

KIC 009763640

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})
009763640-01	OBS	No	0.712632	131.953701	274.4	8.552	180.5	6.3	0.70	5393	1.61	1823.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009763640-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

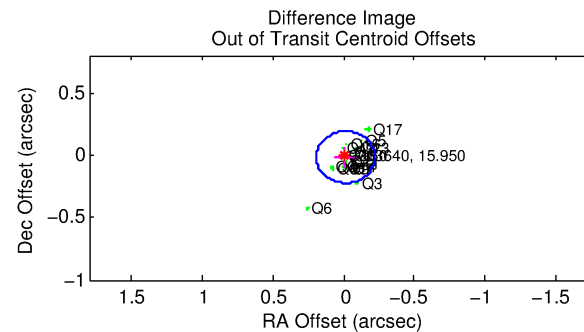
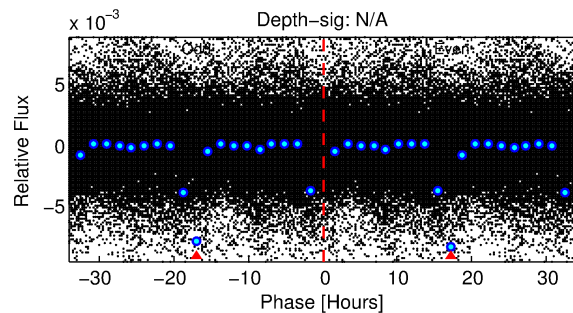
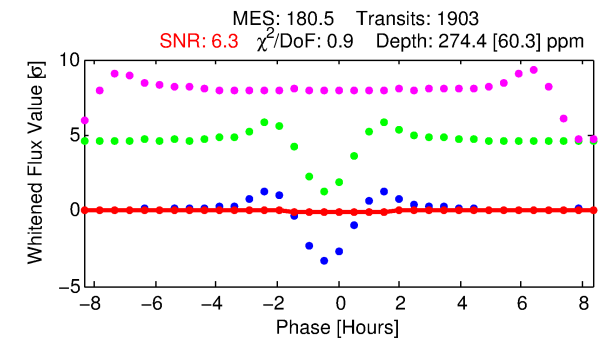
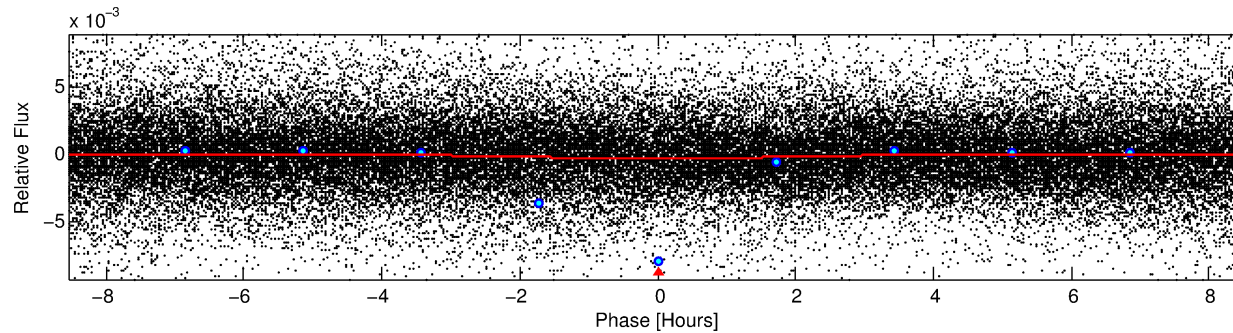
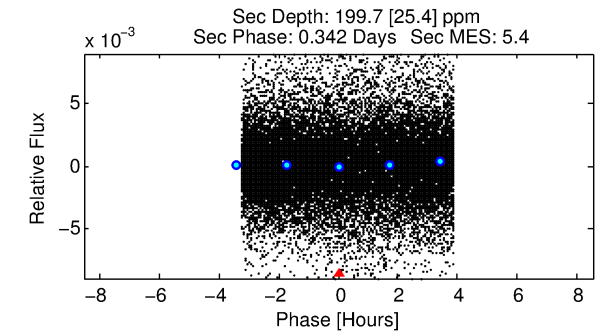
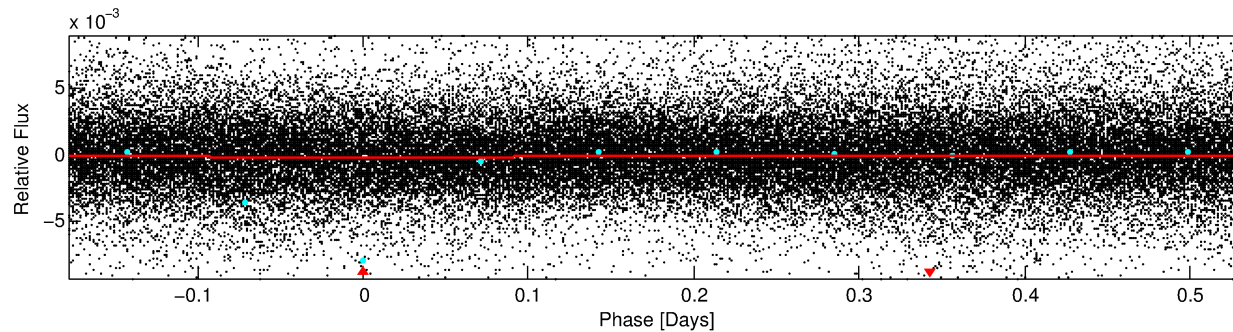
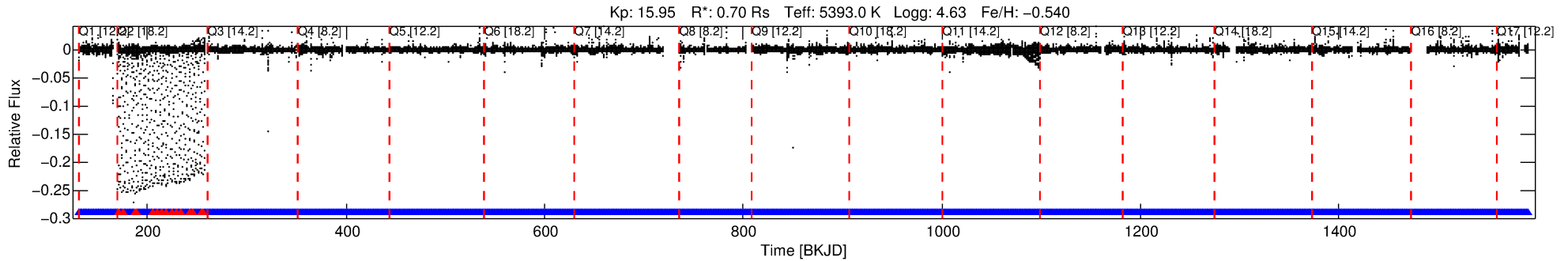
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009763640-01

No Significant Match Found

DV One-Page Summary

KIC: 9763640 Candidate: 1 of 1 Period: 0.713 d



DV Fit Results:

Period = 0.71263 [0.00002] d
Epoch = 131.9537 [0.0106] BKJD
Rp/R* = 0.0212 [0.0029]
a/R* = 1.01 [0.00]
b = 0.98 [0.01]
Seff = 1823.06 [387.82]
Teff = 1666 [89] K
Rp = 1.61 [0.34] Re
a = 0.0142 [0.0018] AU
Ag = 8.58 [3.00] [2.52σ]
Teffp = 4408 [359] K [7.41σ]

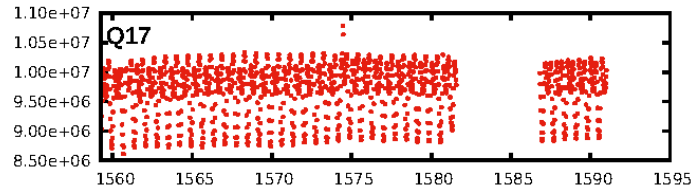
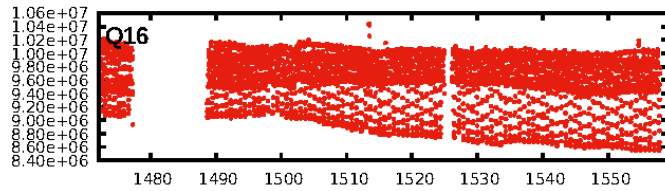
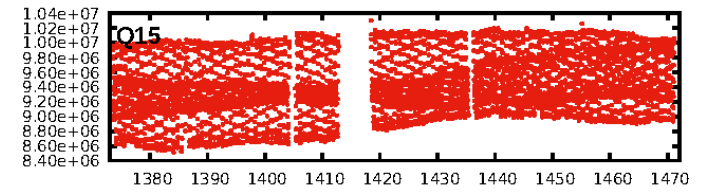
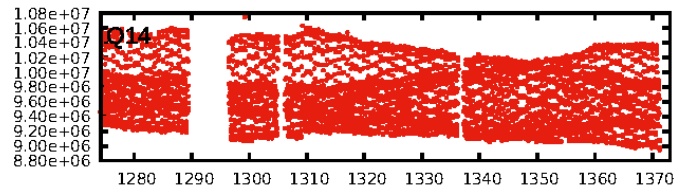
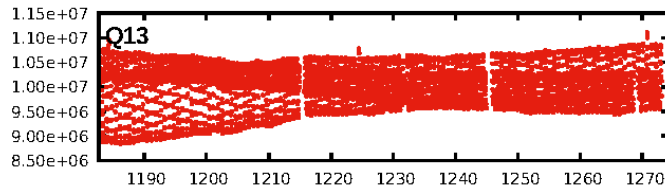
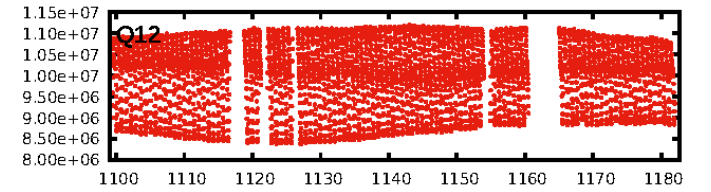
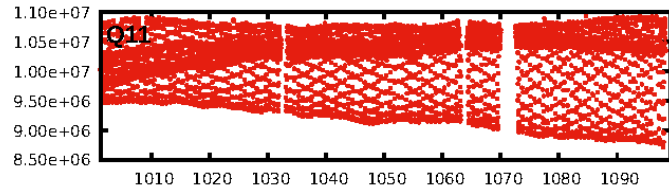
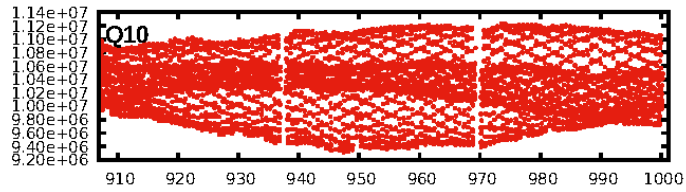
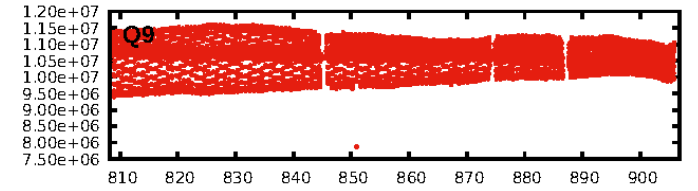
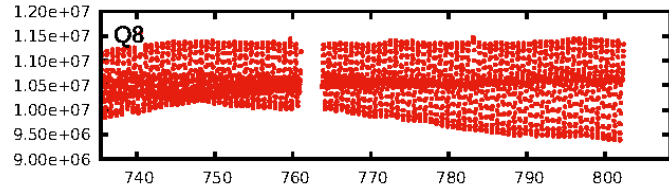
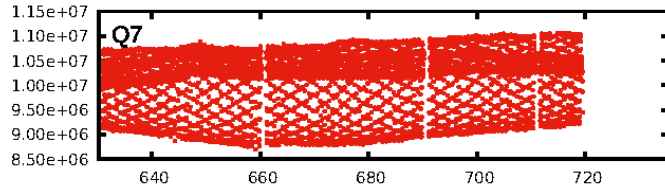
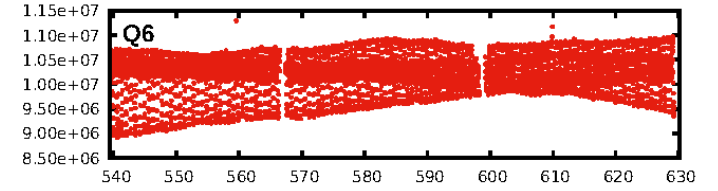
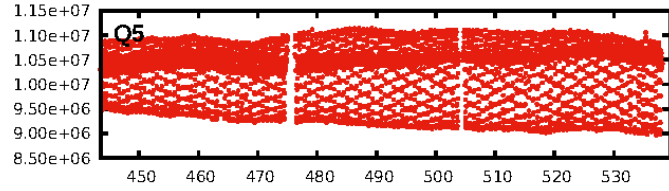
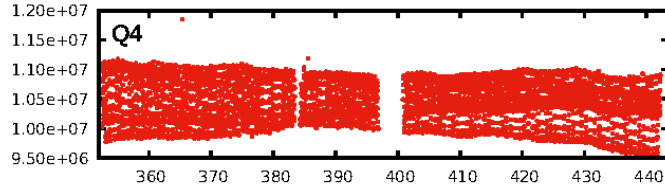
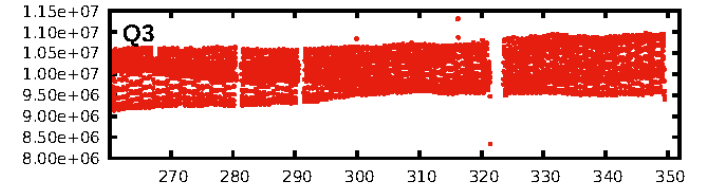
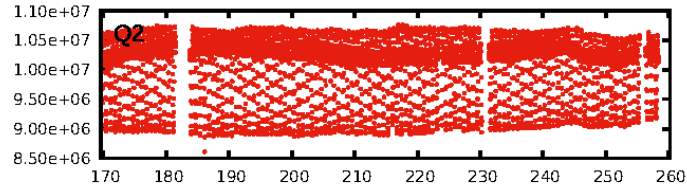
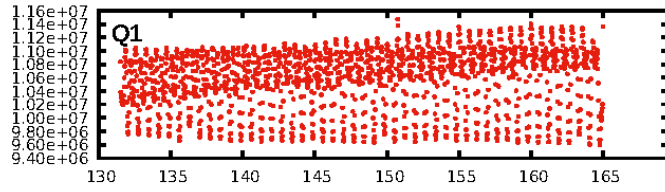
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1802/1818]
GhostDiagnostic-chr: 0.5182
Centroid-sig: 0.3%
Centroid-so: 0.351 arcsec [1.23σ]
OotOffset-rm: 0.020 arcsec [0.29σ]
KicOffset-rm: 0.197 arcsec [2.77σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.41 [7/17]
DiffImageOverlap-fno: 1.00 [17/17]

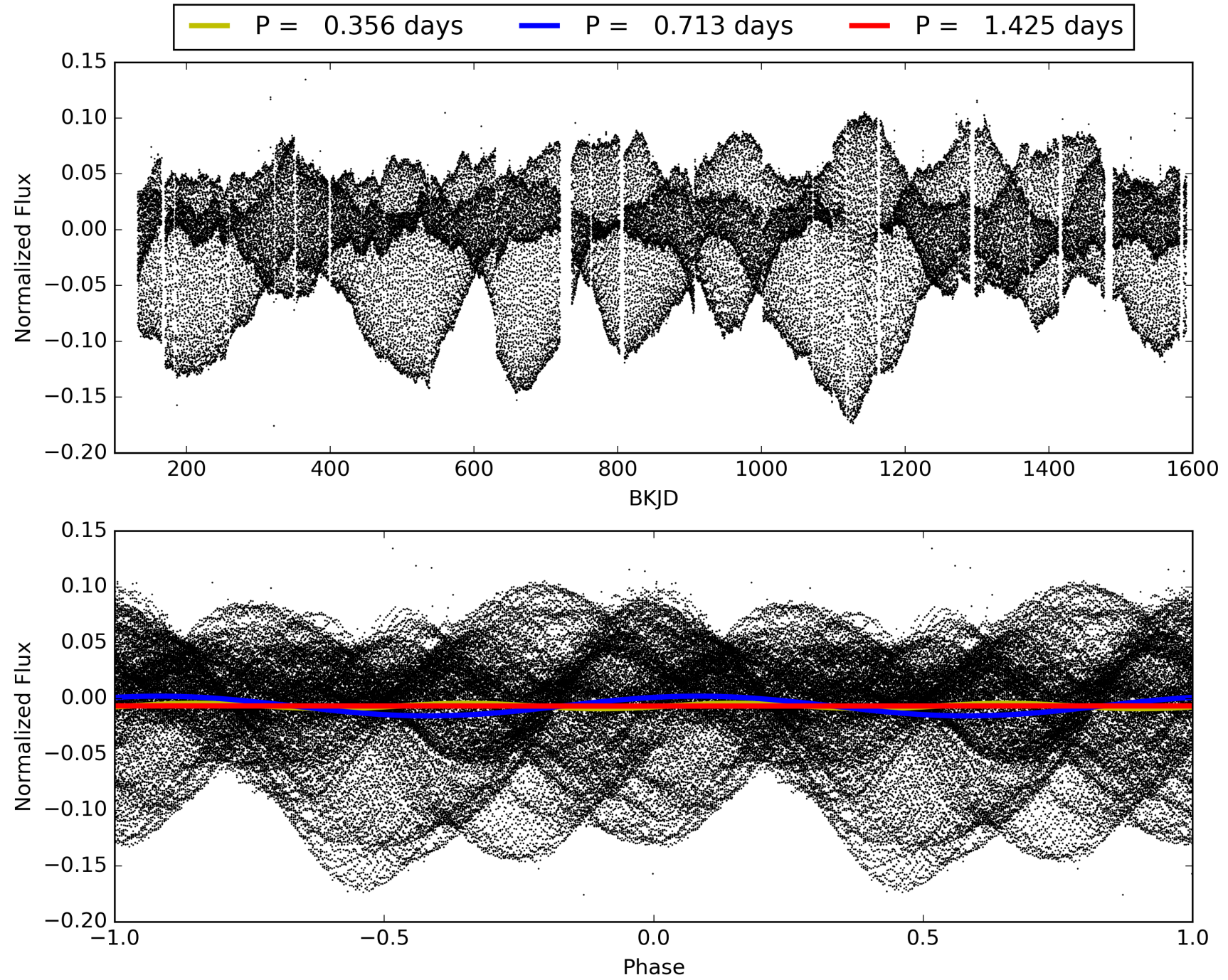
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:23:46 Z

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

TCE 009763640-01, PDC Light Curves

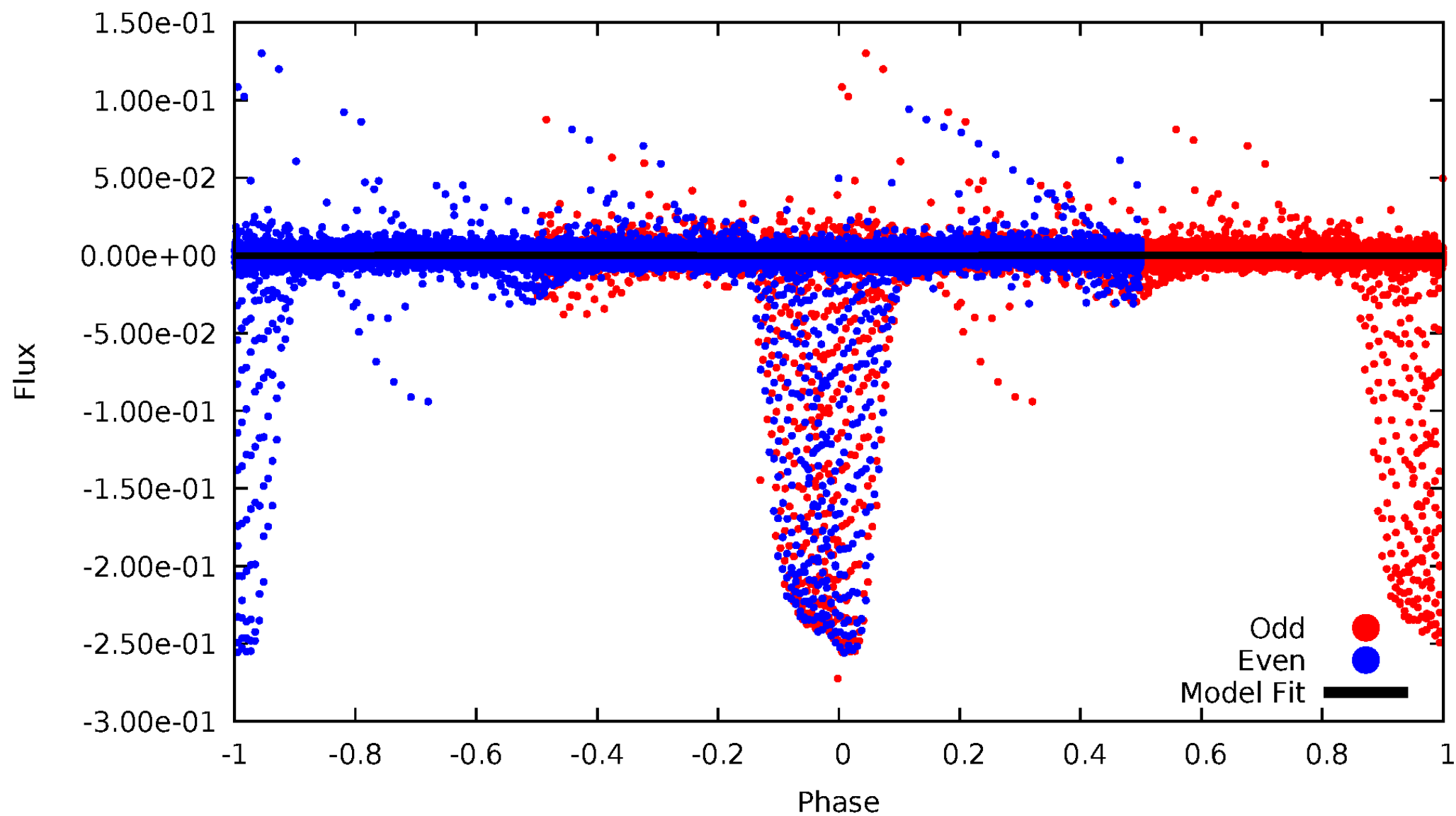


TCE 009763640-01



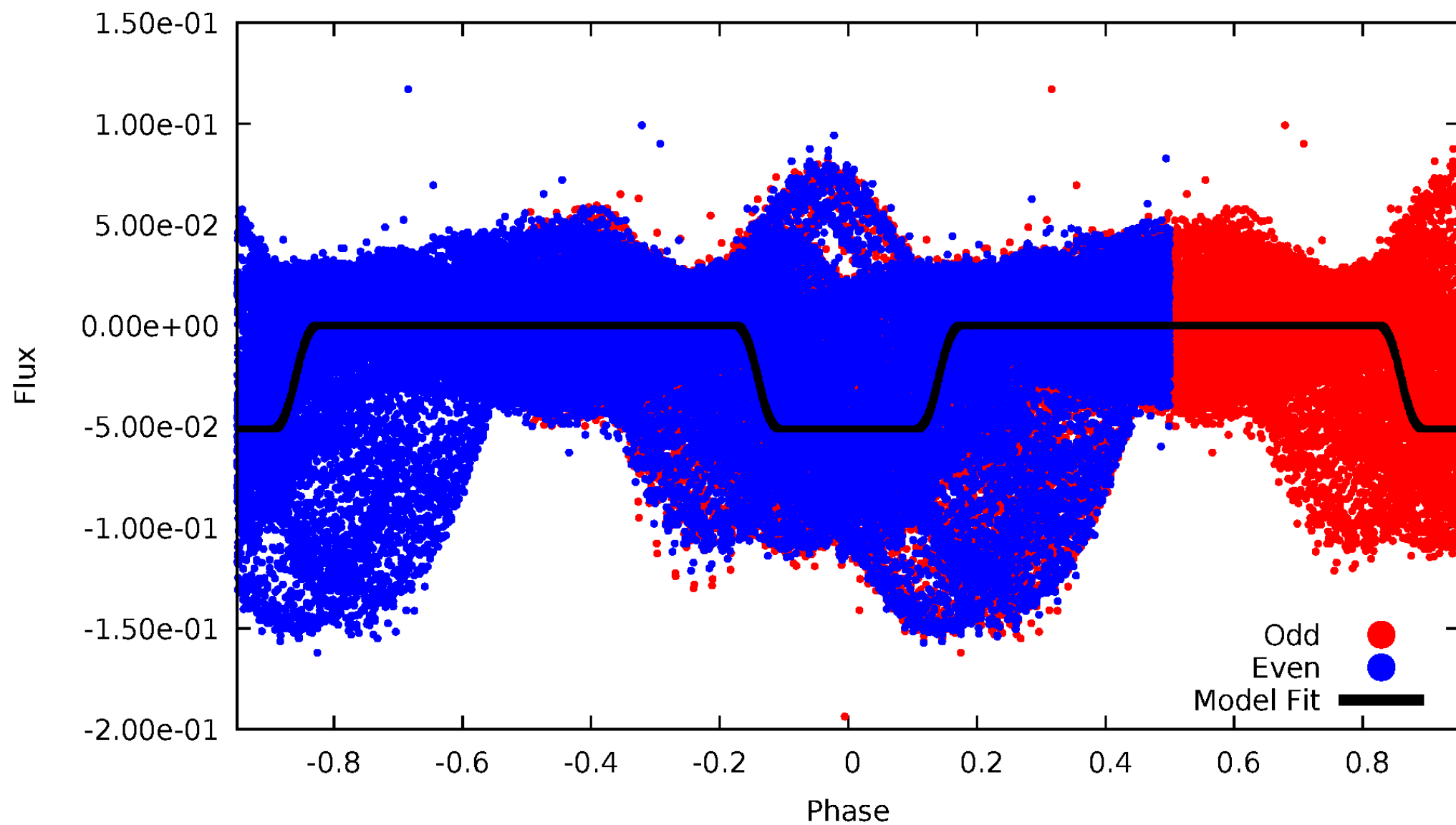
DV Odd/Even

TCE 009763640-01



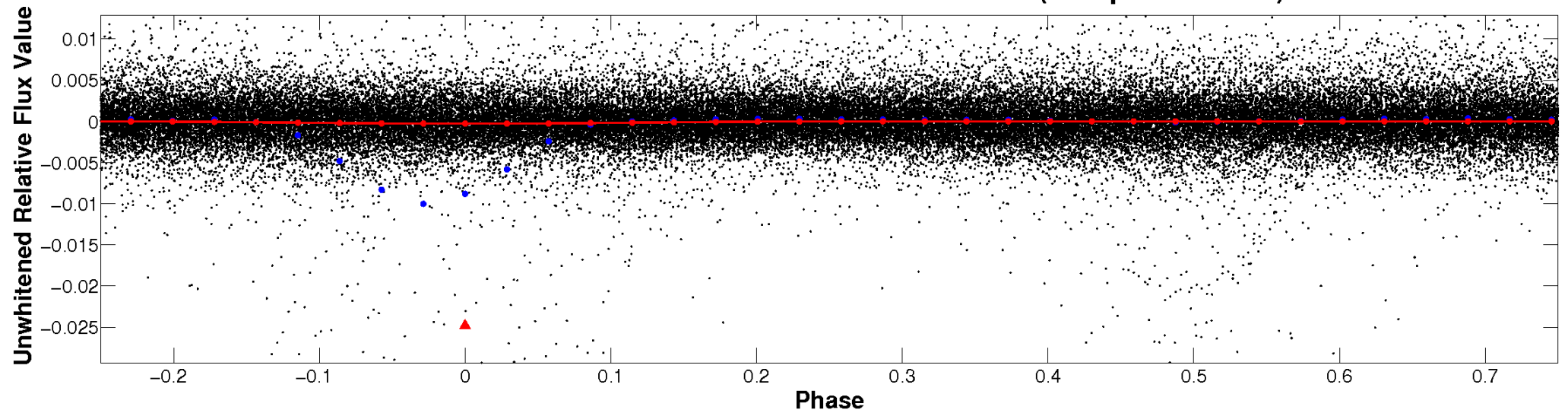
ALT Odd/Even

TCE 009763640-01

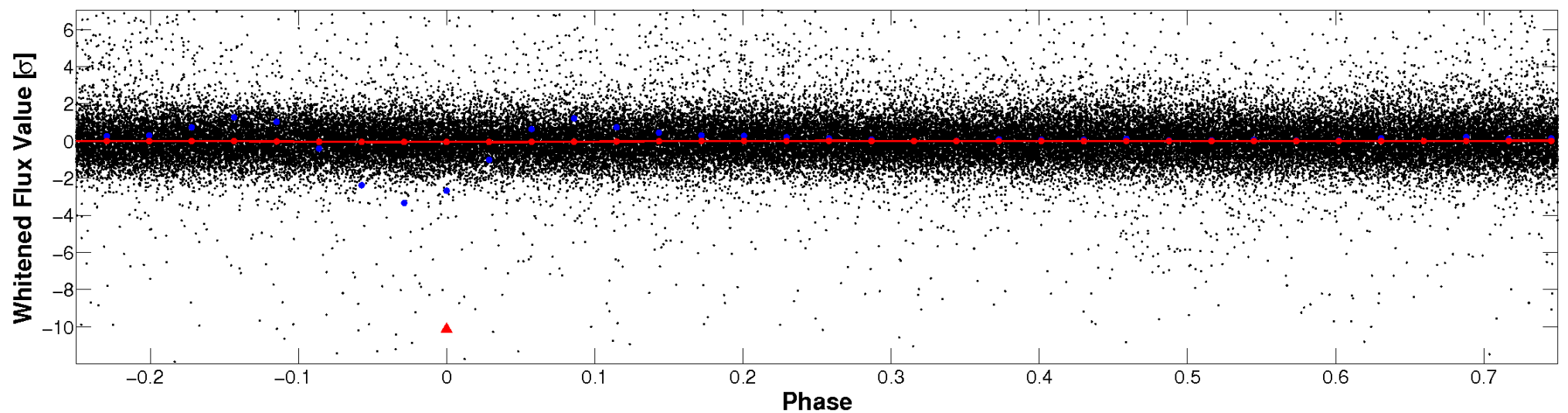


Non-Whitened Vs. Whitened Light Curve

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

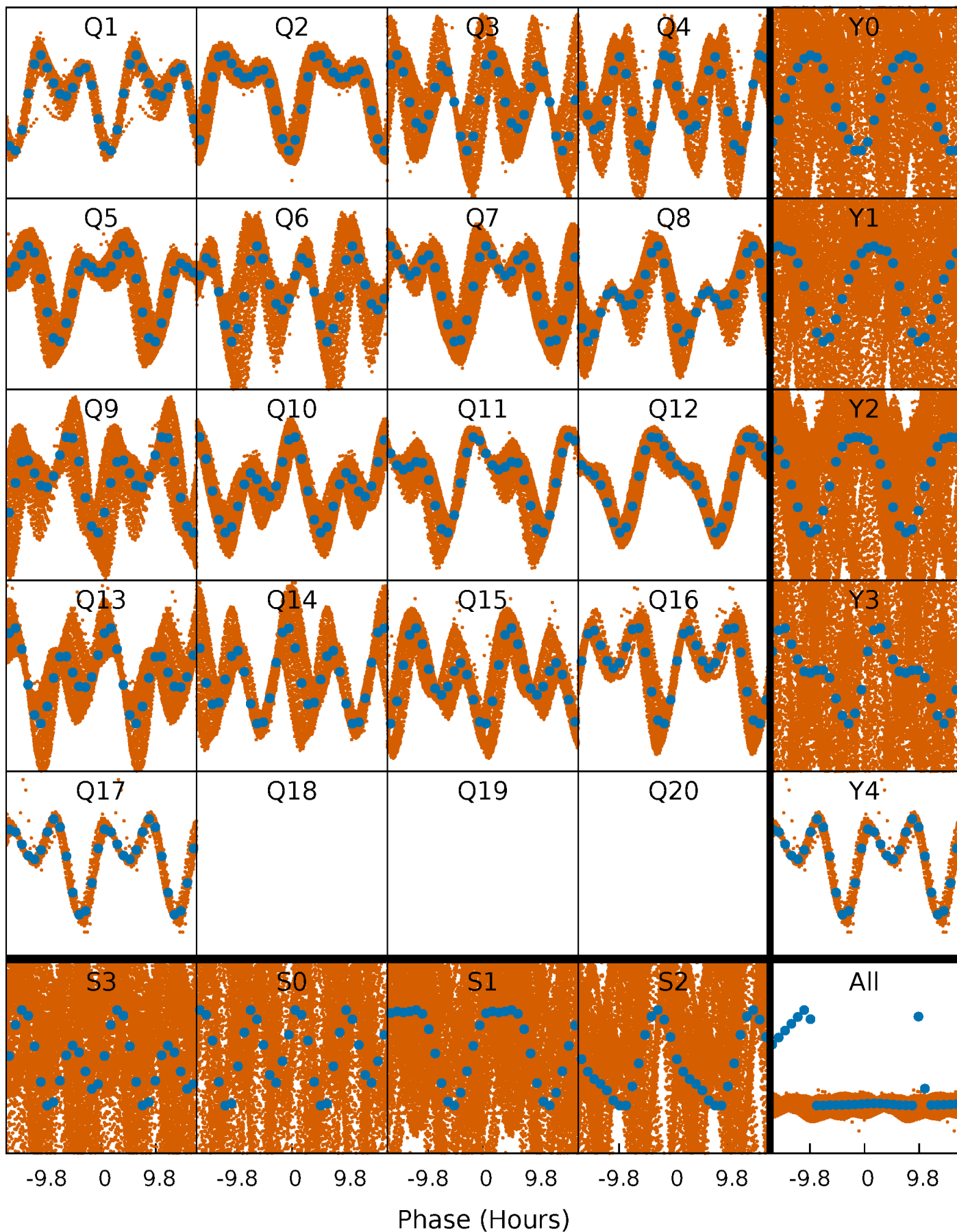


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



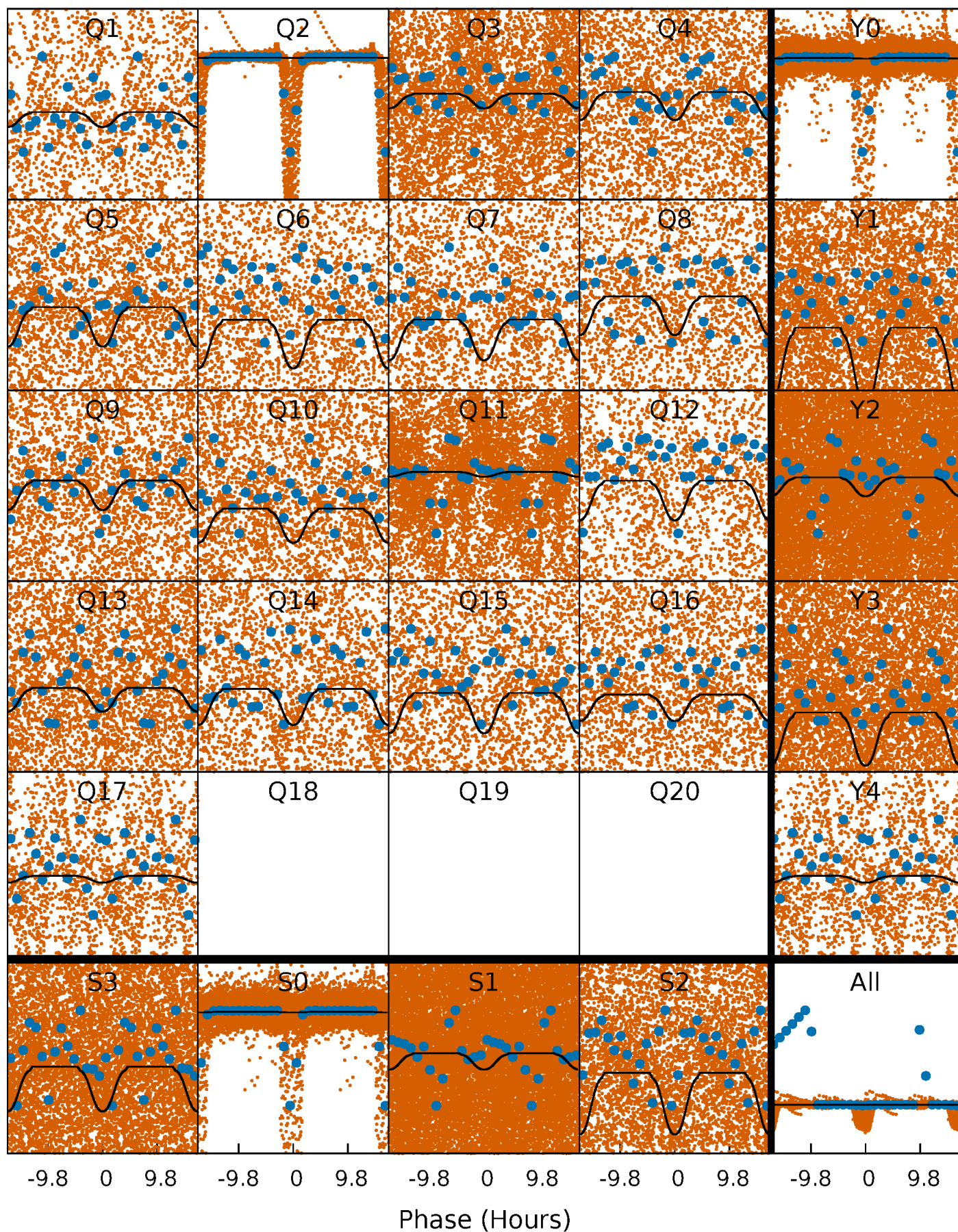
PDC Quarter-Phased Transit Curves

TCE 009763640-01 P= 0.712632 Days $T_0=131.953701$ (BKJD)



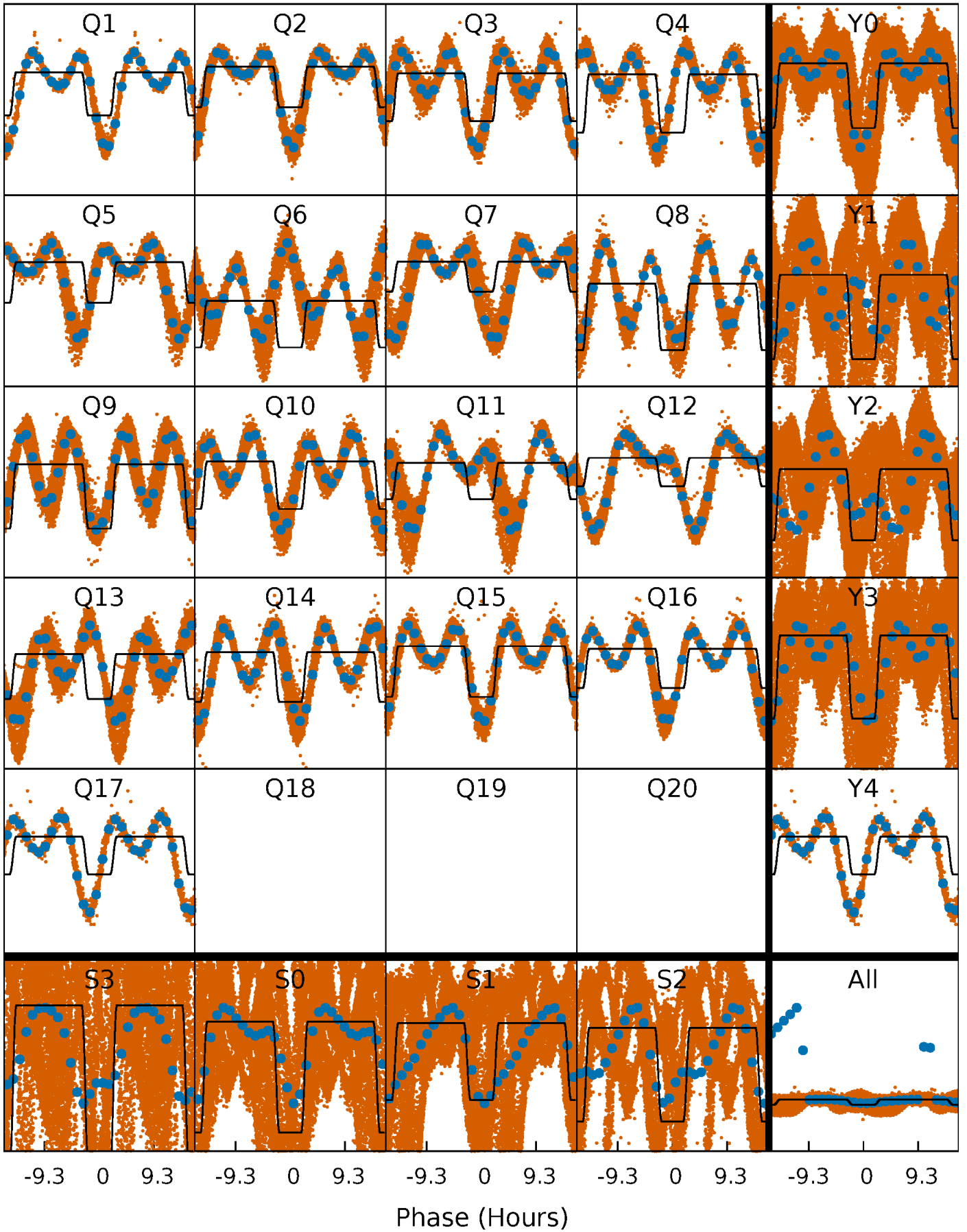
DV Quarter-Phased Transit Curves

TCE 009763640-01 P= 0.712632 Days $T_0=131.953701$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

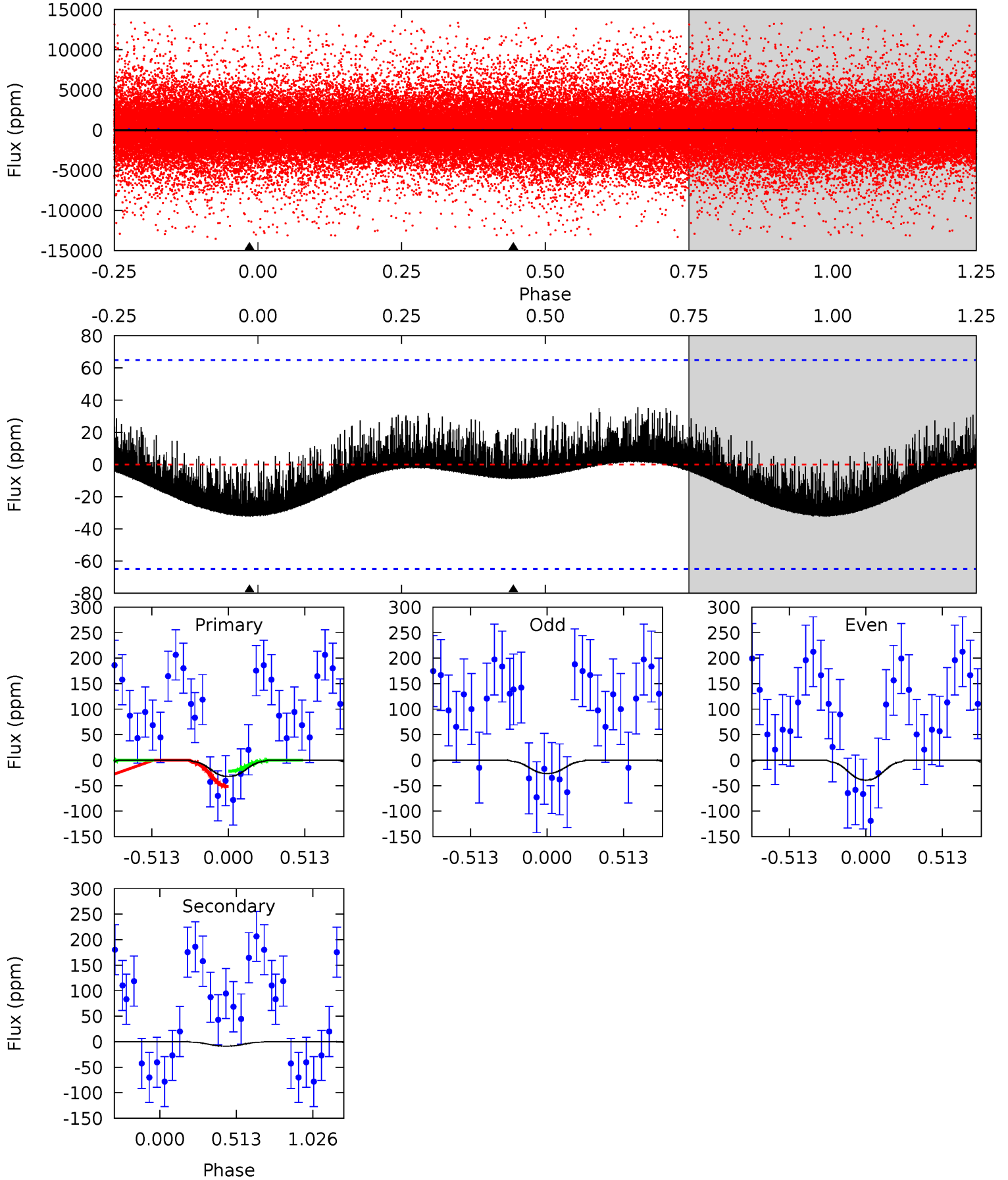
TCE 009763640-01 P= 0.712235 Days $T_0=131.970269$ (BKJD)



DV Model-Shift Uniqueness Test

009763640-01, P = 0.712632 Days, E = 131.241069 Days

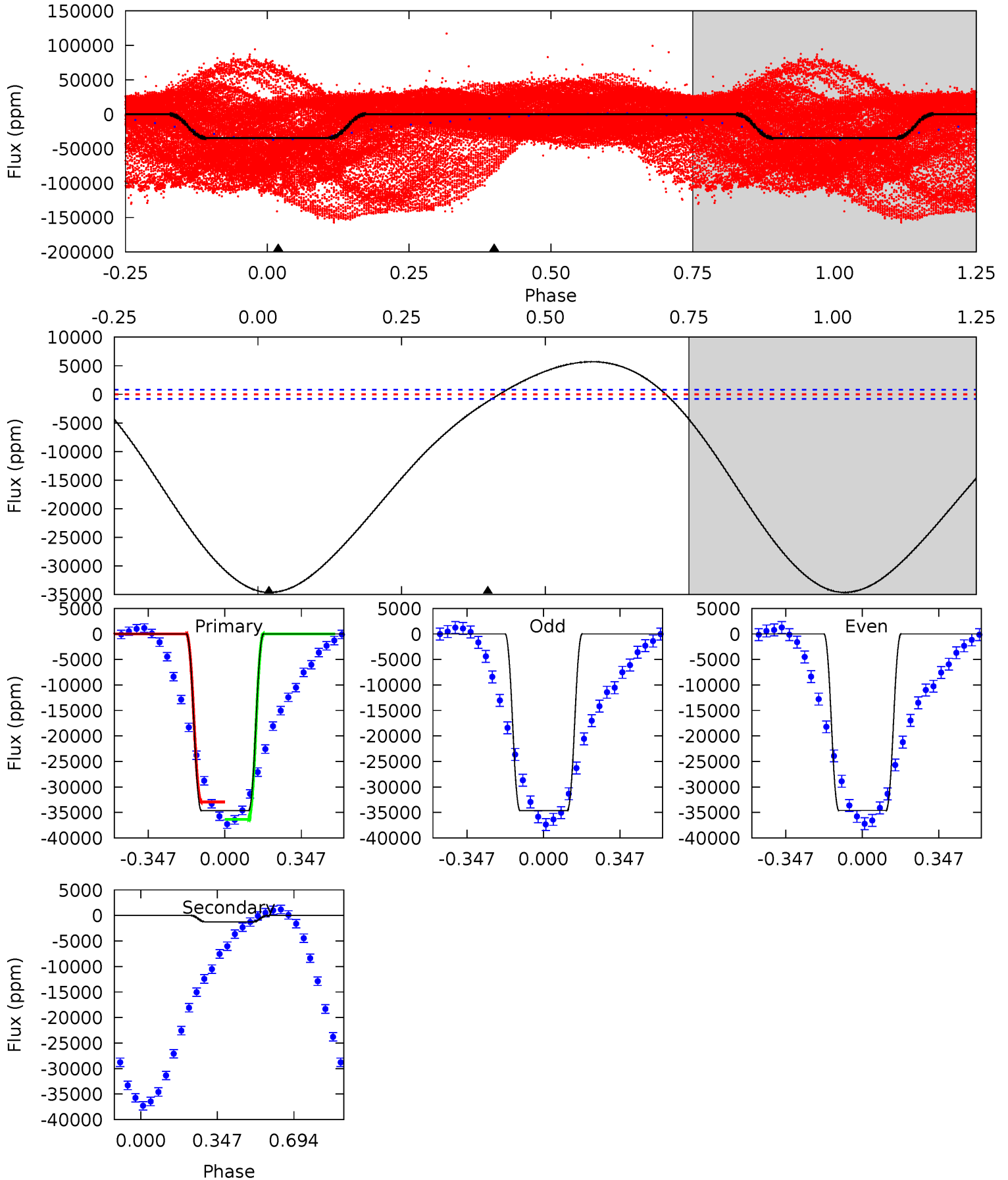
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.07	0.56	0	0	4.21	0.65	0.26	2.07	2.07	0.56	0.56	0.42	29.2	0.53	1.03



Alt Model-Shift Uniqueness Test

009763640-01, P = 0.712235 Days, E = 131.258034 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
185.2	6.69	0	0	4.30	0.94	14.7	185.2	185.2	6.69	6.69	0.05	0.91	0.14	6.39



Stellar Parameters For KIC 009763640

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5393^{+162}_{-162}	$4.628^{+0.039}_{-0.091}$	$-0.540^{+0.300}_{-0.300}$	$0.696^{+0.111}_{-0.051}$	$0.752^{+0.081}_{-0.067}$	$3.136^{+0.519}_{-0.945}$
	+3%/-3%	+1%/-2%	+56%/-56%	+16%/-7%	+11%/-9%	+17%/-30%
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 009763640-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 15	$1.64^{+0.27}_{-0.25}$	2349^{+95}_{-87}	2057^{+959}_{-5029}	$0.330^{+0.679}_{-0.623}$
Alt.	-1251 ± 187	$17.36^{+1.48}_{-0.85}$	2347^{+104}_{-88}	2466^{+131}_{-199}	$0.450^{+0.081}_{-0.083}$

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

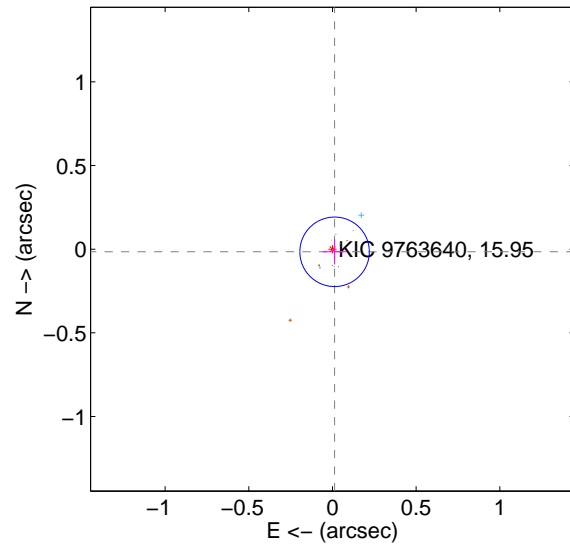
Supplemental centroid analysis for 009763640-01. Kepler magnitude: 15.95. Transit SNR 6.28

There are 7 quarters with good PRF difference image offsets

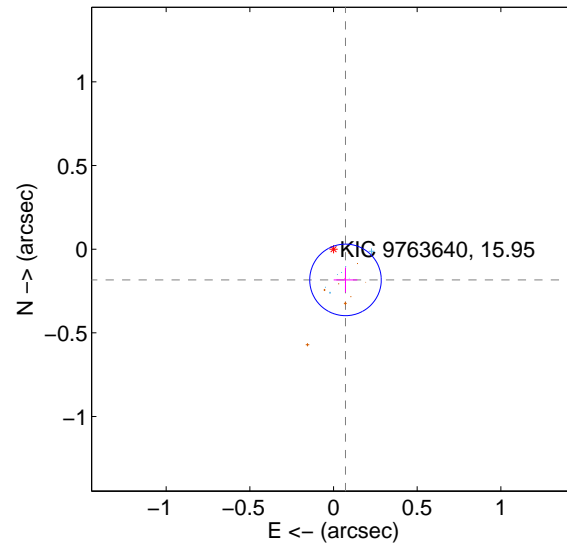
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.020 ± 0.069	0.29	-0.013 ± 0.071	-0.016 ± 0.075
PRF-fit source offset from KIC position	0.197 ± 0.071	2.77	-0.072 ± 0.070	-0.184 ± 0.074
photometric centroid source offset	0.35 ± 0.28	1.23	0.13 ± 0.32	0.32 ± 0.28

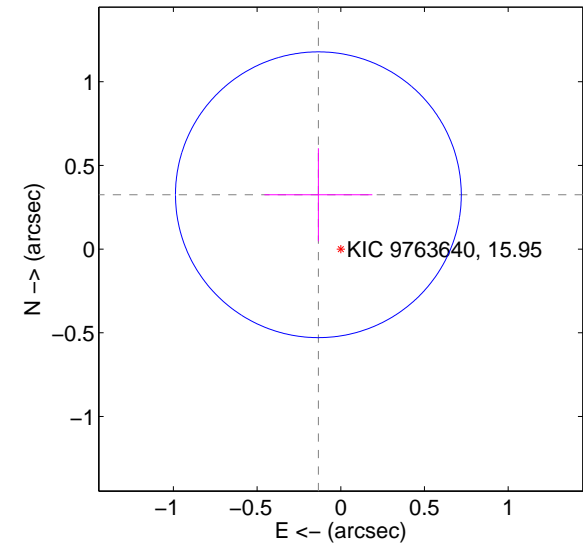
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

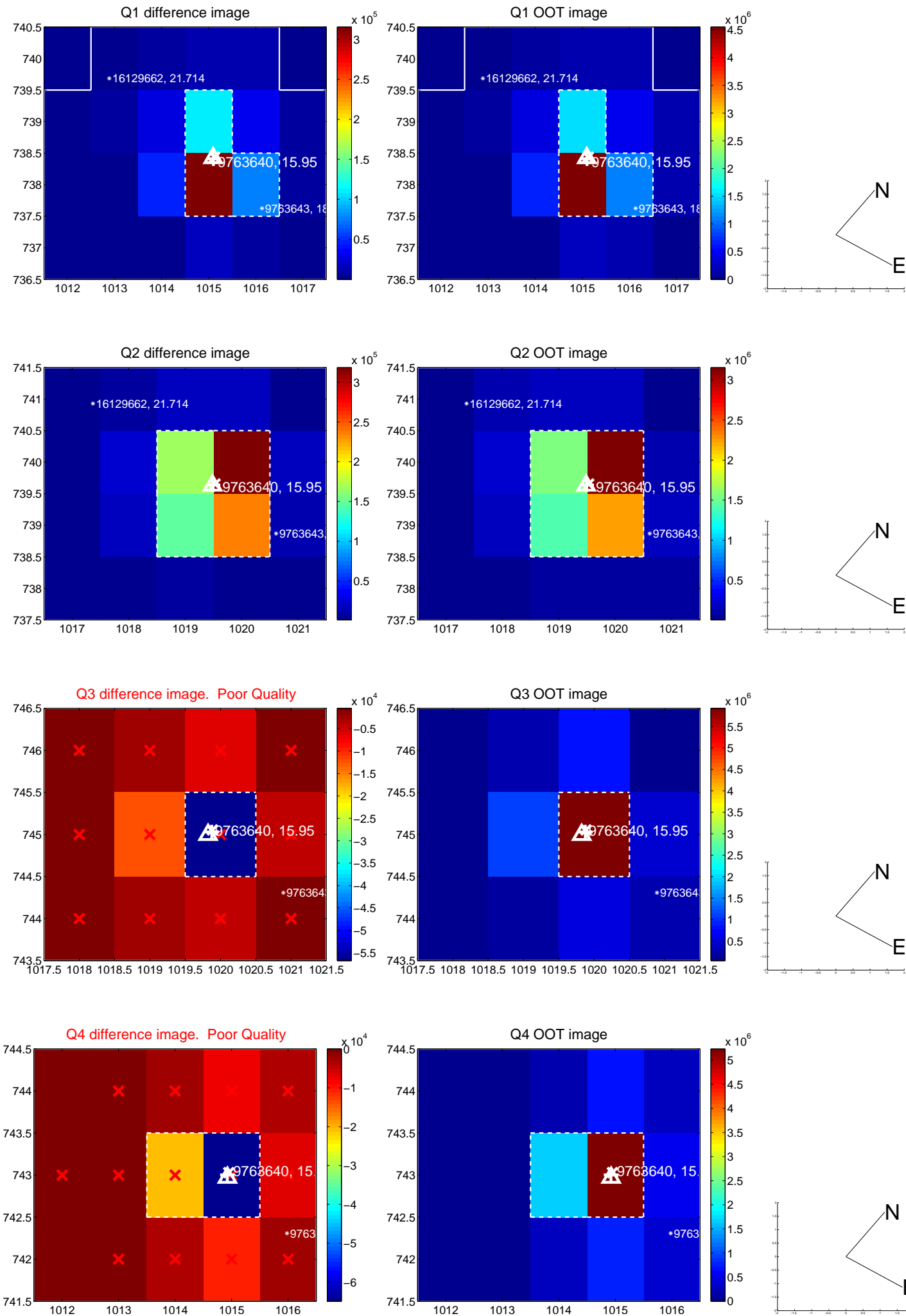


offset from photometric centroids

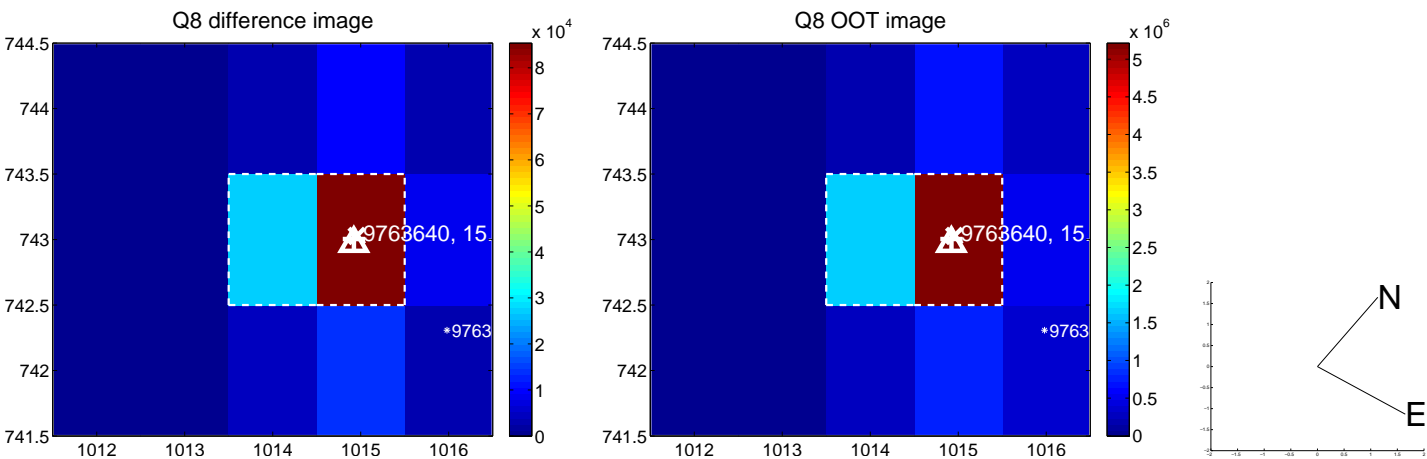
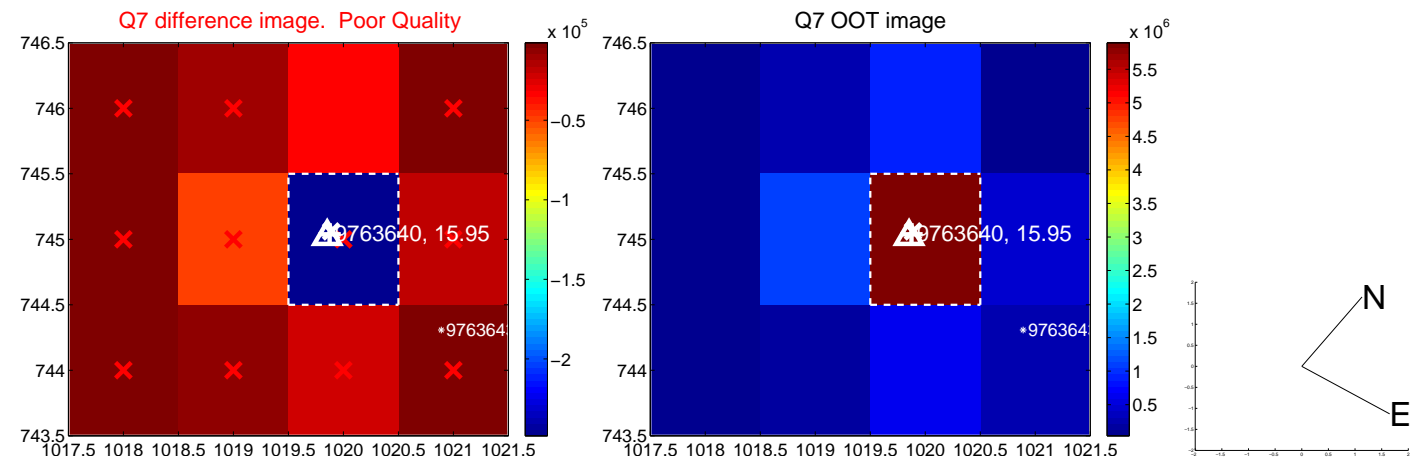
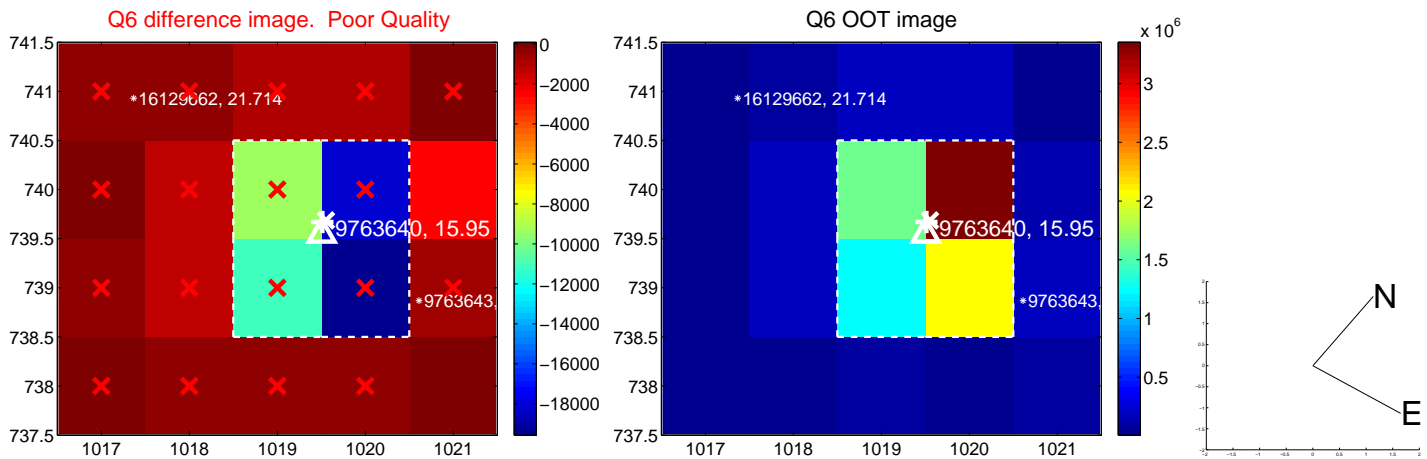
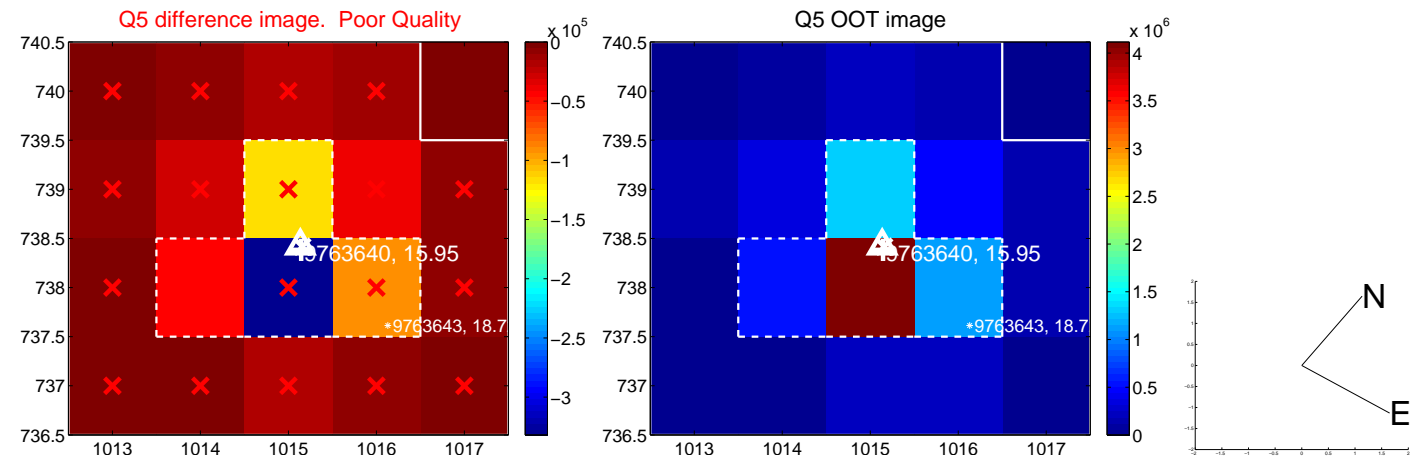


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

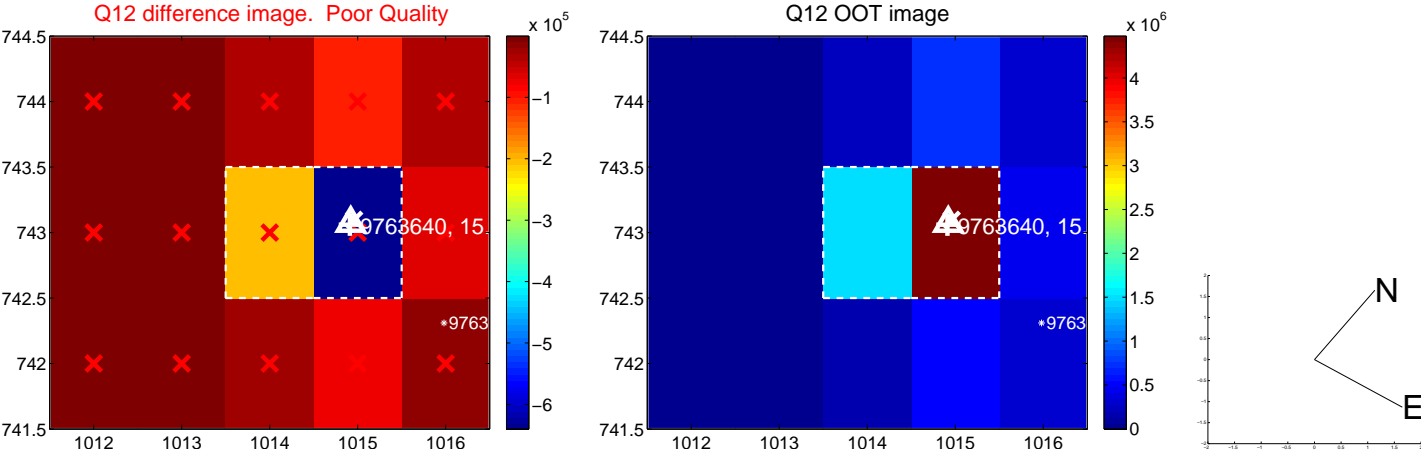
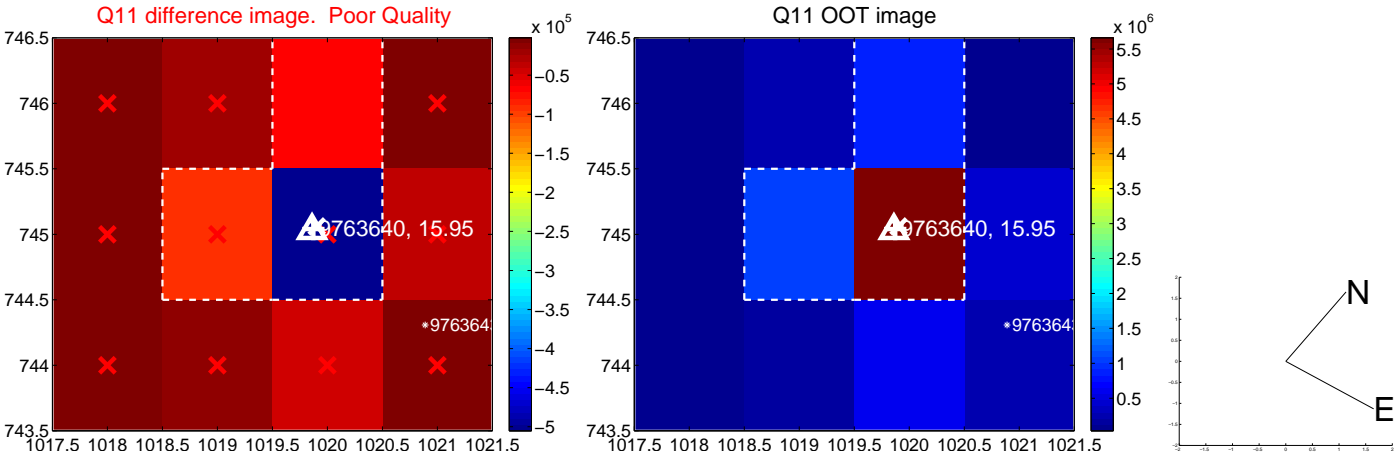
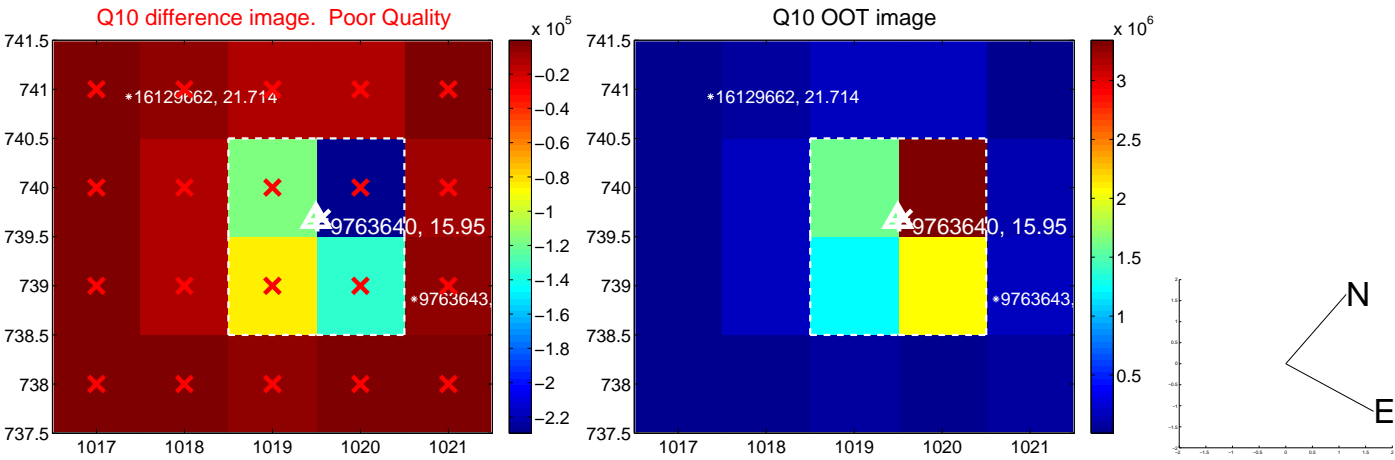
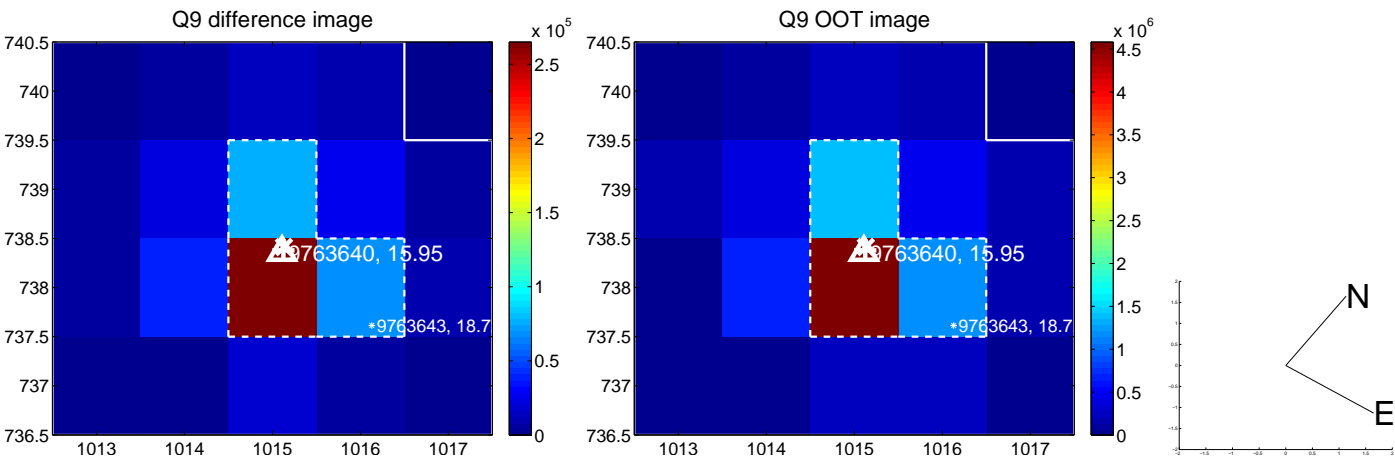
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



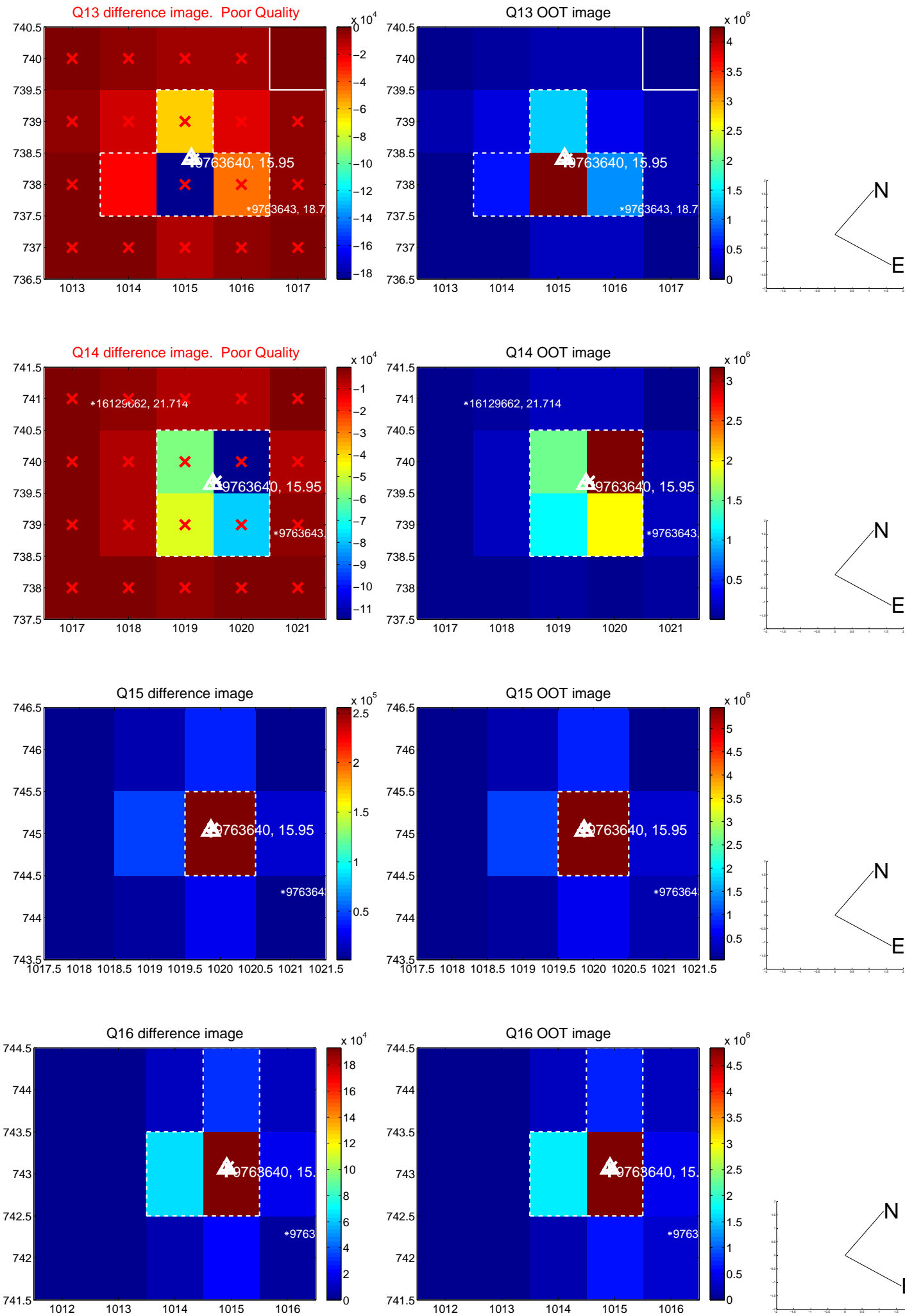
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



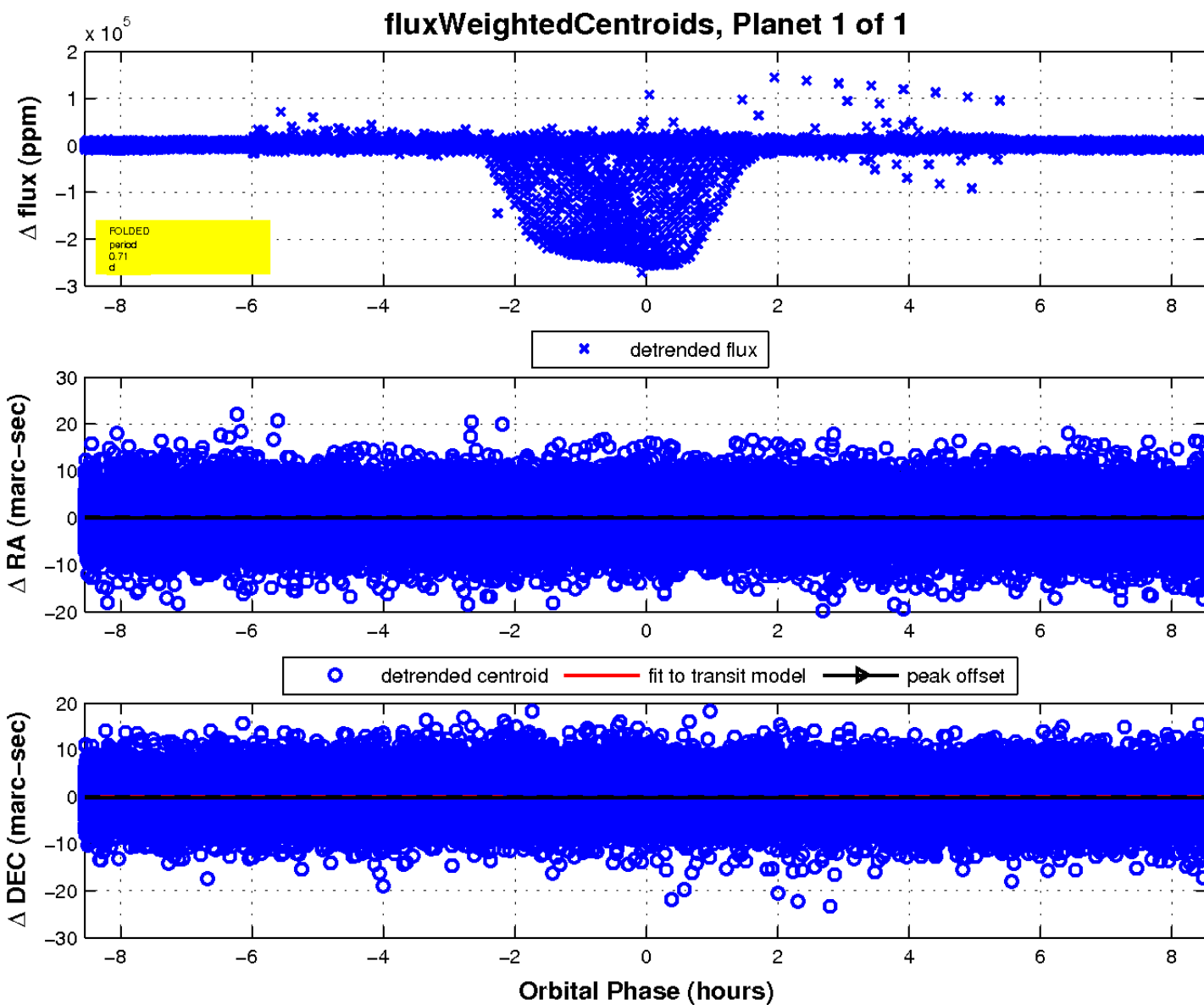
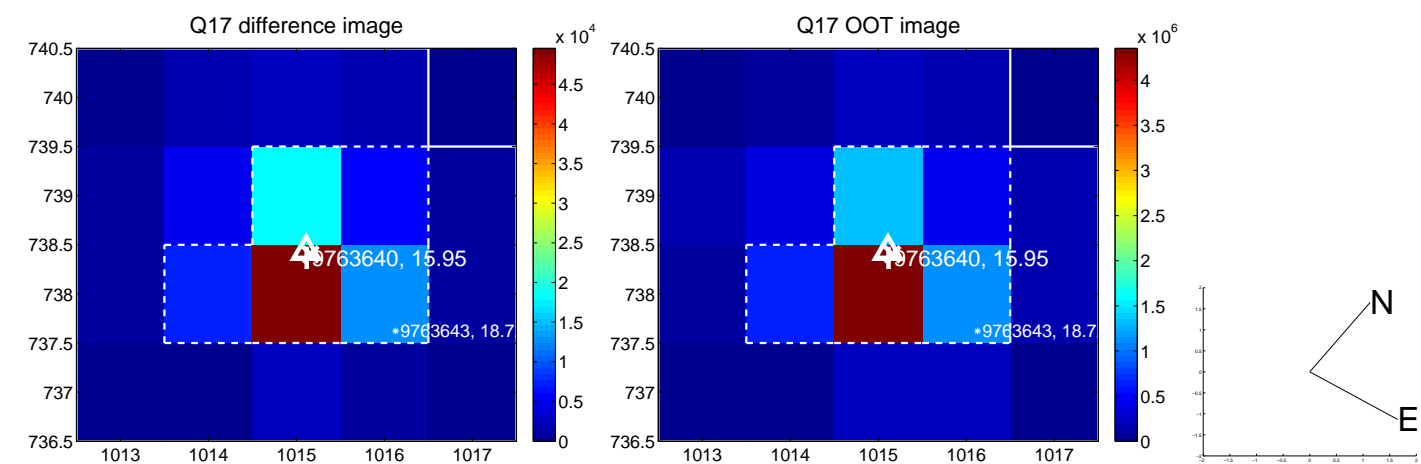
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

