

KIC 005026023

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})
005026023-01	OBS	8252.01	1.996437	131.548192	30.3	1.994	7.4	5.6	1.08	6249	0.69	1512.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005026023-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT

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

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

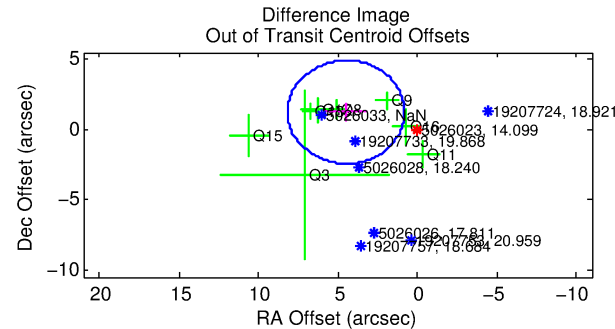
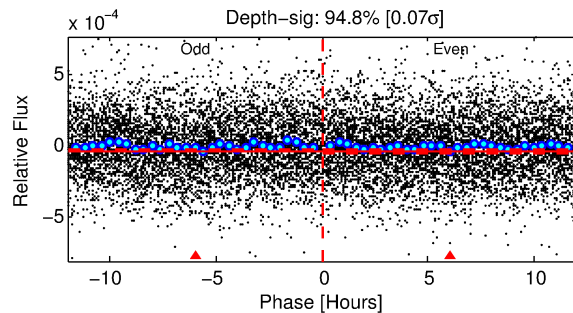
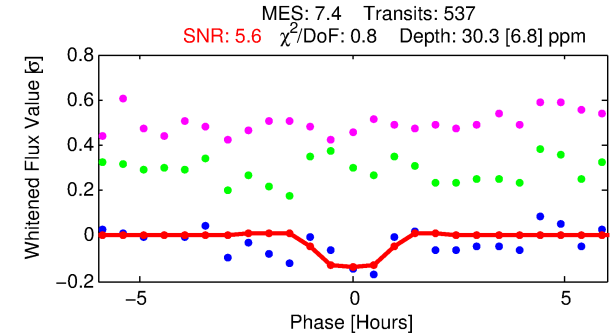
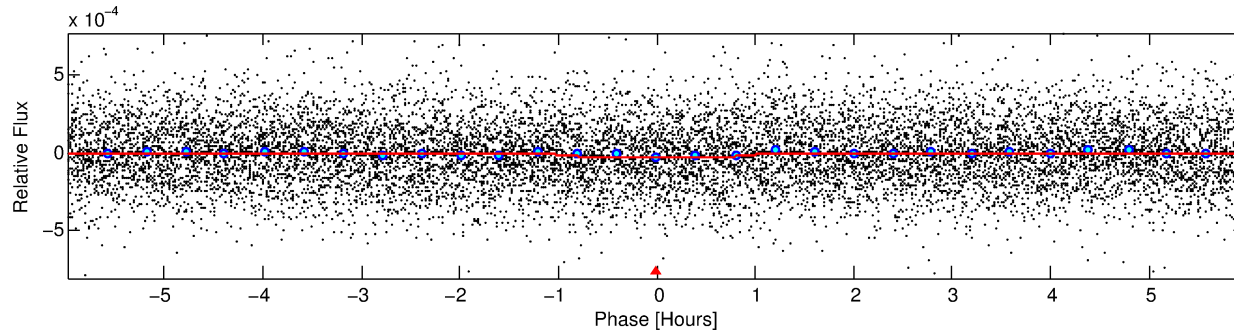
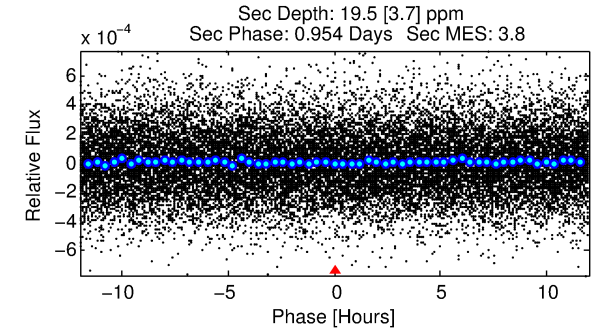
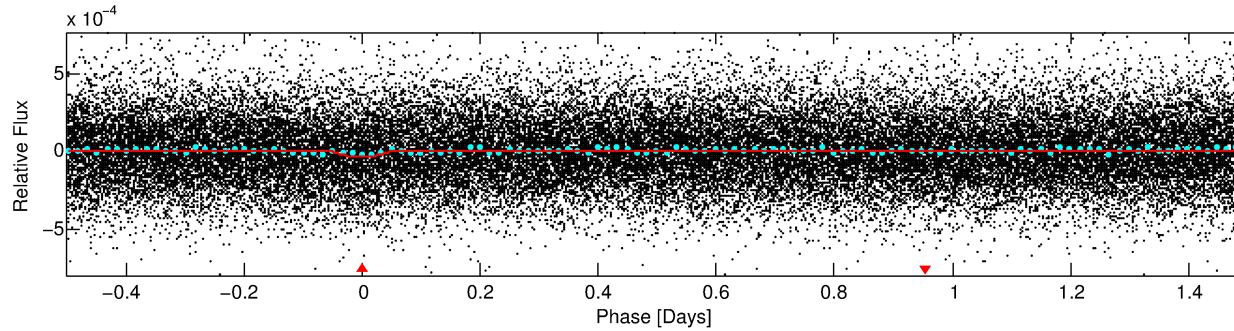
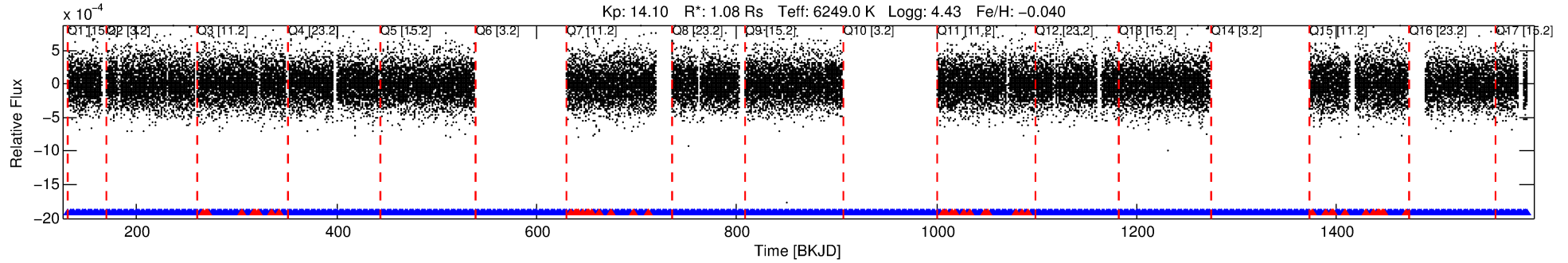
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005026023-01

No Significant Match Found

DV One-Page Summary

KIC: 5026023 Candidate: 1 of 1 Period: 1.996 d



DV Fit Results:

Period = 1.99644 [0.00003] d
Epoch = 131.5482 [0.0058] BKJD
Rp/R* = 0.0059 [0.0051]
a/R* = 3.60 [15.42]
b = 0.90 [1.02]
Seff = 1512.41 [651.15]
Teff = 1590 [171] K
Rp = 0.70 [0.64] Re
a = 0.0323 [0.0090] AU
Ag = 23.24 [41.17] [0.54σ]
Teffp = 5398 [2334] K [1.63σ]

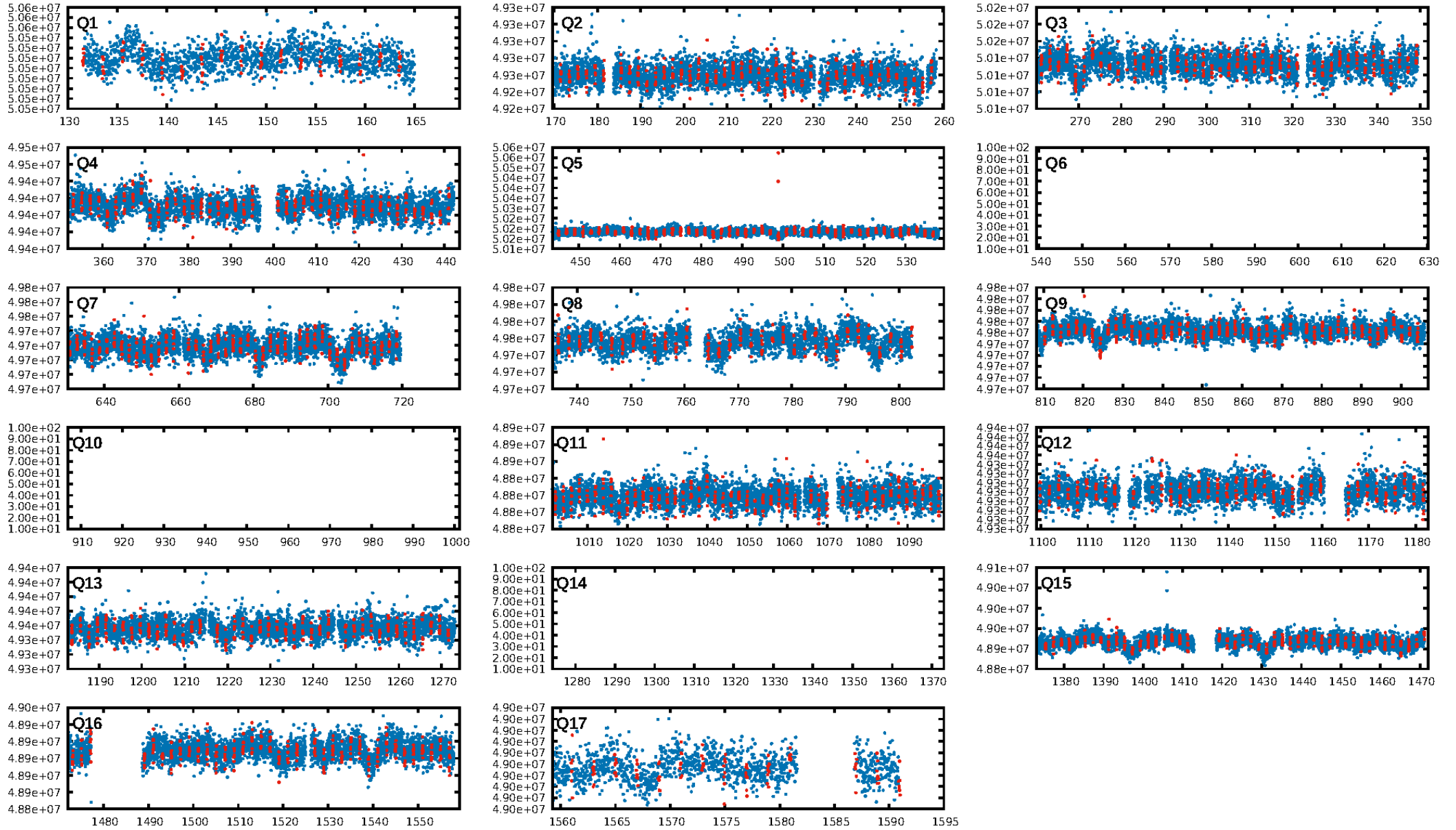
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.54e-14
RollingBand-fgt: 0.91 [462/506]
GhostDiagnostic-chr: 1.411
Centroid-sig: 0.0%
Centroid-so: 5.937 arcsec [2.51σ]
OotOffset-rm: 4.643 arcsec [3.79σ]
KicOffset-rm: 4.522 arcsec [3.63σ]
OotOffset-st: 0/3/2/3 [8]
KicOffset-st: 0/3/2/3 [8]
DiffImageQuality-fgm: 0.12 [1/8]
DiffImageOverlap-fno: 1.00 [14/14]

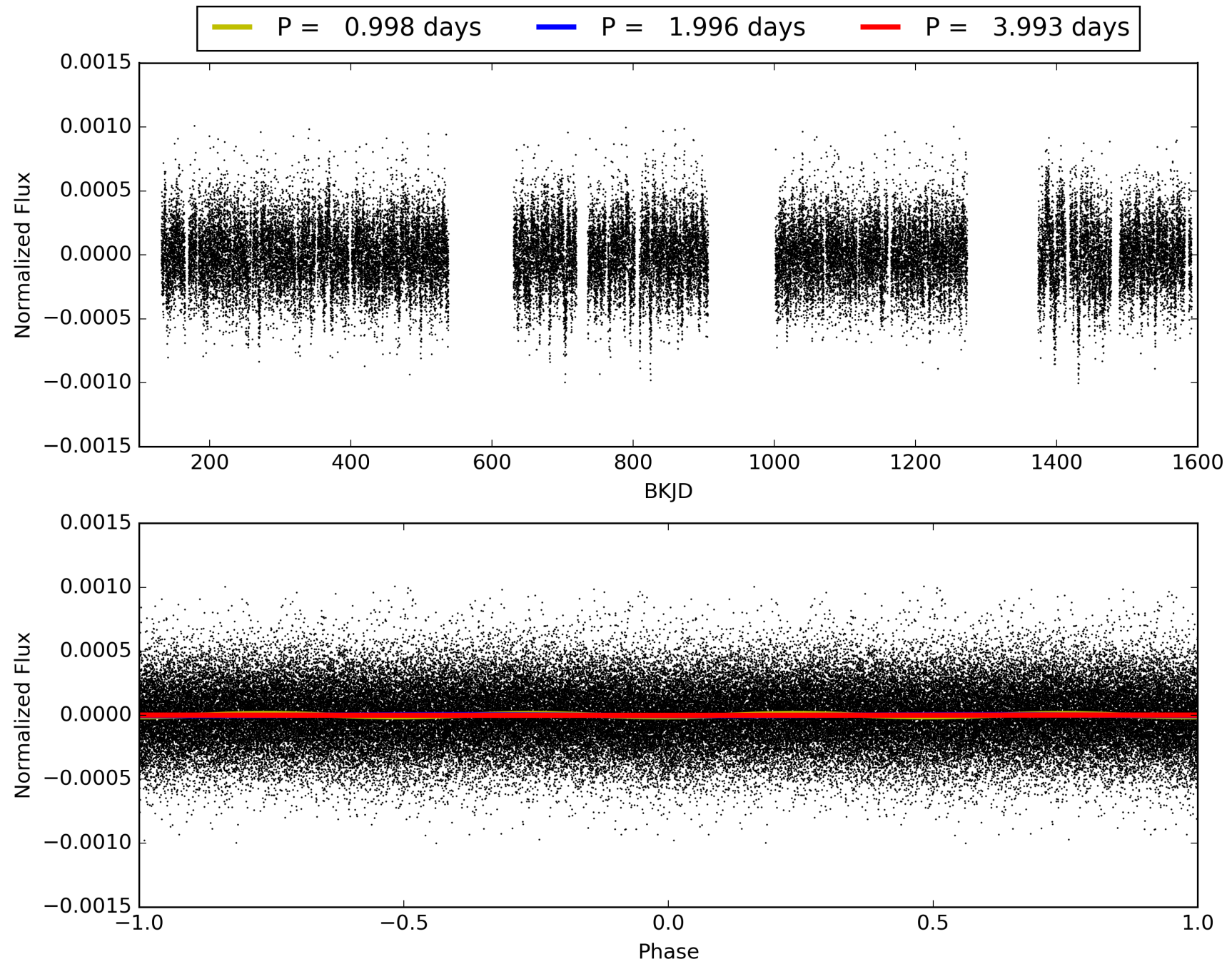
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:00:06 Z

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

TCE 005026023-01, PDC Light Curves

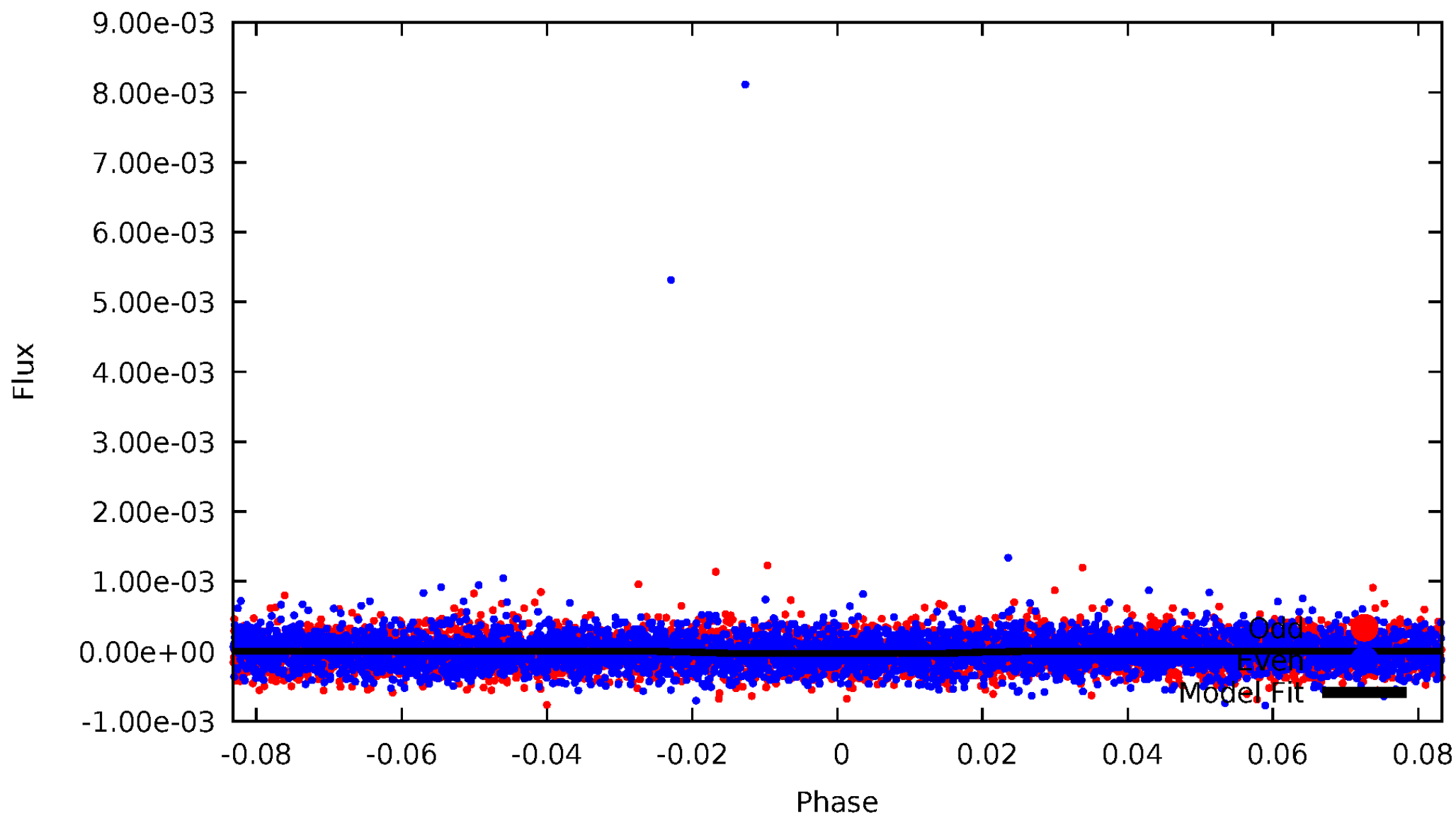


TCE 005026023-01



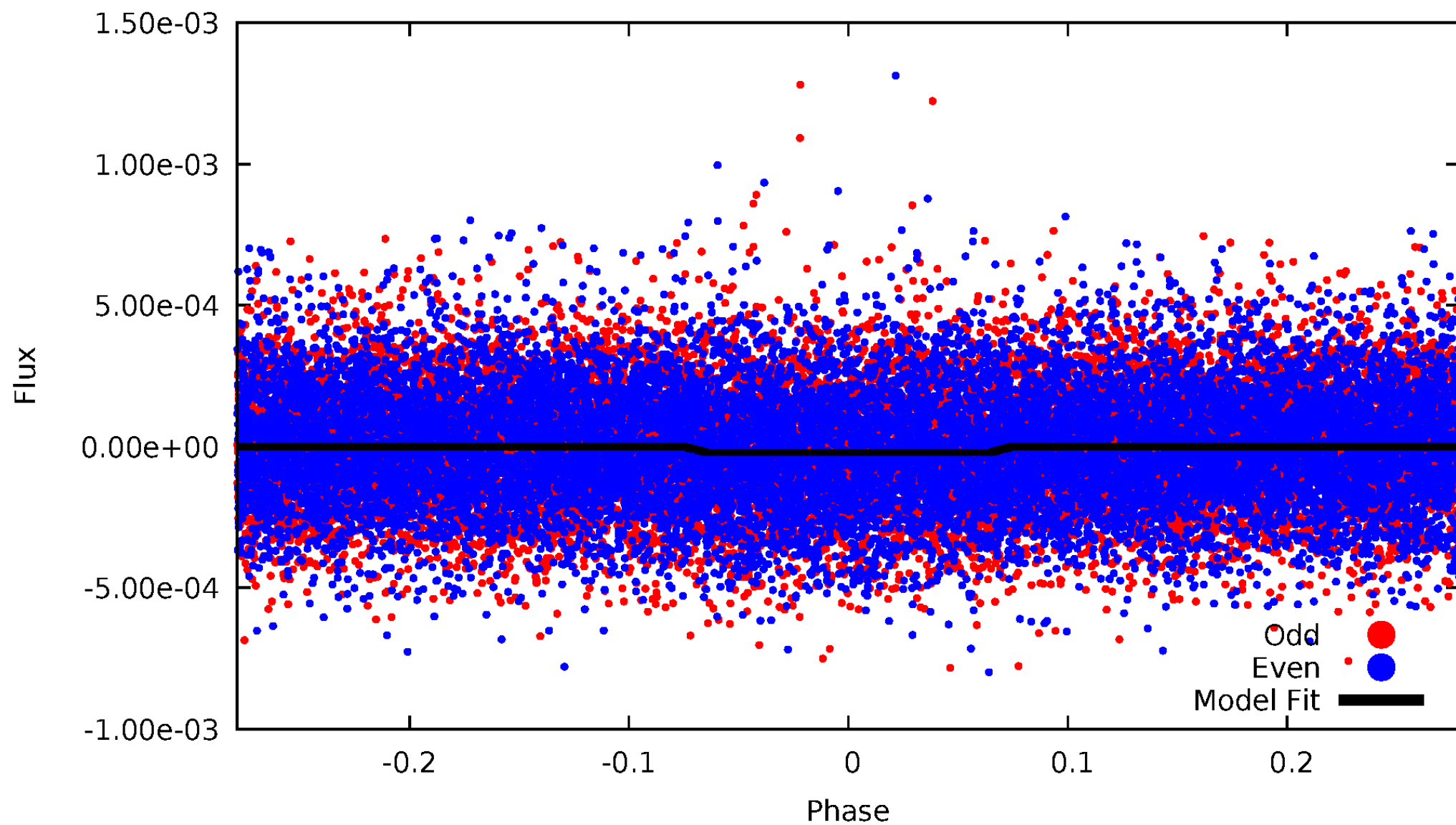
DV Odd/Even

TCE 005026023-01

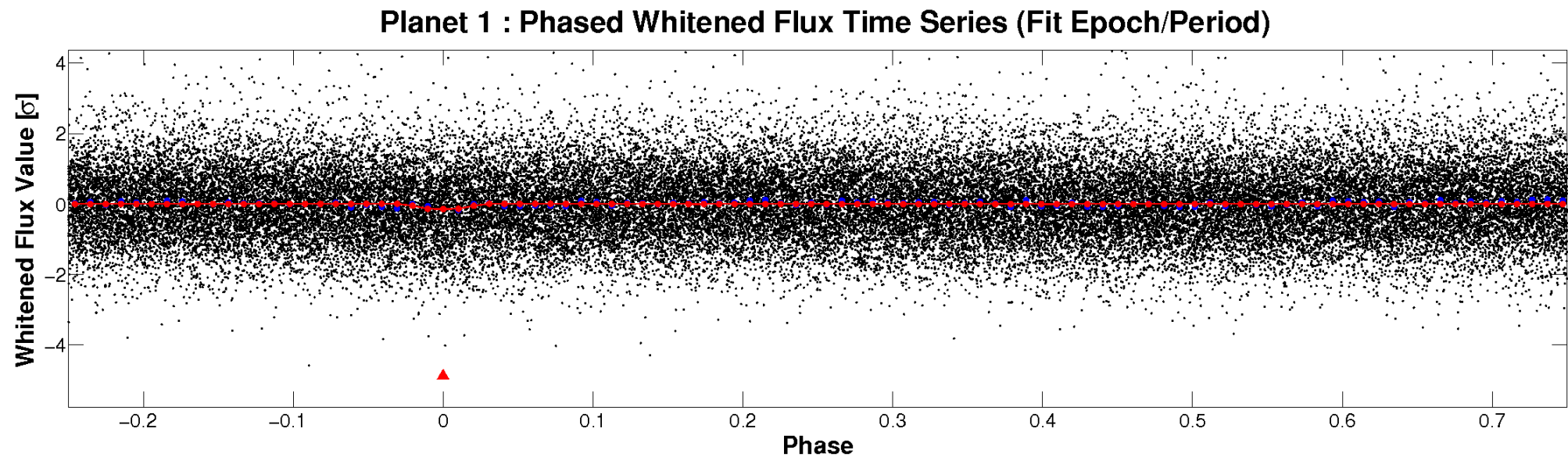
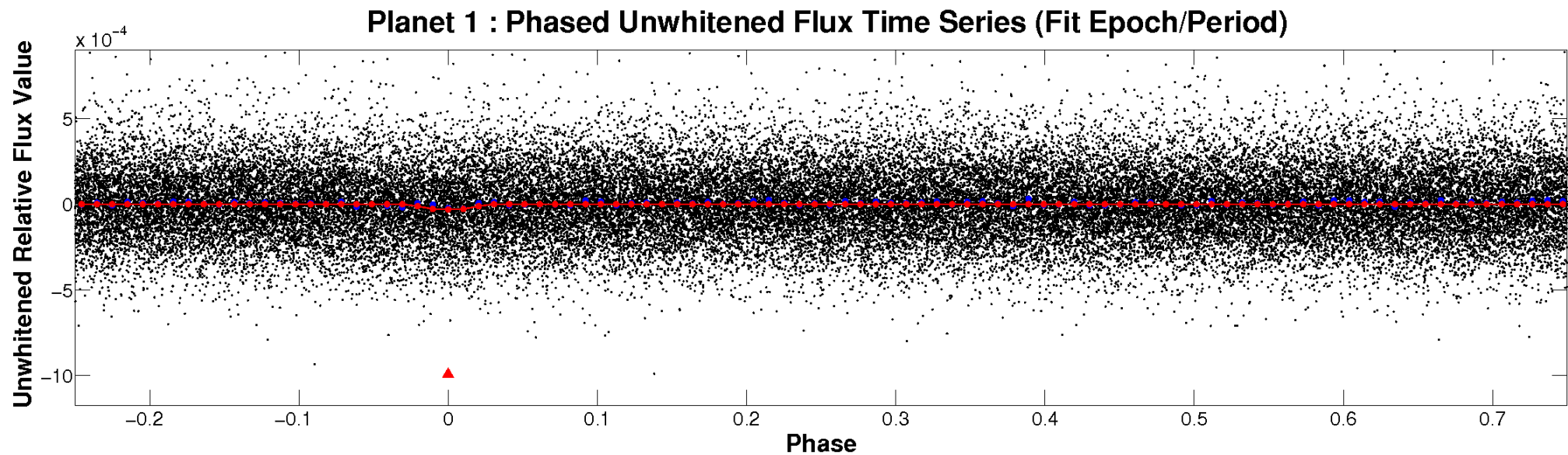


ALT Odd/Even

TCE 005026023-01

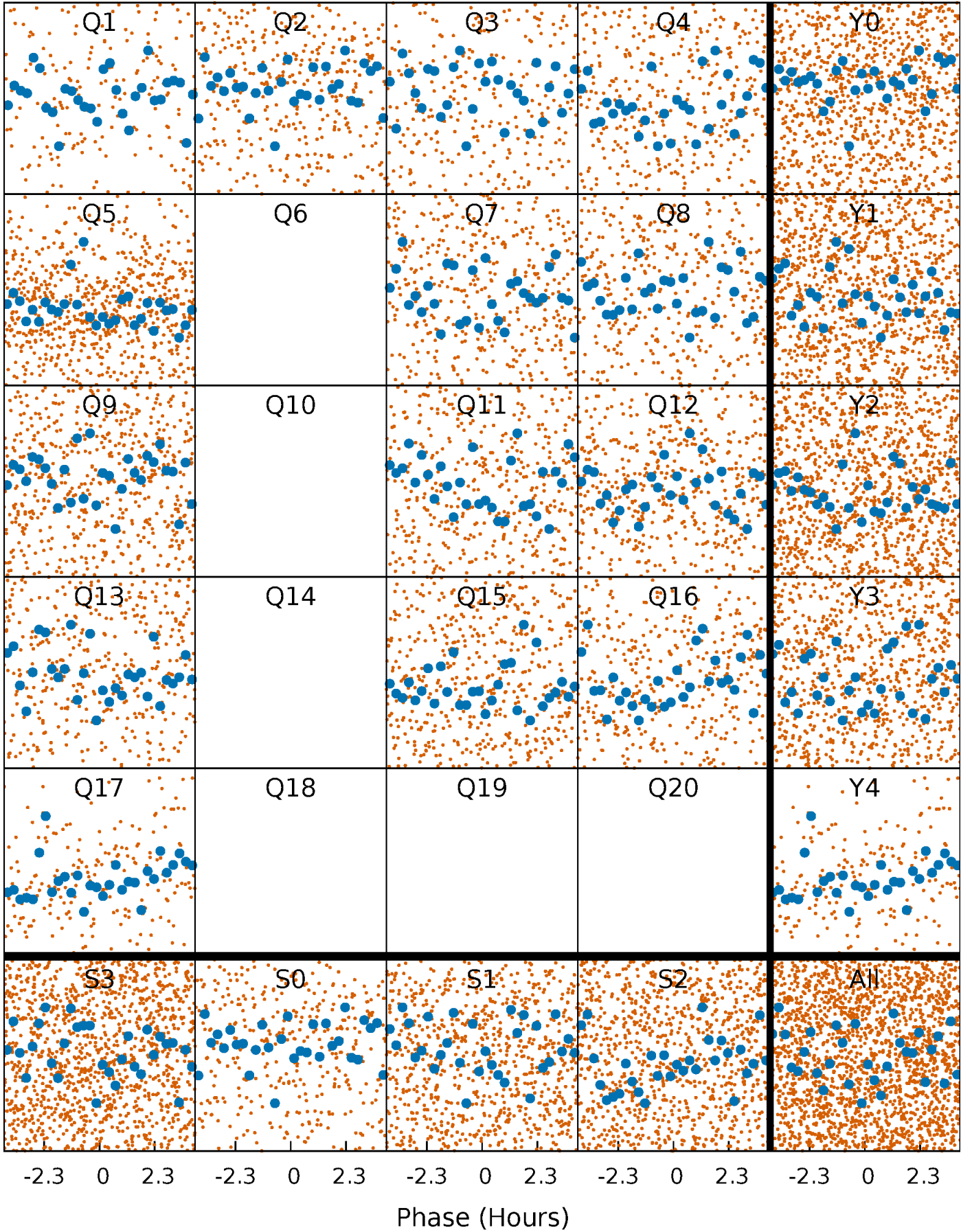


Non-Whitened Vs. Whitened Light Curve



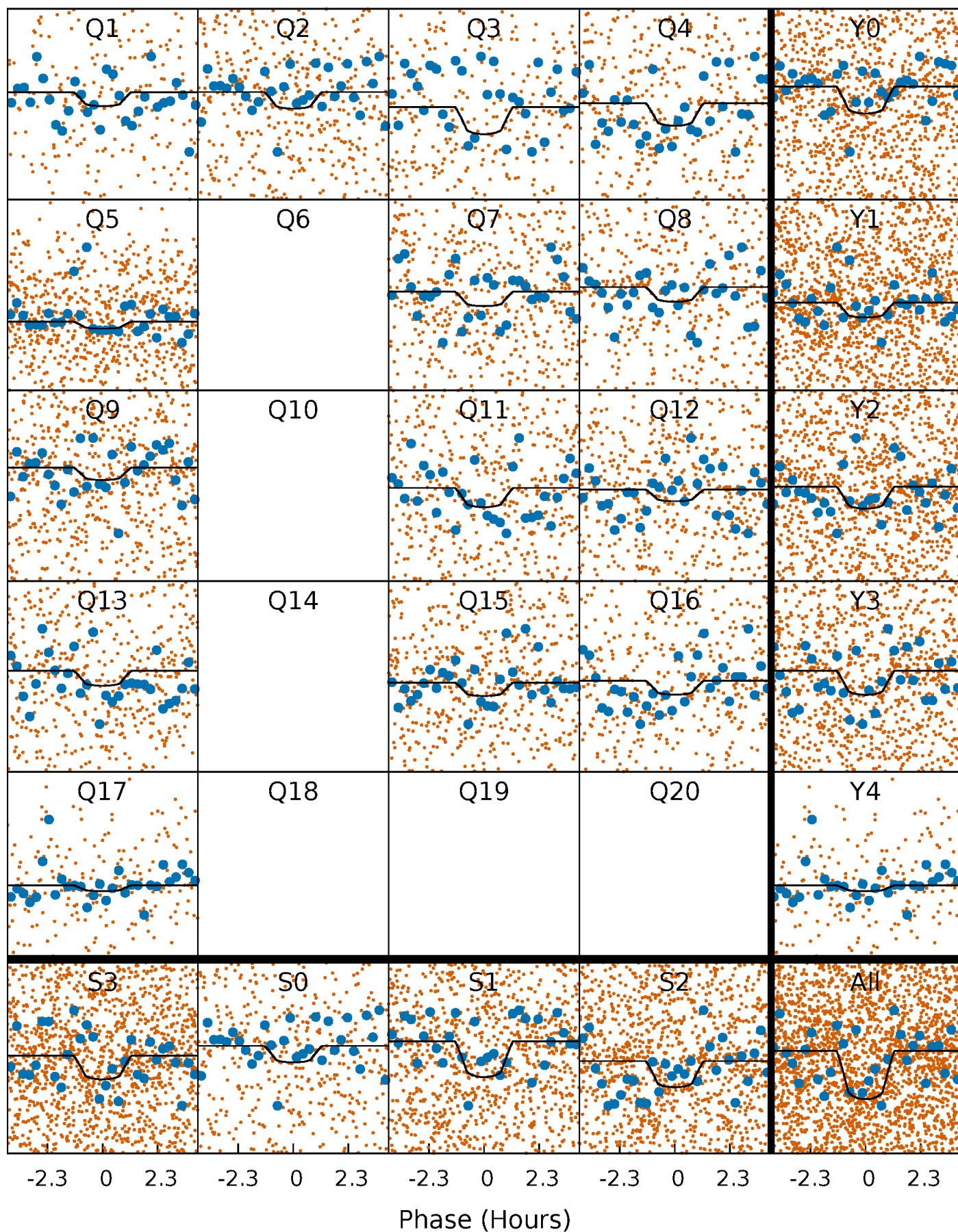
PDC Quarter-Phased Transit Curves

TCE 005026023-01 P= 1.996437 Days $T_0=131.548192$ (BKJD)



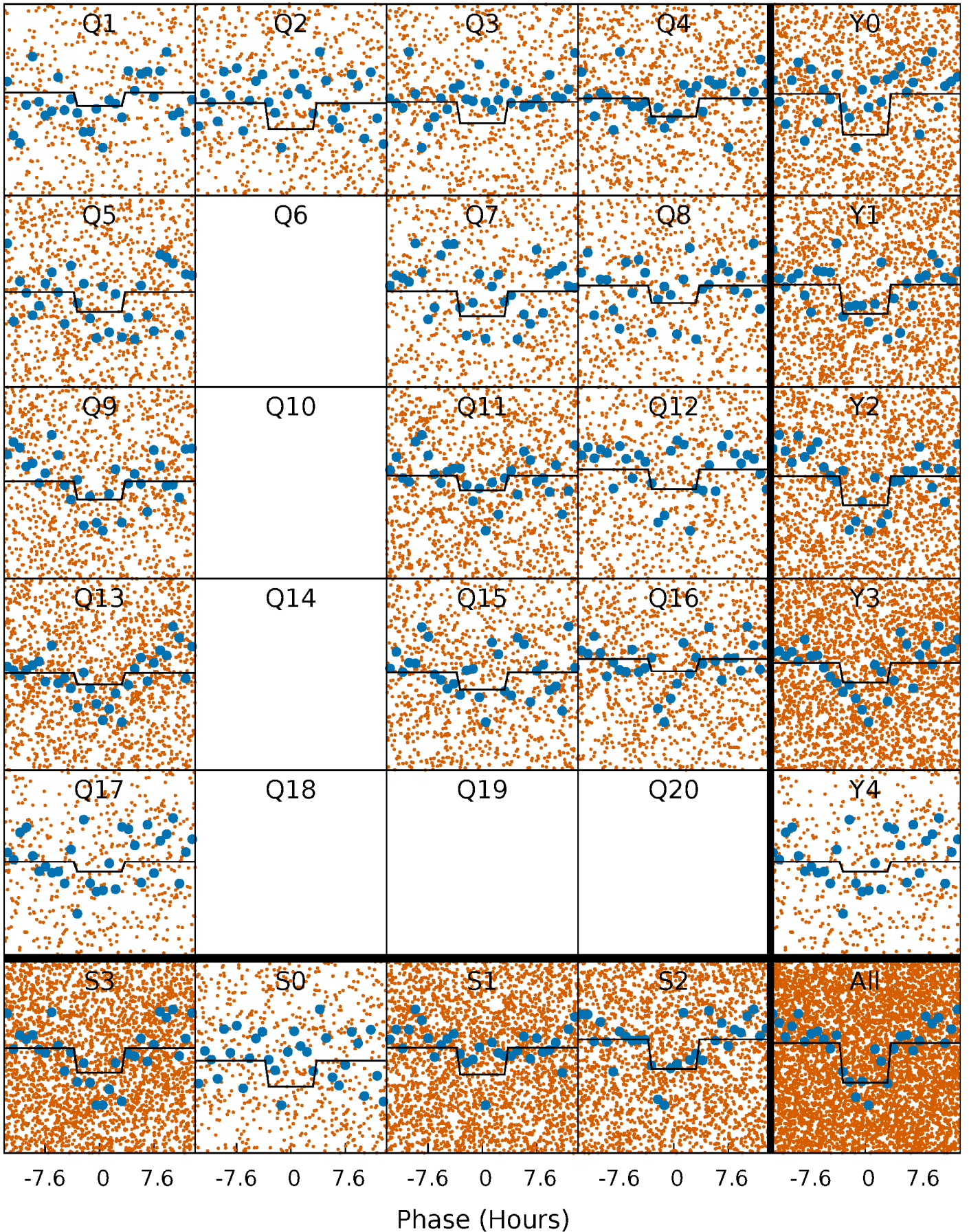
DV Quarter-Phased Transit Curves

TCE 005026023-01 P= 1.996437 Days $T_0=131.548192$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

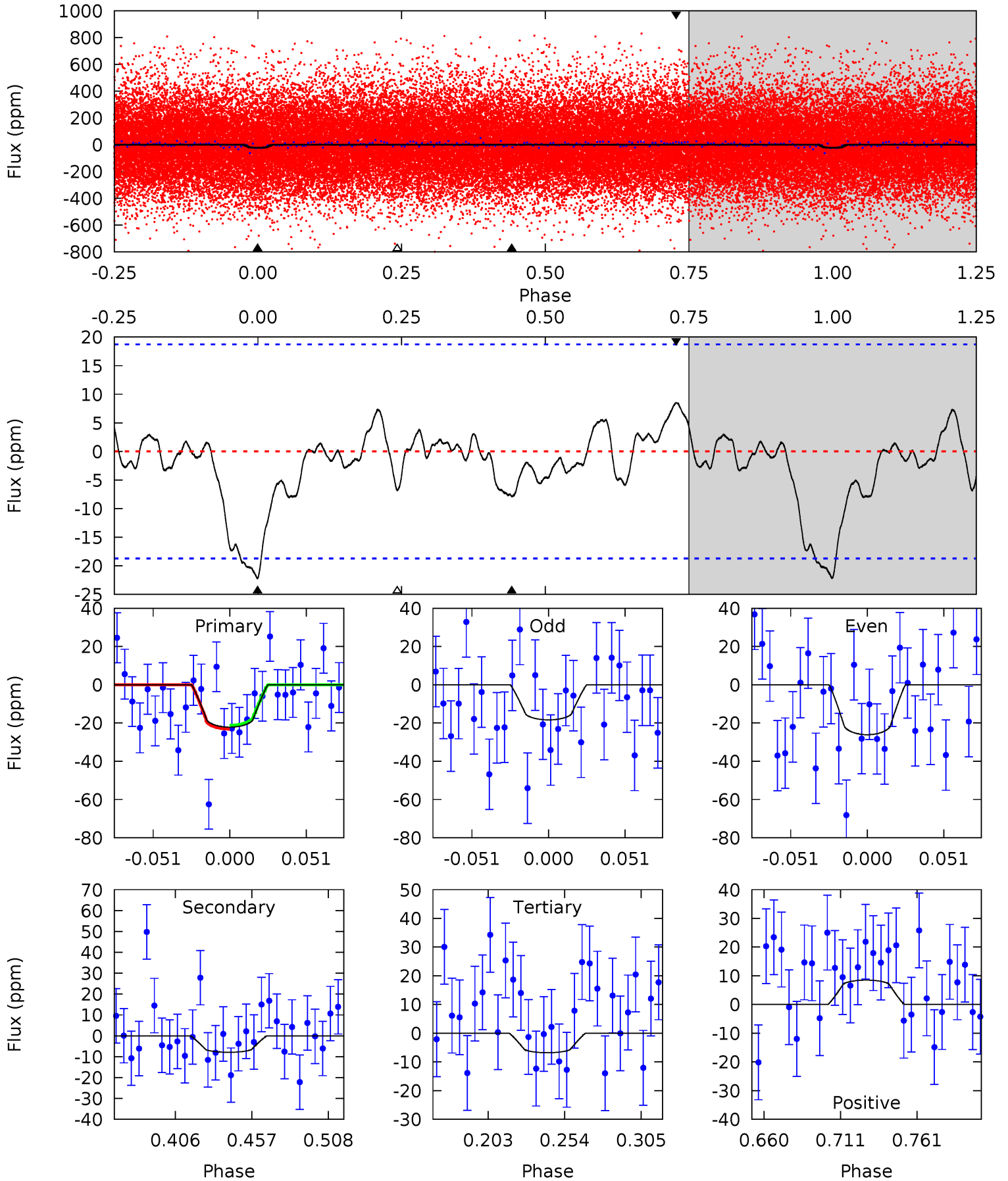
TCE 005026023-01 P= 1.996368 Days $T_0=131.582554$ (BKJD)



DV Model-Shift Uniqueness Test

005026023-01, P = 1.996437 Days, E = 129.551755 Days

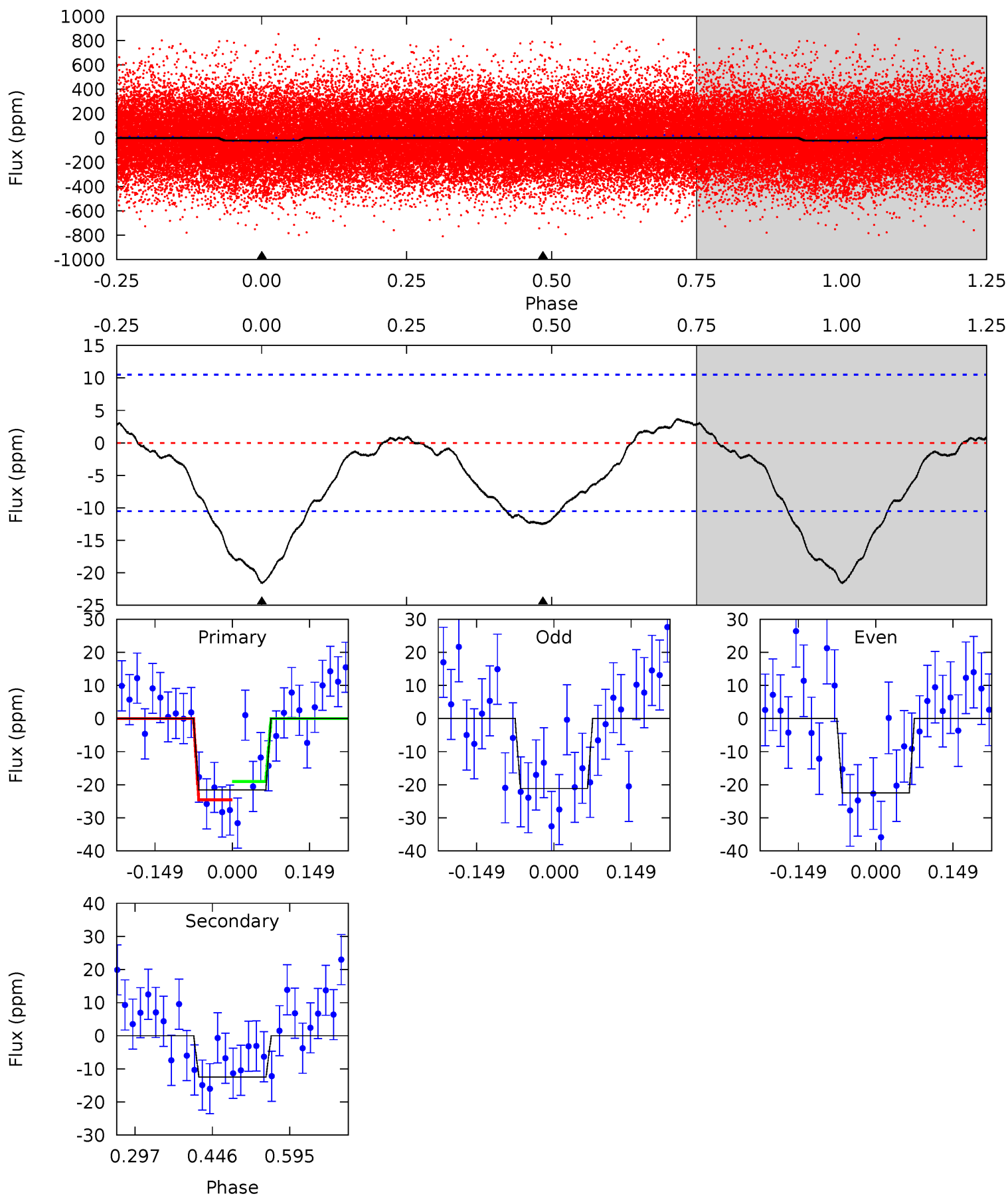
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.58	1.98	1.71	2.14	4.71	1.95	0.92	3.87	3.44	0.27	-0.16	0.98	0.68	0.28	0.25



Alt Model-Shift Uniqueness Test

005026023-01, P = 1.996368 Days, E = 129.586186 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.19	5.32	0	0	4.48	1.44	0.75	9.19	9.19	5.32	5.32	0.27	0.96	0.14	1.18



Stellar Parameters For KIC 005026023

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6249^{+174}_{-217}	$4.428^{+0.056}_{-0.224}$	$-0.040^{+0.250}_{-0.300}$	$1.076^{+0.353}_{-0.118}$	$1.130^{+0.157}_{-0.157}$	$1.279^{+0.388}_{-0.701}$
	+3%/-3%	+1%/-5%	+625%/-750%	+33%/-11%	+14%/-14%	+30%/-55%
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 005026023-01 / KOI 8252.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-8 ± 4	$0.83^{+0.61}_{-0.50}$	2276^{+188}_{-116}	4178^{+2098}_{-880}	$5.918^{+32.075}_{-4.262}$
Alt.	-12 ± 2	$0.71^{+0.59}_{-0.46}$	2270^{+171}_{-115}	4919^{+3466}_{-1009}	13^{+91}_{-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 $A_{obs} \gg 1.0$

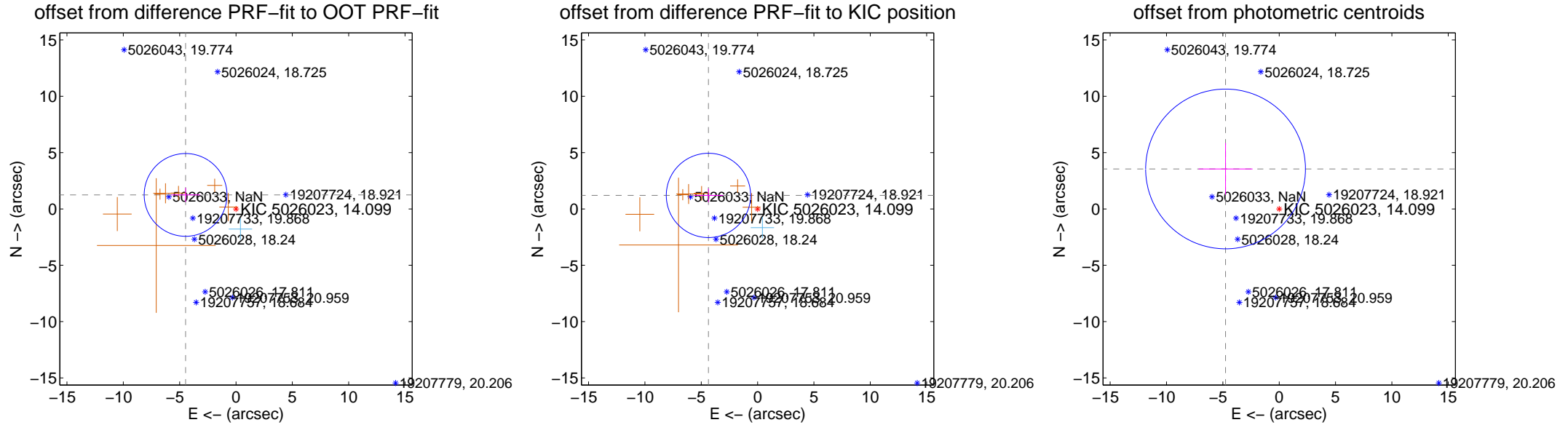
DV Centroid Data

Supplemental centroid analysis for 005026023-01. Kepler magnitude: 14.10. Transit SNR 5.56

There are 1 quarters with good PRF difference image offsets

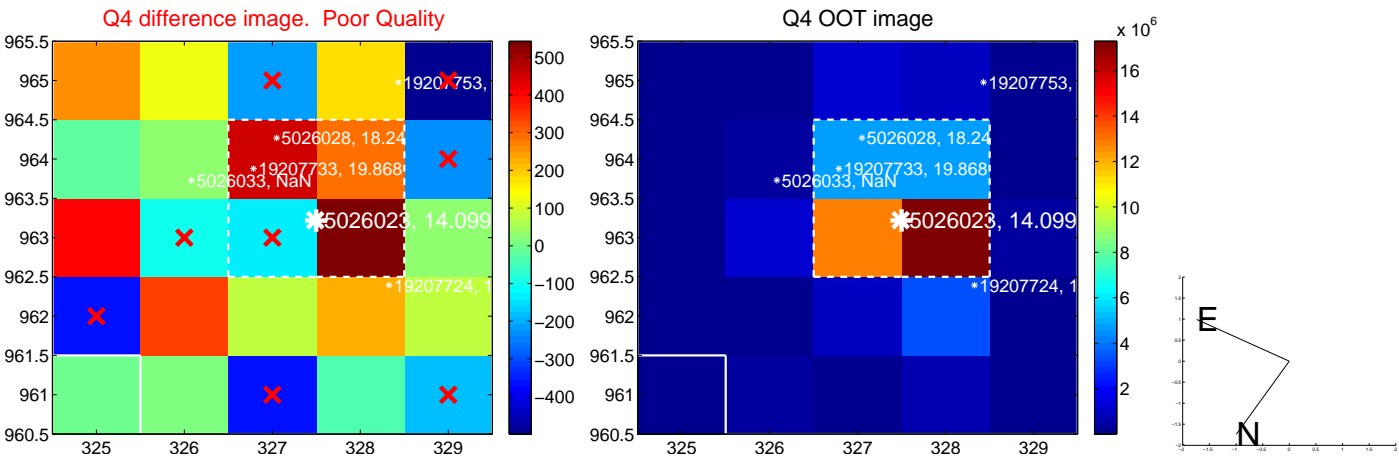
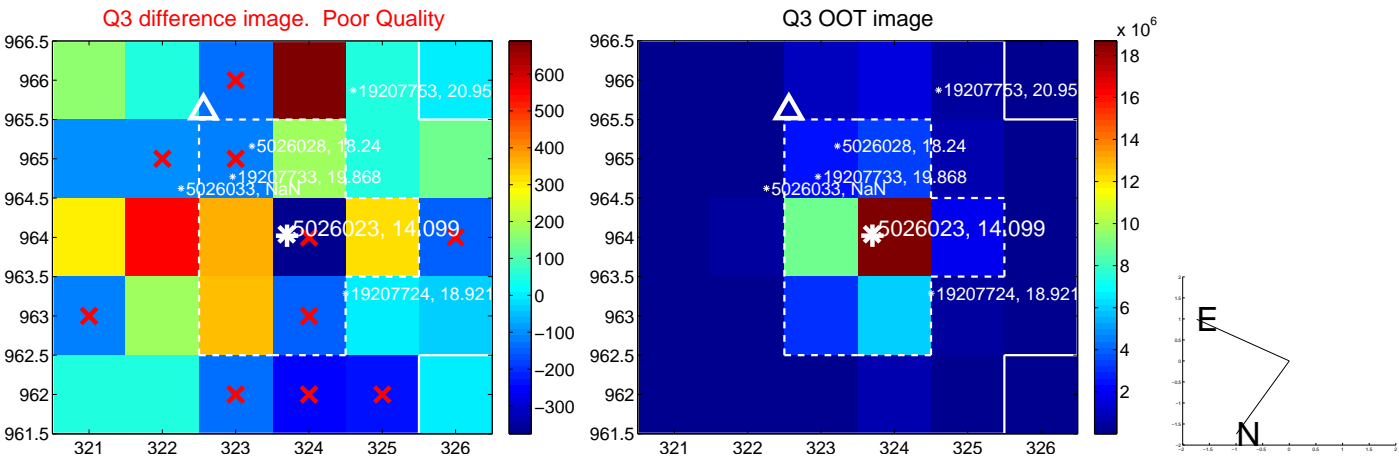
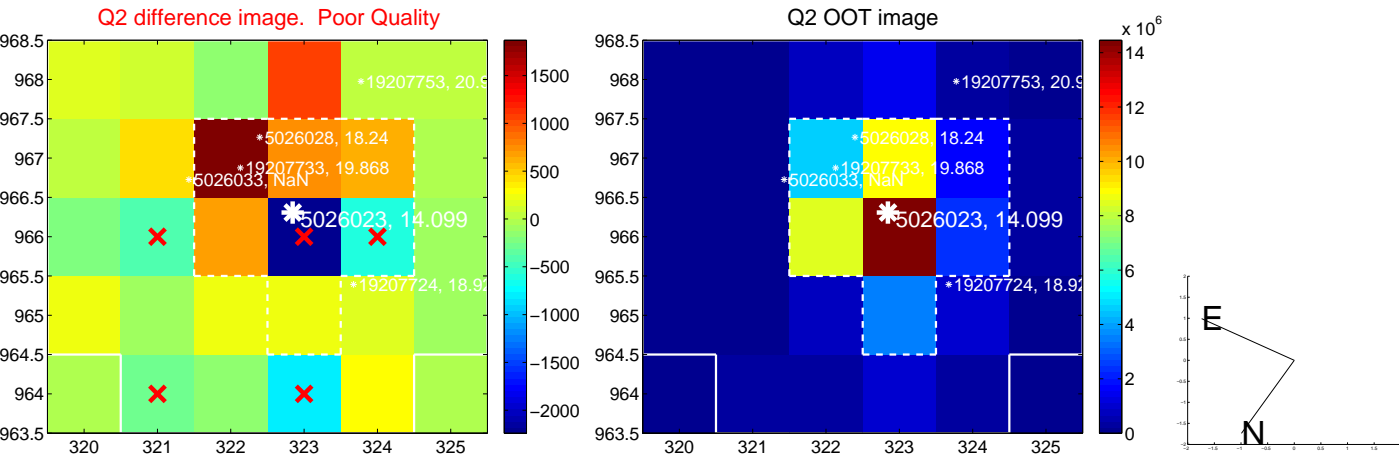
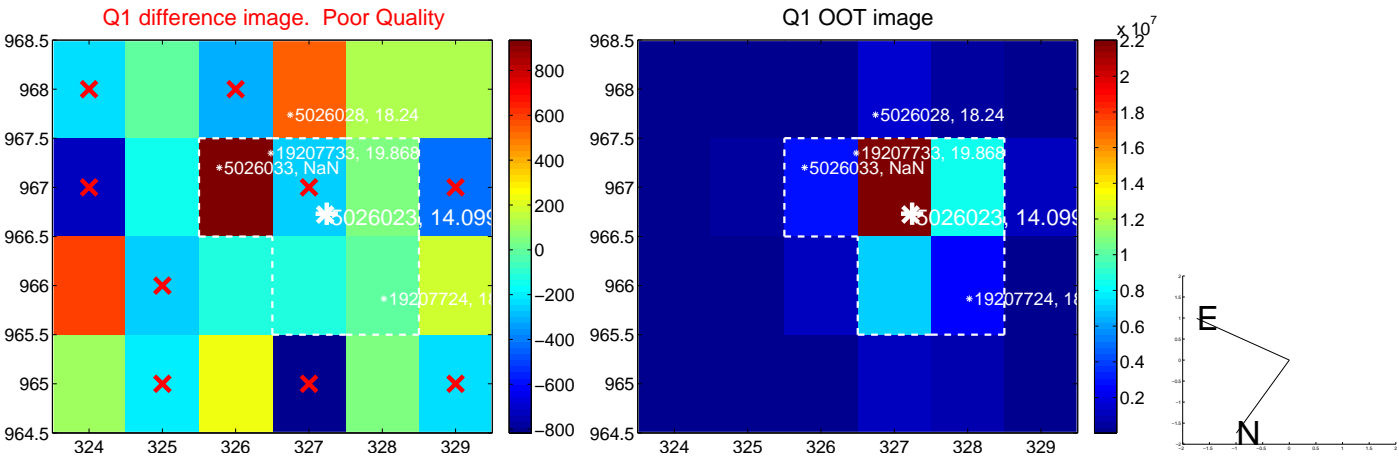
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.643 \pm 1.225	3.79	4.473 \pm 1.277	1.245 \pm 0.624
PRF-fit source offset from KIC position	4.522 \pm 1.247	3.63	4.360 \pm 1.302	1.200 \pm 0.607
photometric centroid source offset	5.94 \pm 2.36	2.51	4.76 \pm 2.40	3.55 \pm 2.30

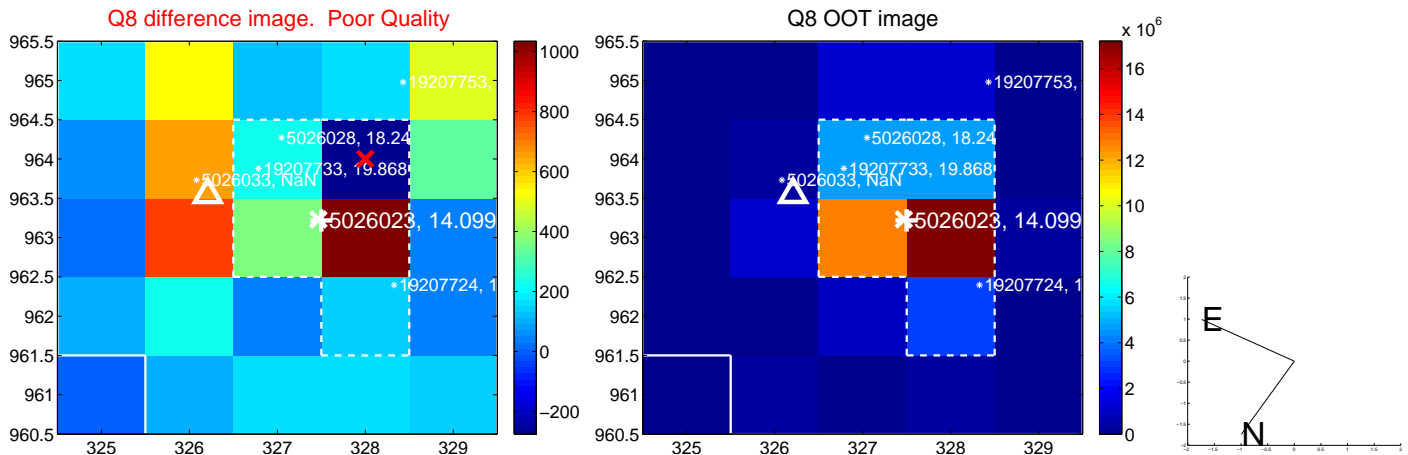
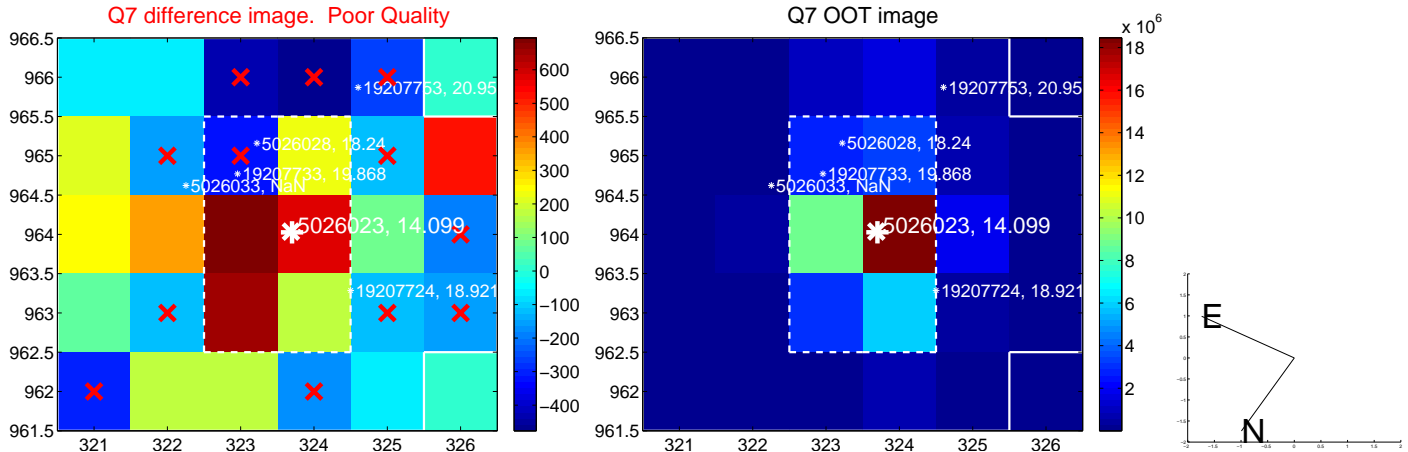
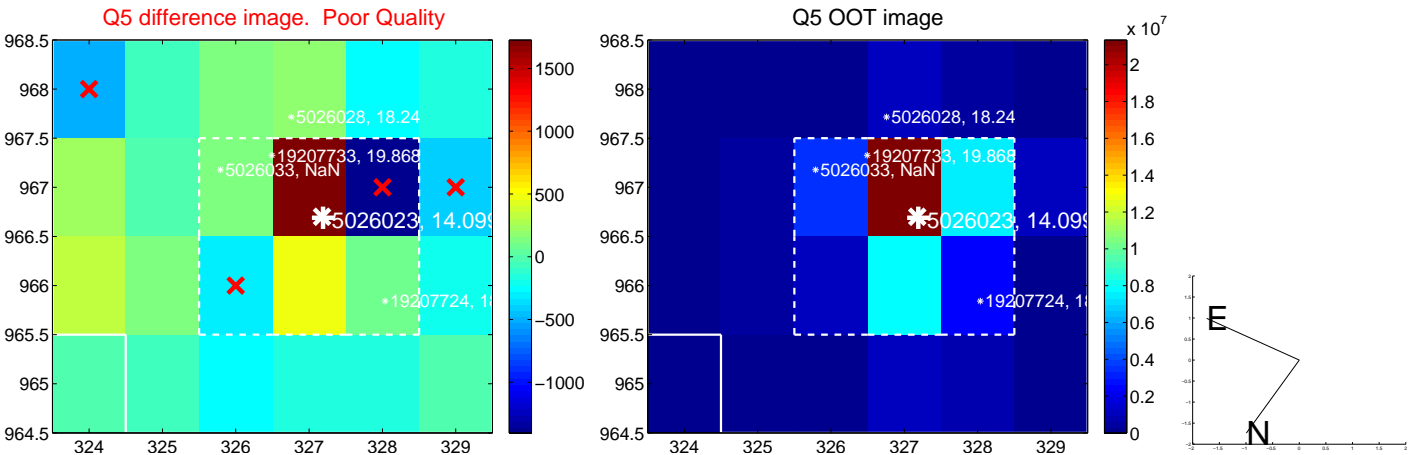


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

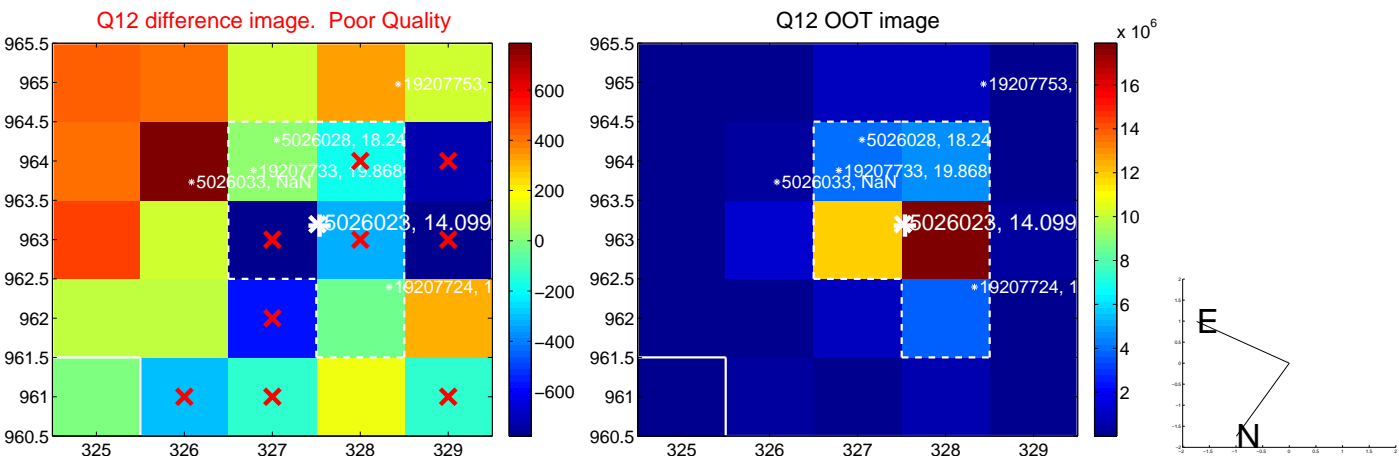
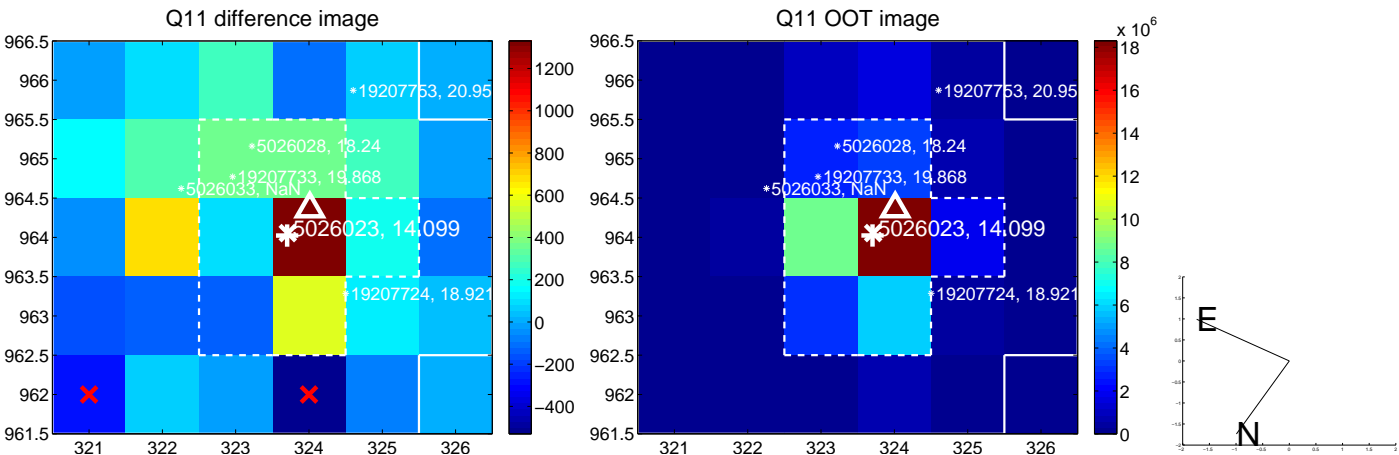
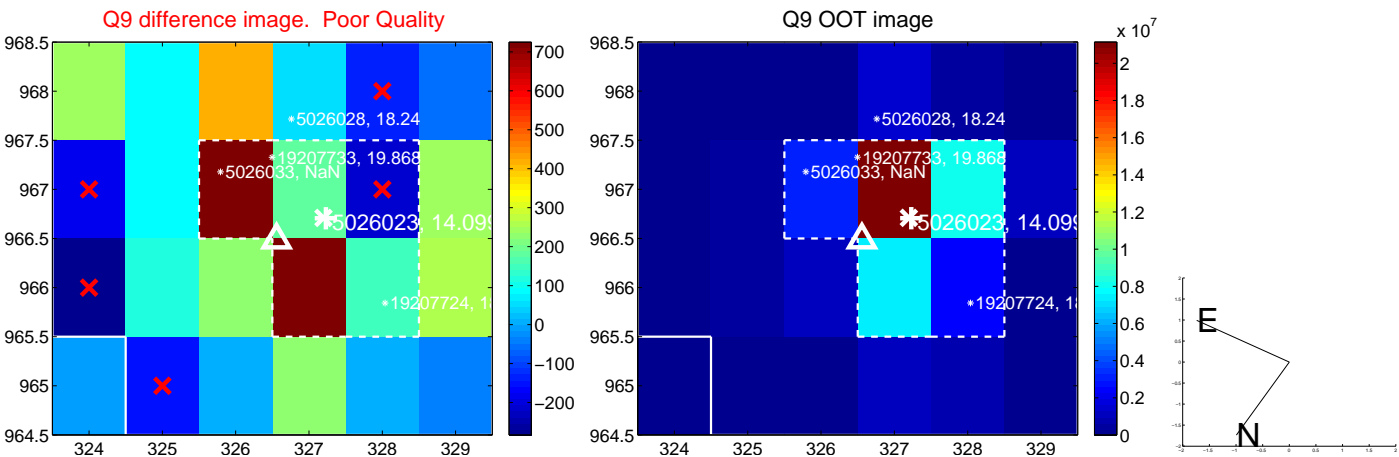
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



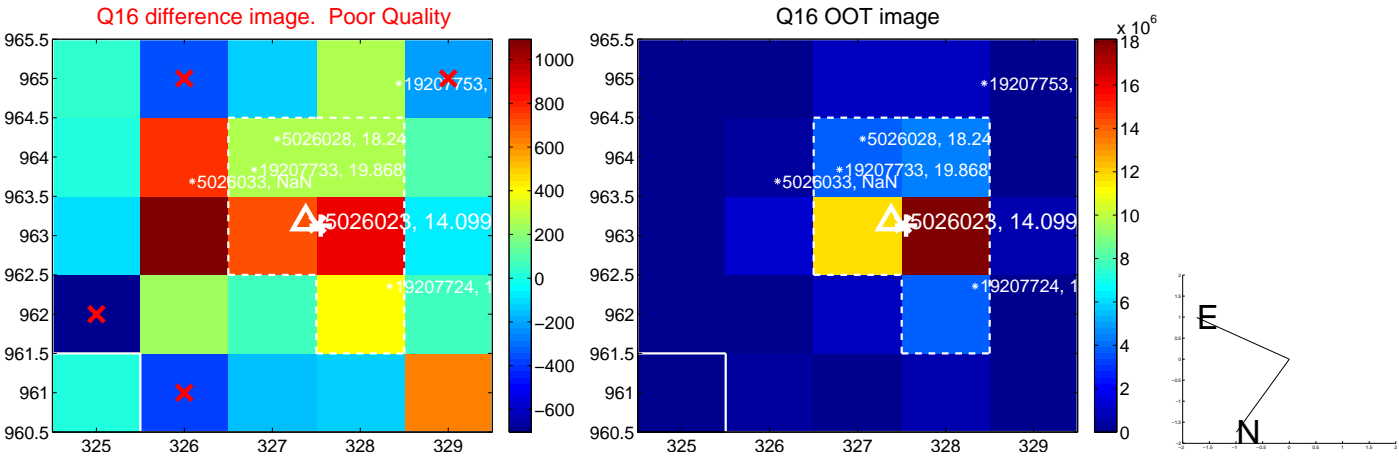
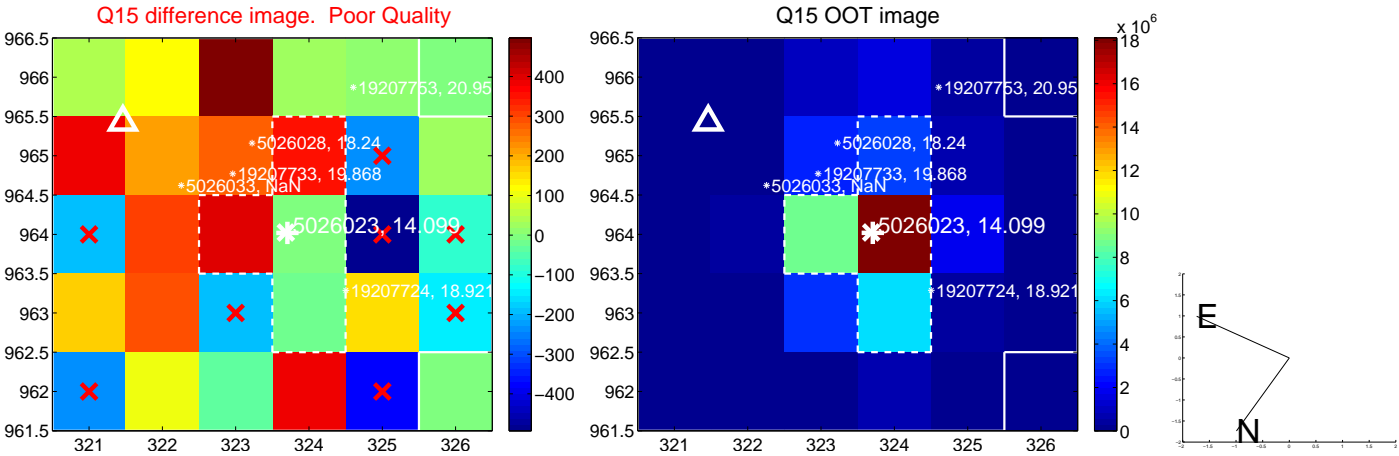
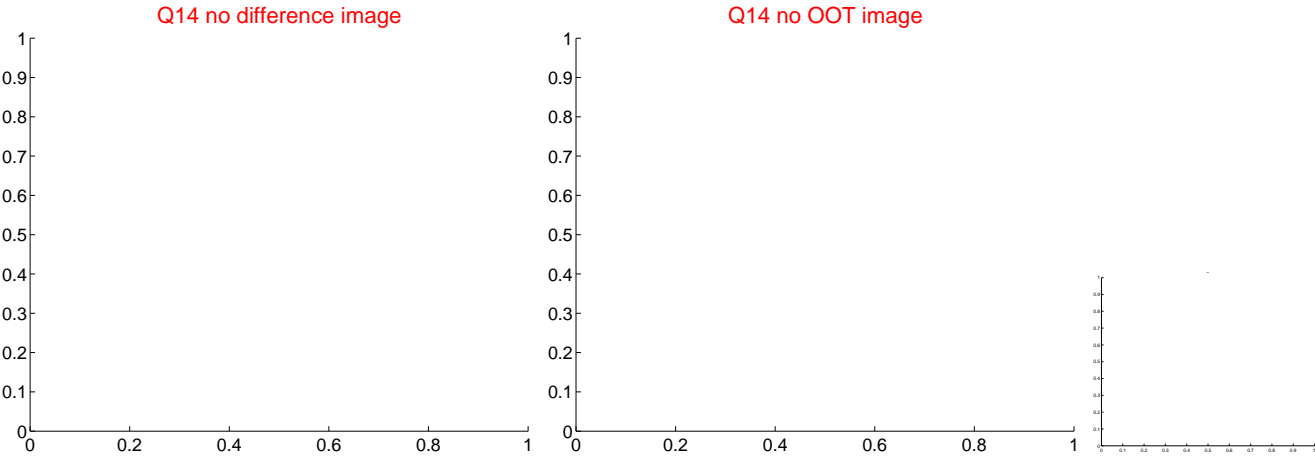
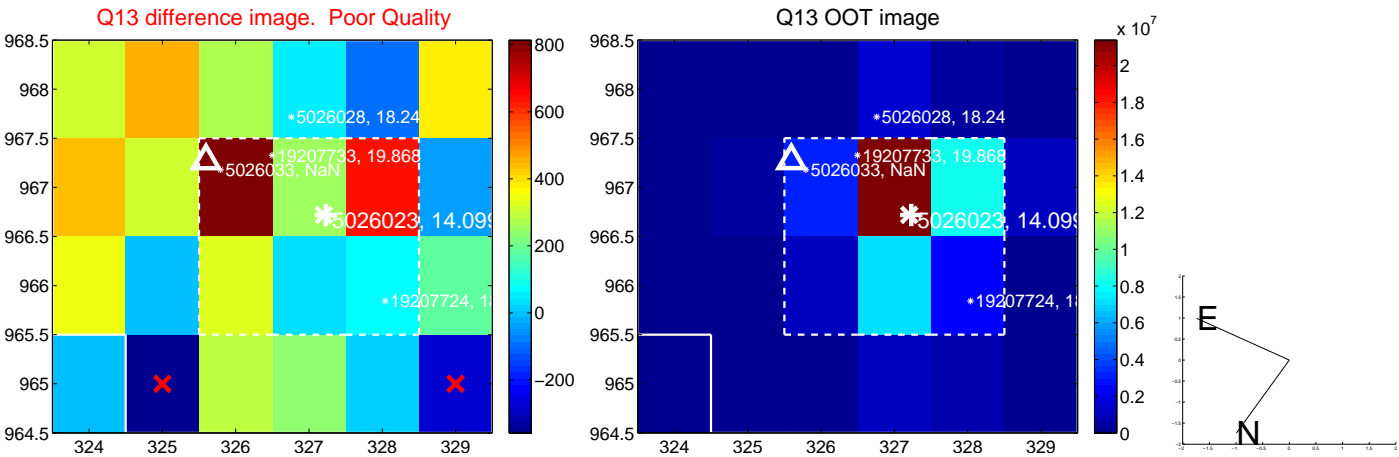
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



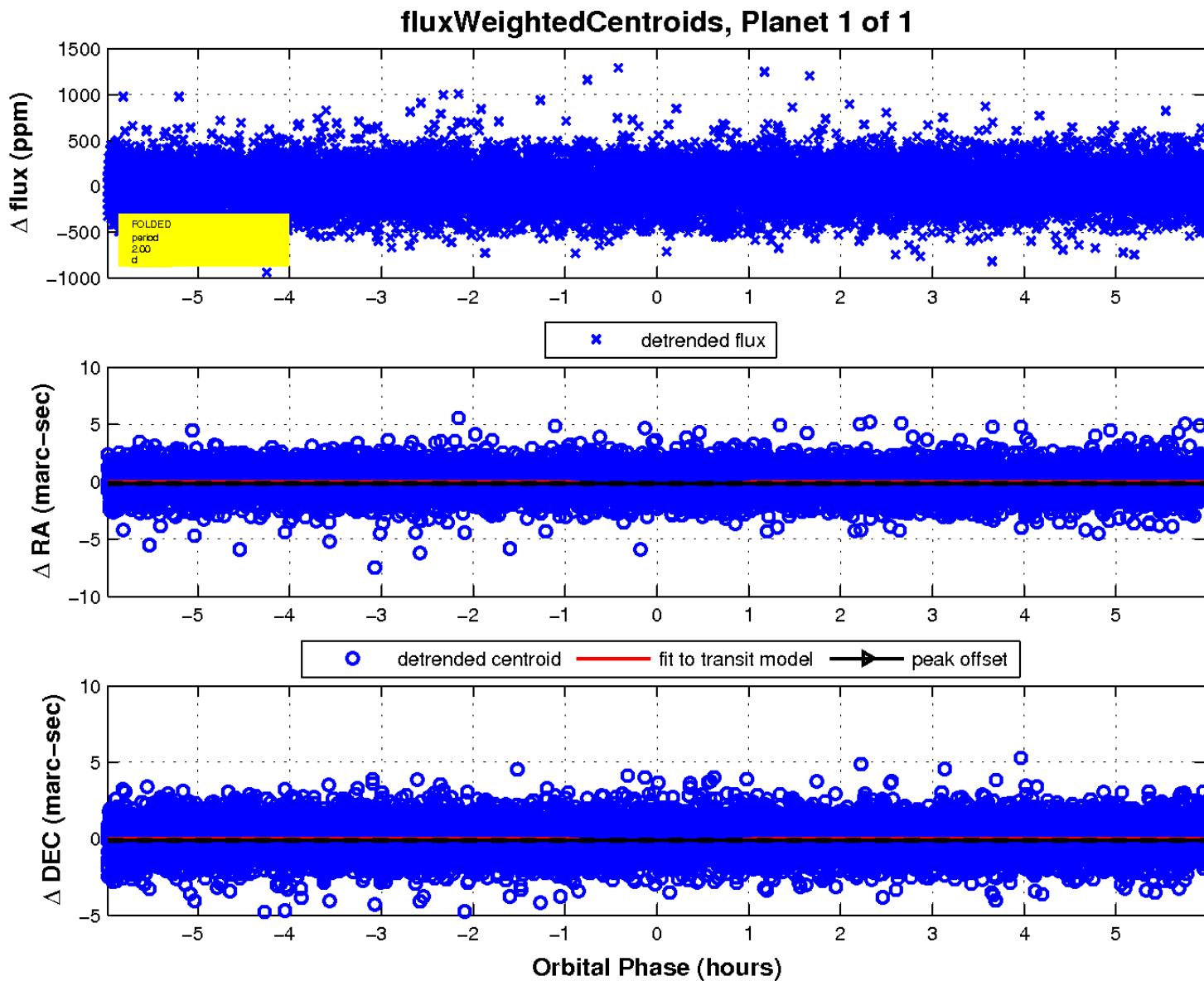
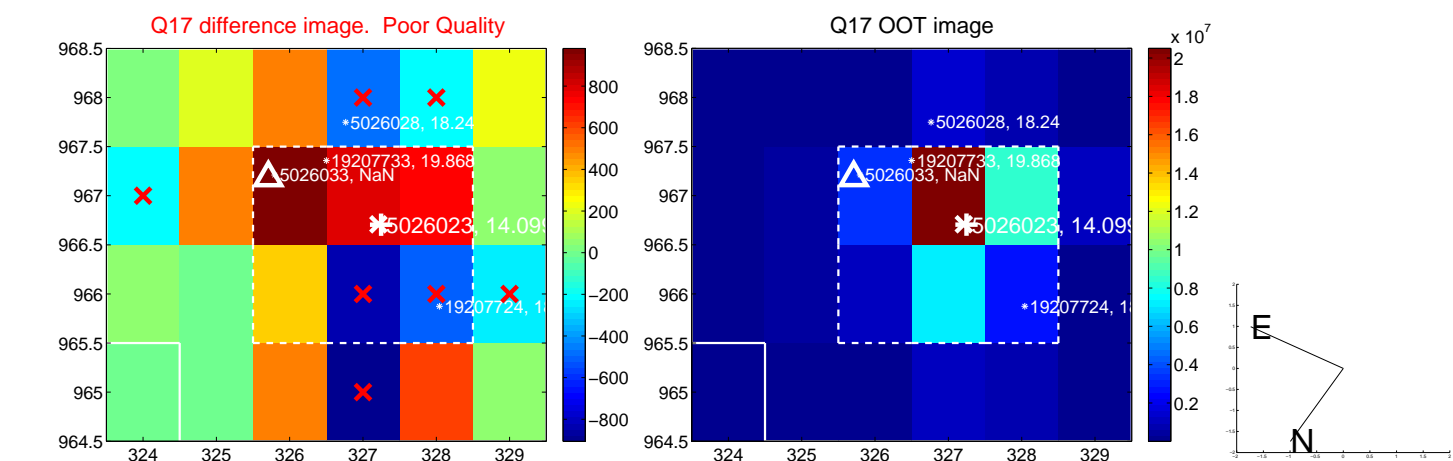
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

