

KIC 007917014

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})
007917014-01	OBS	No	4.041420	135.380505	58.0	24.262	9.2	10.6	3.11	7872	2.71	8095.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007917014-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

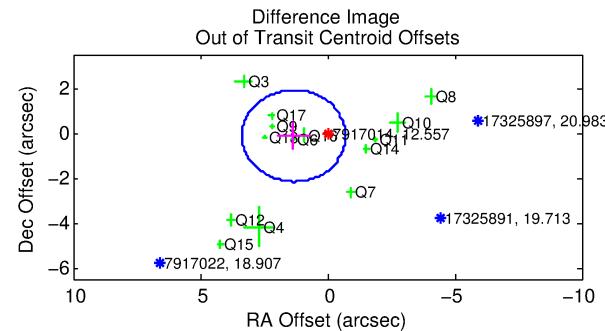
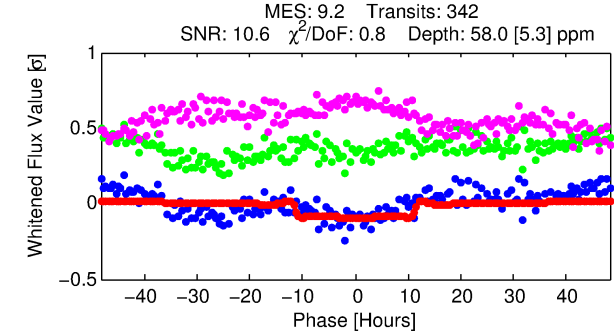
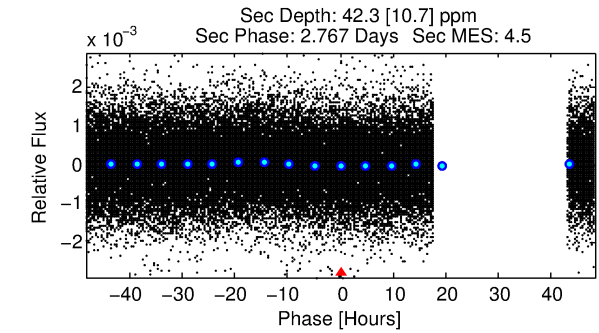
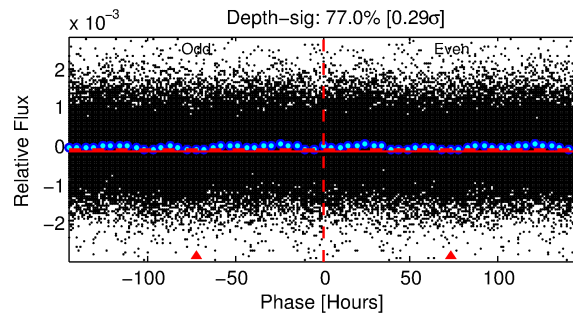
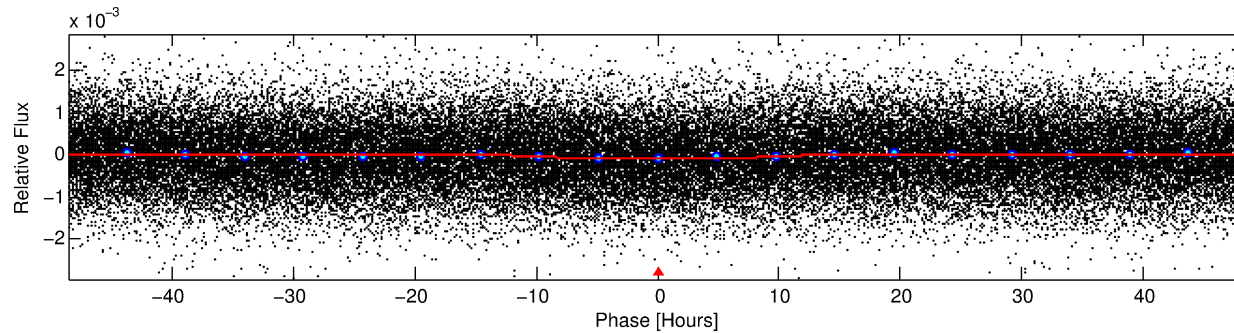
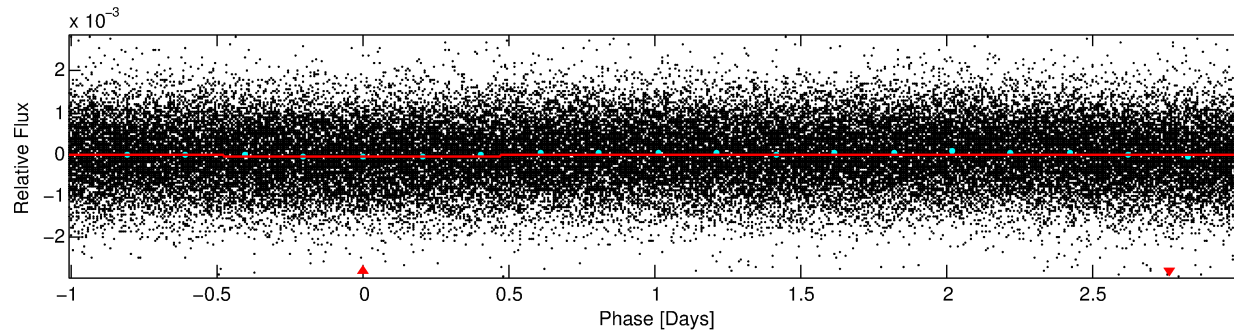
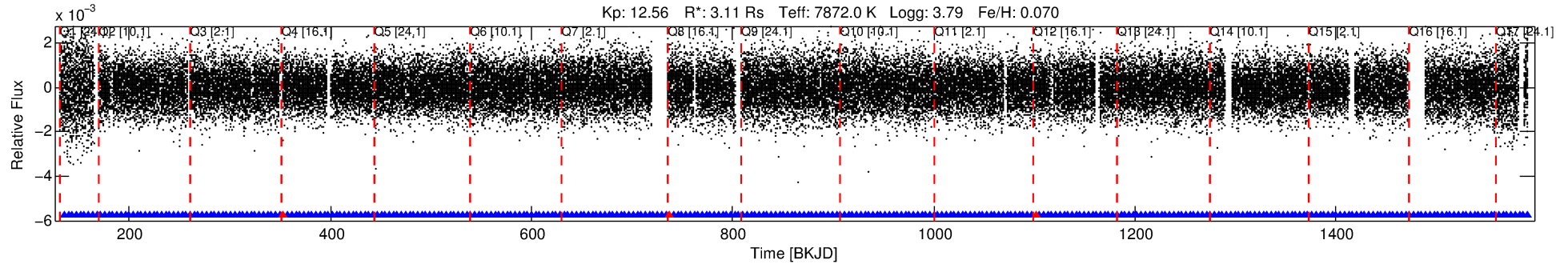
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007917014-01

No Significant Match Found

DV One-Page Summary

KIC: 7917014 Candidate: 1 of 1 Period: 4.041 d



DV Fit Results:

Period = 4.04142 [0.00012] d
Epoch = 135.3805 [0.0228] BKJD
Rp/R* = 0.0080 [0.0015]
a/R* = 1.12 [0.27]
b = 0.88 [0.31]
Seff = 8095.99 [5363.58]
Teq = 2419 [401] K
Rp = 2.71 [1.34] Re
a = 0.0641 [0.0265] AU
Ag = 13.02 [10.27] [1.17 σ]
Teffp = 7104 [870] K [4.89 σ]

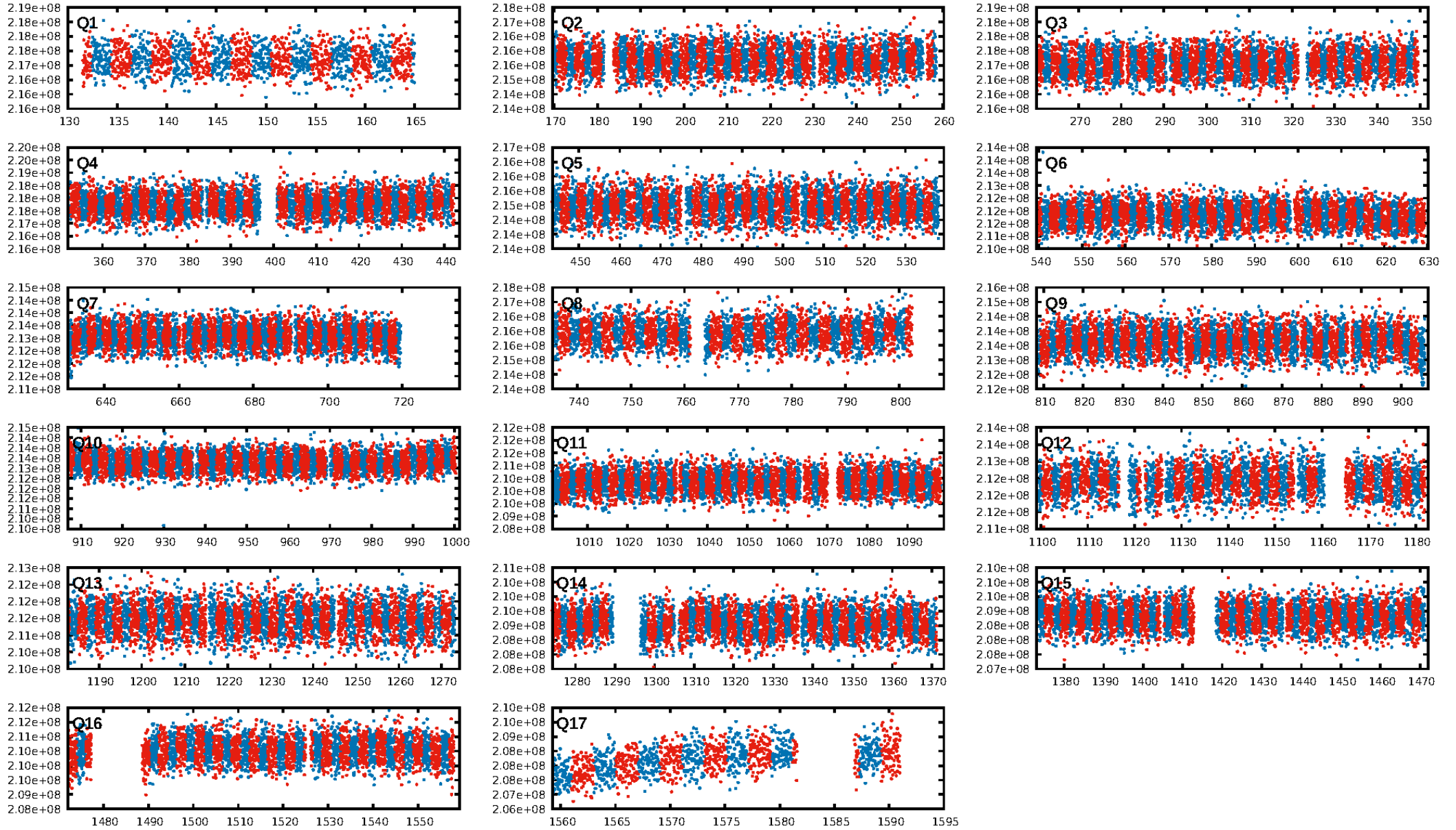
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.95e-19
RollingBand-fgt: 0.99 [324/327]
GhostDiagnostic-chr: 1.526
Centroid-sig: 0.1%
Centroid-so: 0.545 arcsec [2.24 σ]
OotOffset-rm: 1.333 arcsec [1.96 σ]
KicOffset-rm: 1.436 arcsec [2.06 σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.57 [8/14]
DiffImageOverlap-fno: 1.00 [17/17]

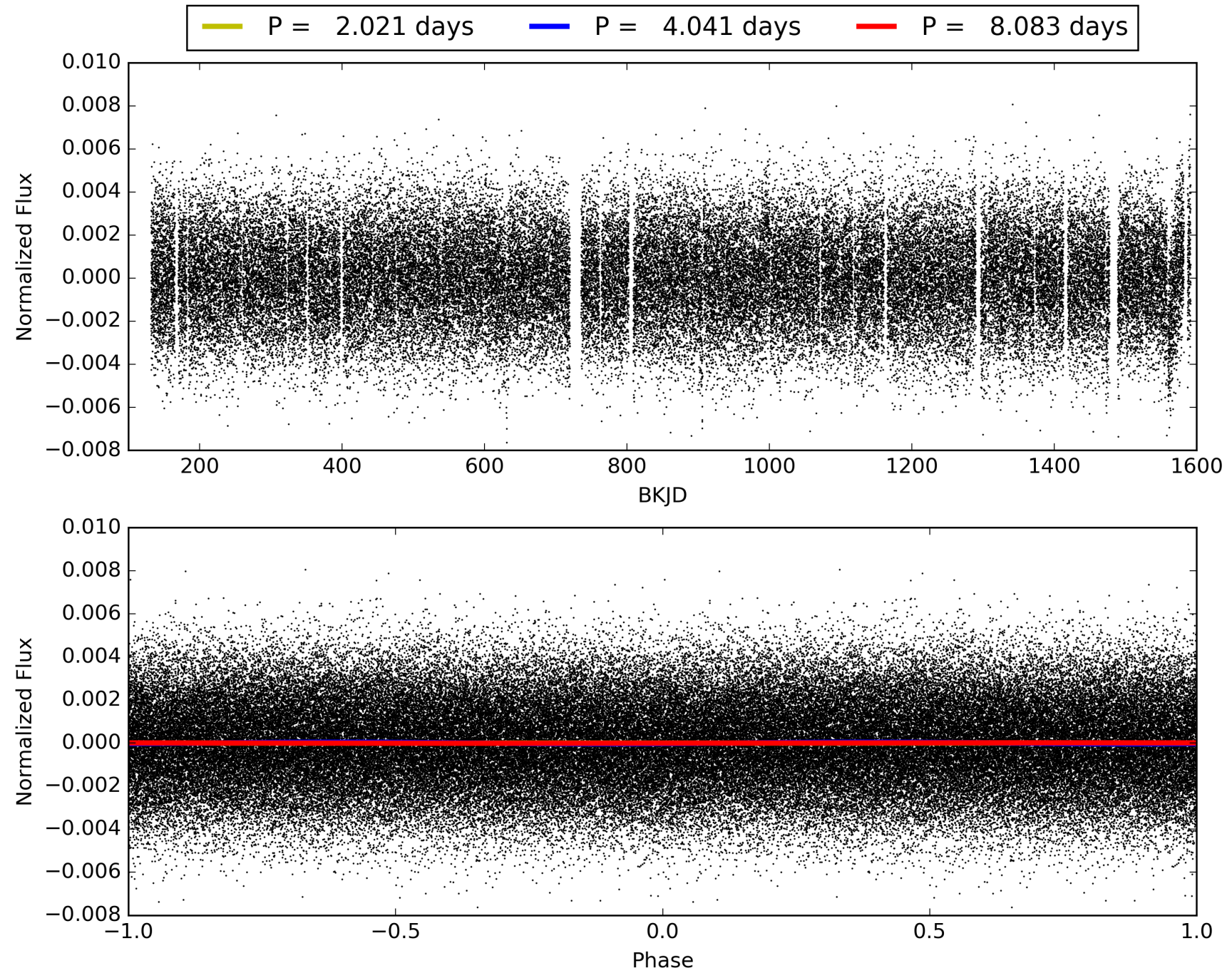
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:13:47 Z

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

TCE 007917014-01, PDC Light Curves

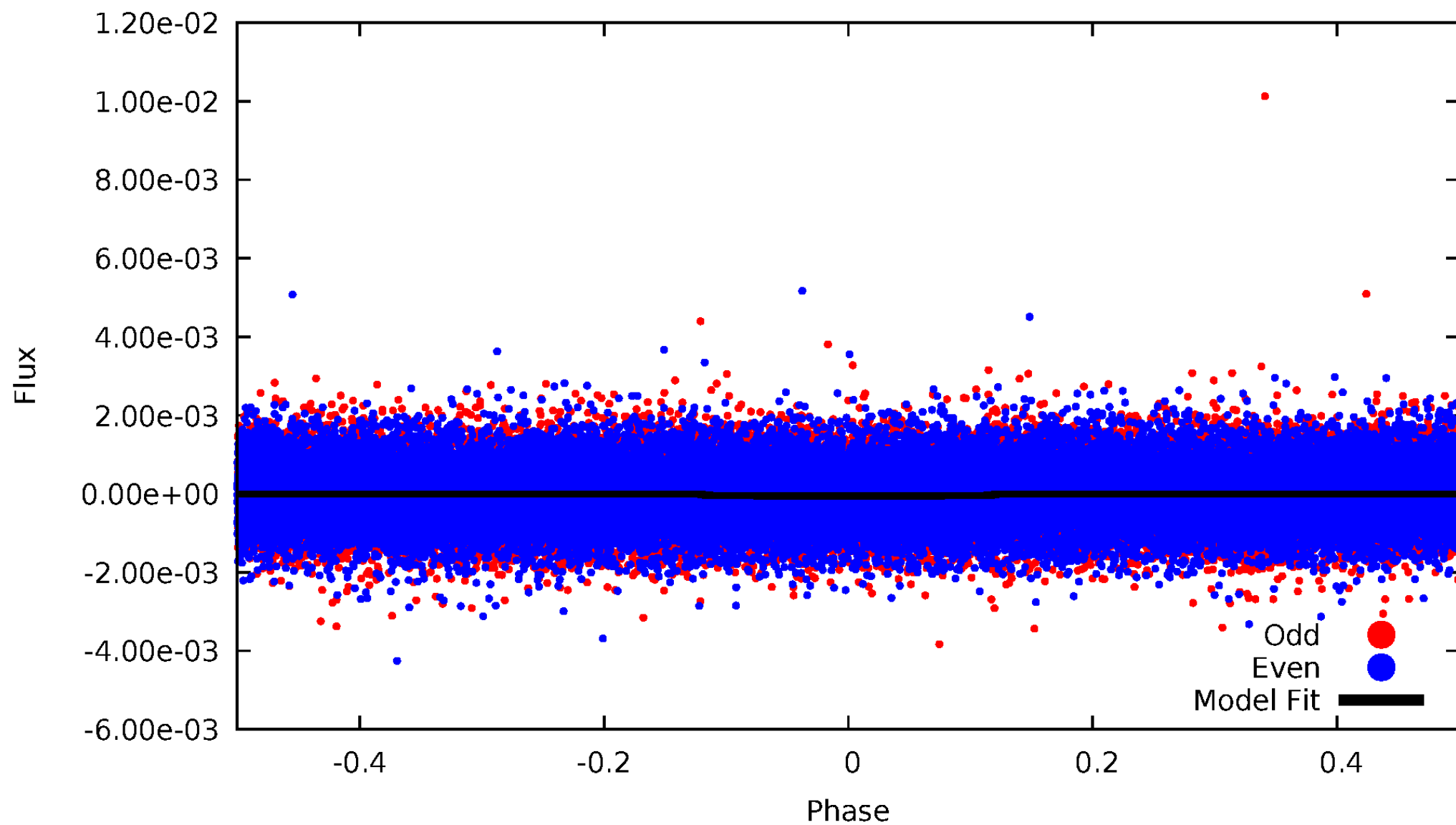


TCE 007917014-01



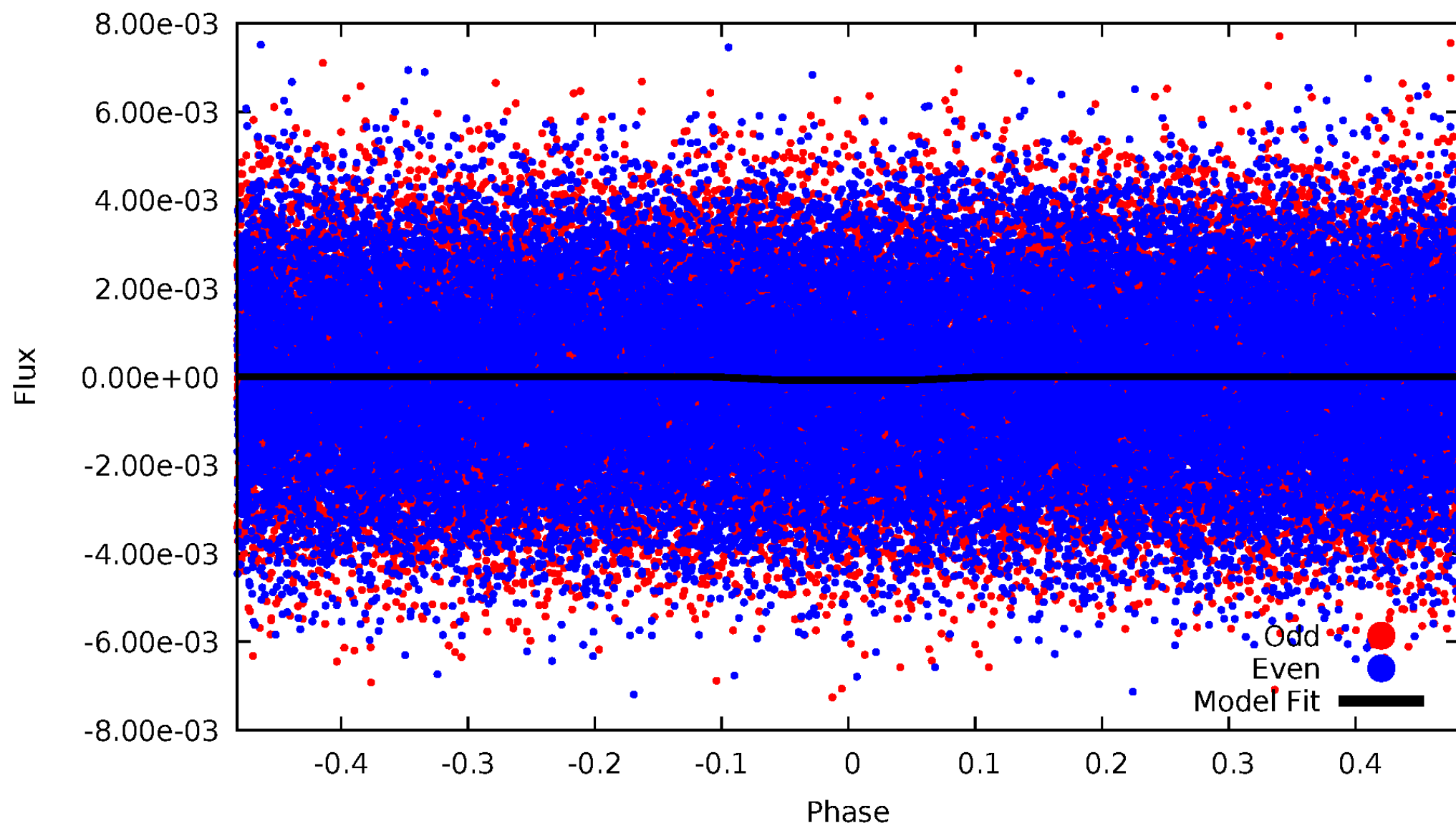
DV Odd/Even

TCE 007917014-01



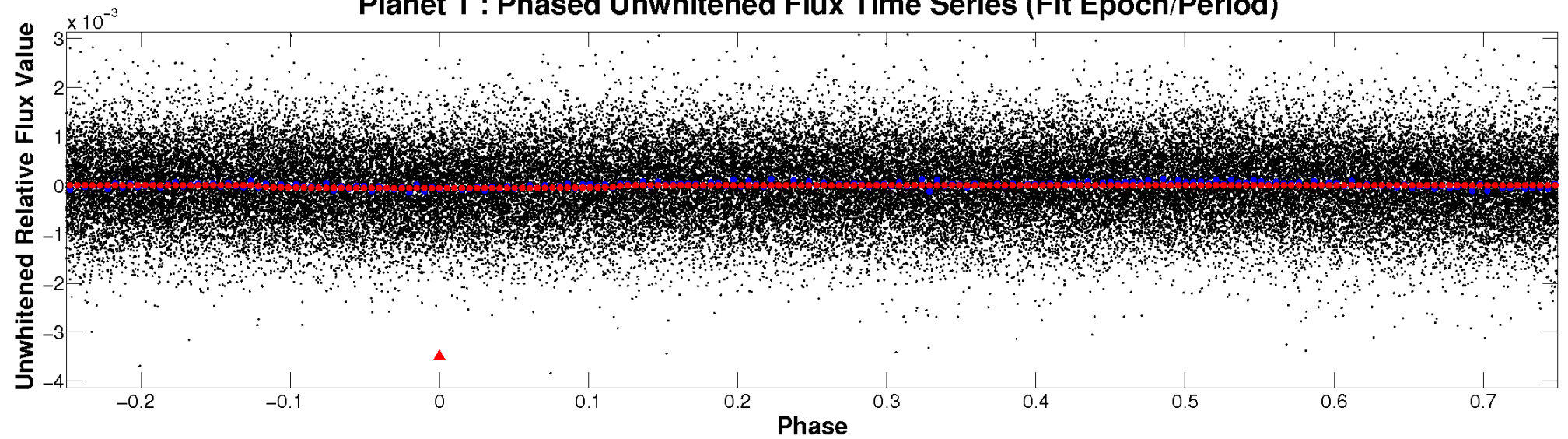
ALT Odd/Even

TCE 007917014-01

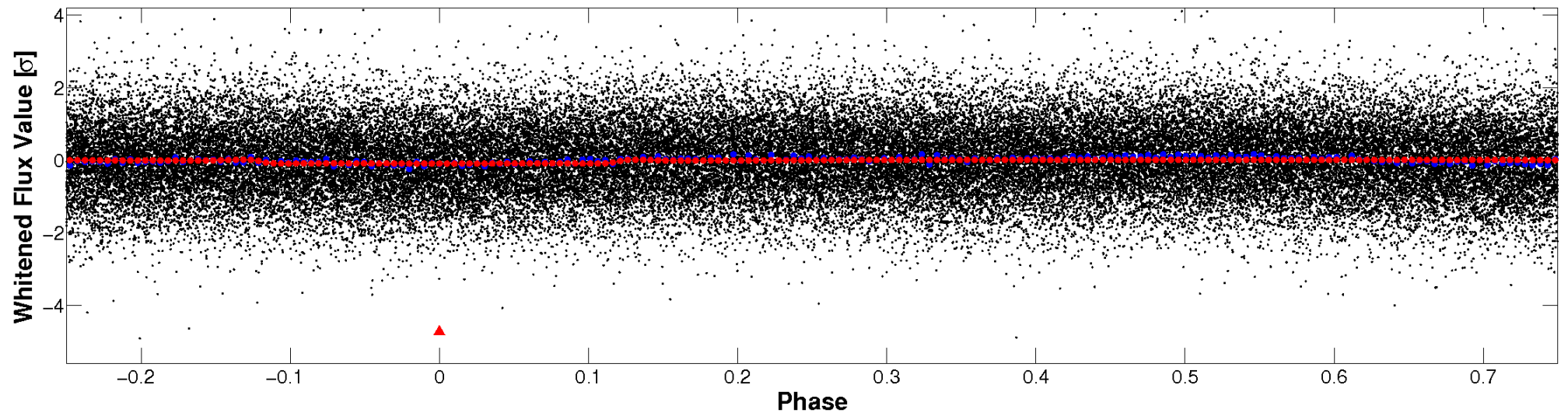


Non-Whitened Vs. Whitened Light Curve

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

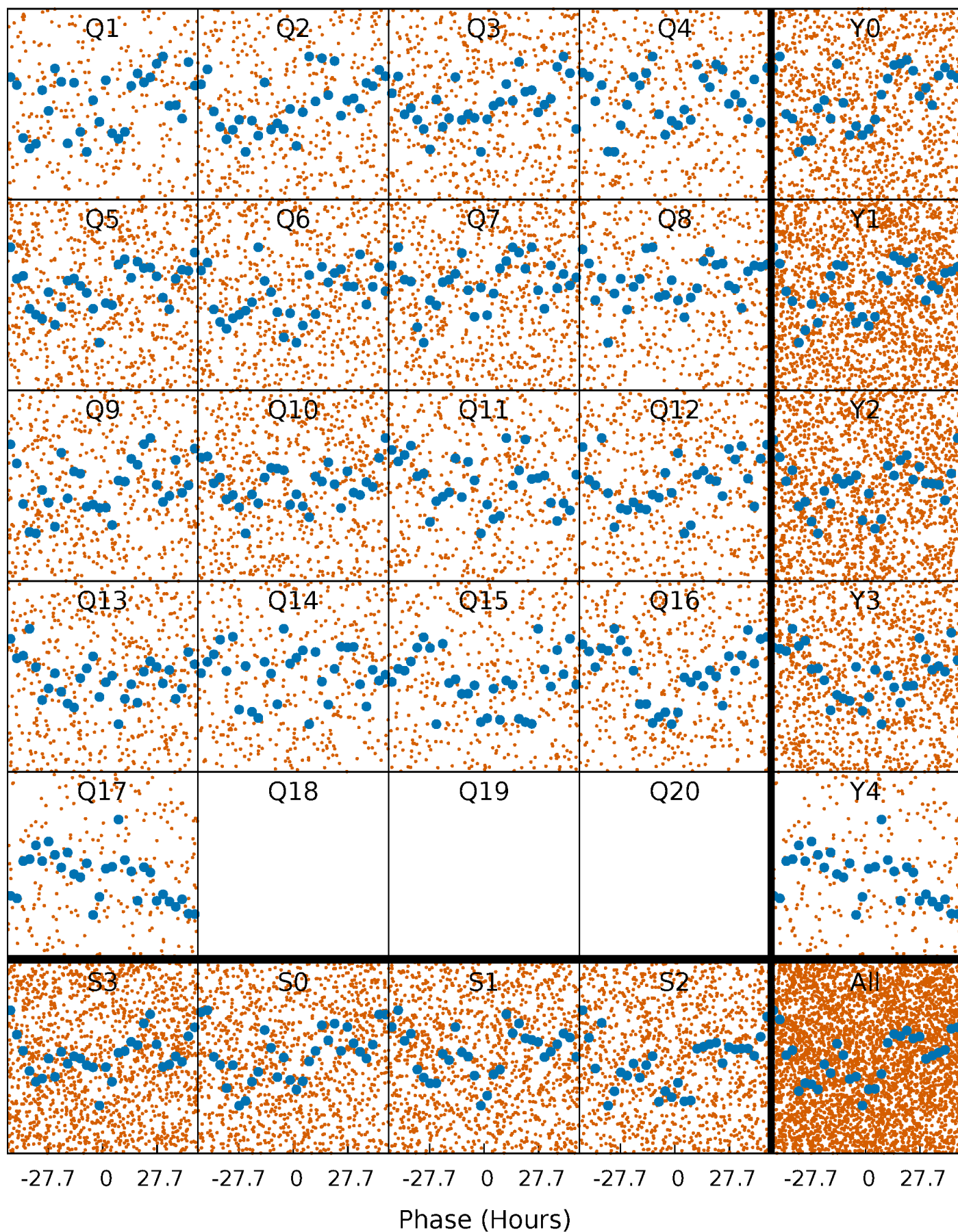


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



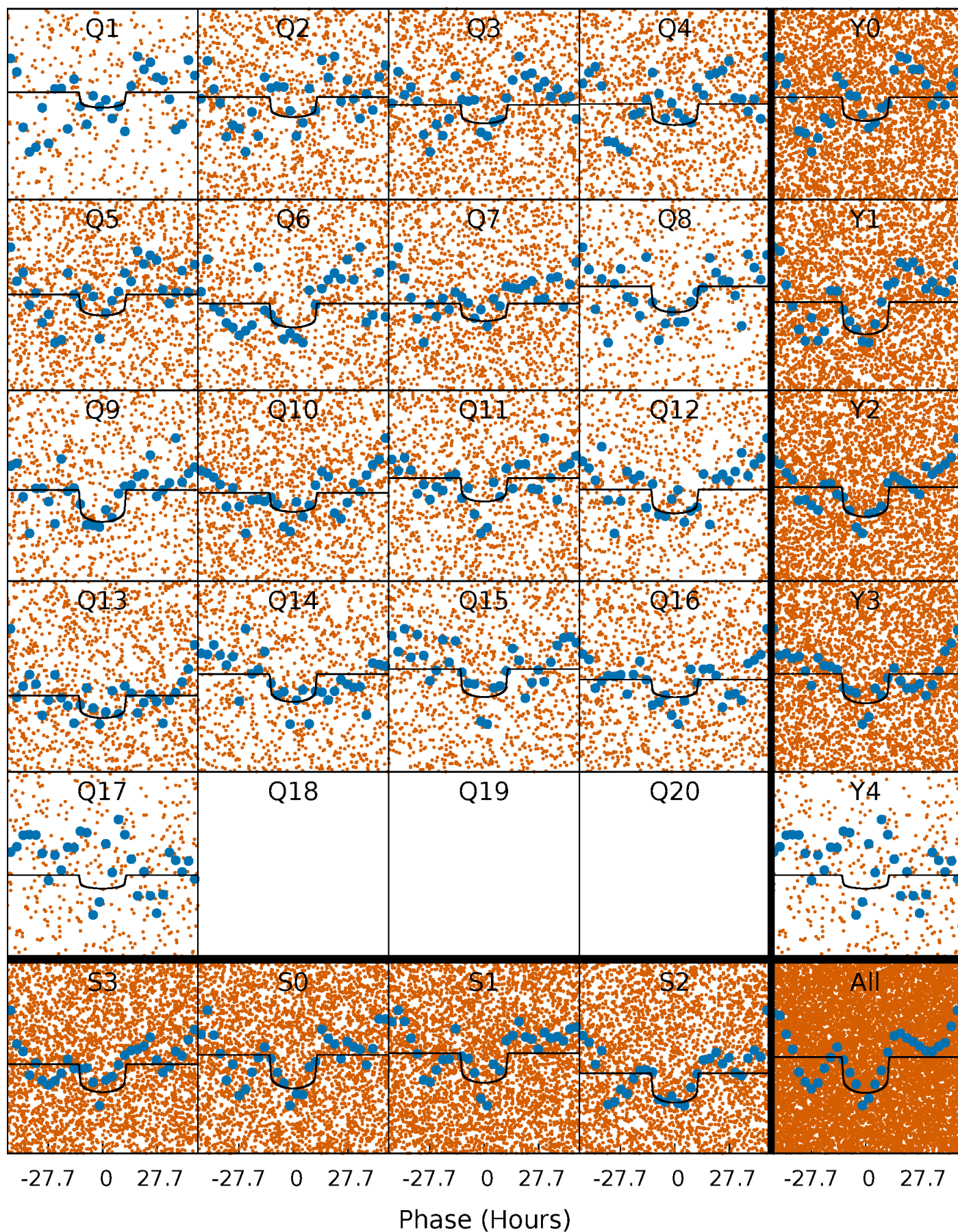
PDC Quarter-Phased Transit Curves

TCE 007917014-01 P= 4.041420 Days $T_0=135.380505$ (BKJD)



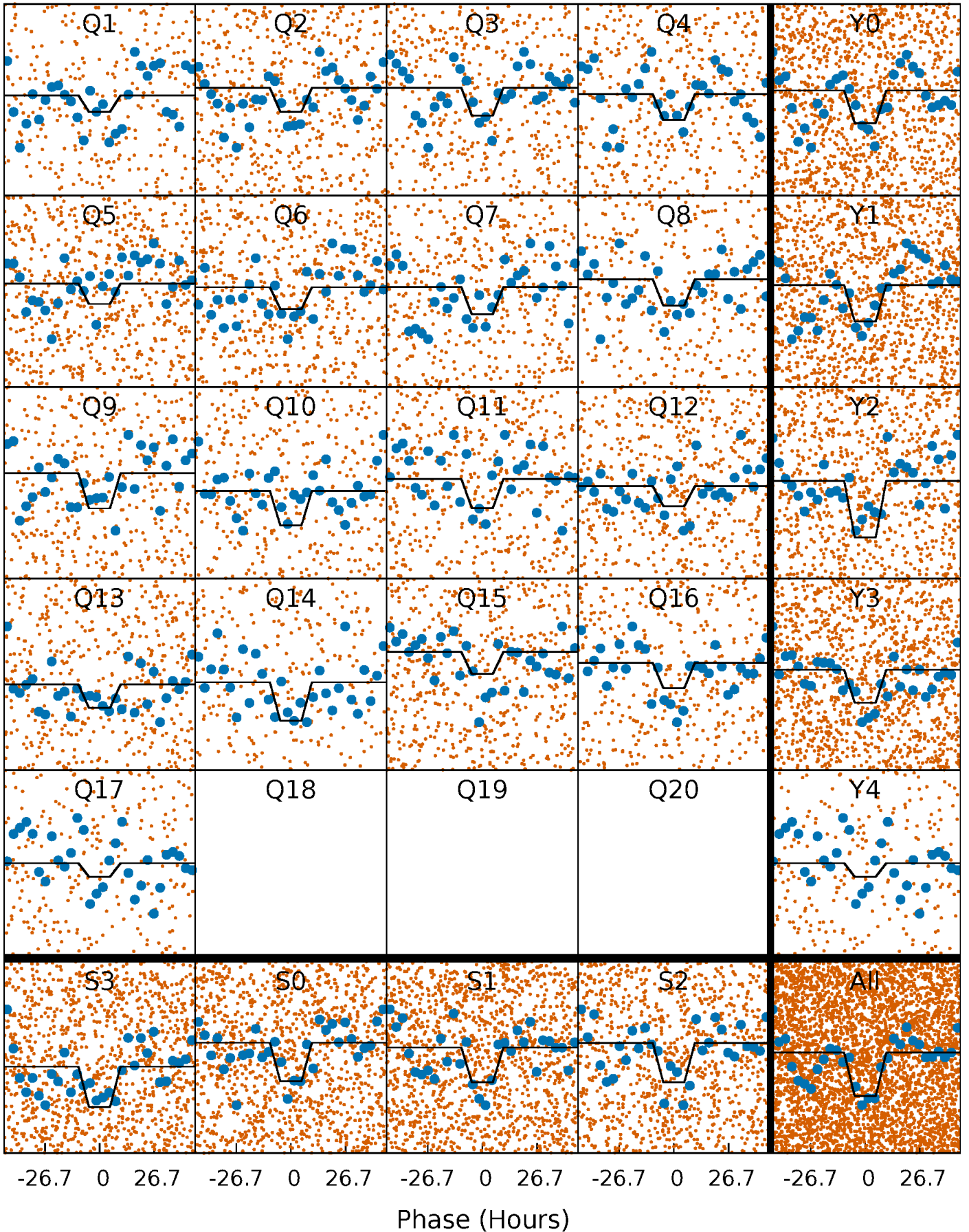
DV Quarter-Phased Transit Curves

TCE 007917014-01 P= 4.041420 Days $T_0=135.380505$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

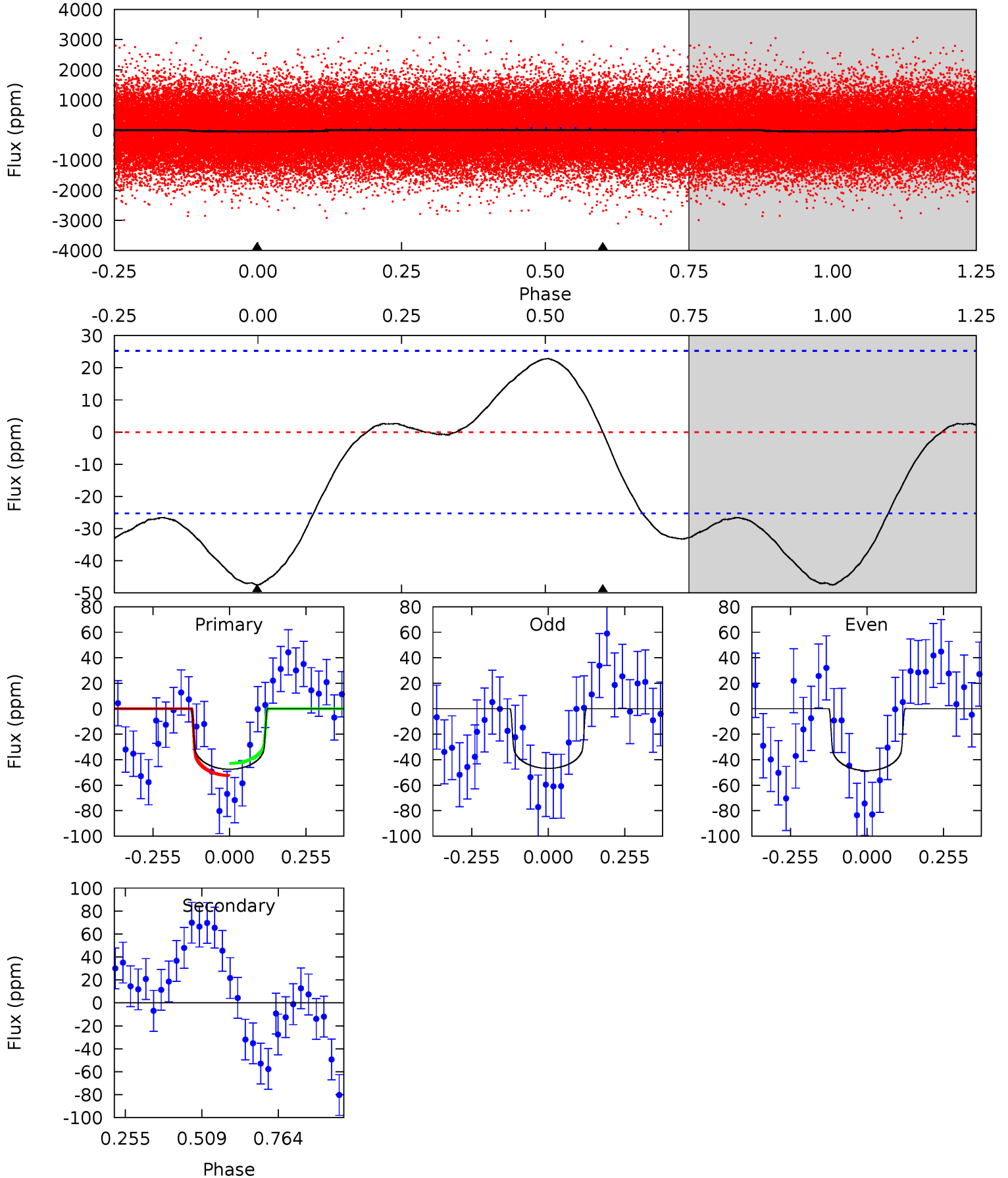
TCE 007917014-01 P= 4.041143 Days $T_0=135.426690$ (BKJD)



DV Model-Shift Uniqueness Test

007917014-01, P = 4.041420 Days, E = 131.339085 Days

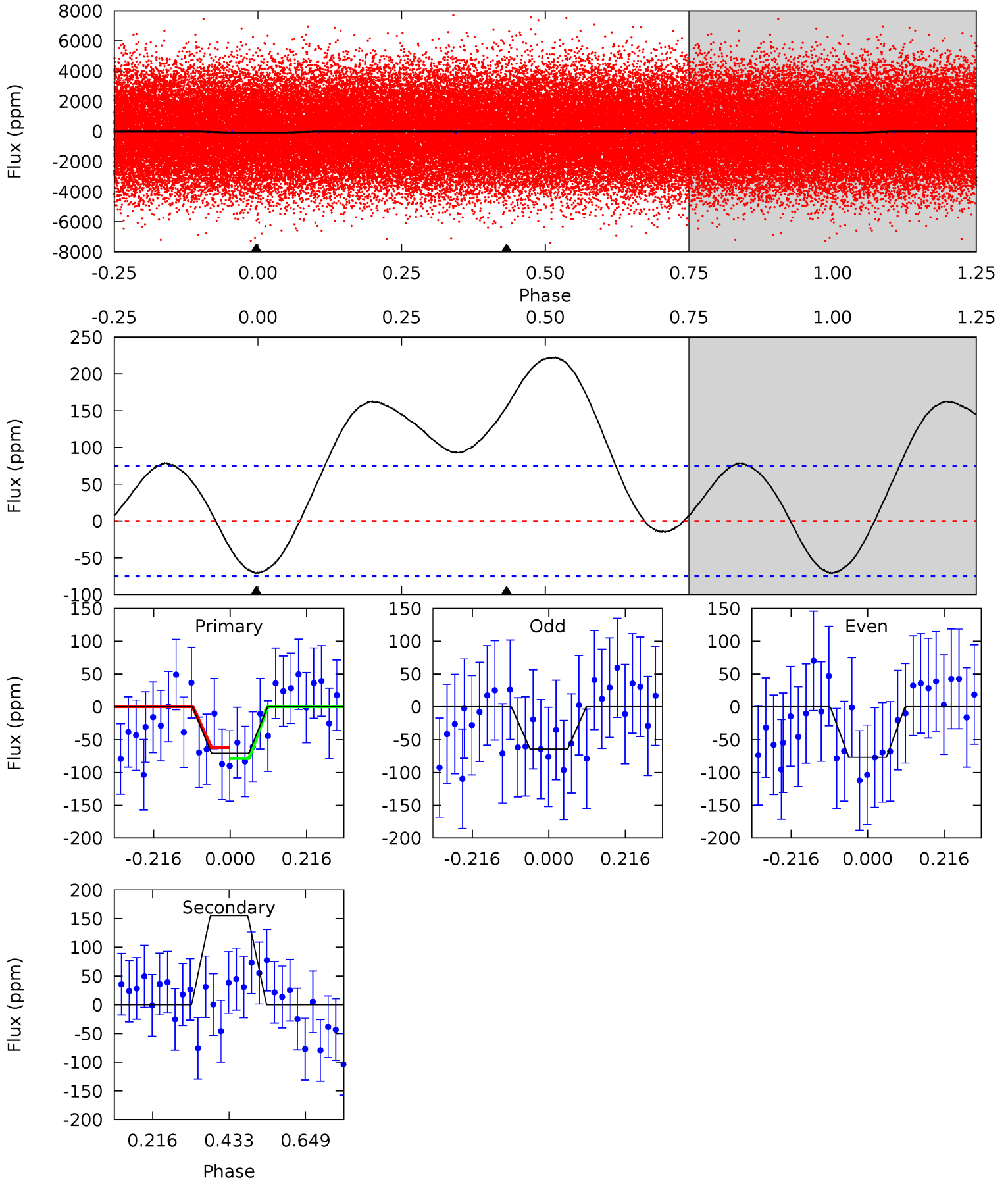
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.20	0	0	0	4.36	1.14	0.16	8.20	8.20	0	0	0.16	0.90	0.32	0.83



Alt Model-Shift Uniqueness Test

007917014-01, P = 4.041143 Days, E = 131.385547 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.14	-9.11	0	0	4.40	1.24	1.62	4.14	4.14	-9.11	-9.11	0.37	0.87	0.76	0.48



Stellar Parameters For KIC 007917014

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7872^{+220}_{-330}	$3.785^{+0.368}_{-0.092}$	$0.070^{+0.200}_{-0.400}$	$3.109^{+0.565}_{-1.412}$	$2.150^{+0.264}_{-0.616}$	$0.101^{+0.310}_{-0.030}$
	+3%/-4%	+10%/-2%	+286%/-571%	+18%/-45%	+12%/-29%	+308%/-29%
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 007917014-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 6	$2.53^{+0.62}_{-0.70}$	3285^{+223}_{-360}	-3123^{+7404}_{-1393}	$0.034^{+2.140}_{-2.100}$
Alt.	155 ± 17	$2.70^{+0.70}_{-0.67}$	3291^{+214}_{-343}	-10054^{+1295}_{-1812}	$-47.602^{+17.186}_{-32.282}$

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

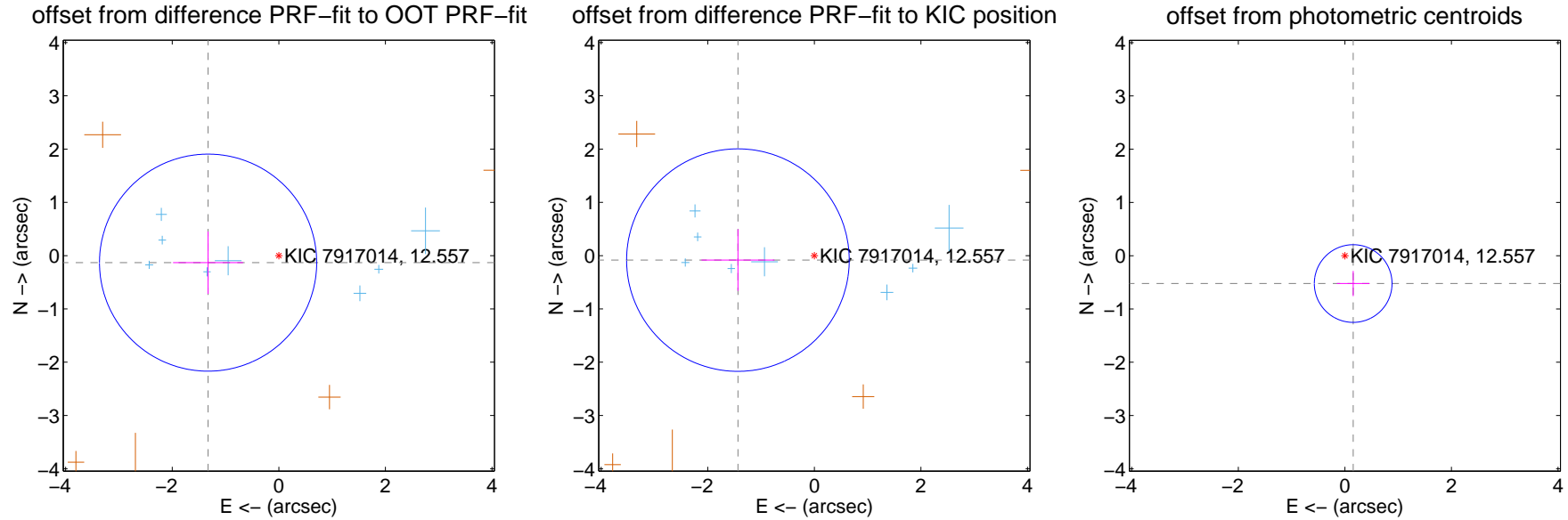
DV Centroid Data

Supplemental centroid analysis for 007917014-01. Kepler magnitude: 12.56. Transit SNR 10.60

There are 8 quarters with good PRF difference image offsets

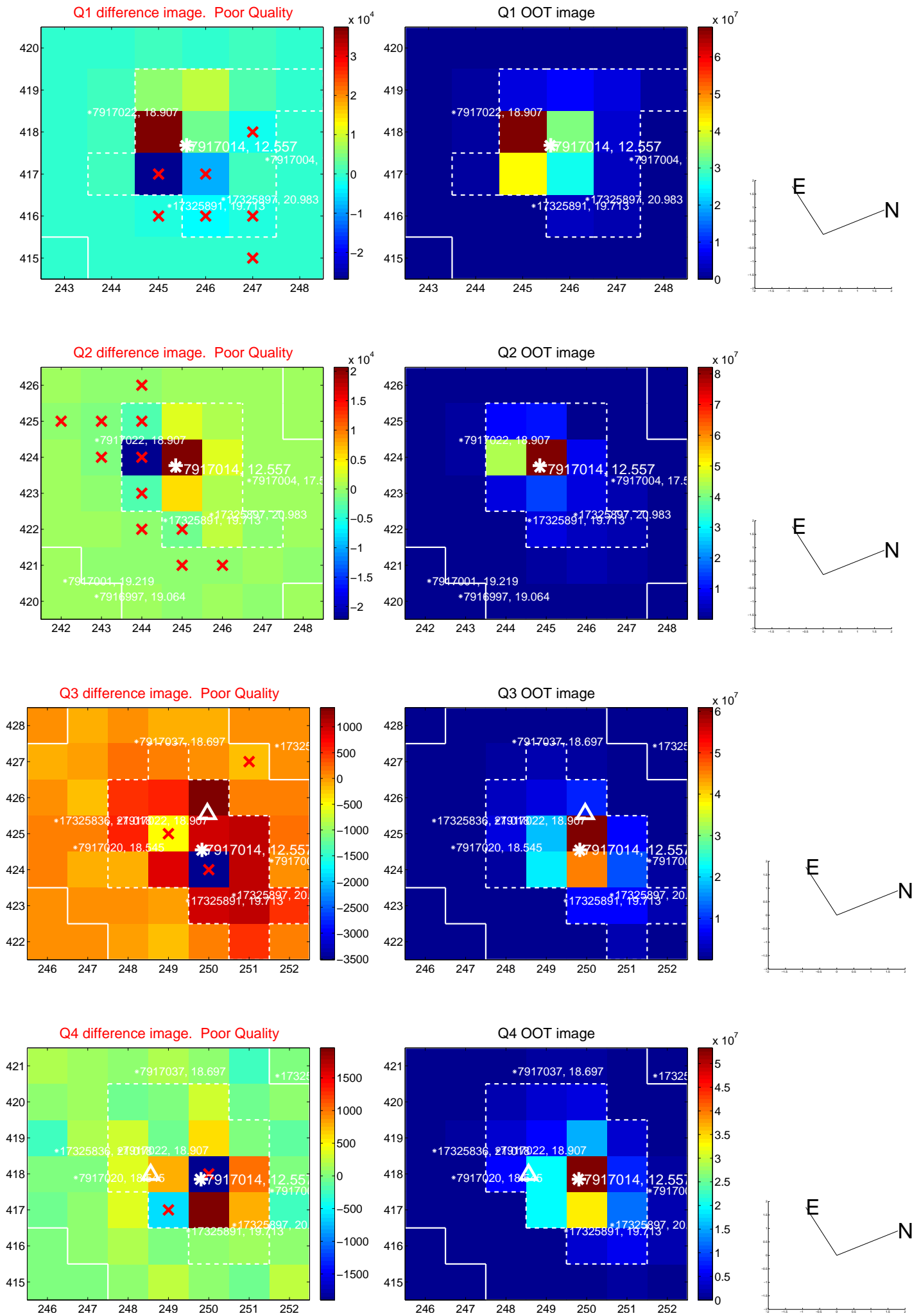
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.333 ± 0.679	1.96	1.327 ± 0.657	-0.132 ± 0.585
PRF-fit source offset from KIC position	1.436 ± 0.696	2.06	1.433 ± 0.684	-0.084 ± 0.578
photometric centroid source offset	0.55 ± 0.24	2.24	-0.16 ± 0.31	-0.52 ± 0.24

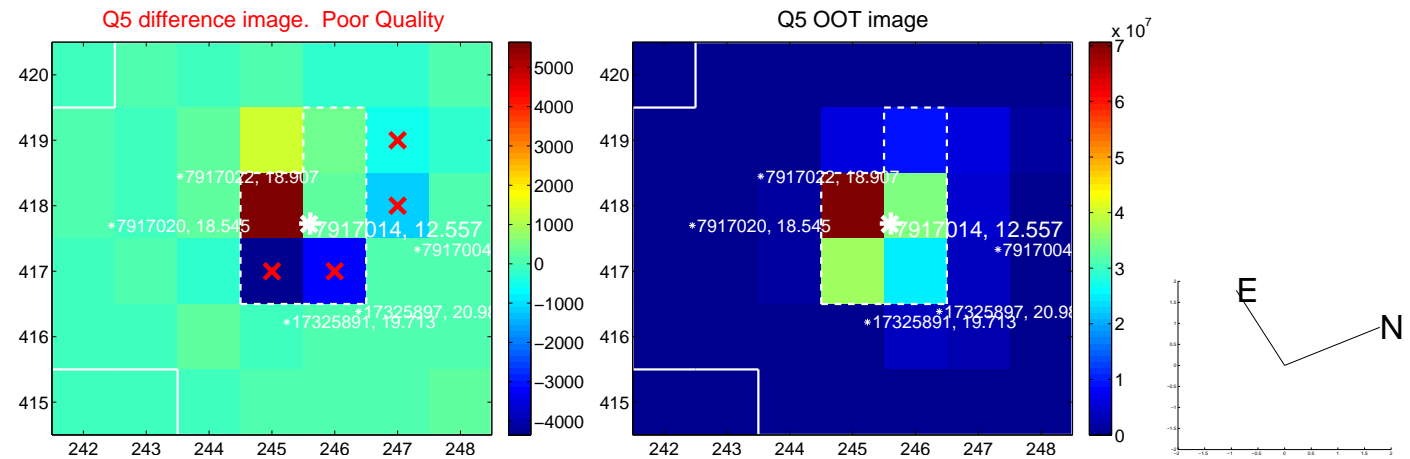


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

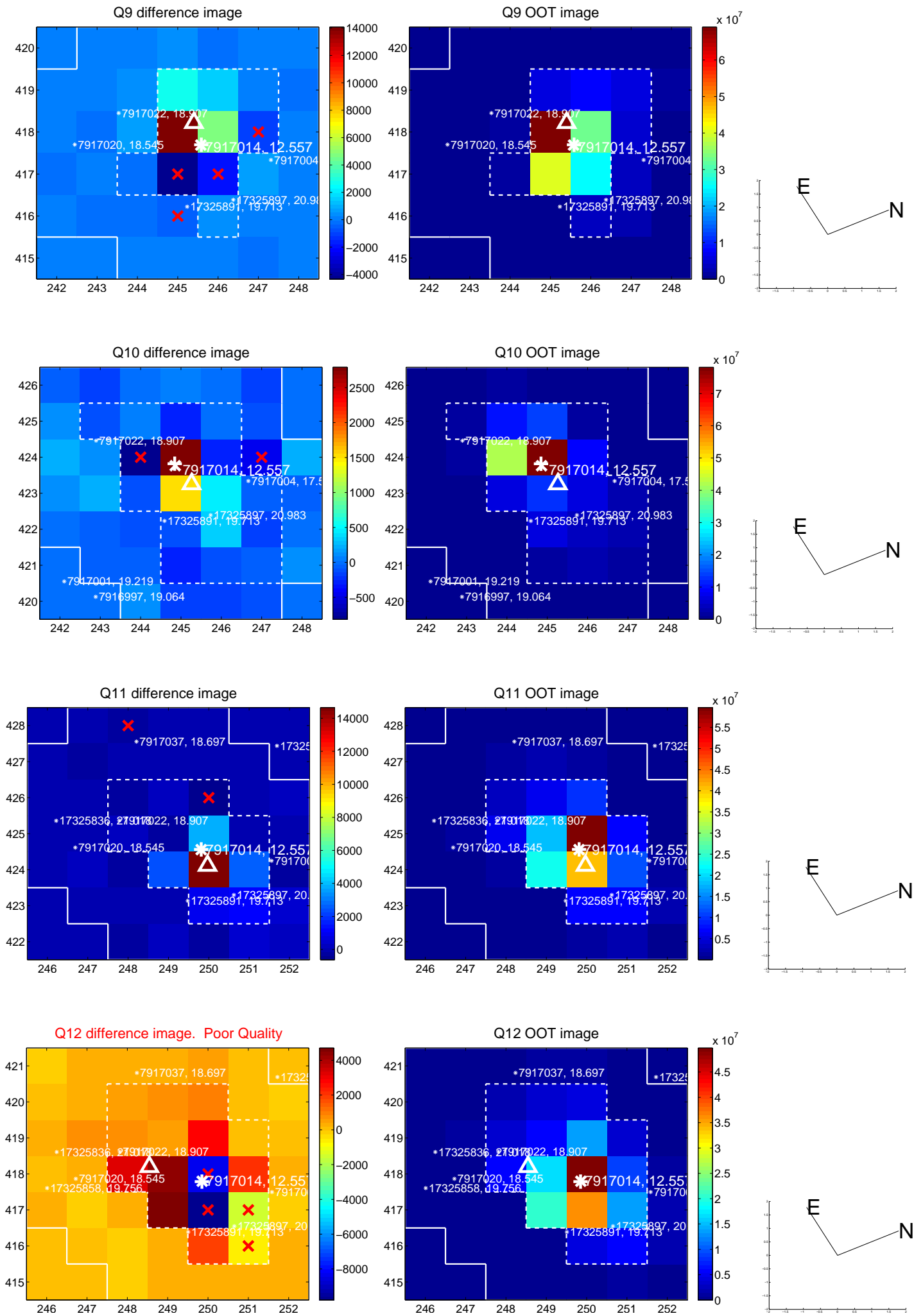
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



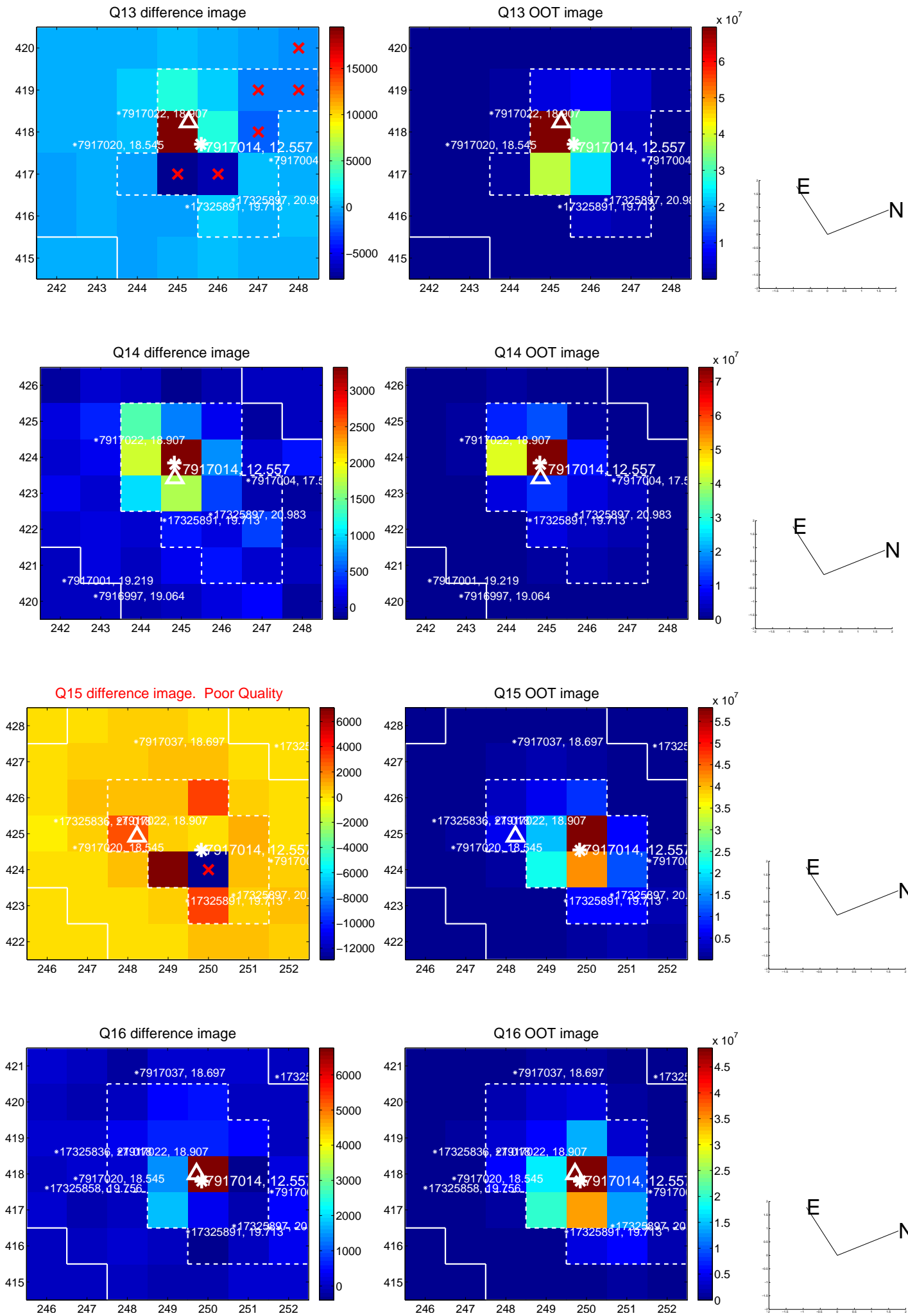
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



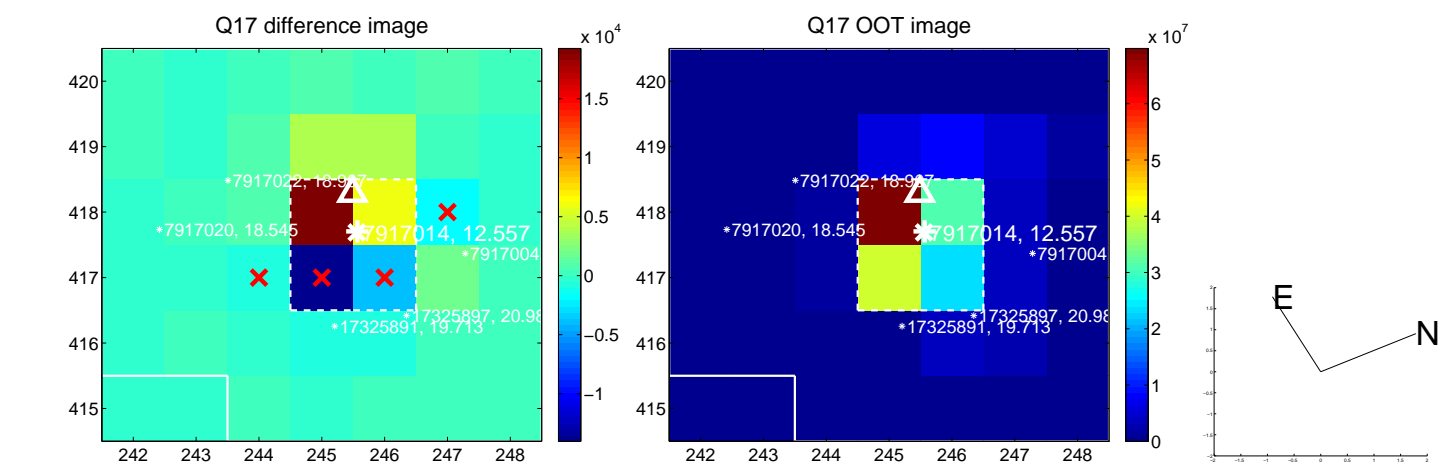
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



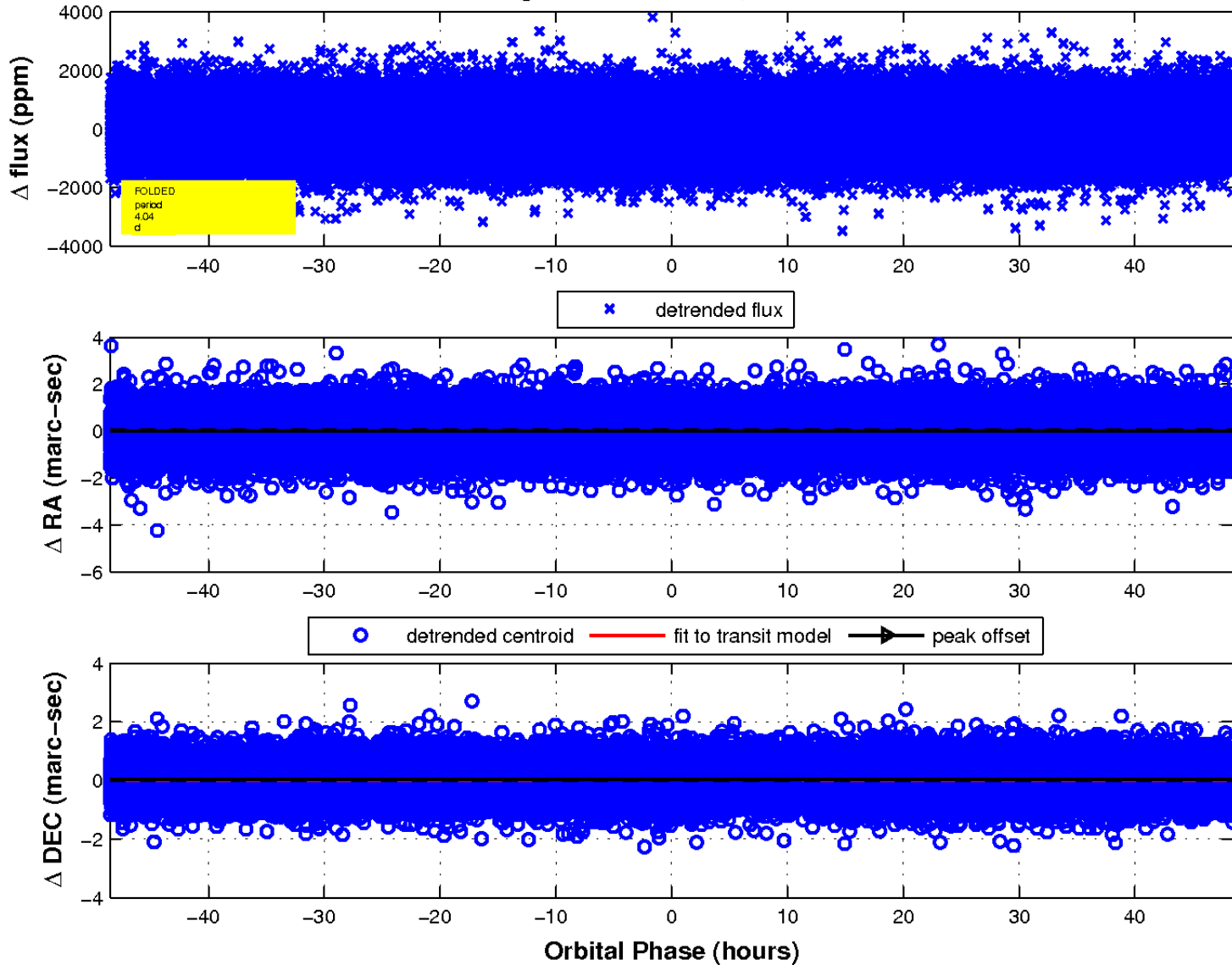
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

