

KIC 011923213

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})
011923213-01	OBS	5943.01	27.202032	151.870015	191.8	2.104	8.1	9.5	1.40	5869	2.30	63.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011923213-01	OBS	PC	0.40	0	0	0	0	CENT_UNCERTAIN

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.

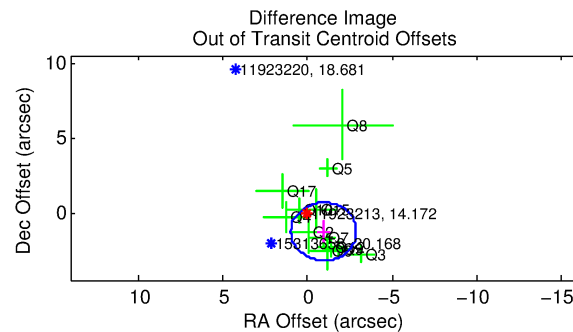
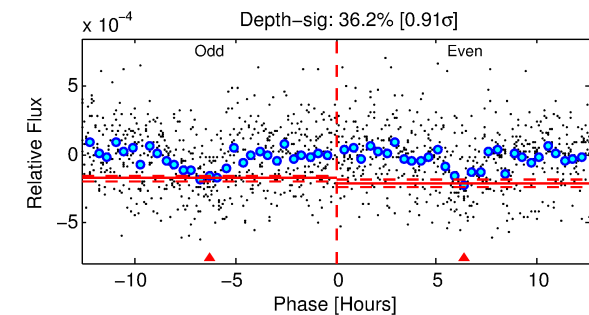
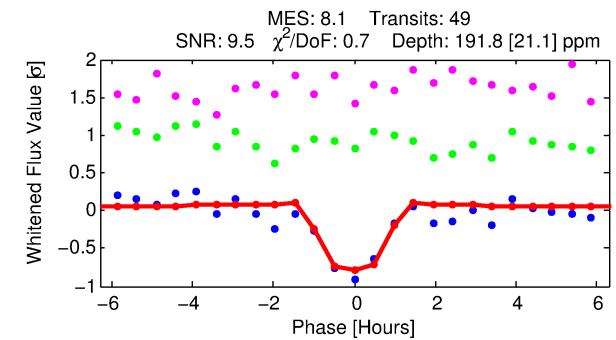
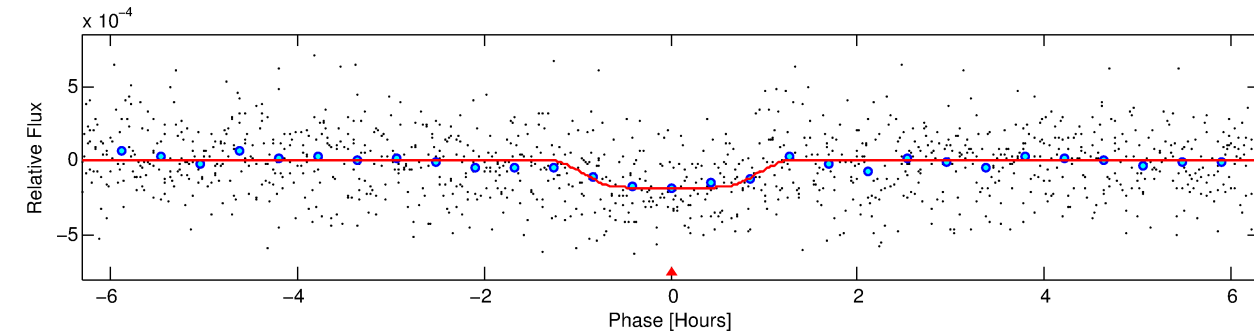
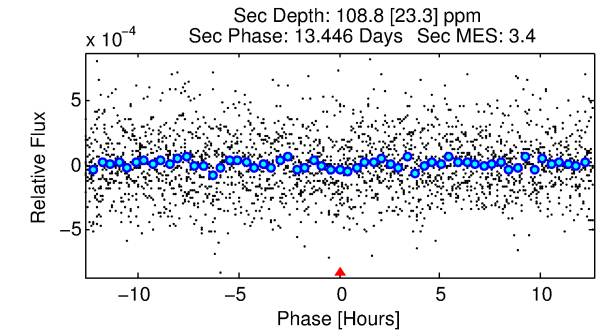
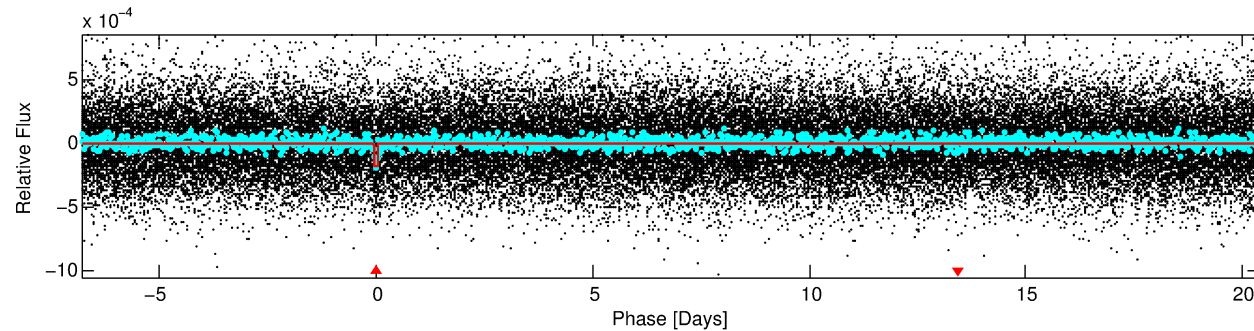
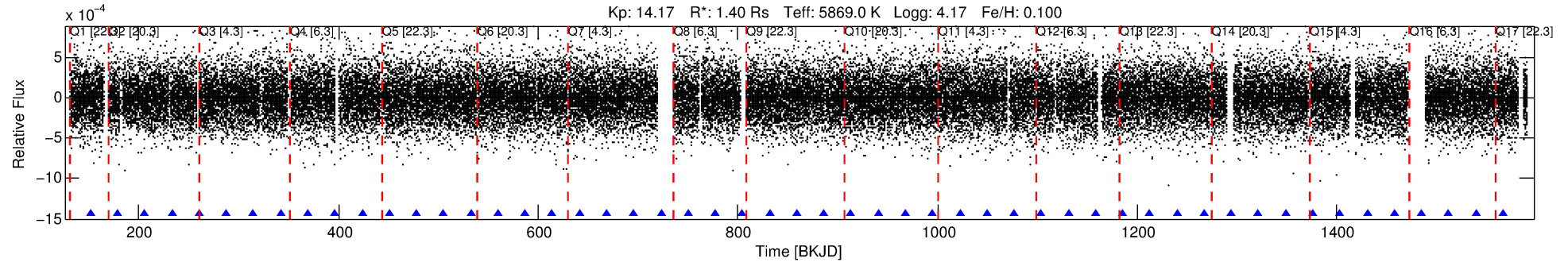
Ephemeris Match Information For 011923213-01

No Significant Match Found

DV One-Page Summary

KIC: 11923213 Candidate: 1 of 1 Period: 27.202 d

KOI: K05943.01 Corr: 0.949



DV Fit Results:

Period = 27.20203 [0.00017] d
Epoch = 151.8700 [0.0051] BKJD
Rp/R* = 0.0151 [0.0112]
a/R* = 46.14 [165.48]
b = 0.90 [0.76]
Seff = 63.43 [18.09]
Teq = 720 [51] K
Rp = 2.30 [1.76] Re
a = 0.1807 [0.0324] AU
Ag = 369.27 [562.01] [0.66σ]
Teffp = 4877 [1825] K [2.28σ]

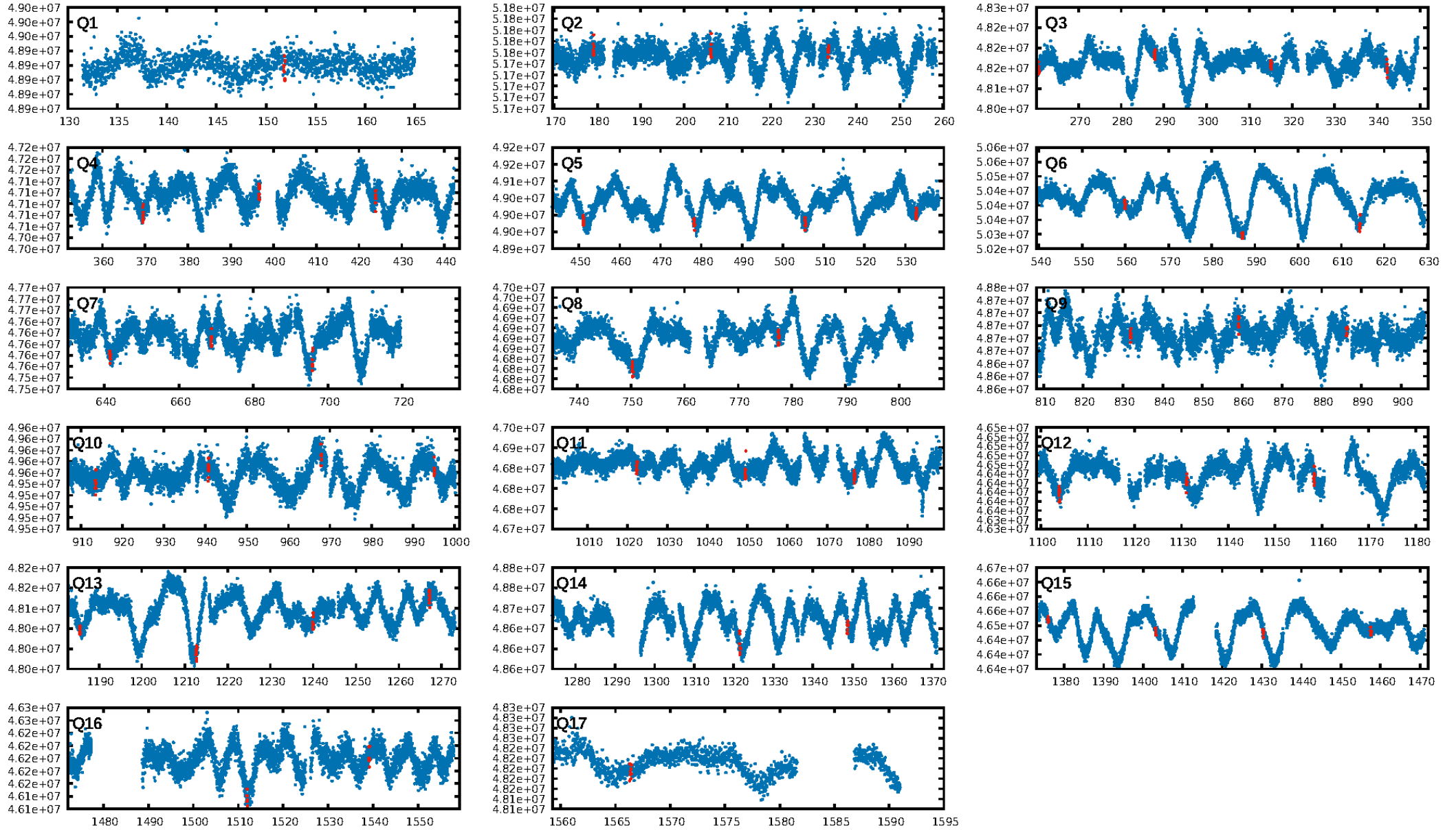
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.02e-15
RollingBand-fgt: 1.00 [47/47]
GhostDiagnostic-chr: -22.8
Centroid-sig: 38.8%
Centroid-so: 0.821 arcsec [0.55σ]
OotOffset-rm: 1.580 arcsec [2.45σ]
KicOffset-rm: 1.609 arcsec [2.73σ]
OotOffset-st: 3/3/3 [12]
KicOffset-st: 3/3/3 [12]
DiffImageQuality-fgm: 0.42 [5/12]
DiffImageOverlap-fno: 1.00 [17/17]

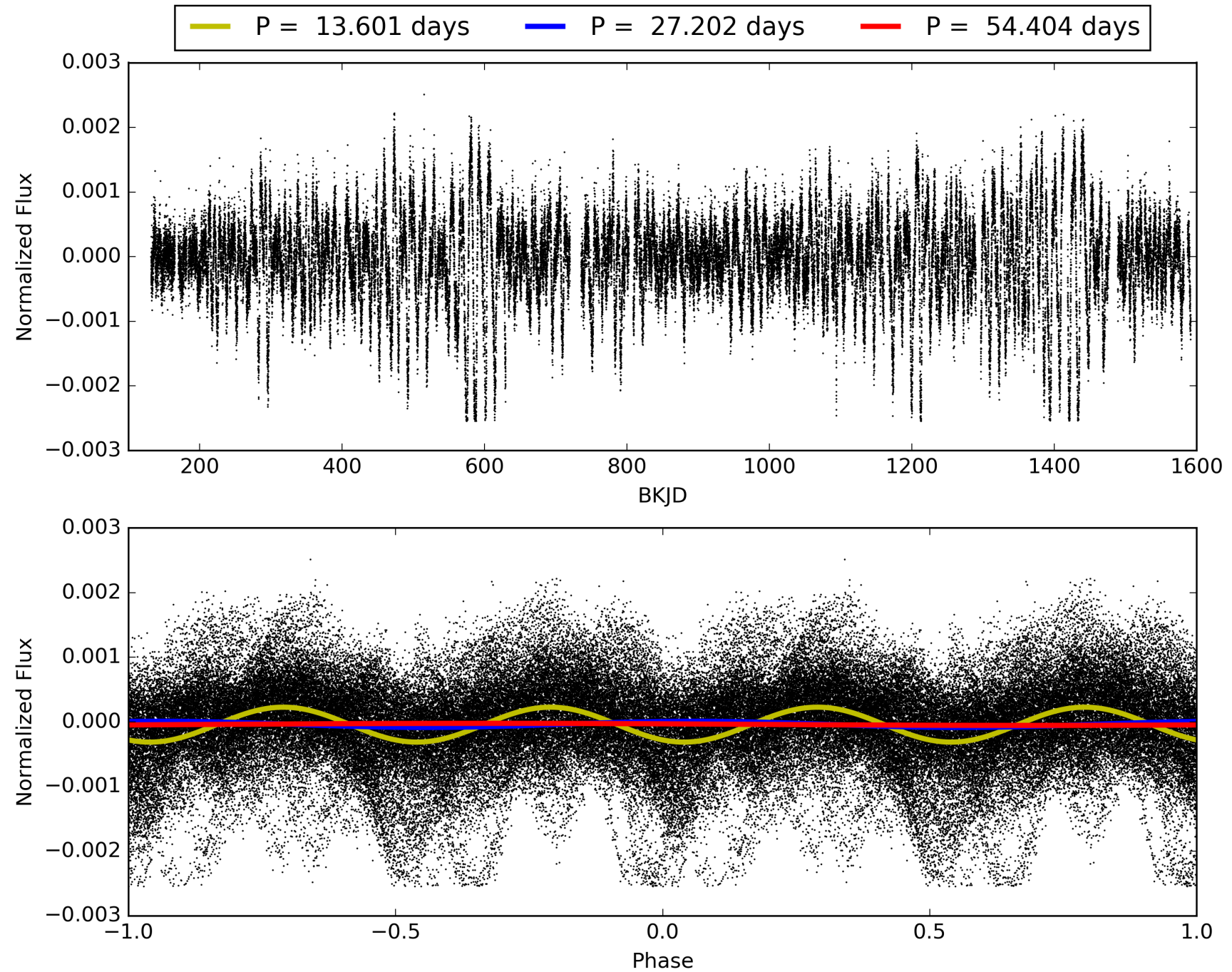
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:41:08 Z

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

TCE 011923213-01, PDC Light Curves

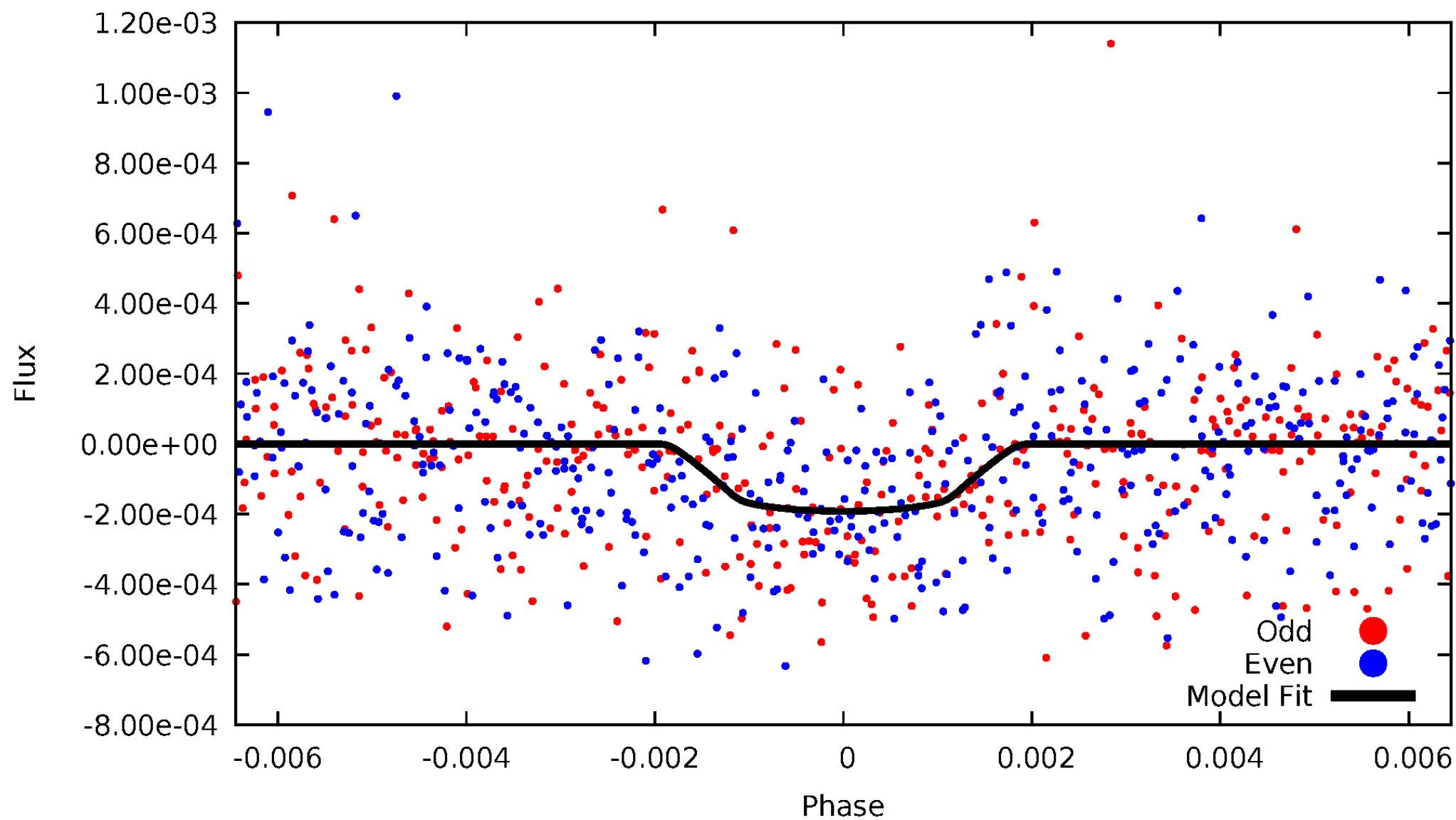


TCE 011923213-01



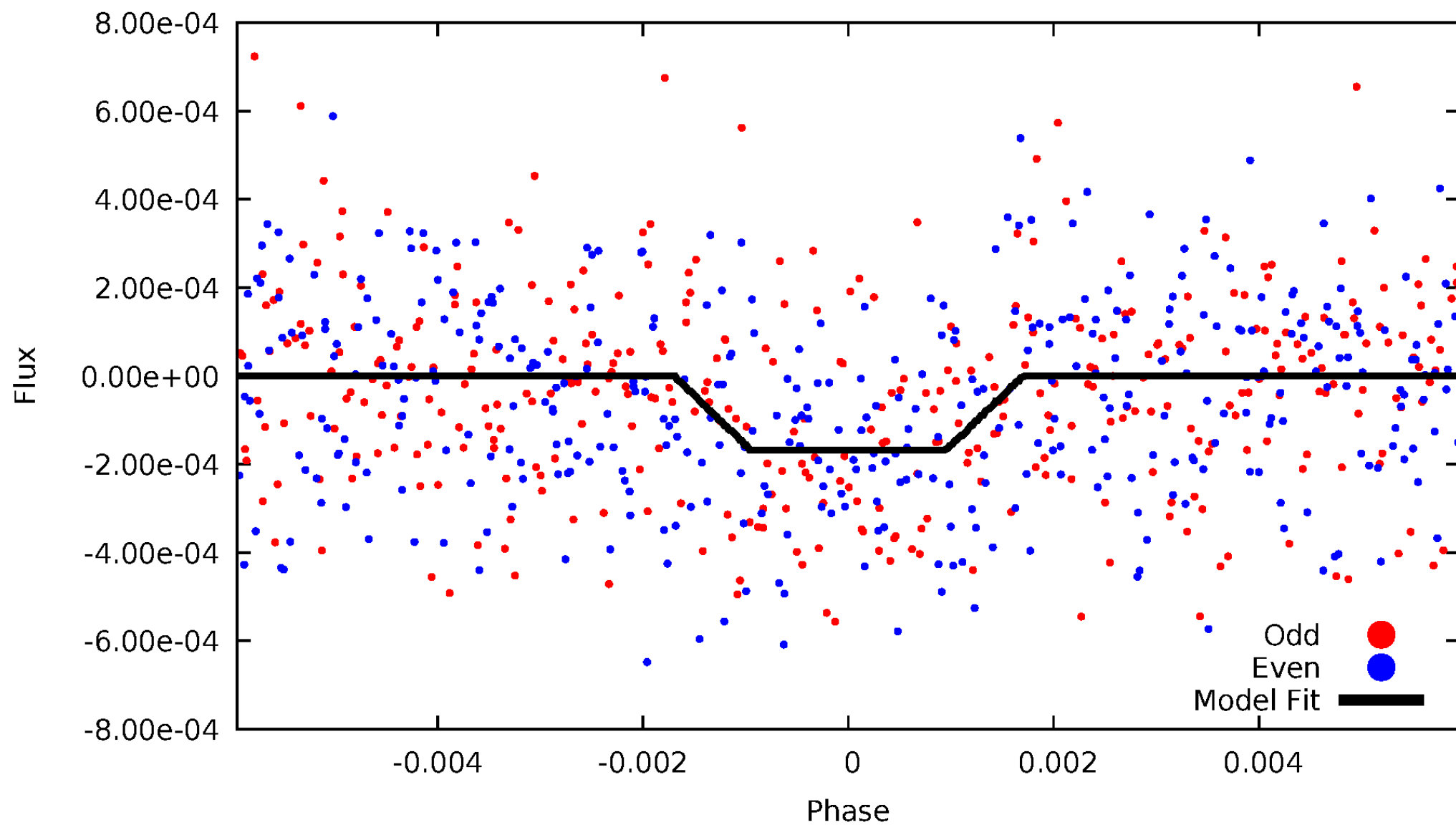
DV Odd/Even

TCE 011923213-01



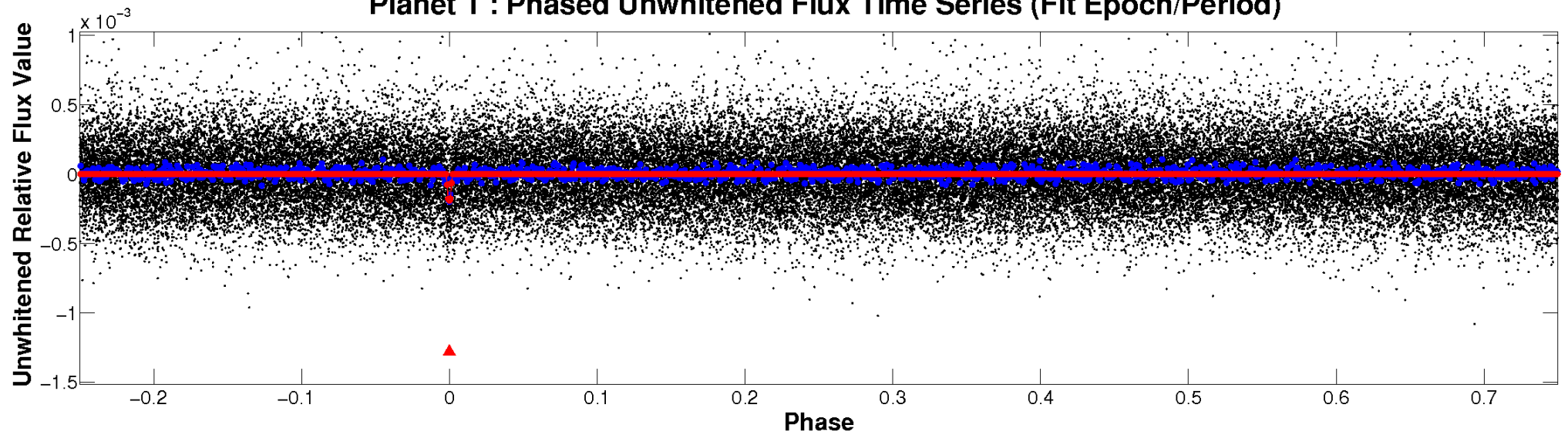
ALT Odd/Even

TCE 011923213-01

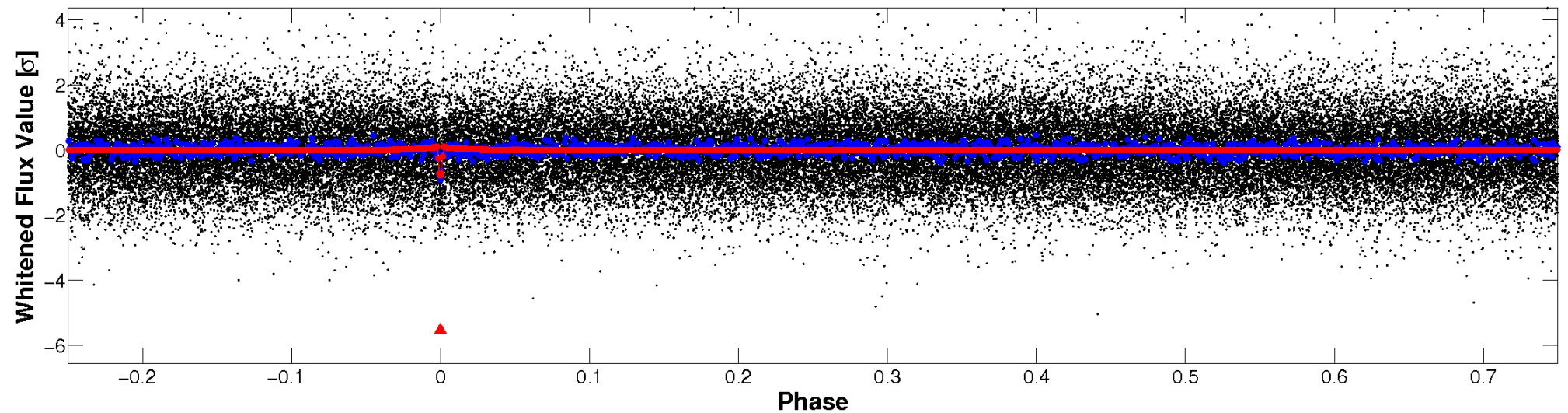


Non-Whitened Vs. Whitened Light Curve

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

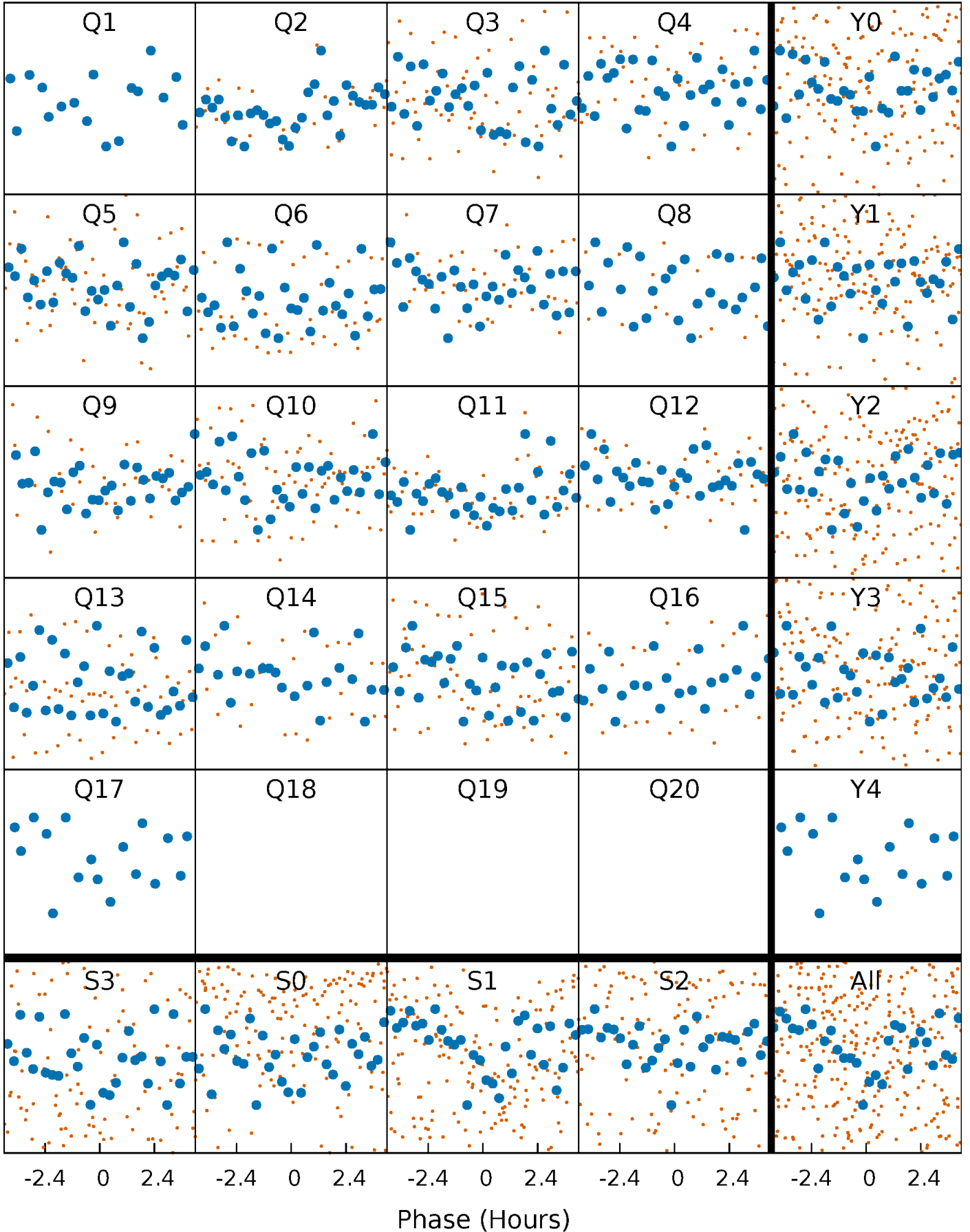


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



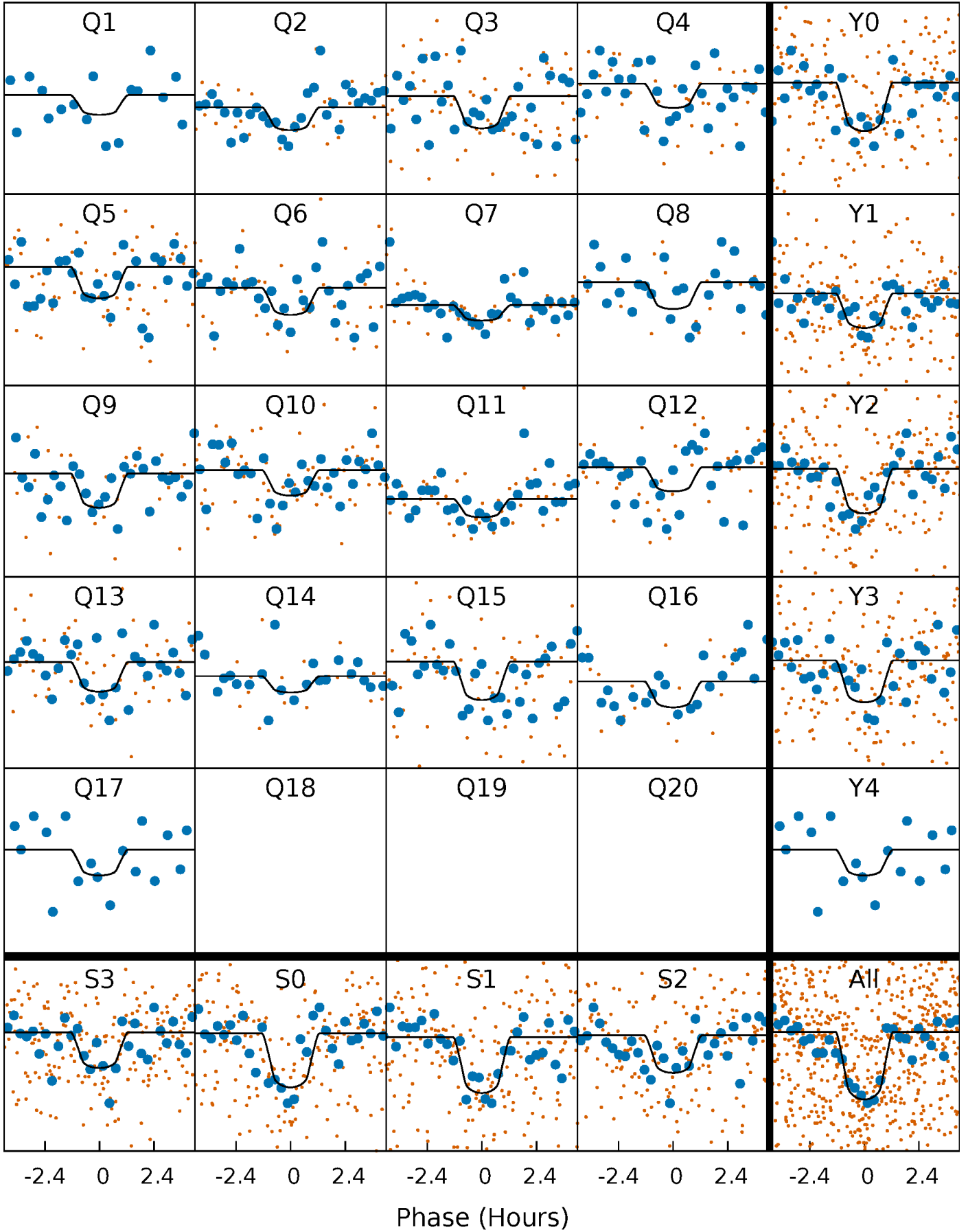
PDC Quarter-Phased Transit Curves

TCE 011923213-01 P= 27.202032 Days $T_0=151.870015$ (BKJD)



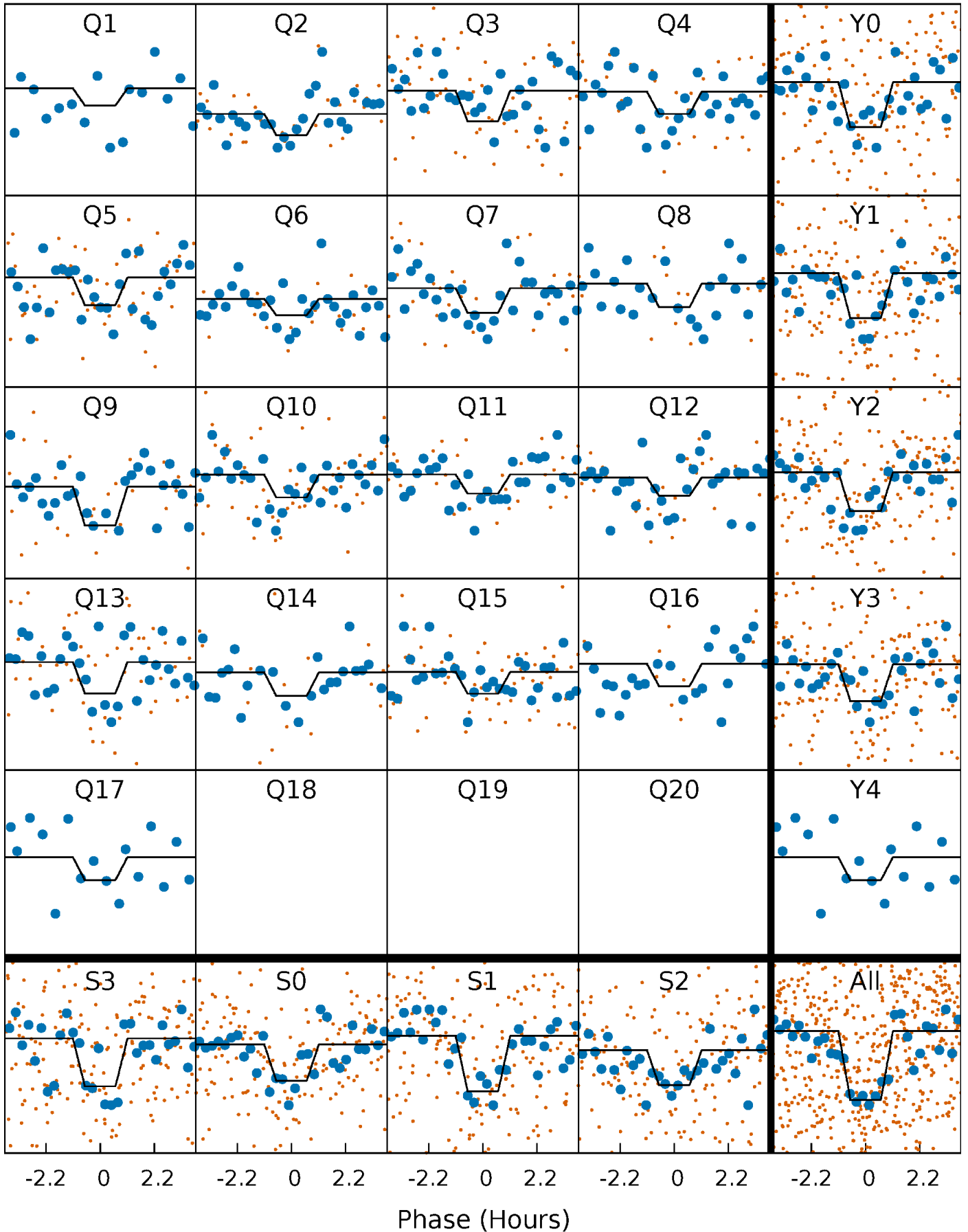
DV Quarter-Phased Transit Curves

TCE 011923213-01 P= 27.202032 Days $T_0=151.870015$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

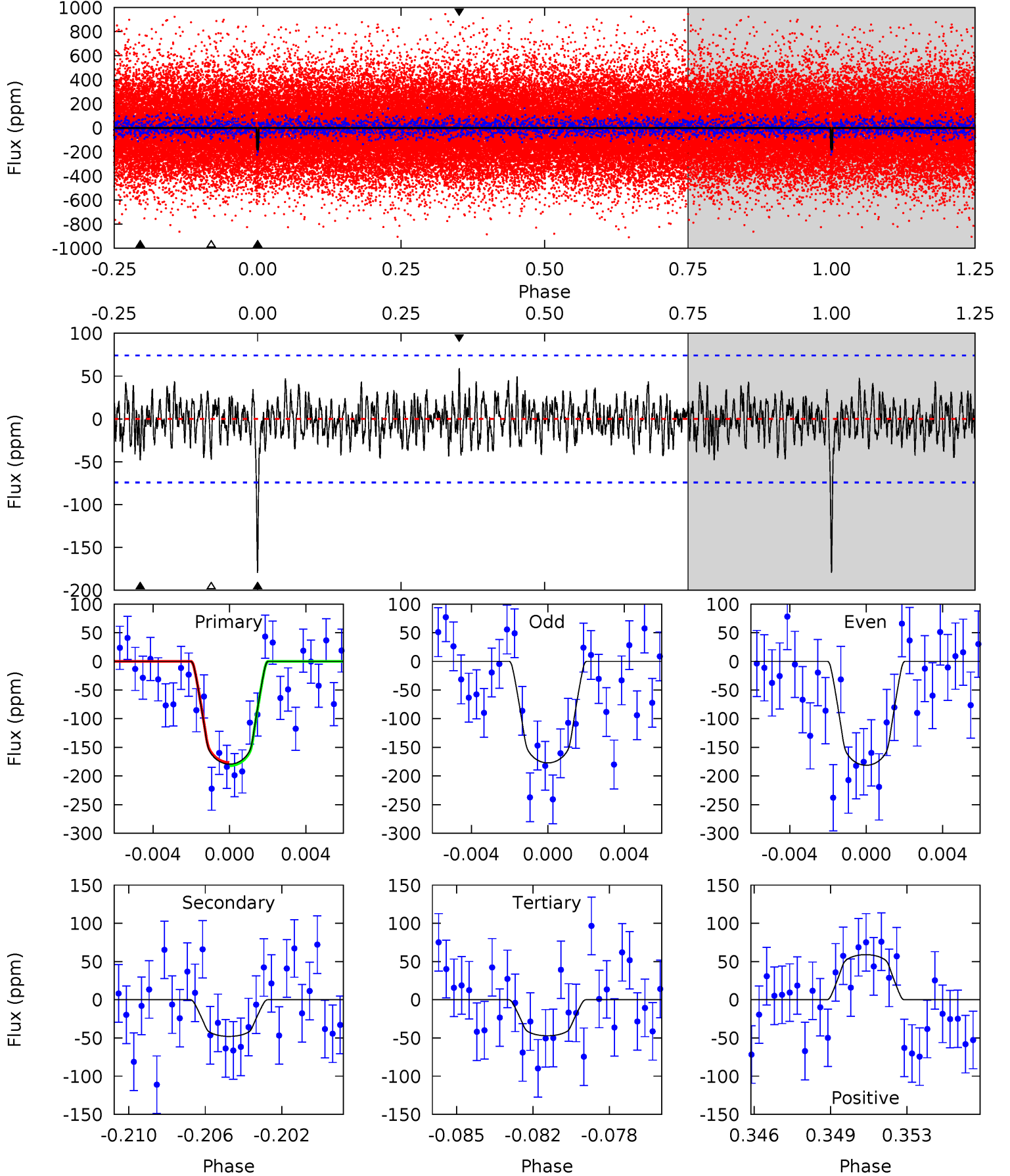
TCE 011923213-01 P= 27.201913 Days $T_0=151.871610$ (BKJD)



DV Model-Shift Uniqueness Test

011923213-01, P = 27.202032 Days, E = 124.667983 Days

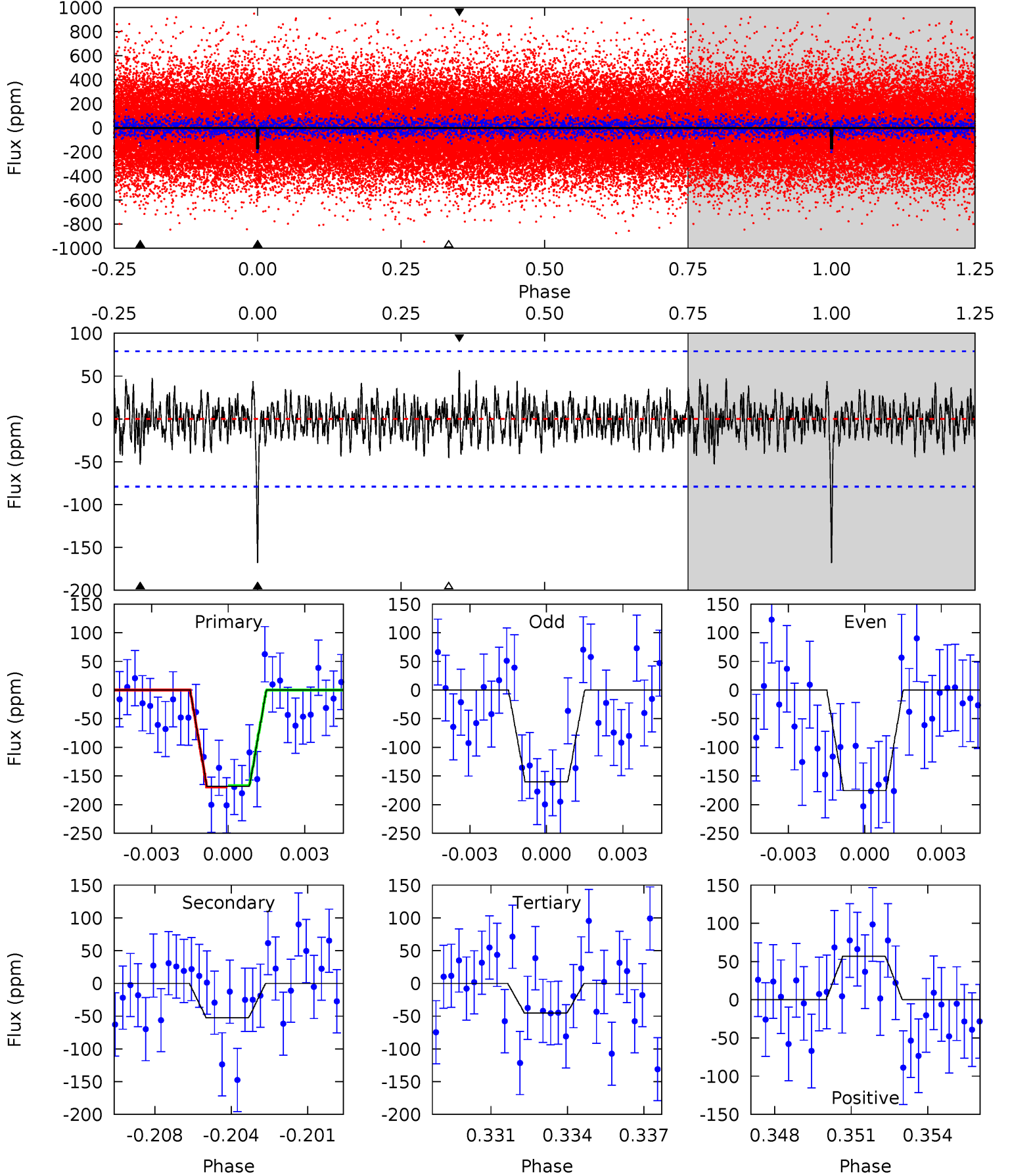
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	3.36	3.31	4.14	5.20	2.89	1.23	9.27	8.44	0.06	-0.78	0.15	0.92	0.25	0.19



Alt Model-Shift Uniqueness Test

011923213-01, P = 27.201913 Days, E = 124.669697 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	3.46	2.99	3.76	5.23	2.93	1.08	8.12	7.36	0.47	-0.30	0.51	0.97	0.25	0.09



Stellar Parameters For KIC 011923213

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5869^{+79}_{-79}	$4.175^{+0.162}_{-0.108}$	$0.100^{+0.150}_{-0.150}$	$1.396^{+0.246}_{-0.270}$	$1.065^{+0.098}_{-0.071}$	$0.551^{+0.446}_{-0.180}$
	+1%/-1%	+4%/-3%	+150%/-150%	+18%/-19%	+9%/-7%	+81%/-33%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 011923213-01 / KOI 5943.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-48 ± 14	$2.49^{+1.66}_{-1.49}$	1006^{+46}_{-53}	4070^{+1732}_{-681}	134^{+670}_{-89}
Alt.	-52 ± 15	$2.27^{+1.69}_{-1.32}$	1004^{+47}_{-49}	4347^{+2114}_{-822}	192^{+972}_{-134}

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

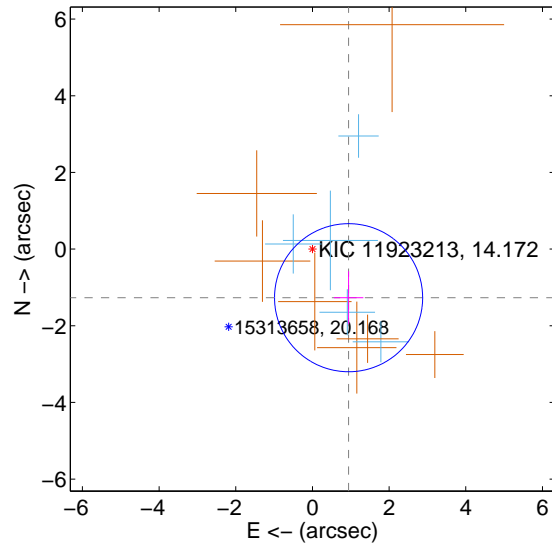
Supplemental centroid analysis for 011923213-01. Kepler magnitude: 14.17. Transit SNR 9.48

There are 5 quarters with good PRF difference image offsets

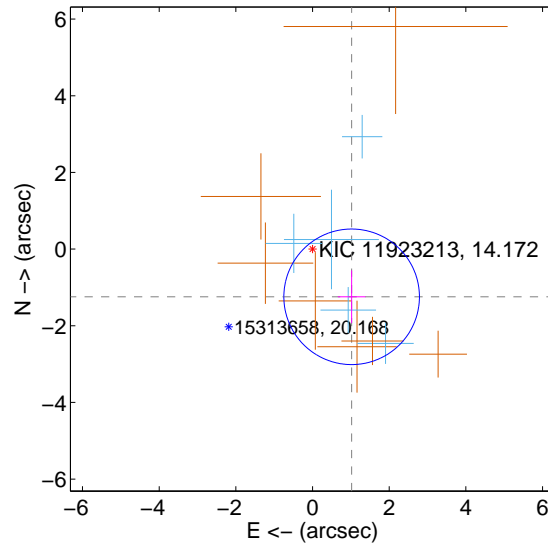
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.580 ± 0.644	2.45	-0.943 ± 0.384	-1.268 ± 0.690
PRF-fit source offset from KIC position	1.609 ± 0.589	2.73	-1.020 ± 0.363	-1.245 ± 0.688
photometric centroid source offset	0.82 ± 1.48	0.55	-0.43 ± 1.45	-0.70 ± 1.49

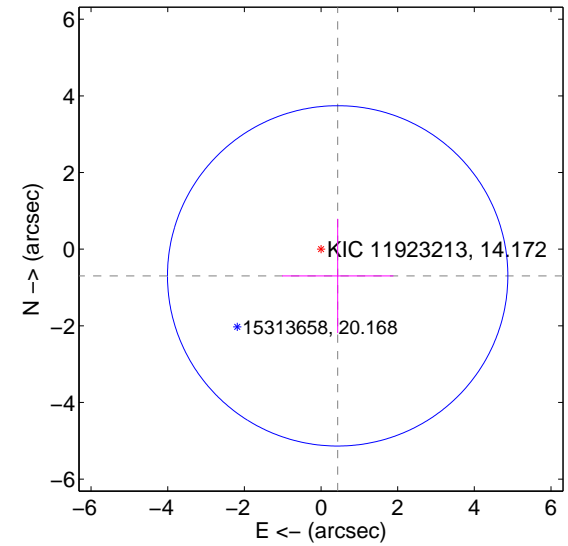
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

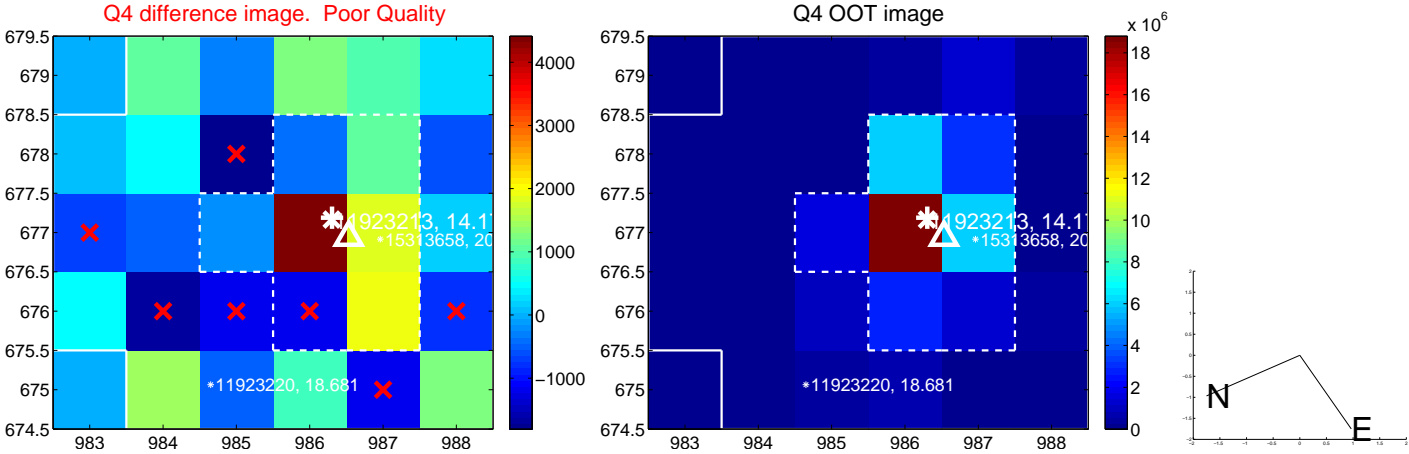
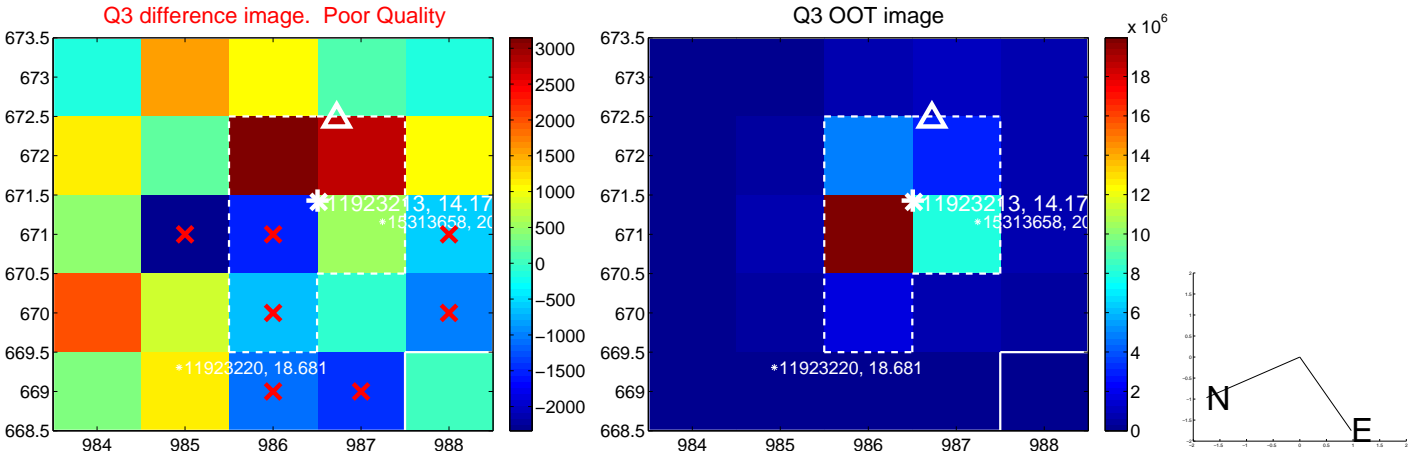
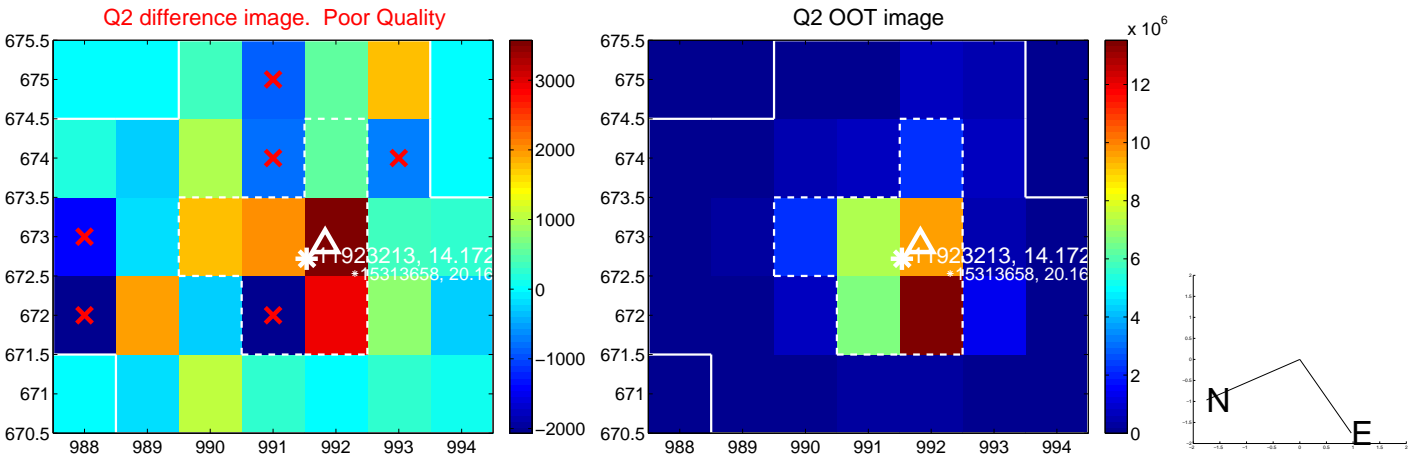
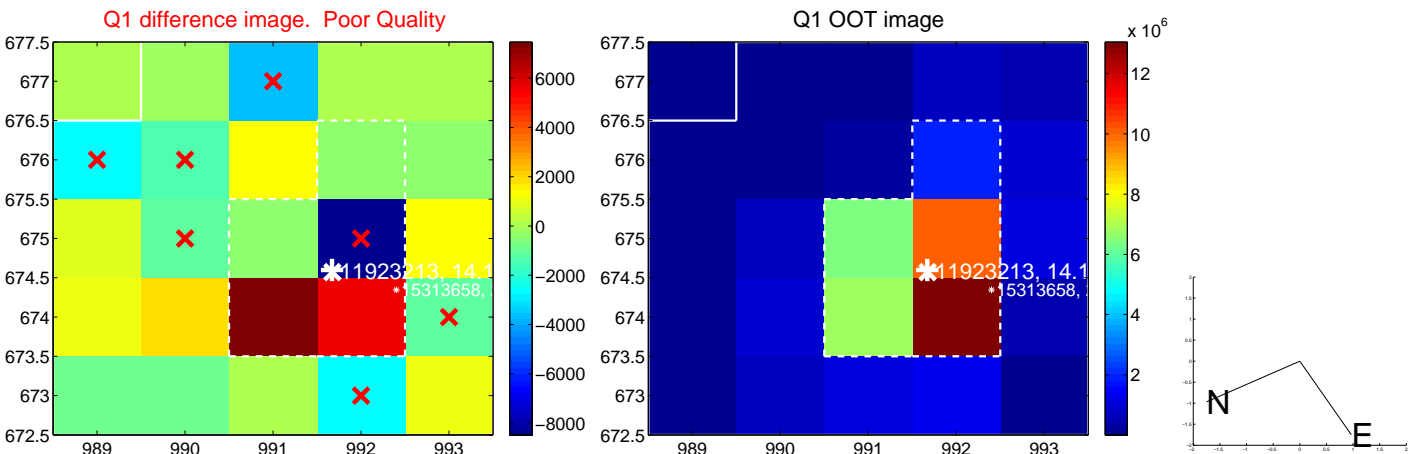


offset from photometric centroids

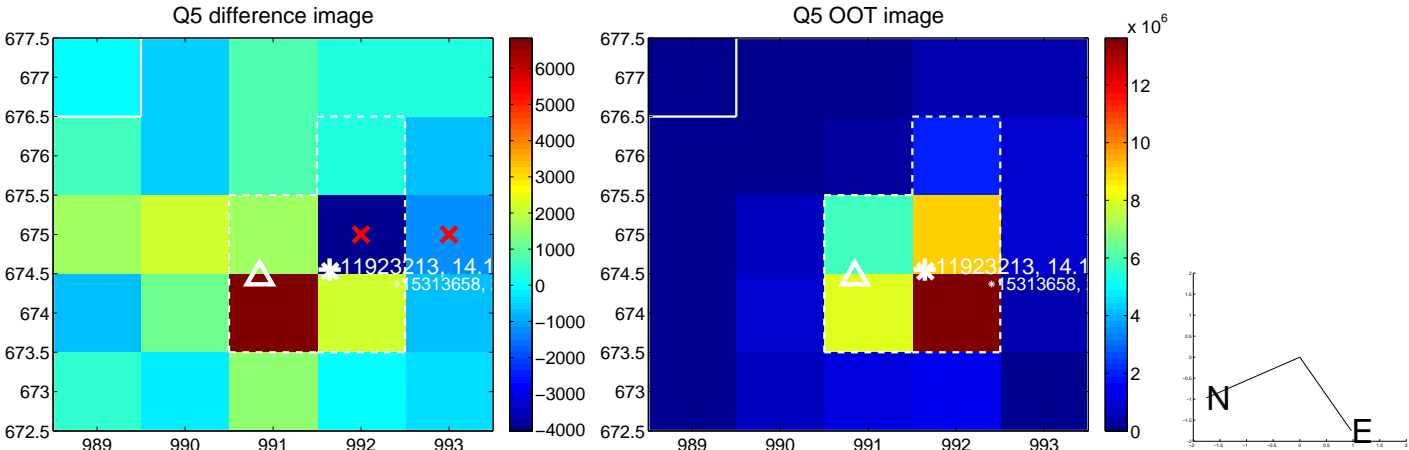


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

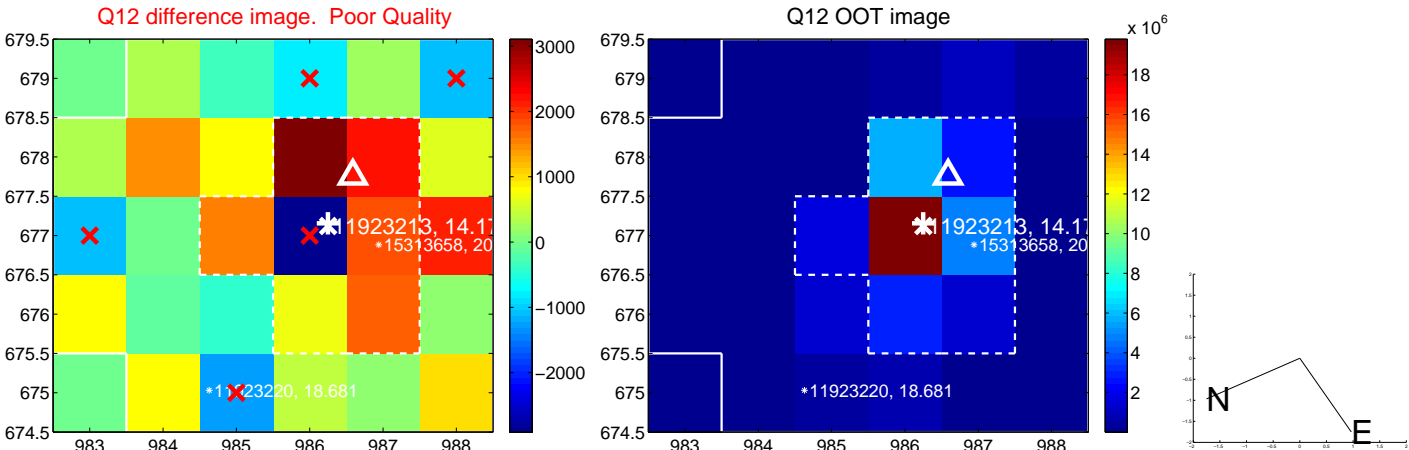
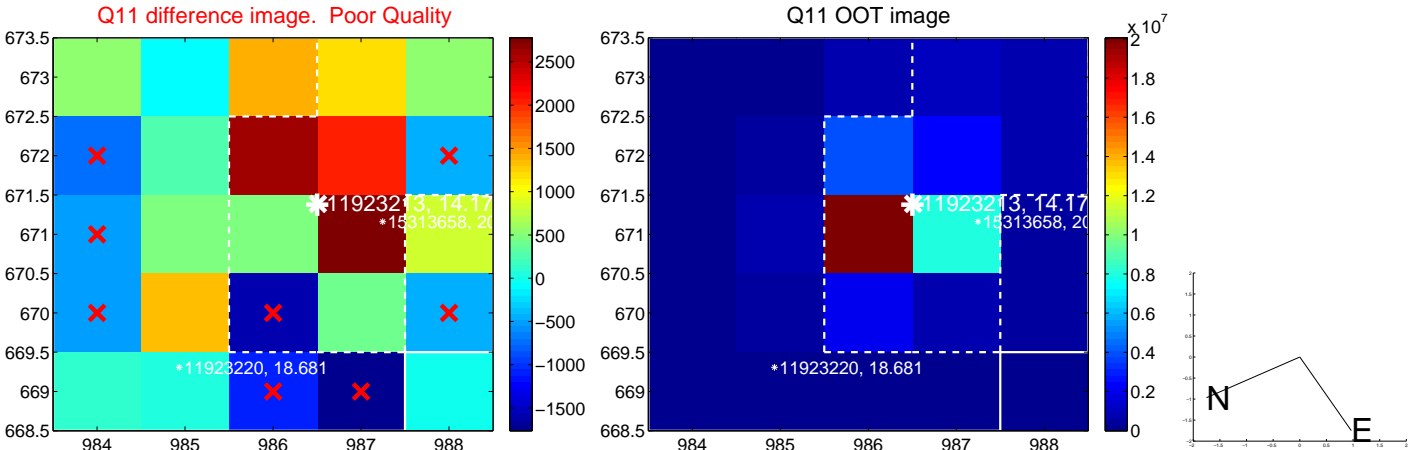
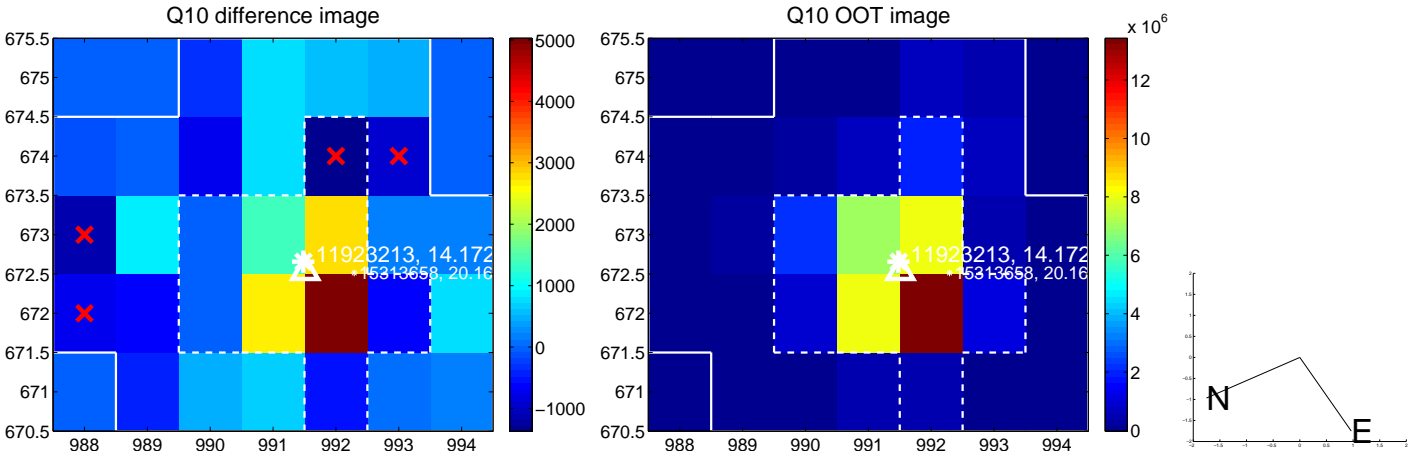
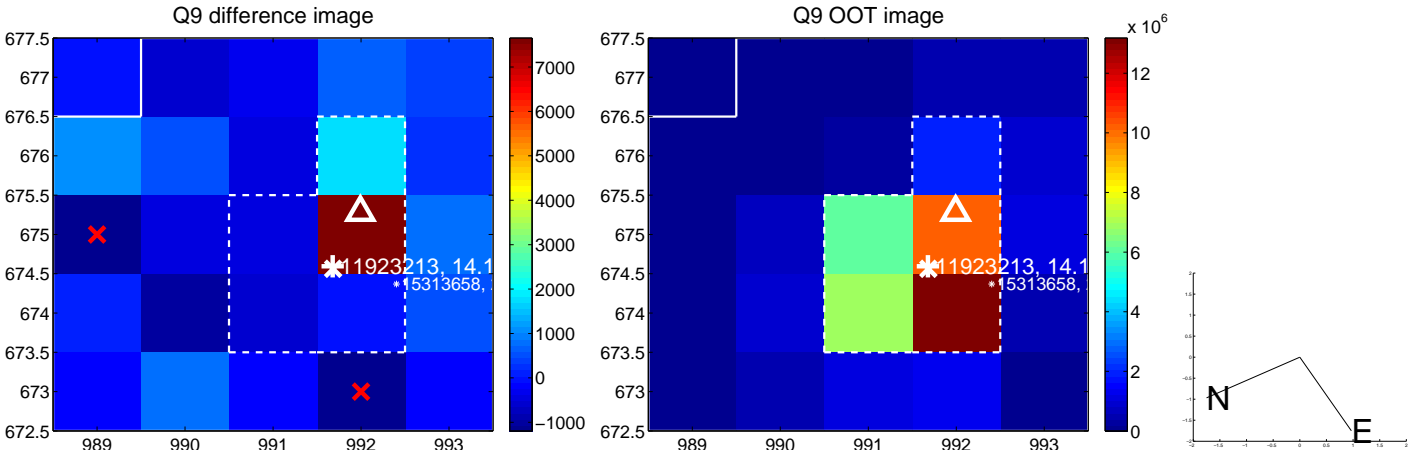
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



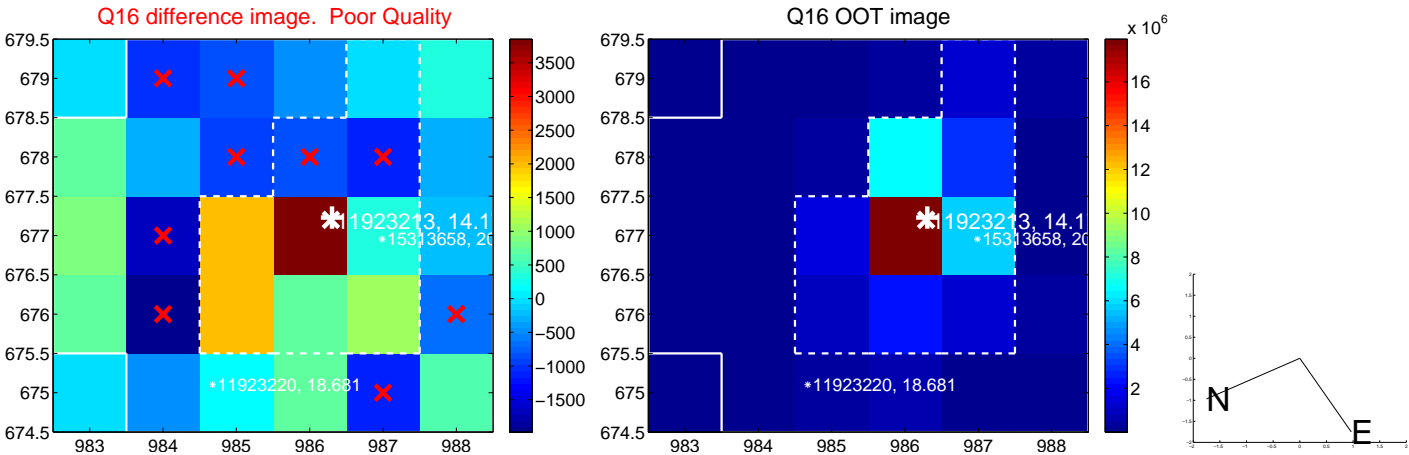
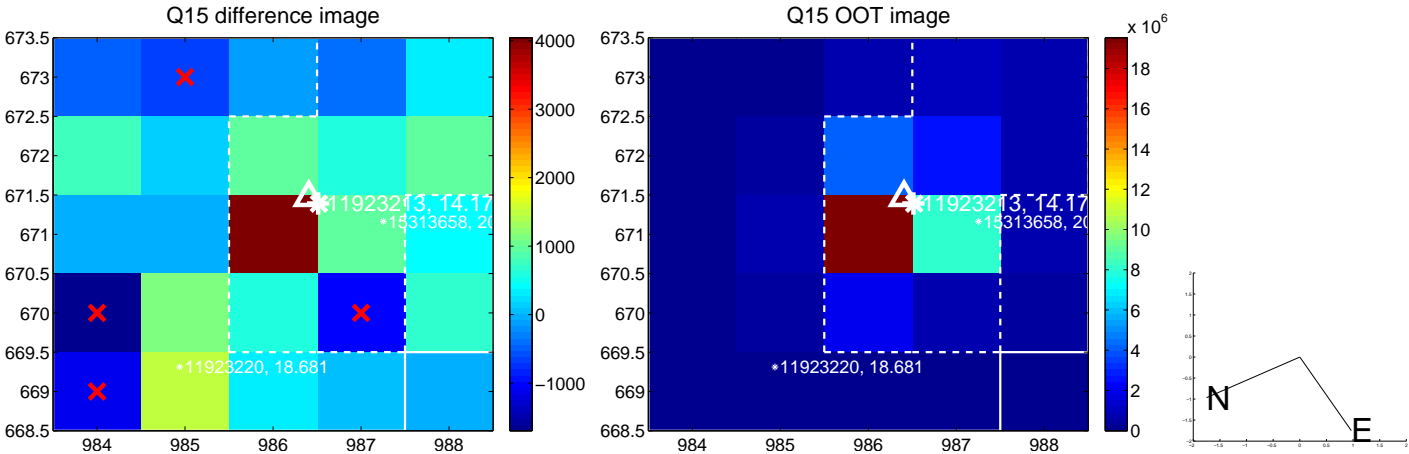
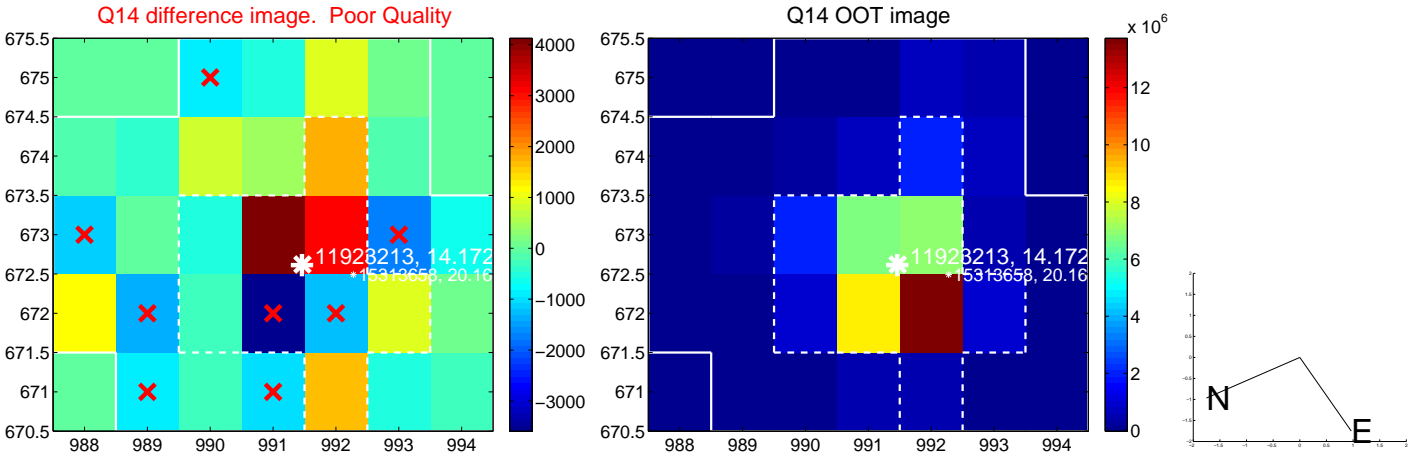
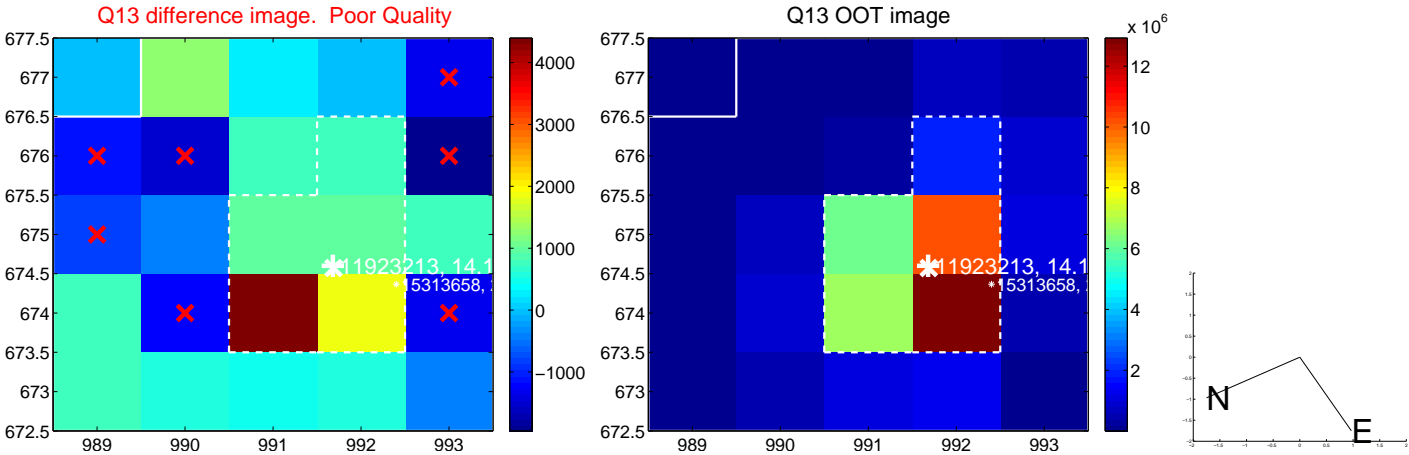
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



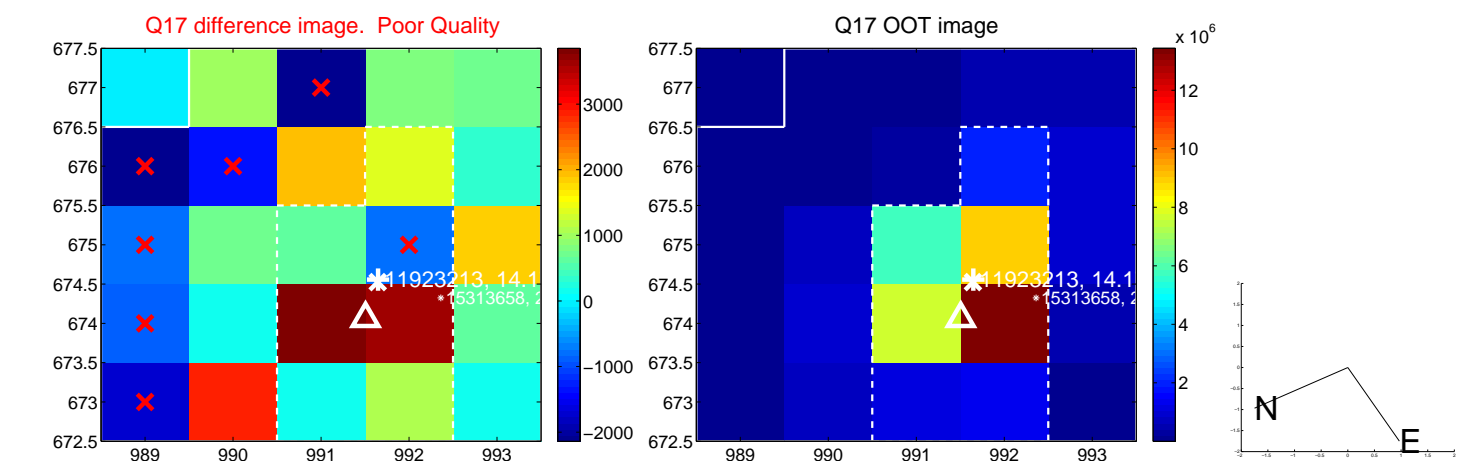
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



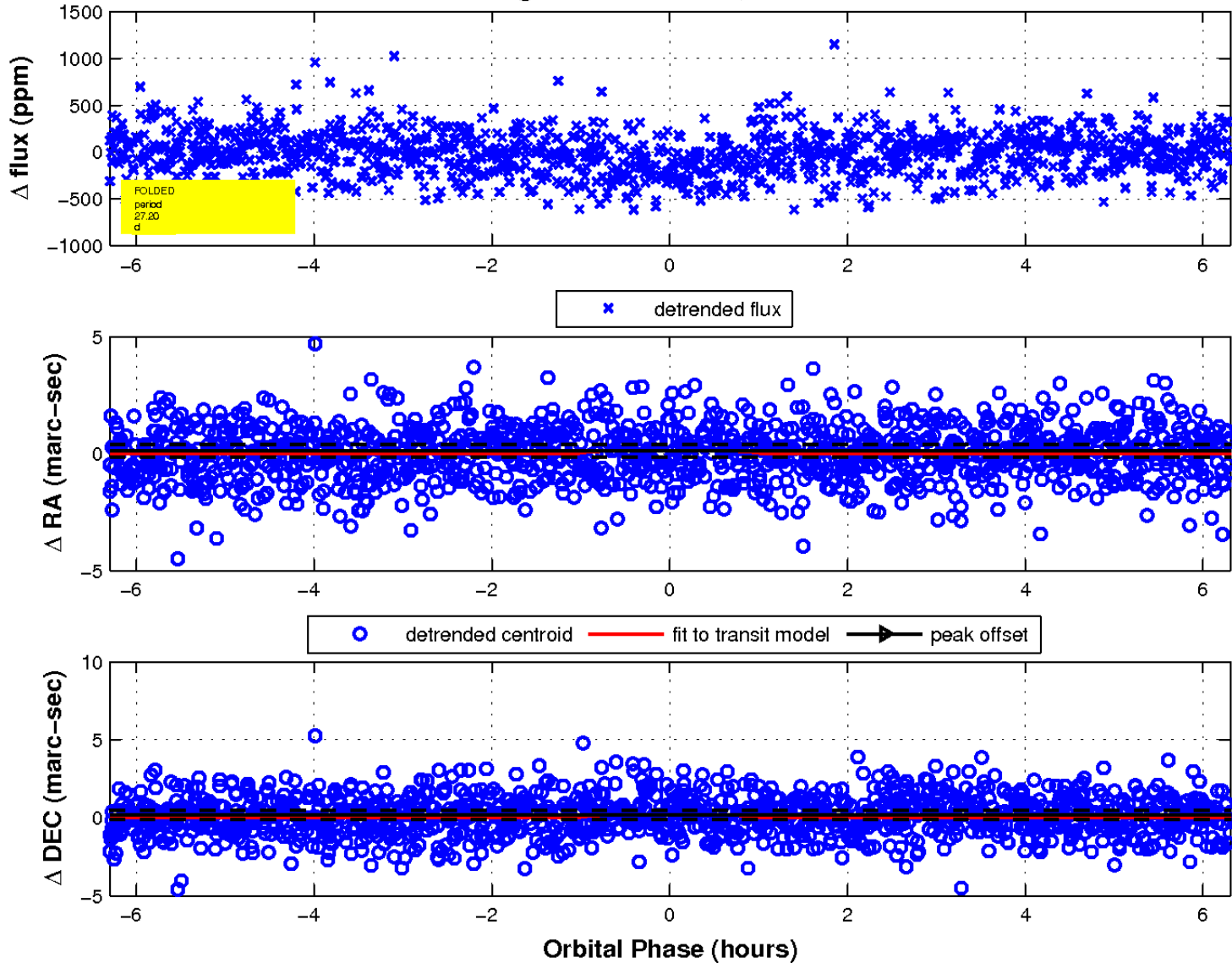
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

