

KIC 010095484

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})
010095484-01	OBS	3839.01	0.677733	131.645492	177.6	2.413	133.6	37.9	0.85	5699	1.42	3123.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010095484-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_ALT—SEASONAL_DEPTH_ALT—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.

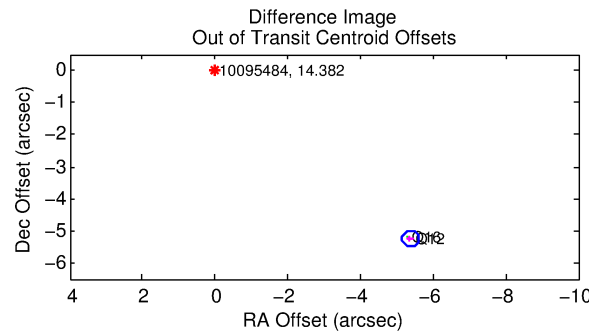
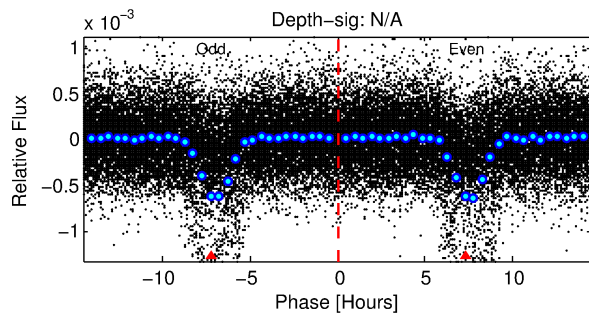
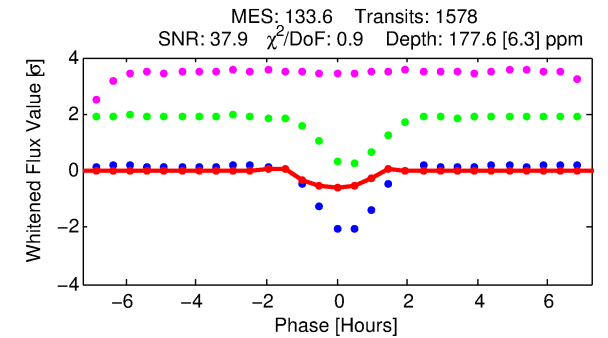
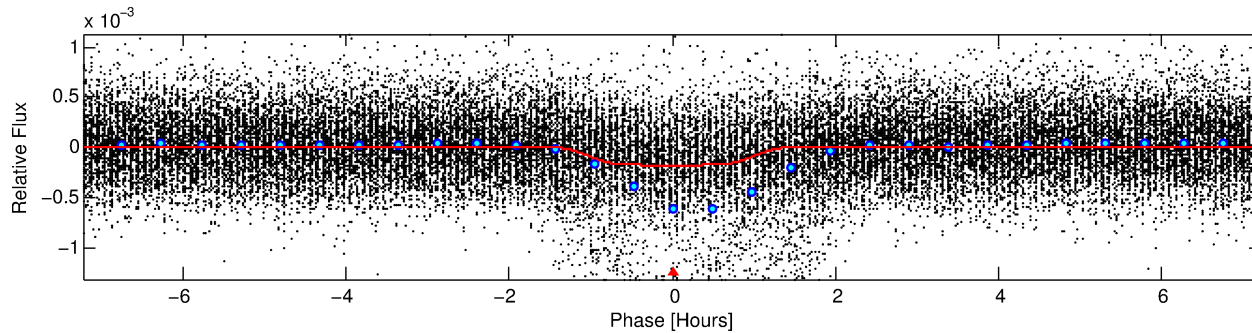
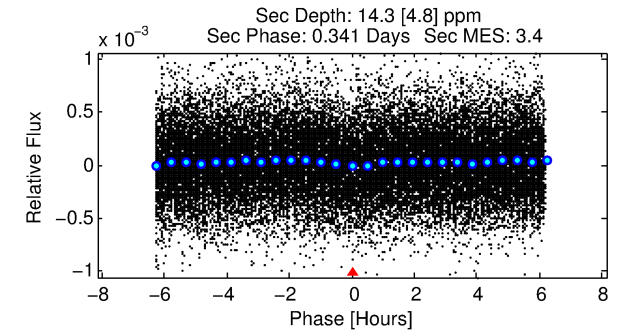
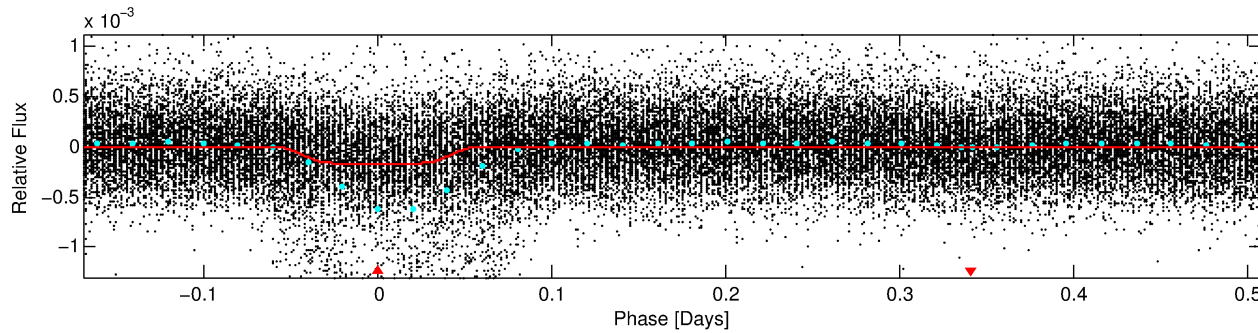
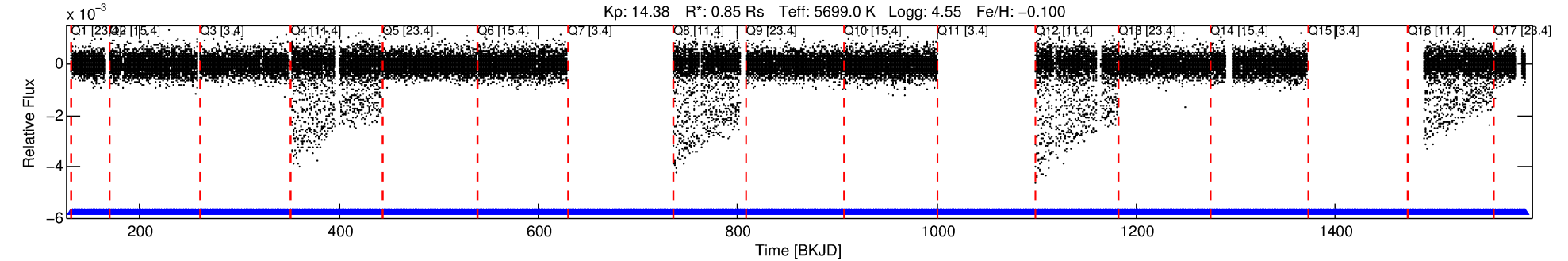
Ephemeris Match Information For 010095484-01

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
010095484-01	10095484	010095469-pri	10095469	1:1	15.2	-3	1	14.69	14.38	2633.70	Direct-PRF	0	4.67	1.83

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: 10095484 Candidate: 1 of 1 Period: 0.678 d
KOI: K03839.01 Corr: 0.812



DV Fit Results:

Period = 0.67773 [0.00000] d
Epoch = 131.6455 [0.0008] BKJD
Rp/R* = 0.0152 [0.0014]
a/R* = 1.28 [0.21]
b = 0.94 [0.06]
Seff = 3123.51 [1112.88]
Teq = 1906 [170] K
Rp = 1.41 [0.41] Re
a = 0.0148 [0.0034] AU
Ag = 0.87 [0.44] [-0.30σ]
Teffp = 2845 [279] K [2.87σ]

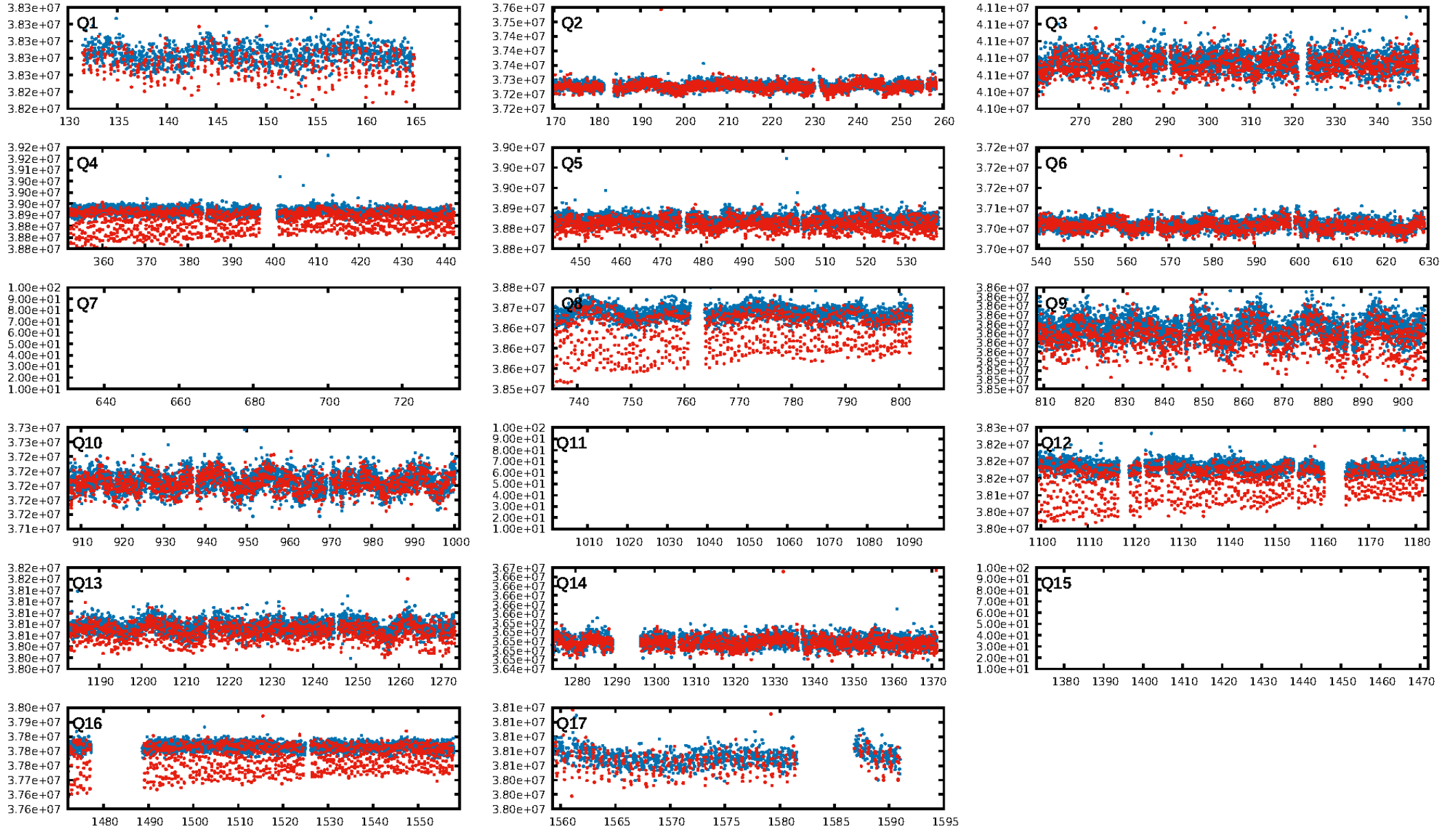
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1489/1489]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 7.495 arcsec [92.72σ]
KicOffset-rm: 7.483 arcsec [68.40σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [14/14]

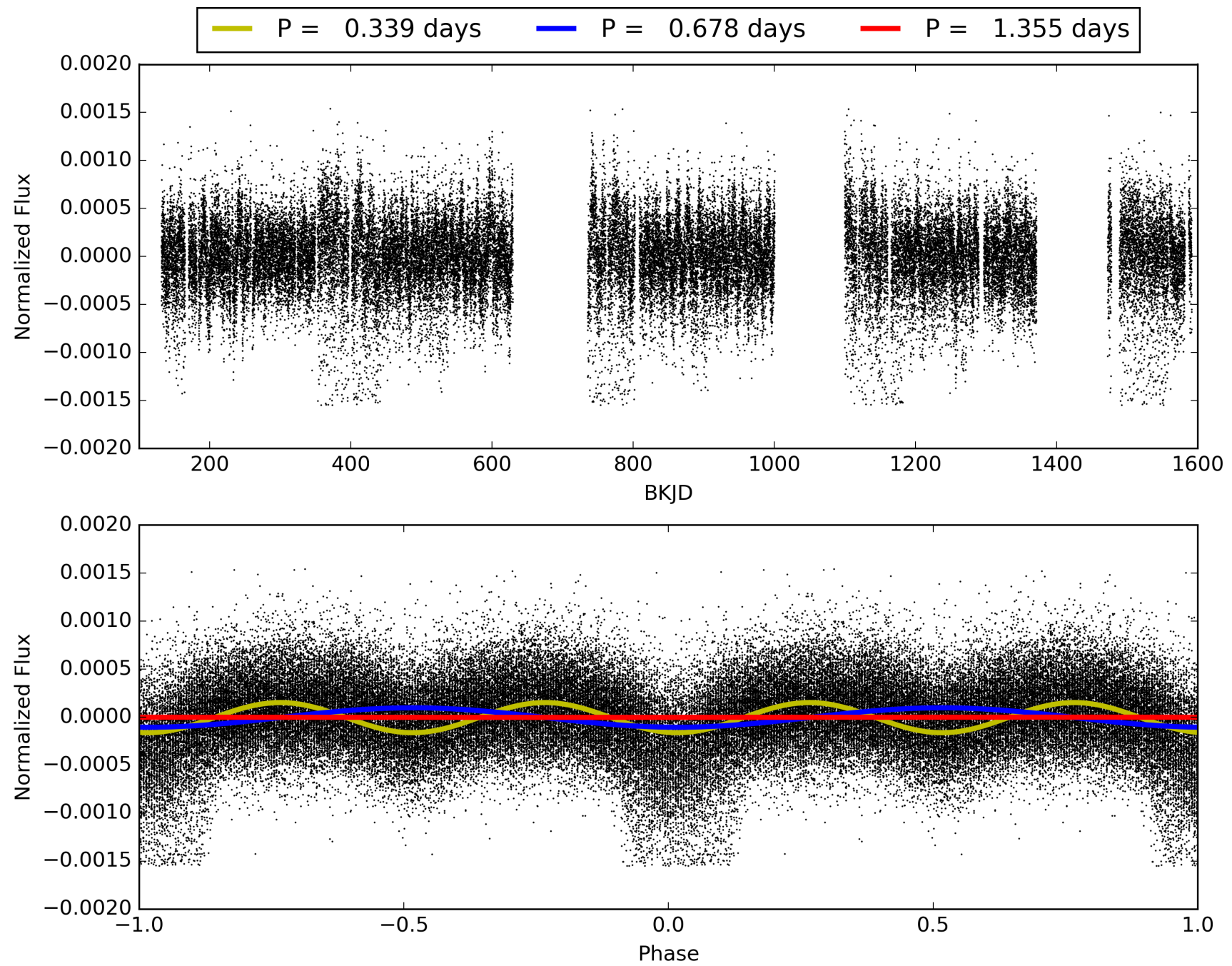
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 21:49:43 Z

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

TCE 010095484-01, PDC Light Curves

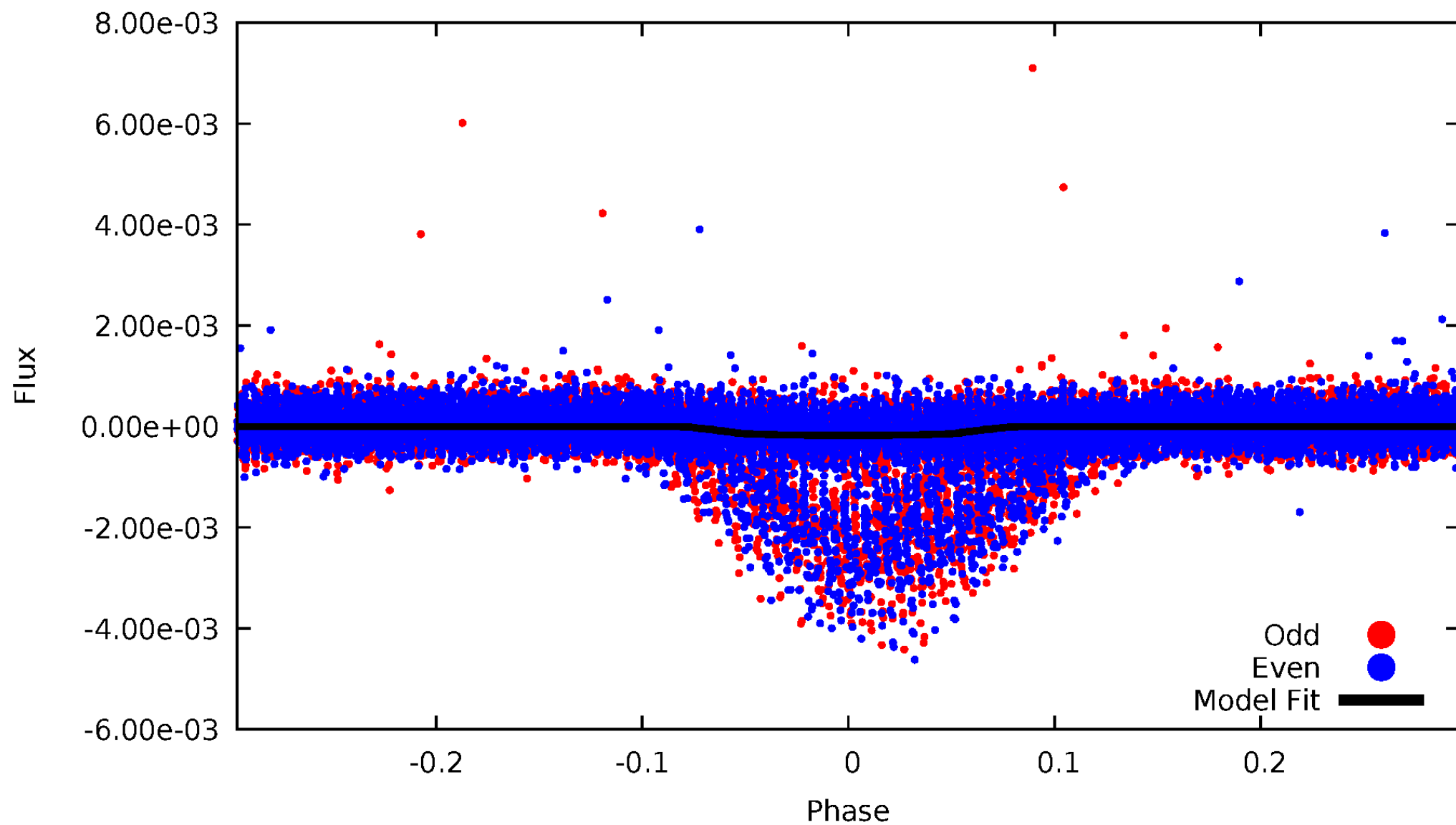


TCE 010095484-01



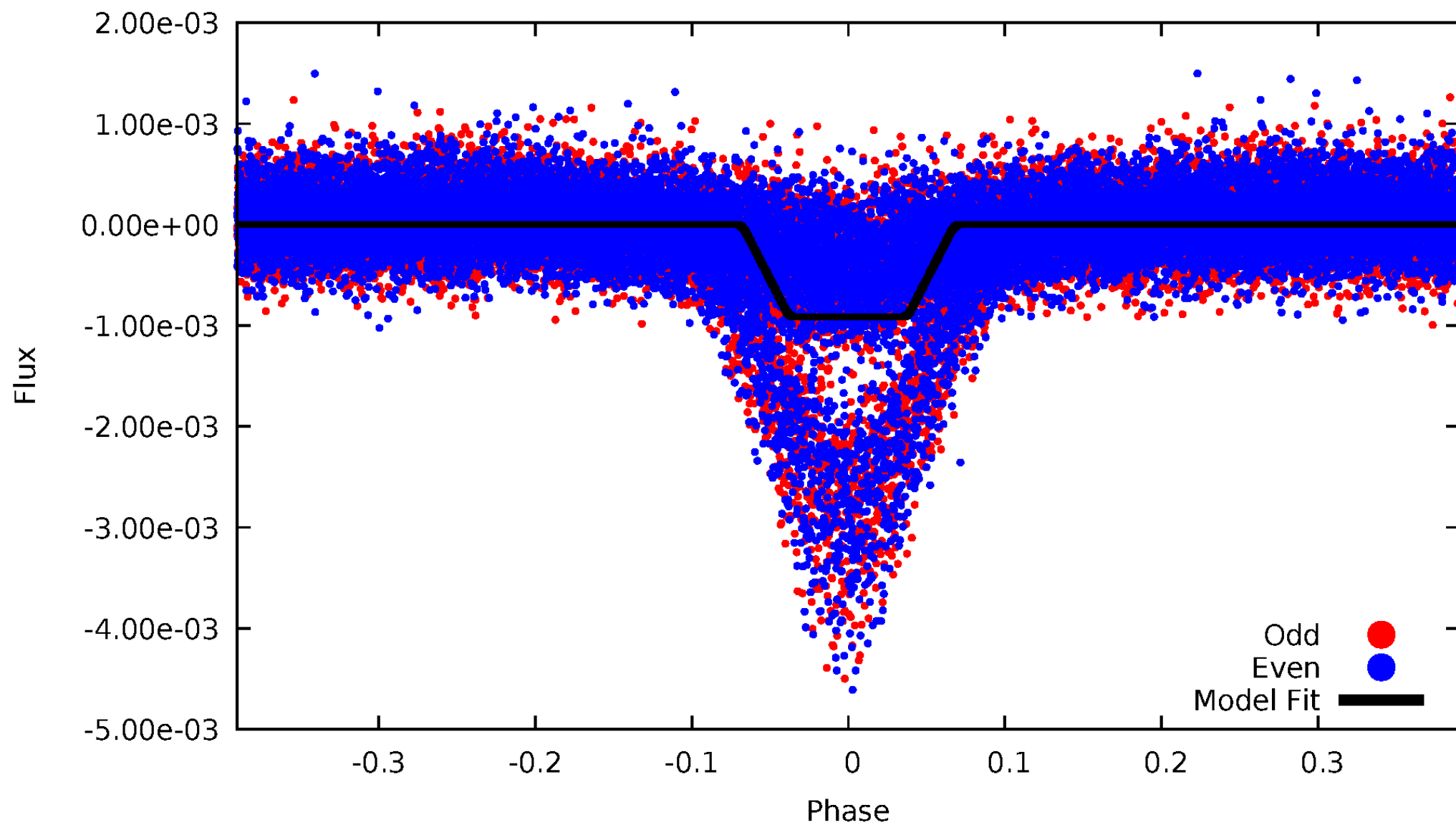
DV Odd/Even

TCE 010095484-01



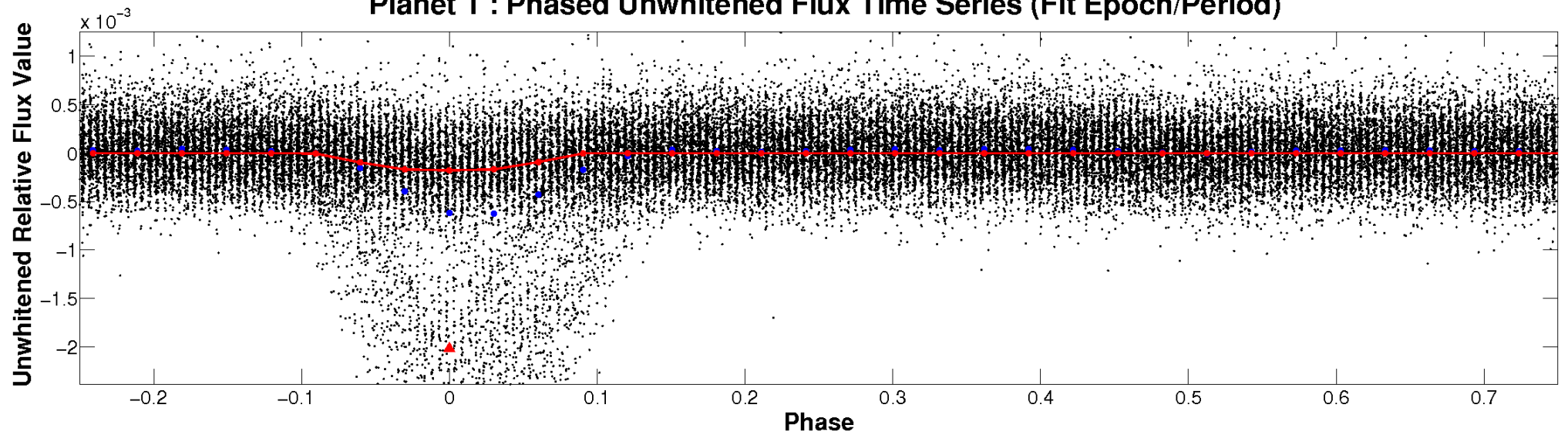
ALT Odd/Even

TCE 010095484-01

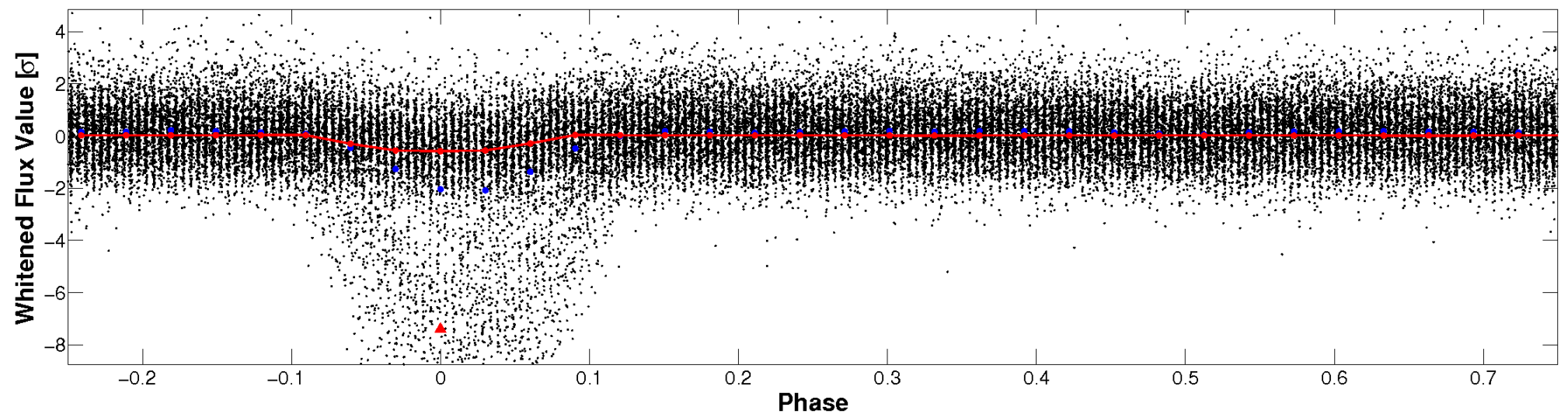


Non-Whitened Vs. Whitened Light Curve

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

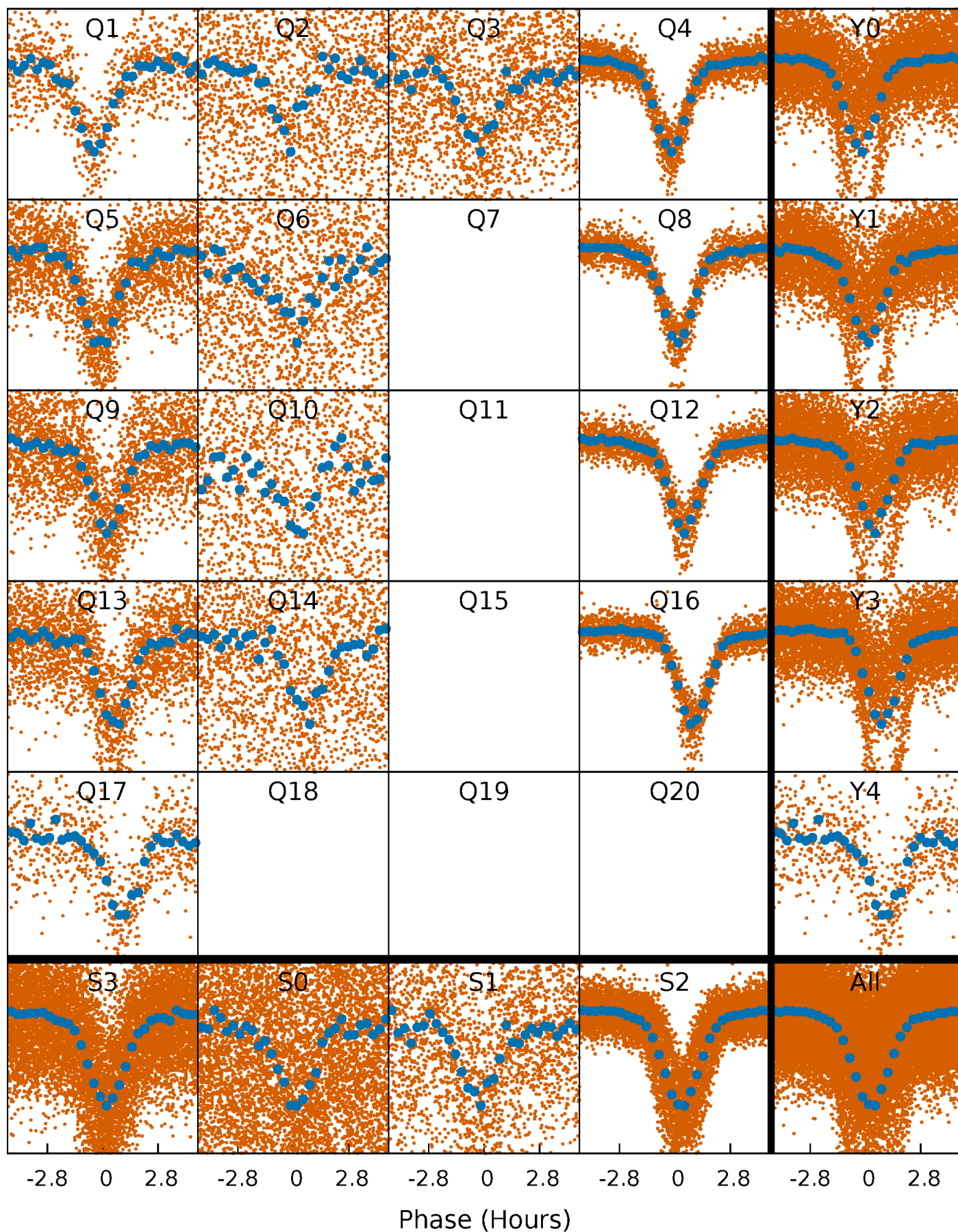


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



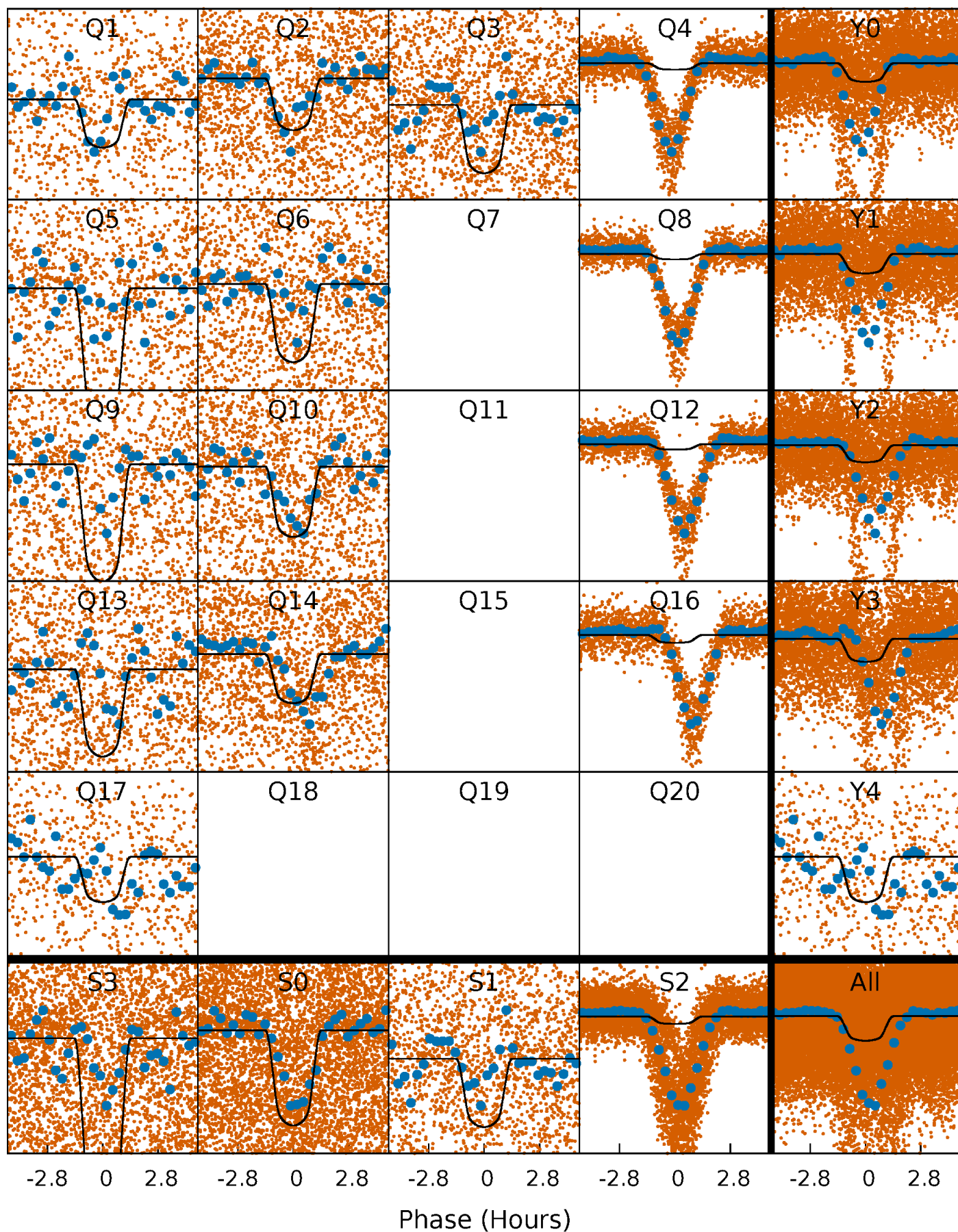
PDC Quarter-Phased Transit Curves

TCE 010095484-01 P= 0.677733 Days $T_0=131.645492$ (BKJD)



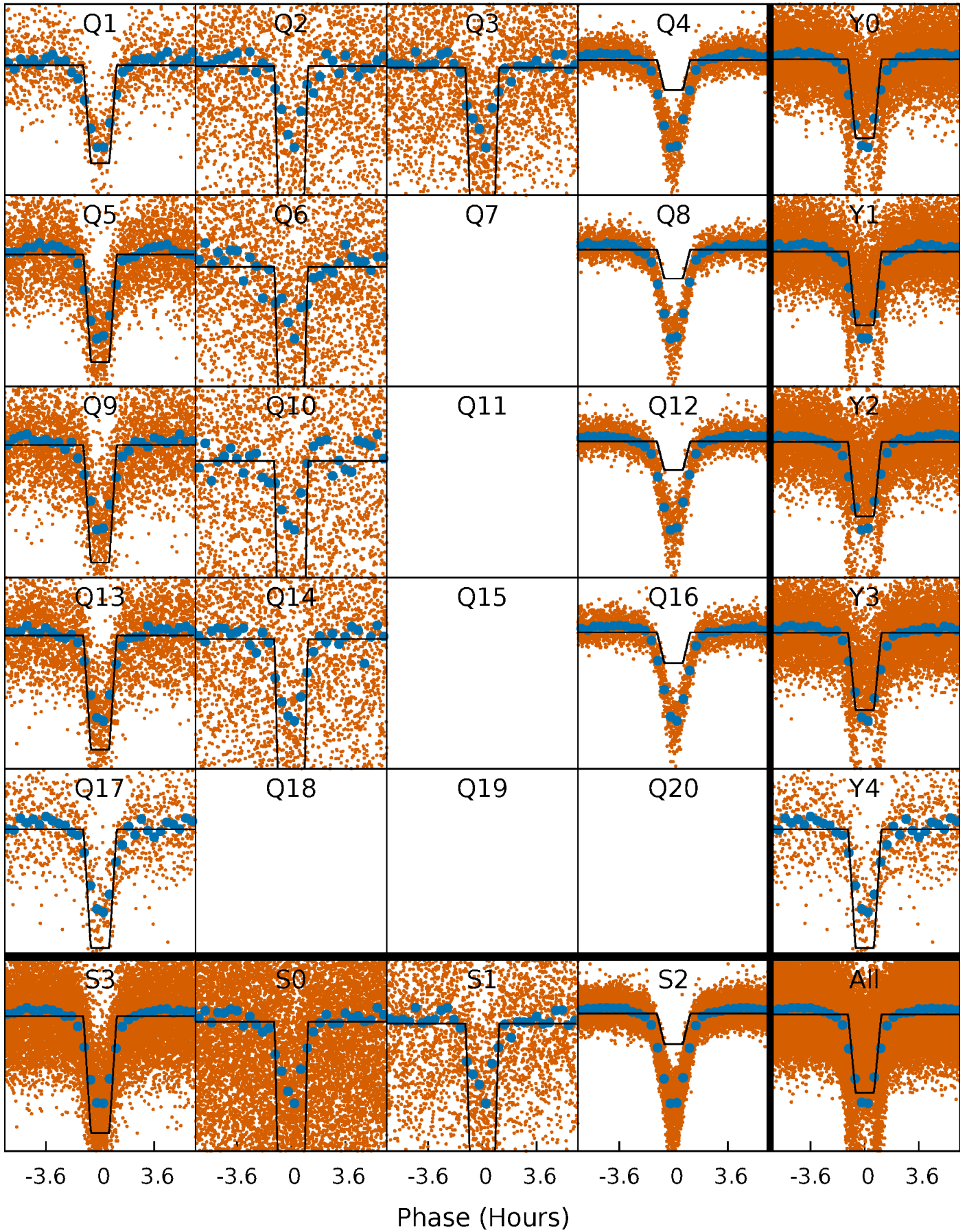
DV Quarter-Phased Transit Curves

TCE 010095484-01 P= 0.677733 Days $T_0=131.645492$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

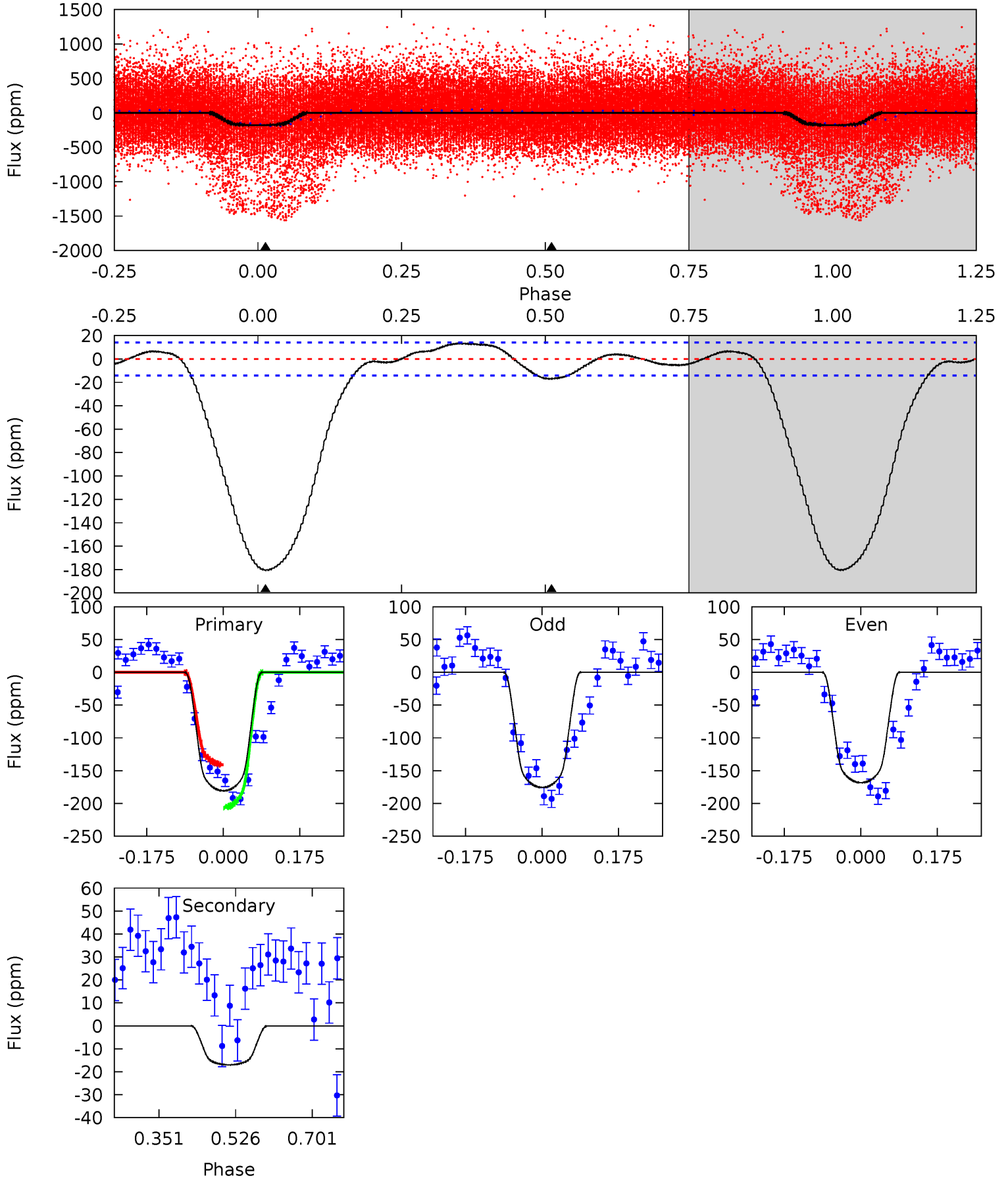
TCE 010095484-01 P= 0.677759 Days $T_0=131.627975$ (BKJD)



DV Model-Shift Uniqueness Test

010095484-01, P = 0.677733 Days, E = 130.967759 Days

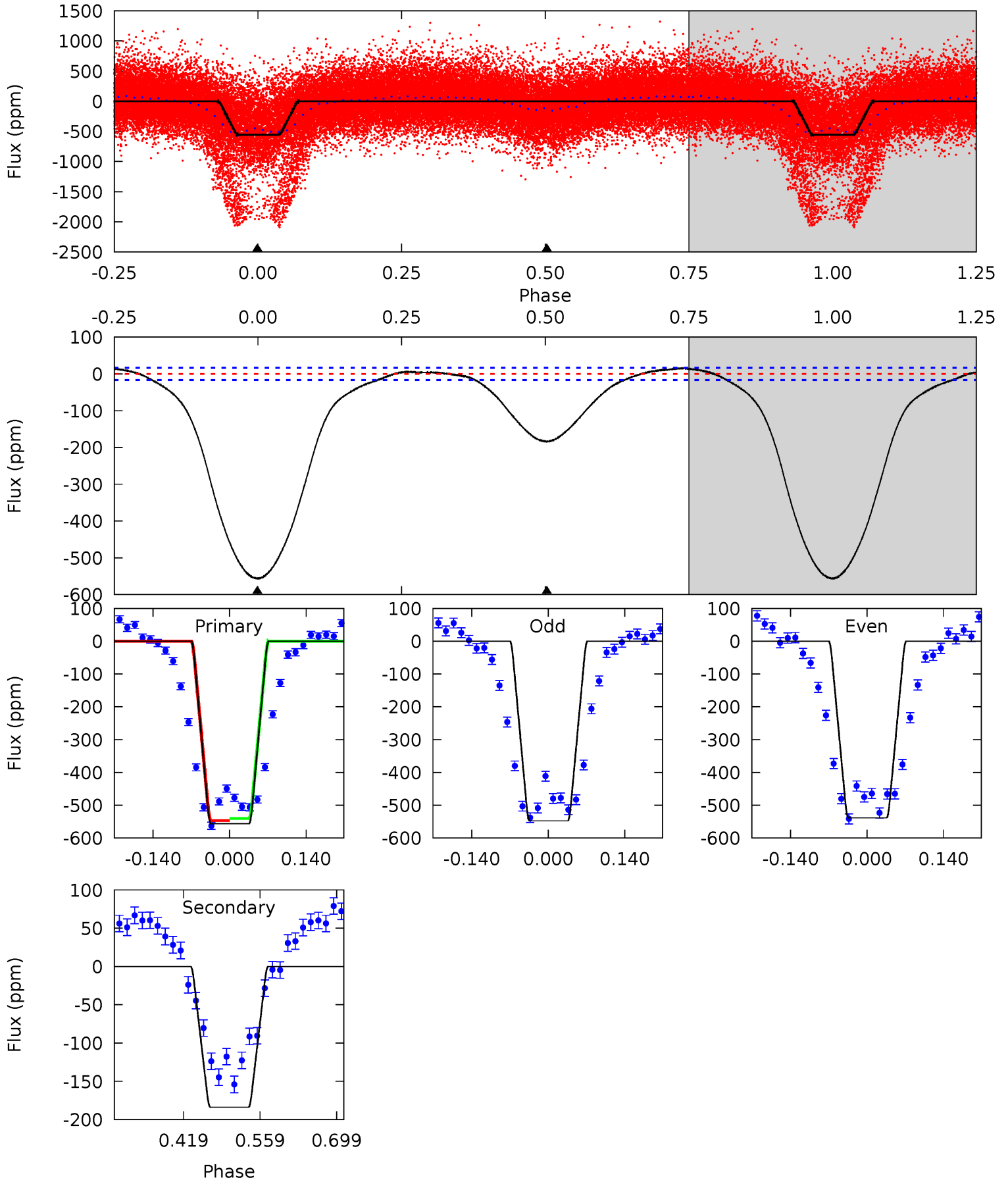
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.8	5.34	0	0	4.45	1.36	1.60	56.8	56.8	5.34	5.34	1.14	3.60	0.07	0



Alt Model-Shift Uniqueness Test

010095484-01, P = 0.677759 Days, E = 130.950216 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
152.2	50.3	0	0	4.49	1.48	5.76	152.2	152.2	50.3	50.3	1.20	1.79	0.03	0.86



Stellar Parameters For KIC 010095484

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5699^{+152}_{-152}	$4.553^{+0.033}_{-0.187}$	$-0.100^{+0.300}_{-0.300}$	$0.853^{+0.233}_{-0.078}$	$0.950^{+0.094}_{-0.104}$	$2.159^{+0.407}_{-1.082}$
	+3%/-3%	+1%/-4%	+300%/-300%	+27%/-9%	+10%/-11%	+19%/-50%
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 010095484-01 / KOI 3839.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-17 ± 3	$1.48^{+0.25}_{-0.18}$	2728^{+175}_{-116}	3249^{+218}_{-209}	$0.904^{+0.360}_{-0.251}$
Alt.	-184 ± 4	$2.94^{+0.42}_{-0.27}$	2725^{+174}_{-107}	3993^{+119}_{-107}	$2.538^{+0.477}_{-0.556}$

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 $A_{obs} \gg 1.0$

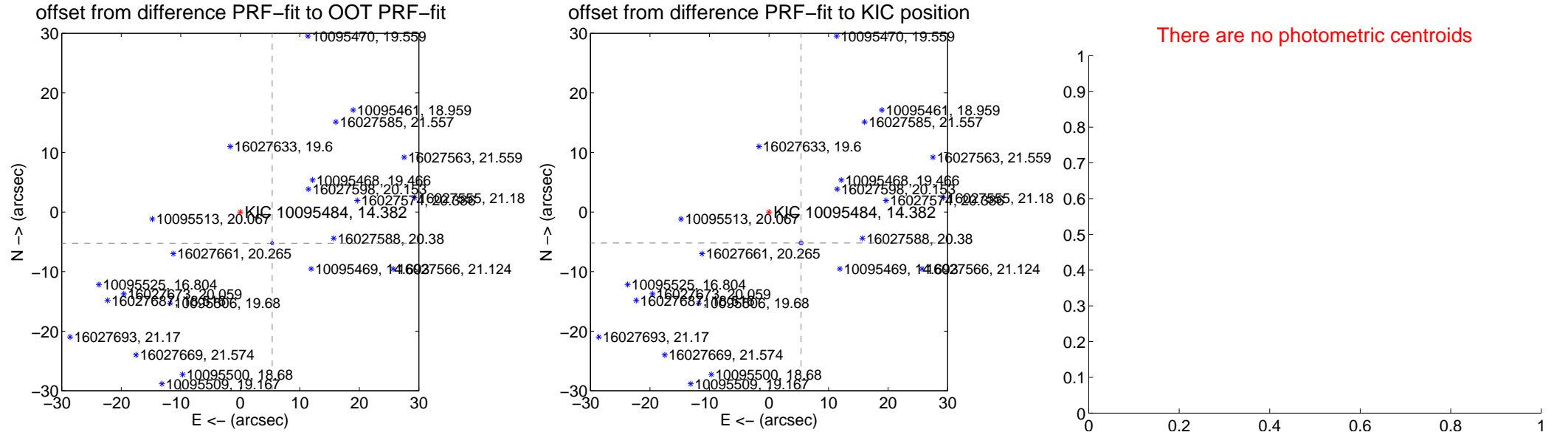
DV Centroid Data

Supplemental centroid analysis for 010095484-01. Kepler magnitude: 14.38. Transit SNR 37.94

There are 2 quarters with good PRF difference image offsets

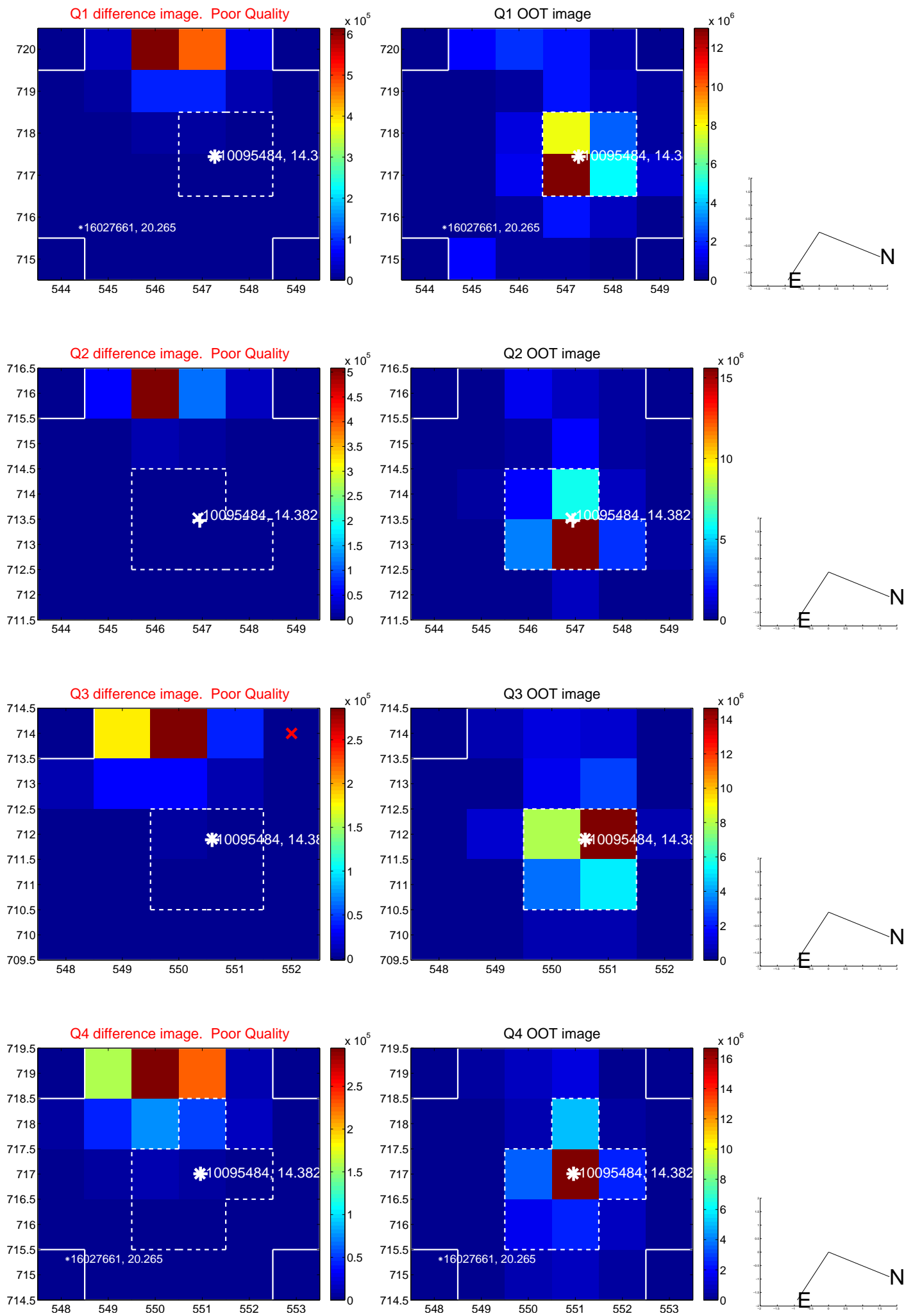
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.495 \pm 0.081	92.72	-5.366 \pm 0.090	-5.233 \pm 0.070
PRF-fit source offset from KIC position	7.483 \pm 0.109	68.40	-5.389 \pm 0.100	-5.192 \pm 0.082
photometric centroid source offset	—	—	—	—

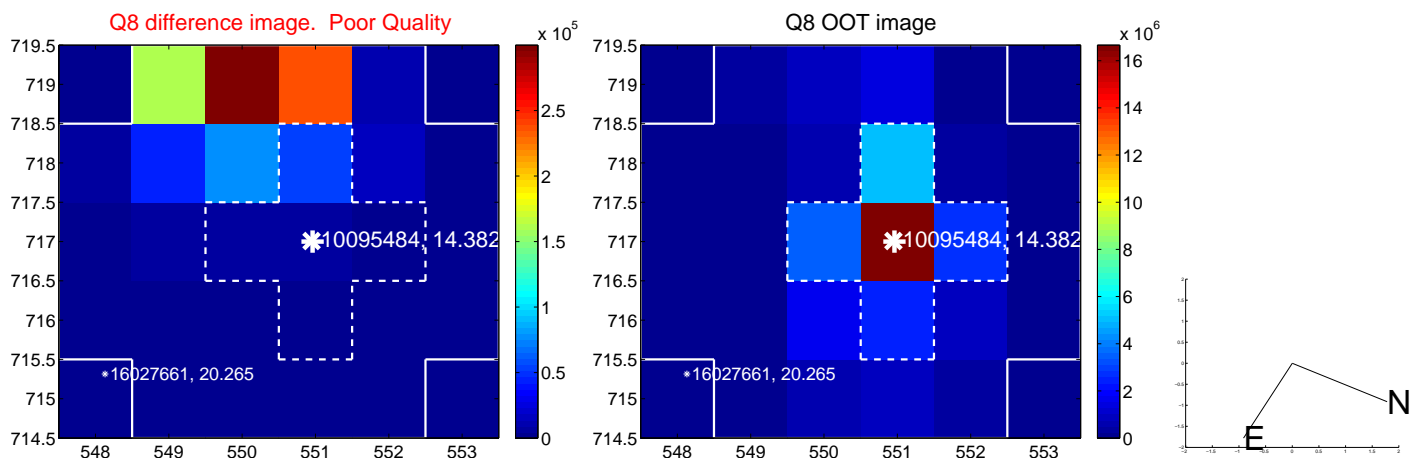
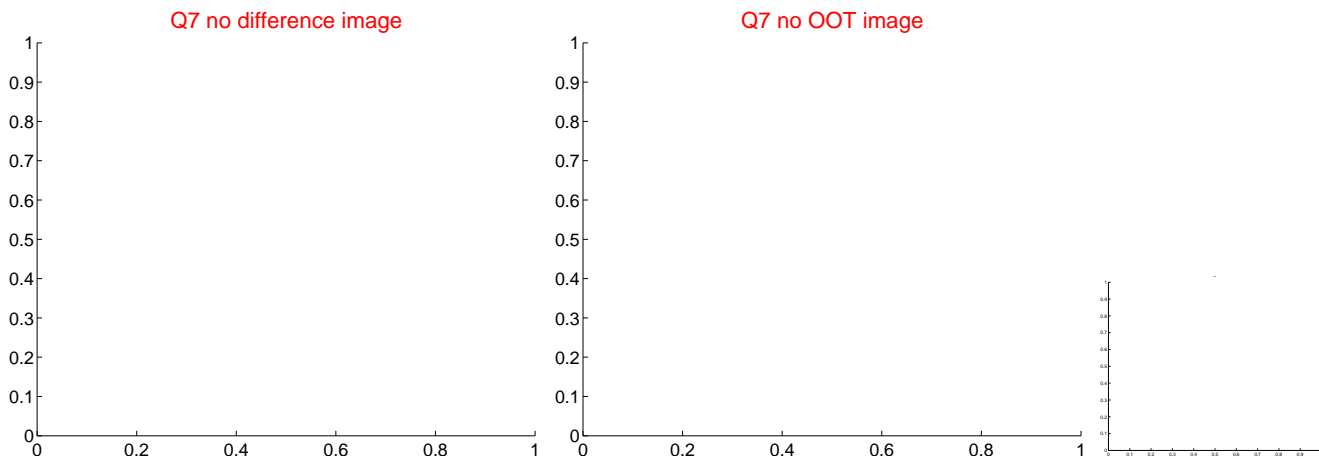
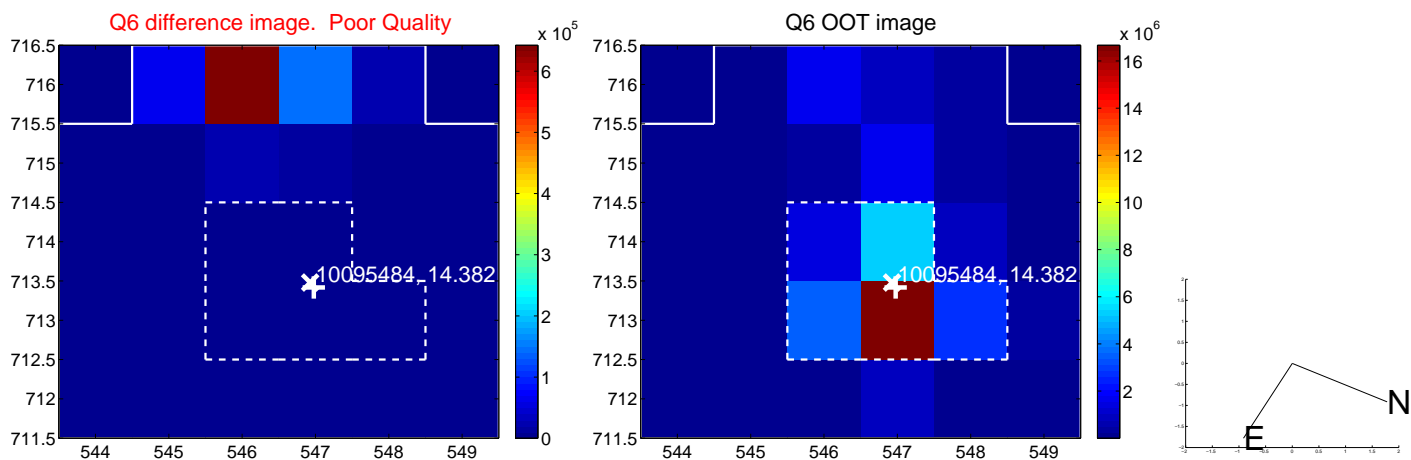
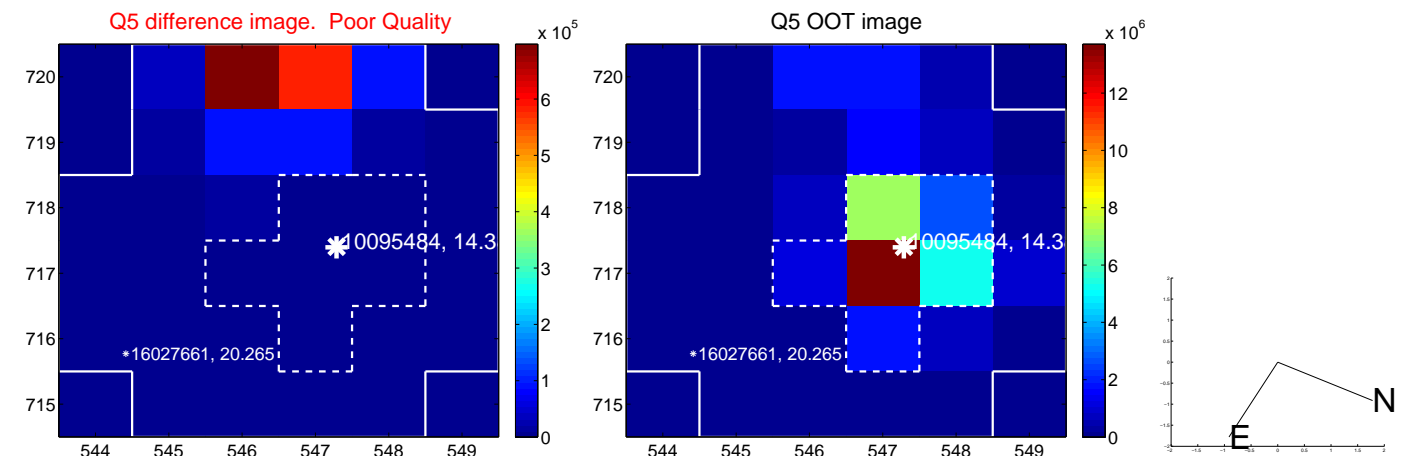


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

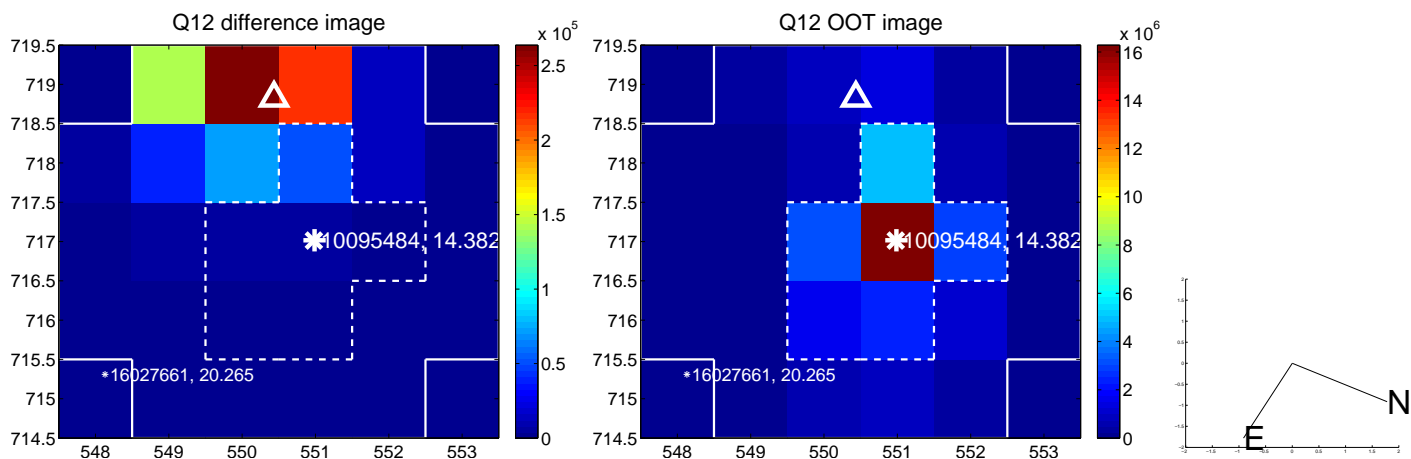
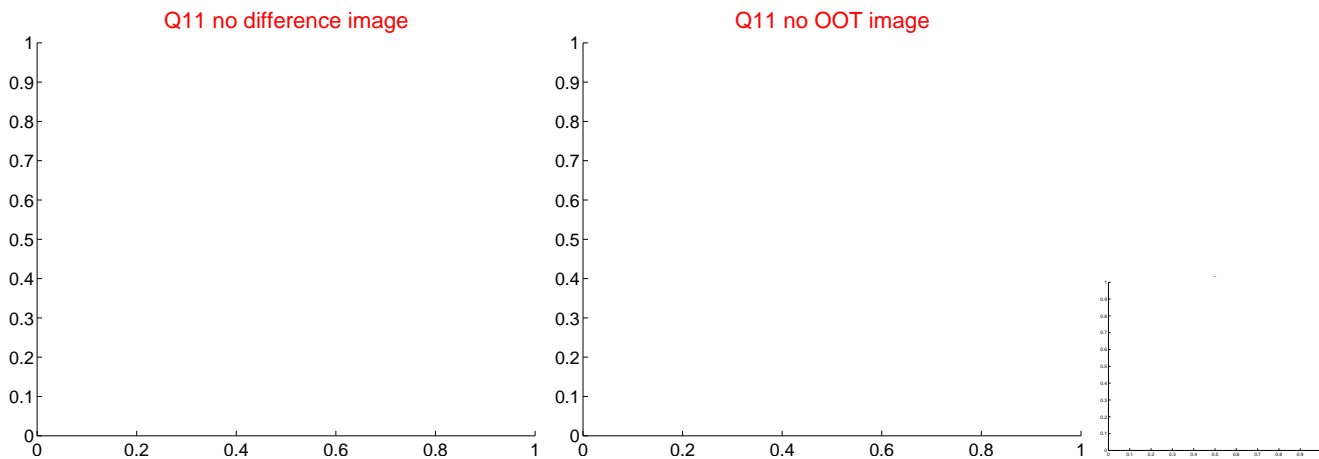
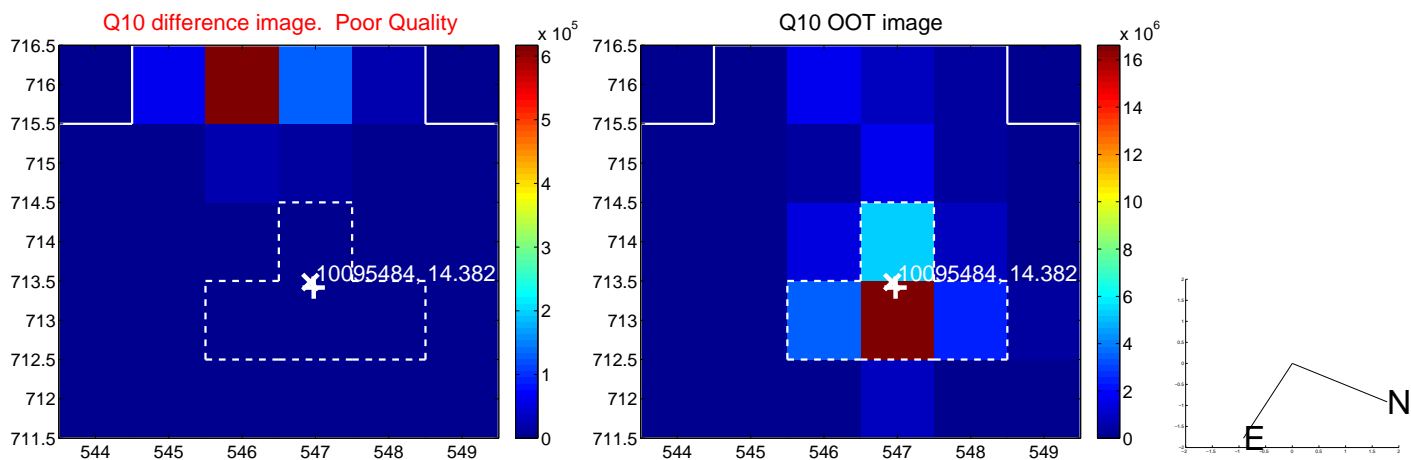
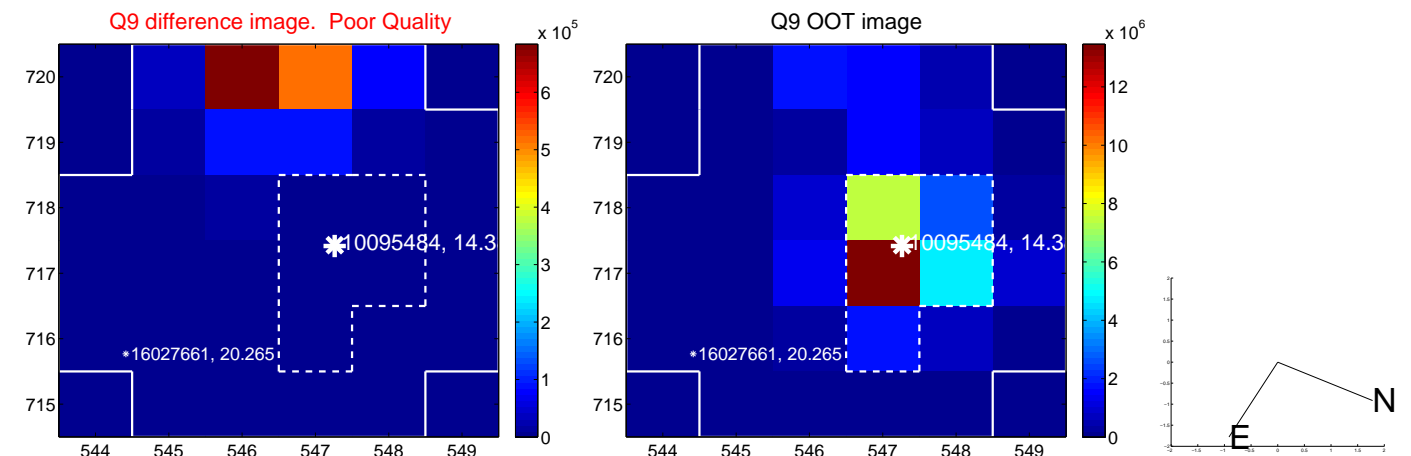
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



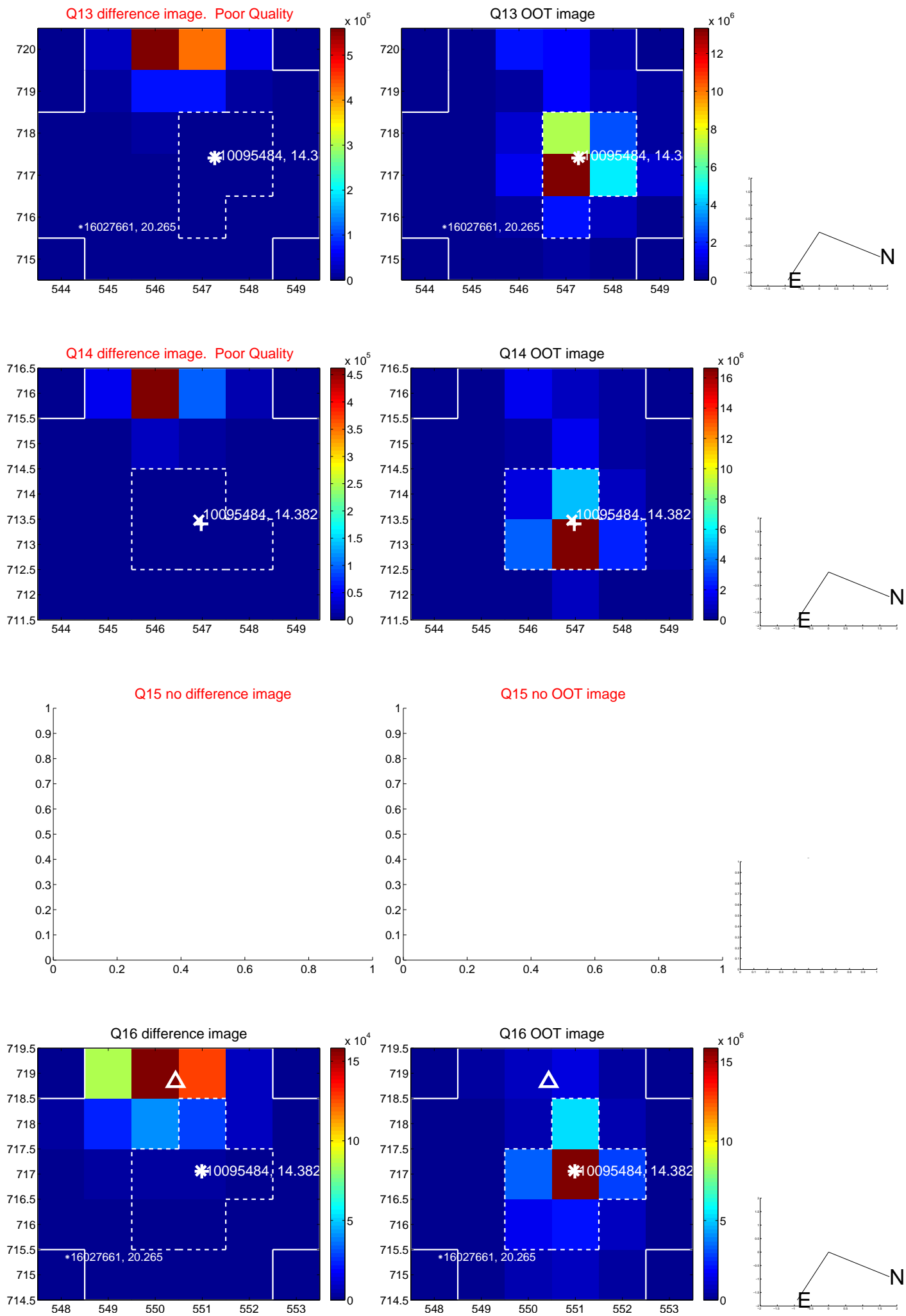
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



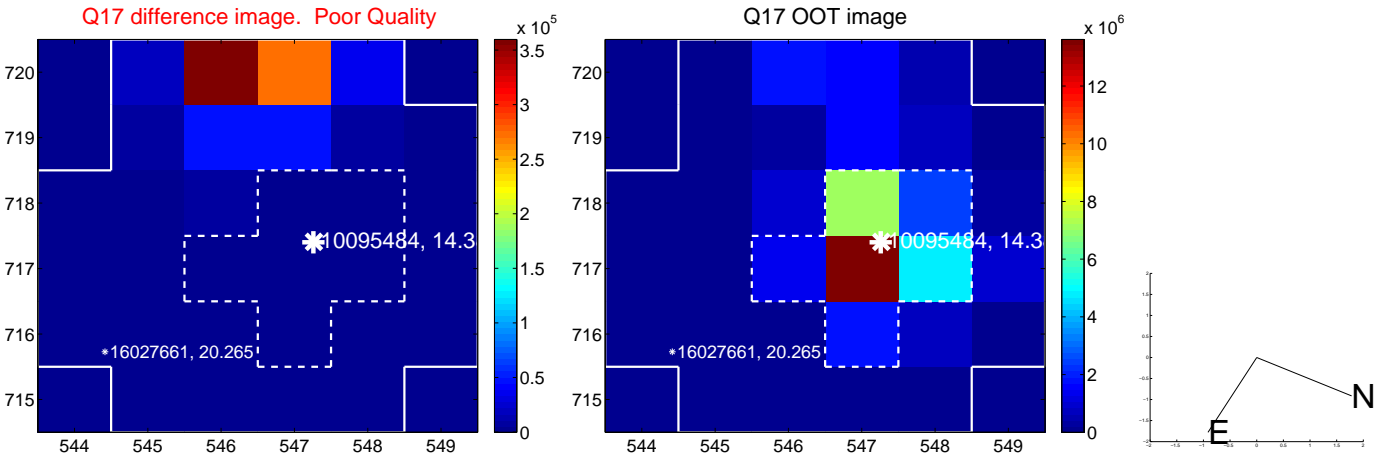
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

