

KIC 006131236

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})
006131236-01	OBS	1051.01	6.796846	138.115309	436.0	3.862	27.0	29.4	0.97	6061	2.70	223.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006131236-01	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.

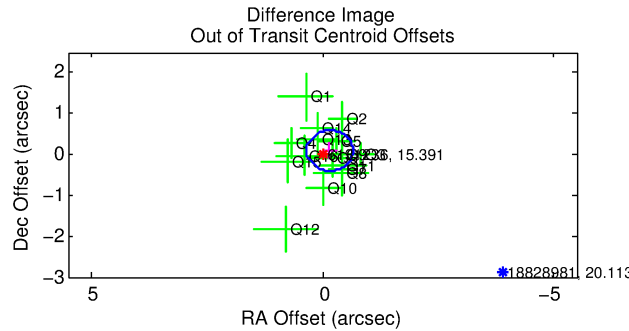
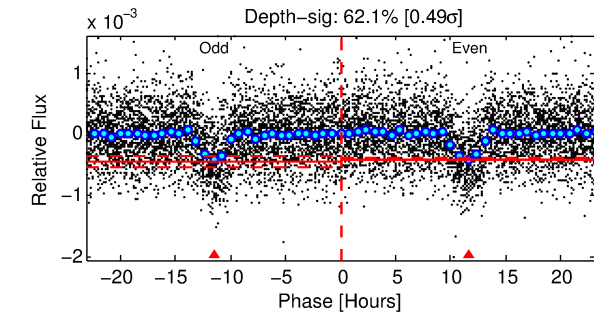
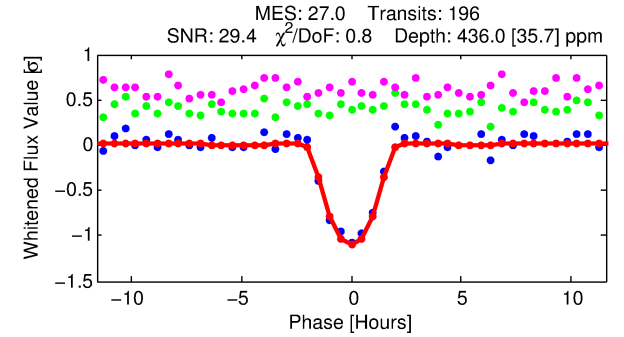
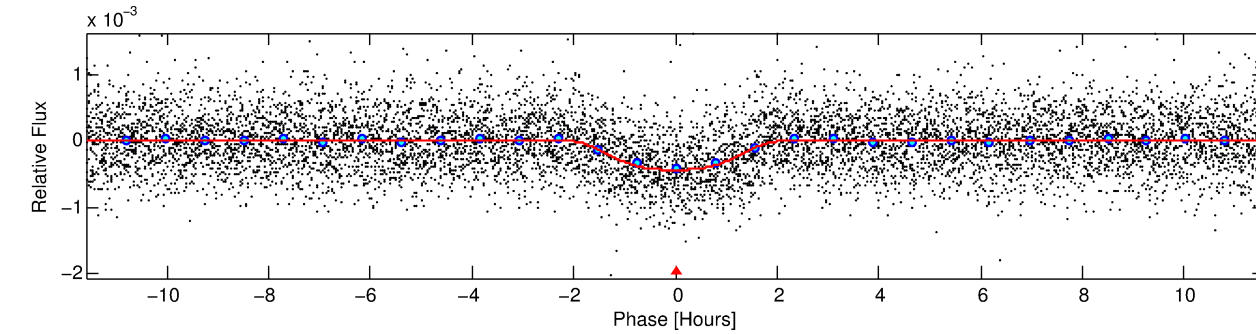
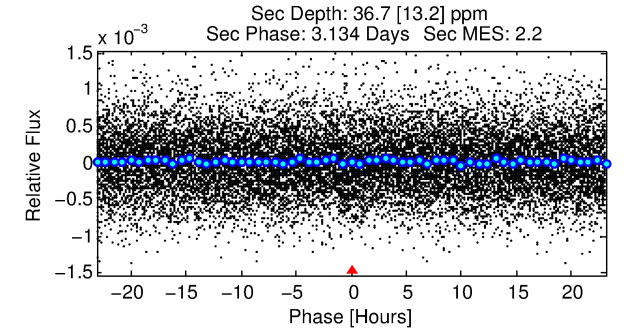
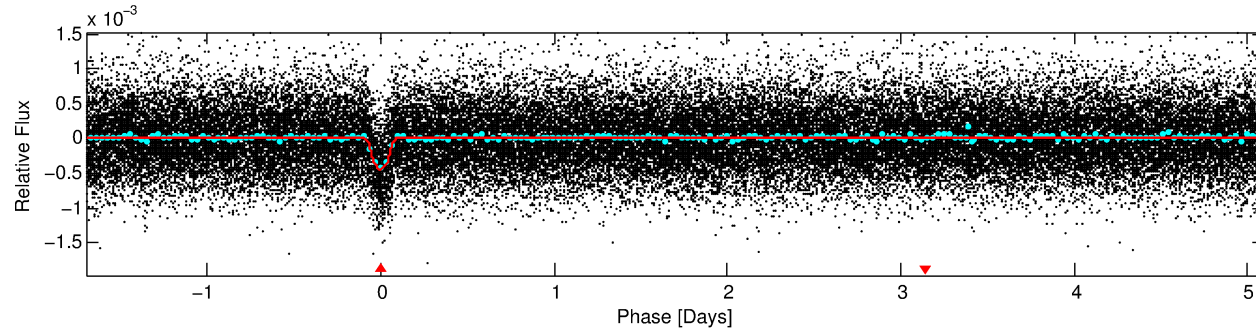
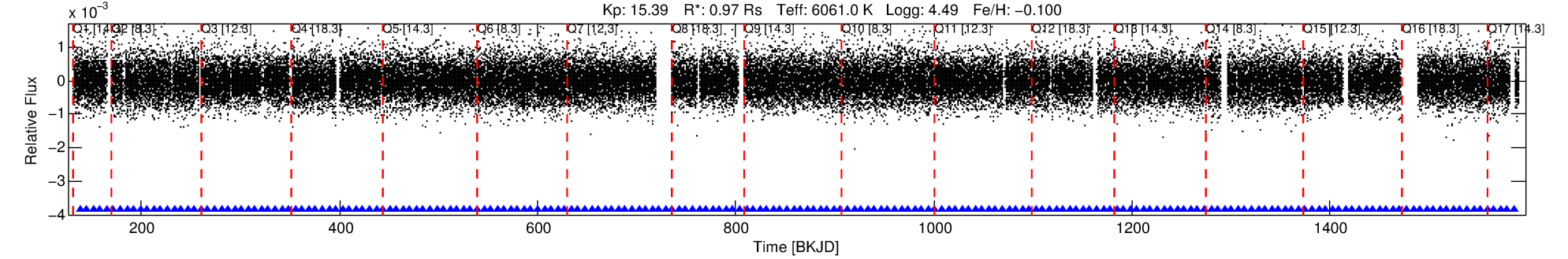
Ephemeris Match Information For 006131236-01

No Significant Match Found

DV One-Page Summary

KIC: 6131236 Candidate: 1 of 1 Period: 6.797 d

KOI: K01051.01 Corr: 0.914



DV Fit Results:

Period = 6.79685 [0.00003] d
Epoch = 138.1153 [0.0032] BKJD
Rp/R* = 0.0255 [0.0017]
a/R* = 4.42 [0.39]
b = 0.97 [0.01]
Seff = 223.11 [87.51]
Teq = 985 [97] K
Rp = 2.70 [0.85] Re
a = 0.0714 [0.0184] AU
Ag = 14.08 [7.49] [1.75σ]
Teffp = 2952 [298] K [6.27σ]

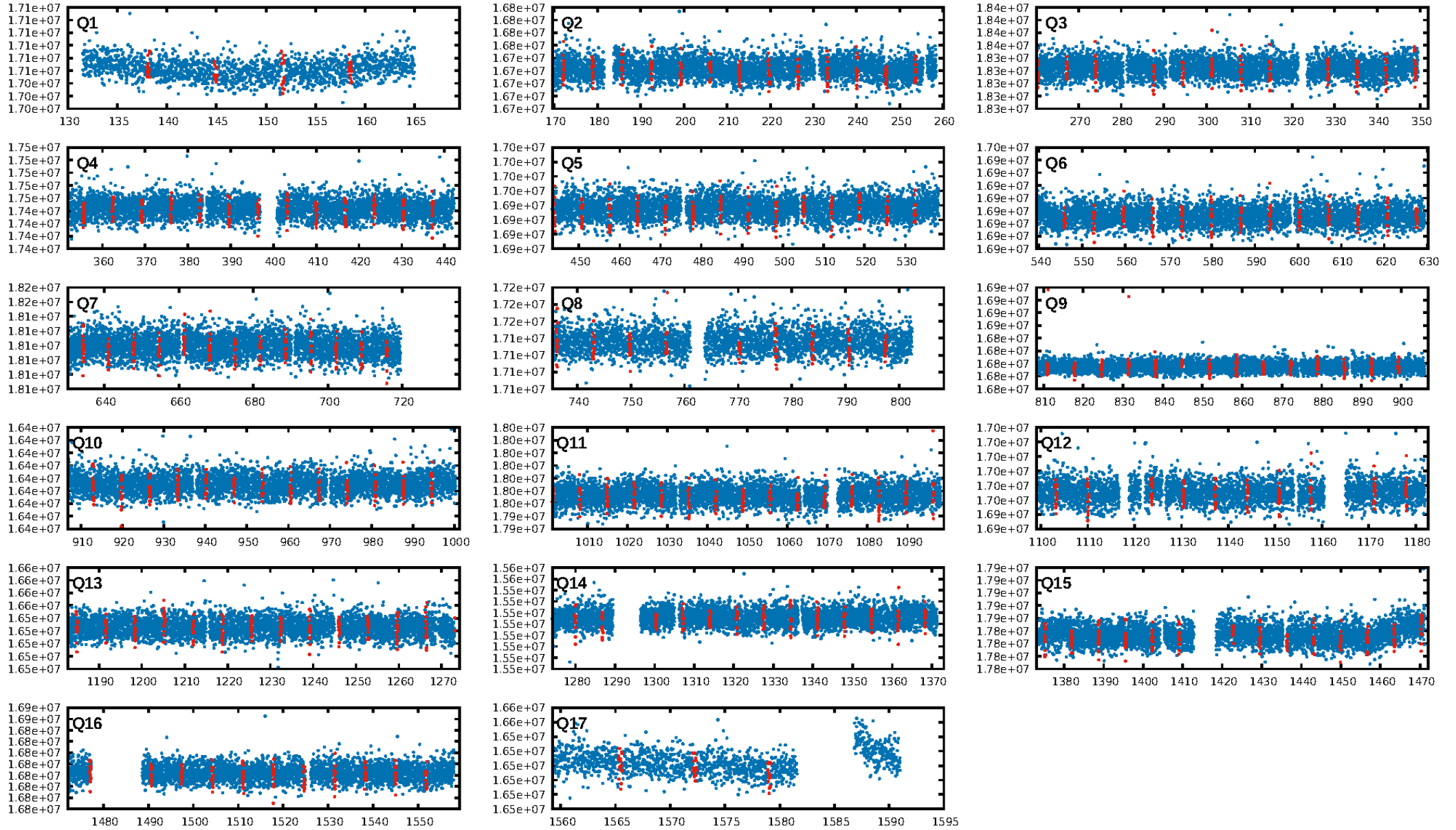
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.75e-159
RollingBand-fgt: 1.00 [189/189]
GhostDiagnostic-chr: 4.556
Centroid-sig: 4.3%
Centroid-so: 0.443 arcsec [0.92σ]
OotOffset-rm: 0.183 arcsec [1.11σ]
KicOffset-rm: 0.227 arcsec [1.58σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

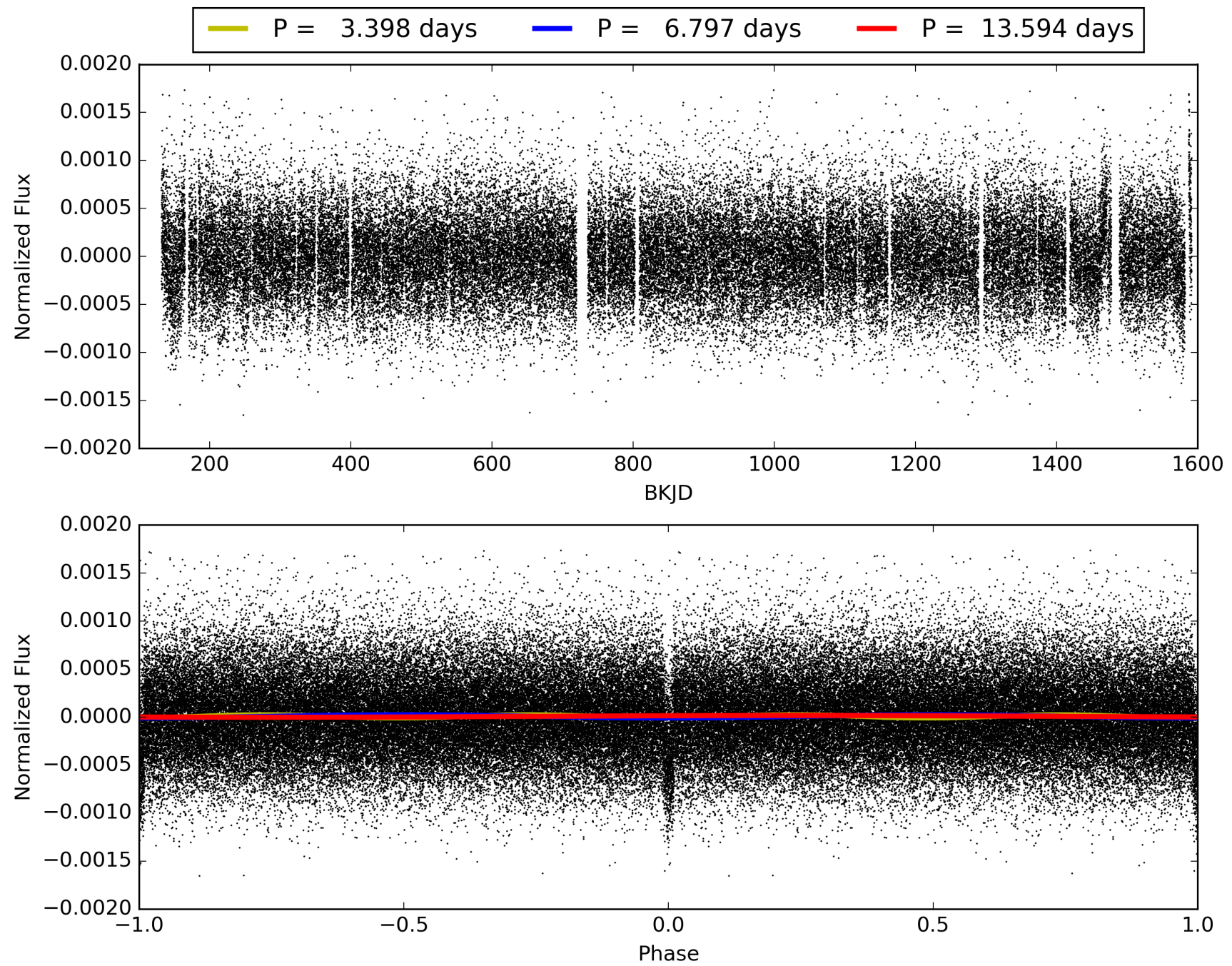
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:30:35 Z

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

TCE 006131236-01, PDC Light Curves

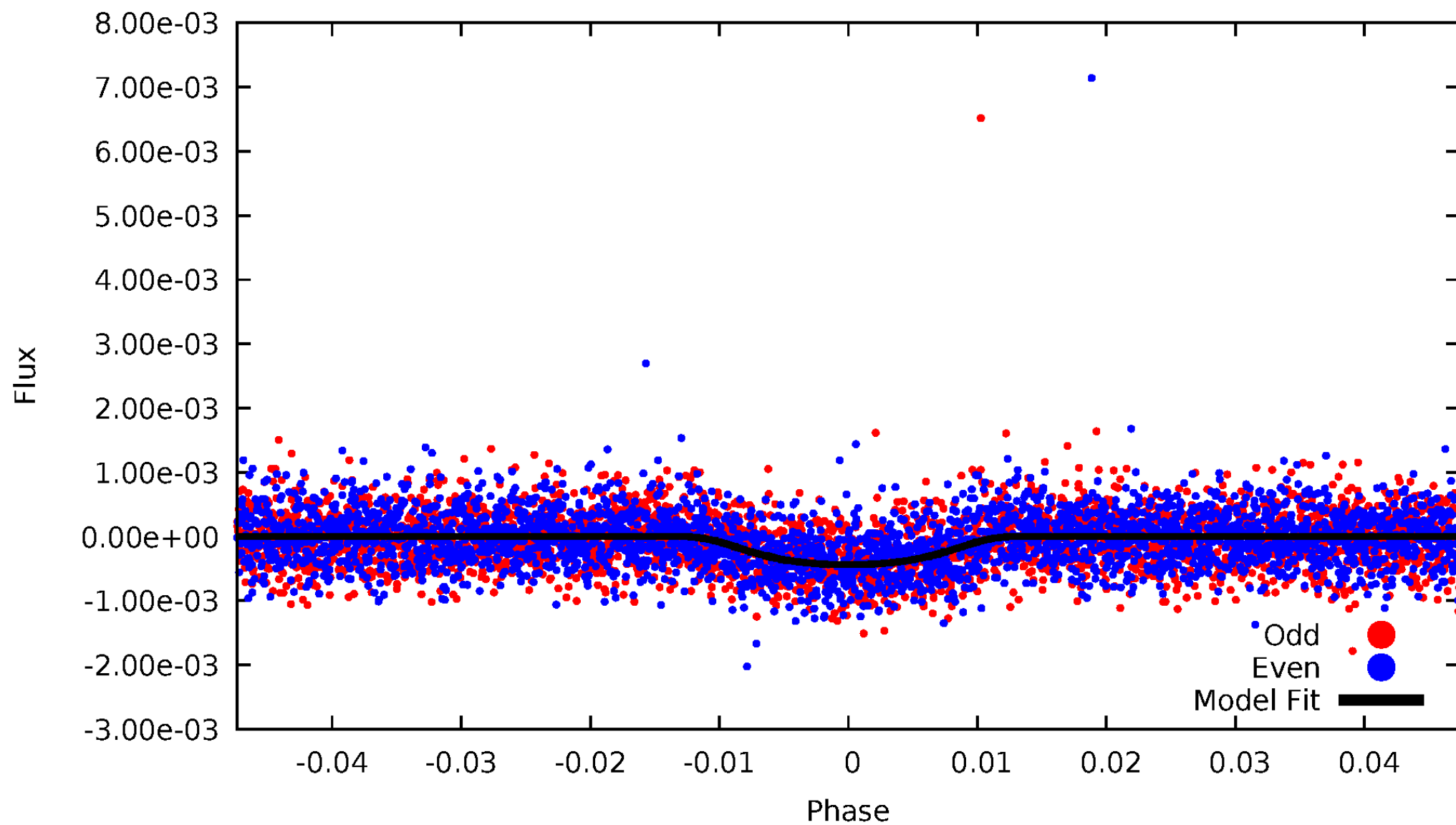


TCE 006131236-01



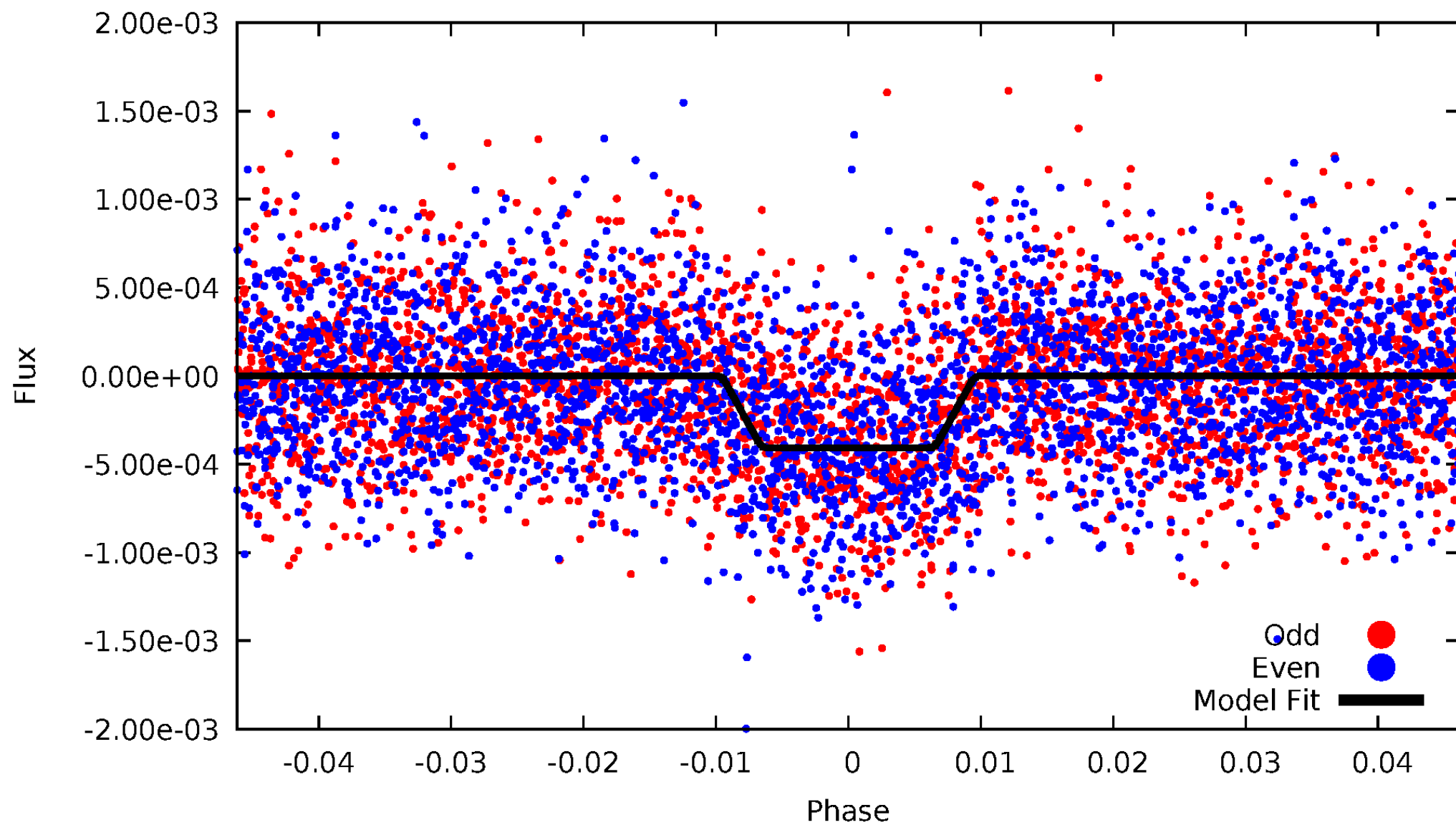
DV Odd/Even

TCE 006131236-01



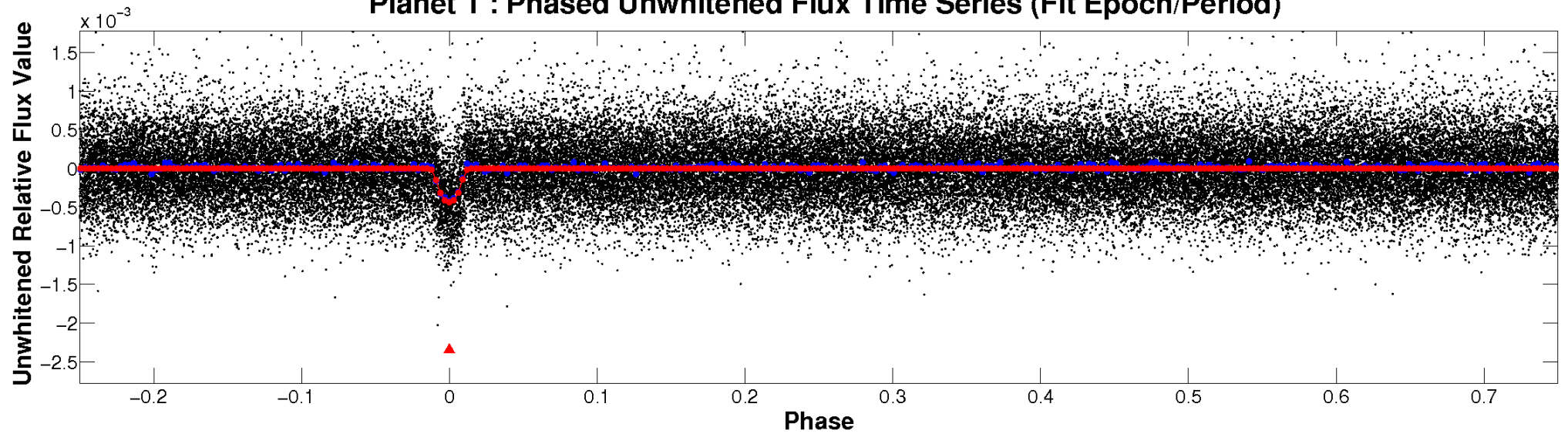
ALT Odd/Even

TCE 006131236-01

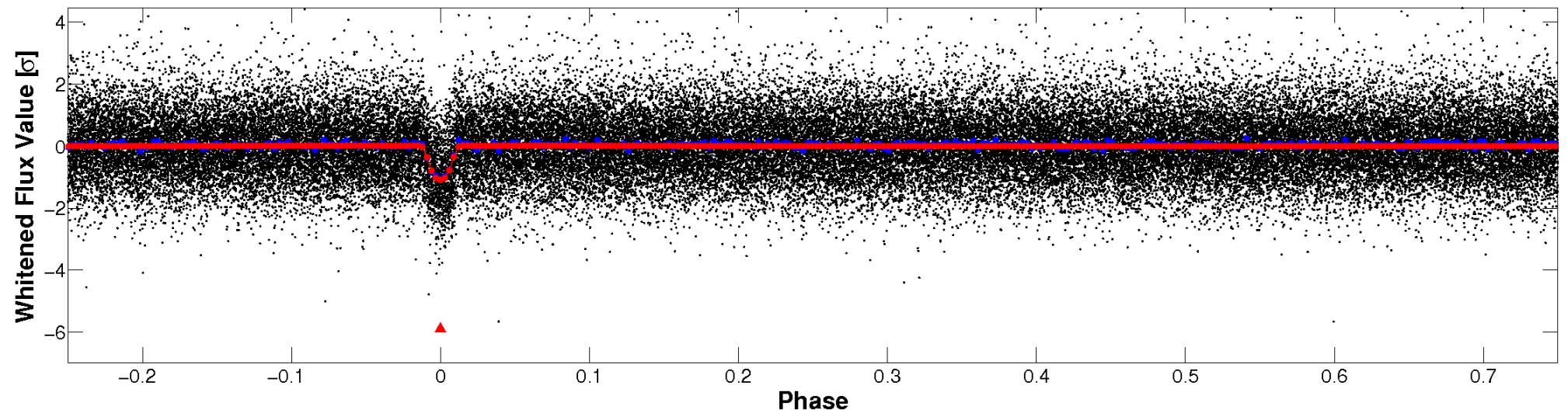


Non-Whitened Vs. Whitened Light Curve

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

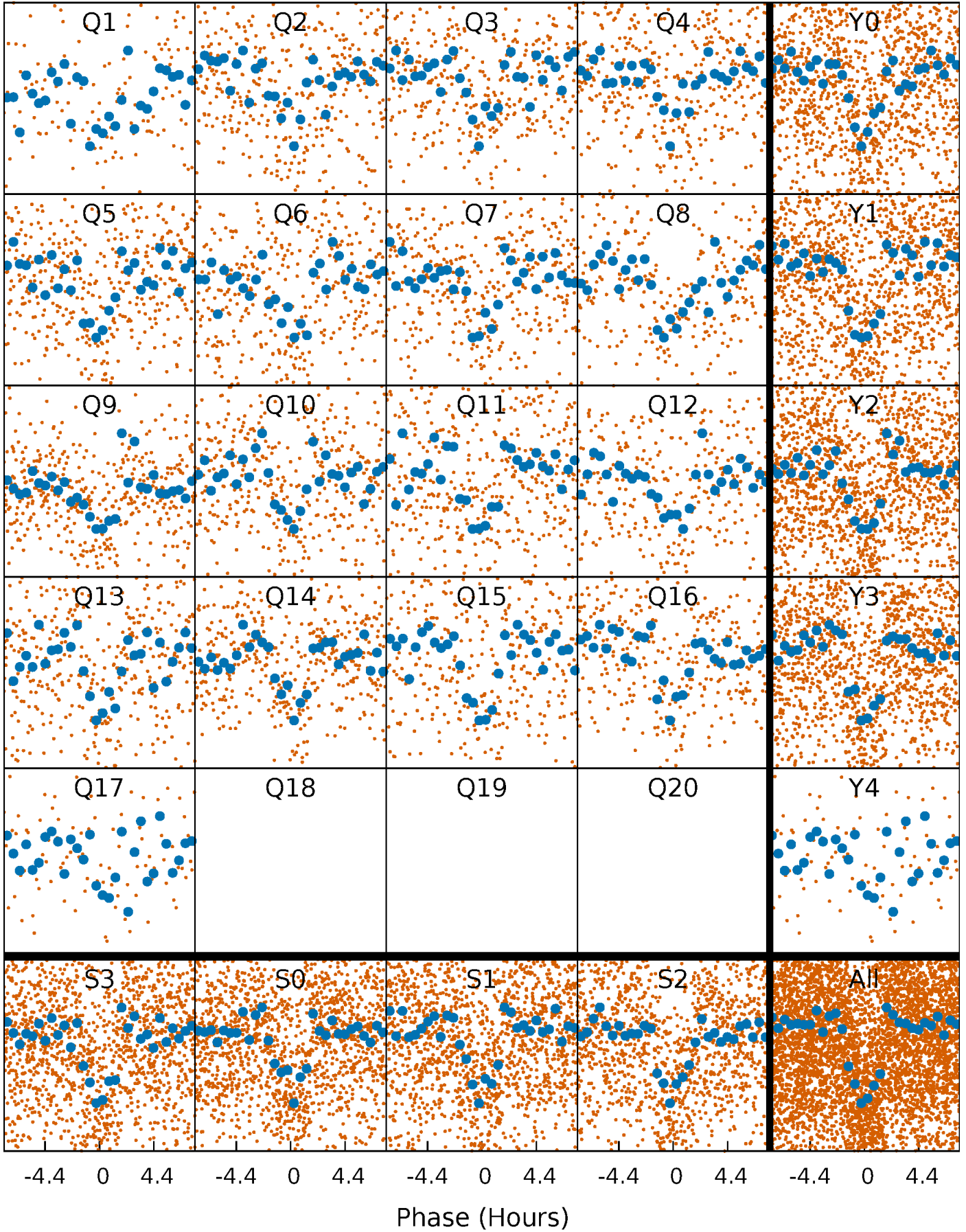


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



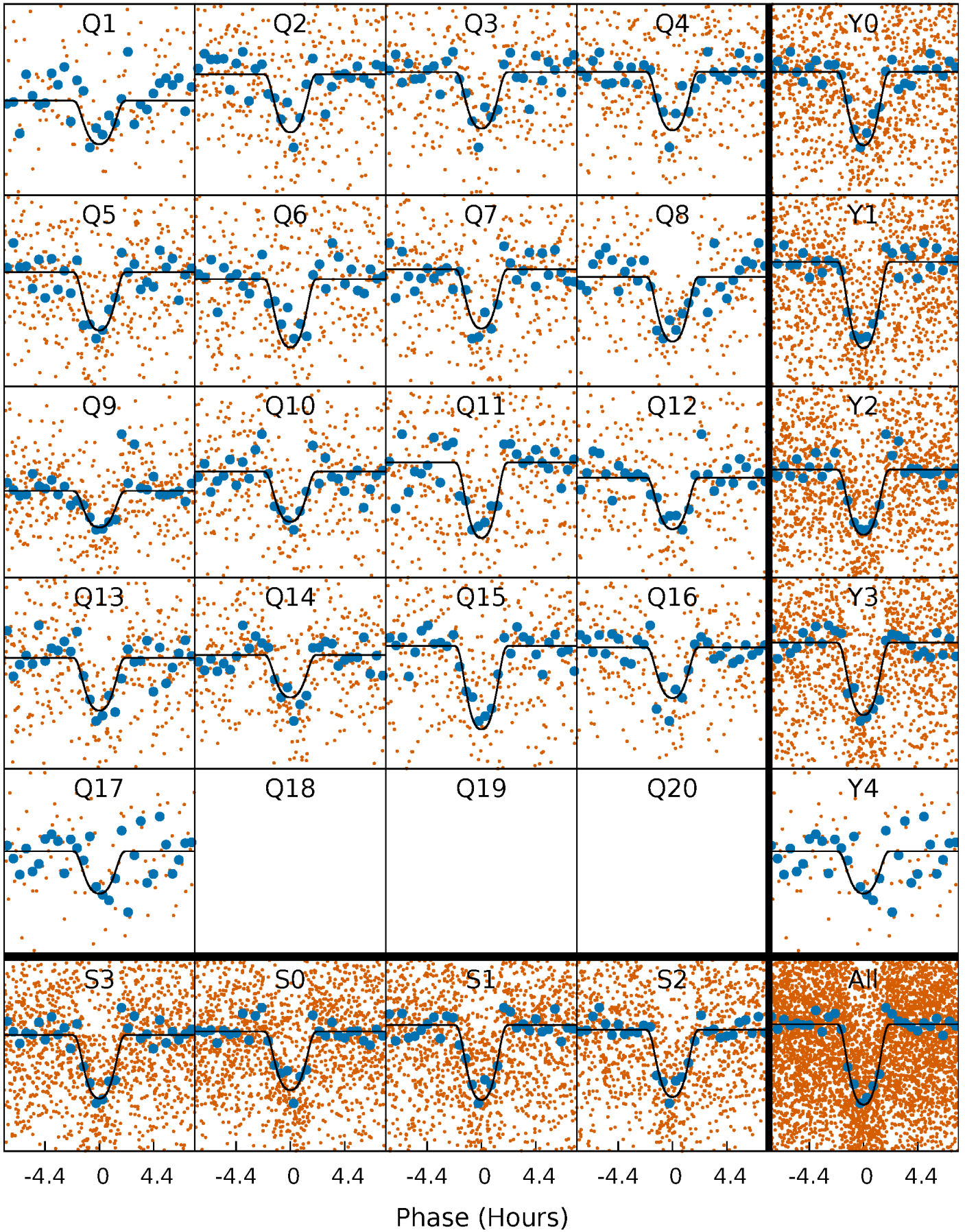
PDC Quarter-Phased Transit Curves

TCE 006131236-01 P= 6.796846 Days $T_0=138.115309$ (BKJD)



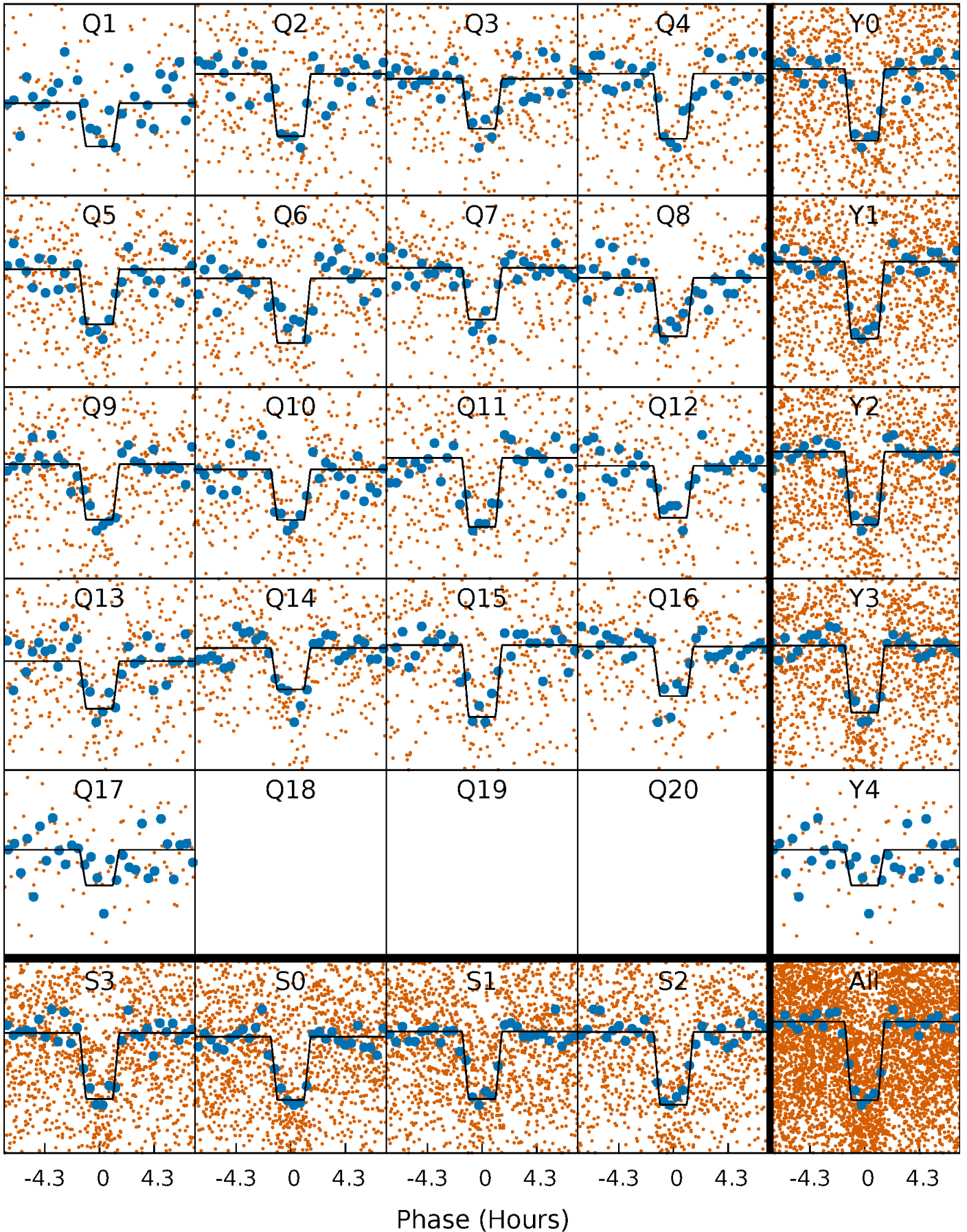
DV Quarter-Phased Transit Curves

TCE 006131236-01 P= 6.796846 Days $T_0=138.115309$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

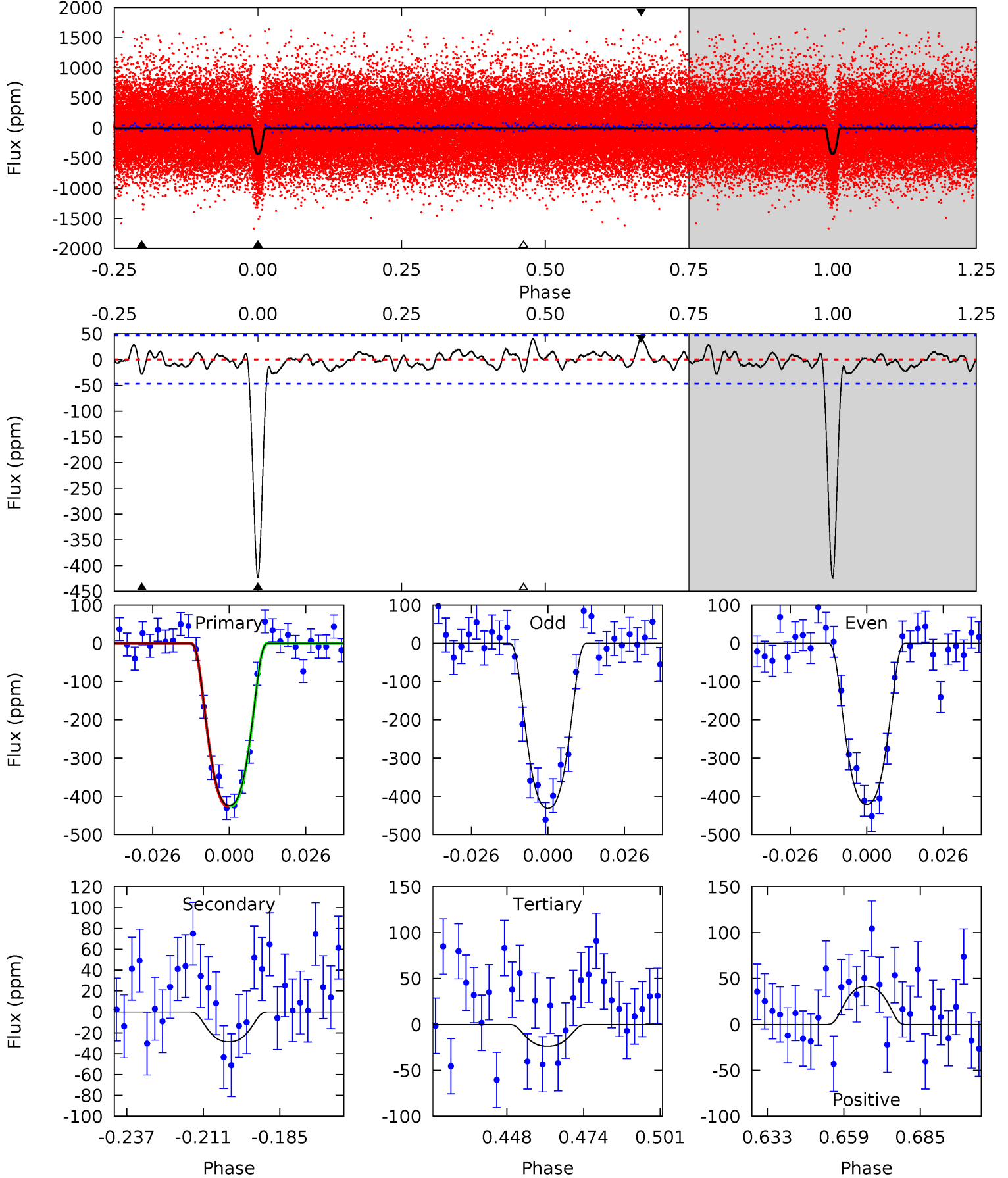
TCE 006131236-01 P= 6.796895 Days $T_0=138.108727$ (BKJD)



DV Model-Shift Uniqueness Test

006131236-01, P = 6.796846 Days, E = 131.318463 Days

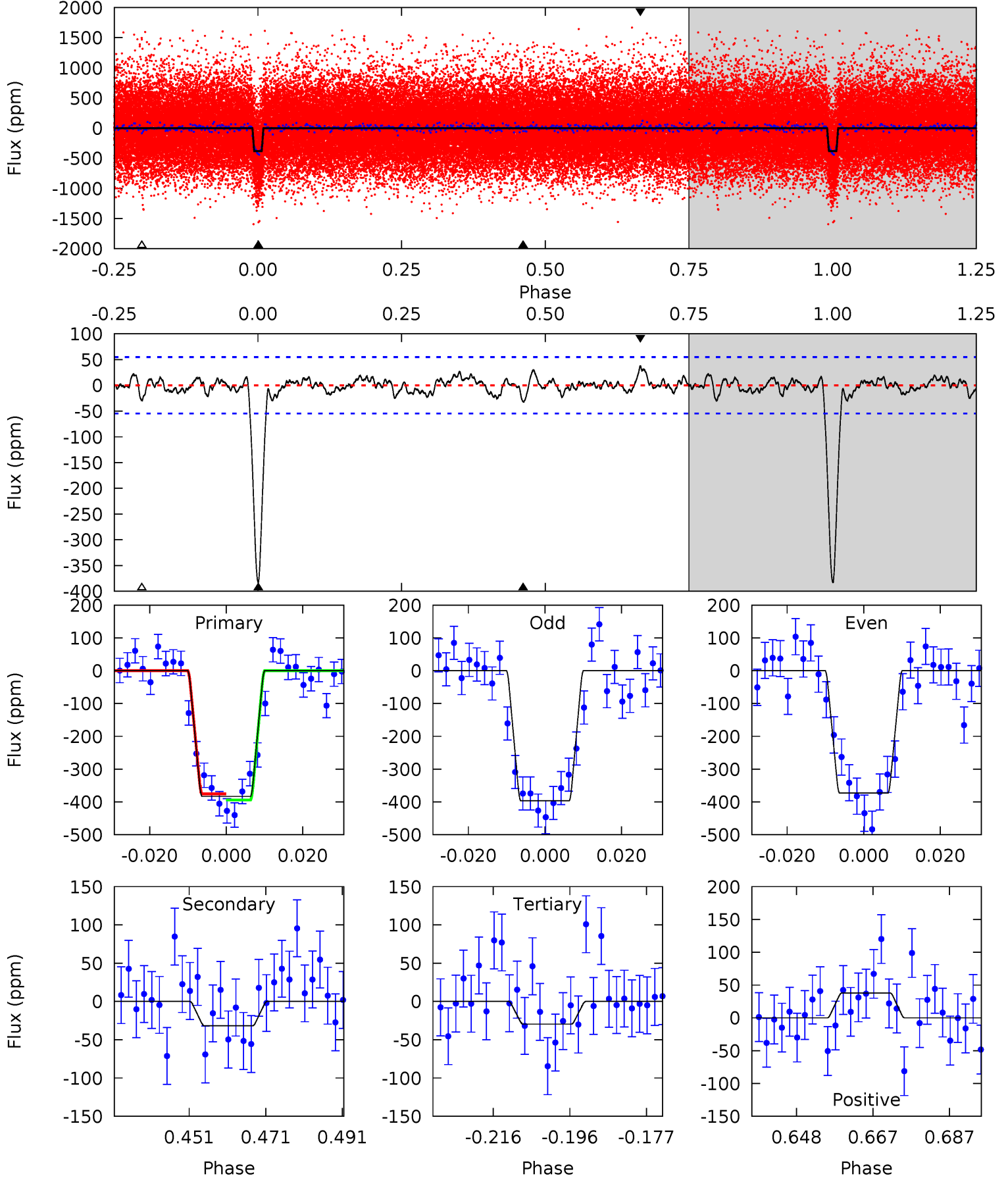
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.7	2.95	2.45	4.27	4.84	2.22	1.24	41.2	39.4	0.50	-1.32	0.53	1.01	0.09	0.01



Alt Model-Shift Uniqueness Test

006131236-01, P = 6.796895 Days, E = 131.311832 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.2	2.84	2.64	3.38	4.90	2.33	1.01	31.6	30.8	0.19	-0.54	1.04	1.04	0.09	0.83



Stellar Parameters For KIC 006131236

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6061^{+180}_{-198}	$4.486^{+0.050}_{-0.200}$	$-0.100^{+0.250}_{-0.300}$	$0.970^{+0.300}_{-0.100}$	$1.050^{+0.142}_{-0.142}$	$1.620^{+0.434}_{-0.827}$
	+3%/-3%	+1%/-4%	+250%/-300%	+31%/-10%	+14%/-14%	+27%/-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 006131236-01 / KOI 1051.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-29 ± 10	$2.79^{+0.47}_{-0.29}$	1407^{+100}_{-69}	3291^{+188}_{-198}	$9.580^{+4.236}_{-3.556}$
Alt.	-32 ± 11	$2.21^{+0.37}_{-0.25}$	1406^{+98}_{-64}	3607^{+252}_{-288}	17^{+9}_{-8}

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 $A_{\text{obs}} \gg 1.0$

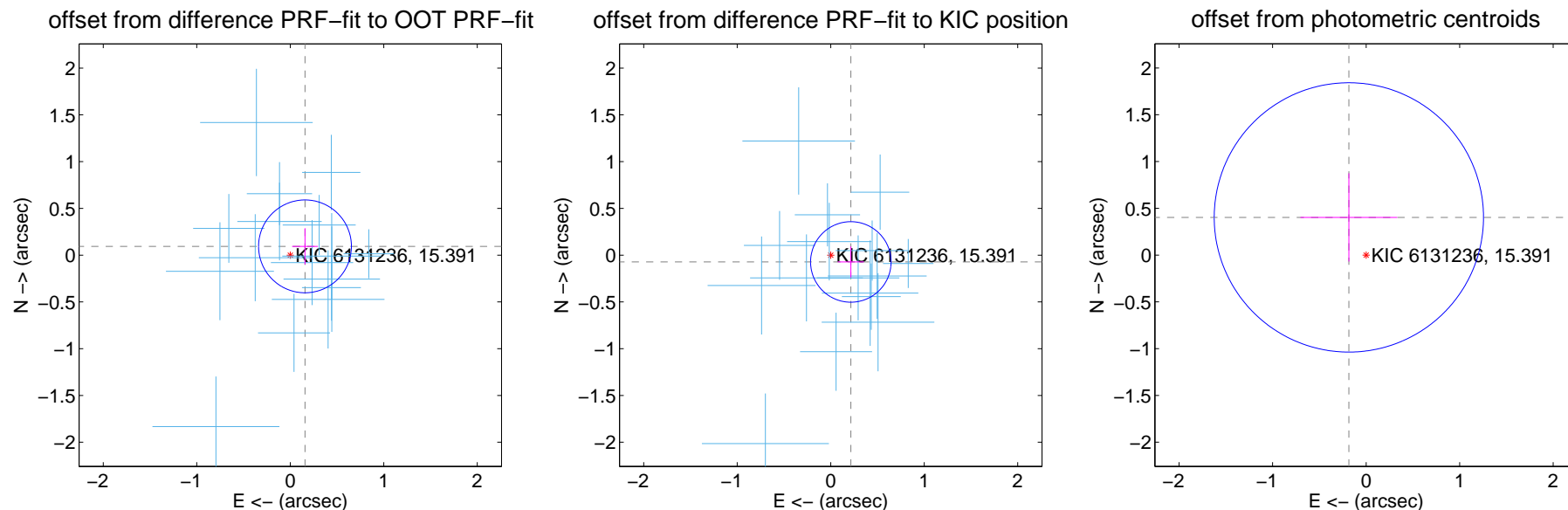
DV Centroid Data

Supplemental centroid analysis for 006131236-01. Kepler magnitude: 15.39. Transit SNR 29.45

There are 16 quarters with good PRF difference image offsets

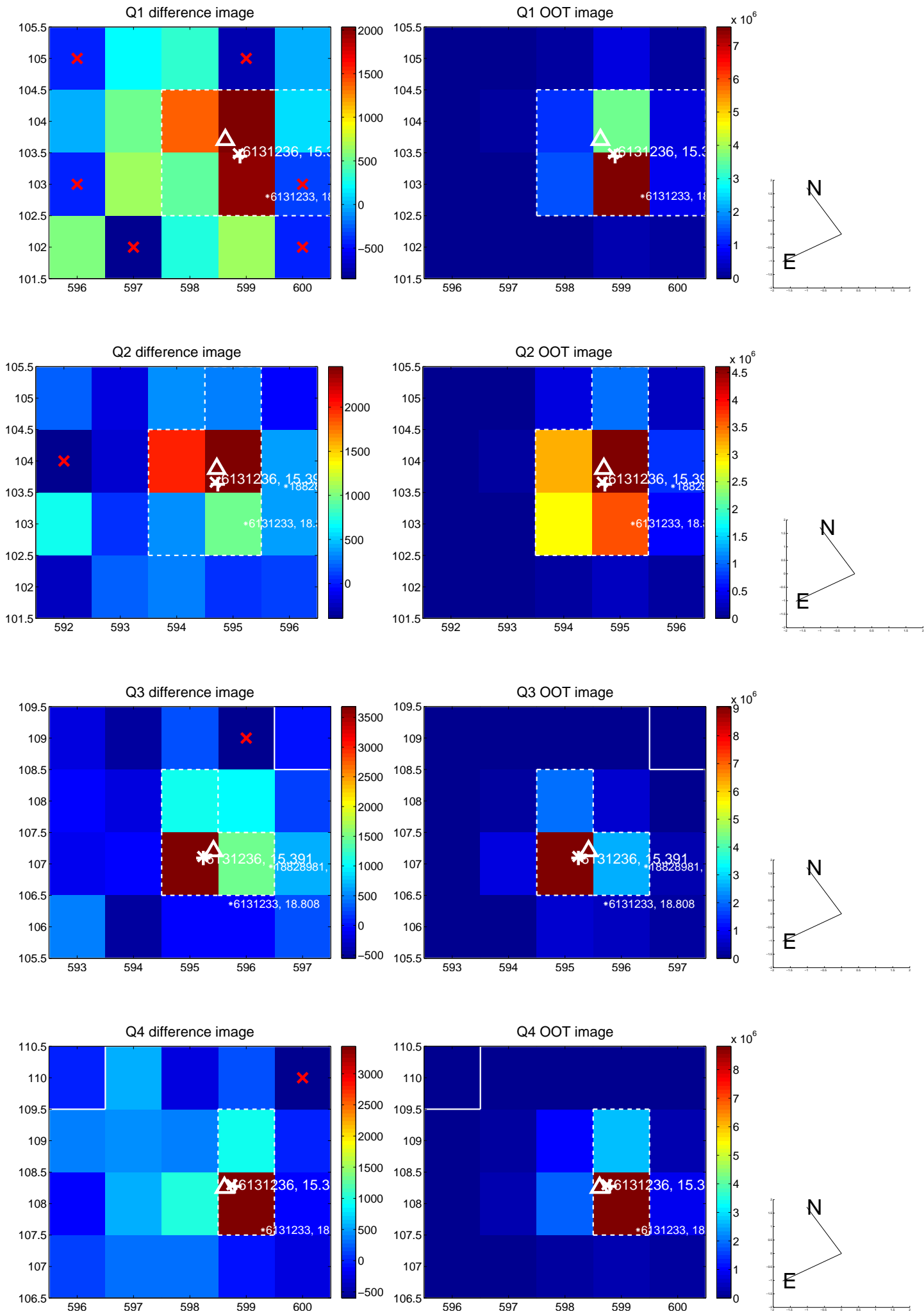
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.183 ± 0.165	1.11	-0.158 ± 0.138	0.094 ± 0.194
PRF-fit source offset from KIC position	0.227 ± 0.143	1.58	-0.215 ± 0.141	-0.073 ± 0.166
photometric centroid source offset	0.44 ± 0.48	0.92	0.18 ± 0.52	0.40 ± 0.47

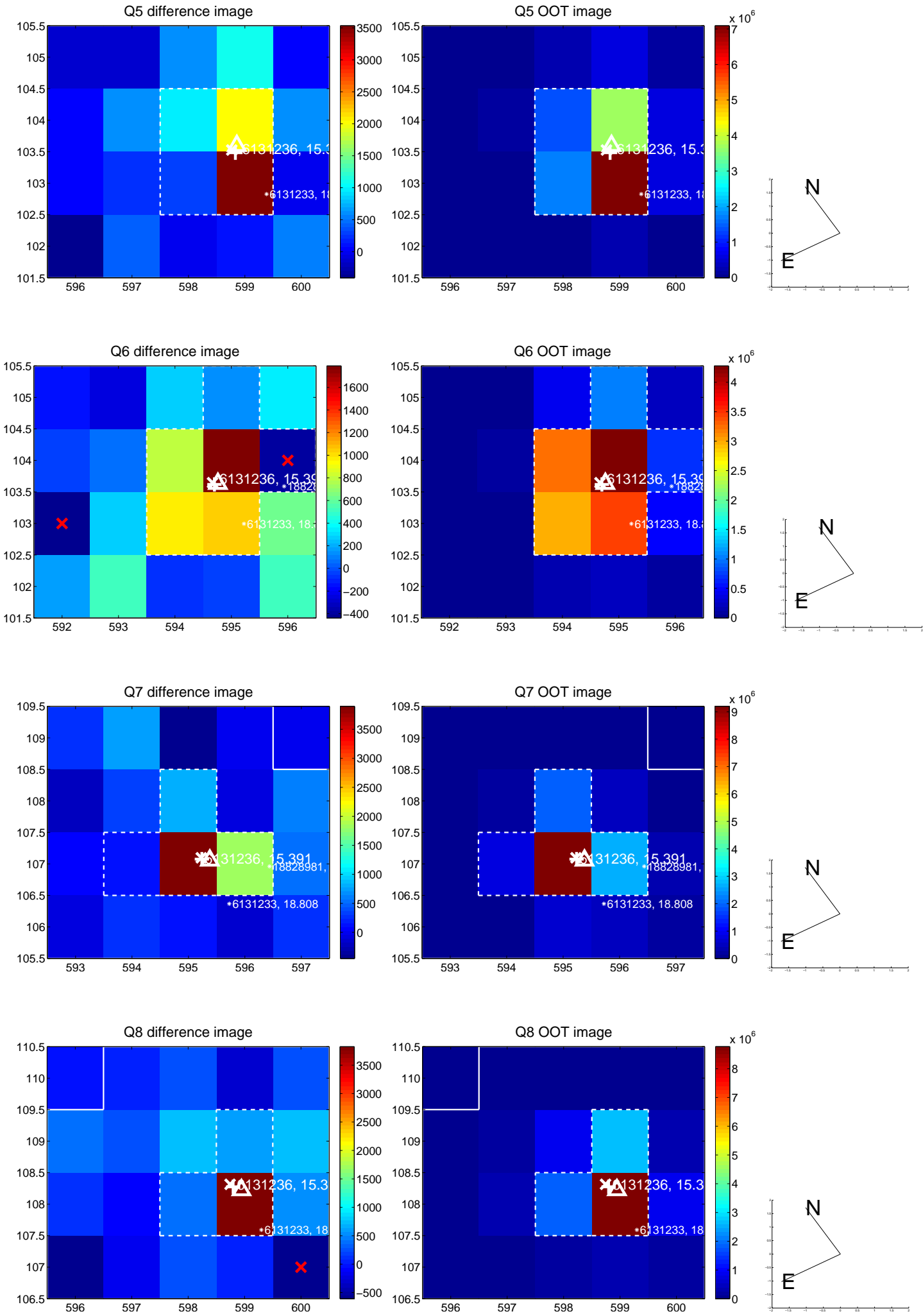


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

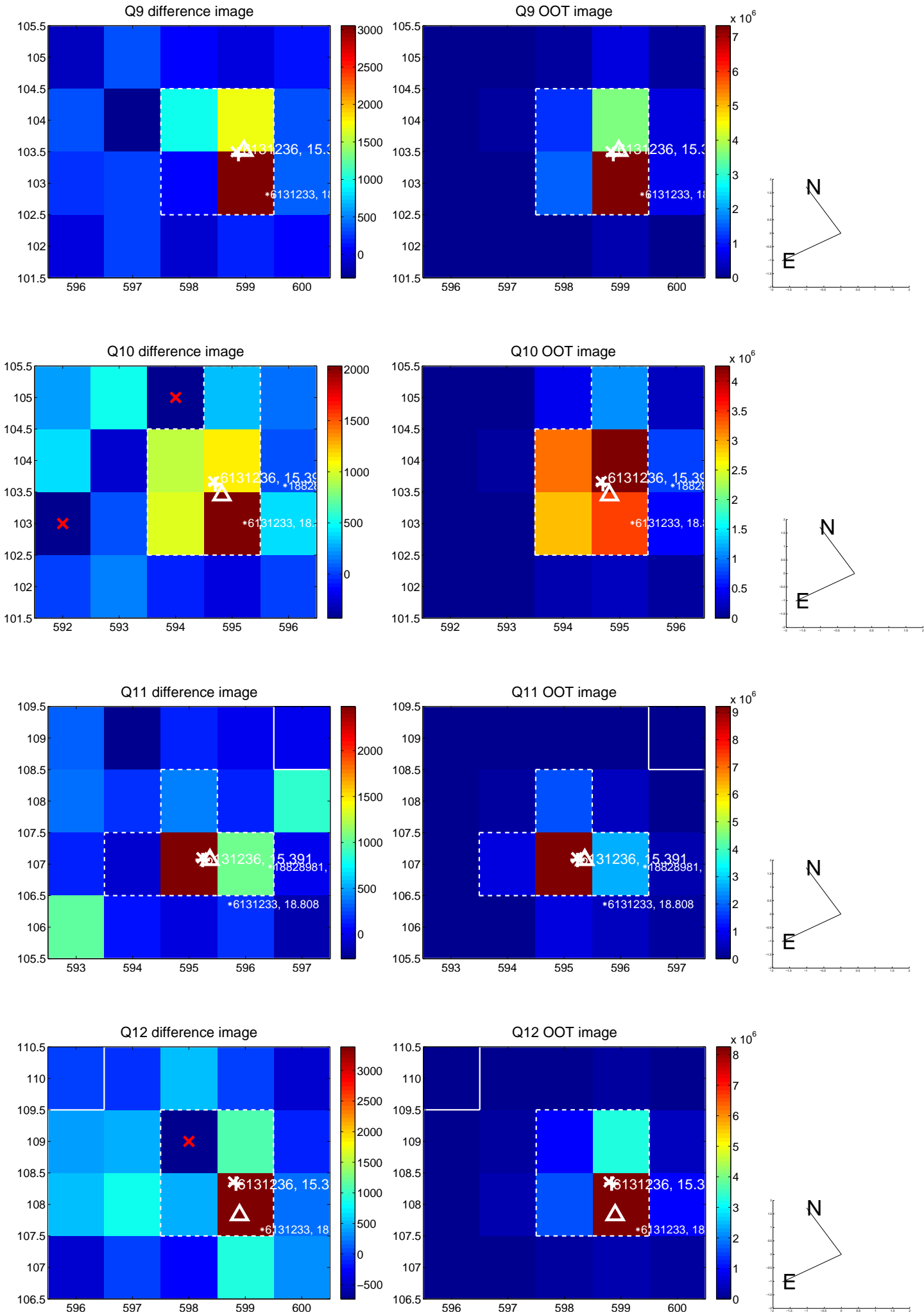
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



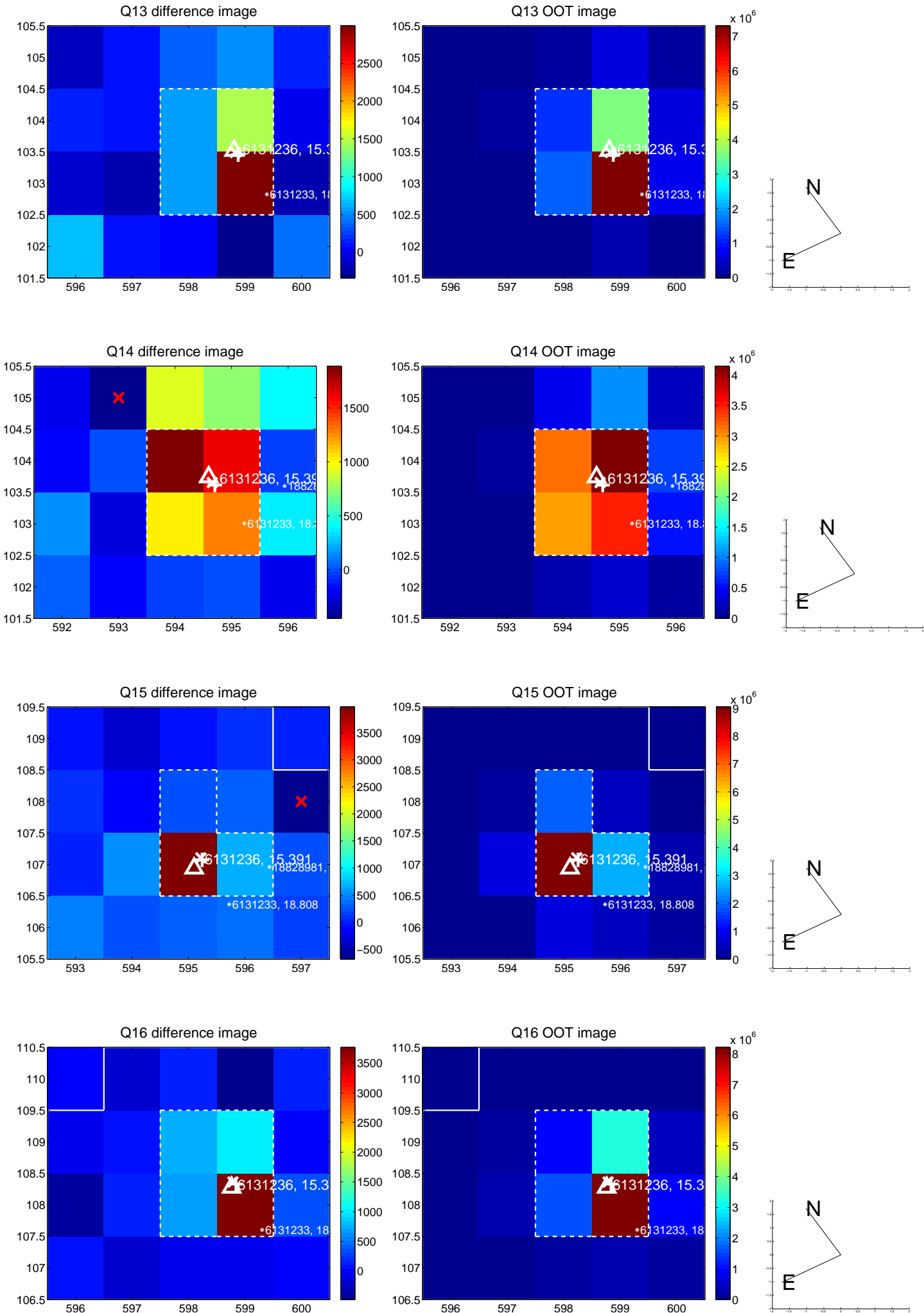
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



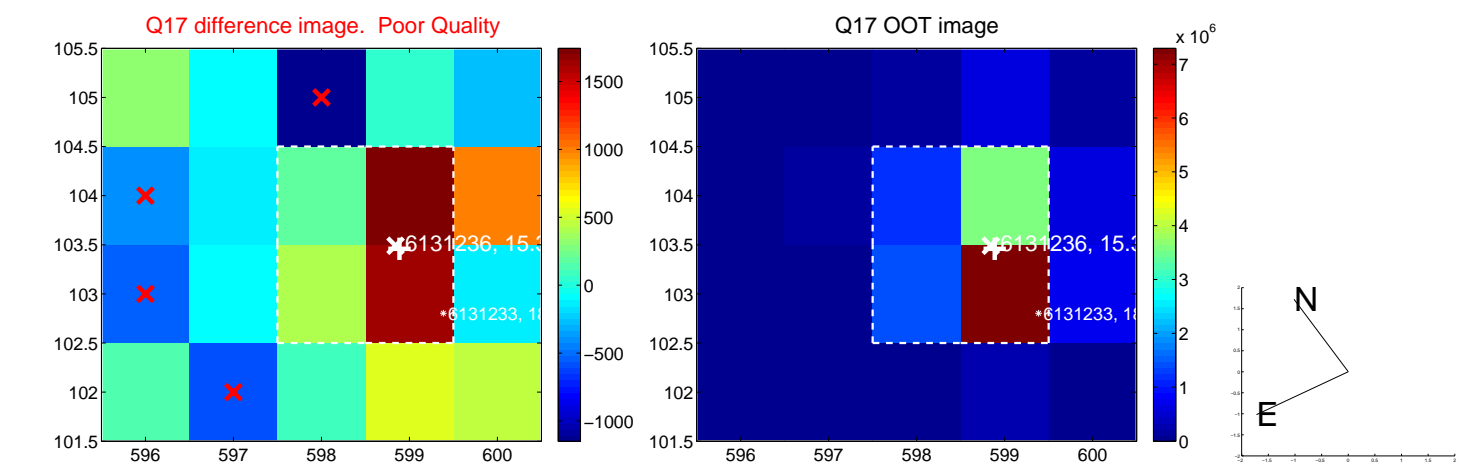
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



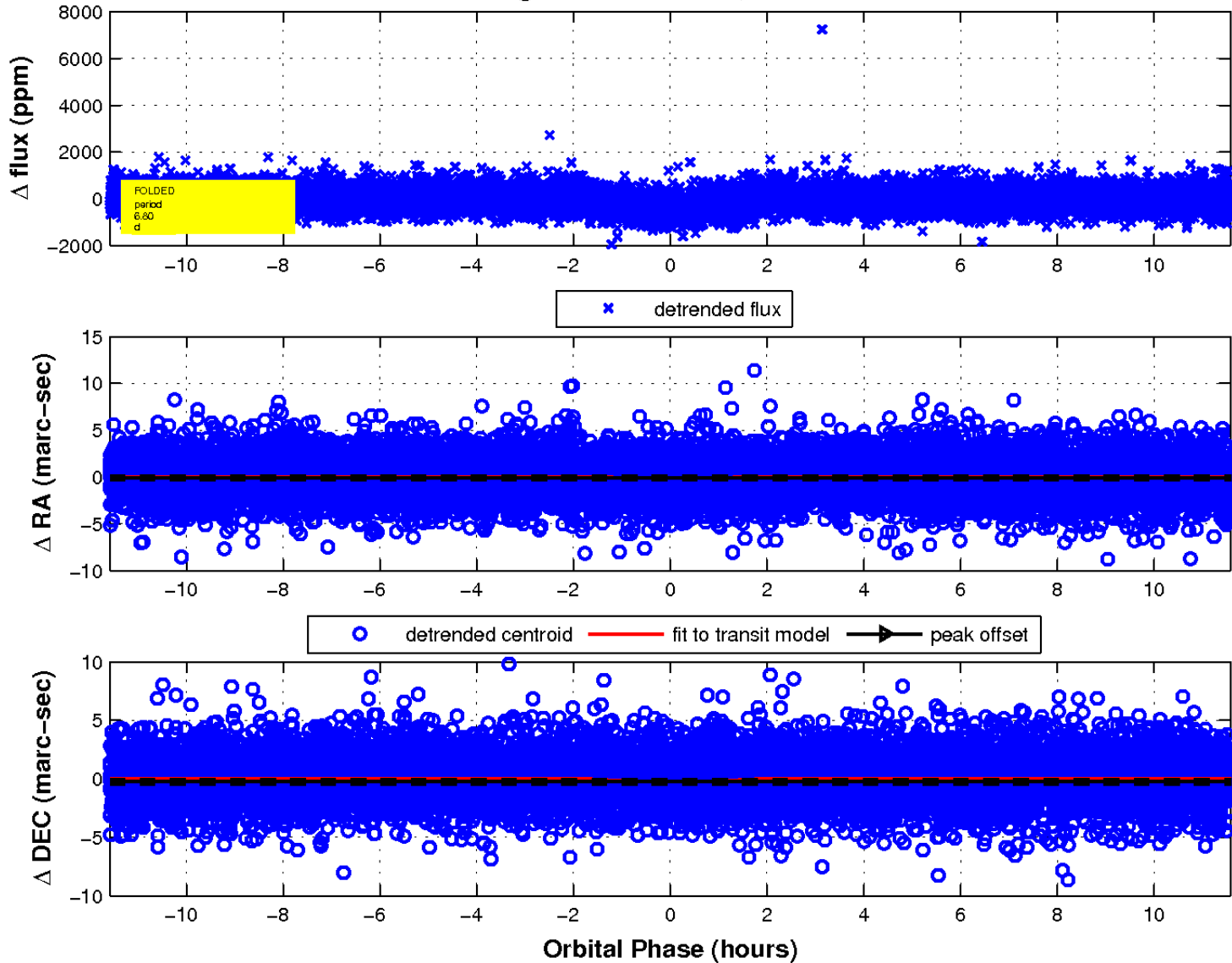
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

