

KIC 004648848

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})
004648848-01	OBS	No	2.620864	132.958505	6.6	23.966	8.7	11.3	2.63	8503	0.74	15829.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004648848-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

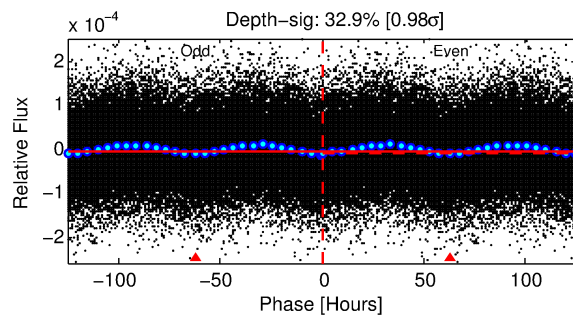
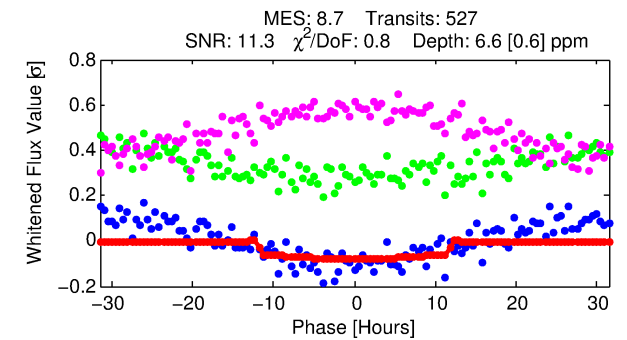
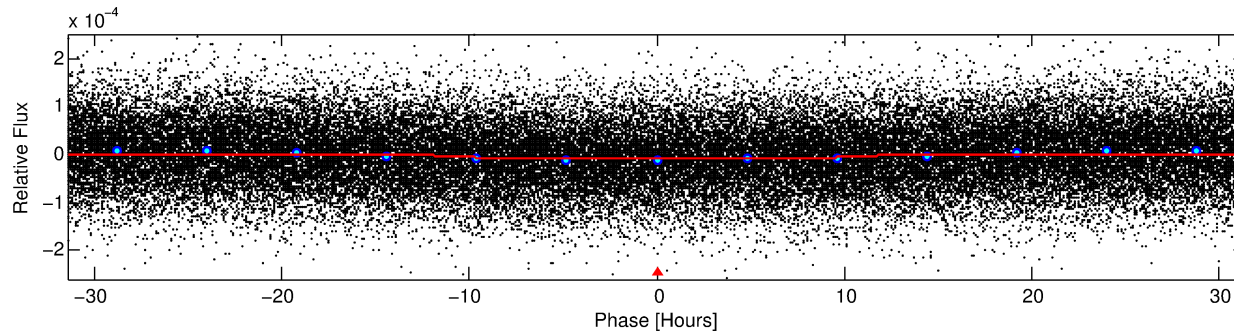
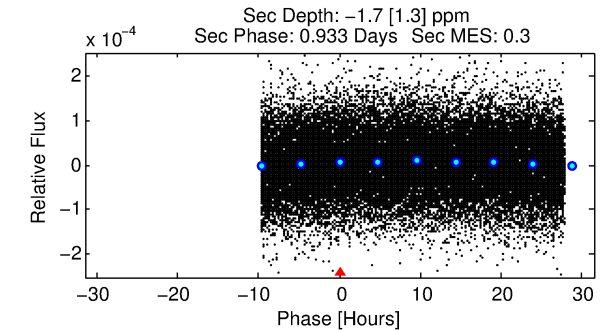
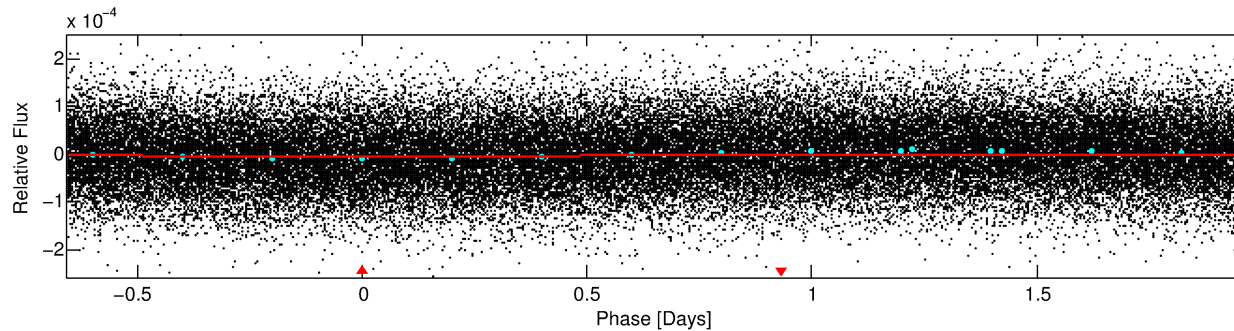
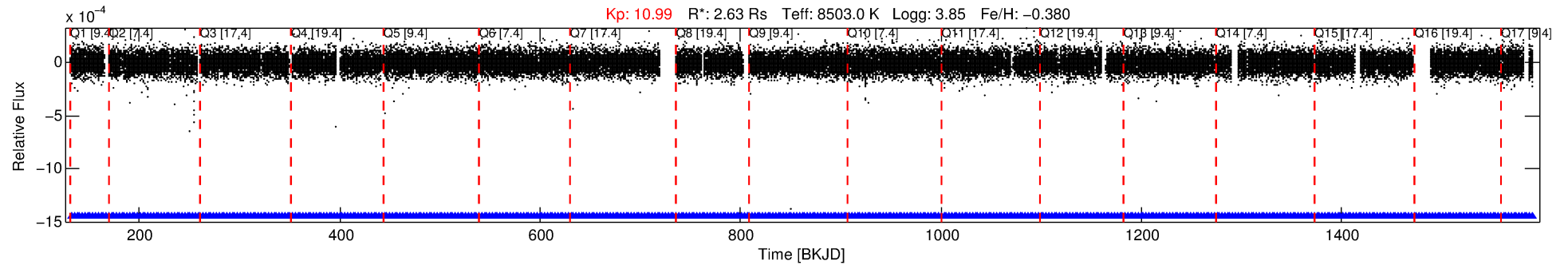
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004648848-01

No Significant Match Found

DV One-Page Summary

KIC: 4648848 Candidate: 1 of 1 Period: 2.621 d



DV Fit Results:

Period = 2.62086 [0.00006] d
Epoch = 132.9585 [0.0128] BKJD
Rp/R* = 0.0026 [0.0010]
a/R* = 1.03 [0.15]
b = 0.80 [1.12]
Seff = 15829.00 [6156.50]
Teq = 2860 [278] K
Rp = 0.75 [0.34] Re
a = 0.0452 [0.0111] AU
Ag = N/A
Teffp = N/A

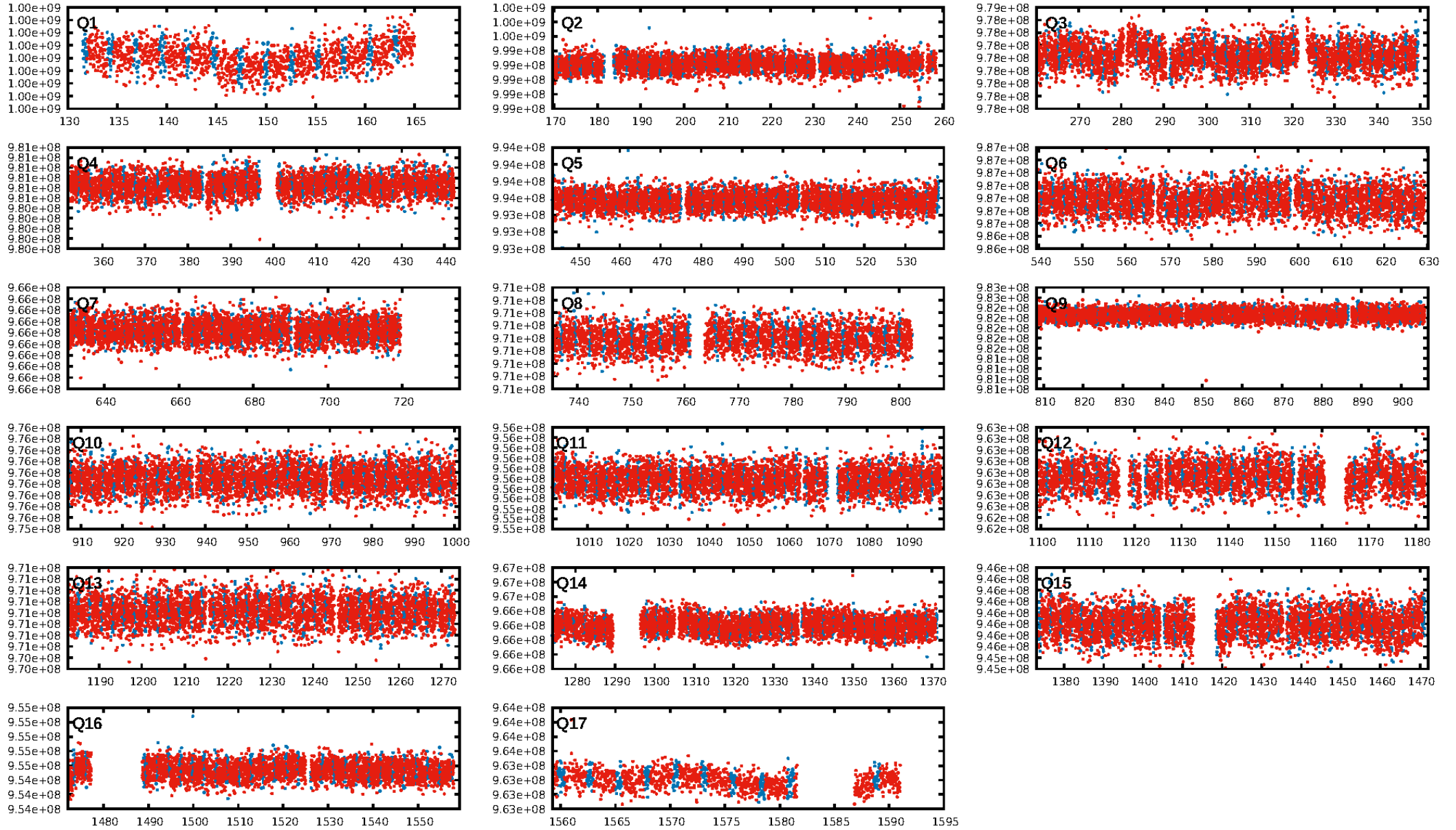
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [504/504]
GhostDiagnostic-chr: 6.781
Centroid-sig: 0.4%
Centroid-so: 2.857 arcsec [1.88σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

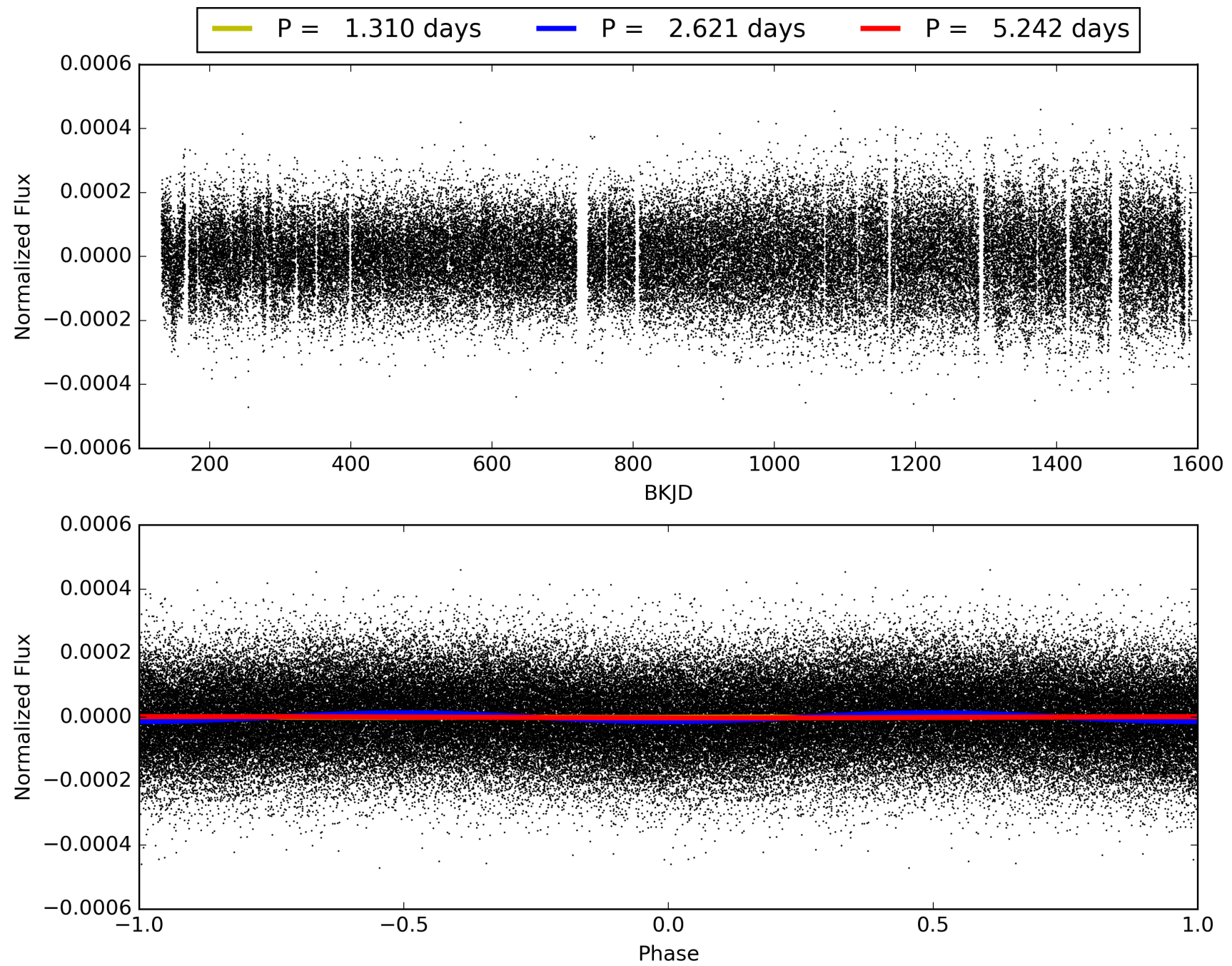
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:10:54 Z

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

TCE 004648848-01, PDC Light Curves

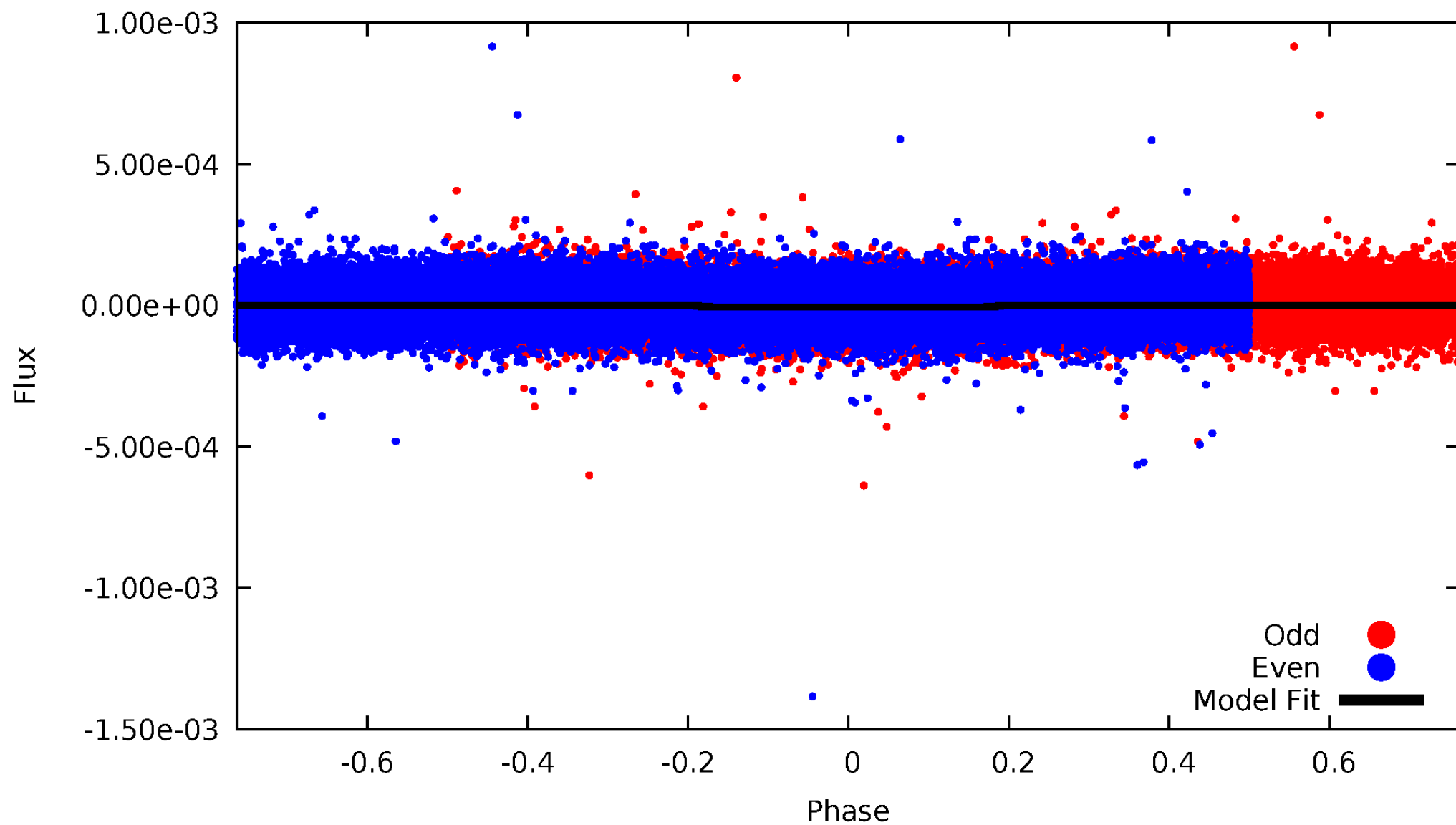


TCE 004648848-01



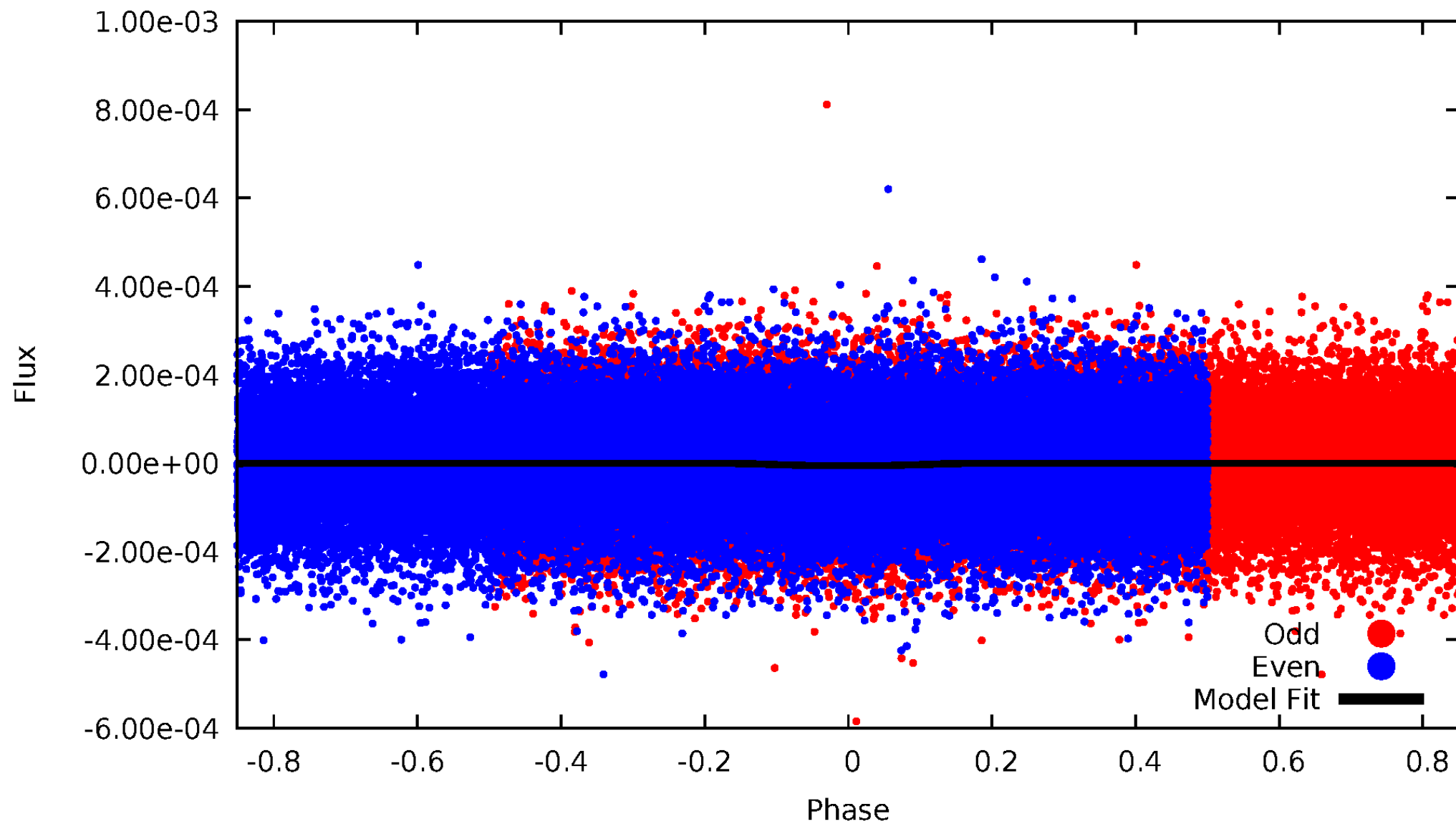
DV Odd/Even

TCE 004648848-01



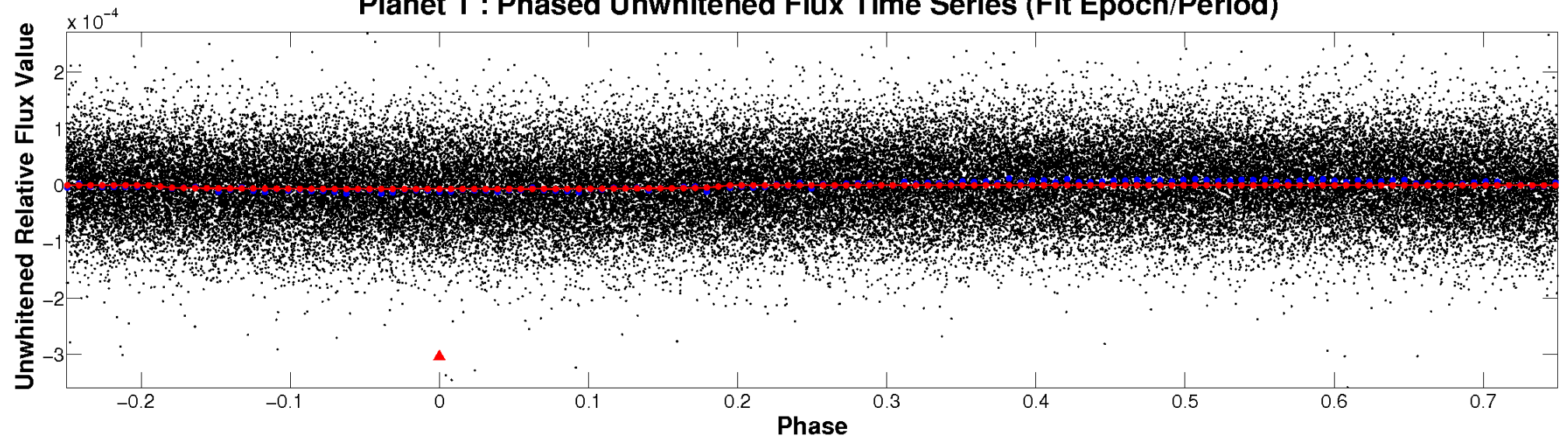
ALT Odd/Even

TCE 004648848-01

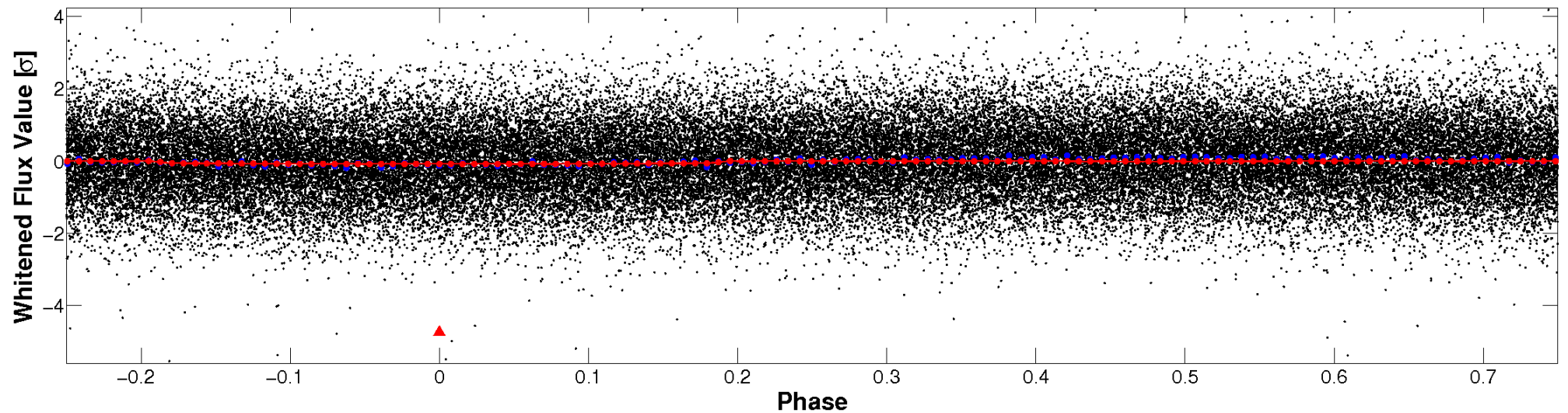


Non-Whitened Vs. Whitened Light Curve

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

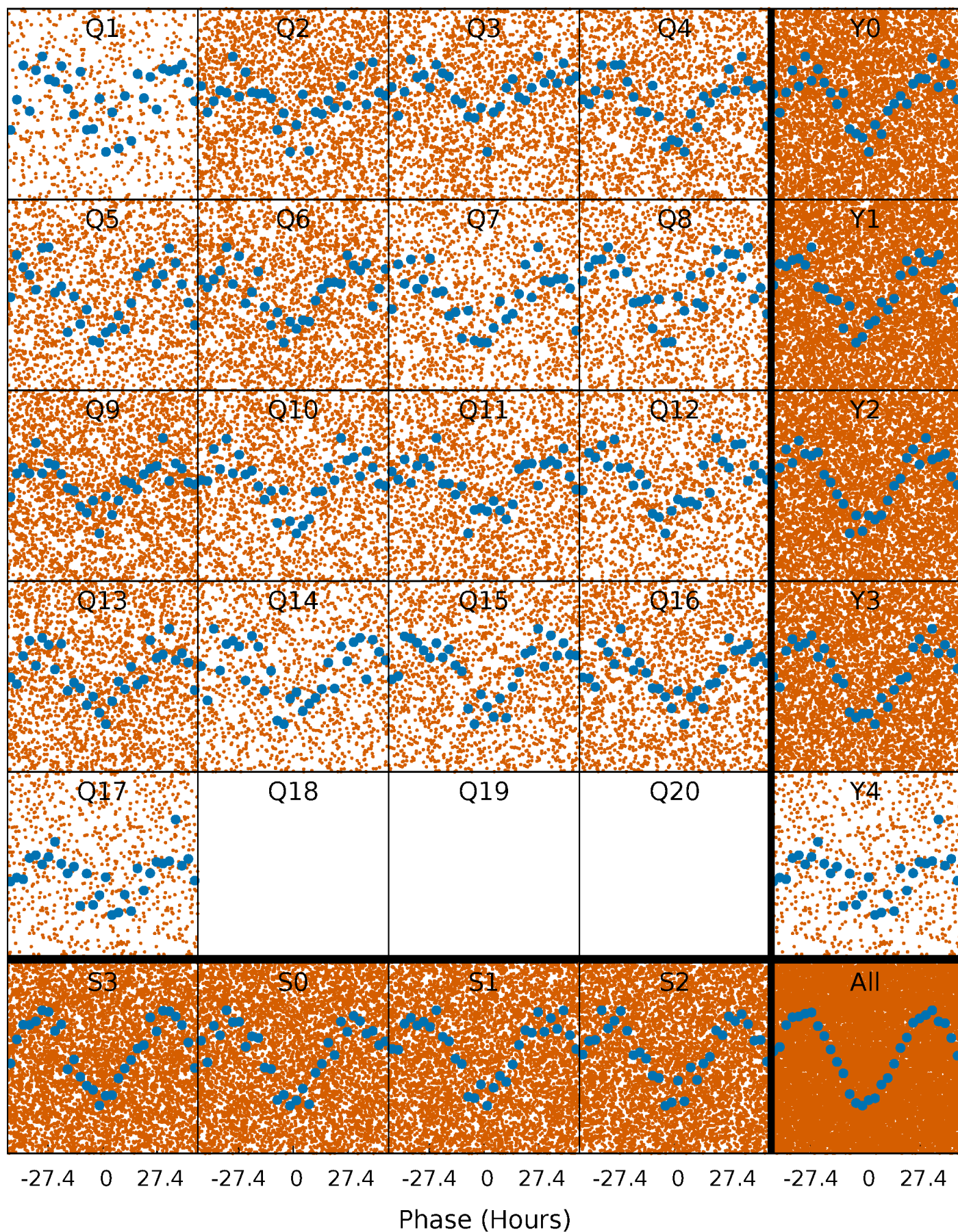


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



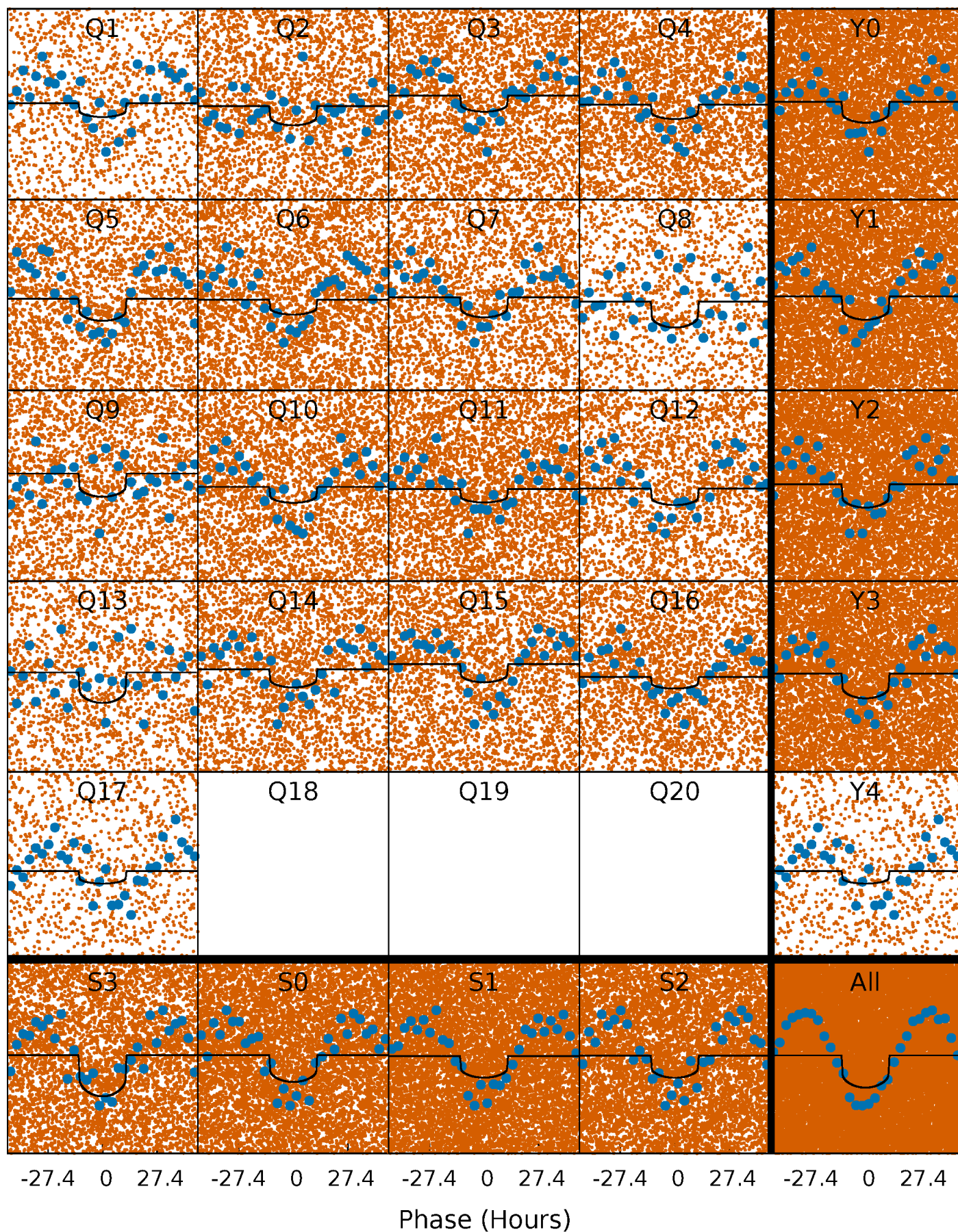
PDC Quarter-Phased Transit Curves

TCE 004648848-01 P= 2.620864 Days $T_0=132.958505$ (BKJD)



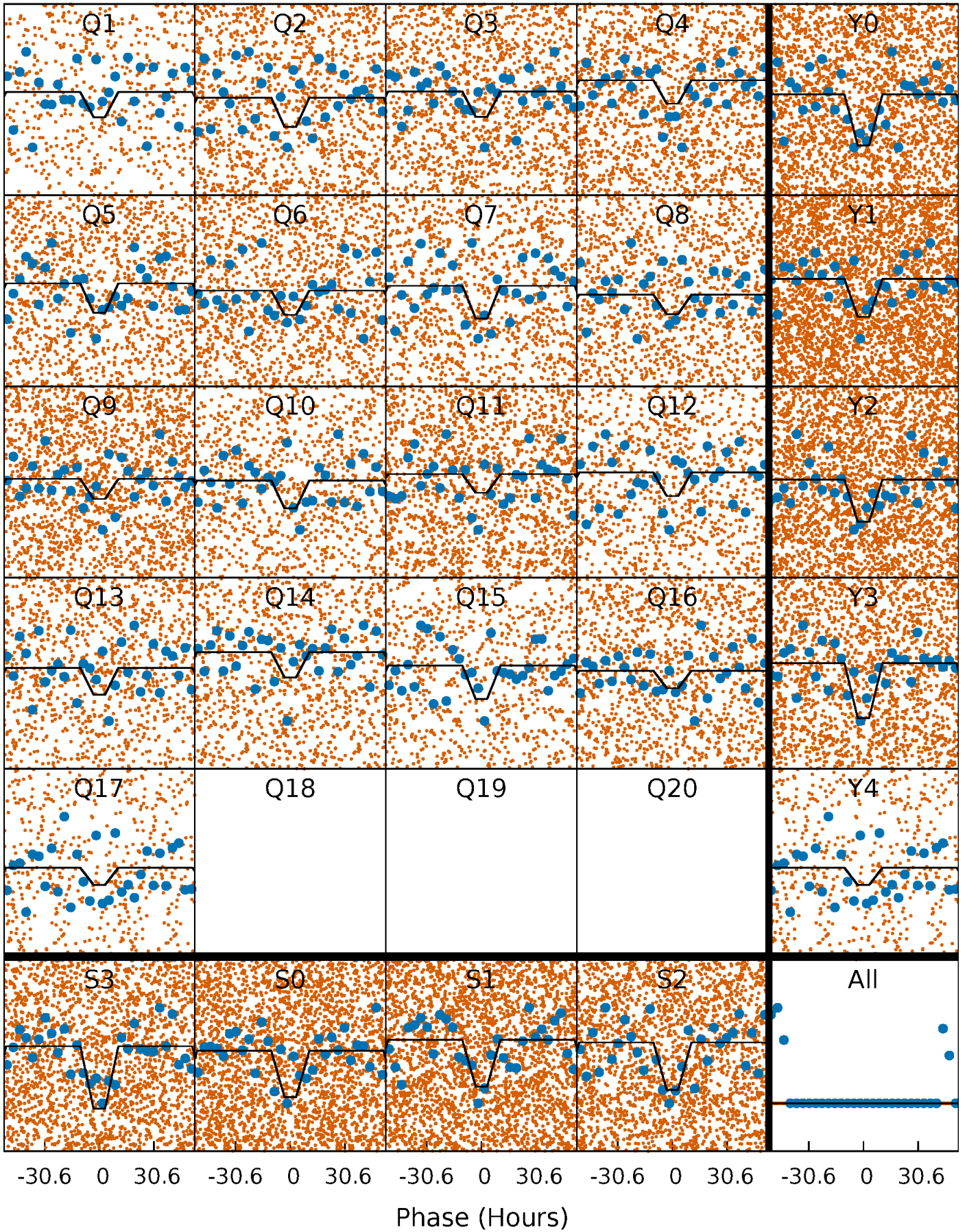
DV Quarter-Phased Transit Curves

TCE 004648848-01 P= 2.620864 Days $T_0=132.958505$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

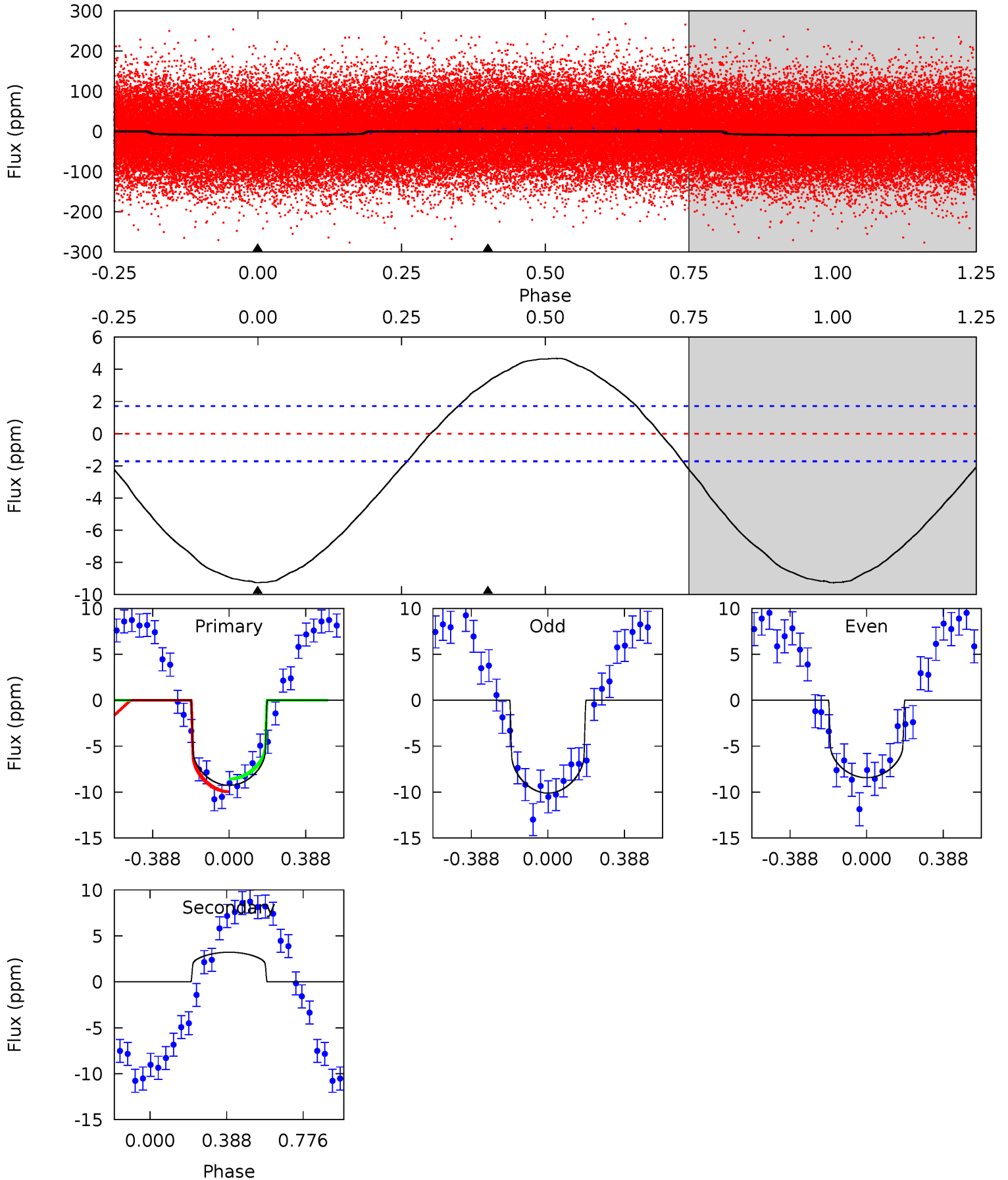
TCE 004648848-01 P= 2.620244 Days $T_0=133.008596$ (BKJD)



DV Model-Shift Uniqueness Test

004648848-01, P = 2.620864 Days, E = 130.337641 Days

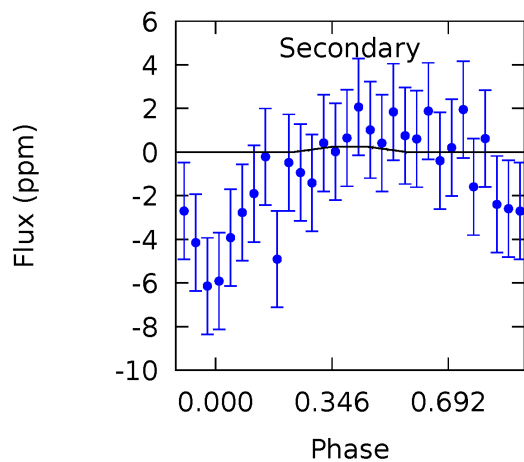
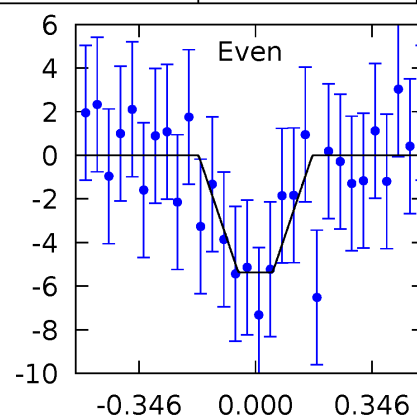
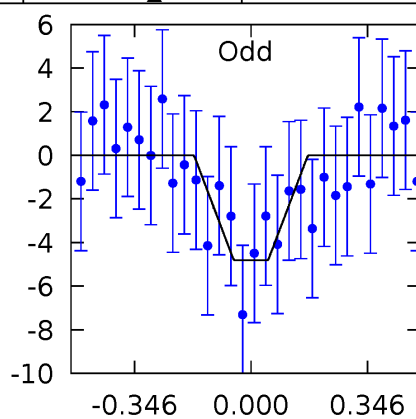
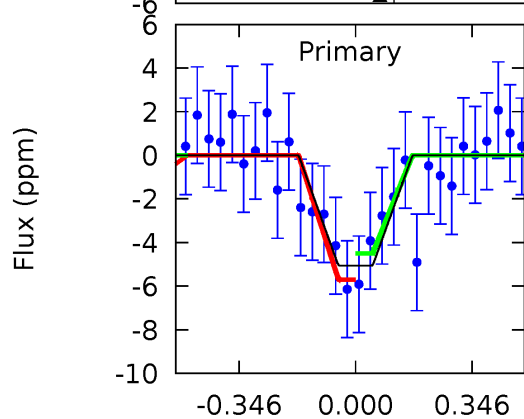
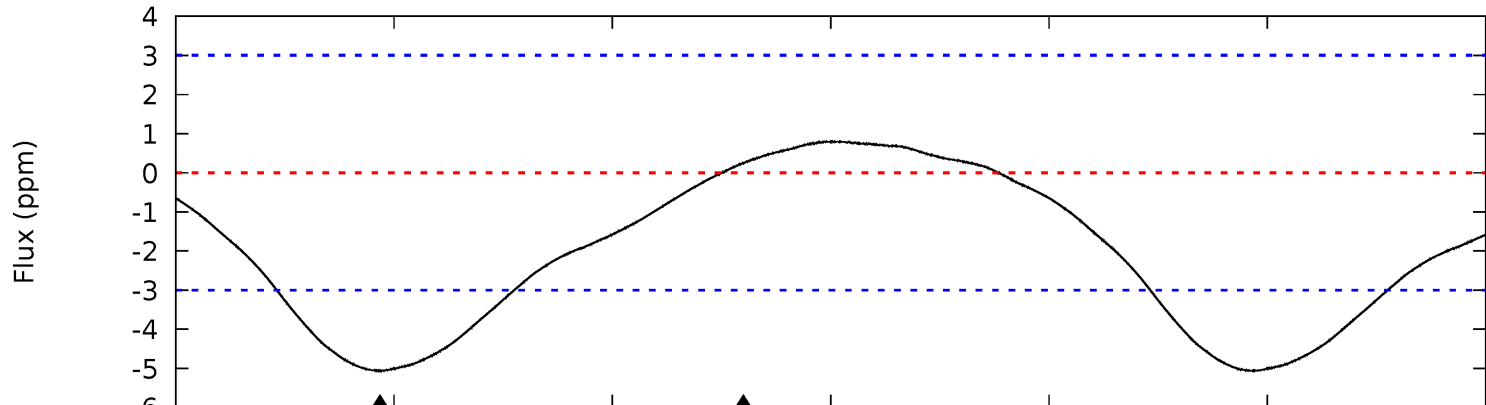
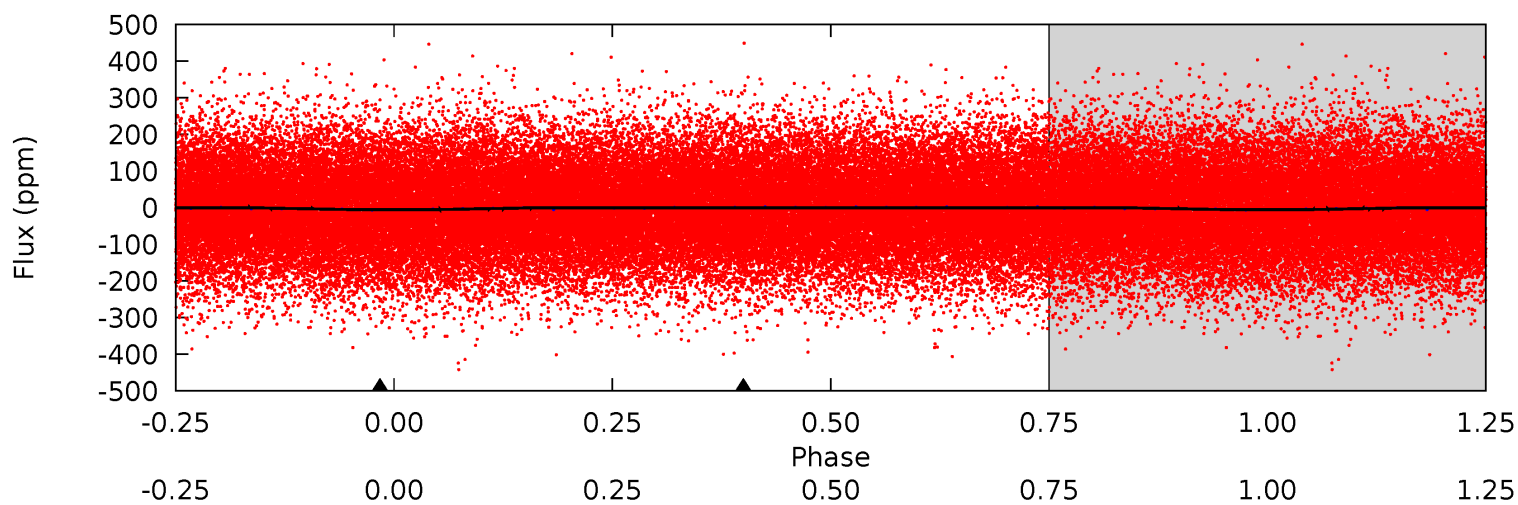
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.1	-8.01	0	0	4.27	0.86	3.13	23.1	23.1	-8.01	-8.01	2.07	1.10	0.34	1.73



Alt Model-Shift Uniqueness Test

004648848-01, P = 2.620244 Days, E = 130.388352 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.25	-0.36	0	0	4.30	0.94	0.40	7.25	7.25	-0.36	-0.36	0.39	-0.02	0.14	0.85



Stellar Parameters For KIC 004648848

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8503^{+76}_{-84}	$3.852^{+0.225}_{-0.060}$	$-0.380^{+0.050}_{-0.150}$	$2.626^{+0.275}_{-0.687}$	$1.791^{+0.043}_{-0.173}$	$0.139^{+0.184}_{-0.026}$
	+1%/-1%	+6%/-2%	+13%/-39%	+10%/-26%	+2%/-10%	+132%/-19%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 004648848-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	3 ± 0	$0.71^{+0.26}_{-0.29}$	3926^{+148}_{-287}	-6830^{+993}_{-2279}	$-7.033^{+3.306}_{-12.621}$
Alt.	0 ± 1	$0.66^{+0.28}_{-0.26}$	3950^{+142}_{-272}	-4090^{+8463}_{-1508}	$-0.372^{+1.637}_{-2.555}$

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

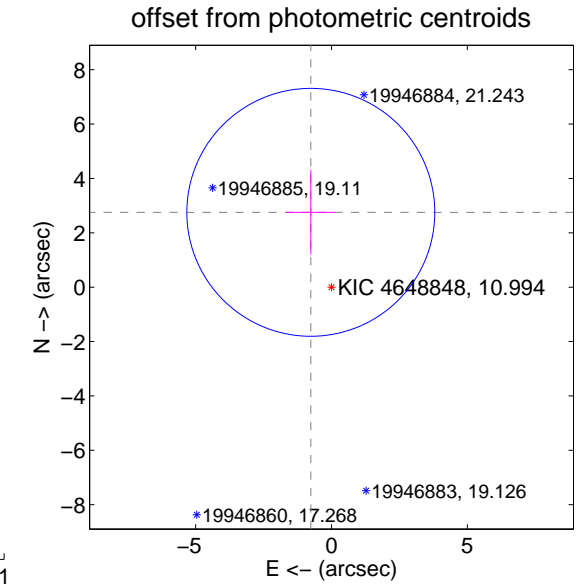
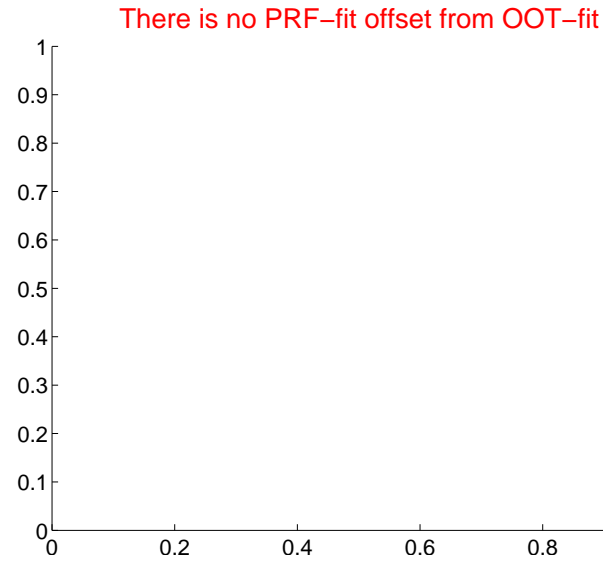
DV Centroid Data

Supplemental centroid analysis for 004648848-01. **Kepler magnitude: 10.99.** Transit SNR 11.26

There are 0 quarters with good PRF difference image offsets

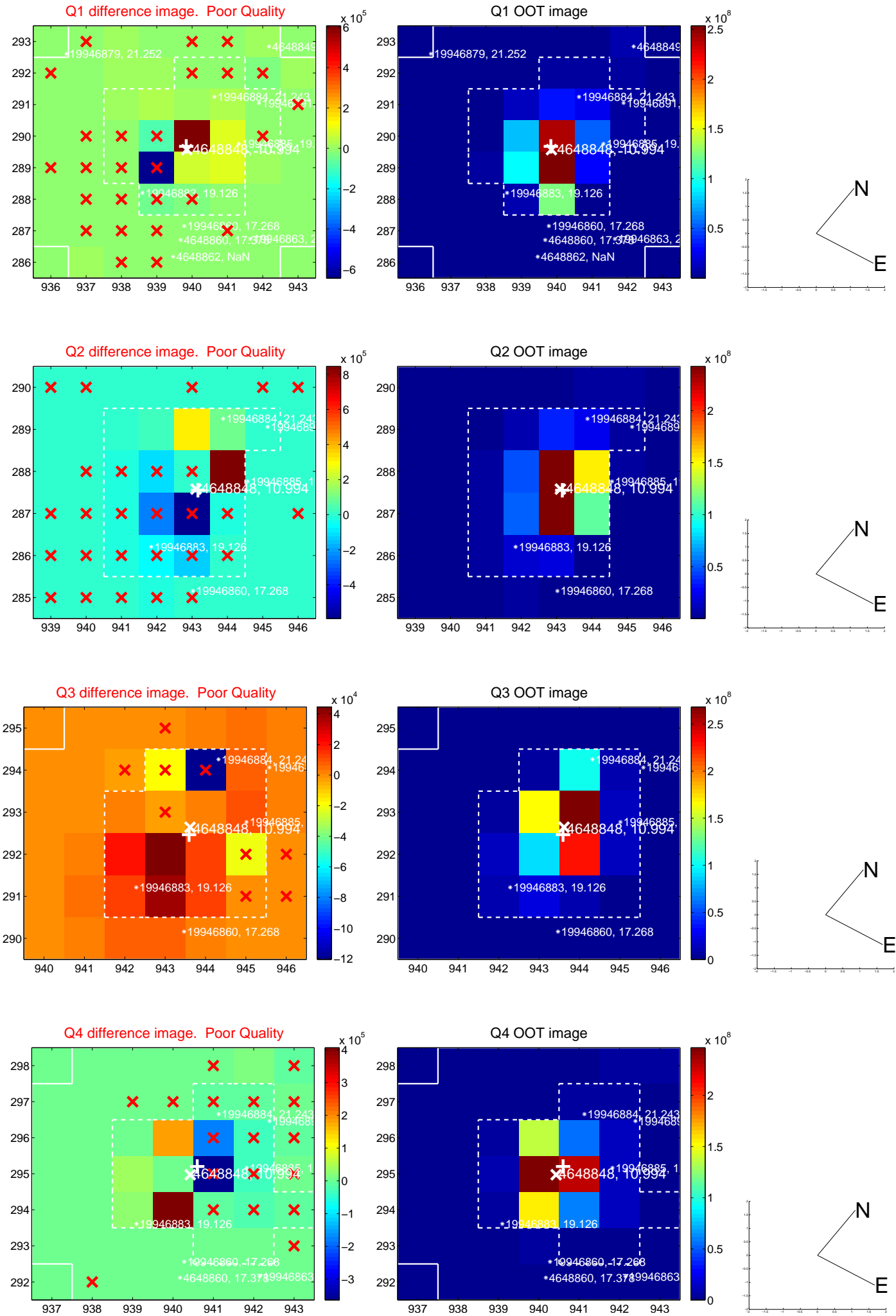
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	2.86 ± 1.52	1.88	0.76 ± 0.91	2.75 ± 1.56

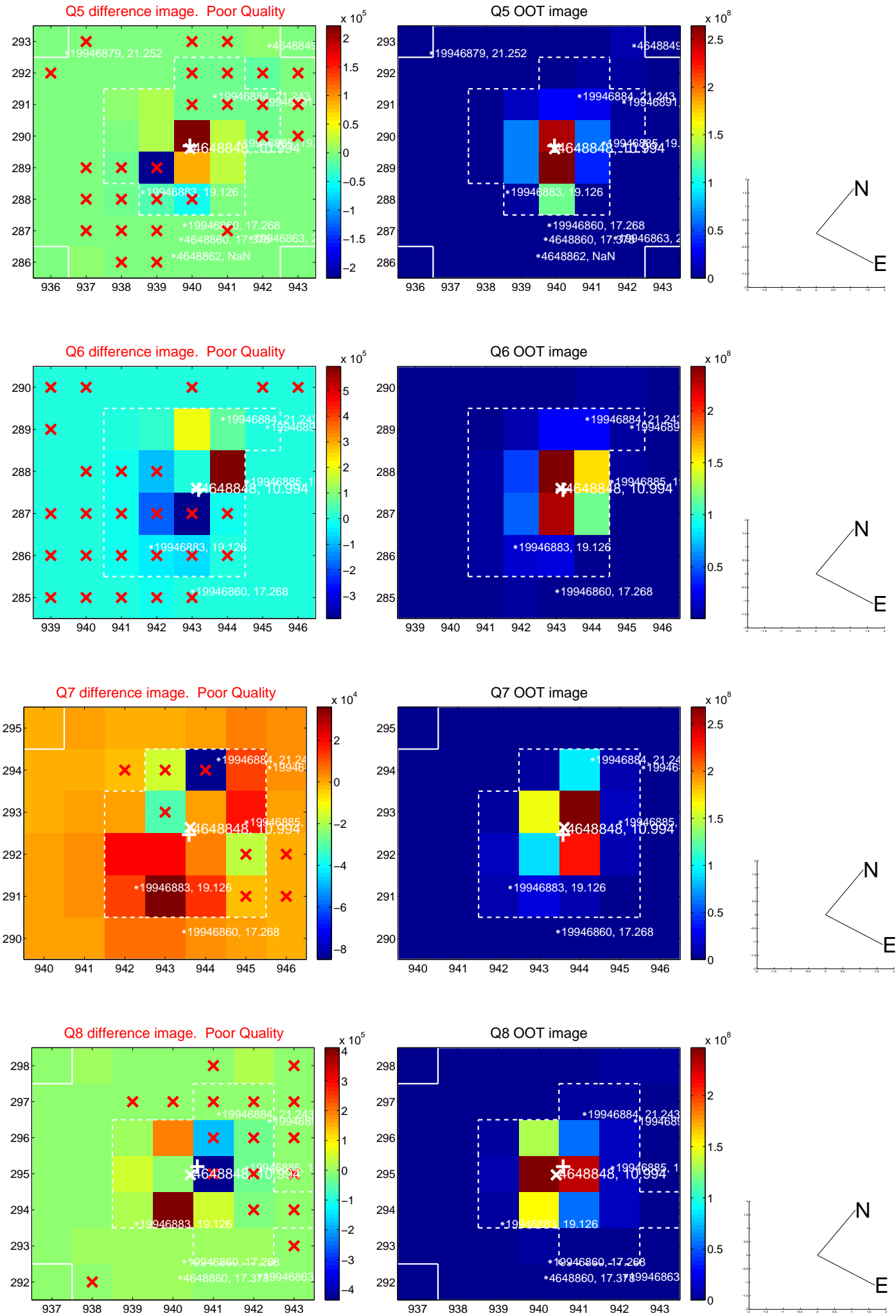


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

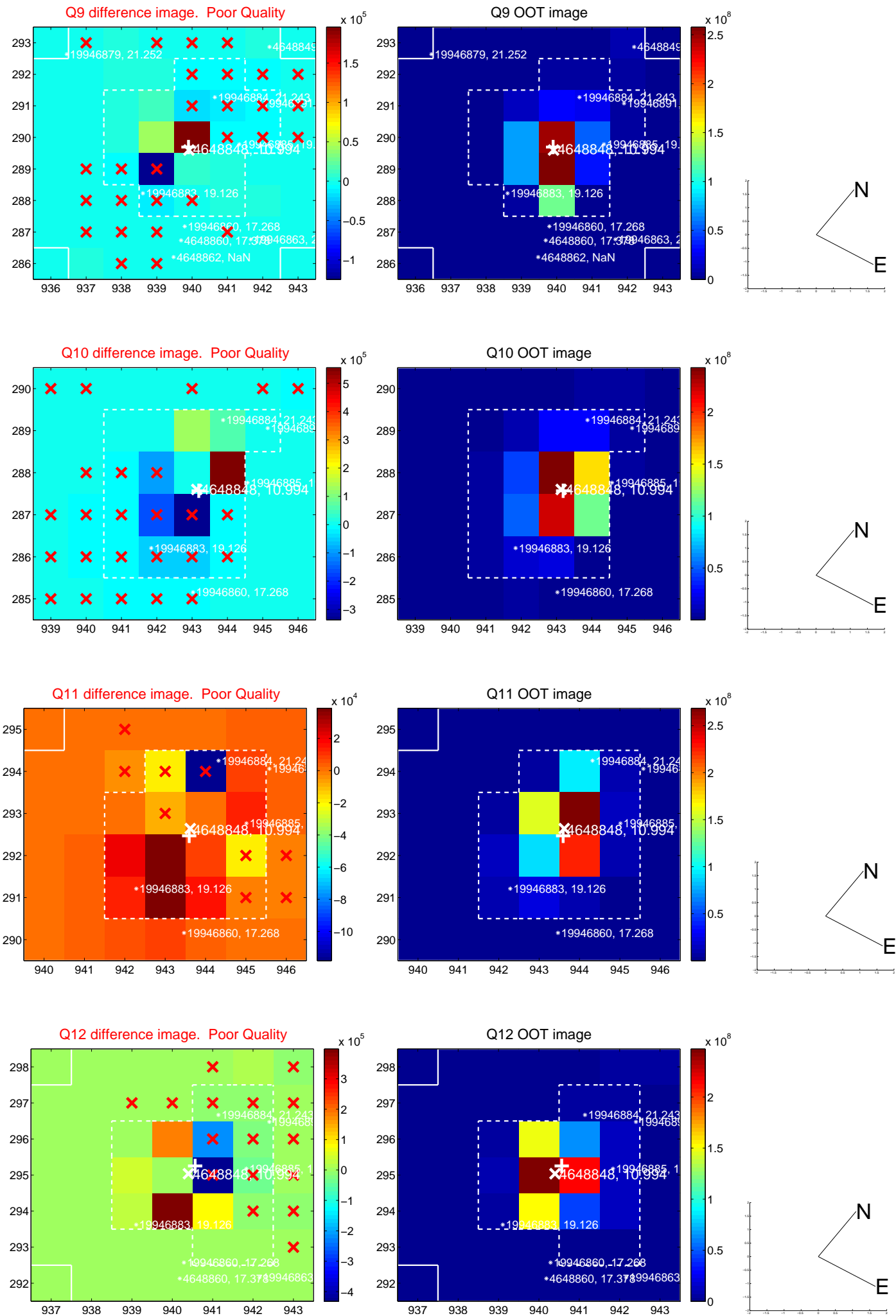
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



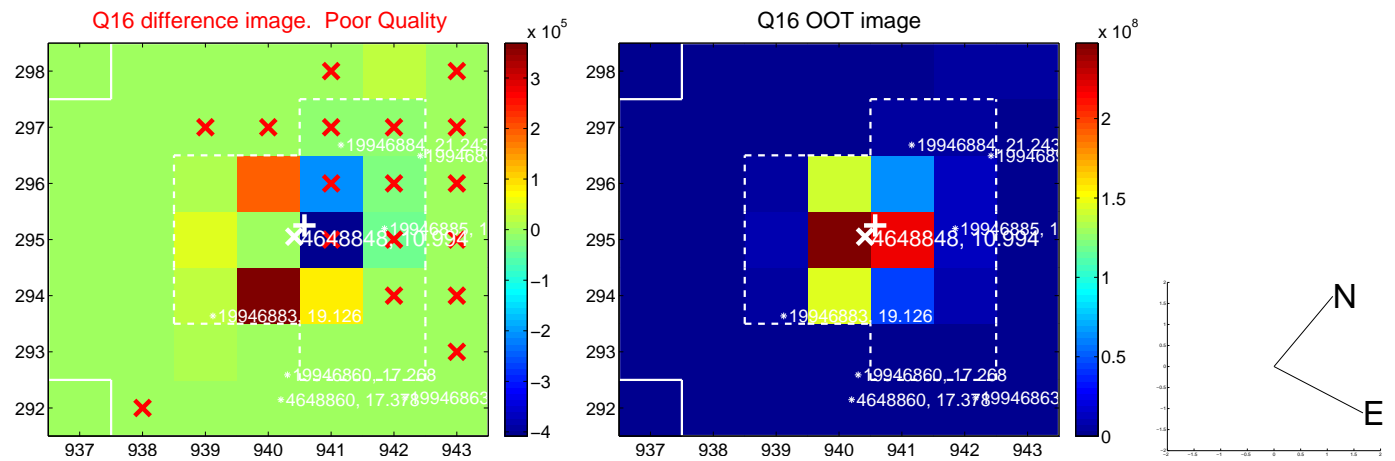
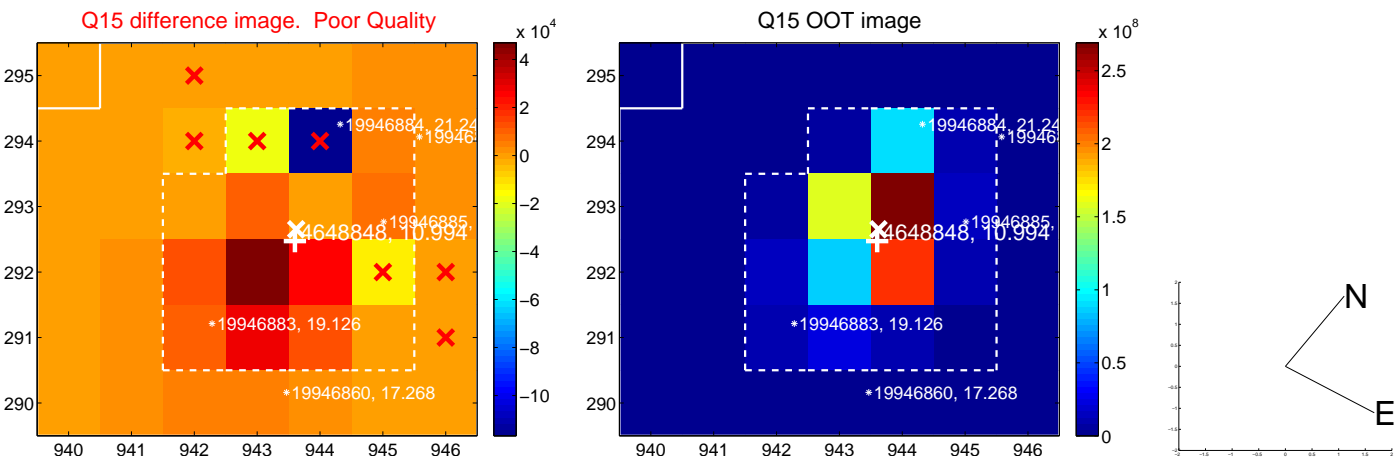
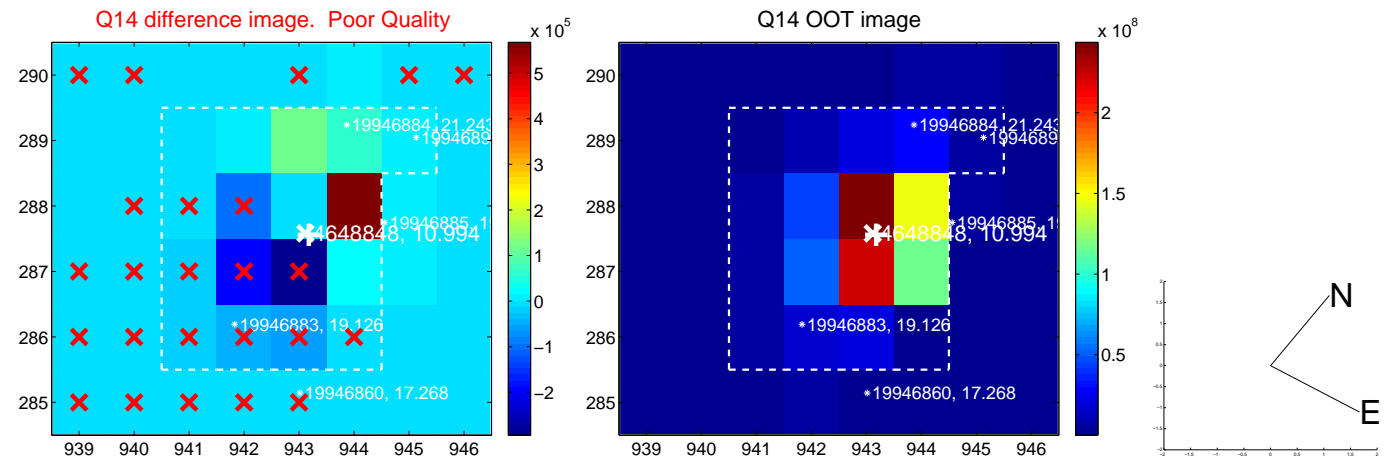
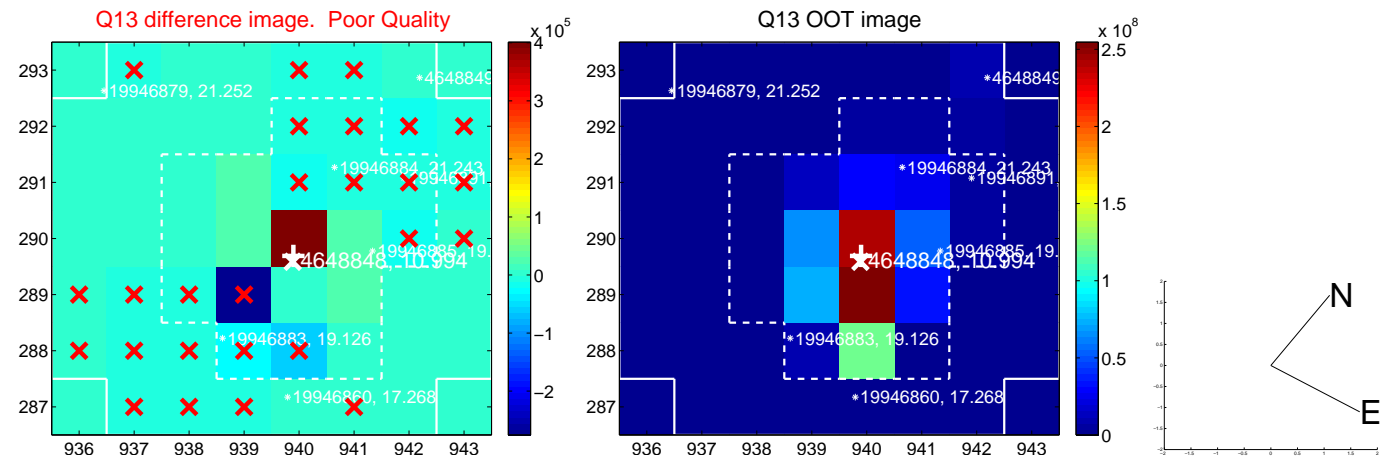
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



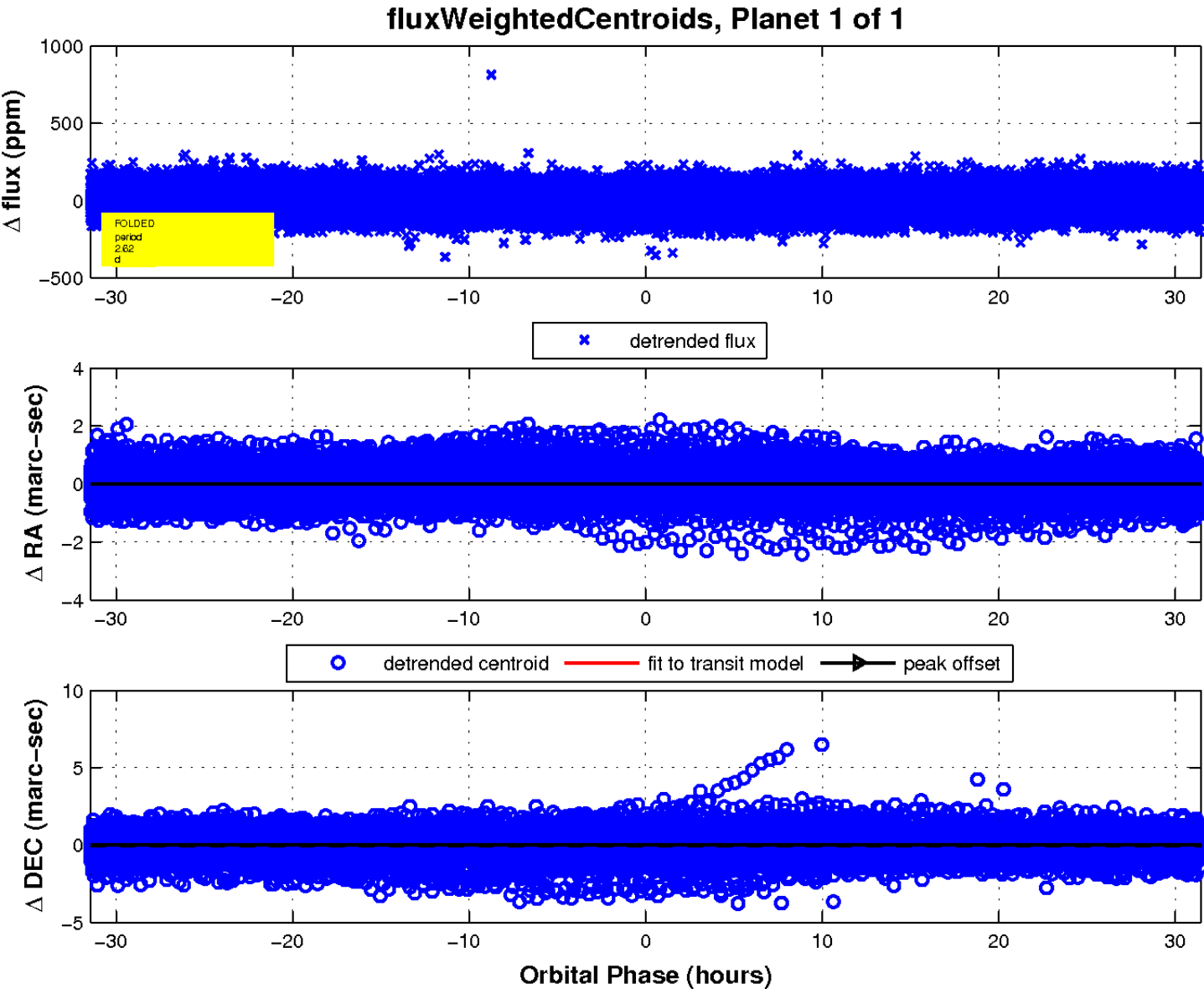
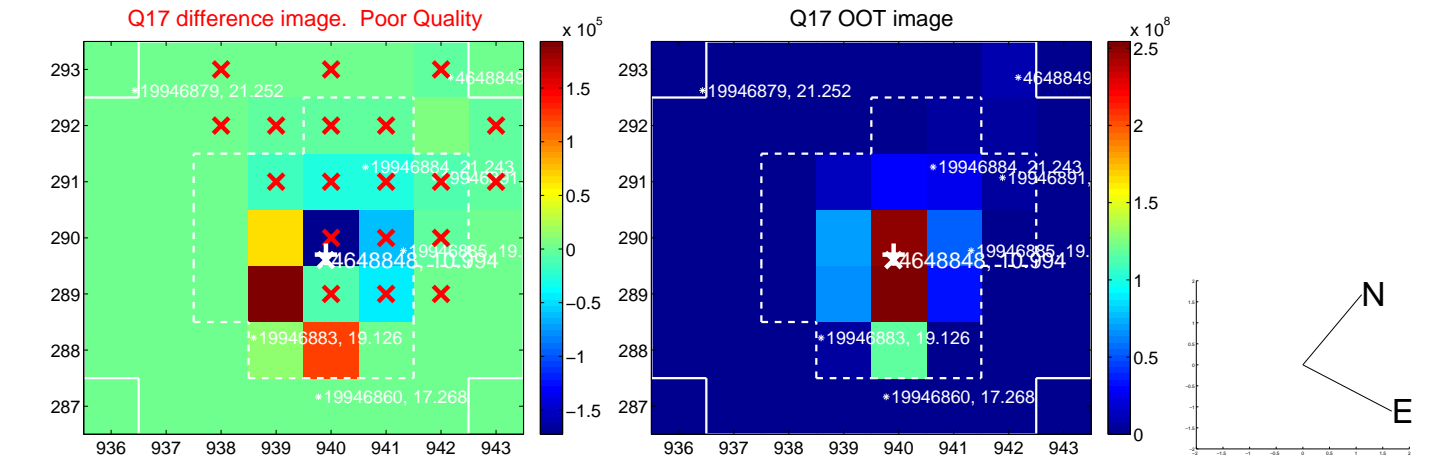
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

