

KIC 003848275

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})
003848275-01	OBS	2995.01	5.194897	131.627603	264.1	3.186	13.5	15.1	1.22	6415	2.24	555.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003848275-01	OBS	PC	0.99	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.

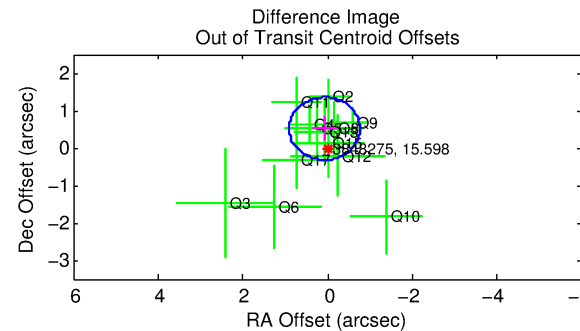
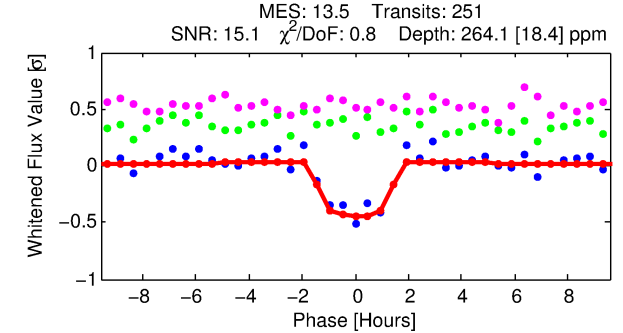
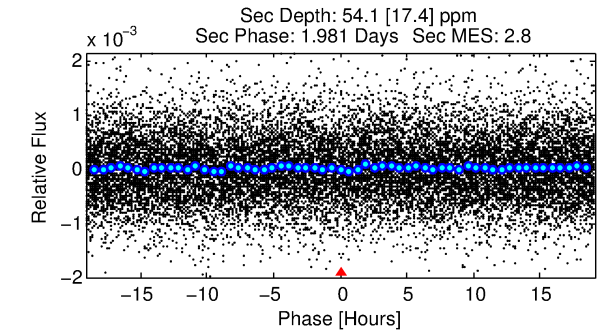
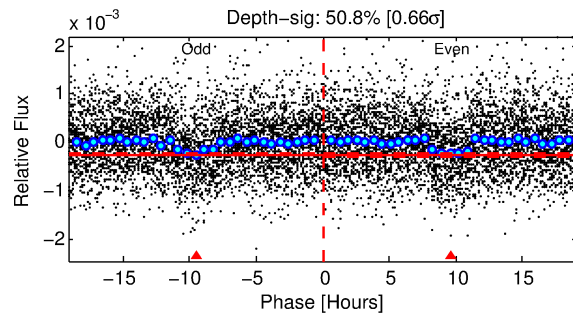
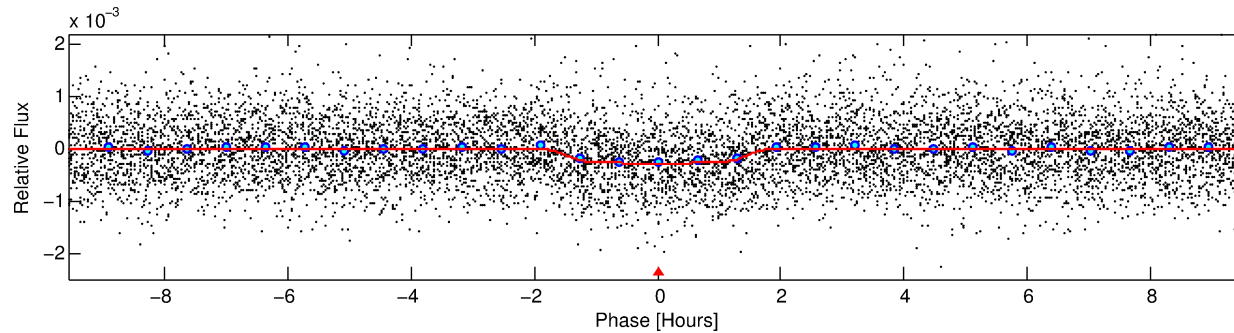
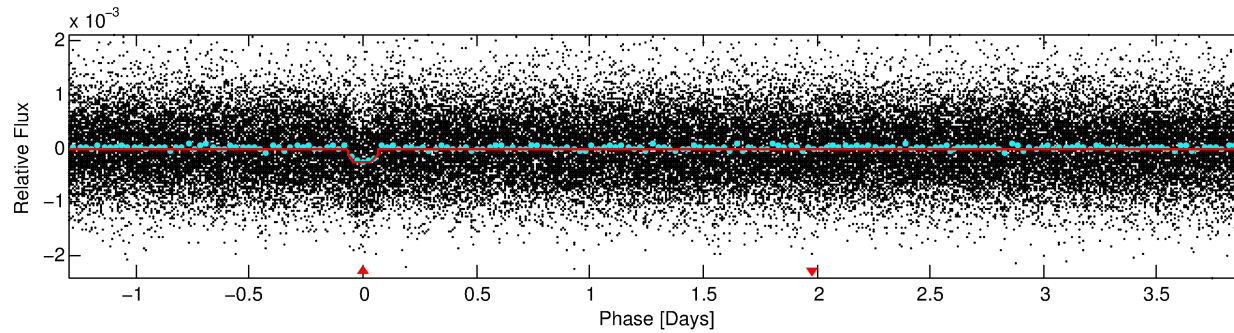
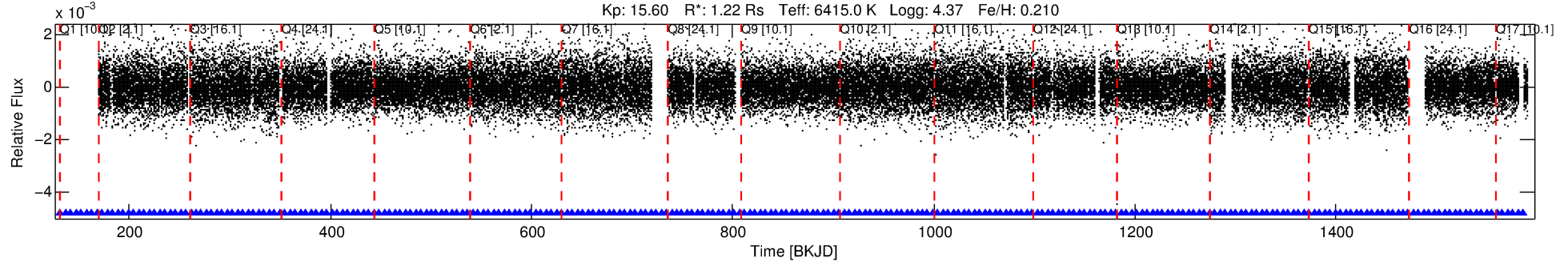
Ephemeris Match Information For 003848275-01

No Significant Match Found

DV One-Page Summary

KIC: 3848275 Candidate: 1 of 1 Period: 5.195 d
KOI: K02995.01 Corr: 0.984

Kp: 15.60 R*: 1.22 Rs Teff: 6415.0 K Logg: 4.37 Fe/H: 0.210



DV Fit Results:

Period = 5.19490 [0.00003] d
Epoch = 131.6276 [0.0039] BKJD
Rp/R* = 0.0168 [0.0073]
a/R* = 7.20 [16.19]
b = 0.84 [0.81]
Seff = 555.60 [230.67]
Teq = 1238 [128] K
Rp = 2.24 [1.22] Re
a = 0.0640 [0.0173] AU
Ag = 24.22 [24.32] [0.96σ]
Teffp = 4246 [996] K [2.99σ]

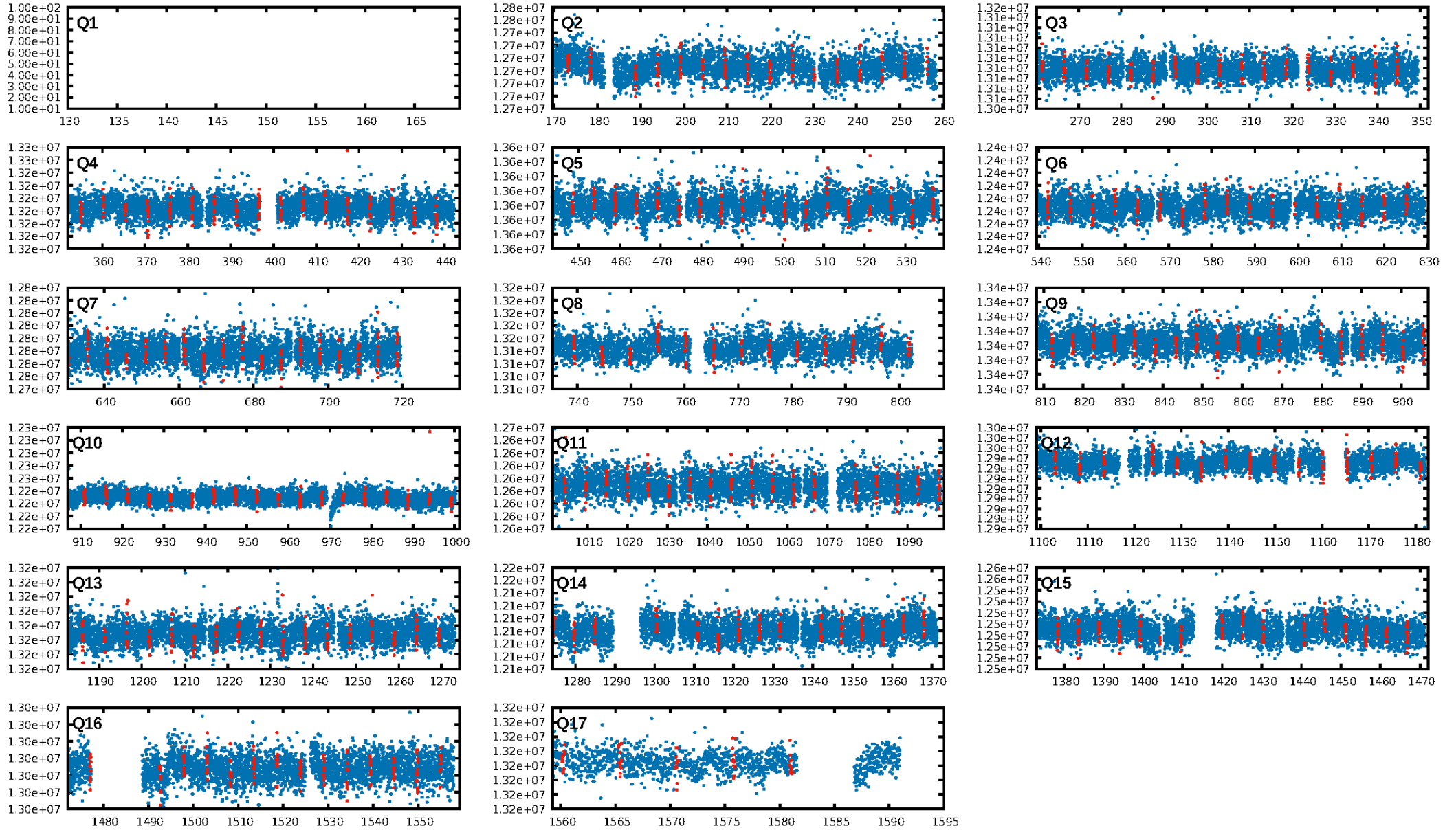
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.83e-41
RollingBand-fgt: 1.00 [246/246]
GhostDiagnostic-chr: 3.355
Centroid-sig: 10.8%
Centroid-so: 1.223 arcsec [1.27σ]
OotOffset-rm: 0.523 arcsec [1.88σ]
KicOffset-rm: 0.428 arcsec [1.53σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.69 [9/13]
DiffImageOverlap-fno: 1.00 [16/16]

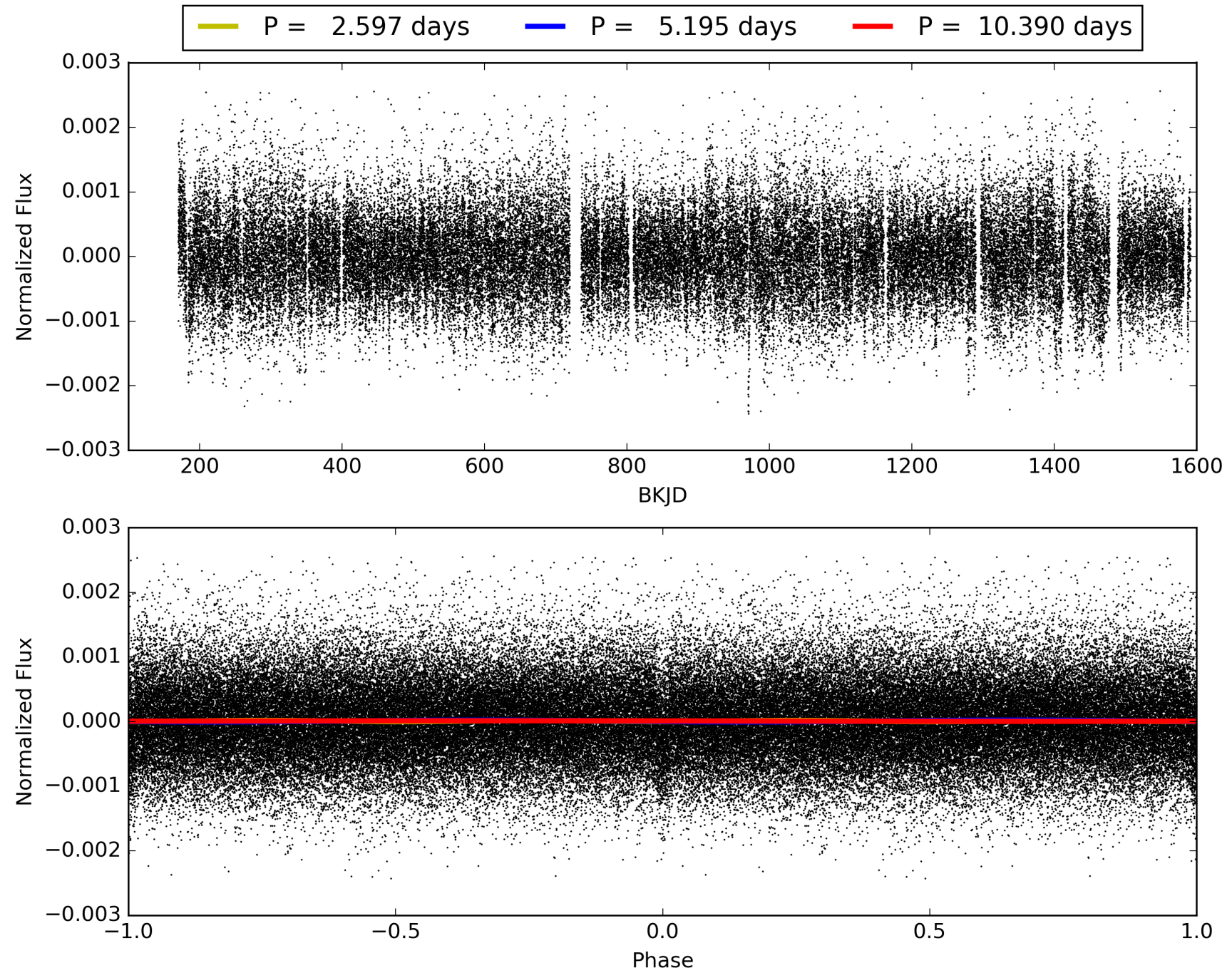
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:17:56 Z

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

TCE 003848275-01, PDC Light Curves

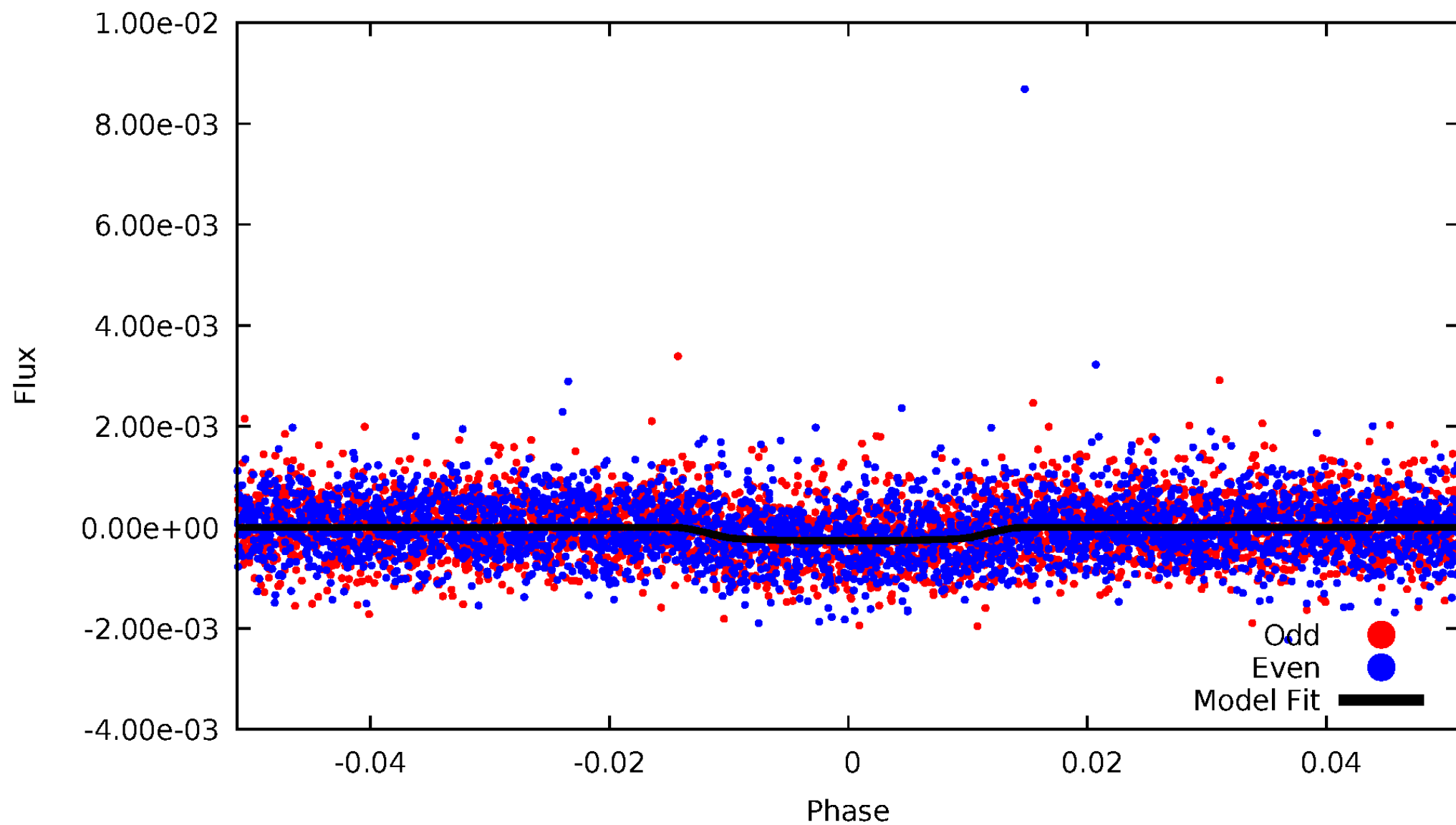


TCE 003848275-01



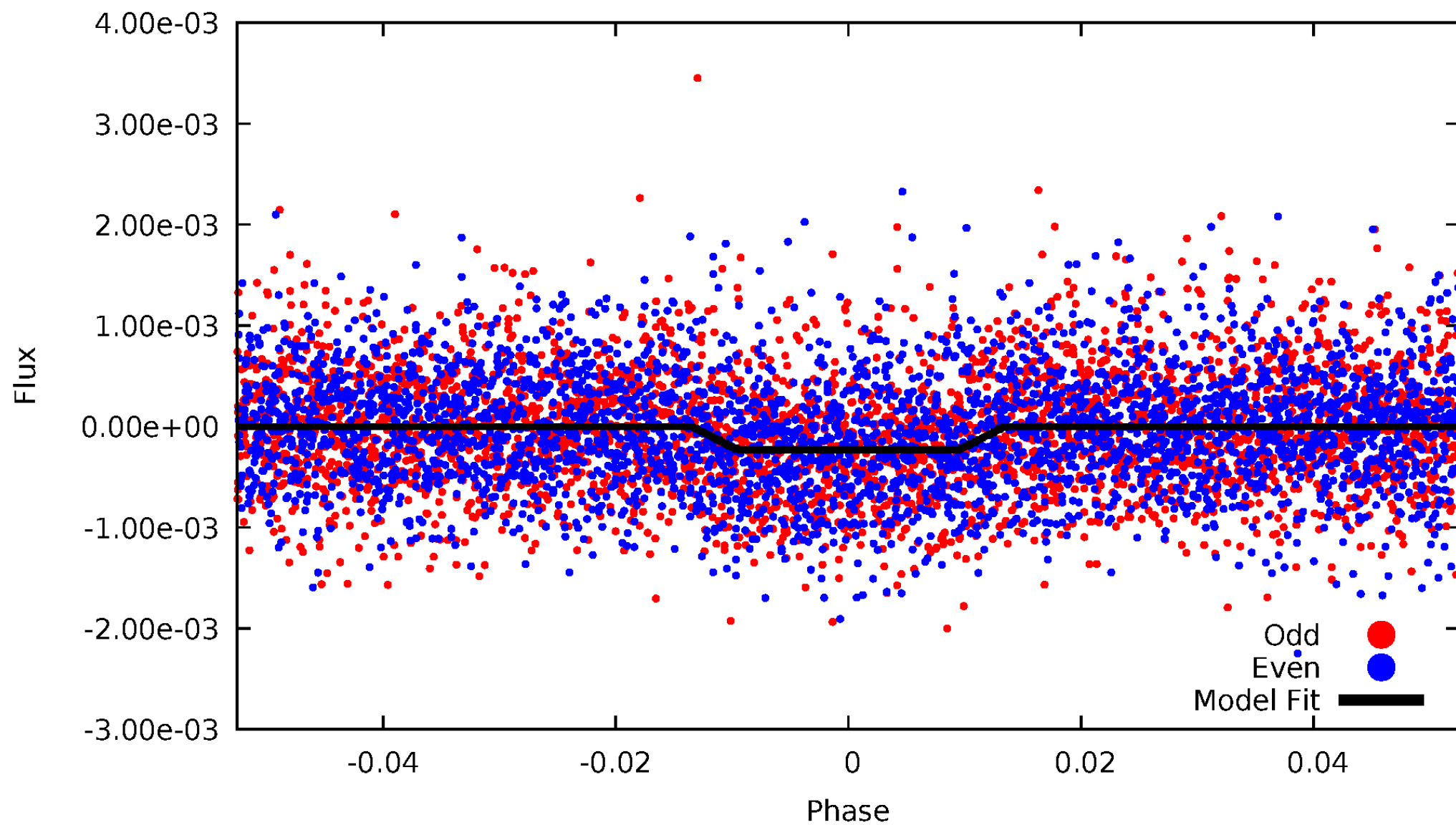
DV Odd/Even

TCE 003848275-01



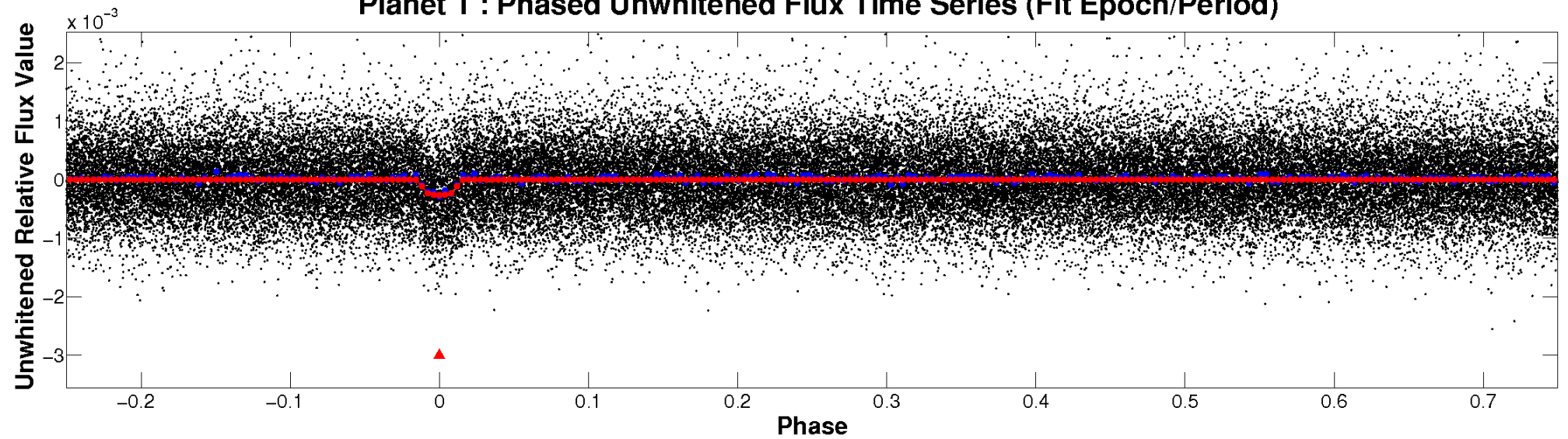
ALT Odd/Even

TCE 003848275-01

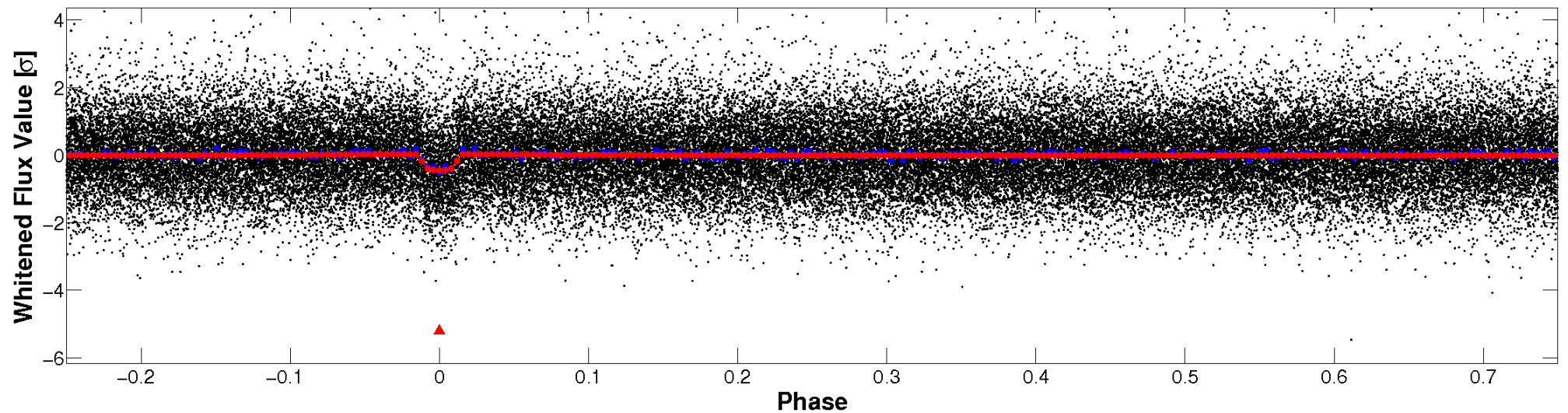


Non-Whitened Vs. Whitened Light Curve

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

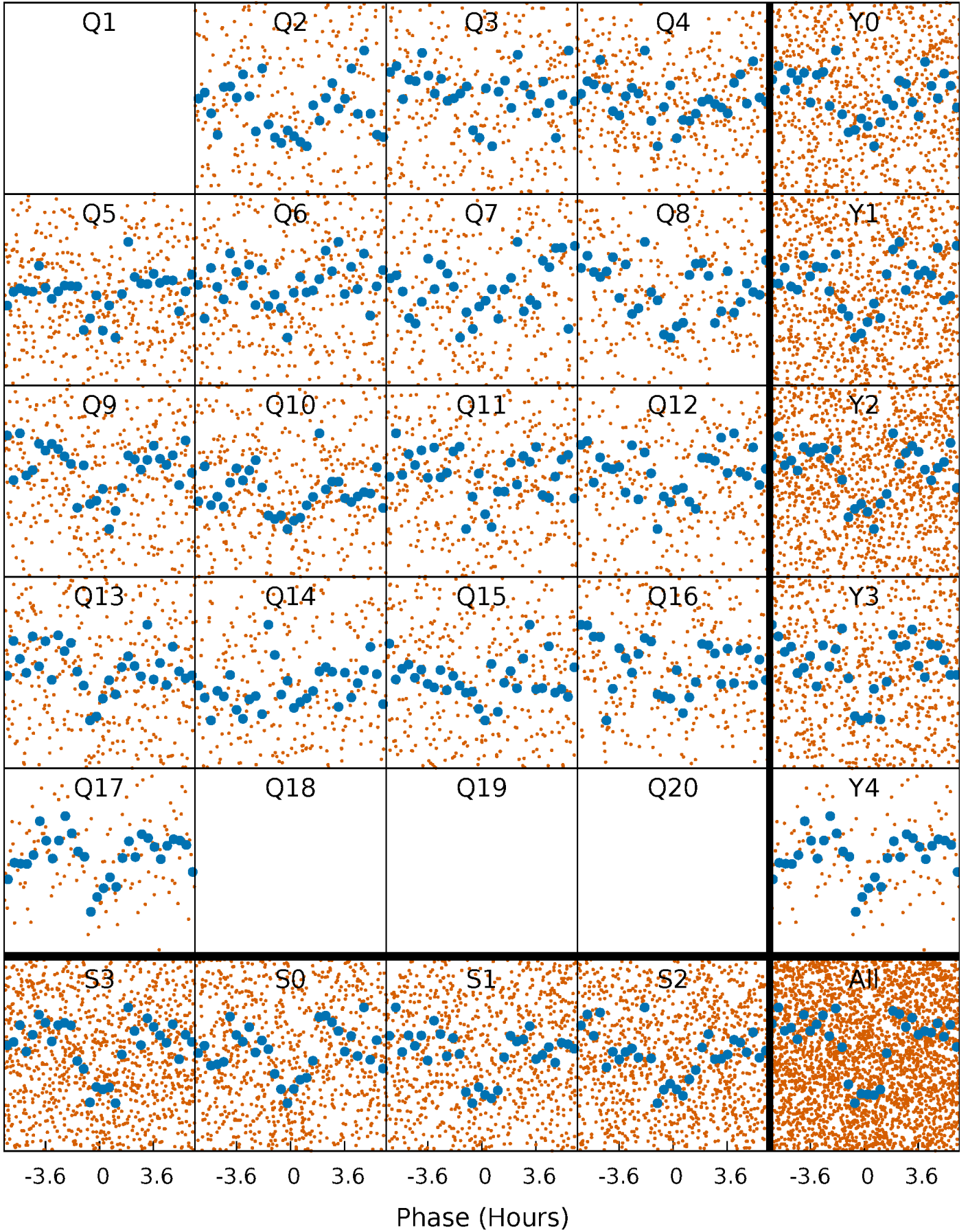


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



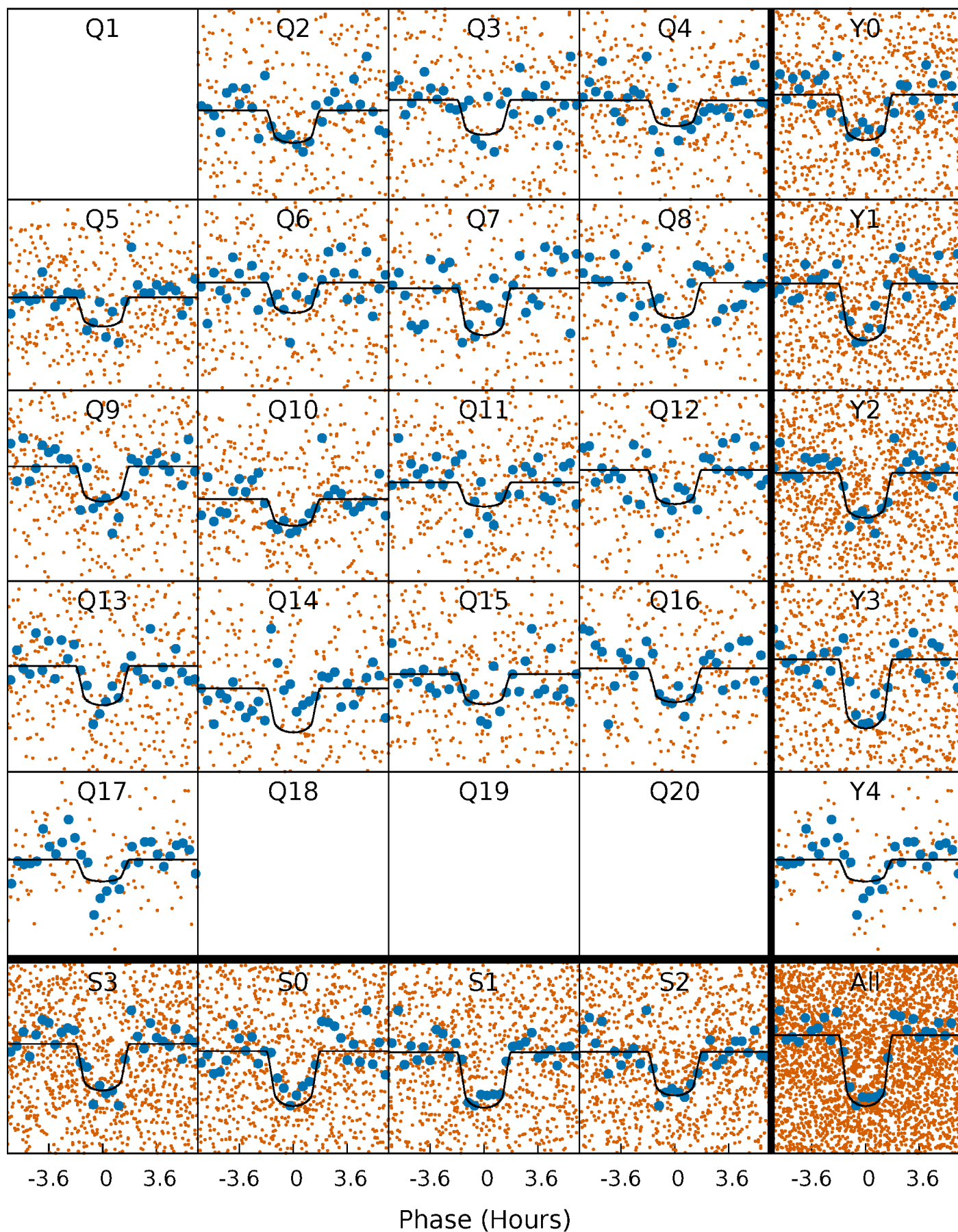
PDC Quarter-Phased Transit Curves

TCE 003848275-01 P= 5.194897 Days $T_0=131.627603$ (BKJD)



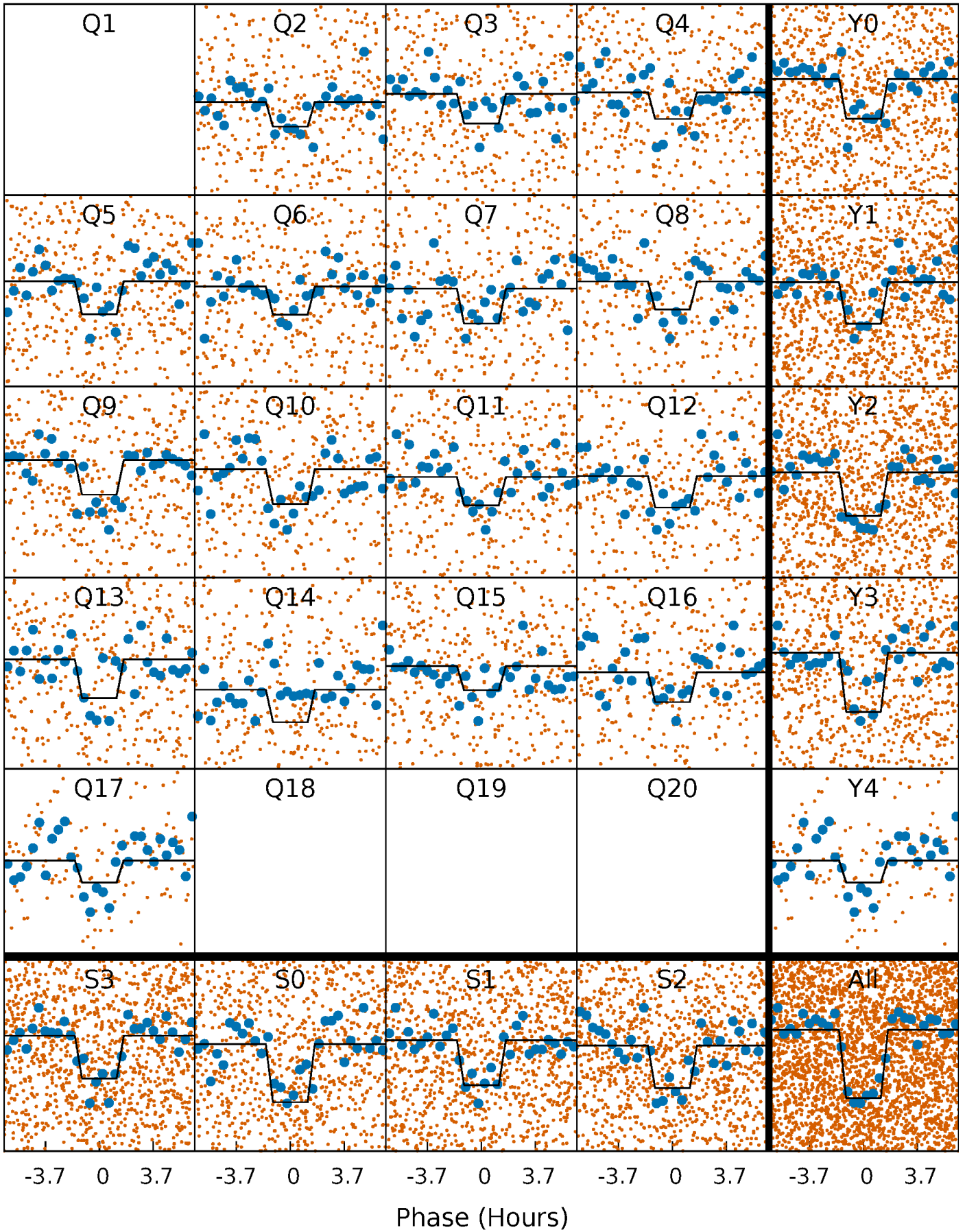
DV Quarter-Phased Transit Curves

TCE 003848275-01 P= 5.194897 Days $T_0=131.627603$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

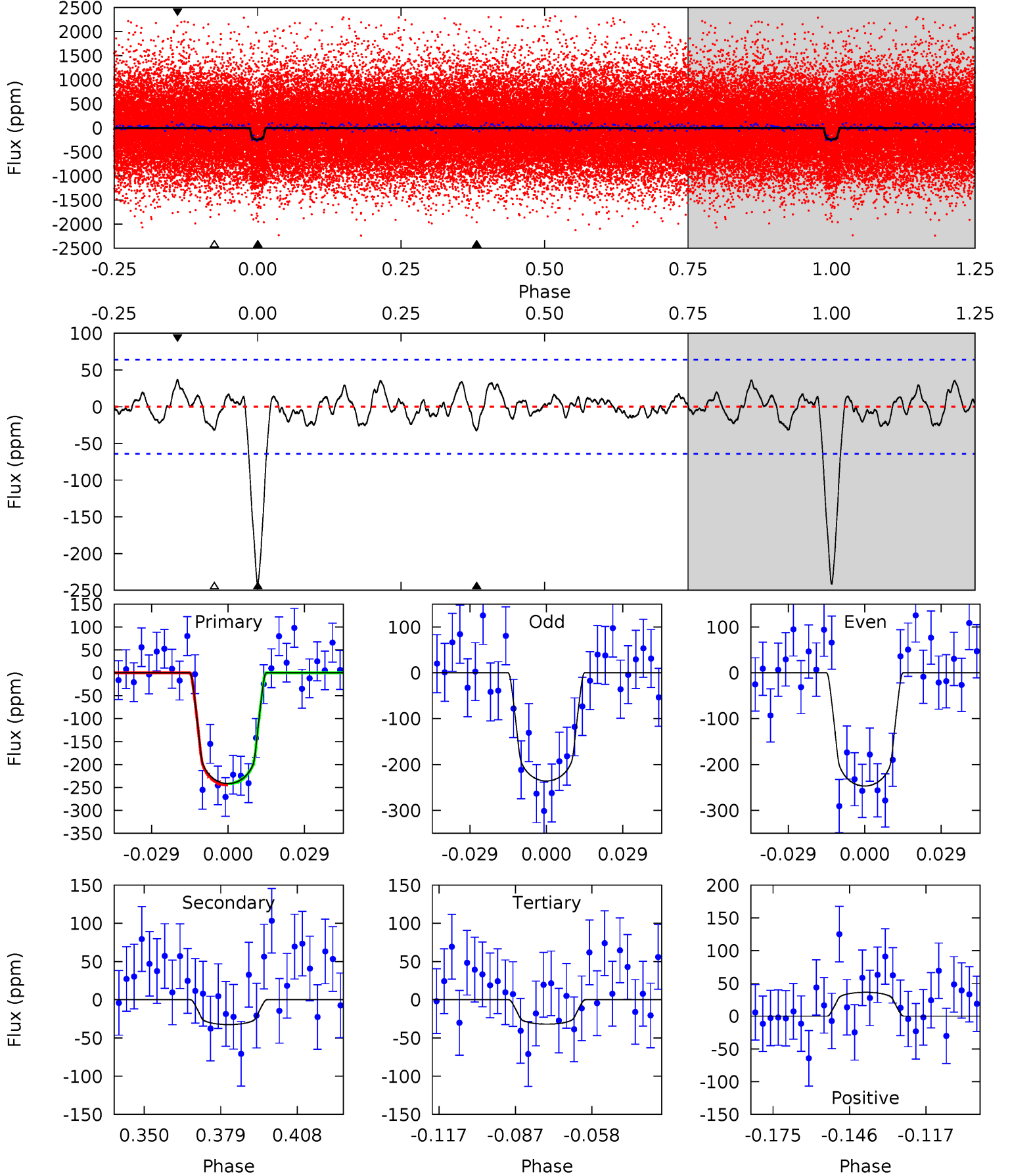
TCE 003848275-01 P= 5.194996 Days $T_0=131.615546$ (BKJD)



DV Model-Shift Uniqueness Test

003848275-01, P = 5.194897 Days, E = 131.627603 Days

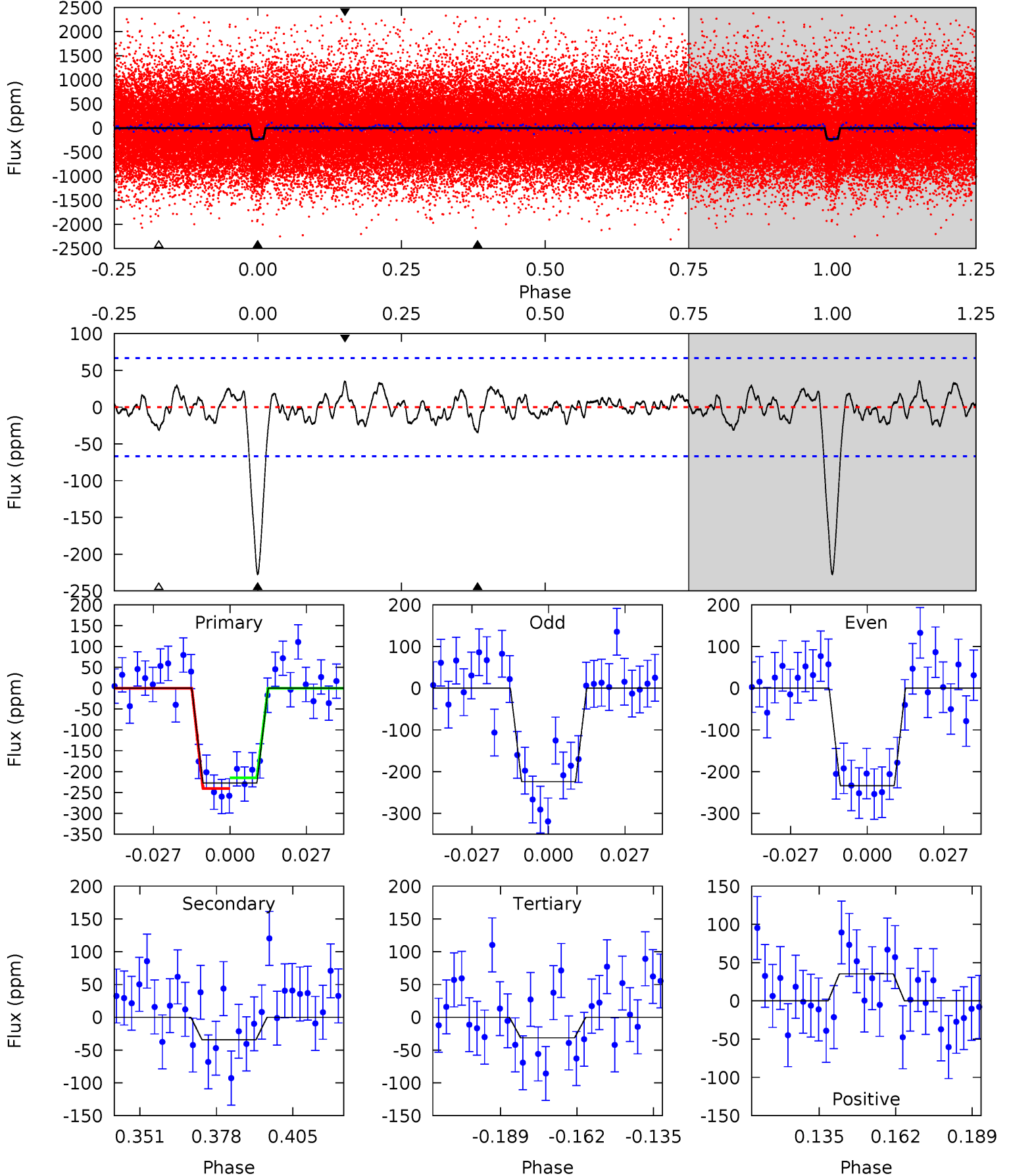
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	2.45	2.41	2.73	4.82	2.18	0.98	15.8	15.4	0.04	-0.29	0.41	0.85	0.13	0.10



Alt Model-Shift Uniqueness Test

003848275-01, P = 5.194996 Days, E = 131.615546 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.5	2.48	2.27	2.56	4.83	2.21	0.91	14.2	13.9	0.21	-0.08	0.36	0.87	0.13	0.93



Stellar Parameters For KIC 003848275

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6415^{+177}_{-243}	$4.374^{+0.065}_{-0.208}$	$0.210^{+0.200}_{-0.350}$	$1.224^{+0.400}_{-0.160}$	$1.293^{+0.163}_{-0.182}$	$0.994^{+0.284}_{-0.529}$
	+3%/-4%	+1%/-5%	+95%/-167%	+33%/-13%	+13%/-14%	+29%/-53%
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 003848275-01 / KOI 2995.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-33 ± 13	$2.41^{+1.00}_{-1.00}$	1763^{+125}_{-100}	3938^{+947}_{-541}	12^{+25}_{-7}
Alt.	-34 ± 14	$2.18^{+1.07}_{-1.01}$	1758^{+135}_{-96}	4133^{+1225}_{-650}	15^{+43}_{-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 $A_{obs} \gg 1.0$

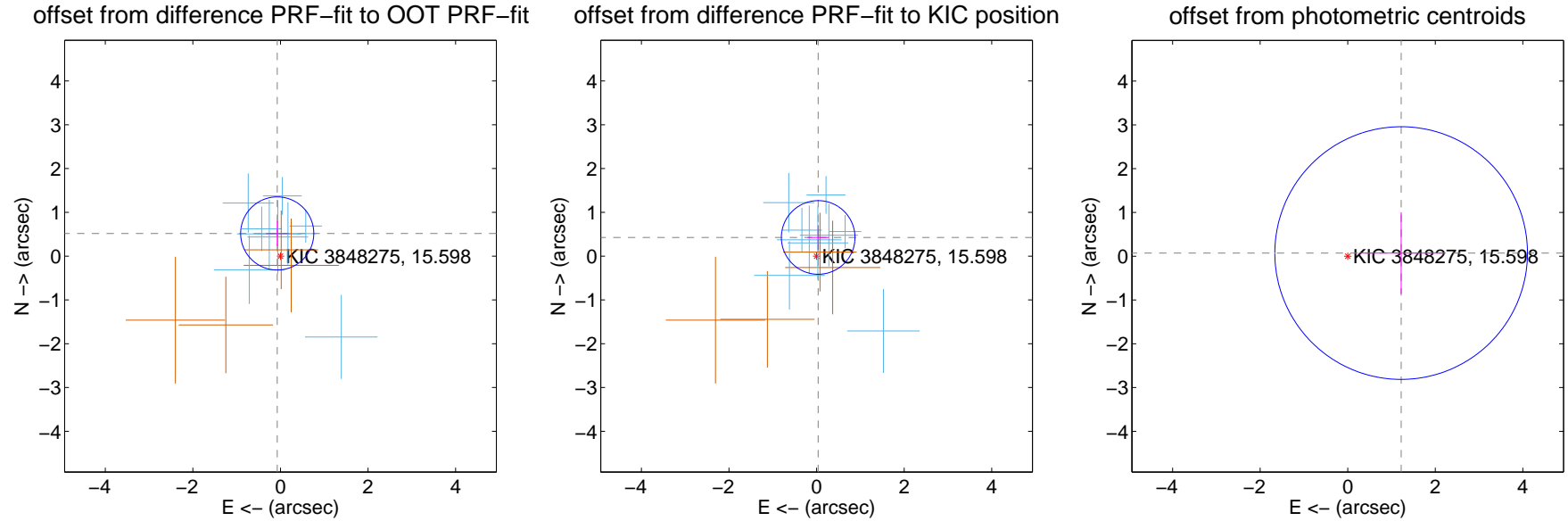
DV Centroid Data

Supplemental centroid analysis for 003848275-01. Kepler magnitude: 15.60. Transit SNR 15.09

There are 9 quarters with good PRF difference image offsets

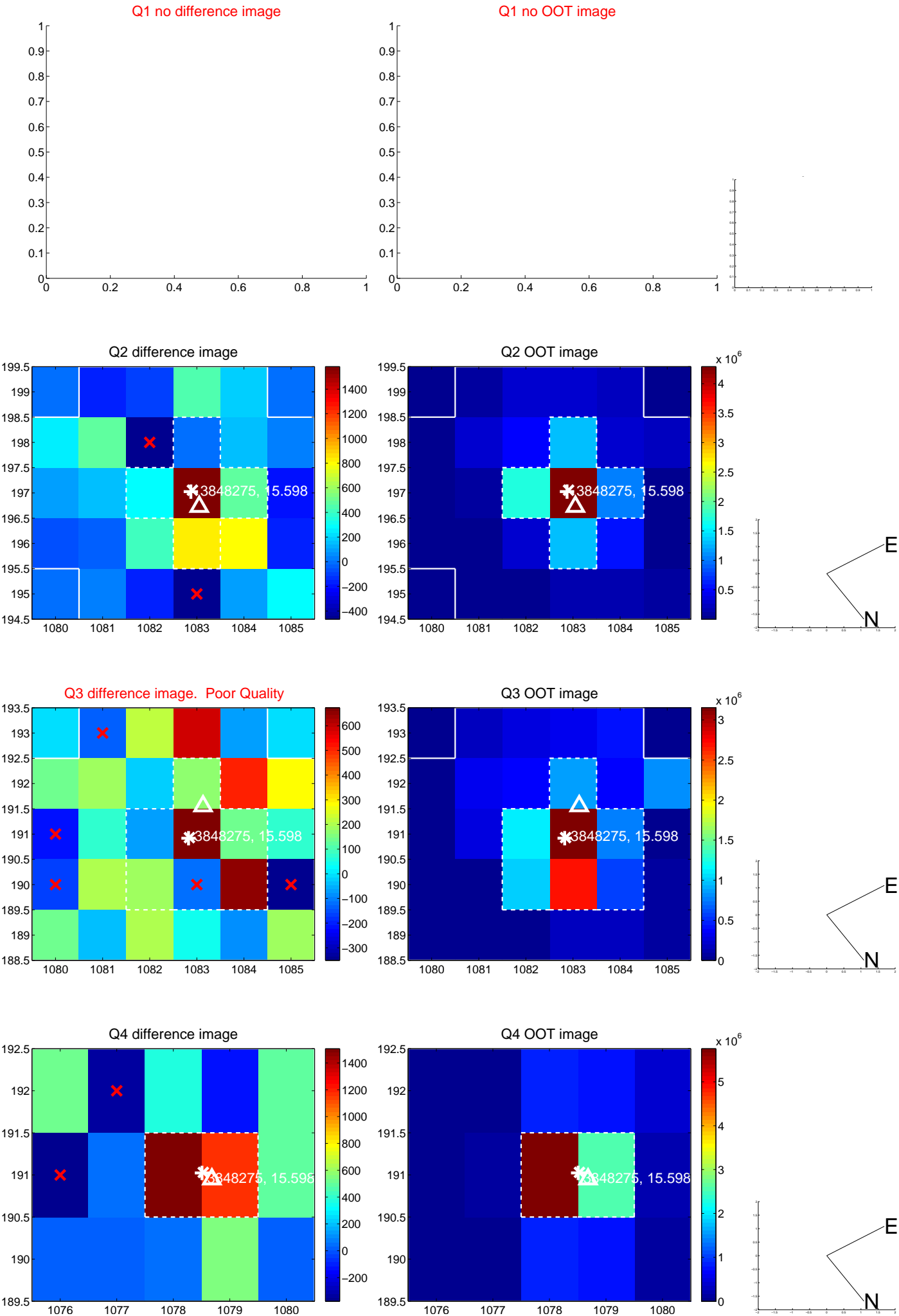
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.523 ± 0.278	1.88	0.074 ± 0.256	0.518 ± 0.282
PRF-fit source offset from KIC position	0.428 ± 0.280	1.53	-0.037 ± 0.240	0.427 ± 0.277
photometric centroid source offset	1.22 ± 0.96	1.27	-1.22 ± 0.96	0.07 ± 0.93

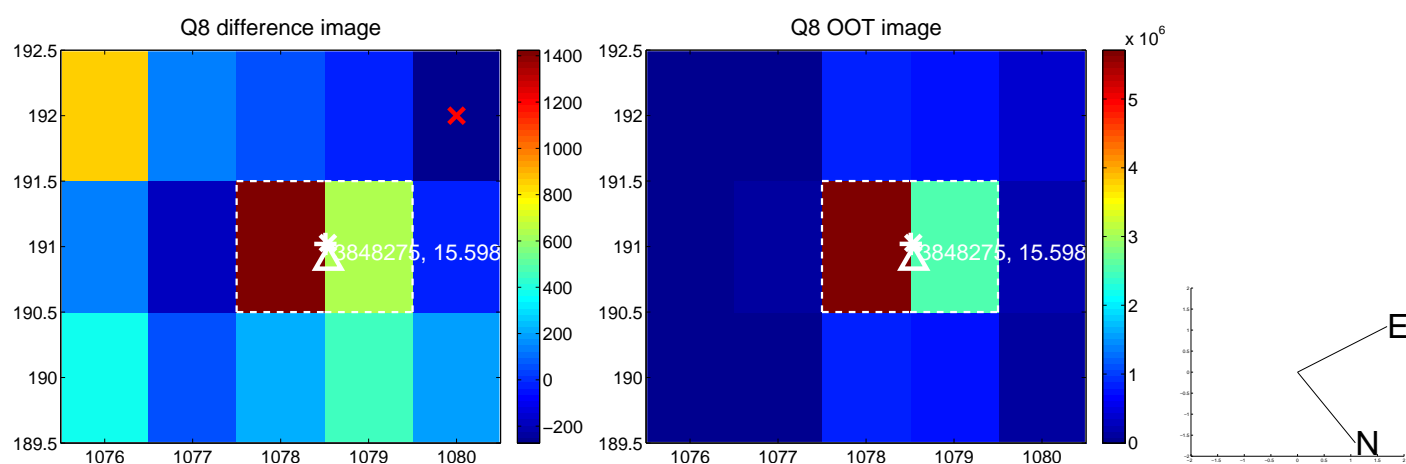
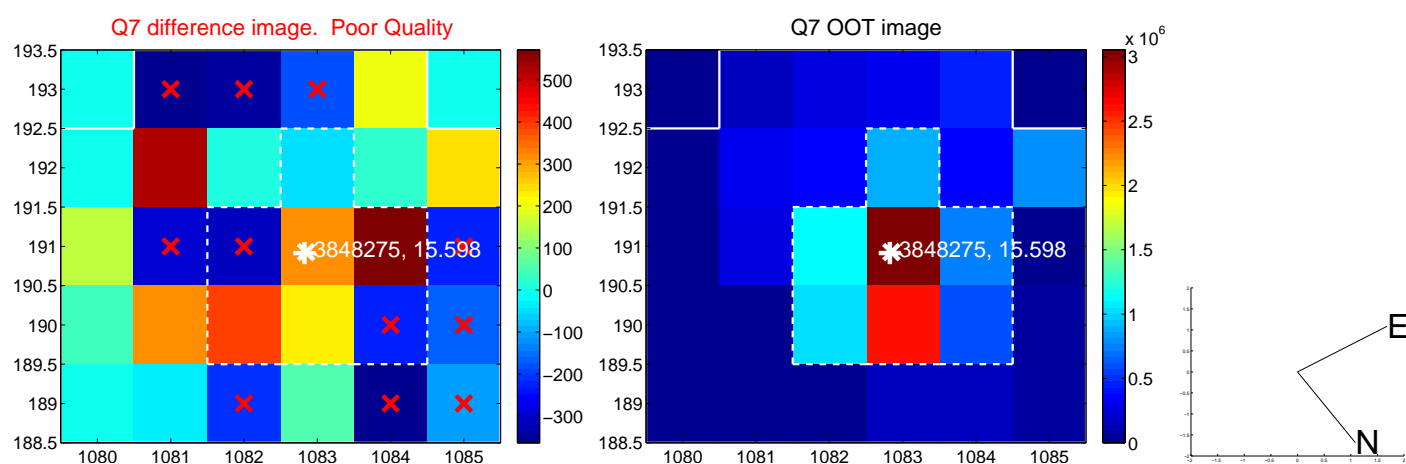
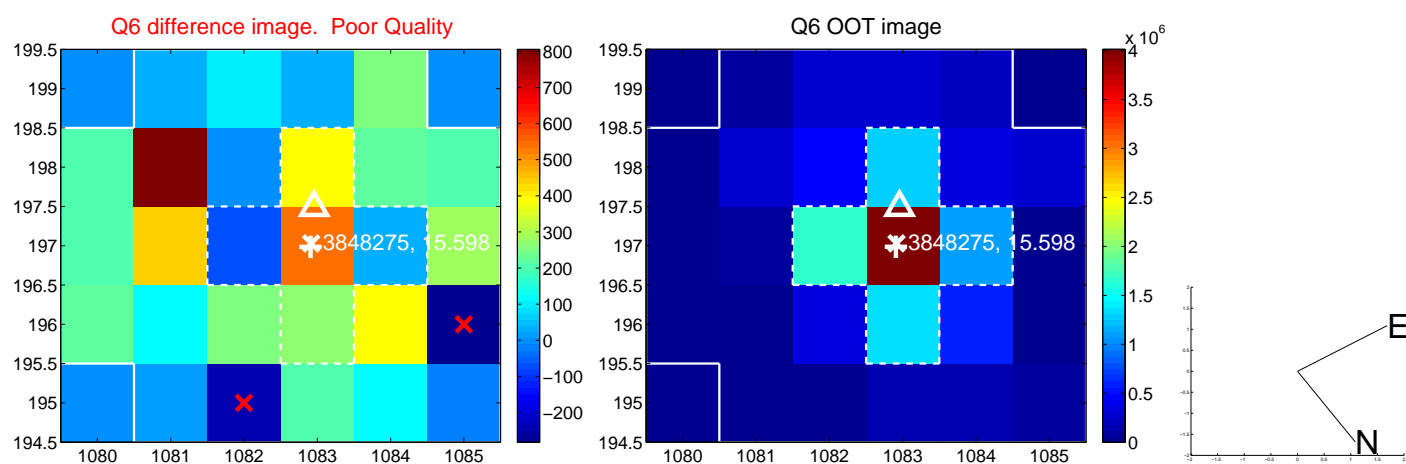
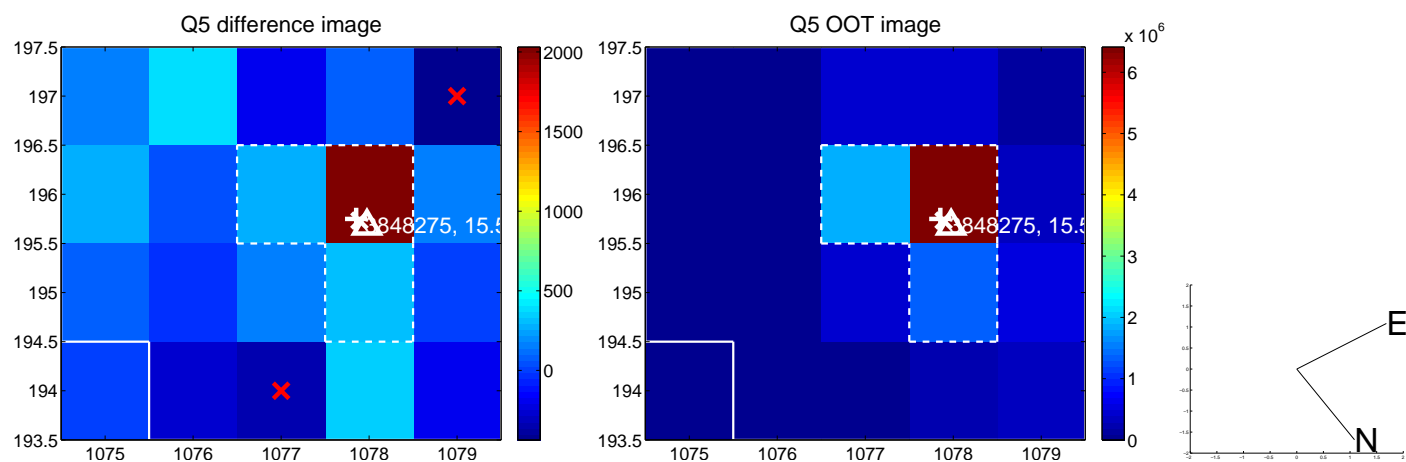


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

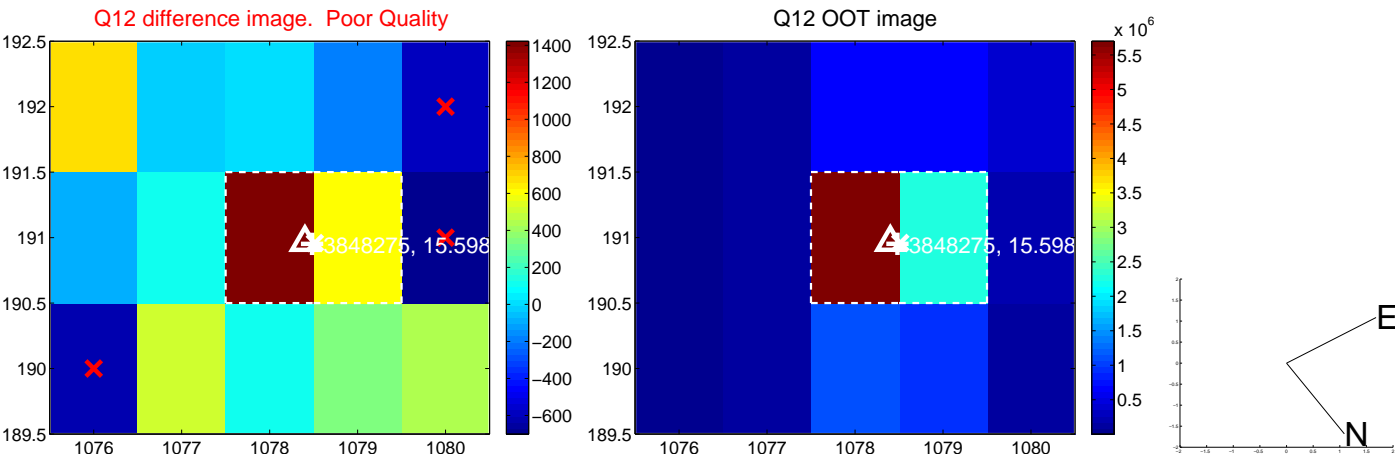
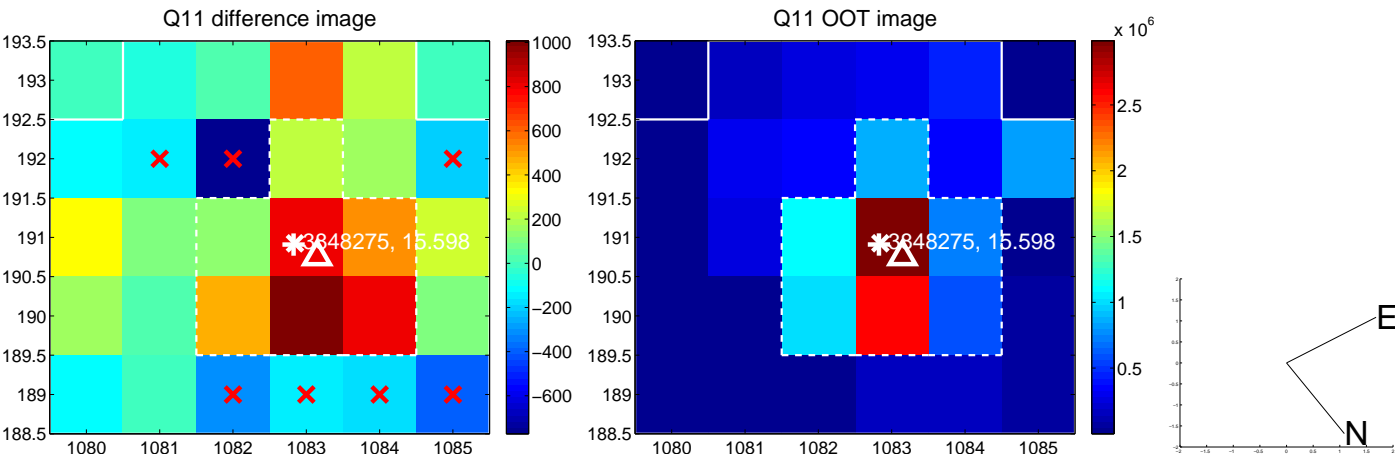
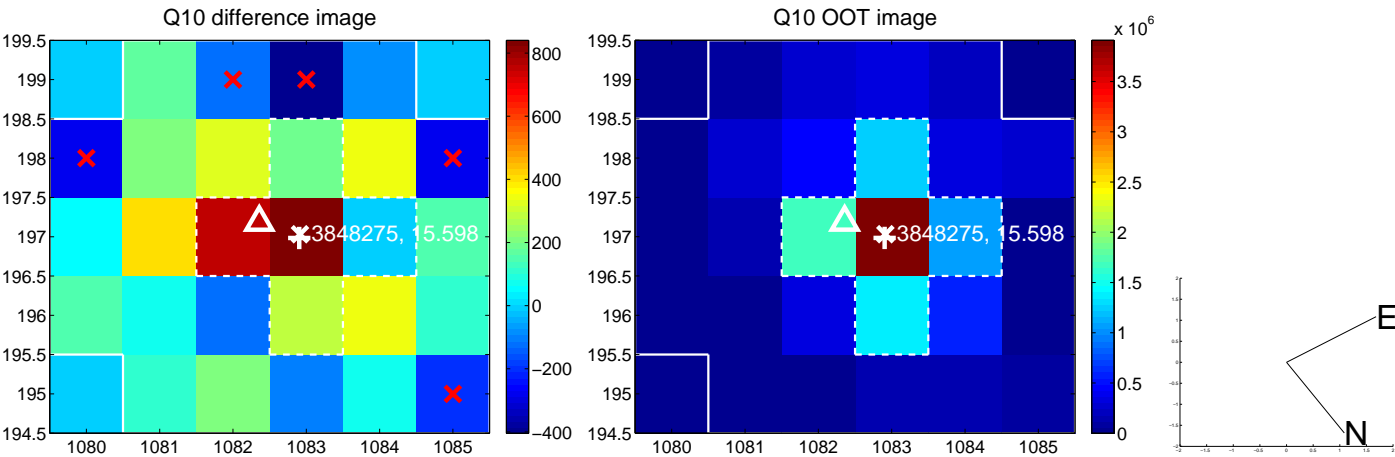
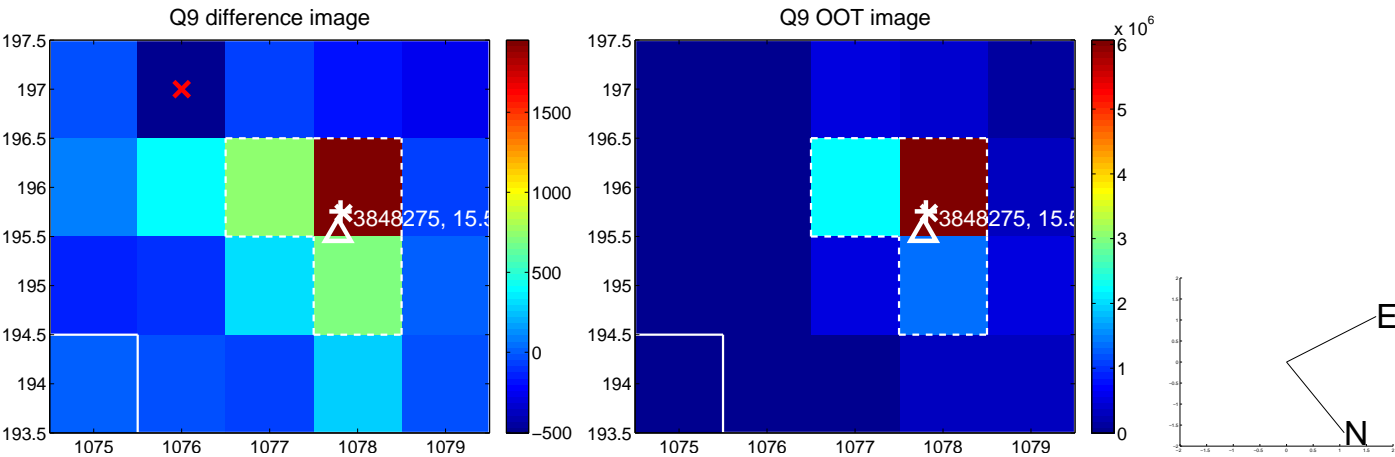
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



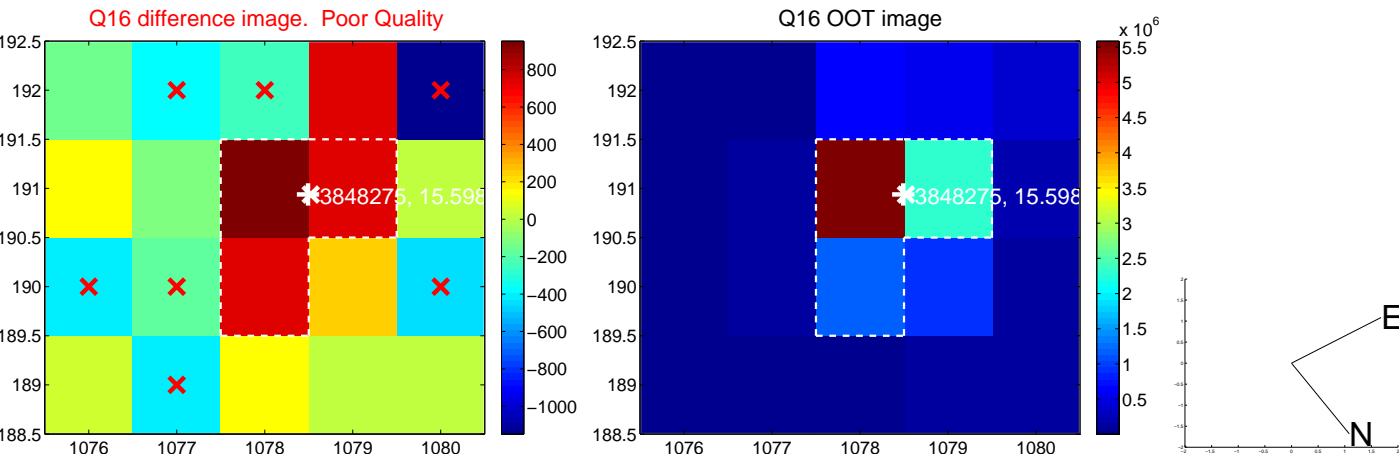
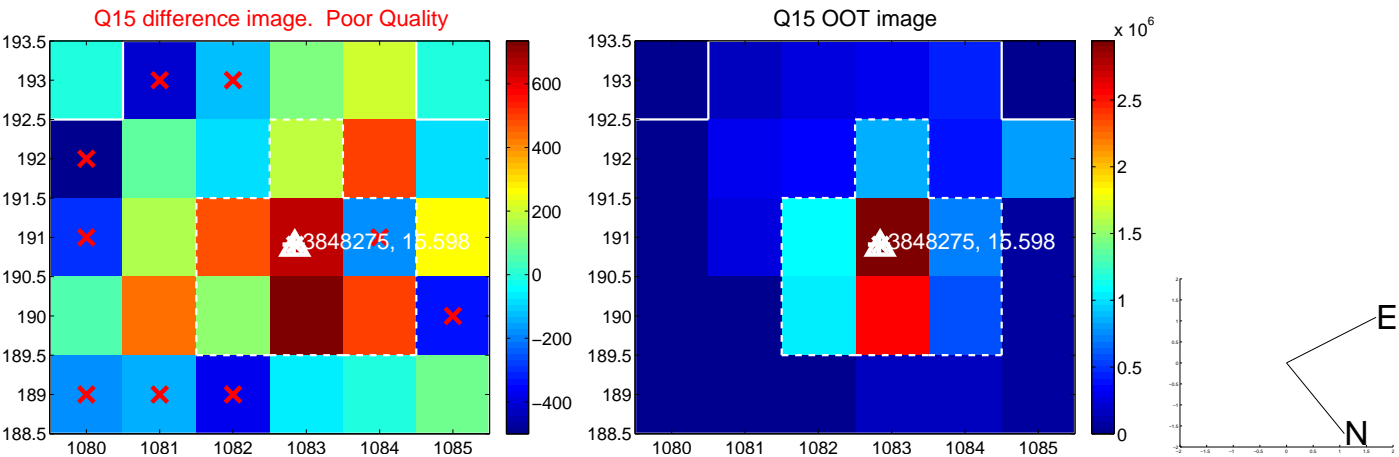
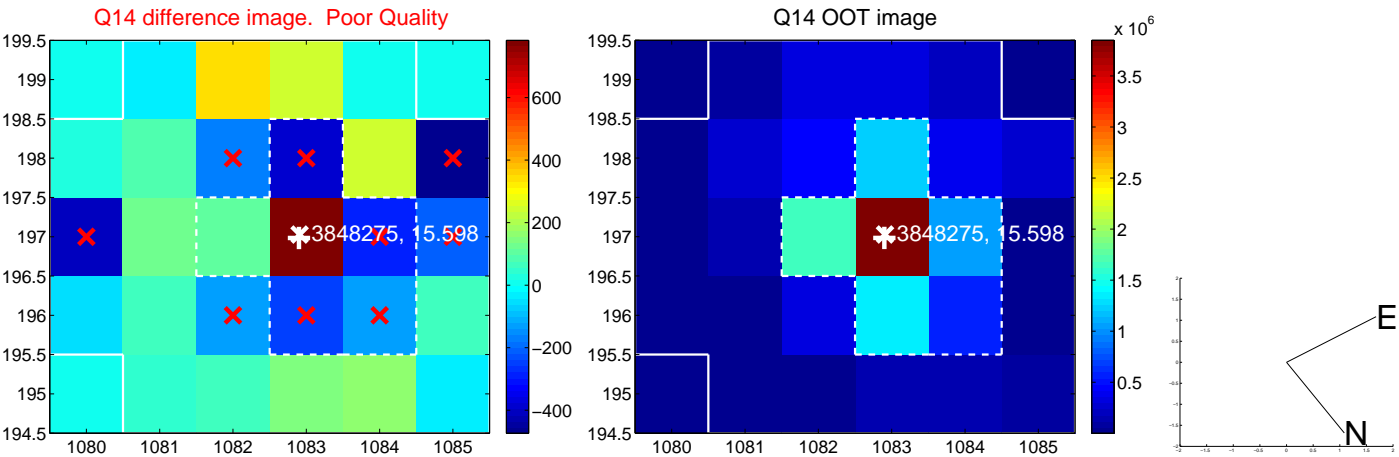
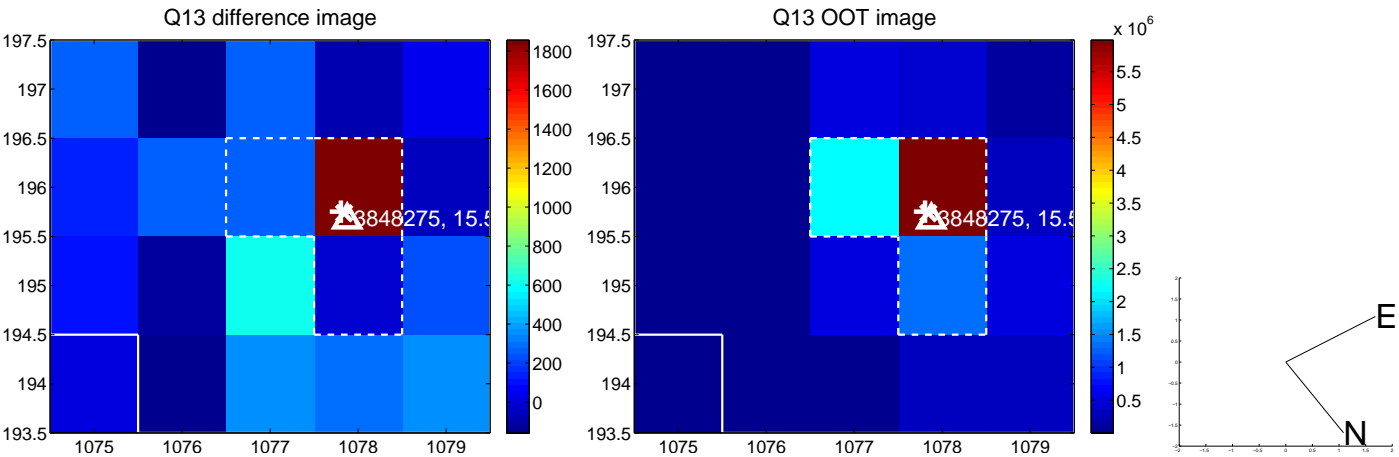
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



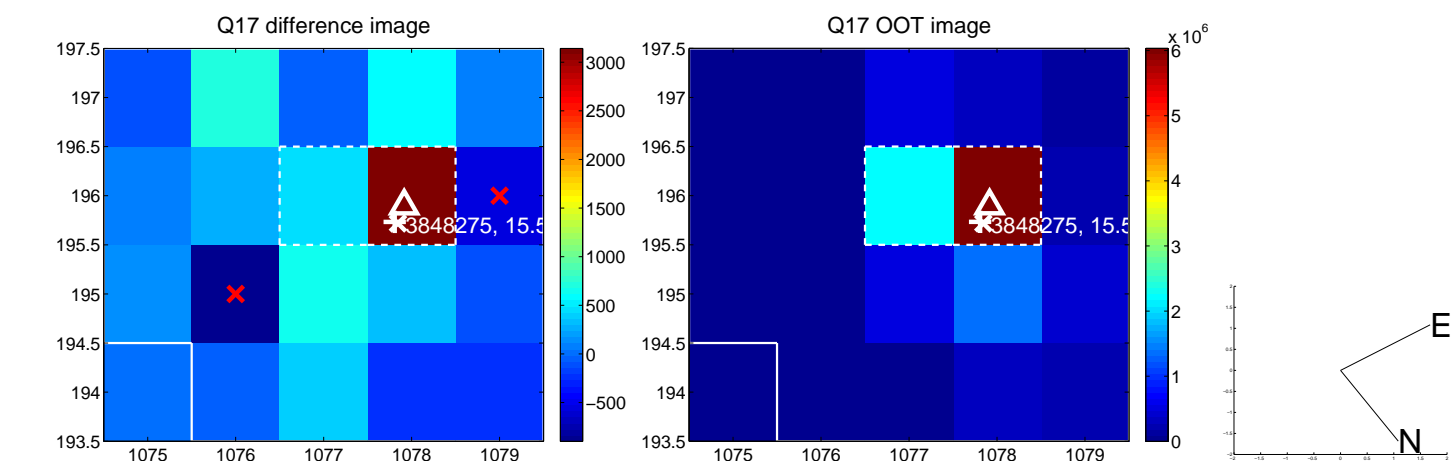
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



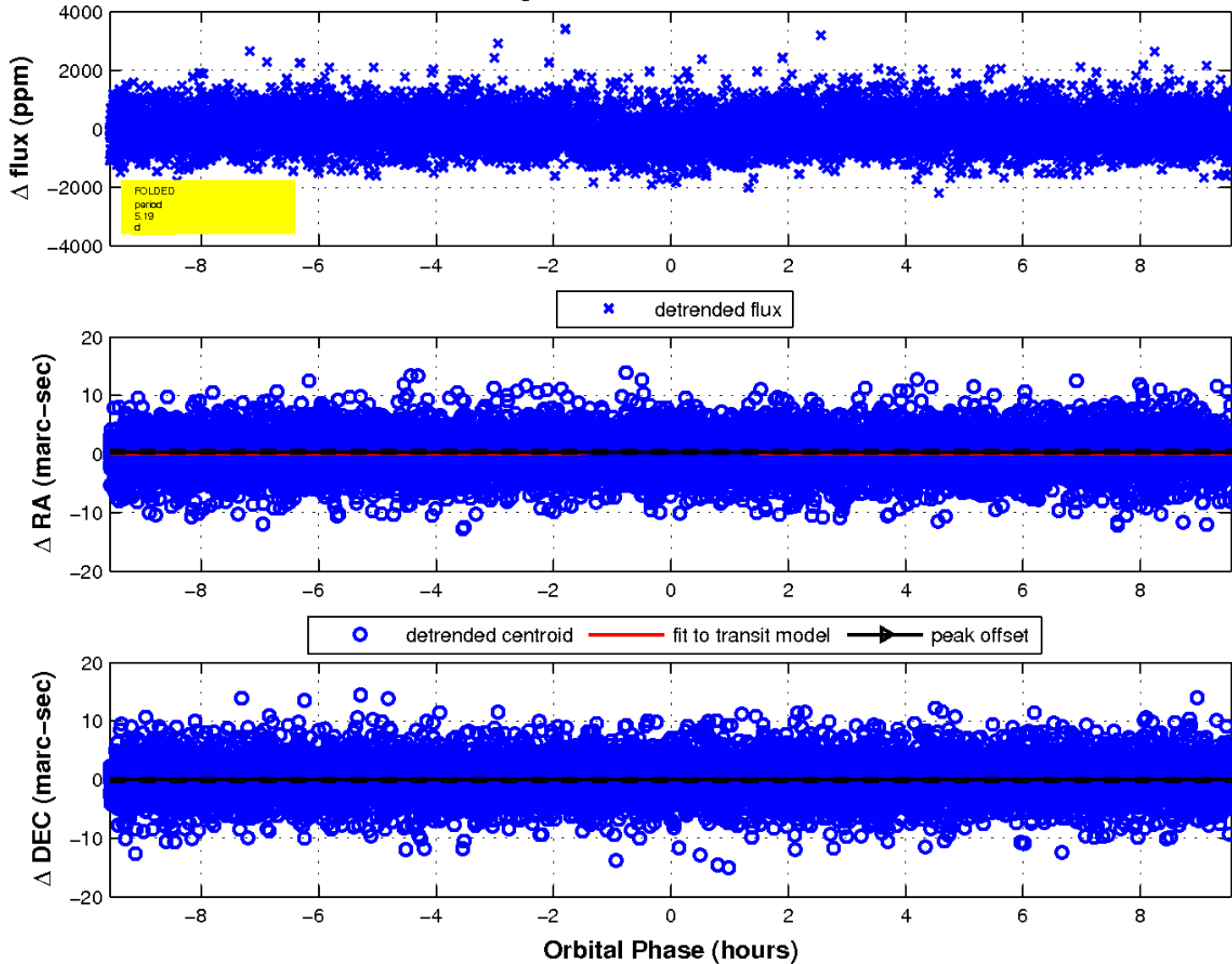
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

