

KIC 011923074

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})
011923074-01	OBS	8295.01	1.756468	132.029125	60.5	2.511	8.6	8.9	0.83	5813	0.74	923.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011923074-01	OBS	FP	0.00	0	0	0	1	EPHEM_MATCH

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.

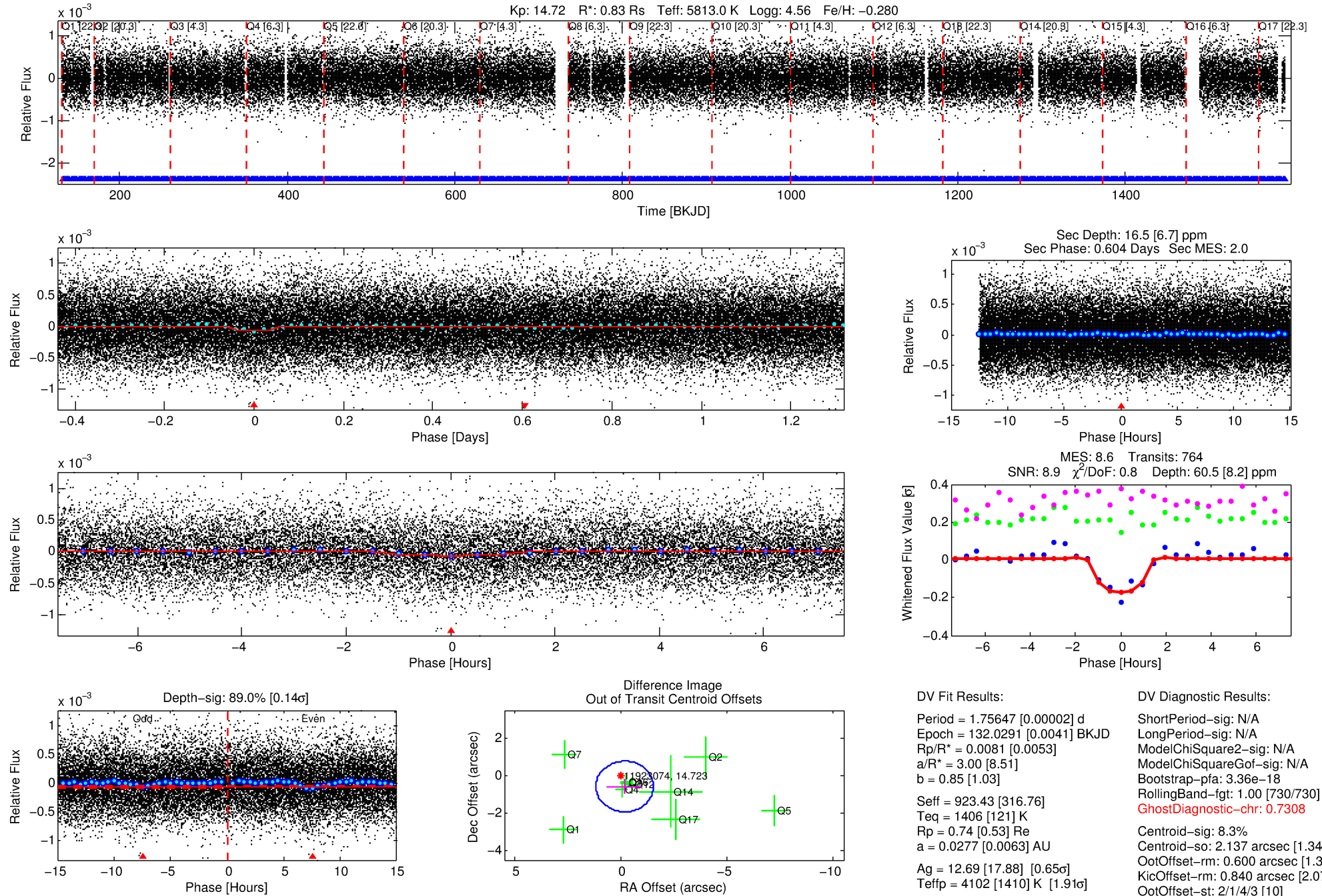
Ephemeris Match Information For 011923074-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
011923074-01	11923074	011922782-pri	11922782	1:2	351.0	-88	0	10.46	14.72	3782.00	Direct-PRF	0	0.06	0.02

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 11923074 Candidate: 1 of 1 Period: 1.756 d



DV Fit Results:

Period = 1.75647 [0.00002] d
Epoch = 132.0291 [0.0041] BKJD
Rp/R* = 0.0081 [0.0053]
a/R* = 3.00 [8.51]
b = 0.85 [1.03]
Seff = 923.43 [316.76]
Teq = 1406 [121] K
Rp = 0.74 [0.53] Re
a = 0.0277 [0.0063] AU
Ag = 12.69 [17.88] [0.65 σ]
Teffp = 4102 [1410] K [1.91 σ]

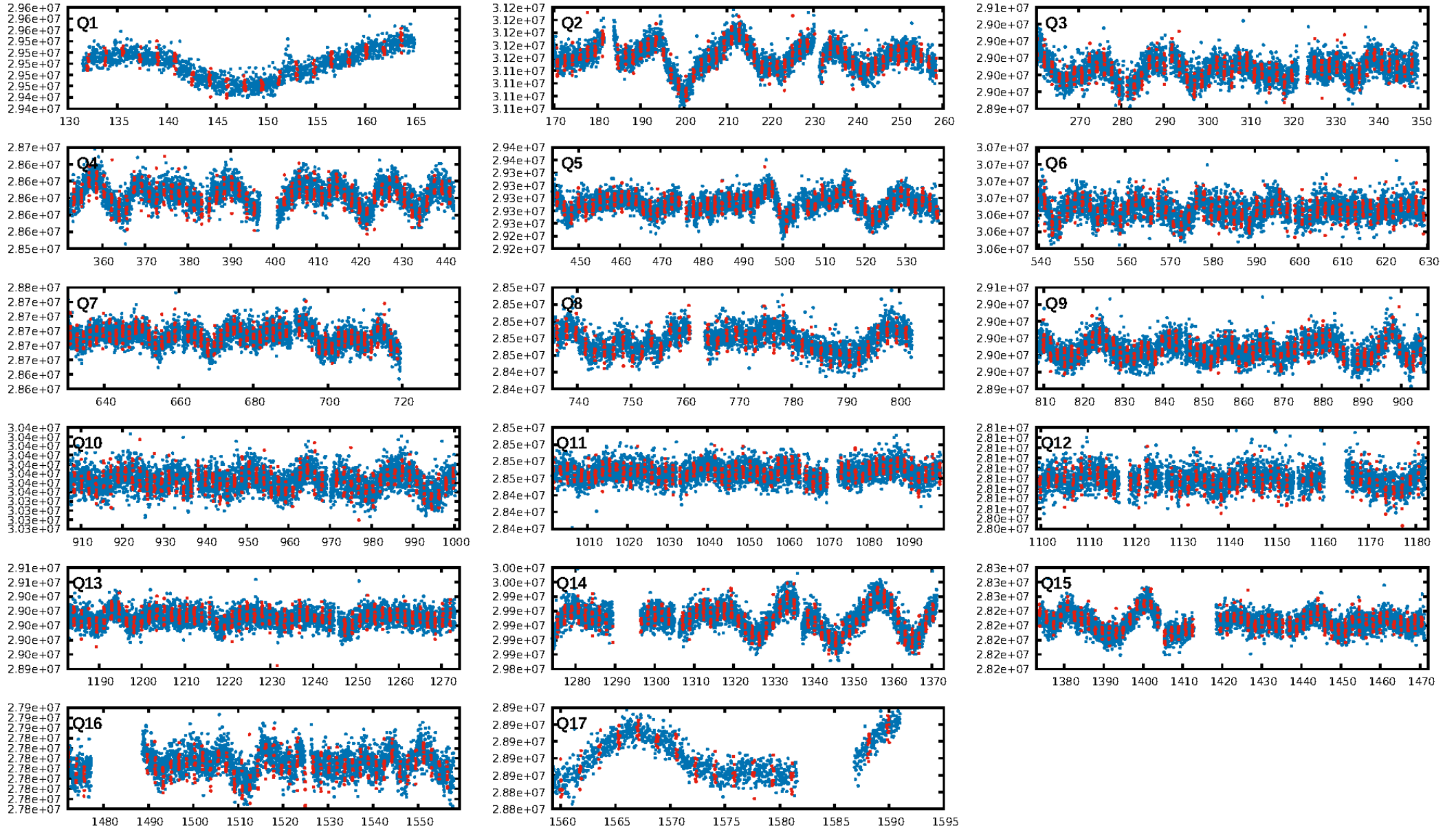
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.36e-18
RollingBand-fgt: 1.00 [730/730]
GhostDiagnostic-chr: 0.7308
Centroid-sig: 8.3%
Centroid-so: 2.137 arcsec [1.34 σ]
OotOffset-rm: 0.600 arcsec [1.33 σ]
KicOffset-rm: 0.840 arcsec [2.07 σ]
OotOffset-st: 2/1/4/3 [10]
KicOffset-st: 2/1/4/3 [10]
DiffImageQuality-fgm: 0.40 [4/10]
DiffImageOverlap-fno: 1.00 [17/17]

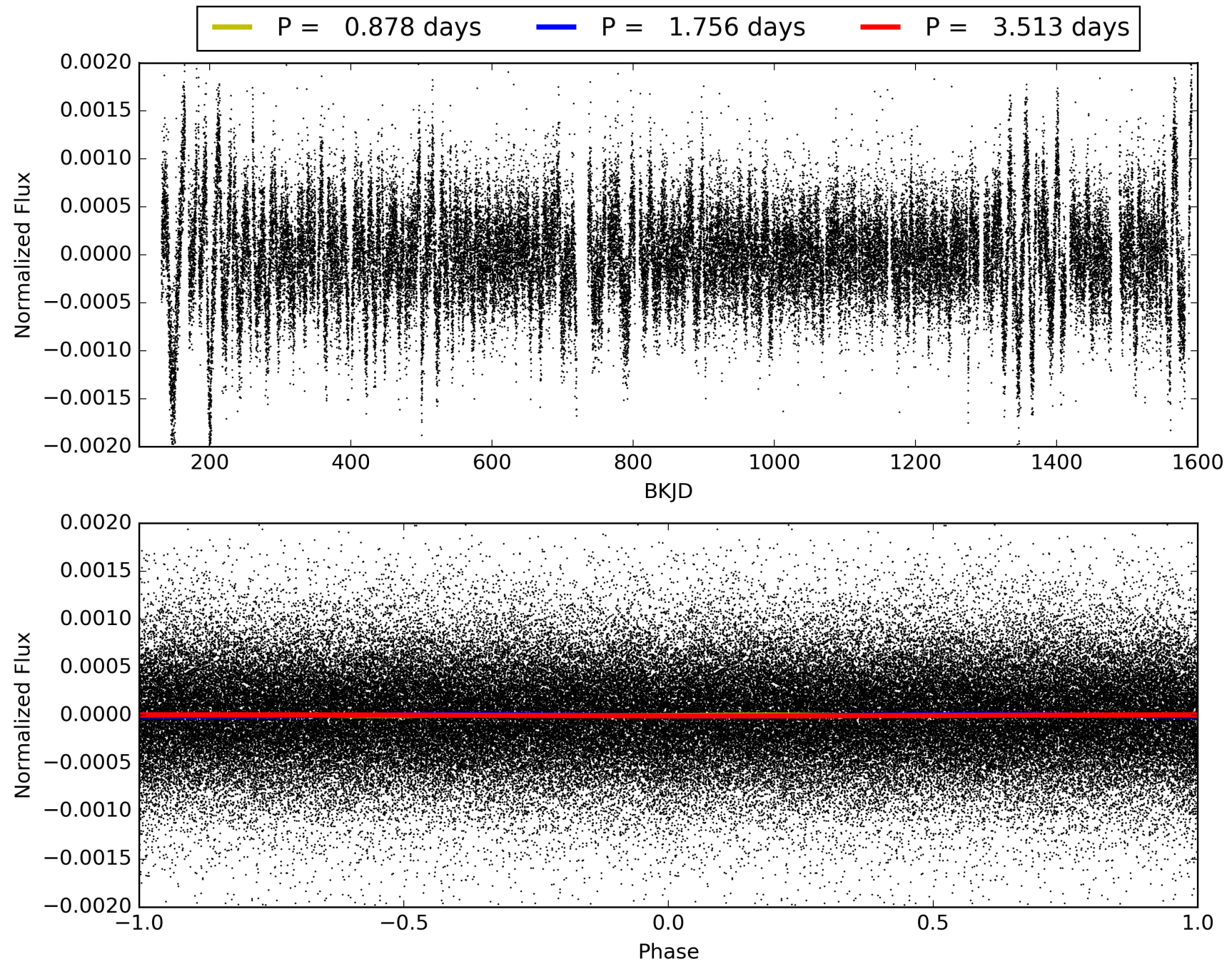
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:19:45 Z

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

TCE 011923074-01, PDC Light Curves

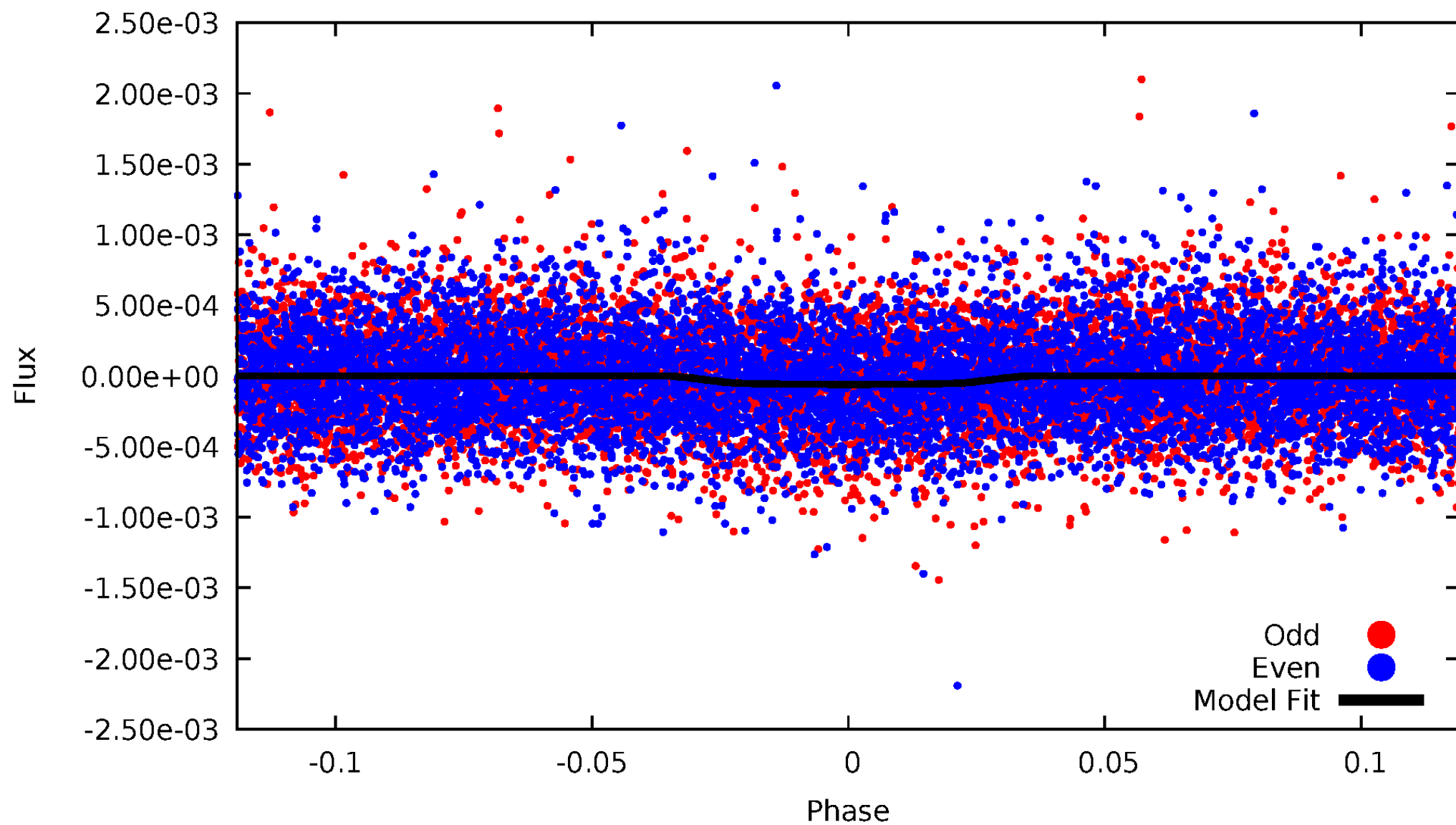


TCE 011923074-01



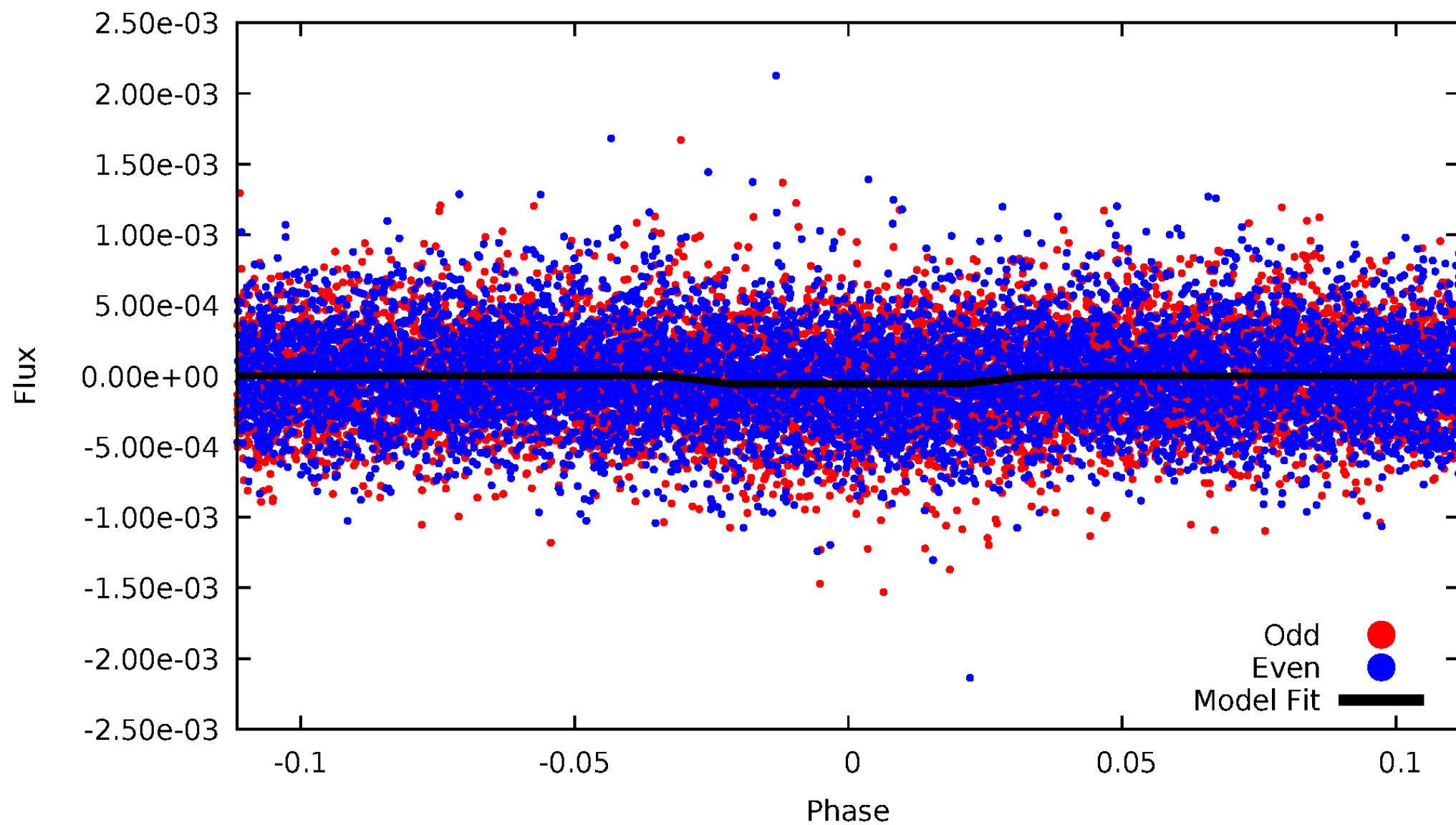
DV Odd/Even

TCE 011923074-01

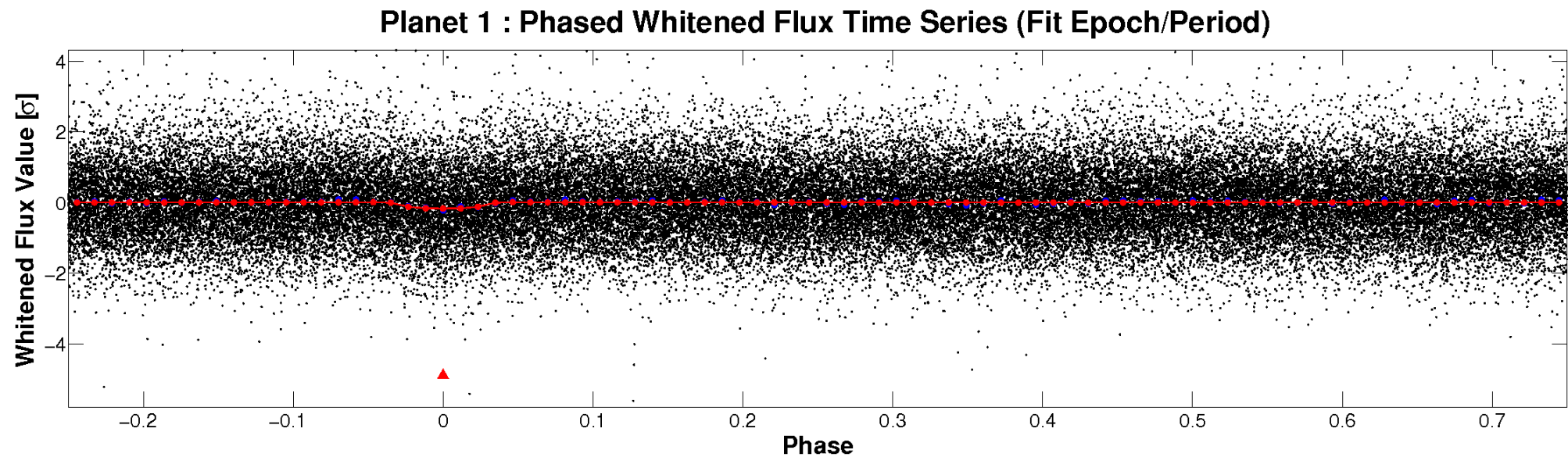
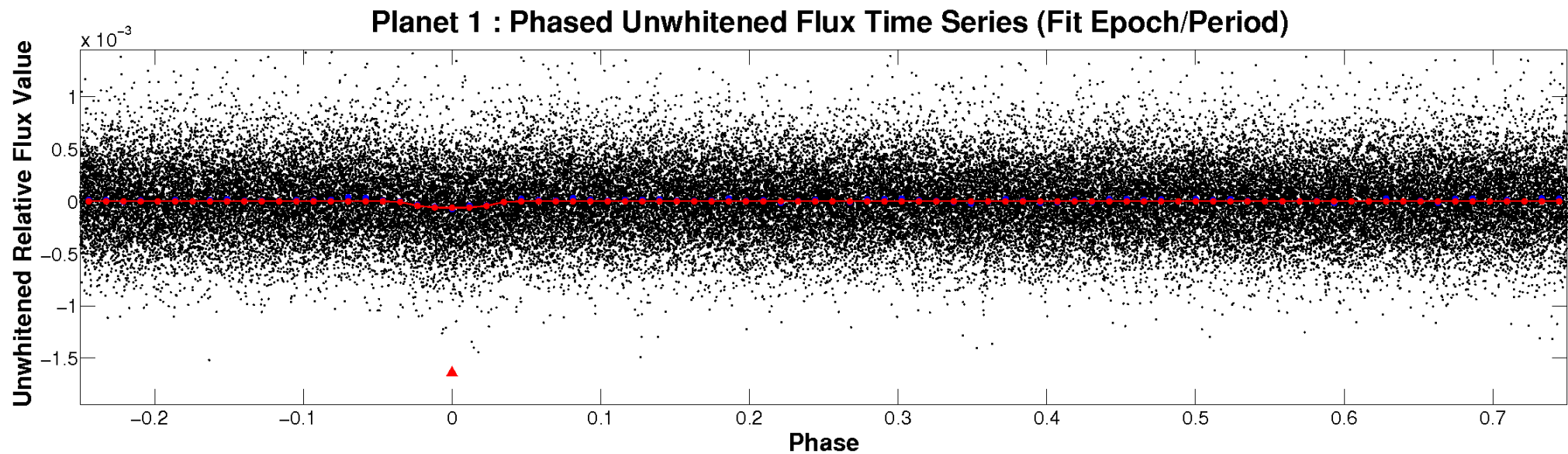


ALT Odd/Even

TCE 011923074-01

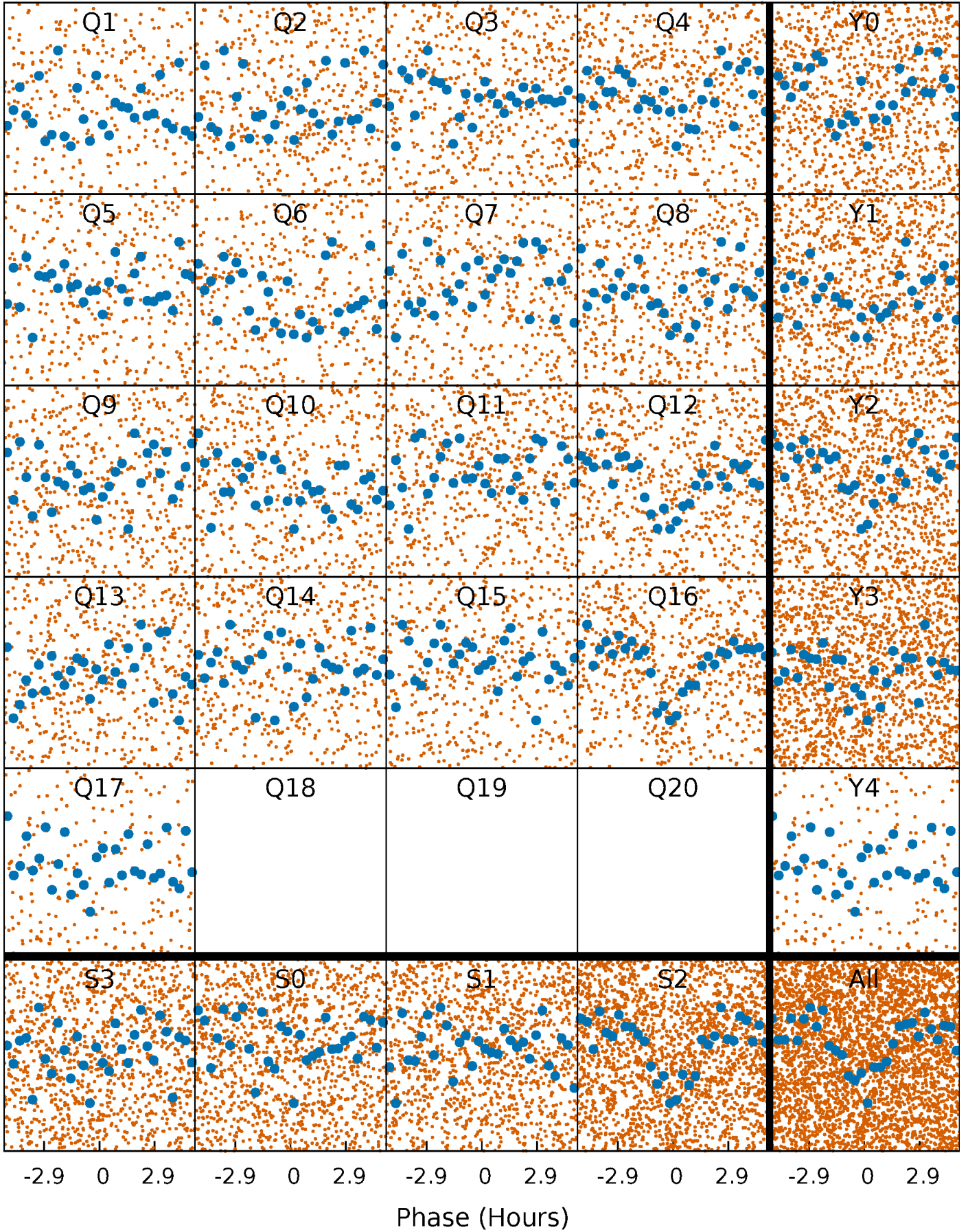


Non-Whitened Vs. Whitened Light Curve



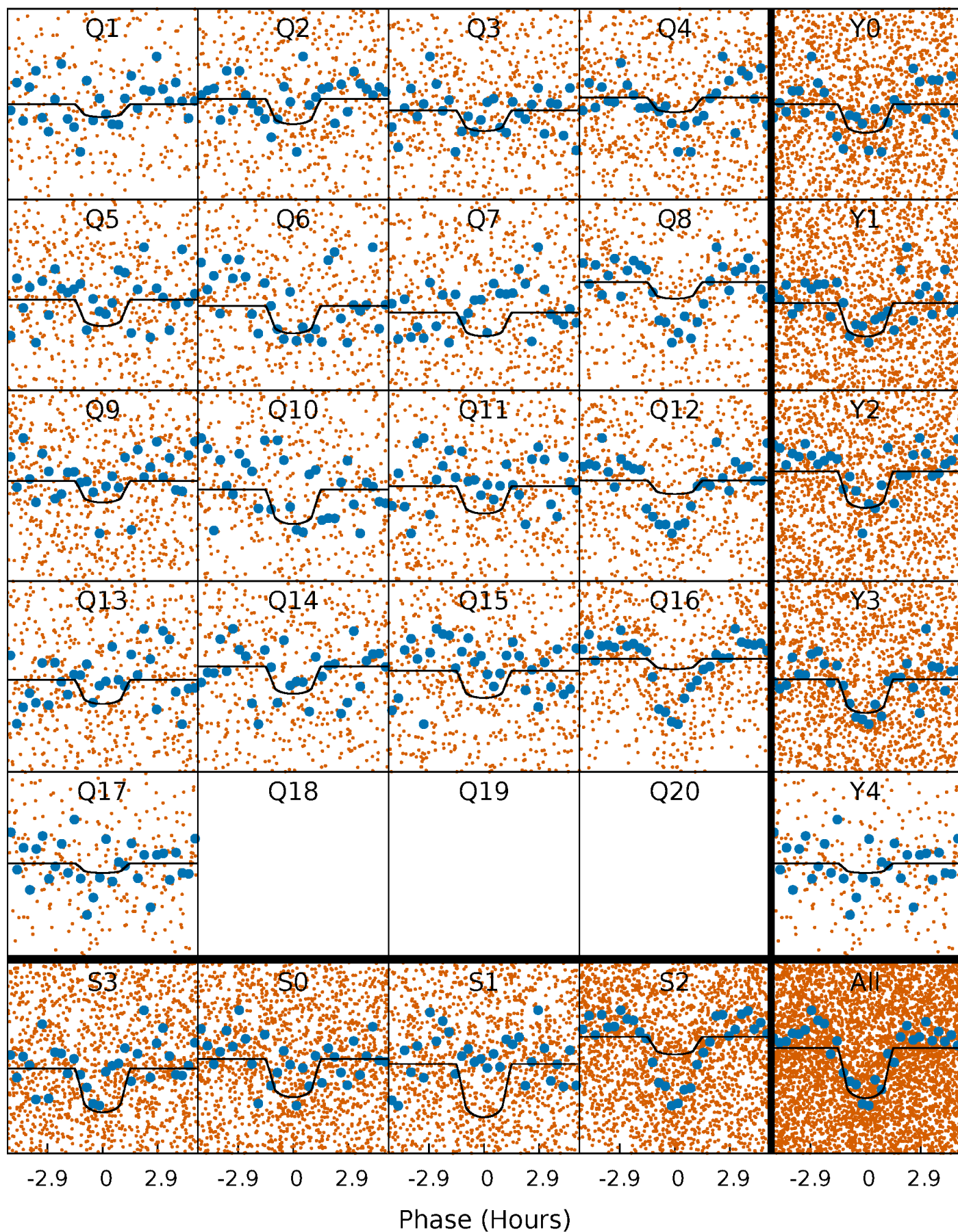
PDC Quarter-Phased Transit Curves

TCE 011923074-01 P= 1.756468 Days $T_0=132.029125$ (BKJD)



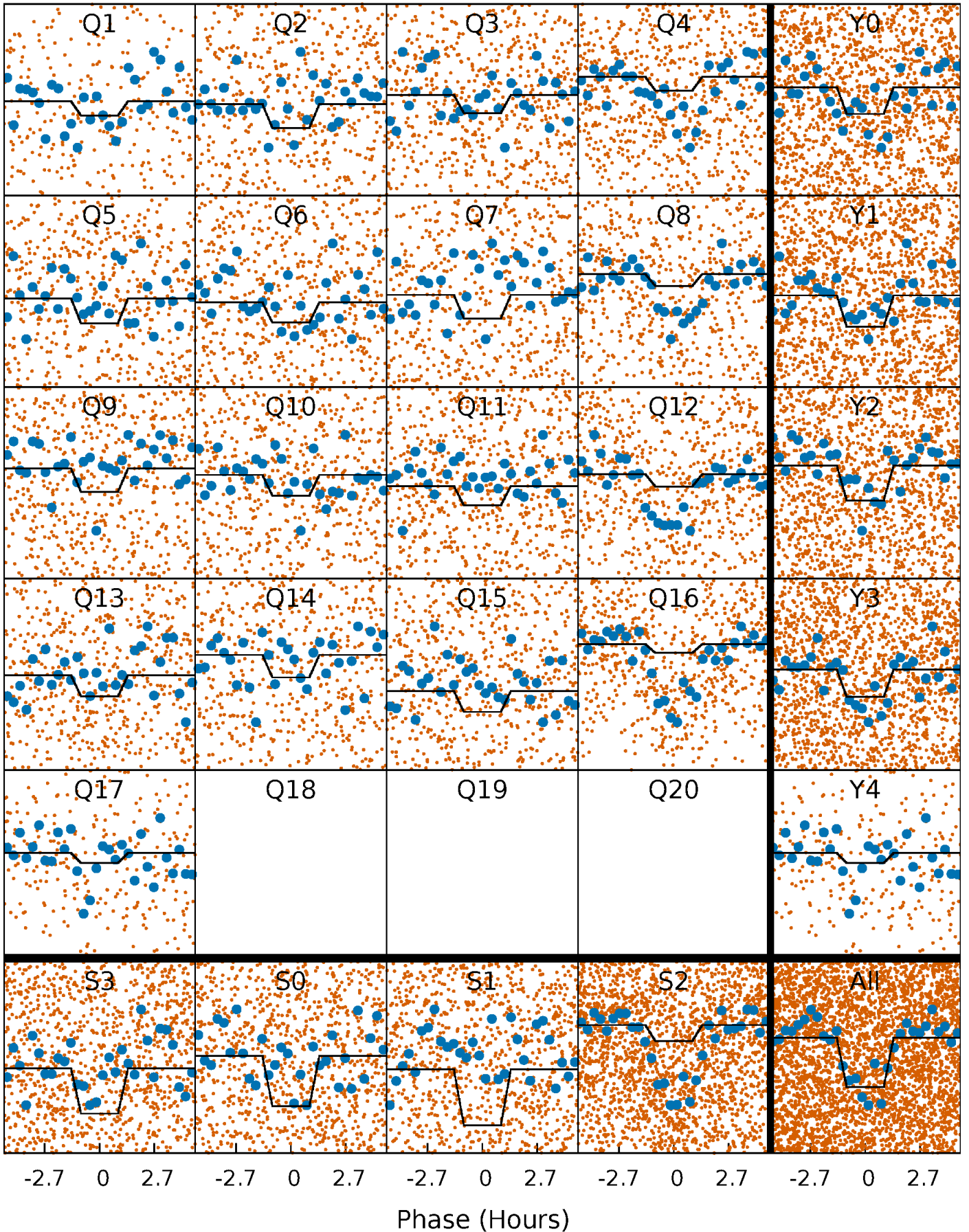
DV Quarter-Phased Transit Curves

TCE 011923074-01 P= 1.756468 Days $T_0=132.029125$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

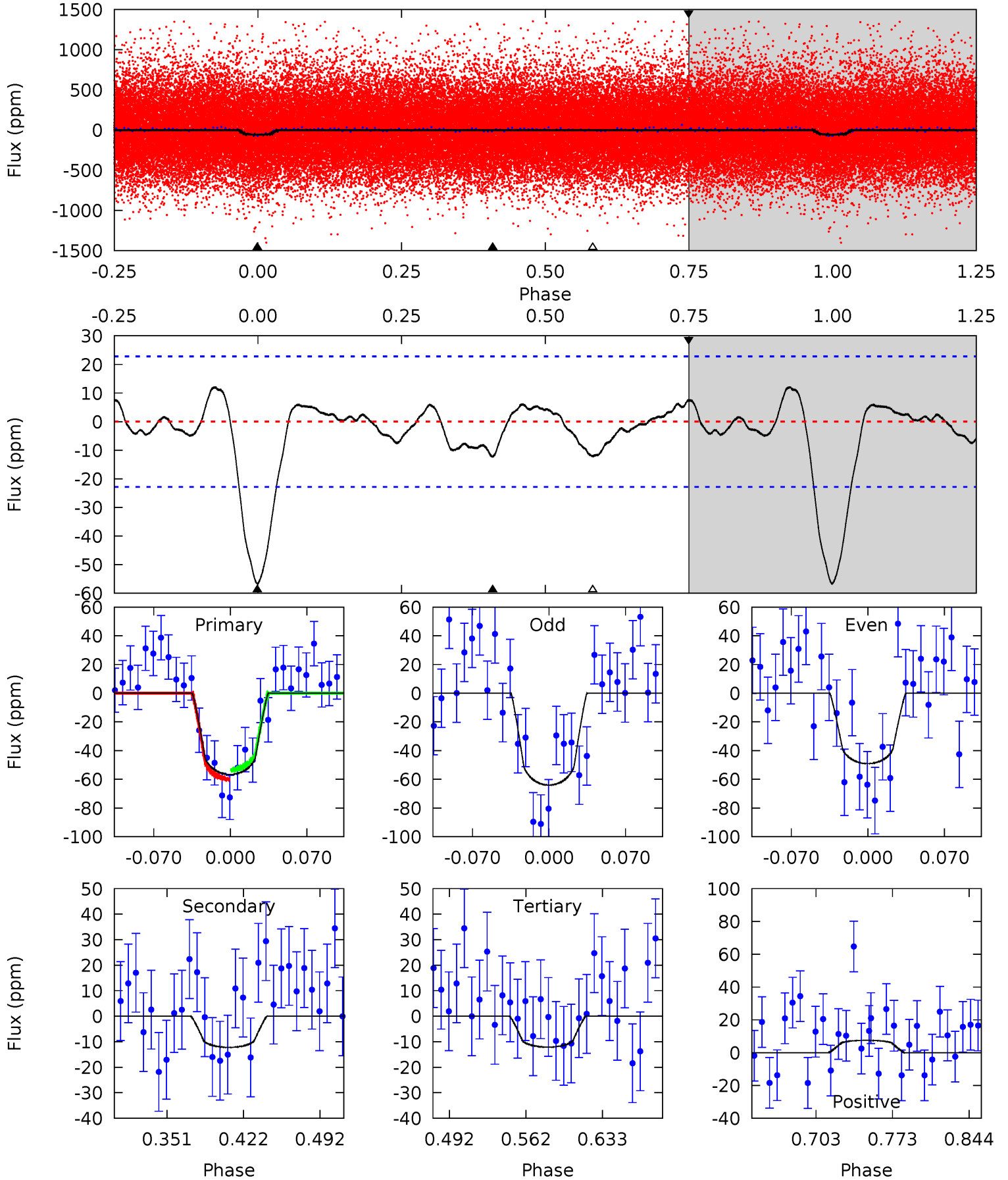
TCE 011923074-01 P= 1.756467 Days $T_0=132.027698$ (BKJD)



DV Model-Shift Uniqueness Test

011923074-01, P = 1.756468 Days, E = 130.272657 Days

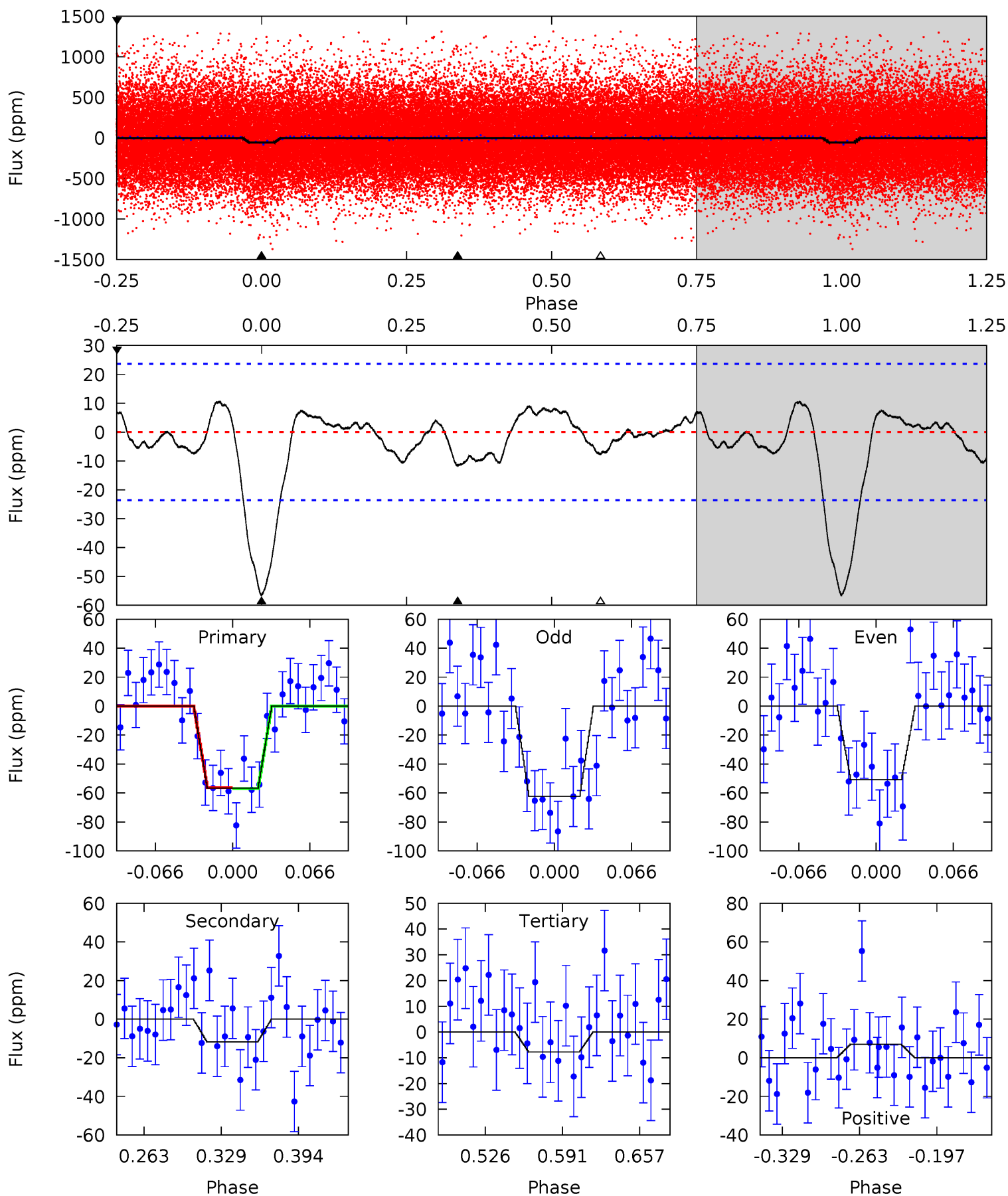
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	2.48	2.46	1.53	4.64	1.81	0.98	9.04	9.97	0.02	0.96	1.52	1.35	0.17	0.67



Alt Model-Shift Uniqueness Test

011923074-01, P = 1.756467 Days, E = 130.271231 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	2.31	1.53	1.37	4.65	1.84	1.00	9.63	9.79	0.78	0.94	1.13	1.33	0.16	0.06



Stellar Parameters For KIC 011923074

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5813^{+157}_{-157}	$4.561^{+0.033}_{-0.176}$	$-0.280^{+0.300}_{-0.300}$	$0.833^{+0.227}_{-0.071}$	$0.925^{+0.099}_{-0.110}$	$2.256^{+0.394}_{-1.070}$
	+3%/-3%	+1%/-4%	+107%/-107%	+27%/-9%	+11%/-12%	+17%/-47%
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 011923074-01 / KOI 8295.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-12 ± 5	$0.80^{+0.55}_{-0.46}$	2004^{+133}_{-79}	4000^{+1651}_{-767}	$7.912^{+32.342}_{-5.579}$
Alt.	-12 ± 5	$0.74^{+0.49}_{-0.40}$	2006^{+124}_{-76}	4061^{+1716}_{-767}	$8.555^{+33.799}_{-6.104}$

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 $A_{obs} \gg 1.0$

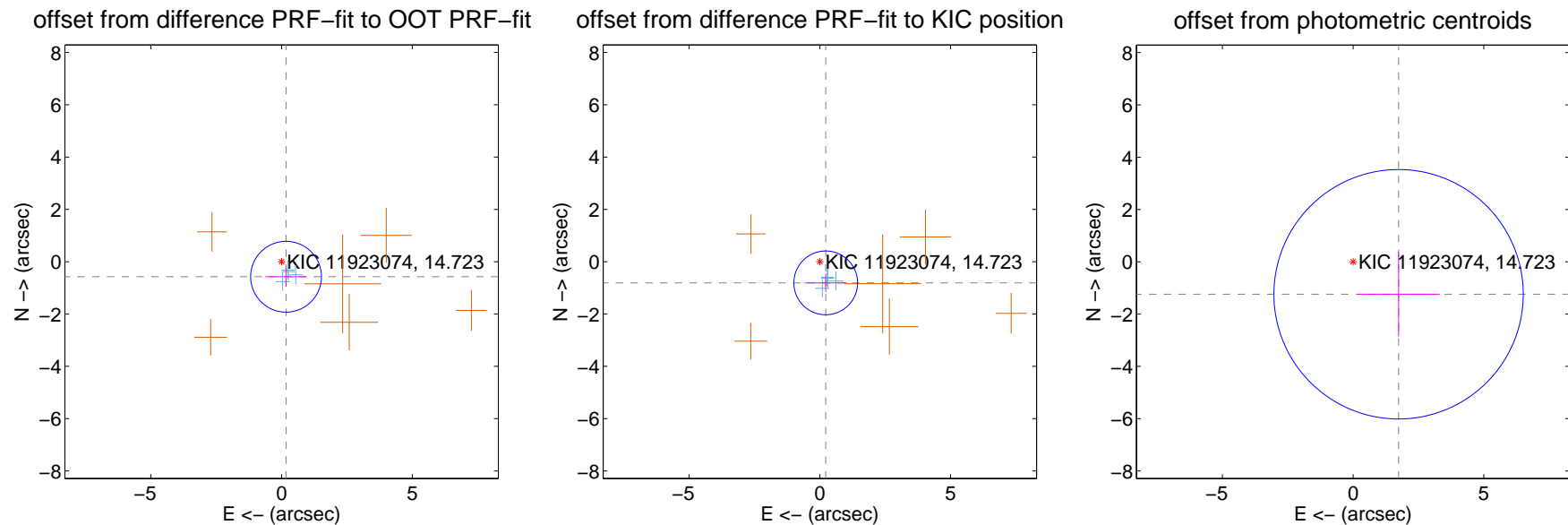
DV Centroid Data

Supplemental centroid analysis for 011923074-01. Kepler magnitude: 14.72. Transit SNR 8.87

There are 4 quarters with good PRF difference image offsets

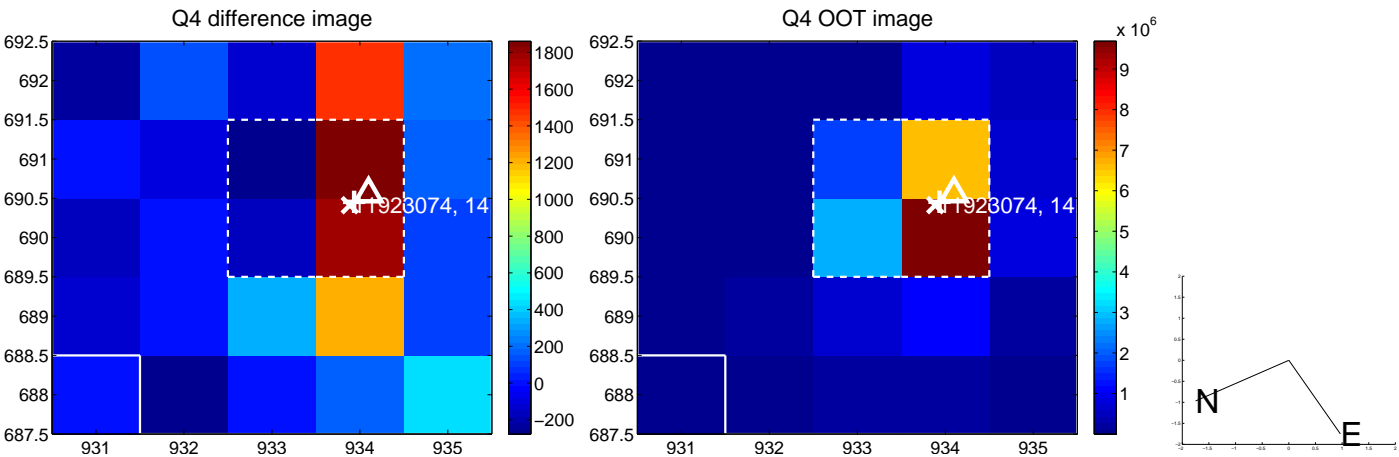
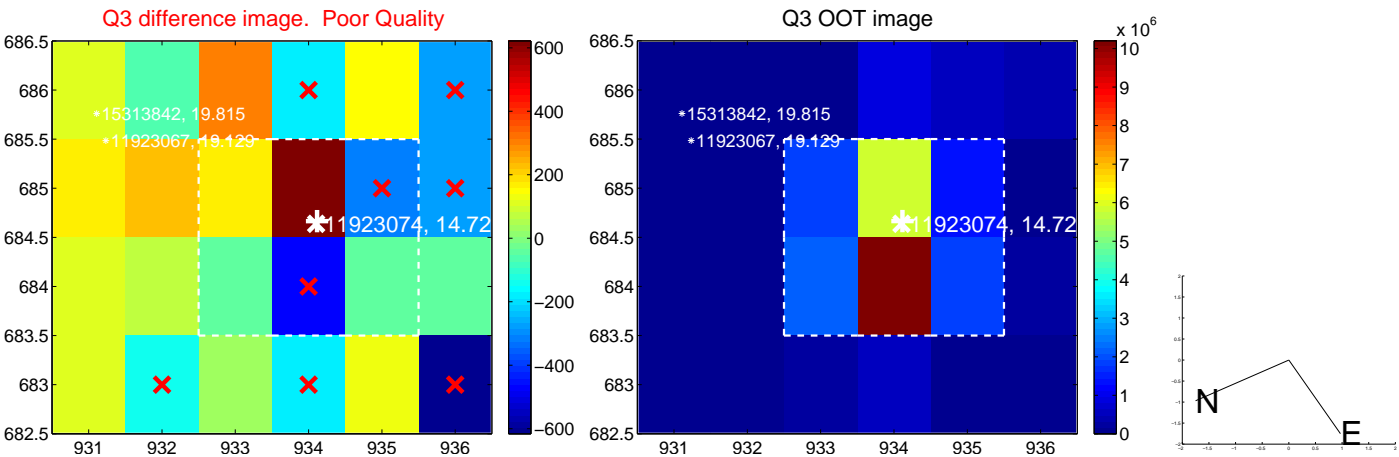
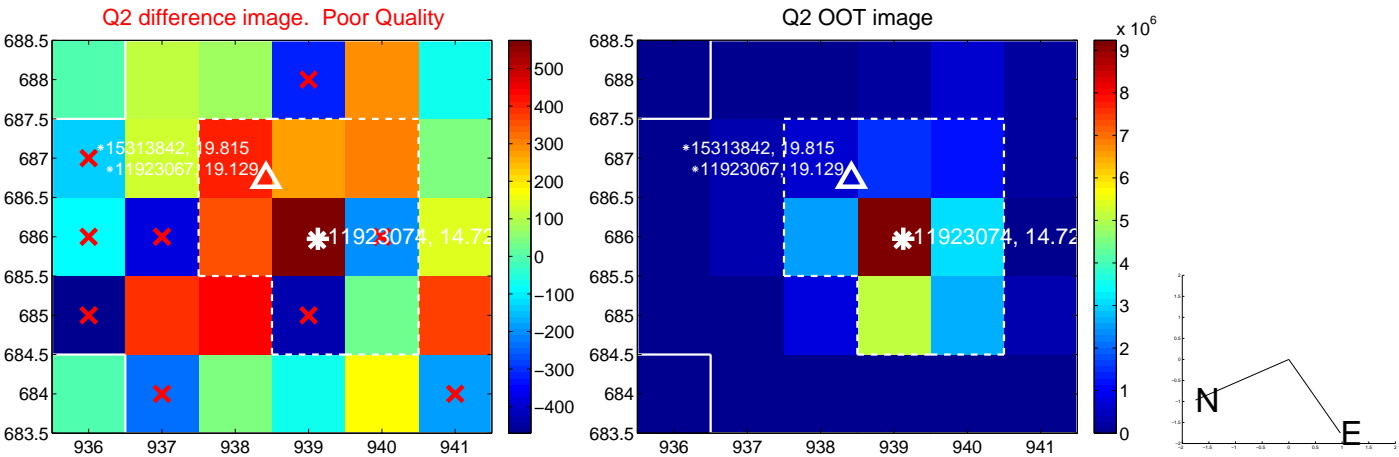
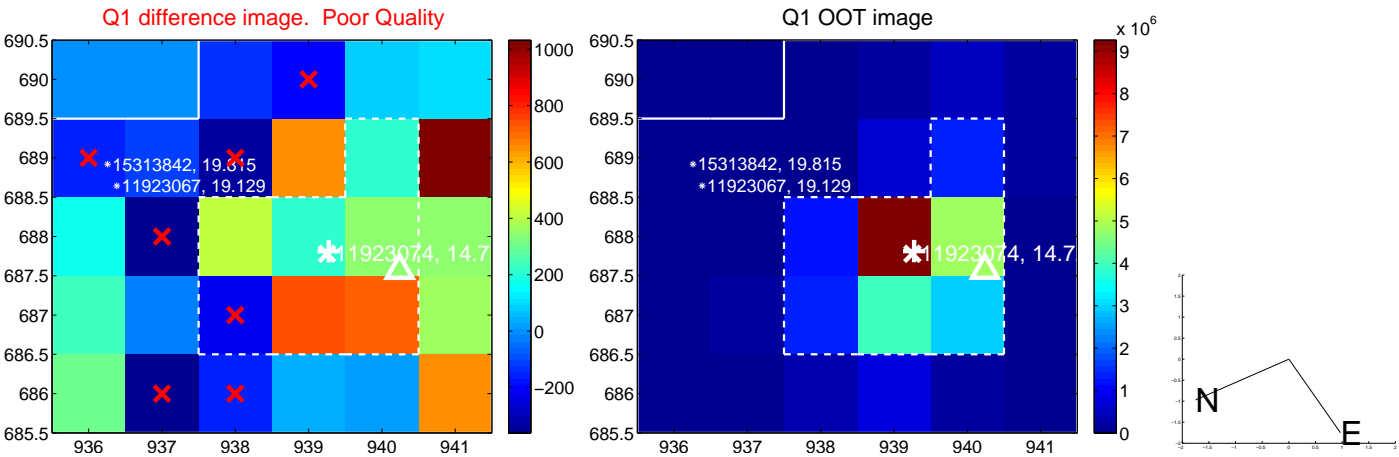
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.600 ± 0.451	1.33	-0.171 ± 0.794	-0.575 ± 0.387
PRF-fit source offset from KIC position	0.840 ± 0.406	2.07	-0.225 ± 0.801	-0.810 ± 0.356
photometric centroid source offset	2.14 ± 1.59	1.34	-1.74 ± 1.57	-1.24 ± 1.62

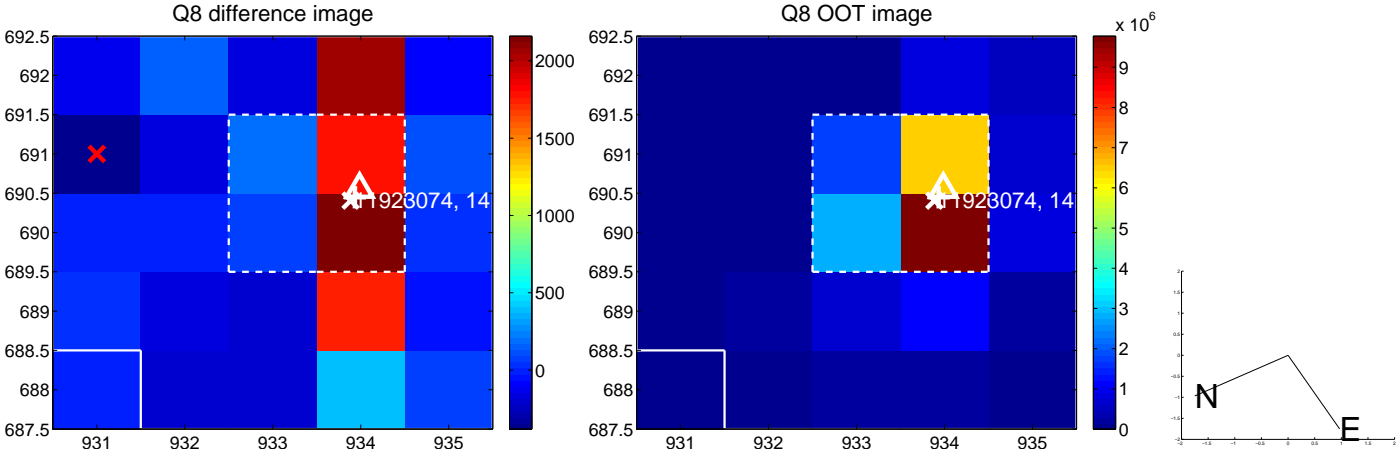
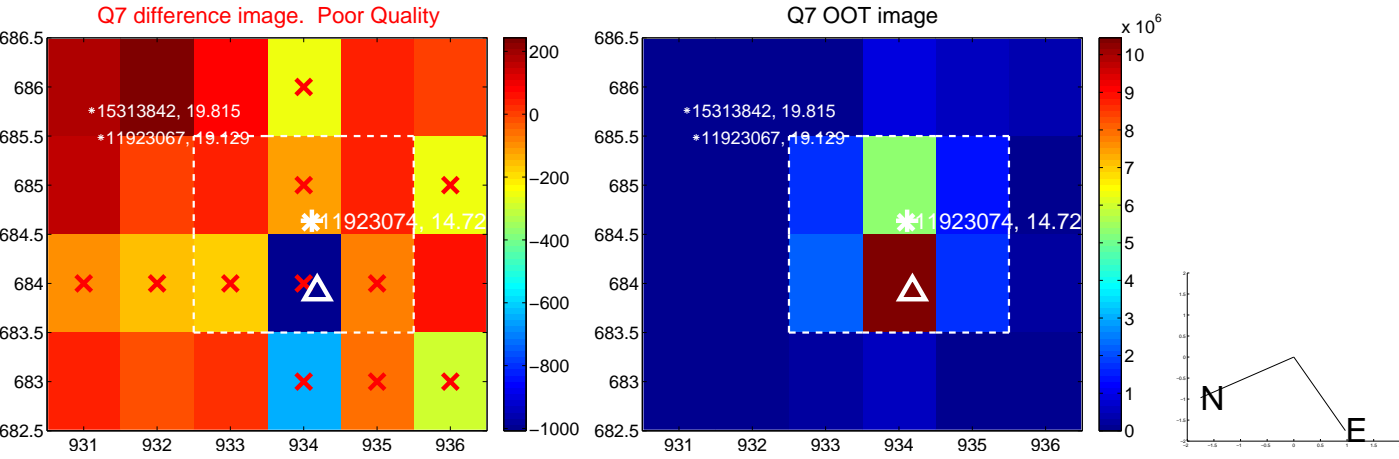
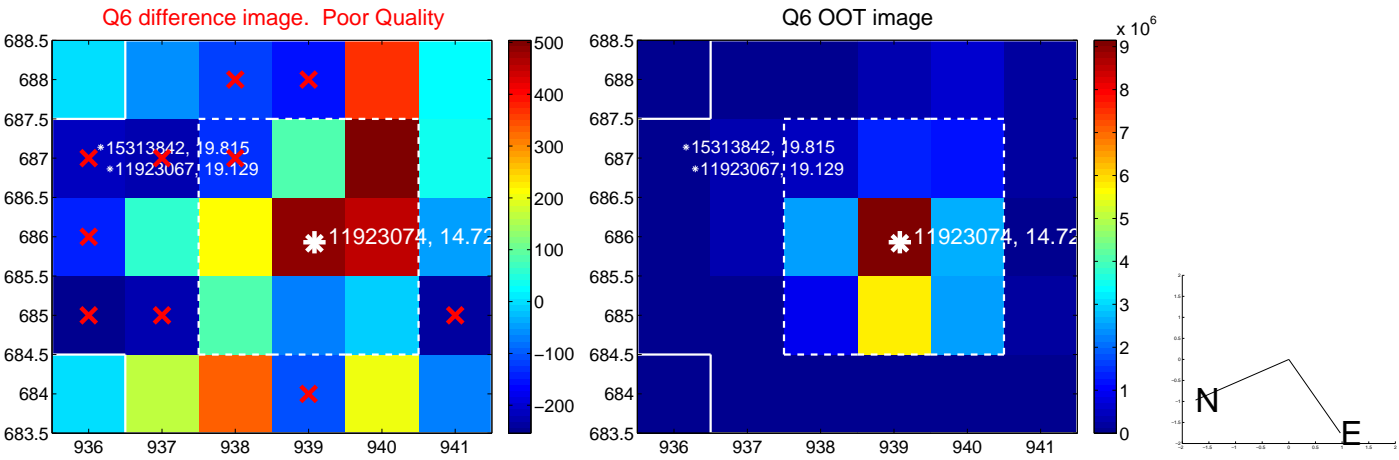
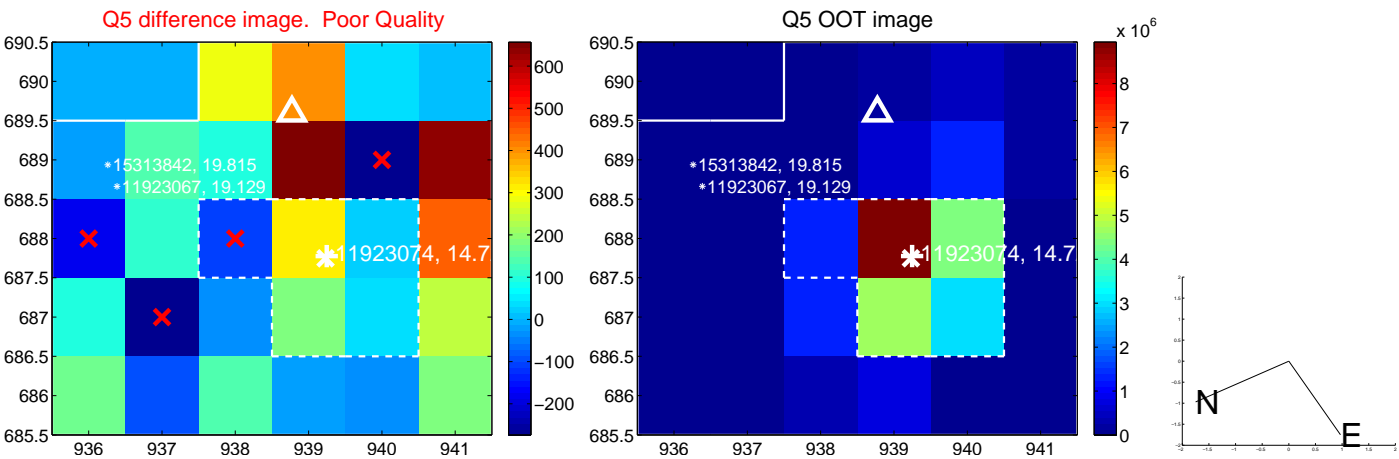


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

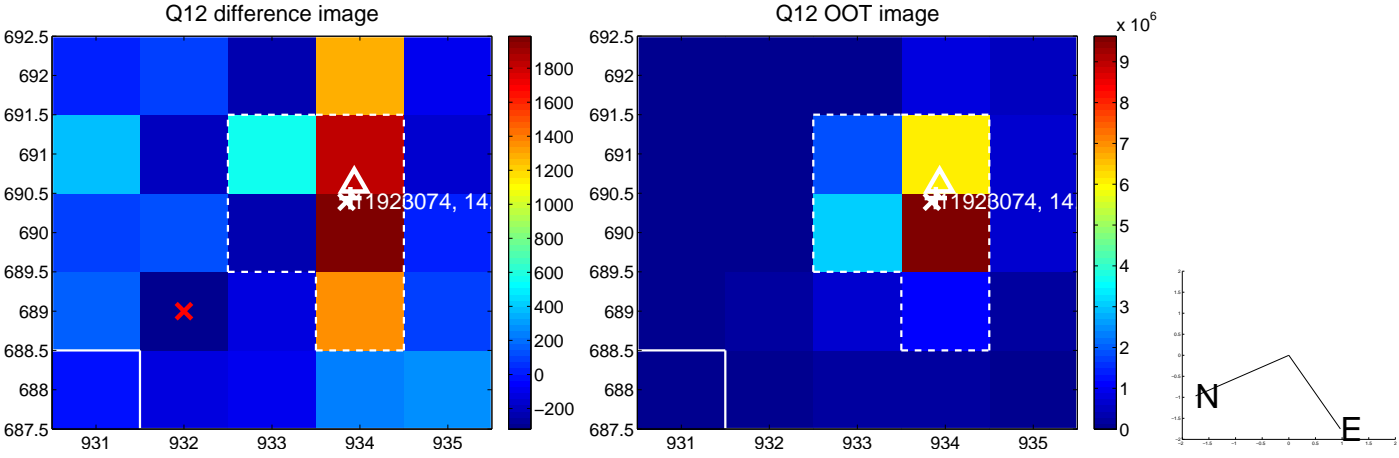
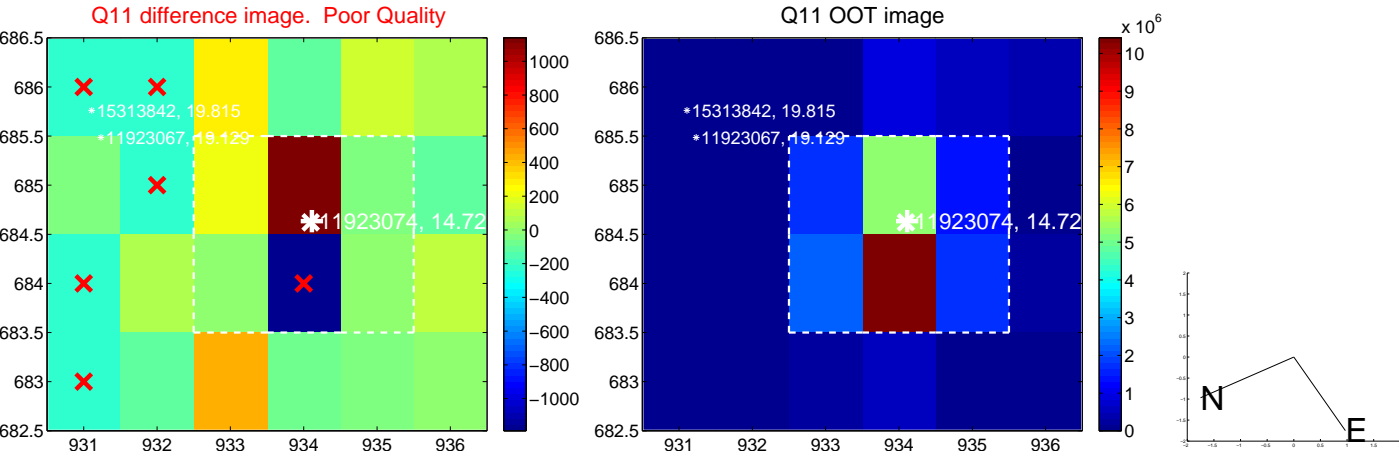
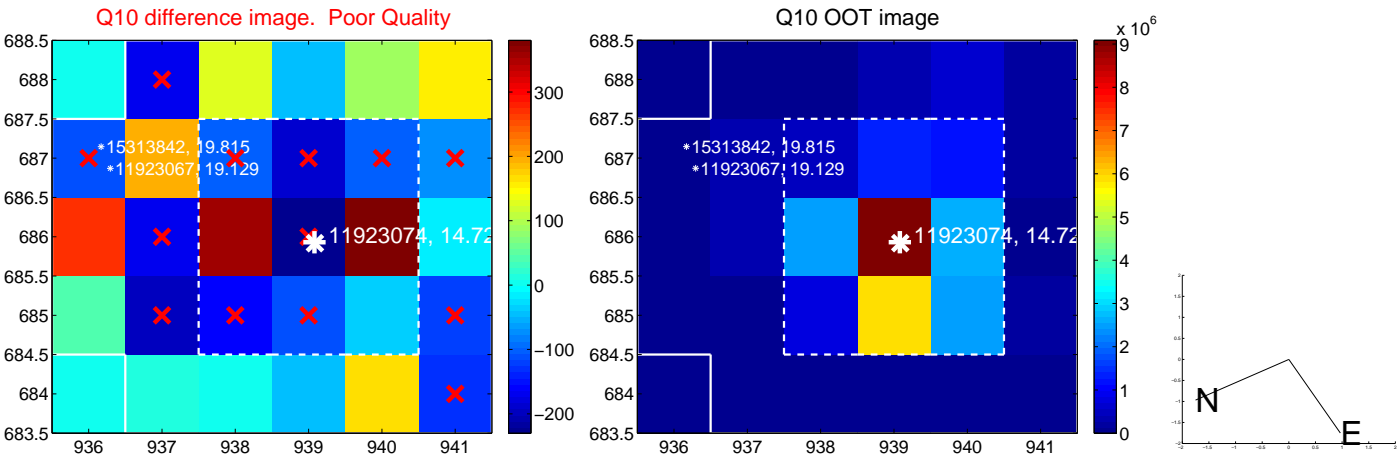
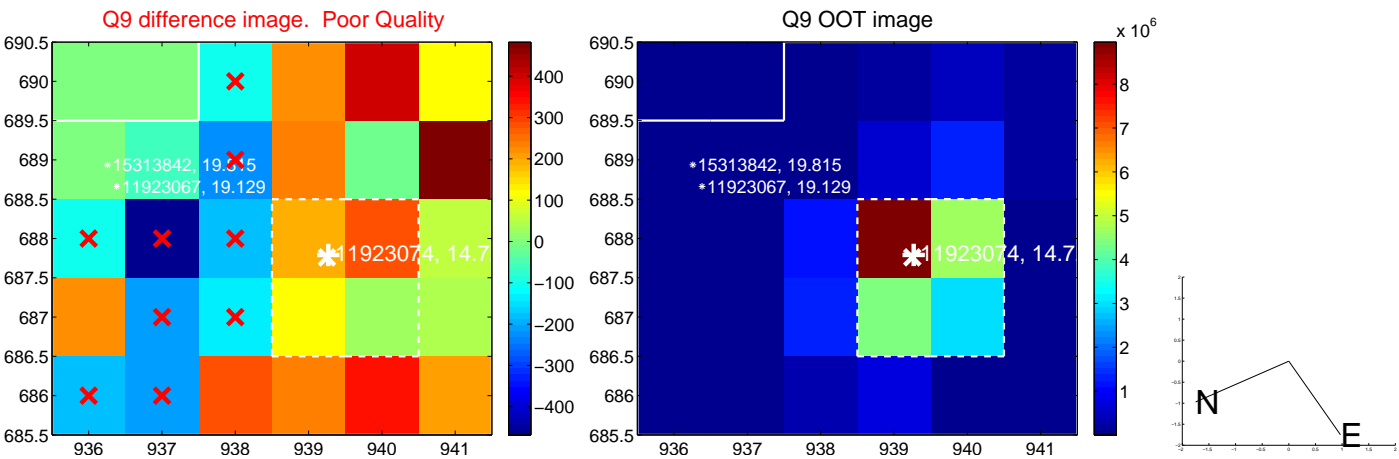
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



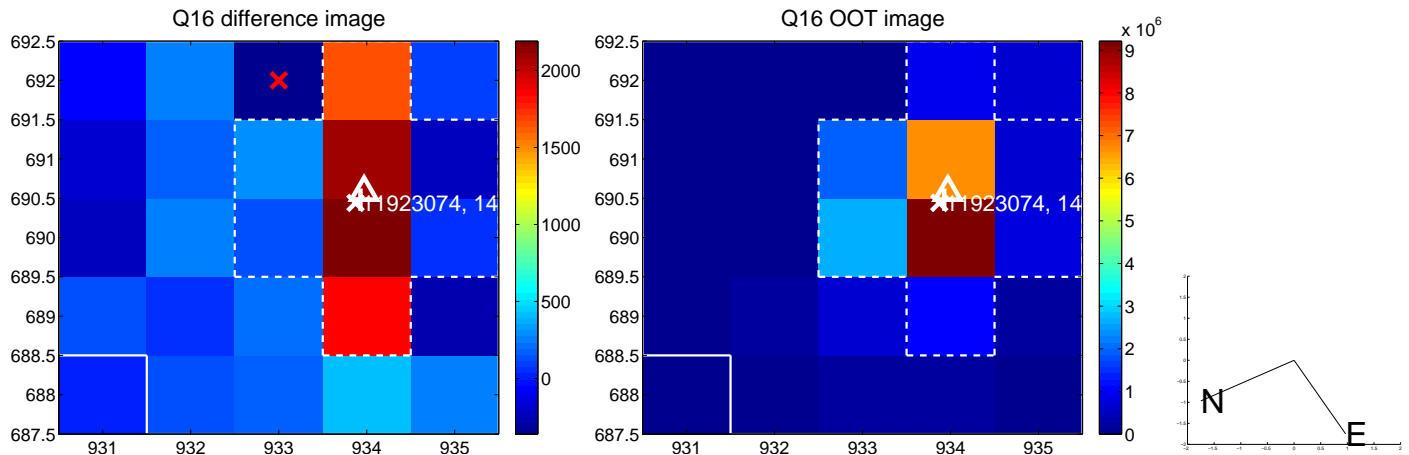
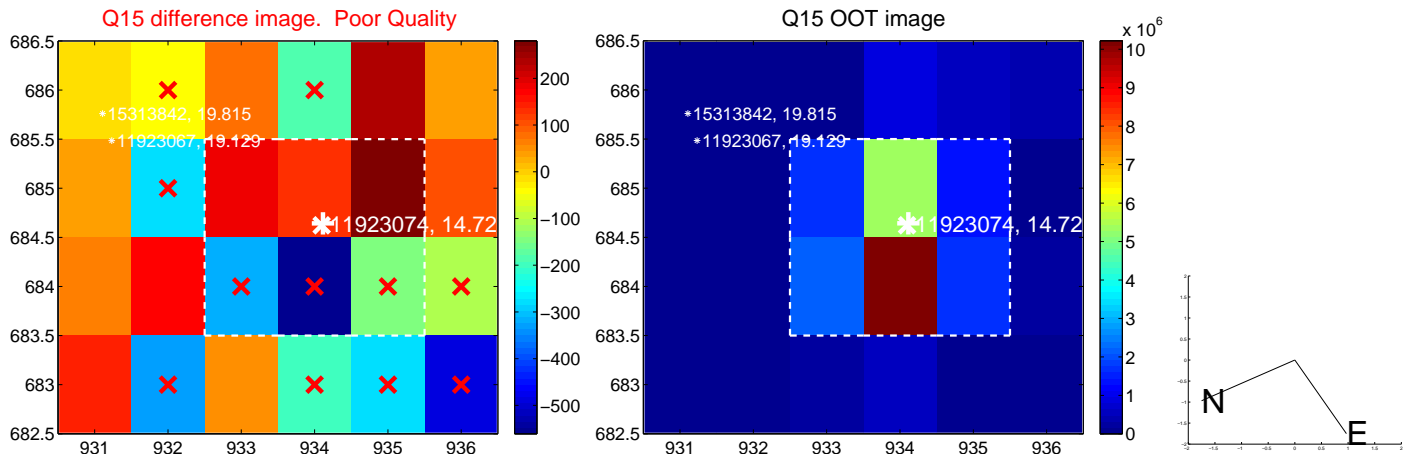
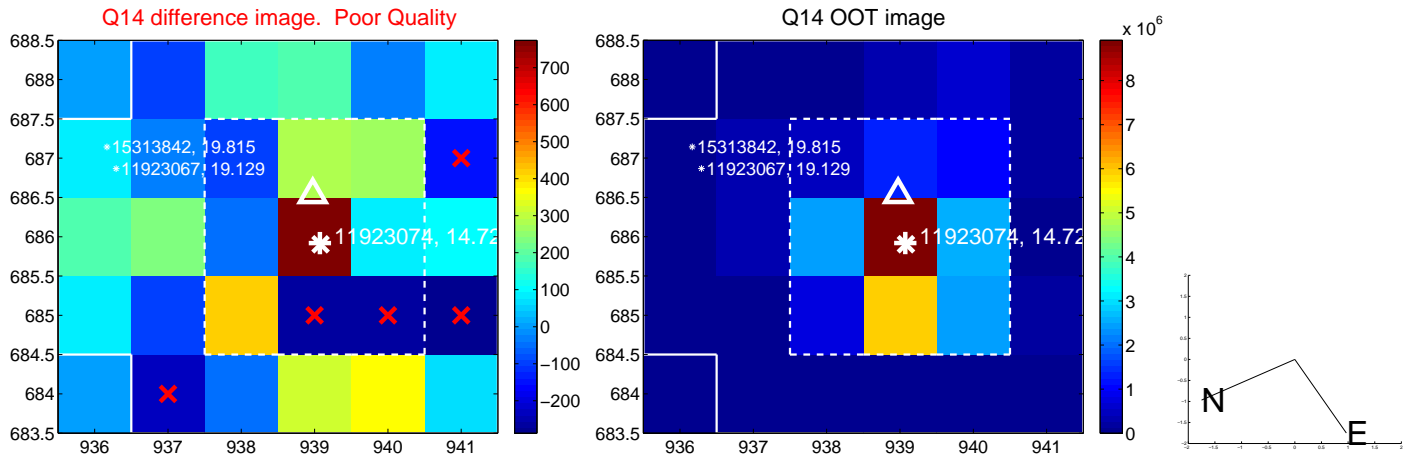
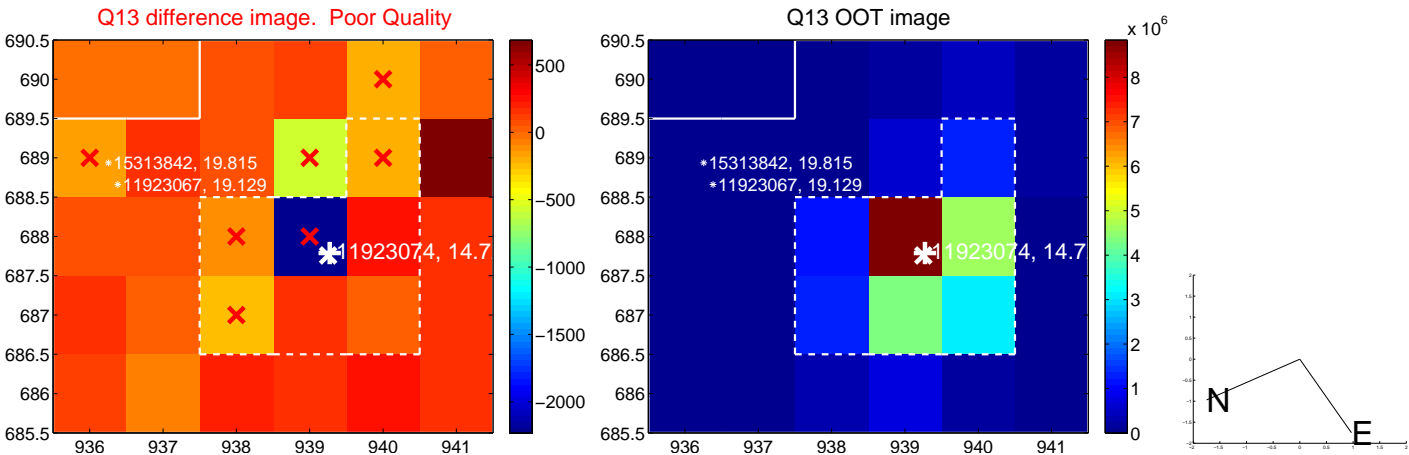
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



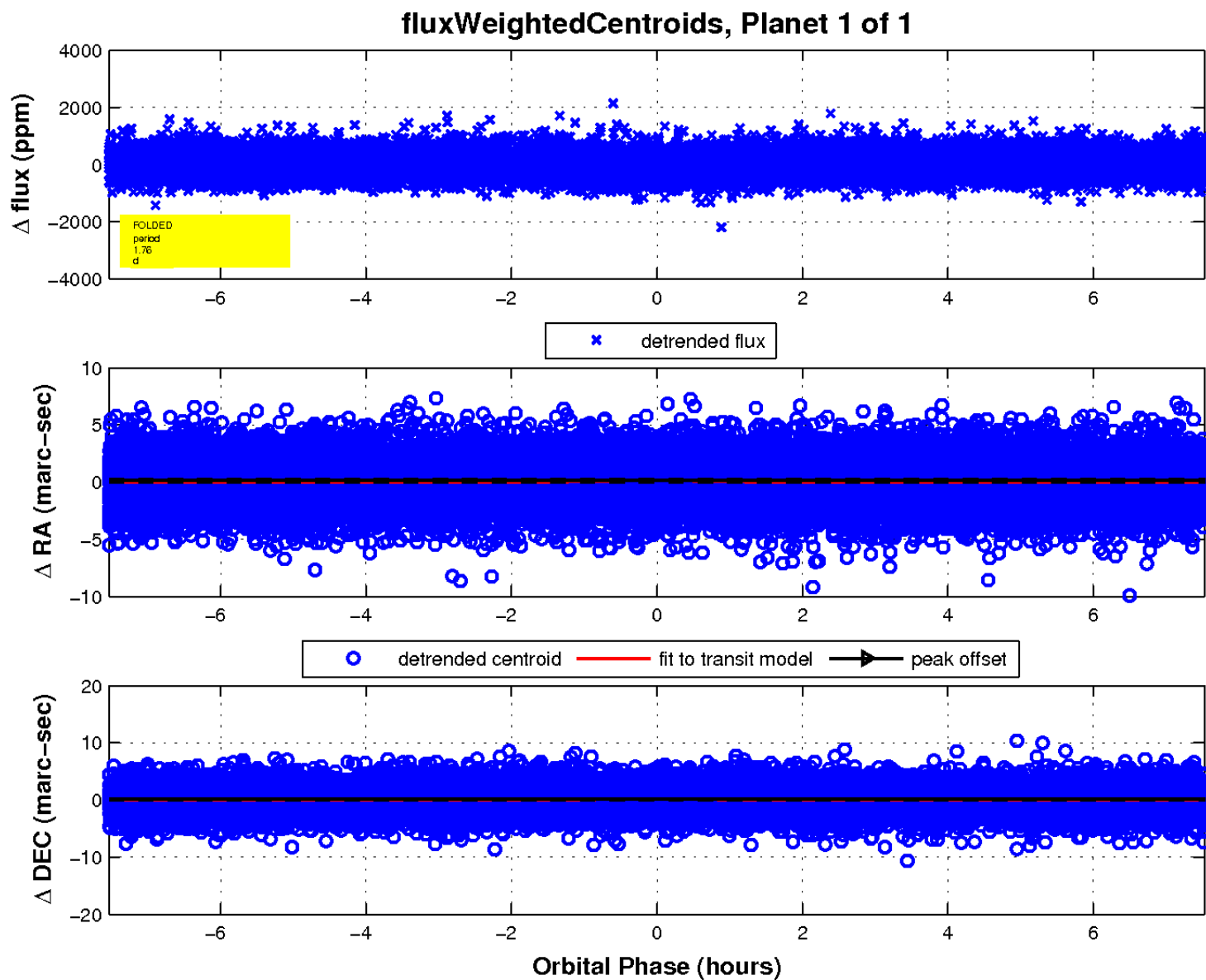
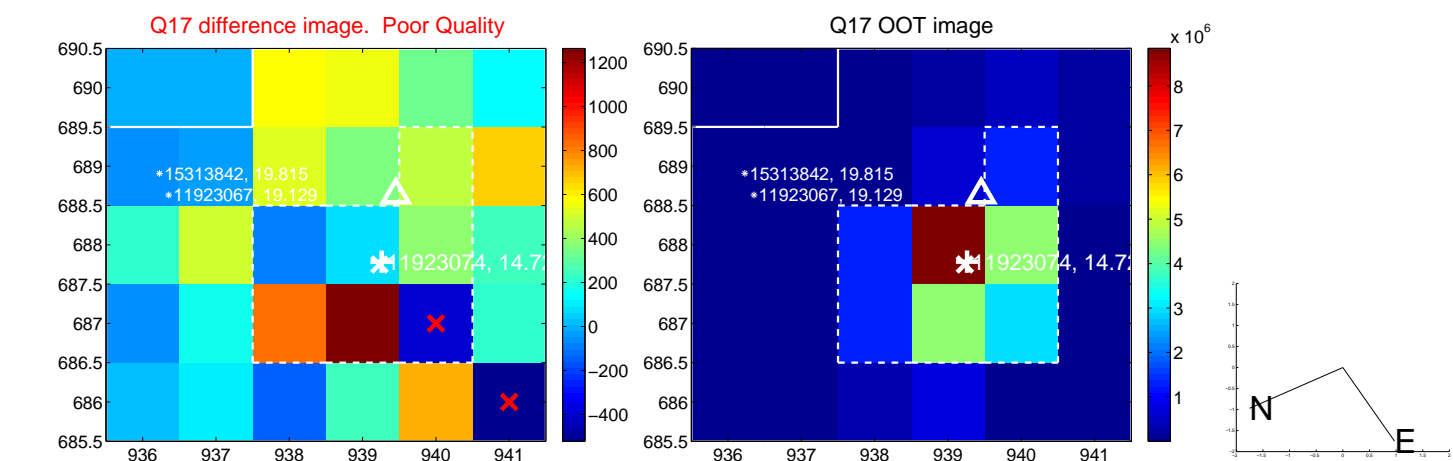
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

