

KIC 004863260

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})
004863260-01	OBS	5096.01	0.987062	131.914881	274.7	1.350	23.2	47.9	1.22	6602	2.38	5880.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004863260-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

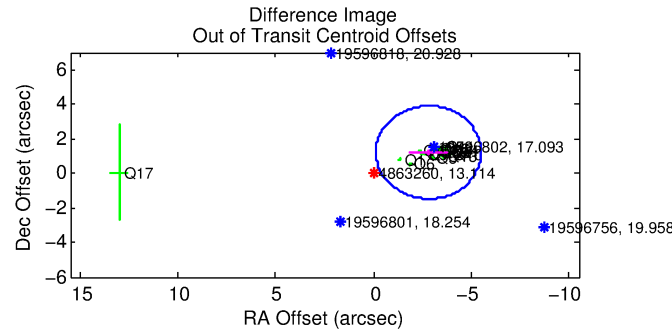
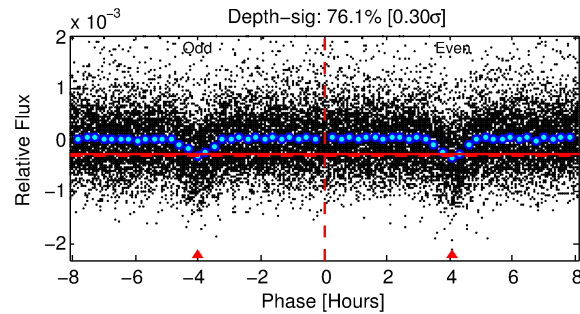
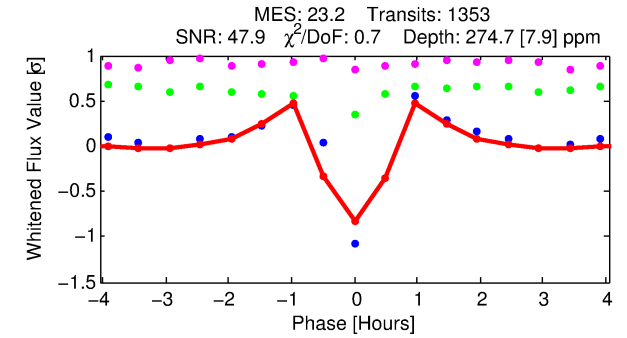
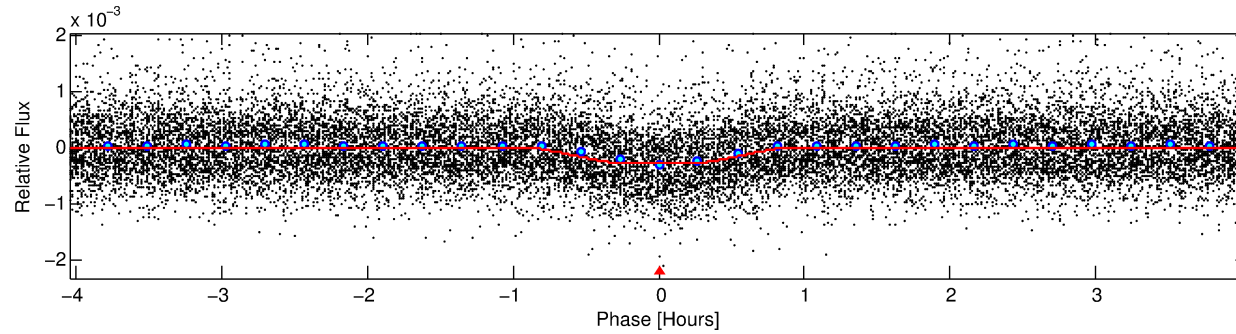
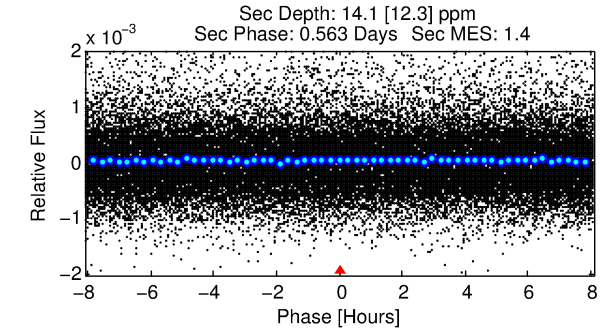
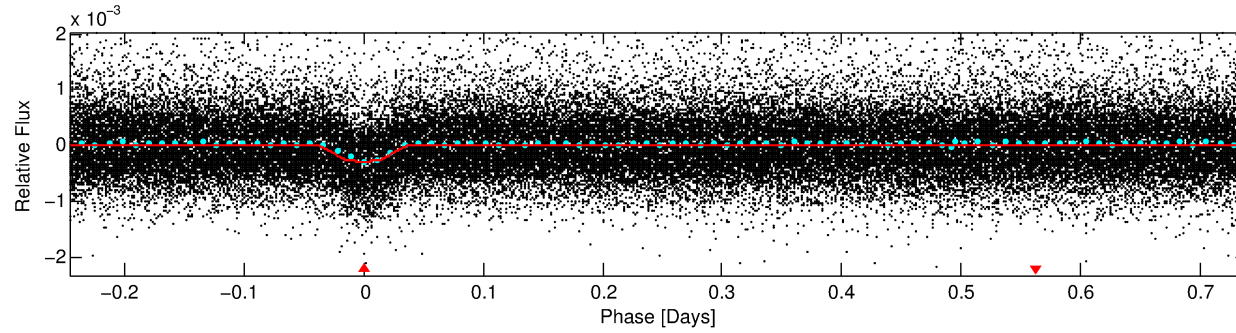
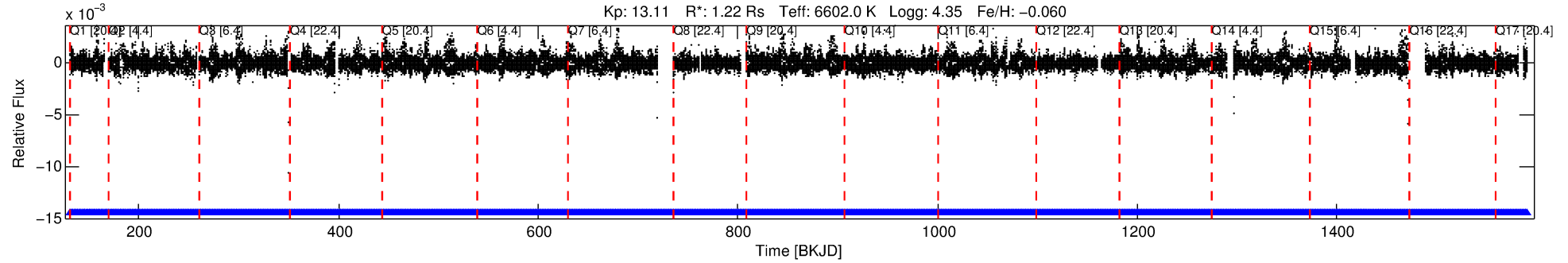
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004863260-01

No Significant Match Found

DV One-Page Summary

KIC: 4863260 Candidate: 1 of 1 Period: 0.987 d
KOI: K05096.01 Corr: 0.886



DV Fit Results:

Period = 0.98706 [0.00000] d
Epoch = 131.9149 [0.0003] BKJD
Rp/R* = 0.0178 [0.0015]
a/R* = 2.79 [1.10]
b = 0.90 [0.09]
Seff = 5880.59 [2287.13]
Teff = 2233 [217] K
Rp = 2.38 [0.80] Re
a = 0.0208 [0.0055] AU
Ag = 0.59 [0.57] [-0.72σ]
Teffp = 3028 [678] K [1.12σ]

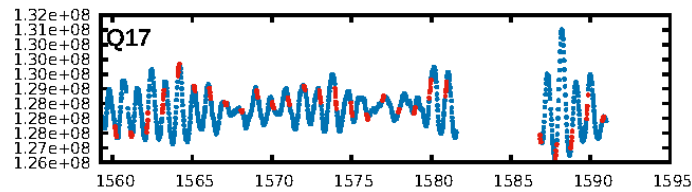
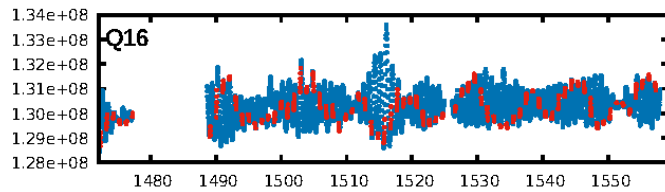
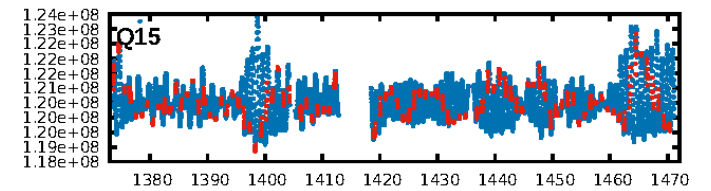
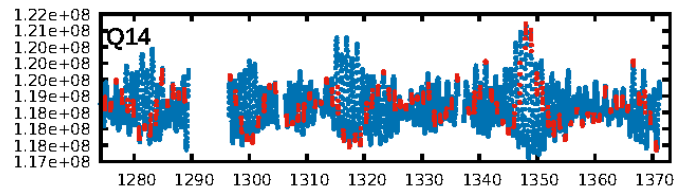
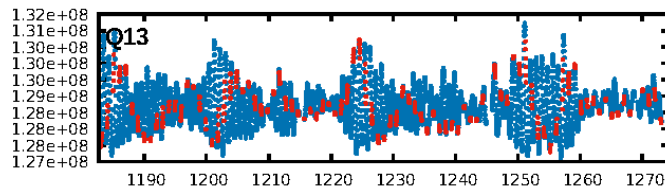
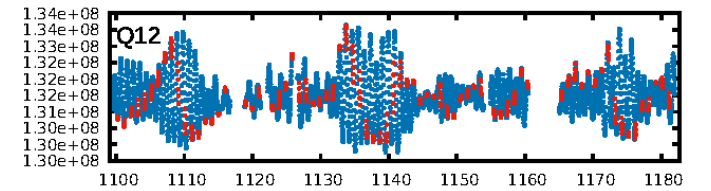
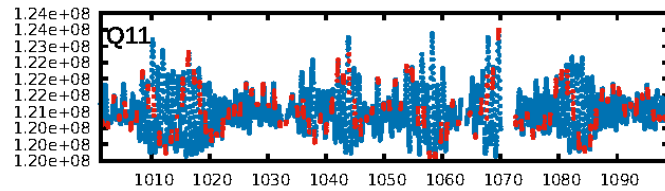
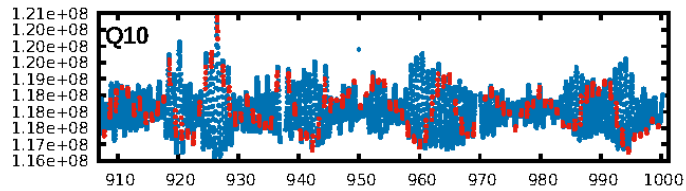
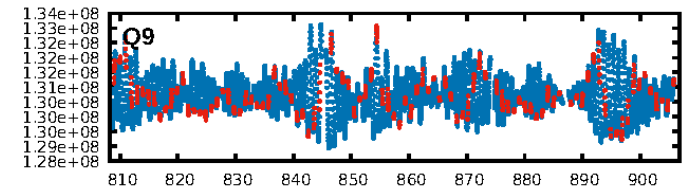
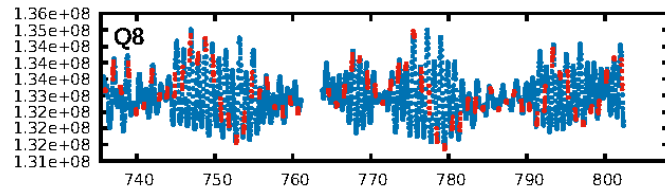
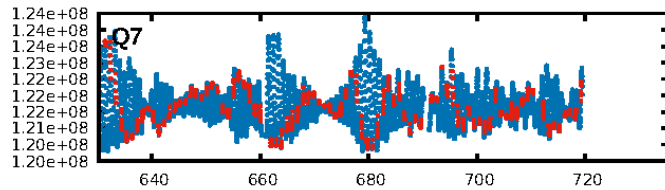
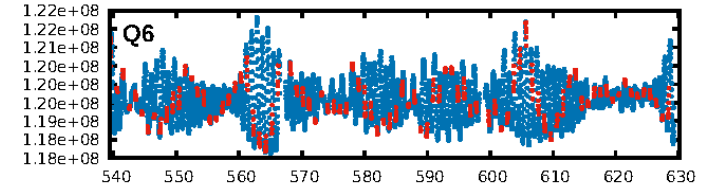
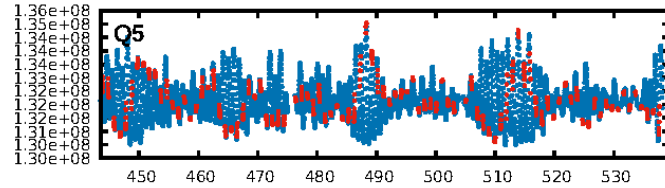
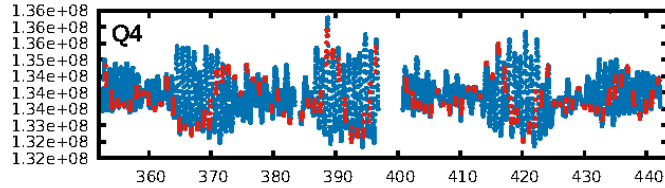
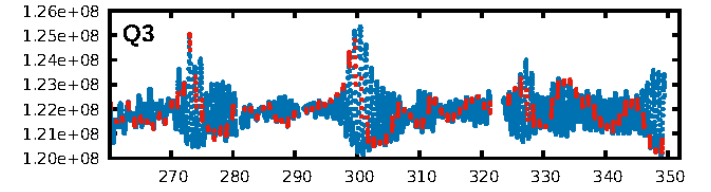
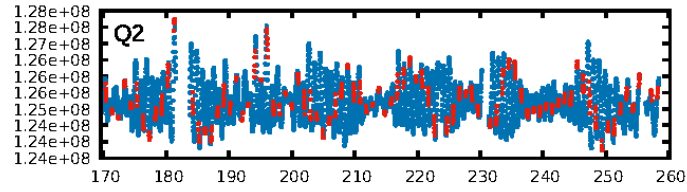
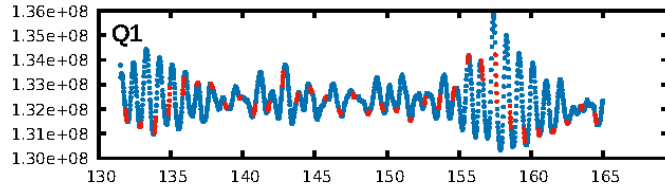
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.22e-67
RollingBand-fgt: 1.00 [1291/1291]
GhostDiagnostic-chr: 0.7545
Centroid-sig: 0.0%
Centroid-so: 3.146 arcsec [21.65σ]
OotOffset-rm: 3.051 arcsec [3.40σ]
KicOffset-rm: 2.964 arcsec [3.36σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

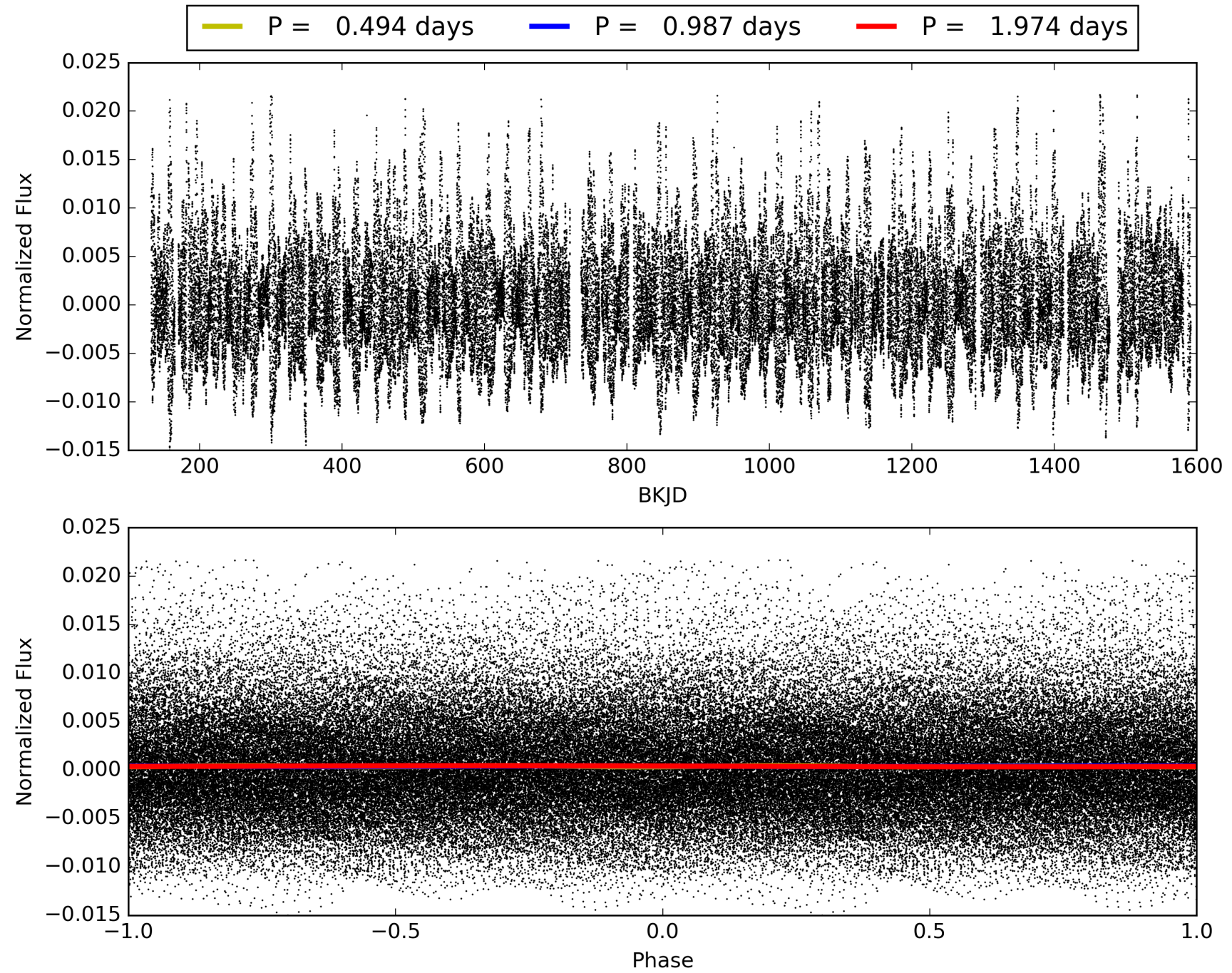
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:27:06 Z

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

TCE 004863260-01, PDC Light Curves

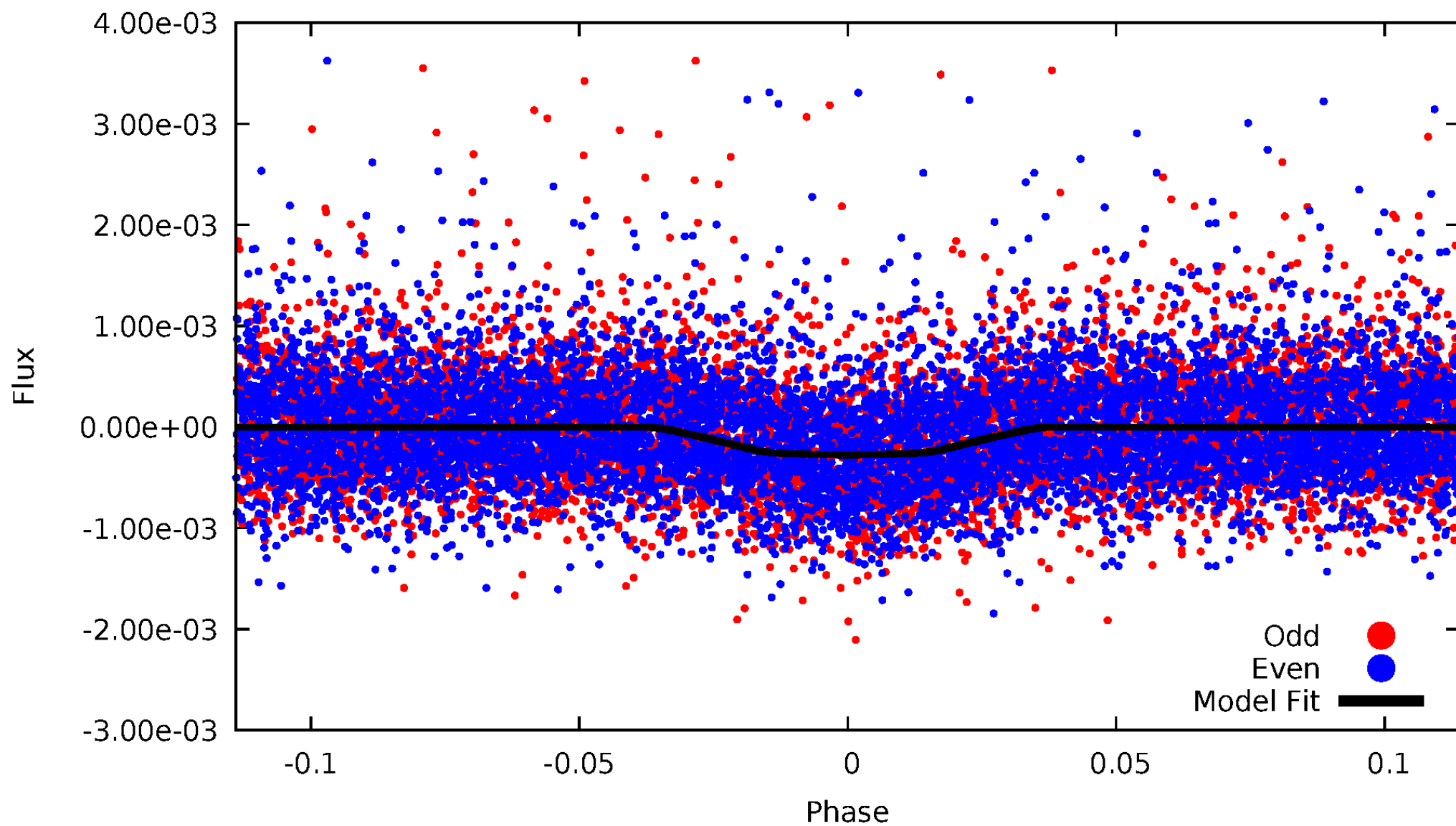


TCE 004863260-01



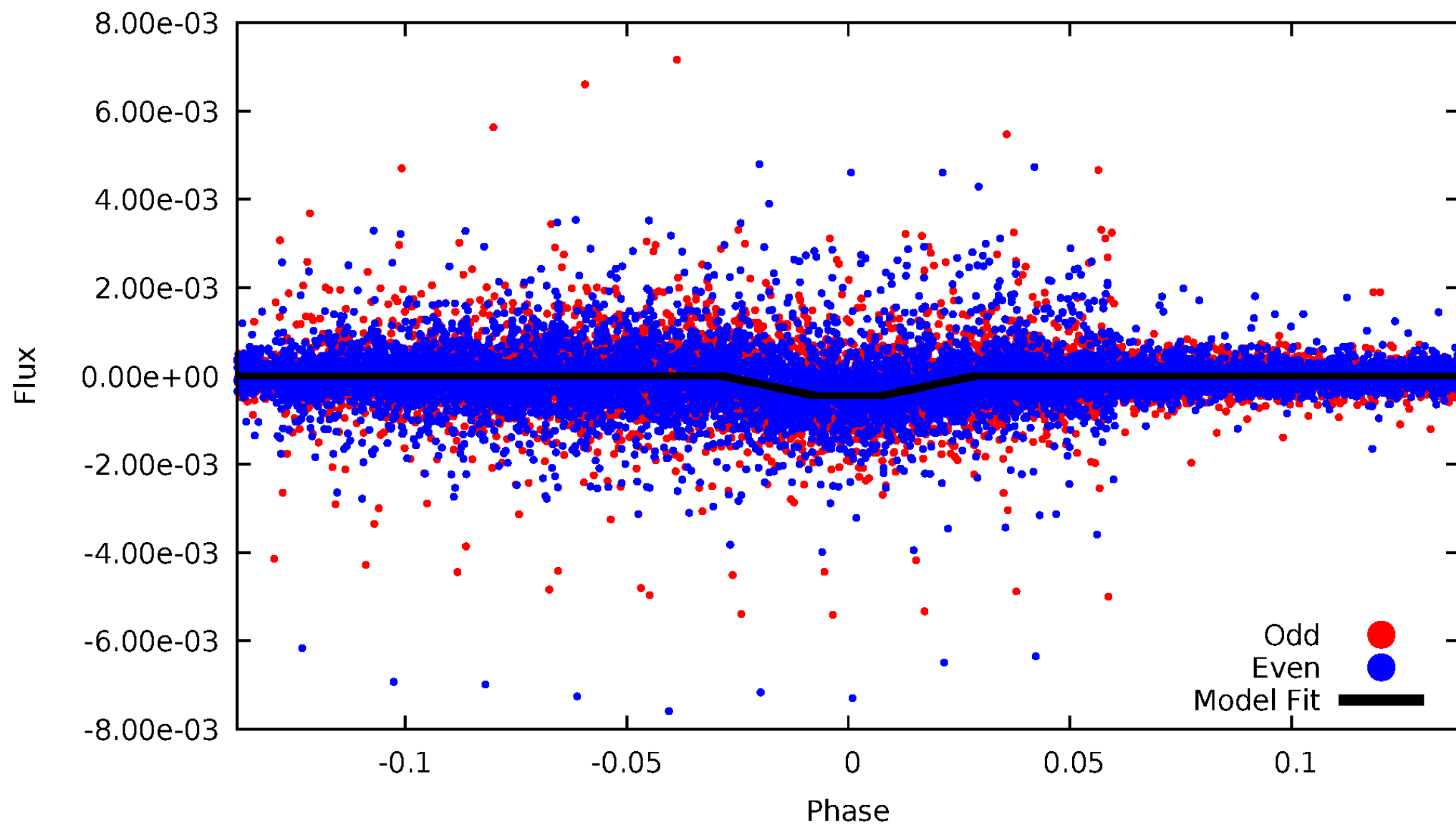
DV Odd/Even

TCE 004863260-01



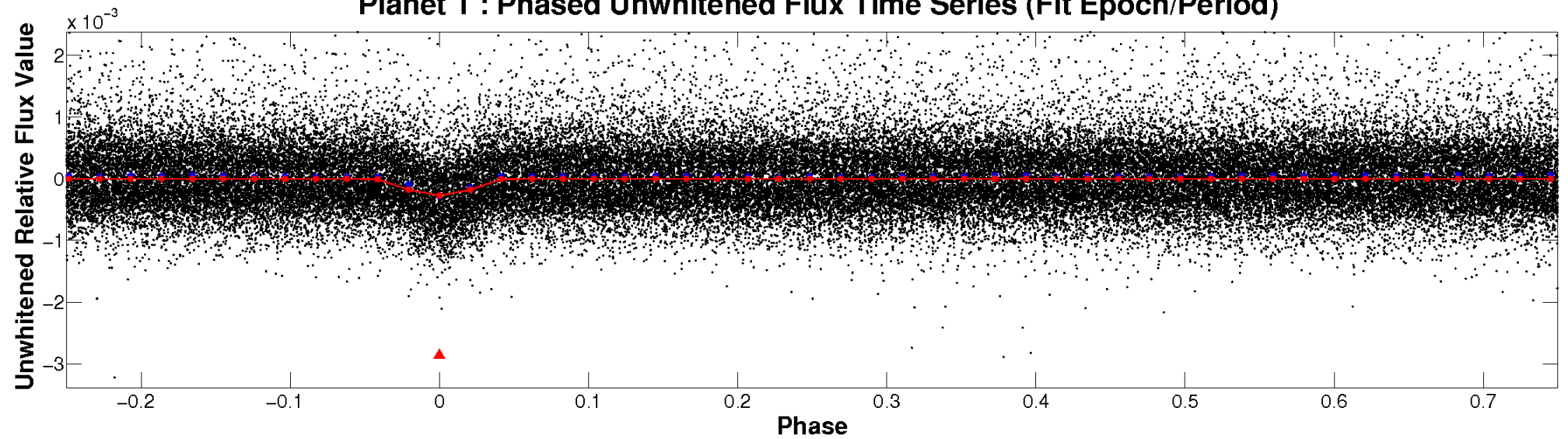
ALT Odd/Even

TCE 004863260-01

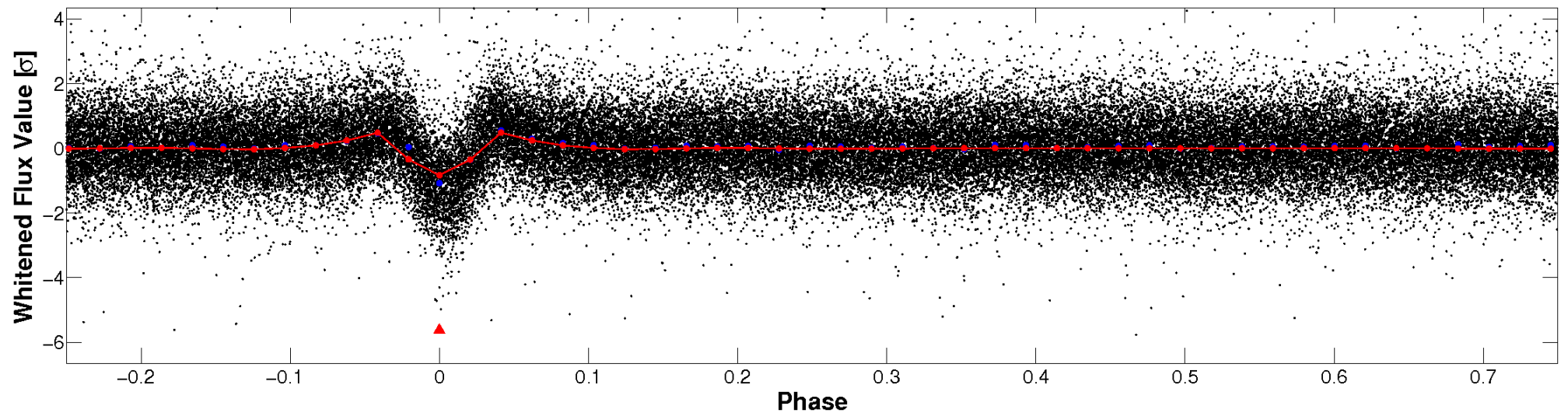


Non-Whitened Vs. Whitened Light Curve

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

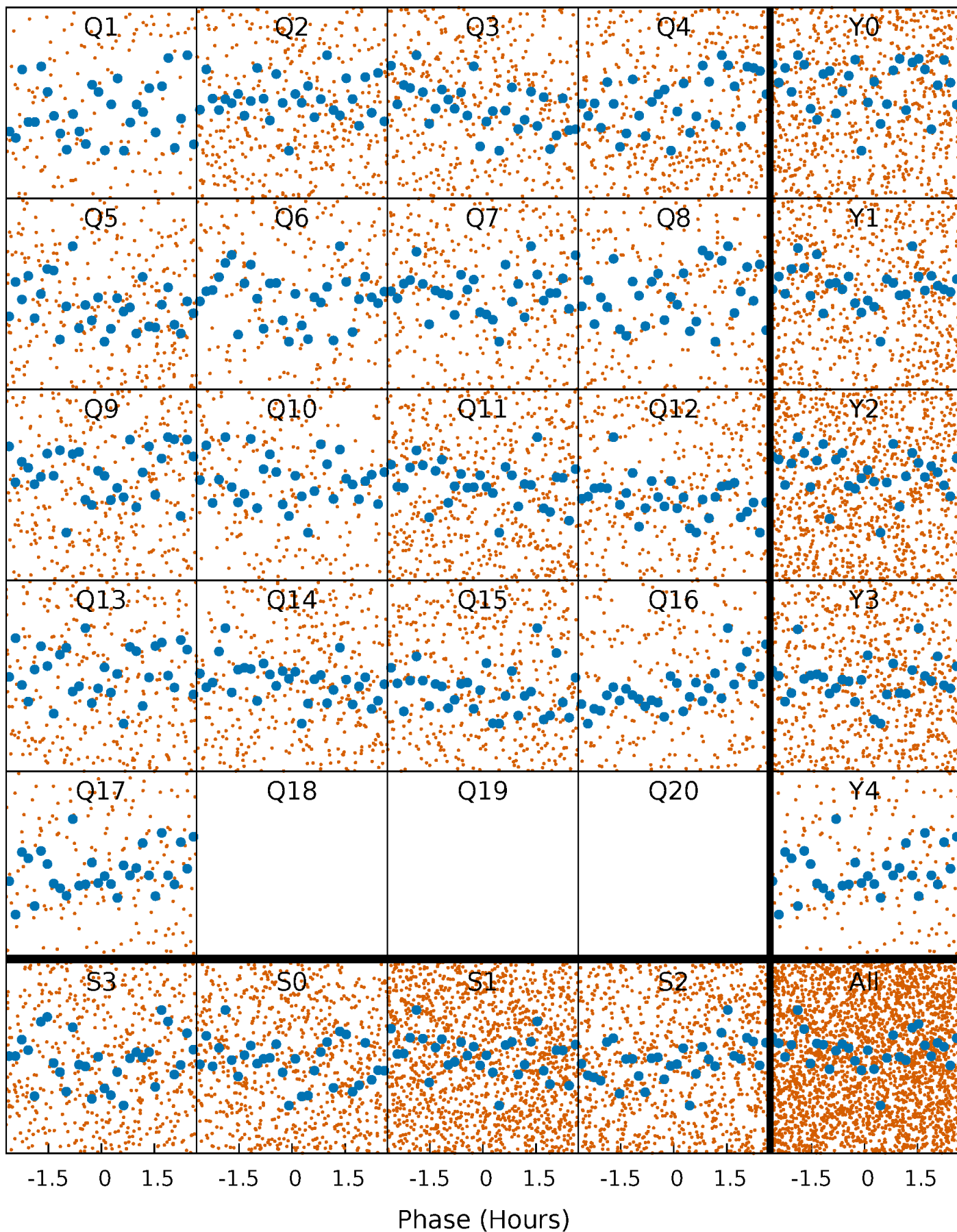


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



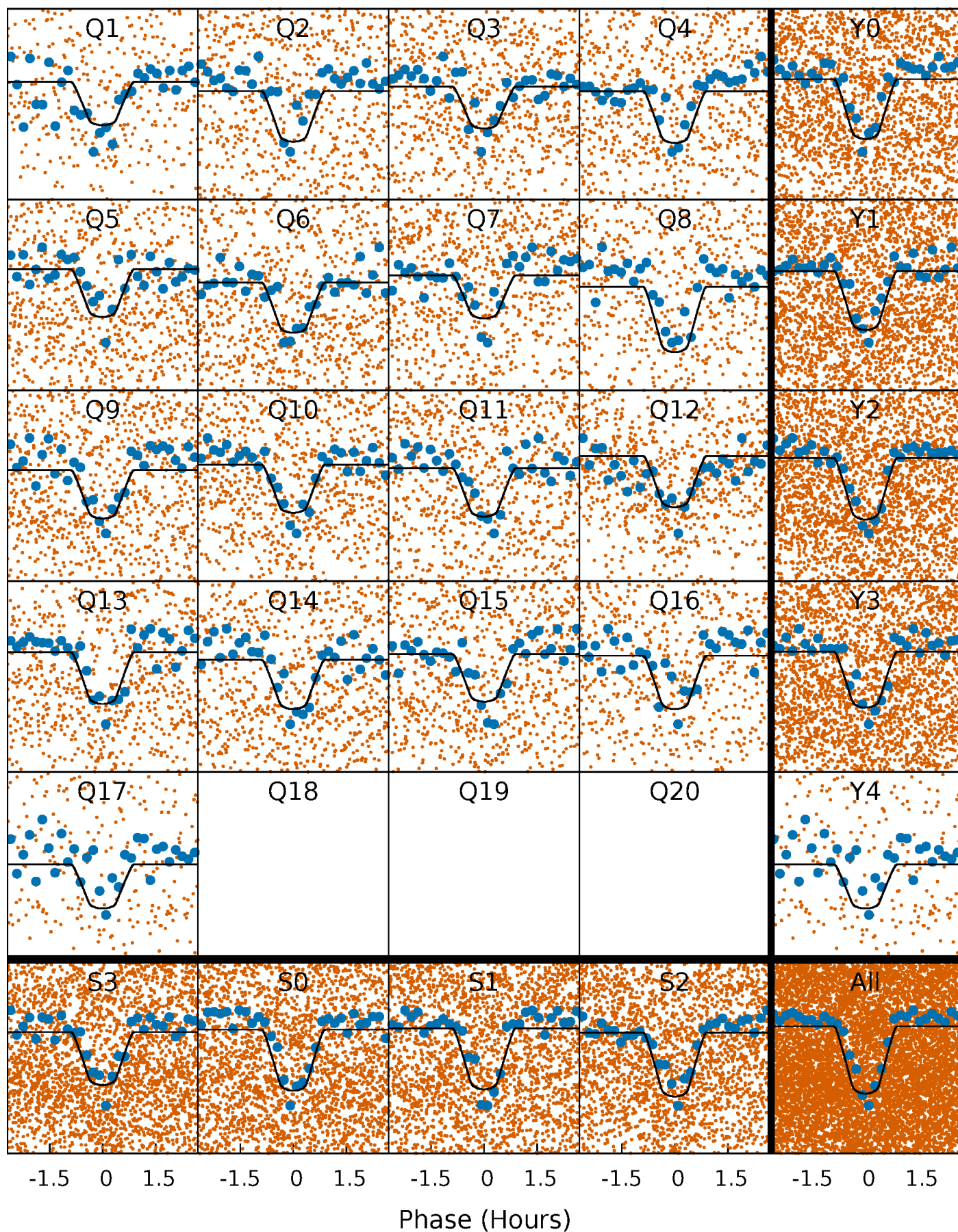
PDC Quarter-Phased Transit Curves

TCE 004863260-01 P= 0.987062 Days $T_0=131.914881$ (BKJD)



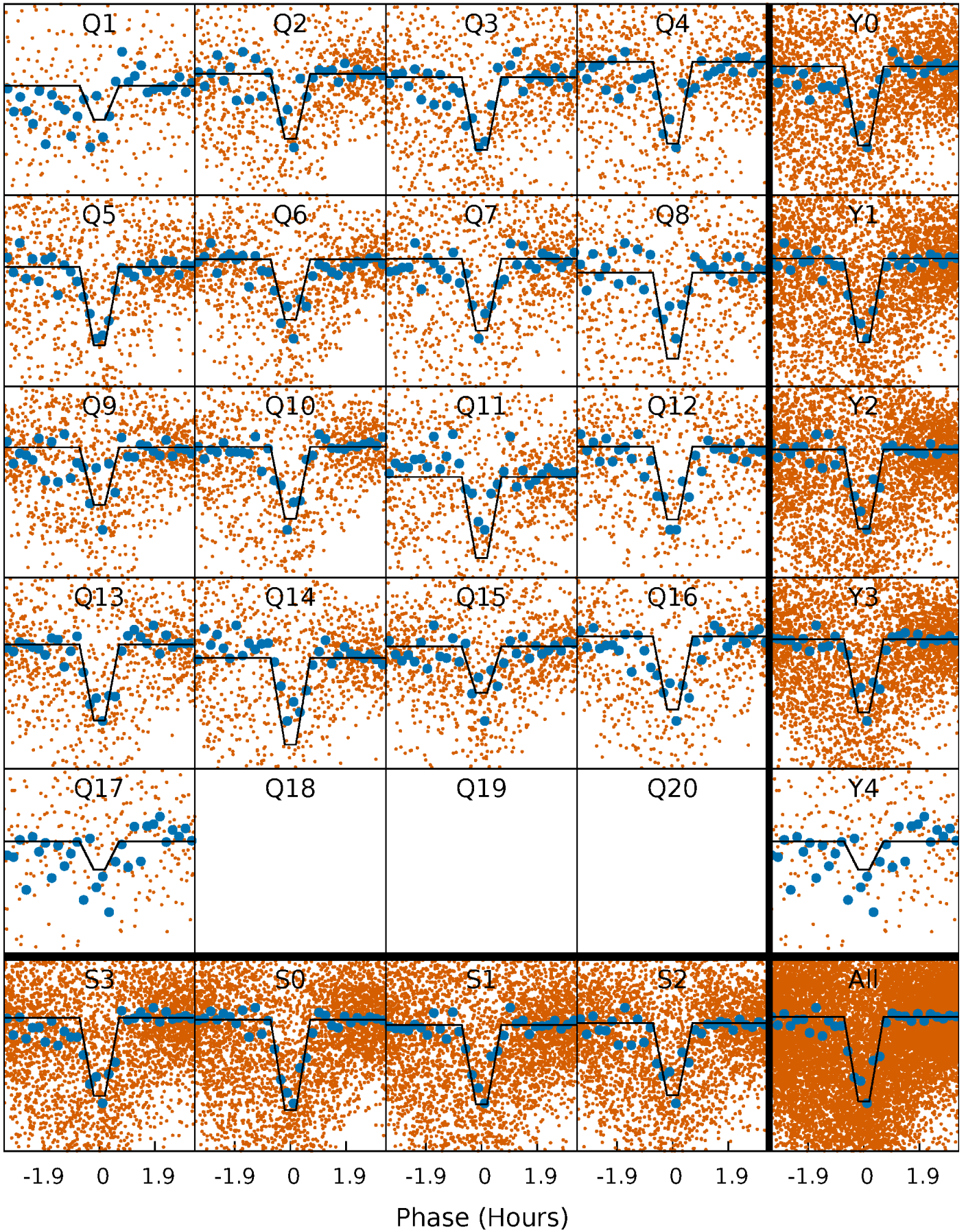
DV Quarter-Phased Transit Curves

TCE 004863260-01 P= 0.987062 Days $T_0=131.914881$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

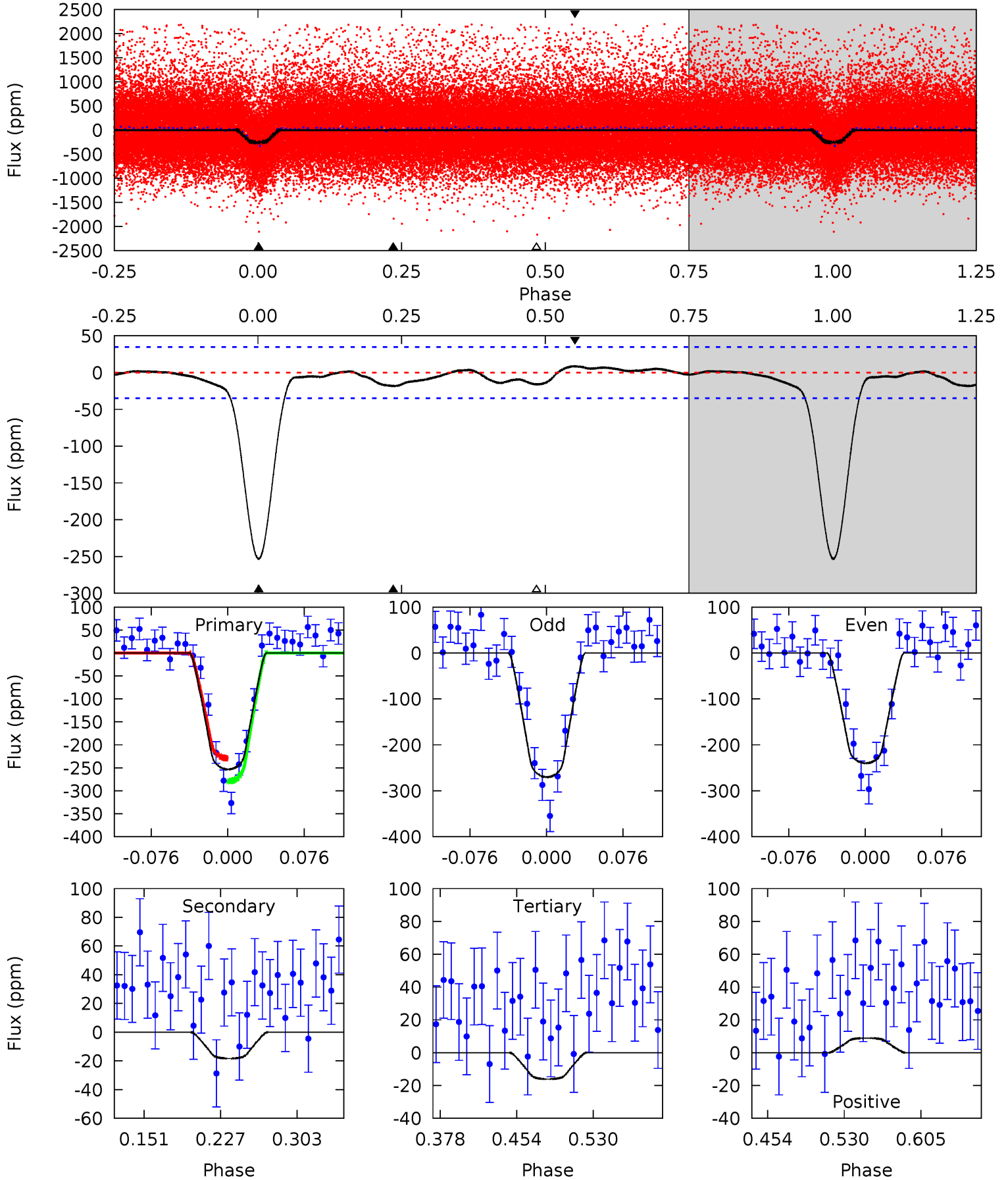
TCE 004863260-01 P= 0.987066 Days $T_0=131.914206$ (BKJD)



DV Model-Shift Uniqueness Test

004863260-01, P = 0.987062 Days, E = 130.927819 Days

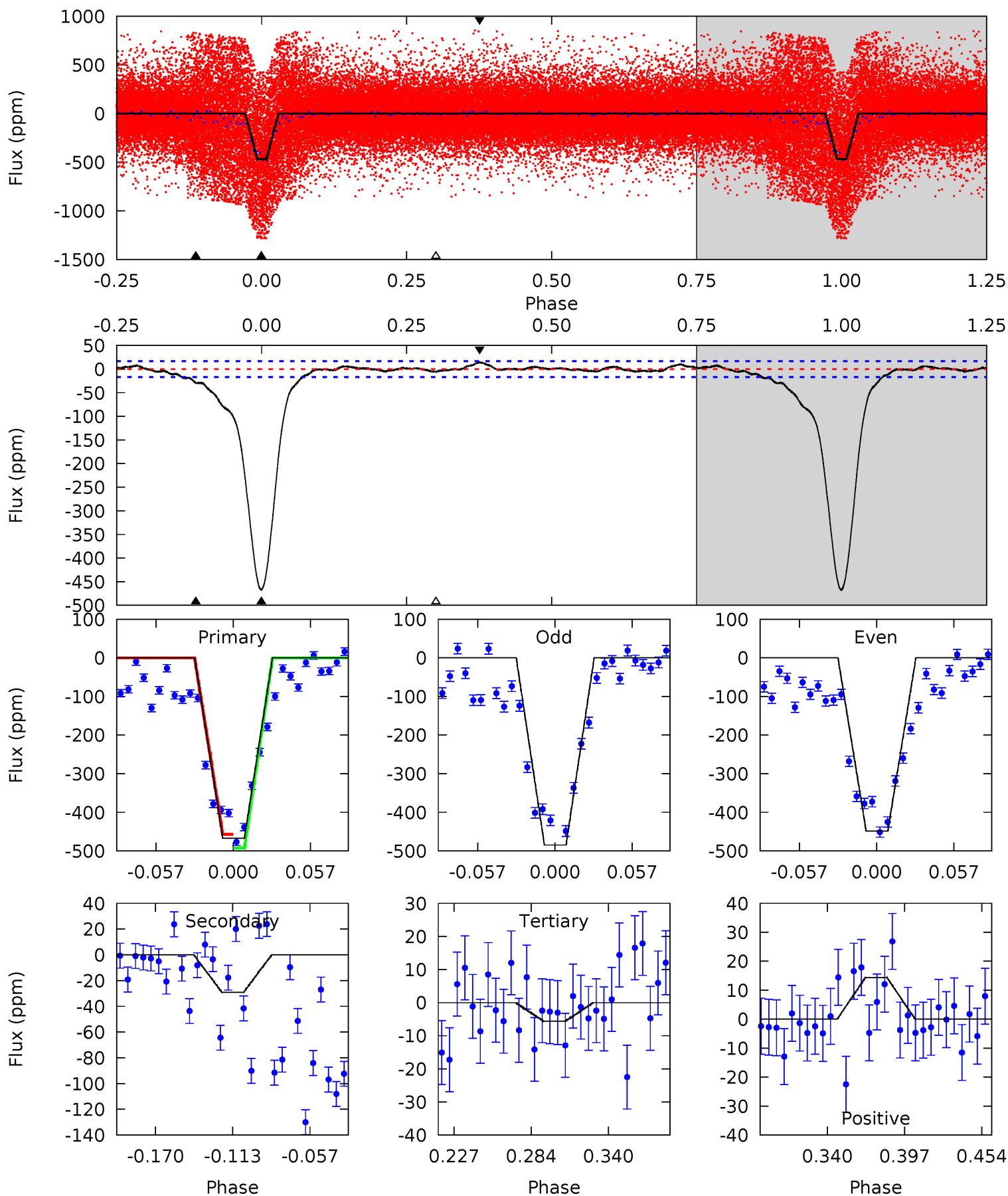
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.6	2.44	2.14	1.18	4.62	1.78	0.86	31.5	32.4	0.30	1.26	2.02	0.77	0.03	3.34



Alt Model-Shift Uniqueness Test

004863260-01, P = 0.987066 Days, E = 130.927140 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
129.1	8.06	1.55	3.97	4.68	1.91	1.54	127.6	125.2	6.51	4.10	4.95	0.91	0.03	0



Stellar Parameters For KIC 004863260

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6602^{+150}_{-201}	$4.354^{+0.065}_{-0.195}$	$-0.060^{+0.250}_{-0.350}$	$1.223^{+0.397}_{-0.132}$	$1.240^{+0.168}_{-0.168}$	$0.954^{+0.267}_{-0.499}$
	+2%/-3%	+1%/-4%	+417%/-583%	+32%/-11%	+14%/-14%	+28%/-52%
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 004863260-01 / KOI 5096.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-18 ± 8	$2.47^{+0.42}_{-0.30}$	3159^{+221}_{-136}	3290^{+358}_{-669}	$0.669^{+0.382}_{-0.298}$
Alt.	-29 ± 4	$2.83^{+0.51}_{-0.30}$	3156^{+220}_{-143}	3475^{+188}_{-218}	$0.837^{+0.263}_{-0.234}$

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

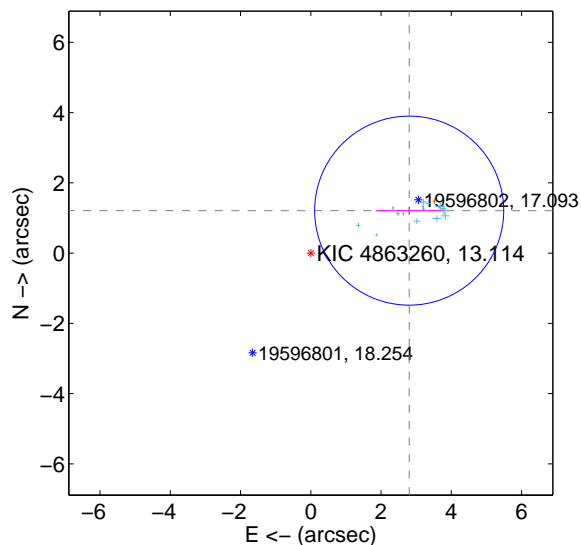
Supplemental centroid analysis for 004863260-01. Kepler magnitude: 13.11. Transit SNR 47.90

There are 15 quarters with good PRF difference image offsets

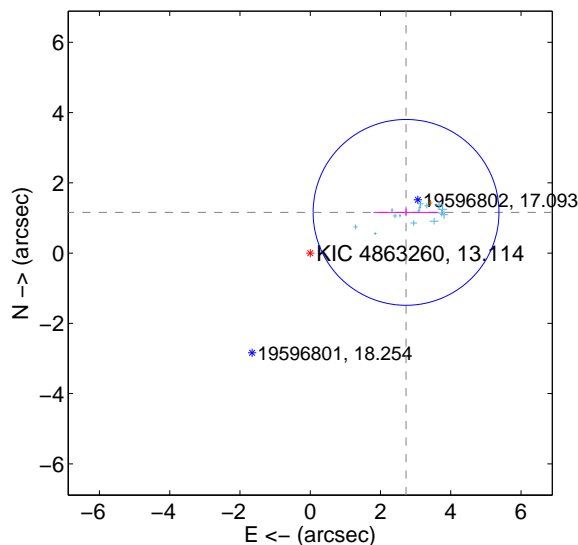
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.051 ± 0.897	3.40	-2.801 ± 0.947	1.209 ± 0.111
PRF-fit source offset from KIC position	2.964 ± 0.882	3.36	-2.728 ± 0.927	1.159 ± 0.109
photometric centroid source offset	3.15 ± 0.15	21.65	-2.79 ± 0.15	1.46 ± 0.15

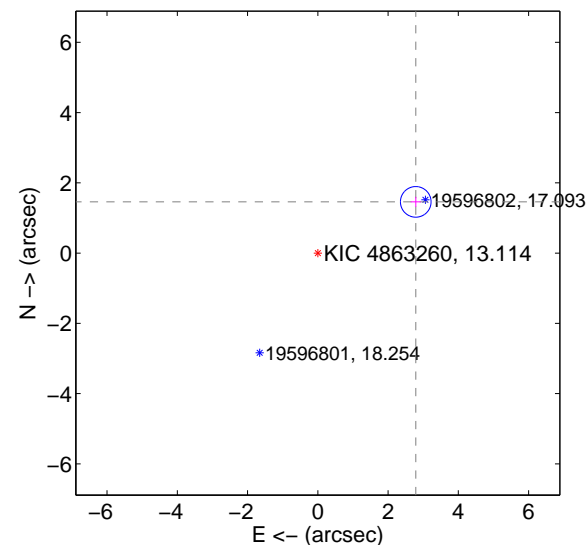
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

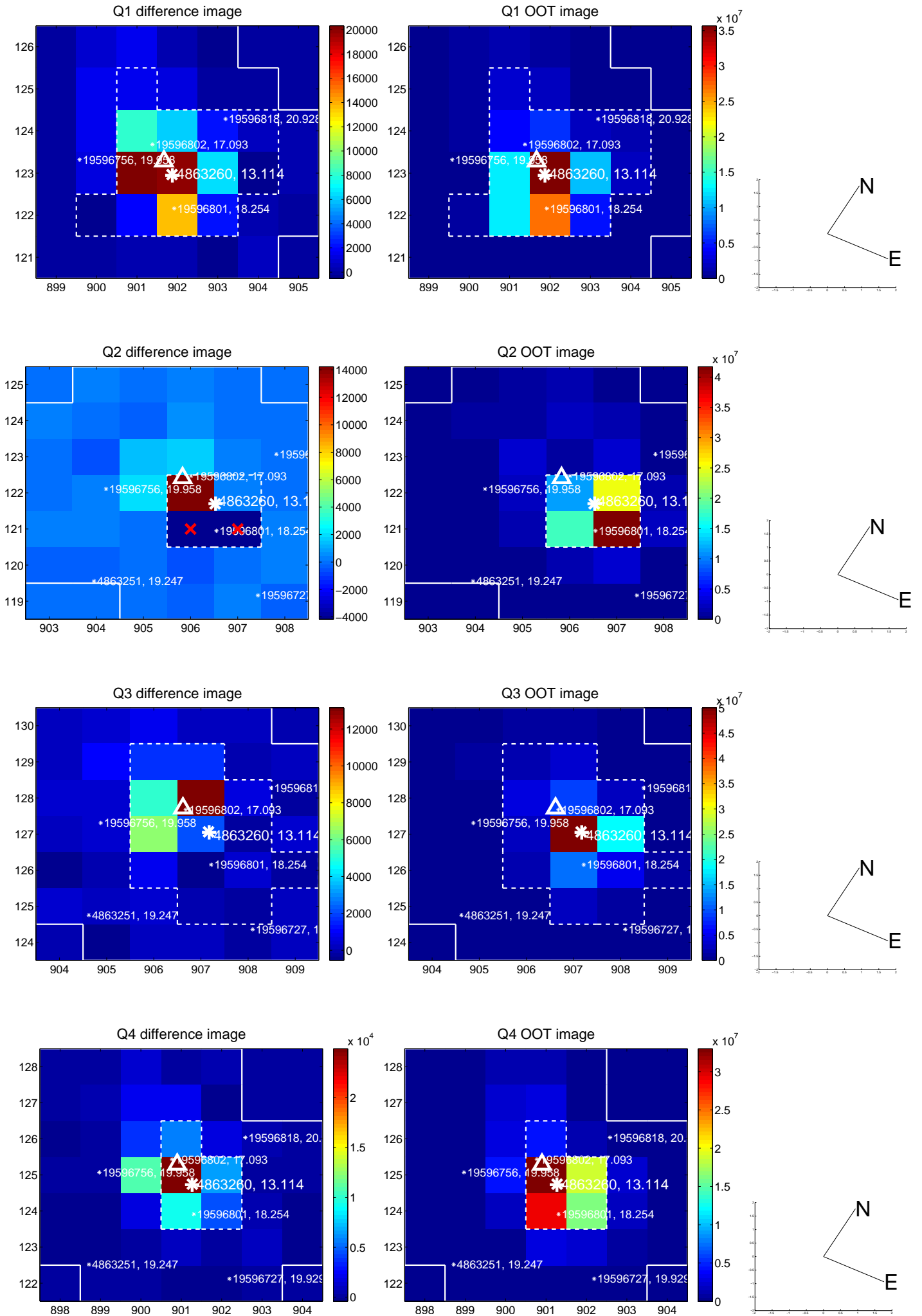


offset from photometric centroids

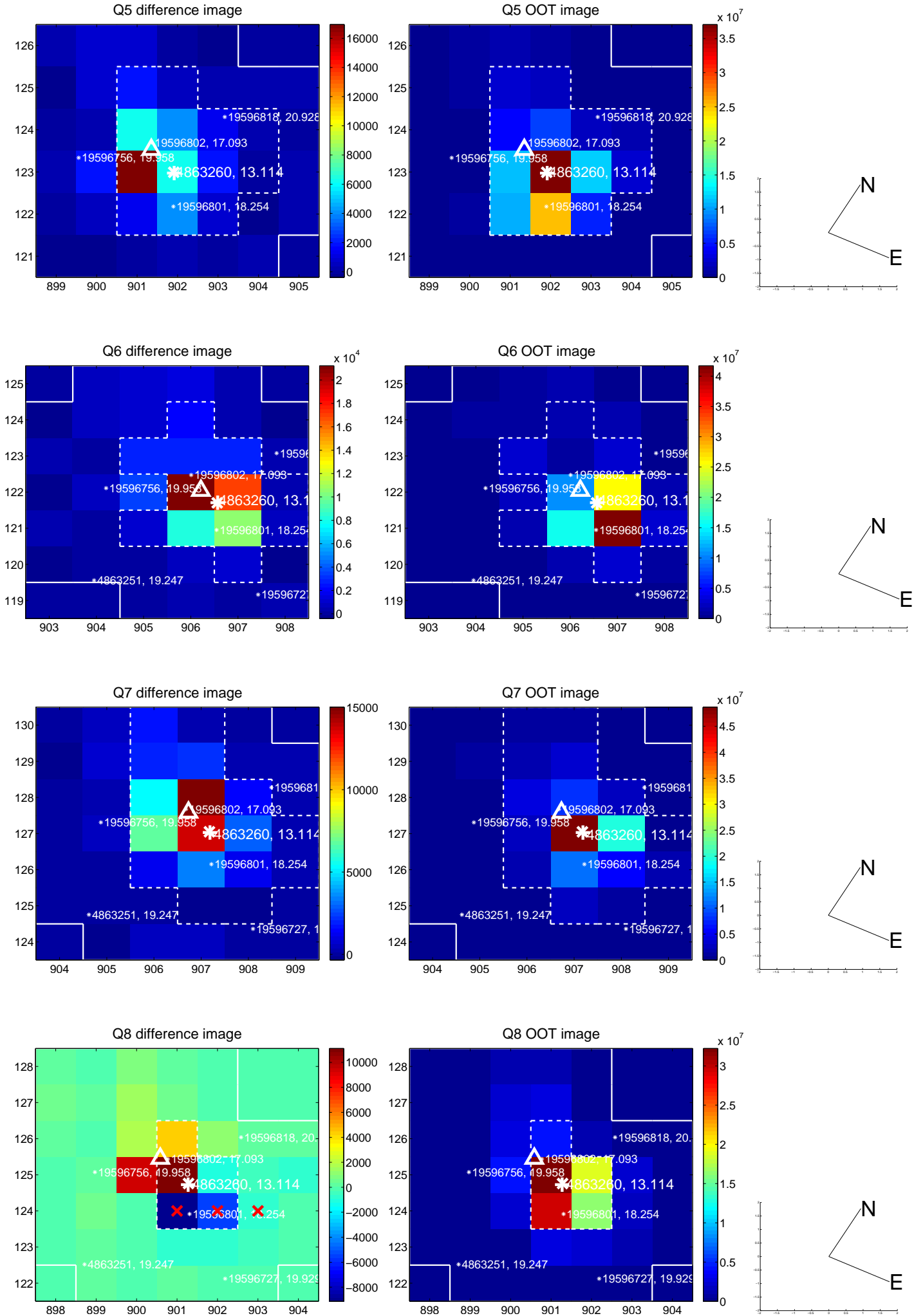


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

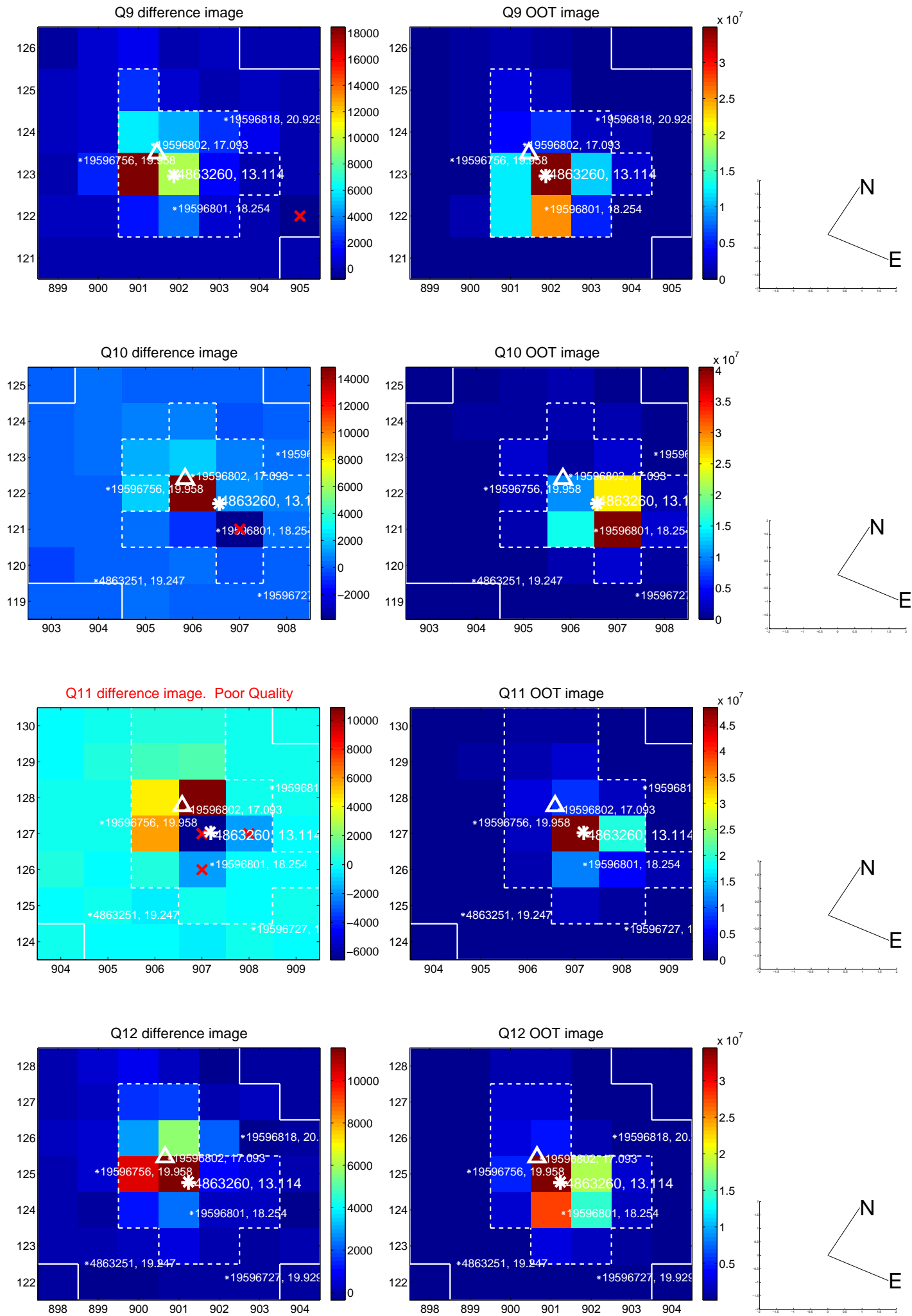
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



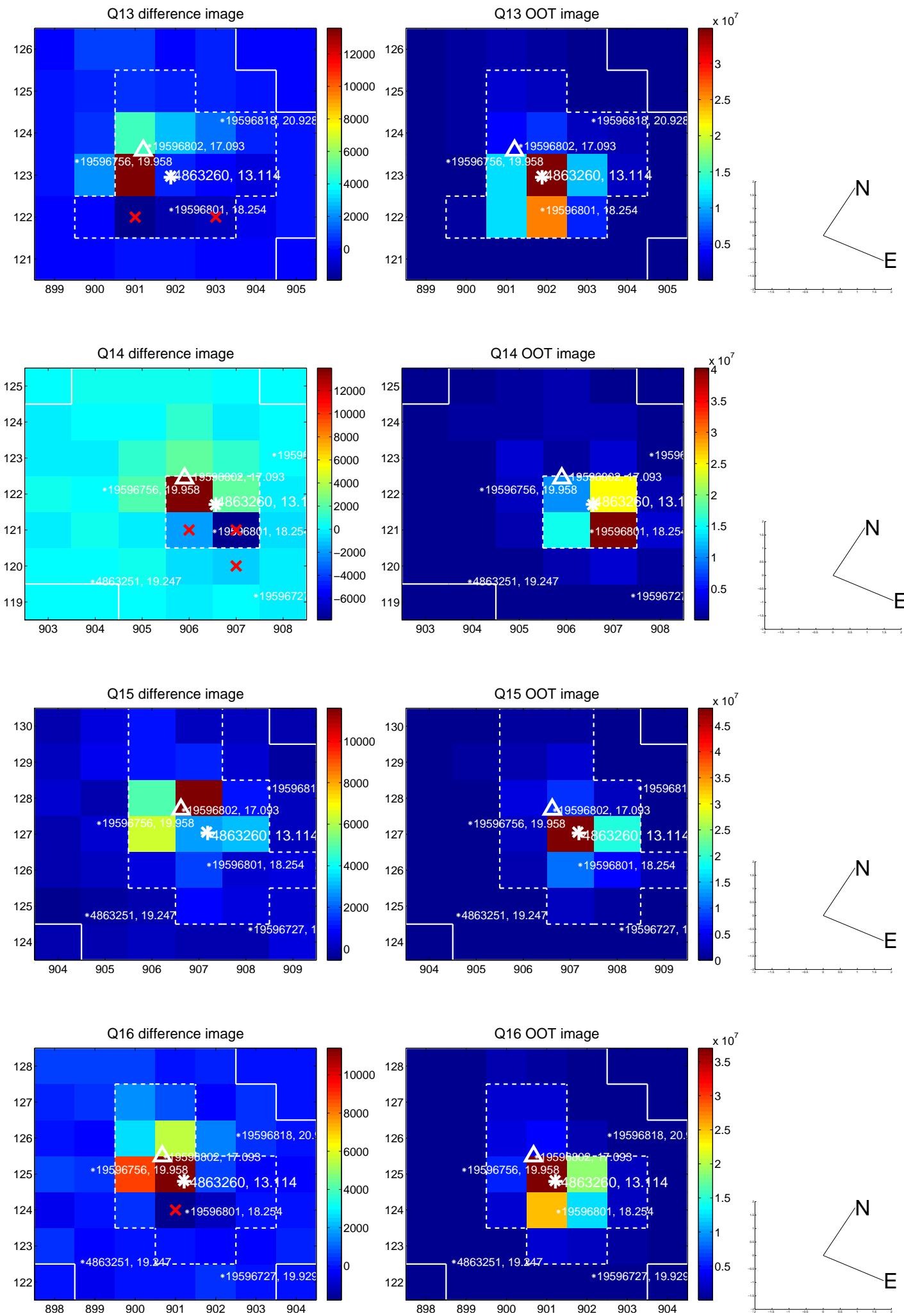
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



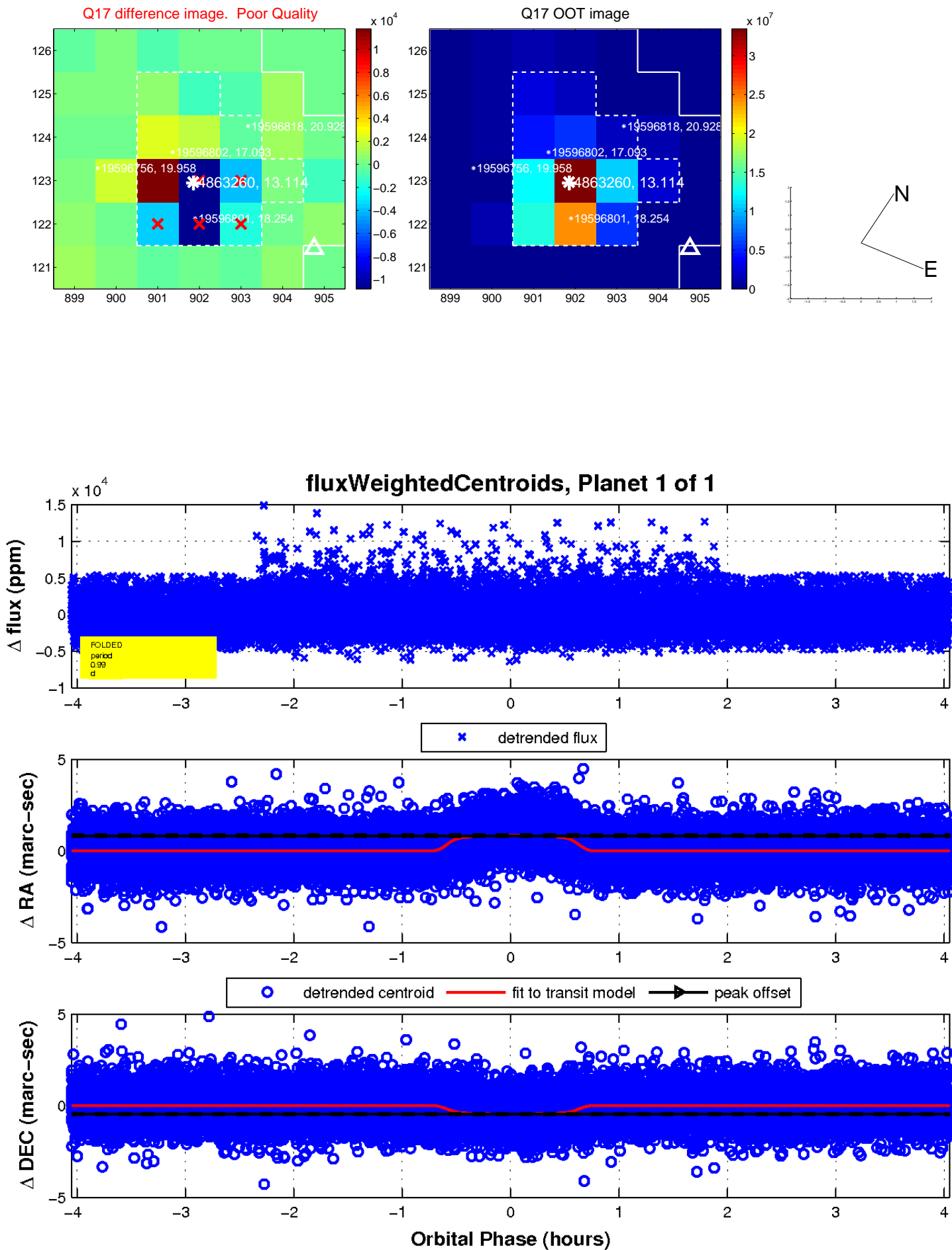
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

