

KIC 008197793

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})
008197793-01	OBS	3123.01	15.231180	143.734670	251.6	4.129	11.3	11.8	1.19	5836	2.23	97.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008197793-01	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 008197793-01

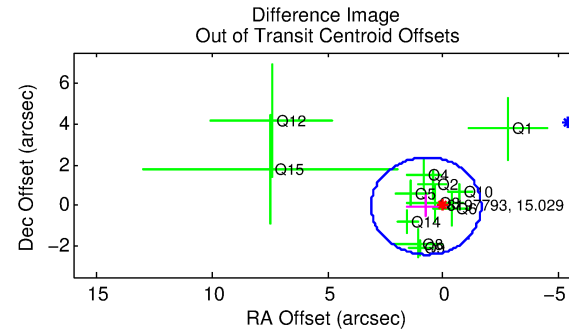
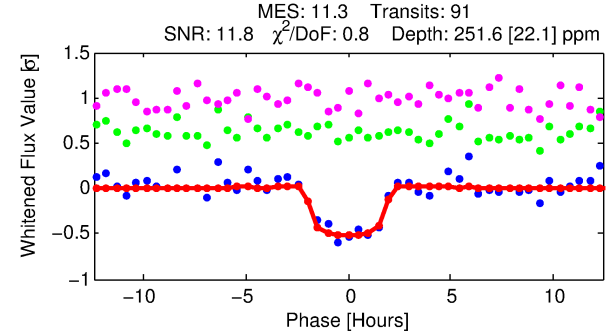
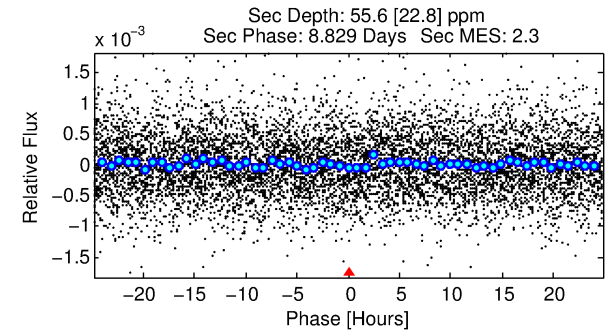
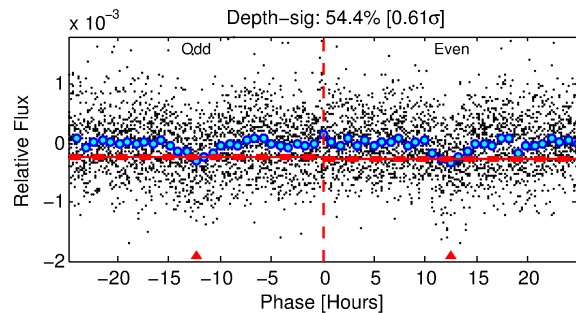
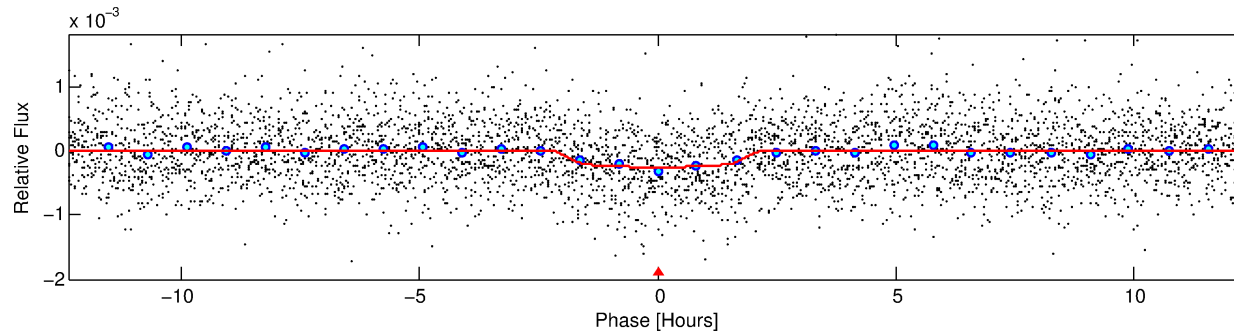
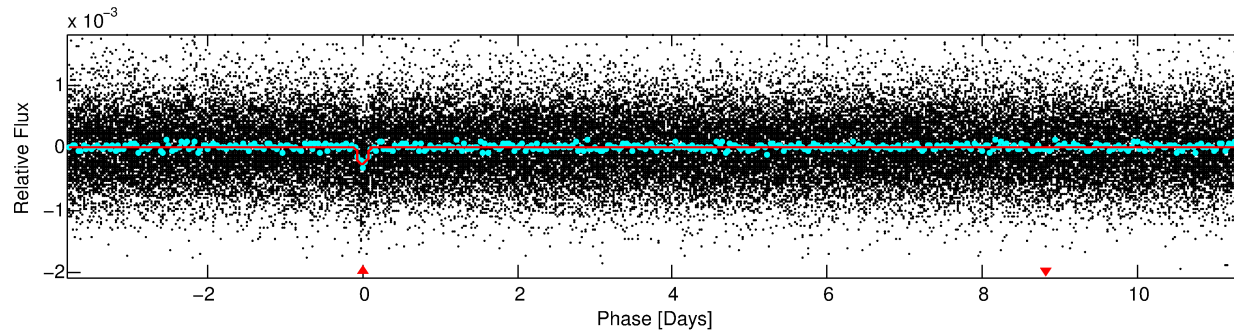
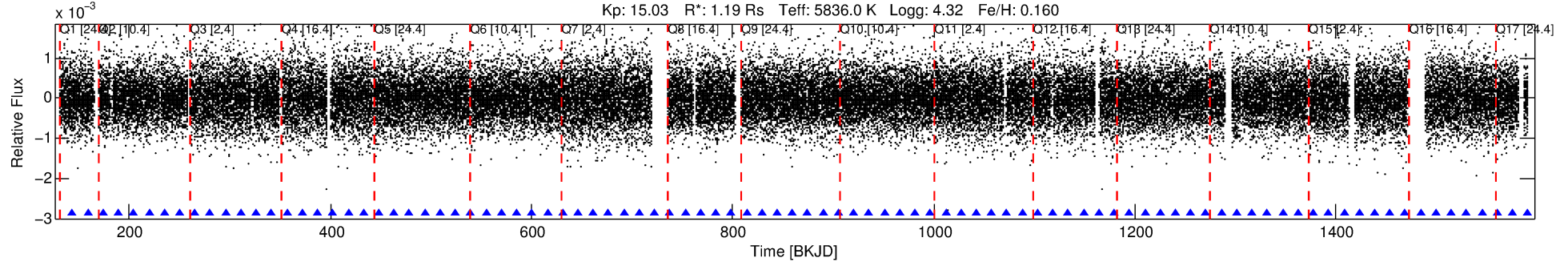
No Significant Match Found

DV One-Page Summary

KIC: 8197793 Candidate: 1 of 1 Period: 15.231 d

KOI: K03123.01 Corr: 0.967

Kp: 15.03 R*: 1.19 Rs Teff: 5836.0 K Logg: 4.32 Fe/H: 0.160



DV Fit Results:

Period = 15.23118 [0.00014] d
Epoch = 143.7347 [0.0074] BKJD
Rp/R* = 0.0173 [0.0058]
a/R* = 13.49 [21.03]
b = 0.90 [0.34]
Seff = 97.07 [20.90]
Teq = 800 [43] K
Rp = 2.23 [0.83] Re
a = 0.1227 [0.0171] AU
Ag = 92.39 [74.87] [1.22σ]
Teffp = 3837 [754] K [4.02σ]

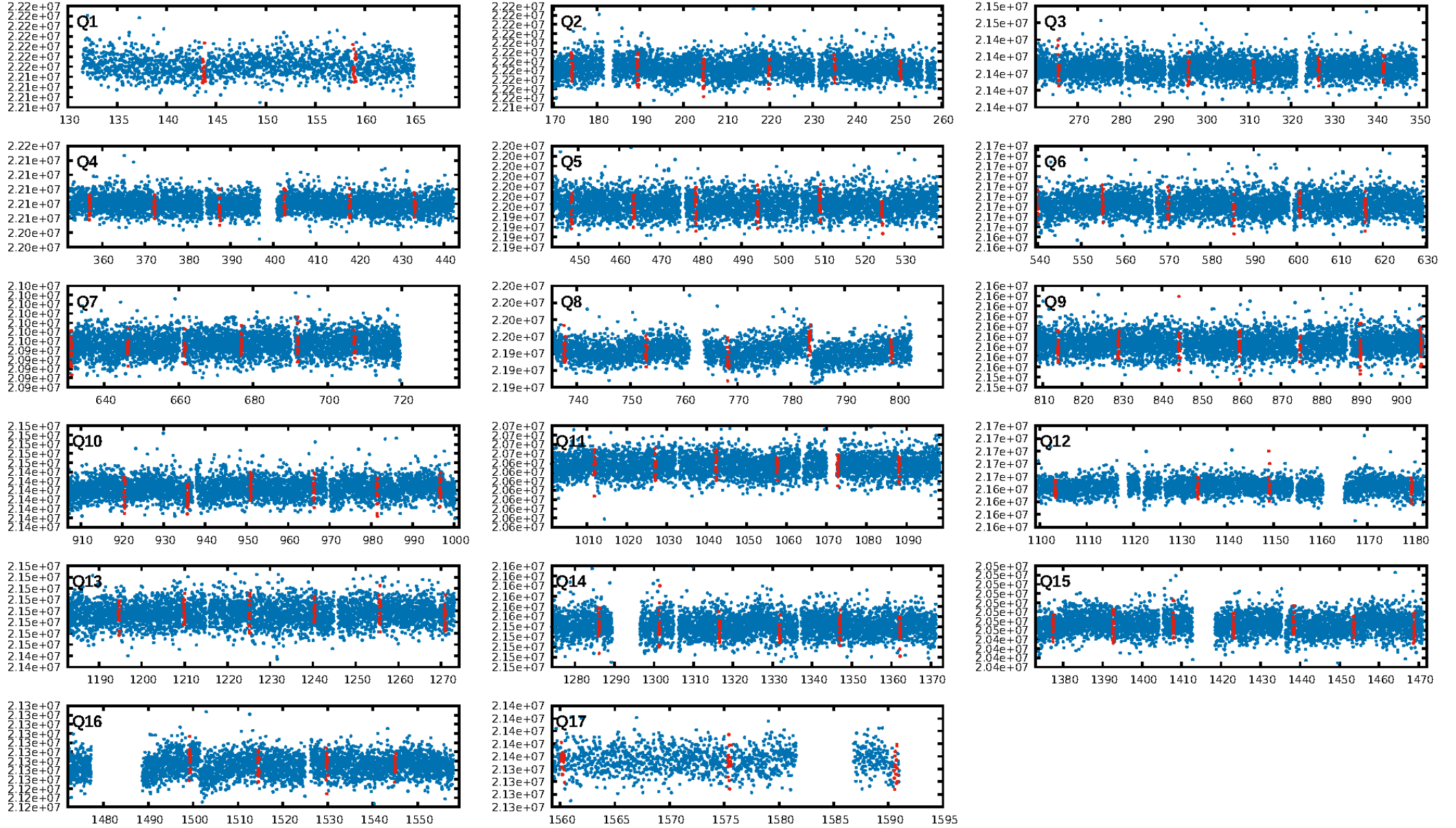
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.38e-29
RollingBand-fgt: 1.00 [86/86]
GhostDiagnostic-chr: 0.3549
Centroid-sig: 8.7%
Centroid-so: 2.160 arcsec [1.61σ]
OotOffset-rm: 0.739 arcsec [0.93σ]
KicOffset-rm: 0.893 arcsec [1.08σ]
OotOffset-st: 4/2/3/3 [12]
KicOffset-st: 4/2/3/3 [12]
DiffImageQuality-fgm: 0.58 [7/12]
DiffImageOverlap-fno: 1.00 [17/17]

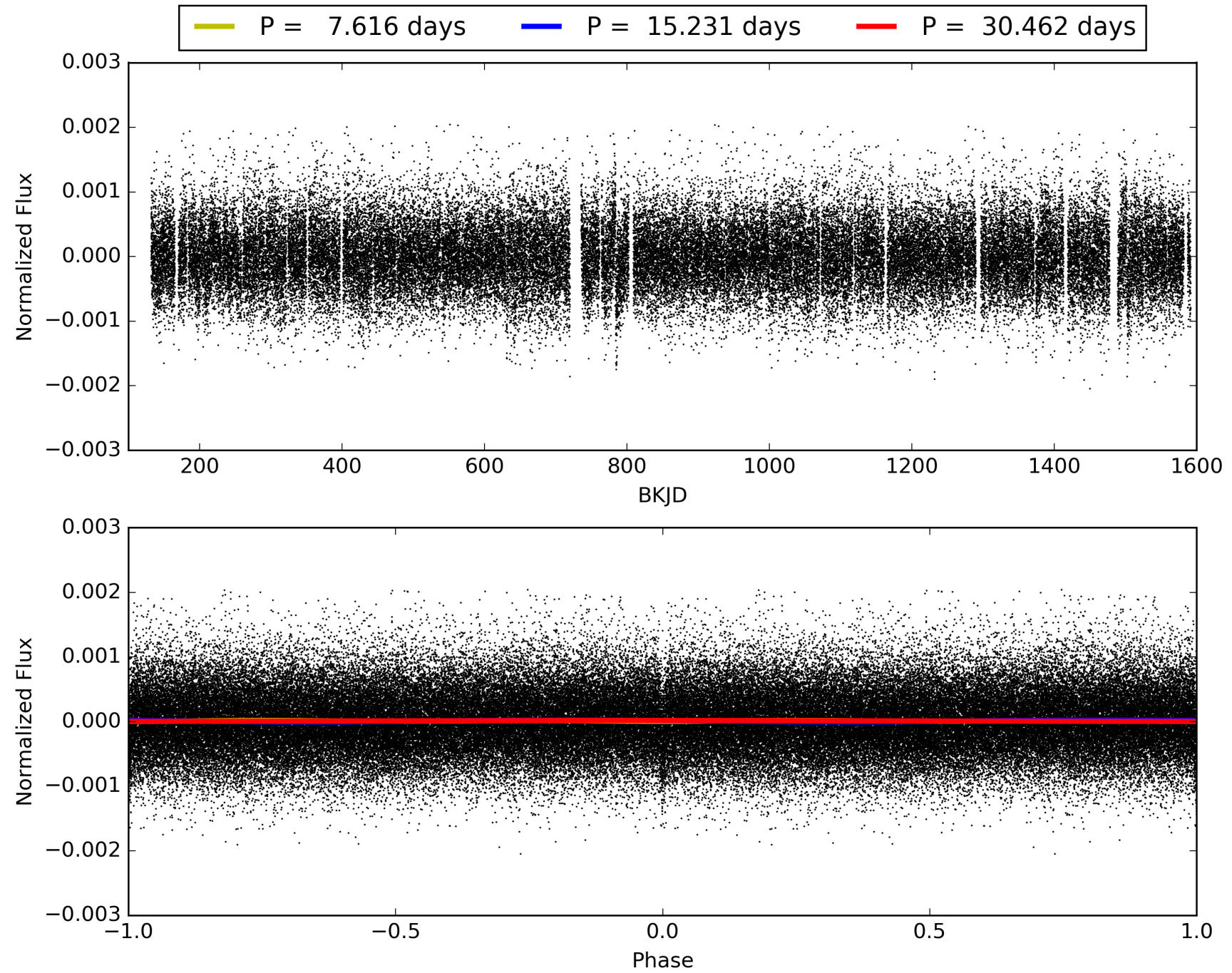
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:48:40 Z

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

TCE 008197793-01, PDC Light Curves

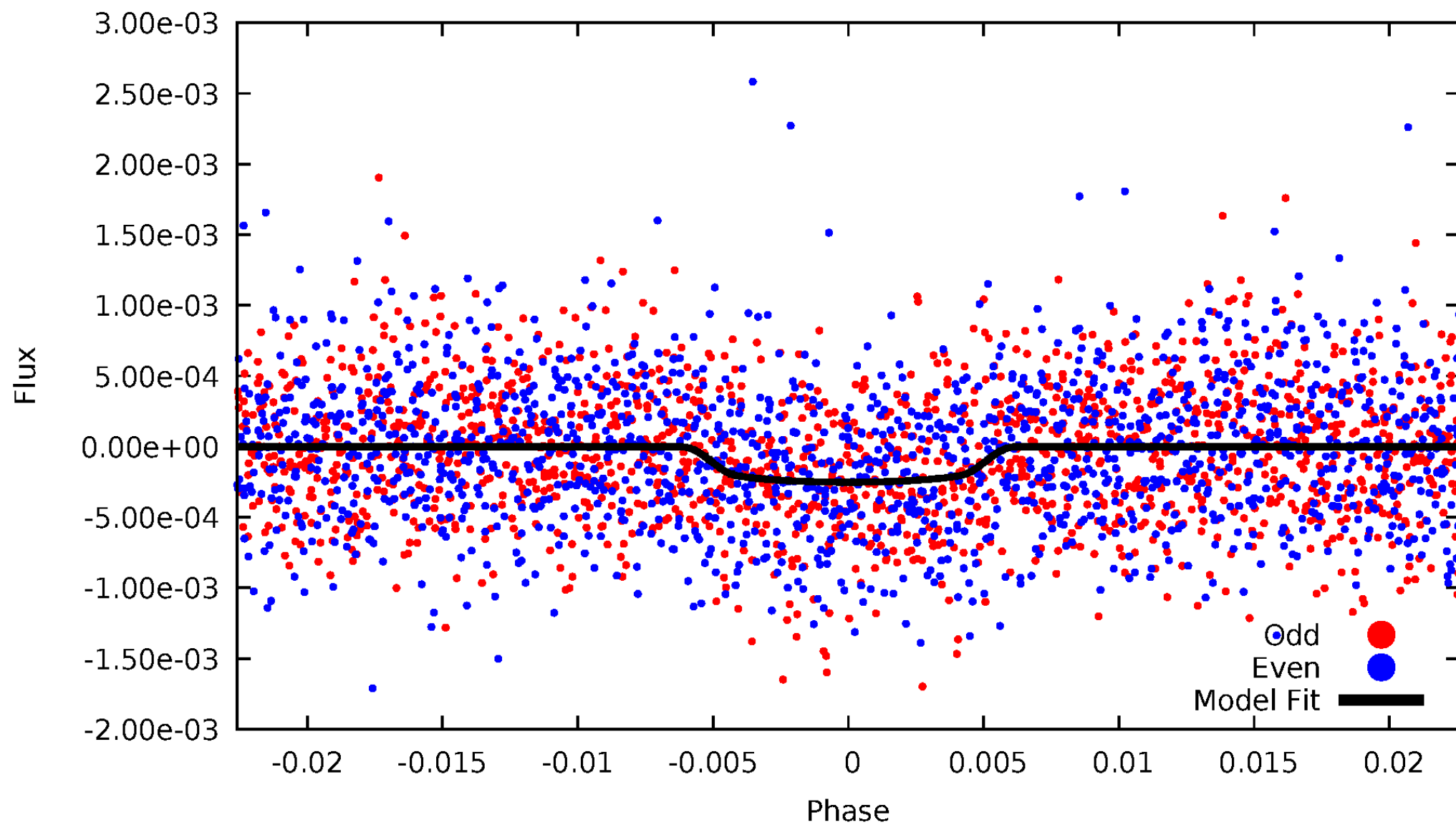


TCE 008197793-01



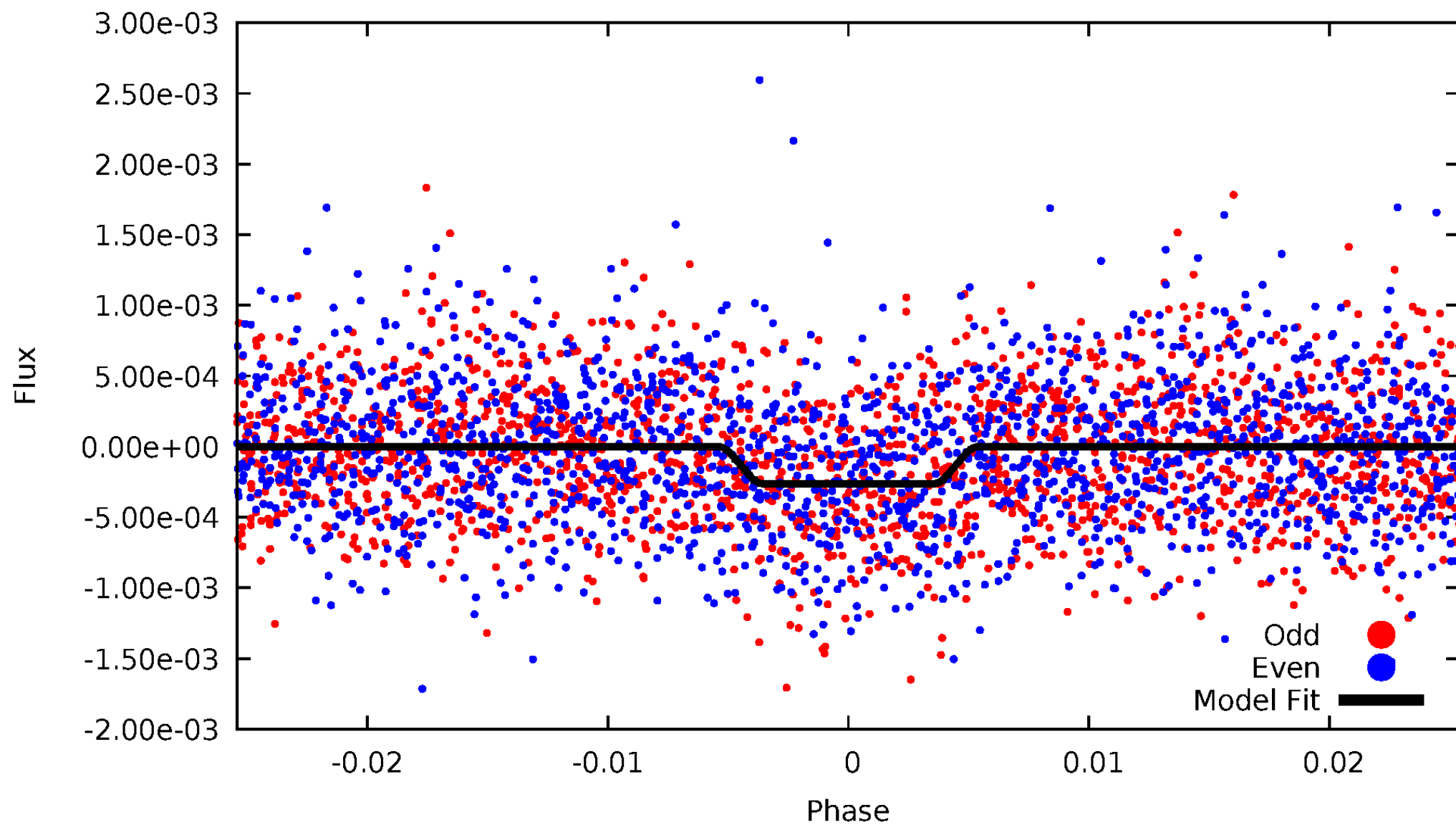
DV Odd/Even

TCE 008197793-01



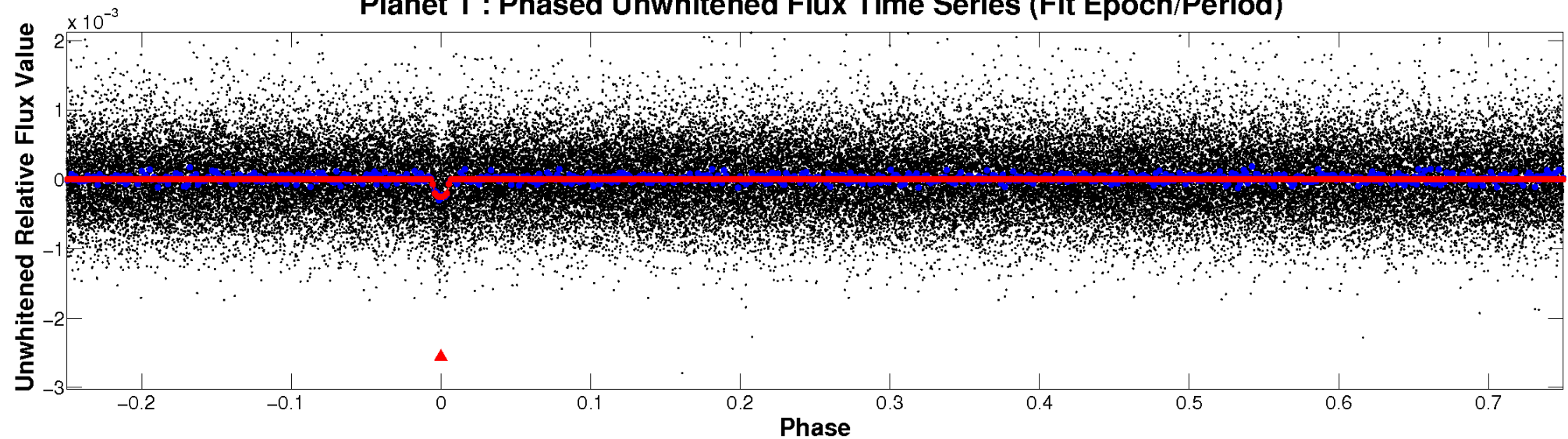
ALT Odd/Even

TCE 008197793-01

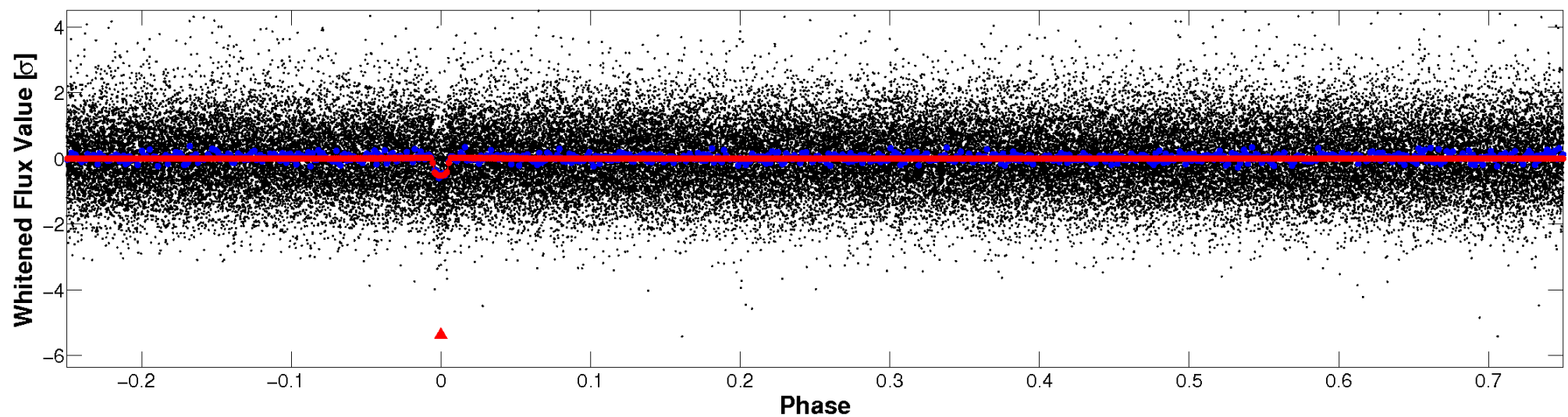


Non-Whitened Vs. Whitened Light Curve

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

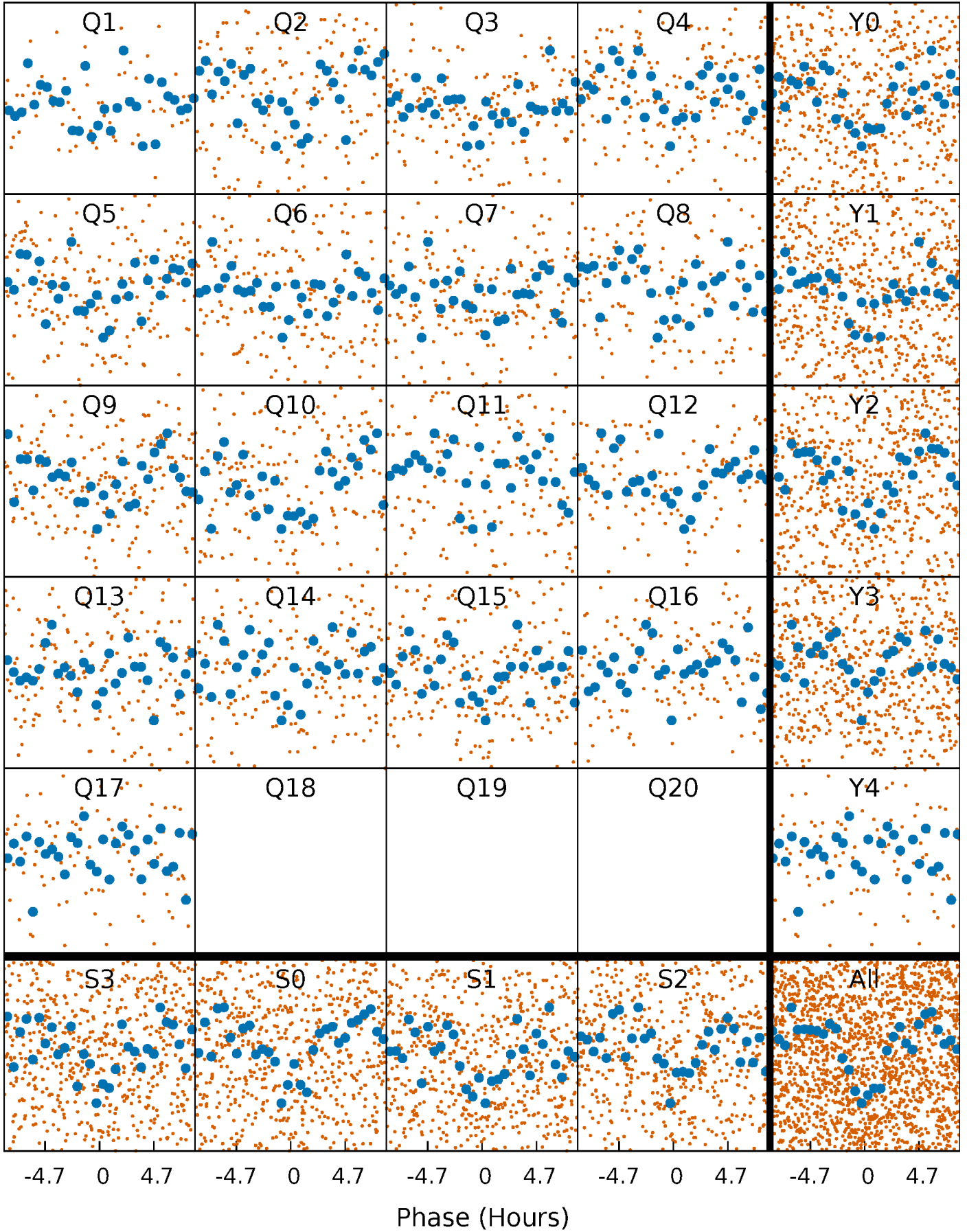


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



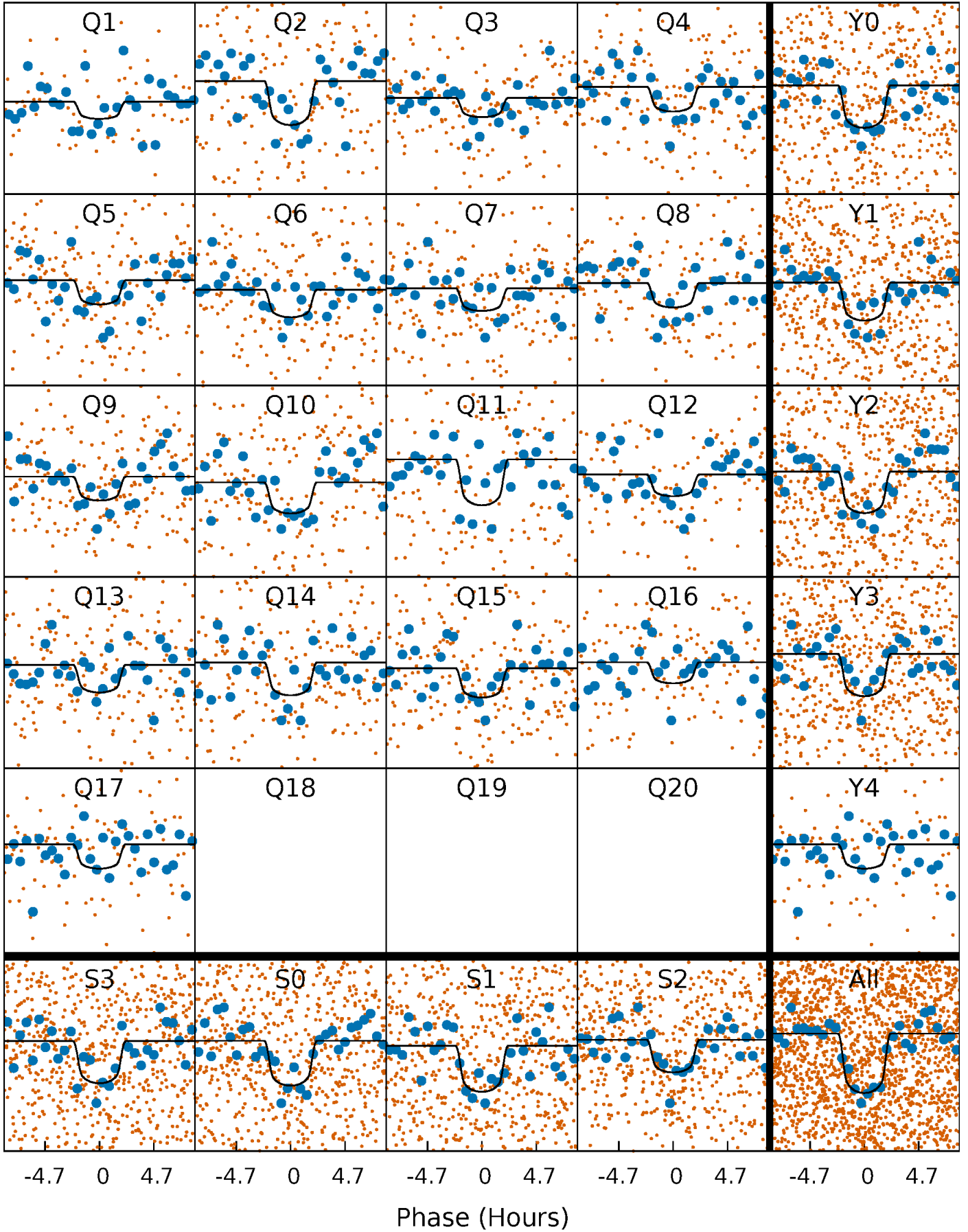
PDC Quarter-Phased Transit Curves

TCE 008197793-01 P= 15.231180 Days $T_0=143.734670$ (BKJD)



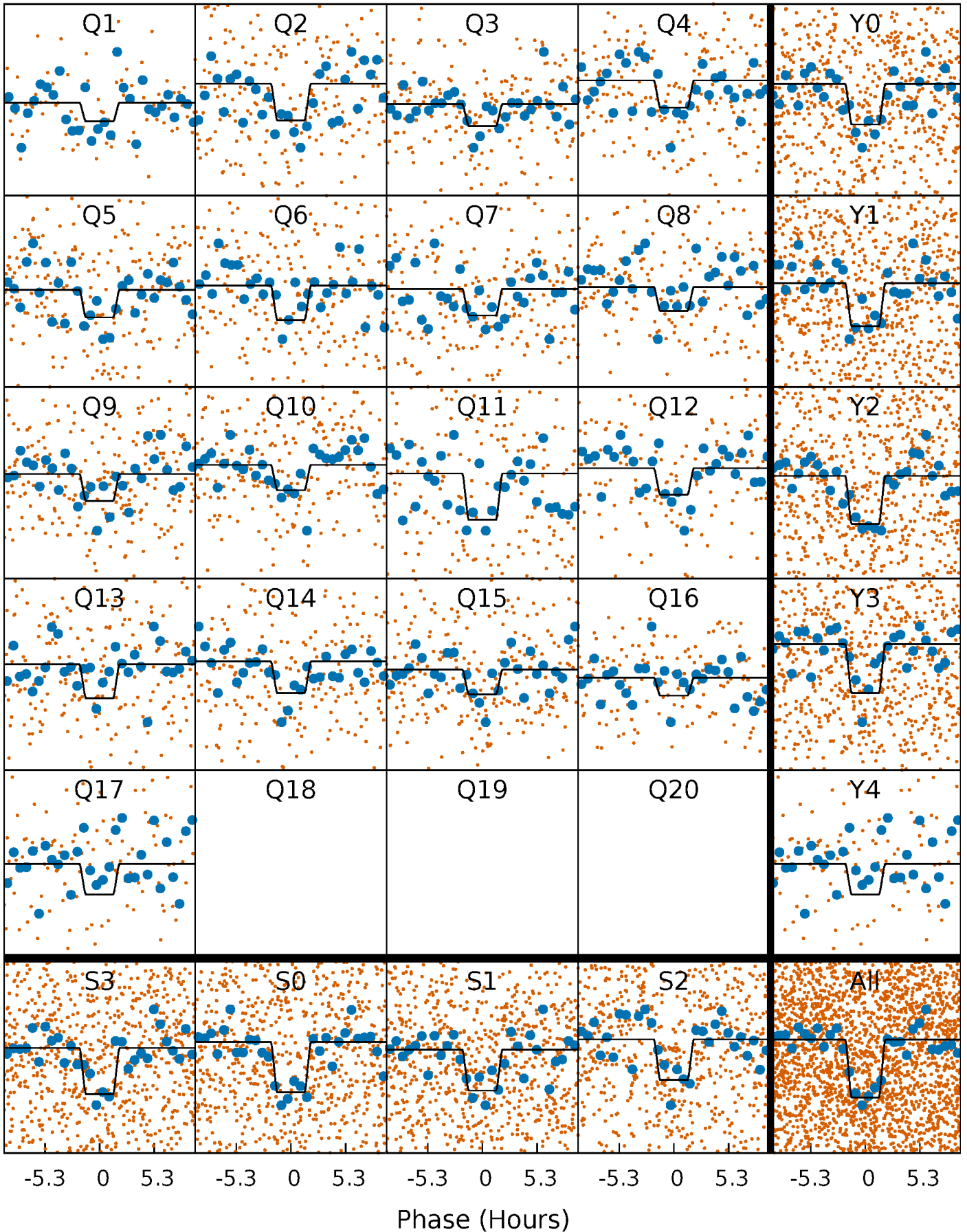
DV Quarter-Phased Transit Curves

TCE 008197793-01 P= 15.231180 Days $T_0=143.734670$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

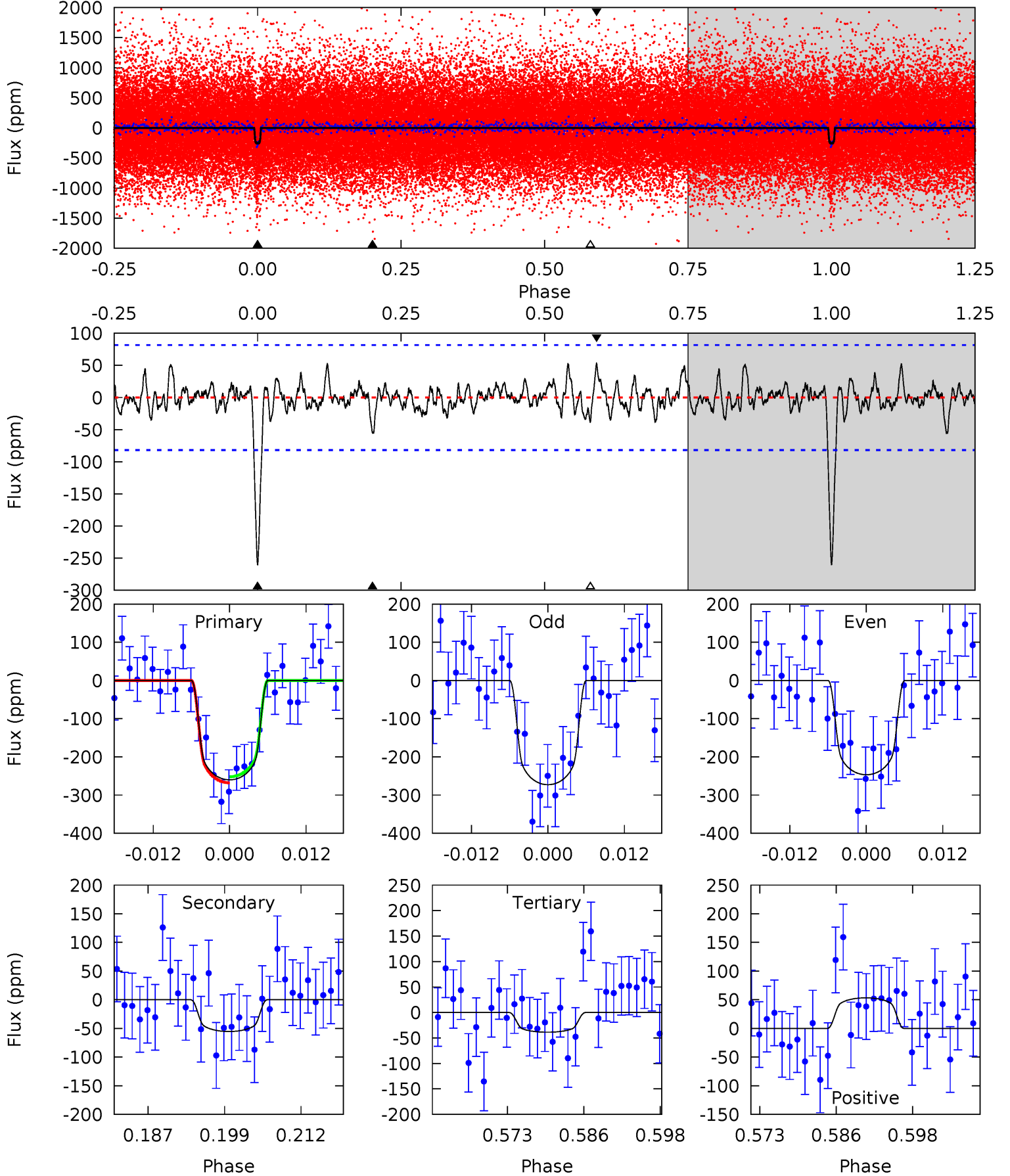
TCE 008197793-01 P= 15.231190 Days $T_0=143.736436$ (BKJD)



DV Model-Shift Uniqueness Test

008197793-01, $P = 15.231180$ Days, $E = 128.503490$ Days

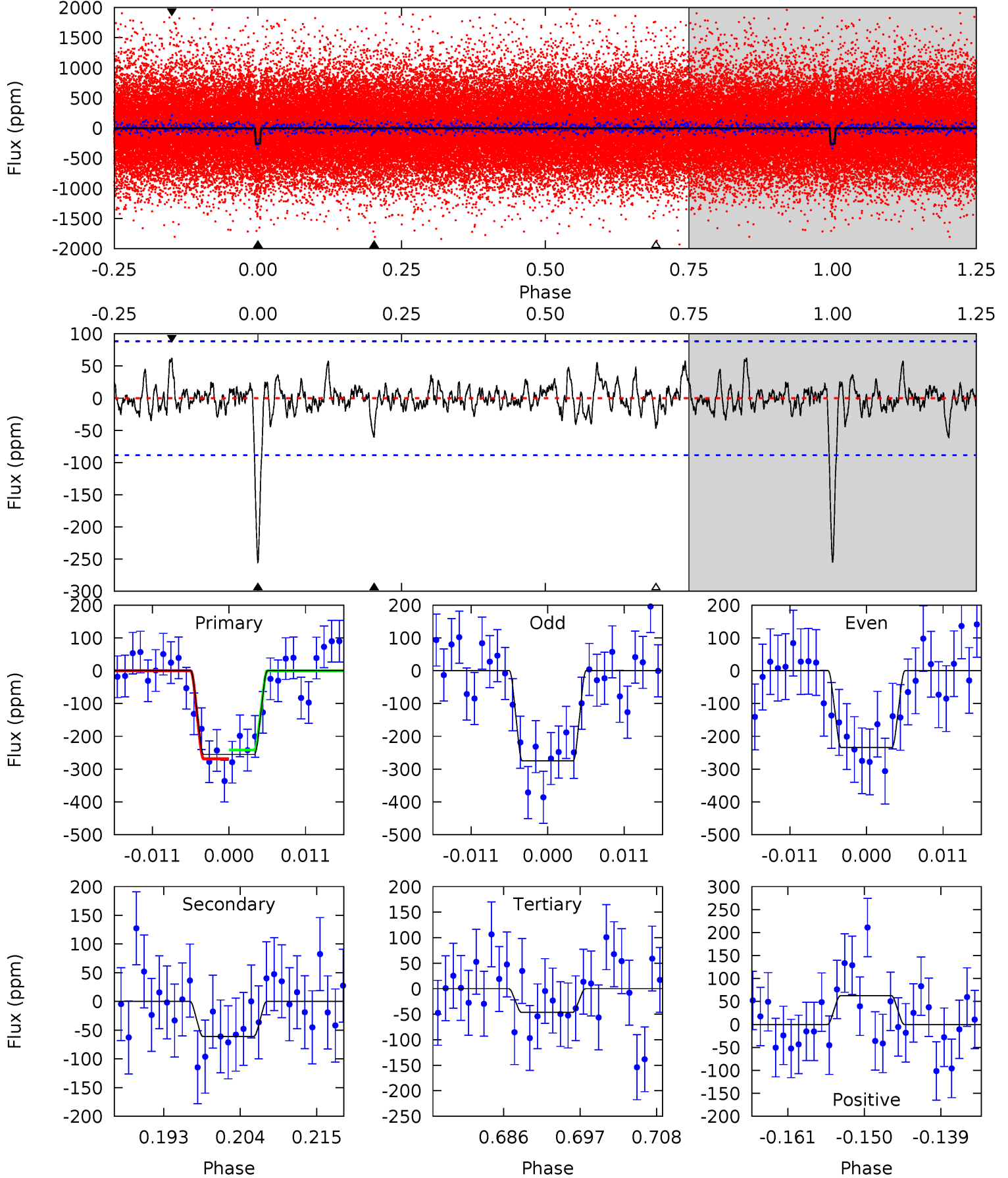
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	3.38	2.36	3.25	4.98	2.50	1.00	13.5	12.6	1.02	0.13	0.80	0.99	0.17	0.49



Alt Model-Shift Uniqueness Test

008197793-01, $P = 15.231190$ Days, $E = 128.505246$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	3.45	2.64	3.55	5.01	2.55	0.97	11.8	10.9	0.81	-0.10	1.16	0.97	0.20	0.76



Stellar Parameters For KIC 008197793

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5836^{+70}_{-87}	$4.316^{+0.115}_{-0.115}$	$0.160^{+0.150}_{-0.150}$	$1.186^{+0.192}_{-0.157}$	$1.061^{+0.070}_{-0.070}$	$0.897^{+0.436}_{-0.292}$
	+1%/-1%	+3%/-3%	+94%/-94%	+16%/-13%	+7%/-7%	+49%/-33%
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 008197793-01 / KOI 3123.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-55 ± 16	$2.15^{+0.76}_{-0.73}$	1112^{+50}_{-44}	4141^{+750}_{-473}	98^{+145}_{-50}
Alt.	-61 ± 18	$2.04^{+0.76}_{-0.76}$	1115^{+49}_{-44}	4320^{+942}_{-537}	118^{+210}_{-61}

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 $A_{obs} \gg 1.0$

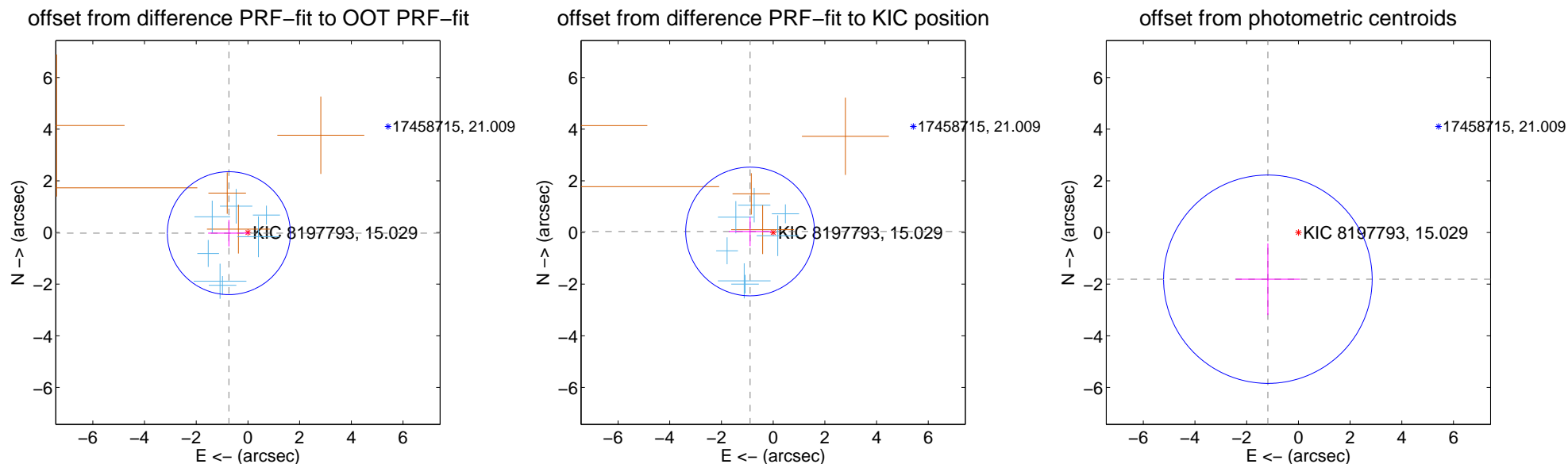
DV Centroid Data

Supplemental centroid analysis for 008197793-01. Kepler magnitude: 15.03. Transit SNR 11.84

There are 7 quarters with good PRF difference image offsets

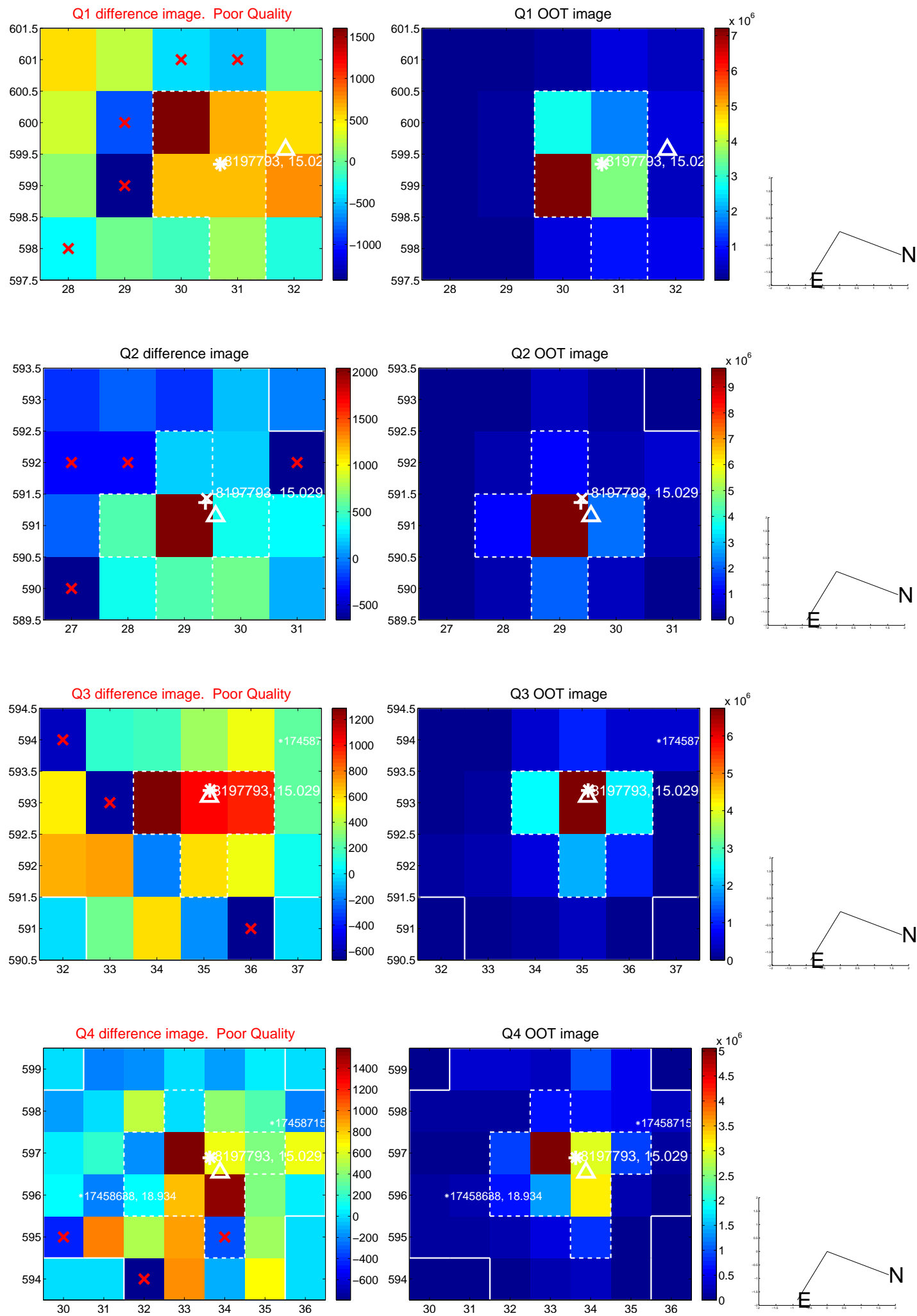
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.739 ± 0.793	0.93	0.738 ± 0.799	-0.027 ± 0.514
PRF-fit source offset from KIC position	0.893 ± 0.830	1.08	0.892 ± 0.823	0.039 ± 0.567
photometric centroid source offset	2.16 ± 1.34	1.61	1.18 ± 1.24	-1.81 ± 1.39

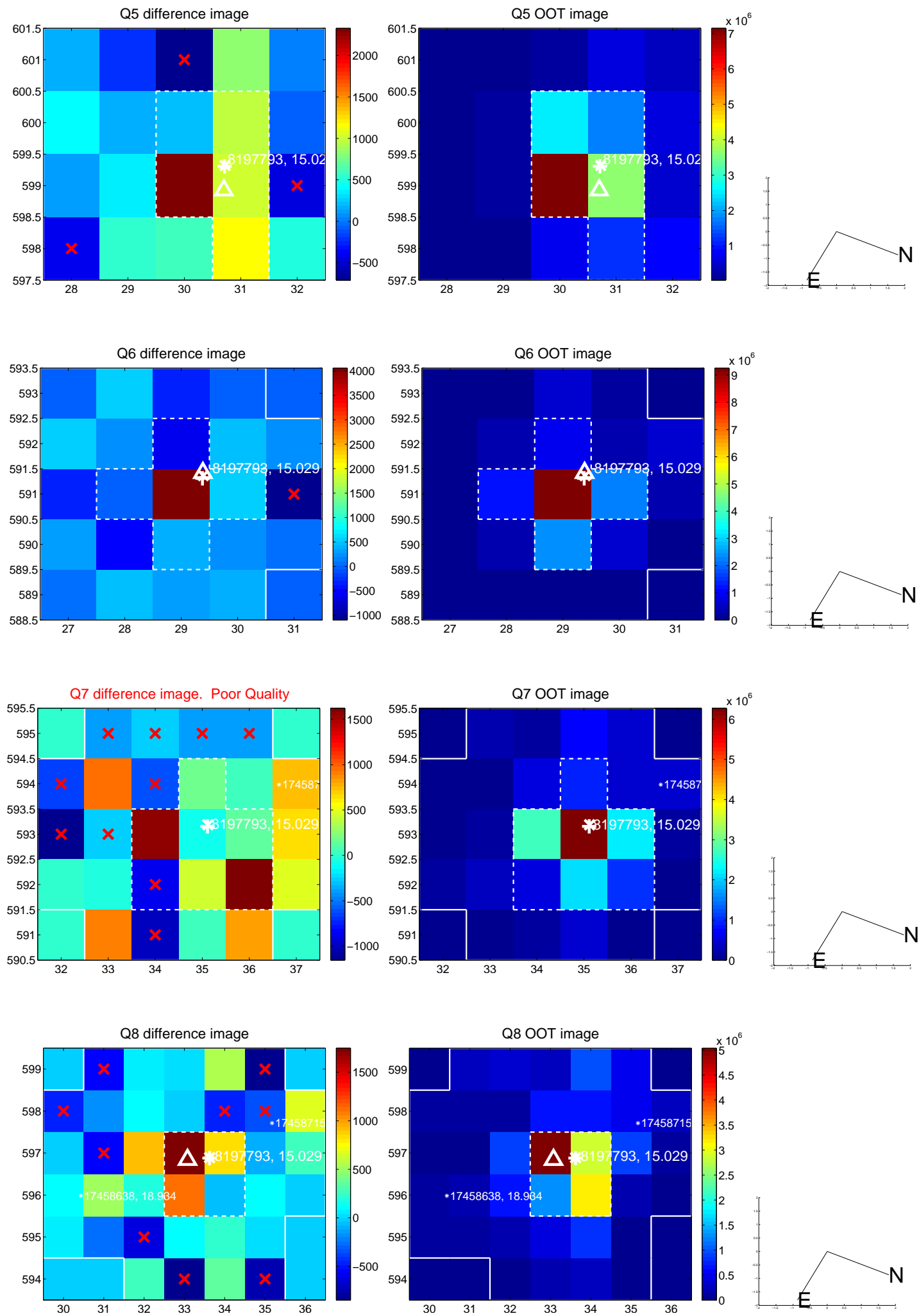


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

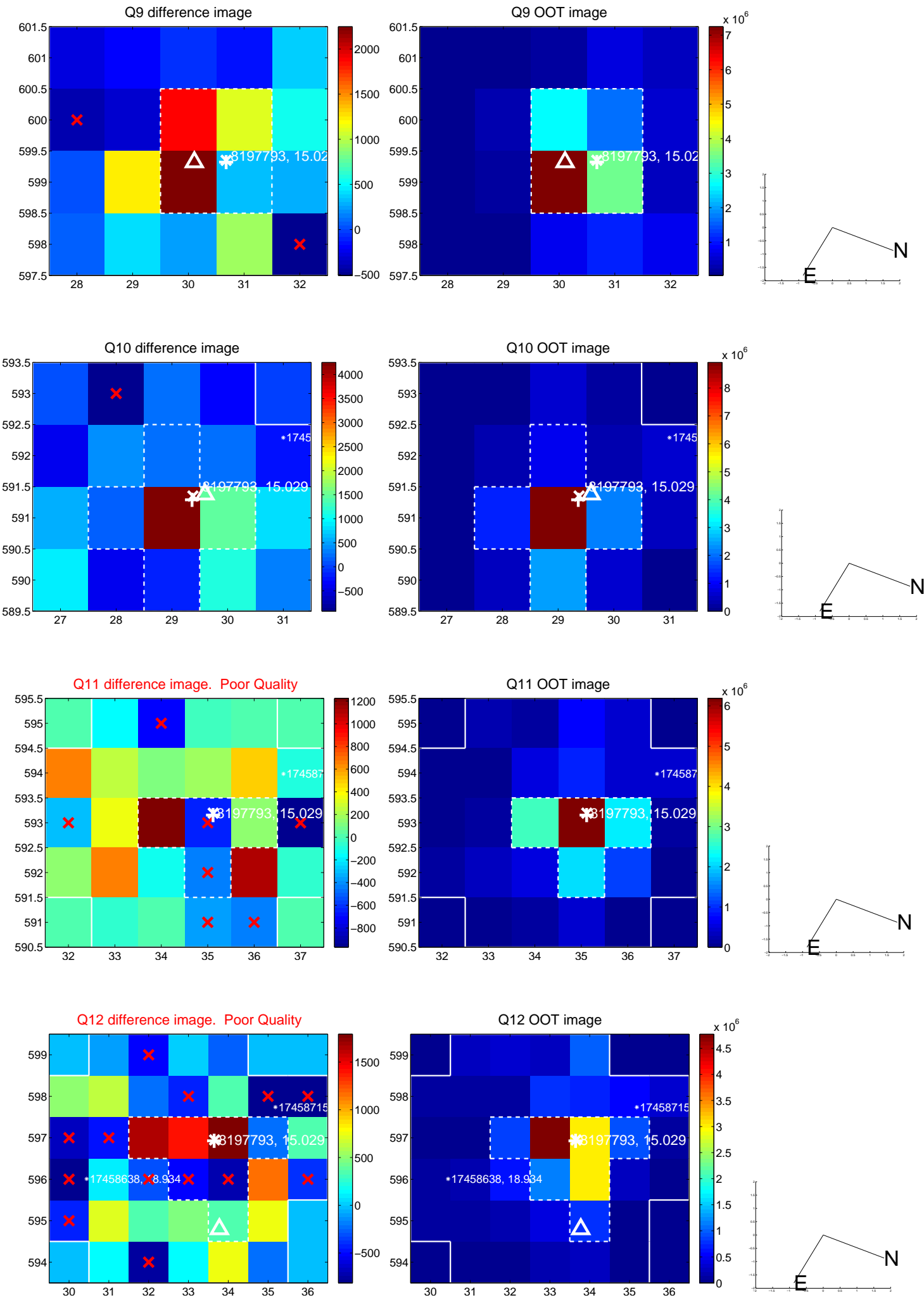
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



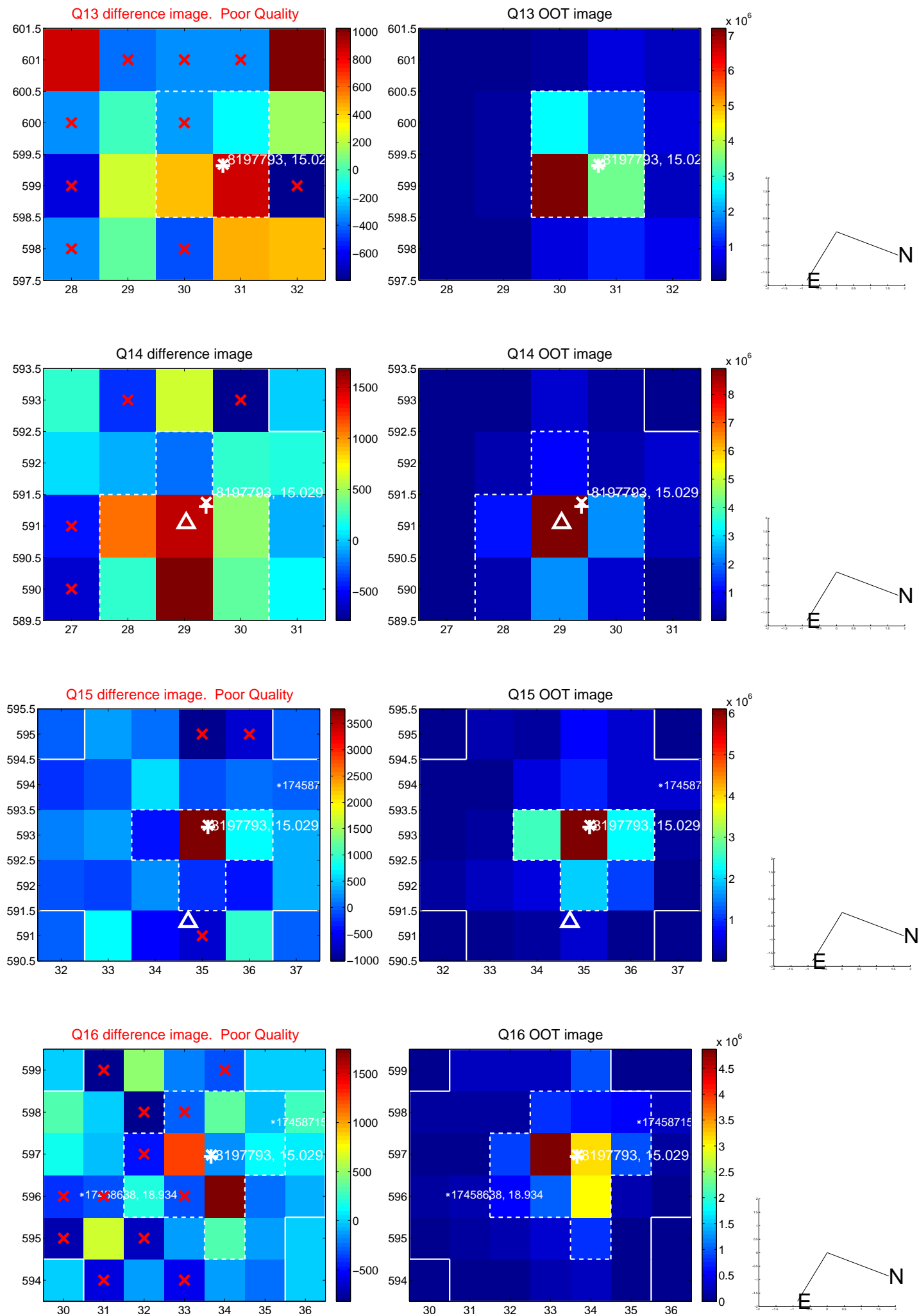
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



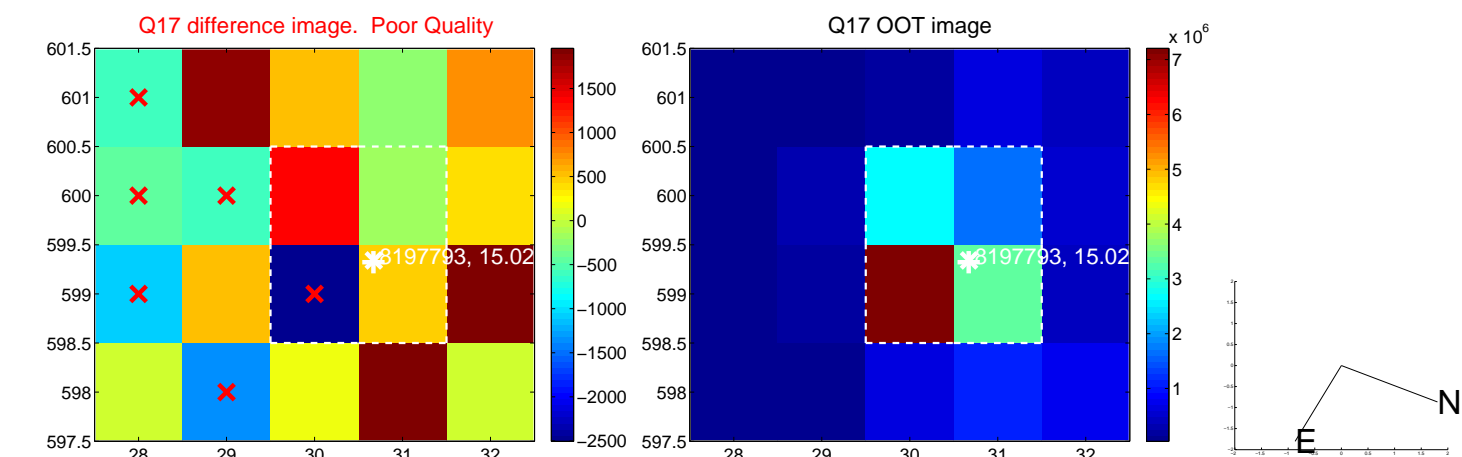
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



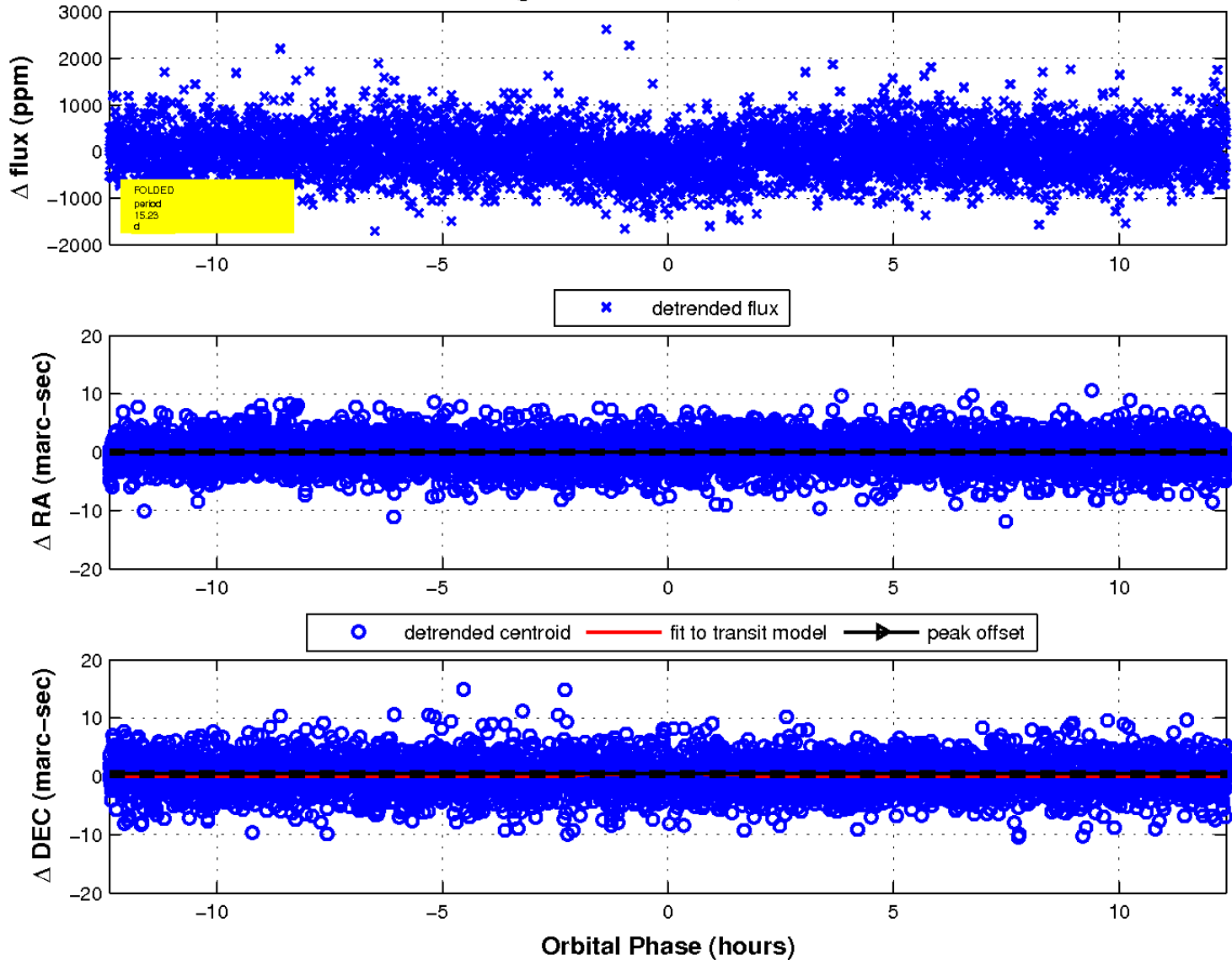
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

