

KIC 003348090

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})
003348090-01	OBS	4112.01	2.435821	132.903955	59.7	2.102	12.1	13.8	3.25	6501	2.87	9914.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003348090-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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 003348090-01

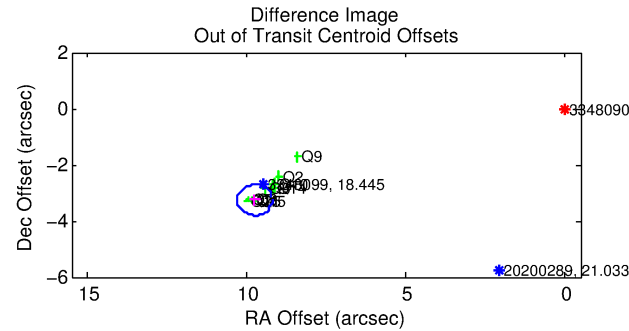
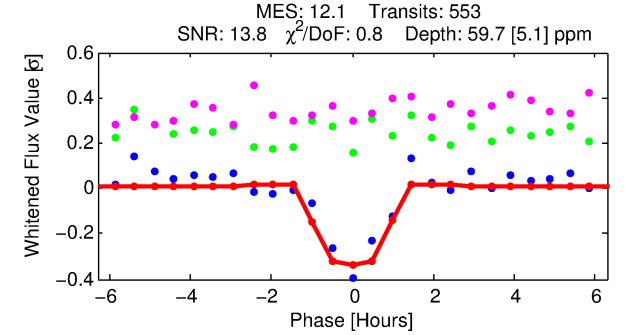
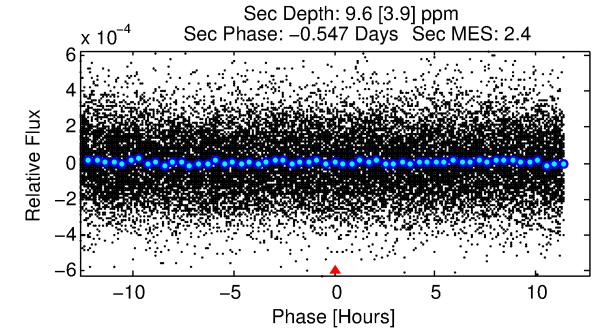
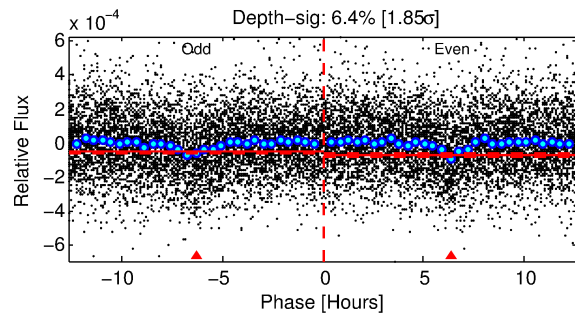
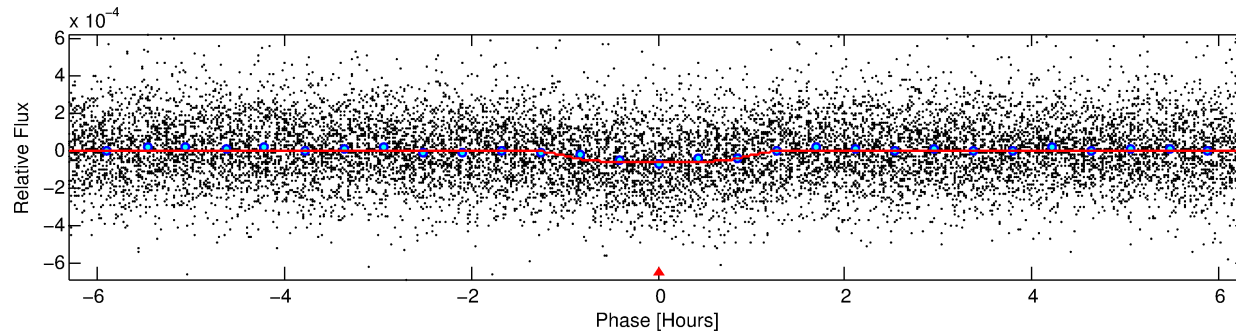
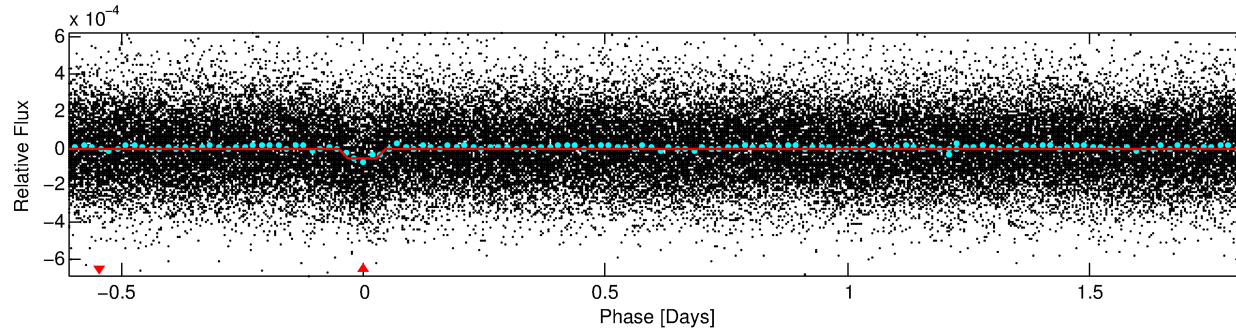
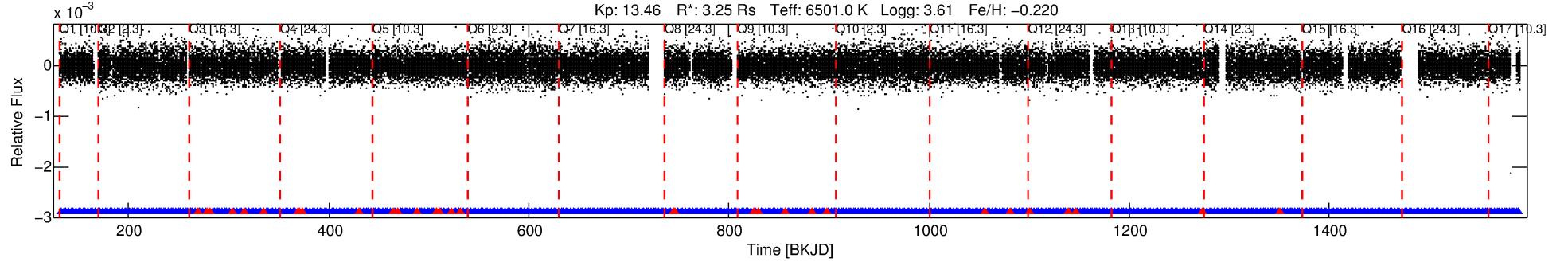
No Significant Match Found

DV One-Page Summary

KIC: 3348090 Candidate: 1 of 1 Period: 2.436 d

KOI: K04112.01 Corr: 0.964

Kp: 13.46 R*: 3.25 Rs Teff: 6501.0 K Logg: 3.61 Fe/H: -0.220



DV Fit Results:

Period = 2.43582 [0.00001] d
Epoch = 132.9040 [0.0024] BKJD
Rp/R* = 0.0081 [0.0030]
a/R* = 4.65 [9.28]
b = 0.87 [0.61]
Seff = 9914.62 [5764.03]
Teq = 2544 [370] K
Rp = 2.87 [1.55] Re
a = 0.0413 [0.0151] AU
Ag = 1.10 [1.11] [0.09σ]
Teff = 4026 [852] K [1.60σ]

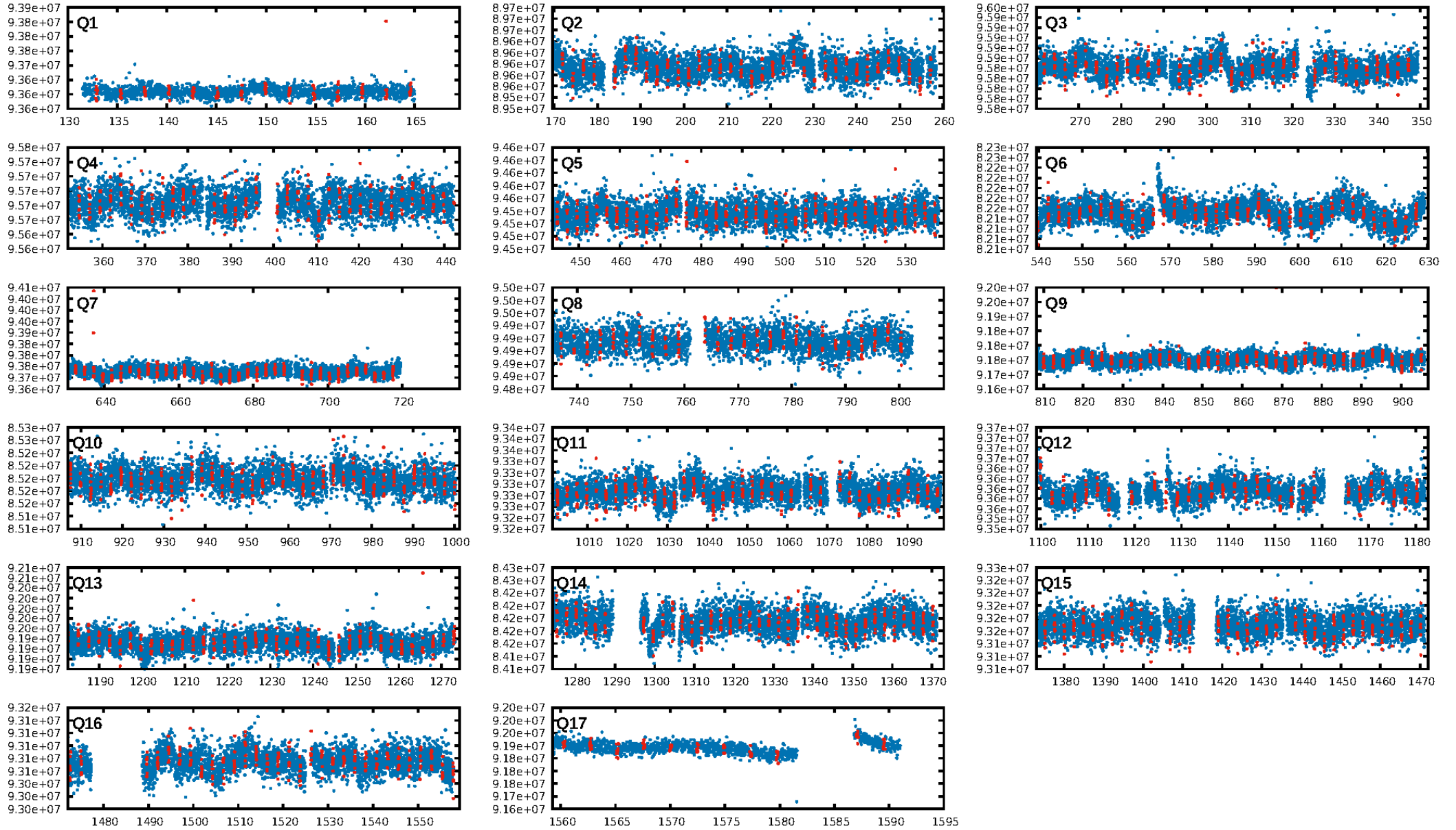
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.03e-32
RollingBand-fgt: 0.94 [497/528]
GhostDiagnostic-chr: -0.5992
Centroid-sig: 0.0%
Centroid-so: 45.071 arcsec [46.29σ]
OotOffset-rm: 10.276 arcsec [56.34σ]
KicOffset-rm: 10.182 arcsec [50.56σ]
OotOffset-st: 4/4/0/2 [10]
KicOffset-st: 4/4/0/2 [10]
DiffImageQuality-fgm: 1.00 [10/10]
DiffImageOverlap-fno: 1.00 [17/17]

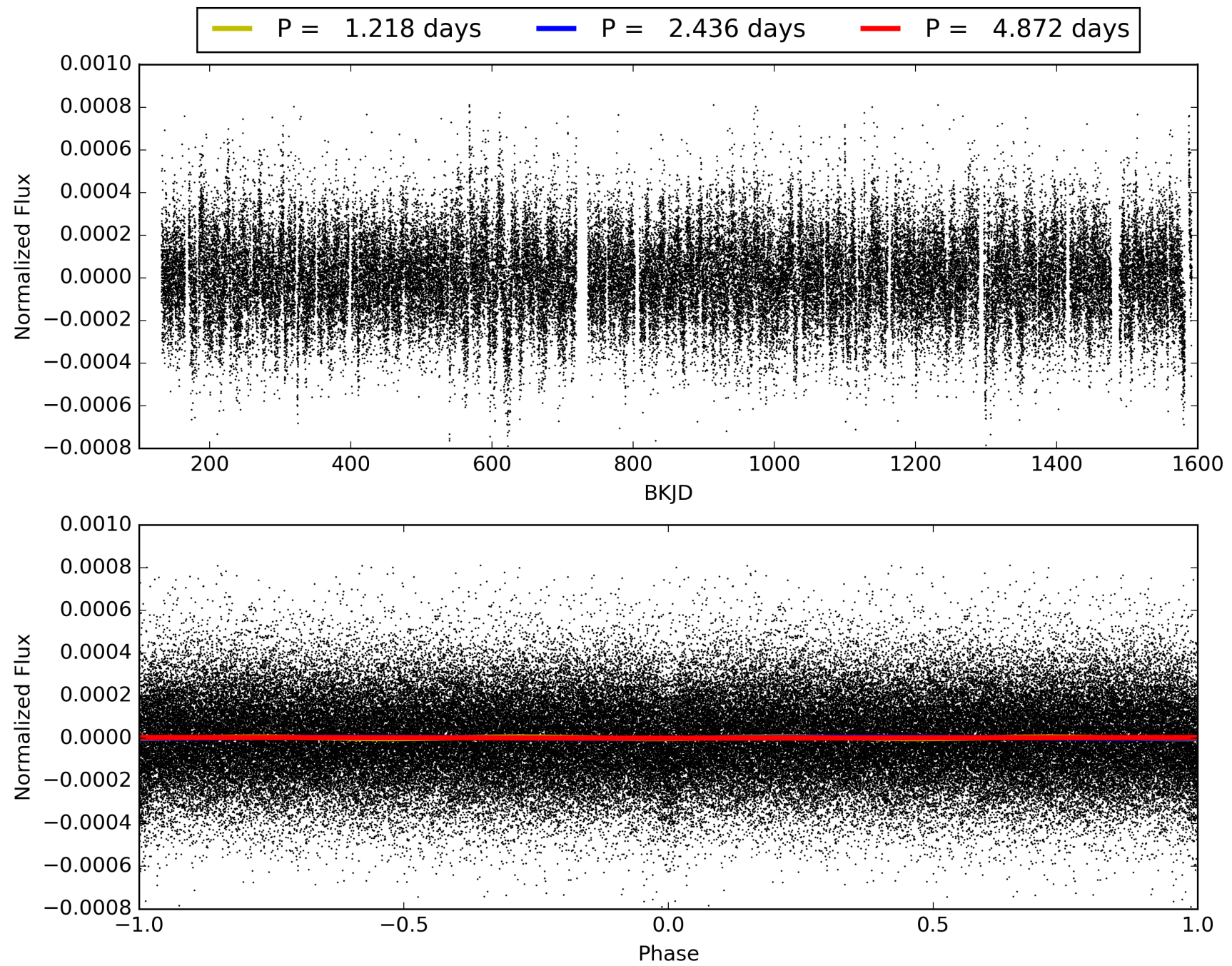
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:45:04 Z

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

TCE 003348090-01, PDC Light Curves

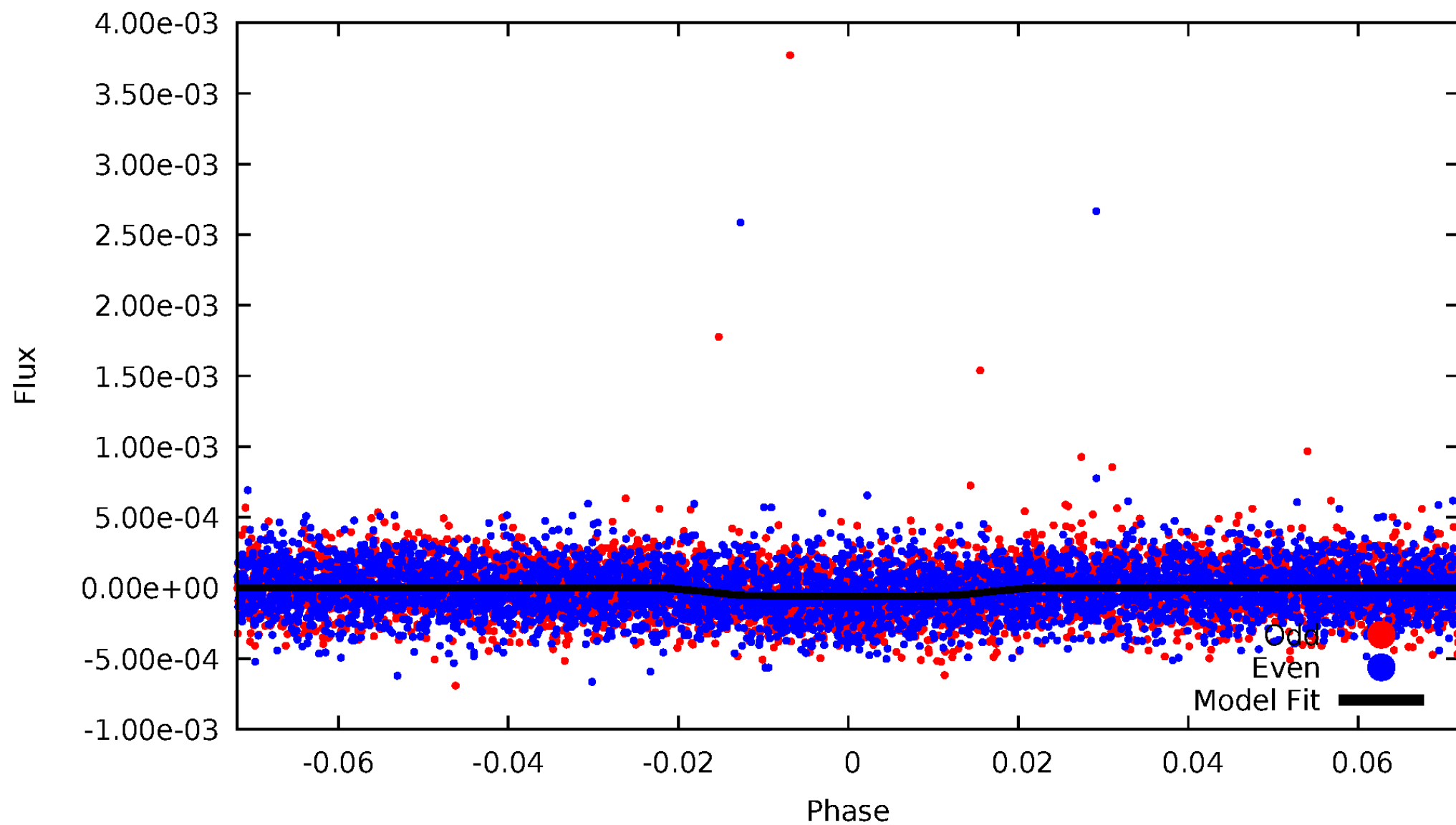


TCE 003348090-01



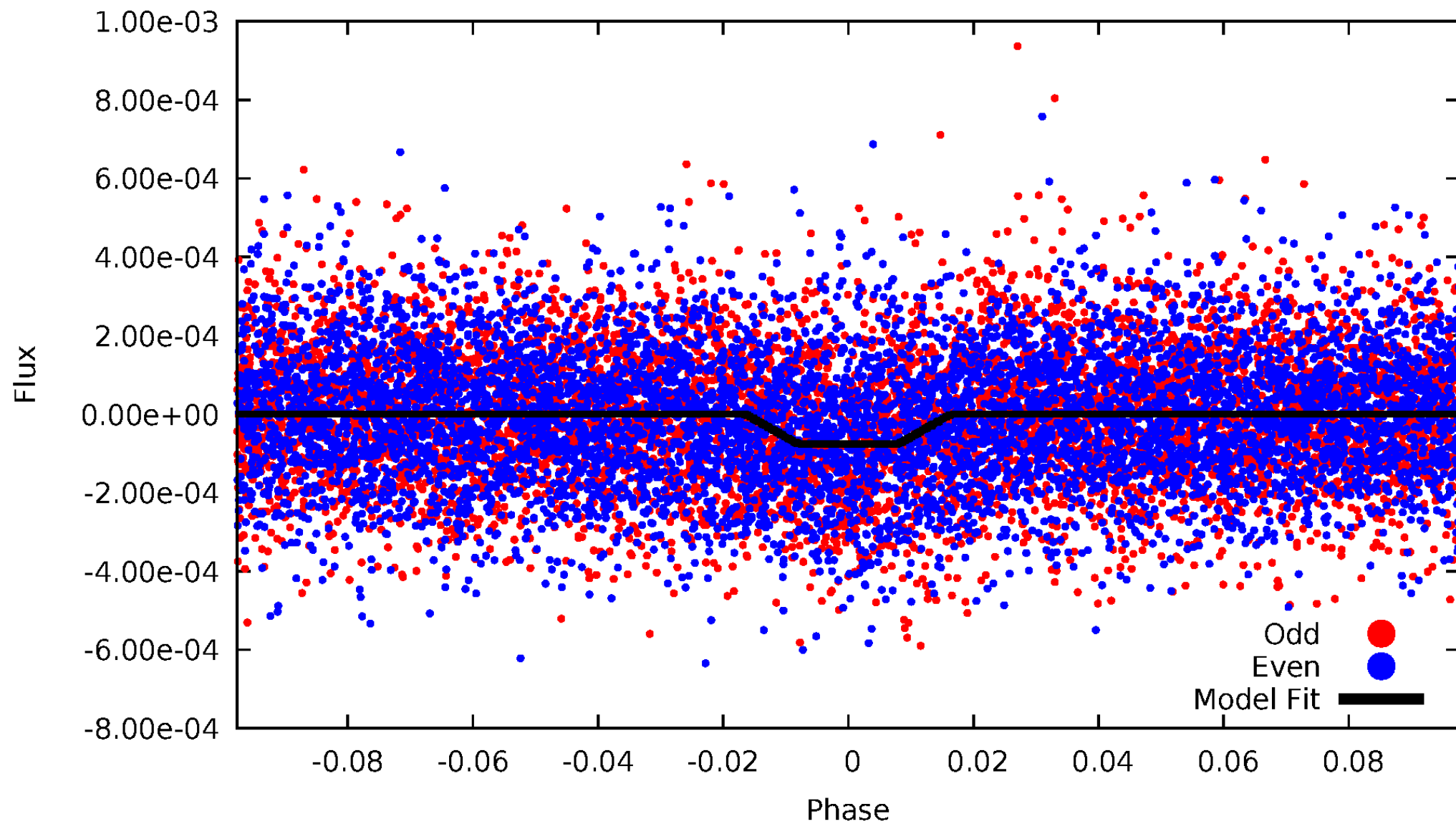
DV Odd/Even

TCE 003348090-01



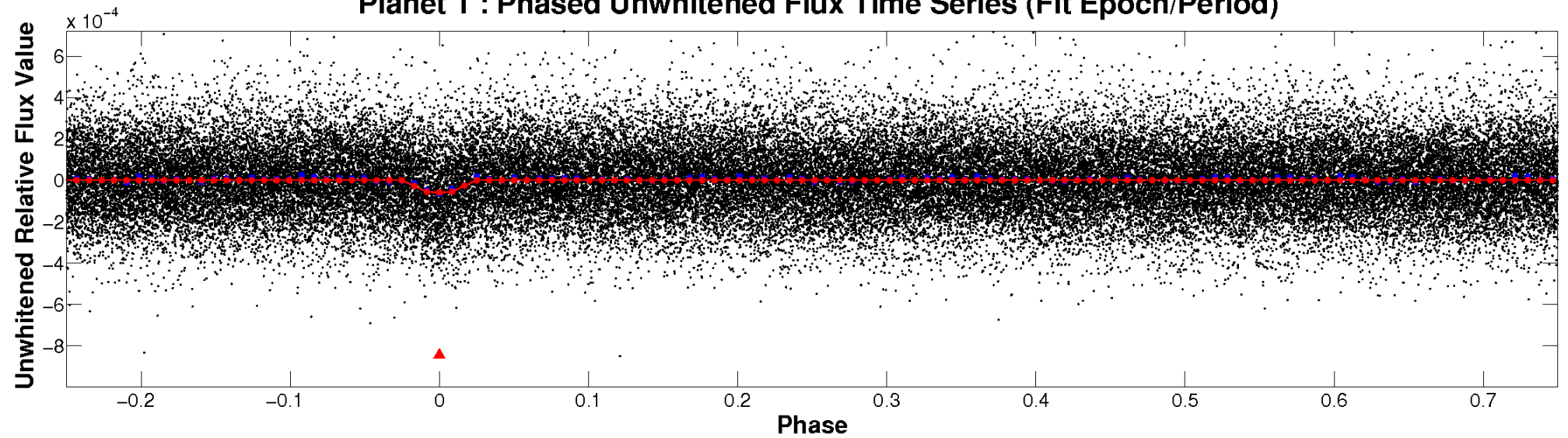
ALT Odd/Even

TCE 003348090-01

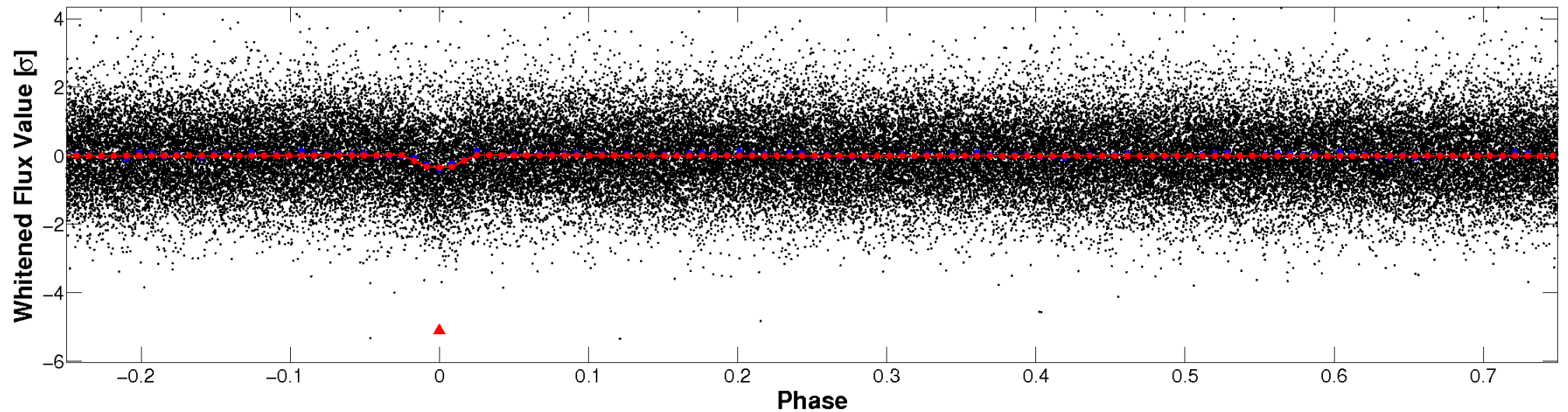


Non-Whitened Vs. Whitened Light Curve

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

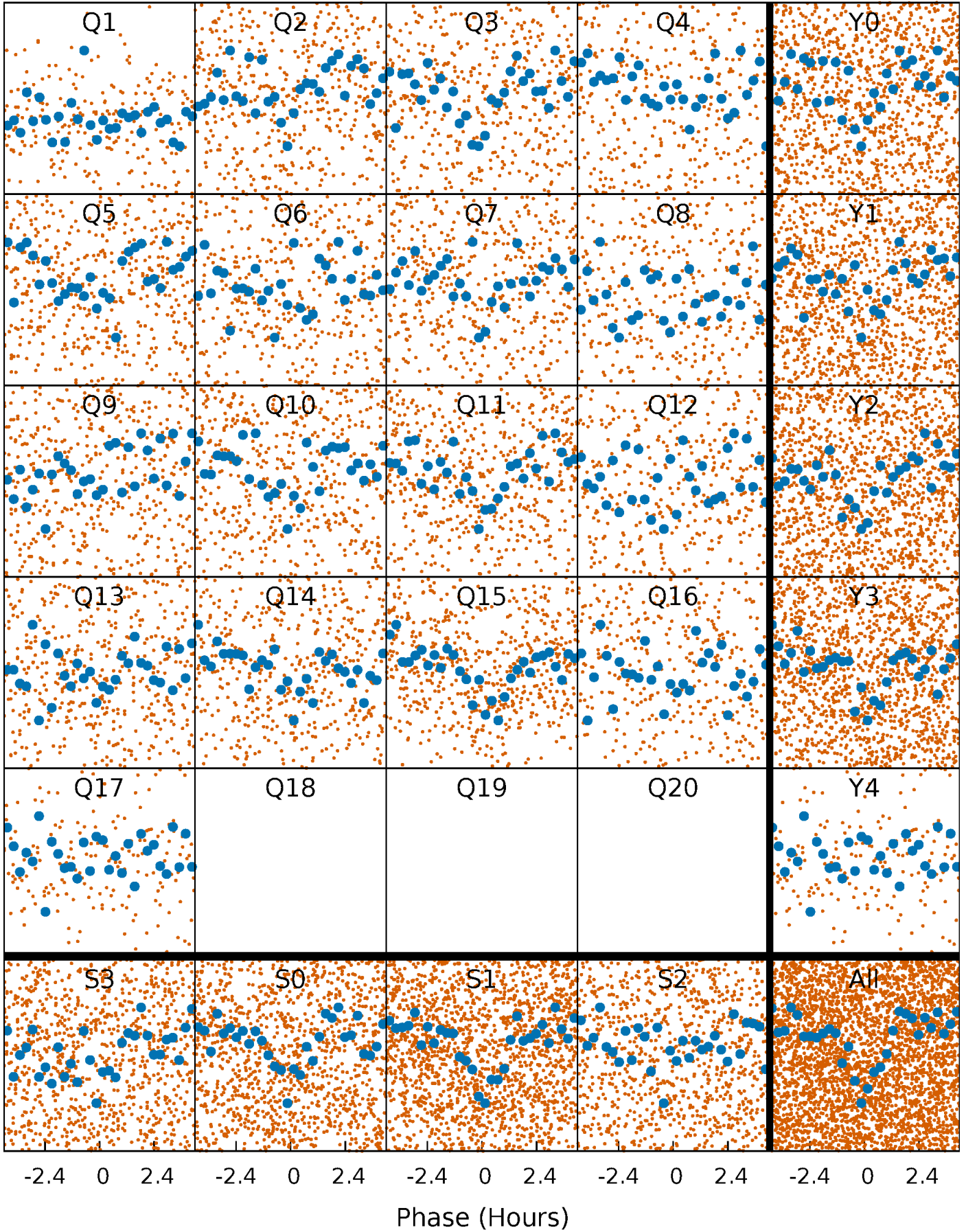


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



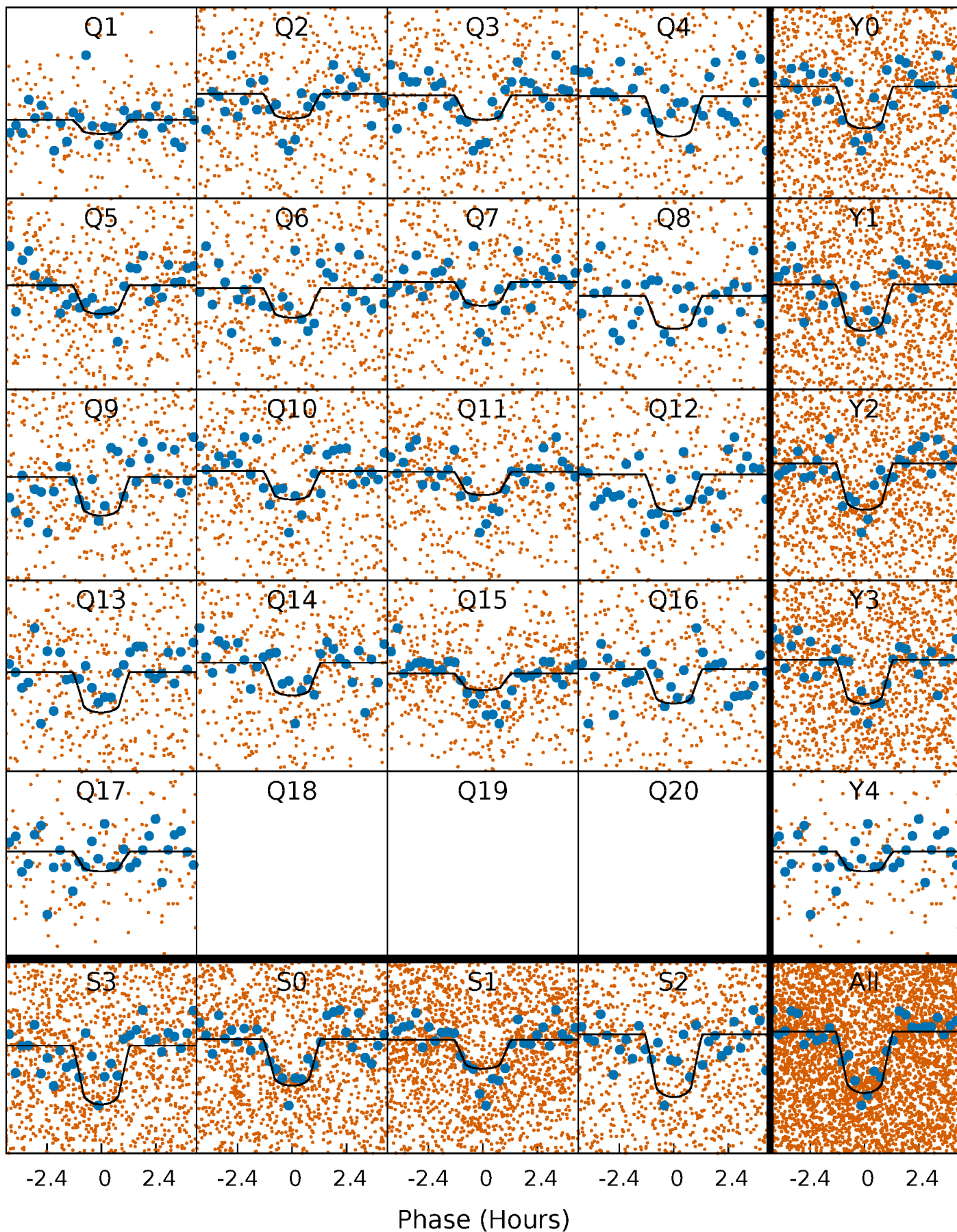
PDC Quarter-Phased Transit Curves

TCE 003348090-01 P= 2.435821 Days $T_0=132.903955$ (BKJD)



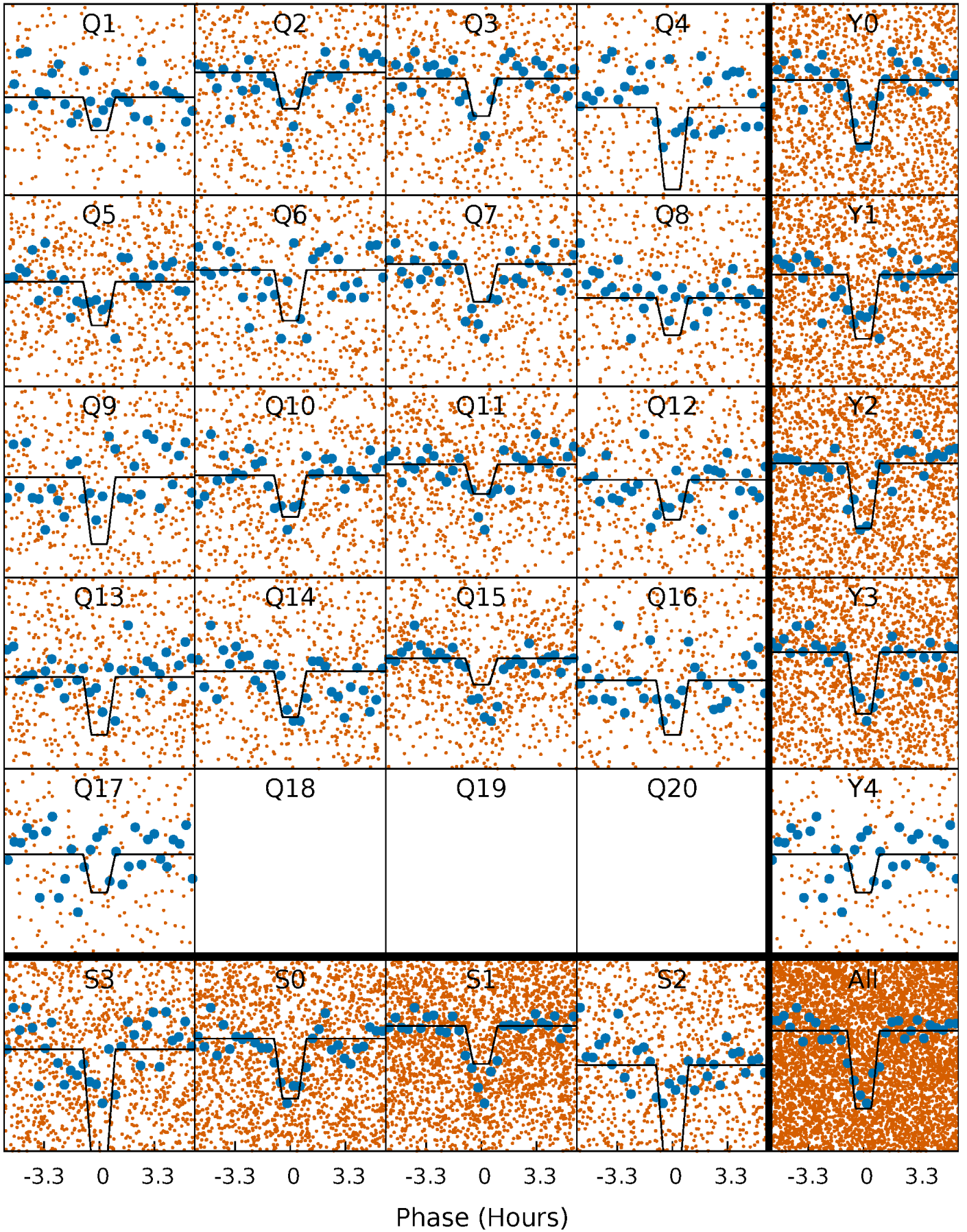
DV Quarter-Phased Transit Curves

TCE 003348090-01 P= 2.435821 Days $T_0=132.903955$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

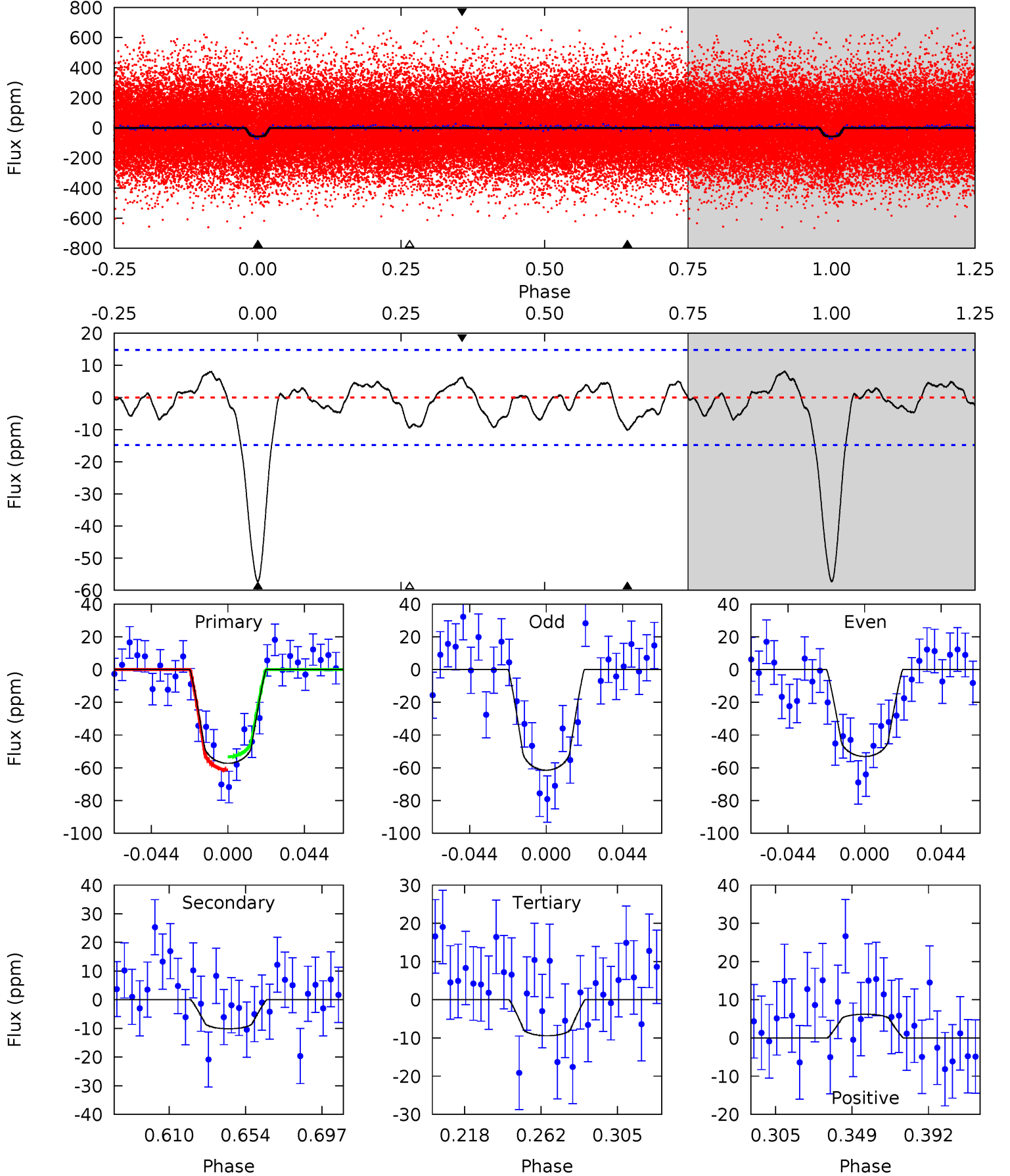
TCE 003348090-01 P= 2.435840 Days $T_0=132.896501$ (BKJD)



DV Model-Shift Uniqueness Test

003348090-01, P = 2.435821 Days, E = 130.468134 Days

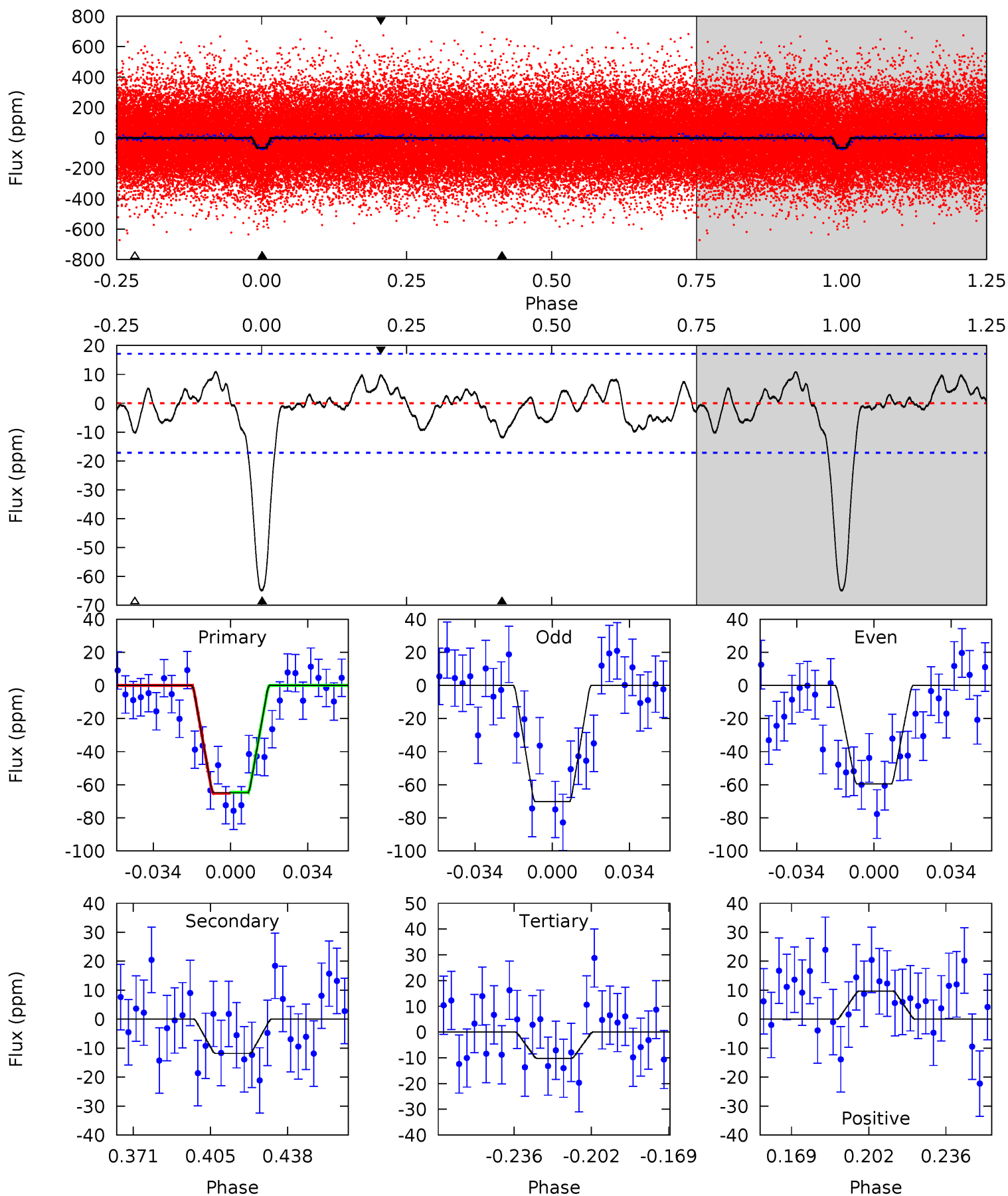
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.3	3.24	3.01	1.99	4.74	2.02	1.28	15.3	16.3	0.22	1.25	1.34	0.94	0.12	1.27



Alt Model-Shift Uniqueness Test

003348090-01, P = 2.435840 Days, E = 130.460661 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.1	3.30	2.86	2.70	4.79	2.12	1.33	15.3	15.4	0.44	0.60	1.49	0.96	0.14	0.08



Stellar Parameters For KIC 003348090

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6501^{+177}_{-196}	$3.613^{+0.328}_{-0.082}$	$-0.220^{+0.350}_{-0.250}$	$3.247^{+0.429}_{-1.288}$	$1.579^{+0.209}_{-0.359}$	$0.065^{+0.163}_{-0.018}$
	+3%/-3%	+9%/-2%	+159%/-114%	+13%/-40%	+13%/-23%	+251%/-27%
Source	PHO1	FLK73	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 003348090-01 / KOI 4112.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 3	$2.69^{+1.14}_{-1.02}$	3486^{+199}_{-333}	4089^{+932}_{-723}	$1.314^{+2.143}_{-0.716}$
Alt.	-12 ± 4	$2.87^{+1.18}_{-1.02}$	3469^{+205}_{-307}	4071^{+932}_{-616}	$1.336^{+2.049}_{-0.679}$

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

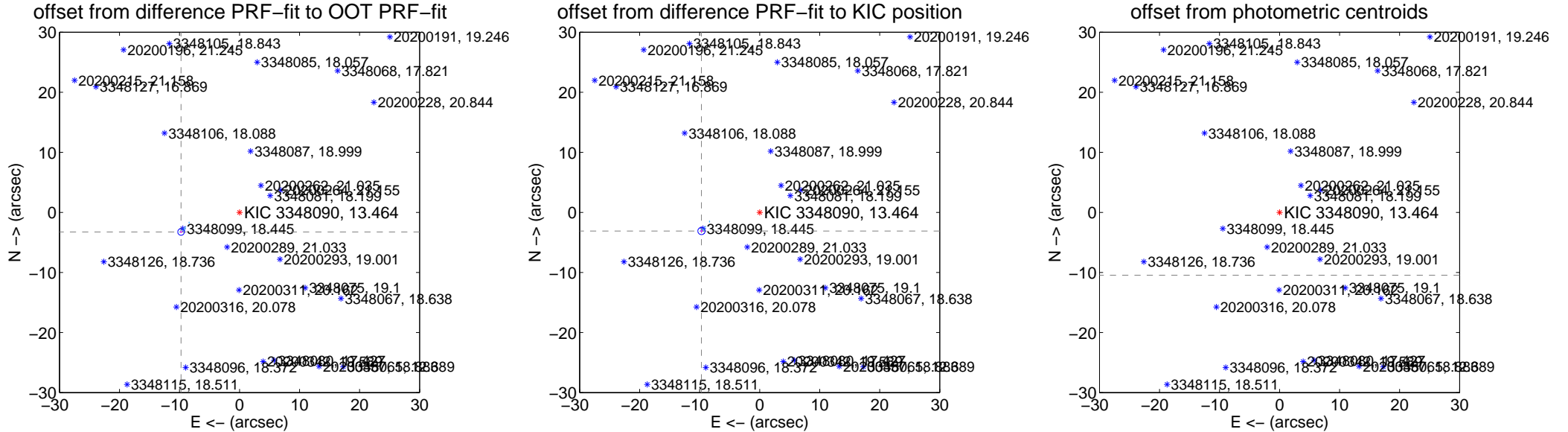
DV Centroid Data

Supplemental centroid analysis for 003348090-01. Kepler magnitude: 13.46. Transit SNR 13.84

There are 10 quarters with good PRF difference image offsets

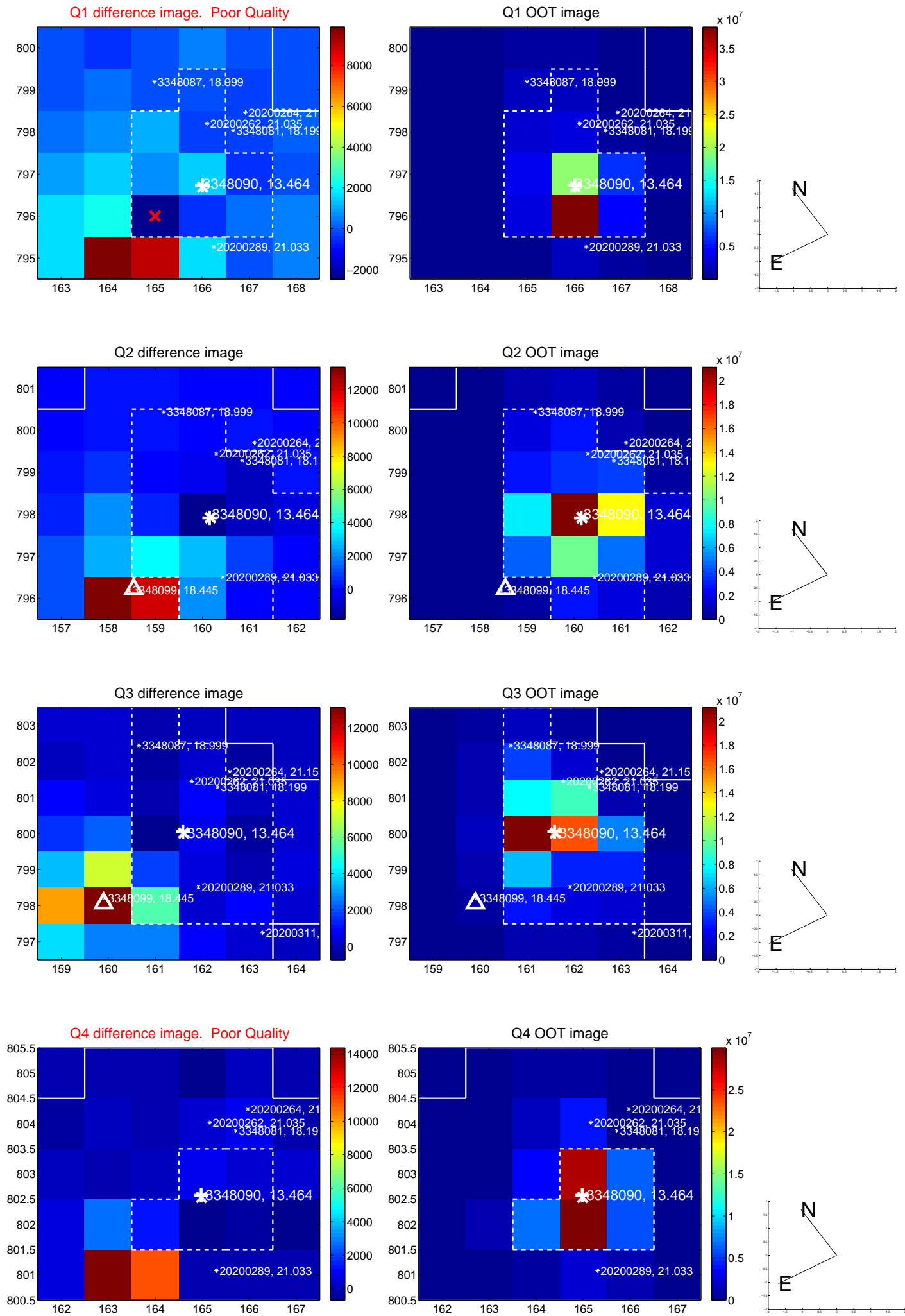
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.276 \pm 0.182	56.34	9.746 \pm 0.151	-3.259 \pm 0.148
PRF-fit source offset from KIC position	10.182 \pm 0.201	50.56	9.700 \pm 0.163	-3.097 \pm 0.175
photometric centroid source offset	45.07 \pm 0.97	46.29	43.84 \pm 0.97	-10.45 \pm 1.01

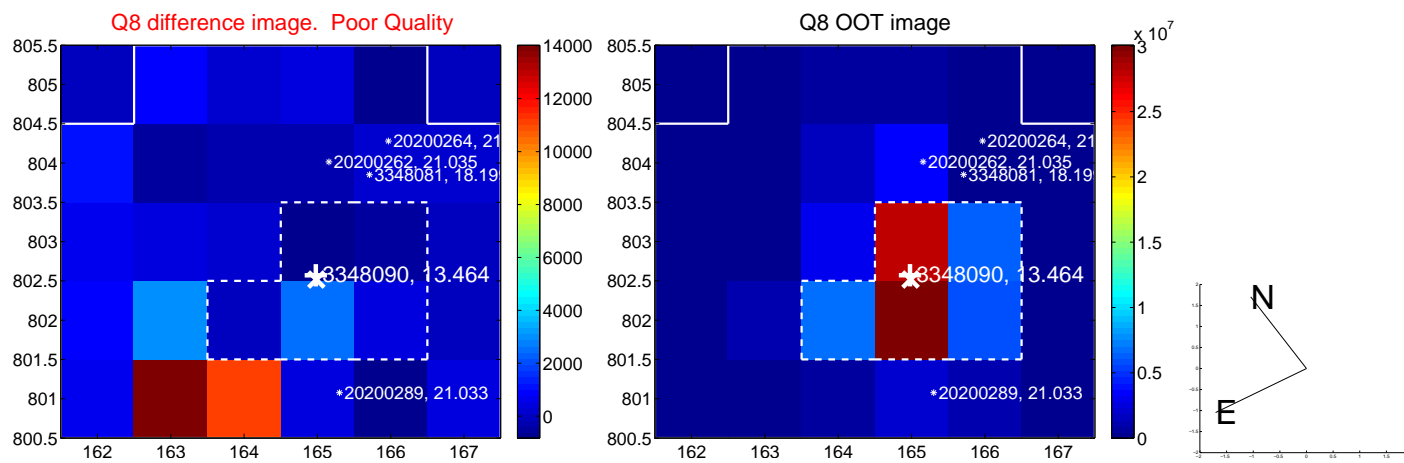
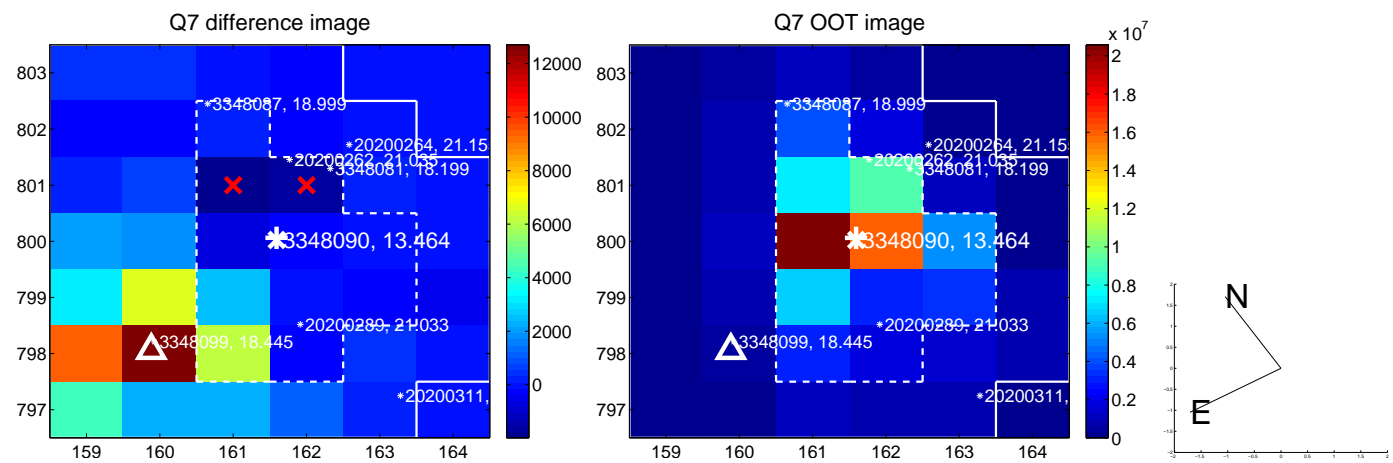
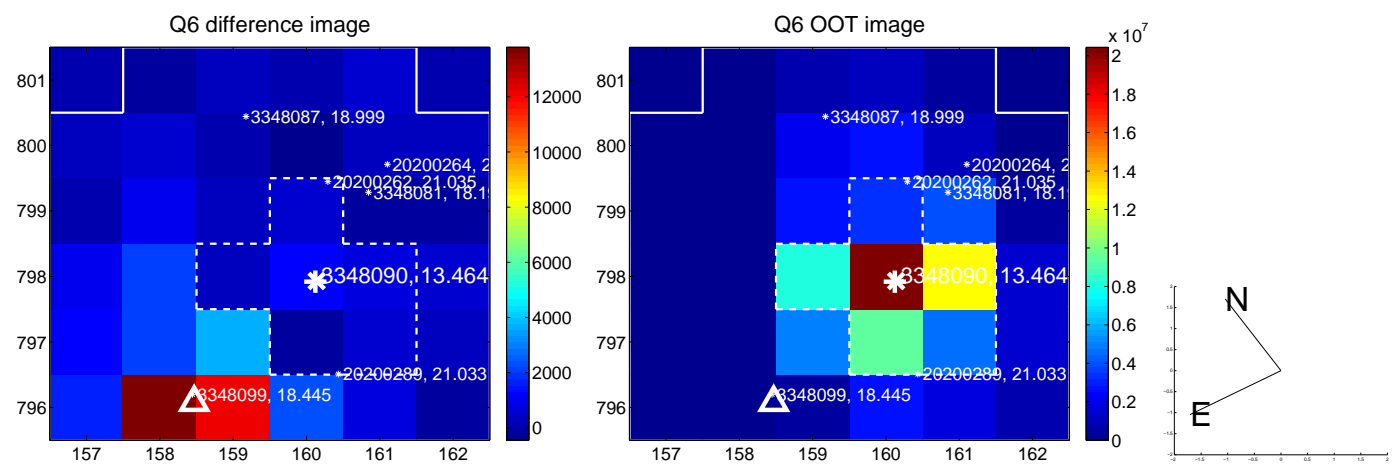
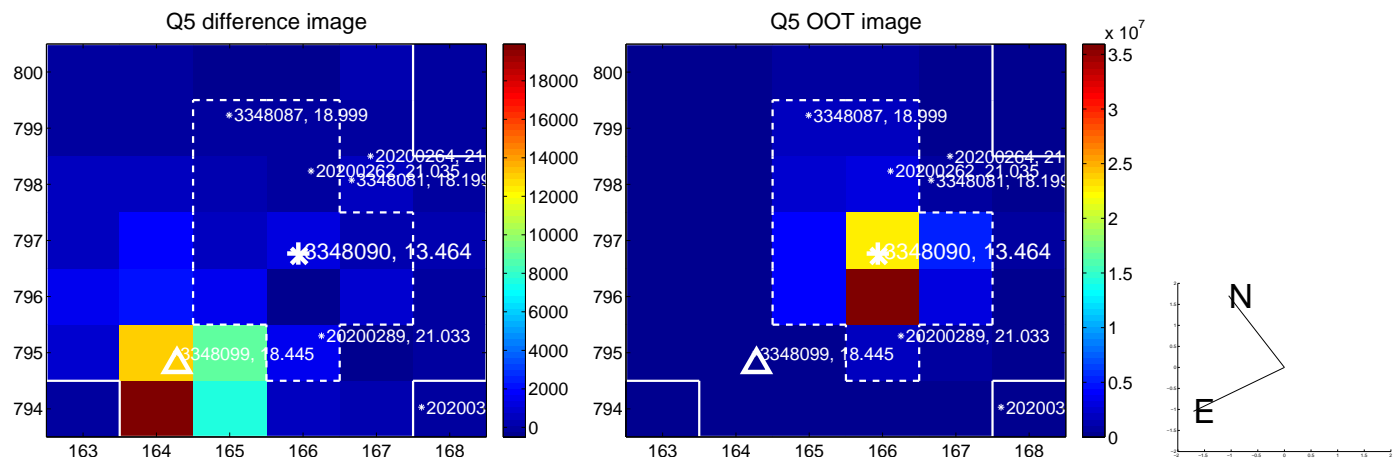


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

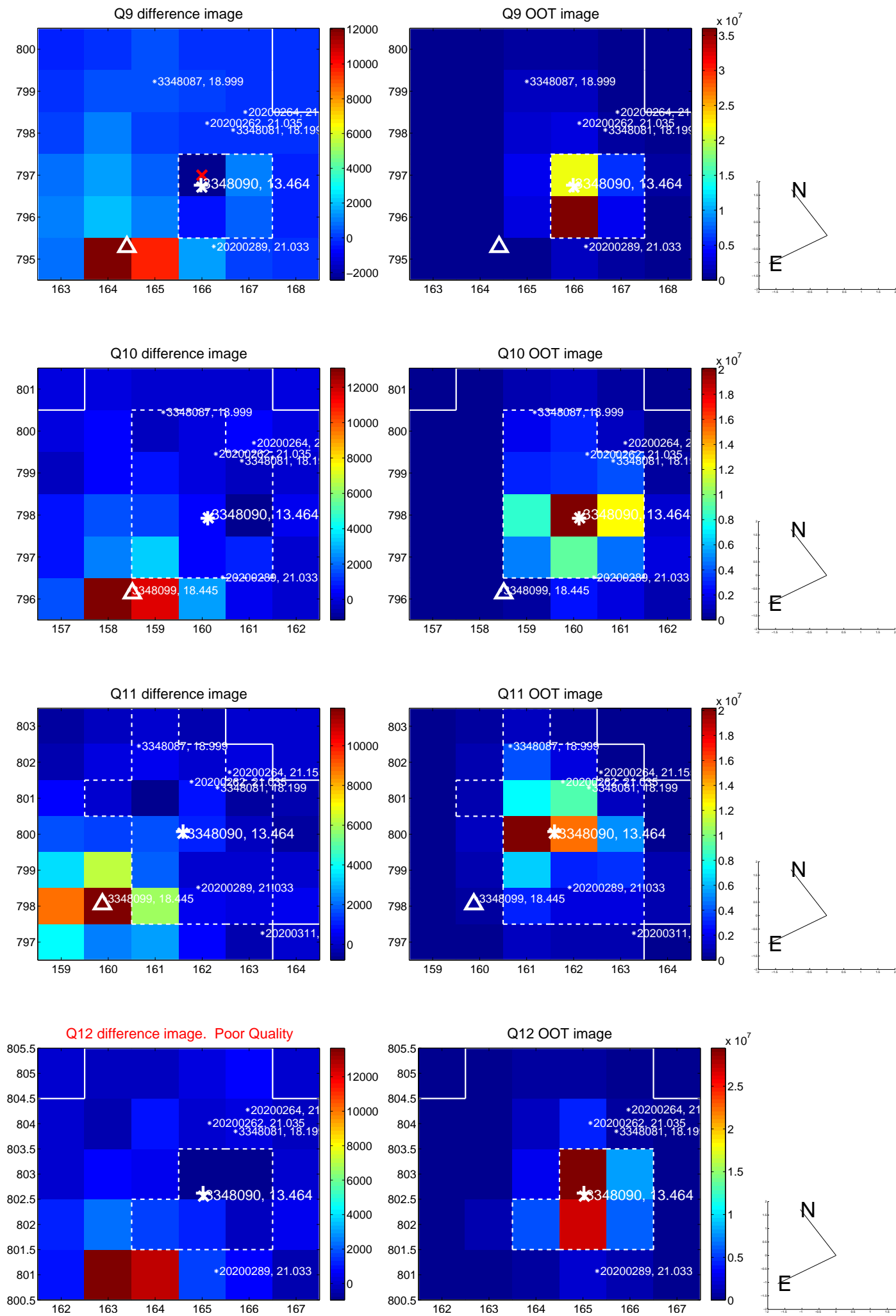
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



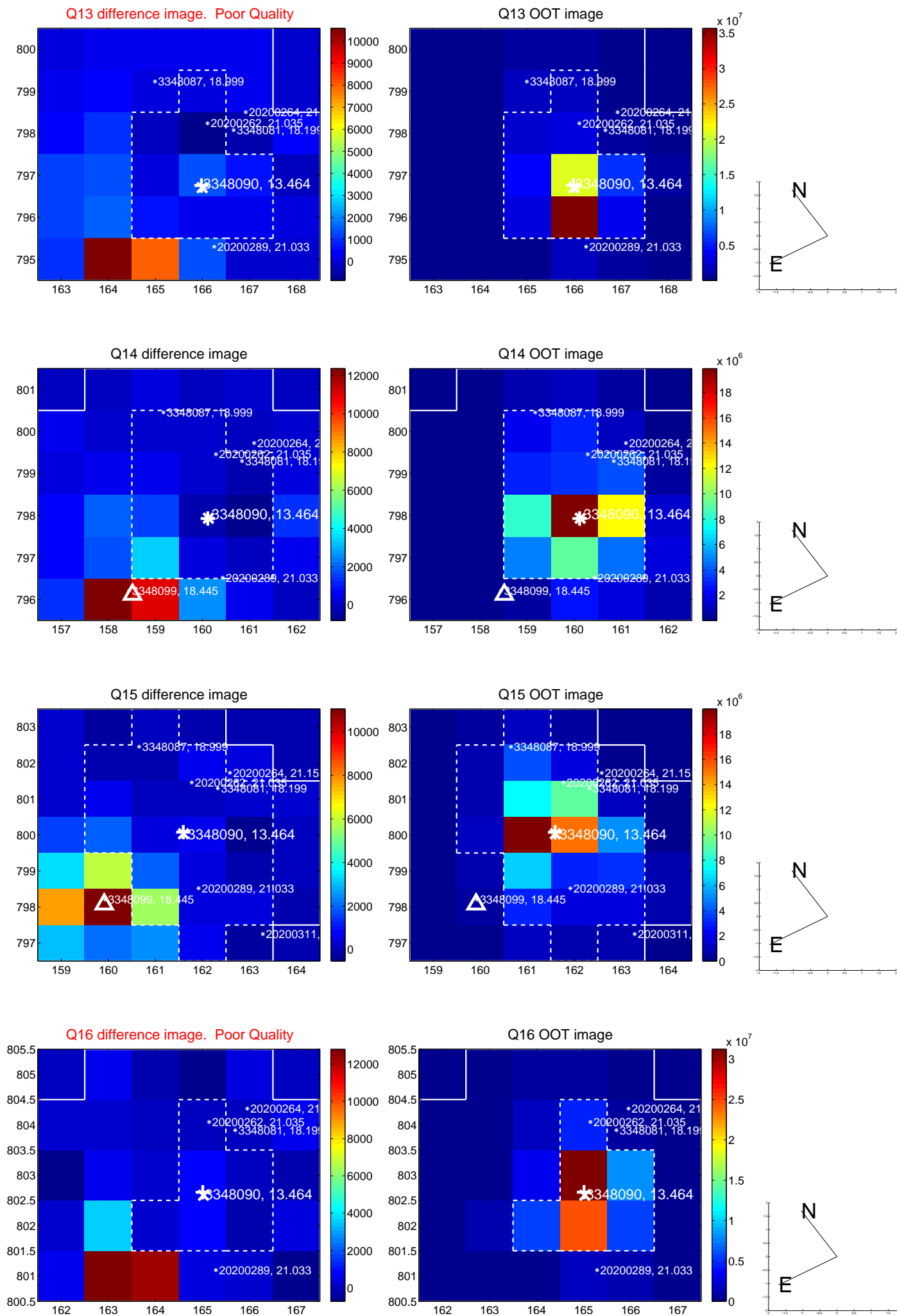
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



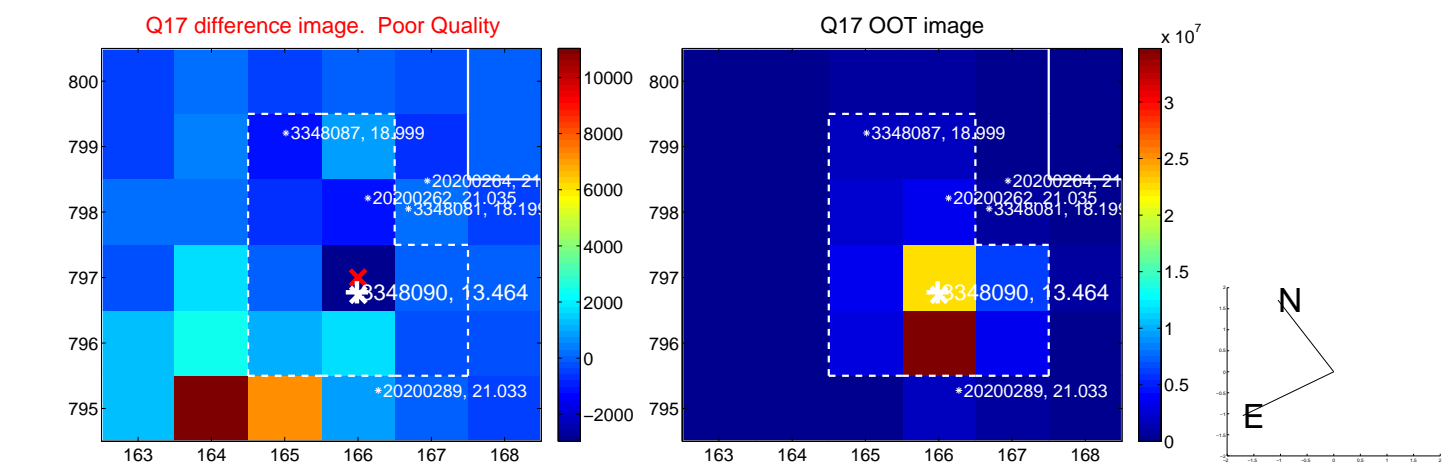
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



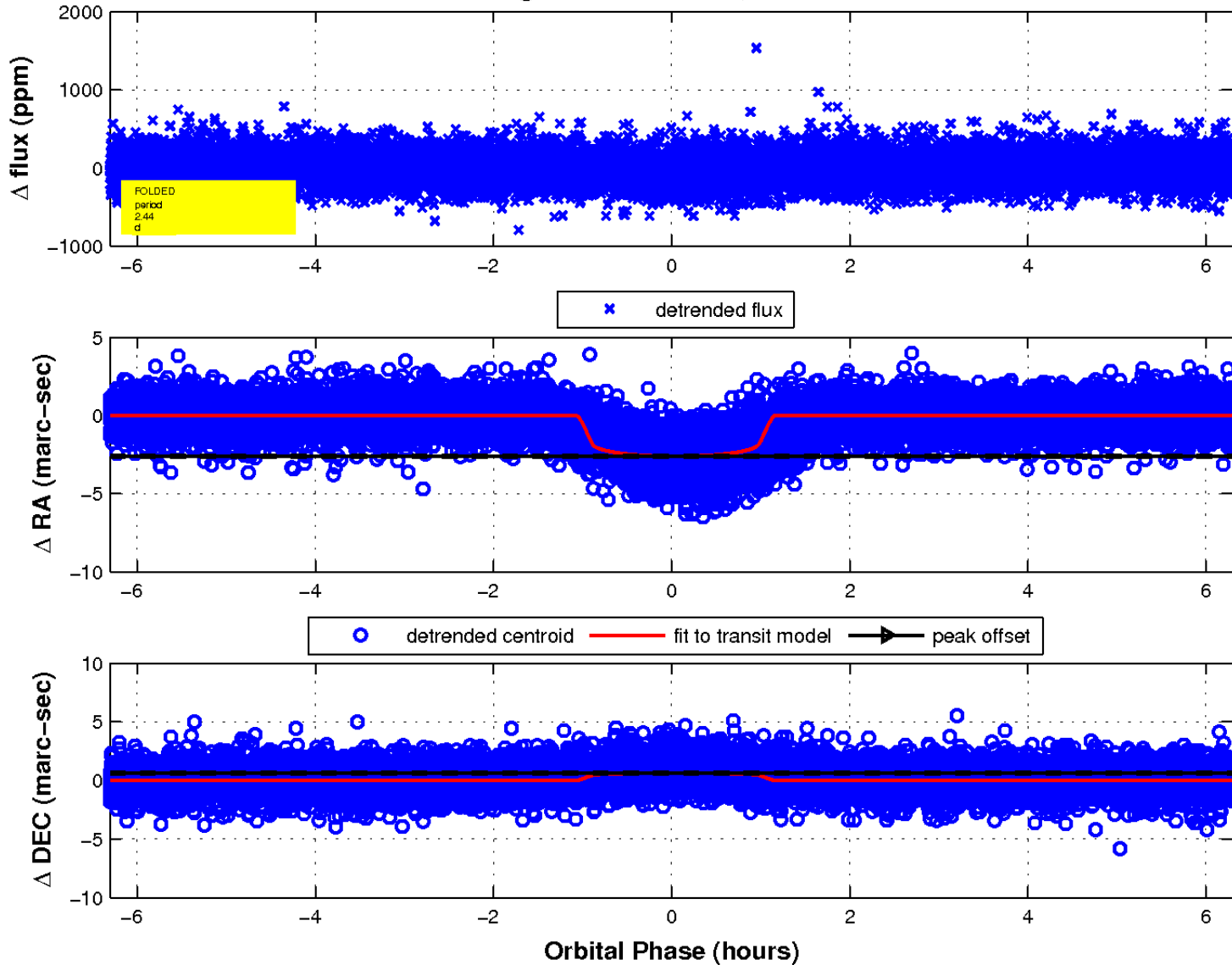
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

