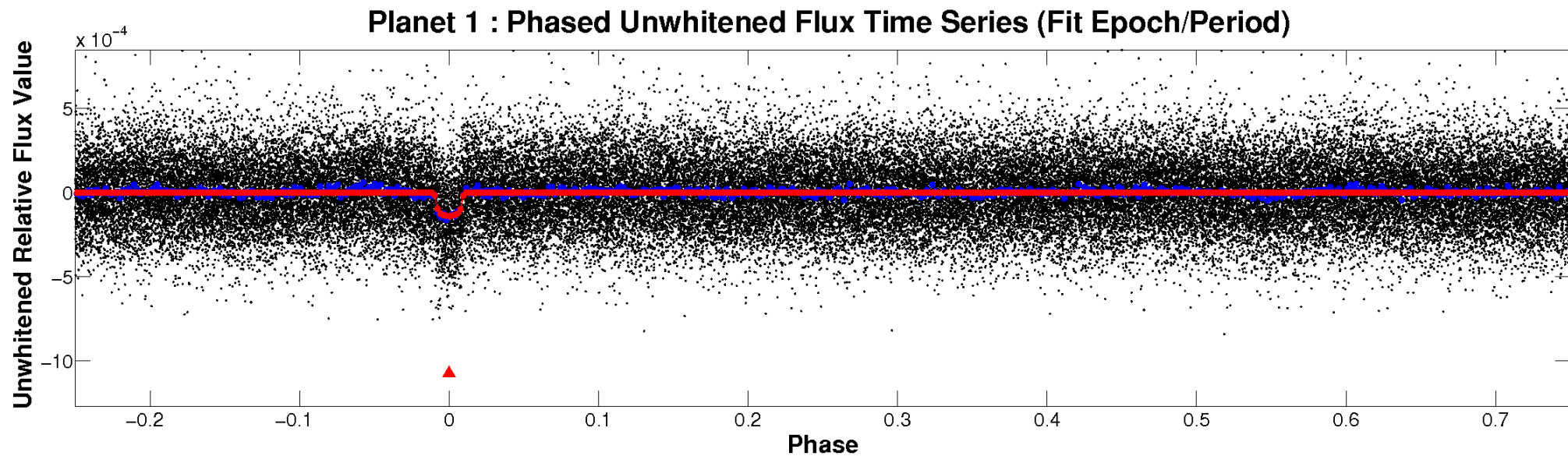


ALT Odd/Even

TCE 011572193-01

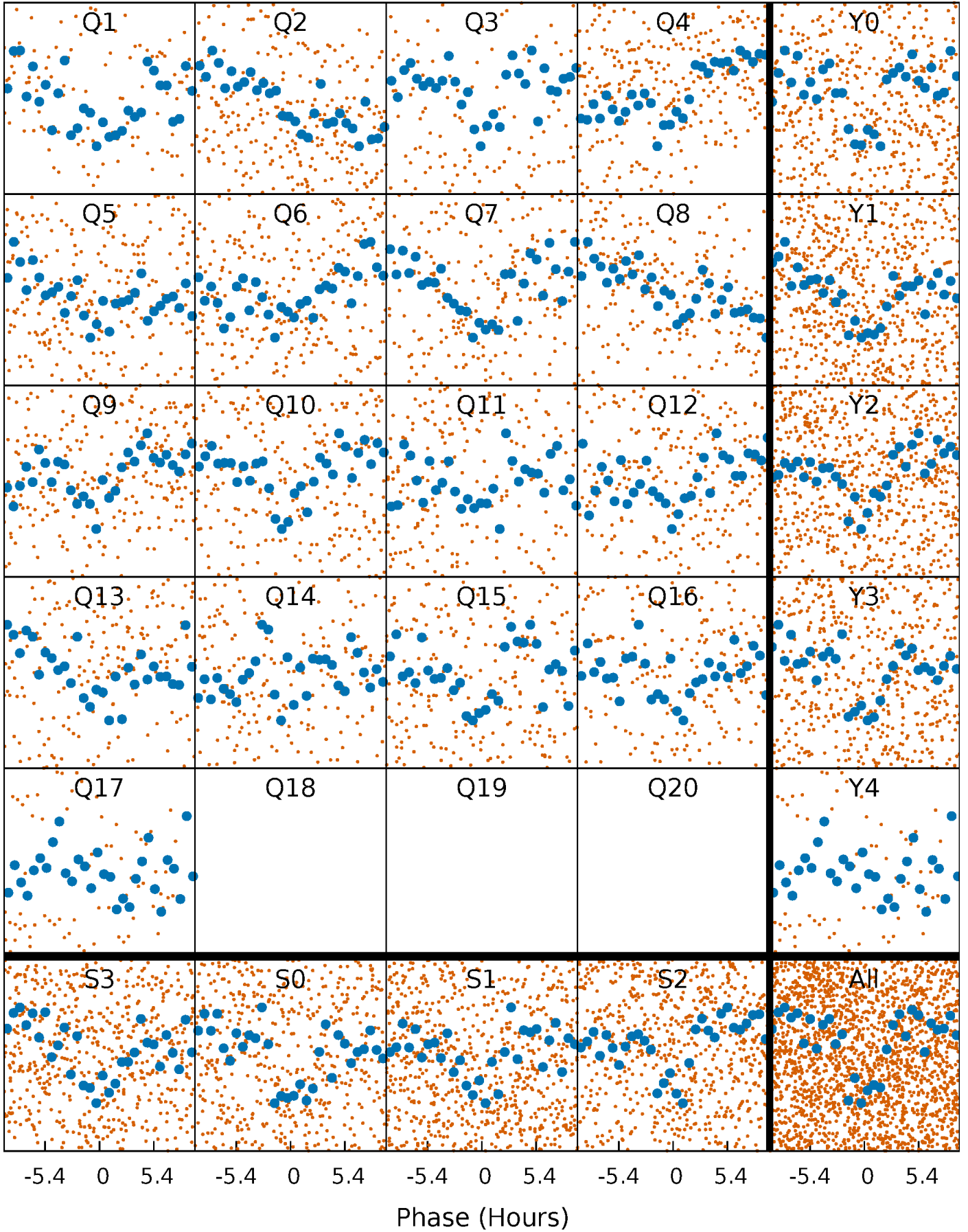


Non-Whitened Vs. Whitened Light Curve



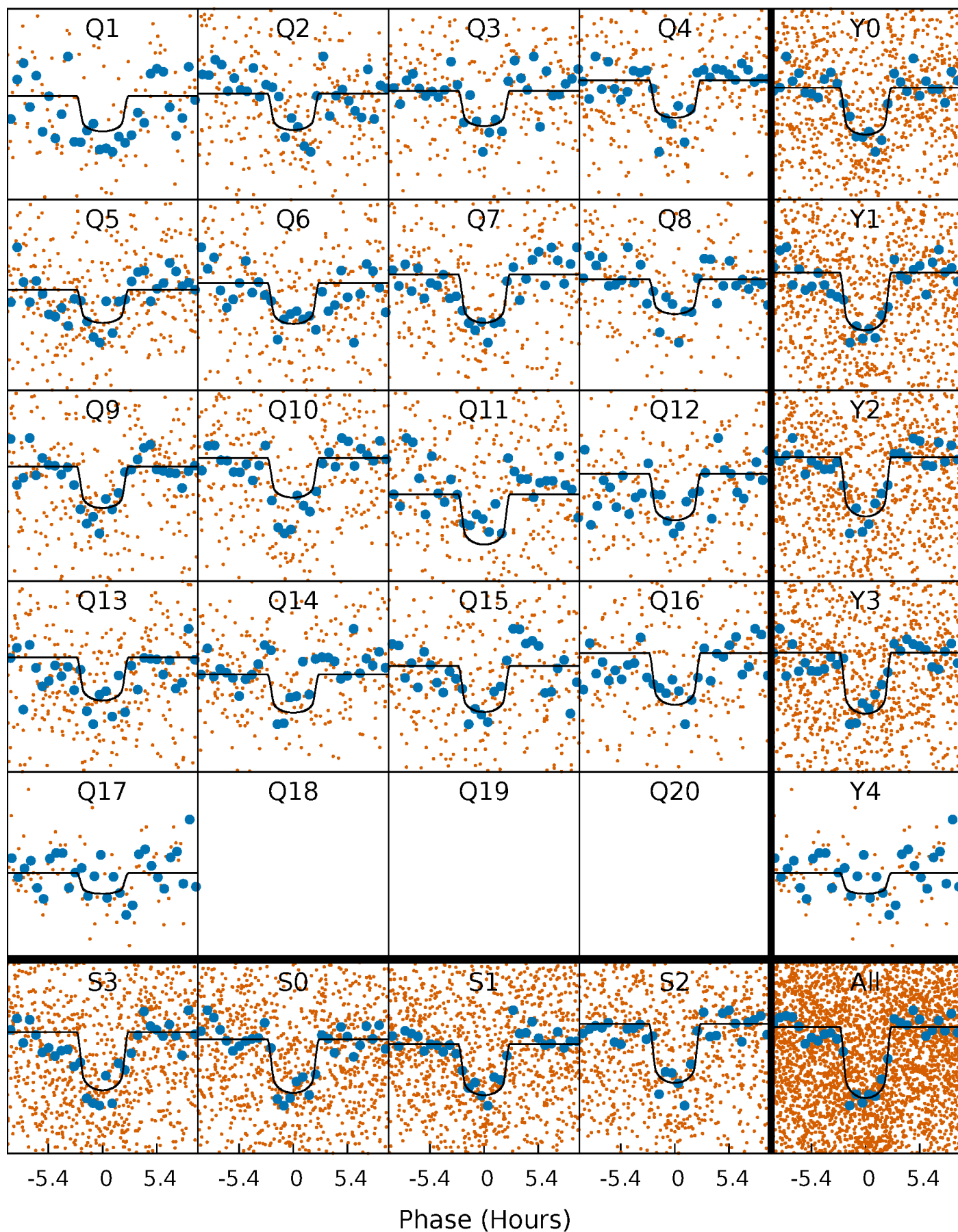
PDC Quarter-Phased Transit Curves

TCE 011572193-01 P= 10.676125 Days $T_0=140.590515$ (BKJD)



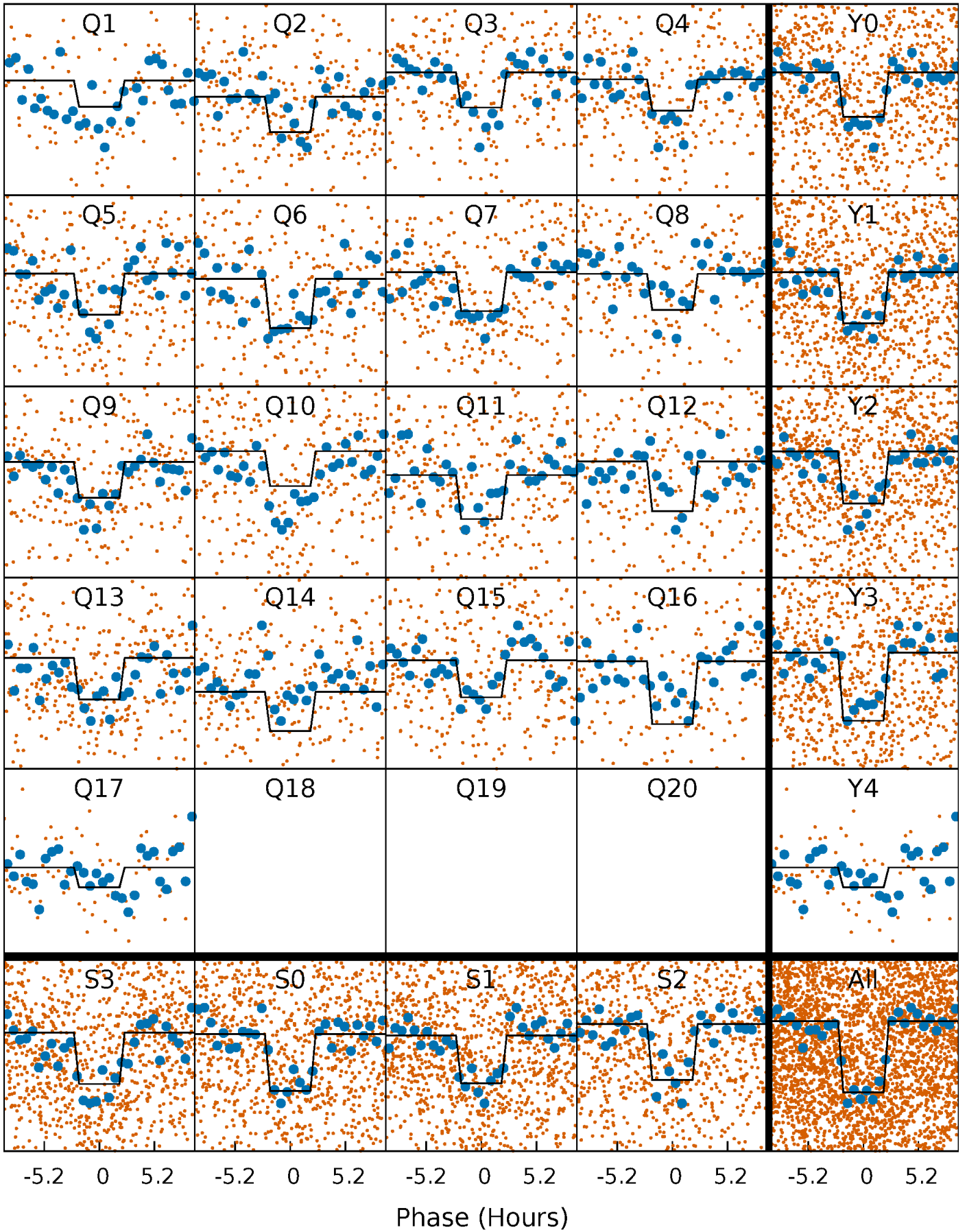
DV Quarter-Phased Transit Curves

TCE 011572193-01 P= 10.676125 Days $T_0=140.590515$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

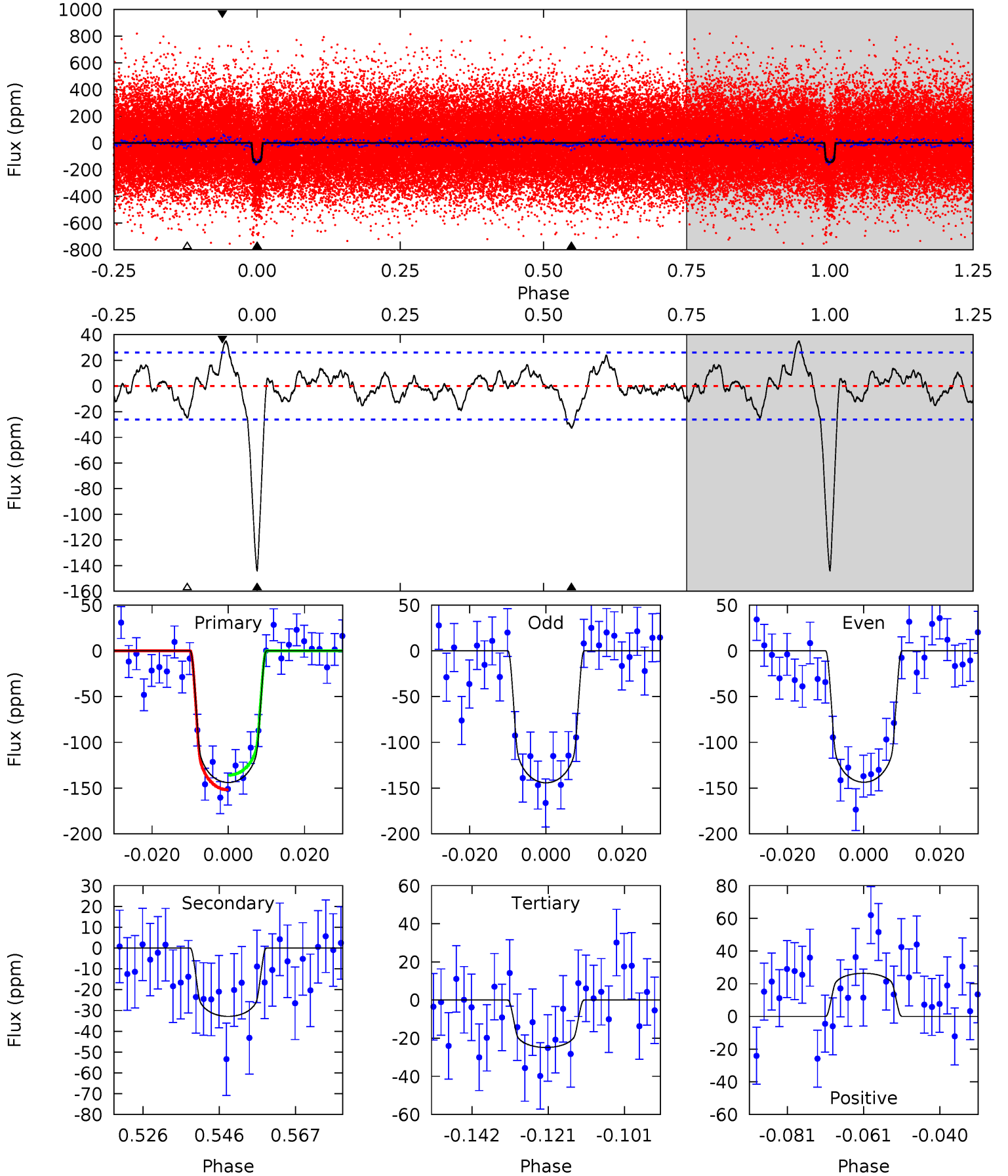
TCE 011572193-01 P= 10.676059 Days $T_0=140.594669$ (BKJD)



DV Model-Shift Uniqueness Test

011572193-01, $P = 10.676125$ Days, $E = 129.914390$ Days

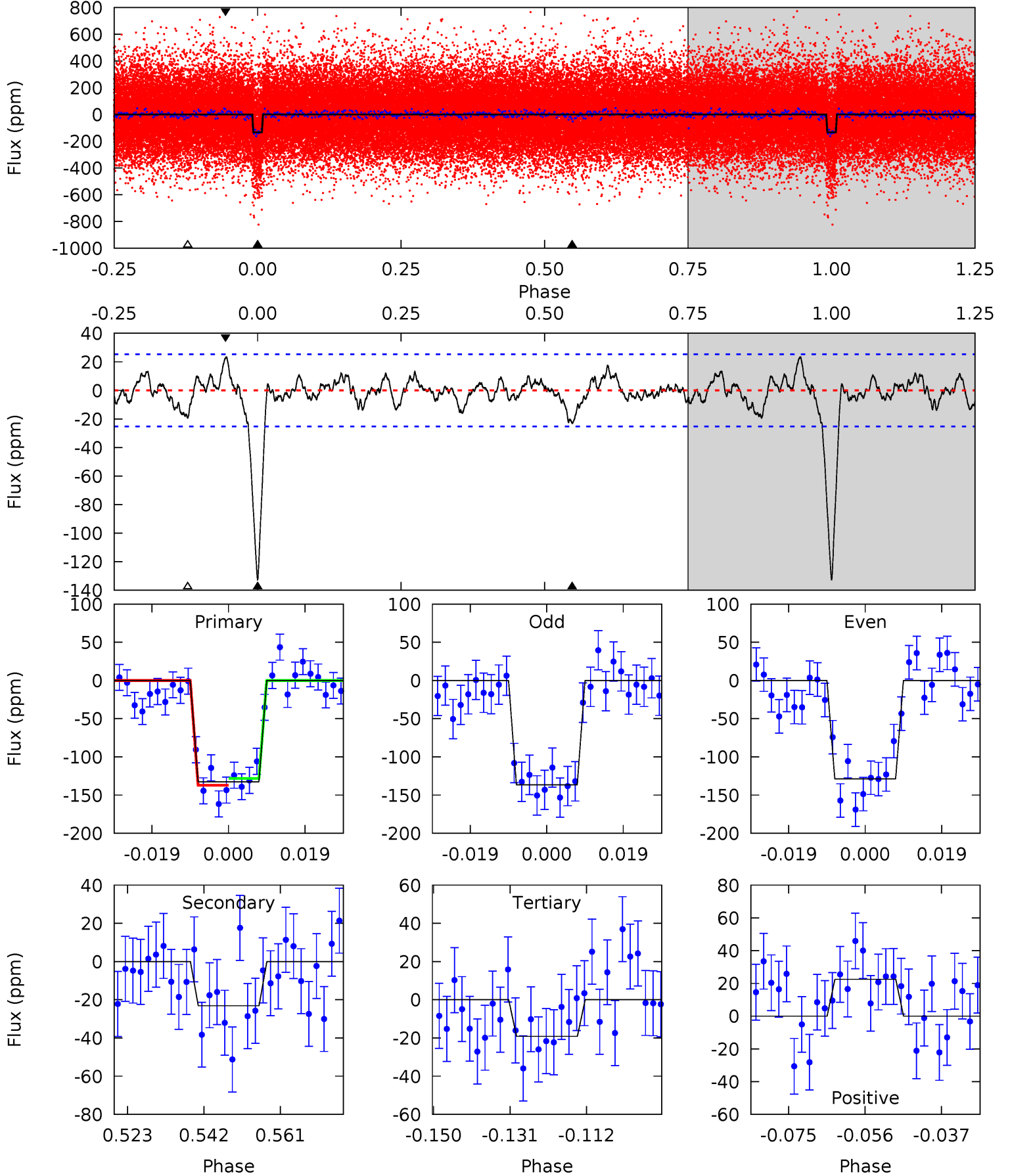
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.9	6.15	4.65	4.93	4.89	2.32	1.72	22.3	22.0	1.49	1.21	0.06	0.94	0.20	1.50



Alt Model-Shift Uniqueness Test

011572193-01, $P = 10.676059$ Days, $E = 129.918610$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.8	4.48	3.72	4.37	4.90	2.35	1.32	22.0	21.4	0.77	0.11	0.75	0.99	0.15	0.86



Stellar Parameters For KIC 011572193

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6460^{+116}_{-141}	$4.267^{+0.040}_{-0.128}$	$0.400^{+0.050}_{-0.150}$	$1.434^{+0.259}_{-0.111}$	$1.388^{+0.094}_{-0.077}$	$0.662^{+0.117}_{-0.244}$
	+2%/-2%	+1%/-3%	+12%/-37%	+18%/-8%	+7%/-6%	+18%/-37%
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 011572193-01 / KOI 3109.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-33 ± 5	$2.05^{+0.45}_{-0.44}$	1482^{+68}_{-46}	4517^{+457}_{-351}	49^{+31}_{-17}
Alt.	-23 ± 5	$1.85^{+0.41}_{-0.41}$	1479^{+65}_{-46}	4388^{+451}_{-369}	42^{+28}_{-15}

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

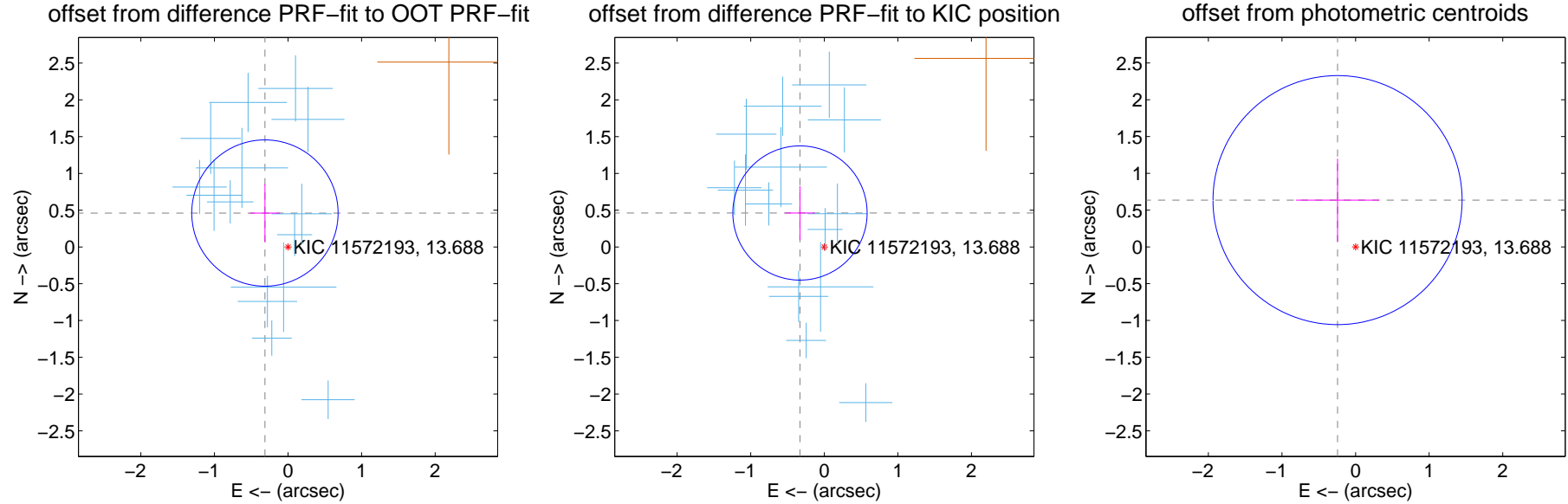
DV Centroid Data

Supplemental centroid analysis for 011572193-01. Kepler magnitude: 13.69. Transit SNR 14.46

There are 15 quarters with good PRF difference image offsets

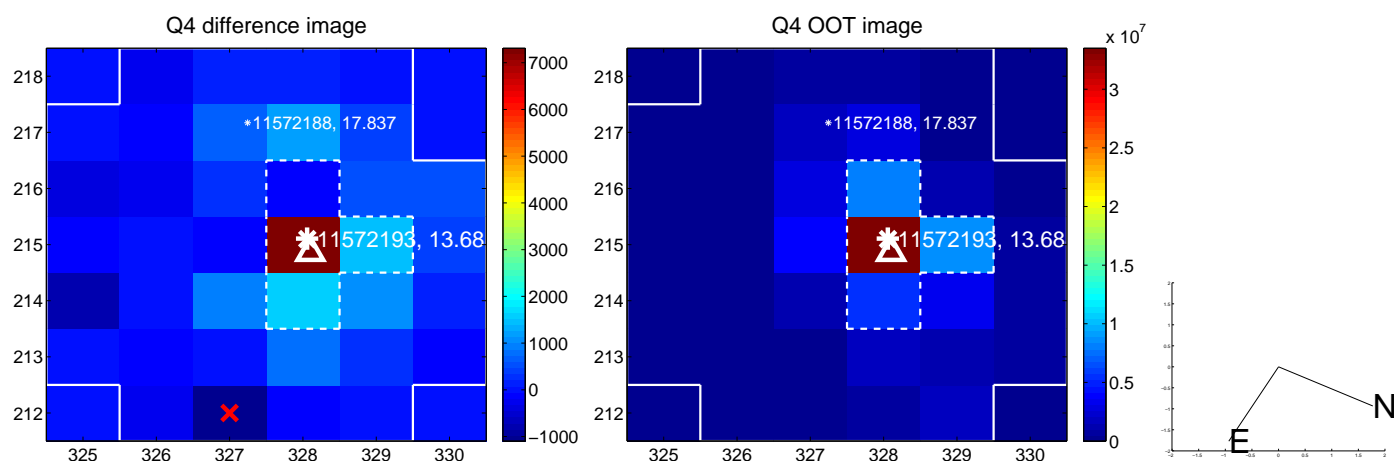
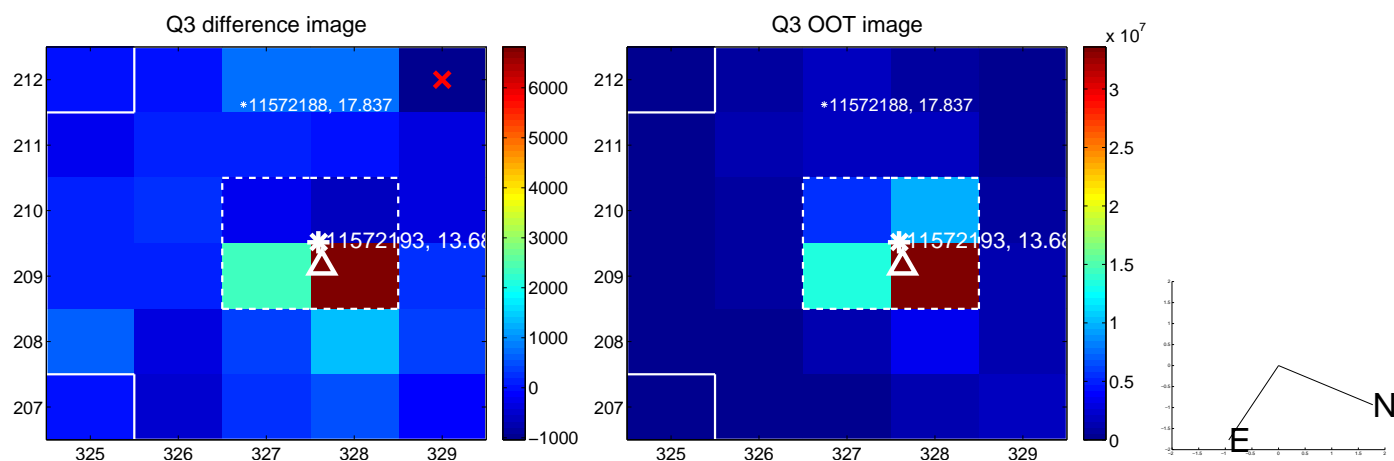
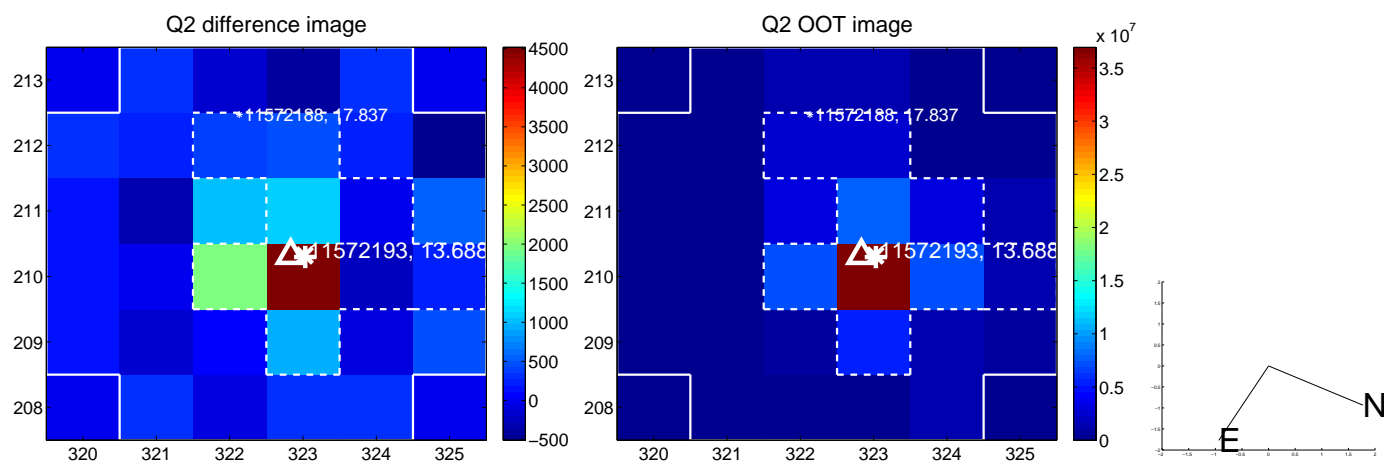
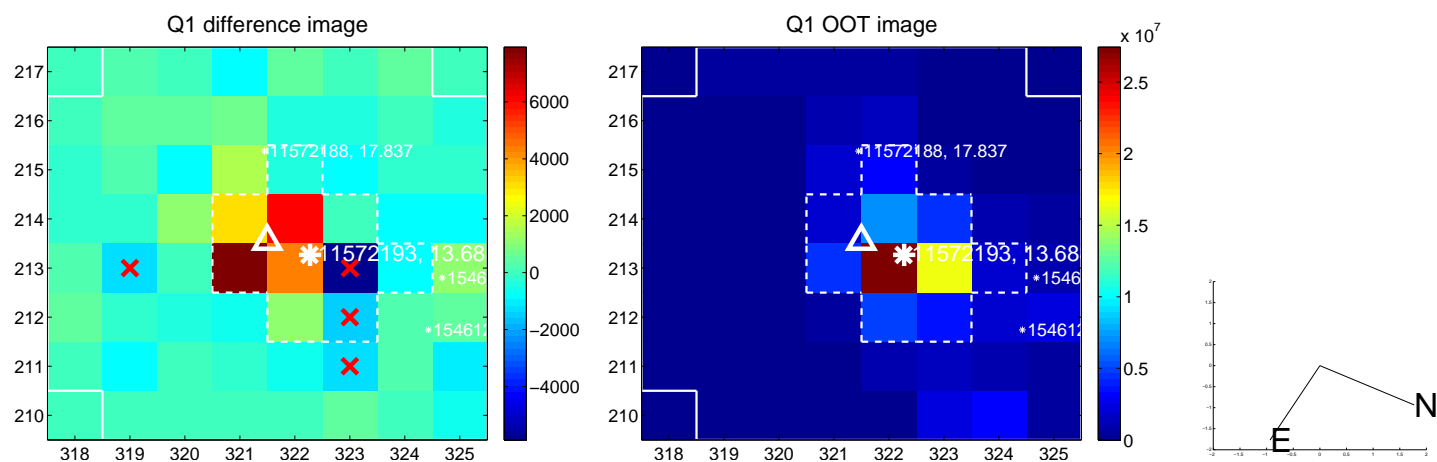
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.558 ± 0.331	1.68	0.314 ± 0.205	0.461 ± 0.393
PRF-fit source offset from KIC position	0.568 ± 0.304	1.87	0.330 ± 0.201	0.462 ± 0.366
photometric centroid source offset	0.68 ± 0.56	1.21	0.24 ± 0.57	0.64 ± 0.56

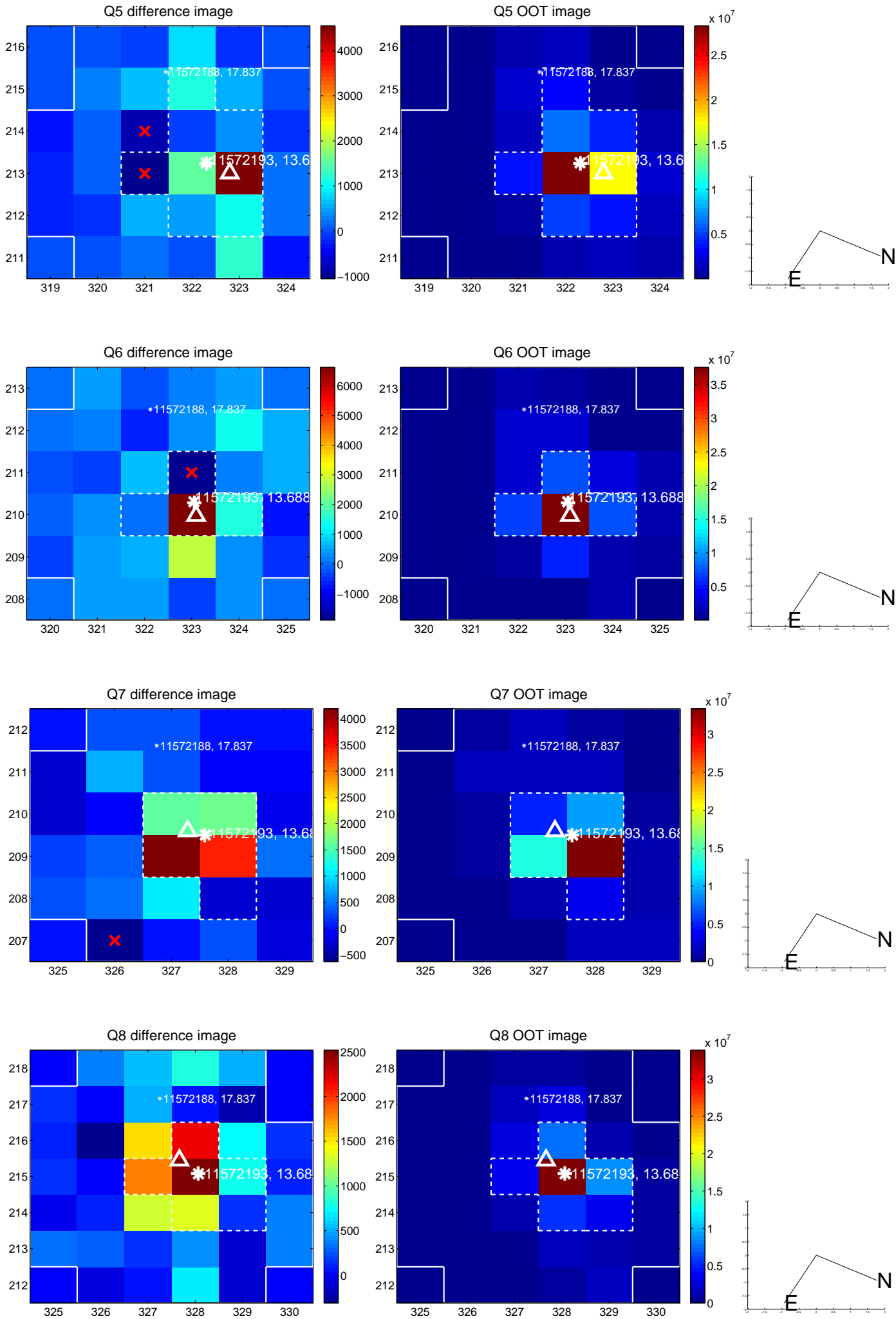


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

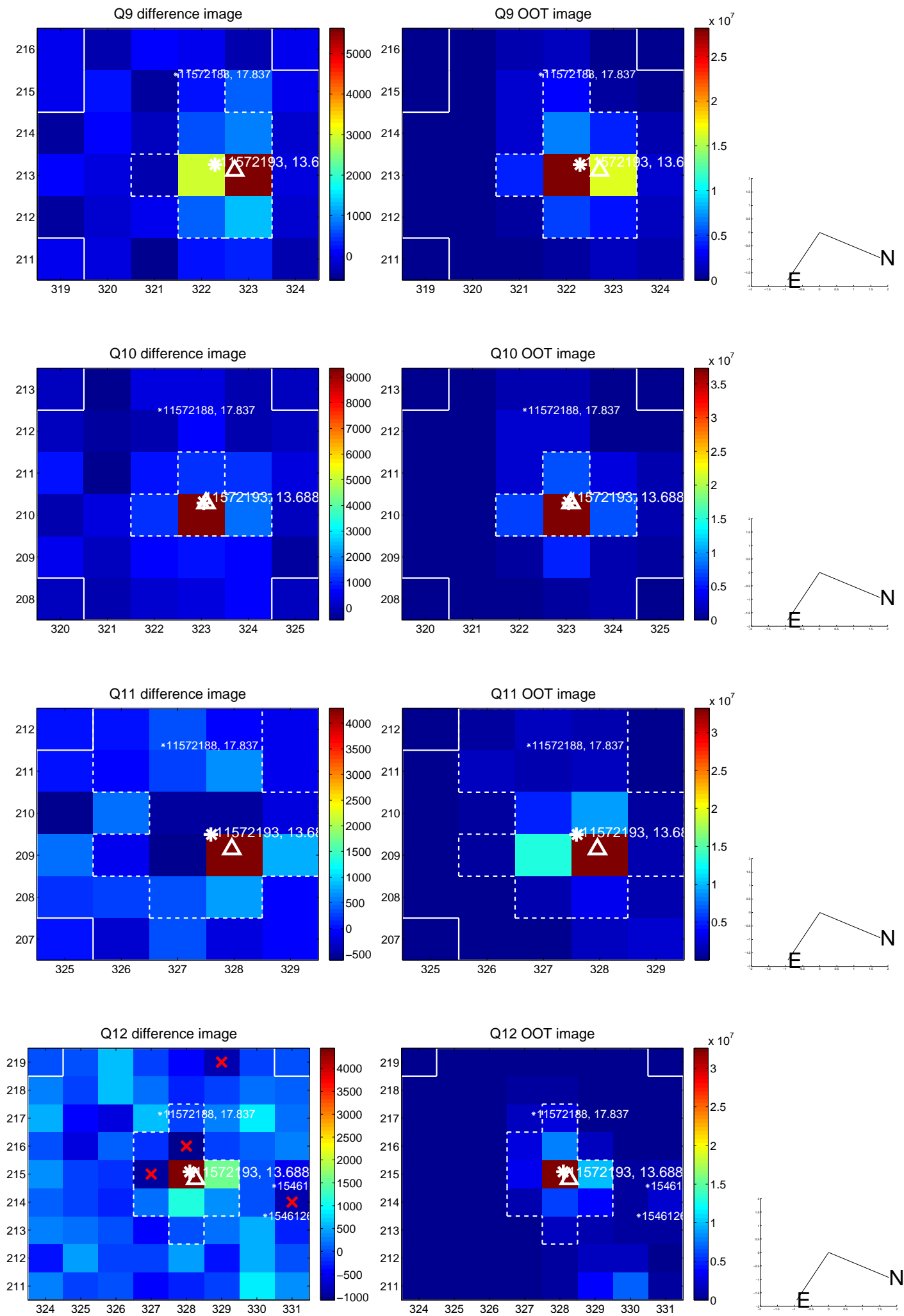
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



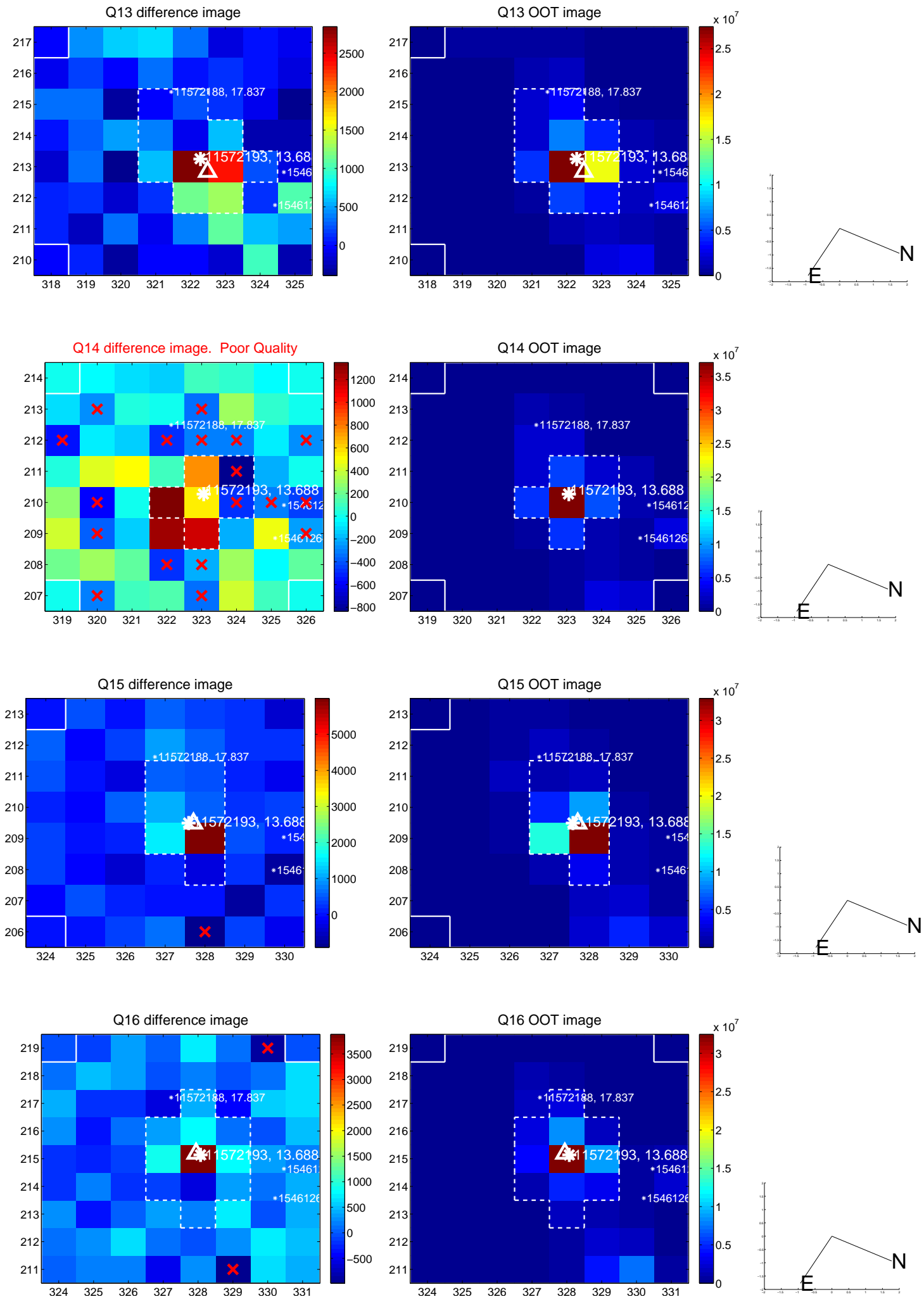
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



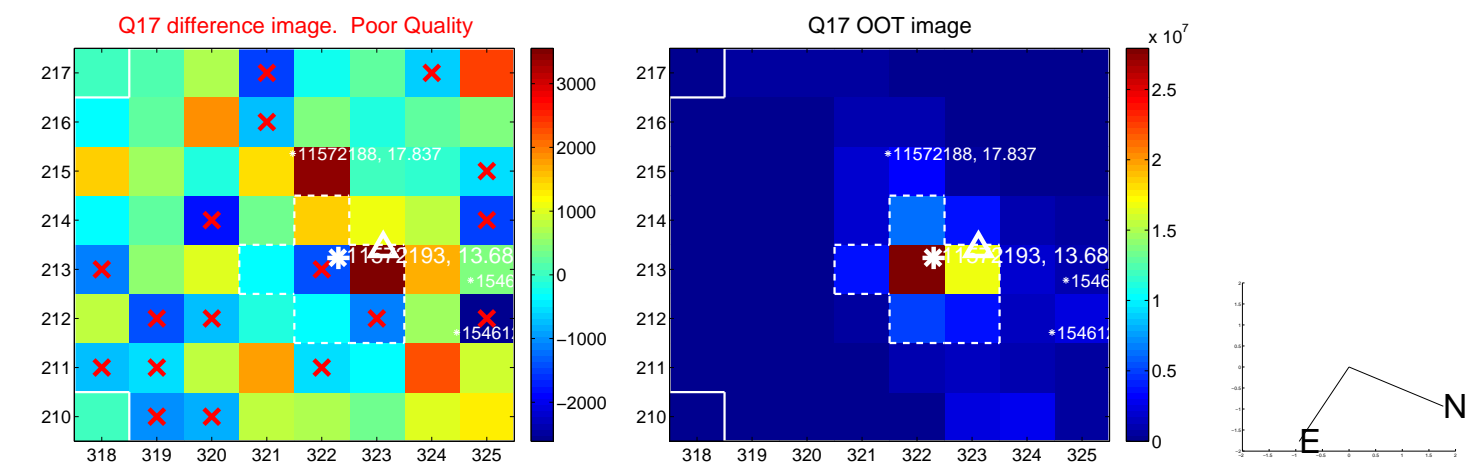
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



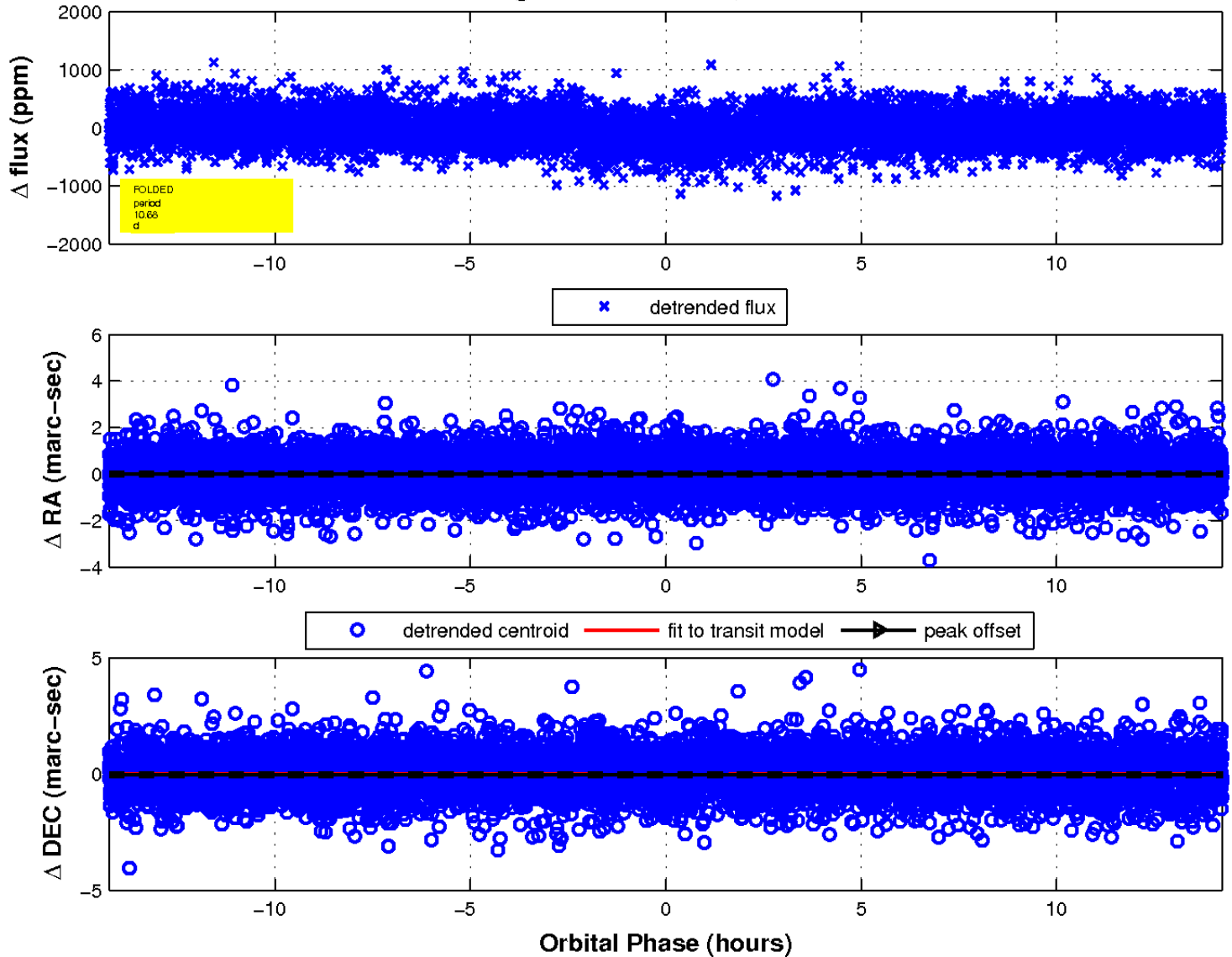
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

