

KIC 006060203

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})
006060203-01	OBS	1059.01	1.022684	132.429452	118.5	1.427	18.1	19.8	1.02	5366	1.34	2139.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006060203-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

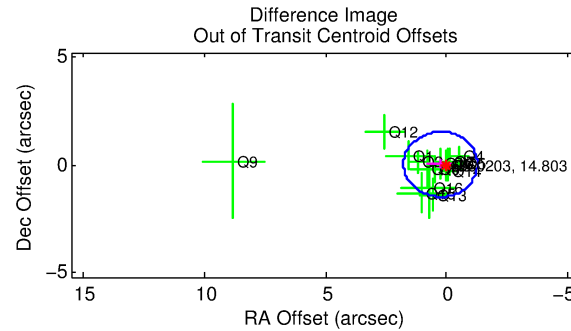
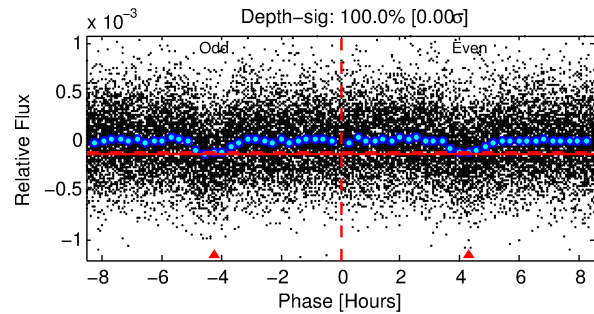
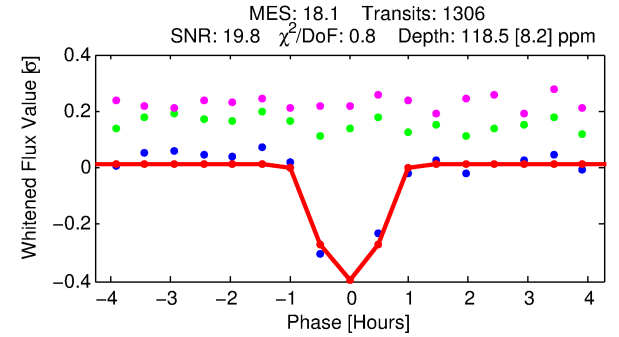
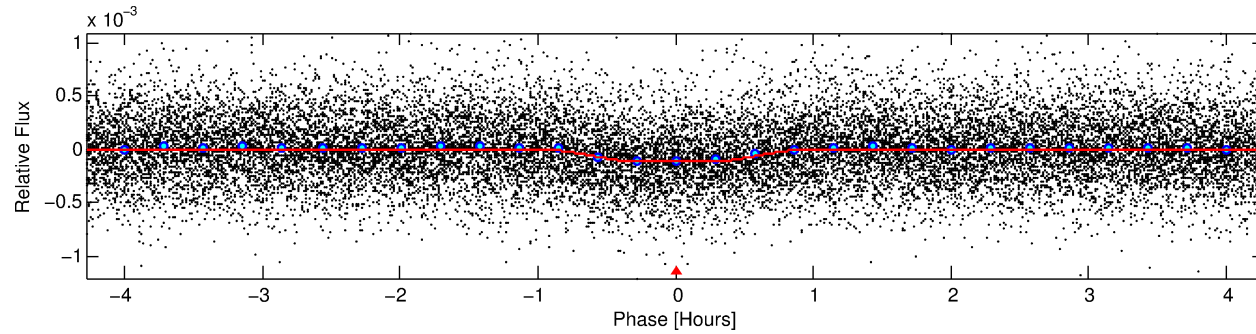
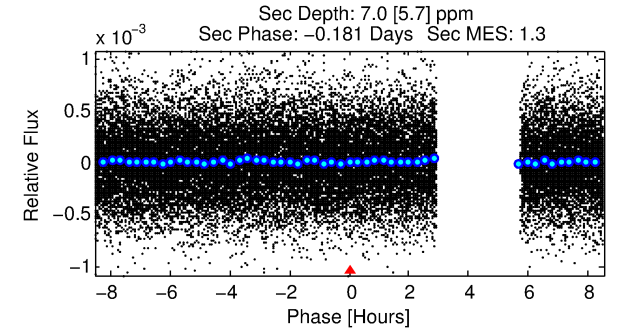
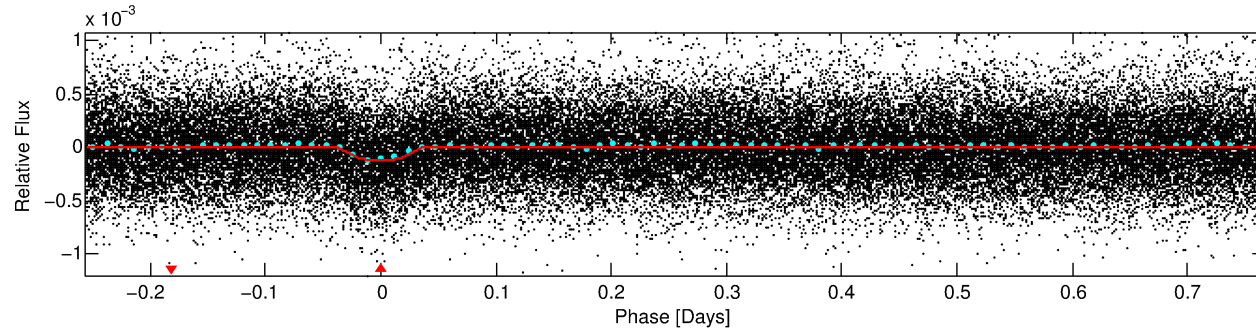
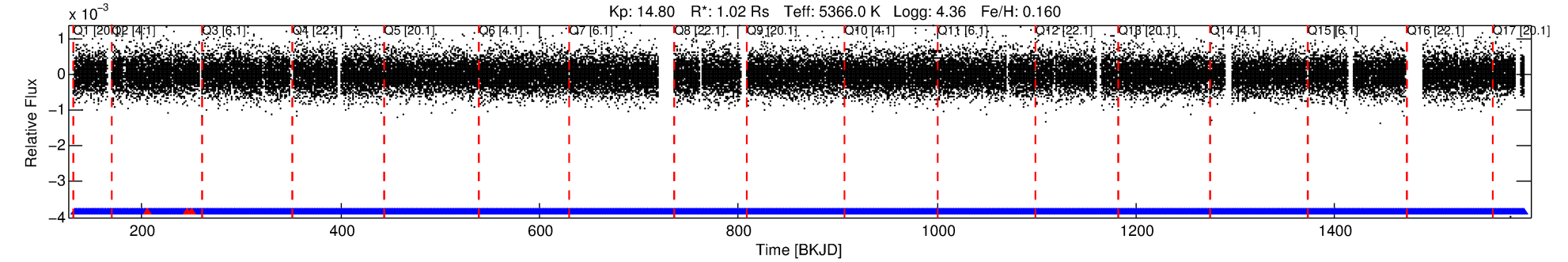
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006060203-01

No Significant Match Found

DV One-Page Summary

KIC: 6060203 Candidate: 1 of 1 Period: 1.023 d
KOI: K01059.01 Corr: 0.961



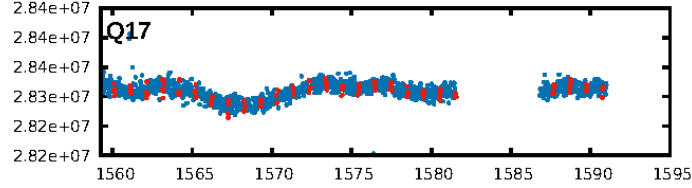
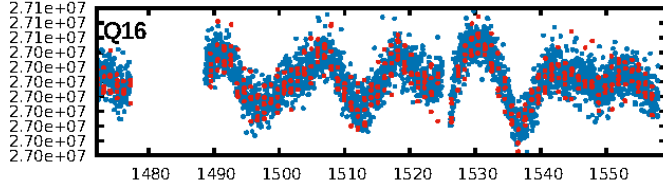
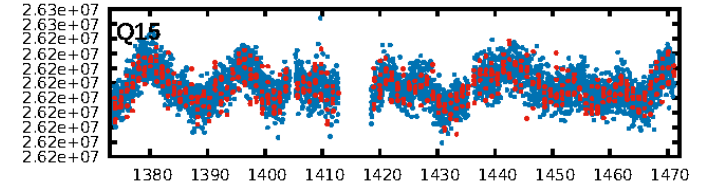
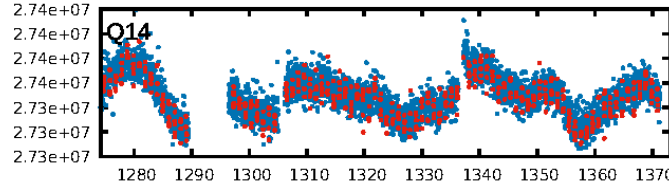
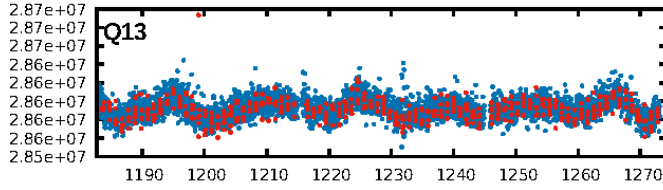
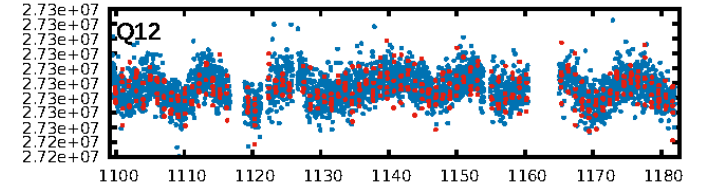
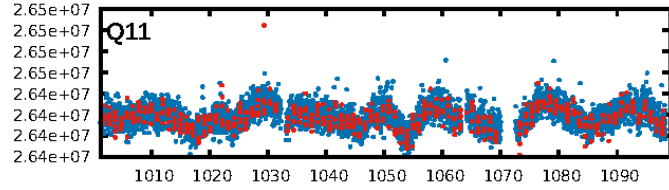
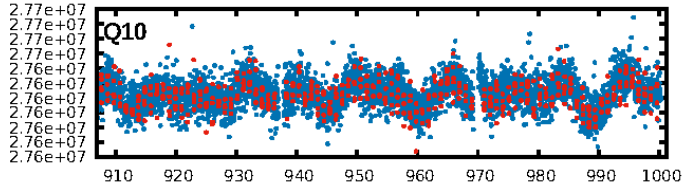
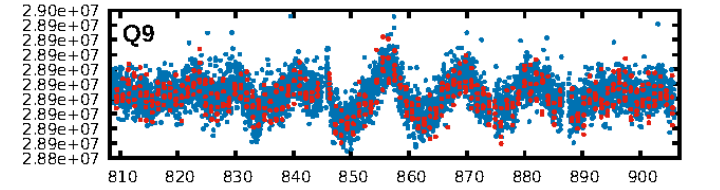
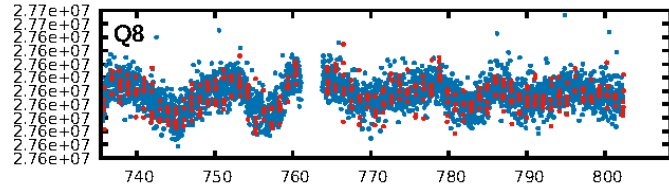
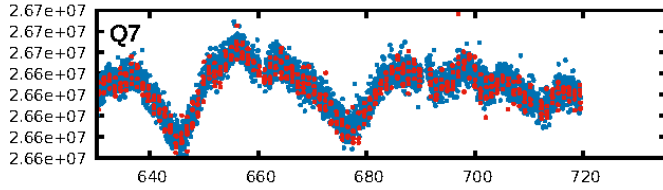
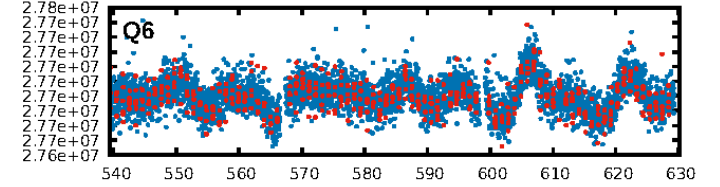
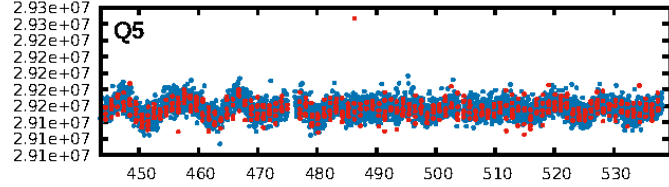
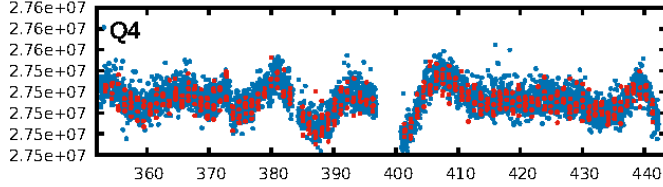
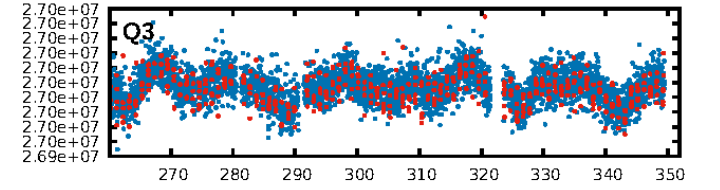
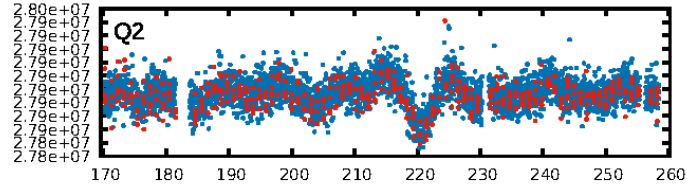
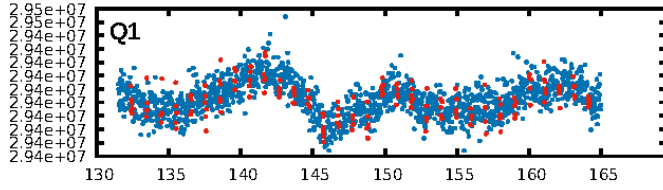
DV Fit Results:

Period = 1.02268 [0.00001] d
Epoch = 132.4295 [0.0011] BKJD
Rp/R* = 0.0121 [0.0047]
a/R* = 2.70 [3.86]
b = 0.90 [0.36]
Seff = 2139.15 [512.56]
Teff = 1734 [104] K
Rp = 1.34 [0.55] Re
a = 0.0190 [0.0027] AU
Ag = 0.77 [0.89] [-0.26σ]
Teffp = 2512 [709] K [1.09σ]

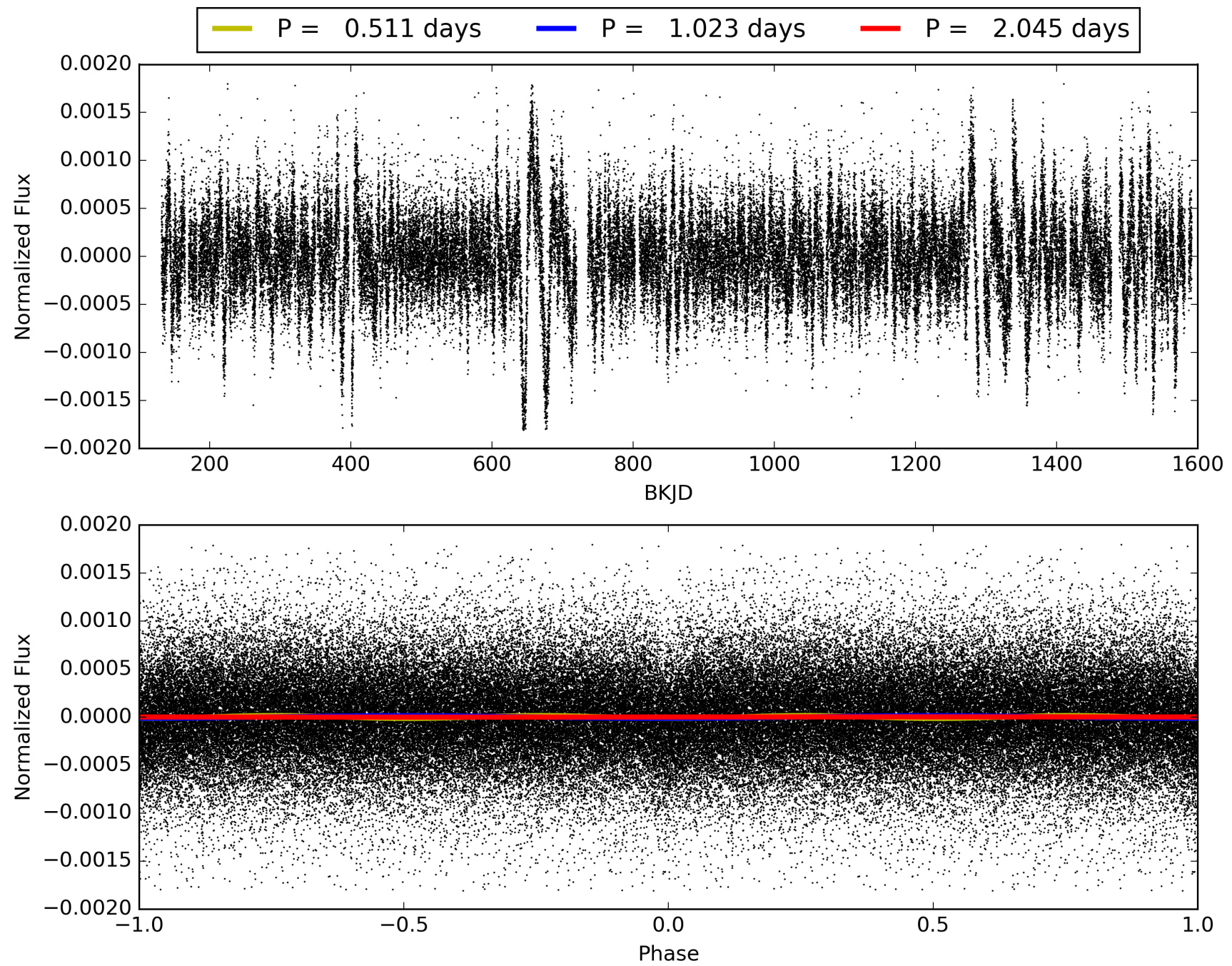
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.17e-73
RollingBand-fgt: 1.00 [1245/1248]
GhostDiagnostic-chr: 1.89
Centroid-sig: 22.5%
Centroid-so: 0.858 arcsec [1.16σ]
OotOffset-rm: 0.259 arcsec [0.51σ]
KicOffset-rm: 0.310 arcsec [0.59σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.69 [11/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006060203-01, PDC Light Curves

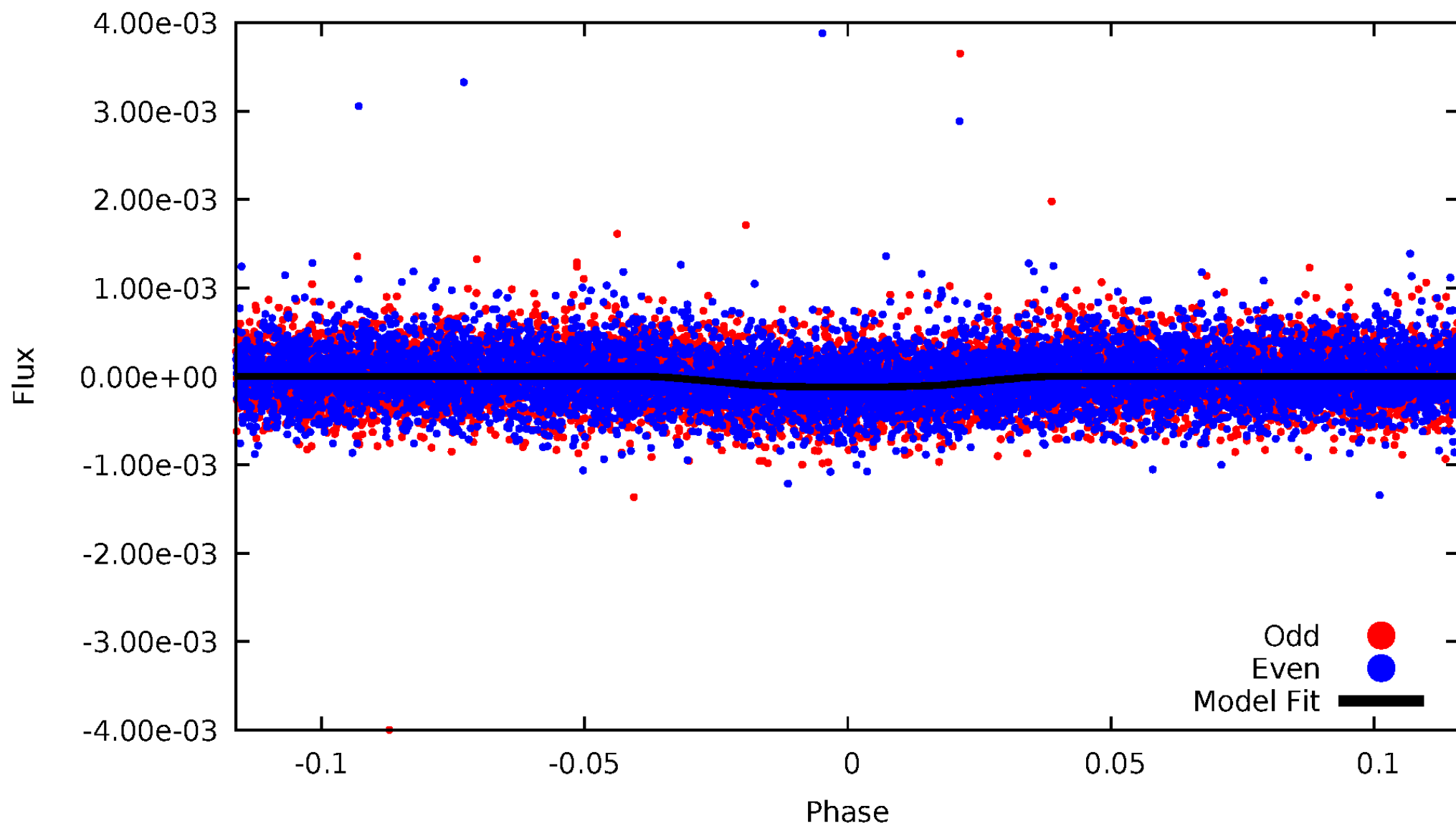


TCE 006060203-01



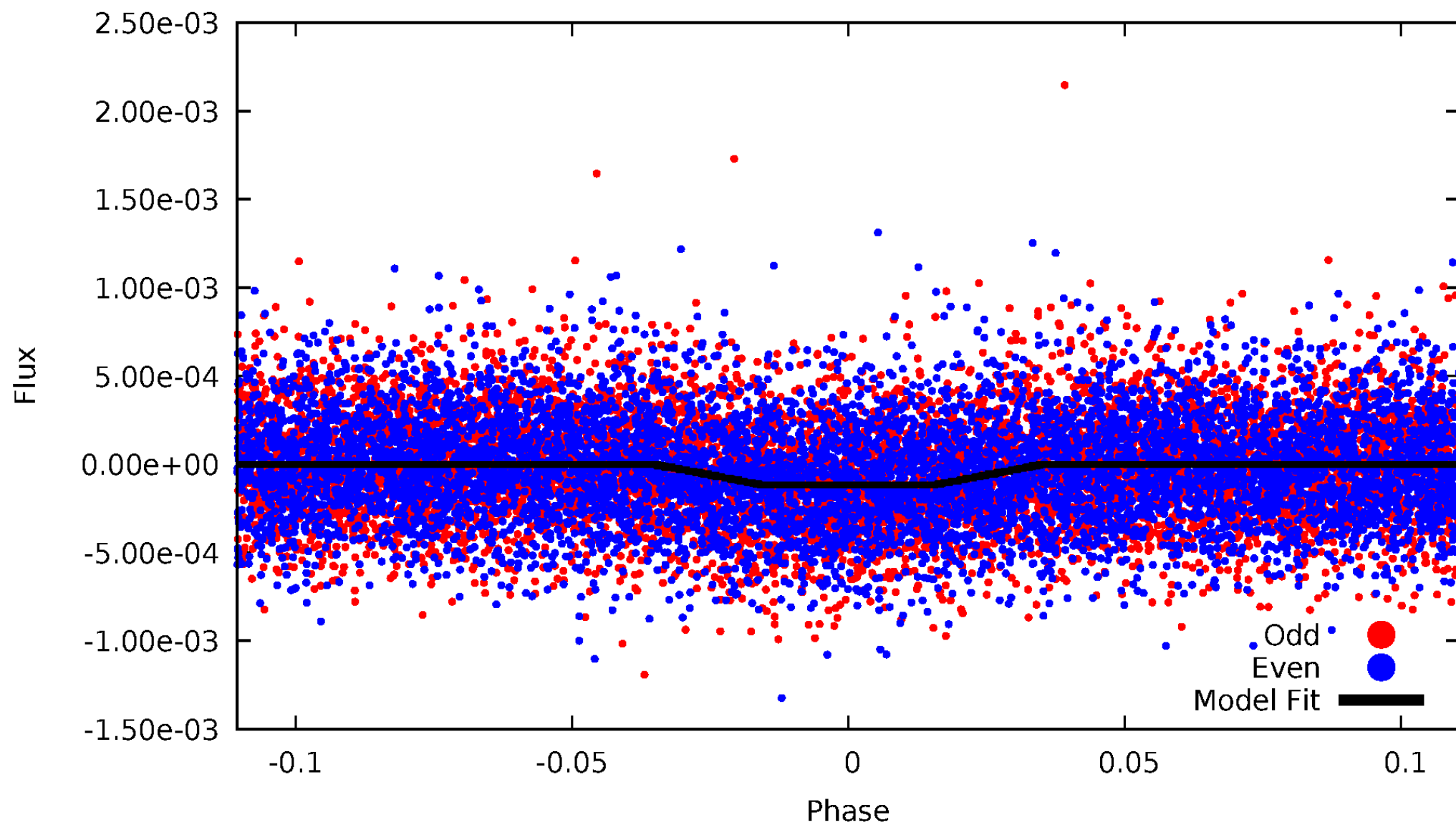
DV Odd/Even

TCE 006060203-01



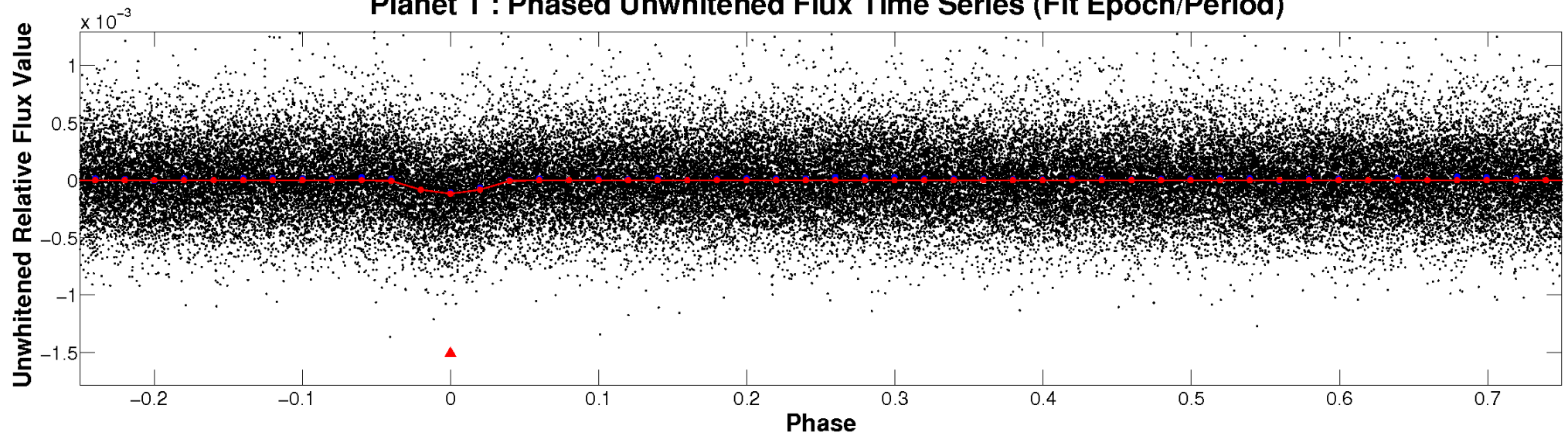
ALT Odd/Even

TCE 006060203-01

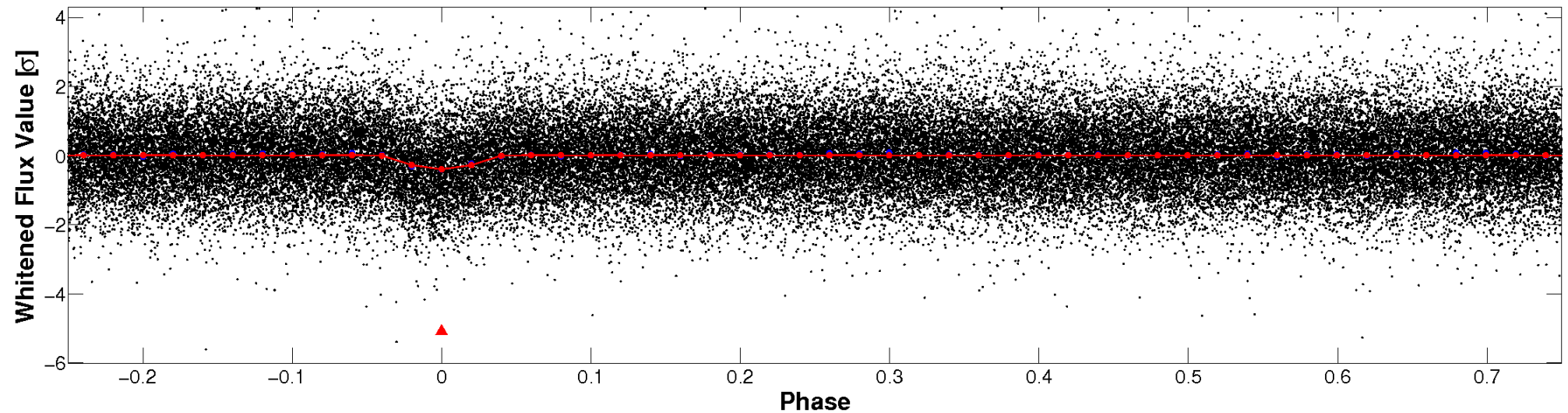


Non-Whitened Vs. Whitened Light Curve

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

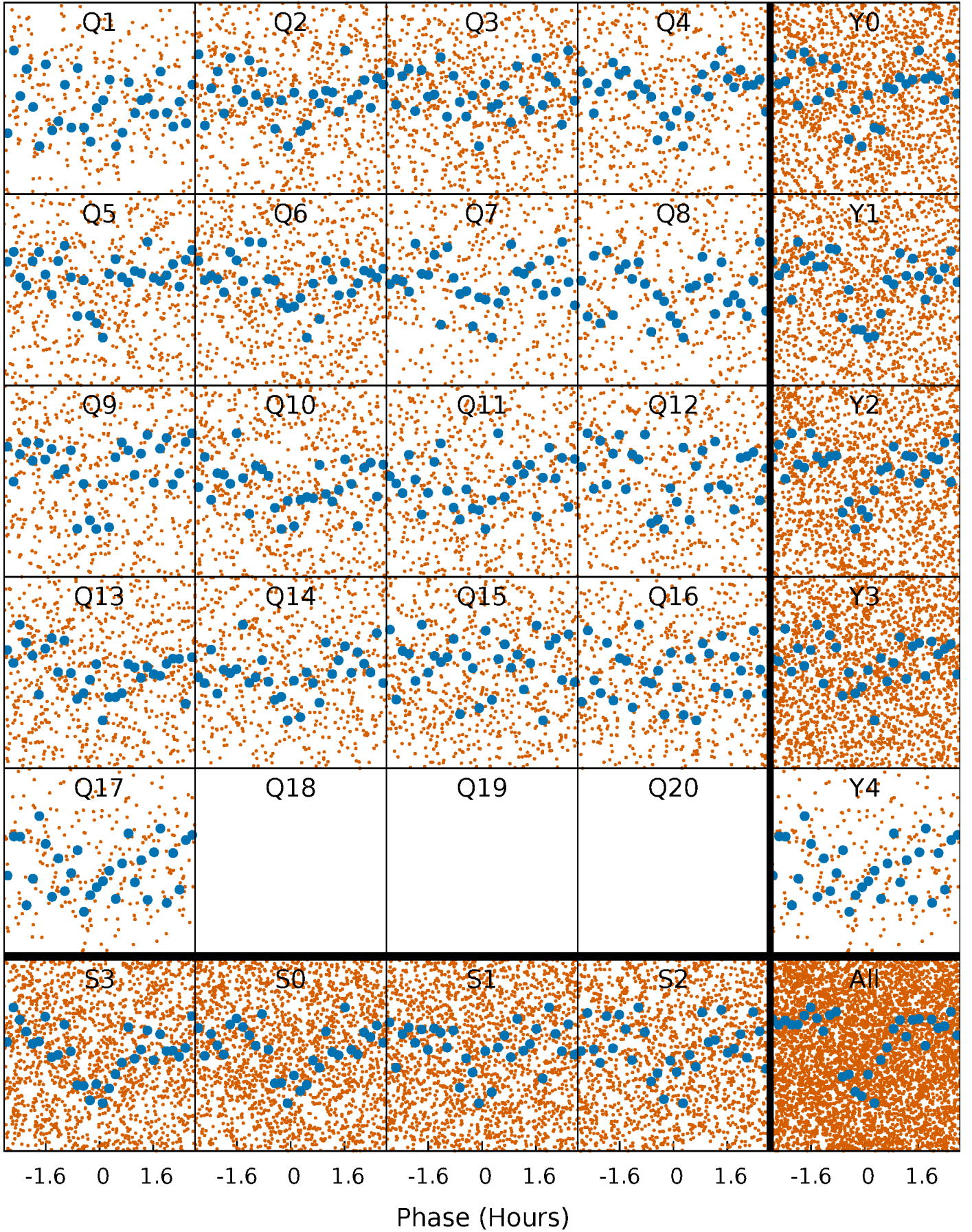


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



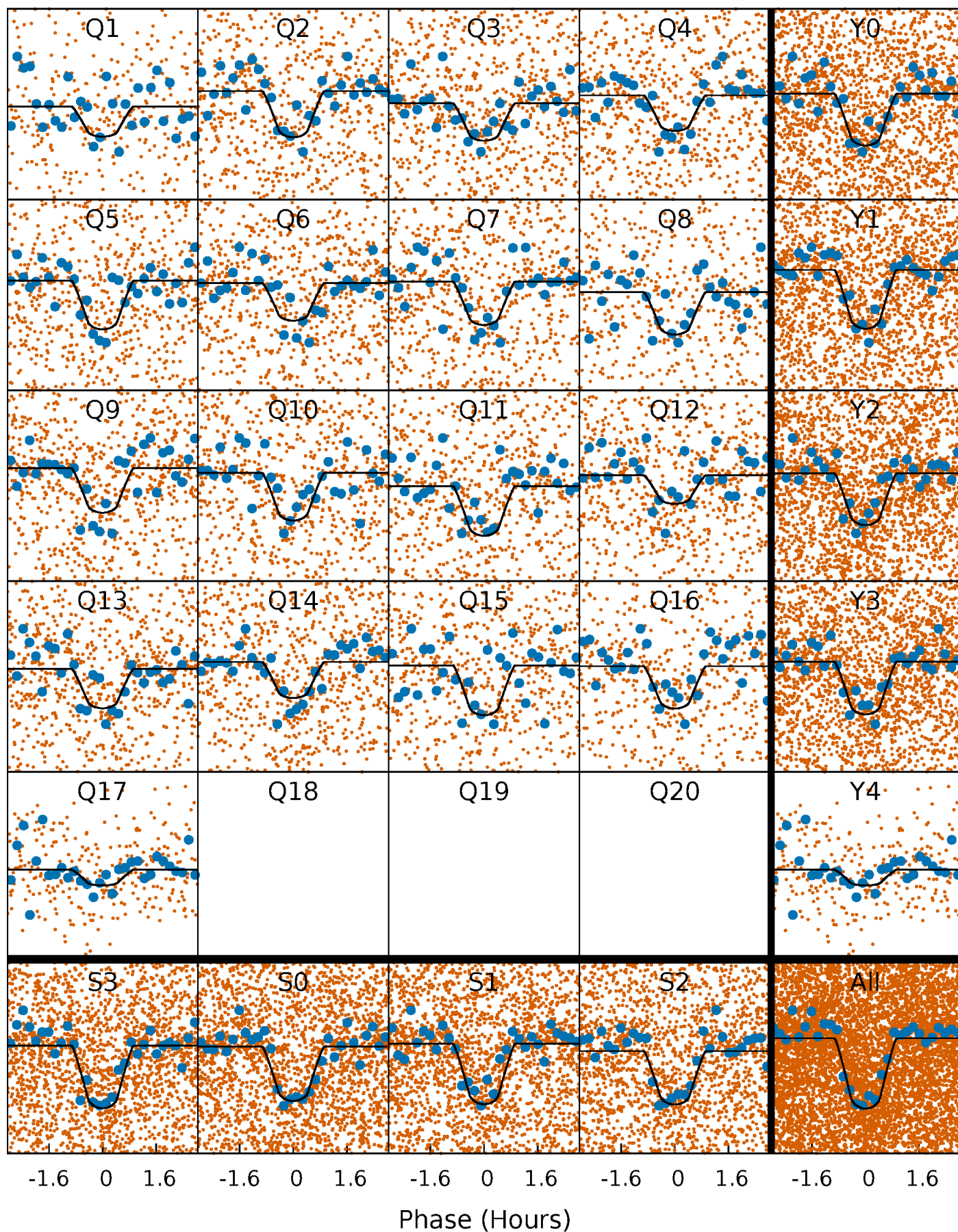
PDC Quarter-Phased Transit Curves

TCE 006060203-01 P= 1.022684 Days $T_0=132.429452$ (BKJD)



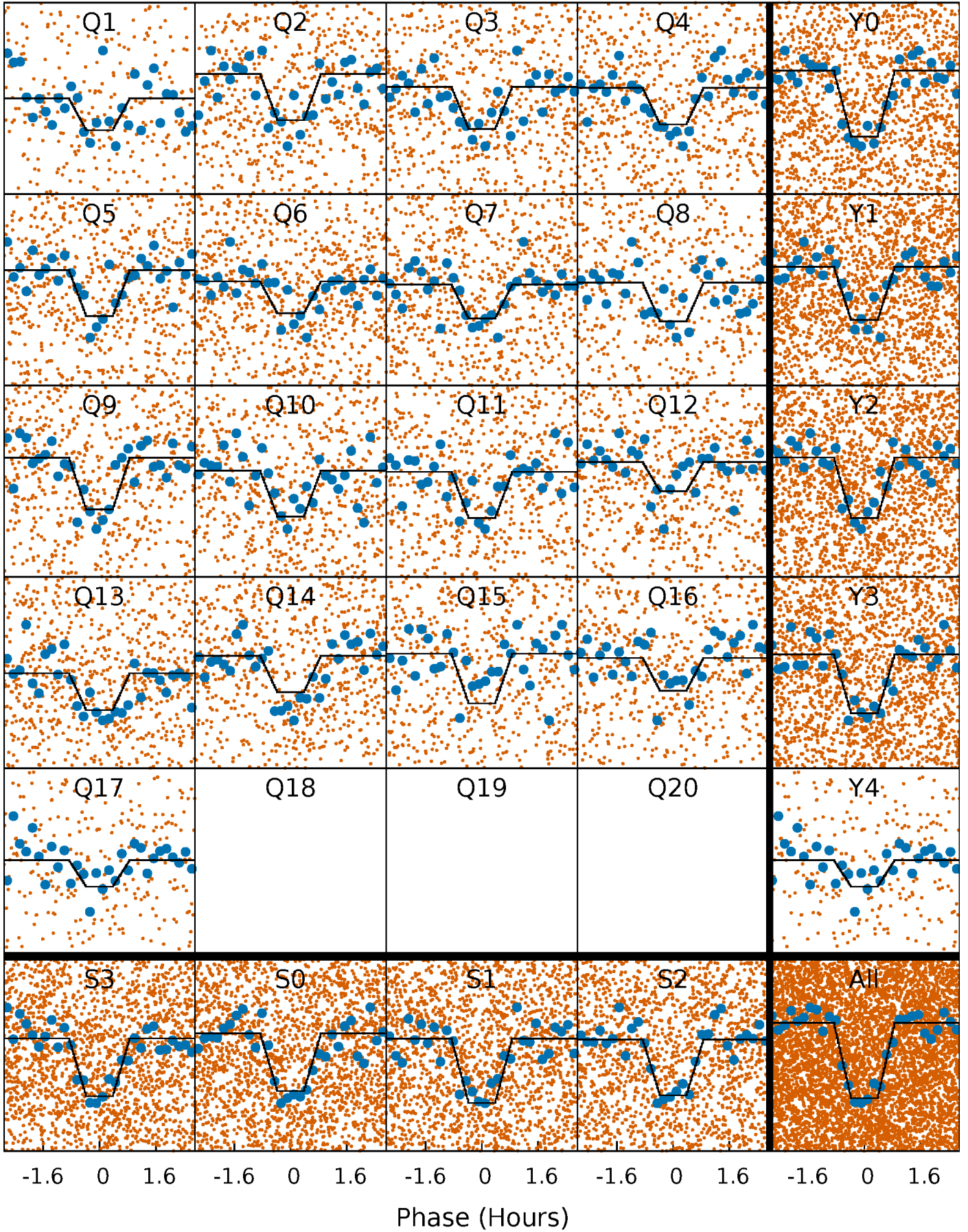
DV Quarter-Phased Transit Curves

TCE 006060203-01 P= 1.022684 Days $T_0=132.429452$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

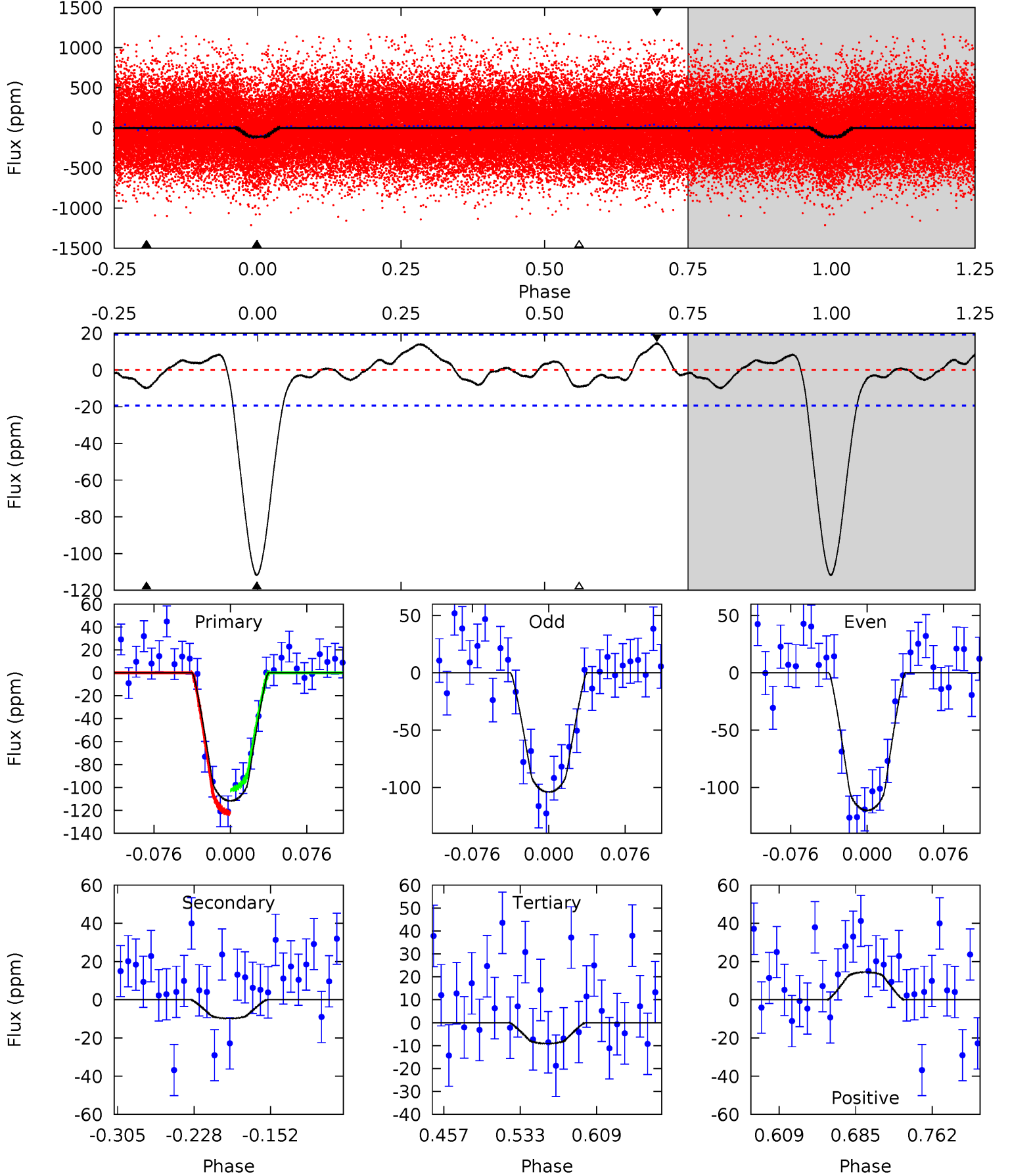
TCE 006060203-01 P= 1.022679 Days $T_0=132.431652$ (BKJD)



DV Model-Shift Uniqueness Test

006060203-01, P = 1.022684 Days, E = 131.406768 Days

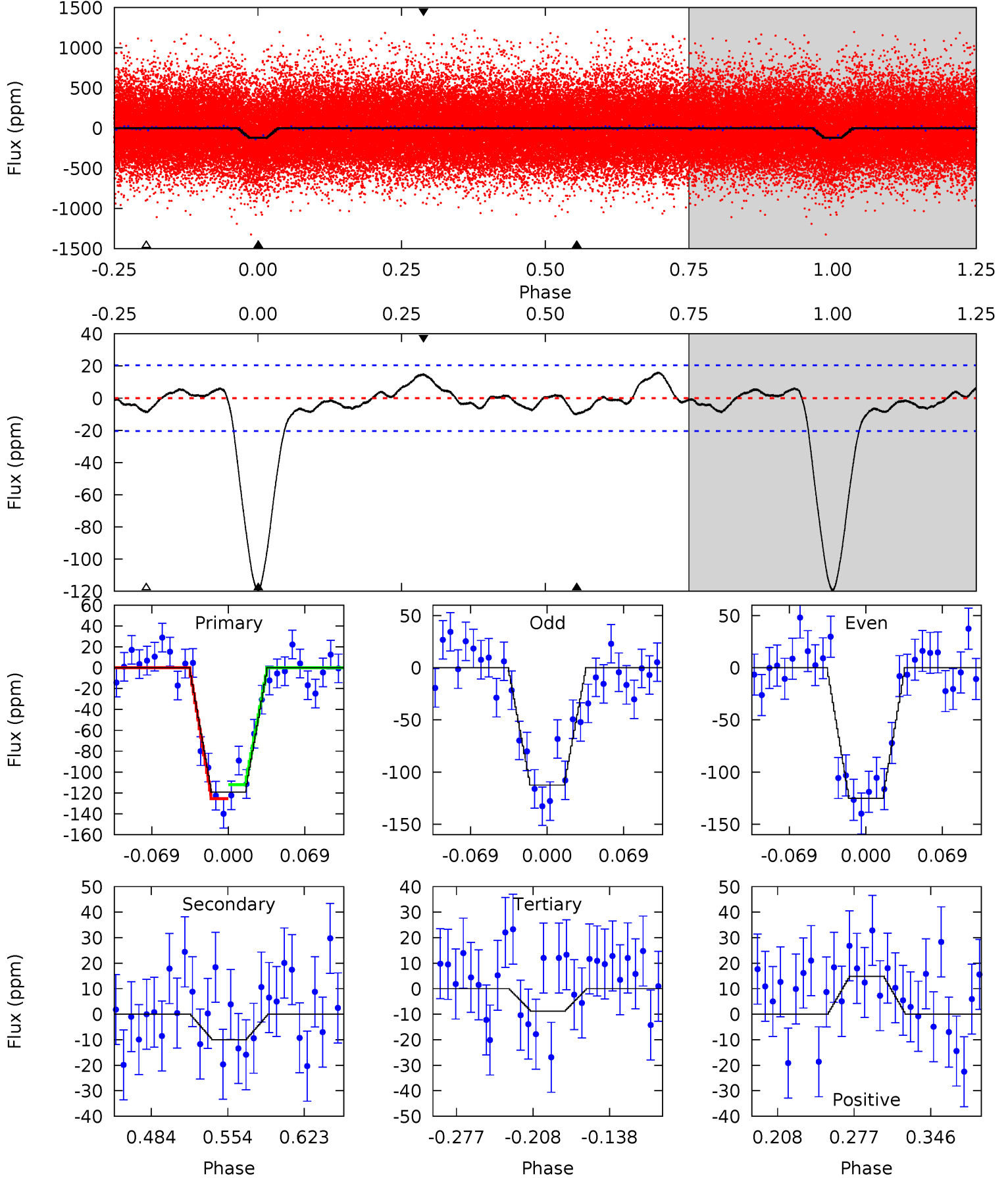
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.7	2.35	2.17	3.46	4.62	1.77	1.43	24.6	23.3	0.17	-1.11	1.91	0.92	0.11	2.45



Alt Model-Shift Uniqueness Test

006060203-01, P = 1.022679 Days, E = 131.408973 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.1	2.27	2.00	3.38	4.64	1.82	1.38	25.1	23.7	0.27	-1.11	1.43	0.94	0.12	1.52



Stellar Parameters For KIC 006060203

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5366^{+80}_{-72}	$4.363^{+0.138}_{-0.080}$	$0.160^{+0.150}_{-0.150}$	$1.020^{+0.118}_{-0.145}$	$0.875^{+0.064}_{-0.032}$	$1.160^{+0.675}_{-0.306}$
	+1%/-1%	+3%/-2%	+94%/-94%	+12%/-14%	+7%/-4%	+58%/-26%
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 006060203-01 / KOI 1059.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10 ± 4	$1.31^{+0.55}_{-0.50}$	2411^{+90}_{-103}	3100^{+711}_{-584}	$1.091^{+2.134}_{-0.637}$
Alt.	-10 ± 4	$1.21^{+0.50}_{-0.54}$	2410^{+84}_{-97}	3250^{+764}_{-558}	$1.362^{+3.008}_{-0.812}$

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 $A_{obs} \gg 1.0$

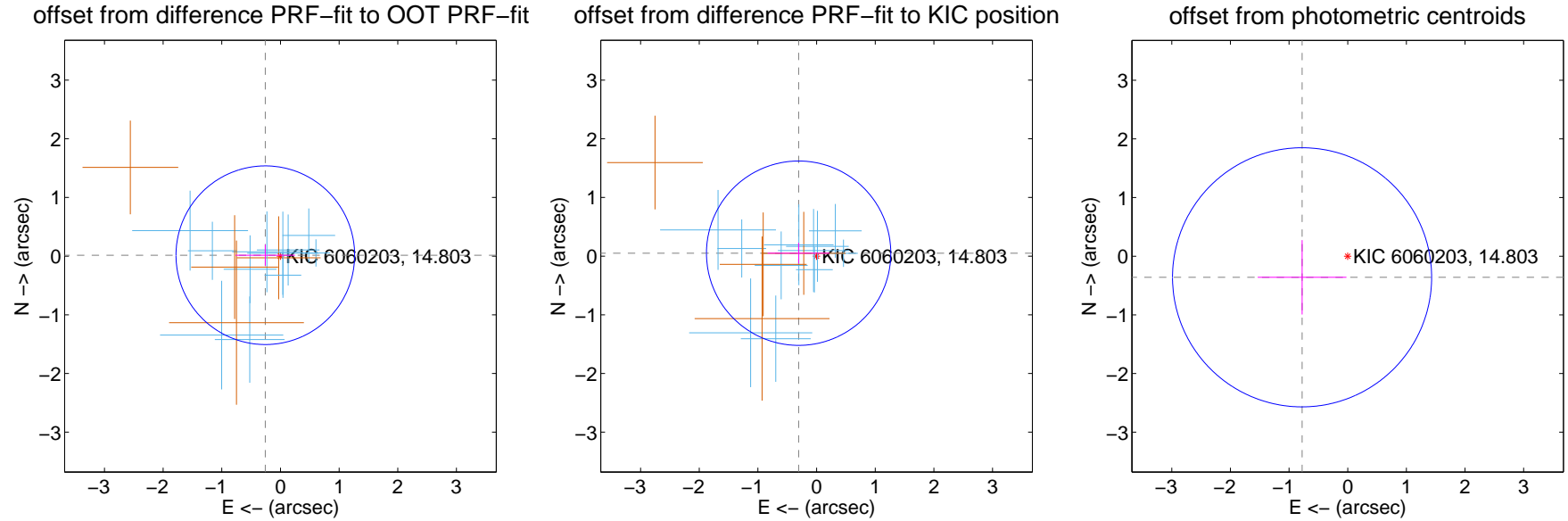
DV Centroid Data

Supplemental centroid analysis for 006060203-01. Kepler magnitude: 14.80. Transit SNR 19.82

There are 11 quarters with good PRF difference image offsets

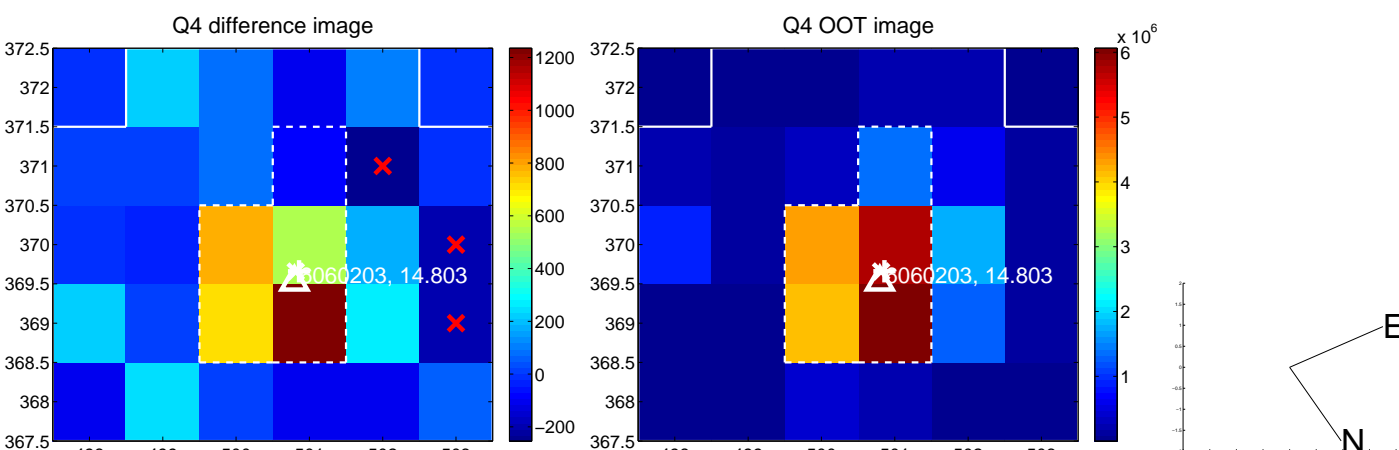
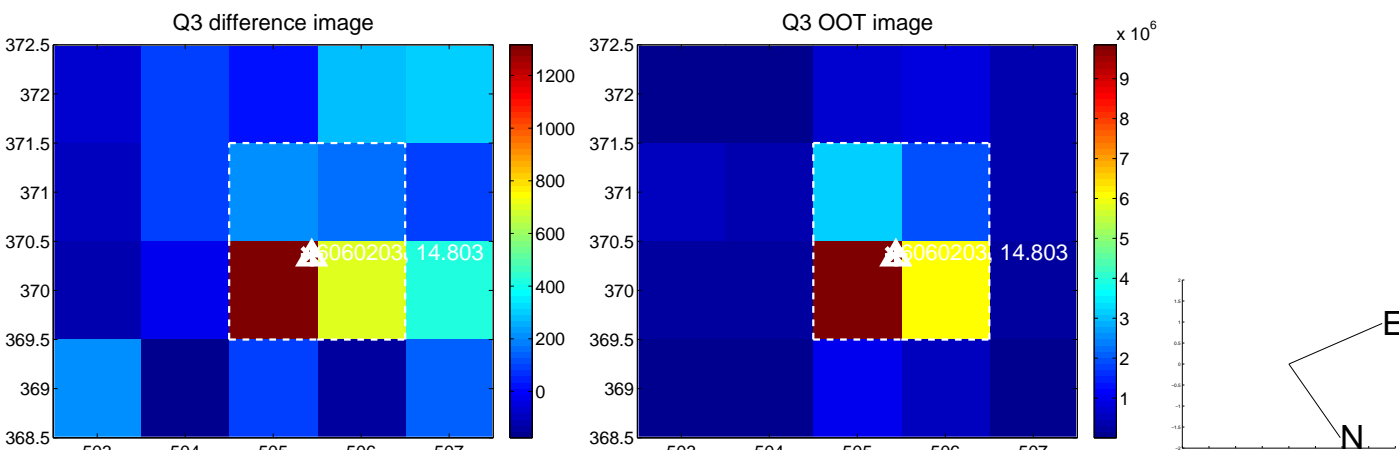
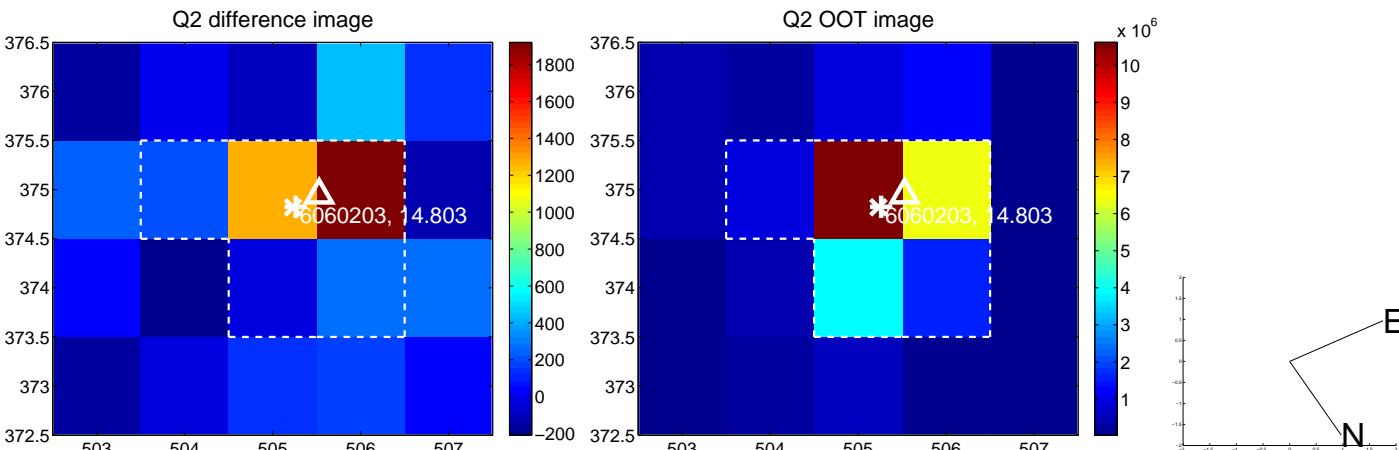
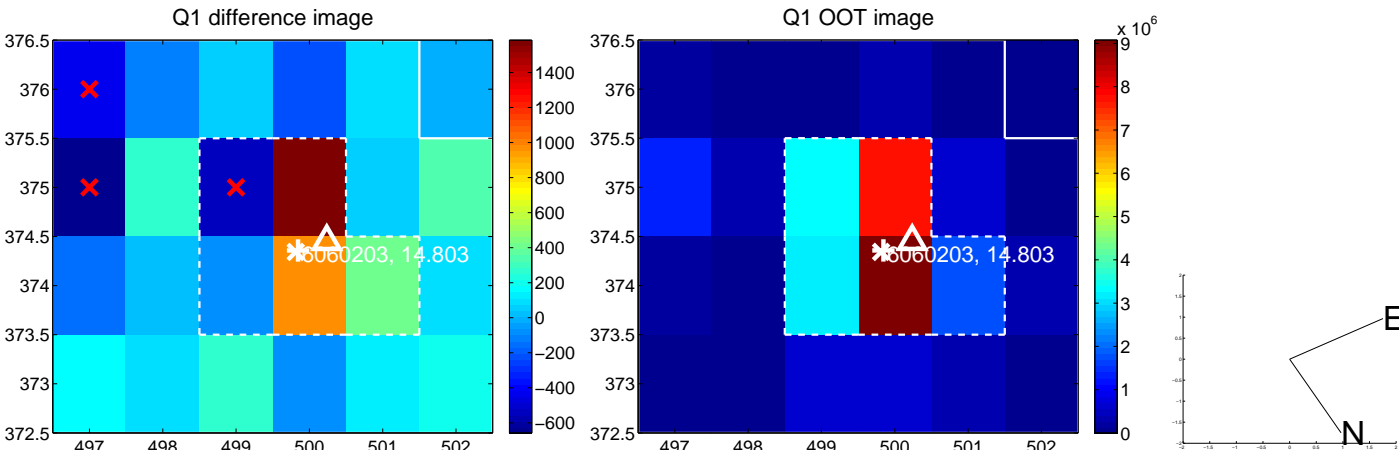
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.259 ± 0.508	0.51	0.258 ± 0.507	0.016 ± 0.180
PRF-fit source offset from KIC position	0.310 ± 0.524	0.59	0.306 ± 0.527	0.050 ± 0.176
photometric centroid source offset	0.86 ± 0.74	1.16	0.78 ± 0.76	-0.36 ± 0.63

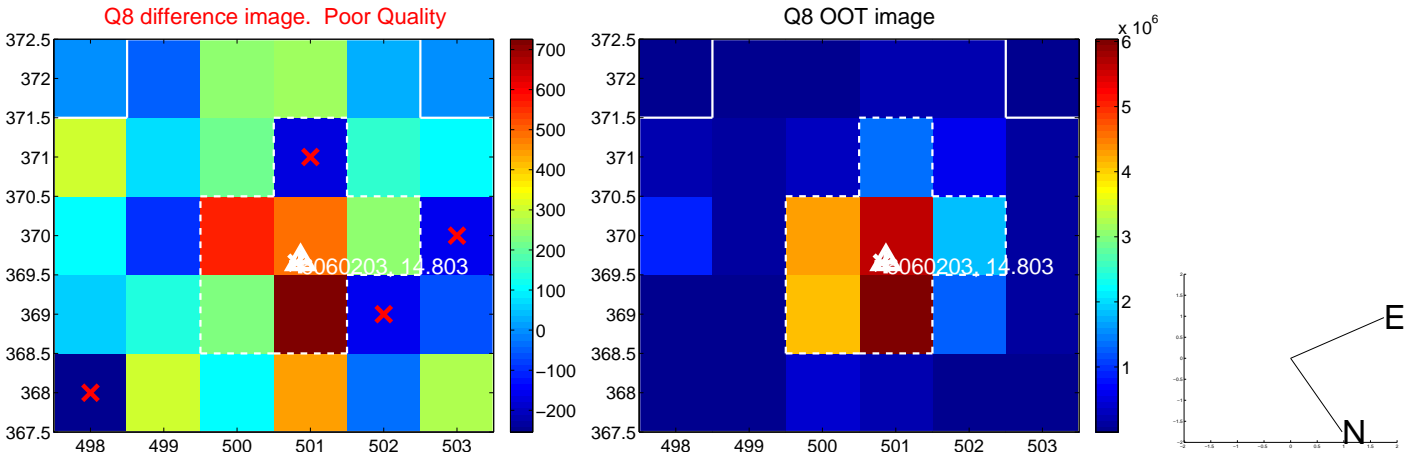
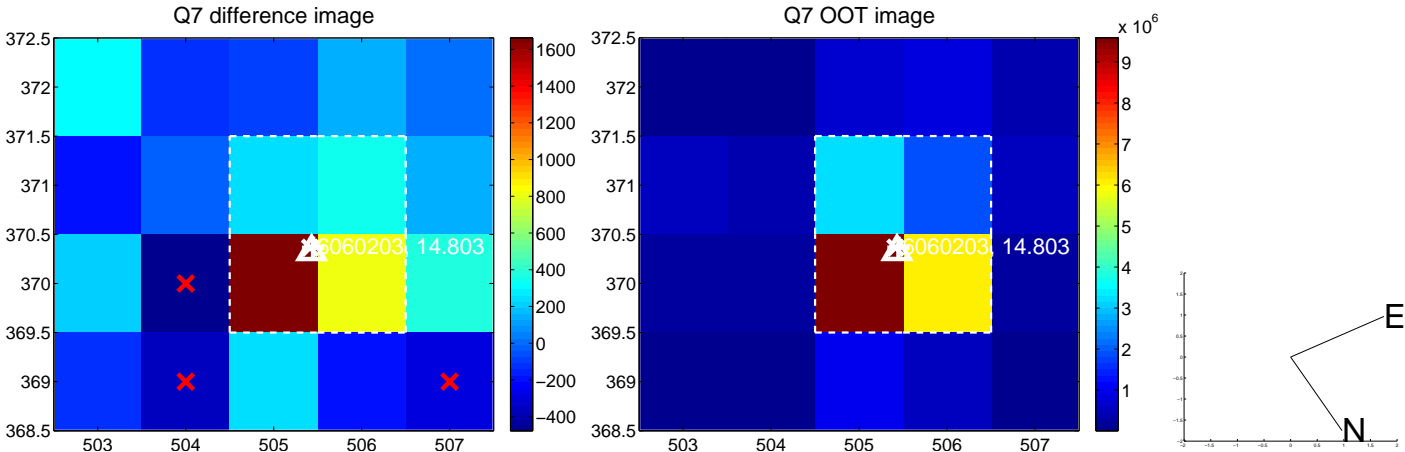
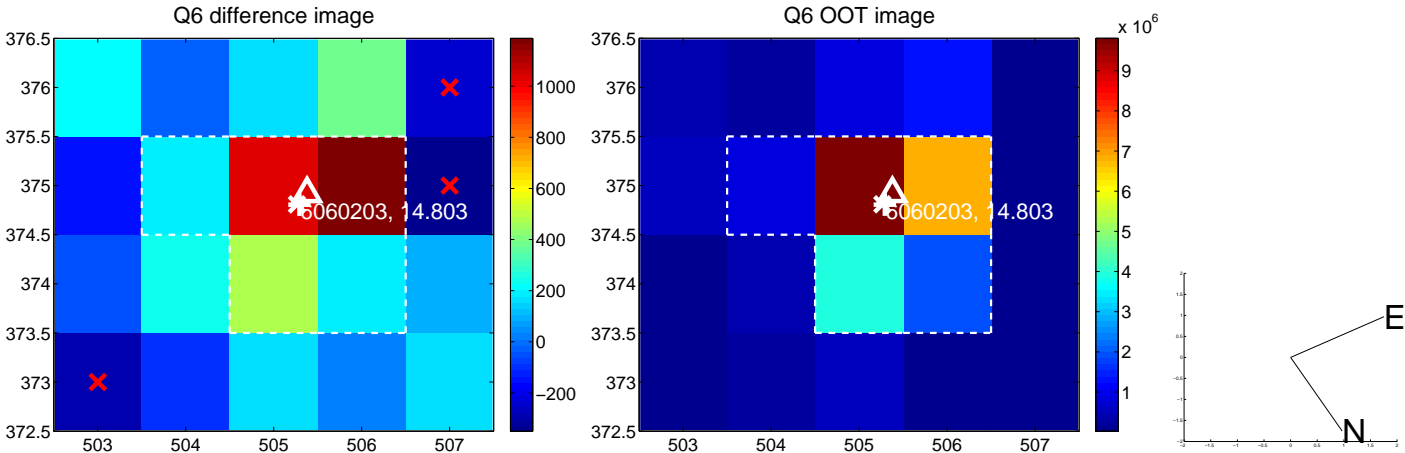
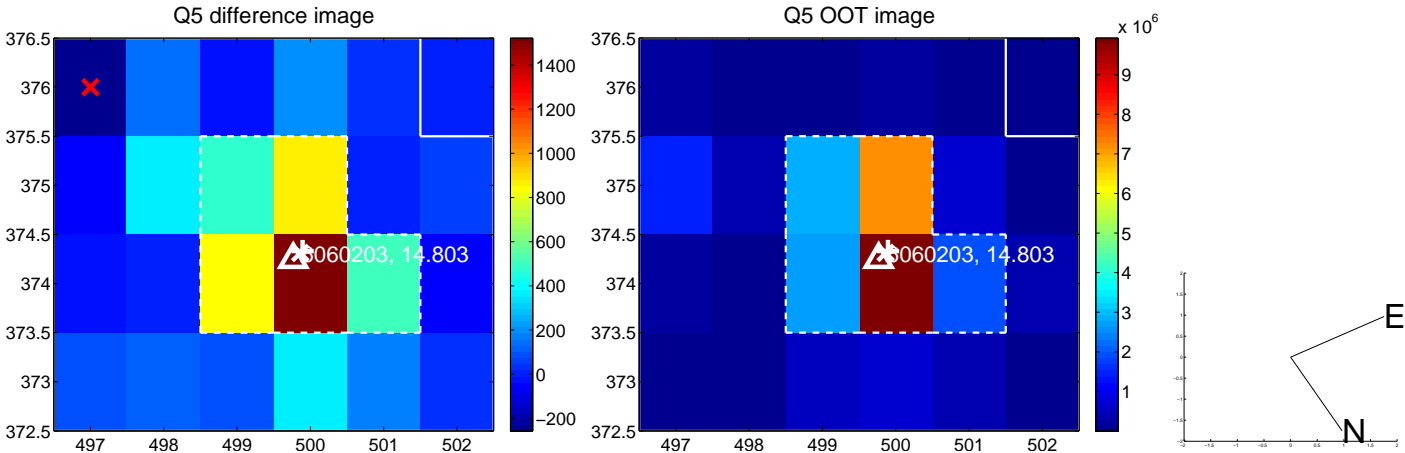


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

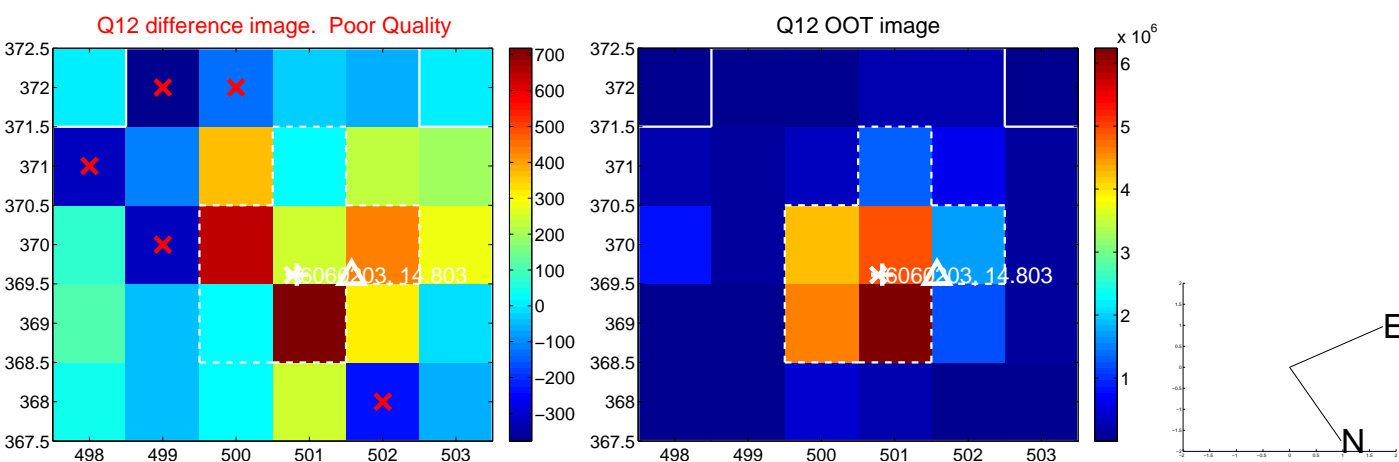
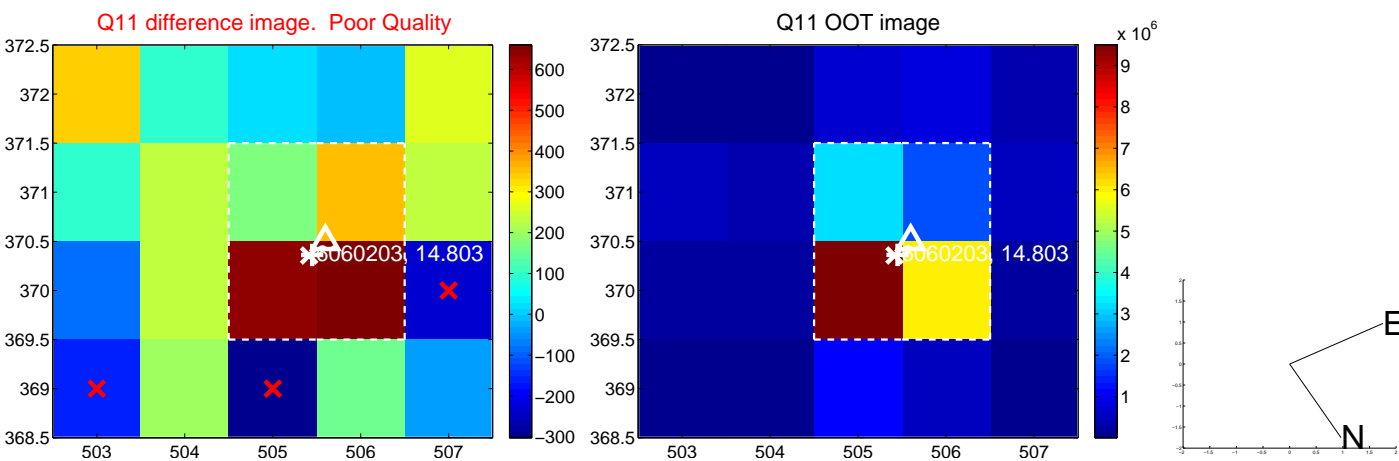
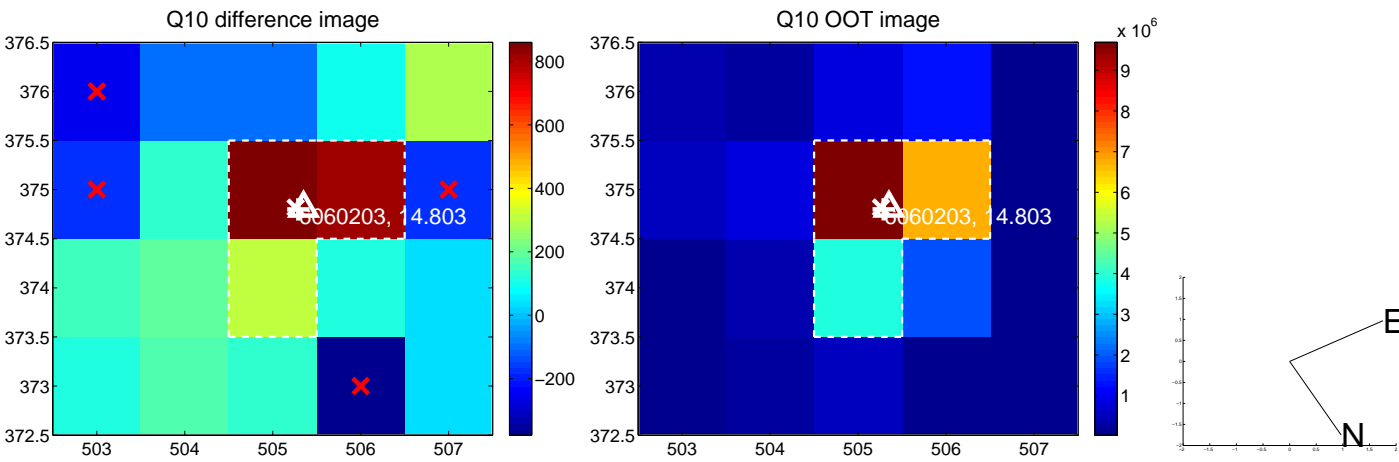
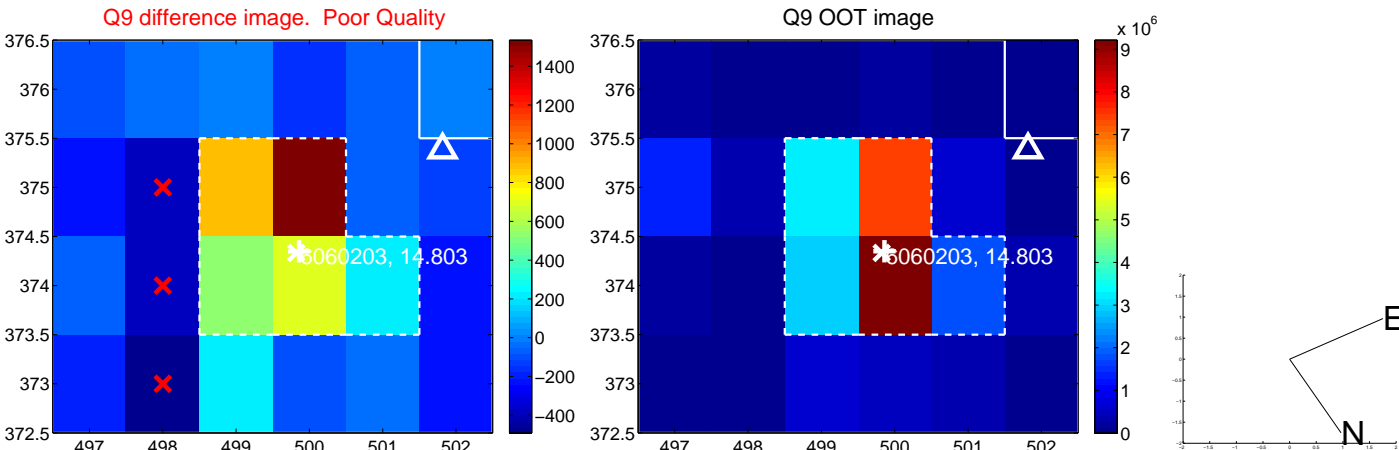
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



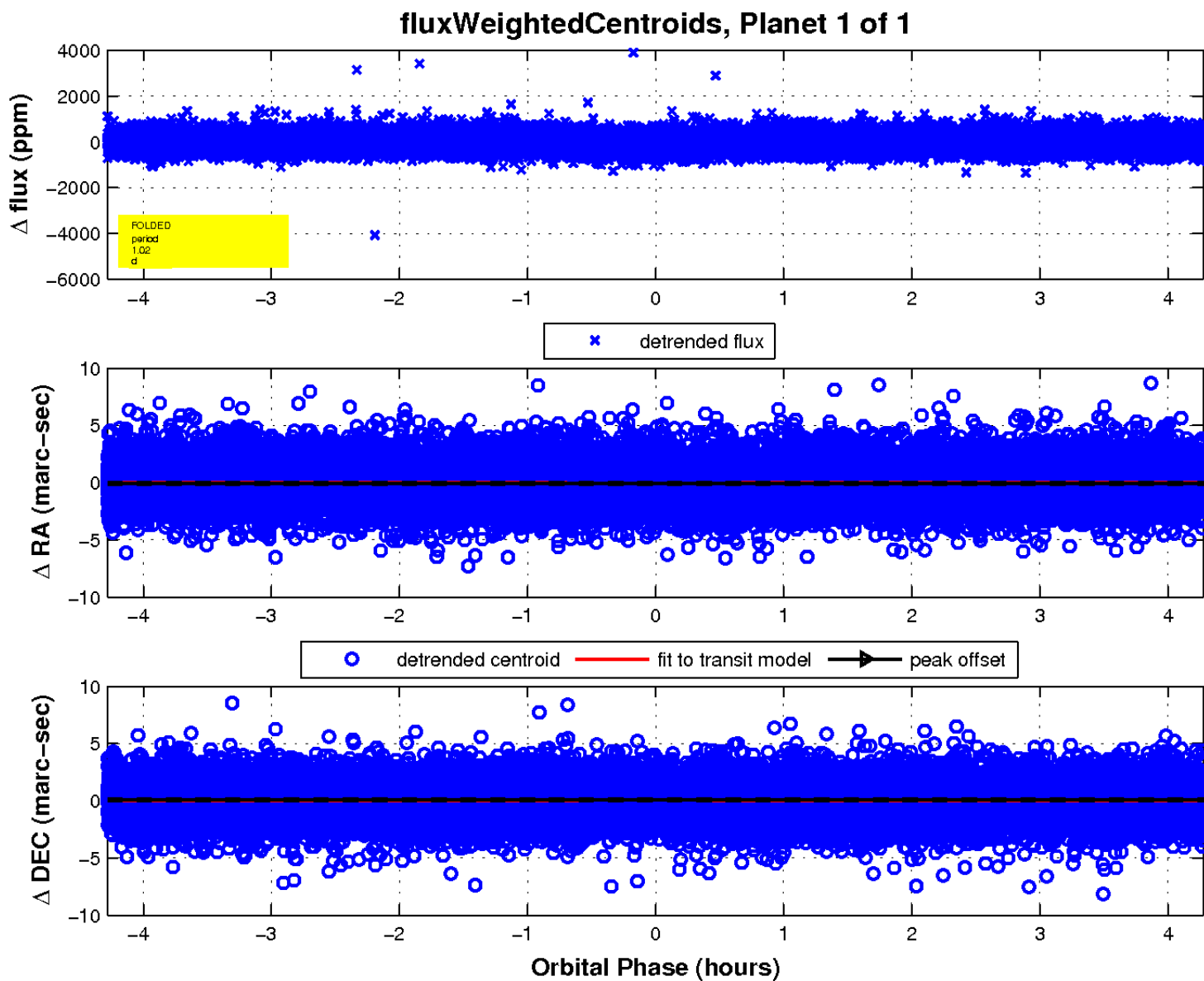
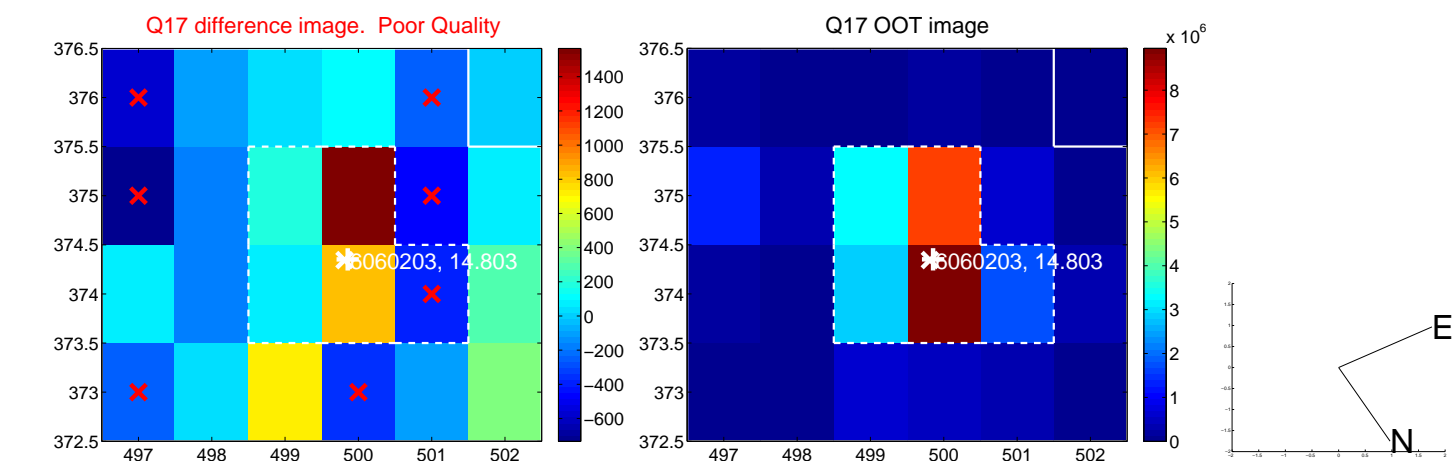
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



This astronomical image shows a field of stars against a dark background. A blue grid is overlaid on the image. Green text labels provide coordinates: '45.0', '44.0', '19:46:43.0', and '42.0' are positioned horizontally across the middle, while '22:50.0', '00.0', '40.0', '41:23:20.0', and '30.0' are positioned vertically along the right edge. The stars vary in brightness, with some appearing as distinct points of light and others as fainter, more diffuse patches.

Declination