

KIC 009389245

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})
009389245-01	OBS	No	3.095170	132.389465	7.0	29.676	9.3	9.0	1.34	6021	0.36	1331.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009389245-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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.

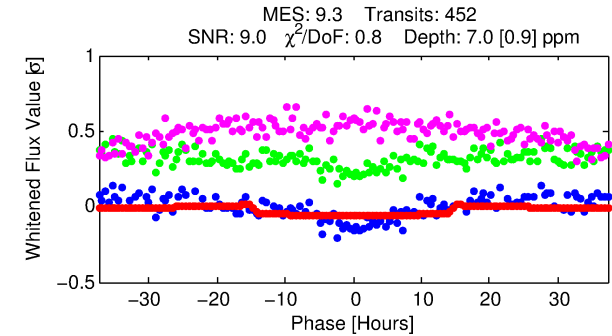
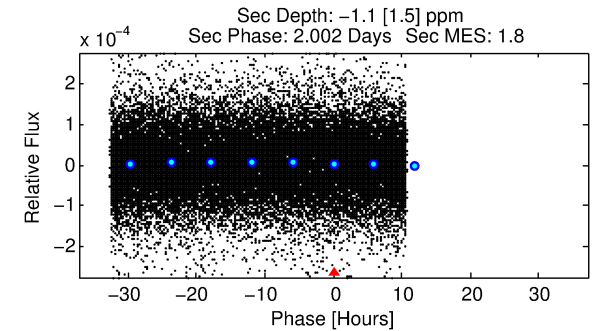
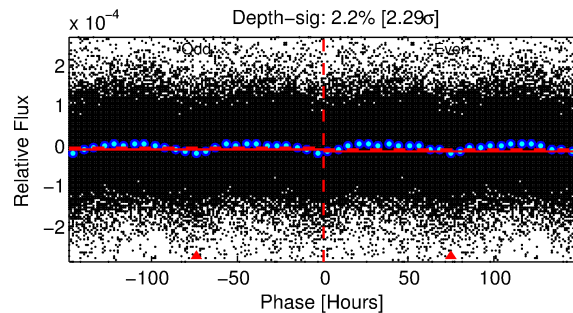
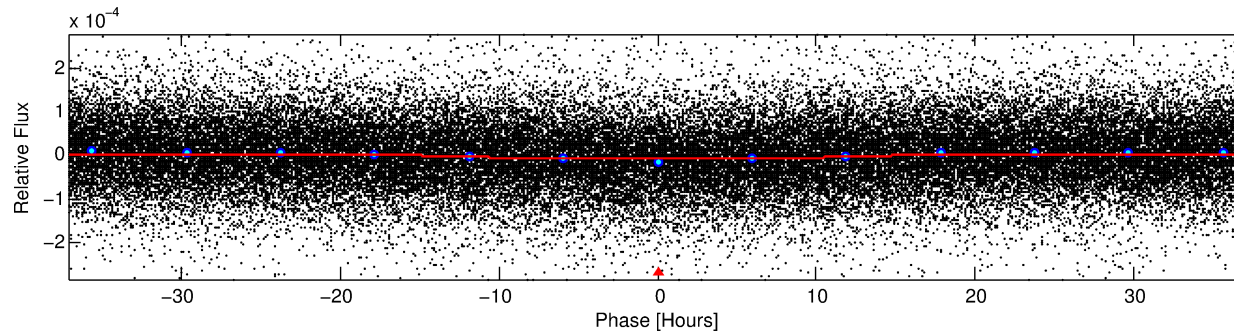
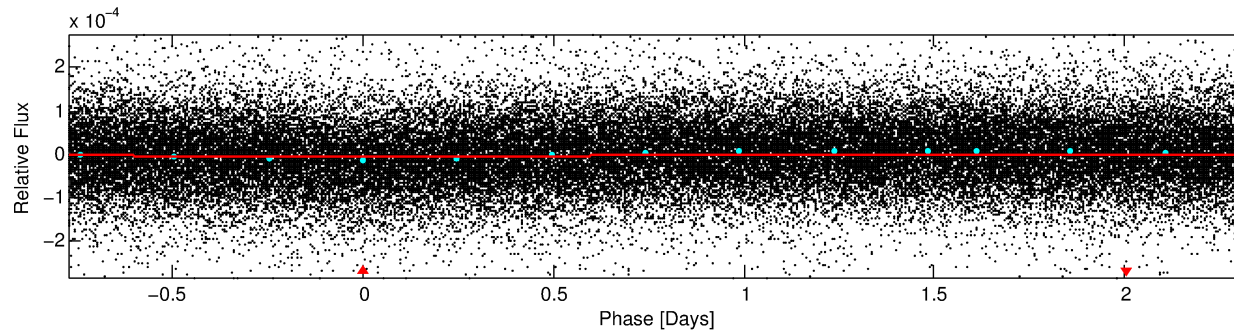
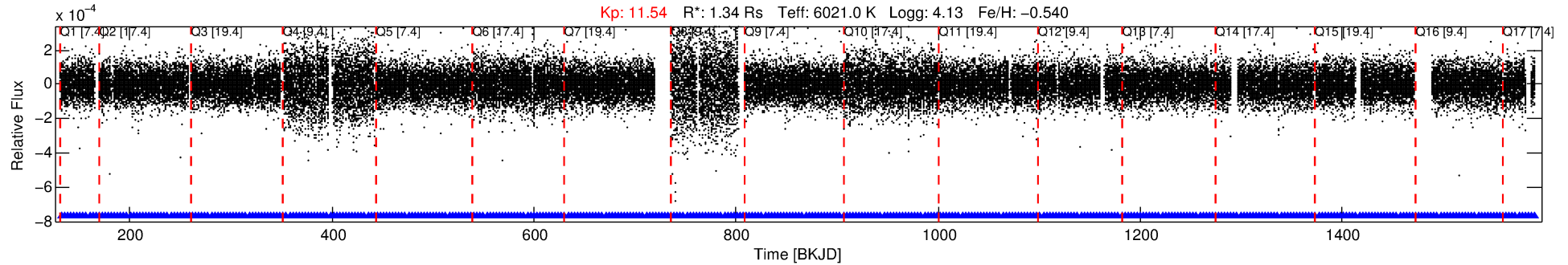
Ephemeris Match Information For 009389245-01

No Significant Match Found

DV One-Page Summary

KIC: 9389245 Candidate: 1 of 1 Period: 3.095 d
KOI: K06202 Corr: No Ephemeris Match

Kp: 11.54 R*: 1.34 Rs Teff: 6021.0 K Logg: 4.13 Fe/H: -0.540



DV Fit Results:

Period = 3.09517 [0.00009] d
Epoch = 132.3895 [0.0185] BKJD
Rp/R* = 0.0025 [0.0019]
a/R* = 1.04 [0.33]
b = 0.49 [6.34]
Seff = 1331.35 [635.42]
Teq = 1540 [184] K
Rp = 0.36 [0.30] Re
a = 0.0398 [0.0111] AU
Ag = N/A
Teffp = N/A

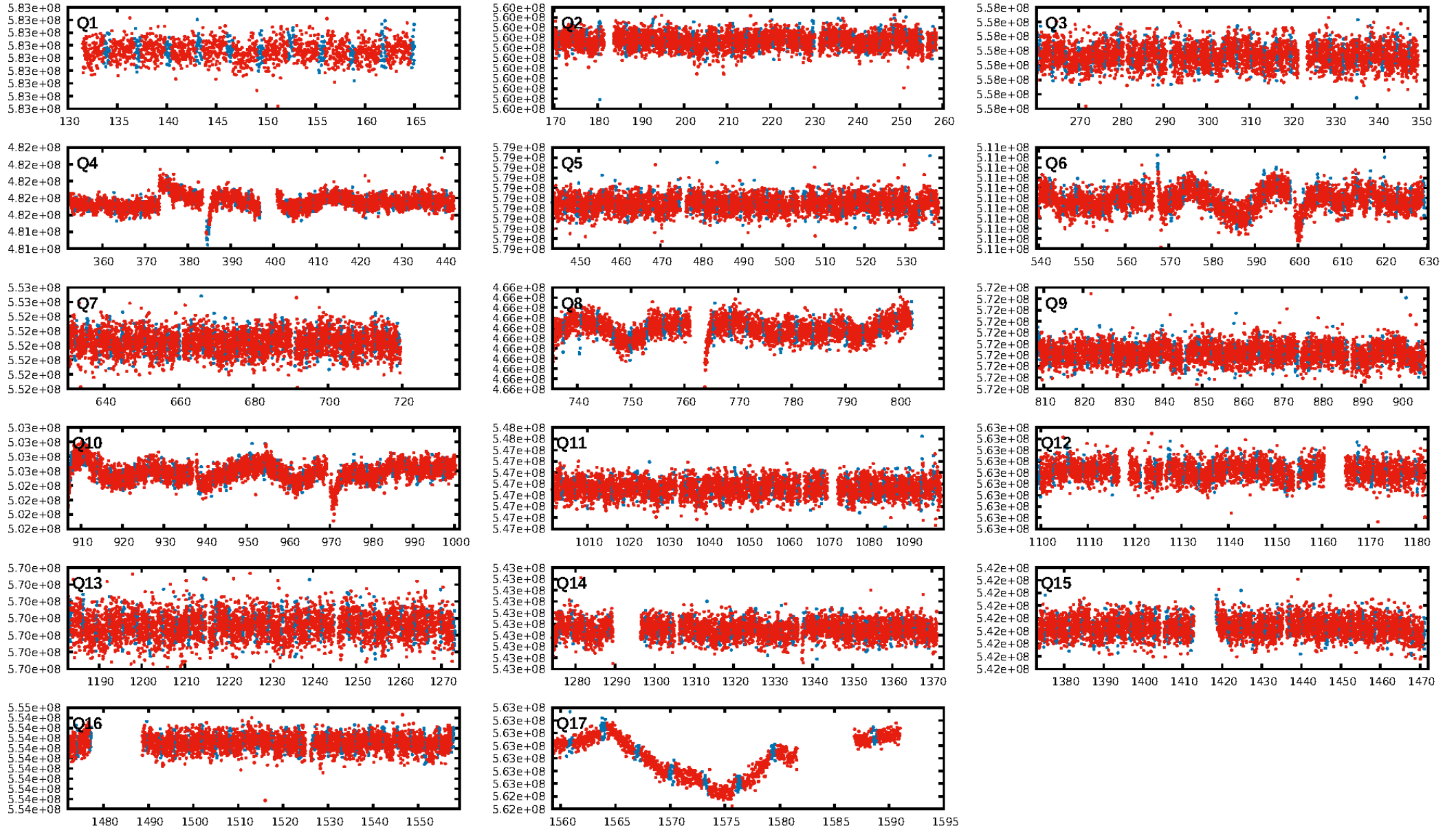
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [431/431]
GhostDiagnostic-chr: 7.496
Centroid-sig: 1.3%
Centroid-so: 2.143 arcsec [2.03σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

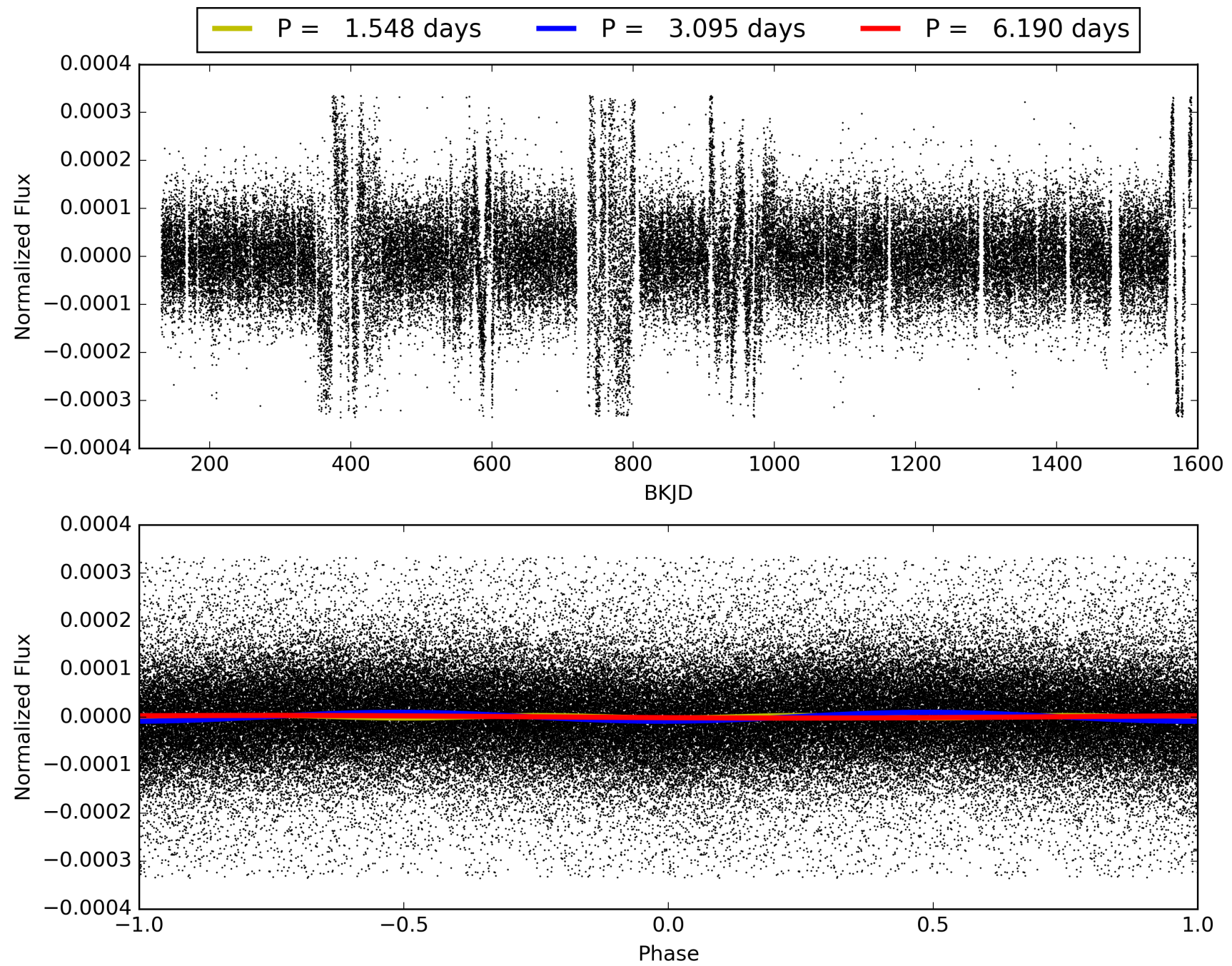
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:16:37 Z

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

TCE 009389245-01, PDC Light Curves

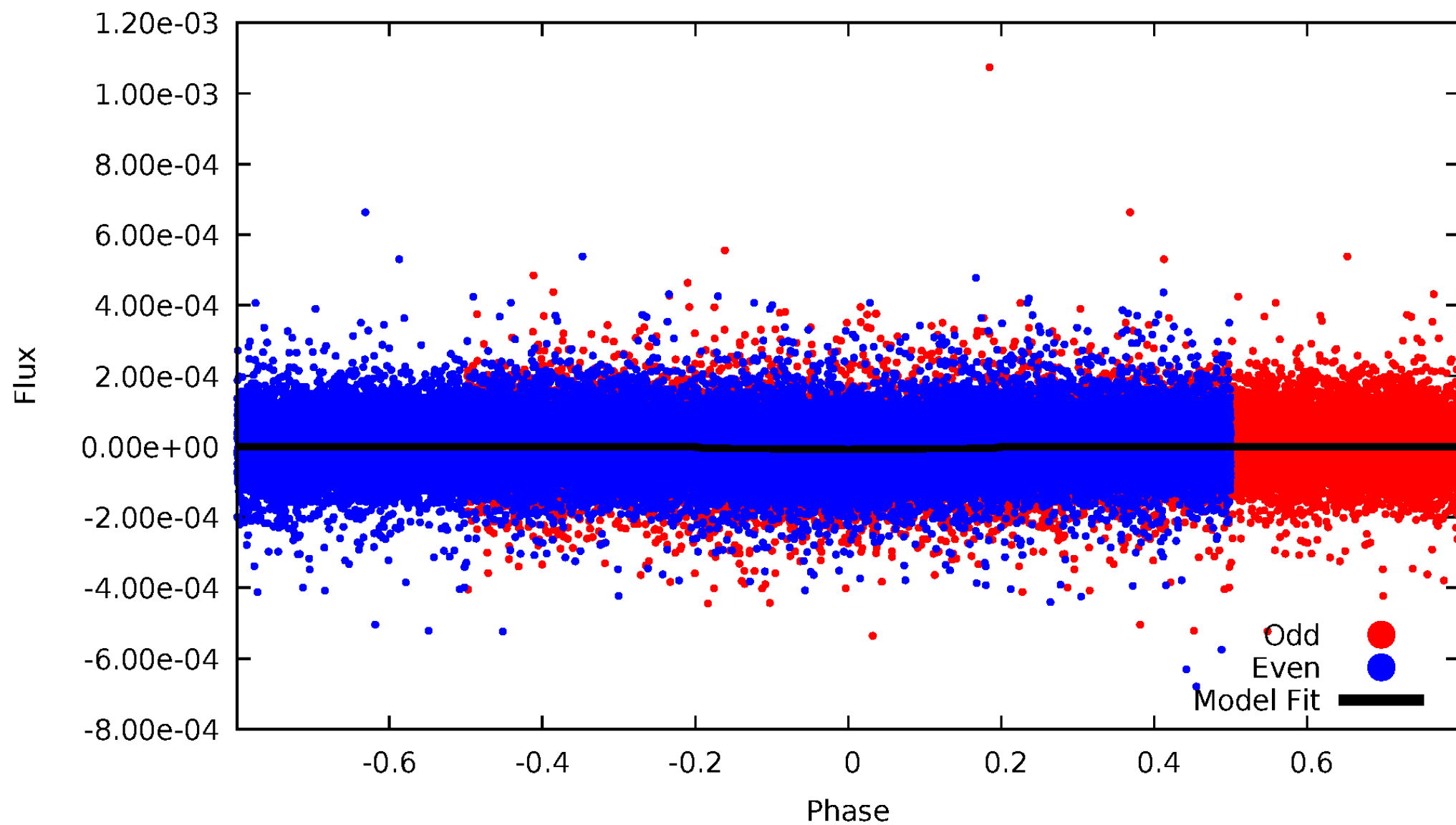


TCE 009389245-01



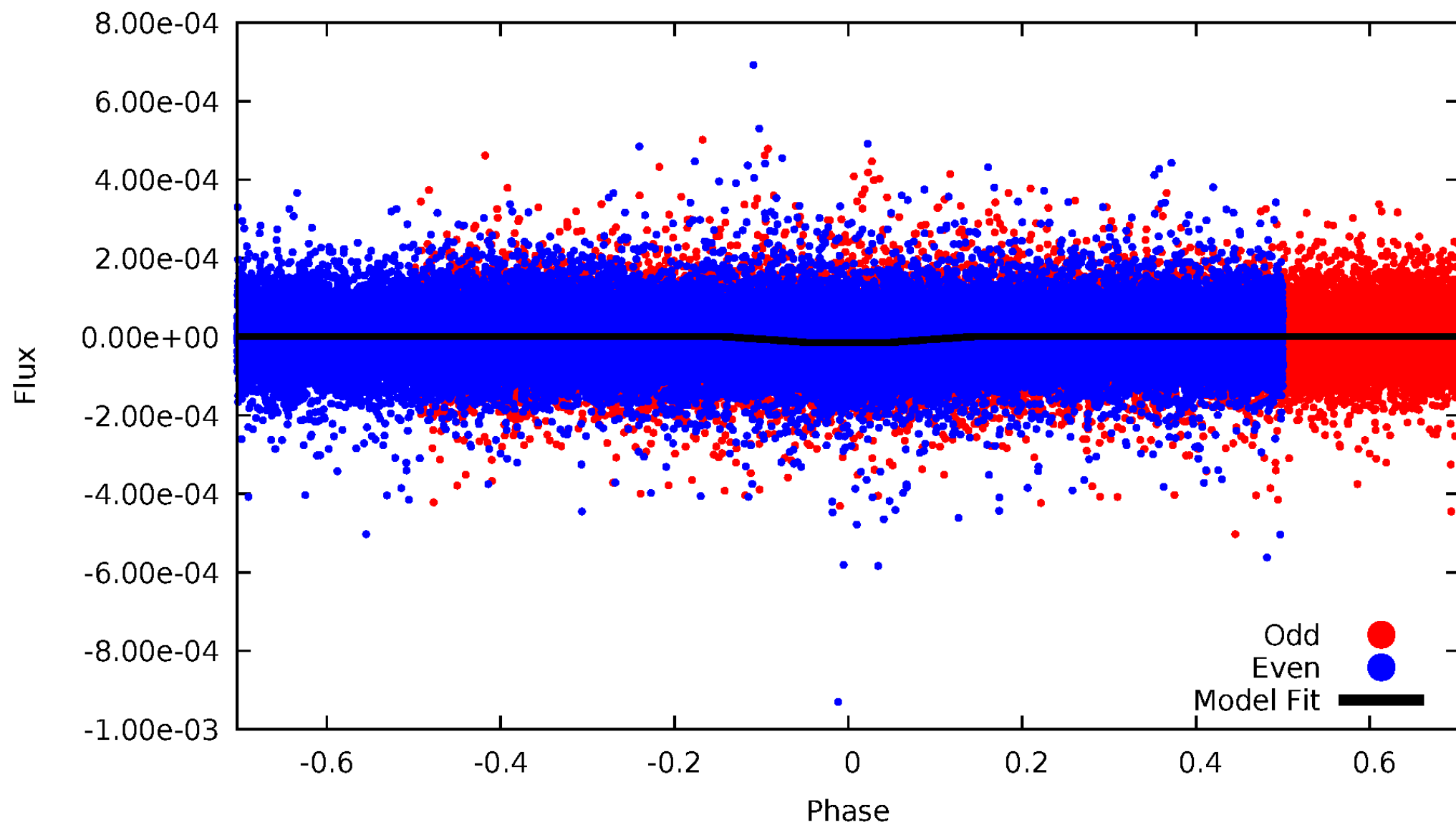
DV Odd/Even

TCE 009389245-01



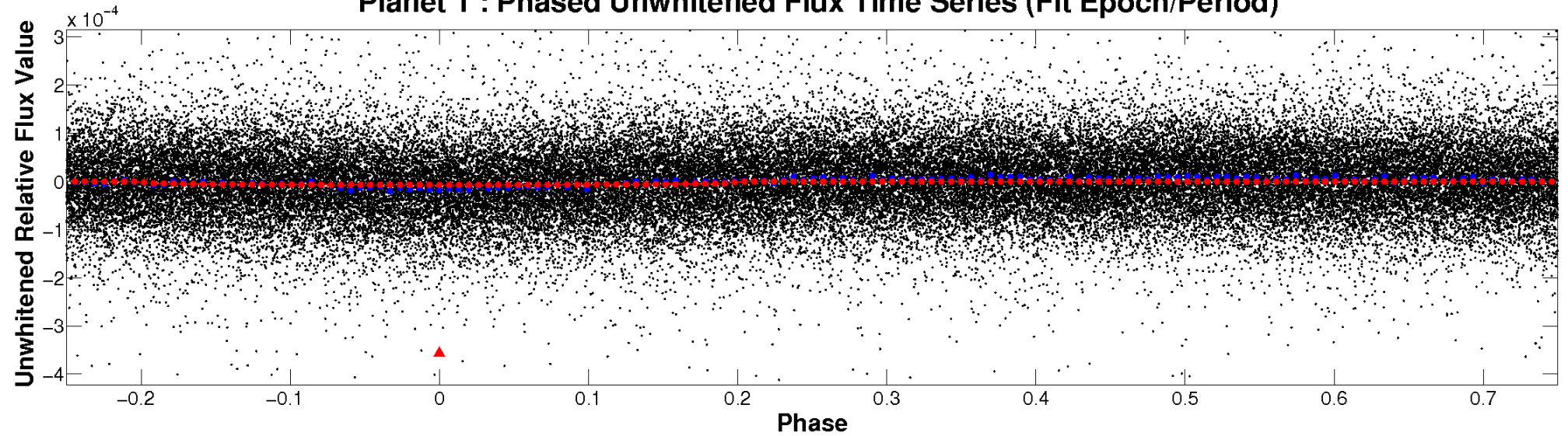
ALT Odd/Even

TCE 009389245-01

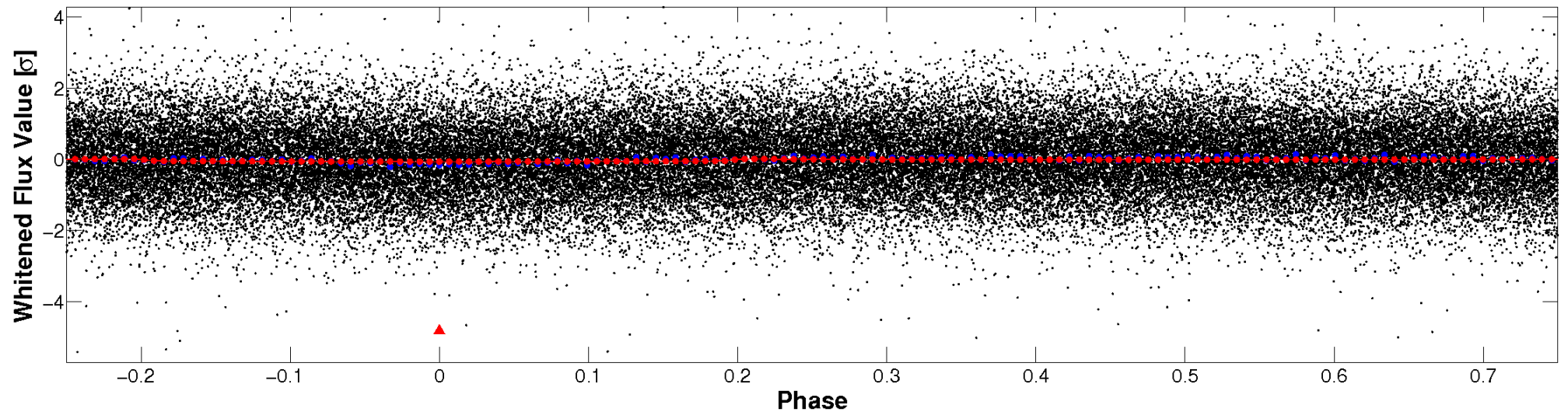


Non-Whitened Vs. Whitened Light Curve

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

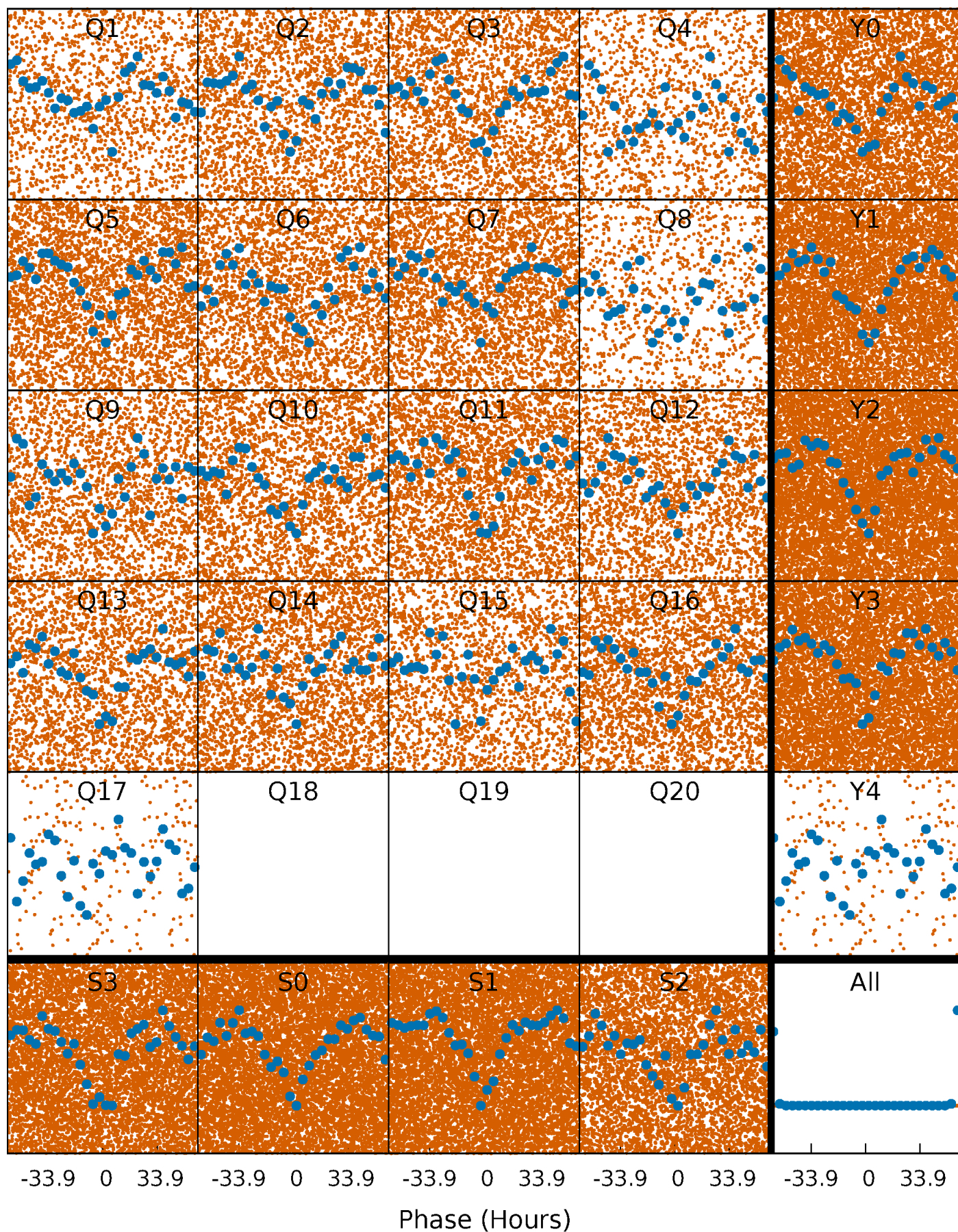


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



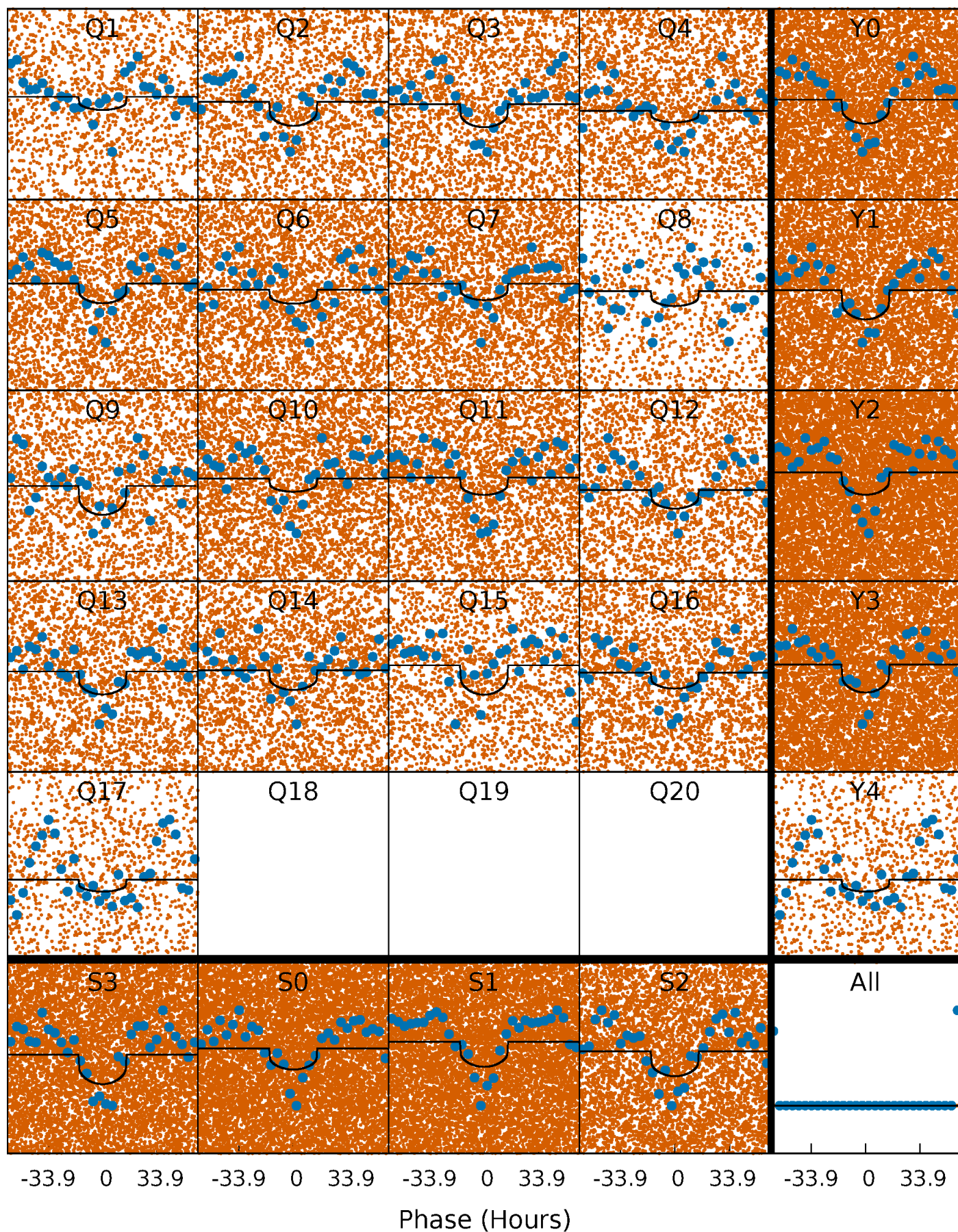
PDC Quarter-Phased Transit Curves

TCE 009389245-01 P= 3.095170 Days $T_0=132.389465$ (BKJD)



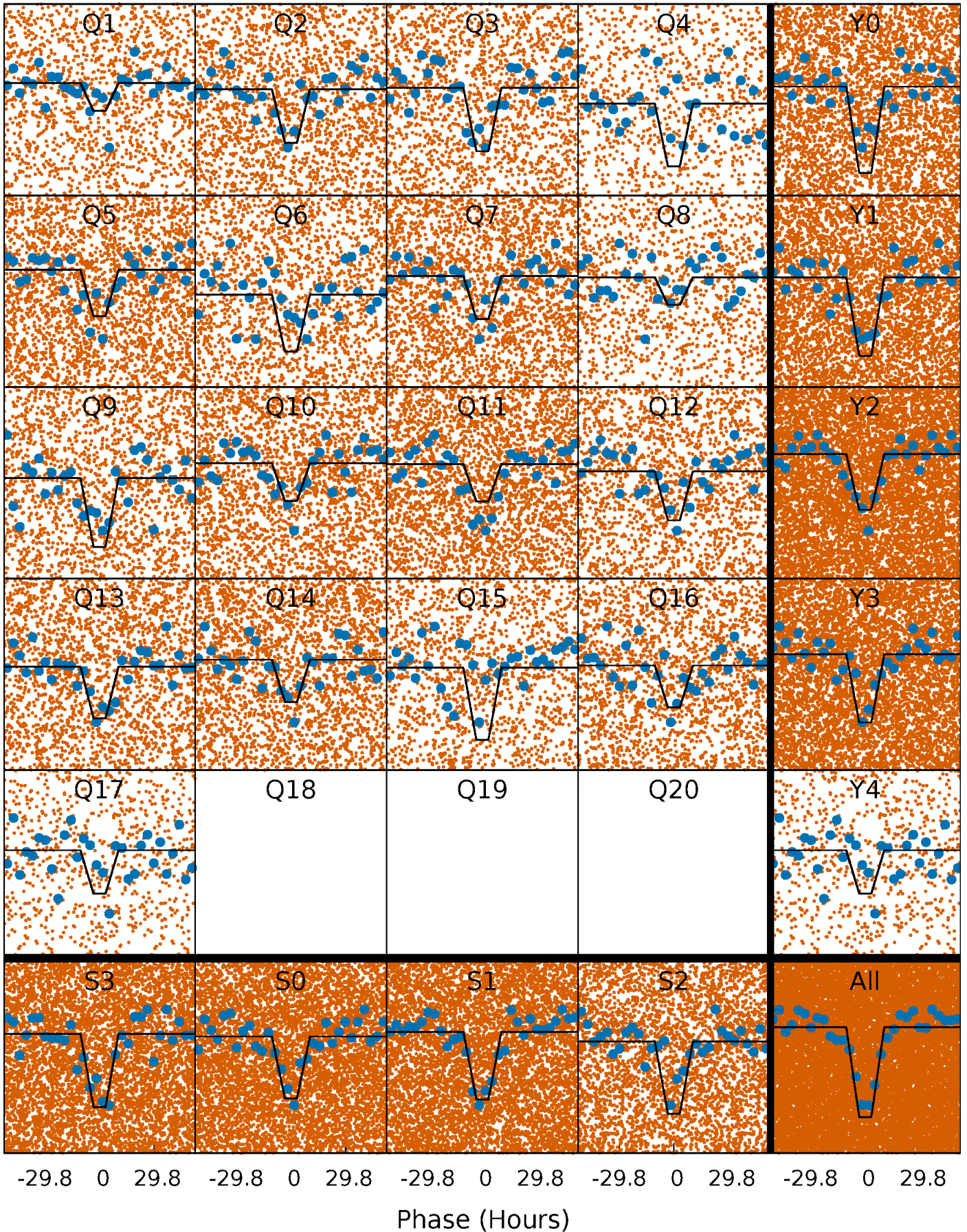
DV Quarter-Phased Transit Curves

TCE 009389245-01 P= 3.095170 Days $T_0=132.389465$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

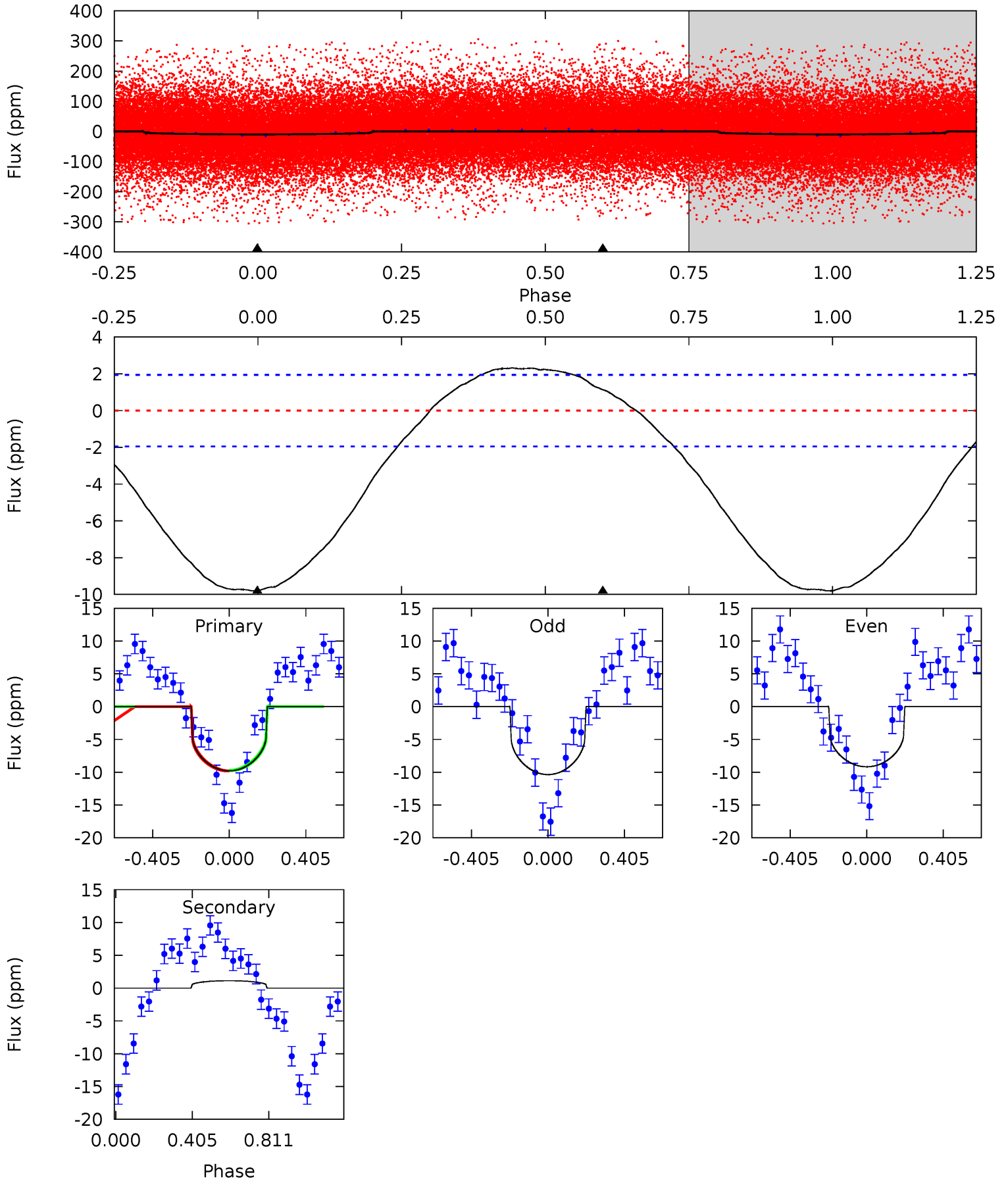
TCE 009389245-01 P= 3.095087 Days $T_0=132.425623$ (BKJD)



DV Model-Shift Uniqueness Test

009389245-01, P = 3.095170 Days, E = 129.294295 Days

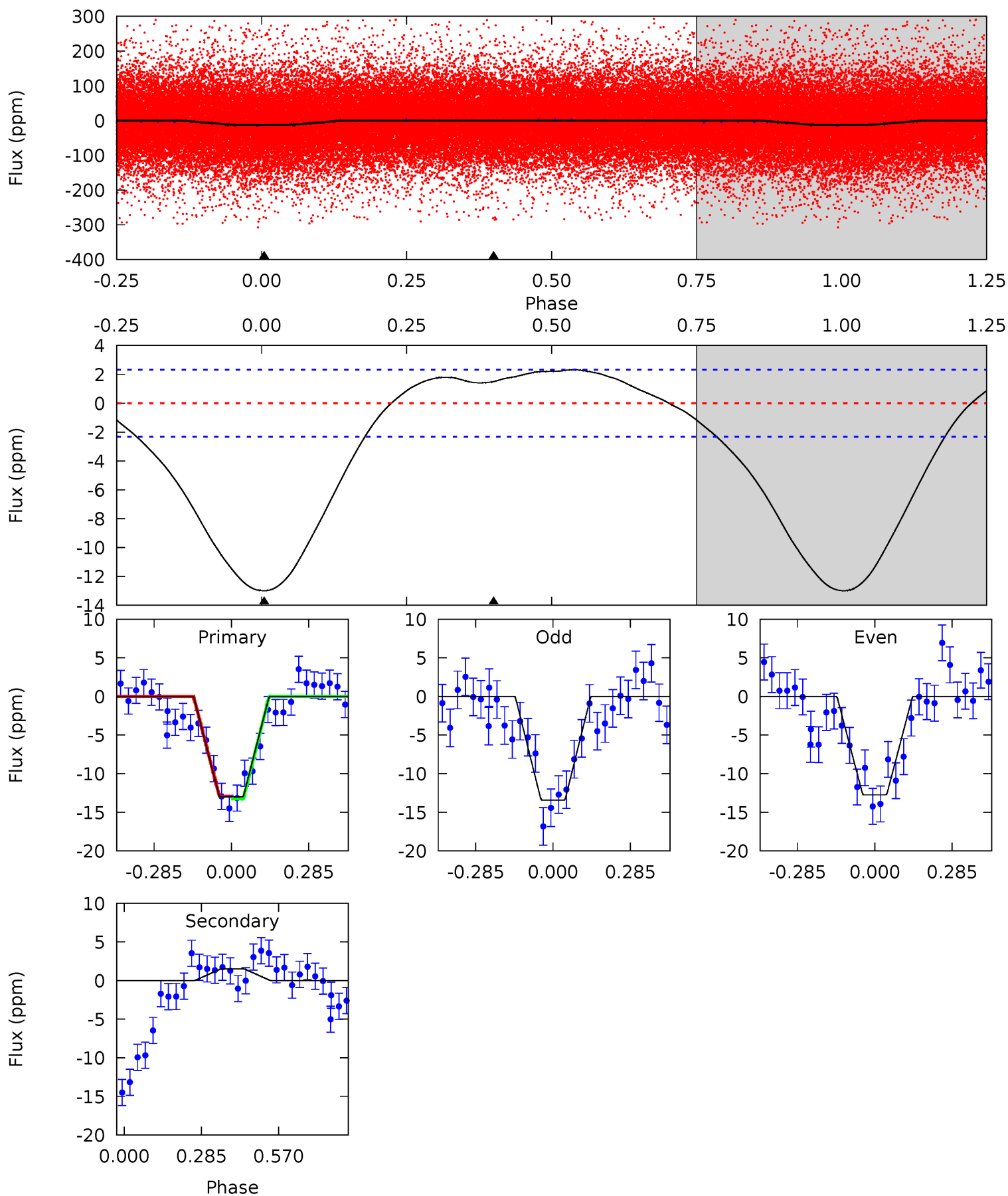
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.5	-2.48	0	0	4.26	0.83	2.00	21.5	21.5	-2.48	-2.48	1.29	1.08	0.19	0.08



Alt Model-Shift Uniqueness Test

009389245-01, P = 3.095087 Days, E = 129.330536 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.3	-2.81	0	0	4.34	1.07	1.17	24.3	24.3	-2.81	-2.81	0.65	1.18	0.15	0.34



Stellar Parameters For KIC 009389245

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6021^{+162}_{-144}	$4.128^{+0.280}_{-0.120}$	$-0.540^{+0.300}_{-0.250}$	$1.338^{+0.291}_{-0.356}$	$0.876^{+0.131}_{-0.071}$	$0.515^{+0.860}_{-0.197}$
	+3%/-2%	+7%/-3%	+56%/-46%	+22%/-27%	+15%/-8%	+167%/-38%
Source	PHO1	FLK73	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 009389245-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	1 ± 0	$0.39^{+0.25}_{-0.22}$	2121^{+133}_{-173}	-4064^{+677}_{-1635}	$-6.547^{+4.615}_{-28.964}$
Alt.	1 ± 1	$0.56^{+0.30}_{-0.27}$	2115^{+148}_{-169}	-3766^{+475}_{-934}	$-4.138^{+2.602}_{-11.124}$

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

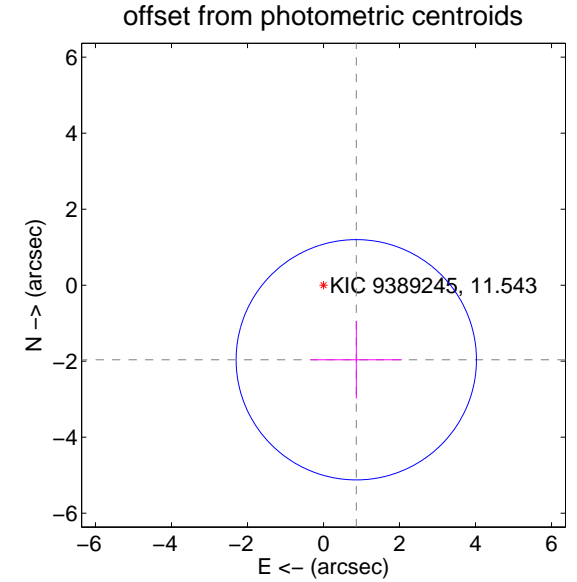
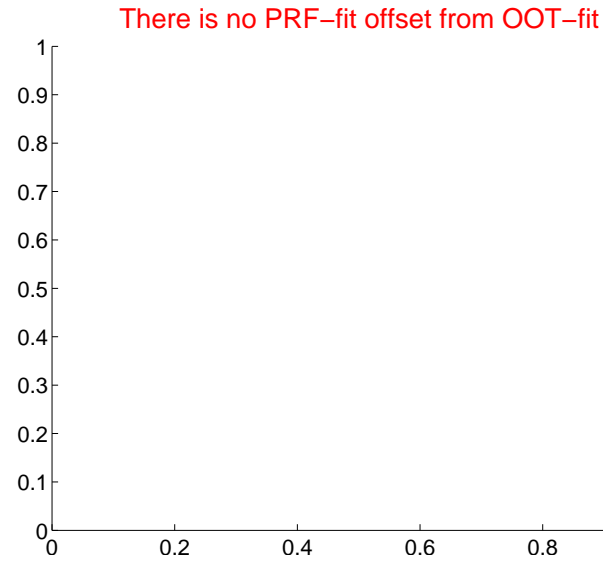
DV Centroid Data

Supplemental centroid analysis for 009389245-01. **Kepler magnitude: 11.54.** Transit SNR 9.00

There are 0 quarters with good PRF difference image offsets

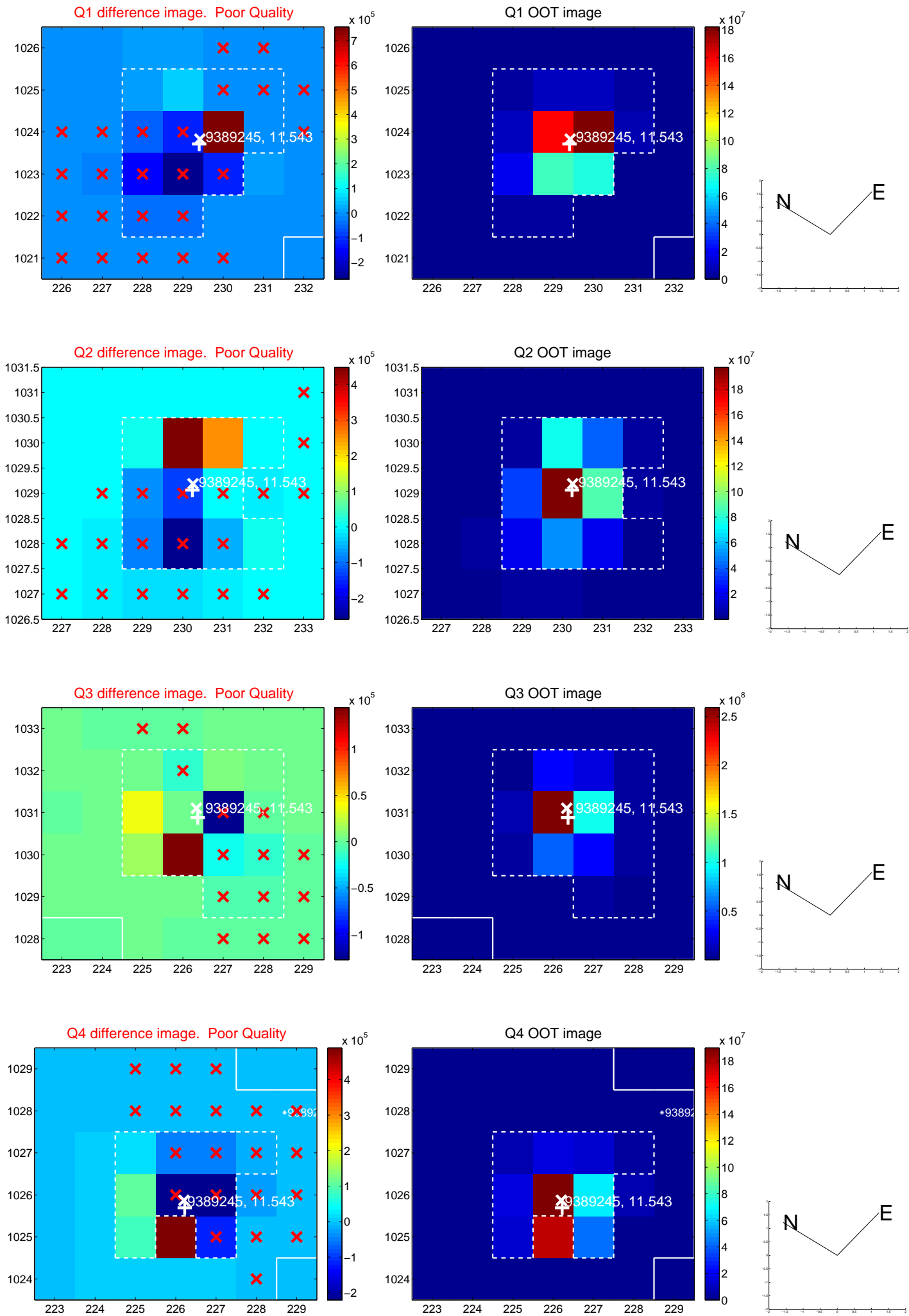
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	2.14 ± 1.05	2.03	-0.86 ± 1.20	-1.96 ± 1.02

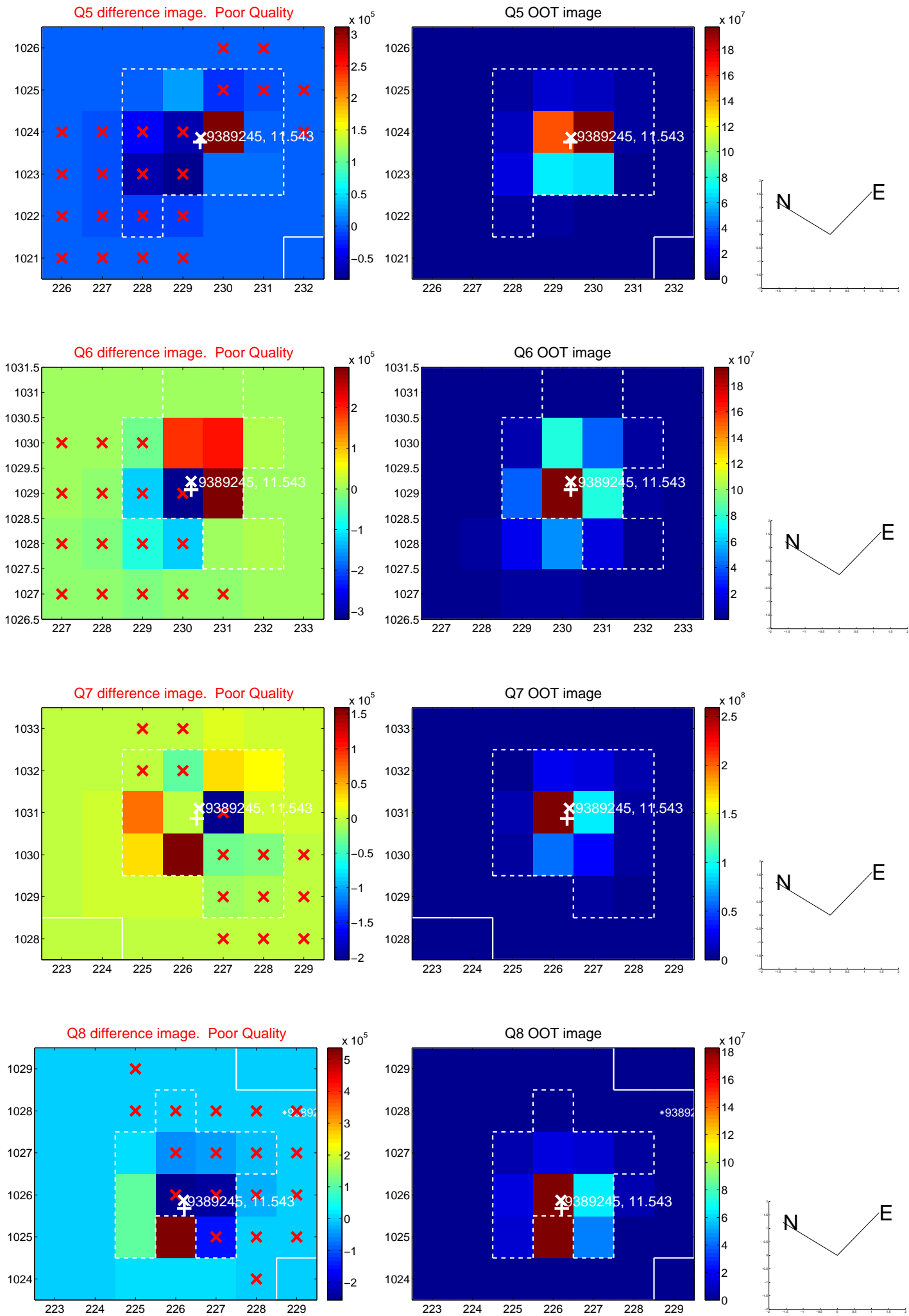


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

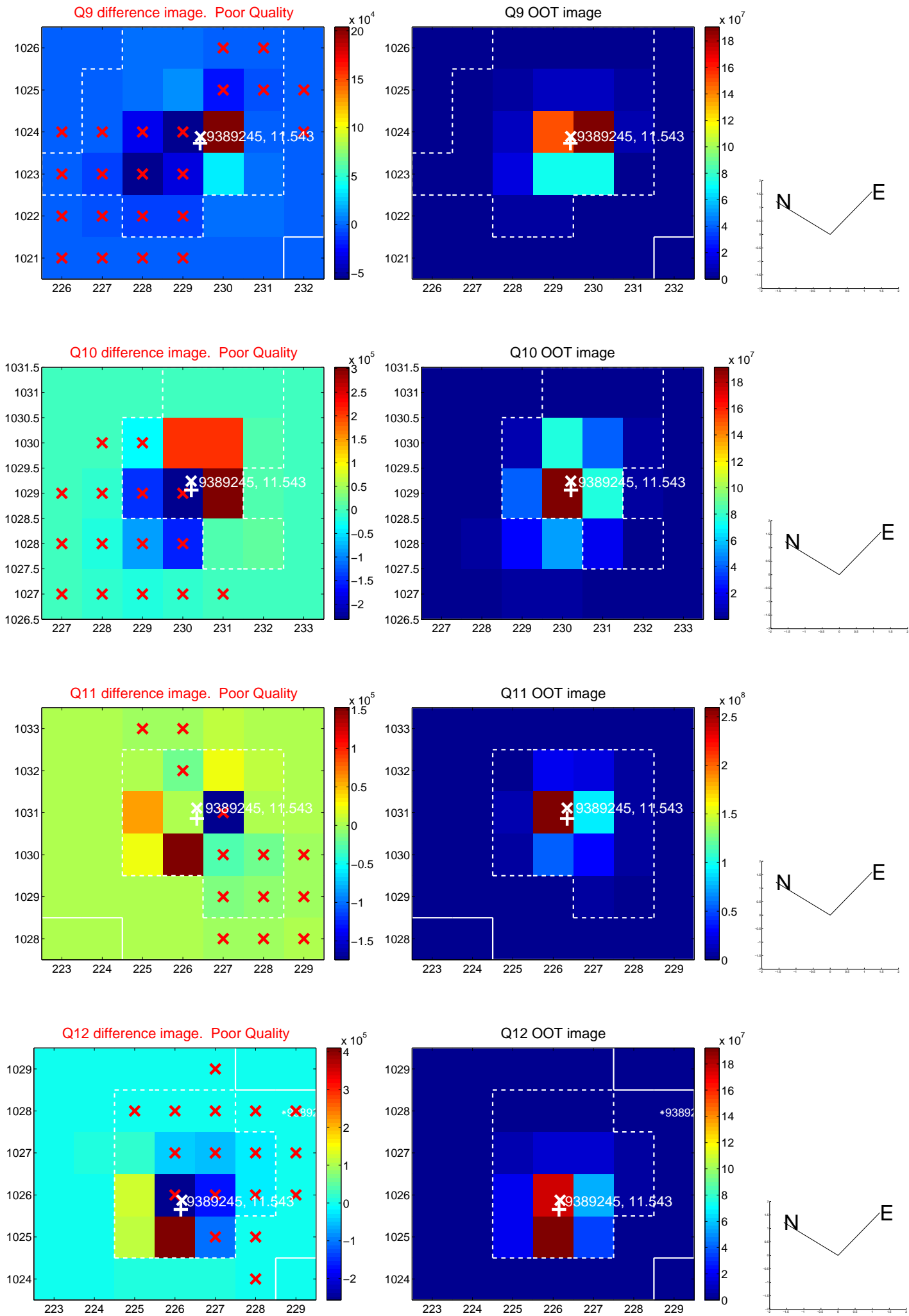
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



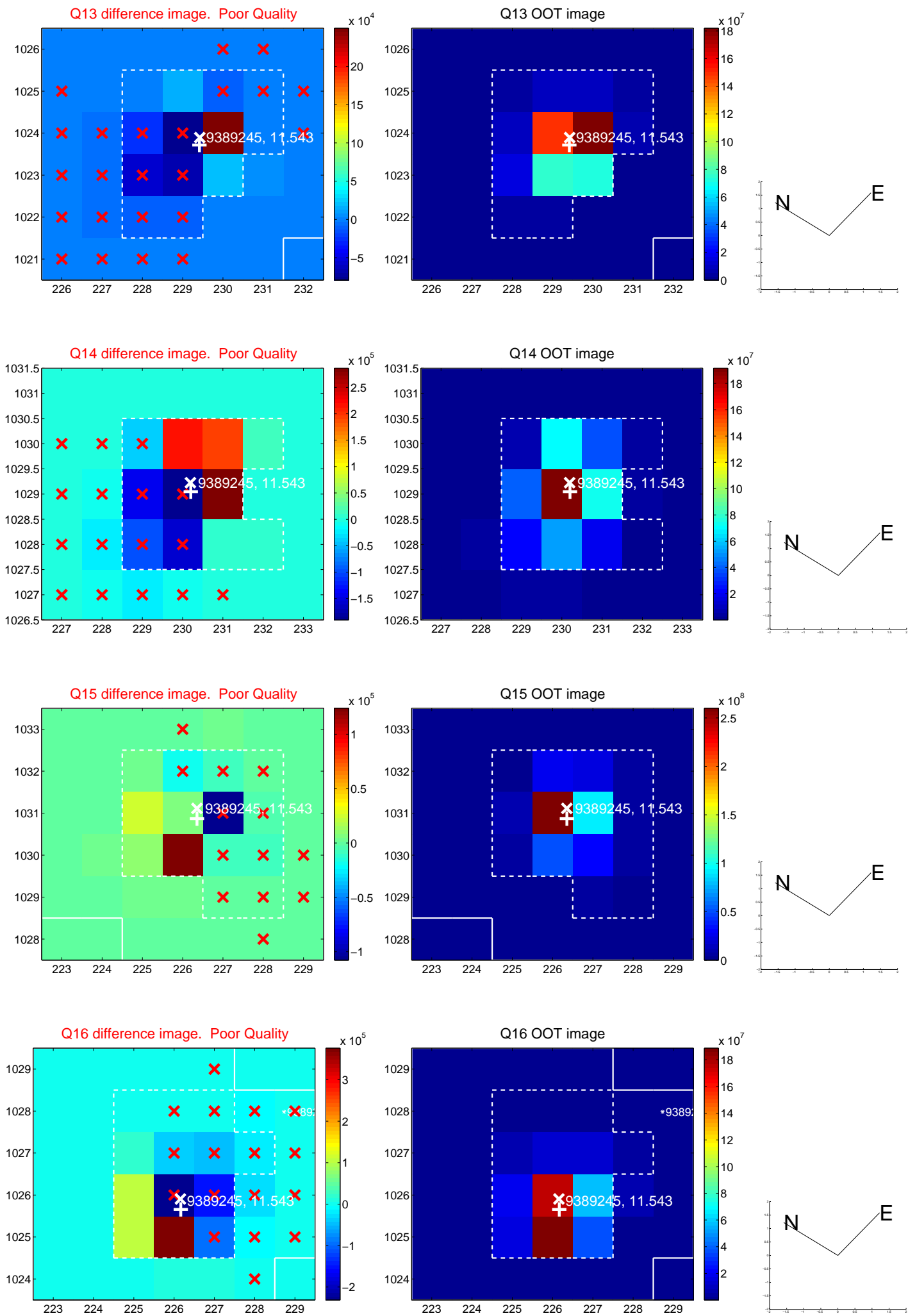
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



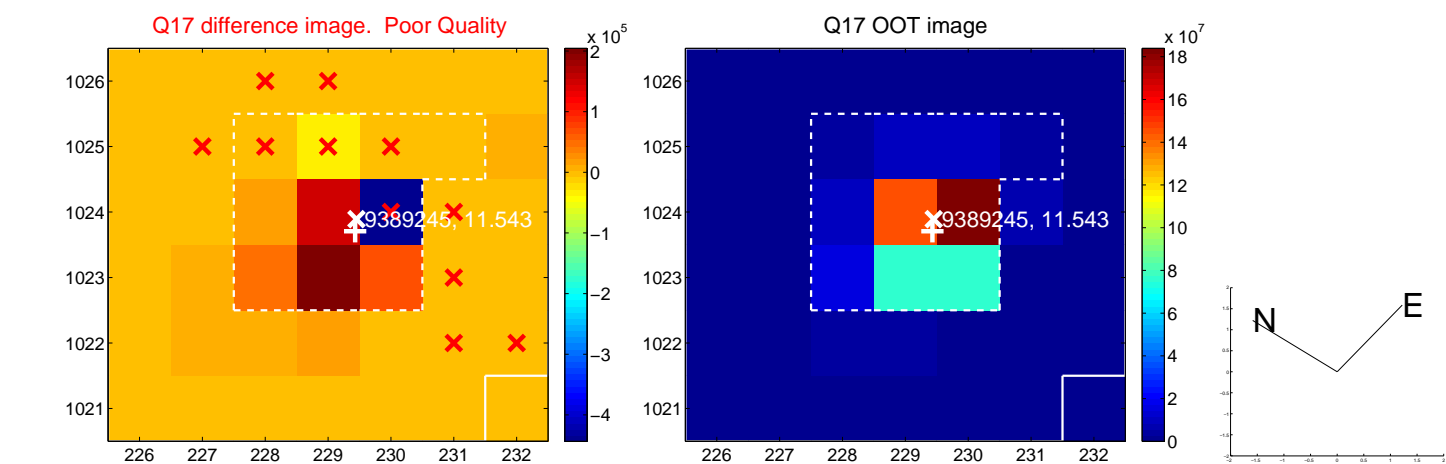
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



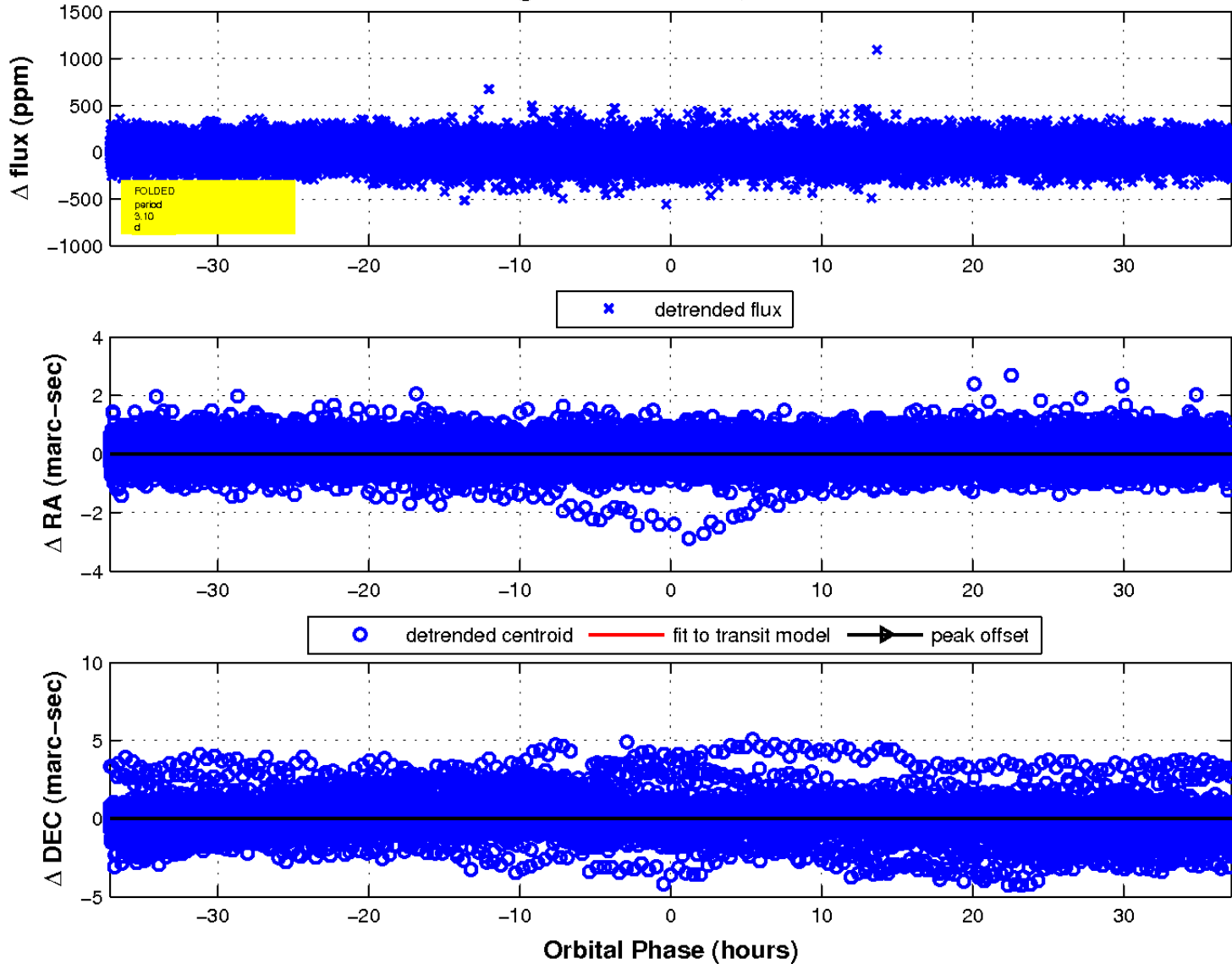
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

