

KIC 008915238

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})
008915238-01	OBS	No	14.121443	138.923190	219.5	31.826	16.9	22.8	2.13	6158	6.21	412.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008915238-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS

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

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

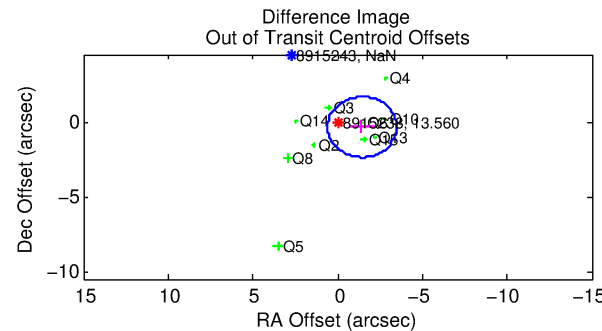
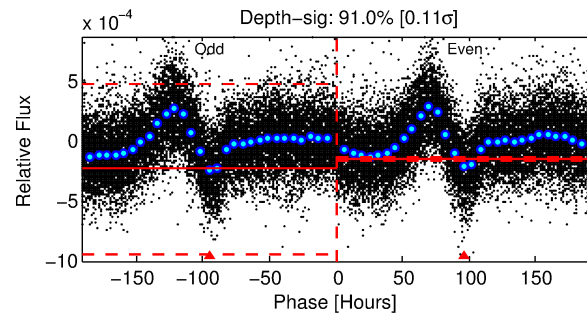
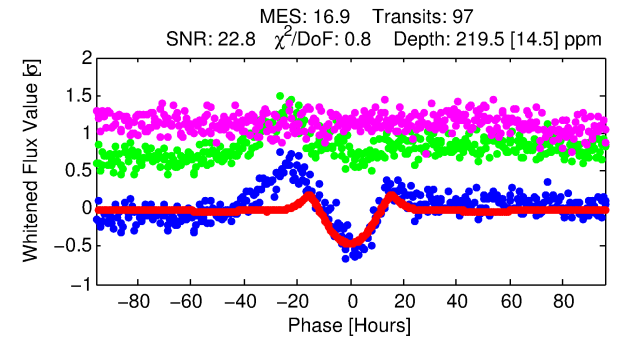
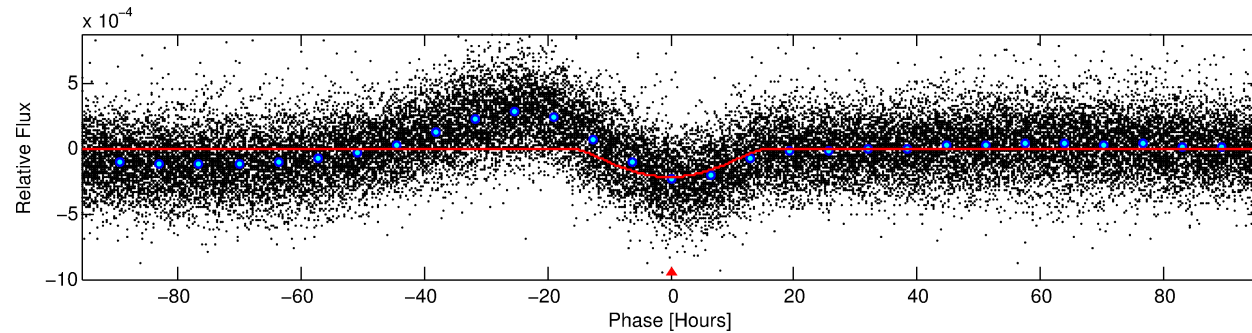
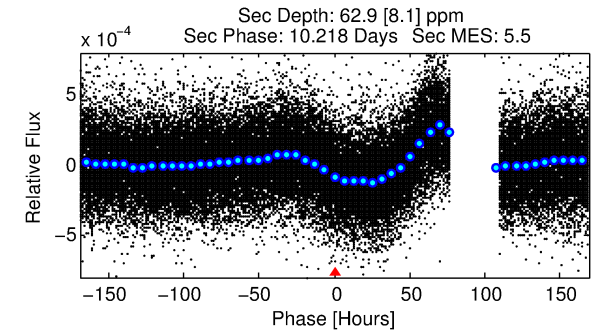
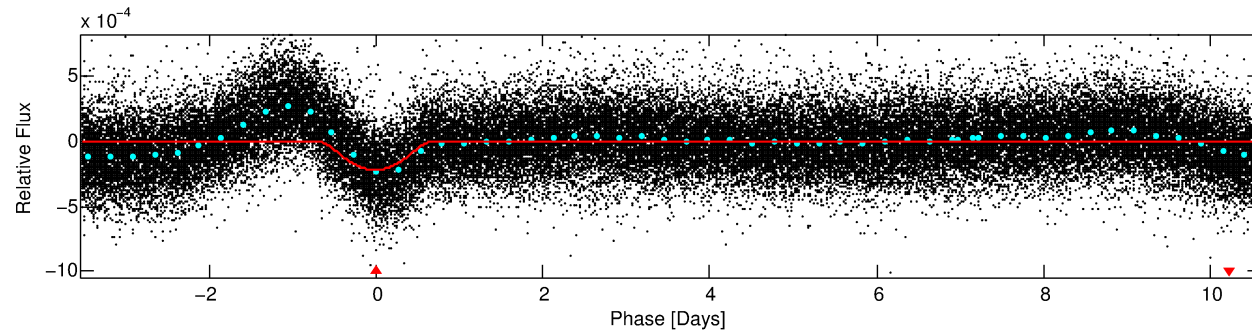
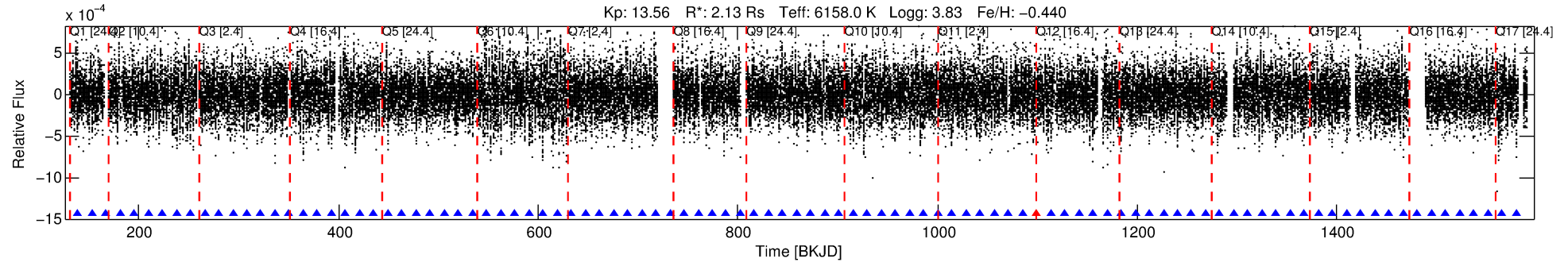
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008915238-01

No Significant Match Found

DV One-Page Summary

KIC: 8915238 Candidate: 1 of 1 Period: 14.121 d



DV Fit Results:

Period = 14.12144 [0.00039] d
Epoch = 138.9232 [0.0226] BKJD
Rp/R* = 0.0267 [0.0168]
a/R* = 1.28 [0.07]
b = 1.00 [0.03]
Seff = 412.67 [373.39]
Teq = 1149 [260] K
Rp = 6.21 [5.07] Re
a = 0.1190 [0.0641] AU
Ag = 12.68 [19.58] [0.60σ]
Teffp = 3353 [1063] K [2.01σ]

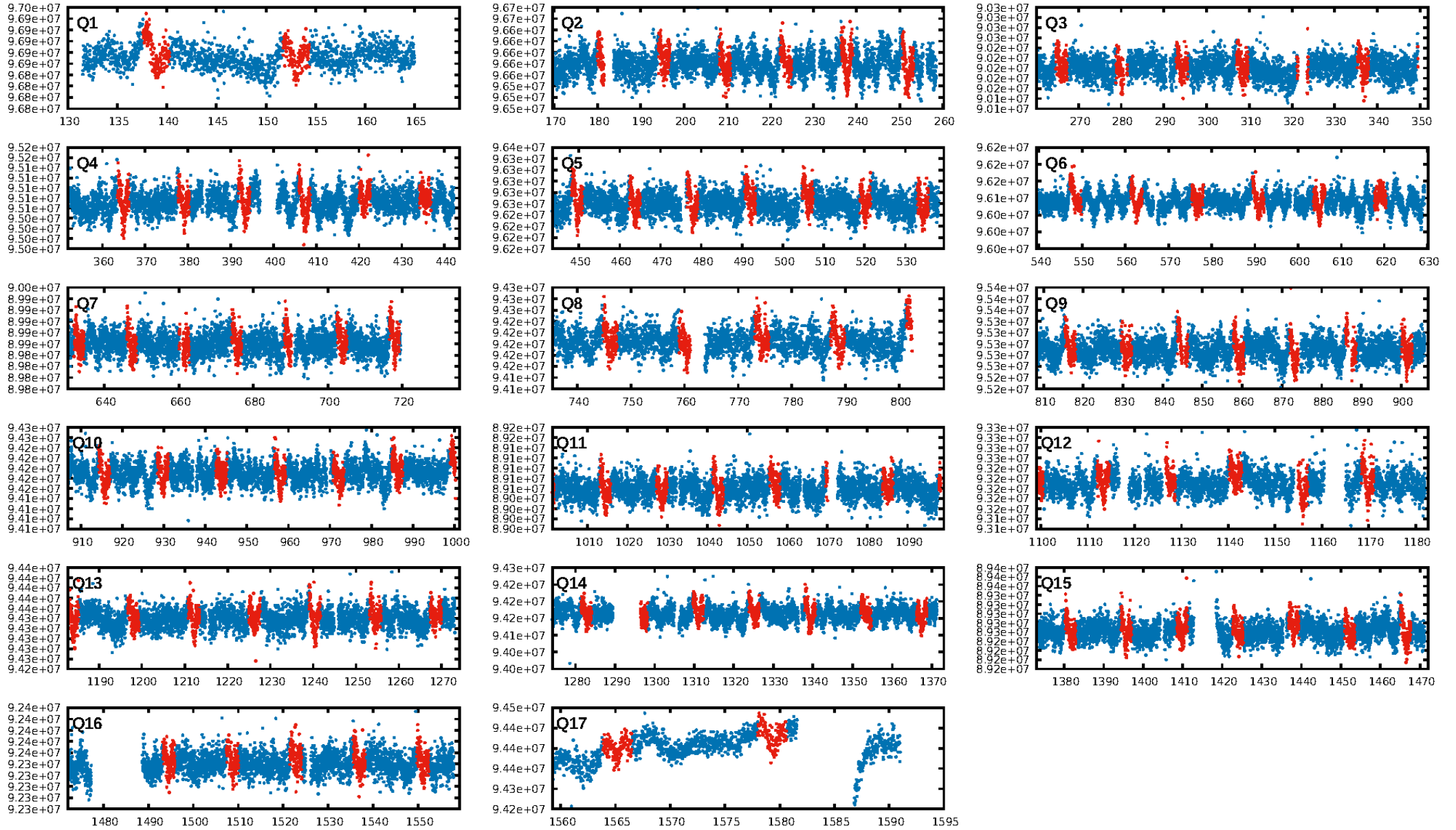
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 94.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.65e-64
RollingBand-fgt: 0.99 [92/93]
GhostDiagnostic-chr: 5.557
Centroid-sig: 6.5%
Centroid-so: 0.951 arcsec [1.59σ]
OotOffset-rm: 1.476 arcsec [2.18σ]
KicOffset-rm: 1.774 arcsec [2.89σ]
OotOffset-st: 4/2/2/2 [10]
KicOffset-st: 4/2/2/2 [10]
DiffImageQuality-fgm: 0.40 [4/10]
DiffImageOverlap-fno: 1.00 [17/17]

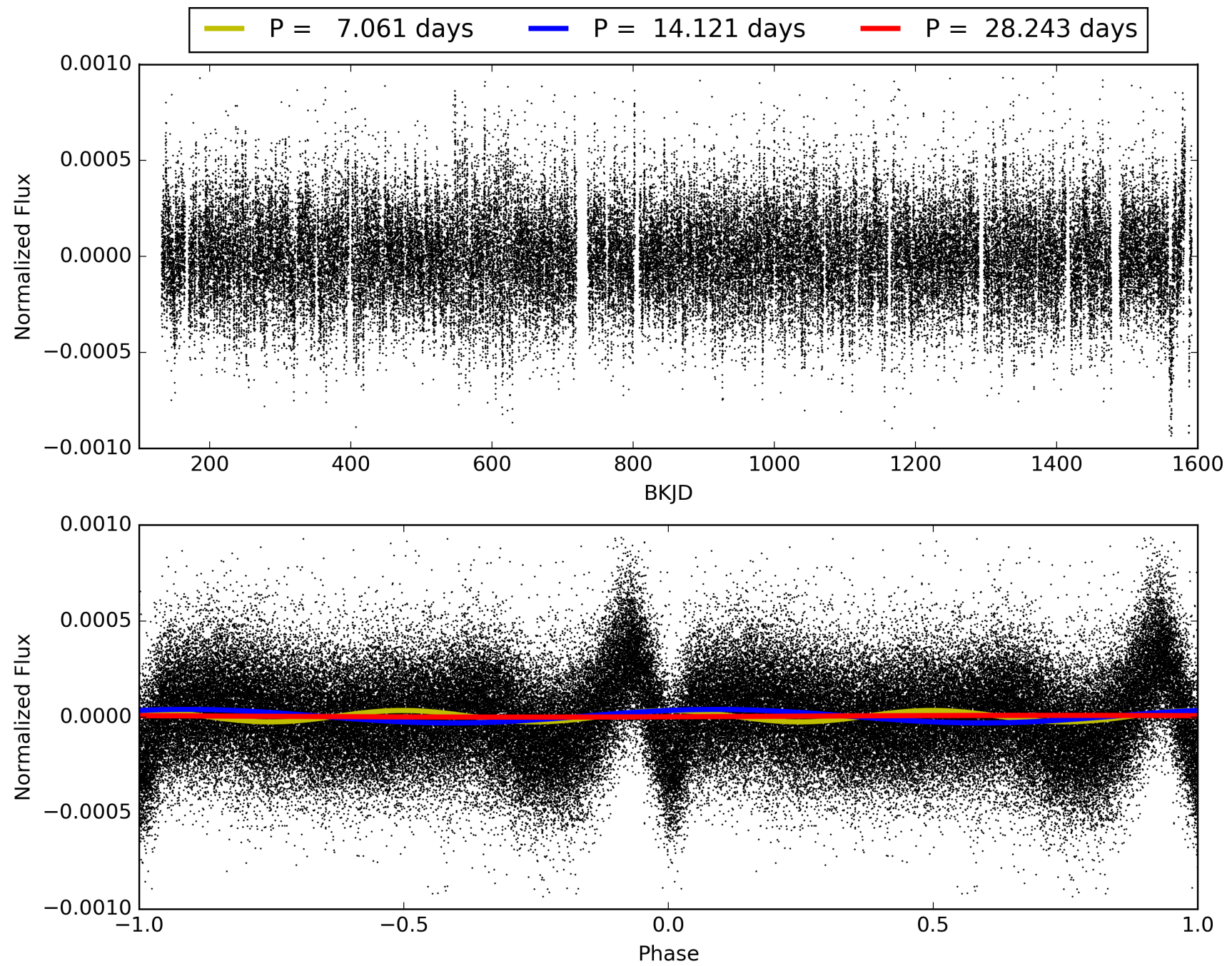
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:05:57 Z

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

TCE 008915238-01, PDC Light Curves

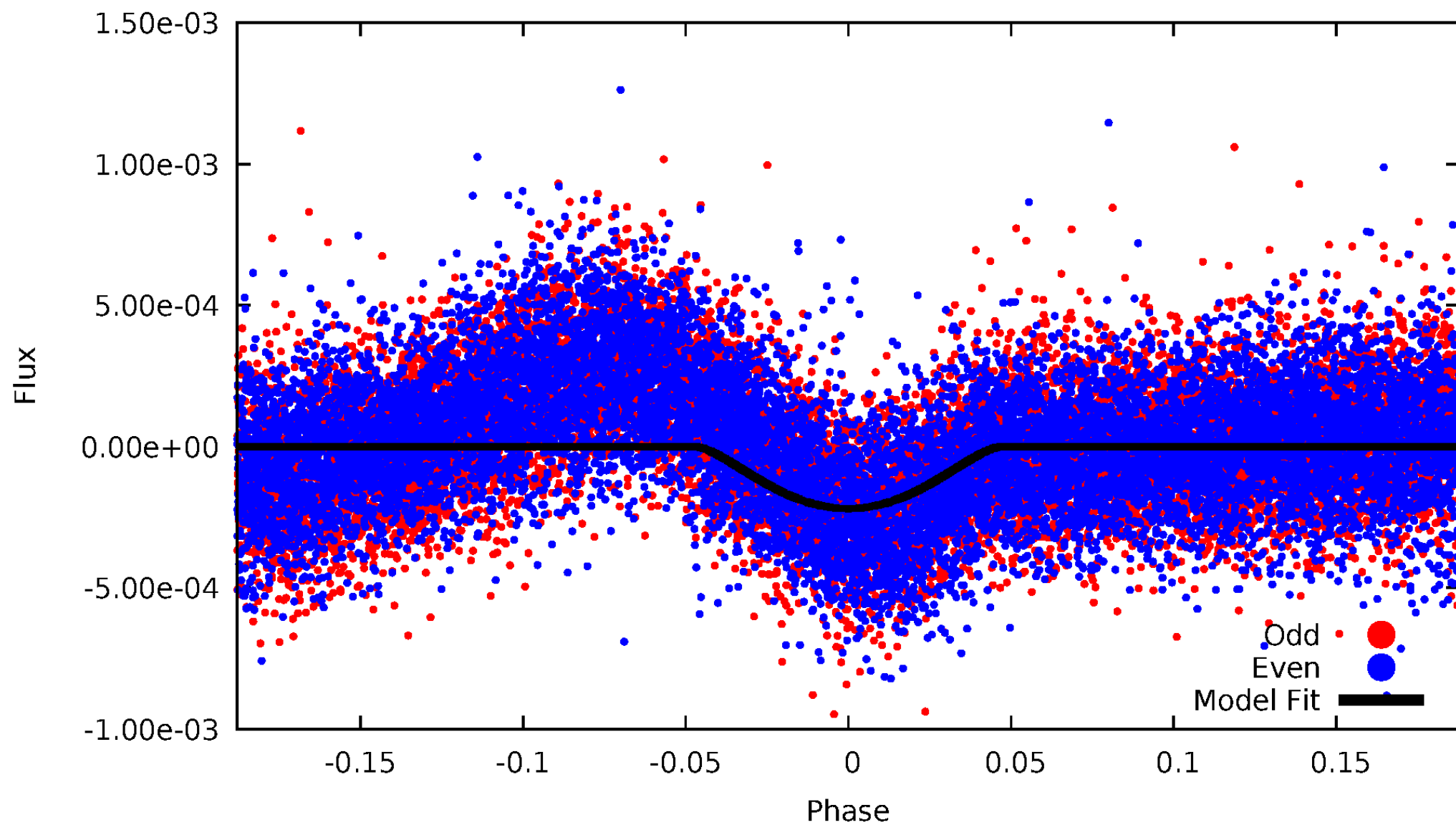


TCE 008915238-01



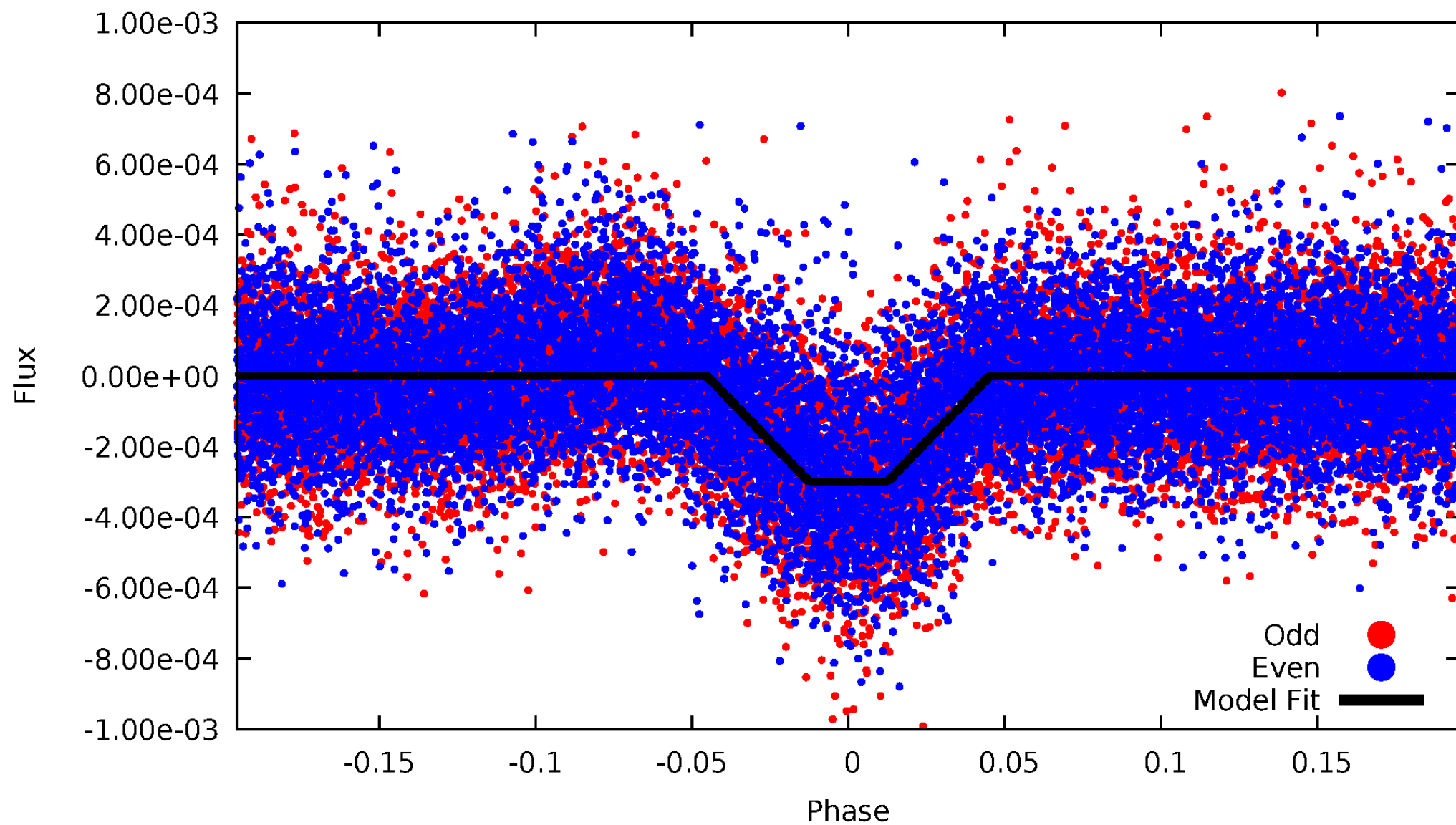
DV Odd/Even

TCE 008915238-01



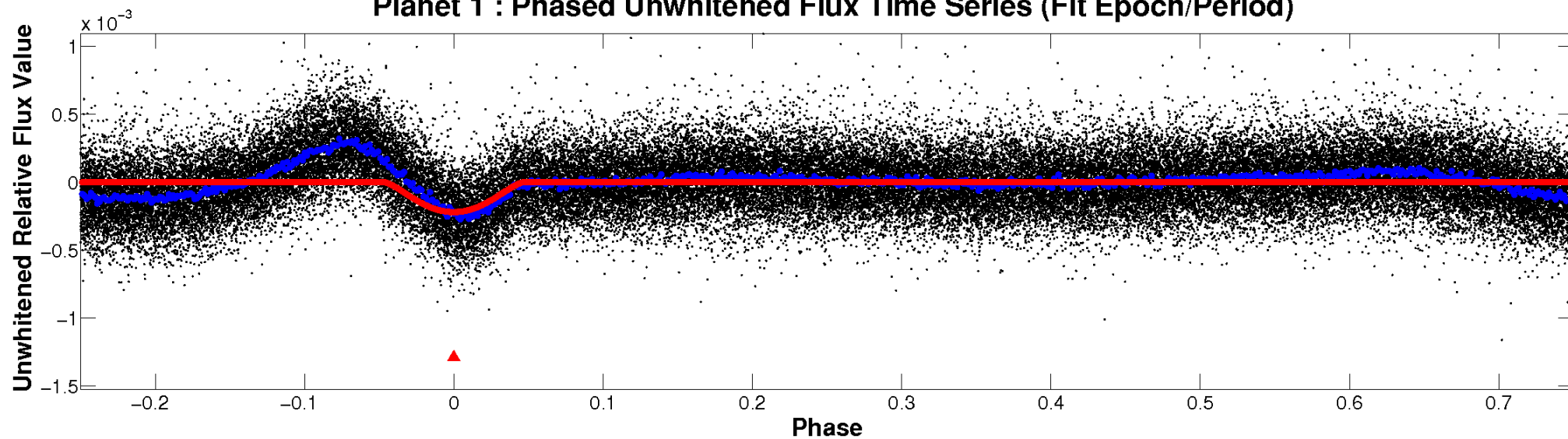
ALT Odd/Even

TCE 008915238-01

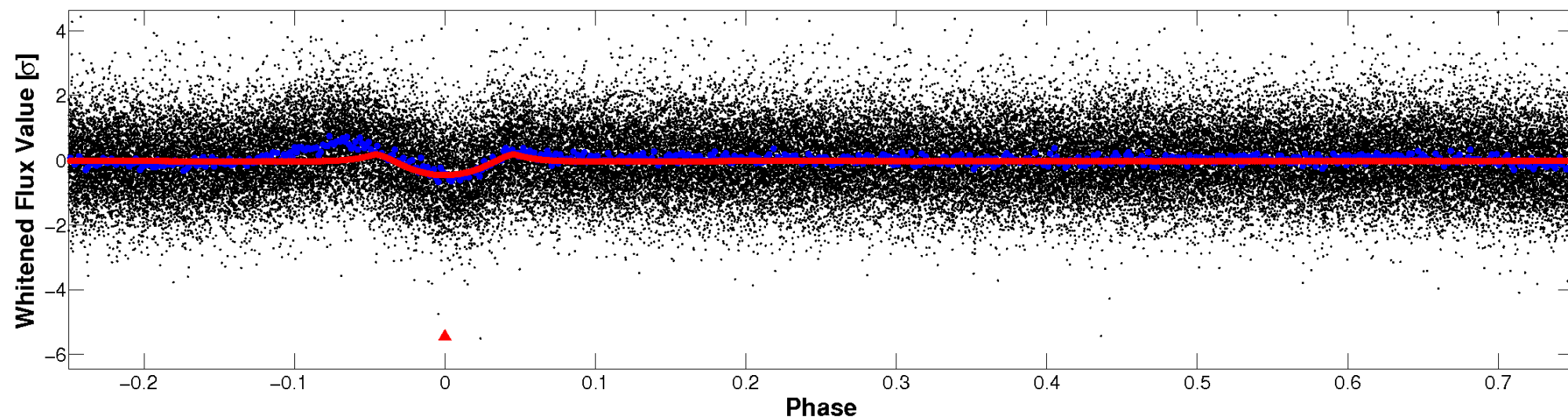


Non-Whitened Vs. Whitened Light Curve

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

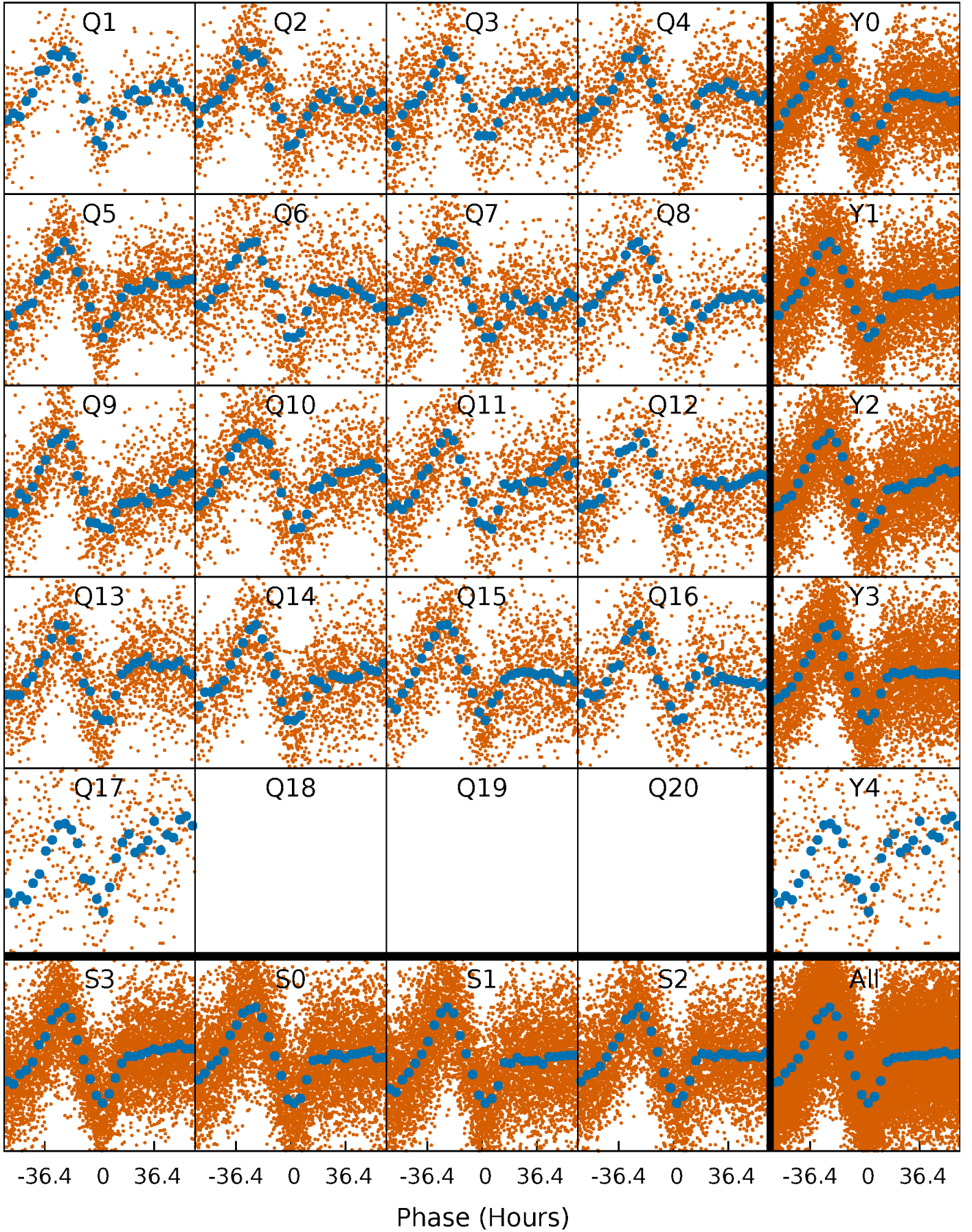


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



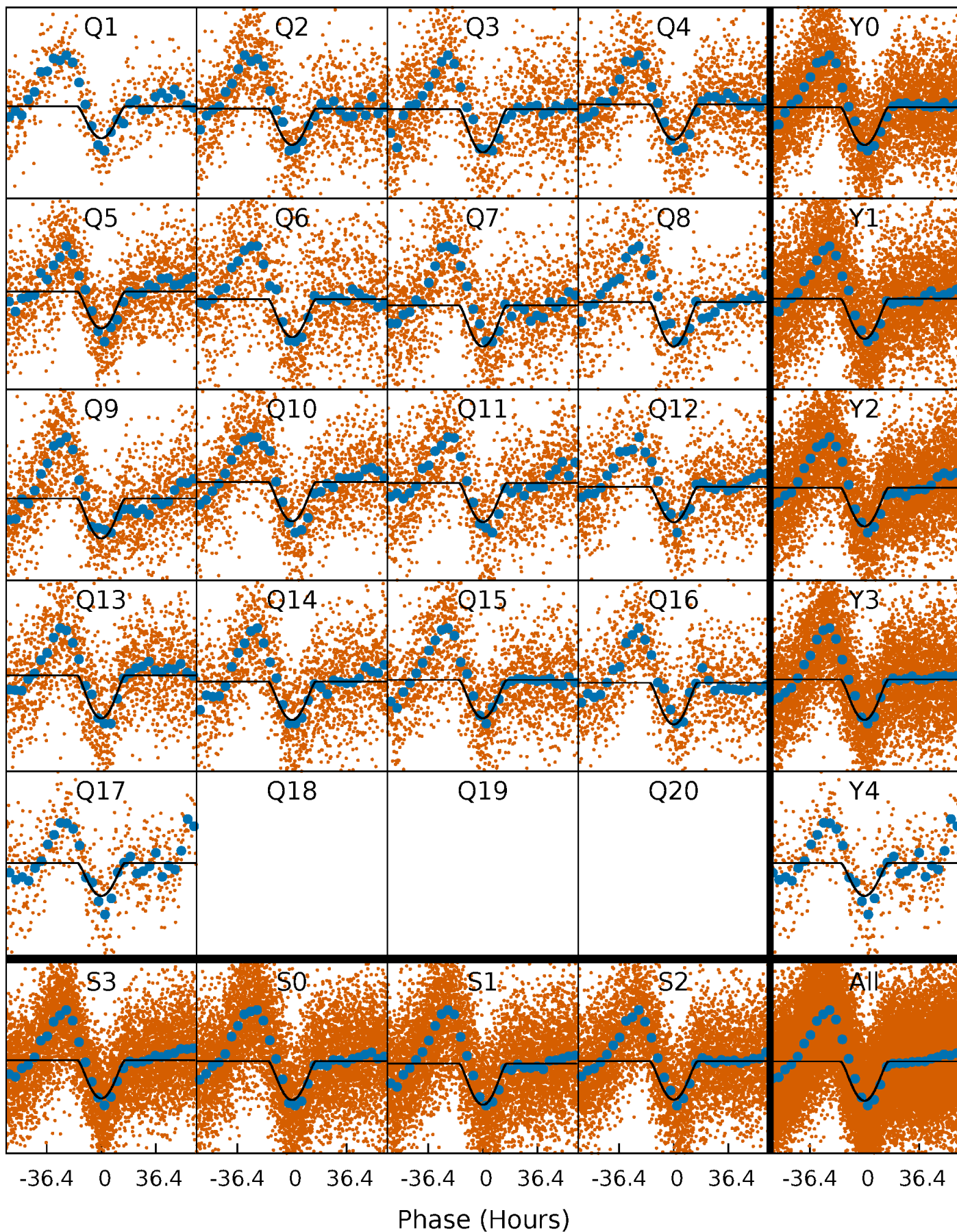
PDC Quarter-Phased Transit Curves

TCE 008915238-01 P= 14.121443 Days $T_0=138.923190$ (BKJD)



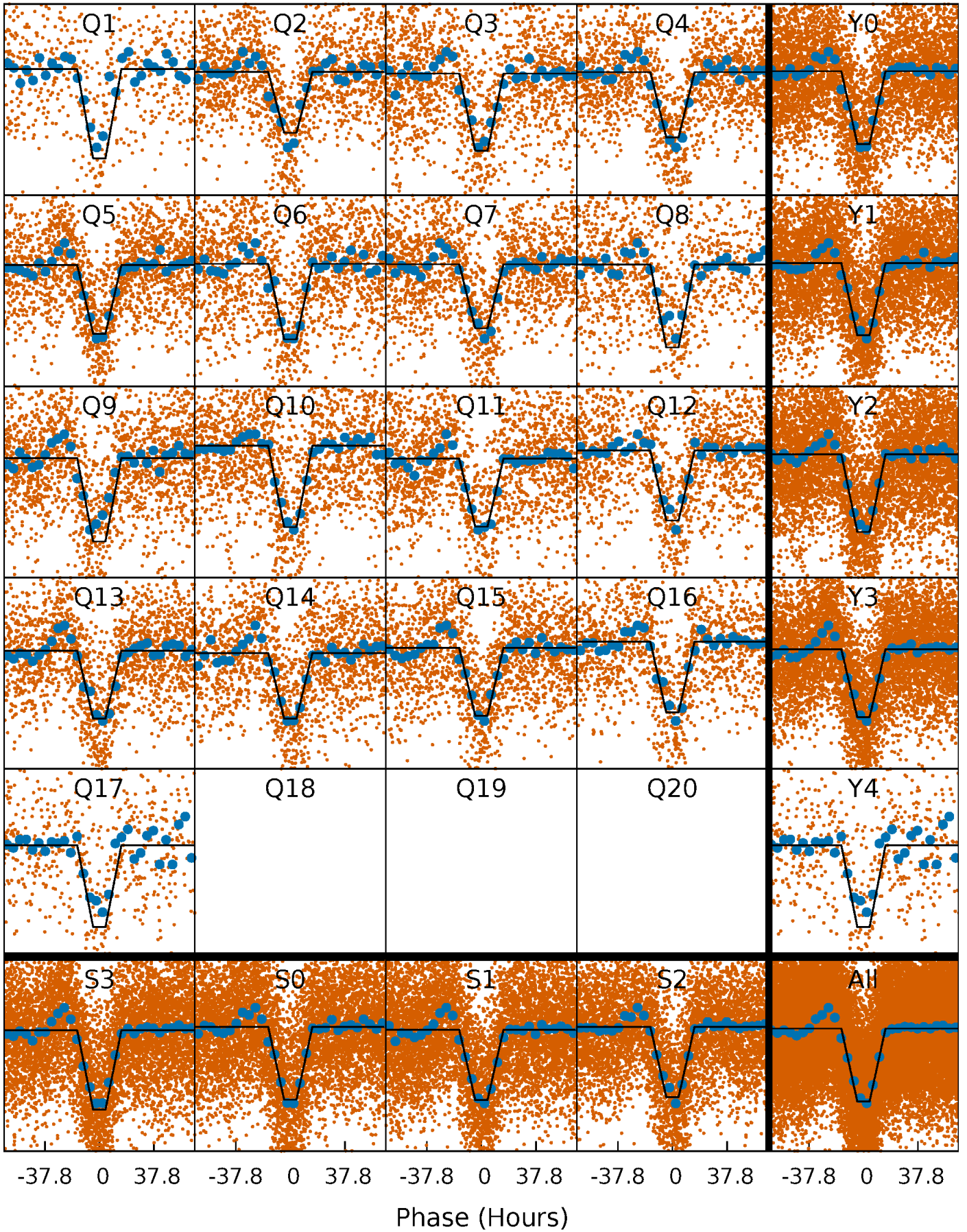
DV Quarter-Phased Transit Curves

TCE 008915238-01 P= 14.121443 Days $T_0=138.923190$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

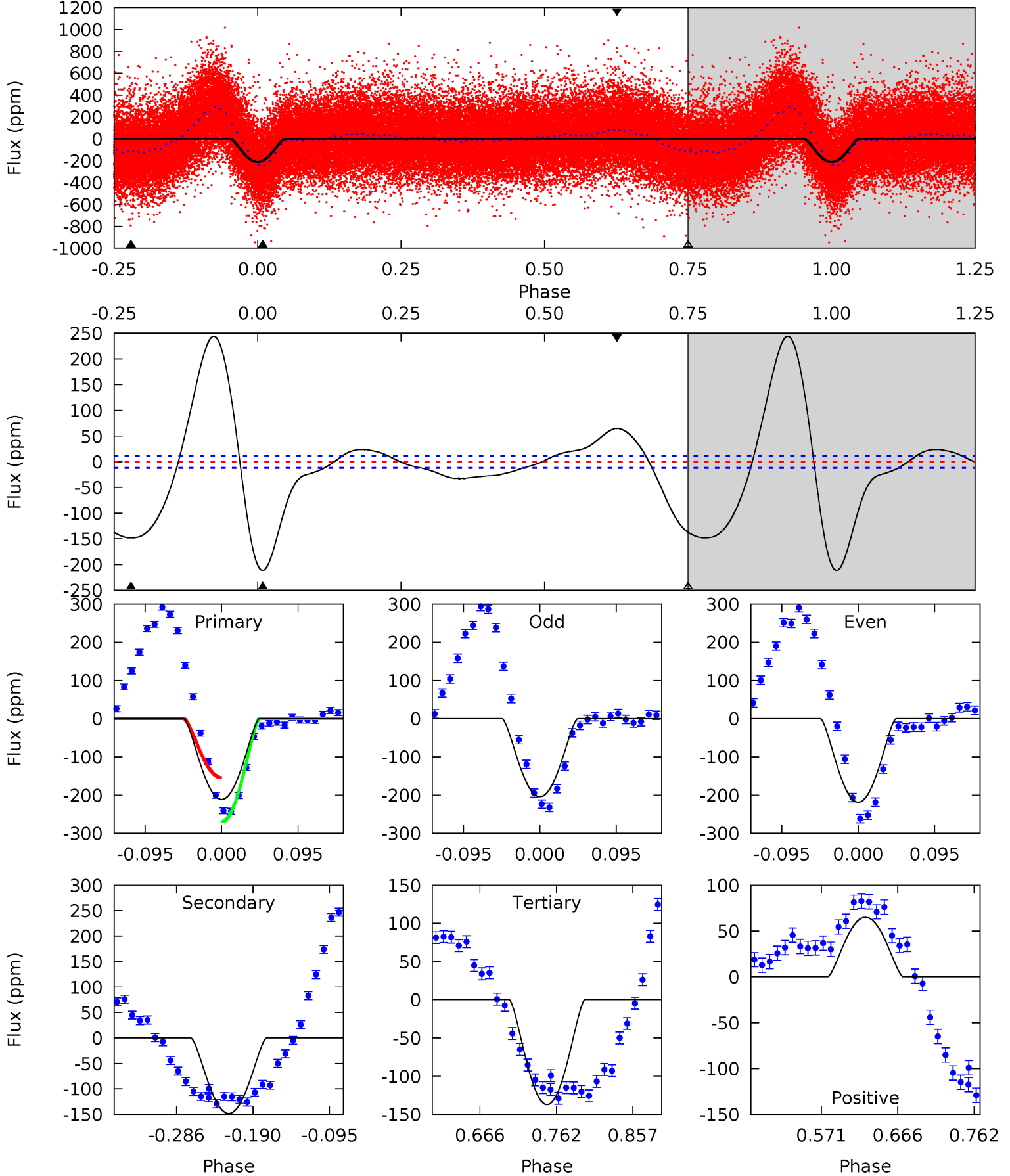
TCE 008915238-01 P= 14.120770 Days $T_0=138.973099$ (BKJD)



DV Model-Shift Uniqueness Test

008915238-01, $P = 14.121443$ Days, $E = 124.801747$ Days

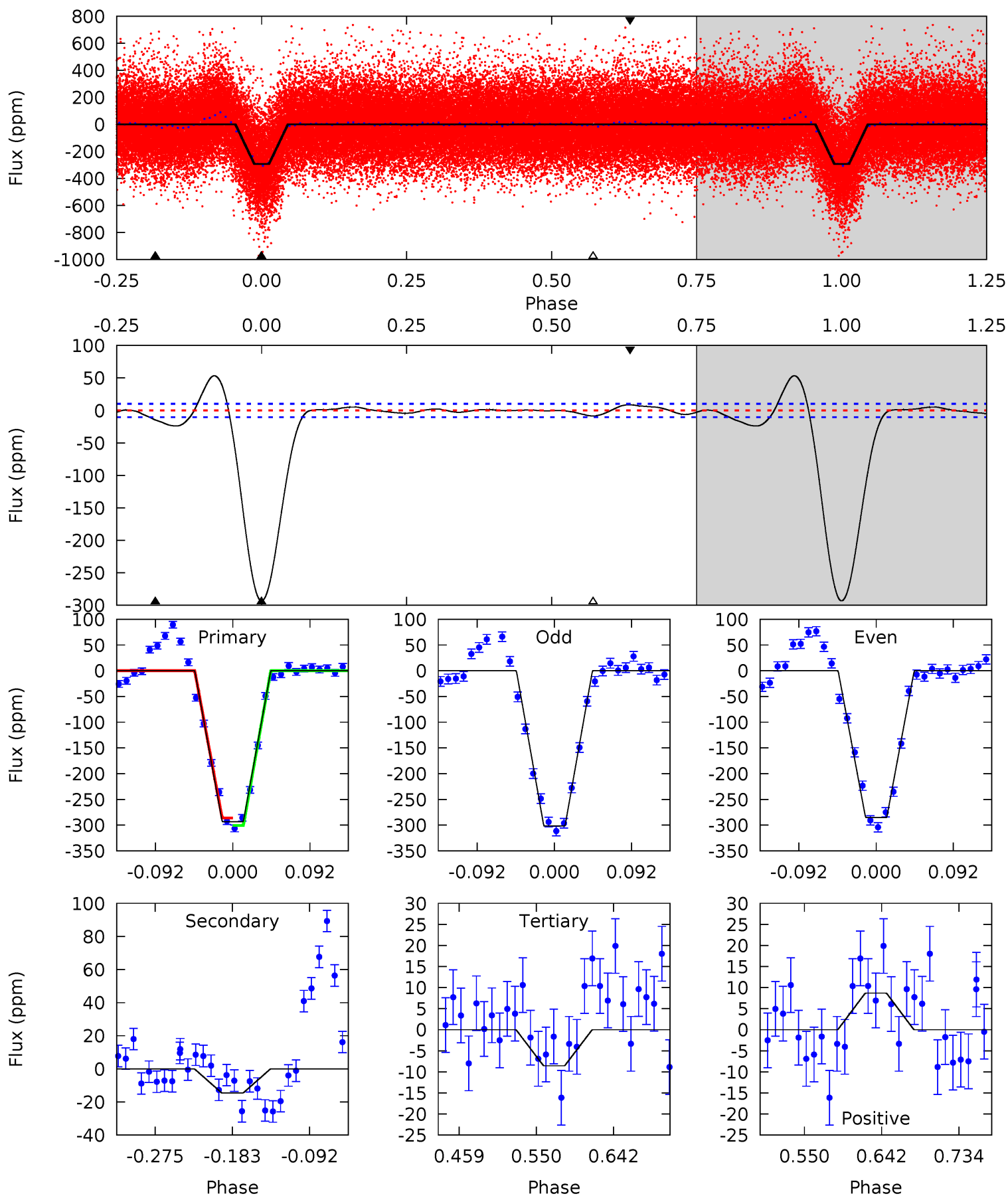
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
81.0	56.8	52.6	24.9	4.58	1.67	20.7	28.4	56.1	4.22	31.9	2.78	1.02	0.54	21.3



Alt Model-Shift Uniqueness Test

008915238-01, $P = 14.120770$ Days, $E = 124.852329$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
130.4	6.50	3.81	3.87	4.58	1.69	1.68	126.6	126.6	2.70	2.64	3.65	1.02	0.15	3.19



Stellar Parameters For KIC 008915238

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6158^{+197}_{-219}	$3.833^{+0.536}_{-0.134}$	$-0.440^{+0.300}_{-0.300}$	$2.129^{+0.477}_{-1.113}$	$1.127^{+0.164}_{-0.246}$	$0.165^{+0.992}_{-0.062}$
	+3%/-4%	+14%/-3%	+68%/-68%	+22%/-52%	+15%/-22%	+603%/-37%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008915238-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-148 ± 3	$5.81^{+3.64}_{-3.43}$	1563^{+131}_{-217}	4292^{+1931}_{-646}	35^{+164}_{-22}
Alt.	-15 ± 2	$4.34^{+3.56}_{-2.68}$	1570^{+128}_{-212}	3182^{+1206}_{-473}	$6.352^{+34.035}_{-4.584}$

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 $A_{obs} \gg 1.0$

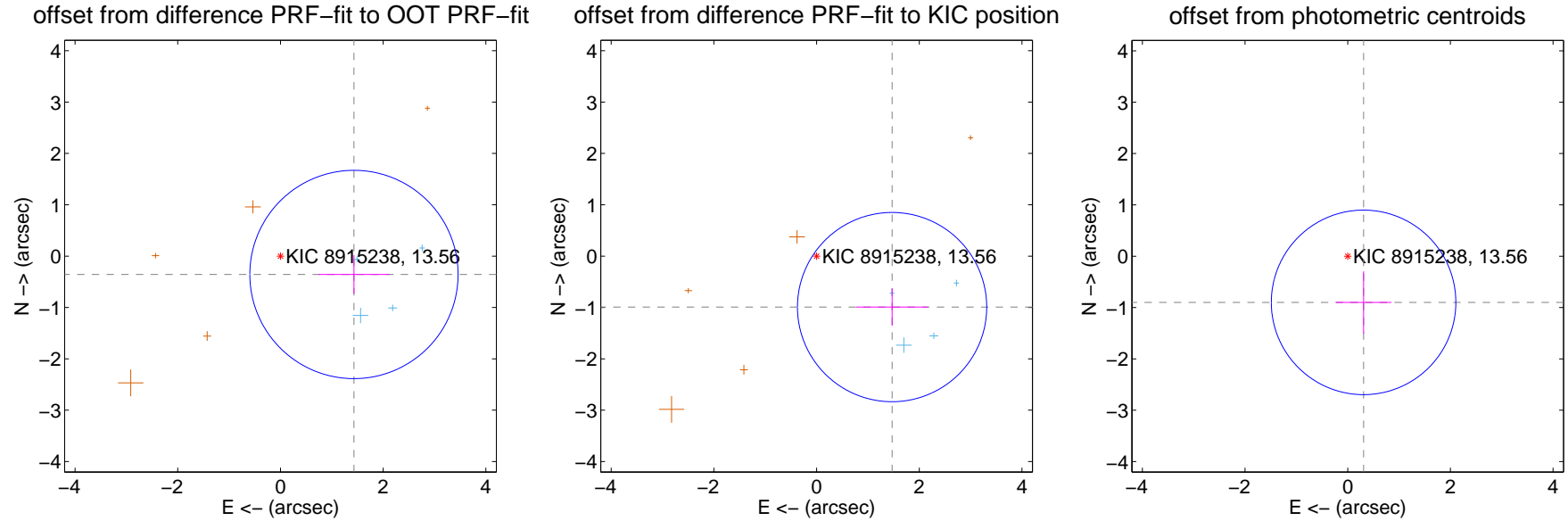
DV Centroid Data

Supplemental centroid analysis for 008915238-01. Kepler magnitude: 13.56. Transit SNR 22.77

There are 4 quarters with good PRF difference image offsets

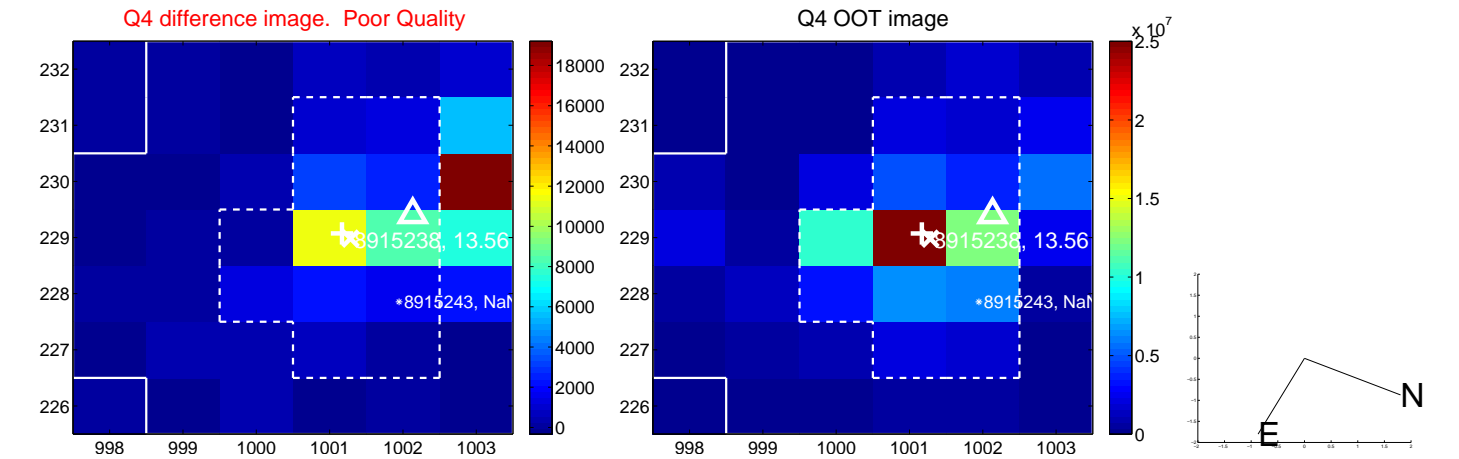
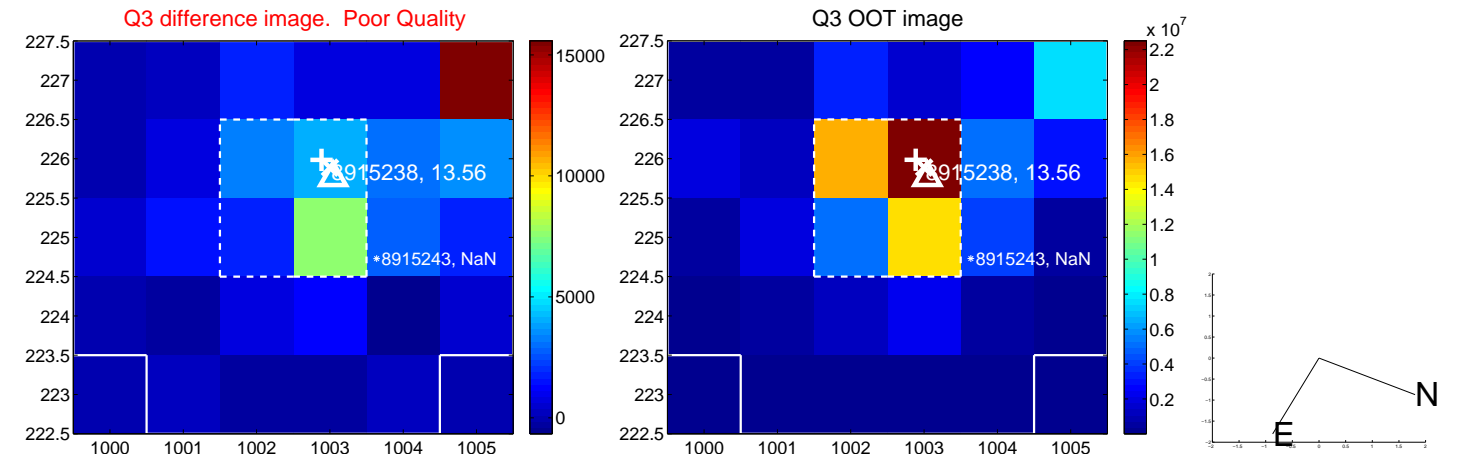
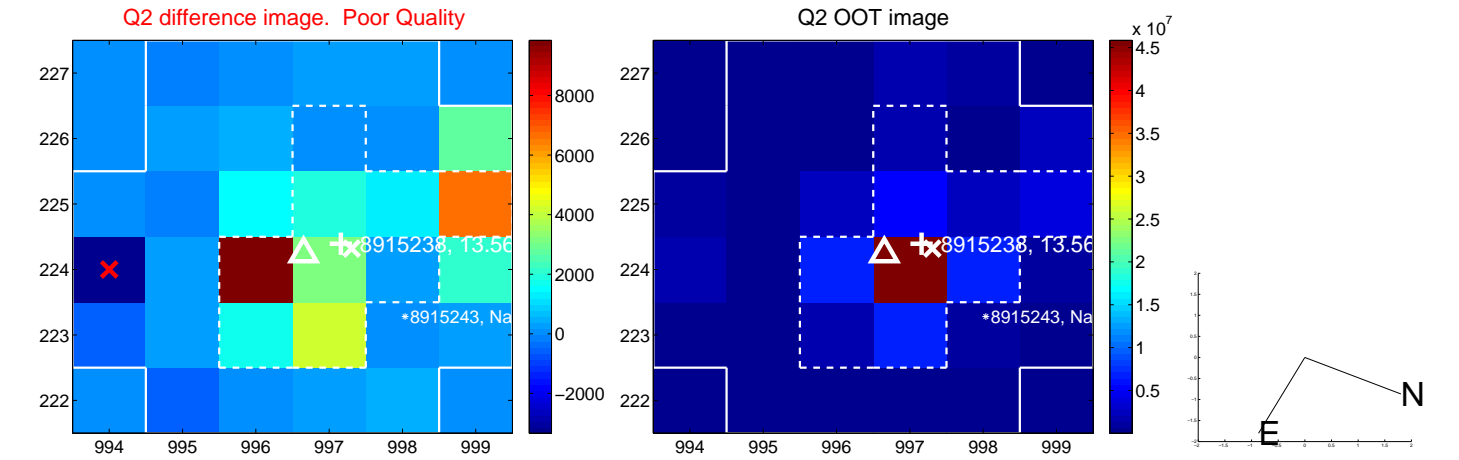
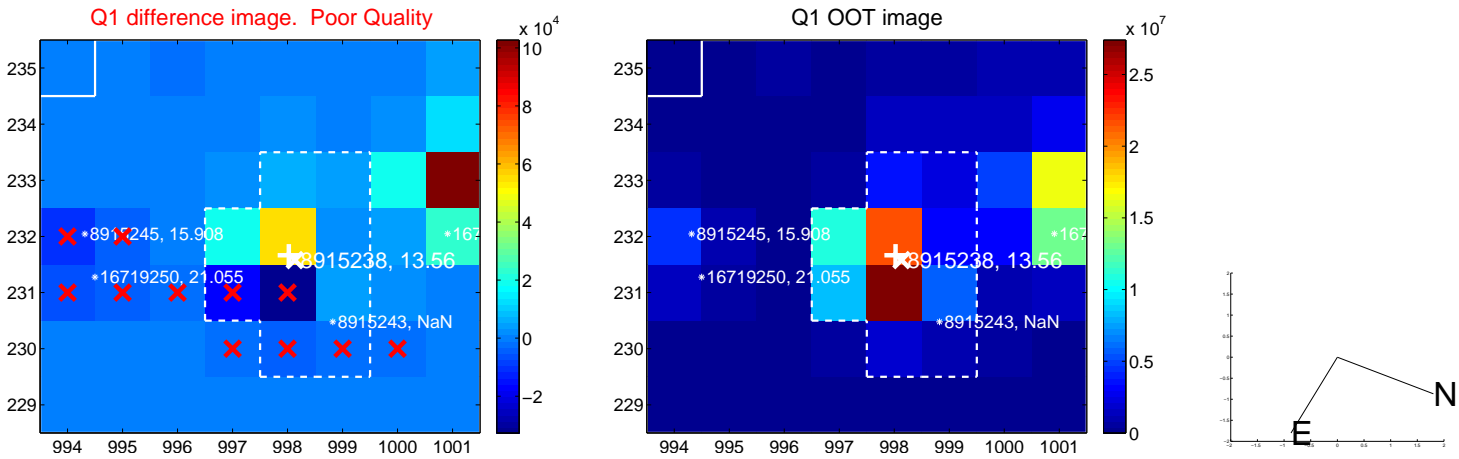
The direct PRF centroid is offset from the target star catalog position by about 0.59 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.476 ± 0.676	2.18	-1.432 ± 0.690	-0.357 ± 0.376
PRF-fit source offset from KIC position	1.774 ± 0.614	2.89	-1.471 ± 0.699	-0.992 ± 0.365
photometric centroid source offset	0.95 ± 0.60	1.59	-0.31 ± 0.54	-0.90 ± 0.61

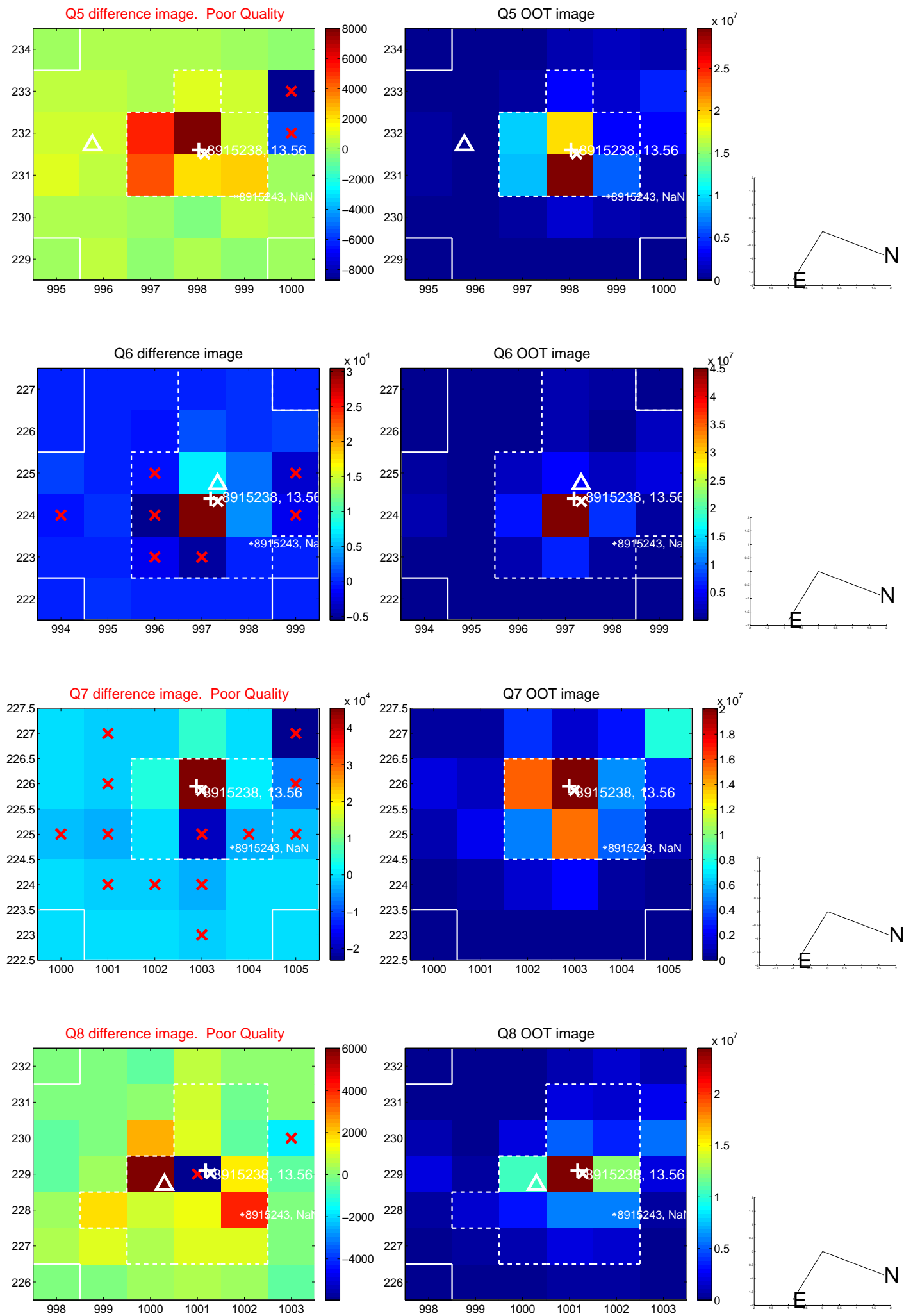


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

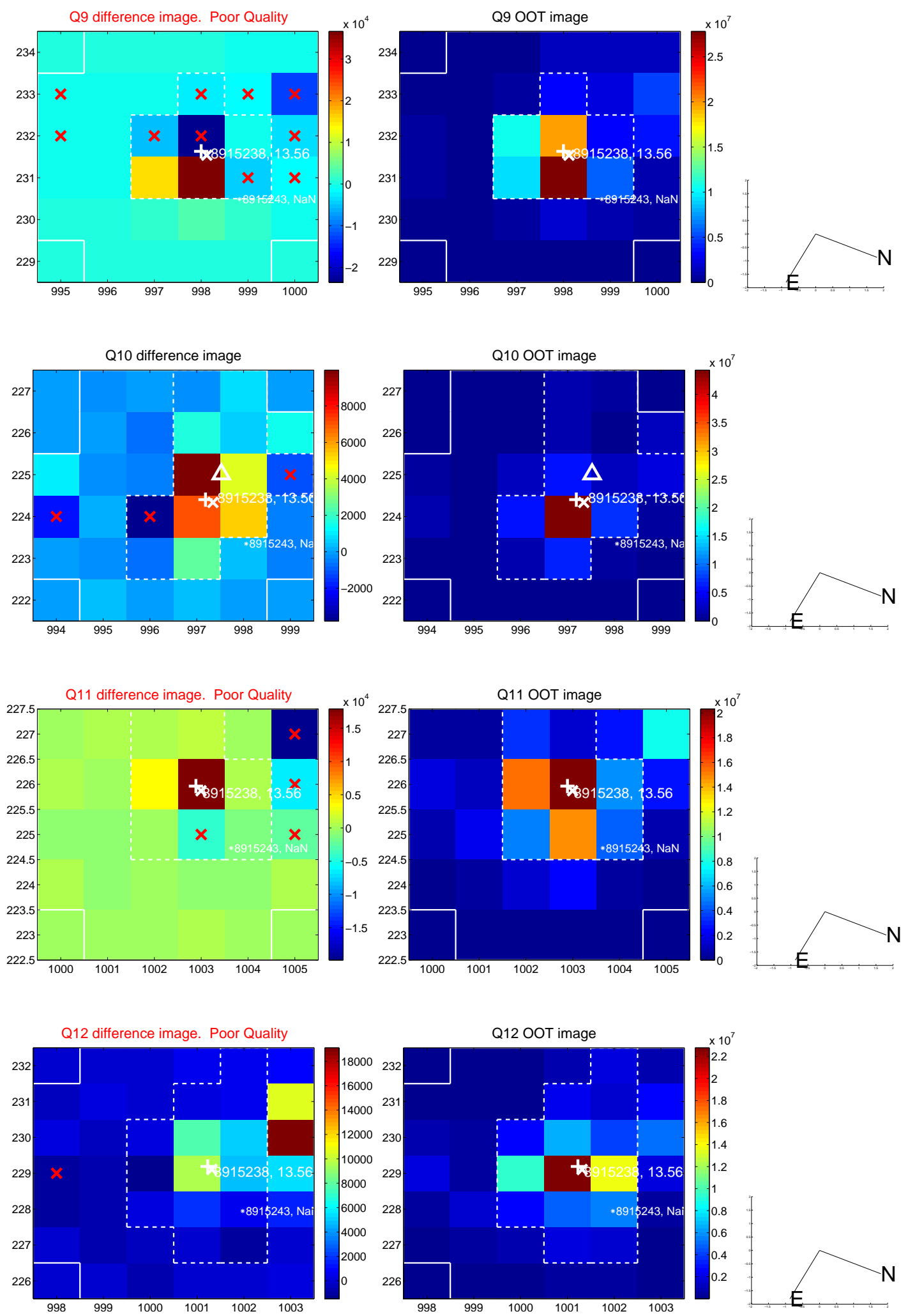
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



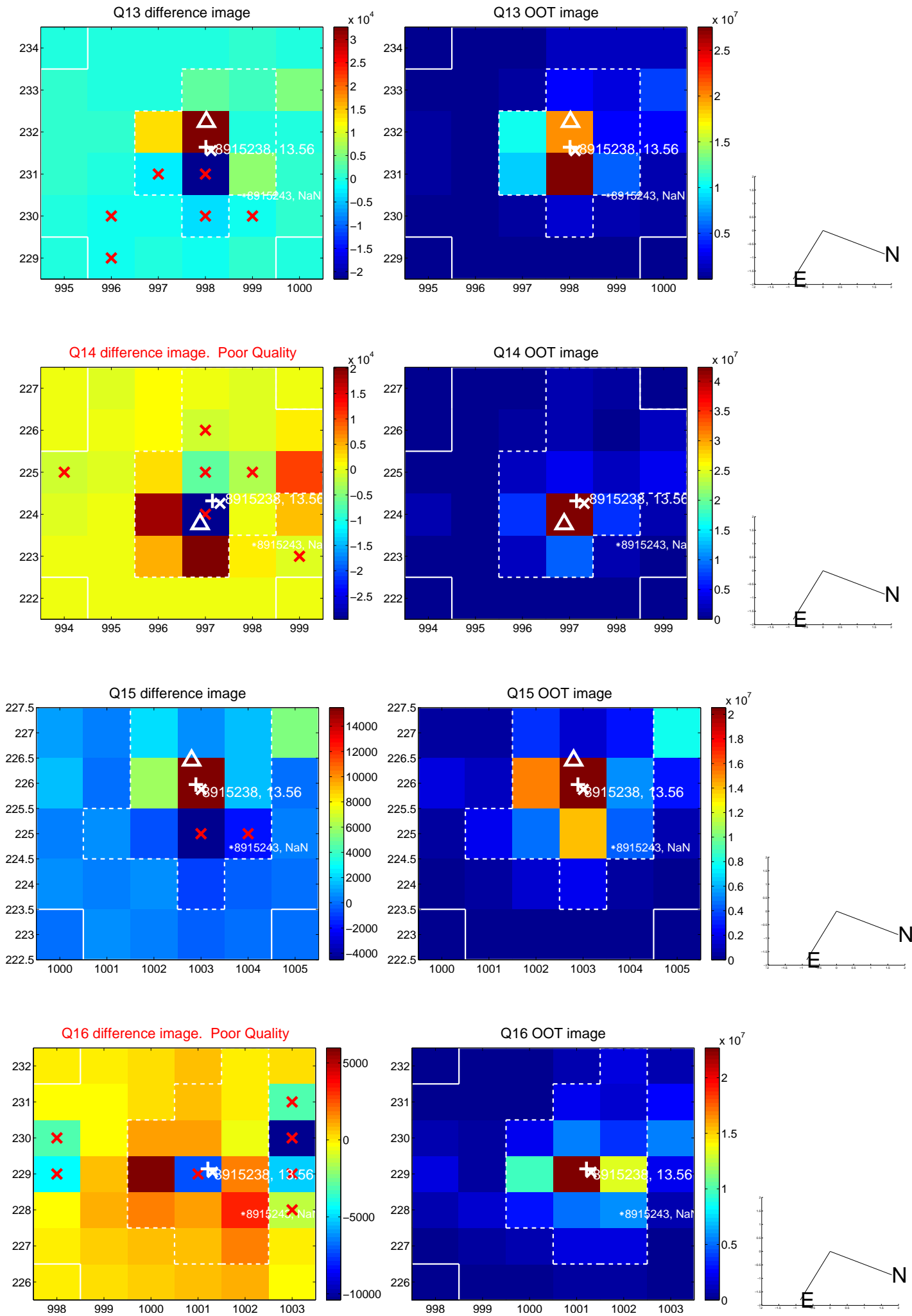
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



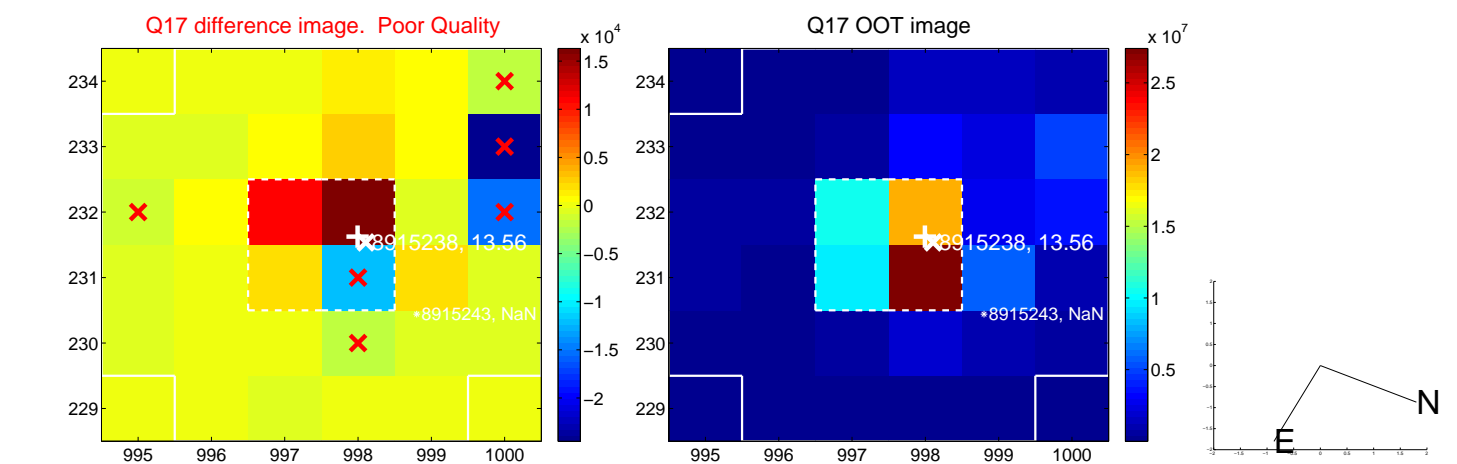
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



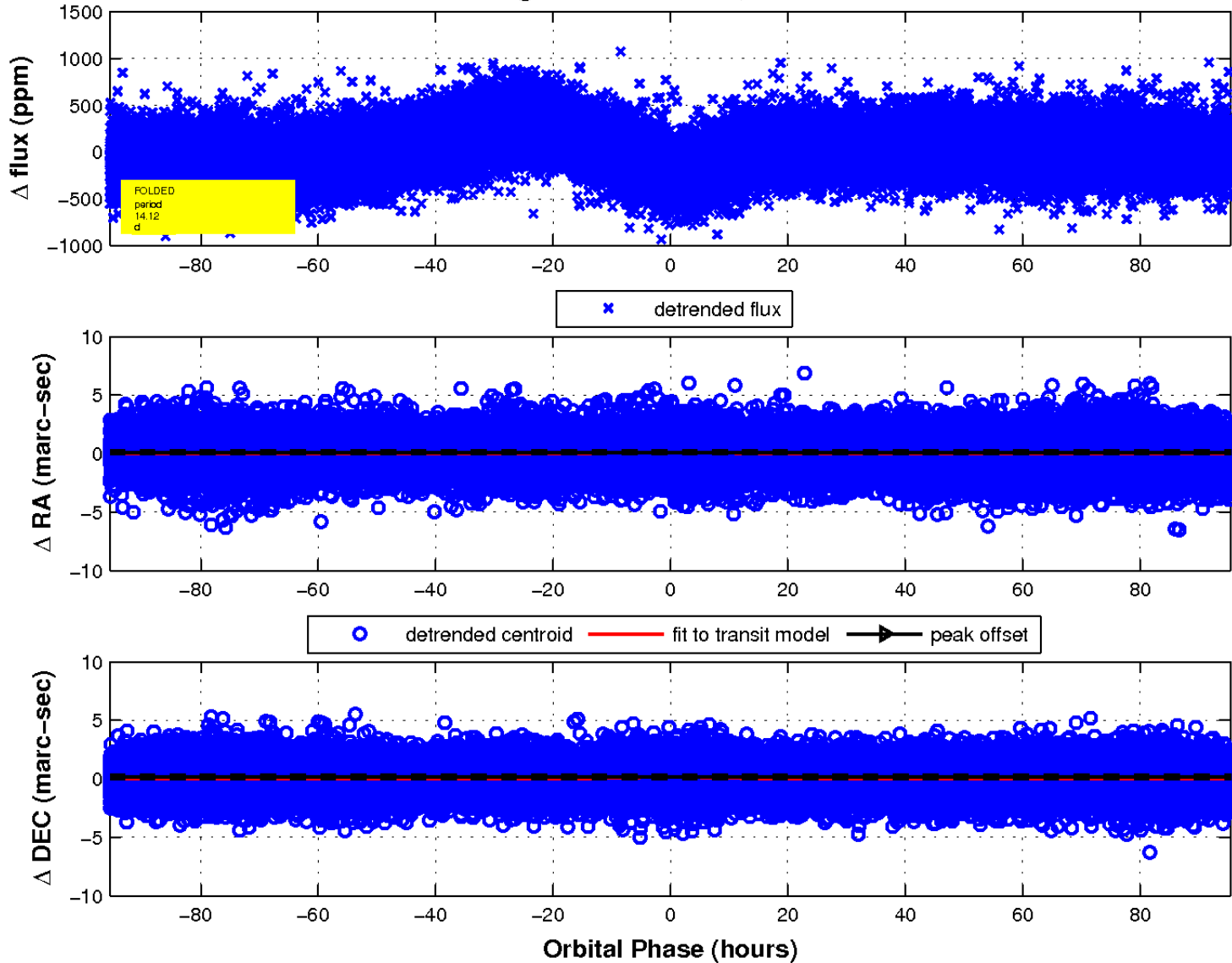
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

