

KIC 008095110

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})
008095110-01	OBS	3619.01	2.103242	132.867303	21190.0	6.696	4399.2	2291.1	0.79	5546	17.28	556.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008095110-01	OBS	FP	0.00	0	1	1	1	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 008095110-01

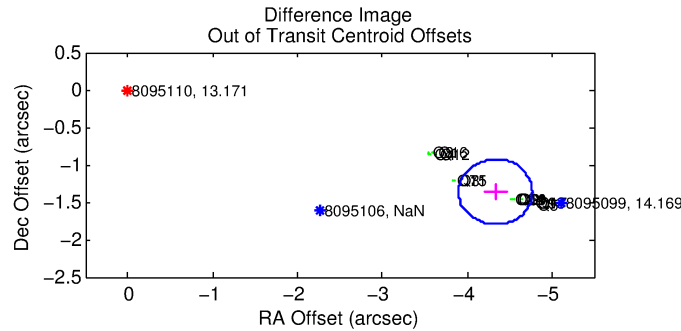
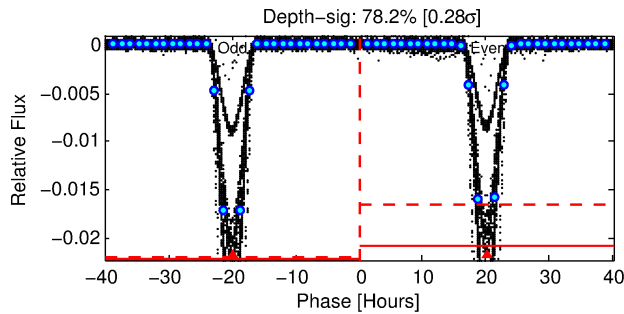
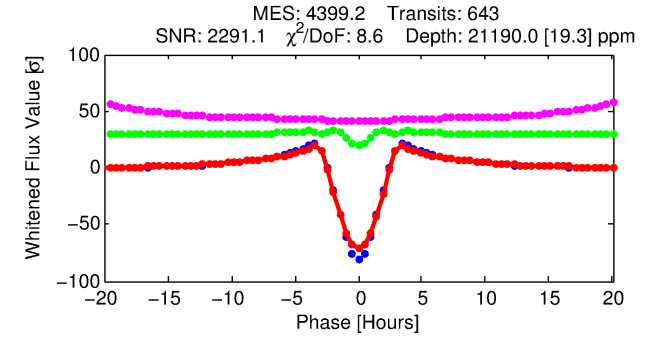
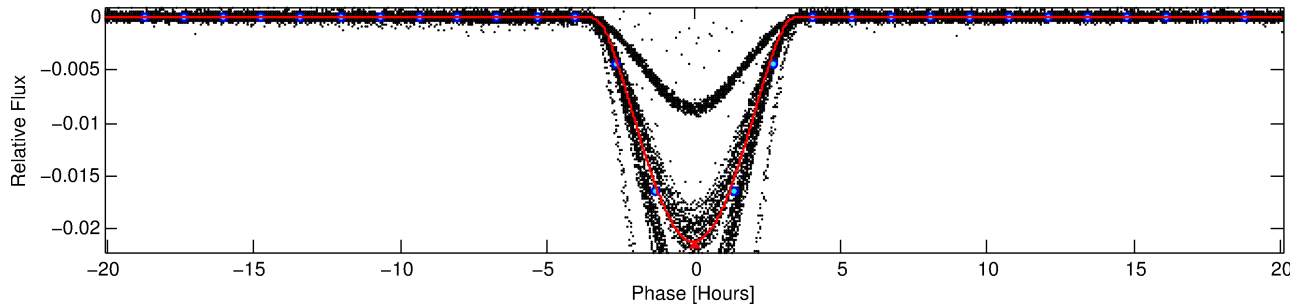
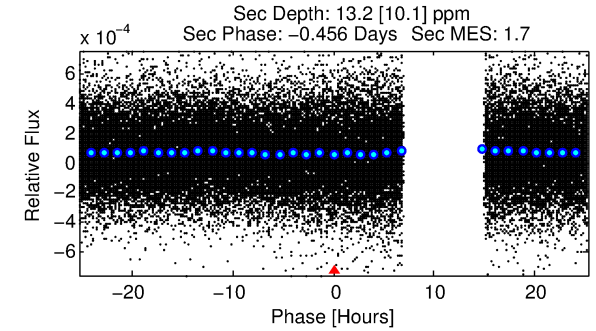
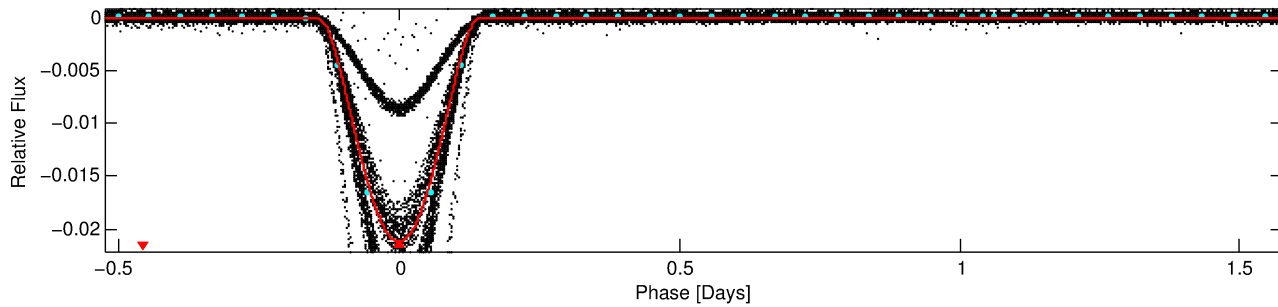
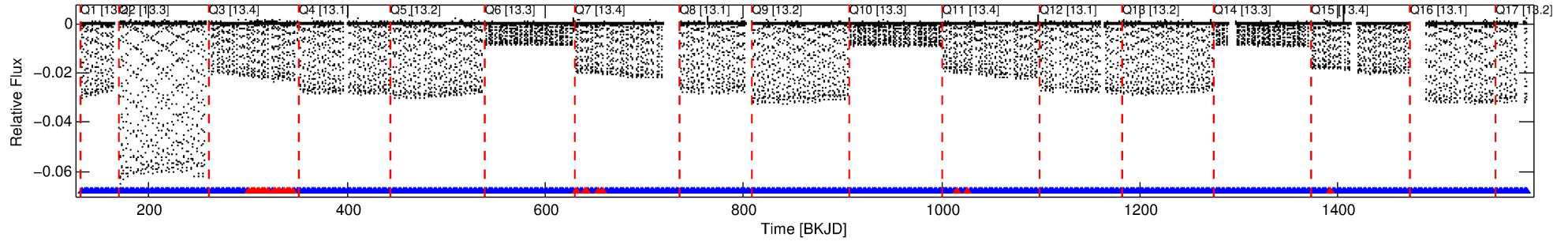
TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
008095110-01	8095110	6171.01	8095099	1:1	5.4	2	0	14.17	13.17	15.42	Direct-PRF	0	0.10	0.05

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 8095110 Candidate: 1 of 1 Period: 2.103 d
KOI: K03619.01 Corr: 0.996

Kp: 13.17 R*: 0.79 Rs Teff: 5546.0 K Logg: 4.59 Fe/H: -0.240



DV Fit Results:

Period = 2.10324 [0.00000] d
Epoch = 132.8673 [0.0001] BKJD
Rp/R* = 0.2015 [0.0033]
a/R* = 2.05 [0.00]
b = 0.95 [0.01]
Seff = 556.22 [151.24]
Teq = 1238 [84] K
Rp = 17.28 [3.55] Re
a = 0.0307 [0.0053] AU
Ag = 0.02 [0.02] [-52.86σ]
Teffp = 745 [145] K [-2.95σ]

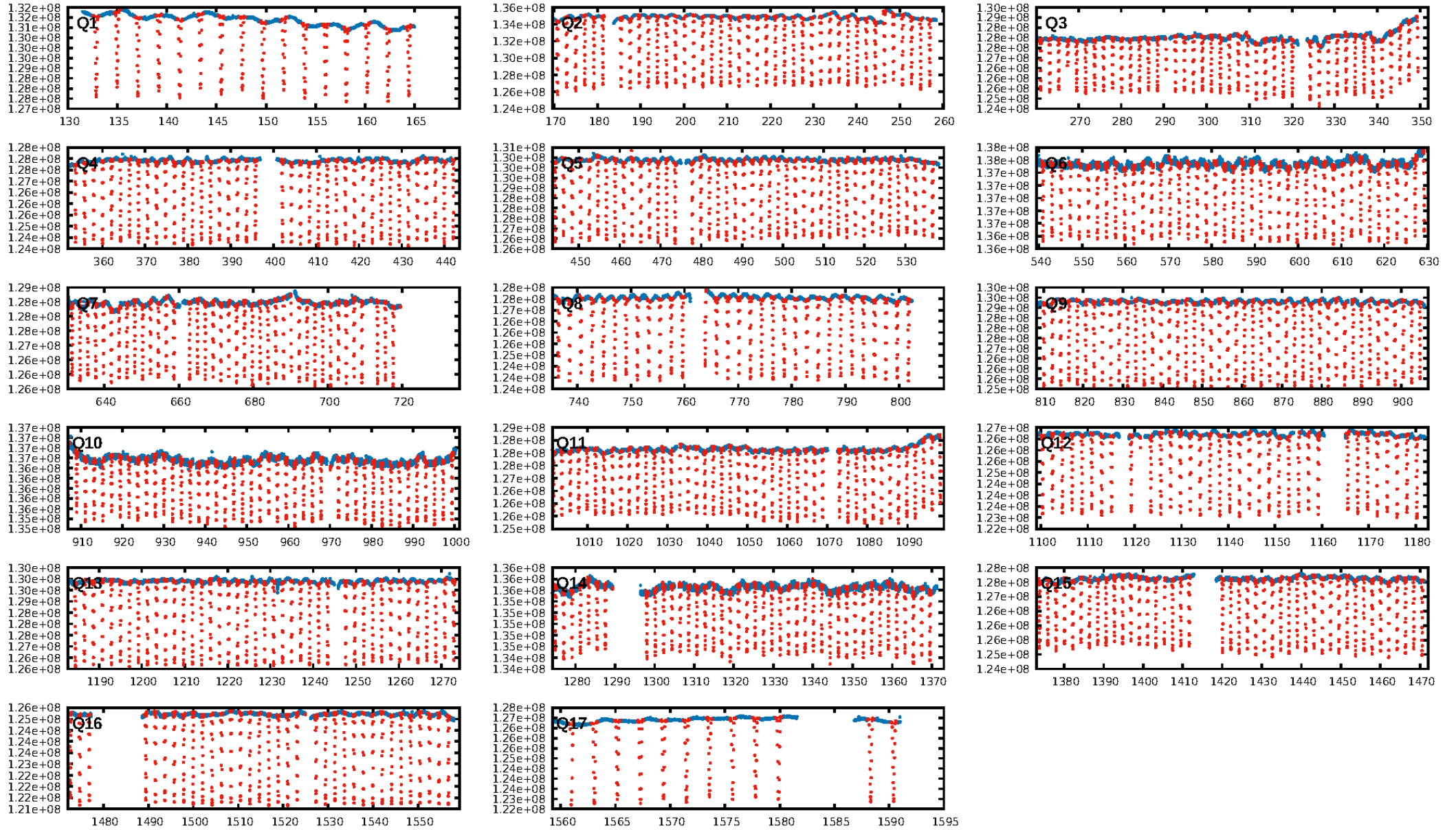
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.96 [588/615]
GhostDiagnostic-chr: -0.5194
Centroid-sig: 0.0%
Centroid-so: 14.160 arcsec [3200.75σ]
OotOffset-rm: 4.547 arcsec [31.35σ]
KicOffset-rm: 5.349 arcsec [78.08σ]
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]

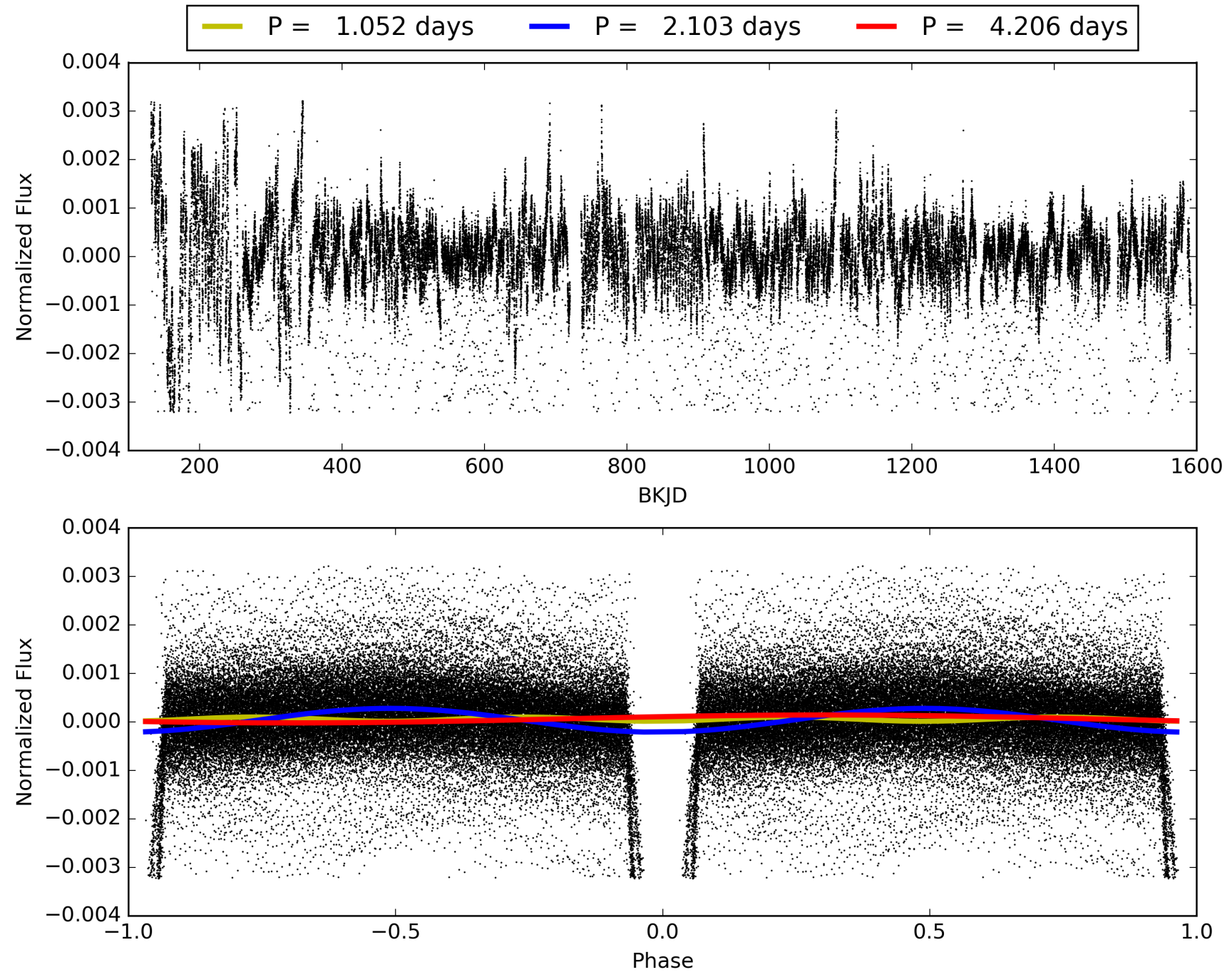
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:19:31 Z

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

TCE 008095110-01, PDC Light Curves

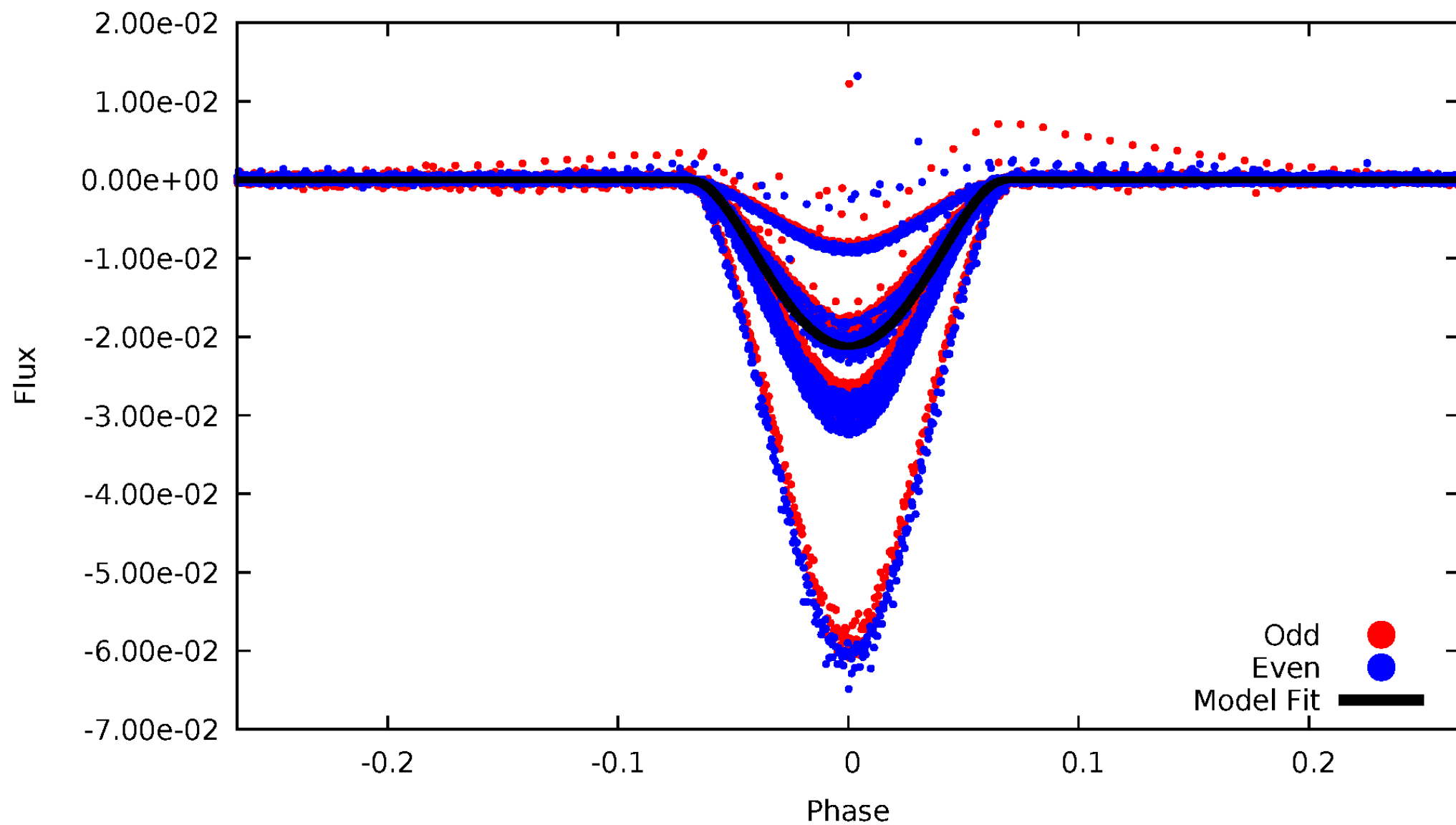


TCE 008095110-01



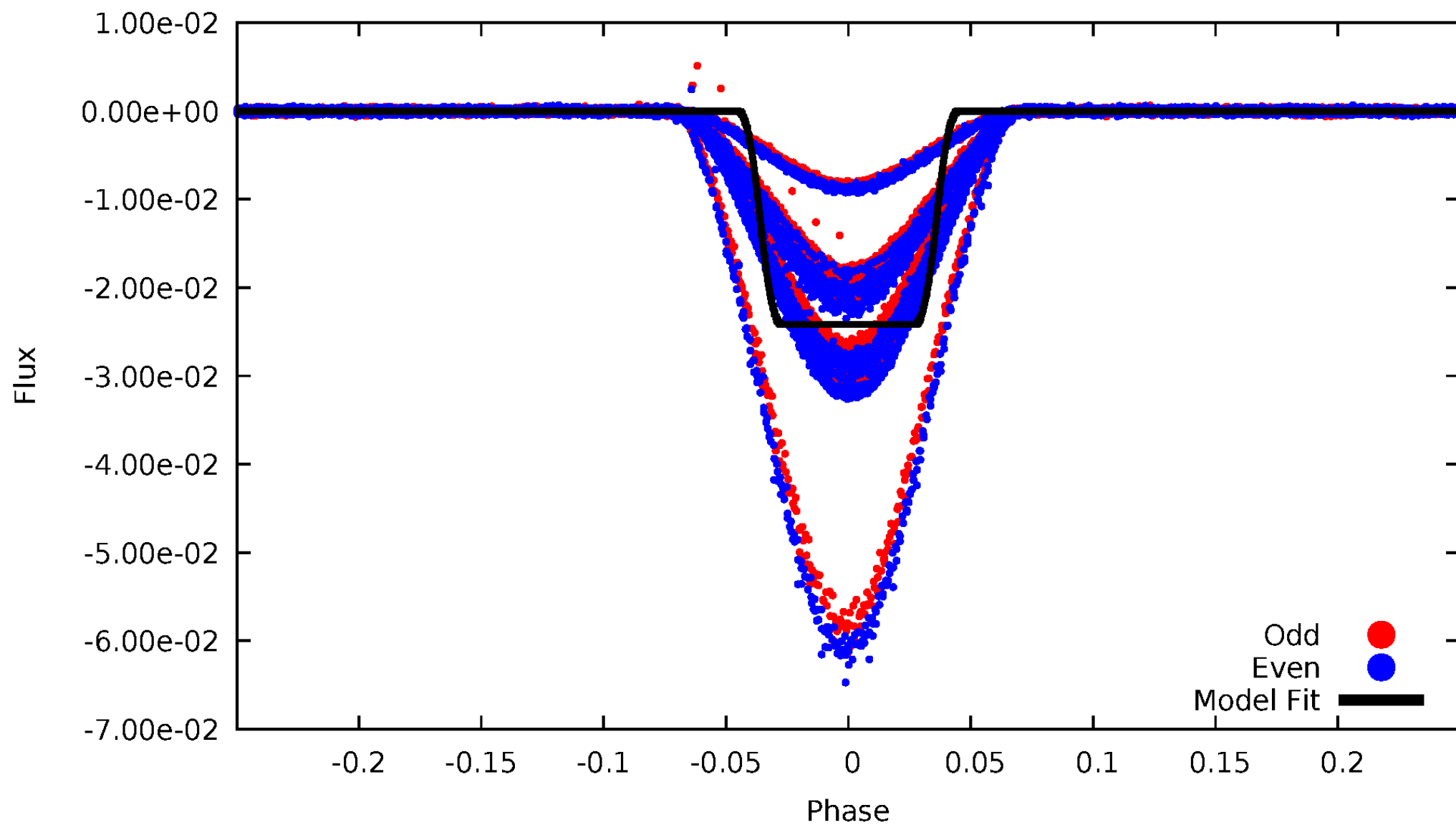
DV Odd/Even

TCE 008095110-01



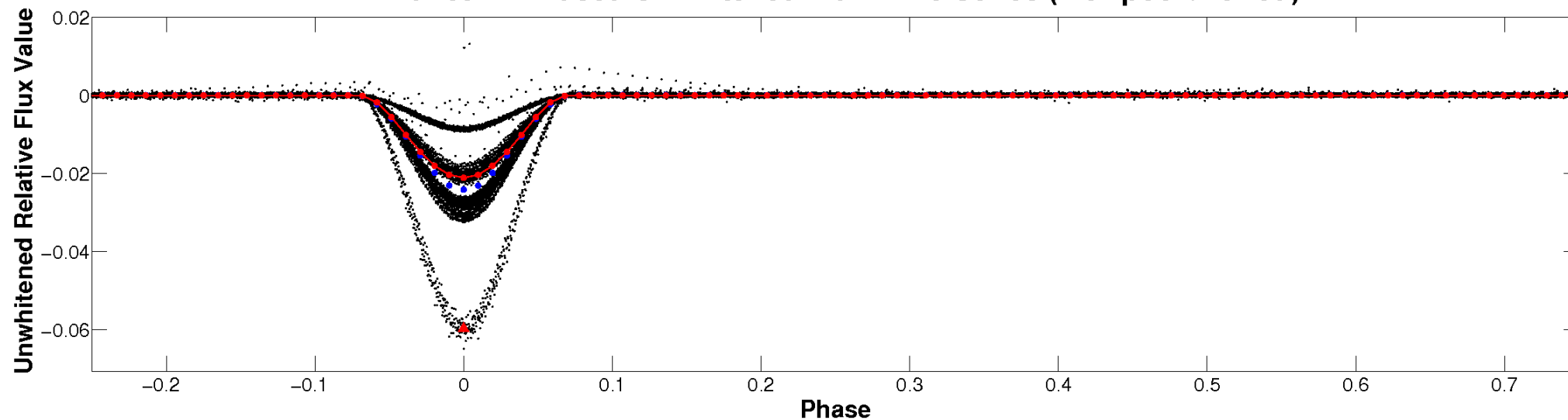
ALT Odd/Even

TCE 008095110-01

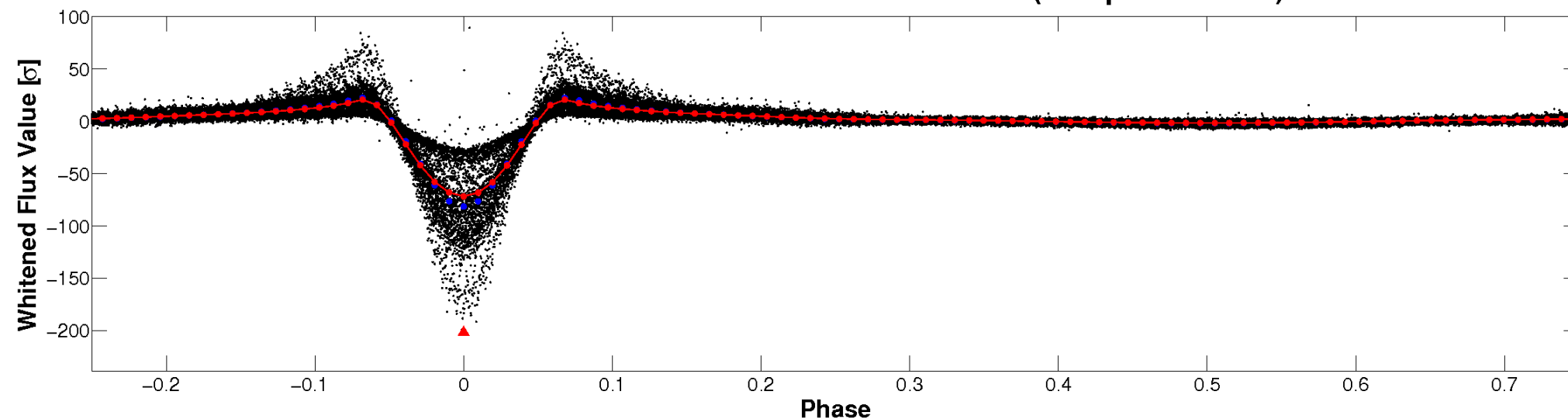


Non-Whitened Vs. Whitened Light Curve

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

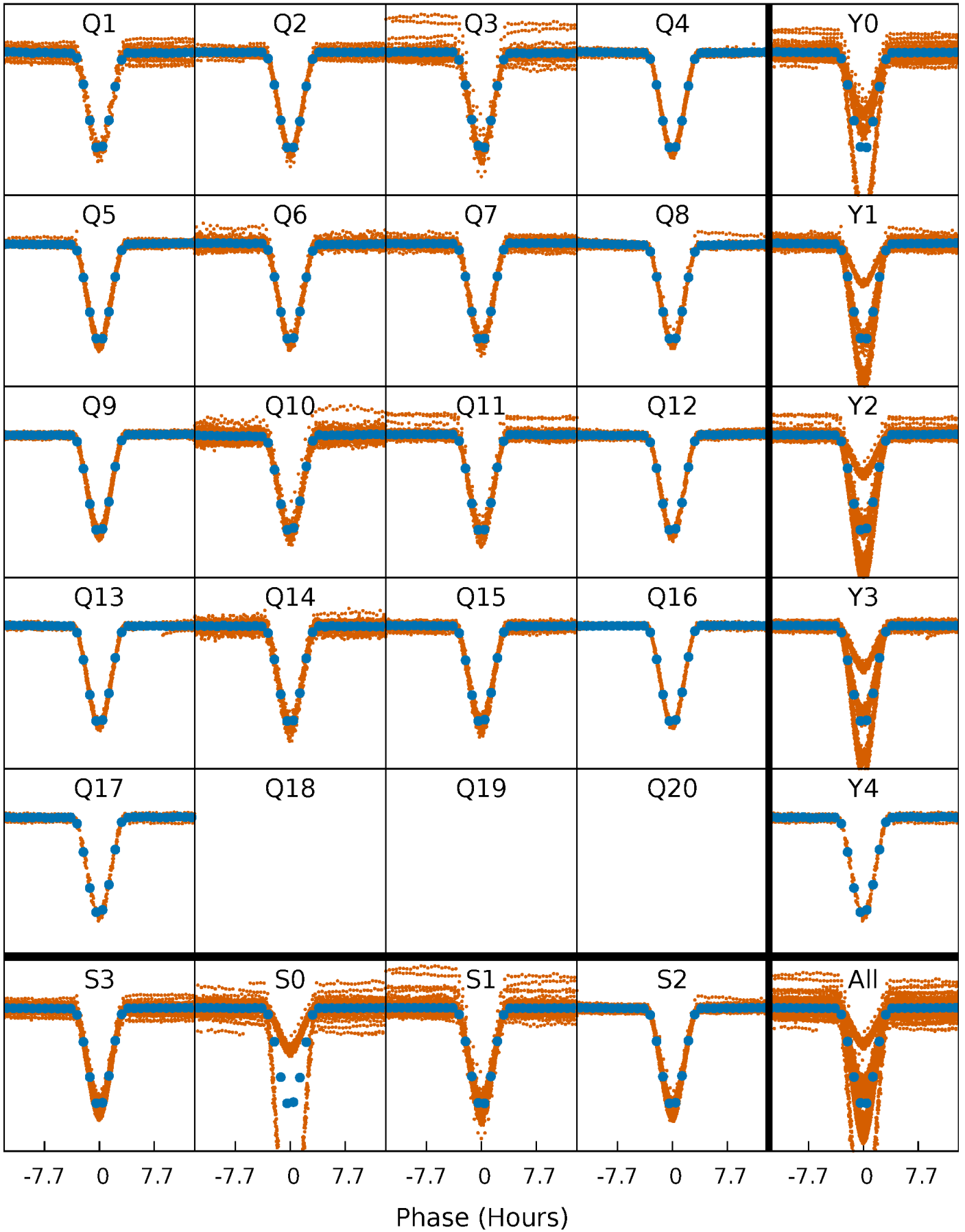


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



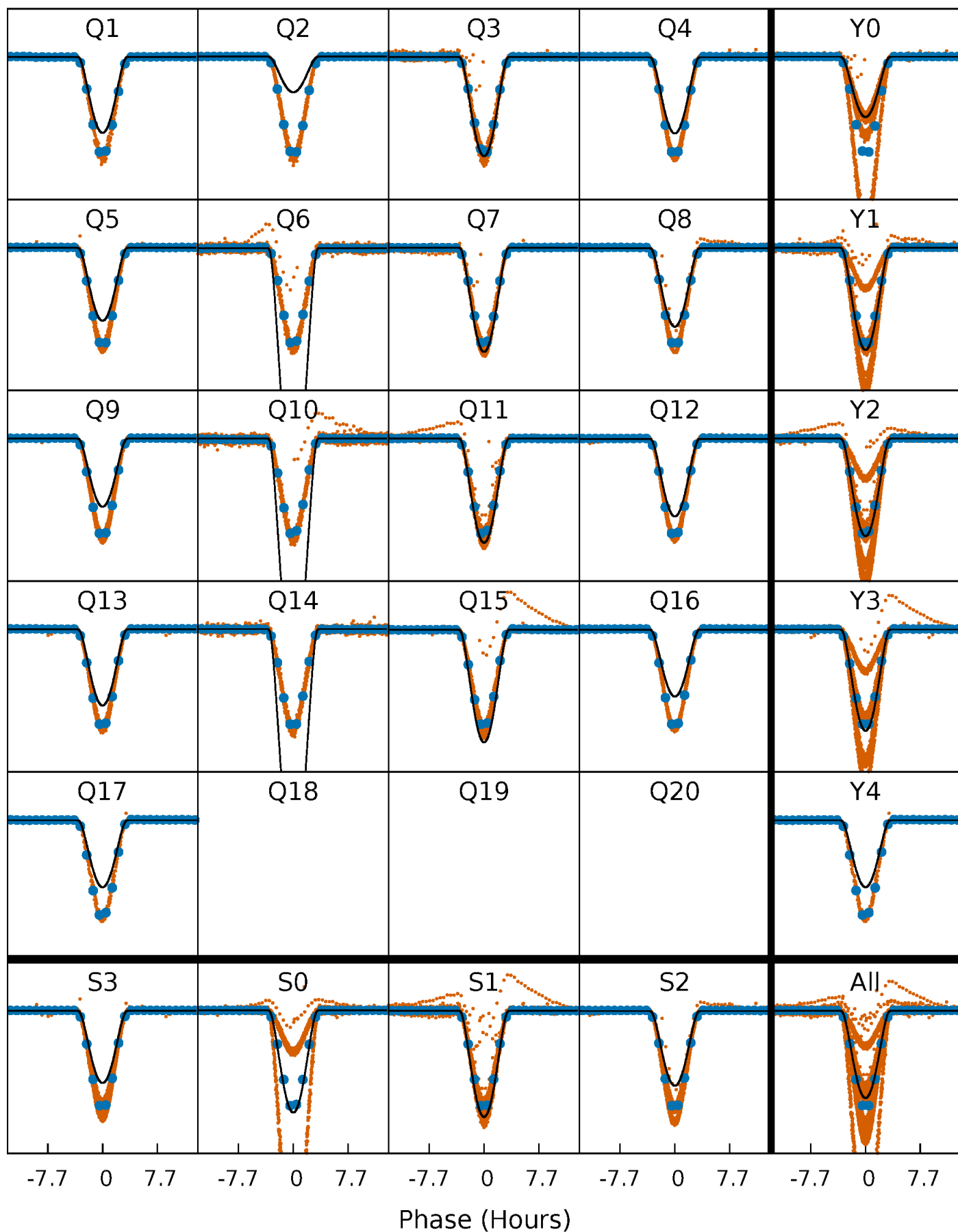
PDC Quarter-Phased Transit Curves

TCE 008095110-01 P= 2.103242 Days $T_0=132.867302$ (BKJD)



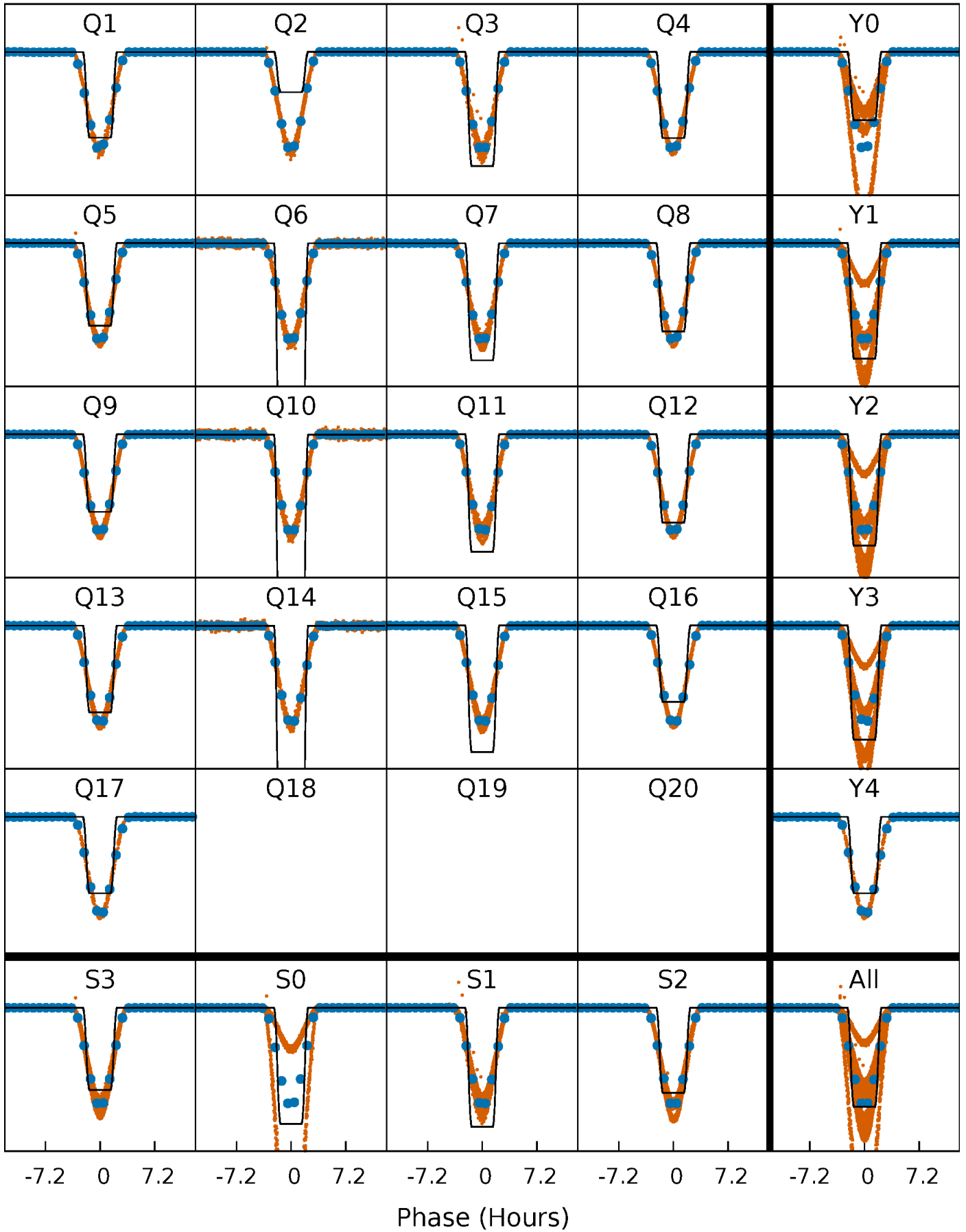
DV Quarter-Phased Transit Curves

TCE 008095110-01 P= 2.103242 Days $T_0=132.867302$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

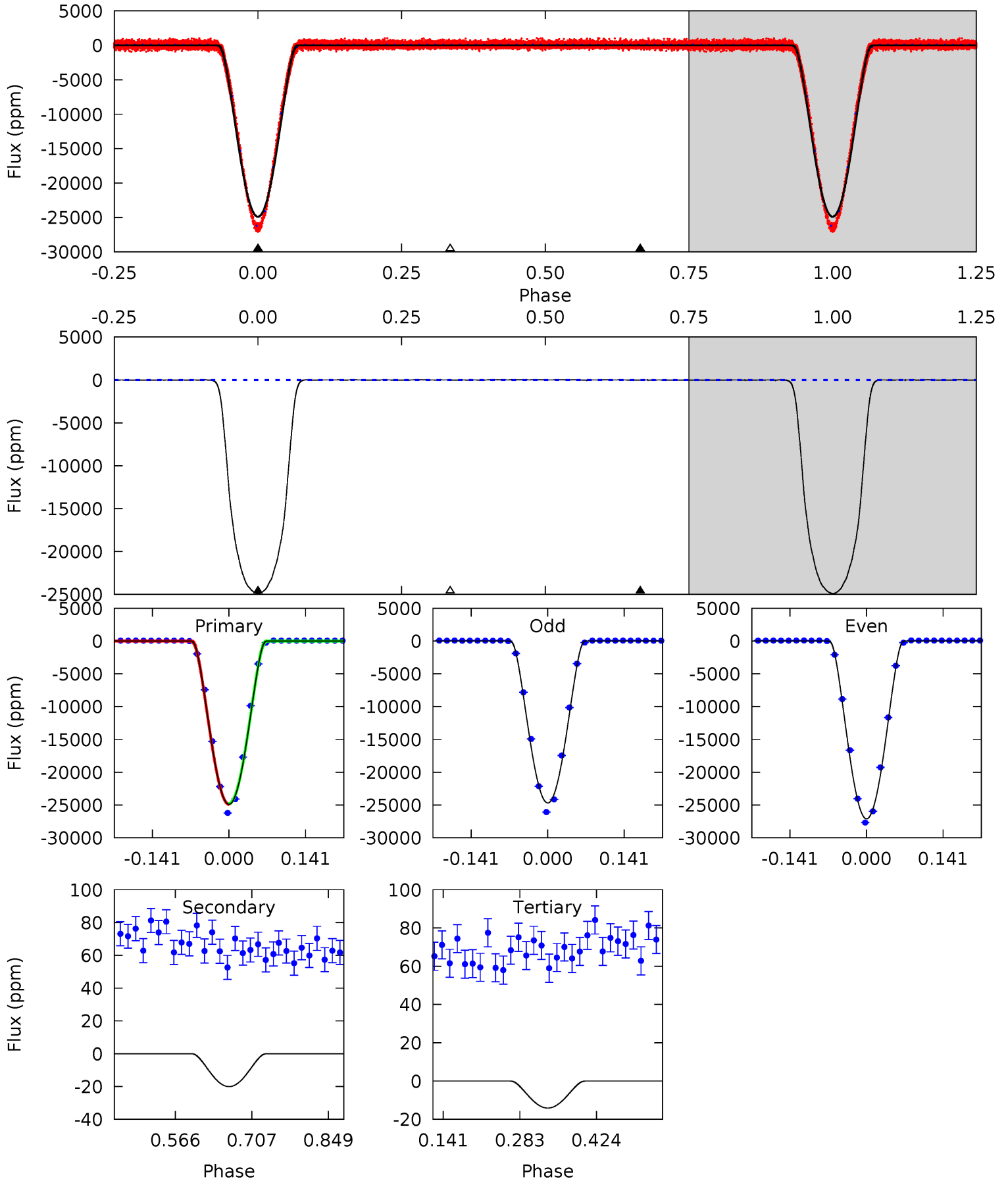
TCE 008095110-01 P= 2.103233 Days $T_0=132.870015$ (BKJD)



DV Model-Shift Uniqueness Test

008095110-01, P = 2.103242 Days, E = 130.764060 Days

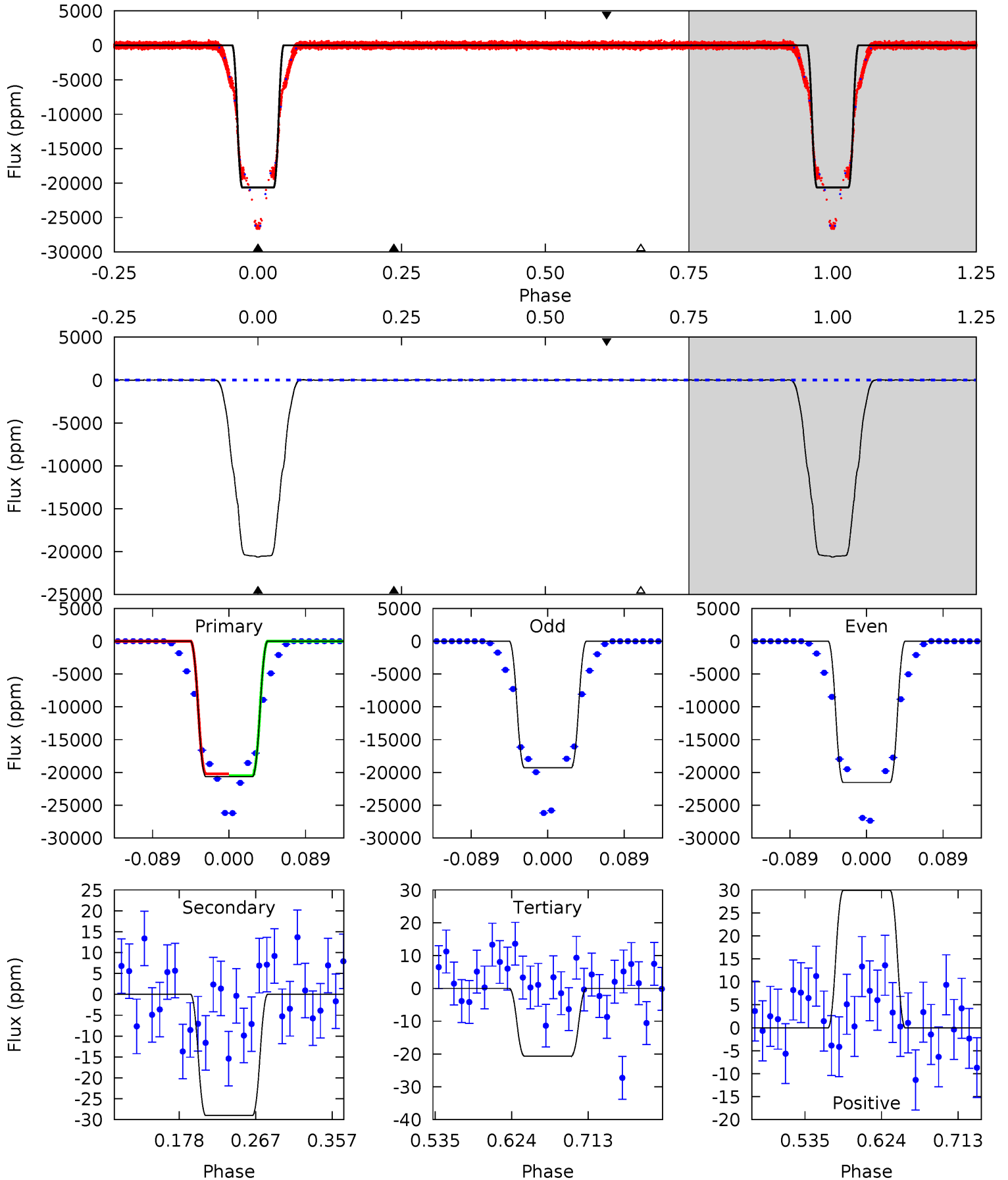
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6488	5.23	3.68	0	4.49	1.47	2.56	6484	6488	1.55	5.23	333.6	0.94	0.00	0



Alt Model-Shift Uniqueness Test

008095110-01, P = 2.103233 Days, E = 130.766782 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2768	3.89	2.77	4.01	4.59	1.70	1.26	2765	2764	1.12	-0.12	140.6	0.94	0.00	0



Stellar Parameters For KIC 008095110

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5546^{+150}_{-150}	$4.587^{+0.034}_{-0.136}$	$-0.240^{+0.300}_{-0.300}$	$0.786^{+0.161}_{-0.069}$	$0.880^{+0.082}_{-0.109}$	$2.553^{+0.440}_{-0.965}$
	+3%/-3%	+1%/-3%	+125%/-125%	+20%/-9%	+9%/-12%	+17%/-38%
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 008095110-01 / KOI 3619.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-20 ± 4	$17.74^{+1.84}_{-1.19}$	1762^{+83}_{-69}	-2314^{+47}_{-57}	$0.032^{+0.007}_{-0.008}$
Alt.	-29 ± 7	$13.65^{+1.36}_{-0.87}$	1764^{+90}_{-78}	-2265^{+63}_{-69}	$0.078^{+0.024}_{-0.022}$

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

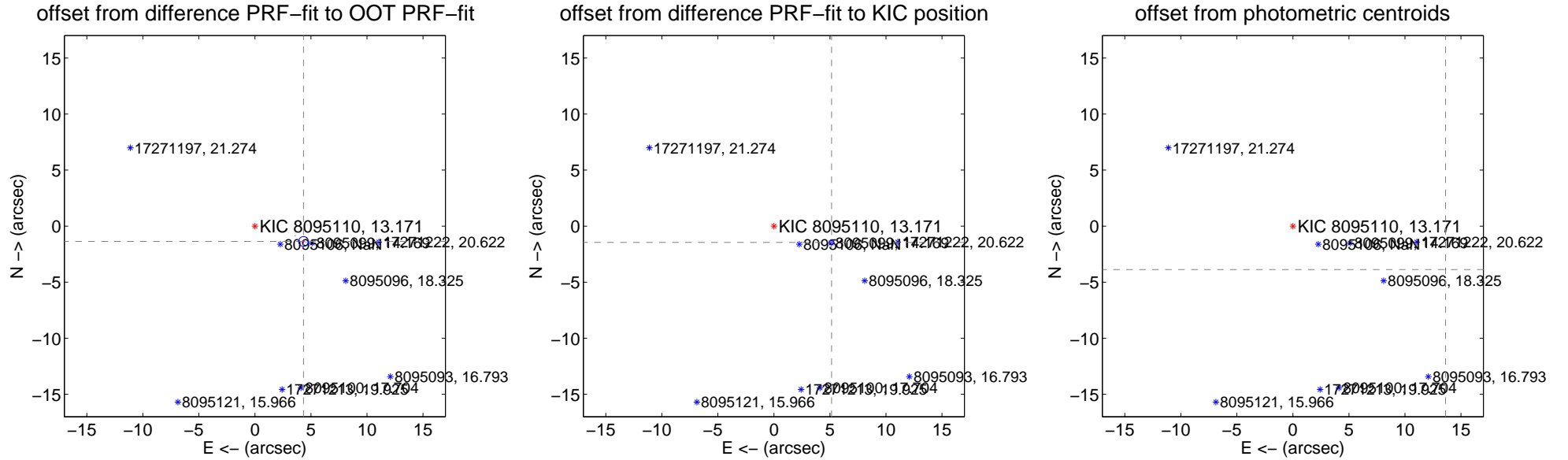
DV Centroid Data

Supplemental centroid analysis for 008095110-01. Kepler magnitude: 13.17. Transit SNR 2291.10

There are 17 quarters with good PRF difference image offsets

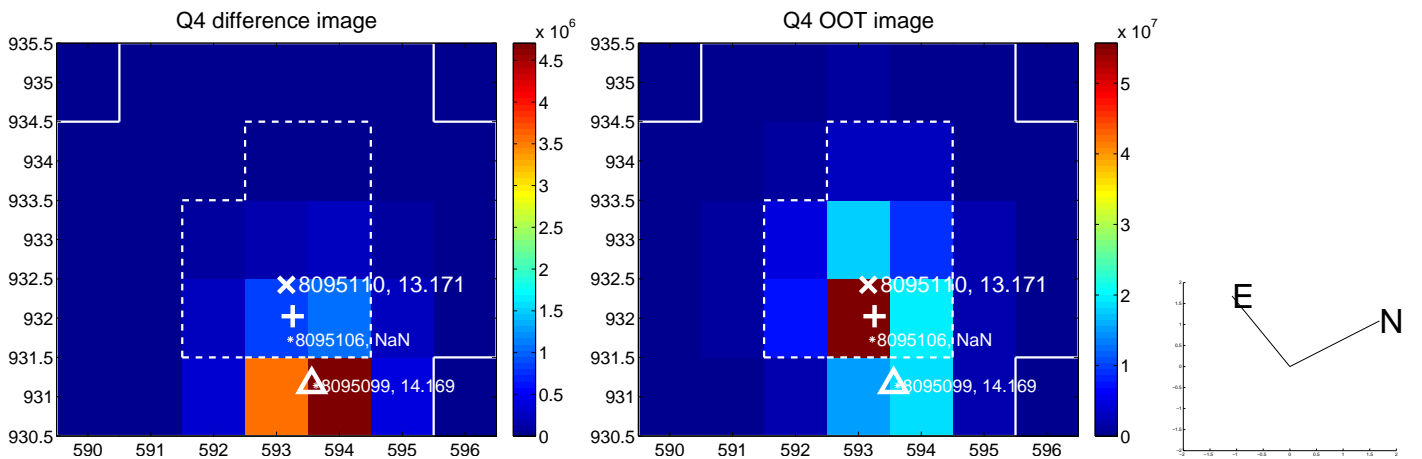
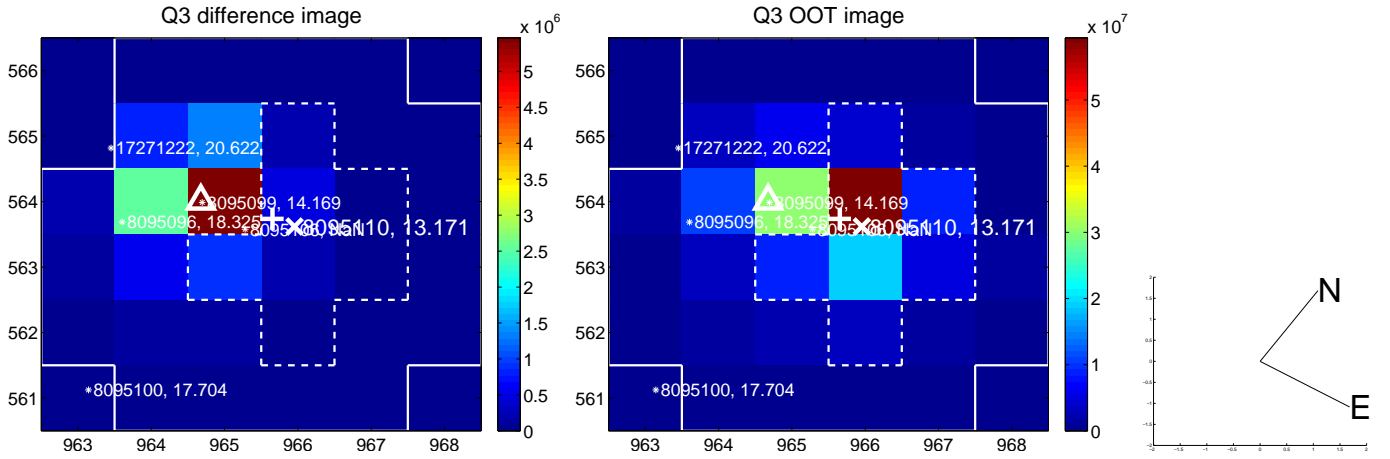
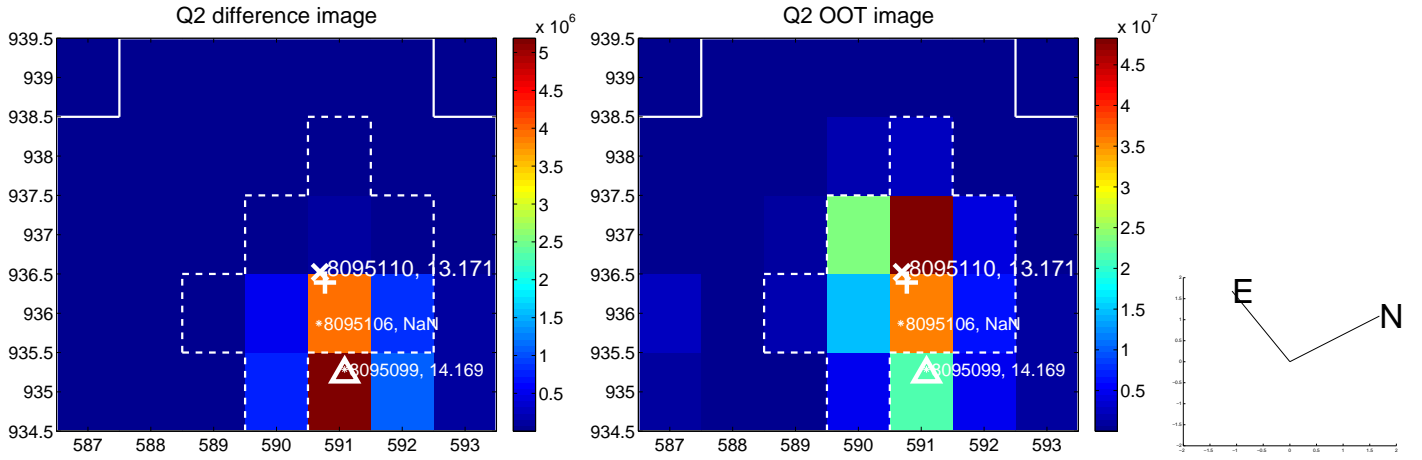
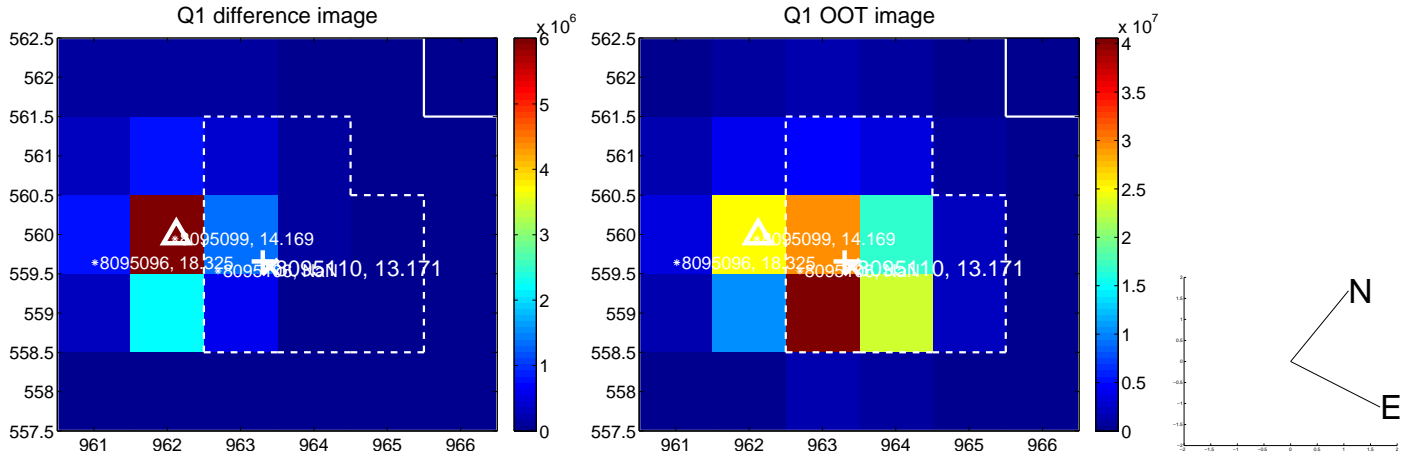
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.547 ± 0.145	31.35	-4.337 ± 0.134	-1.365 ± 0.092
PRF-fit source offset from KIC position	5.349 ± 0.069	78.08	-5.149 ± 0.069	-1.449 ± 0.068
photometric centroid source offset	14.16 ± 0.00	3200.75	-13.62 ± 0.00	-3.87 ± 0.00

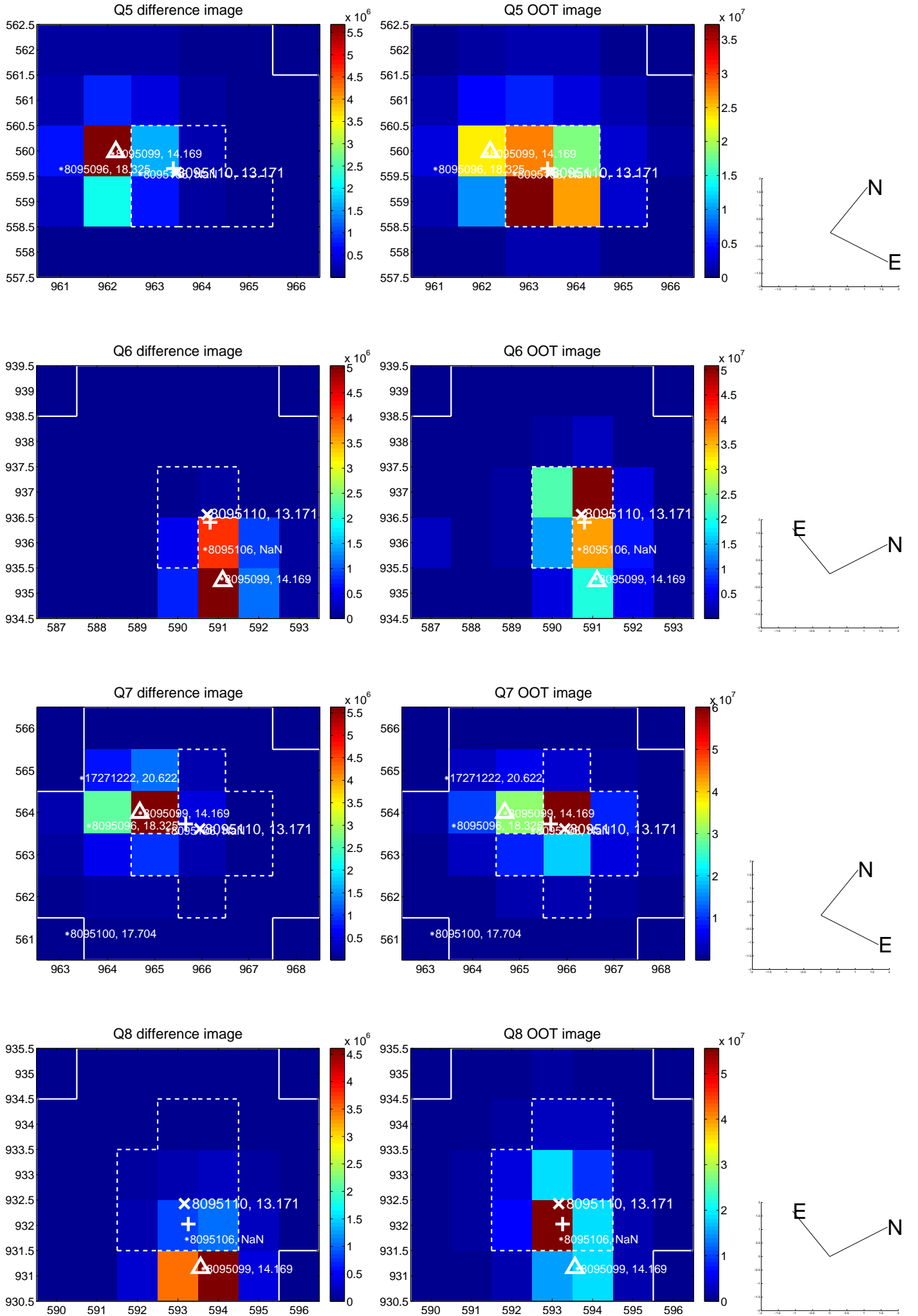


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

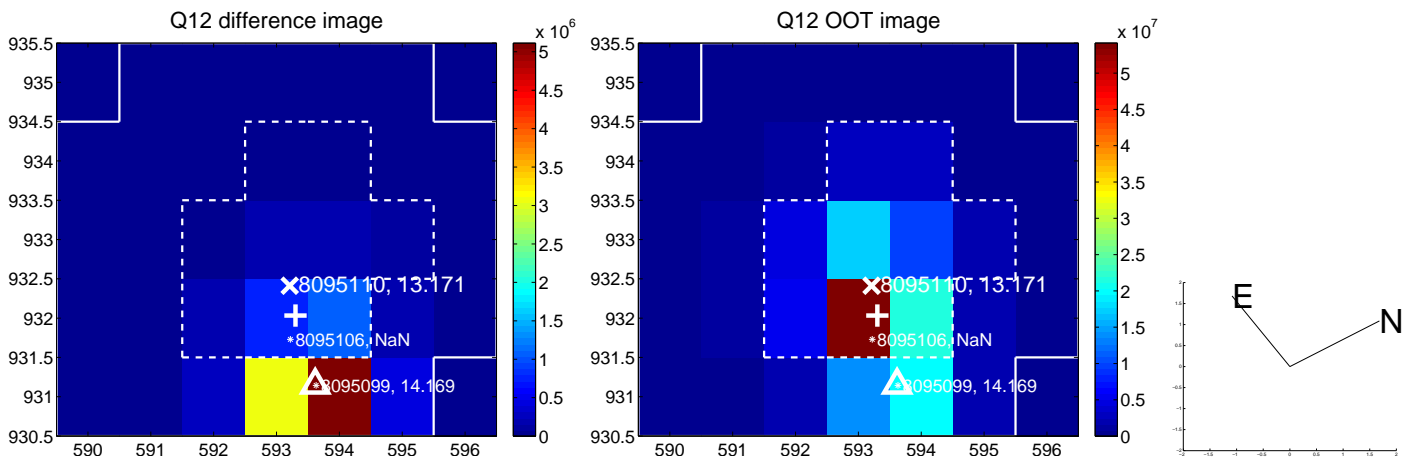
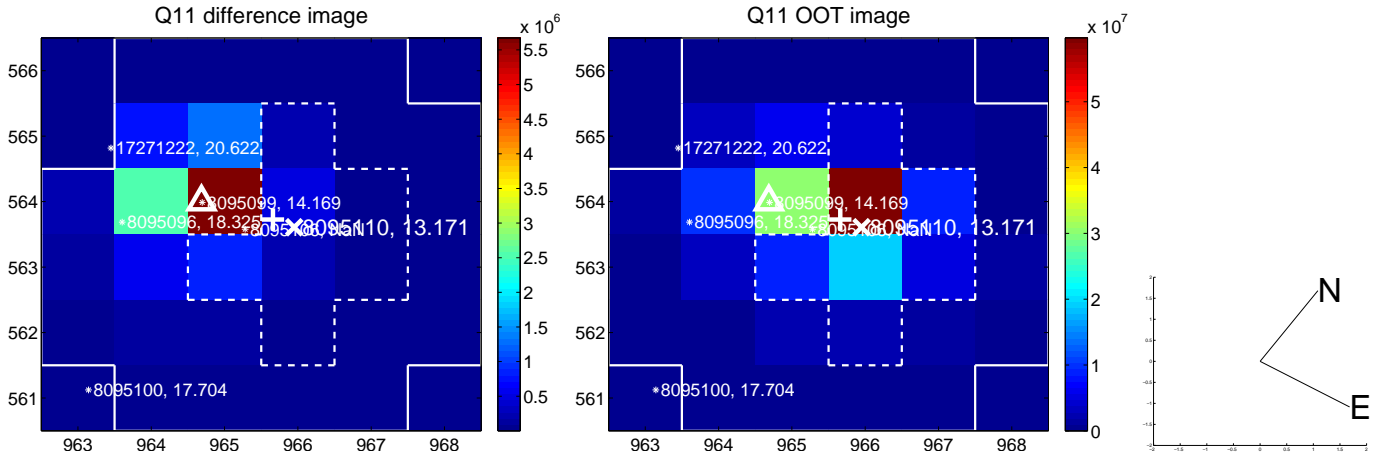
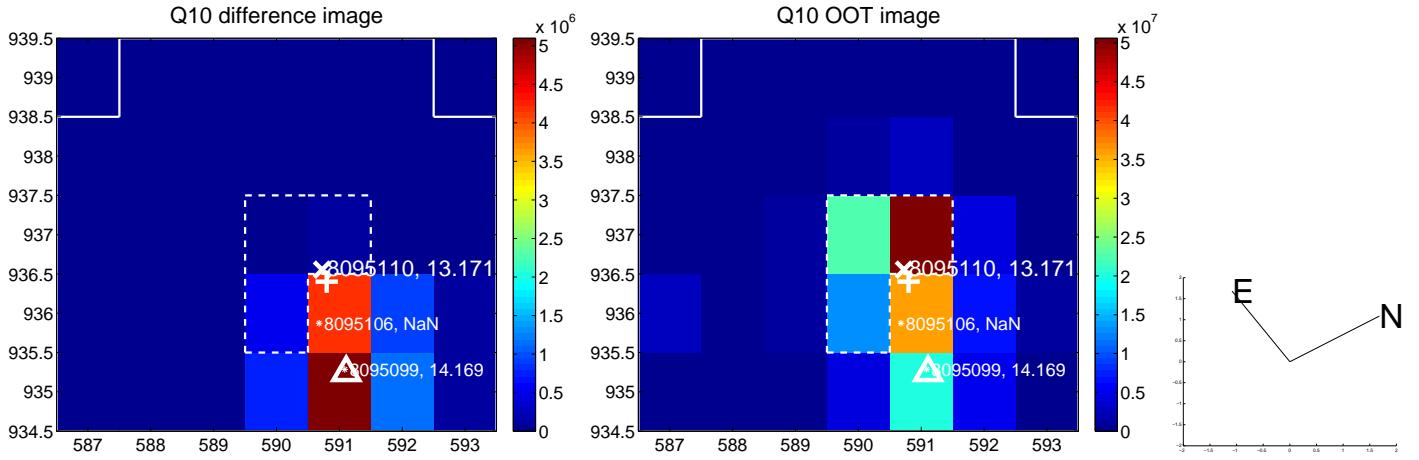
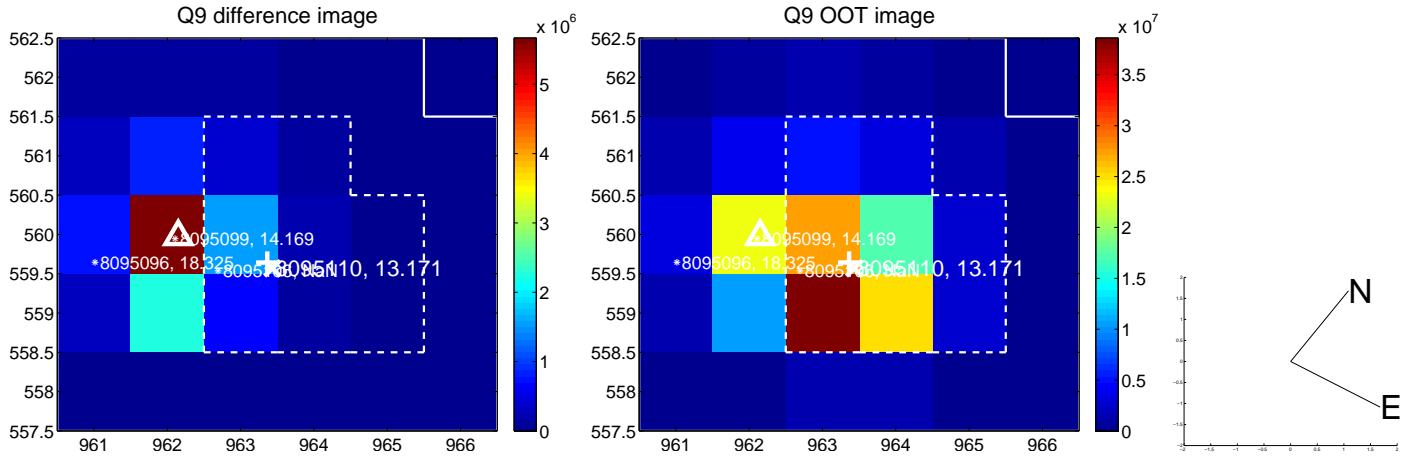
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



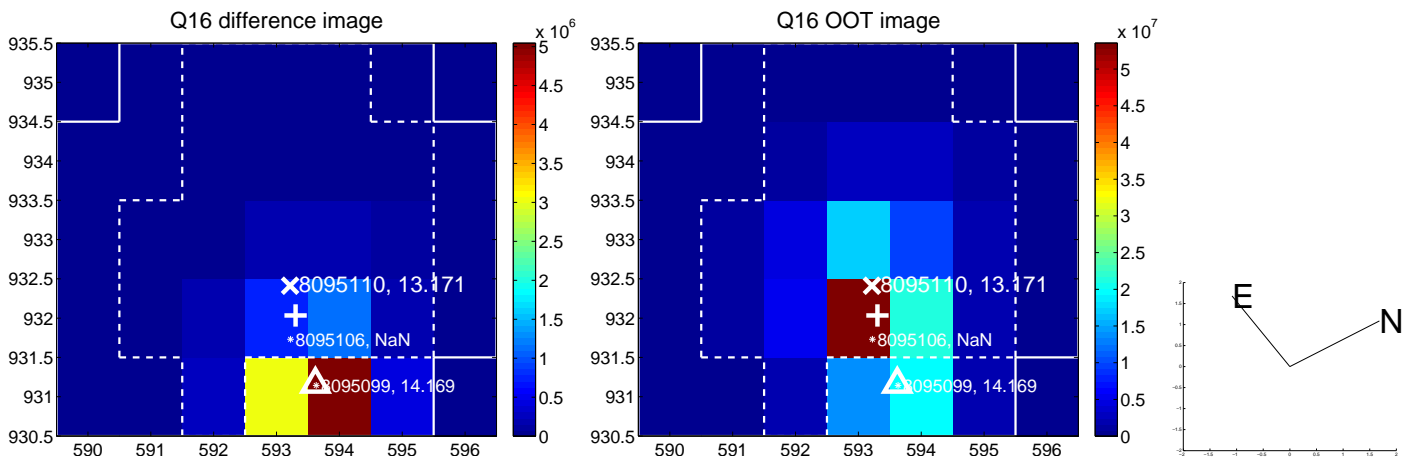
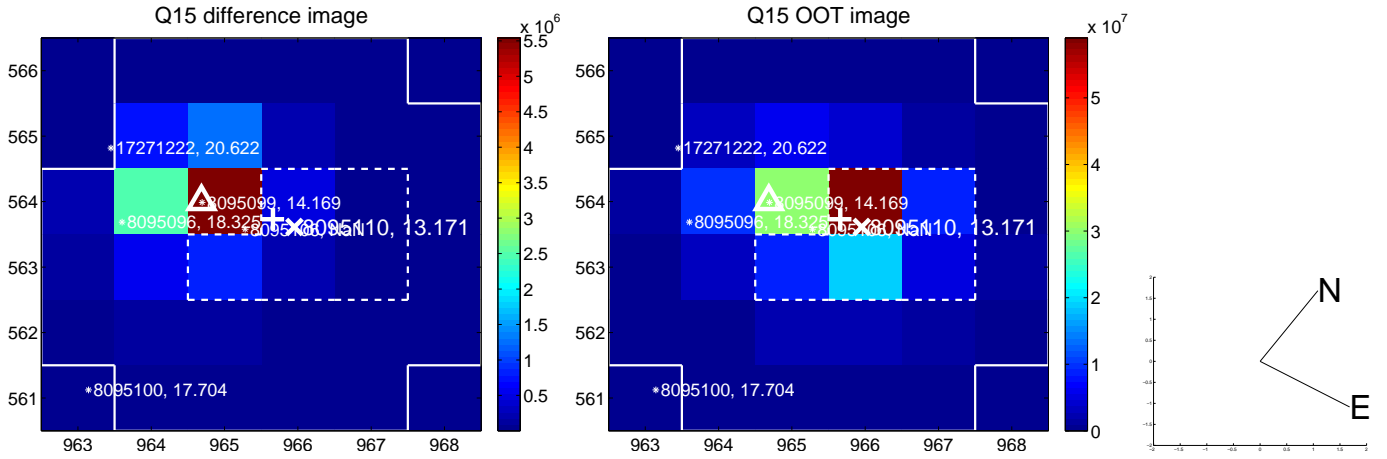
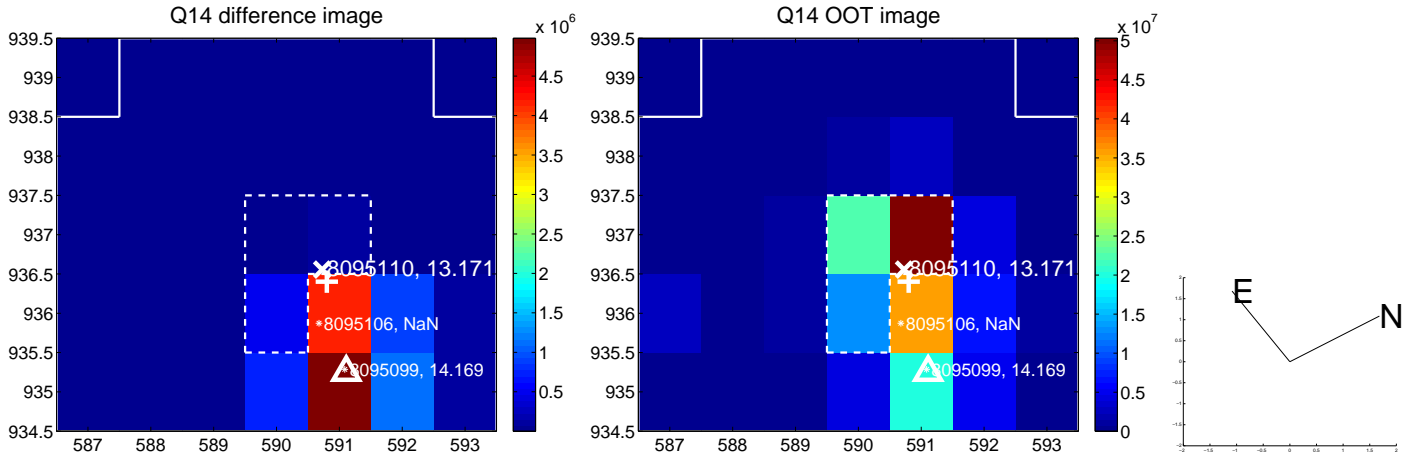
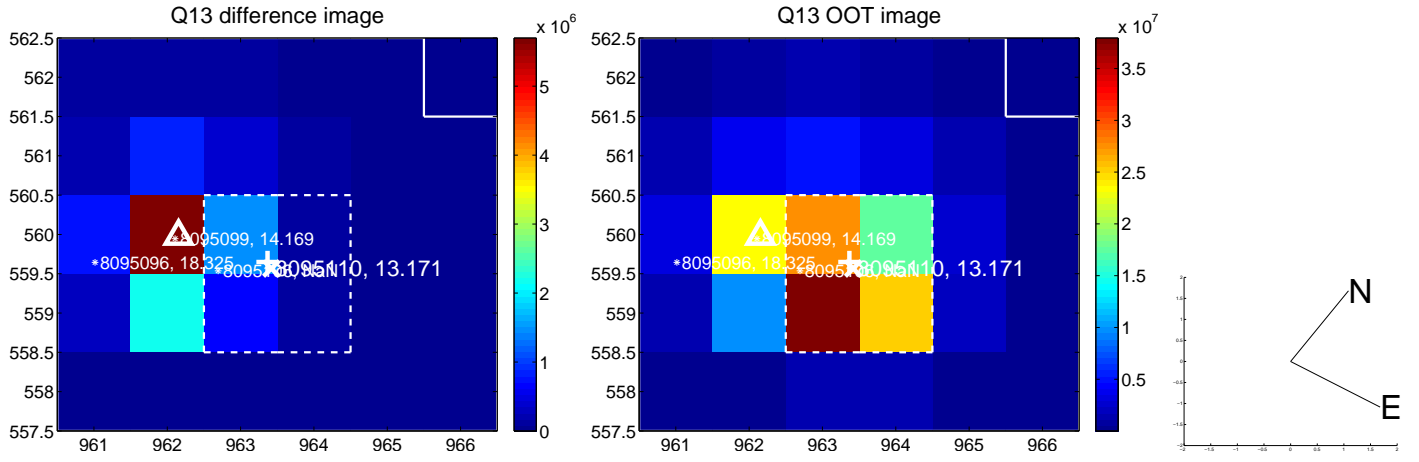
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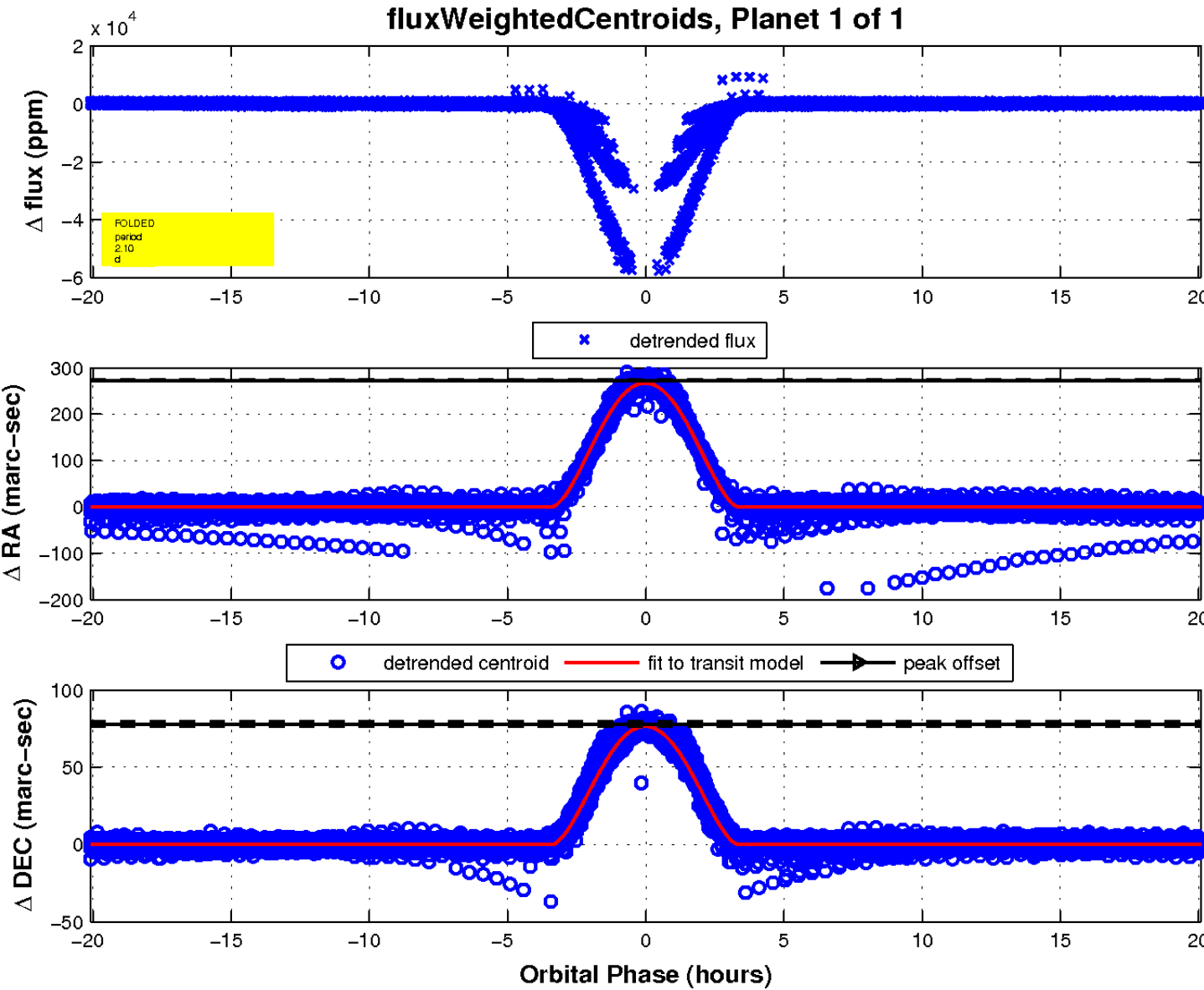
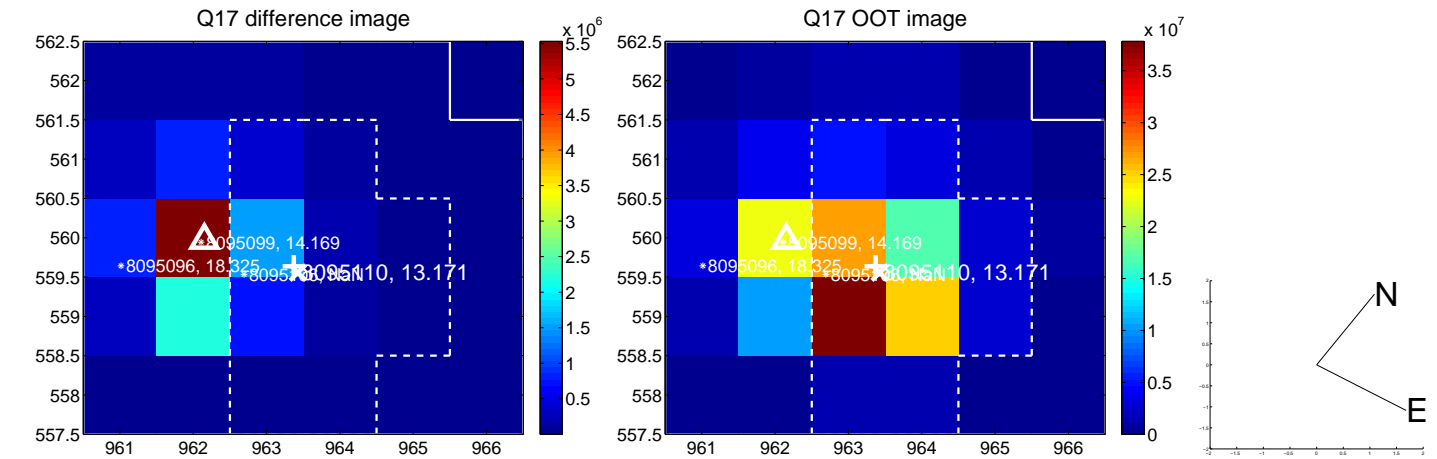
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white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

