

KIC 003659087

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})
003659087-01	OBS	No	0.965724	132.462595	59.2	11.589	7.5	8.3	1.37	6718	1.19	7437.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003659087-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

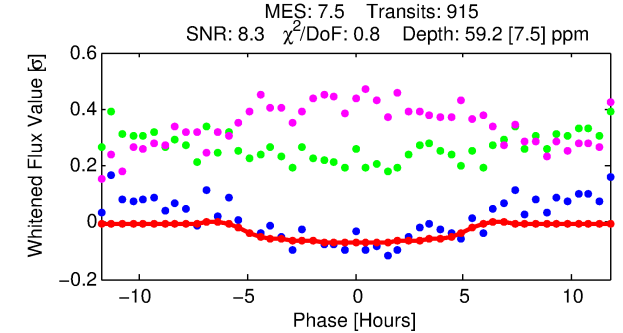
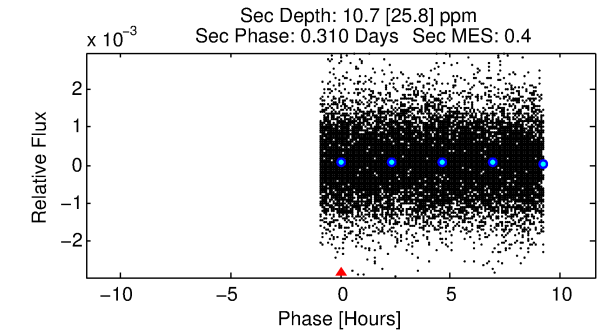
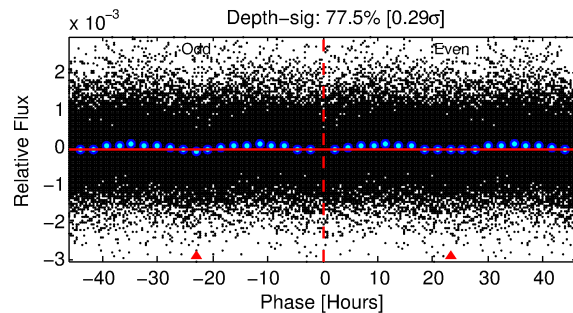
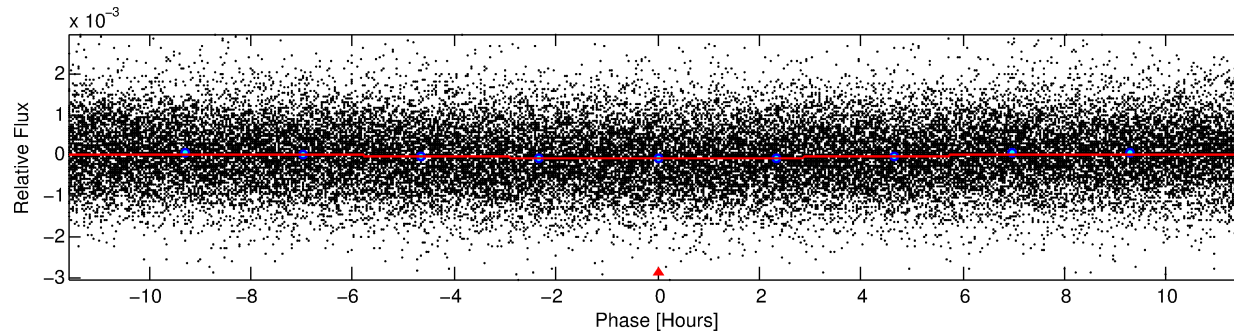
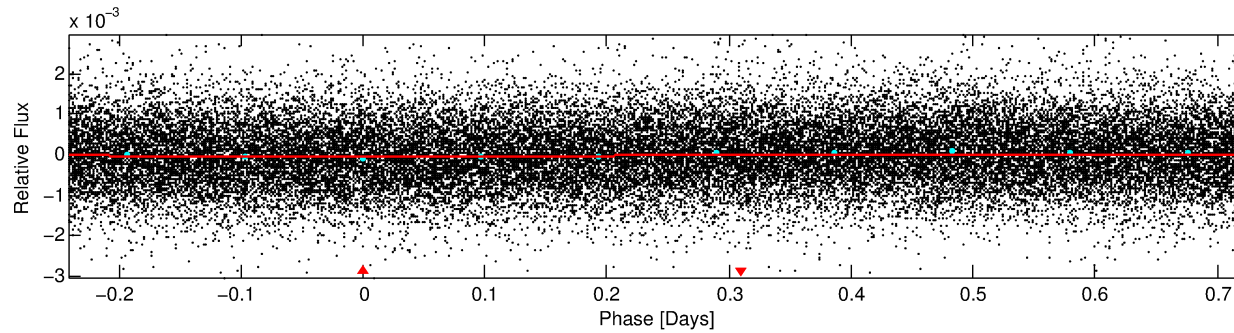
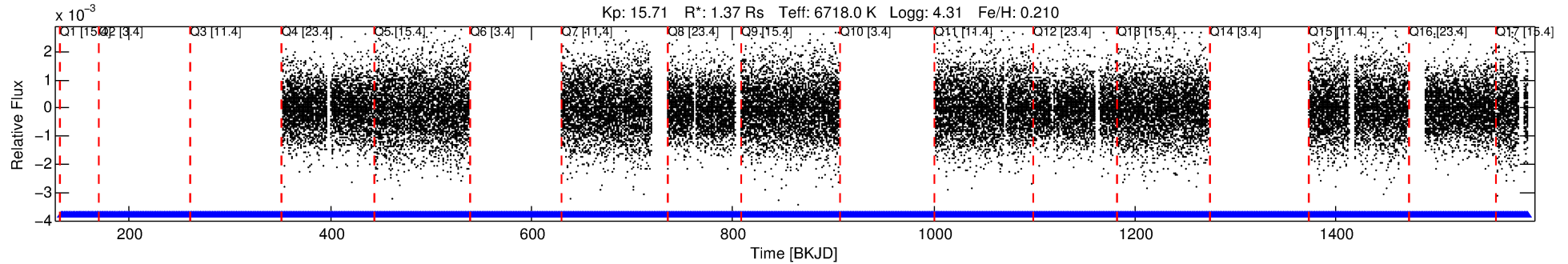
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003659087-01

No Significant Match Found

DV One-Page Summary

KIC: 3659087 Candidate: 1 of 1 Period: 0.966 d



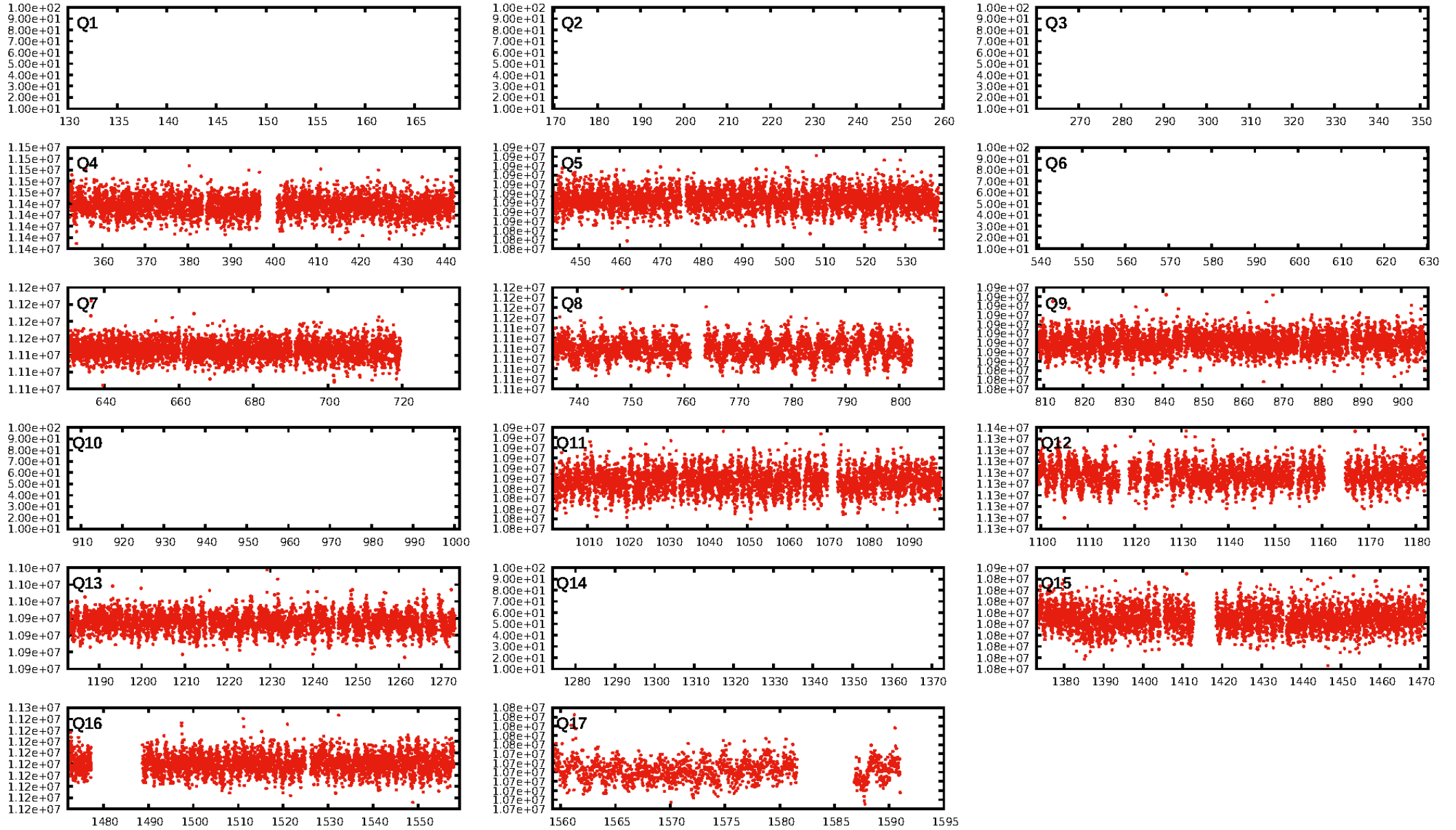
DV Fit Results:

Period = 0.96572 [0.00003] d
Epoch = 132.4626 [0.0189] BKJD
Rp/R* = 0.0080 [0.0017]
a/R* = 1.00 [0.01]
b = 0.86 [0.38]
Seff = 7437.74 [2904.08]
Teq = 2368 [231] K
Rp = 1.19 [0.44] Re
a = 0.0214 [0.0052] AU
Ag = 1.89 [4.69] [0.19σ]
Teffp = 4292 [2644] K [0.73σ]

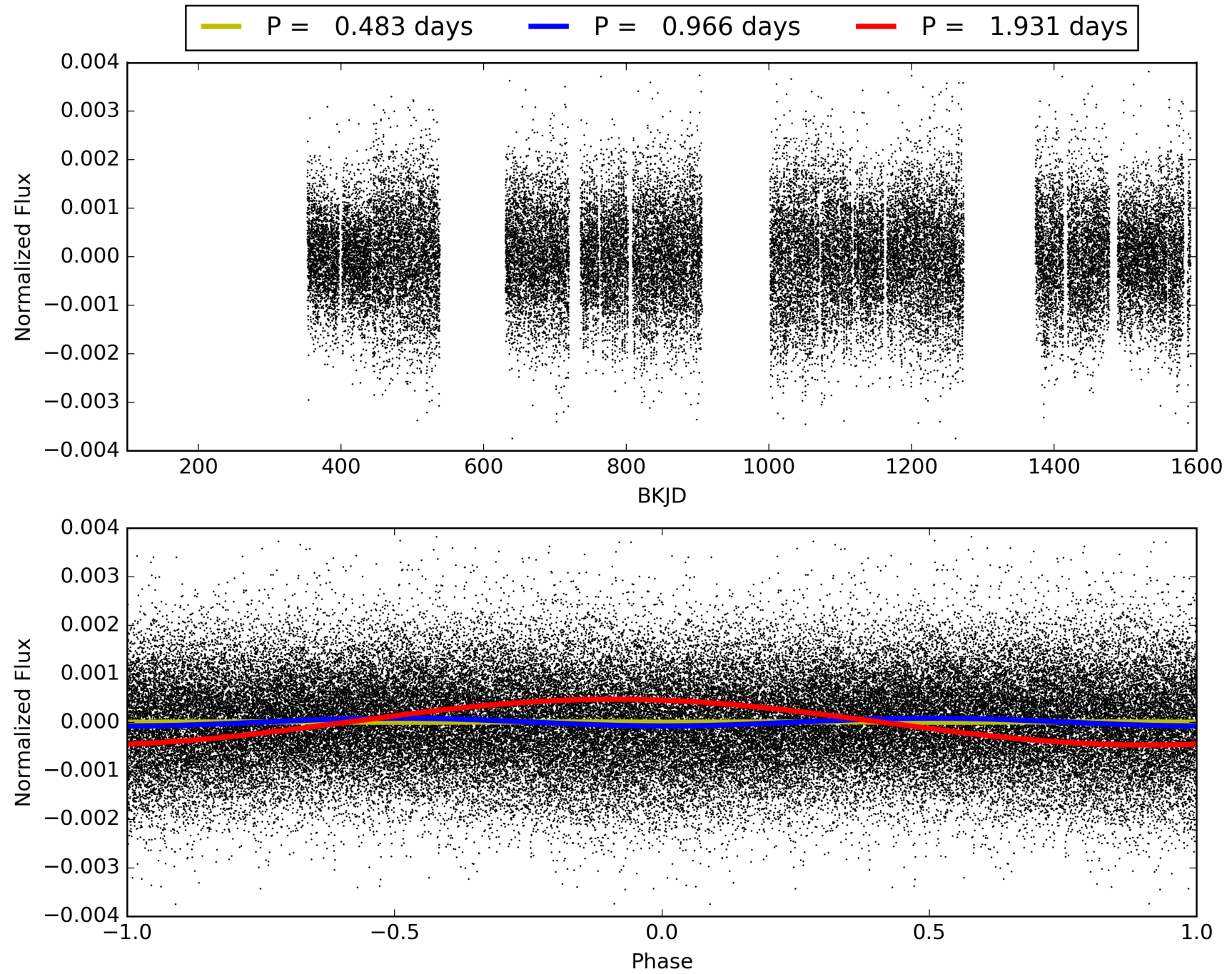
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [887/887]
GhostDiagnostic-chr: 1.569
Centroid-sig: 7.4%
Centroid-so: 3.110 arcsec [2.05σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [11/11]

TCE 003659087-01, PDC Light Curves

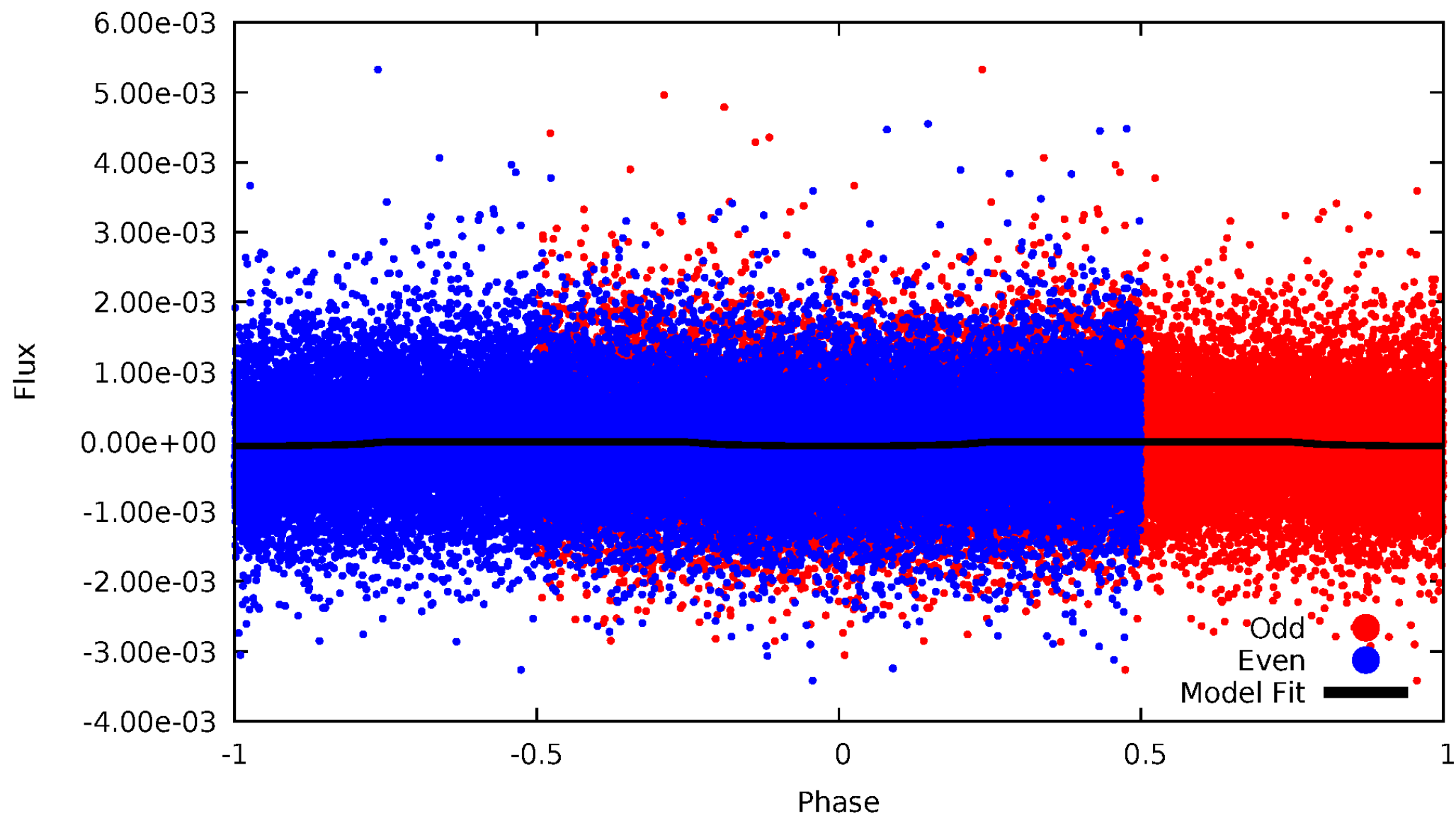


TCE 003659087-01



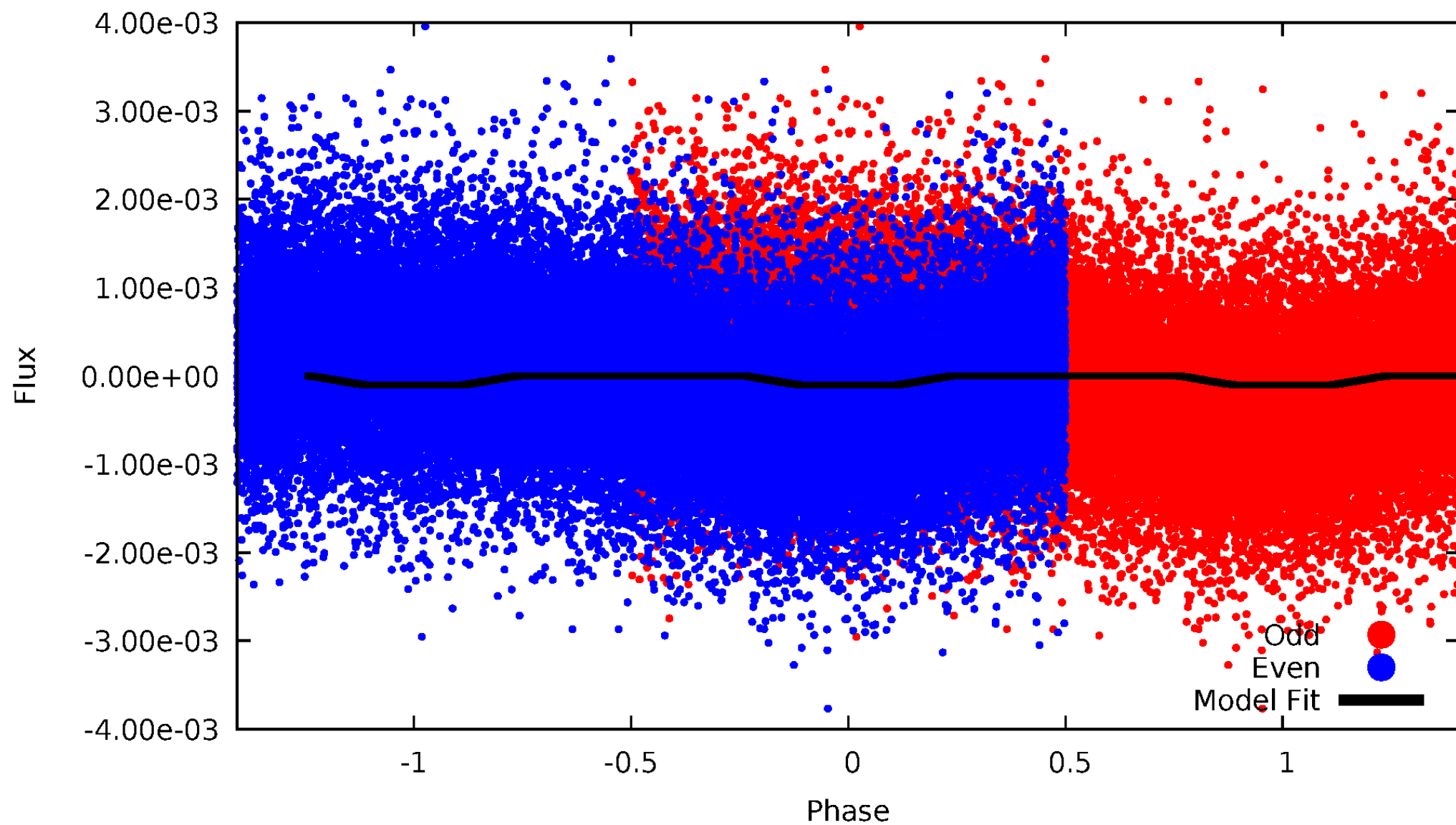
DV Odd/Even

TCE 003659087-01



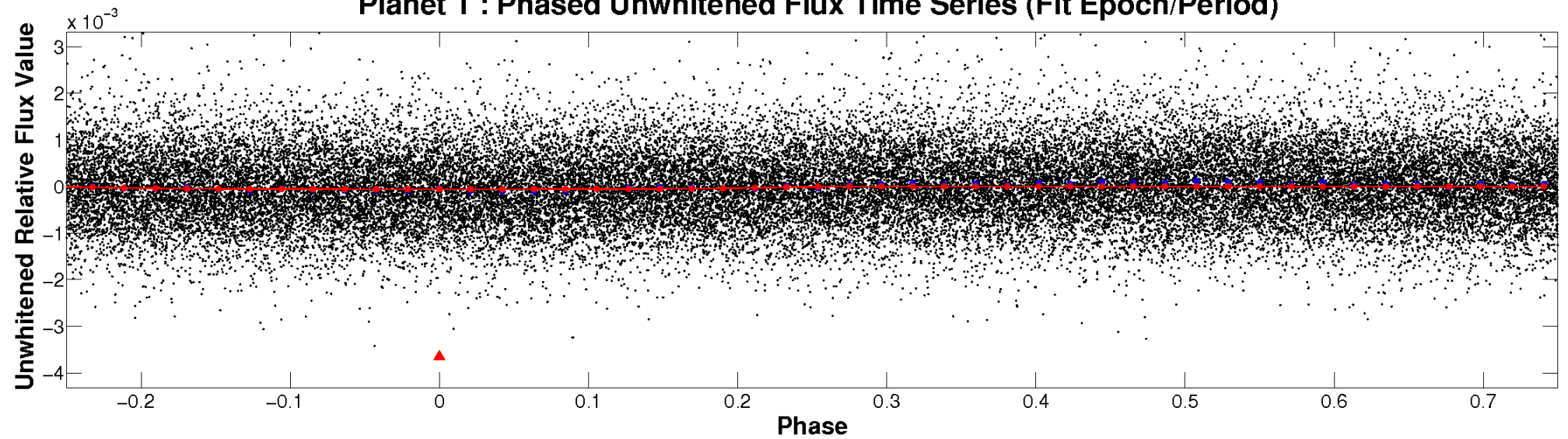
ALT Odd/Even

TCE 003659087-01

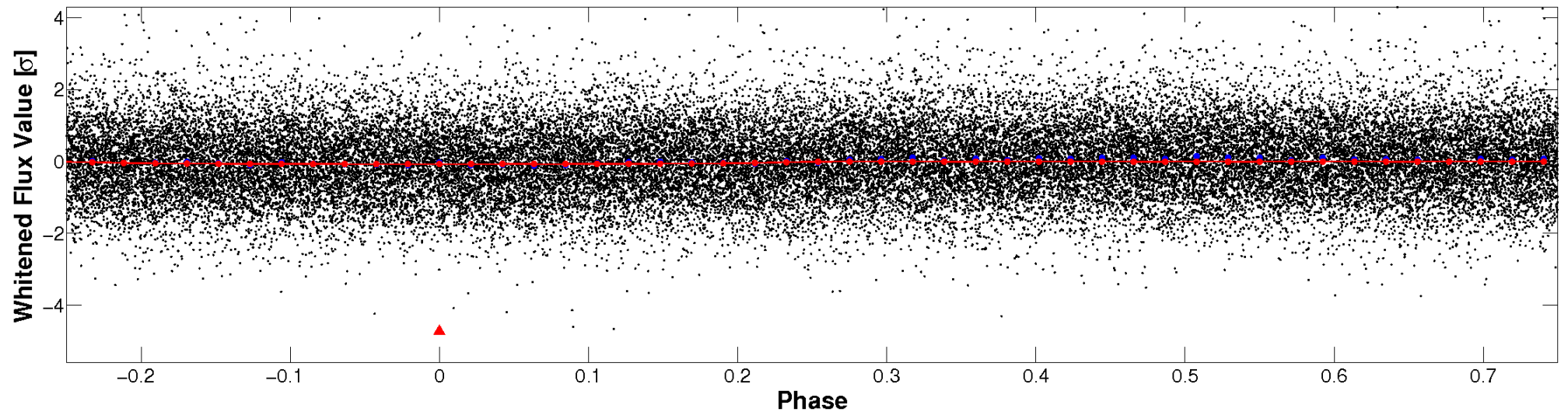


Non-Whitened Vs. Whitened Light Curve

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

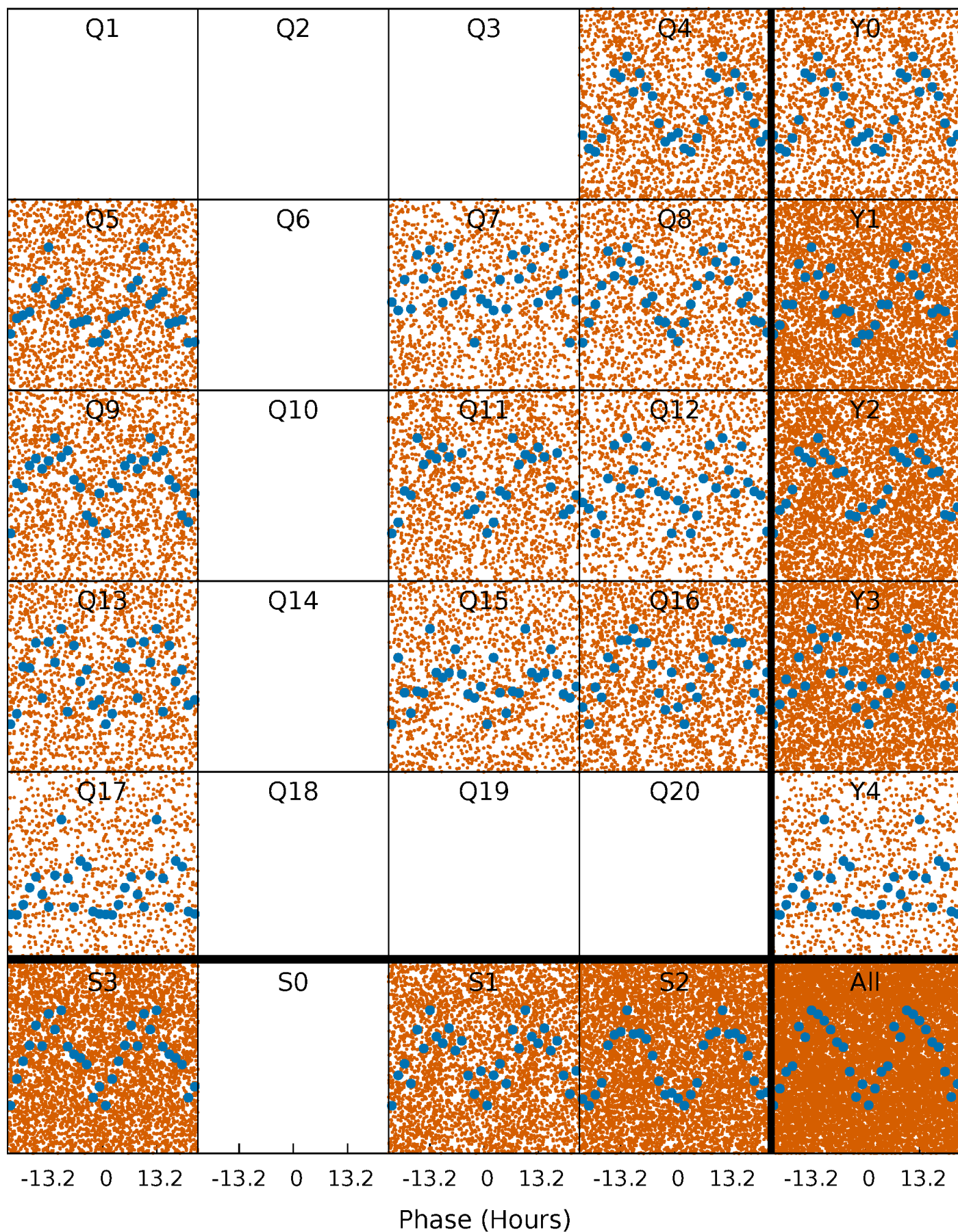


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



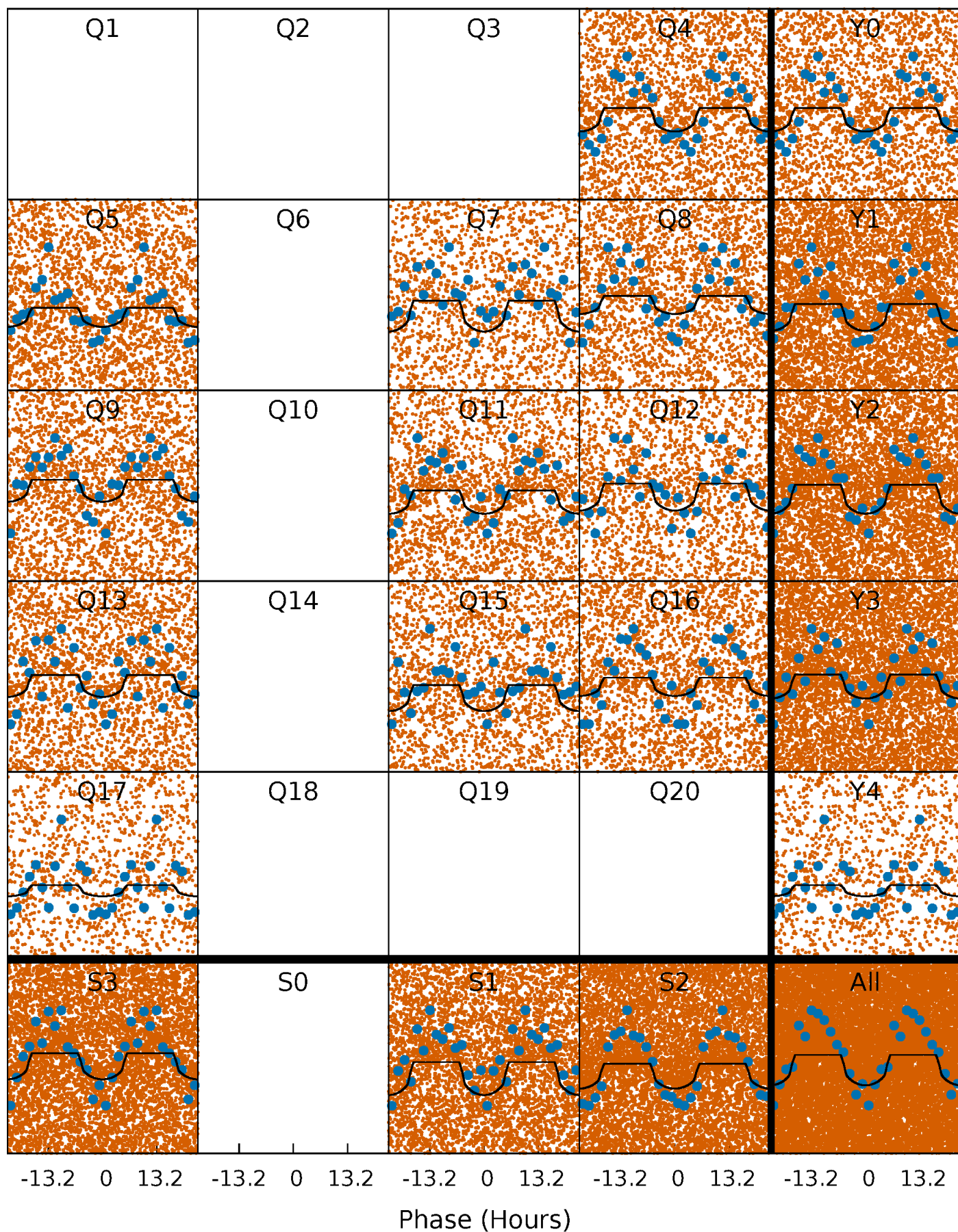
PDC Quarter-Phased Transit Curves

TCE 003659087-01 P= 0.965724 Days $T_0=132.462595$ (BKJD)



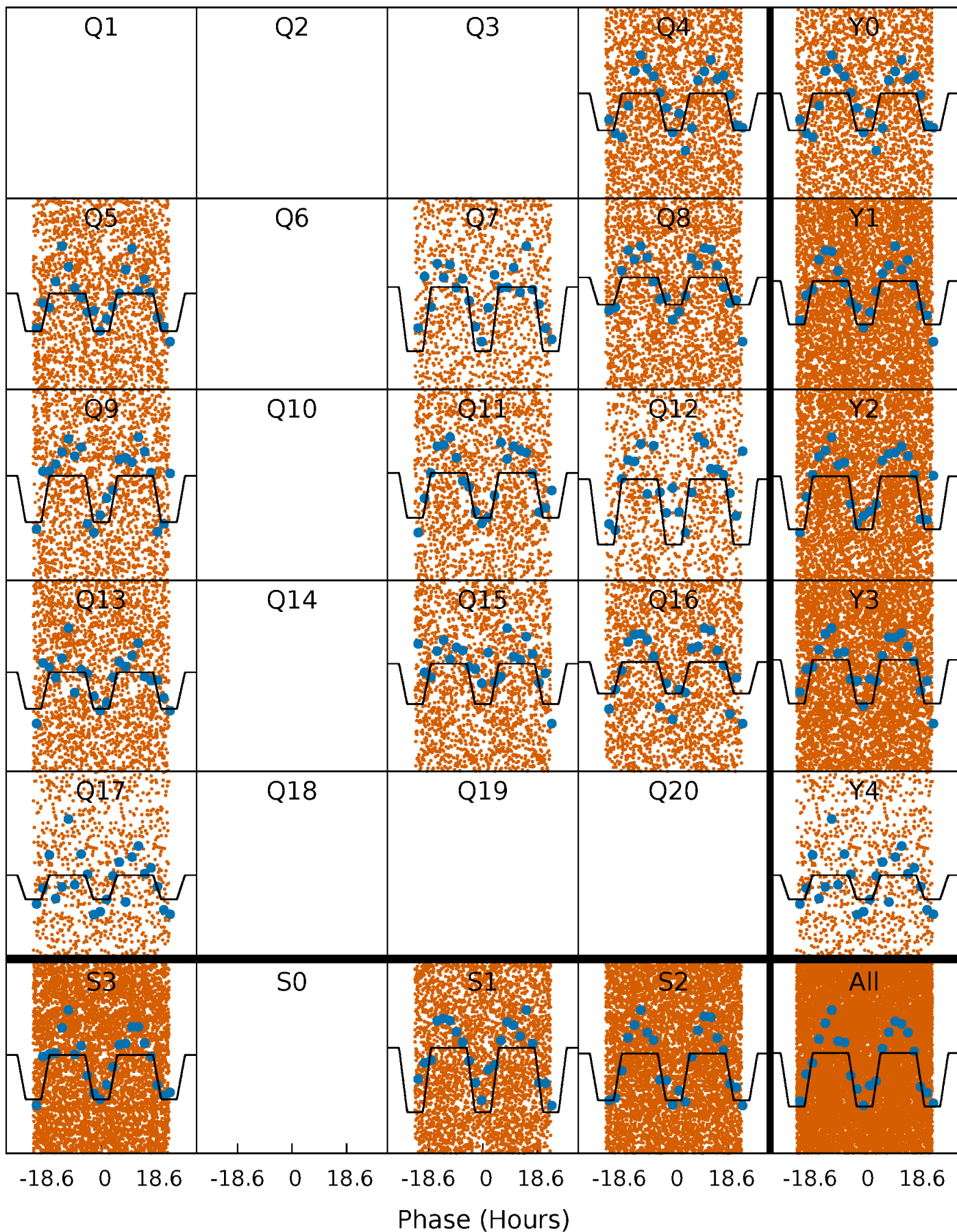
DV Quarter-Phased Transit Curves

TCE 003659087-01 P= 0.965724 Days $T_0=132.462595$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

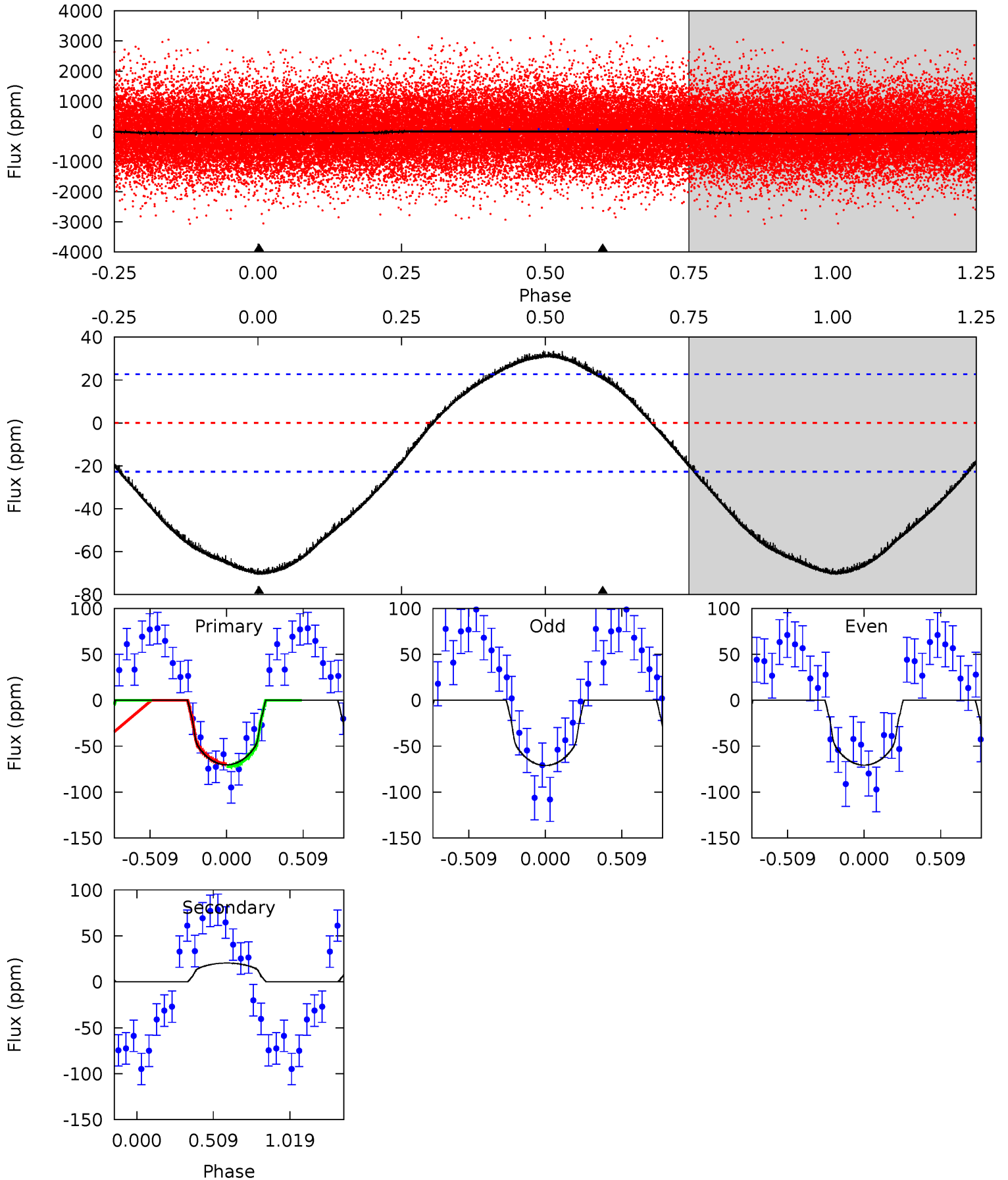
TCE 003659087-01 P= 0.965800 Days $T_0=132.408546$ (BKJD)



DV Model-Shift Uniqueness Test

003659087-01, P = 0.965724 Days, E = 132.462595 Days

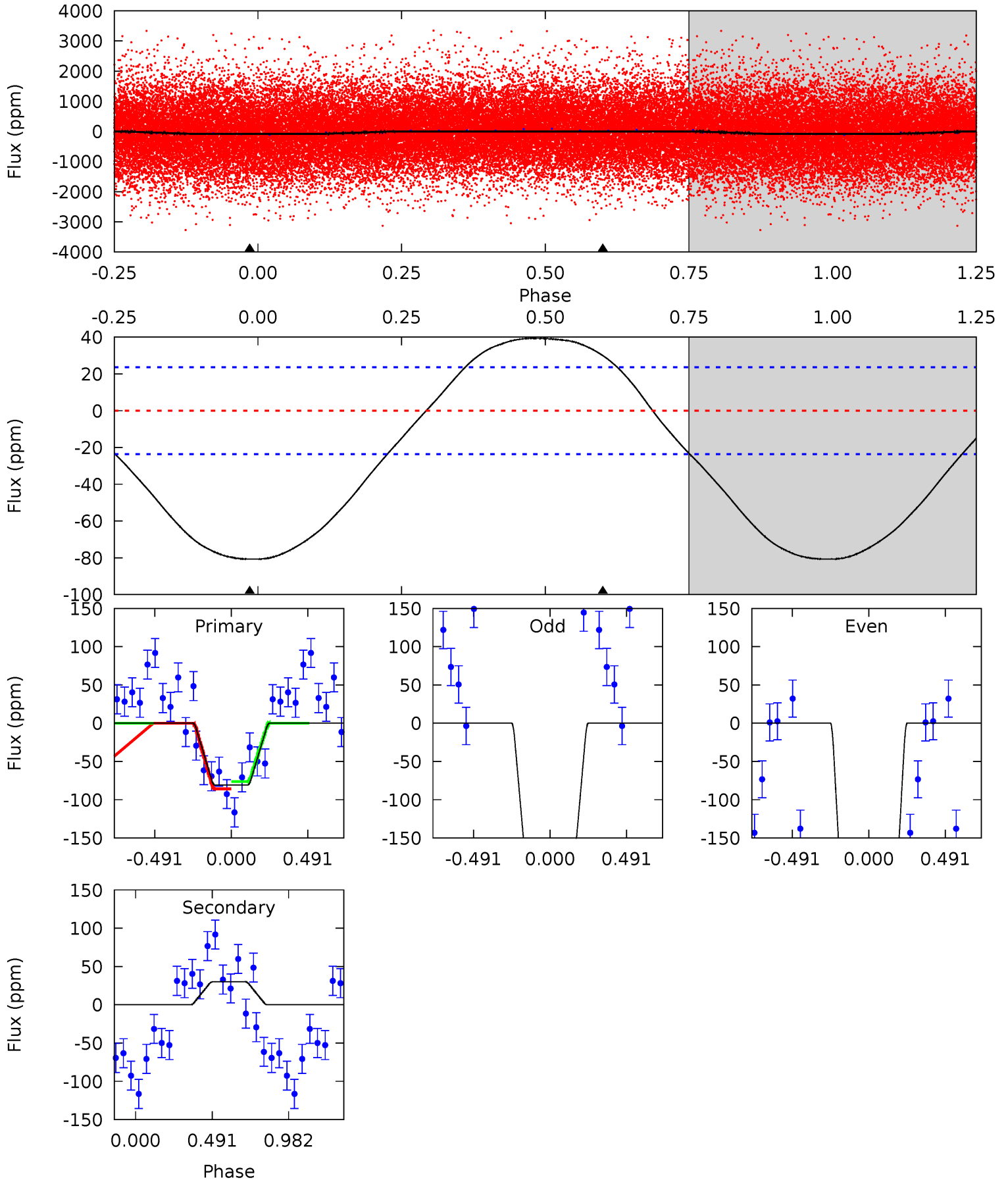
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	-3.79	0	0	4.21	0.66	1.66	13.0	13.0	-3.79	-3.79	0.04	1.07	0.32	0.29



Alt Model-Shift Uniqueness Test

003659087-01, P = 0.965800 Days, E = 132.408546 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	-5.35	0	0	4.22	0.69	1.86	14.4	14.4	-5.35	-5.35	15.1	1.21	0.33	0.83



Stellar Parameters For KIC 003659087

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6718^{+185}_{-291}	$4.314^{+0.062}_{-0.188}$	$0.210^{+0.150}_{-0.350}$	$1.368^{+0.406}_{-0.174}$	$1.407^{+0.169}_{-0.206}$	$0.774^{+0.254}_{-0.374}$
	+3%/-4%	+1%/-4%	+71%/-167%	+30%/-13%	+12%/-15%	+33%/-48%
Source	KIC0	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 003659087-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	20 ± 5	$1.23^{+0.34}_{-0.26}$	3363^{+259}_{-178}	-5158^{+454}_{-617}	$-3.255^{+1.422}_{-2.098}$
Alt.	30 ± 6	$1.53^{+0.34}_{-0.30}$	3359^{+215}_{-182}	-5131^{+383}_{-464}	$-3.098^{+1.053}_{-1.893}$

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 $A_{obs} \gg 1.0$

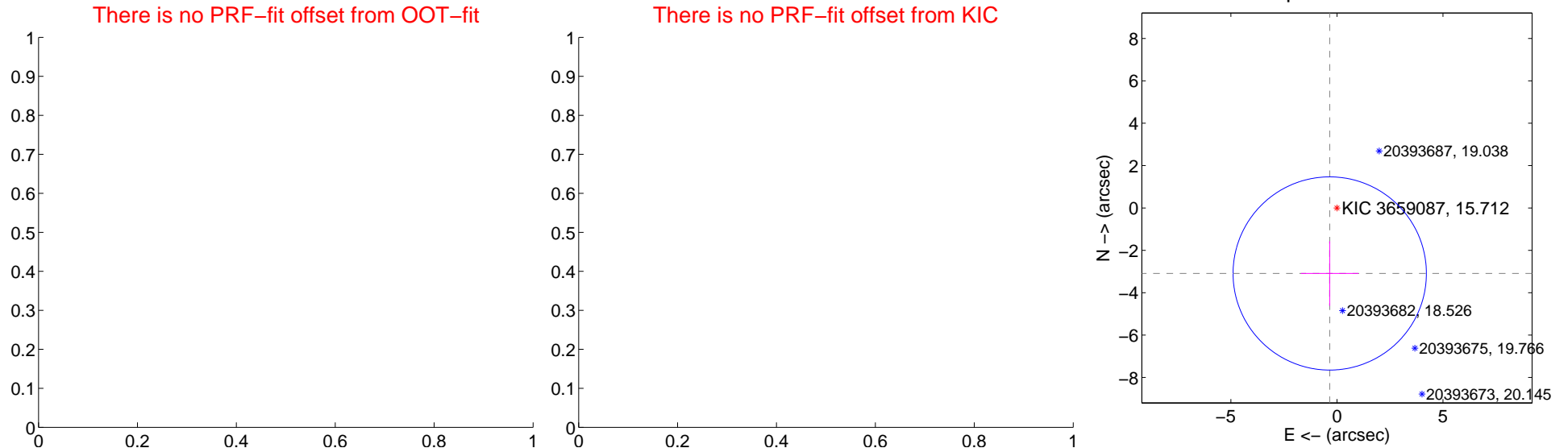
DV Centroid Data

Supplemental centroid analysis for 003659087-01. Kepler magnitude: 15.71. Transit SNR 8.34

There are 0 quarters with good PRF difference image offsets

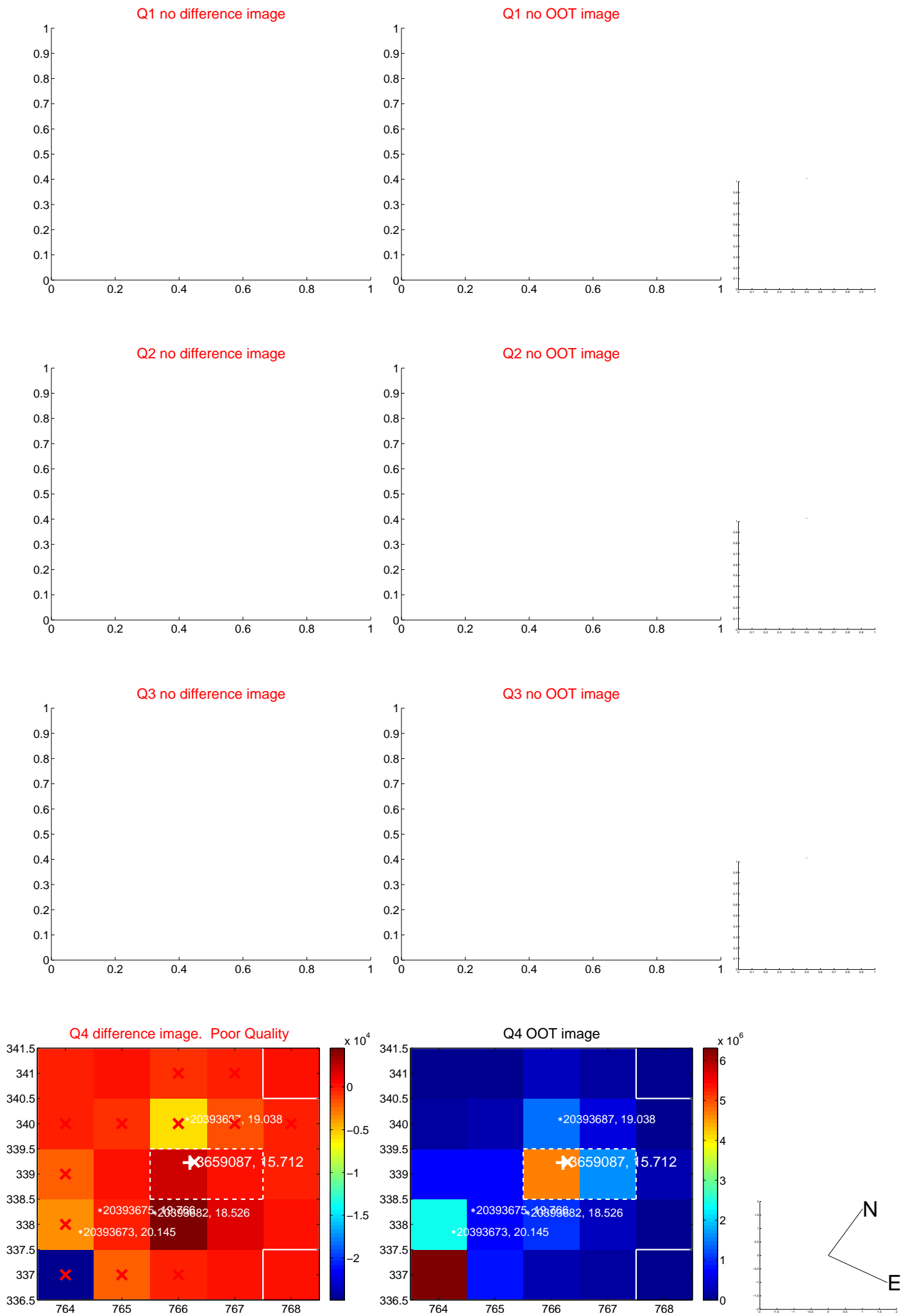
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	3.11 ± 1.52	2.05	0.34 ± 1.35	-3.09 ± 1.52

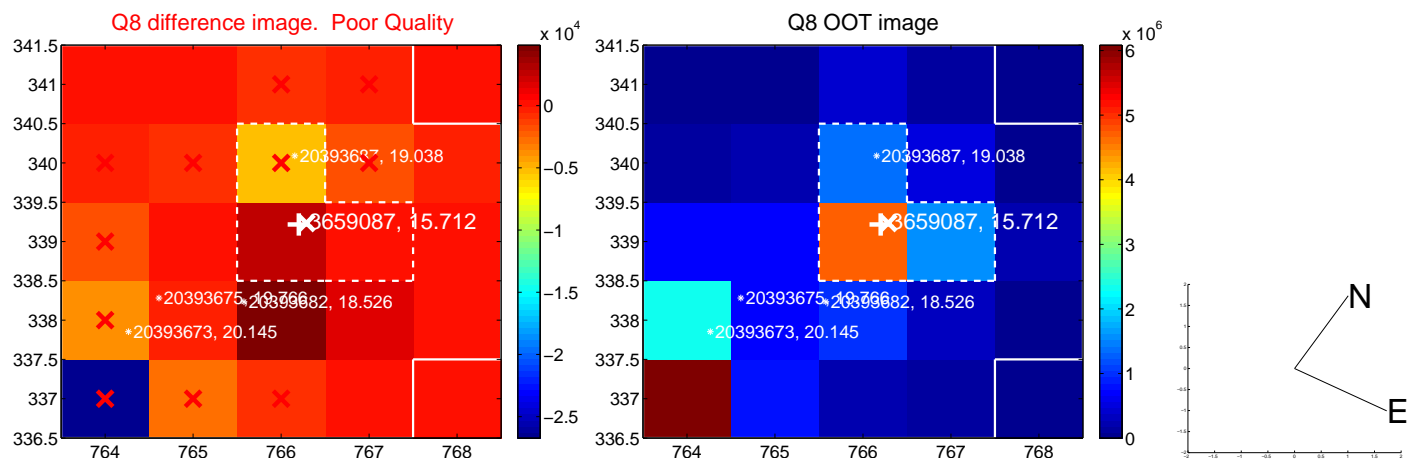
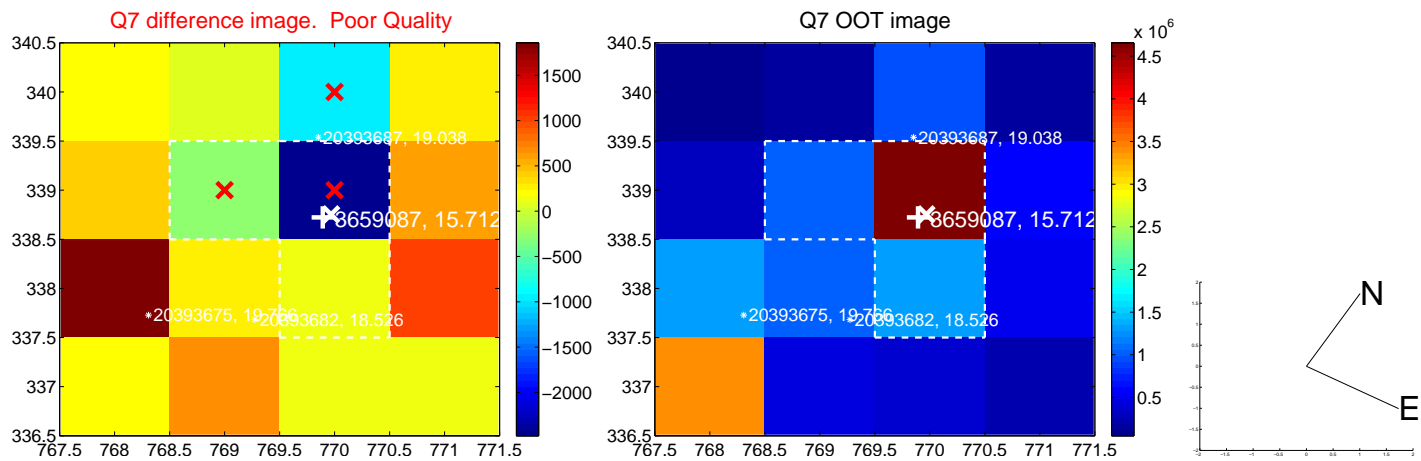
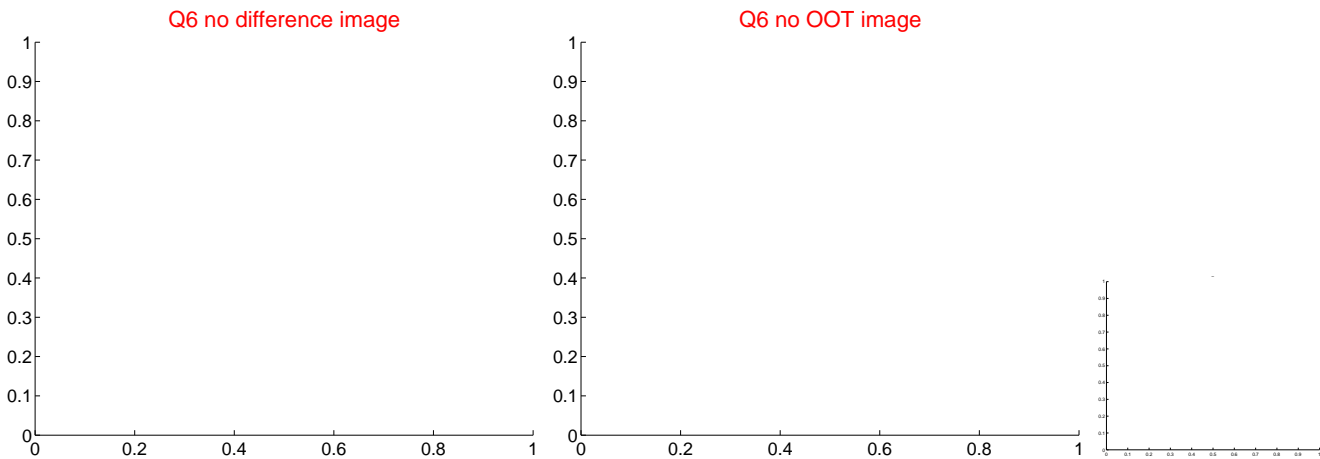
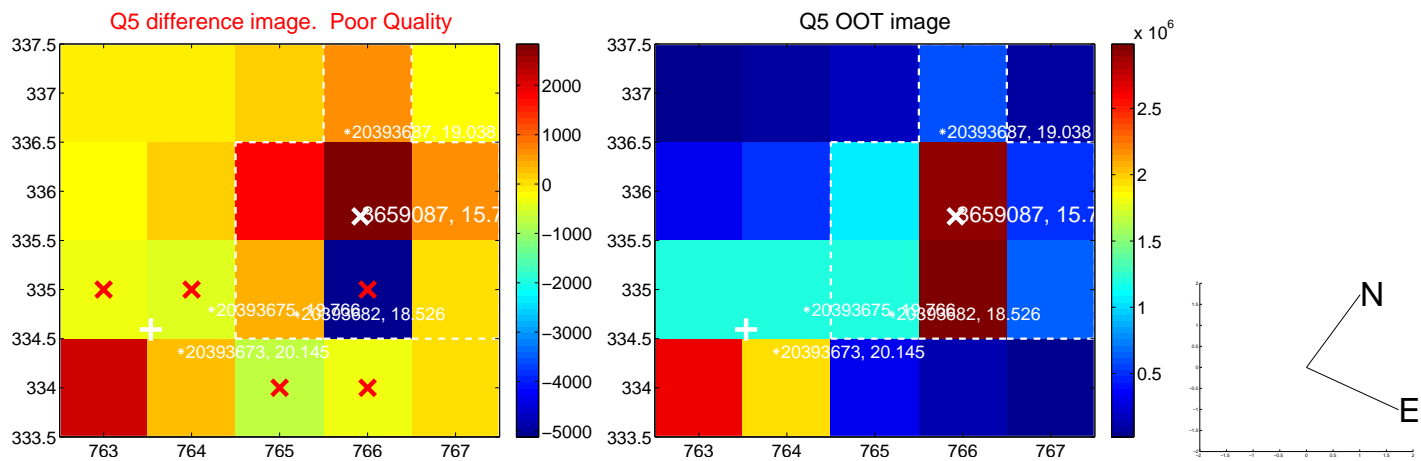


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

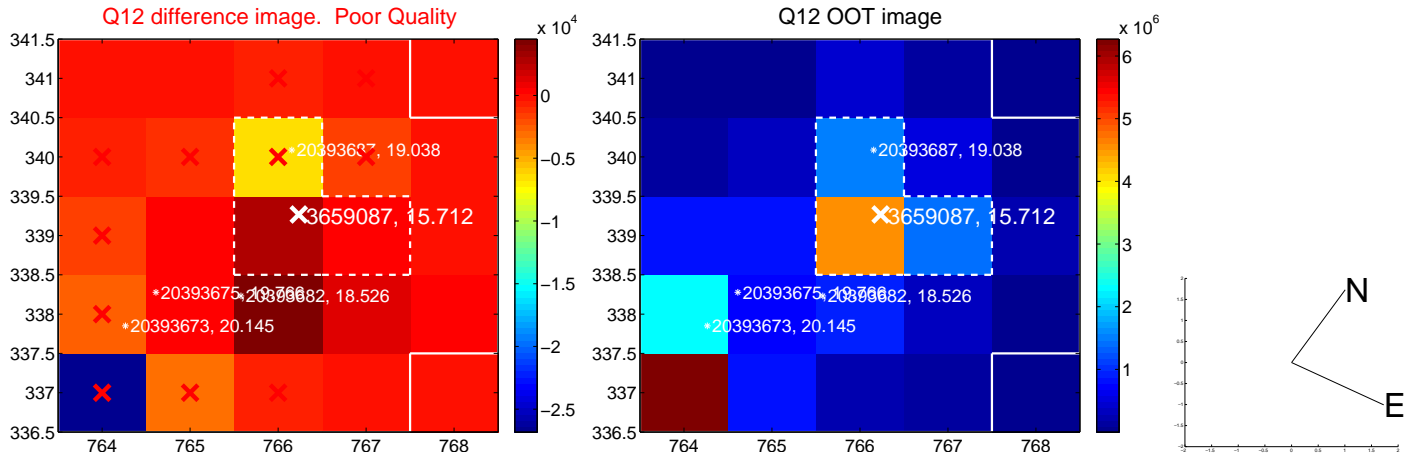
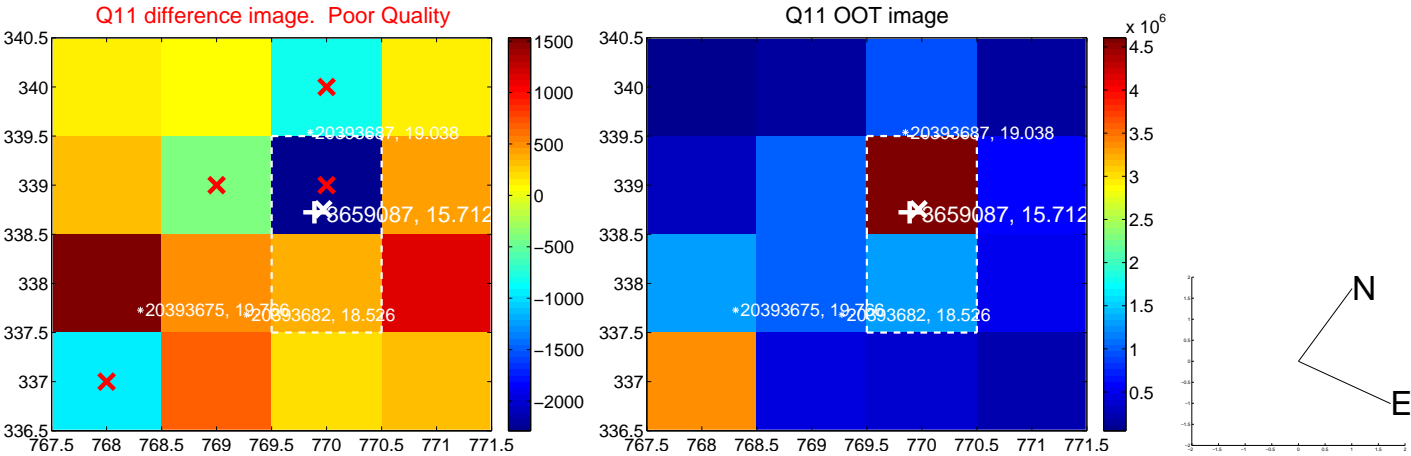
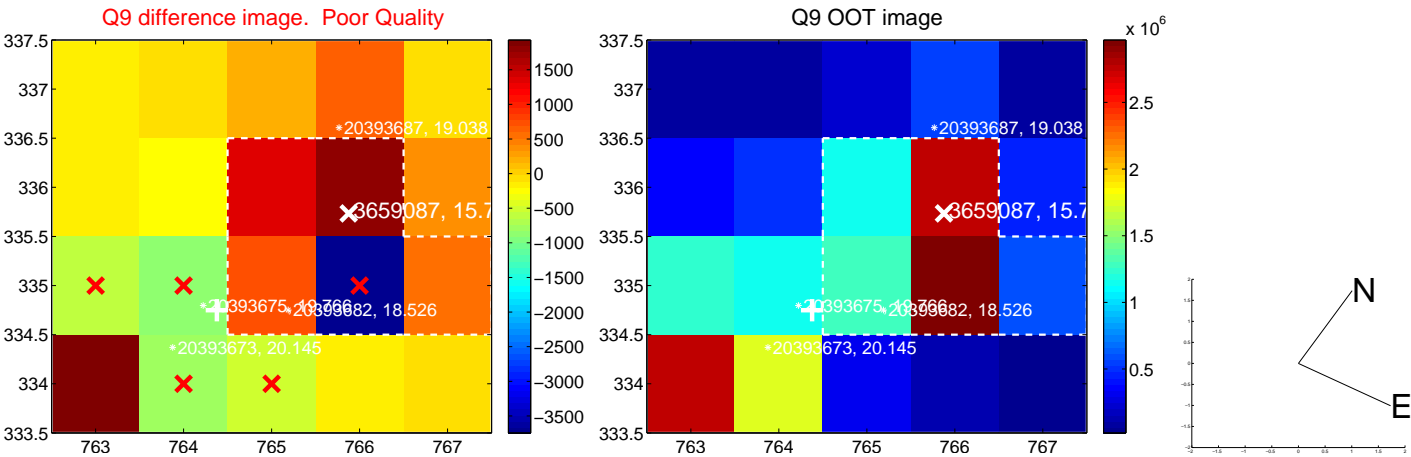
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



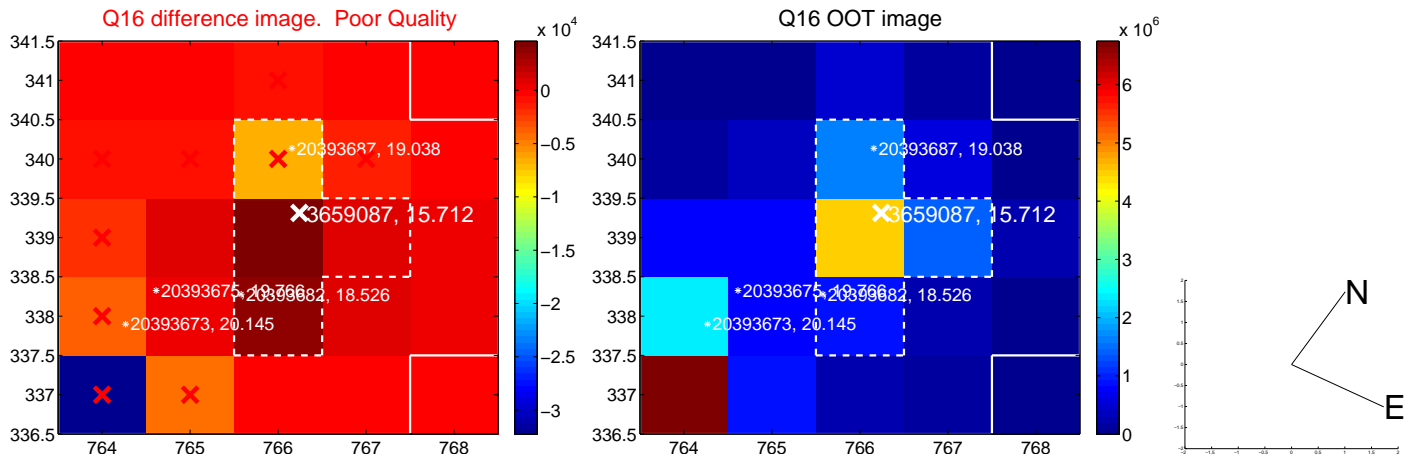
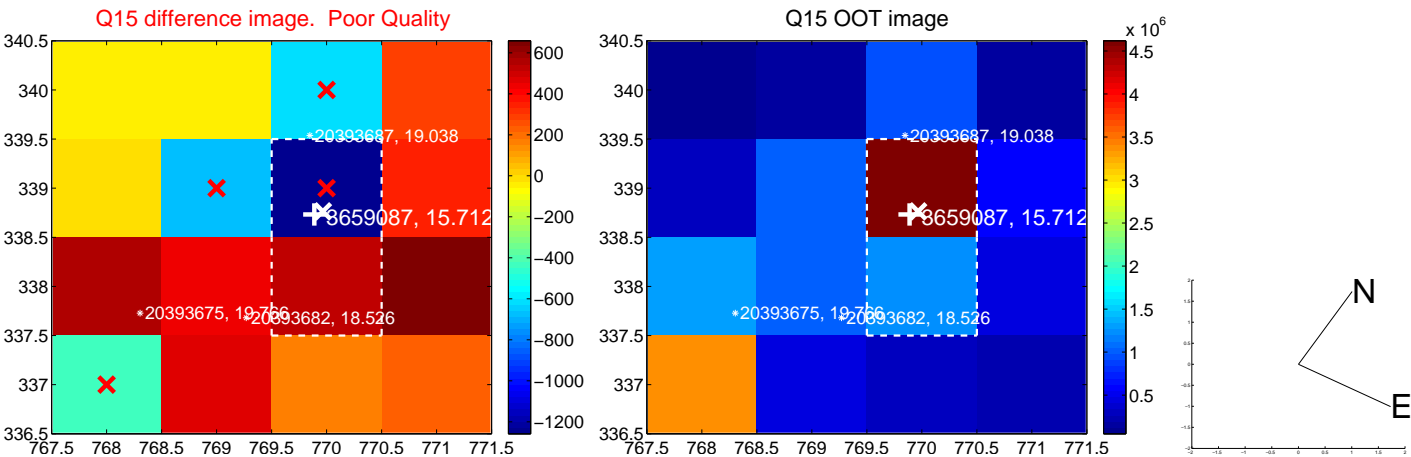
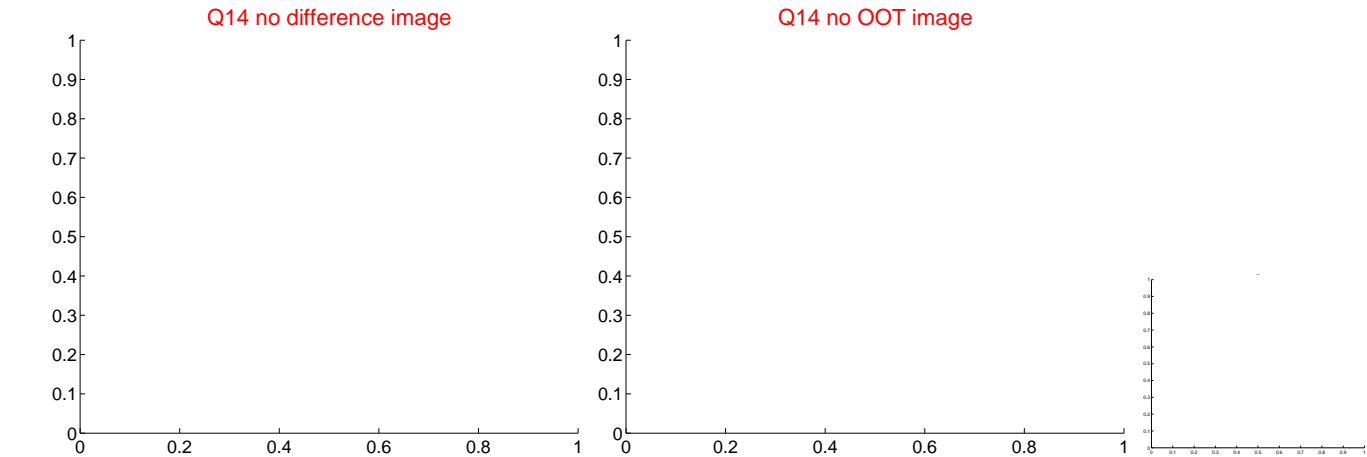
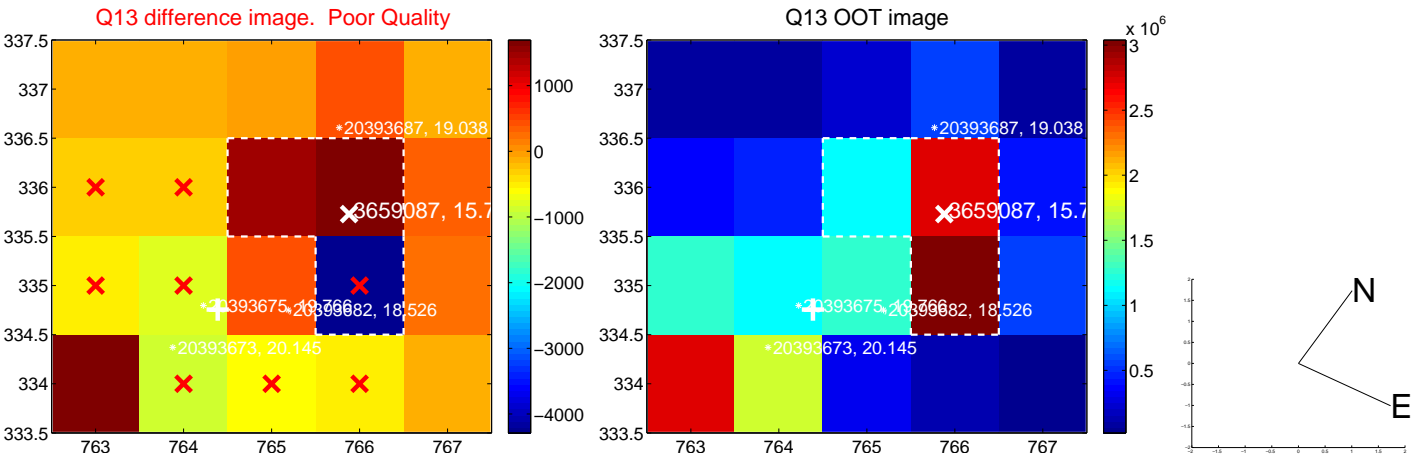
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



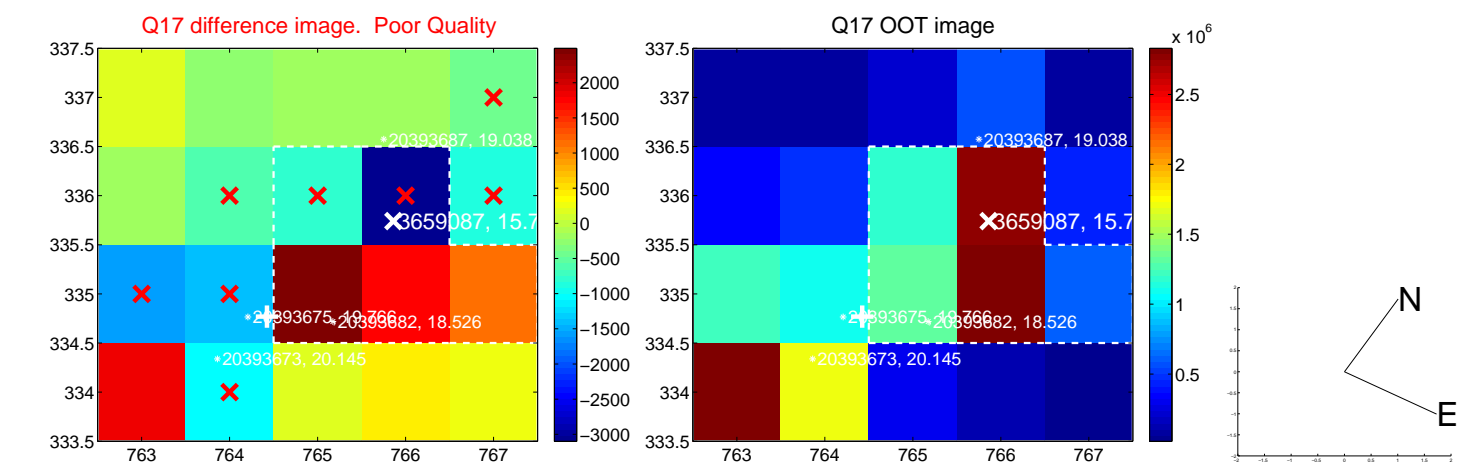
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



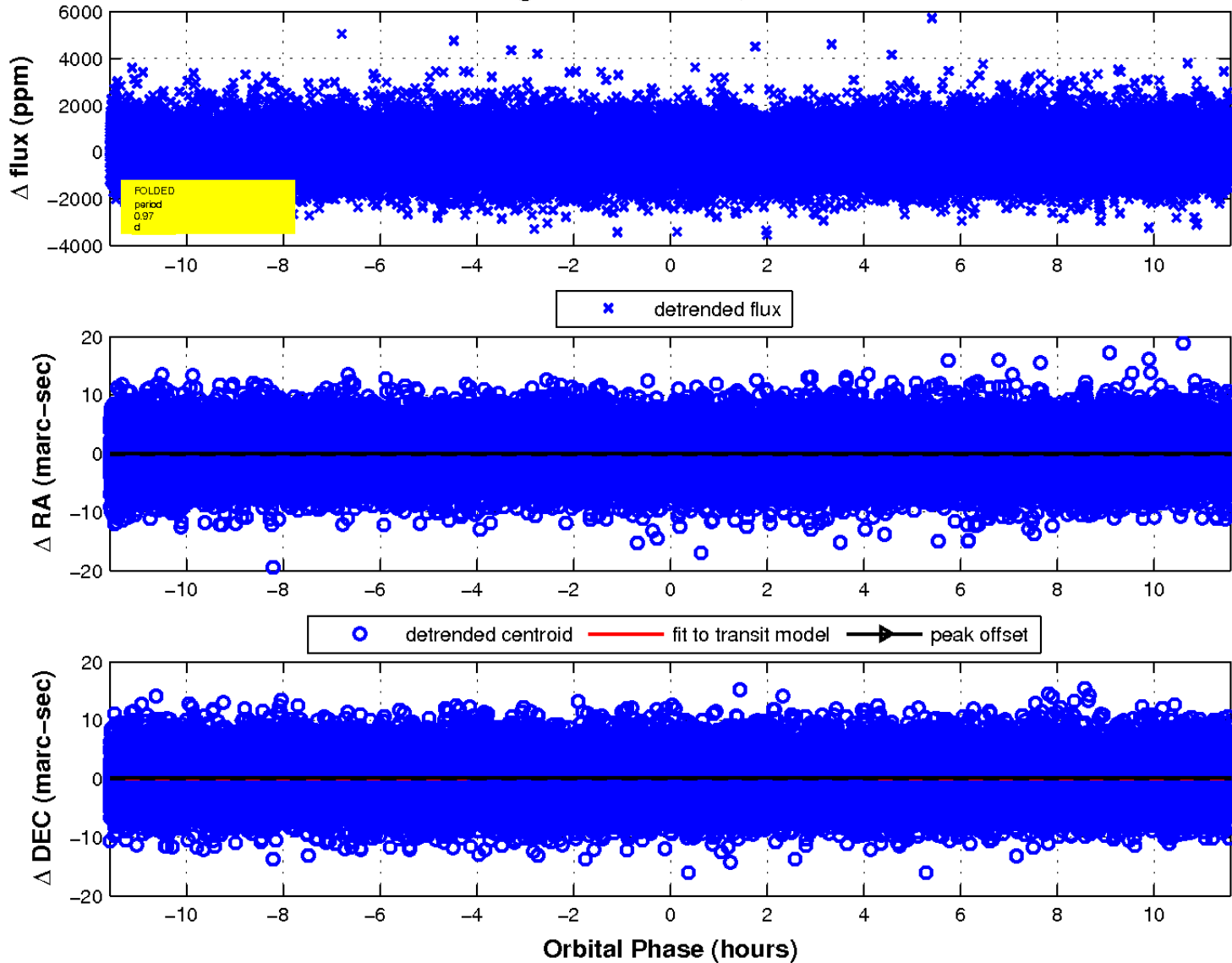
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

