

KIC 008025596

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})
008025596-01	OBS	2615.01	4.695075	133.933700	232.7	3.207	14.6	15.3	0.96	5999	1.72	343.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008025596-01	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.

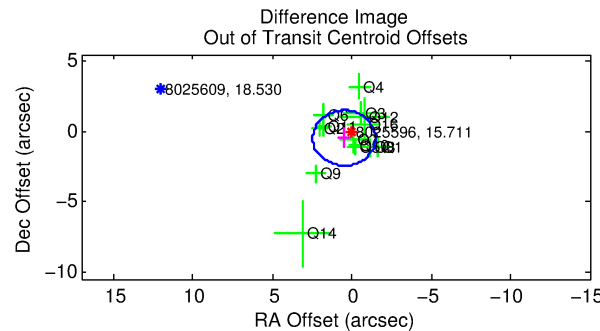
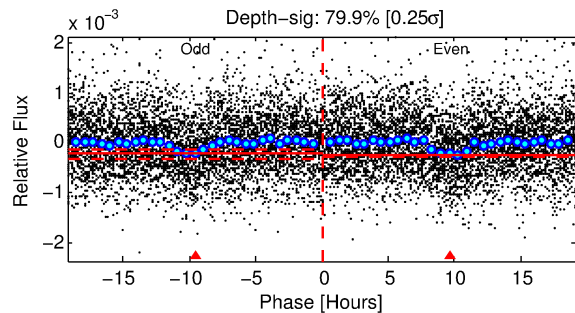
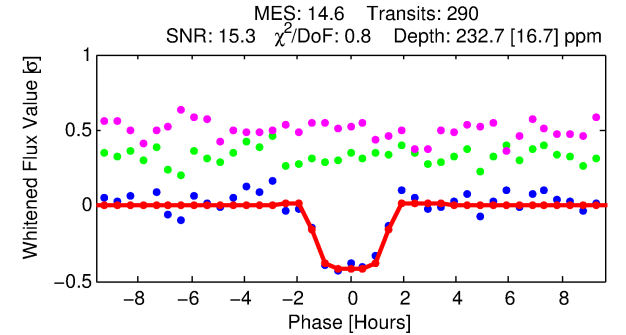
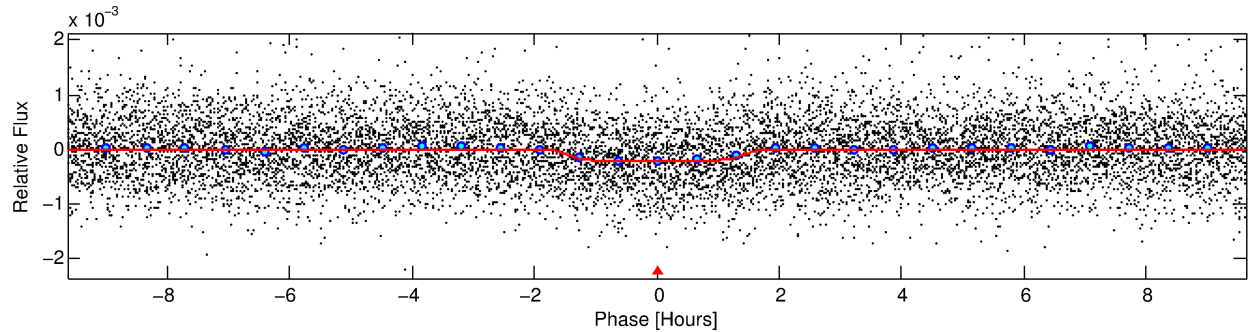
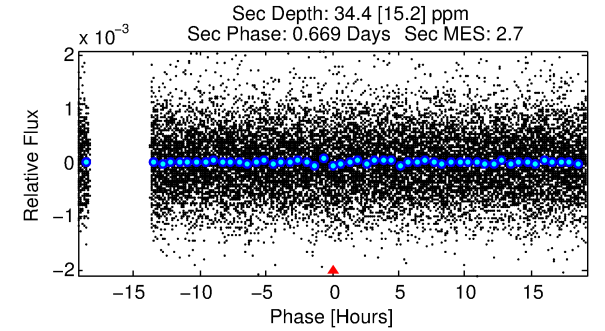
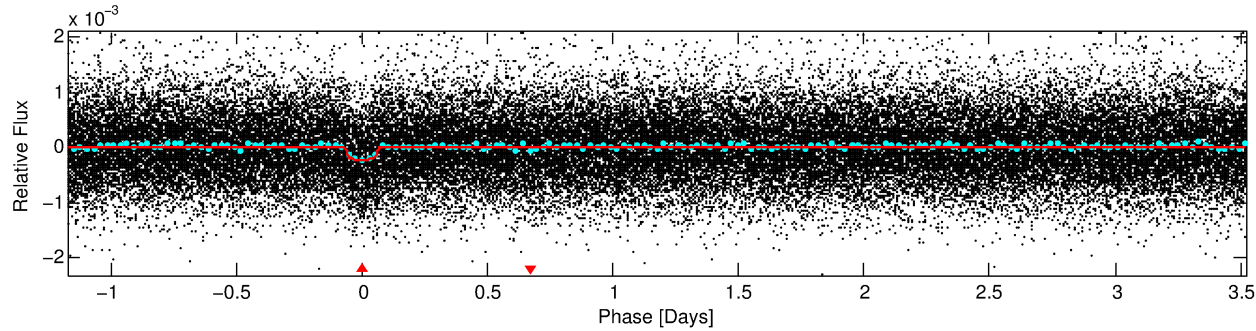
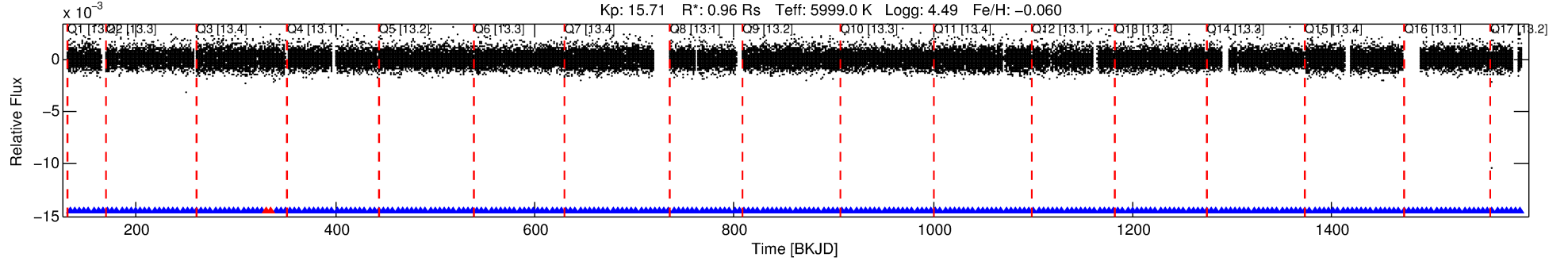
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008025596-01

No Significant Match Found

DV One-Page Summary

KIC: 8025596 Candidate: 1 of 1 Period: 4.695 d
KOI: K02615.01 Corr: 0.938



DV Fit Results:

Period = 4.69508 [0.00003] d
Epoch = 133.9337 [0.0038] BKJD
Rp/R* = 0.0164 [0.0057]
a/R* = 5.48 [9.24]
b = 0.89 [0.40]
Seff = 343.74 [134.51]
Teq = 1098 [107] K
Rp = 1.72 [0.78] Re
a = 0.0557 [0.0140] AU
Ag = 19.84 [17.80] [1.06σ]
Teffp = 3583 [745] K [3.30σ]

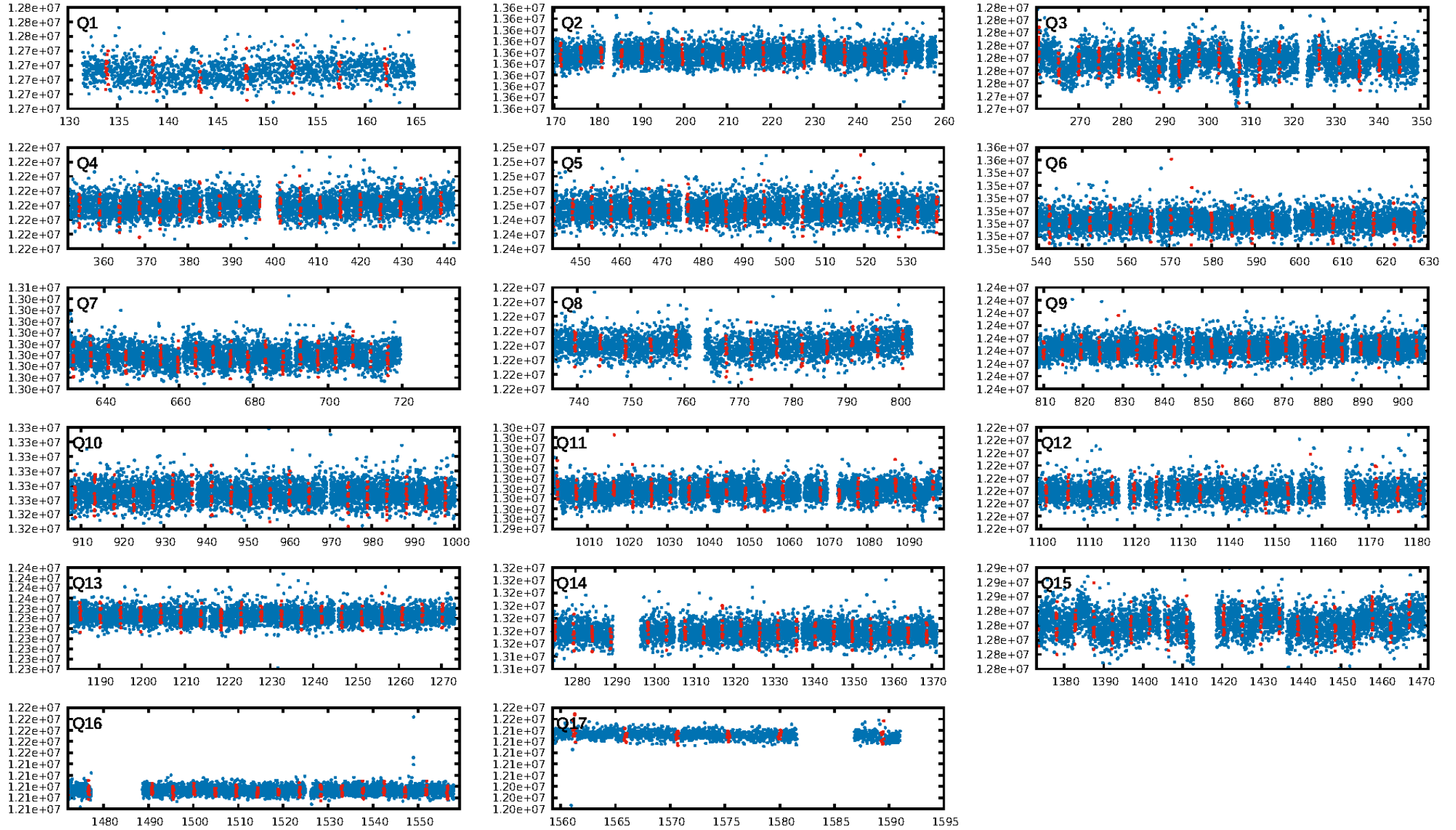
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.65e-47
RollingBand-fgt: 0.99 [275/277]
GhostDiagnostic-chr: 3.149
Centroid-sig: 31.5%
Centroid-so: 0.745 arcsec [0.80σ]
OotOffset-rm: 0.659 arcsec [1.01σ]
KicOffset-rm: 0.644 arcsec [0.97σ]
OotOffset-st: 4/3/4/3 [14]
KicOffset-st: 4/3/4/3 [14]
DiffImageQuality-fgm: 0.71 [10/14]
DiffImageOverlap-fno: 1.00 [17/17]

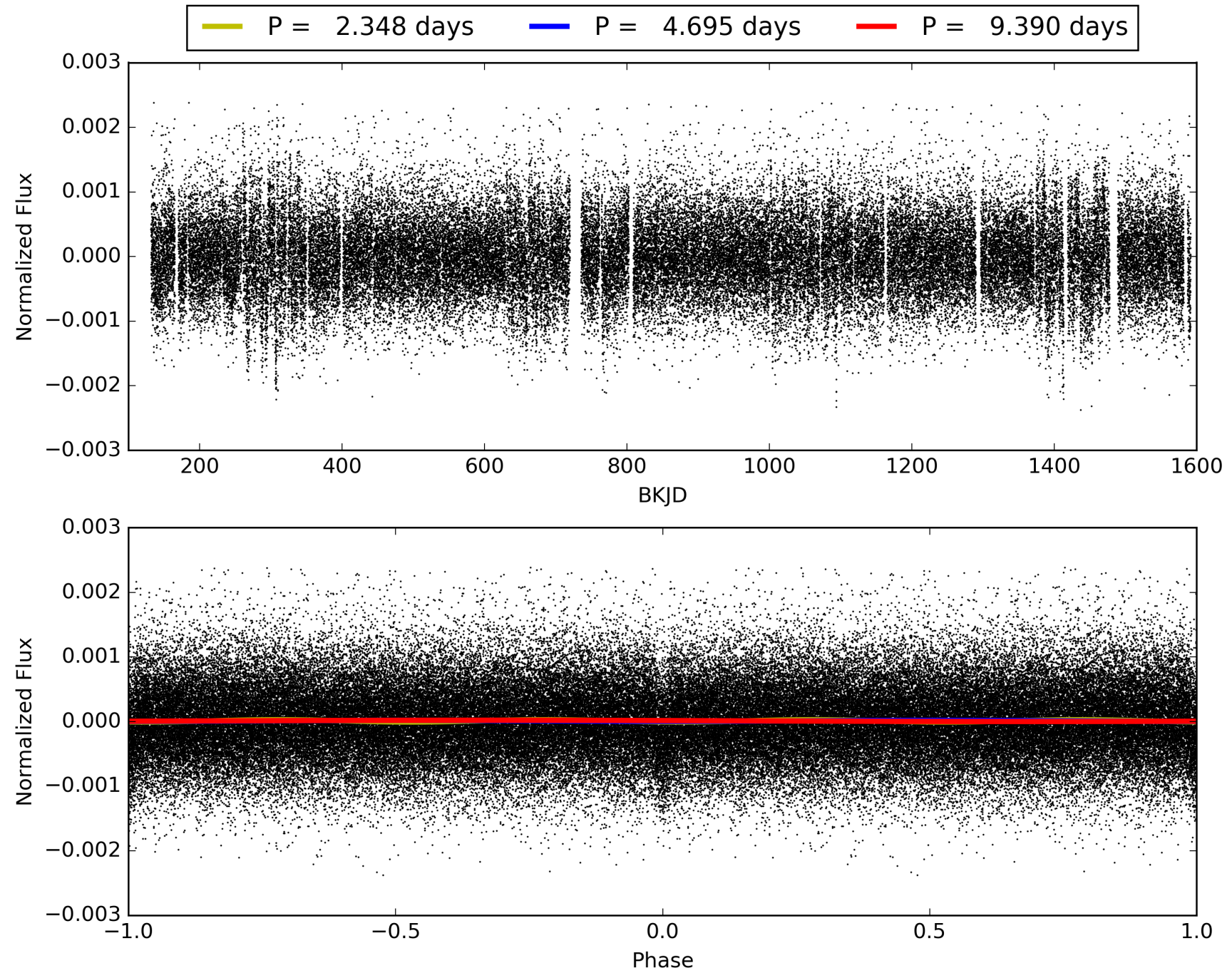
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:39:19 Z

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

TCE 008025596-01, PDC Light Curves

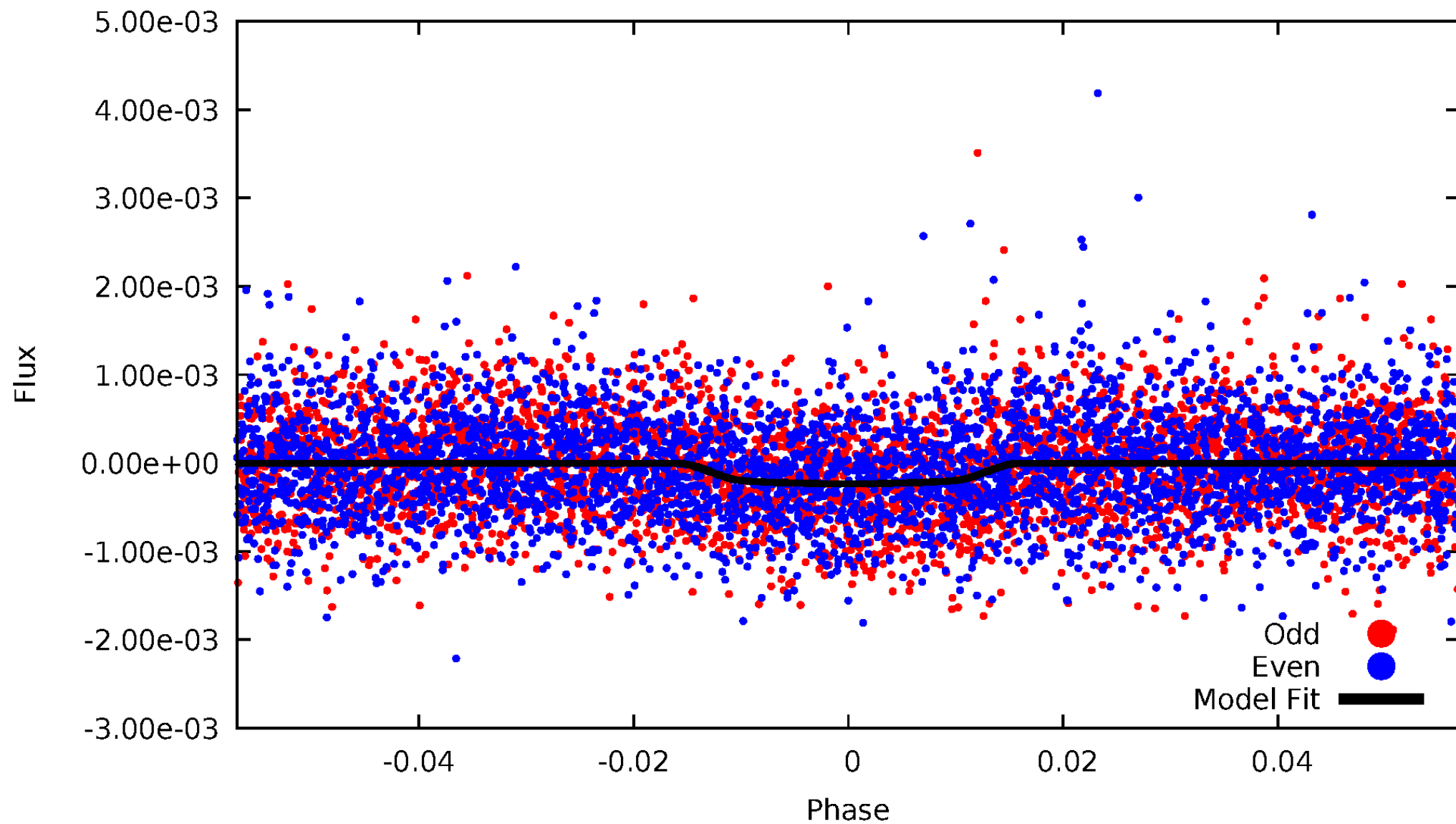


TCE 008025596-01



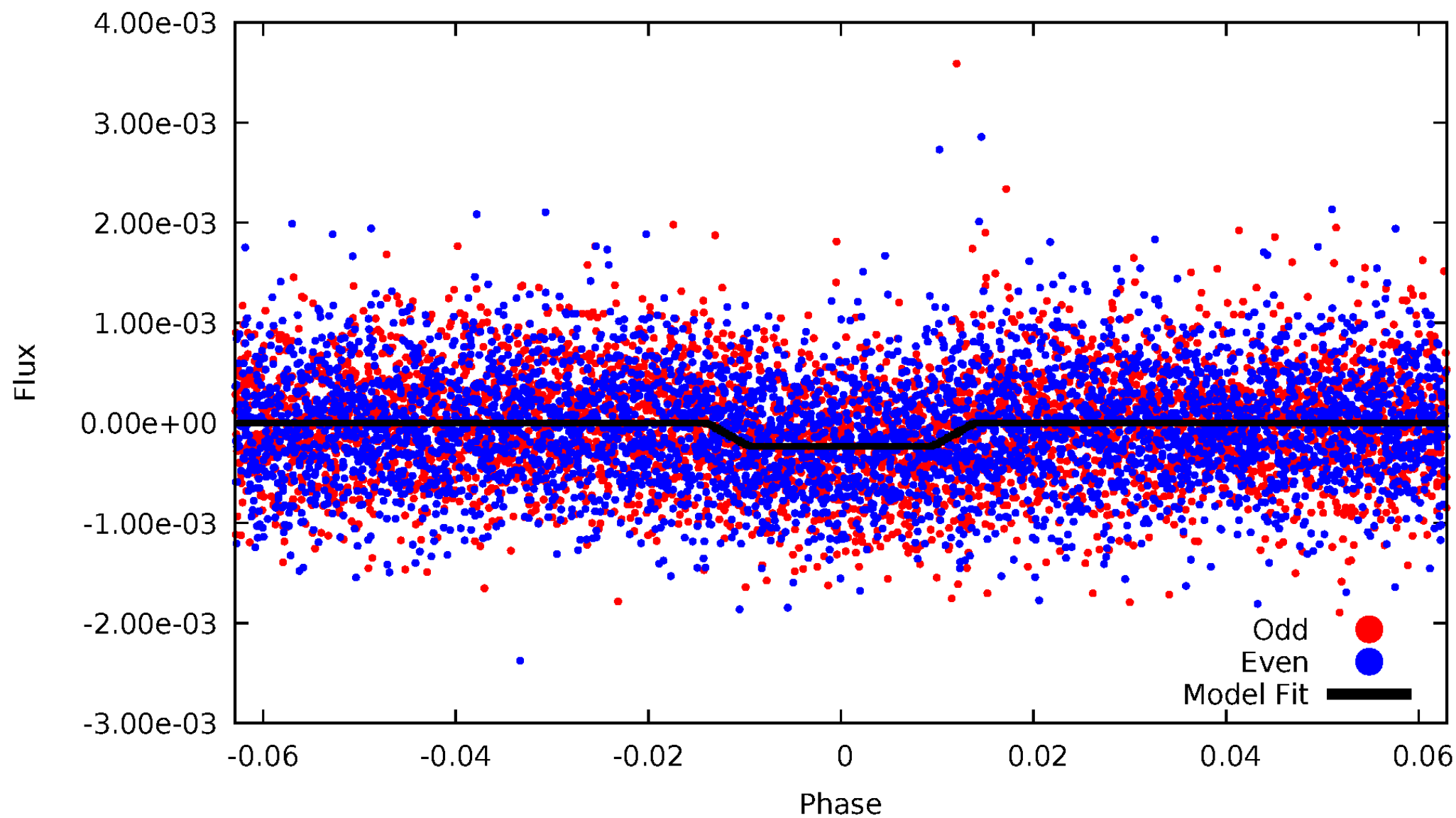
DV Odd/Even

TCE 008025596-01



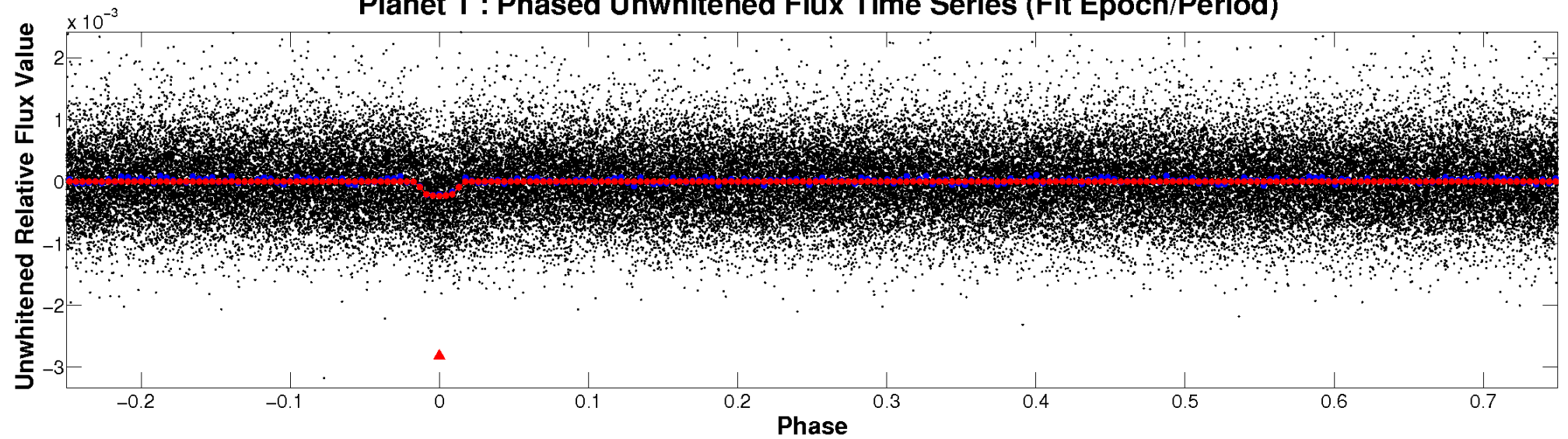
ALT Odd/Even

TCE 008025596-01

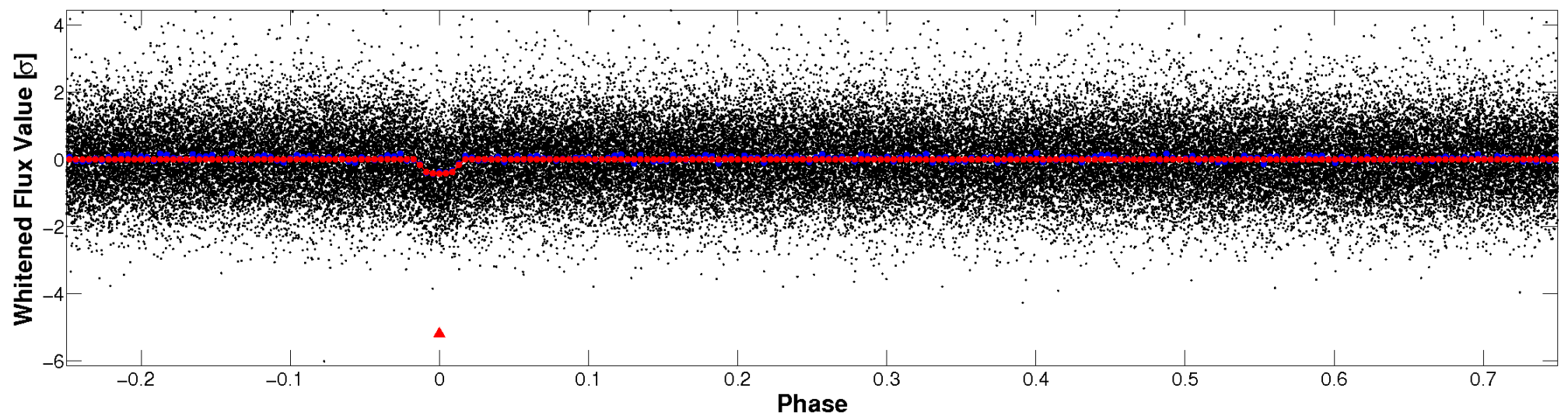


Non-Whitened Vs. Whitened Light Curve

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

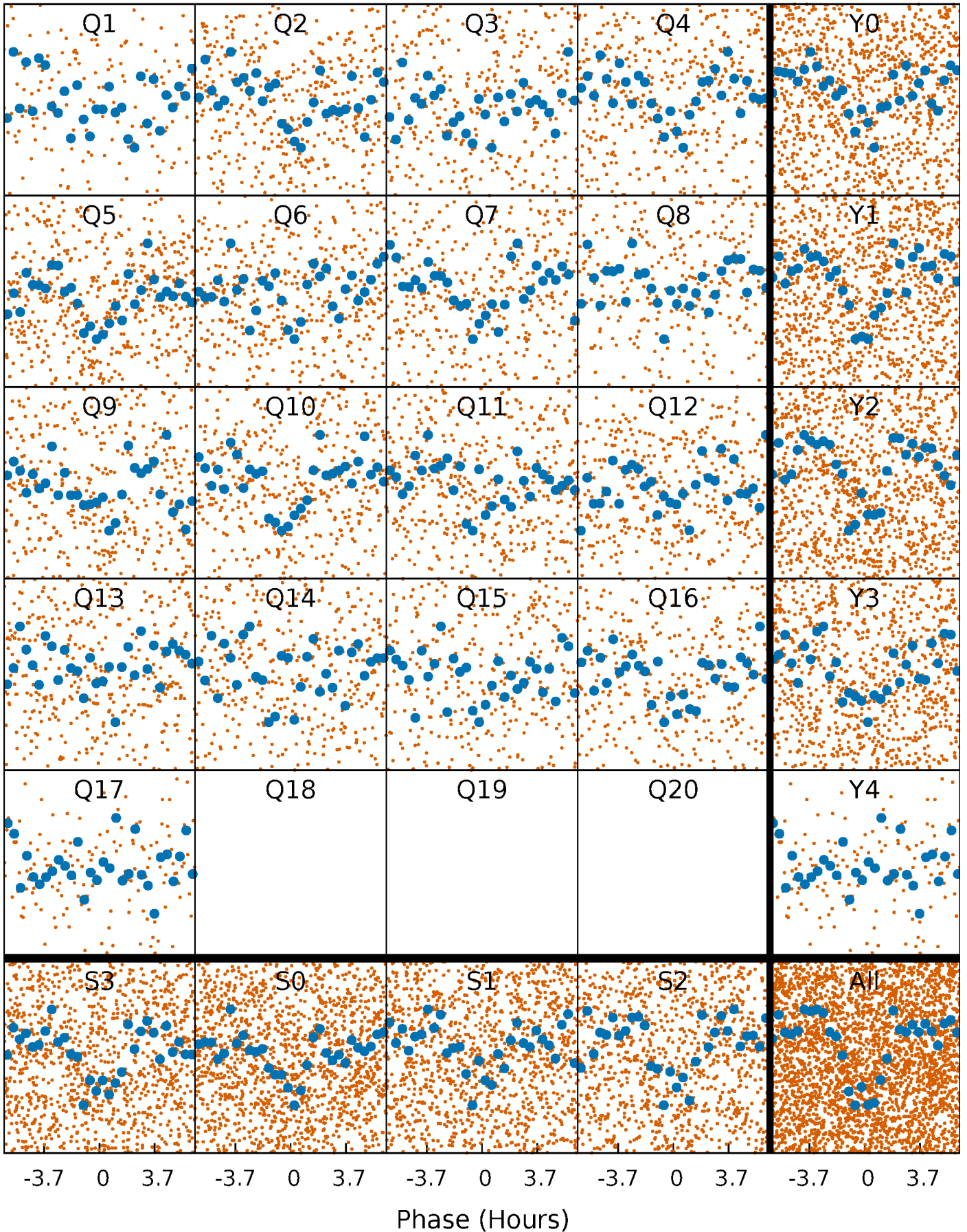


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



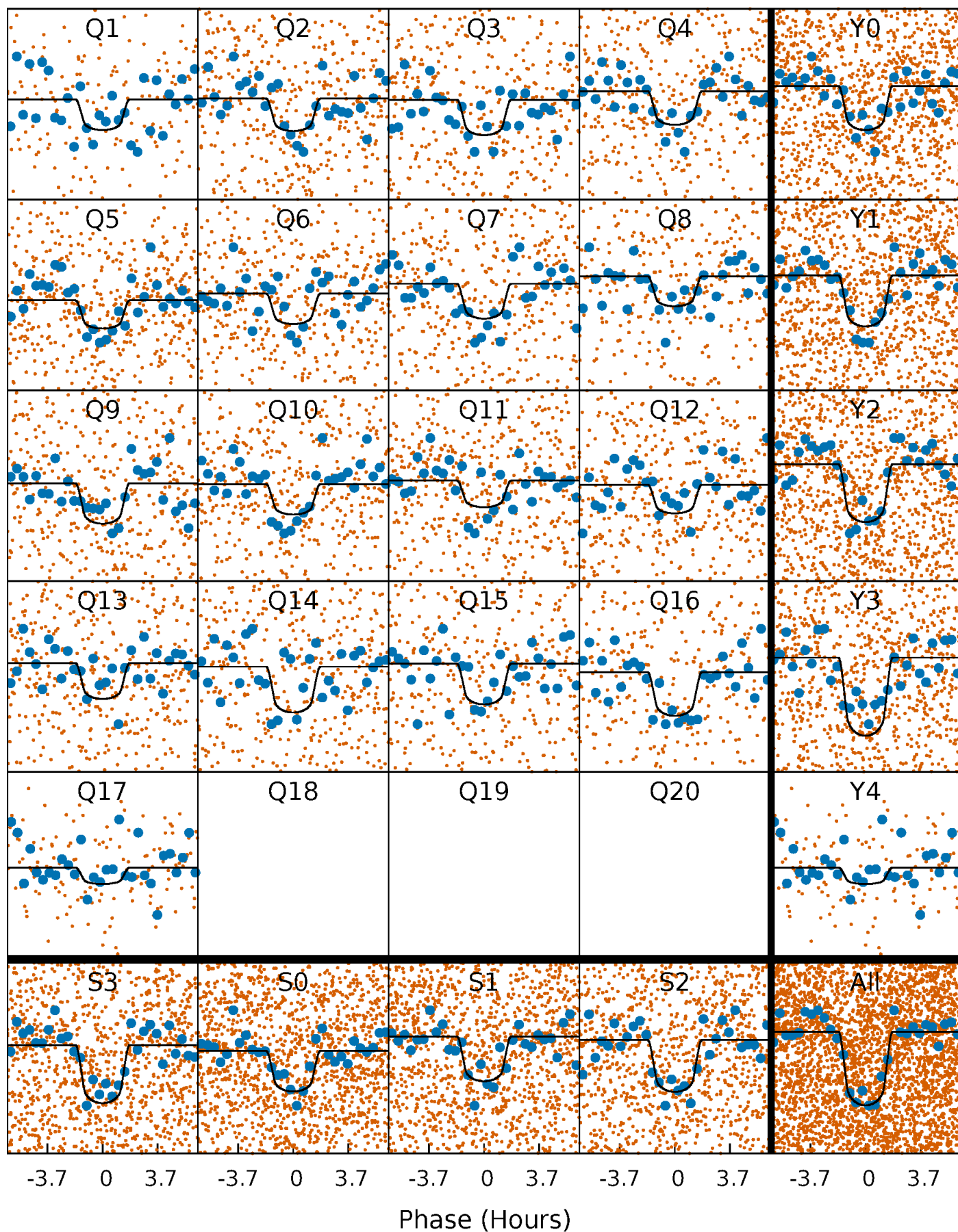
PDC Quarter-Phased Transit Curves

TCE 008025596-01 P= 4.695075 Days $T_0=133.933700$ (BKJD)



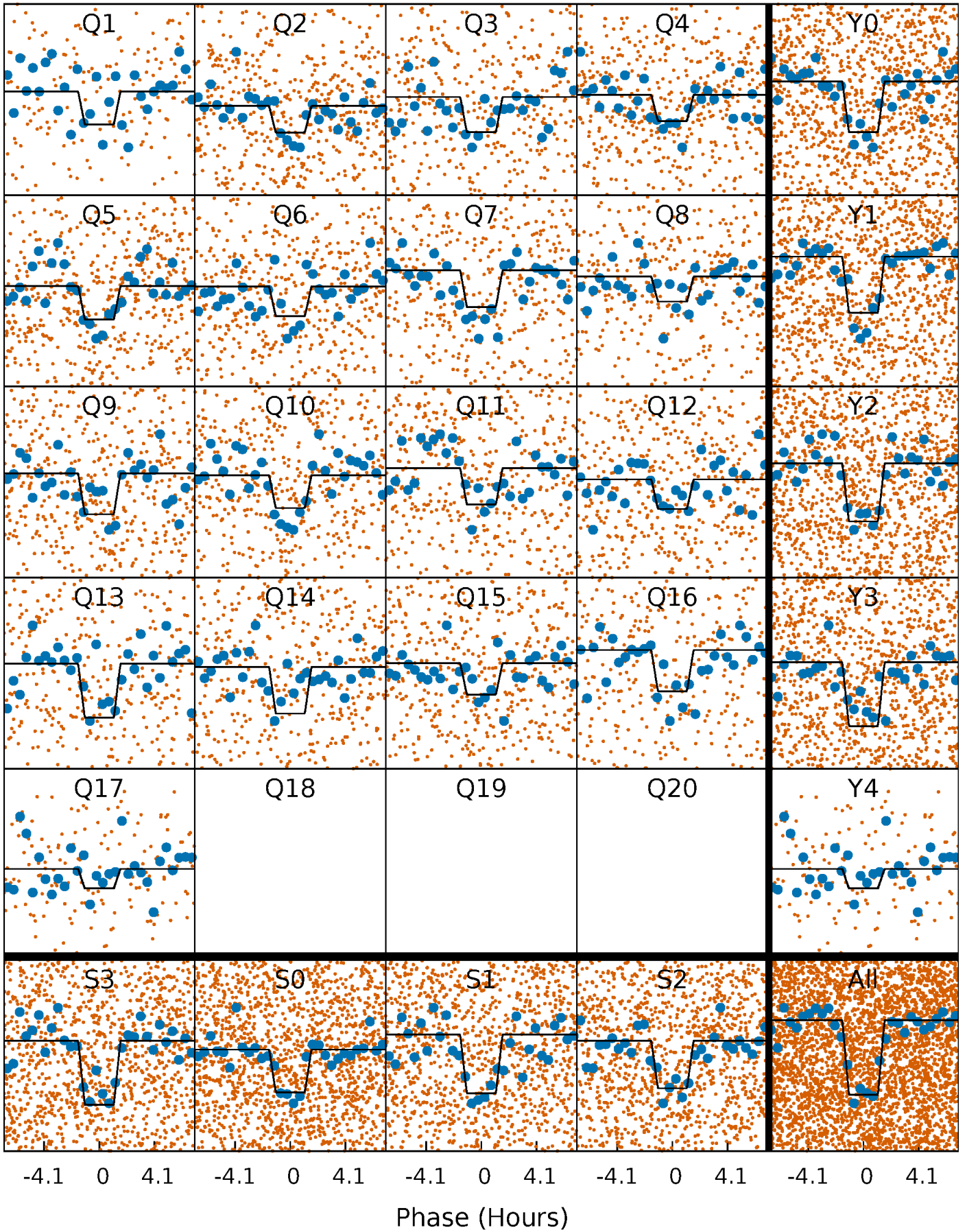
DV Quarter-Phased Transit Curves

TCE 008025596-01 P= 4.695075 Days $T_0=133.933700$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

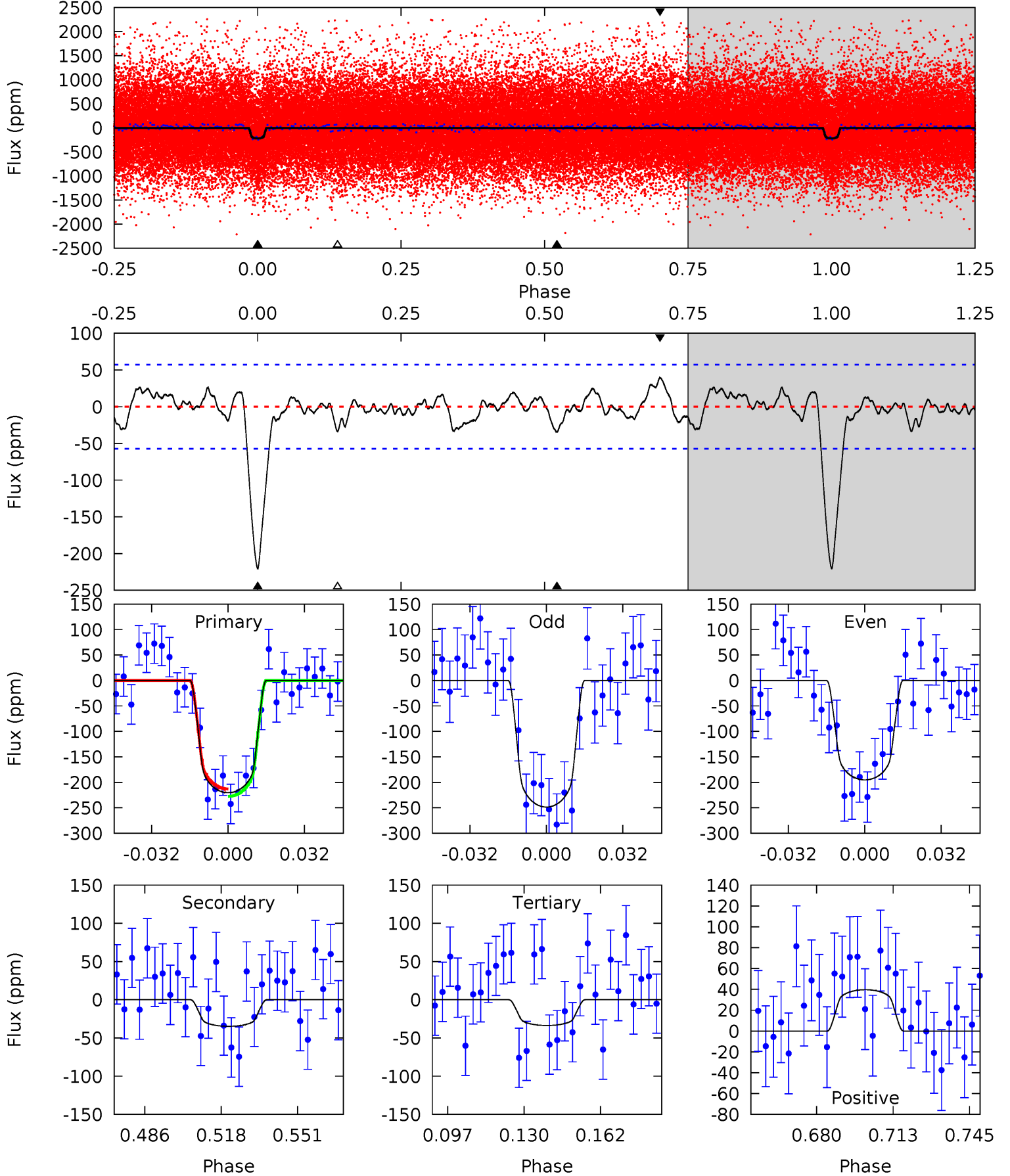
TCE 008025596-01 P= 4.695002 Days $T_0=133.940711$ (BKJD)



DV Model-Shift Uniqueness Test

008025596-01, P = 4.695075 Days, E = 129.238625 Days

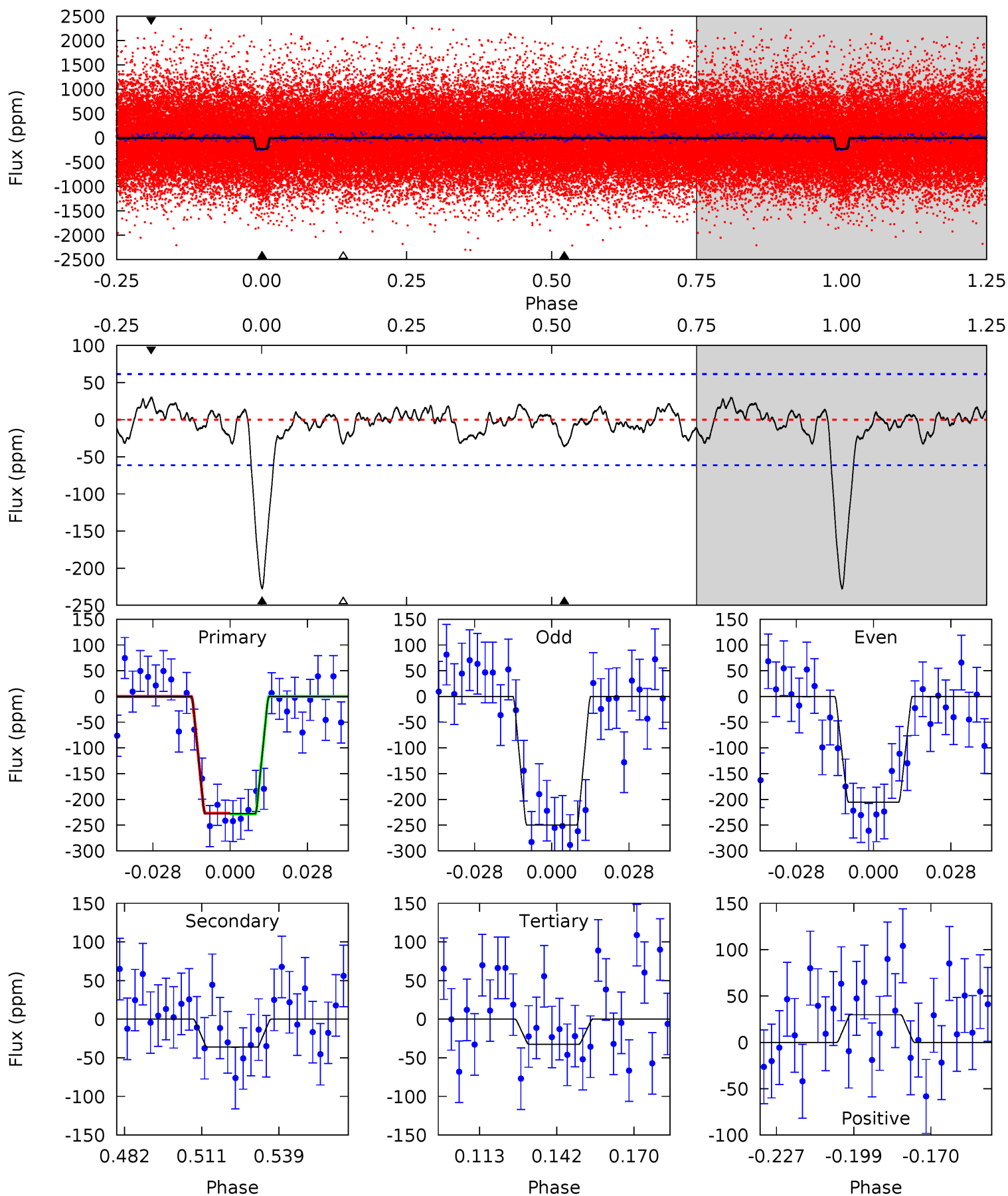
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	2.91	2.82	3.32	4.80	2.14	1.19	15.6	15.1	0.09	-0.41	2.23	0.96	0.15	0.61



Alt Model-Shift Uniqueness Test

008025596-01, P = 4.695002 Days, E = 129.245709 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.9	2.83	2.54	2.34	4.82	2.19	1.04	15.3	15.5	0.29	0.49	1.73	0.95	0.12	0.07



Stellar Parameters For KIC 008025596

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5999^{+168}_{-210}	$4.494^{+0.050}_{-0.200}$	$-0.060^{+0.250}_{-0.350}$	$0.959^{+0.285}_{-0.095}$	$1.045^{+0.129}_{-0.142}$	$1.670^{+0.443}_{-0.844}$
	+3%/-4%	+1%/-4%	+417%/-583%	+30%/-10%	+12%/-14%	+26%/-51%
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 008025596-01 / KOI 2615.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-35 ± 12	$1.76^{+0.72}_{-0.57}$	1565^{+95}_{-72}	3918^{+708}_{-468}	18^{+27}_{-9}
Alt.	-36 ± 13	$1.66^{+0.69}_{-0.62}$	1564^{+111}_{-70}	4014^{+815}_{-482}	21^{+34}_{-11}

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

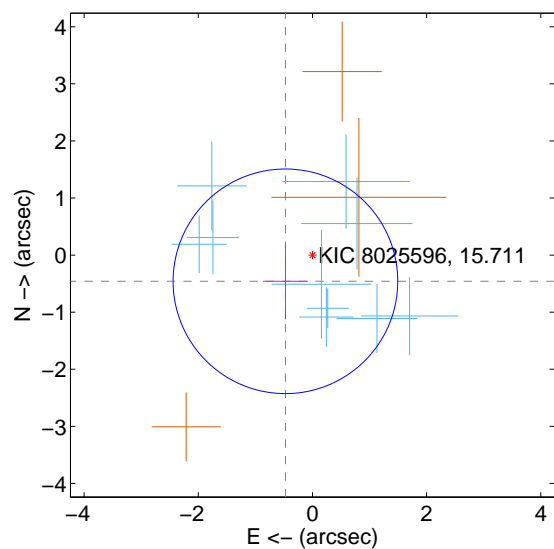
Supplemental centroid analysis for 008025596-01. Kepler magnitude: 15.71. Transit SNR 15.33

There are 10 quarters with good PRF difference image offsets

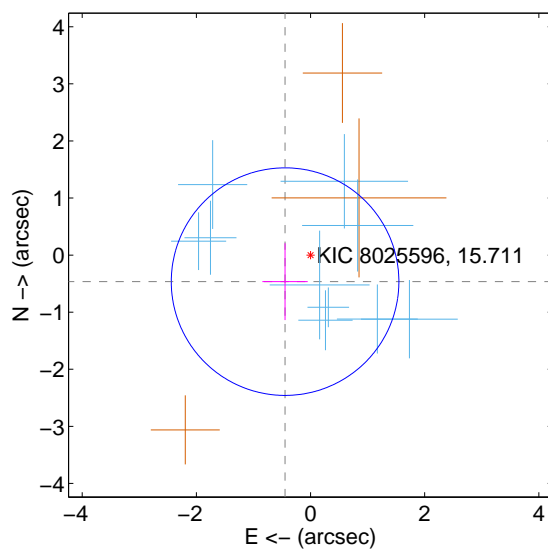
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.659 ± 0.656	1.01	0.473 ± 0.391	-0.459 ± 0.666
PRF-fit source offset from KIC position	0.644 ± 0.664	0.97	0.446 ± 0.397	-0.465 ± 0.673
photometric centroid source offset	0.74 ± 0.93	0.80	-0.19 ± 0.94	0.72 ± 0.93

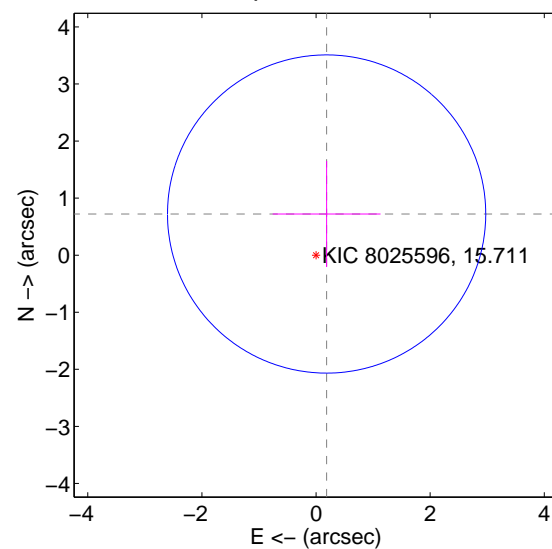
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

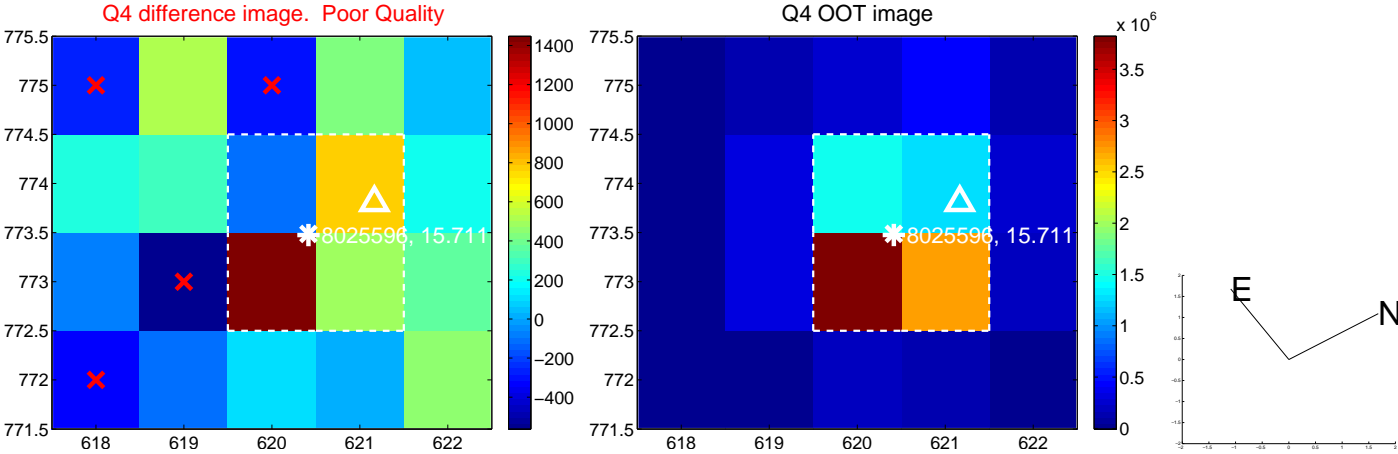
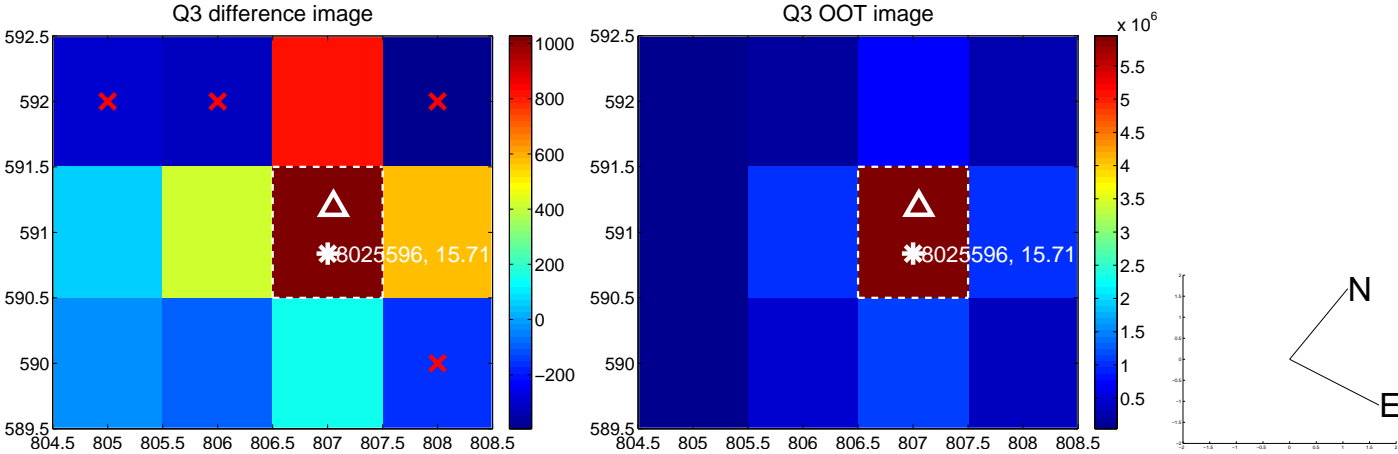
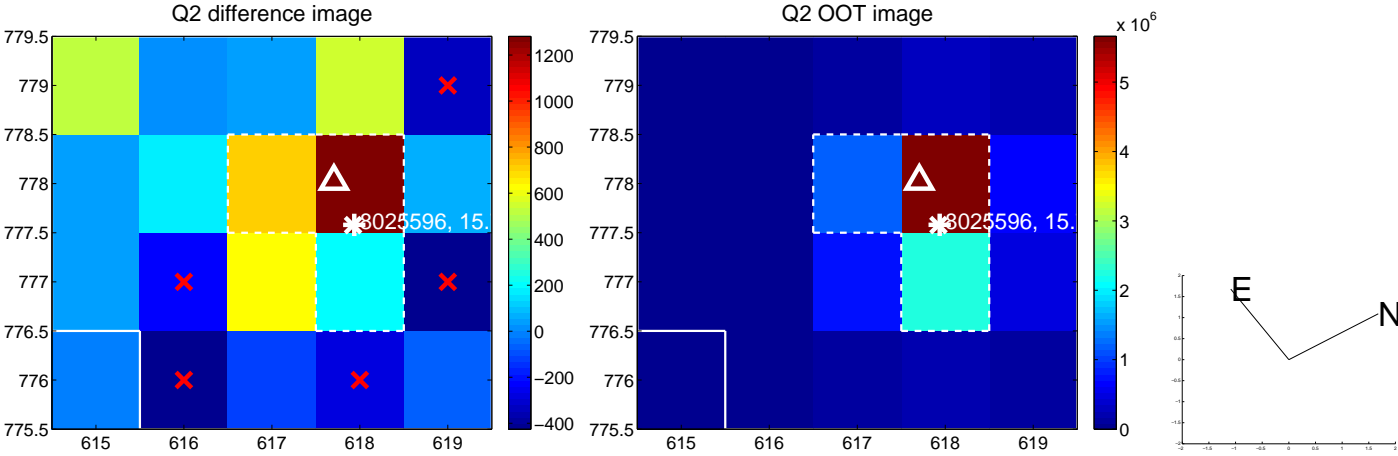
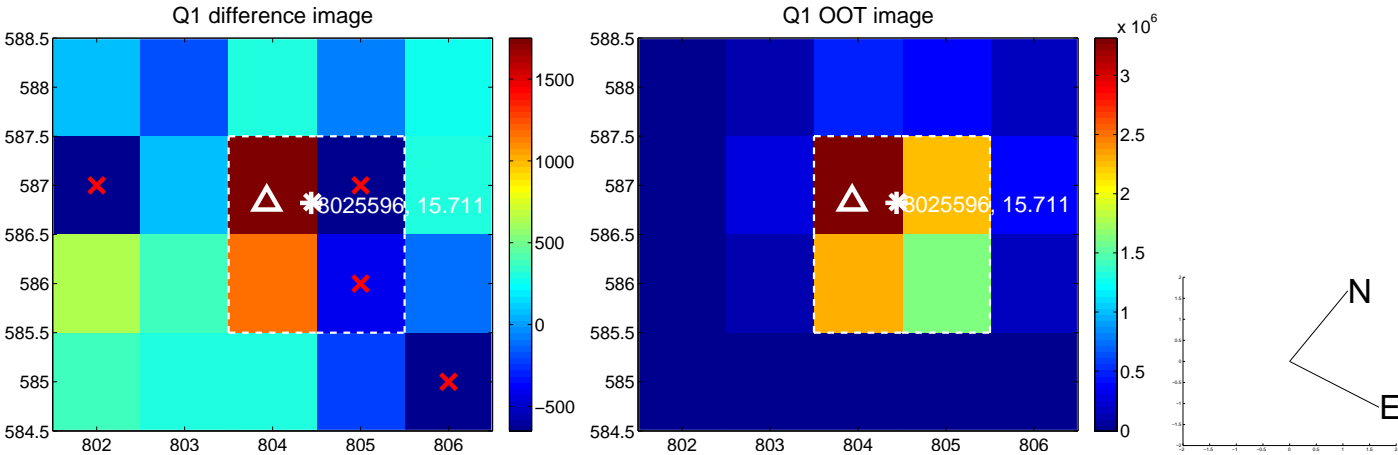


offset from photometric centroids

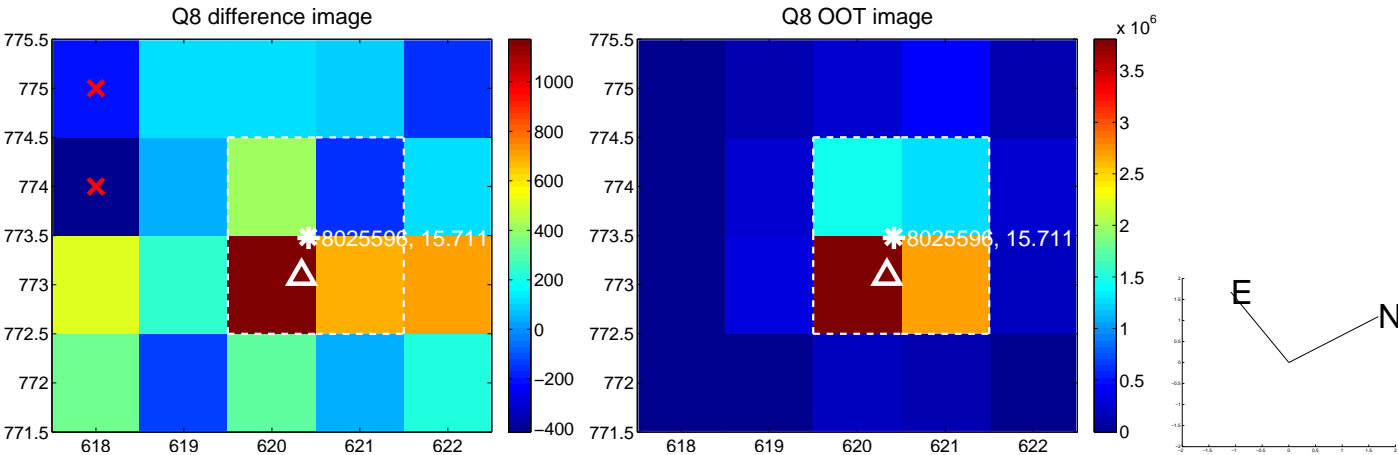
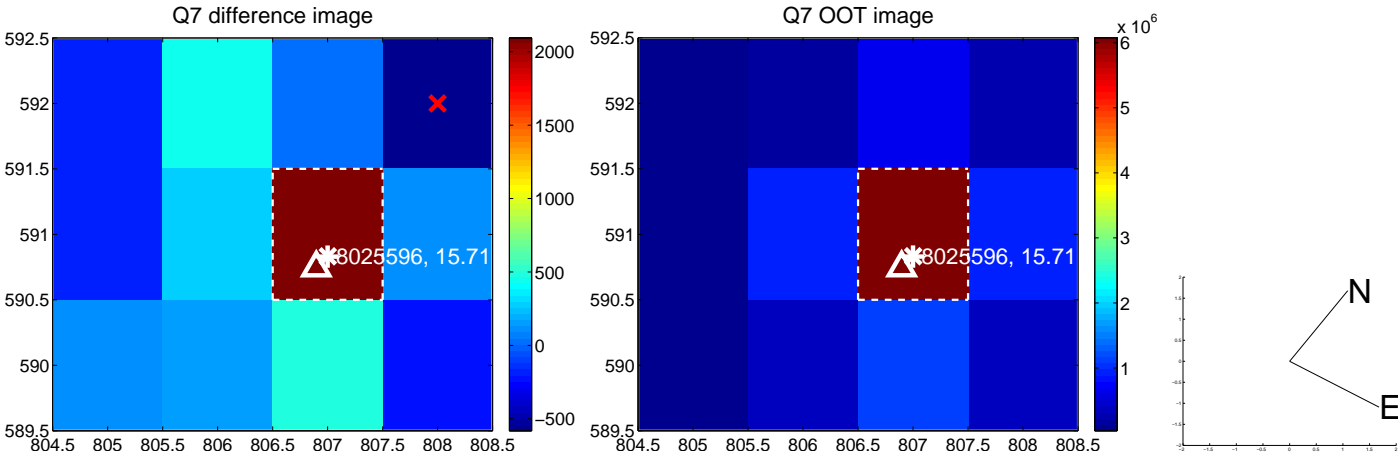
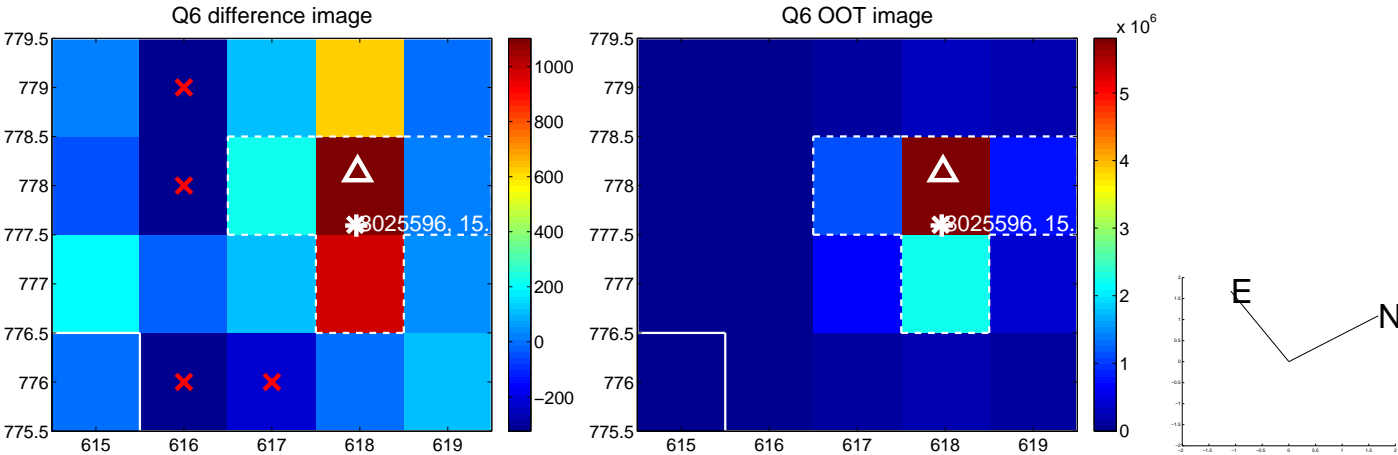
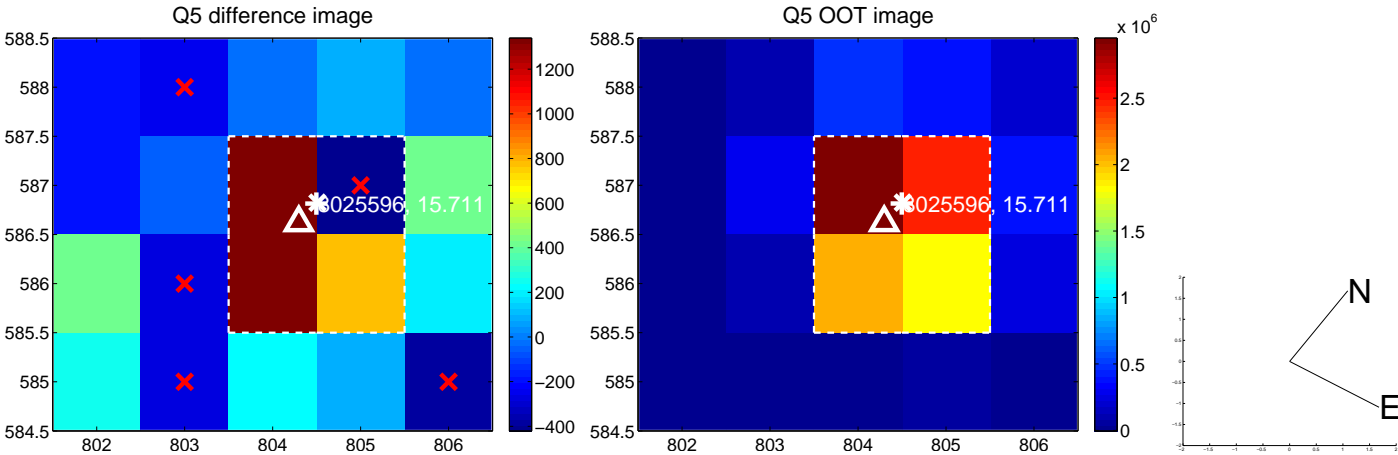


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

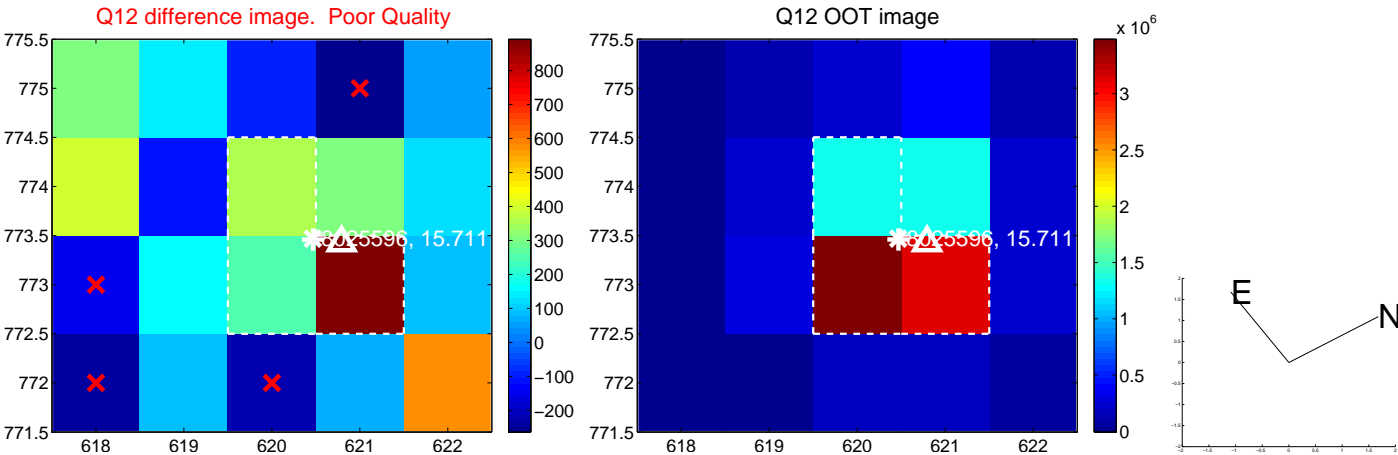
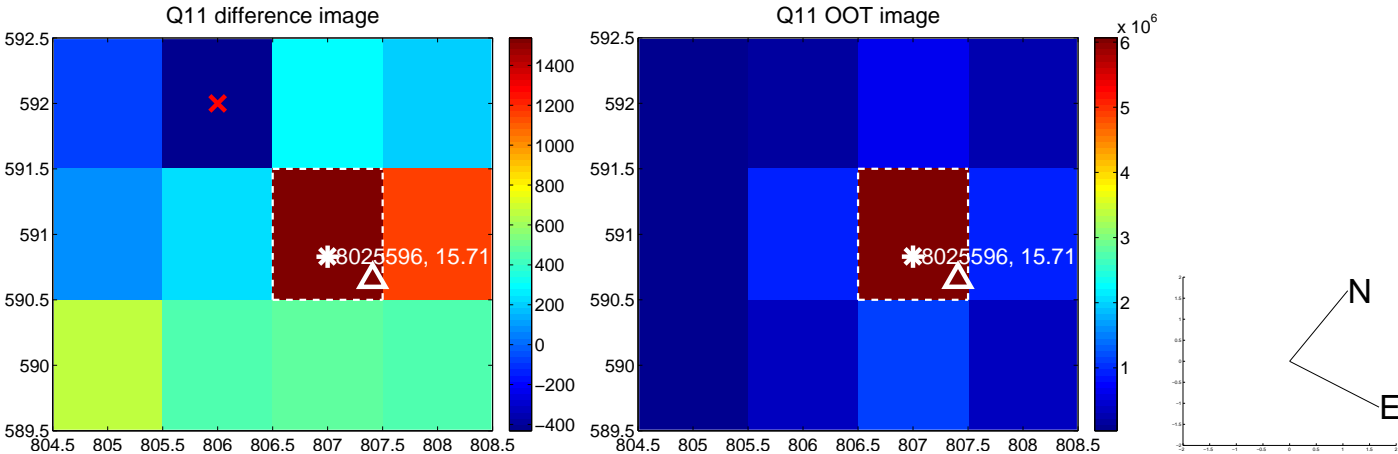
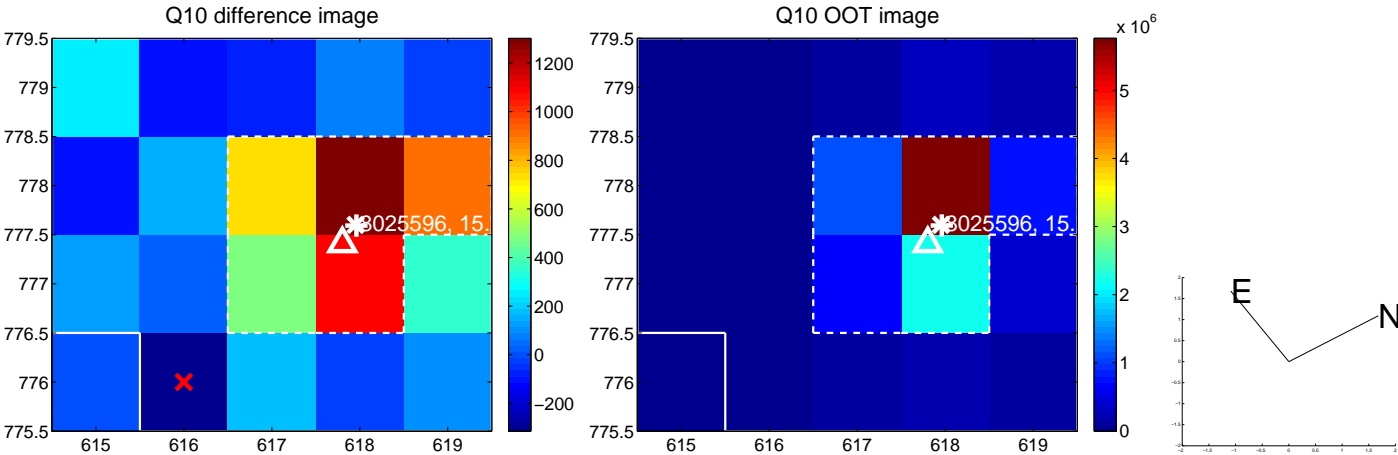
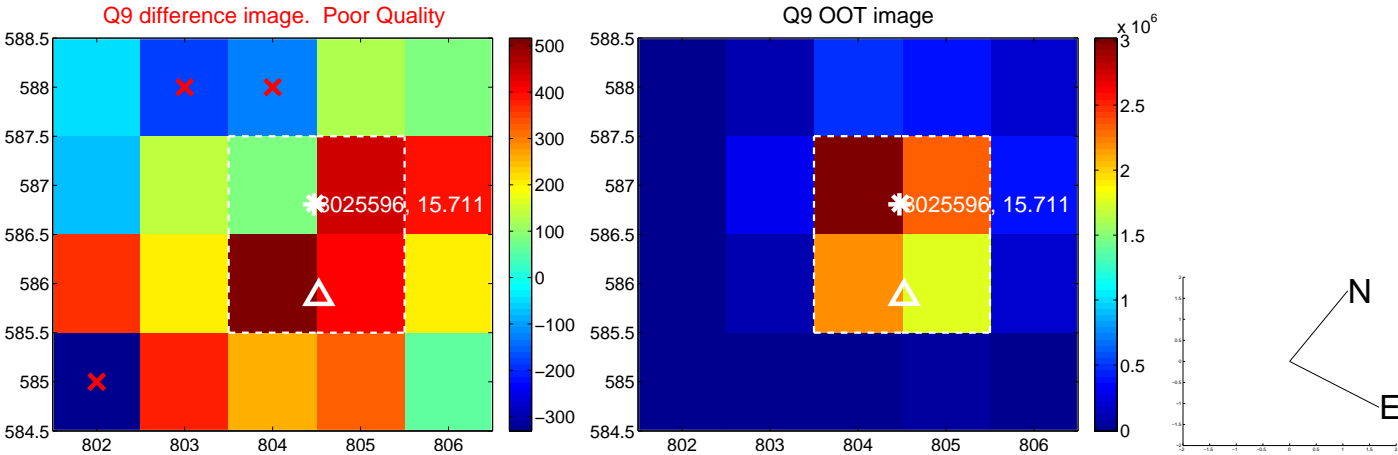
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



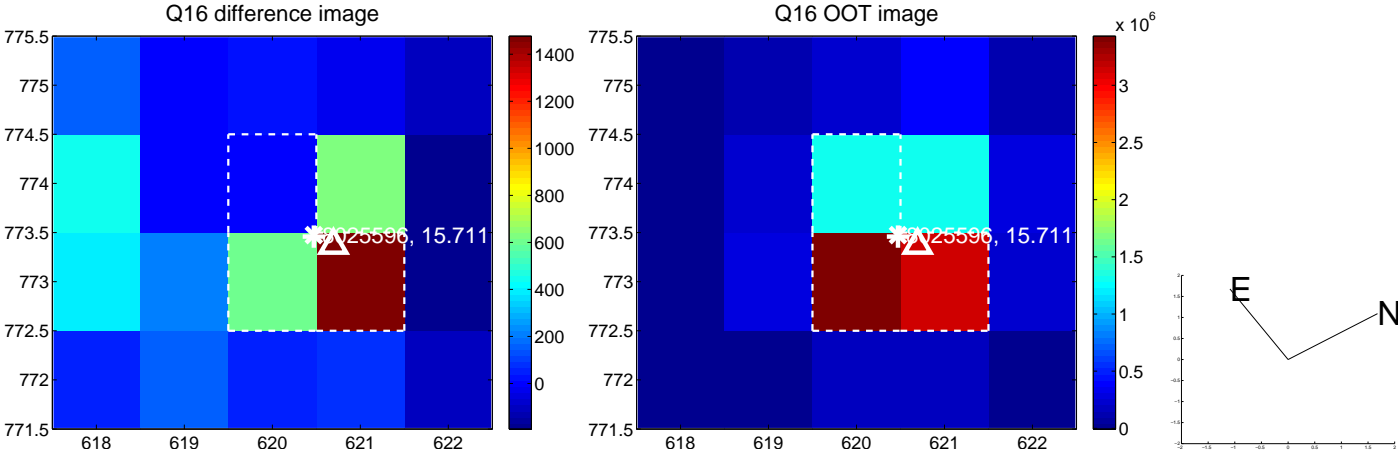
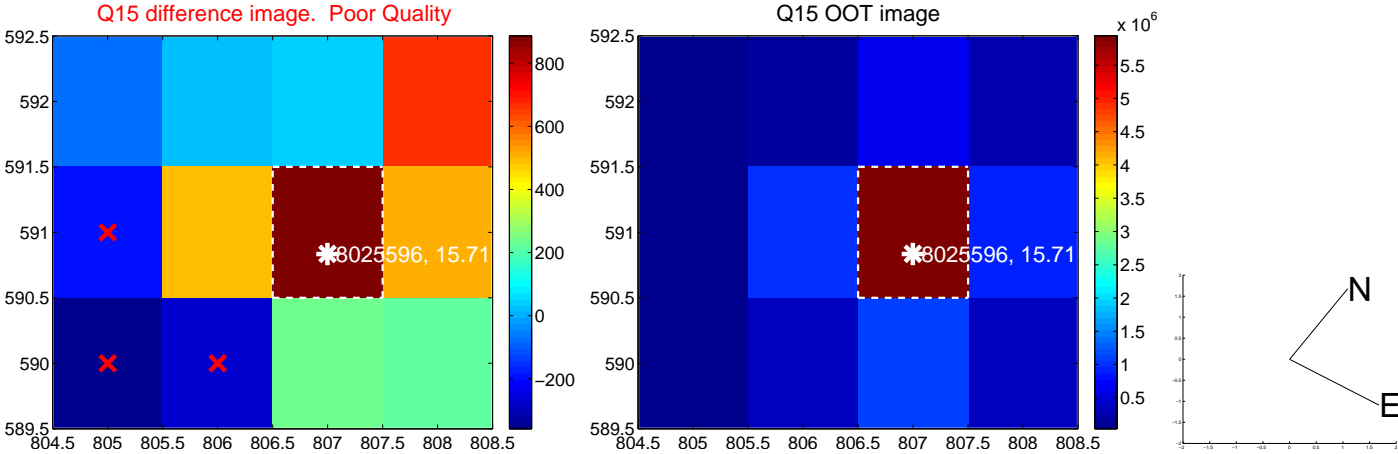
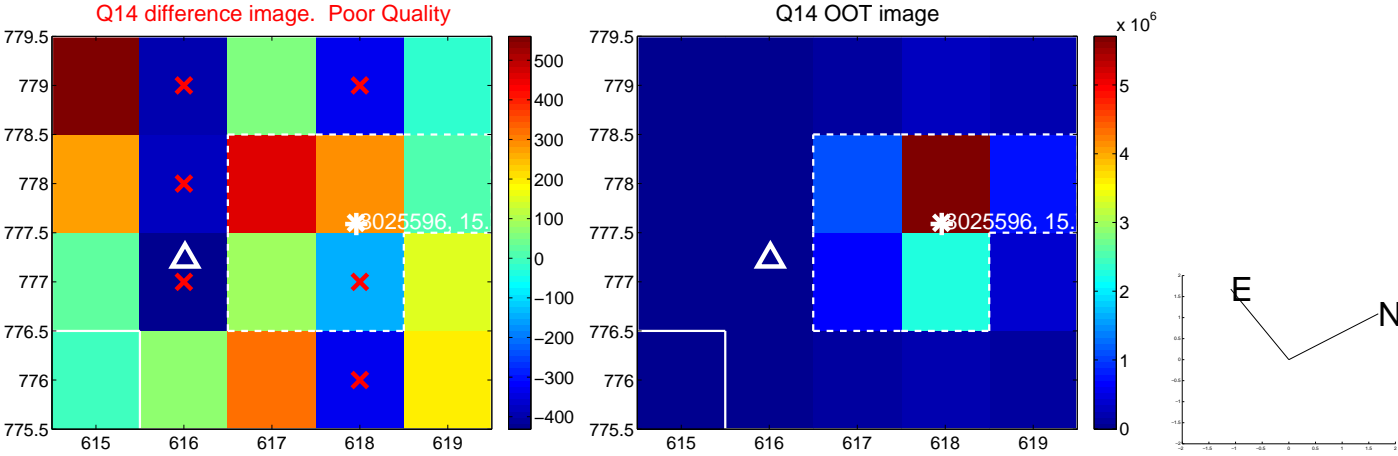
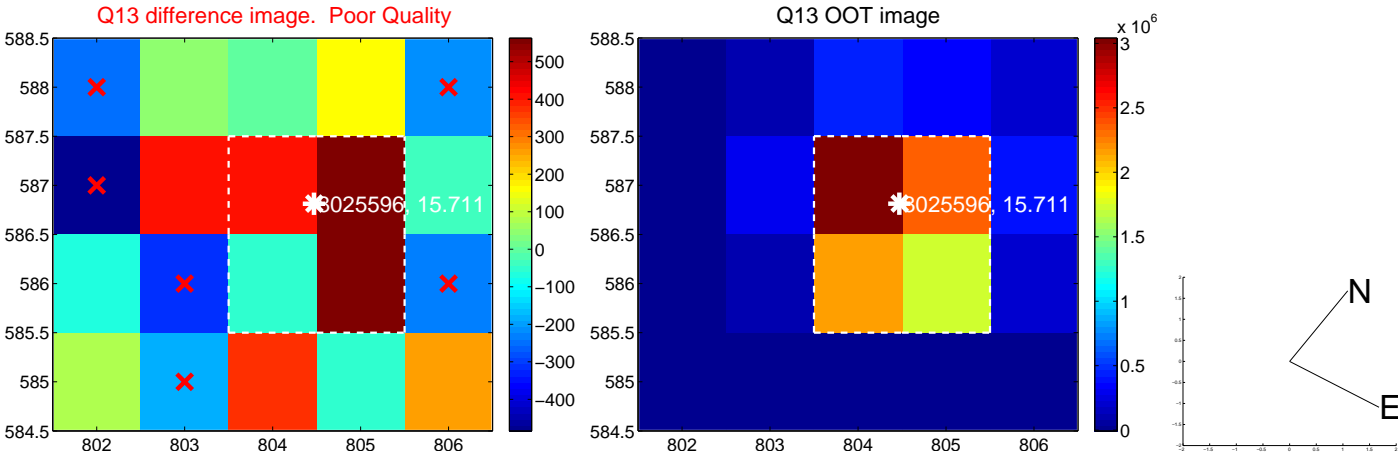
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



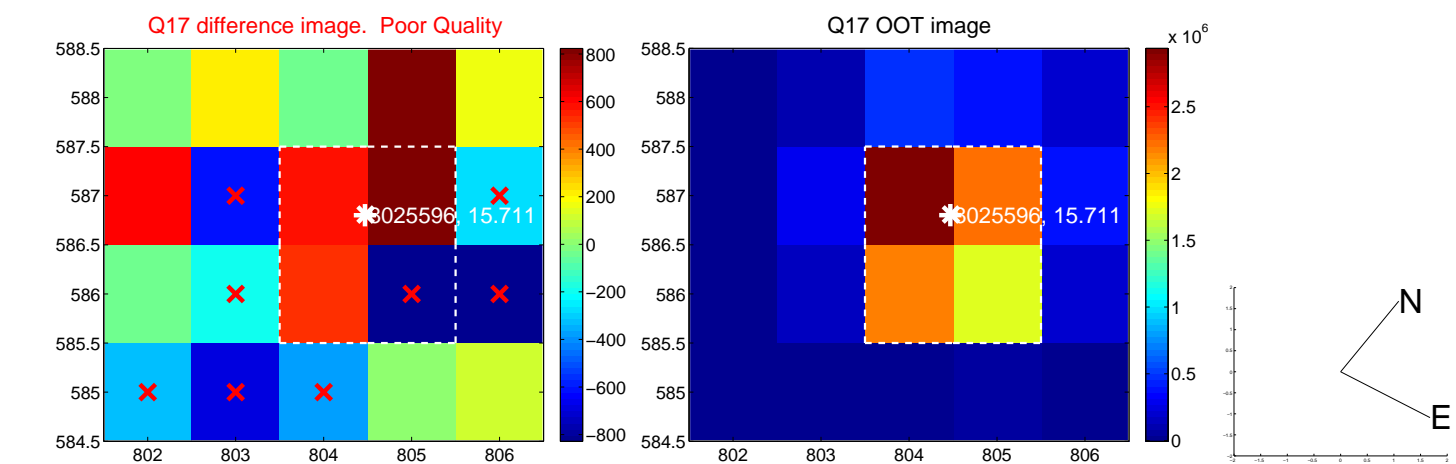
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



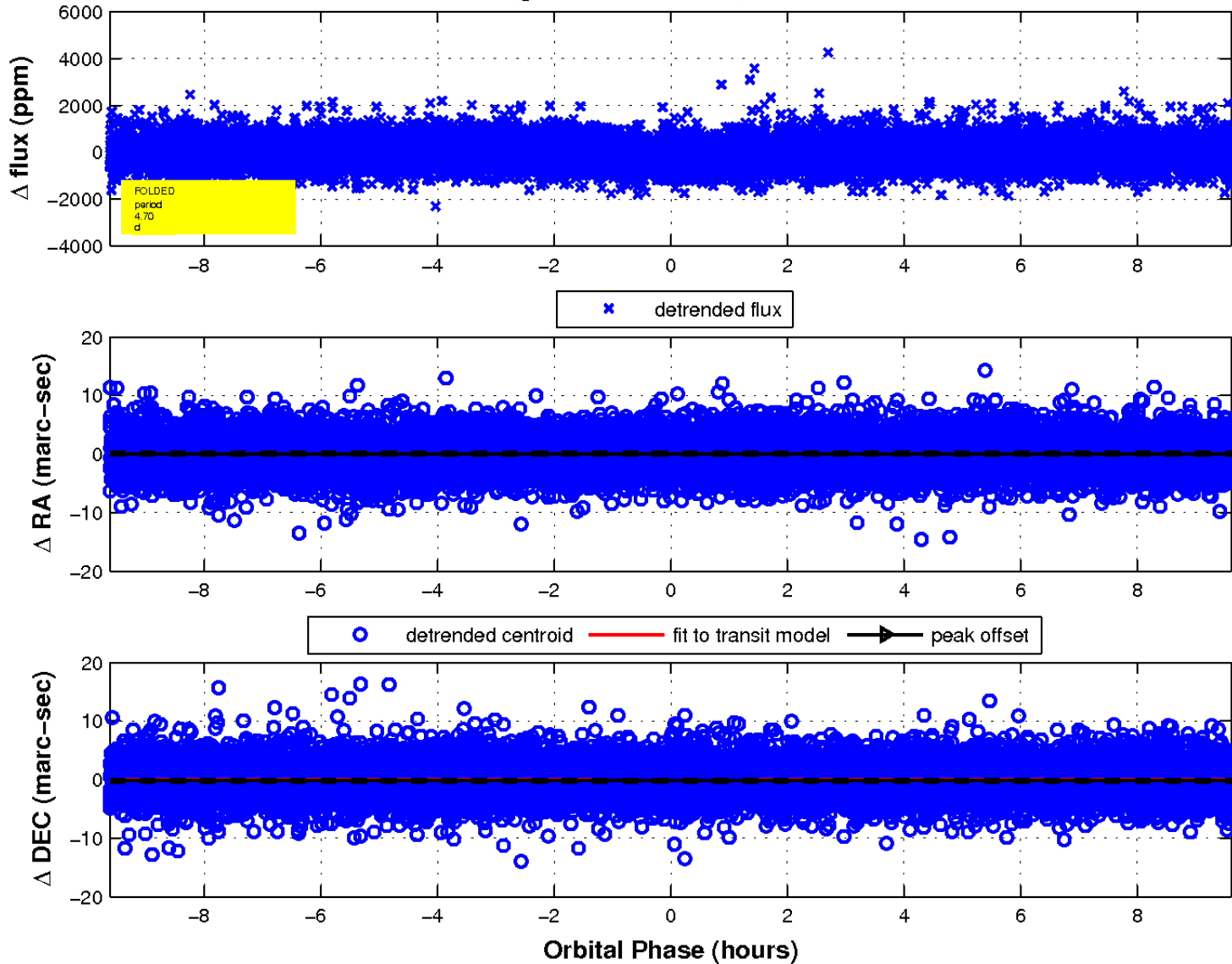
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

