

KIC 008718273

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})
008718273-01	OBS	5564.01	3.479526	133.385610	2771.5	3.868	255.2	263.6	12.62	4630	132.41	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008718273-01	OBS	FP	0.00	0	1	0	0	PLANET_IN_STAR—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—CENT_SATURATED

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.

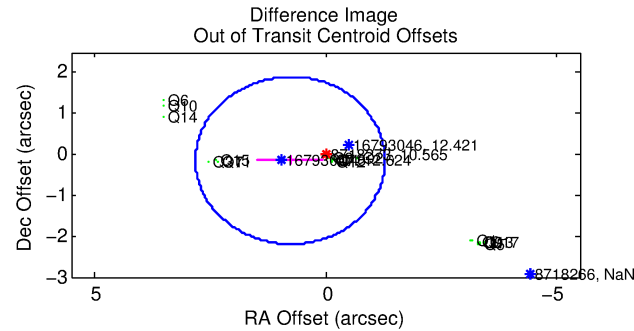
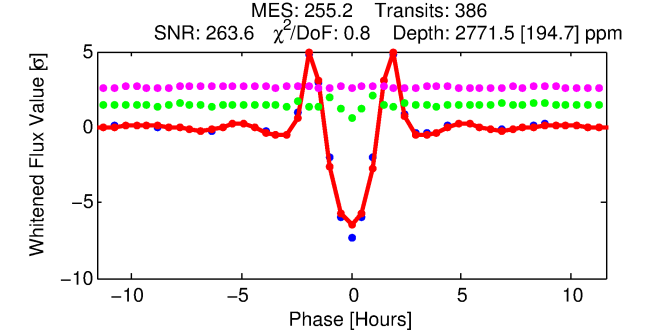
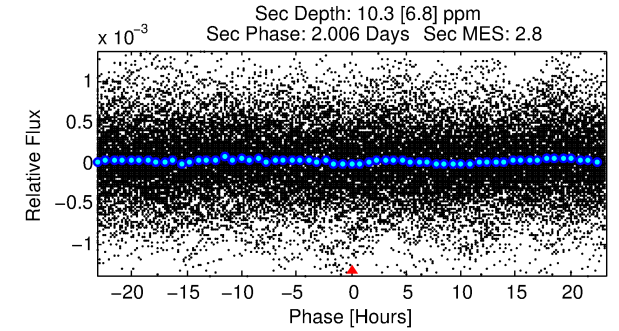
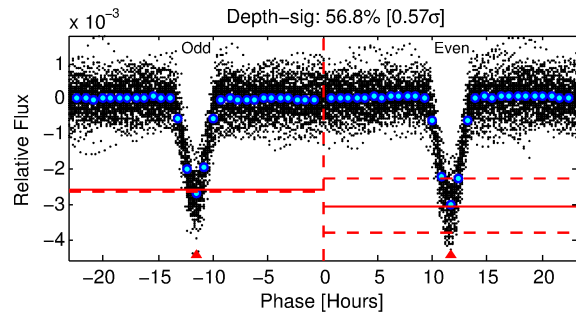
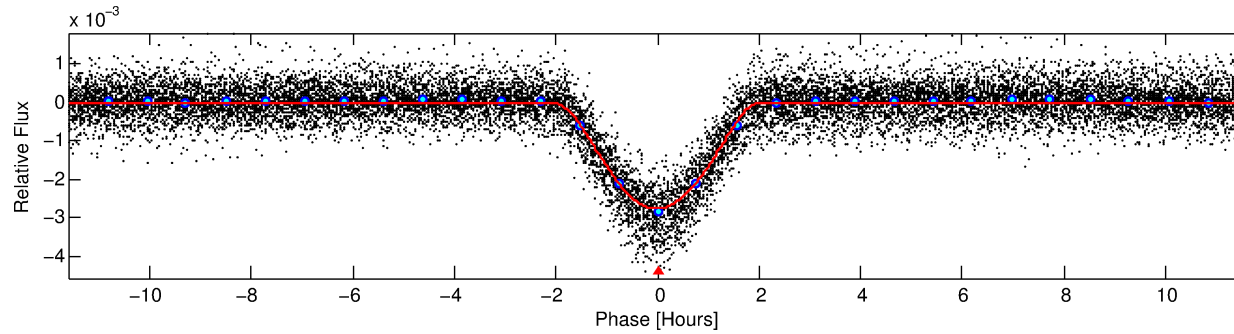
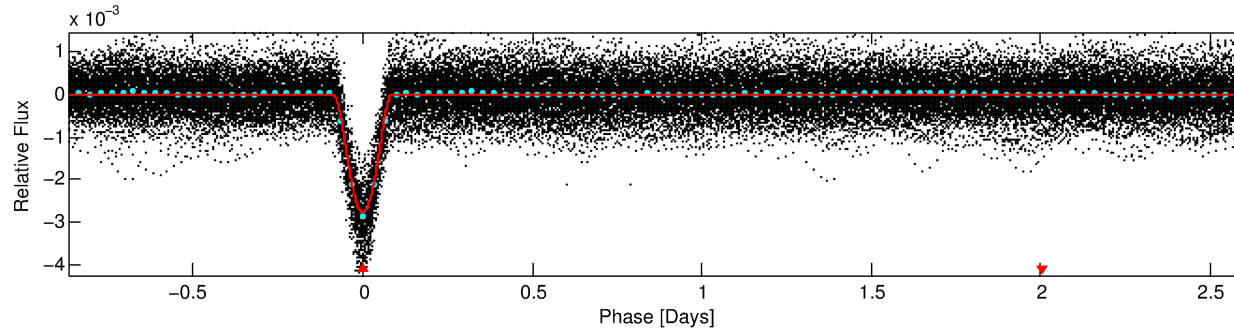
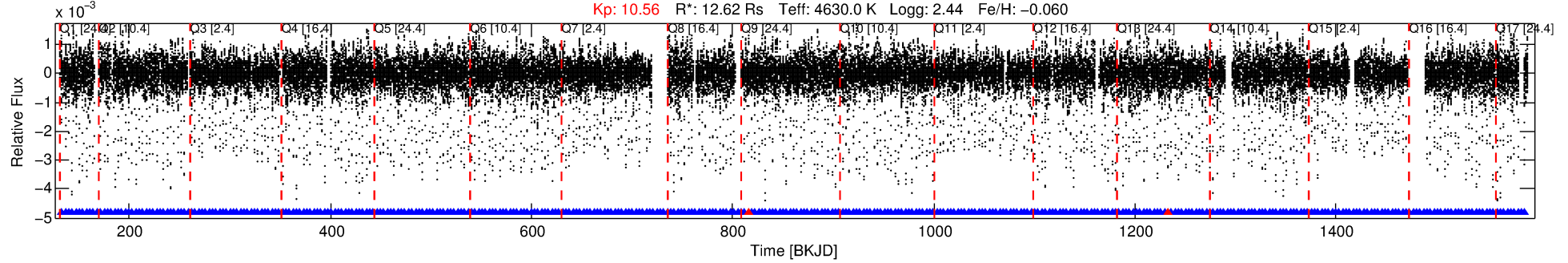
Ephemeris Match Information For 008718273-01

No Significant Match Found

DV One-Page Summary

KIC: 8718273 Candidate: 1 of 1 Period: 3.480 d
KOI: K05564.01 Corr: 0.987

Kp: 10.56 R*: 12.62 Rs Teff: 4630.0 K Logg: 2.44 Fe/H: -0.060



DV Fit Results:

Period = 3.47953 [0.00000] d
Epoch = 133.3856 [0.0001] BKJD
Rp/R* = 0.0961 [0.0032]
a/R* = 3.25 [0.02]
b = 1.00 [0.00]
Seff = N/A
Teq = N/A
Rp = 132.41 [30.53] Re
a = N/A
Ag = N/A
Teffp = N/A

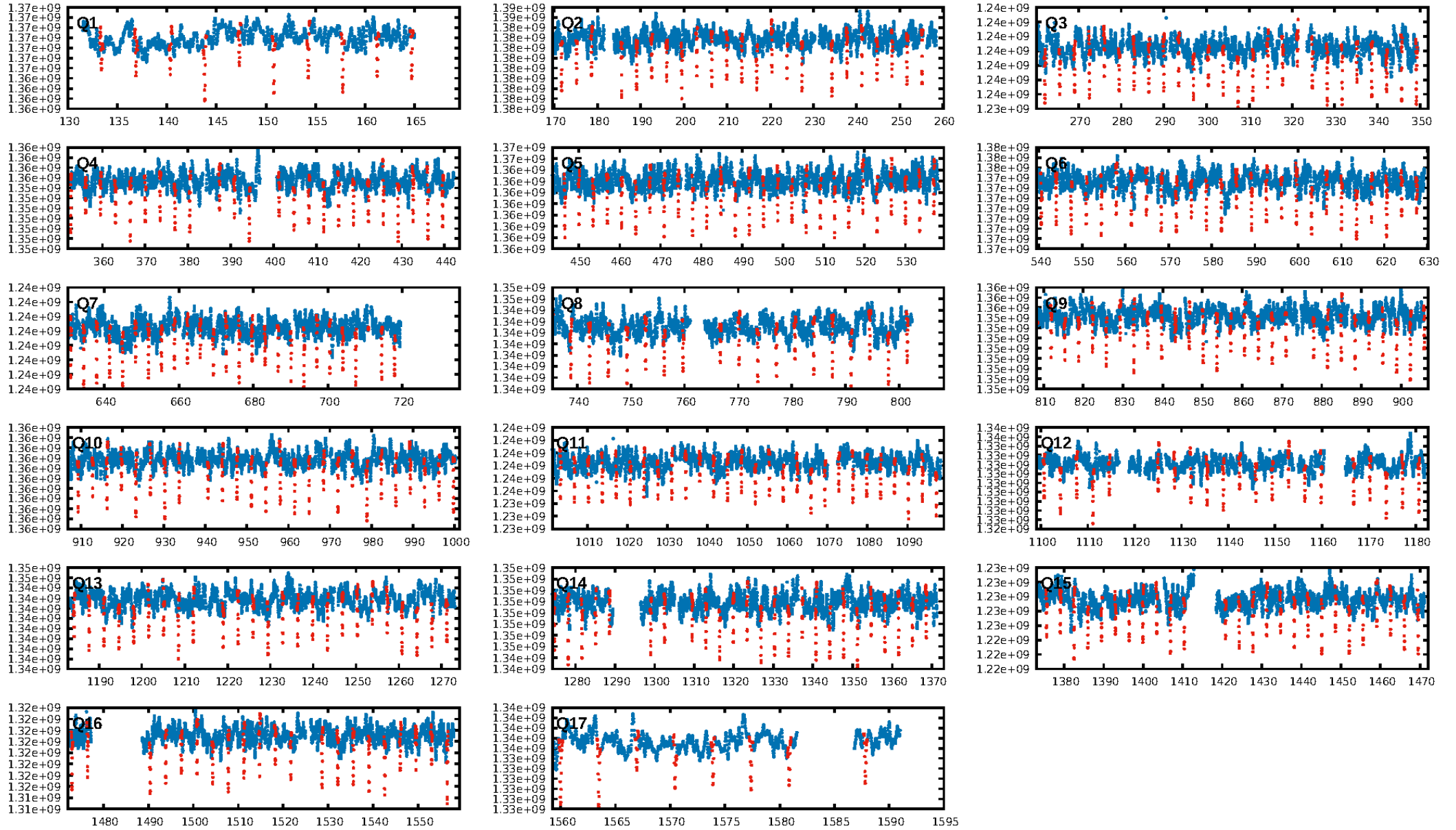
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [366/368]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 0.037 arcsec [2.68σ]
OotOffset-rm: 0.776 arcsec [1.14σ]
KicOffset-rm: 0.961 arcsec [1.64σ]
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]

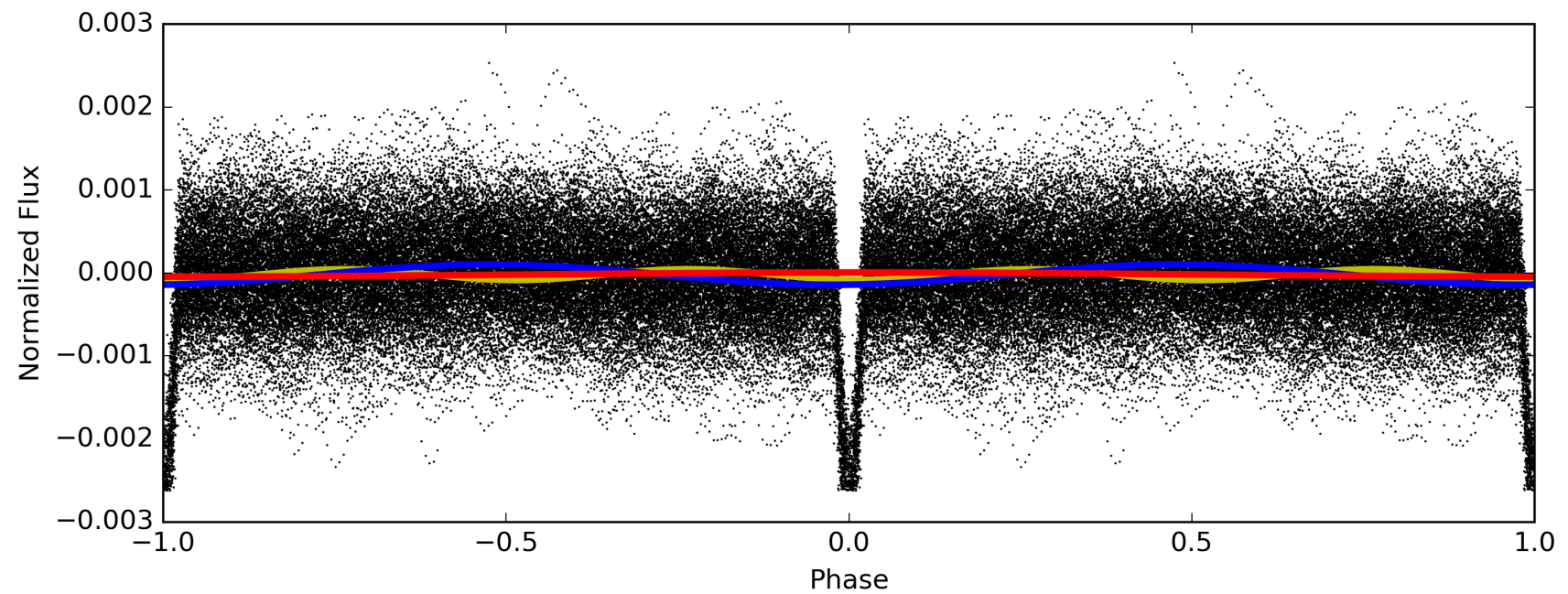
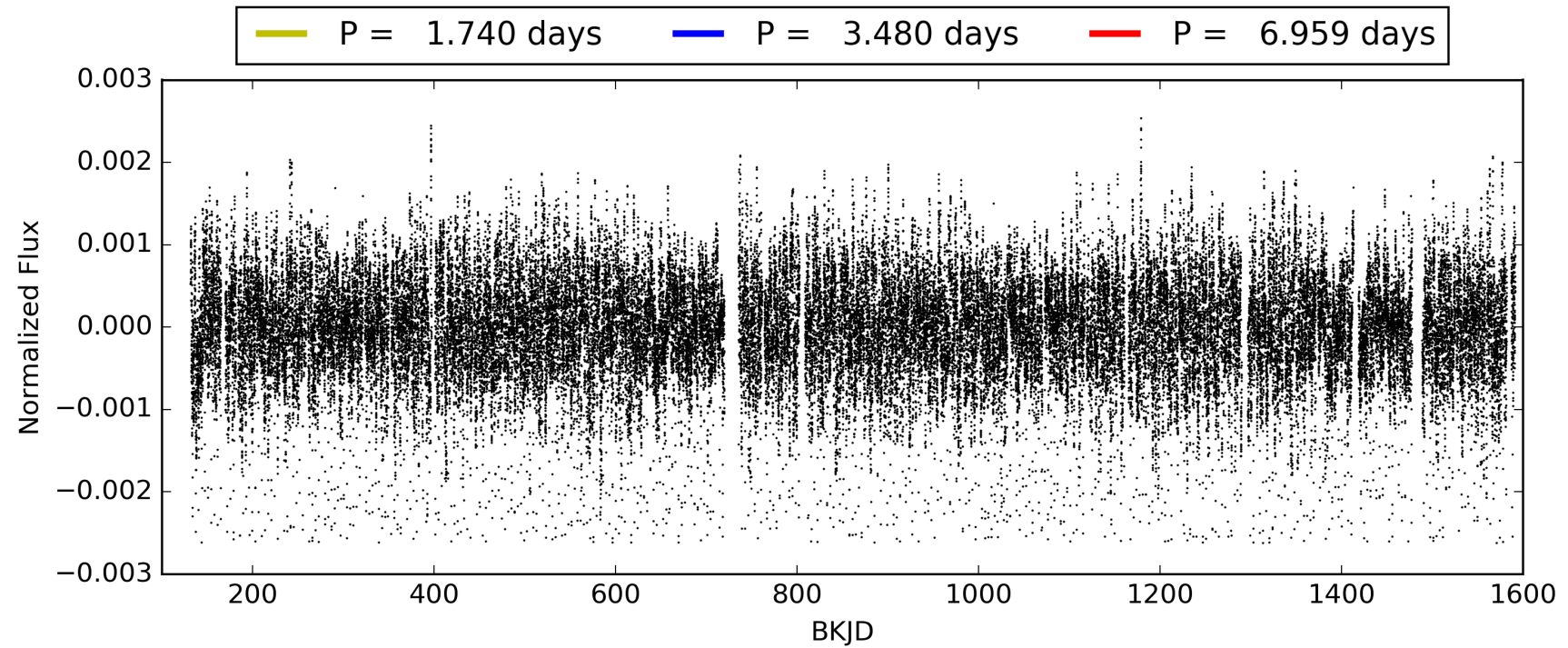
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:29:38 Z

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

TCE 008718273-01, PDC Light Curves

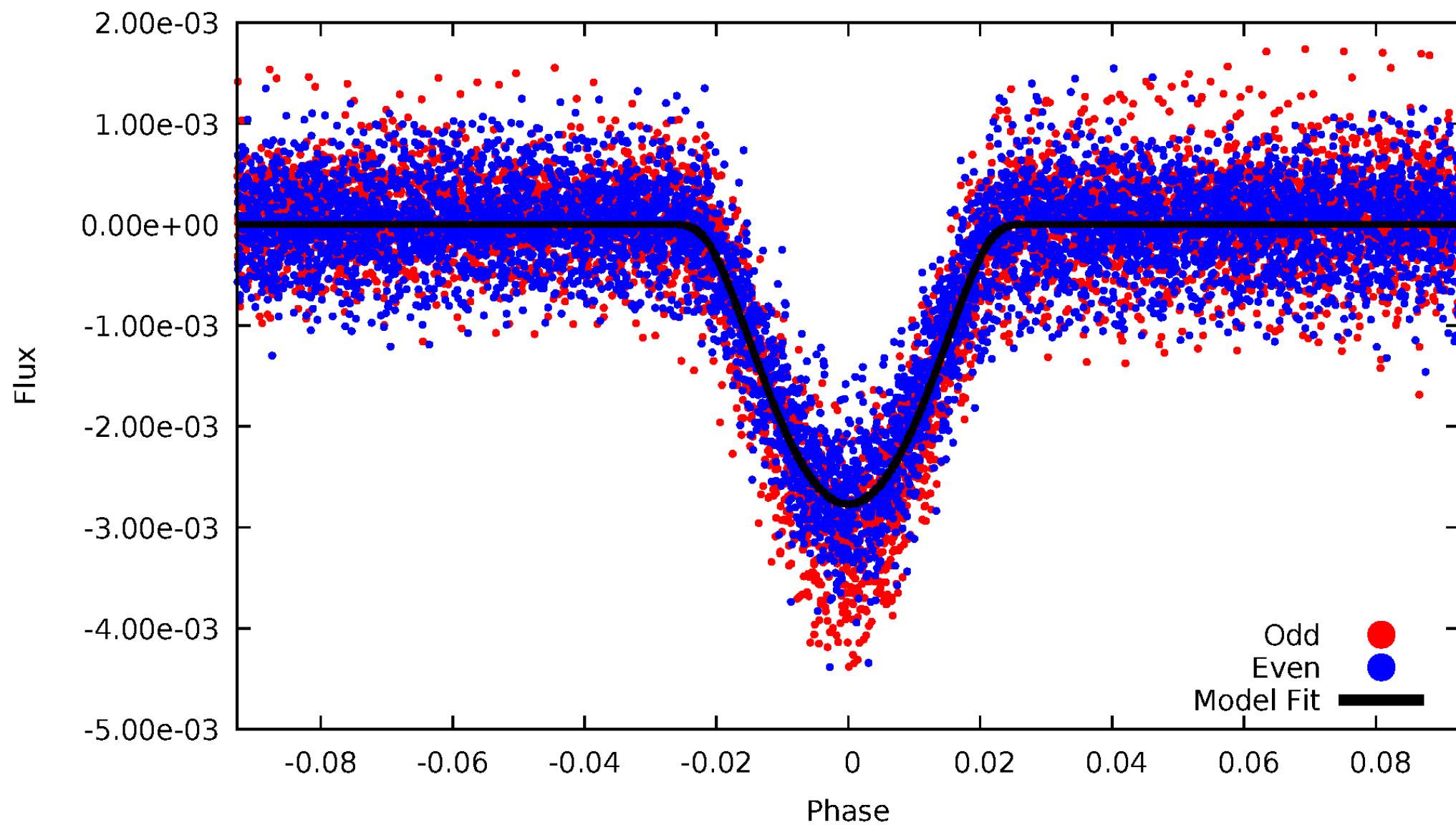


TCE 008718273-01



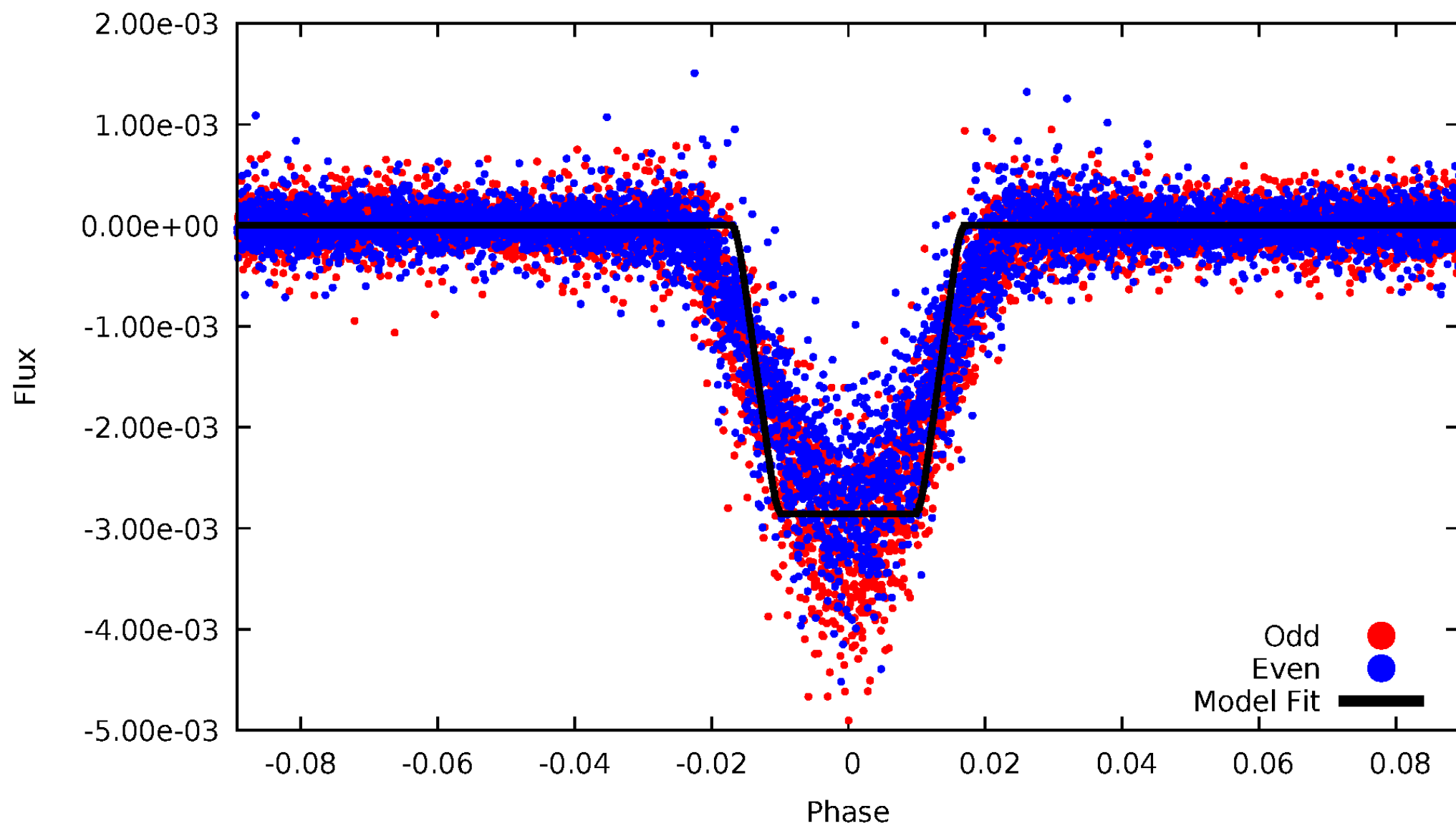
DV Odd/Even

TCE 008718273-01



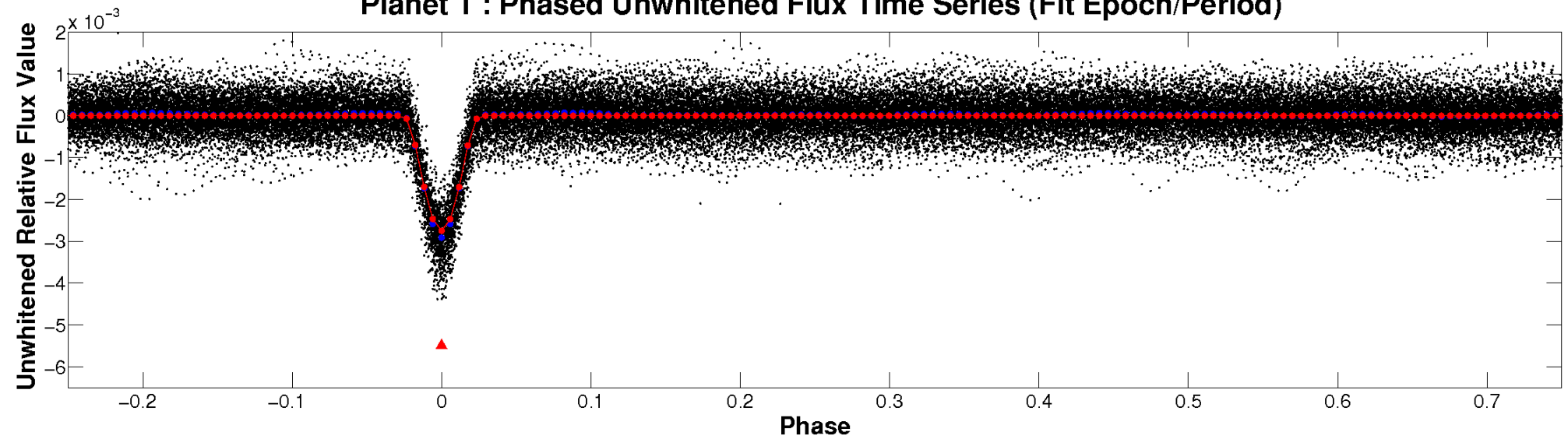
ALT Odd/Even

TCE 008718273-01

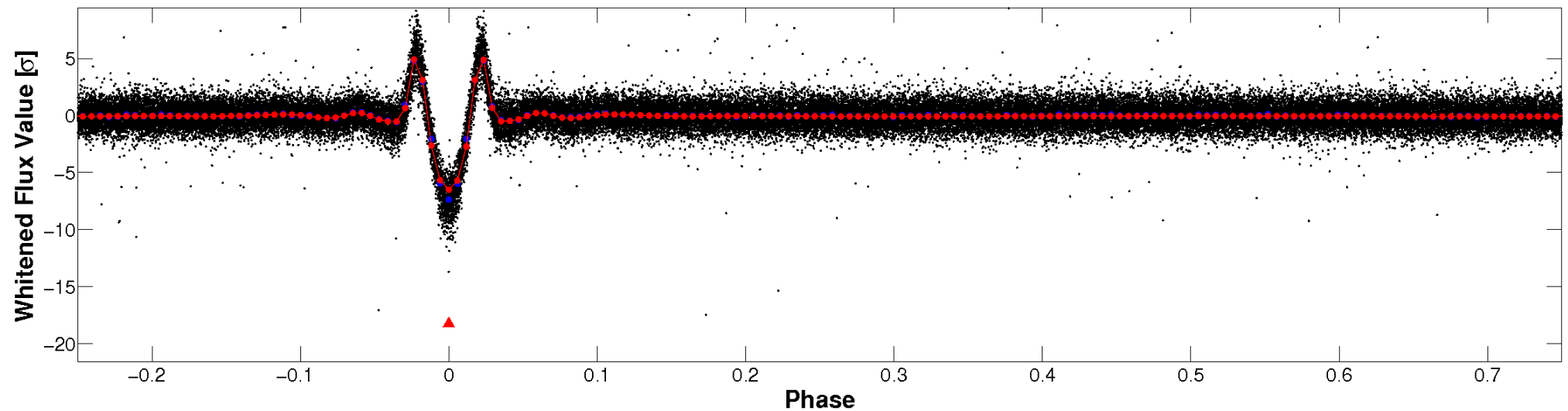


Non-Whitened Vs. Whitened Light Curve

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

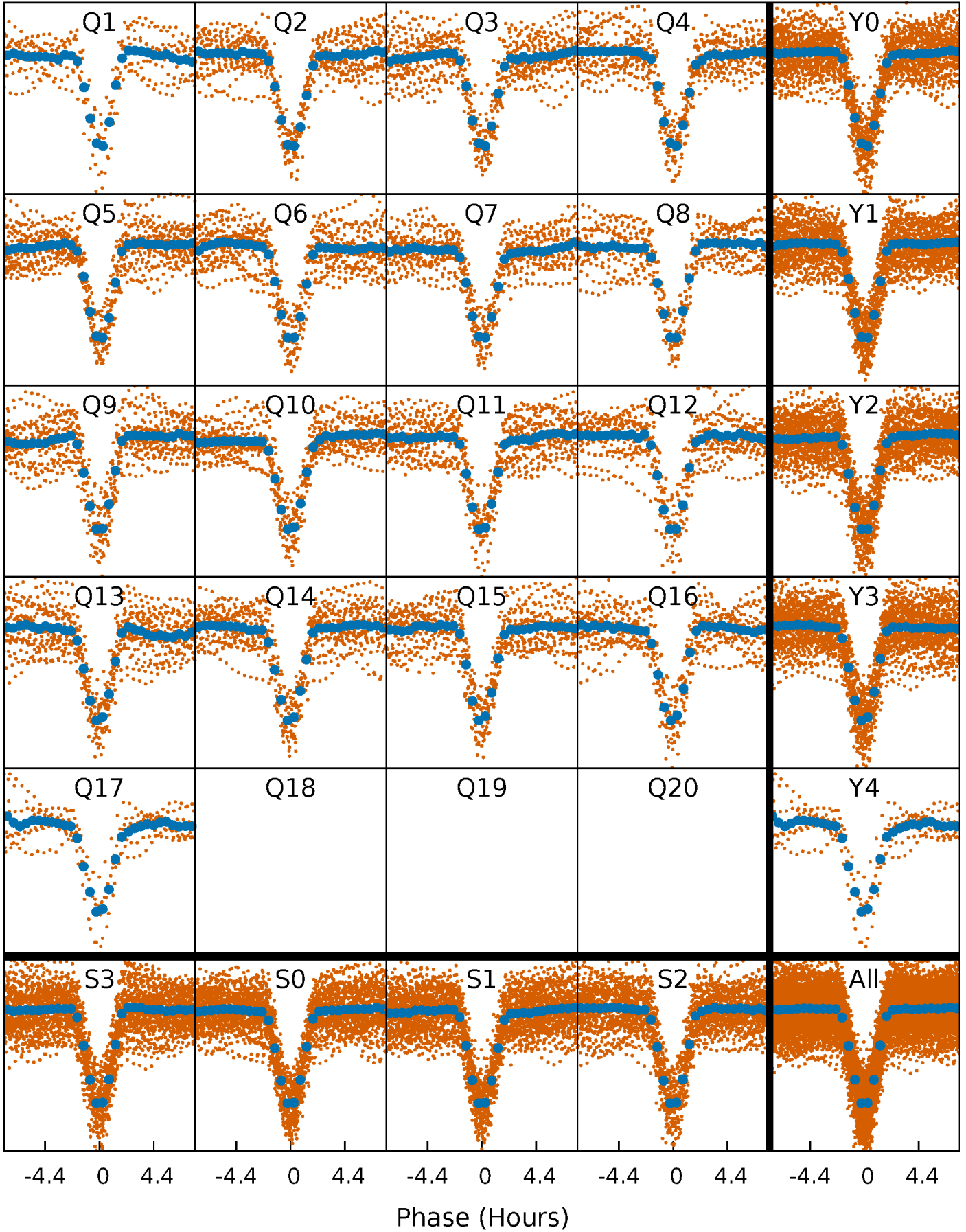


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



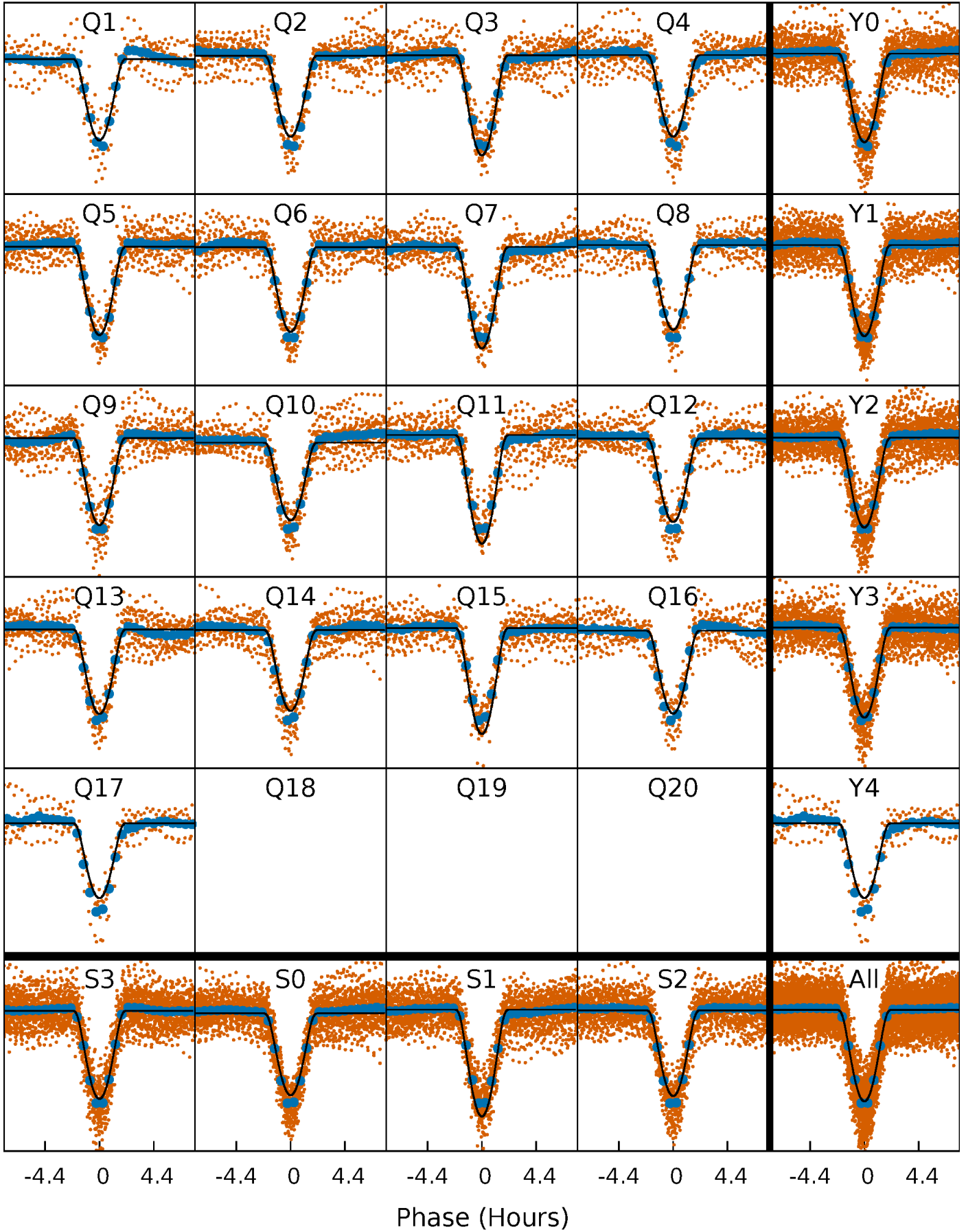
PDC Quarter-Phased Transit Curves

TCE 008718273-01 P= 3.479526 Days $T_0=133.385610$ (BKJD)



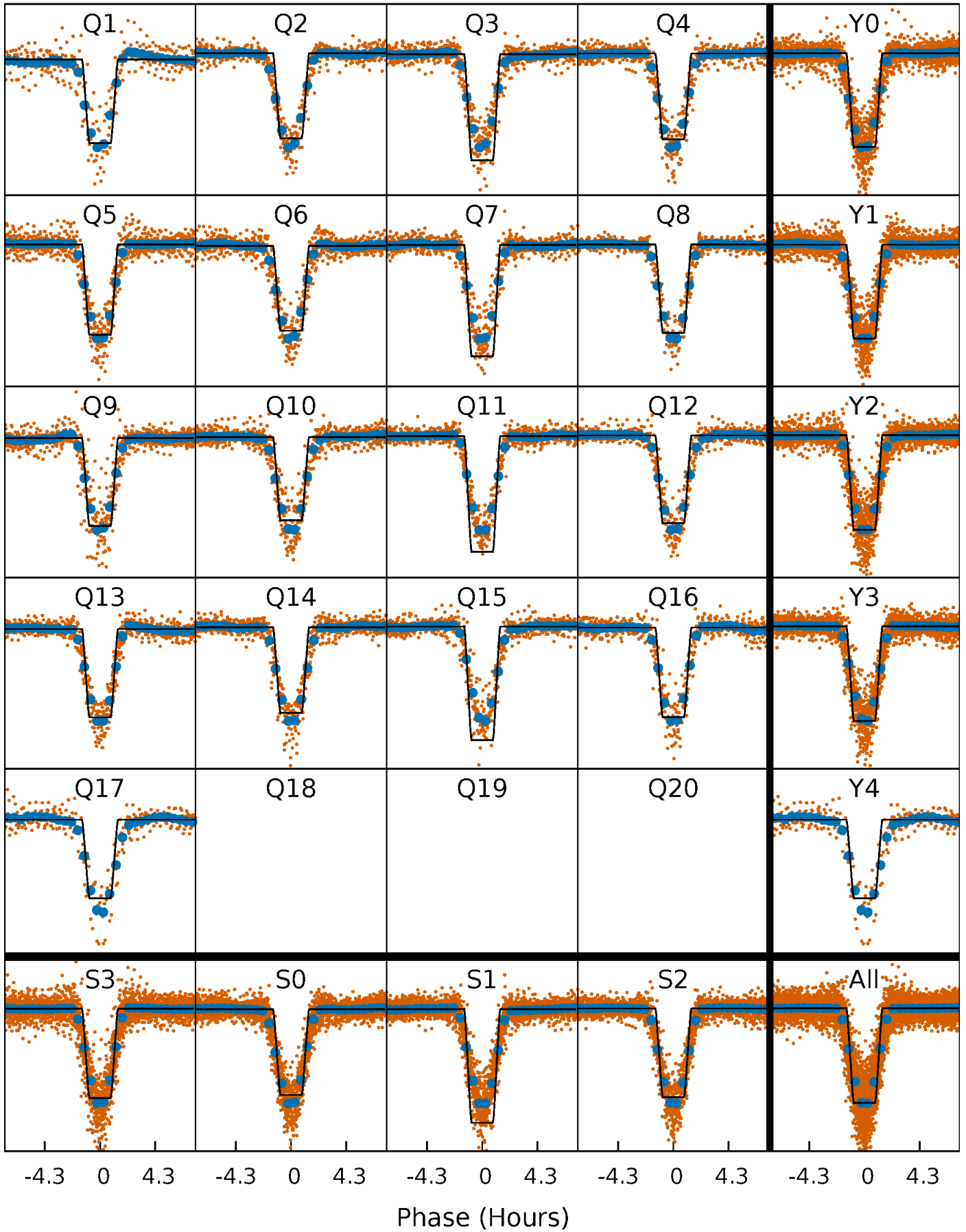
DV Quarter-Phased Transit Curves

TCE 008718273-01 P= 3.479526 Days $T_0=133.385610$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

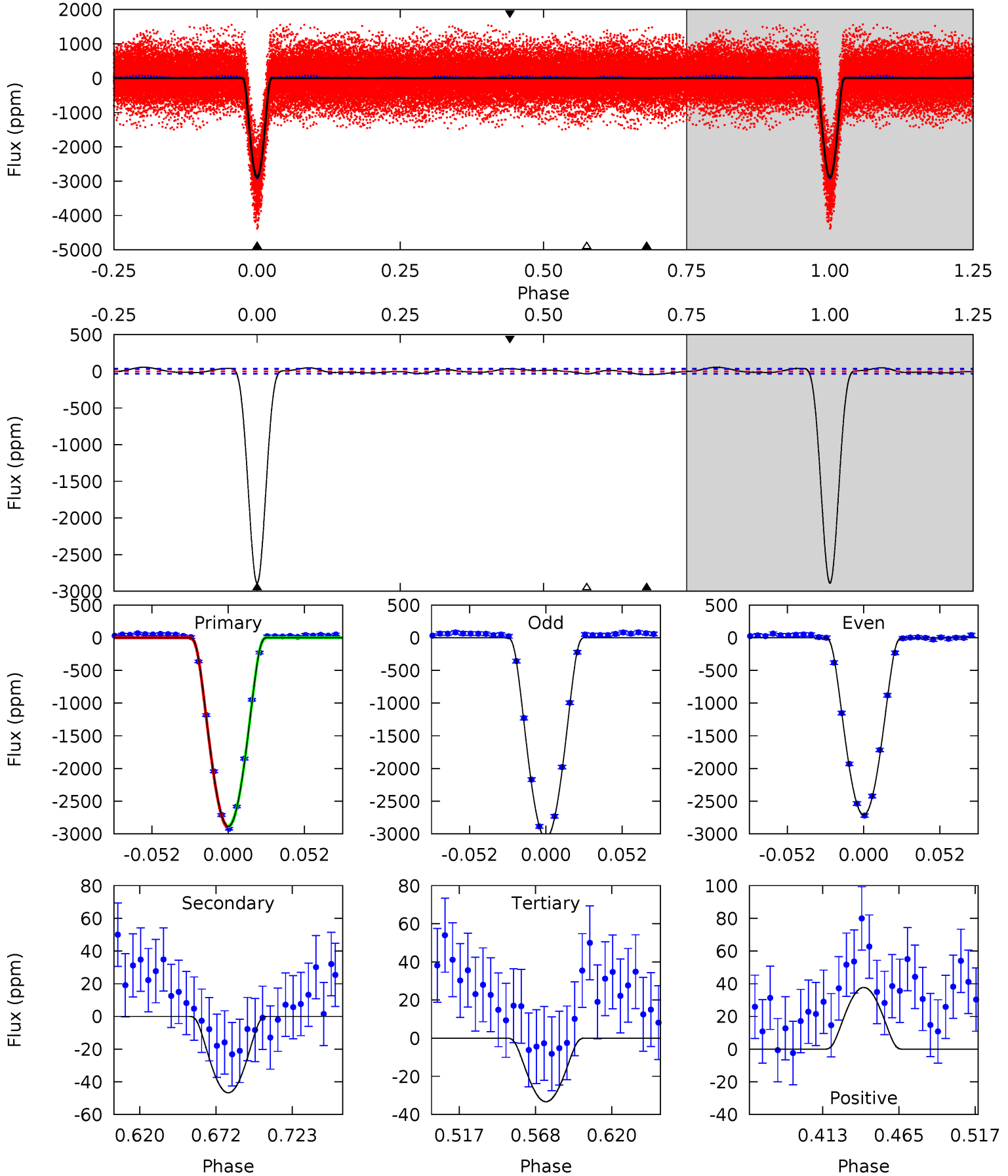
TCE 008718273-01 P= 3.479496 Days $T_0=133.391769$ (BKJD)



DV Model-Shift Uniqueness Test

008718273-01, P = 3.479526 Days, E = 129.906084 Days

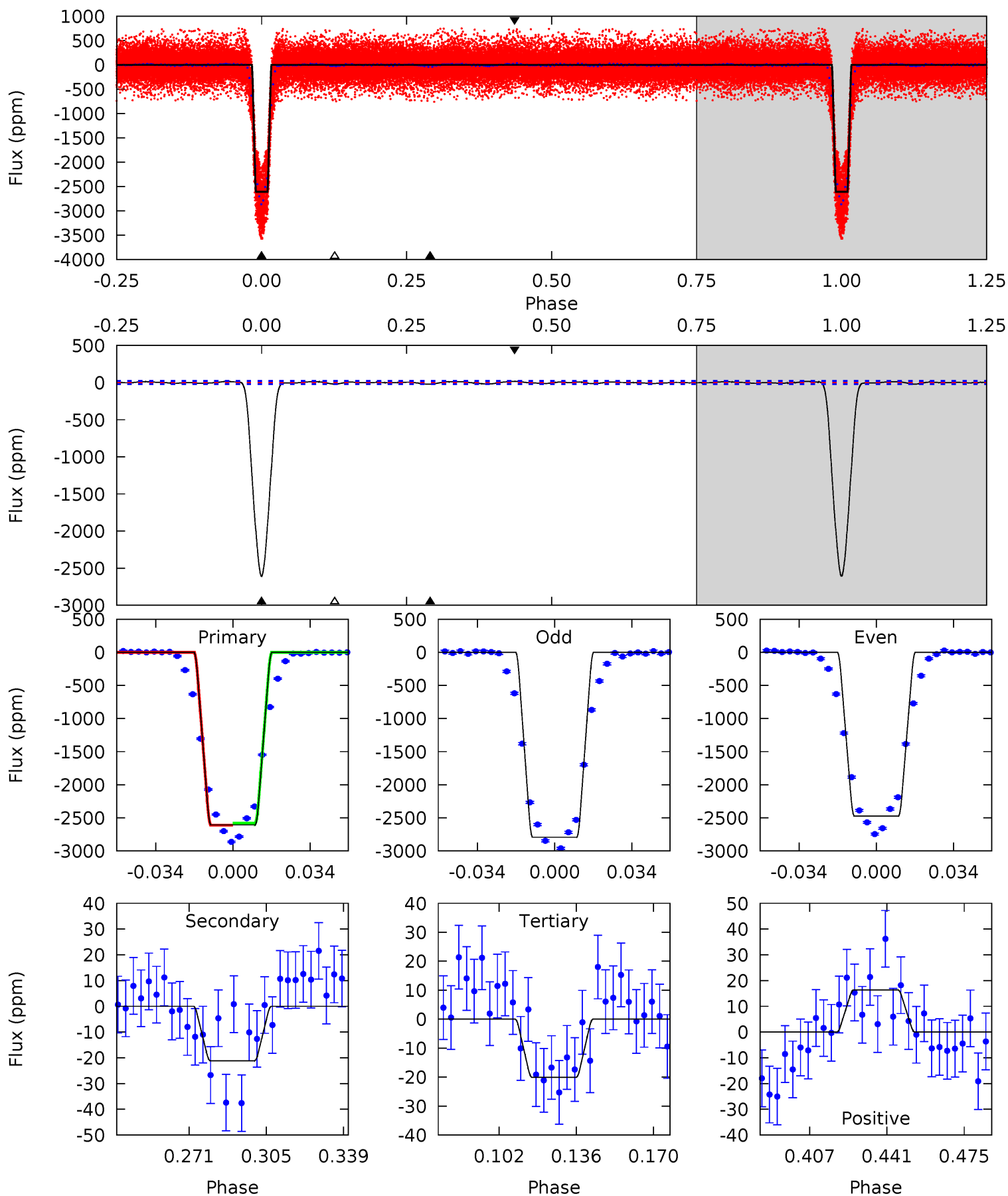
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
409.7	6.63	4.72	5.35	4.70	1.95	3.02	405.0	404.4	1.91	1.28	25.3	1.02	0.02	0.53



Alt Model-Shift Uniqueness Test

008718273-01, P = 3.479496 Days, E = 129.912273 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
575.0	4.66	4.42	3.61	4.79	2.12	1.73	570.6	571.4	0.24	1.05	35.6	1.02	0.01	3.44



Stellar Parameters For KIC 008718273

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4630^{+55}_{-62}	$2.437^{+0.126}_{-0.115}$	$-0.060^{+0.150}_{-0.150}$	$12.623^{+2.094}_{-2.879}$	$1.588^{+0.208}_{-0.485}$	$0.001^{+0.001}_{-0.000}$
	+1%/-1%	+5%/-5%	+250%/-250%	+17%/-23%	+13%/-31%	+77%/-32%
Source	SPE74	SPE74	SPE74	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008718273-01 / KOI 5564.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-47 ± 7	$133.49^{+13.38}_{-18.24}$	4434^{+195}_{-218}	-3861^{+136}_{-121}	$0.004^{+0.001}_{-0.001}$
Alt.	-21 ± 5	$73.79^{+8.14}_{-9.96}$	4431^{+207}_{-222}	-3853^{+131}_{-131}	$0.006^{+0.002}_{-0.002}$

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 $A_{obs} \gg 1.0$

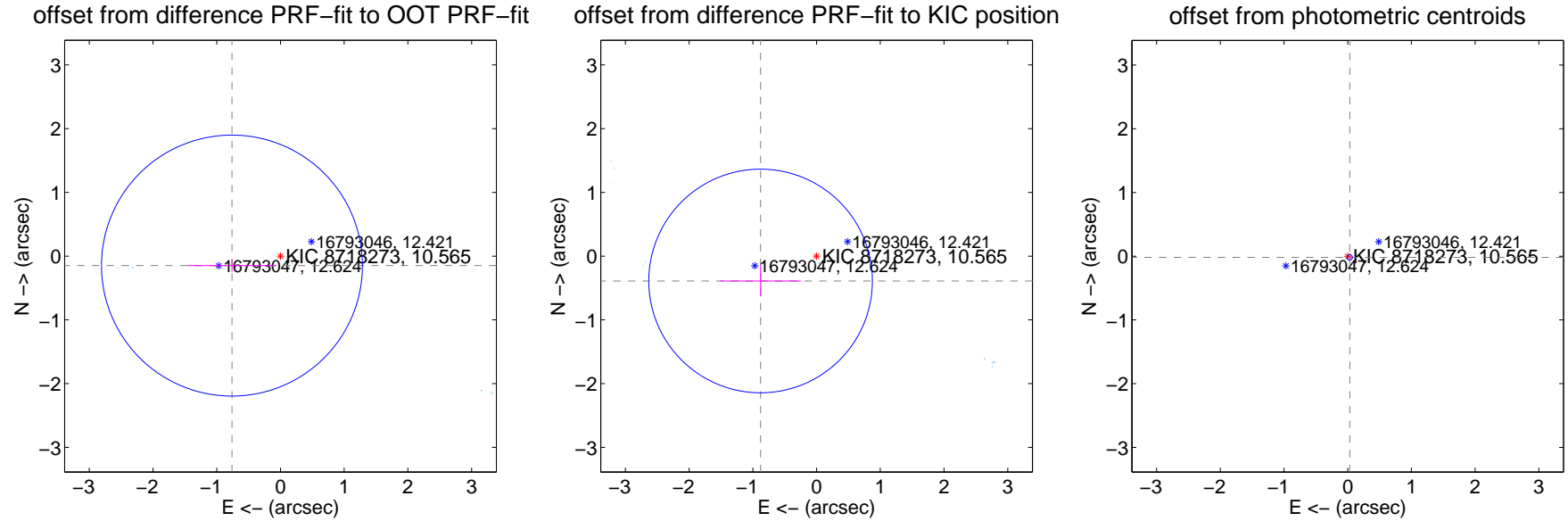
DV Centroid Data

Supplemental centroid analysis for 008718273-01. **Kepler magnitude: 10.56.** Transit SNR 263.57

There are 17 quarters with good PRF difference image offsets

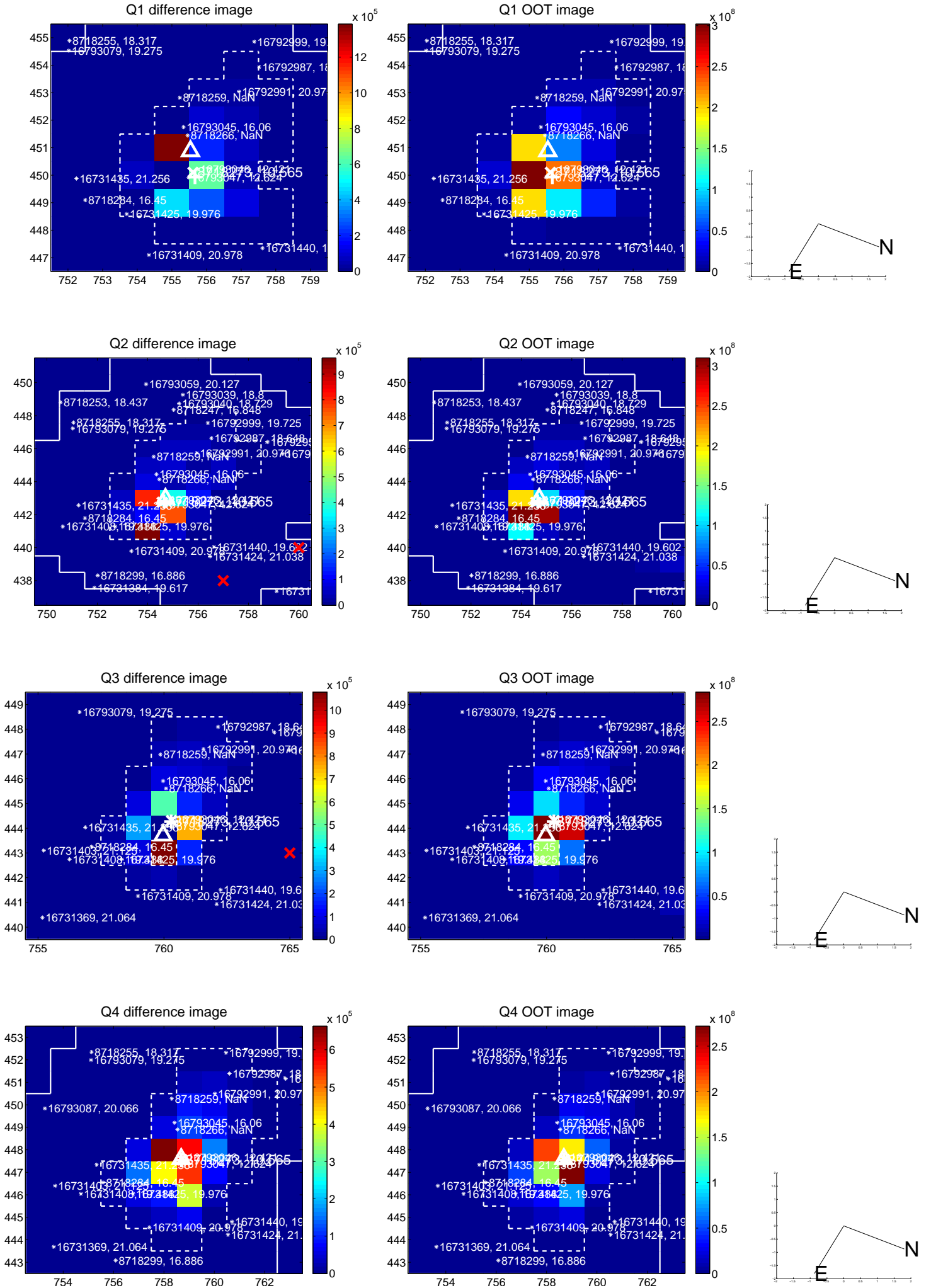
The direct PRF centroid is offset from the target star catalog position by about 0.81 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.776 ± 0.683	1.14	0.761 ± 0.695	-0.148 ± 0.096
PRF-fit source offset from KIC position	0.961 ± 0.585	1.64	0.879 ± 0.631	-0.390 ± 0.242
photometric centroid source offset	0.04 ± 0.01	2.68	-0.03 ± 0.01	-0.02 ± 0.01

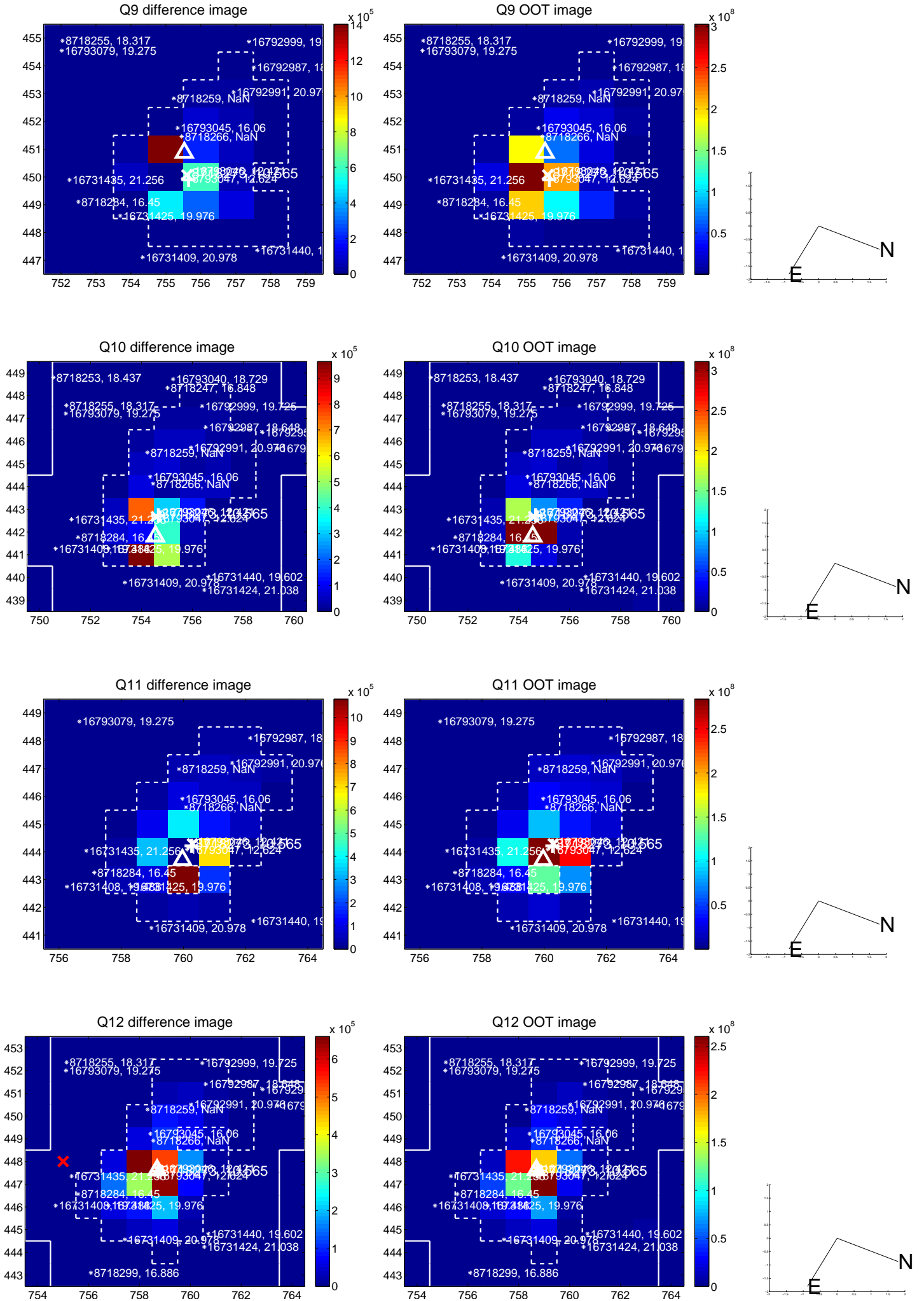


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

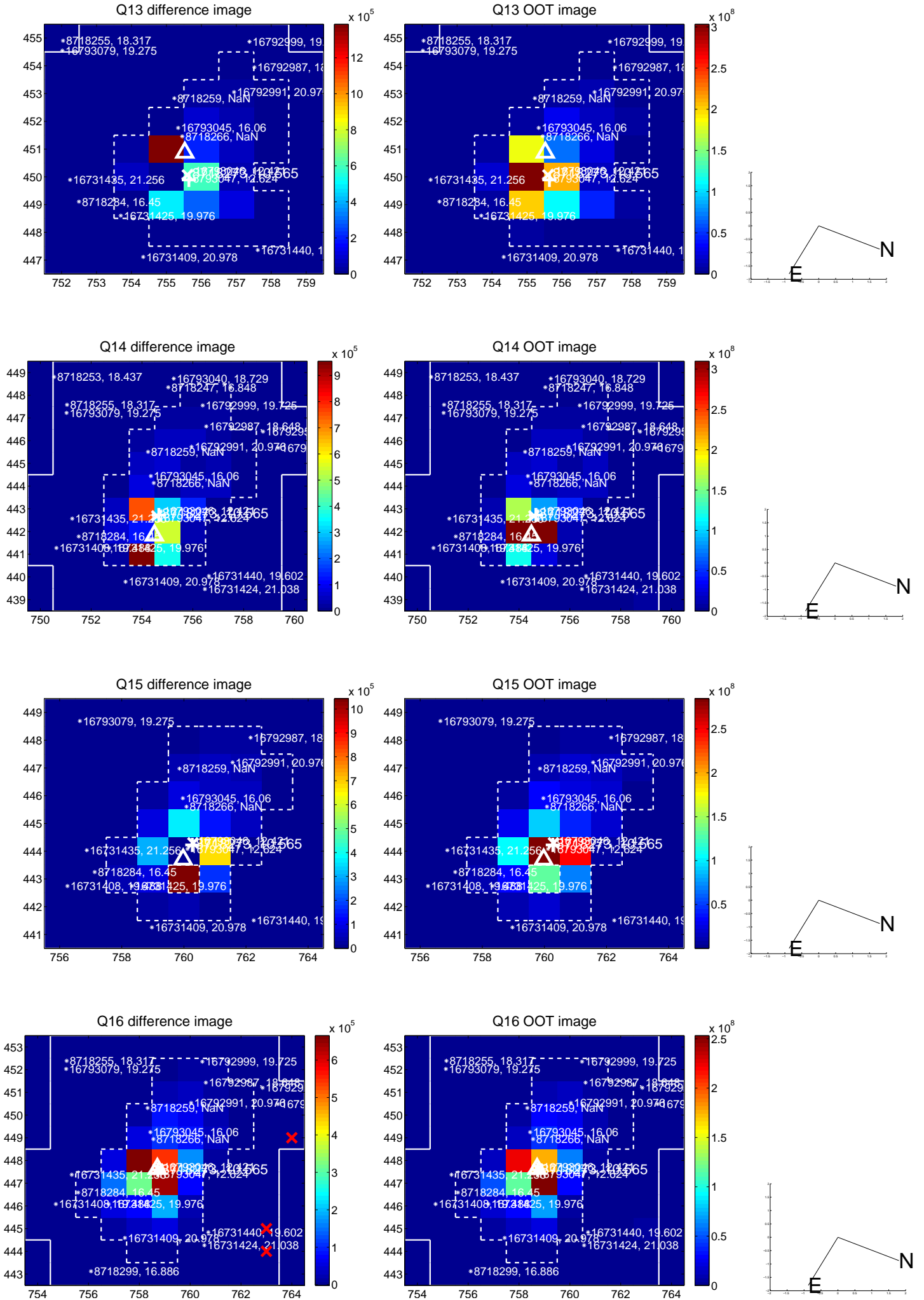
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



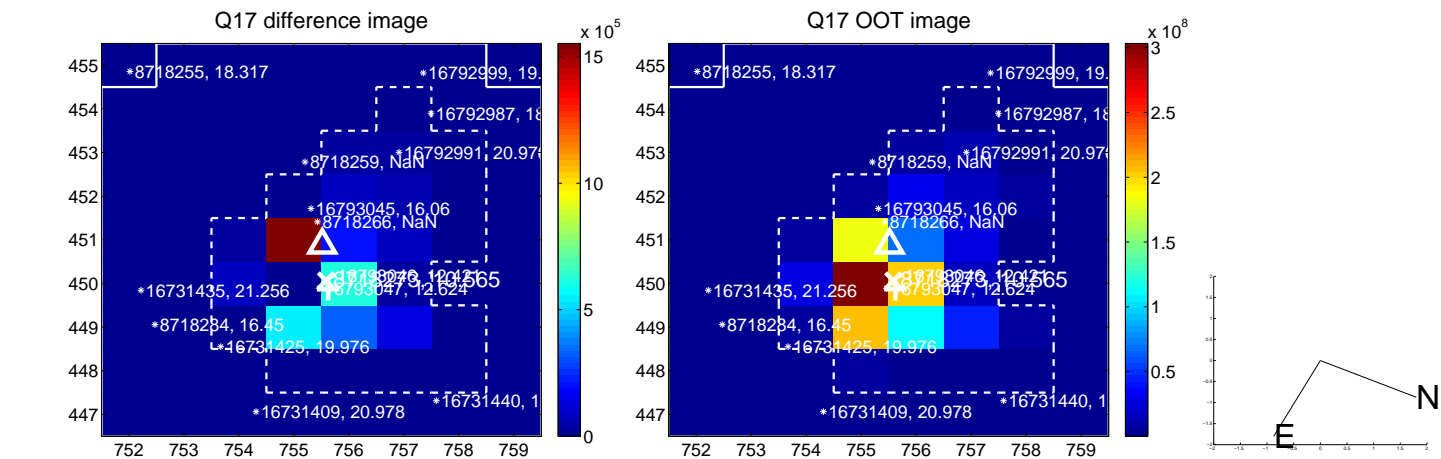
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



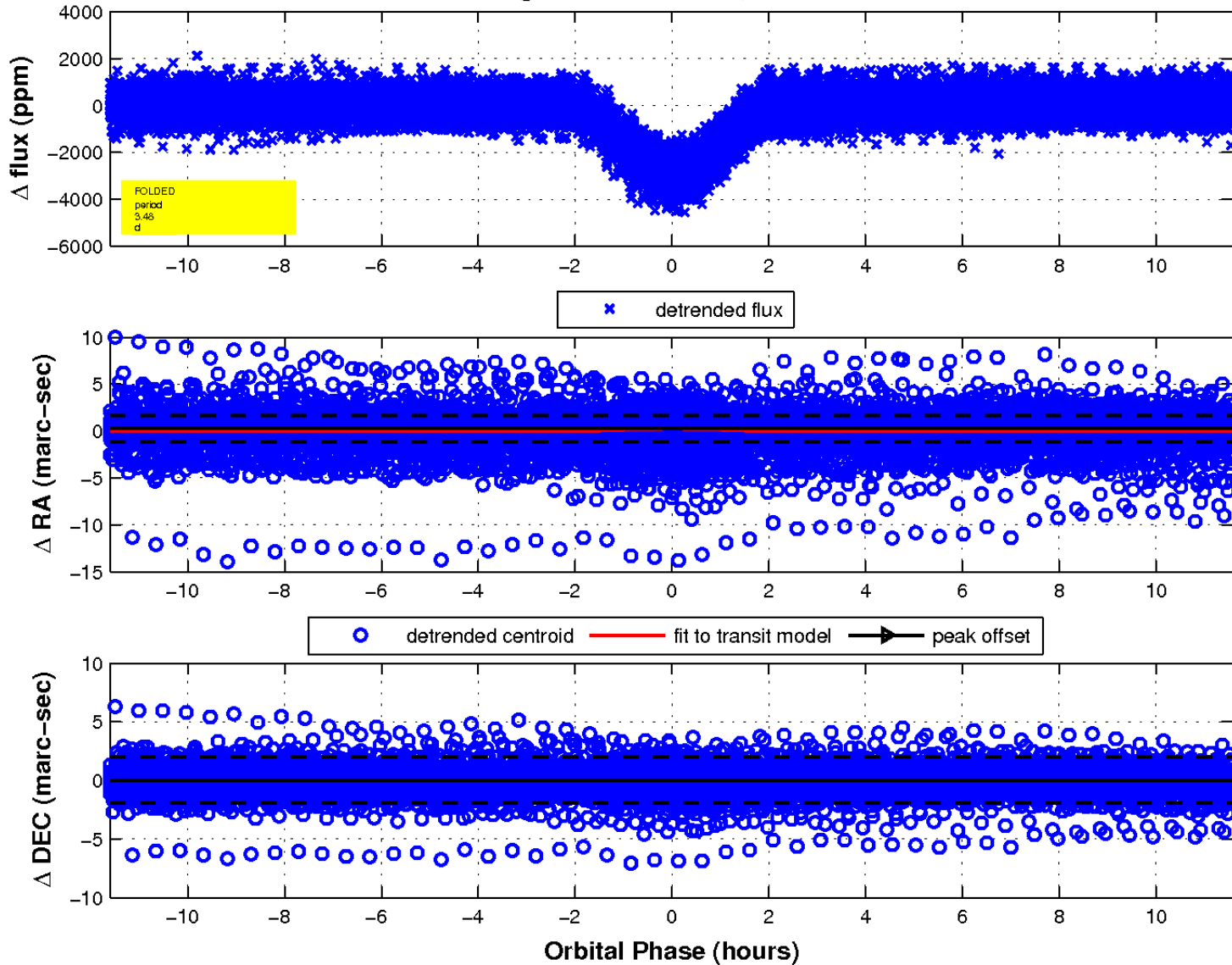
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

