

KIC 009595686

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})
009595686-01	OBS	0944.01	3.108245	132.946894	1821.4	2.474	139.4	150.3	0.85	5330	4.36	341.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009595686-01	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.

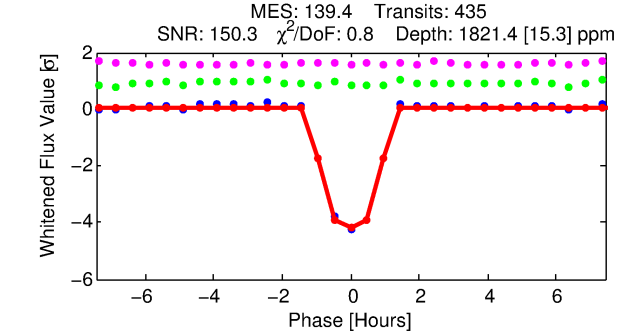
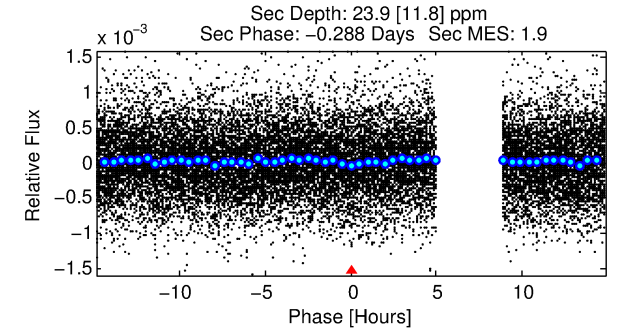
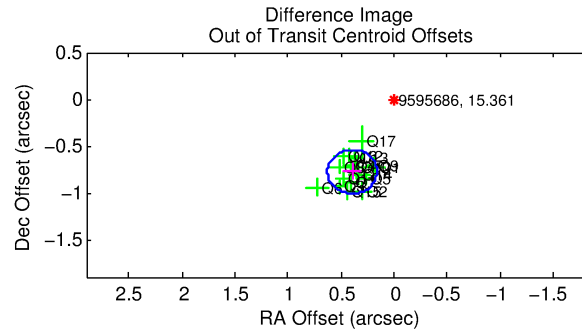
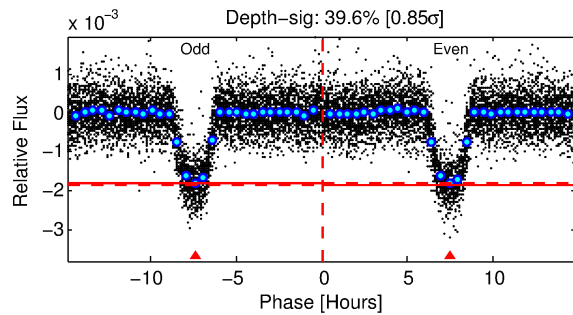
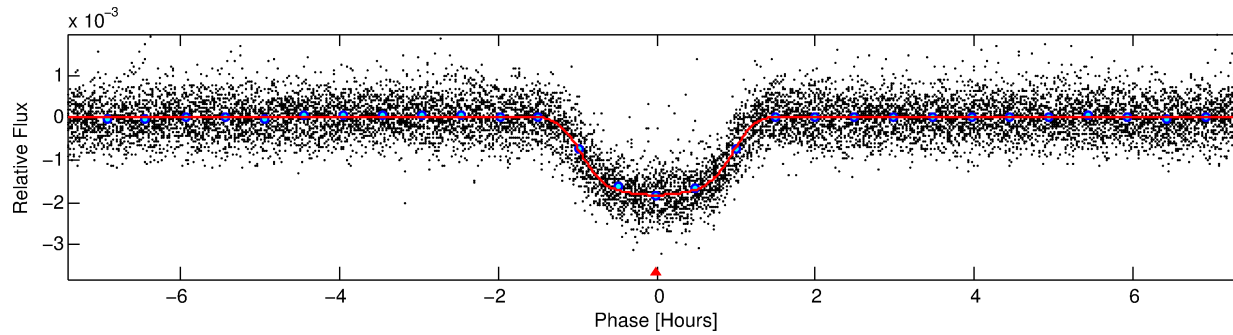
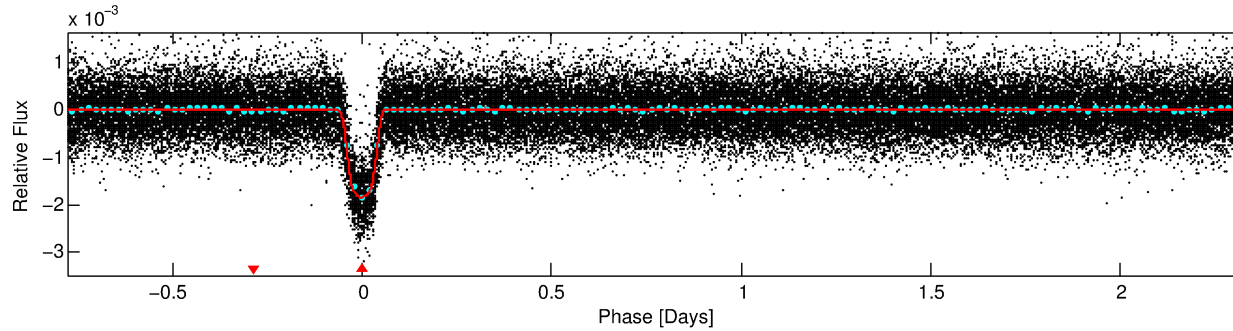
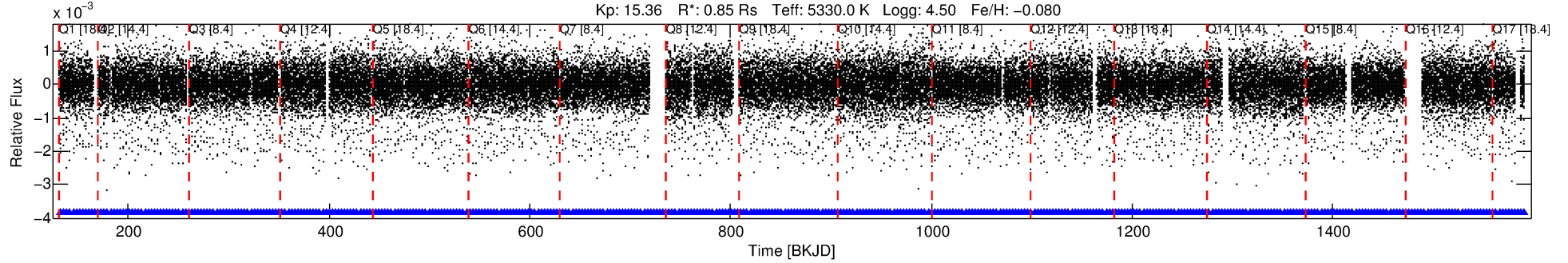
Ephemeris Match Information For 009595686-01

No Significant Match Found

DV One-Page Summary

KIC: 9595686 Candidate: 1 of 1 Period: 3.108 d
KOI: K00944.01 Corr: 0.993

Kp: 15.36 R*: 0.85 Rs Teff: 5330.0 K Logg: 4.50 Fe/H: -0.080



DV Fit Results:

Period = 3.10824 [0.00000] d
Epoch = 132.9469 [0.0003] BKJD
Rp/R* = 0.0472 [0.0006]
a/R* = 5.24 [0.24]
b = 0.90 [0.01]
Seff = 341.22 [81.59]
Teq = 1096 [66] K
Rp = 4.36 [0.73] Re
a = 0.0390 [0.0055] AU
Ag = 1.05 [0.56] [0.09σ]
Teff = 1715 [218] K [2.72σ]

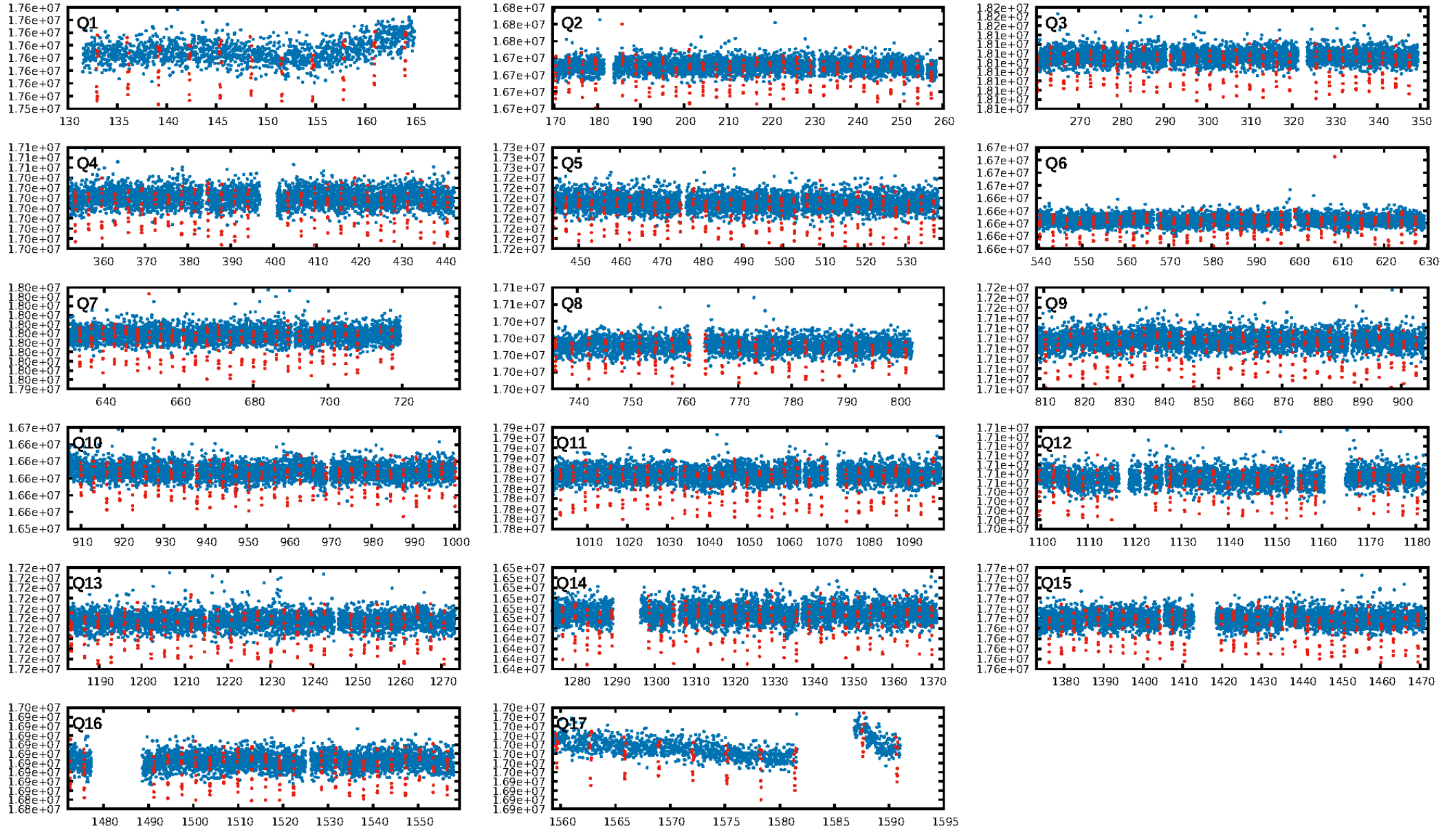
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [414/414]
GhostDiagnostic-chr: 3.361
Centroid-sig: 0.0%
Centroid-so: 0.884 arcsec [9.42σ]
OotOffset-rm: 0.870 arcsec [11.18σ]
KicOffset-rm: 1.017 arcsec [14.07σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

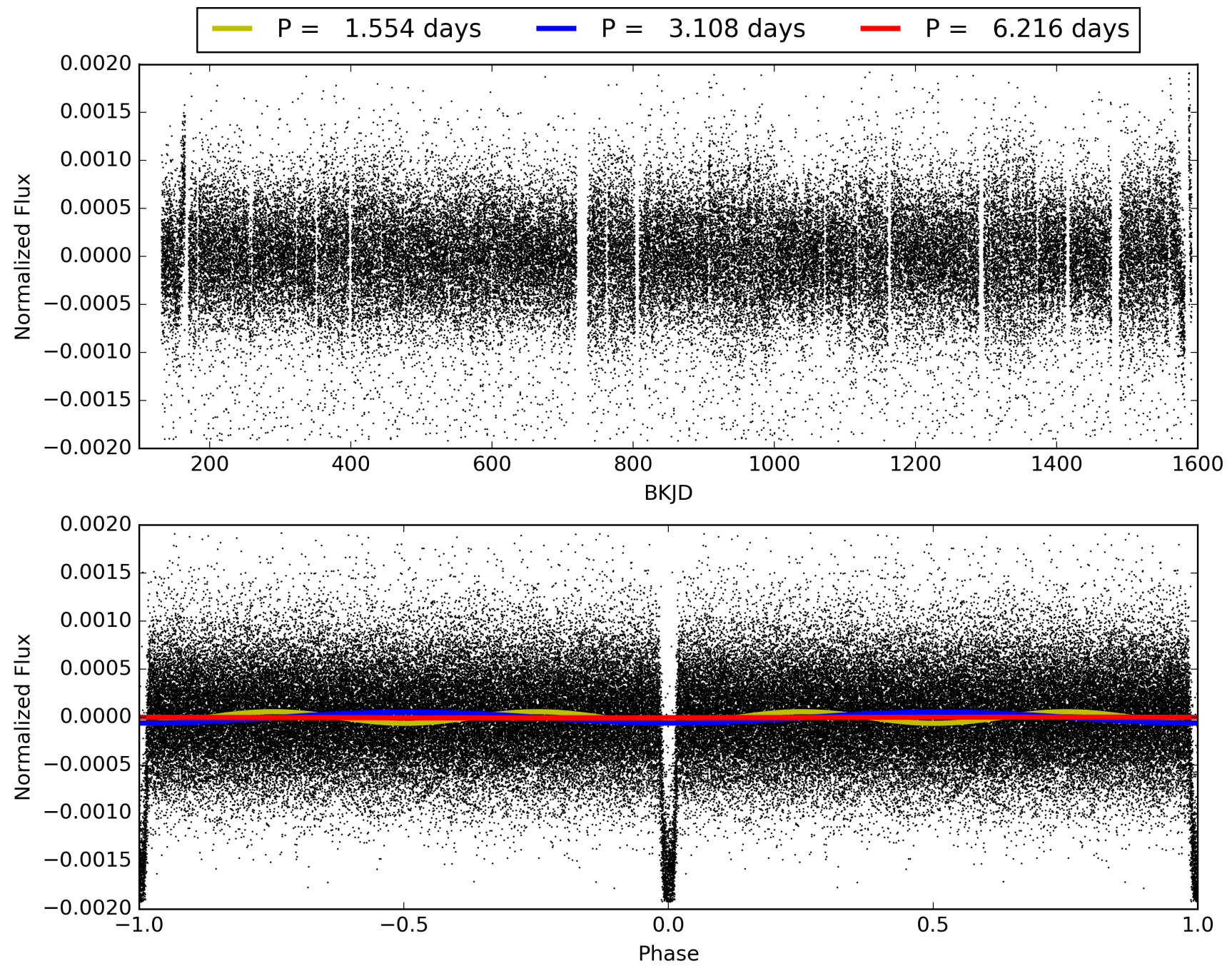
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:19:40 Z

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

TCE 009595686-01, PDC Light Curves

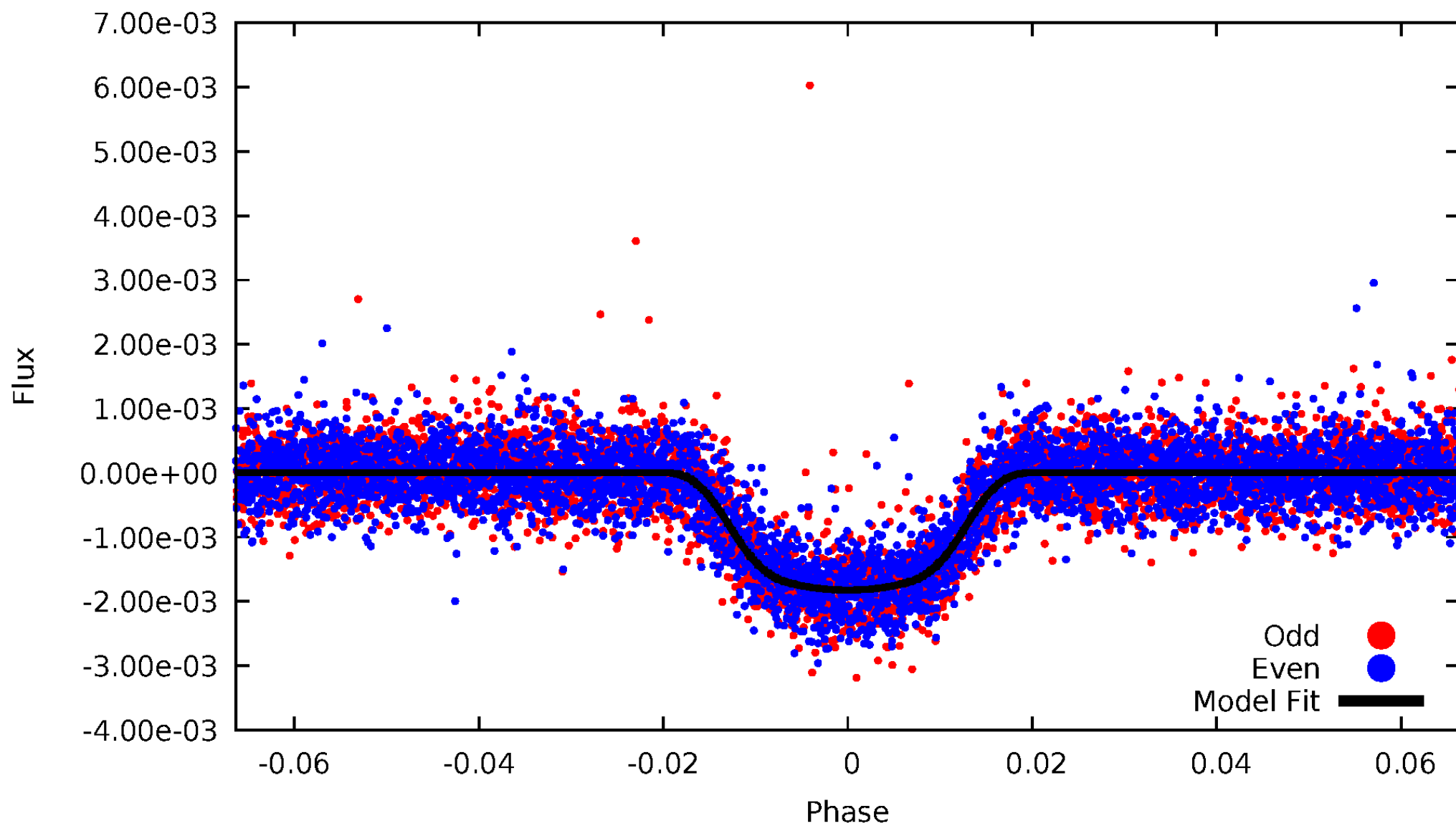


TCE 009595686-01



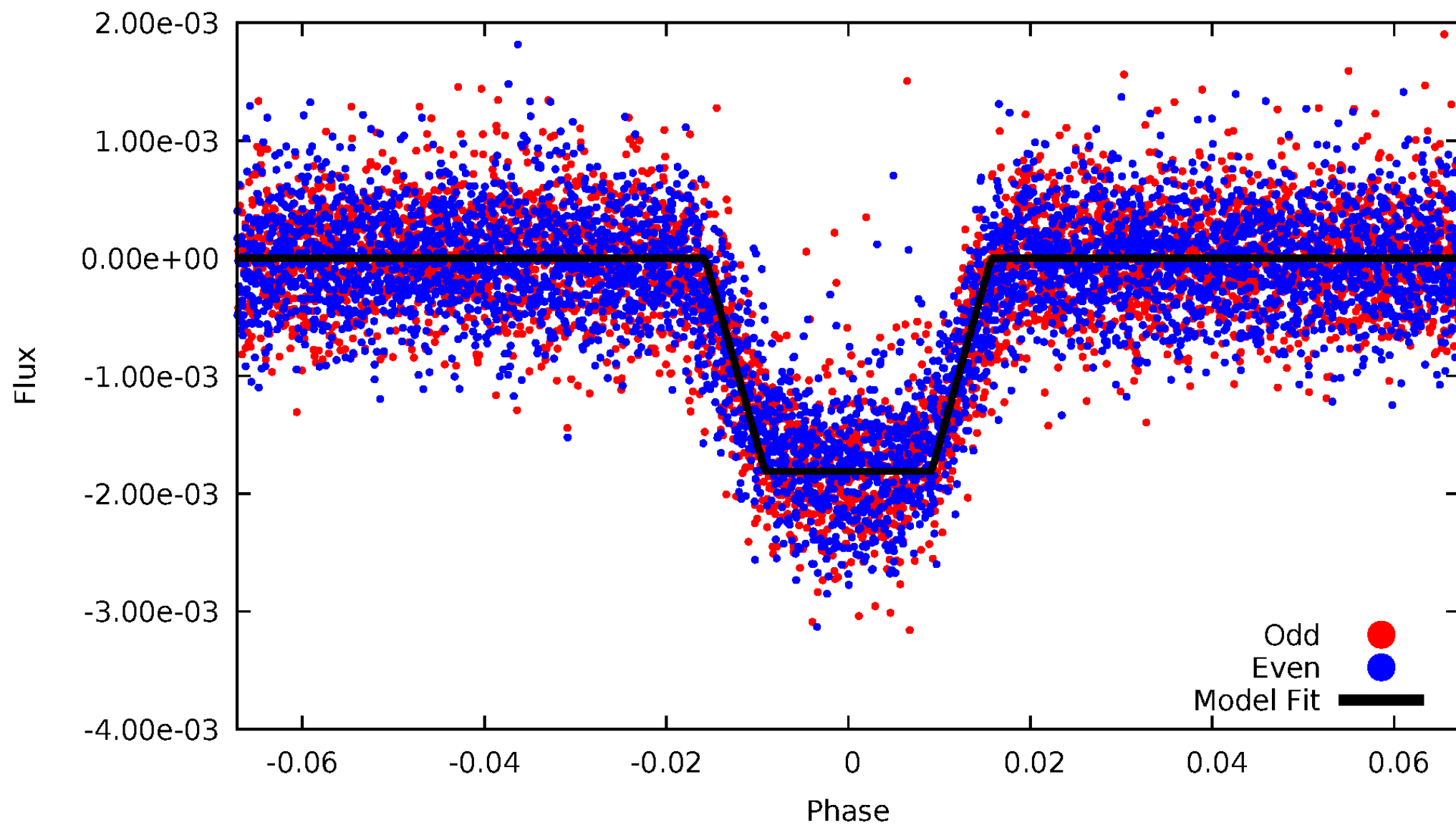
DV Odd/Even

TCE 009595686-01



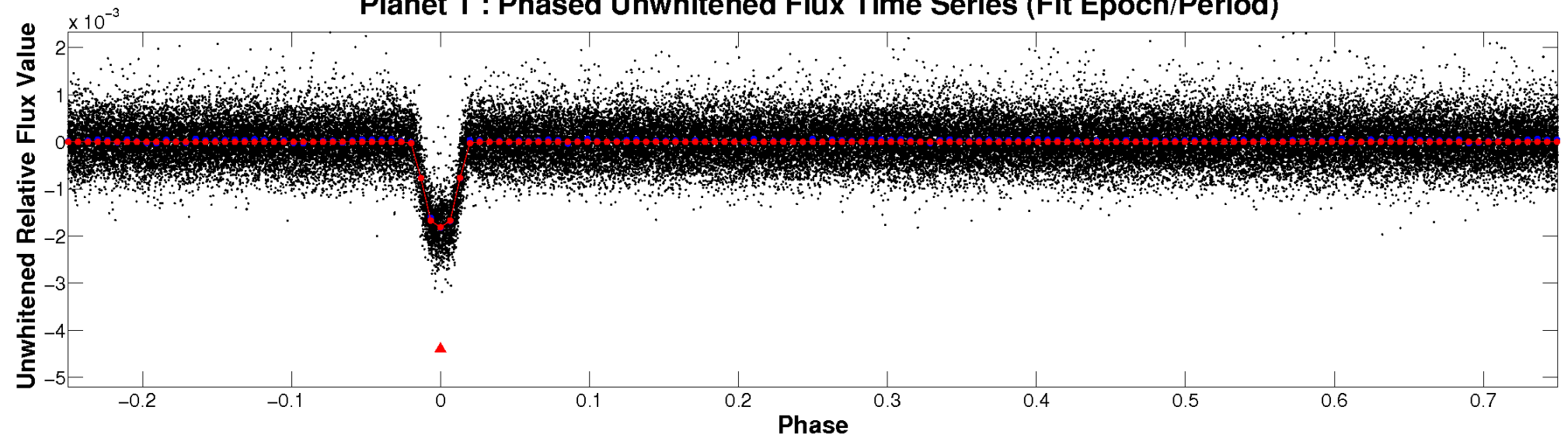
ALT Odd/Even

TCE 009595686-01

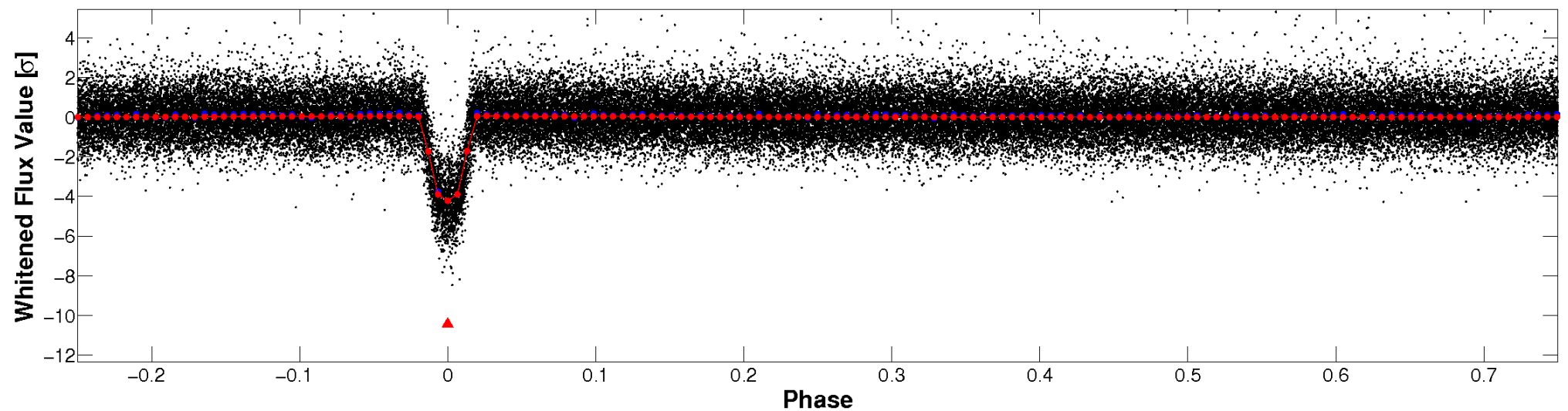


Non-Whitened Vs. Whitened Light Curve

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

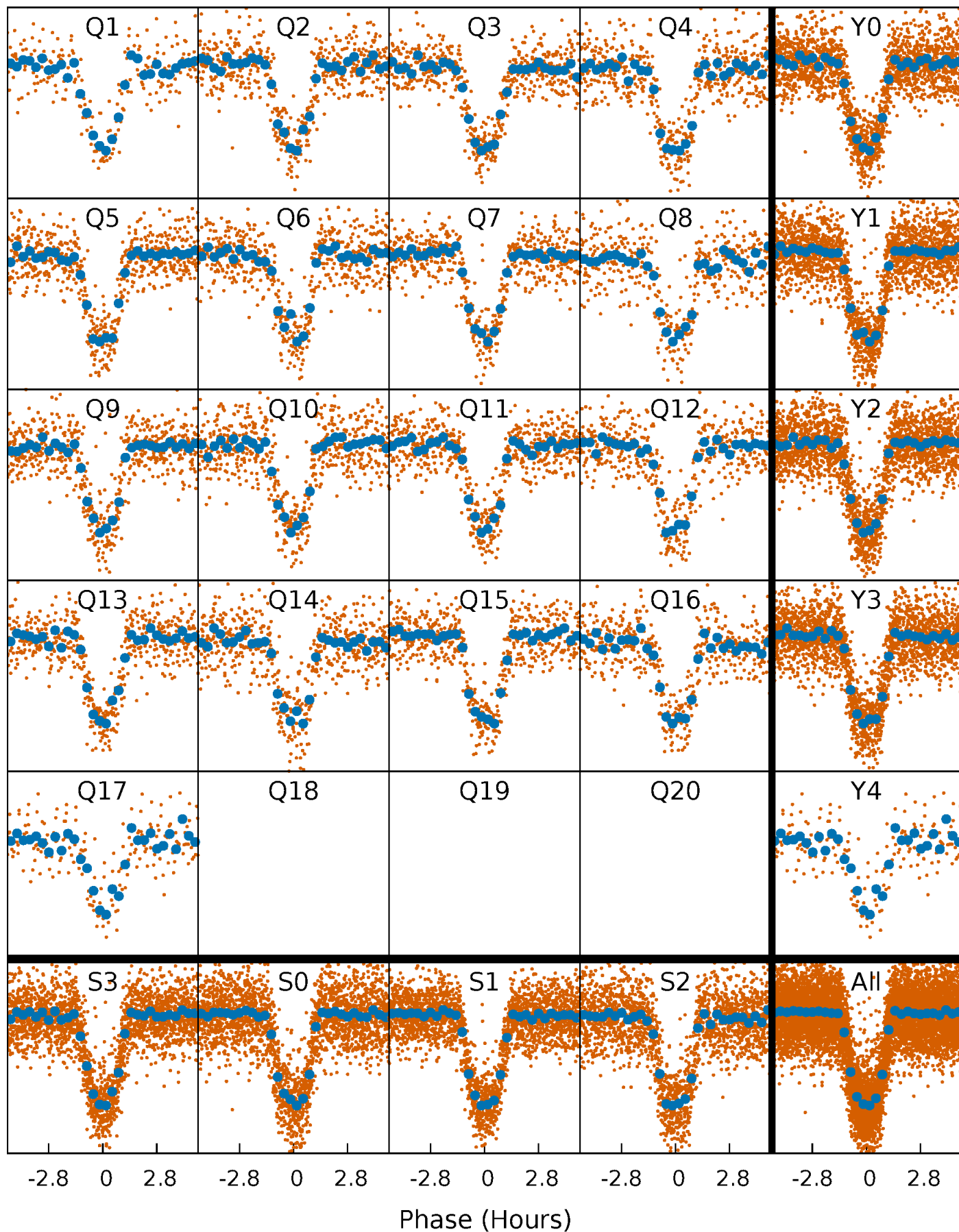


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



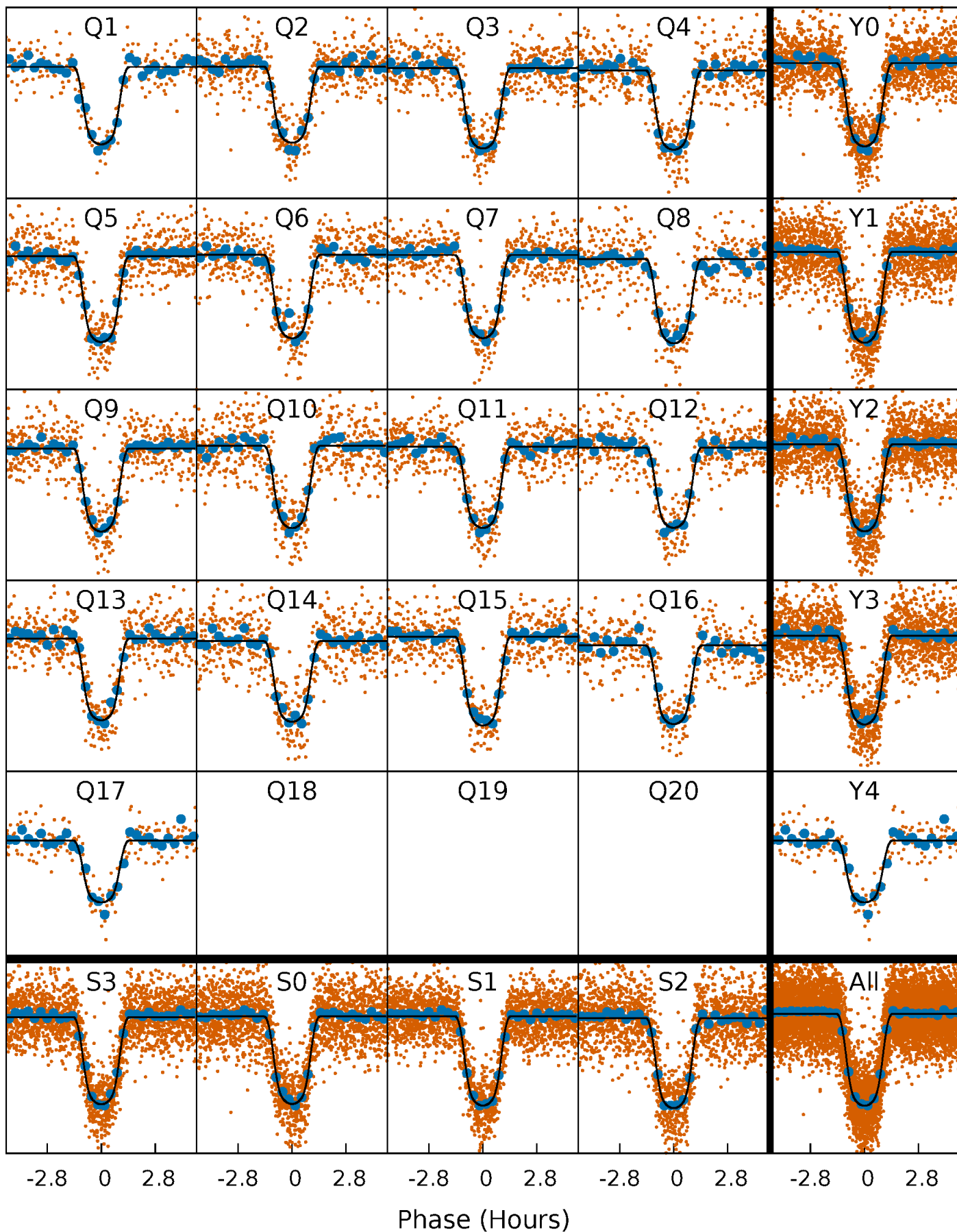
PDC Quarter-Phased Transit Curves

TCE 009595686-01 P= 3.108245 Days $T_0=132.946894$ (BKJD)



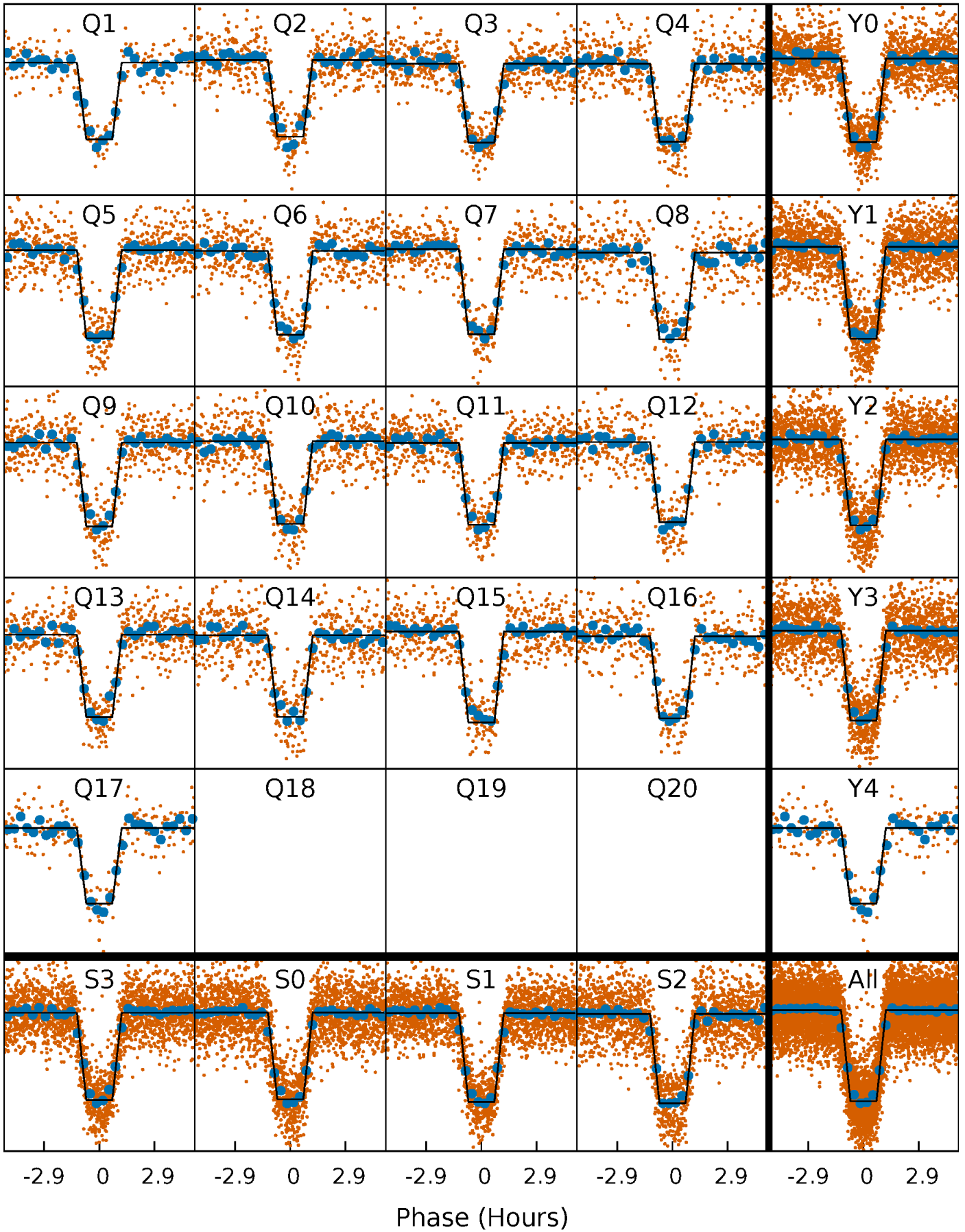
DV Quarter-Phased Transit Curves

TCE 009595686-01 P= 3.108245 Days $T_0=132.946894$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

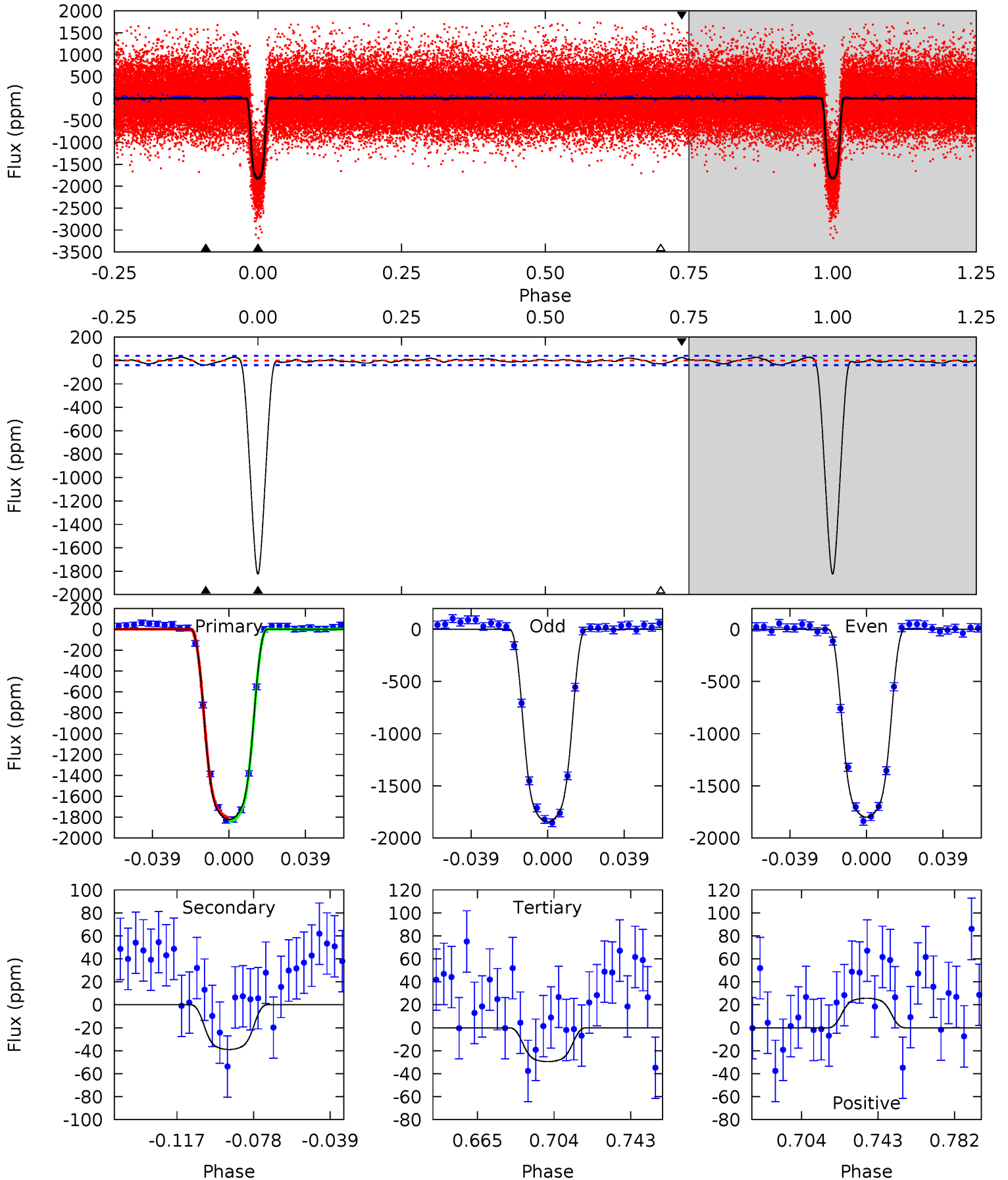
TCE 009595686-01 P= 3.108249 Days $T_0=132.946108$ (BKJD)



DV Model-Shift Uniqueness Test

009595686-01, P = 3.108245 Days, E = 129.838649 Days

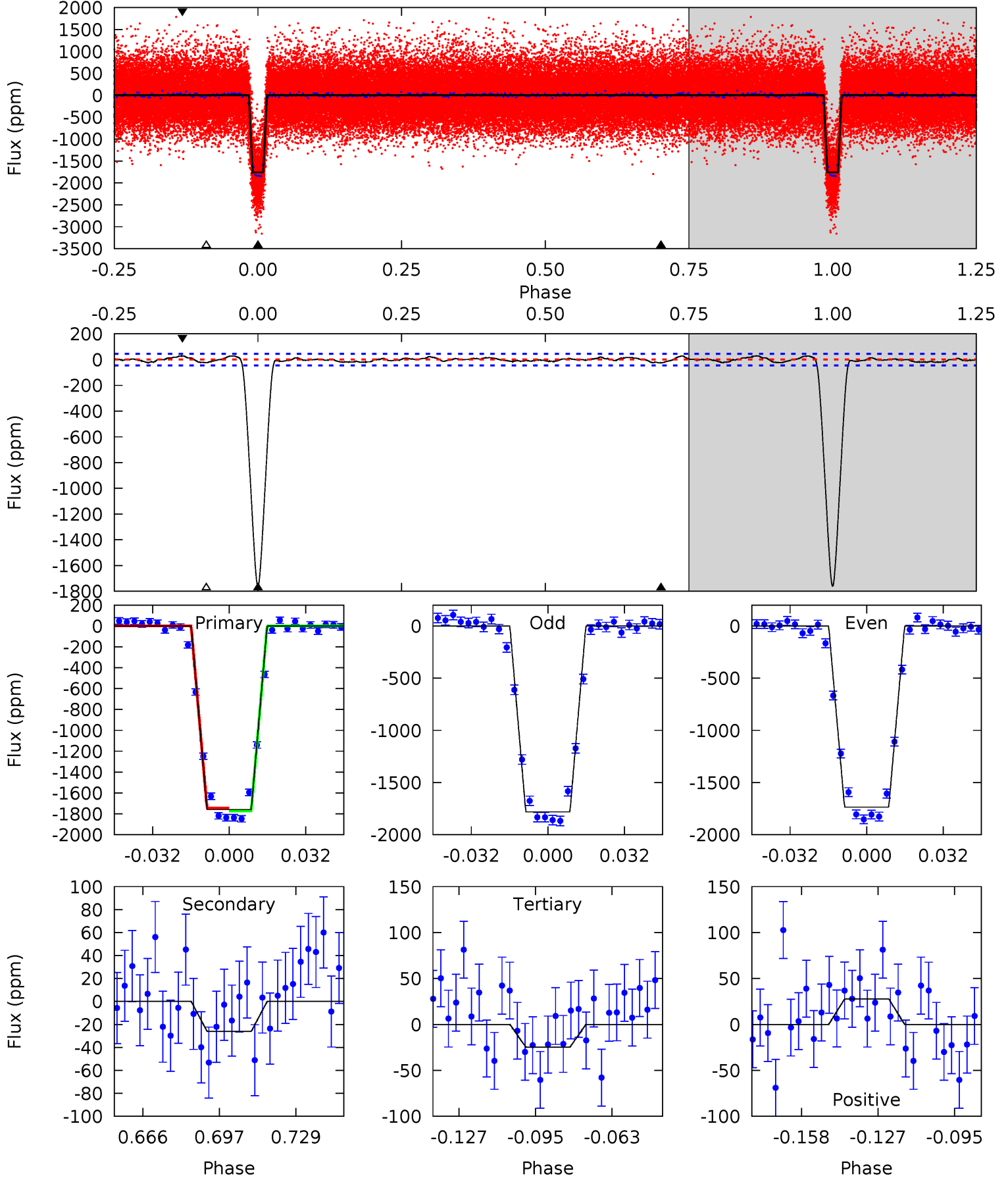
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
215.9	4.62	3.50	3.04	4.76	2.06	1.43	212.4	212.9	1.12	1.57	2.68	0.99	0.02	2.17



Alt Model-Shift Uniqueness Test

009595686-01, P = 3.108249 Days, E = 129.837859 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
187.4	2.78	2.63	2.96	4.80	2.15	1.26	184.7	184.4	0.15	-0.18	2.41	1.00	0.02	1.45



Stellar Parameters For KIC 009595686

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5330^{+159}_{-143}	$4.495^{+0.085}_{-0.114}$	$-0.080^{+0.300}_{-0.300}$	$0.847^{+0.141}_{-0.094}$	$0.819^{+0.096}_{-0.070}$	$1.895^{+0.713}_{-0.611}$
	+3%/-3%	+2%/-3%	+375%/-375%	+17%/-11%	+12%/-9%	+38%/-32%
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 009595686-01 / KOI 0944.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-39 ± 8	$4.38^{+0.45}_{-0.31}$	1545^{+73}_{-69}	2633^{+95}_{-101}	$1.640^{+0.467}_{-0.394}$
Alt.	-26 ± 9	$3.94^{+0.41}_{-0.26}$	1538^{+76}_{-67}	2553^{+132}_{-194}	$1.361^{+0.564}_{-0.499}$

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 $A_{obs} \gg 1.0$

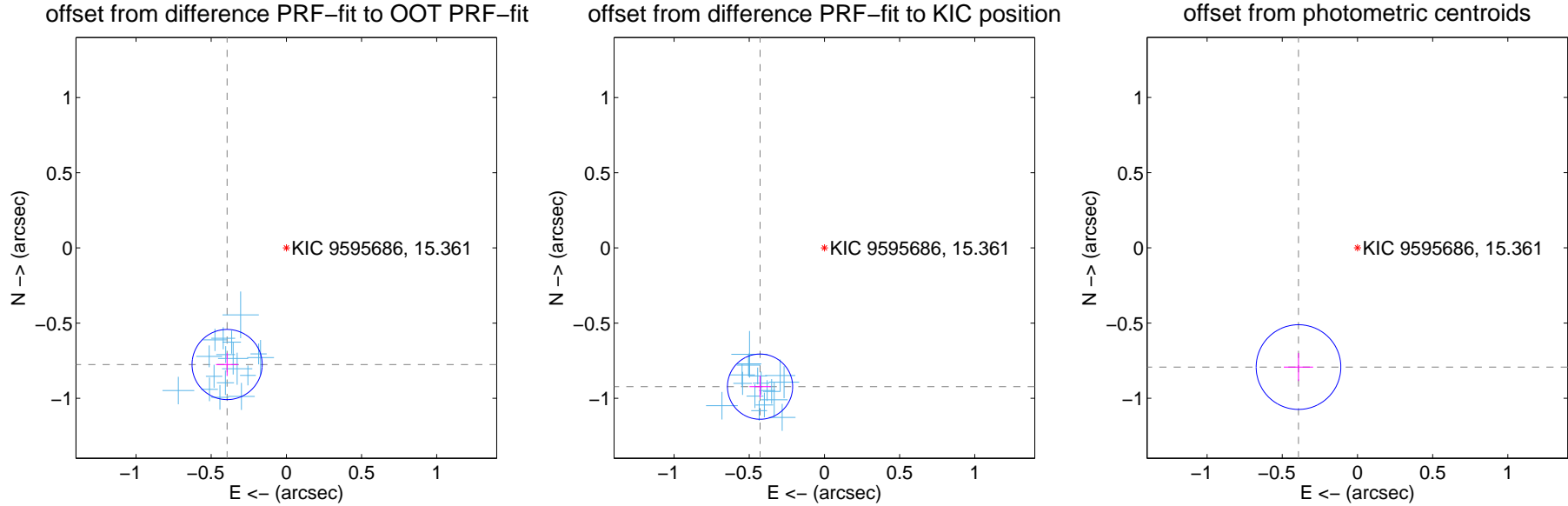
DV Centroid Data

Supplemental centroid analysis for 009595686-01. Kepler magnitude: 15.36. Transit SNR 150.32

There are 17 quarters with good PRF difference image offsets

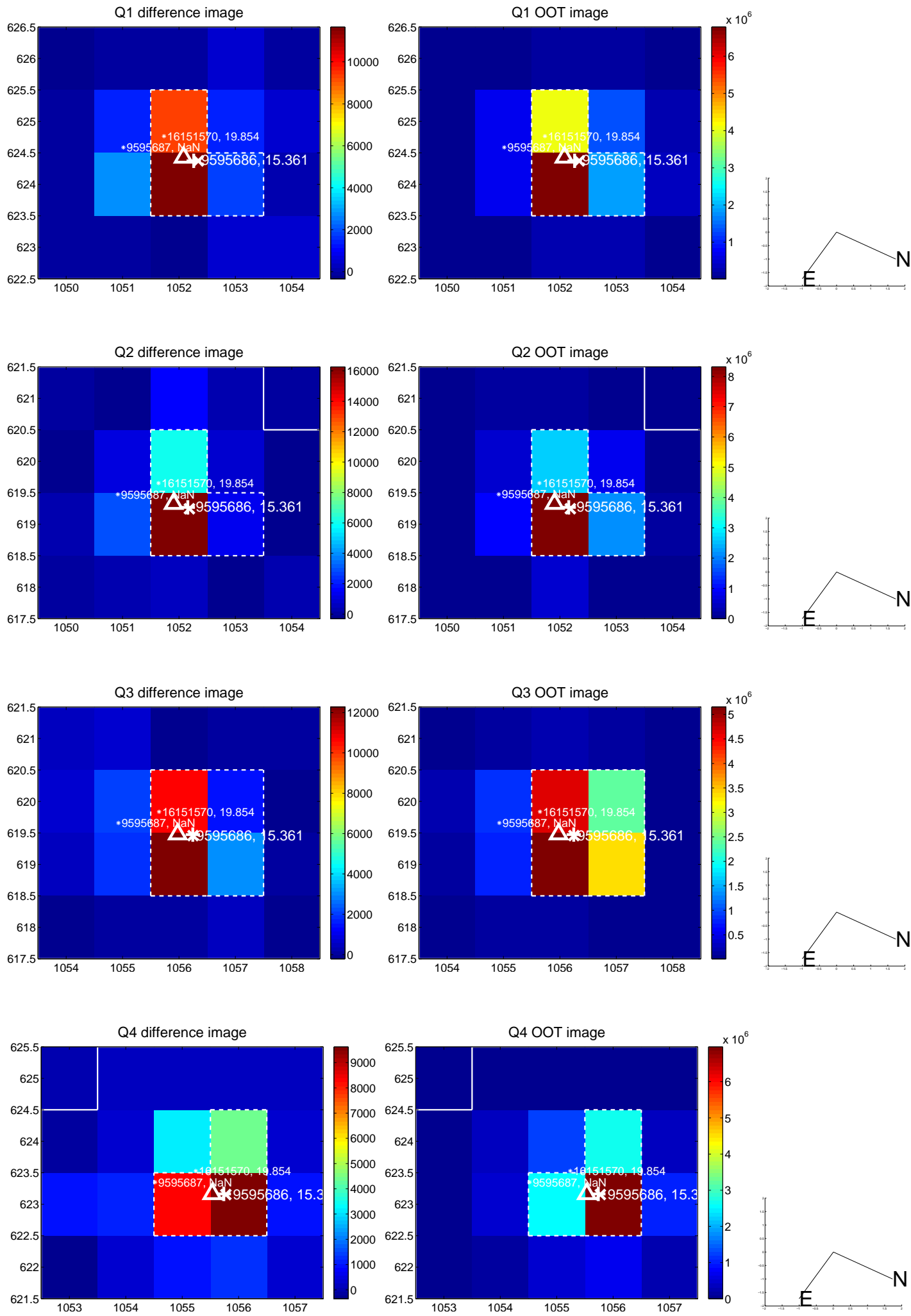
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.870 ± 0.078	11.18	0.394 ± 0.074	-0.775 ± 0.076
PRF-fit source offset from KIC position	1.017 ± 0.072	14.07	0.428 ± 0.070	-0.922 ± 0.073
photometric centroid source offset	0.88 ± 0.09	9.42	0.39 ± 0.10	-0.79 ± 0.09

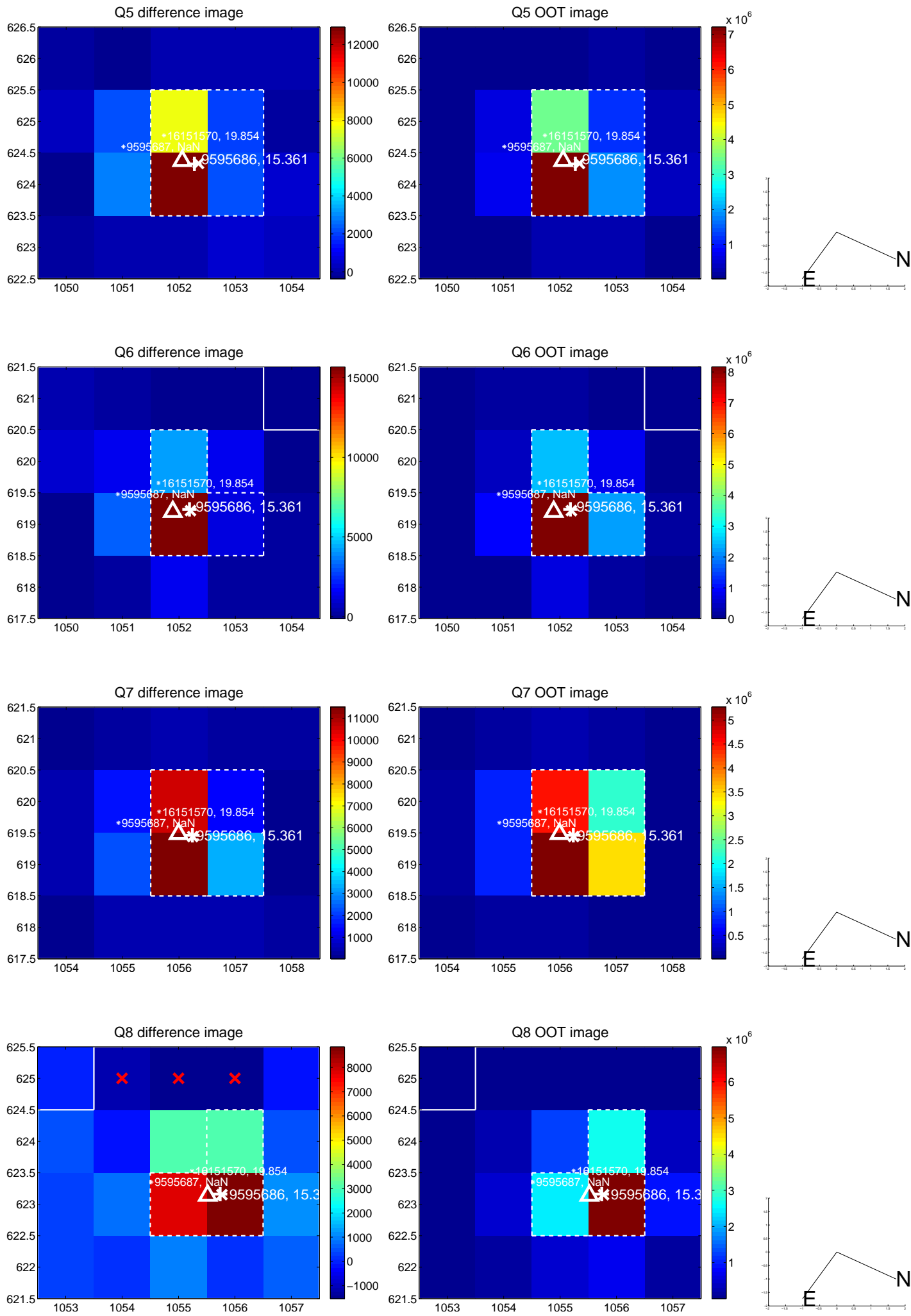


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

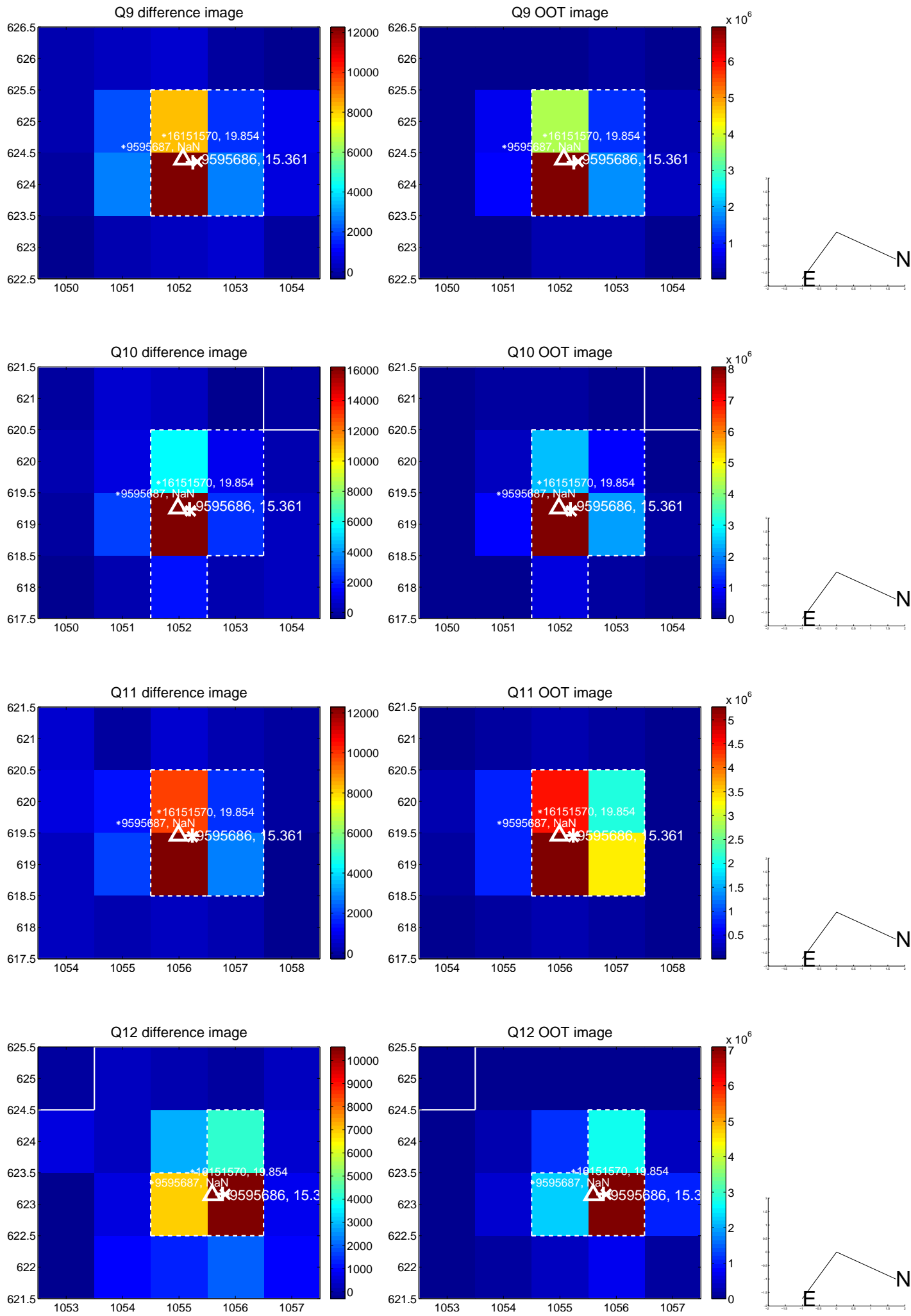
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



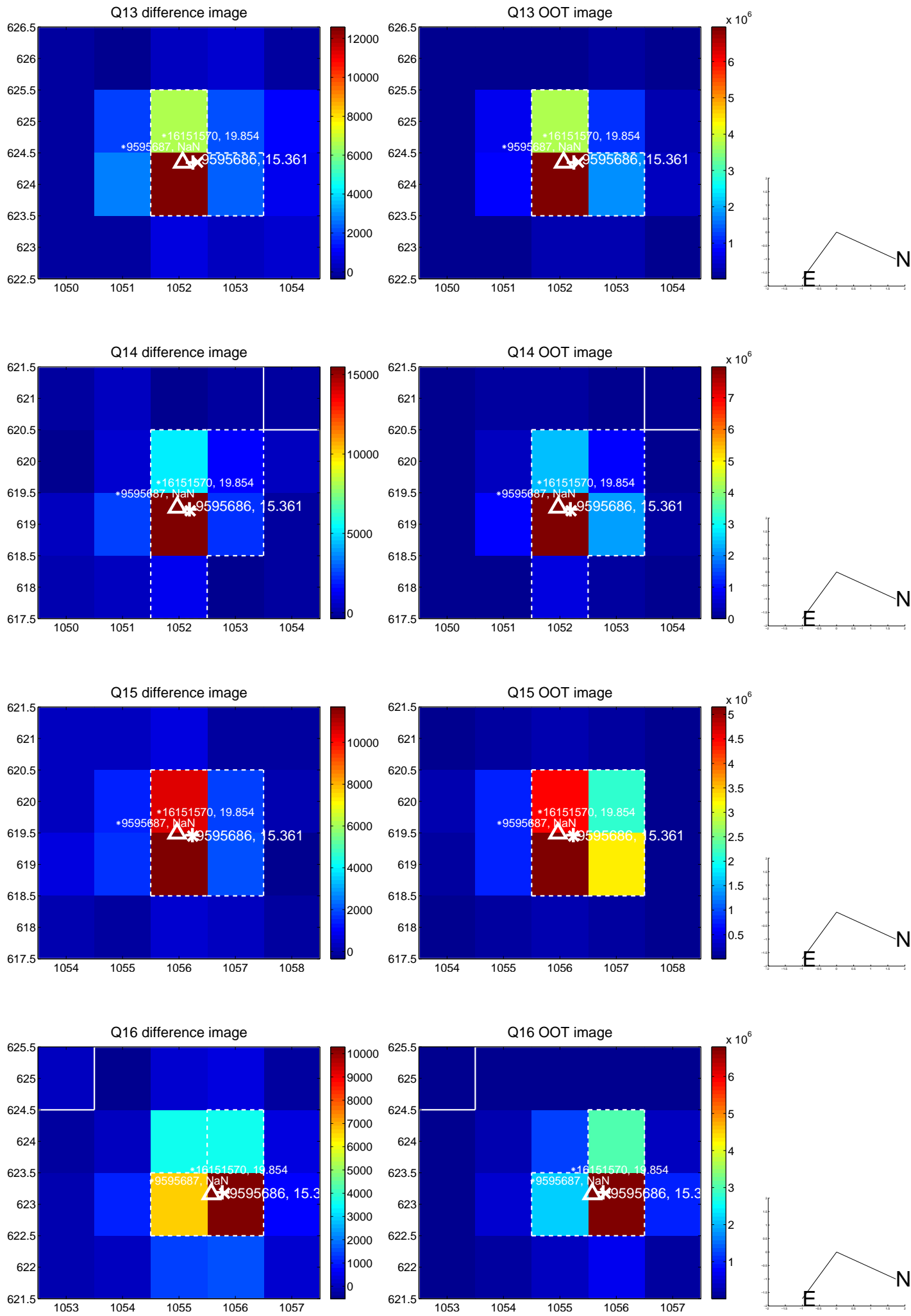
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

