

KIC 004047915

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})
004047915-01	OBS	No	9.085995	132.298766	20.8	33.495	7.7	7.7	1.96	6453	1.02	789.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004047915-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS

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

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

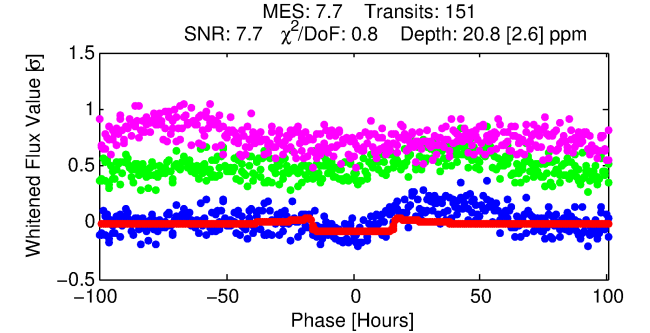
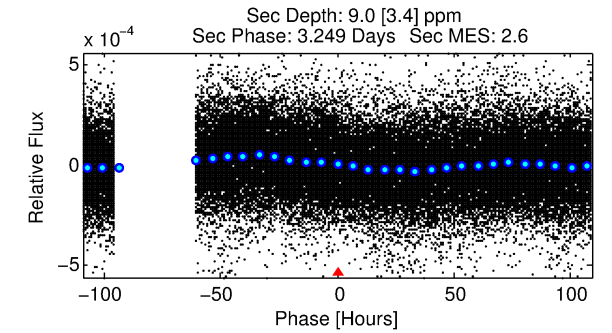
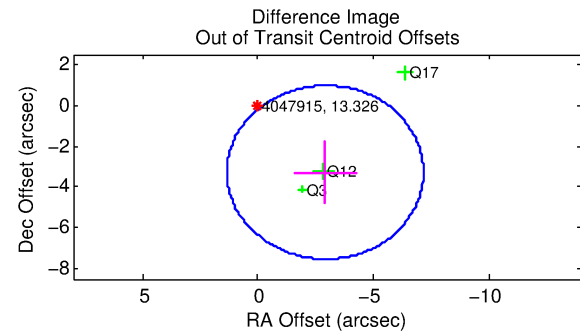
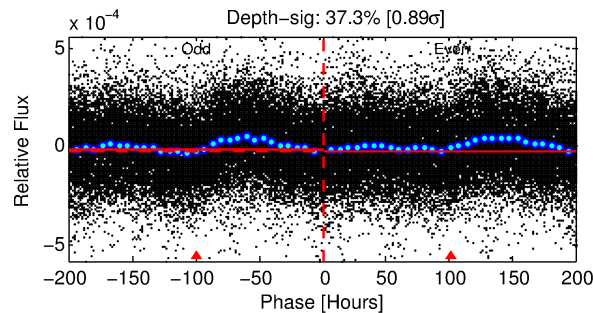
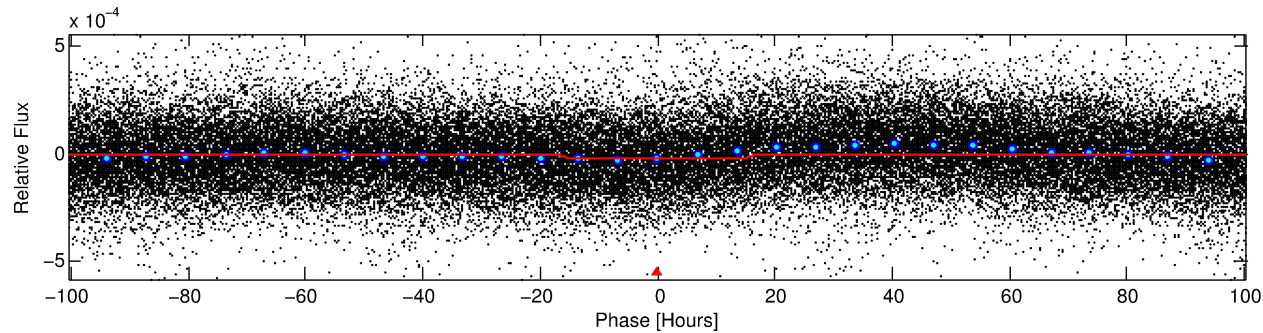
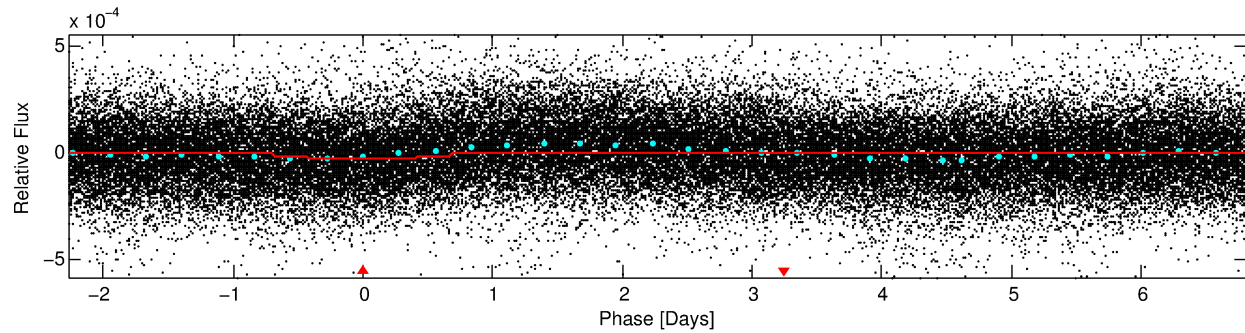
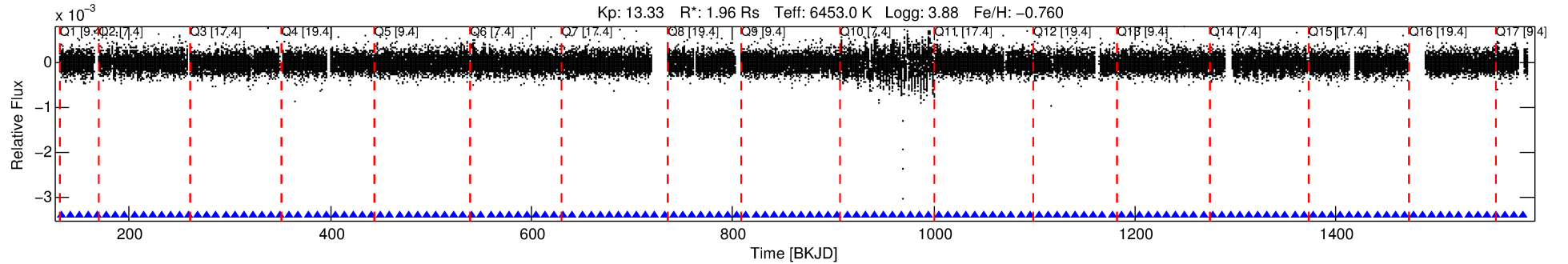
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004047915-01

No Significant Match Found

DV One-Page Summary

KIC: 4047915 Candidate: 1 of 1 Period: 9.086 d



DV Fit Results:

Period = 9.08600 [0.00035] d
Epoch = 132.2988 [0.0306] BKJD
Rp/R* = 0.0048 [0.0006]
a/R* = 1.39 [0.39]
b = 0.87 [0.16]
Seff = 789.85 [442.80]
Teq = 1352 [189] K
Rp = 1.02 [0.38] Re
a = 0.0867 [0.0297] AU
Ag = 35.73 [25.37] [1.37 σ]
Teffp = 5110 [592] K [6.05 σ]

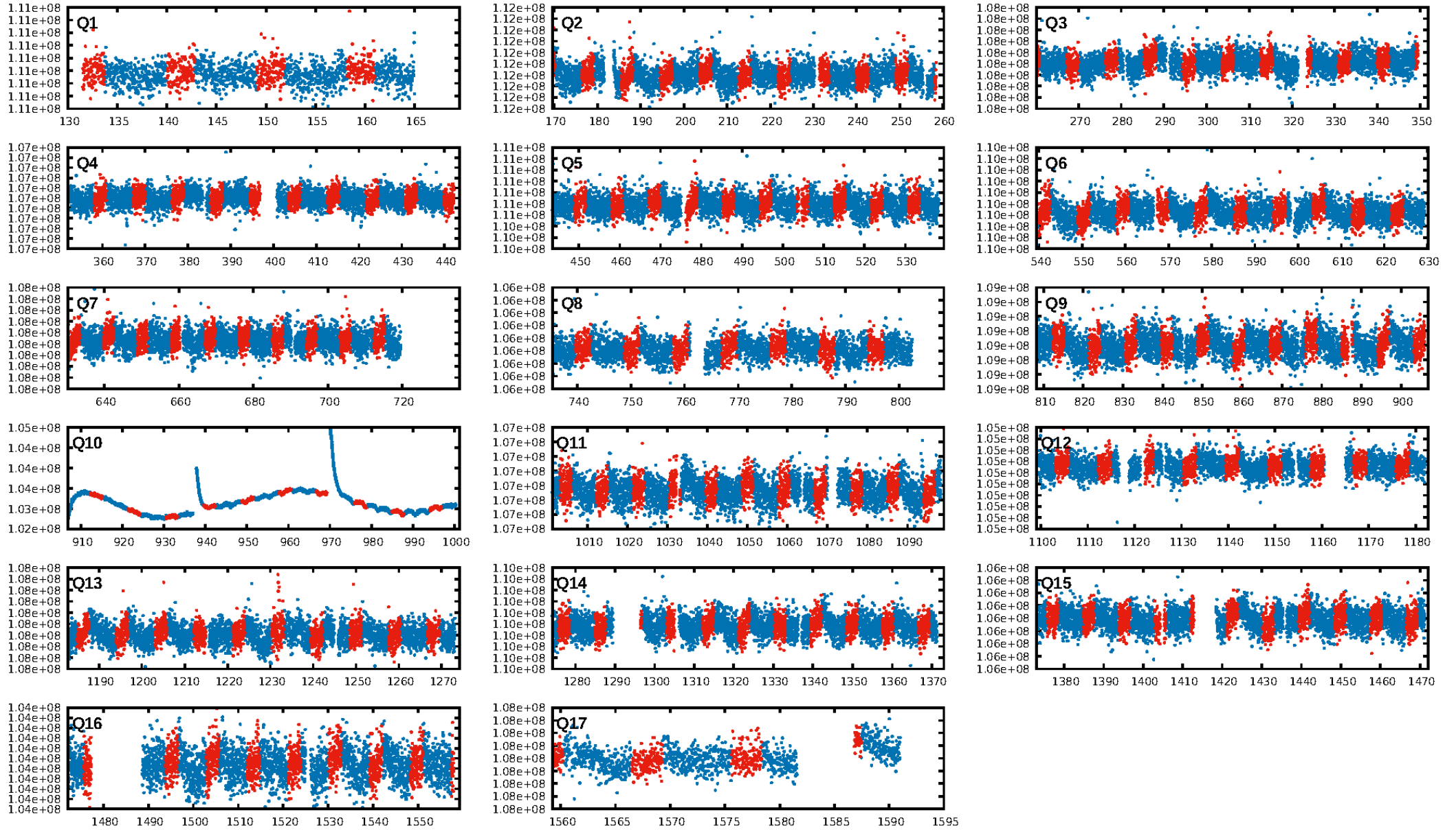
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.03e-13
RollingBand-fgt: 1.00 [144/144]
GhostDiagnostic-chr: 1.378
Centroid-sig: 25.1%
Centroid-so: 0.895 arcsec [0.75 σ]
OotOffset-rm: 4.377 arcsec [3.09 σ]
KicOffset-rm: 4.286 arcsec [3.04 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [17/17]

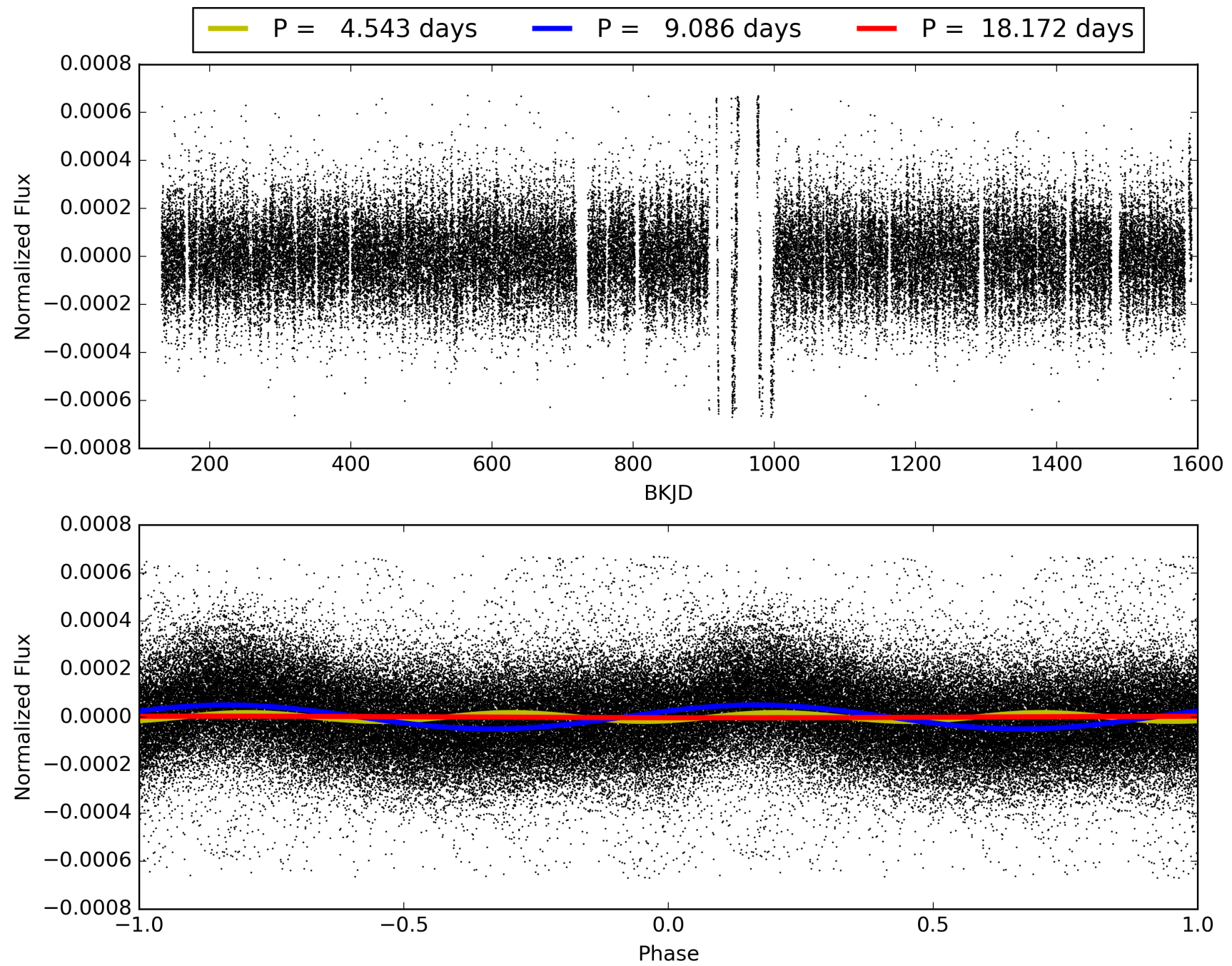
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:34:44 Z

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

TCE 004047915-01, PDC Light Curves

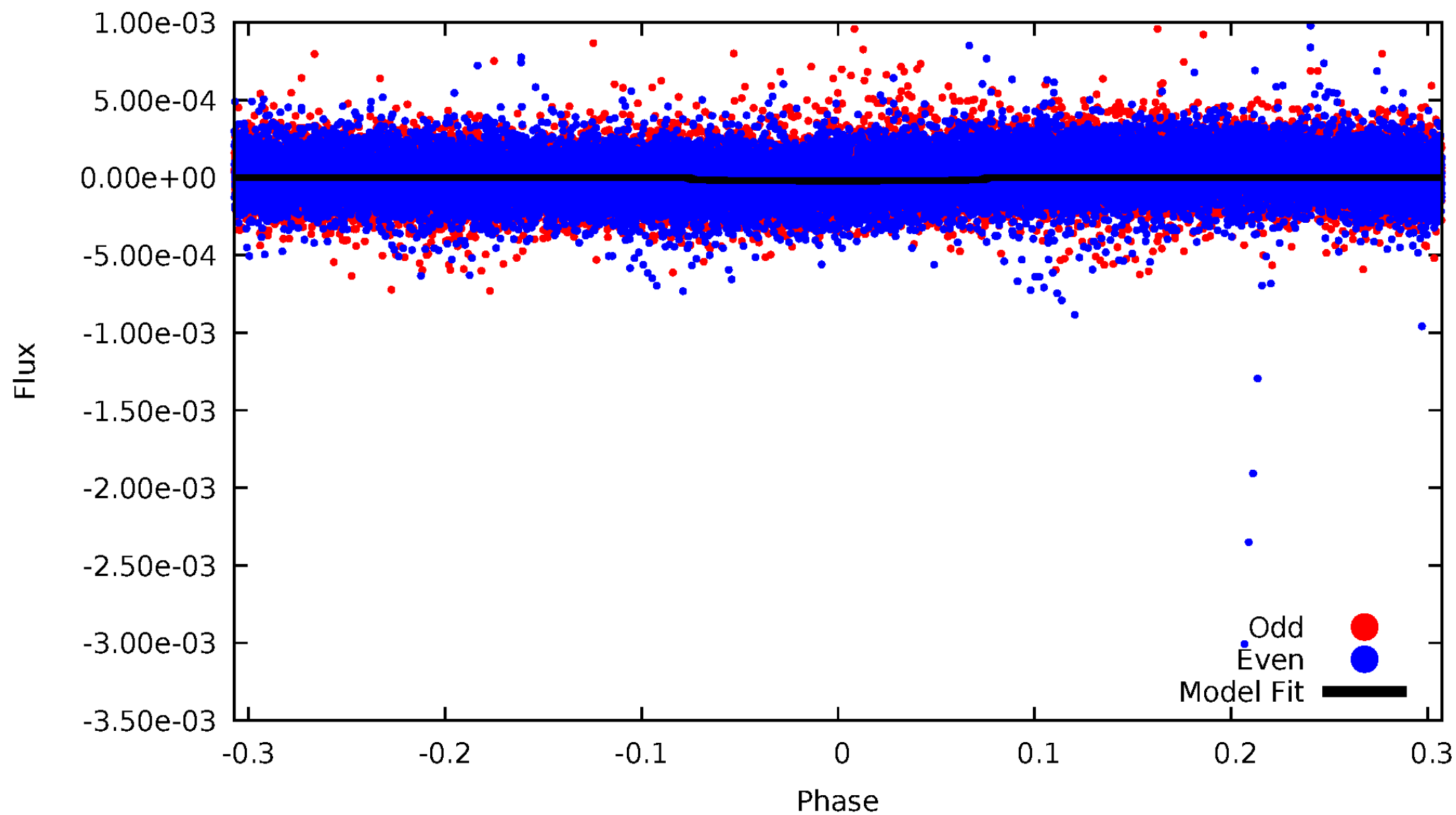


TCE 004047915-01



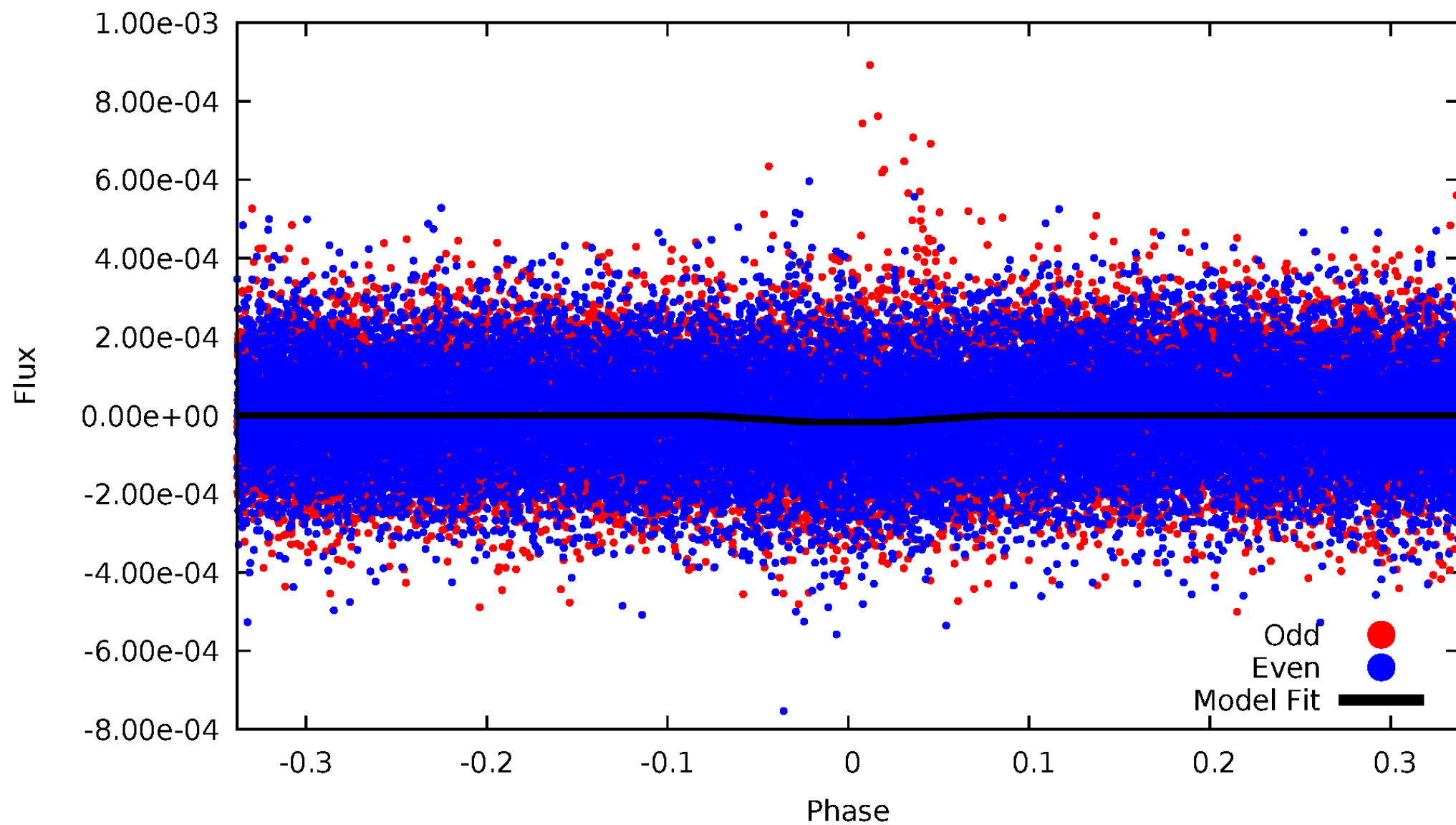
DV Odd/Even

TCE 004047915-01



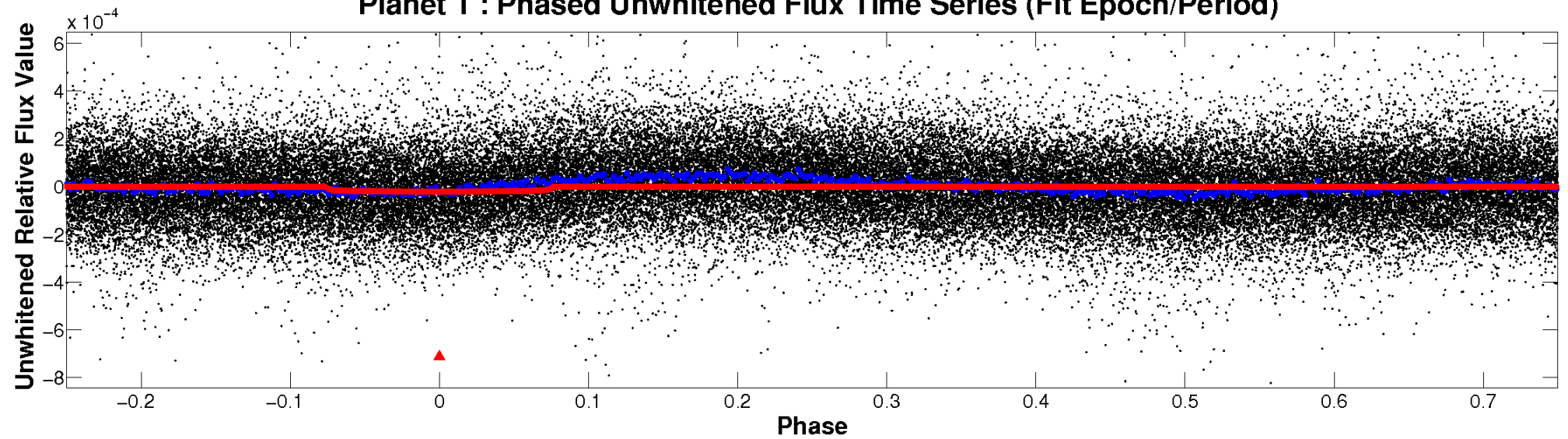
ALT Odd/Even

TCE 004047915-01

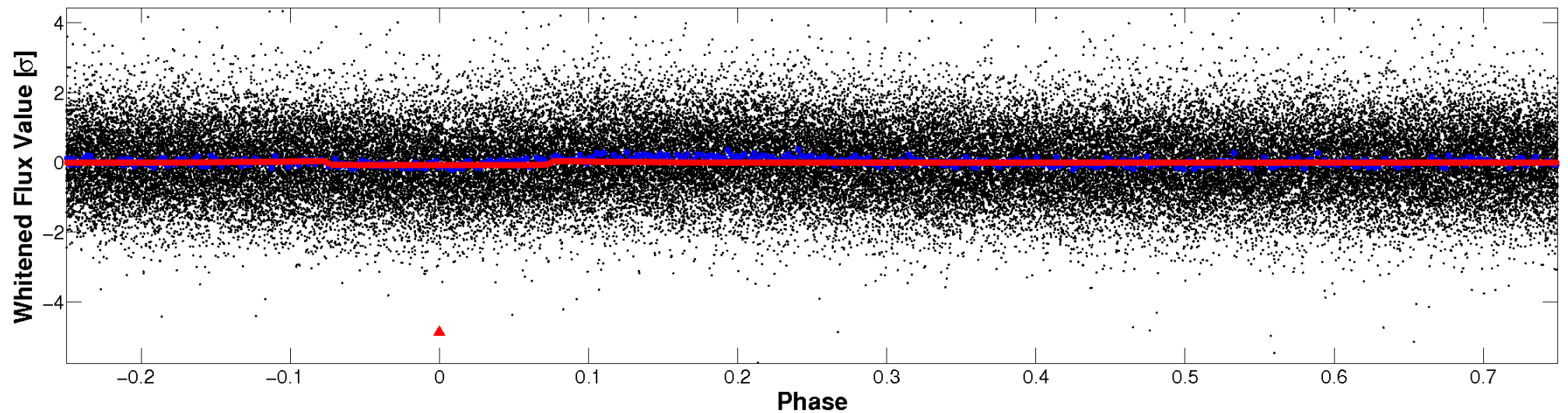


Non-Whitened Vs. Whitened Light Curve

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

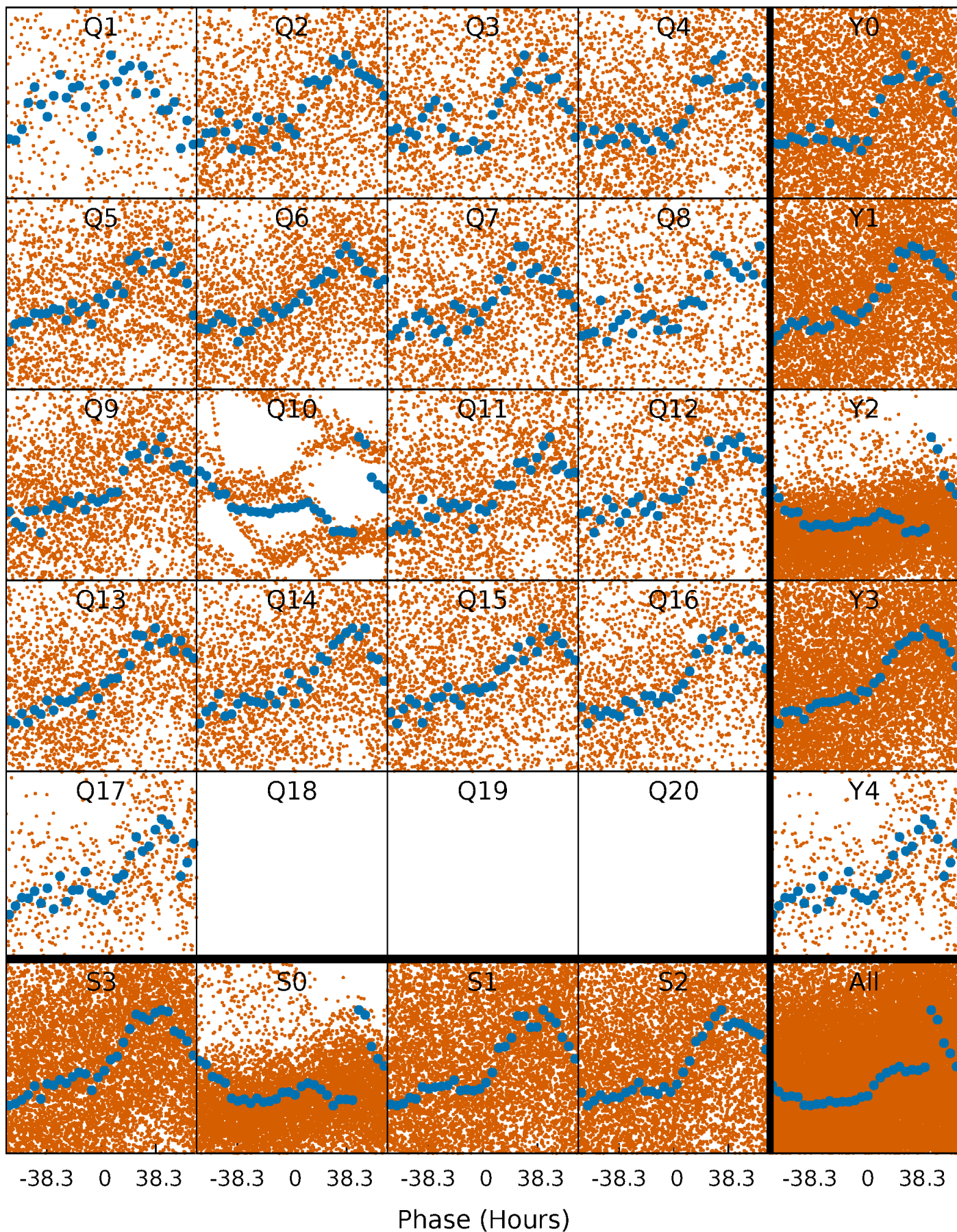


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



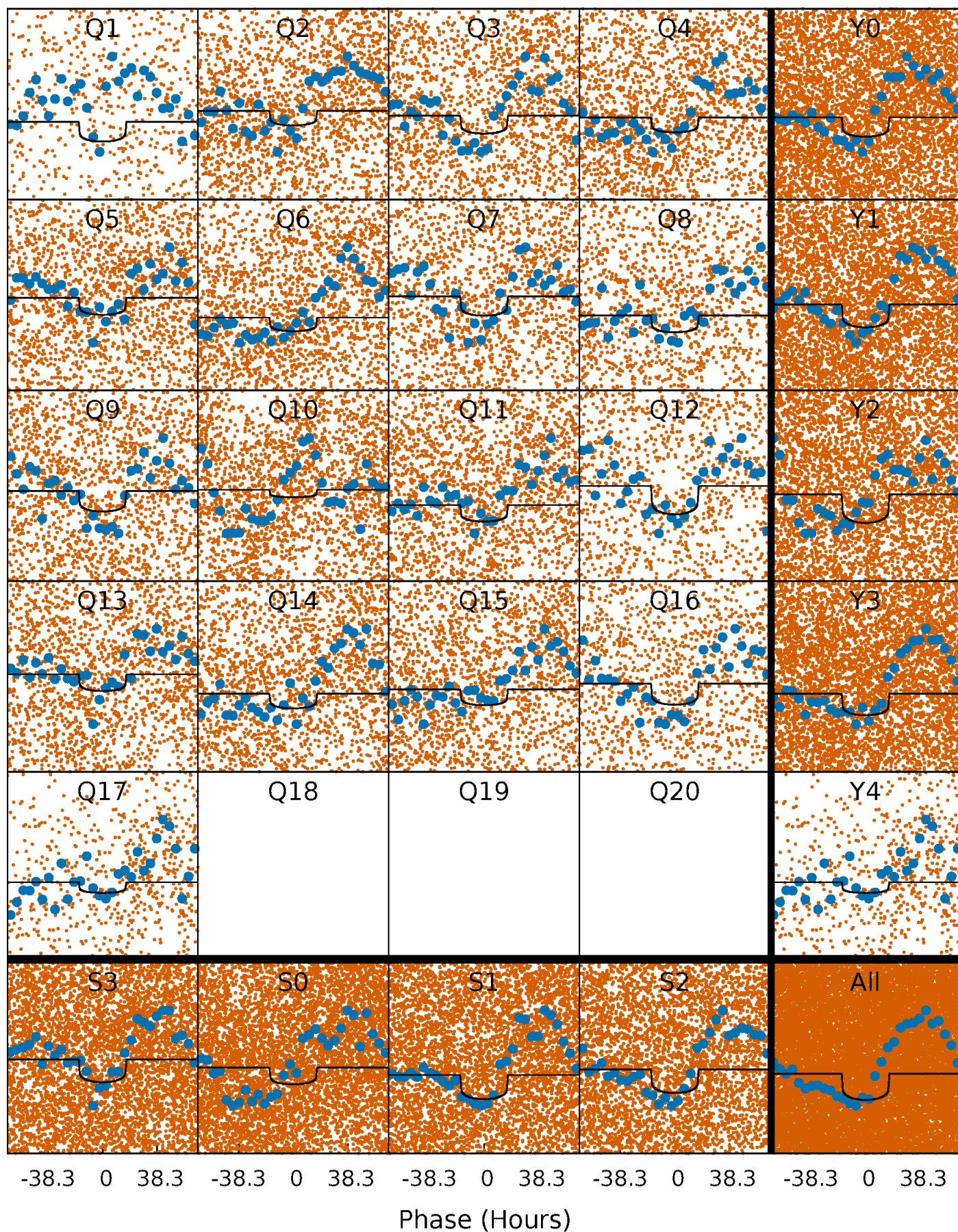
PDC Quarter-Phased Transit Curves

TCE 004047915-01 P= 9.085995 Days $T_0=132.298766$ (BKJD)



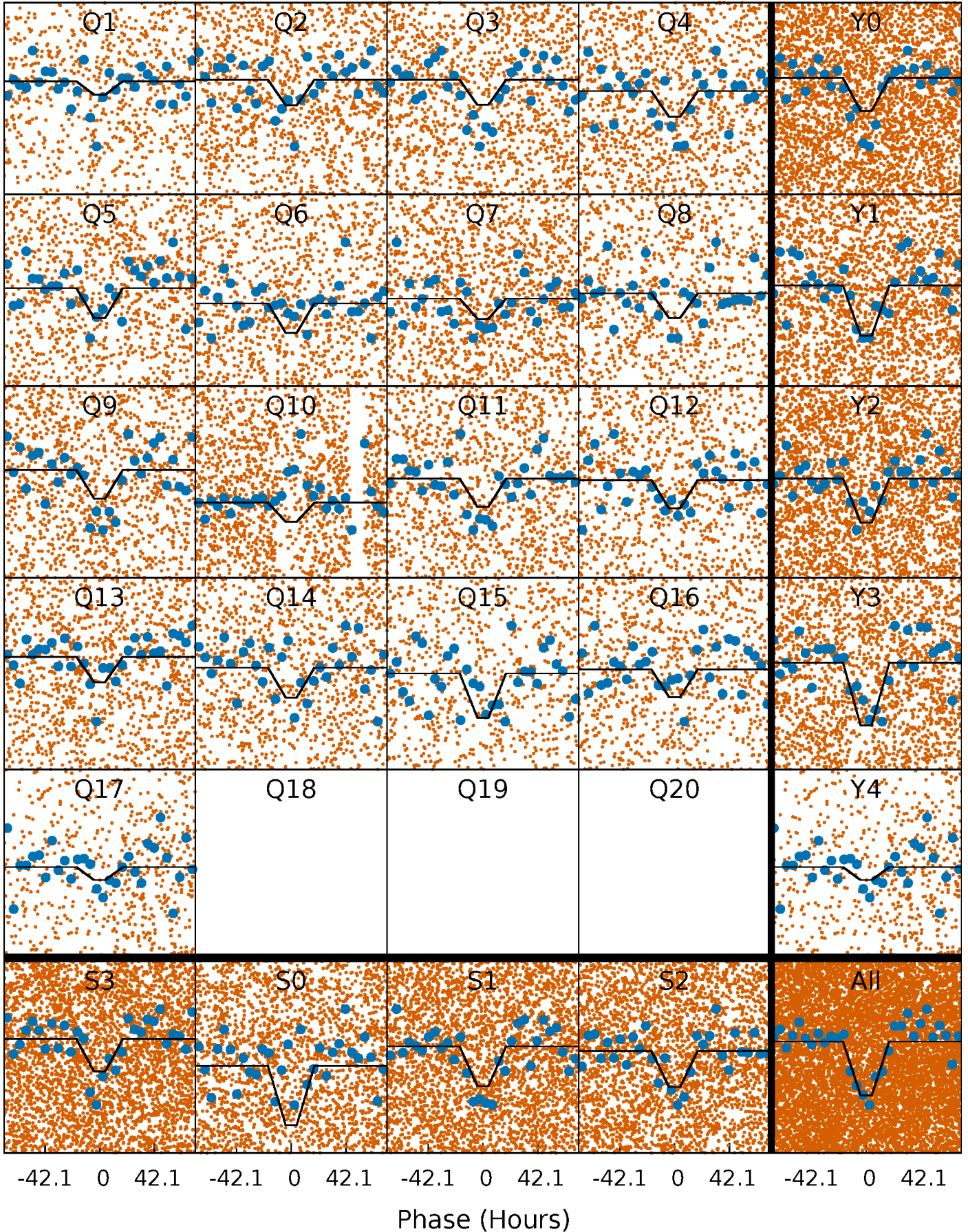
DV Quarter-Phased Transit Curves

TCE 004047915-01 P= 9.085995 Days $T_0=132.298766$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

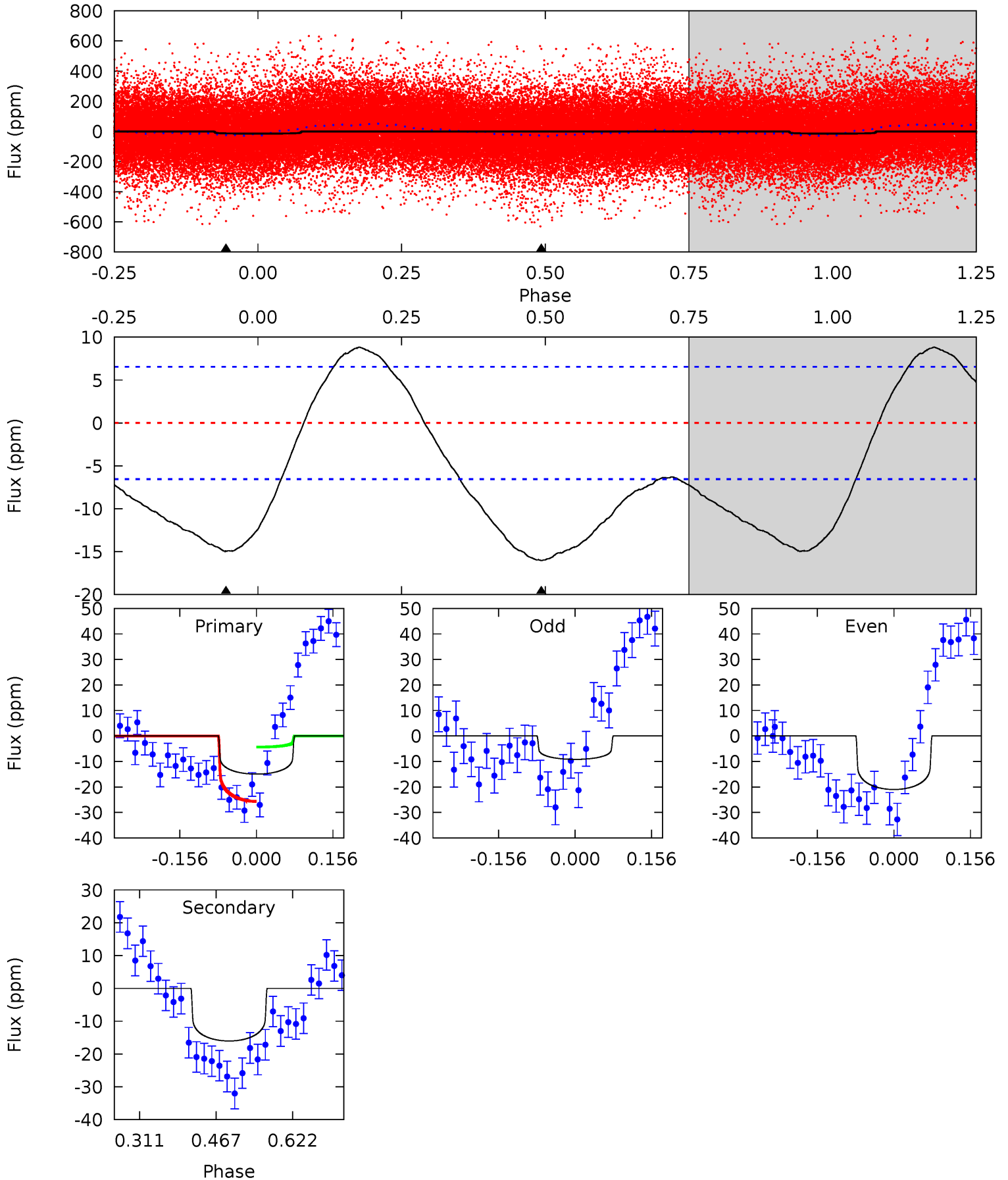
TCE 004047915-01 P= 9.086352 Days $T_0=132.222819$ (BKJD)



DV Model-Shift Uniqueness Test

004047915-01, P = 9.085995 Days, E = 123.212771 Days

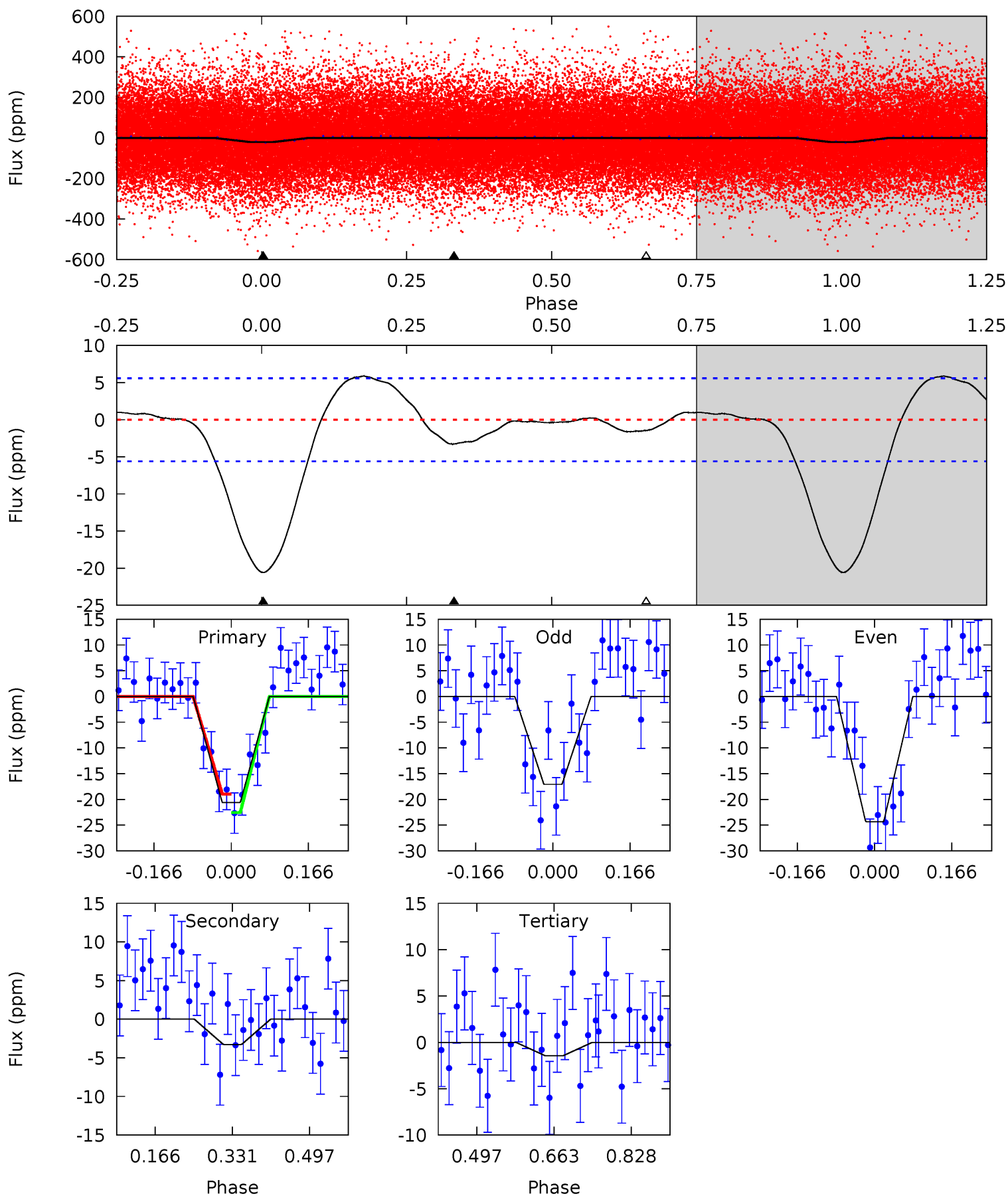
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	11.0	0	0	4.47	1.42	4.43	10.2	10.2	11.0	11.0	4.04	0.77	0.36	7.33



Alt Model-Shift Uniqueness Test

004047915-01, P = 9.086352 Days, E = 123.136467 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	2.61	1.15	0	4.46	1.39	0.68	15.2	16.4	1.46	2.61	2.87	0.92	0.22	1.42



Stellar Parameters For KIC 004047915

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6453^{+180}_{-180}	$3.878^{+0.323}_{-0.108}$	$-0.760^{+0.350}_{-0.300}$	$1.955^{+0.374}_{-0.694}$	$1.051^{+0.167}_{-0.167}$	$0.198^{+0.456}_{-0.064}$
	+3%/-3%	+8%/-3%	+46%/-39%	+19%/-35%	+16%/-16%	+230%/-33%
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 004047915-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-16 ± 1	$0.99^{+0.20}_{-0.21}$	1863^{+118}_{-190}	5890^{+433}_{-363}	70^{+37}_{-21}
Alt.	-3 ± 1	$0.86^{+0.20}_{-0.17}$	1863^{+115}_{-173}	4414^{+422}_{-455}	18^{+13}_{-9}

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 $A_{obs} \gg 1.0$

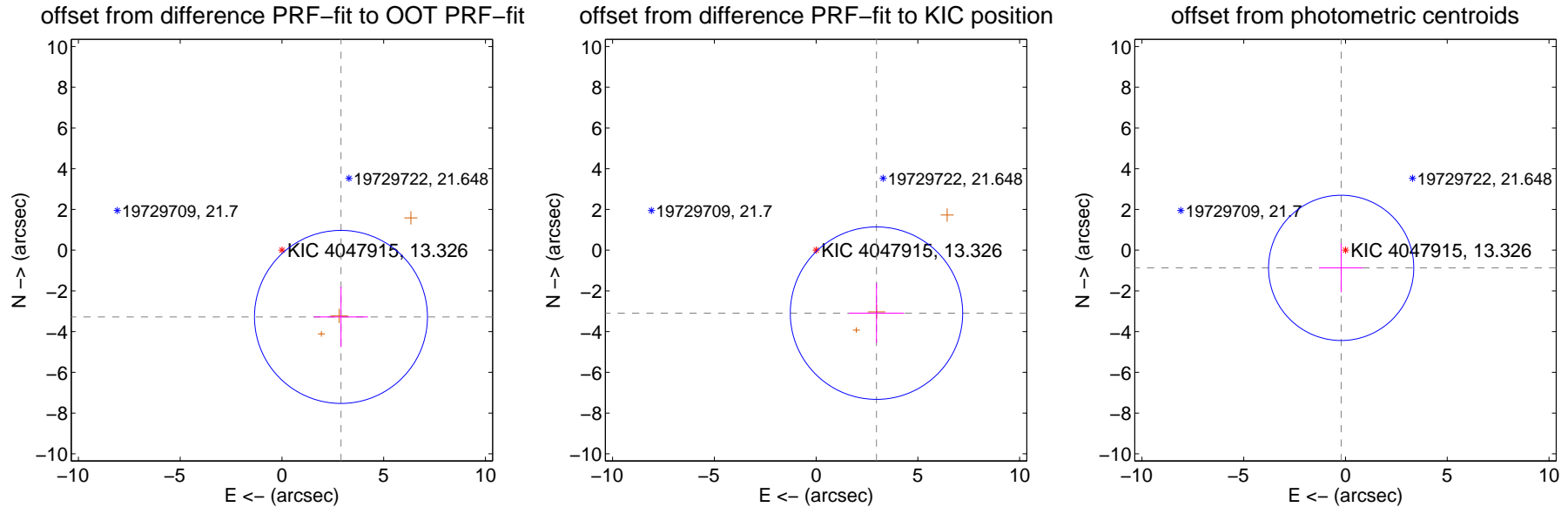
DV Centroid Data

Supplemental centroid analysis for 004047915-01. Kepler magnitude: 13.33. Transit SNR 7.71

There are 0 quarters with good PRF difference image offsets

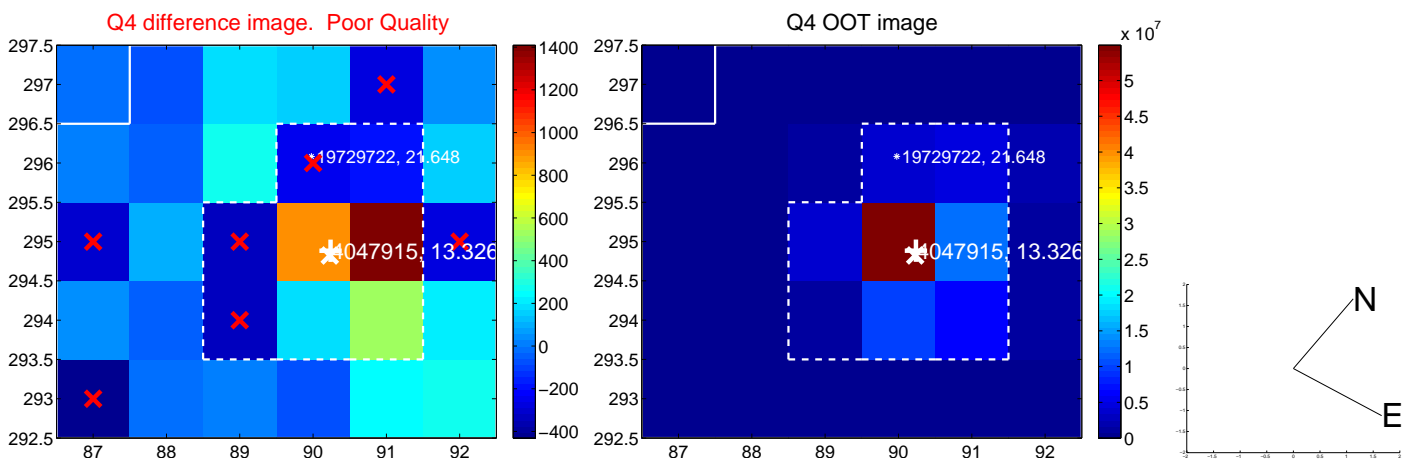
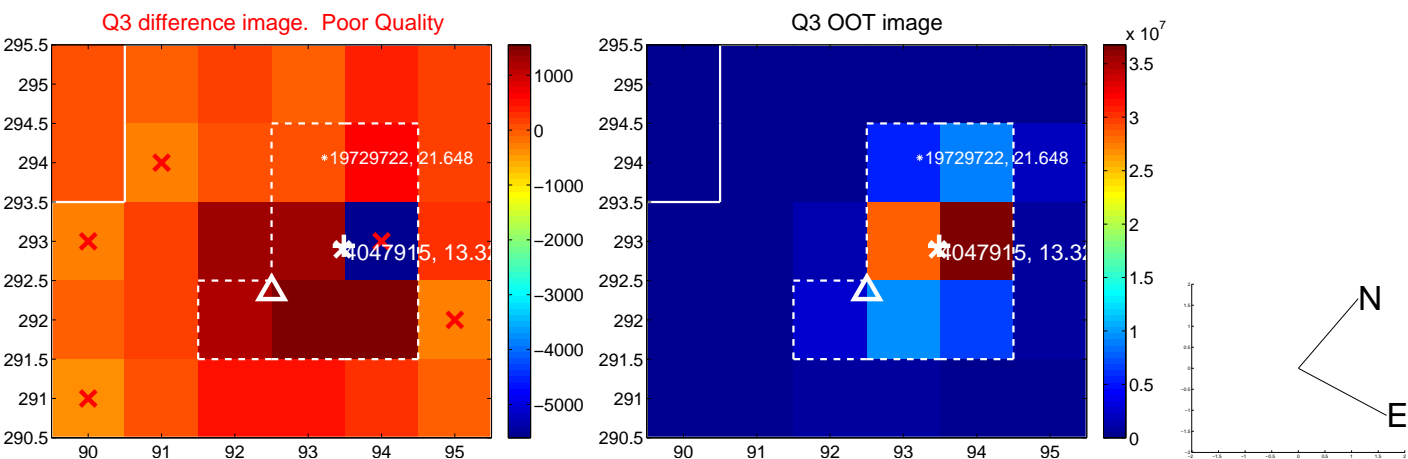
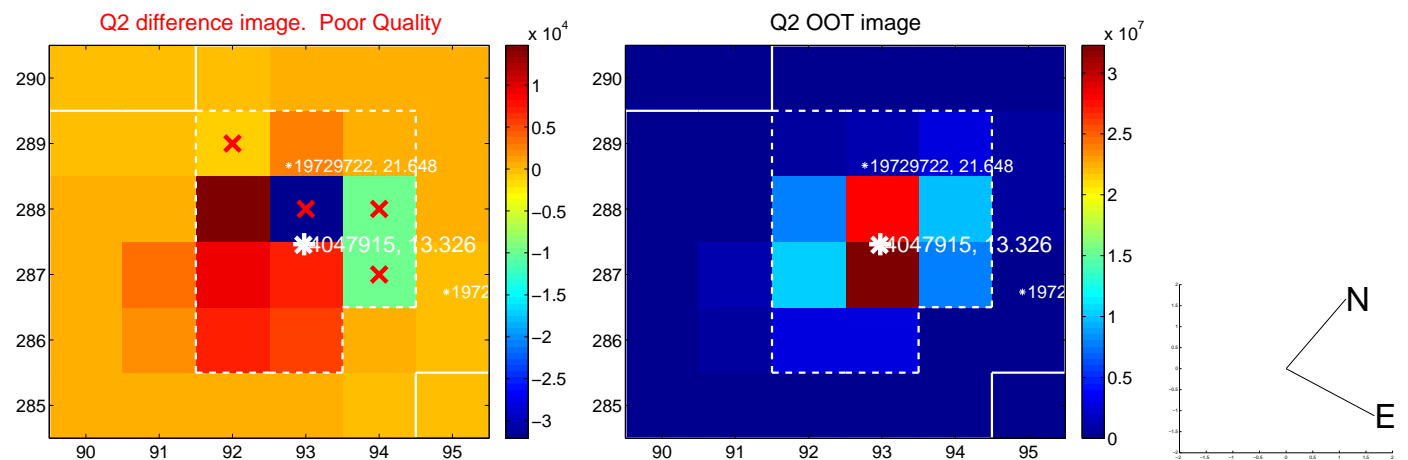
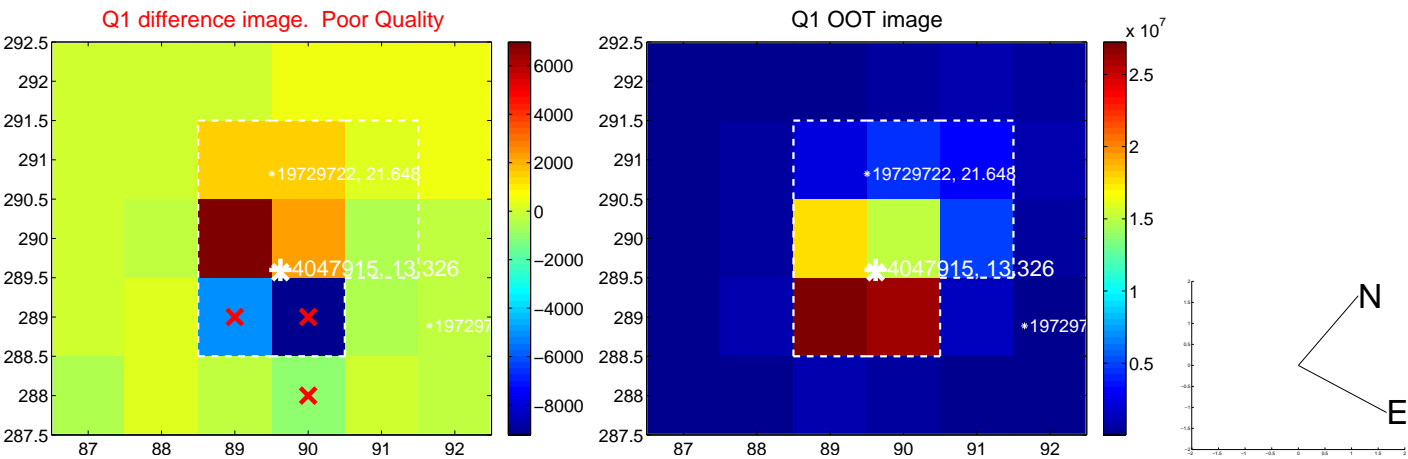
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.377 ± 1.416	3.09	-2.900 ± 1.332	-3.278 ± 1.479
PRF-fit source offset from KIC position	4.286 ± 1.412	3.04	-2.967 ± 1.350	-3.093 ± 1.466
photometric centroid source offset	0.90 ± 1.19	0.75	0.21 ± 1.08	-0.87 ± 1.20

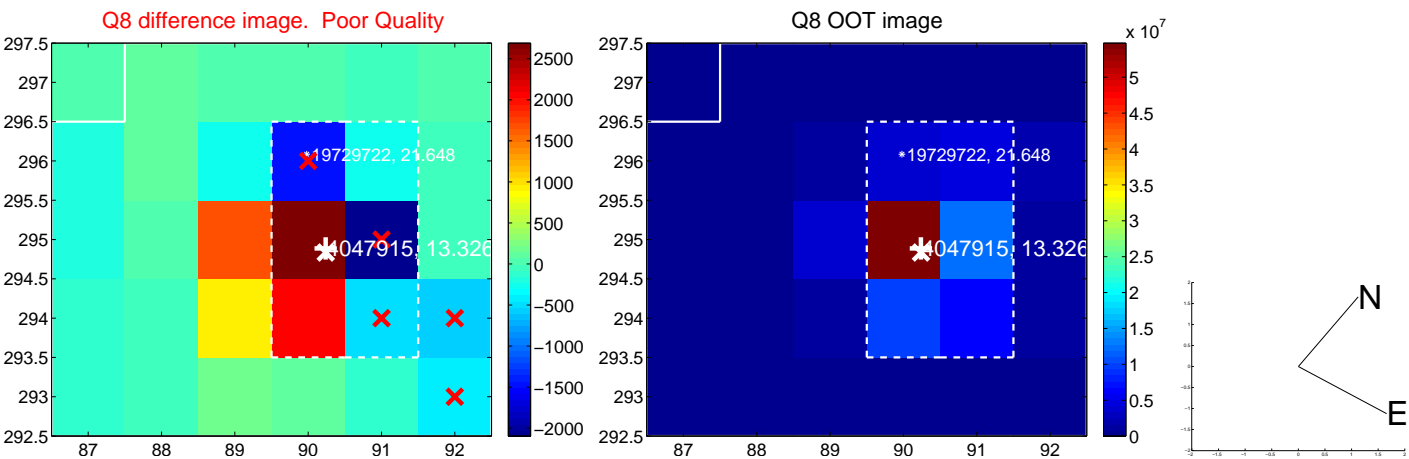
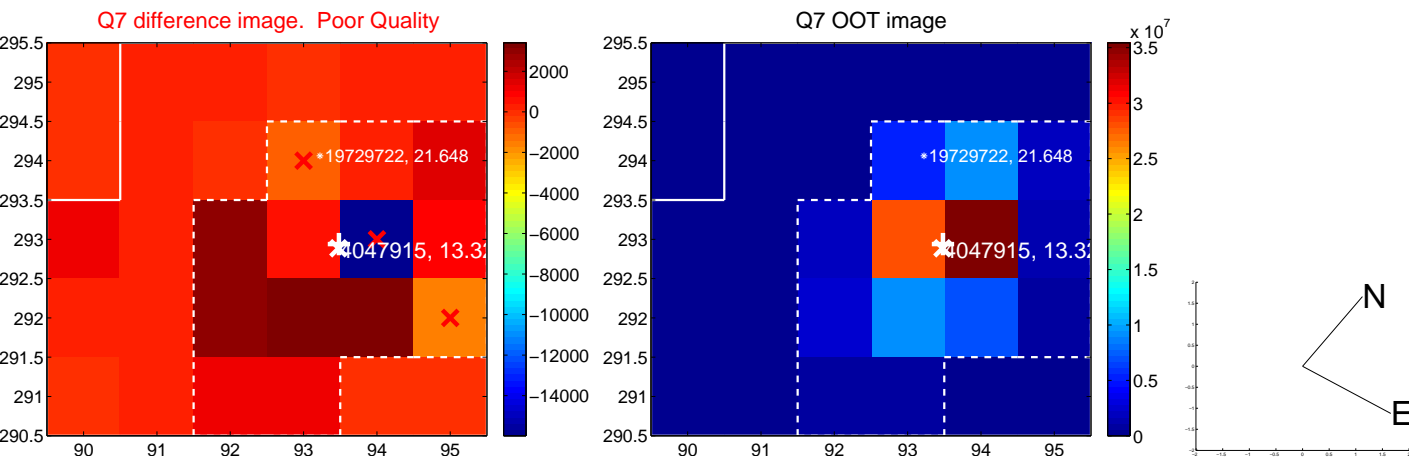
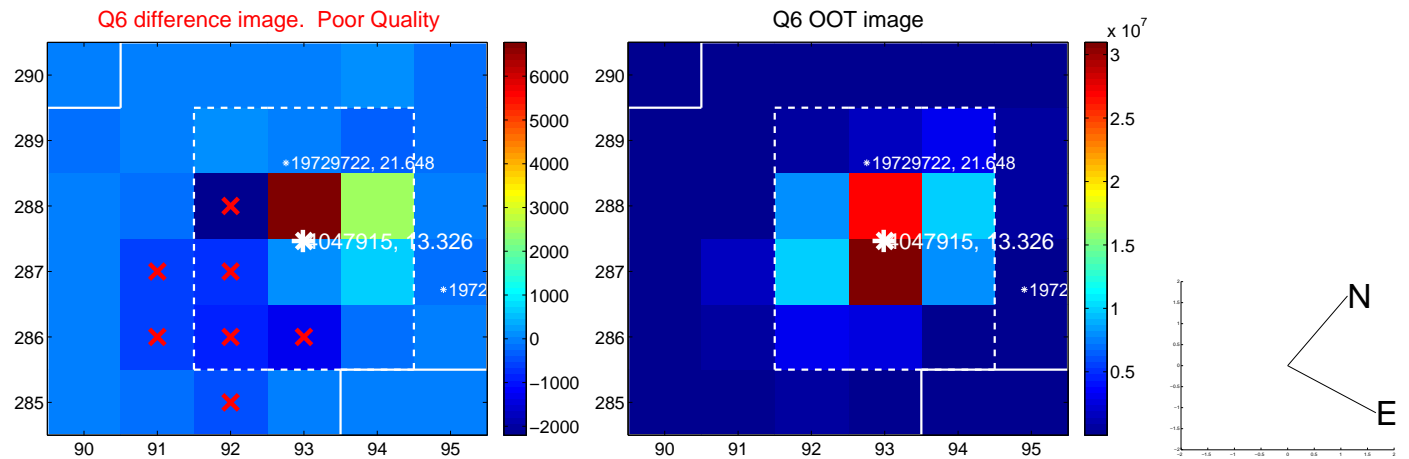
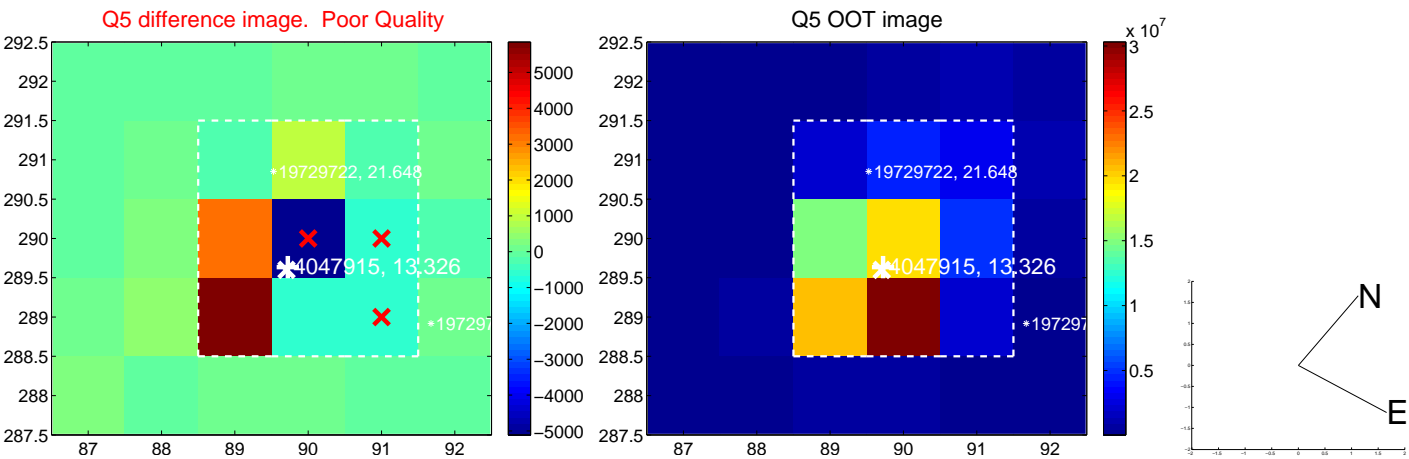


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

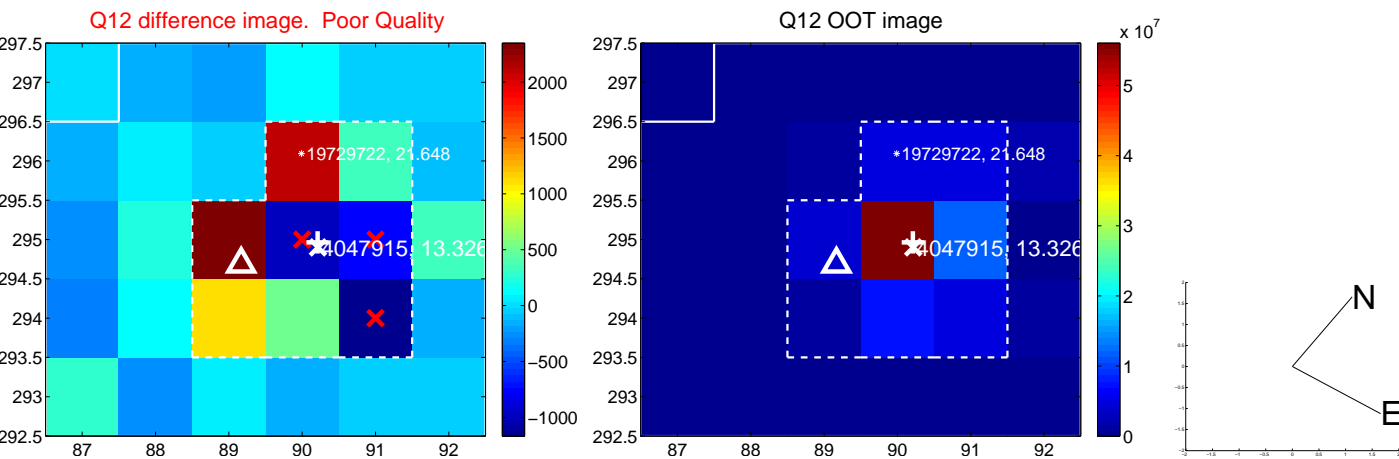
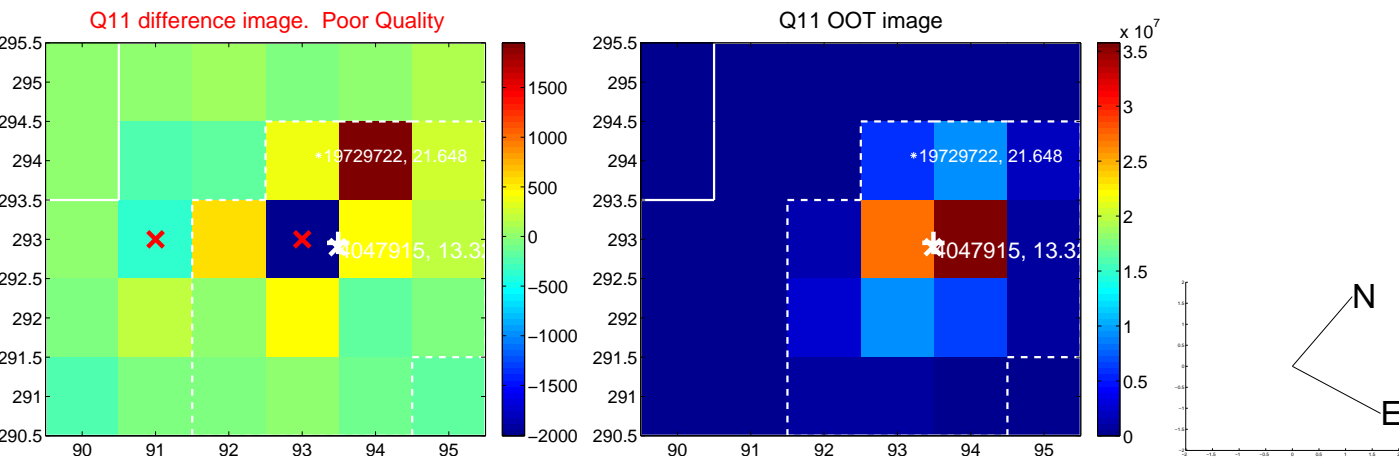
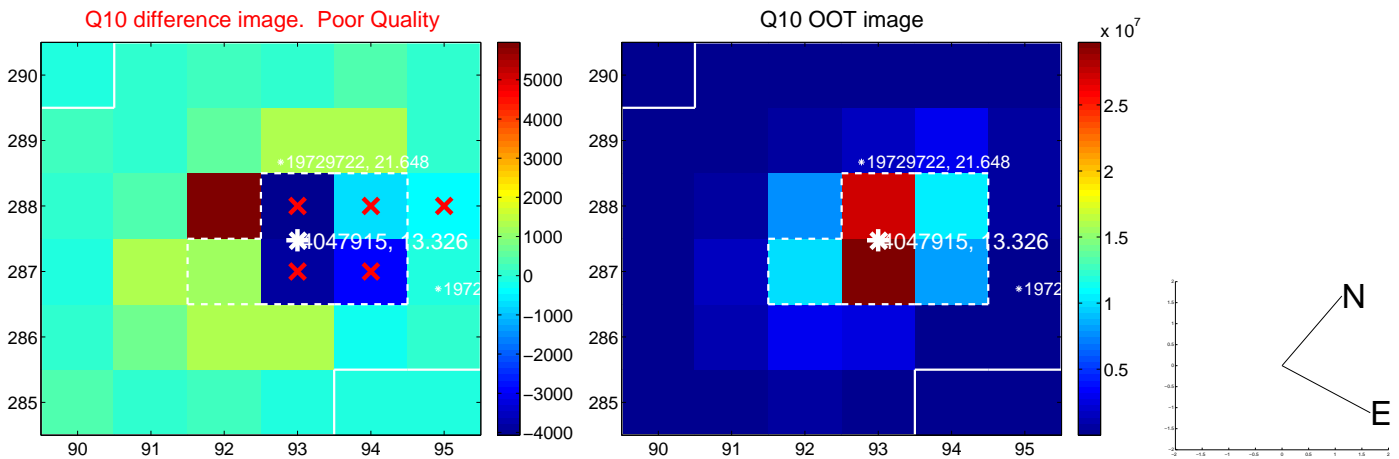
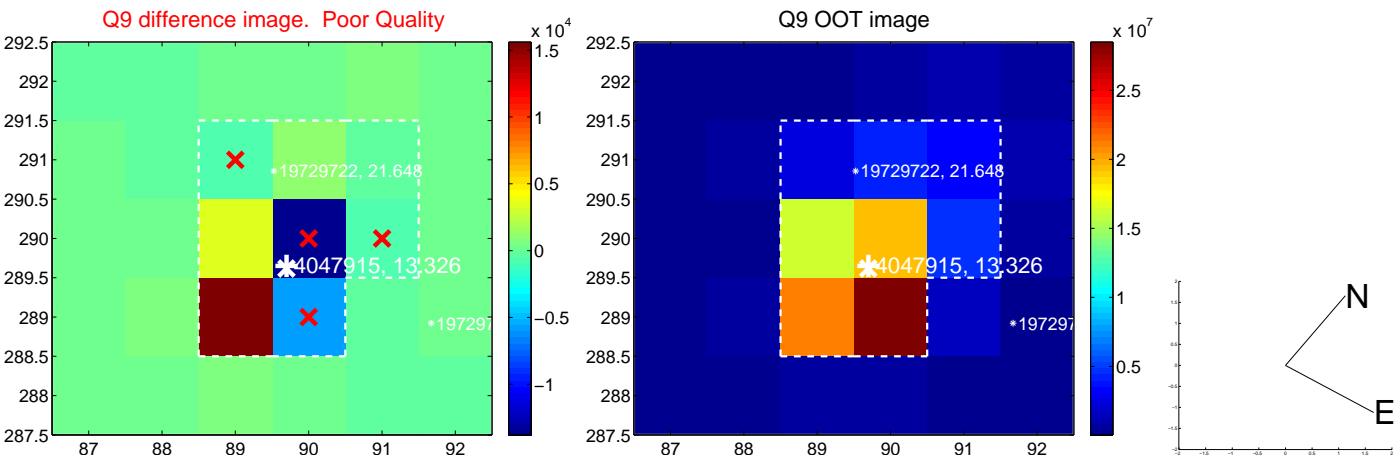
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



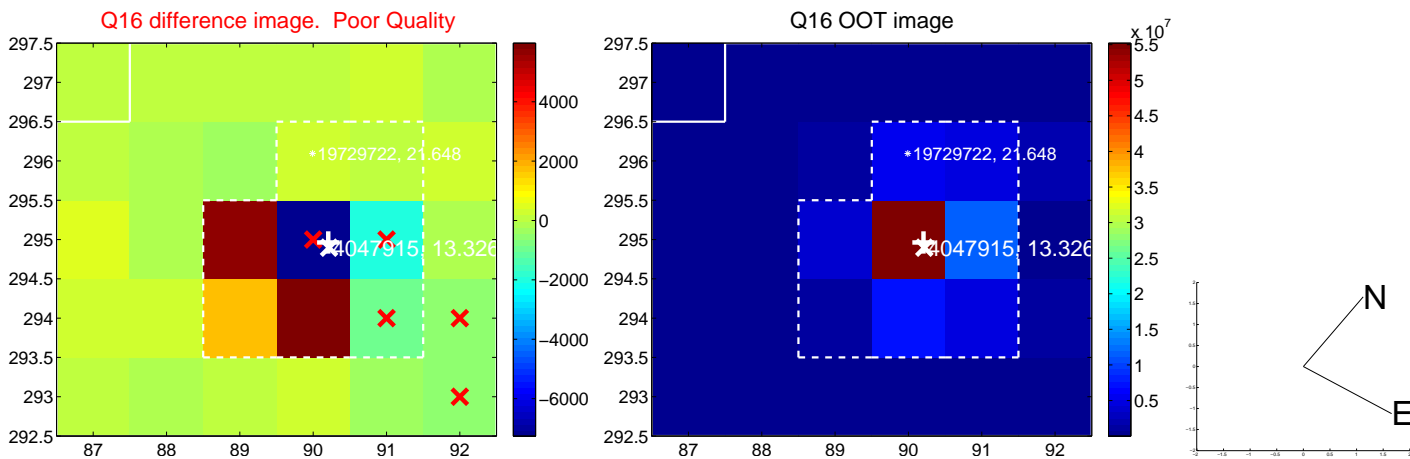
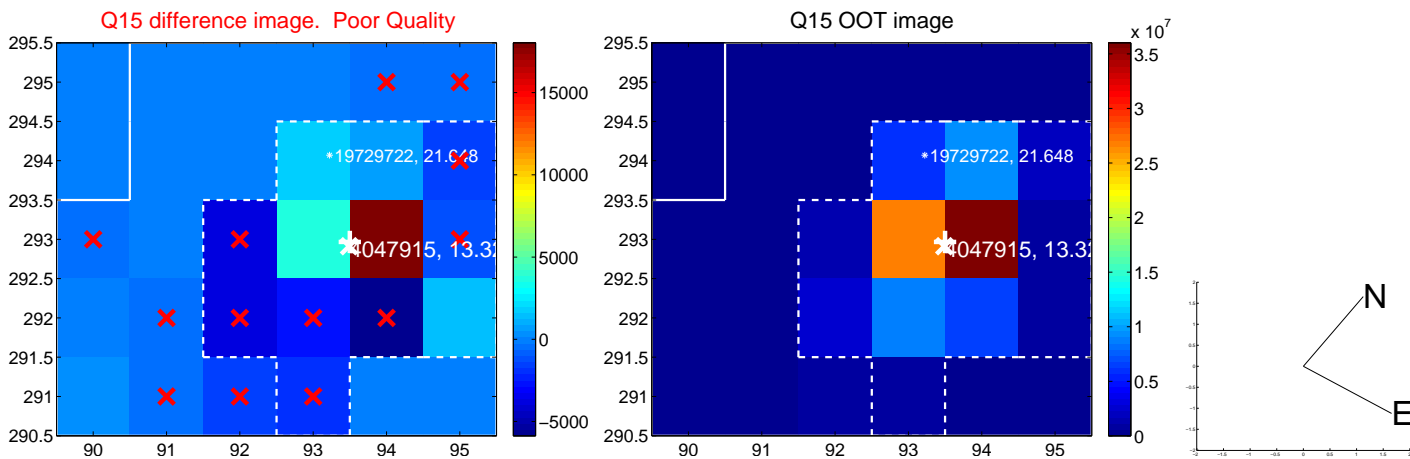
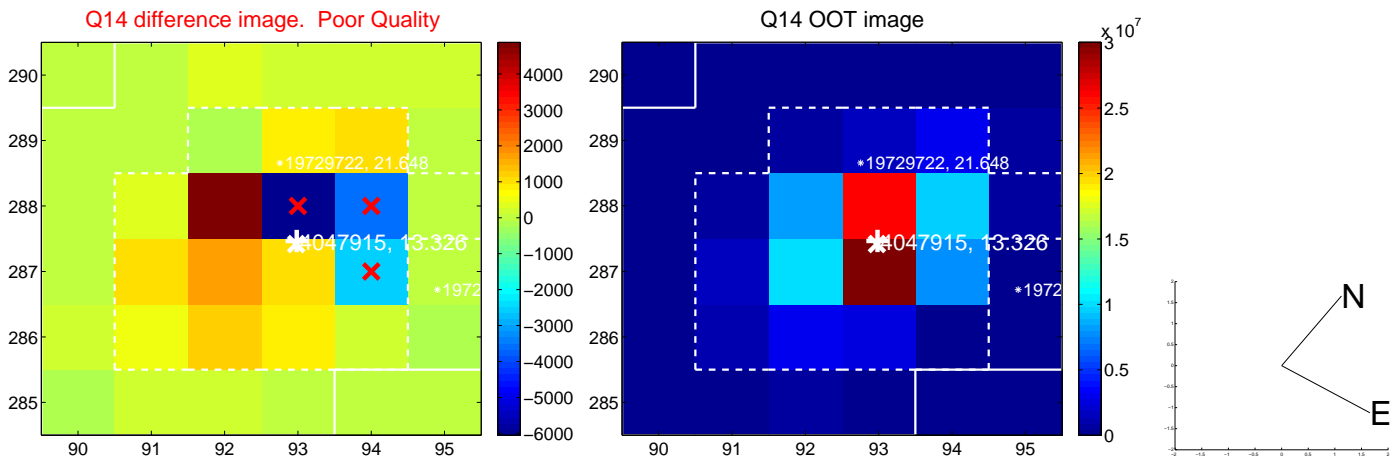
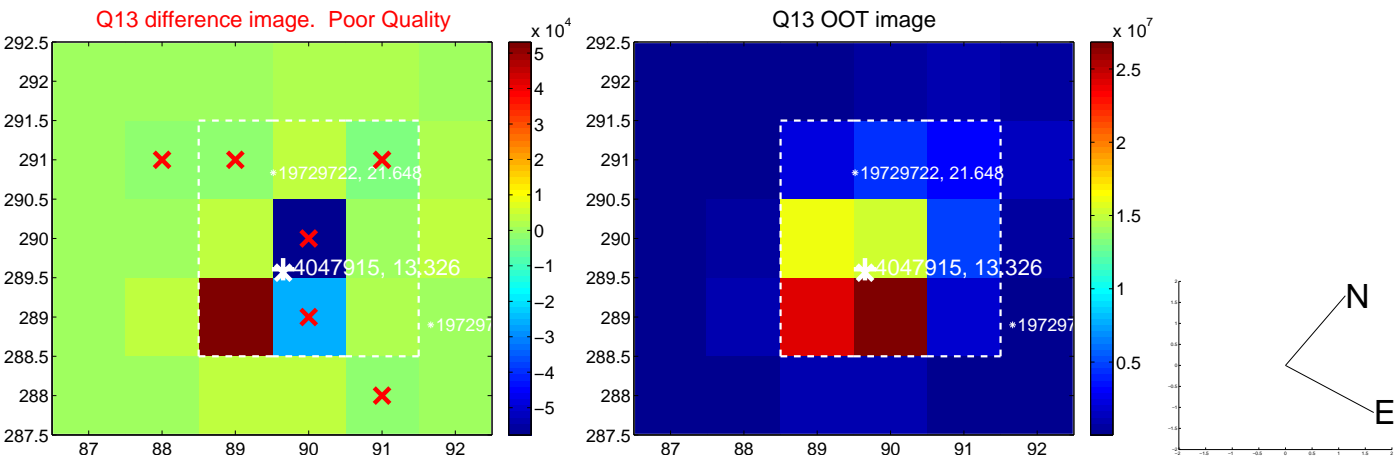
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



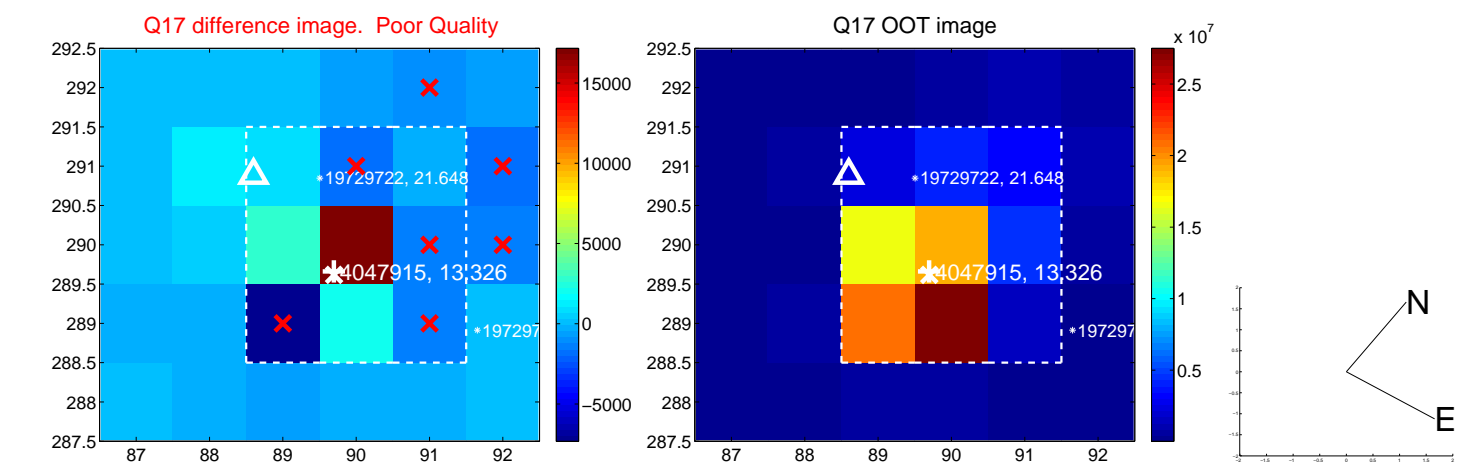
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



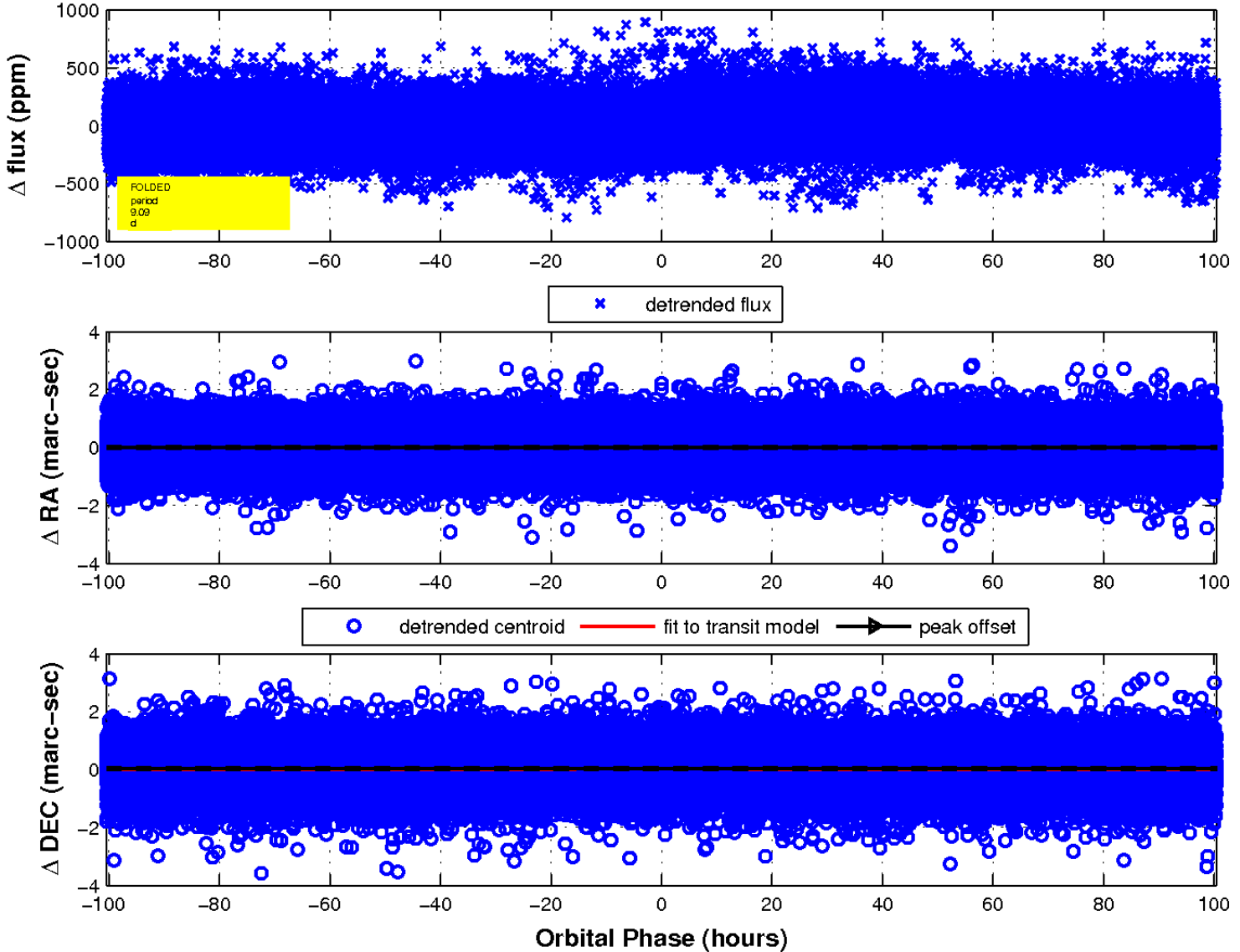
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

